

## Appendix B.1 Calibration certificate for Probe(S/N 3862)

**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland



**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **SGS Korea (Dymstec)**

Certificate No: **EX3-3862\_Sep17**

### CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3862**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-14.v4, QA CAL-23.v5, QA CAL-25.v6  
Calibration procedure for dosimetric E-field probes**



Calibration date: **September 25, 2017**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility, environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 04-Apr-17 (No. 217-02521/02522)   | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-17 (No. 217-02521)         | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-17 (No. 217-02525)         | Apr-18                 |
| Reference 20 dB Attenuator | SN: 55277 (20x)  | 07-Apr-17 (No. 217-02528)         | Apr-18                 |
| Reference Probe ES3DV2     | SN: 3013         | 31-Dec-16 (No. ES3-3013, Dec16)   | Dec-17                 |
| DAE4                       | SN: 660          | 7-Dec-16 (No. DAE4-660, Dec16)    | Dec-17                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 08-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: MY41498087   | 08-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: 000110210    | 08-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| RF generator HP 8648C      | SN: US3642UD1700 | 04-Aug-99 (in house check Jun-16) | In house check: Jun-18 |
| Network Analyzer HP 8753E  | SN: US37390585   | 18-Oct-01 (in house check Oct-16) | In house check: Oct-17 |

|                            | Name          | Function              | Signature                                                                             |
|----------------------------|---------------|-----------------------|---------------------------------------------------------------------------------------|
| Calibrated by:             | Jeton Kastret | Laboratory Technician |   |
| Approved by:               | Kelja Pekovic | Technical Manager     |  |
| Issued: September 27, 2017 |               |                       |                                                                                       |

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

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#### Glossary:

|                        |                                                                                                                                                   |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| TSL                    | issue simulating liquid                                                                                                                           |
| NORM <sub>x,y,z</sub>  | sensitivity in free space                                                                                                                         |
| ConvF                  | sensitivity in TSL / NORM <sub>x,y,z</sub>                                                                                                        |
| DCP                    | diode compression point                                                                                                                           |
| CF                     | crest factor (1/duty_cycle) of the RF signal                                                                                                      |
| A, B, C, D             | modulation dependent linearization parameters                                                                                                     |
| Polarization $\varphi$ | $\varphi$ rotation around probe axis                                                                                                              |
| Polarization $\theta$  | $\theta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\theta = 0$ is normal to probe axis |
| Connector Angle        | information used in DASY system to align probe sensor X to the robot coordinate system                                                            |

#### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

#### Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\theta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics.
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>; A, B, C, D** are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 600$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: In a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

EX3DV4 – SN:3862

September 25, 2017

# Probe EX3DV4

## SN:3862

Manufactured: February 2, 2012  
Calibrated: September 25, 2017

Calibrated for DASY/EASY Systems  
(Note: non-compatible with DASY2 system!)

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3862

### Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc. (k=2)    |
|-----------------------------------------------------------|----------|----------|----------|---------------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.37     | 0.34     | 0.39     | $\pm 10.1 \%$ |
| DCP (mV) <sup>B</sup>                                     | 101.5    | 100.9    | 97.6     |               |

### Modulation Calibration Parameters

| UID | Communication System Name |   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C   | D<br>dB | VR<br>mV | Unc.<br>(k=2) <sup>E</sup> |
|-----|---------------------------|---|---------|------------------------------|-----|---------|----------|----------------------------|
| 0   | CW                        | X | 0.0     | 0.0                          | 1.0 | 0.00    | 131.5    | $\pm 3.5 \%$               |
|     |                           | Y | 0.0     | 0.0                          | 1.0 |         | 135.6    |                            |
|     |                           | Z | 0.0     | 0.0                          | 1.0 |         | 148.7    |                            |

Note: For details on UID parameters see Appendix.

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$\text{V}^{-1}$ | T1<br>$\text{ms}\cdot\text{V}^{-2}$ | T2<br>$\text{ms}\cdot\text{V}^{-1}$ | T3<br>ms | T4<br>$\text{V}^{-2}$ | T5<br>$\text{V}^{-1}$ | T6    |
|---|----------|----------|-----------------------------|-------------------------------------|-------------------------------------|----------|-----------------------|-----------------------|-------|
| X | 44.28    | 322.2    | 34.11                       | 12.71                               | 0.245                               | 5.068    | 1.478                 | 0.191                 | 1.008 |
| Y | 51.24    | 382.6    | 35.64                       | 11.30                               | 0.700                               | 5.035    | 0.976                 | 0.341                 | 1.012 |
| Z | 52.93    | 396.7    | 35.75                       | 20.11                               | 0.330                               | 5.100    | 0.277                 | 0.504                 | 1.008 |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the  $E^1$ -field uncertainty inside TSL. (see Pages 5 and 6)

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3862

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>H</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 835                  | 41.5                               | 0.90                            | 10.09   | 10.09   | 10.09   | 0.34               | 0.91                    | ± 12.0 %  |
| 900                  | 41.5                               | 0.97                            | 9.73    | 9.73    | 9.73    | 0.41               | 0.80                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 8.73    | 8.73    | 8.73    | 0.34               | 0.80                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 8.39    | 8.39    | 8.39    | 0.28               | 0.91                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 7.93    | 7.93    | 7.93    | 0.35               | 0.80                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 7.54    | 7.54    | 7.54    | 0.35               | 0.80                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 7.41    | 7.41    | 7.41    | 0.33               | 0.90                    | ± 12.0 %  |
| 3500                 | 37.9                               | 2.91                            | 7.27    | 7.27    | 7.27    | 0.30               | 1.20                    | ± 13.1 %  |
| 5200                 | 36.0                               | 4.66                            | 5.36    | 5.36    | 5.36    | 0.40               | 1.80                    | ± 13.1 %  |
| 5300                 | 35.9                               | 4.76                            | 5.11    | 5.11    | 5.11    | 0.40               | 1.80                    | ± 13.1 %  |
| 5600                 | 35.5                               | 5.07                            | 4.78    | 4.78    | 4.78    | 0.40               | 1.80                    | ± 13.1 %  |
| 5800                 | 35.3                               | 5.27                            | 4.75    | 4.75    | 4.75    | 0.40               | 1.80                    | ± 13.1 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3862

### Calibration Parameter Determined in Body Tissue Simulating Media

| f (MHz) <sup>c</sup> | Relative Permittivity <sup>f</sup> | Conductivity (S/m) <sup>f</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>g</sup> | Depth <sup>g</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 835                  | 55.2                               | 0.97                            | 9.83    | 9.83    | 9.83    | 0.42               | 0.80                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 8.37    | 8.37    | 8.37    | 0.26               | 1.00                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 8.10    | 8.10    | 8.10    | 0.39               | 0.80                    | ± 12.0 %  |
| 2450                 | 52.7                               | 1.95                            | 7.67    | 7.67    | 7.67    | 0.36               | 0.80                    | ± 12.0 %  |
| 2600                 | 52.5                               | 2.16                            | 7.51    | 7.51    | 7.51    | 0.36               | 0.80                    | ± 12.0 %  |
| 5200                 | 49.0                               | 5.30                            | 4.54    | 4.54    | 4.54    | 0.45               | 1.90                    | ± 13.1 %  |
| 5300                 | 48.9                               | 5.42                            | 4.37    | 4.37    | 4.37    | 0.45               | 1.90                    | ± 13.1 %  |
| 5600                 | 48.5                               | 5.77                            | 3.90    | 3.90    | 3.90    | 0.50               | 1.90                    | ± 13.1 %  |
| 5800                 | 48.2                               | 6.00                            | 4.09    | 4.09    | 4.09    | 0.50               | 1.90                    | ± 13.1 %  |

<sup>c</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4 4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

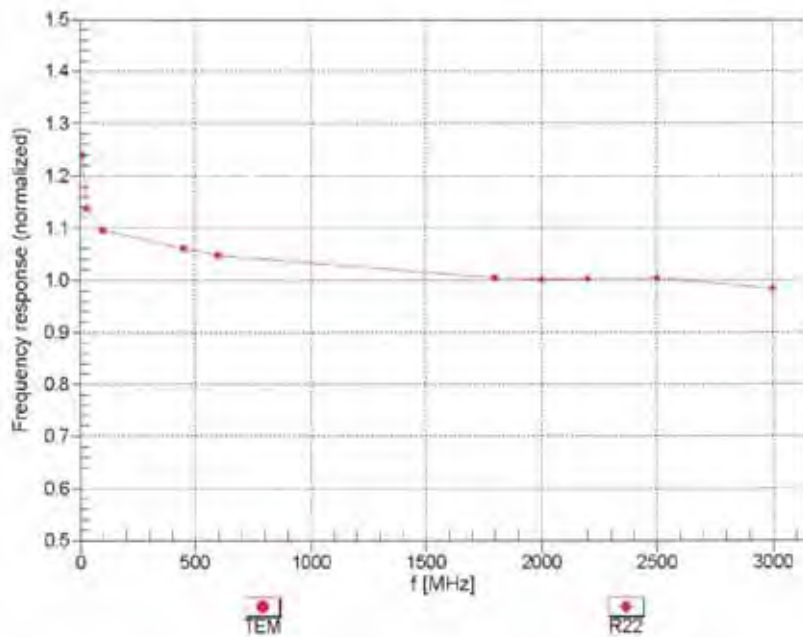
<sup>f</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>g</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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### Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

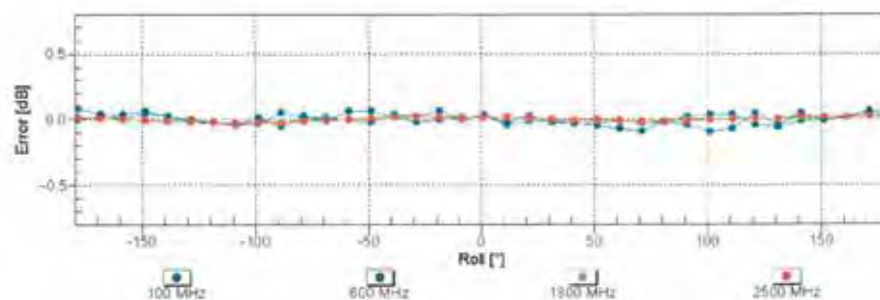
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### Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$

f=600 MHz,TEM

f=1800 MHz,R22

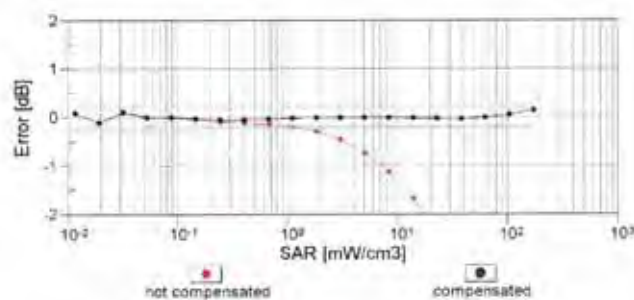
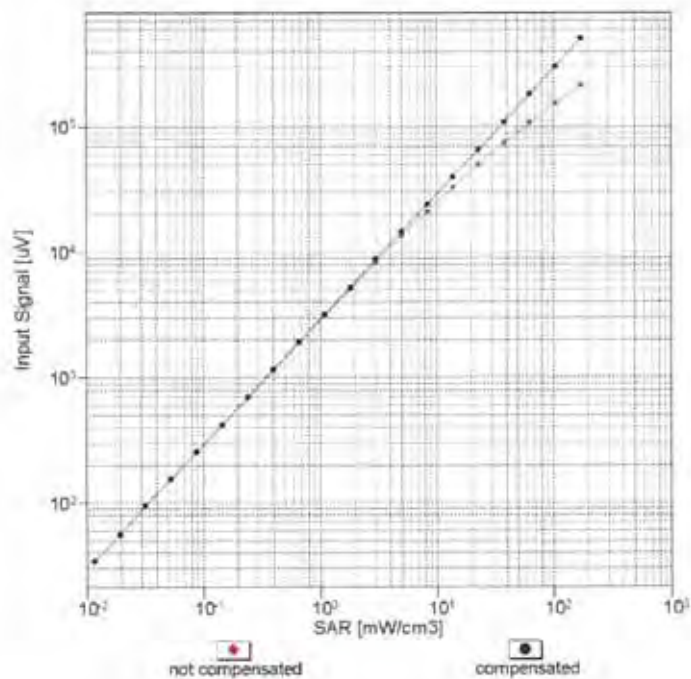


Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )

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### Dynamic Range f(SAR<sub>head</sub>) (TEM cell, f<sub>eval</sub>= 1900 MHz)



Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

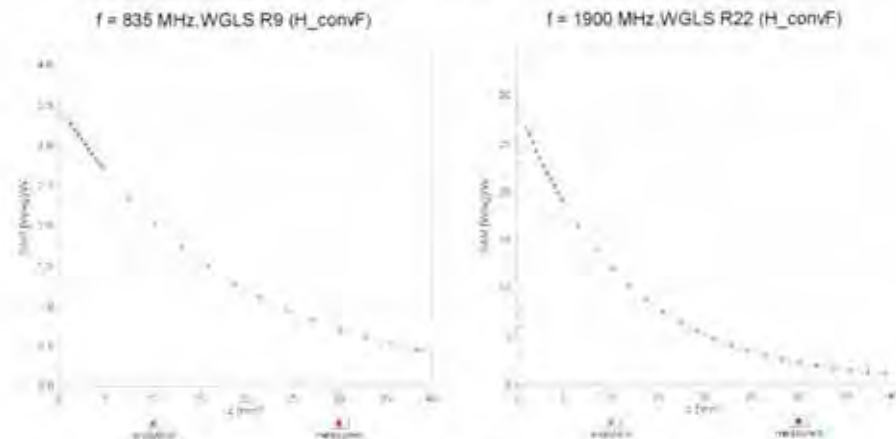
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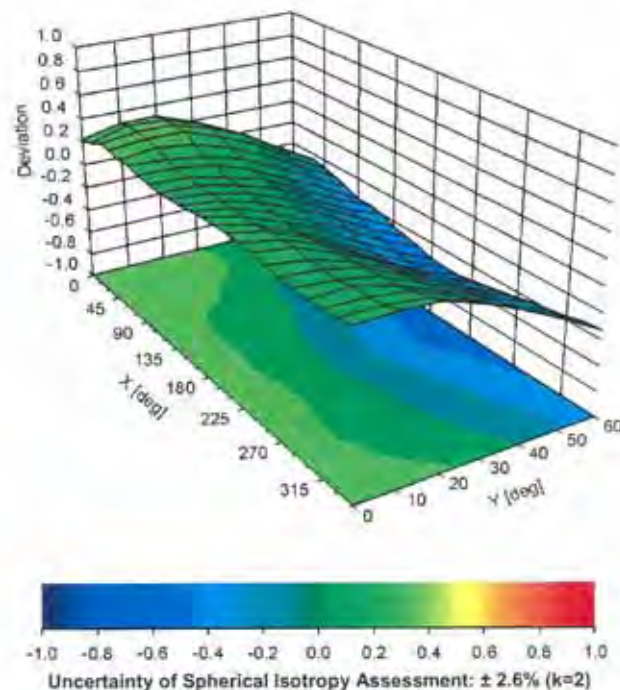
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## Conversion Factor Assessment



## Deviation from Isotropy in Liquid

Error ( $\phi$ ,  $\theta$ ),  $f = 900$  MHz



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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3862

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | -28.7      |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Diameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       | 1 mm       |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |

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**Appendix: Modulation Calibration Parameters**

| UID           | Communication System Name                     |   | A<br>dB | B<br>dB/μV | C     | D<br>dB | VR<br>mV | Max<br>Unc <sup>E</sup><br>(k=2) |
|---------------|-----------------------------------------------|---|---------|------------|-------|---------|----------|----------------------------------|
| 0             | CW                                            | X | 0.00    | 0.00       | 1.00  | 0.00    | 131.5    | ± 3.5 %                          |
|               |                                               | Y | 0.00    | 0.00       | 1.00  |         | 135.6    |                                  |
|               |                                               | Z | 0.00    | 0.00       | 1.00  |         | 148.7    |                                  |
| 10010-<br>CAA | SAR Validation (Square, 100ms, 10ms)          | X | 5.57    | 75.35      | 13.96 | 10.00   | 20.0     | ± 9.6 %                          |
|               |                                               | Y | 2.63    | 67.08      | 11.10 |         | 20.0     |                                  |
|               |                                               | Z | 5.30    | 75.67      | 14.65 |         | 20.0     |                                  |
| 10011-<br>CAB | UMTS-FDD (WCDMA)                              | X | 1.07    | 68.36      | 15.89 | 0.00    | 150.0    | ± 9.6 %                          |
|               |                                               | Y | 1.00    | 66.97      | 15.04 |         | 150.0    |                                  |
|               |                                               | Z | 0.95    | 65.40      | 13.98 |         | 150.0    |                                  |
| 10012-<br>CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)      | X | 1.18    | 64.33      | 15.59 | 0.41    | 150.0    | ± 9.6 %                          |
|               |                                               | Y | 1.14    | 63.57      | 15.06 |         | 150.0    |                                  |
|               |                                               | Z | 1.17    | 63.43      | 14.80 |         | 150.0    |                                  |
| 10013-<br>CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps) | X | 4.83    | 66.85      | 17.12 | 1.46    | 150.0    | ± 9.6 %                          |
|               |                                               | Y | 4.87    | 66.52      | 16.97 |         | 150.0    |                                  |
|               |                                               | Z | 4.94    | 66.59      | 17.05 |         | 150.0    |                                  |
| 10021-<br>DAC | GSM-FDD (TDMA, GMSK)                          | X | 100.00  | 114.40     | 27.24 | 9.39    | 50.0     | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 113.19     | 27.04 |         | 50.0     |                                  |
|               |                                               | Z | 100.00  | 117.41     | 28.92 |         | 50.0     |                                  |
| 10023-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0)                   | X | 100.00  | 113.80     | 27.01 | 9.57    | 50.0     | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 112.90     | 26.96 |         | 50.0     |                                  |
|               |                                               | Z | 100.00  | 117.08     | 28.80 |         | 50.0     |                                  |
| 10024-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                 | X | 100.00  | 115.75     | 26.86 | 6.56    | 60.0     | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 112.11     | 25.43 |         | 60.0     |                                  |
|               |                                               | Z | 100.00  | 115.89     | 27.42 |         | 60.0     |                                  |
| 10025-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                   | X | 4.72    | 75.27      | 29.22 | 12.57   | 50.0     | ± 9.6 %                          |
|               |                                               | Y | 3.43    | 63.41      | 21.59 |         | 50.0     |                                  |
|               |                                               | Z | 5.45    | 79.35      | 31.57 |         | 50.0     |                                  |
| 10026-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                 | X | 9.29    | 93.99      | 33.88 | 9.56    | 60.0     | ± 9.6 %                          |
|               |                                               | Y | 7.81    | 87.02      | 30.31 |         | 60.0     |                                  |
|               |                                               | Z | 14.05   | 102.92     | 36.92 |         | 60.0     |                                  |
| 10027-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)               | X | 100.00  | 118.94     | 27.53 | 4.80    | 80.0     | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 112.59     | 24.84 |         | 80.0     |                                  |
|               |                                               | Z | 100.00  | 116.24     | 26.92 |         | 80.0     |                                  |
| 10028-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)             | X | 100.00  | 123.84     | 28.93 | 3.55    | 100.0    | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 114.07     | 24.78 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 117.53     | 26.84 |         | 100.0    |                                  |
| 10029-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)               | X | 5.70    | 82.09      | 27.97 | 7.80    | 80.0     | ± 9.6 %                          |
|               |                                               | Y | 5.35    | 79.02      | 26.05 |         | 80.0     |                                  |
|               |                                               | Z | 7.97    | 88.44      | 30.30 |         | 80.0     |                                  |
| 10030-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)           | X | 100.00  | 114.97     | 26.08 | 5.30    | 70.0     | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 110.65     | 24.30 |         | 70.0     |                                  |
|               |                                               | Z | 100.00  | 114.36     | 26.36 |         | 70.0     |                                  |
| 10031-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)           | X | 100.00  | 127.95     | 29.13 | 1.88    | 100.0    | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 112.05     | 22.60 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 116.31     | 25.01 |         | 100.0    |                                  |

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|-----------|-----------------------------------------------------|---|--------|--------|-------|-------|-------|---------|
| 10032-CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | X | 100.00 | 144.14 | 34.46 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 117.03 | 23.67 |       | 100.0 |         |
|           |                                                     | Z | 100.00 | 119.81 | 25.51 |       | 100.0 |         |
| 10033-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | X | 100.00 | 130.69 | 35.21 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 10.61  | 93.53  | 25.30 |       | 70.0  |         |
|           |                                                     | Z | 100.00 | 130.70 | 35.70 |       | 70.0  |         |
| 10034-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | X | 7.59   | 91.40  | 23.22 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 2.87   | 77.06  | 18.48 |       | 100.0 |         |
|           |                                                     | Z | 4.74   | 83.45  | 20.96 |       | 100.0 |         |
| 10035-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | X | 3.39   | 80.97  | 19.54 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 1.94   | 72.75  | 16.55 |       | 100.0 |         |
|           |                                                     | Z | 2.45   | 75.04  | 17.56 |       | 100.0 |         |
| 10036-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | X | 100.00 | 131.26 | 35.46 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 15.63  | 99.94  | 27.30 |       | 70.0  |         |
|           |                                                     | Z | 100.00 | 131.14 | 35.91 |       | 70.0  |         |
| 10037-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | X | 6.33   | 88.94  | 22.44 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 2.67   | 76.17  | 18.10 |       | 100.0 |         |
|           |                                                     | Z | 4.41   | 82.50  | 20.60 |       | 100.0 |         |
| 10038-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | X | 3.45   | 81.54  | 19.88 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 1.96   | 73.14  | 16.82 |       | 100.0 |         |
|           |                                                     | Z | 2.48   | 75.46  | 17.83 |       | 100.0 |         |
| 10039-CAB | CDMA2000 (1xRTT, RC1)                               | X | 2.23   | 75.34  | 16.97 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.91   | 72.43  | 16.07 |       | 150.0 |         |
|           |                                                     | Z | 1.56   | 69.01  | 14.50 |       | 150.0 |         |
| 10042-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | X | 100.00 | 111.17 | 25.05 | 7.78  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 109.42 | 24.50 |       | 50.0  |         |
|           |                                                     | Z | 100.00 | 112.82 | 26.18 |       | 50.0  |         |
| 10044-CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | X | 0.00   | 97.52  | 0.96  | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.00   | 108.98 | 9.80  |       | 150.0 |         |
|           |                                                     | Z | 0.00   | 97.67  | 7.76  |       | 150.0 |         |
| 10048-CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | X | 100.00 | 110.96 | 27.09 | 13.80 | 25.0  | ± 9.6 % |
|           |                                                     | Y | 31.74  | 96.03  | 23.97 |       | 25.0  |         |
|           |                                                     | Z | 100.00 | 119.97 | 31.11 |       | 25.0  |         |
| 10049-CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | X | 100.00 | 111.92 | 26.46 | 10.79 | 40.0  | ± 9.6 % |
|           |                                                     | Y | 59.21  | 105.63 | 25.47 |       | 40.0  |         |
|           |                                                     | Z | 100.00 | 116.34 | 28.66 |       | 40.0  |         |
| 10056-CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | X | 100.00 | 125.06 | 33.78 | 9.03  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 19.55  | 97.37  | 26.40 |       | 50.0  |         |
|           |                                                     | Z | 100.00 | 127.49 | 35.32 |       | 50.0  |         |
| 10058-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | X | 4.42   | 76.82  | 24.91 | 6.55  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 4.27   | 74.92  | 23.60 |       | 100.0 |         |
|           |                                                     | Z | 5.80   | 81.43  | 26.66 |       | 100.0 |         |
| 10059-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | X | 1.23   | 65.56  | 16.31 | 0.61  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 1.18   | 64.56  | 15.61 |       | 110.0 |         |
|           |                                                     | Z | 1.24   | 64.77  | 15.57 |       | 110.0 |         |
| 10060-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | X | 100.00 | 143.06 | 37.84 | 1.30  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 7.47   | 99.53  | 26.44 |       | 110.0 |         |
|           |                                                     | Z | 37.84  | 121.19 | 31.72 |       | 110.0 |         |

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| 10061-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)      | X | 3.64 | 85.93 | 24.77 | 2.04 | 110.0 | ± 9.6 % |
|           |                                                | Y | 2.52 | 78.23 | 21.35 |      | 110.0 |         |
|           |                                                | Z | 4.33 | 86.38 | 24.39 |      | 110.0 |         |
| 10062-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)       | X | 4.64 | 66.85 | 16.55 | 0.49 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.69 | 66.57 | 16.45 |      | 100.0 |         |
|           |                                                | Z | 4.73 | 66.51 | 16.40 |      | 100.0 |         |
| 10063-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)       | X | 4.66 | 66.95 | 16.66 | 0.72 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.70 | 66.65 | 16.53 |      | 100.0 |         |
|           |                                                | Z | 4.75 | 66.63 | 16.53 |      | 100.0 |         |
| 10064-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)      | X | 4.93 | 67.19 | 16.87 | 0.86 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.01 | 66.94 | 16.77 |      | 100.0 |         |
|           |                                                | Z | 5.06 | 66.94 | 16.79 |      | 100.0 |         |
| 10065-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)      | X | 4.80 | 67.08 | 16.97 | 1.21 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.86 | 66.82 | 16.85 |      | 100.0 |         |
|           |                                                | Z | 4.93 | 66.87 | 16.92 |      | 100.0 |         |
| 10066-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)      | X | 4.82 | 67.10 | 17.14 | 1.46 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.88 | 66.83 | 17.00 |      | 100.0 |         |
|           |                                                | Z | 4.95 | 66.92 | 17.11 |      | 100.0 |         |
| 10067-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)      | X | 5.10 | 67.26 | 17.58 | 2.04 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.16 | 66.91 | 17.39 |      | 100.0 |         |
|           |                                                | Z | 5.24 | 67.06 | 17.56 |      | 100.0 |         |
| 10068-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)      | X | 5.14 | 67.26 | 17.79 | 2.55 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.21 | 67.01 | 17.63 |      | 100.0 |         |
|           |                                                | Z | 5.32 | 67.22 | 17.85 |      | 100.0 |         |
| 10069-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)      | X | 5.21 | 67.25 | 17.97 | 2.67 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.29 | 66.96 | 17.79 |      | 100.0 |         |
|           |                                                | Z | 5.39 | 67.17 | 18.02 |      | 100.0 |         |
| 10071-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)  | X | 4.92 | 66.92 | 17.43 | 1.99 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.96 | 66.59 | 17.25 |      | 100.0 |         |
|           |                                                | Z | 5.04 | 66.71 | 17.39 |      | 100.0 |         |
| 10072-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps) | X | 4.90 | 67.24 | 17.65 | 2.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.94 | 66.90 | 17.45 |      | 100.0 |         |
|           |                                                | Z | 5.04 | 67.10 | 17.65 |      | 100.0 |         |
| 10073-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps) | X | 4.95 | 67.39 | 17.98 | 2.83 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.99 | 67.02 | 17.74 |      | 100.0 |         |
|           |                                                | Z | 5.10 | 67.28 | 18.00 |      | 100.0 |         |
| 10074-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps) | X | 4.93 | 67.27 | 18.13 | 3.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.96 | 66.88 | 17.87 |      | 100.0 |         |
|           |                                                | Z | 5.08 | 67.18 | 18.18 |      | 100.0 |         |
| 10075-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps) | X | 4.96 | 67.35 | 18.42 | 3.82 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.01 | 67.01 | 18.18 |      | 90.0  |         |
|           |                                                | Z | 5.13 | 67.38 | 18.56 |      | 90.0  |         |
| 10076-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps) | X | 4.97 | 67.13 | 18.54 | 4.15 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.00 | 66.74 | 18.26 |      | 90.0  |         |
|           |                                                | Z | 5.12 | 67.10 | 18.64 |      | 90.0  |         |
| 10077-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps) | X | 5.00 | 67.20 | 18.64 | 4.30 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.02 | 66.79 | 18.35 |      | 90.0  |         |
|           |                                                | Z | 5.14 | 67.15 | 18.73 |      | 90.0  |         |

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| 10081-CAB | CDMA2000 (1xRTT, RC3)                               | X | 0.90   | 67.50  | 13.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.85   | 66.07  | 12.77 |      | 150.0 |         |
|           |                                                     | Z | 0.79   | 64.27  | 11.77 |      | 150.0 |         |
| 10082-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | X | 0.69   | 60.00  | 4.45  | 4.77 | 80.0  | ± 9.6 % |
|           |                                                     | Y | 0.56   | 56.95  | 2.34  |      | 80.0  |         |
|           |                                                     | Z | 0.86   | 60.00  | 4.96  |      | 80.0  |         |
| 10090-DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | X | 100.00 | 115.76 | 26.89 | 6.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 112.15 | 25.46 |      | 60.0  |         |
|           |                                                     | Z | 100.00 | 115.94 | 27.46 |      | 60.0  |         |
| 10097-CAB | UMTS-FDD (HSDPA)                                    | X | 1.89   | 68.59  | 16.12 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.82   | 67.50  | 15.63 |      | 150.0 |         |
|           |                                                     | Z | 1.74   | 66.37  | 14.91 |      | 150.0 |         |
| 10098-CAB | UMTS-FDD (HSUPA, Subtest 2)                         | X | 1.85   | 68.54  | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.78   | 67.43  | 15.59 |      | 150.0 |         |
|           |                                                     | Z | 1.71   | 66.30  | 14.86 |      | 150.0 |         |
| 10099-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | X | 9.38   | 94.19  | 33.95 | 9.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 7.86   | 87.13  | 30.35 |      | 60.0  |         |
|           |                                                     | Z | 14.20  | 103.15 | 36.99 |      | 60.0  |         |
| 10100-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 3.18   | 70.95  | 17.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.14   | 70.30  | 16.64 |      | 150.0 |         |
|           |                                                     | Z | 3.03   | 69.35  | 16.07 |      | 150.0 |         |
| 10101-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 3.23   | 67.81  | 16.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.25   | 67.49  | 15.89 |      | 150.0 |         |
|           |                                                     | Z | 3.22   | 67.05  | 15.57 |      | 150.0 |         |
| 10102-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 3.34   | 67.79  | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.36   | 67.49  | 16.00 |      | 150.0 |         |
|           |                                                     | Z | 3.33   | 67.04  | 15.68 |      | 150.0 |         |
| 10103-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 6.70   | 77.63  | 21.41 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 5.84   | 74.34  | 19.83 |      | 65.0  |         |
|           |                                                     | Z | 7.64   | 78.70  | 21.73 |      | 65.0  |         |
| 10104-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 6.24   | 74.29  | 20.77 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 6.05   | 72.93  | 20.00 |      | 65.0  |         |
|           |                                                     | Z | 7.05   | 75.55  | 21.28 |      | 65.0  |         |
| 10105-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 5.98   | 73.31  | 20.65 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 5.50   | 70.95  | 19.42 |      | 65.0  |         |
|           |                                                     | Z | 6.93   | 75.15  | 21.44 |      | 65.0  |         |
| 10108-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | X | 2.76   | 70.16  | 16.84 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.75   | 69.51  | 16.46 |      | 150.0 |         |
|           |                                                     | Z | 2.66   | 68.56  | 15.87 |      | 150.0 |         |
| 10109-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)          | X | 2.89   | 67.73  | 16.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.92   | 67.34  | 15.81 |      | 150.0 |         |
|           |                                                     | Z | 2.88   | 66.81  | 15.43 |      | 150.0 |         |
| 10110-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)             | X | 2.24   | 69.30  | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.23   | 68.53  | 16.05 |      | 150.0 |         |
|           |                                                     | Z | 2.16   | 67.55  | 15.42 |      | 150.0 |         |
| 10111-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)           | X | 2.65   | 68.92  | 16.44 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.65   | 68.24  | 16.19 |      | 150.0 |         |
|           |                                                     | Z | 2.57   | 67.30  | 15.61 |      | 150.0 |         |

