

D1900V2 - SN: 5d159 Extended Dipole Calibrations

Referring to KDB 865664 D01, if dipoles are verified in return loss ($< -20\text{dB}$, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

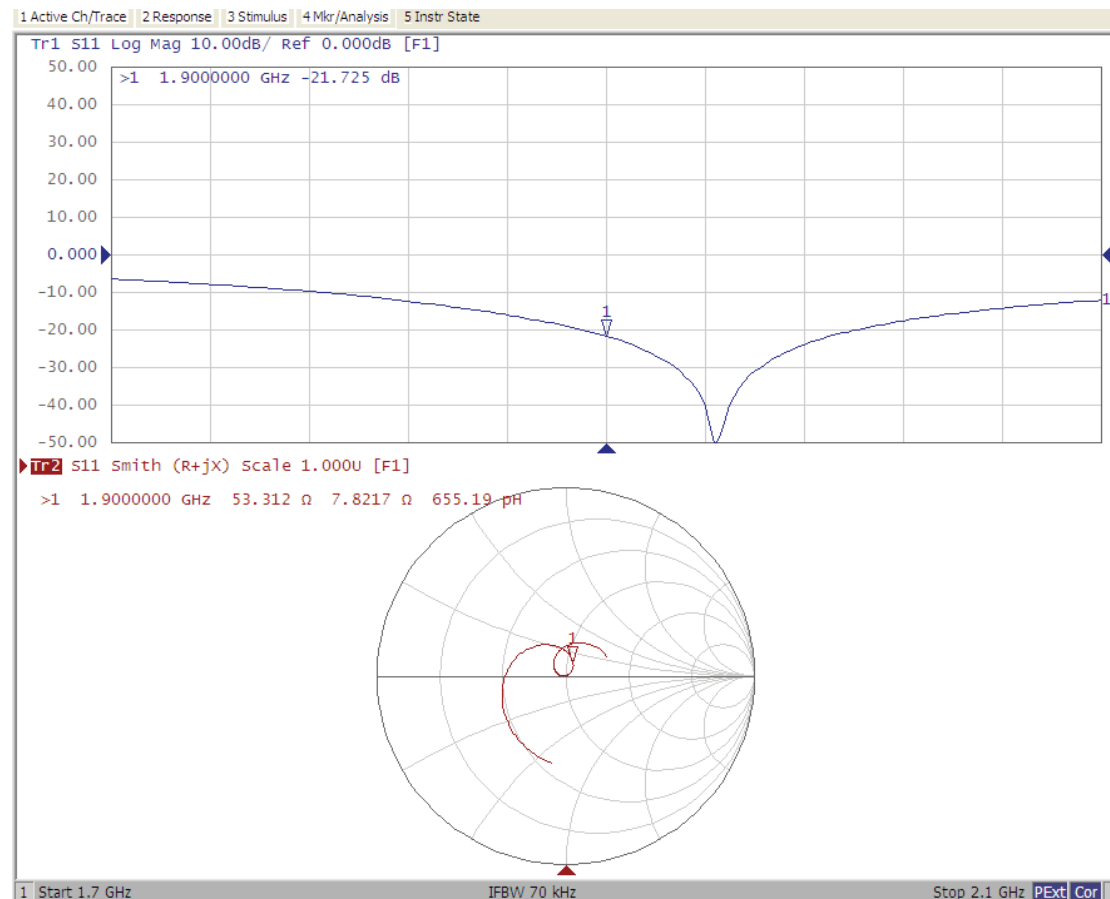
D1900V2 - SN: 5d159						
1900 Head						
Date of Measurement	Return-loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2021.09.16	-21.4		54.2		7.8	
2022.09.16	-21.7	-1.4	53.3	-0.9	7.8	0
2023.09.16	-24.3	-13.6	53.5	-0.7	5.3	-2.5

<Justification of the extended calibration>

The return loss is $< -20\text{dB}$, within 20% of prior calibration, and the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

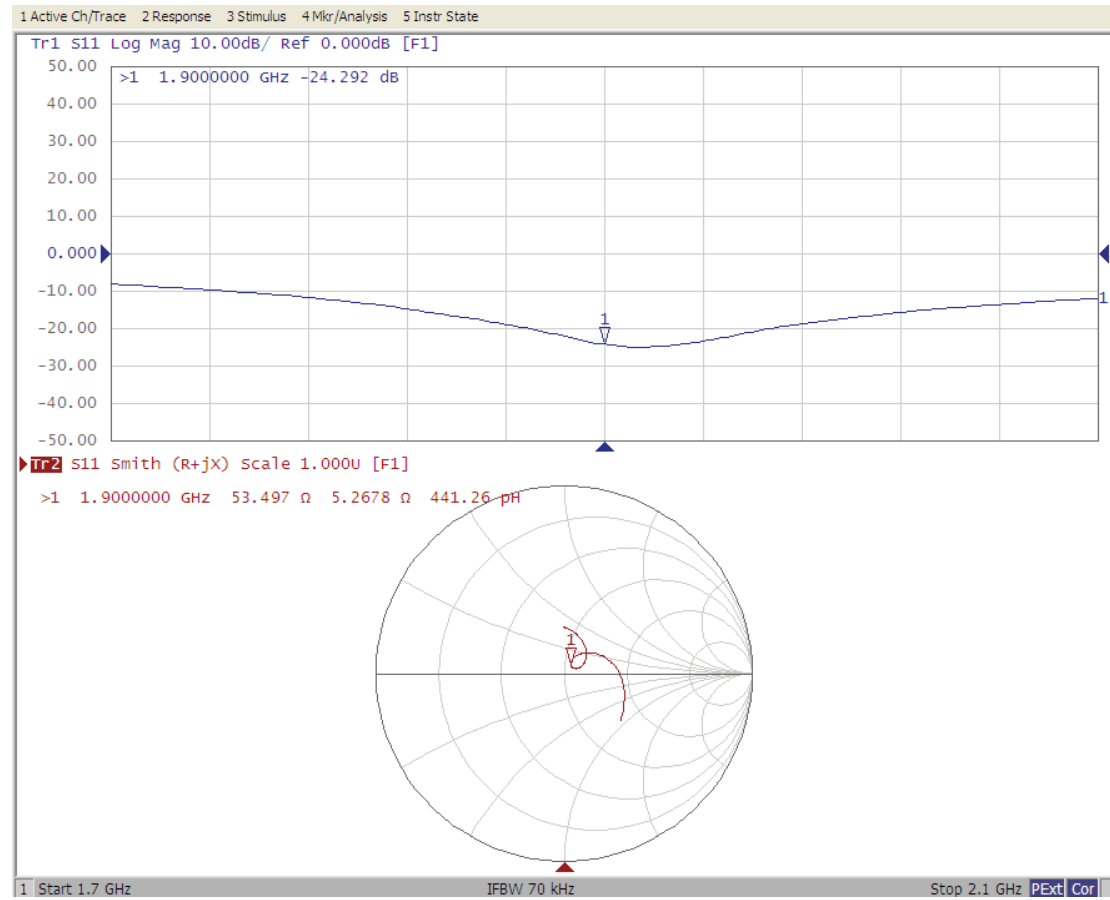
<Dipole Verification Data>

Head 1900MHz _2022.09.16



<Dipole Verification Data>

Head 1900MHz _2023.09.16





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CNAS L0570

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Certificate No: Z21-60424

CALIBRATION CERTIFICATE

Object D2300V2 - SN: 1110

Calibration Procedure(s) FF-Z11-003-01
Calibration Procedures for dipole validation kits

Calibration date: October 20, 2021

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 $(22\pm3)^{\circ}\text{C}$ and humidity $<70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	106277	24-Sep-21 (CTTL, No.J21X08326)	Sep-22
Power sensor NRP8S	104291	24-Sep-21 (CTTL, No.J21X08326)	Sep-22
Reference Probe EX3DV4	SN 7517	03-Feb-21(CTTL-SPEAG,No.Z21-60001)	Feb-22
DAE4	SN 1556	15-Jan-21(SPEAG,No.DAE4-1556_Jan21)	Jan-22
Secondary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	01-Feb-21 (CTTL, No.J21X00593)	Jan-22
NetworkAnalyzer E5071C	MY46110673	14-Jan-21 (CTTL, No.J21X00232)	Jan-22

	Name	Function	Signature
Calibrated by:	Zhao Jing	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: October 27 2021

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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM _{x,y,z}
N/A	not applicable or not measured

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 assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.



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Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2300 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.5	1.67 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	39.2 $\pm$ 6 %	1.66 mho/m $\pm$ 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	12.3 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	49.2 W/kg $\pm$ 18.8 % (k=2)
SAR averaged over 10 cm³ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	5.75 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.0 W/kg $\pm$ 18.7 % (k=2)



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Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	$49.1\Omega + 3.12j\Omega$
Return Loss	- 29.7dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.071 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

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DASY5 Validation Report for Head TSL

Date: 10.20.2021

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: D2300V2 - SN: 1110

Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2300$ MHz; $\sigma = 1.662$ S/m; $\epsilon_r = 39.17$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7517; ConvF(7.58, 7.58, 7.58) @ 2300 MHz; Calibrated: 2021-02-03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1556; Calibrated: 2021-01-15
- Phantom: MFP_V5.1C (20deg probe tilt); Type: QD 000 P51 Cx; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 107.7 V/m; Power Drift = 0.01 dB

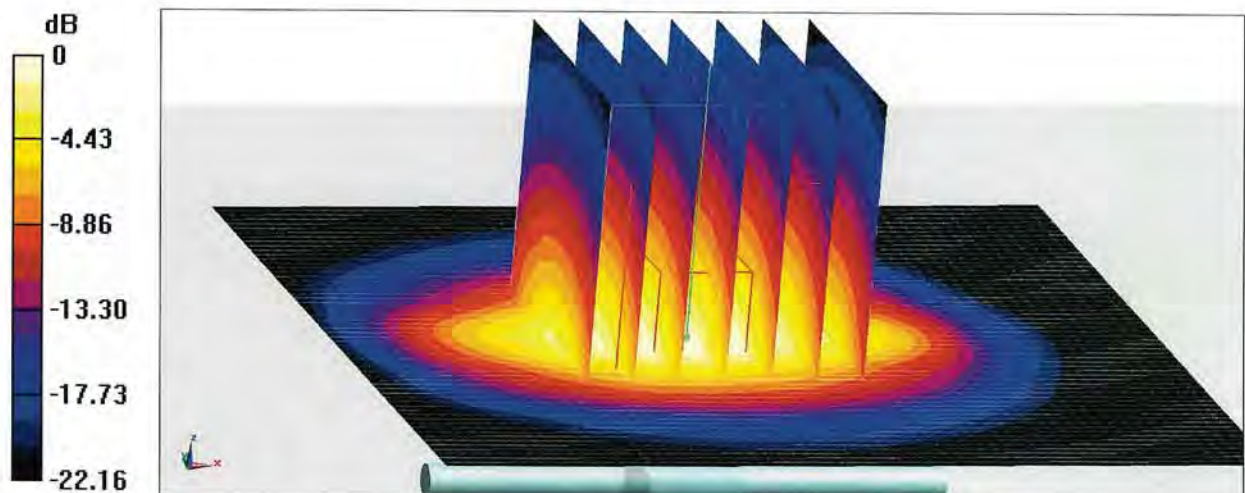
Peak SAR (extrapolated) = 25.6 W/kg

SAR(1 g) = 12.3 W/kg; SAR(10 g) = 5.75 W/kg

Smallest distance from peaks to all points 3 dB below = 9.1 mm

Ratio of SAR at M2 to SAR at M1 = 48.1%

Maximum value of SAR (measured) = 20.7 W/kg



0 dB = 20.7 W/kg = 13.16 dBW/kg

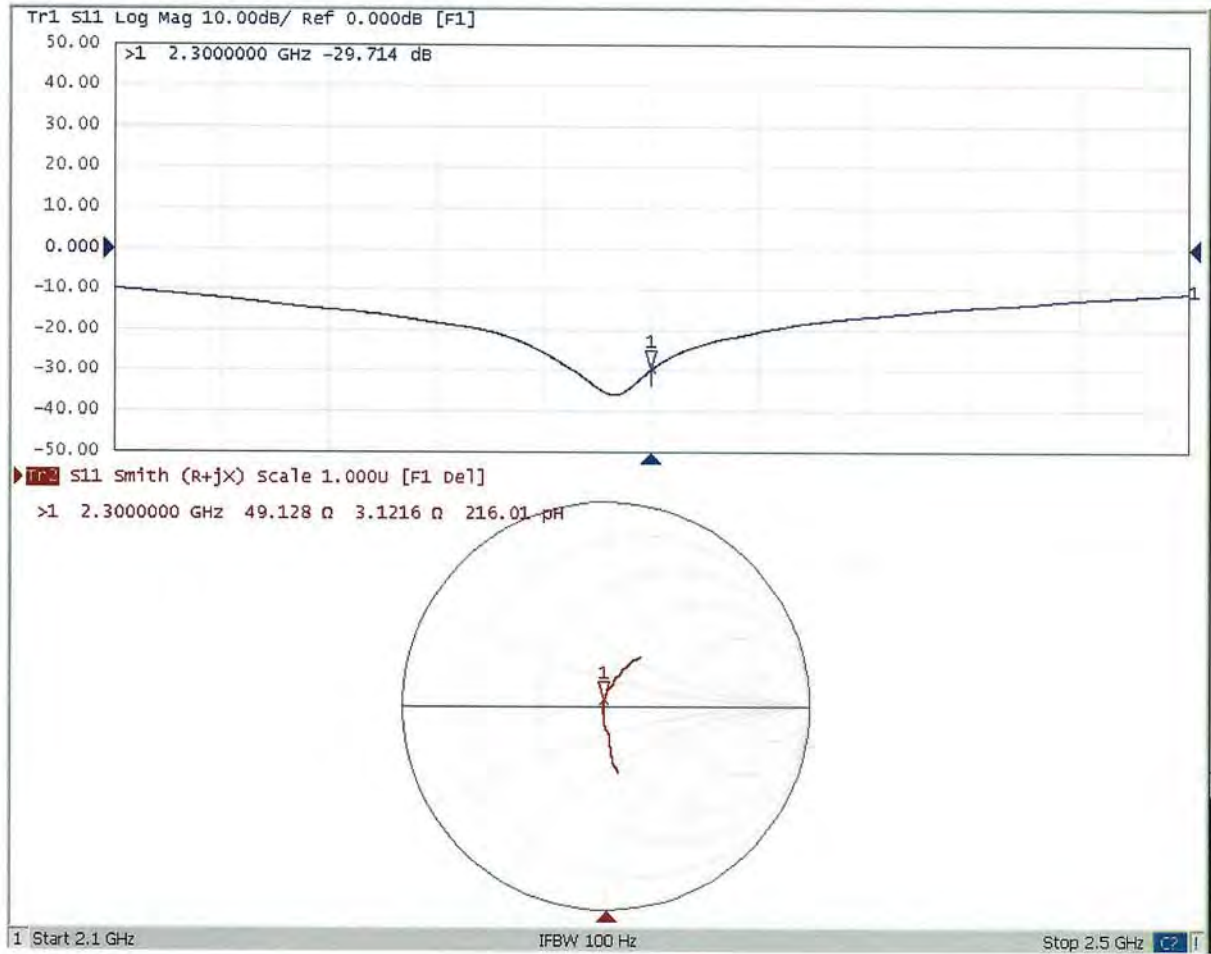


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Impedance Measurement Plot for Head TSL



D2300V2 - SN: 1110 Extended Dipole Calibrations

Referring to KDB 865664 D01, if dipoles are verified in return loss (<-20dB, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

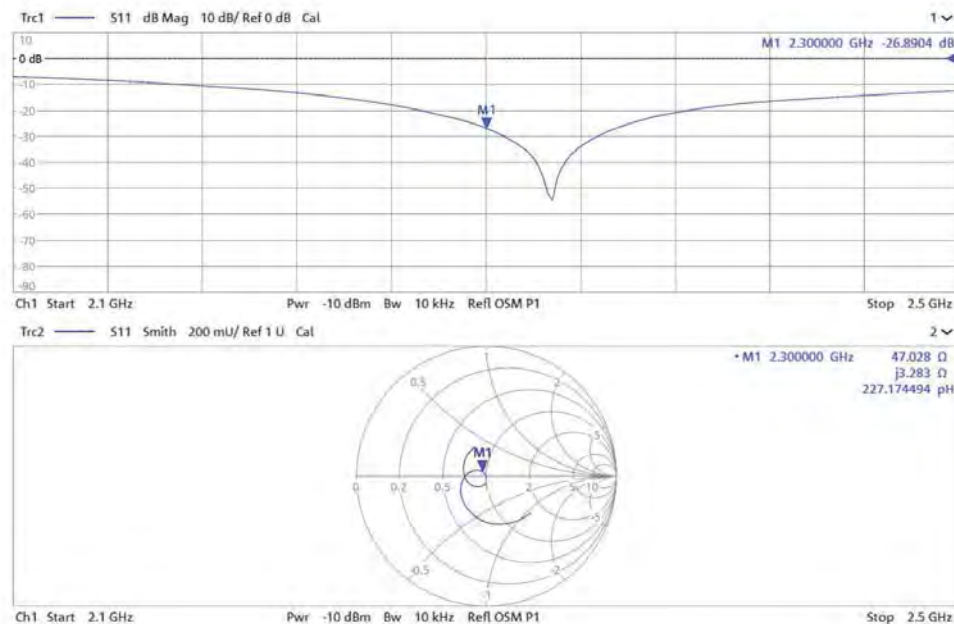
D2300V2 - SN: 1110						
2300MHz Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
10.20.2021	-29.7		49.1		3.12	
10.19.2022	-26.89	-9.46	47.03	-2.07	3.28	0.16
10.18.2023	-27.91	-6.02	47.04	-2.07	2.67	-0.45

<Justification of the extended calibration>

The return loss is < -20dB, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

<Dipole Verification Data>

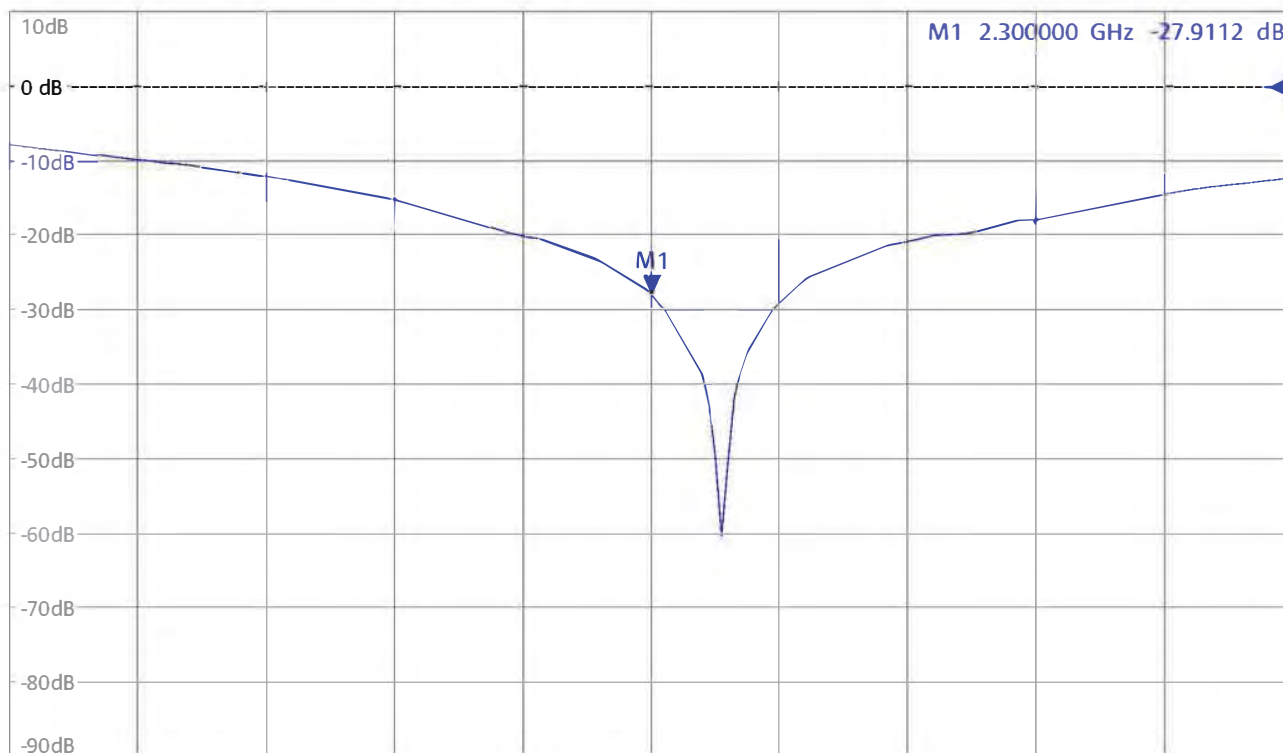
Head 2300MHz _2022.10.19



<Dipole Verification Data>
Head 2300MHz_2023.10.18

Trc1 — S11 dB Mag 10 dB/ Ref 0 dB Cal

1

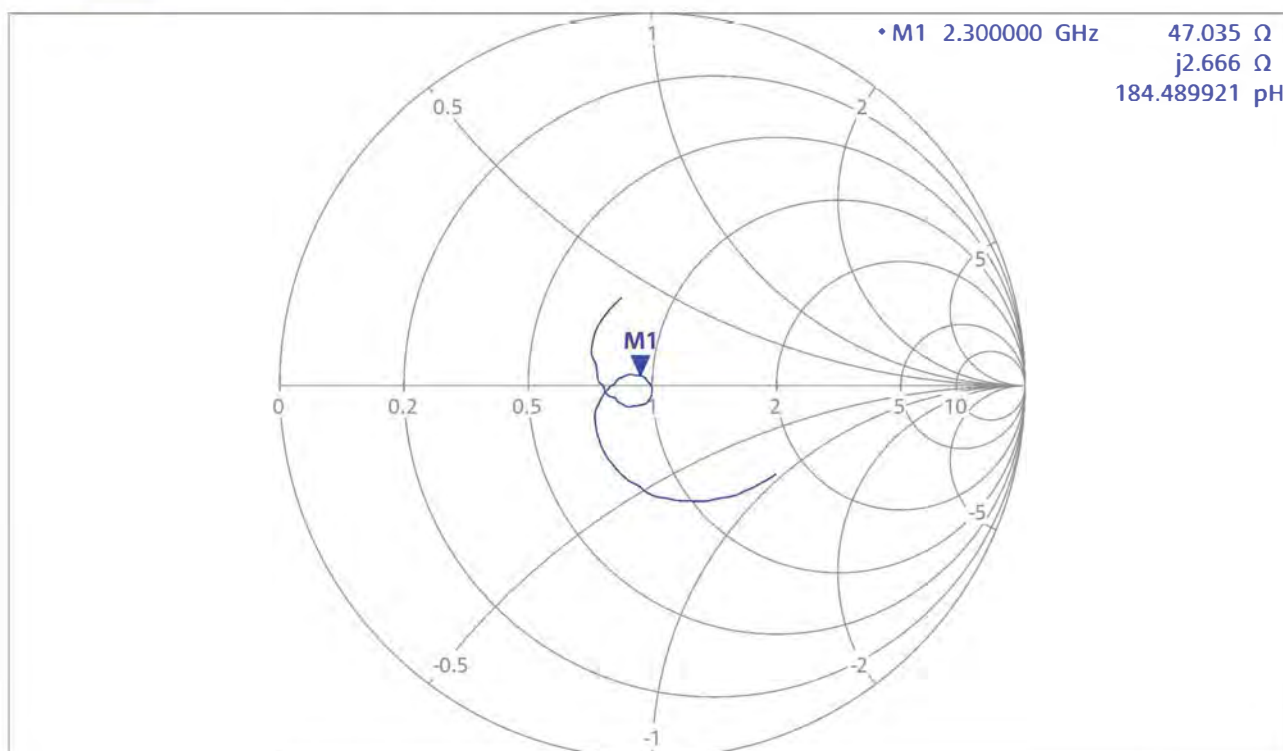


Ch1 Start 2.1 GHz Pwr -10 dBm Bw 10 kHz Refl OSM P1

Stop 2.5 GHz

Trc2 — S11 Smith 200 mU/ Ref 1 U Cal

2



Ch1 Start 2.1 GHz Pwr -10 dBm Bw 10 kHz Refl OSM P1

Stop 2.5 GHz



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Certificate No: **Z21-60339**

CALIBRATION CERTIFICATE

Object

D2600V2 - SN: 1110

Calibration Procedure(s)

FF-Z11-003-01

Calibration Procedures for dipole validation kits

Calibration date:

September 16, 2021

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 (Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	106277	23-Sep-20 (CTTL, No.J20X08336)	Sep-21
Power sensor NRP8S	104291	23-Sep-20 (CTTL, No.J20X08336)	Sep-21
Reference Probe EX3DV4	SN 7517	03-Feb-21(CTTL-SPEAG,No.Z21-60001)	Feb-22
DAE4	SN 1556	15-Jan-21(SPEAG,No.DAE4-1556_Jan21)	Jan-22
Secondary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	01-Feb-21 (CTTL, No.J21X00593)	Jan-22
Network Analyzer E5071C	MY46110673	14-Jan-21 (CTTL, No.J21X00232)	Jan-22

	Name	Function	Signature
Calibrated by:	Zhao Jing	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: September 21, 2021

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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM _{x,y,z}
N/A	not applicable or not measured

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 assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.



Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2600 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.0	1.96 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	39.0 $\pm$ 6 %	1.95 mho/m $\pm$ 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.9 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	55.8 W/kg $\pm$ 18.8 % (k=2)
SAR averaged over 10 cm³ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	6.13 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.6 W/kg $\pm$ 18.7 % (k=2)



Appendix(Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	51.1 Ω - 5.12j Ω
Return Loss	- 25.7dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.058 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by		SPEAG
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DASY5 Validation Report for Head TSL

Date: 09.16.2021

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN: 1110

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.949$ S/m; $\epsilon_r = 39.04$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7517; ConvF(7.1, 7.1, 7.1) @ 2600 MHz; Calibrated: 2021-02-03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1556; Calibrated: 2021-01-15
- Phantom: MFP_V5.1C (20deg probe tilt); Type: QD 000 P51 Cx; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 105.3 V/m; Power Drift = 0.01 dB

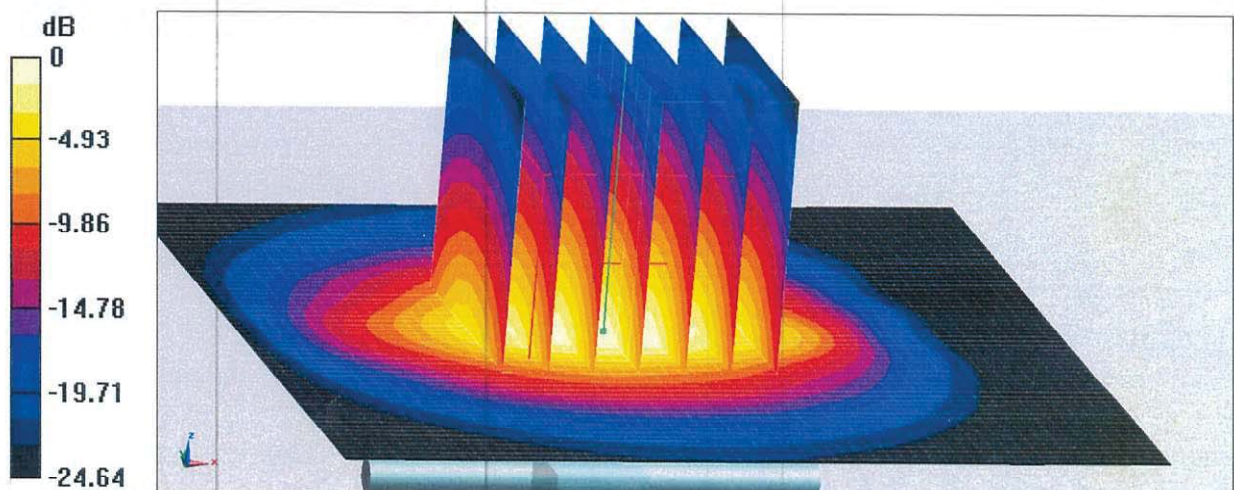
Peak SAR (extrapolated) = 30.6 W/kg

SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.13 W/kg

Smallest distance from peaks to all points 3 dB below = 9 mm

Ratio of SAR at M2 to SAR at M1 = 45.2%

Maximum value of SAR (measured) = 24.1 W/kg



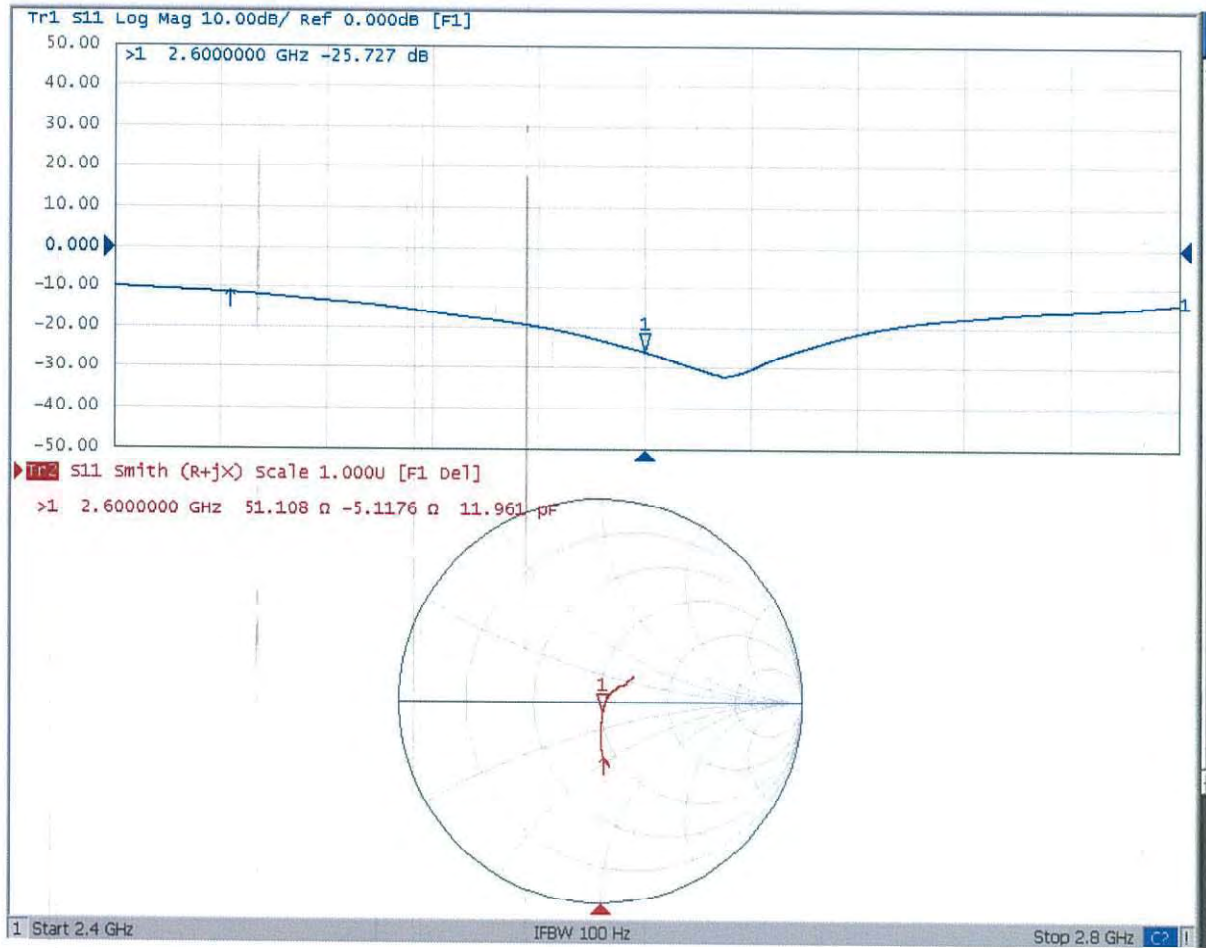
0 dB = 24.1 W/kg = 13.82 dBW/kg



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Impedance Measurement Plot for Head TSL



D2600V2 - SN: 1110 Extended Dipole Calibrations

Referring to KDB 865664 D01, if dipoles are verified in return loss ($< -20\text{dB}$, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

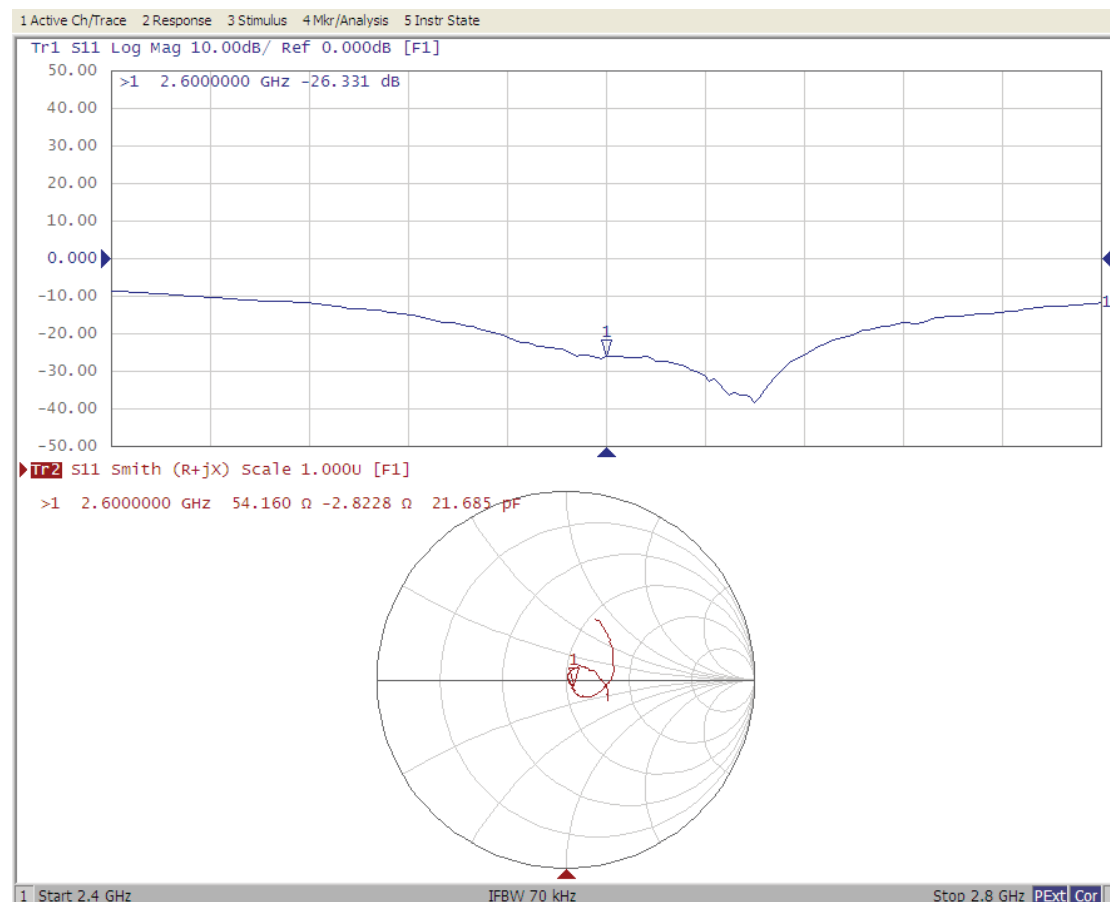
D2600V2 - SN: 1110						
2600 Head						
Date of Measurement	Return-loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2021.09.16	-25.7		51.1		-5.1	
2022.09.16	-26.3	2.7	54.2	3.1	-2.8	2.3
2023.09.16	-26.0	-1.2	53.1	2	-4.2	0.9

<Justification of the extended calibration>

The return loss is $< -20\text{dB}$, within 20% of prior calibration, and the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

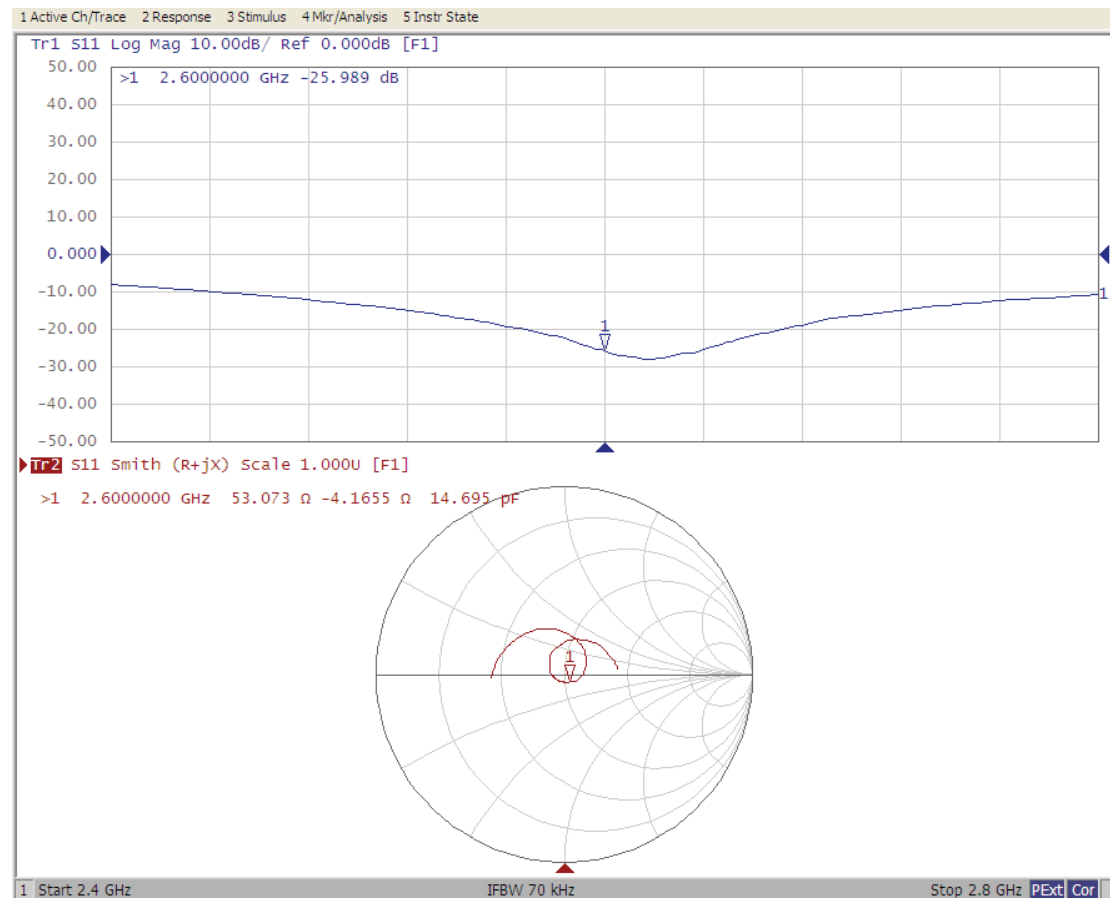
<Dipole Verification Data>

Head 2600MHz _2022.09.16



<Dipole Verification Data>

Head 2600MHz _2023.09.16





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Certificate No: Z21-60426

CALIBRATION CERTIFICATE

Object D3500V2 - SN: 1111

Calibration Procedure(s) FF-Z11-003-01
Calibration Procedures for dipole validation kits

Calibration date: October 21 2021

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 $(22\pm3)^{\circ}\text{C}$ and humidity $<70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	106277	24-Sep-21 (CTTL, No.J21X08326)	Sep-22
Power sensor NRP8S	104291	24-Sep-21 (CTTL, No.J21X08326)	Sep-22
ReferenceProbe EX3DV4	SN 7517	03-Feb-21(CTTL-SPEAG,No.Z21-60001)	Feb-22
DAE4	SN 1556	15-Jan-21(SPEAG,No.DAE4-1556_Jan21)	Jan-22
Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	01-Feb-21 (CTTL, No.J21X00593)	Jan-22
NetworkAnalyzerE5071C	MY46110673	14-Jan-21 (CTTL, No.J21X00232)	Jan-22

	Name	Function	Signature
Calibrated by:	Zhao Jing	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: October 27 2021

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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM _{x,y,z}
N/A	not applicable or not measured

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 assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	3500 MHz $\pm$ 1 MHz	

Head TSL parameters at 3500MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	37.9	2.91 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	37.7 $\pm$ 6 %	2.86 mho/m $\pm$ 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL at 3500MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	6.53 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	65.5 W/kg $\pm$ 24.4 % (k=2)
SAR averaged over 10 cm³ (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.47 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.7 W/kg $\pm$ 24.2 % (k=2)

Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL at 3500MHz

Impedance, transformed to feed point	$50.3\Omega + 1.89j\Omega$
Return Loss	- 34.4dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.043 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

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DASY5 Validation Report for Head TSL

Date: 10.21.2021

Test Laboratory: CTTL, Beijing, China

DUT: Dipole D3500V2; Type: D3500V2; Serial: D3500V2 - SN: 1111

Communication System: CW; Frequency: 3500 MHz,

Medium parameters used: $f = 3500$ MHz; $\sigma = 2.857$ S/m; $\epsilon_r = 37.72$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7517; ConvF(6.65, 6.65, 6.65) @ 3500 MHz; Calibrated: 2021-02-03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1556; Calibrated: 2021-01-15
- Phantom: MFP_V5.1C (20deg probe tilt); Type: QD 000 P51 Cx; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole Calibration /Pin=100mW, d=10mm, f=3500 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 70.53 V/m; Power Drift = -0.03 dB

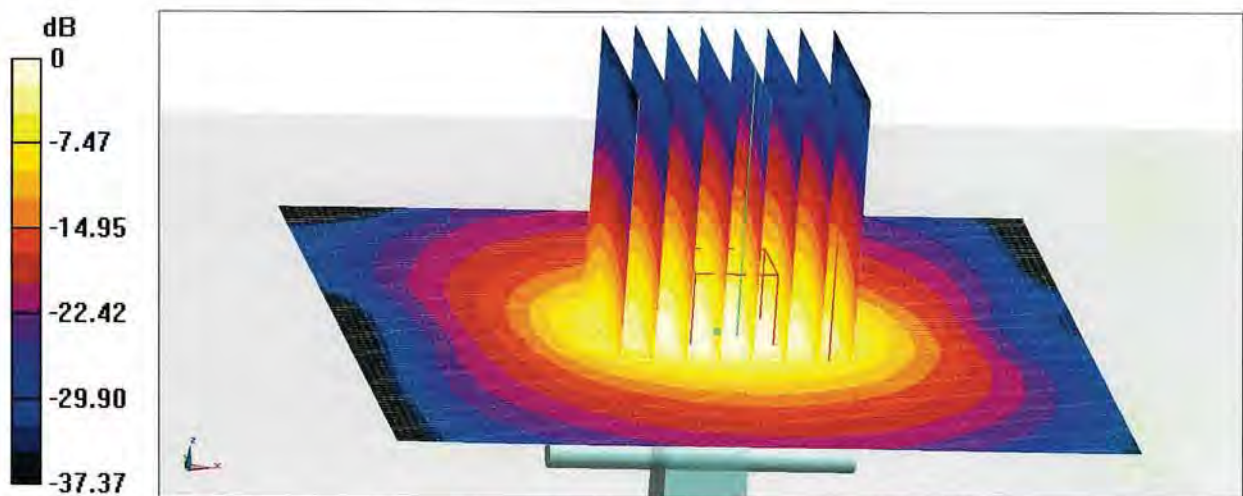
Peak SAR (extrapolated) = 17.4 W/kg

SAR(1 g) = 6.53 W/kg; SAR(10 g) = 2.47 W/kg

Smallest distance from peaks to all points 3 dB below = 8.8 mm

Ratio of SAR at M2 to SAR at M1 = 75.5%

Maximum value of SAR (measured) = 12.4 W/kg



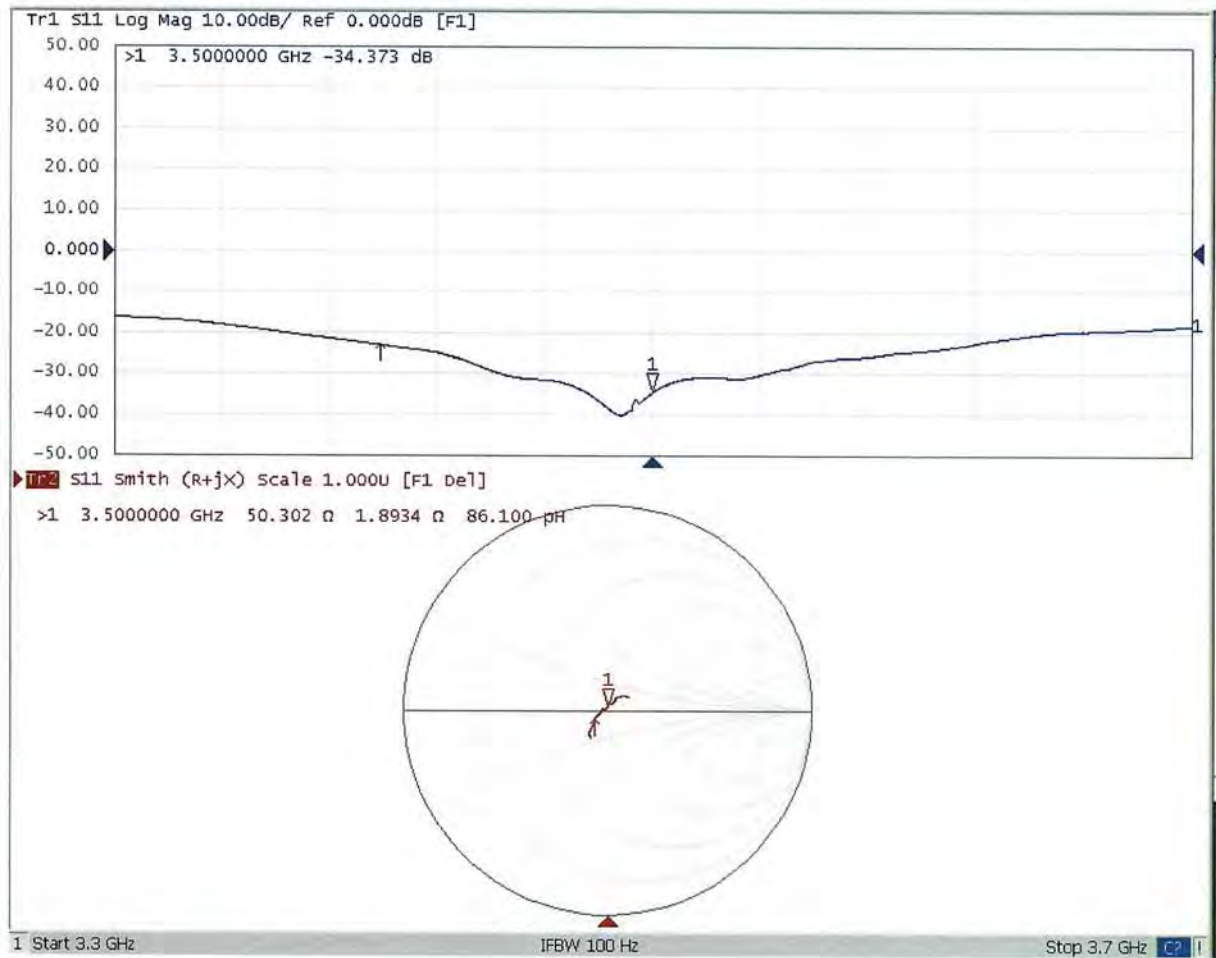
0 dB = 12.4 W/kg = 10.93 dBW/kg



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Impedance Measurement Plot for Head TSL



D3500V2 - SN: 1111 Extended Dipole Calibrations

Referring to KDB 865664 D01, if dipoles are verified in return loss ($< -20\text{dB}$, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

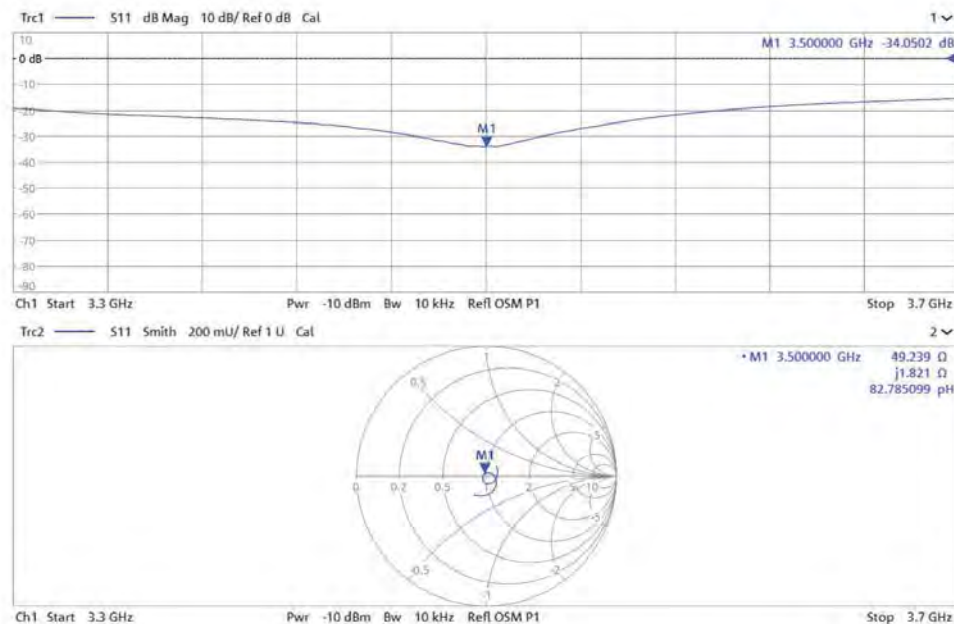
D3500V2 - SN: 1111						
3500MHz Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
10.21.2021	-34.4		50.3		1.89	
10.20.2022	-34.05	-1.02	49.24	-1.06	1.82	-0.07
10.19.2023	-28.96	-15.83	53.13	2.83	1.86	-0.03

<Justification of the extended calibration>

The return loss is $< -20\text{dB}$, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

<Dipole Verification Data>

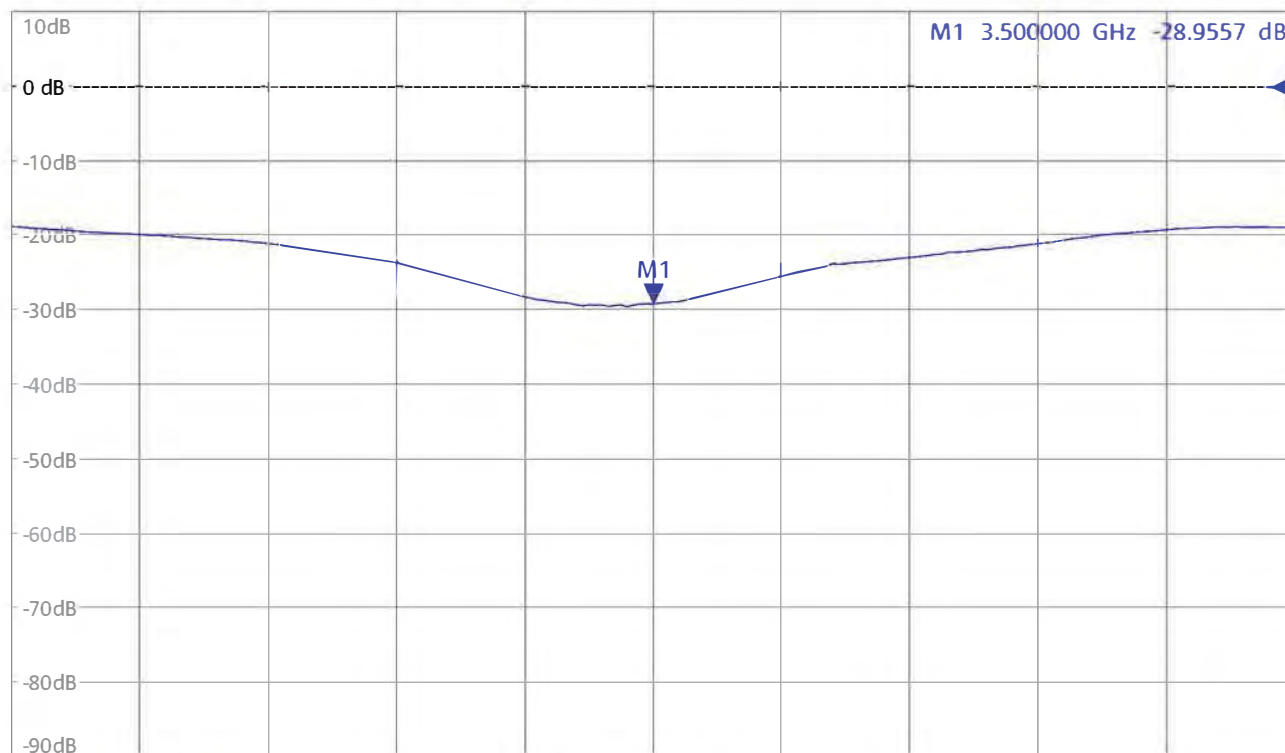
Head 3500MHz _2022.10.20



<Dipole Verification Data>
Head 3500MHz_2023.10.19

Trc1 — S11 dB Mag 10 dB/ Ref 0 dB Cal

1

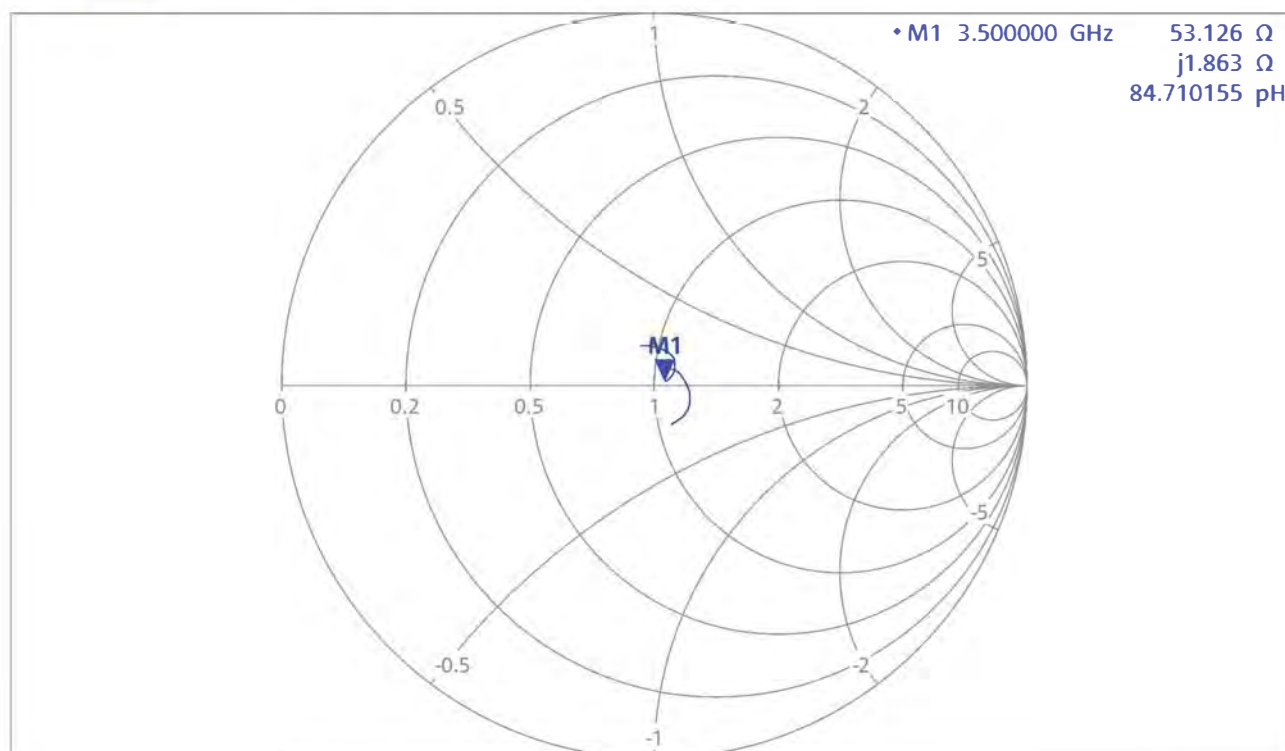


Ch1 Start 3.3 GHz Pwr -10 dBm Bw 10 kHz Refl OSM P1

Stop 3.7 GHz

Trc2 — S11 Smith 200 mU/ Ref 1 U Cal

2



Ch1 Start 3.3 GHz Pwr -10 dBm Bw 10 kHz Refl OSM P1

Stop 3.7 GHz



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Client

7layers

Certificate No: **Z21-60427**

CALIBRATION CERTIFICATE

Object **D3700V2 - SN: 1082**

Calibration Procedure(s) **FF-Z11-003-01**
Calibration Procedures for dipole validation kits

Calibration date: **October 20, 2021**

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(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	106277	24-Sep-21 (CTTL, No.J21X08326)	Sep-22
Power sensor NRP8S	104291	24-Sep-21 (CTTL, No.J21X08326)	Sep-22
ReferenceProbe EX3DV4	SN 7517	03-Feb-21(CTTL-SPEAG,No.Z21-60001)	Feb-22
DAE4	SN 1556	15-Jan-21(SPEAG,No.DAE4-1556_Jan21)	Jan-22
Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	01-Feb-21 (CTTL, No.J21X00593)	Jan-22
NetworkAnalyzerE5071C	MY46110673	14-Jan-21 (CTTL, No.J21X00232)	Jan-22

	Name	Function	Signature
Calibrated by:	Zhao Jing	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: October 27, 2021

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



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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM _{x,y,z}
N/A	not applicable or not measured

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 assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.



