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

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

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Accreditation No.: SCS 0108

Client Sporton

Certificate No: D3700V2-1008_Nov20

CALIBRATION CERTIFICATE

Object	D3700V2 - SN:1008
Calibration procedure(s)	QA CAL-22.v5 Calibration Procedure for SAR Validation Sources between 3-10 GHz
Calibration date:	November 25, 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	02-Nov-20 (No. DAE4-601_Nov20)	Nov-21

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-21

	Name	Function	Signature
Calibrated by:	Jeffrey Katzman	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: November 26, 2020

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) 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
b) 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
c) 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
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) 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	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	3700 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	37.7	3.12 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	38.4 ± 6 %	3.09 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	6.72 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**67.6 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.43 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**24.4 W/kg ± 19.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	49.2 Ω - 7.1 jΩ
Return Loss	- 22.9 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.138 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: 25.11.2020

Test Laboratory: SPEAG, Zurich, Switzerland

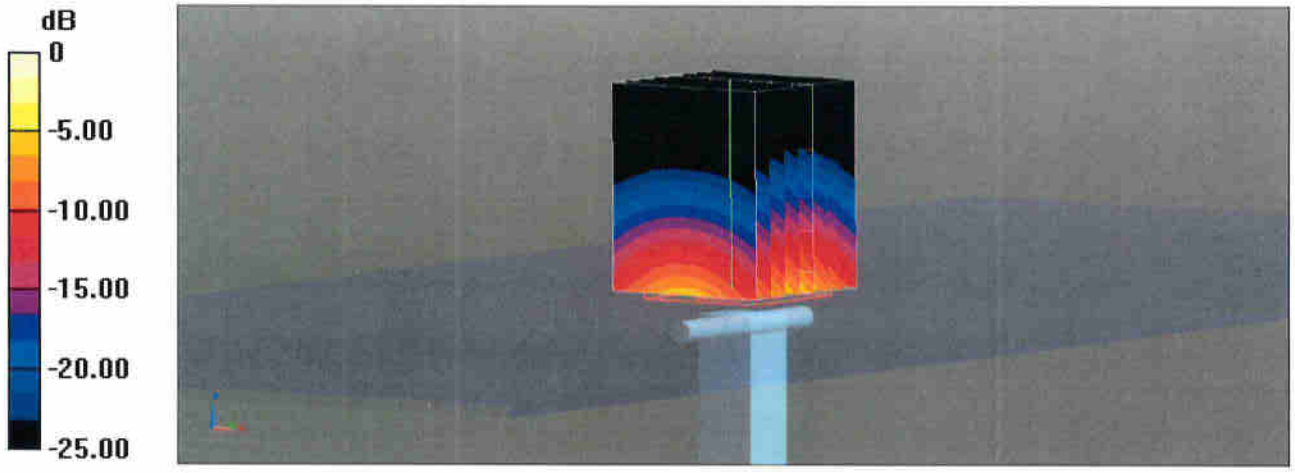
DUT: Dipole 3700 MHz; Type: D3700V2; Serial: D3700V2 - SN:1008

Communication System: UID 0 - CW; Frequency: 3700 MHz
Medium parameters used: f = 3700 MHz; σ = 3.09 S/m; ε_r = 38.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

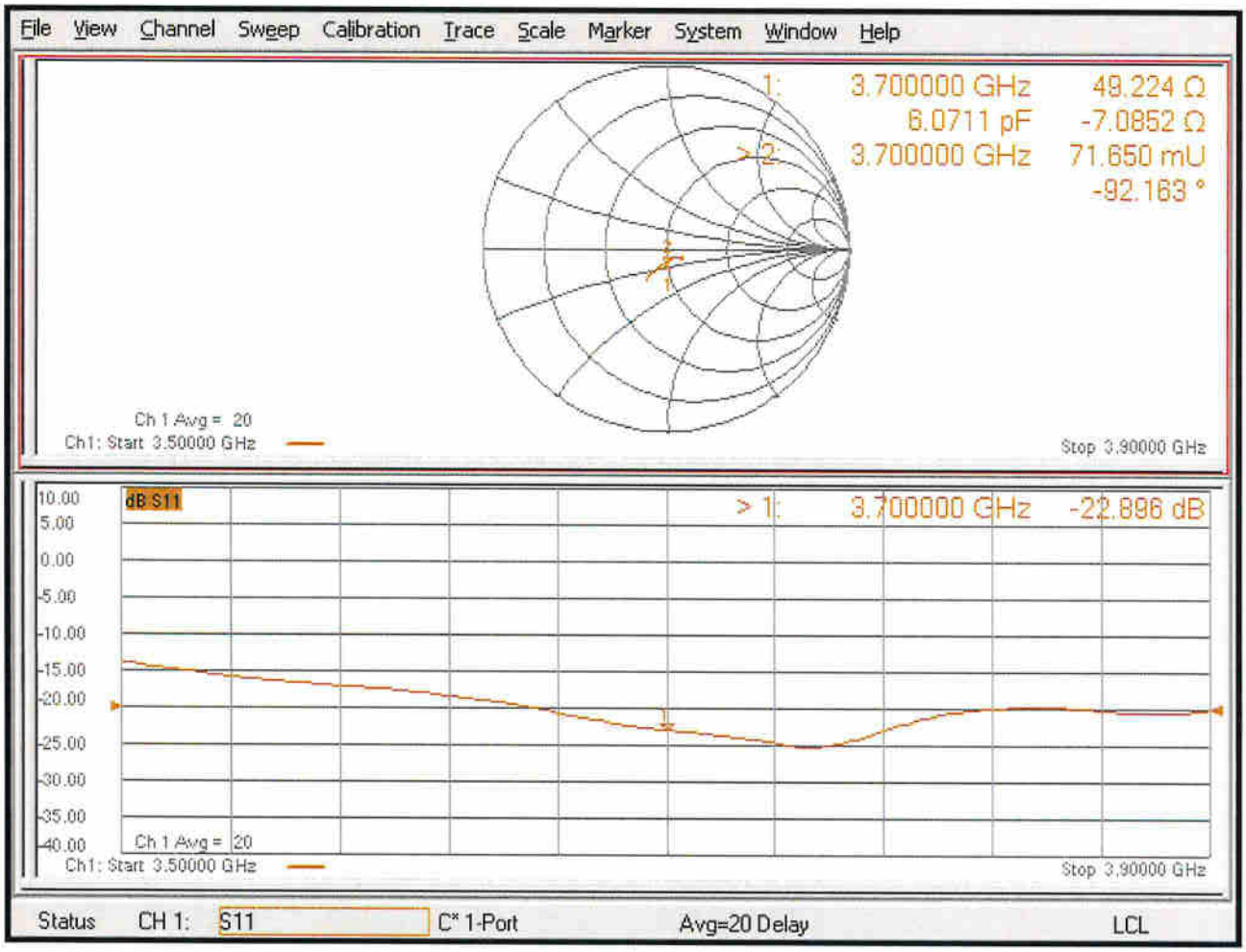
- Probe: EX3DV4 - SN3503; ConvF(7.73, 7.73, 7.73) @ 3700 MHz; Calibrated: 31.12.2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 02.11.2020
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Dipole Calibration for Head Tissue/Pin=100 mW, d=10mm, f=3700MHz/Zoom Scan, dist=1.4mm (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 70.87 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 19.0 W/kg
SAR(1 g) = 6.72 W/kg; SAR(10 g) = 2.43 W/kg
Smallest distance from peaks to all points 3 dB below = 8 mm
Ratio of SAR at M2 to SAR at M1 = 73.5%
Maximum value of SAR (measured) = 13.2 W/kg



0 dB = 13.2 W/kg = 11.21 dBW/kg

Impedance Measurement Plot for Head TSL



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Accreditation No.: SCS 0108

Client Sporton

Certificate No: D3900V2-1022_Jul19

CALIBRATION CERTIFICATE

Object	D3900V2 - SN:1022
Calibration procedure(s)	QA CAL-22.v4 Calibration Procedure for SAR Validation Sources between 3-6 GHz
Calibration date:	July 11, 2019

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	03-Apr-19 (No. 217-02892/02893)	Apr-20
Power sensor NRP-Z91	SN: 103244	03-Apr-19 (No. 217-02892)	Apr-20
Power sensor NRP-Z91	SN: 103245	03-Apr-19 (No. 217-02893)	Apr-20
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-19 (No. 217-02894)	Apr-20
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-19 (No. 217-02895)	Apr-20
Reference Probe EX3DV4	SN: 3503	25-Mar-19 (No. EX3-3503_Mar19)	Mar-20
DAE4	SN: 601	30-Apr-19 (No. DAE4-601_Apr19)	Apr-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-18)	In house check: Oct-19

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

Issued: July 11, 2019

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) 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
b) 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
c) 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
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) 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	V52.10.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	3900 MHz ± 1 MHz 4100 MHz ± 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 ± 0.2) °C	37.2 ± 6 %	3.23 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 3900 MHz

SAR averaged over 1 cm³ (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	**70.5 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.46 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**24.6 W/kg ± 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 ± 0.2) °C	37.0 ± 6 %	3.41 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 4100 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	6.64 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**66.6 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.32 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**23.2 W/kg ± 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	47.2 Ω - 4.1 jΩ
Return Loss	- 25.9 dB

Antenna Parameters with Head TSL at 4100 MHz

Impedance, transformed to feed point	57.0 Ω + 0.7 jΩ
Return Loss	- 23.6 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.101 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

Date: 11.07.2019

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 3900 MHz; Type: D3900V2; Serial: D3900V2 - SN:1022

Communication System: UID 0 - CW; Frequency: 3900 MHz, Frequency: 4100 MHz
Medium parameters used: f = 3900 MHz; σ = 3.23 S/m; ε_r = 37.2; ρ = 1000 kg/m^3 ,
Medium parameters used: f = 4100 MHz; σ = 3.41 S/m; ε_r = 37; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(7.25, 7.25, 7.25) @ 3900 MHz, ConvF(7.05, 7.05, 7.05) @ 4100 MHz; Calibrated: 25.03.2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.04.2019
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.2(1504); SEMCAD X 14.6.12(7470)

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

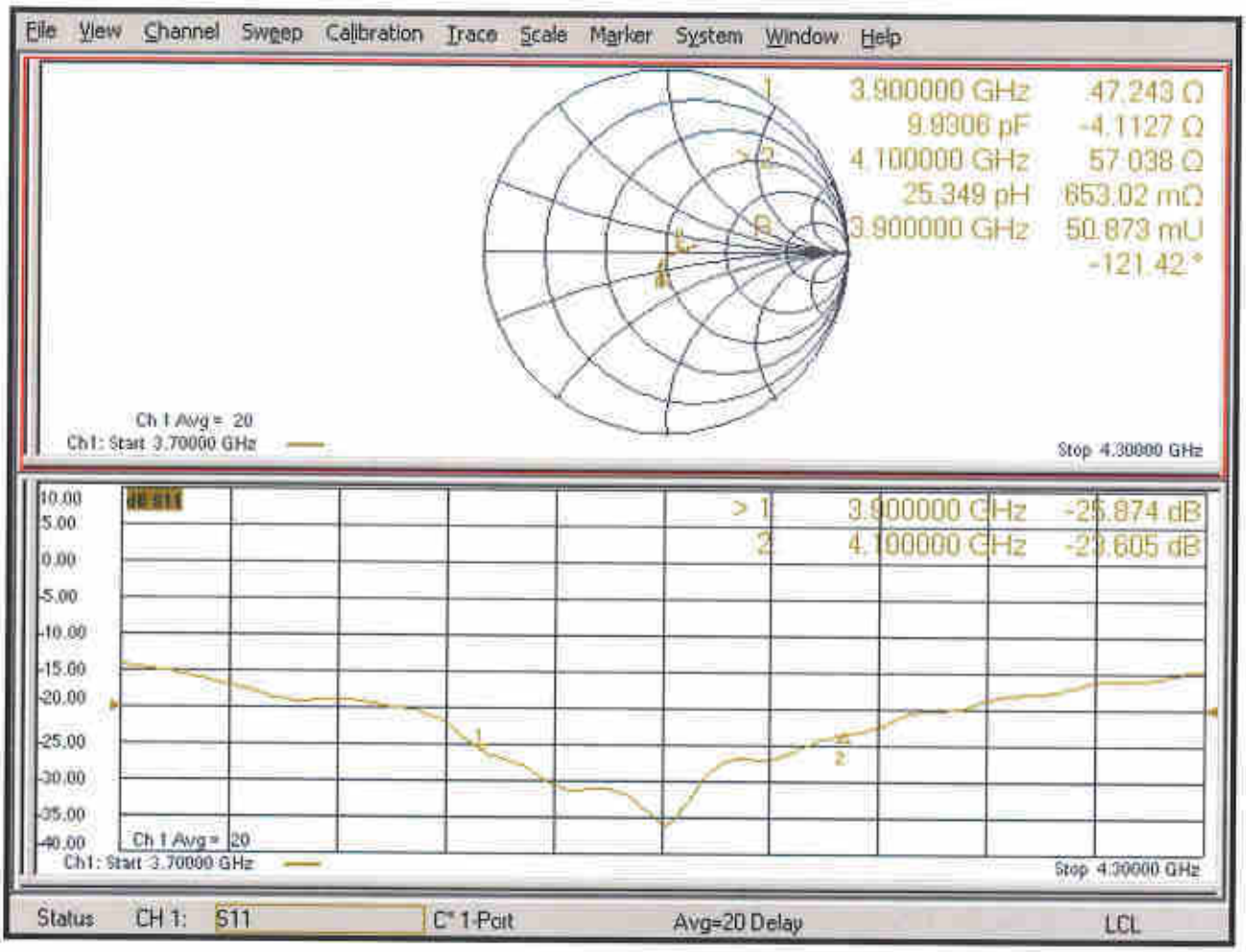
Reference Value = 73.25 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 20.0 W/kg
SAR(1 g) = 7.03 W/kg; SAR(10 g) = 2.46 W/kg
Maximum value of SAR (measured) = 13.7 W/kg

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 = 69.96 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 19.0 W/kg
SAR(1 g) = 6.64 W/kg; SAR(10 g) = 2.32 W/kg
Maximum value of SAR (measured) = 13.2 W/kg

0 dB = 13.7 W/kg = 11.37 dBW/kg

Impedance Measurement Plot for Head TSL



D3900V2, Serial No. 1022 Extended Dipole Calibrations

Referring to KDB 865664 D01 v01r02, if dipoles are verified in return loss (<-20dB, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

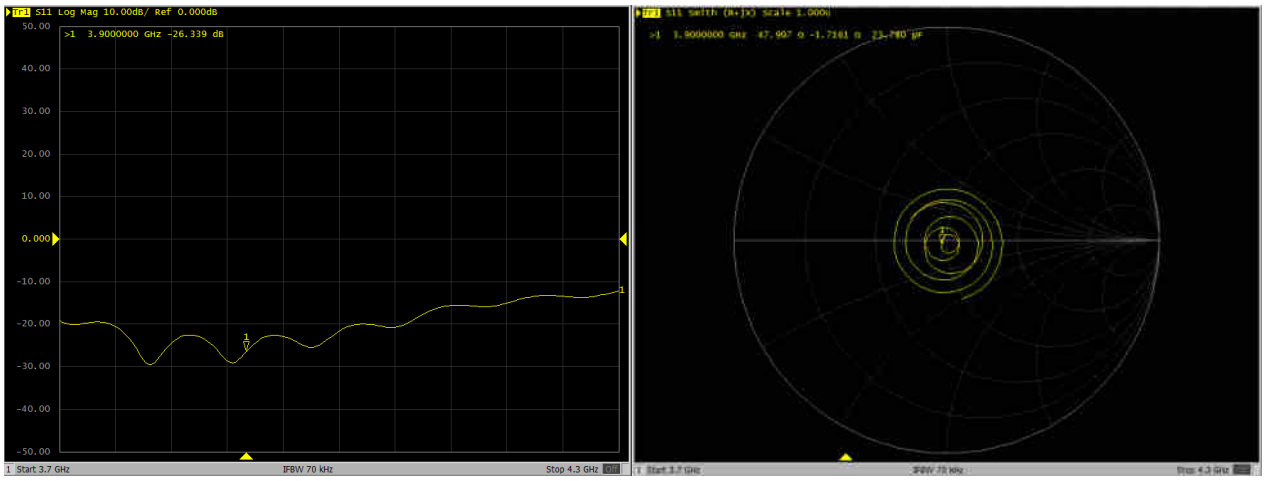
D3900V2 – serial no. 1022						
	3900 Head					
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2019.7.11	-25.9		47.2		-4.1	
2020.7.7	-26.3	-1.5	47.9	0.7	-1.7	2.4
D3900V2 – serial no. 1022						
	4100 Head					
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2019.7.11	-23.6		57.0		0.7	
2020.7.7	-23.3	1.3	58.2	1.2	-1.1	-1.8

<Justification of the extended calibration>

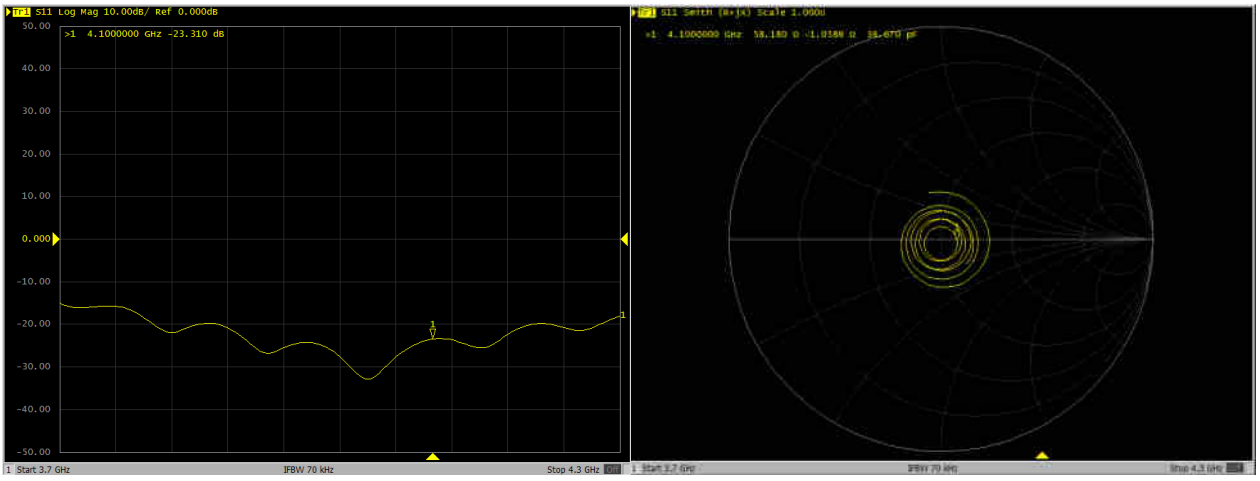
The return loss is < -20dB, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

Dipole Verification Data> D3900V2, serial no. 1022

3900MHz - Head



4100MHz - Head



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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: D5GHzV2-1113_Sep19

CALIBRATION CERTIFICATE

Object	D5GHzV2 - SN:1113
Calibration procedure(s)	QA CAL-22.v4 Calibration Procedure for SAR Validation Sources between 3-6 GHz
Calibration date:	September 24, 2019

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	03-Apr-19 (No. 217-02892/02893)	Apr-20
Power sensor NRP-Z91	SN: 103244	03-Apr-19 (No. 217-02892)	Apr-20
Power sensor NRP-Z91	SN: 103245	03-Apr-19 (No. 217-02893)	Apr-20
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-19 (No. 217-02894)	Apr-20
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-19 (No. 217-02895)	Apr-20
Reference Probe EX3DV4	SN: 3503	25-Mar-19 (No. EX3-3503_Mar19)	Mar-20
DAE4	SN: 601	30-Apr-19 (No. DAE4-601_Apr19)	Apr-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-18)	In house check: Oct-19

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

Issued: September 25, 2019

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) 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
b) 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
c) 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
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) 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	V52.10.2
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 ± 1 MHz 5600 MHz ± 1 MHz 5750 MHz ± 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 ± 0.2) °C	35.1 ± 6 %	4.53 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5250 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.09 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**80.5 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (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 ± 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 ± 0.2) °C	34.6 ± 6 %	4.88 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5600 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.40 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**83.4 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.40 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**23.8 W/kg ± 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	34.4 ± 6 %	5.03 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5750 MHz

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.06 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**80.0 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.30 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**22.8 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	51.7 Ω - 6.2 jΩ
Return Loss	- 24.0 dB

Antenna Parameters with Head TSL at 5600 MHz

Impedance, transformed to feed point	56.0 Ω - 2.7 jΩ
Return Loss	- 24.1 dB

Antenna Parameters with Head TSL at 5750 MHz

Impedance, transformed to feed point	56.7 Ω - 1.0 jΩ
Return Loss	- 23.9 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.195 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: 24.09.2019

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1113

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz
Medium parameters used: f = 5250 MHz; σ = 4.53 S/m; ε_r = 35.1; ρ = 1000 kg/m^3 ,
Medium parameters used: f = 5600 MHz; σ = 4.88 S/m; ε_r = 34.6; ρ = 1000 kg/m^3 ,
Medium parameters used: f = 5750 MHz; σ = 5.03 S/m; ε_r = 34.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.4, 5.4, 5.4) @ 5250 MHz, ConvF(4.95, 4.95, 4.95) @ 5600 MHz, ConvF(4.98, 4.98, 4.98) @ 5750 MHz; Calibrated: 25.03.2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.04.2019
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.2(1504); SEMCAD X 14.6.12(7470)

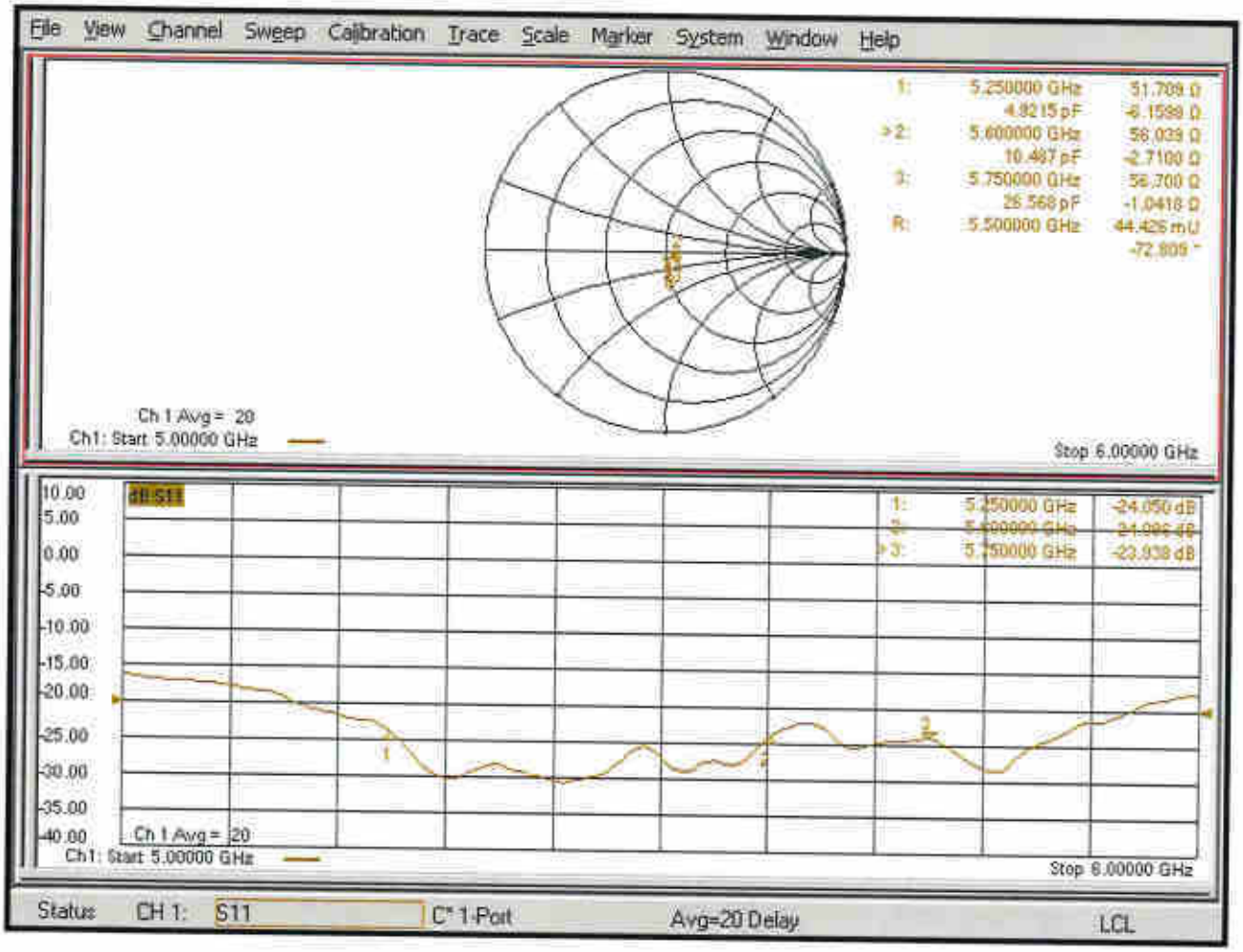
Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 78.54 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 27.9 W/kg
SAR(1 g) = 8.09 W/kg; SAR(10 g) = 2.33 W/kg
Maximum value of SAR (measured) = 18.1 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 = 78.00 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 31.1 W/kg
SAR(1 g) = 8.40 W/kg; SAR(10 g) = 2.40 W/kg
Maximum value of SAR (measured) = 19.4 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 = 75.13 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 31.8 W/kg
SAR(1 g) = 8.06 W/kg; SAR(10 g) = 2.30 W/kg
Maximum value of SAR (measured) = 19.0 W/kg

0 dB = 18.1 W/kg = 12.58 dBW/kg

Impedance Measurement Plot for Head TSL



D5GHzV2, Serial No. 1113 Extended Dipole Calibrations

Referring to KDB 865664 D01 v01r02, if dipoles are verified in return loss (<-20dB, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

D5GHzV2 – serial no. 1113						
5250 Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2019.9.24	-24.05		51.71		-6.16	
2020.9.23	-24.80	-0.03	50.56	1.15	-5.94	-0.22

D5GHzV2 – serial no. 1113						
5600 Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2019.9.24	-24.09		56.04		-2.71	
2020.9.23	-23.95	0.01	57.70	-1.66	-2.85	0.14

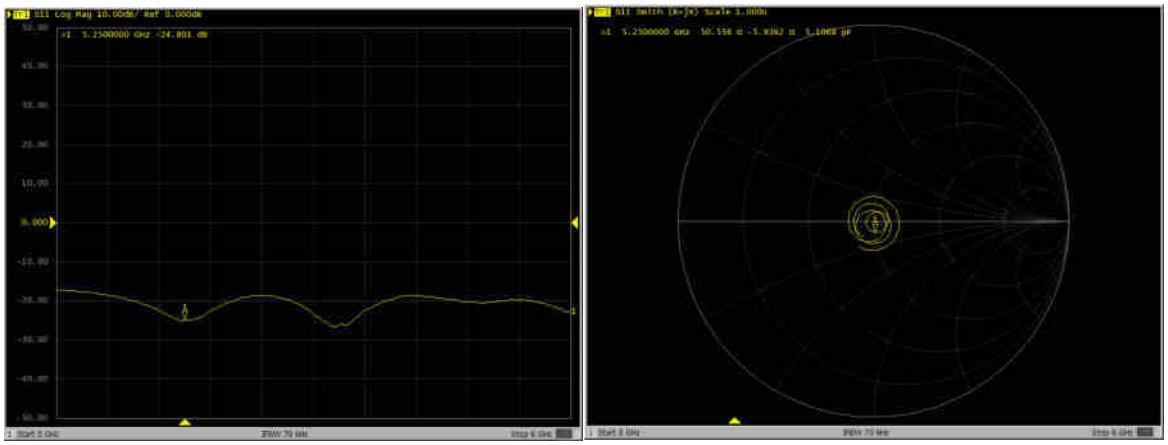
D5GHzV2 – serial no. 1113						
5750 Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2019.9.24	-23.94		56.70		-1.04	
2020.9.23	-21.92	0.08	58.56	-1.86	-1.58	0.54

<Justification of the extended calibration>

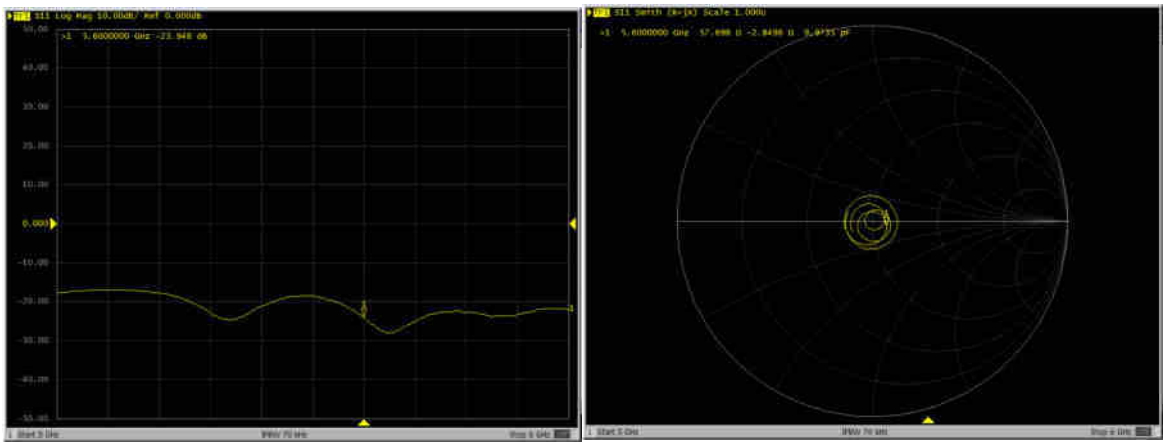
The return loss is < -20dB, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

Dipole Verification Data> D3700V2, serial no. 1008

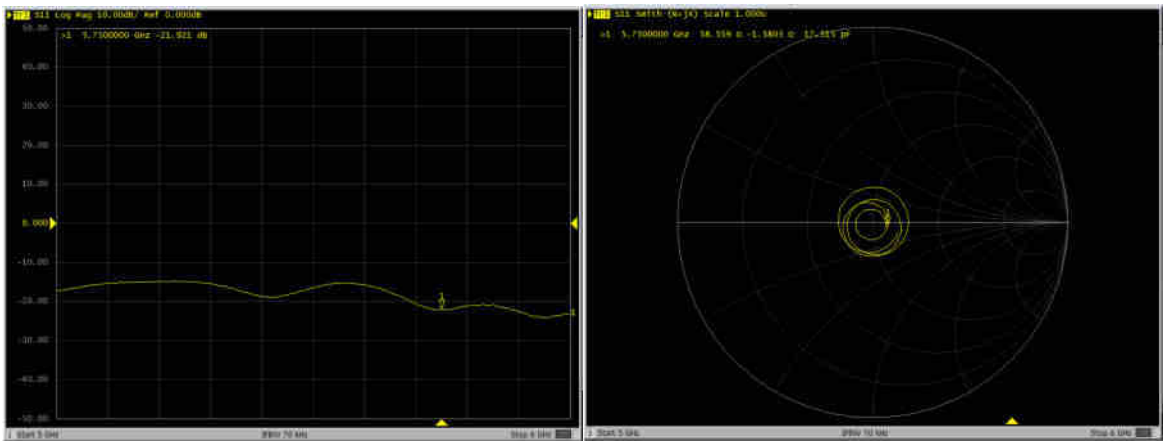
5250MHz – Head



5600MHz – Head



5750MHz – Head



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S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
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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: DAE4-1358_Apr20

CALIBRATION CERTIFICATE

Object	DAE4 - SD 000 D04 BN - SN: 1358
Calibration procedure(s)	QA CAL-06.v30 Calibration procedure for the data acquisition electronics (DAE)
Calibration date:	April 28, 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
Keithley Multimeter Type 2001	SN: 0810278	03-Sep-19 (No:25949)	Sep-20
Secondary Standards	**ID #**	**Check Date (in house)**	**Scheduled Check**
Auto DAE Calibration Unit	SE UWS 053 AA 1001	09-Jan-20 (in house check)	In house check: Jan-21
Calibrator Box V2.1	SE UMS 006 AA 1002	09-Jan-20 (in house check)	In house check: Jan-21

	Name	Function	Signature
Calibrated by:	Eric Hainfeld	Laboratory Technician	
Approved by:	Sven Kühn	Deputy Manager	I.V.

Issued: April 29, 2020

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 following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
  - *DC Voltage Measurement Linearity:* Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
  - *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
  - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
  - *AD Converter Values with inputs shorted:* Values on the internal AD converter corresponding to zero input voltage
  - *Input Offset Measurement*: Output voltage and statistical results over a large number of zero voltage measurements.
  - *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
  - *Power consumption:* Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range:	1LSB =	6.1μV ,	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	403.411 ± 0.02% (k=2)	403.452 ± 0.02% (k=2)	403.463 ± 0.02% (k=2)
Low Range	3.96158 ± 1.50% (k=2)	3.98747 ± 1.50% (k=2)	3.99174 ± 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	113.5 ° ± 1 °

Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	200024.85	-8.32	-0.00
Channel X	+ Input	20005.36	0.39	0.00
Channel X	- Input	-20003.50	2.72	-0.01
Channel Y	+ Input	200030.06	-2.90	-0.00
Channel Y	+ Input	20004.14	-0.70	-0.00
Channel Y	- Input	-20008.00	-1.63	0.01
Channel Z	+ Input	200034.52	1.89	0.00
Channel Z	+ Input	20005.02	0.16	0.00
Channel Z	- Input	-20007.28	-0.87	0.00

Low Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	2000.94	0.03	0.00
Channel X	+ Input	200.94	0.01	0.01
Channel X	- Input	-198.93	0.16	-0.08
Channel Y	+ Input	2000.58	-0.17	-0.01
Channel Y	+ Input	199.97	-0.81	-0.40
Channel Y	- Input	-200.24	-0.99	0.50
Channel Z	+ Input	2000.83	0.21	0.01
Channel Z	+ Input	199.97	-0.67	-0.34
Channel Z	- Input	-199.90	-0.63	0.32

2. Common mode sensitivity

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

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	23.26	21.16
	- 200	-21.29	-22.70
Channel Y	200	-27.83	-28.04
	- 200	26.48	26.49
Channel Z	200	-11.47	-11.06
	- 200	9.80	9.70

3. Channel separation

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

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	1.92	-3.40
Channel Y	200	8.27	-	3.32
Channel Z	200	9.47	5.42	-

4. AD-Converter Values with inputs shorted

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

	High Range (LSB)	Low Range (LSB)
Channel X	15579	16774
Channel Y	16044	14871
Channel Z	16074	16518

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec
Input 10MΩ

	Average (μV)	min. Offset (μV)	max. Offset (μV)	Std. Deviation (μV)
Channel X	0.87	-0.93	1.98	0.46
Channel Y	-0.62	-1.71	0.15	0.38
Channel Z	-0.46	-1.45	0.52	0.39

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	–0.01	-8	-9

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

Accreditation No.: SCS 0108

Client **Sporton**

Certificate No: DAE4-1303_Jul20

CALIBRATION CERTIFICATE

Object	DAE4 - SD 000 D04 BO - SN: 1303
Calibration procedure(s)	QA CAL-06.v30 Calibration procedure for the data acquisition electronics (DAE)
Calibration date:	July 07, 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
Keithley Multimeter Type 2001	SN: 0810278	03-Sep-19 (No:25949)	Sep-20
Secondary Standards	**ID #**	**Check Date (in house)**	**Scheduled Check**
Auto DAE Calibration Unit	SE UWS 053 AA 1001	09-Jan-20 (in house check)	In house check: Jan-21
Calibrator Box V2.1	SE UMS 006 AA 1002	09-Jan-20 (in house check)	In house check: Jan-21

	Name	Function	Signature
Calibrated by:	Eric Hainfeld	Laboratory Technician	
Approved by:	Sven Kühn	Deputy Manager	

Issued: July 7, 2020

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 following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
  - *DC Voltage Measurement Linearity:* Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
  - *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
  - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
  - *AD Converter Values with inputs shorted:* Values on the internal AD converter corresponding to zero input voltage
  - *Input Offset Measurement*: Output voltage and statistical results over a large number of zero voltage measurements.
  - *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
  - *Power consumption:* Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range:	1LSB =	6.1μV ,	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	405.621 ± 0.02% (k=2)	405.288 ± 0.02% (k=2)	405.521 ± 0.02% (k=2)
Low Range	3.95970 ± 1.50% (k=2)	4.00177 ± 1.50% (k=2)	4.00559 ± 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	36.0 ° ± 1 °

Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	200028.13	-4.41	-0.00
Channel X	+ Input	20005.33	0.15	0.00
Channel X	- Input	-20003.94	1.66	-0.01
Channel Y	+ Input	200034.95	3.01	0.00
Channel Y	+ Input	20004.62	-0.42	-0.00
Channel Y	- Input	-20006.63	-0.88	0.00
Channel Z	+ Input	200029.72	-2.88	-0.00
Channel Z	+ Input	20001.10	-3.93	-0.02
Channel Z	- Input	-20007.10	-1.35	0.01

Low Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	2000.83	-0.06	-0.00
Channel X	+ Input	201.48	0.52	0.26
Channel X	- Input	-198.72	0.43	-0.22
Channel Y	+ Input	2000.87	0.12	0.01
Channel Y	+ Input	199.93	-0.88	-0.44
Channel Y	- Input	-199.89	-0.62	0.31
Channel Z	+ Input	2000.93	0.20	0.01
Channel Z	+ Input	200.16	-0.59	-0.30
Channel Z	- Input	-199.91	-0.57	0.28

2. Common mode sensitivity

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

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	-2.91	-4.53
	- 200	5.99	4.24
Channel Y	200	1.24	1.13
	- 200	-2.94	-3.20
Channel Z	200	-1.62	-1.40
	- 200	-0.52	-0.26

3. Channel separation

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

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	0.82	-4.08
Channel Y	200	7.63	-	2.53
Channel Z	200	10.14	5.17	-

4. AD-Converter Values with inputs shorted

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

	High Range (LSB)	Low Range (LSB)
Channel X	16198	15926
Channel Y	15904	15641
Channel Z	16229	15177

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec
Input 10MΩ

	Average (μV)	min. Offset (μV)	max. Offset (μV)	Std. Deviation (μV)
Channel X	0.70	-0.97	2.67	0.58
Channel Y	-0.62	-1.86	0.89	0.42
Channel Z	-0.13	-1.67	0.85	0.41

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

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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: DAE4-1338_Nov20

CALIBRATION CERTIFICATE

Object	DAE4 - SD 000 D04 BM - SN: 1338
Calibration procedure(s)	QA CAL-06.v30 Calibration procedure for the data acquisition electronics (DAE)
Calibration date:	November 27, 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
Keithley Multimeter Type 2001	SN: 0810278	07-Sep-20 (No:28647)	Sep-21
Secondary Standards	**ID #**	**Check Date (in house)**	**Scheduled Check**
Auto DAE Calibration Unit	SE UWS 053 AA 1001	09-Jan-20 (in house check)	In house check: Jan-21
Calibrator Box V2.1	SE UMS 006 AA 1002	09-Jan-20 (in house check)	In house check: Jan-21

	Name	Function	Signature
Calibrated by:	Adrian Gehring	Laboratory Technician	
Approved by:	Sven Kühn	Deputy Manager	

Issued: November 27, 2020

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 following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
  - *DC Voltage Measurement Linearity:* Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
  - *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
  - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
  - *AD Converter Values with inputs shorted:* Values on the internal AD converter corresponding to zero input voltage
  - *Input Offset Measurement*: Output voltage and statistical results over a large number of zero voltage measurements.
  - *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
  - *Power consumption:* Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range:	1LSB =	6.1μV ,	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	403.683 ± 0.02% (k=2)	404.259 ± 0.02% (k=2)	404.216 ± 0.02% (k=2)
Low Range	3.97329 ± 1.50% (k=2)	3.97760 ± 1.50% (k=2)	3.97480 ± 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	240.0 ° ± 1 °

Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	199991.64	-0.32	-0.00
Channel X	+ Input	20002.84	1.10	0.01
Channel X	- Input	-20001.18	0.25	-0.00
Channel Y	+ Input	199992.25	0.36	0.00
Channel Y	+ Input	19999.51	-1.97	-0.01
Channel Y	- Input	-20003.41	-1.82	0.01
Channel Z	+ Input	199993.13	0.96	0.00
Channel Z	+ Input	20000.60	-0.92	-0.00
Channel Z	- Input	-20003.21	-1.57	0.01

Low Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	2001.46	0.54	0.03
Channel X	+ Input	201.63	0.29	0.14
Channel X	- Input	-198.25	0.29	-0.15
Channel Y	+ Input	2001.07	0.18	0.01
Channel Y	+ Input	200.68	-0.49	-0.24
Channel Y	- Input	-199.20	-0.52	0.26
Channel Z	+ Input	2000.41	-0.51	-0.03
Channel Z	+ Input	199.93	-1.28	-0.64
Channel Z	- Input	-199.77	-1.08	0.54

2. Common mode sensitivity

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

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	7.08	5.84
	- 200	-6.14	-7.41
Channel Y	200	-21.12	-21.17
	- 200	20.10	20.00
Channel Z	200	-3.05	-2.98
	- 200	0.35	0.59

3. Channel separation

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

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	3.84	-3.07
Channel Y	200	8.29	-	4.87
Channel Z	200	8.97	6.36	-

4. AD-Converter Values with inputs shorted

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

	High Range (LSB)	Low Range (LSB)
Channel X	16191	14008
Channel Y	16286	16249
Channel Z	16106	15261

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec
Input 10MΩ

	Average (μV)	min. Offset (μV)	max. Offset (μV)	Std. Deviation (μV)
Channel X	0.57	-0.12	1.34	0.31
Channel Y	-0.39	-0.99	0.23	0.27
Channel Z	-0.35	-1.05	0.40	0.28

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

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Accreditation No.: SCS 0108

Client Sporton

Certificate No: ES3-3293_Sep20

CALIBRATION CERTIFICATE

Object: ES3DV3 - SN:3293

Calibration procedure(s): QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v7
Calibration procedure for dosimetric E-field probes

Calibration date: September 23, 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: CC2552 (20x)	31-Mar-20 (No. 217-03106)	Apr-21
DAE4	SN: 660	27-Dec-19 (No. DAE4-660_Dec19)	Dec-20
Reference Probe ES3DV2	SN: 3013	31-Dec-19 (No. ES3-3013_Dec19)	Dec-20
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-19)	In house check: Oct-20

	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: September 29, 2020

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

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,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., ϑ = 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:

a) 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
b) 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
c) 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
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,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*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *PAR:* PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,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 ≤ 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 *NORMx,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 *NORMx* (no uncertainty required).

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3293

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	1.10	0.90	0.73	± 10.1 %
DCP (mV)[B]	102.3	109.5	106.9	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Max dev.	Unc[E] (k=2)
0	CW	X	0.0	0.0	1.0	0.00	199.2	± 3.5 %	± 4.7 %
		Y	0.0	0.0	1.0		179.4		
		Z	0.0	0.0	1.0		183.6		

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 Page 5).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3293

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	-5.0
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	4 mm
Probe Tip to Sensor X Calibration Point	2 mm
Probe Tip to Sensor Y Calibration Point	2 mm
Probe Tip to Sensor Z Calibration Point	2 mm
Recommended Measurement Distance from Surface	3 mm

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

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3293

Calibration Parameter Determined in Head Tissue Simulating Media

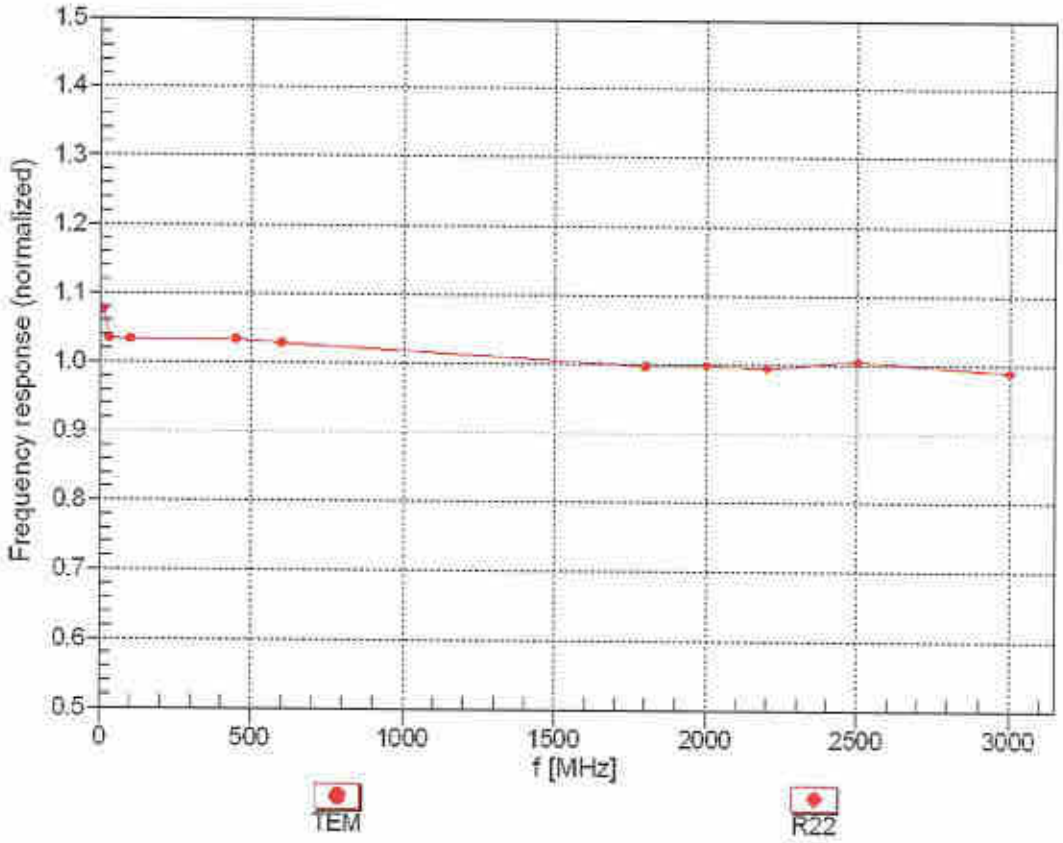
f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
750	41.9	0.89	6.51	6.51	6.51	0.80	1.18	± 12.0 %
835	41.5	0.90	6.43	6.43	6.43	0.78	1.16	± 12.0 %
900	41.5	0.97	6.24	6.24	6.24	0.80	1.18	± 12.0 %
1750	40.1	1.37	5.37	5.37	5.37	0.63	1.28	± 12.0 %
1900	40.0	1.40	5.14	5.14	5.14	0.50	1.44	± 12.0 %
2000	40.0	1.40	5.11	5.11	5.11	0.72	1.25	± 12.0 %
2300	39.5	1.67	4.81	4.81	4.81	0.65	1.34	± 12.0 %
2450	39.2	1.80	4.51	4.51	4.51	0.57	1.50	± 12.0 %
2600	39.0	1.96	4.38	4.38	4.38	0.80	1.23	± 12.0 %

[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 below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. 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.

