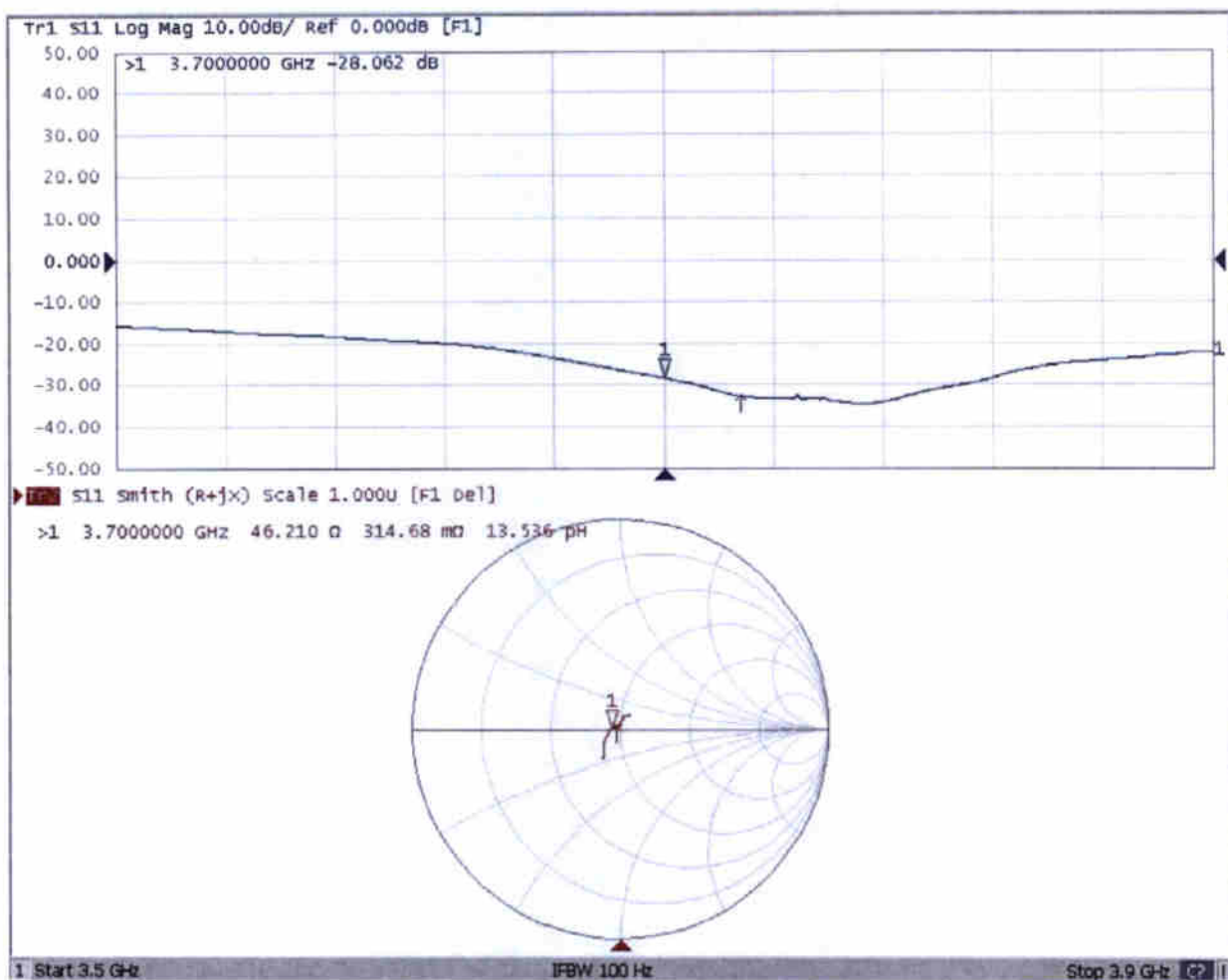




Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
E-mail: cttl@chinattl.com <http://www.caict.ac.cn>

Impedance Measurement Plot for Head TSL





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

Accreditation No.: **SCS 0108**

Client **Sporton**

Certificate No: **D3900V2-1048_May20**

CALIBRATION CERTIFICATE

Object **D3900V2 - SN:1048**

Calibration procedure(s) **QA CAL-22.v4**
Calibration Procedure for SAR Validation Sources between 3-6 GHz

Calibration date: **May 14, 2020**

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	01-Apr-20 (No. 217-03100/03101)	Apr-21
Power sensor NRP-Z91	SN: 103244	01-Apr-20 (No. 217-03100)	Apr-21
Power sensor NRP-Z91	SN: 103245	01-Apr-20 (No. 217-03101)	Apr-21
Reference 20 dB Attenuator	SN: BH9394 (20k)	31-Mar-20 (No. 217-03106)	Apr-21
Type-N mismatch combination	SN: 310982 / 06327	31-Mar-20 (No. 217-03104)	Apr-21
Reference Probe EX3DV4	SN: 3503	31-Dec-19 (No. EX3-3503_Dec19)	Dec-20
DAE4	SN: 601	27-Dec-19 (No. DAE4-601_Dec19)	Dec-20
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Feb-19)	In house check: Oct-20
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-18)	In house check: Oct-20
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-19)	In house check: Oct-20

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: May 14, 2020

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



Accredited by the Swiss Accreditation Service (SAS)

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

Accreditation No.: **SCS 0108**

Glossary:

TSL	tissue simulating liquid
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 the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

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	DASY5	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4.0 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	3900 MHz $\pm$ 1 MHz 4100 MHz $\pm$ 1 MHz	

Head TSL parameters at 3900 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	37.5	3.32 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	36.4 $\pm$ 6 %	3.21 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

SAR result with Head TSL at 3900 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.03 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	70.2 W/kg $\pm$ 19.9 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.45 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.4 W/kg $\pm$ 19.5 % (k=2)

Head TSL parameters at 4100 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	37.2	3.53 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	36.2 $\pm$ 6 %	3.39 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

SAR result with Head TSL at 4100 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	6.89 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	68.9 W/kg $\pm$ 19.9 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.39 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.7 W/kg $\pm$ 19.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL at 3900 MHz

Impedance, transformed to feed point	48.6 Ω - 3.2 j Ω
Return Loss	- 29.1 dB

Antenna Parameters with Head TSL at 4100 MHz

Impedance, transformed to feed point	59.7 Ω + 1.3 j Ω
Return Loss	- 21.0 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.106 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

Manufactured by	SPEAG
-----------------	-------

DASY5 Validation Report for Head TSL

Date: 14.05.2020

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 3900 MHz; Type: D3900V2; Serial: D3900V2 - SN:1048

Communication System: UID 0 - CW; Frequency: 3900 MHz, Frequency: 4100 MHz

Medium parameters used: $f = 3900$ MHz; $\sigma = 3.21$ S/m; $\epsilon_r = 36.4$; $\rho = 1000$ kg/m³,

Medium parameters used: $f = 4100$ MHz; $\sigma = 3.39$ S/m; $\epsilon_r = 36.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(7.39, 7.39, 7.39) @ 3900 MHz, ConvF(7.26, 7.26, 7.26) @ 4100 MHz; Calibrated: 31.12.2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 27.12.2019
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Dipole Calibration for Head Tissue/Pin=100 mW, d=10mm, f=3900MHz/Zoom Scan,

dist=1.4mm (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 73.46 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 20.2 W/kg

SAR(1 g) = 7.03 W/kg; SAR(10 g) = 2.45 W/kg

Smallest distance from peaks to all points 3 dB below = 7.9 mm

Ratio of SAR at M2 to SAR at M1 = 73.5%

Maximum value of SAR (measured) = 13.8 W/kg

Dipole Calibration for Head Tissue/Pin=100 mW, d=10mm, f=4100MHz/Zoom Scan,

dist=1.4mm (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 71.71 V/m; Power Drift = -0.02 dB

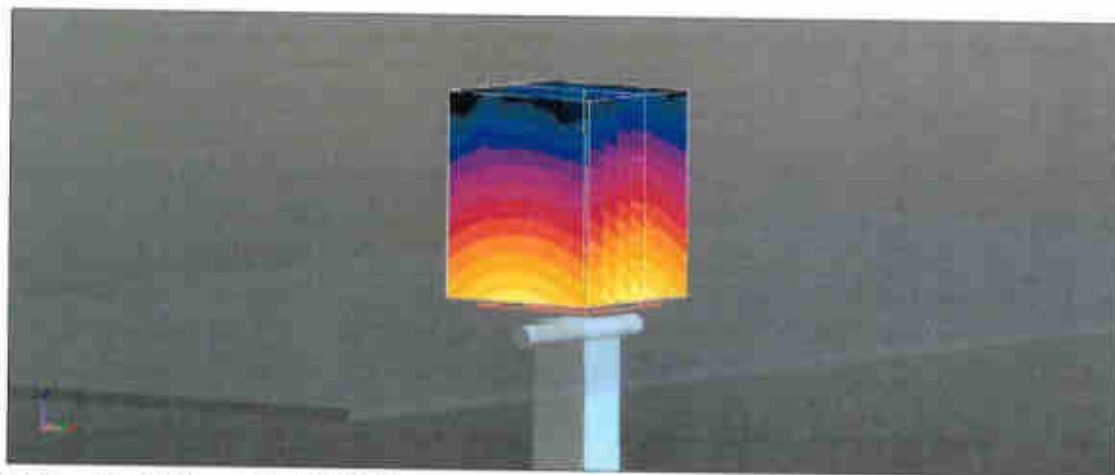
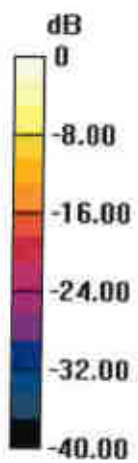
Peak SAR (extrapolated) = 19.8 W/kg

SAR(1 g) = 6.89 W/kg; SAR(10 g) = 2.39 W/kg

Smallest distance from peaks to all points 3 dB below = 8 mm

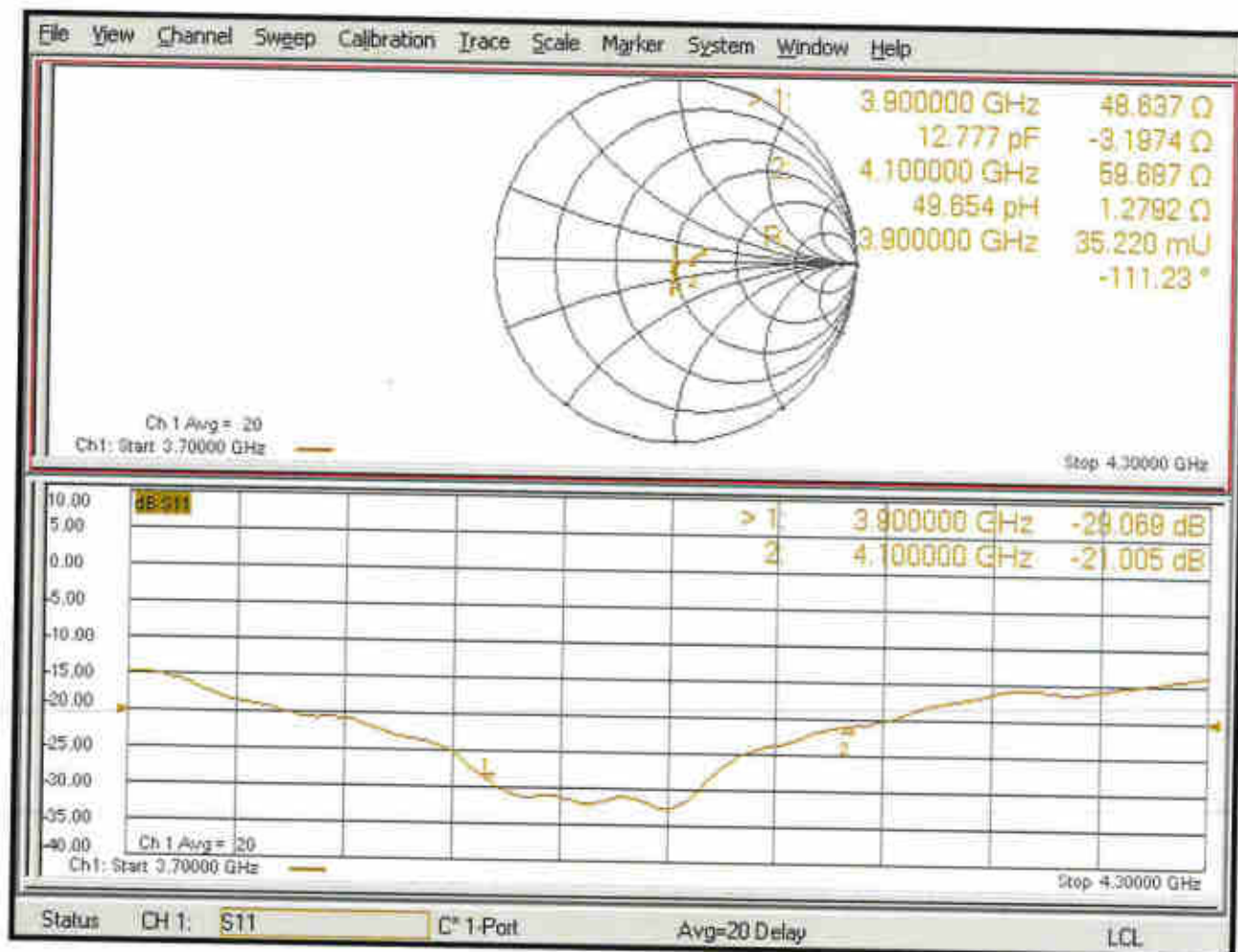
Ratio of SAR at M2 to SAR at M1 = 73.3%

Maximum value of SAR (measured) = 13.8 W/kg



0 dB = 13.8 W/kg = 11.40 dBW/kg

Impedance Measurement Plot for Head TSL



D3900V2, Serial No. 1048 Extended Dipole Calibrations

Referring to KDB 865664 D01 v01r04, 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.

D3900V2 – serial no. 1048						
3900 Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2020.5.14	-29.069		48.637		-3.1974	
2021.5.13	-30.03	-0.03	51.501	-2.86	-2.8249	-0.37
2022.5.13	-28.285	-0.058	49.473	2.028	-2.3186	-0.51

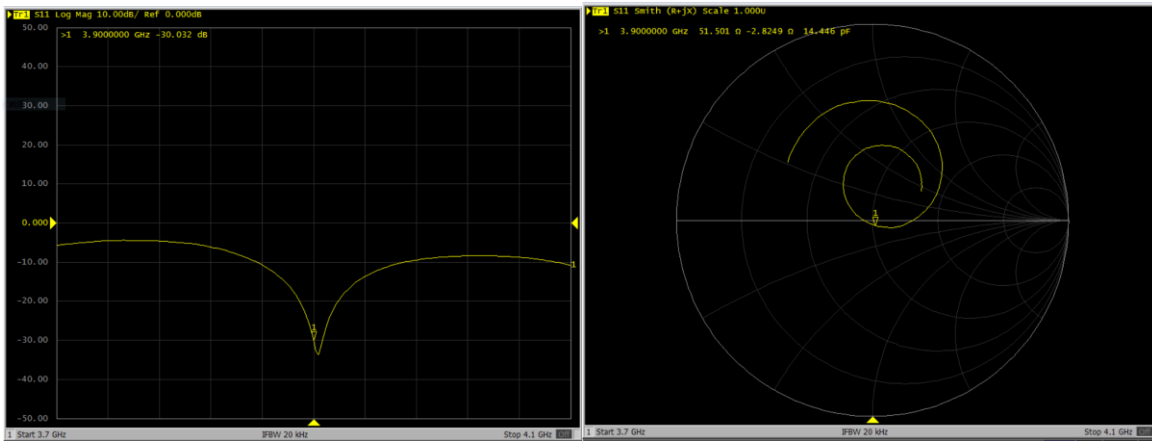
D3900V2 – serial no. 1048						
4100 Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2020.5.14	-21.005		59.687		1.2792	
2021.5.13	-22.284	-0.06	58.278	1.41	0.8744	0.40
2022.5.13	-20.924	1.36	60.071	-1.793	-2.7781	3.65

<Justification of the extended calibration>

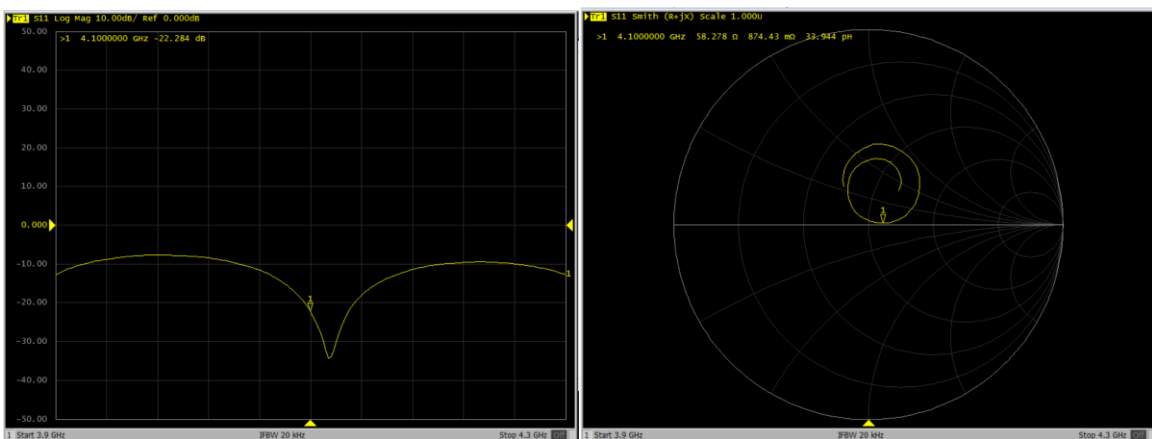
The return loss is $< -20\text{dB}$, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

Dipole Verification Data> D3900V2, serial no. 1048

3900MHz – Head - 2021.5.13

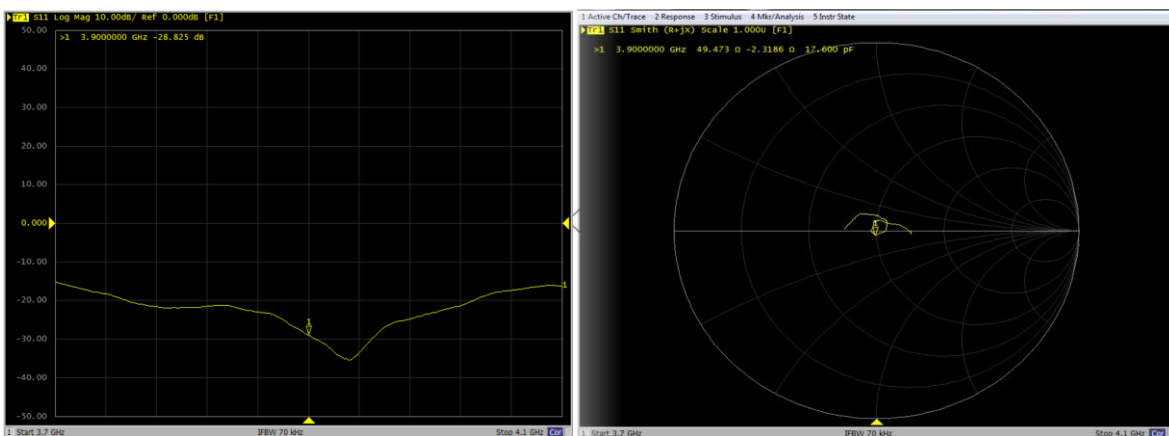


4100MHz – Head - 2021.5.13

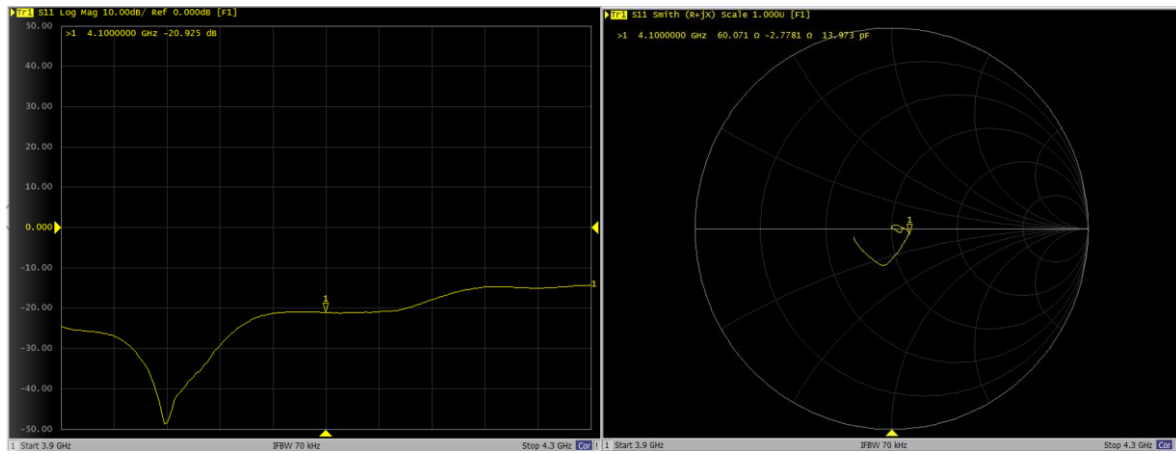


Dipole Verification Data> D3900V2, serial no. 1048

3900MHz – Head - 2022.5.13



4100MHz – Head - 2022.5.13





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

Accreditation No.: **SCS 0108**

Client **Sporton**

Certificate No: **D5GHzV2-1341_Dec21**

CALIBRATION CERTIFICATE

Object **D5GHzV2 - SN:1341**

Calibration procedure(s) **QA CAL-22.v6**
Calibration Procedure for SAR Validation Sources between 3-10 GHz

Calibration date: **December 13, 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 (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	09-Apr-21 (No. 217-03291/03292)	Apr-22
Power sensor NRP-Z91	SN: 103244	09-Apr-21 (No. 217-03291)	Apr-22
Power sensor NRP-Z91	SN: 103245	09-Apr-21 (No. 217-03292)	Apr-22
Reference 20 dB Attenuator	SN: BH9394 (20k)	09-Apr-21 (No. 217-03343)	Apr-22
Type-N mismatch combination	SN: 310982 / 06327	09-Apr-21 (No. 217-03344)	Apr-22
Reference Probe EX3DV4	SN: 3503	30-Dec-20 (No. EX3-3503_Dec20)	Dec-21
DAE4	SN: 601	01-Nov-21 (No. DAE4-601_Nov21)	Nov-22
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Oct-20)	In house check: Oct-22
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-20)	In house check: Oct-22
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-20)	In house check: Oct-22
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-20)	In house check: Oct-22
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-20)	In house check: Oct-22

Calibrated by: **Jeffrey Katzman** Function **Laboratory Technician**

Approved by: **Niels Kuster** Quality Manager

Signature

Issued: December 14, 2021

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



Accredited by the Swiss Accreditation Service (SAS)

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

Accreditation No.: **SCS 0108**

Glossary:

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

Calibration is Performed According to the Following Standards:

- a) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- c) DASY 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 source is mounted in a touch configuration below the center marking of the flat phantom.
- *Return Loss:* This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. 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	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4.0 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	5250 MHz $\pm$ 1 MHz 5600 MHz $\pm$ 1 MHz 5750 MHz $\pm$ 1 MHz	

Head TSL parameters at 5250 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.9	4.71 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	34.9 $\pm$ 6 %	4.56 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5250 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.12 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	80.7 W/kg $\pm$ 19.9 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.33 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.1 W/kg $\pm$ 19.5 % (k=2)

Head TSL parameters at 5600 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.5	5.07 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	34.4 $\pm$ 6 %	4.91 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5600 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.52 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	84.5 W/kg $\pm$ 19.9 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.42 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.0 W/kg $\pm$ 19.5 % (k=2)

Head TSL parameters at 5750 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.4	5.22 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.2 ± 6 %	5.06 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5750 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.13 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	80.6 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.29 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	22.7 W/kg ± 19.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL at 5250 MHz

Impedance, transformed to feed point	$48.4 \Omega + 0.1 j\Omega$
Return Loss	- 35.7 dB

Antenna Parameters with Head TSL at 5600 MHz

Impedance, transformed to feed point	$53.8 \Omega + 7.2 j\Omega$
Return Loss	- 22.2 dB

Antenna Parameters with Head TSL at 5750 MHz

Impedance, transformed to feed point	$51.4 \Omega + 5.0 j\Omega$
Return Loss	- 25.8 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.211 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

Manufactured by	SPEAG
-----------------	-------

DASY5 Validation Report for Head TSL

Date: 13.12.2021

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1341

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.56$ S/m; $\epsilon_r = 34.9$; $\rho = 1000$ kg/m³,

Medium parameters used: $f = 5600$ MHz; $\sigma = 4.91$ S/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³,

Medium parameters used: $f = 5750$ MHz; $\sigma = 5.06$ S/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.5, 5.5, 5.5) @ 5250 MHz, ConvF(5.1, 5.1, 5.1) @ 5600 MHz, ConvF(5.08, 5.08, 5.08) @ 5750 MHz; Calibrated: 30.12.2020
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 01.11.2021
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 77.28 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 27.0 W/kg

SAR(1 g) = 8.12 W/kg; SAR(10 g) = 2.33 W/kg

Smallest distance from peaks to all points 3 dB below = 7.4 mm

Ratio of SAR at M2 to SAR at M1 = 71.5%

Maximum value of SAR (measured) = 18.5 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 77.67 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 30.9 W/kg

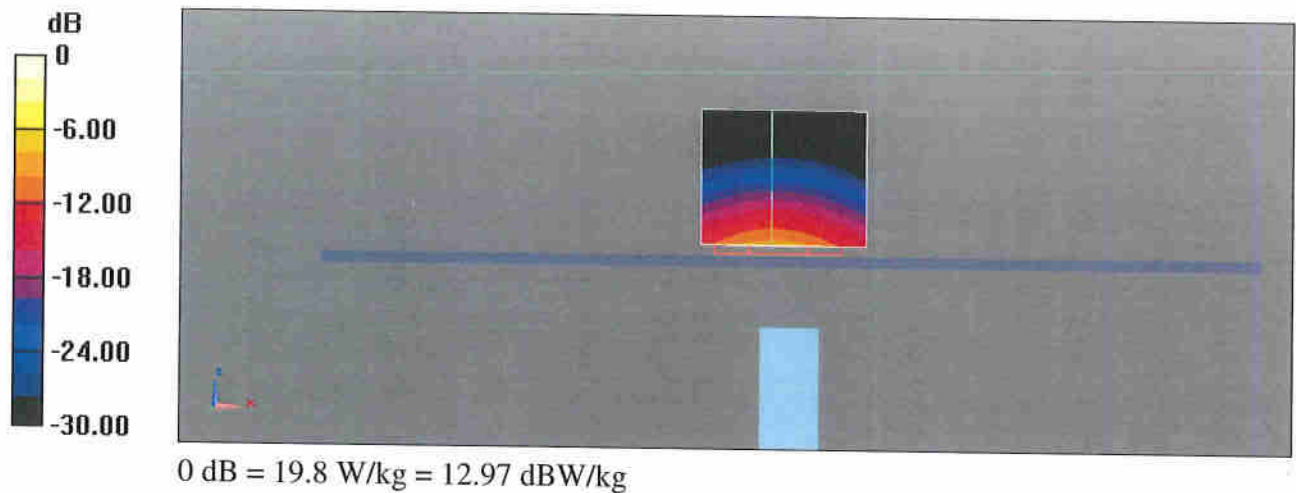
SAR(1 g) = 8.52 W/kg; SAR(10 g) = 2.42 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

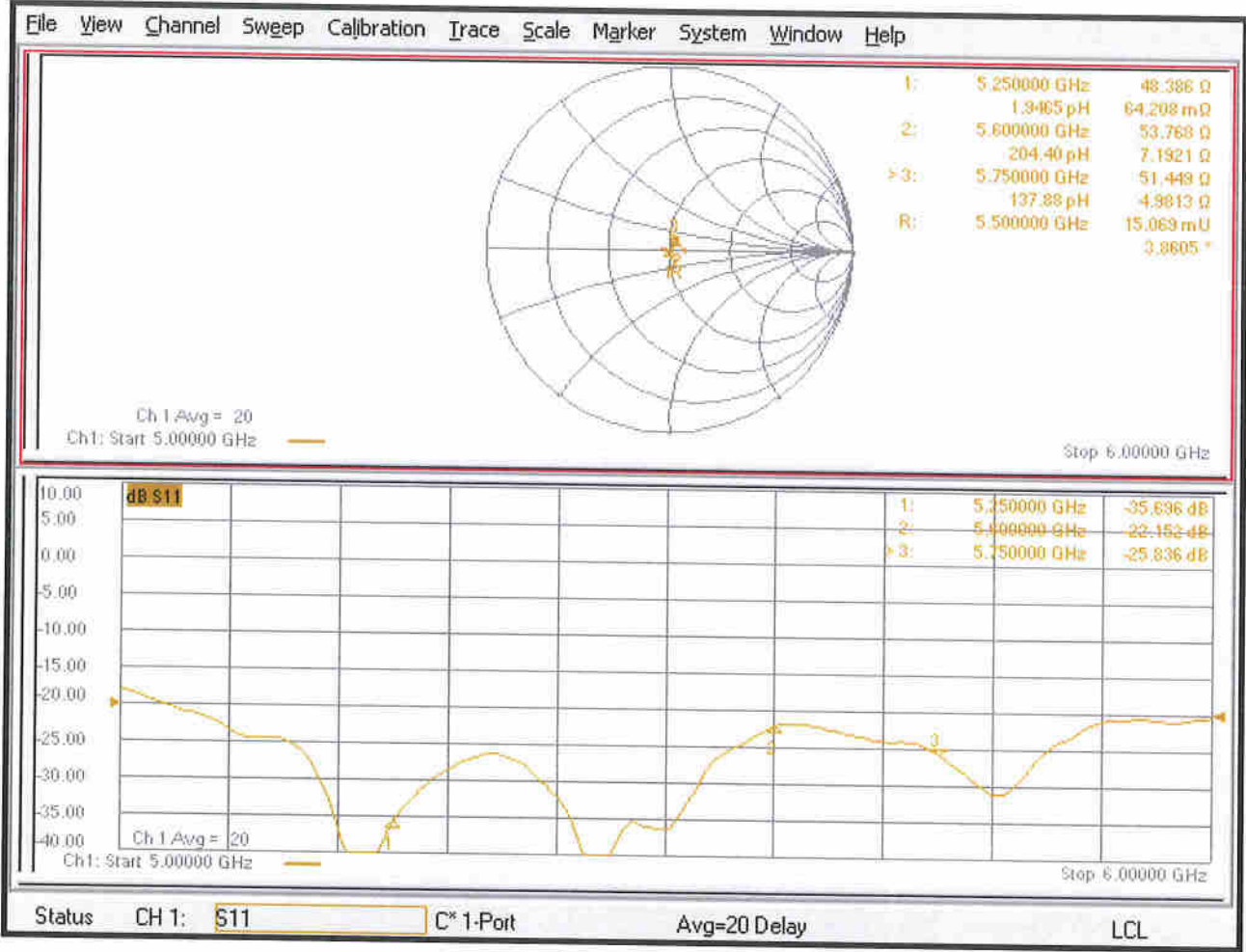
Ratio of SAR at M2 to SAR at M1 = 68.6%

Maximum value of SAR (measured) = 20.2 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 74.44 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 31.2 W/kg
SAR(1 g) = 8.13 W/kg; SAR(10 g) = 2.29 W/kg
Smallest distance from peaks to all points 3 dB below = 7.4 mm
Ratio of SAR at M2 to SAR at M1 = 66.7%
Maximum value of SAR (measured) = 19.8 W/kg



Impedance Measurement Plot for Head TSL





In Collaboration with
s p e a g
CALIBRATION LABORATORY



中国认可
国际互认
校准
CALIBRATION
CNAS L0570

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504
E-mail: cttl@chinattl.com [Http://www.chinattl.cn](http://www.chinattl.cn)

Client : **Sporton**

Certificate No: Z21-60491

CALIBRATION CERTIFICATE

Object

DAE4 - SN: 715

Calibration Procedure(s)

FF-Z11-002-01

Calibration Procedure for the Data Acquisition Electronics
(DAEx)

Calibration date:

December 29, 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
Process Calibrator 753	1971018	15-Jun-21 (CTTL, No.J21X04465)	Jun-22

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

Issued: December 31, 2021

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

Glossary:

DAE data acquisition electronics
Connector angle information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters:

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle:* The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The report provide only calibration results for DAE, it does not contain other performance test results.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1 μ V, full range = -100...+300 mV

Low Range: 1LSB = 61nV, full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	405.122 $\pm$ 0.15% (k=2)	404.671 $\pm$ 0.15% (k=2)	404.495 $\pm$ 0.15% (k=2)
Low Range	3.99094 $\pm$ 0.7% (k=2)	3.97897 $\pm$ 0.7% (k=2)	3.97797 $\pm$ 0.7% (k=2)

Connector Angle

Connector Angle to be used in DASY system	330.5° $\pm$ 1 °
---	------------------

Calibration Laboratory of**Schmid & Partner
Engineering AG**

Zeughausstrasse 43, 8004 Zurich, Switzerland

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

Accredited by the Swiss Accreditation Service (SAS)

**The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates**Accreditation No.: **SCS 0108**

Client

Sporton

Certificate No

EX-3819_May22**CALIBRATION CERTIFICATE**

Object

EX3DV4 - SN:3819

Calibration procedure(s)

**QA CAL-01.v9, QA CAL-12.v9, QA CAL-14.v6, QA CAL-23.v5,
QA CAL-25.v7****Calibration procedure for dosimetric E-field probes**

Calibration date

May 30, 2022

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-22 (No. 217-03525/03524)	Apr-23
Power sensor NRP-Z91	SN: 103244	04-Apr-22 (No. 217-03524)	Apr-23
OCP DAK-3.5 (weighted)	SN: 1249	20-Oct-21 (OCP-DAK3.5-1249_Oct21)	Oct-22
OCP DAK-12	SN: 1016	20-Oct-21 (OCP-DAK12-1016_Oct21)	Oct-22
Reference 20 dB Attenuator	SN: CC2552 (20x)	04-Apr-22 (No. 217-03527)	Apr-23
DAE4	SN: 660	13-Oct-21 (No. DAE4-660_Oct21)	Oct-22
Reference Probe ES3DV2	SN: 3013	27-Dec-21 (No. ES3-3013_Dec21)	Dec-22

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-20)	In house check: Jun-22
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-20)	In house check: Oct-22

	Name	Function	Signature
Calibrated by	Leif Klysner	Laboratory Technician	
Approved by	Sven Kühn	Technical Manager	

Issued: June 9, 2022

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

Calibration Laboratory of

Schmid & Partner
Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland



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

Accredited by the Swiss Accreditation Service (SAS)

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

Accreditation No.: **SCS 0108**

Glossary

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

Calibration is Performed According to the Following Standards:

- IEC/IEEE 62209-1528, "Measurement Procedure for the Assessment of Specific Absorption Rate of Human Exposure to Radio Frequency Fields from Hand-Held and Body-Worn Wireless Communication Devices – Part 1528: Human Models, Instrumentation and Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}**: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)_{x,y,z} = NORM_{x,y,z} * frequency_response** (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP_{x,y,z}**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal. DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; D_{x,y,z}; VR_{x,y,z}**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM_x (no uncertainty required).

Parameters of Probe: EX3DV4 - SN:3819

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc ($k = 2$)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.46	0.41	0.45	$\pm 10.1\%$
DCP (mV) ^B	105.0	103.0	105.2	$\pm 4.7\%$

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Max Unc ^E $k = 2$
0	CW	X	0.00	0.00	1.00	0.00	152.4	$\pm 2.7\%$	$\pm 4.7\%$
		Y	0.00	0.00	1.00		169.3		
		Z	0.00	0.00	1.00		155.1		

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%.

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

^B Linearization parameter uncertainty for maximum specified field strength.

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

Parameters of Probe: EX3DV4 - SN:3819**Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle	-65.5°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3–4 mm for an *Area Scan* job.

Parameters of Probe: EX3DV4 - SN:3819

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k = 2)
750	41.9	0.89	9.82	9.82	9.82	0.45	0.92	±12.0%
835	41.5	0.90	9.51	9.51	9.51	0.55	0.80	±12.0%
900	41.5	0.97	9.42	9.42	9.42	0.53	0.80	±12.0%
1750	40.1	1.37	8.57	8.57	8.57	0.33	0.86	±12.0%
1900	40.0	1.40	8.32	8.32	8.32	0.24	0.86	±12.0%
2000	40.0	1.40	8.14	8.14	8.14	0.29	0.86	±12.0%
2300	39.5	1.67	7.76	7.76	7.76	0.35	0.90	±12.0%
2450	39.2	1.80	7.57	7.57	7.57	0.29	0.90	±12.0%
2600	39.0	1.96	7.39	7.39	7.39	0.32	0.90	±12.0%
3300	38.2	2.71	6.92	6.92	6.92	0.20	1.20	±14.0%
3500	37.9	2.91	6.78	6.78	6.78	0.25	1.20	±14.0%
3700	37.7	3.12	6.72	6.72	6.72	0.25	1.25	±14.0%
3900	37.5	3.32	6.60	6.60	6.60	0.30	1.60	±14.0%
4100	37.2	3.53	6.47	6.47	6.47	0.30	1.60	±14.0%
4400	36.9	3.84	6.12	6.12	6.12	0.30	1.60	±14.0%
4600	36.7	4.04	6.10	6.10	6.10	0.30	1.70	±14.0%
4800	36.4	4.25	6.09	6.09	6.09	0.40	1.80	±14.0%
4950	36.3	4.40	5.97	5.97	5.97	0.40	1.80	±14.0%
5250	35.9	4.71	5.07	5.07	5.07	0.40	1.80	±14.0%
5600	35.5	5.07	4.55	4.55	4.55	0.40	1.80	±14.0%
5750	35.4	5.22	4.65	4.65	4.65	0.40	1.80	±14.0%

^C Frequency validity above 300 MHz of ±100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ±50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ±10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4–9 MHz, and ConvF assessed at 13 MHz is 9–19 MHz. Above 5 GHz frequency validity can be extended to ±110 MHz.