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| 10112-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | X | 3.02 | 67.74 | 16.06 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.04 | 67.34 | 15.88 |      | 150.0 |         |
|           |                                                | Z | 3.01 | 66.82 | 15.51 |      | 150.0 |         |
| 10113-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | X | 2.81 | 69.06 | 16.57 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.81 | 68.39 | 16.34 |      | 150.0 |         |
|           |                                                | Z | 2.73 | 67.47 | 15.76 |      | 150.0 |         |
| 10114-CAB | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | X | 5.08 | 67.33 | 16.45 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.14 | 67.16 | 16.40 |      | 150.0 |         |
|           |                                                | Z | 5.14 | 66.97 | 16.24 |      | 150.0 |         |
| 10115-CAB | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | X | 5.35 | 67.40 | 16.49 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.46 | 67.36 | 16.51 |      | 150.0 |         |
|           |                                                | Z | 5.47 | 67.23 | 16.38 |      | 150.0 |         |
| 10116-CAB | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | X | 5.17 | 67.50 | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.25 | 67.38 | 16.43 |      | 150.0 |         |
|           |                                                | Z | 5.25 | 67.20 | 16.28 |      | 150.0 |         |
| 10117-CAB | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | X | 5.05 | 67.20 | 16.40 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.12 | 67.06 | 16.37 |      | 150.0 |         |
|           |                                                | Z | 5.12 | 66.90 | 16.22 |      | 150.0 |         |
| 10118-CAB | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | X | 5.42 | 67.56 | 16.57 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.54 | 67.55 | 16.61 |      | 150.0 |         |
|           |                                                | Z | 5.55 | 67.40 | 16.47 |      | 150.0 |         |
| 10119-CAB | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | X | 5.15 | 67.45 | 16.45 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.22 | 67.31 | 16.41 |      | 150.0 |         |
|           |                                                | Z | 5.22 | 67.13 | 16.26 |      | 150.0 |         |
| 10140-CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | X | 3.37 | 67.79 | 16.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.40 | 67.48 | 15.92 |      | 150.0 |         |
|           |                                                | Z | 3.37 | 67.05 | 15.60 |      | 150.0 |         |
| 10141-CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | X | 3.50 | 67.91 | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.53 | 67.59 | 16.10 |      | 150.0 |         |
|           |                                                | Z | 3.50 | 67.16 | 15.78 |      | 150.0 |         |
| 10142-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | X | 2.03 | 69.51 | 16.20 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.01 | 68.54 | 15.78 |      | 150.0 |         |
|           |                                                | Z | 1.93 | 67.34 | 15.06 |      | 150.0 |         |
| 10143-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | X | 2.57 | 70.03 | 16.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.53 | 69.08 | 16.02 |      | 150.0 |         |
|           |                                                | Z | 2.41 | 67.77 | 15.29 |      | 150.0 |         |
| 10144-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | X | 2.24 | 67.13 | 14.36 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.28 | 66.62 | 14.32 |      | 150.0 |         |
|           |                                                | Z | 2.24 | 65.93 | 13.92 |      | 150.0 |         |
| 10145-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | X | 1.23 | 65.74 | 11.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.30 | 65.80 | 12.44 |      | 150.0 |         |
|           |                                                | Z | 1.25 | 64.66 | 11.87 |      | 150.0 |         |
| 10146-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | X | 2.10 | 67.46 | 11.91 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.29 | 73.11 | 15.37 |      | 150.0 |         |
|           |                                                | Z | 2.17 | 67.31 | 12.77 |      | 150.0 |         |
| 10147-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | X | 2.80 | 70.84 | 13.52 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 6.29 | 81.64 | 18.72 |      | 150.0 |         |
|           |                                                | Z | 2.58 | 69.57 | 13.97 |      | 150.0 |         |

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|           |                                            |   |      |       |       |      |       |         |
|-----------|--------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10149-CAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 2.90 | 67.80 | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.93 | 67.41 | 15.86 |      | 150.0 |         |
|           |                                            | Z | 2.89 | 66.86 | 15.48 |      | 150.0 |         |
| 10150-CAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 3.03 | 67.80 | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.05 | 67.40 | 15.93 |      | 150.0 |         |
|           |                                            | Z | 3.02 | 66.87 | 15.55 |      | 150.0 |         |
| 10151-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)    | X | 7.21 | 80.64 | 22.71 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 6.31 | 77.17 | 21.08 |      | 65.0  |         |
|           |                                            | Z | 8.09 | 81.23 | 22.82 |      | 65.0  |         |
| 10152-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 5.79 | 74.37 | 20.52 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 5.56 | 72.76 | 19.67 |      | 65.0  |         |
|           |                                            | Z | 6.61 | 75.67 | 21.09 |      | 65.0  |         |
| 10153-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 6.20 | 75.46 | 21.36 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 5.94 | 73.80 | 20.51 |      | 65.0  |         |
|           |                                            | Z | 7.01 | 76.61 | 21.86 |      | 65.0  |         |
| 10154-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 2.30 | 69.78 | 16.75 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.29 | 69.06 | 16.37 |      | 150.0 |         |
|           |                                            | Z | 2.20 | 67.92 | 15.67 |      | 150.0 |         |
| 10155-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 2.66 | 68.94 | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.65 | 68.24 | 16.20 |      | 150.0 |         |
|           |                                            | Z | 2.57 | 67.31 | 15.62 |      | 150.0 |         |
| 10156-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 1.89 | 69.77 | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 1.87 | 68.73 | 15.66 |      | 150.0 |         |
|           |                                            | Z | 1.77 | 67.30 | 14.84 |      | 150.0 |         |
| 10157-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 2.11 | 67.92 | 14.49 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.12 | 67.26 | 14.43 |      | 150.0 |         |
|           |                                            | Z | 2.06 | 66.32 | 13.90 |      | 150.0 |         |
| 10158-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 2.82 | 69.14 | 16.62 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.81 | 68.46 | 16.39 |      | 150.0 |         |
|           |                                            | Z | 2.73 | 67.52 | 15.80 |      | 150.0 |         |
| 10159-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 2.24 | 68.49 | 14.82 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.25 | 67.83 | 14.77 |      | 150.0 |         |
|           |                                            | Z | 2.16 | 66.75 | 14.19 |      | 150.0 |         |
| 10160-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)    | X | 2.74 | 69.07 | 16.52 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.75 | 68.51 | 16.22 |      | 150.0 |         |
|           |                                            | Z | 2.68 | 67.73 | 15.72 |      | 150.0 |         |
| 10161-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 2.93 | 67.78 | 16.04 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.95 | 67.35 | 15.87 |      | 150.0 |         |
|           |                                            | Z | 2.91 | 66.77 | 15.47 |      | 150.0 |         |
| 10162-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 3.04 | 67.94 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.06 | 67.47 | 15.97 |      | 150.0 |         |
|           |                                            | Z | 3.02 | 66.91 | 15.58 |      | 150.0 |         |
| 10166-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 3.62 | 70.44 | 19.59 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.77 | 70.46 | 19.77 |      | 150.0 |         |
|           |                                            | Z | 3.61 | 68.96 | 18.77 |      | 150.0 |         |
| 10167-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 4.67 | 74.43 | 20.46 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.79 | 74.00 | 20.48 |      | 150.0 |         |
|           |                                            | Z | 4.38 | 71.59 | 19.16 |      | 150.0 |         |

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|-----------|--------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10168-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 5.43  | 77.67  | 22.20 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 5.56  | 77.27  | 22.26 |      | 150.0 |         |
|           |                                            | Z | 4.82  | 73.64  | 20.40 |      | 150.0 |         |
| 10169-CAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 3.04  | 70.28  | 19.59 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.20  | 70.65  | 19.93 |      | 150.0 |         |
|           |                                            | Z | 3.02  | 68.71  | 18.65 |      | 150.0 |         |
| 10170-CAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 4.87  | 79.58  | 23.23 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 5.10  | 79.76  | 23.54 |      | 150.0 |         |
|           |                                            | Z | 4.07  | 74.15  | 20.80 |      | 150.0 |         |
| 10171-AAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 3.63  | 73.33  | 19.59 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.75  | 73.08  | 19.68 |      | 150.0 |         |
|           |                                            | Z | 3.38  | 70.28  | 18.17 |      | 150.0 |         |
| 10172-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 10.24 | 98.07  | 31.46 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 6.99  | 87.97  | 27.62 |      | 65.0  |         |
|           |                                            | Z | 15.87 | 103.46 | 32.76 |      | 65.0  |         |
| 10173-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 78.60 | 130.94 | 38.04 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 27.42 | 109.33 | 32.22 |      | 65.0  |         |
|           |                                            | Z | 31.71 | 111.25 | 32.94 |      | 65.0  |         |
| 10174-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 44.53 | 118.34 | 34.17 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 11.49 | 92.90  | 26.88 |      | 65.0  |         |
|           |                                            | Z | 18.12 | 99.78  | 29.11 |      | 65.0  |         |
| 10175-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)      | X | 3.00  | 69.89  | 19.30 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.15  | 70.19  | 19.60 |      | 150.0 |         |
|           |                                            | Z | 2.99  | 68.41  | 18.41 |      | 150.0 |         |
| 10176-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)    | X | 4.88  | 79.61  | 23.25 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 5.11  | 79.80  | 23.56 |      | 150.0 |         |
|           |                                            | Z | 4.07  | 74.17  | 20.81 |      | 150.0 |         |
| 10177-CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)       | X | 3.02  | 70.08  | 19.41 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.18  | 70.43  | 19.74 |      | 150.0 |         |
|           |                                            | Z | 3.01  | 68.56  | 18.51 |      | 150.0 |         |
| 10178-CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)     | X | 4.81  | 79.28  | 23.09 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 5.00  | 79.33  | 23.33 |      | 150.0 |         |
|           |                                            | Z | 4.03  | 73.94  | 20.69 |      | 150.0 |         |
| 10179-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)    | X | 4.18  | 76.23  | 21.24 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.32  | 76.08  | 21.40 |      | 150.0 |         |
|           |                                            | Z | 3.69  | 72.08  | 19.35 |      | 150.0 |         |
| 10180-CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)     | X | 3.62  | 73.22  | 19.53 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.73  | 72.94  | 19.60 |      | 150.0 |         |
|           |                                            | Z | 3.37  | 70.21  | 18.11 |      | 150.0 |         |
| 10181-CAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 3.02  | 70.05  | 19.40 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.18  | 70.40  | 19.73 |      | 150.0 |         |
|           |                                            | Z | 3.01  | 68.54  | 18.50 |      | 150.0 |         |
| 10182-CAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)    | X | 4.80  | 79.24  | 23.07 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.99  | 79.29  | 23.32 |      | 150.0 |         |
|           |                                            | Z | 4.02  | 73.92  | 20.68 |      | 150.0 |         |
| 10183-AAC | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 3.61  | 73.19  | 19.51 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.72  | 72.91  | 19.59 |      | 150.0 |         |
|           |                                            | Z | 3.36  | 70.18  | 18.10 |      | 150.0 |         |

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|---------------|-----------------------------------------------|---|------|-------|-------|-------|-------|---------|
| 10184-<br>CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | X | 3.03 | 70.11 | 19.42 | -3.01 | 150.0 | ± 9.6 % |
|               |                                               | Y | 3.19 | 70.46 | 19.76 |       | 150.0 |         |
|               |                                               | Z | 3.02 | 68.58 | 18.52 |       | 150.0 |         |
| 10185-<br>CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | X | 4.83 | 79.35 | 23.12 | 3.01  | 150.0 | ± 9.6 % |
|               |                                               | Y | 5.02 | 79.40 | 23.37 |       | 150.0 |         |
|               |                                               | Z | 4.04 | 73.98 | 20.71 |       | 150.0 |         |
| 10186-<br>AAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | X | 3.63 | 73.28 | 19.56 | 3.01  | 150.0 | ± 9.6 % |
|               |                                               | Y | 3.74 | 73.00 | 19.63 |       | 150.0 |         |
|               |                                               | Z | 3.38 | 70.25 | 18.14 |       | 150.0 |         |
| 10187-<br>CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | X | 3.04 | 70.17 | 19.50 | 3.01  | 150.0 | ± 9.6 % |
|               |                                               | Y | 3.20 | 70.50 | 19.82 |       | 150.0 |         |
|               |                                               | Z | 3.02 | 68.63 | 18.58 |       | 150.0 |         |
| 10188-<br>CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | X | 5.07 | 80.38 | 23.64 | 3.01  | 150.0 | ± 9.6 % |
|               |                                               | Y | 5.32 | 80.64 | 23.98 |       | 150.0 |         |
|               |                                               | Z | 4.17 | 74.63 | 21.09 |       | 150.0 |         |
| 10189-<br>AAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | X | 3.74 | 73.88 | 19.91 | 3.01  | 150.0 | ± 9.6 % |
|               |                                               | Y | 3.86 | 73.65 | 20.01 |       | 150.0 |         |
|               |                                               | Z | 3.45 | 70.65 | 18.41 |       | 150.0 |         |
| 10193-<br>CAB | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)  | X | 4.49 | 66.82 | 16.18 | 0.00  | 150.0 | ± 9.6 % |
|               |                                               | Y | 4.55 | 66.58 | 16.13 |       | 150.0 |         |
|               |                                               | Z | 4.55 | 66.37 | 15.96 |       | 150.0 |         |
| 10194-<br>CAB | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) | X | 4.65 | 67.11 | 16.30 | 0.00  | 150.0 | ± 9.6 % |
|               |                                               | Y | 4.72 | 66.90 | 16.24 |       | 150.0 |         |
|               |                                               | Z | 4.73 | 66.70 | 16.08 |       | 150.0 |         |
| 10195-<br>CAB | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) | X | 4.69 | 67.14 | 16.32 | 0.00  | 150.0 | ± 9.6 % |
|               |                                               | Y | 4.77 | 66.93 | 16.26 |       | 150.0 |         |
|               |                                               | Z | 4.77 | 66.73 | 16.09 |       | 150.0 |         |
| 10196-<br>CAB | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)       | X | 4.49 | 66.87 | 16.19 | 0.00  | 150.0 | ± 9.6 % |
|               |                                               | Y | 4.55 | 66.65 | 16.15 |       | 150.0 |         |
|               |                                               | Z | 4.56 | 66.44 | 15.98 |       | 150.0 |         |
| 10197-<br>CAB | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)      | X | 4.67 | 67.13 | 16.31 | 0.00  | 150.0 | ± 9.6 % |
|               |                                               | Y | 4.74 | 66.92 | 16.26 |       | 150.0 |         |
|               |                                               | Z | 4.74 | 66.72 | 16.09 |       | 150.0 |         |
| 10198-<br>CAB | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)      | X | 4.69 | 67.15 | 16.33 | 0.00  | 150.0 | ± 9.6 % |
|               |                                               | Y | 4.77 | 66.95 | 16.27 |       | 150.0 |         |
|               |                                               | Z | 4.77 | 66.74 | 16.10 |       | 150.0 |         |
| 10219-<br>CAB | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)       | X | 4.44 | 66.89 | 16.16 | 0.00  | 150.0 | ± 9.6 % |
|               |                                               | Y | 4.50 | 66.66 | 16.11 |       | 150.0 |         |
|               |                                               | Z | 4.50 | 66.44 | 15.94 |       | 150.0 |         |
| 10220-<br>CAB | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)    | X | 4.66 | 67.10 | 16.30 | 0.00  | 150.0 | ± 9.6 % |
|               |                                               | Y | 4.73 | 66.90 | 16.25 |       | 150.0 |         |
|               |                                               | Z | 4.74 | 66.70 | 16.08 |       | 150.0 |         |
| 10221-<br>CAB | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)    | X | 4.70 | 67.08 | 16.31 | 0.00  | 150.0 | ± 9.6 % |
|               |                                               | Y | 4.78 | 66.87 | 16.26 |       | 150.0 |         |
|               |                                               | Z | 4.78 | 66.68 | 16.09 |       | 150.0 |         |
| 10222-<br>CAB | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)        | X | 5.03 | 67.21 | 16.40 | 0.00  | 150.0 | ± 9.6 % |
|               |                                               | Y | 5.09 | 67.07 | 16.36 |       | 150.0 |         |
|               |                                               | Z | 5.10 | 66.91 | 16.21 |       | 150.0 |         |

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|-----------|-------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10223-CAB | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)  | X | 5.32  | 67.38  | 16.50 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.40  | 67.25  | 16.47 |      | 150.0 |         |
|           |                                           | Z | 5.40  | 67.10  | 16.34 |      | 150.0 |         |
| 10224-CAB | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM) | X | 5.07  | 67.32  | 16.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.14  | 67.18  | 16.35 |      | 150.0 |         |
|           |                                           | Z | 5.14  | 67.01  | 16.19 |      | 150.0 |         |
| 10225-CAB | UMTS-FDD (HSPA+)                          | X | 2.79  | 66.50  | 15.43 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 2.82  | 66.08  | 15.35 |      | 150.0 |         |
|           |                                           | Z | 2.80  | 65.63  | 15.04 |      | 150.0 |         |
| 10226-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)  | X | 99.89 | 135.67 | 39.28 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 31.71 | 112.19 | 33.12 |      | 65.0  |         |
|           |                                           | Z | 35.31 | 113.42 | 33.64 |      | 65.0  |         |
| 10227-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)  | X | 93.26 | 131.22 | 37.34 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 28.90 | 108.47 | 31.40 |      | 65.0  |         |
|           |                                           | Z | 30.39 | 108.74 | 31.69 |      | 65.0  |         |
| 10228-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)    | X | 13.10 | 103.34 | 33.19 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 11.02 | 97.31  | 30.83 |      | 65.0  |         |
|           |                                           | Z | 16.95 | 105.19 | 33.37 |      | 65.0  |         |
| 10229-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)    | X | 79.91 | 131.22 | 38.11 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 27.77 | 109.54 | 32.29 |      | 65.0  |         |
|           |                                           | Z | 31.97 | 111.38 | 32.99 |      | 65.0  |         |
| 10230-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)    | X | 74.05 | 126.93 | 36.23 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 25.38 | 106.04 | 30.63 |      | 65.0  |         |
|           |                                           | Z | 27.68 | 106.95 | 31.11 |      | 65.0  |         |
| 10231-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)      | X | 12.18 | 101.72 | 32.60 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 10.33 | 95.90  | 30.29 |      | 65.0  |         |
|           |                                           | Z | 15.90 | 103.77 | 32.86 |      | 65.0  |         |
| 10232-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)    | X | 79.74 | 131.20 | 38.11 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 27.70 | 109.51 | 32.28 |      | 65.0  |         |
|           |                                           | Z | 31.93 | 111.37 | 32.98 |      | 65.0  |         |
| 10233-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)    | X | 73.58 | 126.84 | 36.21 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 25.28 | 105.99 | 30.62 |      | 65.0  |         |
|           |                                           | Z | 27.62 | 106.93 | 31.11 |      | 65.0  |         |
| 10234-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)      | X | 11.50 | 100.34 | 32.04 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 9.79  | 94.65  | 29.75 |      | 65.0  |         |
|           |                                           | Z | 15.03 | 102.45 | 32.33 |      | 65.0  |         |
| 10235-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)   | X | 80.18 | 131.32 | 38.14 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 27.75 | 109.56 | 32.30 |      | 65.0  |         |
|           |                                           | Z | 32.02 | 111.44 | 33.00 |      | 65.0  |         |
| 10236-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)   | X | 76.06 | 127.36 | 36.32 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 25.72 | 106.25 | 30.68 |      | 65.0  |         |
|           |                                           | Z | 28.08 | 107.18 | 31.17 |      | 65.0  |         |
| 10237-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)     | X | 12.21 | 101.81 | 32.63 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 10.34 | 95.96  | 30.31 |      | 65.0  |         |
|           |                                           | Z | 15.97 | 103.90 | 32.90 |      | 65.0  |         |
| 10238-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)   | X | 79.57 | 131.18 | 38.10 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 27.63 | 109.48 | 32.27 |      | 65.0  |         |
|           |                                           | Z | 31.89 | 111.36 | 32.98 |      | 65.0  |         |

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|---------------|-----------------------------------------------|---|-------|--------|-------|------|------|---------|
| 10239-<br>CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz,<br>64-QAM)    | X | 73.12 | 126.76 | 36.19 | 6.02 | 65.0 | ± 9.6 % |
|               |                                               | Y | 25.18 | 105.94 | 30.61 |      | 65.0 |         |
|               |                                               | Z | 27.54 | 106.90 | 31.10 |      | 65.0 |         |
| 10240-<br>CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz,<br>QPSK)      | X | 12.17 | 101.76 | 32.62 | 6.02 | 65.0 | ± 9.6 % |
|               |                                               | Y | 10.31 | 95.90  | 30.29 |      | 65.0 |         |
|               |                                               | Z | 15.91 | 103.83 | 32.88 |      | 65.0 |         |
| 10241-<br>CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz,<br>16-QAM) | X | 8.50  | 83.67  | 26.63 | 6.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 7.93  | 80.64  | 25.30 |      | 65.0 |         |
|               |                                               | Z | 8.92  | 82.64  | 26.25 |      | 65.0 |         |
| 10242-<br>CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz,<br>64-QAM) | X | 7.87  | 82.04  | 25.90 | 6.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 6.83  | 77.44  | 23.89 |      | 65.0 |         |
|               |                                               | Z | 7.62  | 79.24  | 24.78 |      | 65.0 |         |
| 10243-<br>CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz,<br>QPSK)   | X | 5.95  | 76.89  | 24.66 | 6.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 5.47  | 73.56  | 23.00 |      | 65.0 |         |
|               |                                               | Z | 6.91  | 78.52  | 25.39 |      | 65.0 |         |
| 10244-<br>CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz,<br>16-QAM)   | X | 7.37  | 80.00  | 20.05 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 6.93  | 78.86  | 20.21 |      | 65.0 |         |
|               |                                               | Z | 8.14  | 80.81  | 21.05 |      | 65.0 |         |
| 10245-<br>CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz,<br>64-QAM)   | X | 6.92  | 78.76  | 19.52 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 6.69  | 78.01  | 19.82 |      | 65.0 |         |
|               |                                               | Z | 7.87  | 79.98  | 20.68 |      | 65.0 |         |
| 10246-<br>CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz,<br>QPSK)     | X | 7.37  | 83.86  | 21.86 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 5.36  | 77.99  | 19.79 |      | 65.0 |         |
|               |                                               | Z | 8.74  | 85.41  | 22.80 |      | 65.0 |         |
| 10247-<br>CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz,<br>16-QAM)   | X | 5.33  | 75.68  | 19.37 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 4.85  | 73.34  | 18.52 |      | 65.0 |         |
|               |                                               | Z | 6.23  | 77.13  | 20.34 |      | 65.0 |         |
| 10248-<br>CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz,<br>64-QAM)   | X | 5.20  | 74.72  | 18.94 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 4.85  | 72.76  | 18.24 |      | 65.0 |         |
|               |                                               | Z | 6.14  | 76.33  | 19.99 |      | 65.0 |         |
| 10249-<br>CAD | LTE-TDD (SC-FDMA, 50% RB, 5 MHz,<br>QPSK)     | X | 8.85  | 87.45  | 24.17 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 6.28  | 80.57  | 21.62 |      | 65.0 |         |
|               |                                               | Z | 9.90  | 87.84  | 24.46 |      | 65.0 |         |
| 10250-<br>CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz,<br>16-QAM)  | X | 6.10  | 77.71  | 21.94 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 5.64  | 75.33  | 20.87 |      | 65.0 |         |
|               |                                               | Z | 6.95  | 78.79  | 22.46 |      | 65.0 |         |
| 10251-<br>CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz,<br>64-QAM)  | X | 5.66  | 75.01  | 20.40 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 5.36  | 73.11  | 19.53 |      | 65.0 |         |
|               |                                               | Z | 6.50  | 76.23  | 21.05 |      | 65.0 |         |
| 10252-<br>CAD | LTE-TDD (SC-FDMA, 50% RB, 10 MHz,<br>QPSK)    | X | 7.94  | 84.86  | 24.29 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 6.39  | 79.75  | 22.14 |      | 65.0 |         |
|               |                                               | Z | 8.99  | 85.38  | 24.42 |      | 65.0 |         |
| 10253-<br>CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz,<br>16-QAM)  | X | 5.66  | 73.82  | 20.25 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 5.44  | 72.21  | 19.43 |      | 65.0 |         |
|               |                                               | Z | 6.42  | 74.98  | 20.82 |      | 65.0 |         |
| 10254-<br>CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz,<br>64-QAM)  | X | 6.03  | 74.81  | 21.00 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 5.79  | 73.17  | 20.19 |      | 65.0 |         |
|               |                                               | Z | 6.80  | 75.89  | 21.52 |      | 65.0 |         |

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|-----------|---------------------------------------------|---|------|-------|-------|------|------|---------|
| 10255-CAD | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)     | X | 6.73 | 79.60 | 22.51 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.97 | 76.38 | 20.99 |      | 65.0 |         |
|           |                                             | Z | 7.57 | 80.29 | 22.71 |      | 65.0 |         |
| 10256-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | X | 5.08 | 73.94 | 16.47 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.39 | 74.67 | 17.48 |      | 65.0 |         |
|           |                                             | Z | 6.66 | 77.30 | 18.71 |      | 65.0 |         |
| 10257-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM) | X | 4.72 | 72.53 | 15.77 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.13 | 73.56 | 16.91 |      | 65.0 |         |
|           |                                             | Z | 6.33 | 76.13 | 18.15 |      | 65.0 |         |
| 10258-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)   | X | 4.93 | 76.97 | 18.30 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 4.14 | 73.79 | 17.29 |      | 65.0 |         |
|           |                                             | Z | 6.69 | 80.63 | 20.30 |      | 65.0 |         |
| 10259-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   | X | 5.65 | 76.48 | 20.32 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.16 | 74.06 | 19.35 |      | 65.0 |         |
|           |                                             | Z | 6.51 | 77.70 | 21.07 |      | 65.0 |         |
| 10260-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)   | X | 5.63 | 76.04 | 20.13 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.20 | 73.81 | 19.26 |      | 65.0 |         |
|           |                                             | Z | 6.50 | 77.32 | 20.93 |      | 65.0 |         |
| 10261-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)     | X | 7.72 | 84.85 | 23.70 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.96 | 79.25 | 21.49 |      | 65.0 |         |
|           |                                             | Z | 8.76 | 85.47 | 24.01 |      | 65.0 |         |
| 10262-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   | X | 6.08 | 77.64 | 21.89 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.63 | 75.27 | 20.82 |      | 65.0 |         |
|           |                                             | Z | 6.94 | 78.74 | 22.41 |      | 65.0 |         |
| 10263-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   | X | 5.65 | 74.98 | 20.39 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.36 | 73.09 | 19.52 |      | 65.0 |         |
|           |                                             | Z | 6.49 | 76.21 | 21.04 |      | 65.0 |         |
| 10264-CAD | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)     | X | 7.84 | 84.58 | 24.16 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.33 | 79.54 | 22.04 |      | 65.0 |         |
|           |                                             | Z | 8.88 | 85.15 | 24.31 |      | 65.0 |         |
| 10265-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  | X | 5.79 | 74.38 | 20.53 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.55 | 72.76 | 19.67 |      | 65.0 |         |
|           |                                             | Z | 6.61 | 75.67 | 21.10 |      | 65.0 |         |
| 10266-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)  | X | 6.19 | 75.45 | 21.35 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 5.93 | 73.78 | 20.50 |      | 65.0 |         |
|           |                                             | Z | 7.01 | 76.60 | 21.85 |      | 65.0 |         |
| 10267-CAD | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)    | X | 7.19 | 80.58 | 22.68 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.29 | 77.13 | 21.06 |      | 65.0 |         |
|           |                                             | Z | 8.07 | 81.17 | 22.80 |      | 65.0 |         |
| 10268-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)  | X | 6.37 | 74.09 | 20.78 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.20 | 72.79 | 20.06 |      | 65.0 |         |
|           |                                             | Z | 7.15 | 75.23 | 21.27 |      | 65.0 |         |
| 10269-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)  | X | 6.33 | 73.61 | 20.62 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.17 | 72.38 | 19.94 |      | 65.0 |         |
|           |                                             | Z | 7.08 | 74.72 | 21.11 |      | 65.0 |         |
| 10270-CAD | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)    | X | 6.71 | 76.93 | 21.34 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.23 | 74.71 | 20.20 |      | 65.0 |         |
|           |                                             | Z | 7.45 | 77.60 | 21.53 |      | 65.0 |         |

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|---------------|--------------------------------------------------------------------|---|-------|-------|-------|------|-------|---------|
| 10274-<br>CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                          | X | 2.60  | 66.98 | 15.41 | 0.00 | 150.0 | ± 9.6 % |
|               |                                                                    | Y | 2.58  | 66.35 | 15.21 |      | 150.0 |         |
|               |                                                                    | Z | 2.55  | 65.81 | 14.84 |      | 150.0 |         |
| 10275-<br>CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                           | X | 1.65  | 68.75 | 16.00 | 0.00 | 150.0 | ± 9.6 % |
|               |                                                                    | Y | 1.59  | 67.66 | 15.42 |      | 150.0 |         |
|               |                                                                    | Z | 1.53  | 66.44 | 14.64 |      | 150.0 |         |
| 10277-<br>CAA | PHS (QPSK)                                                         | X | 1.91  | 61.13 | 6.64  | 9.03 | 50.0  | ± 9.6 % |
|               |                                                                    | Y | 2.26  | 61.87 | 7.60  |      | 50.0  |         |
|               |                                                                    | Z | 2.36  | 62.74 | 8.22  |      | 50.0  |         |
| 10278-<br>CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)                                 | X | 6.40  | 77.47 | 17.40 | 9.03 | 50.0  | ± 9.6 % |
|               |                                                                    | Y | 5.34  | 74.41 | 16.63 |      | 50.0  |         |
|               |                                                                    | Z | 13.94 | 89.88 | 22.80 |      | 50.0  |         |
| 10279-<br>CAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)                                | X | 6.60  | 77.85 | 17.61 | 9.03 | 50.0  | ± 9.6 % |
|               |                                                                    | Y | 5.50  | 74.73 | 16.81 |      | 50.0  |         |
|               |                                                                    | Z | 14.10 | 89.99 | 22.90 |      | 50.0  |         |
| 10290-<br>AAB | CDMA2000, RC1, SO55, Full Rate                                     | X | 1.56  | 70.34 | 14.59 | 0.00 | 150.0 | ± 9.6 % |
|               |                                                                    | Y | 1.49  | 68.91 | 14.24 |      | 150.0 |         |
|               |                                                                    | Z | 1.34  | 66.81 | 13.21 |      | 150.0 |         |
| 10291-<br>AAB | CDMA2000, RC3, SO55, Full Rate                                     | X | 0.88  | 67.20 | 13.11 | 0.00 | 150.0 | ± 9.6 % |
|               |                                                                    | Y | 0.84  | 65.84 | 12.64 |      | 150.0 |         |
|               |                                                                    | Z | 0.77  | 64.11 | 11.66 |      | 150.0 |         |
| 10292-<br>AAB | CDMA2000, RC3, SO32, Full Rate                                     | X | 1.40  | 74.43 | 16.74 | 0.00 | 150.0 | ± 9.6 % |
|               |                                                                    | Y | 1.09  | 70.29 | 15.18 |      | 150.0 |         |
|               |                                                                    | Z | 0.88  | 66.60 | 13.32 |      | 150.0 |         |
| 10293-<br>AAB | CDMA2000, RC3, SO3, Full Rate                                      | X | 3.72  | 88.63 | 22.31 | 0.00 | 150.0 | ± 9.6 % |
|               |                                                                    | Y | 1.84  | 78.01 | 18.87 |      | 150.0 |         |
|               |                                                                    | Z | 1.14  | 70.13 | 15.44 |      | 150.0 |         |
| 10295-<br>AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                              | X | 12.91 | 92.40 | 26.46 | 9.03 | 50.0  | ± 9.6 % |
|               |                                                                    | Y | 7.83  | 82.18 | 22.86 |      | 50.0  |         |
|               |                                                                    | Z | 10.84 | 90.05 | 26.58 |      | 50.0  |         |
| 10297-<br>AAC | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                            | X | 2.78  | 70.28 | 16.92 | 0.00 | 150.0 | ± 9.6 % |
|               |                                                                    | Y | 2.76  | 69.62 | 16.53 |      | 150.0 |         |
|               |                                                                    | Z | 2.67  | 68.65 | 15.93 |      | 150.0 |         |
| 10298-<br>AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                             | X | 1.61  | 68.67 | 14.47 | 0.00 | 150.0 | ± 9.6 % |
|               |                                                                    | Y | 1.61  | 67.92 | 14.39 |      | 150.0 |         |
|               |                                                                    | Z | 1.51  | 66.40 | 13.58 |      | 150.0 |         |
| 10299-<br>AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                           | X | 3.29  | 72.91 | 15.40 | 0.00 | 150.0 | ± 9.6 % |
|               |                                                                    | Y | 4.28  | 76.65 | 17.78 |      | 150.0 |         |
|               |                                                                    | Z | 2.70  | 69.61 | 14.70 |      | 150.0 |         |
| 10300-<br>AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                           | X | 1.99  | 65.75 | 11.44 | 0.00 | 150.0 | ± 9.6 % |
|               |                                                                    | Y | 2.42  | 67.75 | 13.19 |      | 150.0 |         |
|               |                                                                    | Z | 2.10  | 65.49 | 12.02 |      | 150.0 |         |
| 10301-<br>AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)                 | X | 4.63  | 65.31 | 17.26 | 4.17 | 50.0  | ± 9.6 % |
|               |                                                                    | Y | 4.71  | 65.04 | 17.23 |      | 50.0  |         |
|               |                                                                    | Z | 4.90  | 65.54 | 17.47 |      | 50.0  |         |
| 10302-<br>AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols) | X | 5.13  | 66.05 | 18.03 | 4.96 | 50.0  | ± 9.6 % |
|               |                                                                    | Y | 5.18  | 65.61 | 17.90 |      | 50.0  |         |
|               |                                                                    | Z | 5.35  | 66.05 | 18.12 |      | 50.0  |         |