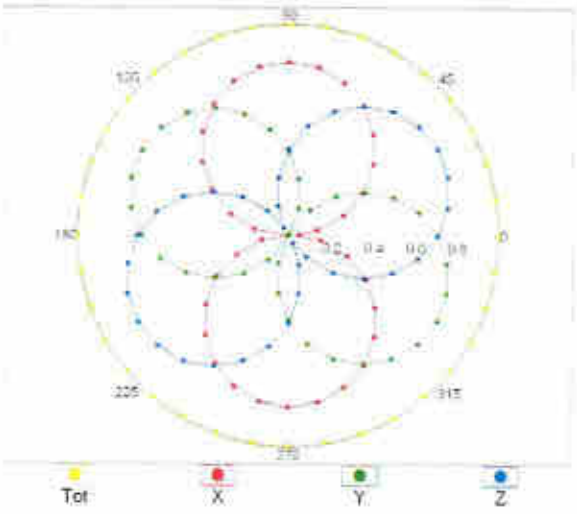
Frequency Response of E-Field
(TEM-Cell:ifi110 EXX, Waveguide: R22)



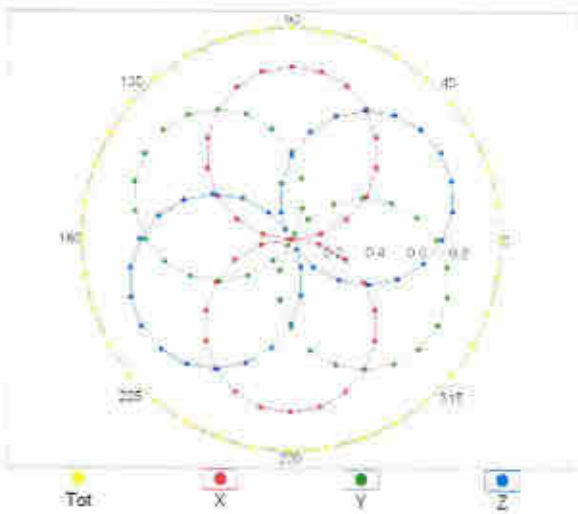
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

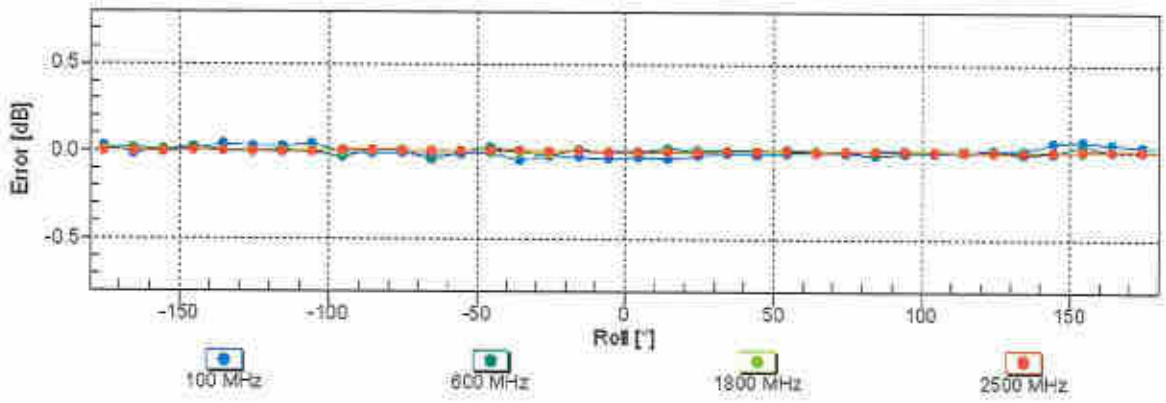
Receiving Pattern (ϕ), ϑ = 0°

f=600 MHz,TEM



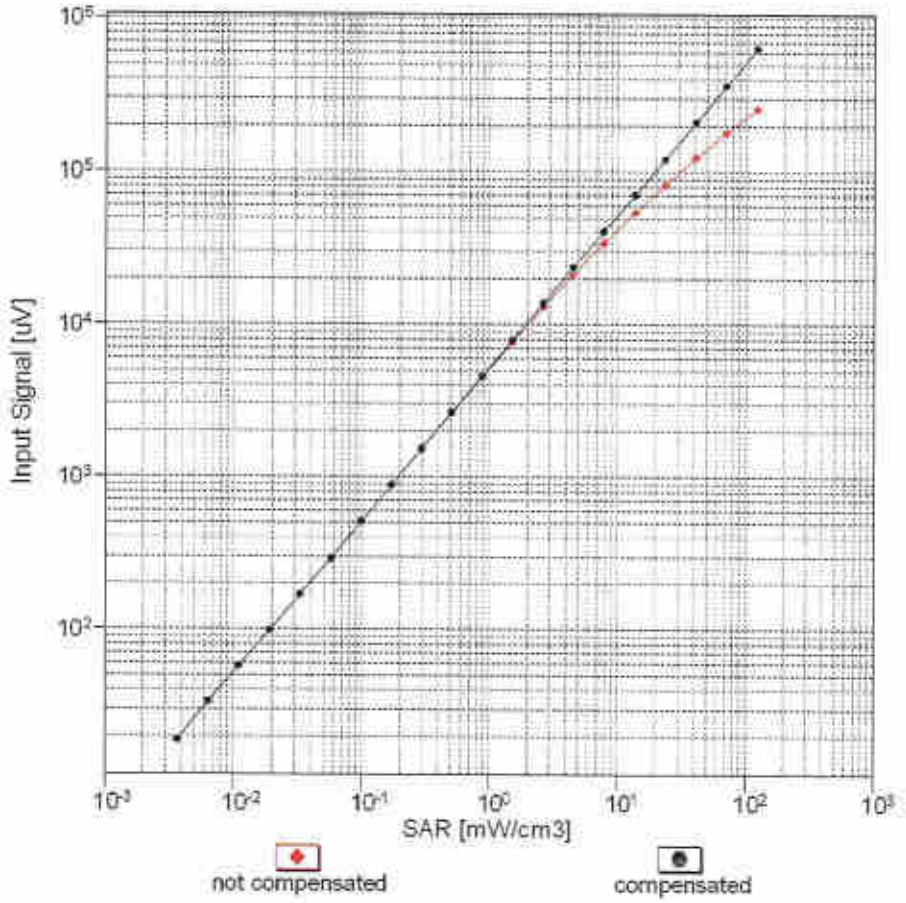
f=1800 MHz,R22

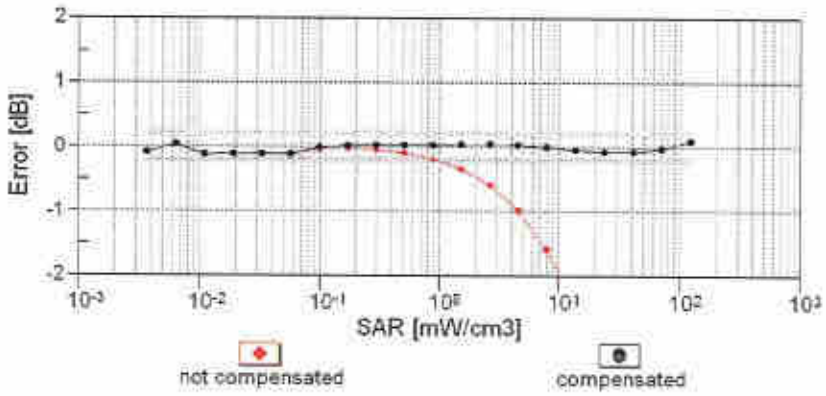




Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

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

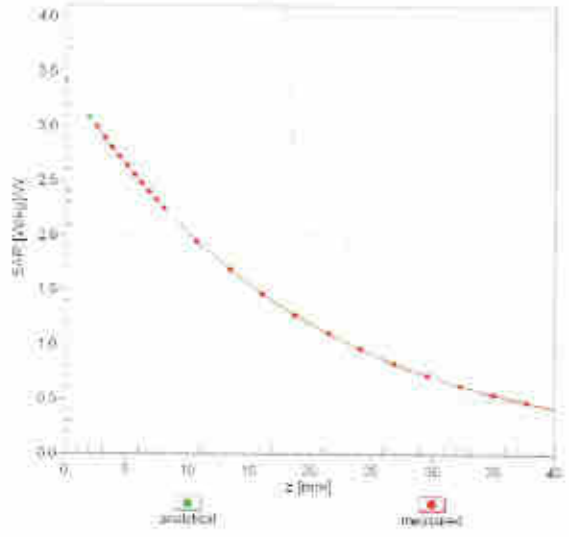




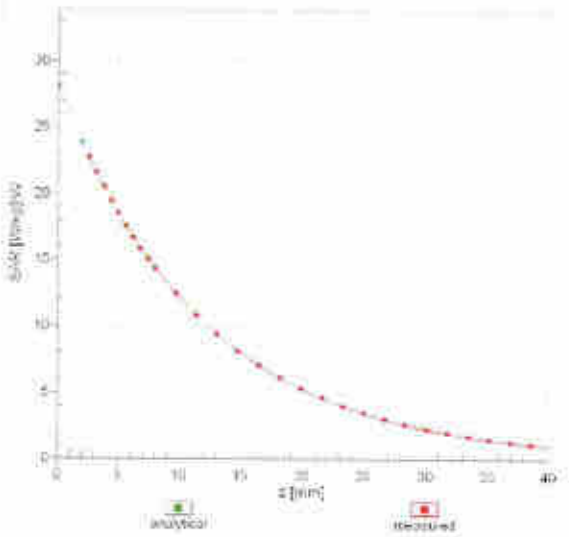
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment

f = 835 MHz.WGLS R9 (H_convF)

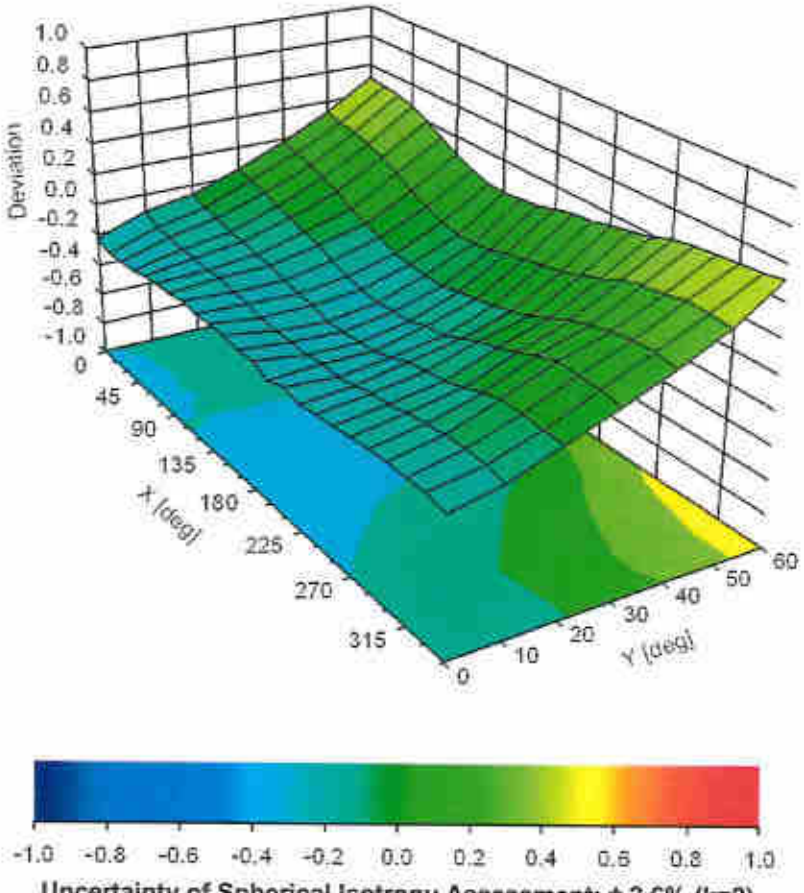


f = 1900 MHz.WGLS R22 (H_convF)



Deviation from Isotropy in Liquid

Error (ϕ, ϑ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

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Accreditation No.: SCS 0108

Client Sporton

Certificate No: EX3-3857_Sep20

CALIBRATION CERTIFICATE

Object: EX3DV4 - SN:3857

Calibration procedure(s): QA CAL-01.v9, QA CAL-14.v6, QA CAL-23.v5, QA CAL-25.v7
Calibration procedure for dosimetric E-field probes

Calibration date: September 25, 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: CC2552 (20x)	31-Mar-20 (No. 217-03106)	Apr-21
DAE4	SN: 660	27-Dec-19 (No. DAE4-660_Dec19)	Dec-20
Reference Probe ES3DV2	SN: 3013	31-Dec-19 (No. ES3-3013_Dec19)	Dec-20
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-19)	In house check: Oct-20

	Name	Function	Signature
Calibrated by:	Leif Klysner	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: September 30, 2020

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Accreditation No.: SCS 0108

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,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., ϑ = 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:

a) 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
b) 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
c) 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
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,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*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *PAR:* PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,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 ≤ 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 *NORMx,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 *NORMx* (no uncertainty required).

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3857

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	0.18	0.43	0.46	± 10.1 %
DCP (mV)[B]	99.3	100.5	102.2	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Max dev.	Unc[E] (k=2)
0	CW	X	0.0	0.0	1.0	0.00	182.0	± 3.0 %	± 4.7 %
		Y	0.0	0.0	1.0		178.6		
		Z	0.0	0.0	1.0		188.1		

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 Page 5).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3857

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	-118.9
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

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

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3857

Calibration Parameter Determined in Head Tissue Simulating Media

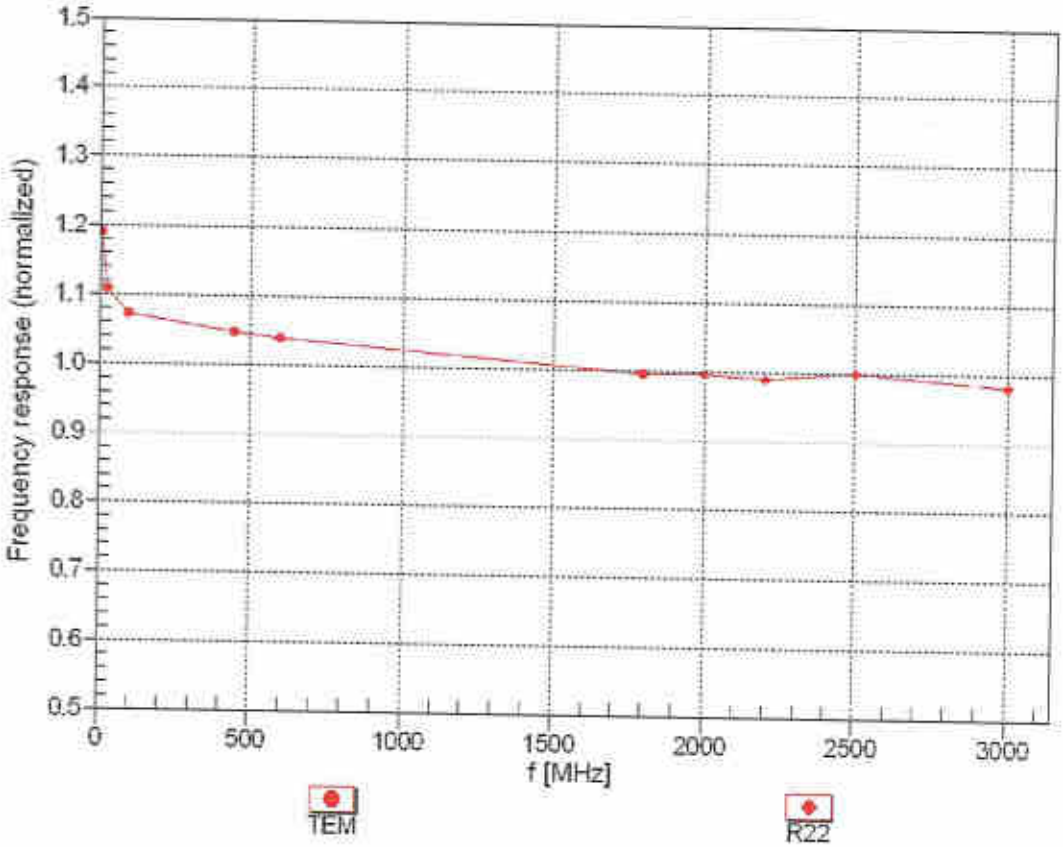
f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
750	41.9	0.89	9.50	9.50	9.50	0.32	0.99	± 12.0 %
835	41.5	0.90	9.18	9.18	9.18	0.45	0.80	± 12.0 %
900	41.5	0.97	9.10	9.10	9.10	0.47	0.80	± 12.0 %
1750	40.1	1.37	8.06	8.06	8.06	0.27	0.86	± 12.0 %
1900	40.0	1.40	7.81	7.81	7.81	0.37	0.86	± 12.0 %
2000	40.0	1.40	7.78	7.78	7.78	0.40	0.86	± 12.0 %
2300	39.5	1.67	7.56	7.56	7.56	0.31	0.92	± 12.0 %
2450	39.2	1.80	7.44	7.44	7.44	0.40	0.92	± 12.0 %
2600	39.0	1.96	7.19	7.19	7.19	0.37	0.92	± 12.0 %
3300	38.2	2.71	6.70	6.70	6.70	0.30	1.35	± 14.0 %
3500	37.9	2.91	6.67	6.67	6.67	0.30	1.35	± 14.0 %
3700	37.7	3.12	6.61	6.61	6.61	0.30	1.35	± 14.0 %
3900	37.5	3.32	6.58	6.58	6.58	0.40	1.50	± 14.0 %
4100	37.2	3.53	6.08	6.08	6.08	0.35	1.50	± 14.0 %
4200	37.1	3.63	5.99	5.99	5.99	0.35	1.50	± 14.0 %
4400	36.9	3.84	5.93	5.93	5.93	0.35	1.70	± 14.0 %
4600	36.7	4.04	5.91	5.91	5.91	0.40	1.70	± 14.0 %
4800	36.4	4.25	5.76	5.76	5.76	0.40	1.80	± 14.0 %
4950	36.3	4.40	5.45	5.45	5.45	0.40	1.80	± 14.0 %
5250	35.9	4.71	5.04	5.04	5.04	0.40	1.80	± 14.0 %
5600	35.5	5.07	4.67	4.67	4.67	0.40	1.80	± 14.0 %
5750	35.4	5.22	4.93	4.93	4.93	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.

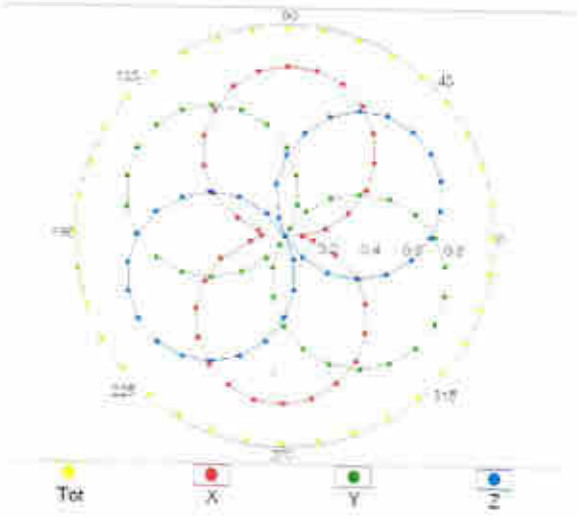
Frequency Response of E-Field
(TEM-Cell:ifi110 EXX, Waveguide: R22)



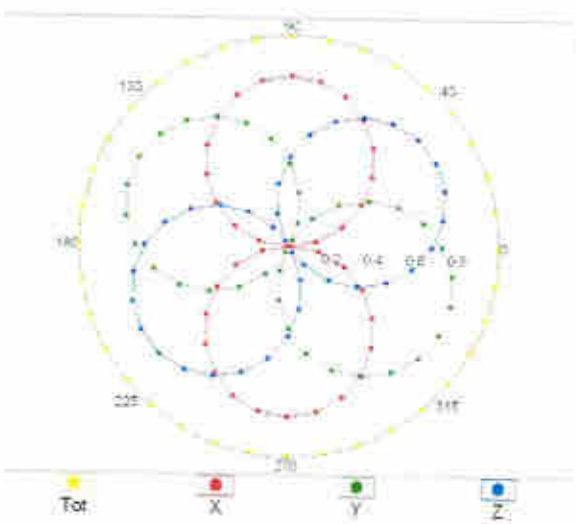
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

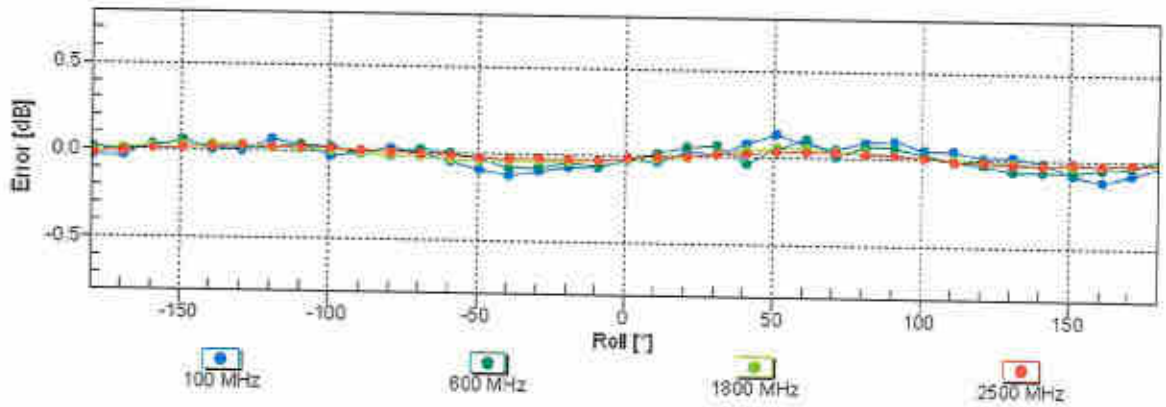
Receiving Pattern (ϕ), ϑ = 0°

f=600 MHz,TEM



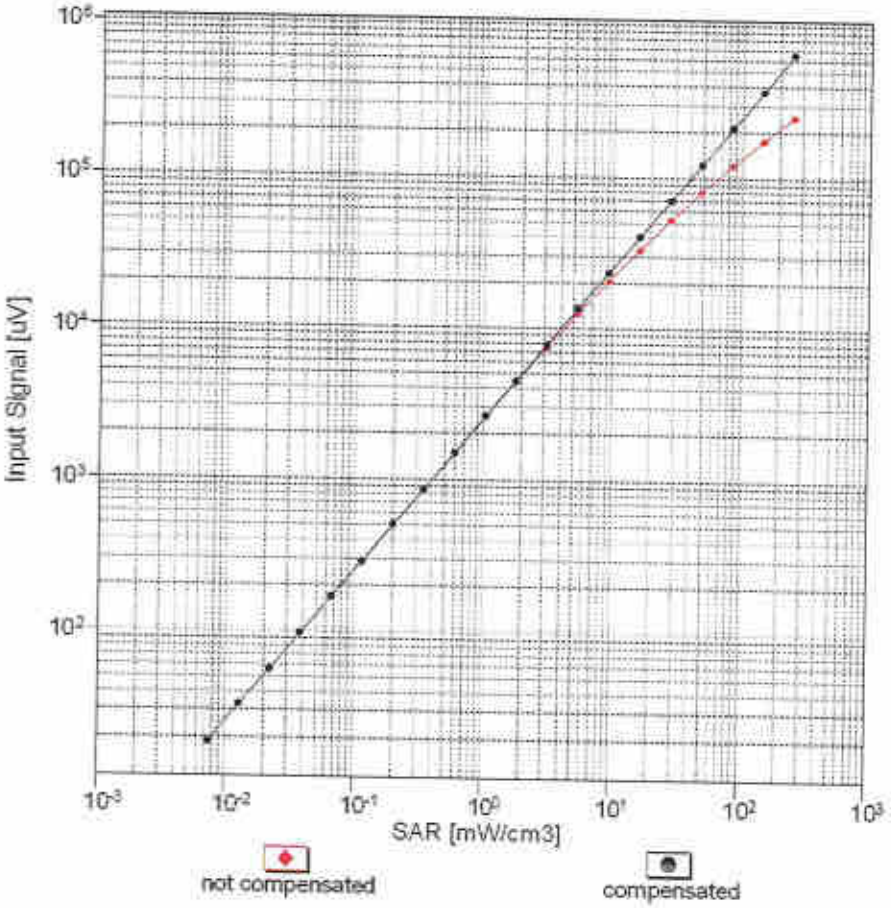
f=1800 MHz,R22

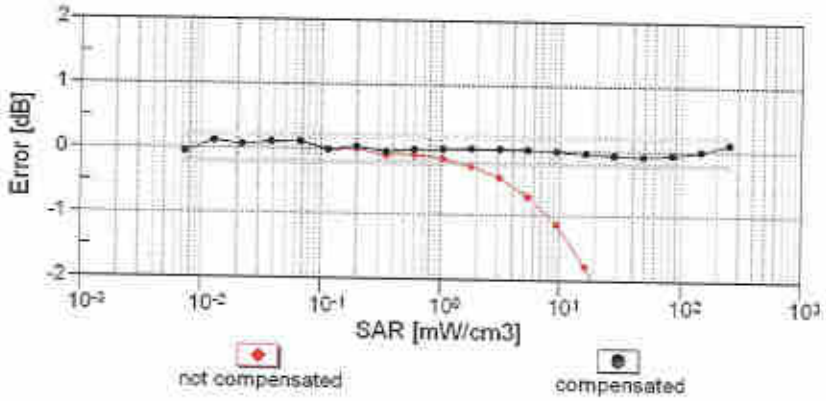




Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

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

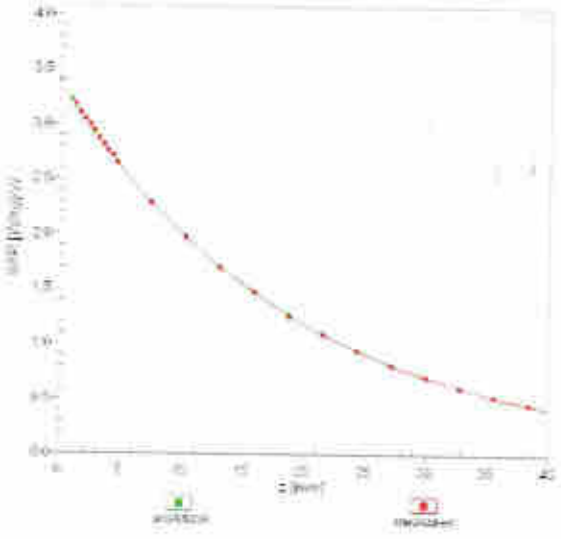




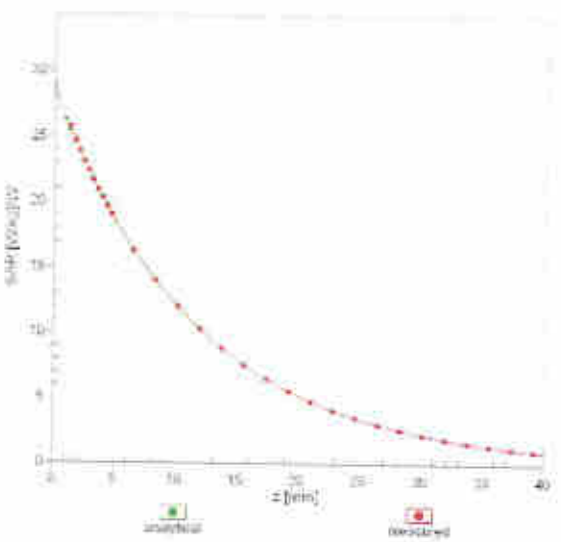
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment

f = 835 MHz,WGLS R9 (H_convF)

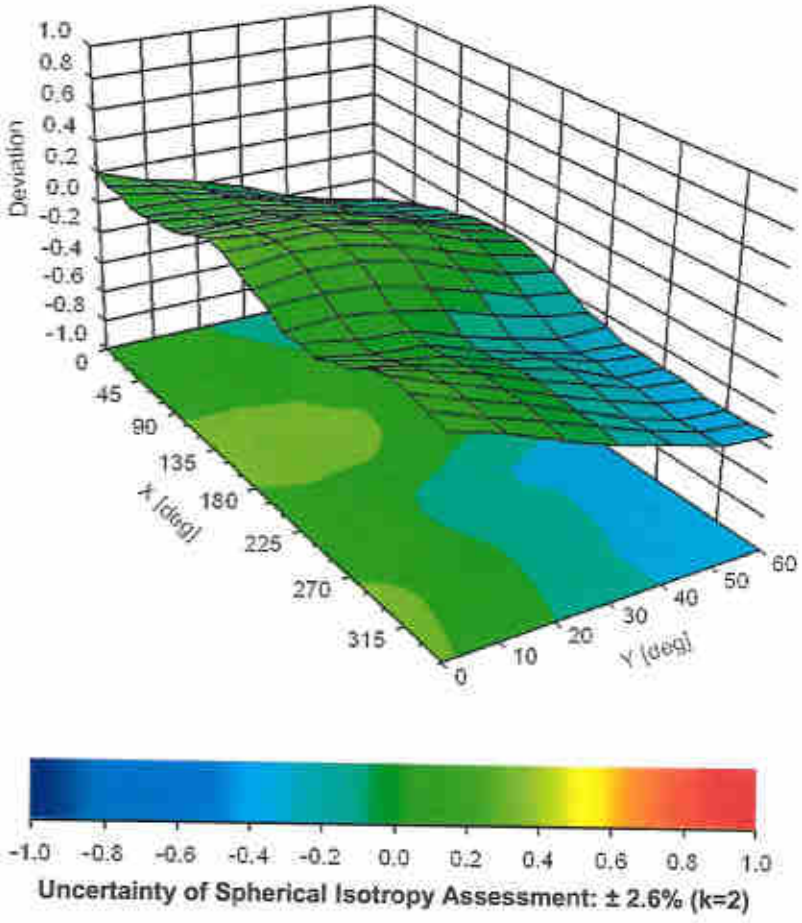


f = 1900 MHz,WGLS R22 (H_convF)



Deviation from Isotropy in Liquid

Error (ϕ, ϑ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

Appendix E. Conducted RF Output Power Table

The detailed power table are shown as follows.

Full Power for ANT1

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.72	31.68	31.70	33.50	22.72	22.68	22.70	24.50
GPRS 1 Tx slot	31.69	31.65	31.67	33.50	22.69	22.65	22.67	24.50
GPRS 2 Tx slots	30.05	30.47	30.00	31.50	24.05	24.47	24.00	25.50
GPRS 3 Tx slots	28.28	28.33	28.32	30.00	24.02	24.07	24.06	25.74
GPRS 4 Tx slots	26.61	26.77	26.63	28.50	23.61	23.77	23.63	25.50
EDGE 1 Tx slot	24.42	24.51	24.57	26.00	15.42	15.51	15.57	17.00
EDGE 2 Tx slots	23.04	23.15	23.17	24.50	17.04	17.15	17.17	18.50
EDGE 3 Tx slots	21.10	21.21	21.15	22.50	16.84	16.95	16.89	18.24
EDGE 4 Tx slots	18.96	19.02	19.12	20.50	15.96	16.02	16.12	17.50

GSM1900	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	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	29.10	29.13	28.97	30.50	20.10	20.13	19.97	21.50
GPRS 1 Tx slot	29.06	29.03	28.93	30.50	20.06	20.03	19.93	21.50
GPRS 2 Tx slots	27.39	27.19	26.98	28.50	21.39	21.19	20.98	22.50
GPRS 3 Tx slots	25.82	25.90	25.77	27.00	21.56	21.64	21.51	22.74
GPRS 4 Tx slots	24.24	24.15	23.93	25.50	21.24	21.15	20.93	22.50
EDGE 1 Tx slot	24.99	25.10	24.91	26.00	15.99	16.10	15.91	17.00
EDGE 2 Tx slots	23.91	23.98	23.94	25.00	17.91	17.98	17.94	19.00
EDGE 3 Tx slots	22.57	22.52	22.57	23.50	18.31	18.26	18.31	19.24
EDGE 4 Tx slots	20.78	21.16	20.79	22.00	17.78	18.16	17.79	19.00

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	22.40	22.40	22.35	24.00	22.05	22.16	22.18	24.00	22.31	22.30	22.25	24.00
3GPP Rel 99	RMC 12.2Kbps	22.42	22.43	22.36	24.00	22.06	22.21	22.20	24.00	22.32	22.33	22.27	24.00
3GPP Rel 6	HSDPA Subtest-1	21.59	21.54	21.43	23.00	21.21	21.26	21.31	23.00	21.54	21.62	21.58	23.00
3GPP Rel 6	HSDPA Subtest-2	21.59	21.59	21.47	23.00	21.21	21.34	21.32	23.00	21.60	21.60	21.57	23.00
3GPP Rel 6	HSDPA Subtest-3	21.07	21.09	20.96	22.50	20.68	20.86	20.81	22.50	21.08	21.16	21.09	22.50
3GPP Rel 6	HSDPA Subtest-4	21.10	21.07	20.99	22.50	20.72	20.86	20.78	22.50	20.65	21.09	21.08	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	21.49	21.45	21.27	23.00	21.09	21.17	21.23	23.00	21.46	21.51	21.44	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	21.43	21.52	21.33	23.00	21.16	21.25	21.17	23.00	21.49	21.46	21.41	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	20.96	20.93	20.80	22.50	20.61	20.73	20.74	22.50	20.95	21.01	21.04	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	20.95	21.01	20.93	22.50	20.56	20.69	20.68	22.50	20.59	20.99	20.93	22.50
3GPP Rel 6	HSUPA Subtest-1	21.45	21.34	21.21	23.00	21.04	21.12	21.12	23.00	21.26	21.36	21.24	23.00
3GPP Rel 6	HSUPA Subtest-2	19.44	19.38	19.16	21.00	19.04	19.15	19.06	21.00	19.28	19.36	19.20	21.00
3GPP Rel 6	HSUPA Subtest-3	20.42	20.32	20.17	22.00	20.05	20.12	20.07	22.00	20.28	20.32	20.30	22.00
3GPP Rel 6	HSUPA Subtest-4	19.46	19.36	19.21	21.00	19.05	19.12	19.12	21.00	19.29	19.36	19.28	21.00
3GPP Rel 6	HSUPA Subtest-5	21.40	21.40	21.20	23.00	21.00	21.20	21.10	23.00	21.30	21.30	21.30	23.00

Band 2 (1900MHz Band)
Part 24E

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				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	22.33	22.45	22.38		
20	QPSK	1	49	22.34	22.31	22.22	24	0
20	QPSK	1	99	22.26	22.25	22.16		
20	QPSK	50	0	21.31	21.33	21.20		
20	QPSK	50	24	21.25	21.24	21.14	23	1
20	QPSK	50	50	21.20	21.30	21.16		
20	QPSK	100	0	21.28	21.30	21.12		
20	16QAM	1	0	21.55	21.46	21.44		
20	16QAM	1	49	21.48	21.37	21.38	23	1
20	16QAM	1	99	21.38	21.37	21.52		
20	16QAM	50	0	20.23	20.18	20.10		
20	16QAM	50	24	20.37	20.26	20.16	22	2
20	16QAM	50	50	20.27	20.29	20.14		
20	16QAM	100	0	20.25	20.17	20.17		
20	64QAM	1	0	20.32	20.22	20.18		
20	64QAM	1	49	20.37	20.28	20.36	22	2
20	64QAM	1	99	20.35	20.23	20.19		
20	64QAM	50	0	19.24	19.24	19.21		
20	64QAM	50	24	19.30	19.22	19.15	21	3
20	64QAM	50	50	19.31	19.27	19.16		
20	64QAM	100	0	19.27	19.25	19.14		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	22.29	22.14	22.13		
15	QPSK	1	37	22.15	22.16	22.09	24	0
15	QPSK	1	74	22.06	22.15	22.08		
15	QPSK	36	0	21.29	21.20	21.17		
15	QPSK	36	20	21.26	21.19	21.17	23	1
15	QPSK	36	39	21.18	21.24	21.11		
15	QPSK	75	0	21.26	21.23	21.15		
15	16QAM	1	0	21.66	21.45	21.56		
15	16QAM	1	37	21.41	21.47	21.32	23	1
15	16QAM	1	74	21.48	21.54	21.40		
15	16QAM	36	0	20.24	20.18	20.11		
15	16QAM	36	20	20.33	20.22	20.14	22	2
15	16QAM	36	39	20.27	20.26	20.10		
15	16QAM	75	0	20.32	20.25	20.14		
15	64QAM	1	0	20.35	20.37	20.18		
15	64QAM	1	37	20.40	20.33	20.27	22	2
15	64QAM	1	74	20.38	20.25	20.20		
15	64QAM	36	0	19.19	19.20	19.19		
15	64QAM	36	20	19.35	19.12	19.17	21	3
15	64QAM	36	39	19.24	19.23	19.12		
15	64QAM	75	0	19.30	19.24	19.15		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	22.41	22.30	22.22		
10	QPSK	1	25	22.29	22.33	22.21	24	0
10	QPSK	1	49	22.23	22.15	22.07		
10	QPSK	25	0	21.42	21.44	21.23		
10	QPSK	25	12	21.46	21.33	21.26	23	1
10	QPSK	25	25	21.33	21.36	21.29		
10	QPSK	50	0	21.43	21.33	21.24		
10	16QAM	1	0	21.79	21.61	21.47		
10	16QAM	1	25	21.63	21.67	21.57	23	1
10	16QAM	1	49	21.62	21.66	21.39		
10	16QAM	25	0	20.36	20.30	20.31		
10	16QAM	25	12	20.54	20.36	20.27	22	2
10	16QAM	25	25	20.43	20.46	20.32		
10	16QAM	50	0	20.43	20.33	20.14		
10	64QAM	1	0	20.67	20.54	20.46		
10	64QAM	1	25	20.23	20.31	20.48	22	2
10	64QAM	1	49	20.55	20.37	20.46		
10	64QAM	25	0	19.36	19.38	19.29		
10	64QAM	25	12	19.49	19.42	19.25	21	3
10	64QAM	25	25	19.29	19.36	19.21		
10	64QAM	50	0	19.38	19.24	19.23		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	22.35	22.33	22.24		
5	QPSK	1	12	22.31	22.23	22.15	24	0
5	QPSK	1	24	22.31	22.23	22.12		
5	QPSK	12	0	21.48	21.36	21.30		
5	QPSK	12	7	21.45	21.42	21.29	23	1
5	QPSK	12	13	21.37	21.31	21.17		
5	QPSK	25	0	21.39	21.28	21.25		
5	16QAM	1	0	21.77	21.78	21.62		
5	16QAM	1	12	21.74	21.56	21.55	23	1
5	16QAM	1	24	21.70	21.60	21.46		
5	16QAM	12	0	20.51	20.36	20.38		
5	16QAM	12	7	20.48	20.41	20.38	22	2
5	16QAM	12	13	20.39	20.36	20.18		
5	16QAM	25	0	20.45	20.27	20.27		
5	64QAM	1	0	20.64	20.51	20.64		
5	64QAM	1	12	20.68	20.39	20.19	22	2
5	64QAM	1	24	20.47	20.50	20.32		
5	64QAM	12	0	19.52	19.30	19.29		
5	64QAM	12	7	19.46	19.39	19.26	21	3
5	64QAM	12	13	19.36	19.28	19.18		
5	64QAM	25	0	19.41	19.32	19.27		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	22.43	22.34	22.26		
3	QPSK	1	8	22.42	22.34	22.19	24	0
3	QPSK	1	14	22.25	22.26	22.04		
3	QPSK	8	0	21.49	21.30	21.25		
3	QPSK	8	4	21.47	21.43	21.27	23	1
3	QPSK	8	7	21.36	21.29	21.18		
3	QPSK	15	0	21.43	21.27	21.26		
3	16QAM	1	0	21.71	21.63	21.61		
3	16QAM	1	8	21.65	21.67	21.45	23	1
3	16QAM	1	14	21.58	21.50	21.35		
3	16QAM	8	0	20.50	20.34	20.39		
3	16QAM	8	4	20.49	20.43	20.28	22	2
3	16QAM	8	7	20.35	20.36	20.25		
3	16QAM	15	0	20.42	20.28	20.28		
3	64QAM	1	0	20.61	20.62	20.51		
3	64QAM	1	8	20.69	20.71	20.48	22	2
3	64QAM	1	14	20.37	20.51	20.31		
3	64QAM	8	0	19.50	19.39	19.30		
3	64QAM	8	4	19.47	19.38	19.29	21	3
3	64QAM	8	7	19.35	19.39	19.19		
3	64QAM	15	0	19.48	19.29	19.26		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	22.29	22.21	22.15		
1.4	QPSK	1	3	22.25	22.25	22.18		
1.4	QPSK	1	5	22.25	22.15	22.02	24	0
1.4	QPSK	3	0	22.39	22.27	22.13		
1.4	QPSK	3	1	22.35	22.31	22.13		
1.4	QPSK	3	3	22.32	22.17	22.06		
1.4	QPSK	6	0	21.33	21.28	21.16	23	1
1.4	16QAM	1	0	21.64	21.56	21.48		
1.4	16QAM	1	3	21.70	21.67	21.35		
1.4	16QAM	1	5	21.61	21.65	21.26	23	1
1.4	16QAM	3	0	21.41	21.28	21.16		
1.4	16QAM	3	1	21.41	21.45	21.22		
1.4	16QAM	3	3	21.39	21.33	21.06		
1.4	16QAM	6	0	20.48	20.37	20.18	22	2
1.4	64QAM	1	0	20.52	20.50	20.28		
1.4	64QAM	1	3	20.60	20.36	20.24		
1.4	64QAM	1	5	20.44	20.42	20.22	22	2
1.4	64QAM	3	0	20.39	20.36	20.23		
1.4	64QAM	3	1	20.48	20.41	20.26		
1.4	64QAM	3	3	20.42	20.32	20.21		
1.4	64QAM	6	0	19.36	19.29	19.21	21	3

Band 4 (AWS Band)
Part 27L (only on channel required)

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				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	22.40	22.68	22.42		
20	QPSK	1	49	22.32	22.40	22.36	24	0
20	QPSK	1	99	22.38	22.37	22.40		
20	QPSK	50	0	21.38	21.57	21.50		
20	QPSK	50	24	21.52	21.43	21.55	23	1
20	QPSK	50	50	21.49	21.46	21.55		
20	QPSK	100	0	21.47	21.51	21.49		
20	16QAM	1	0	21.70	21.70	21.83		
20	16QAM	1	49	21.65	21.68	21.81	23	1
20	16QAM	1	99	21.82	21.75	21.79		
20	16QAM	50	0	20.46	20.56	20.62		
20	16QAM	50	24	20.46	20.60	20.54	22	2
20	16QAM	50	50	20.46	20.58	20.59		
20	16QAM	100	0	20.49	20.48	20.54		
20	64QAM	1	0	20.61	20.76	20.76		
20	64QAM	1	49	20.67	20.62	20.73	22	2
20	64QAM	1	99	20.65	20.62	20.67		
20	64QAM	50	0	19.41	19.48	19.57		
20	64QAM	50	24	19.59	19.54	19.54	21	3
20	64QAM	50	50	19.53	19.55	19.56		
20	64QAM	100	0	19.56	19.51	19.54		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	22.33	22.53	22.46		
15	QPSK	1	37	22.41	22.40	22.46	24	0
15	QPSK	1	74	22.42	22.36	22.39		
15	QPSK	36	0	21.35	21.48	21.50		
15	QPSK	36	20	21.45	21.51	21.54	23	1
15	QPSK	36	39	21.44	21.52	21.45		
15	QPSK	75	0	21.45	21.43	21.57		
15	16QAM	1	0	21.60	21.77	21.81		
15	16QAM	1	37	21.68	21.71	21.67	23	1
15	16QAM	1	74	21.84	21.84	21.79		
15	16QAM	36	0	20.41	20.55	20.57		
15	16QAM	36	20	20.47	20.52	20.63	22	2
15	16QAM	36	39	20.43	20.55	20.49		
15	16QAM	75	0	20.49	20.49	20.52		
15	64QAM	1	0	20.48	20.63	20.72		
15	64QAM	1	37	20.54	20.64	20.41	22	2
15	64QAM	1	74	20.71	20.63	20.57		
15	64QAM	36	0	19.43	19.46	19.60		
15	64QAM	36	20	19.56	19.54	19.57	21	3
15	64QAM	36	39	19.47	19.63	19.59		
15	64QAM	75	0	19.52	19.47	19.50		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	22.41	22.55	22.63		
10	QPSK	1	25	22.50	22.58	22.60	24	0
10	QPSK	1	49	22.44	22.53	22.62		
10	QPSK	25	0	21.65	21.54	21.66		
10	QPSK	25	12	21.62	21.62	21.68	23	1
10	QPSK	25	25	21.56	21.62	21.68		
10	QPSK	50	0	21.62	21.57	21.64		
10	16QAM	1	0	21.86	21.86	21.85		
10	16QAM	1	25	21.68	21.74	21.49	23	1
10	16QAM	1	49	21.79	21.78	21.76		
10	16QAM	25	0	20.65	20.70	20.63		
10	16QAM	25	12	20.66	20.65	20.78	22	2
10	16QAM	25	25	20.66	20.67	20.71		
10	16QAM	50	0	20.59	20.70	20.69		
10	64QAM	1	0	20.69	20.82	20.88		
10	64QAM	1	25	20.66	20.69	20.75	22	2
10	64QAM	1	49	20.81	20.82	20.75		
10	64QAM	25	0	19.59	19.68	19.71		
10	64QAM	25	12	19.62	19.67	19.74	21	3
10	64QAM	25	25	19.59	19.76	19.75		
10	64QAM	50	0	19.62	19.72	19.67		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	22.52	22.54	22.57		
5	QPSK	1	12	22.50	22.60	22.56	24	0
5	QPSK	1	24	22.48	22.57	22.52		
5	QPSK	12	0	21.52	21.68	21.76		
5	QPSK	12	7	21.57	21.70	21.75	23	1
5	QPSK	12	13	21.57	21.65	21.61		
5	QPSK	25	0	21.53	21.58	21.62		
5	16QAM	1	0	21.82	21.73	21.86		
5	16QAM	1	12	21.76	21.79	21.98	23	1
5	16QAM	1	24	21.78	21.94	21.88		
5	16QAM	12	0	20.60	20.61	20.70		
5	16QAM	12	7	20.60	20.69	20.71	22	2
5	16QAM	12	13	20.60	20.61	20.65		
5	16QAM	25	0	20.61	20.57	20.69		
5	64QAM	1	0	20.75	20.78	20.89		
5	64QAM	1	12	20.70	20.89	20.79	22	2
5	64QAM	1	24	20.72	20.82	20.74		
5	64QAM	12	0	19.66	19.70	19.80		
5	64QAM	12	7	19.67	19.79	19.77	21	3
5	64QAM	12	13	19.62	19.71	19.73		
5	64QAM	25	0	19.62	19.60	19.87		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	22.51	22.54	22.54		
3	QPSK	1	8	22.53	22.68	22.64	24	0
3	QPSK	1	14	22.45	22.55	22.57		
3	QPSK	8	0	21.57	21.58	21.66		
3	QPSK	8	4	21.58	21.71	21.71	23	1
3	QPSK	8	7	21.52	21.66	21.69		
3	QPSK	15	0	21.57	21.58	21.67		
3	16QAM	1	0	21.87	21.85	22.13		
3	16QAM	1	8	21.91	21.88	22.10	23	1
3	16QAM	1	14	21.82	21.91	22.03		
3	16QAM	8	0	20.63	20.66	20.69		
3	16QAM	8	4	20.67	20.71	20.75	22	2
3	16QAM	8	7	20.85	20.60	20.65		
3	16QAM	15	0	20.59	20.58	20.69		
3	64QAM	1	0	20.76	20.70	20.85		
3	64QAM	1	8	20.84	20.88	20.85	22	2
3	64QAM	1	14	20.80	20.75	20.79		
3	64QAM	8	0	19.68	19.57	19.74		
3	64QAM	8	4	19.67	19.78	19.80	21	3
3	64QAM	8	7	19.58	19.69	19.68		
3	64QAM	15	0	19.60	19.61	19.72		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	22.41	22.43	22.46		
1.4	QPSK	1	3	22.44	22.52	22.42		
1.4	QPSK	1	5	22.43	22.44	22.40	24	0
1.4	QPSK	3	0	22.39	22.45	22.43		
1.4	QPSK	3	1	22.52	22.47	22.51		
1.4	QPSK	3	3	22.47	22.52	22.41		
1.4	QPSK	6	0	21.50	21.54	21.46	23	1
1.4	16QAM	1	0	21.74	21.90	21.81		
1.4	16QAM	1	3	21.83	21.81	21.83		
1.4	16QAM	1	5	21.67	21.73	21.78	23	1
1.4	16QAM	3	0	21.52	21.58	21.53		
1.4	16QAM	3	1	21.57	21.50	21.57		
1.4	16QAM	3	3	21.51	21.62	21.52		
1.4	16QAM	6	0	20.44	20.60	20.53	22	2
1.4	64QAM	1	0	20.68	20.56	20.68		
1.4	64QAM	1	3	20.69	20.73	20.81		
1.4	64QAM	1	5	20.69	20.72	20.69	22	2
1.4	64QAM	3	0	20.59	20.69	20.71		
1.4	64QAM	3	1	20.64	20.66	20.65		
1.4	64QAM	3	3	20.42	20.70	20.57		
1.4	64QAM	6	0	19.54	19.53	19.49	21	3

Band 5 (Celluar Band)
Part 22H(only on channel required)

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				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	22.43	22.55	22.45		
10	QPSK	1	25	22.40	22.50	22.53	24	0
10	QPSK	1	49	22.44	22.53	22.29		
10	QPSK	25	0	21.52	21.59	21.55		
10	QPSK	25	12	21.55	21.54	21.59	23	1
10	QPSK	25	25	21.49	21.56	21.55		
10	QPSK	50	0	21.43	21.52	21.47		
10	16QAM	1	0	21.76	21.83	21.89		
10	16QAM	1	25	21.74	21.86	21.77	23	1
10	16QAM	1	49	21.86	21.65	21.73		
10	16QAM	25	0	20.55	20.50	20.54		
10	16QAM	25	12	20.57	20.61	20.58	22	2
10	16QAM	25	25	20.53	20.64	20.52		
10	16QAM	50	0	20.56	20.50	20.57		
10	64QAM	1	0	20.77	20.66	20.82		
10	64QAM	1	25	20.85	20.44	20.42	22	2
10	64QAM	1	49	20.61	20.63	20.60		
10	64QAM	25	0	19.55	19.55	19.58		
10	64QAM	25	12	19.52	19.58	19.72	21	3
10	64QAM	25	25	19.57	19.62	19.58		
10	64QAM	50	0	19.55	19.49	19.55		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	22.52	22.44	22.44		
5	QPSK	1	12	22.43	22.52	22.44	24	0
5	QPSK	1	24	22.43	22.47	22.42		
5	QPSK	12	0	21.54	21.55	21.50		
5	QPSK	12	7	21.49	21.61	21.50	23	1
5	QPSK	12	13	21.56	21.53	21.51		
5	QPSK	25	0	21.48	21.46	21.55		
5	16QAM	1	0	21.78	21.81	21.77		
5	16QAM	1	12	21.81	21.75	21.87	23	1
5	16QAM	1	24	21.80	21.97	21.76		
5	16QAM	12	0	20.54	20.53	20.58		
5	16QAM	12	7	20.52	20.60	20.48	22	2
5	16QAM	12	13	20.49	20.61	20.55		
5	16QAM	25	0	20.51	20.55	20.55		
5	64QAM	1	0	20.64	20.77	20.77		
5	64QAM	1	12	20.68	20.65	20.67	22	2
5	64QAM	1	24	20.80	20.80	20.48		
5	64QAM	12	0	19.55	19.58	19.53		
5	64QAM	12	7	19.56	19.68	19.55	21	3
5	64QAM	12	13	19.59	19.63	19.57		
5	64QAM	25	0	19.50	19.52	19.51		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	22.43	22.41	22.51		
3	QPSK	1	8	22.38	22.48	22.44	24	0
3	QPSK	1	14	22.42	22.50	22.43		
3	QPSK	8	0	21.43	21.46	21.56		
3	QPSK	8	4	21.55	21.56	21.51	23	1
3	QPSK	8	7	21.50	21.51	21.50		
3	QPSK	15	0	21.43	21.54	21.47		
3	16QAM	1	0	21.74	21.69	21.87		
3	16QAM	1	8	21.84	21.90	21.81	23	1
3	16QAM	1	14	21.74	21.87	21.87		
3	16QAM	8	0	20.50	20.58	20.59		
3	16QAM	8	4	20.52	20.70	20.60	22	2
3	16QAM	8	7	20.48	20.67	20.59		
3	16QAM	15	0	20.48	20.54	20.57		
3	64QAM	1	0	20.70	20.67	20.69		
3	64QAM	1	8	20.76	20.82	20.82	22	2
3	64QAM	1	14	20.77	20.68	20.68		
3	64QAM	8	0	19.56	19.52	19.60		
3	64QAM	8	4	19.57	19.65	19.64	21	3
3	64QAM	8	7	19.57	19.62	19.57		
3	64QAM	15	0	19.57	19.39	19.63		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	22.27	22.35	22.43		
1.4	QPSK	1	3	22.22	22.36	22.33		
1.4	QPSK	1	5	22.26	22.40	22.36	24	0
1.4	QPSK	3	0	22.29	22.29	22.41		
1.4	QPSK	3	1	22.39	22.48	22.38		
1.4	QPSK	3	3	22.42	22.37	22.40		
1.4	QPSK	6	0	21.30	21.45	21.36	23	1
1.4	16QAM	1	0	21.66	21.55	21.76		
1.4	16QAM	1	3	21.68	21.79	21.67		
1.4	16QAM	1	5	21.58	21.70	21.75	23	1
1.4	16QAM	3	0	21.41	21.46	21.45		
1.4	16QAM	3	1	21.37	21.61	21.55		
1.4	16QAM	3	3	21.35	21.58	21.53		
1.4	16QAM	6	0	20.35	20.45	20.42	22	2
1.4	64QAM	1	0	20.56	20.59	20.58		
1.4	64QAM	1	3	20.67	20.71	20.76		
1.4	64QAM	1	5	20.69	20.62	20.55	22	2
1.4	64QAM	3	0	20.43	20.40	20.47		
1.4	64QAM	3	1	20.50	20.49	20.54		
1.4	64QAM	3	3	20.42	20.50	20.42		
1.4	64QAM	6	0	19.48	19.25	19.50	21	3

Band 7 (2600MHz Band)
Part 27

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				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	22.53	22.85	22.81	24	0
20	QPSK	1	49	22.38	22.57	22.75		
20	QPSK	1	99	22.37	22.56	22.75		
20	QPSK	50	0	21.68	21.91	21.72	23	1
20	QPSK	50	24	21.50	21.59	21.81		
20	QPSK	50	50	21.56	21.67	21.88		
20	QPSK	100	0	21.58	21.70	21.63		
20	16QAM	1	0	21.72	21.72	22.05	23	1
20	16QAM	1	49	21.71	21.76	22.01		
20	16QAM	1	99	21.60	21.85	22.01		
20	16QAM	50	0	20.54	20.67	20.87	22	2
20	16QAM	50	24	20.51	20.65	20.92		
20	16QAM	50	50	20.50	20.77	20.91		
20	16QAM	100	0	20.56	20.60	20.91		
20	64QAM	1	0	20.68	20.66	20.88	22	2
20	64QAM	1	49	20.67	20.59	20.91		
20	64QAM	1	99	20.62	20.68	21.01		
20	64QAM	50	0	19.74	19.52	19.81	21	3
20	64QAM	50	24	19.53	19.67	19.96		
20	64QAM	50	50	19.63	19.70	19.89		
20	64QAM	100	0	19.50	19.64	19.88		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	22.51	22.48	22.80	24	0
15	QPSK	1	37	22.37	22.44	22.85		
15	QPSK	1	74	22.35	22.65	22.76		
15	QPSK	36	0	21.56	21.58	21.92	23	1
15	QPSK	36	20	21.54	21.63	22.01		
15	QPSK	36	39	21.78	21.74	21.90		
15	QPSK	75	0	21.46	21.61	21.86		
15	16QAM	1	0	21.71	21.67	22.13	23	1
15	16QAM	1	37	21.75	21.79	22.10		
15	16QAM	1	74	21.63	21.99	22.11		
15	16QAM	36	0	20.55	20.58	20.92	22	2
15	16QAM	36	20	20.52	20.60	20.94		
15	16QAM	36	39	20.52	20.70	20.90		
15	16QAM	75	0	20.59	20.57	20.88		
15	64QAM	1	0	20.65	20.70	20.94	22	2
15	64QAM	1	37	20.78	20.67	20.99		
15	64QAM	1	74	20.49	20.60	20.94		
15	64QAM	36	0	19.56	19.62	19.84	21	3
15	64QAM	36	20	19.56	19.67	19.89		
15	64QAM	36	39	19.51	19.61	19.93		
15	64QAM	75	0	19.55	19.62	19.94		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	22.65	22.82	22.80	24	0
10	QPSK	1	25	22.77	22.85	22.83		
10	QPSK	1	49	22.85	22.84	22.85		
10	QPSK	25	0	21.73	21.76	22.06	23	1
10	QPSK	25	12	21.74	21.85	22.06		
10	QPSK	25	25	21.68	21.87	22.10		
10	QPSK	50	0	21.74	21.83	22.09		
10	16QAM	1	0	22.02	21.93	22.30	23	1
10	16QAM	1	25	21.96	22.04	22.31		
10	16QAM	1	49	21.99	22.13	22.27		
10	16QAM	25	0	20.70	20.73	21.07	22	2
10	16QAM	25	12	20.76	20.77	21.11		
10	16QAM	25	25	20.72	20.86	21.12		
10	16QAM	50	0	20.73	20.83	21.11		
10	64QAM	1	0	20.83	20.89	21.14	22	2
10	64QAM	1	25	20.75	20.84	21.13		
10	64QAM	1	49	20.79	21.08	21.24		
10	64QAM	25	0	19.76	19.79	20.05	21	3
10	64QAM	25	12	19.73	19.82	20.09		
10	64QAM	25	25	19.62	19.89	20.07		
10	64QAM	50	0	19.74	19.80	20.04		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	22.62	22.68	22.80	24	0
5	QPSK	1	12	22.60	22.81	22.80		
5	QPSK	1	24	22.60	22.79	22.84		
5	QPSK	12	0	21.69	21.74	22.05	23	1
5	QPSK	12	7	21.78	21.86	22.10		
5	QPSK	12	13	21.75	21.88	22.09		
5	QPSK	25	0	21.69	21.75	22.12		
5	16QAM	1	0	21.93	22.04	22.33	23	1
5	16QAM	1	12	22.09	22.16	22.38		
5	16QAM	1	24	22.03	22.25	22.37		
5	16QAM	12	0	20.72	20.76	21.11	22	2
5	16QAM	12	7	20.78	20.84	21.09		
5	16QAM	12	13	20.71	20.96	21.16		
5	16QAM	25	0	20.73	20.77	21.07		
5	64QAM	1	0	20.85	21.00	20.71	22	2
5	64QAM	1	12	21.02	21.06	20.69		
5	64QAM	1	24	20.78	21.16	20.73		
5	64QAM	12	0	19.62	19.70	19.55	21	3
5	64QAM	12	7	19.78	19.82	19.57		
5	64QAM	12	13	19.71	19.60	19.54		
5	64QAM	25	0	19.74	19.84	19.63		