^F At frequencies up to 6 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

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

Parameters of Probe: EX3DV4 - SN:3819

Calibration Parameter Determined in Head Tissue Simulating Media

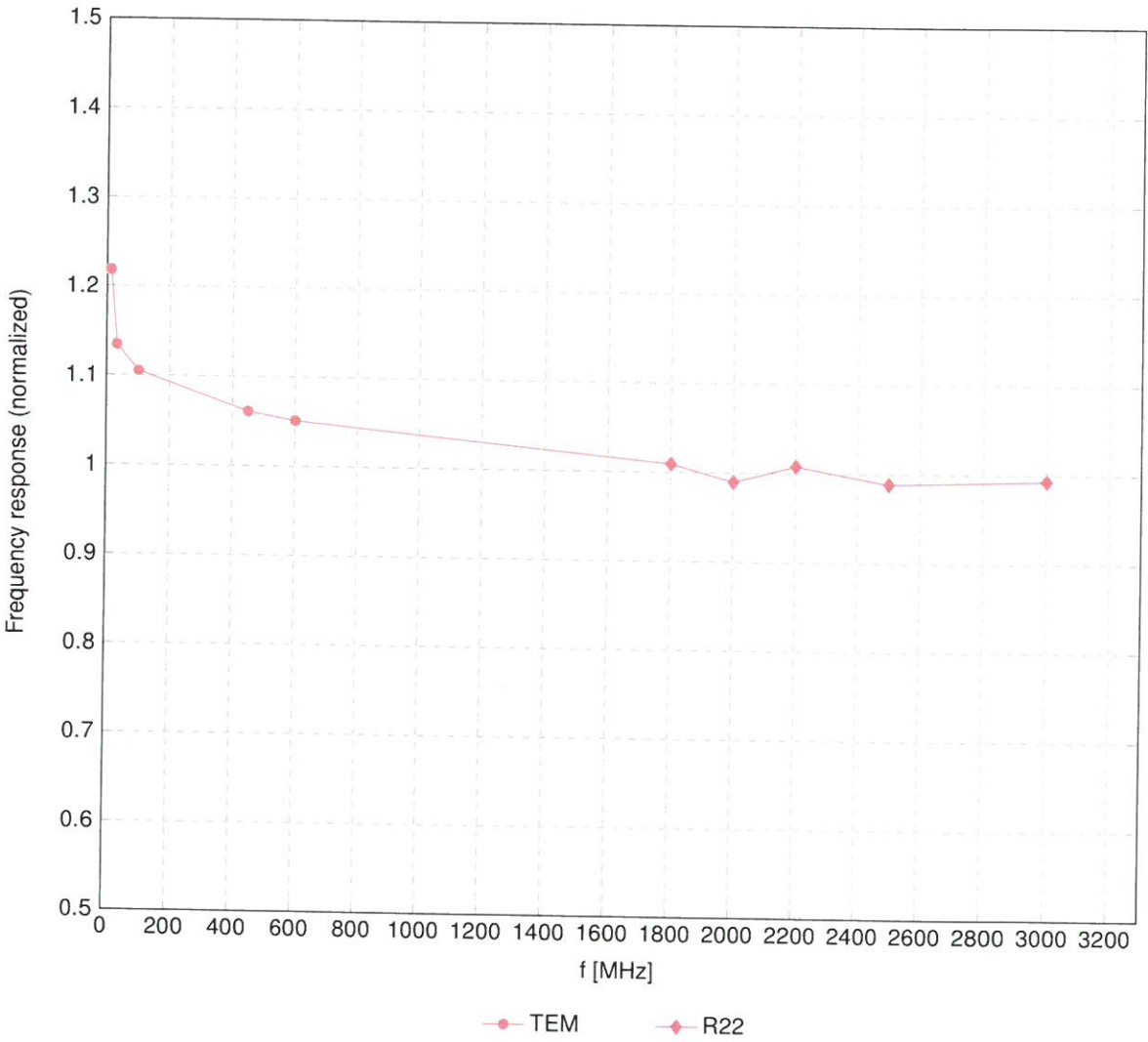
f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k = 2)
6500	34.5	6.07	5.50	5.50	5.50	0.20	2.50	±18.6%

^C Frequency validity at 6.5 GHz is -600/+700 MHz, and ±700 MHz at or above 7 GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

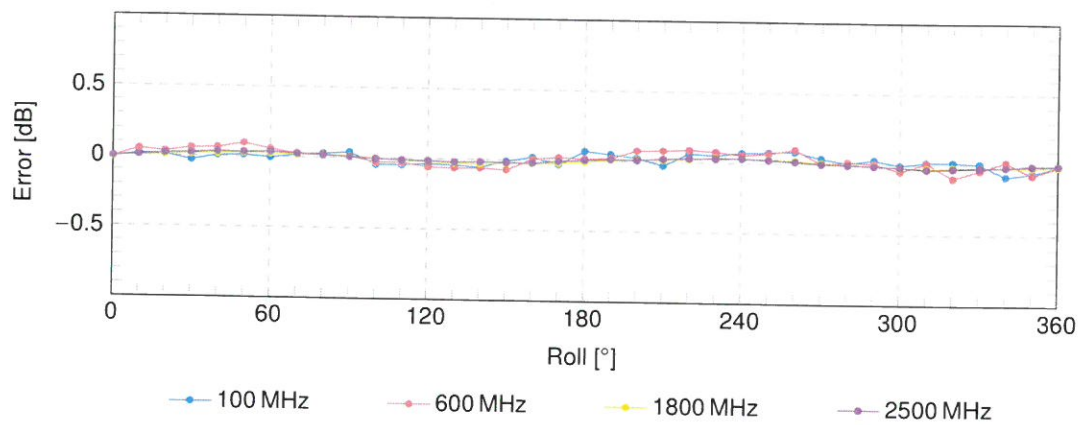
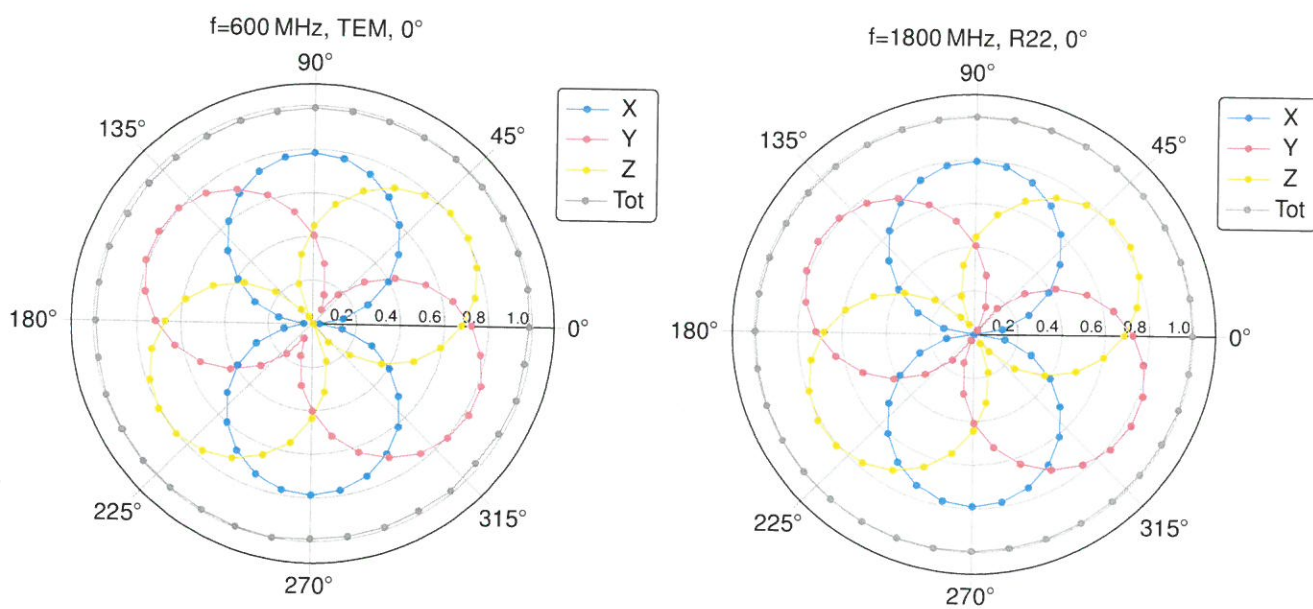
^F At frequencies 6–10 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

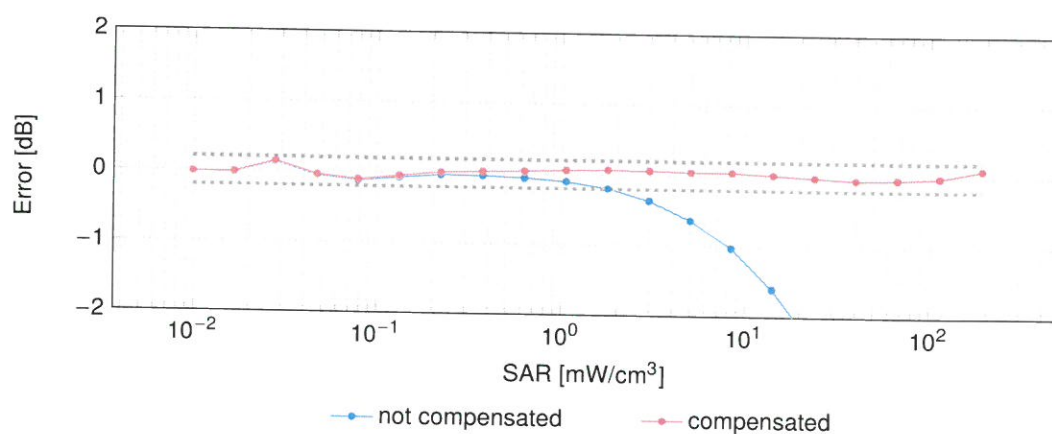
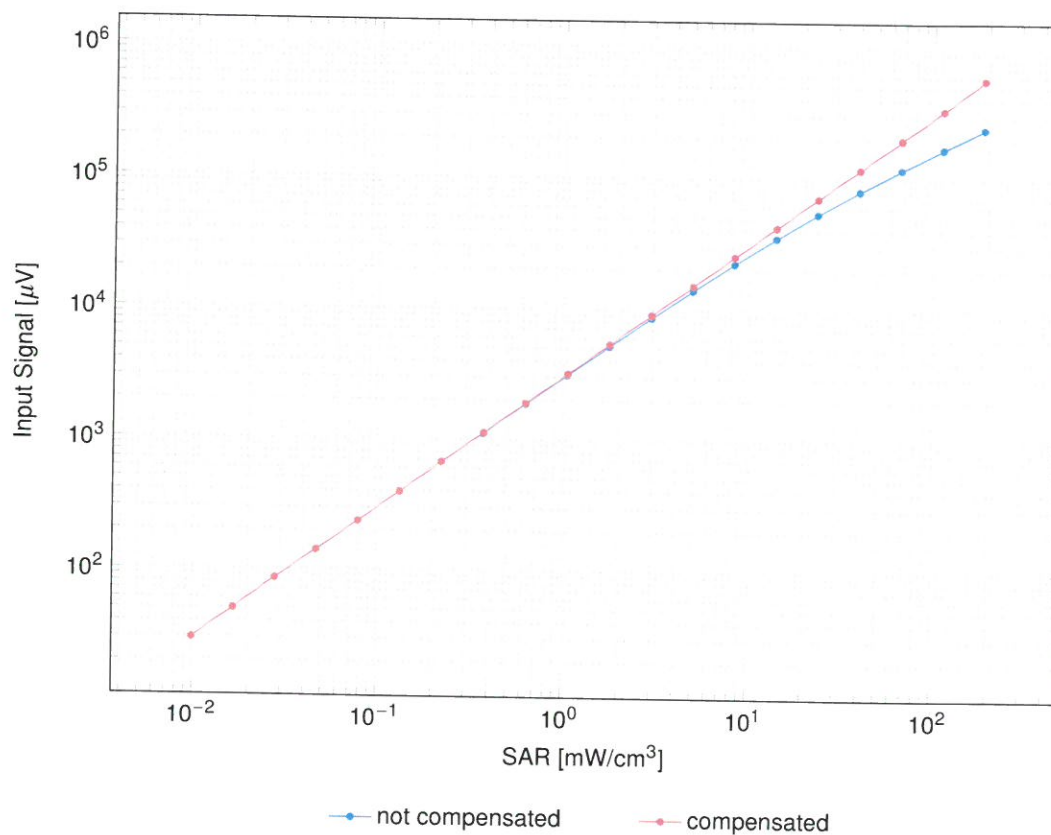
^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz; below ±2% for frequencies between 3–6 GHz; and below ±4% for frequencies between 6–10 GHz at any distance larger than half the probe tip diameter from the boundary.

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

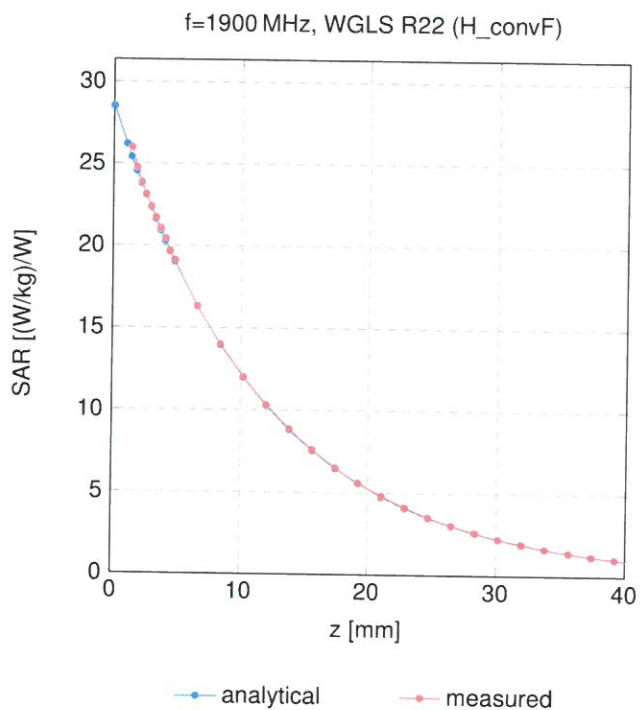


Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ (k=2)

Receiving Pattern (ϕ), $\vartheta = 0^\circ$ Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

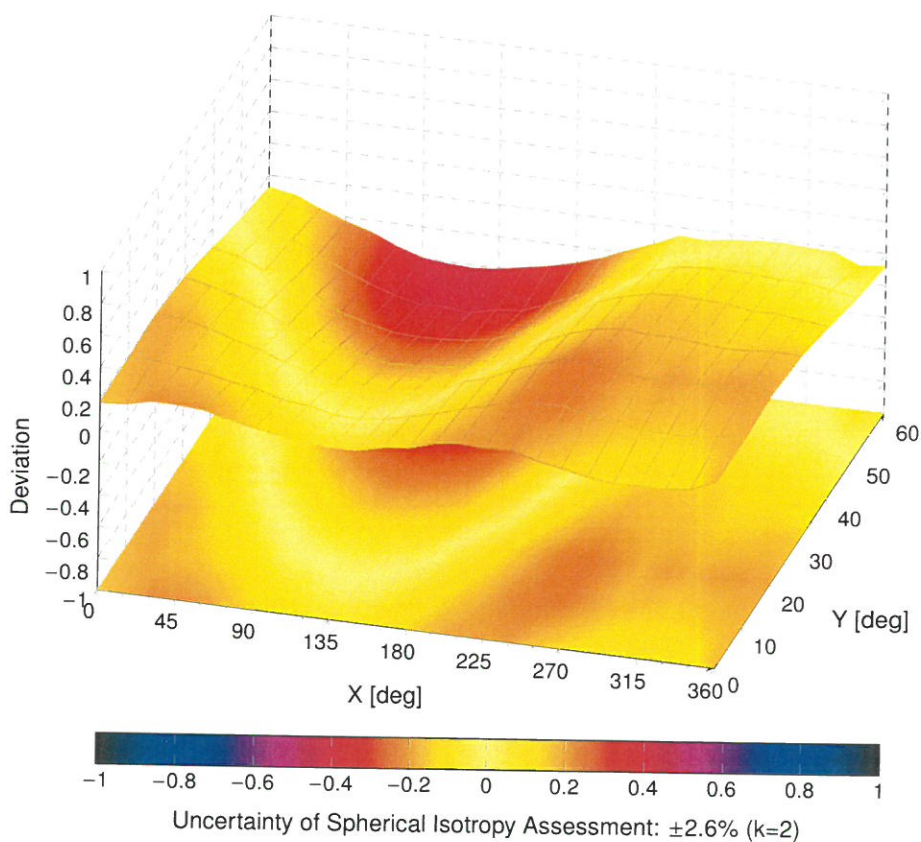
Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell, $f_{\text{eval}} = 1900\text{ MHz}$)Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, θ), f = 900 MHz





Appendix E. Conducted RF Output Power Table

The detailed power table are shown as follows.



Full Power for WWAN

GSM850_Ant11	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame Average Power (dBm)			Tune-up Limit (dBm)
	TX Channel	159	169	251	159	169	251	
Frequency (MHz)	834.2	836.4	848.8	834.2	836.4	848.8	834.2	836.4
GSM 1 Tx slot	32.09	32.20	32.22	33.50	23.09	23.20	23.22	24.50
GPRS 1 Tx slot	32.08	32.17	32.21	33.50	23.08	23.17	23.21	24.50
GPRS 2 Tx slots	30.33	30.34	30.32	31.50	24.33	24.34	24.32	25.50
GPRS 3 Tx slots	28.13	28.13	28.12	29.50	23.87	23.87	23.86	25.24
GPRS 4 Tx slots	26.44	26.45	26.52	28.00	23.44	23.45	23.52	25.00
EDGE 1 Tx slot	27.00	27.04	26.93	28.00	18.00	18.04	17.93	19.00
EDGE 2 Tx slots	24.42	24.51	24.45	25.70	18.42	18.51	18.45	19.70
EDGE 3 Tx slots	22.15	22.25	22.30	23.50	17.89	17.99	18.04	19.24
EDGE 4 Tx slots	20.30	20.31	20.28	21.70	17.30	17.31	17.28	18.70

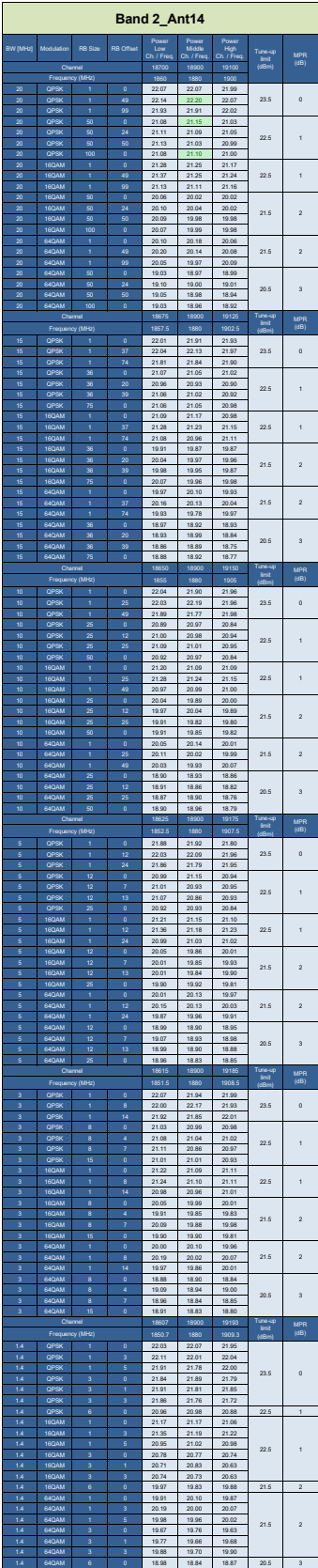
GSM1900_Ant01	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame Average Power (dBm)			Tune-up Limit (dBm)
	TX Channel	512	661	810	512	661	810	
Frequency (MHz)	1850.2	1880	1880	1909.8	1850.2	1880	1909.8	1850.2
GSM 1 Tx slot	30.01	30.13	29.92	30.50	21.01	21.13	20.92	21.50
GPRS 1 Tx slot	29.96	30.12	29.90	30.50	20.96	21.12	20.90	21.50
GPRS 2 Tx slots	27.70	27.86	27.73	28.30	21.70	21.85	21.71	22.30
GPRS 3 Tx slots	25.45	25.64	25.48	26.00	21.16	21.38	21.22	21.74
GPRS 4 Tx slots	23.76	23.94	23.78	24.50	20.76	20.94	20.78	21.50
EDGE 1 Tx slot	25.47	25.51	25.18	26.50	16.47	16.51	16.18	17.50
EDGE 2 Tx slots	23.51	23.60	23.22	24.50	17.51	17.60	17.22	18.50
EDGE 3 Tx slots	21.38	21.42	21.30	22.70	17.12	17.16	17.04	18.44
EDGE 4 Tx slots	20.10	20.05	19.84	21.20	17.10	17.05	16.84	18.20

GSM850_Ant11	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame Average Power (dBm)			Tune-up Limit (dBm)
	TX Channel	159	169	251	159	169	251	
Frequency (MHz)	834.2	836.4	848.8	834.2	836.4	848.8	834.2	836.4
GSM 1 Tx slot	32.08	32.12	32.20	33.50	23.08	23.12	23.20	24.50
GPRS 1 Tx slot	32.05	32.11	32.15	33.50	23.05	23.11	23.15	24.50
GPRS 2 Tx slots	30.21	30.27	30.26	31.50	24.21	24.27	24.26	25.50
GPRS 3 Tx slots	28.09	28.09	28.14	29.50	23.83	23.83	23.88	25.24
GPRS 4 Tx slots	26.33	26.35	26.45	28.00	23.33	23.35	23.45	25.00
EDGE 1 Tx slot	26.70	26.72	26.84	28.00	17.70	17.72	17.64	19.00
EDGE 2 Tx slots	24.34	24.42	24.33	25.70	18.34	18.42	18.33	19.70
EDGE 3 Tx slots	22.15	22.21	22.16	23.50	17.89	17.95	17.90	19.24
EDGE 4 Tx slots	20.34	20.33	20.25	21.70	17.34	17.33	17.25	18.70

GSM1900_Ant14	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame Average Power (dBm)			Tune-up Limit (dBm)
	TX Channel	512	661	810	512	661	810	
Frequency (MHz)	1850.2	1880	1880	1909.8	1850.2	1880	1909.8	1850.2
GSM 1 Tx slot	29.85	29.86	29.78	30.50	20.85	20.88	20.78	21.50
GPRS 1 Tx slot	29.80	29.85	29.72	30.50	20.80	20.85	20.72	21.50
GPRS 2 Tx slots	27.33	27.46	27.46	28.30	21.33	21.60	21.46	22.30
GPRS 3 Tx slots	25.35	25.40	25.39	26.00	21.09	21.14	21.13	21.74
GPRS 4 Tx slots	23.70	23.78	23.82	24.50	20.70	20.78	20.62	21.50
EDGE 1 Tx slot	25.26	25.35	25.18	26.50	16.26	16.35	16.18	17.50
EDGE 2 Tx slots	23.57	23.66	23.43	24.50	17.57	17.66	17.43	18.50
EDGE 3 Tx slots	21.84	21.82	21.85	22.70	17.58	17.56	17.39	18.44
EDGE 4 Tx slots	20.26	20.35	20.25	21.20	17.26	17.35	17.25	18.20

Band	WCDMA I_Ant01				Tune-up Limit (dBm)	WCDMA IV_Ant01				Tune-up Limit (dBm)	WCDMA V_Ant01				Tune-up Limit (dBm)
	TX Channel	9262	9400	9538		1312	1413	1513	4132		4182	4233			
Rx Channel	9662	9600	9938		1537	1658	1738		4507	4407	4458		4507		
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	848.6		848.6		
3GPP Rel 99	AMR 12.2kops	22.50	22.54	22.48	24.00	24.25	24.41	24.33	25.50	23.63	23.68	23.62	25.00		
3GPP Rel 99	RMC 12.2kops	22.55	22.59	22.47	24.00	24.26	24.42	24.35	25.50	23.66	23.70	23.68	25.00		
3GPP Rel 6	HSDPA Subtest-1	21.35	21.50	21.40	23.00	23.06	23.24	23.08	24.50	22.60	22.70	22.61	24.00		
3GPP Rel 6	HSDPA Subtest-2	21.48	21.47	21.41	23.00	23.12	23.25	23.25	24.50	22.72	22.74	22.72	24.00		
3GPP Rel 6	HSDPA Subtest-3	20.95	21.03	20.86	22.50	22.63	22.81	22.66	24.00	22.15	22.21	22.15	23.50		
3GPP Rel 6	HSDPA Subtest-4	20.81	21.00	20.95	22.50	22.74	22.77	22.73	24.00	22.09	22.18	22.18	23.50		
3GPP Rel 6	DC-HSDPA Subtest-1	21.30	21.35	21.35	23.00	23.01	23.18	23.03	24.50	22.46	22.56	22.47	24.00		
3GPP Rel 6	DC-HSDPA Subtest-2	21.44	21.40	21.39	23.00	23.10	23.15	23.23	24.50	22.72	22.62	22.72	24.00		
3GPP Rel 6	DC-HSDPA Subtest-3	20.84	20.89	20.75	22.50	22.62	22.75	22.65	24.00	21.98	22.05	21.98	23.50		
3GPP Rel 6	DC-HSDPA Subtest-4	20.87	20.96	20.81	22.50	22.68	22.80	22.67	24.00	22.06	22.03	22.15	23.50		
3GPP Rel 6	HSUPA Subtest-1	20.43	20.45	20.27	22.00	21.52	21.51	21.54	22.50	20.67	20.68	20.62	22.00		
3GPP Rel 6	HSUPA Subtest-2	20.29	20.47	20.43	22.00	21.33	21.36	21.40	22.50	20.65	20.72	20.67	22.00		
3GPP Rel 6	HSUPA Subtest-3	21.39	21.50	21.48	23.00	22.41	22.43	22.36	23.50	21.75	21.75	21.60	23.00		
3GPP Rel 6	HSUPA Subtest-4	18.97	20.04	18.94	21.50	21.00	21.00	20.95	22.00	20.34	20.35	20.20	22.00		
3GPP Rel 6	HSUPA Subtest-5	21.33	21.50	21.31	23.00	22.44	22.43	22.30	23.50	21.57	21.70	21.55	23.00		
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	21.03	21.11	21.07	22.00	21.52	21.60	21.55	22.50	21.10	21.13	21.05	22.00		

Band	WCDMA I_Ant14				Tune-up Limit (dBm)	WCDMA IV_Ant14				Tune-up Limit (dBm)	WCDMA V_Ant11				Tune-up Limit (dBm)
	TX Channel	9262	9400	9538		1312	1413	1513	4132		4182	4233			
Frequency (MHz)	9662	9660	9638	9537	1537	1537	1536	1738	4357	4407	4458	4458	4458		
		1802.4	1800	1800.7		172.14	173.2	175.2		856.4	856.4	856.4			
3GPP Rel 99	AMR 12.2kops	22.44	22.50	22.46	24.00	24.25	24.30	24.22	25.50	23.65	23.70	23.66	25.00		
3GPP Rel 99	RMC 12.2kops	22.48	22.55	22.50	24.00	24.28	24.33	24.30	25.50	23.66	23.72	23.67	25.00		
3GPP Rel 6	HSUPA Subtest-1	21.52	21.57	21.51	23.00	23.22	23.28	23.17	24.50	22.63	22.68	22.62	24.00		
3GPP Rel 6	HSUPA Subtest-2	21.48	21.56	21.48	23.00	23.18	23.26	23.26	24.50	22.50	22.62	22.51	24.00		
3GPP Rel 6	HSUPA Subtest-3	21.00	21.06	20.99	22.50	22.68	22.80	22.65	24.00	22.16	22.19	22.03	23.50		
3GPP Rel 6	HSUPA Subtest-4	21.03	21.05	20.94	22.50	22.72	22.76	22.72	24.00	22.04	22.16	22.04	23.50		
3GPP Rel 6	DC-HSDPA Subtest-1	21.33	21.52	21.32	23.00	23.09	23.26	23.04	24.50	22.57	22.65	22.56	24.00		
3GPP Rel 6	DC-HSDPA Subtest-2	21.39	21.40	21.39	23.00	23.01	23.23	23.11	24.50	22.36	22.44	22.36	24.00		
3GPP Rel 6	DC-HSDPA Subtest-3	20.97	20.94	20.96	22.50	22.65	22.71	22.62	24.00	22.04	22.16	21.91	23.50		
3GPP Rel 6	DC-HSDPA Subtest-4	21.02	20.87	20.93	22.50	22.61	22.74	22.61	24.00	22.04	22.08	22.04	23.50		
3GPP Rel 6	HSUPA Subtest-1	20.46	20.62	20.47	22.00	21.23	21.24	21.24	22.50	20.43	20.62	20.57	22.00		
3GPP Rel 6	HSUPA Subtest-2	20.53	20.61	20.50	22.00	21.08	21.22	21.16	22.50	20.58	20.59	20.44	22.00		
3GPP Rel 6	HSUPA Subtest-3	21.63	21.65	21.60	23.00	22.21	22.29	22.24	23.50	21.57	21.67	21.49	23.00		
3GPP Rel 6	HSUPA Subtest-4	20.03	20.20	20.06	21.50	20.73	20.83	20.74	22.00	20.09	20.14	20.04	22.00		
3GPP Rel 6	HSUPA Subtest-5	21.58	21.60	21.47	23.00	22.20	22.20	22.03	23.50	21.43	21.60	21.48	23.00		
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	21.13	21.15	21.20	22.00	21.45	21.50	21.60	22.50	21.01	21.05	21.10	22.00		



Band 2-AnT31										
RF [MHz]	Modulation	RB Size	RB Offset	Power Level Ch. 1 [dBm]	Power Level Ch. 2 [dBm]	Power Level Ch. 3 [dBm]	Time-slot [ms]	MIMO (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.05	22.17	22.10				
20	QPSK	1	48	22.04	22.20	22.10	23.5	0		
20	QPSK	1	96	21.97	22.05	22.13				
20	QPSK	50	0	21.97	22.05	22.10				
20	QPSK	50	24	21.21	21.15	21.21	22.5	1		
20	QPSK	150	0	21.16	21.20	21.13				
20	WQAM	1	0	21.16	21.20	21.13				
20	WQAM	1	48	21.10	21.52	21.50	22.5	1		
20	WQAM	1	96	21.11	21.50	21.18				
20	WQAM	50	0	20.92	20.96	20.95				
20	WQAM	50	24	20.15	20.10	20.15	21.5	2		
20	WQAM	150	0	20.10	20.20	20.16				
20	WQAM	150	0	20.09	20.20	20.18				
20	WQAM	150	0	20.09	20.20	20.11				
20	WQAM	1	48	20.25	20.52	20.45	21.5	2		
20	WQAM	1	96	20.19	20.28	20.41				
20	WQAM	50	0	19.12	19.16	19.12				
20	WQAM	50	24	18.35	18.30	18.35	20.5	2		
20	WQAM	50	48	18.03	18.18	18.08				
20	WQAM	150	0	18.07	18.13	18.09				
20	WQAM	150	0	18.07	18.13	18.05				
Channel										
Frequency (MHz)										
15	QPSK	1	0	21.97	22.17	21.87				
15	QPSK	1	48	22.03	22.23	21.66	23.5	0		
15	QPSK	1	96	21.98	21.93	21.91				
15	QPSK	50	0	21.08	20.93	20.99				
15	QPSK	50	24	20.16	20.07	20.05	22.5	1		
15	QPSK	50	96	21.05	20.97	20.88				
15	QPSK	75	0	20.97	20.93	20.93				
15	WQAM	1	0	21.56	21.61	20.76				
15	WQAM	1	48	21.57	21.68	20.31				
15	WQAM	1	96	21.33	21.27	21.31				
15	WQAM	50	0	20.33	20.19	20.36				
15	WQAM	50	24	19.87	19.95	19.85	21.5	2		
15	WQAM	50	96	19.98	19.92	19.85				
15	WQAM	50	96	19.98	19.92	19.85				
15	WQAM	1	0	20.26	20.98	20.61				
15	WQAM	1	48	20.20	20.34	20.25	21.5	2		
15	WQAM	1	96	20.11	20.18	20.18				
15	WQAM	50	0	19.05	19.07	19.04				
15	WQAM	50	24	18.35	18.36	18.30	20.5	3		
15	WQAM	50	48	18.09	18.05	18.02				
15	WQAM	150	0	18.04	18.06	18.02				
Channel										
Frequency (MHz)										
10	QPSK	1	0	22.24	22.21	22.17				
10	QPSK	1	48	22.25	22.28	22.15	23.5	0		
10	QPSK	1	96	22.14	22.12	22.17				
10	QPSK	25	0	21.54	21.50	21.57				
10	QPSK	25	12	21.16	21.05	21.07	22.5	1		
10	QPSK	25	25	21.05	21.05	21.05				
10	QPSK	50	0	21.18	21.08	21.08				
10	WQAM	1	0	21.09	20.85	21.23				
10	WQAM	1	48	21.06	21.06	21.06	22.5	1		
10	WQAM	1	96	20.95	20.79	21.31				
10	WQAM	25	0	20.99	20.94	20.13				
10	WQAM	25	12	20.09	20.05	20.09	21.5	2		
10	WQAM	25	25	20.05	20.05	20.05				
10	WQAM	50	0	20.11	19.98	19.88				
10	WQAM	1	0	20.40	20.23	19.87				
10	WQAM	1	48	20.45	20.45	19.87	21.5	2		
10	WQAM	1	96	20.32	20.25	19.87				
10	WQAM	25	0	19.10	18.90	19.07				
10	WQAM	25	12	19.18	18.86	19.11	20.5	3		
10	WQAM	25	25	18.77	18.85	18.85				
10	WQAM	50	0	18.10	18.86	18.97				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.14	22.13	22.10				
5	QPSK	1	12	22.15	22.12	22.15	23.5	0		
5	QPSK	1	24	22.23	22.04	22.11				
5	QPSK	12	0	21.17	21.05	21.10				
5	QPSK	12	6	21.11	21.05	21.05	22.5	1		
5	QPSK	12	13	21.10	21.04	21.08				
5	QPSK	25	0	21.03	21.08	21.07				
5	QPSK	25	12	20.45	20.45	20.45	22.5	1		
5	WQAM	1	0	21.57	21.54	20.62				
5	WQAM	1	24	21.56	21.58	21.10				
5	WQAM	12	0	20.47	19.99	20.08				
5	WQAM	12	7	20.16	19.98	20.05	21.5	2		
5	WQAM	12	13	20.04	19.92	19.98				
5	WQAM	25	0	20.21	20.12	20.11				
5	WQAM	25	12	20.05	20.05	20.05	21.5	2		
5	WQAM	1	12	20.13	20.13	20.08				
5	WQAM	1	24	20.46	20.05	20.09				
5	WQAM	12	0	19.14	18.93	19.04				
5	WQAM	12	7	18.93	18.87	18.94	20.5	2		
5	WQAM	12	13	18.86	18.83	18.84				
5	WQAM	25	0	18.02	18.08	18.08				
Channel										
Frequency (MHz)										
3	QPSK	1	0	22.17	22.04	22.21				
3	QPSK	1	8	22.10	22.00	22.01	23.5	0		
3	QPSK	1	16	22.10	22.00	22.01				
3	QPSK	1	24	21.08	21.07	21.01				
3	QPSK	8	0	21.11	20.96	21.00	22.5	1		
3	QPSK	8	7	21.05	20.94	21.03				
3	QPSK	16	0	21.04	21.02	21.01				
3	WQAM	1	0	21.37	20.90	21.31				
3	WQAM	1	8	21.17	20.88	20.82	22.5	1		
3	WQAM	1	16	21.07	20.85	20.85				
3	WQAM	8	0	20.11	20.05	20.06				
3	WQAM	8	8	20.13	20.12	19.98	21.5	2		
3	WQAM	8	7	20.18	19.98	20.13				
3	WQAM	16	0	20.22	20.02	20.02				
3	WQAM	1	0	20.33	19.87	20.01				
3	WQAM	1	8	20.35	20.00	20.05	21.5	2		
3	WQAM	1	16	20.34	20.01	20.26				
3	WQAM	8	0	19.17	18.92	19.02				
3	WQAM	8	8	19.20	19.10	19.17	20.5	3		
3	WQAM	8	7	18.98	18.93	18.91				
3	WQAM	16	0	18.02	18.06	18.04				
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	22.28	22.00	22.03				
1.4	QPSK	1	8	22.10	22.02	22.01	23.5	0		
1.4	QPSK	1	16	22.22	22.10	22.17				
1.4	QPSK	1	24	22.15	22.05	22.14				
1.4	QPSK	8	0	21.20	21.02	21.07	22.5	1		
1.4	QPSK	8	7	21.05	21.02	21.07				
1.4	QPSK	16	0	21.01	21.01	21.01				
1.4	WQAM	1	0	21.40	21.41	21.35				
1.4	WQAM	1	8	21.23	21.08	21.24	22.5	1		
1.4	WQAM	1	16	21.14	21.08	21.08				
1.4	WQAM	8	0	20.61	20.12	20.17				
1.4	WQAM	8	7	21.07	21.03	21.17				
1.4	WQAM	16	0	20.10	20.10	20.08	21.5	2		
1.4	WQAM	1	0	20.10	18.88	20.08				
1.4	WQAM	1	8	20.11	18.88	20.08				
1.4	WQAM	8	0	20.01	20.02	20.03	21.5	2		
1.4	WQAM	1	0	20.20	20.20	20.03				
1.4	WQAM	1	8	20.22	20.03	20.11				
1.4	WQAM	8	0	20.22	20.03	20.11				
1.4	WQAM	8	8	19.03	18.88	19.03	20.5	2		