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Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	3700 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	37.7	3.12 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	37.6 $\pm$ 6 %	3.11 mho/m $\pm$ 6 %
Head TSL temperature change during test	<1.0 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	6.68 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	66.8 W/kg $\pm$ 24.4 % (k=2)
SAR averaged over 10 cm³ (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.44 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.4 W/kg $\pm$ 24.2 % (k=2)



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Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	$45.9\Omega + 0.96j\Omega$
Return Loss	- 27.2dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.045 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

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DASY5 Validation Report for Head TSL

Date: 10.20.2021

Test Laboratory: CTTL, Beijing, China

DUT: Dipole D3700V2; Type: D3700V2; Serial: D3700V2 - SN: 1082

Communication System: CW; Frequency: 3700 MHz, Frequency: 3800 MHz,
Medium parameters used: $f = 3700$ MHz; $\sigma = 3.105$ S/m; $\epsilon_r = 37.6$; $\rho = 1000$ kg/m³,
Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7517; ConvF(6.4, 6.4, 6.4) @ 3700 MHz; Calibrated: 2021-02-03
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1556; Calibrated: 2021-01-15
- Phantom: MFP_V5.1C (20deg probe tilt); Type: QD 000 P51 Cx; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

Dipole Calibration /Pin=100mW, d=10mm, f=3700 MHz/Zoom Scan,
dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 68.16 V/m; Power Drift = -0.09 dB

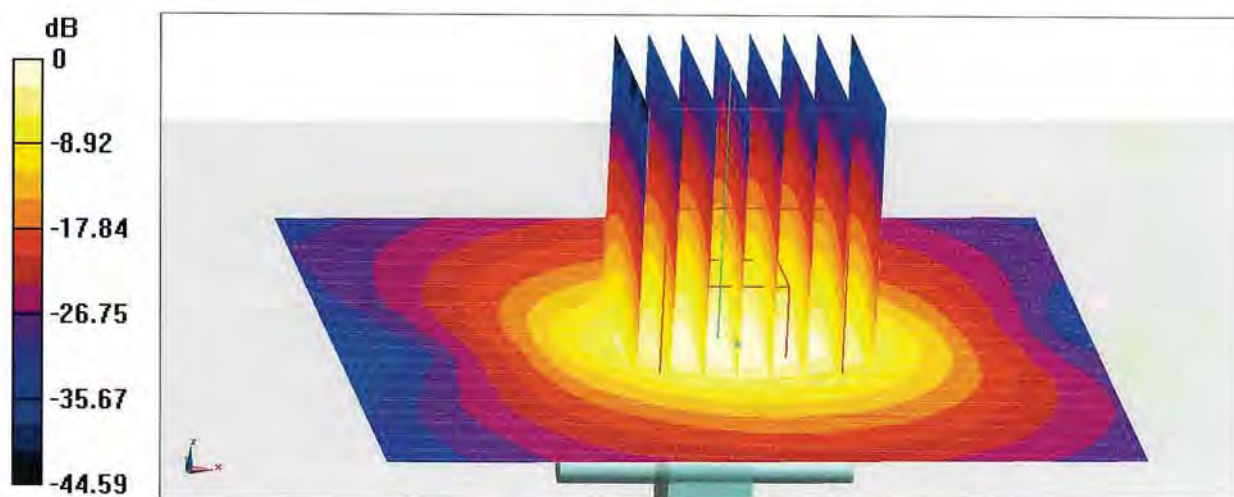
Peak SAR (extrapolated) = 18.8 W/kg

SAR(1 g) = 6.68 W/kg; SAR(10 g) = 2.44 W/kg

Smallest distance from peaks to all points 3 dB below = 8.4 mm

Ratio of SAR at M2 to SAR at M1 = 73.7%

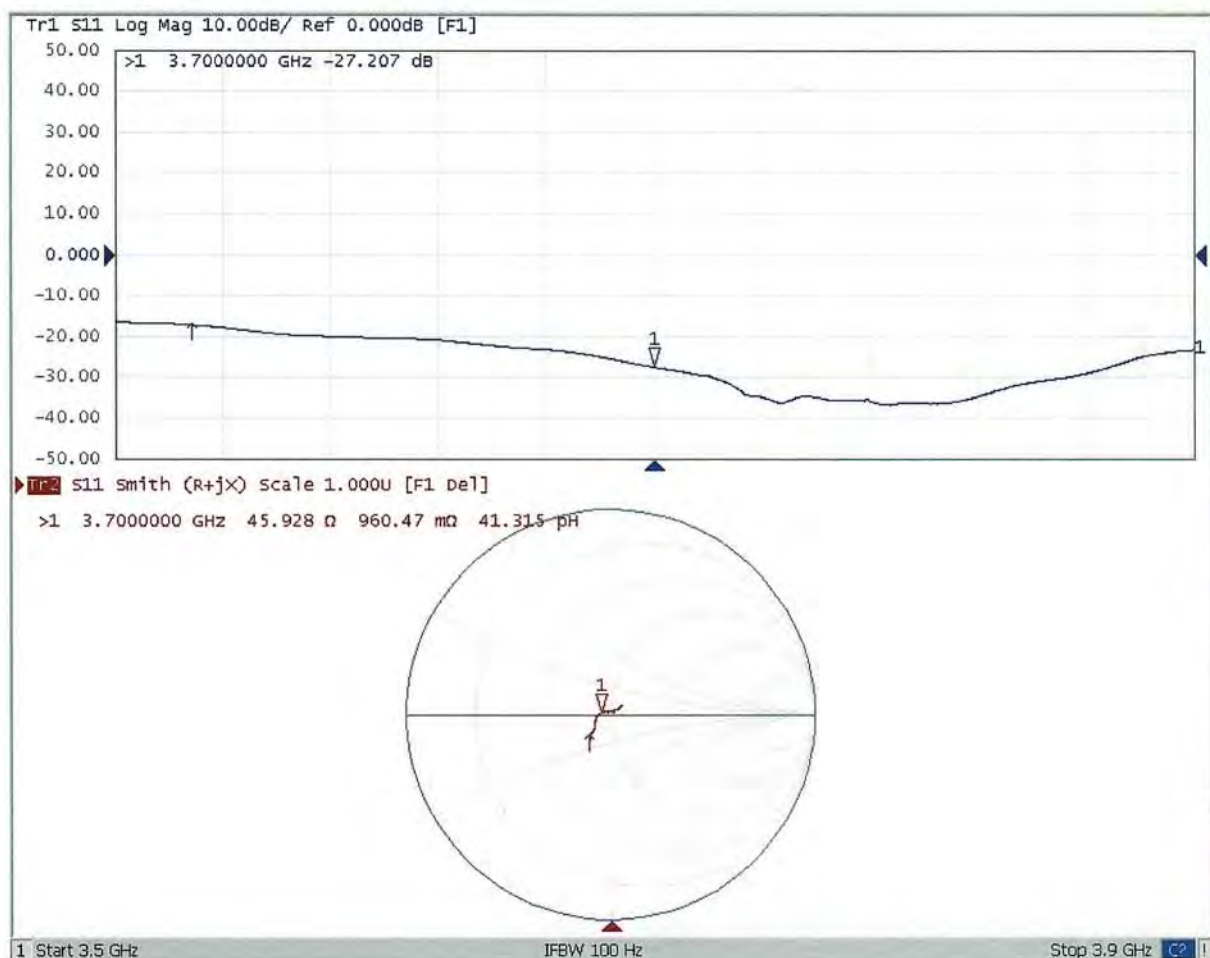
Maximum value of SAR (measured) = 13.0 W/kg





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Impedance Measurement Plot for Head TSL



D3700V2 - SN: 1082 Extended Dipole Calibrations

Referring to KDB 865664 D01, if dipoles are verified in return loss ($< -20\text{dB}$, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

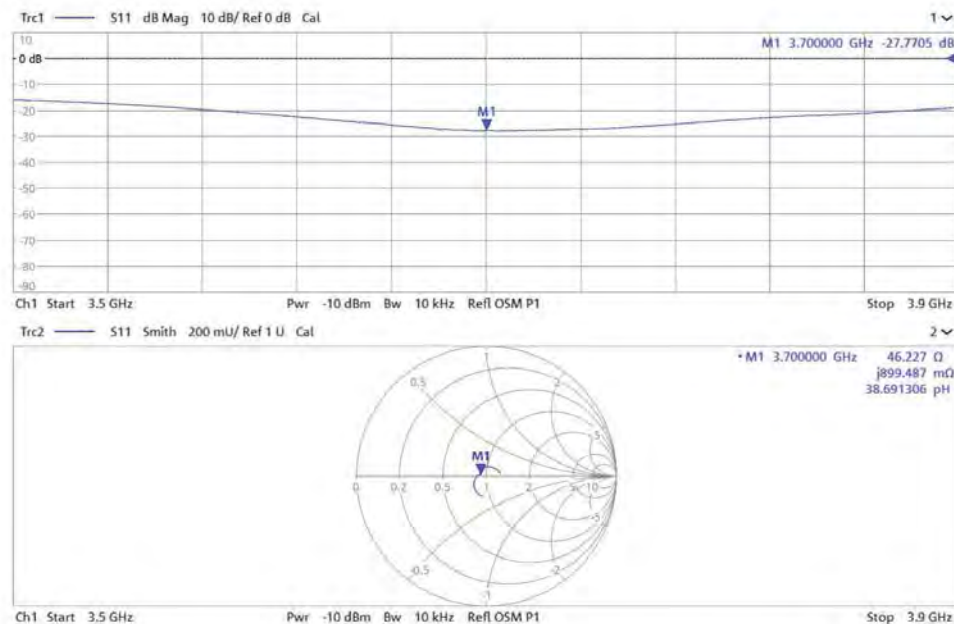
D3700V2 - SN: 1082						
3700MHz Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
10.20.2021	-27.2		45.9		0.96	
10.19.2022	-27.77	2.10	46.23	0.33	0.90	-0.06
10.18.2023	-30.70	12.86	49.30	3.40	-2.71	-3.67

<Justification of the extended calibration>

The return loss is $< -20\text{dB}$, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

<Dipole Verification Data>

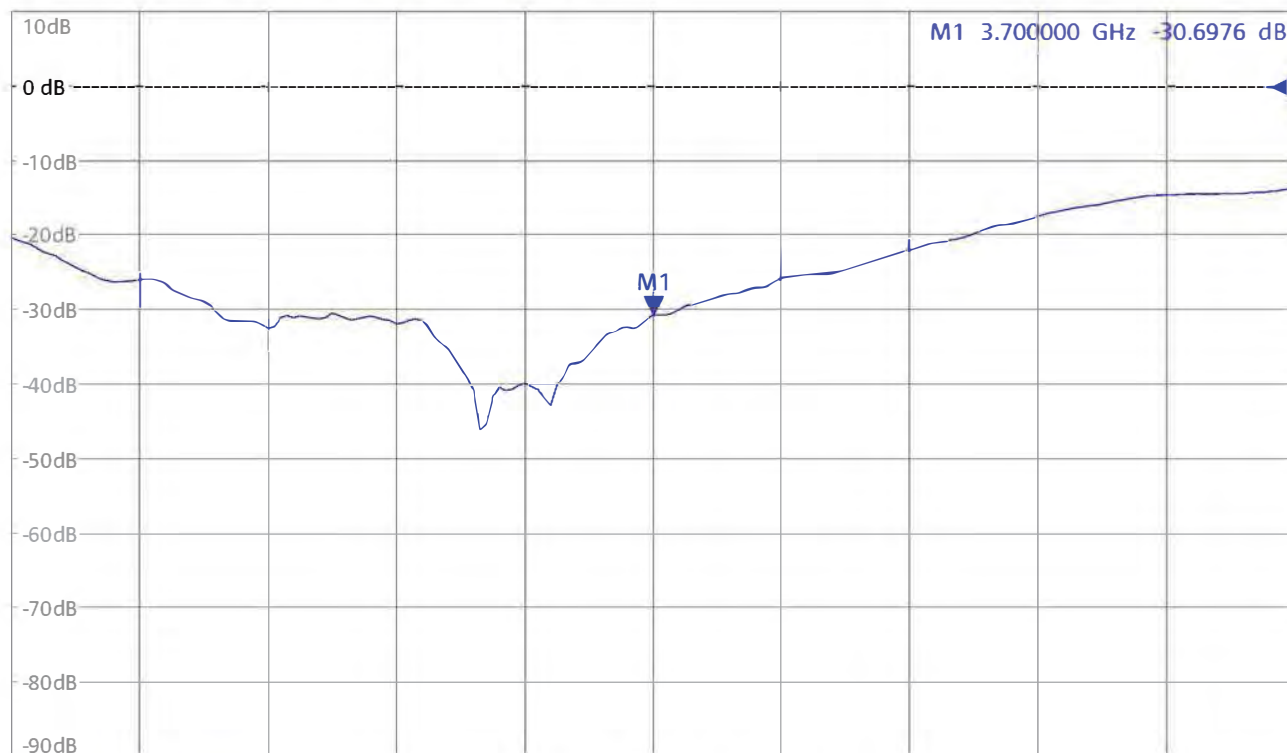
Head 3700MHz _2022.10.19



<Dipole Verification Data>
Head 3700MHz_2023.10.18

Trc1 — S11 dB Mag 10 dB/ Ref 0 dB Cal

1 ▾

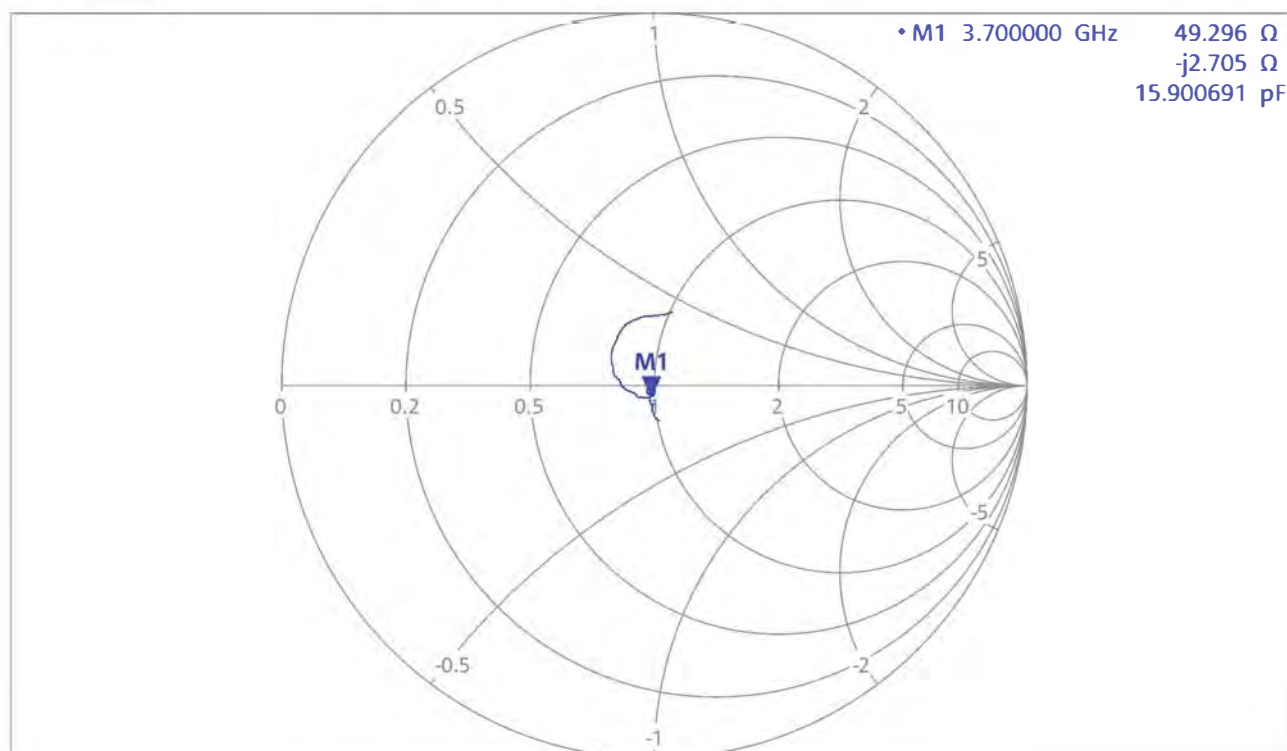


Ch1 Start 3.5 GHz Pwr -10 dBm Bw 10 kHz Refl OSM P1

Stop 3.9 GHz

Trc2 — S11 Smith 200 mU/ Ref 1 U Cal

2 ▾



Ch1 Start 3.5 GHz Pwr -10 dBm Bw 10 kHz Refl OSM P1

Stop 3.9 GHz



Appendix D. Conducted RF Output Power Table

The detailed power table are shown as follows.

Default Power

Band	GSM850 (Ant0)				GSM1900 (Ant0)			
Channel	128	189	251	Max. Tune-up Power (dBm)	512	661	810	Max. Tune-up Power (dBm)
Frequency (MHz)	824.2	836.4	848.8		1850.2	1880	1909.8	
GSM	31.77	31.70	31.68	33.50	28.94	29.06	29.03	30.50
GPRS 1Tx Slot	31.75	31.69	31.67	33.50	28.93	29.05	29.01	30.50
GPRS 2Tx Slot	29.54	29.77	29.54	31.50	27.09	26.94	26.97	28.50
GPRS 3Tx Slot	27.58	27.75	27.57	29.50	25.12	25.05	24.95	26.50
GPRS 4Tx Slot	25.56	25.73	25.58	27.50	22.75	22.90	22.93	24.50
EDGE 1Tx Slot	26.22	26.10	26.18	27.50	25.47	25.46	25.27	26.50
EDGE 2Tx Slot	25.01	24.98	24.82	26.50	24.04	24.29	24.06	25.50
EDGE 3Tx Slot	23.84	23.66	23.86	25.50	22.90	23.17	22.98	24.50
EDGE 4Tx Slot	22.79	22.86	22.82	24.50	21.86	22.06	22.00	23.50

Source-Based Time-Averaged Power								
Band	GSM850			Max. Tune-up Power (dBm)	GSM1900			Max. Tune-up Power (dBm)
Channel	128	189	251		512	661	810	
GSM	22.77	22.70	22.68	24.50	19.94	20.06	20.03	21.50
GPRS 1Tx Slot	22.75	22.69	22.67	24.50	19.93	20.05	20.01	21.50
GPRS 2Tx Slot	23.54	23.77	23.54	25.50	21.09	20.94	20.97	22.50
GPRS 3Tx Slot	23.32	23.49	23.31	25.24	20.86	20.79	20.69	22.24
GPRS 4Tx Slot	22.56	22.73	22.58	24.50	19.75	19.90	19.93	21.50
EDGE 1Tx Slot	17.22	17.10	17.18	18.50	16.47	16.46	16.27	17.50
EDGE 2Tx Slot	19.01	18.98	18.82	20.50	18.04	18.29	18.06	19.50
EDGE 3Tx Slot	19.58	19.40	19.60	21.24	18.64	18.91	18.72	20.24
EDGE 4Tx Slot	19.79	19.86	19.82	21.50	18.86	19.06	19.00	20.50

Band	WCDMA II (Ant0)			WCDMA II Max. Tune-up Power (dBm)	WCDMA IV (Ant0)			WCDMA IV Max. Tune-up Power (dBm)	WCDMA V (Ant0)			WCDMA V Max. Tune-up Power (dBm)
TX Channel	9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel	9662	9800	9938	Max. Tune-up Power (dBm)	1537	1638	1738	Max. Tune-up Power (dBm)	4357	4407	4458	Max. Tune-up Power (dBm)
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
RMC 12.2K	22.98	22.97	22.87	24.00	22.85	22.86	22.83	24.00	22.87	22.94	22.88	24.00
HSDPA Subtest-1	22.06	22.02	22.05	23.00	21.89	21.89	21.90	23.00	21.95	21.91	21.91	23.00
HSDPA Subtest-2	21.96	22.06	21.97	23.00	21.82	21.88	21.86	23.00	21.93	21.88	21.99	23.00
HSDPA Subtest-3	21.55	21.49	21.36	22.50	21.30	21.35	21.33	22.50	21.42	21.40	21.46	22.50
HSDPA Subtest-4	21.51	21.50	21.46	22.50	21.41	21.44	21.41	22.50	21.45	21.47	21.35	22.50
DC-HSDPA Subtest-1	22.04	22.04	21.96	23.00	21.86	21.92	21.90	23.00	21.96	21.82	21.99	23.00
DC-HSDPA Subtest-2	22.00	22.06	22.03	23.00	21.87	21.87	21.83	23.00	21.89	21.89	21.94	23.00
DC-HSDPA Subtest-3	21.54	21.56	21.34	22.50	21.35	21.38	21.41	22.50	21.33	21.41	21.43	22.50
DC-HSDPA Subtest-4	21.54	21.42	21.35	22.50	21.40	21.45	21.35	22.50	21.36	21.39	21.38	22.50
HSUPA Subtest-1	21.97	22.02	21.85	23.00	21.90	21.87	21.90	23.00	21.95	21.98	21.94	23.00
HSUPA Subtest-2	19.94	20.04	19.82	21.00	19.86	19.81	19.84	21.00	19.92	19.93	19.95	21.00
HSUPA Subtest-3	21.03	20.95	20.93	22.00	20.80	20.94	20.82	22.00	20.84	20.92	20.89	22.00
HSUPA Subtest-4	20.00	20.03	19.82	21.00	19.93	19.85	19.86	21.00	19.96	19.99	19.93	21.00
HSUPA Subtest-5	22.06	22.04	21.95	23.00	21.82	21.86	21.87	23.00	21.85	22.00	21.84	23.00
HSPA+ Subtest-1	19.50	19.44	19.36	20.50	19.36	19.38	19.41	20.50	19.34	19.44	19.40	20.50

LTE Band 7 (Ant0)									
BW	Modulation	RB Size		Low	Mid	High	SCPP MPR (dB)	Max. Time-up (dBm)	
		Channel							
		Frequency (MHz)		2885	2110	2135			
20M	QPSK	1		0	22.37	22.50	22.64	0	24
		1		50	22.45	22.56	22.52	0	24
		1		99	22.49	22.57	22.68	0	24
		50		0	21.46	21.45	21.53	1	23
		50		25	21.48	21.53	21.68	1	23
	16QAM	50		50	21.60	21.65	21.63	1	23
		100		1	21.44	21.49	21.57	1	23
		1		0	21.54	21.76	21.80	1	23
		1		99	21.74	21.82	21.90	1	23
		50		0	20.52	20.54	20.52	2	22
40M	QPSK	50		25	20.48	20.55	20.60	2	22
		50		50	20.59	20.78	20.70	2	22
		100		0	20.53	20.60	20.63	2	22
		1		0	20.50	20.51	20.57	2	22
		1		50	20.57	20.71	20.78	2	22
	64QAM	1		99	20.68	20.76	20.71	2	22
		50		0	19.50	19.59	19.55	3	21
		50		25	19.50	19.66	19.60	3	21
		50		50	19.65	19.70	19.75	3	21
		100		0	18.56	18.65	18.70	3	21
80M	QPSK	1		0	17.42	17.37	17.59	5	19
		1		50	17.45	17.64	17.61	5	19
		1		99	17.35	17.53	17.61	5	19
		50		0	16.20	16.35	16.42	5	19
		50		25	16.55	16.49	16.53	5	19
	256QAM	50		50	16.47	16.44	16.47	5	19
		100		0	16.35	16.37	16.39	5	19
		Channel		2885	2110	2135	SCPP	Max.	
		Frequency (MHz)		2885	2110	2135	MPR	Time-up	
				2885	2110	2135	MPR	Time-up	
15M	QPSK	1		0	22.31	22.42	22.40	0	24
		1		37	22.37	22.42	22.48	0	24
		1		74	22.44	22.44	22.57	0	24
		36		0	21.32	21.32	21.43	1	23
		36		19	21.37	21.47	21.53	1	23
	16QAM	36		39	21.46	21.60	21.62	1	23
		75		0	21.38	21.34	21.53	1	23
		1		0	21.99	21.71	21.77	1	23
		1		37	21.74	21.80	21.74	1	23
		1		74	21.69	21.70	21.85	1	23
30M	QPSK	36		0	20.45	20.51	20.40	2	22
		36		19	20.43	20.44	20.57	2	22
		36		39	20.53	20.75	20.55	2	22
		75		0	20.39	20.49	20.59	2	22
		1		0	20.48	20.43	20.54	2	22
	64QAM	1		37	20.43	20.67	20.65	2	22
		1		74	20.59	20.74	20.61	2	22
		36		0	19.36	19.58	19.46	3	21
		36		19	19.35	19.55	19.52	3	21
		36		39	19.59	19.61	19.73	3	21
60M	QPSK	75		0	19.52	19.55	19.48	3	21
		1		0	17.28	17.32	17.54	5	19
		1		37	17.39	17.51	17.56	5	19
		1		74	17.27	17.43	17.52	5	19
		36		0	16.17	16.34	16.32	5	19
	256QAM	36		19	16.43	16.39	16.41	5	19
		36		39	16.44	16.31	16.34	5	19
		75		0	16.34	16.34	16.24	5	19
		Channel		2880	2110	2120	SCPP	Max.	
		Frequency (MHz)		2880	2110	2120	MPR	Time-up	
10M	QPSK	1		0	22.31	22.43	22.32	0	24
		1		24	22.40	22.41	22.51	0	24
		1		49	22.47	22.49	22.60	0	24
		25		0	21.34	21.39	21.43	1	23
		25		12	21.46	21.47	21.51	1	23
	16QAM	25		25	21.46	21.55	21.53	1	23
		50		0	21.32	21.45	21.54	1	23
		1		0	21.59	21.71	21.67	1	23
		1		24	21.71	21.66	21.76	1	23
		1		49	21.69	21.77	21.86	1	23
20M	QPSK	25		0	20.45	20.50	20.41	2	22
		25		12	20.45	20.54	20.54	2	22
		25		25	20.45	20.70	20.63	2	22
		50		0	20.40	20.59	20.49	2	22
		1		0	20.49	20.45	20.43	2	22
	64QAM	1		24	20.46	20.62	20.67	2	22
		1		49	20.57	20.65	20.58	2	22
		25		0	19.41	19.44	19.52	3	21
		25		12	19.43	19.51	19.58	3	21
		25		25	19.52	19.60	19.60	3	21
40M	QPSK	50		0	19.43	19.55	19.50	3	21
		1		0	17.37	17.25	17.58	5	19
		1		24	17.43	17.52	17.50	5	19
		1		49	17.30	17.45	17.52	5	19
		25		0	16.05	16.27	16.35	5	19
	256QAM	25		12	16.32	16.48	16.47	5	19
		25		25	16.35	16.32	16.40	5	19
		50		0	16.24	16.27	16.27	5	19
		Channel		2878	2110	2145	SCPP	Max.	
		Frequency (MHz)		2878	2110	2145	MPR	Time-up	
80M	QPSK	1		0	22.26	22.43	22.23	0	24
		1		12	22.30	22.45	22.48	0	24
		1		24	22.38	22.53	22.56	0	24
		12		0	21.31	21.38	21.40	1	23
		12		6	21.33	21.48	21.54	1	23
	16QAM	12		13	21.57	21.61	21.56	1	23
		25		0	21.42	21.38	21.47	1	23
		1		0	21.55	21.62	21.69	1	23
		1		12	21.69	21.66	21.69	1	23
		1		24	21.63	21.71	21.81	1	23
160M	QPSK	12		0	20.48	20.48	20.37	2	22
		12		6	20.40	20.46	20.50	2	22
		12		13	20.53	20.70	20.61	2	22
		25		0	20.40	20.57	20.57	2	22
		2		0	20.40	20.47	20.42	2	22
	64QAM	1		12	20.45	20.62	20.69	2	22
		1		24	20.54	20.71	20.59	2	22
		12		0	19.36	19.47	19.43	3	21
		12		6	19.38	19.58	19.49	3	21
		12		13	19.51	19.59	19.73	3	21
320M	QPSK	25		0	19.49	19.54	19.44	3	21
		1		0	17.31	17.36	17.48	5	19
		1		12	17.32	17.51	17.50	5	19
		1		24	17.29	17.42	17.55	5	19
		12		0	16.30	16.31	16.28	5	19
	256QAM	12		6	16.41	16.39	16.42	5	19
		12		13	16.35	16.35	16.34	5	19
		25		0	16.33	16.29	16.33	5	19
		Channel		2875	2110	2145	SCPP	Max.	
		Frequency (MHz)		2875	2110	2145	MPR	Time-up	

LTE Band 26 (An10)										
BW	Modulation	RB Size	RB Offset	Low	Mid	High	SCPP	MPE	Max. Turn-up (dBm)	
		Channel	Frequency (MHz)	2805	2805	2805				
15M	QPSK	1	0	22.21	22.08	22.09	0	24	0	24
		1	37	22.16	22.08	22.07	0	24		
		36	0	21.13	21.13	21.18	1	23		
		36	19	21.19	21.15	21.18	1	23		
		36	39	21.28	21.26	21.22	1	23		
	16QAM	75	0	21.20	21.14	21.25	1	23		
		1	0	21.36	21.34	21.29	1	23		
		1	37	21.32	21.23	21.18	1	23		
		1	74	21.18	21.23	21.18	1	23		
		36	0	20.19	20.20	20.17	2	22		
10M	64QAM	36	19	20.21	20.21	20.15	2	22		
		36	39	20.24	20.25	20.28	2	22		
		75	0	20.25	20.25	20.26	2	22		
		1	0	20.27	20.29	20.28	2	22		
		1	37	20.38	20.24	20.37	2	22		
	256QAM	1	74	20.30	20.28	20.28	2	22		
		36	0	19.17	19.24	19.17	3	21		
		36	19	19.21	19.12	19.18	3	21		
		36	39	19.22	19.26	19.26	3	21		
		75	0	19.29	19.26	19.29	3	21		
5M	QPSK	1	0	17.25	17.16	17.14	5	19		
		1	37	17.26	17.14	17.33	5	19		
		1	74	17.18	17.15	17.18	5	19		
		36	0	17.01	17.21	17.06	5	19		
		36	19	17.10	17.06	17.17	5	19		
	16QAM	36	39	17.07	17.12	17.23	5	19		
		75	0	17.20	17.12	17.19	5	19		
		1	0	17.21	17.12	17.18	5	19		
		1	37	17.26	17.14	17.33	5	19		
		1	14	17.28	17.15	17.17	5	19		
BW	Modulation	Channel	2805	2805	2805	SCPP	MPE	Max. Turn-up (dBm)		
		Frequency (MHz)	835.5	835.5	835.5	MPE	MPE	MPE		
	QPSK	1	0	22.14	22.00	22.04	0	24	0	24
		1	24	22.05	22.02	21.96	0	24		
		1	49	21.95	21.93	22.04	0	24		
		25	0	21.04	21.05	21.03	1	23		
		25	12	21.09	21.00	21.14	1	23		
	16QAM	25	25	21.20	21.20	21.17	1	23		
		50	0	21.19	21.06	21.14	1	23		
		1	0	21.29	21.29	21.19	1	23		
1		24	21.25	21.20	21.14	1	23			
1		49	21.15	21.18	21.16	1	23			
10M	64QAM	25	12	20.18	20.09	20.03	2	22		
		25	12	20.09	20.08	20.07	2	22		
		25	25	20.14	20.07	20.17	2	22		
		50	0	20.22	20.22	20.12	2	22		
		1	0	20.13	20.28	20.25	2	22		
	256QAM	1	24	20.26	20.15	20.27	2	22		
		1	49	20.38	20.19	20.14	2	22		
		25	0	19.03	19.20	19.11	3	21		
		25	12	18.14	19.02	19.05	3	21		
		25	25	18.11	19.11	18.22	3	21		
BW	Modulation	Channel	2805	2805	2805	SCPP	MPE	Max. Turn-up (dBm)		
		Frequency (MHz)	835.5	835.5	835.5	SCPP	MPE	SCPP		
	QPSK	1	0	22.16	22.04	22.07	0	24	0	24
		1	12	22.03	21.94	21.96	0	24		
		1	24	21.97	21.96	21.91	0	24		
		12	0	21.00	21.01	21.12	1	23		
		12	6	21.06	21.10	21.17	1	23		
	16QAM	12	13	21.03	21.13	21.14	1	23		
		25	0	21.12	21.10	21.20	1	23		
		1	0	21.28	21.27	21.14	1	23		
1		12	21.25	21.18	21.04	1	23			
1		24	21.09	21.11	21.15	1	23			
5M	64QAM	12	6	20.10	20.08	20.07	2	22		
		12	6	20.15	20.09	20.14	2	22		
		12	13	20.15	20.14	20.24	2	22		
		25	0	20.13	20.12	20.18	2	22		
		1	0	20.18	20.16	20.17	2	22		
	256QAM	1	12	20.27	20.09	20.25	2	22		
		1	24	20.27	20.26	20.21	2	22		
		12	0	19.11	19.21	19.04	3	21		
		12	6	19.03	19.03	19.14	3	21		
		12	13	19.08	19.21	19.11	3	21		
BW	Modulation	Channel	2805	2805	2805	SCPP	MPE	Max. Turn-up (dBm)		
		Frequency (MHz)	835.5	835.5	835.5	SCPP	MPE	SCPP		
	QPSK	1	0	17.13	17.07	17.12	5	19	0	19
		1	12	17.22	17.03	17.20	5	19		
		1	24	17.21	17.01	17.14	5	19		
		12	0	16.99	17.16	17.01	5	19		
		12	6	16.97	17.04	17.05	5	19		
	16QAM	12	13	17.02	17.00	17.09	5	19		
		25	0	17.10	17.01	17.12	5	19		
		BW	Modulation	Channel	2805	2805	2805	SCPP	MPE	Max. Turn-up (dBm)
Frequency (MHz)				835.5	835.5	835.5	SCPP	MPE	SCPP	
QPSK			1	0	22.20	22.07	22.05	0	24	0
	1		7	22.14	22.02	22.06	0	24		
	1		14	22.00	21.97	22.04	0	24		
	8		0	20.99	21.06	21.16	23			
	8		3	21.06	21.13	21.09	1	23		
16QAM	8		7	21.16	21.14	21.26	1	23		
	15		0	21.12	21.06	21.18	1	23		
	1		0	21.23	21.25	21.14	1	23		
	1	7	21.29	21.11	21.08	1	23			
	1	14	21.17	21.22	21.13	1	23			
3M	64QAM	8	0	20.16	20.07	20.11	2	22		
		8	3	20.17	20.06	20.08	2	22		
		8	7	20.12	20.24	20.18	2	22		
		15	0	20.12	20.18	20.25	2	22		
		15	0	20.16	20.27	20.19	2	22		
	256QAM	1	7	20.28	20.20	20.28	2	22		
		1	14	20.29	20.16	20.14	2	22		
		8	0	19.06	19.16	19.02	3	21		
		8	3	19.13	19.02	19.14	3	21		
		8	7	19.18	19.16	19.15	3	21		
BW	Modulation	Channel	2805	2805	2805	SCPP	MPE	Max. Turn-up (dBm)		
		Frequency (MHz)	835.5	835.5	835.5	SCPP	MPE	SCPP		
	QPSK	1	0	17.16	17.04	17.12	5	19	0	19
		1	7	17.22	17.03	17.22	5	19		
		1	14	17.23	17.02	17.09	5	19		
		8	0	16.98	17.09	17.05	5	19		
		8	3	16.96	16.96	17.13	5	19		
	BW	Modulation	Channel	2805	2805	2805	SCPP	MPE	Max. Turn-up (dBm)	
			Frequency (MHz)	835.7	835.5	835.3	SCPP	MPE	SCPP	
		QPSK	1	0	22.16	22.00	22.01	0	24	0
1			2	22.12	22.00	22.08	0	24		
1			5	22.05	22.05	22.03	0	24		
3			1	21.81	21.83	21.85	0	24		
3			1	21.94	21.87	21.90	0	24		
16QAM		3	1	21.88	21.84	21.89	0	24		
		3	0	21.13	21.05	21.21	1	23		
		1	0	21.28	21.28	21.23	1	23		
	1	2	21.24	21.11	21.05	1	23			
	1	5	21.04	21.1	21.09	1	23			
1.4M	64QAM	3	0	21.16	21.10	21.04	1	23	0	23
		3	1	21.13	21.08	21.11	1	23		
		3	1	21.17	21.21	21.22	1	23		
		3	0	20.14	20.22	20.22	2	22		
		1	0	20.19	20.26	20.20	2	22		
	256QAM	1	2	20.32	20.25	20.25	2	22		
		1	5	20.36	20.33	20.31	2	22		
		3	0	20.08	20.23	20.06	2	22		
		3	1	20.09	20.11	20.14	2	22		
		3	0	20.10	20.10	20.20	2	22		
250K	QPSK	3	0	17.09	17.18	17.05	3	21	0	19
		3	1	17.17	17.01	17.08	3	21		
		3	0	16.96	17.06	17.03	5	19		
		3	1	17.08	16.98	17.04	5	19		
		3	2	17.08	16.97	17.14	5	19		

LTE Band 41 (2496 ~ 2600MHz) (Ant10)													
BW	Modulation	RB Size		LBT Band		Low	Low Mid	Mid	High Mid	High	SDFP Turn-up (dB)	Max. Turn-up (dB)	
		Channel	Frequency (MHz)	2496	2496.5	2497	2497.5	2498	2498.5	2499			
20M	QPSK	1	0	25.06	25.06	25.06	25.06	25.06	25.06	25.06	0	24	
		1	50	25.02	22.88	23.05	23.12	23.12	23.12	0	24		
		50	0	25.06	25.06	25.06	25.06	25.06	25.06	25.06	1	23	
		50	25	25.09	21.91	22.10	22.22	22.15	22.15	22.15	1	23	
		50	50	25.01	21.91	22.10	22.22	22.15	22.15	22.15	1	23	
	100	0	25.01	21.97	22.10	22.22	22.22	22.22	22.22	1	23		
	1	0	22.12	22.02	22.22	22.18	22.28	22.18	22.28	1	23		
	1	50	22.07	22.18	22.28	22.18	22.28	22.18	22.28	22.18	1	23	
	1	99	22.11	22.03	22.24	22.22	22.31	22.22	22.31	22.22	1	23	
	50	0	20.99	21.03	21.21	21.11	21.11	21.24	21.24	21.24	2	22	
30M	16QAM	1	0	25.10	25.10	25.10	25.10	25.10	25.10	25.10	0	24	
		50	25	25.10	20.98	21.11	21.11	21.11	21.20	21.20	21.20	2	22
		100	0	21.13	20.98	21.19	21.27	21.29	21.29	21.29	2	22	
		1	50	20.94	20.82	21.08	21.04	21.15	21.15	21.25	21.25	2	22
		1	99	20.97	20.86	21.14	21.08	21.18	21.18	21.28	21.28	2	22
	50	0	20.22	21.03	21.30	21.27	21.37	21.37	21.47	21.47	2	22	
	50	25	18.06	18.04	18.01	20.16	20.26	20.13	20.13	20.13	2	21	
	50	50	18.04	18.06	18.07	20.17	20.17	20.24	20.24	20.24	2	21	
	100	0	18.14	20.01	20.18	20.17	20.27	20.27	20.37	20.37	2	21	
	1	0	17.84	17.82	17.84	18.04	18.04	18.14	18.14	18.14	2	21	
2500M	256QAM	1	99	18.27	18.03	18.03	18.27	18.03	18.27	18.03	5	19	
		50	18.06	17.74	17.82	18.14	18.14	18.14	18.14	18.14	5	19	
		50	25	18.14	18.06	18.20	18.20	18.20	18.20	18.20	5	19	
		50	50	18.00	17.90	18.17	18.17	18.17	18.17	18.17	5	19	
		100	0	18.14	18.06	18.17	18.17	18.23	18.23	18.23	5	19	
	1	0	17.97	17.86	18.04	18.06	18.18	18.18	18.18	18.18	5	19	
	1	99	18.22	18.03	18.03	18.27	18.03	18.27	18.03	18.27	5	19	
	50	18.06	17.74	17.82	18.14	18.14	18.14	18.14	18.14	5	19		
	50	25	18.14	18.06	18.20	18.20	18.20	18.20	18.20	5	19		
	50	50	18.00	17.90	18.17	18.17	18.17	18.17	18.17	5	19		
40M	64QAM	1	0	25.14	25.14	25.14	25.14	25.14	25.14	25.14	0	24	
		1	50	25.02	22.83	23.01	23.11	23.11	23.11	23.11	0	24	
		1	74	25.06	22.82	23.13	23.19	23.26	23.19	23.26	0	24	
		50	0	25.03	21.93	22.04	22.25	22.06	22.06	22.06	1	23	
		50	1	25.01	21.87	22.00	22.20	22.00	22.00	22.00	1	23	
	50	25	25.09	21.86	22.04	22.02	22.08	22.08	22.08	1	23		
	75	0	22.87	21.94	22.06	22.21	22.18	22.18	22.18	22.18	1	23	
	1	0	20.96	21.03	21.20	21.10	21.10	21.23	21.23	21.23	2	22	
	1	37	22.06	21.88	22.11	22.15	22.22	22.15	22.22	22.15	2	22	
	1	74	22.09	22.01	22.19	22.09	22.29	22.29	22.29	22.29	2	22	
100M	256QAM	1	0	25.05	25.05	25.05	25.05	25.05	25.05	25.05	0	24	
		50	25	25.06	20.99	21.15	21.17	21.25	21.25	21.25	21.25	2	22
		50	30	25.08	20.87	21.01	21.04	21.11	21.11	21.22	21.22	2	22
		100	0	21.07	20.98	21.19	21.18	21.28	21.28	21.38	21.38	2	22
		1	0	20.80	20.81	21.04	21.01	21.01	21.21	21.21	21.21	2	22
	1	37	20.87	20.73	20.93	20.98	20.98	21.20	21.20	21.20	2	22	
	1	74	21.13	20.97	21.29	21.29	21.29	21.29	21.29	21.29	2	22	
	50	0	19.91	19.86	19.98	20.07	20.07	20.07	20.07	20.07	2	22	
	36	19	20.06	19.91	20.14	20.12	20.20	20.20	20.20	20.20	2	21	
	36	36	19.96	19.81	20.05	20.02	20.12	20.12	20.12	20.12	2	21	
2500M	64QAM	1	0	25.07	25.07	25.07	25.07	25.07	25.07	25.07	0	24	
		1	0	27.84	17.72	17.91	17.99	18.49	18.49	18.49	18.49	5	19
		1	37	17.89	17.83	17.93	17.92	18.14	18.14	18.14	18.14	5	19
		1	48	18.18	18.01	18.18	18.24	18.27	18.27	18.27	18.27	5	19
		36	0	18.05	17.83	18.00	18.14	17.98	18.14	17.98	18.14	5	19
	36	19	18.10	17.93	18.22	18.17	18.13	18.13	18.13	18.13	5	19	
	36	19	17.88	17.75	17.88	17.88	18.10	18.10	18.10	18.10	5	19	
	1	0	18.05	17.96	18.17	18.14	18.12	18.12	18.12	18.12	5	19	
	1	0	18.05	17.96	18.17	18.14	18.12	18.12	18.12	18.12	5	19	
	40M	256QAM	1	0	25.08	25.08	25.08	25.08	25.08	25.08	25.08	0	24
1			50	25.02	22.88	23.05	23.12	23.12	23.12	23.12	0	24	
1			24	23.91	22.78	22.99	23.11	23.03	23.11	23.03	0	24	
50			0	25.05	22.94	23.17	23.21	23.19	23.24	23.24	0	24	
50			25	25.09	21.88	22.06	22.13	22.14	22.14	22.14	22.14	1	23
50		25	12	25.06	21.83	22.12	22.21	22.01	22.01	22.01	1	23	
25		25	25.01	21.85	22.09	21.97	22.13	22.13	22.13	22.13	1	23	
1		0	21.84	21.83	22.01	22.18	22.05	22.05	22.05	22.05	1	23	
1		0	21.00	22.00	22.13	22.13	22.25	22.25	22.25	22.25	2	22	
1		24	22.92	21.95	22.14	22.10	22.13	22.13	22.13	22.13	2	22	
160M	256QAM	1	0	25.08	25.08	25.08	25.08	25.08	25.08	25.08	0	24	
		50	25	25.09	20.98	21.14	21.10	21.18	21.18	21.22	21.22	2	22
		100	0	21.06	20.99	21.17	21.17	21.27	21.27	21.37	21.37	2	22
		1	0	20.88	20.88	21.10	21.01	21.01	21.21	21.21	21.21	2	22
		50	25	25.09	20.98	21.14	21.10	21.18	21.18	21.22	21.22	2	22
	50	25	25.00	20.90	21.07	21.07	21.17	21.17	21.27	21.27	2	22	
	1	0	21.10	20.83	21.10	21.26	21.21	21.21	21.21	21.21	2	22	
	1	0	20.93	20.77	20.99	20.99	21.02	21.02	21.02	21.02	2	22	
	1	40	20.82	20.73	20.95	20.95	21.05	21.05	21.11	21.11	2	22	
	1	49	21.13	20.94	21.24	21.16	21.15	21.15	21.22	21.22	2	22	
640M	256QAM	1	0	25.01	19.86	19.99	20.01	20.05	20.11	20.05	5	21	
		1	50	25.08	19.86	20.01	20.01	20.08	20.08	20.08	20.08	5	21
		25	25	19.91	19.78	20.05	20.05	20.04	20.11	20.11	20.11	5	21
		50	0	20.16	19.94	20.08	20.07	20.18	20.17	20.18	20.17	5	21
		1	24	17.94	17.82	17.96	18.01	18.03	18.15	18.15	18.15	5	19
	1	24	17.94	17.82	18.01	18.03	18.15	18.15	18.15	18.15	5	19	
	1	49	18.17	18.02	18.22	18.18	18.18	18.30	18.30	18.30	5	19	
	25	12	18.04	17.83	17.97	18.04	17.99	18.15	17.99	18.15	5	19	
	25	12	18.09	18.05	18.27	18.14	18.14	18.31	18.31	18.31	5	19	
	25	25	18.09	17.79	18.08	18.08	18.19	18.19	18.19	18.19	5	19	
80M	256QAM	1	0	25.10	25.10	25.10	25.10	25.10	25.10	25.10	0	24	
		1	50	25.04	22.74	22.94	23.06	23.06	23.06	23.06	0	24	
		1	24	22.94	22.85	23.05	23.15	23.18	23.18	23.18	0	24	
		50	0	22.94	21.90	22.06	22.14	22.10	22.10	22.10	1	23	
		12	0	22.99	21.80	22.14	22.22	22.14	22.22	22.14	1	23	
	12	15	23.01	21.81	22.07	22.17	22.17	22.27	22.17	22.27	1	23	
	12	15	23.01	21.81	22.07	22.17	22.17	22.27	22.17	22.27	1	23	
	1	0	21.11	21.87	22.14	22.26	22.24	22.24	22.24	22.24	1	23	
	1	12	21.24	21.21	22.22	22.14	22.25	22.25	22.25	22.25	1	23	
	1	24	21.96	21.97	22.15	22.11	22.22	22.23	22.23	22.23	1	23	
160M	256QAM	12	0	20.87	21.02	21.19	20.99	21.19	21.19	21.19	2	22	
		12	0	21.04	20.98	21.19	21.14	21.14	21.27	21.27	21.27	2	22
		12	13	20.92	20.85	21.03	21.04	21.09	21.09	21.09	21.09	2	22
		25	0	21.10	20.97	21.16	21.16	21.24	21.24	21.24	21.24	2	22
		12	0	20.83	20.73	20.95	20.95	21.09	21.09	21.09	21.09	2	22
	1	12	20.91	20.72	20.96	21.05	21.13	21.13	21.13	21.13	2	22	
	1	24	21.12	20.95	21.17	21.18	21.24	21.24	21.24	21.24	2	22	
	12	0	20.20	20.11	20.30	20.30	20.40	20.40	20.40	20.40	2	22	
	12	0	20.86	20.03	20.14	20.07	20.11	20.11	20.11	20.11	2	21	
	12	13	18.94	19.77	20.09	20.09	20.23	20.23	20.23	20.23	2	21	
2500M	256QAM	12	0	20.12	20.03	20.20	20.20	20.30	20.30	20.30	2	21	
		1	0	17.92	17.89	18.03	17.94	18.03	18.03	18.03	5	19	
		1	12										

		L2E Band 2 (40Hz)									
		Sub-Lane		Lane		Sub-Lane		Lane		Sub-Lane	
		Frequency (MHz)	Power (dBm)	Frequency (MHz)	Power (dBm)	Frequency (MHz)	Power (dBm)	Frequency (MHz)	Power (dBm)	Frequency (MHz)	Power (dBm)
2M	QPSK	1	1	102	20.20	122	20	122	20	1	24
		1	1	102	20.20	122	20	122	20	1	24
		1	1	102	20.20	122	20	122	20	1	24
		1	1	102	20.20	122	20	122	20	1	24
	16QAM	1	1	102	21.40	122	21.39	122	21.38	1	23
		1	1	102	21.40	122	21.39	122	21.38	1	23
		1	1	102	21.40	122	21.39	122	21.38	1	23
		1	1	102	21.40	122	21.39	122	21.38	1	23
	64QAM	1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
3M	QPSK	1	1	102	21.40	122	21.39	122	21.38	1	23
		1	1	102	21.40	122	21.39	122	21.38	1	23
		1	1	102	21.40	122	21.39	122	21.38	1	23
		1	1	102	21.40	122	21.39	122	21.38	1	23
	16QAM	1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
	64QAM	1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
4M	QPSK	1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
	16QAM	1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
	64QAM	1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
5M	QPSK	1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
	16QAM	1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
	64QAM	1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
6M	QPSK	1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
	16QAM	1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
	64QAM	1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
7M	QPSK	1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
	16QAM	1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
	64QAM	1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
8M	QPSK	1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
	16QAM	1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
	64QAM	1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
9M	QPSK	1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
	16QAM	1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
	64QAM	1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
10M	QPSK	1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
	16QAM	1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
	64QAM	1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
12M	QPSK	1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
	16QAM	1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
	64QAM	1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
15M	QPSK	1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
	16QAM	1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
	64QAM	1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
		1	1	102	26.50	122	26.49	122	26.48	1	20
18M	QPSK	1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
		1	1	102	23.10	122	23.09	122	23.08	1	22
	16QAM	1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
		1	1	102	24.80	122	24.79	122	24.78	1	21
	64QAM	1	1	102	26.50	122	26.49				

[illegible]

cell	antenna	LTE Band 30 (A66)					
		Min offset	Max offset	min offset (MHz)	max offset (MHz)	min offset (MHz)	max offset (MHz)
		Antenna (Port)		Antenna (Port)		Antenna (Port)	
QPSK	Q1	1	1	20	20	0	20
		1	2	15.33	15.33	0	20
		1	3	10.67	10.67	0	20
		1	4	8	8	0	20
		25	12	11.33	11.33	0	20
		25	13	11.66	11.66	0	20
	Q2	1	1	21.34	21.34	0	20
		1	2	16.61	16.61	0	20
		1	3	11.88	11.88	0	20
		1	4	9	9	0	20
		25	12	12.66	12.66	0	20
		25	13	13	13	0	20
16QAM	Q1	1	1	21.34	21.34	0	20
		1	2	16.61	16.61	0	20
		1	3	11.88	11.88	0	20
		1	4	9	9	0	20
		25	12	12.66	12.66	0	20
		25	13	13	13	0	20
	Q2	1	1	21.34	21.34	0	20
		1	2	16.61	16.61	0	20
		1	3	11.88	11.88	0	20
		1	4	9	9	0	20
		25	12	12.66	12.66	0	20
		25	13	13	13	0	20
64QAM	Q1	1	1	21.34	21.34	0	20
		1	2	16.61	16.61	0	20
		1	3	11.88	11.88	0	20
		1	4	9	9	0	20
		25	12	12.66	12.66	0	20
		25	13	13	13	0	20
	Q2	1	1	21.34	21.34	0	20
		1	2	16.61	16.61	0	20
		1	3	11.88	11.88	0	20
		1	4	9	9	0	20
		25	12	12.66	12.66	0	20
		25	13	13	13	0	20
256QAM	Q1	1	1	21.34	21.34	0	20
		1	2	16.61	16.61	0	20
		1	3	11.88	11.88	0	20
		1	4	9	9	0	20
		25	12	12.66	12.66	0	20
		25	13	13	13	0	20
	Q2	1	1	21.34	21.34	0	20
		1	2	16.61	16.61	0	20
		1	3	11.88	11.88	0	20
		1	4	9	9	0	20
		25	12	12.66	12.66	0	20
		25	13	13	13	0	20