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|-----------|---------------------------------------------------------------------|---|-------|--------|-------|-------|-------|---------|
| 10303-AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)                 | X | 4.88  | 65.67  | 17.85 | 4.96  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 4.94  | 65.25  | 17.74 |       | 50.0  |         |
|           |                                                                     | Z | 5.11  | 65.74  | 17.99 |       | 50.0  |         |
| 10304-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)                 | X | 4.70  | 65.62  | 17.39 | 4.17  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 4.74  | 65.15  | 17.26 |       | 50.0  |         |
|           |                                                                     | Z | 4.90  | 65.54  | 17.43 |       | 50.0  |         |
| 10305-AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)    | X | 4.27  | 67.16  | 19.22 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.37  | 66.83  | 19.24 |       | 35.0  |         |
|           |                                                                     | Z | 4.53  | 67.50  | 19.68 |       | 35.0  |         |
| 10306-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)    | X | 4.61  | 66.32  | 18.90 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.70  | 65.97  | 18.85 |       | 35.0  |         |
|           |                                                                     | Z | 4.85  | 66.53  | 19.23 |       | 35.0  |         |
| 10307-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)     | X | 4.50  | 66.44  | 18.84 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.60  | 66.17  | 18.84 |       | 35.0  |         |
|           |                                                                     | Z | 4.75  | 66.75  | 19.22 |       | 35.0  |         |
| 10308-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)                | X | 4.47  | 66.63  | 18.98 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.57  | 66.32  | 18.95 |       | 35.0  |         |
|           |                                                                     | Z | 4.72  | 66.92  | 19.34 |       | 35.0  |         |
| 10309-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols) | X | 4.65  | 66.50  | 19.02 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.76  | 66.19  | 18.99 |       | 35.0  |         |
|           |                                                                     | Z | 4.92  | 66.79  | 19.39 |       | 35.0  |         |
| 10310-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)  | X | 4.55  | 66.37  | 18.87 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 4.65  | 66.03  | 18.83 |       | 35.0  |         |
|           |                                                                     | Z | 4.79  | 66.59  | 19.20 |       | 35.0  |         |
| 10311-AAC | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                            | X | 3.15  | 69.56  | 16.56 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 3.13  | 68.96  | 16.21 |       | 150.0 |         |
|           |                                                                     | Z | 3.01  | 68.04  | 15.64 |       | 150.0 |         |
| 10313-AAA | IDEN 1:3                                                            | X | 6.07  | 81.67  | 19.58 | 6.99  | 70.0  | ± 9.6 % |
|           |                                                                     | Y | 3.32  | 72.55  | 15.93 |       | 70.0  |         |
|           |                                                                     | Z | 7.11  | 81.81  | 19.51 |       | 70.0  |         |
| 10314-AAA | IDEN 1:6                                                            | X | 14.50 | 100.17 | 28.67 | 10.00 | 30.0  | ± 9.6 % |
|           |                                                                     | Y | 6.07  | 83.58  | 22.92 |       | 30.0  |         |
|           |                                                                     | Z | 11.70 | 95.29  | 27.21 |       | 30.0  |         |
| 10315-AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)           | X | 1.10  | 64.26  | 15.53 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 1.06  | 63.52  | 15.02 |       | 150.0 |         |
|           |                                                                     | Z | 1.07  | 63.12  | 14.56 |       | 150.0 |         |
| 10316-AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)       | X | 4.54  | 66.85  | 16.32 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.59  | 66.58  | 16.22 |       | 150.0 |         |
|           |                                                                     | Z | 4.62  | 66.48  | 16.14 |       | 150.0 |         |
| 10317-AAB | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)             | X | 4.54  | 66.85  | 16.32 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.59  | 66.58  | 16.22 |       | 150.0 |         |
|           |                                                                     | Z | 4.62  | 66.48  | 16.14 |       | 150.0 |         |
| 10400-AAC | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)                 | X | 4.64  | 67.14  | 16.28 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.72  | 66.93  | 16.22 |       | 150.0 |         |
|           |                                                                     | Z | 4.73  | 66.75  | 16.07 |       | 150.0 |         |
| 10401-AAC | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)                 | X | 5.31  | 67.19  | 16.37 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 5.40  | 67.08  | 16.36 |       | 150.0 |         |
|           |                                                                     | Z | 5.40  | 66.93  | 16.23 |       | 150.0 |         |

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| 10402-AAC | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)                            | X | 5.59   | 67.58  | 16.43 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 5.67   | 67.48  | 16.42 |      | 150.0 |         |
|           |                                                                                | Z | 5.67   | 67.34  | 16.29 |      | 150.0 |         |
| 10403-AAB | CDMA2000 (1xEV-DO, Rev. 0)                                                     | X | 1.56   | 70.34  | 14.59 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                | Y | 1.49   | 68.91  | 14.24 |      | 115.0 |         |
|           |                                                                                | Z | 1.34   | 66.81  | 13.21 |      | 115.0 |         |
| 10404-AAB | CDMA2000 (1xEV-DO, Rev. A)                                                     | X | 1.56   | 70.34  | 14.59 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                | Y | 1.49   | 68.91  | 14.24 |      | 115.0 |         |
|           |                                                                                | Z | 1.34   | 66.81  | 13.21 |      | 115.0 |         |
| 10406-AAB | CDMA2000, RC3, SO32, SCH0, Full Rate                                           | X | 100.00 | 119.40 | 29.03 | 0.00 | 100.0 | ± 9.6 % |
|           |                                                                                | Y | 100.00 | 124.68 | 31.82 |      | 100.0 |         |
|           |                                                                                | Z | 15.44  | 97.41  | 24.97 |      | 100.0 |         |
| 10410-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)                 | X | 100.00 | 126.28 | 31.95 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                                | Y | 100.00 | 125.64 | 32.01 |      | 80.0  |         |
|           |                                                                                | Z | 100.00 | 124.15 | 31.65 |      | 80.0  |         |
| 10415-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)                      | X | 1.02   | 63.45  | 14.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 0.99   | 62.82  | 14.52 |      | 150.0 |         |
|           |                                                                                | Z | 0.99   | 62.20  | 13.89 |      | 150.0 |         |
| 10416-AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)                  | X | 4.49   | 66.85  | 16.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.55   | 66.61  | 16.18 |      | 150.0 |         |
|           |                                                                                | Z | 4.55   | 66.40  | 16.01 |      | 150.0 |         |
| 10417-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)                      | X | 4.49   | 66.85  | 16.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.55   | 66.61  | 16.18 |      | 150.0 |         |
|           |                                                                                | Z | 4.55   | 66.40  | 16.01 |      | 150.0 |         |
| 10418-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)  | X | 4.48   | 67.03  | 16.28 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.54   | 66.76  | 16.20 |      | 150.0 |         |
|           |                                                                                | Z | 4.54   | 66.54  | 16.02 |      | 150.0 |         |
| 10419-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble) | X | 4.50   | 66.97  | 16.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.56   | 66.72  | 16.20 |      | 150.0 |         |
|           |                                                                                | Z | 4.56   | 66.50  | 16.03 |      | 150.0 |         |
| 10422-AAA | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                   | X | 4.62   | 66.95  | 16.28 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.68   | 66.72  | 16.22 |      | 150.0 |         |
|           |                                                                                | Z | 4.68   | 66.52  | 16.05 |      | 150.0 |         |
| 10423-AAA | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                | X | 4.77   | 67.24  | 16.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.85   | 67.05  | 16.34 |      | 150.0 |         |
|           |                                                                                | Z | 4.86   | 66.85  | 16.17 |      | 150.0 |         |
| 10424-AAA | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                | X | 4.69   | 67.20  | 16.36 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.77   | 67.00  | 16.31 |      | 150.0 |         |
|           |                                                                                | Z | 4.77   | 66.79  | 16.14 |      | 150.0 |         |
| 10425-AAA | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                    | X | 5.28   | 67.39  | 16.48 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 5.36   | 67.30  | 16.47 |      | 150.0 |         |
|           |                                                                                | Z | 5.36   | 67.14  | 16.33 |      | 150.0 |         |
| 10426-AAA | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                  | X | 5.28   | 67.44  | 16.50 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 5.37   | 67.31  | 16.48 |      | 150.0 |         |
|           |                                                                                | Z | 5.37   | 67.14  | 16.33 |      | 150.0 |         |

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| 10427-AAA | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                 | X | 5.29   | 67.41  | 16.48 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 5.38   | 67.31  | 16.47 |      | 150.0 |         |
|           |                                                                | Z | 5.38   | 67.14  | 16.32 |      | 150.0 |         |
| 10430-AAB | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                               | X | 4.39   | 72.00  | 18.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.43   | 71.47  | 18.62 |      | 150.0 |         |
|           |                                                                | Z | 4.21   | 70.02  | 17.79 |      | 150.0 |         |
| 10431-AAB | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                              | X | 4.16   | 67.45  | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.24   | 67.16  | 16.20 |      | 150.0 |         |
|           |                                                                | Z | 4.24   | 66.87  | 15.99 |      | 150.0 |         |
| 10432-AAB | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                              | X | 4.46   | 67.28  | 16.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.54   | 67.04  | 16.26 |      | 150.0 |         |
|           |                                                                | Z | 4.54   | 66.81  | 16.08 |      | 150.0 |         |
| 10433-AAB | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                              | X | 4.71   | 67.24  | 16.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.79   | 67.03  | 16.33 |      | 150.0 |         |
|           |                                                                | Z | 4.79   | 66.83  | 16.16 |      | 150.0 |         |
| 10434-AAA | W-CDMA (BS Test Model 1, 64 DPCH)                              | X | 4.57   | 73.15  | 18.71 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.58   | 72.49  | 18.67 |      | 150.0 |         |
|           |                                                                | Z | 4.28   | 70.74  | 17.74 |      | 150.0 |         |
| 10435-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) | X | 100.00 | 126.02 | 31.83 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                | Y | 100.00 | 125.38 | 31.89 |      | 80.0  |         |
|           |                                                                | Z | 100.00 | 123.95 | 31.55 |      | 80.0  |         |
| 10447-AAB | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                 | X | 3.46   | 67.55  | 15.56 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.54   | 67.17  | 15.57 |      | 150.0 |         |
|           |                                                                | Z | 3.52   | 66.76  | 15.31 |      | 150.0 |         |
| 10448-AAB | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)                | X | 4.01   | 67.24  | 16.12 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.08   | 66.93  | 16.06 |      | 150.0 |         |
|           |                                                                | Z | 4.07   | 66.64  | 15.84 |      | 150.0 |         |
| 10449-AAB | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)                | X | 4.29   | 67.12  | 16.23 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.35   | 66.87  | 16.16 |      | 150.0 |         |
|           |                                                                | Z | 4.34   | 66.62  | 15.97 |      | 150.0 |         |
| 10450-AAB | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                | X | 4.48   | 67.02  | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.54   | 66.80  | 16.19 |      | 150.0 |         |
|           |                                                                | Z | 4.54   | 66.58  | 16.01 |      | 150.0 |         |
| 10451-AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                | X | 3.35   | 67.70  | 15.14 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.44   | 67.37  | 15.22 |      | 150.0 |         |
|           |                                                                | Z | 3.42   | 66.91  | 14.95 |      | 150.0 |         |
| 10456-AAA | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)           | X | 6.15   | 67.95  | 16.63 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 6.22   | 67.86  | 16.63 |      | 150.0 |         |
|           |                                                                | Z | 6.22   | 67.74  | 16.51 |      | 150.0 |         |
| 10457-AAA | UMTS-FDD (DC-HSDPA)                                            | X | 3.77   | 65.51  | 15.96 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.79   | 65.25  | 15.89 |      | 150.0 |         |
|           |                                                                | Z | 3.79   | 65.05  | 15.71 |      | 150.0 |         |
| 10458-AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                         | X | 4.16   | 72.25  | 17.97 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.15   | 71.45  | 17.94 |      | 150.0 |         |
|           |                                                                | Z | 3.91   | 69.91  | 17.13 |      | 150.0 |         |
| 10459-AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                         | X | 5.14   | 69.19  | 18.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 5.27   | 68.99  | 18.57 |      | 150.0 |         |
|           |                                                                | Z | 5.09   | 67.87  | 17.91 |      | 150.0 |         |

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| 10460-AAA | UMTS-FDD (WCDMA, AMR)                                             | X | 0.95   | 69.47  | 16.93 | 0.00 | 150.0 | ±9.6 % |
|           |                                                                   | Y | 0.87   | 67.65  | 15.83 |      | 150.0 |        |
|           |                                                                   | Z | 0.80   | 65.56  | 14.43 |      | 150.0 |        |
| 10461-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 100.00 | 133.80 | 35.39 | 3.29 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 100.00 | 131.41 | 34.70 |      | 80.0  |        |
|           |                                                                   | Z | 100.00 | 128.60 | 33.77 |      | 80.0  |        |
| 10462-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 100.00 | 106.15 | 22.58 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 100.00 | 107.91 | 23.73 |      | 80.0  |        |
|           |                                                                   | Z | 100.00 | 109.57 | 24.83 |      | 80.0  |        |
| 10463-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.63   | 70.11  | 12.20 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 4.08   | 73.90  | 14.09 |      | 80.0  |        |
|           |                                                                   | Z | 8.46   | 81.26  | 17.00 |      | 80.0  |        |
| 10464-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 100.00 | 130.95 | 33.88 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 100.00 | 128.72 | 33.28 |      | 80.0  |        |
|           |                                                                   | Z | 100.00 | 126.23 | 32.50 |      | 80.0  |        |
| 10465-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 100.00 | 105.21 | 22.15 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 100.00 | 107.06 | 23.34 |      | 80.0  |        |
|           |                                                                   | Z | 35.43  | 98.02  | 22.07 |      | 80.0  |        |
| 10466-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 1.79   | 66.70  | 10.88 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 2.56   | 69.43  | 12.47 |      | 80.0  |        |
|           |                                                                   | Z | 5.00   | 75.81  | 15.25 |      | 80.0  |        |
| 10467-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 100.00 | 131.35 | 34.06 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 100.00 | 129.07 | 33.43 |      | 80.0  |        |
|           |                                                                   | Z | 100.00 | 126.51 | 32.62 |      | 80.0  |        |
| 10468-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 100.00 | 105.50 | 22.28 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 100.00 | 107.30 | 23.44 |      | 80.0  |        |
|           |                                                                   | Z | 50.50  | 101.91 | 23.01 |      | 80.0  |        |
| 10469-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 1.81   | 66.81  | 10.92 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 2.60   | 69.57  | 12.52 |      | 80.0  |        |
|           |                                                                   | Z | 5.06   | 75.96  | 15.30 |      | 80.0  |        |
| 10470-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 100.00 | 131.40 | 34.07 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 100.00 | 129.12 | 33.45 |      | 80.0  |        |
|           |                                                                   | Z | 100.00 | 126.55 | 32.63 |      | 80.0  |        |
| 10471-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 100.00 | 105.39 | 22.22 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 100.00 | 107.21 | 23.40 |      | 80.0  |        |
|           |                                                                   | Z | 49.94  | 101.73 | 22.95 |      | 80.0  |        |
| 10472-AAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 1.77   | 66.63  | 10.84 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 2.56   | 69.41  | 12.44 |      | 80.0  |        |
|           |                                                                   | Z | 5.01   | 75.85  | 15.25 |      | 80.0  |        |
| 10473-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 100.00 | 131.36 | 34.05 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 100.00 | 129.08 | 33.43 |      | 80.0  |        |
|           |                                                                   | Z | 100.00 | 126.51 | 32.61 |      | 80.0  |        |
| 10474-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 100.00 | 105.39 | 22.22 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 100.00 | 107.22 | 23.40 |      | 80.0  |        |
|           |                                                                   | Z | 48.29  | 101.39 | 22.87 |      | 80.0  |        |
| 10475-AAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 1.76   | 66.58  | 10.82 | 3.23 | 80.0  | ±9.6 % |
|           |                                                                   | Y | 2.53   | 69.34  | 12.42 |      | 80.0  |        |
|           |                                                                   | Z | 4.95   | 75.73  | 15.21 |      | 80.0  |        |

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| 10477-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)    | X | 100.00 | 105.11 | 22.09 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 100.00 | 106.98 | 23.28 |      | 80.0 |         |
|           |                                                                     | Z | 37.23  | 98.50  | 22.16 |      | 80.0 |         |
| 10478-AAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)    | X | 1.73   | 66.40  | 10.74 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 2.48   | 69.11  | 12.32 |      | 80.0 |         |
|           |                                                                     | Z | 4.87   | 75.55  | 15.14 |      | 80.0 |         |
| 10479-AAC | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 36.42  | 112.43 | 30.83 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 16.48  | 99.71  | 27.83 |      | 80.0 |         |
|           |                                                                     | Z | 8.86   | 88.69  | 24.42 |      | 80.0 |         |
| 10480-AAC | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 95.64  | 115.12 | 28.54 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 28.47  | 100.21 | 25.67 |      | 80.0 |         |
|           |                                                                     | Z | 11.07  | 86.73  | 21.98 |      | 80.0 |         |
| 10481-AAC | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 37.62  | 101.34 | 24.69 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 18.52  | 93.15  | 23.29 |      | 80.0 |         |
|           |                                                                     | Z | 9.13   | 83.30  | 20.51 |      | 80.0 |         |
| 10482-AAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 3.95   | 76.89  | 18.72 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 2.72   | 70.78  | 16.43 |      | 80.0 |         |
|           |                                                                     | Z | 3.68   | 74.55  | 18.17 |      | 80.0 |         |
| 10483-AAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 8.17   | 82.48  | 19.94 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 8.16   | 82.81  | 20.77 |      | 80.0 |         |
|           |                                                                     | Z | 6.14   | 78.13  | 19.18 |      | 80.0 |         |
| 10484-AAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 6.66   | 79.56  | 18.96 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 6.98   | 80.39  | 19.96 |      | 80.0 |         |
|           |                                                                     | Z | 5.62   | 76.67  | 18.65 |      | 80.0 |         |
| 10485-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 4.00   | 77.33  | 20.01 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.01   | 71.93  | 17.79 |      | 80.0 |         |
|           |                                                                     | Z | 3.85   | 75.13  | 19.23 |      | 80.0 |         |
| 10486-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.53   | 71.68  | 17.11 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.03   | 68.64  | 15.92 |      | 80.0 |         |
|           |                                                                     | Z | 3.59   | 70.70  | 16.99 |      | 80.0 |         |
| 10487-AAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.47   | 71.06  | 16.83 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.04   | 68.31  | 15.77 |      | 80.0 |         |
|           |                                                                     | Z | 3.58   | 70.27  | 16.80 |      | 80.0 |         |
| 10488-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 3.84   | 74.60  | 19.72 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.34   | 71.33  | 18.14 |      | 80.0 |         |
|           |                                                                     | Z | 4.01   | 73.78  | 19.26 |      | 80.0 |         |
| 10489-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 3.56   | 70.23  | 17.84 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.32   | 68.27  | 16.90 |      | 80.0 |         |
|           |                                                                     | Z | 3.74   | 69.76  | 17.66 |      | 80.0 |         |
| 10490-AAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 3.64   | 69.97  | 17.73 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.42   | 68.14  | 16.86 |      | 80.0 |         |
|           |                                                                     | Z | 3.83   | 69.55  | 17.59 |      | 80.0 |         |
| 10491-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 3.93   | 72.36  | 18.91 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.61   | 70.12  | 17.74 |      | 80.0 |         |
|           |                                                                     | Z | 4.16   | 72.00  | 18.63 |      | 80.0 |         |
| 10492-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 3.83   | 69.02  | 17.62 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 3.69   | 67.66  | 16.91 |      | 80.0 |         |
|           |                                                                     | Z | 4.06   | 68.89  | 17.55 |      | 80.0 |         |

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| 10493-AAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.88 | 68.85 | 17.55 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.76 | 67.56 | 16.87 |      | 80.0 |         |
|           |                                                                      | Z | 4.13 | 68.74 | 17.50 |      | 80.0 |         |
| 10494-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 4.35 | 74.24 | 19.53 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.90 | 71.59 | 18.19 |      | 80.0 |         |
|           |                                                                      | Z | 4.58 | 73.75 | 19.16 |      | 80.0 |         |
| 10495-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.86 | 69.41 | 17.83 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.71 | 68.05 | 17.10 |      | 80.0 |         |
|           |                                                                      | Z | 4.11 | 69.34 | 17.75 |      | 80.0 |         |
| 10496-AAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.93 | 69.08 | 17.71 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.80 | 67.82 | 17.03 |      | 80.0 |         |
|           |                                                                      | Z | 4.17 | 69.02 | 17.65 |      | 80.0 |         |
| 10497-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 2.66 | 71.09 | 15.30 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 2.03 | 67.03 | 13.89 |      | 80.0 |         |
|           |                                                                      | Z | 2.82 | 70.87 | 15.83 |      | 80.0 |         |
| 10498-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 1.56 | 62.13 | 10.05 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 1.69 | 62.28 | 10.57 |      | 80.0 |         |
|           |                                                                      | Z | 2.15 | 64.66 | 12.06 |      | 80.0 |         |
| 10499-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 1.48 | 61.39 | 9.51  | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 1.65 | 61.78 | 10.17 |      | 80.0 |         |
|           |                                                                      | Z | 2.08 | 64.01 | 11.62 |      | 80.0 |         |
| 10500-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 3.81 | 75.67 | 19.70 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.09 | 71.35 | 17.81 |      | 80.0 |         |
|           |                                                                      | Z | 3.82 | 74.12 | 19.08 |      | 80.0 |         |
| 10501-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.56 | 71.15 | 17.41 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.16 | 68.52 | 16.31 |      | 80.0 |         |
|           |                                                                      | Z | 3.66 | 70.29 | 17.23 |      | 80.0 |         |
| 10502-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.60 | 70.93 | 17.24 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.23 | 68.42 | 16.21 |      | 80.0 |         |
|           |                                                                      | Z | 3.72 | 70.13 | 17.11 |      | 80.0 |         |
| 10503-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 3.78 | 74.36 | 19.60 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.29 | 71.12 | 18.04 |      | 80.0 |         |
|           |                                                                      | Z | 3.96 | 73.58 | 19.16 |      | 80.0 |         |
| 10504-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.54 | 70.11 | 17.78 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.31 | 68.18 | 16.84 |      | 80.0 |         |
|           |                                                                      | Z | 3.72 | 69.67 | 17.61 |      | 80.0 |         |
| 10505-AAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.62 | 69.86 | 17.67 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.40 | 68.04 | 16.80 |      | 80.0 |         |
|           |                                                                      | Z | 3.81 | 69.45 | 17.53 |      | 80.0 |         |
| 10506-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 4.31 | 74.06 | 19.44 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.86 | 71.43 | 18.12 |      | 80.0 |         |
|           |                                                                      | Z | 4.54 | 73.60 | 19.09 |      | 80.0 |         |
| 10507-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 3.85 | 69.34 | 17.79 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.70 | 67.99 | 17.06 |      | 80.0 |         |
|           |                                                                      | Z | 4.09 | 69.28 | 17.71 |      | 80.0 |         |

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| 10508-AAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 3.91 | 69.00 | 17.67 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 3.79 | 67.74 | 16.98 |      | 80.0  |         |
|           |                                                                     | Z | 4.16 | 68.96 | 17.61 |      | 80.0  |         |
| 10509-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 4.57 | 72.37 | 18.73 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.24 | 70.44 | 17.71 |      | 80.0  |         |
|           |                                                                     | Z | 4.81 | 72.10 | 18.48 |      | 80.0  |         |
| 10510-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.30 | 68.87 | 17.67 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.19 | 67.85 | 17.08 |      | 80.0  |         |
|           |                                                                     | Z | 4.57 | 68.97 | 17.65 |      | 80.0  |         |
| 10511-AAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.34 | 68.58 | 17.58 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.25 | 67.61 | 17.02 |      | 80.0  |         |
|           |                                                                     | Z | 4.61 | 68.68 | 17.57 |      | 80.0  |         |
| 10512-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 4.89 | 74.33 | 19.38 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.40 | 71.90 | 18.16 |      | 80.0  |         |
|           |                                                                     | Z | 5.12 | 73.93 | 19.06 |      | 80.0  |         |
| 10513-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.19 | 69.17 | 17.80 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.08 | 68.10 | 17.18 |      | 80.0  |         |
|           |                                                                     | Z | 4.47 | 69.31 | 17.79 |      | 80.0  |         |
| 10514-AAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.20 | 68.69 | 17.64 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.10 | 67.70 | 17.06 |      | 80.0  |         |
|           |                                                                     | Z | 4.47 | 68.83 | 17.64 |      | 80.0  |         |
| 10515-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)           | X | 0.99 | 63.65 | 15.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.95 | 62.98 | 14.57 |      | 150.0 |         |
|           |                                                                     | Z | 0.95 | 62.31 | 13.90 |      | 150.0 |         |
| 10516-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)         | X | 0.65 | 72.19 | 18.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.55 | 69.09 | 16.57 |      | 150.0 |         |
|           |                                                                     | Z | 0.48 | 65.68 | 14.32 |      | 150.0 |         |
| 10517-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)          | X | 0.84 | 65.76 | 15.82 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.80 | 64.74 | 15.10 |      | 150.0 |         |
|           |                                                                     | Z | 0.78 | 63.55 | 14.09 |      | 150.0 |         |
| 10518-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)           | X | 4.48 | 66.93 | 16.23 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.54 | 66.69 | 16.16 |      | 150.0 |         |
|           |                                                                     | Z | 4.54 | 66.47 | 15.99 |      | 150.0 |         |
| 10519-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)          | X | 4.65 | 67.13 | 16.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.73 | 66.93 | 16.29 |      | 150.0 |         |
|           |                                                                     | Z | 4.74 | 66.73 | 16.12 |      | 150.0 |         |
| 10520-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)          | X | 4.51 | 67.10 | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.59 | 66.90 | 16.21 |      | 150.0 |         |
|           |                                                                     | Z | 4.59 | 66.68 | 16.03 |      | 150.0 |         |
| 10521-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)          | X | 4.44 | 67.09 | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.52 | 66.89 | 16.19 |      | 150.0 |         |
|           |                                                                     | Z | 4.52 | 66.67 | 16.01 |      | 150.0 |         |
| 10522-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)          | X | 4.50 | 67.20 | 16.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.58 | 66.96 | 16.27 |      | 150.0 |         |
|           |                                                                     | Z | 4.58 | 66.73 | 16.09 |      | 150.0 |         |

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| 10523-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) | X | 4.40 | 67.11 | 16.21 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.45 | 66.84 | 16.12 |      | 150.0 |         |
|           |                                                            | Z | 4.45 | 66.60 | 15.93 |      | 150.0 |         |
| 10524-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) | X | 4.45 | 67.12 | 16.31 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.52 | 66.88 | 16.24 |      | 150.0 |         |
|           |                                                            | Z | 4.52 | 66.66 | 16.06 |      | 150.0 |         |
| 10525-AAA | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)          | X | 4.45 | 66.21 | 15.92 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.50 | 65.94 | 15.84 |      | 150.0 |         |
|           |                                                            | Z | 4.50 | 65.70 | 15.65 |      | 150.0 |         |
| 10526-AAA | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)          | X | 4.60 | 66.54 | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.68 | 66.31 | 15.98 |      | 150.0 |         |
|           |                                                            | Z | 4.67 | 66.08 | 15.79 |      | 150.0 |         |
| 10527-AAA | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)          | X | 4.53 | 66.51 | 16.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.60 | 66.27 | 15.92 |      | 150.0 |         |
|           |                                                            | Z | 4.59 | 66.03 | 15.73 |      | 150.0 |         |
| 10528-AAA | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)          | X | 4.54 | 66.52 | 16.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.61 | 66.29 | 15.96 |      | 150.0 |         |
|           |                                                            | Z | 4.61 | 66.05 | 15.77 |      | 150.0 |         |
| 10529-AAA | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)          | X | 4.54 | 66.52 | 16.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.61 | 66.29 | 15.96 |      | 150.0 |         |
|           |                                                            | Z | 4.61 | 66.05 | 15.77 |      | 150.0 |         |
| 10531-AAA | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)          | X | 4.53 | 66.60 | 16.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.61 | 66.40 | 15.97 |      | 150.0 |         |
|           |                                                            | Z | 4.60 | 66.16 | 15.78 |      | 150.0 |         |
| 10532-AAA | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)          | X | 4.40 | 66.47 | 15.97 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.47 | 66.25 | 15.91 |      | 150.0 |         |
|           |                                                            | Z | 4.46 | 66.01 | 15.71 |      | 150.0 |         |
| 10533-AAA | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)          | X | 4.55 | 66.59 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.62 | 66.33 | 15.94 |      | 150.0 |         |
|           |                                                            | Z | 4.62 | 66.09 | 15.75 |      | 150.0 |         |
| 10534-AAA | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)          | X | 5.08 | 66.57 | 16.06 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.14 | 66.41 | 16.01 |      | 150.0 |         |
|           |                                                            | Z | 5.14 | 66.22 | 15.85 |      | 150.0 |         |
| 10535-AAA | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)          | X | 5.13 | 66.72 | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.21 | 66.57 | 16.08 |      | 150.0 |         |
|           |                                                            | Z | 5.20 | 66.37 | 15.92 |      | 150.0 |         |
| 10536-AAA | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)          | X | 5.01 | 66.70 | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.08 | 66.53 | 16.05 |      | 150.0 |         |
|           |                                                            | Z | 5.07 | 66.33 | 15.88 |      | 150.0 |         |
| 10537-AAA | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)          | X | 5.07 | 66.66 | 16.08 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.14 | 66.50 | 16.03 |      | 150.0 |         |
|           |                                                            | Z | 5.13 | 66.30 | 15.87 |      | 150.0 |         |
| 10538-AAA | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)          | X | 5.15 | 66.65 | 16.12 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.23 | 66.53 | 16.09 |      | 150.0 |         |
|           |                                                            | Z | 5.23 | 66.35 | 15.93 |      | 150.0 |         |
| 10540-AAA | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)          | X | 5.08 | 66.64 | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.16 | 66.53 | 16.10 |      | 150.0 |         |
|           |                                                            | Z | 5.15 | 66.33 | 15.94 |      | 150.0 |         |

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| 10541-AAA | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)  | X | 5.06 | 66.56 | 16.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.13 | 66.41 | 16.04 |      | 150.0 |         |
|           |                                                    | Z | 5.13 | 66.22 | 15.88 |      | 150.0 |         |
| 10542-AAA | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)  | X | 5.21 | 66.62 | 16.12 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.29 | 66.47 | 16.08 |      | 150.0 |         |
|           |                                                    | Z | 5.28 | 66.30 | 15.93 |      | 150.0 |         |
| 10543-AAA | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)  | X | 5.28 | 66.63 | 16.15 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.36 | 66.51 | 16.12 |      | 150.0 |         |
|           |                                                    | Z | 5.36 | 66.33 | 15.97 |      | 150.0 |         |
| 10544-AAA | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)  | X | 5.39 | 66.67 | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.45 | 66.52 | 16.01 |      | 150.0 |         |
|           |                                                    | Z | 5.44 | 66.36 | 15.86 |      | 150.0 |         |
| 10545-AAA | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)  | X | 5.56 | 67.02 | 16.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.64 | 66.91 | 16.15 |      | 150.0 |         |
|           |                                                    | Z | 5.63 | 66.74 | 16.00 |      | 150.0 |         |
| 10546-AAA | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)  | X | 5.44 | 66.84 | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.52 | 66.74 | 16.08 |      | 150.0 |         |
|           |                                                    | Z | 5.51 | 66.58 | 15.94 |      | 150.0 |         |
| 10547-AAA | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)  | X | 5.51 | 66.88 | 16.11 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.59 | 66.78 | 16.09 |      | 150.0 |         |
|           |                                                    | Z | 5.58 | 66.62 | 15.95 |      | 150.0 |         |
| 10548-AAA | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)  | X | 5.68 | 67.55 | 16.42 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.82 | 67.64 | 16.49 |      | 150.0 |         |
|           |                                                    | Z | 5.81 | 67.48 | 16.35 |      | 150.0 |         |
| 10550-AAA | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)  | X | 5.47 | 66.87 | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.54 | 66.74 | 16.09 |      | 150.0 |         |
|           |                                                    | Z | 5.53 | 66.57 | 15.94 |      | 150.0 |         |
| 10551-AAA | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)  | X | 5.47 | 66.89 | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.55 | 66.79 | 16.08 |      | 150.0 |         |
|           |                                                    | Z | 5.54 | 66.62 | 15.93 |      | 150.0 |         |
| 10552-AAA | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)  | X | 5.41 | 66.76 | 16.04 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.46 | 66.60 | 15.99 |      | 150.0 |         |
|           |                                                    | Z | 5.46 | 66.43 | 15.84 |      | 150.0 |         |
| 10553-AAA | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)  | X | 5.48 | 66.77 | 16.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.55 | 66.64 | 16.04 |      | 150.0 |         |
|           |                                                    | Z | 5.55 | 66.48 | 15.90 |      | 150.0 |         |
| 10554-AAB | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle) | X | 5.80 | 67.01 | 16.12 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.85 | 66.88 | 16.10 |      | 150.0 |         |
|           |                                                    | Z | 5.84 | 66.73 | 15.96 |      | 150.0 |         |
| 10555-AAB | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle) | X | 5.91 | 67.26 | 16.23 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.97 | 67.17 | 16.21 |      | 150.0 |         |
|           |                                                    | Z | 5.97 | 67.02 | 16.08 |      | 150.0 |         |
| 10556-AAB | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle) | X | 5.93 | 67.32 | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 6.00 | 67.22 | 16.23 |      | 150.0 |         |
|           |                                                    | Z | 5.99 | 67.06 | 16.10 |      | 150.0 |         |
| 10557-AAB | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle) | X | 5.90 | 67.23 | 16.23 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                    | Y | 5.97 | 67.14 | 16.21 |      | 150.0 |         |
|           |                                                    | Z | 5.96 | 66.99 | 16.08 |      | 150.0 |         |