Band 4_Ant14												
SW (MHz)	Modulation	RIS Size	RIS Offset	Power Loss (dB)	Power Ch/F (MHz)	Power Ch/F (MHz)	Power Ch/F (MHz)	Turn-on (min)	MPE (dB)			
Channel												
Frequency (MHz)												
20	QPSK	1	0	22.60	22.60	22.78	23.83					
20	QPSK	1	49	22.60	23.70	22.74		24.5	0			
20	QPSK	1	99	22.60	25.00	22.96						
20	QPSK	5	0	24.11	24.11	24.76	25.05					
20	QPSK	50	24	21.81	21.92	21.94		23.5	1			
20	QPSK	50	50	21.64	21.82	21.86						
20	QPSK	100	0	21.46	21.66	21.60						
20	QPSK	100	24	20.25	20.45	20.40						
20	16QAM	1	49	21.87	22.05	22.17		23.5	1			
20	16QAM	1	99	21.86	21.99	21.90						
20	16QAM	5	0	21.69	21.86	21.78						
20	16QAM	50	24	20.42	20.60	20.56						
20	16QAM	50	50	20.54	20.78	20.80						
20	16QAM	100	0	20.46	20.63	20.63						
20	16QAM	100	24	19.25	19.45	19.50						
20	64QAM	1	49	20.79	20.95	21.03		22.5	2			
20	64QAM	1	99	20.64	20.81	20.88						
20	64QAM	5	0	20.48	20.65	20.77						
20	64QAM	50	24	19.57	19.80	19.86						
20	64QAM	50	50	19.50	19.73	19.83		21.5	1			
20	64QAM	100	0	19.48	19.81	19.85						
Channel								Initial (min)		MPE (dB)		
Frequency (MHz)												
15	QPSK	1	0	22.43	22.43	22.46						
15	QPSK	1	37	22.27	22.82	22.81		24.5	0			
15	QPSK	1	74	22.07	22.82	22.80						
15	QPSK	36	0	21.66	21.78	21.60						
15	QPSK	36	20	21.53	21.82	21.86		23.5	1			
15	QPSK	36	20	21.42	21.78	21.78						
15	QPSK	36	24	21.48	21.82	21.80						
15	16QAM	1	0	21.88	21.90	21.08						
15	16QAM	1	37	21.72	21.95	22.02		23.5	1			
15	16QAM	1	74	21.69	21.87	21.78						
15	16QAM	36	0	20.39	20.83	20.77						
15	16QAM	36	20	20.55	20.84	20.89		22.5	2			
15	16QAM	36	20	20.30	20.65	20.65						
15	64QAM	1	0	20.71	20.69	20.88						
15	64QAM	1	37	20.58	20.79	20.88		22.5	2			
15	64QAM	1	74	20.42	20.65	20.68						
15	64QAM	36	0	19.58	19.73	19.75						
15	64QAM	36	20	19.56	19.85	19.85		21.5	3			
15	64QAM	36	20	19.27	19.61	19.70						
15	64QAM	70	0	19.46	19.67	19.75						
Channel								Initial (min)		MPE (dB)		
Frequency (MHz)												
10	QPSK	1	0	17.15	17.22.5	17.50						
10	QPSK	1	0	22.66	22.66	22.78		24.5	0			
10	QPSK	1	25	22.44	22.60	22.60						
10	QPSK	1	49	22.41	22.53	22.57						
10	QPSK	25	0	21.50	21.83	21.87		23.5	1			
10	QPSK	25	12	21.28	21.75	21.81						
10	QPSK	25	24	21.44	21.86	21.86						
10	QPSK	50	0	21.43	21.78	21.81						
10	QPSK	50	12	21.48	21.78	21.81						
10	16QAM	1	0	21.83	21.84	21.08						
10	16QAM	1	49	21.84	21.92	21.91		23.5	1			
10	16QAM	25	0	20.34	20.82	20.82						
10	16QAM	25	12	20.60	20.76	20.84		22.5	2			
10	16QAM	25	24	20.62	20.83	20.78						
10	16QAM	50	0	20.57	20.84	20.85						
10	64QAM	1	0	20.30	20.74	20.74						
10	64QAM	1	49	20.33	20.83	20.83		21.5	3			
10	64QAM	1	99	20.34	20.76	20.79						
10	64QAM	25	0	19.37	19.68	19.76						
10	64QAM	25	12	19.42	19.61	19.69						
10	64QAM	25	24	19.43	19.65	19.65						
10	64QAM	50	0	19.48	19.81	19.82						
Channel								Initial (min)		MPE (dB)		
Frequency (MHz)												
5	QPSK	1	0	16.975	16.975	16.993						
5	QPSK	1	0	22.62	22.62	22.74		24.5	0			
5	QPSK	1	12	22.60	22.80	22.84						
5	QPSK	1	24	22.49	22.66	22.67		24.5	0			
5	QPSK	12	0	21.85	21.90	21.87						
5	QPSK	12	12	21.80	21.90	21.90		23.5	1			
5	QPSK	12	13	21.84	21.81	21.80						
5	QPSK	25	0	21.39	21.77	21.84						
5	QPSK	25	12	21.24	21.65	21.75		23.5	1			
5	16QAM	1	12	21.75	22.00	22.02						
5	16QAM	1	24	21.77	21.86	21.84						
5	16QAM	12	0	20.39	20.79	20.77		22.5	2			
5	16QAM	12	12	20.31	20.64	20.70						
5	16QAM	12	13	20.38	20.60	20.71						
5	16QAM	25	0	20.38	20.77	20.73						
5	16QAM	25	12	20.14	20.55	20.71		22.5	2			
5	64QAM	1	12	20.65	20.80	20.88		22.5	2			
5	64QAM	1	24	20.51	20.79	20.78						
5	64QAM	12	0	19.85	19.84	19.84						
5	64QAM	12	12	19.83	19.84	19.84		21.5	3			
5	64QAM	12	13	19.35	19.83	19.88						
5	64QAM	25	0	19.68	19.77	19.83						
5	64QAM	25	12	19.43	19.85	19.85						
Channel								Initial (min)		MPE (dB)		
Frequency (MHz)												
3	QPSK	1	0	22.48	22.43	22.49						
3	QPSK	1	8	22.62	22.81	22.86		24.5	0			
3	QPSK	8	0	21.60	21.80	21.87						
3	QPSK	8	4	21.53	21.83	21.86		23.5	1			
3	QPSK	8	7	21.45	21.79	21.81						
3	QPSK	16	0	21.70	21.78	21.80						
3	16QAM	1	0	21.70	21.73	21.91						
3	16QAM	1	8	21.87	21.99	22.17		23.5	1			
3	16QAM	1	16	21.84	21.88	22.00						
3	16QAM	8	0	20.33	20.87	20.71						
3	16QAM	8	4	20.55	20.80	20.71		22.5	2			
3	16QAM	8	7	20.43	20.66	20.79						
3	16QAM	16	0	20.42	20.78	20.84		22.5	2			
3	64QAM	1	0	20.71	20.87	20.88						
3	64QAM	1	8	20.61	20.88	20.85		22.5	2			
3	64QAM	1	16	20.46	20.76	20.70						
3	64QAM	8	0	19.88	19.88	19.75		21.5	3			
3	64QAM	8	4	19.43	19.75	19.76						
3	64QAM	8	7	19.64	19.84	19.87						
3	64QAM	16	0	19.74	19.84	19.84						
Channel								Initial (min)		MPE (dB)		
Frequency (MHz)												
1.4	QPSK	1	0	17.047	17.02.5	17.43						
1.4	QPSK	1	0	22.49	22.53	22.57		24.5	0			
1.4	QPSK	1	23	22.79	22.86	22.88						
1.4	QPSK	1	23	22.39	22.56	22.57		24.5	0			
1.4	QPSK	3	0	22.60	22.90	22.83						
1.4	QPSK	3	1	22.35	22.73	22.88						
1.4	QPSK	3	24	22.45	22.74	21.81						
1.4	QPSK	6	0	21.37	21.87	21.89		23.5	1			
1.4	16QAM	1	0	21.81	21.86	22.02						
1.4	16QAM	1	23	21.79	21.90	22.02						
1.4	16QAM	3	0	21.57	21.76	21.77		23.5	1			
1.4	16QAM	3	1	21.47	21.76	21.71						
1.4	16QAM	3	24	21.60	21.82	21.84						
1.4	16QAM	6	0	20.34	20.71	20.89		22.5	2			
1.4	64QAM	1	0	20.09	20.79	20.88						
1.4	64QAM	1	23	20.06	20.82	20.88						
1.4	64QAM	3	0	20.01	20.84	20.86		22.5	2			
1.4	64QAM	3	1	21.70	20.81	20.82						
1.4	64QAM	3	24	20.54	20.69	20.81						
1.4	64QAM	6	0	19.58	20.78	20.86		21.5	3			
1.4	64QAM	6	0	19.31	19.89	19.85						

Band 4_Ant31												
BR (MHz)	Modulation	RIS Size	RIS Offset	Power Loss (dB)	Power Loss (dB)	Power Loss (dB)	Power Loss (dB)	Turn-on (dBm)	MFR (dB)			
Channel												
Frequency (MHz)												
20	QPSK	1	0	23.29	23.29	23.25	23.25					
20	QPSK	1	40	23.13	23.31	23.24			24.5	0		
20	QPSK	1	80	23.14	23.31	23.19						
20	QPSK	5	0	23.18	23.27	23.20						
20	QPSK	50	24	22.11	22.35	22.33			23.5	1		
20	QPSK	50	50	22.20	22.32	22.26						
20	HOAM	1	40	22.30	22.58	22.44			23.5	1		
20	HOAM	1	80	22.28	22.59	22.49						
20	HOAM	5	0	22.28	22.54	22.58			23.5	2		
20	HOAM	50	24	21.17	21.36	21.34						
20	HOAM	50	50	21.11	21.26	21.26						
20	HOAM	100	0	20.98	21.31	20.34						
20	HOAM	15	0	21.42	21.67	21.67			23.5	1		
20	HOAM	1	40	21.30	21.29	21.09			22.5	2		
20	HOAM	1	80	21.38	21.28	21.53						
20	HOAM	50	0	19.90	20.31	20.31			21.5	3		
20	HOAM	50	20	20.29	20.29	20.29						
20	HOAM	50	50	19.96	20.23	20.31						
20	HOAM	100	0	20.01	20.29	20.26						
Channel												
Frequency (MHz)												
15	QPSK	1	0	22.78	23.04	23.04						
15	QPSK	1	37	22.77	22.85	22.88			24.5	0		
15	QPSK	1	74	22.78	22.85	22.85						
15	QPSK	36	0	21.80	22.17	22.08			23.5	1		
15	QPSK	36	20	21.84	22.09	22.11						
15	QPSK	36	36	21.87	22.01	22.11						
15	QPSK	75	0	21.83	22.17	22.08						
15	HOAM	1	0	21.80	22.05	22.39			23.5	1		
15	HOAM	1	37	21.80	22.14	22.66						
15	HOAM	1	74	21.80	22.09	22.11						
15	HOAM	36	0	20.89	21.10	21.15			22.5	2		
15	HOAM	36	20	20.94	21.04	21.11						
15	HOAM	36	36	20.91	21.11	21.12						
15	HOAM	75	0	20.89	21.14	21.15						
15	HOAM	1	0	21.12	21.16	21.32			22.5	2		
15	HOAM	1	37	21.21	21.16	20.83						
15	HOAM	36	74	20.96	21.04	21.32						
15	HOAM	36	20	20.91	20.91	20.88			21.5	3		
15	HOAM	36	20	19.90	20.04	20.10						
15	HOAM	75	0	19.91	20.04	20.12						
15	HOAM	75	0	20.00	20.03	20.06						
Channel												
Frequency (MHz)												
10	QPSK	1	0	22.84	23.21	23.21			24.5	0		
10	QPSK	1	25	22.84	23.21	23.21						
10	QPSK	1	40	22.78	22.88	22.97						
10	QPSK	25	0	21.74	22.10	22.03			23.5	1		
10	QPSK	25	12	21.87	22.02	22.01						
10	QPSK	25	25	21.88	22.00	22.04						
10	QPSK	50	0	21.87	22.07	22.04			23.5	1		
10	HOAM	1	0	21.80	22.36	22.61						
10	HOAM	1	25	21.80	22.36	22.61						
10	HOAM	1	40	21.80	22.08	22.35			23.5	1		
10	HOAM	25	0	20.83	21.08	21.36			22.5	2		
10	HOAM	25	12	20.86	21.04	21.04						
10	HOAM	25	25	20.86	21.08	21.12						
10	HOAM	50	0	20.80	21.08	21.35			22.5	2		
10	HOAM	1	0	21.00	21.05	21.16			23.5	2		
10	HOAM	1	25	21.00	21.05	21.16						
10	HOAM	1	40	21.08	21.09	21.21						
10	HOAM	1	80	21.09	21.09	21.21						
10	HOAM	25	0	19.71	20.07	19.88			21.5	3		
10	HOAM	25	12	19.74	20.01	19.85						
10	HOAM	25	25	19.74	20.09	19.85						
10	HOAM	50	0	19.78	19.97	19.96						
Channel												
Frequency (MHz)												
5	QPSK	1	0	23.29	23.29	23.27			24.5	0		
5	QPSK	1	12	23.13	23.12	23.20						
5	QPSK	1	24	23.04	23.09	23.19						
5	QPSK	12	0	21.94	22.17	22.11			23.5	1		
5	QPSK	12	12	21.96	22.12	22.12						
5	QPSK	12	12	22.00	22.09	22.07						
5	QPSK	25	0	21.98	22.16	22.10						
5	HOAM	1	12	22.08	22.27	22.08			23.5	1		
5	HOAM	1	12	21.97	22.57	22.20						
5	HOAM	1	24	21.94	21.98	22.24						
5	HOAM	12	0	20.97	21.18	21.37			22.5	2		
5	HOAM	12	12	21.00	21.08	21.10						
5	HOAM	12	12	20.99	21.03	21.10						
5	HOAM	25	0	20.87	21.11	21.16			23.5	1		
5	HOAM	25	12	20.88	21.04	21.10						
5	HOAM	1	12	20.98	21.18	21.32			22.5	2		
5	HOAM	1	24	20.90	21.38	21.00						
5	HOAM	12	0	19.91	20.13	20.08			21.5	3		
5	HOAM	12	12	19.92	20.14	20.10						
5	HOAM	12	12	19.97	20.19	20.00						
5	HOAM	25	0	19.93	20.13	19.98						
Channel												
Frequency (MHz)												
3	QPSK	1	0	23.01	23.18	23.20			24.5	0		
3	QPSK	1	8	22.94	23.06	23.00						
3	QPSK	1	16	23.18	23.18	23.03						
3	QPSK	8	0	21.96	22.14	22.04			23.5	1		
3	QPSK	8	4	21.98	22.09	22.10						
3	QPSK	8	7	21.96	22.07	22.01						
3	HOAM	1	8	22.04	22.18	22.10			23.5	1		
3	HOAM	1	8	22.20	22.43	22.27						
3	HOAM	1	8	22.20	22.44	22.35						
3	HOAM	8	0	21.87	22.07	22.41			22.5	2		
3	HOAM	8	0	21.87	21.98	21.97						
3	HOAM	8	4	21.90	22.12	21.21						
3	HOAM	8	7	21.60	21.16	21.20			23.5	1		
3	HOAM	8	16	21.64	22.11	21.17						
3	HOAM	1	0	20.89	21.45	21.33			22.5	2		
3	HOAM	1	8	20.93	21.37	21.34						
3	HOAM	8	16	20.94	21.03	20.87			21.5	3		
3	HOAM	8	16	20.97	20.14	20.04						
3	HOAM	8	4	19.91	20.19	20.01						
3	HOAM	8	7	19.94	19.95	20.04						
3	HOAM	15	0	19.92	19.98	19.98						
Channel												
Frequency (MHz)												
1.4	QPSK	1	0	22.88	23.31	23.27			24.5	0		
1.4	QPSK	1	0	22.88	23.31	23.27						
1.4	QPSK	1	5	23.14	23.15	23.27						
1.4	QPSK	1	0	22.86	23.09	23.03			23.5	0		
1.4	QPSK	1	1	22.67	23.04	22.88						
1.4	QPSK	1	0	22.88	23.04	22.88						
1.4	QPSK	8	0	21.99	22.07	22.08			23.5	1		
1.4	HOAM	1	0	22.22	21.85	20.20			22.5	2		
1.4	HOAM	1	0	22.26	21.88	21.83						
1.4	HOAM	1	0	22.14	22.11	22.00						
1.4	HOAM	8	0	22.02	22.10	22.02						
1.4	HOAM	1	1	21.66	22.11	20.04			23.5	1		
1.4	HOAM	1	8	21.68	21.88	20.20						
1.4	HOAM	8	0	20.80	21.17	20.99			22.5	2		
1.4	HOAM	1	0	21.17	21.31	21.21						
1.4	HOAM	1	8	20.96	21.33	21.19						
1.4	HOAM	1	8	20.92	20.79	20.10			22.5	2		
1.4	HOAM	8	0	21.10	20.85	21.19						
1.4	HOAM	1	1	21.22	20.83	21.19						
1.4	HOAM	1	8	21.26	21.17	21.19						
1.4	HOAM	8	0	19.89	19.97	19.94			21.5	3		



Band 5_Ant11											
BW [MHz]	Modulation	RB Size	RB Offset	Power [mW]	Power Ch./F.Freq.	Power Ch./F.Freq.	Power Ch./F.Freq.	Power Ch./F.Freq.	Power Ch./F.Freq.	Time-out [min]	MFR [dB]
Channel											
Frequency [MHz]											
10	QPSK	1	0	23.37	23.32	23.32					
10	QPSK	1	25	23.51	23.56	23.49				24.8	0
10	QPSK	1	49	23.66	23.47	23.51					
10	QPSK	25	0	22.47	22.58	22.44					
10	QPSK	25	12	22.48	22.56	22.53				23.8	1
10	QPSK	25	25	22.41	22.52	22.49					
10	QPSK	50	0	22.51	22.56	22.51					
10	16QAM	1	0	22.76	22.84	22.71					
10	16QAM	1	25	22.72	22.72	22.68				23.8	1
10	16QAM	1	49	22.74	22.68	22.76					
10	16QAM	25	0	21.49	21.53	21.52					
10	16QAM	25	12	21.49	21.54	21.52				22.8	2
10	16QAM	25	25	21.44	21.61	21.53					
10	16QAM	50	0	21.43	21.51	21.53					
10	16QAM	1	0	21.33	21.46	21.31					
10	16QAM	1	25	21.36	21.78	21.78				22.8	2
10	16QAM	1	49	21.28	21.80	21.83					
10	16QAM	25	0	20.70	20.81	20.55					
10	16QAM	25	12	20.62	20.80	20.87				21.8	3
10	16QAM	25	25	20.51	20.71	20.81					
10	16QAM	50	0	20.43	20.71	20.84					
Channel											
Frequency [MHz]											
5	QPSK	1	0	23.37	23.36	23.39					
5	QPSK	1	12	23.32	23.40	23.39				24.8	0
5	QPSK	1	24	23.38	23.35	23.45					
5	QPSK	12	0	22.34	22.41	22.61					
5	QPSK	12	7	22.25	22.38	22.40				23.8	1
5	QPSK	12	13	22.21	22.36	22.38					
5	QPSK	25	0	22.37	22.38	22.38					
5	16QAM	1	0	22.79	22.74	22.86					
5	16QAM	1	12	22.69	22.80	22.72				23.8	1
5	16QAM	1	24	21.36	21.38	21.38					
5	16QAM	12	0	21.27	21.38	21.50					
5	16QAM	12	7	21.34	21.31	21.39				22.8	2
5	16QAM	12	13	21.29	21.38	21.50					
5	16QAM	25	0	21.23	21.31	21.39					
5	16QAM	1	0	21.11	21.43	21.41				22.8	2
5	16QAM	1	12	21.48	21.60	21.71					
5	16QAM	12	0	20.45	20.84	20.79					
5	16QAM	12	7	20.53	20.55	20.53				21.8	3
5	16QAM	12	13	20.43	20.53	20.50					
5	16QAM	25	0	20.42	20.54	20.50					
Channel											
Frequency [MHz]											
1.4	QPSK	1	0	23.21	23.37	23.38					
1.4	QPSK	1	3	23.22	23.35	23.32				24.8	0
1.4	QPSK	1	5	23.26	23.32	23.31					
1.4	QPSK	3	0	22.40	22.52	22.57					
1.4	QPSK	3	1	22.39	22.51	22.53				23.8	1
1.4	QPSK	3	3	22.39	22.59	22.24					
1.4	QPSK	0	0	22.28	22.32	22.24				23.8	1
1.4	16QAM	1	0	22.48	22.51	22.57					
1.4	16QAM	1	3	22.50	22.55	22.16					
1.4	16QAM	1	5	22.67	22.53	22.45				23.8	1
1.4	16QAM	3	0	22.31	22.36	22.26					
1.4	16QAM	0	1	22.31	22.16	22.33					
1.4	16QAM	3	3	22.33	22.15	22.13					
1.4	16QAM	0	0	21.27	21.36	21.36				22.8	2
1.4	16QAM	1	3	21.51	21.39	21.45					
1.4	16QAM	1	5	21.48	20.96	21.15					
1.4	16QAM	1	5	21.57	21.19	21.18				22.8	2
1.4	16QAM	0	0	21.33	21.33	21.38					
1.4	16QAM	3	1	21.09	21.33	21.43					
1.4	16QAM	3	3	21.40	21.34	21.30					
1.4	16QAM	0	0	20.38	20.33	20.33				21.8	3

Band 5_Ant41											
BW [MHz]	Modulation	RB Size	RB Offset	Power [mW]	Power Ch./F.Freq.	Power Ch./F.Freq.	Power Ch./F.Freq.	Power Ch./F.Freq.	Power Ch./F.Freq.	Time-out (min)	MFR (dB)
Channel											
Frequency (MHz)											
10	QPSK	1	0	23.48	23.66	23.64					
10	QPSK	1	25	23.57	23.67	23.68				24.8	0
10	QPSK	1	49	23.48	23.58	23.59					
10	QPSK	25	0	22.5	22.51	22.58					
10	QPSK	25	12	22.46	22.46	22.57				23.8	1
10	QPSK	25	0	22.50	22.58	22.61					
10	16QAM	1	0	22.84	22.88	22.87					
10	16QAM	1	25	22.68	22.68	22.6				23.8	1
10	16QAM	1	49	22.79	22.61	22.86					
10	16QAM	25	0	21.52	21.52	21.45					
10	16QAM	25	12	21.48	21.47	21.56				22.8	2
10	16QAM	25	25	21.48	21.58	21.65					
10	16QAM	50	0	21.54	21.69	21.63					
10	16QAM	1	0	21.37	21.68	21.82					
10	16QAM	1	25	21.64	21.75	21.36				22.8	2
10	16QAM	1	49	21.49	21.6	21.58					
10	16QAM	25	0	20.7	20.7	20.8					
10	16QAM	25	12	20.67	20.7	20.8				21.8	3
10	16QAM	25	25	20.63	20.79	20.71					
10	16QAM	50	0	20.81	20.7	20.71					
Channel											
Frequency (MHz)											
5	QPSK	1	0	23.35	23.66	23.41					
5	QPSK	1	12	23.32	23.64	23.43				24.8	0
5	QPSK	1	24	23.60	23.46	23.45					
5	QPSK	12	0	22.33	22.39	22.51					
5	QPSK	12	7	22.27	22.38	22.45				23.8	1
5	QPSK	12	13	22.23	22.31	22.38					
5	QPSK	25	0	22.31	22.40	22.40					
5	16QAM	1	0	22.73	22.59	22.32				22.8	1
5	16QAM	1	12	22.64	22.68	22.75					
5	16QAM	1	24	22.64	22.38	22.84					
5	16QAM	12	0	21.31	21.49	21.52					
5	16QAM	12	7	21.19	21.31	21.32				22.8	2
5	16QAM	12	13	21.09	21.27	21.31					
5	16QAM	25	0	21.25	21.45	21.43					
5	16QAM	1	0	21.31	21.38	21.69				22.8	2
5	16QAM	1	12	21.68	21.48	21.50					
5	16QAM	12	0	20.47	20.81	20.75					
5	16QAM	12	7	20.48	20.54	20.54				21.8	3
5	16QAM	12	13	20.38	20.47	20.47					
5	16QAM	25	0	20.48	20.51	20.56					
Channel											
Frequency (MHz)											
3	QPSK	1	0	23.39	23.44	23.5					
3	QPSK	1	8	23.36	23.33	23.34				24.8	0
3	QPSK	1	14	23.32	23.38	23.41					
3	QPSK	8	0	22.34	22.34	22.40					
3	QPSK	8	4	22.32	22.34	22.43				23.8	1
3	QPSK	8	7	22.33	22.40	22.46					
3	QPSK	15	0	22.38	22.38	22.42					
3	16QAM	1	0	22.62	22.76	22.48				23.8	1
3	16QAM	1	8	22.45	22.59	22.59					
3	16QAM	1	14	22.65	22.72	22.79					
3	16QAM	8	0	21.41	21.36	21.53				22.8	2
3	16QAM	8	4	21.4	21.36	21.50					
3	16QAM	8	7	21.2	21.44	21.41					
3	16QAM	15	0	21.36	21.46	21.39					
3	16QAM	1	0	21.32	21.32	21.62				22.8	2
3	16QAM	1	8	21.48	21.62	21.61					
3	16QAM	1	14	21.38	21.61	21.57					
3	16QAM	8	0	20.48	20.50	20.69				21.8	3
3	16QAM	8	4	20.63	20.45	20.61					
3	16QAM	8	7	20.62	20.47	20.58					
3	16QAM	15	0	20.33	20.47	20.63					
Channel											
Frequency (MHz)											
1.4	QPSK	1	0	23.33	23.48	23.49					
1.4	QPSK	1	3	23.42	23.33	23.44				24.8	0
1.4	QPSK	3	0	23.34	23.38	23.41					
1.4	QPSK	3	1	23.33	23.33	23.33					
1.4	QPSK	3	1	23.33	23.33	23.33					
1.4	QPSK	6	0	22.29	22.37	22.45				23.8	1
1.4	16QAM	1	0	22.51	22.70	22.70					
1.4	16QAM	1	3	22.56	22.23	22.44					
1.4	16QAM	3	0	22.54	22.40	22.50					
1.4	16QAM	3	0	22.37	22.34	22.45				23.8	1
1.4	16QAM	3	1	22.41	22.45	22.46					
1.4	16QAM	6	0	22.32	22.39	22.45					
1.4	16QAM	6	0	21.34	21.48	21.38				22.8	2
1.4	16QAM	1	0	21.45	21.61	21.23					
1.4	16QAM	1	3	21.45	21.68	21.48					
1.4	16QAM	3	0	21.29	21.34	21.34					
1.4	16QAM	3	1	21.29	21.34	21.34				22.8	2
1.4	16QAM	3	0	21.45	21.59	21.19					
1.4	16QAM	3	1	21.35	21.59	21.57					
1.4	16QAM	6	0	21.42	21.48	21.48					
1.4	16QAM	6	0	20.41	20.54	20.52				21.8	3

Band 12_Ant11																
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Main Ch / Freq	Power High Ch / Freq	Turn-up time (s/min)	MPR (dB)								
Channel																
Frequency (MHz)																
10	QPSK	1	0	23.78	23.57	23.83	25	0								
10	QPSK	1	25	23.85	23.86	23.75										
10	QPSK	1	49	23.83	23.80	23.84										
10	QPSK	25	0	22.60	22.74	22.81	24	1								
10	QPSK	25	12	22.67	22.86	22.85										
10	QPSK	25	25	22.64	22.67	22.64										
10	QPSK	50	0	22.68	22.72	22.84	24	1								
10	16QAM	1	0	22.85	22.89	22.84										
10	16QAM	1	25	22.77	22.84	22.89										
10	16QAM	1	49	22.52	22.68	22.85	23	2								
10	16QAM	25	0	21.75	21.83	21.80										
10	16QAM	25	12	21.89	21.92	21.85										
10	16QAM	25	25	21.89	21.81	21.84	23	2								
10	16QAM	50	0	21.89	21.79	21.94										
10	16QAM	1	0	21.85	22.05	21.95										
10	16QAM	1	25	22.13	22.07	21.96	22	3								
10	16QAM	1	49	22.13	21.95	21.99										
10	16QAM	25	0	20.74	20.80	20.70										
10	16QAM	25	12	20.83	20.80	20.87	22	3								
10	16QAM	25	25	20.77	20.80	20.83										
10	16QAM	50	0	20.78	20.80	20.83										
Channel																
Frequency (MHz)																
5	QPSK	1	0	23.57	23.75	23.69	25	0								
5	QPSK	1	12	23.67	23.67	23.67										
5	QPSK	1	24	23.71	23.72	23.85										
5	QPSK	12	0	22.81	22.82	22.72	24	1								
5	QPSK	12	7	22.86	22.84	22.88										
5	QPSK	12	13	22.78	22.86	22.86										
5	QPSK	25	0	22.69	22.81	22.68	24	1								
5	16QAM	1	0	22.81	22.74	22.56										
5	16QAM	1	12	22.14	22.56	22.46										
5	16QAM	1	24	22.10	22.59	22.88	23	2								
5	16QAM	12	0	21.89	21.86	21.77										
5	16QAM	12	7	21.79	21.91	21.84										
5	16QAM	25	0	21.87	21.82	21.83	23	2								
5	16QAM	25	0	21.83	21.83	21.88										
5	16QAM	1	12	21.82	21.91	22.10										
5	16QAM	1	24	21.80	22.16	22.25	22	3								
5	16QAM	12	0	20.82	20.85	20.85										
5	16QAM	12	7	20.82	20.80	20.85										
5	16QAM	25	0	20.89	20.83	20.83	22	3								
5	16QAM	25	0	20.89	20.83	20.83										
5	16QAM	25	0	20.89	20.83	20.83										
Channel																
Frequency (MHz)																
1.4	QPSK	1	0	23.67	23.59	23.73	25	0								
1.4	QPSK	1	5	23.79	23.76	23.77										
1.4	QPSK	1	14	23.73	23.68	23.74										
1.4	QPSK	3	0	23.56	23.61	23.70	24	1								
1.4	QPSK	3	6	23.63	23.61	23.70										
1.4	QPSK	3	8	23.66	23.63	23.69										
1.4	QPSK	15	0	22.60	22.60	22.69	24	1								
1.4	QPSK	15	0	22.96	22.92	23.12										
1.4	16QAM	1	3	22.86	22.77	22.89										
1.4	16QAM	1	5	23.01	22.89	22.83	24	1								
1.4	16QAM	3	0	22.60	22.72	22.77										
1.4	16QAM	3	1	22.61	22.69	22.61										
1.4	16QAM	3	3	22.63	22.69	22.83	23	2								
1.4	16QAM	6	0	21.81	21.90	22.11										
1.4	16QAM	6	0	22.06	22.08	22.21										
1.4	16QAM	1	3	22.12	22.15	21.86	23	2								
1.4	16QAM	1	5	21.90	21.79	21.72										
1.4	16QAM	3	0	21.95	22.05	21.88										
1.4	16QAM	3	1	22.05	21.93	22.09	22	3								
1.4	16QAM	3	3	22.07	22.05	22.08										
1.4	16QAM	6	0	20.72	20.94	20.85										

Band 12_Ant41																
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Main Ch / Freq	Power High Ch / Freq	Turn-up time (s/min)	MPR (dB)								
Channel																
Frequency (MHz)																
10	QPSK	1	0	23.70	23.70	23.80	25	0								
10	QPSK	1	25	23.86	23.89	23.85										
10	QPSK	1	49	23.81	23.79	23.71										
10	QPSK	25	0	22.83	22.75	22.89	24	1								
10	QPSK	25	12	22.68	22.73	22.87										
10	QPSK	25	25	22.70	22.69	22.64										
10	16QAM	1	0	22.90	22.58	22.58	24	1								
10	16QAM	1	25	22.75	22.91	22.77										
10	16QAM	1	49	22.81	23.20	23.34										
10	16QAM	25	0	21.83	21.80	21.84	23	2								
10	16QAM	25	12	21.88	21.90	21.82										
10	16QAM	25	25	21.82	21.82	21.86										
10	16QAM	50	0	21.82	21.82	21.89	23	2								
10	16QAM	1	0	21.80	22.07	22.20										
10	16QAM	1	25	22.22	21.97	21.79										
10	16QAM	1	49	21.90	21.81	21.99	22	3								
10	16QAM	25	0	20.88	20.86	21.00										
10	16QAM	25	12	20.91	20.92	20.83										
10	16QAM	25	25	20.81	20.77	20.89	22	3								
10	16QAM	50	0	20.88	20.94	20.92										
Channel																
Frequency (MHz)																
5	QPSK	1	0	23.62	23.62	23.80						25	0			
5	QPSK	1	12	23.68	23.70	23.78										
5	QPSK	1	24	23.67	23.70	23.82										
5	QPSK	12	0	22.82	22.88	22.86	24	1								
5	QPSK	12	7	22.83	22.85	22.71										
5	QPSK	12	13	22.86	22.83	22.86										
5	QPSK	25	0	22.68	22.69	22.69	24	1								
5	16QAM	1	0	22.68	22.73	23.00										
5	16QAM	1	12	22.09	22.80	22.87										
5	16QAM	1	24	22.03	22.91	22.90	24	1								
5	16QAM	12	0	21.75	21.87	21.85										
5	16QAM	12	7	21.80	21.88	21.83										
5	16QAM	12	13	21.82	21.82	21.86	23	2								
5	16QAM	1	0	21.80	21.77	21.81										
5	16QAM	1	0	22.04	22.10	21.75										
5	16QAM	1	12	22.07	22.05	22.05	22	3								
5	16QAM	1	24	21.97	21.91	21.20										
5	16QAM	12	0	20.76	20.87	20.88										
5	16QAM	12	7	20.87	20.86	20.88	22	3								
5	16QAM	12	13	20.82	20.85	20.88										
5	16QAM	25	0	20.84	20.86	20.80										
Channel																
Frequency (MHz)																
3	QPSK	1	0	23.59	23.54	23.76	25	0								
3	QPSK	1	8	23.66	23.62	23.72										
3	QPSK	1	14	23.64	23.55	23.78										
3	QPSK	8	0	22.83	22.75	22.89	24	1								
3	QPSK	8	8	22.84	22.74	22.72										
3	QPSK	8	7	22.83	22.62	22.71										
3	QPSK	15	0	22.59	22.61	22.62	24	1								
3	QPSK	15	7	22.57	22.62	22.62										
3	16QAM	1	8	23.14	23.49	23.83										
3	16QAM	1	14	22.88	23.02	23.27	24	1								
3	16QAM	1	14	22.87	23.02	23.27										
3	16QAM	8	7	21.89	21.89	21.89										
3	16QAM	8	7	21.86	21.84	21.86	23	2								
3	16QAM	15	0	21.77	21.87	21.78										
3	16QAM	15	0	22.04	22.04	22.04										
3	16QAM	1	8	21.80	22.05	21.81	23	2								
3	16QAM	1	14	21.86	21.85	21.87										
3	16QAM	8	7	20.86	20.86	20.86										
3	16QAM	8	7	20.86	20.86	20.86	22	3								
3	16QAM	8	7	20.86	20.86	20.86										
3	16QAM	15	0	20.83	20.74	20.91										
Channel																
Frequency (MHz)																
1.4	QPSK	1	0	23.67	23.57	23.63	25	0								
1.4	QPSK	1	0	23.63	23.55	23.59										
1.4	QPSK	1	3	23.54	23.68	23.71										
1.4	QPSK	3	0	22.83	22.80	22.83	24	1								
1.4	QPSK	3	0	23.82	23.74	23.67										
1.4	QPSK	3	1	23.70	23.54	23.67										
1.4	QPSK	3	0	22.63	22.65	22.70	24	1								
1.4	QPSK	3	0	22.63	22.63	22.70										
1.4	16QAM	1	0	23.16	23.04	22.67										
1.4	16QAM	1	0	23.12	22.98	22.62	24	1								
1.4	16QAM	1	3	23.05	22.79	22.68										
1.4	16QAM	3	0	22.70	22.65	22.72										
1.4	16QAM	3	1	22.87	22.84	22.72	23	2								
1.4	16QAM	3	1	22.87	22.86	22.72										
1.4	16QAM	6	0	21.84	21.85	21.81										
1.4	16QAM	6	0	22.06	21.90	21.52	23	2								
1.4	16QAM	1	0	22.15	22.11	21.60										
1.4	16QAM	1	0	22.09	21.84	21.60										
1.4	16QAM	3	0	21.87	21.80	21.62	22	3								
1.4	16QAM	3	1	21.89	22.00	21.72										
1.4	16QAM	6	0	21.83	21.80	21.72										
1.4	16QAM	6	0	20.75	20.78	20.85	22	3								
1.4	16QAM	6	0	20.75	20.78	20.85										
1.4	16QAM	6	0	20.75	20.78	20.85										



Band 17_Ant11												
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./F.Freq.	Power Main Ch./F.Freq.	Power High Ch./F.Freq.	Tune-up int. (dBm)	MPR (dB)				
Channel				23780	23790	23800						
Frequency (MHz)												
10	QPSK	1	0	23.83	23.71	23.84	25	0				
10	QPSK	1	25	23.71	23.75	23.72						
10	QPSK	1	49	23.69	23.49	23.67						
10	QPSK	25	0	22.64	22.68	22.66	24	1				
10	QPSK	25	12	22.61	22.61	22.67						
10	QPSK	25	25	22.66	22.67	22.63						
10	QPSK	30	0	22.69	22.71	22.69	24	1				
10	16QAM	1	0	22.66	23.01	23.01						
10	16QAM	1	25	22.64	22.68	22.48						
10	16QAM	1	49	22.65	22.60	22.62	23	2				
10	16QAM	25	0	21.82	21.77	21.80						
10	16QAM	25	12	21.87	21.96	21.80						
10	16QAM	25	25	21.86	21.86	21.85	23	2				
10	16QAM	30	0	21.80	21.82	21.87						
10	16QAM	1	0	21.99	21.87	21.75						
10	16QAM	1	25	21.70	22.17	22.17	22	3				
10	16QAM	1	49	21.51	21.90	22.18						
10	16QAM	25	0	20.78	20.89	20.90						
10	16QAM	25	12	20.51	20.77	20.82	22	3				
10	16QAM	25	25	20.67	20.92	20.75						
10	16QAM	30	0	20.66	20.52	20.86						
Channel				23780	23790	23800	Tune-up int. (dBm)	MPR (dB)				
Frequency (MHz)												
5	QPSK	1	0	23.81	23.84	23.87	25	0				
5	QPSK	1	12	23.44	23.67	23.69						
5	QPSK	1	24	23.60	23.64	23.63						
5	QPSK	12	0	22.68	22.59	22.68	24	1				
5	QPSK	12	7	22.56	22.58	22.60						
5	QPSK	12	13	22.57	22.52	22.52						
5	QPSK	25	0	22.57	22.54	22.53	24	1				
5	16QAM	1	0	22.52	22.66	22.53						
5	16QAM	1	12	22.71	22.56	22.75						
5	16QAM	1	24	22.63	22.49	22.57	23	2				
5	16QAM	12	0	21.72	21.75	21.76						
5	16QAM	12	7	21.69	21.74	21.71						
5	16QAM	25	0	21.73	21.67	21.66	23	2				
5	16QAM	25	0	21.75	21.79	21.71						
5	16QAM	1	0	21.83	21.74	21.82						
5	16QAM	1	12	21.88	22.00	22.16	22	3				
5	16QAM	1	24	21.82	22.02	22.09						
5	16QAM	12	0	20.69	20.50	20.84						
5	16QAM	12	7	20.72	20.86	20.84	22	3				
5	16QAM	12	13	20.72	20.79	20.68						
5	16QAM	25	0	20.74	20.77	20.68						