[illegible]

n2 (SCS 15 kHz) (Ant6)										
SR	MCS Index	RB Size Channel Frequency (MHz)	RB Offset RB Offset Frequency (MHz)	Low Low Low	Mid Mid Mid	High High High	Max. Max. Max.	Min. Min. Min.	High High High	Max. Max. Max.
10M	DTT+C-OFDM PUS-BPSK	1	1	23.05	23.40	23.51	24			
		1	1	23.57	23.90	24.41	24			
		1	1	23.93	24.46	25.51	24			
		50	0	22.80	22.80	22.82	24			
		50	0	23.02	23.08	23.61	24			
	DTT+C-OFDM CP-OFDM	50	0	22.80	22.80	22.82	24			
		50	0	23.02	23.08	23.61	24			
		50	0	23.25	23.28	23.68	24			
		50	0	23.51	23.56	23.91	24			
		50	0	23.76	23.81	24.16	24			
15M	DTT+C-OFDM PUS-BPSK	1	1	23.05	23.40	23.51	24			
		1	1	23.57	23.90	24.41	24			
		1	1	23.93	24.46	25.51	24			
		50	0	22.80	22.80	22.82	24			
		50	0	23.02	23.08	23.61	24			
	DTT+C-OFDM CP-OFDM	50	0	22.80	22.80	22.82	24			
		50	0	23.02	23.08	23.61	24			
		50	0	23.25	23.28	23.68	24			
		50	0	23.51	23.56	23.91	24			
		50	0	23.76	23.81	24.16	24			
20M	DTT+C-OFDM PUS-BPSK	1	1	23.05	23.40	23.51	24			
		1	1	23.57	23.90	24.41	24			
		1	1	23.93	24.46	25.51	24			
		50	0	22.80	22.80	22.82	24			
		50	0	23.02	23.08	23.61	24			
	DTT+C-OFDM CP-OFDM	50	0	22.80	22.80	22.82	24			
		50	0	23.02	23.08	23.61	24			
		50	0	23.25	23.28	23.68	24			
		50	0	23.51	23.56	23.91	24			
		50	0	23.76	23.81	24.16	24			

n3 (SCS 15 kHz) (Ant6)										
SR	MCS Index	RB Size Channel Frequency (MHz)	RB Offset RB Offset Frequency (MHz)	Low Low Low	Mid Mid Mid	High High High	Max. Max. Max.	Min. Min. Min.	High High High	Max. Max. Max.
10M	DTT+C-OFDM PUS-BPSK	1	1	23.05	23.40	23.51	24			
		1	1	23.57	23.90	24.41	24			
		1	1	23.93	24.46	25.51	24			
		50	0	22.80	22.76	22.78	24			
		50	0	23.00	23.00	23.02	24			
	DTT+C-OFDM CP-OFDM	50	0	22.80	22.76	22.78	24			
		50	0	23.00	23.00	23.02	24			
		50	0	23.27	23.24	23.21	24			
		50	0	23.43	23.40	23.37	24			
		50	0	23.60	23.56	23.53	24			
15M	DTT+C-OFDM PUS-BPSK	1	1	23.05	23.40	23.51	24			
		1	1	23.57	23.90	24.41	24			
		1	1	23.93	24.46	25.51	24			
		50	0	22.80	22.76	22.78	24			
		50	0	23.00	23.00	23.02	24			
	DTT+C-OFDM CP-OFDM	50	0	22.80	22.76	22.78	24			
		50	0	23.00	23.00	23.02	24			
		50	0	23.27	23.24	23.21	24			
		50	0	23.43	23.40	23.37	24			
		50	0	23.60	23.56	23.53	24			
20M	DTT+C-OFDM PUS-BPSK	1	1	23.05	23.40	23.51	24			
		1	1	23.57	23.90	24.41	24			
		1	1	23.93	24.46	25.51	24			
		50	0	22.80	22.76	22.78	24			
		50	0	23.00	23.00	23.02	24			
	DTT+C-OFDM CP-OFDM	50	0	22.80	22.76	22.78	24			
		50	0	23.00	23.00	23.02	24			
		50	0	23.27	23.24	23.21	24			
		50	0	23.43	23.40	23.37	24			
		50	0	23.60	23.56	23.53	24			

n7 (SCS 15 kHz) (Ant6)										
SR	MCS Index	RB Size Channel Frequency (MHz)	RB Offset RB Offset Frequency (MHz)	Low Low Low	Mid Mid Mid	High High High	Max. Max. Max.	Min. Min. Min.	High High High	Max. Max. Max.
40M	DTT+C-OFDM PUS-BPSK	1	1	23.05	23.40	23.51	24			
		1	1	23.57	23.90	24.41	24			
		1	1	23.93	24.46	25.51	24			
		50	0	22.29	22.13	22.40	24			
		50	0	23.26	23.11	23.31	24			
	DTT+C-OFDM CP-OFDM	50	0	22.29	22.13	22.40	24			
		50	0	23.26	23.11	23.31	24			
		50	0	23.49	23.34	23.39	24			
		50	0	23.65	23.50	23.55	24			
		50	0	23.81	23.66	23.71	24			
60M	DTT+C-OFDM PUS-BPSK	1	1	23.05	23.40	23.51	24			
		1	1	23.57	23.90	24.41	24			
		1	1	23.93	24.46	25.51	24			
		50	0	22.29	22.13	22.40	24			
		50	0	23.26	23.11	23.31	24			
	DTT+C-OFDM CP-OFDM	50	0	22.29	22.13	22.40	24			
		50	0	23.26	23.11	23.31	24			
		50	0	23.49	23.34	23.39	24			
		50	0	23.65	23.50	23.55	24			
		50	0	23.81	23.66	23.71	24			
80M	DTT+C-OFDM PUS-BPSK	1	1	23.05	23.40	23.51	24			
		1	1	23.57	23.90	24.41	24			
		1	1	23.93	24.46	25.51	24			
		50	0	22.29	22.13	22.40	24			
		50	0	23.26	23.11	23.31	24			
	DTT+C-OFDM CP-OFDM	50	0	22.29	22.13	22.40	24			
		50	0	23.26	23.11	23.31	24			
		50	0	23.49	23.34	23.39	24			
		50	0	23.65	23.50	23.55	24			
		50	0	23.81	23.66	23.71	24			

n12 (SCS 15 kHz) (Ant6)										
SR	MCS Index	RB Size Channel Frequency (MHz)	RB Offset RB Offset Frequency (MHz)	Low Low Low	Mid Mid Mid	High High High	Max. Max. Max.	Min. Min. Min.	High High High	Max. Max. Max.
15M	DTT+C-OFDM PUS-BPSK	1	1	23.13	23.60	24.07	24			
		1	1	23.62	24.09	24.56	24			
		1	1	24.11	24.58	25.05	24			
		50	0	23.62	23.60	23.62	24			
		50	0	23.85	23.83	23.87	24			
	DTT+C-OFDM CP-OFDM	50	0	23.62	23.60	23.62	24			
		50	0	23.85	23.83	23.87	24			
		50	0	24.08	24.06	24.10	24			
		50	0	24.31	24.29	24.33	24			
		50	0	24.54	24.52	24.56	24			
20M	DTT+C-OFDM PUS-BPSK	1	1	23.13	23.60	24.07	24			
		1	1	23.62	24.09	24.56	24			
		1	1	24.11	24.58	25.05	24			
		50	0	23.62	23.60	23.62	24			
		50	0	23.85	23.83	23.87	24			
	DTT+C-OFDM CP-OFDM	50	0	23.62	23.60	23.62	24			
		50	0	23.85	23.83	23.87	24			
		50	0	24.08	24.06	24.10	24			
		50	0	24.31	24.29	24.33	24			
		50	0	24.54	24.52	24.56	24			

n13 (SCS 15 kHz) (Ant6)										
SR	MCS Index	RB Size		RB Offset	Low	Mid	High	Max. Power (dBm)		
		Channel	Frequency (MHz)							
10M	DTT+C-OFDM PUS-BPSK	1	1	23.25	23.26	23.27	24			
		1	1	23.50	23.51	23.52	24			
		25	0	23.26	23.26	23.26	24			
		25	0	23.50	23.50	23.50	24			
		25	0	23.75	23.75	23.75	24			
	DTT+C-OFDM CP-OFDM	25	0	23.26	23.26	23.26	24			
		25	0	23.50	23.50	23.50	24			
		25	0	23.75	23.75	23.75	24			
		25	0	24.00	24.00	24.00	24			
		25	0	24.25	24.25	24.25	24			
15M	DTT+C-OFDM PUS-BPSK	1	1	23.25	23.27	23.29	25			
		1	1	23.50	23.52	23.54	25			
		25	0	23.26	23.26	23.26	25			
	DTT+C-OFDM CP-OFDM	25	0	23.26	23.26	23.26	25			
		25	0	23.50	23.50	23.50	25			
		25	0	23.75	23.75	23.75	25			
SR	MCS Index	Channel		Frequency (MHz)	73.50	73.50	73.50	15.40	15.40	Max. Power (dBm)
		Channel	Frequency (MHz)							
		1	1							

n2 (SCS 15 kHz) (Ann2)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max.	Turn-up (dBm)	
		Channel		Frequency (MHz)	1880	1890	1890		
20M	DFT+OFDM P2 BPSK	1	1	22.11	22.17	22.46	24		
		1	50	22.25	22.11	22.07	24		
		1	104	22.10	22.32	22.58	24		
		50	0	21.96	22.24	22.09	24		
		50	20	22.28	22.16	22.53	24		
		50	56	22.28	21.87	22.44	24		
		100	0	22.42	22.29	22.07	24		
		1	1	22.62	22.38	22.19	24		
	DFT+OFDM QPSK	1	53	22.50	22.29	22.46	24		
		1	104	22.25	22.23	22.21	24		
		50	0	22.72	22.63	22.53	24		
		50	20	22.10	22.15	22.14	24		
	DFT+OFDM	50	56	22.67	22.69	22.84	24		
		100	0	22.74	22.84	22.77	24		
		1	1	22.26	21.96	22.52	23		
		1	1	20.83	20.73	20.76	22		
	DFT+QAM	1	1	18.58	18.65	18.67	21		
BW	MCS Index	Channel		37050	37060	38050	Max.		
10M	DFT+QAM	1	1	1897.5	1890	1992.5	Turn-up		
BW	MCS Index	Channel		37050	37060	38050	Max.		
10M	DFT+QAM	1	1	25.51	23.24	23.15	24		
BW	MCS Index	Channel		37050	37060	38050	Max.		
10M	DFT+QAM	1	1	1897.5	1890	1992.5	Turn-up		
5M	DFT+QAM	1	1	22.40	22.27	22.16	24		

n7 (SCS 15 kHz) (Ann10)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max. Power (dBm)	Turn-up	
		Channel		Frequency (MHz)	54000	50700			
40M	DFT+OFDM P2 BPSK	1	1	22.49	22.62	22.24	24		
		1	108	22.13	22.13	22.16	24		
		1	214	22.04	22.17	22.16	24		
		108	0	22.43	22.53	22.46	24		
		108	54	22.01	22.07	22.03	24		
		108	108	22.37	22.36	22.56	24		
		216	0	22.59	22.28	22.78	24		
		1	1	22.29	22.09	22.52	24		
	DFT+OFDM QPSK	1	108	22.63	22.95	22.11	24		
		1	214	22.03	22.16	22.32	24		
		108	0	21.63	21.86	22.37	24		
		108	54	22.97	22.03	22.18	24		
	DFT+OFDM	108	108	22.05	22.26	22.16	24		
		216	0	22.17	22.81	22.12	24		
		1	1	21.96	22.59	22.26	23		
		1	1	20.75	20.94	22.10	22		
	DFT+QAM	1	1	19.28	19.26	19.35	21		
BW	MCS Index	Channel		50500	50700	51300	Max.		
20M	DFT+QAM	1	1	2625	2625	2695	Turn-up		
BW	MCS Index	Channel		50500	50700	51300	Max.		
20M	DFT+QAM	1	1	23.11	23.13	23.53	24		
BW	MCS Index	Channel		50500	50700	51300	Max.		
20M	DFT+QAM	1	1	23.29	23.02	23.31	24		
BW	MCS Index	Channel		50500	50700	51300	Max.		
15M	DFT+QAM	1	1	23.25	22.58	23.52	24		
BW	MCS Index	Channel		50500	50700	51300	Max.		
10M	DFT+QAM	1	1	22.23	22.09	22.28	24		
BW	MCS Index	Channel		50500	50700	51300	Max.		
5M	DFT+QAM	1	1	22.21	22.12	22.14	24		

n38 (SCS 30 kHz) (Ann6)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max.	Turn-up (dBm)	
		Channel		Frequency (MHz)	51800	51900	52000		
40M	DFT+OFDM P2 BPSK	1	1	22.78	22.72	22.85	24		
		1	52	22.37	22.35	22.30	24		
		1	104	22.69	22.63	22.11	24		
		50	0	21.95	22.35	21.72	23		
		50	20	22.84	22.40	22.54	23		
		50	56	21.92	22.26	22.16	23		
		100	0	22.13	22.22	21.77	23		
		1	1	22.87	22.97	22.06	24		
	DFT+OFDM QPSK	1	52	22.70	22.53	22.80	24		
		1	104	22.83	22.80	22.11	24		
		50	0	21.72	21.42	21.40	23		
		50	20	22.53	22.54	22.75	23		
	DFT+OFDM	50	56	21.80	21.90	21.75	23		
		100	0	21.72	21.97	21.43	23		
		1	1	21.71	21.98	21.93	23		
		1	1	20.29	20.13	19.96	22		
	DFT+QAM	1	1	18.38	18.54	18.45	20		
BW	MCS Index	Channel		51700	51900	52100	Max.		
20M	DFT+QAM	1	1	22.77	22.90	22.36	24		
BW	MCS Index	Channel		51800	51900	52000	Max.		
20M	DFT+QAM	1	1	22.74	22.94	22.99	24		
BW	MCS Index	Channel		51800	51900	52000	Max.		
15M	DFT+QAM	1	1	22.84	22.83	23.03	24		
BW	MCS Index	Channel		51800	51900	52000	Max.		
10M	DFT+QAM	1	1	22.86	22.92	22.92	24		

n66 (SCS 15 kHz) (Ann2)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max.	Turn-up (dBm)	
		Channel		Frequency (MHz)	34600	34900	35200		
40M	DFT+OFDM P2 BPSK	1	1	22.91	22.77	22.77	24		
		1	107	22.75	22.96	22.59	24		
		1	214	22.82	22.69	22.55	24		
		108	0	22.40	22.28	22.34	24		
		108	54	22.69	22.65	22.59	24		
		108	108	22.27	22.13	22.19	24		
		216	0	22.31	22.22	22.28	24		
		1	1	22.06	22.06	22.72	24		
	DFT+OFDM QPSK	1	107	22.87	22.73	22.77	24		
		1	214	22.80	22.55	22.68	24		
		108	0	21.88	21.69	21.78	24		
		108	54	22.73	22.67	22.60	24		
	DFT+OFDM	108	108	21.81	21.67	21.69	24		
		216	0	22.85	21.79	21.69	24		
		1	1	21.96	21.87	21.81	23		
		1	1	20.26	20.08	20.14	21.5		
	DFT+QAM	1	1	18.50	18.42	18.38	19.5		
BW	MCS Index	Channel		34500	34900	35300	Max.		
20M	DFT+QAM	1	1	22.89	22.79	22.61	24		
BW	MCS Index	Channel		34600	34900	35200	Max.		
20M	DFT+QAM	1	1	22.82	22.75	22.60	24		
BW	MCS Index	Channel		34600	34900	35200	Max.		
15M	DFT+QAM	1	1	22.90	22.77	22.61	24		
BW	MCS Index	Channel		34500	34900	35300	Max.		
10M	DFT+QAM	1	1	22.89	22.70	22.65	24		
BW	MCS Index	Channel		34500	34900	35300	Max.		
5M	DFT+QAM	1	1	22.83	22.78	22.57	24		

n77 PC3 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	RB	Max. Time-up (ms)	
		Channel	Frequency (MHz)	Power (dBm)		
100M	DFT+OFDM P2 BPSK	1	1	22.82	24	
		1	137	22.86	24	
		1	271	22.92	24	
		135	0	22.42	24	
		135	69	22.51	24	
	DFT+OFDM QPSK	135	138	22.51	24	
		270	0	22.41	24	
		1	1	22.81	24	
		1	137	22.86	24	
		1	271	22.99	24	
	DFT+OFDM QPSK	135	0	22.40	24	
		135	69	22.49	24	
		135	138	22.48	24	
		270	0	22.50	24	
		1	1	22.70	24	
30M	DFT+OFDM QPSK	1	1	22.41	23.5	
		1	1	21.18	23.5	
	DFT+OFDM QPSK	1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
	DFT+OFDM QPSK	1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
20M	DFT+OFDM QPSK	1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
	DFT+OFDM QPSK	1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
15M	DFT+OFDM QPSK	1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
	DFT+OFDM QPSK	1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
10M	DFT+OFDM QPSK	1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
	DFT+OFDM QPSK	1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	
		1	1	22.89	23.5	

n77 PC3 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	RB	Max. Time-up (ms)	
		Channel	Frequency (MHz)	Power (dBm)		
100M	DFT+OFDM P2 BPSK	1	1	22.82	24	
		1	137	22.86	24	
		1	271	22.96	24	
		135	0	22.87	24	
		135	69	22.94	24	
	DFT+OFDM QPSK	135	138	22.96	24	
		270	0	22.82	24	
		1	1	22.86	24	
		1	137	22.92	24	
		1	271	22.99	24	
	DFT+OFDM QPSK	135	0	22.87	24	
		135	69	22.95	24	
		135	138	22.89	24	
		270	0	22.87	24	
		1	1	22.90	24	
30M	DFT+OFDM QPSK	1	1	22.86	23.5	
		1	1	21.57	23.5	
	DFT+OFDM QPSK	1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
	DFT+OFDM QPSK	1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
20M	DFT+OFDM QPSK	1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
	DFT+OFDM QPSK	1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
15M	DFT+OFDM QPSK	1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
	DFT+OFDM QPSK	1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
10M	DFT+OFDM QPSK	1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
	DFT+OFDM QPSK	1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	
		1	1	22.86	23.5	

n77 PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	RB	Max. Time-up (ms)	
		Channel	Frequency (MHz)	Power (dBm)		
100M	DFT+OFDM P2 BPSK	1	1	25.41	27	
		1	137	25.36	27	
		1	271	25.36	27	
		135	0	24.66	27	
		135	69	25.37	27	
	DFT+OFDM QPSK	135	138	24.63	27	
		270	0	24.63	27	
		1	1	25.36	27	
		1	137	25.37	27	
		1	271	25.48	27	
	DFT+OFDM QPSK	135	0	24.64	27	
		135	69	25.38	27	
		135	138	24.29	27	
		270	0	24.56	27	
		1	1	24.57	26	
30M	DFT+OFDM QPSK	1	1	22.78	24	
		1	1	21.45	24	
	DFT+OFDM QPSK	1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
	DFT+OFDM QPSK	1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
20M	DFT+OFDM QPSK	1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
	DFT+OFDM QPSK	1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
15M	DFT+OFDM QPSK	1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
	DFT+OFDM QPSK	1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
10M	DFT+OFDM QPSK	1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
	DFT+OFDM QPSK	1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	
		1	1	22.78	24	

n77 PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	RB	Max. Time-up (ms)	
		Channel	Frequency (MHz)	Power (dBm)		
100M	DFT+OFDM P2 BPSK	1	1	25.46	27	
		1	137	25.41	27	
		1	271	25.46	27	
		135	0	24.66	27	
		135	69	25.41	27	
	DFT+OFDM QPSK	135	138	24.62	27	
		270	0	24.62	27	
		1	1	25.46	27	
		1	137	25.46	27	
		1	271	25.53	27	
	DFT+OFDM QPSK	135	0	24.66	27	
		135	69	25.41	27	
		135	138	24.49	27	
		270	0	24.59	27	
		1	1	24.59	26	
30M	DFT+OFDM QPSK	1	1	22.80	24	
		1	1	21.46	24	
	DFT+OFDM QPSK	1	1	22.80	24	
		1	1	22.80	24	
		1	1	22.80	24	
	DFT+OFDM QPSK	1	1	22.80	24	
		1	1	22.80	24	

2CA DL

CA List	PCC							SCC				Power	
	LTE	BW	UL	UL	Mod.	UL#	UL	LTE	BW	DL	DL	With CA	Without CA
	Band	(MHz)	Freq.	Channel		RB	RB	Band	(MHz)	Freq.	Channel	Tx. Power	Tx. Power
			(MHz)				Offset			(MHz)			
CA_2A-7A	Band 2	20M	1860	18700	QPSK	1	0	Band 7	20M	2655	3100	22.36	22.56
	Band 7	20M	2560	21350	QPSK	1	99	Band 2	20M	1960	900	22.48	22.68
CA_2A-17A	Band 2	10M	1860	18700	QPSK	1	0	Band 17	10M	740	5790	22.41	22.56
	Band 17	10M	710	23790	QPSK	1	49	Band 2	10M	1960	900	22.49	22.6
CA_2A-30A	Band 2	20M	1860	18700	QPSK	1	0	Band 30	10M	2355	9820	22.42	22.56
	Band 30	10M	2310	27710	QPSK	1	24	Band 2	20M	1960	900	23.09	23.16
CA_4A-7A	Band 4	20M	1720	20050	QPSK	1	0	Band 7	20M	2655	3100	22.48	22.57
	Band 7	20M	2560	21350	QPSK	1	99	Band 4	20M	2132.5	2175	22.61	22.68
CA_4A-17A	Band 4	10M	1720	20050	QPSK	1	0	Band 17	10M	740	5790	22.51	22.57
	Band 17	10M	710	23790	QPSK	1	49	Band 4	10M	2132.5	2175	22.5	22.6
CA_4A-30A	Band 4	20M	1720	20050	QPSK	1	0	Band 30	10M	2355	9820	22.55	22.57
	Band 30	10M	2310	27710	QPSK	1	24	Band 4	20M	2132.5	2175	23.05	23.16
CA_4A-48A	Band 4	20M	1720	20050	QPSK	1	0	Band 48	20M	3609	55830	22.53	22.57
	Band 48	20M	3690	56640	QPSK	1	50	Band 4	20M	2132.5	2175	23.19	23.26
CA_5A-7A	Band 5	10M	844	20600	QPSK	1	0	Band 7	20M	2655	3100	22.49	22.66
	Band 7	20M	2560	21350	QPSK	1	99	Band 5	10M	881.5	2525	22.5	22.68
CA_5A-25A	Band 5	10M	844	20600	QPSK	1	0	Band 25	20M	1962.5	8365	22.53	22.66
	Band 25	20M	1880	26340	QPSK	1	0	Band 5	10M	881.5	2525	22.51	22.56
CA_5A-30A	Band 5	10M	844	20600	QPSK	1	0	Band 30	10M	2355	9820	22.59	22.66
	Band 30	10M	2310	27710	QPSK	1	24	Band 5	10M	881.5	2525	23.03	23.16
CA_5A-38A	Band 5	10M	844	20600	QPSK	1	0	Band 38	20M	2595	38000	22.65	22.66
	Band 38	20M	2610	38150	QPSK	1	50	Band 5	10M	881.5	2525	22.6	22.79
CA_5A-41A	Band 5	10M	844	20600	QPSK	1	0	Band 41	20M	2593	40620	22.57	22.66
	Band 41	20M	2680	41490	QPSK	1	0	Band 5	10M	881.5	2525	23.16	23.3
CA_7A-7A	Band 7	20M	2560	21350	QPSK	1	99	Band 7	5M	2622.5	2775	22.56	22.68
CA_7A-12A	Band 7	20M	2560	21350	QPSK	1	99	Band 12	10M	737.5	5095	22.54	22.68
	Band 12	10M	704	23060	QPSK	1	49	Band 7	20M	2655	3100	22.34	22.42
CA_7A-13A	Band 7	20M	2560	21350	QPSK	1	99	Band 13	10M	751	5230	22.66	22.68
	Band 13	10M	782	23230	QPSK	1	24	Band 7	20M	2655	3100	22.41	22.57
CA_7A-26A	Band 7	20M	2560	21350	QPSK	1	99	Band 26	15M	876.5	8865	22.49	22.68
	Band 26	15M	821.5	26765	QPSK	1	0	Band 7	20M	2655	3100	22.07	22.21
CA_7A-66A	Band 7	20M	2560	21350	QPSK	1	99	Band 66	20M	2155	66886	22.65	22.68
	Band 66	20M	1745	132322	QPSK	1	0	Band 7	20M	2655	3100	22.41	22.53
CA_7A-71A	Band 7	20M	2560	21350	QPSK	1	99	Band 71	20M	683	68786	22.54	22.68
	Band 71	20M	673	133222	QPSK	1	0	Band 7	20M	2655	3100	22.24	22.37
CA_7B	Band 7	15M	2562.5	21375	QPSK	1	99	Band 7	5M	2678.2	3332	22.63	22.68
CA_7C	Band 7	20M	2560	21350	QPSK	1	99	Band 7	20M	2660.2	3152	22.59	22.68
CA_12A-12A	Band 12	5M	701.5	23035	QPSK	1	24	Band 12	5M	743.5	5155	22.29	22.42
CA_12A-25A	Band 12	10M	704	23060	QPSK	1	49	Band 25	20M	1962.5	8365	22.27	22.42
	Band 25	20M	1880	26340	QPSK	1	0	Band 12	10M	737.5	5095	22.54	22.56
CA_12A-30A	Band 12	10M	704	23060	QPSK	1	49	Band 30	10M	2355	9820	22.29	22.42
	Band 30	10M	2310	27710	QPSK	1	24	Band 12	10M	737.5	5095	23.05	23.16
CA_12B	Band 12	5M	701.5	23035	QPSK	1	24	Band 12	10M	741.2	5132	22.41	22.42
CA_25A-25A	Band 25	20M	1880	26340	QPSK	1	0	Band 25	5M	1992.5	8665	22.52	22.56
CA_25A-26A	Band 25	20M	1880	26340	QPSK	1	0	Band 26	15M	876.5	8865	22.46	22.56
	Band 26	15M	821.5	26765	QPSK	1	0	Band 25	20M	1962.5	8365	22.17	22.21
CA_25A-41A	Band 25	20M	1880	26340	QPSK	1	0	Band 41	20M	2593	40620	22.44	22.56
	Band 41	20M	2680	41490	QPSK	1	0	Band 25	20M	1962.5	8365	23.15	23.3
CA_30A-66A	Band 30	10M	2310	27710	QPSK	1	24	Band 66	20M	2155	66886	23.12	23.16
	Band 66	20M	1745	132322	QPSK	1	0	Band 30	10M	2355	9820	22.34	22.53
CA_38C	Band 38	20M	2610	38150	QPSK	1	50	Band 38	20M	2590.2	37952	22.65	22.79
CA_41C	Band 41	20M	2680	41490	QPSK	1	0	Band 41	20M	2660.2	41292	23.26	23.3
CA_41A-41A	Band 41	20M	2680	41490	QPSK	1	0	Band 41	5M	2498.5	39675	23.21	23.3
CA_66B	Band 66	15M	1745	132322	QPSK	1	0	Band 66	5M	2164.3	66979	22.49	22.53
CA_66C	Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2174.8	67084	22.37	22.53
CA_48A-71A	Band 71	20M	673	133222	QPSK	1	0	Band 48	20M	3609	55830	22.28	22.37
CA_48B	Band 48	20M	3609	55830	QPSK	1	50	Band 48	5M	3697.5	56715	23.02	23.05
CA_48C	Band 48	20M	3609	55830	QPSK	1	50	Band 48	20M	3628.8	56028	23.02	23.05

3CA DL

Configure	PCC							SCC1				SCC2				Power		
	LTE	BW	UL	Channel	Mod.	UL#	UL	LTE	BW	DL	DL	LTE	BW	DL	DL	With CA	Tx. Power (dBm)	Tx. Power (dBm)
	Band	(MHz)	Freq. (MHz)															
	RB	Offset	Freq. (MHz)															
CA_2A-2A-13A	Band 2	20M	1860	18700	QPSK	1	0	Band 2	5M	1987.5	1175	Band 13	10M	751	5230	22.43	22.56	
	Band 13	10M	782	23230	QPSK	1	24	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	22.49	22.57	
CA_2A-2A-71A	Band 2	20M	1860	18700	QPSK	1	0	Band 2	5M	1987.5	1175	Band 71	20M	683	68786	22.41	22.56	
	Band 71	20M	673	132222	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	22.29	22.37	
CA_2A-4A-13A	Band 2	20M	1860	18700	QPSK	1	0	Band 4	20M	2132.5	2175	Band 13	10M	751	5230	22.37	22.56	
	Band 4	20M	1720	20050	QPSK	1	0	Band 13	10M	751	5230	Band 2	20M	1960	900	22.38	22.57	
	Band 13	10M	782	23230	QPSK	1	24	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	22.44	22.57	
CA_2A-4A-71A	Band 2	20M	1860	18700	QPSK	1	0	Band 4	20M	2132.5	2175	Band 71	20M	683	68786	22.45	22.56	
	Band 4	20M	1720	20050	QPSK	1	0	Band 30	10M	2355	9820	Band 71	20M	683	68786	22.43	22.57	
	Band 71	20M	673	132222	QPSK	1	0	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	22.18	22.37	
CA_2A-5A-5A	Band 2	20M	1860	18700	QPSK	1	0	Band 5	10M	881.5	2525	Band 5	5M	891.5	2625	22.49	22.56	
	Band 5	10M	844	20600	QPSK	1	0	Band 5	5M	891.5	2625	Band 2	20M	1960	900	22.54	22.66	
CA_2A-5A-48A	Band 2	20M	1860	18700	QPSK	1	0	Band 5	10M	881.5	2525	Band 48	20M	3609	55830	22.36	22.56	
	Band 5	10M	844	20600	QPSK	1	0	Band 48	20M	3609	55830	Band 2	20M	1960	900	22.59	22.66	
CA_2A-13A-48A	Band 2	20M	1860	18700	QPSK	1	0	Band 13	10M	751	5230	Band 66	20M	2155	66886	22.49	22.56	
	Band 13	10M	782	23230	QPSK	1	24	Band 48	20M	3609	55830	Band 2	20M	1960	900	22.47	22.57	
CA_2A-13A-66A	Band 2	20M	1860	18700	QPSK	1	0	Band 13	10M	751	5230	Band 66	20M	2155	66886	22.52	22.56	
	Band 13	10M	782	23230	QPSK	1	24	Band 66	20M	2155	66886	Band 2	20M	1960	900	22.4	22.57	
	Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 13	10M	751	5230	22.47	22.53	
CA_2A-48A-48A	Band 2	20M	1860	18700	QPSK	1	0	Band 48	20M	3609	55830	Band 48	5M	3697.5	56715	22.42	22.56	
CA_2A-66A-71A	Band 2	20M	1860	18700	QPSK	1	0	Band 66	20M	2155	66886	Band 71	20M	683	68786	22.37	22.56	
	Band 66	10M	1745	132322	QPSK	1	0	Band 71	20M	683	68786	Band 2	20M	1960	900	22.39	22.53	
	Band 71	20M	673	132222	QPSK	1	0	Band 2	20M	1960	900	Band 66	20M	2155	66886	22.18	22.37	
CA_2A-5B	Band 2	20M	1860	18700	QPSK	1	0	Band 5	10M	881.5	2525	Band 5	10M	891.4	2624	22.5	22.56	
	Band 5	10M	844	20600	QPSK	1	0	Band 5	10M	879.1	2501	Band 2	20M	1960	900	22.48	22.66	
CA_2C-5A	Band 2	20M	1860	18700	QPSK	1	0	Band 2	20M	1979.8	1098	Band 5	10M	891.4	2624	22.36	22.56	
	Band 5	10M	844	20600	QPSK	1	0	Band 2	20M	1960	900	Band 2	20M	1979.8	1098	22.52	22.66	
CA_4A-4A-13A	Band 4	20M	1720	20050	QPSK	1	0	Band 4	5M	2152.5	2375	Band 13	10M	751	5230	22.41	22.57	
	Band 13	10M	782	23230	QPSK	1	24	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	22.56	22.57	
CA_5A-48A-66A	Band 5	10M	844	20600	QPSK	1	0	Band 48	20M	3609	55830	Band 66	20M	2155	66886	22.57	22.66	
	Band 66	20M	1745	132322	QPSK	1	0	Band 5	10M	881.5	2525	Band 48	20M	3609	55830	22.41	22.53	
CA_5A-5A-66A	Band 5	10M	844	20600	QPSK	1	0	Band 5	5M	891.5	2625	Band 66	20M	2155	66886	22.46	22.66	
	Band 66	20M	1745	132322	QPSK	1	0	Band 5	10M	881.5	2525	Band 5	5M	891.5	2625	22.5	22.53	
CA_5A-66A-66A	Band 5	10M	844	20600	QPSK	1	0	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	22.55	22.66	
	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 5	10M	881.5	2525	22.5	22.53	
CA_13A-48A-48A	Band 13	10M	782	23230	QPSK	1	24	Band 48	20M	3609	55830	Band 48	5M	3697.5	56715	22.57	22.57	
CA_48A-48A-66A	Band 66	20M	1745	132322	QPSK	1	0	Band 48	20M	3609	55830	Band 48	5M	3697.5	56715	22.36	22.53	
CA_48A-66A-66A	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 48	20M	3609	55830	22.4	22.53	
CA_48D	Band 48	20M	3609	55830	QPSK	1	50	Band 48	20M	3628.8	56028	Band 48	20M	3648.6	56226	22.99	23.05	
CA_66A-66A-66A	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 66	20M	2120	66536	22.52	22.53	

4CA DL

Configure	PCC							SCC1				SCC2				SCC3				Power	
	LTE	BW	UL	UL	Mod.	UL#	UL	LTE	BW	DL	DL	LTE	BW	DL	DL	LTE	BW	DL	DL	With CA	Without CA
	Band	(MHz)	Freq.	Channel		RB	Offset	Band	(MHz)	Freq.	Channel	Band	(MHz)	Freq.	Channel	Band	(MHz)	Freq.	Channel	Tx. Power (dBm)	Tx. Power (dBm)
			(MHz)							(MHz)				(MHz)				(MHz)			
CA_2A-2A-4A-5A	Band 2	20M	1860	18700	QPSK	1	0	Band 2	5M	1987.5	1175	Band 4	20M	2132.5	2175	Band 5	10M	881.5	2525	22.37	22.56
	Band 4	20M	1720	20050	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 5	10M	881.5	2525	22.52	22.57
	Band 5	10M	844	20600	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 4	20M	2132.5	2175	22.6	22.66
CA_2A-2A-5A-6A	Band 2	20M	1860	18700	QPSK	1	0	Band 2	5M	1987.5	1175	Band 5	10M	881.5	2525	Band 66	20M	2155	66886	22.55	22.56
	Band 5	10M	844	20600	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 66	20M	2155	2525	22.46	22.66
	Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	Band 5	10M	881.5	2525	22.36	22.53
CA_2A-4A-4A-5A	Band 2	20M	1860	18700	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	Band 5	10M	881.5	2525	22.44	22.56
	Band 4	20M	1720	20050	QPSK	1	0	Band 4	5M	2152.5	2375	Band 5	10M	881.5	2525	Band 2	20M	1960	900	22.45	22.57
	Band 5	10M	844	20600	QPSK	1	0	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	22.62	22.66
CA_2A-4A-4A-12A	Band 2	20M	1860	18700	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	Band 12	10M	737.5	5095	22.47	22.56
	Band 4	20M	1720	20050	QPSK	1	0	Band 4	5M	2152.5	2375	Band 12	10M	737.5	5095	Band 2	20M	1960	900	22.44	22.57
	Band 12	10M	704	23060	QPSK	1	49	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	22.41	22.42
CA_2A-12A-66A-66A	Band 2	20M	1860	18700	QPSK	1	0	Band 12	10M	737.5	5095	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	22.49	22.56
	Band 12	10M	704	23060	QPSK	1	49	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	Band 2	20M	1960	900	22.38	22.42
	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 2	20M	1960	900	Band 12	10M	737.5	5095	22.34	22.53
CA_2A-13A-66A-66A	Band 2	20M	1860	18700	QPSK	1	0	Band 13	10M	751	5230	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	22.36	22.56
	Band 13	10M	782	23230	QPSK	1	24	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	Band 2	20M	1960	900	22.42	22.57
	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 2	20M	1960	900	Band 13	10M	751	5230	22.42	22.53
CA_2A-14A-66A-66A	Band 2	20M	1860	18700	QPSK	1	0	Band 14	10M	763	5330	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	22.5	22.56
	Band 14	10M	793	23330	QPSK	1	24	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	Band 2	20M	1960	900	22.63	22.71
	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 2	20M	1960	900	Band 14	10M	763	5330	22.33	22.53

DSI1 Power

Band	GSM850 (Ant0)				GSM1900 (Ant0)			
Channel	128	189	251	Max. Tune-up Power (dBm)	512	661	810	Max. Tune-up Power (dBm)
Frequency (MHz)	824.2	836.4	848.8		1850.2	1880	1909.8	
GSM	31.77	31.70	31.68	33.50	28.94	29.06	29.03	30.50
GPRS 1Tx Slot	31.75	31.69	31.67	33.50	28.93	29.05	29.01	30.50
GPRS 2Tx Slot	29.54	29.77	29.54	31.50	27.09	26.94	26.97	28.50
GPRS 3Tx Slot	27.58	27.75	27.57	29.50	25.12	25.05	24.95	26.50
GPRS 4Tx Slot	25.56	25.73	25.58	27.50	22.75	22.90	22.93	24.50
EDGE 1Tx Slot	26.22	26.10	26.18	27.50	25.47	25.46	25.27	26.50
EDGE 2Tx Slot	25.01	24.98	24.82	26.50	24.04	24.29	24.06	25.50
EDGE 3Tx Slot	23.84	23.66	23.86	25.50	22.90	23.17	22.98	24.50
EDGE 4Tx Slot	22.79	22.86	22.82	24.50	21.86	22.06	22.00	23.50

Source-Based Time-Averaged Power								
Band	GSM850			Max. Tune-up Power (dBm)	GSM1900			Max. Tune-up Power (dBm)
Channel	128	189	251		512	661	810	
GSM	22.77	22.70	22.68	24.50	19.94	20.06	20.03	21.50
GPRS 1Tx Slot	22.75	22.69	22.67	24.50	19.93	20.05	20.01	21.50
GPRS 2Tx Slot	23.54	23.77	23.54	25.50	21.09	20.94	20.97	22.50
GPRS 3Tx Slot	23.32	23.49	23.31	25.24	20.86	20.79	20.69	22.24
GPRS 4Tx Slot	22.56	22.73	22.58	24.50	19.75	19.90	19.93	21.50
EDGE 1Tx Slot	17.22	17.10	17.18	18.50	16.47	16.46	16.27	17.50
EDGE 2Tx Slot	19.01	18.98	18.82	20.50	18.04	18.29	18.06	19.50
EDGE 3Tx Slot	19.58	19.40	19.60	21.24	18.64	18.91	18.72	20.24
EDGE 4Tx Slot	19.79	19.86	19.82	21.50	18.86	19.06	19.00	20.50

Band	WCDMA II (Ant0)			WCDMA II Max. Tune-up Power (dBm)	WCDMA IV (Ant0)			WCDMA IV Max. Tune-up Power (dBm)	WCDMA V (Ant0)			WCDMA V Max. Tune-up Power (dBm)
TX Channel	9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel	9662	9800	9938	Max. Tune-up Power (dBm)	1537	1638	1738	Max. Tune-up Power (dBm)	4357	4407	4458	Max. Tune-up Power (dBm)
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
RMC 12.2K	22.98	22.97	22.87	24.00	22.85	22.86	22.83	24.00	22.87	22.94	22.88	24.00
HSDPA Subtest-1	22.06	22.02	22.05	23.00	21.89	21.89	21.90	23.00	21.95	21.91	21.91	23.00
HSDPA Subtest-2	21.96	22.06	21.97	23.00	21.82	21.88	21.86	23.00	21.93	21.88	21.99	23.00
HSDPA Subtest-3	21.55	21.49	21.36	22.50	21.30	21.35	21.33	22.50	21.42	21.40	21.46	22.50
HSDPA Subtest-4	21.51	21.50	21.46	22.50	21.41	21.44	21.41	22.50	21.45	21.47	21.35	22.50
DC-HSDPA Subtest-1	22.04	22.04	21.96	23.00	21.86	21.92	21.90	23.00	21.96	21.82	21.99	23.00
DC-HSDPA Subtest-2	22.00	22.06	22.03	23.00	21.87	21.87	21.83	23.00	21.89	21.89	21.94	23.00
DC-HSDPA Subtest-3	21.54	21.56	21.34	22.50	21.35	21.38	21.41	22.50	21.33	21.41	21.43	22.50
DC-HSDPA Subtest-4	21.54	21.42	21.35	22.50	21.40	21.45	21.35	22.50	21.36	21.39	21.38	22.50
HSUPA Subtest-1	21.97	22.02	21.85	23.00	21.90	21.87	21.90	23.00	21.95	21.98	21.94	23.00
HSUPA Subtest-2	19.94	20.04	19.82	21.00	19.86	19.81	19.84	21.00	19.92	19.93	19.95	21.00
HSUPA Subtest-3	21.03	20.95	20.93	22.00	20.80	20.94	20.82	22.00	20.84	20.92	20.89	22.00
HSUPA Subtest-4	20.00	20.03	19.82	21.00	19.93	19.85	19.86	21.00	19.96	19.99	19.93	21.00
HSUPA Subtest-5	22.06	22.04	21.95	23.00	21.82	21.86	21.87	23.00	21.85	22.00	21.84	23.00
HSPA+ Subtest-1	19.50	19.44	19.36	20.50	19.36	19.38	19.41	20.50	19.34	19.44	19.40	20.50

LTE Band 2 (4G)										
BW	Modulation	Channel	SSB	CR	Offset	Time	Power	High	Power	Power
		Frequency (MHz)	Center	Rate (bits/s)	Offset (MHz)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	
QPSK	ISDM	1	0	22.36	22.32	22.42	0	24		
		1	50	22.48	22.45	22.53	0	24		
		1	99	22.53	22.50	22.57	0	24		
		1	50	21.59	21.56	21.61	1	23		
		1	25	21.57	21.53	21.56	1	23		
		1	25	21.62	21.55	21.65	1	23		
		1	50	21.59	21.54	21.62	1	23		
		1	1	21.54	21.53	21.56	1	23		
		1	50	21.57	21.56	21.58	1	23		
		1	99	21.60	21.55	21.65	1	23		
QPSK	ISDM	1	0	18.52	18.50	18.60	3	21		
		1	50	18.55	18.50	18.60	3	21		
		1	50	18.53	18.53	18.53	3	21		
		1	1	18.50	18.50	18.50	3	21		
		1	1	17.68	17.65	17.68	3	19		
		1	50	17.72	17.62	17.73	3	19		
		1	99	17.71	17.62	17.72	3	19		
		1	50	17.43	17.38	17.37	3	19		
		1	50	17.41	17.38	17.40	3	19		
		1	50	17.42	17.33	17.53	3	19		
QPSK	ISDM	1	0	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
QPSK	ISDM	1	0	22.36	22.32	22.42	0	24		
		1	31	22.48	22.43	22.53	0	24		
		1	74	22.27	22.18	22.23	0	24		
		1	25	21.48	21.45	21.49	1	23		
		1	25	21.59	21.53	21.65	1	23		
		1	39	21.50	21.36	21.66	1	23		
		1	1	21.48	21.45	21.50	1	23		
		1	37	21.59	21.54	21.58	1	23		
		1	74	21.44	21.38	21.49	1	23		
		1	39	20.57	20.36	20.64	2	22		
QPSK	ISDM	1	0	20.53	20.50	20.54	2	22		
		1	19	20.53	20.53	20.53	2	22		
		1	74	20.44	20.38	20.49	2	22		
		1	39	19.57	19.52	19.58	3	21		
		1	39	19.57	19.52	19.58	3	21		
		1	39	19.57	19.52	19.58	3	21		
		1	39	19.57	19.52	19.58	3	21		
		1	39	19.57	19.52	19.58	3	21		
		1	39	19.57	19.52	19.58	3	21		
		1	39	19.57	19.52	19.58	3	21		
QPSK	ISDM	1	0	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
		1	25	17.56	17.46	17.38	5	18		
QPSK	ISDM	1	0	22.36	22.32	22.42	0	24		
		1	24	22.44	22.32	22.53	0	24		
		1	49	22.19	22.11	22.18	0	24		
		1	25	21.57	21.56	21.58	1	23		
		1	22	21.63	21.48	21.81	1	23		
		1	25	21.48	21.46	21.41	1	23		
		1	25	21.54	21.46	21.62	1	23		
		1	0	21.45	21.45	21.33	1	23		
		1	24	22.44	22.38	22.50	1	23		
		1	49	22.13	21.39	22.30	1	23		
QPSK	ISDM	1	0	20.44	20.42	20.46	2	22		
		1	12	20.52	20.42	20.50	2	22		
		1	49	21.43	21.39	21.30	2	22		
		1	25	20.44	20.44	20.37	2	22		
		1	24	20.46	20.46	20.36	2	22		
		1	24	20.46	20.46	20.36	2	22		
		1	24	20.46	20.46	20.36	2	22		
		1	24	20.46	20.46	20.36	2	22		
		1	24	20.46	20.46	20.36	2	22		
		1	24	20.46	20.46	20.36	2	22		
QPSK	ISDM	1	0	18.44	18.40	18.32	3	21		
		1	49	18.46	18.40	18.30	3	21		
		1	25	18.47	18.43	18.41	3	21		
		1	25	18.47	18.43	18.41	3	21		
		1	25	18.47	18.43	18.41	3	21		
		1	25	18.47	18.43	18.41	3	21		
		1	25	18.47	18.43	18.41	3	21		
		1	25	18.47	18.43	18.41	3	21		
		1	25	18.47	18.43	18.41	3	21		
		1	25	18.47	18.43	18.41	3	21		
QPSK	ISDM	1	0	22.47	22.40	22.49	0	24		
		1	2	22.45	22.41	22.47	0	24		
		1	5	22.20	22.20	22.23	0	24		
		1	2	22.47	22.43	22.49	0	24		
		1	3	22.21	22.21	22.23	0	24		
		1	2	22.48	22.48	22.44	0	24		
		1	3	22.21	22.21	22.23	0	24		
		1	0	21.53	21.47	21.56	1	23		
		1	0	21.53	21.47	21.56	1	23		
		1	0	21.53	21.47	21.56	1	23		
QPSK	ISDM	1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
QPSK	ISDM	1	0	17.56	17.52	17.56	3	21		
		1	14	17.58	17.52	17.58	3	21		
		1	14	17.58	17.52	17.58	3	21		
		1	0	17.28	17.27	17.32	3	19		
		1	14	17.58	17.52	17.58	3	21		
		1	14	17.58	17.52	17.58	3	21		
		1	0	17.41	17.41	17.35	3	19		
		1	14	17.58	17.52	17.58	3	21		
		1	14	17.58	17.52	17.58	3	21		
		1	14	17.58	17.52	17.58	3	21		
QPSK	ISDM	1	0	22.47	22.40	22.49	0	24		
		1	2	22.45	22.41	22.47	0	24		
		1	5	22.20	22.20	22.23	0	24		
		1	2	22.47	22.43	22.49	0	24		
		1	3	22.21	22.21	22.23	0	24		
		1	2	22.48	22.48	22.44	0	24		
		1	3	22.21	22.21	22.23	0	24		
		1	0	21.53	21.47	21.56	1	23		
		1	0	21.53	21.47	21.56	1	23		
		1	0	21.53	21.47	21.56	1	23		
QPSK	ISDM	1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
QPSK	ISDM	1	0	17.56	17.52	17.56	3	21		
		1	14	17.58	17.52	17.58	3	21		
		1	14	17.58	17.52	17.58	3	21		
		1	0	17.28	17.27	17.32	3	19		
		1	14	17.58	17.52	17.58	3	21		
		1	14	17.58	17.52	17.58	3	21		
		1	0	17.41	17.41	17.35	3	19		
		1	14	17.58	17.52	17.58	3	21		
		1	14	17.58	17.52	17.58	3	21		
		1	14	17.58	17.52	17.58	3	21		
QPSK	ISDM	1	0	22.47	22.40	22.49	0	24		
		1	2	22.45	22.41	22.47	0	24		
		1	5	22.20	22.20	22.23	0	24		
		1	2	22.47	22.43	22.49	0	24		
		1	3	22.21	22.21	22.23	0	24		
		1	2	22.48	22.48	22.44	0	24		
		1	3	22.21	22.21	22.23	0	24		
		1	0	21.53	21.47	21.56	1	23		
		1	0	21.53	21.47	21.56	1	23		
		1	0	21.53	21.47	21.56	1	23		
QPSK	ISDM	1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
		1	0	20.44	20.40	20.44	2	22		
QPSK	ISDM	1	0	17.56	17.52	17.56	3	21		
		1	14	17.58	17.52	17.58	3	21		
		1	14	17.58	17.52	17.58	3	21		
		1	0	17.28	17.27	17.32	3	19		
		1	14	17.58	17.52	17.58	3</			

BW	Modulation	LTE Band 4 (40MHz)									
		RB Size	RB Offset	Offset	Low	Mid	High	Low	Mid	High	Max. Time-avg. offset
		Channel	Frequency (MHz)	1500	2070	2570	2870	3000	3500	3800	4000
QPSK	1	0	0	2250	2270	2270	2270	0	24		
		1	50	2220	2240	2240	2240	0	24		
		2	100	2190	2210	2210	2210	0	24		
		3	150	2160	2180	2180	2180	0	24		
		4	200	2130	2150	2150	2150	0	24		
		5	250	2100	2120	2120	2120	0	24		
		6	300	2070	2090	2090	2090	0	24		
		7	350	2040	2060	2060	2060	0	24		
		8	400	2010	2030	2030	2030	0	24		
		9	450	1980	2000	2000	2000	0	24		
16QAM	1	0	0	2250	2270	2270	2270	0	24		
		1	50	2210	2230	2230	2230	0	24		
		2	100	2170	2190	2190	2190	0	24		
		3	150	2130	2150	2150	2150	0	24		
		4	200	2090	2110	2110	2110	0	24		
		5	250	2050	2070	2070	2070	0	24		
		6	300	2010	2030	2030	2030	0	24		
		7	350	1970	1990	1990	1990	0	24		
		8	400	1930	1950	1950	1950	0	24		
		9	450	1890	1910	1910	1910	0	24		
64QAM	1	0	0	1768	1768	1768	1768	0	19		
		1	50	1748	1748	1748	1748	0	19		
		2	100	1728	1728	1728	1728	0	19		
		3	150	1708	1708	1708	1708	0	19		
		4	200	1688	1688	1688	1688	0	19		
		5	250	1668	1668	1668	1668	0	19		
		6	300	1648	1648	1648	1648	0	19		
		7	350	1628	1628	1628	1628	0	19		
		8	400	1608	1608	1608	1608	0	19		
		9	450	1588	1588	1588	1588	0	19		
QPSK	1	0	0	2250	2270	2270	2270	0	24		
		1	50	2220	2240	2240	2240	0	24		
		2	100	2190	2210	2210	2210	0	24		
		3	150	2160	2180	2180	2180	0	24		
		4	200	2130	2150	2150	2150	0	24		
		5	250	2100	2120	2120	2120	0	24		
		6	300	2070	2090	2090	2090	0	24		
		7	350	2040	2060	2060	2060	0	24		
		8	400	2010	2030	2030	2030	0	24		
		9	450	1980	2000	2000	2000	0	24		
16QAM	1	0	0	2250	2270	2270	2270	0	24		
		1	50	2210	2230	2230	2230	0	24		
		2	100	2170	2190	2190	2190	0	24		
		3	150	2130	2150	2150	2150	0	24		
		4	200	2090	2110	2110	2110	0	24		
		5	250	2050	2070	2070	2070	0	24		
		6	300	2010	2030	2030	2030	0	24		
		7	350	1970	1990	1990	1990	0	24		
		8	400	1930	1950	1950	1950	0	24		
		9	450	1890	1910	1910	1910	0	24		
64QAM	1	0	0	1768	1768	1768	1768	0	19		
		1	50	1748	1748	1748	1748	0	19		
		2	100	1728	1728	1728	1728	0	19		
		3	150	1708	1708	1708	1708	0	19		
		4	200	1688	1688	1688	1688	0	19		
		5	250	1668	1668	1668	1668	0	19		
		6	300	1648	1648	1648	1648	0	19		
		7	350	1628	1628	1628	1628	0	19		
		8	400	1608	1608	1608	1608	0	19		
		9	450	1588	1588	1588	1588	0	19		
QPSK	1	0	0	2250	2270	2270	2270	0	24		
		1	50	2220	2240	2240	2240	0	24		
		2	100	2190	2210	2210	2210	0	24		
		3	150	2160	2180	2180	2180	0	24		
		4	200	2130	2150	2150	2150	0	24		
		5	250	2100	2120	2120	2120	0	24		
		6	300	2070	2090	2090	2090	0	24		
		7	350	2040	2060	2060	2060	0	24		
		8	400	2010	2030	2030	2030	0	24		
		9	450	1980	2000	2000	2000	0	24		
16QAM	1	0	0	2250	2270	2270	2270	0	24		
		1	50	2210	2230	2230	2230	0	24		
		2	100	2170	2190	2190	2190	0	24		
		3	150	2130	2150	2150	2150	0	24		
		4	200	2090	2110	2110	2110	0	24		
		5	250	2050	2070	2070	2070	0	24		
		6	300	2010	2030	2030	2030	0	24		
		7	350	1970	1990	1990	1990	0	24		
		8	400	1930	1950	1950	1950	0	24		
		9	450	1890	1910	1910	1910	0	24		
64QAM	1	0	0	1768	1768	1768	1768	0	19		
		1	50	1748	1748	1748	1748	0	19		
		2	100	1728	1728	1728	1728	0	19		
		3	150	1708	1708	1708	1708	0	19		
		4	200	1688	1688	1688	1688	0	19		
		5	250	1668	1668	1668	1668	0	19		
		6	300	1648	1648	1648	1648	0	19		
		7	350	1628	1628	1628	1628	0	19		
		8	400	1608	1608	1608	1608	0	19		
		9	450	1588	1588	1588	1588	0	19		
QPSK	1	0	0	2250	2270	2270	2270	0	24		
		1	50	2220	2240	2240	2240	0	24		
		2	100	2190	2210	2210	2210	0	24		
		3	150	2160	2180	2180	2180	0	24		
		4	200	2130	2150	2150	2150	0	24		
		5	250	2100	2120	2120	2120	0	24		
		6	300	2070	2090	2090	2090	0	24		
		7	350	2040	2060	2060	2060	0	24		
		8	400	2010	2030	2030	2030	0	24		
		9	450	1980	2000	2000	2000	0	24		
16QAM	1	0	0	2250	2270	2270	2270	0	24		
		1	50	2210	2230	2230	2230	0	24		
		2	100	2170	2190	2190	2190	0	24		
		3	150	2130	2150	2150	2150	0	24		
		4	200	2090	2110	2110	2110	0	24		
		5	250	2050	2070	2070	2070	0	24		
		6	300	2010	2030	2030	2030	0	24		
		7	350	1970	1990	1990	1990	0	24		
		8	400	1930	1950	1950	1950	0	24		
		9	450	1890	1910	1910	1910	0	24		
64QAM	1	0	0	1768	1768	1768	1768	0	19		
		1	50	1748	1748	1748	1748	0	19		
		2	100	1728	1728	1728	1728	0	19		
		3	150	1708	1708	1708	1708	0	19		
		4	200	1688	1688	1688	1688	0	19		
		5	250	1668	1668	1668	1668	0	19		
		6	300	1648	1648	1648	1648	0	19		
		7	350	1628	1628	1628	1628	0	19		
		8	400	1608	1608	1608	1608	0	19		
		9	450	1588	1588	1588	1588	0	19		
QPSK	1	0	0	2250	2270	2270	2270	0	24		
		1	50	2220	2240	2240	2240	0	24		
		2	100	2190	2210	2210	2210	0	24		
		3	150	2160	2180	2180	2180	0	24		
		4	200	2130	2150	2150	2150	0	24		
		5	250	2100	2120	2120	2120	0	24		
		6	300	2070	2090	2090	2090	0	24		
		7	350	2040	2060	2060	2060	0	24		
		8	400	2010	2030	2030	2030	0	24		
		9	450	1980	2000	2000	2000	0	24		
16QAM	1	0	0	2250	2270	2270	2270	0	24		
		1	50	2210	2230	2230	2230	0	24		
		2	100	2170	2190	2190	2190	0	24		
		3	150	2130	2150	2150	2150	0	24		
		4	200	2090	2110	2110	2110	0	24		
		5	250	2050	2070	2070	2070	0	24		
		6	300	2010	2030	2030	2030	0	24		
		7	350	1970	1990	1990	1990	0	24		
		8	400	1930	1950	1950	1950	0	24		
		9	450	1890	1910	1910	1910	0	24		
64QAM	1	0	0	1768	1768	1768	1768	0	19		
		1	50	1748	1748	1748	1748	0	19		
		2	100	1728	1728	1728	1728	0	19		
		3	150	1708	1708	1708	1708	0	19		
		4	200	1688	1688	1688	1688	0	19		
		5	250	1668	1668	1668	1668	0	19		
		6	300	1648	1648	1648	1648	0	19		
		7	350	1628	1628	1628	1628	0	19		
		8	400	1608	1608	1608	1608	0	19		
		9	450	1588	1588	1588	1588	0	19		

Fw	Modulation	LTE Band 5 (A66)										Power dBm	Spectrum MHz	Max Tx Power dBm			
		Channel															
		Band	Frequency (MHz)	SCS (kHz)	Bandwidth (MHz)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)				Min Power (dBm)	Max Power (dBm)	
QPSK	10M	1	0	22.49	22.55	22.60	22.65	0	24								
		1	24	22.50	22.56	22.61	22.66	0	24								
		40	24	22.50	22.56	22.61	22.66	0	24								
		1	0	25.51	25.57	25.62	25.67	1	25								
		12	25	25.52	25.58	25.63	25.68	1	25								
		25	25	25.53	25.59	25.63	25.65	1	25								
		30	0	25.65	25.71	25.76	25.82	1	26								
		0	25	25.70	25.76	25.81	25.87	1	26								
		1	48	25.87	25.93	25.98	26.04	1	25								
		8	25	25.92	25.98	26.03	26.09	1	25								
QPSK	10M	25	12	26.08	26.13	26.18	26.23	2	22								
		25	0	26.19	26.25	26.30	26.35	2	22								
		1	48	26.35	26.40	26.45	26.50	2	22								
		1	48	26.35	26.40	26.45	26.50	2	22								
		25	12	26.49	26.54	26.59	26.64	2	22								
		1	48	26.59	26.64	26.69	26.74	2	22								
		25	25	26.67	26.72	26.77	26.82	3	21								
		25	25	26.67	26.72	26.77	26.82	3	21								
		1	0	17.81	17.82	17.75	17.76	1	19								
		24	17	17.81	17.82	17.75	17.76	1	19								
QPSK	20M	1	48	17.89	17.92	17.82	17.85	1	18								
		0	0	17.95	17.97	17.87	17.90	1	18								
		12	12	17.95	17.98	17.88	17.91	1	18								
		25	25	17.93	17.94	17.87	17.88	1	18								
		0	0	17.41	17.42	17.40	17.41	0	16								
		Channel	Band	Frequency (MHz)	SCS (kHz)	Bandwidth (MHz)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)			
QPSK	30M	25	12	22.56	22.61	22.61	22.66	0	24								
		1	24	22.50	22.56	22.61	22.66	0	24								
		12	6	24.43	24.49	24.55	24.61	1	23								
		12	13	24.51	24.52	24.48	24.49	1	23								
		1	0	23.76	23.78	23.75	23.77	1	23								
		12	12	23.90	23.92	23.89	23.91	1	23								
		1	24	23.98	2												
QPSK	10M	1	0	20.46	20.46	20.46	20.46	0	22								
		8	0	20.46	20.47	20.46	20.47	0	22								
		12	13	20.49	20.50	20.45	20.46	0	22								
		25	0	20.50	20.50	20.50	20.50	0	22								
		1	0	20.50	20.50	20.50	20.50	0	22								
		1	0	20.50	20.50	20.50	20.50	0	22								
		1	0	20.50	20.50	20.50	20.50	0	22								
		1	0	20.50	20.50	20.50	20.50	0	22								
		1	0	20.50	20.50	20.50	20.50	0	22								
		1	0	20.50	20.50	20.50	20.50	0	22								
QPSK	20M	1	24	17.42	17.42	17.29	17.29	0	18								
		12	12	17.42	17.42	17.29	17.29	0	18								
		6	6	17.32	17.32	17.42	17.42	0	18								
		12	12	17.42	17.42	17.42	17.42	0	18								
		1	24	17.42	17.42	17.42	17.42	0	18								
		1	12	17.42	17.42	17.42	17.42	0	18								
QPSK	10M	1	0	22.49	22.55	22.60	22.65	0	24								
		1	24	22.50	22.56	22.61	22.66	0	24								
		40	24	22.50	22.56	22.61	22.66	0	24								
		1	0	25.51	25.57	25.62	25.67	1	25								
		12	25	25.52	25.58	25.63	25.68	1	25								
		25	25	25.53	25.59	25.63	25.65	1	25								
		30	0	25.65	25.71	25.76	25.82	1	26								
		0	25	25.70	25.76	25.81	25.87	1	26								
		1	48	25.87	25.93	25.98	26.04	1	25								
		8	25	25.92	25.98	26.03	26.09	1	25								
QPSK	10M	25	12	26.08	26.13	26.18	26.23	2	22								
		25	0	26.19	26.25	26.30	26.35	2	22								
		1	48	26.35	26.40	26.45	26.50	2	22								
		1	48	26.35	26.40	26.45	26.50	2	22								
		25	12	26.49	26.54	26.59	26.64	2	22								
		1	48	26.59	26.64	26.69	26.74	2	22								
		25	25	26.67	26.72	26.77	26.82	3	21								
		25	25	26.67	26.72	26.77	26.82	3	21								
		1	0	17.81	17.82	17.75	17.76	1	19								
		24	17	17.81	17.82	17.75	17.76	1	19								
QPSK	20M	1	48	17.89	17.92	17.82	17.85	1	18								
		0	0	17.95	17.97	17.87	17.90	1	18								
		12	12	17.95	17.98	17.88	17.91	1	18								
		25	25	17.93	17.94	17.87	17.88	1	18								
		0	0	17.41	17.42	17.40	17.41	0	16								
		Channel	Band	Frequency (MHz)	SCS (kHz)	Bandwidth (MHz)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)			
QPSK	30M	25	12	22.56	22.61	22.61	22.66	0	24								
		1	24	22.50	22.56	22.61	22.66	0	24								
		12	6	24.43	24.49	24.55	24.61	1	23								
		12	13	24.51	24.52	24.48	24.49	1	23								
		1	0	23.76	23.78	23.75	23.77	1	23								
		12	12	23.90	23.92	23.89	23.91	1	23								
		1	24	23.98	2												
QPSK	10M	1	0	20.46	20.46	20.46	20.46	0	22								
		8	0	20.46	20.47	20.46	20.47	0	22								
		12	13	20.49	20.50	20.45	20.46	0	22								
		25	0	20.50	20.50	20.50	20.50	0	22								
		1	0	20.50	20.50	20.50	20.50	0	22								
		1	0	20.50	20.50	20.50	20.50	0	22								
		1	0	20.50	20.50	20.50	20.50	0	22								
		1	0	20.50	20.50	20.50	20.50	0	22								
		1	0	20.50	20.50	20.50	20.50	0	22								
		1	0	20.50	20.50	20.50	20.50	0	22								
QPSK	20M	1	24	17.42	17.42	17.29	17.29	0	18								
		12	12	17.42	17.42	17.29	17.29	0	18								
		6	6	17.32	17.32	17.42	17.42	0	18								
		12	12	17.42	17.42	17.42	17.42	0	18								
		1	24	17.42	17.42	17.42	17.42	0	18								
		1	12	17.42	17.42	17.42	17.42	0	18								
QPSK	10M	1	0	22.49	22.55	22.60	22.65	0	24								
		1	24	22.50	22.56	22.61	22.66	0	24								
		40	24	22.50	22.56	22.61	22.66	0	24								
		1	0	25.51	25.57	25.62	25.67	1	25								
		12	25	25.52	25.58	25.63	25.68	1	25								
		25	25	25.53	25.59	25.63	25.65	1	25								
		30	0	25.65	25.71	25.76	25.82	1	26								
		0	25	25.70	25.76	25.81	25.87	1	26								
		1	48	25.87	25.93	25.98	26.04	1	25								
		8	25	25.92	25.98	26.03	26.09	1	25								
QPSK	10M	25	12	26.08	26.13	26.18	26.23	2	22								
		25	0	26.19	26.25	26.30	26.35	2	22								
		1	48	26.35	26.40	26.45	26.50	2	22								
		1	48	26.35	26.40	26.45	26.50	2	22								
		25	12	26.49	26.54	26.59	26.64	2	22								
		1	48	26.59	26.64	26.69	26.74	2	22								
		25	25	26.67	26.72	26.77	26.82	3	21								
		25	25	26.67	26.72	26.77	26.82	3	21								
		1	0	17.81	17.82	17.75	17.76	1	19								
		24	17	17.81	17.82	17.75	17.76	1	19								
QPSK	20M	1	48	17.89	17.92	17.82	17.85	1	18								
		0	0	17.95	17.97	17.87	17.90	1	18								
		12	12	17.95	17.98	17.88	17.91	1	18								
		25	25	17.93	17.94	17.87	17.88	1	18								
		0	0	17.41	17.42	17.40	17.41	0	16								
		Channel	Band	Frequency (MHz)	SCS (kHz)	Bandwidth (MHz)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)			
QPSK	30M	25	12	22.56	22.61	22.61	22.66	0	24								
		1	24	22.50	22.56	22.61	22.66	0	24								
		12	6	24.43	24.49	24.55	24.61	1	23								
		12	13	24.51	24.52	24.48	24.49	1	23								
		1	0	23.76	23.78	23.75	23.77	1	23								
		12	12	23.90	23.92	23.89	23.91										