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|-----------|-----------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10558-AAB | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)              | X | 5.94 | 67.38 | 16.31 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.02 | 67.30 | 16.30 |      | 150.0 |         |
|           |                                                                 | Z | 6.01 | 67.15 | 16.17 |      | 150.0 |         |
| 10560-AAB | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)              | X | 5.94 | 67.25 | 16.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.01 | 67.16 | 16.28 |      | 150.0 |         |
|           |                                                                 | Z | 6.01 | 67.02 | 16.15 |      | 150.0 |         |
| 10561-AAB | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)              | X | 5.86 | 67.20 | 16.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.93 | 67.11 | 16.29 |      | 150.0 |         |
|           |                                                                 | Z | 5.93 | 66.97 | 16.16 |      | 150.0 |         |
| 10562-AAB | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)              | X | 5.96 | 67.50 | 16.45 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.06 | 67.49 | 16.48 |      | 150.0 |         |
|           |                                                                 | Z | 6.05 | 67.35 | 16.35 |      | 150.0 |         |
| 10563-AAB | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)              | X | 6.05 | 67.43 | 16.37 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.32 | 67.87 | 16.62 |      | 150.0 |         |
|           |                                                                 | Z | 6.35 | 67.82 | 16.54 |      | 150.0 |         |
| 10564-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)  | X | 4.80 | 66.95 | 16.35 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.86 | 66.73 | 16.29 |      | 150.0 |         |
|           |                                                                 | Z | 4.88 | 66.60 | 16.18 |      | 150.0 |         |
| 10565-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle) | X | 5.02 | 67.40 | 16.68 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.10 | 67.22 | 16.64 |      | 150.0 |         |
|           |                                                                 | Z | 5.11 | 67.05 | 16.50 |      | 150.0 |         |
| 10566-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle) | X | 4.85 | 67.24 | 16.49 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.93 | 67.04 | 16.44 |      | 150.0 |         |
|           |                                                                 | Z | 4.95 | 66.90 | 16.32 |      | 150.0 |         |
| 10567-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle) | X | 4.89 | 67.68 | 16.88 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.97 | 67.50 | 16.84 |      | 150.0 |         |
|           |                                                                 | Z | 4.97 | 67.28 | 16.66 |      | 150.0 |         |
| 10568-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle) | X | 4.76 | 66.99 | 16.24 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.84 | 66.77 | 16.17 |      | 150.0 |         |
|           |                                                                 | Z | 4.86 | 66.66 | 16.09 |      | 150.0 |         |
| 10569-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle) | X | 4.86 | 67.83 | 16.98 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.92 | 67.58 | 16.90 |      | 150.0 |         |
|           |                                                                 | Z | 4.92 | 67.34 | 16.71 |      | 150.0 |         |
| 10570-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle) | X | 4.88 | 67.62 | 16.86 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.96 | 67.41 | 16.81 |      | 150.0 |         |
|           |                                                                 | Z | 4.96 | 67.19 | 16.64 |      | 150.0 |         |
| 10571-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)       | X | 1.17 | 64.80 | 15.85 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.13 | 63.92 | 15.23 |      | 130.0 |         |
|           |                                                                 | Z | 1.17 | 63.93 | 15.06 |      | 130.0 |         |
| 10572-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)       | X | 1.18 | 65.41 | 16.24 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.14 | 64.47 | 15.59 |      | 130.0 |         |
|           |                                                                 | Z | 1.18 | 64.44 | 15.38 |      | 130.0 |         |
| 10573-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)     | X | 2.40 | 90.04 | 25.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.36 | 79.55 | 20.98 |      | 130.0 |         |
|           |                                                                 | Z | 1.36 | 77.40 | 19.70 |      | 130.0 |         |
| 10574-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)      | X | 1.33 | 71.81 | 19.56 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.22 | 69.99 | 18.47 |      | 130.0 |         |
|           |                                                                 | Z | 1.24 | 69.08 | 17.71 |      | 130.0 |         |

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| 10575-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)  | X | 4.58 | 66.75 | 16.41 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.64 | 66.49 | 16.31 |      | 130.0 |         |
|           |                                                                 | Z | 4.67 | 66.41 | 16.25 |      | 130.0 |         |
| 10576-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)  | X | 4.61 | 66.94 | 16.49 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.67 | 66.66 | 16.39 |      | 130.0 |         |
|           |                                                                 | Z | 4.69 | 66.56 | 16.32 |      | 130.0 |         |
| 10577-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) | X | 4.80 | 67.21 | 16.65 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.88 | 66.98 | 16.57 |      | 130.0 |         |
|           |                                                                 | Z | 4.91 | 66.87 | 16.49 |      | 130.0 |         |
| 10578-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) | X | 4.71 | 67.38 | 16.76 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.78 | 67.16 | 16.69 |      | 130.0 |         |
|           |                                                                 | Z | 4.80 | 67.02 | 16.58 |      | 130.0 |         |
| 10579-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) | X | 4.46 | 66.58 | 16.02 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.53 | 66.35 | 15.93 |      | 130.0 |         |
|           |                                                                 | Z | 4.57 | 66.33 | 15.91 |      | 130.0 |         |
| 10580-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) | X | 4.50 | 66.62 | 16.05 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.57 | 66.36 | 15.94 |      | 130.0 |         |
|           |                                                                 | Z | 4.62 | 66.36 | 15.93 |      | 130.0 |         |
| 10581-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) | X | 4.61 | 67.44 | 16.72 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.67 | 67.17 | 16.61 |      | 130.0 |         |
|           |                                                                 | Z | 4.69 | 67.05 | 16.52 |      | 130.0 |         |
| 10582-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) | X | 4.39 | 66.31 | 15.79 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.47 | 66.08 | 15.69 |      | 130.0 |         |
|           |                                                                 | Z | 4.51 | 66.09 | 15.71 |      | 130.0 |         |
| 10583-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)       | X | 4.58 | 66.75 | 16.41 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.64 | 66.49 | 16.31 |      | 130.0 |         |
|           |                                                                 | Z | 4.67 | 66.41 | 16.25 |      | 130.0 |         |
| 10584-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)       | X | 4.61 | 66.94 | 16.49 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.67 | 66.66 | 16.39 |      | 130.0 |         |
|           |                                                                 | Z | 4.69 | 66.56 | 16.32 |      | 130.0 |         |
| 10585-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)      | X | 4.80 | 67.21 | 16.65 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.88 | 66.98 | 16.57 |      | 130.0 |         |
|           |                                                                 | Z | 4.91 | 66.87 | 16.49 |      | 130.0 |         |
| 10586-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)      | X | 4.71 | 67.38 | 16.76 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.78 | 67.16 | 16.69 |      | 130.0 |         |
|           |                                                                 | Z | 4.80 | 67.02 | 16.58 |      | 130.0 |         |
| 10587-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)      | X | 4.46 | 66.58 | 16.02 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.53 | 66.35 | 15.93 |      | 130.0 |         |
|           |                                                                 | Z | 4.57 | 66.33 | 15.91 |      | 130.0 |         |
| 10588-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)      | X | 4.50 | 66.62 | 16.05 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.57 | 66.36 | 15.94 |      | 130.0 |         |
|           |                                                                 | Z | 4.62 | 66.36 | 15.93 |      | 130.0 |         |
| 10589-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)      | X | 4.61 | 67.44 | 16.72 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.67 | 67.17 | 16.61 |      | 130.0 |         |
|           |                                                                 | Z | 4.69 | 67.05 | 16.52 |      | 130.0 |         |
| 10590-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)      | X | 4.39 | 66.31 | 15.79 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.47 | 66.08 | 15.69 |      | 130.0 |         |
|           |                                                                 | Z | 4.51 | 66.09 | 15.71 |      | 130.0 |         |

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|-----------|-------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10591-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle) | X | 4.74 | 66.82 | 16.51 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.80 | 66.57 | 16.43 |      | 130.0 |         |
|           |                                                       | Z | 4.82 | 66.48 | 16.36 |      | 130.0 |         |
| 10592-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle) | X | 4.88 | 67.14 | 16.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.95 | 66.91 | 16.56 |      | 130.0 |         |
|           |                                                       | Z | 4.98 | 66.82 | 16.49 |      | 130.0 |         |
| 10593-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle) | X | 4.80 | 67.03 | 16.51 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.87 | 66.81 | 16.43 |      | 130.0 |         |
|           |                                                       | Z | 4.90 | 66.73 | 16.38 |      | 130.0 |         |
| 10594-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle) | X | 4.86 | 67.22 | 16.68 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.93 | 66.99 | 16.60 |      | 130.0 |         |
|           |                                                       | Z | 4.96 | 66.89 | 16.53 |      | 130.0 |         |
| 10595-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle) | X | 4.82 | 67.17 | 16.57 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.89 | 66.93 | 16.49 |      | 130.0 |         |
|           |                                                       | Z | 4.92 | 66.84 | 16.42 |      | 130.0 |         |
| 10596-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle) | X | 4.75 | 67.15 | 16.57 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.83 | 66.91 | 16.48 |      | 130.0 |         |
|           |                                                       | Z | 4.86 | 66.84 | 16.42 |      | 130.0 |         |
| 10597-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle) | X | 4.70 | 67.04 | 16.45 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.78 | 66.82 | 16.36 |      | 130.0 |         |
|           |                                                       | Z | 4.81 | 66.75 | 16.31 |      | 130.0 |         |
| 10598-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle) | X | 4.69 | 67.30 | 16.73 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.77 | 67.09 | 16.66 |      | 130.0 |         |
|           |                                                       | Z | 4.79 | 66.98 | 16.57 |      | 130.0 |         |
| 10599-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle) | X | 5.38 | 67.23 | 16.66 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.46 | 67.12 | 16.63 |      | 130.0 |         |
|           |                                                       | Z | 5.48 | 67.04 | 16.57 |      | 130.0 |         |
| 10600-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle) | X | 5.48 | 67.55 | 16.79 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.59 | 67.50 | 16.78 |      | 130.0 |         |
|           |                                                       | Z | 5.62 | 67.45 | 16.74 |      | 130.0 |         |
| 10601-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle) | X | 5.40 | 67.39 | 16.73 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.48 | 67.27 | 16.69 |      | 130.0 |         |
|           |                                                       | Z | 5.51 | 67.21 | 16.64 |      | 130.0 |         |
| 10602-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle) | X | 5.51 | 67.50 | 16.70 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.57 | 67.26 | 16.60 |      | 130.0 |         |
|           |                                                       | Z | 5.59 | 67.20 | 16.56 |      | 130.0 |         |
| 10603-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle) | X | 5.57 | 67.74 | 16.96 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.66 | 67.62 | 16.92 |      | 130.0 |         |
|           |                                                       | Z | 5.69 | 67.55 | 16.86 |      | 130.0 |         |
| 10604-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle) | X | 5.44 | 67.37 | 16.76 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.47 | 67.08 | 16.63 |      | 130.0 |         |
|           |                                                       | Z | 5.49 | 67.00 | 16.57 |      | 130.0 |         |
| 10605-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle) | X | 5.49 | 67.50 | 16.82 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.57 | 67.36 | 16.77 |      | 130.0 |         |
|           |                                                       | Z | 5.59 | 67.30 | 16.72 |      | 130.0 |         |
| 10606-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle) | X | 5.24 | 66.87 | 16.36 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.33 | 66.76 | 16.33 |      | 130.0 |         |
|           |                                                       | Z | 5.37 | 66.77 | 16.32 |      | 130.0 |         |

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|-----------|---------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10607-AAA | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle) | X | 4.58 | 66.18 | 16.17 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.63 | 66.88 | 16.05 |      | 130.0 |         |
|           |                                                   | Z | 4.65 | 66.77 | 15.97 |      | 130.0 |         |
| 10608-AAA | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle) | X | 4.76 | 66.56 | 16.32 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.82 | 66.29 | 16.22 |      | 130.0 |         |
|           |                                                   | Z | 4.85 | 66.18 | 16.13 |      | 130.0 |         |
| 10609-AAA | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle) | X | 4.65 | 66.40 | 16.16 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.71 | 66.13 | 16.05 |      | 130.0 |         |
|           |                                                   | Z | 4.73 | 66.03 | 15.97 |      | 130.0 |         |
| 10610-AAA | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle) | X | 4.70 | 66.57 | 16.33 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.76 | 66.30 | 16.22 |      | 130.0 |         |
|           |                                                   | Z | 4.78 | 66.19 | 16.13 |      | 130.0 |         |
| 10611-AAA | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle) | X | 4.61 | 66.36 | 16.17 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.68 | 66.09 | 16.06 |      | 130.0 |         |
|           |                                                   | Z | 4.70 | 66.00 | 15.98 |      | 130.0 |         |
| 10612-AAA | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle) | X | 4.61 | 66.51 | 16.21 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.68 | 66.23 | 16.09 |      | 130.0 |         |
|           |                                                   | Z | 4.71 | 66.14 | 16.02 |      | 130.0 |         |
| 10613-AAA | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle) | X | 4.61 | 66.36 | 16.07 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.69 | 66.11 | 15.97 |      | 130.0 |         |
|           |                                                   | Z | 4.72 | 66.04 | 15.92 |      | 130.0 |         |
| 10614-AAA | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle) | X | 4.57 | 66.60 | 16.34 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.64 | 66.35 | 16.24 |      | 130.0 |         |
|           |                                                   | Z | 4.66 | 66.21 | 16.14 |      | 130.0 |         |
| 10615-AAA | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle) | X | 4.60 | 66.18 | 15.93 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.67 | 65.89 | 15.81 |      | 130.0 |         |
|           |                                                   | Z | 4.70 | 65.83 | 15.77 |      | 130.0 |         |
| 10616-AAA | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle) | X | 5.22 | 66.57 | 16.32 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.28 | 66.40 | 16.26 |      | 130.0 |         |
|           |                                                   | Z | 5.30 | 66.30 | 16.18 |      | 130.0 |         |
| 10617-AAA | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle) | X | 5.28 | 66.73 | 16.37 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.34 | 66.54 | 16.29 |      | 130.0 |         |
|           |                                                   | Z | 5.36 | 66.44 | 16.22 |      | 130.0 |         |
| 10618-AAA | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle) | X | 5.17 | 66.77 | 16.42 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.23 | 66.57 | 16.33 |      | 130.0 |         |
|           |                                                   | Z | 5.25 | 66.46 | 16.25 |      | 130.0 |         |
| 10619-AAA | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle) | X | 5.18 | 66.54 | 16.23 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.25 | 66.36 | 16.16 |      | 130.0 |         |
|           |                                                   | Z | 5.27 | 66.29 | 16.10 |      | 130.0 |         |
| 10620-AAA | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle) | X | 5.27 | 66.57 | 16.29 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.35 | 66.42 | 16.24 |      | 130.0 |         |
|           |                                                   | Z | 5.37 | 66.36 | 16.18 |      | 130.0 |         |
| 10621-AAA | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle) | X | 5.28 | 66.75 | 16.51 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.35 | 66.58 | 16.44 |      | 130.0 |         |
|           |                                                   | Z | 5.36 | 66.46 | 16.35 |      | 130.0 |         |
| 10622-AAA | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle) | X | 5.29 | 66.89 | 16.57 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.35 | 66.71 | 16.50 |      | 130.0 |         |
|           |                                                   | Z | 5.37 | 66.59 | 16.41 |      | 130.0 |         |

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Date of Issue : 2018-04-05

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RTT5041-76(2015.10.01) (2)

A4 (210mm x 297mm)

EX3DV4- SN:3862

September 25, 2017

|           |                                                    |   |      |       |       |      |       |         |
|-----------|----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10623-AAA | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)  | X | 5.16 | 66.40 | 16.19 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.23 | 66.22 | 16.12 |      | 130.0 |         |
|           |                                                    | Z | 5.25 | 66.15 | 16.07 |      | 130.0 |         |
| 10624-AAA | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)  | X | 5.35 | 66.60 | 16.36 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.42 | 66.43 | 16.29 |      | 130.0 |         |
|           |                                                    | Z | 5.45 | 66.35 | 16.23 |      | 130.0 |         |
| 10625-AAA | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)  | X | 5.62 | 67.28 | 16.75 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.79 | 67.41 | 16.83 |      | 130.0 |         |
|           |                                                    | Z | 5.82 | 67.33 | 16.76 |      | 130.0 |         |
| 10626-AAA | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)  | X | 5.52 | 66.63 | 16.28 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.57 | 66.46 | 16.21 |      | 130.0 |         |
|           |                                                    | Z | 5.59 | 66.38 | 16.15 |      | 130.0 |         |
| 10627-AAA | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)  | X | 5.74 | 67.12 | 16.49 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.81 | 66.98 | 16.43 |      | 130.0 |         |
|           |                                                    | Z | 5.82 | 66.90 | 16.36 |      | 130.0 |         |
| 10628-AAA | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)  | X | 5.54 | 66.65 | 16.19 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.61 | 66.54 | 16.14 |      | 130.0 |         |
|           |                                                    | Z | 5.63 | 66.49 | 16.10 |      | 130.0 |         |
| 10629-AAA | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)  | X | 5.61 | 66.71 | 16.21 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.69 | 66.62 | 16.17 |      | 130.0 |         |
|           |                                                    | Z | 5.72 | 66.59 | 16.14 |      | 130.0 |         |
| 10630-AAA | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)  | X | 5.90 | 67.78 | 16.74 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.10 | 68.02 | 16.87 |      | 130.0 |         |
|           |                                                    | Z | 6.13 | 67.99 | 16.84 |      | 130.0 |         |
| 10631-AAA | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)  | X | 5.90 | 67.88 | 16.99 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.04 | 67.96 | 17.05 |      | 130.0 |         |
|           |                                                    | Z | 6.05 | 67.84 | 16.95 |      | 130.0 |         |
| 10632-AAA | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)  | X | 5.72 | 67.24 | 16.69 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.78 | 67.10 | 16.64 |      | 130.0 |         |
|           |                                                    | Z | 5.79 | 66.96 | 16.53 |      | 130.0 |         |
| 10633-AAA | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)  | X | 5.61 | 66.87 | 16.33 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.68 | 66.73 | 16.27 |      | 130.0 |         |
|           |                                                    | Z | 5.70 | 66.66 | 16.21 |      | 130.0 |         |
| 10634-AAA | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)  | X | 5.60 | 66.91 | 16.41 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.66 | 66.77 | 16.36 |      | 130.0 |         |
|           |                                                    | Z | 5.68 | 66.69 | 16.28 |      | 130.0 |         |
| 10635-AAA | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)  | X | 5.46 | 66.17 | 15.76 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.53 | 66.04 | 15.70 |      | 130.0 |         |
|           |                                                    | Z | 5.57 | 66.06 | 15.71 |      | 130.0 |         |
| 10636-AAB | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle) | X | 5.94 | 66.98 | 16.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 5.98 | 66.83 | 16.30 |      | 130.0 |         |
|           |                                                    | Z | 6.00 | 66.76 | 16.25 |      | 130.0 |         |
| 10637-AAB | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle) | X | 6.07 | 67.31 | 16.50 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.13 | 67.19 | 16.46 |      | 130.0 |         |
|           |                                                    | Z | 6.15 | 67.12 | 16.40 |      | 130.0 |         |
| 10638-AAB | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle) | X | 6.08 | 67.31 | 16.48 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                    | Y | 6.14 | 67.17 | 16.43 |      | 130.0 |         |
|           |                                                    | Z | 6.15 | 67.10 | 16.37 |      | 130.0 |         |

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Date of Issue : 2018-04-05

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RTT5041-76(2015.10.01) (2)

A4 (210mm x 297mm)

EX3DV4- SN:3862

September 25, 2017

|           |                                                        |   |       |        |       |      |       |         |
|-----------|--------------------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10639-AAB | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)     | X | 6.06  | 67.25  | 16.50 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.12  | 67.14  | 16.46 |      | 130.0 |         |
|           |                                                        | Z | 6.14  | 67.08  | 16.41 |      | 130.0 |         |
| 10640-AAB | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)     | X | 6.05  | 67.23  | 16.42 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.12  | 67.13  | 16.39 |      | 130.0 |         |
|           |                                                        | Z | 6.15  | 67.10  | 16.36 |      | 130.0 |         |
| 10641-AAB | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)     | X | 6.10  | 67.15  | 16.40 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.16  | 67.01  | 16.35 |      | 130.0 |         |
|           |                                                        | Z | 6.18  | 66.96  | 16.31 |      | 130.0 |         |
| 10642-AAB | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)     | X | 6.15  | 67.44  | 16.72 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.22  | 67.34  | 16.69 |      | 130.0 |         |
|           |                                                        | Z | 6.23  | 67.25  | 16.62 |      | 130.0 |         |
| 10643-AAB | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)     | X | 5.98  | 67.09  | 16.44 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.04  | 66.96  | 16.39 |      | 130.0 |         |
|           |                                                        | Z | 6.06  | 66.92  | 16.35 |      | 130.0 |         |
| 10644-AAB | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)     | X | 6.10  | 67.47  | 16.65 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.21  | 67.49  | 16.67 |      | 130.0 |         |
|           |                                                        | Z | 6.24  | 67.46  | 16.65 |      | 130.0 |         |
| 10645-AAB | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)     | X | 6.24  | 67.52  | 16.63 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.59  | 68.19  | 16.97 |      | 130.0 |         |
|           |                                                        | Z | 6.65  | 68.25  | 16.99 |      | 130.0 |         |
| 10646-AAB | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)  | X | 19.05 | 113.61 | 39.31 | 9.30 | 60.0  | ± 9.6 % |
|           |                                                        | Y | 13.55 | 101.59 | 34.59 |      | 60.0  |         |
|           |                                                        | Z | 29.54 | 120.89 | 41.13 |      | 60.0  |         |
| 10647-AAB | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7) | X | 15.53 | 109.40 | 38.17 | 9.30 | 60.0  | ± 9.6 % |
|           |                                                        | Y | 12.05 | 99.54  | 34.05 |      | 60.0  |         |
|           |                                                        | Z | 25.07 | 117.73 | 40.37 |      | 60.0  |         |
| 10648-AAB | CDMA2000 (1x Advanced)                                 | X | 0.68  | 64.08  | 10.96 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                        | Y | 0.69  | 63.58  | 10.91 |      | 150.0 |         |
|           |                                                        | Z | 0.67  | 62.56  | 10.31 |      | 150.0 |         |
| 10652-AAB | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)         | X | 3.62  | 67.45  | 16.81 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                        | Y | 3.52  | 66.34  | 16.30 |      | 80.0  |         |
|           |                                                        | Z | 3.75  | 67.01  | 16.67 |      | 80.0  |         |
| 10653-AAB | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)        | X | 4.10  | 66.53  | 16.82 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.06  | 65.82  | 16.47 |      | 80.0  |         |
|           |                                                        | Z | 4.27  | 66.41  | 16.79 |      | 80.0  |         |
| 10654-AAB | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)        | X | 4.08  | 66.13  | 16.81 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.03  | 65.50  | 16.47 |      | 80.0  |         |
|           |                                                        | Z | 4.23  | 66.07  | 16.78 |      | 80.0  |         |
| 10655-AAB | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)        | X | 4.13  | 66.08  | 16.83 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                        | Y | 4.09  | 65.50  | 16.51 |      | 80.0  |         |
|           |                                                        | Z | 4.29  | 66.08  | 16.82 |      | 80.0  |         |

\* Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland



**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **SGS Korea (Dymstec)**

Certificate No: **EX3-3791\_May17**

## CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3791**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-14.v4, QA CAL-23.v5, QA CAL-25.v6  
Calibration procedure for dosimetric E-field probes**

Calibration date **May 31, 2017**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature  $(22 \pm 3)^\circ\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104776       | 04-Apr-17 (No. 217-02521/02522)   | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-17 (No. 217-02521)         | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-17 (No. 217-02525)         | Apr-18                 |
| Reference 20 dB Attenuator | SN: 55277 (20x)  | 07-Apr-17 (No. 217-02528)         | Apr-18                 |
| Reference Probe ES3DV2     | SN: 3013         | 31-Dec-16 (No. ES3-3013 Dec16)    | Dec-17                 |
| DAE4                       | SN: 660          | 7-Dec-16 (No. DAE4-660 Dec16)     | Dec-17                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293574   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-16) | In house check: Jun-18 |
| Network Analyzer HP 8753E  | SN: US37390585   | 18-Oct-01 (in house check Oct-16) | In house check: Oct-17 |

|                                                                                                                 |                              |                                          |                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------|
| Calibrated by:                                                                                                  | Name<br><b>Michael Weber</b> | Function<br><b>Laboratory Technician</b> | Signature<br> |
| Approved by:                                                                                                    | Name<br><b>Kolja Pokovic</b> | Function<br><b>Technical Manager</b>     | Signature<br> |
| This calibration certificate shall not be reproduced except in full without written approval of the laboratory. |                              |                                          | Issued: May 31, 2017                                                                               |

Certificate No: EX3-3791\_May17

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**Calibration Laboratory of**  
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Engineering AG  
Zeughausstrasse 43, 8004 Zurich, Switzerland



**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates.

Accreditation No.: **SCS 0108**

**Glossary:**

|                        |                                                                                                                                                   |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| TSL                    | tissue simulating liquid                                                                                                                          |
| NORM <sub>x,y,z</sub>  | sensitivity in free space                                                                                                                         |
| ConvF                  | sensitivity in TSL / NORM <sub>x,y,z</sub>                                                                                                        |
| DCP                    | diode compression point                                                                                                                           |
| CF                     | crest factor (1/duty_cycle) of the RF signal                                                                                                      |
| A, B, C, D             | modulation dependent linearization parameters                                                                                                     |
| Polarization $\varphi$ | $\varphi$ rotation around probe axis                                                                                                              |
| Polarization $\theta$  | $\theta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\theta = 0$ is normal to probe axis |
| Connector Angle        | information used in DASY system to align probe sensor X to the robot coordinate system                                                            |

**Calibration is Performed According to the Following Standards:**

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Methods Applied and Interpretation of Parameters:**

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization ( $\theta = 0$ ) ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub> = NORM<sub>x,y,z</sub> \* frequency\_response** (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics.
- A<sub>x,y,z</sub>, B<sub>x,y,z</sub>, C<sub>x,y,z</sub>, D<sub>x,y,z</sub>, VR<sub>x,y,z</sub>**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

EX3DV4 – SN:3791

May 31, 2017

# Probe EX3DV4

## SN:3791

Manufactured: February 18, 2011

Calibrated: May 31, 2017

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

EX3DV4- SN:3791

May 31, 2017

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3791

### Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc (k=2)     |
|-----------------------------------------------------------|----------|----------|----------|---------------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.53     | 0.51     | 0.51     | $\pm 10.1 \%$ |
| DCP (mV) <sup>B</sup>                                     | 103.3    | 101.9    | 101.6    |               |

### Modulation Calibration Parameters

| UID | Communication System Name |   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C   | D<br>dB | VR<br>mV | Unc <sup>E</sup><br>(k=2) |
|-----|---------------------------|---|---------|------------------------------|-----|---------|----------|---------------------------|
| 0   | CW                        | X | 0.0     | 0.0                          | 1.0 | 0.00    | 151.9    | $\pm 2.2 \%$              |
|     |                           | Y | 0.0     | 0.0                          | 1.0 |         | 149.9    |                           |
|     |                           | Z | 0.0     | 0.0                          | 1.0 |         | 158.8    |                           |

Note: For details on UID parameters see Appendix.