Band 17_Ant41													
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./F.Freq.	Power Main Ch./F.Freq.	Power High Ch./F.Freq.	Tune-up int. (dBm)	MPR (dB)					
Channel								23780	23786	23800			
Frequency (MHz)													
10	QPSK	1	0	23.85	23.80	23.80	25	0					
10	QPSK	1	25	23.59	23.76	23.67							
10	QPSK	1	49	23.69	23.71	23.70							
10	QPSK	25	0	22.64	22.68	22.67	24	1					
10	QPSK	25	12	22.62	22.61	22.63							
10	QPSK	25	25	22.60	22.65	22.65							
10	QPSK	30	0	22.69	22.72	22.67	24	1					
10	16QAM	1	0	22.94	23.05	23.05							
10	16QAM	1	25	22.89	23.20	22.96							
10	16QAM	1	49	22.57	22.65	22.57	23	2					
10	16QAM	25	0	21.82	21.87	21.85							
10	16QAM	25	12	21.79	21.84	21.89							
10	16QAM	25	25	21.83	21.79	21.91	23	2					
10	16QAM	30	0	21.77	21.74	21.85							
10	16QAM	1	0	21.97	21.81	21.98							
10	16QAM	1	25	21.77	21.90	22.09	22	3					
10	16QAM	1	49	22.24	21.89	22.00							
10	16QAM	25	0	20.82	20.77	20.86							
10	16QAM	25	12	20.85	20.81	20.81	22	3					
10	16QAM	25	25	20.83	20.83	20.74							
10	16QAM	30	0	20.83	20.64	20.81							
Channel								710.5	713.6	715.5	Tune-up int. (dBm)	MPR (dB)	
Frequency (MHz)													
5	QPSK	1	0	23.54	23.50	23.56	25	0					
5	QPSK	1	12	23.52	23.65	23.49							
5	QPSK	1	24	23.64	23.59	23.62							
5	QPSK	12	0	22.53	22.58	22.65	24	1					
5	QPSK	12	7	22.58	22.52	22.58							
5	QPSK	12	13	22.49	22.53	22.40							
5	QPSK	25	0	22.65	22.68	22.56	24	1					
5	16QAM	1	0	22.82	23.03	22.97							
5	16QAM	1	12	22.83	23.24	22.98							
5	16QAM	1	24	23.11	22.86	23.21	23	2					
5	16QAM	12	0	21.74	21.79	21.96							
5	16QAM	12	7	21.69	21.81	21.81							
5	16QAM	25	0	21.73	21.75	21.81	23	2					
5	16QAM	25	0	21.74	21.72	21.77							
5	16QAM	1	0	21.84	21.71	21.83							
5	16QAM	1	12	21.79	21.89	22.04	22	3					
5	16QAM	1	24	22.16	21.83	21.93							
5	16QAM	12	0	20.78	20.72	20.75							
5	16QAM	12	7	20.68	20.69	20.69	22	3					
5	16QAM	12	13	20.73	20.74	20.69							
5	16QAM	25	0	20.77	20.77	20.78							

Band 18_Ant 11												
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./F.Freq.	Power Main Ch./F.Freq.	Power High Ch./F.Freq.	Tune-up (dBm)	MPR (dB)				
Channel												
2500												
15	QPSK	1	0	23.33	23.33		25	0				
15	QPSK	1	37	23.47								
15	QPSK	1	74	23.15								
15	QPSK	36	0	23.33	23.33		24	1				
15	QPSK	36	36	22.93								
15	QPSK	75	0	22.34								
15	QPSK	1	0	23.43	23.43		24	1				
15	QPSK	1	37	22.83								
15	QPSK	1	74	23.28								
15	QPSK	36	0	23.28	23.28		23	2				
15	QPSK	36	36	23.31								
15	QPSK	75	0	21.36								
15	QPSK	1	0	21.26	21.26		23	2				
15	QPSK	1	37	21.33								
15	QPSK	1	74	21.09								
15	QPSK	36	0	21.07	21.07		22	3				
15	QPSK	36	36	20.81								
15	QPSK	75	0	20.46								
15	QPSK	36	36	20.93			22	3				
15	QPSK	75	0	20.49								
Channel				2060	2060	2060			Tune-up (dBm)			
Frequency [MHz]				80	82.5	82.5	MPR (dB)					
10	QPSK	1	0	23.33	23.33	23.42	25	0				
10	QPSK	1	26	23.36	23.41	23.42						
10	QPSK	1	49	23.39	23.46	23.33						
10	QPSK	1	74	22.34	22.21		24	1				
10	QPSK	25	12	22.37	22.32	22.32						
10	QPSK	25	22	22.41	22.37	22.38						
10	QPSK	1	0	23.38	23.38	23.34	24	1				
10	QPSK	1	0	22.68	22.75	22.25						
10	QPSK	1	26	22.41	22.48	22.48						
10	QPSK	49	22	22.71	22.76	22.70	24	1				
10	QPSK	49	74	21.33	21.28	21.28						
10	QPSK	25	12	21.37	21.28	21.38						
10	QPSK	25	22	21.43	21.33	21.40	23	2				
10	QPSK	1	0	21.32	21.32	21.32						
10	QPSK	1	0	21.05	21.33	21.05						
10	QPSK	1	26	21.14	21.36	21.48	23	2				
10	QPSK	1	49	21.47	21.56	21.17						
10	QPSK	25	22	20.50	20.50	20.34						
10	QPSK	25	12	20.47	20.47	20.47	22	3				
10	QPSK	25	22	20.55	20.52	20.55						
10	QPSK	1	0	20.51	20.47	20.47						
Channel												
Frequency [MHz]				817.5	822.5	827.5	Tune-up (dBm)					
5	QPSK	1	0	23.41	23.34	23.43	25	0				
5	QPSK	1	12	23.46	23.41	23.41						
5	QPSK	24	24	23.39	23.33	23.40						
5	QPSK	12	0	22.45	22.29	22.42	24	1				
5	QPSK	12	7	22.46	22.34	22.41						
5	QPSK	12	14	22.33	22.33	22.41						
5	QPSK	25	0	22.44	22.31	22.41	24	1				
5	QPSK	25	0	22.85	22.37	22.49						
5	QPSK	1	12	22.35	22.27	22.49						
5	QPSK	12	0	22.45	22.45	22.27	23	2				
5	QPSK	12	0	21.37	21.29	21.38						
5	QPSK	12	7	21.46	21.34	21.38						
5	QPSK	25	0	21.35	21.35	21.35	23	2				
5	QPSK	25	0	21.42	21.33	21.38						
5	QPSK	1	0	21.58	21.41	21.66						
5	QPSK	1	12	21.60	21.53	21.60	23	2				
5	QPSK	1	12	21.68	21.60	21.41						
5	QPSK	12	0	20.71	20.68	20.68						
5	QPSK	12	7	20.63	20.62	20.64	22	3				
5	QPSK	12	14	20.48	20.48	20.57						
5	QPSK	25	0	20.57	20.45	20.53						



Band 19_Ant 11															
BW (MHz)	Modulation	RB Size	RB Offset	Power / Ch / Freq	Power / Ch / Freq	Power / Ch / Freq	Time-up (s/min)	MFR (dB)							
Channel															
Frequency (MHz)															
841.5															
15	QPSK	1	0	23.17					24.9	0					
15	QPSK	1	37	23.10											
15	QPSK	1	74	23.22											
15	QPSK	36	0	23.41					23.9	1					
15	QPSK	36	20	23.34											
15	QPSK	36	39	23.40											
15	QPSK	75	0	23.37					23.9	1					
15	HQAM	1	0	22.13											
15	HQAM	1	37	22.32											
15	HQAM	1	74	22.46					22.9	2					
15	HQAM	36	0	21.33											
15	HQAM	36	20	21.35											
15	HQAM	36	39	21.36					22.9	2					
15	HQAM	75	0	21.36											
15	HQAM	1	0	21.26					22.9	2					
15	HQAM	1	37	21.40											
15	HQAM	1	74	21.14											
15	HQAM	36	0	20.36					21.9	3					
15	HQAM	36	20	20.32											
15	HQAM	36	39	20.32											
15	HQAM	75	0	20.30											
Channel															
Frequency (MHz)															
835 837.5 840															
10	QPSK	1	0	23.30	23.37	23.37			24.9	0					
10	QPSK	1	26	23.26	23.31	23.39									
10	QPSK	1	49	23.36	23.31	23.41									
10	QPSK	25	0	22.41	22.37	22.26			23.9	1					
10	QPSK	25	12	22.38	22.38	22.38									
10	QPSK	25	26	22.41	22.44	22.39									
10	QPSK	50	0	22.49	22.44	22.43			23.9	1					
10	HQAM	1	0	22.69	22.22	22.73									
10	HQAM	1	26	22.44	22.48	22.69									
10	HQAM	1	49	22.46	22.63	22.74			22.9	2					
10	HQAM	25	0	21.44	21.40	21.29									
10	HQAM	25	12	21.38	21.28	21.35									
10	HQAM	25	26	21.39	21.42	21.42			22.9	2					
10	HQAM	50	0	21.43	21.33	21.43									
10	HQAM	1	0	21.27	21.63	21.43									
10	HQAM	1	26	21.59	21.62	21.45			21.9	3					
10	HQAM	1	49	21.13	21.37	21.69									
10	HQAM	25	0	20.58	20.52	20.48									
10	HQAM	25	12	20.54	20.57	20.59			21.9	3					
10	HQAM	25	26	20.59	20.64	20.55									
10	HQAM	50	0	20.68	20.64	20.49									
Channel															
Frequency (MHz)															
830.5 837.5 842.5															
5	QPSK	1	0	23.43	23.49	23.49			24.9	0					
5	QPSK	1	12	23.49	23.45	23.45									
5	QPSK	1	24	23.41	23.39	23.49									
5	QPSK	12	0	22.38	22.39	22.36			23.9	1					
5	QPSK	12	7	22.35	22.37	22.43									
5	QPSK	12	13	22.37	22.39	22.42									
5	QPSK	25	0	22.35	22.40	22.39			23.9	1					
5	HQAM	1	0	22.59	22.41	22.61									
5	HQAM	1	12	22.67	22.43	22.55									
5	HQAM	1	24	22.71	22.36	22.77			22.9	2					
5	HQAM	12	0	21.33	21.39	21.38									
5	HQAM	12	7	21.32	21.31	21.40									
5	HQAM	12	13	21.29	21.42	21.35			22.9	2					
5	HQAM	25	0	21.33	21.26	21.35									
5	HQAM	1	0	21.17	21.41	21.64									
5	HQAM	1	12	21.47	21.62	21.60			21.9	3					
5	HQAM	1	24	21.39	21.60	21.67									
5	HQAM	12	0	20.62	20.49	20.63									
5	HQAM	12	7	20.51	20.59	20.54			21.9	3					
5	HQAM	12	13	20.50	20.53	20.56									
5	HQAM	25	0	20.55	20.51	20.56									

Band 19_Ant 41													
BW (MHz)	Modulation	RB Size	RB Offset	Power Level Ch./F/Freq.	Power Margin Ch./F/Freq.	Power Type Ch./F/Freq.	Time-up Int. (s/min)	MFR (dB)					
Channel													
Frequency (MHz)													
2437.5													
15	QPSK	1	0	23.18					24.9	0			
15	QPSK	1	37	23.43									
15	QPSK	1	74	23.16									
15	QPSK	36	0	23.37					23.9	1			
15	QPSK	36	20	23.34									
15	QPSK	36	39	23.31									
15	QPSK	75	0	23.29					23.9	1			
15	HQAM	1	0	22.55									
15	HQAM	1	37	22.49									
15	HQAM	1	74	22.68					22.9	2			
15	HQAM	36	0	21.29									
15	HQAM	36	20	21.42									
15	HQAM	36	39	21.31					22.9	2			
15	HQAM	75	0	21.34									
15	HQAM	1	0	21.22									
15	HQAM	1	37	21.46					21.9	3			
15	HQAM	1	74	21.38									
15	HQAM	36	0	20.52									
15	HQAM	36	39	20.53									
15	HQAM	75	0	20.49									
Channel													
Frequency (MHz)													
835 837.5 840													
10	QPSK	1	0	23.25	23.32	23.36			24.9	0			
10	QPSK	1	26	23.38	23.41	23.26							
10	QPSK	1	49	23.19	23.36	23.33							
10	QPSK	25	0	22.24	22.18	22.24			23.9	1			
10	QPSK	25	12	22.29	22.28	22.29							
10	QPSK	25	26	22.32	22.36	22.35							
10	QPSK	50	0	22.30	22.35	22.28			23.9	1			
10	HQAM	1	0	22.48	22.66	22.63							
10	HQAM	1	26	22.62	22.76	22.59							
10	HQAM	1	49	22.48	22.13	22.14			22.9	2			
10	HQAM	25	0	21.24	21.17	21.21							
10	HQAM	25	12	21.18	21.25	21.35							
10	HQAM	25	26	21.26	21.33	21.33			22.9	2			
10	HQAM	50	0	21.33	21.23	21.24							
10	HQAM	1	0	21.19	21.53	21.65							
10	HQAM	1	26	21.53	21.52	21.32			21.9	3			
10	HQAM	1	49	21.53	21.65	21.11							
10	HQAM	25	0	20.45	20.43	20.36							
10	HQAM	25	12	20.45	20.43	20.42			21.9	3			
10	HQAM	25	26	20.53	20.52	20.36							
10	HQAM	50	0	20.58	20.41	20.39							
Channel													
Frequency (MHz)													
830.5 837.5 842.5													
5	QPSK	1	0	23.54	23.43	23.46			24.9	0			
5	QPSK	1	12	23.25	23.39	23.31							
5	QPSK	1	24	23.42	23.38	23.45							
5	QPSK	12	0	23.24	23.23	23.28			23.9	1			
5	QPSK	12	7	22.26	22.24	22.28							
5	QPSK	12	14	22.27	22.27	22.29							
5	HQAM	1	0	22.18	22.20	22.30			23.9	1			
5	HQAM	1	0	22.21	22.73	22.47							
5	HQAM	1	12	22.26	22.65	22.37							
5	HQAM	1	24	22.28	22.68	22.40			22.9	2			
5	HQAM	1	24	22.35	22.48	22.28							
5	HQAM	12	0	21.19	21.15	21.29							
5	HQAM	12	7	21.17	21.24	21.28			21.9	2			
5	HQAM	12	14	21.30	21.33	21.33							
5	HQAM	12	0	21.26	21.26	21.21							
5	HQAM	1	0	21.47	21.52	21.54			22.9	2			
5	HQAM	1	12	21.54	21.54	21.54							
5	HQAM	1	24	21.63	21.66	21.68							
5	HQAM	12	0	20.51	20.39	20.50			21.9	3			
5	HQAM	12	7	20.53	20.41	20.55							
5	HQAM	12	14	20.57	20.45	20.45							
5	HQAM	25	0	20.31	20.43	20.45							

Band 66_Ant14													
BW (MHz)	Modulation	RB Size	RB Offset	Power Level Ch / Freq	Power Margin Ch / Freq	Power Slope Ch / Freq	Time-up limit (dBm)	MPR (dB)					
Channel				133072	133072	133072							
Frequency (MHz)				1725	1745	1775							
20	QPSK	1	0	22.74	22.98	22.81	24	0					
20	QPSK	1	48	22.81	23.01	22.93							
20	QPSK	1	96	22.70	22.81	22.79							
20	QPSK	50	0	21.78	22.03	21.94							
20	QPSK	50	24	21.77	21.94	21.88	23	1					
20	QPSK	100	0	21.75	22.00	21.88							
20	HQAM	1	0	21.95	22.24	22.00							
20	HQAM	1	48	22.02	22.23	22.13							
20	HQAM	1	96	21.90	22.05	21.94	23	1					
20	HQAM	50	0	20.74	20.97	20.84							
20	HQAM	50	24	20.82	20.97	20.84							
20	HQAM	100	0	20.76	20.95	20.85							
20	HQAM	100	0	20.71	20.97	20.87	22	2					
20	HQAM	1	0	20.85	21.08	20.94							
20	HQAM	1	0	20.85	21.08	20.94							
20	HQAM	1	48	20.91	21.07	21.08							
20	HQAM	1	96	20.81	20.93	20.87	22	2					
20	HQAM	50	0	19.71	19.97	19.91							
20	HQAM	50	24	19.77	19.95	19.81							
20	HQAM	100	0	19.72	19.96	19.84							
Channel				133072	133072	133072							
Frequency (MHz)				1725	1745	1775							
15	QPSK	1	0	22.68	22.82	22.75	24	0					
15	QPSK	1	32	22.74	22.92	22.86							
15	QPSK	1	74	22.67	22.76	22.76							
15	QPSK	36	0	21.71	21.89	21.88							
15	QPSK	36	20	21.65	21.81	21.77	23	1					
15	QPSK	36	40	21.62	21.80	21.73							
15	QPSK	75	0	21.64	22.00	21.79							
15	HQAM	1	0	21.88	22.05	21.93							
15	HQAM	1	32	22.00	22.19	22.11	23	1					
15	HQAM	1	74	21.88	21.98	21.90							
15	HQAM	36	0	20.87	20.97	20.77							
15	HQAM	36	20	20.88	20.94	20.79							
15	HQAM	36	36	20.73	20.79	20.81	22	2					
15	HQAM	75	0	20.80	20.91	20.76							
15	HQAM	1	0	20.68	20.97	20.77							
15	HQAM	1	32	20.78	21.03	20.81							
15	HQAM	1	74	20.79	20.75	20.85	22	2					
15	HQAM	36	0	19.54	19.79	19.74							
15	HQAM	36	20	19.67	19.85	19.77							
15	HQAM	36	36	19.62	19.75	19.61							
15	HQAM	75	0	19.67	19.85	19.79	20						
Channel				133072	133072	133072							
Frequency (MHz)				1715	1745	1775							
10	QPSK	1	0	22.67	22.82	22.74	24	0					
10	QPSK	1	20	22.80	22.99	22.87							
10	QPSK	1	48	22.56	22.63	22.65							
10	QPSK	25	0	21.73	21.85	21.81							
10	QPSK	25	12	21.75	21.82	21.87	23	1					
10	QPSK	25	25	21.68	21.89	21.79							
10	QPSK	50	0	21.87	21.81	21.81							
10	HQAM	1	0	21.90	22.17	21.95							
10	HQAM	1	20	21.95	22.08	22.06	23	1					
10	HQAM	1	48	21.83	21.94	21.85							
10	HQAM	25	0	20.58	20.96	20.76							
10	HQAM	25	12	20.74	20.92	20.85							
10	HQAM	25	20	20.68	20.93	20.76	22	2					
10	HQAM	50	0	20.63	20.93	20.79							
10	HQAM	1	0	20.73	21.05	20.82							
10	HQAM	1	20	20.88	21.03	21.01							
10	HQAM	1	48	20.81	20.98	20.87	22	2					
10	HQAM	25	0	19.68	19.83	19.88							
10	HQAM	25	12	19.61	19.88	19.71							
10	HQAM	25	20	19.69	19.84	19.79							
10	HQAM	50	0	19.69	19.82	19.81	21	3					
Channel				133072	133072	133072							
Frequency (MHz)				1715	1745	1777							
5	QPSK	1	0	22.71	22.83	22.78	24	0					
5	QPSK	1	12	22.66	22.94	22.79							
5	QPSK	1	24	22.67	22.76	22.76							
5	QPSK	12	0	21.74	21.95	21.83							
5	QPSK	12	7	21.75	21.91	21.87	23	1					
5	QPSK	12	13	21.77	21.79	21.88							
5	QPSK	22	0	21.73	21.96	21.81							
5	HQAM	1	0	21.88	22.11	21.89							
5	HQAM	1	12	21.96	22.07	22.07	23	1					
5	HQAM	1	24	21.86	21.90	21.88							
5	HQAM	12	0	20.73	20.96	20.83							
5	HQAM	12	7	20.78	20.88	20.89							
5	HQAM	12	13	20.58	20.85	20.68	22	2					
5	HQAM	20	0	20.65	20.82	20.81							
5	HQAM	1	0	20.69	20.90	20.79							
5	HQAM	1	12	20.89	21.08	21.04							
5	HQAM	1	24	20.79	20.88	20.85	22	2					
5	HQAM	12	0	19.56	19.90	19.76							
5	HQAM	12	7	19.71	19.88	19.87							
5	HQAM	12	13	19.62	19.85	19.72							
5	HQAM	20	0	19.58	19.81	19.70	21	3					
Channel				133072	133072	133072							
Frequency (MHz)				1715	1745	1777							
3	QPSK	1	0	22.69	22.85	22.76	24	0					
3	QPSK	1	8	22.67	22.91	22.79							
3	QPSK	3	0	21.60	21.82	21.78							
3	QPSK	8	4	21.70	21.89	21.82							
3	QPSK	8	7	21.66	21.79	21.77	23	1					
3	QPSK	15	0	21.69	21.99	21.83							
3	HQAM	1	0	21.90	22.17	21.95							
3	HQAM	1	8	22.00	22.14	22.11							
3	HQAM	1	14	21.89	22.02	21.91	23	1					
3	HQAM	8	0	20.62	20.79	20.82							
3	HQAM	8	4	20.70	20.90	20.81							
3	HQAM	8	7	20.63	20.94	20.79							
3	HQAM	15	0	20.63	20.90	20.79	22	2					
3	HQAM	1	0	20.85	20.92	20.94							
3	HQAM	1	8	20.79	20.98	20.94							
3	HQAM	1	14	20.75	20.70	20.81							
3	HQAM	8	0	19.87	19.97	19.87	21	3					
3	HQAM	8	4	19.75	19.87	19.85							
3	HQAM	8	7	19.62	19.77	19.72							
3	HQAM	15	0	19.53	19.80	19.65							
Channel				133072	133072	133072							
Frequency (MHz)				17107	1745	1778							
1.4	QPSK	1	0	22.71	22.89	22.78	24	0					
1.4	QPSK	1	3	22.72	22.90	22.82							
1.4	QPSK	1	6	22.69	22.70	22.65							
1.4	QPSK	3	0	22.72	22.96	22.86							
1.4	QPSK	3	1	22.78	22.98	22.93	23	1					
1.4	QPSK	3	4	22.73	22.86	22.84							
1.4	QPSK	6	0	21.59	21.96	21.77							
1.4	HQAM	1	0	21.92	22.22	21.97							
1.4	HQAM	1	3	21.88	22.08	21.94	23	1					
1.4	HQAM	1	6	21.92	22.03	21.94							
1.4	HQAM	3	0	21.59	21.94	21.78							
1.4	HQAM	3	1	21.75	21.92	21.88							
1.4	HQAM	3	4	21.67	21.85	21.83	22	2					
1.4	HQAM	6	0	20.54	20.82	20.70							
1.4	HQAM	6	1	20.67	20.89	20.76							
1.4	HQAM	11	0	20.54	20.81	20.72							
1.4	HQAM	3	0	20.71	20.91	20.74	22	2					
1.4	HQAM	3	1	20.64	20.87	20.74							
1.4	HQAM	3	4	20.68	20.89	20.78							
1.4	HQAM	6	0	20.57	20.82	20.68							
1.4	HQAM	6	0	19.53	19.81	19.65	21						

Band 38_Ant31									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				37850	38000	38150	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2580	2595	2610			
20	QPSK	1	0	23.44	23.57	23.38	24.8	0	
20	QPSK	1	49	23.70	23.85	23.61			
20	QPSK	1	99	23.52	23.63	23.53			
20	QPSK	50	0	22.65	22.55	22.52	23.8	1	
20	QPSK	50	24	22.58	22.52	22.56			
20	QPSK	50	50	22.48	22.58	22.60			
20	QPSK	100	0	22.63	22.60	22.55	23.8	1	
20	16QAM	1	0	22.39	22.53	22.43			
20	16QAM	1	49	22.59	22.87	22.80			
20	16QAM	1	99	22.44	22.65	22.48	22.8	2	
20	16QAM	50	0	21.52	21.73	21.49			
20	16QAM	50	24	21.53	21.76	21.58			
20	16QAM	50	50	21.47	21.70	21.56	22.8	2	
20	16QAM	100	0	21.50	21.75	21.57			
20	64QAM	1	0	21.14	21.40	21.06			
20	64QAM	1	49	21.31	21.53	21.35	22.8	2	
20	64QAM	1	99	21.16	21.39	21.29			
20	64QAM	50	0	20.62	20.88	20.59			
20	64QAM	50	24	20.67	20.91	20.68	21.8	3	
20	64QAM	50	50	20.56	20.86	20.75			
20	64QAM	100	0	20.67	20.88	20.70			
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2577.5	2595	2612.5	Tune-up limit (dBm)	MPR (dB)	
15	QPSK	1	0	23.46	23.60	23.50		24.8	
15	QPSK	1	37	23.59	23.66	23.62			
15	QPSK	1	74	23.41	23.64	23.59			
15	QPSK	36	0	22.49	22.56	22.51	23.8	1	
15	QPSK	36	20	22.52	22.58	22.54			
15	QPSK	36	39	22.41	22.61	22.51			
15	QPSK	75	0	22.49	22.62	22.55	23.8	1	
15	16QAM	1	0	22.37	22.52	22.51			
15	16QAM	1	37	22.56	22.68	22.68			
15	16QAM	1	74	22.43	22.58	22.80	22.8	2	
15	16QAM	36	0	21.43	21.54	21.45			
15	16QAM	36	20	21.44	21.56	21.51			
15	16QAM	36	39	21.38	21.58	21.53	22.8	2	
15	16QAM	75	0	21.51	21.59	21.80			
15	64QAM	1	0	21.18	21.34	21.27			
15	64QAM	1	37	21.36	21.47	21.29	22.8	2	
15	64QAM	1	74	21.09	21.30	21.31			
15	64QAM	36	0	20.68	20.76	20.67			
15	64QAM	36	20	20.64	20.73	20.66	21.8	3	
15	64QAM	36	39	20.57	20.80	20.74			
15	64QAM	75	0	20.68	20.78	20.75			
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2575	2595	2615	Tune-up limit (dBm)	MPR (dB)	
10	QPSK	1	0	23.55	23.57	23.55		24.8	
10	QPSK	1	25	23.55	23.63	23.67			
10	QPSK	1	49	23.51	23.67	23.67			
10	QPSK	25	0	22.49	22.63	22.55	23.8	1	
10	QPSK	25	12	22.48	22.66	22.59			
10	QPSK	25	25	22.49	22.60	22.62			
10	QPSK	50	0	22.50	22.63	22.63	23.8	1	
10	16QAM	1	0	22.51	22.56	22.60			
10	16QAM	1	25	22.57	22.71	22.66			
10	16QAM	1	49	22.54	22.67	22.65	22.8	2	
10	16QAM	25	0	21.58	21.67	21.57			
10	16QAM	25	12	21.50	21.68	21.59			
10	16QAM	25	25	21.46	21.62	21.65	22.8	2	
10	16QAM	50	0	21.50	21.66	21.62			
10	64QAM	1	0	21.23	21.37	21.32			
10	64QAM	1	25	21.28	21.43	21.40	21.8	3	
10	64QAM	1	49	21.22	21.36	21.34			
10	64QAM	25	0	20.76	20.83	20.80			
10	64QAM	25	12	20.70	20.87	20.91	21.8	3	
10	64QAM	25	25	20.64	20.80	20.87			
10	64QAM	50	0	20.61	20.79	20.78			
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2572.5	2595	2617.5	Tune-up limit (dBm)	MPR (dB)	
5	QPSK	1	0	23.49	23.67	23.61		24.8	
5	QPSK	1	12	23.57	23.58	23.64			
5	QPSK	1	24	23.52	23.69	23.66			
5	QPSK	12	0	22.51	22.68	22.61	23.8	1	
5	QPSK	12	7	22.45	22.61	22.62			
5	QPSK	12	13	22.48	22.56	22.65			
5	QPSK	25	0	22.48	22.62	22.69	23.8	1	
5	16QAM	1	0	22.43	22.60	22.64			
5	16QAM	1	12	22.54	22.68	22.64			
5	16QAM	1	24	22.48	22.66	22.71	22.8	2	
5	16QAM	12	0	21.48	21.63	21.39			
5	16QAM	12	7	21.39	21.53	21.61			
5	16QAM	12	13	21.40	21.54	21.58	22.8	2	
5	16QAM	25	0	21.55	21.64	21.67			
5	64QAM	1	0	21.20	21.47	21.31			
5	64QAM	1	12	21.27	21.49	21.41	22.8	2	
5	64QAM	1	24	21.23	21.45	21.42			
5	64QAM	12	0	20.66	20.86	20.77			
5	64QAM	12	7	20.61	20.80	20.85	21.8	3	
5	64QAM	12	13	20.65	20.78	20.82			
5	64QAM	25	0	20.75	20.87	20.87			

Band 38_Ant14												
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)				
Channel				37850	38000	38150	Tune-up limit (dBm)	MPR (dB)				
Frequency (MHz)				2580	2595	2610						
20	QPSK	1	0	23.39	23.16	23.19	24.8	0				
20	QPSK	1	49	23.61	23.38	23.46						
20	QPSK	1	99	23.45	23.23	23.34						
20	QPSK	50	0	22.53	22.28	22.33	23.8	1				
20	QPSK	50	24	22.48	22.29	22.36						
20	QPSK	50	50	22.47	22.23	22.40						
20	QPSK	100	0	22.47	22.27	22.34	23.8	1				
20	16QAM	1	0	22.37	22.15	22.21						
20	16QAM	1	49	22.57	22.33	22.45						
20	16QAM	1	99	22.42	22.21	22.32	22.8	2				
20	16QAM	50	0	21.51	21.28	21.30						
20	16QAM	50	24	21.54	21.31	21.36						
20	16QAM	50	50	21.46	21.24	21.40	22.8	2				
20	16QAM	100	0	21.47	21.28	21.35						
20	64QAM	1	0	21.20	21.15	21.22						
20	64QAM	1	49	21.33	21.10	21.15	22.8	2				
20	64QAM	1	99	21.15	21.11	21.20						
20	64QAM	50	0	20.67	20.44	20.44						
20	64QAM	50	24	20.71	20.45	20.53	21.8	3				
20	64QAM	50	50	20.63	20.39	20.54						
20	64QAM	100	0	20.65	20.43	20.48						
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)				
Frequency (MHz)				2577.5	2595	2612.5	Tune-up limit (dBm)	MPR (dB)				
15	QPSK	1	0	23.27	23.12	23.07				24.8	0	
15	QPSK	1	37	23.42	23.35	23.27						
15	QPSK	1	74	23.33	23.05	23.22						
15	QPSK	36	0	22.48	22.18	22.28	23.8	1				
15	QPSK	36	20	22.33	22.29	22.21						
15	QPSK	36	39	22.38	22.38	22.29	23.8	1				
15	QPSK	75	0	22.43	22.20	22.30						
15	16QAM	1	0	22.25	22.08	22.09						
15	16QAM	1	37	22.41	22.33	22.29	23.8	1				
15	16QAM	1	74	22.25	22.14	22.15						
15	16QAM	36	0	21.50	21.24	21.29						
15	16QAM	36	20	21.54	21.13	21.36	22.8	2				
15	16QAM	36	39	21.29	21.06	21.23						
15	16QAM	75	0	21.47	21.28	21.35						
15	64QAM	1	0	21.17	21.04	21.14	22.8	2				
15	64QAM	1	37	21.32	21.05	21.19						
15	64QAM	1	74	21.01	20.96	21.06						
15	64QAM	36	0	20.50	20.26	20.27	21.8	3				
15	64QAM	36	20	20.61	20.26	20.43						
15	64QAM	36	39	20.50	20.25	20.41						
15	64QAM	75	0	20.57	20.43	20.40						
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)				
Frequency (MHz)				2575	2595	2615	Tune-up limit (dBm)	MPR (dB)				
10	QPSK	1	0	23.27	23.10	23.07				24.8	0	
10	QPSK	1	25	23.54	23.25	23.39						
10	QPSK	1	49	23.26	23.18	23.15						
10	QPSK	25	0	22.53	22.69	22.33	23.8	1				
10	QPSK	25	12	22.31	22.10	22.19						
10	QPSK	25	25	22.30	22.11	22.23						
10	QPSK	50	0	22.28	22.08	22.15	23.8	1				
10	16QAM	1	0	22.29	21.98	22.13						
10	16QAM	1	25	22.51	22.16	22.39						
10	16QAM	1	49	22.24	22.02	22.14	22.8	2				
10	16QAM	25	0	21.41	21.23	21.20						
10	16QAM	25	12	21.42	21.17	21.24						
10	16QAM	25	25	21.42	21.15	21.36	22.8	2				
10	16QAM	50	0	21.29	21.11	21.17						
10	64QAM	1	0	21.03	21.00	21.05						
10	64QAM	1	25	21.18	21.00	21.00	22.8	2				
10	64QAM	1	49	21.03	21.08	21.08						
10	64QAM	25	0	20.60	20.26	20.37						
10	64QAM	25	12	20.67	20.28	20.49	21.8	3				
10	64QAM	25	25	20.51	20.27	20.42						
10	64QAM	50	0	20.49	20.40	20.32						
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)				
Frequency (MHz)				2572.5	2595	2617.5	Tune-up limit (dBm)	MPR (dB)				
5	QPSK	1	0	23.23	23.10	23.03				24.8	0	
5	QPSK	1	12	23.57	23.34	23.42						
5	QPSK	1	24	23.26	23.20	23.15						
5	QPSK	12	0	22.34	22.24	22.14	23.8	1				
5	QPSK	12	7	22.29	22.18	22.17						
5	QPSK	12	13	22.34	22.22	22.27						
5	QPSK	25	0	22.28	22.15	22.15	23.8	1				
5	16QAM	1	0	22.36	22.15	22.20						
5	16QAM	1	12	22.48	22.19	22.36						
5	16QAM	1	24	22.28	22.19	22.18	22.8	2				
5	16QAM	12	0	21.40	21.10	21.19						
5	16QAM	12	7	21.45	21.15	21.27						
5	16QAM	12	13	21.41	21.18	21.35	22.8	2				
5	16QAM	25	0	21.46	21.14	21.34						
5	64QAM	1	0	21.06	21.05	21.08						
5	64QAM	1	12	21.22	21.06	21.04	21.8	2				
5	64QAM	1	24	21.11	21.05	21.16						
5	64QAM	12	0	20.50	20.42	20.27						
5	64QAM	12	7	20.55	20.33	20.37	21.8	3				
5	64QAM	12	13	20.53	20.27	20.44						
5	64QAM	25	0	20.65	20.34	20.48						

Band 41_Ant31										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	23.44	23.36	23.52	23.47	23.36	24.8	0
20	QPSK	1	49	23.50	23.48	23.71	23.62	23.60		
20	QPSK	1	99	23.39	23.35	23.60	23.45	23.45		
20	QPSK	50	0	22.38	22.49	22.66	22.53	22.54	23.8	1
20	QPSK	50	24	22.50	22.49	22.60	22.55	22.55		
20	QPSK	50	50	22.53	22.45	22.53	22.58	22.55		
20	QPSK	100	0	22.42	22.46	22.60	22.56	22.51	23.8	1
20	16QAM	1	0	22.39	22.28	22.56	22.45	22.37		
20	16QAM	1	49	22.54	22.56	22.71	22.60	22.64		
20	16QAM	1	99	22.40	22.33	22.60	22.42	22.46	22.8	2
20	16QAM	50	0	21.62	21.53	21.62	21.52	21.52		
20	16QAM	50	24	21.73	21.51	21.68	21.58	21.57		
20	16QAM	50	50	21.72	21.46	21.64	21.53	21.53	22.8	2
20	16QAM	100	0	21.64	21.49	21.60	21.59	21.52		
20	64QAM	1	0	21.30	21.06	21.16	21.14	21.12		
20	64QAM	1	49	21.41	21.25	21.42	21.40	21.30	22.8	2
20	64QAM	1	99	21.27	21.05	21.30	21.15	21.19		
20	64QAM	50	0	20.54	20.66	20.78	20.68	20.66		
20	64QAM	50	24	20.61	20.66	20.83	20.72	20.73	21.8	3
20	64QAM	50	50	20.66	20.56	20.81	20.69	20.70		
20	64QAM	100	0	20.56	20.62	20.77	20.67	20.65		
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2593.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	23.43	23.46	23.48	23.47	23.43	24.80	0
15	QPSK	1	37	23.53	23.67	23.70	23.69	23.54		
15	QPSK	1	74	23.48	23.43	23.58	23.56	23.45		
15	QPSK	36	0	22.39	22.39	22.56	22.49	22.41	23.8	1
15	QPSK	36	20	22.44	22.47	22.58	22.51	22.42		
15	QPSK	36	39	22.47	22.45	22.64	22.51	22.41		
15	QPSK	75	0	22.48	22.47	22.56	22.52	22.44	23.8	1
15	16QAM	1	0	22.45	22.36	22.47	22.46	22.36		
15	16QAM	1	37	22.55	22.53	22.67	22.58	22.57		
15	16QAM	1	74	22.47	22.43	22.53	22.43	22.47	22.8	2
15	16QAM	36	0	21.54	21.59	21.53	21.46	21.39		
15	16QAM	36	20	21.64	21.60	21.58	21.43	21.39		
15	16QAM	36	39	21.71	21.64	21.61	21.47	21.38	22.8	2
15	16QAM	75	0	21.60	21.66	21.62	21.53	21.46		
15	64QAM	1	0	21.30	21.29	21.27	21.15	21.14		
15	64QAM	1	37	21.46	21.43	21.37	21.31	21.37	22.8	2
15	64QAM	1	74	21.32	21.39	21.29	21.23	21.13		
15	64QAM	36	0	20.64	20.56	20.75	20.66	20.58		
15	64QAM	36	20	20.61	20.59	20.79	20.63	20.62	21.8	3
15	64QAM	36	39	20.68	20.67	20.77	20.66	20.58		
15	64QAM	75	0	20.55	20.53	20.78	20.67	20.61		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	23.42	23.60	23.58	23.43	23.62	24.80	0
10	QPSK	1	25	23.47	23.66	23.55	23.56	23.69		
10	QPSK	1	49	23.40	23.68	23.58	23.50	23.67		
10	QPSK	25	0	22.29	22.61	22.47	22.44	22.65	23.8	1
10	QPSK	25	12	22.39	22.63	22.46	22.49	22.72		
10	QPSK	25	25	22.41	22.71	22.45	22.45	22.71		
10	QPSK	50	0	22.45	22.63	22.47	22.51	22.71	23.8	1
10	16QAM	1	0	22.35	22.59	22.45	22.42	22.62		
10	16QAM	1	25	22.47	22.67	22.56	22.55	22.65		
10	16QAM	1	49	22.38	22.61	22.50	22.53	22.73	22.8	2
10	16QAM	25	0	21.57	21.67	21.47	21.53	21.68		
10	16QAM	25	12	21.60	21.67	21.52	21.50	21.74		
10	16QAM	25	25	21.55	21.65	21.52	21.46	21.77	22.8	2
10	16QAM	50	0	21.59	21.61	21.48	21.50	21.75		
10	64QAM	1	0	21.33	21.30	21.25	21.16	21.46		
10	64QAM	1	25	21.37	21.46	21.28	21.29	21.50	22.8	2
10	64QAM	1	49	21.29	21.38	21.17	21.19	21.44		
10	64QAM	25	0	20.52	20.80	20.66	20.68	20.92		
10	64QAM	25	12	20.60	20.80	20.68	20.77	20.94	21.8	3
10	64QAM	25	25	20.64	20.86	20.65	20.69	21.01		
10	64QAM	50	0	20.66	20.77	20.64	20.67	20.93		
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	23.36	23.55	23.46	23.43	23.45	24.80	0
5	QPSK	1	12	23.41	23.63	23.57	23.51	23.53		
5	QPSK	1	24	23.36	23.65	23.52	23.47	23.49		
5	QPSK	12	0	22.33	22.55	22.40	22.42	22.41	23.8	1
5	QPSK	12	7	22.34	22.57	22.39	22.39	22.41		
5	QPSK	12	13	22.34	22.58	22.45	22.40	22.39		
5	QPSK	25	0	22.34	22.57	22.41	22.40	22.48	23.8	1
5	16QAM	1	0	22.38	22.58	22.39	22.41	22.41		
5	16QAM	1	12	22.44	22.68	22.43	22.54	22.44		
5	16QAM	1	24	22.37	22.61	22.45	22.45	22.44	22.8	2
5	16QAM	12	0	21.45	21.51	21.37	21.35	21.37		
5	16QAM	12	7	21.44	21.52	21.33	21.34	21.35		
5	16QAM	12	13	21.48	21.48	21.34	21.31	21.29	22.8	2
5	16QAM	25	0	21.58	21.54	21.45	21.46	21.44		
5	64QAM	1	0	21.34	21.32	21.20	21.24	21.19		
5	64QAM	1	12	21.31	21.29	21.15	21.25	21.20	22.8	2
5	64QAM	1	24	21.34	21.36	21.19	21.22	21.22		
5	64QAM	12	0	20.47	20.72	20.53	20.60	20.54		
5	64QAM	12	7	20.52	20.75	20.55	20.58	20.52	21.8	3
5	64QAM	12	13	20.46	20.72	20.54	20.53	20.54		
5	64QAM	25	0	20.58	20.74	20.61	20.62	20.59		