LTE Band 7 (Ant0)									
BW	Modulation	RB Size		Low	Mid	High	SCPP MPR (dB)	Max. Time-up (dBm)	
		Channel							
		Frequency (MHz)		2350	2355	2360			
20M	QPSK	1	0	22.37	22.50	22.64	0	24	
		1	50	22.45	22.56	22.62	0	24	
		1	99	22.49	22.57	22.68	0	24	
		50	0	21.46	21.45	21.53	1	23	
		50	25	21.48	21.53	21.68	1	23	
	16QAM	50	50	21.60	21.65	21.83	1	23	
		100	0	21.44	21.49	21.57	1	23	
		1	0	21.54	21.76	21.80	1	23	
		1	99	21.74	21.82	21.90	1	23	
		50	0	20.52	20.54	20.52	2	22	
40M	QPSK	50	25	20.48	20.55	20.60	2	22	
		50	50	20.59	20.76	20.70	2	22	
		100	0	20.53	20.60	20.63	2	22	
		1	0	20.50	20.51	20.57	2	22	
		1	50	20.57	20.71	20.78	2	22	
	64QAM	1	99	20.68	20.76	20.71	2	22	
		50	0	19.50	19.59	19.55	3	21	
		50	25	19.50	19.66	19.60	3	21	
		50	50	19.65	19.70	19.75	3	21	
		100	0	19.56	19.65	19.70	3	21	
250M	QPSK	1	0	17.42	17.37	17.59	5	19	
		1	50	17.45	17.64	17.61	5	19	
		1	99	17.35	17.53	17.61	5	19	
		50	0	16.20	16.35	16.42	5	19	
		50	25	16.55	16.49	16.53	5	19	
	16QAM	50	50	16.47	16.44	16.47	5	19	
		100	0	16.35	16.37	16.39	5	19	
		Channel	2350	2355	2360	SCPP MPR (dB)	Max. Time-up (dBm)		
		Frequency (MHz)		2350	2355	2360			
		15M	QPSK	1	0	22.31	22.42	22.40	0
1	37			22.37	22.42	22.48	0	24	
1	74			22.44	22.44	22.57	0	24	
36	0			21.32	21.32	21.43	1	23	
36	19			21.37	21.47	21.53	1	23	
16QAM	36		39	21.46	21.60	21.62	1	23	
	75		0	21.38	21.34	21.53	1	23	
	1		0	21.99	21.71	21.77	1	23	
	1		37	21.74	21.80	21.74	1	23	
	1		74	21.69	21.70	21.85	1	23	
30M	QPSK	36	0	20.42	20.51	20.45	2	22	
		36	19	20.43	20.44	20.57	2	22	
		36	39	20.53	20.75	20.55	2	22	
		75	0	20.39	20.49	20.59	2	22	
		1	0	20.48	20.43	20.54	2	22	
	64QAM	1	37	20.43	20.67	20.65	2	22	
		1	74	20.59	20.74	20.61	2	22	
		36	0	19.36	19.58	19.46	3	21	
		36	19	19.35	19.55	19.52	3	21	
		36	39	19.59	19.61	19.73	3	21	
250M	QPSK	75	0	19.52	19.55	19.48	3	21	
		1	0	17.29	17.32	17.54	5	19	
		1	37	17.39	17.51	17.56	5	19	
		1	74	17.27	17.43	17.52	5	19	
		36	0	16.17	16.34	16.32	5	19	
	16QAM	36	19	16.43	16.39	16.41	5	19	
		36	39	16.44	16.31	16.34	5	19	
		75	0	16.34	16.34	16.24	5	19	
		Channel	2380	2385	2390	SCPP MPR (dB)	Max. Time-up (dBm)		
		Frequency (MHz)		2380	2385	2390			
10M	QPSK	1	0	22.31	22.43	22.32	0	24	
		1	24	22.40	22.41	22.51	0	24	
		1	49	22.47	22.49	22.60	0	24	
		25	0	21.34	21.39	21.43	1	23	
		25	12	21.46	21.47	21.61	1	23	
	16QAM	25	25	21.46	21.55	21.53	1	23	
		50	0	21.32	21.45	21.54	1	23	
		1	0	21.59	21.71	21.67	1	23	
		1	24	21.71	21.66	21.76	1	23	
		1	49	21.69	21.77	21.86	1	23	
30M	QPSK	25	0	20.45	20.50	20.41	2	22	
		25	12	20.45	20.54	20.54	2	22	
		25	25	20.45	20.70	20.63	2	22	
		50	0	20.40	20.59	20.49	2	22	
		1	0	20.49	20.45	20.43	2	22	
	64QAM	1	24	20.46	20.62	20.67	2	22	
		1	49	20.57	20.65	20.58	2	22	
		25	0	19.41	19.44	19.52	3	21	
		25	12	19.43	19.51	19.58	3	21	
		25	25	19.52	19.60	19.60	3	21	
250M	QPSK	50	0	19.43	19.55	19.50	3	21	
		1	0	17.37	17.25	17.58	5	19	
		1	24	17.43	17.52	17.50	5	19	
		1	49	17.30	17.45	17.52	5	19	
		25	0	16.05	16.27	16.35	5	19	
	16QAM	25	12	16.32	16.48	16.47	5	19	
		25	25	16.35	16.32	16.40	5	19	
		50	0	16.24	16.27	16.27	5	19	
		Channel	2375	2380	2385	SCPP MPR (dB)	Max. Time-up (dBm)		
		Frequency (MHz)		2375	2380	2385			
5M	QPSK	1	0	22.26	22.43	22.23	0	24	
		1	12	22.30	22.45	22.48	0	24	
		1	24	22.38	22.53	22.56	0	24	
		12	0	21.31	21.38	21.40	1	23	
		12	6	21.33	21.48	21.54	1	23	
	16QAM	12	13	21.57	21.61	21.56	1	23	
		25	0	21.42	21.38	21.47	1	23	
		1	0	21.55	21.62	21.69	1	23	
		1	12	21.69	21.66	21.69	1	23	
		1	24	21.63	21.71	21.81	1	23	
1.4M	QPSK	12	0	20.48	20.48	20.37	2	22	
		12	6	20.40	20.46	20.50	2	22	
		12	13	20.53	20.70	20.61	2	22	
		25	0	20.40	20.57	20.57	2	22	
		2	0	20.40	20.47	20.42	2	22	
	64QAM	1	12	20.45	20.62	20.69	2	22	
		1	24	20.54	20.71	20.59	2	22	
		12	0	19.36	19.47	19.43	3	21	
		12	6	19.38	19.58	19.49	3	21	
		12	13	19.51	19.59	19.73	3	21	
250M	QPSK	25	0	19.49	19.54	19.44	3	21	
		1	0	17.31	17.36	17.48	5	19	
		1	12	17.32	17.51	17.50	5	19	
		1	24	17.29	17.42	17.55	5	19	
		12	0	16.30	16.31	16.28	5	19	
	16QAM	12	6	16.41	16.39	16.42	5	19	
		12	13	16.35	16.35	16.34	5	19	
		25	0	16.33	16.29	16.33	5	19	
		Channel	2395	2400	2405	SCPP MPR (dB)	Max. Time-up (dBm)		
		Frequency (MHz)		2395	2400	2405			

LTE Band 12 (Ant0)										
BW	Modulation	RB Size	RB Offset	Low	Mid	High	SCPP MPR (dB)	Max. Time-up (dBm)		
		Channel								
		Frequency (MHz)								
10M	QPSK	1	0	22.32	22.23	22.28	0	24		
		1	24	22.39	22.28	22.34	0	24		
		1	49	22.42	22.28	22.34	0	24		
		25	0	21.29	21.24	21.31	1	23		
		25	12	21.36	21.39	21.31	1	23		
	16QAM	25	25	21.40	21.40	21.35	1	23		
		50	0	21.39	21.32	21.39	1	23		
		1	0	21.51	21.43	21.47	1	23		
		1	24	21.53	21.49	21.52	1	23		
		1	49	21.54	21.52	21.56	1	23		
20M	QPSK	25	0	20.36	20.27	20.35	2	22		
		25	12	20.47	20.38	20.48	2	22		
		25	25	20.47	20.44	20.41	2	22		
		50	0	20.44	20.34	20.39	2	22		
		1	0	20.51	20.37	20.39	2	22		
	16QAM	1	24	20.48	20.48	20.48	2	22		
		1	49	20.52	20.56	20.49	2	22		
		25	0	19.37	19.37	19.37	3	21		
		25	12	19.51	19.33	19.44	3	21		
		25	25	19.48	19.37	19.51	3	21		
30M	QPSK	50	0	19.35	19.42	19.32	3	21		
		1	0	17.47	17.25	17.28	5	19		
		1	24	17.42	17.42	17.26	5	19		
		1	49	17.38	17.45	17.35	5	19		
		25	0	17.17	17.27	17.36	5	19		
	16QAM	25	12	17.44	17.21	17.47	5	19		
		25	25	17.34	17.23	17.30	5	19		
		50	0	17.23	17.25	17.24	5	19		
		1	0	17.17	17.27	17.36	5	19		
		1	24	17.17	17.27	17.36	5	19		
BW	Modulation	Channel	Frequency (MHz)	769.5	769.5	773.5	SCPP MPR (dB)	Max. Time-up (dBm)		
		Channel								
		Frequency (MHz)								
10M	QPSK	1	0	22.30	22.16	22.16	0	24		
		1	12	22.29	22.25	22.19	0	24		
		1	24	22.29	22.15	22.29	0	24		
		12	0	21.23	21.15	21.27	1	23		
		12	6	21.25	21.26	21.26	1	23		
	16QAM	12	13	21.29	21.36	21.28	1	23		
		25	0	21.24	21.26	21.26	1	23		
		1	0	21.48	21.28	21.43	1	23		
		1	12	21.51	21.38	21.45	1	23		
		1	24	21.53	21.37	21.41	1	23		
20M	QPSK	12	0	20.33	20.22	20.30	2	22		
		12	6	20.32	20.34	20.38	2	22		
		12	13	20.41	20.43	20.38	2	22		
		25	0	20.38	20.29	20.35	2	22		
		25	6	20.38	20.38	20.34	2	22		
	16QAM	1	12	20.42	20.34	20.36	2	22		
		1	24	20.51	20.48	20.42	2	22		
		12	0	19.21	19.26	19.23	3	21		
		12	6	19.39	19.24	19.33	3	21		
		12	13	19.41	19.27	19.47	3	21		
30M	QPSK	25	0	19.25	19.27	19.25	3	21		
		1	0	17.42	17.11	17.27	5	19		
		1	12	17.32	17.33	17.26	5	19		
		1	24	17.37	17.32	17.33	5	19		
		12	0	17.05	17.08	17.34	5	19		
	16QAM	12	6	17.42	17.22	17.32	5	19		
		12	13	17.31	17.08	17.34	5	19		
		12	13	17.15	17.22	17.13	5	19		
		1	0	17.42	17.22	17.13	5	19		
		1	24	17.37	17.32	17.33	5	19		
BW	Modulation	Channel	Frequency (MHz)	769.5	769.5	773.5	SCPP MPR (dB)	Max. Time-up (dBm)		
		Channel								
		Frequency (MHz)								
10M	QPSK	1	0	22.24	22.20	22.18	0	24		
		7	0	22.25	22.25	22.19	0	24		
		1	14	22.37	22.21	22.19	0	24		
		8	3	21.35	21.29	21.22	1	23		
		8	7	21.37	21.31	21.32	1	23		
	16QAM	15	0	21.36	21.36	21.36	1	23		
		1	0	21.49	21.37	21.33	1	23		
		1	7	21.48	21.48	21.45	1	23		
		1	14	21.50	21.46	21.48	1	23		
		8	0	20.27	20.18	20.30	2	22		
20M	QPSK	8	3	20.43	20.34	20.44	2	22		
		8	7	20.42	20.41	20.38	2	22		
		15	0	20.32	20.31	20.37	2	22		
		1	0	20.44	20.27	20.28	2	22		
		1	7	20.41	20.43	20.41	2	22		
	16QAM	1	14	20.37	20.41	20.37	2	22		
		8	3	19.17	19.21	19.28	3	21		
		8	3	19.43	19.18	19.34	3	21		
		8	7	19.34	19.28	19.47	3	21		
		15	0	19.33	19.32	19.31	3	21		
30M	QPSK	1	0	17.40	17.24	17.18	5	19		
		1	7	17.29	17.31	17.34	5	19		
		1	14	17.30	17.40	17.25	5	19		
		8	0	17.08	17.12	17.26	5	19		
		8	3	17.35	17.20	17.39	5	19		
	16QAM	8	7	17.19	17.11	17.35	5	19		
		15	0	17.21	17.22	17.21	5	19		
		1	0	17.21	17.25	17.21	5	19		
		1	7	17.25	17.28	17.27	5	19		
		1	14	17.30	17.34	17.27	5	19		
BW	Modulation	Channel	Frequency (MHz)	699.7	709.5	716.3	SCPP MPR (dB)	Max. Time-up (dBm)		
		Channel								
		Frequency (MHz)								
10M	QPSK	1	0	22.33	22.08	22.27	0	24		
		1	2	22.33	22.11	22.26	0	24		
		1	5	22.33	22.18	22.20	0	24		
		3	3	22.06	21.97	22.02	0	24		
		3	3	22.07	22.11	22.04	0	24		
	16QAM	6	0	21.26	21.22	21.32	1	23		
		1	0	21.46	21.29	21.45	1	23		
		1	2	21.41	21.40	21.39	1	23		
		1	5	21.49	21.48	21.52	1	23		
		0	21.30	21.19	21.29	1	23			
20M	QPSK	3	1	21.43	21.37	21.46	1	23		
		3	3	21.43	21.43	21.40	1	23		
		0	20.37	20.33	20.26	2	22			
		3	1	20.50	20.38	20.34	2	22		
		1	2	20.43	20.44	20.35	2	22		
	16QAM	1	5	20.51	20.43	20.35	2	22		
		3	3	20.50	20.24	20.25	2	22		
		3	1	20.45	20.26	20.39	2	22		
		3	3	20.45	20.32	20.46	2	22		
		6	0	19.23	19.29	19.21	3	21		
30M	QPSK	1	0	17.37	17.12	17.26	5	19		
		1	2	17.32	17.30	17.28	5	19		
		1	5	17.25	17.36	17.28	5	19		
		3	0	17.07	17.14	17.34	5	19		
		3	1	17.21	17.18	17.21	5	19		
	16QAM	3	3	17.24	17.08	17.26	5	19		
		6	0	17.14	17.30	17.21	5	19		
		3	0	17.14	17.30	17.21	5	19		
		3	1	17.14	17.30	17.21	5	19		
		3	3	17.14	17.30	17.21	5	19		

LTE Band 34 (AnT)										
SW	Modulation	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)
10M	QPSK	1	0	21.64	21.64	0	24	1	0	21.64
		1	0	22.72	22.72	0	24	1	0	22.72
		1	0	22.80	22.80	0	24	1	0	22.80
		25	0	21.63	21.63	1	23	25	0	21.63
		25	0	21.61	21.61	1	23	25	0	21.61
	16QAM	1	0	21.65	21.65	1	23	1	0	21.65
		1	0	21.63	21.63	1	23	1	0	21.63
		1	0	21.64	21.64	1	23	1	0	21.64
		25	0	21.65	21.65	2	22	25	0	21.65
		25	0	21.67	21.67	2	22	25	0	21.67
10M	QPSK	1	0	21.66	21.66	0	24	1	0	21.66
		1	0	21.68	21.68	0	24	1	0	21.68
		1	0	21.69	21.69	0	24	1	0	21.69
		25	0	21.67	21.67	1	23	25	0	21.67
		25	0	21.69	21.69	1	23	25	0	21.69
	16QAM	1	0	21.70	21.70	1	23	1	0	21.70
		1	0	21.68	21.68	1	23	1	0	21.68
		1	0	21.69	21.69	1	23	1	0	21.69
		25	0	21.70	21.70	2	22	25	0	21.70
		25	0	21.72	21.72	2	22	25	0	21.72
10M	QPSK	1	0	21.71	21.71	0	24	1	0	21.71
		1	0	21.73	21.73	0	24	1	0	21.73
		1	0	21.74	21.74	0	24	1	0	21.74
		25	0	21.72	21.72	1	23	25	0	21.72
		25	0	21.74	21.74	1	23	25	0	21.74
	16QAM	1	0	21.75	21.75	1	23	1	0	21.75
		1	0	21.73	21.73	1	23	1	0	21.73
		1	0	21.74	21.74	1	23	1	0	21.74
		25	0	21.75	21.75	2	22	25	0	21.75
		25	0	21.77	21.77	2	22	25	0	21.77

LTE Band 37 (AnT)										
SW	Modulation	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)	SW-Down Channel Frequency (MHz)
10M	QPSK	1	0	22.30	22.30	0	24	1	0	22.30
		1	0	22.32	22.32	0	24	1	0	22.32
		1	0	22.34	22.34	0	24	1	0	22.34
		25	0	22.31	22.31	1	23	25	0	22.31
		25	0	22.33	22.33	1	23	25	0	22.33
	16QAM	1	0	22.35	22.35	1	23	1	0	22.35
		1	0	22.33	22.33	1	23	1	0	22.33
		1	0	22.34	22.34	1	23	1	0	22.34
		25	0	22.35	22.35	2	22	25	0	22.35
		25	0	22.37	22.37	2	22	25	0	22.37
10M	QPSK	1	0	22.36	22.36	0	24	1	0	22.36
		1	0	22.38	22.38	0	24	1	0	22.38
		1	0	22.39	22.39	0	24	1	0	22.39
		25	0	22.37	22.37	1	23	25	0	22.37
		25	0	22.39	22.39	1	23	25	0	22.39
	16QAM	1	0	22.40	22.40	1	23	1	0	22.40
		1	0	22.38	22.38	1	23	1	0	22.38
		1	0	22.39	22.39	1	23	1	0	22.39
		25	0	22.40	22.40	2	22	25	0	22.40
		25	0	22.42	22.42	2	22	25	0	22.42
10M	QPSK	1	0	22.41	22.41	0	24	1	0	22.41
		1	0	22.43	22.43	0	24	1	0	22.43
		1	0	22.44	22.44	0	24	1	0	22.44
		25	0	22.42	22.42	1	23	25	0	22.42
		25	0	22.44	22.44	1	23	25	0	22.44
	16QAM	1	0	22.45	22.45	1	23	1	0	22.45
		1	0	22.43	22.43	1	23	1	0	22.43
		1	0	22.44	22.44	1	23	1	0	22.44
		25	0	22.45	22.45	2	22	25	0	22.45
		25	0	22.47	22.47	2	22	25	0	22.47
10M	QPSK	1	0	22.46	22.46	0	24	1	0	22.46
		1	0	22.48	22.48	0	24	1	0	22.48
		1	0	22.49	22.49	0	24	1	0	22.49
		25	0	22.47	22.47	1	23	25	0	22.47
		25	0	22.49	22.49	1	23	25	0	22.49
	16QAM	1	0	22.50	22.50	1	23	1	0	22.50
		1	0	22.48	22.48	1	23	1	0	22.48
		1	0	22.49	22.49	1	23	1	0	22.49
		25	0	22.50	22.50	2	22	25	0	22.50
		25	0	22.52	22.52	2	22	25	0	22.52
10M	QPSK	1	0	22.51	22.51	0	24	1	0	22.51
		1	0	22.53	22.53	0	24	1	0	22.53
		1	0	22.54	22.54	0	24	1	0	22.54
		25	0	22.52	22.52	1	23	25	0	22.52
		25	0	22.54	22.54	1	23	25	0	22.54
	16QAM	1	0	22.55	22.55	1	23	1	0	22.55
		1	0	22.53	22.53	1	23	1	0	22.53
		1	0	22.54	22.54	1	23	1	0	22.54
		25	0	22.55	22.55	2	22	25	0	22.55
		25	0	22.57	22.57	2	22	25	0	22.57

LTE Band 25 (AnT)										
BW	Modulation	Channel		SW-Down		SW-Down		SW-Down		New Time-slot (MHz)
		Frequency (MHz)	SW-Down	SW-Down	SW-Down	SW-Down	SW-Down			
10M	QPSK	1	0	22.47	22.47	22.49	22.50	22.51	0	24
		1	0	22.49	22.49	22.50	22.51	22.52	0	24
		1	0	22.50	22.50	22.51	22.52	22.53	0	24
		25	0	22.48	22.48	22.49	22.50	22.51	1	23
		25	0	22.50	22.50	22.51	22.52	22.53	1	23
	16QAM	1	0	22.51	22.51	22.52	22.53	22.54	1	23
		1	0	22.49	22.49	22.50	22.51	22.52	1	23
		1	0	22.50	22.50	22.51	22.52	22.53	1	23
		25	0	22.51	22.51	22.52	22.53	22.54	2	22
		25	0	22.53	22.53	22.54	22.55	22.56	2	22
20M	QPSK	1	0	22.61	22.61	22.63	22.64	22.65	0	24
		1	0	22.63	22.63	22.64	22.65	22.66	0	24
		1	0	22.64	22.64	22.65	22.66	22.67	0	24
		25	0	22.62	22.62	22.63	22.64	22.65	1	23
		25	0	22.64	22.64	22.65	22.66	22.67	1	23
	16QAM	1	0	22.65	22.65	22.66	22.67	22.68	1	23
		1	0	22.63	22.63	22.64	22.65	22.66	1	23
		1	0	22.64	22.64	22.65	22.66	22.67	1	23
		25	0	22.65	22.65	22.66	22.67	22.68	2	22
		25	0	22.67	22.67	22.68	22.69	22.70	2	22
30M	QPSK	1	0	22.85	22.85	22.87	22.88	22.89	0	24
		1	0	22.87	22.87	22.88	22.89	22.90	0	24
		1	0	22.88	22.88	22.89	22.90	22.91	0	24
		25	0	22.86	22.86	22.87	22.88	22.89	1	23
		25	0	22.88	22.88	22.89	22.90	22.91	1	23
	16QAM	1	0	22.89	22.89	22.90	22.91	22.92	1	23
		1	0	22.87	22.87	22.88	22.89	22.90	1	23
		1	0	22.88	22.88	22.89	22.90	22.91	1	23
		25	0	22.89	22.89	22.90	22.91	22.92	2	22
		25	0	22.91	22.91	22.92	22.93	22.94	2	22
40M	QPSK	1	0	23.09	23.09	23.11	23.12	23.13	0	24
		1	0	23.11	23.11	23.12	23.13	23.14	0	24
		1	0	23.12	23.12	23.13	23.14	23.15	0	24
		25	0	23.10	23.10	23.11	23.12	23.13	1	23
		25	0	23.12	23.12	23.13	23.14	23.15	1	23
	16QAM	1	0	23.13	23.13	23.14	23.15	23.16	1	23
		1	0	23.11	23.11	23.12	23.13	23.14	1	23
		1	0	23.12	23.12	23.13	23.14	23.15	1	23
		25	0	23.13	23.13	23.14	23.15	23.16	2	22
		25	0	23.15	23.15	23.16	23.17	23.18	2	22
50M	QPSK	1	0	23.33	23.33	23.35	23.36	23.37	0	24
		1	0	23.35	23.35	23.36	23.37	23.38	0	24
		1	0	23.36	23.36	23.37	23.38	23.39	0	24
		25	0	23.34	23.34	23.35	23.36	23.37	1	23
		25	0	23.36	23.36	23.37	23.38	23.39	1	23
	16QAM	1	0	23.37	23.37	23.38	23.39	23.40	1	23
		1	0	23.35	23.35	23.36	23.37	23.38	1	23
		1	0	23.36	23.36	23.37	23.38	23.39	1	23
		25	0	23.37	23.37	23.38	23.39	23.40	2	22
		25	0	23.39	23.39	23.40	23.41	23.42	2	22
60M	QPSK	1	0	23.57	23.57	23.59	23.60	23.61	0	24
		1	0	23.59	23.59	23.60	23.61	23.62	0	24
		1	0	23.60	23.60	23.61	23.62	23.63	0	24
		25	0	23.58	23.58	23.59	23.60	23.61	1	23
		25	0	23.60	23.60	23.61	23.62	23.63	1	23
	16QAM	1	0	23.61	23.61	23.62	23.63	23.64	1	23
		1	0	23.59	23.59	23.60	23.61	23.62	1	23
		1	0	23.60	23.60	23.61	23.62	23.63	1	23
		25	0	23.61	23.61	23.62	23.63	23.64	2	22
		25	0	23.63	23.63	23.64	23.65	23.66	2	22
70M	QPSK	1	0	23.81	23.81	23.83	23.84	23.85	0	24
		1	0	23.83	23.83	23.84	23.85	23.86	0	24
		1	0	23.84	23.84	23.85	23.86	23.87	0	24
		25	0	23.82	23.82	23.83	23.84	23.85	1	23
		25	0	23.84	23.84	23.85	23.86	23.87	1	23
	16QAM	1	0	23.85	23.85	23.86	23.87	23.88	1	23
		1	0	23.83	23.83	23.84	23.85	23.86	1	23
		1	0	23.84	23.84	23.85	23.86	23.87	1	23
		25	0	23.85	23.85	23.86	23.87	23.88	2	22
		25	0	23.87	23.87	23.88	23.89	23.90	2	22
80M	QPSK	1	0	24.05	24.05	24.07	24.08	24.09	0	24
		1	0	24.07	24.07	24.08	24.09	24.10	0	24
		1	0	24.08	24.08	24.09	24.10	24.11	0	24
		25	0	24.06	24.06	24.07	24.08	24.09	1	23
		25	0	24.08	24.08	24.09	24.10	24.11	1	23
	16QAM	1	0	24.09	24.09	24.10	24.11	24.12	1	23
		1	0	24.07	24.07	24.08	24.09	24.10	1	23
		1	0	24.08	24.08	24.09	24.10	24.11	1	23
		25	0	24.09	24.09	24.10	24.11	24.12	2	22
		25	0	24.11	24.11	24.12	24.13	24.14	2	22

LTE Band 41 (2496 ~ 2600MHz) (Ant10)											
BW	Modulation	RB Size	Channel Bandwidth					ZCPCF MPR (dB)	Max. Turn-up (dBm)		
			Channel	Low	Low Mid	Mid	High Mid			High	
20M	QPSK	1	0	23.06	23.06	23.26	23.23	23.30	0	24	
		1	50	23.02	22.88	23.05	23.12	23.12	0	24	
		50	0	23.06	23.06	23.26	23.23	23.30	0	24	
		50	25	23.09	23.01	23.10	23.22	23.15	1	23	
		50	50	23.01	23.09	23.15	23.09	23.21	1	23	
	16QAM	100	0	23.01	23.07	23.10	23.22	23.26	1	23	
		1	0	23.12	23.02	23.22	23.18	23.26	1	23	
		1	50	23.07	23.09	23.25	23.18	23.28	1	23	
		1	99	23.11	23.03	23.24	23.22	23.31	1	23	
		50	0	20.99	21.03	21.21	21.11	21.24	2	22	
20M	16QAM	50	25	21.10	21.00	21.20	21.12	21.28	2	22	
		90	50	21.00	20.98	21.11	21.11	21.20	2	22	
		100	0	21.13	20.98	21.19	21.27	21.29	2	22	
		100	25	20.14	20.02	20.10	20.17	20.23	1	21	
		1	50	20.97	20.86	21.04	21.06	21.18	2	22	
	64QAM	1	99	21.22	21.03	21.30	21.27	21.33	2	22	
		50	0	20.06	19.94	20.11	20.16	20.13	3	21	
		50	25	20.14	20.06	20.20	20.20	20.20	3	21	
		50	50	20.00	19.90	20.17	20.17	20.24	3	21	
		100	0	20.14	20.01	20.18	20.17	20.24	3	21	
250M	256QAM	1	0	17.84	17.82	18.04	18.04	18.15	5	19	
		1	50	17.97	17.86	18.04	18.06	18.18	5	19	
		1	99	18.12	18.03	18.20	18.17	18.23	5	19	
		50	0	18.06	17.94	18.11	18.18	18.13	5	19	
		50	25	18.14	18.06	18.29	18.20	18.20	5	19	
	256QAM	50	50	18.00	17.90	18.17	18.17	18.24	5	19	
		100	0	18.14	18.01	18.19	18.17	18.23	5	19	
		BW Modulation	Channel	39725	40175	40625	41075	41525	41975	ZCPCF MPR (dB)	Max. Turn-up (dBm)
			Frequency (MHz)	2496.5	2506.5	2516.5	2526.5	2536.5	2546.5		
			1	0	22.90	22.93	23.13	23.11	23.18	0	24
1	24		23.91	22.79	22.99	23.11	23.03	0	24		
1	74		22.98	22.82	23.13	23.18	23.26	0	24		
QPSK	96		0	22.03	21.83	22.04	22.15	22.06	1	23	
	36		0	21.91	21.82	22.08	22.20	22.05	1	23	
	36		39	21.98	21.88	22.04	22.02	22.08	1	23	
	75		0	21.87	21.84	22.06	22.14	22.14	1	23	
	1		0	22.00	21.98	22.12	22.05	22.20	1	23	
10M	16QAM	1	37	22.06	21.88	22.11	22.15	22.22	1	23	
		1	74	22.09	22.01	22.19	22.20	22.25	1	23	
		36	0	20.95	20.93	21.11	21.00	21.14	2	22	
		36	19	20.96	20.99	21.05	21.17	21.25	2	22	
		36	39	20.98	20.87	21.01	21.04	21.11	2	22	
	256QAM	75	0	21.07	20.86	21.06	21.12	21.19	2	22	
		1	0	20.80	20.83	21.04	21.05	21.11	2	22	
		1	37	20.87	20.73	20.93	20.98	21.06	2	22	
		1	74	21.12	20.92	21.29	21.19	21.22	2	22	
		36	0	19.91	19.96	19.98	20.07	20.06	5	21	
64QAM	16QAM	36	19	20.96	19.91	20.14	20.12	20.10	3	21	
		36	39	19.96	19.81	20.05	20.02	20.12	3	21	
		75	0	20.07	19.99	20.09	20.05	20.10	3	21	
		1	0	17.84	17.72	17.91	17.99	18.14	5	19	
		1	37	17.89	17.83	17.93	17.92	18.14	5	19	
	256QAM	1	74	18.16	18.01	18.16	18.24	18.22	5	19	
		36	0	18.05	17.83	18.00	18.14	17.98	5	19	
		36	19	18.10	17.83	18.02	18.17	18.05	5	19	
		36	39	17.88	17.76	18.06	18.15	18.13	5	19	
		36	0	18.05	17.86	18.17	18.14	18.12	5	19	
BW Modulation	Channel	39790	40240	40690	41140	41590	42040	ZCPCF MPR (dB)	Max. Turn-up (dBm)		
	Frequency (MHz)	2497.5	2507.5	2517.5	2527.5	2537.5	2547.5				
	1	0	22.91	22.98	23.11	23.11	23.18	0	24		
	1	24	23.90	22.78	22.98	23.11	23.03	0	24		
	1	40	23.05	22.99	23.17	23.17	23.28	24	24		
	QPSK	25	0	21.99	21.86	21.96	22.13	22.14	1	23	
		25	12	21.96	21.83	22.12	22.21	22.01	1	23	
		25	25	21.91	21.85	22.08	22.15	22.13	1	23	
		50	0	21.84	21.83	22.09	22.18	22.25	1	23	
		1	0	22.00	22.00	22.13	22.13	22.25	1	23	
10M	16QAM	1	24	21.82	21.85	22.14	22.10	22.13	1	23	
		1	40	21.86	21.80	22.18	22.07	22.28	1	23	
		25	0	20.88	20.88	21.10	21.03	21.19	2	22	
		25	12	20.99	20.98	21.14	21.10	21.18	2	22	
		25	25	20.95	20.85	21.02	20.89	21.10	2	22	
	256QAM	50	0	21.10	20.83	21.10	21.25	21.21	2	22	
		1	0	20.93	20.77	20.99	20.99	21.00	2	22	
		1	24	20.82	20.82	21.01	21.05	21.11	2	22	
		1	40	21.13	20.94	21.24	21.16	21.19	2	22	
		25	0	20.81	19.96	19.99	20.02	20.85	3	21	
64QAM	16QAM	25	12	20.08	19.94	20.14	20.07	20.18	3	21	
		25	25	19.91	19.78	20.15	20.02	20.16	3	21	
		50	0	20.10	19.94	20.08	20.07	20.09	5	21	
		1	0	17.91	17.81	17.95	18.03	18.13	5	19	
		1	24	17.84	17.82	18.01	18.03	18.15	5	19	
	256QAM	25	0	18.17	18.02	18.22	18.16	18.20	5	19	
		25	0	18.04	17.88	17.97	18.04	17.98	5	19	
		25	12	18.09	18.05	18.27	18.14	18.19	5	19	
		25	25	17.99	17.79	18.08	18.08	18.19	5	19	
		50	0	18.00	17.84	18.07	18.10	18.20	5	19	
BW Modulation	Channel	39875	40325	40775	41225	41675	42125	ZCPCF MPR (dB)	Max. Turn-up (dBm)		
	Frequency (MHz)	2498.5	2508.5	2518.5	2528.5	2538.5	2548.5				
	1	0	22.90	22.96	23.18	23.18	23.27	0	24		
	1	24	23.91	22.79	22.99	23.11	23.04	0	24		
	1	24	22.94	22.85	23.15	23.18	23.18	0	24		
	QPSK	12	0	22.84	22.90	23.08	23.14	23.10	1	23	
		12	6	21.89	21.80	22.14	22.08	22.14	1	23	
		12	13	22.60	21.83	22.07	21.97	22.12	1	23	
		25	0	21.87	21.84	22.06	22.21	22.12	1	23	
		1	0	22.11	21.87	22.14	22.06	22.24	1	23	
10M	16QAM	1	12	21.84	21.92	22.18	22.14	22.25	1	23	
		1	24	21.96	21.97	22.15	22.11	22.22	1	23	
		12	0	20.87	21.02	21.19	20.99	21.19	2	22	
		12	6	21.04	20.88	21.05	21.14	21.22	2	22	
		12	13	20.92	20.85	21.03	21.04	21.09	2	22	
	256QAM	25	0	21.10	20.87	21.08	21.18	21.24	2	22	
		1	0	20.83	20.73	21.00	20.89	21.09	2	22	
		1	12	20.91	20.72	20.96	21.05	21.13	2	22	
		1	24	21.12	20.95	21.17	21.16	21.24	2	22	
		12	6	20.08	20.03	20.14	20.07	20.11	3	21	
250M	QPSK	12	13	19.84	19.77	20.09	20.00	20.03	3	21	
		1	0	17.92	17.82	18.05	17.85	18.02	5	19	
		1	12	17.96	17.74	17.97	17.91	18.03	5	19	
		1	24	18.15	17.95	18.15	18.15	18.20	5	19	
		12	0	18.05	17.93	18.09	18.02	18.07	5	19	
	256QAM	12	6	18.01	17.93	18.17	18.10	18.09	5	19	
		12	13	17.93	17.78	18.05	18.12	18.17	5	19	
		1	0	17.93	17.91	18.17	18.04	18.15	5	19	
		1	12	17.96	17.74	17.97	17.91	18.03	5	19	
		1	24	18.15	17.95	18.15	18.15	18.20	5	19	

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RW	Modulation	LTE Band 30 (Aval)									
		Min size	Min offset	Min	Max	Power	Power	Power	Power	Power	Power
		Frequency (MHz)	Min offset	Min	Max	Power	Power	Power	Power	Power	Power
QPSK	QPSK	1	0	15.4	15.4	1	1	1	1	1	1
		2	0	15.4	15.4	1	1	1	1	1	1
		3	0	15.4	15.4	1	1	1	1	1	1
		4	0	15.4	15.4	1	1	1	1	1	1
		5	0	15.4	15.4	1	1	1	1	1	1
		6	0	15.4	15.4	1	1	1	1	1	1
		7	0	15.4	15.4	1	1	1	1	1	1
		8	0	15.4	15.4	1	1	1	1	1	1
		9	0	15.4	15.4	1	1	1	1	1	1
		10	0	15.4	15.4	1	1	1	1	1	1
QPSK	QPSK	1	0	15.4	15.4	1	1	1	1	1	1
		2	0	15.4	15.4	1	1	1	1	1	1
		3	0	15.4	15.4	1	1	1	1	1	1
		4	0	15.4	15.4	1	1	1	1	1	1
		5	0	15.4	15.4	1	1	1	1	1	1
		6	0	15.4	15.4	1	1	1	1	1	1
		7	0	15.4	15.4	1	1	1	1	1	1
		8	0	15.4	15.4	1	1	1	1	1	1
		9	0	15.4	15.4	1	1	1	1	1	1
		10	0	15.4	15.4	1	1	1	1	1	1
QPSK	QPSK	1	0	15.4	15.4	1	1	1	1	1	1
		2	0	15.4	15.4	1	1	1	1	1	1
		3	0	15.4	15.4	1	1	1	1	1	1
		4	0	15.4	15.4	1	1	1	1	1	1
		5	0	15.4	15.4	1	1	1	1	1	1
		6	0	15.4	15.4	1	1	1	1	1	1
		7	0	15.4	15.4	1	1	1	1	1	1
		8	0	15.4	15.4	1	1	1	1	1	1
		9	0	15.4	15.4	1	1	1	1	1	1
		10	0	15.4	15.4	1	1	1	1	1	1
QPSK	QPSK	1	0	15.4	15.4	1	1	1	1	1	1
		2	0	15.4	15.4	1	1	1	1	1	1
		3	0	15.4	15.4	1	1	1	1	1	1
		4	0	15.4	15.4	1	1	1	1	1	1
		5	0	15.4	15.4	1	1	1	1	1	1
		6	0	15.4	15.4	1	1	1	1	1	1
		7	0	15.4	15.4	1	1	1	1	1	1
		8	0	15.4	15.4	1	1	1	1	1	1
		9	0	15.4	15.4	1	1	1	1	1	1
		10	0	15.4	15.4	1	1	1	1	1	1

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SR	NAME	PERFORMANCE IN VARIOUS CATEGORIES					
		Mathematics	Science	History	Art	Physical Education	Overall Average
CLASS 1	S10-1 (50% BOYS)	85	78	82	75	80	82
		78	72	75	70	75	75
		70	65	68	62	65	68
		65	60	62	58	60	62
		60	55	58	52	55	57
	S10-2 (50% GIRLS)	80	75	78	72	75	78
		75	70	72	68	70	73
		68	63	65	60	63	66
		63	58	60	55	58	61
		58	53	55	50	53	56
CLASS 2	S20-1 (50% BOYS)	88	82	85	80	83	86
		80	75	78	72	75	78
		72	68	70	65	68	71
		68	63	65	60	63	67
		63	58	60	55	58	62
	S20-2 (50% GIRLS)	85	78	80	75	78	81
		78	72	75	70	72	75
		70	65	68	62	65	68
		65	60	62	58	60	63
		60	55	58	52	55	58
CLASS 3	S30-1 (50% BOYS)	90	85	88	82	85	88
		82	78	80	75	78	81
		75	70	72	68	70	74
		70	65	68	62	65	69
		65	60	62	58	60	64
	S30-2 (50% GIRLS)	88	80	82	78	80	84
		80	75	78	72	75	78
		72	68	70	65	68	72
		68	63	65	60	63	67
		63	58	60	55	58	62
CLASS 4	S40-1 (50% BOYS)	92	88	90	85	88	91
		85	80	82	78	80	85
		78	72	75	70	72	77
		72	68	70	65	68	71
		68	63	65	60	63	67
	S40-2 (50% GIRLS)	90	82	85	80	82	87
		82	78	80	75	78	81
		75	70	72	68	70	75
		70	65	68	62	65	70
		65	60	62	58	60	65
CLASS 5	S50-1 (50% BOYS)	95	90	92	88	90	93
		88	82	85	80	82	87
		80	75	78	72	75	80
		72	68	70	65	68	72
		68	63	65	60	63	68
	S50-2 (50% GIRLS)	92	85	88	82	85	90
		85	80	82	78	80	85
		78	72	75	70	72	77
		72	68	70	65	68	72
		68	63	65	60	63	68
CLASS 6	S60-1 (50% BOYS)	98	92	95	90	92	95
		90	85	88	82	85	90
		82	78	80	75	78	83
		75	70	72	68	70	75
		70	65	68	62	65	70
	S60-2 (50% GIRLS)	95	88	90	85	88	93
		88	82	85	80	82	87

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RMR	RMR ID	RMR TYPE (RMR CATEGORY)					RMR STATUS	RMR DATE
		Category	Sub-category	Item	Value	Unit		
DMM	DPT-1 (DPT-1000)	DPT-1 (DPT-1000)	DPT-1 (DPT-1000)	1	1	100.000	100.000	100.000
				2	2	200.000	200.000	200.000
				3	3	300.000	300.000	300.000
				4	4	400.000	400.000	400.000
				5	5	500.000	500.000	500.000
	DPT-2 (DPT-2000)	DPT-2 (DPT-2000)	DPT-2 (DPT-2000)	6	6	600.000	600.000	600.000
				7	7	700.000	700.000	700.000
				8	8	800.000	800.000	800.000
				9	9	900.000	900.000	900.000
				10	10	1000.000	1000.000	1000.000
DMM	DPT-3 (DPT-3000)	DPT-3 (DPT-3000)	DPT-3 (DPT-3000)	11	11	1100.000	1100.000	1100.000
				12	12	1200.000	1200.000	1200.000
				13	13	1300.000	1300.000	1300.000
				14	14	1400.000	1400.000	1400.000
				15	15	1500.000	1500.000	1500.000
	DPT-4 (DPT-4000)	DPT-4 (DPT-4000)	DPT-4 (DPT-4000)	16	16	1600.000	1600.000	1600.000
				17	17	1700.000	1700.000	1700.000
				18	18	1800.000	1800.000	1800.000
				19	19	1900.000	1900.000	1900.000
				20	20	2000.000	2000.000	2000.000
DMM	DPT-5 (DPT-5000)	DPT-5 (DPT-5000)	DPT-5 (DPT-5000)	21	21	2100.000	2100.000	2100.000
				22	22	2200.000	2200.000	2200.000
				23	23	2300.000	2300.000	2300.000
				24	24	2400.000	2400.000	2400.000
				25	25	2500.000	2500.000	2500.000
	DPT-6 (DPT-6000)	DPT-6 (DPT-6000)	DPT-6 (DPT-6000)	26	26	2600.000	2600.000	2600.000
				27	27	2700.000	2700.000	2700.000
				28	28	2800.000	2800.000	2800.000
				29	29	2900.000	2900.000	2900.000
				30	30	3000.000	3000.000	3000.000

RMR	RMR Address	RMR # 2016-01-01 to 2016-01-31					RMR Total YTD to Date
		Actual Revenue	Actual Cost	Actual Profit	Actual Margin	Actual Revenue	
DMM	DPT vs. DPTD N/A	0	0	0	0	0	0
		0	0	0	0	0	0
		0	0	0	0	0	0
		0	0	0	0	0	0
		0	0	0	0	0	0
		0	0	0	0	0	0
	DPT vs. DPTD GPM	0	0	0	0	0	0
		0	0	0	0	0	0
		0	0	0	0	0	0
		0	0	0	0	0	0
		0	0	0	0	0	0
		0	0	0	0	0	0
DPT vs. DPTD GPM Gross Profit	0	0	0	0	0	0	
	0	0	0	0	0	0	
	0	0	0	0	0	0	
	0	0	0	0	0	0	
	0	0	0	0	0	0	
	0	0	0	0	0	0	
DPT vs. DPTD GPM Gross Profit	0	0	0	0	0	0	
	0	0	0	0	0	0	

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No.	NAME	TIME (SEC) 10/11/2019					
		100m	200m	400m	800m	1600m	3200m
2284	2017 male (age 16)	1	1	2:05	5:23.1	12:14	25
		2	1	2:02	5:20.0	12:12.2	25
		3	1	2:02	5:19.0	12:12.2	25
		4	1	2:02	5:19.0	12:12.2	25
		5	1	2:02	5:19.0	12:12.2	25
	2017 male (age 16)	1	1	2:02	5:19.0	12:12.2	25
		2	1	2:02	5:19.0	12:12.2	25
		3	1	2:02	5:19.0	12:12.2	25
		4	1	2:02	5:19.0	12:12.2	25
		5	1	2:02	5:19.0	12:12.2	25
2285	2017 male (age 16)	1	1	2:02	5:19.0	12:12.2	25
		2	1	2:02	5:19.0	12:12.2	25
		3	1	2:02	5:19.0	12:12.2	25
		4	1	2:02	5:19.0	12:12.2	25
		5	1	2:02	5:19.0	12:12.2	25
	2017 male (age 16)	1	1	2:02	5:19.0	12:12.2	25
		2	1	2:02	5:19.0	12:12.2	25
		3	1	2:02	5:19.0	12:12.2	25
		4	1	2:02	5:19.0	12:12.2	25
		5	1	2:02	5:19.0	12:12.2	25
2286	2017 male (age 16)	1	1	2:02	5:19.0	12:12.2	25
		2	1	2:02	5:19.0	12:12.2	25
		3	1	2:02	5:19.0	12:12.2	25
		4	1	2:02	5:19.0	12:12.2	25
		5	1	2:02	5:19.0	12:12.2	25
	2017 male (age 16)	1	1	2:02	5:19.0	12:12.2	25
		2	1	2:02	5:19.0	12:12.2	25
		3	1	2:02	5:19.0	12:12.2	25
		4	1	2:02	5:19.0	12:12.2	25
		5	1	2:02	5:19.0	12:12.2	25

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SUDS RISK ASSESSMENT									
Ref	SUDS RISK	SUDS RISK RATING							
		Surface Water	Groundwater	Surface Water	Groundwater	Surface Water	Groundwater	Surface Water	Groundwater
0000	SUDS - surface water	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
		6	6	6	6	6	6	6	6
	SUDS - groundwater	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
		6	6	6	6	6	6	6	6
0000	SUDS - surface water	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
		6	6	6	6	6	6	6	6
	SUDS - groundwater	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
		6	6	6	6	6	6	6	6
0000	SUDS - surface water	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
		6	6	6	6	6	6	6	6
	SUDS - groundwater	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
		6	6	6	6	6	6	6	6
0000	SUDS - surface water	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
		6	6	6	6	6	6	6	6
	SUDS - groundwater	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
		6	6	6	6	6	6	6	6

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THE UNIVERSITY OF CHICAGO										
Year	Rank	Score	SAT					ACT		
			Math	Reading	Writing	Composite	English	Math	Science	Social Studies
2010	1	1450	750	750	750	35	35	35	35	35
	2	1400	720	720	720	34	34	34	34	34
	3	1350	690	690	690	33	33	33	33	33
	4	1300	660	660	660	32	32	32	32	32
	5	1250	630	630	630	31	31	31	31	31
	6	1200	600	600	600	30	30	30	30	30
	7	1150	570	570	570	29	29	29	29	29
	8	1100	540	540	540	28	28	28	28	28
	9	1050	510	510	510	27	27	27	27	27
	10	1000	480	480	480	26	26	26	26	26
2011	1	1450	750	750	750	35	35	35	35	35
	2	1400	720	720	720	34	34	34	34	34
	3	1350	690	690	690	33	33	33	33	33
	4	1300	660	660	660	32	32	32	32	32
	5	1250	630	630	630	31	31	31	31	31
	6	1200	600	600	600	30	30	30	30	30
	7	1150	570	570	570	29	29	29	29	29
	8	1100	540	540	540	28	28	28	28	28
	9	1050	510	510	510	27	27	27	27	27
	10	1000	480	480	480	26	26	26	26	26
2012	1	1450	750	750	750	35	35	35	35	35
	2	1400	720	720	720	34	34	34	34	34
	3	1350	690	690	690	33	33	33	33	33
	4	1300	660	660	660	32	32	32	32	32
	5	1250	630	630	630	31	31	31	31	31
	6	1200	600	600	600	30	30	30	30	30
	7	1150	570	570	570	29	29	29	29	29
	8	1100	540	540	540	28	28	28	28	28
	9	1050	510	510	510	27	27	27	27	27
	10	1000	480	480	480	26	26	26	26	26
2013	1	1450	750	750	750	35	35	35	35	35
	2	1400	720	720	720	34	34	34	34	34
	3	1350	690	690	690	33	33	33	33	33
	4	1300	660	660	660	32	32	32	32	32
	5	1250	630	630	630	31	31	31	31	31
	6	1200	600	600	600	30	30	30	30	30
	7	1150	570	570	570	29	29	29	29	29
	8	1100	540	540	540	28	28	28	28	28
	9	1050	510	510	510	27	27	27	27	27
	10	1000	480	480	480	26	26	26	26	26
2014	1	1450	750	750	750	35	35	35	35	35
	2	1400	720	720	720	34	34	34	34	34
	3	1350	690	690	690	33	33	33	33	33
	4	1300	660	660	660	32	32	32	32	32
	5	1250	630	630	630	31	31	31	31	31
	6	1200	600	600	600	30	30	30	30	30
	7	1150	570	570	570	29	29	29	29	29
	8	1100	540	540	540	28	28	28	28	28
	9	1050	510	510	510	27	27	27	27	27
	10	1000	480	480	480	26	26	26	26	26

SMM (SIC 33-35, 36-38) (MWh)							
FAC	SIC	SIC Description	2010		2011		2012
			2010	2011	2010	2011	
SMM	33-35 Electric, electronic and optical equipment	33-35 Electric, electronic and optical equipment	1	1	20,250	20,250	20,250
			2	1	800	800	800
			3	1	100	100	100
			4	1	100	100	100
			5	1	100	100	100
			6	1	100	100	100
			7	1	100	100	100
			8	1	100	100	100
			9	1	100	100	100
			10	1	100	100	100
			11	1	100	100	100
			12	1	100	100	100
SMM	36-38 Transportation and communication equipment	36-38 Transportation and communication equipment	1	1	100	100	100
			2	1	100	100	100
			3	1	100	100	100
			4	1	100	100	100
			5	1	100	100	100
			6	1	100	100	100
			7	1	100	100	100
			8	1	100	100	100
			9	1	100	100	100
			10	1	100	100	100
			11	1	100	100	100
			12	1	100	100	100
SMM	36-38 Transportation and communication equipment	36-38 Transportation and communication equipment	1	1	100	100	100
			2	1	100	100	100
			3	1	100	100	100
			4	1	100	100	100
			5	1	100	100	100
			6	1	100	100	100
			7	1	100	100	100
			8	1	100	100	100
			9	1	100	100	100
			10	1	100	100	100
			11	1	100	100	100
			12	1	100	100	100
SMM	36-38 Transportation and communication equipment	36-38 Transportation and communication equipment	1	1	100	100	100
			2	1	100	100	100
			3	1	100	100	100
			4	1	100	100	100
			5	1	100	100	100
			6	1	100	100	100
			7	1	100	100	100
			8	1	100	100	100
			9	1	100	100	100
			10	1	100	100	100
			11	1	100	100	100
			12	1	100	100	100

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		2017 (partial data) (continued)					
	Year	2017	2016	2015	2014	2013	2012
2018	2018	1	1	1	1	1	1
	2017	1	1	1	1	1	1
	2016	1	1	1	1	1	1
	2015	1	1	1	1	1	1
	2014	1	1	1	1	1	1
	2013	1	1	1	1	1	1
	2012	1	1	1	1	1	1
	2011	1	1	1	1	1	1
	2010	1	1	1	1	1	1
	2009	1	1	1	1	1	1
2008	1	1	1	1	1	1	
2007	1	1	1	1	1	1	
2006	1	1	1	1	1	1	
2005	1	1	1	1	1	1	
2004	1	1	1	1	1	1	
2003	1	1	1	1	1	1	
2002	1	1	1	1	1	1	
2001	1	1	1	1	1	1	
2000	1	1	1	1	1	1	
1999	1	1	1	1	1	1	
1998	1	1	1	1	1	1	
1997	1	1	1	1	1	1	
1996	1	1	1	1	1	1	
1995	1	1	1	1	1	1	
1994	1	1	1	1	1	1	
1993	1	1	1	1	1	1	
1992	1	1	1	1	1	1	
1991	1	1	1	1	1	1	
1990	1	1	1	1	1	1	
1989	1	1	1	1	1	1	
1988	1	1	1	1	1	1	
1987	1	1	1	1	1	1	
1986	1	1	1	1	1	1	
1985	1	1	1	1	1	1	
1984	1	1	1	1	1	1	
1983	1	1	1	1	1	1	
1982	1	1	1	1	1	1	

		101 PAPER (A) - 100 QUESTIONS											
		Q. No.	1	2	3	4	5	6	7	8	9	10	
5000	PART A (100 marks)	Q. No.	11	12	13	14	15	16	17	18	19	20	
		Q. No.	21	22	23	24	25	26	27	28	29	30	
		Q. No.	31	32	33	34	35	36	37	38	39	40	
		Q. No.	41	42	43	44	45	46	47	48	49	50	
		Q. No.	51	52	53	54	55	56	57	58	59	60	
	PART B (100 marks)	Q. No.	1	2	3	4	5	6	7	8	9	10	
		Q. No.	11	12	13	14	15	16	17	18	19	20	
		Q. No.	21	22	23	24	25	26	27	28	29	30	
		Q. No.	31	32	33	34	35	36	37	38	39	40	
		Q. No.	41	42	43	44	45	46	47	48	49	50	
5001	Q. No.	1	2	3	4	5	6	7	8	9	10		
5002	Q. No.	1	2	3	4	5	6	7	8	9	10		
5003	Q. No.	1	2	3	4	5	6	7	8	9	10		
5004	Q. No.	1	2	3	4	5	6	7	8	9	10		
5005	Q. No.	1	2	3	4	5	6	7	8	9	10		
5006	Q. No.	1	2	3	4	5	6	7	8	9	10		
5007	Q. No.	1	2	3	4	5	6	7	8	9	10		
5008	Q. No.	1	2	3	4	5	6	7	8	9	10		
5009	Q. No.	1	2	3	4	5	6	7	8	9	10		
5010	Q. No.	1	2	3	4	5	6	7	8	9	10		
5011	Q. No.	1	2	3	4	5	6	7	8	9	10		
5012	Q. No.	1	2	3	4	5	6	7	8	9	10		
5013	Q. No.	1	2	3	4	5	6	7	8	9	10		
5014	Q. No.	1	2	3	4	5	6	7	8	9	10		
5015	Q. No.	1	2	3	4	5	6	7	8	9	10		
5016	Q. No.	1	2	3	4	5	6	7	8	9	10		
5017	Q. No.	1	2	3	4	5	6	7	8	9	10		
5018	Q. No.	1	2	3	4	5	6	7	8	9	10		
5019	Q. No.	1	2	3	4	5	6	7	8	9	10		
5020	Q. No.	1	2	3	4	5	6	7	8	9	10		
5021	Q. No.	1	2	3	4	5	6	7	8	9	10		
5022	Q. No.	1	2	3	4	5	6	7	8	9	10		
5023	Q. No.	1	2	3	4	5	6	7	8	9	10		
5024	Q. No.	1	2	3	4	5	6	7	8	9	10		
5025	Q. No.	1	2	3	4	5	6	7	8	9	10		
5026	Q. No.	1	2	3	4	5	6	7	8	9	10		
5027	Q. No.	1	2	3	4	5	6	7	8	9	10		
5028	Q. No.	1	2	3	4	5	6	7	8	9	10		
5029	Q. No.	1	2	3	4	5	6	7	8	9	10		
5030	Q. No.	1	2	3	4	5	6	7	8	9	10		
5031	Q. No.	1	2	3	4	5	6	7	8	9	10		
5032	Q. No.	1	2	3	4	5	6	7	8	9	10		
5033	Q. No.	1	2	3	4	5	6	7	8	9	10		
5034	Q. No.	1	2	3	4	5	6	7	8	9	10		
5035	Q. No.	1	2	3	4	5	6	7	8	9	10		
5036	Q. No.	1	2	3	4	5	6	7	8	9	10		
5037	Q. No.	1	2	3	4	5	6	7	8	9	10		
5038	Q. No.	1	2	3	4	5	6	7	8	9	10		
5039	Q. No.	1	2	3	4	5	6	7	8	9	10		
5040	Q. No.	1	2	3	4	5	6	7	8	9	10		
5041	Q. No.	1	2	3	4	5	6	7	8	9	10		
5042	Q. No.	1	2	3	4	5	6	7	8	9	10		
5043	Q. No.	1	2	3	4	5	6	7	8	9	10		
5044	Q. No.	1	2	3	4	5	6	7	8	9	10		
5045	Q. No.	1	2	3	4	5	6	7	8	9	10		
5046	Q. No.	1	2	3	4	5	6	7	8	9	10		
5047	Q. No.	1	2	3	4	5	6	7	8	9	10		
5048	Q. No.	1	2	3	4	5	6	7	8	9	10		
5049	Q. No.	1	2	3	4	5	6	7	8	9	10		
5050	Q. No.	1	2	3	4	5	6	7	8	9	10		