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$\text{V}^{-1}$ | T1<br>$\text{ms} \cdot \text{V}^{-2}$ | T2<br>$\text{ms} \cdot \text{V}^{-1}$ | T3<br>ms | T4<br>$\text{V}^{-2}$ | T5<br>$\text{V}^{-1}$ | T6    |
|---|----------|----------|-----------------------------|---------------------------------------|---------------------------------------|----------|-----------------------|-----------------------|-------|
| X | 51.42    | 382.2    | 35.30                       | 27.54                                 | 2.816                                 | 5.004    | 0.00                  | 0.770                 | 1.007 |
| Y | 46.93    | 352.4    | 36.01                       | 26.67                                 | 2.225                                 | 5.062    | 0.405                 | 0.605                 | 1.009 |
| Z | 47.86    | 360.4    | 36.06                       | 27.34                                 | 2.434                                 | 5.043    | 0.293                 | 0.681                 | 1.008 |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the  $E^2$ -field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter, uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3791

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>E</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|------------|-----------|
| 750                  | 41.9                               | 0.89                            | 9.51    | 9.51    | 9.51    | 0.60               | 0.85       | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 9.24    | 9.24    | 9.24    | 0.55               | 0.80       | ± 12.0 %  |
| 900                  | 41.5                               | 0.97                            | 8.97    | 8.97    | 8.97    | 0.44               | 0.92       | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 7.89    | 7.89    | 7.89    | 0.38               | 0.80       | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 7.62    | 7.62    | 7.62    | 0.31               | 0.86       | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 7.22    | 7.22    | 7.22    | 0.31               | 0.85       | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 6.88    | 6.88    | 6.88    | 0.35               | 0.85       | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 6.74    | 6.74    | 6.74    | 0.40               | 0.82       | ± 12.0 %  |
| 5200                 | 36.0                               | 4.66                            | 5.16    | 5.16    | 5.16    | 0.35               | 1.80       | ± 13.1 %  |
| 5300                 | 35.9                               | 4.76                            | 4.90    | 4.90    | 4.90    | 0.35               | 1.80       | ± 13.1 %  |
| 5600                 | 35.5                               | 5.07                            | 4.70    | 4.70    | 4.70    | 0.40               | 1.80       | ± 13.1 %  |
| 5800                 | 35.3                               | 5.27                            | 4.79    | 4.79    | 4.79    | 0.40               | 1.80       | ± 13.1 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>E</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3791

### Calibration Parameter Determined in Body Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 55.5                               | 0.96                            | 9.19    | 9.19    | 9.19    | 0.50               | 0.85                    | ± 12.0 %  |
| 835                  | 55.2                               | 0.97                            | 8.91    | 8.91    | 8.91    | 0.46               | 0.87                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 7.69    | 7.69    | 7.69    | 0.40               | 0.82                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 7.39    | 7.39    | 7.39    | 0.43               | 0.80                    | ± 12.0 %  |
| 2450                 | 52.7                               | 1.95                            | 7.13    | 7.13    | 7.13    | 0.37               | 0.80                    | ± 12.0 %  |
| 2600                 | 52.5                               | 2.16                            | 6.80    | 6.80    | 6.80    | 0.34               | 0.88                    | ± 12.0 %  |
| 5200                 | 49.0                               | 5.30                            | 4.59    | 4.59    | 4.59    | 0.40               | 1.90                    | ± 13.1 %  |
| 5300                 | 48.9                               | 5.42                            | 4.42    | 4.42    | 4.42    | 0.40               | 1.90                    | ± 13.1 %  |
| 5600                 | 48.5                               | 5.77                            | 3.96    | 3.96    | 3.96    | 0.45               | 1.90                    | ± 13.1 %  |
| 5800                 | 48.2                               | 6.00                            | 4.28    | 4.28    | 4.28    | 0.45               | 1.90                    | ± 13.1 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

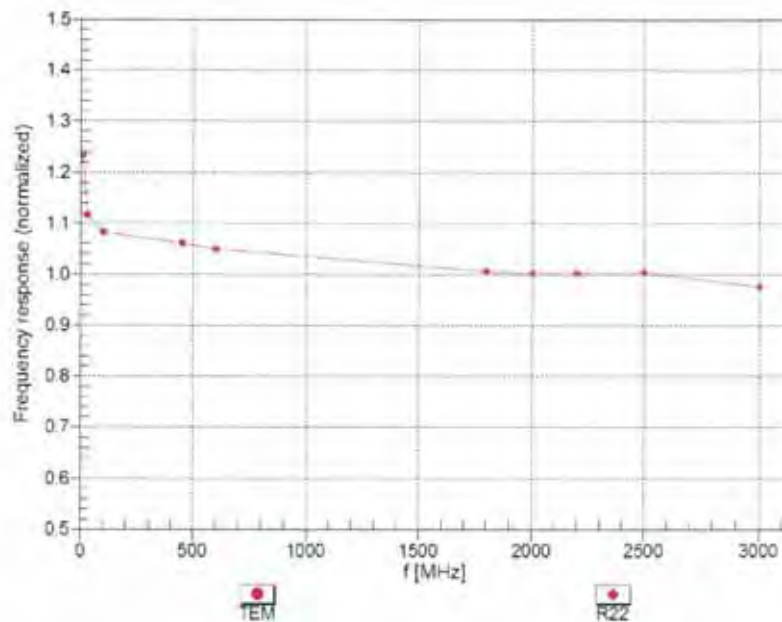
<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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### Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  (k=2)

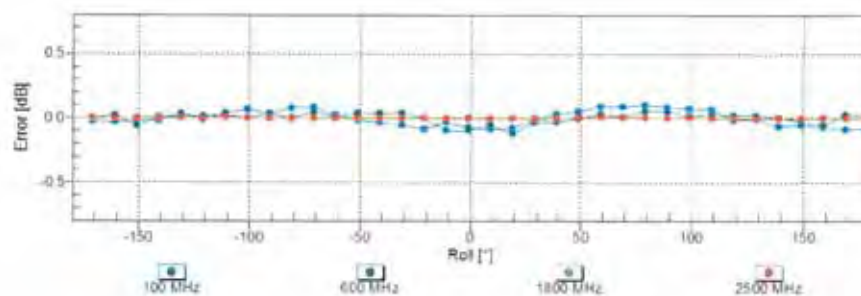
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### Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$

f=600 MHz, TEM

f=1800 MHz, R22

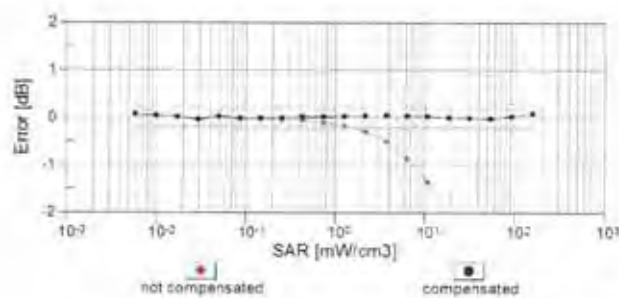
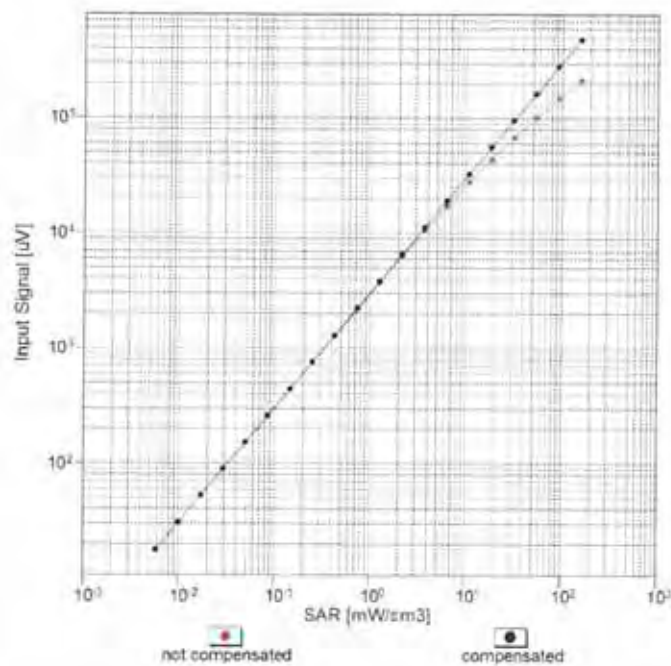


Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )

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### Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell, $f_{\text{eval}} = 1900 \text{ MHz}$ )



Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

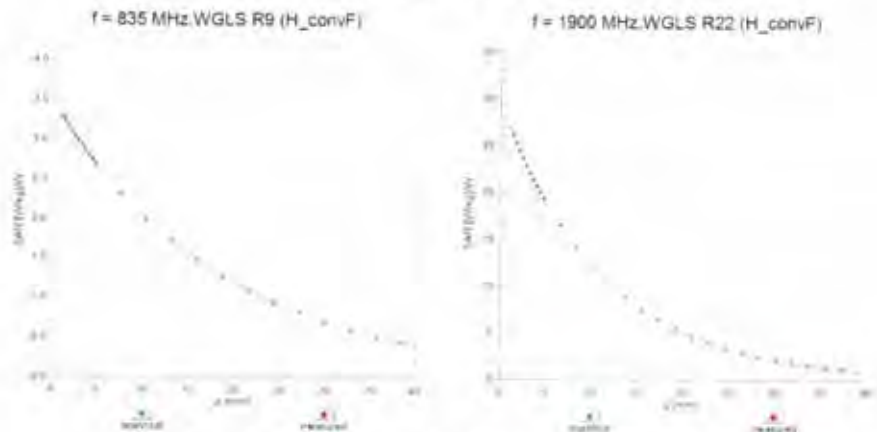
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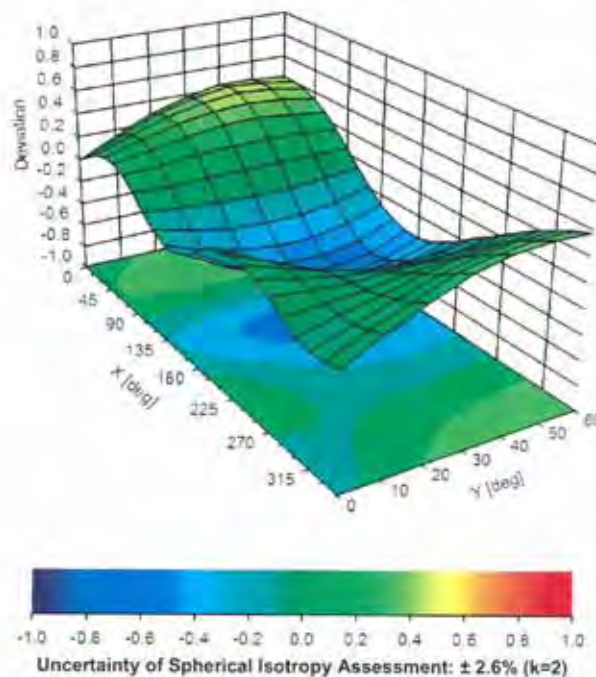
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## Conversion Factor Assessment



## Deviation from Isotropy in Liquid

Error ( $\phi$ ,  $\theta$ ),  $f = 900 \text{ MHz}$



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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3791

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | 68,9       |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Diameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       | 1 mm       |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |

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**Appendix: Modulation Calibration Parameters**

| UID           | Communication System Name                     |   | A<br>dB | B<br>dB·μV | C     | D<br>dB | VR<br>mV | Max<br>Unc <sup>±</sup><br>(k=2) |
|---------------|-----------------------------------------------|---|---------|------------|-------|---------|----------|----------------------------------|
| 0             | CW                                            | X | 0.00    | 0.00       | 1.00  | 0.00    | 151.9    | ± 2.2 %                          |
|               |                                               | Y | 0.00    | 0.00       | 1.00  |         | 149.9    |                                  |
|               |                                               | Z | 0.00    | 0.00       | 1.00  |         | 158.8    |                                  |
| 10010-<br>CAA | SAR Validation (Square, 100ms, 10ms)          | X | 5.87    | 73.70      | 16.31 | 10.00   | 20.0     | ± 9.6 %                          |
|               |                                               | Y | 8.60    | 80.46      | 18.97 |         | 20.0     |                                  |
|               |                                               | Z | 6.98    | 77.03      | 17.69 |         | 20.0     |                                  |
| 10011-<br>CAB | UMTS-FDD (WCDMA)                              | X | 0.99    | 66.37      | 14.71 | 0.00    | 150.0    | ± 9.6 %                          |
|               |                                               | Y | 1.08    | 68.01      | 15.76 |         | 150.0    |                                  |
|               |                                               | Z | 0.96    | 65.53      | 14.15 |         | 150.0    |                                  |
| 10012-<br>CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)      | X | 1.26    | 64.16      | 15.10 | 0.41    | 150.0    | ± 9.6 %                          |
|               |                                               | Y | 1.29    | 64.86      | 15.80 |         | 150.0    |                                  |
|               |                                               | Z | 1.25    | 63.86      | 14.92 |         | 150.0    |                                  |
| 10013-<br>CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps) | X | 5.00    | 66.74      | 16.97 | 1.46    | 150.0    | ± 9.6 %                          |
|               |                                               | Y | 5.01    | 67.04      | 17.31 |         | 150.0    |                                  |
|               |                                               | Z | 4.99    | 66.79      | 17.06 |         | 150.0    |                                  |
| 10021-<br>DAC | GSM-FDD (TDMA, GMSK)                          | X | 10.77   | 83.59      | 21.54 | 9.39    | 50.0     | ± 9.6 %                          |
|               |                                               | Y | 41.12   | 106.76     | 28.96 |         | 50.0     |                                  |
|               |                                               | Z | 20.76   | 95.25      | 25.58 |         | 50.0     |                                  |
| 10023-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0)                   | X | 10.12   | 82.44      | 21.17 | 9.57    | 50.0     | ± 9.6 %                          |
|               |                                               | Y | 31.05   | 102.18     | 27.72 |         | 50.0     |                                  |
|               |                                               | Z | 17.60   | 92.48      | 24.75 |         | 50.0     |                                  |
| 10024-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                 | X | 14.54   | 88.55      | 21.61 | 6.56    | 60.0     | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 117.63     | 29.82 |         | 60.0     |                                  |
|               |                                               | Z | 95.46   | 115.88     | 29.22 |         | 60.0     |                                  |
| 10025-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                   | X | 7.20    | 76.70      | 27.17 | 12.57   | 50.0     | ± 9.6 %                          |
|               |                                               | Y | 17.24   | 105.58     | 40.61 |         | 50.0     |                                  |
|               |                                               | Z | 7.97    | 80.99      | 29.81 |         | 50.0     |                                  |
| 10026-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                 | X | 12.49   | 90.84      | 30.35 | 9.56    | 60.0     | ± 9.6 %                          |
|               |                                               | Y | 17.87   | 102.64     | 35.68 |         | 60.0     |                                  |
|               |                                               | Z | 13.50   | 94.25      | 32.17 |         | 60.0     |                                  |
| 10027-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)               | X | 33.43   | 99.50      | 23.65 | 4.80    | 80.0     | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 116.78     | 28.54 |         | 80.0     |                                  |
|               |                                               | Z | 100.00  | 115.07     | 27.81 |         | 80.0     |                                  |
| 10028-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)             | X | 100.00  | 112.47     | 25.92 | 3.55    | 100.0    | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 117.32     | 28.01 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 114.90     | 26.97 |         | 100.0    |                                  |
| 10029-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)               | X | 9.18    | 85.05      | 27.23 | 7.80    | 80.0     | ± 9.6 %                          |
|               |                                               | Y | 11.14   | 91.85      | 30.78 |         | 80.0     |                                  |
|               |                                               | Z | 9.39    | 86.72      | 28.36 |         | 80.0     |                                  |
| 10030-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)           | X | 14.24   | 88.15      | 20.69 | 5.30    | 70.0     | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 115.96     | 28.49 |         | 70.0     |                                  |
|               |                                               | Z | 100.00  | 114.56     | 27.89 |         | 70.0     |                                  |
| 10031-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)           | X | 100.00  | 111.93     | 24.27 | 1.88    | 100.0    | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 118.61     | 27.08 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 114.50     | 25.35 |         | 100.0    |                                  |

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|           |                                                     |   |        |        |       |       |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|-------|-------|---------|
| 10032-CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | X | 100.00 | 115.10 | 24.84 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 124.45 | 28.48 |       | 100.0 |         |
|           |                                                     | Z | 100.00 | 117.76 | 25.74 |       | 100.0 |         |
| 10033-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | X | 7.20   | 80.34  | 20.27 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 14.73  | 93.44  | 25.20 |       | 70.0  |         |
|           |                                                     | Z | 9.26   | 85.19  | 22.24 |       | 70.0  |         |
| 10034-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | X | 3.51   | 75.14  | 17.11 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 6.36   | 84.47  | 20.74 |       | 100.0 |         |
|           |                                                     | Z | 3.82   | 76.61  | 17.71 |       | 100.0 |         |
| 10035-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | X | 2.52   | 72.61  | 15.97 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 3.82   | 79.15  | 18.68 |       | 100.0 |         |
|           |                                                     | Z | 2.55   | 72.92  | 16.04 |       | 100.0 |         |
| 10036-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | X | 7.91   | 81.92  | 20.90 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 18.06  | 96.86  | 26.29 |       | 70.0  |         |
|           |                                                     | Z | 10.59  | 87.45  | 23.06 |       | 70.0  |         |
| 10037-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | X | 3.37   | 74.64  | 16.88 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 5.89   | 83.48  | 20.39 |       | 100.0 |         |
|           |                                                     | Z | 3.63   | 75.99  | 17.44 |       | 100.0 |         |
| 10038-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | X | 2.56   | 72.98  | 16.21 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 3.91   | 79.70  | 18.98 |       | 100.0 |         |
|           |                                                     | Z | 2.58   | 73.27  | 16.28 |       | 100.0 |         |
| 10039-CAB | CDMA2000 (1xRTT, RC1)                               | X | 1.77   | 71.14  | 15.57 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.98   | 73.19  | 16.29 |       | 150.0 |         |
|           |                                                     | Z | 1.54   | 69.18  | 14.39 |       | 150.0 |         |
| 10042-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | X | 12.09  | 85.08  | 20.60 | 7.78  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 116.44 | 29.52 |       | 50.0  |         |
|           |                                                     | Z | 36.79  | 101.74 | 25.73 |       | 50.0  |         |
| 10044-CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | X | 0.00   | 96.24  | 4.21  | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.01   | 95.17  | 0.96  |       | 150.0 |         |
|           |                                                     | Z | 0.00   | 91.81  | 3.47  |       | 150.0 |         |
| 10048-CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | X | 8.33   | 76.90  | 20.92 | 13.80 | 25.0  | ± 9.6 % |
|           |                                                     | Y | 12.65  | 86.25  | 24.55 |       | 25.0  |         |
|           |                                                     | Z | 10.64  | 82.55  | 23.22 |       | 25.0  |         |
| 10049-CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | X | 9.09   | 80.00  | 20.68 | 10.79 | 40.0  | ± 9.6 % |
|           |                                                     | Y | 16.75  | 91.88  | 25.03 |       | 40.0  |         |
|           |                                                     | Z | 12.62  | 86.61  | 23.23 |       | 40.0  |         |
| 10056-CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | X | 8.84   | 79.63  | 20.95 | 9.03  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 13.55  | 88.83  | 24.69 |       | 50.0  |         |
|           |                                                     | Z | 10.71  | 84.01  | 22.82 |       | 50.0  |         |
| 10058-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | X | 7.19   | 81.03  | 25.06 | 6.55  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 8.03   | 85.34  | 27.63 |       | 100.0 |         |
|           |                                                     | Z | 7.17   | 81.85  | 25.81 |       | 100.0 |         |
| 10059-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | X | 1.38   | 65.70  | 15.77 | 0.61  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 1.43   | 66.73  | 16.71 |       | 110.0 |         |
|           |                                                     | Z | 1.37   | 65.40  | 15.65 |       | 110.0 |         |
| 10060-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | X | 6.67   | 89.86  | 22.37 | 1.30  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 132.05 | 33.97 |       | 110.0 |         |
|           |                                                     | Z | 7.62   | 92.62  | 23.52 |       | 110.0 |         |

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|           |                                                |   |      |       |       |      |       |         |
|-----------|------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10061-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)      | X | 4.19 | 80.15 | 20.79 | 2.04 | 110.0 | ± 9.6 % |
|           |                                                | Y | 7.17 | 91.02 | 25.38 |      | 110.0 |         |
|           |                                                | Z | 4.44 | 81.84 | 21.76 |      | 110.0 |         |
| 10062-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)       | X | 4.75 | 66.62 | 16.40 | 0.49 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.74 | 66.85 | 16.65 |      | 100.0 |         |
|           |                                                | Z | 4.72 | 66.60 | 16.41 |      | 100.0 |         |
| 10063-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)       | X | 4.78 | 66.74 | 16.49 | 0.72 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.78 | 66.98 | 16.77 |      | 100.0 |         |
|           |                                                | Z | 4.76 | 66.73 | 16.53 |      | 100.0 |         |
| 10064-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)      | X | 5.08 | 67.02 | 16.73 | 0.86 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.07 | 67.25 | 17.00 |      | 100.0 |         |
|           |                                                | Z | 5.05 | 67.01 | 16.77 |      | 100.0 |         |
| 10065-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)      | X | 4.97 | 66.99 | 16.83 | 1.21 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.97 | 67.24 | 17.14 |      | 100.0 |         |
|           |                                                | Z | 4.95 | 66.99 | 16.89 |      | 100.0 |         |
| 10066-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)      | X | 5.02 | 67.06 | 17.00 | 1.46 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.01 | 67.34 | 17.35 |      | 100.0 |         |
|           |                                                | Z | 5.00 | 67.08 | 17.09 |      | 100.0 |         |
| 10067-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)      | X | 5.33 | 67.24 | 17.43 | 2.04 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.34 | 67.60 | 17.84 |      | 100.0 |         |
|           |                                                | Z | 5.32 | 67.33 | 17.56 |      | 100.0 |         |
| 10068-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)      | X | 5.44 | 67.47 | 17.71 | 2.55 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.43 | 67.78 | 18.13 |      | 100.0 |         |
|           |                                                | Z | 5.42 | 67.51 | 17.85 |      | 100.0 |         |
| 10069-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)      | X | 5.53 | 67.45 | 17.89 | 2.67 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.52 | 67.81 | 18.33 |      | 100.0 |         |
|           |                                                | Z | 5.50 | 67.53 | 18.04 |      | 100.0 |         |
| 10071-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)  | X | 5.13 | 66.92 | 17.29 | 1.99 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.14 | 67.24 | 17.67 |      | 100.0 |         |
|           |                                                | Z | 5.13 | 66.98 | 17.41 |      | 100.0 |         |
| 10072-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps) | X | 5.17 | 67.37 | 17.53 | 2.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.18 | 67.71 | 17.96 |      | 100.0 |         |
|           |                                                | Z | 5.16 | 67.43 | 17.67 |      | 100.0 |         |
| 10073-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps) | X | 5.29 | 67.66 | 17.88 | 2.83 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.30 | 68.04 | 18.36 |      | 100.0 |         |
|           |                                                | Z | 5.28 | 67.74 | 18.05 |      | 100.0 |         |
| 10074-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps) | X | 5.33 | 67.70 | 18.08 | 3.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.34 | 68.10 | 18.59 |      | 100.0 |         |
|           |                                                | Z | 5.32 | 67.79 | 18.27 |      | 100.0 |         |
| 10075-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps) | X | 5.45 | 68.05 | 18.48 | 3.82 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.45 | 68.43 | 19.00 |      | 90.0  |         |
|           |                                                | Z | 5.43 | 68.11 | 18.67 |      | 90.0  |         |
| 10076-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps) | X | 5.49 | 67.91 | 18.61 | 4.15 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.49 | 68.31 | 19.17 |      | 90.0  |         |
|           |                                                | Z | 5.48 | 67.99 | 18.83 |      | 90.0  |         |
| 10077-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps) | X | 5.53 | 68.01 | 18.72 | 4.30 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.54 | 68.43 | 19.29 |      | 90.0  |         |
|           |                                                | Z | 5.52 | 68.11 | 18.94 |      | 90.0  |         |

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|           |                                                     |   |        |        |       |      |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10081-CAB | CDMA2000 (1xRTT, RC3)                               | X | 0.84   | 65.49  | 12.56 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.90   | 66.82  | 13.12 |      | 150.0 |         |
|           |                                                     | Z | 0.78   | 64.39  | 11.68 |      | 150.0 |         |
| 10082-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | X | 1.77   | 62.09  | 7.65  | 4.77 | 80.0  | ± 9.6 % |
|           |                                                     | Y | 1.72   | 62.60  | 7.91  |      | 80.0  |         |
|           |                                                     | Z | 1.73   | 62.32  | 7.77  |      | 80.0  |         |
| 10090-DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | X | 14.28  | 88.28  | 21.55 | 6.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 117.69 | 29.87 |      | 60.0  |         |
|           |                                                     | Z | 89.38  | 115.03 | 29.05 |      | 60.0  |         |
| 10097-CAB | UMTS-FDD (HSDPA)                                    | X | 1.80   | 67.10  | 15.40 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.88   | 68.01  | 15.93 |      | 150.0 |         |
|           |                                                     | Z | 1.76   | 66.59  | 15.01 |      | 150.0 |         |
| 10098-CAB | UMTS-FDD (HSUPA, Subtest 2)                         | X | 1.76   | 67.04  | 15.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.84   | 67.97  | 15.91 |      | 150.0 |         |
|           |                                                     | Z | 1.72   | 66.52  | 14.97 |      | 150.0 |         |
| 10099-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | X | 12.47  | 90.76  | 30.31 | 9.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 17.83  | 102.53 | 35.64 |      | 60.0  |         |
|           |                                                     | Z | 13.49  | 94.18  | 32.14 |      | 60.0  |         |
| 10100-CAC | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 3.11   | 69.98  | 16.46 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.18   | 70.55  | 16.90 |      | 150.0 |         |
|           |                                                     | Z | 3.01   | 69.33  | 16.16 |      | 150.0 |         |
| 10101-CAC | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 3.25   | 67.36  | 15.79 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.27   | 67.62  | 16.06 |      | 150.0 |         |
|           |                                                     | Z | 3.20   | 67.03  | 15.62 |      | 150.0 |         |
| 10102-CAC | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 3.36   | 67.35  | 15.90 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.37   | 67.57  | 16.13 |      | 150.0 |         |
|           |                                                     | Z | 3.31   | 67.04  | 15.73 |      | 150.0 |         |
| 10103-CAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 7.54   | 75.45  | 19.74 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 8.07   | 77.70  | 21.11 |      | 65.0  |         |
|           |                                                     | Z | 7.54   | 76.02  | 20.23 |      | 65.0  |         |
| 10104-CAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 7.72   | 74.58  | 20.19 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 7.96   | 76.12  | 21.29 |      | 65.0  |         |
|           |                                                     | Z | 7.74   | 75.10  | 20.64 |      | 65.0  |         |
| 10105-CAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 7.51   | 74.03  | 20.26 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 7.54   | 75.02  | 21.10 |      | 65.0  |         |
|           |                                                     | Z | 7.25   | 73.82  | 20.37 |      | 65.0  |         |
| 10108-CAD | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | X | 2.72   | 69.17  | 16.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.78   | 69.78  | 16.73 |      | 150.0 |         |
|           |                                                     | Z | 2.63   | 68.56  | 15.96 |      | 150.0 |         |
| 10109-CAD | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)          | X | 2.91   | 67.17  | 15.69 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.92   | 67.49  | 15.96 |      | 150.0 |         |
|           |                                                     | Z | 2.85   | 66.82  | 15.48 |      | 150.0 |         |
| 10110-CAD | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)             | X | 2.21   | 68.18  | 15.85 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.26   | 68.95  | 16.37 |      | 150.0 |         |
|           |                                                     | Z | 2.13   | 67.58  | 15.50 |      | 150.0 |         |
| 10111-CAD | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)           | X | 2.63   | 67.90  | 15.99 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.64   | 68.34  | 16.25 |      | 150.0 |         |
|           |                                                     | Z | 2.55   | 67.45  | 15.67 |      | 150.0 |         |

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|           |                                                |   |      |       |       |      |       |         |
|-----------|------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10112-CAD | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | X | 3.04 | 67.18 | 15.76 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.05 | 67.47 | 16.01 |      | 150.0 |         |
|           |                                                | Z | 2.98 | 66.85 | 15.56 |      | 150.0 |         |
| 10113-CAD | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | X | 2.78 | 68.06 | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.79 | 68.46 | 16.37 |      | 150.0 |         |
|           |                                                | Z | 2.71 | 67.64 | 15.83 |      | 150.0 |         |
| 10114-CAB | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | X | 5.15 | 67.11 | 16.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.15 | 67.25 | 16.51 |      | 150.0 |         |
|           |                                                | Z | 5.13 | 67.03 | 16.31 |      | 150.0 |         |
| 10115-CAB | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | X | 5.47 | 67.33 | 16.45 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.43 | 67.36 | 16.58 |      | 150.0 |         |
|           |                                                | Z | 5.42 | 67.18 | 16.40 |      | 150.0 |         |
| 10116-CAB | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | X | 5.25 | 67.33 | 16.37 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.24 | 67.43 | 16.53 |      | 150.0 |         |
|           |                                                | Z | 5.22 | 67.22 | 16.34 |      | 150.0 |         |
| 10117-CAB | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | X | 5.12 | 67.02 | 16.31 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.11 | 67.09 | 16.46 |      | 150.0 |         |
|           |                                                | Z | 5.09 | 66.90 | 16.26 |      | 150.0 |         |
| 10118-CAB | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | X | 5.54 | 67.50 | 16.55 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.51 | 67.57 | 16.69 |      | 150.0 |         |
|           |                                                | Z | 5.50 | 67.39 | 16.51 |      | 150.0 |         |
| 10119-CAB | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | X | 5.22 | 67.26 | 16.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.22 | 67.38 | 16.52 |      | 150.0 |         |
|           |                                                | Z | 5.20 | 67.17 | 16.32 |      | 150.0 |         |
| 10140-CAC | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | X | 3.40 | 67.35 | 15.82 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.41 | 67.58 | 16.06 |      | 150.0 |         |
|           |                                                | Z | 3.34 | 67.04 | 15.65 |      | 150.0 |         |
| 10141-CAC | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | X | 3.52 | 67.46 | 15.99 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.53 | 67.67 | 16.21 |      | 150.0 |         |
|           |                                                | Z | 3.47 | 67.17 | 15.84 |      | 150.0 |         |
| 10142-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | X | 1.99 | 68.11 | 15.55 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.04 | 69.01 | 16.05 |      | 150.0 |         |
|           |                                                | Z | 1.90 | 67.42 | 15.08 |      | 150.0 |         |
| 10143-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | X | 2.49 | 68.61 | 15.77 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.51 | 69.16 | 15.99 |      | 150.0 |         |
|           |                                                | Z | 2.38 | 67.96 | 15.28 |      | 150.0 |         |
| 10144-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | X | 2.27 | 66.42 | 14.22 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.28 | 66.86 | 14.38 |      | 150.0 |         |
|           |                                                | Z | 2.19 | 65.94 | 13.79 |      | 150.0 |         |
| 10145-CAD | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | X | 1.30 | 65.52 | 12.37 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.26 | 65.53 | 12.08 |      | 150.0 |         |
|           |                                                | Z | 1.17 | 64.25 | 11.33 |      | 150.0 |         |
| 10146-CAD | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | X | 2.33 | 67.83 | 12.98 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.32 | 68.21 | 12.86 |      | 150.0 |         |
|           |                                                | Z | 2.07 | 66.39 | 11.92 |      | 150.0 |         |
| 10147-CAD | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | X | 2.82 | 70.36 | 14.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.91 | 71.08 | 14.27 |      | 150.0 |         |
|           |                                                | Z | 2.41 | 68.30 | 12.96 |      | 150.0 |         |

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Date of Issue : 2018-04-05

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RTT5041-76(2015.10.01) (2)

A4 (210mm x 297mm)

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|           |                                            |   |      |       |       |      |       |         |
|-----------|--------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10149-CAC | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 2.92 | 67.23 | 15.74 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.93 | 67.54 | 16.01 |      | 150.0 |         |
|           |                                            | Z | 2.86 | 66.88 | 15.52 |      | 150.0 |         |
| 10150-CAC | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 3.05 | 67.23 | 15.80 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.05 | 67.52 | 16.05 |      | 150.0 |         |
|           |                                            | Z | 2.99 | 66.90 | 15.60 |      | 150.0 |         |
| 10151-CAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)    | X | 7.78 | 77.09 | 20.43 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 8.72 | 80.36 | 22.21 |      | 65.0  |         |
|           |                                            | Z | 8.06 | 78.39 | 21.21 |      | 65.0  |         |
| 10152-CAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 7.24 | 74.41 | 19.84 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 7.55 | 76.25 | 21.04 |      | 65.0  |         |
|           |                                            | Z | 7.27 | 75.02 | 20.30 |      | 65.0  |         |
| 10153-CAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 7.65 | 75.34 | 20.58 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 7.96 | 77.14 | 21.74 |      | 65.0  |         |
|           |                                            | Z | 7.70 | 75.99 | 21.05 |      | 65.0  |         |
| 10154-CAD | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 2.27 | 68.63 | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.31 | 69.33 | 16.61 |      | 150.0 |         |
|           |                                            | Z | 2.17 | 67.95 | 15.74 |      | 150.0 |         |
| 10155-CAD | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 2.63 | 67.91 | 16.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.64 | 68.35 | 16.27 |      | 150.0 |         |
|           |                                            | Z | 2.55 | 67.46 | 15.68 |      | 150.0 |         |
| 10156-CAD | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 1.84 | 68.20 | 15.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 1.89 | 69.15 | 15.87 |      | 150.0 |         |
|           |                                            | Z | 1.73 | 67.36 | 14.81 |      | 150.0 |         |
| 10157-CAD | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 2.11 | 66.98 | 14.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.12 | 67.49 | 14.44 |      | 150.0 |         |
|           |                                            | Z | 2.01 | 66.32 | 13.74 |      | 150.0 |         |
| 10158-CAD | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 2.79 | 68.12 | 16.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.80 | 68.52 | 16.41 |      | 150.0 |         |
|           |                                            | Z | 2.71 | 67.69 | 15.87 |      | 150.0 |         |
| 10159-CAD | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 2.23 | 67.49 | 14.61 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.23 | 67.93 | 14.71 |      | 150.0 |         |
|           |                                            | Z | 2.11 | 66.75 | 14.02 |      | 150.0 |         |
| 10160-CAC | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)    | X | 2.73 | 68.22 | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.78 | 68.84 | 16.49 |      | 150.0 |         |
|           |                                            | Z | 2.67 | 67.84 | 15.83 |      | 150.0 |         |
| 10161-CAC | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 2.94 | 67.16 | 15.74 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.95 | 67.47 | 15.98 |      | 150.0 |         |
|           |                                            | Z | 2.88 | 66.83 | 15.52 |      | 150.0 |         |
| 10162-CAC | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 3.05 | 67.29 | 15.84 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.06 | 67.62 | 16.09 |      | 150.0 |         |
|           |                                            | Z | 2.99 | 66.99 | 15.64 |      | 150.0 |         |
| 10166-CAD | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 3.76 | 69.48 | 18.95 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.75 | 70.16 | 19.55 |      | 150.0 |         |
|           |                                            | Z | 3.70 | 69.44 | 18.98 |      | 150.0 |         |
| 10167-CAD | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 4.68 | 72.13 | 19.30 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.72 | 73.32 | 20.09 |      | 150.0 |         |
|           |                                            | Z | 4.60 | 72.23 | 19.38 |      | 150.0 |         |