Band 41_Ant14										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up limit (dbm)	MPR (db)
Channel				39750	40185	40620	41055	41490	Turn-up limit (dbm)	MPR (db)
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	23.15	23.35	23.20	23.15	23.30	24.8	0
20	QPSK	1	49	23.41	23.50	23.63	23.36	23.52		
20	QPSK	1	99	23.28	23.44	23.20	23.16	23.36		
20	QPSK	50	0	22.24	22.40	22.55	22.31	22.48	23.8	1
20	QPSK	50	24	22.35	22.45	22.32	22.28	22.47		
20	QPSK	50	50	22.36	22.44	22.25	22.24	22.42		
20	QPSK	100	0	22.31	22.45	22.52	22.26	22.50	23.8	1
20	16QAM	1	0	22.19	22.33	22.16	22.14	22.28		
20	16QAM	1	49	22.40	22.53	22.37	22.37	22.54		
20	16QAM	1	99	22.26	22.40	22.15	22.14	22.34	22.8	2
20	16QAM	50	0	21.41	21.44	21.34	21.31	21.47		
20	16QAM	50	24	21.54	21.51	21.32	21.30	21.48		
20	16QAM	50	50	21.55	21.50	21.23	21.23	21.51	22.8	2
20	16QAM	100	0	21.48	21.45	21.28	21.28	21.49		
20	64QAM	1	0	21.11	21.04	21.09	21.05	21.05		
20	64QAM	1	49	21.28	21.26	21.10	21.10	21.26	22.8	2
20	64QAM	1	99	21.05	21.11	21.10	21.06	21.08		
20	64QAM	50	0	20.31	20.60	20.47	20.47	20.66		
20	64QAM	50	24	20.41	20.67	20.46	20.44	20.64	21.8	3
20	64QAM	50	50	20.51	20.63	20.42	20.39	20.67		
20	64QAM	100	0	20.38	20.60	20.44	20.43	20.65		
Channel				39725	40173	40620	41068	41515	Turn-up limit (dbm)	MPR (db)
Frequency (MHz)				2503.5	2546.3	2593	2637.8	2682.5	Turn-up limit (dbm)	MPR (db)
15	QPSK	1	0	23.02	23.32	23.19	22.97	23.18		
15	QPSK	1	37	23.30	23.40	23.44	23.27	23.39		
15	QPSK	1	74	23.10	23.30	23.02	23.07	23.33		
15	QPSK	36	0	22.15	22.26	22.20	22.20	22.31	23.8	1
15	QPSK	36	20	22.19	22.31	22.16	22.15	22.38		
15	QPSK	36	36	22.34	22.31	22.23	22.24	22.32		
15	QPSK	75	0	22.31	22.40	22.52	22.11	22.50	23.8	1
15	16QAM	1	0	22.15	22.15	22.12	22.04	22.18		
15	16QAM	1	37	22.27	22.40	22.24	22.35	22.43		
15	16QAM	1	74	22.26	22.35	22.15	22.00	22.16	22.8	2
15	16QAM	36	0	21.36	21.26	21.29	21.26	21.43		
15	16QAM	36	20	21.50	21.51	21.28	21.15	21.38		
15	16QAM	36	39	21.51	21.48	21.19	21.06	21.46	21.8	3
15	16QAM	75	0	21.47	21.32	21.27	21.23	21.48		
15	64QAM	1	0	20.99	20.90	20.92	20.14	20.95		
15	64QAM	1	37	21.26	21.18	21.08	20.94	21.18	22.8	2
15	64QAM	1	74	20.87	21.05	20.97	21.03	21.01		
15	64QAM	36	0	20.24	20.46	20.40	20.30	20.57		
15	64QAM	36	20	20.23	20.55	20.28	20.41	20.50	21.8	3
15	64QAM	36	39	20.50	20.58	20.41	20.38	20.56		
15	64QAM	75	0	20.35	20.47	20.41	20.25	20.56		
Channel				39700	40160	40620	41080	41540	Turn-up limit (dbm)	MPR (db)
Frequency (MHz)				2501	2547	2593	2639	2685	Turn-up limit (dbm)	MPR (db)
10	QPSK	1	0	23.15	23.31	23.17	23.10	23.22		
10	QPSK	1	25	23.27	23.42	23.41	23.19	23.33		
10	QPSK	1	49	23.23	23.40	23.13	23.14	23.34		
10	QPSK	25	0	22.10	22.28	22.35	22.26	22.42	23.8	1
10	QPSK	25	10	22.16	22.45	22.15	22.09	22.47		
10	QPSK	25	25	22.27	22.28	22.16	22.23	22.29		
10	QPSK	50	0	22.23	22.29	22.44	22.12	22.40	23.8	1
10	16QAM	1	0	22.12	22.32	22.09	22.01	22.21		
10	16QAM	1	25	22.23	22.39	22.20	22.28	22.41		
10	16QAM	1	49	22.08	22.40	21.97	22.01	22.18	22.8	2
10	16QAM	25	0	21.29	21.36	21.22	21.30	21.39		
10	16QAM	25	12	21.41	21.33	21.19	21.29	21.48		
10	16QAM	25	25	21.39	21.32	21.07	21.21	21.47	22.8	2
10	16QAM	50	0	21.35	21.21	21.15	21.15	21.32		
10	64QAM	1	0	20.94	20.91	20.92	20.15	20.86		
10	64QAM	1	25	21.24	21.22	21.06	21.03	21.09	21.8	3
10	64QAM	1	49	20.97	21.10	21.02	20.95	21.05		
10	64QAM	25	0	20.21	20.46	20.37	20.35	20.61		
10	64QAM	25	12	20.35	20.61	20.40	20.26	20.45	21.8	3
10	64QAM	25	25	20.36	20.54	20.27	20.37	20.61		
10	64QAM	50	0	20.30	20.50	20.36	20.24	20.58		
Channel				39675	40148	40620	41093	41565	Turn-up limit (dbm)	MPR (db)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2667.5	Turn-up limit (dbm)	MPR (db)
5	QPSK	1	0	22.98	23.24	23.06	23.06	23.26		
5	QPSK	1	12	23.29	23.31	23.43	23.35	23.34		
5	QPSK	1	24	23.09	23.27	23.03	23.06	23.21		
5	QPSK	12	0	22.21	22.39	22.22	22.33	22.33	23.8	1
5	QPSK	12	7	22.24	22.43	22.21	22.25	22.44		
5	QPSK	12	13	22.21	22.36	22.10	22.16	22.34		
5	QPSK	25	0	22.20	22.38	22.41	22.20	22.39	23.8	1
5	16QAM	1	0	22.06	22.17	22.03	22.06	22.28		
5	16QAM	1	12	22.37	22.48	22.34	22.23	22.46		
5	16QAM	1	24	22.25	22.37	22.14	22.13	22.28	22.8	2
5	16QAM	12	0	21.36	21.27	21.29	21.25	21.28		
5	16QAM	12	7	21.37	21.51	21.15	21.30	21.48		
5	16QAM	12	13	21.46	21.48	21.14	21.18	21.44	22.8	2
5	16QAM	25	0	21.43	21.36	21.23	21.10	21.32		
5	64QAM	1	0	20.96	20.93	20.94	20.88	21.01		
5	64QAM	1	12	21.11	21.26	20.93	21.05	21.19	21.8	3
5	64QAM	1	24	21.04	20.94	21.09	20.95	20.97		
5	64QAM	12	0	20.22	20.50	20.38	20.47	20.55		
5	64QAM	12	7	20.28	20.50	20.33	20.39	20.46	21.8	3
5	64QAM	12	13	20.40	20.50	20.31	20.33	20.56		
5	64QAM	25	0	20.36	20.42	20.42	20.27	20.50		

DSI 2 Power

GSM850_AntH4	Burst Average Power (dBm)				Frame Average Power (dBm)			
	TX Channel	128	189	251	Limit	128	189	251
Frequency (MHz)	854.2	854.4	854.8	854.8	(dBm)	854.2	854.4	854.8
GSM 1 Tx slot		32.09	32.30	32.22	33.50	23.09	23.30	23.22
GPRS 1 Tx slot		32.08	32.17	32.21	33.50	23.08	23.17	23.21
GPRS 2 Tx slots		30.33	30.34	30.32	31.50	24.33	24.34	24.32
GPRS 3 Tx slots		28.13	28.13	28.12	29.50	23.87	23.87	23.86
GPRS 4 Tx slots		26.44	26.45	26.52	28.00	23.44	23.45	23.52
EDGE 1 Tx slot		27.00	27.04	26.93	28.00	18.00	18.04	17.93
EDGE 2 Tx slots		24.42	24.51	24.45	25.70	18.42	18.51	18.45
EDGE 3 Tx slots		22.15	22.25	22.30	23.50	17.89	17.99	18.04
EDGE 4 Tx slots		20.30	20.31	20.28	21.70	17.30	17.31	17.28

GSM1800_AntG1	Burst Average Power (dBm)				Frame Average Power (dBm)			
	TX Channel	512	661	810	Limit	512	661	810
Frequency (MHz)	1850.2	1880	1860.8	1860.8	(dBm)	1850.2	1880	1860.8
GSM 1 Tx slot		30.01	30.13	29.92	30.50	21.01	21.13	20.92
GPRS 1 Tx slot		29.96	30.12	29.90	30.50	20.96	21.12	20.90
GPRS 2 Tx slots		27.70	27.85	27.71	28.30	21.70	21.85	21.71
GPRS 3 Tx slots		25.45	25.64	25.48	26.00	21.19	21.38	21.22
GPRS 4 Tx slots		23.76	23.94	23.78	24.50	20.76	20.94	20.78
EDGE 1 Tx slot		25.47	25.51	25.18	26.50	16.47	16.51	16.18
EDGE 2 Tx slots		23.51	23.60	23.22	24.50	17.51	17.60	17.22
EDGE 3 Tx slots		21.38	21.42	21.30	22.70	17.12	17.16	17.04
EDGE 4 Tx slots		20.10	20.05	19.84	21.20	17.10	17.05	16.84

GSM850_AntH1	Burst Average Power (dBm)				Frame Average Power (dBm)			
	TX Channel	128	189	251	Limit	128	189	251
Frequency (MHz)	854.2	854.4	854.8	854.8	(dBm)	854.2	854.4	854.8
GSM 1 Tx slot		30.54	30.43	30.55	31.50	21.54	21.43	21.55
GPRS 1 Tx slot		30.12	30.09	30.23	31.50	21.12	21.09	21.23
GPRS 2 Tx slots		27.91	27.96	27.89	29.50	21.91	21.96	21.89
GPRS 3 Tx slots		25.86	25.86	25.96	27.50	21.60	21.60	21.70
GPRS 4 Tx slots		24.69	24.70	24.78	26.00	21.69	21.70	21.78
EDGE 1 Tx slot		26.70	26.72	26.84	28.00	17.70	17.72	17.84
EDGE 2 Tx slots		24.34	24.42	24.33	25.70	18.34	18.42	18.33
EDGE 3 Tx slots		22.15	22.21	22.16	23.50	17.89	17.95	17.90
EDGE 4 Tx slots		20.34	20.33	20.25	21.70	17.34	17.33	17.25

GSM1800_AntH4	Burst Average Power (dBm)				Frame Average Power (dBm)			
	TX Channel	512	661	810	Limit	512	661	810
Frequency (MHz)	1850.2	1880	1860.8	1860.8	(dBm)	1850.2	1880	1860.8
GSM 1 Tx slot		24.75	24.88	24.69	26.00	15.75	15.88	15.69
GPRS 1 Tx slot		24.64	24.71	24.58	26.00	15.64	15.71	15.58
GPRS 2 Tx slots		23.48	23.51	23.44	23.80	17.48	17.51	17.44
GPRS 3 Tx slots		21.35	21.32	21.38	21.50	17.09	17.08	17.14
GPRS 4 Tx slots		20.14	20.15	20.12	20.00	17.14	17.15	17.12
EDGE 1 Tx slot		24.83	24.82	24.72	26.00	15.83	15.82	15.72
EDGE 2 Tx slots		23.12	23.16	23.05	24.00	17.12	17.16	17.05
EDGE 3 Tx slots		21.30	21.40	21.35	22.20	17.04	17.14	17.09
EDGE 4 Tx slots		19.88	19.70	19.65	20.70	16.88	16.70	16.65

Band	WCDMA I_AntH31				WCDMA IV_AntH31				WCDMA V_AntH41			
	TX Channel	9262	9400	9538	Limit	1312	1413	1513	Limit	4132	4182	4233
Rx Channel		9662	9800	9938	(dBm)	1537	1636	1738	(dBm)	4357	4407	4458
Frequency (MHz)		1522.4	1550	1567.6		1712.4	1723.6	1752.4		4357.4	4364.4	4381.6
3GPP Rel 99	AMR 12.2kops	22.50	22.54	22.48	24.00	24.25	24.41	24.33	25.50	23.63	23.68	23.62
3GPP Rel 99	RMC 12.2kops	22.55	22.59	22.47	24.00	24.26	24.42	24.35	25.50	23.66	23.70	23.68
3GPP Rel 6	HSDPA Subtest-1	21.35	21.50	21.40	23.00	23.06	23.24	23.08	24.50	22.60	22.70	22.61
3GPP Rel 6	HSDPA Subtest-2	21.46	21.47	21.41	23.00	23.12	23.25	23.25	24.50	22.72	22.74	22.72
3GPP Rel 6	HSDPA Subtest-3	20.85	21.03	20.86	22.50	22.63	22.81	22.66	24.00	22.15	22.21	22.15
3GPP Rel 6	HSDPA Subtest-4	20.81	21.00	20.95	22.50	22.74	22.77	22.73	24.00	22.09	22.18	22.18
3GPP Rel 6	DC-HSDPA Subtest-1	21.30	21.35	21.35	23.00	23.01	23.18	23.03	24.50	22.48	22.56	22.47
3GPP Rel 8	DC-HSDPA Subtest-2	21.44	21.40	21.39	23.00	23.10	23.15	23.23	24.50	22.72	22.62	22.72
3GPP Rel 8	DC-HSDPA Subtest-3	20.84	20.89	20.75	22.50	22.62	22.75	22.65	24.00	21.98	22.05	21.98
3GPP Rel 8	DC-HSDPA Subtest-4	20.67	20.96	20.81	22.50	22.68	22.60	22.67	24.00	22.08	22.03	22.15
3GPP Rel 6	HSUPA Subtest-1	20.43	20.45	20.27	22.00	21.52	21.51	21.54	22.50	20.67	20.68	20.62
3GPP Rel 6	HSUPA Subtest-2	20.39	20.47	20.43	22.00	21.33	21.36	21.40	22.50	20.65	20.72	20.67
3GPP Rel 6	HSUPA Subtest-3	21.39	21.50	21.48	23.00	22.41	22.43	22.36	23.50	21.75	21.75	21.60
3GPP Rel 6	HSUPA Subtest-4	19.97	20.04	19.94	21.50	21.00	21.00	20.95	22.00	20.34	20.35	20.20
3GPP Rel 6	HSUPA Subtest-5	21.33	21.50	21.31	23.00	22.44	22.43	22.30	23.50	21.57	21.70	21.55
3GPP Rel 7	HSPA+ (10QAM) Subtest-1	21.03	21.11	21.07	22.00	21.52	21.60	21.55	22.50	21.10	21.13	21.05

Band	WCDMA I_AntH14				WCDMA IV_AntH14				WCDMA V_AntH11			
	TX Channel	9262	9400	9538	Limit	1312	1413	1513	Limit	4132	4182	4233
Rx Channel		9662	9800	9938	(dBm)	1537	1636	1738	(dBm)	4357	4407	4458
Frequency (MHz)		1522.4	1550	1567.6		1712.4	1723.6	1752.4		4357.4	4364.4	4381.6
3GPP Rel 99	AMR 12.2kops	16.55	16.67	16.57	18.00	17.25	17.46	17.41	18.50	22.33	22.36	22.32
3GPP Rel 99	RMC 12.2kops	16.69	16.76	16.73	18.00	17.44	17.48	17.40	18.50	22.26	22.44	22.31
3GPP Rel 6	HSDPA Subtest-1	15.70	15.72	15.70	17.00	16.43	16.51	16.30	17.50	21.34	21.37	21.34
3GPP Rel 6	HSDPA Subtest-2	15.61	15.70	15.66	17.00	16.26	16.39	16.41	17.50	21.11	21.32	21.23
3GPP Rel 6	HSDPA Subtest-3	15.22	15.28	15.18	16.50	15.88	15.93	15.84	17.00	20.85	20.83	20.63
3GPP Rel 6	HSDPA Subtest-4	15.26	15.21	15.12	16.50	15.85	15.89	15.82	17.00	20.77	20.85	20.67
3GPP Rel 6	DC-HSDPA Subtest-1	15.52	15.63	15.48	17.00	16.21	16.41	16.24	17.50	21.19	21.32	21.28
3GPP Rel 6	DC-HSDPA Subtest-2	15.59	15.51	15.55	17.00	16.12	16.34	16.23	17.50	21.02	21.08	21.11
3GPP Rel 8	DC-HSDPA Subtest-3	15.07	15.12	15.16	16.50	15.78	15.82	15.77	17.00	20.66	20.67	20.55
3GPP Rel 8	DC-HSDPA Subtest-4	15.25	15.09	15.11	16.50	15.84	15.89	15.76	17.00	20.67	20.72	20.70
3GPP Rel 6	HSUPA Subtest-1	14.56	14.85	14.64	16.00	14.33	14.42	14.45	15.50	19.16	19.22	19.29
3GPP Rel 6	HSUPA Subtest-2	14.63	14.81	14.71	16.00	14.22	14.42	14.27	15.50	19.20	19.32	19.08
3GPP Rel 6	HSUPA Subtest-3	15.74	15.76	15.74	17.00	15.31	15.49	15.44	18.50	20.21	20.39	20.20
3GPP Rel 6	HSUPA Subtest-4	14.26	14.35	14.25	15.50	13.85	14.06	13.96	15.00	18.76	18.86	18.67
3GPP Rel 6	HSUPA Subtest-5	15.69	15.78	15.67	17.00	15.34	15.30	15.19	16.50	20.10	20.22	20.13
3GPP Rel 7	HSPA+ (10QAM) Subtest-1	15.27	15.25	15.37	16.00	14.58	14.69	14.63	15.50	19.65	19.67	19.72



Band 2_Ant14													
BW (MHz)	Modulation	RB Size	RB Offset	Power Level Ch./F/Freq.	Power Level Ch./F/Freq.	Power Level Ch./F/Freq.	Turn-on Time (s)	MPR (dB)					
Frequency (MHz)													
20	QPSK	1	0	16.69	16.69	16.64	18	0					
20	QPSK	1	49	16.70	16.63	16.71							
20	QPSK	1	99	16.68	16.67	16.61							
20	QPSK	50	0	16.74	16.67	16.67							
20	QPSK	50	24	16.70	16.72	16.59							
20	QPSK	50	50	16.76	16.68	16.60	18	0					
20	QPSK	100	0	16.71	16.72	16.62							
20	16QAM	1	0	16.78	16.75	16.61							
20	16QAM	1	49	16.77	16.78	16.66							
20	16QAM	1	99	16.77	16.69	16.64							
20	16QAM	50	0	16.76	16.73	16.64	18	0					
20	16QAM	50	24	16.70	16.72	16.71							
20	16QAM	50	50	16.76	16.70	16.60							
20	16QAM	100	0	16.76	16.72	16.71							
20	16QAM	100	0	16.77	16.67	16.64							
20	16QAM	1	49	16.67	16.75	16.71	18	0					
20	16QAM	1	99	16.70	16.75	16.68							
20	16QAM	50	0	16.76	16.73	16.64							
20	16QAM	50	24	16.70	16.70	16.71							
20	16QAM	50	50	16.76	16.70	16.60							
20	16QAM	100	0	16.67	16.71	16.59	18	0					
Channel											16.67	16.70	16.65
Frequency (MHz)											16.67	16.69	16.62
15	QPSK	1	0	16.68	16.61	16.60	18	0					
15	QPSK	1	37	16.68	16.68	16.60							
15	QPSK	1	74	16.65	16.69	16.53							
15	QPSK	36	0	16.64	16.68	16.49							
15	QPSK	36	20	16.60	16.69	16.41							
15	QPSK	36	0	16.67	16.67	16.63	18	0					
15	QPSK	75	0	16.61	16.61	16.59							
15	16QAM	1	0	16.61	16.71	16.53							
15	16QAM	1	37	16.60	16.71	16.64							
15	16QAM	1	74	16.67	16.68	16.58							
15	16QAM	36	0	16.60	16.63	16.54	18	0					
15	16QAM	36	20	16.60	16.60	16.66							
15	16QAM	36	0	16.54	16.56	16.59							
15	16QAM	75	0	16.63	16.60	16.67							
15	16QAM	1	0	16.69	16.70	16.63							
15	16QAM	1	37	16.62	16.66	16.58	18	0					
15	16QAM	1	74	16.63	16.63	16.60							
15	16QAM	36	0	16.60	16.64	16.52							
15	16QAM	36	20	16.65	16.65	16.58							
15	16QAM	75	0	16.62	16.60	16.45							
15	16QAM	75	0	16.62	16.60	16.45	18	0					
Channel											16.62	16.60	16.47
Frequency (MHz)											16.62	16.60	16.52
10	QPSK	1	0	16.68	16.61	16.51	18	0					
10	QPSK	1	25	16.62	16.67	16.44							
10	QPSK	1	49	16.51	16.62	16.58							
10	QPSK	25	0	16.68	16.75	16.54							
10	QPSK	25	12	16.70	16.63	16.44							
10	QPSK	25	12	16.73	16.63	16.47	18	0					
10	QPSK	50	0	16.63	16.67	16.45							
10	QPSK	50	0	16.65	16.69	16.46							
10	16QAM	1	0	16.71	16.68	16.57							
10	16QAM	1	25	16.71	16.68	16.53							
10	16QAM	1	49	16.70	16.64	16.57	18	0					
10	16QAM	25	0	16.67	16.69	16.61							
10	16QAM	25	12	16.54	16.65	16.61							
10	16QAM	25	12	16.68	16.62	16.41							
10	16QAM	50	0	16.66	16.71	16.71							
10	16QAM	1	0	16.71	16.66	16.57	18	0					
10	16QAM	1	25	16.64	16.66	16.59							
10	16QAM	25	0	16.65	16.69	16.62							
10	16QAM	25	12	16.64	16.68	16.53							
10	16QAM	25	12	16.67	16.67	16.67							
10	16QAM	25	12	16.70	16.60	16.48	18	0					
Channel											16.62	16.66	16.48
Frequency (MHz)											16.62	16.66	16.50
5	QPSK	1	0	16.67	16.68	16.56	18	0					
5	QPSK	1	12	16.55	16.72	16.61							
5	QPSK	1	24	16.57	16.60	16.48							
5	QPSK	12	0	16.66	16.63	16.48							
5	QPSK	12	7	16.58	16.63	16.46							
5	QPSK	12	13	16.74	16.54	16.57	18	0					
5	QPSK	25	0	16.66	16.66	16.48							
5	QPSK	25	0	16.66	16.62	16.47							
5	16QAM	1	12	16.72	16.74	16.62							
5	16QAM	1	24	16.67	16.67	16.46							
5	16QAM	12	0	16.65	16.74	16.48	18	0					
5	16QAM	12	7	16.65	16.59	16.58							
5	16QAM	12	13	16.74	16.67	16.53							
5	16QAM	25	0	16.63	16.61	16.68							
5	16QAM	25	0	16.66	16.61	16.68							
5	16QAM	1	12	16.63	16.56	16.51	18	0					
5	16QAM	1	24	16.69	16.58	16.57							
5	16QAM	1	12	16.66	16.65	16.52							
5	16QAM	12	7	16.68	16.53	16.61							
5	16QAM	12	13	16.66	16.69	16.45							
5	16QAM	25	0	16.61	16.59	16.50	18	0					
Channel											16.61	16.59	16.50
Frequency (MHz)											16.61	16.60	16.51
3	QPSK	1	0	16.54	16.62	16.55	18	0					
3	QPSK	1	6	16.50	16.69	16.59							
3	QPSK	1	12	16.56	16.66	16.50							
3	QPSK	6	0	16.66	16.66	16.58							
3	QPSK	6	7	16.63	16.63	16.50							
3	QPSK	15	0	16.67	16.55	16.46	18	0					
3	16QAM	1	0	16.71	16.71	16.47							
3	16QAM	1	6	16.72	16.69	16.52							
3	16QAM	1	14	16.67	16.50	16.52							
3	16QAM	6	0	16.63	16.56	16.55							
3	16QAM	6	4	16.56	16.61	16.62	18	0					
3	16QAM	6	7	16.73	16.58	16.51							
3	16QAM	15	0	16.63	16.65	16.57							
3	16QAM	1	0	16.58	16.74	16.51							
3	16QAM	1	6	16.60	16.56	16.68							
3	16QAM	1	14	16.67	16.71	16.52	18	0					
3	16QAM	6	0	16.62	16.73	16.52							
3	16QAM	6	4	16.50	16.58	16.66							
3	16QAM	6	7	16.66	16.60	16.50							
3	16QAM	15	0	16.55	16.52	16.58							
3	16QAM	15	0	16.55	16.52	16.58	18	0					
Channel											16.55	16.52	16.58
Frequency (MHz)											16.57	16.60	16.63
1.4	QPSK	1	0	16.60	16.52	16.54	18	0					
1.4	QPSK	1	6	16.57	16.76	16.52							
1.4	QPSK	1	6	16.66	16.65	16.53							
1.4	QPSK	3	0	16.56	16.65	16.50	18	0					
1.4	QPSK	3	0	16.54	16.65	16.49							
1.4	QPSK	3	6	16.64	16.64	16.48							
1.4	QPSK	6	0	16.53	16.68	16.44	18	0					
1.4	16QAM	1	0	16.64	16.65	16.45							
1.4	16QAM	1	6	16.67	16.63	16.45							
1.4	16QAM	1	6	16.72	16.72	16.46	18	0					
1.4	16QAM	3	0	16.57	16.65	16.64							
1.4	16QAM	3	1	16.51	16.57	16.59							
1.4	16QAM	6	0	16.57	16.57	16.52	18	0					
1.4	16QAM	6	0	16.51	16.57	16.48							
1.4	16QAM	6	0	16.51	16.58	16.50							
1.4	16QAM	1	0	16.58	16.60	16.46	18	0					
1.4	16QAM	1	6	16.62	16.64	16.47							
1.4	16QAM	3	0	16.67	16.64	16.61							
1.4	16QAM	3	0	16.67	16.61	16.59	18	0					
1.4	16QAM	3	0	16.67	16.61	16.59							
1.4	16QAM	3	0	16.67	16.61	16.59							



Band 5_Ant11																
BW [MHz]	Modulation	RB Size	RB Offset	Power [mW] Ch / Freq.	Power [mW] Ch / Freq.	Power [mW] Ch / Freq.	Time-out [min]	MPR [dB]								
Channel																
Frequency [MHz]																
10	QPSK	1	0	21.99	22.05	21.91	23.3	0								
10	QPSK	1	25	22.05	22.28	22.10										
10	QPSK	1	49	21.99	21.97	21.92										
10	QPSK	25	0	21.99	22.16	22.05	23.3	0								
10	QPSK	25	12	21.99	22.02	21.99										
10	QPSK	25	25	22.13	22.15	22.07										
10	QPSK	50	0	22.05	22.10	22.09	23.3	0								
10	HQAM	1	0	22.09	22.22	22.09										
10	HQAM	1	25	22.13	22.24	22.15										
10	HQAM	1	49	22.24	22.26	22.27	22.8	0.5								
10	HQAM	25	0	21.49	21.53	21.52										
10	HQAM	25	12	21.49	21.54	21.52										
10	HQAM	25	25	21.44	21.61	21.53	22.8	0.5								
10	HQAM	50	0	21.43	21.51	21.50										
10	HQAM	50	1	21.53	21.46	21.51										
10	HQAM	1	25	21.56	21.79	21.78	22.8	0.5								
10	HQAM	1	49	21.28	21.80	21.83										
10	HQAM	25	0	20.70	20.81	20.85										
10	HQAM	25	12	20.62	20.80	20.87	21.8	1.5								
10	HQAM	25	25	20.51	20.71	20.81										
10	HQAM	50	0	20.63	20.71	20.84										
Channel																
Frequency [MHz]																
5	QPSK	1	0	21.97	21.97	21.77	23.3	0								
5	QPSK	1	12	21.83	22.02	21.93										
5	QPSK	1	24	21.84	21.95	21.92										
5	QPSK	12	0	21.88	22.02	21.87	23.3	0								
5	QPSK	12	7	21.85	21.97	21.84										
5	QPSK	12	13	21.99	22.11	21.95										
5	QPSK	25	0	21.86	22.06	22.00	23.3	0								
5	HQAM	1	0	21.90	22.09	22.03										
5	HQAM	1	12	21.99	22.14	22.06										
5	HQAM	1	24	21.26	22.23	22.12	22.8	0.5								
5	HQAM	12	0	21.27	21.38	21.50										
5	HQAM	12	7	21.34	21.31	21.29										
5	HQAM	25	0	21.23	21.31	21.39	22.8	0.5								
5	HQAM	25	0	21.23	21.31	21.39										
5	HQAM	1	0	21.11	21.43	21.41										
5	HQAM	1	12	21.48	21.60	21.71	22.8	0.5								
5	HQAM	1	24	21.32	21.47	21.48										
5	HQAM	12	0	20.45	20.84	20.79										
5	HQAM	12	7	20.53	20.65	20.53	21.8	1.5								
5	HQAM	12	13	20.67	20.78	20.65										
5	HQAM	25	0	20.42	20.94	20.90										
Channel																
Frequency [MHz]																
3	QPSK	1	0	21.94	21.91	21.61	23.3	0								
3	QPSK	1	8	21.81	21.93	21.80										
3	QPSK	1	14	21.75	21.85	21.81										
3	QPSK	8	0	21.83	22.02	22.00	23.3	0								
3	QPSK	8	4	21.85	21.96	21.77										
3	QPSK	8	7	22.00	22.08	22.00										
3	QPSK	16	0	21.94	21.97	21.97	23.3	0								
3	HQAM	1	0	21.99	22.07	22.02										
3	HQAM	1	8	22.05	22.19	22.11										
3	HQAM	1	14	22.18	22.23	22.13	22.8	0.5								
3	HQAM	8	0	21.38	21.29	21.51										
3	HQAM	8	4	21.40	21.47	21.48										
3	HQAM	8	7	21.34	21.50	21.48	22.8	0.5								
3	HQAM	16	0	21.29	21.26	21.39										
3	HQAM	1	0	21.12	21.36	21.48										
3	HQAM	1	8	21.31	21.62	21.63	22.8	0.5								
3	HQAM	1	14	21.29	21.61	21.27										
3	HQAM	8	0	20.44	20.44	20.58										
3	HQAM	8	4	20.45	20.67	20.59	21.8	1.5								
3	HQAM	8	7	20.50	20.67	20.63										
3	HQAM	16	0	20.42	20.63	20.63										
Channel																
Frequency [MHz]																
1.4	QPSK	1	0	21.89	21.97	21.78	23.3	0								
1.4	QPSK	1	3	21.79	21.86	21.87										
1.4	QPSK	1	5	21.74	21.88	21.84										
1.4	QPSK	3	0	21.76	21.97	21.90	23.3	0								
1.4	QPSK	3	1	21.84	21.91	21.86										
1.4	QPSK	3	3	22.05	22.06	22.04										
1.4	QPSK	3	0	21.99	22.06	21.99	23.3	0								
1.4	QPSK	3	0	21.99	22.16	21.97										
1.4	HQAM	1	3	22.00	22.20	22.00										
1.4	HQAM	1	5	22.19	22.19	22.21	23.3	0								
1.4	HQAM	3	0	21.67	22.03	21.90										
1.4	HQAM	3	1	21.85	21.92	21.78										
1.4	HQAM	3	3	21.97	21.91	21.88	22.8	0.5								
1.4	HQAM	6	0	21.27	21.98	21.79										
1.4	HQAM	6	1	21.51	21.39	21.45										
1.4	HQAM	1	5	21.48	20.90	21.15	22.8	0.5								
1.4	HQAM	1	5	21.57	21.39	21.18										
1.4	HQAM	3	0	21.33	21.33	21.38										
1.4	HQAM	3	1	21.09	21.33	21.43	21.8	1.5								
1.4	HQAM	3	3	21.40	21.34	21.30										
1.4	HQAM	6	0	20.38	20.33	20.33										

Band 5_Ant41											
BW [MHz]	Modulation	RB Size	RB Offset	Power [mW] Ch / Freq.	Power [mW] Ch / Freq.	Power [mW] Ch / Freq.	Time-out (min)	MPR (dB)			
Channel											
Frequency (MHz)											
10	QPSK	1	0	23.48	23.66	23.64	24.8	0			
10	QPSK	1	25	23.57	23.67	23.66					
10	QPSK	1	49	23.48	23.58	23.59					
10	QPSK	25	0	22.63	22.61	22.52	23.8	1			
10	QPSK	25	12	22.5	22.51	22.58					
10	QPSK	25	25	22.46	22.56	22.57					
10	HQAM	1	0	22.84	22.88	22.81	23.8	1			
10	HQAM	1	25	22.68	22.69	22.6					
10	HQAM	1	49	22.79	22.61	22.86					
10	HQAM	25	0	21.50	21.52	21.45	22.8	2			
10	HQAM	25	12	21.49	21.47	21.56					
10	HQAM	25	25	21.48	21.58	21.55					
10	HQAM	50	0	21.94	21.98	21.96	22.8	2			
10	HQAM	50	25	21.97	21.99	21.95					
10	HQAM	1	25	21.94	21.75	21.96					
10	HQAM	1	49	21.49	21.8	21.58	21.8	3			
10	HQAM	1	73	21.5	21.33	21.49					
10	HQAM	25	12	20.97	20.7	20.85					
10	HQAM	25	25	20.83	20.79	20.71	21.8	3			
10	HQAM	50	0	20.81	20.7	20.71					
10	HQAM	50	25	20.81	20.7	20.71					
Channel											
Frequency (MHz)											
5	QPSK	1	0	23.35	23.66	23.61	24.8	0			
5	QPSK	1	25	23.46	23.59	23.61					
5	QPSK	1	24	23.50	23.49	23.58					
5	QPSK	12	0	22.33	22.39	22.61	23.8	1			
5	QPSK	12	7	22.57	22.39	22.46					
5	QPSK	12	25	22.33	22.40	22.40					
5	HQAM	1	0	22.73	22.65	22.39	23.8	1			
5	HQAM	1	25	22.73	22.65	22.39					
5	HQAM	1	24	22.64	22.38	22.84					
5	HQAM	12	0	21.31	21.40	21.62	22.8	2			
5	HQAM	12	7	21.19	21.31	21.32					
5	HQAM	12	25	21.27	21.18	21.43					
5	HQAM	1	0	21.25	21.45	21.43	22.8	2			
5	HQAM	1	0	21.31	21.38	21.69					
5	HQAM	1	25	21.48	21.59	21.79					
5	HQAM	1	24	21.34	21.64	21.49	21.8	3			
5	HQAM	12	0	20.47	20.61	20.73					
5	HQAM	12	7	20.46	20.54	20.64					
5	HQAM	12	25	20.45	20.45	20.54	21.8	3			
5	HQAM	25	0	20.46	20.51	20.58					
5	HQAM	25	0	20.45	20.52	20.53					
Channel											
Frequency (MHz)											
3	QPSK	1	0	23.28	23.44	23.50	24.8	0			
3	QPSK	1	0	23.36	23.33	23.34					
3	QPSK	1	14	23.32	23.38	23.41					
3	QPSK	1	14	23.34	23.38	23.41	23.8	1			
3	QPSK	8	0	22.32	22.34	22.43					
3	QPSK	8	7	22.33	22.40	22.48					
3	HQAM	15	0	22.28	22.38	22.42	23.8	1			
3	HQAM	15	0	22.28	22.38	22.42					
3	HQAM	1	8	22.45	22.59	22.59					
3	HQAM	1	14	22.85	22.72	22.79	23.8	1			
3	HQAM	1	14	22.85	22.72	22.79					
3	HQAM	8	7	21.4	21.36	21.50					
3	HQAM	8	7	21.2	21.44	21.41	22.8	2			
3	HQAM	15	0	21.35	21.48	21.39					
3	HQAM	15	0	21.32	21.48	21.39					
3	HQAM	1	8	21.62	21.62	21.61	22.8	2			
3	HQAM	1	14	21.38	21.61	21.57					
3	HQAM	1	14	21.38	21.61	21.57					
3	HQAM	8	7	20.52	20.52	20.52	21.8	3			
3	HQAM	8	4	20.63	20.45	20.61					
3	HQAM	8	7	20.62	20.47	20.36					
3	HQAM	15	0	20.33	20.47	20.40	21.8	3			
3	HQAM	15	0	20.33	20.47	20.40					
3	HQAM	15	0	20.33	20.47	20.40					
Channel											
Frequency (MHz)											
1.4	QPSK	1	0	23.33	23.48	23.49	24.8	0			
1.4	QPSK	1	0	23.42	23.53	23.44					
1.4	QPSK	1	14	23.29	23.38	23.41					
1.4	QPSK	3	0	23.31	23.45	23.48	23.8	1			
1.4	QPSK	3	1	23.33	23.33	23.33					
1.4	QPSK	3	1	23.33	23.33	23.33					
1.4	QPSK	6	0	22.29	22.37	22.45	23.8	1			
1.4	QPSK	6	0	22.29	22.37	22.45					
1.4	QPSK	6	0	22.29	22.37	22.45					
1.4	HQAM	1	0	22.91	22.70	22.70	23.8	1			
1.4	HQAM	1	0	22.91	22.70	22.70					
1.4	HQAM	1	0	22.91	22.70	22.70					
1.4	HQAM	3	0	22.37	22.34	22.45	22.8	1			
1.4	HQAM	3	1	22.41	22.45	22.46					
1.4	HQAM	3	1	22.42	22.39	22.45					
1.4	HQAM	6	0	21.34	21.48	21.38	22.8	2			
1.4	HQAM	6	0	21.45	21.61	21.23					
1.4	HQAM	6	0	21.45	21.61	21.23					
1.4	HQAM	1	14	21.29	21.34	21.34	22.8	2			
1.4	HQAM	1	14	21.29	21.34	21.34					
1.4	HQAM	3	0	21.45	21.59	21.19					
1.4	HQAM	3	1	21.35	21.59	21.57	21.8	3			
1.4	HQAM	3	1	21.42	21.42	21.42					
1.4	HQAM	6	0	20.41	20.54	20.52					