Table 1. The results of the 2019-2020 season									
Year	Month	Area	Number of plants	Number of plants				Number of plants	Number of plants
				Number of plants	Number of plants	Number of plants	Number of plants		
2019	April	1000	1	1	1	1	1	1	1
			2	2	2	2	2	2	2
			3	3	3	3	3	3	3
			4	4	4	4	4	4	4
			5	5	5	5	5	5	5
			6	6	6	6	6	6	6
	May	1000	1	1	1	1	1	1	1
			2	2	2	2	2	2	2
			3	3	3	3	3	3	3
			4	4	4	4	4	4	4
			5	5	5	5	5	5	5
			6	6	6	6	6	6	6
2020	April	1000	1	1	1	1	1	1	1
			2	2	2	2	2	2	2
			3	3	3	3	3	3	3
			4	4	4	4	4	4	4
			5	5	5	5	5	5	5
			6	6	6	6	6	6	6
	May	1000	1	1	1	1	1	1	1
			2	2	2	2	2	2	2
			3	3	3	3	3	3	3
			4	4	4	4	4	4	4
			5	5	5	5	5	5	5
			6	6	6	6	6	6	6

n2 (SCS 15 kHz) (Ann2)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max.	Turn-up (dBm)	
		Channel		Frequency (MHz)	1880	1890	1890		
20M	DFT+QFDM P2 BPSK	1	1	23.15	23.17	23.46	24		
		1	50	23.25	23.11	23.07	24		
		1	104	23.10	23.32	23.58	24		
		50	0	21.90	22.24	22.09	24		
		50	20	23.20	23.16	23.53	24		
		50	56	22.26	21.87	22.44	24		
		100	0	22.42	22.29	22.07	24		
		1	1	23.62	23.39	23.19	24		
	DFT+QFDM QPSK	1	53	23.50	23.29	23.46	24		
		1	104	23.25	23.23	23.21	24		
		50	0	22.72	22.63	22.53	24		
		50	20	23.10	23.15	23.14	24		
		50	56	22.67	22.60	22.64	24		
		100	0	22.74	22.64	22.77	24		
		1	1	22.35	21.96	22.52	23		
		1	1	20.83	20.73	20.76	22		
	DFT+QFDM	1	1	18.58	18.65	18.67	21		
BW	MCS Index	Channel		37000	37000	38000	Max.		
10M	DFT+QFDM	1	1	1	1	1	Turn-up		
BW	MCS Index	Channel		37000	37000	38000	Max.		
BW	MCS Index	Channel		38000	38000	39000	Max.		
10M	DFT+QFDM	1	1	23.53	23.24	23.15	24		
BW	MCS Index	Channel		37000	37000	38000	Max.		
BW	MCS Index	Channel		38000	38000	39000	Max.		
5M	DFT+QFDM	1	1	23.40	23.27	23.16	24		

n7 (SCS 15 kHz) (Ann10)												
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max. Power (dBm)	Turn-up				
		Channel		Frequency (MHz)	5000	50700				51000		
40M	DFT+QFDM P2 BPSK	1	1	23.49	23.62	23.24	24					
		1	108	23.13	23.13	23.16	24					
		1	214	22.04	22.17	22.16	24					
		108	0	22.43	22.53	22.46	24					
		108	54	22.85	22.87	23.05	24					
		108	108	22.37	22.35	22.56	24					
		216	0	22.59	22.38	22.78	24					
		1	1	23.29	22.89	23.82	24					
	DFT+QFDM QPSK	1	108	22.83	22.95	23.11	24					
		1	214	23.03	23.16	23.32	24					
		108	0	23.03	23.06	23.27	24					
		108	54	22.87	22.93	23.18	24					
		108	108	22.05	22.26	22.16	24					
		216	0	22.17	22.81	22.12	24					
		1	1	21.96	22.59	22.26	23					
		1	1	20.75	20.94	20.10	22					
	DFT+QFDM	1	1	19.28	19.26	19.35	21					
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up				
20M	DFT+QFDM	1	1	1	1	1	23.46	23.14	23.25	24		
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up				
20M	DFT+QFDM	1	1	1	1	1	23.23	23.13	23.53	24		
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up				
20M	DFT+QFDM	1	1	1	1	1	23.29	23.02	23.31	24		
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up				
15M	DFT+QFDM	1	1	1	1	1	23.46	23.26	23.62	24		
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up				
15M	DFT+QFDM	1	1	1	1	1	23.23	23.09	23.26	24		
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up				
10M	DFT+QFDM	1	1	1	1	1	23.23	23.09	23.26	24		
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up				
5M	DFT+QFDM	1	1	1	1	1	23.21	23.12	23.24	24		

n38 (SCS 30 kHz) (Ann6)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max.	Turn-up (dBm)	
		Channel		Frequency (MHz)	51800	51900	52000		
40M	DFT+QFDM P2 BPSK	1	1	22.78	22.72	22.85	24		
		1	52	22.37	22.35	22.30	24		
		1	104	22.69	22.63	22.71	24		
		50	0	21.95	22.35	21.72	23		
		50	20	22.84	22.40	22.54	23		
		50	56	21.92	22.26	22.16	23		
		100	0	22.13	22.22	21.77	23		
		1	1	22.87	22.97	23.06	24		
	DFT+QFDM QPSK	1	52	22.70	22.53	22.80	24		
		1	104	22.83	22.80	23.01	24		
		50	0	21.72	21.42	21.40	23		
		50	20	22.53	22.54	22.75	23		
		50	56	21.80	21.90	21.75	23		
		100	0	21.72	21.97	21.43	23		
		1	1	21.71	21.98	21.93	23		
		1	1	20.29	20.13	19.96	22		
	DFT+QFDM	1	1	18.38	18.54	18.45	20		
BW	MCS Index	Channel		51700	51900	52000	Max.		
20M	DFT+QFDM	1	1	1	1	1	Turn-up		
BW	MCS Index	Channel		51800	51900	52000	Max.		
BW	MCS Index	Channel		51800	51900	52000	Max.		
20M	DFT+QFDM	1	1	22.74	22.94	22.99	24		
BW	MCS Index	Channel		51800	51900	52000	Max.		
BW	MCS Index	Channel		51800	51900	52000	Max.		
15M	DFT+QFDM	1	1	22.84	22.83	23.03	24		
BW	MCS Index	Channel		51800	51900	52000	Max.		
BW	MCS Index	Channel		51800	51900	52000	Max.		
10M	DFT+QFDM	1	1	22.86	22.92	22.92	24		

n66 (SCS 15 kHz) (Ann2)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max.	Turn-up (dBm)	
		Channel		Frequency (MHz)	34600	34900	35200		
40M	DFT+QFDM P2 BPSK	1	1	20.80	20.98	20.67	22		
		1	107	20.64	20.95	20.46	22		
		1	214	20.68	20.54	20.47	22		
		108	0	20.25	20.24	20.27	22		
		108	54	20.00	20.00	20.46	22		
		108	108	20.18	20.00	20.16	22		
		216	0	20.23	20.18	20.10	22		
		1	1	20.00	20.04	20.76	22		
	DFT+QFDM QPSK	1	107	20.76	20.61	20.74	22		
		1	214	20.55	20.47	20.62	22		
		108	0	19.57	19.57	19.68	22		
		108	54	20.70	20.63	20.76	22		
		108	108	19.76	19.65	19.63	22		
		216	0	19.28	19.69	19.68	22		
		1	1	19.94	19.94	19.73	21		
		1	1	18.92	18.03	18.12	19.5		
	DFT+QFDM	1	1	18.41	18.27	18.36	17.5		
BW	MCS Index	Channel		34500	34900	35200	Max.		
20M	DFT+QFDM	1	1	1	1	1	Turn-up		
BW	MCS Index	Channel		34600	34900	35200	Max.		
BW	MCS Index	Channel		34600	34900	35200	Max.		
20M	DFT+QFDM	1	1	20.80	20.75	20.67	22		
BW	MCS Index	Channel		34600	34900	35200	Max.		
BW	MCS Index	Channel		34600	34900	35200	Max.		
20M	DFT+QFDM	1	1	20.82	20.77	20.59	22		
BW	MCS Index	Channel		34500	34900	35200	Max.		
15M	DFT+QFDM	1	1	20.75	20.77	20.65	22		
BW	MCS Index	Channel		34500	34900	35200	Max.		
BW	MCS Index	Channel		34500	34900	35200	Max.		
10M	DFT+QFDM	1	1	20.86	20.75	20.62	22		
BW	MCS Index	Channel		34500	34900	35200	Max.		
BW	MCS Index	Channel		34500	34900	35200	Max.		
5M	DFT+QFDM	1	1	20.75	20.80	20.62	22		

n77 PC3/PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	Mid		Max. Tune-up (dBm)
		Channel		Channel		
100M	DFT-s-OFDM P22 BPSK	Frequency (MHz)		3500.01		
		1	1	21.49		23
		1	137	21.46		23
		1	271	21.50		23
		135	0	21.36		23
		135	69	21.43		23
		135	138	21.39		23
		270	0	21.34		23
		1	1	21.74		23
		1	137	21.55		23
	DFT-s-OFDM QPSK	1	271	21.45		23
		135	0	21.34		23
		135	69	21.46		23
		135	138	21.45		23
		270	0	21.46		23
		DFT-s-OFDM 16QAM	1	1	21.59	23
	DFT-s-OFDM 60QAM	1	1			22.5
		DFT-s-OFDM 250QAM	1	1		21.5
BW	MCS Index	Channel		63300	63334	63366 Max. Tune-up
90M	DFT-s-OFDM QPSK	1	1	21.68	21.71	21.72 23
BW	MCS Index	Channel		63366	63334	63400 Max. Tune-up
80M	DFT-s-OFDM QPSK	1	1	21.68	21.72	21.72 23
BW	MCS Index	Channel		63234	63234	63432 Max. Tune-up
70M	DFT-s-OFDM QPSK	1	1	21.61	21.62	21.71 23
BW	MCS Index	Channel		63200	63334	63466 Max. Tune-up
60M	DFT-s-OFDM QPSK	1	1	21.58	21.69	21.65 23
BW	MCS Index	Channel		63166	63234	63500 Max. Tune-up
50M	DFT-s-OFDM QPSK	1	1	21.70	21.60	21.63 23
BW	MCS Index	Channel		63134	63334	63532 Max. Tune-up
40M	DFT-s-OFDM QPSK	1	1	21.60	21.63	21.67 23
BW	MCS Index	Channel		63100	63334	63666 Max. Tune-up
30M	DFT-s-OFDM QPSK	1	1	21.73	21.65	21.62 23
BW	MCS Index	Channel		63066	63334	63600 Max. Tune-up
20M	DFT-s-OFDM QPSK	1	1	21.60	21.67	21.65 23
BW	MCS Index	Channel		63030	63334	63636 Max. Tune-up
15M	DFT-s-OFDM QPSK	1	1	21.70	21.70	21.62 23
BW	MCS Index	Channel		63034	63334	63632 Max. Tune-up
10M	DFT-s-OFDM QPSK	1	1	21.70	21.74	21.59 23

n77 PC3/PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		65000	65600	66200
100M	DFT-s-OFDM P22 BPSK	Frequency (MHz)		3705	3840	3950
		1	1	22.07	21.95	21.78
		1	137	21.95	21.55	21.87
		1	271	21.95	21.38	21.61
		135	0	21.81	21.50	21.70
		135	69	21.89	21.33	21.66
		135	138	21.78	21.41	21.67
		270	0	21.69	21.41	21.79
		1	1	22.15	21.65	21.98
		1	137	21.94	21.49	21.83
	DFT-s-OFDM QPSK	1	271	21.99	21.31	21.64
		135	0	21.61	21.41	21.86
		135	69	21.84	21.51	21.69
		135	138	21.83	21.35	21.67
		270	0	21.68	21.34	21.64
		DFT-s-OFDM 16QAM	1	1	22.05	21.47
	DFT-s-OFDM 60QAM	1	1	21.81	21.30	21.67
		DFT-s-OFDM 250QAM	1	1	20.42	19.91
BW	MCS Index	Channel		64968	65000	64232 Max. Tune-up
90M	DFT-s-OFDM QPSK	1	1	22.07	21.63	21.89 23
BW	MCS Index	Channel		64934	65000	64966 Max. Tune-up
80M	DFT-s-OFDM QPSK	1	1	22.08	21.55	21.82 23
BW	MCS Index	Channel		63234	65000	63432 Max. Tune-up
70M	DFT-s-OFDM QPSK	1	1	22.06	21.55	21.92 23
BW	MCS Index	Channel		64868	65000	64332 Max. Tune-up
60M	DFT-s-OFDM QPSK	1	1	22.05	21.52	21.82 23
BW	MCS Index	Channel		64834	65000	64366 Max. Tune-up
50M	DFT-s-OFDM QPSK	1	1	22.09	21.63	21.93 23
BW	MCS Index	Channel		64800	65000	64900 Max. Tune-up
40M	DFT-s-OFDM QPSK	1	1	22.08	21.61	21.89 23
BW	MCS Index	Channel		64768	65000	64432 Max. Tune-up
30M	DFT-s-OFDM QPSK	1	1	22.08	21.67	21.89 23
BW	MCS Index	Channel		64734	65000	64466 Max. Tune-up
20M	DFT-s-OFDM QPSK	1	1	22.09	21.59	21.94 23
BW	MCS Index	Channel		64718	65000	64482 Max. Tune-up
15M	DFT-s-OFDM QPSK	1	1	22.04	21.59	21.95 23
BW	MCS Index	Channel		64700	65000	64500 Max. Tune-up
10M	DFT-s-OFDM QPSK	1	1	22.01	21.60	21.85 23

n78 PC3/PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	Mid		Max. Tune-up (dBm)
		Channel		63334		
100M	DFT-s-OFDM P22 BPSK	Frequency (MHz)		3500.01		
		1	1			23
		1	137			23
		1	271			23
		135	0			23
		135	69			23
		135	138			23
		270	0			23
		1	1			23
		1	137			23
	DFT-s-OFDM QPSK	1	271			23
		135	0			23
		135	69			23
		135	138			23
		270	0			23
		DFT-s-OFDM 16QAM	1	1		23
	DFT-s-OFDM 60QAM	1	1			22.5
		DFT-s-OFDM 250QAM	1	1		21.5
BW	MCS Index	Channel		63300	63334	63366 Max. Tune-up
90M	DFT-s-OFDM QPSK	1	1	22.12	22.15	22.10 23
BW	MCS Index	Channel		63298	63334	63400 Max. Tune-up
80M	DFT-s-OFDM QPSK	1	1	22.17	22.03	22.06 23
BW	MCS Index	Channel		63234	63234	63432 Max. Tune-up
70M	DFT-s-OFDM QPSK	1	1	22.07	22.07	22.10 23
BW	MCS Index	Channel		63200	63334	63466 Max. Tune-up
60M	DFT-s-OFDM QPSK	1	1	22.04	22.16	22.11 23
BW	MCS Index	Channel		63166	63234	63500 Max. Tune-up
50M	DFT-s-OFDM QPSK	1	1	22.09	22.19	22.15 23
BW	MCS Index	Channel		63134	63334	63532 Max. Tune-up
40M	DFT-s-OFDM QPSK	1	1	22.16	22.17	22.07 23
BW	MCS Index	Channel		63100	63334	63666 Max. Tune-up
30M	DFT-s-OFDM QPSK	1	1	22.08	22.17	22.16 23
BW	MCS Index	Channel		63066	63334	63600 Max. Tune-up
20M	DFT-s-OFDM QPSK	1	1	22.11	22.18	22.17 23
BW	MCS Index	Channel		63030	63334	63636 Max. Tune-up
15M	DFT-s-OFDM QPSK	1	1	22.10	22.16	22.02 23
BW	MCS Index	Channel		63034	63334	63632 Max. Tune-up
10M	DFT-s-OFDM QPSK	1	1	22.13	22.19	22.12 23

DSI2 Power

Band	GSM850 (Ant0)				GSM1900 (Ant0)			
Channel	128	189	251	Max. Tune-up Power (dBm)	512	661	810	Max. Tune-up Power (dBm)
Frequency (MHz)	824.2	836.4	848.8		1850.2	1880	1909.8	
GSM	27.25	27.05	27.16	29.00	28.94	29.06	29.03	30.50
GPRS 1Tx Slot	27.24	27.04	27.14	29.00	28.93	29.05	29.01	30.50
GPRS 2Tx Slot	25.21	25.45	25.28	27.00	27.09	26.94	26.97	28.50
GPRS 3Tx Slot	23.23	23.47	23.31	25.00	25.12	25.05	24.95	26.50
GPRS 4Tx Slot	21.26	21.43	21.26	23.00	22.75	22.90	22.93	24.50
EDGE 1Tx Slot	26.22	26.10	26.18	27.50	25.47	25.46	25.27	26.50
EDGE 2Tx Slot	25.01	24.98	24.82	26.50	24.04	24.29	24.06	25.50
EDGE 3Tx Slot	23.84	23.66	23.86	25.50	22.90	23.17	22.98	24.50
EDGE 4Tx Slot	21.74	21.71	21.68	23.50	21.86	22.06	22.00	23.50

Source-Based Time-Averaged Power								
Band	GSM850			Max. Tune-up Power (dBm)	GSM1900			Max. Tune-up Power (dBm)
Channel	128	189	251		512	661	810	
GSM	18.25	18.05	18.16	20.00	19.94	20.06	20.03	21.50
GPRS 1Tx Slot	18.24	18.04	18.14	20.00	19.93	20.05	20.01	21.50
GPRS 2Tx Slot	19.21	19.45	19.28	21.00	21.09	20.94	20.97	22.50
GPRS 3Tx Slot	18.97	19.21	19.05	20.74	20.86	20.79	20.69	22.24
GPRS 4Tx Slot	18.26	18.43	18.26	20.00	19.75	19.90	19.93	21.50
EDGE 1Tx Slot	17.22	17.10	17.18	18.50	16.47	16.46	16.27	17.50
EDGE 2Tx Slot	19.01	18.98	18.82	20.50	18.04	18.29	18.06	19.50
EDGE 3Tx Slot	19.58	19.40	19.60	21.24	18.64	18.91	18.72	20.24
EDGE 4Tx Slot	18.74	18.71	18.68	20.50	18.86	19.06	19.00	20.50

Band	WCDMA II (Ant0)			WCDMA II	WCDMA IV (Ant0)			WCDMA IV	WCDMA V (Ant0)			WCDMA V
TX Channel	9262	9400	9538	Max. Tune-up Power (dBm)	1312	1413	1513	Max. Tune-up Power (dBm)	4132	4182	4233	Max. Tune-up Power (dBm)
Rx Channel	9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
RMC 12.2K	22.98	22.97	22.87	24.00	22.85	22.86	22.83	24.00	22.87	22.94	22.88	24.00
HSDPA Subtest-1	22.06	22.02	22.05	23.00	21.89	21.89	21.90	23.00	21.95	21.91	21.91	23.00
HSDPA Subtest-2	21.96	22.06	21.97	23.00	21.82	21.88	21.86	23.00	21.93	21.88	21.99	23.00
HSDPA Subtest-3	21.55	21.49	21.36	22.50	21.30	21.35	21.33	22.50	21.42	21.40	21.46	22.50
HSDPA Subtest-4	21.51	21.50	21.46	22.50	21.41	21.44	21.41	22.50	21.45	21.47	21.35	22.50
DC-HSDPA Subtest-1	22.04	22.04	21.96	23.00	21.86	21.92	21.90	23.00	21.96	21.82	21.99	23.00
DC-HSDPA Subtest-2	22.00	22.06	22.03	23.00	21.87	21.87	21.83	23.00	21.89	21.89	21.94	23.00
DC-HSDPA Subtest-3	21.54	21.56	21.34	22.50	21.35	21.38	21.41	22.50	21.33	21.41	21.43	22.50
DC-HSDPA Subtest-4	21.54	21.42	21.35	22.50	21.40	21.45	21.35	22.50	21.36	21.39	21.38	22.50
HSUPA Subtest-1	21.97	22.02	21.85	23.00	21.90	21.87	21.90	23.00	21.95	21.98	21.94	23.00
HSUPA Subtest-2	19.94	20.04	19.82	21.00	19.86	19.81	19.84	21.00	19.92	19.93	19.95	21.00
HSUPA Subtest-3	21.03	20.95	20.93	22.00	20.80	20.94	20.82	22.00	20.84	20.92	20.89	22.00
HSUPA Subtest-4	20.00	20.03	19.82	21.00	19.93	19.85	19.86	21.00	19.96	19.99	19.93	21.00
HSUPA Subtest-5	22.06	22.04	21.95	23.00	21.82	21.86	21.87	23.00	21.85	22.00	21.84	23.00
HSPA+ Subtest-1	19.50	19.44	19.36	20.50	19.36	19.38	19.41	20.50	19.34	19.44	19.40	20.50

ID	Modulation	LTE Band 2 (800)										Power (dBm)	Freq. (MHz)	Bandwidth (MHz)
		Sub-carrier	Sub-carrier	Sub-carrier	Sub-carrier	Sub-carrier	Sub-carrier	Sub-carrier	Sub-carrier	Sub-carrier	Sub-carrier			
1M	QPSK	1	100	200	300	400	500	600	700	800	900	23	0	24
		2	100	200	300	400	500	600	700	800	900	23	0	24
		3	100	200	300	400	500	600	700	800	900	23	0	24
		4	100	200	300	400	500	600	700	800	900	23	0	24
		5	100	200	300	400	500	600	700	800	900	23	0	24
		6	100	200	300	400	500	600	700	800	900	23	0	24
		7	100	200	300	400	500	600	700	800	900	23	0	24
		8	100	200	300	400	500	600	700	800	900	23	0	24
		9	100	200	300	400	500	600	700	800	900	23	0	24
		10	100	200	300	400	500	600	700	800	900	23	0	24
2M	QPSK	1	100	200	300	400	500	600	700	800	900	23	0	24
		2	100	200	300	400	500	600	700	800	900	23	0	24
		3	100	200	300	400	500	600	700	800	900	23	0	24
		4	100	200	300	400	500	600	700	800	900	23	0	24
		5	100	200	300	400	500	600	700	800	900	23	0	24
		6	100	200	300	400	500	600	700	800	900	23	0	24
		7	100	200	300	400	500	600	700	800	900	23	0	24
		8	100	200	300	400	500	600	700	800	900	23	0	24
		9	100	200	300	400	500	600	700	800	900	23	0	24
		10	100	200	300	400	500	600	700	800	900	23	0	24
3M	QPSK	1	100	200	300	400	500	600	700	800	900	23	0	24
		2	100	200	300	400	500	600	700	800	900	23	0	24
		3	100	200	300	400	500	600	700	800	900	23	0	24
		4	100	200	300	400	500	600	700	800	900	23	0	24
		5	100	200	300	400	500	600	700	800	900	23	0	24
		6	100	200	300	400	500	600	700	800	900	23	0	24
		7	100	200	300	400	500	600	700	800	900	23	0	24
		8	100	200	300	400	500	600	700	800	900	23	0	24
		9	100	200	300	400	500	600	700	800	900	23	0	24
		10	100	200	300	400	500	600	700	800	900	23	0	24
4M	QPSK	1	100	200	300	400	500	600	700	800	900	23	0	24
		2	100	200	300	400	500	600	700	800	900	23	0	24
		3	100	200	300	400	500	600	700	800	900	23	0	24
		4	100	200	300	400	500	600	700	800	900	23	0	24
		5	100	200	300	400	500	600	700	800	900	23	0	24
		6	100	200	300	400	500	600	700	800	900	23	0	24
		7	100	200	300	400	500	600	700	800	900	23	0	24
		8	100	200	300	400	500	600	700	800	900	23	0	24
		9	100	200	300	400	500	600	700	800	900	23	0	24
		10	100	200	300	400	500	600	700	800	900	23	0	24
5M	QPSK	1	100	200	300	400	500	600	700	800	900	23	0	24
		2	100	200	300	400	500	600	700	800	900	23	0	24
		3	100	200	300	400	500	600	700	800	900	23	0	24
		4	100	200	300	400	500	600	700	800	900	23	0	24
		5	100	200	300	400	500	600	700	800	900	23	0	24
		6	100	200	300	400	500	600	700	800	900	23	0	24
		7	100	200	300	400	500	600	700	800	900	23	0	24
		8	100	200	300	400	500	600	700	800	900	23	0	24
		9	100	200	300	400	500	600	700	800	900	23	0	24
		10	100	200	300	400	500	600	700	800	900	23	0	24
6M	QPSK	1	100	200	300	400	500	600	700	800	900	23	0	24
		2	100	200	300	400	500	600	700	800	900	23	0	24
		3	100	200	300	400	500	600	700	800	900	23	0	24
		4	100	200	300	400	500	600	700	800	900	23	0	24
		5	100	200	300	400	500	600	700	800	900	23	0	24
		6	100	200	300	400	500	600	700	800	900	23	0	24
		7	100	200	300	400	500	600	700	800	900	23	0	24
		8	100	200	300	400	500	600	700	800	900	23	0	24
		9	100	200	300	400	500	600	700	800	900	23	0	24
		10	100	200	300	400	500	600	700	800	900	23	0	24
7M	QPSK	1	100	200	300	400	500	600	700	800	900	23	0	24
		2	100	200	300	400	500	600	700	800	900	23	0	24
		3	100	200	300	400	500	600	700	800	900	23	0	24
		4	100	200	300	400	500	600	700	800	900	23	0	24
		5	100	200	300	400	500	600	700	800	900	23	0	24
		6	100	200	300	400	500	600	700	800	900	23	0	24
		7	100	200	300	400	500	600	700	800	900	23	0	24
		8	100	200	300	400	500	600	700	800	900	23	0	24
		9	100	200	300	400	500	600	700	800	900	23	0	24
		10	100	200	300	400	500	600	700	800	900	23	0	24
8M	QPSK	1	100	200	300	400	500	600	700	800	900	23	0	24
		2	100	200	300	400	500	600	700	800	900	23	0	24
		3	100	200	300	400	500	600	700	800	900	23	0	24
		4	100	200	300	400	500	600	700	800	900	23	0	24
		5	100	200	300	400	500	600	700	800	900	23	0	24
		6	100	200	300	400	500	600	700	800	900	23	0	24
		7	100	200	300	400	500	600	700	800	900	23	0	24
		8	100	200	300	400	500	600	700	800	900	23	0	24
		9	100	200	300	400	500	600	700	800	900	23	0	24
		10	100	200	300	400	500	600	700	800	900	23	0	24
9M	QPSK	1	100	200	300	400	500	600	700	800	900	23	0	24
		2	100	200	300	400	500	600	700	800	900	23	0	24
		3	100	200	300	400	500	600	700	800	900	23	0	24
		4	100	200	300	400	500	600	700	800	900	23	0	24
		5	100	200	300	400	500	600	700	800	900	23	0	24
		6	100	200	300	400	500	600	700	800	900	23	0	24
		7	100	200	300	400	500	600	700	800	900	23	0	24
		8	100	200	300	400	500	600	700	800	900	23	0	24
		9	100	200	300	400	500	600	700	800	900	23	0	24
		10	100	200	300	400	500	600	700	800	900	23	0	24
10M	QPSK	1	100	200	300	400	500	600	700	800	900	23	0	24
		2	100	200	300	400	500	600	700	800	900	23	0	24
		3	100	200	300	400	500	600	700	800	900	23	0	24
		4	100	200	300	400	500	600	700	800	900	23	0	24
		5	100	200	300	400	500	600	700	800	900	23	0	24
		6	100	200	300	400	500	600	700	800	900	23	0	24
		7	100	200	300	400	500	600	700	800	900	23	0	24
		8	100	200	300	400	500	600	700	800	900	23	0	24
		9	100	200	300	400	500	600	700	800	900	23	0	24
		10	100	200	300	400	500	600	700	800	900	23	0	24
11M	QPSK	1	100	200	300	400	500	600	700	800	900	23	0	24
		2	100	200	300	400	500	600	700	800	900	23	0	24
		3	100	200	300	400	500	600	700	800	900	23	0	24
		4	100	200	300	400	500	600	700	800	900	23	0	24
		5	100	200	300	400	500	600	700	800	900	23	0	24
		6	100	200	300	400	500	600	700	800	900	23	0	24
		7	100	200	300	400	500	600	700	800	900	23	0	24
		8	100	200	300	400	500	600	700	800	900	23	0	24
		9	100	200	300	400	500	600	700	800	900	23	0	24
		10	100	200	300	400	500	600	700	800	900	23	0	24
12M	QPSK	1	100	200	300	400	500	600	700	800	900	23	0	24
		2	100	200	300	400	500	600	700	800	900	23	0	24
		3	100	200	300	400	500	600	700	800	900	23	0	24
		4	100	200	300	400	500	600	700	800	900	23	0	24
		5	100	200	300	400	500	600	700	800	900	23	0	24
		6	100	200	300	400	500	600	700	800	900	23	0	24
		7	100	200	300	400	500	600	700	800	900	23	0	24

ID	Modulation	LTE Band 4 (E-UTRA)										Bandwidth (MHz)	Power Spectral Density (dBm/MHz)	Max. Tx Power (dBm)	Min. Rx Power (dBm)	Max. Rx Power (dBm)
		Channel		Tx		Rx		Tx		Rx						
		Freq. (MHz)	Bandwidth (MHz)	Freq. (MHz)	Bandwidth (MHz)	Freq. (MHz)	Bandwidth (MHz)	Freq. (MHz)	Bandwidth (MHz)							
23M	QPSK	1	512	22.36	22.36	22.42	22.42	22.45	0	23						
		50	15	22.45	22.45	22.51	22.51	22.53	1	23						
		500	25	22.50	22.50	22.57	22.57	22.59	1	23						
		500	0	22.57	22.57	22.63	22.63	22.65	1	23						
	16QAM	1000	0	22.63	22.63	22.69	22.69	22.71	1	23						
		1	512	22.36	22.36	22.42	22.42	22.45	1	23						
		50	0	22.50	22.50	22.56	22.56	22.58	7	22						
		500	0	22.57	22.57	22.63	22.63	22.65	7	22						
	64QAM	1000	0	22.63	22.63	22.69	22.69	22.71	23	23						
		1	512	22.36	22.36	22.42	22.42	22.45	23	23						
		50	0	22.50	22.50	22.56	22.56	22.58	23	23						
		500	0	22.57	22.57	22.63	22.63	22.65	23	23						
23M	QPSK	1	0	48.42	48.42	48.51	48.51	48.52	2	22						
		1	198	38.60	38.60	38.68	38.68	38.70	2	22						
		500	0	38.67	38.67	38.73	38.73	38.75	2	21						
		500	0	38.73	38.73	38.79	38.79	38.81	2	21						
	16QAM	1000	0	38.79	38.79	38.85	38.85	38.87	2	21						
		1	198	28.96	28.96	29.04	29.04	29.06	2	21						
		500	0	29.04	29.04	29.10	29.10	29.12	2	21						
		500	0	29.10	29.10	29.16	29.16	29.18	2	21						
	64QAM	1000	0	29.16	29.16	29.22	29.22	29.24	2	21						
		1	198	17.50	17.50	17.56	17.56	17.58	5	19						
		500	0	17.56	17.56	17.62	17.62	17.64	5	19						
		500	0	17.62	17.62	17.68	17.68	17.70	5	19						
23M	QPSK	1	512	22.36	22.36	22.42	22.42	22.45	0	24						
		50	15	22.45	22.45	22.51	22.51	22.53	1	24						
		500	25	22.49	22.49	22.55	22.55	22.57	1	23						
		500	0	22.55	22.55	22.61	22.61	22.63	1	23						
	16QAM	1000	0	22.61	22.61	22.67	22.67	22.69	1	23						
		1	512	22.36	22.36	22.42	22.42	22.45	1	23						
		50	0	22.50	22.50	22.56	22.56	22.58	7	22						
		500	0	22.57	22.57	22.63	22.63	22.65	7	22						
	64QAM	1000	0	22.63	22.63	22.69	22.69	22.71	23	23						
		1	512	22.36	22.36	22.42	22.42	22.45	23	23						
		50	0	22.50	22.50	22.56	22.56	22.58	23	23						
		500	0	22.57	22.57	22.63	22.63	22.65	23	23						
23M	QPSK	1	0	48.42	48.42	48.51	48.51	48.52	2	22						
		1	198	38.60	38.60	38.68	38.68	38.70	2	22						
		500	0	38.67	38.67	38.73	38.73	38.75	2	21						
		500	0	38.73	38.73	38.79	38.79	38.81	2	21						
	16QAM	1000	0	38.79	38.79	38.85	38.85	38.87	2	21						
		1	198	28.96	28.96	29.04	29.04	29.06	2	21						
		500	0	29.04	29.04	29.10	29.10	29.12	2	21						
		500	0	29.10	29.10	29.16	29.16	29.18	2	21						
	64QAM	1000	0	29.16	29.16	29.22	29.22	29.24	2	21						
		1	198	17.50	17.50	17.56	17.56	17.58	5	19						
		500	0	17.56	17.56	17.62	17.62	17.64	5	19						
		500	0	17.62	17.62	17.68	17.68	17.70	5	19						
23M	QPSK	1	512	22.36	22.36	22.42	22.42	22.45	0	24						
		50	15	22.45	22.45	22.51	22.51	22.53	1	24						
		500	25	22.49	22.49	22.55	22.55	22.57	1	23						
		500	0	22.55	22.55	22.61	22.61	22.63	1	23						
	16QAM	1000	0	22.61	22.61	22.67	22.67	22.69	1	23						
		1	512	22.36	22.36	22.42	22.42	22.45	1	23						
		50	0	22.50	22.50	22.56	22.56	22.58	7	22						
		500	0	22.57	22.57	22.63	22.63	22.65	7	22						
	64QAM	1000	0	22.63	22.63	22.69	22.69	22.71	23	23						
		1	512	22.36	22.36	22.42	22.42	22.45	23	23						
		50	0	22.50	22.50	22.56	22.56	22.58	23	23						
		500	0	22.57	22.57	22.63	22.63	22.65	23	23						
23M	QPSK	1	0	48.42	48.42	48.51	48.51	48.52	2	22						
		1	198	38.60	38.60	38.68	38.68	38.70	2	22						
		500	0	38.67	38.67	38.73	38.73	38.75	2	21						
		500	0	38.73	38.73	38.79	38.79	38.81	2	21						
	16QAM	1000	0	38.79	38.79	38.85	38.85	38.87	2	21						
		1	198	28.96	28.96	29.04	29.04	29.06	2	21						
		500	0	29.04	29.04	29.10	29.10	29.12	2	21						
		500	0	29.10	29.10	29.16	29.16	29.18	2	21						
	64QAM	1000	0	29.16	29.16	29.22	29.22	29.24	2	21						
		1	198	17.50	17.50	17.56	17.56	17.58	5	19						
		500	0	17.56	17.56	17.62	17.62	17.64	5	19						
		500	0	17.62	17.62	17.68	17.68	17.70	5	19						
23M	QPSK	1	512	22.36	22.36	22.42	22.42	22.45	0	24						
		50	15	22.45	22.45	22.51	22.51	22.53	1	24						
		500	25	22.49	22.49	22.55	22.55	22.57	1	23						
		500	0	22.55	22.55	22.61	22.61	22.63	1	23						
	16QAM	1000	0	22.61	22.61	22.67	22.67	22.69	1	23						
		1	512	22.36	22.36	22.42	22.42	22.45	1	23						
		50	0	22.50	22.50	22.56	22.56	22.58	7	22						
		500	0	22.57	22.57	22.63	22.63	22.65	7	22						
	64QAM	1000	0	22.63	22.63	22.69	22.69	22.71	23	23						
		1	512	22.36	22.36	22.42	22.42	22.45	23	23						
		50	0	22.50	22.50	22.56	22.56	22.58	23	23						
		500	0	22.57	22.57	22.63	22.63	22.65	23	23						
23M	QPSK	1	0	48.42	48.42	48.51	48.51	48.52	2	22						
		1	198	38.60	38.60	38.68	38.68	38.70	2	22						
		500	0	38.67	38.67	38.73	38.73	38.75	2	21						
		500	0	38.73	38.73	38.79	38.79	38.81	2	21						
	16QAM	1000	0	38.79	38.79	38.85	38.85	38.87	2	21						
		1	198	28.96	28.96	29.04	29.04	29.06	2	21						
		500	0	29.04	29.04	29.10	29.10	29.12	2	21						
		500	0	29.10	29.10	29.16	29.16	29.18	2	21						
	64QAM	1000	0	29.16	29.16	29.22	29.22	29.24	2	21						
		1	198	17.50	17.50	17.56	17.56	17.58	5	19						
		500	0	17.56	17.56	17.62	17.62	17.64	5	19						
		500	0	17.62	17.62	17.68	17.68	17.70	5	19						
23M	QPSK	1	512	22.36	22.36	22.42	22.42	22.45	0	24						
		50	15	22.45	22.45	22.51	22.51	22.53	1	24						
		500	25	22.49	22.49	22.55	22.55	22.57	1	23						
		500	0	22.55	22.55	22.61	22.61	22.63	1	23						
	16QAM	1000	0	22.61	22.61	22.67	22.67	22.69	1	23						
		1	512	22.36	22.36	22.42	22.42	22.45	1	23						
		50	0	22.50	22.50	22.56	22.56	22.58	7	22						
		500	0	22.57	22.57	22.63	22.63	22.65	7	22						
	64QAM	1000	0	22.63	22.63	22.69	22.69	22.71	23	23						
		1	512	22.36	22.36	22.42	22.42	22.45	23	23						
		50	0	22.50	22.50	22.56	22.56	22.58	23	23						
		500	0	22.57	22.57	22.63	22.63	22.65	23	23						
23M	QPSK	1	0	48.42	48.42	48.51	48.51	48.52	2	22						
		1	198	38.60	38.60	38.68	38.68	38.70	2	22						
		500	0	38.67	38.67	38.73	38.73	38.75	2	21						
		500	0	38.73	38.73	38.79	38.79	38.81	2	21						
	16QAM	1000	0	38.79	38.79	38.85	38.85	38.87	2	21						
		1	198	28.96	28.96	29.04	29.04	29.06	2	21						
		500	0	29.04	29.04	29.10	29.10	29.12	2	21						
		500	0	29.10	29.10	29.16	29.16	29.18	2	21			</			

ID	Category	L1E Band 5 (A-Port)									
		Sub-Port	Sub-Conn	Link	Rate	Page	Speed	Latency	Reliability	Power	Notes
		Frequency (MHz)		Band		Type		Unit		dBm	
GROUP A	Sub-System	1	128	223.28	22.45	25.46	0	18		18	
		2	128	223.28	22.45	25.46	0	18		18	
		3	128	223.28	22.45	25.46	0	18		18	
		4	128	223.28	22.45	25.46	0	18		18	
		5	128	223.28	22.45	25.46	0	18		18	
		6	128	223.28	22.45	25.46	0	18		18	
		7	128	223.28	22.45	25.46	0	18		18	
		8	128	223.28	22.45	25.46	0	18		18	
		9	128	223.28	22.45	25.46	0	18		18	
		10	128	223.28	22.45	25.46	0	18		18	
GROUP B	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP C	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP D	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP E	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP F	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP G	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP H	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP I	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP J	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP K	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP L	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP M	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP N	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP O	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1	23		23	
		5	224	223.70	22.45	25.47	1	23		23	
		6	224	223.70	22.45	25.47	1	23		23	
		7	224	223.70	22.45	25.47	1	23		23	
		8	224	223.70	22.45	25.47	1	23		23	
		9	224	223.70	22.45	25.47	1	23		23	
		10	224	223.70	22.45	25.47	1	23		23	
GROUP P	Sub-System	1	224	223.70	22.45	25.47	1	23		23	
		2	224	223.70	22.45	25.47	1	23		23	
		3	224	223.70	22.45	25.47	1	23		23	
		4	224	223.70	22.45	25.47	1				

SW	Module	LTE Band 7 (40MHz)						Tx Power (dBm)	Tx Power (dBm)
		Rx Size		Tx Size		Tx Size			
		Frequency (MHz)	Modulation	Frequency (MHz)	Modulation	Frequency (MHz)	Modulation		
2GSM	QPSK	1	0	22.45	22.45	22.45	0	22	22
		2	0	22.45	22.45	22.45	0	22	22
		3	0	22.45	22.45	22.45	0	22	22
		4	0	22.45	22.45	22.45	0	22	22
		5	0	22.45	22.45	22.45	0	22	22
		6	0	22.45	22.45	22.45	0	22	22
	16QAM	1	0	22.45	22.45	22.45	0	22	22
		2	0	22.45	22.45	22.45	0	22	22
		3	0	22.45	22.45	22.45	0	22	22
		4	0	22.45	22.45	22.45	0	22	22
		5	0	22.45	22.45	22.45	0	22	22
		6	0	22.45	22.45	22.45	0	22	22
3GSM	QPSK	1	0	22.45	22.45	22.45	0	22	22
		2	0	22.45	22.45	22.45	0	22	22
		3	0	22.45	22.45	22.45	0	22	22
		4	0	22.45	22.45	22.45	0	22	22
		5	0	22.45	22.45	22.45	0	22	22
		6	0	22.45	22.45	22.45	0	22	22
	16QAM	1	0	22.45	22.45	22.45	0	22	22
		2	0	22.45	22.45	22.45	0	22	22
		3	0	22.45	22.45	22.45	0	22	22
		4	0	22.45	22.45	22.45	0	22	22
		5	0	22.45	22.45	22.45	0	22	22
		6	0	22.45	22.45	22.45	0	22	22
4GSM	QPSK	1	0	22.45	22.45	22.45	0	22	22
		2	0	22.45	22.45	22.45	0	22	22
		3	0	22.45	22.45	22.45	0	22	22
		4	0	22.45	22.45	22.45	0	22	22
		5	0	22.45	22.45	22.45	0	22	22
		6	0	22.45	22.45	22.45	0	22	22
	16QAM	1	0	22.45	22.45	22.45	0	22	22
		2	0	22.45	22.45	22.45	0	22	22
		3	0	22.45	22.45	22.45	0	22	22
		4	0	22.45	22.45	22.45	0	22	22
		5	0	22.45	22.45	22.45	0	22	22
		6	0	22.45	22.45	22.45	0	22	22
5GSM	QPSK	1	0	22.45	22.45	22.45	0	22	22
		2	0	22.45	22.45	22.45	0	22	22
		3	0	22.45	22.45	22.45	0	22	22
		4	0	22.45	22.45	22.45	0	22	22
		5	0	22.45	22.45	22.45	0	22	22
		6	0	22.45	22.45	22.45	0	22	22
	16QAM	1	0	22.45	22.45	22.45	0	22	22
		2	0	22.45	22.45	22.45	0	22	22
		3	0	22.45	22.45	22.45	0	22	22
5GSM	QPSK	1	0	22.45	22.45	22.45	0	22	22
		2	0	22.45	22.45	22.45	0	22	22
		3	0	22.45	22.45	22.45	0	22	22
		4	0	22.45	22.45	22.45	0	22	22
		5	0	22.45	22.45	22.45	0	22	22
		6	0	22.45	22.45	22.45	0	22	22
	16QAM	1	0	22.45	22.45	22.45	0	22	22
		2	0	22.45	22.45	22.45	0	22	22
		3	0	22.45	22.45	22.45	0	22	22
		4	0	22.45	22.45	22.45	0	22	22
		5	0	22.45	22.45	22.45	0	22	22
		6	0	22.45	22.45	22.45	0	22	22
5GSM	QPSK	1	0	22.45	22.45	22.45	0	22	22
		2	0	22.45	22.45	22.45	0	22	22
		3	0	22.45	22.45	22.45	0	22	22
		4	0	22.45	22.45	22.45	0	22	22
		5	0	22.45	22.45	22.45	0	22	22
		6	0	22.45	22.45	22.45	0	22	22
	16QAM	1	0	22.45	22.45	22.45	0	22	22
		2	0	22.45	22.45	22.45	0	22	22
		3	0	22.45	22.45	22.45	0	22	22

ID	Module	LTE-Band 20 (40MHz)									
		Pre-emption (Mbps)		Channel (Mbps)		Pre-emption (Mbps)		Channel (Mbps)		Pre-emption (Mbps)	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1M	QPSK	1	10	21.46	21.52	21.23	21.3	0	0	0	0
		2	10	21.46	21.52	21.23	21.3	0	0	0	0
		3	10	21.46	21.52	21.23	21.3	0	0	0	0
		4	10	21.46	21.52	21.23	21.3	0	0	0	0
		5	10	21.46	21.52	21.23	21.3	0	0	0	0
	16QAM	1	10	21.52	21.63	21.34	21.4	0	0	0	0
		2	10	21.52	21.63	21.34	21.4	0	0	0	0
		3	10	21.52	21.63	21.34	21.4	0	0	0	0
		4	10	21.52	21.63	21.34	21.4	0	0	0	0
		5	10	21.52	21.63	21.34	21.4	0	0	0	0
2M	QPSK	1	20	42.92	43.04	42.46	42.6	0	0	0	0
		2	20	42.92	43.04	42.46	42.6	0	0	0	0
		3	20	42.92	43.04	42.46	42.6	0	0	0	0
		4	20	42.92	43.04	42.46	42.6	0	0	0	0
		5	20	42.92	43.04	42.46	42.6	0	0	0	0
	16QAM	1	20	43.04	43.2	42.6	42.8	0	0	0	0
		2	20	43.04	43.2	42.6	42.8	0	0	0	0
		3	20	43.04	43.2	42.6	42.8	0	0	0	0
		4	20	43.04	43.2	42.6	42.8	0	0	0	0
		5	20	43.04	43.2	42.6	42.8	0	0	0	0
3M	QPSK	1	30	64.38	64.56	63.69	63.9	0	0	0	0
		2	30	64.38	64.56	63.69	63.9	0	0	0	0
		3	30	64.38	64.56	63.69	63.9	0	0	0	0
		4	30	64.38	64.56	63.69	63.9	0	0	0	0
		5	30	64.38	64.56	63.69	63.9	0	0	0	0
	16QAM	1	30	64.56	64.8	63.9	64.2	0	0	0	0
		2	30	64.56	64.8	63.9	64.2	0	0	0	0
		3	30	64.56	64.8	63.9	64.2	0	0	0	0
		4	30	64.56	64.8	63.9	64.2	0	0	0	0
		5	30	64.56	64.8	63.9	64.2	0	0	0	0
4M	QPSK	1	40	85.84	86.08	85.24	85.4	0	0	0	0
		2	40	85.84	86.08	85.24	85.4	0	0	0	0
		3	40	85.84	86.08	85.24	85.4	0	0	0	0
		4	40	85.84	86.08	85.24	85.4	0	0	0	0
		5	40	85.84	86.08	85.24	85.4	0	0	0	0
	16QAM	1	40	86.08	86.4	85.4	85.8	0	0	0	0
		2	40	86.08	86.4	85.4	85.8	0	0	0	0
		3	40	86.08	86.4	85.4	85.8	0	0	0	0
		4	40	86.08	86.4	85.4	85.8	0	0	0	0
		5	40	86.08	86.4	85.4	85.8	0	0	0	0
5M	QPSK	1	50	107.30	107.62	106.55	106.8	0	0	0	0
		2	50	107.30	107.62	106.55	106.8	0	0	0	0
		3	50	107.30	107.62	106.55	106.8	0	0	0	0
		4	50	107.30	107.62	106.55	106.8	0	0	0	0
		5	50	107.30	107.62	106.55	106.8	0	0	0	0
	16QAM	1	50	107.62	108.0	106.8	107.2	0	0	0	0
		2	50	107.62	108.0	106.8	107.2	0	0	0	0
		3	50	107.62	108.0	106.8	107.2	0	0	0	0
		4	50	107.62	108.0	106.8	107.2	0	0	0	0
		5	50	107.62	108.0	106.8	107.2	0	0	0	0
6M	QPSK	1	60	128.76	129.12	127.66	128.0	0	0	0	0
		2	60	128.76	129.12	127.66	128.0	0	0	0	0
		3	60	128.76	129.12	127.66	128.0	0	0	0	0
		4	60	128.76	129.12	127.66	128.0	0	0	0	0
		5	60	128.76	129.12	127.66	128.0	0	0	0	0
	16QAM	1	60	129.12	130.0	128.0	129.0	0	0	0	0
		2	60	129.12	130.0	128.0	129.0	0	0	0	0
		3	60	129.12	130.0	128.0	129.0	0	0	0	0
		4	60	129.12	130.0	128.0	129.0	0	0	0	0
		5	60	129.12	130.0	128.0	129.0	0	0	0	0
7M	QPSK	1	70	150.22	150.68	148.66	149.0	0	0	0	0
		2	70	150.22	150.68	148.66	149.0	0	0	0	0
		3	70	150.22	150.68	148.66	149.0	0	0	0	0
		4	70	150.22	150.68	148.66	149.0	0	0	0	0
		5	70	150.22	150.68	148.66	149.0	0	0	0	0
	16QAM	1	70	150.68	152.0	149.0	150.0	0	0	0	0
		2	70	150.68	152.0	149.0	150.0	0	0	0	0
		3	70	150.68	152.0	149.0	150.0	0	0	0	0
		4	70	150.68	152.0	149.0	150.0	0	0	0	0
		5	70	150.68	152.0	149.0	150.0	0	0	0	0
8M	QPSK	1	80	171.68	172.24	169.60	170.0	0	0	0	0
		2	80	171.68	172.24	169.60	170.0	0	0	0	0
		3	80	171.68	172.24	169.60	170.0	0	0	0	0
		4	80	171.68	172.24	169.60	170.0	0	0	0	0
		5	80	171.68	172.24	169.60	170.0	0	0	0	0
	16QAM	1	80	172.24	174.0	170.0	171.0	0	0	0	0
		2	80	172.24	174.0	170.0	171.0	0	0	0	0
		3	80	172.24	174.0	170.0	171.0	0	0	0	0
		4	80	172.24	174.0	170.0	171.0	0	0	0	0
		5	80	172.24	174.0	170.0	171.0	0	0	0	0
9M	QPSK	1	90	193.14	193.80	190.62	191.0	0	0	0	0
		2	90	193.14	193.80	190.62	191.0	0	0	0	0
		3	90	193.14	193.80	190.62	191.0	0	0	0	0
		4	90	193.14	193.80	190.62	191.0	0	0	0	0
		5	90	193.14	193.80	190.62	191.0	0	0	0	0
	16QAM	1	90	193.80	196.0	191.0	193.0	0	0	0	0
		2	90	193.80	196.0	191.0	193.0	0	0	0	0
		3	90	193.80	196.0	191.0	193.0	0	0	0	0
		4	90	193.80	196.0	191.0	193.0	0	0	0	0
		5	90	193.80	196.0	191.0	193.0	0	0	0	0
10M	QPSK	1	100	214.60	215.36	211.60	212.0	0	0	0	0
		2	100	214.60	215.36	211.60	212.0	0	0	0	0
		3	100	214.60	215.36	211.60	212.0	0	0	0	0
		4	100	214.60	215.36	211.60	212.0	0	0	0	0
		5	100	214.60	215.36	211.60	212.0	0	0	0	0
	16QAM	1	100	215.36	218.0	212.0	214.0	0	0	0	0
		2	100	215.36	218.0	212.0	214.0	0	0	0	0
		3	100	215.36	218.0	212.0	214.0	0	0	0	0
		4	100	215.36	218.0	212.0	214.0	0	0	0	0
		5	100	215.36	218.0	212.0	214.0	0	0	0	0
11M	QPSK	1	110	236.06	236.92	232.00	232.0	0	0	0	0
		2	110	236.06	236.92	232.00	232.0	0	0	0	0
		3	110	236.06	236.92	232.00	232.0	0	0	0	0
		4	110	236.06	236.92	232.00	232.0	0	0	0	0
		5	110	236.06	236.92	232.00	232.0	0	0	0	0
	16QAM	1	110	236.92	240.0	232.0	234.0	0	0	0	0
		2	110	236.92	240.0	232.0	234.0	0	0	0	0
		3	110	236.92	240.0	232.0	234.0	0	0	0	0
		4	110	236.92	240.0	232.0	234.0	0	0	0	0
		5	110	236.92	240.0	232.0	234.0	0	0	0	0
12M	QPSK	1	120	257.52	258.48	252.00	252.0	0	0	0	0
		2	120	257.52	258.48	252.00	252.0	0	0	0	0
		3	120	257.52	258.48	252.00	252.0	0	0	0	0
		4	120	257.52	258.48	252.00	252.0	0	0	0	0
		5	120	257.52	258.48	252.00	252.0	0	0	0	0
	16QAM	1	120	258.48	264.0	252.0	256.0	0	0	0	0
		2	120	258.48	264.0	252.0	256.0	0	0	0	0
		3	120	258.48	264.0	252.0	256.0	0	0	0	0
		4	120	258.48	264.0	252.0	256.0	0	0	0	0
		5	120	258.48	264.0	252.0	256.0	0	0	0	0
13M	QPSK	1	130	278.98	279.94	272.00	272.0	0	0	0	0
		2	130	278.98	279.94	272.00	272.0	0	0	0	0
		3	130	278.98	279.94	272.00	272.0	0	0	0	0
		4	130	278.98	279.94	272.00	272.0	0	0	0	0
		5	130	278.98	279.94	272.00	272.0	0	0	0	0
	16QAM	1	130	279.94	288.0	272.0	276.0	0	0	0	0
		2	130	279.94	288.0	272.0	276.0	0	0	0	0
		3	130	279.94	288.0	272.0	276.0	0	0	0	0
		4	130	279.94	288.0	272.0	276.0	0	0	0	0
		5	130	279.94	288.0	272.0	276.0	0	0	0	0
14M	QPSK	1	140	300.44	301.52	294.00	294.0	0	0	0	0
		2	140	300.44	301.52	294.00	294.0	0	0	0	0
		3	140	300.44	301.52	294.00	294.0	0	0	0	0
		4	140	300.44	301.52	294.00	294.0	0	0	0	0
		5	140	300.44	301.52	294.00	294.0	0	0	0	0
	16QAM	1	140	301.52	312.0	294.0	298.0	0	0	0	0
		2	140	301.52	312.0	294.0	298.0	0	0	0	0
		3	140	301.52	312.0	294.0	298.0	0	0	0	0
		4	140	301.52	312.0	294.0	298.0	0	0	0	0
		5	140	301.52	312.0	294.0	298.0	0	0	0	0
15M	QPSK	1	150	321.90	323.08	316.00	316.0	0	0	0	0
		2	150	321.90	323.08	316.00	316.0	0	0	0	0
		3	150								

[illegible]

Ant	Modulation	LTE Band 30 (4x10)										Antenna Gain (dBi)	Max. Power (dBm)		
		Tx (collo)		Rx (collo)		Tx (collo)		Rx (collo)		Tx (collo)					
		Frequency (MHz)		Power		Frequency (MHz)		Power		Frequency (MHz)				Power	
		1	2	1	2	1	2	1	2	1	2			1	2
20M	CPAR	1	1	124	23.84	1	1	124	1	1	124	1	124		
		1	1	160	23.84	1	1	160	1	1	160	1	160		
		1	1	20	23.84	1	1	20	1	1	20	1	20		
		1	1	25	23.84	1	1	25	1	1	25	1	25		
		1	1	25	23.84	1	1	25	1	1	25	1	25		
	4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124		
		1	1	160	23.84	1	1	160	1	1	160	1	160		
		1	1	20	23.84	1	1	20	1	1	20	1	20		
		1	1	25	23.84	1	1	25	1	1	25	1	25		
		1	1	25	23.84	1	1	25	1	1	25	1	25		
	4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124		
		1	1	160	23.84	1	1	160	1	1	160	1	160		
		1	1	20	23.84	1	1	20	1	1	20	1	20		
		1	1	25	23.84	1	1	25	1	1	25	1	25		
		1	1	25	23.84	1	1	25	1	1	25	1	25		
	4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124		
		1	1	160	23.84	1	1	160	1	1	160	1	160		
		1	1	20	23.84	1	1	20	1	1	20	1	20		
		1	1	25	23.84	1	1	25	1	1	25	1	25		
		1	1	25	23.84	1	1	25	1	1	25	1	25		
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			
	1	1	20	23.84	1	1	20	1	1	20	1	20			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
	1	1	25	23.84	1	1	25	1	1	25	1	25			
4x20M	1	1	124	23.84	1	1	124	1	1	124	1	124			
	1	1	160	23.84	1	1	160	1	1	160	1	160			