Band 12 (700MHz Low Band)
Part 27F(only on channel required)

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				23060	23095	23130		
Frequency (MHz)				704	707.5	711		
10	QPSK	1	0	22.33	22.78	22.61	24	0
10	QPSK	1	25	22.41	22.33	22.31		
10	QPSK	1	49	22.43	22.37	22.38		
10	QPSK	25	0	21.42	21.50	21.31	23	1
10	QPSK	25	12	21.48	21.38	21.49		
10	QPSK	25	25	21.41	21.43	21.38		
10	QPSK	50	0	21.45	21.49	21.37		
10	16QAM	1	0	21.69	21.82	21.67	23	1
10	16QAM	1	25	21.60	21.57	21.69		
10	16QAM	1	49	21.70	21.63	21.55		
10	16QAM	25	0	20.31	20.41	20.39	22	2
10	16QAM	25	12	20.49	20.37	20.49		
10	16QAM	25	25	20.45	20.38	20.45		
10	16QAM	50	0	20.50	20.41	20.43		
10	64QAM	1	0	20.74	20.70	20.60	22	2
10	64QAM	1	25	20.56	20.66	20.63		
10	64QAM	1	49	20.31	20.38	20.51		
10	64QAM	25	0	19.51	19.51	19.40	21	3
10	64QAM	25	12	19.58	19.49	19.49		
10	64QAM	25	25	19.50	19.43	19.45		
10	64QAM	50	0	19.50	19.42	19.47		
Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	22.31	22.36	22.28	24	0
5	QPSK	1	12	22.36	22.36	22.26		
5	QPSK	1	24	22.35	22.32	22.27		
5	QPSK	12	0	21.41	21.39	21.40	23	1
5	QPSK	12	7	21.44	21.47	21.43		
5	QPSK	12	13	21.41	21.35	21.33		
5	QPSK	25	0	21.46	21.39	21.35		
5	16QAM	1	0	21.69	21.54	21.77	23	1
5	16QAM	1	12	21.94	21.72	21.60		
5	16QAM	1	24	21.76	21.66	21.64		
5	16QAM	12	0	20.46	20.46	20.44	22	2
5	16QAM	12	7	20.46	20.49	20.46		
5	16QAM	12	13	20.44	20.42	20.31		
5	16QAM	25	0	20.54	20.41	20.40		
5	64QAM	1	0	20.33	20.57	20.76	22	2
5	64QAM	1	12	20.60	20.60	20.74		
5	64QAM	1	24	20.57	20.50	20.53		
5	64QAM	12	0	19.38	19.42	19.40	21	3
5	64QAM	12	7	19.48	19.48	19.51		
5	64QAM	12	13	19.44	19.41	19.36		
5	64QAM	25	0	19.46	19.39	19.36		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	22.44	22.32	22.29	24	0
3	QPSK	1	8	22.34	22.37	22.29		
3	QPSK	1	14	22.22	22.28	22.22		
3	QPSK	8	0	21.48	21.40	21.39	23	1
3	QPSK	8	4	21.40	21.40	21.46		
3	QPSK	8	7	21.38	21.34	21.38		
3	QPSK	15	0	21.45	21.32	21.34		
3	16QAM	1	0	21.67	21.61	21.61	23	1
3	16QAM	1	8	21.59	21.68	21.65		
3	16QAM	1	14	21.74	21.49	21.56		
3	16QAM	8	0	20.51	20.44	20.41	22	2
3	16QAM	8	4	20.53	20.45	20.42		
3	16QAM	8	7	20.48	20.43	20.40		
3	16QAM	15	0	20.45	20.40	20.35		
3	64QAM	1	0	20.70	20.59	20.67	22	2
3	64QAM	1	8	20.67	20.77	20.69		
3	64QAM	1	14	20.83	20.51	20.64		
3	64QAM	8	0	19.48	19.42	19.29	21	3
3	64QAM	8	4	19.50	19.47	19.44		
3	64QAM	8	7	19.52	19.39	19.33		
3	64QAM	15	0	19.44	19.40	19.36		
Channel				23017	23095	23173	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				699.7	707.5	715.3		
1.4	QPSK	1	0	22.19	22.22	22.22	24	0
1.4	QPSK	1	3	22.29	22.25	22.27		
1.4	QPSK	1	5	22.21	22.16	22.15		
1.4	QPSK	3	0	22.28	22.20	22.23		
1.4	QPSK	3	1	22.36	22.34	22.27		
1.4	QPSK	3	3	22.25	22.31	22.23		
1.4	QPSK	6	0	21.36	21.33	21.23	23	1
1.4	16QAM	1	0	21.61	21.57	21.63	23	1
1.4	16QAM	1	3	21.75	21.70	21.64		
1.4	16QAM	1	5	21.66	21.58	21.45		
1.4	16QAM	3	0	21.43	21.38	21.39		
1.4	16QAM	3	1	21.48	21.38	21.38		
1.4	16QAM	3	3	21.33	21.36	21.29		
1.4	16QAM	6	0	20.30	20.39	20.36	22	2
1.4	64QAM	1	0	20.50	20.50	20.35	22	2
1.4	64QAM	1	3	20.58	20.45	20.42		
1.4	64QAM	1	5	20.33	20.28	20.35		
1.4	64QAM	3	0	20.48	20.33	20.34		
1.4	64QAM	3	1	20.49	20.46	20.37		
1.4	64QAM	3	3	20.29	20.44	20.23		
1.4	64QAM	6	0	19.32	19.36	19.32	21	3

Band 13(700MHz Band)
Part 27F

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					23230			
Frequency (MHz)					782			
10	QPSK	1	0		22.35		24	0
10	QPSK	1	25		22.13			
10	QPSK	1	49		22.11			
10	QPSK	25	0		21.19		23	1
10	QPSK	25	12		21.16			
10	QPSK	25	25		21.13			
10	QPSK	50	0		21.25			
10	16QAM	1	0		21.59		23	1
10	16QAM	1	25		21.30			
10	16QAM	1	49		21.49			
10	16QAM	25	0		20.25		22	2
10	16QAM	25	12		20.28			
10	16QAM	25	25		20.27			
10	16QAM	50	0		20.30			
10	64QAM	1	0		20.36		22	2
10	64QAM	1	25		20.37			
10	64QAM	1	49		20.41			
10	64QAM	25	0		19.16		21	3
10	64QAM	25	12		19.17			
10	64QAM	25	25		19.17			
10	64QAM	50	0		19.23			
Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	22.26	22.04	22.05	24	0
5	QPSK	1	12	22.33	22.11	22.01		
5	QPSK	1	24	22.34	22.09	22.02		
5	QPSK	12	0	21.35	21.16	21.16	23	1
5	QPSK	12	7	21.41	21.26	21.22		
5	QPSK	12	13	21.44	21.17	21.23		
5	QPSK	25	0	21.37	21.24	21.20		
5	16QAM	1	0	21.64	21.49	21.37	23	1
5	16QAM	1	12	21.70	21.76	21.57		
5	16QAM	1	24	21.75	21.49	21.45		
5	16QAM	12	0	20.33	20.27	20.20	22	2
5	16QAM	12	7	20.48	20.28	20.31		
5	16QAM	12	13	20.46	20.28	20.28		
5	16QAM	25	0	20.50	20.17	20.22		
5	64QAM	1	0	20.63	20.39	20.30	22	2
5	64QAM	1	12	20.54	20.41	20.31		
5	64QAM	1	24	20.50	20.40	20.35		
5	64QAM	12	0	19.40	19.14	19.16	21	3
5	64QAM	12	7	19.51	19.33	19.35		
5	64QAM	12	13	19.48	19.23	19.21		
5	64QAM	25	0	19.46	19.17	19.25		

Band 17 (700MHz Band)
Part 27H(only on channel required)

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				23780	23790	23800		
Frequency (MHz)				709	710	711		
10	QPSK	1	0	22.76	22.77	22.51	24	0
10	QPSK	1	25	22.63	22.48	22.45		
10	QPSK	1	49	22.41	22.50	22.46		
10	QPSK	25	0	21.78	21.88	21.62	23	1
10	QPSK	25	12	21.80	21.59	21.53		
10	QPSK	25	25	21.74	21.48	21.56		
10	QPSK	50	0	21.63	21.74	21.61		
10	16QAM	1	0	22.08	21.83	21.86	23	1
10	16QAM	1	25	21.90	21.65	21.75		
10	16QAM	1	49	22.00	21.78	21.74		
10	16QAM	25	0	20.88	20.66	20.65	22	2
10	16QAM	25	12	20.93	20.63	20.45		
10	16QAM	25	25	20.80	20.56	20.52		
10	16QAM	50	0	20.76	20.56	20.59		
10	64QAM	1	0	20.89	20.83	20.69	22	2
10	64QAM	1	25	20.87	20.84	20.42		
10	64QAM	1	49	20.85	20.66	20.55		
10	64QAM	25	0	19.80	19.68	19.68	21	3
10	64QAM	25	12	19.87	19.61	19.64		
10	64QAM	25	25	19.80	19.56	19.46		
10	64QAM	50	0	19.79	19.63	19.65		
Channel				23755	23790	23825	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	22.76	22.61	22.60	24	0
5	QPSK	1	12	22.69	22.55	22.52		
5	QPSK	1	24	22.66	22.38	22.41		
5	QPSK	12	0	21.82	21.65	21.68	23	1
5	QPSK	12	7	21.79	21.53	21.50		
5	QPSK	12	13	21.72	21.56	21.55		
5	QPSK	25	0	21.78	21.58	21.52		
5	16QAM	1	0	22.17	21.95	21.90	23	1
5	16QAM	1	12	22.10	22.09	21.86		
5	16QAM	1	24	22.05	21.80	21.76		
5	16QAM	12	0	20.86	20.68	20.61	22	2
5	16QAM	12	7	20.81	20.65	20.55		
5	16QAM	12	13	20.73	20.58	20.54		
5	16QAM	25	0	20.81	20.54	20.55		
5	64QAM	1	0	20.99	20.77	20.83	22	2
5	64QAM	1	12	20.97	20.79	20.73		
5	64QAM	1	24	20.88	20.74	20.67		
5	64QAM	12	0	19.81	19.58	19.65	21	3
5	64QAM	12	7	19.86	19.68	19.58		
5	64QAM	12	13	19.82	19.65	19.51		
5	64QAM	25	0	19.83	19.68	19.53		

Band 26 for FCC
(only on channel required)

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				26765	26865	26965		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	0	22.32	22.57	22.34	24	0
15	QPSK	1	37	22.25	22.28	22.30		
15	QPSK	1	74	22.26	22.23	22.15		
15	QPSK	36	0	21.50	21.53	21.43	23	1
15	QPSK	36	20	21.52	21.49	21.43		
15	QPSK	36	39	21.47	21.40	21.45		
15	QPSK	75	0	21.49	21.50	21.42		
15	16QAM	1	0	21.64	21.70	21.64	23	1
15	16QAM	1	37	21.68	21.51	21.66		
15	16QAM	1	74	21.69	21.58	21.62		
15	16QAM	36	0	20.39	20.48	20.46	22	2
15	16QAM	36	20	20.52	20.48	20.42		
15	16QAM	36	39	20.46	20.47	20.41		
15	16QAM	75	0	20.49	20.48	20.41		
15	64QAM	1	0	20.78	20.50	20.39	22	2
15	64QAM	1	37	20.54	20.58	20.30		
15	64QAM	1	74	20.50	20.46	20.28		
15	64QAM	36	0	19.46	19.43	19.42	21	3
15	64QAM	36	20	19.53	19.51	19.59		
15	64QAM	36	39	19.55	19.52	19.46		
15	64QAM	75	0	19.52	19.44	19.44		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	22.48	22.55	22.52	24	0
10	QPSK	1	25	22.39	22.47	22.45		
10	QPSK	1	49	22.45	22.42	22.35		
10	QPSK	25	0	21.52	21.49	21.58	23	1
10	QPSK	25	12	21.51	21.48	21.54		
10	QPSK	25	25	21.56	21.60	21.54		
10	QPSK	50	0	21.57	21.60	21.46		
10	16QAM	1	0	21.90	21.79	21.78	23	1
10	16QAM	1	25	21.70	21.70	21.66		
10	16QAM	1	49	21.74	21.85	21.71		
10	16QAM	25	0	20.69	20.59	20.57	22	2
10	16QAM	25	12	20.55	20.53	20.54		
10	16QAM	25	25	20.56	20.61	20.55		
10	16QAM	50	0	20.55	20.49	20.56		
10	64QAM	1	0	20.76	20.60	20.65	22	2
10	64QAM	1	25	20.55	20.69	20.61		
10	64QAM	1	49	20.62	20.61	20.60		
10	64QAM	25	0	19.59	19.63	19.50	21	3
10	64QAM	25	12	19.66	19.56	19.56		
10	64QAM	25	25	19.55	19.63	19.60		
10	64QAM	50	0	19.58	19.56	19.58		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	22.56	22.40	22.45	24	0
5	QPSK	1	12	22.49	22.41	22.38		
5	QPSK	1	24	22.45	22.41	22.38		
5	QPSK	12	0	21.60	21.51	21.57	23	1
5	QPSK	12	7	21.61	21.53	21.57		
5	QPSK	12	13	21.59	21.54	21.45		
5	QPSK	25	0	21.58	21.50	21.54		
5	16QAM	1	0	21.94	21.69	21.81	23	1
5	16QAM	1	12	21.87	21.83	21.84		
5	16QAM	1	24	21.83	21.66	21.69		
5	16QAM	12	0	20.63	20.50	20.55	22	2
5	16QAM	12	7	20.65	20.62	20.57		
5	16QAM	12	13	20.59	20.53	20.51		
5	16QAM	25	0	20.60	20.51	20.51		
5	64QAM	1	0	20.95	20.66	20.72	22	2
5	64QAM	1	12	20.77	20.67	20.71		
5	64QAM	1	24	20.75	20.75	20.68		
5	64QAM	12	0	19.62	19.47	19.57	21	3
5	64QAM	12	7	19.68	19.61	19.53		
5	64QAM	12	13	19.58	19.58	19.52		
5	64QAM	25	0	19.54	19.53	19.58		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	22.46	22.46	22.42	24	0
3	QPSK	1	8	22.53	22.53	22.40		
3	QPSK	1	14	22.41	22.42	22.32		
3	QPSK	8	0	21.51	21.49	21.49	23	1
3	QPSK	8	4	21.55	21.64	21.46		
3	QPSK	8	7	21.55	21.52	21.36		
3	QPSK	15	0	21.54	21.51	21.43		
3	16QAM	1	0	21.74	21.78	21.67	23	1
3	16QAM	1	8	21.91	21.94	21.75		
3	16QAM	1	14	21.86	21.68	21.70		
3	16QAM	8	0	20.62	20.54	20.50	22	2
3	16QAM	8	4	20.63	20.68	20.50		
3	16QAM	8	7	20.62	20.58	20.52		
3	16QAM	15	0	20.56	20.50	20.56		
3	64QAM	1	0	20.87	20.62	20.70	22	2
3	64QAM	1	8	20.85	20.78	20.79		
3	64QAM	1	14	20.70	20.63	20.64		
3	64QAM	8	0	19.61	19.54	19.47	21	3
3	64QAM	8	4	19.64	19.62	19.53		
3	64QAM	8	7	19.55	19.67	19.54		
3	64QAM	15	0	19.63	19.51	19.45		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	22.40	22.34	22.28	24	0
1.4	QPSK	1	3	22.46	22.42	22.39		
1.4	QPSK	1	5	22.41	22.36	22.33		
1.4	QPSK	3	0	22.45	22.37	22.30		
1.4	QPSK	3	1	22.49	22.50	22.30		
1.4	QPSK	3	3	22.46	22.37	22.27		
1.4	QPSK	6	0	21.45	21.49	21.35	23	1
1.4	16QAM	1	0	21.79	21.71	21.49	23	1
1.4	16QAM	1	3	21.88	21.68	21.68		
1.4	16QAM	1	5	21.72	21.83	21.63		
1.4	16QAM	3	0	21.53	21.50	21.46		
1.4	16QAM	3	1	21.52	21.55	21.49		
1.4	16QAM	3	3	21.45	21.48	21.30		
1.4	16QAM	6	0	20.51	20.46	20.42	22	2
1.4	64QAM	1	0	20.72	20.57	20.48	22	2
1.4	64QAM	1	3	20.74	20.51	20.70		
1.4	64QAM	1	5	20.62	20.52	20.59		
1.4	64QAM	3	0	20.59	20.51	20.51		
1.4	64QAM	3	1	20.56	20.61	20.46		
1.4	64QAM	3	3	20.54	20.52	20.45		
1.4	64QAM	6	0	19.45	19.52	19.40	21	3

Band 66

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				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	22.35	22.69	22.55	24	0
20	QPSK	1	49	22.63	22.27	22.63		
20	QPSK	1	99	22.42	22.43	22.52		
20	QPSK	50	0	21.23	21.36	21.24	23	1
20	QPSK	50	24	21.27	21.29	21.25		
20	QPSK	50	50	21.27	21.32	21.29		
20	QPSK	100	0	21.27	21.31	21.19		
20	16QAM	1	0	21.49	21.55	21.47	23	1
20	16QAM	1	49	21.46	21.52	21.65		
20	16QAM	1	99	21.52	21.36	21.55		
20	16QAM	50	0	20.08	20.28	20.24	22	2
20	16QAM	50	24	20.35	20.26	20.32		
20	16QAM	50	50	20.30	20.26	20.36		
20	16QAM	100	0	20.33	20.25	20.20		
20	64QAM	1	0	20.33	20.48	20.48	22	2
20	64QAM	1	49	20.34	20.35	20.34		
20	64QAM	1	99	20.39	20.38	20.59		
20	64QAM	50	0	19.20	19.21	19.30	21	3
20	64QAM	50	24	19.23	19.20	19.26		
20	64QAM	50	50	19.20	19.30	19.28		
20	64QAM	100	0	19.33	19.26	19.23		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	22.16	22.23	22.24	24	0
15	QPSK	1	37	22.22	22.27	22.10		
15	QPSK	1	74	22.16	22.20	22.19		
15	QPSK	36	0	21.28	21.22	21.18	23	1
15	QPSK	36	20	21.22	21.25	21.31		
15	QPSK	36	39	21.25	21.44	21.34		
15	QPSK	75	0	21.24	21.23	21.32		
15	16QAM	1	0	21.44	21.53	21.65	23	1
15	16QAM	1	37	21.35	21.60	21.61		
15	16QAM	1	74	21.51	21.62	21.72		
15	16QAM	36	0	20.23	20.21	20.18	22	2
15	16QAM	36	20	20.35	20.30	20.31		
15	16QAM	36	39	20.23	20.29	20.31		
15	16QAM	75	0	20.31	20.32	20.36		
15	64QAM	1	0	20.39	20.49	20.56	22	2
15	64QAM	1	37	20.42	20.41	20.41		
15	64QAM	1	74	20.26	20.52	20.57		
15	64QAM	36	0	19.27	19.27	19.29	21	3
15	64QAM	36	20	19.24	19.29	19.35		
15	64QAM	36	39	19.31	19.29	19.29		
15	64QAM	75	0	19.27	19.26	19.32		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	22.41	22.38	22.29	24	0
10	QPSK	1	25	22.21	22.37	22.40		
10	QPSK	1	49	22.25	22.40	22.36		
10	QPSK	25	0	21.42	21.30	21.26	23	1
10	QPSK	25	12	21.45	21.40	21.34		
10	QPSK	25	25	21.36	21.41	21.48		
10	QPSK	50	0	21.38	21.35	21.33		
10	16QAM	1	0	21.56	21.68	21.73	23	1
10	16QAM	1	25	21.68	21.40	21.59		
10	16QAM	1	49	21.66	21.66	21.76		
10	16QAM	25	0	20.35	20.47	20.40	22	2
10	16QAM	25	12	20.51	20.48	20.36		
10	16QAM	25	25	20.33	20.50	20.50		
10	16QAM	50	0	20.39	20.41	20.32		
10	64QAM	1	0	20.51	20.69	20.57	22	2
10	64QAM	1	25	20.44	20.51	20.61		
10	64QAM	1	49	20.50	20.54	20.47		
10	64QAM	25	0	19.41	19.46	19.50	21	3
10	64QAM	25	12	19.52	19.48	19.43		
10	64QAM	25	25	19.37	19.52	19.42		
10	64QAM	50	0	19.35	19.39	19.42		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	22.39	22.39	22.35	24	0
5	QPSK	1	12	22.31	22.29	22.36		
5	QPSK	1	24	22.36	22.38	22.43		
5	QPSK	12	0	21.34	21.38	21.38	23	1
5	QPSK	12	7	21.37	21.50	21.43		
5	QPSK	12	13	21.35	21.40	21.40		
5	QPSK	25	0	21.36	21.41	21.46		
5	16QAM	1	0	21.59	21.74	21.74	23	1
5	16QAM	1	12	21.47	21.68	21.62		
5	16QAM	1	24	21.63	21.78	21.75		
5	16QAM	12	0	20.43	20.34	20.44	22	2
5	16QAM	12	7	20.35	20.45	20.49		
5	16QAM	12	13	20.41	20.45	20.37		
5	16QAM	25	0	20.39	20.35	20.42		
5	64QAM	1	0	20.59	20.70	20.63	22	2
5	64QAM	1	12	20.61	20.58	20.61		
5	64QAM	1	24	20.58	20.59	20.54		
5	64QAM	12	0	19.40	19.41	19.49	21	3
5	64QAM	12	7	19.49	19.56	19.45		
5	64QAM	12	13	19.44	19.53	19.44		
5	64QAM	25	0	19.39	19.42	19.49		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	22.32	22.32	22.39	24	0
3	QPSK	1	8	22.41	22.38	22.42		
3	QPSK	1	14	22.26	22.40	22.37		
3	QPSK	8	0	21.34	21.35	21.40	23	1
3	QPSK	8	4	21.37	21.41	21.42		
3	QPSK	8	7	21.37	21.42	21.45		
3	QPSK	15	0	21.40	21.36	21.40		
3	16QAM	1	0	21.66	21.64	21.70	23	1
3	16QAM	1	8	21.65	21.78	21.70		
3	16QAM	1	14	21.69	21.70	21.66		
3	16QAM	8	0	20.42	20.41	20.45	22	2
3	16QAM	8	4	20.47	20.46	20.47		
3	16QAM	8	7	20.37	20.46	20.42		
3	16QAM	15	0	20.42	20.42	20.47		
3	64QAM	1	0	20.56	20.58	20.57	22	2
3	64QAM	1	8	20.57	20.66	20.66		
3	64QAM	1	14	20.51	20.56	20.49		
3	64QAM	8	0	19.33	19.42	19.47	21	3
3	64QAM	8	4	19.50	19.51	19.46		
3	64QAM	8	7	19.38	19.48	19.46		
3	64QAM	15	0	19.35	19.41	19.42		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	22.18	22.27	22.16	24	0
1.4	QPSK	1	3	22.22	22.39	22.30		
1.4	QPSK	1	5	22.10	22.19	22.18		
1.4	QPSK	3	0	22.20	22.33	22.32		
1.4	QPSK	3	1	22.22	22.28	22.31		
1.4	QPSK	3	3	22.23	22.28	22.24		
1.4	QPSK	6	0	21.25	21.31	21.29	23	1
1.4	16QAM	1	0	21.54	21.60	21.62	23	1
1.4	16QAM	1	3	21.63	21.68	21.63		
1.4	16QAM	1	5	21.55	21.48	21.54		
1.4	16QAM	3	0	21.25	21.30	21.33		
1.4	16QAM	3	1	21.35	21.45	21.41		
1.4	16QAM	3	3	21.21	21.37	21.32		
1.4	16QAM	6	0	20.32	20.46	20.46	22	2
1.4	64QAM	1	0	20.38	20.55	20.42	22	2
1.4	64QAM	1	3	20.44	20.49	20.43		
1.4	64QAM	1	5	20.36	20.45	20.39		
1.4	64QAM	3	0	20.24	20.36	20.33		
1.4	64QAM	3	1	20.33	20.33	20.40		
1.4	64QAM	3	3	20.30	20.41	20.35		
1.4	64QAM	6	0	19.24	19.35	19.29	21	3

Band 38(only on channel required)

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		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	0	22.69	22.77	22.45	24	0
20	QPSK	1	49	22.58	22.45	22.41		
20	QPSK	1	99	22.45	22.59	22.30		
20	QPSK	50	0	21.63	21.69	21.42	23	1
20	QPSK	50	24	21.68	21.47	21.48		
20	QPSK	50	50	21.55	21.45	21.42		
20	QPSK	100	0	21.46	21.60	21.47		
20	16QAM	1	0	22.31	22.03	22.17	23	1
20	16QAM	1	49	22.17	21.97	21.99		
20	16QAM	1	99	22.04	21.94	21.95		
20	16QAM	50	0	20.66	20.52	20.48	22	2
20	16QAM	50	24	20.74	20.52	20.54		
20	16QAM	50	50	20.59	20.43	20.46		
20	16QAM	100	0	20.61	20.44	20.46		
20	64QAM	1	0	20.61	20.54	20.38	22	2
20	64QAM	1	49	20.56	20.47	20.38		
20	64QAM	1	99	20.39	20.34	20.48		
20	64QAM	50	0	19.65	19.61	19.47	21	3
20	64QAM	50	24	19.70	19.47	19.53		
20	64QAM	50	50	19.58	19.51	19.47		
20	64QAM	100	0	19.63	19.49	19.49		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	22.67	22.57	22.45	24	0
15	QPSK	1	37	22.64	22.52	22.43		
15	QPSK	1	74	22.51	22.40	22.36		
15	QPSK	36	0	21.68	21.49	21.38	23	1
15	QPSK	36	20	21.69	21.47	21.47		
15	QPSK	36	39	21.58	21.46	21.40		
15	QPSK	75	0	21.64	21.43	21.35		
15	16QAM	1	0	22.26	22.20	22.05	23	1
15	16QAM	1	37	22.18	22.10	21.99		
15	16QAM	1	74	22.12	22.07	22.00		
15	16QAM	36	0	20.75	20.58	20.50	22	2
15	16QAM	36	20	20.77	20.56	20.56		
15	16QAM	36	39	20.64	20.50	20.51		
15	16QAM	75	0	20.63	20.47	20.43		
15	64QAM	1	0	20.54	20.49	20.37	22	2
15	64QAM	1	37	20.53	20.41	20.35		
15	64QAM	1	74	20.40	20.32	20.33		
15	64QAM	36	0	19.74	19.58	19.48	21	3
15	64QAM	36	20	19.75	19.51	19.54		
15	64QAM	36	39	19.62	19.53	19.49		
15	64QAM	75	0	19.68	19.46	19.33		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	22.68	22.70	22.63	24	0
10	QPSK	1	25	22.70	22.56	22.48		
10	QPSK	1	49	22.76	22.67	22.56		
10	QPSK	25	0	21.84	21.60	21.51	23	1
10	QPSK	25	12	21.79	21.58	21.51		
10	QPSK	25	25	21.71	21.58	21.55		
10	QPSK	50	0	21.79	21.55	21.48		
10	16QAM	1	0	22.31	22.20	22.12	23	1
10	16QAM	1	25	22.23	22.09	22.00		
10	16QAM	1	49	22.22	22.09	22.00		
10	16QAM	25	0	20.90	20.71	20.62	22	2
10	16QAM	25	12	20.90	20.69	20.61		
10	16QAM	25	25	20.85	20.65	20.64		
10	16QAM	50	0	20.84	20.63	20.59		
10	64QAM	1	0	20.80	20.64	20.54	22	2
10	64QAM	1	25	20.86	20.71	20.66		
10	64QAM	1	49	20.72	20.62	20.57		
10	64QAM	25	0	19.88	19.66	19.58	21	3
10	64QAM	25	12	19.89	19.66	19.59		
10	64QAM	25	25	19.81	19.65	19.60		
10	64QAM	50	0	19.79	19.57	19.51		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	22.63	22.56	22.51	24	0
5	QPSK	1	12	22.73	22.56	22.53		
5	QPSK	1	24	22.72	22.56	22.46		
5	QPSK	12	0	21.85	21.59	21.62	23	1
5	QPSK	12	7	21.81	21.59	21.59		
5	QPSK	12	13	21.74	21.55	21.55		
5	QPSK	25	0	21.78	21.53	21.53		
5	16QAM	1	0	22.43	22.23	22.10	23	1
5	16QAM	1	12	22.34	22.20	22.04		
5	16QAM	1	24	22.37	22.22	22.05		
5	16QAM	12	0	20.83	20.57	20.60	22	2
5	16QAM	12	7	20.76	20.57	20.59		
5	16QAM	12	13	20.73	20.62	20.54		
5	16QAM	25	0	20.86	20.63	20.64		
5	64QAM	1	0	20.85	20.62	20.61	22	2
5	64QAM	1	12	20.72	20.55	20.50		
5	64QAM	1	24	20.76	20.60	20.51		
5	64QAM	12	0	19.88	19.61	19.64	21	3
5	64QAM	12	7	19.86	19.61	19.65		
5	64QAM	12	13	19.78	19.66	19.60		
5	64QAM	25	0	19.85	19.65	19.58		

Band 41 (2.6G Band)

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Low Ch. / Freq.	Power Middle High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				40140	40400	40670	41140		
Frequency (MHz)				2545	2571	2598	2645		
20	QPSK	1	0	22.62	22.90	22.98	22.91	24	0
20	QPSK	1	49	22.69	22.77	22.69	22.86		
20	QPSK	1	99	22.68	22.69	22.60	22.82		
20	QPSK	50	0	21.84	21.92	21.96	21.92	23	1
20	QPSK	50	24	21.87	21.95	21.76	21.93		
20	QPSK	50	50	21.86	21.90	21.75	21.94		
20	QPSK	100	0	21.91	21.90	21.93	21.91		
20	16QAM	1	0	21.81	22.06	22.06	22.10	23	1
20	16QAM	1	49	21.86	21.92	21.76	21.96		
20	16QAM	1	99	21.91	21.87	21.79	21.98		
20	16QAM	50	0	20.88	20.93	20.89	20.97	22	2
20	16QAM	50	24	20.93	20.98	20.81	20.97		
20	16QAM	50	50	20.88	20.95	20.80	20.99		
20	16QAM	100	0	20.95	20.94	20.80	20.94		
20	64QAM	1	0	20.68	20.92	20.83	20.85	22	2
20	64QAM	1	49	20.70	20.71	20.55	20.68		
20	64QAM	1	99	20.74	20.66	20.51	20.69		
20	64QAM	50	0	19.83	19.91	19.80	19.94	21	3
20	64QAM	50	24	19.90	19.95	19.70	19.86		
20	64QAM	50	50	19.87	19.88	19.75	19.93		
20	64QAM	100	0	19.93	20.02	19.82	19.98		
Channel				40115	40395	40685	41165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2542.5	2570.5	2599.5	2647.5		
15	QPSK	1	0	22.62	22.93	22.82	22.89	24	0
15	QPSK	1	37	22.62	22.77	22.67	22.82		
15	QPSK	1	74	22.69	22.77	22.61	22.80		
15	QPSK	36	0	21.79	21.91	21.82	21.95	23	1
15	QPSK	36	20	21.84	21.90	21.73	21.95		
15	QPSK	36	39	21.85	21.94	21.78	21.97		
15	QPSK	75	0	21.84	21.96	21.77	21.94		
15	16QAM	1	0	21.81	22.10	22.03	22.10	23	1
15	16QAM	1	37	21.81	21.92	21.77	21.97		
15	16QAM	1	74	21.91	21.96	21.77	22.04		
15	16QAM	36	0	20.80	20.88	20.83	20.91	22	2
15	16QAM	36	20	20.87	20.90	20.73	20.86		
15	16QAM	36	39	20.86	20.93	20.74	20.89		
15	16QAM	75	0	20.86	20.99	20.76	20.95		
15	64QAM	1	0	20.66	20.90	20.75	20.84	22	2
15	64QAM	1	37	20.65	20.71	20.57	20.71		
15	64QAM	1	74	20.67	20.73	20.51	20.68		
15	64QAM	36	0	19.78	19.90	19.83	19.95	21	3
15	64QAM	36	20	19.83	19.95	19.77	19.89		
15	64QAM	36	39	19.84	19.93	19.80	19.93		
15	64QAM	75	0	19.88	19.96	19.78	19.92		
Channel				40090	40390	40690	41190	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2540	2570	2600	2650		
10	QPSK	1	0	22.82	22.93	22.88	22.92	24	0
10	QPSK	1	25	22.85	22.93	22.82	22.96		
10	QPSK	1	49	22.87	22.90	22.72	22.91		
10	QPSK	25	0	21.94	22.06	21.90	21.99	23	1
10	QPSK	25	12	21.95	22.06	21.86	22.04		
10	QPSK	25	25	21.97	22.06	21.93	22.09		
10	QPSK	50	0	21.95	22.08	21.88	22.08		
10	16QAM	1	0	21.98	22.12	22.06	22.17	23	1
10	16QAM	1	25	21.97	22.08	22.01	22.13		
10	16QAM	1	49	21.97	21.98	21.88	22.07		
10	16QAM	25	0	20.90	21.07	20.93	21.04	22	2
10	16QAM	25	12	20.97	21.09	20.87	21.06		
10	16QAM	25	25	20.99	21.04	20.93	21.09		
10	16QAM	50	0	21.04	21.11	20.93	21.11		
10	64QAM	1	0	20.78	20.94	20.85	21.00	22	2
10	64QAM	1	25	20.68	20.81	20.68	20.84		
10	64QAM	1	49	20.73	20.78	20.73	20.88		
10	64QAM	25	0	19.89	20.04	19.84	20.02	21	3
10	64QAM	25	12	19.98	20.06	19.87	20.04		
10	64QAM	25	25	19.95	19.99	19.87	20.05		
10	64QAM	50	0	19.93	20.09	19.88	20.03		
Channel				40065	40385	40705	41215	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2537.5	2569.5	2601.5	2652.5		
5	QPSK	1	0	22.92	22.91	22.89	22.92	24	0
5	QPSK	1	12	22.89	22.95	22.86	22.93		
5	QPSK	1	24	22.97	22.90	22.93	22.91		
5	QPSK	12	0	21.96	22.14	21.95	22.13	23	1
5	QPSK	12	7	21.99	22.07	21.96	22.11		
5	QPSK	12	13	21.99	22.11	21.92	22.09		
5	QPSK	25	0	21.96	22.10	21.86	22.09		
5	16QAM	1	0	22.08	22.18	22.03	22.17	23	1
5	16QAM	1	12	22.04	22.18	22.09	22.19		
5	16QAM	1	24	22.13	22.15	22.06	22.25		
5	16QAM	12	0	20.87	21.05	20.91	21.14	22	2
5	16QAM	12	7	20.95	21.06	20.94	21.10		
5	16QAM	12	13	20.88	21.05	20.94	21.02		
5	16QAM	25	0	20.93	21.11	20.95	21.10		
5	64QAM	1	0	20.76	20.81	20.75	20.89	22	2
5	64QAM	1	12	20.71	20.82	20.71	20.92		
5	64QAM	1	24	20.83	20.91	20.75	20.90		
5	64QAM	12	0	19.94	20.08	19.91	20.12	21	3
5	64QAM	12	7	19.97	20.14	19.95	20.10		
5	64QAM	12	13	19.93	20.04	19.91	20.03		
5	64QAM	25	0	19.95	20.03	19.88	20.07		

Reduced power Mode for Sensor On for ANT1

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	29.21	29.29	29.30	31.00	20.21	20.29	20.30	22.00
GPRS 1 Tx slot	29.39	29.33	29.31	31.00	20.39	20.33	20.31	22.00
GPRS 2 Tx slots	28.12	27.72	28.14	29.00	22.12	21.72	22.14	23.00
GPRS 3 Tx slots	25.75	25.86	25.81	27.50	21.49	21.60	21.55	23.24
GPRS 4 Tx slots	24.91	25.32	25.00	26.00	21.91	22.32	22.00	23.00
EDGE 1 Tx slot	22.06	21.88	21.93	23.50	13.06	12.88	12.93	14.50
EDGE 2 Tx slots	21.03	20.85	20.88	22.00	15.03	14.85	14.88	16.00
EDGE 3 Tx slots	19.11	19.01	19.01	20.00	14.85	14.75	14.75	15.74
EDGE 4 Tx slots	17.02	16.89	16.88	18.00	14.02	13.89	13.88	15.00

GSM1900	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	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	25.03	24.89	24.91	26.00	16.03	15.89	15.91	17.00
GPRS 1 Tx slot	25.01	24.85	24.88	26.00	16.01	15.85	15.88	17.00
GPRS 2 Tx slots	23.21	23.42	23.32	24.00	17.21	17.42	17.32	18.00
GPRS 3 Tx slots	21.55	21.63	21.42	22.50	17.29	17.37	17.16	18.24
GPRS 4 Tx slots	19.89	20.01	20.00	21.00	16.89	17.01	17.00	18.00
EDGE 1 Tx slot	20.62	20.69	20.51	21.50	11.62	11.69	11.51	12.50
EDGE 2 Tx slots	19.46	19.75	19.42	20.50	13.46	13.75	13.42	14.50
EDGE 3 Tx slots	18.20	18.52	18.27	19.00	13.94	14.26	14.01	14.74
EDGE 4 Tx slots	17.11	17.20	17.03	17.50	14.11	14.20	14.03	14.50

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	17.78	17.87	17.80	19.00	16.83	16.87	16.78	18.50	21.21	21.23	21.22	23.00
3GPP Rel 99	RMC 12.2Kbps	17.86	17.88	17.82	19.00	16.85	16.88	16.80	18.50	21.22	21.25	21.24	23.00
3GPP Rel 6	HSDPA Subtest-1	16.72	16.83	16.73	18.00	15.97	16.05	16.07	17.50	20.75	20.80	20.85	22.00
3GPP Rel 6	HSDPA Subtest-2	16.69	16.81	16.74	18.00	15.97	16.01	16.08	17.50	20.78	20.83	20.84	22.00
3GPP Rel 6	HSDPA Subtest-3	16.27	16.31	16.25	17.50	15.45	15.56	15.54	17.00	20.28	20.35	20.34	21.50
3GPP Rel 6	HSDPA Subtest-4	16.26	16.27	16.21	17.50	15.46	15.55	15.51	17.00	20.25	20.35	20.30	21.50
3GPP Rel 8	DC-HSDPA Subtest-1	16.69	16.78	16.71	18.00	15.92	16.03	16.04	17.50	20.73	20.77	20.80	22.00
3GPP Rel 8	DC-HSDPA Subtest-2	16.66	16.76	16.72	18.00	15.92	15.99	16.05	17.50	20.76	20.80	20.79	22.00
3GPP Rel 8	DC-HSDPA Subtest-3	16.24	16.26	16.23	17.50	15.40	15.54	15.51	17.00	20.26	20.32	20.29	21.50
3GPP Rel 8	DC-HSDPA Subtest-4	16.23	16.22	16.19	17.50	15.41	15.53	15.48	17.00	20.23	20.32	20.25	21.50
3GPP Rel 6	HSUPA Subtest-1	16.66	16.79	16.74	18.00	15.85	15.99	15.96	17.50	20.74	20.79	20.85	22.00
3GPP Rel 6	HSUPA Subtest-2	14.68	14.77	14.71	16.00	13.91	14.03	13.99	15.50	18.72	18.76	18.80	20.00
3GPP Rel 6	HSUPA Subtest-3	15.67	15.79	15.67	17.00	14.85	15.02	14.93	16.50	19.75	19.84	19.84	21.00
3GPP Rel 6	HSUPA Subtest-4	14.68	14.79	14.74	16.00	13.87	13.98	13.96	15.50	18.75	18.78	18.82	20.00
3GPP Rel 6	HSUPA Subtest-5	16.60	16.70	16.70	18.00	15.91	16.01	15.91	17.50	20.77	20.77	20.87	22.00

Band 2

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				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	18.09	18.10	18.02	19.5	0
20	QPSK	1	49	17.99	18.06	17.98		
20	QPSK	1	99	17.97	18.01	17.94		
20	QPSK	50	0	17.92	18.03	17.84	19.5	0
20	QPSK	50	24	17.96	17.99	17.90		
20	QPSK	50	50	17.89	18.00	17.90		
20	QPSK	100	0	17.76	17.85	17.82		
20	16QAM	1	0	18.06	18.04	17.93	19.5	0
20	16QAM	1	49	17.94	18.04	17.96		
20	16QAM	1	99	18.00	17.94	17.95		
20	16QAM	50	0	17.68	17.78	17.76	19.5	0
20	16QAM	50	24	17.80	17.82	17.84		
20	16QAM	50	50	17.76	17.86	17.72		
20	16QAM	100	0	17.77	17.82	17.81		
20	64QAM	1	0	17.81	17.92	17.95	19.5	0
20	64QAM	1	49	17.87	17.96	17.86		
20	64QAM	1	99	17.72	17.86	17.77		
20	64QAM	50	0	17.74	17.81	17.80	19.5	0
20	64QAM	50	24	17.74	17.83	17.75		
20	64QAM	50	50	17.68	17.86	17.74		
20	64QAM	100	0	17.75	17.76	17.72		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	18.04	18.09	18.01	19.5	0
15	QPSK	1	37	17.95	17.91	18.02		
15	QPSK	1	74	17.90	18.01	17.90		
15	QPSK	36	0	17.85	17.97	17.88	19.5	0
15	QPSK	36	20	17.95	17.99	17.99		
15	QPSK	36	39	17.91	18.02	17.90		
15	QPSK	75	0	17.72	17.76	17.62		
15	16QAM	1	0	17.94	17.97	18.09	19.5	0
15	16QAM	1	37	17.92	18.05	17.96		
15	16QAM	1	74	18.09	17.91	17.82		
15	16QAM	36	0	17.67	17.75	17.69	19.5	0
15	16QAM	36	20	17.73	17.74	17.79		
15	16QAM	36	39	17.69	17.88	17.72		
15	16QAM	75	0	17.76	17.83	17.67		
15	64QAM	1	0	17.92	17.77	17.83	19.5	0
15	64QAM	1	37	17.90	17.77	17.78		
15	64QAM	1	74	17.89	17.94	17.81		
15	64QAM	36	0	17.75	17.80	17.84	19.5	0
15	64QAM	36	20	17.74	17.76	17.81		
15	64QAM	36	39	17.82	17.88	17.73		
15	64QAM	75	0	17.73	17.77	17.75		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	17.84	17.86	17.74	19.5	0
10	QPSK	1	25	17.74	17.94	17.73		
10	QPSK	1	49	17.73	17.81	17.64		
10	QPSK	25	0	17.83	17.96	17.75	19.5	0
10	QPSK	25	12	17.80	17.91	17.81		
10	QPSK	25	25	17.75	17.89	17.78		
10	QPSK	50	0	17.85	17.98	17.80		
10	16QAM	1	0	18.08	18.06	17.90	19.5	0
10	16QAM	1	25	18.01	18.05	17.94		
10	16QAM	1	49	17.98	17.90	17.94		
10	16QAM	25	0	17.95	17.98	17.86	19.5	0
10	16QAM	25	12	17.87	17.92	17.78		
10	16QAM	25	25	17.77	18.00	17.88		
10	16QAM	50	0	17.85	17.94	17.76		
10	64QAM	1	0	17.93	17.91	17.91	19.5	0
10	64QAM	1	25	17.96	17.87	17.77		
10	64QAM	1	49	18.00	18.05	17.88		
10	64QAM	25	0	17.93	18.00	17.93	19.5	0
10	64QAM	25	12	17.92	17.95	17.85		
10	64QAM	25	25	17.85	17.96	17.80		
10	64QAM	50	0	17.88	17.92	17.74		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	17.84	17.83	17.73	19.5	0
5	QPSK	1	12	17.71	17.71	17.73		
5	QPSK	1	24	17.74	17.81	17.55		
5	QPSK	12	0	17.88	17.90	17.85	19.5	0
5	QPSK	12	7	17.82	17.86	17.81		
5	QPSK	12	13	17.72	17.91	17.69		
5	QPSK	25	0	17.84	17.84	17.69		
5	16QAM	1	0	18.05	17.82	17.70	19.5	0
5	16QAM	1	12	18.03	17.93	17.66		
5	16QAM	1	24	17.85	17.80	17.66		
5	16QAM	12	0	17.90	17.96	17.79	19.5	0
5	16QAM	12	7	17.82	17.94	17.74		
5	16QAM	12	13	17.73	17.88	17.73		
5	16QAM	25	0	17.83	17.81	17.74		
5	64QAM	1	0	18.00	18.07	17.92	19.5	0
5	64QAM	1	12	17.97	17.87	17.98		
5	64QAM	1	24	17.78	17.96	18.05		
5	64QAM	12	0	17.86	17.90	17.77	19.5	0
5	64QAM	12	7	17.80	17.89	17.72		
5	64QAM	12	13	17.74	17.87	17.62		
5	64QAM	25	0	17.82	17.79	17.75		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	17.88	17.83	17.77	19.5	0
3	QPSK	1	8	17.84	17.90	17.65		
3	QPSK	1	14	17.60	17.72	17.56		
3	QPSK	8	0	17.86	17.90	17.79	19.5	0
3	QPSK	8	4	17.79	17.94	17.77		
3	QPSK	8	7	17.71	17.83	17.67		
3	QPSK	15	0	17.77	17.81	17.75		
3	16QAM	1	0	17.98	17.99	17.92	19.5	0
3	16QAM	1	8	17.87	18.05	17.84		
3	16QAM	1	14	17.81	17.81	17.62		
3	16QAM	8	0	17.95	17.94	17.79	19.5	0
3	16QAM	8	4	17.86	17.95	17.79		
3	16QAM	8	7	17.81	17.83	17.72		
3	16QAM	15	0	17.83	17.81	17.71		
3	64QAM	1	0	17.80	17.87	17.95	19.5	0
3	64QAM	1	8	17.80	17.90	17.77		
3	64QAM	1	14	17.63	17.69	17.83		
3	64QAM	8	0	17.92	17.86	17.82	19.5	0
3	64QAM	8	4	17.89	17.91	17.82		
3	64QAM	8	7	17.75	17.80	17.70		
3	64QAM	15	0	17.82	17.84	17.69		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	17.88	17.95	17.71	19.5	0
1.4	QPSK	1	3	17.87	17.90	17.75		
1.4	QPSK	1	5	17.84	17.86	17.62		
1.4	QPSK	3	0	17.85	17.97	17.72		
1.4	QPSK	3	1	17.84	18.01	17.79		
1.4	QPSK	3	3	17.82	17.88	17.68		
1.4	QPSK	6	0	17.81	18.01	17.75	19.5	0
1.4	16QAM	1	0	18.03	17.99	17.77	19.5	0
1.4	16QAM	1	3	18.01	17.99	17.82		
1.4	16QAM	1	5	17.79	17.99	17.63		
1.4	16QAM	3	0	17.91	18.05	17.76		
1.4	16QAM	3	1	18.00	17.96	17.80		
1.4	16QAM	3	3	17.87	17.88	17.70		
1.4	16QAM	6	0	17.98	17.99	17.80	19.5	0
1.4	64QAM	1	0	17.76	17.99	17.63	19.5	0
1.4	64QAM	1	3	17.89	17.92	17.83		
1.4	64QAM	1	5	17.77	17.89	17.71		
1.4	64QAM	3	0	17.97	18.04	17.80		
1.4	64QAM	3	1	18.01	18.06	17.88		
1.4	64QAM	3	3	17.83	17.98	17.79		
1.4	64QAM	6	0	17.94	17.96	17.70	19.5	0