Band 12_Ant11											
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Main Ch / Freq	Power High Ch / Freq	Turn-up time (s/min)	MPR (dB)			
Channel											
Frequency (MHz)											
10	QPSK	1	0	23.78	23.57	23.83	25	0			
10	QPSK	1	25	23.85	23.86	23.75					
10	QPSK	1	49	23.83	23.80	23.84					
10	QPSK	25	0	22.60	22.74	22.81					
10	QPSK	25	12	22.67	22.86	22.85					
10	QPSK	25	25	22.64	22.67	22.64	24	1			
10	QPSK	25	0	22.69	22.73	22.69					
10	QPSK	25	12	22.67	22.69	22.64					
10	QPSK	25	25	22.77	22.84	22.89					
10	QPSK	25	0	22.85	22.89	22.83					
10	16QAM	1	25	22.77	22.84	22.89	24	1			
10	16QAM	1	49	22.52	22.68	22.85					
10	16QAM	25	0	21.75	21.83	21.90					
10	16QAM	25	12	21.89	21.92	21.85					
10	16QAM	25	25	21.89	21.81	21.94					
10	16QAM	50	0	21.89	21.79	21.94	23	2			
10	16QAM	50	1	21.85	22.05	21.95					
10	16QAM	1	25	22.13	22.07	21.96					
10	16QAM	1	49	22.13	21.95	21.99					
10	16QAM	25	0	20.74	20.80	20.70					
10	16QAM	25	12	20.83	20.80	20.87	22	3			
10	16QAM	25	25	20.77	20.80	20.83					
10	16QAM	50	0	20.78	20.80	20.83					
Channel											
Frequency (MHz)				701.5	701.5	713.5	Turn-up time (s/min)			MPR (dB)	
5	QPSK	1	0	23.57	23.75	23.69	25	0			
5	QPSK	1	12	23.67	23.67	23.67					
5	QPSK	1	24	23.71	23.72	23.85					
5	QPSK	12	0	22.61	22.62	22.72					
5	QPSK	12	7	22.66	22.64	22.68					
5	QPSK	12	13	22.70	22.66	22.66	24	1			
5	QPSK	25	0	22.69	22.61	22.68					
5	16QAM	1	0	22.81	22.74	22.56					
5	16QAM	1	12	22.14	22.56	22.46					
5	16QAM	1	24	22.10	22.59	22.68					
5	16QAM	12	0	21.89	21.86	21.77	23	2			
5	16QAM	12	7	21.79	21.91	21.84					
5	16QAM	12	13	21.87	21.86	21.87					
5	16QAM	25	0	21.87	21.82	21.93					
5	16QAM	1	0	21.83	21.83	21.88					
5	16QAM	1	12	21.82	21.91	22.10	22	3			
5	16QAM	1	24	21.85	22.16	22.25					
5	16QAM	12	0	20.82	20.85	20.85					
5	16QAM	12	7	20.82	20.80	20.85					
5	16QAM	25	0	20.89	20.83	20.83					
Channel				2300.5	2300.5	2312.5	Turn-up time (s/min)			MPR (dB)	
3	QPSK	1	0	23.67	23.59	23.73	25	0			
3	QPSK	1	5	23.78	23.72	23.67					
3	QPSK	1	14	23.73	23.68	23.76					
3	QPSK	3	0	23.59	23.69	23.74					
3	QPSK	3	6	23.63	23.61	23.70					
3	QPSK	8	7	23.66	23.63	23.69	24	1			
3	QPSK	15	0	22.60	22.60	22.68					
3	QPSK	15	7	22.65	22.62	22.61					
3	16QAM	1	8	23.02	23.05	23.08					
3	16QAM	1	14	22.99	22.91	23.11					
3	16QAM	3	0	22.74	22.74	22.80	24	1			
3	16QAM	3	6	22.90	22.89	22.96					
3	16QAM	8	7	21.90	21.89	21.90					
3	16QAM	8	7	21.96	21.88	21.95					
3	16QAM	15	0	21.86	21.77	21.89					
3	16QAM	15	7	21.86	21.80	21.87	23	2			
3	16QAM	1	8	22.01	22.03	22.17					
3	16QAM	1	14	21.91	21.90	21.98					
3	16QAM	3	0	21.95	21.95	22.00					
3	16QAM	8	4	20.85	20.80	20.84					
3	16QAM	8	7	20.93	20.90	20.92	22	3			
3	16QAM	15	0	20.76	20.68	20.76					
3	16QAM	15	7	20.76	20.68	20.76					
Channel											
Frequency (MHz)				665.7	701.5	716.3	Turn-up time (s/min)			MPR (dB)	
1.4	QPSK	1	0	23.67	23.59	23.73	25	0			
1.4	QPSK	1	5	23.79	23.76	23.77					
1.4	QPSK	1	5	23.63	23.55	23.81					
1.4	QPSK	3	0	23.54	23.68	23.62					
1.4	QPSK	3	1	23.69	23.68	23.72					
1.4	QPSK	3	3	23.64	23.72	23.71	24	1			
1.4	QPSK	0	0	22.63	22.63	22.76					
1.4	16QAM	1	0	22.97	22.92	23.12					
1.4	16QAM	1	3	22.86	22.73	22.86					
1.4	16QAM	1	5	22.91	22.89	22.85					
1.4	16QAM	3	0	22.60	22.72	22.77	24	1			
1.4	16QAM	3	1	22.61	22.69	22.61					
1.4	16QAM	3	3	22.63	22.59	22.83					
1.4	16QAM	0	0	21.61	21.60	22.11					
1.4	16QAM	3	0	21.66	21.68	22.21					
1.4	16QAM	1	3	22.15	22.15	21.86	23	2			
1.4	16QAM	1	5	22.09	21.84	21.90					
1.4	16QAM	3	0	21.87	21.85	21.90					
1.4	16QAM	3	1	21.89	22.08	21.72					
1.4	16QAM	3	3	21.99	21.93	21.89					
1.4	16QAM	0	0	20.75	20.78	20.85	22	3			
Channel											
Frequency (MHz)				665.7	701.5	716.3	Turn-up time (s/min)			MPR (dB)	
1.4	QPSK	1	0	23.53	23.55	23.59	25	0			
1.4	QPSK	1	5	23.54	23.65	23.71					
1.4	QPSK	1	5	23.50	23.50	23.65					
1.4	QPSK	3	0	23.52	23.74	23.67					
1.4	QPSK	3	1	23.70	23.54	23.67					
1.4	QPSK	3	3	23.73	23.55	23.79	24	1			
1.4	QPSK	0	0	22.63	22.63	22.76					
1.4	16QAM	1	0	22.98	22.94	22.87					
1.4	16QAM	1	3	22.15	22.86	22.82					
1.4	16QAM	1	5	22.95	22.79	22.83					
1.4	16QAM	3	0	22.70	22.65	22.71	24	1			
1.4	16QAM	3	1	22.67	22.64	22.72					
1.4	16QAM	3	3	22.68	22.72	22.89					
1.4	16QAM	0	0	21.66	21.85	21.81					
1.4	16QAM	3	0	21.69	21.90	21.90	23	2			
1.4	16QAM	1	3	22.15	22.11	21.86					
1.4	16QAM	1	5	22.09	21.84	21.90					
1.4	16QAM	3	0	21.87	21.85	21.90					
1.4	16QAM	3	1	21.89	22.08	21.72					
1.4	16QAM	3	3	21.99	21.93	21.89	23	2			
1.4	16QAM	0	0	20.75	20.78	20.85					
1.4	16QAM	3	0	20.72	20.94	20.85					
1.4	16QAM	3	1	20.72	20.94	20.85					
1.4	16QAM	3	3	20.72	20.94	20.85					

Band 17_Ant11									
BS (MHz)	Modulation	RB SBC	RB Offset	Power (dBm)	Power C/I (dB)	Power C/N (dB)	Power C/A (dB)	Time slot (slot)	MPR (dB)
Channel				2376	2376	2376	2376		
Frequency (MHz)									
10	QPSK	1	0	23.83	23.71	23.84			
10	QPSK	1	20	23.71	23.75	23.72		25	0
10	QPSK	1	40	23.84	23.83	23.83			
10	QPSK	25	0	23.84	23.85	23.86			
10	QPSK	25	12	23.81	23.81	23.82		24	1
10	QPSK	25	20	23.86	23.87	23.83			
10	QPSK	25	40	23.86	23.77	23.89			
10	WDM	1	0	22.86	23.01	23.01			
10	WDM	1	20	22.84	22.88	22.88		24	1
10	WDM	1	40	22.86	22.86	22.86			
10	WDM	25	0	21.82	21.77	21.90			
10	WDM	25	12	21.87	21.80	21.80		23	2
10	WDM	25	20	21.86	21.86	21.86			
10	WDM	25	40	21.80	21.82	21.87			
10	WDM	1	0	21.96	21.87	21.75			
10	WDM	1	20	21.91	21.91	22.17			
10	WDM	1	40	21.91	21.91	22.18			
10	WDM	25	0	20.78	20.89	20.95			
10	WDM	25	12	20.81	20.77	20.82		22	3
10	WDM	25	20	20.81	20.79	20.79			
10	WDM	25	40	20.85	20.82	20.86			
Channel				2376	2376	2376	2376		
Frequency (MHz)									
5	QPSK	1	0	23.61	23.64	23.67			
5	QPSK	1	10	23.67	23.67	23.68		26	0
5	QPSK	1	20	23.60	23.64	23.63			
5	QPSK	1	30	23.56	23.59	23.58			
5	QPSK	12	7	22.96	22.98	22.98		24	1
5	QPSK	12	15	22.57	22.52	22.52			
5	QPSK	12	23	22.54	22.54	22.54			
5	WDM	1	0	22.50	22.68	22.63		22	0
5	WDM	1	12	22.71	22.65	22.65			
5	WDM	1	24	22.71	22.65	22.77			
5	WDM	12	7	21.72	21.73	21.73		23	2
5	WDM	12	7	21.66	21.74	21.71			
5	WDM	12	15	21.67	21.67	21.66			
5	WDM	12	23	21.75	21.76	21.71			
5	WDM	1	0	21.63	21.74	21.50			
5	WDM	1	15	21.58	22.00	22.18		23	2
5	WDM	1	30	21.46	21.46	22.06			
5	WDM	12	0	20.85	20.82	20.84			
5	WDM	12	7	20.72	20.66	20.64			
5	WDM	12	15	20.72	20.72	20.72		22	3
5	WDM	25	0	20.74	20.77	20.68			

Band 17_Ant41									
RF (MHz)	Modulation	File Size	RF Offset	Power (dBm)	Power C/I (dB)	Power C/N (dB)	Power C/A (dB)	Turn-on time (sec)	MTR (dB)
Channel									
Channel				23760	23760	23800	23800		
Frequency (MHz)									
5	QPSK	1	0	23.65	20.00	23.00	23.00		
5	QPSK	1	26	23.55	23.75	23.67	23.67	25	0
5	QPSK	1	52	23.71	24.00	23.80	23.80		
5	QPSK	25	26	23.64	22.00	22.00	22.00		
5	QPSK	25	52	23.64	22.00	22.00	22.00		
5	QPSK	25	12	23.62	22.00	22.00	22.00	24	1
5	QPSK	25	26	23.60	22.00	22.00	22.00		
5	QPSK	25	52	23.67	22.00	22.00	22.00		
5	HQAM	1	0	23.94	23.00	23.00	23.00		
5	HQAM	1	26	23.80	23.26	23.26	23.26	24	1
5	HQAM	1	52	23.87	23.50	23.50	23.50		
5	HQAM	25	26	23.82	23.00	23.00	23.00		
5	HQAM	25	52	23.79	23.84	23.84	23.84	23	2
5	HQAM	25	12	23.76	23.76	23.76	23.76		
5	HQAM	50	0	23.77	23.78	23.85	23.85		
5	HQAM	50	26	23.97	23.81	23.90	23.90		
5	HQAM	50	52	23.99	23.99	23.99	23.99		
Channel									
Channel				23950	23950	23950	23950		
Frequency (MHz)									
5	QPSK	1	0	23.64	20.00	23.00	23.00		
5	QPSK	1	12	23.63	23.00	23.00	23.00	25	0
5	QPSK	1	24	23.64	23.00	23.00	23.00		
5	QPSK	1	36	23.63	23.00	23.00	23.00		
5	QPSK	12	7	23.68	23.22	23.08	23.08	24	1
5	QPSK	12	19	23.49	23.43	23.60	23.60		
5	QPSK	12	31	23.68	23.22	23.08	23.08		
5	HQAM	1	0	23.92	23.00	23.00	23.00		
5	HQAM	1	12	23.83	23.24	23.08	23.08	22	0
5	HQAM	1	24	23.86	23.46	23.21	23.21		
5	HQAM	12	7	23.78	23.79	23.90	23.90	23	0
5	HQAM	12	19	23.65	23.81	23.81	23.81	23	2
5	HQAM	12	31	23.75	23.81	23.81	23.81		
5	HQAM	25	24	23.74	23.72	23.77	23.77		
5	HQAM	50	0	23.94	23.71	23.80	23.80		
5	HQAM	1	12	23.79	23.89	23.94	23.94	23	2
5	HQAM	1	24	23.83	23.88	23.88	23.88		
5	HQAM	12	0	23.76	23.72	23.75	23.75		
5	HQAM	12	7	23.80	23.69	23.69	23.69	22	3
5	HQAM	12	19	23.68	23.74	23.74	23.74		
5	HQAM	50	0	23.77	23.77	23.78	23.78		

Band 18_Ant 11									
SP (MHz)	Modulation	RB Size	RB Offset	Power Level (dBm)	Power Spectral Density (dBm/MHz)	Power Spectral Density (dBm/MHz)	Power Spectral Density (dBm/MHz)	Transmit Rate (kbps)	MPER (dB)
Channel									
Frequency (MHz)									
15	QPSK	1	0	23.00	23.00	23.00	23.00	24	0
15	QPSK	1	37	23.13	23.13	23.13	23.13	24	0
15	QPSK	1	74	23.01	23.01	23.01	23.01	24	0
15	QPSK	1	111	23.00	23.00	23.00	23.00	24	0
15	QPSK	36	20	22.98	22.98	22.98	22.98	24	0.1
15	QPSK	72	0	22.92	22.92	22.92	22.92	24	0.1
15	QPSK	108	0	22.70	22.70	22.70	22.70	24	0.1
15	HQAM	1	37	22.88	22.88	22.88	22.88	24	0.5
15	HQAM	1	74	22.73	22.73	22.73	22.73	24	0.5
15	HQAM	36	20	22.84	22.84	22.84	22.84	24	0.5
15	HQAM	72	0	22.82	22.82	22.82	22.82	24	0.5
15	HQAM	108	0	22.60	22.60	22.60	22.60	24	0.5
15	HQAM	36	39	21.57	21.57	21.57	21.57	23	1.5
15	HQAM	72	0	21.53	21.53	21.53	21.53	23	1.5
15	HQAM	1	37	21.77	21.77	21.77	21.77	23	1.5
15	HQAM	1	74	21.68	21.68	21.68	21.68	23	1.5
15	HQAM	36	10	21.67	21.67	21.67	21.67	23	1.5
15	HQAM	36	50	21.81	21.81	21.81	21.81	23	1.5
15	HQAM	36	39	20.72	20.72	20.72	20.72	22	2.5
15	HQAM	72	0	20.70	20.70	20.70	20.70	22	2.5
Channel									
Frequency (MHz)				24500	24500	24500	24500	Transmit Rate (kbps)	MPER (dB)
Frequency (MHz)				820	822.5	825	825	24	0
15	QPSK	1	0	22.82	22.83	22.83	22.86	24	0
15	QPSK	1	25	23.05	23.09	23.09	23.09	24	0
15	QPSK	1	49	23.07	23.07	23.07	23.09	24	0
15	QPSK	1	74	22.43	22.48	22.48	22.55	24	0
15	QPSK	20	12	22.45	22.52	22.52	22.55	24	0.5
15	QPSK	20	32	22.47	22.53	22.53	22.55	24	0.5
15	QPSK	20	52	22.53	22.52	22.52	22.51	24	0.5
15	HQAM	1	0	22.84	22.88	22.88	22.84	24	0.5
15	HQAM	1	25	22.78	22.79	22.79	22.85	24	0.5
15	HQAM	1	49	22.82	22.82	22.82	22.87	24	0.5
15	HQAM	1	74	21.43	21.54	21.54	21.55	23	1.5
15	HQAM	20	12	21.55	21.62	21.62	21.51	23	1.5
15	HQAM	20	32	21.45	21.57	21.57	21.60	23	1.5
15	HQAM	20	52	21.55	21.48	21.48	21.45	23	1.5
15	HQAM	1	0	21.59	21.71	21.71	21.58	23	1.5
15	HQAM	1	25	21.73	21.69	21.69	21.67	23	1.5
15	HQAM	1	49	21.54	21.56	21.56	21.54	23	1.5
15	HQAM	20	12	20.81	20.82	20.82	20.74	22	2.5
15	HQAM	20	32	20.72	20.66	20.66	20.64	22	2.5
15	HQAM	20	52	20.72	20.69	20.69	20.64	22	2.5
15	HQAM	20	72	20.67	20.74	20.74	20.63	22	2.5
Channel									
Frequency (MHz)				23875	23925	23975	23975	Transmit Rate (kbps)	MPER (dB)
Frequency (MHz)				817.5	822.5	827.5	827.5	24	0
5	QPSK	1	0	22.83	22.92	22.92	22.9	24	0
5	QPSK	1	15	22.83	22.92	22.92	22.9	24	0
5	QPSK	1	30	22.83	22.92	22.92	22.9	24	0
5	QPSK	1	45	22.83	22.92	22.92	22.9	24	0
5	QPSK	1	24	22.92	22.99	22.94	22.94	24	0
5	QPSK	12	0	22.51	22.51	22.51	22.51	24	0.5
5	QPSK	12	12	22.48	22.53	22.53	22.48	24	0.5
5	QPSK	12	24	22.48	22.53	22.53	22.48	24	0.5
5	QPSK	20	0	22.43	22.43	22.43	22.53	24	0.5
5	HQAM	1	0	22.84	22.94	22.94	22.87	24	0.5
5	HQAM	1	15	22.84	22.94	22.94	22.87	24	0.5
5	HQAM	1	30	22.84	22.94	22.94	22.87	24	0.5
5	HQAM	1	45	22.84	22.94	22.94	22.87	24	0.5
5	HQAM	1	24	22.91	22.92	22.98	22.98	24	0.5
5	HQAM	12	0	21.47	21.48	21.48	21.45	23	1.5
5	HQAM	12	12	21.52	21.48	21.48	21.45	23	1.5
5	HQAM	12	24	21.52	21.48	21.48	21.45	23	1.5
5	HQAM	20	0	21.52	21.48	21.48	21.55	23	1.5
5	HQAM	1	0	21.58	21.70	21.70	21.68	23	1.5
5	HQAM	1	15	21.58	21.64	21.64	21.58	23	1.5
5	HQAM	1	30	21.58	21.64	21.64	21.58	23	1.5
5	HQAM	1	45	21.58	21.64	21.64	21.58	23	1.5
5	HQAM	1	24	20.74	20.54	20.54	20.68	22	2.5
5	HQAM	12	0	20.73	20.54	20.54	20.68	22	2.5
5	HQAM	12	12	20.70	20.70	20.70	20.66	22	2.5
5	HQAM	12	24	20.70	20.70	20.70	20.66	22	2.5
5	HQAM	20	0	20.70	20.74	20.74	20.63	22	2.5

Band 18_Ant 41									
RF (MHz)	Modulation	RIS Size	RIS Offset	Power Rise On (dBm)	Power Rise Off (dBm)	Power Rise (dBm)	Transmit (dBm)	MFR (dB)	
Channel									
Frequency (MHz)							2592.5		
15	QPSK	1	0	23.33	23.33	23.33			
15	QPSK	1	37	23.33	23.33	23.33		25	0
15	QPSK	1	74	23.37	23.37	23.37			
15	QPSK	1	111	23.37	23.37	23.37			
15	QPSK	38	25	22.25	22.25	22.25		24	1
15	QPSK	38	55	22.27	22.27	22.27			
15	QPSK	75	0	22.28	22.28	22.28			
15	QPSK	1	37	22.28	22.28	22.28		24	1
15	QPSK	1	74	22.28	22.28	22.28			
15	QPSK	38	25	21.16	21.16	21.16		23	2
15	QPSK	38	55	21.23	21.23	21.23			
15	QPSK	75	0	21.28	21.28	21.28			
15	QPSK	1	37	21.23	21.23	21.23		23	2
15	QPSK	1	74	21.16	21.16	21.16			
15	QPSK	38	25	20.37	20.37	20.37		22	3
15	QPSK	38	55	20.47	20.47	20.47			
15	QPSK	75	0	20.51	20.51	20.51			
15	QPSK	1	37	20.40	20.40	20.40			
Channel							2592.5		
Frequency (MHz)							2593.0		
15	QPSK	1	0	23.23	23.24	23.24			
15	QPSK	1	25	23.24	23.24	23.24		25	0
15	QPSK	38	25	22.23	22.23	22.23			
15	QPSK	25	0	22.13	22.04	22.14			
15	QPSK	25	12	22.25	22.25	22.25		24	1
15	QPSK	25	25	22.26	22.23	22.27			
15	QPSK	38	25	22.26	22.26	22.26			
15	QPSK	1	0	22.65	22.67	22.62			
15	QPSK	1	25	22.77	22.82	22.87		24	1
15	QPSK	38	25	22.77	22.82	22.86			
15	QPSK	25	12	21.22	21.04	21.15			
15	QPSK	25	25	21.23	21.10	21.22		23	2
15	QPSK	38	25	21.26	21.18	21.18			
15	QPSK	1	0	21.16	21.12	21.20			
15	QPSK	1	25	21.21	21.07	21.21		23	2
15	QPSK	38	25	21.20	21.04	21.18			
15	QPSK	25	12	20.30	20.27	20.31			
15	QPSK	25	12	20.40	20.33	20.40		22	3
15	QPSK	25	25	20.40	20.42	20.41			
15	QPSK	38	25	20.38	20.30	20.33			
Channel							2593.5		
Frequency (MHz)							2593.5		
5	QPSK	1	0	22.27	22.21	22.21			
5	QPSK	1	37	22.27	22.27	22.27		25	0
5	QPSK	1	74	22.27	22.27	22.27			
5	QPSK	1	24	23.33	23.20	23.23			
5	QPSK	12	0	22.28	22.19	22.31			
5	QPSK	12	7	22.32	22.20	22.27		24	1
5	QPSK	12	13	22.34	22.23	22.28			
5	QPSK	25	0	22.29	22.16	22.30			
5	QPSK	1	0	22.30	22.11	22.84			
5	QPSK	1	37	22.31	22.22	22.27		24	1
5	QPSK	1	24	22.32	22.26	22.34			
5	QPSK	12	0	21.28	21.23	21.23			
5	QPSK	12	7	21.31	21.18	21.22		23	2
5	QPSK	12	13	21.31	21.18	21.18			
5	QPSK	25	0	21.24	21.16	21.17			
5	QPSK	1	0	21.16	21.03	21.13			
5	QPSK	1	37	21.18	21.03	21.07		23	2
5	QPSK	1	74	21.18	21.03	21.03			
5	QPSK	1	24	21.22	21.12	21.32			
5	QPSK	12	0	20.48	20.45	20.52			
5	QPSK	12	7	20.49	20.33	20.42		22	3
5	QPSK	12	13	20.48	20.41	20.52			
5	QPSK	25	0	20.50	20.39	20.45			



Band 19_Ant 11										
BW (MHz)	Modulation	RB Size	RB Offset	Power Level Ch./F/Freq.	Power Margin Ch./F/Freq.	Power Hgt. Ch./F/Freq.	Time-use Int. (min)	MPR (dB)		
Channel										
Frequency (MHz)										
34075										
15	QPSK	1	0	21.98			23.4	0		
15	QPSK	1	37	22.30						
15	QPSK	1	74	21.98						
15	QPSK	36	0	22.10			23.4	0		
15	QPSK	36	20	22.06						
15	QPSK	36	39	22.08						
15	QPSK	75	0	22.10			23.4	0		
15	HQAM	1	0	22.17						
15	HQAM	1	37	22.27						
15	HQAM	1	74	22.21			22.9	0.5		
15	HQAM	1	74	22.18						
15	HQAM	36	20	21.98						
15	HQAM	36	39	21.94			22.9	0.5		
15	HQAM	75	0	21.98						
15	HQAM	1	37	21.78						
15	HQAM	1	74	21.86			21.9	1.5		
15	HQAM	36	0	20.34						
15	HQAM	36	20	20.74						
15	HQAM	36	39	20.77			21.9	1.5		
15	HQAM	75	0	20.76						
15	HQAM	75	0	20.76						
Channel										
34050					835	837.5	840	Time-use Int. (min)	MPR (dB)	
Frequency (MHz)										
835										
10	QPSK	1	0	21.89	21.98	21.80	23.4	0		
10	QPSK	1	26	22.02	22.10	22.06				
10	QPSK	1	49	21.80	21.96	21.83				
10	QPSK	25	0	22.07	21.92	22.03	23.4	0		
10	QPSK	25	12	21.94	22.02	22.00				
10	QPSK	25	26	21.93	22.02	21.95				
10	QPSK	50	0	22.11	21.98	21.90	23.4	0		
10	HQAM	1	0	22.09	22.03	22.00				
10	HQAM	1	26	22.27	22.21	22.23				
10	HQAM	1	49	22.09	22.18	22.17	22.9	0		
10	HQAM	25	0	21.49	21.90	21.83				
10	HQAM	25	12	21.40	21.54	21.57				
10	HQAM	25	26	21.62	21.80	21.59	22.9	0.5		
10	HQAM	50	0	21.59	21.44	21.54				
10	HQAM	1	0	21.59	21.68	21.68				
10	HQAM	1	26	21.71	21.72	21.68	22.9	0.5		
10	HQAM	1	49	21.65	21.51	21.49				
10	HQAM	25	0	20.78	20.80	20.75				
10	HQAM	25	12	20.55	20.73	20.70	21.9	1.5		
10	HQAM	25	26	20.69	20.84	20.70				
10	HQAM	50	0	20.63	20.57	20.75				
Channel										
34050					835.5	837.5	842.5	Time-use Int. (min)	MPR (dB)	
Frequency (MHz)										
835.5										
5	QPSK	1	0	21.68	21.84	21.62	23.4	0		
5	QPSK	1	12	21.98	22.06	21.95				
5	QPSK	1	24	21.85	21.94	21.87				
5	QPSK	12	0	21.96	21.89	22.05	23.4	0		
5	QPSK	12	7	21.98	21.86	22.00				
5	QPSK	12	13	22.03	22.04	22.04				
5	QPSK	25	0	21.98	22.04	21.97	23.4	0		
5	HQAM	1	0	22.01	22.10	22.02				
5	HQAM	1	12	22.11	22.07	22.11				
5	HQAM	1	24	22.13	22.07	22.18	22.9	0.5		
5	HQAM	12	0	21.49	21.47	21.53				
5	HQAM	12	7	21.43	21.50	21.47				
5	HQAM	12	13	21.48	21.61	21.63	22.9	0.5		
5	HQAM	25	0	21.52	21.48	21.59				
5	HQAM	1	0	21.65	21.50	21.63				
5	HQAM	1	12	21.60	21.75	21.78	22.9	0.5		
5	HQAM	1	24	21.64	21.64	21.64				
5	HQAM	12	0	20.66	20.78	20.78				
5	HQAM	12	7	20.70	20.89	20.86	21.9	1.5		
5	HQAM	12	13	20.78	20.98	20.73				
5	HQAM	25	0	20.80	20.72	20.73				

Band 19_Ant 41										
BW (MHz)	Modulation	RB Size	RB Offset	Power Level Ch./F/Freq.	Power Margin Ch./F/Freq.	Power Hgt. Ch./F/Freq.	Time-use Int. (min)	MPR (dB)		
Channel										
Frequency (MHz)										
26175										
10	QPSK	1	0	23.18			24.0	0		
10	QPSK	1	37	23.43						
10	QPSK	1	74	23.18						
10	QPSK	36	0	23.37			23.0	1		
10	QPSK	36	20	23.34						
10	QPSK	36	39	23.31						
10	QPSK	75	0	23.30			23.0	1		
10	HQAM	1	0	22.55						
10	HQAM	1	37	22.40						
10	HQAM	1	74	22.68			22.9	2		
10	HQAM	36	0	21.35						
10	HQAM	36	20	21.42						
10	HQAM	36	39	21.31			22.9	2		
10	HQAM	75	0	21.30						
10	HQAM	1	0	21.52						
10	HQAM	1	37	21.46			22.9	2		
10	HQAM	1	74	21.38						
10	HQAM	36	0	20.52						
10	HQAM	36	20	20.55			21.0	3		
10	HQAM	36	39	20.53						
10	HQAM	75	0	20.49						
Channel										
26550										
Frequency (MHz)										
835										
867.5										
867.5										
10	QPSK	1	0	23.25	23.32	23.36	24.0	0		
10	QPSK	1	26	23.39	23.43	23.26				
10	QPSK	1	49	23.10	23.30	23.33				
10	QPSK	25	0	22.24	22.18	22.24	23.0	1		
10	QPSK	25	12	22.29	22.28	22.29				
10	QPSK	25	26	22.32	22.30	22.35				
10	QPSK	50	0	22.30	22.30	22.28	23.0	1		
10	HQAM	1	0	22.48	22.46	22.63				
10	HQAM	1	26	22.62	22.76	22.19				
10	HQAM	1	49	22.48	22.13	22.14	22.9	2		
10	HQAM	25	0	21.24	21.17	21.21				
10	HQAM	25	12	21.18	21.26	21.35				
10	HQAM	25	26	21.26	21.30	21.30	22.9	2		
10	HQAM	50	0	21.13	21.23	21.24				
10	HQAM	1	0	21.19	21.50	21.55				
10	HQAM	1	26	21.53	21.52	21.32	22.9	2		
10	HQAM	1	49	21.53	21.50	21.11				
10	HQAM	25	0	20.45	20.43	20.38				
10	HQAM	25	12	20.45	20.43	20.43	21.0	3		
10	HQAM	25	26	20.51	20.50	20.36				
10	HQAM	50	0	20.56	20.41	20.36				
Channel										
26550										
Frequency (MHz)										
832.5										
867.5										
862.5										
5	QPSK	1	0	23.34	23.23	23.40	24.0	0		
5	QPSK	1	12	23.26	23.38	23.31				
5	QPSK	1	24	23.18	23.30	23.24				
5	QPSK	12	0	22.24	22.23	22.28	23.0	1		
5	QPSK	12	17	22.26	22.24	22.28				
5	QPSK	12	33	22.27	22.25	22.30				
5	QPSK	25	0	22.18	22.20	22.20	23.0	1		
5	HQAM	1	0	22.21	22.13	22.47				
5	HQAM	1	12	22.28	22.50	22.33				
5	HQAM	12	0	21.18	21.18	21.18	22.9	2		
5	HQAM	12	0	21.19	21.15	21.29				
5	HQAM	12	0	21.17	21.24	21.38				
5	HQAM	12	17	21.23	21.32	21.21	22.9	2		
5	HQAM	12	33	21.23	21.32	21.21				
5	HQAM	25	0	21.29	21.28	21.21				
5	HQAM	1	0	21.47	21.52	21.54	22.9	2		
5	HQAM	1	12	21.29	21.14	21.34				
5	HQAM	1	24	21.53	21.50	21.28				
5	HQAM	12	0	20.51	20.39	20.50	21.0	3		
5	HQAM	12	17	20.53	20.41	20.55				
5	HQAM	12	33	20.54	20.41	20.55				
5	HQAM	25	0	20.31	20.43	20.50	21.0	3		
5	HQAM	25	17	20.33	20.41	20.55				
5	HQAM	25	33	20.33	20.43	20.50				

Band 66_Ant14												
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power High Ch. / Freq.	Power High Ch. / Freq.	Time-up (min)	MRR (dB)				
Channel												
Frequency (MHz)												
20	QPSK	1	0	17.03	17.26	17.22	18.5	0				
20	QPSK	1	49	17.16	17.37	17.09						
20	QPSK	99	0	17.09	17.26	17.12						
20	QPSK	50	0	17.03	17.26	17.18						
20	QPSK	50	24	17.09	17.31	17.13	18.5	0				
20	QPSK	50	50	17.09	17.35	17.17						
20	QPSK	100	0	17.04	17.26	17.17						
20	16QAM	1	0	17.07	17.27	17.13						
20	16QAM	1	49	17.15	17.32	17.16	18.5	0				
20	16QAM	1	99	17.09	17.25	17.16						
20	16QAM	50	0	17.15	17.31	17.14						
20	16QAM	50	24	17.15	17.37	17.09						
20	16QAM	50	50	17.08	17.27	17.23	18.5	0				
20	16QAM	100	0	17.11	17.27	17.16						
20	8QAM	1	0	17.14	17.28	17.25						
20	8QAM	1	49	17.08	17.29	17.21	18.5	0				
20	8QAM	1	99	17.28	17.35	17.09						
20	8QAM	50	0	17.08	17.29	17.16						
20	8QAM	50	24	17.12	17.32	17.09						
20	8QAM	50	50	17.04	17.26	17.20	18.5	0				
20	8QAM	100	0	17.08	17.26	17.17						
Channel												
Frequency (MHz)												
15	QPSK	1	0	16.99	17.23	17.11	18.5	0				
15	QPSK	1	37	17.08	17.19	17.12						
15	QPSK	1	74	17.00	17.19	17.10						
15	QPSK	36	0	17.04	17.17	17.13						
15	QPSK	36	20	17.04	17.19	17.13	18.5	0				
15	QPSK	36	36	16.94	17.17	17.08						
15	QPSK	75	0	16.92	17.23	17.04						
15	16QAM	1	0	16.93	17.20	17.08						
15	16QAM	1	37	16.93	17.25	17.12	18.5	0				
15	16QAM	1	74	16.90	17.27	17.09						
15	16QAM	36	0	16.98	17.26	17.13						
15	16QAM	36	20	16.93	17.17	17.09						
15	16QAM	36	36	16.93	17.18	17.08	18.5	0				
15	16QAM	75	0	16.94	17.28	17.07						
15	8QAM	1	0	16.92	17.29	17.11						
15	8QAM	1	37	16.92	17.25	17.02	18.5	0				
15	8QAM	1	74	16.90	17.24	17.10						
15	8QAM	36	0	16.92	17.22	17.10						
15	8QAM	36	20	16.94	17.22	16.99						
15	8QAM	75	0	16.95	17.25	17.06	18.5	0				
15	8QAM	75	0	17.02	17.18	17.01						
Channel												
Frequency (MHz)												
10	QPSK	1	0	16.92	17.16	17.11	18.5	0				
10	QPSK	1	25	17.02	17.19	17.13						
10	QPSK	1	49	17.04	17.19	17.07						
10	QPSK	25	0	16.94	17.23	17.04						
10	QPSK	25	13	17.00	17.23	17.06	18.5	0				
10	QPSK	25	25	17.03	17.21	17.12						
10	QPSK	50	0	16.94	17.28	17.11						
10	16QAM	1	0	16.94	17.27	17.06						
10	16QAM	1	25	17.04	17.29	17.08	18.5	0				
10	16QAM	1	49	16.95	17.29	17.04						
10	16QAM	25	0	16.94	17.14	17.08						
10	16QAM	25	13	16.98	17.25	17.07						
10	16QAM	25	25	17.02	17.23	17.13	18.5	0				
10	16QAM	50	0	16.92	17.28	17.06						
10	8QAM	1	0	17.00	17.17	16.99						
10	8QAM	1	25	16.97	17.18	17.08						
10	8QAM	1	49	16.98	17.18	17.13	18.5	0				
10	8QAM	25	0	16.92	17.15	17.02						
10	8QAM	25	13	16.98	17.23	16.99						
10	8QAM	25	25	17.03	17.24	16.99						
10	8QAM	50	0	17.03	17.29	17.13	18.5	0				
Channel												
Frequency (MHz)												
5	QPSK	1	0	16.96	17.26	17.13	18.5	0				
5	QPSK	1	12	16.96	17.15	17.06						
5	QPSK	1	24	16.98	17.26	17.10						
5	QPSK	12	0	16.92	17.14	17.07						
5	QPSK	12	7	17.05	17.26	16.99	18.5	0				
5	QPSK	12	13	16.97	17.24	17.15						
5	QPSK	25	0	16.99	17.24	17.06						
5	16QAM	1	0	16.94	17.29	17.12						
5	16QAM	1	12	17.00	17.16	17.10	18.5	0				
5	16QAM	1	24	16.97	17.19	17.01						
5	16QAM	12	0	16.90	17.17	17.04						
5	16QAM	12	7	16.99	17.21	17.04						
5	16QAM	12	13	16.97	17.22	17.12	18.5	0				
5	16QAM	25	0	17.00	17.15	17.06						
5	8QAM	1	0	16.96	17.25	17.04						
5	8QAM	1	12	17.00	17.16	17.10						
5	8QAM	1	24	16.94	17.24	17.03	18.5	0				
5	8QAM	12	0	17.02	17.16	17.09						
5	8QAM	12	7	17.01	17.21	17.10						
5	8QAM	12	13	17.04	17.16	17.11						
5	8QAM	25	0	16.95	17.14	17.06	18.5	0				
Channel												
Frequency (MHz)												
3	QPSK	1	0	16.98	17.14	17.07	18.5	0				
3	QPSK	1	6	16.94	17.27	16.99						
3	QPSK	1	14	16.97	17.17	16.99						
3	QPSK	8	0	16.94	17.15	17.01						
3	QPSK	8	4	17.01	17.23	17.08	18.5	0				
3	QPSK	8	7	16.96	17.23	17.10						
3	QPSK	15	0	17.02	17.15	17.06						
3	16QAM	1	0	16.93	17.20	17.07						
3	16QAM	1	6	16.93	17.25	17.08	18.5	0				
3	16QAM	1	14	16.92	17.27	17.09						
3	16QAM	8	0	17.06	17.15	17.09						
3	16QAM	8	4	16.94	17.21	17.12						
3	16QAM	8	7	16.99	17.21	17.02	18.5	0				
3	16QAM	15	0	16.94	17.19	17.08						
3	8QAM	1	0	17.05	17.15	17.09						
3	8QAM	1	6	16.97	17.19	17.09						
3	8QAM	1	14	17.03	17.29	17.11	18.5	0				
3	8QAM	8	0	16.98	17.20	17.05						
3	8QAM	8	4	17.05	17.19	16.99						
3	8QAM	8	7	16.99	17.21	17.02						
Channel												
Frequency (MHz)												
1.4	QPSK	1	0	16.94	17.26	17.12	18.5	0				
1.4	QPSK	1	5	17.04	17.26	17.04						
1.4	QPSK	3	0	16.97	17.15	17.12						
1.4	QPSK	3	3	16.92	17.14	17.09						
1.4	QPSK	3	6	16.92	17.15	17.12	18.5	0				
1.4	QPSK	6	0	16.97	17.19	17.09						
1.4	16QAM	1	0	16.96	17.26	17.11						
1.4	16QAM	1	3	17.05	17.24	17.08						
1.4	16QAM	3	0	16.94	17.29	17.13	18.5	0				
1.4	16QAM	3	3	17.06	17.26	17.12						
1.4	16QAM	6	0	16.99	17.21	17.02						
1.4	8QAM	1	0	17.02	17.14	17.02						
1.4	8QAM	1	3	17.01	17.16	17.12	18.5	0				
1.4	8QAM	1	6	16.98	17.21	17.09						
1.4	8QAM	3	0	16.93	17.21	17.09	18.5	0				
1.4	8QAM	3	3	17.02	17.25	17.06						
1.4	8QAM	3	6	17.02	17.26	17.02	18.5	0				
1.4	8QAM	6	0	17.01	17.21	17.05						