Site	Modulation	LTE Band 20 (Avail)							Spectrum used (MHz)	Max. channel width (MHz)
		4G LTE		5G NR			Spectrum used (MHz)			
		Channel Frequency (MHz)	Bandwidth (MHz)	Low Frequency (MHz)	High Frequency (MHz)	Bandwidth (MHz)				
20M	QPSK	1	135	22.42	22.43	22.79	0	24		
		2	135	22.42	22.43	22.79	0	24		
		3	135	22.42	22.43	22.79	0	24		
		4	135	22.42	22.43	22.79	0	24		
		5	135	22.42	22.43	22.79	0	24		
		6	135	22.42	22.43	22.79	0	24		
		7	135	22.42	22.43	22.79	0	24		
		8	135	22.42	22.43	22.79	0	24		
		9	135	22.42	22.43	22.79	0	24		
		10	135	22.42	22.43	22.79	0	24		
	16QAM	1	135	22.42	22.43	22.79	0	24		
		2	135	22.42	22.43	22.79	0	24		
		3	135	22.42	22.43	22.79	0	24		
		4	135	22.42	22.43	22.79	0	24		
		5	135	22.42	22.43	22.79	0	24		
		6	135	22.42	22.43	22.79	0	24		
		7	135	22.42	22.43	22.79	0	24		
		8	135	22.42	22.43	22.79	0	24		
		9	135	22.42	22.43	22.79	0	24		
		10	135	22.42	22.43	22.79	0	24		
10M	QPSK	1	135	22.42	22.43	22.79	0	24		
		2	135	22.42	22.43	22.79	0	24		
		3	135	22.42	22.43	22.79	0	24		
		4	135	22.42	22.43	22.79	0	24		
		5	135	22.42	22.43	22.79	0	24		
		6	135	22.42	22.43	22.79	0	24		
		7	135	22.42	22.43	22.79	0	24		
		8	135	22.42	22.43	22.79	0	24		
		9	135	22.42	22.43	22.79	0	24		
		10	135	22.42	22.43	22.79	0	24		
	16QAM	1	135	22.42	22.43	22.79	0	24		
		2	135	22.42	22.43	22.79	0	24		
		3	135	22.42	22.43	22.79	0	24		
		4	135	22.42	22.43	22.79	0	24		
		5	135	22.42	22.43	22.79	0	24		
		6	135	22.42	22.43	22.79	0	24		
		7	135	22.42	22.43	22.79	0	24		
		8	135	22.42	22.43	22.79	0	24		
		9	135	22.42	22.43	22.79	0	24		
		10	135	22.42	22.43	22.79	0	24		
5M	QPSK	1	135	22.42	22.43	22.79	0	24		
		2	135	22.42	22.43	22.79	0	24		
		3	135	22.42	22.43	22.79	0	24		
		4	135	22.42	22.43	22.79	0	24		
		5	135	22.42	22.43	22.79	0	24		
		6	135	22.42	22.43	22.79	0	24		
		7	135	22.42	22.43	22.79	0	24		
		8	135	22.42	22.43	22.79	0	24		
		9	135	22.42	22.43	22.79	0	24		
		10	135	22.42	22.43	22.79	0	24		
	16QAM	1	135	22.42	22.43	22.79	0	24		
		2	135	22.42	22.43	22.79	0	24		
		3	135	22.42	22.43	22.79	0	24		
		4	135	22.42	22.43	22.79	0	24		
		5	135	22.42	22.43	22.79	0	24		
		6	135	22.42	22.43	22.79	0	24		
		7	135	22.42	22.43	22.79	0	24		
		8	135	22.42	22.43	22.79	0	24		
		9	135	22.42	22.43	22.79	0	24		
		10	135	22.42	22.43	22.79	0	24		
64QAM	1	135	22.42	22.43	22.79	0	24			
	2	135	22.42	22.43	22.79	0	24			
	3	135	22.42	22.43	22.79	0	24			
	4	135	22.42	22.43	22.79	0	24			
	5	135	22.42	22.43	22.79	0	24			
	6	135	22.42	22.43	22.79	0	24			
	7	135	22.42	22.43	22.79	0	24			
	8	135	22.42	22.43	22.79	0	24			
	9	135	22.42	22.43	22.79	0	24			
	10	135	22.42	22.43	22.79	0	24			

n2 (SCS 15 kHz) (Ann2)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max.	Turn-up (dBm)	Max. Turn-up (dBm)
		Channel		57050	57050	58050			
20M	DFT-s-OFDM P2 BPSK	1	1	20.97	20.95	20.51	21.5		
		1	53	20.72	20.50	20.46	21.5		
		1	104	20.57	20.70	20.98	21.5		
		50	0	19.44	19.88	19.46	21.5		
		50	28	20.71	20.64	20.59	21.5		
		50	56	19.69	19.33	19.93	21.5		
	DFT-s-OFDM QPSK	1	1	21.08	20.76	20.63	21.5		
		1	53	20.90	20.87	20.95	21.5		
		1	104	20.71	20.82	20.56	21.5		
		50	0	20.12	20.11	19.96	21.5		
		50	28	20.65	20.55	20.61	21.5		
		50	56	20.08	20.16	20.31	21.5		
	DFT-s-OFDM QAM	1	1	20.10	20.20	20.25	21.5		
		1	1	19.72	19.40	19.98	20.5		
		1	1	18.19	18.14	18.20	19.5		
		1	1	15.93	16.05	16.13	18.5		
		1	1	15.93	16.05	16.13	18.5		
		1	1	15.93	16.05	16.13	18.5		
BW	MCS Index	Channel		57050	57050	58050	Max. Turn-up		
10M	DFT-s-OFDM	1	1	21.04	20.66	20.58	21.5		
BW	MCS Index	Channel		57050	57050	58050	Max. Turn-up		
10M	DFT-s-OFDM	1	1	20.94	20.71	20.61	21.5		
BW	MCS Index	Channel		57050	57050	58050	Max. Turn-up		
5M	DFT-s-OFDM	1	1	20.90	20.68	20.51	21.5		

n7 (SCS 15 kHz) (Ann10)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max. Turn-up	Max. Turn-up (dBm)	
		Channel		54050	50700	51300			
40M	DFT-s-OFDM P2 BPSK	1	1	21.28	20.90	21.14	22		
		1	108	21.05	21.07	21.11	22		
		1	214	19.92	20.15	20.12	22		
		108	0	20.33	20.47	20.44	22		
		108	54	20.85	20.85	21.12	22		
		108	108	20.34	20.25	20.42	22		
	DFT-s-OFDM QPSK	1	1	21.15	21.00	21.05	22		
		1	108	20.83	20.89	21.04	22		
		1	214	20.90	21.04	21.23	22		
		108	0	19.80	19.80	20.21	22		
		108	54	20.83	20.94	21.12	22		
		108	108	19.98	20.22	20.05	22		
	DFT-s-OFDM QAM	1	1	20.08	19.89	19.97	22		
		1	1	19.93	20.14	20.24	21		
		1	1	18.71	18.81	18.04	20		
		1	1	17.20	17.17	17.20	19		
		1	1	17.20	17.17	17.20	19		
		1	1	17.20	17.17	17.20	19		
BW	MCS Index	Channel		54050	50700	51300	Max. Turn-up		
20M	DFT-s-OFDM	1	1	21.19	21.02	21.19	22		
BW	MCS Index	Channel		54050	50700	51300	Max. Turn-up		
20M	DFT-s-OFDM	1	1	21.07	21.10	21.09	22		
BW	MCS Index	Channel		54050	50700	51300	Max. Turn-up		
10M	DFT-s-OFDM	1	1	21.10	21.04	21.17	22		
BW	MCS Index	Channel		54050	50700	51300	Max. Turn-up		
10M	DFT-s-OFDM	1	1	21.05	20.97	21.10	22		
BW	MCS Index	Channel		54050	50700	51300	Max. Turn-up		
5M	DFT-s-OFDM	1	1	21.14	21.02	21.10	22		

n38 (SCS 30 kHz) (Ann6)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max. Turn-up		
		Channel		51800	51800	52800	(dBm)		(dBm)
40M	DFT-s-OFDM P2 BPSK	Frequency (MHz)		2390	2390	2490			
		1	1	20.76	20.62	20.72	22		
		1	52	20.25	20.25	20.23	22		
		1	104	20.60	20.59	20.16	22		
		50	0	19.85	20.24	19.83	21		
		50	28	20.72	20.38	20.48	21		
	DFT-s-OFDM QPSK	Frequency (MHz)		2390	2390	2490			
		1	1	20.81	20.94	20.95	22		
		1	52	20.56	20.46	20.54	22		
		1	104	20.49	20.68	20.11	22		
		50	0	18.71	19.41	19.30	21		
		50	28	20.52	20.85	20.70	21		
	DFT-s-OFDM QAM	Frequency (MHz)		2390	2390	2490			
		50	56	19.77	19.77	19.73	21		
		50	2	19.56	19.63	19.63	21		
		1	1	19.66	19.93	19.89	21		
		1	1	18.14	18.01	17.85	20		
		1	1	16.35	16.50	16.31	18		
BW	MCS Index	Channel		51800	51800	52800	Max. Turn-up		
20M	DFT-s-OFDM	Frequency (MHz)		2390	2390	2490			
1	1	20.77	20.83	20.39	22				
BW	MCS Index	Channel		51800	51800	52800	Max. Turn-up		
20M	DFT-s-OFDM	Frequency (MHz)		2390	2390	2490			
1	1	20.71	20.87	20.91	22				
BW	MCS Index	Channel		51800	51800	52800	Max. Turn-up		
10M	DFT-s-OFDM	Frequency (MHz)		2390	2390	2490			
1	1	20.80	20.83	20.84	22				
BW	MCS Index	Channel		51800	51800	52800	Max. Turn-up		
10M	DFT-s-OFDM	Frequency (MHz)		2390	2390	2490			
1	1	20.66	20.83	20.81	22				

n66 (SCS 15 kHz) (Ann2)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max. Turn-up	Turn-up (dBm)	Max. Turn-up (dBm)
		Channel		34800	34800	35800			
40M	DFT-s-OFDM P2 BPSK	Frequency (MHz)		1729	1746	1760			
		1	1	17.75	17.77	17.77	19		
		1	107	17.75	17.86	17.59	19		
		1	214	17.82	17.69	17.55	19		
		108	0	17.40	17.28	17.34	19		
		108	54	17.89	17.65	17.58	19		
	DFT-s-OFDM QPSK	108	108	17.27	17.13	17.19	19		
		215	1	17.32	17.22	17.22	19		
		1	1	17.95	17.85	17.77	19		
		1	107	17.87	17.73	17.77	19		
		1	214	17.89	17.85	17.68	19		
		108	0	16.38	16.69	16.78	19		
	DFT-s-OFDM QAM	108	54	17.73	17.67	17.80	19		
		108	108	16.81	16.67	16.69	19		
		215	0	16.62	16.73	16.69	19		
		1	1	16.96	16.97	16.81	18		
		1	1	15.06	15.06	15.14	18.5		
		1	1	13.90	13.42	13.38	14.5		
BW	MCS Index	Channel		34800	34800	35800	Max. Turn-up		
30M	DFT-s-OFDM	1	1	17.92	17.76	17.67	19		
BW	MCS Index	Channel		34800	34800	35800	Max. Turn-up		
25M	DFT-s-OFDM	1	1	17.90	17.72	17.57	19		
BW	MCS Index	Channel		34800	34800	35800	Max. Turn-up		
20M	DFT-s-OFDM	1	1	17.87	17.77	17.64	19		
BW	MCS Index	Channel		34800	34800	35800	Max. Turn-up		
15M	DFT-s-OFDM	1	1	17.88	17.78	17.65	19		
BW	MCS Index	Channel		34800	34800	35800	Max. Turn-up		
10M	DFT-s-OFDM	1	1	17.94	17.78	17.64	19		
BW	MCS Index	Channel		34800	34800	35800	Max. Turn-up		
5M	DFT-s-OFDM	1	1	17.83	17.72	17.68	19		

n77 PC3/PC2 (SCS 30 kHz) (Ant5)							
BW	MCS Index	RB Size	RB Offset	Mid		Max. Tune-up (dBm)	
		Channel		6333.4			
100M	DFT-s-OFDM P22 BPSK	Frequency (MHz)		3500.01			
		1	1	17.58		19	
		1	137	17.45		19	
		1	271	17.43		19	
		135	0	17.27		19	
		135	69	17.45		19	
		135	138	17.38		19	
	DFT-s-OFDM QPSK	270	0	17.30		19	
		1	1	17.76		19	
		1	137	17.47		19	
		1	271	17.46		19	
		135	0	17.26		19	
		135	69	17.43		19	
		135	138	17.42		19	
	DFT-s-OFDM 16QAM	270	0	17.42		19	
	DFT-s-OFDM 60QAM	1	1	17.66		19	
	DFT-s-OFDM 250QAM	1	1	17.40		18.5	
DFT-s-OFDM 250QAM	1	1	16.06		17.5		
BW	MCS Index	Channel		6330.0	6333.4	6336.6	Max. Tune-up
90M	DFT-s-OFDM QPSK	1	1	17.69	17.64	17.72	19
BW	MCS Index	Channel		6326.6	6333.4	6340.0	Max. Tune-up
80M	DFT-s-OFDM QPSK	1	1	17.64	17.74	17.65	19
BW	MCS Index	Channel		6323.4	6333.4	6343.2	Max. Tune-up
70M	DFT-s-OFDM QPSK	1	1	17.66	17.62	17.69	19
BW	MCS Index	Channel		6320.0	6333.4	6346.6	Max. Tune-up
60M	DFT-s-OFDM QPSK	1	1	17.63	17.72	17.63	19
BW	MCS Index	Channel		6316.6	6333.4	6350.0	Max. Tune-up
50M	DFT-s-OFDM QPSK	1	1	17.74	17.69	17.76	19
BW	MCS Index	Channel		6313.4	6333.4	6353.2	Max. Tune-up
40M	DFT-s-OFDM QPSK	1	1	17.68	17.62	17.73	19
BW	MCS Index	Channel		6310.0	6333.4	6356.6	Max. Tune-up
30M	DFT-s-OFDM QPSK	1	1	17.70	17.61	17.59	19
BW	MCS Index	Channel		6306.8	6333.4	6360.0	Max. Tune-up
20M	DFT-s-OFDM QPSK	1	1	17.66	17.68	17.59	19
BW	MCS Index	Channel		6303.4	6333.4	6363.2	Max. Tune-up
15M	DFT-s-OFDM QPSK	1	1	17.72	17.71	17.73	19
BW	MCS Index	Channel		6303.4	6333.4	6363.2	Max. Tune-up
10M	DFT-s-OFDM QPSK	1	1	17.66	17.64	17.60	19

n77 PC3/PC2 (SCS 30 kHz) (Ant5)							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max. Tune-up (dBm)
		Channel		6500.0	6560.0	6620.0	
		Frequency (MHz)		3765	3840	3920	
100M	DFT-s-OFDM P22 BPSK	1	1	18.10	17.54	17.76	19
		1	137	17.90	17.62	17.80	19
		1	271	17.92	17.44	17.60	19
		135	0	17.78	17.45	17.71	19
		135	69	17.90	17.31	17.53	19
		135	138	17.93	17.39	17.62	19
		270	0	17.75	17.45	17.75	19
	DFT-s-OFDM QPSK	1	1	18.11	17.56	17.99	19
		1	137	17.91	17.54	17.72	19
		1	271	17.94	17.33	17.57	19
		135	0	17.64	17.38	17.60	19
		135	69	17.94	17.41	17.73	19
		135	138	17.79	17.43	17.63	19
		270	0	17.75	17.29	17.59	19
	DFT-s-OFDM 16QAM	1	1	18.08	17.51	17.62	19
	DFT-s-OFDM 60QAM	1	1	17.71	17.28	17.59	18.5
	DFT-s-OFDM 250QAM	1	1	16.48	15.97	16.41	17.5
BW	MCS Index	Channel	Frequency (MHz)	6496.8	6500.0	6493.2	Max. Tune-up
90M	DFT-s-OFDM QPSK	1	1	18.05	17.48	17.91	19
BW	MCS Index	Channel	Frequency (MHz)	6493.4	6500.0	6496.6	Max. Tune-up
80M	DFT-s-OFDM QPSK	1	1	18.03	17.44	17.96	19
BW	MCS Index	Channel	Frequency (MHz)	6323.4	6500.0	6343.2	Max. Tune-up
70M	DFT-s-OFDM QPSK	1	1	18.14	17.46	17.95	19
BW	MCS Index	Channel	Frequency (MHz)	6496.8	6500.0	6493.2	Max. Tune-up
60M	DFT-s-OFDM QPSK	1	1	18.08	17.50	17.95	19
BW	MCS Index	Channel	Frequency (MHz)	6493.4	6500.0	6496.6	Max. Tune-up
50M	DFT-s-OFDM QPSK	1	1	18.08	17.42	17.95	19
BW	MCS Index	Channel	Frequency (MHz)	6490.0	6500.0	6490.0	Max. Tune-up
40M	DFT-s-OFDM QPSK	1	1	18.02	17.47	17.96	19
BW	MCS Index	Channel	Frequency (MHz)	6476.8	6500.0	6483.2	Max. Tune-up
30M	DFT-s-OFDM QPSK	1	1	18.05	17.50	17.96	19
BW	MCS Index	Channel	Frequency (MHz)	6473.4	6500.0	6486.6	Max. Tune-up
20M	DFT-s-OFDM QPSK	1	1	17.99	17.57	17.92	19
BW	MCS Index	Channel	Frequency (MHz)	6471.8	6500.0	6483.2	Max. Tune-up
15M	DFT-s-OFDM QPSK	1	1	18.07	17.55	17.88	19
BW	MCS Index	Channel	Frequency (MHz)	6470.0	6500.0	6480.0	Max. Tune-up
10M	DFT-s-OFDM QPSK	1	1	18.12	17.56	17.96	19

n78 PC3/PC2 (SCS 30 kHz) (Ant5)							
BW	MCS Index	Channel	RB Size	RB Offset	Mid		Max Tune-up (dBm)
		Frequency (MHz)			6333.4		
					3500.1		
100M	DFT-s-OFDM P22 BPSK	1	1		18.08		19
		1	137		18.06		19
		1	271		17.92		19
		135	0		17.94		19
		135	69		17.89		19
		135	138		17.90		19
		270	0		17.94		19
	DFT-s-OFDM QPSK	1	1		18.22		19
		1	137		18.16		19
		1	271		18.02		19
		135	0		17.85		19
		135	69		17.91		19
		135	138		17.97		19
		270	0		18.03		19
	DFT-s-OFDM 16QAM	1	1		17.86		19
	DFT-s-OFDM 60QAM	1	1		17.30		18.5
	DFT-s-OFDM 250QAM	1	1		16.42		17.5
BW	MCS Index	Channel	6330.0	6333.4	6336.6	Max. Tune-up	
90M	DFT-s-OFDM QPSK	1	1	18.21	18.09	18.16	19
BW	MCS Index	Channel	6336.6	6333.4	6340.0	Max. Tune-up	
80M	DFT-s-OFDM QPSK	1	1	18.09	18.13	18.03	19
BW	MCS Index	Channel	6323.4	6333.4	6343.2	Max. Tune-up	
70M	DFT-s-OFDM QPSK	1	1	18.15	18.14	18.09	19
BW	MCS Index	Channel	6330.0	6333.4	6346.6	Max. Tune-up	
60M	DFT-s-OFDM QPSK	1	1	18.15	18.07	18.06	19
BW	MCS Index	Channel	6316.6	6333.4	6350.0	Max. Tune-up	
50M	DFT-s-OFDM QPSK	1	1	18.08	18.06	18.18	19
BW	MCS Index	Channel	6313.4	6333.4	6353.2	Max. Tune-up	
40M	DFT-s-OFDM QPSK	1	1	18.17	18.11	18.12	19
BW	MCS Index	Channel	6310.0	6333.4	6356.6	Max. Tune-up	
30M	DFT-s-OFDM QPSK	1	1	18.14	18.18	18.20	19
BW	MCS Index	Channel	6306.8	6333.4	6360.0	Max. Tune-up	
20M	DFT-s-OFDM QPSK	1	1	18.10	18.10	18.16	19
BW	MCS Index	Channel	6303.4	6333.4	6363.6	Max. Tune-up	
15M	DFT-s-OFDM QPSK	1	1	18.14	18.09	18.20	19
BW	MCS Index	Channel	6303.4	6333.4	6363.2	Max. Tune-up	
10M	DFT-s-OFDM QPSK	1	1	18.07	18.16	18.06	19

DSI3 Power

Band	GSM850 (Ant0)				GSM1900 (Ant0)			
Channel	128	189	251	Max. Tune-up Power (dBm)	512	661	810	Max. Tune-up Power (dBm)
Frequency (MHz)	824.2	836.4	848.8		1850.2	1880	1909.8	
GSM	30.75	30.56	30.55	32.50	28.31	28.53	28.51	30.00
GPRS 1Tx Slot	30.63	30.55	30.55	32.50	28.41	28.52	28.50	30.00
GPRS 2Tx Slot	28.51	28.69	28.59	30.50	26.58	26.35	26.39	28.00
GPRS 3Tx Slot	26.56	26.62	26.52	28.50	24.51	24.53	24.43	26.00
GPRS 4Tx Slot	24.53	24.71	24.56	26.50	22.18	22.37	22.37	24.00
EDGE 1Tx Slot	26.22	26.10	26.18	27.50	25.47	25.46	25.27	26.50
EDGE 2Tx Slot	25.01	24.98	24.82	26.50	24.04	24.29	24.06	25.50
EDGE 3Tx Slot	23.84	23.66	23.86	25.50	22.90	23.17	22.98	24.50
EDGE 4Tx Slot	22.79	22.86	22.82	24.50	21.86	22.06	22.00	23.50

Source-Based Time-Averaged Power								
Band	GSM850			Max. Tune-up Power (dBm)	GSM1900			Max. Tune-up Power (dBm)
Channel	128	189	251		512	661	810	
GSM	21.75	21.56	21.55	23.50	19.31	19.53	19.51	21.00
GPRS 1Tx Slot	21.63	21.55	21.55	23.50	19.41	19.52	19.50	21.00
GPRS 2Tx Slot	22.51	22.69	22.59	24.50	20.58	20.35	20.39	22.00
GPRS 3Tx Slot	22.30	22.36	22.26	24.24	20.25	20.27	20.17	21.74
GPRS 4Tx Slot	21.53	21.71	21.56	23.50	19.18	19.37	19.37	21.00
EDGE 1Tx Slot	17.22	17.10	17.18	18.50	16.47	16.46	16.27	17.50
EDGE 2Tx Slot	19.01	18.98	18.82	20.50	18.04	18.29	18.06	19.50
EDGE 3Tx Slot	19.58	19.40	19.60	21.24	18.64	18.91	18.72	20.24
EDGE 4Tx Slot	19.79	19.86	19.82	21.50	18.86	19.06	19.00	20.50

Band	WCDMA II (Ant0)			WCDMA II Max. Tune-up Power (dBm)	WCDMA IV (Ant0)			WCDMA IV Max. Tune-up Power (dBm)	WCDMA V (Ant0)			WCDMA V Max. Tune-up Power (dBm)
TX Channel	9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel	9662	9800	9938	Max. Tune-up Power (dBm)	1537	1638	1738	Max. Tune-up Power (dBm)	4357	4407	4458	Max. Tune-up Power (dBm)
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
RMC 12.2K	22.45	22.35	22.30	23.50	20.84	20.87	20.85	22.00	22.87	22.94	22.88	24.00
HSDPA Subtest-1	21.38	21.32	21.54	22.50	19.83	19.90	19.81	21.00	21.95	21.91	21.91	23.00
HSDPA Subtest-2	21.31	21.42	21.42	22.50	19.93	19.86	19.92	21.00	21.93	21.88	21.99	23.00
HSDPA Subtest-3	20.90	20.84	20.80	22.00	19.35	19.42	19.38	20.50	21.42	21.40	21.46	22.50
HSDPA Subtest-4	20.91	20.87	20.89	22.00	19.42	19.44	19.43	20.50	21.45	21.47	21.35	22.50
DC-HSDPA Subtest-1	21.30	21.34	21.42	22.50	19.80	19.86	19.81	21.00	21.96	21.82	21.99	23.00
DC-HSDPA Subtest-2	21.32	21.39	21.40	22.50	19.81	19.90	19.85	21.00	21.89	21.89	21.94	23.00
DC-HSDPA Subtest-3	20.92	20.84	20.89	22.00	19.38	19.46	19.41	20.50	21.33	21.41	21.43	22.50
DC-HSDPA Subtest-4	20.93	20.81	20.75	22.00	19.30	19.35	19.37	20.50	21.36	21.39	21.38	22.50
HSUPA Subtest-1	21.47	21.33	21.25	22.50	19.82	19.93	19.83	21.00	21.95	21.98	21.94	23.00
HSUPA Subtest-2	19.52	19.38	19.38	20.50	17.89	17.82	17.93	19.00	19.92	19.93	19.95	21.00
HSUPA Subtest-3	20.45	20.34	20.31	21.50	18.85	18.96	18.93	20.00	20.84	20.92	20.89	22.00
HSUPA Subtest-4	19.40	19.38	19.39	20.50	17.80	17.96	17.93	19.00	19.96	19.99	19.93	21.00
HSUPA Subtest-5	21.54	21.39	21.31	22.50	19.87	19.88	19.80	21.00	21.85	22.00	21.84	23.00
HSPA+ Subtest-1	18.93	18.81	18.80	20.00	17.31	17.41	17.40	18.50	19.34	19.44	19.40	20.50

ID	Material	L16 Band (2.4GHz)									
		Channel		L16		L16		L16		L16	
		Frequency (MHz)	Power (dBm)	Rate (Mbps)	Modulation	Rate (Mbps)	Modulation	Rate (Mbps)	Modulation	Rate (Mbps)	Modulation
1M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
2M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
3M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
4M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
5M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
6M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
7M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
8M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
9M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
10M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
11M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
12M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
13M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
14M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
15M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
16M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25	22.33	0	24			
		3	107	20.46	22.25	22.33	0	24			
		4	107	20.46	22.25	22.33	0	24			
		5	107	20.46	22.25	22.33	0	24			
		6	107	20.46	22.25	22.33	0	24			
		7	107	20.46	22.25	22.33	0	24			
		8	107	20.46	22.25	22.33	0	24			
		9	107	20.46	22.25	22.33	0	24			
		10	107	20.46	22.25	22.33	0	24			
17M	QPSK	1	107	20.46	22.25	22.33	0	24			
		2	107	20.46	22.25						

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ECC	Modulation	LTE Band 5 (Aero)										Power (dBm)	Max. Tx Power (dBm)	Max. Rx Power (dBm)			
		B36 Size (MHz)		B36 Offset (MHz)		B36 Bandwidth (MHz)		B36 Center Frequency (MHz)		B36 Channel Bandwidth (MHz)							
		Frequency (MHz)		Offset (MHz)		Bandwidth (MHz)		Center Frequency (MHz)		Channel Bandwidth (MHz)							
		Start	End	Start	End	Start	End	Start	End	Start	End				Start	End	
QPSK	1/2	0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
16QAM	1/2	0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
64QAM	1/2	0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
256QAM	1/2	0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
BPSK	1/2	0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
QPSK	1/4	0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
16QAM	1/4	0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
64QAM	1/4	0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
256QAM	1/4	0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			
		0	1	0	1	0	1	0	1	0	1	0	1	0			

LTC Base (7.4M)									
ID	Modulation	Bit Size (b)	Sub-Carriers	Tone	Hz	Hz	Hz	Power (dBm)	Time (ms)
		Frequency (MHz)	Rate (Mbps)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Time (ms)
QPSK	100-MHz	1	1	100	100.00	100.00	100.00	0	21.0
		2	1	100	100.00	100.00	100.00	1	20.5
		3	1	100	100.00	100.00	100.00	2	20.0
		4	1	100	100.00	100.00	100.00	3	20.0
		5	1	100	100.00	100.00	100.00	4	20.0
16QAM	100-MHz	1	1	100	100.00	100.00	100.00	0	20.5
		2	1	100	100.00	100.00	100.00	1	20.0
		3	1	100	100.00	100.00	100.00	2	19.5
		4	1	100	100.00	100.00	100.00	3	19.0
		5	1	100	100.00	100.00	100.00	4	18.5
256QAM	100-MHz	1	1	100	100.00	100.00	100.00	0	18.5
		2	1	100	100.00	100.00	100.00	1	18.0
		3	1	100	100.00	100.00	100.00	2	17.5
		4	1	100	100.00	100.00	100.00	3	17.0
		5	1	100	100.00	100.00	100.00	4	16.5
64QAM	100-MHz	1	1	100	100.00	100.00	100.00	0	18.5
		2	1	100	100.00	100.00	100.00	1	18.0
		3	1	100	100.00	100.00	100.00	2	17.5
		4	1	100	100.00	100.00	100.00	3	17.0
		5	1	100	100.00	100.00	100.00	4	16.5
256QAM	100-MHz	1	1	100	100.00	100.00	100.00	0	18.5
		2	1	100	100.00	100.00	100.00	1	18.0
		3	1	100	100.00	100.00	100.00	2	17.5
		4	1	100	100.00	100.00	100.00	3	17.0
		5	1	100	100.00	100.00	100.00	4	16.5
64QAM	100-MHz	1	1	100	100.00	100.00	100.00	0	18.5
		2	1	100	100.00	100.00	100.00	1	18.0
		3	1	100	100.00	100.00	100.00	2	17.5
		4	1	100	100.00	100.00	100.00	3	17.0
		5	1	100	100.00	100.00	100.00	4	16.5
256QAM	100-MHz	1	1	100	100.00	100.00	100.00	0	18.5
		2	1	100	100.00	100.00	100.00	1	18.0
		3	1	100	100.00	100.00	100.00	2	17.5
		4	1	100	100.00	100.00	100.00	3	17.0
		5	1	100	100.00	100.00	100.00	4	16.5
64QAM	100-MHz	1	1	100	100.00	100.00	100.00	0	18.5
		2	1	100	100.00	100.00	100.00	1	18.0
		3	1	100	100.00	100.00	100.00	2	17.5
		4	1	100	100.00	100.00	100.00	3	17.0
		5	1	100	100.00	100.00	100.00	4	16.5
256QAM	100-MHz	1	1	100	100.00	100.00	100.00	0	

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No.	Serial No.	2017-18 (2016-17) (2015-16)					
		2017-18 (2016-17)	2016-17 (2015-16)	2015-16 (2014-15)	2014-15 (2013-14)	2013-14 (2012-13)	2012-13 (2011-12)
200	172	1000	1000	1000	1000	1000	1000
	173	1000	1000	1000	1000	1000	1000
	174	1000	1000	1000	1000	1000	1000
	175	1000	1000	1000	1000	1000	1000
	176	1000	1000	1000	1000	1000	1000
	177	1000	1000	1000	1000	1000	1000
	178	1000	1000	1000	1000	1000	1000
	179	1000	1000	1000	1000	1000	1000
	180	1000	1000	1000	1000	1000	1000
	181	1000	1000	1000	1000	1000	1000
201	182	1000	1000	1000	1000	1000	1000
	183	1000	1000	1000	1000	1000	1000
	184	1000	1000	1000	1000	1000	1000
	185	1000	1000	1000	1000	1000	1000
	186	1000	1000	1000	1000	1000	1000
	187	1000	1000	1000	1000	1000	1000
	188	1000	1000	1000	1000	1000	1000
	189	1000	1000	1000	1000	1000	1000
	190	1000	1000	1000	1000	1000	1000
	191	1000	1000	1000	1000	1000	1000

COSTS AND REVENUE ANALYSIS							
DATE	WELL NUMBER	WELL TYPE		WELL STATUS		WELL DEPTH (FEET)	WELL DRAINAGE AREA (ACRES)
		WELL TYPE	WELL STATUS	WELL TYPE	WELL STATUS		
2018	2018-01-01	1	1	1	1	1	1
		2	2	2	2	2	2
		3	3	3	3	3	3
		4	4	4	4	4	4
		5	5	5	5	5	5
	2018-02-01	1	1	1	1	1	1
		2	2	2	2	2	2
		3	3	3	3	3	3
		4	4	4	4	4	4
		5	5	5	5	5	5
2019	2019-01-01	1	1	1	1	1	1
		2	2	2	2	2	2
		3	3	3	3	3	3
		4	4	4	4	4	4
		5	5	5	5	5	5
	2019-02-01	1	1	1	1	1	1
		2	2	2	2	2	2
		3	3	3	3	3	3
		4	4	4	4	4	4
		5	5	5	5	5	5
2020	2020-01-01	1	1	1	1	1	1
		2	2	2	2	2	2
		3	3	3	3	3	3
		4	4	4	4	4	4
		5	5	5	5	5	5
	2020-02-01	1	1	1	1	1	1
		2	2	2	2	2	2
		3	3	3	3	3	3
		4	4	4	4	4	4
		5	5	5	5	5	5

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No.	NAME	TIME (SEC) (1:00:00) (2:00:00)					
		1st	2nd	3rd	4th	5th	6th
2284	2nd year female	1	0	23:05	23:07	23:11	23:14
		2	0	23:05	23:06	23:10	23:12
		3	0	23:05	23:06	23:10	23:12
		4	0	23:05	23:06	23:10	23:12
		5	0	23:05	23:06	23:10	23:12
		6	0	23:05	23:06	23:10	23:12
	2nd year male	1	0	23:05	23:06	23:10	23:12
		2	0	23:05	23:06	23:10	23:12
		3	0	23:05	23:06	23:10	23:12
		4	0	23:05	23:06	23:10	23:12
		5	0	23:05	23:06	23:10	23:12
		6	0	23:05	23:06	23:10	23:12
2285	2nd year female	1	0	23:05	23:06	23:10	23:12
		2	0	23:05	23:06	23:10	23:12
		3	0	23:05	23:06	23:10	23:12
		4	0	23:05	23:06	23:10	23:12
		5	0	23:05	23:06	23:10	23:12
		6	0	23:05	23:06	23:10	23:12
	2nd year male	1	0	23:05	23:06	23:10	23:12
		2	0	23:05	23:06	23:10	23:12
		3	0	23:05	23:06	23:10	23:12
		4	0	23:05	23:06	23:10	23:12
		5	0	23:05	23:06	23:10	23:12
		6	0	23:05	23:06	23:10	23:12
2286	2nd year female	1	0	23:05	23:06	23:10	23:12
		2	0	23:05	23:06	23:10	23:12
		3	0	23:05	23:06	23:10	23:12
		4	0	23:05	23:06	23:10	23:12
		5	0	23:05	23:06	23:10	23:12
		6	0	23:05	23:06	23:10	23:12
	2nd year male	1	0	23:05	23:06	23:10	23:12
		2	0	23:05	23:06	23:10	23:12
		3	0	23:05	23:06	23:10	23:12
		4	0	23:05	23:06	23:10	23:12
		5	0	23:05	23:06	23:10	23:12
		6	0	23:05	23:06	23:10	23:12

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TABLE 1: SUMMARY OF THE DATA SET									
Dataset	Metric	Metric 1				Metric 2			
		Value 1	Value 2	Value 3	Value 4	Value 5	Value 6	Value 7	Value 8
Dataset 1	Overall Performance	0.85	0.78	0.92	0.81	0.75	0.68	0.88	0.72
	Accuracy	0.91	0.83	0.95	0.86	0.79	0.71	0.90	0.74
	Precision	0.87	0.79	0.93	0.82	0.76	0.69	0.89	0.73
	Recall	0.82	0.74	0.90	0.78	0.72	0.65	0.86	0.70
	F1 Score	0.86	0.78	0.92	0.81	0.75	0.68	0.88	0.72
	Specificity	0.80	0.72	0.88	0.76	0.70	0.63	0.84	0.68
	AUC	0.84	0.76	0.91	0.80	0.74	0.67	0.87	0.71
	Confidence	0.88	0.80	0.94	0.83	0.77	0.70	0.91	0.75
	Consistency	0.83	0.75	0.89	0.77	0.71	0.64	0.85	0.69
	Robustness	0.86	0.78	0.92	0.81	0.75	0.68	0.88	0.72
Dataset 2	Overall Performance	0.78	0.71	0.85	0.74	0.68	0.61	0.80	0.65
	Accuracy	0.82	0.74	0.88	0.79	0.72	0.65	0.84	0.69
	Precision	0.79	0.71	0.86	0.75	0.69	0.62	0.81	0.66
	Recall	0.75	0.67	0.83	0.72	0.66	0.59	0.78	0.63
	F1 Score	0.77	0.69	0.84	0.73	0.67	0.60	0.79	0.64
	Specificity	0.71	0.63	0.79	0.68	0.62	0.55	0.74	0.59
	AUC	0.73	0.65	0.80	0.69	0.63	0.56	0.75	0.60
	Confidence	0.80	0.72	0.87	0.76	0.70	0.63	0.82	0.67
	Consistency	0.76	0.68	0.82	0.71	0.65	0.58	0.77	0.62
	Robustness	0.79	0.71	0.86	0.75	0.69	0.62	0.81	0.66
Dataset 3	Overall Performance	0.92	0.85	0.96	0.88	0.80	0.72	0.93	0.77
	Accuracy	0.95	0.87	0.98	0.90	0.82	0.74	0.95	0.79
	Precision	0.93	0.85	0.97	0.89	0.81	0.73	0.94	0.78
	Recall	0.89	0.81	0.94	0.86	0.78	0.70	0.91	0.75
	F1 Score	0.91	0.83	0.96	0.87	0.79	0.71	0.92	0.76
	Specificity	0.85	0.77	0.92	0.84	0.76	0.68	0.89	0.73
	AUC	0.87	0.79	0.94	0.86	0.78	0.70	0.90	0.74
	Confidence	0.94	0.86	0.99	0.91	0.83	0.75	0.96	0.80
	Consistency	0.90	0.82	0.95	0.87	0.79	0.71	0.92	0.76
	Robustness	0.93	0.85	0.97	0.89	0.81	0.73	0.94	0.78
Dataset 4	Overall Performance	0.70	0.63	0.75	0.66	0.59	0.52	0.68	0.56
	Accuracy	0.73	0.65	0.78	0.69	0.62	0.55	0.71	0.59
	Precision	0.71	0.63	0.76	0.67	0.60	0.53	0.69	0.57
	Recall	0.67	0.59	0.73	0.64	0.57	0.50	0.65	0.53
	F1 Score	0.69	0.61	0.74	0.65	0.58	0.51	0.67	0.55
	Specificity	0.63	0.55	0.68	0.59	0.52	0.45	0.61	0.49
	AUC	0.65	0.57	0.70	0.61	0.54	0.47	0.63	0.51
	Confidence	0.72	0.64	0.79	0.70	0.63	0.56	0.72	0.60
	Consistency	0.68	0.60	0.74	0.65	0.58	0.51	0.66	0.54
	Robustness	0.71	0.63	0.77	0.68	0.61	0.54	0.70	0.58

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PHE DATA BY STATE (2018)									
State	PHE Type	Prevalence		Incidence		Prevalence		Incidence	
		2017	2018	2017	2018	2017	2018	2017	2018
USA	Overall	1.2	1.5	0.8	1.0	1.1	1.4	0.7	0.9
	Prevalence	1.2	1.5	0.8	1.0	1.1	1.4	0.7	0.9
	Incidence	0.8	1.0	0.8	1.0	0.7	0.9	0.7	0.9
	Prevalence	1.2	1.5	0.8	1.0	1.1	1.4	0.7	0.9
	Incidence	0.8	1.0	0.8	1.0	0.7	0.9	0.7	0.9
	Prevalence	1.2	1.5	0.8	1.0	1.1	1.4	0.7	0.9
	Incidence	0.8	1.0	0.8	1.0	0.7	0.9	0.7	0.9
	Prevalence	1.2	1.5	0.8	1.0	1.1	1.4	0.7	0.9
	Incidence	0.8	1.0	0.8	1.0	0.7	0.9	0.7	0.9
	Prevalence	1.2	1.5	0.8	1.0	1.1	1.4	0.7	0.9
California	Overall	1.5	1.8	1.0	1.2	1.4	1.7	0.9	1.1
	Prevalence	1.5	1.8	1.0	1.2	1.4	1.7	0.9	1.1
	Incidence	1.0	1.2	1.0	1.2	0.9	1.1	0.9	1.1
	Prevalence	1.5	1.8	1.0	1.2	1.4	1.7	0.9	1.1
	Incidence	1.0	1.2	1.0	1.2	0.9	1.1	0.9	1.1
	Prevalence	1.5	1.8	1.0	1.2	1.4	1.7	0.9	1.1
	Incidence	1.0	1.2	1.0	1.2	0.9	1.1	0.9	1.1
	Prevalence	1.5	1.8	1.0	1.2	1.4	1.7	0.9	1.1
	Incidence	1.0	1.2	1.0	1.2	0.9	1.1	0.9	1.1
	Prevalence	1.5	1.8	1.0	1.2	1.4	1.7	0.9	1.1
Texas	Overall	1.0	1.2	0.7	0.9	0.9	1.1	0.6	0.8
	Prevalence	1.0	1.2	0.7	0.9	0.9	1.1	0.6	0.8
	Incidence	0.7	0.9	0.7	0.9	0.6	0.8	0.6	0.8
	Prevalence	1.0	1.2	0.7	0.9	0.9	1.1	0.6	0.8
	Incidence	0.7	0.9	0.7	0.9	0.6	0.8	0.6	0.8
	Prevalence	1.0	1.2	0.7	0.9	0.9	1.1	0.6	0.8
	Incidence	0.7	0.9	0.7	0.9	0.6	0.8	0.6	0.8
	Prevalence	1.0	1.2	0.7	0.9	0.9	1.1	0.6	0.8
	Incidence	0.7	0.9	0.7	0.9	0.6	0.8	0.6	0.8
	Prevalence	1.0	1.2	0.7	0.9	0.9	1.1	0.6	0.8
New York	Overall	1.3	1.6	0.9	1.1	1.2	1.5	0.8	1.0
	Prevalence	1.3	1.6	0.9	1.1	1.2	1.5	0.8	1.0
	Incidence	0.9	1.1	0.9	1.1	0.8	1.0	0.8	1.0
	Prevalence	1.3	1.6	0.9	1.1	1.2	1.5	0.8	1.0
	Incidence	0.9	1.1	0.9	1.1	0.8	1.0	0.8	1.0
	Prevalence	1.3	1.6	0.9	1.1	1.2	1.5	0.8	1.0
	Incidence	0.9	1.1	0.9	1.1	0.8	1.0	0.8	1.0
	Prevalence	1.3	1.6	0.9	1.1	1.2	1.5	0.8	1.0
	Incidence	0.9	1.1	0.9	1.1	0.8	1.0	0.8	1.0
	Prevalence	1.3	1.6	0.9	1.1	1.2	1.5	0.8	1.0
Florida	Overall	1.1	1.4	0.8	1.0	1.0	1.3	0.7	0.9
	Prevalence	1.1	1.4	0.8	1.0	1.0	1.3	0.7	0.9
	Incidence	0.8	1.0	0.8	1.0	0.7	0.9	0.7	0.9
	Prevalence	1.1	1.4	0.8	1.0	1.0	1.3	0.7	0.9
	Incidence	0.8	1.0	0.8	1.0	0.7	0.9	0.7	0.9
	Prevalence	1.1	1.4	0.8	1.0	1.0	1.3	0.7	0.9
	Incidence	0.8	1.0	0.8	1.0	0.7	0.9	0.7	0.9
	Prevalence	1.1	1.4	0.8	1.0	1.0	1.3	0.7	0.9
	Incidence	0.8	1.0	0.8	1.0	0.7	0.9	0.7	0.9
	Prevalence	1.1	1.4	0.8	1.0	1.0	1.3	0.7	0.9

NOTES ON DISBURSEMENTS									
Year	Month	Disbursement	Disbursement	Disbursement	Disbursement	Disbursement	Disbursement	Disbursement	Disbursement
		1	2	3	4	5	6	7	8
2000	2000-01-01	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
	2000-02-01	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
2001	2001-01-01	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
	2001-02-01	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
2002	2002-01-01	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
	2002-02-01	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
2003	2003-01-01	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5
	2003-02-01	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3
		4	4	4	4	4	4	4	4
		5	5	5	5	5	5	5	5

		Performance Indicators					Overall Score
		Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5	
Category A	Sub-category A1	1	2	3	4	5	25
	Sub-category A2	2	3	4	5	6	30
	Sub-category A3	3	4	5	6	7	35
	Sub-category A4	4	5	6	7	8	40
	Sub-category A5	5	6	7	8	9	45
	Sub-category A6	6	7	8	9	10	50
	Sub-category A7	7	8	9	10	11	55
	Sub-category A8	8	9	10	11	12	60
	Sub-category A9	9	10	11	12	13	65
	Sub-category A10	10	11	12	13	14	70
Category B	Sub-category B1	1	2	3	4	5	25
	Sub-category B2	2	3	4	5	6	30
	Sub-category B3	3	4	5	6	7	35
	Sub-category B4	4	5	6	7	8	40
	Sub-category B5	5	6	7	8	9	45
	Sub-category B6	6	7	8	9	10	50
	Sub-category B7	7	8	9	10	11	55
	Sub-category B8	8	9	10	11	12	60
	Sub-category B9	9	10	11	12	13	65
	Sub-category B10	10	11	12	13	14	70
Category C	Sub-category C1	1	2	3	4	5	25
	Sub-category C2	2	3	4	5	6	30
	Sub-category C3	3	4	5	6	7	35
	Sub-category C4	4	5	6	7	8	40
	Sub-category C5	5	6	7	8	9	45
	Sub-category C6	6	7	8	9	10	50
	Sub-category C7	7	8	9	10	11	55
	Sub-category C8	8	9	10	11	12	60
	Sub-category C9	9	10	11	12	13	65
	Sub-category C10	10	11	12	13	14	70

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TABLE 1: SUMMARY OF EXPERIMENTAL DATA						
Run	Beam Energy (GeV)	Beam Current (pA)	Target Material			Data Quality
			Material	Thickness (mm)	Mass (g)	
2020	EPJ-1000 (Pb)	1	100	0.125	10.4	Good
		2	100	0.125	10.4	Good
		3	100	0.125	10.4	Good
		4	100	0.125	10.4	Good
		5	100	0.125	10.4	Good
	EPJ-1000 (Cu)	6	100	0.125	10.4	Good
		7	100	0.125	10.4	Good
		8	100	0.125	10.4	Good
		9	100	0.125	10.4	Good
		10	100	0.125	10.4	Good
2021	EPJ-1000 (Pb)	11	100	0.125	10.4	Good
		12	100	0.125	10.4	Good
		13	100	0.125	10.4	Good
		14	100	0.125	10.4	Good
		15	100	0.125	10.4	Good
	EPJ-1000 (Cu)	16	100	0.125	10.4	Good
		17	100	0.125	10.4	Good
		18	100	0.125	10.4	Good
		19	100	0.125	10.4	Good
		20	100	0.125	10.4	Good

n2 (SCS 15 kHz) (Ann2)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max. Turn-up		
		Channel		27000	27000	28000	(dBm)		
20M	DFT+OFDM P2 BPSK	1	1	20.97	20.95	20.93	21.5		
		1	50	20.72	20.50	20.46	21.5		
		1	104	20.57	20.70	20.98	21.5		
		50	0	19.44	19.88	19.46	21.5		
		50	20	20.71	20.64	20.59	21.5		
		50	56	19.69	19.33	19.93	21.5		
		100	0	19.82	19.71	19.49	21.5		
		1	1	21.08	20.76	20.63	21.5		
	DFT+OFDM QPSK	1	53	20.90	20.67	20.95	21.5		
		1	104	20.71	20.62	20.56	21.5		
		50	0	20.12	20.11	19.96	21.5		
		50	20	20.65	20.55	20.61	21.5		
		50	56	20.08	20.16	20.31	21.5		
		100	0	20.10	20.20	20.25	21.5		
		1	1	19.72	19.40	19.86	20.5		
		1	1	18.19	18.14	18.20	19.5		
20M	MCS Index	Channel		27000	27000	28000	Max. Turn-up		
10M	DFT+QAM	1	1	21.04	20.66	20.58	21.5		
5M	MCS Index	Channel		27000	27000	28000	Max. Turn-up		
5M	DFT+QAM	1	1	20.94	20.71	20.61	21.5		

n7 (SCS 15 kHz) (Ann10)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max. Turn-up		
		Channel		54000	54000	51000	(dBm)		
40M	DFT+OFDM P2 BPSK	1	1	20.73	20.65	20.64	21.5		
		1	108	20.59	20.56	20.63	21.5		
		1	214	19.41	19.54	19.64	21.5		
		108	0	19.62	20.01	19.93	21.5		
		108	54	20.27	20.40	20.69	21.5		
		108	108	19.80	19.82	20.00	21.5		
		216	0	20.02	19.75	20.23	21.5		
		1	1	20.64	20.52	20.75	21.5		
	DFT+OFDM QPSK	1	108	20.31	20.35	20.49	21.5		
		1	214	20.45	20.58	20.74	21.5		
		108	0	19.35	19.38	19.62	21.5		
		108	54	20.35	20.46	20.60	21.5		
		108	108	19.48	19.64	19.65	21.5		
		216	0	19.66	19.21	19.61	21.5		
		1	1	19.37	19.66	19.71	20.5		
		1	1	18.23	18.42	18.54	19.5		
40M	MCS Index	Channel		54000	54000	51000	Max. Turn-up		
20M	DFT+QAM	1	1	20.64	20.51	20.73	21.5		
10M	MCS Index	Channel		54000	54000	51000	Max. Turn-up		
10M	DFT+QAM	1	1	20.70	20.59	20.60	21.5		
5M	MCS Index	Channel		54000	54000	51000	Max. Turn-up		
5M	DFT+QAM	1	1	20.55	20.54	20.77	21.5		
15M	MCS Index	Channel		54000	54000	52000	Max. Turn-up		
15M	DFT+QAM	1	1	20.65	20.47	20.66	21.5		
10M	MCS Index	Channel		54000	54000	52000	Max. Turn-up		
10M	DFT+QAM	1	1	20.55	20.46	20.66	21.5		
5M	MCS Index	Channel		54000	54000	52000	Max. Turn-up		
5M	DFT+QAM	1	1	20.62	20.51	20.67	21.5		

n38 (SCS 30 kHz) (Ann6)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max. Turn-up		
		Channel		51000	51000	52000	(dBm)		
40M	DFT+OFDM P2 BPSK	1	1	20.76	20.62	20.72	22		
		1	52	20.25	20.23	20.23	22		
		1	104	20.60	20.59	20.36	22		
		50	0	19.65	20.24	19.63	21		
		50	20	20.72	20.39	20.48	21		
		50	56	19.80	20.14	20.15	21		
		100	0	20.05	20.21	19.73	21		
		1	1	20.61	20.34	20.36	22		
	DFT+OFDM QPSK	1	52	20.56	20.46	20.54	22		
		1	104	20.69	20.68	20.11	22		
		50	0	19.71	19.41	19.30	21		
		50	20	20.52	20.60	20.70	21		
		50	56	19.77	19.77	19.73	21		
		100	0	19.56	19.93	19.41	21		
		1	1	19.66	19.93	19.89	21		
		1	1	18.14	18.01	17.95	20		
40M	MCS Index	Channel		51000	51000	52000	Max. Turn-up		
20M	DFT+QAM	1	1	19.35	18.50	18.31	18		
10M	MCS Index	Channel		51000	51000	52000	Max. Turn-up		
10M	DFT+QAM	1	1	20.71	20.83	20.39	22		
5M	MCS Index	Channel		51000	51000	52000	Max. Turn-up		
5M	DFT+QAM	1	1	20.71	20.87	20.91	22		
15M	MCS Index	Channel		51000	51000	52000	Max. Turn-up		
15M	DFT+QAM	1	1	20.80	20.83	20.84	22		
10M	MCS Index	Channel		51000	51000	52000	Max. Turn-up		
10M	DFT+QAM	1	1	20.66	20.83	20.81	22		

n66 (SCS 15 kHz) (Ann2)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max. Turn-up		
		Channel		34000	34000	33000	(dBm)		
40M	DFT+OFDM P2 BPSK	1	1	21.32	21.14	21.12	22.5		
		1	107	21.30	20.91	21.01	22.5		
		1	214	21.19	21.18	20.95	22.5		
		108	0	20.77	20.66	20.76	22.5		
		108	54	21.07	21.12	21.01	22.5		
		108	108	20.62	20.56	20.54	22.5		
		216	0	20.77	20.67	20.64	22.5		
		1	1	21.00	21.25	21.15	22.5		
	DFT+OFDM QPSK	1	107	21.34	21.12	21.18	22.5		
		1	214	21.05	21.04	21.05	22.5		
		108	0	20.16	20.10	20.26	22.5		
		108	54	21.09	21.15	21.24	22.5		
		108	108	20.17	20.02	20.17	22.5		
		216	0	20.01	20.10	20.10	22.5		
		1	1	20.44	20.22	20.25	21.5		
		1	1	18.61	18.47	18.62	20		
40M	MCS Index	Channel		34000	34000	33000	Max. Turn-up		
20M	DFT+QAM	1	1	18.97	18.86	18.93	18		
10M	MCS Index	Channel		34000	34000	33000	Max. Turn-up		
10M	DFT+QAM	1	1	21.39	21.15	21.12	22.5		
5M	MCS Index	Channel		34000	34000	33000	Max. Turn-up		
5M	DFT+QAM	1	1	21.31	21.13	21.07	22.5		
15M	MCS Index	Channel		34000	34000	33000	Max. Turn-up		
15M	DFT+QAM	1	1	21.29	21.06	20.92	22.5		
10M	MCS Index	Channel		34000	34000	33000	Max. Turn-up		
10M	DFT+QAM	1	1	21.30	21.17	21.04	22.5		
5M	MCS Index	Channel		34000	34000	33000	Max. Turn-up		
5M	DFT+QAM	1	1	21.26	21.19	21.09	22.5		

n77 PC3/PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	Mid		Max. Tune-up (dBm)
		Channel		63334		
		Frequency (MHz)		3500.01		
100M	DFT-s-OFDM P22 BPSK	1	1	13.48		15
		1	137	13.41		15
		1	271	13.52		15
		135	0	13.28		15
		135	69	13.44		15
		135	138	13.40		15
		270	0	13.35		15
		1	1	13.78		15
	DFT-s-OFDM QPSK	1	137	13.60		15
		1	271	13.55		15
		135	0	13.39		15
		135	69	13.40		15
		135	138	13.36		15
		270	0	13.52		15
		1	1	13.58		15
		1	1	13.40		14.5
	DFT-s-OFDM 16QAM	1	1	12.16		13.5
		1	1			
BW	MCS Index	Channel	Frequency (MHz)	63300	63334	63366
90M	DFT-s-OFDM QPSK	1	1	13.72	13.69	13.67
BW	MCS Index	Channel	Frequency (MHz)	63268	63334	63400
80M	DFT-s-OFDM QPSK	1	1	13.77	13.69	13.67
BW	MCS Index	Channel	Frequency (MHz)	63234	63334	63432
70M	DFT-s-OFDM QPSK	1	1	13.75	13.77	13.66
BW	MCS Index	Channel	Frequency (MHz)	63200	63334	63466
60M	DFT-s-OFDM QPSK	1	1	13.79	13.72	13.65
BW	MCS Index	Channel	Frequency (MHz)	63166	63334	63500
50M	DFT-s-OFDM QPSK	1	1	13.65	13.69	13.77
BW	MCS Index	Channel	Frequency (MHz)	63134	63334	63532
40M	DFT-s-OFDM QPSK	1	1	13.70	13.72	13.70
BW	MCS Index	Channel	Frequency (MHz)	63100	63334	63566
30M	DFT-s-OFDM QPSK	1	1	13.74	13.69	13.65
BW	MCS Index	Channel	Frequency (MHz)	63068	63334	63600
20M	DFT-s-OFDM QPSK	1	1	13.75	13.69	13.66
BW	MCS Index	Channel	Frequency (MHz)	63036	63334	63636
15M	DFT-s-OFDM QPSK	1	1	13.72	13.71	13.67
BW	MCS Index	Channel	Frequency (MHz)	63004	63334	63668
10M	DFT-s-OFDM QPSK	1	1	13.68	13.73	13.76

n77 PC3/PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		65000	65600	66200
		Frequency (MHz)		3700	3860	3920
100M	DFT-s-OFDM P22 BPSK	1	1	14.10	13.54	13.77
		1	137	13.93	13.52	13.79
		1	271	13.87	13.43	13.58
		135	0	13.80	13.49	13.70
		135	69	13.88	13.34	13.64
		135	138	13.90	13.40	13.64
		270	0	13.71	13.43	13.73
		1	1	14.17	13.67	13.92
	DFT-s-OFDM QPSK	1	137	13.86	13.56	13.76
		1	271	13.96	13.26	13.67
		135	0	13.55	13.29	13.56
		135	69	13.81	13.41	13.62
		135	138	13.80	13.33	13.65
		270	0	13.69	13.35	13.77
		1	1	14.02	13.53	13.70
		1	1	13.74	13.27	13.62
	DFT-s-OFDM 16QAM	1	1	12.41	11.92	12.36
		1	1			
BW	MCS Index	Channel	Frequency (MHz)	64968	65000	64932
90M	DFT-s-OFDM QPSK	1	1	14.19	13.52	13.80
BW	MCS Index	Channel	Frequency (MHz)	64934	65000	64966
80M	DFT-s-OFDM QPSK	1	1	14.12	13.60	13.91
BW	MCS Index	Channel	Frequency (MHz)	64898	65000	64902
70M	DFT-s-OFDM QPSK	1	1	14.03	13.60	13.85
BW	MCS Index	Channel	Frequency (MHz)	64868	65000	64932
60M	DFT-s-OFDM QPSK	1	1	14.09	13.55	13.80
BW	MCS Index	Channel	Frequency (MHz)	64834	65000	64966
50M	DFT-s-OFDM QPSK	1	1	14.16	13.50	13.83
BW	MCS Index	Channel	Frequency (MHz)	64800	65000	64900
40M	DFT-s-OFDM QPSK	1	1	14.10	13.63	13.76
BW	MCS Index	Channel	Frequency (MHz)	64768	65000	64832
30M	DFT-s-OFDM QPSK	1	1	14.14	13.62	13.82
BW	MCS Index	Channel	Frequency (MHz)	64734	65000	64866
20M	DFT-s-OFDM QPSK	1	1	14.07	13.64	13.82
BW	MCS Index	Channel	Frequency (MHz)	64702	65000	64802
15M	DFT-s-OFDM QPSK	1	1	14.17	13.60	13.82
BW	MCS Index	Channel	Frequency (MHz)	64670	65000	64690
10M	DFT-s-OFDM QPSK	1	1	14.07	13.57	13.90

n78 PC3/PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	Mid		Max. Tune-up (dBm)
		Channel		63334		
		Frequency (MHz)		3500.01		
100M	DFT-s-OFDM P22 BPSK	1	1	14.14		15
		1	137	14.06		15
		1	271	13.99		15
		135	0	13.89		15
		135	69	14.06		15
		135	138	13.76		15
		270	0	13.95		15
		1	1	14.21		15
	DFT-s-OFDM QPSK	1	137	14.08		15
		1	271	13.98		15
		135	0	13.87		15
		135	69	14.00		15
		135	138	13.90		15
		270	0	14.09		15
		1	1	13.84		15
		1	1	13.19		14.5
	DFT-s-OFDM 16QAM	1	1	12.43		13.5
		1	1			
BW	MCS Index	Channel	Frequency (MHz)	63298	63334	63366
90M	DFT-s-OFDM QPSK	1	1	14.06	14.09	14.19
BW	MCS Index	Channel	Frequency (MHz)	63266	63334	63400
80M	DFT-s-OFDM QPSK	1	1	14.10	14.18	14.21
BW	MCS Index	Channel	Frequency (MHz)	63234	63334	63432
70M	DFT-s-OFDM QPSK	1	1	14.15	14.16	14.17
BW	MCS Index	Channel	Frequency (MHz)	63200	63334	63466
60M	DFT-s-OFDM QPSK	1	1	14.18	14.11	14.19
BW	MCS Index	Channel	Frequency (MHz)	63168	63334	63500
50M	DFT-s-OFDM QPSK	1	1	14.17	14.20	14.16
BW	MCS Index	Channel	Frequency (MHz)	63134	63334	63532
40M	DFT-s-OFDM QPSK	1	1	14.10	14.22	14.12
BW	MCS Index	Channel	Frequency (MHz)	63100	63334	63566
30M	DFT-s-OFDM QPSK	1	1	14.13	14.12	14.13
BW	MCS Index	Channel	Frequency (MHz)	63068	63334	63600
20M	DFT-s-OFDM QPSK	1	1	14.20	14.07	14.20
BW	MCS Index	Channel	Frequency (MHz)	63036	63334	63636
15M	DFT-s-OFDM QPSK	1	1	14.11	14.10	14.14
BW	MCS Index	Channel	Frequency (MHz)	63004	63334	63668
10M	DFT-s-OFDM QPSK	1	1	14.18	14.22	14.07