Band 4

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				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	17.72	17.95	17.83	19.5	0
20	QPSK	1	49	17.53	17.63	17.55		
20	QPSK	1	99	17.65	17.76	17.68		
20	QPSK	50	0	17.65	17.78	17.69	19.5	0
20	QPSK	50	24	17.71	17.69	17.69		
20	QPSK	50	50	17.75	17.63	17.76		
20	QPSK	100	0	17.70	17.72	17.67		
20	16QAM	1	0	17.62	17.69	17.59	19.5	0
20	16QAM	1	49	17.55	17.63	17.65		
20	16QAM	1	99	17.66	17.60	17.74		
20	16QAM	50	0	17.62	17.67	17.74	19.5	0
20	16QAM	50	24	17.77	17.69	17.75		
20	16QAM	50	50	17.72	17.79	17.78		
20	16QAM	100	0	17.66	17.69	17.67		
20	64QAM	1	0	17.75	17.74	17.75	19.5	0
20	64QAM	1	49	17.63	17.65	17.65		
20	64QAM	1	99	17.63	17.60	17.71		
20	64QAM	50	0	17.64	17.64	17.79	19.5	0
20	64QAM	50	24	17.74	17.79	17.75		
20	64QAM	50	50	17.72	17.76	17.77		
20	64QAM	100	0	17.76	17.67	17.72		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	17.62	17.52	17.65	19.5	0
15	QPSK	1	37	17.63	17.79	17.51		
15	QPSK	1	74	17.55	17.68	17.63		
15	QPSK	36	0	17.57	17.68	17.62	19.5	0
15	QPSK	36	20	17.67	17.73	17.75		
15	QPSK	36	39	17.72	17.63	17.76		
15	QPSK	75	0	17.62	17.66	17.86		
15	16QAM	1	0	17.54	17.66	17.70	19.5	0
15	16QAM	1	37	17.50	17.65	17.63		
15	16QAM	1	74	17.56	17.62	17.68		
15	16QAM	36	0	17.65	17.67	17.66	19.5	0
15	16QAM	36	20	17.67	17.74	17.84		
15	16QAM	36	39	17.68	17.77	17.69		
15	16QAM	75	0	17.69	17.65	17.79		
15	64QAM	1	0	17.72	17.62	17.59	19.5	0
15	64QAM	1	37	17.51	17.66	17.60		
15	64QAM	1	74	17.69	17.50	17.64		
15	64QAM	36	0	17.57	17.64	17.65	19.5	0
15	64QAM	36	20	17.68	17.76	17.83		
15	64QAM	36	39	17.72	17.74	17.76		
15	64QAM	75	0	17.63	17.68	17.77		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	17.69	17.81	17.66	19.5	0
10	QPSK	1	25	17.72	17.67	17.81		
10	QPSK	1	49	17.71	17.61	17.73		
10	QPSK	25	0	17.77	17.87	17.83	19.5	0
10	QPSK	25	12	17.76	17.78	17.84		
10	QPSK	25	25	17.76	17.84	17.90		
10	QPSK	50	0	17.70	17.80	17.84		
10	16QAM	1	0	17.61	17.66	17.73	19.5	0
10	16QAM	1	25	17.57	17.76	17.72		
10	16QAM	1	49	17.73	17.89	17.81		
10	16QAM	25	0	17.75	17.82	17.91	19.5	0
10	16QAM	25	12	17.82	17.87	17.92		
10	16QAM	25	25	17.88	17.75	17.87		
10	16QAM	50	0	17.82	17.81	17.78		
10	64QAM	1	0	17.65	17.63	17.69	19.5	0
10	64QAM	1	25	17.59	17.60	17.64		
10	64QAM	1	49	17.51	17.68	17.80		
10	64QAM	25	0	17.77	17.81	17.70	19.5	0
10	64QAM	25	12	17.85	17.74	17.94		
10	64QAM	25	25	17.86	17.81	17.63		
10	64QAM	50	0	17.83	17.78	17.92		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	17.72	17.71	17.83	19.5	0
5	QPSK	1	12	17.73	17.68	17.81		
5	QPSK	1	24	17.71	17.80	17.91		
5	QPSK	12	0	17.81	17.82	17.87	19.5	0
5	QPSK	12	7	17.74	17.86	17.90		
5	QPSK	12	13	17.78	17.83	17.86		
5	QPSK	25	0	17.73	17.85	17.92		
5	16QAM	1	0	17.54	17.59	17.73	19.5	0
5	16QAM	1	12	17.58	17.56	17.55		
5	16QAM	1	24	17.53	17.60	17.52		
5	16QAM	12	0	17.78	17.90	17.93	19.5	0
5	16QAM	12	7	17.80	17.88	17.66		
5	16QAM	12	13	17.82	17.87	17.60		
5	16QAM	25	0	17.85	17.85	17.88		
5	64QAM	1	0	17.50	17.65	17.66	19.5	0
5	64QAM	1	12	17.66	17.69	17.65		
5	64QAM	1	24	17.65	17.62	17.52		
5	64QAM	12	0	17.78	17.75	17.63	19.5	0
5	64QAM	12	7	17.85	17.89	17.76		
5	64QAM	12	13	17.76	17.92	17.75		
5	64QAM	25	0	17.75	17.82	17.89		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	17.70	17.72	17.82	19.5	0
3	QPSK	1	8	17.74	17.90	17.86		
3	QPSK	1	14	17.66	17.80	17.79		
3	QPSK	8	0	17.75	17.74	17.91	19.5	0
3	QPSK	8	4	17.76	17.91	17.94		
3	QPSK	8	7	17.72	17.79	17.88		
3	QPSK	15	0	17.79	17.82	17.84		
3	16QAM	1	0	17.59	17.55	17.69	19.5	0
3	16QAM	1	8	17.71	17.57	17.69		
3	16QAM	1	14	17.54	17.53	17.64		
3	16QAM	8	0	17.85	17.86	17.76	19.5	0
3	16QAM	8	4	17.91	17.69	17.94		
3	16QAM	8	7	17.82	17.88	17.93		
3	16QAM	15	0	17.81	17.90	17.92		
3	64QAM	1	0	17.63	17.65	17.60	19.5	0
3	64QAM	1	8	17.55	17.75	17.61		
3	64QAM	1	14	17.63	17.59	17.53		
3	64QAM	8	0	17.77	17.82	17.89	19.5	0
3	64QAM	8	4	17.89	17.77	17.75		
3	64QAM	8	7	17.80	17.91	17.90		
3	64QAM	15	0	17.77	17.80	17.86		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	17.70	17.64	17.76	19.5	0
1.4	QPSK	1	3	17.74	17.76	17.88		
1.4	QPSK	1	5	17.58	17.63	17.74		
1.4	QPSK	3	0	17.76	17.72	17.72		
1.4	QPSK	3	1	17.58	17.74	17.76		
1.4	QPSK	3	3	17.66	17.72	17.81		
1.4	QPSK	6	0	17.73	17.81	17.86	19.5	0
1.4	16QAM	1	0	17.56	17.71	17.88	19.5	0
1.4	16QAM	1	3	17.60	17.65	17.53		
1.4	16QAM	1	5	17.65	17.65	17.82		
1.4	16QAM	3	0	17.63	17.62	17.55		
1.4	16QAM	3	1	17.62	17.55	17.53		
1.4	16QAM	3	3	17.72	17.73	17.68		
1.4	16QAM	6	0	17.81	17.86	17.88	19.5	0
1.4	64QAM	1	0	17.66	17.67	17.75	19.5	0
1.4	64QAM	1	3	17.53	17.63	17.63		
1.4	64QAM	1	5	17.62	17.63	17.66		
1.4	64QAM	3	0	17.69	17.56	17.62		
1.4	64QAM	3	1	17.66	17.65	17.50		
1.4	64QAM	3	3	17.69	17.68	17.66		
1.4	64QAM	6	0	17.83	17.90	17.80	19.5	0

Band 7

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				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	18.64	18.76	18.57	20	0
20	QPSK	1	49	18.42	18.32	18.35		
20	QPSK	1	99	18.45	18.46	18.28		
20	QPSK	50	0	18.40	18.66	18.35	20	0
20	QPSK	50	24	18.64	18.50	18.34		
20	QPSK	50	50	18.62	18.45	18.27		
20	QPSK	100	0	18.62	18.68	18.42		
20	16QAM	1	0	18.52	18.45	18.32	20	0
20	16QAM	1	49	18.35	18.28	18.19		
20	16QAM	1	99	18.54	18.27	18.11		
20	16QAM	50	0	18.46	18.47	18.42	20	0
20	16QAM	50	24	18.59	18.48	18.39		
20	16QAM	50	50	18.50	18.54	18.30		
20	16QAM	100	0	18.57	18.46	18.34		
20	64QAM	1	0	18.35	18.47	18.24	20	0
20	64QAM	1	49	18.45	18.40	18.15		
20	64QAM	1	99	18.45	18.14	18.05		
20	64QAM	50	0	18.46	18.51	18.29	20	0
20	64QAM	50	24	18.61	18.46	18.38		
20	64QAM	50	50	18.66	18.54	18.27		
20	64QAM	100	0	18.61	18.49	18.35		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	18.43	18.36	18.12	20	0
15	QPSK	1	37	18.40	18.28	18.26		
15	QPSK	1	74	18.43	18.43	18.13		
15	QPSK	36	0	18.51	18.45	18.19	20	0
15	QPSK	36	20	18.59	18.46	18.36		
15	QPSK	36	39	18.54	18.44	18.32		
15	QPSK	75	0	18.61	18.46	18.30		
15	16QAM	1	0	18.32	18.40	18.30	20	0
15	16QAM	1	37	18.33	18.33	18.11		
15	16QAM	1	74	18.49	18.36	18.12		
15	16QAM	36	0	18.50	18.53	18.23	20	0
15	16QAM	36	20	18.52	18.38	18.39		
15	16QAM	36	39	18.56	18.39	18.25		
15	16QAM	75	0	18.64	18.43	18.31		
15	64QAM	1	0	18.22	18.41	18.13	20	0
15	64QAM	1	37	18.35	18.50	18.35		
15	64QAM	1	74	18.45	18.28	18.22		
15	64QAM	36	0	18.55	18.54	18.30	20	0
15	64QAM	36	20	18.66	18.45	18.38		
15	64QAM	36	39	18.59	18.47	18.31		
15	64QAM	75	0	18.56	18.47	18.26		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	18.54	18.74	18.28	20	0
10	QPSK	1	25	18.65	18.48	18.42		
10	QPSK	1	49	18.73	18.52	18.29		
10	QPSK	25	0	18.67	18.61	18.43	20	0
10	QPSK	25	12	18.73	18.65	18.42		
10	QPSK	25	25	18.70	18.65	18.48		
10	QPSK	50	0	18.69	18.58	18.31		
10	16QAM	1	0	18.53	18.60	18.34	20	0
10	16QAM	1	25	18.54	18.36	18.15		
10	16QAM	1	49	18.54	18.62	18.23		
10	16QAM	25	0	18.65	18.59	18.47	20	0
10	16QAM	25	12	18.75	18.59	18.45		
10	16QAM	25	25	18.72	18.62	18.48		
10	16QAM	50	0	18.74	18.60	18.47		
10	64QAM	1	0	18.59	18.62	18.23	20	0
10	64QAM	1	25	18.64	18.66	18.30		
10	64QAM	1	49	18.66	18.56	18.28		
10	64QAM	25	0	18.72	18.68	18.50	20	0
10	64QAM	25	12	18.72	18.71	18.46		
10	64QAM	25	25	18.69	18.69	18.45		
10	64QAM	50	0	18.74	18.64	18.49		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	18.48	18.54	18.32	20	0
5	QPSK	1	12	18.59	18.59	18.25		
5	QPSK	1	24	18.61	18.52	18.33		
5	QPSK	12	0	18.59	18.51	18.41	20	0
5	QPSK	12	7	18.71	18.68	18.48		
5	QPSK	12	13	18.73	18.61	18.47		
5	QPSK	25	0	18.67	18.53	18.42		
5	16QAM	1	0	18.55	18.49	18.40	20	0
5	16QAM	1	12	18.69	18.63	18.31		
5	16QAM	1	24	18.59	18.59	18.38		
5	16QAM	12	0	18.60	18.54	18.41	20	0
5	16QAM	12	7	18.70	18.72	18.42		
5	16QAM	12	13	18.66	18.71	18.45		
5	16QAM	25	0	18.71	18.61	18.41		
5	64QAM	1	0	18.52	18.64	18.44	20	0
5	64QAM	1	12	18.65	18.73	18.41		
5	64QAM	1	24	18.71	18.56	18.41		
5	64QAM	12	0	18.68	18.55	18.50	20	0
5	64QAM	12	7	18.68	18.70	18.52		
5	64QAM	12	13	18.62	18.73	18.56		
5	64QAM	25	0	18.70	18.57	18.53		

Band 66

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				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	17.89	17.99	17.82	19.5	0
20	QPSK	1	49	17.65	17.71	17.68		
20	QPSK	1	99	17.61	17.69	17.70		
20	QPSK	50	0	17.61	17.80	17.65	19.5	0
20	QPSK	50	24	17.74	17.78	17.66		
20	QPSK	50	50	17.70	17.76	17.72		
20	QPSK	100	0	17.68	17.72	17.69		
20	16QAM	1	0	17.67	17.70	17.55	19.5	0
20	16QAM	1	49	17.74	17.51	17.74		
20	16QAM	1	99	17.52	17.57	17.52		
20	16QAM	50	0	17.56	17.60	17.62	19.5	0
20	16QAM	50	24	17.68	17.69	17.65		
20	16QAM	50	50	17.59	17.64	17.76		
20	16QAM	100	0	17.67	17.64	17.57		
20	64QAM	1	0	17.78	17.56	17.58	19.5	0
20	64QAM	1	49	17.76	17.71	17.64		
20	64QAM	1	99	17.78	17.70	17.71		
20	64QAM	50	0	17.59	17.69	17.60	19.5	0
20	64QAM	50	24	17.66	17.71	17.63		
20	64QAM	50	50	17.70	17.74	17.69		
20	64QAM	100	0	17.68	17.65	17.53		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	17.52	17.67	17.67	19.5	0
15	QPSK	1	37	17.59	17.80	17.59		
15	QPSK	1	74	17.56	17.57	17.64		
15	QPSK	36	0	17.74	17.77	17.64	19.5	0
15	QPSK	36	20	17.72	17.72	17.74		
15	QPSK	36	39	17.75	17.80	17.68		
15	QPSK	75	0	17.76	17.72	17.67		
15	16QAM	1	0	17.52	17.58	17.78	19.5	0
15	16QAM	1	37	17.72	17.61	17.78		
15	16QAM	1	74	17.56	17.57	17.77		
15	16QAM	36	0	17.62	17.58	17.68	19.5	0
15	16QAM	36	20	17.65	17.74	17.76		
15	16QAM	36	39	17.74	17.71	17.72		
15	16QAM	75	0	17.68	17.66	17.75		
15	64QAM	1	0	17.59	17.52	17.65	19.5	0
15	64QAM	1	37	17.71	17.63	17.79		
15	64QAM	1	74	17.71	17.50	17.68		
15	64QAM	36	0	17.70	17.67	17.64	19.5	0
15	64QAM	36	20	17.64	17.76	17.73		
15	64QAM	36	39	17.70	17.71	17.63		
15	64QAM	75	0	17.69	17.63	17.65		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	17.70	17.72	17.76	19.5	0
10	QPSK	1	25	17.81	17.79	17.83		
10	QPSK	1	49	17.54	17.76	17.81		
10	QPSK	25	0	17.86	17.89	17.79	19.5	0
10	QPSK	25	12	17.91	17.88	17.84		
10	QPSK	25	25	17.84	17.90	17.88		
10	QPSK	50	0	17.79	17.86	17.74		
10	16QAM	1	0	17.59	17.63	17.51	19.5	0
10	16QAM	1	25	17.61	17.84	17.56		
10	16QAM	1	49	17.63	17.68	17.75		
10	16QAM	25	0	17.88	17.85	17.76	19.5	0
10	16QAM	25	12	17.91	17.84	17.81		
10	16QAM	25	25	17.85	17.63	17.84		
10	16QAM	50	0	17.88	17.86	17.81		
10	64QAM	1	0	17.77	17.65	17.72	19.5	0
10	64QAM	1	25	17.72	17.54	17.58		
10	64QAM	1	49	17.56	17.56	17.77		
10	64QAM	25	0	17.87	17.75	17.67	19.5	0
10	64QAM	25	12	17.89	17.84	17.81		
10	64QAM	25	25	17.86	17.82	17.85		
10	64QAM	50	0	17.84	17.84	17.81		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	17.77	17.75	17.84	19.5	0
5	QPSK	1	12	17.76	17.89	17.75		
5	QPSK	1	24	17.69	17.88	17.79		
5	QPSK	12	0	17.88	17.89	17.73	19.5	0
5	QPSK	12	7	17.86	17.72	17.83		
5	QPSK	12	13	17.88	17.89	17.84		
5	QPSK	25	0	17.87	17.81	17.86		
5	16QAM	1	0	17.82	17.78	17.73	19.5	0
5	16QAM	1	12	17.86	17.70	17.79		
5	16QAM	1	24	17.78	17.80	17.64		
5	16QAM	12	0	17.77	17.88	17.87	19.5	0
5	16QAM	12	7	17.86	17.86	17.82		
5	16QAM	12	13	17.83	17.86	17.81		
5	16QAM	25	0	17.87	17.88	17.82		
5	64QAM	1	0	17.65	17.55	17.61	19.5	0
5	64QAM	1	12	17.75	17.59	17.59		
5	64QAM	1	24	17.73	17.64	17.69		
5	64QAM	12	0	17.88	17.91	17.83	19.5	0
5	64QAM	12	7	17.88	17.70	17.83		
5	64QAM	12	13	17.86	17.66	17.88		
5	64QAM	25	0	17.84	17.83	17.80		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	17.76	17.78	17.80	19.5	0
3	QPSK	1	8	17.82	17.91	17.83		
3	QPSK	1	14	17.73	17.77	17.71		
3	QPSK	8	0	17.81	17.87	17.81	19.5	0
3	QPSK	8	4	17.89	17.65	17.86		
3	QPSK	8	7	17.80	17.85	17.88		
3	QPSK	15	0	17.84	17.86	17.79		
3	16QAM	1	0	17.68	17.76	17.71	19.5	0
3	16QAM	1	8	17.80	17.81	17.78		
3	16QAM	1	14	17.61	17.74	17.71		
3	16QAM	8	0	17.91	17.89	17.86	19.5	0
3	16QAM	8	4	17.87	17.76	17.85		
3	16QAM	8	7	17.84	17.63	17.83		
3	16QAM	15	0	17.82	17.83	17.86		
3	64QAM	1	0	17.57	17.69	17.58	19.5	0
3	64QAM	1	8	17.70	17.77	17.59		
3	64QAM	1	14	17.56	17.64	17.61		
3	64QAM	8	0	17.80	17.87	17.90	19.5	0
3	64QAM	8	4	17.85	17.76	17.78		
3	64QAM	8	7	17.83	17.90	17.84		
3	64QAM	15	0	17.81	17.86	17.84		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	17.68	17.69	17.66	19.5	0
1.4	QPSK	1	3	17.67	17.81	17.62		
1.4	QPSK	1	5	17.71	17.72	17.61		
1.4	QPSK	3	0	17.66	17.81	17.64		
1.4	QPSK	3	1	17.72	17.82	17.69		
1.4	QPSK	3	3	17.80	17.75	17.63		
1.4	QPSK	6	0	17.79	17.78	17.78	19.5	0
1.4	16QAM	1	0	17.83	17.63	17.50	19.5	0
1.4	16QAM	1	3	17.62	17.73	17.70		
1.4	16QAM	1	5	17.71	17.67	17.67		
1.4	16QAM	3	0	17.86	17.71	17.86		
1.4	16QAM	3	1	17.88	17.88	17.72		
1.4	16QAM	3	3	17.84	17.76	17.71		
1.4	16QAM	6	0	17.74	17.83	17.79	19.5	0
1.4	64QAM	1	0	17.79	17.60	17.52	19.5	0
1.4	64QAM	1	3	17.54	17.63	17.78		
1.4	64QAM	1	5	17.72	17.61	17.76		
1.4	64QAM	3	0	17.73	17.88	17.81		
1.4	64QAM	3	1	17.89	17.78	17.64		
1.4	64QAM	3	3	17.88	17.87	17.84		
1.4	64QAM	6	0	17.68	17.81	17.69	19.5	0

Reduced power Mode for Hotspot On for ANT1

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	28.01	28.15	27.73	29.50	19.01	19.15	18.73	20.50
GPRS 1 Tx slot	27.99	28.12	27.72	29.50	18.99	19.12	18.72	20.50
GPRS 2 Tx slots	26.85	26.83	26.99	27.50	20.85	20.83	20.99	21.50
GPRS 3 Tx slots	24.30	24.35	24.31	26.00	20.04	20.09	20.05	21.74
GPRS 4 Tx slots	22.90	23.01	23.21	24.50	19.90	20.01	20.21	21.50
EDGE 1 Tx slot	21.06	21.01	21.04	22.00	12.06	12.01	12.04	13.00
EDGE 2 Tx slots	19.32	19.52	19.33	20.50	13.32	13.52	13.33	14.50
EDGE 3 Tx slots	17.32	17.22	17.52	18.50	13.06	12.96	13.26	14.24
EDGE 4 Tx slots	15.23	15.52	15.21	16.50	12.23	12.52	12.21	13.50

GSM1900	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	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	25.03	24.89	24.91	26.00	16.03	15.89	15.91	17.00
GPRS 1 Tx slot	25.01	24.85	24.88	26.00	16.01	15.85	15.88	17.00
GPRS 2 Tx slots	23.21	23.42	23.32	24.00	17.21	17.42	17.32	18.00
GPRS 3 Tx slots	21.55	21.63	21.42	22.50	17.29	17.37	17.16	18.24
GPRS 4 Tx slots	19.89	20.01	20.00	21.00	16.89	17.01	17.00	18.00
EDGE 1 Tx slot	20.62	20.69	20.51	21.50	11.62	11.69	11.51	12.50
EDGE 2 Tx slots	19.46	19.75	19.42	20.50	13.46	13.75	13.42	14.50
EDGE 3 Tx slots	18.20	18.52	18.27	19.00	13.94	14.26	14.01	14.74
EDGE 4 Tx slots	17.11	17.20	17.03	17.50	14.11	14.20	14.03	14.50

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	17.78	17.87	17.80	19.00	16.83	16.87	16.78	18.50	21.21	21.23	21.22	23.00
3GPP Rel 99	RMC 12.2Kbps	17.86	17.88	17.82	19.00	16.85	16.88	16.80	18.50	21.22	21.25	21.24	23.00
3GPP Rel 6	HSDPA Subtest-1	16.72	16.83	16.73	18.00	15.97	16.05	16.07	17.50	20.75	20.80	20.85	22.00
3GPP Rel 6	HSDPA Subtest-2	16.69	16.81	16.74	18.00	15.97	16.01	16.08	17.50	20.78	20.83	20.84	22.00
3GPP Rel 6	HSDPA Subtest-3	16.27	16.31	16.25	17.50	15.45	15.56	15.54	17.00	20.28	20.35	20.34	21.50
3GPP Rel 6	HSDPA Subtest-4	16.26	16.27	16.21	17.50	15.46	15.55	15.51	17.00	20.25	20.35	20.30	21.50
3GPP Rel 8	DC-HSDPA Subtest-1	16.69	16.78	16.71	18.00	15.92	16.03	16.04	17.50	20.73	20.77	20.80	22.00
3GPP Rel 8	DC-HSDPA Subtest-2	16.66	16.76	16.72	18.00	15.92	15.99	16.05	17.50	20.76	20.80	20.79	22.00
3GPP Rel 8	DC-HSDPA Subtest-3	16.24	16.26	16.23	17.50	15.40	15.54	15.51	17.00	20.26	20.32	20.29	21.50
3GPP Rel 8	DC-HSDPA Subtest-4	16.23	16.22	16.19	17.50	15.41	15.53	15.48	17.00	20.23	20.32	20.25	21.50
3GPP Rel 6	HSUPA Subtest-1	16.66	16.79	16.74	18.00	15.85	15.99	15.96	17.50	20.74	20.79	20.85	22.00
3GPP Rel 6	HSUPA Subtest-2	14.68	14.77	14.71	16.00	13.91	14.03	13.99	15.50	18.72	18.76	18.80	20.00
3GPP Rel 6	HSUPA Subtest-3	15.67	15.79	15.67	17.00	14.85	15.02	14.93	16.50	19.75	19.84	19.84	21.00
3GPP Rel 6	HSUPA Subtest-4	14.68	14.79	14.74	16.00	13.87	13.98	13.96	15.50	18.75	18.78	18.82	20.00
3GPP Rel 6	HSUPA Subtest-5	16.60	16.70	16.70	18.00	15.91	16.01	15.91	17.50	20.77	20.77	20.87	22.00

Band 2

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				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	18.09	18.10	18.02	19.5	0
20	QPSK	1	49	17.99	18.06	17.98		
20	QPSK	1	99	17.97	18.01	17.94		
20	QPSK	50	0	17.92	18.03	17.84	19.5	0
20	QPSK	50	24	17.96	17.99	17.90		
20	QPSK	50	50	17.89	18.00	17.90		
20	QPSK	100	0	17.76	17.85	17.82		
20	16QAM	1	0	18.06	18.04	17.93	19.5	0
20	16QAM	1	49	17.94	18.04	17.96		
20	16QAM	1	99	18.00	17.94	17.95		
20	16QAM	50	0	17.68	17.78	17.76	19.5	0
20	16QAM	50	24	17.80	17.82	17.84		
20	16QAM	50	50	17.76	17.86	17.72		
20	16QAM	100	0	17.77	17.82	17.81		
20	64QAM	1	0	17.81	17.92	17.95	19.5	0
20	64QAM	1	49	17.87	17.96	17.86		
20	64QAM	1	99	17.72	17.86	17.77		
20	64QAM	50	0	17.74	17.81	17.80	19.5	0
20	64QAM	50	24	17.74	17.83	17.75		
20	64QAM	50	50	17.68	17.86	17.74		
20	64QAM	100	0	17.75	17.76	17.72		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	18.04	18.09	18.01	19.5	0
15	QPSK	1	37	17.95	17.91	18.02		
15	QPSK	1	74	17.90	18.01	17.90		
15	QPSK	36	0	17.85	17.97	17.88	19.5	0
15	QPSK	36	20	17.95	17.99	17.99		
15	QPSK	36	39	17.91	18.02	17.90		
15	QPSK	75	0	17.72	17.76	17.62		
15	16QAM	1	0	17.94	17.97	18.09	19.5	0
15	16QAM	1	37	17.92	18.05	17.96		
15	16QAM	1	74	18.09	17.91	17.82		
15	16QAM	36	0	17.67	17.75	17.69	19.5	0
15	16QAM	36	20	17.73	17.74	17.79		
15	16QAM	36	39	17.69	17.88	17.72		
15	16QAM	75	0	17.76	17.83	17.67		
15	64QAM	1	0	17.92	17.77	17.83	19.5	0
15	64QAM	1	37	17.90	17.77	17.78		
15	64QAM	1	74	17.89	17.94	17.81		
15	64QAM	36	0	17.75	17.80	17.84	19.5	0
15	64QAM	36	20	17.74	17.76	17.81		
15	64QAM	36	39	17.82	17.88	17.73		
15	64QAM	75	0	17.73	17.77	17.75		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	17.84	17.86	17.74	19.5	0
10	QPSK	1	25	17.74	17.94	17.73		
10	QPSK	1	49	17.73	17.81	17.64		
10	QPSK	25	0	17.83	17.96	17.75	19.5	0
10	QPSK	25	12	17.80	17.91	17.81		
10	QPSK	25	25	17.75	17.89	17.78		
10	QPSK	50	0	17.85	17.98	17.80		
10	16QAM	1	0	18.08	18.06	17.90	19.5	0
10	16QAM	1	25	18.01	18.05	17.94		
10	16QAM	1	49	17.98	17.90	17.94		
10	16QAM	25	0	17.95	17.98	17.86	19.5	0
10	16QAM	25	12	17.87	17.92	17.78		
10	16QAM	25	25	17.77	18.00	17.88		
10	16QAM	50	0	17.85	17.94	17.76		
10	64QAM	1	0	17.93	17.91	17.91	19.5	0
10	64QAM	1	25	17.96	17.87	17.77		
10	64QAM	1	49	18.00	18.05	17.88		
10	64QAM	25	0	17.93	18.00	17.93	19.5	0
10	64QAM	25	12	17.92	17.95	17.85		
10	64QAM	25	25	17.85	17.96	17.80		
10	64QAM	50	0	17.88	17.92	17.74		
Channel				18825	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	17.84	17.83	17.73	19.5	0
5	QPSK	1	12	17.71	17.71	17.73		
5	QPSK	1	24	17.74	17.81	17.55		
5	QPSK	12	0	17.88	17.90	17.85	19.5	0
5	QPSK	12	7	17.82	17.86	17.81		
5	QPSK	12	13	17.72	17.91	17.69		
5	QPSK	25	0	17.84	17.84	17.69		
5	16QAM	1	0	18.05	17.82	17.70	19.5	0
5	16QAM	1	12	18.03	17.93	17.66		
5	16QAM	1	24	17.85	17.80	17.66		
5	16QAM	12	0	17.90	17.96	17.79	19.5	0
5	16QAM	12	7	17.82	17.94	17.74		
5	16QAM	12	13	17.73	17.88	17.73		
5	16QAM	25	0	17.83	17.81	17.74		
5	64QAM	1	0	18.00	18.07	17.92	19.5	0
5	64QAM	1	12	17.97	17.87	17.98		
5	64QAM	1	24	17.78	17.96	18.05		
5	64QAM	12	0	17.86	17.90	17.77	19.5	0
5	64QAM	12	7	17.80	17.89	17.72		
5	64QAM	12	13	17.74	17.87	17.62		
5	64QAM	25	0	17.82	17.79	17.75		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	17.88	17.83	17.77	19.5	0
3	QPSK	1	8	17.84	17.90	17.65		
3	QPSK	1	14	17.60	17.72	17.56		
3	QPSK	8	0	17.86	17.90	17.79	19.5	0
3	QPSK	8	4	17.79	17.94	17.77		
3	QPSK	8	7	17.71	17.83	17.67		
3	QPSK	15	0	17.77	17.81	17.75		
3	16QAM	1	0	17.98	17.99	17.92	19.5	0
3	16QAM	1	8	17.87	18.05	17.84		
3	16QAM	1	14	17.81	17.81	17.62		
3	16QAM	8	0	17.95	17.94	17.79	19.5	0
3	16QAM	8	4	17.86	17.95	17.79		
3	16QAM	8	7	17.81	17.83	17.72		
3	16QAM	15	0	17.83	17.81	17.71		
3	64QAM	1	0	17.80	17.87	17.95	19.5	0
3	64QAM	1	8	17.80	17.90	17.77		
3	64QAM	1	14	17.63	17.69	17.83		
3	64QAM	8	0	17.92	17.86	17.82	19.5	0
3	64QAM	8	4	17.89	17.91	17.82		
3	64QAM	8	7	17.75	17.80	17.70		
3	64QAM	15	0	17.82	17.84	17.69		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	17.88	17.95	17.71	19.5	0
1.4	QPSK	1	3	17.87	17.90	17.75		
1.4	QPSK	1	5	17.84	17.86	17.62		
1.4	QPSK	3	0	17.85	17.97	17.72		
1.4	QPSK	3	1	17.84	18.01	17.79		
1.4	QPSK	3	3	17.82	17.88	17.68		
1.4	QPSK	6	0	17.81	18.01	17.75	19.5	0
1.4	16QAM	1	0	18.03	17.99	17.77	19.5	0
1.4	16QAM	1	3	18.01	17.99	17.82		
1.4	16QAM	1	5	17.79	17.99	17.63		
1.4	16QAM	3	0	17.91	18.05	17.76		
1.4	16QAM	3	1	18.00	17.96	17.80		
1.4	16QAM	3	3	17.87	17.88	17.70		
1.4	16QAM	6	0	17.98	17.99	17.80	19.5	0
1.4	64QAM	1	0	17.76	17.99	17.63	19.5	0
1.4	64QAM	1	3	17.89	17.92	17.83		
1.4	64QAM	1	5	17.77	17.89	17.71		
1.4	64QAM	3	0	17.97	18.04	17.80		
1.4	64QAM	3	1	18.01	18.06	17.88		
1.4	64QAM	3	3	17.83	17.98	17.79		
1.4	64QAM	6	0	17.94	17.96	17.70	19.5	0

Band 4

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				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	17.72	17.95	17.83	19.5	0
20	QPSK	1	49	17.53	17.63	17.55		
20	QPSK	1	99	17.65	17.76	17.68		
20	QPSK	50	0	17.65	17.78	17.69	19.5	0
20	QPSK	50	24	17.71	17.69	17.69		
20	QPSK	50	50	17.75	17.63	17.76		
20	QPSK	100	0	17.70	17.72	17.67		
20	16QAM	1	0	17.62	17.69	17.59	19.5	0
20	16QAM	1	49	17.55	17.63	17.65		
20	16QAM	1	99	17.66	17.60	17.74		
20	16QAM	50	0	17.62	17.67	17.74	19.5	0
20	16QAM	50	24	17.77	17.69	17.75		
20	16QAM	50	50	17.72	17.79	17.78		
20	16QAM	100	0	17.66	17.69	17.67		
20	64QAM	1	0	17.75	17.74	17.75	19.5	0
20	64QAM	1	49	17.63	17.65	17.65		
20	64QAM	1	99	17.63	17.60	17.71		
20	64QAM	50	0	17.64	17.64	17.79	19.5	0
20	64QAM	50	24	17.74	17.79	17.75		
20	64QAM	50	50	17.72	17.76	17.77		
20	64QAM	100	0	17.76	17.67	17.72		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	17.62	17.52	17.65	19.5	0
15	QPSK	1	37	17.63	17.79	17.51		
15	QPSK	1	74	17.55	17.68	17.63		
15	QPSK	36	0	17.57	17.68	17.62	19.5	0
15	QPSK	36	20	17.67	17.73	17.75		
15	QPSK	36	39	17.72	17.63	17.76		
15	QPSK	75	0	17.62	17.66	17.86		
15	16QAM	1	0	17.54	17.66	17.70	19.5	0
15	16QAM	1	37	17.50	17.65	17.63		
15	16QAM	1	74	17.56	17.62	17.68		
15	16QAM	36	0	17.65	17.67	17.66	19.5	0
15	16QAM	36	20	17.67	17.74	17.84		
15	16QAM	36	39	17.68	17.77	17.69		
15	16QAM	75	0	17.69	17.65	17.79		
15	64QAM	1	0	17.72	17.62	17.59	19.5	0
15	64QAM	1	37	17.51	17.66	17.60		
15	64QAM	1	74	17.69	17.50	17.64		
15	64QAM	36	0	17.57	17.64	17.65	19.5	0
15	64QAM	36	20	17.68	17.76	17.83		
15	64QAM	36	39	17.72	17.74	17.76		
15	64QAM	75	0	17.63	17.68	17.77		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	17.69	17.81	17.66	19.5	0
10	QPSK	1	25	17.72	17.67	17.81		
10	QPSK	1	49	17.71	17.61	17.73		
10	QPSK	25	0	17.77	17.87	17.83	19.5	0
10	QPSK	25	12	17.76	17.78	17.84		
10	QPSK	25	25	17.76	17.84	17.90		
10	QPSK	50	0	17.70	17.80	17.84		
10	16QAM	1	0	17.61	17.66	17.73	19.5	0
10	16QAM	1	25	17.57	17.76	17.72		
10	16QAM	1	49	17.73	17.89	17.81		
10	16QAM	25	0	17.75	17.82	17.91	19.5	0
10	16QAM	25	12	17.82	17.87	17.92		
10	16QAM	25	25	17.88	17.75	17.87		
10	16QAM	50	0	17.82	17.81	17.78		
10	64QAM	1	0	17.65	17.63	17.69	19.5	0
10	64QAM	1	25	17.59	17.60	17.64		
10	64QAM	1	49	17.51	17.68	17.80		
10	64QAM	25	0	17.77	17.81	17.70	19.5	0
10	64QAM	25	12	17.85	17.74	17.94		
10	64QAM	25	25	17.86	17.81	17.63		
10	64QAM	50	0	17.83	17.78	17.92		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	17.72	17.71	17.83	19.5	0
5	QPSK	1	12	17.73	17.68	17.81		
5	QPSK	1	24	17.71	17.80	17.91		
5	QPSK	12	0	17.81	17.82	17.87	19.5	0
5	QPSK	12	7	17.74	17.86	17.90		
5	QPSK	12	13	17.78	17.83	17.86		
5	QPSK	25	0	17.73	17.85	17.92		
5	16QAM	1	0	17.54	17.59	17.73	19.5	0
5	16QAM	1	12	17.58	17.56	17.55		
5	16QAM	1	24	17.53	17.60	17.52		
5	16QAM	12	0	17.78	17.90	17.93	19.5	0
5	16QAM	12	7	17.80	17.88	17.66		
5	16QAM	12	13	17.82	17.87	17.60		
5	16QAM	25	0	17.85	17.85	17.88		
5	64QAM	1	0	17.50	17.65	17.66	19.5	0
5	64QAM	1	12	17.66	17.69	17.65		
5	64QAM	1	24	17.65	17.62	17.52		
5	64QAM	12	0	17.78	17.75	17.63	19.5	0
5	64QAM	12	7	17.85	17.89	17.76		
5	64QAM	12	13	17.76	17.92	17.75		
5	64QAM	25	0	17.75	17.82	17.89		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	17.70	17.72	17.82	19.5	0
3	QPSK	1	8	17.74	17.90	17.86		
3	QPSK	1	14	17.66	17.80	17.79		
3	QPSK	8	0	17.75	17.74	17.91	19.5	0
3	QPSK	8	4	17.76	17.91	17.94		
3	QPSK	8	7	17.72	17.79	17.88		
3	QPSK	15	0	17.79	17.82	17.84		
3	16QAM	1	0	17.59	17.55	17.69	19.5	0
3	16QAM	1	8	17.71	17.57	17.69		
3	16QAM	1	14	17.54	17.53	17.64		
3	16QAM	8	0	17.85	17.86	17.76	19.5	0
3	16QAM	8	4	17.91	17.69	17.94		
3	16QAM	8	7	17.82	17.88	17.93		
3	16QAM	15	0	17.81	17.90	17.92		
3	64QAM	1	0	17.63	17.65	17.60	19.5	0
3	64QAM	1	8	17.55	17.75	17.61		
3	64QAM	1	14	17.63	17.59	17.53		
3	64QAM	8	0	17.77	17.82	17.89	19.5	0
3	64QAM	8	4	17.89	17.77	17.75		
3	64QAM	8	7	17.80	17.91	17.90		
3	64QAM	15	0	17.77	17.80	17.86		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	17.70	17.64	17.76	19.5	0
1.4	QPSK	1	3	17.74	17.76	17.88		
1.4	QPSK	1	5	17.58	17.63	17.74		
1.4	QPSK	3	0	17.76	17.72	17.72		
1.4	QPSK	3	1	17.58	17.74	17.76		
1.4	QPSK	3	3	17.66	17.72	17.81		
1.4	QPSK	6	0	17.73	17.81	17.86	19.5	0
1.4	16QAM	1	0	17.56	17.71	17.88	19.5	0
1.4	16QAM	1	3	17.60	17.65	17.53		
1.4	16QAM	1	5	17.65	17.65	17.82		
1.4	16QAM	3	0	17.63	17.62	17.55		
1.4	16QAM	3	1	17.62	17.55	17.53		
1.4	16QAM	3	3	17.72	17.73	17.68		
1.4	16QAM	6	0	17.81	17.86	17.88	19.5	0
1.4	64QAM	1	0	17.66	17.67	17.75	19.5	0
1.4	64QAM	1	3	17.53	17.63	17.63		
1.4	64QAM	1	5	17.62	17.63	17.66		
1.4	64QAM	3	0	17.69	17.56	17.62		
1.4	64QAM	3	1	17.66	17.65	17.50		
1.4	64QAM	3	3	17.69	17.68	17.66		
1.4	64QAM	6	0	17.83	17.90	17.80	19.5	0

Band 7

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				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	17.22	17.49	17.23	18.5	0
20	QPSK	1	49	17.23	17.32	17.20		
20	QPSK	1	99	17.23	17.15	17.41		
20	QPSK	50	0	17.12	17.23	17.22	18.5	0
20	QPSK	50	24	17.16	16.96	16.82		
20	QPSK	50	50	17.08	16.92	16.82		
20	QPSK	100	0	17.11	17.21	16.82		
20	16QAM	1	0	17.13	17.33	17.02	18.5	0
20	16QAM	1	49	17.21	17.12	17.01		
20	16QAM	1	99	17.33	17.09	16.93		
20	16QAM	50	0	17.06	17.04	16.84	18.5	0
20	16QAM	50	24	17.18	16.99	16.93		
20	16QAM	50	50	17.15	17.01	16.84		
20	16QAM	100	0	17.13	16.98	16.89		
20	64QAM	1	0	17.08	17.10	17.01	18.5	0
20	64QAM	1	49	17.09	16.99	16.98		
20	64QAM	1	99	17.11	17.00	16.76		
20	64QAM	50	0	17.07	17.07	16.88	18.5	0
20	64QAM	50	24	17.12	16.99	16.90		
20	64QAM	50	50	17.14	17.06	16.85		
20	64QAM	100	0	17.08	16.94	16.81		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	16.96	16.89	16.72	18.5	0
15	QPSK	1	37	16.89	16.94	16.70		
15	QPSK	1	74	16.84	16.75	16.59		
15	QPSK	36	0	17.16	16.96	16.78	18.5	0
15	QPSK	36	20	17.11	16.95	16.85		
15	QPSK	36	39	17.09	17.00	16.74		
15	QPSK	75	0	17.12	17.01	16.68		
15	16QAM	1	0	17.14	17.10	17.05	18.5	0
15	16QAM	1	37	17.28	17.09	16.93		
15	16QAM	1	74	17.30	17.12	16.96		
15	16QAM	36	0	17.11	16.99	16.82	18.5	0
15	16QAM	36	20	17.11	16.98	16.81		
15	16QAM	36	39	17.16	16.97	16.83		
15	16QAM	75	0	17.13	16.99	16.79		
15	64QAM	1	0	16.97	17.07	16.80	18.5	0
15	64QAM	1	37	17.11	16.99	16.72		
15	64QAM	1	74	17.13	16.97	16.79		
15	64QAM	36	0	17.10	17.07	16.82	18.5	0
15	64QAM	36	20	17.12	16.99	16.89		
15	64QAM	36	39	17.10	17.02	16.81		
15	64QAM	75	0	17.07	16.84	16.82		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	17.16	17.08	16.99	18.5	0
10	QPSK	1	25	17.10	17.12	16.89		
10	QPSK	1	49	17.05	16.97	16.82		
10	QPSK	25	0	17.12	17.07	16.96	18.5	0
10	QPSK	25	12	17.06	17.12	16.96		
10	QPSK	25	25	17.18	17.14	16.95		
10	QPSK	50	0	17.18	17.06	16.87		
10	16QAM	1	0	17.23	17.38	17.24	18.5	0
10	16QAM	1	25	17.36	17.08	17.15		
10	16QAM	1	49	17.21	17.32	17.09		
10	16QAM	25	0	17.20	17.18	16.99	18.5	0
10	16QAM	25	12	17.21	17.16	16.95		
10	16QAM	25	25	17.26	17.19	16.97		
10	16QAM	50	0	17.18	17.12	16.91		
10	64QAM	1	0	17.32	17.28	17.00	18.5	0
10	64QAM	1	25	17.16	17.28	16.96		
10	64QAM	1	49	17.24	17.25	17.04		
10	64QAM	25	0	17.22	17.12	16.92	18.5	0
10	64QAM	25	12	17.24	17.08	16.97		
10	64QAM	25	25	17.18	17.11	16.97		
10	64QAM	50	0	17.19	17.04	16.88		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	16.98	17.04	16.92	18.5	0
5	QPSK	1	12	17.16	17.02	16.88		
5	QPSK	1	24	17.13	17.06	16.90		
5	QPSK	12	0	17.13	17.01	16.97	18.5	0
5	QPSK	12	7	17.25	17.19	16.95		
5	QPSK	12	13	17.20	17.12	16.99		
5	QPSK	25	0	17.14	17.10	16.99		
5	16QAM	1	0	17.28	17.40	17.24	18.5	0
5	16QAM	1	12	17.38	17.40	17.20		
5	16QAM	1	24	17.48	17.30	17.26		
5	16QAM	12	0	17.13	17.06	16.85	18.5	0
5	16QAM	12	7	17.19	17.23	17.02		
5	16QAM	12	13	17.25	17.21	16.97		
5	16QAM	25	0	17.23	17.07	16.97		
5	64QAM	1	0	17.22	17.24	17.04	18.5	0
5	64QAM	1	12	17.23	17.23	17.07		
5	64QAM	1	24	17.46	17.41	17.17		
5	64QAM	12	0	17.04	17.06	16.88	18.5	0
5	64QAM	12	7	17.22	17.20	16.96		
5	64QAM	12	13	17.22	17.13	16.93		
5	64QAM	25	0	17.19	17.09	16.98		

Band 66								
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				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	17.89	17.99	17.82	19.5	0
20	QPSK	1	49	17.65	17.71	17.68		
20	QPSK	1	99	17.61	17.69	17.70		
20	QPSK	50	0	17.61	17.80	17.65	19.5	0
20	QPSK	50	24	17.74	17.78	17.66		
20	QPSK	50	50	17.70	17.76	17.72		
20	QPSK	100	0	17.68	17.72	17.69		
20	16QAM	1	0	17.67	17.70	17.55	19.5	0
20	16QAM	1	49	17.74	17.51	17.74		
20	16QAM	1	99	17.52	17.57	17.52		
20	16QAM	50	0	17.56	17.60	17.62	19.5	0
20	16QAM	50	24	17.68	17.69	17.65		
20	16QAM	50	50	17.59	17.64	17.76		
20	16QAM	100	0	17.67	17.64	17.57		
20	64QAM	1	0	17.78	17.56	17.58	19.5	0
20	64QAM	1	49	17.76	17.71	17.64		
20	64QAM	1	99	17.78	17.70	17.71		
20	64QAM	50	0	17.59	17.69	17.60	19.5	0
20	64QAM	50	24	17.66	17.71	17.63		
20	64QAM	50	50	17.70	17.74	17.69		
20	64QAM	100	0	17.68	17.65	17.53		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	17.52	17.67	17.67	19.5	0
15	QPSK	1	37	17.59	17.80	17.59		
15	QPSK	1	74	17.56	17.57	17.64		
15	QPSK	36	0	17.74	17.77	17.64	19.5	0
15	QPSK	36	20	17.72	17.72	17.74		
15	QPSK	36	39	17.75	17.80	17.68		
15	QPSK	75	0	17.76	17.72	17.67		
15	16QAM	1	0	17.52	17.58	17.78	19.5	0
15	16QAM	1	37	17.72	17.61	17.78		
15	16QAM	1	74	17.56	17.57	17.77		
15	16QAM	36	0	17.62	17.58	17.68	19.5	0
15	16QAM	36	20	17.65	17.74	17.76		
15	16QAM	36	39	17.74	17.71	17.72		
15	16QAM	75	0	17.68	17.66	17.75		
15	64QAM	1	0	17.59	17.52	17.65	19.5	0
15	64QAM	1	37	17.71	17.63	17.79		
15	64QAM	1	74	17.71	17.50	17.68		
15	64QAM	36	0	17.70	17.67	17.64	19.5	0
15	64QAM	36	20	17.64	17.76	17.73		
15	64QAM	36	39	17.70	17.71	17.63		
15	64QAM	75	0	17.69	17.63	17.65		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	17.70	17.72	17.76	19.5	0
10	QPSK	1	25	17.81	17.79	17.83		
10	QPSK	1	49	17.54	17.76	17.81		
10	QPSK	25	0	17.86	17.89	17.79	19.5	0
10	QPSK	25	12	17.91	17.88	17.84		
10	QPSK	25	25	17.84	17.90	17.88		
10	QPSK	50	0	17.79	17.86	17.74		
10	16QAM	1	0	17.59	17.63	17.51	19.5	0
10	16QAM	1	25	17.61	17.84	17.56		
10	16QAM	1	49	17.63	17.68	17.75		
10	16QAM	25	0	17.88	17.85	17.76	19.5	0
10	16QAM	25	12	17.91	17.84	17.81		
10	16QAM	25	25	17.85	17.63	17.84		
10	16QAM	50	0	17.88	17.86	17.81		
10	64QAM	1	0	17.77	17.65	17.72	19.5	0
10	64QAM	1	25	17.72	17.54	17.58		
10	64QAM	1	49	17.56	17.56	17.77		
10	64QAM	25	0	17.87	17.75	17.67	19.5	0
10	64QAM	25	12	17.89	17.84	17.81		
10	64QAM	25	25	17.86	17.82	17.85		
10	64QAM	50	0	17.84	17.84	17.81		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	17.77	17.75	17.84	19.5	0
5	QPSK	1	12	17.76	17.89	17.75		
5	QPSK	1	24	17.69	17.88	17.79		
5	QPSK	12	0	17.88	17.89	17.73	19.5	0
5	QPSK	12	7	17.86	17.72	17.83		
5	QPSK	12	13	17.88	17.89	17.84		
5	QPSK	25	0	17.87	17.81	17.86		
5	16QAM	1	0	17.82	17.78	17.73	19.5	0
5	16QAM	1	12	17.86	17.70	17.79		
5	16QAM	1	24	17.78	17.80	17.64		
5	16QAM	12	0	17.77	17.88	17.87	19.5	0
5	16QAM	12	7	17.86	17.86	17.82		
5	16QAM	12	13	17.83	17.86	17.81		
5	16QAM	25	0	17.87	17.88	17.82		
5	64QAM	1	0	17.65	17.55	17.61	19.5	0
5	64QAM	1	12	17.75	17.59	17.59		
5	64QAM	1	24	17.73	17.64	17.69		
5	64QAM	12	0	17.88	17.91	17.83	19.5	0
5	64QAM	12	7	17.88	17.70	17.83		
5	64QAM	12	13	17.86	17.66	17.88		
5	64QAM	25	0	17.84	17.83	17.80		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	17.76	17.78	17.80	19.5	0
3	QPSK	1	8	17.82	17.91	17.83		
3	QPSK	1	14	17.73	17.77	17.71		
3	QPSK	8	0	17.81	17.87	17.81	19.5	0
3	QPSK	8	4	17.89	17.65	17.86		
3	QPSK	8	7	17.80	17.85	17.88		
3	QPSK	15	0	17.84	17.86	17.79		
3	16QAM	1	0	17.68	17.76	17.71	19.5	0
3	16QAM	1	8	17.80	17.81	17.78		
3	16QAM	1	14	17.61	17.74	17.71		
3	16QAM	8	0	17.91	17.89	17.86	19.5	0
3	16QAM	8	4	17.87	17.76	17.85		
3	16QAM	8	7	17.84	17.63	17.83		
3	16QAM	15	0	17.82	17.83	17.86		
3	64QAM	1	0	17.57	17.69	17.58	19.5	0
3	64QAM	1	8	17.70	17.77	17.59		
3	64QAM	1	14	17.56	17.64	17.61		
3	64QAM	8	0	17.80	17.87	17.90	19.5	0
3	64QAM	8	4	17.85	17.76	17.78		
3	64QAM	8	7	17.83	17.90	17.84		
3	64QAM	15	0	17.81	17.86	17.84		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	17.68	17.69	17.66	19.5	0
1.4	QPSK	1	3	17.67	17.81	17.62		
1.4	QPSK	1	5	17.71	17.72	17.61		
1.4	QPSK	3	0	17.66	17.81	17.64		
1.4	QPSK	3	1	17.72	17.82	17.69		
1.4	QPSK	3	3	17.80	17.75	17.63		
1.4	QPSK	6	0	17.79	17.78	17.78	19.5	0
1.4	16QAM	1	0	17.83	17.63	17.50	19.5	0
1.4	16QAM	1	3	17.62	17.73	17.70		
1.4	16QAM	1	5	17.71	17.67	17.67		
1.4	16QAM	3	0	17.86	17.71	17.86		
1.4	16QAM	3	1	17.88	17.88	17.72		
1.4	16QAM	3	3	17.84	17.76	17.71		
1.4	16QAM	6	0	17.74	17.83	17.79	19.5	0
1.4	64QAM	1	0	17.79	17.60	17.52	19.5	0
1.4	64QAM	1	3	17.54	17.63	17.78		
1.4	64QAM	1	5	17.72	17.61	17.76		
1.4	64QAM	3	0	17.73	17.88	17.81		
1.4	64QAM	3	1	17.89	17.78	17.64		
1.4	64QAM	3	3	17.88	17.87	17.84		
1.4	64QAM	6	0	17.68	17.81	17.69	19.5	0

Reduced power Mode for Handheld On for ANT1

GSM1900	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	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	27.63	27.45	27.61	28.50	18.63	18.45	18.61	19.50
GPRS 1 Tx slot	27.61	27.41	27.37	28.50	18.61	18.41	18.37	19.50
GPRS 2 Tx slots	25.79	25.90	25.87	26.50	19.79	19.90	19.87	20.50
GPRS 3 Tx slots	24.20	24.21	24.07	25.00	19.94	19.95	19.81	20.74
GPRS 4 Tx slots	22.36	22.61	22.69	23.50	19.36	19.61	19.69	20.50
EDGE 1 Tx slot	23.16	23.31	23.08	24.00	14.16	14.31	14.08	15.00
EDGE 2 Tx slots	22.14	22.44	22.11	23.00	16.14	16.44	16.11	17.00
EDGE 3 Tx slots	20.80	21.20	20.77	21.50	16.54	16.94	16.51	17.24
EDGE 4 Tx slots	19.58	19.67	19.51	20.00	16.58	16.67	16.51	17.00

Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513	
Rx Channel		9662	9800	9938		1537	1638	1738	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99	AMR 12.2Kbps	18.72	18.60	18.61	20.50	18.62	18.87	18.64	20.50
3GPP Rel 99	RMC 12.2Kbps	18.73	18.76	18.56	20.50	18.71	18.92	18.74	20.50
3GPP Rel 6	HSDPA Subtest-1	17.64	17.77	17.57	19.50	17.83	17.95	17.99	19.50
3GPP Rel 6	HSDPA Subtest-2	17.51	17.65	17.55	19.50	17.76	17.92	17.91	19.50
3GPP Rel 6	HSDPA Subtest-3	17.17	17.12	17.18	19.00	17.34	17.46	17.53	19.00
3GPP Rel 6	HSDPA Subtest-4	17.15	17.07	17.20	19.00	17.32	17.32	17.50	19.00
3GPP Rel 8	DC-HSDPA Subtest-1	17.54	17.63	17.55	19.50	17.78	17.90	17.85	19.50
3GPP Rel 8	DC-HSDPA Subtest-2	17.85	17.68	17.59	19.50	17.72	17.86	17.84	19.50
3GPP Rel 8	DC-HSDPA Subtest-3	17.21	17.09	17.02	19.00	17.24	17.37	17.47	19.00
3GPP Rel 8	DC-HSDPA Subtest-4	17.13	17.12	17.01	19.00	17.39	17.46	17.45	19.00
3GPP Rel 6	HSUPA Subtest-1	17.78	17.73	17.52	19.50	17.78	17.91	17.86	19.50
3GPP Rel 6	HSUPA Subtest-2	15.53	15.50	15.63	17.50	15.69	16.03	15.81	17.50
3GPP Rel 6	HSUPA Subtest-3	16.55	16.61	16.52	18.50	16.66	16.97	16.72	18.50
3GPP Rel 6	HSUPA Subtest-4	15.63	15.62	15.66	17.50	15.85	15.83	15.89	17.50
3GPP Rel 6	HSUPA Subtest-5	17.69	17.59	17.59	19.50	17.81	17.84	17.82	19.50