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|           |                                            |   |       |        |       |      |       |         |
|-----------|--------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10168-CAD | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 5.19  | 74.36  | 20.63 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 5.23  | 75.52  | 21.36 |      | 150.0 |         |
|           |                                            | Z | 5.10  | 74.48  | 20.71 |      | 150.0 |         |
| 10169-CAC | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 3.31  | 69.48  | 18.88 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.24  | 69.91  | 19.44 |      | 150.0 |         |
|           |                                            | Z | 3.22  | 69.17  | 18.80 |      | 150.0 |         |
| 10170-CAC | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 4.60  | 74.91  | 20.95 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.54  | 75.85  | 21.68 |      | 150.0 |         |
|           |                                            | Z | 4.44  | 74.65  | 20.90 |      | 150.0 |         |
| 10171-AAC | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 3.79  | 70.83  | 18.27 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.79  | 71.98  | 19.13 |      | 150.0 |         |
|           |                                            | Z | 3.68  | 70.72  | 18.28 |      | 150.0 |         |
| 10172-CAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 11.08 | 88.83  | 26.18 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 16.97 | 100.43 | 31.09 |      | 65.0  |         |
|           |                                            | Z | 11.15 | 90.65  | 27.36 |      | 65.0  |         |
| 10173-CAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 12.21 | 87.26  | 24.23 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 22.88 | 101.32 | 29.57 |      | 65.0  |         |
|           |                                            | Z | 15.13 | 92.50  | 26.41 |      | 65.0  |         |
| 10174-CAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 10.71 | 84.33  | 22.84 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 17.95 | 95.94  | 27.46 |      | 65.0  |         |
|           |                                            | Z | 11.99 | 87.71  | 24.42 |      | 65.0  |         |
| 10175-CAD | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)      | X | 3.27  | 69.14  | 18.62 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.21  | 69.62  | 19.21 |      | 150.0 |         |
|           |                                            | Z | 3.18  | 68.86  | 18.56 |      | 150.0 |         |
| 10176-CAD | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)    | X | 4.61  | 74.93  | 20.96 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.55  | 75.87  | 21.69 |      | 150.0 |         |
|           |                                            | Z | 4.45  | 74.67  | 20.91 |      | 150.0 |         |
| 10177-CAF | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)       | X | 3.29  | 69.31  | 18.73 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.23  | 69.76  | 19.29 |      | 150.0 |         |
|           |                                            | Z | 3.21  | 69.01  | 18.65 |      | 150.0 |         |
| 10178-CAD | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)     | X | 4.55  | 74.68  | 20.83 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.51  | 75.68  | 21.59 |      | 150.0 |         |
|           |                                            | Z | 4.41  | 74.46  | 20.80 |      | 150.0 |         |
| 10179-CAD | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)    | X | 4.15  | 72.69  | 19.46 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.14  | 73.84  | 20.30 |      | 150.0 |         |
|           |                                            | Z | 4.02  | 72.54  | 19.45 |      | 150.0 |         |
| 10180-CAD | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)     | X | 3.78  | 70.75  | 18.22 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.78  | 71.92  | 19.09 |      | 150.0 |         |
|           |                                            | Z | 3.67  | 70.65  | 18.24 |      | 150.0 |         |
| 10181-CAC | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 3.29  | 69.29  | 18.72 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.23  | 69.74  | 19.29 |      | 150.0 |         |
|           |                                            | Z | 3.20  | 69.00  | 18.65 |      | 150.0 |         |
| 10182-CAC | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)    | X | 4.55  | 74.66  | 20.82 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.50  | 75.66  | 21.58 |      | 150.0 |         |
|           |                                            | Z | 4.40  | 74.44  | 20.79 |      | 150.0 |         |
| 10183-AAB | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 3.77  | 70.73  | 18.21 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.77  | 71.90  | 19.08 |      | 150.0 |         |
|           |                                            | Z | 3.67  | 70.63  | 18.23 |      | 150.0 |         |

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|           |                                               |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10184-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | X | 3.30 | 69.34 | 18.74 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.24 | 69.78 | 19.31 |      | 150.0 |         |
|           |                                               | Z | 3.21 | 69.04 | 18.67 |      | 150.0 |         |
| 10185-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | X | 4.57 | 74.73 | 20.85 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.52 | 75.73 | 21.61 |      | 150.0 |         |
|           |                                               | Z | 4.42 | 74.51 | 20.82 |      | 150.0 |         |
| 10186-AAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | X | 3.79 | 70.79 | 18.24 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.79 | 71.97 | 19.11 |      | 150.0 |         |
|           |                                               | Z | 3.68 | 70.69 | 18.26 |      | 150.0 |         |
| 10187-CAD | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | X | 3.31 | 69.38 | 18.80 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.25 | 69.84 | 19.37 |      | 150.0 |         |
|           |                                               | Z | 3.22 | 69.09 | 18.73 |      | 150.0 |         |
| 10188-CAD | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | X | 4.72 | 75.41 | 21.24 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.65 | 76.32 | 21.95 |      | 150.0 |         |
|           |                                               | Z | 4.55 | 75.13 | 21.18 |      | 150.0 |         |
| 10189-AAD | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | X | 3.87 | 71.20 | 18.51 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.87 | 72.36 | 19.37 |      | 150.0 |         |
|           |                                               | Z | 3.76 | 71.09 | 18.52 |      | 150.0 |         |
| 10193-CAB | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)  | X | 4.56 | 66.53 | 16.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.54 | 66.67 | 16.21 |      | 150.0 |         |
|           |                                               | Z | 4.52 | 66.43 | 16.00 |      | 150.0 |         |
| 10194-CAB | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) | X | 4.73 | 66.85 | 16.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.71 | 66.97 | 16.34 |      | 150.0 |         |
|           |                                               | Z | 4.69 | 66.73 | 16.12 |      | 150.0 |         |
| 10195-CAB | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) | X | 4.77 | 66.88 | 16.20 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.75 | 67.00 | 16.36 |      | 150.0 |         |
|           |                                               | Z | 4.73 | 66.77 | 16.14 |      | 150.0 |         |
| 10196-CAB | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)       | X | 4.56 | 66.60 | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.54 | 66.72 | 16.23 |      | 150.0 |         |
|           |                                               | Z | 4.52 | 66.48 | 16.01 |      | 150.0 |         |
| 10197-CAB | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)      | X | 4.75 | 66.88 | 16.20 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.72 | 66.99 | 16.35 |      | 150.0 |         |
|           |                                               | Z | 4.70 | 66.76 | 16.13 |      | 150.0 |         |
| 10198-CAB | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)      | X | 4.78 | 66.90 | 16.21 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.75 | 67.02 | 16.37 |      | 150.0 |         |
|           |                                               | Z | 4.73 | 66.78 | 16.15 |      | 150.0 |         |
| 10219-CAB | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)       | X | 4.51 | 66.61 | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.49 | 66.74 | 16.19 |      | 150.0 |         |
|           |                                               | Z | 4.47 | 66.49 | 15.97 |      | 150.0 |         |
| 10220-CAB | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)    | X | 4.74 | 66.85 | 16.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.72 | 66.96 | 16.34 |      | 150.0 |         |
|           |                                               | Z | 4.70 | 66.73 | 16.12 |      | 150.0 |         |
| 10221-CAB | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)    | X | 4.79 | 66.83 | 16.20 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.76 | 66.95 | 16.35 |      | 150.0 |         |
|           |                                               | Z | 4.74 | 66.72 | 16.14 |      | 150.0 |         |
| 10222-CAB | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)        | X | 5.10 | 67.03 | 16.31 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 5.09 | 67.11 | 16.45 |      | 150.0 |         |
|           |                                               | Z | 5.07 | 66.90 | 16.26 |      | 150.0 |         |

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|           |                                           |   |       |        |       |      |       |         |
|-----------|-------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10223-CAB | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)  | X | 5.40  | 67.21  | 16.42 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.39  | 67.31  | 16.57 |      | 150.0 |         |
|           |                                           | Z | 5.37  | 67.12  | 16.39 |      | 150.0 |         |
| 10224-CAB | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM) | X | 5.15  | 67.14  | 16.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.13  | 67.22  | 16.44 |      | 150.0 |         |
|           |                                           | Z | 5.11  | 67.01  | 16.24 |      | 150.0 |         |
| 10225-CAB | UMTS-FDD (HSPA+)                          | X | 2.82  | 65.95  | 15.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 2.82  | 66.23  | 15.41 |      | 150.0 |         |
|           |                                           | Z | 2.78  | 65.71  | 15.02 |      | 150.0 |         |
| 10226-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)  | X | 12.70 | 88.01  | 24.56 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 24.23 | 102.47 | 29.99 |      | 65.0  |         |
|           |                                           | Z | 15.88 | 93.44  | 26.79 |      | 65.0  |         |
| 10227-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)  | X | 11.70 | 85.77  | 23.38 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 21.32 | 98.90  | 28.39 |      | 65.0  |         |
|           |                                           | Z | 14.55 | 90.91  | 25.51 |      | 65.0  |         |
| 10228-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)    | X | 12.35 | 91.19  | 27.05 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 21.45 | 105.38 | 32.66 |      | 65.0  |         |
|           |                                           | Z | 14.22 | 95.58  | 29.05 |      | 65.0  |         |
| 10229-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)    | X | 12.26 | 87.32  | 24.26 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 22.95 | 101.37 | 29.59 |      | 65.0  |         |
|           |                                           | Z | 15.19 | 92.56  | 26.44 |      | 65.0  |         |
| 10230-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)    | X | 11.31 | 85.16  | 23.10 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.27 | 97.94  | 28.05 |      | 65.0  |         |
|           |                                           | Z | 13.94 | 90.13  | 25.19 |      | 65.0  |         |
| 10231-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)      | X | 11.88 | 90.40  | 26.71 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.35 | 104.25 | 32.25 |      | 65.0  |         |
|           |                                           | Z | 13.60 | 94.65  | 28.68 |      | 65.0  |         |
| 10232-CAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)    | X | 12.25 | 87.30  | 24.25 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 22.95 | 101.37 | 29.59 |      | 65.0  |         |
|           |                                           | Z | 15.18 | 92.55  | 26.43 |      | 65.0  |         |
| 10233-CAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)    | X | 11.30 | 85.15  | 23.10 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.26 | 97.94  | 28.05 |      | 65.0  |         |
|           |                                           | Z | 13.93 | 90.12  | 25.19 |      | 65.0  |         |
| 10234-CAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)      | X | 11.45 | 89.60  | 26.35 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 19.37 | 103.11 | 31.81 |      | 65.0  |         |
|           |                                           | Z | 13.06 | 93.73  | 28.28 |      | 65.0  |         |
| 10235-CAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)   | X | 12.25 | 87.32  | 24.26 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 23.00 | 101.43 | 29.61 |      | 65.0  |         |
|           |                                           | Z | 15.19 | 92.58  | 26.44 |      | 65.0  |         |
| 10236-CAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)   | X | 11.35 | 85.21  | 23.12 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.44 | 98.07  | 28.08 |      | 65.0  |         |
|           |                                           | Z | 14.01 | 90.20  | 25.21 |      | 65.0  |         |
| 10237-CAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)     | X | 11.90 | 90.46  | 26.73 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.48 | 104.40 | 32.30 |      | 65.0  |         |
|           |                                           | Z | 13.64 | 94.73  | 28.70 |      | 65.0  |         |
| 10238-CAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)   | X | 12.23 | 87.29  | 24.25 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 22.93 | 101.37 | 29.59 |      | 65.0  |         |
|           |                                           | Z | 15.16 | 92.54  | 26.43 |      | 65.0  |         |

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|               |                                               |   |       |        |       |      |      |         |
|---------------|-----------------------------------------------|---|-------|--------|-------|------|------|---------|
| 10239-<br>CAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz,<br>64-QAM)    | X | 11.28 | 85.13  | 23.10 | 6.02 | 65.0 | ± 9.6 % |
|               |                                               | Y | 20.23 | 97.94  | 28.05 |      | 65.0 |         |
|               |                                               | Z | 13.90 | 90.10  | 25.18 |      | 65.0 |         |
| 10240-<br>CAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz,<br>QPSK)      | X | 11.88 | 90.43  | 26.72 | 6.02 | 65.0 | ± 9.6 % |
|               |                                               | Y | 20.43 | 104.36 | 32.29 |      | 65.0 |         |
|               |                                               | Z | 13.61 | 94.70  | 28.69 |      | 65.0 |         |
| 10241-<br>CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz,<br>16-QAM) | X | 10.30 | 81.90  | 24.88 | 6.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 11.52 | 86.20  | 27.19 |      | 65.0 |         |
|               |                                               | Z | 10.66 | 83.60  | 25.85 |      | 65.0 |         |
| 10242-<br>CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz,<br>64-QAM) | X | 9.76  | 80.79  | 24.36 | 6.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 10.57 | 84.36  | 26.41 |      | 65.0 |         |
|               |                                               | Z | 9.56  | 81.34  | 24.88 |      | 65.0 |         |
| 10243-<br>CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz,<br>QPSK)   | X | 8.16  | 78.68  | 24.34 | 6.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 8.49  | 81.34  | 26.14 |      | 65.0 |         |
|               |                                               | Z | 7.80  | 78.58  | 24.61 |      | 65.0 |         |
| 10244-<br>CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz,<br>16-QAM)   | X | 7.02  | 74.70  | 17.93 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 7.93  | 77.71  | 19.31 |      | 65.0 |         |
|               |                                               | Z | 7.25  | 75.75  | 18.37 |      | 65.0 |         |
| 10245-<br>CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz,<br>64-QAM)   | X | 6.95  | 74.35  | 17.74 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 7.73  | 77.07  | 19.01 |      | 65.0 |         |
|               |                                               | Z | 7.13  | 75.26  | 18.12 |      | 65.0 |         |
| 10246-<br>CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz,<br>QPSK)     | X | 6.34  | 76.02  | 18.50 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 7.83  | 80.53  | 20.50 |      | 65.0 |         |
|               |                                               | Z | 6.71  | 77.52  | 19.17 |      | 65.0 |         |
| 10247-<br>CAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz,<br>16-QAM)   | X | 6.29  | 73.80  | 18.21 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 6.75  | 75.98  | 19.33 |      | 65.0 |         |
|               |                                               | Z | 6.36  | 74.51  | 18.56 |      | 65.0 |         |
| 10248-<br>CAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz,<br>64-QAM)   | X | 6.32  | 73.46  | 18.06 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 6.69  | 75.43  | 19.09 |      | 65.0 |         |
|               |                                               | Z | 6.34  | 74.06  | 18.36 |      | 65.0 |         |
| 10249-<br>CAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz,<br>QPSK)     | X | 7.32  | 78.37  | 20.12 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 9.32  | 83.74  | 22.50 |      | 65.0 |         |
|               |                                               | Z | 7.90  | 80.34  | 21.03 |      | 65.0 |         |
| 10250-<br>CAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz,<br>16-QAM)  | X | 7.33  | 76.30  | 20.59 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 7.85  | 78.67  | 21.93 |      | 65.0 |         |
|               |                                               | Z | 7.45  | 77.18  | 21.13 |      | 65.0 |         |
| 10251-<br>CAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz,<br>64-QAM)  | X | 7.02  | 74.52  | 19.57 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 7.40  | 76.56  | 20.78 |      | 65.0 |         |
|               |                                               | Z | 7.07  | 75.21  | 20.02 |      | 65.0 |         |
| 10252-<br>CAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz,<br>QPSK)    | X | 7.84  | 78.88  | 21.07 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 9.42  | 83.53  | 23.32 |      | 65.0 |         |
|               |                                               | Z | 8.32  | 80.67  | 22.00 |      | 65.0 |         |
| 10253-<br>CAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz,<br>16-QAM)  | X | 7.11  | 73.98  | 19.67 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 7.39  | 75.74  | 20.81 |      | 65.0 |         |
|               |                                               | Z | 7.14  | 74.58  | 20.11 |      | 65.0 |         |
| 10254-<br>CAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz,<br>64-QAM)  | X | 7.50  | 74.85  | 20.34 | 3.98 | 65.0 | ± 9.6 % |
|               |                                               | Y | 7.78  | 76.57  | 21.45 |      | 65.0 |         |
|               |                                               | Z | 7.53  | 75.46  | 20.78 |      | 65.0 |         |

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Date of Issue : 2018-04-05

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RTT5041-76(2015.10.01) (2)

A4 (210mm x 297mm)

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|               |                                             |   |      |       |       |      |      |         |
|---------------|---------------------------------------------|---|------|-------|-------|------|------|---------|
| 10255-<br>CAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)     | X | 7.57 | 76.81 | 20.52 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 8.41 | 79.95 | 22.25 |      | 65.0 |         |
|               |                                             | Z | 7.82 | 78.04 | 21.26 |      | 65.0 |         |
| 10256-<br>CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | X | 5.93 | 71.95 | 15.95 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 6.42 | 74.07 | 16.91 |      | 65.0 |         |
|               |                                             | Z | 5.96 | 72.49 | 16.12 |      | 65.0 |         |
| 10257-<br>CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM) | X | 5.86 | 71.49 | 15.67 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 6.21 | 73.27 | 16.49 |      | 65.0 |         |
|               |                                             | Z | 5.83 | 71.88 | 15.77 |      | 65.0 |         |
| 10258-<br>CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)   | X | 5.30 | 73.03 | 16.63 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 6.05 | 75.99 | 17.98 |      | 65.0 |         |
|               |                                             | Z | 5.40 | 73.81 | 16.97 |      | 65.0 |         |
| 10259-<br>CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   | X | 6.69 | 74.70 | 19.05 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 7.18 | 76.99 | 20.27 |      | 65.0 |         |
|               |                                             | Z | 6.78 | 75.49 | 19.48 |      | 65.0 |         |
| 10260-<br>CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)   | X | 6.74 | 74.55 | 19.01 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 7.17 | 76.67 | 20.14 |      | 65.0 |         |
|               |                                             | Z | 6.81 | 75.27 | 19.40 |      | 65.0 |         |
| 10261-<br>CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)     | X | 7.31 | 78.10 | 20.34 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 8.94 | 82.91 | 22.58 |      | 65.0 |         |
|               |                                             | Z | 7.78 | 79.87 | 21.21 |      | 65.0 |         |
| 10262-<br>CAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   | X | 7.32 | 76.25 | 20.55 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 7.83 | 78.62 | 21.89 |      | 65.0 |         |
|               |                                             | Z | 7.43 | 77.13 | 21.08 |      | 65.0 |         |
| 10263-<br>CAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   | X | 7.02 | 74.51 | 19.57 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 7.39 | 76.54 | 20.77 |      | 65.0 |         |
|               |                                             | Z | 7.07 | 75.20 | 20.01 |      | 65.0 |         |
| 10264-<br>CAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)     | X | 7.79 | 78.74 | 20.99 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 9.34 | 83.35 | 23.23 |      | 65.0 |         |
|               |                                             | Z | 8.26 | 80.50 | 21.92 |      | 65.0 |         |
| 10265-<br>CAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  | X | 7.24 | 74.41 | 19.84 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 7.55 | 76.25 | 21.04 |      | 65.0 |         |
|               |                                             | Z | 7.27 | 75.03 | 20.31 |      | 65.0 |         |
| 10266-<br>CAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)  | X | 7.65 | 75.33 | 20.57 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 7.96 | 77.13 | 21.74 |      | 65.0 |         |
|               |                                             | Z | 7.69 | 75.98 | 21.04 |      | 65.0 |         |
| 10267-<br>CAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)    | X | 7.77 | 77.06 | 20.42 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 8.70 | 80.32 | 22.19 |      | 65.0 |         |
|               |                                             | Z | 8.05 | 78.36 | 21.19 |      | 65.0 |         |
| 10268-<br>CAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)  | X | 7.88 | 74.49 | 20.29 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 8.07 | 75.91 | 21.31 |      | 65.0 |         |
|               |                                             | Z | 7.88 | 74.98 | 20.71 |      | 65.0 |         |
| 10269-<br>CAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)  | X | 7.85 | 74.19 | 20.23 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 8.02 | 75.51 | 21.21 |      | 65.0 |         |
|               |                                             | Z | 7.85 | 74.64 | 20.63 |      | 65.0 |         |
| 10270-<br>CAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)    | X | 7.75 | 75.40 | 19.95 | 3.98 | 65.0 | ± 9.6 % |
|               |                                             | Y | 8.22 | 77.51 | 21.26 |      | 65.0 |         |
|               |                                             | Z | 7.88 | 76.25 | 20.54 |      | 65.0 |         |

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|           |                                                                    |   |       |       |       |      |       |         |
|-----------|--------------------------------------------------------------------|---|-------|-------|-------|------|-------|---------|
| 10274-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                          | X | 2.59  | 66.20 | 15.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.62  | 66.67 | 15.38 |      | 150.0 |         |
|           |                                                                    | Z | 2.55  | 65.97 | 14.88 |      | 150.0 |         |
| 10275-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                           | X | 1.58  | 67.22 | 15.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.66  | 68.33 | 15.87 |      | 150.0 |         |
|           |                                                                    | Z | 1.53  | 66.56 | 14.75 |      | 150.0 |         |
| 10277-GAA | PHS (QPSK)                                                         | X | 4.63  | 66.58 | 12.05 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 4.41  | 66.86 | 12.00 |      | 50.0  |         |
|           |                                                                    | Z | 4.46  | 66.66 | 11.96 |      | 50.0  |         |
| 10278-CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)                                 | X | 6.51  | 73.10 | 17.13 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 7.17  | 75.83 | 18.35 |      | 50.0  |         |
|           |                                                                    | Z | 6.74  | 74.36 | 17.69 |      | 50.0  |         |
| 10279-GAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)                                | X | 6.61  | 73.26 | 17.22 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 7.28  | 76.00 | 18.44 |      | 50.0  |         |
|           |                                                                    | Z | 6.84  | 74.51 | 17.77 |      | 50.0  |         |
| 10290-AAB | CDMA2000, RC1, SO55, Full Rate                                     | X | 1.44  | 68.22 | 13.98 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.53  | 69.49 | 14.41 |      | 150.0 |         |
|           |                                                                    | Z | 1.29  | 66.80 | 13.00 |      | 150.0 |         |
| 10291-AAB | CDMA2000, RC3, SO55, Full Rate                                     | X | 0.83  | 65.29 | 12.44 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 0.88  | 66.56 | 12.98 |      | 150.0 |         |
|           |                                                                    | Z | 0.77  | 64.23 | 11.57 |      | 150.0 |         |
| 10292-AAB | CDMA2000, RC3, SO32, Full Rate                                     | X | 1.01  | 68.86 | 14.61 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.21  | 71.83 | 15.83 |      | 150.0 |         |
|           |                                                                    | Z | 0.89  | 66.99 | 13.37 |      | 150.0 |         |
| 10293-AAB | CDMA2000, RC3, SO3, Full Rate                                      | X | 1.47  | 74.32 | 17.47 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.08  | 79.75 | 19.46 |      | 150.0 |         |
|           |                                                                    | Z | 1.20  | 71.08 | 15.72 |      | 150.0 |         |
| 10295-AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                              | X | 8.30  | 78.07 | 21.05 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 10.63 | 84.04 | 23.70 |      | 50.0  |         |
|           |                                                                    | Z | 9.39  | 81.13 | 22.42 |      | 50.0  |         |
| 10297-AAB | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                            | X | 2.74  | 69.27 | 16.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.79  | 69.88 | 16.79 |      | 150.0 |         |
|           |                                                                    | Z | 2.64  | 68.65 | 16.02 |      | 150.0 |         |
| 10298-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                             | X | 1.59  | 67.41 | 14.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.61  | 68.10 | 14.37 |      | 150.0 |         |
|           |                                                                    | Z | 1.46  | 66.27 | 13.32 |      | 150.0 |         |
| 10299-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                           | X | 2.90  | 70.23 | 14.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 3.12  | 71.76 | 15.44 |      | 150.0 |         |
|           |                                                                    | Z | 2.69  | 69.24 | 14.20 |      | 150.0 |         |
| 10300-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                           | X | 2.21  | 65.79 | 12.14 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.17  | 66.14 | 12.13 |      | 150.0 |         |
|           |                                                                    | Z | 2.07  | 65.13 | 11.53 |      | 150.0 |         |
| 10301-AAA | IEEE 802.16e WiMAX (29.18, 5ms, 10MHz, QPSK, PUSC)                 | X | 5.22  | 66.64 | 17.92 | 4.17 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 5.60  | 68.59 | 19.03 |      | 50.0  |         |
|           |                                                                    | Z | 5.38  | 67.48 | 18.33 |      | 50.0  |         |
| 10302-AAA | IEEE 802.16e WiMAX (29.18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols) | X | 5.77  | 67.44 | 18.71 | 4.96 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 5.92  | 68.42 | 19.32 |      | 50.0  |         |
|           |                                                                    | Z | 5.77  | 67.54 | 18.74 |      | 50.0  |         |

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|           |                                                                     |   |      |       |       |       |       |         |
|-----------|---------------------------------------------------------------------|---|------|-------|-------|-------|-------|---------|
| 10303-AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)                 | X | 5.59 | 67.36 | 18.68 | 4.96  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 5.74 | 68.38 | 19.30 |       | 50.0  |         |
|           |                                                                     | Z | 5.58 | 67.45 | 18.69 |       | 50.0  |         |
| 10304-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)                 | X | 5.28 | 66.85 | 17.99 | 4.17  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 5.41 | 67.76 | 18.53 |       | 50.0  |         |
|           |                                                                     | Z | 5.27 | 66.93 | 17.99 |       | 50.0  |         |
| 10305-AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)    | X | 7.08 | 76.37 | 23.48 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 7.89 | 79.54 | 24.99 |       | 35.0  |         |
|           |                                                                     | Z | 7.07 | 76.53 | 23.45 |       | 35.0  |         |
| 10306-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)    | X | 6.19 | 71.59 | 21.55 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 6.47 | 73.32 | 22.53 |       | 35.0  |         |
|           |                                                                     | Z | 6.17 | 71.77 | 21.58 |       | 35.0  |         |
| 10307-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)     | X | 6.33 | 72.56 | 21.84 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 6.64 | 74.37 | 22.85 |       | 35.0  |         |
|           |                                                                     | Z | 6.29 | 72.64 | 21.83 |       | 35.0  |         |
| 10308-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)                | X | 6.42 | 73.13 | 22.12 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 6.79 | 75.14 | 23.22 |       | 35.0  |         |
|           |                                                                     | Z | 6.39 | 73.23 | 22.12 |       | 35.0  |         |
| 10309-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols) | X | 6.28 | 71.86 | 21.70 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 6.57 | 73.63 | 22.72 |       | 35.0  |         |
|           |                                                                     | Z | 6.26 | 72.02 | 21.73 |       | 35.0  |         |
| 10310-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)  | X | 6.24 | 71.99 | 21.66 | 6.02  | 35.0  | ± 9.6 % |
|           |                                                                     | Y | 6.54 | 73.77 | 22.67 |       | 35.0  |         |
|           |                                                                     | Z | 6.22 | 72.14 | 21.68 |       | 35.0  |         |
| 10311-AAB | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                            | X | 3.09 | 68.64 | 16.03 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 3.15 | 69.15 | 16.42 |       | 150.0 |         |
|           |                                                                     | Z | 2.99 | 68.02 | 15.73 |       | 150.0 |         |
| 10313-AAA | iDEN 1:3                                                            | X | 5.11 | 72.56 | 16.04 | 6.99  | 70.0  | ± 9.6 % |
|           |                                                                     | Y | 6.84 | 78.08 | 18.60 |       | 70.0  |         |
|           |                                                                     | Z | 5.70 | 74.90 | 17.22 |       | 70.0  |         |
| 10314-AAA | iDEN 1:6                                                            | X | 5.93 | 75.89 | 19.76 | 10.00 | 30.0  | ± 9.6 % |
|           |                                                                     | Y | 8.55 | 83.81 | 23.21 |       | 30.0  |         |
|           |                                                                     | Z | 6.92 | 79.54 | 21.48 |       | 30.0  |         |
| 10315-AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)           | X | 1.13 | 63.81 | 14.96 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 1.16 | 64.46 | 15.59 |       | 150.0 |         |
|           |                                                                     | Z | 1.12 | 63.46 | 14.69 |       | 150.0 |         |
| 10316-AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)       | X | 4.63 | 66.60 | 16.17 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.63 | 66.80 | 16.40 |       | 150.0 |         |
|           |                                                                     | Z | 4.60 | 66.54 | 16.16 |       | 150.0 |         |
| 10317-AAB | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)             | X | 4.63 | 66.60 | 16.17 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.63 | 66.80 | 16.40 |       | 150.0 |         |
|           |                                                                     | Z | 4.60 | 66.54 | 16.16 |       | 150.0 |         |
| 10400-AAC | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)                 | X | 4.73 | 66.89 | 16.17 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.70 | 67.04 | 16.34 |       | 150.0 |         |
|           |                                                                     | Z | 4.68 | 66.78 | 16.11 |       | 150.0 |         |
| 10401-AAC | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)                 | X | 5.40 | 67.04 | 16.31 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 5.41 | 67.24 | 16.52 |       | 150.0 |         |
|           |                                                                     | Z | 5.39 | 67.03 | 16.32 |       | 150.0 |         |

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|-----------|--------------------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10402-AAC | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)                            | X | 5.67   | 67.45  | 16.37 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 5.65   | 67.49  | 16.50 |      | 150.0 |         |
|           |                                                                                | Z | 5.64   | 67.32  | 16.32 |      | 150.0 |         |
| 10403-AAB | CDMA2000 (1xEV-DO, Rev. 0)                                                     | X | 1.44   | 68.22  | 13.98 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                | Y | 1.53   | 69.49  | 14.41 |      | 115.0 |         |
|           |                                                                                | Z | 1.29   | 66.80  | 13.00 |      | 115.0 |         |
| 10404-AAB | CDMA2000 (1xEV-DO, Rev. A)                                                     | X | 1.44   | 68.22  | 13.98 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                | Y | 1.53   | 69.49  | 14.41 |      | 115.0 |         |
|           |                                                                                | Z | 1.29   | 66.80  | 13.00 |      | 115.0 |         |
| 10406-AAB | CDMA2000, RC3, SO32, SCH0, Full Rate                                           | X | 12.09  | 92.35  | 23.64 | 0.00 | 100.0 | ± 9.6 % |
|           |                                                                                | Y | 75.54  | 119.02 | 30.48 |      | 100.0 |         |
|           |                                                                                | Z | 13.76  | 93.75  | 23.72 |      | 100.0 |         |
| 10410-AAB | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)                 | X | 12.63  | 89.35  | 21.78 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                                | Y | 100.00 | 121.42 | 30.93 |      | 80.0  |         |
|           |                                                                                | Z | 26.45  | 100.86 | 25.40 |      | 80.0  |         |
| 10415-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)                      | X | 1.01   | 62.63  | 14.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 1.03   | 63.17  | 14.84 |      | 150.0 |         |
|           |                                                                                | Z | 1.01   | 62.31  | 14.01 |      | 150.0 |         |
| 10416-AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)                  | X | 4.56   | 66.56  | 16.12 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.54   | 66.70  | 16.28 |      | 150.0 |         |
|           |                                                                                | Z | 4.52   | 66.46  | 16.06 |      | 150.0 |         |
| 10417-AAA | IEEE 802.11a/n WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)                      | X | 4.56   | 66.56  | 16.12 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.54   | 66.70  | 16.28 |      | 150.0 |         |
|           |                                                                                | Z | 4.52   | 66.46  | 16.06 |      | 150.0 |         |
| 10418-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)  | X | 4.55   | 66.71  | 16.14 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.53   | 66.87  | 16.31 |      | 150.0 |         |
|           |                                                                                | Z | 4.51   | 66.61  | 16.08 |      | 150.0 |         |
| 10419-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble) | X | 4.57   | 66.67  | 16.14 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.55   | 66.82  | 16.31 |      | 150.0 |         |
|           |                                                                                | Z | 4.53   | 66.57  | 16.08 |      | 150.0 |         |
| 10422-AAA | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                   | X | 4.69   | 66.67  | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.67   | 66.81  | 16.32 |      | 150.0 |         |
|           |                                                                                | Z | 4.65   | 66.57  | 16.10 |      | 150.0 |         |
| 10423-AAA | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                | X | 4.86   | 67.00  | 16.28 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.83   | 67.12  | 16.43 |      | 150.0 |         |
|           |                                                                                | Z | 4.81   | 66.88  | 16.22 |      | 150.0 |         |
| 10424-AAA | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                | X | 4.78   | 66.95  | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.75   | 67.07  | 16.40 |      | 150.0 |         |
|           |                                                                                | Z | 4.73   | 66.83  | 16.19 |      | 150.0 |         |
| 10425-AAA | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                    | X | 5.37   | 67.26  | 16.42 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 5.35   | 67.35  | 16.57 |      | 150.0 |         |
|           |                                                                                | Z | 5.34   | 67.16  | 16.39 |      | 150.0 |         |
| 10426-AAA | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                  | X | 5.37   | 67.26  | 16.41 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 5.36   | 67.40  | 16.59 |      | 150.0 |         |
|           |                                                                                | Z | 5.35   | 67.20  | 16.40 |      | 150.0 |         |