DSI4 Power

Band	GSM850 (Ant0)				GSM1900 (Ant0)			
Channel	128	189	251	Max. Tune-up Power (dBm)	512	661	810	Max. Tune-up Power (dBm)
Frequency (MHz)	824.2	836.4	848.8		1850.2	1880	1909.8	
GSM	31.77	31.70	31.68	33.50	28.94	29.06	29.03	30.50
GPRS 1Tx Slot	31.75	31.69	31.67	33.50	28.93	29.05	29.01	30.50
GPRS 2Tx Slot	29.54	29.77	29.54	31.50	27.09	26.94	26.97	28.50
GPRS 3Tx Slot	27.58	27.75	27.57	29.50	25.12	25.05	24.95	26.50
GPRS 4Tx Slot	25.56	25.73	25.58	27.50	22.75	22.90	22.93	24.50
EDGE 1Tx Slot	26.22	26.10	26.18	27.50	25.47	25.46	25.27	26.50
EDGE 2Tx Slot	25.01	24.98	24.82	26.50	24.04	24.29	24.06	25.50
EDGE 3Tx Slot	23.84	23.66	23.86	25.50	22.90	23.17	22.98	24.50
EDGE 4Tx Slot	22.79	22.86	22.82	24.50	21.86	22.06	22.00	23.50

Source-Based Time-Averaged Power								
Band	GSM850			Max. Tune-up Power (dBm)	GSM1900			Max. Tune-up Power (dBm)
Channel	128	189	251		512	661	810	
GSM	22.77	22.70	22.68	24.50	19.94	20.06	20.03	21.50
GPRS 1Tx Slot	22.75	22.69	22.67	24.50	19.93	20.05	20.01	21.50
GPRS 2Tx Slot	23.54	23.77	23.54	25.50	21.09	20.94	20.97	22.50
GPRS 3Tx Slot	23.32	23.49	23.31	25.24	20.86	20.79	20.69	22.24
GPRS 4Tx Slot	22.56	22.73	22.58	24.50	19.75	19.90	19.93	21.50
EDGE 1Tx Slot	17.22	17.10	17.18	18.50	16.47	16.46	16.27	17.50
EDGE 2Tx Slot	19.01	18.98	18.82	20.50	18.04	18.29	18.06	19.50
EDGE 3Tx Slot	19.58	19.40	19.60	21.24	18.64	18.91	18.72	20.24
EDGE 4Tx Slot	19.79	19.86	19.82	21.50	18.86	19.06	19.00	20.50

Band	WCDMA II (Ant0)			WCDMA II Max. Tune-up Power (dBm)	WCDMA IV (Ant0)			WCDMA IV Max. Tune-up Power (dBm)	WCDMA V (Ant0)			WCDMA V Max. Tune-up Power (dBm)
TX Channel	9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel	9662	9800	9938	Max. Tune-up Power (dBm)	1537	1638	1738	Max. Tune-up Power (dBm)	4357	4407	4458	Max. Tune-up Power (dBm)
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
RMC 12.2K	22.98	22.97	22.87	24.00	22.85	22.86	22.83	24.00	22.87	22.94	22.88	24.00
HSDPA Subtest-1	22.06	22.02	22.05	23.00	21.89	21.89	21.90	23.00	21.95	21.91	21.91	23.00
HSDPA Subtest-2	21.96	22.06	21.97	23.00	21.82	21.88	21.86	23.00	21.93	21.88	21.99	23.00
HSDPA Subtest-3	21.55	21.49	21.36	22.50	21.30	21.35	21.33	22.50	21.42	21.40	21.46	22.50
HSDPA Subtest-4	21.51	21.50	21.46	22.50	21.41	21.44	21.41	22.50	21.45	21.47	21.35	22.50
DC-HSDPA Subtest-1	22.04	22.04	21.96	23.00	21.86	21.92	21.90	23.00	21.96	21.82	21.99	23.00
DC-HSDPA Subtest-2	22.00	22.06	22.03	23.00	21.87	21.87	21.83	23.00	21.89	21.89	21.94	23.00
DC-HSDPA Subtest-3	21.54	21.56	21.34	22.50	21.35	21.38	21.41	22.50	21.33	21.41	21.43	22.50
DC-HSDPA Subtest-4	21.54	21.42	21.35	22.50	21.40	21.45	21.35	22.50	21.36	21.39	21.38	22.50
HSUPA Subtest-1	21.97	22.02	21.85	23.00	21.90	21.87	21.90	23.00	21.95	21.98	21.94	23.00
HSUPA Subtest-2	19.94	20.04	19.82	21.00	19.86	19.81	19.84	21.00	19.92	19.93	19.95	21.00
HSUPA Subtest-3	21.03	20.95	20.93	22.00	20.80	20.94	20.82	22.00	20.84	20.92	20.89	22.00
HSUPA Subtest-4	20.00	20.03	19.82	21.00	19.93	19.85	19.86	21.00	19.96	19.99	19.93	21.00
HSUPA Subtest-5	22.06	22.04	21.95	23.00	21.82	21.86	21.87	23.00	21.85	22.00	21.84	23.00
HSPA+ Subtest-1	19.50	19.44	19.36	20.50	19.36	19.38	19.41	20.50	19.34	19.44	19.40	20.50

LTE Band 2 (4G)											
BW	Modulation	Channel		Frequency (MHz)		Time		Power		SFRP (dBm)	Max. Time-avg. Power (dBm)
		Down	Up	Down	Up	Down	Up	Down	Up		
QPSK	SC-FDMA	1	0	22.246	22.252	22.242	0	22			
		1	50	22.246	22.252	22.242	0	24			
		1	99	22.23	22.236	22.226	0	24			
		50	0	21.53	21.54	21.41	1	23			
		25	25	21.53	21.53	21.53	1	23			
		50	25	21.53	21.53	21.53	1	23			
		1	0	21.54	21.54	21.48	1	23			
		1	50	21.53	21.54	21.48	1	23			
		1	99	21.54	21.54	21.48	1	23			
		1	25	21.53	21.53	21.48	1	23			
QPSK	SC-FDMA	1	0	21.57	21.58	21.48	1	23			
		1	99	21.57	21.58	21.48	1	23			
		25	25	21.57	21.58	21.48	1	23			
		50	25	21.57	21.58	21.48	1	23			
		1	0	21.58	21.59	21.48	1	23			
		1	99	21.58	21.59	21.48	1	23			
		25	25	21.58	21.59	21.48	1	23			
		50	25	21.58	21.59	21.48	1	23			
		1	0	21.59	21.60	21.52	2	22			
		1	99	21.59	21.60	21.52	2	22			
QPSK	SC-FDMA	1	0	21.61	21.62	21.51	0	24			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.61	21.68	21.61	1	23			
		25	25	21.61	21.68	21.61	1	23			
		50	25	21.61	21.68	21.61	1	23			
		1	0	21.62	21.65	21.53	1	23			
		1	49	21.63	21.59	21.60	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.62	21.68	21.61	1	23			
QPSK	SC-FDMA	1	0	21.63	21.68	21.53	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.63	21.70	21.63	1	23			
		25	25	21.63	21.70	21.63	1	23			
		50	25	21.63	21.70	21.63	1	23			
		1	0	21.64	21.69	21.54	1	23			
		1	49	21.65	21.61	21.62	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.64	21.70	21.63	1	23			
QPSK	SC-FDMA	1	0	21.65	21.70	21.54	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.65	21.72	21.65	1	23			
		25	25	21.65	21.72	21.65	1	23			
		50	25	21.65	21.72	21.65	1	23			
		1	0	21.66	21.71	21.56	1	23			
		1	49	21.67	21.63	21.64	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.66	21.72	21.65	1	23			
QPSK	SC-FDMA	1	0	21.67	21.72	21.56	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.67	21.74	21.67	1	23			
		25	25	21.67	21.74	21.67	1	23			
		50	25	21.67	21.74	21.67	1	23			
		1	0	21.68	21.73	21.58	1	23			
		1	49	21.69	21.65	21.66	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.68	21.74	21.67	1	23			
QPSK	SC-FDMA	1	0	21.69	21.74	21.58	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.69	21.76	21.69	1	23			
		25	25	21.69	21.76	21.69	1	23			
		50	25	21.69	21.76	21.69	1	23			
		1	0	21.70	21.75	21.60	1	23			
		1	49	21.71	21.67	21.68	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.70	21.76	21.69	1	23			
QPSK	SC-FDMA	1	0	21.71	21.76	21.60	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.71	21.78	21.71	1	23			
		25	25	21.71	21.78	21.71	1	23			
		50	25	21.71	21.78	21.71	1	23			
		1	0	21.72	21.77	21.62	1	23			
		1	49	21.73	21.69	21.70	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.72	21.78	21.71	1	23			
QPSK	SC-FDMA	1	0	21.73	21.78	21.62	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.73	21.80	21.73	1	23			
		25	25	21.73	21.80	21.73	1	23			
		50	25	21.73	21.80	21.73	1	23			
		1	0	21.74	21.79	21.64	1	23			
		1	49	21.75	21.71	21.72	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.74	21.80	21.73	1	23			
QPSK	SC-FDMA	1	0	21.75	21.80	21.64	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.75	21.82	21.75	1	23			
		25	25	21.75	21.82	21.75	1	23			
		50	25	21.75	21.82	21.75	1	23			
		1	0	21.76	21.81	21.66	1	23			
		1	49	21.77	21.73	21.74	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.76	21.82	21.75	1	23			
QPSK	SC-FDMA	1	0	21.77	21.82	21.66	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.77	21.84	21.77	1	23			
		25	25	21.77	21.84	21.77	1	23			
		50	25	21.77	21.84	21.77	1	23			
		1	0	21.78	21.83	21.68	1	23			
		1	49	21.79	21.75	21.76	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.78	21.84	21.77	1	23			
QPSK	SC-FDMA	1	0	21.79	21.84	21.68	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.79	21.86	21.79	1	23			
		25	25	21.79	21.86	21.79	1	23			
		50	25	21.79	21.86	21.79	1	23			
		1	0	21.80	21.85	21.70	1	23			
		1	49	21.81	21.77	21.78	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.80	21.86	21.79	1	23			
QPSK	SC-FDMA	1	0	21.81	21.86	21.70	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.81	21.88	21.81	1	23			
		25	25	21.81	21.88	21.81	1	23			
		50	25	21.81	21.88	21.81	1	23			
		1	0	21.82	21.87	21.72	1	23			
		1	49	21.83	21.79	21.80	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.82	21.88	21.81	1	23			
QPSK	SC-FDMA	1	0	21.83	21.88	21.72	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.83	21.90	21.83	1	23			
		25	25	21.83	21.90	21.83	1	23			
		50	25	21.83	21.90	21.83	1	23			
		1	0	21.84	21.89	21.74	1	23			
		1	49	21.85	21.81	21.82	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.84	21.90	21.83	1	23			
QPSK	SC-FDMA	1	0	21.85	21.90	21.74	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.85	21.92	21.85	1	23			
		25	25	21.85	21.92	21.85	1	23			
		50	25	21.85	21.92	21.85	1	23			
		1	0	21.86	21.91	21.76	1	23			
		1	49	21.87	21.83	21.84	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.86	21.92	21.85	1	23			
QPSK	SC-FDMA	1	0	21.87	21.92	21.76	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.87	21.94	21.87	1	23			
		25	25	21.87	21.94	21.87	1	23			
		50	25	21.87	21.94	21.87	1	23			
		1	0	21.88	21.93	21.78	1	23			
		1	49	21.89	21.85	21.86	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.88	21.94	21.87	1	23			
QPSK	SC-FDMA	1	0	21.89	21.94	21.78	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25	0	21.89	21.96	21.89	1	23			
		25	25	21.89	21.96	21.89	1	23			
		50	25	21.89	21.96	21.89	1	23			
		1	0	21.90	21.95	21.80	1	23			
		1	49	21.91	21.87	21.88	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	25	21.90	21.96	21.89	1	23			
QPSK	SC-FDMA	1	0	21.91	21.96	21.80	1	23			
		1	24	22.44	22.32	22.23	0	24			
		1	49	22.19	22.11	22.18	0	24			
		25									

BW	Modulation	LTE Band 4 (40MHz)									
		RB Size	RB Offset	Offset	Low	Mid	High	Subcarriers	Subcarriers	Subcarriers	Max. Time-averaged
		Channel	Frequency (MHz)	1500	2070	2570	3070	100	100	100	(dBm)
QPSK		1	0	2250	22.50	22.50	22.50	5	24		
		1	50	2220	22.40	22.40	22.40	5	24		
		1	90	2230	22.45	22.45	22.45	5	24		
		1	50	0	21.40	21.20	21.40	1	23		
		1	50	25	21.50	21.40	21.50	1	23		
		1	50	25	21.50	21.40	21.50	1	23		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
16QAM		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
256QAM		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
QPSK		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
16QAM		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
256QAM		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
QPSK		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
16QAM		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
256QAM		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
QPSK		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
16QAM		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
256QAM		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		
		1	50	25	20.50	20.30	20.50	1	22		

Fw	Modulation	LTE Band 5 (A66)										Power dBm	Spectrum MHz	Max Tx Power dBm			
		Channel															
		Band	Frequency (MHz)	SCS (kHz)	Bandwidth (MHz)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)				Min Power (dBm)	Max Power (dBm)	
QPSK	10M	1	0	22.49	22.55	22.66	0	24	24	24	24	24	24	24			
		1	24	22.50	22.56	22.67	0	24	24	24	24	24	24	24			
		40	24	22.50	22.56	22.67	0	24	24	24	24	24	24	24			
		25	0	21.51	21.57	21.68	0	23	23	23	23	23	23	23			
		12	0	21.51	21.57	21.68	0	23	23	23	23	23	23	23			
		25	25	21.56	21.63	21.73	21.61	21	21	21	21	21	21	21			
		30	0	21.66	21.72	21.83	21.72	19	19	19	19	19	19	19			
		0	0	21.70	21.77	21.88	21.87	17	17	17	17	17	17	17			
		1	0	21.87	21.93	22.04	22.03	15	15	15	15	15	15	15			
		8	0	20.52	20.58	20.69	20.68	13	13	13	13	13	13	13			
QPSK	10M	25	12	20.58	20.63	20.73	20.73	22	22	22	22	22	22	22			
		24	24	20.58	20.63	20.73	20.73	22	22	22	22	22	22	22			
		1	0	20.63	20.68	20.79	20.78	20	20	20	20	20	20	20			
		1	49	20.61	20.66	20.76	20.76	18	18	18	18	18	18	18			
		25	25	20.73	20.78	20.89	20.88	16	16	16	16	16	16	16			
		25	25	20.89	20.94	21.09	21.08	14	14	14	14	14	14	14			
		25	17	19.61	19.66	19.76	19.76	12	12	12	12	12	12	12			
		25	25	19.67	19.72	19.83	19.82	10	10	10	10	10	10	10			
		0	0	19.88	19.93	20.03	20.03	8	8	8	8	8	8	8			
		1	0	17.81	17.87	17.97	17.97	5	5	5	5	5	5	5			
QPSK	10M	24	24	17.89	17.94	18.04	18.04	3	3	3	3	3	3	3			
		1	48	17.89	17.94	18.04	18.04	1	1	1	1	1	1	1			
		0	0	17.95	18.01	18.11	18.11	0	0	0	0	0	0	0			
		12	12	17.95	18.01	18.11	18.11	0	0	0	0	0	0	0			
		25	25	17.93	17.98	18.07	18.07	0	0	0	0	0	0	0			
		0	0	17.41	17.47	17.57	17.57	0	0	0	0	0	0	0			
		Channel	Band	Frequency (MHz)	SCS (kHz)	Bandwidth (MHz)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)			
		25	25	22.56	22.61	22.71	22.71	24	24	24	24	24	24	24			
		1	0	22.56	22.61	22.71	22.71	24	24	24	24	24	24	24			
QPSK	10M	1	0	22.49	22.55	22.66	0	24	24	24	24	24	24	24			
		1	24	22.50	22.56	22.67	0	24	24	24	24	24	24	24			
		40	24	22.50	22.56	22.67	0	24	24	24	24	24	24	24			
		25	0	21.51	21.57	21.68	0	23	23	23	23	23	23	23			
		12	0	21.51	21.57	21.68	0	23	23	23	23	23	23	23			
		25	25	21.56	21.63	21.73	21.61	21	21	21	21	21	21	21			
		30	0	21.66	21.72	21.83	21.72	19	19	19	19	19	19	19			
		0	0	21.70	21.77	21.88	21.87	17	17	17	17	17	17	17			
		1	0	21.87	21.93	22.04	22.03	15	15	15	15	15	15	15			
		8	0	20.52	20.58	20.69	20.68	13	13	13	13	13	13	13			
QPSK	10M	25	12	20.58	20.63	20.73	20.73	22	22	22	22	22	22	22			
		24	24	20.58	20.63	20.73	20.73	22	22	22	22	22	22	22			
		1	0	20.63	20.68	20.79	20.78	20	20	20	20	20	20	20			
		1	49	20.61	20.66	20.76	20.76	18	18	18	18	18	18	18			
		25	25	20.73	20.78	20.89	20.88	16	16	16	16	16	16	16			
		25	25	20.89	20.94	21.09	21.08	14	14	14	14	14	14	14			
		25	17	19.61	19.66	19.76	19.76	12	12	12	12	12	12	12			
		25	25	19.67	19.72	19.83	19.82	10	10	10	10	10	10	10			
		0	0	19.88	19.93	20.03	20.03	8	8	8	8	8	8	8			
		1	0	17.81	17.87	17.97	17.97	5	5	5	5	5	5	5			
QPSK	10M	24	24	17.89	17.94	18.04	18.04	3	3	3	3	3	3	3			
		1	48	17.89	17.94	18.04	18.04	1	1	1	1	1	1	1			
		0	0	17.95	18.01	18.11	18.11	0	0	0	0	0	0	0			
		12	12	17.95	18.01	18.11	18.11	0	0	0	0	0	0	0			
		25	25	17.93	17.98	18.07	18.07	0	0	0	0	0	0	0			
		0	0	17.41	17.47	17.57	17.57	0	0	0	0	0	0	0			
		Channel	Band	Frequency (MHz)	SCS (kHz)	Bandwidth (MHz)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)			
		25	25	22.56	22.61	22.71	22.71	24	24	24	24	24	24	24			
		1	0	22.56	22.61	22.71	22.71	24	24	24	24	24	24	24			
QPSK	10M	1	0	22.49	22.55	22.66	0	24	24	24	24	24	24	24			
		1	24	22.50	22.56	22.67	0	24	24	24	24	24	24	24			
		40	24	22.50	22.56	22.67	0	24	24	24	24	24	24	24			
		25	0	21.51	21.57	21.68	0	23	23	23	23	23	23	23			
		12	0	21.51	21.57	21.68	0	23	23	23	23	23	23	23			
		25	25	21.56	21.63	21.73	21.61	21	21	21	21	21	21	21			
		30	0	21.66	21.72	21.83	21.72	19	19	19	19	19	19	19			
		0	0	21.70	21.77	21.88	21.87	17	17	17	17	17	17	17			
		1	0	21.87	21.93	22.04	22.03	15	15	15	15	15	15	15			
		8	0	20.52	20.58	20.69	20.68	13	13	13	13	13	13	13			
QPSK	10M	25	12	20.58	20.63	20.73	20.73	22	22	22	22	22	22	22			
		24	24	20.58	20.63	20.73	20.73	22	22	22	22	22	22	22			
		1	0	20.63	20.68	20.79	20.78	20	20	20	20	20	20	20			
		1	49	20.61	20.66	20.76	20.76	18	18	18	18	18	18	18			
		25	25	20.73	20.78	20.89	20.88	16	16	16	16	16	16	16			
		25	25	20.89	20.94	21.09	21.08	14	14	14	14	14	14	14			
		25	17	19.61	19.66	19.76	19.76	12	12	12	12	12	12	12			
		25	25	19.67	19.72	19.83	19.82	10	10	10	10	10	10	10			
		0	0	19.88	19.93	20.03	20.03	8	8	8	8	8	8	8			
		1	0	17.81	17.87	17.97	17.97	5	5	5	5	5	5	5			
QPSK	10M	24	24	17.89	17.94	18.04	18.04	3	3	3	3	3	3	3			
		1	48	17.89	17.94	18.04	18.04	1	1	1	1	1	1	1			
		0	0	17.95	18.01	18.11	18.11	0	0	0	0	0	0	0			
		12	12	17.95	18.01	18.11	18.11	0	0	0	0	0	0	0			
		25	25	17.93	17.98	18.07	18.07	0	0	0	0	0	0	0			
		0	0	17.41	17.47	17.57	17.57	0	0	0	0	0	0	0			
		Channel	Band	Frequency (MHz)	SCS (kHz)	Bandwidth (MHz)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)	Min Power (dBm)	Max Power (dBm)			
		25	25	22.56	22.61	22.71	22.71	24	24	24	24	24	24	24			
		1	0	22.56	22.61	22.71	22.71	24	24	24	24	24	24	24			
QPSK	10M	1	0	22.49	22.55	22.66	0	24	24	24	24	24	24	24			
		1	24	22.50	22.56	22.67	0	24	24	24	24	24	24	24			
		40	24	22.50	22.56	22.67	0	24	24	24	24	24	24	24			
		25	0	21.51	21.57	21.68	0	23	23	23	23	23	23	23			
		12	0	21.51	21.57	21.68	0	23	23	23	23	23	23	23			
		25	25	21.56	21.63	21.73	21.61	21	21	21	21	21	21	21			
		30	0	21.66	21.72	21.83	21.72	19	19	19	19	19	19	19			
		0	0	21.70	21.77	21.88	21.87	17	17	17	17	17	17	17			
		1	0	21.87	21.93	22.04	22.03	15	15	15	15	15	15	15			
		8	0	20.52	20.58	20.69	20.68	13	13	13	13	13	13	13			
QPSK	10M	25	12	20.58	20.63	20.73	20.73	22	22	22	22	22	22	22			
		24	24	20.58	20.63	20.73	20.73	22	22	22	22	22	22	22			
		1	0	20.63	20.68	20.79	20.78	20	20	20	20	20	20	20			
		1	49	20.61	20.66	20.76	20.76	18	18	18	18	18	18	18			
		25	25	20.73	20.78	20.89	20.88	16	16	16	16	16	16	16			
		25	25	20.89	20.94	21.09	21.08	14	14	14	14	14	14	14			
		25	17	19.61	19.66	19.76	19.76	12	12	12	12	12	12	12			
		25	25	19.67	19.72	19.83	19.82	10	10	10	10	10	10	10			
		0	0	19.88	19.93	20.03	20.03	8	8	8	8	8	8	8			
		1	0	17.81	17.87	17.97	17.97	5	5	5	5	5	5	5			
QPSK	10M	24	24	17.89	17.94	18.04	18.04	3	3	3	3	3	3	3			
		1	48	17.89	17.94	18.04	18.04	1	1	1	1	1	1	1			
		0	0	17.95	18.01	18.11	18.11	0	0	0	0	0	0	0			
		12	12	17.95	18.01	18.11	18.11	0	0	0	0	0	0	0			
		25	25	17.93	17.98												

LTE Band 7 (Ant0)									
BW	Modulation	RB Size	RB Offset	Low	Mid	High	SCPP MPR (dB)	Max. Time-up (dBm)	
		Channel							
		Frequency (MHz)	2885	2110	2135	2160			
20M	QPSK	1	0	22.37	22.50	22.64	0	24	
		1	0	22.45	22.56	22.52	0	24	
		1	99	22.49	22.57	22.68	0	24	
		50	0	21.46	21.45	21.53	1	23	
		50	25	21.48	21.53	21.68	1	23	
	16QAM	50	50	21.60	21.65	21.63	1	23	
		100	0	21.44	21.49	21.57	1	23	
		1	0	21.54	21.76	21.80	1	23	
		1	99	21.74	21.82	21.90	1	23	
		50	0	20.52	20.54	20.52	2	22	
40M	QPSK	50	25	20.48	20.55	20.60	2	22	
		50	50	20.59	20.76	20.70	2	22	
		100	0	20.53	20.60	20.63	2	22	
		1	0	20.50	20.51	20.57	2	22	
		1	50	20.57	20.71	20.78	2	22	
	64QAM	1	99	20.68	20.76	20.71	2	22	
		50	0	19.50	19.59	19.55	3	21	
		50	25	19.50	19.66	19.60	3	21	
		50	50	19.65	19.70	19.75	3	21	
		100	0	19.56	19.65	19.70	3	21	
80M	QPSK	1	0	17.42	17.37	17.59	5	19	
		1	50	17.45	17.64	17.61	5	19	
		1	99	17.36	17.53	17.61	5	19	
		50	0	16.20	16.35	16.42	5	19	
		50	25	16.55	16.49	16.53	5	19	
	256QAM	50	50	16.47	16.44	16.47	5	19	
		100	0	16.35	16.37	16.39	5	19	
		Channel	2885	2110	2135	SCPP MPR (dB)	Max. Time-up (dBm)		
		Frequency (MHz)	2885	2110	2135				
		15M	QPSK	1	0	22.31	22.42	22.40	0
1	37			22.37	22.42	22.48	0	24	
1	74			22.44	22.44	22.57	0	24	
36	0			21.32	21.32	21.43	1	23	
36	19			21.37	21.47	21.53	1	23	
16QAM	36		39	21.46	21.60	21.62	1	23	
	75		0	21.38	21.34	21.53	1	23	
	1		0	21.99	21.71	21.77	1	23	
	1		37	21.74	21.80	21.74	1	23	
	1		74	21.69	21.70	21.85	1	23	
30M	QPSK	36	0	20.45	20.51	20.40	2	22	
		36	19	20.43	20.44	20.57	2	22	
		36	39	20.53	20.75	20.55	2	22	
		75	0	20.39	20.49	20.59	2	22	
		1	0	20.48	20.43	20.54	2	22	
	64QAM	1	37	20.43	20.67	20.65	2	22	
		1	74	20.59	20.74	20.61	2	22	
		36	0	19.36	19.58	19.46	3	21	
		36	19	19.35	19.55	19.52	3	21	
		36	39	19.59	19.61	19.73	3	21	
45M	QPSK	75	0	19.52	19.55	19.48	3	21	
		1	0	17.29	17.32	17.54	5	19	
		1	37	17.39	17.51	17.56	5	19	
		1	74	17.27	17.43	17.52	5	19	
		36	0	16.17	16.34	16.32	5	19	
	256QAM	36	19	16.43	16.39	16.41	5	19	
		36	39	16.44	16.31	16.34	5	19	
		75	0	16.34	16.34	16.24	5	19	
		Channel	2880	2110	2120	SCPP MPR (dB)	Max. Time-up (dBm)		
		Frequency (MHz)	2880	2110	2120				
10M	QPSK	1	0	22.31	22.43	22.32	0	24	
		1	24	22.40	22.41	22.51	0	24	
		1	49	22.47	22.49	22.60	0	24	
		25	0	21.34	21.39	21.43	1	23	
		25	12	21.46	21.47	21.51	1	23	
	16QAM	25	25	21.46	21.55	21.53	1	23	
		50	0	21.32	21.45	21.54	1	23	
		1	0	21.59	21.71	21.67	1	23	
		1	24	21.71	21.66	21.76	1	23	
		1	49	21.69	21.77	21.80	1	23	
20M	QPSK	25	0	20.45	20.50	20.41	2	22	
		25	12	20.45	20.54	20.54	2	22	
		25	25	20.45	20.70	20.63	2	22	
		50	0	20.40	20.59	20.49	2	22	
		1	0	20.49	20.45	20.43	2	22	
	64QAM	1	24	20.46	20.62	20.67	2	22	
		1	49	20.57	20.65	20.58	2	22	
		25	0	19.41	19.44	19.52	3	21	
		25	12	19.43	19.51	19.58	3	21	
		25	25	19.52	19.60	19.60	3	21	
30M	QPSK	50	0	19.43	19.55	19.50	3	21	
		1	0	17.37	17.25	17.58	5	19	
		1	24	17.43	17.52	17.50	5	19	
		1	49	17.30	17.45	17.52	5	19	
		25	0	16.05	16.27	16.35	5	19	
	256QAM	25	12	16.32	16.48	16.47	5	19	
		25	25	16.35	16.32	16.40	5	19	
		50	0	16.24	16.27	16.27	5	19	
		Channel	2878	2110	2145	SCPP MPR (dB)	Max. Time-up (dBm)		
		Frequency (MHz)	2878	2110	2145				
45M	QPSK	1	0	22.26	22.43	22.23	0	24	
		1	12	22.30	22.45	22.48	0	24	
		1	24	22.38	22.53	22.56	0	24	
		12	0	21.31	21.38	21.40	1	23	
		12	6	21.33	21.48	21.54	1	23	
	16QAM	12	13	21.57	21.61	21.56	1	23	
		25	0	21.42	21.38	21.47	1	23	
		1	0	21.55	21.62	21.69	1	23	
		1	12	21.69	21.66	21.69	1	23	
		1	24	21.63	21.71	21.81	1	23	
60M	QPSK	12	0	20.48	20.48	20.37	2	22	
		12	6	20.40	20.46	20.50	2	22	
		12	13	20.53	20.70	20.61	2	22	
		25	0	20.40	20.57	20.57	2	22	
		1	0	20.40	20.47	20.42	2	22	
	64QAM	1	12	20.45	20.62	20.69	2	22	
		1	24	20.54	20.71	20.59	2	22	
		12	0	19.36	19.47	19.43	3	21	
		12	6	19.38	19.58	19.49	3	21	
		12	13	19.61	19.69	19.73	3	21	
90M	QPSK	25	0	19.49	19.54	19.44	3	21	
		1	0	17.31	17.36	17.48	5	19	
		1	12	17.32	17.51	17.50	5	19	
		1	24	17.29	17.42	17.55	5	19	
		12	0	16.30	16.31	16.28	5	19	
	256QAM	12	6	16.41	16.39	16.42	5	19	
		12	13	16.35	16.35	16.34	5	19	
		25	0	16.33	16.29	16.33	5	19	
		Channel	2877	2110	2145	SCPP MPR (dB)	Max. Time-up (dBm)		
		Frequency (MHz)	2877	2110	2145				

LTE Band 26 (An10)										
BW	Modulation	RB Size		RB Offset		Low	Mid	High	SCPP	Max. Turn-up (dBm)
		Channel Frequency (MHz)	Channel Frequency (MHz)	2685	2685	2685	2685	2685		
15M	QPSK	1	0	22.21	22.08	22.09	0	24	0	24
		1	37	22.16	22.08	22.07	0	24	0	24
		1	14	22.07	22.06	22.06	0	24	0	24
		36	0	21.13	21.13	21.18	1	23	0	23
		36	19	21.19	21.15	21.18	1	23	0	23
	16QAM	36	39	21.28	21.26	21.22	1	23	0	23
		75	0	21.20	21.14	21.25	1	23	0	23
		1	0	21.36	21.34	21.29	1	23	0	23
		1	37	21.32	21.23	21.18	1	23	0	23
		1	14	21.18	21.20	21.17	2	22	0	22
10M	64QAM	36	0	20.25	20.19	20.17	2	22	0	22
		36	19	20.21	20.21	20.15	2	22	0	22
		36	39	20.24	20.25	20.28	2	22	0	22
		75	0	20.26	20.25	20.26	2	22	0	22
		1	0	20.27	20.29	20.28	2	22	0	22
	256QAM	1	37	20.38	20.24	20.37	2	22	0	22
		1	14	20.30	20.28	20.28	2	22	0	22
		36	0	19.16	19.24	19.17	3	21	0	21
		36	19	19.21	19.12	19.18	3	21	0	21
		36	39	19.22	19.26	19.26	3	21	0	21
5M	QPSK	1	0	17.25	17.16	17.14	5	19	0	19
		1	37	17.26	17.14	17.33	5	19	0	19
		1	14	17.28	17.15	17.17	5	19	0	19
		36	0	17.01	17.21	17.06	5	19	0	19
		36	19	17.10	17.06	17.17	5	19	0	19
	16QAM	36	39	17.07	17.12	17.23	5	19	0	19
		75	0	17.20	17.12	17.18	5	19	0	19
		1	0	20.22	20.22	20.12	2	22	0	22
		1	0	20.13	20.28	20.25	2	22	0	22
		1	24	20.28	20.15	20.27	2	22	0	22
1.4M	QPSK	1	0	22.16	22.04	22.09	0	24	0	24
		1	12	22.03	21.94	21.96	0	24	0	24
		1	24	21.97	21.96	21.91	0	24	0	24
		12	0	21.01	21.01	21.12	1	23	0	23
		12	6	21.06	21.10	21.17	1	23	0	23
	16QAM	12	13	21.03	21.13	21.14	1	23	0	23
		25	0	21.22	21.10	21.20	1	23	0	23
		1	0	21.28	21.27	21.14	1	23	0	23
		1	12	21.25	21.18	21.04	1	23	0	23
		1	24	21.09	21.11	21.15	1	23	0	23
1.4M	QPSK	12	0	20.10	20.08	20.07	2	22	0	22
		12	6	20.15	20.09	20.14	2	22	0	22
		12	13	20.15	20.14	20.24	2	22	0	22
		25	0	20.13	20.12	20.18	2	22	0	22
		1	0	20.18	20.16	20.16	2	22	0	22
	64QAM	1	12	20.27	20.09	20.25	2	22	0	22
		1	24	20.27	20.26	20.21	2	22	0	22
		12	0	19.11	19.21	19.04	3	21	0	21
		12	6	19.14	19.03	19.14	3	21	0	21
		12	13	19.08	19.21	19.11	3	21	0	21
1.4M	QPSK	25	0	19.24	19.13	19.27	3	21	0	21
		1	0	17.13	17.07	17.12	5	19	0	19
		1	12	17.22	17.03	17.20	5	19	0	19
		1	24	17.21	17.01	17.14	5	19	0	19
		12	0	16.99	17.16	17.01	5	19	0	19
	16QAM	12	6	16.97	17.04	17.06	5	19	0	19
		12	13	17.02	17.00	17.09	5	19	0	19
		25	0	17.10	17.01	17.12	5	19	0	19
		1	0	17.11	16.98	17.06	5	19	0	19
		15	0	17.11	16.98	17.04	5	19	0	19
1.4M	QPSK	1	0	22.16	22.00	22.08	0	24	0	24
		1	2	22.12	22.00	22.01	0	24	0	24
		1	5	22.02	21.95	21.91	0	24	0	24
		3	0	21.91	21.83	21.85	0	24	0	24
		3	1	21.84	21.87	21.90	0	24	0	24
	16QAM	3	3	21.88	21.94	22.00	0	24	0	24
		6	0	21.13	21.06	21.21	1	23	0	23
		1	0	21.28	21.28	21.23	1	23	0	23
		1	2	21.24	21.11	21.05	1	23	0	23
		1	5	21.04	21.13	21.09	1	23	0	23
1.4M	QPSK	3	0	21.16	21.10	21.04	1	23	0	23
		3	1	21.13	21.08	21.14	1	23	0	23
		3	3	21.17	21.21	21.22	1	23	0	23
		6	0	20.17	20.22	20.22	2	22	0	22
		1	0	20.19	20.26	20.20	2	22	0	22
	64QAM	1	2	20.32	20.22	20.25	2	22	0	22
		1	5	20.28	20.13	20.21	2	22	0	22
		3	0	20.08	20.23	20.06	2	22	0	22
		3	1	20.09	20.11	20.14	2	22	0	22
		3	3	20.10	20.16	20.20	2	22	0	22
1.4M	QPSK	6	0	19.29	19.12	19.22	2	21	0	21
		1	0	17.17	17.05	17.11	5	19	0	19
		1	2	17.11	16.99	17.28	5	19	0	19
		1	5	17.27	17.01	17.08	5	19	0	19
		3	0	16.96	17.06	17.03	5	19	0	19
	16QAM	3	1	17.08	16.98	17.04	5	19	0	19
		3	3	17.02	17.08	17.11	5	19	0	19
		6	0	17.02	16.97	17.14	5	19	0	19
		1	0	17.11	16.98	17.04	5	19	0	19
		15	0	17.11	16.98	17.04	5	19	0	19

LTE Band 30 (An10)										
BW	Modulation	RB Size		RB Offset		Mid		SCPP MPE (dB)	Max. Turn-up (dBm)	
		Channel Frequency (MHz)	Channel Frequency (MHz)	2785	2785	2785	2785			
10M	QPSK	1	0	23.08	0	0	24			
		1	24	23.16	0	24				
		1	49	23.09	0	24				
		25	0	22.11	1	23				
		25	12	22.13	1	23				
		25	25	22.12	1	23				
		50	0	22.11	1	23				
		1	0	22.27	1	23				
		1	24	22.36	1	23				
		1	49	22.24	1	23				
	16QAM	25	0	21.15	2	22				
		25	12	21.20	2	22				
		25	25	21.13	2	22				
		50	0	21.13	2	22				
		1	0	21.21	2	22				
		1	24	21.31	2	22				
		1	49	21.25	2	22				
		25	0	20.14	3	21				
		25	12	20.19	3	21				
		25	25	20.14	3	21				
	256QAM	50	0	20.12	3	21				
		1	0	18.20	5	19				
		1	24	18.29	5	19				
		1	49	18.22	5	19				
25		0	18.10	5	19					
25		12	18.14	5	19					
25		25	18.02	5	19					
50		0	18.08	5	19					
5M		QPSK	1	0	23.08	0	0	24		
			1	12	23.02	23.15	23.08	0	24	
	1		24	22.97	22.97	22.97	0	24		
	12		0	22.10	22.06	22.00	1	23		
	12		6	22.03	22.07	21.98	1	23		
	12		13	22.07	21.99	22.00	1	23		
	25		0	22.01	22.00	22.01	1	23		
	1		0	22.23	22.19	22.21	1	23		
	1		12	22.36	22.23	22.29	1	23		
	1		24	22.09	22.18	22.10	1	23		
	16QAM	12	0	21.01	21.12	21.08	2	22		
		12	6	21.16	21.12	21.16	2	22		
		12	13	21.03	21.10	20.98	2	22		
		25	0	21.08	21.11	21.05	2	22		
		1	0	21.12	21.10	21.07	2	22		
		1	12	21.21	21.21	21.26	2	22		
		1	24	21.18	21.16	21.13	2	22		
		12	0	20.08	20.01	20.11	3	21		
		12	6	20.09	20.12	20.14	3	21		
		12	13	20.13	20.09	20.07	3	21		
	256QAM	25	0	18.16	18.11	18.01	3	21		
		1	0	18.16	18.15	18.13	5	19		
		1	12	18.20	18.27	18.19	5	19		
		1	24	18.17	18.15	18.18	5	19		
12		0	18.08	18.09	17.97	5	19			
12		6	18.09	18.08	18.01	5	19			
12		13	17.92	17.99	18.01	5	19			
12		18	17.84	18.02	17.94	5	19			
12		25	18.01	18.01	18.01	5	19			
12		25	18.01	18.01	18.01	5	19			

[illegible]

ID	Modulation	LTE Band 7 (2480MHz)									
		Alt Size	Alt Offset	Case	Alt	High	Alt	High	Alt	High	Alt
		Frequency (MHz)	Channel	Alt	Alt	Alt	Alt	Alt	Alt	Alt	Alt
1	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
		10	1	100	100	100	100	100	100	100	100
2	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
		10	1	100	100	100	100	100	100	100	100
3	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
		10	1	100	100	100	100	100	100	100	100
4	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
5	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
6	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
7	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
8	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
9	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
10	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
11	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
12	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
13	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
14	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
15	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
16	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1	100	100	100	100	100	100	100	100
		3	1	100	100	100	100	100	100	100	100
		4	1	100	100	100	100	100	100	100	100
		5	1	100	100	100	100	100	100	100	100
		6	1	100	100	100	100	100	100	100	100
		7	1	100	100	100	100	100	100	100	100
		8	1	100	100	100	100	100	100	100	100
		9	1	100	100	100	100	100	100	100	100
17	QPSK	1	1	100	100	100	100	100	100	100	100
		2	1								

[illegible]

SR	Modulation	LTE Band 6 (E-UTRA)									
		SR size	SR offset	CR	AR	MR	PRB	QPSK	QAM	QAM	Rate
		Frequency (MHz)	Time (ms)	Rate (kbps)	Rate (kbps)	Rate (kbps)	Rate (kbps)	QPSK (bps)	QAM (bps)	QAM (bps)	Throughput (Mbps)
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
QPSK	QPSK	1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20	20	20	20	20	20	0.18
		1	0	20	20						

Year	Area	No. of PCs in 15,000 sqm					
		2006	2007	2008	2009	2010	2011
2008	101-102-103 Rajapalayam	1	200	200	200	200	200
		2	200	200	200	200	200
		3	200	200	200	200	200
		4	200	200	200	200	200
	101-102-103 puzh	1	200	200	200	200	200
		2	200	200	200	200	200
		3	200	200	200	200	200
		4	200	200	200	200	200
	101-102-103 puzh	1	200	200	200	200	200
		2	200	200	200	200	200
		3	200	200	200	200	200
		4	200	200	200	200	200
	101-102-103 puzh	1	200	200	200	200	200
		2	200	200	200	200	200
		3	200	200	200	200	200
		4	200	200	200	200	200
2009	101-102-103	1	200	200	200	200	200
2010	101-102-103	1	200	200	200	200	200
2011	101-102-103	1	200	200	200	200	200

No	Materi Pokok Bahasan	Nilai Rata-rata (dari 100)				
		Teori	Praktikum	Ujian	Penyertaan	Rata-rata
2020	OPT - 101-102 OPT 101	1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
	OPT - 101-103 OPT 101	1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
2021	OPT - 101-102 OPT 101	1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
	OPT - 101-103 OPT 101	1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
2022	OPT - 101-102 OPT 101	1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
	OPT - 101-103 OPT 101	1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00
		1	1	20,00	20,00	20,00

[illegible]

THE RICE 15-MINUTE TEST							
SEX	AGE	Height (cm)	Weight (kg)	Time (min)	Power (W)	Speed (m/s)	Max. Power (W)
MALE	17-19 yrs	1	1	10.00	10.00	10.00	10.00
		2	1	10.00	10.00	10.00	10.00
		3	1	10.00	10.00	10.00	10.00
		4	1	10.00	10.00	10.00	10.00
		5	1	10.00	10.00	10.00	10.00
	20-29 yrs	1	1	10.00	10.00	10.00	10.00
		2	1	10.00	10.00	10.00	10.00
		3	1	10.00	10.00	10.00	10.00
		4	1	10.00	10.00	10.00	10.00
		5	1	10.00	10.00	10.00	10.00
FEMALE	17-19 yrs	1	1	10.00	10.00	10.00	10.00
		2	1	10.00	10.00	10.00	10.00
		3	1	10.00	10.00	10.00	10.00
		4	1	10.00	10.00	10.00	10.00
		5	1	10.00	10.00	10.00	10.00
	20-29 yrs	1	1	10.00	10.00	10.00	10.00
		2	1	10.00	10.00	10.00	10.00
		3	1	10.00	10.00	10.00	10.00
		4	1	10.00	10.00	10.00	10.00
		5	1	10.00	10.00	10.00	10.00

Table 1. Summary of the data sets used in the study							
Data set	Data set description	Data set characteristics			Data set size	Data set source	Data set availability
		Number of samples	Number of features	Number of classes			
MNIST	MNIST	70,000	784	10	1.1 MB	100%	100%
	MNIST-10	10,000	784	10	0.11 MB	100%	100%
	MNIST-25	25,000	784	10	0.28 MB	100%	100%
	MNIST-50	50,000	784	10	0.56 MB	100%	100%
	MNIST-75	75,000	784	10	0.84 MB	100%	100%
	MNIST-100	100,000	784	10	1.12 MB	100%	100%
	MNIST-125	125,000	784	10	1.40 MB	100%	100%
	MNIST-150	150,000	784	10	1.68 MB	100%	100%
	MNIST-175	175,000	784	10	1.96 MB	100%	100%
	MNIST-200	200,000	784	10	2.24 MB	100%	100%
CIFAR-10	CIFAR-10	100,000	3,264	10	3.26 MB	100%	100%
	CIFAR-10-10	10,000	3,264	10	0.33 MB	100%	100%
	CIFAR-10-25	25,000	3,264	10	0.82 MB	100%	100%
	CIFAR-10-50	50,000	3,264	10	1.64 MB	100%	100%
	CIFAR-10-75	75,000	3,264	10	2.46 MB	100%	100%
	CIFAR-10-100	100,000	3,264	10	3.28 MB	100%	100%
	CIFAR-10-125	125,000	3,264	10	4.10 MB	100%	100%
	CIFAR-10-150	150,000	3,264	10	4.92 MB	100%	100%
	CIFAR-10-175	175,000	3,264	10	5.74 MB	100%	100%
	CIFAR-10-200	200,000	3,264	10	6.56 MB	100%	100%
SVHN	SVHN	109,952	1,024	10	1.02 MB	100%	100%
	SVHN-10	10,995	1,024	10	0.10 MB	100%	100%
	SVHN-25	27,488	1,024	10	0.27 MB	100%	100%
	SVHN-50	54,976	1,024	10	0.55 MB	100%	100%
	SVHN-75	82,464	1,024	10	0.82 MB	100%	100%
	SVHN-100	109,952	1,024	10	1.10 MB	100%	100%
	SVHN-125	137,440	1,024	10	1.37 MB	100%	100%
	SVHN-150	164,928	1,024	10	1.65 MB	100%	100%
	SVHN-175	192,416	1,024	10	1.92 MB	100%	100%
	SVHN-200	220,000	1,024	10	2.20 MB	100%	100%

		2015-2016 (12 months ending)					
RPT	SGLS Analysis	Net Sales	Operating Profit	SG&A	Other	Interest	Income Tax
2000	SPT vs. OPIUM (Net Sales)	Q	1				
		Q	1				
		Q	1				
		Q	1				
		Q	1				
		Q	1				
	SPT vs. OPIUM (Gain)	Q	1				
		Q	1				
		Q	1				
		Q	1				
		Q	1				
		Q	1				
SPT vs. OPIUM (Operating Profit)	Q	1					
	Q	1					
	Q	1					
	Q	1					
	Q	1					
	Q	1					
SPT vs. OPIUM (SG&A)	Q	1					
	Q	1					
SPT vs. OPIUM (Other)	Q	1					
	Q	1					
SPT vs. OPIUM (Interest)	Q	1					
	Q	1					
SPT vs. OPIUM (Income Tax)	Q	1					
	Q	1					

THE DATA OF THE STUDY							
No	Name of the study	Year	Location	Sample size	Sample type	Study design	Study duration
CSD	ST-1 (1971-1972)	1	2	1	1200	1200	1200
		2	2	2	1200	1200	1200
		3	3	3	1200	1200	1200
		4	4	4	1200	1200	1200
		5	5	5	1200	1200	1200
		6	6	6	1200	1200	1200
	ST-2 (1973-1974)	1	2	1	1200	1200	1200
		2	2	2	1200	1200	1200
		3	3	3	1200	1200	1200
		4	4	4	1200	1200	1200
		5	5	5	1200	1200	1200
		6	6	6	1200	1200	1200
	ST-3 (1975-1976)	1	2	1	1200	1200	1200
		2	2	2	1200	1200	1200
		3	3	3	1200	1200	1200
		4	4	4	1200	1200	1200
		5	5	5	1200	1200	1200
		6	6	6	1200	1200	1200
	ST-4 (1977-1978)	1	2	1	1200	1200	1200
		2	2	2	1200	1200	1200
		3	3	3	1200	1200	1200
		4	4	4	1200	1200	1200
		5	5	5	1200	1200	1200
		6	6	6	1200	1200	1200
ST-5 (1979-1980)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-6 (1981-1982)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-7 (1983-1984)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-8 (1985-1986)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-9 (1987-1988)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-10 (1989-1990)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-11 (1991-1992)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-12 (1993-1994)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-13 (1995-1996)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-14 (1997-1998)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-15 (1999-2000)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-16 (2001-2002)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-17 (2003-2004)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-18 (2005-2006)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-19 (2007-2008)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-20 (2009-2010)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-21 (2011-2012)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-22 (2013-2014)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-23 (2015-2016)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-24 (2017-2018)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-25 (2019-2020)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-26 (2021-2022)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-27 (2023-2024)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-28 (2025-2026)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-29 (2027-2028)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-30 (2029-2030)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-31 (2031-2032)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-32 (2033-2034)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-33 (2035-2036)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-34 (2037-2038)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-35 (2039-2040)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-36 (2041-2042)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-37 (2043-2044)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-38 (2045-2046)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	
	6	6	6	1200	1200	1200	
ST-39 (2047-2048)	1	2	1	1200	1200	1200	
	2	2	2	1200	1200	1200	
	3	3	3	1200	1200	1200	
	4	4	4	1200	1200	1200	
	5	5	5	1200	1200	1200	

[illegible]

Table 1.1: Summary of the 2019-2020 Academic Year							
Year	Semester	Course Code	Credits		Hours	Prerequisites	Notes
			Theory	Lab			
2019-2020	Fall	ENGR 101	3	0	3	ENGR 100	First semester
		ENGR 102	3	0	3	ENGR 101	Second semester
		ENGR 103	3	0	3	ENGR 102	Third semester
		ENGR 104	3	0	3	ENGR 103	Fourth semester
		ENGR 105	3	0	3	ENGR 104	Fifth semester
	Spring	ENGR 106	3	0	3	ENGR 105	Sixth semester
		ENGR 107	3	0	3	ENGR 106	Seventh semester
		ENGR 108	3	0	3	ENGR 107	Eighth semester
		ENGR 109	3	0	3	ENGR 108	Ninth semester
		ENGR 110	3	0	3	ENGR 109	Tenth semester

[illegible][illegible]

Table 1. The results of the proposed algorithm									
Case	No. of nodes	No. of edges	No. of clusters	No. of iterations	No. of nodes in clusters	No. of edges in clusters	No. of clusters in clusters	No. of nodes in clusters	No. of edges in clusters
Case 1	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 2	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 3	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 4	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 5	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 6	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 7	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 8	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
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				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 9	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 10	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 11	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 12	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 13	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 14	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 15	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 16	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 17	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 18	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 19	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 20	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 21	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
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				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 22	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 23	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
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				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 24	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
Case 25	10	15	3	10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10	15
				10	10	15	3	10</	

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POLY-BIOS IN BARRIOWARE							
No.	Bios	Bios		Bios	Bios	Bios	Bios
		Address	Size				
2004	GPI-10000 (GPI-10000)	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
	GPI-10000 (GPI-10000)	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
2005	GPI-10000 (GPI-10000)	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
	GPI-10000 (GPI-10000)	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
		0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000

		Average per day in November				
		1	2	3	4	5
1998	1998 1998 1998 1998 1998 1998	1	1	1	1	1
		2	2	2	2	2
		3	3	3	3	3
		4	4	4	4	4
		5	5	5	5	5
		6	6	6	6	6
	1998 1998 1998 1998 1998 1998	7	7	7	7	7
		8	8	8	8	8
		9	9	9	9	9
		10	10	10	10	10
		11	11	11	11	11
		12	12	12	12	12
1999	1999 1999 1999 1999 1999 1999	1	1	1	1	1
		2	2	2	2	2
		3	3	3	3	3
		4	4	4	4	4
		5	5	5	5	5
		6	6	6	6	6
	1999 1999 1999 1999 1999 1999	7	7	7	7	7
		8	8	8	8	8
		9	9	9	9	9
		10	10	10	10	10
		11	11	11	11	11
		12	12	12	12	12
2000	2000 2000 2000 2000 2000 2000	1	1	1	1	1
		2	2	2	2	2
		3	3	3	3	3
		4	4	4	4	4
		5	5	5	5	5
		6	6	6	6	6
	2000 2000 2000 2000 2000 2000	7	7	7	7	7
		8	8	8	8	8
		9	9	9	9	9
		10	10	10	10	10
		11	11	11	11	11
		12	12	12	12	12
2001	2001 2001 2001 2001 2001 2001	1	1	1	1	1
		2	2	2	2	2
		3	3	3	3	3
		4	4	4	4	4
		5	5	5	5	5
		6	6	6	6	6
	2001 2001 2001 2001 2001 2001	7	7	7	7	7
		8	8	8	8	8
		9	9	9	9	9
		10	10	10	10	10
		11	11	11	11	11
		12	12	12	12	12
2002	2002 2002 2002 2002 2002 2002	1	1	1	1	1
		2	2	2	2	2
		3	3	3	3	3
		4	4	4	4	4
		5	5	5	5	5
		6	6	6	6	6
	2002 2002 2002 2002 2002 2002	7	7	7	7	7
		8	8	8	8	8
		9	9	9	9	9
		10	10	10	10	10
		11	11	11	11	11
		12	12	12	12	12
2003	2003 2003 2003 2003 2003 2003	1	1	1	1	1
		2	2	2	2	2
		3	3	3	3	3
		4	4	4	4	4
		5	5	5	5	5
		6	6	6	6	6
	2003 2003 2003 2003 2003 2003	7	7	7	7	7
		8	8	8	8	8
		9	9	9	9	9
		10	10	10	10	10
		11	11	11	11	11
		12	12	12	12	12
2004	2004 2004 2004 2004 2004 2004	1	1	1	1	1
		2	2	2	2	2
		3	3	3	3	3
		4	4	4	4	4
		5	5	5	5	5
		6	6	6	6	6
	2004 2004 2004 2004 2004 2004	7	7	7	7	7
		8	8	8	8	8
		9	9	9	9	9
		10	10	10	10	10
		11	11	11	11	11
		12	12	12	12	12