Band 2

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				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	20.57	20.64	20.54	22	0
20	QPSK	1	49	20.34	20.35	20.34		
20	QPSK	1	99	20.24	20.35	20.33		
20	QPSK	50	0	20.12	20.38	20.15	22	0
20	QPSK	50	24	20.14	20.23	20.16		
20	QPSK	50	50	20.14	20.27	20.19		
20	QPSK	100	0	20.16	20.22	20.20		
20	16QAM	1	0	20.29	20.43	20.42	22	0
20	16QAM	1	49	20.42	20.44	20.43		
20	16QAM	1	99	20.37	20.37	20.22		
20	16QAM	50	0	20.18	20.23	20.23	22	0
20	16QAM	50	24	20.20	20.27	20.14		
20	16QAM	50	50	20.12	20.24	20.15		
20	16QAM	100	0	20.13	20.28	20.14		
20	64QAM	1	0	20.38	20.47	20.35	22	0
20	64QAM	1	49	20.15	20.15	20.11		
20	64QAM	1	99	20.26	20.08	20.21		
20	64QAM	50	0	19.54	19.64	19.23	21	1
20	64QAM	50	24	19.56	19.64	19.17		
20	64QAM	50	50	19.63	19.55	19.28		
20	64QAM	100	0	19.67	19.69	19.22		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	20.09	20.21	20.08	22	0
15	QPSK	1	37	20.05	20.18	20.01		
15	QPSK	1	74	20.02	20.12	20.23		
15	QPSK	36	0	20.12	20.23	20.15	22	0
15	QPSK	36	20	20.13	20.25	20.18		
15	QPSK	36	39	20.06	20.20	20.16		
15	QPSK	75	0	20.15	20.25	20.05		
15	16QAM	1	0	20.45	20.44	20.45	22	0
15	16QAM	1	37	20.46	20.44	20.47		
15	16QAM	1	74	20.39	20.36	20.35		
15	16QAM	36	0	20.08	20.31	20.21	22	0
15	16QAM	36	20	20.17	20.18	20.17		
15	16QAM	36	39	20.23	20.29	20.20		
15	16QAM	75	0	20.15	20.21	20.12		
15	64QAM	1	0	20.27	20.26	20.24	22	0
15	64QAM	1	37	20.42	20.26	20.47		
15	64QAM	1	74	20.21	20.36	20.17		
15	64QAM	36	0	19.15	19.31	19.29	21	1
15	64QAM	36	20	19.25	19.21	19.30		
15	64QAM	36	39	19.22	19.35	19.30		
15	64QAM	75	0	19.12	19.34	19.19		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	20.33	20.34	20.22	22	0
10	QPSK	1	25	20.16	20.39	20.14		
10	QPSK	1	49	20.25	20.29	20.16		
10	QPSK	25	0	20.29	20.36	20.19	22	0
10	QPSK	25	12	20.30	20.32	20.16		
10	QPSK	25	25	20.24	20.37	20.23		
10	QPSK	50	0	20.30	20.33	20.26		
10	16QAM	1	0	20.23	20.63	20.52	22	0
10	16QAM	1	25	20.54	20.53	20.30		
10	16QAM	1	49	20.36	20.27	20.40		
10	16QAM	25	0	20.31	20.42	20.33	22	0
10	16QAM	25	12	20.33	20.41	20.34		
10	16QAM	25	25	20.29	20.40	20.19		
10	16QAM	50	0	20.29	20.32	20.24		
10	64QAM	1	0	20.41	20.57	20.47	22	0
10	64QAM	1	25	20.23	20.43	20.52		
10	64QAM	1	49	20.34	20.41	20.24		
10	64QAM	25	0	19.83	19.86	19.77	21	1
10	64QAM	25	12	19.81	19.82	19.74		
10	64QAM	25	25	19.78	19.87	19.77		
10	64QAM	50	0	19.80	19.81	19.69		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	20.30	20.24	20.21	22	0
5	QPSK	1	12	20.25	20.28	20.13		
5	QPSK	1	24	20.16	20.27	20.08		
5	QPSK	12	0	20.35	20.38	20.30	22	0
5	QPSK	12	7	20.30	20.33	20.25		
5	QPSK	12	13	20.21	20.31	20.12		
5	QPSK	25	0	20.25	20.31	20.24		
5	16QAM	1	0	20.62	20.52	20.53	22	0
5	16QAM	1	12	20.56	20.57	20.27		
5	16QAM	1	24	20.50	20.54	20.15		
5	16QAM	12	0	20.42	20.39	20.30	22	0
5	16QAM	12	7	20.32	20.45	20.27		
5	16QAM	12	13	20.22	20.36	20.18		
5	16QAM	25	0	20.30	20.32	20.19		
5	64QAM	1	0	20.53	20.34	20.62	22	0
5	64QAM	1	12	20.44	20.46	20.49		
5	64QAM	1	24	20.41	20.58	20.28		
5	64QAM	12	0	19.89	19.88	19.72	21	1
5	64QAM	12	7	19.87	19.93	19.72		
5	64QAM	12	13	19.77	19.78	19.66		
5	64QAM	25	0	19.81	19.98	19.76		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	20.31	20.28	20.23	22	0
3	QPSK	1	8	20.18	20.30	20.06		
3	QPSK	1	14	20.12	20.19	20.02		
3	QPSK	8	0	20.38	20.39	20.23	22	0
3	QPSK	8	4	20.27	20.31	20.22		
3	QPSK	8	7	20.24	20.30	20.15		
3	QPSK	15	0	20.31	20.29	20.19		
3	16QAM	1	0	20.58	20.57	20.51	22	0
3	16QAM	1	8	20.61	20.23	20.45		
3	16QAM	1	14	20.31	20.57	20.28		
3	16QAM	8	0	20.38	20.44	20.27	22	0
3	16QAM	8	4	20.35	20.41	20.26		
3	16QAM	8	7	20.26	20.38	20.21		
3	16QAM	15	0	20.28	20.31	20.25		
3	64QAM	1	0	20.39	20.56	20.55	22	0
3	64QAM	1	8	20.38	20.14	20.54		
3	64QAM	1	14	20.30	20.45	20.25		
3	64QAM	8	0	19.96	19.90	19.77	21	1
3	64QAM	8	4	19.89	19.97	19.70		
3	64QAM	8	7	19.83	19.85	19.65		
3	64QAM	15	0	19.87	19.80	19.78		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	20.14	20.21	20.10	22	0
1.4	QPSK	1	3	20.12	20.29	20.23		
1.4	QPSK	1	5	20.09	20.14	20.22		
1.4	QPSK	3	0	20.15	20.24	20.07		
1.4	QPSK	3	1	20.18	20.22	20.10		
1.4	QPSK	3	3	20.06	20.24	20.01		
1.4	QPSK	6	0	20.20	20.26	20.05	22	0
1.4	16QAM	1	0	20.53	20.23	20.33	22	0
1.4	16QAM	1	3	20.61	20.54	20.33		
1.4	16QAM	1	5	20.43	20.49	20.22		
1.4	16QAM	3	0	20.25	20.29	20.09		
1.4	16QAM	3	1	20.17	20.40	20.21		
1.4	16QAM	3	3	20.15	20.28	20.06		
1.4	16QAM	6	0	20.34	20.38	20.19	22	0
1.4	64QAM	1	0	20.30	20.49	20.34	22	0
1.4	64QAM	1	3	20.31	20.44	20.37		
1.4	64QAM	1	5	20.30	20.34	20.24		
1.4	64QAM	3	0	20.41	20.47	20.26		
1.4	64QAM	3	1	20.45	20.45	20.31		
1.4	64QAM	3	3	20.28	20.37	20.18		
1.4	64QAM	6	0	19.86	19.66	19.65	21	1

Band 4

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				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	19.99	20.10	20.03	21.5	0
20	QPSK	1	49	19.89	19.93	19.85		
20	QPSK	1	99	19.89	19.63	19.83		
20	QPSK	50	0	19.81	19.88	19.78	21.5	0
20	QPSK	50	24	19.55	19.56	19.62		
20	QPSK	50	50	19.50	19.63	19.66		
20	QPSK	100	0	19.53	19.63	19.62		
20	16QAM	1	0	19.84	20.03	19.88	21.5	0
20	16QAM	1	49	19.74	19.87	19.89		
20	16QAM	1	99	19.76	19.71	19.80		
20	16QAM	50	0	19.50	19.66	19.63	21.5	0
20	16QAM	50	24	19.65	19.66	19.62		
20	16QAM	50	50	19.61	19.60	19.72		
20	16QAM	100	0	19.54	19.61	19.61		
20	64QAM	1	0	19.60	19.98	19.51	21.5	0
20	64QAM	1	49	19.64	19.74	19.58		
20	64QAM	1	99	19.66	19.56	19.69		
20	64QAM	50	0	19.54	19.50	19.69	21	0.5
20	64QAM	50	24	19.66	19.60	19.60		
20	64QAM	50	50	19.57	19.53	19.67		
20	64QAM	100	0	19.55	19.59	19.57		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	19.64	19.73	19.71	21.5	0
15	QPSK	1	37	19.59	19.70	19.69		
15	QPSK	1	74	19.52	19.72	19.67		
15	QPSK	36	0	19.69	19.85	19.82	21.5	0
15	QPSK	36	20	19.69	19.78	19.83		
15	QPSK	36	39	19.71	19.80	19.80		
15	QPSK	75	0	19.79	19.80	19.82		
15	16QAM	1	0	20.00	20.05	20.09	21.5	0
15	16QAM	1	37	19.92	19.97	19.85		
15	16QAM	1	74	19.98	20.03	19.85		
15	16QAM	36	0	19.71	19.84	19.81	21.5	0
15	16QAM	36	20	19.82	19.82	19.92		
15	16QAM	36	39	19.74	19.82	19.83		
15	16QAM	75	0	19.80	19.80	19.82		
15	64QAM	1	0	19.75	19.55	19.81	21.5	0
15	64QAM	1	37	19.50	19.96	19.95		
15	64QAM	1	74	19.73	19.93	19.99		
15	64QAM	36	0	19.66	19.79	19.74	21	0.5
15	64QAM	36	20	19.85	19.87	19.88		
15	64QAM	36	39	19.76	19.88	19.74		
15	64QAM	75	0	19.76	19.81	19.86		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	19.54	19.65	19.77	21.5	0
10	QPSK	1	25	19.66	19.65	19.66		
10	QPSK	1	49	19.64	19.69	19.59		
10	QPSK	25	0	19.69	19.68	19.67	21.5	0
10	QPSK	25	12	19.70	19.65	19.68		
10	QPSK	25	25	19.64	19.71	19.70		
10	QPSK	50	0	19.59	19.59	19.58		
10	16QAM	1	0	19.88	19.94	19.90	21.5	0
10	16QAM	1	25	19.86	19.89	19.88		
10	16QAM	1	49	19.83	19.88	19.91		
10	16QAM	25	0	19.67	19.71	19.68	21.5	0
10	16QAM	25	12	19.81	19.72	19.74		
10	16QAM	25	25	19.62	19.69	19.80		
10	16QAM	50	0	19.72	19.70	19.75		
10	64QAM	1	0	19.86	19.93	19.89	21.5	0
10	64QAM	1	25	19.71	19.79	19.91		
10	64QAM	1	49	19.61	19.74	19.99		
10	64QAM	25	0	19.71	19.75	19.70	21	0.5
10	64QAM	25	12	19.71	19.71	19.70		
10	64QAM	25	25	19.71	19.77	19.79		
10	64QAM	50	0	19.52	19.70	19.65		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	19.71	19.72	19.70	21.5	0
5	QPSK	1	12	19.94	19.65	19.60		
5	QPSK	1	24	19.65	19.66	19.52		
5	QPSK	12	0	19.97	19.58	19.74	21.5	0
5	QPSK	12	7	19.91	19.63	19.73		
5	QPSK	12	13	19.86	19.75	19.64		
5	QPSK	25	0	19.76	19.65	19.60		
5	16QAM	1	0	19.97	19.76	19.88	21.5	0
5	16QAM	1	12	19.55	19.66	19.63		
5	16QAM	1	24	19.95	19.64	19.82		
5	16QAM	12	0	19.92	19.68	19.66	21.5	0
5	16QAM	12	7	19.97	19.53	19.72		
5	16QAM	12	13	19.96	19.50	19.65		
5	16QAM	25	0	19.72	19.63	19.67		
5	64QAM	1	0	20.01	19.86	19.91	21.5	0
5	64QAM	1	12	19.52	19.57	19.69		
5	64QAM	1	24	19.55	19.57	19.63		
5	64QAM	12	0	19.84	19.51	19.68	21	0.5
5	64QAM	12	7	19.86	19.56	19.72		
5	64QAM	12	13	19.81	19.52	19.66		
5	64QAM	25	0	19.98	19.55	19.72		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	19.55	19.68	19.82	21.5	0
3	QPSK	1	8	19.77	19.68	19.71		
3	QPSK	1	14	19.65	19.72	19.64		
3	QPSK	8	0	19.70	19.71	19.72	21.5	0
3	QPSK	8	4	19.71	19.68	19.73		
3	QPSK	8	7	19.65	19.74	19.75		
3	QPSK	15	0	19.60	19.62	19.63		
3	16QAM	1	0	19.89	19.97	19.95	21.5	0
3	16QAM	1	8	19.87	19.92	19.93		
3	16QAM	1	14	19.84	19.91	19.96		
3	16QAM	8	0	19.68	19.74	19.73	21.5	0
3	16QAM	8	4	19.82	19.75	19.79		
3	16QAM	8	7	19.63	19.72	19.85		
3	16QAM	15	0	19.73	19.73	19.80		
3	64QAM	1	0	19.87	19.96	19.94	21.5	0
3	64QAM	1	8	19.72	19.82	19.96		
3	64QAM	1	14	19.62	19.77	20.04		
3	64QAM	8	0	19.72	19.78	19.75	21	0.5
3	64QAM	8	4	19.72	19.74	19.75		
3	64QAM	8	7	19.72	19.80	19.84		
3	64QAM	15	0	19.53	19.73	19.70		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	19.72	19.75	19.75	21.5	0
1.4	QPSK	1	3	19.95	19.68	19.65		
1.4	QPSK	1	5	19.66	19.69	19.57		
1.4	QPSK	3	0	19.98	19.61	19.79		
1.4	QPSK	3	1	19.92	19.66	19.78		
1.4	QPSK	3	3	19.87	19.78	19.69		
1.4	QPSK	6	0	19.77	19.78	19.65	21.5	0
1.4	16QAM	1	0	19.98	19.79	19.93	21.5	0
1.4	16QAM	1	3	19.56	19.69	19.68		
1.4	16QAM	1	5	19.96	19.67	19.87		
1.4	16QAM	3	0	19.93	19.51	19.71		
1.4	16QAM	3	1	19.98	19.56	19.77		
1.4	16QAM	3	3	19.97	19.53	19.70		
1.4	16QAM	6	0	19.73	19.66	19.72	21.5	0
1.4	64QAM	1	0	20.02	19.89	19.96	21.5	0
1.4	64QAM	1	3	19.53	19.60	19.74		
1.4	64QAM	1	5	19.56	19.60	19.68		
1.4	64QAM	3	0	19.85	19.54	19.73		
1.4	64QAM	3	1	19.87	19.59	19.77		
1.4	64QAM	3	3	19.82	19.55	19.71		
1.4	64QAM	6	0	19.99	19.58	19.77	21	0.5

Band 7

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				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	19.86	19.95	19.85	21	0
20	QPSK	1	49	19.66	19.60	19.57		
20	QPSK	1	99	19.50	19.57	19.88		
20	QPSK	50	0	19.70	19.72	19.67	21	0
20	QPSK	50	24	19.60	19.61	19.67		
20	QPSK	50	50	19.55	19.68	19.71		
20	QPSK	100	0	19.58	19.70	19.67		
20	16QAM	1	0	19.89	19.89	19.93	21	0
20	16QAM	1	49	19.79	19.92	19.89		
20	16QAM	1	99	19.81	19.76	19.85		
20	16QAM	50	0	19.55	19.71	19.68	21	0
20	16QAM	50	24	19.70	19.71	19.67		
20	16QAM	50	50	19.66	19.65	19.77		
20	16QAM	100	0	19.59	19.66	19.66		
20	64QAM	1	0	19.65	19.88	19.56	21	0
20	64QAM	1	49	19.69	19.79	19.63		
20	64QAM	1	99	19.71	19.61	19.54		
20	64QAM	50	0	19.59	19.55	19.74	21	0
20	64QAM	50	24	19.71	19.65	19.65		
20	64QAM	50	50	19.62	19.58	19.72		
20	64QAM	100	0	19.60	19.64	19.62		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	19.49	19.58	19.56	21	0
15	QPSK	1	37	19.44	19.55	19.54		
15	QPSK	1	74	19.37	19.57	19.52		
15	QPSK	36	0	19.54	19.70	19.67	21	0
15	QPSK	36	20	19.54	19.63	19.68		
15	QPSK	36	39	19.56	19.65	19.65		
15	QPSK	75	0	19.64	19.65	19.67		
15	16QAM	1	0	19.85	19.90	19.94	21	0
15	16QAM	1	37	19.77	19.82	19.70		
15	16QAM	1	74	19.83	19.88	19.70		
15	16QAM	36	0	19.56	19.69	19.66	21	0
15	16QAM	36	20	19.67	19.67	19.77		
15	16QAM	36	39	19.59	19.67	19.68		
15	16QAM	75	0	19.65	19.65	19.67		
15	64QAM	1	0	19.60	19.40	19.66	21	0
15	64QAM	1	37	19.35	19.81	19.80		
15	64QAM	1	74	19.58	19.78	19.84		
15	64QAM	36	0	19.51	19.64	19.59	21	0
15	64QAM	36	20	19.70	19.72	19.73		
15	64QAM	36	39	19.61	19.73	19.59		
15	64QAM	75	0	19.61	19.66	19.71		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	19.39	19.50	19.62	21	0
10	QPSK	1	25	19.31	19.50	19.51		
10	QPSK	1	49	19.49	19.54	19.44		
10	QPSK	25	0	19.54	19.53	19.52	21	0
10	QPSK	25	12	19.55	19.50	19.53		
10	QPSK	25	25	19.49	19.56	19.55		
10	QPSK	50	0	19.44	19.44	19.43		
10	16QAM	1	0	19.73	19.79	19.75	21	0
10	16QAM	1	25	19.71	19.74	19.73		
10	16QAM	1	49	19.68	19.73	19.76		
10	16QAM	25	0	19.52	19.56	19.53	21	0
10	16QAM	25	12	19.66	19.57	19.59		
10	16QAM	25	25	19.47	19.54	19.65		
10	16QAM	50	0	19.57	19.55	19.60		
10	64QAM	1	0	19.71	19.78	19.74	21	0
10	64QAM	1	25	19.56	19.64	19.76		
10	64QAM	1	49	19.46	19.59	19.84		
10	64QAM	25	0	19.56	19.60	19.55	21	0
10	64QAM	25	12	19.56	19.56	19.55		
10	64QAM	25	25	19.56	19.62	19.64		
10	64QAM	50	0	19.37	19.55	19.50		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	19.56	19.57	19.55	21	0
5	QPSK	1	12	19.79	19.50	19.45		
5	QPSK	1	24	19.50	19.51	19.37		
5	QPSK	12	0	19.82	19.43	19.59	21	0
5	QPSK	12	7	19.76	19.48	19.58		
5	QPSK	12	13	19.71	19.60	19.49		
5	QPSK	25	0	19.61	19.30	19.45		
5	16QAM	1	0	19.82	19.61	19.73	21	0
5	16QAM	1	12	19.40	19.51	19.48		
5	16QAM	1	24	19.80	19.49	19.67		
5	16QAM	12	0	19.77	19.33	19.51	21	0
5	16QAM	12	7	19.82	19.38	19.57		
5	16QAM	12	13	19.81	19.35	19.50		
5	16QAM	25	0	19.17	19.28	19.52		
5	64QAM	1	0	19.86	19.71	19.76	21	0
5	64QAM	1	12	19.37	19.42	19.54		
5	64QAM	1	24	19.40	19.42	19.48		
5	64QAM	12	0	19.69	19.36	19.53	21	0
5	64QAM	12	7	19.71	19.41	19.57		
5	64QAM	12	13	19.66	19.37	19.51		
5	64QAM	25	0	19.83	19.40	19.57		

Band 66

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				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	20.10	20.12	19.99	21.5	0
20	QPSK	1	49	19.88	19.89	19.63		
20	QPSK	1	99	19.86	19.85	19.63		
20	QPSK	50	0	19.73	19.75	19.65	21.5	0
20	QPSK	50	24	19.68	19.55	19.65		
20	QPSK	50	50	19.54	19.53	19.69		
20	QPSK	100	0	19.70	19.72	19.64		
20	16QAM	1	0	19.84	19.89	19.96	21.5	0
20	16QAM	1	49	19.84	19.91	19.67		
20	16QAM	1	99	19.72	19.68	19.88		
20	16QAM	50	0	19.76	19.78	19.52	21.5	0
20	16QAM	50	24	19.75	19.65	19.62		
20	16QAM	50	50	19.60	19.51	19.69		
20	16QAM	100	0	19.75	19.67	19.63		
20	64QAM	1	0	19.82	20.00	19.75	21.5	0
20	64QAM	1	49	19.77	19.58	19.85		
20	64QAM	1	99	19.88	19.63	19.96		
20	64QAM	50	0	19.64	19.71	19.53	21	0.5
20	64QAM	50	24	19.81	19.58	19.36		
20	64QAM	50	50	19.65	19.48	19.32		
20	64QAM	100	0	19.73	19.55	19.46		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	19.60	19.65	19.66	21.5	0
15	QPSK	1	37	19.68	19.61	19.85		
15	QPSK	1	74	19.88	19.63	19.88		
15	QPSK	36	0	19.81	19.62	19.64	21.5	0
15	QPSK	36	20	19.68	19.58	19.64		
15	QPSK	36	39	19.57	19.53	19.65		
15	QPSK	75	0	19.70	19.68	19.62		
15	16QAM	1	0	19.73	19.85	19.79	21.5	0
15	16QAM	1	37	19.96	19.84	19.95		
15	16QAM	1	74	19.83	19.73	19.89		
15	16QAM	36	0	19.66	19.66	19.62	21.5	0
15	16QAM	36	20	19.73	19.64	19.63		
15	16QAM	36	39	19.62	19.66	19.65		
15	16QAM	75	0	19.76	19.60	19.62		
15	64QAM	1	0	19.55	19.91	19.71	21.5	0
15	64QAM	1	37	19.79	19.78	19.82		
15	64QAM	1	74	19.68	19.88	19.85		
15	64QAM	36	0	19.70	19.66	19.37	21	0.5
15	64QAM	36	20	19.65	19.57	19.43		
15	64QAM	36	39	19.65	19.43	19.35		
15	64QAM	75	0	19.66	19.57	19.39		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	19.85	19.63	19.85	21.5	0
10	QPSK	1	25	19.66	19.53	19.66		
10	QPSK	1	49	19.58	19.63	19.89		
10	QPSK	25	0	19.87	19.61	19.65	21.5	0
10	QPSK	25	12	19.84	19.63	19.64		
10	QPSK	25	25	19.77	19.56	19.53		
10	QPSK	50	0	19.79	19.60	19.85		
10	16QAM	1	0	19.75	20.01	19.68	21.5	0
10	16QAM	1	25	19.90	19.93	19.63		
10	16QAM	1	49	19.84	19.73	19.77		
10	16QAM	25	0	19.84	19.73	19.68	21.5	0
10	16QAM	25	12	19.89	19.52	19.51		
10	16QAM	25	25	19.65	19.52	19.65		
10	16QAM	50	0	19.77	19.55	19.67		
10	64QAM	1	0	19.97	19.68	19.96	21.5	0
10	64QAM	1	25	19.82	19.85	19.77		
10	64QAM	1	49	19.87	19.65	19.85		
10	64QAM	25	0	19.89	19.68	19.65	21	0.5
10	64QAM	25	12	19.83	19.60	19.63		
10	64QAM	25	25	19.79	19.58	19.85		
10	64QAM	50	0	19.82	19.53	19.42		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	19.87	19.70	19.64	21.5	0
5	QPSK	1	12	19.76	19.57	19.52		
5	QPSK	1	24	19.80	19.62	19.66		
5	QPSK	12	0	19.88	19.68	19.54	21.5	0
5	QPSK	12	7	19.86	19.71	19.68		
5	QPSK	12	13	19.87	19.69	19.55		
5	QPSK	25	0	19.95	19.64	19.52		
5	16QAM	1	0	19.89	19.95	19.84	21.5	0
5	16QAM	1	12	19.90	19.93	19.93		
5	16QAM	1	24	19.88	19.78	19.77		
5	16QAM	12	0	19.83	19.64	19.70	21.5	0
5	16QAM	12	7	19.88	19.67	19.67		
5	16QAM	12	13	19.87	19.67	19.68		
5	16QAM	25	0	19.87	19.68	19.51		
5	64QAM	1	0	20.01	19.84	19.93	21.5	0
5	64QAM	1	12	19.93	19.79	19.82		
5	64QAM	1	24	19.94	19.88	19.79		
5	64QAM	12	0	19.89	19.79	19.85	21	0.5
5	64QAM	12	7	19.92	19.83	19.55		
5	64QAM	12	13	19.91	19.73	19.63		
5	64QAM	25	0	19.84	19.56	19.52		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	19.83	19.60	19.81	21.5	0
3	QPSK	1	8	19.64	19.50	19.62		
3	QPSK	1	14	19.56	19.60	19.85		
3	QPSK	8	0	19.85	19.58	19.61	21.5	0
3	QPSK	8	4	19.82	19.60	19.64		
3	QPSK	8	7	19.75	19.53	19.69		
3	QPSK	15	0	19.77	19.57	19.81		
3	16QAM	1	0	19.85	19.98	19.64	21.5	0
3	16QAM	1	8	19.88	19.90	19.59		
3	16QAM	1	14	19.82	19.70	19.73		
3	16QAM	8	0	19.82	19.70	19.64	21.5	0
3	16QAM	8	4	19.87	19.69	19.67		
3	16QAM	8	7	19.63	19.69	19.61		
3	16QAM	15	0	19.75	19.52	19.63		
3	64QAM	1	0	19.95	19.65	19.92	21.5	0
3	64QAM	1	8	19.80	19.82	19.73		
3	64QAM	1	14	19.85	19.62	19.81		
3	64QAM	8	0	19.87	19.65	19.61	21	0.5
3	64QAM	8	4	19.81	19.57	19.59		
3	64QAM	8	7	19.77	19.55	19.81		
3	64QAM	15	0	19.80	19.50	19.38		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	19.58	19.62	19.62	21.5	0
1.4	QPSK	1	3	19.66	19.58	19.81		
1.4	QPSK	1	5	19.86	19.60	19.84		
1.4	QPSK	3	0	19.79	19.59	19.66		
1.4	QPSK	3	1	19.66	19.55	19.64		
1.4	QPSK	3	3	19.55	19.50	19.61		
1.4	QPSK	6	0	19.68	19.65	19.68	21.5	0
1.4	16QAM	1	0	19.71	19.85	19.75	21.5	0
1.4	16QAM	1	3	19.94	19.81	19.91		
1.4	16QAM	1	5	19.81	19.70	19.85		
1.4	16QAM	3	0	19.64	19.63	19.68		
1.4	16QAM	3	1	19.71	19.61	19.69		
1.4	16QAM	3	3	19.60	19.67	19.61		
1.4	16QAM	6	0	19.74	19.57	19.68	21.5	0
1.4	64QAM	1	0	19.53	19.88	19.67	21.5	0
1.4	64QAM	1	3	19.77	19.75	19.78		
1.4	64QAM	1	5	19.66	19.85	19.81		
1.4	64QAM	3	0	19.68	19.53	19.63		
1.4	64QAM	3	1	19.63	19.54	19.69		
1.4	64QAM	3	3	19.63	19.64	19.61		
1.4	64QAM	6	0	19.64	19.64	19.65	21	0.5

Full Power for ANT1-EN-DC

Band 7 (2600MHz Band) Part 27

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				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	22.53	22.85	22.81	24	0
20	QPSK	1	49	22.38	22.57	22.75		
20	QPSK	1	99	22.37	22.56	22.75		
20	QPSK	50	0	21.68	21.91	21.72	23	1
20	QPSK	50	24	21.50	21.59	21.81		
20	QPSK	50	50	21.56	21.67	21.88		
20	QPSK	100	0	21.58	21.70	21.63		
20	16QAM	1	0	21.72	21.72	22.05	23	1
20	16QAM	1	49	21.71	21.76	22.01		
20	16QAM	1	99	21.60	21.85	22.01		
20	16QAM	50	0	20.54	20.67	20.87	22	2
20	16QAM	50	24	20.51	20.65	20.92		
20	16QAM	50	50	20.50	20.77	20.91		
20	16QAM	100	0	20.56	20.60	20.91		
20	64QAM	1	0	20.68	20.66	20.88	22	2
20	64QAM	1	49	20.67	20.59	20.91		
20	64QAM	1	99	20.62	20.68	21.01		
20	64QAM	50	0	19.74	19.52	19.81	21	3
20	64QAM	50	24	19.53	19.67	19.96		
20	64QAM	50	50	19.63	19.70	19.89		
20	64QAM	100	0	19.50	19.64	19.88		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	22.51	22.48	22.80	24	0
15	QPSK	1	37	22.37	22.44	22.85		
15	QPSK	1	74	22.35	22.65	22.76		
15	QPSK	36	0	21.56	21.58	21.92	23	1
15	QPSK	36	20	21.54	21.63	22.01		
15	QPSK	36	39	21.78	21.74	21.90		
15	QPSK	75	0	21.46	21.61	21.86		
15	16QAM	1	0	21.71	21.67	22.13	23	1
15	16QAM	1	37	21.75	21.79	22.10		
15	16QAM	1	74	21.63	21.99	22.11		
15	16QAM	36	0	20.55	20.58	20.92	22	2
15	16QAM	36	20	20.52	20.60	20.94		
15	16QAM	36	39	20.52	20.70	20.90		
15	16QAM	75	0	20.59	20.57	20.88		
15	64QAM	1	0	20.65	20.70	20.94	22	2
15	64QAM	1	37	20.78	20.67	20.99		
15	64QAM	1	74	20.49	20.60	20.94		
15	64QAM	36	0	19.56	19.62	19.84	21	3
15	64QAM	36	20	19.56	19.67	19.89		
15	64QAM	36	39	19.51	19.61	19.93		
15	64QAM	75	0	19.55	19.62	19.94		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	22.65	22.82	22.80	24	0
10	QPSK	1	25	22.77	22.85	22.83		
10	QPSK	1	49	22.85	22.84	22.85		
10	QPSK	25	0	21.73	21.76	22.06	23	1
10	QPSK	25	12	21.74	21.85	22.06		
10	QPSK	25	25	21.68	21.87	22.10		
10	QPSK	50	0	21.74	21.83	22.09		
10	16QAM	1	0	22.02	21.93	22.30	23	1
10	16QAM	1	25	21.96	22.04	22.31		
10	16QAM	1	49	21.99	22.13	22.27		
10	16QAM	25	0	20.70	20.73	21.07	22	2
10	16QAM	25	12	20.76	20.77	21.11		
10	16QAM	25	25	20.72	20.86	21.12		
10	16QAM	50	0	20.73	20.83	21.11		
10	64QAM	1	0	20.83	20.89	21.14	22	2
10	64QAM	1	25	20.75	20.84	21.13		
10	64QAM	1	49	20.79	21.08	21.24		
10	64QAM	25	0	19.76	19.79	20.05	21	3
10	64QAM	25	12	19.73	19.82	20.09		
10	64QAM	25	25	19.62	19.89	20.07		
10	64QAM	50	0	19.74	19.80	20.04		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	22.62	22.68	22.80	24	0
5	QPSK	1	12	22.60	22.81	22.80		
5	QPSK	1	24	22.60	22.79	22.84		
5	QPSK	12	0	21.69	21.74	22.05	23	1
5	QPSK	12	7	21.78	21.86	22.10		
5	QPSK	12	13	21.75	21.88	22.09		
5	QPSK	25	0	21.69	21.75	22.12		
5	16QAM	1	0	21.93	22.04	22.33	23	1
5	16QAM	1	12	22.09	22.16	22.38		
5	16QAM	1	24	22.03	22.25	22.37		
5	16QAM	12	0	20.72	20.76	21.11	22	2
5	16QAM	12	7	20.78	20.84	21.09		
5	16QAM	12	13	20.71	20.96	21.16		
5	16QAM	25	0	20.73	20.77	21.07		
5	64QAM	1	0	20.85	21.00	20.71	22	2
5	64QAM	1	12	21.02	21.06	20.69		
5	64QAM	1	24	20.78	21.16	20.73		
5	64QAM	12	0	19.62	19.70	19.55	21	3
5	64QAM	12	7	19.78	19.82	19.57		
5	64QAM	12	13	19.71	19.60	19.54		
5	64QAM	25	0	19.74	19.84	19.63		

Band 66

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				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	22.35	22.69	22.55	24	0
20	QPSK	1	49	22.63	22.27	22.63		
20	QPSK	1	99	22.42	22.43	22.52		
20	QPSK	50	0	21.23	21.36	21.24	23	1
20	QPSK	50	24	21.27	21.29	21.25		
20	QPSK	50	50	21.27	21.32	21.29		
20	QPSK	100	0	21.27	21.31	21.19		
20	16QAM	1	0	21.49	21.55	21.47	23	1
20	16QAM	1	49	21.46	21.52	21.65		
20	16QAM	1	99	21.52	21.36	21.55		
20	16QAM	50	0	20.08	20.28	20.24	22	2
20	16QAM	50	24	20.35	20.26	20.32		
20	16QAM	50	50	20.30	20.26	20.36		
20	16QAM	100	0	20.33	20.25	20.20		
20	64QAM	1	0	20.33	20.48	20.48	22	2
20	64QAM	1	49	20.34	20.35	20.34		
20	64QAM	1	99	20.39	20.38	20.59		
20	64QAM	50	0	19.20	19.21	19.30	21	3
20	64QAM	50	24	19.23	19.20	19.26		
20	64QAM	50	50	19.20	19.30	19.28		
20	64QAM	100	0	19.33	19.26	19.23		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	22.16	22.23	22.24	24	0
15	QPSK	1	37	22.22	22.27	22.10		
15	QPSK	1	74	22.16	22.20	22.19		
15	QPSK	36	0	21.28	21.22	21.18	23	1
15	QPSK	36	20	21.22	21.25	21.31		
15	QPSK	36	39	21.25	21.44	21.34		
15	QPSK	75	0	21.24	21.23	21.32		
15	16QAM	1	0	21.44	21.53	21.65	23	1
15	16QAM	1	37	21.35	21.60	21.61		
15	16QAM	1	74	21.51	21.62	21.72		
15	16QAM	36	0	20.23	20.21	20.18	22	2
15	16QAM	36	20	20.35	20.30	20.31		
15	16QAM	36	39	20.23	20.29	20.31		
15	16QAM	75	0	20.31	20.32	20.36		
15	64QAM	1	0	20.39	20.49	20.56	22	2
15	64QAM	1	37	20.42	20.41	20.41		
15	64QAM	1	74	20.26	20.52	20.57		
15	64QAM	36	0	19.27	19.27	19.29	21	3
15	64QAM	36	20	19.24	19.29	19.35		
15	64QAM	36	39	19.31	19.29	19.29		
15	64QAM	75	0	19.27	19.26	19.32		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	22.41	22.38	22.29	24	0
10	QPSK	1	25	22.21	22.37	22.40		
10	QPSK	1	49	22.25	22.40	22.36		
10	QPSK	25	0	21.42	21.30	21.26	23	1
10	QPSK	25	12	21.45	21.40	21.34		
10	QPSK	25	25	21.36	21.41	21.48		
10	QPSK	50	0	21.38	21.35	21.33		
10	16QAM	1	0	21.56	21.68	21.73	23	1
10	16QAM	1	25	21.68	21.40	21.59		
10	16QAM	1	49	21.66	21.66	21.76		
10	16QAM	25	0	20.35	20.47	20.40	22	2
10	16QAM	25	12	20.51	20.48	20.36		
10	16QAM	25	25	20.33	20.50	20.50		
10	16QAM	50	0	20.39	20.41	20.32		
10	64QAM	1	0	20.51	20.69	20.57	22	2
10	64QAM	1	25	20.44	20.51	20.61		
10	64QAM	1	49	20.50	20.54	20.47		
10	64QAM	25	0	19.41	19.46	19.50	21	3
10	64QAM	25	12	19.52	19.48	19.43		
10	64QAM	25	25	19.37	19.52	19.42		
10	64QAM	50	0	19.35	19.39	19.42		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	22.39	22.39	22.35	24	0
5	QPSK	1	12	22.31	22.29	22.36		
5	QPSK	1	24	22.36	22.38	22.43		
5	QPSK	12	0	21.34	21.38	21.38	23	1
5	QPSK	12	7	21.37	21.50	21.43		
5	QPSK	12	13	21.35	21.40	21.40		
5	QPSK	25	0	21.36	21.41	21.46		
5	16QAM	1	0	21.59	21.74	21.74	23	1
5	16QAM	1	12	21.47	21.68	21.62		
5	16QAM	1	24	21.63	21.78	21.75		
5	16QAM	12	0	20.43	20.34	20.44	22	2
5	16QAM	12	7	20.35	20.45	20.49		
5	16QAM	12	13	20.41	20.45	20.37		
5	16QAM	25	0	20.39	20.35	20.42		
5	64QAM	1	0	20.59	20.70	20.63	22	2
5	64QAM	1	12	20.61	20.58	20.61		
5	64QAM	1	24	20.58	20.59	20.54		
5	64QAM	12	0	19.40	19.41	19.49	21	3
5	64QAM	12	7	19.49	19.56	19.45		
5	64QAM	12	13	19.44	19.53	19.44		
5	64QAM	25	0	19.39	19.42	19.49		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	22.32	22.32	22.39	24	0
3	QPSK	1	8	22.41	22.38	22.42		
3	QPSK	1	14	22.26	22.40	22.37		
3	QPSK	8	0	21.34	21.35	21.40	23	1
3	QPSK	8	4	21.37	21.41	21.42		
3	QPSK	8	7	21.37	21.42	21.45		
3	QPSK	15	0	21.40	21.36	21.40		
3	16QAM	1	0	21.66	21.64	21.70	23	1
3	16QAM	1	8	21.65	21.78	21.70		
3	16QAM	1	14	21.69	21.70	21.66		
3	16QAM	8	0	20.42	20.41	20.45	22	2
3	16QAM	8	4	20.47	20.46	20.47		
3	16QAM	8	7	20.37	20.46	20.42		
3	16QAM	15	0	20.42	20.42	20.47		
3	64QAM	1	0	20.56	20.58	20.57	22	2
3	64QAM	1	8	20.57	20.66	20.66		
3	64QAM	1	14	20.51	20.56	20.49		
3	64QAM	8	0	19.33	19.42	19.47	21	3
3	64QAM	8	4	19.50	19.51	19.46		
3	64QAM	8	7	19.38	19.48	19.46		
3	64QAM	15	0	19.35	19.41	19.42		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	22.18	22.27	22.16	24	0
1.4	QPSK	1	3	22.22	22.39	22.30		
1.4	QPSK	1	5	22.10	22.19	22.18		
1.4	QPSK	3	0	22.20	22.33	22.32		
1.4	QPSK	3	1	22.22	22.28	22.31		
1.4	QPSK	3	3	22.23	22.28	22.24		
1.4	QPSK	6	0	21.25	21.31	21.29	23	1
1.4	16QAM	1	0	21.54	21.60	21.62	23	1
1.4	16QAM	1	3	21.63	21.68	21.63		
1.4	16QAM	1	5	21.55	21.48	21.54		
1.4	16QAM	3	0	21.25	21.30	21.33		
1.4	16QAM	3	1	21.35	21.45	21.41		
1.4	16QAM	3	3	21.21	21.37	21.32		
1.4	16QAM	6	0	20.32	20.46	20.46	22	2
1.4	64QAM	1	0	20.38	20.55	20.42	22	2
1.4	64QAM	1	3	20.44	20.49	20.43		
1.4	64QAM	1	5	20.36	20.45	20.39		
1.4	64QAM	3	0	20.24	20.36	20.33		
1.4	64QAM	3	1	20.33	20.33	20.40		
1.4	64QAM	3	3	20.30	20.41	20.35		
1.4	64QAM	6	0	19.24	19.35	19.29	21	3

Full Power for ANT2-EN-DC

Band 7 (2600MHz Band)
Part 27

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				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	22.50	22.82	22.78	24	0
20	QPSK	1	49	22.35	22.54	22.72		
20	QPSK	1	99	22.34	22.53	22.72		
20	QPSK	50	0	21.65	21.88	21.69	23	1
20	QPSK	50	24	21.47	21.56	21.78		
20	QPSK	50	50	21.53	21.64	21.85		
20	QPSK	100	0	21.55	21.67	21.60		
20	16QAM	1	0	21.69	21.69	22.02	23	1
20	16QAM	1	49	21.68	21.73	21.98		
20	16QAM	1	99	21.57	21.82	21.98		
20	16QAM	50	0	20.51	20.64	20.84	22	2
20	16QAM	50	24	20.48	20.62	20.89		
20	16QAM	50	50	20.47	20.74	20.88		
20	16QAM	100	0	20.53	20.57	20.88		
20	64QAM	1	0	20.65	20.63	20.85	22	2
20	64QAM	1	49	20.64	20.56	20.88		
20	64QAM	1	99	20.59	20.65	20.98		
20	64QAM	50	0	19.71	19.49	19.78	21	3
20	64QAM	50	24	19.50	19.64	19.93		
20	64QAM	50	50	19.60	19.67	19.86		
20	64QAM	100	0	19.47	19.61	19.85		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	22.48	22.45	22.77	24	0
15	QPSK	1	37	22.34	22.41	22.82		
15	QPSK	1	74	22.32	22.62	22.73		
15	QPSK	36	0	21.53	21.55	21.89	23	1
15	QPSK	36	20	21.51	21.60	21.98		
15	QPSK	36	39	21.75	21.71	21.87		
15	QPSK	75	0	21.43	21.58	21.83		
15	16QAM	1	0	21.68	21.64	22.10	23	1
15	16QAM	1	37	21.72	21.76	22.07		
15	16QAM	1	74	21.60	21.96	22.08		
15	16QAM	36	0	20.52	20.55	20.89	22	2
15	16QAM	36	20	20.49	20.57	20.91		
15	16QAM	36	39	20.49	20.67	20.87		
15	16QAM	75	0	20.56	20.54	20.85		
15	64QAM	1	0	20.62	20.67	20.91	22	2
15	64QAM	1	37	20.75	20.64	20.96		
15	64QAM	1	74	20.46	20.57	20.91		
15	64QAM	36	0	19.53	19.59	19.81	21	3
15	64QAM	36	20	19.53	19.64	19.86		
15	64QAM	36	39	19.48	19.58	19.90		
15	64QAM	75	0	19.52	19.59	19.91		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	22.62	22.79	22.77	24	0
10	QPSK	1	25	22.74	22.82	22.80		
10	QPSK	1	49	22.82	22.81	22.82		
10	QPSK	25	0	21.70	21.73	22.03	23	1
10	QPSK	25	12	21.71	21.82	22.03		
10	QPSK	25	25	21.65	21.84	22.07		
10	QPSK	50	0	21.71	21.80	22.06		
10	16QAM	1	0	21.99	21.90	22.27	23	1
10	16QAM	1	25	21.93	22.01	22.28		
10	16QAM	1	49	21.96	22.10	22.24		
10	16QAM	25	0	20.67	20.70	21.04	22	2
10	16QAM	25	12	20.73	20.74	21.08		
10	16QAM	25	25	20.69	20.83	21.09		
10	16QAM	50	0	20.70	20.80	21.08		
10	64QAM	1	0	20.80	20.86	21.11	22	2
10	64QAM	1	25	20.72	20.81	21.10		
10	64QAM	1	49	20.76	21.05	21.21		
10	64QAM	25	0	19.73	19.76	20.02	21	3
10	64QAM	25	12	19.70	19.79	20.06		
10	64QAM	25	25	19.59	19.86	20.04		
10	64QAM	50	0	19.71	19.77	20.01		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	22.59	22.65	22.77	24	0
5	QPSK	1	12	22.57	22.78	22.77		
5	QPSK	1	24	22.57	22.76	22.81		
5	QPSK	12	0	21.66	21.71	22.02	23	1
5	QPSK	12	7	21.75	21.83	22.07		
5	QPSK	12	13	21.72	21.85	22.06		
5	QPSK	25	0	21.66	21.72	22.09		
5	16QAM	1	0	21.90	22.01	22.30	23	1
5	16QAM	1	12	22.06	22.13	22.35		
5	16QAM	1	24	22.00	22.22	22.34		
5	16QAM	12	0	20.69	20.73	21.08	22	2
5	16QAM	12	7	20.75	20.81	21.06		
5	16QAM	12	13	20.68	20.93	21.13		
5	16QAM	25	0	20.70	20.74	21.04		
5	64QAM	1	0	20.82	20.97	20.68	22	2
5	64QAM	1	12	20.99	21.03	20.66		
5	64QAM	1	24	20.75	21.13	20.70		
5	64QAM	12	0	19.59	19.67	19.52	21	3
5	64QAM	12	7	19.75	19.79	19.54		
5	64QAM	12	13	19.68	19.57	19.51		
5	64QAM	25	0	19.71	19.81	19.60		

Band 41 (2.6G Band)

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Low Ch. / Freq.	Power Middle High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				40140	40400	40670	41140		
Frequency (MHz)				2545	2571	2598	2645		
20	QPSK	1	0	22.83	22.84	22.98	22.80	24	0
20	QPSK	1	49	22.61	22.93	22.94	22.56		
20	QPSK	1	99	22.67	22.54	22.72	22.77		
20	QPSK	50	0	21.41	21.38	21.44	21.31	23	1
20	QPSK	50	24	21.42	21.41	21.24	21.32		
20	QPSK	50	50	21.36	21.34	21.33	21.33		
20	QPSK	100	0	21.36	21.36	21.38	21.36		
20	16QAM	1	0	21.41	21.51	21.58	21.36	23	1
20	16QAM	1	49	21.34	21.35	21.25	21.26		
20	16QAM	1	99	21.36	21.38	21.27	21.34		
20	16QAM	50	0	20.44	20.45	20.23	20.40	22	2
20	16QAM	50	24	20.32	20.41	20.33	20.41		
20	16QAM	50	50	20.37	20.41	20.40	20.31		
20	16QAM	100	0	20.36	20.32	20.36	20.45		
20	64QAM	1	0	20.11	20.06	20.10	20.22	22	2
20	64QAM	1	49	20.14	20.21	20.24	20.14		
20	64QAM	1	99	20.04	20.25	20.25	20.00		
20	64QAM	50	0	19.32	19.46	19.33	19.41	21	3
20	64QAM	50	24	19.42	19.39	19.32	19.42		
20	64QAM	50	50	19.26	19.41	19.29	19.31		
20	64QAM	100	0	19.37	19.32	19.37	19.37		
Channel				40115	40395	40685	41165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2542.5	2570.5	2599.5	2647.5		
15	QPSK	1	0	22.67	22.69	22.89	22.71	24	0
15	QPSK	1	37	22.61	22.83	22.80	22.78		
15	QPSK	1	74	22.57	22.57	22.50	22.78		
15	QPSK	36	0	21.44	21.42	21.32	21.28	23	1
15	QPSK	36	20	21.32	21.31	21.30	21.39		
15	QPSK	36	39	21.33	21.35	21.42	21.24		
15	QPSK	75	0	21.36	21.38	21.25	21.37		
15	16QAM	1	0	21.35	21.54	21.43	21.48	23	1
15	16QAM	1	37	21.25	21.36	21.23	21.32		
15	16QAM	1	74	21.26	21.44	21.36	21.33		
15	16QAM	36	0	20.28	20.34	20.36	20.20	22	2
15	16QAM	36	20	20.37	20.35	20.21	20.31		
15	16QAM	36	39	20.28	20.26	20.32	20.28		
15	16QAM	75	0	20.34	20.34	20.32	20.33		
15	64QAM	1	0	20.16	20.20	20.02	20.02	22	2
15	64QAM	1	37	20.05	20.22	20.20	20.21		
15	64QAM	1	74	20.22	20.29	20.13	20.21		
15	64QAM	36	0	19.29	19.37	19.39	19.36	21	3
15	64QAM	36	20	19.30	19.37	19.23	19.36		
15	64QAM	36	39	19.32	19.28	19.25	19.33		
15	64QAM	75	0	19.37	19.35	19.33	19.48		
Channel				40090	40390	40690	41190	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2540	2570	2600	2650		
10	QPSK	1	0	22.76	22.82	22.89	22.92	24	0
10	QPSK	1	25	22.90	22.83	22.97	22.87		
10	QPSK	1	49	22.84	22.88	22.86	22.83		
10	QPSK	25	0	21.54	21.51	21.52	21.52	23	1
10	QPSK	25	12	21.47	21.45	21.49	21.49		
10	QPSK	25	25	21.44	21.43	21.49	21.50		
10	QPSK	50	0	21.53	21.52	21.43	21.45		
10	16QAM	1	0	21.70	21.44	21.53	21.66	23	1
10	16QAM	1	25	21.58	21.46	21.61	21.56		
10	16QAM	1	49	21.42	21.61	21.36	21.34		
10	16QAM	25	0	20.61	20.58	20.24	20.45	22	2
10	16QAM	25	12	20.43	20.39	20.33	20.52		
10	16QAM	25	25	20.51	20.37	20.44	20.43		
10	16QAM	50	0	20.63	20.61	20.54	20.51		
10	64QAM	1	0	20.22	20.12	20.03	20.25	22	2
10	64QAM	1	25	20.04	20.01	20.23	20.16		
10	64QAM	1	49	20.00	20.18	20.22	20.17		
10	64QAM	25	0	19.53	19.64	19.52	19.34	21	3
10	64QAM	25	12	19.58	19.67	19.61	19.41		
10	64QAM	25	25	19.53	19.55	19.61	19.32		
10	64QAM	50	0	19.61	19.49	19.50	19.39		
Channel				40065	40365	40705	41215	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2537.5	2569.5	2601.5	2652.5		
5	QPSK	1	0	22.78	22.80	22.87	22.87	24	0
5	QPSK	1	12	22.92	22.85	22.85	22.83		
5	QPSK	1	24	22.85	22.90	22.88	22.90		
5	QPSK	12	0	21.60	21.49	21.46	21.49	23	1
5	QPSK	12	7	21.53	21.52	21.44	21.53		
5	QPSK	12	13	21.52	21.39	21.50	21.52		
5	QPSK	25	0	21.52	21.51	21.46	21.41		
5	16QAM	1	0	21.55	21.42	21.71	21.51	23	1
5	16QAM	1	12	21.68	21.67	21.62	21.59		
5	16QAM	1	24	21.70	21.49	21.48	21.61		
5	16QAM	12	0	20.62	20.40	20.48	20.40	22	2
5	16QAM	12	7	20.44	20.42	20.36	20.46		
5	16QAM	12	13	20.55	20.40	20.52	20.43		
5	16QAM	25	0	20.50	20.46	20.41	20.51		
5	64QAM	1	0	20.27	20.15	20.17	20.15	22	2
5	64QAM	1	12	20.19	20.05	20.12	20.10		
5	64QAM	1	24	20.32	20.29	20.26	20.23		
5	64QAM	12	0	19.58	19.54	19.44	19.58	21	3
5	64QAM	12	7	19.36	19.48	19.43	19.42		
5	64QAM	12	13	19.49	19.46	19.47	19.41		
5	64QAM	25	0	19.49	19.45	19.41	19.51		

Reduced power Mode for Sensor On for ANT1-EN-DC

Band 5 (Celluar Band)
Part 22H(only on channel required)