Band 38_Ant31									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				37850	38000	38150	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2580	2595	2610			
20	QPSK	1	0	23.44	23.57	23.38	24.8	0	
20	QPSK	1	49	23.70	23.85	23.61			
20	QPSK	1	99	23.52	23.63	23.53			
20	QPSK	50	0	22.65	22.55	22.52			
20	QPSK	50	24	22.58	22.52	22.56	23.8	1	
20	QPSK	50	50	22.48	22.58	22.60			
20	QPSK	100	0	22.63	22.60	22.55			
20	16QAM	1	0	22.39	22.53	22.43			
20	16QAM	1	49	22.59	22.87	22.80	23.8	1	
20	16QAM	1	99	22.44	22.65	22.48			
20	16QAM	50	0	21.52	21.73	21.49			
20	16QAM	50	24	21.53	21.76	21.58			
20	16QAM	50	50	21.47	21.70	21.56	22.8	2	
20	16QAM	100	0	21.50	21.75	21.57			
20	64QAM	1	0	21.14	21.40	21.06			
20	64QAM	1	49	21.31	21.53	21.35			
20	64QAM	1	99	21.16	21.39	21.29	22.8	2	
20	64QAM	50	0	20.62	20.88	20.59			
20	64QAM	50	24	20.67	20.91	20.68			
20	64QAM	50	50	20.56	20.86	20.75			
20	64QAM	100	0	20.67	20.88	20.70	Tune-up limit (dBm)	MPR (dB)	
Channel				37825	38000	38175			
Frequency (MHz)				2677.5	2595	2612.5	Tune-up limit (dBm)	MPR (dB)	
15	QPSK	1	0	23.46	23.60	23.50		24.8	
15	QPSK	1	37	23.59	23.66	23.62			
15	QPSK	1	74	23.41	23.64	23.59			
15	QPSK	36	0	22.49	22.56	22.51			
15	QPSK	36	20	22.52	22.58	22.54	23.8	1	
15	QPSK	36	39	22.41	22.61	22.51			
15	QPSK	75	0	22.49	22.62	22.55			
15	16QAM	1	0	22.37	22.52	22.51			
15	16QAM	1	37	22.58	22.68	22.68	23.8	1	
15	16QAM	1	74	22.43	22.58	22.80			
15	16QAM	36	0	21.43	21.54	21.45			
15	16QAM	36	20	21.44	21.56	21.51			
15	16QAM	36	39	21.38	21.58	21.53	22.8	2	
15	16QAM	75	0	21.51	21.59	21.80			
15	64QAM	1	0	21.18	21.34	21.27			
15	64QAM	1	37	21.36	21.47	21.29			
15	64QAM	1	74	21.09	21.30	21.31	21.8	3	
15	64QAM	36	0	20.68	20.76	20.67			
15	64QAM	36	20	20.64	20.73	20.68			
15	64QAM	36	39	20.57	20.80	20.74			
15	64QAM	75	0	20.68	20.78	20.75	Tune-up limit (dBm)	MPR (dB)	
Channel				37800	38000	38200			
Frequency (MHz)				2575	2595	2615	Tune-up limit (dBm)	MPR (dB)	
10	QPSK	1	0	23.55	23.57	23.55		24.8	
10	QPSK	1	25	23.55	23.63	23.67			
10	QPSK	1	49	23.51	23.67	23.67			
10	QPSK	25	0	22.49	22.63	22.55			
10	QPSK	25	12	22.48	22.66	22.39	23.8	1	
10	QPSK	25	25	22.49	22.60	22.62			
10	QPSK	50	0	22.50	22.63	22.63			
10	16QAM	1	0	22.51	22.56	22.60			
10	16QAM	1	25	22.57	22.71	22.66	23.8	1	
10	16QAM	1	49	22.54	22.67	22.65			
10	16QAM	25	0	21.58	21.67	21.57			
10	16QAM	25	12	21.50	21.68	21.59			
10	16QAM	25	25	21.46	21.62	21.65	22.8	2	
10	16QAM	50	0	21.50	21.66	21.62			
10	64QAM	1	0	21.23	21.31	21.32			
10	64QAM	1	25	21.28	21.43	21.40			
10	64QAM	1	49	21.22	21.36	21.34	21.8	3	
10	64QAM	25	0	20.76	20.83	20.80			
10	64QAM	25	12	20.70	20.87	20.91			
10	64QAM	25	25	20.64	20.80	20.87			
10	64QAM	50	0	20.61	20.79	20.78	Tune-up limit (dBm)	MPR (dB)	
Channel				37775	38000	38225			
Frequency (MHz)				2572.5	2595	2617.5	Tune-up limit (dBm)	MPR (dB)	
5	QPSK	1	0	23.49	23.67	23.61		24.8	
5	QPSK	1	12	23.57	23.58	23.64			
5	QPSK	1	24	23.52	23.69	23.66			
5	QPSK	12	0	22.51	22.68	22.61			
5	QPSK	12	7	22.45	22.61	22.62	23.8	1	
5	QPSK	12	13	22.48	22.56	22.65			
5	QPSK	25	0	22.48	22.62	22.69			
5	16QAM	1	0	22.43	22.60	22.64			
5	16QAM	1	12	22.54	22.68	22.64	23.8	1	
5	16QAM	1	24	22.48	22.66	22.71			
5	16QAM	12	0	21.48	21.63	21.39			
5	16QAM	12	7	21.39	21.53	21.61			
5	16QAM	12	13	21.40	21.54	21.58	22.8	2	
5	16QAM	25	0	21.55	21.64	21.67			
5	64QAM	1	0	21.20	21.47	21.31			
5	64QAM	1	12	21.27	21.49	21.41			
5	64QAM	1	24	21.23	21.45	21.42	22.8	2	
5	64QAM	12	0	20.66	20.86	20.77			
5	64QAM	12	7	20.61	20.80	20.85			
5	64QAM	12	13	20.65	20.78	20.82			
5	64QAM	25	0	20.75	20.87	20.87	Tune-up limit (dBm)	MPR (dB)	
Channel				37750	38000	38250			

Band 38_Ant14									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dbm)	MPR (dB)	
Channel				37850	38000	38150	Tune-up limit (dbm)	MPR (dB)	
Frequency (MHz)				2580	2595	2610			
20	QPSK	1	0	17.00	16.76	16.91	18.3	0	
20	QPSK	1	49	17.11	16.80	16.92			
20	QPSK	1	99	17.03	16.89	16.93			
20	QPSK	50	0	17.06	16.84	16.83			
20	QPSK	50	24	17.05	16.84	16.79	18.3	0	
20	QPSK	50	50	17.07	16.85	16.86			
20	QPSK	100	0	17.05	16.76	16.89			
20	16QAM	1	0	17.08	16.84	16.82			
20	16QAM	1	49	17.04	16.79	16.93	18.3	0	
20	16QAM	1	99	17.04	16.84	16.88			
20	16QAM	50	0	17.10	16.84	16.84			
20	16QAM	50	24	17.04	16.77	16.91			
20	16QAM	50	50	17.05	16.79	16.83	18.3	0	
20	16QAM	100	0	17.03	16.87	16.90			
20	64QAM	1	0	17.06	16.82	16.80			
20	64QAM	1	49	17.00	16.82	16.84			
20	64QAM	1	99	16.99	16.80	16.83	18.3	0	
20	64QAM	50	0	17.09	16.83	16.85			
20	64QAM	50	24	17.02	16.80	16.83			
20	64QAM	50	50	17.03	16.84	16.90			
20	64QAM	100	0	17.00	16.84	16.91	Tune-up limit (dbm)	MPR (dB)	
Channel				37825	38000	38175			
Frequency (MHz)				2577.5	2595	2612.5	Tune-up limit (dbm)	MPR (dB)	
15	QPSK	1	0	16.92	16.68	16.71			
15	QPSK	1	37	16.87	16.68	16.69			
15	QPSK	1	74	16.87	16.57	16.64			
15	QPSK	36	0	16.84	16.57	16.70			
15	QPSK	36	20	16.89	16.65	16.61			
15	QPSK	36	39	16.85	16.65	16.72			
15	QPSK	75	0	16.85	16.57	16.60			
15	16QAM	1	0	16.82	16.67	16.69			
15	16QAM	1	37	16.93	16.57	16.59			
15	16QAM	1	74	16.93	16.59	16.59			
15	16QAM	36	0	16.80	16.58	16.62			
15	16QAM	36	20	16.84	16.58	16.62			
15	16QAM	36	39	16.92	16.62	16.67			
15	16QAM	75	0	16.88	16.67	16.59			
15	64QAM	1	0	16.79	16.58	16.60			
15	64QAM	1	37	16.93	16.60	16.67			
15	64QAM	1	74	16.83	16.56	16.63			
15	64QAM	36	0	16.92	16.66	16.63			
15	64QAM	36	20	16.92	16.65	16.60			
15	64QAM	36	39	16.92	16.69	16.60			
15	64QAM	75	0	16.80	16.60	16.59			
Channel				37800	38000	38200	Tune-up limit (dbm)	MPR (dB)	
Frequency (MHz)				2575	2595	2615			
10	QPSK	1	0	16.83	16.57	16.67			
10	QPSK	1	25	16.87	16.66	16.64			
10	QPSK	1	49	16.89	16.65	16.66			
10	QPSK	25	0	16.86	16.70	16.73			
10	QPSK	25	12	16.93	16.58	16.60			
10	QPSK	25	25	16.83	16.56	16.60			
10	QPSK	50	0	16.85	16.59	16.63			
10	16QAM	1	0	16.82	16.56	16.67			
10	16QAM	1	25	16.91	16.69	16.65			
10	16QAM	1	49	16.89	16.67	16.72			
10	16QAM	25	0	16.93	16.57	16.60			
10	16QAM	25	12	16.91	16.56	16.60			
10	16QAM	25	25	16.84	16.65	16.61			
10	16QAM	50	0	16.82	16.56	16.59			
10	64QAM	1	0	16.80	16.65	16.65			
10	64QAM	1	25	16.79	16.68	16.64			
10	64QAM	1	49	16.83	16.59	16.64			
10	64QAM	25	0	16.84	16.70	16.64			
10	64QAM	25	12	16.83	16.61	16.64			
10	64QAM	25	25	16.86	16.58	16.59			
10	64QAM	50	0	16.80	16.60	16.60			
Channel				37775	38000	38225	Tune-up limit (dbm)	MPR (dB)	
Frequency (MHz)				2572.5	2595	2617.5			
5	QPSK	1	0	16.88	16.57	16.68			
5	QPSK	1	12	16.82	16.64	16.72			
5	QPSK	1	24	16.89	16.69	16.72			
5	QPSK	12	0	16.89	16.70	16.71			
5	QPSK	12	7	16.84	16.60	16.67			
5	QPSK	12	13	16.85	16.66	16.68			
5	QPSK	25	0	16.81	16.65	16.59			
5	16QAM	1	0	16.87	16.56	16.65			
5	16QAM	1	12	16.81	16.64	16.70			
5	16QAM	1	24	16.82	16.70	16.59			
5	16QAM	12	0	16.85	16.61	16.70			
5	16QAM	12	7	16.88	16.62	16.65			
5	16QAM	12	13	16.92	16.70	16.73			
5	16QAM	25	0	16.83	16.67	16.63			
5	64QAM	1	0	16.88	16.66	16.59			
5	64QAM	1	12	16.83	16.61	16.63			
5	64QAM	1	24	16.88	16.70	16.69			
5	64QAM	12	0	16.89	16.58	16.68			
5	64QAM	12	7	16.86	16.56	16.59			
5	64QAM	12	13	16.83	16.62	16.65			
5	64QAM	25	0	16.82	16.68	16.59			

Band 41_Ant31											
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				39750	40185	40620	41055	41490			
Frequency (MHz)				2506	2549.5	2593	2636.5	2680			
20	QPSK	1	0	23.44	23.36	23.52	23.47	23.36	24.8	0	
20	QPSK	1	49	23.50	23.48	23.71	23.62	23.60			
20	QPSK	1	99	23.39	23.35	23.60	23.45	23.45			
20	QPSK	50	0	22.38	22.49	22.66	22.53	22.54			
20	QPSK	50	24	22.50	22.49	22.60	22.55	22.55	23.8	1	
20	QPSK	50	50	22.53	22.45	22.58	22.58	22.55			
20	QPSK	100	0	22.42	22.46	22.50	22.56	22.51			
20	16QAM	1	0	22.39	22.28	22.56	22.45	22.37			
20	16QAM	1	49	22.54	22.56	22.71	22.60	22.64	23.8	1	
20	16QAM	1	99	22.40	22.33	22.60	22.42	22.46			
20	16QAM	50	0	21.62	21.53	21.62	21.52	21.52			
20	16QAM	50	24	21.73	21.51	21.68	21.58	21.57			
20	16QAM	50	50	21.72	21.46	21.64	21.53	21.53	22.8	2	
20	16QAM	100	0	21.64	21.49	21.60	21.59	21.52			
20	64QAM	1	0	21.30	21.06	21.16	21.14	21.12			
20	64QAM	1	49	21.41	21.25	21.42	21.40	21.30			
20	64QAM	1	99	21.27	21.05	21.30	21.15	21.19	22.8	2	
20	64QAM	50	0	20.54	20.66	20.78	20.68	20.66			
20	64QAM	50	24	20.61	20.66	20.83	20.72	20.73			
20	64QAM	50	50	20.66	20.56	20.81	20.69	20.70			
20	64QAM	100	0	20.56	20.62	20.77	20.67	20.65	21.8	3	
Channel				39725	40173	40620	41068	41515			
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5			
15	QPSK	1	0	23.43	23.46	23.48	23.47	23.43	24.80	0	
15	QPSK	1	37	23.53	23.67	23.70	23.69	23.54			
15	QPSK	1	74	23.48	23.43	23.58	23.56	23.45			
15	QPSK	36	0	22.39	22.39	22.56	22.49	22.41			
15	QPSK	36	20	22.44	22.47	22.58	22.51	22.42	23.8	1	
15	QPSK	36	39	22.47	22.45	22.64	22.51	22.41			
15	QPSK	75	0	22.48	22.47	22.56	22.52	22.44			
15	16QAM	1	0	22.45	22.36	22.47	22.46	22.36			
15	16QAM	1	37	22.55	22.53	22.67	22.58	22.57	23.8	1	
15	16QAM	1	74	22.47	22.43	22.53	22.43	22.47			
15	16QAM	36	0	21.54	21.59	21.53	21.46	21.39			
15	16QAM	36	20	21.64	21.60	21.58	21.43	21.39			
15	16QAM	36	39	21.71	21.64	21.61	21.47	21.38	22.8	2	
15	16QAM	75	0	21.60	21.66	21.62	21.53	21.46			
15	64QAM	1	0	21.30	21.29	21.27	21.15	21.14			
15	64QAM	1	37	21.46	21.43	21.37	21.31	21.37			
15	64QAM	1	74	21.32	21.39	21.29	21.23	21.13	22.8	2	
15	64QAM	36	0	20.64	20.56	20.75	20.66	20.58			
15	64QAM	36	20	20.61	20.59	20.79	20.63	20.62			
15	64QAM	36	39	20.68	20.67	20.77	20.66	20.58			
15	64QAM	75	0	20.55	20.53	20.78	20.67	20.61	21.8	3	
Channel				39700	40160	40620	41080	41540			
Frequency (MHz)				2501	2547	2593	2639	2685			
10	QPSK	1	0	23.42	23.60	23.58	23.43	23.62	24.80	0	
10	QPSK	1	25	23.47	23.66	23.55	23.56	23.69			
10	QPSK	1	49	23.40	23.68	23.58	23.50	23.67			
10	QPSK	25	0	22.29	22.61	22.47	22.44	22.65			
10	QPSK	25	12	22.39	22.63	22.46	22.49	22.72	23.8	1	
10	QPSK	25	25	22.41	22.71	22.45	22.45	22.71			
10	QPSK	50	0	22.45	22.63	22.47	22.51	22.71			
10	16QAM	1	0	22.35	22.59	22.45	22.42	22.62			
10	16QAM	1	25	22.47	22.67	22.56	22.55	22.65	23.8	1	
10	16QAM	1	49	22.38	22.61	22.50	22.53	22.73			
10	16QAM	25	0	21.57	21.67	21.47	21.53	21.68			
10	16QAM	25	12	21.60	21.67	21.52	21.50	21.74			
10	16QAM	25	25	21.55	21.65	21.52	21.46	21.77	22.8	2	
10	16QAM	50	0	21.59	21.61	21.48	21.50	21.75			
10	64QAM	1	0	21.33	21.30	21.25	21.16	21.46			
10	64QAM	1	25	21.37	21.46	21.28	21.29	21.50			
10	64QAM	1	49	21.29	21.38	21.17	21.19	21.44	22.8	2	
10	64QAM	25	0	20.52	20.80	20.66	20.68	20.92			
10	64QAM	25	12	20.60	20.80	20.68	20.77	20.94			
10	64QAM	25	25	20.64	20.86	20.65	20.69	21.01			
10	64QAM	50	0	20.66	20.77	20.64	20.67	20.93	21.8	3	
Channel				39675	40148	40620	41093	41565			
Frequency (MHz)				2496.5	2545.8	2593	2640.30	2687.5			
5	QPSK	1	0	23.36	23.55	23.46	23.43	23.45	24.80	0	
5	QPSK	1	12	23.41	23.63	23.57	23.51	23.53			
5	QPSK	1	24	23.36	23.65	23.52	23.47	23.49			
5	QPSK	12	0	22.33	22.55	22.40	22.42	22.41			
5	QPSK	12	7	22.34	22.57	22.39	22.39	22.41	23.8	1	
5	QPSK	12	13	22.34	22.58	22.45	22.40	22.39			
5	QPSK	25	0	22.34	22.57	22.41	22.40	22.48			
5	16QAM	1	0	22.38	22.58	22.39	22.41	22.41			
5	16QAM	1	12	22.44	22.68	22.43	22.54	22.44	23.8	1	
5	16QAM	1	24	22.37	22.61	22.45	22.45	22.44			
5	16QAM	12	0	21.45	21.51	21.37	21.35	21.37			
5	16QAM	12	7	21.44	21.52	21.33	21.34	21.35			
5	16QAM	12	13	21.48	21.48	21.34	21.31	21.29	22.8	2	
5	16QAM	25	0	21.58	21.54	21.45	21.46	21.44			
5	64QAM	1	0	21.34	21.32	21.20	21.24	21.19			
5	64QAM	1	12	21.31	21.29	21.15	21.25	21.20			
5	64QAM	1	24	21.34	21.36	21.19	21.22	21.22	22.8	2	
5	64QAM	12	0	20.47	20.72	20.53	20.60	20.54			
5	64QAM	12	7	20.52	20.75	20.55	20.58	20.52			
5	64QAM	12	13	20.46	20.72	20.54	20.53	20.54			
5	64QAM	25	0	20.58	20.74	20.61	20.62	20.59	21.8	3	
Channel				39675	40148	40620	41093	41565			
Frequency (MHz)				2496.5	2545.8	2593	2640.30	2687.5			

Band 41_Ant14											
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dbm)	MPR (db)	
Channel				39750	40185	40620	41055	41490			
Frequency (MHz)				2506	2549.5	2593	2636.5	2680			
20	QPSK	1	0	16.81	17.02	17.09	16.81	16.99	18.3	0	
20	QPSK	1	49	16.85	17.09	17.12	16.87	16.90			
20	QPSK	1	99	16.88	16.95	17.03	16.85	17.01			
20	QPSK	50	0	16.81	17.05	17.11	16.78	16.96			
20	QPSK	50	24	16.77	16.95	17.06	16.84	16.97	18.3	0	
20	QPSK	50	50	16.83	16.98	17.00	16.80	16.96			
20	QPSK	100	0	16.77	16.98	17.06	16.79	16.92			
20	16QAM	1	0	16.75	16.98	17.03	16.78	16.94			
20	16QAM	1	49	16.89	16.99	17.12	16.77	16.99	18.3	0	
20	16QAM	1	99	16.89	17.05	17.01	16.86	16.96			
20	16QAM	50	0	16.75	16.96	17.05	16.81	16.99	18.3	0	
20	16QAM	50	24	16.77	17.07	17.06	16.75	16.91			
20	16QAM	50	50	16.82	17.06	16.83	16.79	17.03			
20	16QAM	100	0	16.88	17.04	16.89	16.89	17.04			
20	64QAM	1	0	16.86	17.05	16.89	16.76	17.03	18.3	0	
20	64QAM	1	49	16.78	17.09	16.90	16.86	16.91			
20	64QAM	1	99	16.75	16.98	16.90	16.85	16.96			
20	64QAM	50	0	16.86	17.04	16.80	16.89	17.01			
20	64QAM	50	24	16.89	17.09	16.91	16.89	16.96	18.3	0	
20	64QAM	50	50	16.77	16.95	16.82	16.79	16.95			
20	64QAM	100	0	16.78	17.08	16.82	16.78	16.96			
Channel				39725	40173	40620	41068	41515			Tune-up limit (dbm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5			
15	QPSK	1	0	16.79	16.97	16.82	16.87	16.98	16.30	0	
15	QPSK	1	37	16.89	16.99	16.83	16.87	16.91			
15	QPSK	1	74	16.82	17.03	16.84	16.77	17.01			
15	QPSK	36	0	16.86	17.03	16.91	16.85	16.96			
15	QPSK	36	20	16.84	17.07	16.87	16.83	17.02	18.3	0	
15	QPSK	36	39	16.77	17.04	16.91	16.81	16.97			
15	QPSK	75	0	16.87	16.97	16.84	16.82	16.91			
15	16QAM	1	0	16.88	17.03	16.82	16.88	17.04			
15	16QAM	1	37	16.85	17.07	16.90	16.84	17.03	18.3	0	
15	16QAM	1	74	16.80	17.07	16.88	16.75	16.92			
15	16QAM	36	0	16.84	17.05	16.91	16.86	17.00	18.3	0	
15	16QAM	36	20	16.83	16.95	16.82	16.79	16.91			
15	16QAM	36	39	16.85	17.03	16.81	16.87	16.94			
15	16QAM	75	0	16.78	16.95	16.91	16.85	16.95			
15	64QAM	1	0	16.84	17.04	16.88	16.78	16.93	18.3	0	
15	64QAM	1	37	16.78	17.03	16.89	16.78	17.04			
15	64QAM	1	74	16.84	16.96	16.89	16.79	17.03			
15	64QAM	36	0	16.76	16.98	16.85	16.76	17.03			
15	64QAM	36	20	16.85	16.97	16.92	16.81	16.88	18.3	0	
15	64QAM	36	39	16.76	17.03	16.85	16.84	16.94			
15	64QAM	75	0	16.75	17.07	16.87	16.88	17.03			
Channel				39700	40160	40620	41080	41540			Tune-up limit (dbm)
Frequency (MHz)				2501	2547	2593	2639	2685			
10	QPSK	1	0	16.87	17.06	16.92	16.83	17.01	16.30	0	
10	QPSK	1	25	16.87	17.01	16.89	16.79	17.02			
10	QPSK	1	49	16.76	16.98	16.80	16.87	17.00			
10	QPSK	25	0	16.83	17.02	16.84	16.89	17.00			
10	QPSK	25	12	16.84	17.05	16.88	16.84	17.00	18.3	0	
10	QPSK	25	25	16.77	17.09	16.83	16.88	17.00			
10	QPSK	50	0	16.85	17.06	16.84	16.84	16.97			
10	16QAM	1	0	16.84	16.97	16.92	16.88	16.92			
10	16QAM	1	25	16.77	17.01	16.84	16.80	16.93	18.3	0	
10	16QAM	1	49	16.78	16.98	16.85	16.88	17.03			
10	16QAM	25	0	16.78	17.04	16.82	16.78	16.97			
10	16QAM	25	12	16.81	17.02	16.91	16.84	16.96			
10	16QAM	25	25	16.87	16.95	16.85	16.76	17.03	18.3	0	
10	16QAM	50	0	16.79	17.01	16.80	16.81	17.00			
10	64QAM	1	0	16.83	17.02	16.86	16.83	16.95			
10	64QAM	1	25	16.75	17.02	16.87	16.78	16.98			
10	64QAM	1	49	16.76	16.96	16.80	16.80	16.91	18.3	0	
10	64QAM	25	0	16.88	17.05	16.83	16.89	16.92			
10	64QAM	25	12	16.87	17.05	16.92	16.75	16.88			
10	64QAM	25	25	16.77	17.07	16.90	16.75	16.94			
10	64QAM	50	0	16.89	17.03	16.84	16.81	16.96			
Channel				39675	40148	40620	41093	41565	Tune-up limit (dbm)	MPR (db)	
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5			
5	QPSK	1	0	16.81	17.08	16.88	16.89	16.95	16.30	0	
5	QPSK	1	12	16.79	17.05	16.87	16.81	16.92			
5	QPSK	1	24	16.81	17.08	16.93	16.80	16.97			
5	QPSK	12	0	16.87	17.03	16.87	16.87	17.01			
5	QPSK	12	7	16.79	17.03	16.84	16.85	16.96	18.3	0	
5	QPSK	12	13	16.79	17.03	16.87	16.84	16.94			
5	QPSK	25	0	16.89	16.98	16.84	16.82	16.99			
5	16QAM	1	0	16.82	17.00	16.88	16.75	16.94			
5	16QAM	1	12	16.89	16.99	16.87	16.84	16.94	18.3	0	
5	16QAM	1	24	16.82	17.02	16.81	16.86	17.00			
5	16QAM	12	0	16.85	16.97	16.92	16.78	16.95			
5	16QAM	12	7	16.86	16.97	16.90	16.81	16.93			
5	16QAM	12	13	16.81	16.98	16.93	16.69	16.90	18.3	0	
5	16QAM	25	0	16.85	16.97	16.89	16.81	16.97			
5	64QAM	1	0	16.83	16.99	16.81	16.82	17.02			
5	64QAM	1	12	16.86	16.98	16.87	16.80	17.03			
5	64QAM	1	24	16.88	16.98	16.80	16.83	16.96	18.3	0	
5	64QAM	12	0	16.76	16.98	16.90	16.78	16.99			
5	64QAM	12	7	16.82	17.05	16.89	16.83	17.03			
5	64QAM	12	13	16.87	17.00	16.89	16.78	16.95			
5	64QAM	25	0	16.85	17.00	16.91	16.86	16.96			

DSI 3 Power

GSM850_AntH1	Burst Average Power (dBm)				Turn-up Limit (dBm)	Frame-Average Power (dBm)				Turn-up Limit (dBm)
	TX Channel	128	189	251		128	189	251		
Frequency (MHz)	824.2	836.4	848.8	861.0		824.2	836.4	848.8	861.0	
GSM 1 Tx slot		32.09	32.20	32.22	33.50		23.09	23.20	23.22	24.50
GPRS 1 Tx slot		32.08	32.17	32.21	33.50		23.08	23.17	23.21	24.50
GPRS 2 Tx slots		30.33	30.34	30.32	31.50		24.33	24.34	24.32	25.50
GPRS 3 Tx slots		28.13	28.13	28.12	29.50		23.87	23.87	23.86	25.24
GPRS 4 Tx slots		26.44	26.45	26.52	28.00		23.44	23.45	23.52	25.00
EDGE 1 Tx slot		27.00	27.04	26.93	28.00		18.00	18.04	17.93	19.00
EDGE 2 Tx slots		24.42	24.51	24.45	25.70		18.42	18.51	18.45	19.70
EDGE 3 Tx slots		22.15	22.25	22.30	23.50		17.89	17.99	18.04	19.24
EDGE 4 Tx slots		20.30	20.31	20.28	21.70		17.30	17.31	17.28	18.74

GSM1900_AntS1	Burst Average Power (dbm)				Turn-up Limit (dbm)	Frame-Average Power (dbm)				Turn-up Limit (dbm)
	TX Channel	512	661	810		512	661	810		
Frequency (MHz)	1850.2	1850	1850	1909.8		1850.2	1850	1909.8		
GSM 1 Tx slot		30.01	30.18	29.92	30.50		21.01	21.18	20.92	21.50
GPRS 1 Tx slot		29.96	30.12	29.90	30.50		20.96	21.12	20.90	21.50
GPRS 2 Tx slots		27.70	27.85	27.71	28.30		21.70	21.85	21.71	22.30
GPRS 3 Tx slots		25.45	25.64	25.48	26.00		21.19	21.38	21.22	21.74
GPRS 4 Tx slots		23.76	23.94	23.78	24.50		20.76	20.94	20.78	21.50
EDGE 1 Tx slot		25.47	25.51	25.18	26.50		16.47	16.51	16.18	17.50
EDGE 2 Tx slots		23.51	23.60	23.22	24.50		17.51	17.60	17.22	18.50
EDGE 3 Tx slots		21.38	21.42	21.30	22.70		17.12	17.16	17.04	18.40
EDGE 4 Tx slots		20.10	20.05	19.84	21.20		17.10	17.05	16.84	18.20

Band	WCDMA I_AntH1				Turn-up Limit (dBm)	WCDMA IV_AntH1				Turn-up Limit (dBm)	WCDMA V_AntH1				Turn-up Limit (dBm)
	TX Channel	9262	9400	9538		1312	1413	1513	4132		4182	4233			
Rx Channel		9682	9800	9938		1537	1637	1737		4357	4407	4458			
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6			
3GPP Rel 99	AMR 12.2Kbps	22.50	22.54	22.48	24.00	24.25	24.41	24.33	25.50	23.63	23.68	23.62	25.00		
3GPP Rel 99	RMC 12.2Kbps	22.55	22.59	22.47	24.00	24.26	24.42	24.35	25.50	23.66	23.70	23.68	25.00		
3GPP Rel 6	HS-DPA Subtest-1	21.35	21.50	21.40	23.00	23.06	23.24	23.08	24.50	22.60	22.70	22.61	24.00		
3GPP Rel 6	HS-DPA Subtest-2	21.48	21.47	21.41	23.00	23.12	23.25	23.25	24.50	22.72	22.74	22.72	24.00		
3GPP Rel 6	HS-DPA Subtest-3	20.95	21.03	20.86	22.50	22.63	22.81	22.66	24.00	22.15	22.21	22.15	23.50		
3GPP Rel 6	HS-DPA Subtest-4	20.81	21.00	20.95	22.50	22.74	22.77	22.73	24.00	22.09	22.18	22.18	23.50		
3GPP Rel 6	DC-HSDPA Subtest-1	21.30	21.35	21.35	23.00	23.01	23.18	23.03	24.50	22.46	22.56	22.47	24.00		
3GPP Rel 6	DC-HSDPA Subtest-2	21.44	21.40	21.39	23.00	23.10	23.15	23.23	24.50	22.72	22.62	22.72	24.00		
3GPP Rel 6	DC-HSDPA Subtest-3	20.84	20.89	20.75	22.50	22.62	22.75	22.65	24.00	21.98	22.05	21.98	23.50		
3GPP Rel 6	DC-HSDPA Subtest-4	20.67	20.96	20.81	22.00	22.68	22.60	22.67	24.00	22.06	22.03	22.15	23.50		
3GPP Rel 6	HSUPA Subtest-1	20.43	20.45	20.27	22.00	21.52	21.51	21.54	22.50	20.67	20.68	20.62	22.00		
3GPP Rel 6	HSUPA Subtest-2	20.29	20.47	20.43	22.00	21.33	21.36	21.40	22.50	20.65	20.72	20.67	22.00		
3GPP Rel 6	HSUPA Subtest-3	21.39	21.50	21.48	23.00	22.41	22.43	22.36	23.50	21.75	21.75	21.60	23.00		
3GPP Rel 6	HSUPA Subtest-4	19.97	20.04	19.94	21.50	21.00	21.00	20.95	22.00	20.34	20.35	20.20	22.00		
3GPP Rel 6	HSUPA Subtest-5	21.33	21.50	21.51	23.00	22.44	22.43	22.30	23.50	21.57	21.70	21.55	23.00		
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	21.03	21.11	21.07	22.00	21.52	21.60	21.55	22.50	21.10	21.13	21.05	22.00		

Band	WCDMA I_AntH4				Turn-up Limit (dBm)	WCDMA IV_AntH4				Turn-up Limit (dBm)	WCDMA V_AntH1				Turn-up Limit (dBm)
	TX Channel	9282	9400	9538		1312	1413	1513	4132		4182	4233			
Rx Channel		9682	9800	9938		1537	1638	1738		4357	4407	4458			
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1722.6	1752.6		826.4	836.4	846.6			
3GPP Rel 99	AMR 12.2Kbps	15.62	15.62	15.57	17.00	16.35	16.40	16.43	17.50	21.30	21.37	21.36	22.50		
3GPP Rel 99	RMC 12.2Kbps	15.66	15.78	15.72	17.00	16.44	16.50	16.43	17.50	21.38	21.39	21.38	22.50		
3GPP Rel 6	HS-DPA Subtest-1	14.75	14.68	14.73	16.00	15.36	15.47	15.30	16.50	20.23	20.39	20.28	21.50		
3GPP Rel 6	HS-DPA Subtest-2	14.66	14.76	14.67	16.00	15.32	15.48	15.38	16.50	20.11	20.28	20.20	21.50		
3GPP Rel 6	HS-DPA Subtest-3	14.21	14.23	14.13	15.50	14.80	14.88	14.76	16.00	19.77	19.90	19.69	21.50		
3GPP Rel 6	HS-DPA Subtest-4	14.21	14.21	14.04	15.50	14.88	14.91	14.88	16.50	19.72	19.88	19.73	21.50		
3GPP Rel 6	DC-HSDPA Subtest-1	14.48	14.62	14.50	16.00	15.24	15.46	15.16	16.50	20.24	20.33	20.24	21.50		
3GPP Rel 6	DC-HSDPA Subtest-2	14.50	14.61	14.59	16.00	15.11	15.40	15.29	16.50	20.07	20.09	20.12	21.50		
3GPP Rel 6	DC-HSDPA Subtest-3	14.15	14.11	14.11	15.50	14.80	14.90	14.83	16.00	19.77	19.86	19.61	21.00		
3GPP Rel 6	DC-HSDPA Subtest-4	14.25	14.10	14.15	15.50	14.72	14.88	14.71	16.50	19.65	19.72	19.75	21.50		
3GPP Rel 6	HSUPA Subtest-1	13.58	13.75	13.68	15.00	13.33	13.35	13.42	14.50	16.10	16.35	16.21	20.50		
3GPP Rel 6	HSUPA Subtest-2	13.67	13.74	13.60	15.00	13.24	13.40	13.33	14.50	16.29	16.29	16.06	18.50		
3GPP Rel 6	HSUPA Subtest-3	14.75	14.84	14.74	16.00	14.41	14.47	14.42	15.50	19.27	19.29	19.22	20.50		
3GPP Rel 6	HSUPA Subtest-4	13.13	13.40	13.21	14.50	12.93	13.01	12.94	14.00	17.76	17.85	17.61	18.50		
3GPP Rel 6	HSUPA Subtest-5	14.81	14.70	14.66	16.00	14.38	14.32	14.22	15.50	19.03	19.20	19.15	20.50		
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	14.34	14.28	14.31	15.00	13.60	13.60	13.81	14.50	16.68	16.72	16.77	19.50		

GSM850_AntH1	Burst Average Power (dbm)				Turn-up Limit	Frame-Average Power (dbm)				Turn-up Limit
	Tx Channel	128	189	251		128	189	251		
Frequency (MHz)	824	836	848	848		824	836	848		
GSM 1 Tx slot		29.20	29.12	29.20	30.50	20.20	20.12	20.29	21.50	
GPRS 1 Tx slot		29.13	29.10	29.24	30.50	20.13	20.10	20.24	21.50	
GPRS 2 Tx slots		26.88	26.96	26.91	28.50	20.88	20.96	20.91	22.50	
GPRS 3 Tx slots		24.88	24.86	24.97	26.50	20.62	20.60	20.71	22.24	
GPRS 4 Tx slots		23.70	23.68	23.72	25.00	20.70	20.68	20.72	22.00	
EDGE 1 Tx slot		26.70	26.72	26.64	28.00	17.70	17.72	17.64	19.24	
EDGE 2 Tx slots		24.34	24.42	24.33	25.70	18.34	18.42	18.33	19.70	
EDGE 3 Tx slots		22.15	22.21	22.16	23.50	17.89	17.95	17.80	19.24	
EDGE 4 Tx slots		20.34	20.33	20.25	21.70	17.34	17.33	17.25	18.70	

GSM1900_AntH4	Burst Average Power (dBm)				Turn-up Limit (dBm)	Frame-Average Power (dBm)				Turn-up Limit (dBm)
	Tx Channel	512	661	810		512	661	810		
Frequency (MHz)		1850.2	1850	1909.8		1850.2	1850	1909.8		
GSM 1 Tx slot		24.82	24.84	23.96	25.00	15.82	15.84	14.96	16.00	
GPRS 1 Tx slot		23.85	23.86	23.81	25.00	14.85	14.86	14.81	16.00	
GPRS 2 Tx slots		22.51	22.55	22.52	22.80	16.51	16.55	16.52	16.80	
GPRS 3 Tx slots		20.34	20.36	20.38	20.50	16.09	16.10	16.12	16.24	
GPRS 4 Tx slots		19.14	19.17	19.18	19.00	16.14	16.17	16.18	16.24	
EDGE 1 Tx slot		24.86	24.11	23.98	25.00	15.86	15.11	14.98	16.00	
EDGE 2 Tx slots		22.31	22.41	22.17	23.00	16.31	16.41	16.17	17.00	
EDGE 3 Tx slots		20.45	20.54	20.26	21.20	16.19	16.28	16.00	16.94	
EDGE 4 Tx slots		18.88	18.07	18.87	19.70	15.88	16.07	15.87	16.70	