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|           |                                                                |   |        |        |       |      |       |         |
|-----------|----------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10427-AAA | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                 | X | 5.39   | 67.26  | 16.41 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 5.37   | 67.36  | 16.57 |      | 150.0 |         |
|           |                                                                | Z | 5.36   | 67.17  | 16.39 |      | 150.0 |         |
| 10430-AAA | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                               | X | 4.33   | 70.85  | 18.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.23   | 70.74  | 18.12 |      | 150.0 |         |
|           |                                                                | Z | 4.21   | 70.47  | 17.94 |      | 150.0 |         |
| 10431-AAA | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                              | X | 4.25   | 67.08  | 16.12 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.22   | 67.27  | 16.28 |      | 150.0 |         |
|           |                                                                | Z | 4.19   | 66.94  | 16.01 |      | 150.0 |         |
| 10432-AAA | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                              | X | 4.55   | 66.98  | 16.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.52   | 67.13  | 16.35 |      | 150.0 |         |
|           |                                                                | Z | 4.50   | 66.85  | 16.12 |      | 150.0 |         |
| 10433-AAA | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                              | X | 4.79   | 66.98  | 16.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.77   | 67.10  | 16.42 |      | 150.0 |         |
|           |                                                                | Z | 4.75   | 66.86  | 16.21 |      | 150.0 |         |
| 10434-AAA | W-CDMA (BS Test Model 1, 64 DPCH)                              | X | 4.45   | 71.74  | 18.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.33   | 71.61  | 18.08 |      | 150.0 |         |
|           |                                                                | Z | 4.29   | 71.26  | 17.87 |      | 150.0 |         |
| 10435-AAB | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) | X | 12.16  | 88.74  | 21.56 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                | Y | 100.00 | 121.23 | 30.84 |      | 80.0  |         |
|           |                                                                | Z | 25.04  | 99.97  | 25.12 |      | 80.0  |         |
| 10447-AAA | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                 | X | 3.54   | 67.05  | 15.49 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.51   | 67.30  | 15.58 |      | 150.0 |         |
|           |                                                                | Z | 3.46   | 66.82  | 15.24 |      | 150.0 |         |
| 10448-AAA | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)                | X | 4.08   | 66.85  | 15.98 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.06   | 67.06  | 16.14 |      | 150.0 |         |
|           |                                                                | Z | 4.03   | 66.72  | 15.87 |      | 150.0 |         |
| 10449-AAA | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)                | X | 4.35   | 66.81  | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.33   | 66.96  | 16.25 |      | 150.0 |         |
|           |                                                                | Z | 4.31   | 66.67  | 16.01 |      | 150.0 |         |
| 10450-AAA | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                | X | 4.55   | 66.75  | 16.12 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.53   | 66.87  | 16.28 |      | 150.0 |         |
|           |                                                                | Z | 4.51   | 66.62  | 16.05 |      | 150.0 |         |
| 10451-AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                | X | 3.44   | 67.24  | 15.14 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.39   | 67.46  | 15.17 |      | 150.0 |         |
|           |                                                                | Z | 3.33   | 66.92  | 14.82 |      | 150.0 |         |
| 10456-AAA | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)           | X | 6.22   | 67.83  | 16.58 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 6.22   | 67.90  | 16.72 |      | 150.0 |         |
|           |                                                                | Z | 6.21   | 67.74  | 16.56 |      | 150.0 |         |
| 10457-AAA | UMTS-FDD (DC-HSDPA)                                            | X | 3.80   | 65.20  | 15.83 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.81   | 65.35  | 15.99 |      | 150.0 |         |
|           |                                                                | Z | 3.79   | 65.11  | 15.76 |      | 150.0 |         |
| 10458-AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                         | X | 3.26   | 66.57  | 14.58 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.21   | 66.80  | 14.56 |      | 150.0 |         |
|           |                                                                | Z | 3.16   | 66.26  | 14.22 |      | 150.0 |         |
| 10459-AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                         | X | 4.39   | 65.04  | 15.57 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.30   | 65.12  | 15.56 |      | 150.0 |         |
|           |                                                                | Z | 4.21   | 64.57  | 15.21 |      | 150.0 |         |

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Date of Issue : 2018-04-05

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RTT5041-76(2015.10.01) (2)

A4 (210mm x 297mm)

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|           |                                                                   |   |        |        |       |      |       |         |
|-----------|-------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10460-AAA | UMTS-FDD (WCDMA, AMR)                                             | X | 0.85   | 66.79  | 15.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                   | Y | 0.95   | 68.80  | 16.61 |      | 150.0 |         |
|           |                                                                   | Z | 0.82   | 65.76  | 14.64 |      | 150.0 |         |
| 10461-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 10.90  | 88.69  | 22.10 | 3.29 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 124.33 | 32.35 |      | 80.0  |         |
|           |                                                                   | Z | 24.23  | 101.33 | 26.09 |      | 80.0  |         |
| 10462-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 3.11   | 68.60  | 13.10 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 25.79  | 93.87  | 21.47 |      | 80.0  |         |
|           |                                                                   | Z | 4.37   | 73.15  | 15.00 |      | 80.0  |         |
| 10463-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.43   | 65.50  | 11.42 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 7.57   | 79.07  | 16.72 |      | 80.0  |         |
|           |                                                                   | Z | 2.89   | 68.09  | 12.64 |      | 80.0  |         |
| 10464-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 8.54   | 84.82  | 20.48 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 122.34 | 31.27 |      | 80.0  |         |
|           |                                                                   | Z | 18.96  | 96.90  | 24.39 |      | 80.0  |         |
| 10465-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 2.84   | 67.57  | 12.62 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 15.16  | 87.80  | 19.77 |      | 80.0  |         |
|           |                                                                   | Z | 3.73   | 71.34  | 14.27 |      | 80.0  |         |
| 10466-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 2.29   | 64.84  | 11.09 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 5.66   | 75.88  | 15.63 |      | 80.0  |         |
|           |                                                                   | Z | 2.63   | 67.01  | 12.15 |      | 80.0  |         |
| 10467-AAB | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 9.10   | 85.71  | 20.78 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 122.57 | 31.37 |      | 80.0  |         |
|           |                                                                   | Z | 21.10  | 98.43  | 24.83 |      | 80.0  |         |
| 10468-AAB | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 2.90   | 67.81  | 12.74 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 17.31  | 89.33  | 20.22 |      | 80.0  |         |
|           |                                                                   | Z | 3.87   | 71.79  | 14.46 |      | 80.0  |         |
| 10469-AAB | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 2.29   | 64.87  | 11.10 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 5.74   | 76.05  | 15.69 |      | 80.0  |         |
|           |                                                                   | Z | 2.63   | 67.06  | 12.17 |      | 80.0  |         |
| 10470-AAB | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 9.10   | 85.72  | 20.78 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 122.59 | 31.38 |      | 80.0  |         |
|           |                                                                   | Z | 21.21  | 98.51  | 24.85 |      | 80.0  |         |
| 10471-AAB | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 2.89   | 67.78  | 12.72 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 17.26  | 89.27  | 20.19 |      | 80.0  |         |
|           |                                                                   | Z | 3.86   | 71.75  | 14.43 |      | 80.0  |         |
| 10472-AAB | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 2.28   | 64.84  | 11.08 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 5.72   | 76.01  | 15.66 |      | 80.0  |         |
|           |                                                                   | Z | 2.63   | 67.03  | 12.15 |      | 80.0  |         |
| 10473-AAB | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 9.07   | 85.68  | 20.76 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 122.57 | 31.36 |      | 80.0  |         |
|           |                                                                   | Z | 21.13  | 98.45  | 24.83 |      | 80.0  |         |
| 10474-AAB | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 2.88   | 67.75  | 12.70 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 17.04  | 89.14  | 20.15 |      | 80.0  |         |
|           |                                                                   | Z | 3.84   | 71.70  | 14.42 |      | 80.0  |         |
| 10475-AAB | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 2.28   | 64.82  | 11.07 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 5.67   | 75.92  | 15.64 |      | 80.0  |         |
|           |                                                                   | Z | 2.62   | 67.00  | 12.14 |      | 80.0  |         |

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|           |                                                                     |   |       |       |       |      |      |         |
|-----------|---------------------------------------------------------------------|---|-------|-------|-------|------|------|---------|
| 10477-AAB | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)    | X | 2.83  | 67.56 | 12.61 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 15.57 | 88.07 | 19.83 |      | 80.0 |         |
|           |                                                                     | Z | 3.73  | 71.36 | 14.27 |      | 80.0 |         |
| 10478-AAB | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)    | X | 2.27  | 64.78 | 11.05 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 5.61  | 75.79 | 15.58 |      | 80.0 |         |
|           |                                                                     | Z | 2.61  | 66.94 | 12.11 |      | 80.0 |         |
| 10479-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 6.21  | 79.27 | 20.23 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 15.53 | 95.10 | 25.86 |      | 80.0 |         |
|           |                                                                     | Z | 7.86  | 83.60 | 21.89 |      | 80.0 |         |
| 10480-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.80  | 74.74 | 17.26 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 13.31 | 87.35 | 21.76 |      | 80.0 |         |
|           |                                                                     | Z | 7.12  | 78.11 | 18.52 |      | 80.0 |         |
| 10481-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.14  | 72.74 | 16.21 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 10.46 | 83.36 | 20.15 |      | 80.0 |         |
|           |                                                                     | Z | 6.06  | 75.47 | 17.26 |      | 80.0 |         |
| 10482-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 3.25  | 70.05 | 15.65 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.55  | 75.69 | 18.10 |      | 80.0 |         |
|           |                                                                     | Z | 3.35  | 70.89 | 16.02 |      | 80.0 |         |
| 10483-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.58  | 71.49 | 16.01 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 6.71  | 77.60 | 18.47 |      | 80.0 |         |
|           |                                                                     | Z | 4.85  | 72.65 | 16.43 |      | 80.0 |         |
| 10484-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.42  | 70.85 | 15.76 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 6.10  | 76.11 | 17.93 |      | 80.0 |         |
|           |                                                                     | Z | 4.60  | 71.76 | 16.08 |      | 80.0 |         |
| 10485-AAB | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 3.72  | 71.78 | 17.12 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 5.00  | 77.34 | 19.66 |      | 80.0 |         |
|           |                                                                     | Z | 3.85  | 72.81 | 17.65 |      | 80.0 |         |
| 10486-AAB | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.63  | 68.78 | 15.57 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.19  | 71.70 | 16.99 |      | 80.0 |         |
|           |                                                                     | Z | 3.65  | 69.26 | 15.78 |      | 80.0 |         |
| 10487-AAB | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.64  | 68.51 | 15.45 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.13  | 71.18 | 16.77 |      | 80.0 |         |
|           |                                                                     | Z | 3.65  | 68.93 | 15.63 |      | 80.0 |         |
| 10488-AAB | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 4.16  | 71.92 | 17.80 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.97  | 75.84 | 19.84 |      | 80.0 |         |
|           |                                                                     | Z | 4.22  | 72.66 | 18.30 |      | 80.0 |         |
| 10489-AAB | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.05  | 69.18 | 16.83 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.37  | 71.25 | 18.05 |      | 80.0 |         |
|           |                                                                     | Z | 4.05  | 69.58 | 17.12 |      | 80.0 |         |
| 10490-AAB | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.14  | 69.06 | 16.81 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.44  | 70.98 | 17.96 |      | 80.0 |         |
|           |                                                                     | Z | 4.14  | 69.43 | 17.08 |      | 80.0 |         |
| 10491-AAB | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 4.40  | 70.90 | 17.57 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.91  | 73.60 | 19.13 |      | 80.0 |         |
|           |                                                                     | Z | 4.43  | 71.41 | 17.98 |      | 80.0 |         |
| 10492-AAB | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.42  | 68.74 | 16.97 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.62  | 70.21 | 17.96 |      | 80.0 |         |
|           |                                                                     | Z | 4.40  | 69.01 | 17.22 |      | 80.0 |         |

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|           |                                                                      |   |      |       |       |      |      |         |
|-----------|----------------------------------------------------------------------|---|------|-------|-------|------|------|---------|
| 10493-AAB | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.49 | 68.64 | 16.96 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.67 | 70.03 | 17.90 |      | 80.0 |         |
|           |                                                                      | Z | 4.47 | 68.89 | 17.19 |      | 80.0 |         |
| 10494-AAB | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 4.69 | 72.04 | 17.87 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.40 | 75.21 | 19.61 |      | 80.0 |         |
|           |                                                                      | Z | 4.75 | 72.63 | 18.32 |      | 80.0 |         |
| 10495-AAB | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.46 | 69.11 | 17.14 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.68 | 70.62 | 18.16 |      | 80.0 |         |
|           |                                                                      | Z | 4.45 | 69.37 | 17.40 |      | 80.0 |         |
| 10496-AAB | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.54 | 68.89 | 17.10 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.73 | 70.27 | 18.06 |      | 80.0 |         |
|           |                                                                      | Z | 4.52 | 69.13 | 17.35 |      | 80.0 |         |
| 10497-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 2.49 | 66.70 | 13.44 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.21 | 70.70 | 15.21 |      | 80.0 |         |
|           |                                                                      | Z | 2.48 | 67.00 | 13.49 |      | 80.0 |         |
| 10498-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.16 | 62.96 | 10.84 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 2.19 | 63.75 | 11.14 |      | 80.0 |         |
|           |                                                                      | Z | 2.03 | 62.56 | 10.48 |      | 80.0 |         |
| 10499-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.12 | 62.55 | 10.52 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 2.10 | 63.07 | 10.67 |      | 80.0 |         |
|           |                                                                      | Z | 1.98 | 62.09 | 10.11 |      | 80.0 |         |
| 10500-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 3.85 | 71.62 | 17.33 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.88 | 76.36 | 19.61 |      | 80.0 |         |
|           |                                                                      | Z | 3.96 | 72.53 | 17.84 |      | 80.0 |         |
| 10501-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.82 | 68.97 | 16.07 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.28 | 71.57 | 17.41 |      | 80.0 |         |
|           |                                                                      | Z | 3.84 | 69.45 | 16.32 |      | 80.0 |         |
| 10502-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 3.87 | 68.85 | 15.98 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.32 | 71.32 | 17.26 |      | 80.0 |         |
|           |                                                                      | Z | 3.89 | 69.30 | 16.21 |      | 80.0 |         |
| 10503-AAB | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 4.11 | 71.75 | 17.72 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.91 | 75.63 | 19.75 |      | 80.0 |         |
|           |                                                                      | Z | 4.18 | 72.48 | 18.21 |      | 80.0 |         |
| 10504-AAB | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.03 | 69.09 | 16.78 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.35 | 71.15 | 18.00 |      | 80.0 |         |
|           |                                                                      | Z | 4.03 | 69.49 | 17.06 |      | 80.0 |         |
| 10505-AAB | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.12 | 68.97 | 16.76 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.42 | 70.89 | 17.91 |      | 80.0 |         |
|           |                                                                      | Z | 4.12 | 69.34 | 17.03 |      | 80.0 |         |
| 10506-AAB | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 4.66 | 71.91 | 17.81 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.35 | 75.06 | 19.54 |      | 80.0 |         |
|           |                                                                      | Z | 4.71 | 72.50 | 18.26 |      | 80.0 |         |
| 10507-AAB | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.44 | 69.05 | 17.10 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.66 | 70.57 | 18.13 |      | 80.0 |         |
|           |                                                                      | Z | 4.43 | 69.30 | 17.36 |      | 80.0 |         |

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|           |                                                                     |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10508-AAB | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.52 | 68.82 | 17.06 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 4.71 | 70.21 | 18.02 |      | 80.0  |         |
|           |                                                                     | Z | 4.51 | 69.06 | 17.30 |      | 80.0  |         |
| 10509-AAB | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 4.99 | 71.00 | 17.51 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.45 | 73.18 | 18.84 |      | 80.0  |         |
|           |                                                                     | Z | 5.02 | 71.40 | 17.88 |      | 80.0  |         |
| 10510-AAB | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.94 | 68.90 | 17.18 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.09 | 70.03 | 18.02 |      | 80.0  |         |
|           |                                                                     | Z | 4.91 | 69.07 | 17.41 |      | 80.0  |         |
| 10511-AAB | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.99 | 68.69 | 17.15 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.13 | 69.73 | 17.95 |      | 80.0  |         |
|           |                                                                     | Z | 4.97 | 68.85 | 17.36 |      | 80.0  |         |
| 10512-AAB | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 5.15 | 72.16 | 17.81 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.84 | 74.94 | 19.37 |      | 80.0  |         |
|           |                                                                     | Z | 5.21 | 72.66 | 18.23 |      | 80.0  |         |
| 10513-AAB | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.83 | 69.15 | 17.25 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.01 | 70.37 | 18.16 |      | 80.0  |         |
|           |                                                                     | Z | 4.81 | 69.32 | 17.49 |      | 80.0  |         |
| 10514-AAB | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 4.85 | 68.80 | 17.18 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.00 | 69.90 | 18.02 |      | 80.0  |         |
|           |                                                                     | Z | 4.82 | 68.95 | 17.40 |      | 80.0  |         |
| 10515-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)           | X | 0.97 | 62.78 | 14.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 1.00 | 63.37 | 14.91 |      | 150.0 |         |
|           |                                                                     | Z | 0.97 | 62.43 | 14.03 |      | 150.0 |         |
| 10516-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)         | X | 0.53 | 67.49 | 15.72 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.66 | 71.47 | 18.09 |      | 150.0 |         |
|           |                                                                     | Z | 0.50 | 65.93 | 14.68 |      | 150.0 |         |
| 10517-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)          | X | 0.81 | 64.29 | 14.76 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.85 | 65.40 | 15.64 |      | 150.0 |         |
|           |                                                                     | Z | 0.80 | 63.67 | 14.26 |      | 150.0 |         |
| 10518-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)           | X | 4.55 | 66.64 | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.53 | 66.78 | 16.26 |      | 150.0 |         |
|           |                                                                     | Z | 4.51 | 66.53 | 16.04 |      | 150.0 |         |
| 10519-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)          | X | 4.74 | 66.88 | 16.22 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.71 | 67.00 | 16.38 |      | 150.0 |         |
|           |                                                                     | Z | 4.69 | 66.76 | 16.16 |      | 150.0 |         |
| 10520-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)          | X | 4.59 | 66.84 | 16.15 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.57 | 66.96 | 16.30 |      | 150.0 |         |
|           |                                                                     | Z | 4.55 | 66.71 | 16.07 |      | 150.0 |         |
| 10521-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)          | X | 4.53 | 66.84 | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.50 | 66.95 | 16.28 |      | 150.0 |         |
|           |                                                                     | Z | 4.48 | 66.70 | 16.05 |      | 150.0 |         |
| 10522-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)          | X | 4.58 | 66.91 | 16.21 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.56 | 67.06 | 16.38 |      | 150.0 |         |
|           |                                                                     | Z | 4.54 | 66.80 | 16.15 |      | 150.0 |         |

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|-----------|------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10523-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) | X | 4.46 | 66.78 | 16.06 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.45 | 66.94 | 16.23 |      | 150.0 |         |
|           |                                                            | Z | 4.42 | 66.67 | 15.99 |      | 150.0 |         |
| 10524-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) | X | 4.53 | 66.83 | 16.17 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.50 | 66.98 | 16.34 |      | 150.0 |         |
|           |                                                            | Z | 4.48 | 66.71 | 16.11 |      | 150.0 |         |
| 10525-AAA | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)          | X | 4.51 | 65.88 | 15.77 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.50 | 66.04 | 15.94 |      | 150.0 |         |
|           |                                                            | Z | 4.47 | 65.77 | 15.71 |      | 150.0 |         |
| 10526-AAA | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)          | X | 4.68 | 66.25 | 15.91 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.66 | 66.39 | 16.08 |      | 150.0 |         |
|           |                                                            | Z | 4.63 | 66.12 | 15.84 |      | 150.0 |         |
| 10527-AAA | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)          | X | 4.60 | 66.21 | 15.85 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.58 | 66.35 | 16.02 |      | 150.0 |         |
|           |                                                            | Z | 4.55 | 66.07 | 15.78 |      | 150.0 |         |
| 10528-AAA | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)          | X | 4.62 | 66.23 | 15.89 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.60 | 66.37 | 16.05 |      | 150.0 |         |
|           |                                                            | Z | 4.57 | 66.09 | 15.81 |      | 150.0 |         |
| 10529-AAA | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)          | X | 4.62 | 66.23 | 15.89 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.60 | 66.37 | 16.05 |      | 150.0 |         |
|           |                                                            | Z | 4.57 | 66.09 | 15.81 |      | 150.0 |         |
| 10531-AAA | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)          | X | 4.61 | 66.34 | 15.90 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.58 | 66.46 | 16.06 |      | 150.0 |         |
|           |                                                            | Z | 4.56 | 66.18 | 15.82 |      | 150.0 |         |
| 10532-AAA | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)          | X | 4.47 | 66.19 | 15.84 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.45 | 66.31 | 15.99 |      | 150.0 |         |
|           |                                                            | Z | 4.42 | 66.03 | 15.75 |      | 150.0 |         |
| 10533-AAA | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)          | X | 4.63 | 66.27 | 15.88 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.61 | 66.42 | 16.05 |      | 150.0 |         |
|           |                                                            | Z | 4.58 | 66.14 | 15.81 |      | 150.0 |         |
| 10534-AAA | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)          | X | 5.15 | 66.36 | 15.96 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.13 | 66.44 | 16.10 |      | 150.0 |         |
|           |                                                            | Z | 5.11 | 66.23 | 15.90 |      | 150.0 |         |
| 10535-AAA | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)          | X | 5.21 | 66.52 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.20 | 66.63 | 16.19 |      | 150.0 |         |
|           |                                                            | Z | 5.18 | 66.41 | 15.98 |      | 150.0 |         |
| 10536-AAA | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)          | X | 5.08 | 66.48 | 15.99 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.07 | 66.58 | 16.14 |      | 150.0 |         |
|           |                                                            | Z | 5.04 | 66.35 | 15.93 |      | 150.0 |         |
| 10537-AAA | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)          | X | 5.14 | 66.45 | 15.97 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.13 | 66.54 | 16.13 |      | 150.0 |         |
|           |                                                            | Z | 5.10 | 66.32 | 15.92 |      | 150.0 |         |
| 10538-AAA | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)          | X | 5.23 | 66.48 | 16.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.21 | 66.55 | 16.17 |      | 150.0 |         |
|           |                                                            | Z | 5.19 | 66.34 | 15.98 |      | 150.0 |         |
| 10540-AAA | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)          | X | 5.16 | 66.48 | 16.04 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.15 | 66.57 | 16.20 |      | 150.0 |         |
|           |                                                            | Z | 5.13 | 66.36 | 16.00 |      | 150.0 |         |

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|           |                                                     |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10541-AAA | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)   | X | 5.14 | 66.36 | 15.98 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.12 | 66.44 | 16.12 |      | 150.0 |         |
|           |                                                     | Z | 5.10 | 66.23 | 15.92 |      | 150.0 |         |
| 10542-AAA | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)   | X | 5.29 | 66.43 | 16.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.27 | 66.51 | 16.17 |      | 150.0 |         |
|           |                                                     | Z | 5.25 | 66.31 | 15.98 |      | 150.0 |         |
| 10543-AAA | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)   | X | 5.37 | 66.46 | 16.06 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.35 | 66.54 | 16.21 |      | 150.0 |         |
|           |                                                     | Z | 5.33 | 66.34 | 16.02 |      | 150.0 |         |
| 10544-AAA | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)   | X | 5.45 | 66.49 | 15.96 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.45 | 66.56 | 16.10 |      | 150.0 |         |
|           |                                                     | Z | 5.43 | 66.37 | 15.91 |      | 150.0 |         |
| 10545-AAA | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)   | X | 5.64 | 66.87 | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.64 | 66.97 | 16.25 |      | 150.0 |         |
|           |                                                     | Z | 5.61 | 66.76 | 16.06 |      | 150.0 |         |
| 10546-AAA | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)   | X | 5.52 | 66.71 | 16.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.51 | 66.75 | 16.16 |      | 150.0 |         |
|           |                                                     | Z | 5.49 | 66.55 | 15.98 |      | 150.0 |         |
| 10547-AAA | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)   | X | 5.59 | 66.74 | 16.04 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.58 | 66.79 | 16.17 |      | 150.0 |         |
|           |                                                     | Z | 5.56 | 66.60 | 15.99 |      | 150.0 |         |
| 10548-AAA | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)   | X | 5.81 | 67.56 | 16.42 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.80 | 67.65 | 16.58 |      | 150.0 |         |
|           |                                                     | Z | 5.78 | 67.44 | 16.38 |      | 150.0 |         |
| 10550-AAA | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)   | X | 5.54 | 66.70 | 16.04 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.54 | 66.78 | 16.19 |      | 150.0 |         |
|           |                                                     | Z | 5.51 | 66.58 | 16.00 |      | 150.0 |         |
| 10551-AAA | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)   | X | 5.55 | 66.76 | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.54 | 66.81 | 16.16 |      | 150.0 |         |
|           |                                                     | Z | 5.52 | 66.62 | 15.98 |      | 150.0 |         |
| 10552-AAA | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)   | X | 5.47 | 66.56 | 15.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.46 | 66.63 | 16.08 |      | 150.0 |         |
|           |                                                     | Z | 5.44 | 66.43 | 15.89 |      | 150.0 |         |
| 10553-AAA | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)   | X | 5.55 | 66.61 | 15.99 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.54 | 66.65 | 16.12 |      | 150.0 |         |
|           |                                                     | Z | 5.52 | 66.47 | 15.94 |      | 150.0 |         |
| 10554-AAA | IEEE 1602.11ac WiFi (160MHz, MCS0, 99pc duty cycle) | X | 5.85 | 66.85 | 16.05 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.86 | 66.91 | 16.18 |      | 150.0 |         |
|           |                                                     | Z | 5.84 | 66.74 | 16.01 |      | 150.0 |         |
| 10555-AAA | IEEE 1602.11ac WiFi (160MHz, MCS1, 99pc duty cycle) | X | 5.97 | 67.13 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.98 | 67.20 | 16.31 |      | 150.0 |         |
|           |                                                     | Z | 5.96 | 67.02 | 16.13 |      | 150.0 |         |
| 10556-AAA | IEEE 1602.11ac WiFi (160MHz, MCS2, 99pc duty cycle) | X | 6.00 | 67.18 | 16.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 6.00 | 67.26 | 16.33 |      | 150.0 |         |
|           |                                                     | Z | 5.98 | 67.07 | 16.15 |      | 150.0 |         |
| 10557-AAA | IEEE 1602.11ac WiFi (160MHz, MCS3, 99pc duty cycle) | X | 5.97 | 67.11 | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.97 | 67.15 | 16.29 |      | 150.0 |         |
|           |                                                     | Z | 5.94 | 66.97 | 16.12 |      | 150.0 |         |

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|           |                                                                 |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10558-AAA | IEEE 1602.11ac WiFi (160MHz, MCS4, 99pc duty cycle)             | X | 6.02 | 67.26 | 16.25 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.01 | 67.31 | 16.39 |      | 150.0 |         |
|           |                                                                 | Z | 5.99 | 67.12 | 16.21 |      | 150.0 |         |
| 10560-AAA | IEEE 1602.11ac WiFi (160MHz, MCS6, 99pc duty cycle)             | X | 6.02 | 67.13 | 16.23 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.01 | 67.16 | 16.35 |      | 150.0 |         |
|           |                                                                 | Z | 5.99 | 66.99 | 16.18 |      | 150.0 |         |
| 10561-AAA | IEEE 1602.11ac WiFi (160MHz, MCS7, 99pc duty cycle)             | X | 5.93 | 67.08 | 16.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.93 | 67.14 | 16.37 |      | 150.0 |         |
|           |                                                                 | Z | 5.91 | 66.95 | 16.20 |      | 150.0 |         |
| 10562-AAA | IEEE 1602.11ac WiFi (160MHz, MCS8, 99pc duty cycle)             | X | 6.05 | 67.45 | 16.42 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.04 | 67.48 | 16.55 |      | 150.0 |         |
|           |                                                                 | Z | 6.02 | 67.30 | 16.37 |      | 150.0 |         |
| 10563-AAA | IEEE 1602.11ac WiFi (160MHz, MCS9, 99pc duty cycle)             | X | 6.32 | 67.83 | 16.57 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.19 | 67.56 | 16.55 |      | 150.0 |         |
|           |                                                                 | Z | 6.20 | 67.45 | 16.41 |      | 150.0 |         |
| 10564-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)  | X | 4.88 | 66.71 | 16.25 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.87 | 66.87 | 16.43 |      | 150.0 |         |
|           |                                                                 | Z | 4.85 | 66.63 | 16.21 |      | 150.0 |         |
| 10565-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle) | X | 5.12 | 67.18 | 16.58 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.09 | 67.30 | 16.74 |      | 150.0 |         |
|           |                                                                 | Z | 5.07 | 67.08 | 16.54 |      | 150.0 |         |
| 10566-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle) | X | 4.95 | 67.02 | 16.39 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.92 | 67.15 | 16.56 |      | 150.0 |         |
|           |                                                                 | Z | 4.91 | 66.92 | 16.35 |      | 150.0 |         |
| 10567-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle) | X | 4.98 | 67.44 | 16.76 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.95 | 67.52 | 16.90 |      | 150.0 |         |
|           |                                                                 | Z | 4.94 | 67.31 | 16.70 |      | 150.0 |         |
| 10568-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle) | X | 4.86 | 66.77 | 16.14 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.84 | 66.96 | 16.36 |      | 150.0 |         |
|           |                                                                 | Z | 4.82 | 66.69 | 16.11 |      | 150.0 |         |
| 10569-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle) | X | 4.94 | 67.53 | 16.82 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.92 | 67.64 | 16.97 |      | 150.0 |         |
|           |                                                                 | Z | 4.90 | 67.42 | 16.77 |      | 150.0 |         |
| 10570-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle) | X | 4.97 | 67.35 | 16.74 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.94 | 67.48 | 16.91 |      | 150.0 |         |
|           |                                                                 | Z | 4.93 | 67.25 | 16.69 |      | 150.0 |         |
| 10571-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)       | X | 1.28 | 64.77 | 15.33 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.32 | 65.62 | 16.14 |      | 130.0 |         |
|           |                                                                 | Z | 1.27 | 64.46 | 15.17 |      | 130.0 |         |
| 10572-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)       | X | 1.30 | 65.33 | 15.66 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.34 | 66.24 | 16.51 |      | 130.0 |         |
|           |                                                                 | Z | 1.28 | 64.98 | 15.48 |      | 130.0 |         |
| 10573-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)     | X | 1.76 | 79.05 | 19.96 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 3.87 | 93.13 | 25.49 |      | 130.0 |         |
|           |                                                                 | Z | 1.52 | 76.71 | 19.12 |      | 130.0 |         |
| 10574-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)      | X | 1.44 | 70.61 | 18.20 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.55 | 72.59 | 19.55 |      | 130.0 |         |
|           |                                                                 | Z | 1.37 | 69.64 | 17.74 |      | 130.0 |         |

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|           |                                                                 |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10575-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)  | X | 4.68 | 66.52 | 16.27 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.68 | 66.73 | 16.50 |      | 130.0 |         |
|           |                                                                 | Z | 4.66 | 66.48 | 16.27 |      | 130.0 |         |
| 10576-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)  | X | 4.71 | 66.68 | 16.34 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.70 | 66.89 | 16.57 |      | 130.0 |         |
|           |                                                                 | Z | 4.68 | 66.64 | 16.33 |      | 130.0 |         |
| 10577-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) | X | 4.92 | 66.98 | 16.51 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.90 | 67.16 | 16.72 |      | 130.0 |         |
|           |                                                                 | Z | 4.88 | 66.92 | 16.50 |      | 130.0 |         |
| 10578-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) | X | 4.82 | 67.15 | 16.62 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.80 | 67.31 | 16.82 |      | 130.0 |         |
|           |                                                                 | Z | 4.78 | 67.07 | 16.60 |      | 130.0 |         |
| 10579-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) | X | 4.58 | 66.42 | 15.90 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.57 | 66.65 | 16.17 |      | 130.0 |         |
|           |                                                                 | Z | 4.55 | 66.36 | 15.90 |      | 130.0 |         |
| 10580-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) | X | 4.62 | 66.43 | 15.92 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.62 | 66.70 | 16.20 |      | 130.0 |         |
|           |                                                                 | Z | 4.59 | 66.40 | 15.93 |      | 130.0 |         |
| 10581-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) | X | 4.72 | 67.19 | 16.55 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.70 | 67.38 | 16.78 |      | 130.0 |         |
|           |                                                                 | Z | 4.68 | 67.12 | 16.54 |      | 130.0 |         |
| 10582-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) | X | 4.52 | 66.16 | 15.68 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.51 | 66.42 | 15.97 |      | 130.0 |         |
|           |                                                                 | Z | 4.49 | 66.11 | 15.69 |      | 130.0 |         |
| 10583-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)       | X | 4.68 | 66.52 | 16.27 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.68 | 66.73 | 16.50 |      | 130.0 |         |
|           |                                                                 | Z | 4.66 | 66.48 | 16.27 |      | 130.0 |         |
| 10584-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)       | X | 4.71 | 66.68 | 16.34 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.70 | 66.89 | 16.57 |      | 130.0 |         |
|           |                                                                 | Z | 4.68 | 66.64 | 16.33 |      | 130.0 |         |
| 10585-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)      | X | 4.92 | 66.98 | 16.51 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.90 | 67.16 | 16.72 |      | 130.0 |         |
|           |                                                                 | Z | 4.88 | 66.92 | 16.50 |      | 130.0 |         |
| 10586-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)      | X | 4.82 | 67.15 | 16.62 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.80 | 67.31 | 16.82 |      | 130.0 |         |
|           |                                                                 | Z | 4.78 | 67.07 | 16.60 |      | 130.0 |         |
| 10587-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)      | X | 4.58 | 66.42 | 15.90 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.57 | 66.65 | 16.17 |      | 130.0 |         |
|           |                                                                 | Z | 4.55 | 66.36 | 15.90 |      | 130.0 |         |
| 10588-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)      | X | 4.62 | 66.43 | 15.92 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.62 | 66.70 | 16.20 |      | 130.0 |         |
|           |                                                                 | Z | 4.59 | 66.40 | 15.93 |      | 130.0 |         |
| 10589-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)      | X | 4.72 | 67.19 | 16.55 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.70 | 67.38 | 16.78 |      | 130.0 |         |
|           |                                                                 | Z | 4.68 | 67.12 | 16.54 |      | 130.0 |         |
| 10590-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)      | X | 4.52 | 66.16 | 15.68 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.51 | 66.42 | 15.97 |      | 130.0 |         |
|           |                                                                 | Z | 4.49 | 66.11 | 15.69 |      | 130.0 |         |