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				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	19.65	19.78	19.58		
10	QPSK	1	25	19.52	19.66	19.71	21	0
10	QPSK	1	49	19.61	19.69	19.48		
10	QPSK	25	0	19.41	19.51	19.44		
10	QPSK	25	12	19.46	19.48	19.46	21	0
10	QPSK	25	25	19.37	19.47	19.38		
10	QPSK	50	0	19.31	19.40	19.38		
10	16QAM	1	0	19.66	19.71	19.73		
10	16QAM	1	25	19.69	19.69	19.64	21	0
10	16QAM	1	49	19.77	19.53	19.56		
10	16QAM	25	0	19.42	19.40	19.48		
10	16QAM	25	12	19.43	19.43	19.46	21	0
10	16QAM	25	25	19.36	19.58	19.43		
10	16QAM	50	0	19.46	19.45	19.40		
10	64QAM	1	0	19.60	19.56	19.65		
10	64QAM	1	25	19.77	19.32	19.37	21	0
10	64QAM	1	49	19.53	19.48	19.55		
10	64QAM	25	0	19.46	19.39	19.43		
10	64QAM	25	12	19.43	19.47	19.55	21	0
10	64QAM	25	25	19.44	19.54	19.44		
10	64QAM	50	0	19.45	19.36	19.38		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	19.45	19.37	19.32		
5	QPSK	1	12	19.37	19.34	19.31	21	0
5	QPSK	1	24	19.28	19.41	19.31		
5	QPSK	12	0	19.38	19.39	19.36		
5	QPSK	12	7	19.39	19.45	19.45	21	0
5	QPSK	12	13	19.41	19.38	19.42		
5	QPSK	25	0	19.39	19.41	19.47		
5	16QAM	1	0	19.70	19.71	19.65		
5	16QAM	1	12	19.64	19.69	19.74	21	0
5	16QAM	1	24	19.74	19.71	19.65		
5	16QAM	12	0	19.41	19.38	19.48		
5	16QAM	12	7	19.44	19.54	19.40	21	0
5	16QAM	12	13	19.32	19.56	19.48		
5	16QAM	25	0	19.36	19.39	19.42		
5	64QAM	1	0	19.53	19.67	19.62		
5	64QAM	1	12	19.53	19.58	19.49	21	0
5	64QAM	1	24	19.66	19.71	19.41		
5	64QAM	12	0	19.43	19.50	19.41		
5	64QAM	12	7	19.47	19.62	19.38	21	0
5	64QAM	12	13	19.47	19.56	19.42		
5	64QAM	25	0	19.32	19.46	19.44		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	19.31	19.26	19.37		
3	QPSK	1	8	19.21	19.41	19.35	21	0
3	QPSK	1	14	19.31	19.35	19.26		
3	QPSK	8	0	19.33	19.39	19.48		
3	QPSK	8	4	19.39	19.50	19.42	21	0
3	QPSK	8	7	19.36	19.40	19.43		
3	QPSK	15	0	19.26	19.41	19.40		
3	16QAM	1	0	19.68	19.53	19.77		
3	16QAM	1	8	19.74	19.73	19.75	21	0
3	16QAM	1	14	19.57	19.71	19.72		
3	16QAM	8	0	19.34	19.50	19.49		
3	16QAM	8	4	19.41	19.60	19.45	21	0
3	16QAM	8	7	19.43	19.53	19.47		
3	16QAM	15	0	19.36	19.49	19.50		
3	64QAM	1	0	19.60	19.56	19.55		
3	64QAM	1	8	19.62	19.69	19.75	21	0
3	64QAM	1	14	19.64	19.57	19.56		
3	64QAM	8	0	19.46	19.35	19.48		
3	64QAM	8	4	19.48	19.60	19.51	21	0
3	64QAM	8	7	19.48	19.54	19.41		
3	64QAM	15	0	19.49	19.30	19.52		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	19.09	19.22	19.38		
1.4	QPSK	1	3	19.07	19.22	19.25		
1.4	QPSK	1	5	19.18	19.30	19.22	21	0
1.4	QPSK	3	0	19.12	19.23	19.26		
1.4	QPSK	3	1	19.31	19.31	19.32		
1.4	QPSK	3	3	19.36	19.29	19.24		
1.4	QPSK	6	0	19.18	19.35	19.20	20	1
1.4	16QAM	1	0	19.51	19.49	19.68		
1.4	16QAM	1	3	19.53	19.65	19.51		
1.4	16QAM	1	5	19.44	19.54	19.68	20	1
1.4	16QAM	3	0	19.23	19.31	19.37		
1.4	16QAM	3	1	19.30	19.56	19.43		
1.4	16QAM	3	3	19.20	19.52	19.38		
1.4	16QAM	6	0	19.30	19.35	19.26	19	2
1.4	64QAM	1	0	19.51	19.54	19.52		
1.4	64QAM	1	3	19.59	19.58	19.68		
1.4	64QAM	1	5	19.53	19.50	19.40	19	2
1.4	64QAM	3	0	19.35	19.34	19.31		
1.4	64QAM	3	1	19.34	19.42	19.49		
1.4	64QAM	3	3	19.32	19.38	19.32		
1.4	64QAM	6	0	19.36	19.11	19.40	18	3

Band 7

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				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	16.78	16.85	16.65		
20	QPSK	1	49	16.60	16.67	16.72	17.5	0
20	QPSK	1	99	16.74	16.84	16.75		
20	QPSK	50	0	16.48	16.77	16.61		
20	QPSK	50	24	16.57	16.62	16.69	17.5	0
20	QPSK	50	50	16.65	16.72	16.76		
20	QPSK	100	0	16.57	16.75	16.74		
20	16QAM	1	0	16.26	16.41	16.47		
20	16QAM	1	49	16.35	16.48	16.55	17.5	0
20	16QAM	1	99	16.50	16.60	16.63		
20	16QAM	50	0	16.15	16.24	16.31		
20	16QAM	50	24	16.23	16.30	16.44	17.5	0
20	16QAM	50	50	16.32	16.38	16.47		
20	16QAM	100	0	16.23	16.26	16.38		
20	64QAM	1	0	16.09	16.29	16.27		
20	64QAM	1	49	16.29	16.31	16.37	17.5	0
20	64QAM	1	99	16.43	16.41	16.47		
20	64QAM	50	0	16.15	16.21	16.31		
20	64QAM	50	24	16.24	16.29	16.39	17.5	0
20	64QAM	50	50	16.28	16.40	16.41		
20	64QAM	100	0	16.25	16.28	16.39		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	16.53	16.60	16.67		
15	QPSK	1	37	16.61	16.71	16.77	17.5	0
15	QPSK	1	74	16.70	16.79	16.62		
15	QPSK	36	0	16.42	16.45	16.50		
15	QPSK	36	20	16.42	16.51	16.61	17.5	0
15	QPSK	36	39	16.49	16.58	16.63		
15	QPSK	75	0	16.46	16.47	16.49		
15	16QAM	1	0	16.51	16.65	16.72		
15	16QAM	1	37	16.60	16.69	16.75	17.5	0
15	16QAM	1	74	16.77	16.81	16.42		
15	16QAM	36	0	16.43	16.48	16.50		
15	16QAM	36	20	16.51	16.50	16.63	17.5	0
15	16QAM	36	39	16.54	16.61	16.61		
15	16QAM	75	0	16.48	16.50	16.56		
15	64QAM	1	0	16.37	16.56	16.57		
15	64QAM	1	37	16.46	16.56	16.68	17.5	0
15	64QAM	1	74	16.67	16.68	16.68		
15	64QAM	36	0	16.40	16.48	16.51		
15	64QAM	36	20	16.45	16.50	16.64	17.5	0
15	64QAM	36	39	16.52	16.59	16.63		
15	64QAM	75	0	16.49	16.48	16.54		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	16.51	16.65	16.67		
10	QPSK	1	25	16.52	16.67	16.43	17.5	0
10	QPSK	1	49	16.66	16.76	16.40		
10	QPSK	25	0	16.45	16.49	16.58		
10	QPSK	25	12	16.47	16.53	16.60	17.5	0
10	QPSK	25	25	16.47	16.59	16.17		
10	QPSK	50	0	16.45	16.45	16.50		
10	16QAM	1	0	16.28	16.37	16.41		
10	16QAM	1	25	16.23	16.37	16.46	17.5	0
10	16QAM	1	49	16.42	16.53	16.17		
10	16QAM	25	0	16.32	16.37	16.30		
10	16QAM	25	12	16.38	16.44	16.49	17.5	0
10	16QAM	25	25	16.39	16.52	16.53		
10	16QAM	50	0	16.38	16.40	16.47		
10	64QAM	1	0	16.40	16.48	16.55		
10	64QAM	1	25	16.45	16.54	16.62	17.5	0
10	64QAM	1	49	16.55	16.66	16.76		
10	64QAM	25	0	16.35	16.37	16.46		
10	64QAM	25	12	16.36	16.41	16.47	17.5	0
10	64QAM	25	25	16.40	16.49	16.53		
10	64QAM	50	0	16.32	16.34	16.43		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	16.48	16.55	16.72		
5	QPSK	1	12	16.57	16.68	16.74	17.5	0
5	QPSK	1	24	16.57	16.72	16.80		
5	QPSK	12	0	16.20	16.27	16.41		
5	QPSK	12	7	16.31	16.46	16.51	17.5	0
5	QPSK	12	13	16.32	16.47	16.51		
5	QPSK	25	0	16.27	16.32	16.44		
5	16QAM	1	0	16.50	16.61	16.72		
5	16QAM	1	12	16.53	16.71	16.74	17.5	0
5	16QAM	1	24	16.60	16.74	16.79		
5	16QAM	12	0	16.26	16.32	16.44		
5	16QAM	12	7	16.35	16.50	16.58	17.5	0
5	16QAM	12	13	16.39	16.50	16.58		
5	16QAM	25	0	16.34	16.41	16.49		
5	64QAM	1	0	16.44	16.46	16.63		
5	64QAM	1	12	16.47	16.57	16.62	17.5	0
5	64QAM	1	24	16.51	16.66	16.68		
5	64QAM	12	0	16.24	16.28	16.41		
5	64QAM	12	7	16.33	16.48	16.51	17.5	0
5	64QAM	12	13	16.39	16.50	16.53		
5	64QAM	25	0	16.33	16.39	16.51		

Band 66

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				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	14.95	15.13	14.78		
20	QPSK	1	49	14.92	14.88	14.75	16	0
20	QPSK	1	99	14.96	14.85	14.85		
20	QPSK	50	0	14.79	14.95	14.77		
20	QPSK	50	24	14.79	14.79	14.76	16	0
20	QPSK	50	50	14.87	14.80	14.78		
20	QPSK	100	0	14.79	14.80	14.75		
20	16QAM	1	0	14.96	14.99	14.63		
20	16QAM	1	49	15.10	14.97	15.08	16	0
20	16QAM	1	99	15.04	14.95	15.01		
20	16QAM	50	0	14.79	14.70	14.72		
20	16QAM	50	24	14.80	14.82	14.71	16	0
20	16QAM	50	50	14.84	14.78	14.77		
20	16QAM	100	0	14.78	14.79	14.69		
20	64QAM	1	0	14.65	14.52	14.52		
20	64QAM	1	49	14.63	14.52	14.54	16	0
20	64QAM	1	99	14.89	14.43	14.62		
20	64QAM	50	0	14.78	14.43	14.59		
20	64QAM	50	24	14.81	14.55	14.58	16	0
20	64QAM	50	50	14.82	14.65	14.60		
20	64QAM	100	0	14.77	14.80	14.58		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	14.82	14.97	15.00		
15	QPSK	1	37	14.85	14.98	14.93	16	0
15	QPSK	1	74	14.86	14.95	14.92		
15	QPSK	36	0	14.53	14.57	14.55		
15	QPSK	36	20	14.53	14.57	14.52	16	0
15	QPSK	36	39	14.54	14.62	14.58		
15	QPSK	75	0	14.55	14.56	14.54		
15	16QAM	1	0	14.79	14.86	14.82		
15	16QAM	1	37	14.70	14.82	14.72	16	0
15	16QAM	1	74	14.79	14.80	14.80		
15	16QAM	36	0	14.54	14.54	14.51		
15	16QAM	36	20	14.53	14.58	14.58	16	0
15	16QAM	36	39	14.54	14.60	14.53		
15	16QAM	75	0	14.53	14.54	14.55		
15	64QAM	1	0	14.75	14.74	14.65		
15	64QAM	1	37	14.67	14.73	14.71	16	0
15	64QAM	1	74	14.64	14.72	14.50		
15	64QAM	36	0	14.53	14.53	14.53		
15	64QAM	36	20	14.57	14.57	14.57	16	0
15	64QAM	36	39	14.55	14.75	14.53		
15	64QAM	75	0	14.52	14.54	14.56		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	14.56	14.64	14.59		
10	QPSK	1	25	14.53	14.60	14.59	16	0
10	QPSK	1	49	14.55	14.63	14.58		
10	QPSK	25	0	14.65	14.69	14.68		
10	QPSK	25	12	14.70	14.69	14.67	16	0
10	QPSK	25	25	14.69	14.73	14.70		
10	QPSK	50	0	14.65	14.65	14.66		
10	16QAM	1	0	14.73	14.75	14.66		
10	16QAM	1	25	14.67	14.79	14.70	16	0
10	16QAM	1	49	14.70	14.78	14.72		
10	16QAM	25	0	14.49	14.46	14.40		
10	16QAM	25	12	14.48	14.50	14.44	16	0
10	16QAM	25	25	14.47	14.54	14.43		
10	16QAM	50	0	14.45	14.45	14.39		
10	64QAM	1	0	14.43	14.56	14.63		
10	64QAM	1	25	14.51	14.67	14.57	16	0
10	64QAM	1	49	14.57	14.66	14.52		
10	64QAM	25	0	14.46	14.46	14.42		
10	64QAM	25	12	14.45	14.49	14.37	16	0
10	64QAM	25	25	14.44	14.51	14.42		
10	64QAM	50	0	14.44	14.43	14.40		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	14.57	14.63	14.64		
5	QPSK	1	12	14.56	14.61	14.57	16	0
5	QPSK	1	24	14.57	14.66	14.58		
5	QPSK	12	0	14.64	14.69	14.72		
5	QPSK	12	7	14.64	14.72	14.70	16	0
5	QPSK	12	13	14.65	14.74	14.69		
5	QPSK	25	0	14.61	14.67	14.67		
5	16QAM	1	0	15.02	15.07	14.99		
5	16QAM	1	12	14.93	15.05	14.94	16	0
5	16QAM	1	24	14.88	15.11	14.96		
5	16QAM	12	0	14.66	14.73	14.69		
5	16QAM	12	7	14.68	14.80	14.71	16	0
5	16QAM	12	13	14.71	14.81	14.69		
5	16QAM	25	0	14.63	14.72	14.62		
5	64QAM	1	0	14.83	14.93	14.91		
5	64QAM	1	12	14.74	14.85	14.75	16	0
5	64QAM	1	24	14.82	14.88	14.82		
5	64QAM	12	0	14.66	14.70	14.66		
5	64QAM	12	7	14.67	14.78	14.66	16	0
5	64QAM	12	13	14.67	14.76	14.62		
5	64QAM	25	0	14.64	14.70	14.68		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	14.76	14.80	14.81		
3	QPSK	1	8	14.82	14.90	14.83	16	0
3	QPSK	1	14	14.74	14.84	14.80		
3	QPSK	8	0	14.84	14.90	14.88		
3	QPSK	8	4	14.87	14.96	14.93	16	0
3	QPSK	8	7	14.85	14.95	14.88		
3	QPSK	15	0	14.82	14.92	14.88		
3	16QAM	1	0	14.96	14.75	14.77		
3	16QAM	1	8	14.75	14.75	14.77	16	0
3	16QAM	1	14	14.63	14.63	15.04		
3	16QAM	8	0	14.91	14.93	14.94		
3	16QAM	8	4	14.95	15.01	14.94	16	0
3	16QAM	8	7	14.89	15.02	14.90		
3	16QAM	15	0	14.87	14.94	14.88		
3	64QAM	1	0	15.04	15.07	15.07		
3	64QAM	1	8	15.10	14.79	15.08	16	0
3	64QAM	1	14	15.06	15.11	15.00		
3	64QAM	8	0	14.87	14.90	14.86		
3	64QAM	8	4	14.89	15.00	14.88	16	0
3	64QAM	8	7	14.90	14.95	14.84		
3	64QAM	15	0	14.86	14.91	14.83		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	14.59	14.75	14.71		
1.4	QPSK	1	3	14.67	14.83	14.79		
1.4	QPSK	1	5	14.60	14.75	14.74	16	0
1.4	QPSK	3	0	14.64	14.76	14.71		
1.4	QPSK	3	1	14.70	14.84	14.76		
1.4	QPSK	3	3	14.69	14.79	14.71		
1.4	QPSK	6	0	14.77	14.89	14.84	16	0
1.4	16QAM	1	0	15.00	15.12	15.04		
1.4	16QAM	1	3	15.06	14.75	15.08		
1.4	16QAM	1	5	14.99	15.10	15.01	16	0
1.4	16QAM	3	0	14.76	14.85	14.81		
1.4	16QAM	3	1	14.79	14.92	14.86		
1.4	16QAM	3	3	14.73	14.89	14.81		
1.4	16QAM	6	0	14.81	14.95	14.81	16	0
1.4	64QAM	1	0	14.86	14.96	14.92		
1.4	64QAM	1	3	14.97	15.04	14.98		
1.4	64QAM	1	5	14.87	14.93	14.91	16	0
1.4	64QAM	3	0	14.78	14.91	14.83		
1.4	64QAM	3	1	14.83	14.97	14.87		
1.4	64QAM	3	3	14.79	14.89	14.77		
1.4	64QAM	6	0	14.74	14.84	14.75	16	0

Reduced power Mode for Sensor On for ANT2-EN-DC

Band 7

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				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	18.20	18.25	18.03		
20	QPSK	1	49	17.92	17.99	17.96	19.5	0
20	QPSK	1	99	17.90	17.96	17.84		
20	QPSK	50	0	17.96	18.10	18.01		
20	QPSK	50	24	18.07	18.04	17.97	19.5	0
20	QPSK	50	50	18.05	18.08	18.03		
20	QPSK	100	0	18.02	18.03	17.95		
20	16QAM	1	0	18.10	17.83	17.99		
20	16QAM	1	49	18.06	18.17	18.18	19.5	0
20	16QAM	1	99	18.04	18.14	18.12		
20	16QAM	50	0	17.77	17.86	17.83		
20	16QAM	50	24	17.88	17.85	17.82	19.5	0
20	16QAM	50	50	17.88	17.91	17.82		
20	16QAM	100	0	17.88	17.86	17.78		
20	64QAM	1	0	18.11	18.23	18.14		
20	64QAM	1	49	18.04	18.03	18.04	19.5	0
20	64QAM	1	99	18.03	18.19	18.00		
20	64QAM	50	0	17.77	17.87	17.81		
20	64QAM	50	24	17.89	17.87	17.78	19.5	0
20	64QAM	50	50	17.87	17.91	17.82		
20	64QAM	100	0	17.84	17.84	17.80		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	17.85	17.98	17.94		
15	QPSK	1	37	17.94	17.95	17.91	19.5	0
15	QPSK	1	74	17.92	17.91	17.86		
15	QPSK	36	0	18.07	18.02	17.96		
15	QPSK	36	20	18.04	18.05	18.03	19.5	0
15	QPSK	36	39	18.04	18.08	17.98		
15	QPSK	75	0	17.98	18.02	18.03		
15	16QAM	1	0	18.18	18.12	18.23		
15	16QAM	1	37	18.00	18.20	18.16	19.5	0
15	16QAM	1	74	17.81	18.20	18.12		
15	16QAM	36	0	17.84	17.87	17.81		
15	16QAM	36	20	17.92	17.88	17.87	19.5	0
15	16QAM	36	39	17.82	17.94	17.83		
15	16QAM	75	0	17.87	17.87	17.88		
15	64QAM	1	0	17.75	17.76	17.77		
15	64QAM	1	37	17.68	17.80	17.80	19.5	0
15	64QAM	1	74	17.83	17.83	17.95		
15	64QAM	36	0	17.87	17.87	17.78		
15	64QAM	36	20	17.90	17.86	17.87	19.5	0
15	64QAM	36	39	17.91	17.89	17.81		
15	64QAM	75	0	17.89	17.85	17.87		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	17.80	17.87	17.80		
10	QPSK	1	25	17.77	17.88	17.81	19.5	0
10	QPSK	1	49	17.82	17.86	17.77		
10	QPSK	25	0	17.73	17.73	17.66		
10	QPSK	25	12	17.71	17.71	17.64	19.5	0
10	QPSK	25	25	17.69	17.74	17.66		
10	QPSK	50	0	17.71	17.69	17.62		
10	16QAM	1	0	17.91	18.02	17.99		
10	16QAM	1	25	17.86	17.91	17.89	19.5	0
10	16QAM	1	49	17.93	18.04	17.93		
10	16QAM	25	0	17.75	17.75	17.70		
10	16QAM	25	12	17.75	17.77	17.71	19.5	0
10	16QAM	25	25	17.72	17.81	17.73		
10	16QAM	50	0	17.73	17.73	17.67		
10	64QAM	1	0	17.81	17.94	17.89		
10	64QAM	1	25	17.77	17.82	17.79	19.5	0
10	64QAM	1	49	17.87	17.92	17.85		
10	64QAM	25	0	17.72	17.71	17.66		
10	64QAM	25	12	17.73	17.72	17.73	19.5	0
10	64QAM	25	25	17.74	17.80	17.72		
10	64QAM	50	0	17.71	17.73	17.70		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	18.07	18.08	17.93		
5	QPSK	1	12	18.03	18.12	17.79	19.5	0
5	QPSK	1	24	18.02	18.18	18.07		
5	QPSK	12	0	17.90	17.95	17.89		
5	QPSK	12	7	17.91	18.03	17.90	19.5	0
5	QPSK	12	13	17.91	17.99	17.89		
5	QPSK	25	0	17.92	17.92	17.90		
5	16QAM	1	0	18.20	17.95	18.22		
5	16QAM	1	12	18.19	18.19	18.19	19.5	0
5	16QAM	1	24	18.21	18.00	18.23		
5	16QAM	12	0	17.98	17.99	17.97		
5	16QAM	12	7	17.97	18.10	17.95	19.5	0
5	16QAM	12	13	17.95	18.04	17.93		
5	16QAM	25	0	17.94	17.99	17.93		
5	64QAM	1	0	18.17	18.22	18.10		
5	64QAM	1	12	18.06	18.08	18.09	19.5	0
5	64QAM	1	24	18.15	18.21	18.08		
5	64QAM	12	0	17.97	18.00	17.96		
5	64QAM	12	7	17.93	18.05	17.97	19.5	0
5	64QAM	12	13	17.95	18.04	17.91		
5	64QAM	25	0	17.97	17.98	17.95		

Band 41

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Low Ch. / Freq.	Power Middle High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				40140	40400	40670	41140		
Frequency (MHz)				2545	2571	2598	2645		
20	QPSK	1	0	20.49	20.44	20.61	20.48		
20	QPSK	1	49	20.37	20.44	20.55	20.29	21.5	0
20	QPSK	1	99	20.28	20.22	20.48	20.55		
20	QPSK	50	0	20.39	20.28	20.54	20.39		
20	QPSK	50	24	20.20	20.28	20.53	20.28	21.5	0
20	QPSK	50	50	20.09	20.31	20.52	20.29		
20	QPSK	100	0	20.53	20.43	20.55	20.29		
20	16QAM	1	0	20.21	20.39	20.43	20.24		
20	16QAM	1	49	20.30	20.27	20.39	20.52	21.5	0
20	16QAM	1	99	20.46	20.36	20.57	20.21		
20	16QAM	50	0	20.16	20.38	20.40	20.14		
20	16QAM	50	24	20.18	20.16	20.22	20.28	21.5	0
20	16QAM	50	50	20.38	20.28	20.46	20.47		
20	16QAM	100	0	20.25	20.35	20.48	20.17		
20	64QAM	1	0	20.20	20.35	20.16	20.39		
20	64QAM	1	49	20.50	20.35	20.48	20.20	21.5	0
20	64QAM	1	99	20.16	20.23	20.38	20.20		
20	64QAM	50	0	19.96	19.86	20.05	19.92		
20	64QAM	50	24	20.01	20.07	20.12	19.85	21	0.5
20	64QAM	50	50	19.99	19.84	19.92	19.89		
20	64QAM	100	0	19.93	19.97	19.63	19.76		
Channel				40115	40395	40685	41165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2542.5	2570.5	2599.5	2647.5		
15	QPSK	1	0	20.40	20.38	20.54	20.43		
15	QPSK	1	37	20.22	20.40	20.45	20.29	21.5	0
15	QPSK	1	74	20.28	20.29	20.35	20.34		
15	QPSK	36	0	20.25	20.23	20.44	20.24		
15	QPSK	36	20	20.05	20.05	20.40	20.04	21.5	0
15	QPSK	36	39	20.06	20.13	20.39	20.21		
15	QPSK	75	0	20.36	20.35	20.36	20.24		
15	16QAM	1	0	20.07	20.30	20.36	20.14		
15	16QAM	1	37	20.09	20.14	20.32	20.43	21.5	0
15	16QAM	1	74	20.33	20.26	20.44	20.14		
15	16QAM	36	0	20.13	20.15	20.27	19.93		
15	16QAM	36	20	20.13	19.92	20.05	20.16	21.5	0
15	16QAM	36	39	20.19	20.10	20.37	20.24		
15	16QAM	75	0	20.22	20.16	20.27	20.14		
15	64QAM	1	0	19.99	20.21	20.11	20.32		
15	64QAM	1	37	20.32	20.17	20.31	20.03	21.5	0
15	64QAM	1	74	20.14	20.08	20.30	20.03		
15	64QAM	36	0	19.80	19.76	19.92	19.85		
15	64QAM	36	20	19.97	20.02	19.90	19.74	21	0.5
15	64QAM	36	39	19.79	19.62	19.75	19.87		
15	64QAM	75	0	19.79	19.94	19.63	19.66		
Channel				40090	40390	40690	41190	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2540	2570	2600	2650		
10	QPSK	1	0	20.29	20.33	20.34	20.34		
10	QPSK	1	25	20.10	20.21	20.27	20.18	21.5	0
10	QPSK	1	49	20.08	20.16	20.25	20.43		
10	QPSK	25	0	20.19	20.05	20.21	20.28		
10	QPSK	25	12	19.95	19.97	20.20	20.13	21.5	0
10	QPSK	25	25	19.88	20.10	20.26	20.06		
10	QPSK	50	0	20.38	20.30	20.31	20.17		
10	16QAM	1	0	19.95	20.08	20.20	20.00		
10	16QAM	1	25	20.00	20.16	20.12	20.27	21.5	0
10	16QAM	1	49	20.17	20.12	20.29	20.05		
10	16QAM	25	0	20.02	20.25	20.17	20.01		
10	16QAM	25	12	19.98	19.97	20.04	19.98	21.5	0
10	16QAM	25	25	20.09	19.99	20.11	20.15		
10	16QAM	50	0	19.96	20.15	20.18	19.85		
10	64QAM	1	0	19.89	20.17	20.02	20.09		
10	64QAM	1	25	20.31	20.24	20.28	20.07	21.5	0
10	64QAM	1	49	19.99	19.93	20.25	19.89		
10	64QAM	25	0	19.78	19.68	19.87	19.80		
10	64QAM	25	12	19.87	19.93	20.00	19.69	21	0.5
10	64QAM	25	25	19.75	19.57	19.76	19.63		
10	64QAM	50	0	19.64	19.77	19.49	19.63		
Channel				40065	40385	40705	41215	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2537.5	2569.5	2601.5	2652.5		
5	QPSK	1	0	20.19	20.26	20.30	20.16		
5	QPSK	1	12	20.12	20.18	20.32	20.13	21.5	0
5	QPSK	1	24	19.97	20.10	20.22	20.30		
5	QPSK	12	0	20.18	20.13	20.20	20.21		
5	QPSK	12	7	20.09	20.11	20.32	20.08	21.5	0
5	QPSK	12	13	20.04	20.11	20.27	20.10		
5	QPSK	25	0	20.31	20.15	20.27	20.15		
5	16QAM	1	0	20.00	20.12	20.16	20.09		
5	16QAM	1	12	20.07	20.12	20.09	20.19	21.5	0
5	16QAM	1	24	20.15	20.19	20.21	19.91		
5	16QAM	12	0	19.99	20.10	20.10	19.97		
5	16QAM	12	7	19.98	20.03	20.00	19.96	21.5	0
5	16QAM	12	13	20.14	19.95	20.26	20.12		
5	16QAM	25	0	19.94	20.23	20.30	19.94		
5	64QAM	1	0	19.90	20.08	19.97	20.18		
5	64QAM	1	12	20.20	20.07	20.17	20.08	21.5	0
5	64QAM	1	24	19.86	20.09	20.09	19.92		
5	64QAM	12	0	19.69	19.56	19.80	19.70		
5	64QAM	12	7	19.68	19.78	19.79	19.62	21	0.5
5	64QAM	12	13	19.72	19.60	19.77	19.67		
5	64QAM	25	0	19.79	19.83	19.57	19.51		

Reduced power Mode for Hotspot On for ANT1-EN-DC

Band 5 (Celluar Band)
Part 22H(only on channel required)

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				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	19.65	19.78	19.58		
10	QPSK	1	25	19.52	19.66	19.71	21	0
10	QPSK	1	49	19.61	19.69	19.48		
10	QPSK	25	0	19.41	19.51	19.44		
10	QPSK	25	12	19.46	19.48	19.46	21	0
10	QPSK	25	25	19.37	19.47	19.38		
10	QPSK	50	0	19.31	19.40	19.38		
10	16QAM	1	0	19.66	19.71	19.73		
10	16QAM	1	25	19.69	19.69	19.64	21	0
10	16QAM	1	49	19.77	19.53	19.56		
10	16QAM	25	0	19.42	19.40	19.48		
10	16QAM	25	12	19.43	19.43	19.46	21	0
10	16QAM	25	25	19.36	19.58	19.43		
10	16QAM	50	0	19.46	19.45	19.40		
10	64QAM	1	0	19.60	19.56	19.65		
10	64QAM	1	25	19.77	19.32	19.37	21	0
10	64QAM	1	49	19.53	19.48	19.55		
10	64QAM	25	0	19.46	19.39	19.43		
10	64QAM	25	12	19.43	19.47	19.55	21	0
10	64QAM	25	25	19.44	19.54	19.44		
10	64QAM	50	0	19.45	19.36	19.38		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	19.45	19.37	19.32		
5	QPSK	1	12	19.37	19.34	19.31	21	0
5	QPSK	1	24	19.28	19.41	19.31		
5	QPSK	12	0	19.38	19.39	19.36		
5	QPSK	12	7	19.39	19.45	19.45	21	0
5	QPSK	12	13	19.41	19.38	19.42		
5	QPSK	25	0	19.39	19.41	19.47		
5	16QAM	1	0	19.70	19.71	19.65		
5	16QAM	1	12	19.64	19.69	19.74	21	0
5	16QAM	1	24	19.74	19.71	19.65		
5	16QAM	12	0	19.41	19.38	19.48		
5	16QAM	12	7	19.44	19.54	19.40	21	0
5	16QAM	12	13	19.32	19.56	19.48		
5	16QAM	25	0	19.36	19.39	19.42		
5	64QAM	1	0	19.53	19.67	19.62		
5	64QAM	1	12	19.53	19.58	19.49	21	0
5	64QAM	1	24	19.66	19.71	19.41		
5	64QAM	12	0	19.43	19.50	19.41		
5	64QAM	12	7	19.47	19.62	19.38	21	0
5	64QAM	12	13	19.47	19.56	19.42		
5	64QAM	25	0	19.32	19.46	19.44		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	19.31	19.26	19.37		
3	QPSK	1	8	19.21	19.41	19.35	21	0
3	QPSK	1	14	19.31	19.35	19.26		
3	QPSK	8	0	19.33	19.39	19.48		
3	QPSK	8	4	19.39	19.50	19.42	21	0
3	QPSK	8	7	19.36	19.40	19.43		
3	QPSK	15	0	19.26	19.41	19.40		
3	16QAM	1	0	19.68	19.53	19.77		
3	16QAM	1	8	19.74	19.73	19.75	21	0
3	16QAM	1	14	19.57	19.71	19.72		
3	16QAM	8	0	19.34	19.50	19.49		
3	16QAM	8	4	19.41	19.60	19.45	21	0
3	16QAM	8	7	19.43	19.53	19.47		
3	16QAM	15	0	19.36	19.49	19.50		
3	64QAM	1	0	19.60	19.56	19.55		
3	64QAM	1	8	19.62	19.69	19.75	21	0
3	64QAM	1	14	19.64	19.57	19.56		
3	64QAM	8	0	19.46	19.35	19.48		
3	64QAM	8	4	19.48	19.60	19.51	21	0
3	64QAM	8	7	19.48	19.54	19.41		
3	64QAM	15	0	19.49	19.30	19.52		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	19.09	19.22	19.38		
1.4	QPSK	1	3	19.07	19.22	19.25		
1.4	QPSK	1	5	19.18	19.30	19.22	21	0
1.4	QPSK	3	0	19.12	19.23	19.26		
1.4	QPSK	3	1	19.31	19.31	19.32		
1.4	QPSK	3	3	19.36	19.29	19.24		
1.4	QPSK	6	0	19.18	19.35	19.20	20	1
1.4	16QAM	1	0	19.51	19.49	19.68		
1.4	16QAM	1	3	19.53	19.65	19.51		
1.4	16QAM	1	5	19.44	19.54	19.68	20	1
1.4	16QAM	3	0	19.23	19.31	19.37		
1.4	16QAM	3	1	19.30	19.56	19.43		
1.4	16QAM	3	3	19.20	19.52	19.38		
1.4	16QAM	6	0	19.30	19.35	19.26	19	2
1.4	64QAM	1	0	19.51	19.54	19.52		
1.4	64QAM	1	3	19.59	19.58	19.68		
1.4	64QAM	1	5	19.53	19.50	19.40	19	2
1.4	64QAM	3	0	19.35	19.34	19.31		
1.4	64QAM	3	1	19.34	19.42	19.49		
1.4	64QAM	3	3	19.32	19.38	19.32		
1.4	64QAM	6	0	19.36	19.11	19.40	18	3

Band 7

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				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	15.32	15.48	15.32		
20	QPSK	1	49	15.21	15.25	15.22	16	0
20	QPSK	1	99	15.10	15.12	15.17		
20	QPSK	50	0	15.23	15.32	15.21		
20	QPSK	50	24	15.20	15.22	15.28	16	0
20	QPSK	50	50	15.21	15.28	15.31		
20	QPSK	100	0	15.16	15.28	15.27		
20	16QAM	1	0	15.22	15.34	15.34		
20	16QAM	1	49	15.30	15.39	15.42	16	0
20	16QAM	1	99	15.46	15.21	15.22		
20	16QAM	50	0	15.11	15.16	15.22		
20	16QAM	50	24	15.22	15.21	15.31	16	0
20	16QAM	50	50	15.25	15.32	15.40		
20	16QAM	100	0	15.18	15.16	15.30		
20	64QAM	1	0	15.07	15.20	15.25		
20	64QAM	1	49	15.15	15.27	15.29	16	0
20	64QAM	1	99	15.38	15.31	15.44		
20	64QAM	50	0	15.10	15.18	15.22		
20	64QAM	50	24	15.19	15.22	15.29	16	0
20	64QAM	50	50	15.23	15.32	15.33		
20	64QAM	100	0	15.21	15.19	15.31		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	14.87	14.97	15.02		
15	QPSK	1	37	14.96	15.00	15.10	16	0
15	QPSK	1	74	15.04	15.13	15.21		
15	QPSK	36	0	15.15	15.15	15.21		
15	QPSK	36	20	15.18	15.23	15.31	16	0
15	QPSK	36	39	15.22	15.24	15.31		
15	QPSK	75	0	15.17	15.13	15.24		
15	16QAM	1	0	15.08	15.11	15.17		
15	16QAM	1	37	15.04	15.14	15.21	16	0
15	16QAM	1	74	15.21	15.30	15.35		
15	16QAM	36	0	15.14	15.16	15.23		
15	16QAM	36	20	15.19	15.28	15.30	16	0
15	16QAM	36	39	15.24	15.28	15.33		
15	16QAM	75	0	15.22	15.18	15.24		
15	64QAM	1	0	15.09	15.25	15.28		
15	64QAM	1	37	15.16	15.27	15.28	16	0
15	64QAM	1	74	15.36	15.34	15.42		
15	64QAM	36	0	15.15	15.20	15.25		
15	64QAM	36	20	15.18	15.29	15.30	16	0
15	64QAM	36	39	15.26	15.26	15.33		
15	64QAM	75	0	15.20	15.16	15.23		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	15.13	15.11	15.26		
10	QPSK	1	25	15.15	15.21	15.33	16	0
10	QPSK	1	49	15.26	15.29	15.38		
10	QPSK	25	0	15.21	15.28	15.39		
10	QPSK	25	12	15.26	15.31	15.42	16	0
10	QPSK	25	25	15.28	15.35	15.47		
10	QPSK	50	0	15.27	15.23	15.33		
10	16QAM	1	0	15.20	15.29	15.38		
10	16QAM	1	25	15.23	15.30	15.41	16	0
10	16QAM	1	49	15.38	15.42	15.29		
10	16QAM	25	0	15.05	15.05	15.14		
10	16QAM	25	12	15.10	15.13	15.18	16	0
10	16QAM	25	25	15.12	15.16	15.28		
10	16QAM	50	0	15.06	15.08	15.13		
10	64QAM	1	0	15.13	15.18	15.21		
10	64QAM	1	25	15.19	15.21	15.32	16	0
10	64QAM	1	49	15.23	15.35	15.39		
10	64QAM	25	0	15.07	15.09	15.14		
10	64QAM	25	12	15.09	15.11	15.14	16	0
10	64QAM	25	25	15.09	15.15	15.22		
10	64QAM	50	0	15.05	15.03	15.12		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	15.14	15.12	15.33		
5	QPSK	1	12	15.17	15.24	15.35	16	0
5	QPSK	1	24	15.23	15.26	15.39		
5	QPSK	12	0	15.16	15.19	15.38		
5	QPSK	12	7	15.26	15.36	15.21	16	0
5	QPSK	12	13	15.29	15.36	15.23		
5	QPSK	25	0	15.26	15.21	15.41		
5	16QAM	1	0	15.27	15.27	15.39		
5	16QAM	1	12	15.27	15.37	15.45	16	0
5	16QAM	1	24	15.37	15.41	15.19		
5	16QAM	12	0	15.02	15.02	15.15		
5	16QAM	12	7	15.07	15.13	15.23	16	0
5	16QAM	12	13	15.13	15.17	15.30		
5	16QAM	25	0	15.04	15.03	15.19		
5	64QAM	1	0	15.23	15.20	15.35		
5	64QAM	1	12	15.21	15.26	15.37	16	0
5	64QAM	1	24	15.24	15.35	15.40		
5	64QAM	12	0	14.94	15.00	15.13		
5	64QAM	12	7	15.06	15.17	15.22	16	0
5	64QAM	12	13	15.10	15.15	15.27		
5	64QAM	25	0	15.07	15.07	15.20		

Band 66

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				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	14.95	15.13	14.78		
20	QPSK	1	49	14.92	14.88	14.75	16	0
20	QPSK	1	99	14.96	14.85	14.85		
20	QPSK	50	0	14.79	14.95	14.77		
20	QPSK	50	24	14.79	14.79	14.76	16	0
20	QPSK	50	50	14.87	14.80	14.78		
20	QPSK	100	0	14.79	14.80	14.75		
20	16QAM	1	0	14.96	14.99	14.63		
20	16QAM	1	49	15.10	14.97	15.08	16	0
20	16QAM	1	99	15.04	14.95	15.01		
20	16QAM	50	0	14.79	14.70	14.72		
20	16QAM	50	24	14.80	14.82	14.71	16	0
20	16QAM	50	50	14.84	14.78	14.77		
20	16QAM	100	0	14.78	14.79	14.69		
20	64QAM	1	0	14.65	14.52	14.52		
20	64QAM	1	49	14.63	14.52	14.54	16	0
20	64QAM	1	99	14.89	14.43	14.62		
20	64QAM	50	0	14.78	14.43	14.59		
20	64QAM	50	24	14.81	14.55	14.58	16	0
20	64QAM	50	50	14.82	14.65	14.60		
20	64QAM	100	0	14.77	14.80	14.58		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	14.82	14.97	15.00		
15	QPSK	1	37	14.85	14.98	14.93	16	0
15	QPSK	1	74	14.86	14.95	14.92		
15	QPSK	36	0	14.53	14.57	14.55		
15	QPSK	36	20	14.53	14.57	14.52	16	0
15	QPSK	36	39	14.54	14.62	14.58		
15	QPSK	75	0	14.55	14.56	14.54		
15	16QAM	1	0	14.79	14.86	14.82		
15	16QAM	1	37	14.70	14.82	14.72	16	0
15	16QAM	1	74	14.79	14.80	14.80		
15	16QAM	36	0	14.54	14.54	14.51		
15	16QAM	36	20	14.53	14.58	14.58	16	0
15	16QAM	36	39	14.54	14.60	14.53		
15	16QAM	75	0	14.53	14.54	14.55		
15	64QAM	1	0	14.75	14.74	14.65		
15	64QAM	1	37	14.67	14.73	14.71	16	0
15	64QAM	1	74	14.64	14.72	14.50		
15	64QAM	36	0	14.53	14.53	14.53		
15	64QAM	36	20	14.57	14.57	14.57	16	0
15	64QAM	36	39	14.55	14.75	14.53		
15	64QAM	75	0	14.52	14.54	14.56		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	14.56	14.64	14.59		
10	QPSK	1	25	14.53	14.60	14.59	16	0
10	QPSK	1	49	14.55	14.63	14.58		
10	QPSK	25	0	14.65	14.69	14.68		
10	QPSK	25	12	14.70	14.69	14.67	16	0
10	QPSK	25	25	14.69	14.73	14.70		
10	QPSK	50	0	14.65	14.65	14.66		
10	16QAM	1	0	14.73	14.75	14.66		
10	16QAM	1	25	14.67	14.79	14.70	16	0
10	16QAM	1	49	14.70	14.78	14.72		
10	16QAM	25	0	14.49	14.46	14.40		
10	16QAM	25	12	14.48	14.50	14.44	16	0
10	16QAM	25	25	14.47	14.54	14.43		
10	16QAM	50	0	14.45	14.45	14.39		
10	64QAM	1	0	14.43	14.56	14.63		
10	64QAM	1	25	14.51	14.67	14.57	16	0
10	64QAM	1	49	14.57	14.66	14.52		
10	64QAM	25	0	14.46	14.46	14.42		
10	64QAM	25	12	14.45	14.49	14.37	16	0
10	64QAM	25	25	14.44	14.51	14.42		
10	64QAM	50	0	14.44	14.43	14.40		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	14.57	14.63	14.64		
5	QPSK	1	12	14.56	14.61	14.57	16	0
5	QPSK	1	24	14.57	14.66	14.58		
5	QPSK	12	0	14.64	14.69	14.72		
5	QPSK	12	7	14.64	14.72	14.70	16	0
5	QPSK	12	13	14.65	14.74	14.69		
5	QPSK	25	0	14.61	14.67	14.67		
5	16QAM	1	0	15.02	15.07	14.99		
5	16QAM	1	12	14.93	15.05	14.94	16	0
5	16QAM	1	24	14.88	15.11	14.96		
5	16QAM	12	0	14.66	14.73	14.69		
5	16QAM	12	7	14.68	14.80	14.71	16	0
5	16QAM	12	13	14.71	14.81	14.69		
5	16QAM	25	0	14.63	14.72	14.62		
5	64QAM	1	0	14.83	14.93	14.91		
5	64QAM	1	12	14.74	14.85	14.75	16	0
5	64QAM	1	24	14.82	14.88	14.82		
5	64QAM	12	0	14.66	14.70	14.66		
5	64QAM	12	7	14.67	14.78	14.66	16	0
5	64QAM	12	13	14.67	14.76	14.62		
5	64QAM	25	0	14.64	14.70	14.68		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	14.76	14.80	14.81		
3	QPSK	1	8	14.82	14.90	14.83	16	0
3	QPSK	1	14	14.74	14.84	14.80		
3	QPSK	8	0	14.84	14.90	14.88		
3	QPSK	8	4	14.87	14.96	14.93	16	0
3	QPSK	8	7	14.85	14.95	14.88		
3	QPSK	15	0	14.82	14.92	14.88		
3	16QAM	1	0	14.96	14.75	14.77		
3	16QAM	1	8	14.75	14.75	14.77	16	0
3	16QAM	1	14	14.63	14.63	15.04		
3	16QAM	8	0	14.91	14.93	14.94		
3	16QAM	8	4	14.95	15.01	14.94	16	0
3	16QAM	8	7	14.89	15.02	14.90		
3	16QAM	15	0	14.87	14.94	14.88		
3	64QAM	1	0	15.04	15.07	15.07		
3	64QAM	1	8	15.10	14.79	15.08	16	0
3	64QAM	1	14	15.06	15.11	15.00		
3	64QAM	8	0	14.87	14.90	14.86		
3	64QAM	8	4	14.89	15.00	14.88	16	0
3	64QAM	8	7	14.90	14.95	14.84		
3	64QAM	15	0	14.86	14.91	14.83		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	14.59	14.75	14.71		
1.4	QPSK	1	3	14.67	14.83	14.79		
1.4	QPSK	1	5	14.60	14.75	14.74	16	0
1.4	QPSK	3	0	14.64	14.76	14.71		
1.4	QPSK	3	1	14.70	14.84	14.76		
1.4	QPSK	3	3	14.69	14.79	14.71		
1.4	QPSK	6	0	14.77	14.89	14.84	16	0
1.4	16QAM	1	0	15.00	15.12	15.04		
1.4	16QAM	1	3	15.06	14.75	15.08		
1.4	16QAM	1	5	14.99	15.10	15.01	16	0
1.4	16QAM	3	0	14.76	14.85	14.81		
1.4	16QAM	3	1	14.79	14.92	14.86		
1.4	16QAM	3	3	14.73	14.89	14.81		
1.4	16QAM	6	0	14.81	14.95	14.81	16	0
1.4	64QAM	1	0	14.86	14.96	14.92		
1.4	64QAM	1	3	14.97	15.04	14.98		
1.4	64QAM	1	5	14.87	14.93	14.91	16	0
1.4	64QAM	3	0	14.78	14.91	14.83		
1.4	64QAM	3	1	14.83	14.97	14.87		
1.4	64QAM	3	3	14.79	14.89	14.77		
1.4	64QAM	6	0	14.74	14.84	14.75	16	0

Reduced power Mode for Hotspot On for ANT2-EN-DC

Band 7

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				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	17.27	17.35	17.11	18	0
20	QPSK	1	49	17.09	17.17	17.18		
20	QPSK	1	99	17.23	17.34	17.21		
20	QPSK	50	0	16.97	17.27	17.07	18	0
20	QPSK	50	24	17.06	17.12	17.15		
20	QPSK	50	50	17.14	17.22	17.22		
20	QPSK	100	0	17.06	17.25	17.20		
20	16QAM	1	0	16.75	16.91	16.93	18	0
20	16QAM	1	49	16.84	16.98	17.01		
20	16QAM	1	99	16.99	17.10	17.09		
20	16QAM	50	0	16.64	16.74	16.77	18	0
20	16QAM	50	24	16.72	16.80	16.90		
20	16QAM	50	50	16.81	16.88	16.93		
20	16QAM	100	0	16.72	16.76	16.84		
20	64QAM	1	0	16.58	16.79	16.73	18	0
20	64QAM	1	49	16.78	16.81	16.83		
20	64QAM	1	99	16.92	16.91	16.93		
20	64QAM	50	0	16.64	16.71	16.77	18	0
20	64QAM	50	24	16.73	16.79	16.85		
20	64QAM	50	50	16.77	16.90	16.87		
20	64QAM	100	0	16.74	16.78	16.85		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	17.02	17.10	17.13	18	0
15	QPSK	1	37	17.10	17.21	17.23		
15	QPSK	1	74	17.19	17.29	17.08		
15	QPSK	36	0	16.91	16.95	16.96	18	0
15	QPSK	36	20	16.91	17.01	17.07		
15	QPSK	36	39	16.98	17.08	17.09		
15	QPSK	75	0	16.95	16.97	16.95		
15	16QAM	1	0	17.00	17.15	17.18	18	0
15	16QAM	1	37	17.09	17.19	17.21		
15	16QAM	1	74	17.26	17.31	16.88		
15	16QAM	36	0	16.92	16.98	16.96	18	0
15	16QAM	36	20	17.00	17.00	17.09		
15	16QAM	36	39	17.03	17.11	17.07		
15	16QAM	75	0	16.97	17.00	17.02		
15	64QAM	1	0	16.86	17.06	17.03	18	0
15	64QAM	1	37	16.95	17.06	17.14		
15	64QAM	1	74	17.16	17.18	17.14		
15	64QAM	36	0	16.89	16.98	16.97	18	0
15	64QAM	36	20	16.94	17.00	17.10		
15	64QAM	36	39	17.01	17.09	17.09		
15	64QAM	75	0	16.98	16.98	17.00		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	17.00	17.15	17.13	18	0
10	QPSK	1	25	17.01	17.17	16.89		
10	QPSK	1	49	17.15	17.26	16.86		
10	QPSK	25	0	16.94	16.99	17.04	18	0
10	QPSK	25	12	16.96	17.03	17.06		
10	QPSK	25	25	16.96	17.09	16.63		
10	QPSK	50	0	16.94	16.95	16.96		
10	16QAM	1	0	16.77	16.87	16.87	18	0
10	16QAM	1	25	16.72	16.87	16.92		
10	16QAM	1	49	16.91	17.03	16.63		
10	16QAM	25	0	16.81	16.87	16.76	18	0
10	16QAM	25	12	16.87	16.94	16.95		
10	16QAM	25	25	16.88	17.02	16.99		
10	16QAM	50	0	16.87	16.90	16.93		
10	64QAM	1	0	16.89	16.98	17.01	18	0
10	64QAM	1	25	16.94	17.04	17.08		
10	64QAM	1	49	17.04	17.16	17.22		
10	64QAM	25	0	16.84	16.87	16.92	18	0
10	64QAM	25	12	16.85	16.91	16.93		
10	64QAM	25	25	16.89	16.99	16.99		
10	64QAM	50	0	16.81	16.84	16.89		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	16.97	17.05	17.18	18	0
5	QPSK	1	12	17.06	17.18	17.20		
5	QPSK	1	24	17.06	17.22	17.26		
5	QPSK	12	0	16.69	16.77	16.87	18	0
5	QPSK	12	7	16.80	16.96	16.97		
5	QPSK	12	13	16.81	16.97	16.97		
5	QPSK	25	0	16.76	16.82	16.90		
5	16QAM	1	0	16.99	17.11	17.18	18	0
5	16QAM	1	12	17.02	17.21	17.20		
5	16QAM	1	24	17.09	17.24	17.25		
5	16QAM	12	0	16.75	16.82	16.90	18	0
5	16QAM	12	7	16.84	17.00	17.04		
5	16QAM	12	13	16.88	17.00	17.04		
5	16QAM	25	0	16.83	16.91	16.95		
5	64QAM	1	0	16.93	16.96	17.09	18	0
5	64QAM	1	12	16.96	17.07	17.08		
5	64QAM	1	24	17.00	17.16	17.14		
5	64QAM	12	0	16.73	16.78	16.87	18	0
5	64QAM	12	7	16.82	16.98	16.97		
5	64QAM	12	13	16.88	17.00	16.99		
5	64QAM	25	0	16.82	16.89	16.97		