Band 2_Ant14												
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch./F/Freq.	Power Ch./F/Freq.	Power Ch./F/Freq.	Turn-on Time (ms)	MFR (dB)				
Channel												
Frequency (MHz)												
20	QPSK	1	0	15.88	15.82	15.54	17	0				
20	QPSK	1	49	15.80	15.72	15.56						
20	QPSK	1	99	15.67	15.69	15.53						
20	QPSK	50	0	15.85	15.78	15.53	17	0				
20	QPSK	50	24	15.68	15.58	15.62						
20	QPSK	50	50	15.87	15.80	15.58						
20	QPSK	1	0	15.87	15.87	15.53	17	0				
20	16QAM	1	0	15.70	15.60	15.54						
20	16QAM	1	49	15.52	15.59	15.51						
20	16QAM	1	99	15.65	15.61	15.58	17	0				
20	16QAM	50	0	15.70	15.57	15.54						
20	16QAM	50	24	15.60	15.62	15.57						
20	16QAM	50	50	15.60	15.64	15.59	17	0				
20	16QAM	100	0	15.65	15.60	15.55						
Channel												
Frequency (MHz)												
15	QPSK	1	0	15.53	15.57	15.38	17	0				
15	QPSK	1	37	15.55	15.62	15.43						
15	QPSK	1	74	15.60	15.52	15.40						
15	QPSK	36	0	15.53	15.48	15.42	17	0				
15	QPSK	36	20	15.60	15.59	15.43						
15	QPSK	36	40	15.58	15.49	15.42						
15	QPSK	75	0	15.55	15.56	15.44	17	0				
15	16QAM	1	0	15.55	15.48	15.41						
15	16QAM	1	37	15.54	15.60	15.50						
15	16QAM	1	74	15.58	15.52	15.43	17	0				
15	16QAM	36	0	15.55	15.49	15.39						
15	16QAM	36	20	15.52	15.58	15.42						
15	16QAM	36	40	15.49	15.50	15.50	17	0				
15	16QAM	75	0	15.57	15.56	15.42						
15	16QAM	1	0	15.50	15.52	15.44						
15	16QAM	1	37	15.47	15.53	15.42	17	0				
15	16QAM	1	74	15.48	15.50	15.44						
15	16QAM	36	0	15.50	15.46	15.43						
15	16QAM	36	20	15.47	15.48	15.42	17	0				
15	16QAM	36	40	15.48	15.49	15.45						
15	16QAM	75	0	15.48	15.57	15.40						
Channel												
Frequency (MHz)												
10	QPSK	1	0	15.50	15.50	15.35	17	0				
10	QPSK	1	25	15.48	15.51	15.40						
10	QPSK	1	49	15.58	15.57	15.40						
10	QPSK	25	0	15.54	15.55	15.43	17	0				
10	QPSK	25	13	15.54	15.57	15.43						
10	QPSK	25	25	15.54	15.49	15.49						
10	QPSK	50	0	15.48	15.51	15.38	17	0				
10	16QAM	1	0	15.49	15.48	15.45						
10	16QAM	1	25	15.50	15.54	15.40						
10	16QAM	1	49	15.54	15.52	15.40	17	0				
10	16QAM	25	0	15.47	15.51	15.40						
10	16QAM	25	13	15.48	15.51	15.45						
10	16QAM	25	25	15.49	15.49	15.42	17	0				
10	16QAM	50	0	15.55	15.52	15.38						
10	16QAM	1	0	15.46	15.48	15.45						
10	16QAM	1	25	15.50	15.50	15.50	17	0				
10	16QAM	1	49	15.52	15.48	15.51						
10	16QAM	25	0	15.59	15.57	15.52						
10	16QAM	25	13	15.58	15.57	15.43	17	0				
10	16QAM	25	25	15.47	15.55	15.50						
10	16QAM	50	0	15.47	15.49	15.41						
Channel												
Frequency (MHz)												
5	QPSK	1	0	15.50	15.58	15.45	17	0				
5	QPSK	1	12	15.58	15.51	15.47						
5	QPSK	1	24	15.48	15.50	15.45						
5	QPSK	12	0	15.54	15.47	15.40	17	0				
5	QPSK	12	7	15.51	15.56	15.47						
5	QPSK	12	13	15.54	15.47	15.52						
5	QPSK	25	0	15.46	15.48	15.43	17	0				
5	QPSK	25	0	15.46	15.48	15.43						
5	16QAM	1	0	15.50	15.57	15.40						
5	16QAM	1	12	15.58	15.50	15.49	17	0				
5	16QAM	1	24	15.49	15.50	15.45						
5	16QAM	12	0	15.48	15.55	15.50						
5	16QAM	12	7	15.49	15.55	15.49	17	0				
5	16QAM	12	13	15.47	15.59	15.49						
5	16QAM	25	0	15.50	15.59	15.51						
5	16QAM	1	0	15.57	15.47	15.43	17	0				
5	16QAM	1	12	15.58	15.50	15.49						
5	16QAM	1	24	15.54	15.51	15.51						
5	16QAM	12	0	15.50	15.50	15.45	17	0				
5	16QAM	12	7	15.55	15.50	15.48						
5	16QAM	12	13	15.54	15.48	15.43						
5	16QAM	25	0	15.53	15.58	15.43	17	0				
5	16QAM	25	0	15.53	15.58	15.43						
5	16QAM	25	0	15.53	15.58	15.43						
Channel												
Frequency (MHz)												
3	QPSK	1	0	15.50	15.55	15.45	17	0				
3	QPSK	1	6	15.55	15.52	15.48						
3	QPSK	1	14	15.54	15.55	15.44						
3	QPSK	6	0	15.58	15.57	15.40	17	0				
3	QPSK	6	4	15.52	15.59	15.48						
3	QPSK	6	7	15.48	15.50	15.39						
3	QPSK	15	0	15.60	15.60	15.47	17	0				
3	16QAM	1	0	15.49	15.49	15.47						
3	16QAM	1	6	15.51	15.53	15.48						
3	16QAM	1	14	15.50	15.51	15.52	17	0				
3	16QAM	6	0	15.52	15.54	15.47						
3	16QAM	6	4	15.54	15.51	15.44						
3	16QAM	6	7	15.59	15.53	15.50	17	0				
3	16QAM	15	0	15.58	15.53	15.49						
3	16QAM	1	0	15.50	15.50	15.46						
3	16QAM	1	6	15.54	15.47	15.43	17	0				
3	16QAM	1	14	15.50	15.51	15.38						
3	16QAM	6	0	15.47	15.57	15.44						



MINISTRY OF NATIONAL DEFENSE
CUMHURİYET SAKATLARI

Band 5_Ant11																
BW (MHz)	Modulation	RB Size	RB Offset	Power EIRP Ch / F (W)	Power MRE Ch / F (W)	Power MRE Ch / F (W)	Turn-on time (s)	MFR (dB)								
Channel																
Frequency (MHz)																
10	QPSK	1	0	21.03	21.06	21.04	22.3	0								
10	QPSK	1	25	21.12	21.25	21.11										
10	QPSK	1	49	20.94	21.03	20.98										
10	QPSK	25	0	21.06	21.15	21.07	22.3	0								
10	QPSK	25	12	20.92	21.06	20.96										
10	QPSK	25	25	21.02	21.13	21.03										
10	QPSK	50	0	21.02	21.06	21.02	22.3	0								
10	QPSK	50	1	21.19	21.02	21.12										
10	QPSK	50	25	21.11	21.13	21.18										
10	QPSK	1	49	21.18	21.26	21.20	22.3	0								
10	QPSK	1	25	21.05	21.18	21.07										
10	QPSK	25	12	20.97	21.10	20.96										
10	QPSK	50	0	21.03	21.16	21.17	22.3	0								
10	QPSK	50	1	21.19	21.11	21.17										
10	QPSK	50	25	21.11	21.24	21.17										
10	QPSK	1	49	21.05	21.19	21.13	21.8	0.5								
10	QPSK	1	25	20.97	21.10	20.95										
10	QPSK	25	12	20.92	20.90	20.97										
10	QPSK	25	25	20.51	20.71	20.61	21.8	0.5								
10	QPSK	50	0	20.42	20.71	20.64										
10	QPSK	50	1	20.42	20.71	20.64										
Channel																
Frequency (MHz)																
5	QPSK	1	0	20.94	20.91	20.97	22.3	0								
5	QPSK	1	12	20.96	21.01	20.93										
5	QPSK	1	24	20.98	21.01	20.93										
5	QPSK	12	0	21.04	21.03	21.01	22.3	0								
5	QPSK	12	7	20.78	20.98	20.81										
5	QPSK	12	13	20.92	21.12	20.98										
5	QPSK	25	0	20.99	21.02	21.01	22.3	0								
5	QPSK	25	0	21.10	21.21	21.00										
5	QPSK	25	12	21.06	21.12	21.12										
5	QPSK	1	12	21.06	21.12	21.12	22.3	0								
5	QPSK	1	24	21.04	21.18	21.11										
5	QPSK	12	0	20.98	21.15	20.95										
5	QPSK	12	7	20.83	21.02	20.91	22.3	0								
5	QPSK	12	13	20.92	21.12	21.08										
5	QPSK	25	0	20.97	21.09	21.04										
5	QPSK	1	0	21.02	21.20	21.13	22.3	0								
5	QPSK	1	12	21.06	21.09	21.02										
5	QPSK	1	24	21.01	21.11	21.07										
5	QPSK	12	0	20.45	20.94	20.79	21.8	0.5								
5	QPSK	12	7	20.53	20.95	20.53										
5	QPSK	12	13	20.54	20.95	20.54										
5	QPSK	25	0	20.42	20.94	20.50	21.8	0.5								
5	QPSK	25	0	20.42	20.94	20.50										
5	QPSK	25	0	20.42	20.94	20.50										
Channel																
Frequency (MHz)																
3	QPSK	1	0	20.90	20.93	20.94	22.3	0								
3	QPSK	1	3	20.86	21.05	20.87										
3	QPSK	1	14	20.85	20.96	20.88										
3	QPSK	3	0	20.90	21.06	20.97	22.3	0								
3	QPSK	3	1	20.83	20.95	20.84										
3	QPSK	3	8	20.91	21.02	20.96										
3	QPSK	15	0	20.89	21.08	21.02	22.3	0								
3	QPSK	15	2	20.92	21.20	21.05										
3	QPSK	15	9	20.90	21.05	21.04										
3	QPSK	1	8	21.06	21.18	21.09	22.3	0								
3	QPSK	1	14	21.03	21.21	21.05										
3	QPSK	1	20	20.99	21.10	21.08										
3	QPSK	3	0	20.90	21.06	20.97	22.3	0								
3	QPSK	3	8	20.95	20.95	20.93										
3	QPSK	3	15	20.99	21.15	21.04										
3	QPSK	15	0	21.02	21.03	21.00	22.3	0								
3	QPSK	15	9	20.96	21.08	21.04										
3	QPSK	15	16	21.00	21.14	21.04										
3	QPSK	1	8	21.08	21.18	21.04	22.3	0								
3	QPSK	1	14	21.02	21.11	20.98										
3	QPSK	1	20	20.94	21.05	20.98										
3	QPSK	3	0	20.45	20.97	20.59	21.8	0.5								
3	QPSK	3	8	20.50	20.67	20.53										
3	QPSK	3	15	20.42	20.93	20.43										
3	QPSK	15	0	20.42	20.93	20.43	21.8	0.5								
3	QPSK	15	0	20.42	20.93	20.43										
3	QPSK	15	0	20.42	20.93	20.43										
Channel																
Frequency (MHz)																
1.4	QPSK	1	0	20.90	20.93	20.90	22.3	0								
1.4	QPSK	1	3	20.89	21.05	20.83										
1.4	QPSK	1	5	20.91	20.94	20.92										
1.4	QPSK	3	0	20.96	21.06	21.07	22.3	0								
1.4	QPSK	3	1	20.83	20.92	20.89										
1.4	QPSK	3	3	20.94	21.10	21.01										
1.4	QPSK	0	0	20.97	21.12	21.09	22.3	0								
1.4	QPSK	0	0	21.19	21.16	21.04										
1.4	QPSK	1	3	21.04	21.21	21.03										
1.4	QPSK	1	5	21.11	21.22	21.13	22.3	0								
1.4	QPSK	3	0	20.96	21.08	21.04										
1.4	QPSK	3	1	20.91	20.96	20.91										
1.4	QPSK	3	3	21.10	21.15	21.08	22.3	0								
1.4	QPSK	0	0	20.99	21.12	21.07										
1.4	QPSK	1	3	21.09	21.21	21.05										
1.4	QPSK	1	5	21.07	21.13	21.07	22.3	0								
1.4	QPSK	1	5	20.97	21.15	21.06										
1.4	QPSK	3	0	20.97	21.11	21.04										
1.4	QPSK	3	1	20.91	21.14	21.00	21.8	0.5								
1.4	QPSK	3	3	20.95	21.05	21.04										
1.4	QPSK	0	0	20.38	20.33	20.33										

Band 5_Ant41													
BW (MHz)	Modulation	RB Size	RB Offset	Power EIRP Ch / F (W)	Power MRE Ch / F (W)	Power MRE Ch / F (W)	Turn-on time (s)	MFR (dB)					
Channel													
Frequency (MHz)													
10	QPSK	1	0	23.46	23.66	23.64	24.8	0					
10	QPSK	1	25	23.37	23.67	23.58							
10	QPSK	1	49	23.48	23.58	23.50							
10	QPSK	25	0	23.32	23.61	23.52	23.8	0					
10	QPSK	25	12	23.5	23.51	23.58							
10	QPSK	25	25	23.49	23.55	23.57							
10	QPSK	50	0	23.32	23.59	23.57	23.8	0					
10	QPSK	50	1	23.94	23.88	23.91							
10	QPSK	50	25	23.68	23.69	23.6							
10	QPSK	1	49	23.79	23.51	23.66	22.8	2					
10	QPSK	1	25	23.52	23.52	23.45							
10	QPSK	25	12	21.40	21.47	21.56							
10	QPSK	25	25	21.48	21.58	21.65	22.8	2					
10	QPSK	50	0	21.54	21.69	21.63							
10	QPSK	1	0	21.37	21.69	21.62							
10	QPSK	1	25	21.64	21.75	21.36	22.8	2					
10	QPSK	1	49	21.49	21.5	21.58							
10	QPSK	12	0	20.6	20.7	20.4							
10	QPSK	12	7	20.67	20.7	20.8	21.8	3					
10	QPSK	12	13	20.68	20.79	20.71							
10	QPSK	50	0	20.61	20.7	20.71							
10	QPSK	50	1	20.61	20.7	20.71	21.8	3					
10	QPSK	50	25	20.61	20.7	20.71							
Channel													
Frequency (MHz)													
5	QPSK	1	0	23.35	23.66	23.41			24.8	0			
5	QPSK	1	12	23.53	23.64	23.43							
5	QPSK	1	24	23.60	23.60	23.45							
5	QPSK	12	0	22.33	22.38	22.61	23.8	1					
5	QPSK	12	7	22.57	22.38	22.45							
5	QPSK	12	13	22.35	22.33	22.33							
5	QPSK	25	0	22.31	22.40	22.40	23.8	1					
5	QPSK	25	12	22.73	22.35	22.32							
5	QPSK	25	25	22.73	22.35	22.32							
5	QPSK	50	0	22.31	22.38	22.38	23.8	1					
5	QPSK	50	1	22.77	22.38	22.38							
5	QPSK	50	25	22.77	22.38	22.38							
5	QPSK	12	0	21.31	21.40	21.62	22.8	2					
5	QPSK	12	7	21.19	21.31	21.32							
5	QPSK	12	13	21.27	21.11	21.11							
5	QPSK	25	0	21.25	21.45	21.43	22.8	2					
5	QPSK	25	12	21.31	21.38	21.68							
5	QPSK	25	25	21.31	21.38	21.68							
5	QPSK	50	0	21.31	21.38	21.68	22.8	2					
5	QPSK	50	1	21.31	21.38	21.68							
5	QPSK	50	25	21.31	21.38	21.68							
5	QPSK	12	0	20.47	20.61	20.73	21.8	3					
5	QPSK	12	7	20.46	20.54	20.54							
5	QPSK	12	13	20.45	20.45	20.45							
5	QPSK	25	0	20.46	20.51	20.56	21.8	3					
5	QPSK	25	12	20.46	20.51	20.56							
5	QPSK	25	25	20.46	20.51	20.56							
Channel													
Frequency (MHz)													
3	QPSK	1	0	23.28	23.44	23.50	24.8	0					
3	QPSK	1	8	23.36	23.33	23.34							
3	QPSK	1	14	23.32	23.38	23.41							
3	QPSK	1	20	23.34	23.34	23.34	23.8	1					
3	QPSK	1	26	23.32	23.34	23.34							
3	QPSK	8	7	23.33	23.40	23.42							
3	QPSK	15	0	22.28	22.28	22.48	23.8	1					
3	QPSK	15	8	22.28	22.28	22.48							
3	QPSK	15	14	22.28	22.28	22.48							
3	QPSK	1	8	22.45	22.55	22.55	23.8	1					
3	QPSK	1	14	22.46	22.72	22.79							
3	QPSK	1	20	22.45	22.72	22.79							
3	QPSK	8	6	21.4	21.36	21.50	22.8	2					
3	QPSK	8	7	21.2	21.44	21.41							
3	QPSK	15	0	21.35	21.46	21.39							
3	QPSK	1	8	21.52	21.52	21.51	22.8	2					
3	QPSK	1	14	21.56	21.52	21.51							
3	QPSK	1	20	21.56	21.51	21.51							
3	QPSK	8	4	20.63	20.45	20.61	21.8	3					
3	QPSK	8	7	20.62	20.47	20.56							
3	QPSK	15	0	20.33	20.47	20.50							
Channel													
Frequency (MHz)													
1.4	QPSK	1	0	23.33	23.48	23.46	24.8	0					
1.4	QPSK	1	3	23.40	23.53	23.48							
1.4	QPSK	1	6	23.39	23.50	23.48							
1.4	QPSK	3	0	23.31	23.45	23.44	23.8	1					
1.4	QPSK	3	1	23.33	23.33	23.31							
1.4	QPSK	3	2	23.33	23.33	23.31							
1.4	QPSK	6	0	22.29	22.37	22.45	23.8	1					
1.4	QPSK	6	1	22.31	22.37	22.45							
1.4	QPSK	6	2	22.31	22.37	22.45							
1.4	QPSK	3	0	22.37	22.34	22.45	23.8	1					
1.4	QPSK	3	1	22.41	22.45	22.45							
1.4	QPSK	3	2	22.41	22.45	22.45							
1.4	QPSK	6	0	21.34	21.48	21.38	22.8	2					
1.4	QPSK	6	1	21.46	21.61	21.23							
1.4	QPSK	6	2	21.46	21.68	21.38							
1.4	QPSK	1	3	21.29	21.34	21.39	22.8	2					
1.4	QPSK	3	0	21.45	21.59	21.19							
1.4	QPSK	3	1	21.35	21.59	21.57							
1.4	QPSK	1	6	21.42	21.48	21.48	22.8	2					
1.4	QPSK	3	0	20.41	20.54	20.52							
1.4	QPSK	6	0	20.41	20.54	20.52							

Band 12_Ant11															
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (dBm)	MPR (dB)							
Channel															
Frequency (MHz)															
10	QPSK	1	0	23.78	23.57	23.83		25	0						
10	QPSK	1	25	23.85	23.86	23.75									
10	QPSK	1	49	23.83	23.80	23.84									
10	QPSK	25	0	22.60	22.74	22.63		24	1						
10	QPSK	25	12	22.67	22.68	22.65									
10	QPSK	25	25	22.64	22.67	22.64									
10	QPSK	50	0	22.68	22.72	22.64		24	1						
10	HQAM	1	0	22.65	22.69	22.64									
10	HQAM	1	25	22.77	22.84	22.69									
10	HQAM	1	49	22.52	22.68	22.83		23	2						
10	HQAM	25	0	21.75	21.83	21.80									
10	HQAM	25	12	21.89	21.92	21.85									
10	HQAM	25	25	21.89	21.81	21.94		23	2						
10	HQAM	50	0	21.89	21.79	21.94									
10	HQAM	1	0	21.85	22.05	21.95									
10	HQAM	1	25	22.13	22.07	21.96		23	2						
10	HQAM	1	49	22.13	21.95	21.99									
10	HQAM	25	0	20.74	20.80	20.70									
10	HQAM	25	12	20.83	20.80	20.87		22	3						
10	HQAM	25	25	20.77	20.80	20.83									
10	HQAM	50	0	20.78	20.80	20.83									
Channel															
Frequency (MHz)															
5	QPSK	1	0	23.57	23.75	23.69		25	0						
5	QPSK	1	12	23.67	23.67	23.67									
5	QPSK	1	24	23.71	23.72	23.85									
5	QPSK	12	0	22.61	22.62	22.72		24	1						
5	QPSK	12	7	22.66	22.64	22.68									
5	QPSK	12	13	22.70	22.66	22.66									
5	QPSK	25	0	22.69	22.61	22.68		24	1						
5	HQAM	1	0	22.61	22.74	22.56									
5	HQAM	1	12	22.14	22.56	22.46									
5	HQAM	1	24	22.10	22.59	22.68		23	2						
5	HQAM	12	0	21.89	21.86	21.77									
5	HQAM	12	7	21.79	21.91	21.84									
5	HQAM	12	13	21.87	21.80	21.87		23	2						
5	HQAM	25	0	21.87	21.82	21.93									
5	HQAM	1	0	21.83	21.83	21.88									
5	HQAM	1	12	21.82	21.91	22.10		22	3						
5	HQAM	1	24	21.85	22.16	22.25									
5	HQAM	12	0	20.82	20.85	20.85									
5	HQAM	12	7	20.82	20.80	20.85		22	3						
5	HQAM	12	13	20.82	20.80	20.85									
5	HQAM	25	0	20.89	20.83	20.83									
Channel															
Frequency (MHz)															
1.4	QPSK	1	0	23.67	23.59	23.73		25	0						
1.4	QPSK	1	5	23.79	23.76	23.77									
1.4	QPSK	1	14	23.73	23.68	23.78									
1.4	QPSK	3	0	23.56	23.68	23.62		24	1						
1.4	QPSK	3	1	23.63	23.61	23.70									
1.4	QPSK	3	8	23.66	23.63	23.69									
1.4	QPSK	15	0	22.60	22.60	22.68		24	1						
1.4	QPSK	15	5	22.66	22.62	22.69									
1.4	QPSK	15	10	22.61	22.61	22.69									
1.4	HQAM	1	0	23.52	23.58	23.65		24	1						
1.4	HQAM	1	14	22.59	22.81	23.11									
1.4	HQAM	1	14	22.61	22.81	23.05									
1.4	HQAM	3	0	22.56	22.69	22.72		23	2						
1.4	HQAM	3	8	21.90	21.89	22.01									
1.4	HQAM	8	7	21.96	21.88	21.95									
1.4	HQAM	15	0	21.86	21.77	21.89		23	2						
1.4	HQAM	15	5	21.86	21.78	21.89									
1.4	HQAM	15	10	21.86	21.78	21.89									
1.4	HQAM	1	0	22.01	22.03	22.17		23	2						
1.4	HQAM	1	14	21.91	21.90	21.98									
1.4	HQAM	1	14	21.91	21.90	21.98									
1.4	HQAM	3	0	20.85	20.85	20.85		22	3						
1.4	HQAM	3	8	20.85	20.80	20.82									
1.4	HQAM	8	7	20.85	20.80	20.82									
1.4	HQAM	15	0	20.76	20.68	20.76		22	3						
1.4	HQAM	15	5	20.76	20.68	20.76									
1.4	HQAM	15	10	20.76	20.68	20.76									
Channel															
Frequency (MHz)															
1.4	QPSK	1	0	23.67	23.59	23.73		25	0						
1.4	QPSK	1	5	23.79	23.76	23.77									
1.4	QPSK	1	14	23.73	23.68	23.78									
1.4	QPSK	3	0	23.54	23.68	23.62		24	1						
1.4	QPSK	3	1	23.69	23.68	23.72									
1.4	QPSK	3	3	23.64	23.72	23.71									
1.4	QPSK	6	0	22.63	22.64	22.67		24	1						
1.4	QPSK	6	0	22.57	22.62	22.62									
1.4	HQAM	1	0	22.59	22.73	22.86									
1.4	HQAM	1	5	22.61	22.69	22.83		24	1						
1.4	HQAM	3	0	22.60	22.72	22.77									
1.4	HQAM	3	1	22.61	22.69	22.81									
1.4	HQAM	3	3	22.63	22.69	22.83		23	2						
1.4	HQAM	6	0	21.61	21.60	22.11									
1.4	HQAM	6	0	22.06	22.08	22.21									
1.4	HQAM	1	5	22.12	22.15	21.68		23	2						
1.4	HQAM	1	5	21.90	21.78	21.72									
1.4	HQAM	3	0	21.95	22.05	21.68									
1.4	HQAM	3	1	22.05	21.93	22.09		22	3						
1.4	HQAM	3	3	22.07	22.05	22.08									
1.4	HQAM	6	0	20.72	20.94	20.85									

Band 12_Ant41															
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Turn-up time (dBm)	MPR (dB)							
Channel															
Frequency (MHz)															
10	QPSK	1	0	23.70	23.70	23.80		25	0						
10	QPSK	1	25	23.86	23.89	23.85									
10	QPSK	1	49	23.81	23.79	23.71									
10	QPSK	25	0	22.63	22.75	22.69		24	1						
10	QPSK	25	12	22.68	22.73	22.87									
10	QPSK	25	25	22.70	22.69	22.64									
10	HQAM	1	0	22.90	22.58	22.58		24	1						
10	HQAM	1	25	22.75	22.91	22.77									
10	HQAM	1	49	22.61	22.20	22.34									
10	HQAM	25	0	21.83	21.80	21.84		23	2						
10	HQAM	25	12	21.88	21.90	21.82									
10	HQAM	25	25	21.62	21.82	21.86									
10	HQAM	50	0	21.62	21.82	21.89		23	2						
10	HQAM	1	0	21.80	22.07	22.20									
10	HQAM	1	25	22.22	21.97	21.79									
10	HQAM	1	49	21.90	21.81	21.99		23	2						
10	HQAM	25	0	20.88	20.86	21.00									
10	HQAM	25	12	20.91	20.92	20.83									
10	HQAM	25	25	20.81	20.77	20.89		22	3						
10	HQAM	50	0	20.88	20.94	20.92									
Channel															
Frequency (MHz)															
5	QPSK	1	0	23.62	23.62	23.80						25	0		
5	QPSK	1	12	23.68	23.70	23.78									
5	QPSK	1	24	23.67	23.70	23.82									
5	QPSK	12	0	22.62	22.68	22.86		24	1						
5	QPSK	12	7	22.63	22.65	22.71									
5	QPSK	12	13	22.68	22.63	22.66									
5	QPSK	25	0	22.68	22.69	22.69		24	1						
5	HQAM	1	0	22.68	22.73	23.00									
5	HQAM	1	12	22.69	22.80	22.87									
5	HQAM	1	24	22.63	22.91	22.90		23	2						
5	HQAM	12	0	21.75	21.87	21.85									
5	HQAM	12	7	21.80	21.88	21.93									
5	HQAM	12	13	21.68	21.83	21.86		23	2						
5	HQAM	25	0	21.82	21.77	21.81									
5	HQAM	1	0	22.04	22.10	21.75									
5	HQAM	1	12	21.89	22.07	21.90		23	2						
5	HQAM	1	24	21.87	21.91	22.00									
5	HQAM	12	0	20.76	20.87	20.88									
5	HQAM	12	7	20.87	20.89	20.88		22	3						
5	HQAM	12	13	20.83	20.85	20.86									
5	HQAM	25	0	20.84	20.86	20.86									
Channel															
Frequency (MHz)															
3	QPSK	1	0	23.59	23.54	23.76		25	0						
3	QPSK	1	8	23.66	23.62	23.72									
3	QPSK	1	14	23.64	23.55	23.73									
3	QPSK	8	0	22.63	22.72	22.76		24	1						
3	QPSK	8	8	22.64	22.64	22.72									
3	QPSK	8	7	22.63	22.62	22.71									
3	QPSK	15	0	22.59	22.61	22.62		24	1						
3	QPSK	15	7	22.57	22.62	22.67									
3	HQAM	1	8	23.14	23.49	23.83									
3	HQAM	1	14	22.68	23.02	23.27		23	2						
3	HQAM	8	0	21.87	21.87	21.87									
3	HQAM	8	7	21.89	21.89	21.89									
3	HQAM	8	7	21.86	21.84	21.86		23	2						
3	HQAM	15	0	21.77	21.87	21.78									
3	HQAM	1	0	22.04	22.04	22.04									
3	HQAM	1	8	21.80	22.08	22.11		23	2						
3	HQAM	1	14	21.86	21.85	22.17									
3	HQAM	8	0	20.76	20.87	20.88									
3	HQAM	8	7	20.86	20.86	20.86		22	3						
3	HQAM	15	0	20.83	20.74	20.91									
Channel															
Frequency (MHz)															
1.4	QPSK	1	0	23.53	23.53	23.59		25	0						
1.4	QPSK	1	3	23.54	23.68	23.71									
1.4	QPSK	1	6	23.55	23.59	23.62									
1.4	QPSK	3	0	23.52	23.74	23.67		24	1						
1.4	QPSK	3	1	23.70	23.54	23.67									
1.4	QPSK	3	2	23.55	23.70	23.73									
1.4	QPSK	6	0	22.63	22.63	22.70		24	1						
1.4	HQAM	1	0	23.06	23.04	22.67									
1.4	HQAM	1	3	23.12	22.98	22.92									
1.4	HQAM	1	6	23.05	22.79	22.88		23	2						
1.4	HQAM	3	0	22.70	22.65	22.72									
1.4	HQAM	3	1	22.67	22.64	22.72									
1.4	HQAM	3	2	22.72	22.66	22.66		23	2						
1.4	HQAM	6	0	21.84	21.85	21.81									
1.4	HQAM	6	0	22.06	21.90	21.92									
1.4	HQAM	1	0	22.10	22.11	21.89		23	2						
1.4	HQAM	1	3	22.09	21.84	21.90									
1.4	HQAM	3	0	21.87	21.80	21.60									
1.4	HQAM	3	1	21.89	22.00	21.72		22	3						
1.4	HQAM	3	2	21.83	21.89	21.84									
1.4	HQAM	6	0	20.75	20.78	20.85									



MINISTARSTVO
ODBRANE
REPUBLIKE SRBIJE

Band 17_Ant11

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Main Ch / Freq	Power High Ch / Freq	Turn-up rate (dB/s)	MFR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	0	23.63	23.71	23.84	25	0
10	QPSK	1	25	23.71	23.75	23.72		
10	QPSK	1	49	23.68	23.49	23.67		
10	QPSK	25	0	22.64	22.68	22.66	24	1
10	QPSK	25	12	22.61	22.61	22.67		
10	QPSK	25	25	22.66	22.67	22.63		
10	QPSK	50	0	22.68	22.71	22.69	24	1
10	16QAM	1	0	22.66	22.01	22.01		
10	16QAM	1	25	22.64	22.66	22.48		
10	16QAM	1	49	22.65	22.60	22.62	23	2
10	16QAM	25	0	21.62	21.77	21.50		
10	16QAM	25	12	21.67	21.96	21.80		
10	16QAM	25	25	21.66	21.85	21.85	23	2
10	16QAM	50	0	21.60	21.62	21.67		
10	16QAM	1	0	21.59	21.67	21.75		
10	16QAM	1	25	21.70	22.17	22.17	22	3
10	16QAM	1	49	21.51	21.50	22.18		
10	16QAM	25	0	20.78	20.86	20.90		
10	16QAM	25	12	20.51	20.77	20.82	22	3
10	16QAM	25	25	20.67	20.92	20.75		
10	16QAM	50	0	20.66	20.52	20.86		
Channel								
Frequency (MHz)								
5	QPSK	1	0	23.61	23.64	23.67	25	0
5	QPSK	1	12	23.44	23.67	23.69		
5	QPSK	1	24	23.60	23.64	23.63		
5	QPSK	12	0	22.68	22.59	22.68	24	1
5	QPSK	12	7	22.56	22.58	22.60		
5	QPSK	12	13	22.57	22.52	22.52		
5	QPSK	25	0	22.57	22.54	22.53	24	1
5	16QAM	1	0	22.52	22.56	22.53		
5	16QAM	1	12	22.71	22.56	22.75		
5	16QAM	1	24	22.63	22.49	22.57	23	2
5	16QAM	12	0	21.72	21.75	21.76		
5	16QAM	12	7	21.69	21.74	21.71		
5	16QAM	25	0	21.75	21.79	21.71	23	2
5	16QAM	1	0	21.63	21.74	21.62		
5	16QAM	1	12	21.68	22.00	22.16		
5	16QAM	1	24	21.62	22.02	22.09	22	3
5	16QAM	12	0	20.69	20.55	20.84		
5	16QAM	12	7	20.72	20.76	20.68		
5	16QAM	25	0	20.74	20.77	20.68		

Band 17_Ant41

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Main Ch / Freq	Power High Ch / Freq	Turn-up rate (dB/s)	MFR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	0	23.65	23.60	23.60	25	0
10	QPSK	1	25	23.59	23.76	23.67		
10	QPSK	1	49	23.69	23.71	23.70		
10	QPSK	25	0	22.64	22.68	22.67	24	1
10	QPSK	25	12	22.62	22.61	22.63		
10	QPSK	25	25	22.60	22.65	22.65		
10	QPSK	50	0	22.68	22.72	22.67	24	1
10	16QAM	1	0	22.94	22.05	22.05		
10	16QAM	1	25	22.69	22.20	22.26		
10	16QAM	1	49	22.57	22.65	22.27	23	2
10	16QAM	25	0	21.62	21.67	21.55		
10	16QAM	25	12	21.78	21.94	21.89		
10	16QAM	25	25	21.63	21.79	21.91	23	2
10	16QAM	50	0	21.77	21.74	21.85		
10	16QAM	1	0	21.67	21.81	21.98		
10	16QAM	1	25	21.77	21.95	22.09	22	3
10	16QAM	1	49	22.24	21.89	22.00		
10	16QAM	25	0	20.62	20.77	20.86		
10	16QAM	25	12	20.85	20.81	20.81	22	3
10	16QAM	25	25	20.83	20.83	20.74		
10	16QAM	50	0	20.83	20.64	20.81		
Channel								
Frequency (MHz)								
5	QPSK	1	0	23.54	23.50	23.56	25	0
5	QPSK	1	12	23.52	23.65	23.49		
5	QPSK	1	24	23.64	23.59	23.62		
5	QPSK	12	0	22.63	22.58	22.65	24	1
5	QPSK	12	7	22.58	22.52	22.58		
5	QPSK	12	13	22.49	22.53	22.40		
5	QPSK	25	0	22.65	22.68	22.56	24	1
5	16QAM	1	0	22.62	22.63	22.57		
5	16QAM	1	12	22.63	22.24	22.86		
5	16QAM	1	24	22.11	22.86	22.21	23	2
5	16QAM	12	0	21.74	21.79	21.96		
5	16QAM	12	7	21.69	21.81	21.81		
5	16QAM	25	0	21.74	21.72	21.77	23	2
5	16QAM	1	0	21.64	21.71	21.83		
5	16QAM	1	12	21.79	21.89	22.04		
5	16QAM	1	24	22.16	21.83	21.93	22	3
5	16QAM	12	0	20.76	20.72	20.75		
5	16QAM	12	7	20.68	20.69	20.69		
5	16QAM	25	0	20.73	20.74	20.69	22	3
5	16QAM	25	13	20.62	20.68	20.62		
5	16QAM	25	0	20.77	20.77	20.76		

Band 18_Ant 11

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Main Ch / Freq	Power High Ch / Freq	Turn-up rate (dB/s)	MFR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	0		22.01		23.5	0
15	QPSK	1	37		22.22			
15	QPSK	1	74		21.98			
15	QPSK	36	0		22.10		23.5	0
15	QPSK	36	25		22.09			
15	QPSK	36	50		22.04			
15	QPSK	75	0		22.12		23.5	0
15	16QAM	1	0		22.17			
15	16QAM	1	37		22.20			
15	16QAM	1	74		22.20		23	0.5
15	16QAM	36	0		21.97			
15	16QAM	36	25		21.86			
15	16QAM	36	50		21.61		23	0.5
15	16QAM	75	0		21.99			
15	16QAM	1	0		21.72			
15	16QAM	1	37		21.77		22	1.5
15	16QAM	1	74		21.61			
15	16QAM	36	0		20.73			
15	16QAM	36	25		20.81		23.50	0
15	16QAM	36	50		20.79			
15	16QAM	75	0		20.76			
Channel								
Frequency (MHz)								
5	QPSK	1	0	21.96	21.91	21.96	23.5	0
5	QPSK	1	25	22.02	22.11	22.02		
5	QPSK	1	49	21.83	21.94	21.83		
5	QPSK	25	0	22.03	22.01	22.03	23.5	0
5	QPSK	25	12	22.06	21.95	22.06		
5	QPSK	25	25	22.10	22.04	22.02		
5	QPSK	50	0	22.09	21.98	22.09	23.5	0
5	16QAM	1	0	22.09	22.16	22.09		
5	16QAM	1	25	22.11	22.13	22.15		
5	16QAM	1	49	22.06	22.15	22.17	23	0.5
5	16QAM	25	0	21.41	21.46	21.41		
5	16QAM	25	12	21.60	21.61	21.60		
5	16QAM	50	0	21.42	21.43	21.42	23	0.5
5	16QAM	1	0	21.56	21.70	21.56		
5	16QAM	1	25	21.69	21.63	21.65		
5	16QAM	1	49	21.65	21.60	21.65	22	1.5
5	16QAM	25	0	20.69	20.65	20.69		
5	16QAM	25	12	20.69	20.68	20.65		
5	16QAM	25	25	20.76	20.77	20.76	23.50	0
5	16QAM	50	0	20.76	20.64	20.76		
5	16QAM	50	0	20.69	20.70	20.69		
Channel								
Frequency (MHz)								
5	QPSK	1	0	21.00	21.66	21.40	23.5	0
5	QPSK	1	12	22.09	22.08	22.09		
5	QPSK	1	24	21.87	21.86	21.87		
5	QPSK	12	0	21.61	22.07	21.91	23.5	0
5	QPSK	12	7	22.06	22.02	22.06		
5	QPSK	12	13	22.04	21.98	22.04		
5	QPSK	25	0	22.08	22.01	22.08	23.5	0
5	16QAM	1	0	22.14	22.10	22.14		
5	16QAM	1	12	22.15	22.12	22.15		
5	16QAM	1	24	22.12	22.17	22.17	23	0.5
5	16QAM	12	0	21.54	21.54	21.54		
5	16QAM	12	7	21.42	21.55	21.62		
5	16QAM	12	13	21.42	21.43	21.47	23	0.5
5	16QAM	25	0	21.47	21.54	21.54		
5	16QAM	1	0	21.54	21.66	21.47		
5	16QAM	1	12	21.62	21.76	21.62	23	0.5
5	16QAM	1	24	21.63	21.61	21.63		
5	16QAM	12	0	20.66	20.65	20.66		
5	16QAM	12	7	20.68	20.60	20.65	22	1.5
5	16QAM	12	13	20.69	20.68	20.65		
5	16QAM	25	0	20.69	20.70	20.65		