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n2 (SCS 15 kHz) (Ann2)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max.	Turn-up (dBm)	
		Channel		Frequency (MHz)	1880	1890	1890		
20M	DFT+QFDM P2 BPSK	1	1	22.11	22.17	22.46	24		
		1	50	22.25	22.11	22.07	24		
		1	104	22.10	22.32	22.58	24		
		50	0	21.96	22.24	22.09	24		
		50	20	22.28	22.16	22.53	24		
		50	56	22.28	21.87	22.44	24		
		100	0	22.42	22.29	22.07	24		
		1	1	22.62	22.38	22.19	24		
	DFT+QFDM QPSK	1	53	22.50	22.29	22.46	24		
		1	104	22.25	22.23	22.21	24		
		50	0	22.72	22.63	22.53	24		
		50	20	22.10	22.15	22.14	24		
		50	56	22.67	22.69	22.84	24		
		100	0	22.74	22.84	22.77	24		
		1	1	22.26	22.96	22.52	23		
		1	1	20.83	20.73	20.76	22		
	DFT+QFDM	1	1	18.58	18.65	18.67	21		
BW	MCS Index	Channel		37000	37000	38000	Max.		
10M	DFT+QFDM	1	1	18.60	18.60	18.62	Turn-up		
BW	MCS Index	Channel		37000	37000	38000	Max.		
BW	MCS Index	Channel		1880	1880	1890	Turn-up		
10M	DFT+QFDM	1	1	22.53	22.24	22.15	24		
BW	MCS Index	Channel		37000	37000	38000	Max.		
SM	DFT+QFDM	1	1	22.40	22.27	22.16	24		

n7 (SCS 15 kHz) (Ann10)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max. Power (dBm)	Turn-up	
		Channel		Frequency (MHz)	5000	50700			
40M	DFT+QFDM P2 BPSK	1	1	22.49	22.62	22.24	24		
		1	108	22.13	22.13	22.16	24		
		1	214	22.04	22.17	22.16	24		
		108	0	22.43	22.53	22.46	24		
		108	54	22.01	22.07	22.03	24		
		108	108	22.37	22.36	22.56	24		
		216	0	22.59	22.28	22.78	24		
		1	1	22.29	22.09	22.52	24		
	DFT+QFDM QPSK	1	108	22.63	22.95	22.11	24		
		1	214	22.03	22.16	22.32	24		
		108	0	22.03	22.06	22.37	24		
		108	54	22.97	22.93	22.18	24		
		108	108	22.05	22.26	22.16	24		
		216	0	22.27	22.81	22.12	24		
		1	1	21.96	22.59	22.26	23		
		1	1	20.75	20.94	22.10	22		
	DFT+QFDM	1	1	19.28	19.26	19.35	21		
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up	
20M	DFT+QFDM	1	1	22.52	22.52	22.55			
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up	
20M	DFT+QFDM	1	1	22.31	22.13	22.53			
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up	
10M	DFT+QFDM	1	1	22.29	22.02	22.31			
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up	
15M	DFT+QFDM	1	1	22.25	22.58	22.52			
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up	
10M	DFT+QFDM	1	1	22.23	22.09	22.28			
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up	
5M	DFT+QFDM	1	1	22.21	22.12	22.24			

n38 (SCS 30 kHz) (Ann6)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max.	Turn-up (dBm)	
		Channel		Frequency (MHz)	51800	51900	52000		
40M	DFT+QFDM P2 BPSK	1	1	22.78	22.72	22.85	24		
		1	52	22.37	22.35	22.30	24		
		1	104	22.69	22.63	22.11	24		
		50	0	21.95	22.35	21.72	23		
		50	20	22.84	22.40	22.54	23		
		50	56	21.92	22.26	22.16	23		
		100	0	22.13	22.22	21.77	23		
		1	1	22.87	22.97	22.06	24		
	DFT+QFDM QPSK	1	52	22.70	22.53	22.80	24		
		1	104	22.83	22.80	22.11	24		
		50	0	21.72	21.42	21.40	23		
		50	20	22.53	22.54	22.75	23		
		50	56	21.80	21.90	21.75	23		
		100	0	21.72	21.97	21.43	23		
		1	1	21.71	21.98	21.93	23		
		1	1	20.29	20.13	19.96	22		
	DFT+QFDM	1	1	18.38	18.54	18.45	20		
BW	MCS Index	Channel		51700	51900	52100	Max.		
20M	DFT+QFDM	1	1	22.77	22.90	22.36	24		
BW	MCS Index	Channel		51800	51900	52000	Max.		
20M	DFT+QFDM	1	1	22.74	22.94	22.99	24		
BW	MCS Index	Channel		51800	51900	52000	Max.		
15M	DFT+QFDM	1	1	22.84	22.83	22.03	24		
BW	MCS Index	Channel		51800	51900	52000	Max.		
10M	DFT+QFDM	1	1	22.86	22.92	22.92	24		

n66 (SCS 15 kHz) (Ann2)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max.	Turn-up (dBm)	
		Channel		Frequency (MHz)	34600	349000	35200		
40M	DFT+QFDM P2 BPSK	1	1	22.91	22.77	22.77	24		
		1	107	22.75	22.96	22.59	24		
		1	214	22.82	22.69	22.55	24		
		108	0	22.40	22.28	22.34	24		
		108	54	22.89	22.05	22.59	24		
		108	108	22.27	22.13	22.19	24		
		216	0	22.31	22.22	22.28	24		
		1	1	22.06	22.06	22.72	24		
	DFT+QFDM QPSK	1	107	22.87	22.73	22.77	24		
		1	214	22.89	22.55	22.68	24		
		108	0	21.88	21.69	21.78	24		
		108	54	22.73	22.67	22.80	24		
		108	108	21.81	21.67	21.69	24		
		216	0	22.85	21.79	21.69	24		
		1	1	21.96	21.87	21.81	23		
		1	1	20.26	20.08	20.14	21.5		
	DFT+QFDM	1	1	18.50	18.42	18.38	19.5		
BW	MCS Index	Channel		34500	34900	35300	Max.		
20M	DFT+QFDM	1	1	22.89	22.79	22.61	24		
BW	MCS Index	Channel		34600	34900	35300	Max.		
BW	MCS Index	Channel		1722.5	1746	1767.5	Turn-up		
20M	DFT+QFDM	1	1	22.82	22.75	22.60	24		
BW	MCS Index	Channel		34600	34900	35300	Max.		
15M	DFT+QFDM	1	1	22.90	22.77	22.61	24		
BW	MCS Index	Channel		34500	34900	35300	Max.		
10M	DFT+QFDM	1	1	22.89	22.70	22.65	24		
BW	MCS Index	Channel		34500	34900	35300	Max.		
SM	DFT+QFDM	1	1	22.83	22.78	22.57	24		

n77 PC3/PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	Mid		Max. Tune-up (dBm)
		Channel		633334		
		Frequency (MHz)		3500.01		
100M	DFT-s-OFDM P22 BPSK	1	1	19.51		21
		1	137	19.34		21
		1	271	19.46		21
		135	0	19.42		21
		135	69	19.43		21
		135	138	19.47		21
		270	0	19.40		21
		1	1	19.69		21
	DFT-s-OFDM QPSK	1	137	19.55		21
		1	271	19.48		21
		135	0	19.34		21
		135	69	19.35		21
		135	138	19.42		21
		270	0	19.40		21
		1	1	19.62		21
		1	1	19.30		20.5
	DFT-s-OFDM 16QAM	1	1	18.12		19.5
	DFT-s-OFDM 64QAM	1	1			
	DFT-s-OFDM 256QAM	1	1			
BW	MCS Index	Channel		633000	633334	633666
90M	MCS Index	Frequency (MHz)		3495	3500.01	3504.99
BW	MCS Index	Channel		632668	633334	634000
80M	MCS Index	Frequency (MHz)		3490.02	3500.01	3510
BW	MCS Index	Channel		632334	633334	634332
70M	MCS Index	Frequency (MHz)		3485.01	3500.01	3514.98
BW	MCS Index	Channel		632000	633334	634666
60M	MCS Index	Frequency (MHz)		3480	3500.01	3519.99
BW	MCS Index	Channel		631668	633334	635000
50M	MCS Index	Frequency (MHz)		3475.02	3500.01	3525
BW	MCS Index	Channel		631334	633334	635332
40M	MCS Index	Frequency (MHz)		3470.01	3500.01	3529.98
BW	MCS Index	Channel		631000	633334	635666
30M	MCS Index	Frequency (MHz)		3465	3500.01	3534.99
BW	MCS Index	Channel		630668	633334	636000
20M	MCS Index	Frequency (MHz)		3460.02	3500.01	3540
BW	MCS Index	Channel		630334	633334	636332
15M	MCS Index	Frequency (MHz)		3457.5	3500.01	3542.49
BW	MCS Index	Channel		630000	633334	636666
10M	MCS Index	Frequency (MHz)		3455.01	3500.01	3544.98
DFT-s-OFDM QPSK	1	1	19.54	19.71	19.61	21

n77 PC3/PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		650000	656000	662000
		Frequency (MHz)		3760	3840	3920
100M	DFT-s-OFDM P22 BPSK	1	1	20.05	19.61	19.95
		1	137	19.95	19.64	19.77
		1	271	19.88	19.38	19.67
		135	0	19.88	19.43	19.71
		135	69	19.89	19.37	19.65
		135	138	19.80	19.44	19.69
		270	0	19.70	19.40	19.64
		1	1	20.15	19.69	19.89
	DFT-s-OFDM QPSK	1	137	19.93	19.55	19.63
		1	271	19.86	19.35	19.66
		135	0	19.70	19.35	19.52
		135	69	19.89	19.49	19.54
		135	138	19.79	19.45	19.74
		270	0	19.70	19.26	19.67
		1	1	20.01	19.44	19.73
		1	1	19.77	19.31	19.63
	DFT-s-OFDM 16QAM	1	1	18.53	17.97	18.26
	DFT-s-OFDM 64QAM	1	1			
	DFT-s-OFDM 256QAM	1	1			
BW	MCS Index	Channel		649668	656000	662332
90M	MCS Index	Frequency (MHz)		3746.02	3840	3934.99
BW	MCS Index	Channel		649334	656000	662666
80M	MCS Index	Frequency (MHz)		3740.01	3840	3939.99
BW	MCS Index	Channel		648999	656000	662332
70M	MCS Index	Frequency (MHz)		3735.02	3840	3944.98
BW	MCS Index	Channel		648668	656000	662000
60M	MCS Index	Frequency (MHz)		3730.02	3840	3949.98
BW	MCS Index	Channel		648334	656000	661666
50M	MCS Index	Frequency (MHz)		3725.01	3840	3954.99
BW	MCS Index	Channel		648000	656000	661332
40M	MCS Index	Frequency (MHz)		3720	3840	3959
BW	MCS Index	Channel		647668	656000	661000
30M	MCS Index	Frequency (MHz)		3715.02	3840	3964.98
BW	MCS Index	Channel		647334	656000	660666
20M	MCS Index	Frequency (MHz)		3710.01	3840	3969.99
BW	MCS Index	Channel		647000	656000	660332
15M	MCS Index	Frequency (MHz)		3707.52	3840	3972.48
BW	MCS Index	Channel		646700	656000	660000
10M	MCS Index	Frequency (MHz)		3705	3840	3975
DFT-s-OFDM QPSK	1	1	20.05	19.57	19.83	21

n78 PC3/PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	Mid		Max. Tune-up (dBm)
		Channel		633334		
		Frequency (MHz)		3600.01		
100M	DFT-s-OFDM P22 BPSK	1	1	1		21
		1	137			21
		1	271			21
		135	0			21
		135	69			21
		135	138			21
		270	0			21
		1	1			21
	DFT-s-OFDM QPSK	1	137			21
		1	271			21
		135	0			21
		135	69			21
		135	138			21
		270	0			21
		1	1			21
		1	1			21
	DFT-s-OFDM 16QAM	1	1			21
	DFT-s-OFDM 64QAM	1	1			21
	DFT-s-OFDM 256QAM	1	1			21
BW	MCS Index	Channel		633000	633334	633666
90M	MCS Index	Frequency (MHz)		3495	3500.01	3504.99
BW	MCS Index	Channel		632668	633334	634000
80M	MCS Index	Frequency (MHz)		3490.02	3500.01	3510
BW	MCS Index	Channel		632334	633334	634332
70M	MCS Index	Frequency (MHz)		3485.01	3500.01	3514.98
BW	MCS Index	Channel		632000	633334	634666
60M	MCS Index	Frequency (MHz)		3480	3500.01	3519.99
BW	MCS Index	Channel		631668	633334	635000
50M	MCS Index	Frequency (MHz)		3475.02	3500.01	3525
BW	MCS Index	Channel		631334	633334	635332
40M	MCS Index	Frequency (MHz)		3470.01	3500.01	3529.98
BW	MCS Index	Channel		631000	633334	635666
30M	MCS Index	Frequency (MHz)		3465	3500.01	3534.99
BW	MCS Index	Channel		630668	633334	636000
20M	MCS Index	Frequency (MHz)		3460.02	3500.01	3540
BW	MCS Index	Channel		630334	633334	636332
15M	MCS Index	Frequency (MHz)		3457.5	3500.01	3542.49
BW	MCS Index	Channel		630000	633334	636666
10M	MCS Index	Frequency (MHz)		3455.01	3500.01	3544.98
DFT-s-OFDM QPSK	1	1	20.25	20.13	20.21	21

DSI5 Power

Band	GSM850 (Ant0)				GSM1900 (Ant0)			
Channel	128	189	251	Max. Tune-up Power (dBm)	512	661	810	Max. Tune-up Power (dBm)
Frequency (MHz)	824.2	836.4	848.8		1850.2	1880	1909.8	
GSM	30.75	30.56	30.55	32.50	28.94	29.06	29.03	30.50
GPRS 1Tx Slot	30.63	30.55	30.55	32.50	28.93	29.05	29.01	30.50
GPRS 2Tx Slot	28.51	28.69	28.59	30.50	27.09	26.94	26.97	28.50
GPRS 3Tx Slot	26.56	26.62	26.52	28.50	25.12	25.05	24.95	26.50
GPRS 4Tx Slot	24.53	24.71	24.56	26.50	22.75	22.90	22.93	24.50
EDGE 1Tx Slot	26.22	26.10	26.18	27.50	25.47	25.46	25.27	26.50
EDGE 2Tx Slot	25.01	24.98	24.82	26.50	24.04	24.29	24.06	25.50
EDGE 3Tx Slot	23.84	23.66	23.86	25.50	22.90	23.17	22.98	24.50
EDGE 4Tx Slot	22.79	22.86	22.82	24.50	21.86	22.06	22.00	23.50

Source-Based Time-Averaged Power								
Band	GSM850			Max. Tune-up Power (dBm)	GSM1900			Max. Tune-up Power (dBm)
Channel	128	189	251		512	661	810	
GSM	21.75	21.56	21.55	23.50	19.94	20.06	20.03	21.50
GPRS 1Tx Slot	21.63	21.55	21.55	23.50	19.93	20.05	20.01	21.50
GPRS 2Tx Slot	22.51	22.69	22.59	24.50	21.09	20.94	20.97	22.50
GPRS 3Tx Slot	22.30	22.36	22.26	24.24	20.86	20.79	20.69	22.24
GPRS 4Tx Slot	21.53	21.71	21.56	23.50	19.75	19.90	19.93	21.50
EDGE 1Tx Slot	17.22	17.10	17.18	18.50	16.47	16.46	16.27	17.50
EDGE 2Tx Slot	19.01	18.98	18.82	20.50	18.04	18.29	18.06	19.50
EDGE 3Tx Slot	19.58	19.40	19.60	21.24	18.64	18.91	18.72	20.24
EDGE 4Tx Slot	19.79	19.86	19.82	21.50	18.86	19.06	19.00	20.50

Band	WCDMA II (Ant0)			WCDMA II Max. Tune-up Power (dBm)	WCDMA IV (Ant0)			WCDMA IV Max. Tune-up Power (dBm)	WCDMA V (Ant0)			WCDMA V Max. Tune-up Power (dBm)
TX Channel	9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel	9662	9800	9938	Max. Tune-up Power (dBm)	1537	1638	1738	Max. Tune-up Power (dBm)	4357	4407	4458	Max. Tune-up Power (dBm)
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
RMC 12.2K	22.98	22.97	22.87	24.00	22.85	22.86	22.83	24.00	22.87	22.94	22.88	24.00
HSDPA Subtest-1	22.06	22.02	22.05	23.00	21.89	21.89	21.90	23.00	21.95	21.91	21.91	23.00
HSDPA Subtest-2	21.96	22.06	21.97	23.00	21.82	21.88	21.86	23.00	21.93	21.88	21.99	23.00
HSDPA Subtest-3	21.55	21.49	21.36	22.50	21.30	21.35	21.33	22.50	21.42	21.40	21.46	22.50
HSDPA Subtest-4	21.51	21.50	21.46	22.50	21.41	21.44	21.41	22.50	21.45	21.47	21.35	22.50
DC-HSDPA Subtest-1	22.04	22.04	21.96	23.00	21.86	21.92	21.90	23.00	21.96	21.82	21.99	23.00
DC-HSDPA Subtest-2	22.00	22.06	22.03	23.00	21.87	21.87	21.83	23.00	21.89	21.89	21.94	23.00
DC-HSDPA Subtest-3	21.54	21.56	21.34	22.50	21.35	21.38	21.41	22.50	21.33	21.41	21.43	22.50
DC-HSDPA Subtest-4	21.54	21.42	21.35	22.50	21.40	21.45	21.35	22.50	21.36	21.39	21.38	22.50
HSUPA Subtest-1	21.97	22.02	21.85	23.00	21.90	21.87	21.90	23.00	21.95	21.98	21.94	23.00
HSUPA Subtest-2	19.94	20.04	19.82	21.00	19.86	19.81	19.84	21.00	19.92	19.93	19.95	21.00
HSUPA Subtest-3	21.03	20.95	20.93	22.00	20.80	20.94	20.82	22.00	20.84	20.92	20.89	22.00
HSUPA Subtest-4	20.00	20.03	19.82	21.00	19.93	19.85	19.86	21.00	19.96	19.99	19.93	21.00
HSUPA Subtest-5	22.06	22.04	21.95	23.00	21.82	21.86	21.87	23.00	21.85	22.00	21.84	23.00
HSPA+ Subtest-1	19.50	19.44	19.36	20.50	19.36	19.38	19.41	20.50	19.34	19.44	19.40	20.50

[illegible]

ID	Modulation	LTE Band 4 (E-UTRA)										Bandwidth (MHz)	Power Spectral Density (dBm/MHz)	Max. Tx Power (dBm)	Tx Power Class
		Channel		Carrier		SBS		SBS		SBS					
		Freq. (MHz)	Bandwidth (MHz)	Freq. (MHz)	Bandwidth (MHz)	Freq. (MHz)	Bandwidth (MHz)	Freq. (MHz)	Bandwidth (MHz)	Freq. (MHz)	Bandwidth (MHz)				
23M	QPSK	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	16QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	64QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
23M	QPSK	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	16QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	64QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
23M	QPSK	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	16QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	64QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
23M	QPSK	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	16QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	64QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
23M	QPSK	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	16QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	64QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
23M	QPSK	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	16QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	64QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
23M	QPSK	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	16QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	64QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
23M	QPSK	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60	22.66	22.66
		52	22.56	22.56	22.62	22.62	22.68	22.68	22.74	22.74	22.80	22.80	22.86	22.86	
		52	22.76	22.76	22.82	22.82	22.88	22.88	22.94	22.94	23.00	23.00	23.06	23.06	
		52	22.96	22.96	23.02	23.02	23.08	23.08	23.14	23.14	23.20	23.20	23.26	23.26	
	16QAM	1	52	22.36	22.36	22.42	22.42	22.48	22.48	22.54	22.54	22.60	22.60		

	RNN	Model	L1E Based S (Amino)						Mean Error (%)
			Seq. Size	Seq. Count	Seq. Size	Seq. Count	Seq. Size	Seq. Count	
			Seq. Length (Amino Acids)	Seq. Count	Seq. Length (Amino Acids)	Seq. Count	Seq. Length (Amino Acids)	Seq. Count	
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1	23	23	23	23	0.28
			2	1	23	23	23	23	0.28
			3	1	23	23	23	23	0.28
			4	1	23	23	23	23	0.28
			5	1	23	23	23	23	0.28
			6	1	23	23	23	23	0.28
			7	1	23	23	23	23	0.28
			8	1	23	23	23	23	0.28
			9	1	23	23	23	23	0.28
			10	1	23	23	23	23	0.28
			11	1	23	23	23	23	0.28
			12	1	23	23	23	23	0.28
1M	GRU4Rec	L1E	1	1					

[illegible]

Year	Area	No. of PCs in 15,000 (2016)					
		2016	2017	2018	2019	2020	2021
2022	1ST + 2ND Rajasthan	1	2	20,000	20,000	20,000	20,000
		2	3	20,000	20,000	20,000	20,000
		3	4	20,000	20,000	20,000	20,000
		4	5	20,000	20,000	20,000	20,000
		5	6	20,000	20,000	20,000	20,000
	1ST + 2ND guj	1	2	20,000	20,000	20,000	20,000
		2	3	20,000	20,000	20,000	20,000
		3	4	20,000	20,000	20,000	20,000
		4	5	20,000	20,000	20,000	20,000
		5	6	20,000	20,000	20,000	20,000
	1ST + 2ND Karnataka	1	2	20,000	20,000	20,000	20,000
		2	3	20,000	20,000	20,000	20,000
		3	4	20,000	20,000	20,000	20,000
		4	5	20,000	20,000	20,000	20,000
		5	6	20,000	20,000	20,000	20,000
2023	1ST + 2ND	1	2	20,000	20,000	20,000	20,000
2024	1ST + 2ND	1	2	20,000	20,000	20,000	20,000
2025	1ST + 2ND	1	2	20,000	20,000	20,000	20,000
2026	1ST + 2ND	1	2	20,000	20,000	20,000	20,000
2027	1ST + 2ND	1	2	20,000	20,000	20,000	20,000
2028	1ST + 2ND	1	2	20,000	20,000	20,000	20,000
2029	1ST + 2ND	1	2	20,000	20,000	20,000	20,000
2030	1ST + 2ND	1	2	20,000	20,000	20,000	20,000

[illegible][illegible]

THE RICE 15-MINUTE TEST							
SEX	AGE	Height (cm)	Weight (kg)	Time (min)	Power (W)	Speed (m/s)	Max. Power (W)
MALE	20-29 yrs	1	1	10.00	10.00	10.00	10.00
		2	1	10.00	10.00	10.00	10.00
		3	1	10.00	10.00	10.00	10.00
		4	1	10.00	10.00	10.00	10.00
		5	1	10.00	10.00	10.00	10.00
	30-39 yrs	1	1	10.00	10.00	10.00	10.00
		2	1	10.00	10.00	10.00	10.00
		3	1	10.00	10.00	10.00	10.00
		4	1	10.00	10.00	10.00	10.00
		5	1	10.00	10.00	10.00	10.00
FEMALE	20-29 yrs	1	1	10.00	10.00	10.00	10.00
		2	1	10.00	10.00	10.00	10.00
		3	1	10.00	10.00	10.00	10.00
		4	1	10.00	10.00	10.00	10.00
		5	1	10.00	10.00	10.00	10.00
	30-39 yrs	1	1	10.00	10.00	10.00	10.00
		2	1	10.00	10.00	10.00	10.00
		3	1	10.00	10.00	10.00	10.00
		4	1	10.00	10.00	10.00	10.00
		5	1	10.00	10.00	10.00	10.00

Table 1. Summary of the data sets used in the study							
Data set	Data set description	Data set characteristics			Data set size	Data set source	Data set availability
		Number of samples	Number of features	Number of classes			
MNIST	MNIST	70,000	784	10	1.1 MB	100%	100%
	MNIST-10	10,000	784	10	0.11 MB	100%	100%
	MNIST-25	25,000	784	10	0.28 MB	100%	100%
	MNIST-50	50,000	784	10	0.56 MB	100%	100%
	MNIST-100	100,000	784	10	1.12 MB	100%	100%
	MNIST-200	200,000	784	10	2.24 MB	100%	100%
	MNIST-500	500,000	784	10	5.60 MB	100%	100%
	MNIST-1000	1,000,000	784	10	11.20 MB	100%	100%
	MNIST-2500	2,500,000	784	10	28.00 MB	100%	100%
	MNIST-10000	10,000,000	784	10	112.00 MB	100%	100%
CIFAR-10	CIFAR-10	100,000	32x32x3	10	0.31 MB	100%	100%
	CIFAR-10-10	10,000	32x32x3	10	0.031 MB	100%	100%
	CIFAR-10-25	25,000	32x32x3	10	0.078 MB	100%	100%
	CIFAR-10-50	50,000	32x32x3	10	0.156 MB	100%	100%
	CIFAR-10-100	100,000	32x32x3	10	0.31 MB	100%	100%
	CIFAR-10-200	200,000	32x32x3	10	0.62 MB	100%	100%
	CIFAR-10-500	500,000	32x32x3	10	1.56 MB	100%	100%
	CIFAR-10-1000	1,000,000	32x32x3	10	3.12 MB	100%	100%
	CIFAR-10-2500	2,500,000	32x32x3	10	7.81 MB	100%	100%
	CIFAR-10-10000	10,000,000	32x32x3	10	31.25 MB	100%	100%
SVHN	SVHN	109,952	108x108	10	0.12 MB	100%	100%
	SVHN-10	10,995	108x108	10	0.012 MB	100%	100%
	SVHN-25	27,488	108x108	10	0.031 MB	100%	100%
	SVHN-50	54,976	108x108	10	0.062 MB	100%	100%
	SVHN-100	109,952	108x108	10	0.12 MB	100%	100%
	SVHN-200	219,904	108x108	10	0.25 MB	100%	100%
	SVHN-500	549,760	108x108	10	0.62 MB	100%	100%
	SVHN-1000	1,099,520	108x108	10	1.25 MB	100%	100%
	SVHN-2500	2,748,800	108x108	10	3.12 MB	100%	100%
	SVHN-10000	10,995,200	108x108	10	12.50 MB	100%	100%

2015-2016 (FY 15-16) (US\$ million)							
RPT	SGLS Indicator	2015 Actual	2016 Actual	2015 Budget	2016 Budget	Notes	Ratio
EDM	EDT vs. QTRM (Net Income)	1	1	100.00	100.00		100.00
		2	1	100.00	100.00		100.00
		3	1	100.00	100.00		100.00
		4	1	100.00	100.00		100.00
		5	1	100.00	100.00		100.00
		6	1	100.00	100.00		100.00
	EDT vs. QTRM Gross	1	1	100.00	100.00		100.00
		2	1	100.00	100.00		100.00
		3	1	100.00	100.00		100.00
		4	1	100.00	100.00		100.00
		5	1	100.00	100.00		100.00
		6	1	100.00	100.00		100.00
EDT vs. QTRM Operating Expenses	1	1	100.00	100.00		100.00	
	2	1	100.00	100.00		100.00	
	3	1	100.00	100.00		100.00	
	4	1	100.00	100.00		100.00	
	5	1	100.00	100.00		100.00	
	6	1	100.00	100.00		100.00	
RPT	EDT vs. QTRM	1	1	100.00	100.00		100.00
	EDT vs. QTRM	1	1	100.00	100.00		100.00

No.	Name of the candidate	The results in the written test					Rank	Remarks
		English	Mathematics	Science	History	Physical Education		
120	Sri A. Lakshmi Sri Lakshmi	1	1	1	1	1	1	1
		2	2	2	2	2	2	2
		3	3	3	3	3	3	3
		4	4	4	4	4	4	4
		5	5	5	5	5	5	5
	Sri A. Lakshmi Sri Lakshmi	6	6	6	6	6	6	6
		7	7	7	7	7	7	7
		8	8	8	8	8	8	8
		9	9	9	9	9	9	9
		10	10	10	10	10	10	10
121	Sri A. Lakshmi Sri Lakshmi	11	11	11	11	11	11	11
		12	12	12	12	12	12	12
		13	13	13	13	13	13	13
		14	14	14	14	14	14	14
		15	15	15	15	15	15	15
	Sri A. Lakshmi Sri Lakshmi	16	16	16	16	16	16	16
		17	17	17	17	17	17	17
		18	18	18	18	18	18	18
		19	19	19	19	19	19	19
		20	20	20	20	20	20	20
122	Sri A. Lakshmi Sri Lakshmi	21	21	21	21	21	21	21
		22	22	22	22	22	22	22
		23	23	23	23	23	23	23
		24	24	24	24	24	24	24
		25	25	25	25	25	25	25
	Sri A. Lakshmi Sri Lakshmi	26	26	26	26	26	26	26
		27	27	27	27	27	27	27
		28	28	28	28	28	28	28
		29	29	29	29	29	29	29
		30	30	30	30	30	30	30
123	Sri A. Lakshmi Sri Lakshmi	31	31	31	31	31	31	31
		32	32	32	32	32	32	32
		33	33	33	33	33	33	33
		34	34	34	34	34	34	34
		35	35	35	35	35	35	35
	Sri A. Lakshmi Sri Lakshmi	36	36	36	36	36	36	36
		37	37	37	37	37	37	37
		38	38	38	38	38	38	38
		39	39	39	39	39	39	39
		40	40	40	40	40	40	40
124	Sri A. Lakshmi Sri Lakshmi	41	41	41	41	41	41	41
		42	42	42	42	42	42	42
		43	43	43	43	43	43	43
		44	44	44	44	44	44	44
		45	45	45	45	45	45	45
	Sri A. Lakshmi Sri Lakshmi	46	46	46	46	46	46	46
		47	47	47	47	47	47	47
		48	48	48	48	48	48	48
		49	49	49	49	49	49	49
		50	50	50	50	50	50	50

[illegible]

Table 1: Summary of the 2019-2020 Academic Year							
Year	Grade	Subject	Assessment Results				Remarks
			Pre-Test	Mid-Test	Post-Test	Average	
2019-2020	Elementary	Grade 1	85	78	82	81.67	Good
		Grade 2	75	70	72	72.33	Needs Improvement
		Grade 3	80	75	78	77.67	Good
		Grade 4	82	77	80	79.67	Good
		Grade 5	88	82	85	85.00	Excellent
		Grade 6	80	75	78	77.67	Good
	High School	Grade 7	75	70	72	72.33	Needs Improvement
		Grade 8	78	73	75	75.33	Good
		Grade 9	80	75	78	77.67	Good
		Grade 10	82	77	80	79.67	Good
		Grade 11	85	80	82	82.33	Excellent
		Grade 12	88	83	85	85.33	Excellent
Total	Elementary	750	700	720	723.33	Good	
	High School	500	450	480	476.67	Good	

[illegible]

Table 1. The number of cases and deaths by age group and sex									
Age group	Sex	Number of cases		Number of deaths		Number of cases		Number of deaths	
		2019	2020	2019	2020	2019	2020	2019	2020
0-14 years	Male	1,234	1,567	12	15	1,234	1,567	12	15
	Female	1,123	1,456	11	14	1,123	1,456	11	14
	Male	1,234	1,567	12	15	1,234	1,567	12	15
	Female	1,123	1,456	11	14	1,123	1,456	11	14
	Male	1,234	1,567	12	15	1,234	1,567	12	15
	Female	1,123	1,456	11	14	1,123	1,456	11	14
	Male	1,234	1,567	12	15	1,234	1,567	12	15
	Female	1,123	1,456	11	14	1,123	1,456	11	14
	Male	1,234	1,567	12	15	1,234	1,567	12	15
	Female	1,123	1,456	11	14	1,123	1,456	11	14
15-64 years	Male	2,345	3,456	23	34	2,345	3,456	23	34
	Female	2,234	3,345	22	33	2,234	3,345	22	33
	Male	2,345	3,456	23	34	2,345	3,456	23	34
	Female	2,234	3,345	22	33	2,234	3,345	22	33
	Male	2,345	3,456	23	34	2,345	3,456	23	34
	Female	2,234	3,345	22	33	2,234	3,345	22	33
	Male	2,345	3,456	23	34	2,345	3,456	23	34
	Female	2,234	3,345	22	33	2,234	3,345	22	33
	Male	2,345	3,456	23	34	2,345	3,456	23	34
	Female	2,234	3,345	22	33	2,234	3,345	22	33
65+ years	Male	3,456	4,567	34	45	3,456	4,567	34	45
	Female	3,345	4,456	33	44	3,345	4,456	33	44
	Male	3,456	4,567	34	45	3,456	4,567	34	45
	Female	3,345	4,456	33	44	3,345	4,456	33	44
	Male	3,456	4,567	34	45	3,456	4,567	34	45
	Female	3,345	4,456	33	44	3,345	4,456	33	44
	Male	3,456	4,567	34	45	3,456	4,567	34	45
	Female	3,345	4,456	33	44	3,345	4,456	33	44
	Male	3,456	4,567	34	45	3,456	4,567	34	45
	Female	3,345	4,456	33	44	3,345	4,456	33	44

[illegible]

		RMS (20 x 20 mm) (mm)									
Ref	No. of specimens	Tensile strength		Tensile strength		Tensile strength		Tensile strength		Tensile strength	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
R100	CFRP + CFRP FRP (R100)	1	0	1	0	1	0	1	0	1	0
		2	0	2	0	2	0	2	0	2	0
		3	0	3	0	3	0	3	0	3	0
		4	0	4	0	4	0	4	0	4	0
		5	0	5	0	5	0	5	0	5	0
	CFRP + CFRP FRP (R100)	1	0	1	0	1	0	1	0	1	0
		2	0	2	0	2	0	2	0	2	0
		3	0	3	0	3	0	3	0	3	0
		4	0	4	0	4	0	4	0	4	0
		5	0	5	0	5	0	5	0	5	0
R200	CFRP + CFRP FRP (R200)	1	1	1	1	1	1	1	1	1	1
		2	1	2	1	2	1	2	1	2	1
		3	1	3	1	3	1	3	1	3	1
		4	1	4	1	4	1	4	1	4	1
		5	1	5	1	5	1	5	1	5	1
	CFRP + CFRP FRP (R200)	1	1	1	1	1	1	1	1	1	1
		2	1	2	1	2	1	2	1	2	1
		3	1	3	1	3	1	3	1	3	1
		4	1	4	1	4	1	4	1	4	1
		5	1	5	1	5	1	5	1	5	1
R300	CFRP + CFRP FRP (R300)	1	1	1	1	1	1	1	1	1	1
		2	1	2	1	2	1	2	1	2	1
		3	1	3	1	3	1	3	1	3	1
		4	1	4	1	4	1	4	1	4	1
		5	1	5	1	5	1	5	1	5	1
	CFRP + CFRP FRP (R300)	1	1	1	1	1	1	1	1	1	1
		2	1	2	1	2	1	2	1	2	1
		3	1	3	1	3	1	3	1	3	1
		4	1	4	1	4	1	4	1	4	1
		5	1	5	1	5	1	5	1	5	1

[illegible]

		INDUSTRY (IN MILLIONS)						
Year	Sector	2000	2001	2002	2003	2004	2005	Share of GDP
2000	GFCF in fixed capital formation	1	1	1	1	1	1	100
		2	2	2	2	2	2	100
		3	3	3	3	3	3	100
		4	4	4	4	4	4	100
		5	5	5	5	5	5	100
	GFCF in other fixed capital formation	1	1	1	1	1	1	100
		2	2	2	2	2	2	100
		3	3	3	3	3	3	100
		4	4	4	4	4	4	100
		5	5	5	5	5	5	100
2001	GFCF in fixed capital formation	1	1	1	1	1	1	100
		2	2	2	2	2	2	100
		3	3	3	3	3	3	100
		4	4	4	4	4	4	100
		5	5	5	5	5	5	100
	GFCF in other fixed capital formation	1	1	1	1	1	1	100
		2	2	2	2	2	2	100
		3	3	3	3	3	3	100
		4	4	4	4	4	4	100
		5	5	5	5	5	5	100
2002	GFCF in fixed capital formation	1	1	1	1	1	1	100
		2	2	2	2	2	2	100
		3	3	3	3	3	3	100
		4	4	4	4	4	4	100
		5	5	5	5	5	5	100
	GFCF in other fixed capital formation	1	1	1	1	1	1	100
		2	2	2	2	2	2	100
		3	3	3	3	3	3	100
		4	4	4	4	4	4	100
		5	5	5	5	5	5	100
2003	GFCF in fixed capital formation	1	1	1	1	1	1	100
		2	2	2	2	2	2	100
		3	3	3	3	3	3	100
		4	4	4	4	4	4	100
		5	5	5	5	5	5	100
	GFCF in other fixed capital formation	1	1	1	1	1	1	100
		2	2	2	2	2	2	100
		3	3	3	3	3	3	100
		4	4	4	4	4	4	100
		5	5	5	5	5	5	100
2004	GFCF in fixed capital formation	1	1	1	1	1	1	100
		2	2	2	2	2	2	100
		3	3	3	3	3	3	100
		4	4	4	4	4	4	100
		5	5	5	5	5	5	100
2005	GFCF in fixed capital formation	1	1	1	1	1	1	100
		2	2	2	2	2	2	100
		3	3	3	3	3	3	100
		4	4	4	4	4	4	100
		5	5	5	5	5	5	100

[illegible]

FACILITY DATA BY DISTRICT									
DISTRICT	FACILITY NAME	FACILITY TYPE	FACILITY ADDRESS	FACILITY PHONE	FACILITY FAX	FACILITY EMAIL	FACILITY WEBSITE	FACILITY STATUS	
								OPEN	CLOSED
DISTRICT 1	10101	10101	10101	10101	10101	10101	10101	10101	10101
	10102	10102	10102	10102	10102	10102	10102	10102	10102
	10103	10103	10103	10103	10103	10103	10103	10103	10103
	10104	10104	10104	10104	10104	10104	10104	10104	10104
	10105	10105	10105	10105	10105	10105	10105	10105	10105
	10106	10106	10106	10106	10106	10106	10106	10106	10106
	10107	10107	10107	10107	10107	10107	10107	10107	10107
	10108	10108	10108	10108	10108	10108	10108	10108	10108
	10109	10109	10109	10109	10109	10109	10109	10109	10109
	10110	10110	10110	10110	10110	10110	10110	10110	10110
DISTRICT 2	20201	20201	20201	20201	20201	20201	20201	20201	20201
	20202	20202	20202	20202	20202	20202	20202	20202	20202
	20203	20203	20203	20203	20203	20203	20203	20203	20203
	20204	20204	20204	20204	20204	20204	20204	20204	20204
	20205	20205	20205	20205	20205	20205	20205	20205	20205
	20206	20206	20206	20206	20206	20206	20206	20206	20206
	20207	20207	20207	20207	20207	20207	20207	20207	20207
	20208	20208	20208	20208	20208	20208	20208	20208	20208
	20209	20209	20209	20209	20209	20209	20209	20209	20209
	20210	20210	20210	20210	20210	20210	20210	20210	20210
DISTRICT 3	30301	30301	30301	30301	30301	30301	30301	30301	30301
	30302	30302	30302	30302	30302	30302	30302	30302	30302
	30303	30303	30303	30303	30303	30303	30303	30303	30303
	30304	30304	30304	30304	30304	30304	30304	30304	30304
	30305	30305	30305	30305	30305	30305	30305	30305	30305
	30306	30306	30306	30306	30306	30306	30306	30306	30306
	30307	30307	30307	30307	30307	30307	30307	30307	30307
	30308	30308	30308	30308	30308	30308	30308	30308	30308
	30309	30309	30309	30309	30309	30309	30309	30309	30309
	30310	30310	30310	30310	30310	30310	30310	30310	30310
DISTRICT 4	40401	40401	40401	40401	40401	40401	40401	40401	40401
	40402	40402	40402	40402	40402	40402	40402	40402	40402
	40403	40403	40403	40403	40403	40403	40403	40403	40403
	40404	40404	40404	40404	40404	40404	40404	40404	40404
	40405	40405	40405	40405	40405	40405	40405	40405	40405
	40406	40406	40406	40406	40406	40406	40406	40406	40406
	40407	40407	40407	40407	40407	40407	40407	40407	40407
	40408	40408	40408	40408	40408	40408	40408	40408	40408
	40409	40409	40409	40409	40409	40409	40409	40409	40409
	40410	40410	40410	40410	40410	40410	40410	40410	40410

No.	Name of the project	Pre-employment screening					Remarks
		Age	Gender	Education	Religion	Marital Status	
2296	KPT-24/25 (KPT)	1	Male	12 th	Christian	Married	OK
		2	Male	12 th	Christian	Married	OK
		3	Male	12 th	Christian	Married	OK
		4	Male	12 th	Christian	Married	OK
		5	Male	12 th	Christian	Married	OK
		6	Male	12 th	Christian	Married	OK
		7	Male	12 th	Christian	Married	OK
		8	Male	12 th	Christian	Married	OK
		9	Male	12 th	Christian	Married	OK
		10	Male	12 th	Christian	Married	OK
		11	Male	12 th	Christian	Married	OK
		12	Male	12 th	Christian	Married	OK
2297	KPT-24/25 (KPT)	1	Male	12 th	Christian	Married	OK
		2	Male	12 th	Christian	Married	OK
		3	Male	12 th	Christian	Married	OK
		4	Male	12 th	Christian	Married	OK
		5	Male	12 th	Christian	Married	OK
		6	Male	12 th	Christian	Married	OK
		7	Male	12 th	Christian	Married	OK
		8	Male	12 th	Christian	Married	OK
		9	Male	12 th	Christian	Married	OK
		10	Male	12 th	Christian	Married	OK
		11	Male	12 th	Christian	Married	OK
		12	Male	12 th	Christian	Married	OK
2298	KPT-24/25 (KPT)	1	Male	12 th	Christian	Married	OK
		2	Male	12 th	Christian	Married	OK
		3	Male	12 th	Christian	Married	OK
		4	Male	12 th	Christian	Married	OK
		5	Male	12 th	Christian	Married	OK
		6	Male	12 th	Christian	Married	OK
		7	Male	12 th	Christian	Married	OK
		8	Male	12 th	Christian	Married	OK
		9	Male	12 th	Christian	Married	OK
		10	Male	12 th	Christian	Married	OK
		11	Male	12 th	Christian	Married	OK
		12	Male	12 th	Christian	Married	OK
2299	KPT-24/25 (KPT)	1	Male	12 th	Christian	Married	OK
		2	Male	12 th	Christian	Married	OK
		3	Male	12 th	Christian	Married	OK
		4	Male	12 th	Christian	Married	OK
		5	Male	12 th	Christian	Married	OK
		6	Male	12 th	Christian	Married	OK
		7	Male	12 th	Christian	Married	OK
		8	Male	12 th	Christian	Married	OK
		9	Male	12 th	Christian	Married	OK
		10	Male	12 th	Christian	Married	OK
		11	Male	12 th	Christian	Married	OK
		12	Male	12 th	Christian	Married	OK
2300	KPT-24/25 (KPT)	1	Male	12 th	Christian	Married	OK
		2	Male	12 th	Christian	Married	OK
		3	Male	12 th	Christian	Married	OK
		4	Male	12 th	Christian	Married	OK
		5	Male	12 th	Christian	Married	OK
		6	Male	12 th	Christian	Married	OK
		7	Male	12 th	Christian	Married	OK
		8	Male	12 th	Christian	Married	OK
		9	Male	12 th			

n2 (SCS 15 kHz) (Ann2)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max.	Turn-up (dBm)	
		Channel		Frequency (MHz)	1880	1890	1890		
20M	DFT-s-OFDM P2 BPSK	1	1	22.11	22.17	22.46	24		
		1	50	22.25	22.11	22.07	24		
		1	104	22.10	22.32	22.58	24		
		50	0	21.96	22.24	22.09	24		
		50	20	22.28	22.16	22.53	24		
		50	56	22.28	21.87	22.44	24		
		100	0	22.42	22.29	22.07	24		
		1	1	22.62	22.38	22.19	24		
	DFT-s-OFDM QPSK	1	53	22.50	22.29	22.46	24		
		1	104	22.25	22.23	22.21	24		
		50	0	22.72	22.63	22.53	24		
		50	20	22.10	22.15	22.14	24		
		50	56	22.67	22.69	22.84	24		
		100	0	22.74	22.84	22.77	24		
		1	1	22.26	22.96	22.52	23		
		1	1	20.83	20.73	20.76	22		
	DFT-s-QAM	1	1	18.58	18.65	18.67	21		
BW	MCS Index	Channel		37000	37000	38000	Max.		
10M	DFT-s-QAM	1	1	1897.5	1890	1892.5	Turn-up		
BW	MCS Index	Channel		37000	37000	38000	Max.		
10M	DFT-s-QAM	1	1	22.51	22.24	22.15	24		
BW	MCS Index	Channel		37000	37000	38000	Max.		
10M	DFT-s-QAM	1	1	1897.5	1890	1897.5	Turn-up		
5M	DFT-s-QAM	1	1	22.49	22.27	22.16	24		

n7 (SCS 15 kHz) (Ann10)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max. Power (dBm)	Turn-up	
		Channel		Frequency (MHz)	5000	50700			
40M	DFT-s-OFDM P2 BPSK	1	1	22.49	22.62	22.24	24		
		1	108	22.13	22.13	22.16	24		
		1	214	22.04	22.17	22.16	24		
		108	0	22.43	22.53	22.46	24		
		108	54	22.61	22.67	22.63	24		
		108	108	22.37	22.38	22.56	24		
		216	0	22.59	22.38	22.78	24		
		1	1	22.29	22.69	22.62	24		
	DFT-s-OFDM QPSK	1	108	22.63	22.95	22.11	24		
		1	214	22.03	22.16	22.32	24		
		108	0	22.63	22.66	22.37	24		
		108	54	22.97	22.93	22.18	24		
		108	108	22.05	22.26	22.16	24		
		216	0	22.17	22.81	22.12	24		
		1	1	21.96	22.59	22.26	23		
		1	1	20.75	20.94	22.19	22		
	DFT-s-QAM	1	1	19.28	19.26	19.35	21		
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up	
20M	DFT-s-QAM	1	1	22.16	22.11	22.26	24		
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up	
20M	DFT-s-QAM	1	1	22.31	22.13	22.53	24		
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up	
20M	DFT-s-QAM	1	1	22.29	22.02	22.31	24		
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up	
15M	DFT-s-QAM	1	1	22.25	22.58	22.52	24		
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up	
10M	DFT-s-QAM	1	1	22.23	22.09	22.26	24		
BW	MCS Index	Channel		50000	50700	51000	Max.	Turn-up	
5M	DFT-s-QAM	1	1	22.21	22.12	22.14	24		

n38 (SCS 30 kHz) (Ann6)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max.	Turn-up (dBm)	
		Channel		Frequency (MHz)	51800	51900	52000		
40M	DFT-s-OFDM P2 BPSK	1	1	22.78	22.72	22.85	24		
		1	52	22.37	22.38	22.30	24		
		1	104	22.69	22.63	22.11	24		
		50	0	21.95	22.35	21.72	23		
		50	20	22.84	22.48	22.54	23		
		50	56	21.92	22.26	22.16	23		
		100	0	22.13	22.22	21.77	23		
		1	1	22.87	22.97	22.06	24		
	DFT-s-OFDM QPSK	1	52	22.70	22.53	22.80	24		
		1	104	22.83	22.80	22.11	24		
		50	0	21.72	21.42	21.40	23		
		50	20	22.53	22.54	22.75	23		
		50	56	21.80	21.90	21.75	23		
		100	0	21.72	21.97	21.43	23		
		1	1	21.71	21.98	21.93	23		
		1	1	20.29	20.13	19.96	22		
	DFT-s-QAM	1	1	18.38	18.54	18.45	20		
BW	MCS Index	Channel		51700	51900	52100	Max.		
20M	DFT-s-QAM	1	1	22.77	22.90	22.36	24		
BW	MCS Index	Channel		51800	51900	52000	Max.		
20M	DFT-s-QAM	1	1	22.74	22.94	22.99	24		
BW	MCS Index	Channel		51800	51900	52000	Max.		
15M	DFT-s-QAM	1	1	22.84	22.83	22.03	24		
BW	MCS Index	Channel		51800	51900	52000	Max.		
10M	DFT-s-QAM	1	1	22.86	22.92	22.92	24		

n66 (SCS 15 kHz) (Ann2)									
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	Max.	Turn-up (dBm)	
		Channel		Frequency (MHz)	34600	349000	35200		
40M	DFT-s-OFDM P2 BPSK	1	1	22.91	22.77	22.77	24		
		1	107	22.75	22.96	22.59	24		
		1	214	22.82	22.69	22.55	24		
		108	0	22.40	22.28	22.34	24		
		108	54	22.69	22.65	22.59	24		
		108	108	22.27	22.13	22.19	24		
		216	0	22.31	22.22	22.28	24		
		1	1	22.06	22.06	22.72	24		
	DFT-s-OFDM QPSK	1	107	22.87	22.73	22.77	24		
		1	214	22.89	22.55	22.68	24		
		108	0	21.88	21.69	21.78	24		
		108	54	22.73	22.67	22.60	24		
		108	108	21.81	21.67	21.69	24		
		216	0	22.85	21.79	21.69	24		
		1	1	21.96	21.87	21.81	23		
		1	1	20.26	20.08	20.14	21.5		
	DFT-s-QAM	1	1	18.50	18.42	18.38	19.5		
BW	MCS Index	Channel		34500	34900	35300	Max.		
20M	DFT-s-QAM	1	1	22.89	22.79	22.61	24		
BW	MCS Index	Channel		34600	34900	35300	Max.		
20M	DFT-s-QAM	1	1	22.82	22.75	22.60	24		
BW	MCS Index	Channel		34600	34900	35300	Max.		
15M	DFT-s-QAM	1	1	22.90	22.77	22.61	24		
BW	MCS Index	Channel		34500	34900	35300	Max.		
10M	DFT-s-QAM	1	1	22.89	22.70	22.65	24		
BW	MCS Index	Channel		34500	34900	35300	Max.		
5M	DFT-s-QAM	1	1	22.83	22.78	22.57	24		

n77 PC3/PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	Mid		Max. Tune-up (dBm)
		Channel		633334		
		Frequency (MHz)		3500.01		
100M	DFT-s-OFDM P2/2 BPSK	1	1	18.04		19.5
		1	137	17.92		19.5
		1	271	17.92		19.5
		135	0	17.78		19.5
		135	69	17.89		19.5
		135	138	17.96		19.5
		270	0	17.90		19.5
	DFT-s-OFDM QPSK	1	1	18.27		19.5
		1	137	18.06		19.5
		1	271	18.04		19.5
		135	0	17.79		19.5
		135	69	17.87		19.5
		135	138	17.86		19.5
		270	0	17.91		19.5
	DFT-s-OFDM 16QAM	1	1	18.15		19.5
		1	1	17.86		19
	DFT-s-OFDM 64QAM	1	1	16.53		18
BW	MCS Index	Channel		633000	633334	633666
		Frequency (MHz)		3495	3500.01	3504.99
90M	DFT-s-OFDM QPSK	1	1	18.26	18.25	18.20
BW	MCS Index	Channel		632668	633334	634000
		Frequency (MHz)		3490.02	3500.01	3510
80M	DFT-s-OFDM QPSK	1	1	18.14	18.14	18.17
BW	MCS Index	Channel		632334	633334	634332
		Frequency (MHz)		3485.01	3500.01	3514.98
70M	DFT-s-OFDM QPSK	1	1	18.20	18.15	18.13
BW	MCS Index	Channel		632000	633334	634666
		Frequency (MHz)		3480	3500.01	3519.99
60M	DFT-s-OFDM QPSK	1	1	18.17	18.16	18.25
BW	MCS Index	Channel		631668	633334	635000
		Frequency (MHz)		3475.02	3500.01	3525
50M	DFT-s-OFDM QPSK	1	1	18.22	18.20	18.13
BW	MCS Index	Channel		631334	633334	635332
		Frequency (MHz)		3470.01	3500.01	3529.98
40M	DFT-s-OFDM QPSK	1	1	18.27	18.25	18.16
BW	MCS Index	Channel		631000	633334	635666
		Frequency (MHz)		3465	3500.01	3534.99
30M	DFT-s-OFDM QPSK	1	1	18.23	18.16	18.21
BW	MCS Index	Channel		630668	633334	636000
		Frequency (MHz)		3460.02	3500.01	3540
20M	DFT-s-OFDM QPSK	1	1	18.14	18.18	18.14
BW	MCS Index	Channel		630334	633334	636336
		Frequency (MHz)		3457.5	3500.01	3542.49
15M	DFT-s-OFDM QPSK	1	1	18.18	18.24	18.18
BW	MCS Index	Channel		630334	633334	636332
		Frequency (MHz)		3455.01	3500.01	3544.98
10M	DFT-s-OFDM QPSK	1	1	18.19	18.26	18.24

n77 PC3/PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		650000	656000	662000
		Frequency (MHz)		3700	3840	3950
100M	DFT-s-OFDM P2/2 BPSK	1	1	18.51	18.06	18.39
		1	137	18.44	18.06	18.36
		1	271	18.32	17.89	18.06
		135	0	18.32	17.90	18.29
		135	69	18.40	17.87	18.07
		135	138	18.30	17.97	18.16
		270	0	18.22	17.89	18.24
	DFT-s-OFDM QPSK	1	1	18.65	18.16	18.42
		1	137	18.49	18.00	18.23
		1	271	18.34	17.87	18.17
		135	0	18.22	17.90	18.12
		135	69	18.29	18.00	18.24
		135	138	18.28	17.88	18.18
		270	0	18.34	17.85	18.20
	DFT-s-OFDM 16QAM	1	1	18.58	18.06	18.32
		1	1	18.25	17.74	18.19
	DFT-s-OFDM 64QAM	1	1	16.97	16.49	16.86
BW	MCS Index	Channel		649668	656000	662332
		Frequency (MHz)		3746.02	3840	3934.98
90M	DFT-s-OFDM QPSK	1	1	18.65	18.05	18.29
BW	MCS Index	Channel		649334	656000	662666
		Frequency (MHz)		3740.01	3840	3939.99
80M	DFT-s-OFDM QPSK	1	1	18.55	18.04	18.39
BW	MCS Index	Channel		648999	656000	663000
		Frequency (MHz)		3735.01	3840	3944.98
70M	DFT-s-OFDM QPSK	1	1	18.53	18.07	18.30
BW	MCS Index	Channel		648668	656000	663332
		Frequency (MHz)		3730.02	3840	3949.98
60M	DFT-s-OFDM QPSK	1	1	18.54	18.11	18.32
BW	MCS Index	Channel		648334	656000	663666
		Frequency (MHz)		3725.01	3840	3954.99
50M	DFT-s-OFDM QPSK	1	1	18.53	17.96	18.35
BW	MCS Index	Channel		648000	656000	664000
		Frequency (MHz)		3720	3840	3959
40M	DFT-s-OFDM QPSK	1	1	18.49	18.03	18.28
BW	MCS Index	Channel		647668	656000	664332
		Frequency (MHz)		3715.02	3840	3964.98
30M	DFT-s-OFDM QPSK	1	1	18.65	18.01	18.27
BW	MCS Index	Channel		647334	656000	664666
		Frequency (MHz)		3710.01	3840	3969.99
20M	DFT-s-OFDM QPSK	1	1	18.61	18.06	18.32
BW	MCS Index	Channel		647000	656000	665000
		Frequency (MHz)		3707.52	3840	3972.48
15M	DFT-s-OFDM QPSK	1	1	18.61	18.08	18.44
BW	MCS Index	Channel		647000	656000	665000
		Frequency (MHz)		3705	3840	3975
10M	DFT-s-OFDM QPSK	1	1	18.50	18.08	18.44

n78 PC3/PC2 (SCS 30 kHz) (Ant5)						
BW	MCS Index	RB Size	RB Offset	Mid		Max. Tune-up (dBm)
		Channel		633334		
		Frequency (MHz)		3500.01		
100M	DFT-s-OFDM P2/2 BPSK	1	1	18.61		19.5
		1	137	18.61		19.5
		1	271	18.42		19.5
		135	0	18.39		19.5
		135	69	18.53		19.5
		135	138	18.39		19.5
		270	0	18.54		19.5
	DFT-s-OFDM QPSK	1	1	18.76		19.5
		1	137	18.58		19.5
		1	271	18.56		19.5
		135	0	18.42		19.5
		135	69	18.43		19.5
		135	138	18.44		19.5
		270	0	18.52		19.5
	DFT-s-OFDM 16QAM	1	1	18.29		19.5
		1	1	17.81		19
	DFT-s-OFDM 64QAM	1	1	16.99		18
BW	MCS Index	Channel		633000	633334	633666
		Frequency (MHz)		3495	3500.01	3504.99
90M	DFT-s-OFDM QPSK	1	1	18.64	18.70	18.64
BW	MCS Index	Channel		632668	633334	634000
		Frequency (MHz)		3490.02	3500.01	3510
80M	DFT-s-OFDM QPSK	1	1	18.70	18.63	18.70
BW	MCS Index	Channel		632334	633334	634332
		Frequency (MHz)		3485.01	3500.01	3514.98
70M	DFT-s-OFDM QPSK	1	1	18.73	18.68	18.71
BW	MCS Index	Channel		632000	633334	634666
		Frequency (MHz)		3480	3500.01	3519.99
60M	DFT-s-OFDM QPSK	1	1	18.65	18.69	18.72
BW	MCS Index	Channel		631668	633334	635000
		Frequency (MHz)		3475.02	3500.01	3525
50M	DFT-s-OFDM QPSK	1	1	18.66	18.70	18.64
BW	MCS Index	Channel		631334	633334	635332
		Frequency (MHz)		3470.01	3500.01	3529.98
40M	DFT-s-OFDM QPSK	1	1	18.64	18.60	18.59
BW	MCS Index	Channel		631000	633334	635666
		Frequency (MHz)		3465	3500.01	3534.99
30M	DFT-s-OFDM QPSK	1	1	18.68	18.62	18.70
BW	MCS Index	Channel		630668	633334	636000
		Frequency (MHz)		3460.02	3500.01	3540
20M	DFT-s-OFDM QPSK	1	1	18.67	18.58	18.56
BW	MCS Index	Channel		630334	633334	636336
		Frequency (MHz)		3457.5	3500.01	3542.49
15M	DFT-s-OFDM QPSK	1	1	18.60	18.59	18.62
BW	MCS Index	Channel		630334	633334	636332
		Frequency (MHz)		3455.01	3500.01	3544.98
10M	DFT-s-OFDM QPSK	1	1	18.60	18.68	18.74



BUREAU
VERITAS



Appendix E. Photographs of EUT and Setup