Band 41

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Low Ch. / Freq.	Power Middle High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				40140	40400	40670	41140		
Frequency (MHz)				2545	2571	2598	2645		
20	QPSK	1	0	18.19	18.16	18.41	18.31	19.5	0
20	QPSK	1	49	18.22	18.16	18.30	18.16		
20	QPSK	1	99	18.03	18.03	18.35	18.25		
20	QPSK	50	0	18.22	18.12	18.35	18.13	19.5	0
20	QPSK	50	24	17.94	18.07	18.28	17.96		
20	QPSK	50	50	18.03	18.09	18.34	18.08		
20	QPSK	100	0	18.33	18.30	18.37	18.15		
20	16QAM	1	0	17.97	18.10	18.33	18.02	19.5	0
20	16QAM	1	49	17.99	18.03	18.11	18.20		
20	16QAM	1	99	18.34	18.25	18.25	17.94		
20	16QAM	50	0	17.90	18.25	18.19	18.01	19.5	0
20	16QAM	50	24	17.94	17.88	18.04	17.97		
20	16QAM	50	50	18.14	18.18	18.23	18.29		
20	16QAM	100	0	18.15	18.20	18.28	18.08		
20	64QAM	1	0	18.01	18.15	17.94	18.21	19.5	0
20	64QAM	1	49	18.16	18.18	18.32	17.94		
20	64QAM	1	99	17.88	18.00	18.15	17.94		
20	64QAM	50	0	18.19	17.97	18.16	18.23	19.5	0
20	64QAM	50	24	18.05	18.07	18.26	18.36		
20	64QAM	50	50	18.19	18.03	18.18	18.32		
20	64QAM	100	0	18.09	17.99	18.25	18.37		
Channel				40115	40395	40685	41165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2542.5	2570.5	2599.5	2647.5		
15	QPSK	1	0	18.05	18.06	18.15	18.17	19.5	0
15	QPSK	1	37	18.08	17.97	18.12	17.91		
15	QPSK	1	74	17.99	17.92	18.23	18.18		
15	QPSK	36	0	17.98	17.92	18.08	18.07	19.5	0
15	QPSK	36	20	17.92	17.99	18.07	17.92		
15	QPSK	36	39	17.93	18.01	18.15	18.01		
15	QPSK	75	0	18.23	18.17	18.16	18.10		
15	16QAM	1	0	17.83	17.99	18.02	17.80	19.5	0
15	16QAM	1	37	17.79	17.83	17.90	17.96		
15	16QAM	1	74	18.09	18.01	18.04	17.73		
15	16QAM	36	0	17.76	18.15	17.97	17.83	19.5	0
15	16QAM	36	20	17.88	17.84	17.87	17.90		
15	16QAM	36	39	18.07	18.09	18.17	18.03		
15	16QAM	75	0	17.98	18.04	18.24	17.92		
15	64QAM	1	0	17.84	17.91	17.69	18.14	19.5	0
15	64QAM	1	37	17.98	17.96	17.98	17.83		
15	64QAM	1	74	17.81	17.80	18.07	17.89		
15	64QAM	36	0	18.04	17.83	17.96	18.09	19.5	0
15	64QAM	36	20	17.91	18.02	18.01	18.25		
15	64QAM	36	39	17.96	17.92	18.07	18.12		
15	64QAM	75	0	17.98	17.87	18.01	18.09		
Channel				40090	40390	40690	41190	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2540	2570	2600	2650		
10	QPSK	1	0	18.05	18.06	18.15	18.22	19.5	0
10	QPSK	1	25	17.94	18.08	18.19	18.01		
10	QPSK	1	49	17.92	17.96	18.27	18.21		
10	QPSK	25	0	17.93	17.83	18.02	17.84	19.5	0
10	QPSK	25	12	17.81	17.89	18.11	17.81		
10	QPSK	25	25	17.94	17.98	18.04	17.97		
10	QPSK	50	0	18.11	18.18	18.26	18.06		
10	16QAM	1	0	17.91	18.01	18.08	17.76	19.5	0
10	16QAM	1	25	17.87	17.82	17.98	18.06		
10	16QAM	1	49	18.16	18.17	18.16	17.80		
10	16QAM	25	0	17.75	17.99	17.92	17.81	19.5	0
10	16QAM	25	12	17.86	17.68	17.84	17.89		
10	16QAM	25	25	17.89	17.90	17.94	17.99		
10	16QAM	50	0	17.91	17.95	18.04	17.92		
10	64QAM	1	0	17.76	18.04	17.71	17.97	19.5	0
10	64QAM	1	25	18.02	17.96	17.97	17.77		
10	64QAM	1	49	17.82	17.74	18.00	17.74		
10	64QAM	25	0	18.07	17.92	17.93	18.15	19.5	0
10	64QAM	25	12	17.93	17.88	18.10	18.13		
10	64QAM	25	25	18.01	17.96	18.12	18.09		
10	64QAM	50	0	17.85	17.85	18.09	18.08		
Channel				40065	40385	40705	41215	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2537.5	2569.5	2601.5	2652.5		
5	QPSK	1	0	18.08	17.96	18.14	18.10	19.5	0
5	QPSK	1	12	18.08	18.03	18.05	17.96		
5	QPSK	1	24	17.87	17.96	18.13	18.05		
5	QPSK	12	0	18.01	17.91	18.02	17.86	19.5	0
5	QPSK	12	7	17.94	17.78	18.03	17.75		
5	QPSK	12	13	17.89	17.97	18.11	17.88		
5	QPSK	25	0	18.17	18.05	18.08	18.02		
5	16QAM	1	0	17.95	18.06	18.07	17.75	19.5	0
5	16QAM	1	12	17.82	17.90	17.83	17.90		
5	16QAM	1	24	18.05	17.95	18.14	17.75		
5	16QAM	12	0	17.90	18.02	18.16	17.74	19.5	0
5	16QAM	12	7	17.69	17.79	17.75	17.93		
5	16QAM	12	13	17.84	17.98	18.02	18.05		
5	16QAM	25	0	18.07	18.19	18.01	17.93		
5	64QAM	1	0	17.89	18.04	17.92	18.09	19.5	0
5	64QAM	1	12	18.13	18.00	18.09	17.78		
5	64QAM	1	24	17.74	17.84	18.07	17.86		
5	64QAM	12	0	17.96	17.92	18.01	18.03	19.5	0
5	64QAM	12	7	18.01	17.80	17.98	18.17		
5	64QAM	12	13	18.18	17.92	17.93	18.22		
5	64QAM	25	0	17.98	17.75	17.98	18.09		

Reduced power Mode for Handheld On for ANT1-EN-DC

Band 5 (Celluar Band)
Part 22H(only on channel required)

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				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	20.86	21.10	20.82		
10	QPSK	1	25	20.79	20.89	20.92	22.5	0
10	QPSK	1	49	20.88	20.85	20.65		
10	QPSK	25	0	20.92	21.01	20.92		
10	QPSK	25	12	20.97	20.95	20.94	22.5	0
10	QPSK	25	25	20.93	20.95	20.88		
10	QPSK	50	0	20.85	20.96	20.84		
10	16QAM	1	0	20.94	21.04	21.06		
10	16QAM	1	25	20.88	21.05	20.96	22.5	0
10	16QAM	1	49	21.07	20.90	20.89		
10	16QAM	25	0	20.45	20.39	20.44		
10	16QAM	25	12	20.41	20.48	20.45	22	0.5
10	16QAM	25	25	20.43	20.52	20.34		
10	16QAM	50	0	20.42	20.45	20.49		
10	64QAM	1	0	20.64	20.54	20.71		
10	64QAM	1	25	20.72	20.37	20.27	22	0.5
10	64QAM	1	49	20.52	20.47	20.55		
10	64QAM	25	0	19.44	19.49	19.42		
10	64QAM	25	12	19.34	19.48	19.59	21	1.5
10	64QAM	25	25	19.41	19.52	19.42		
10	64QAM	50	0	19.42	19.38	19.44		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	20.94	20.86	20.86		
5	QPSK	1	12	20.76	20.85	20.87	22.5	0
5	QPSK	1	24	20.86	20.89	20.79		
5	QPSK	12	0	20.92	20.96	20.91		
5	QPSK	12	7	20.93	21.01	20.86	22.5	0
5	QPSK	12	13	20.93	20.93	20.90		
5	QPSK	25	0	20.84	20.78	20.90		
5	16QAM	1	0	21.01	21.01	20.91		
5	16QAM	1	12	21.02	20.95	21.08	22.5	0
5	16QAM	1	24	20.95	21.04	20.94		
5	16QAM	12	0	20.42	20.43	20.46		
5	16QAM	12	7	20.47	20.43	20.32	22	0.5
5	16QAM	12	13	20.36	20.47	20.39		
5	16QAM	25	0	20.35	20.47	20.45		
5	64QAM	1	0	20.51	20.70	20.62		
5	64QAM	1	12	20.59	20.55	20.60	22	0.5
5	64QAM	1	24	20.64	20.62	20.39		
5	64QAM	12	0	19.40	19.50	19.43		
5	64QAM	12	7	19.42	19.54	19.48	21	1.5
5	64QAM	12	13	19.44	19.45	19.50		
5	64QAM	25	0	19.45	19.46	19.43		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	20.80	20.75	20.88		
3	QPSK	1	8	20.76	20.85	20.87	22.5	0
3	QPSK	1	14	20.75	20.87	20.76		
3	QPSK	8	0	20.76	20.79	20.94		
3	QPSK	8	4	20.87	20.92	20.89	22.5	0
3	QPSK	8	7	20.86	20.91	20.91		
3	QPSK	15	0	20.80	20.87	20.86		
3	16QAM	1	0	20.95	20.92	21.07		
3	16QAM	1	8	21.06	21.06	21.02	22.5	0
3	16QAM	1	14	20.98	21.05	21.02		
3	16QAM	8	0	20.43	20.40	20.41		
3	16QAM	8	4	20.45	20.53	20.52	22	0.5
3	16QAM	8	7	20.31	20.59	20.44		
3	16QAM	15	0	20.40	20.41	20.52		
3	64QAM	1	0	20.60	20.49	20.63		
3	64QAM	1	8	20.68	20.70	20.76	22	0.5
3	64QAM	1	14	20.69	20.60	20.52		
3	64QAM	8	0	19.50	19.43	19.48		
3	64QAM	8	4	19.47	19.51	19.57	21	1.5
3	64QAM	8	7	19.47	19.56	19.51		
3	64QAM	15	0	19.43	19.27	19.45		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	20.67	20.71	20.78		
1.4	QPSK	1	3	20.65	20.79	20.67		
1.4	QPSK	1	5	20.60	20.81	20.72	22.5	0
1.4	QPSK	3	0	20.67	20.71	20.81		
1.4	QPSK	3	1	20.74	20.86	20.74		
1.4	QPSK	3	3	20.85	20.72	20.76		
1.4	QPSK	6	0	20.72	20.83	20.71	22.5	0
1.4	16QAM	1	0	21.09	20.88	21.06		
1.4	16QAM	1	3	21.03	21.02	20.99		
1.4	16QAM	1	5	21.00	21.03	21.00	22.5	0
1.4	16QAM	3	0	20.79	20.78	20.89		
1.4	16QAM	3	1	20.82	21.04	20.95		
1.4	16QAM	3	3	20.77	20.92	20.97		
1.4	16QAM	6	0	20.26	20.38	20.34	22.5	0
1.4	64QAM	1	0	20.51	20.44	20.41		
1.4	64QAM	1	3	20.60	20.58	20.63		
1.4	64QAM	1	5	20.62	20.57	20.44	22.5	0
1.4	64QAM	3	0	20.36	20.24	20.39		
1.4	64QAM	3	1	20.39	20.36	20.44		
1.4	64QAM	3	3	20.26	20.40	20.33		
1.4	64QAM	6	0	19.38	19.12	19.41	22.5	0

Band 7

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				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	17.63	17.88	17.80		
20	QPSK	1	49	17.48	17.61	17.65	18.5	0
20	QPSK	1	99	17.64	17.73	17.75		
20	QPSK	50	0	17.63	17.87	17.80		
20	QPSK	50	24	17.74	17.77	17.51	18.5	0
20	QPSK	50	50	17.79	17.86	17.53		
20	QPSK	100	0	17.73	17.73	17.52		
20	16QAM	1	0	17.52	17.63	17.65		
20	16QAM	1	49	17.62	17.74	17.75	18.5	0
20	16QAM	1	99	17.73	17.87	17.84		
20	16QAM	50	0	17.42	17.51	17.56		
20	16QAM	50	24	17.54	17.57	17.70	18.5	0
20	16QAM	50	50	17.57	17.66	17.71		
20	16QAM	100	0	17.49	17.53	17.65		
20	64QAM	1	0	17.39	17.67	17.54		
20	64QAM	1	49	17.55	17.67	17.64	18.5	0
20	64QAM	1	99	17.75	17.69	17.82		
20	64QAM	50	0	17.40	17.49	17.55		
20	64QAM	50	24	17.51	17.52	17.69	18.5	0
20	64QAM	50	50	17.55	17.64	17.67		
20	64QAM	100	0	17.51	17.54	17.66		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	17.45	17.55	17.59		
15	QPSK	1	37	17.50	17.64	17.68	18.5	0
15	QPSK	1	74	17.60	17.75	17.79		
15	QPSK	36	0	17.45	17.50	17.55		
15	QPSK	36	20	17.49	17.54	17.64	18.5	0
15	QPSK	36	39	17.53	17.61	17.67		
15	QPSK	75	0	17.49	17.51	17.57		
15	16QAM	1	0	17.54	17.64	17.71		
15	16QAM	1	37	17.59	17.71	17.75	18.5	0
15	16QAM	1	74	17.78	17.78	17.83		
15	16QAM	36	0	17.47	17.53	17.54		
15	16QAM	36	20	17.51	17.54	17.66	18.5	0
15	16QAM	36	39	17.55	17.66	17.68		
15	16QAM	75	0	17.51	17.52	17.58		
15	64QAM	1	0	17.44	17.73	17.63		
15	64QAM	1	37	17.51	17.58	17.70	18.5	0
15	64QAM	1	74	17.73	17.76	17.82		
15	64QAM	36	0	17.48	17.49	17.55		
15	64QAM	36	20	17.51	17.53	17.63	18.5	0
15	64QAM	36	39	17.52	17.64	17.64		
15	64QAM	75	0	17.53	17.51	17.57		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	17.38	17.48	17.54		
10	QPSK	1	25	17.47	17.60	17.64	18.5	0
10	QPSK	1	49	17.56	17.67	17.71		
10	QPSK	25	0	17.35	17.38	17.47		
10	QPSK	25	12	17.39	17.41	17.49	18.5	0
10	QPSK	25	25	17.40	17.50	17.56		
10	QPSK	50	0	17.36	17.38	17.43		
10	16QAM	1	0	17.52	17.69	17.70		
10	16QAM	1	25	17.59	17.69	17.79	18.5	0
10	16QAM	1	49	17.70	17.75	17.53		
10	16QAM	25	0	17.41	17.44	17.51		
10	16QAM	25	12	17.45	17.48	17.55	18.5	0
10	16QAM	25	25	17.47	17.56	17.63		
10	16QAM	50	0	17.44	17.43	17.52		
10	64QAM	1	0	17.45	17.55	17.59		
10	64QAM	1	25	17.48	17.58	17.70	18.5	0
10	64QAM	1	49	17.62	17.64	17.80		
10	64QAM	25	0	17.40	17.45	17.53		
10	64QAM	25	12	17.44	17.50	17.56	18.5	0
10	64QAM	25	25	17.45	17.54	17.63		
10	64QAM	50	0	17.39	17.38	17.48		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	17.45	17.53	17.68		
5	QPSK	1	12	17.43	17.56	17.67	18.5	0
5	QPSK	1	24	17.52	17.66	17.71		
5	QPSK	12	0	17.26	17.35	17.47		
5	QPSK	12	7	17.38	17.50	17.55	18.5	0
5	QPSK	12	13	17.41	17.52	17.58		
5	QPSK	25	0	17.34	17.38	17.52		
5	16QAM	1	0	17.68	17.64	17.84		
5	16QAM	1	12	17.67	17.52	17.55	18.5	0
5	16QAM	1	24	17.75	17.66	17.62		
5	16QAM	12	0	17.37	17.40	17.53		
5	16QAM	12	7	17.45	17.54	17.67	18.5	0
5	16QAM	12	13	17.55	17.61	17.63		
5	16QAM	25	0	17.41	17.44	17.55		
5	64QAM	1	0	17.45	17.51	17.68		
5	64QAM	1	12	17.53	17.66	17.70	18.5	0
5	64QAM	1	24	17.60	17.71	17.83		
5	64QAM	12	0	17.34	17.40	17.55		
5	64QAM	12	7	17.43	17.59	17.66	18.5	0
5	64QAM	12	13	17.51	17.62	17.64		
5	64QAM	25	0	17.40	17.44	17.58		

Band 66

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				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	17.60	17.65	17.43		
20	QPSK	1	49	17.32	17.39	17.36	19	0
20	QPSK	1	99	17.30	17.36	17.24		
20	QPSK	50	0	17.36	17.50	17.41		
20	QPSK	50	24	17.47	17.44	17.37	19	0
20	QPSK	50	50	17.45	17.46	17.43		
20	QPSK	100	0	17.42	17.43	17.35		
20	16QAM	1	0	17.50	17.23	17.39		
20	16QAM	1	49	17.46	17.57	17.58	19	0
20	16QAM	1	99	17.44	17.54	17.52		
20	16QAM	50	0	17.17	17.26	17.23		
20	16QAM	50	24	17.28	17.25	17.22	19	0
20	16QAM	50	50	17.28	17.31	17.22		
20	16QAM	100	0	17.28	17.26	17.18		
20	64QAM	1	0	17.51	17.63	17.54		
20	64QAM	1	49	17.44	17.43	17.44	19	0
20	64QAM	1	99	17.43	17.59	17.40		
20	64QAM	50	0	17.17	17.27	17.21		0
20	64QAM	50	24	17.29	17.27	17.18	19	
20	64QAM	50	50	17.27	17.31	17.22		
20	64QAM	100	0	17.24	17.24	17.20		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	17.25	17.38	17.34		
15	QPSK	1	37	17.34	17.35	17.31	19	0
15	QPSK	1	74	17.32	17.31	17.26		
15	QPSK	36	0	17.47	17.42	17.36		
15	QPSK	36	20	17.44	17.45	17.43	19	0
15	QPSK	36	39	17.44	17.48	17.38		
15	QPSK	75	0	17.38	17.42	17.43		
15	16QAM	1	0	17.58	17.52	17.63		
15	16QAM	1	37	17.40	17.60	17.56	19	0
15	16QAM	1	74	17.21	17.60	17.52		
15	16QAM	36	0	17.24	17.27	17.21		
15	16QAM	36	20	17.32	17.28	17.27	19	0
15	16QAM	36	39	17.22	17.34	17.23		
15	16QAM	75	0	17.27	17.27	17.28		
15	64QAM	1	0	17.15	17.16	17.17		
15	64QAM	1	37	17.08	17.20	17.20	19	0
15	64QAM	1	74	17.23	17.23	17.35		
15	64QAM	36	0	17.27	17.27	17.18		
15	64QAM	36	20	17.30	17.26	17.27	19	0
15	64QAM	36	39	17.31	17.29	17.21		
15	64QAM	75	0	17.29	17.25	17.27		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	17.20	17.27	17.20		
10	QPSK	1	25	17.17	17.28	17.21	19	0
10	QPSK	1	49	17.22	17.26	17.17		
10	QPSK	25	0	17.13	17.13	17.06		
10	QPSK	25	12	17.11	17.11	17.04	19	0
10	QPSK	25	25	17.09	17.14	17.06		
10	QPSK	50	0	17.11	17.09	17.02		
10	16QAM	1	0	17.31	17.42	17.39		
10	16QAM	1	25	17.26	17.31	17.29	19	0
10	16QAM	1	49	17.33	17.44	17.33		
10	16QAM	25	0	17.15	17.15	17.10		
10	16QAM	25	12	17.15	17.17	17.11	19	0
10	16QAM	25	25	17.12	17.21	17.13		
10	16QAM	50	0	17.13	17.13	17.07		
10	64QAM	1	0	17.21	17.34	17.29		
10	64QAM	1	25	17.17	17.22	17.19	19	0
10	64QAM	1	49	17.27	17.32	17.25		
10	64QAM	25	0	17.12	17.11	17.06		
10	64QAM	25	12	17.13	17.12	17.13	19	0
10	64QAM	25	25	17.14	17.20	17.12		
10	64QAM	50	0	17.11	17.13	17.10		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	17.47	17.48	17.33		
5	QPSK	1	12	17.43	17.52	17.19	19	0
5	QPSK	1	24	17.42	17.58	17.47		
5	QPSK	12	0	17.30	17.35	17.29		
5	QPSK	12	7	17.31	17.43	17.30	19	0
5	QPSK	12	13	17.31	17.39	17.29		
5	QPSK	25	0	17.32	17.32	17.30		
5	16QAM	1	0	17.60	17.35	17.62		
5	16QAM	1	12	17.59	17.59	17.59	19	0
5	16QAM	1	24	17.61	17.40	17.63		
5	16QAM	12	0	17.38	17.39	17.37		
5	16QAM	12	7	17.37	17.50	17.35	19	0
5	16QAM	12	13	17.35	17.44	17.33		
5	16QAM	25	0	17.34	17.39	17.33		
5	64QAM	1	0	17.57	17.62	17.50		
5	64QAM	1	12	17.46	17.48	17.49	19	0
5	64QAM	1	24	17.55	17.61	17.48		
5	64QAM	12	0	17.37	17.40	17.36		
5	64QAM	12	7	17.33	17.45	17.37	19	0
5	64QAM	12	13	17.35	17.44	17.31		
5	64QAM	25	0	17.37	17.38	17.35		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	17.39	17.47	17.40		
3	QPSK	1	8	17.42	17.59	17.46	19	0
3	QPSK	1	14	17.35	17.51	17.39		
3	QPSK	8	0	17.26	17.27	17.25		
3	QPSK	8	4	17.31	17.37	17.32	19	0
3	QPSK	8	7	17.24	17.33	17.29		
3	QPSK	15	0	17.27	17.29	17.28		
3	16QAM	1	0	17.51	17.62	17.61		
3	16QAM	1	8	17.63	17.40	17.62	19	0
3	16QAM	1	14	17.54	17.64	17.59		
3	16QAM	8	0	17.37	17.39	17.35		
3	16QAM	8	4	17.40	17.49	17.44	19	0
3	16QAM	8	7	17.35	17.44	17.33		
3	16QAM	15	0	17.30	17.37	17.32		
3	64QAM	1	0	17.41	17.50	17.49		
3	64QAM	1	8	17.49	17.64	17.50	19	0
3	64QAM	1	14	17.45	17.59	17.49		
3	64QAM	8	0	17.32	17.32	17.33		
3	64QAM	8	4	17.34	17.44	17.39	19	0
3	64QAM	8	7	17.32	17.39	17.32		
3	64QAM	15	0	17.31	17.34	17.31		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	17.28	17.45	17.36		
1.4	QPSK	1	3	17.37	17.49	17.00	19	0
1.4	QPSK	1	5	17.31	17.44	17.37		
1.4	QPSK	3	0	17.36	17.43	17.38		
1.4	QPSK	3	1	17.39	17.46	17.40		
1.4	QPSK	3	3	17.33	17.46	17.35		
1.4	QPSK	6	0	17.22	17.00	17.19	19	0
1.4	16QAM	1	0	17.44	17.56	17.48		
1.4	16QAM	1	3	17.55	17.61	17.55	19	0
1.4	16QAM	1	5	17.49	17.62	17.46		
1.4	16QAM	3	0	17.26	17.35	17.29		
1.4	16QAM	3	1	17.08	17.38	17.33		
1.4	16QAM	3	3	17.27	17.32	17.29		
1.4	16QAM	6	0	17.30	17.48	17.32	19	0
1.4	64QAM	1	0	17.17	17.09	17.05	19	0
1.4	64QAM	1	3	17.32	17.20	17.06		
1.4	64QAM	1	5	17.23	17.12	17.09		
1.4	64QAM	3	0	17.22	17.13	17.32		
1.4	64QAM	3	1	17.21	17.09	17.17		
1.4	64QAM	3	3	17.09	17.07	17.27		
1.4	64QAM	6	0	17.10	17.09	17.23	19	0

Reduced power Mode for Handheld On for ANT2-EN-DC

Band 7

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				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	20.91	20.99	20.75	22	0
20	QPSK	1	49	20.73	20.81	20.82		
20	QPSK	1	99	20.87	20.98	20.85		
20	QPSK	50	0	20.61	20.91	20.71	22	0
20	QPSK	50	24	20.70	20.76	20.79		
20	QPSK	50	50	20.78	20.86	20.86		
20	QPSK	100	0	20.70	20.89	20.84		
20	16QAM	1	0	20.39	20.55	20.57	22	0
20	16QAM	1	49	20.48	20.62	20.65		
20	16QAM	1	99	20.63	20.74	20.73		
20	16QAM	50	0	20.28	20.38	20.41	22	0
20	16QAM	50	24	20.36	20.44	20.54		
20	16QAM	50	50	20.45	20.52	20.57		
20	16QAM	100	0	20.36	20.40	20.48		
20	64QAM	1	0	20.22	20.43	20.37	22	0
20	64QAM	1	49	20.42	20.45	20.47		
20	64QAM	1	99	20.56	20.55	20.57		
20	64QAM	50	0	19.39	19.46	19.52	21	1
20	64QAM	50	24	19.48	19.54	19.60		
20	64QAM	50	50	19.52	19.65	19.62		
20	64QAM	100	0	19.49	19.53	19.60		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	20.66	20.74	20.77	22	0
15	QPSK	1	37	20.74	20.85	20.87		
15	QPSK	1	74	20.83	20.93	20.72		
15	QPSK	36	0	20.55	20.59	20.60	22	0
15	QPSK	36	20	20.55	20.65	20.71		
15	QPSK	36	39	20.62	20.72	20.73		
15	QPSK	75	0	20.59	20.61	20.59		
15	16QAM	1	0	20.64	20.79	20.82	22	0
15	16QAM	1	37	20.73	20.83	20.85		
15	16QAM	1	74	20.90	20.95	20.52		
15	16QAM	36	0	20.56	20.62	20.60	22	0
15	16QAM	36	20	20.64	20.64	20.73		
15	16QAM	36	39	20.67	20.75	20.71		
15	16QAM	75	0	20.61	20.64	20.66		
15	64QAM	1	0	20.50	20.70	20.67	22	0
15	64QAM	1	37	20.59	20.70	20.78		
15	64QAM	1	74	20.80	20.82	20.78		
15	64QAM	36	0	19.64	19.73	19.72	21	1
15	64QAM	36	20	19.69	19.75	19.85		
15	64QAM	36	39	19.76	19.84	19.84		
15	64QAM	75	0	19.73	19.73	19.75		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	20.64	20.79	20.77	22	0
10	QPSK	1	25	20.65	20.81	20.53		
10	QPSK	1	49	20.79	20.90	20.50		
10	QPSK	25	0	20.58	20.63	20.68	22	0
10	QPSK	25	12	20.60	20.67	20.70		
10	QPSK	25	25	20.60	20.73	20.27		
10	QPSK	50	0	20.58	20.59	20.60		
10	16QAM	1	0	20.41	20.51	20.51	22	0
10	16QAM	1	25	20.36	20.51	20.56		
10	16QAM	1	49	20.55	20.67	20.27		
10	16QAM	25	0	20.45	20.51	20.40	22	0
10	16QAM	25	12	20.51	20.58	20.59		
10	16QAM	25	25	20.52	20.66	20.63		
10	16QAM	50	0	20.51	20.54	20.57		
10	64QAM	1	0	20.53	20.62	20.65	22	0
10	64QAM	1	25	20.58	20.68	20.72		
10	64QAM	1	49	20.68	20.80	20.86		
10	64QAM	25	0	19.59	19.62	19.67	21	1
10	64QAM	25	12	19.60	19.66	19.68		
10	64QAM	25	25	19.64	19.74	19.74		
10	64QAM	50	0	19.56	19.59	19.64		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	20.61	20.69	20.82	22	0
5	QPSK	1	12	20.70	20.82	20.84		
5	QPSK	1	24	20.70	20.86	20.90		
5	QPSK	12	0	20.33	20.41	20.51	22	0
5	QPSK	12	7	20.44	20.60	20.61		
5	QPSK	12	13	20.45	20.61	20.61		
5	QPSK	25	0	20.40	20.46	20.54		
5	16QAM	1	0	20.63	20.75	20.82	22	0
5	16QAM	1	12	20.66	20.85	20.84		
5	16QAM	1	24	20.73	20.88	20.89		
5	16QAM	12	0	20.39	20.46	20.54	22	0
5	16QAM	12	7	20.48	20.64	20.68		
5	16QAM	12	13	20.52	20.64	20.68		
5	16QAM	25	0	20.47	20.55	20.59		
5	64QAM	1	0	20.57	20.60	20.73	22	0
5	64QAM	1	12	20.60	20.71	20.72		
5	64QAM	1	24	20.64	20.80	20.78		
5	64QAM	12	0	19.48	19.53	19.62	21	1
5	64QAM	12	7	19.57	19.73	19.72		
5	64QAM	12	13	19.63	19.75	19.74		
5	64QAM	25	0	19.57	19.64	19.72		

Reduced power Mode for Receiver On for ANT2-EN-DC

Band 7

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				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	16.55	16.62	16.42	17.5	0
20	QPSK	1	49	16.37	16.44	16.49		
20	QPSK	1	99	16.51	16.61	16.52		
20	QPSK	50	0	16.25	16.54	16.38	17.5	0
20	QPSK	50	24	16.34	16.39	16.46		
20	QPSK	50	50	16.42	16.49	16.53		
20	QPSK	100	0	16.34	16.52	16.51		
20	16QAM	1	0	16.03	16.18	16.24	17.5	0
20	16QAM	1	49	16.12	16.25	16.32		
20	16QAM	1	99	16.27	16.37	16.40		
20	16QAM	50	0	15.92	16.01	16.08	17.5	0
20	16QAM	50	24	16.00	16.07	16.21		
20	16QAM	50	50	16.09	16.15	16.24		
20	16QAM	100	0	16.00	16.03	16.15		
20	64QAM	1	0	15.86	16.06	16.04	17.5	0
20	64QAM	1	49	16.06	16.08	16.14		
20	64QAM	1	99	16.20	16.18	16.24		
20	64QAM	50	0	15.92	15.98	16.08	17.5	0
20	64QAM	50	24	16.01	16.06	16.16		
20	64QAM	50	50	16.05	16.17	16.18		
20	64QAM	100	0	16.02	16.05	16.16		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	16.30	16.37	16.44	17.5	0
15	QPSK	1	37	16.38	16.48	16.54		
15	QPSK	1	74	16.47	16.56	16.39		
15	QPSK	36	0	16.19	16.22	16.27	17.5	0
15	QPSK	36	20	16.19	16.28	16.38		
15	QPSK	36	39	16.26	16.35	16.40		
15	QPSK	75	0	16.23	16.24	16.26		
15	16QAM	1	0	16.28	16.42	16.49	17.5	0
15	16QAM	1	37	16.37	16.46	16.52		
15	16QAM	1	74	16.54	16.58	16.19		
15	16QAM	36	0	16.20	16.25	16.27	17.5	0
15	16QAM	36	20	16.28	16.27	16.40		
15	16QAM	36	39	16.31	16.38	16.38		
15	16QAM	75	0	16.25	16.27	16.33		
15	64QAM	1	0	16.14	16.33	16.34	17.5	0
15	64QAM	1	37	16.23	16.33	16.45		
15	64QAM	1	74	16.44	16.45	16.45		
15	64QAM	36	0	16.17	16.25	16.28	17.5	0
15	64QAM	36	20	16.22	16.27	16.41		
15	64QAM	36	39	16.29	16.36	16.40		
15	64QAM	75	0	16.26	16.25	16.31		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	16.28	16.42	16.44	17.5	0
10	QPSK	1	25	16.29	16.44	16.20		
10	QPSK	1	49	16.43	16.53	16.17		
10	QPSK	25	0	16.22	16.26	16.35	17.5	0
10	QPSK	25	12	16.24	16.30	16.37		
10	QPSK	25	25	16.24	16.36	15.94		
10	QPSK	50	0	16.22	16.22	16.27		
10	16QAM	1	0	16.05	16.14	16.18	17.5	0
10	16QAM	1	25	16.00	16.14	16.23		
10	16QAM	1	49	16.19	16.30	15.94		
10	16QAM	25	0	16.09	16.14	16.07	17.5	0
10	16QAM	25	12	16.15	16.21	16.26		
10	16QAM	25	25	16.16	16.29	16.30		
10	16QAM	50	0	16.15	16.17	16.24		
10	64QAM	1	0	16.17	16.25	16.32	17.5	0
10	64QAM	1	25	16.22	16.31	16.39		
10	64QAM	1	49	16.32	16.43	16.53		
10	64QAM	25	0	16.12	16.14	16.23	17.5	0
10	64QAM	25	12	16.13	16.18	16.24		
10	64QAM	25	25	16.17	16.26	16.30		
10	64QAM	50	0	16.09	16.11	16.20		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	16.25	16.32	16.49	17.5	0
5	QPSK	1	12	16.34	16.45	16.51		
5	QPSK	1	24	16.34	16.49	16.57		
5	QPSK	12	0	15.97	16.04	16.18	17.5	0
5	QPSK	12	7	16.08	16.23	16.28		
5	QPSK	12	13	16.09	16.24	16.28		
5	QPSK	25	0	16.04	16.09	16.21		
5	16QAM	1	0	16.27	16.38	16.49	17.5	0
5	16QAM	1	12	16.30	16.48	16.51		
5	16QAM	1	24	16.37	16.51	16.56		
5	16QAM	12	0	16.03	16.09	16.21	17.5	0
5	16QAM	12	7	16.12	16.27	16.35		
5	16QAM	12	13	16.16	16.27	16.35		
5	16QAM	25	0	16.11	16.18	16.26		
5	64QAM	1	0	16.21	16.23	16.40	17.5	0
5	64QAM	1	12	16.24	16.34	16.39		
5	64QAM	1	24	16.28	16.43	16.45		
5	64QAM	12	0	16.01	16.05	16.18	17.5	0
5	64QAM	12	7	16.10	16.25	16.28		
5	64QAM	12	13	16.16	16.27	16.30		
5	64QAM	25	0	16.10	16.16	16.28		

Band 41

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Low Ch. / Freq.	Power Middle High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				40140	40400	40670	41140		
Frequency (MHz)				2545	2571	2598	2645		
20	QPSK	1	0	16.67	16.62	16.75	16.58	18	0
20	QPSK	1	49	16.43	16.72	16.56	16.25		
20	QPSK	1	99	16.29	16.27	16.46	16.54		
20	QPSK	50	0	16.34	16.27	16.66	16.25	18	0
20	QPSK	50	24	16.20	16.22	16.31	16.27		
20	QPSK	50	50	16.34	16.25	16.38	16.21		
20	QPSK	100	0	16.34	16.47	16.68	16.18		
20	16QAM	1	0	16.38	16.57	16.40	16.16	18	0
20	16QAM	1	49	16.13	16.21	16.18	16.40		
20	16QAM	1	99	16.50	16.36	16.35	16.46		
20	16QAM	50	0	16.39	16.61	16.58	16.30	18	0
20	16QAM	50	24	16.37	16.21	16.50	16.28		
20	16QAM	50	50	16.46	16.60	16.53	16.30		
20	16QAM	100	0	16.29	16.70	16.68	16.35		
20	64QAM	1	0	16.18	16.31	16.27	16.21	18	0
20	64QAM	1	49	16.20	16.37	16.48	16.44		
20	64QAM	1	99	16.00	16.39	16.34	16.19		
20	64QAM	50	0	16.18	16.20	16.21	16.28	18	0
20	64QAM	50	24	16.41	16.49	16.51	16.55		
20	64QAM	50	50	16.13	16.60	16.44	16.21		
20	64QAM	100	0	16.46	16.28	16.40	16.26		
Channel				40115	40395	40685	41165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2542.5	2570.5	2599.5	2647.5		
15	QPSK	1	0	16.47	16.59	16.43	16.32	18	0
15	QPSK	1	37	16.33	16.43	16.51	16.17		
15	QPSK	1	74	16.21	16.26	16.21	16.37		
15	QPSK	36	0	16.27	16.04	16.20	16.03	18	0
15	QPSK	36	20	16.06	16.42	16.19	16.04		
15	QPSK	36	39	16.16	16.11	16.27	16.52		
15	QPSK	75	0	16.31	16.27	16.40	16.07		
15	16QAM	1	0	16.19	16.42	16.17	16.11	18	0
15	16QAM	1	37	16.14	16.03	16.14	16.24		
15	16QAM	1	74	16.35	16.31	16.31	16.36		
15	16QAM	36	0	16.32	16.37	16.52	16.12	18	0
15	16QAM	36	20	16.29	16.14	16.29	16.21		
15	16QAM	36	39	16.36	16.46	16.29	16.14		
15	16QAM	75	0	16.14	16.43	16.60	16.31		
15	64QAM	1	0	16.20	16.10	16.05	16.11	18	0
15	64QAM	1	37	16.22	16.29	16.19	16.29		
15	64QAM	1	74	16.33	16.18	16.12	16.08		
15	64QAM	36	0	16.13	16.07	16.04	16.14	18	0
15	64QAM	36	20	16.14	16.32	16.34	16.36		
15	64QAM	36	39	16.33	16.24	16.32	16.02		
15	64QAM	75	0	16.41	16.08	16.31	16.19		
Channel				40090	40390	40690	41190	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2540	2570	2600	2650		
10	QPSK	1	0	16.51	16.58	16.64	16.41	18	0
10	QPSK	1	25	16.26	16.49	16.43	16.30		
10	QPSK	1	49	16.30	16.29	16.32	16.41		
10	QPSK	25	0	16.14	16.09	16.25	16.17	18	0
10	QPSK	25	12	16.02	16.04	16.24	16.10		
10	QPSK	25	25	16.25	16.16	16.29	16.13		
10	QPSK	50	0	16.19	16.23	16.33	16.01		
10	16QAM	1	0	16.14	16.33	16.16	16.10	18	0
10	16QAM	1	25	16.01	16.02	16.03	16.24		
10	16QAM	1	49	16.27	16.12	16.18	16.21		
10	16QAM	25	0	16.14	16.40	16.42	16.24	18	0
10	16QAM	25	12	16.15	16.11	16.32	16.24		
10	16QAM	25	25	16.34	16.45	16.44	16.06		
10	16QAM	50	0	16.28	16.45	16.42	16.30		
10	64QAM	1	0	16.10	16.27	16.16	16.09	18	0
10	64QAM	1	25	16.25	16.26	16.24	16.34		
10	64QAM	1	49	16.06	16.19	16.28	16.02		
10	64QAM	25	0	16.07	16.14	16.33	16.24	18	0
10	64QAM	25	12	16.20	16.43	16.30	16.33		
10	64QAM	25	25	16.32	16.31	16.37	16.02		
10	64QAM	50	0	16.21	16.06	16.24	16.03		
Channel				40065	40385	40705	41215	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2537.5	2569.5	2601.5	2652.5		
5	QPSK	1	0	16.43	16.54	16.52	16.37	18	0
5	QPSK	1	12	16.40	16.49	16.38	16.17		
5	QPSK	1	24	16.18	16.26	16.27	16.29		
5	QPSK	12	0	16.15	16.20	16.18	16.32	18	0
5	QPSK	12	7	16.08	16.33	16.02	16.05		
5	QPSK	12	13	16.32	16.19	16.10	16.36		
5	QPSK	25	0	16.29	16.32	16.49	16.20		
5	16QAM	1	0	16.31	16.31	16.28	16.23	18	0
5	16QAM	1	12	16.12	16.12	16.13	16.14		
5	16QAM	1	24	16.25	16.10	16.26	16.26		
5	16QAM	12	0	16.11	16.35	16.29	16.20	18	0
5	16QAM	12	7	16.13	16.15	16.28	16.13		
5	16QAM	12	13	16.22	16.37	16.32	16.26		
5	16QAM	25	0	16.23	16.55	16.40	16.13		
5	64QAM	1	0	16.32	16.01	16.33	16.02	18	0
5	64QAM	1	12	16.11	16.31	16.19	16.15		
5	64QAM	1	24	16.32	16.24	16.23	16.23		
5	64QAM	12	0	16.33	16.10	16.10	16.15	18	0
5	64QAM	12	7	16.20	16.42	16.26	16.27		
5	64QAM	12	13	16.09	16.30	16.32	16.10		
5	64QAM	25	0	16.22	16.15	16.16	16.20		

UL Intra Band CA

Full Power & Head SAR

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	0	0	0	22.43	24.00
21100	20902	QPSK	1	0	1	99	22.53	24.00
21350	21152	QPSK	1	0	1	99	22.45	24.00

Body Worn

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	0	0	0	18.63	20.00
21100	20902	QPSK	1	0	1	99	18.52	20.00
21350	21152	QPSK	1	0	1	99	18.41	20.00

Hotspot on

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	0	0	0	17.12	18.50
21100	20902	QPSK	1	0	1	99	17.23	18.50
21350	21152	QPSK	1	0	1	99	17.02	18.50

Handheld on

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	0	0	0	19.61	21.00
21100	20902	QPSK	1	0	1	99	19.35	21.00
21350	21152	QPSK	1	0	1	99	19.42	21.00

2CA DL

Configure		CA List	PCC								SCC					Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	DL Antenna Configuration	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	DL Antenna Configuration	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band		CA_4A-7A	Band 4	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	22.52	22.68
			Band 7	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 4	20M	2132.5	2175	4x4MIMO	22.34	22.85
		CA_4A-12A	Band 4	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 12	10M	737.5	5095		22.15	22.68
			Band 12	10M	707.5	23095	QPSK	1	0		Band 4	20M	2132.5	2175	4x4MIMO	22.39	22.78
		CA_4A-17A	Band 4	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 17	10M	740	5790		22.52	22.68
			Band 17	10M	710	23790	QPSK	1	0		Band 4	20M	2132.5	2175	4x4MIMO	22.62	22.77
		CA_5A-7A	Band 5	10M	836.5	20525	QPSK	1	0		Band 7	20M	2655	3100	4x4MIMO	22.19	22.55
			Band 7	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 5	10M	881.5	2525		22.33	22.85
		CA_5A-38A	Band 5	10M	836.5	20525	QPSK	1	0		Band 38	20M	2595	38000	4x4MIMO	22.16	22.55
			Band 38	20M	2595	38000	QPSK	1	0	4x4MIMO	Band 5	10M	881.5	2525		22.41	22.77
		CA_5A-41A	Band 5	10M	836.5	20525	QPSK	1	0		Band 41	20M	2593	40620	4x4MIMO	22.13	22.55
			Band 41	20M	2598	40670	QPSK	1	0	4x4MIMO	Band 5	10M	881.5	2525		22.47	22.98
		CA_12A-66A	Band 12	10M	707.5	23095	QPSK	1	0		Band 66	20M	2155	66886		22.40	22.78
			Band 66	20M	1745	132322	QPSK	1	0		Band 12	10M	737.5	5095		22.05	22.69
		CA_26A-41A	Band 26	15M	831.5	26865	QPSK	1	0		Band 41	20M	2593	40620	4x4MIMO	21.96	22.57
			Band 41	20M	2598	40670	QPSK	1	0	4x4MIMO	Band 26	15M	876.5	8865		22.51	22.98
	Contiguous	CA_7B	Band 7	15M	2535	21100	QPSK	1	0		Band 7	5M	2664.3	3193	4x4MIMO	21.31	22.85
		CA_38C	Band 38	20M	2585.1	37901	QPSK	1	0	4x4MIMO	Band 38	20M	2604.9	38099	4x4MIMO	22.33	22.77
		CA_66B	Band 66	15M	1745	132322	QPSK	1	0		Band 66	5M	2164.3	66979		21.33	22.23
		CA_66C	Band 66	20M	1745	132322	QPSK	1	0		Band 66	20M	2174.8	67084		21.35	22.69
	Non-Contiguous	CA_4A-4A	Band 4	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 4	5M	2152.5	2375	4x4MIMO	22.37	22.68

3CA DL

Configure		PCC								SCC1					SCC2					Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	DL Antenna Configuration	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	DL Antenna Configuration	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	DL Antenna Configuration	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-4A-5A	Band 2	20M	1880	18900	QPSK	1	0		Band 4	20M	2132.5	2175	4x4MIMO	Band 5	10M	881.5	2525		22.23	22.45
		Band 4	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 5	10M	881.5	2525		Band 2	20M	1960	900		22.32	22.68
		Band 5	10M	836.5	20525	QPSK	1	0		Band 2	20M	1960	900		Band 4	20M	2132.5	2175	4x4MIMO	22.42	22.55

Configure			PCC							SCC1					SCC2					Power	
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	DL Antenna Configuration	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	DL Antenna Configuration	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	DL Antenna Configuration	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
	CA_2A-7A-7A		Band 2	20M	1880	18900	QPSK	1	0		Band 7	20M	2655	3100	4x4MIMO	Band 7	5M	2687.5	3425	4x4MIMO	22.39	22.45
			Band 7	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2687.5	3425	4x4MIMO	Band 2	20M	1960	900		22.63	22.85
	CA_2A-7C		Band 2	20M	1880	18900	QPSK	1	0		Band 7	20M	2655	3100	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	22.31	22.45
			Band 7	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	Band 2	20M	1960	900		22.65	22.85
	CA_4A-7C		Band 4	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	22.52	22.68
			Band 7	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	Band 4	20M	2132.5	2175	4x4MIMO	22.63	22.85
	CA_5A-7C		Band 5	10M	836.5	20525	QPSK	1	0		Band 7	20M	2655	3100	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	22.37	22.55
			Band 7	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	Band 5	10M	881.5	2525		22.52	22.85
	CA_66A-7C		Band 66	20M	1745	132322	QPSK	1	0		Band 7	20M	2655	3100	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	22.58	22.69
			Band 7	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	Band 66	20M	2155	66886		22.81	22.85
	CA_5A-66A-66A		Band 5	10M	836.5	20525	QPSK	1	0		Band 66	20M	2155	66886		Band 66	5M	2197.5	67311		22.42	22.55
			Band 66	20M	1745	132322	QPSK	1	0		Band 66	5M	2197.5	67311		Band 5	10M	881.5	2525		22.38	22.69
	CA_7A-66A-66A		Band 7	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 66	20M	2155	66886		Band 66	5M	2197.5	67311		22.42	22.55
			Band 66	20M	1745	132322	QPSK	1	0		Band 66	5M	2197.5	67311		Band 7	20M	2655	3100	4x4MIMO	22.38	22.69
Intra-	Contiguous	CA_41D	Band 41	20M	2598	40670	QPSK	1	0	4x4MIMO	Band 41	20M	2617.8	40868	4x4MIMO	Band 41	20M	2637.6	41066	4x4MIMO	22.75	22.98
	Non-Contiguous	CA_41A-41C	Band 41	20M	2598	40670	QPSK	1	0	4x4MIMO	Band 41	5M	2687.5	41565	4x4MIMO	Band 41	20M	2675.8	41448	4x4MIMO	22.8	22.98
			Band 41	20M	2598	40670	QPSK	1	0	4x4MIMO	Band 41	20M	2617.8	40868	4x4MIMO	Band 41	5M	2537.5	40065	4x4MIMO	22.82	22.98
	Non-Contiguous	CA_41A-41A-41A	Band 41	20M	2598	40670	QPSK	1	0	4x4MIMO	Band 41	5M	2652.5	41215	4x4MIMO	Band 41	20M	2545	40140	4x4MIMO	22.88	22.98

Full Power

n5 ANT 2

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				166800	167300	167800		
Frequency (MHz)				834	836.5	839		
20	PI/2 BPSK	1	1	22.93	22.93	22.79	24.0	0.0
20	PI/2 BPSK	1	53	22.61	22.77	22.81		
20	PI/2 BPSK	1	104	22.54	22.61	22.54		
20	PI/2 BPSK	50	0	22.12	22.26	22.10	23.5	0.5
20	PI/2 BPSK	50	28	22.76	22.73	22.77	24.0	0.0
20	PI/2 BPSK	50	56	22.14	22.11	22.15	23.5	0.5
20	PI/2 BPSK	100	0	22.20	22.20	22.12		
20	QPSK	1	1	22.98	22.99	22.93	24.0	0.0
20	QPSK	1	53	22.61	22.70	22.52		
20	QPSK	1	104	22.61	22.57	22.64		
20	QPSK	50	0	21.72	21.77	21.58	23.0	1.0
20	QPSK	50	28	22.72	22.82	22.66	24.0	0.0
20	QPSK	50	56	21.64	21.59	21.68	23.0	1.0
20	QPSK	100	0	21.62	21.72	21.47		
20	16QAM	1	1	21.68	21.73	21.57	23.0	1.0
20	64QAM	1	1	19.99	20.11	19.95	21.5	2.5
20	256QAM	1	1	18.35	18.43	18.33	19.5	4.5
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	22.54	22.67	22.61	24.0	0.0
Channel				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	22.52	22.64	22.60	24.0	0.0
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	22.55	22.63	22.44	24.0	0.0

n7 ANT 2

Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	22.65	22.75	22.56	24.0	0.0
20	PI/2 BPSK	1	53	22.74	22.70	22.71		
20	PI/2 BPSK	1	104	22.60	22.65	22.53		
20	PI/2 BPSK	50	0	22.12	22.23	22.15	23.5	0.5
20	PI/2 BPSK	50	28	22.70	22.68	22.66	24.0	0.0
20	PI/2 BPSK	50	56	22.05	22.19	22.02	23.5	0.5
20	PI/2 BPSK	100	0	22.08	22.20	22.00		
20	QPSK	1	1	22.71	22.80	22.77	24.0	0.0
20	QPSK	1	53	22.61	22.75	22.62		
20	QPSK	1	104	22.60	22.69	22.59		
20	QPSK	50	0	21.63	21.73	21.53	23.0	1.0
20	QPSK	50	28	22.66	22.78	22.59	24.0	0.0
20	QPSK	50	56	21.71	21.70	21.65	23.0	1.0
20	QPSK	100	0	21.60	21.73	21.63		
20	16QAM	1	1	21.67	21.72	21.57	23.0	1.0
20	64QAM	1	1	20.18	20.25	20.07	21.5	2.5
20	256QAM	1	1	18.17	18.31	18.11	19.5	4.5
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	22.61	22.76	22.51	24.0	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	22.53	22.61	22.49	24.0	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	22.57	22.72	22.49	24.0	0.0

n77 ANT 4

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				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	PI/2 BPSK	1	1	22.60	22.51	22.36	23.0	0.0
100	PI/2 BPSK	1	137	22.63	22.64	22.53		
100	PI/2 BPSK	1	271	22.32	22.57	22.47		
100	PI/2 BPSK	135	0	22.09	22.09	22.12	22.5	0.5
100	PI/2 BPSK	135	69	22.62	22.63	22.46	23.0	0.0
100	PI/2 BPSK	135	138	22.21	22.25	22.23	22.5	0.5
100	PI/2 BPSK	270	0	22.08	22.07	21.91	22.5	0.5
100	QPSK	1	1	22.65	22.70	22.38	23.0	0.0
100	QPSK	1	137	22.63	22.64	22.68		
100	QPSK	1	271	22.35	22.63	22.52		
100	QPSK	135	0	22.20	22.21	22.21	23.0	1.0
100	QPSK	135	69	22.62	22.67	22.61	23.0	0.0
100	QPSK	135	138	22.25	22.22	22.32	23.0	1.0
100	QPSK	270	0	21.67	21.56	21.38	22.0	1.0
100	16QAM	1	1	21.50	21.76	21.68	22.0	1.0
100	64QAM	1	1	20.14	19.94	19.84	20.5	2.5
100	256QAM	1	1	18.13	17.85	17.73	18.5	4.5
Channel				645334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	1	22.46	22.52	22.45	23.0	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	22.23	22.51	22.35	23.0	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	1	22.26	22.42	22.41	23.0	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	1	22.20	22.50	22.35	23.0	0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	1	22.50	22.45	22.29	23.0	0.0

n78 ANT 4

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				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1		22.59		23.0	0.0
100	PI/2 BPSK	1	137		22.71			
100	PI/2 BPSK	1	271		22.66			
100	PI/2 BPSK	135	0		22.55		22.5	0.5
100	PI/2 BPSK	135	69		22.61		23.0	0.0
100	PI/2 BPSK	135	138		22.51		22.5	0.5
100	PI/2 BPSK	270	0		22.03		22.5	0.5
100	QPSK	1	1		22.76		23.0	0.0
100	QPSK	1	137		22.70			
100	QPSK	1	271		22.67			
100	QPSK	135	0		22.23		23.0	1.0
100	QPSK	135	69		22.59		23.0	0.0
100	QPSK	135	138		22.12		23.0	1.0
100	QPSK	270	0		21.55		22.0	1.0
100	16QAM	1	1		21.32		22.0	1.0
100	64QAM	1	1		19.88		20.5	2.5
100	256QAM	1	1		17.63		18.5	4.5
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	22.59	22.57	22.54	23.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	22.60	22.53	22.51	23.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	22.63	22.51	22.65	23.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	22.54	22.57	22.51	23.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	1	22.55	22.53	22.55	23.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	22.55	22.56	22.50	23.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	22.54	22.59	22.51	23.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	22.56	22.55	22.51	23.0	0.0

Power Mode for Receiver On for ANT2

n5

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				166800	167300	167800		
Frequency (MHz)				834	836.5	839		
20	PI/2 BPSK	1	1	18.06	18.10	18.01	19.5	0.0
20	PI/2 BPSK	1	53	17.86	17.87	17.81		
20	PI/2 BPSK	1	104	17.72	17.72	17.64		
20	PI/2 BPSK	50	0	17.95	17.98	17.88	19.5	0.0
20	PI/2 BPSK	50	28	17.79	17.88	17.77	19.5	0.0
20	PI/2 BPSK	50	56	17.81	17.86	17.80	19.5	0.0
20	PI/2 BPSK	100	0	17.83	17.93	17.75		
20	QPSK	1	1	18.02	18.28	18.16	19.5	0.0
20	QPSK	1	53	17.90	17.90	17.90		
20	QPSK	1	104	17.67	17.75	17.65		
20	QPSK	50	0	18.05	18.05	17.97	19.5	0.0
20	QPSK	50	28	18.00	18.07	17.96	19.5	0.0
20	QPSK	50	56	17.76	17.85	17.69	19.5	0.0
20	QPSK	100	0	17.94	18.03	17.87		
20	16QAM	1	1	18.12	18.17	18.08	19.5	0.0
20	64QAM	1	1	18.00	18.08	17.97	19.5	0.0
20	256QAM	1	1	17.98	18.02	17.91	19.5	0.0
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	17.96	18.06	17.97	19.5	0.0
Channel				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	18.04	18.08	17.98	19.5	0.0
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	18.05	18.08	17.98	19.5	0.0

n7

Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	12.67	12.68	12.58	14.0	0.0
20	PI/2 BPSK	1	53	12.56	12.64	12.49		
20	PI/2 BPSK	1	104	12.57	12.66	12.51		
20	PI/2 BPSK	50	0	12.66	12.67	12.62	14.0	0.0
20	PI/2 BPSK	50	28	12.58	12.65	12.54	14.0	0.0
20	PI/2 BPSK	50	56	12.54	12.61	12.45	14.0	0.0
20	PI/2 BPSK	100	0	12.64	12.66	12.58		
20	QPSK	1	1	12.81	12.78	12.83	14.0	0.0
20	QPSK	1	53	12.62	12.64	12.54		
20	QPSK	1	104	12.57	12.62	12.53		
20	QPSK	50	0	12.62	12.64	12.57	13.0	1.0
20	QPSK	50	28	12.60	12.70	12.52	14.0	0.0
20	QPSK	50	56	12.60	12.61	12.57	13.0	1.0
20	QPSK	100	0	12.56	12.63	12.47		
20	16QAM	1	1	12.68	12.77	12.59	14.0	0.0
20	64QAM	1	1	12.51	12.51	12.50	14.0	0.0
20	256QAM	1	1	12.61	12.64	12.59	14.0	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	12.58	12.67	12.51	14.0	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	12.61	12.61	12.50	14.0	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	12.60	12.67	12.57	14.0	0.0

Reduced power Mode for Sensor On for ANT2

n5

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				166800	167300	167800		
Frequency (MHz)				834	836.5	839		
20	PI/2 BPSK	1	1	19.82	20.04	19.73	21.5	0.0
20	PI/2 BPSK	1	53	19.72	19.81	20.05		
20	PI/2 BPSK	1	104	19.63	19.66	19.92		
20	PI/2 BPSK	50	0	19.73	19.92	19.73	21.5	0.0
20	PI/2 BPSK	50	28	19.82	19.82	19.71	21.5	0.0
20	PI/2 BPSK	50	56	19.83	19.80	19.73	21.5	0.0
20	PI/2 BPSK	100	0	19.85	19.87	19.72		
20	QPSK	1	1	20.06	20.22	20.13	21.5	0.0
20	QPSK	1	53	19.83	19.84	20.05		
20	QPSK	1	104	19.71	19.69	19.92		
20	QPSK	50	0	19.83	19.99	19.86	21.5	0.0
20	QPSK	50	28	19.92	20.01	20.00	21.5	0.0
20	QPSK	50	56	19.73	19.79	19.83	21.5	0.0
20	QPSK	100	0	20.05	19.97	19.72		
20	16QAM	1	1	20.03	20.11	19.73	21.5	0.0
20	64QAM	1	1	20.13	20.02	19.73	21.5	0.0
20	256QAM	1	1	18.35	18.39	18.27	19.5	2.0
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	20.13	20.16	20.09	21.5	0.0
Channel				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	20.02	20.08	20.03	21.5	0.0
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	19.92	19.94	20.02	21.5	0.0

n7

Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	13.58	13.67	13.53	15.0	0.0
20	PI/2 BPSK	1	53	13.62	13.63	13.52		
20	PI/2 BPSK	1	104	13.54	13.62	13.49		
20	PI/2 BPSK	50	0	13.63	13.66	13.56	15.0	0.0
20	PI/2 BPSK	50	28	13.56	13.64	13.49	15.0	0.0
20	PI/2 BPSK	50	56	13.59	13.66	13.56	15.0	0.0
20	PI/2 BPSK	100	0	13.65	13.69	13.58		
20	QPSK	1	1	13.70	13.78	13.65	15.0	0.0
20	QPSK	1	53	13.53	13.57	13.45		
20	QPSK	1	104	13.59	13.60	13.53		
20	QPSK	50	0	13.71	13.71	13.66	14.0	1.0
20	QPSK	50	28	13.65	13.72	13.62	15.0	0.0
20	QPSK	50	56	13.63	13.63	13.54	14.0	1.0
20	QPSK	100	0	13.61	13.69	13.60		
20	16QAM	1	1	13.68	13.72	13.65	15.0	0.0
20	64QAM	1	1	13.64	13.71	13.60	15.0	0.0
20	256QAM	1	1	13.68	13.77	13.62	15.0	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	13.53	13.63	13.43	15.0	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	13.53	13.58	13.43	15.0	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	13.50	13.58	13.45	15.0	0.0

Reduced power Mode for Hotspot On for ANT2

n5

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				166800	167300	167800		
Frequency (MHz)				834	836.5	839		
20	PI/2 BPSK	1	1	19.82	20.04	19.73	21.5	0.0
20	PI/2 BPSK	1	53	19.72	19.81	20.05		
20	PI/2 BPSK	1	104	19.63	19.66	19.92		
20	PI/2 BPSK	50	0	19.73	19.92	19.73	21.5	0.0
20	PI/2 BPSK	50	28	19.82	19.82	19.71	21.5	0.0
20	PI/2 BPSK	50	56	19.83	19.80	19.73	21.5	0.0
20	PI/2 BPSK	100	0	19.85	19.87	19.72		
20	QPSK	1	1	20.06	20.22	20.13	21.5	0.0
20	QPSK	1	53	19.83	19.84	20.05		
20	QPSK	1	104	19.71	19.69	19.92		
20	QPSK	50	0	19.83	19.99	19.86	21.5	0.0
20	QPSK	50	28	19.92	20.01	20.00	21.5	0.0
20	QPSK	50	56	19.73	19.79	19.83	21.5	0.0
20	QPSK	100	0	20.05	19.97	19.72		
20	16QAM	1	1	20.03	20.11	19.73	21.5	0.0
20	64QAM	1	1	20.13	20.02	19.73	21.5	0.0
20	256QAM	1	1	19.85	19.69	19.70	21.5	0.0
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	20.13	20.16	20.09	21.5	0.0
Channel				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	20.02	20.08	20.03	21.5	0.0
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	19.92	19.94	20.02	21.5	0.0

n7

Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	12.82	12.85	12.79	14.0	0.0
20	PI/2 BPSK	1	53	12.74	12.83	12.72		
20	PI/2 BPSK	1	104	12.79	12.82	12.74		
20	PI/2 BPSK	50	0	12.80	12.83	12.71	14.0	0.0
20	PI/2 BPSK	50	28	12.78	12.84	12.73	14.0	0.0
20	PI/2 BPSK	50	56	12.76	12.85	12.74	14.0	0.0
20	PI/2 BPSK	100	0	12.89	12.92	12.84		
20	QPSK	1	1	12.96	12.97	12.81	14.0	0.0
20	QPSK	1	53	12.82	12.89	12.73		
20	QPSK	1	104	12.82	12.87	12.74		
20	QPSK	50	0	12.82	12.92	12.77	13.0	1.0
20	QPSK	50	28	12.73	12.93	12.72	14.0	0.0
20	QPSK	50	56	12.77	12.84	12.72	13.0	1.0
20	QPSK	100	0	12.83	12.91	12.76		
20	16QAM	1	1	12.31	12.33	12.28	14.0	0.0
20	64QAM	1	1	12.94	12.96	12.89	14.0	0.0
20	256QAM	1	1	12.88	12.90	12.88	14.0	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	12.75	12.76	12.72	14.0	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	12.78	12.72	12.66	14.0	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	12.75	12.70	12.68	14.0	0.0

Reduced power Mode for Handheld On for ANT2

n7								
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	17.35	17.37	17.31	18.5	0.0
20	PI/2 BPSK	1	53	17.40	17.41	17.40		
20	PI/2 BPSK	1	104	17.33	17.37	17.28		
20	PI/2 BPSK	50	0	17.34	17.36	17.30	18.5	0.0
20	PI/2 BPSK	50	28	17.33	17.38	17.32	18.5	0.0
20	PI/2 BPSK	50	56	17.31	17.34	17.24	18.5	0.0
20	PI/2 BPSK	100	0	17.38	17.43	17.38		
20	QPSK	1	1	17.40	17.45	17.35	18.5	0.0
20	QPSK	1	53	17.37	17.38	17.31		
20	QPSK	1	104	17.29	17.35	17.20		
20	QPSK	50	0	17.39	17.23	17.32	18.5	0.0
20	QPSK	50	28	17.33	17.40	17.30	18.5	0.0
20	QPSK	50	56	17.30	17.37	17.29	18.5	0.0
20	QPSK	100	0	17.31	17.39	17.22		
20	16QAM	1	1	17.06	17.16	17.15	18.5	0.0
20	64QAM	1	1	17.22	17.13	17.11	18.5	0.0
20	256QAM	1	1	17.13	17.14	17.12	18.5	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	17.28	17.36	17.27	18.5	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	17.27	17.32	17.30	18.5	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	17.31	17.32	17.22	18.5	0.0

Power Mode for Receiver On for ANT4

n77

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				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	PI/2 BPSK	1	1	16.39	16.46	16.31		
100	PI/2 BPSK	1	137	16.55	16.57	16.50	18.0	0.0
100	PI/2 BPSK	1	271	16.46	16.54	16.41		
100	PI/2 BPSK	135	0	16.44	16.52	16.37		
100	PI/2 BPSK	135	69	16.57	16.57	16.54	18.0	0.0
100	PI/2 BPSK	135	138	16.49	16.51	16.49		
100	PI/2 BPSK	270	0	16.42	16.52	16.35	18.0	0.0
100	QPSK	1	1	16.53	16.61	16.57		
100	QPSK	1	137	16.46	16.53	16.41	18.0	0.0
100	QPSK	1	271	16.53	16.55	16.51		
100	QPSK	135	0	16.41	16.48	16.40		
100	QPSK	135	69	16.52	16.58	16.43	18.0	0.0
100	QPSK	135	138	16.47	16.55	16.45		
100	QPSK	270	0	16.50	16.53	16.48	18.0	0.0
100	16QAM	1	1	15.96	16.03	15.92	18.0	0.0
100	64QAM	1	1	16.37	16.45	16.36	18.0	0.0
100	256QAM	1	1	16.40	16.43	16.36	18.0	0.0
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	1	16.47	16.32	16.42	18.0	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	16.50	16.34	16.37	18.0	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	1	16.46	16.59	16.37	18.0	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	1	16.53	16.53	16.44	18.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	16.47	16.55	16.42	18.0	0.0

n78

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				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1	16.15	16.23	16.17		
100	PI/2 BPSK	1	137	16.43	16.41	16.34	18.0	0.0
100	PI/2 BPSK	1	271	16.31	16.33	16.30		
100	PI/2 BPSK	135	0	16.31	16.32	16.18		
100	PI/2 BPSK	135	69	16.39	16.34	16.37	18.0	0.0
100	PI/2 BPSK	135	138	16.30	16.26	16.23		
100	PI/2 BPSK	270	0	16.26	16.30	16.20	18.0	0.0
100	QPSK	1	1	16.36	16.48	16.36		
100	QPSK	1	137	16.28	16.37	16.24	18.0	0.0
100	QPSK	1	271	16.35	16.38	16.25		
100	QPSK	135	0	16.16	16.35	16.27		
100	QPSK	135	69	16.31	16.40	16.29	18.0	0.0
100	QPSK	135	138	16.29	16.38	16.29		
100	QPSK	270	0	16.32	16.31	16.28	18.0	0.0
100	16QAM	1	1	15.78	15.86	15.80	18.0	0.0
100	64QAM	1	1	16.22	16.31	16.14	18.0	0.0
100	256QAM	1	1	16.28	16.28	16.20	18.0	0.0
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	16.20	16.18	16.14	18.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	16.20	16.12	16.06	18.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	16.30	16.25	16.31	18.0	0.0
Channel				648668	650000	651334	[illegible]	[illegible]
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	16.14	16.18	16.11	18.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	1	16.17	16.17	16.12	18.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	16.25	16.21	16.18	18.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	16.27	16.23	16.19	18.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	16.22	16.21	16.12	18.0	0.0

Reduced power Mode for Sensor On for ANT4

n77

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				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	PI/2 BPSK	1	1	14.98	14.91	14.90	16.5	0.0
100	PI/2 BPSK	1	137	15.03	15.03	15.05		
100	PI/2 BPSK	1	271	15.00	15.04	14.87		
100	PI/2 BPSK	135	0	14.98	14.96	14.83	16.5	0.0
100	PI/2 BPSK	135	69	15.03	15.05	15.12		
100	PI/2 BPSK	135	138	15.01	15.07	14.99		
100	PI/2 BPSK	270	0	14.97	14.97	14.85	16.5	0.0
100	QPSK	1	1	15.21	15.23	15.11	16.5	0.0
100	QPSK	1	137	14.90	15.07	14.96		
100	QPSK	1	271	14.96	15.04	14.95		
100	QPSK	135	0	14.87	15.00	14.97	16.5	0.0
100	QPSK	135	69	15.09	15.20	15.01		
100	QPSK	135	138	14.99	15.02	15.03		
100	QPSK	270	0	15.04	15.07	15.02	16.5	0.0
100	16QAM	1	1	14.40	14.58	15.22	16.5	0.0
100	64QAM	1	1	14.93	15.02	15.10	16.5	0.0
100	256QAM	1	1	14.90	14.89	14.93	16.5	0.0
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	1	14.88	14.86	14.90	16.5	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	15.03	14.93	14.69	16.5	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	1	14.81	14.83	14.81	16.5	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	1	14.79	14.82	14.88	16.5	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	14.73	14.86	14.75	16.5	0.0

n78

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				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1	14.80	14.78	14.88	16.5	0.0
100	PI/2 BPSK	1	137	15.02	15.02	14.82		
100	PI/2 BPSK	1	271	14.80	15.03	14.92		
100	PI/2 BPSK	135	0	14.99	15.03	14.81	16.5	0.0
100	PI/2 BPSK	135	69	14.98	14.98	15.08		
100	PI/2 BPSK	135	138	14.81	14.80	14.85		
100	PI/2 BPSK	270	0	14.95	14.94	14.78	16.0	0.0
100	QPSK	1	1	14.95	15.06	15.01	16.5	0.0
100	QPSK	1	137	14.77	14.95	14.89		
100	QPSK	1	271	14.88	14.96	14.80		
100	QPSK	135	0	14.70	15.01	14.85	16.5	0.0
100	QPSK	135	69	15.00	15.08	14.91		
100	QPSK	135	138	14.90	15.10	14.89		
100	QPSK	270	0	14.81	15.00	14.99	15.5	0.0
100	16QAM	1	1	14.42	14.53	14.29	15.5	0.0
100	64QAM	1	1	14.74	14.96	14.87	14.0	0.0
100	256QAM	1	1	14.81	14.89	14.86	12.0	0.0
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	14.79	14.92	14.60	16.5	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	14.74	14.73	14.72	16.5	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	14.71	14.77	17.82	16.5	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	14.75	14.70	14.73	16.5	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	1	14.85	14.96	14.80	16.5	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	14.26	14.39	14.25	16.5	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	14.68	14.80	14.73	16.5	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	14.71	14.77	14.64	16.5	0.0

Reduced power Mode for Hotspot On for ANT4

n77

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				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	PI/2 BPSK	1	1	14.98	14.91	14.90		
100	PI/2 BPSK	1	137	15.03	15.03	15.05	16.5	0.0
100	PI/2 BPSK	1	271	15.00	15.04	14.87		
100	PI/2 BPSK	135	0	14.98	14.96	14.83		
100	PI/2 BPSK	135	69	15.03	15.05	15.12	16.5	0.0
100	PI/2 BPSK	135	138	15.01	15.07	14.99		
100	PI/2 BPSK	270	0	14.97	14.97	14.85	16.5	0.0
100	QPSK	1	1	15.21	15.23	15.11		
100	QPSK	1	137	14.90	15.07	14.96	16.5	0.0
100	QPSK	1	271	14.96	15.04	14.95		
100	QPSK	135	0	14.87	15.00	14.97		
100	QPSK	135	69	15.09	15.20	15.01	16.5	0.0
100	QPSK	135	138	14.99	15.02	15.03		
100	QPSK	270	0	15.04	15.07	15.02	16.5	0.0
100	16QAM	1	1	14.40	14.58	15.22	16.5	0.0
100	64QAM	1	1	14.93	15.02	15.10	16.5	0.0
100	256QAM	1	1	14.90	14.89	14.93	16.5	0.0
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	1	14.88	14.86	14.90	16.5	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	15.03	14.93	14.69	16.5	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	1	14.81	14.83	14.81	16.5	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	1	14.79	14.82	14.88	16.5	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	14.73	14.86	14.75	16.5	0.0

n78

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				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1	14.80	14.78	14.88		
100	PI/2 BPSK	1	137	15.02	15.02	14.82	16.5	0.0
100	PI/2 BPSK	1	271	14.80	15.03	14.92		
100	PI/2 BPSK	135	0	14.99	15.03	14.81		
100	PI/2 BPSK	135	69	14.98	14.98	15.08	16.5	0.0
100	PI/2 BPSK	135	138	14.81	14.80	14.85		
100	PI/2 BPSK	270	0	14.95	14.94	14.78	16.0	0.0
100	QPSK	1	1	14.95	15.06	15.01		
100	QPSK	1	137	14.77	14.95	14.89	16.5	0.0
100	QPSK	1	271	14.88	14.96	14.80		
100	QPSK	135	0	14.70	15.01	14.85		
100	QPSK	135	69	15.00	15.08	14.91	16.5	0.0
100	QPSK	135	138	14.90	15.10	14.89		
100	QPSK	270	0	14.81	15.00	14.99	15.5	0.0
100	16QAM	1	1	14.42	14.53	14.29	15.5	0.0
100	64QAM	1	1	14.74	14.96	14.87	14.0	0.0
100	256QAM	1	1	14.81	14.89	14.86	12.0	0.0
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	14.79	14.92	14.60	16.5	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	14.74	14.73	14.72	16.5	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	14.71	14.77	17.82	16.5	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	14.75	14.70	14.73	16.5	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	1	14.85	14.96	14.80	16.5	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	14.26	14.39	14.25	16.5	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	14.68	14.80	14.73	16.5	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	14.71	14.77	14.64	16.5	0.0

Reduced power Mode for Handheld On for ANT4

n77

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				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	PI/2 BPSK	1	1	16.33	16.41	16.23	18.0	0.0
100	PI/2 BPSK	1	137	16.57	16.62	16.56		
100	PI/2 BPSK	1	271	16.46	16.53	16.46		
100	PI/2 BPSK	135	0	16.41	16.42	16.34	18.0	0.0
100	PI/2 BPSK	135	69	16.62	16.62	16.55		
100	PI/2 BPSK	135	138	16.43	16.51	16.36		
100	PI/2 BPSK	270	0	16.48	16.48	16.43	18.0	0.0
100	QPSK	1	1	16.42	16.63	16.33	18.0	0.0
100	QPSK	1	137	16.55	16.62	16.46		
100	QPSK	1	271	16.51	16.52	16.45		
100	QPSK	135	0	16.41	16.50	16.36	18.0	0.0
100	QPSK	135	69	16.50	16.57	16.42		
100	QPSK	135	138	16.46	16.50	16.40		
100	QPSK	270	0	16.47	16.53	16.38	18.0	0.0
100	16QAM	1	1	16.24	16.27	16.16	18.0	0.0
100	64QAM	1	1	16.29	16.36	16.21	18.0	0.0
100	256QAM	1	1	16.06	16.25	16.25	18.0	0.0
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	1	16.17	16.23	16.35	18.0	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	16.12	16.26	16.12	18.0	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	1	16.29	16.22	16.28	18.0	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	1	16.11	16.15	16.07	18.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	16.21	16.31	16.21	18.0	0.0

n78

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				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1	16.15	16.23	16.17	18.0	0.0
100	PI/2 BPSK	1	137	16.43	16.41	16.34		
100	PI/2 BPSK	1	271	16.31	16.33	16.30		
100	PI/2 BPSK	135	0	16.31	16.32	16.18	18.0	0.0
100	PI/2 BPSK	135	69	16.39	16.34	16.37		
100	PI/2 BPSK	135	138	16.30	16.26	16.23		
100	PI/2 BPSK	270	0	16.26	16.30	16.20	17.5	0.0
100	QPSK	1	1	16.36	16.48	16.36	18.0	0.0
100	QPSK	1	137	16.28	16.37	16.24		
100	QPSK	1	271	16.35	16.38	16.25		
100	QPSK	135	0	16.16	16.35	16.27	18.0	0.0
100	QPSK	135	69	16.31	16.40	16.29		
100	QPSK	135	138	16.29	16.38	16.29		
100	QPSK	270	0	16.32	16.31	16.28	17.0	0.0
100	16QAM	1	1	15.78	15.86	15.80	17.0	0.0
100	64QAM	1	1	16.22	16.31	16.14	15.5	0.0
100	256QAM	1	1	16.28	16.28	16.20	13.5	0.0
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	16.20	16.18	16.14	18.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	16.20	16.12	16.06	18.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	16.21	16.20	16.13	18.0	0.0
Channel				648668	650000	651334	[illegible]	[illegible]
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	16.14	16.18	16.11	18.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	1	16.17	16.17	16.12	18.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	16.25	16.21	16.18	18.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	16.27	16.23	16.19	18.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	16.22	16.21	16.12	18.0	0.0

2.4GHz WLAN	Full Power					Standalone_For Head		Simultaneous_For Head		Standalone_For Body Worn		Simultaneous_For Body Worn & Hotspot		Standalone_For Handheld		Simultaneous_For Handheld		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	19.65	20.00	19.65	20.00	17.12	18.00	18.42	20.00	15.90	17.00	19.65	20.00	18.42	19.50	100.00
		6	2437	19.71	20.50	19.71	20.50	17.23	18.00	18.50	20.00	16.10	17.00	19.71	20.50	18.50	19.50	
		11	2462	19.71	20.50	19.71	20.50	17.32	18.00	18.56	20.00	16.23	17.00	19.71	20.50	18.56	19.50	
	802.11g 6Mbps	1	2412	17.97	19.00	17.97	19.00	Not Required	18.00	Not Required	19.00	Not Required	17.00	17.97	19.00	Not Required	19.00	98.28
		6	2437	18.79	20.00	18.79	20.00		18.00		19.50		17.00	18.79	20.00		19.50	
		11	2462	15.81	16.50	15.81	16.50		16.50		16.50		16.50	15.81	16.50		16.50	
	802.11n-HT20 MCS0	1	2412	16.08	17.50	16.08	17.50		17.50		17.50		17.00	16.08	17.50		17.50	98.16
		6	2437	18.11	19.50	18.11	19.50		18.00		19.50		17.00	18.11	19.50		19.50	
		11	2462	15.40	16.50	15.40	16.50		16.50		16.50		16.50	15.40	16.50		16.50	

5GHz WLAN	Full Power					Standalone_For Head		Simultaneous_For Head		Standalone_For Body Worn		Simultaneous_For Body Worn & Hotspot		Standalone_For Handheld		Simultaneous_For Handheld		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	18.26	19.50	Not Required	15.50	Not Required	14.00	Not Required	16.50	Not Required	14.50	18.26	19.50	Not Required	17.00	98.28
		40	5200	18.37	19.50		15.50		14.00		16.50		14.50	18.37	19.50		17.00	
		44	5220	18.24	19.50		15.50		14.00		16.50		14.50	18.24	19.50		17.00	
		48	5240	18.15	19.50		15.50		14.00		16.50		14.50	18.15	19.50		17.00	
	802.11n-HT20 MCS0	36	5180	17.98	19.50		15.50		14.00		16.50		14.50	17.98	19.50		17.00	98.19
		40	5200	18.09	19.50		15.50		14.00		16.50		14.50	18.09	19.50		17.00	
		44	5220	18.07	19.50		15.50		14.00		16.50		14.50	18.07	19.50		17.00	
		48	5240	17.95	19.50		15.50		14.00		16.50		14.50	17.95	19.50		17.00	
	802.11n-HT40 MCS0	38	5190	15.59	16.50		15.50		14.00	15.59	16.50		14.50	15.59	16.50	15.59	16.50	96.32
		46	5230	17.43	18.50		15.50		14.00	15.29	16.50		14.50	17.43	18.50	15.29	17.00	
	802.11ac-VHT20 MCS0	36	5180	16.04	17.50		15.50		14.00	Not Required	16.50		14.50	16.04	17.50	Not Required	17.00	97.79
		40	5200	16.14	17.50		15.50		14.00		16.50		14.50	16.14	17.50		17.00	
		44	5220	16.05	17.50		15.50		14.00		16.50		14.50	16.05	17.50		17.00	
		48	5240	16.08	17.50		15.50		14.00		16.50		14.50	16.08	17.50		17.00	
	802.11ac-VHT40 MCS0	38	5190	16.49	17.50		15.50		14.00		16.50		14.50	16.49	17.50		17.00	96.32
		46	5230	16.38	17.50		15.50		14.00		16.50		14.50	16.38	17.50		17.00	
	802.11ac-VHT80 MCS0	42	5210	14.70	16.00	14.12	15.50	12.59	14.00		16.00	13.11	14.50	14.70	16.00		16.00	92.15

5GHz WLAN	Full Power					Standalone_For Head		Simultaneous_For Head		Standalone_For Body Worn		Simultaneous_For Body Worn		Standalone_For Handheld		Simultaneous_For Handheld		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	18.34	19.50	Not Required	15.50	Not Required	14.00	Not Required	15.50	Not Required	13.50	18.34	19.50	Not Required	17.00	98.28
		56	5280	18.71	19.50		15.50		14.00		15.50		13.50	18.71	19.50		17.00	
		60	5300	19.03	19.50		15.50		14.00		15.50		13.50	19.03	19.50		17.00	
		64	5320	17.68	18.00		15.50		14.00		15.50		13.50	17.68	18.00		17.00	
	802.11n-HT20 MCS0	52	5260	18.14	19.50		15.50		14.00		15.50		13.50	18.14	19.50		17.00	98.19
		56	5280	18.46	19.50		15.50		14.00		15.50		13.50	18.46	19.50		17.00	
		60	5300	18.78	19.50		15.50		14.00		15.50		13.50	18.78	19.50		17.00	
		64	5320	17.67	18.00		15.50		14.00		15.50		13.50	17.67	18.00		17.00	
	802.11n-HT40 MCS0	54	5270	17.53	18.50	14.55	15.50	13.09	14.00	14.55	15.50	12.69	13.50	17.53	18.50	15.93	17.00	96.32
		62	5310	15.21	15.50	15.21	15.50	13.81	14.00	15.21	15.50	13.33	13.50	15.21	15.50	15.21	15.50	
	802.11ac-VHT20 MCS0	52	5260	16.29	17.50	Not Required	15.50	Not Required	14.00	Not Required	15.50	Not Required	13.50	16.29	17.50	Not Required	17.00	97.79
		56	5280	16.54	17.50		15.50		14.00		15.50		13.50	16.54	17.50		17.00	
		60	5300	16.95	17.50		15.50		14.00		15.50		13.50	16.95	17.50		17.00	
		64	5320	17.38	17.50		15.50		14.00		15.50		13.50	17.38	17.50		17.00	
	802.11ac-VHT40 MCS0	54	5270	16.63	17.50		15.50		14.00		15.50		13.50	16.63	17.50		17.00	96.32
		62	5310	17.37	17.50		15.50		14.00		15.50		13.50	17.37	17.50		17.00	
	802.11ac-VHT80 MCS0	58	5290	11.79	12.50		12.50		12.50		12.50		12.50	11.79	12.50		12.50	92.15

5GHz WLAN	Full Power					Standalone_For Head		Simultaneous_For Head		Standalone_For Body Worn		Simultaneous_For Body Worn		Standalone_For Handheld		Simultaneous_For Handheld		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	17.95	19.50	Not Required	15.50	Not Required	13.50	Not Required	15.50	Not Required	13.50	17.95	19.50	Not Required	16.50	98.28
		116	5580	18.65	19.50		15.50		13.50		15.50		13.50	18.65	19.50		16.50	
		124	5620	19.01	19.50		15.50		13.50		15.50		13.50	19.01	19.50		16.50	
		132	5660	18.44	19.50		15.50		13.50		15.50		13.50	18.44	19.50		16.50	
		140	5700	17.60	18.50		15.50		13.50		15.50		13.50	17.60	18.50		16.50	
		144	5720	18.25	19.50		15.50		13.50		15.50		13.50	18.25	19.50		16.50	
	802.11n-HT20 MCS0	100	5500	17.77	19.50		15.50		13.50		15.50		13.50	17.77	19.50		16.50	98.19
		116	5580	18.51	19.50		15.50		13.50		15.50		13.50	18.51	19.50		16.50	
		124	5620	18.78	19.50		15.50		13.50		15.50		13.50	18.78	19.50		16.50	
		132	5660	18.38	19.50		15.50		13.50		15.50		13.50	18.38	19.50		16.50	
		140	5700	16.56	17.50		15.50		13.50		15.50		13.50	16.56	17.50		16.50	
		144	5720	18.09	19.50		15.50		13.50		15.50		13.50	18.09	19.50		16.50	
	802.11n-HT40 MCS0	102	5510	15.75	17.00		15.50		13.50		15.50		13.50	15.75	17.00		16.50	96.32
		110	5550	17.42	18.50		15.50		13.50		15.50		13.50	17.42	18.50		16.50	
		126	5630	18.00	18.50		15.50		13.50		15.50		13.50	18.00	18.50		16.50	
		134	5670	17.78	18.50		15.50		13.50		15.50		13.50	17.78	18.50		16.50	
		142	5710	17.72	18.50		15.50		13.50		15.50		13.50	17.72	18.50		16.50	
	802.11ac-VHT20 MCS0	100	5500	15.98	17.50		15.50		13.50		15.50		13.50	15.98	17.50		16.50	97.79
		116	5580	16.58	17.50		15.50		13.50		15.50		13.50	16.58	17.50		16.50	
		124	5620	16.94	17.50		15.50		13.50		15.50		13.50	16.94	17.50		16.50	
		132	5660	16.58	17.50		15.50		13.50		15.50		13.50	16.58	17.50		16.50	
		140	5700	16.84	17.50		15.50		13.50		15.50		13.50	16.84	17.50		16.50	
		144	5720	16.16	17.50		15.50		13.50		15.50		13.50	16.16	17.50		16.50	
	802.11ac-VHT40 MCS0	102	5510	16.41	17.50		15.50		13.50		15.50		13.50	16.41	17.50		16.50	96.32
		110	5550	16.63	17.50		15.50		13.50		15.50		13.50	16.63	17.50		16.50	
		126	5630	17.11	17.50		15.50		13.50		15.50		13.50	17.11	17.50		16.50	
		134	5670	16.89	17.50		15.50		13.50		15.50		13.50	16.89	17.50		16.50	
		142	5710	16.82	17.50		15.50		13.50		15.50		13.50	16.82	17.50		16.50	
	802.11ac-VHT80 MCS0	106	5530	12.97	14.50	12.97	14.50	12.06	13.50	12.97	14.50	12.06	13.50	12.97	14.50	12.97	14.50	92.15
		122	5610	16.98	17.50	14.79	15.50	12.81	13.50	14.79	15.50	12.81	13.50	16.98	17.50	15.84	16.50	
		138	5690	16.53	17.50	14.45	15.50	12.44	13.50	14.45	15.50	12.44	13.50	16.53	17.50	15.39	16.50	

5GHz WLAN	Full Power					Standalone_For Head		Simultaneous_For Head		Standalone_For Body Worn		Simultaneous_For Body Worn & Hotspot		Standalone_For Handheld		Simultaneous_For Handheld		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	17.84	19.50	Not Required	15.00	Not Required	13.50	Not Required	15.50	Not Required	13.50	17.84	19.50	Not Required	16.00	98.28
		157	5785	17.40	19.00		15.00		13.50		15.50		13.50	17.40	19.00		16.00	
		165	5825	18.25	19.50		15.00		13.50		15.50		13.50	18.25	19.50		16.00	
	802.11n-HT20 MCS0	149	5745	17.64	19.50		15.00		13.50		15.50		13.50	17.64	19.50		16.00	98.19
		157	5785	17.14	19.00		15.00		13.50		15.50		13.50	17.14	19.00		16.00	
		165	5825	18.12	19.50		15.00		13.50		15.50		13.50	18.12	19.50		16.00	
	802.11n-HT40 MCS0	151	5755	16.95	18.50		15.00		13.50		15.50		13.50	16.95	18.50		16.00	96.32
		159	5795	16.60	18.50		15.00		13.50		15.50		13.50	16.60	18.50		16.00	
	802.11ac-VHT20 MCS0	149	5745	15.68	17.50		15.00		13.50		15.50		13.50	15.68	17.50		16.00	97.79
		157	5785	15.22	17.00		15.00		13.50		15.50		13.50	15.22	17.00		16.00	
		165	5825	16.17	17.50		15.00		13.50		15.50		13.50	16.17	17.50		16.00	
	802.11ac-VHT40 MCS0	151	5755	16.03	17.50		15.00		13.50		15.50		13.50	16.03	17.50		16.00	96.32
		159	5795	15.61	17.50		15.00		13.50		15.50		13.50	15.61	17.50		16.00	
	802.11ac-VHT80 MCS0	155	5775	15.35	17.00	13.36	15.00	11.88	13.50	13.88	15.50	11.88	13.50	15.35	17.00	14.28	16.00	92.15

BT EDR

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	11.17	9.03	9.26
	CH 39	2441	10.08	7.54	7.56
	CH 78	2480	10.23	8.36	8.42
Tune-up Limit			12		

BT LE

Mode	Channel	Frequency (MHz)	Average power (dBm)
			GFSK
LE	CH 00	2402	4.66
	CH 19	2440	4.10
	CH 39	2480	5.80
Tune-up Limit			6.00

BT LE v5.0

Mode	Channel	Frequency (MHz)	Average power (dBm)
			1Mbps
LE	CH 00	2402	4.45
	CH 19	2440	4.06
	CH 39	2480	5.75
Tune-up Limit			6.00

Appendix F. Supplemental Tuner Head & Body SAR Results

The results are shown as follows.

Head

Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																				
									Auto-Tune	0	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136		
WCDMA II	RMC 12.2Kbps	9400	1880	-	-	Right Cheek	0mm	0.270	0.363	0.092	0.331	0.140	0.302	0.218	0.223	0.125	0.210	0.179	0.088	0.212	0.131	0.239	0.206	0.225	0.134	0.216	0.191		
Full Power																													
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																				
									Auto-Tune	1	9	17	25	33	41	49	57	65	73	81	89	97	105	113	121	129	137		
WCDMA IV	RMC 12.2Kbps	1413	1732.6	-	-	Right Cheek	0mm	0.179	0.242	0.182	0.082	0.162	0.083	0.109	0.142	0.193	0.108	0.133	0.180	0.082	0.155	0.079	0.107	0.130	0.167	0.103	0.128		
Full Power																													
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																				
									Auto-Tune	2	10	18	26	34	42	50	58	66	74	82	90	98	106	114	122	130	138		
WCDMA V	RMC 12.2Kbps	4182	836.4	-	-	Right Cheek	0mm	0.396	0.470	0.109	0.064	0.034	0.382	0.421	0.462	0.436	0.365	0.209	0.117	0.074	0.041	0.368	0.467	0.446	0.358	0.373	0.210		
Full Power																													
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																				
									Auto-Tune	3	11	19	27	35	43	51	59	67	75	83	91	99	107	115	123	131	139		
LTE Band 2	20M / QPSK	18900	1880	1	0	Right Cheek	0mm	0.238	0.322	0.116	0.066	0.122	0.100	0.263	0.310	0.095	0.116	0.128	0.115	0.060	0.118	0.099	0.230	0.290	0.100	0.111	0.124		
Full Power																													
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																				
									Auto-Tune	4	12	20	28	36	44	52	60	68	76	84	92	100	108	116	124	132	140		
LTE Band 12	10M / QPSK	23095	707.5	1	0	Right Cheek	0mm	0.193	0.222	0.159	0.110	0.072	0.065	0.203	0.219	0.113	0.094	0.152	0.198	0.211	0.215	0.084	0.103	0.144	0.163	0.036	0.111		
Full Power																													
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																				
									Auto-Tune	5	13	21	29	37	45	53	61	69	77	85	93	101	109	117	125	133	141		
LTE Band 13	10M / QPSK	23230	782	1	0	Right Cheek	0mm	0.354	0.413	0.184	0.146	0.093	0.098	0.293	0.118	0.252	0.135	0.156	0.261	0.230	0.141	0.148	0.147	0.049	0.248	0.135	0.162		
Full Power																													
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																				
									Auto-Tune	6	14	22	30	38	46	54	62	70	78	86	94	102	110	118	126	134	142		
LTE Band 26	15M / QPSK	26865	831.5	1	0	Left Cheek	0mm	0.314	0.372	0.325	0.229	0.211	0.133	0.122	0.083	0.037	0.354	0.361	0.362	0.261	0.231	0.147	0.138	0.094	0.034	0.329	0.345		
Full Power																													
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																				
									Auto-Tune	7	15	23	31	39	47	55	63	71	79	87	95	103	111	119	127	135	143		
LTE Band 66	20M / QPSK	132322	1745	1	0	Right Cheek	0mm	0.194	0.258	0.162	0.173	0.103	0.126	0.164	0.174	0.163	0.149	0.083	0.157	0.168	0.105	0.125	0.154	0.168	0.159	0.137	0.077		
Full Power																													

Body

Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																			
									Auto-Tune	0	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136
WCDMA II	RMC 12.2Kbps	9400	1880	-	-	Back	5mm	0.930	1.120	0.416	0.655	0.429	0.707	0.960	0.733	0.486	0.714	0.696	1.000	0.656	0.409	0.695	0.685	0.751	0.529	0.724	0.719
Sensor on																												
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																			
									Auto-Tune	1	9	17	25	33	41	49	57	65	73	81	89	97	105	113	121	129	137
WCDMA IV	RMC 12.2Kbps	1413	1732.6	-	-	Back	5mm	0.844	1.080	0.984	0.442	0.982	0.583	0.726	0.889	1.016	0.760	0.889	0.981	0.445	0.962	0.572	0.718	0.851	1.000	0.736	0.865
Sensor on																												
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																			
									Auto-Tune	2	10	18	26	34	42	50	58	66	74	82	90	98	106	114	122	130	138
WCDMA V	RMC 12.2Kbps	4182	836.4	-	-	Back	5mm	0.901	1.070	0.211	0.131	0.089	0.894	0.961	0.708	0.551	0.659	0.356	0.202	0.127	0.075	0.442	0.762	0.671	0.522	0.634	0.316
Sensor on																												
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																			
									Auto-Tune	3	11	19	27	35	43	51	59	67	75	83	91	99	107	115	123	131	139
LTE Band 2	20M / QPSK	18900	1880	1	0	Back	5mm	0.846	1.060	0.674	0.391	0.694	0.545	0.792	0.815	0.583	0.711	0.765	0.660	0.361	0.686	0.537	0.862	0.921	0.611	0.686	0.755
Sensor on																												
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																			
									Auto-Tune	4	12	20	28	36	44	52	60	68	76	84	92	100	108	116	124	132	140
LTE Band 12	10M / QPSK	23095	707.5	1	0	Back	5mm	0.395	0.630	0.181	0.252	0.112	0.480	0.580	0.441	0.320	0.170	0.110	0.060	0.139	0.261	0.130	0.511	0.410	0.311	0.214	0.330
Full Power																												
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																			
									Auto-Tune	5	13	21	29	37	45	53	61	69	77	85	93	101	109	117	125	133	141
LTE Band 13	10M / QPSK	23230	782	1	0	Back	5mm	0.839	1.420	0.743	0.582	0.386	0.402	0.810	0.371	1.159	0.951	0.715	0.990	0.846	0.523	0.523	0.625	0.246	1.210	0.644	0.737
Full Power																												
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																			
									Auto-Tune	6	14	22	30	38	46	54	62	70	78	86	94	102	110	118	126	134	142
LTE Band 26	15M / QPSK	26865	831.5	1	0	Back	5mm	0.948	1.140	0.722	0.531	0.547	0.336	0.209	0.141	0.071	0.551	0.802	0.550	0.412	0.425	0.259	0.155	0.103	0.812	0.381	0.458
Full Power																												
Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																			
									Auto-Tune	7	15	23	31	39	47	55	63	71	79	87	95	103	111	119	127	135	143
LTE Band 66	20M / QPSK	132072	1720	1	0	Back	5mm	0.900	1.460	1.247	1.338	0.909	1.068	1.270	1.249	0.102	0.231	0.731	1.226	0.639	0.892	0.456	0.321	1.219	1.319	0.026	0.697
Hotspot on																												

verified for SAR higher than 1.2W/Kg

(Antenna #0, Slave ID=6)

Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																						
									Auto-Tune	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
										0.416	0.471	0.508	0.581	0.633	0.635	0.661	0.674	0.655	0.161	0.249	0.325	0.344	0.391	0.395	0.418	0.429	0.447	0.581	0.624	0.647
										21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
										0.686	0.704	0.709	0.707	0.703	0.711	0.458	0.576	0.661	0.662	0.689	0.960	0.990	0.870	1.080	0.598	0.651	0.678	0.721	0.733	0.737
										42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62
										0.736	0.734	0.731	0.297	0.409	0.487	0.486	0.508	0.508	0.514	0.512	0.508	0.691	0.711	0.714	0.693	0.673	0.674	0.655	0.642	0.634
										63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
WCDMA II	RMC 12.2Kbps	9400	1880	-	-	Back	5mm	0.93	1.120	0.602	0.696	0.716	0.980	1.030	1.050	1.010	0.890	0.980	1.000	0.407	0.461	0.497	0.673	0.622	0.627	0.649	0.656	0.677	0.159	0.245
										84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104
										0.318	0.337	0.381	0.386	0.409	0.418	0.568	0.614	0.633	0.674	0.694	0.699	0.695	0.693	0.701	0.451	0.561	0.631	0.648	0.678	0.685
										105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125
										0.695	0.693	0.706	0.639	0.691	0.717	0.745	0.751	0.748	0.744	0.738	0.729	0.339	0.463	0.521	0.529	0.543	0.541	0.539	0.534	0.522
										126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143			
										0.714	0.721	0.724	0.692	0.656	0.654	0.632	0.618	0.603	0.632	0.719	0.727	0.722	0.699	0.704	0.685	0.674	0.666			

Sensor on

(Antenna #0, Slave ID=6)

Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																						
									Auto-Tune	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
										0.897	0.984	1.022	1.042	1.001	0.988	0.964	0.944	0.895	0.442	0.748	0.952	0.983	1.026	1.023	1.019	1.010	0.982	1.028	1.022	0.978
										21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
										0.825	0.068	0.103	0.102	0.210	0.059	0.630	1.035	0.947	0.898	0.795	0.781	0.726	0.697	0.646	0.828	0.923	0.953	0.959	0.902	0.889
										42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62
										0.871	0.829	0.781	0.414	0.728	0.951	0.981	1.016	1.015	1.003	0.982	0.935	1.019	1.015	0.961	0.760	0.607	0.589	0.575	0.502	0.446
										63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
WCDMA IV	RMC 12.2Kbps	1413	1732.6	-	-	Back	5mm	0.844	1.080	0.802	0.998	0.889	0.831	0.710	0.702	0.635	0.068	0.055	0.103	0.981	1.017	1.032	0.991	0.981	0.953	0.929	0.889	0.445	0.748	0.945
										84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104
										0.974	1.012	1.009	1.004	0.998	0.962	1.014	1.013	0.968	0.813	0.676	0.661	0.603	0.572	0.522	0.709	1.029	0.942	0.891	0.798	0.773
										105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125
										0.718	0.688	0.637	0.789	0.883	0.922	0.920	0.865	0.851	0.812	0.789	0.739	0.391	0.693	0.926	0.958	1.000	0.996	0.982	0.971	0.917
										126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143			
										1.009	1.011	0.948	0.736	0.412	0.054	0.056	0.477	0.427	0.764	0.974	0.865	0.802	0.685	0.666	0.222	0.105	0.089			

Sensor on

(Antenna #0, Slave ID=6)

Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																						
									Auto-Tune	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
										0.114	0.162	0.211	0.364	0.583	0.656	0.963	0.893	1.010	0.060	0.131	0.259	0.333	0.506	0.584	0.701	0.749	0.847	0.089	0.123	0.168
										21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
										0.338	0.663	0.757	0.809	0.778	0.468	0.062	0.132	0.349	0.401	0.777	0.856	0.982	0.963	0.484	0.103	0.146	0.192	0.331	0.549	0.612
										42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62
										0.708	0.743	0.730	0.057	0.123	0.241	0.312	0.481	0.551	0.965	0.895	0.963	0.058	0.089	0.127	0.288	0.659	0.770	0.795	0.743	0.406
										63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
WCDMA V	RMC 12.2Kbps	4182	836.4	-	-	Back	5mm	0.901	1.070	0.038	0.094	0.237	0.356	0.661	1.010	0.999	0.896	0.875	0.108	0.155	0.202	0.354	0.534	0.643	0.742	0.777	0.782	0.058	0.127	0.211
										84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104
										0.327	0.501	0.573	0.691	0.741	0.826	0.075	0.110	0.151	0.317	0.666	0.765	0.806	0.771	0.442	0.052	0.115	0.268	0.383	0.666	0.763
										105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125
										0.797	0.762	0.455	0.095	0.134	0.177	0.311	0.516	0.581	0.671	0.702	0.684	0.054	0.114	0.225	0.293	0.449	0.522	0.628	0.671	0.731
										126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143			
										0.045	0.069	0.103	0.254	0.634	0.755	0.781	0.721	0.379	0.028	0.076	0.206	0.316	0.637	0.747	0.778	0.721	0.397			

Sensor on

(Antenna #0, Slave ID=6)

Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																						
									Auto-Tune	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
										0.257	0.316	0.375	0.512	0.683	0.743	0.836	0.884	1.081	0.152	0.261	0.394	0.454	0.582	0.639	0.727	0.767	0.901	0.224	0.262	0.285
										21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
										0.386	0.495	0.504	0.539	0.602	0.730	0.249	0.272	0.402	0.426	0.515	0.546	0.563	0.641	0.696	0.631	0.810	0.964	1.240	1.350	1.349
										42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62
										1.327	1.302	1.145	0.371	0.696	1.046	1.150	1.265	1.272	1.256	1.240	1.099	0.450	0.591	0.700	0.831	0.780	0.741	0.670	0.648	0.515
										63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
LTE Band 13	10M / QPSK	23230	782	1	0	Back	5mm	0.839	1.420	0.328	0.627	0.861	0.880	0.830	0.788	0.715	0.683	0.546	0.438	0.531	0.608	0.782	0.950	0.990	1.050	1.078	1.160	0.281	0.455	0.590
										84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104
										0.715	0.846	0.882	0.941	0.972	1.055	0.330	0.387	0.434	0.523	0.569	0.616	0.632	0.633	0.634	0.276	0.402	0.523	0.567	0.622	0.645
										105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125
										0.661	0.662	0.663	0.440	0.625	0.710	1.250	1.412	1.385	1.411	1.408	1.110	0.246	0.546	1.021	1.227	1.370	1.390	1.350	1.410	1.120
										126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143			
										0.293	0.465	0.661	1.069	0.998	0.855	0.702	0.644	0.439	0.170	0.470	0.994	1.096	0.988	0.884	0.737	0.671	0.460			

Full Power

(Antenna #0, Slave ID=6)

Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																						
									Auto-Tune	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
										0.110	0.151	0.195	0.330	0.534	0.610	1.032	0.999	1.031	0.059	0.101	0.237	0.303	0.459	0.531	0.986	1.032	0.871	0.087	0.119	0.155
										21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
										0.286	0.547	0.652	0.774	0.801	0.619	0.063	0.125	0.297	0.336	0.557	0.659	0.781	0.801	0.630	0.118	0.162	0.209	0.354	0.356	0.652
										42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62
										0.757	0.804	0.863	0.069	0.141	0.267	0.338	0.512	0.588	0.707	0.761	0.883	0.071	0.104	0.142	0.291	0.602	0.963	0.998	1.030	1.000
										63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
LTE Band 26	15M / QPSK	26865	831.5	1	0	Back	5mm	0.948	1.140	0.049	0.110	0.246	0.348	0.604	0.711	0.991	1.030	0.856	0.084	0.115	0.150	0.254	0.410	0.469	0.550	0.591	0.655	0.047	0.097	0.155
										84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104
										0.237	0.358	0.412	0.505	0.545	0.660	0.059	0.083	0.111	0.216	0.425	0.509	0.596	0.604	0.446	0.043	0.088	0.188	0.259	0.439	0.519
										105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125
										0.593	0.607	0.454	0.087	0.120	0.155	0.265	0.428	0.496	0.565	0.599	0.627	0.058	0.103	0.197	0.252	0.380	0.437	0.528	0.691	0.752
										126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143			
										0.812	0.855	0.042	0.711	0.625	0.616	0.523	0.455	0.381	0.272	0.105	0.048	0.021	0.152	0.272	0.315	0.458	0.618			

Full Power

(Antenna #0, Slave ID=6)

Mode	Service/ Modulation	Channel	Frequency (MHz)	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)																						
									Auto-Tune	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
										1.147	1.285	1.343	1.384	1.330	1.318	1.276	1.247	1.185	0.036	0.012	0.103	0.423	1.347	1.348	1.338	1.326	1.270	1.311	1.340	1.302
										21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
										1.122	0.111	0.103	0.032	0.412	0.102	0.963	0.892	0.936	1.205	1.068	1.048	0.971	0.933	0.853	1.055	1.190	1.251	1.270	1.194	1.188
										42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62
										1.132	1.105	1.030	0.529	0.856	1.249	1.295	1.340	1.330	1.314	1.287	1.210	1.296	0.602	1.282	1.040	0.321	0.523	0.215	0.681	0.606
										63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
LTE Band 66	20M / QPSK	132072	1720	1	0	Back	5mm	0.9	1.460	0.976	1.306	1.192	1.117	0.312	0.120	0.032	0.156	0.321	1.131	1.262	1.328	1.364	1.302	1.303	1.255	1.226	1.165	0.567	0.977	1.186
										84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104
										1.288	1.325	1.330	1.314	1.307	1.252	1.297	1.327	1.286	1.095	0.523	0.457	0.112	0.258	0.136	1.060	1.336	1.245	1.177	1.050	1.031
										105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125
										0.310	0.102	0.089	1.003	1.147	1.211	1.229	1.148	1.136	1.077	1.048	0.562	0.498	0.907	1.219	1.265	1.311	1.303	1.283	1.264	1.192
										126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143			
										1.267	1.319	1.264	1.010	0.800	0.774	0.680	0.648	0.573	0.933	1.269	1.166	1.086	0.922	0.892	0.819	0.775	0.697			

Sensor on