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|           |                                                       |   |      |       |       |      |       |         |
|-----------|-------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10591-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle) | X | 4.83 | 66.59 | 16.38 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.83 | 66.77 | 16.60 |      | 130.0 |         |
|           |                                                       | Z | 4.81 | 66.54 | 16.37 |      | 130.0 |         |
| 10592-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle) | X | 4.99 | 66.92 | 16.50 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.97 | 67.10 | 16.72 |      | 130.0 |         |
|           |                                                       | Z | 4.96 | 66.87 | 16.50 |      | 130.0 |         |
| 10593-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle) | X | 4.91 | 66.83 | 16.38 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.89 | 67.01 | 16.61 |      | 130.0 |         |
|           |                                                       | Z | 4.88 | 66.77 | 16.38 |      | 130.0 |         |
| 10594-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle) | X | 4.97 | 67.00 | 16.54 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.95 | 67.17 | 16.76 |      | 130.0 |         |
|           |                                                       | Z | 4.93 | 66.94 | 16.54 |      | 130.0 |         |
| 10595-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle) | X | 4.93 | 66.95 | 16.43 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.92 | 67.14 | 16.66 |      | 130.0 |         |
|           |                                                       | Z | 4.90 | 66.89 | 16.43 |      | 130.0 |         |
| 10596-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle) | X | 4.87 | 66.94 | 16.43 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.86 | 67.14 | 16.67 |      | 130.0 |         |
|           |                                                       | Z | 4.84 | 66.88 | 16.43 |      | 130.0 |         |
| 10597-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle) | X | 4.82 | 66.85 | 16.32 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.81 | 67.04 | 16.55 |      | 130.0 |         |
|           |                                                       | Z | 4.78 | 66.78 | 16.31 |      | 130.0 |         |
| 10598-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle) | X | 4.81 | 67.10 | 16.59 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.79 | 67.25 | 16.79 |      | 130.0 |         |
|           |                                                       | Z | 4.77 | 67.01 | 16.57 |      | 130.0 |         |
| 10599-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle) | X | 5.49 | 67.11 | 16.57 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.48 | 67.26 | 16.79 |      | 130.0 |         |
|           |                                                       | Z | 5.47 | 67.09 | 16.60 |      | 130.0 |         |
| 10600-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle) | X | 5.61 | 67.47 | 16.72 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.61 | 67.68 | 16.97 |      | 130.0 |         |
|           |                                                       | Z | 5.59 | 67.46 | 16.76 |      | 130.0 |         |
| 10601-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle) | X | 5.51 | 67.26 | 16.63 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.50 | 67.43 | 16.86 |      | 130.0 |         |
|           |                                                       | Z | 5.49 | 67.22 | 16.66 |      | 130.0 |         |
| 10602-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle) | X | 5.59 | 67.25 | 16.54 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.61 | 67.50 | 16.82 |      | 130.0 |         |
|           |                                                       | Z | 5.59 | 67.27 | 16.60 |      | 130.0 |         |
| 10603-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle) | X | 5.68 | 67.59 | 16.85 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.67 | 67.75 | 17.07 |      | 130.0 |         |
|           |                                                       | Z | 5.66 | 67.55 | 16.87 |      | 130.0 |         |
| 10604-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle) | X | 5.49 | 67.07 | 16.58 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.51 | 67.32 | 16.84 |      | 130.0 |         |
|           |                                                       | Z | 5.49 | 67.09 | 16.63 |      | 130.0 |         |
| 10605-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle) | X | 5.59 | 67.34 | 16.70 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.60 | 67.58 | 16.98 |      | 130.0 |         |
|           |                                                       | Z | 5.58 | 67.35 | 16.76 |      | 130.0 |         |
| 10606-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle) | X | 5.36 | 66.79 | 16.29 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.35 | 66.91 | 16.50 |      | 130.0 |         |
|           |                                                       | Z | 5.33 | 66.71 | 16.29 |      | 130.0 |         |

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|           |                                                   |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10607-AAA | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle) | X | 4.66 | 65.87 | 15.98 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.66 | 66.09 | 16.22 |      | 130.0 |         |
|           |                                                   | Z | 4.64 | 65.82 | 15.98 |      | 130.0 |         |
| 10608-AAA | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle) | X | 4.85 | 66.27 | 16.14 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.84 | 66.48 | 16.38 |      | 130.0 |         |
|           |                                                   | Z | 4.81 | 66.21 | 16.14 |      | 130.0 |         |
| 10609-AAA | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle) | X | 4.74 | 66.11 | 15.98 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.73 | 66.33 | 16.22 |      | 130.0 |         |
|           |                                                   | Z | 4.70 | 66.05 | 15.97 |      | 130.0 |         |
| 10610-AAA | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle) | X | 4.79 | 66.28 | 16.15 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.78 | 66.48 | 16.38 |      | 130.0 |         |
|           |                                                   | Z | 4.75 | 66.21 | 16.13 |      | 130.0 |         |
| 10611-AAA | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle) | X | 4.71 | 66.08 | 15.99 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.70 | 66.30 | 16.23 |      | 130.0 |         |
|           |                                                   | Z | 4.67 | 66.02 | 15.98 |      | 130.0 |         |
| 10612-AAA | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle) | X | 4.71 | 66.22 | 16.02 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.71 | 66.46 | 16.28 |      | 130.0 |         |
|           |                                                   | Z | 4.68 | 66.16 | 16.02 |      | 130.0 |         |
| 10613-AAA | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle) | X | 4.72 | 66.11 | 15.91 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.71 | 66.34 | 16.17 |      | 130.0 |         |
|           |                                                   | Z | 4.68 | 66.04 | 15.90 |      | 130.0 |         |
| 10614-AAA | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle) | X | 4.67 | 66.32 | 16.16 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.65 | 66.50 | 16.38 |      | 130.0 |         |
|           |                                                   | Z | 4.63 | 66.23 | 16.13 |      | 130.0 |         |
| 10615-AAA | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle) | X | 4.70 | 65.89 | 15.75 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.70 | 66.15 | 16.03 |      | 130.0 |         |
|           |                                                   | Z | 4.67 | 65.85 | 15.76 |      | 130.0 |         |
| 10616-AAA | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle) | X | 5.30 | 66.36 | 16.18 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.30 | 66.51 | 16.39 |      | 130.0 |         |
|           |                                                   | Z | 5.28 | 66.30 | 16.19 |      | 130.0 |         |
| 10617-AAA | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle) | X | 5.36 | 66.50 | 16.22 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.37 | 66.70 | 16.46 |      | 130.0 |         |
|           |                                                   | Z | 5.34 | 66.47 | 16.25 |      | 130.0 |         |
| 10618-AAA | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle) | X | 5.25 | 66.53 | 16.25 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.26 | 66.70 | 16.48 |      | 130.0 |         |
|           |                                                   | Z | 5.23 | 66.47 | 16.26 |      | 130.0 |         |
| 10619-AAA | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle) | X | 5.27 | 66.33 | 16.09 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.27 | 66.51 | 16.32 |      | 130.0 |         |
|           |                                                   | Z | 5.24 | 66.27 | 16.10 |      | 130.0 |         |
| 10620-AAA | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle) | X | 5.36 | 66.40 | 16.17 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.36 | 66.54 | 16.39 |      | 130.0 |         |
|           |                                                   | Z | 5.34 | 66.32 | 16.17 |      | 130.0 |         |
| 10621-AAA | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle) | X | 5.36 | 66.53 | 16.36 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.36 | 66.66 | 16.56 |      | 130.0 |         |
|           |                                                   | Z | 5.34 | 66.46 | 16.36 |      | 130.0 |         |
| 10622-AAA | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle) | X | 5.37 | 66.67 | 16.42 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.37 | 66.82 | 16.63 |      | 130.0 |         |
|           |                                                   | Z | 5.35 | 66.61 | 16.43 |      | 130.0 |         |

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|-----------|-----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10623-AAA | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)   | X | 5.25 | 66.20 | 16.06 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.25 | 66.37 | 16.29 |      | 130.0 |         |
|           |                                                     | Z | 5.23 | 66.14 | 16.07 |      | 130.0 |         |
| 10624-AAA | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)   | X | 5.44 | 66.40 | 16.22 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.44 | 66.55 | 16.44 |      | 130.0 |         |
|           |                                                     | Z | 5.42 | 66.34 | 16.23 |      | 130.0 |         |
| 10625-AAA | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)   | X | 5.79 | 67.33 | 16.74 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.76 | 67.41 | 16.92 |      | 130.0 |         |
|           |                                                     | Z | 5.75 | 67.22 | 16.72 |      | 130.0 |         |
| 10626-AAA | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)   | X | 5.58 | 66.43 | 16.14 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.60 | 66.56 | 16.35 |      | 130.0 |         |
|           |                                                     | Z | 5.58 | 66.37 | 16.16 |      | 130.0 |         |
| 10627-AAA | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)   | X | 5.81 | 66.93 | 16.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.83 | 67.12 | 16.59 |      | 130.0 |         |
|           |                                                     | Z | 5.81 | 66.90 | 16.39 |      | 130.0 |         |
| 10628-AAA | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)   | X | 5.62 | 66.51 | 16.08 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.63 | 66.64 | 16.29 |      | 130.0 |         |
|           |                                                     | Z | 5.60 | 66.43 | 16.09 |      | 130.0 |         |
| 10629-AAA | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)   | X | 5.70 | 66.59 | 16.11 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.70 | 66.69 | 16.31 |      | 130.0 |         |
|           |                                                     | Z | 5.67 | 66.48 | 16.10 |      | 130.0 |         |
| 10630-AAA | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)   | X | 6.09 | 67.92 | 16.77 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 6.09 | 68.07 | 17.00 |      | 130.0 |         |
|           |                                                     | Z | 6.07 | 67.85 | 16.79 |      | 130.0 |         |
| 10631-AAA | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   | X | 6.03 | 67.86 | 16.94 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 6.00 | 67.89 | 17.09 |      | 130.0 |         |
|           |                                                     | Z | 5.99 | 67.72 | 16.92 |      | 130.0 |         |
| 10632-AAA | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)   | X | 5.79 | 67.02 | 16.54 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.80 | 67.17 | 16.75 |      | 130.0 |         |
|           |                                                     | Z | 5.78 | 66.98 | 16.56 |      | 130.0 |         |
| 10633-AAA | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)   | X | 5.69 | 66.70 | 16.20 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.69 | 66.81 | 16.40 |      | 130.0 |         |
|           |                                                     | Z | 5.67 | 66.61 | 16.21 |      | 130.0 |         |
| 10634-AAA | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)   | X | 5.68 | 66.74 | 16.29 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.67 | 66.82 | 16.46 |      | 130.0 |         |
|           |                                                     | Z | 5.65 | 66.64 | 16.28 |      | 130.0 |         |
| 10635-AAA | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)   | X | 5.55 | 66.04 | 15.66 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.56 | 66.20 | 15.90 |      | 130.0 |         |
|           |                                                     | Z | 5.53 | 65.97 | 15.68 |      | 130.0 |         |
| 10636-AAA | IEEE 1602.11ac WiFi (160MHz, MCS0, 90pc duty cycle) | X | 5.99 | 66.79 | 16.23 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 6.01 | 66.91 | 16.43 |      | 130.0 |         |
|           |                                                     | Z | 5.99 | 66.73 | 16.25 |      | 130.0 |         |
| 10637-AAA | IEEE 1602.11ac WiFi (160MHz, MCS1, 90pc duty cycle) | X | 6.13 | 67.14 | 16.39 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 6.16 | 67.29 | 16.60 |      | 130.0 |         |
|           |                                                     | Z | 6.14 | 67.10 | 16.41 |      | 130.0 |         |
| 10638-AAA | IEEE 1602.11ac WiFi (160MHz, MCS2, 90pc duty cycle) | X | 6.14 | 67.13 | 16.36 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 6.16 | 67.27 | 16.57 |      | 130.0 |         |
|           |                                                     | Z | 6.14 | 67.07 | 16.38 |      | 130.0 |         |

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May 31, 2017

|           |                                                        |   |       |        |       |      |       |         |
|-----------|--------------------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10639-AAA | IEEE 1602.11ac WiFi (160MHz, MCS3, 90pc duty cycle)    | X | 6.12  | 67.10  | 16.39 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.14  | 67.20  | 16.58 |      | 130.0 |         |
|           |                                                        | Z | 6.11  | 67.02  | 16.40 |      | 130.0 |         |
| 10640-AAA | IEEE 1602.11ac WiFi (160MHz, MCS4, 90pc duty cycle)    | X | 6.13  | 67.10  | 16.33 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.14  | 67.22  | 16.53 |      | 130.0 |         |
|           |                                                        | Z | 6.11  | 67.02  | 16.34 |      | 130.0 |         |
| 10641-AAA | IEEE 1602.11ac WiFi (160MHz, MCS5, 90pc duty cycle)    | X | 6.16  | 66.97  | 16.29 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.19  | 67.15  | 16.52 |      | 130.0 |         |
|           |                                                        | Z | 6.16  | 66.95  | 16.32 |      | 130.0 |         |
| 10642-AAA | IEEE 1602.11ac WiFi (160MHz, MCS6, 90pc duty cycle)    | X | 6.22  | 67.29  | 16.61 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.22  | 67.36  | 16.78 |      | 130.0 |         |
|           |                                                        | Z | 6.20  | 67.20  | 16.61 |      | 130.0 |         |
| 10643-AAA | IEEE 1602.11ac WiFi (160MHz, MCS7, 90pc duty cycle)    | X | 6.05  | 66.93  | 16.33 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.07  | 67.08  | 16.55 |      | 130.0 |         |
|           |                                                        | Z | 6.04  | 66.88  | 16.35 |      | 130.0 |         |
| 10644-AAA | IEEE 1602.11ac WiFi (160MHz, MCS8, 90pc duty cycle)    | X | 6.21  | 67.44  | 16.60 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.21  | 67.52  | 16.79 |      | 130.0 |         |
|           |                                                        | Z | 6.19  | 67.32  | 16.59 |      | 130.0 |         |
| 10645-AAA | IEEE 1602.11ac WiFi (160MHz, MCS9, 90pc duty cycle)    | X | 6.59  | 68.12  | 16.90 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.42  | 67.79  | 16.88 |      | 130.0 |         |
|           |                                                        | Z | 6.44  | 67.70  | 16.74 |      | 130.0 |         |
| 10646-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)  | X | 16.87 | 97.58  | 31.41 | 9.30 | 60.0  | ± 9.6 % |
|           |                                                        | Y | 37.43 | 119.90 | 39.69 |      | 60.0  |         |
|           |                                                        | Z | 21.06 | 104.69 | 34.44 |      | 60.0  |         |
| 10647-AAB | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7) | X | 16.68 | 98.03  | 31.67 | 9.30 | 60.0  | ± 9.6 % |
|           |                                                        | Y | 37.18 | 120.69 | 40.08 |      | 60.0  |         |
|           |                                                        | Z | 20.58 | 104.96 | 34.65 |      | 60.0  |         |
| 10648-AAA | CDMA2000 (1x Advanced)                                 | X | 0.70  | 63.32  | 10.87 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                        | Y | 0.71  | 63.89  | 11.06 |      | 150.0 |         |
|           |                                                        | Z | 0.66  | 62.58  | 10.17 |      | 150.0 |         |

<sup>§</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland



**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **DT&C (Dymstec)**

Certificate No: **EX3-3933\_Sep17**

## CALIBRATION CERTIFICATE

Object: **EX3DV4 - SN:3933**

Calibration procedure(s): **QA CAL-01.v9, QA CAL-14.v4, QA CAL-23.v5, QA CAL-25.v6**  
Calibration procedure for dosimetric E-field probes

Calibration date: **September 28, 2017**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (MTE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 04-Apr-17 (No. 217-02521/02522)   | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-17 (No. 217-02521)         | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-17 (No. 217-02525)         | Apr-18                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 07-Apr-17 (No. 217-02528)         | Apr-18                 |
| Reference Probe ES3DV2     | SN: 3013         | 31-Dec-16 (No. ES3-3013_Dec16)    | Dec-17                 |
| DAE4                       | SN: 660          | 7-Dec-16 (No. DAE4-660_Dec16)     | Dec-17                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 09-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-16) | In house check: Jun-18 |
| Network Analyzer HP 8753E  | SN: US37390585   | 18-Oct-01 (in house check Oct-16) | In house check: Oct-17 |

|                                                                                                                 |                                |                                          |                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------|
| Calibrated by:                                                                                                  | Name<br><b>Claudio Leubler</b> | Function<br><b>Laboratory Technician</b> | Signature<br> |
| Approved by:                                                                                                    | Name<br><b>Katja Pokovic</b>   | Function<br><b>Technical Manager</b>     | Signature<br> |
| This calibration certificate shall not be reproduced except in full without written approval of the laboratory. |                                |                                          | Issued: September 28, 2017                                                                         |

Certificate No: EX3-3933\_Sep17

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 The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

**Glossary:**

|                        |                                                                                                                                                   |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| TSL                    | tissue simulating liquid                                                                                                                          |
| NORM <sub>x,y,z</sub>  | sensitivity in free space                                                                                                                         |
| ConvF                  | sensitivity in TSL / NORM <sub>x,y,z</sub>                                                                                                        |
| DCP                    | diode compression point                                                                                                                           |
| CF                     | crest factor (1/duty_cycle) of the RF signal                                                                                                      |
| A, B, C, D             | modulation dependent linearization parameters                                                                                                     |
| Polarization $\varphi$ | $\varphi$ rotation around probe axis                                                                                                              |
| Polarization $\theta$  | $\theta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\theta = 0$ is normal to probe axis |
| Connector Angle        | information used in DASY system to align probe sensor X to the robot coordinate system                                                            |

**Calibration is Performed According to the Following Standards:**

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

**Methods Applied and Interpretation of Parameters:**

- NORM<sub>x,y,z</sub>:** Assessed for E-field polarization  $\theta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub> = NORM<sub>x,y,z</sub> \* frequency\_response** (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>:** DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR:** PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>:** A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters:** Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy):** in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset:** The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle:** The angle is assessed using the information gained by determining the NORM (no uncertainty required).

EX3DV4 – SN:3933

September 28, 2017

# Probe EX3DV4

## SN:3933

Manufactured: July 24, 2013

Calibrated: September 28, 2017

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3933

### Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc (k=2) |
|-----------------------------------------------------------|----------|----------|----------|-----------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.47     | 0.52     | 0.18     | ± 10.1 %  |
| DCP (mV) <sup>B</sup>                                     | 98.6     | 98.1     | 89.2     |           |

### Modulation Calibration Parameters

| UID | Communication System Name |   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C   | D<br>dB | VR<br>mV | Unc <sup>E</sup><br>(k=2) |
|-----|---------------------------|---|---------|------------------------------|-----|---------|----------|---------------------------|
| 0   | CW                        | X | 0.0     | 0.0                          | 1.0 | 0.00    | 153.6    | ±3.5 %                    |
|     |                           | Y | 0.0     | 0.0                          | 1.0 |         | 143.6    |                           |
|     |                           | Z | 0.0     | 0.0                          | 1.0 |         | 155.0    |                           |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3933

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>c</sup> | Relative Permittivity <sup>f</sup> | Conductivity (S/m) <sup>f</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>g</sup> | Depth <sup>g</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 41.9                               | 0.89                            | 11.05   | 11.05   | 11.05   | 0.43               | 0.80                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 10.55   | 10.55   | 10.55   | 0.39               | 0.80                    | ± 12.0 %  |
| 900                  | 41.5                               | 0.97                            | 10.31   | 10.31   | 10.31   | 0.45               | 0.80                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 9.32    | 9.32    | 9.32    | 0.36               | 0.80                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 8.95    | 8.95    | 8.95    | 0.33               | 0.80                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 8.34    | 8.34    | 8.34    | 0.22               | 0.97                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 7.98    | 7.98    | 7.98    | 0.34               | 0.86                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 7.72    | 7.72    | 7.72    | 0.41               | 0.84                    | ± 12.0 %  |
| 3500                 | 37.9                               | 2.91                            | 7.68    | 7.68    | 7.68    | 0.25               | 1.25                    | ± 13.1 %  |
| 5200                 | 36.0                               | 4.66                            | 5.60    | 5.60    | 5.60    | 0.35               | 1.80                    | ± 13.1 %  |
| 5300                 | 35.9                               | 4.76                            | 5.36    | 5.36    | 5.36    | 0.35               | 1.80                    | ± 13.1 %  |
| 5500                 | 35.6                               | 4.96                            | 5.20    | 5.20    | 5.20    | 0.40               | 1.80                    | ± 13.1 %  |
| 5600                 | 35.5                               | 5.07                            | 5.00    | 5.00    | 5.00    | 0.40               | 1.80                    | ± 13.1 %  |
| 5800                 | 35.3                               | 5.27                            | 4.95    | 4.95    | 4.95    | 0.40               | 1.80                    | ± 13.1 %  |

<sup>c</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>f</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>g</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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September 28, 2017

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3933

### Calibration Parameter Determined in Body Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>U</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 55.5                               | 0.96                            | 10.86   | 10.86   | 10.86   | 0.36               | 0.93                    | ± 12.0 %  |
| 835                  | 55.2                               | 0.97                            | 10.60   | 10.60   | 10.60   | 0.42               | 0.80                    | ± 12.0 %  |
| 900                  | 55.0                               | 1.05                            | 10.63   | 10.63   | 10.63   | 0.31               | 1.06                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 8.87    | 8.87    | 8.87    | 0.45               | 0.80                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 8.50    | 8.50    | 8.50    | 0.42               | 0.80                    | ± 12.0 %  |
| 2300                 | 52.9                               | 1.81                            | 8.26    | 8.26    | 8.26    | 0.37               | 0.94                    | ± 12.0 %  |
| 2450                 | 52.7                               | 1.95                            | 8.02    | 8.02    | 8.02    | 0.38               | 0.89                    | ± 12.0 %  |
| 2600                 | 52.5                               | 2.16                            | 7.79    | 7.79    | 7.79    | 0.40               | 0.86                    | ± 12.0 %  |
| 3500                 | 51.3                               | 3.31                            | 7.40    | 7.40    | 7.40    | 0.30               | 1.20                    | ± 13.1 %  |
| 5200                 | 49.0                               | 5.30                            | 5.25    | 5.25    | 5.25    | 0.35               | 1.90                    | ± 13.1 %  |
| 5300                 | 48.9                               | 5.42                            | 4.94    | 4.94    | 4.94    | 0.40               | 1.90                    | ± 13.1 %  |
| 5500                 | 48.6                               | 5.65                            | 4.64    | 4.64    | 4.64    | 0.40               | 1.90                    | ± 13.1 %  |
| 5600                 | 48.5                               | 5.77                            | 4.47    | 4.47    | 4.47    | 0.40               | 1.90                    | ± 13.1 %  |
| 5800                 | 48.2                               | 6.00                            | 4.56    | 4.56    | 4.56    | 0.40               | 1.90                    | ± 13.1 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

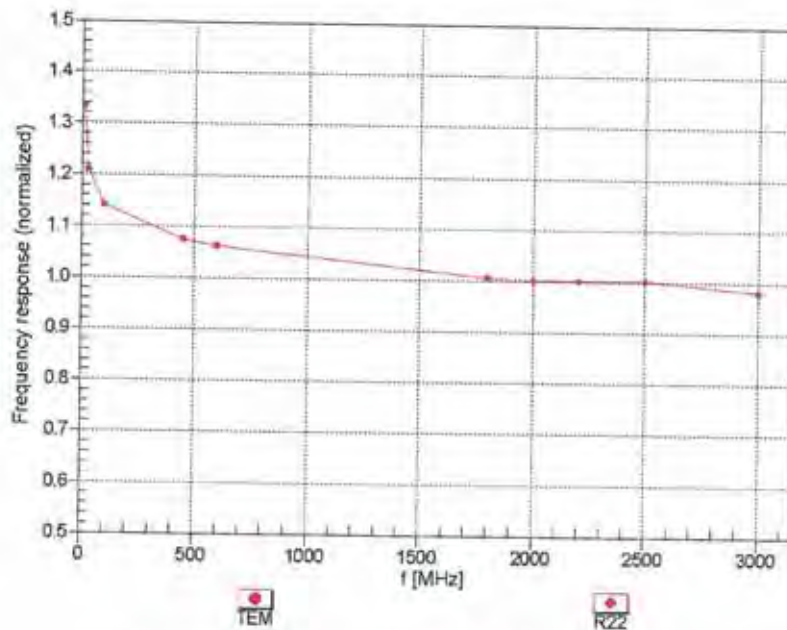
<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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### Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)

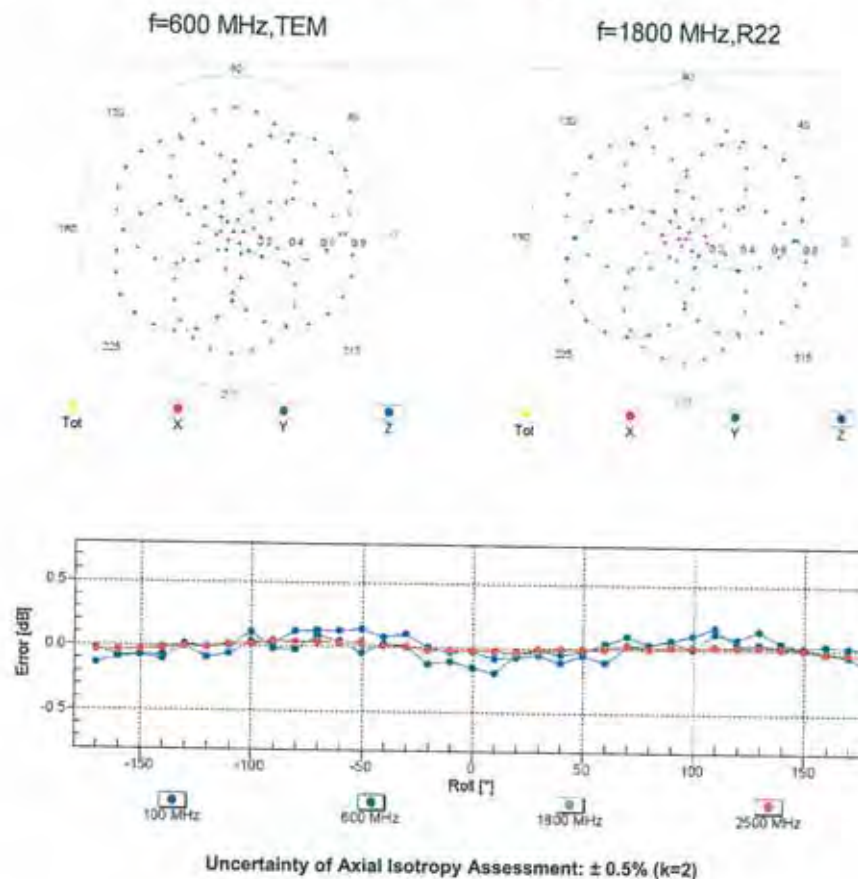


Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

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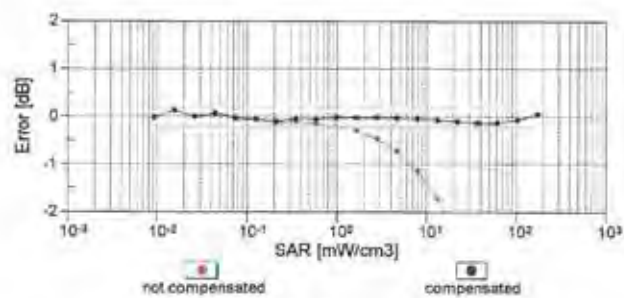
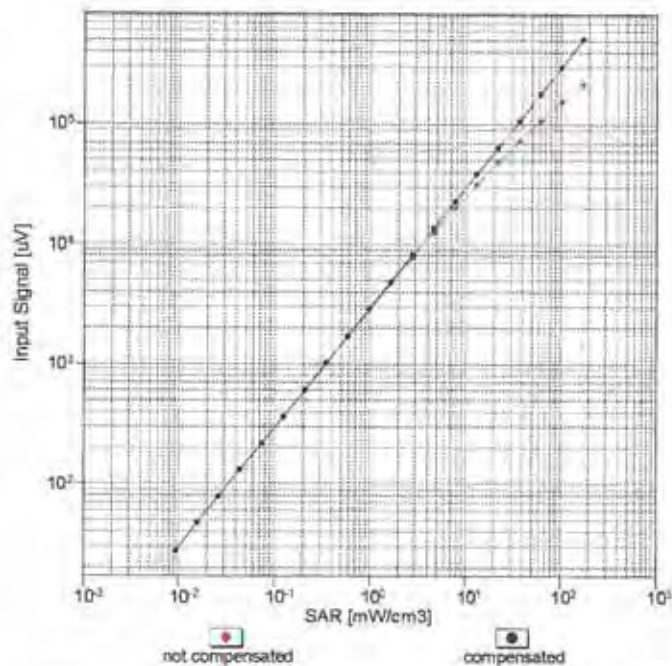
### Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$



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### Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell, $f_{\text{eval}} = 1900 \text{ MHz}$ )



Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

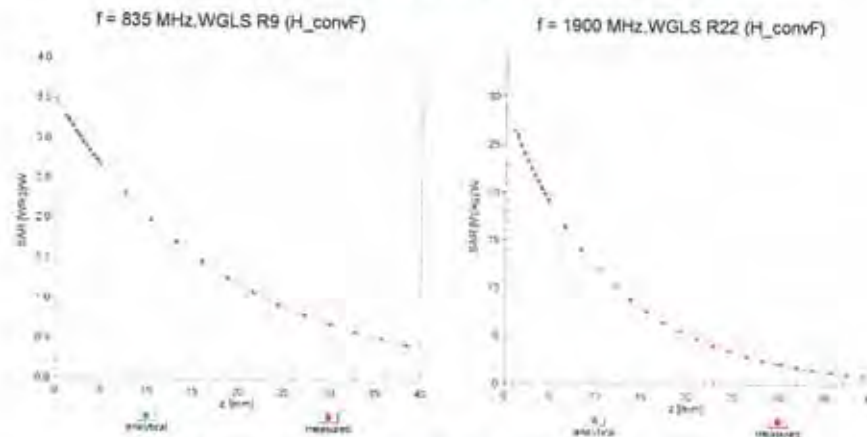
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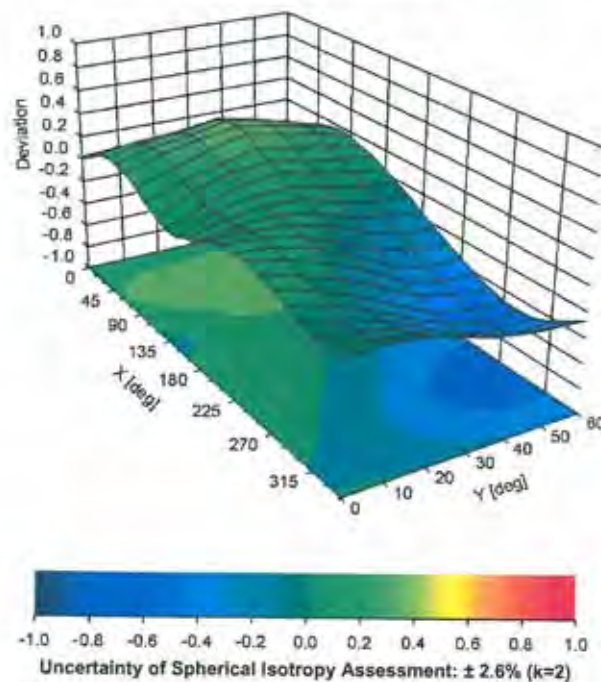
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## Conversion Factor Assessment



## Deviation from Isotropy in Liquid Error ( $\phi$ , $\theta$ ), f = 900 MHz



EX3DV4- SN:3933

September 28, 2017

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3933

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | 79.7       |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Diameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       | 1 mm       |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |