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Accreditation No.: **SCS 0108**

Client **Sporton**

Certificate No: **EX3-3843_Sep20**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3843**

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 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

Calibrated by:	Name Michael Weber	Function Laboratory Technician	Signature
Approved by:	Name Katja Pokovic	Function Technical Manager	Signature
			Issued: September 30, 2020
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			



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Glossary:

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

Calibration is Performed According to the Following Standards:

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

Methods Applied and Interpretation of Parameters:

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

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3843

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.34	0.36	0.26	
DCP (mV) ^B	110.3	104.4	106.5	± 10.1 %

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Unc ^E (k=2)
0	CW	X	0.0	0.0	1.0	0.00	187.4	± 2.2 %	± 4.7 %
		Y	0.0	0.0	1.0		173.2		
		Z	0.0	0.0	1.0		179.7		

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 E²-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:3843

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	146.7
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

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

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3843

Calibration Parameter Determined in Head Tissue Simulating Media

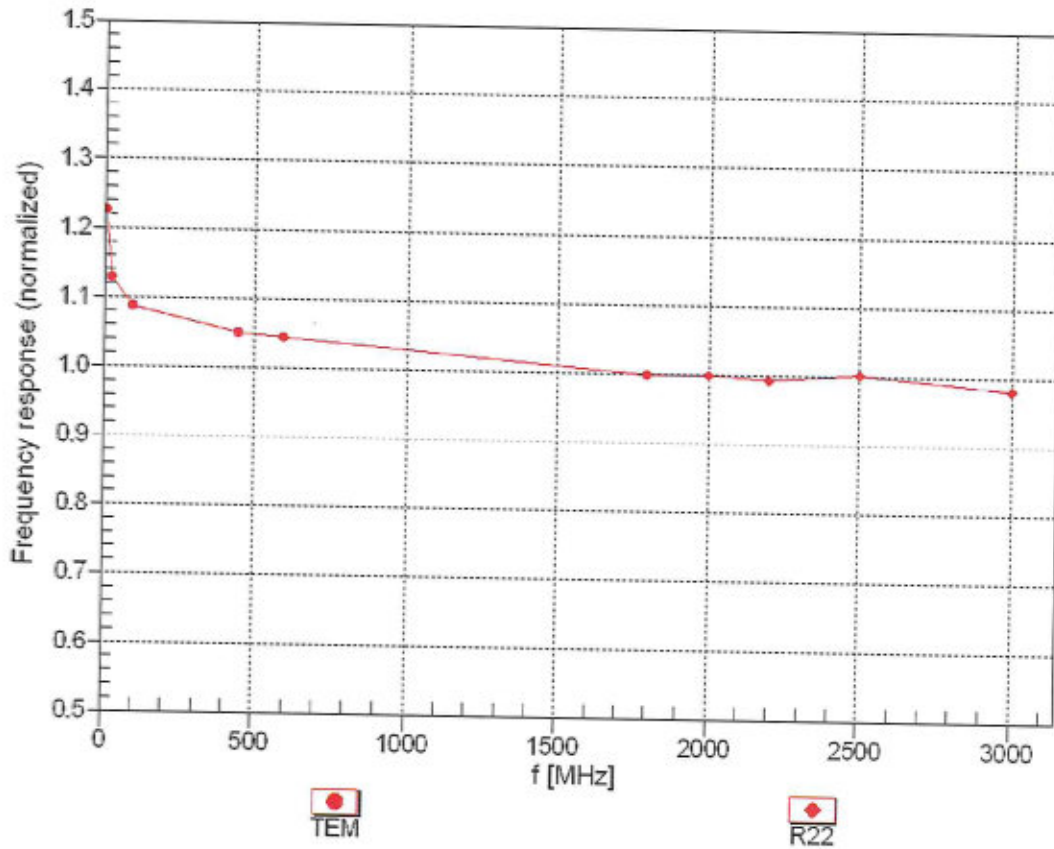
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	41.9	0.89	9.06	9.06	9.06	0.36	1.11	± 12.0 %
835	41.5	0.90	8.69	8.69	8.69	0.35	1.01	± 12.0 %
900	41.5	0.97	8.62	8.62	8.62	0.41	0.96	± 12.0 %
1450	40.5	1.20	7.82	7.82	7.82	0.47	0.80	± 12.0 %
1750	40.1	1.37	7.72	7.72	7.72	0.30	0.88	± 12.0 %
1900	40.0	1.40	7.41	7.41	7.41	0.27	0.88	± 12.0 %
2000	40.0	1.40	7.39	7.39	7.39	0.32	0.88	± 12.0 %
2300	39.5	1.67	7.06	7.06	7.06	0.28	0.90	± 12.0 %
2450	39.2	1.80	6.85	6.85	6.85	0.21	0.90	± 12.0 %
2600	39.0	1.96	6.76	6.76	6.76	0.41	0.90	± 12.0 %
5250	35.9	4.71	4.66	4.66	4.66	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.30	4.30	4.30	0.40	1.80	± 13.1 %
5750	35.4	5.22	4.35	4.35	4.35	0.40	1.80	± 13.1 %

^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.

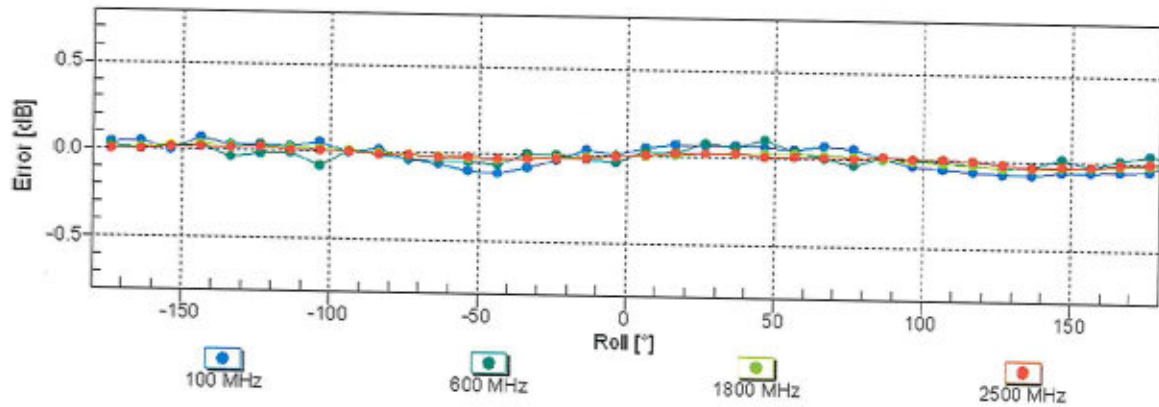
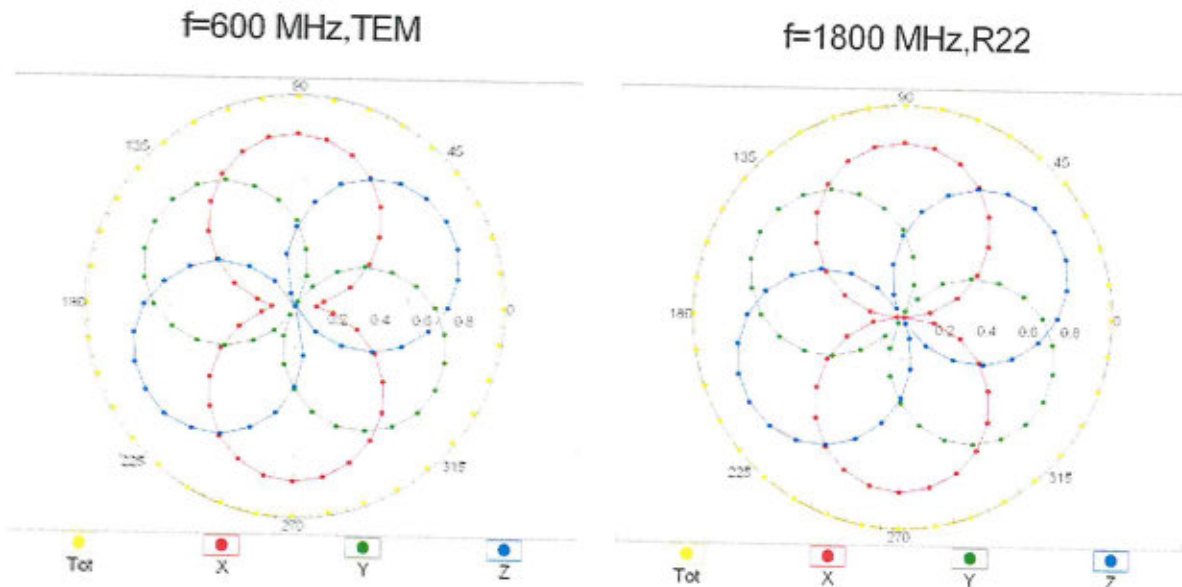
^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from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

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



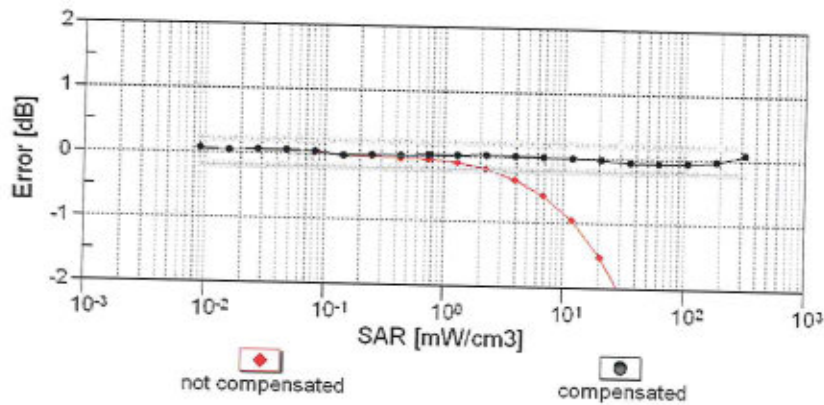
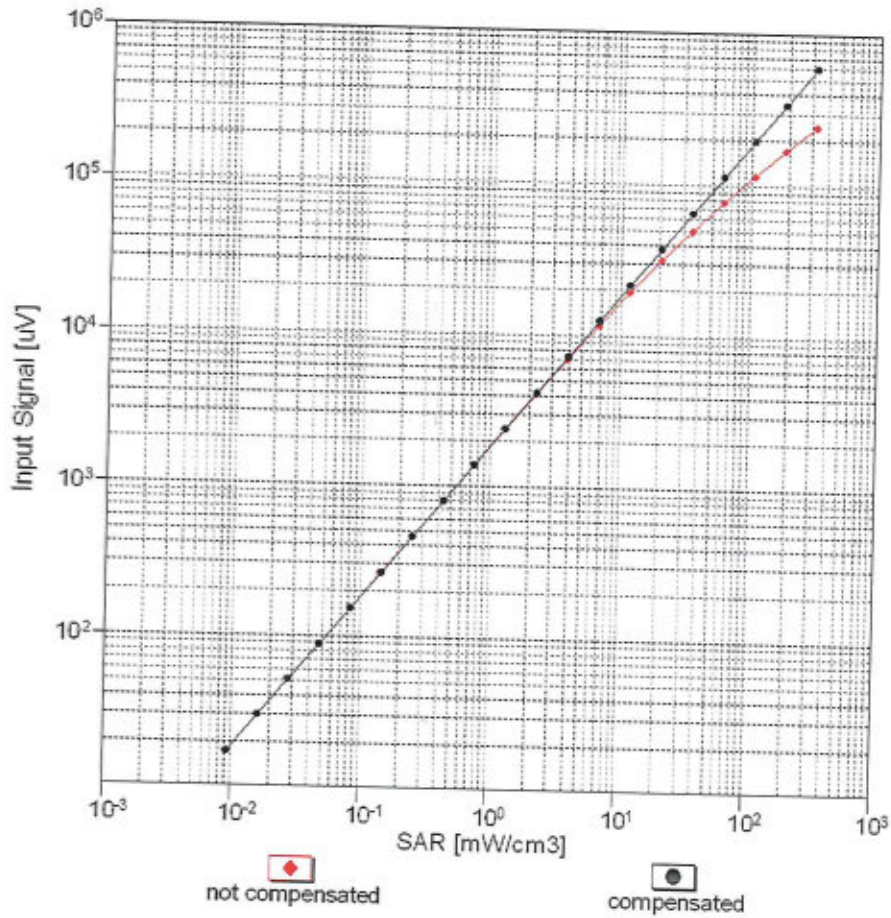
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ (k=2)

Receiving Pattern (ϕ), $\vartheta = 0^\circ$



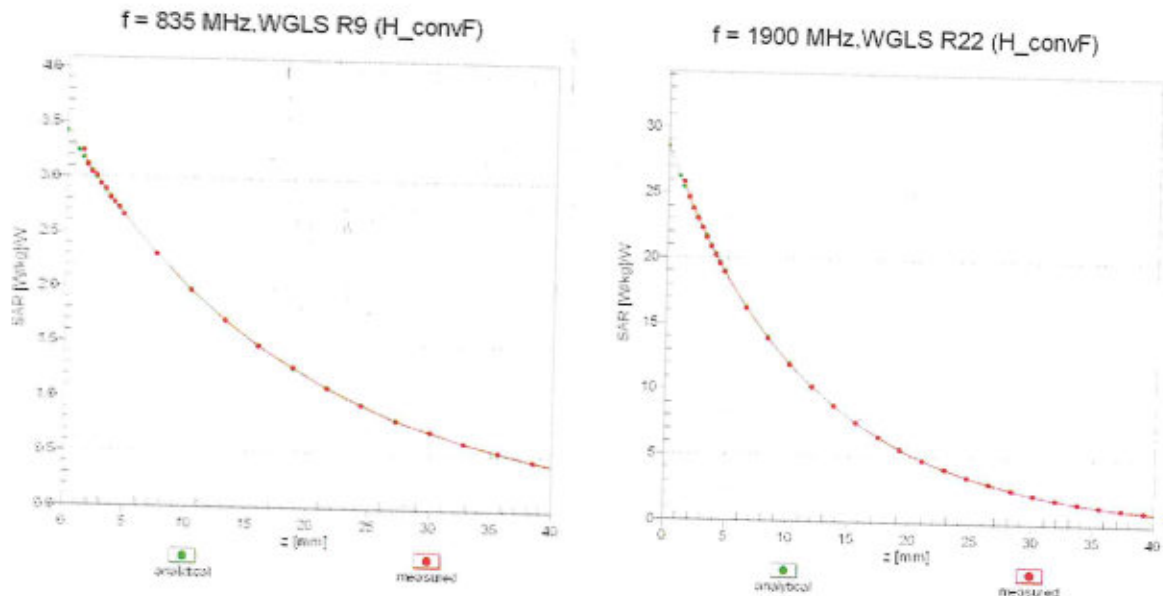
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

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

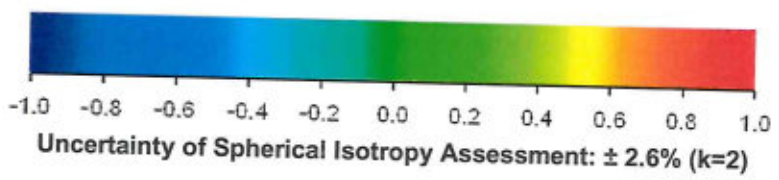
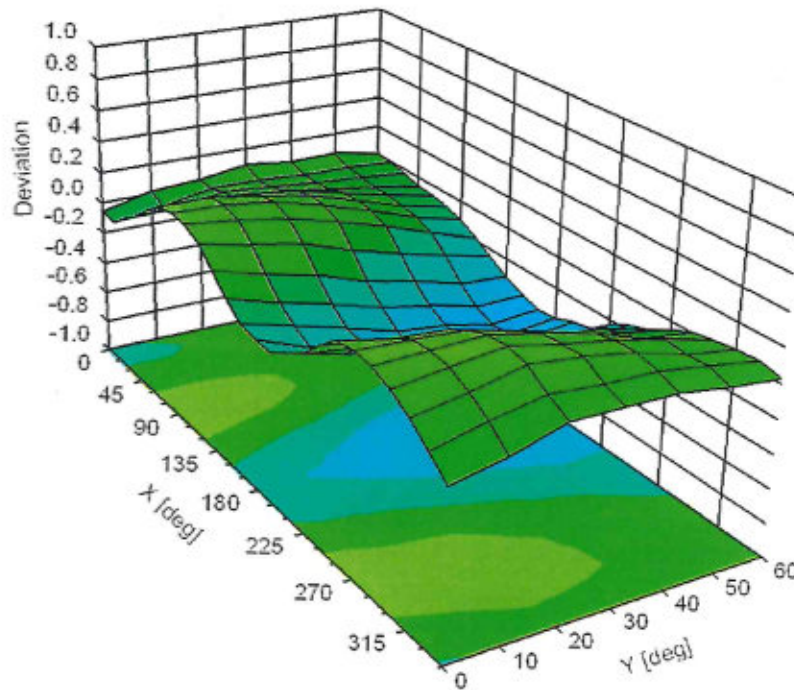


Uncertainty of Linearity Assessment: $\pm 0.6\%$ (k=2)

Conversion Factor Assessment



Deviation from Isotropy in Liquid Error (ϕ, θ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment: $\pm 2.6\%$ (k=2)



Appendix E. Conducted RF Output Power Table

The detailed power table are shown as follows.



GSM850 Ant1_Default

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel	824.2	836.4	848.8		824.2	836.4	848.8	
Frequency (MHz)								
GSM 1 Tx slot	32.77	32.52	32.54	33.50	23.77	23.52	23.54	24.50
GPRS 1 Tx slot	32.62	32.40	32.57	33.50	23.62	23.40	23.57	24.50
GPRS 2 Tx slots	30.63	30.72	30.54	31.00	24.63	24.72	24.54	25.00
GPRS 3 Tx slots	28.56	28.51	28.25	29.00	24.30	24.25	23.99	24.74
GPRS 4 Tx slots	27.08	26.96	26.68	28.00	24.08	23.96	23.68	25.00
EDGE 1 Tx slot	26.70	26.54	26.65	28.00	17.70	17.54	17.65	19.00
EDGE 2 Tx slots	24.26	24.69	24.37	25.50	18.26	18.69	18.37	19.50
EDGE 3 Tx slots	23.07	23.17	23.56	24.00	18.81	18.91	19.30	19.74
EDGE 4 Tx slots	22.65	22.71	22.72	23.50	18.65	18.71	18.72	20.50

GSM1900 Ant1_Default

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	1850.2	1880	1909.8		1850.2	1880	1909.8	
Frequency (MHz)								
GSM 1 Tx slot	29.39	29.41	29.43	30.50	20.39	20.41	20.43	21.50
GPRS 1 Tx slot	29.47	29.44	29.43	30.50	20.47	20.44	20.43	21.50
GPRS 2 Tx slots	27.37	27.74	27.24	28.00	21.37	21.74	21.24	22.00
GPRS 3 Tx slots	25.45	25.58	25.11	26.00	21.19	21.32	20.85	21.74
GPRS 4 Tx slots	24.71	24.33	24.78	25.00	21.71	21.33	21.78	22.00
EDGE 1 Tx slot	25.63	25.40	25.49	27.00	16.63	16.40	16.49	18.00
EDGE 2 Tx slots	23.15	23.32	23.33	24.50	17.15	17.32	17.33	18.50
EDGE 3 Tx slots	21.23	21.32	21.41	23.00	16.97	17.06	17.15	18.74
EDGE 4 Tx slots	20.09	20.07	20.04	22.00	17.09	17.07	17.04	19.00

WCDMA II Ant1_DSH&Default

WCDMA IV Ant1_Default

WCDMA V Ant1_Default

Band	TX Channel	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
		9262	9400	9538		1312	1413	1513		4132	4182	4233	
	Rx Channel	9662	9600	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	24.42	24.48	24.53	25.50	24.61	24.64	24.66	25.50	24.72	24.80	24.84	25.50
3GPP Rel 99	RMC 12.2Kbps	24.47	24.55	24.49	25.50	24.67	24.68	24.65	25.50	24.77	24.85	24.81	25.50
3GPP Rel 6	HSDPA Subtest-1	23.76	23.88	23.78	24.50	23.81	23.82	23.85	24.50	23.82	23.96	23.97	24.50
3GPP Rel 6	HSDPA Subtest-2	23.73	23.87	23.78	24.50	23.90	23.82	23.83	24.50	23.80	23.96	23.97	24.50
3GPP Rel 6	HSDPA Subtest-3	23.25	23.37	23.29	24.00	23.31	23.36	23.34	24.00	23.34	23.46	23.45	24.00
3GPP Rel 6	HSDPA Subtest-4	23.24	23.38	23.28	24.00	23.32	23.37	23.35	24.00	23.33	23.47	23.45	24.00
3GPP Rel 8	DC-HSDPA Subtest-1	23.68	23.68	23.52	24.50	23.78	23.81	23.85	24.50	23.70	23.72	23.93	24.50
3GPP Rel 8	DC-HSDPA Subtest-2	23.71	23.71	23.79	24.50	23.91	23.78	23.63	24.50	23.75	23.88	23.75	24.50
3GPP Rel 8	DC-HSDPA Subtest-3	23.21	23.35	23.04	24.00	23.35	23.34	23.41	24.00	23.28	23.38	23.21	24.00
3GPP Rel 8	DC-HSDPA Subtest-4	23.23	23.22	23.17	24.00	23.38	23.21	23.52	24.00	23.32	23.05	23.29	24.00
3GPP Rel 6	HSUPA Subtest-1	23.82	23.97	23.90	24.50	23.91	23.93	23.97	24.50	23.88	23.98	24.04	24.50
3GPP Rel 6	HSUPA Subtest-2	21.80	21.94	21.86	22.50	21.93	21.99	21.95	22.50	21.95	22.02	22.01	22.50
3GPP Rel 6	HSUPA Subtest-3	22.79	22.95	22.91	23.50	22.87	23.00	22.95	23.50	22.89	23.01	23.03	23.50
3GPP Rel 6	HSUPA Subtest-4	21.81	21.90	21.87	22.50	21.89	21.93	22.01	22.50	21.90	21.99	22.05	22.50
3GPP Rel 6	HSUPA Subtest-5	23.80	23.90	23.90	24.50	23.90	23.90	23.90	24.50	23.90	24.00	24.10	24.50



Band 38 Ant 1_Default									
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	24.98	25.19	24.96	25.5	0	
20	QPSK	1	49	24.95	25.01	24.86			
20	QPSK	1	99	24.87	24.82	24.73			
20	QPSK	50	0	23.96	24.05	23.99	24.5	1	
20	QPSK	50	24	24.04	23.98	23.93			
20	QPSK	50	50	23.97	23.87	23.86			
20	QPSK	100	0	23.92	24.00	23.91			
20	16QAM	1	0	24.19	24.18	24.15	24.5	1	
20	16QAM	1	49	24.08	24.10	24.01			
20	16QAM	1	99	24.00	23.99	23.89			
20	16QAM	50	0	22.95	23.00	22.98	23.5	2	
20	16QAM	50	24	23.07	23.02	22.99			
20	16QAM	50	50	22.98	22.91	22.90			
20	16QAM	100	0	23.03	22.98	22.96			
20	64QAM	1	0	22.85	22.66	22.68	23.5	2	
20	64QAM	1	49	22.76	22.61	22.52			
20	64QAM	1	99	22.67	22.46	22.55			
20	64QAM	50	0	21.99	21.99	21.99	22.5	3	
20	64QAM	50	24	21.71	21.97	22.00			
20	64QAM	50	50	21.85	21.90	21.90			
20	64QAM	100	0	22.03	21.93	21.95			
Channel				37825	38000	38175			
Frequency (MHz)				2577.5	2595	2612.5			
15	QPSK	1	0	25.00	25.00	24.85	25.5	0	
15	QPSK	1	37	24.92	24.91	24.78			
15	QPSK	1	74	24.89	24.86	24.72			
15	QPSK	36	0	23.93	23.94	23.91	24.5	1	
15	QPSK	36	20	24.00	23.97	23.93			
15	QPSK	36	39	23.95	23.87	23.84			
15	QPSK	75	0	23.98	23.94	23.90			
15	16QAM	1	0	24.18	24.18	24.10	24.5	1	
15	16QAM	1	37	24.05	24.08	23.94			
15	16QAM	1	74	24.09	24.03	23.96			
15	16QAM	36	0	22.94	22.93	22.91	23.5	2	
15	16QAM	36	20	23.04	22.95	22.91			
15	16QAM	36	39	22.95	22.87	22.79			
15	16QAM	75	0	23.03	22.98	22.93			
15	64QAM	1	0	22.59	22.65	22.60	23.5	2	
15	64QAM	1	37	22.65	22.69	22.52			
15	64QAM	1	74	22.60	22.46	22.44			
15	64QAM	36	0	21.94	21.98	21.93	22.5	3	
15	64QAM	36	20	22.04	21.97	21.96			
15	64QAM	36	39	21.96	21.85	21.83			
15	64QAM	75	0	22.04	21.97	21.92			
Channel				37800	38000	38200			
Frequency (MHz)				2575	2595	2615			
10	QPSK	1	0	25.06	25.04	24.82	25.5	0	
10	QPSK	1	25	25.03	25.04	24.90			
10	QPSK	1	49	24.96	24.98	24.88			
10	QPSK	25	0	24.13	24.13	24.05	24.5	1	
10	QPSK	25	12	24.15	24.08	24.03			
10	QPSK	25	25	24.11	24.00	23.99			
10	QPSK	50	0	24.11	24.09	24.00			
10	16QAM	1	0	24.18	24.18	24.14	24.5	1	
10	16QAM	1	25	24.17	24.20	24.08			
10	16QAM	1	49	24.06	24.07	23.99			
10	16QAM	25	0	23.20	23.00	23.05	23.5	2	
10	16QAM	25	12	23.13	23.06	23.04			
10	16QAM	25	25	23.06	22.99	23.00			
10	16QAM	50	0	23.16	23.08	23.04			
10	64QAM	1	0	22.85	22.88	22.90	23.5	2	
10	64QAM	1	25	22.80	22.76	22.66			
10	64QAM	1	49	22.79	22.74	22.67			
10	64QAM	25	0	22.23	22.18	22.12	22.5	3	
10	64QAM	25	12	22.23	22.18	22.12			
10	64QAM	25	25	22.18	22.10	22.08			
10	64QAM	50	0	22.20	22.08	22.06			
Channel				37775	38000	38225			
Frequency (MHz)				2572.5	2595	2617.5			
5	QPSK	1	0	25.12	25.04	24.94	25.5	0	
5	QPSK	1	12	25.01	25.05	24.85			
5	QPSK	1	24	25.00	24.99	24.85			
5	QPSK	12	0	24.13	24.07	24.00	24.5	1	
5	QPSK	12	7	24.14	24.07	24.00			
5	QPSK	12	13	24.13	24.12	23.97			
5	QPSK	25	0	24.11	24.03	23.93			
5	16QAM	1	0	24.23	24.17	24.07	24.5	1	
5	16QAM	1	12	24.28	24.28	24.11			
5	16QAM	1	24	24.22	24.20	24.02			
5	16QAM	12	0	23.10	23.07	22.97	23.5	2	
5	16QAM	12	7	23.07	23.05	22.97			
5	16QAM	12	13	23.07	23.06	22.93			
5	16QAM	25	0	23.12	23.03	23.00			
5	64QAM	1	0	22.85	22.79	22.77	23.5	2	
5	64QAM	1	12	22.77	22.79	22.66			
5	64QAM	1	24	22.80	22.80	22.70			
5	64QAM	12	0	22.17	22.13	22.14	22.5	3	
5	64QAM	12	7	22.19	22.14	22.16			
5	64QAM	12	13	22.17	22.13	22.20			
5	64QAM	25	0	22.17	22.12	22.15			



GSM850 Ant1_DSI1&2&3

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel	824.2	836.4	848.8		824.2	836.4	848.8	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.77	32.52	32.54	33.50	23.77	23.52	23.54	24.50
GPRS 1 Tx slot	32.62	32.40	32.57	33.50	23.62	23.40	23.57	24.50
GPRS 2 Tx slots	30.63	30.72	30.54	31.00	24.63	24.72	24.54	25.00
GPRS 3 Tx slots	28.56	28.51	28.25	29.00	24.30	24.25	23.99	24.74
GPRS 4 Tx slots	26.86	26.96	26.68	28.00	23.86	23.96	23.68	25.00
EDGE 1 Tx slot	26.70	26.54	26.65	28.00	17.70	17.54	17.65	19.00
EDGE 2 Tx slots	24.26	24.69	24.37	25.50	18.26	18.69	18.37	19.50
EDGE 3 Tx slots	23.07	23.17	23.56	24.00	18.81	18.91	19.30	19.74
EDGE 4 Tx slots	22.65	22.71	22.72	23.50	19.65	19.71	19.72	20.50

GSM1900 Ant1_DSI1&2

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	1850.2	1880	1909.8		1850.2	1880	1909.8	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	29.39	29.41	29.43	30.50	20.39	20.41	20.43	21.50
GPRS 1 Tx slot	29.47	29.44	29.43	30.50	20.47	20.44	20.43	21.50
GPRS 2 Tx slots	27.37	27.74	27.24	28.00	21.37	21.74	21.24	22.00
GPRS 3 Tx slots	25.45	25.58	25.11	26.00	21.19	21.32	20.85	21.74
GPRS 4 Tx slots	24.21	24.33	24.28	25.00	21.21	21.33	21.28	22.00
EDGE 1 Tx slot	25.63	25.40	25.49	27.00	16.63	16.40	16.49	18.00
EDGE 2 Tx slots	23.15	23.32	23.33	24.50	17.15	17.32	17.33	18.50
EDGE 3 Tx slots	21.23	21.32	21.41	23.00	16.97	17.06	17.15	18.74
EDGE 4 Tx slots	20.09	20.07	20.04	22.00	17.09	17.07	17.04	19.00

WCDMA II Ant1_DSI2

WCDMA IV Ant1_DSI1&2

WCDMA V Ant1_DSI1&2&3

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)	
	9262	9400	9538		1312	1413	1513		4132	4182	4233		
TX Channel	9662	9800	9938		1537	1638	1738		4357	4407	4458		
Rx Channel	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6		
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	21.98	22.05	22.04	23.00	24.61	24.64	24.66	25.50	24.72	24.80	24.84	25.50
3GPP Rel 99	RM C 12.2Kbps	22.03	22.13	22.07	23.00	24.67	24.68	24.65	25.50	24.77	24.85	24.81	25.50
3GPP Rel 6	HSDPA Subtest-1	21.26	21.38	21.28	22.00	23.81	23.82	23.85	24.50	23.82	23.96	23.97	24.50
3GPP Rel 6	HSDPA Subtest-2	21.23	21.37	21.28	22.00	23.90	23.82	23.83	24.50	23.80	23.96	23.97	24.50
3GPP Rel 6	HSDPA Subtest-3	20.75	20.87	20.79	21.50	23.31	23.36	23.34	24.00	23.34	23.46	23.45	24.00
3GPP Rel 6	HSDPA Subtest-4	20.74	20.88	20.78	21.50	23.32	23.37	23.35	24.00	23.33	23.47	23.45	24.00
3GPP Rel 8	DC-HSDPA Subtest-1	21.18	21.18	21.02	22.00	23.78	23.81	23.85	24.50	23.70	23.72	23.93	24.50
3GPP Rel 8	DC-HSDPA Subtest-2	21.21	21.21	21.29	22.00	23.91	23.78	23.63	24.50	23.75	23.88	23.75	24.50
3GPP Rel 8	DC-HSDPA Subtest-3	20.71	20.85	20.54	21.50	23.35	23.34	23.41	24.00	23.28	23.38	23.21	24.00
3GPP Rel 8	DC-HSDPA Subtest-4	20.73	20.72	20.67	21.50	23.38	23.21	23.52	24.00	23.32	23.05	23.29	24.00
3GPP Rel 6	HSUPA Subtest-1	21.32	21.47	21.40	22.00	23.91	23.93	23.97	24.50	23.88	23.98	24.04	24.50
3GPP Rel 6	HSUPA Subtest-2	19.30	19.44	19.36	20.00	21.93	21.99	21.95	22.50	21.95	22.02	22.01	22.50
3GPP Rel 6	HSUPA Subtest-3	20.29	20.45	20.41	21.00	22.87	23.00	22.95	23.50	22.89	23.01	23.03	23.50
3GPP Rel 6	HSUPA Subtest-4	19.31	19.40	19.37	20.00	21.89	21.93	22.01	22.50	21.90	21.99	22.05	22.50
3GPP Rel 6	HSUPA Subtest-5	21.30	21.40	21.40	22.00	23.90	23.90	23.90	24.50	23.90	24.00	24.10	24.50



Band 4 Ant 1_DSI1&2												
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch. / Freq. (MHz)	Power Ch. / Freq. (MHz)	Power Ch. / Freq. (MHz)	Turn-up (dBm)	MPR (dB)				
Channel				20660	20715	20800						
Frequency (MHz)												
20	QPSK	1	0	24.73	24.69	24.77	25.5	0				
20	QPSK	1	40	24.70	24.63	24.82	25.5	0				
20	QPSK	1	96	24.71	24.64	24.78	25.5	0				
20	QPSK	50	24	23.82	23.86	23.88	24.5	1				
20	QPSK	50	24	23.88	23.82	23.91	24.5	1				
20	QPSK	150	0	23.98	23.99	23.98	24.5	1				
20	QPSK	150	0	24.01	24.06	24.21	24.5	1				
20	QPSK	1	40	24.00	24.01	24.13	24.5	1				
20	QPSK	1	96	24.02	24.03	24.20	24.5	1				
20	QPSK	50	24	22.87	22.79	22.83	23.5	2				
20	QPSK	50	24	22.84	22.88	22.86	23.5	2				
20	QPSK	50	50	22.77	22.83	22.95	23.5	2				
20	QPSK	50	0	22.70	22.75	22.78	23.5	2				
20	QPSK	1	96	22.94	22.98	23.02	23.5	2				
20	QPSK	1	40	22.94	22.94	22.95	23.5	2				
20	QPSK	1	96	22.94	22.94	23.01	23.5	2				
20	QPSK	50	24	21.89	21.87	21.94	22.5	3				
20	QPSK	50	24	21.84	21.88	21.96	22.5	3				
20	QPSK	50	0	21.88	21.91	21.94	22.5	3				
Channel												
Channel	Frequency (MHz)			20850	20915	21000	Turn-up (dBm)	MPR (dB)				
15	QPSK	1	0	24.75	24.78	24.78	25.5	0				
15	QPSK	1	37	24.76	24.71	24.80	25.5	0				
15	QPSK	1	75	24.76	24.76	24.80	25.5	0				
15	QPSK	36	0	23.00	23.78	23.88	24.5	1				
15	QPSK	36	20	22.88	23.87	24.01	24.5	1				
15	QPSK	36	20	22.97	23.89	24.00	24.5	1				
15	QPSK	75	0	23.97	23.88	23.97	24.5	1				
15	QPSK	1	0	24.12	24.09	24.12	24.5	1				
15	QPSK	1	37	24.09	24.10	24.09	24.5	1				
15	QPSK	1	74	24.08	24.12	24.09	24.5	1				
15	QPSK	36	0	22.85	22.83	22.88	23.5	2				
15	QPSK	36	20	22.85	22.88	23.03	23.5	2				
15	QPSK	36	20	22.87	22.86	22.86	23.5	2				
15	QPSK	75	0	22.88	22.89	22.85	23.5	2				
15	QPSK	1	0	22.93	22.90	22.89	23.5	2				
15	QPSK	1	37	22.99	23.03	23.08	23.5	2				
15	QPSK	1	74	22.99	23.04	23.04	23.5	2				
15	QPSK	36	0	21.93	21.98	21.98	22.5	3				
15	QPSK	36	20	21.89	21.90	22.05	22.5	3				
15	QPSK	36	20	21.90	21.89	21.96	22.5	3				
15	QPSK	75	0	21.88	21.90	21.91	22.5	3				
Channel												
Channel	Frequency (MHz)			20900	20975	21050	Turn-up (dBm)	MPR (dB)				
10	QPSK	1	0	24.57	24.46	24.54	25.5	0				
10	QPSK	1	40	24.57	24.47	24.57	25.5	0				
10	QPSK	1	40	24.59	24.48	24.54	25.5	0				
10	QPSK	25	0	24.08	24.00	24.04	24.5	1				
10	QPSK	25	0	24.09	24.00	24.04	24.5	1				
10	QPSK	25	20	24.02	24.04	24.12	24.5	1				
10	QPSK	50	0	23.98	24.07	24.10	24.5	1				
10	QPSK	50	0	23.96	24.07	24.10	24.5	1				
10	QPSK	1	0	24.05	24.24	24.23	24.5	1				
10	QPSK	1	40	24.18	24.20	24.36	24.5	1				
10	QPSK	1	40	24.12	24.03	24.17	24.5	1				
10	QPSK	25	0	23.09	23.09	23.16	23.5	2				
10	QPSK	25	20	23.18	23.08	23.16	23.5	2				
10	QPSK	25	20	23.18	23.08	23.16	23.5	2				
10	QPSK	50	0	23.10	23.07	23.12	23.5	2				
10	QPSK	1	0	23.00	23.04	23.06	23.5	2				
10	QPSK	1	40	23.00	23.05	23.08	23.5	2				
10	QPSK	1	40	23.01	23.07	23.25	23.5	2				
10	QPSK	25	0	21.98	22.02	22.09	22.5	3				
10	QPSK	25	0	21.98	22.02	22.09	22.5	3				
10	QPSK	25	20	22.10	22.02	22.12	22.5	3				
10	QPSK	50	0	22.09	22.07	22.11	22.5	3				
Channel												
Channel	Frequency (MHz)			17115	17205	17315	Turn-up (dBm)	MPR (dB)				
3	QPSK	1	0	24.47	24.62	24.73	25.5	0				
3	QPSK	1	12	24.54	24.60	24.74	25.5	0				
3	QPSK	1	24	24.47	24.70	24.75	25.5	0				
3	QPSK	12	0	23.78	23.59	23.76	24.5	1				
3	QPSK	12	7	23.74	23.59	23.81	24.5	1				
3	QPSK	12	13	23.89	23.67	23.79	24.5	1				
3	QPSK	25	0	23.89	23.76	23.74	24.5	1				
3	QPSK	25	0	23.94	23.76	23.80	24.5	1				
3	QPSK	1	12	23.98	24.02	24.03	24.5	1				
3	QPSK	1	24	23.95	23.89	24.05	24.5	1				
3	QPSK	12	0	23.98	23.86	23.88	24.5	1				
3	QPSK	12	7	23.12	23.08	23.10	23.5	2				
3	QPSK	12	13	23.08	23.05	23.10	23.5	2				
3	QPSK	25	0	23.02	23.02	23.11	23.5	2				
3	QPSK	1	12	23.10	23.05	23.10	23.5	2				
3	QPSK	1	12	23.11	23.30	23.28	23.5	2				
3	QPSK	1	24	23.27	23.27	23.27	23.5	2				
3	QPSK	12	0	22.08	22.17	22.06	22.5	3				
3	QPSK	12	7	22.11	22.10	22.21	22.5	3				
3	QPSK	12	13	22.12	22.07	22.11	22.5	3				
3	QPSK	25	0	22.04	22.04	22.11	22.5	3				
Channel												
Channel	Frequency (MHz)			17115	17205	17315	Turn-up (dBm)	MPR (dB)				
3	QPSK	1	0	24.81	24.62	24.71	25.5	0				
3	QPSK	1	0	24.49	24.66	24.73	25.5	0				
3	QPSK	1	4	24.60	24.69	24.76	25.5	0				
3	QPSK	8	0	23.70	23.72	23.75	24.5	1				
3	QPSK	8	4	23.70	23.75	23.78	24.5	1				
3	QPSK	8	7	23.79	23.79	23.75	24.5	1				
3	QPSK	15	0	23.71	23.75	23.82	24.5	1				
3	QPSK	1	0	23.99	24.06	24.08	24.5	1				
3	QPSK	1	0	24.08	24.02	24.18	24.5	1				
3	QPSK	1	44	23.07	24.14	24.17	24.5	1				
3	QPSK	8	0	23.10	23.03	23.20	23.5	2				
3	QPSK	8	4	23.09	23.08	23.21	23.5	2				
3	QPSK	8	7	23.05	23.17	23.14	23.5	2				
3	QPSK	15	0	23.00	23.05	23.12	23.5	2				
3	QPSK	1	0	23.10	23.11	23.14	23.5	2				
3	QPSK	1	0	23.34	23.13	23.28	23.5	2				
3	QPSK	1	44	23.07	23.10	23.23	23.5	2				
3	QPSK	8	0	22.10	22.05	22.13	22.5	3				
3	QPSK	8	4	22.11	22.08	22.15	22.5	3				
3	QPSK	8	7	22.07	22.04	22.06	22.5	3				
3	QPSK	15	0	22.08	22.05	22.14	22.5	3				
Channel												
Channel	Frequency (MHz)			19697	20176	20655	Turn-up (dBm)	MPR (dB)				
1.4	QPSK	1	0	24.53	24.54	24.57	25.5	0				
1.4	QPSK	1	6	24.52	24.58	24.56	25.5	0				
1.4	QPSK	3	0	24.58	24.56	24.66	25.5	0				
1.4	QPSK	3	3	24.60	24.54	24.66	25.5	0				
1.4	QPSK	6	0	23.96	23.94	23.97	24.5	1				
1.4	QPSK	1	0	24.07	23.90	24.07	24.5	1				
1.4	QPSK	1	0	24.00	24.10	23.97	24.5	1				
1.4	QPSK	1	0	24.04	23.97	23.97	24.5	1				
1.4	QPSK	3	0	23.91	23.92	24.01	24.5	1				
1.4	QPSK	3	0	23.98	23.98	24.00	24.5	1				
1.4	QPSK	3	3	23.88	23.98	24.00	24.5	1				
1.4	QPSK	6	0	23.08	23.05	23.04	23.5	2				
1.4	QPSK	1	0	23.08	23.07	23.09	23.5	2				
1.4	QPSK	1	0	23.10	23.02	23.04	23.5	2				
1.4	QPSK	1	5	23.02	23.08	23.12	23.5	2				
1.4	QPSK	3	0	22.98	22.97	23.18	23.5	2				
1.4	QPSK	3	0	23.08	23.17	23.14	23.5	2				
1.4	QPSK	3	3	23.09	23.20	23.15	23.5	2				
1.4	QPSK	6	0	21.98	21.94	22.01	22.5	3				

Band 5 Ant 1_DSI1&2&3												
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch. / Freq. (MHz)	Power Ch. / Freq. (MHz)	Power Ch. / Freq. (MHz)	Turn-up (dBm)	MPR (dB)				
Channel				20660	20695	20700						
Frequency (MHz)												
10	QPSK	1	0	24.50	24.75	24.47	25.5	0				
10	QPSK	1	25	24.35	24.67	24.68	25.5	0				
10	QPSK	1	40	24.57	24.54	24.65	25.5	0				
10	QPSK	25	0	23.84	23.75	23.76	24.5	1				
10	QPSK	25	12	23.73	23.76	23.71	24.5	1				
10	QPSK	25	25	23.69	23.69	23.77	24.5	1				
10	QPSK	50	0	23.78	23.76	23.76	24.5	1				
10	QPSK	1	0	23.89	23.87	24.00	24.5	1				
10	QPSK	1	25	23.89	23.86	23.90	24.5	1				
10	QPSK	1	40	23.87	23.81	23.97	24.5	1				
10	QPSK	25	0	22.87	22.74	22.80	23.5	2				
10	QPSK	25	12	22.73	22.68	22.78	23.5	2				
10	QPSK	25	25	22.85	22.72	22.72	23.5	2				
10	QPSK	50	0	22.75								



Band 12 Ant 1_DSI1&2&3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch. / Freq. [dBm]	Power PCH / Freq. [dBm]	Power Freq. / Freq. [dBm]	Time-up (min)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	0	24.45	24.79	24.44			
10	QPSK	1	25	24.78	24.49	24.58		25.5	0
10	QPSK	1	49	24.73	24.48	24.47			
10	QPSK	25	0	23.87	23.87	23.81		24.5	1
10	QPSK	25	25	23.85	23.83	23.87			
10	QPSK	50	0	23.96	23.96	23.79			
10	HQAM	1	0	23.75	23.67	23.74			
10	HQAM	1	25	24.05	23.83	24.11		24.5	1
10	HQAM	1	49	24.07	24.06	23.86			
10	HQAM	25	0	22.97	22.76	22.93			
10	HQAM	25	12	22.95	22.91	22.92		23.5	2
10	HQAM	25	25	22.78	22.94	22.82			
10	HQAM	50	0	22.87	22.91	22.71			
10	HQAM	1	0	22.52	22.17	22.15			
10	HQAM	1	25	22.20	22.37	22.38		23.5	2
10	HQAM	1	49	22.18	22.17	22.02			
10	HQAM	25	0	21.83	21.83	21.83			
10	HQAM	25	12	21.83	21.83	21.83		22.5	3
10	HQAM	25	25	21.83	21.83	21.83			
10	HQAM	50	0	21.83	21.83	21.83			
Channel									
Frequency (MHz)									
5	QPSK	1	0	24.44	24.76	24.62			
5	QPSK	1	12	24.26	24.78	24.44		25.5	0
5	QPSK	12	24	24.30	24.51	24.50			
5	QPSK	12	0	23.63	23.90	23.78			
5	QPSK	12	7	23.61	23.87	23.58		24.5	1
5	QPSK	12	18	23.85	23.85	23.96			
5	QPSK	25	0	23.59	23.83	23.45			
5	HQAM	1	0	23.65	23.56	23.85			
5	HQAM	1	12	23.56	23.56	23.78		24.5	1
5	HQAM	1	24	23.49	23.49	23.96			
5	HQAM	12	0	22.82	22.86	22.82			
5	HQAM	12	7	22.47	22.87	22.85		23.5	2
5	HQAM	12	18	22.86	22.86	22.86			
5	HQAM	25	0	22.57	22.84	22.58			
5	HQAM	1	0	22.72	22.77	22.10			
5	HQAM	1	12	22.83	22.82	22.79		23.5	2
5	HQAM	1	24	22.83	22.83	22.98			
5	HQAM	12	0	21.50	21.69	21.58			
5	HQAM	12	7	21.28	21.44	21.44		22.5	3
5	HQAM	12	18	21.66	21.66	21.76			
5	HQAM	25	0	21.87	21.78	21.93			
Channel									
Frequency (MHz)									
3	QPSK	1	0	24.49	24.50	24.40			
3	QPSK	1	8	24.58	24.65	24.45		25.5	0
3	QPSK	1	14	24.58	24.61	24.38			
3	QPSK	8	0	23.81	23.87	23.54			
3	QPSK	8	4	23.83	23.85	23.76			
3	QPSK	8	7	23.51	23.85	23.45		24.5	1
3	QPSK	15	0	23.53	23.79	23.51			
3	HQAM	1	0	23.87	23.86	23.96			
3	HQAM	1	8	23.88	23.81	23.96		24.5	1
3	HQAM	1	14	23.78	23.58	23.54			
3	HQAM	8	0	22.75	22.98	22.88			
3	HQAM	8	4	22.80	22.87	22.57			
3	HQAM	8	7	22.72	22.87	22.54		23.5	2
3	HQAM	15	0	22.59	22.84	22.49			
3	HQAM	1	0	22.77	22.87	22.86			
3	HQAM	1	8	22.74	22.82	22.96		23.5	2
3	HQAM	1	14	22.78	23.12	23.04			
3	HQAM	8	0	21.59	21.36	21.29			
3	HQAM	8	4	21.84	21.48	21.58		22.5	3
3	HQAM	8	7	21.38	21.44	21.13			
3	HQAM	15	0	21.48	21.47	21.28			
Channel									
Frequency (MHz)									
1.4	QPSK	1	0	24.69	24.76	24.40			
1.4	QPSK	1	3	24.61	24.76	24.59			
1.4	QPSK	1	5	24.60	24.72	24.53		25.5	0
1.4	QPSK	3	0	24.70	24.72	24.56			
1.4	QPSK	3	1	24.50	24.50	24.61			
1.4	QPSK	3	3	24.61	24.72	24.50			
1.4	QPSK	6	0	23.70	23.74	23.28		24.5	1
1.4	HQAM	1	0	23.80	23.84	23.70			
1.4	HQAM	1	3	23.74	23.87	23.50			
1.4	HQAM	1	5	23.59	23.68	23.80		24.5	1
1.4	HQAM	3	0	23.74	23.80	23.47			
1.4	HQAM	3	1	23.81	23.84	23.51			
1.4	HQAM	3	3	23.79	23.82	23.57			
1.4	HQAM	6	0	22.87	22.87	22.59		23.5	2
1.4	HQAM	1	0	22.59	22.15	22.15			
1.4	HQAM	1	3	22.44	22.16	22.13			
1.4	HQAM	1	5	22.30	22.20	22.18		23.5	2
1.4	HQAM	3	0	22.44	22.44	22.16			
1.4	HQAM	3	1	22.59	22.00	22.05			
1.4	HQAM	3	3	22.57	22.58	22.31			
1.4	HQAM	6	0	21.83	21.88	21.79		22.5	3

Band 13 Ant 1_DSI1&2&3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch. / Freq. [dBm]	Power PCH / Freq. [dBm]	Power Freq. / Freq. [dBm]	Time-up (min)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	0	24.50					
10	QPSK	1	25	24.50			25.5	0	
10	QPSK	1	49	24.50					
10	QPSK	25	0	23.77				24.5	1
10	QPSK	25	12	23.69					
10	QPSK	25	25	23.66					
10	QPSK	50	0	23.75					
10	HQAM	1	0	23.68					
10	HQAM	1	25	23.80			24.5	1	
10	HQAM	1	49	23.72					
10	HQAM	25	0	22.80					
10	HQAM	25	12	22.75			23.5	2	
10	HQAM	25	25	22.66					
10	HQAM	50	0	22.85					
10	HQAM	1	0	22.72			23.5	2	
10	HQAM	1	49	22.69					
10	HQAM	25	0	21.32					
10	HQAM	25	12	21.30			22.5	3	
10	HQAM	25	25	21.52					
10	HQAM	50	0	21.76					
Channel									
Frequency (MHz)									
5	QPSK	1	0	24.72	24.69	24.64			
5	QPSK	1	12	24.73	24.37	24.55		25.5	0
5	QPSK	1	24	24.93	24.52	24.61			
5	QPSK	12	0	23.78	23.64	23.85			
5	QPSK	12	7	23.79	23.63	23.74		24.5	1
5	QPSK	12	18	23.74	23.88	23.78			
5	QPSK	25	0	23.72	23.83	23.69			
5	HQAM	1	0	23.78	23.68	23.95			
5	HQAM	1	12	23.80	23.52	23.90		24.5	1
5	HQAM	1	24	23.65	23.69	23.74			
5	HQAM	12	0	22.71	22.71	22.68			
5	HQAM	12	7	22.87	22.78	22.83		23.5	2
5	HQAM	12	18	22.79	22.74	22.72			
5	HQAM	25	0	22.83	22.70	22.74			
5	HQAM	1	0	22.77	22.70	22.68			
5	HQAM	1	12	22.58	22.55	22.61		23.5	2
5	HQAM	1	24	22.76	22.63	22.58			
5	HQAM	12	0	21.78	21.84	21.89			
5	HQAM	12	7	21.79	21.78	21.59		22.5	3
5	HQAM	12	18	21.68	21.84	21.76			
5	HQAM	25	0	21.95	21.79	21.83			

Band 17 Ant 1_DSI1&2&3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch. / Freq. [dBm]	Power PCH / Freq. [dBm]	Power Freq. / Freq. [dBm]	Time-up (min)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	0	24.62	24.78	24.78			
10	QPSK	1	25	24.55	24.37	24.50		25.5	0
10	QPSK	1	49	24.62	24.53	24.57			
10	QPSK	25	0	23.68	23.69	23.62			
10	QPSK	25	12	23.62	23.61	23.58		24.5	1
10	QPSK	25	25	23.51	23.62	23.50			
10	QPSK	50	0	23.83	23.84	23.69			
10	HQAM	1	0	24.10	24.03	24.04			
10	HQAM	1	25	23.83	24.04	24.06		24.5	1
10	HQAM	1	49	24.12	23.99	23.98			
10	HQAM	25	0	22.94	22.91	22.89			
10	HQAM	25	12	22.87	22.98	22.87		23.5	2
10	HQAM	25	25	22.83	22.83	22.86			
10	HQAM	50	0	22.88	22.87	22.88			
10	HQAM	1	0	22.94	22.74	22.70			
10	HQAM	1	25	22.85	23.07	23.08		23.5	2
10	HQAM	1	49	23.04	22.98	22.98			
10	HQAM	25	0	21.95	21.84	22.00			
10	HQAM	25	12	21.83	21.98	21.84		22.5	3
10	HQAM	25	25	21.89	21.89	21.89			
10	HQAM	50	0	21.93	21.84	21.97			
Channel									
Frequency (MHz)									
5	QPSK	1	0	24.65	24.57	24.65			
5	QPSK	1	12	24.46	24.49	24.50		25.5	0
5	QPSK	1	24	24.41	24.62	24.38			
5	QPSK	12	0	23.62	23.64	23.67			
5	QPSK	12	7	23.53	23.62	23.64		24.5	1
5	QPSK	12	18	23.68	23.56	23.55			
5	QPSK	25	0	23.56	23.59	23.62			
5	HQAM	1	0	24.05	24.11	24.03			
5	HQAM	1	12	24.04	2				



Band 38 Ant 1_DSI1&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				37850	38000	38150			
Frequency (MHz)				2580	2595	2610			
20	QPSK	1	0	24.98	25.19	24.98	25.5	0	
20	QPSK	1	49	24.95	25.01	24.86			
20	QPSK	1	99	24.87	24.82	24.73			
20	QPSK	50	0	23.96	24.05	23.99	24.5	1	
20	QPSK	50	24	24.04	23.96	23.93			
20	QPSK	50	50	23.97	23.87	23.86			
20	QPSK	100	0	23.92	24.00	23.91	24.5	1	
20	16QAM	1	0	24.19	24.18	24.15			
20	16QAM	1	49	24.08	24.10	24.01			
20	16QAM	1	99	24.00	23.99	23.89	23.5	2	
20	16QAM	50	0	22.95	23.00	22.98			
20	16QAM	50	24	23.07	23.02	22.99			
20	16QAM	50	50	22.98	22.91	22.90	23.5	2	
20	16QAM	100	0	23.03	22.98	22.96			
20	64QAM	1	0	22.85	22.66	22.68			
20	64QAM	1	49	22.76	22.61	22.52	23.5	2	
20	64QAM	1	99	22.67	22.46	22.55			
20	64QAM	50	0	21.89	21.99	21.99			
20	64QAM	50	24	21.71	21.97	22.00	22.5	3	
20	64QAM	50	50	21.85	21.90	21.90			
20	64QAM	100	0	22.03	21.93	21.95			
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2577.5	2595	2612.5			
15	QPSK	1	0	25.00	25.00	24.85	25.5	0	
15	QPSK	1	37	24.92	24.91	24.78			
15	QPSK	1	74	24.89	24.86	24.72			
15	QPSK	36	0	23.93	23.94	23.91	24.5	1	
15	QPSK	36	20	24.00	23.97	23.93			
15	QPSK	36	39	23.95	23.87	23.84			
15	QPSK	75	0	23.98	23.94	23.90	24.5	1	
15	16QAM	1	0	24.18	24.18	24.10			
15	16QAM	1	37	24.05	24.08	23.94			
15	16QAM	1	74	24.09	24.03	23.96	23.5	2	
15	16QAM	36	0	22.94	22.93	22.91			
15	16QAM	36	20	23.04	22.95	22.91			
15	16QAM	36	39	22.95	22.87	22.79	23.5	2	
15	16QAM	75	0	23.03	22.98	22.93			
15	64QAM	1	0	22.59	22.65	22.60			
15	64QAM	1	37	22.65	22.69	22.52	23.5	2	
15	64QAM	1	74	22.60	22.46	22.44			
15	64QAM	36	0	21.94	21.98	21.93			
15	64QAM	36	20	22.04	21.97	21.96	22.5	3	
15	64QAM	36	39	21.96	21.85	21.83			
15	64QAM	75	0	22.04	21.97	21.92			
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2575	2595	2615			
10	QPSK	1	0	25.06	25.04	24.82	25.5	0	
10	QPSK	1	25	25.03	25.04	24.90			
10	QPSK	1	49	24.96	24.98	24.88			
10	QPSK	25	0	24.13	24.13	24.05	24.5	1	
10	QPSK	25	12	24.15	24.08	24.03			
10	QPSK	25	25	24.11	24.00	23.99			
10	QPSK	50	0	24.11	24.09	24.00	24.5	1	
10	16QAM	1	0	24.18	24.18	24.14			
10	16QAM	1	25	24.17	24.20	24.08			
10	16QAM	1	49	24.06	24.07	23.99	23.5	2	
10	16QAM	25	0	23.20	23.00	23.05			
10	16QAM	25	12	23.13	23.06	23.04			
10	16QAM	25	25	23.06	22.99	23.00	23.5	2	
10	16QAM	50	0	23.16	23.08	23.04			
10	64QAM	1	0	22.85	22.88	22.90			
10	64QAM	1	25	22.80	22.76	22.66	22.5	3	
10	64QAM	1	49	22.79	22.74	22.67			
10	64QAM	25	0	22.23	22.18	22.12			
10	64QAM	25	12	22.23	22.18	22.12	22.5	3	
10	64QAM	25	25	22.18	22.10	22.08			
10	64QAM	50	0	22.20	22.08	22.06			
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2572.5	2595	2617.5			
5	QPSK	1	0	25.12	25.04	24.94	25.5	0	
5	QPSK	1	12	25.01	25.05	24.85			
5	QPSK	1	24	25.00	24.99	24.85			
5	QPSK	12	0	24.13	24.07	24.00	24.5	1	
5	QPSK	12	7	24.14	24.07	24.00			
5	QPSK	12	13	24.13	24.12	23.97			
5	QPSK	25	0	24.11	24.03	23.93	24.5	1	
5	16QAM	1	0	24.23	24.17	24.07			
5	16QAM	1	12	24.28	24.28	24.11			
5	16QAM	1	24	24.22	24.20	24.02	23.5	2	
5	16QAM	12	0	23.10	23.07	22.97			
5	16QAM	12	7	23.07	23.05	22.97			
5	16QAM	12	13	23.07	23.06	22.93	23.5	2	
5	16QAM	25	0	23.12	23.03	23.00			
5	64QAM	1	0	22.85	22.79	22.77			
5	64QAM	1	12	22.77	22.79	22.66	23.5	2	
5	64QAM	1	24	22.80	22.80	22.70			
5	64QAM	12	0	22.17	22.13	22.14			
5	64QAM	12	7	22.19	22.14	22.16	22.5	3	
5	64QAM	12	13	22.17	22.13	22.20			
5	64QAM	25	0	22.17	22.12	22.15			

GSM1900 Ant1_DSI3 Down

GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	24.09	23.98	24.27	25.50	15.09	14.98	15.27	16.50
GPRS 1 Tx slot	24.11	24.33	24.08	25.50	15.11	15.33	15.08	16.50
GPRS 2 Tx slots	22.37	22.18	21.97	23.00	16.37	16.18	15.97	17.00
GPRS 3 Tx slots	19.91	20.03	19.77	21.00	15.65	15.77	15.51	16.74
GPRS 4 Tx slots	18.96	19.12	18.98	20.00	15.96	16.12	15.98	17.00
EDGE 1 Tx slot	23.62	23.73	23.52	25.50	14.62	14.73	14.52	16.50
EDGE 2 Tx slots	19.59	19.73	19.62	21.00	13.59	13.73	13.62	15.00
EDGE 3 Tx slots	17.61	17.57	17.46	19.00	13.35	13.31	13.20	14.74
EDGE 4 Tx slots	15.90	15.92	15.96	17.00	12.90	12.92	12.96	14.00

WCDMA II Ant1_DSI3 Down

WCDMA IV Ant1_DSI3 Down

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513	
TX Channel	9662	9800	9938		1537	1638	1738	
Rx Channel	1852.4	1880	1907.6		1712.4	1732.6	1752.6	
Frequency (MHz)								
3GPP Rel 99 AMR 12.2Kbps	19.00	19.04	19.01	20.00	21.56	21.54	21.55	22.50
3GPP Rel 99 RMC 12.2Kbps	19.01	19.12	19.05	20.00	21.66	21.68	21.62	22.50
3GPP Rel 6 HSDPA Subtest-1	17.94	18.03	18.01	19.00	20.67	20.64	20.57	21.50
3GPP Rel 6 HSDPA Subtest-2	17.97	18.02	17.95	19.00	20.62	20.61	20.52	21.50
3GPP Rel 6 HSDPA Subtest-3	17.41	17.54	17.54	18.50	20.15	20.12	20.07	21.00
3GPP Rel 6 HSDPA Subtest-4	17.54	17.51	17.45	18.50	20.12	20.13	20.19	21.00
3GPP Rel 6 DC-HSDPA Subtest-1	17.83	17.95	18.11	19.00	20.77	20.54	20.52	21.50
3GPP Rel 6 DC-HSDPA Subtest-2	17.97	18.06	17.90	19.00	20.57	20.69	20.55	21.50
3GPP Rel 6 DC-HSDPA Subtest-3	17.45	17.42	17.44	18.50	20.12	20.12	20.00	21.00
3GPP Rel 6 DC-HSDPA Subtest-4	17.42	17.44	17.52	18.50	20.10	20.17	20.10	21.00
3GPP Rel 6 HSUPA Subtest-1	18.02	18.04	18.02	19.00	20.60	20.61	20.54	21.50
3GPP Rel 6 HSUPA Subtest-2	15.88	16.02	16.03	17.00	18.59	18.62	18.57	19.50
3GPP Rel 6 HSUPA Subtest-3	16.92	17.02	17.02	18.00	19.61	19.58	19.55	20.50
3GPP Rel 6 HSUPA Subtest-4	15.92	16.02	16.02	17.00	18.60	18.57	18.51	19.50
3GPP Rel 6 HSUPA Subtest-5	17.90	18.00	18.00	19.00	20.60	20.60	20.50	21.50



Band 4 Ant1_DSI3 Down										
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)										
20	QPSK	1	0	22.84	22.86	22.88	23	0		
20	QPSK	1	49	22.84	22.86	22.88				
20	QPSK	1	99	22.49	22.69	22.47				
20	QPSK	50	0	22.41	22.72	22.66	23	0		
20	QPSK	50	24	22.57	22.64	22.67				
20	QPSK	50	50	22.58	22.51	22.65				
20	QPSK	100	0	22.53	22.65	22.62				
20	16QAM	1	0	22.64	22.69	22.58	23	0		
20	16QAM	1	49	22.57	22.67	22.64				
20	16QAM	1	99	22.52	22.69	22.53				
20	16QAM	50	0	22.17	22.59	22.18	23	0		
20	16QAM	50	24	22.27	22.48	22.17				
20	16QAM	50	50	22.19	22.58	22.13				
20	16QAM	100	0	22.32	22.64	22.32				
20	64QAM	1	0	22.54	22.67	22.57	23	0		
20	64QAM	1	49	22.44	22.69	22.59				
20	64QAM	1	99	22.32	22.51	22.45				
20	64QAM	50	0	22.18	22.20	22.18	22.5	0.5		
20	64QAM	50	24	22.15	22.19	22.16				
20	64QAM	50	50	22.19	22.17	22.12				
20	64QAM	100	0	22.13	22.17	22.13				
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				1717.5	1732.5	1747.5				
15	QPSK	1	0	22.65	22.65	22.64	23	0		
15	QPSK	1	37	22.60	22.67	22.57				
15	QPSK	1	74	22.54	22.56	22.48				
15	QPSK	36	0	22.66	22.66	22.66	23	0		
15	QPSK	36	20	22.44	22.69	22.52				
15	QPSK	36	39	22.68	22.58	22.64				
15	QPSK	75	0	22.62	22.65	22.61				
15	16QAM	1	0	22.66	22.64	22.55	23	0		
15	16QAM	1	37	22.59	22.67	22.66				
15	16QAM	1	74	22.51	22.68	22.66				
15	16QAM	36	0	22.18	22.19	22.15	23	0		
15	16QAM	36	20	22.25	22.19	22.22				
15	16QAM	36	39	22.10	22.10	22.13				
15	16QAM	75	0	22.23	22.15	22.08				
15	64QAM	1	0	22.44	22.35	22.52	23	0		
15	64QAM	1	37	22.59	22.52	22.69				
15	64QAM	1	74	22.69	22.62	22.61				
15	64QAM	36	0	22.18	22.18	22.15	22.5	0.5		
15	64QAM	36	20	22.16	22.16	22.19				
15	64QAM	36	39	22.13	22.19	22.13				
15	64QAM	75	0	22.14	22.15	22.11				
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				1719.5	1732.5	1750				
10	QPSK	1	0	22.57	22.48	22.54	23	0		
10	QPSK	1	25	22.55	22.54	22.50				
10	QPSK	1	49	22.47	22.48	22.47				
10	QPSK	25	0	22.65	22.60	22.56	23	0		
10	QPSK	25	12	22.67	22.59	22.55				
10	QPSK	25	25	22.60	22.61	22.57				
10	QPSK	50	0	22.63	22.58	22.53				
10	16QAM	1	0	22.67	22.66	22.67	23	0		
10	16QAM	1	25	22.64	22.52	22.60				
10	16QAM	1	49	22.66	22.59	22.65				
10	16QAM	25	0	22.18	22.15	22.11	23	0		
10	16QAM	25	12	22.19	22.18	22.09				
10	16QAM	25	25	22.17	22.15	22.12				
10	16QAM	50	0	22.16	22.11	22.06				
10	64QAM	1	0	22.50	22.46	22.70	23	0		
10	64QAM	1	25	22.40	22.41	22.70				
10	64QAM	1	49	22.44	22.46	22.62				
10	64QAM	25	0	22.15	22.13	22.06	22.5	0.5		
10	64QAM	25	12	22.18	22.18	22.12				
10	64QAM	25	25	22.13	22.15	22.09				
10	64QAM	50	0	22.12	22.09	22.04				
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				1712.5	1732.5	1752.5				
5	QPSK	1	0	22.57	22.51	22.48	23	0		
5	QPSK	1	12	22.53	22.50	22.53				
5	QPSK	1	24	22.56	22.51	22.46				
5	QPSK	12	0	22.56	22.57	22.59	23	0		
5	QPSK	12	7	22.46	22.56	22.57				
5	QPSK	12	13	22.54	22.62	22.56				
5	QPSK	25	0	22.45	22.56	22.56				
5	16QAM	1	0	22.46	22.48	22.37	23	0		
5	16QAM	1	12	22.43	22.54	22.54				
5	16QAM	1	24	22.56	22.56	22.54				
5	16QAM	12	0	22.56	22.56	22.54	23	0		
5	16QAM	12	7	22.46	22.40	22.43				
5	16QAM	12	13	22.44	22.44	22.37				
5	16QAM	25	0	22.44	22.39	22.40				
5	64QAM	1	0	22.50	22.54	22.44	23	0		
5	64QAM	1	12	22.46	22.57	22.56				
5	64QAM	1	24	22.52	22.62	22.50				
5	64QAM	12	0	22.11	22.09	22.11	22.5	0.5		
5	64QAM	12	7	22.12	22.09	22.13				
5	64QAM	12	13	22.11	22.10	22.06				
5	64QAM	25	0	22.10	22.11	22.10				
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				1711.5	1732.5	1753.5				
3	QPSK	1	0	22.58	22.50	22.48	23	0		
3	QPSK	1	8	22.64	22.62	22.53				
3	QPSK	1	14	22.54	22.54	22.41				
3	QPSK	8	0	22.66	22.57	22.54	23	0		
3	QPSK	8	4	22.67	22.67	22.58				
3	QPSK	8	7	22.64	22.63	22.64				
3	QPSK	15	0	22.65	22.59	22.54				
3	16QAM	1	0	22.66	22.56	22.65	23	0		
3	16QAM	1	8	22.64	22.65	22.69				
3	16QAM	1	14	22.56	22.66	22.68				
3	16QAM	8	0	22.56	22.56	22.52	23	0		
3	16QAM	8	4	22.59	22.65	22.54				
3	16QAM	8	7	22.54	22.58	22.50				
3	16QAM	15	0	22.53	22.52	22.47				
3	64QAM	1	0	22.54	22.56	22.48	23	0		
3	64QAM	1	8	22.57	22.58	22.61				
3	64QAM	1	14	22.52	22.53	22.47				
3	64QAM	8	0	22.14	22.13	22.11	22.5	0.5		
3	64QAM	8	4	22.19	22.14	22.15				
3	64QAM	8	7	22.13	22.14	22.10				
3	64QAM	15	0	22.15	22.12	22.07				
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				1710.7	1732.5	1754.3				
1.4	QPSK	1	0	22.57	22.29	22.57	23	0		
1.4	QPSK	1	3	22.31	22.34	22.25				
1.4	QPSK	1	5	22.26	22.27	22.20				
1.4	QPSK	3	0	22.28	22.27	22.21	23	0		
1.4	QPSK	3	1	22.34	22.32	22.25				
1.4	QPSK	3	3	22.29	22.29	22.21				
1.4	QPSK	6	0	22.37	22.36	22.28				
1.4	16QAM	1	0	22.49	22.41	22.50	23	0		
1.4	16QAM	1	3	22.43	22.46	22.46				
1.4	16QAM	1	5	22.46	22.37	22.49				
1.4	16QAM	3	0	22.42	22.37	22.30	23	0		
1.4	16QAM	3	1	22.45	22.47	22.36				
1.4	16QAM	3	3	22.39	22.38	22.28				
1.4	16QAM	6	0	22.33	22.39	22.29				
1.4	64QAM	1	0	22.50	22.50	22.45	23	0		
1.4	64QAM	1	3	22.48	22.48	22.44				
1.4	64QAM	1	5	22.54	22.45	22.44				
1.4	64QAM	3	0	22.43	22.40	22.33	23	0		
1.4	64QAM	3	1	22.50	22.48	22.39				
1.4	64QAM	3	3	22.42	22.43	22.34				
1.4	64QAM	6	0	21.77	21.82	21.83				

Band 7 Ant1_DSI3 Down										
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)										
20	QPSK	1	0	18.66	18.68	18.60	19.5	0		
20	QPSK	1	49	18.64	18.62	18.52				
20	QPSK	1	99	18.62	18.61	18.64				
20	QPSK	50	0	18.52	18.59	18.48	19.5	0		
20	QPSK	50	24	18.57	18.53	18.53				
20	QPSK	50	50	18.54	18.56	18.51				
20	QPSK	100	0	18.51	18.56	18.53				
20	16QAM	1	0	18.65	18.61	18.64	19.5	0		
20	16QAM	1	49	18.57	18.61	18.53				
20	16QAM	1	99	18.62	18.61	18.55				
20	16QAM	50	0	18.55	18.57	18.50	19.5	0		
20	16QAM	50	24	18.57	18.59	18.56				
20	16QAM	50	50	18.64	18.65	18.61				
20	16QAM	100	0	18.65	18.58	18.52				
20	64QAM	1	0	18.55	18.58	18.53	19.5	0		
20	64QAM	1	49	18.58	18.59	18.63				
20	64QAM	1	99	18.65	18.65	18.64				
20	64QAM	50	0	18.50	18.56	18.48	19.5	0		
20	64QAM	50	24	18.66	18.60	18.54				
20	64QAM	50	50	18.64	18.58	18.60				
20	64QAM	100	0	18						



Band 38 Ant1_DSI3 Down									
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	22.18	22.27	22.10	23	0	
20	QPSK	1	49	22.17	22.16	22.04			
20	QPSK	1	99	22.14	22.02	21.99			
20	QPSK	50	0	22.10	22.17	22.08	23	0	
20	QPSK	50	24	22.16	22.16	22.15			
20	QPSK	50	50	22.11	22.13	22.15			
20	QPSK	100	0	22.06	22.15	22.11	23	0	
20	16QAM	1	0	22.19	22.10	22.14			
20	16QAM	1	49	22.16	22.16	22.16			
20	16QAM	1	99	22.16	22.16	22.12	23	0	
20	16QAM	50	0	22.14	22.19	22.15			
20	16QAM	50	24	22.18	22.11	22.06			
20	16QAM	50	50	22.13	22.17	22.19	23	0	
20	16QAM	100	0	22.07	22.17	22.22			
20	64QAM	1	0	22.00	22.07	22.09			
20	64QAM	1	49	22.05	22.14	22.10	23	0	
20	64QAM	1	99	22.12	22.06	22.09			
20	64QAM	50	0	21.72	21.76	21.75			
20	64QAM	50	24	21.65	21.77	21.80	22.5	0.5	
20	64QAM	50	50	21.84	21.67	21.82			
20	64QAM	100	0	21.65	21.71	21.84			
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2577.5	2595	2612.5			
15	QPSK	1	0	22.02	22.02	22.05	23	0	
15	QPSK	1	37	22.08	21.98	22.01			
15	QPSK	1	74	21.94	22.06	21.96			
15	QPSK	36	0	21.98	22.05	22.03	23	0	
15	QPSK	36	20	22.21	22.14	22.08			
15	QPSK	36	39	22.06	22.12	22.04			
15	QPSK	75	0	22.14	22.04	22.11	23	0	
15	16QAM	1	0	22.23	22.17	22.22			
15	16QAM	1	37	22.19	22.25	22.17			
15	16QAM	1	74	22.25	22.27	22.13	23	0	
15	16QAM	36	0	21.96	21.97	22.01			
15	16QAM	36	20	22.13	22.10	22.07			
15	16QAM	36	39	22.15	22.11	22.05	23	0	
15	16QAM	75	0	22.15	22.07	22.08			
15	64QAM	1	0	22.12	22.13	22.05			
15	64QAM	1	37	22.05	22.03	22.02	23	0	
15	64QAM	1	74	22.05	22.10	22.11			
15	64QAM	36	0	21.58	21.54	21.60			
15	64QAM	36	20	21.65	21.59	21.56	22.5	0.5	
15	64QAM	36	39	21.69	21.65	21.66			
15	64QAM	75	0	21.69	21.58	21.57			
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2575	2595	2615			
10	QPSK	1	0	21.92	22.01	22.12	23	0	
10	QPSK	1	25	22.10	22.13	22.14			
10	QPSK	1	49	22.06	22.04	22.03			
10	QPSK	25	0	22.18	22.11	22.23	23	0	
10	QPSK	25	12	22.18	22.20	22.19			
10	QPSK	25	25	22.12	22.19	22.23			
10	QPSK	50	0	22.07	22.21	22.16	23	0	
10	16QAM	1	0	22.16	22.13	22.23			
10	16QAM	1	25	22.17	22.19	22.15			
10	16QAM	1	49	22.23	22.19	22.15	23	0	
10	16QAM	25	0	22.13	22.14	22.16			
10	16QAM	25	12	22.15	22.12	22.13			
10	16QAM	25	25	22.19	22.10	22.16	23	0	
10	16QAM	50	0	22.14	22.16	22.21			
10	64QAM	1	0	22.22	22.23	22.11			
10	64QAM	1	25	22.07	22.18	22.17	23	0	
10	64QAM	1	49	22.22	22.16	22.12			
10	64QAM	25	0	21.72	21.69	21.66			
10	64QAM	25	12	21.65	21.67	21.75	22.5	0.5	
10	64QAM	25	25	21.79	21.64	21.73			
10	64QAM	50	0	21.69	21.73	21.69			
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2572.5	2595	2617.5			
5	QPSK	1	0	22.06	22.11	22.10	23	0	
5	QPSK	1	12	22.03	22.06	22.04			
5	QPSK	1	24	22.01	22.07	22.03			
5	QPSK	12	0	22.15	22.07	22.16	23	0	
5	QPSK	12	7	22.13	22.20	22.17			
5	QPSK	12	13	22.13	22.18	22.15			
5	QPSK	25	0	22.11	22.09	22.13	23	0	
5	16QAM	1	0	22.18	22.19	22.19			
5	16QAM	1	12	22.18	22.17	22.26			
5	16QAM	1	24	22.19	22.22	22.19	23	0	
5	16QAM	12	0	22.16	22.14	22.14			
5	16QAM	12	7	22.12	22.21	22.15			
5	16QAM	12	13	22.13	22.21	22.11	23	0	
5	16QAM	25	0	22.19	22.09	22.19			
5	64QAM	1	0	22.01	21.94	22.01			
5	64QAM	1	12	22.08	22.07	22.05	23	0	
5	64QAM	1	24	22.11	22.10	22.00			
5	64QAM	12	0	21.66	21.56	21.64			
5	64QAM	12	7	21.64	21.65	21.61	22.5	0.5	
5	64QAM	12	13	21.63	21.65	21.62			
5	64QAM	25	0	21.63	21.54	21.62			



GSM850 Ant4_Default

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Tx Channel	128	189	251	24.2	23.4	23.3	24.2	23.3
Frequency (MHz)	128	189	251	24.2	23.4	23.3	24.2	23.3
GSM 1 Tx slot	32.15	32.52	32.57	33.50	23.15	23.52	23.57	24.50
GPRS 1 Tx slot	32.11	32.51	32.56	33.50	23.11	23.51	23.56	24.50
GPRS 2 Tx slot	30.90	30.65	30.66	31.00	24.90	24.65	24.66	25.00
GPRS 3 Tx slot	28.49	28.22	28.27	29.00	24.23	23.96	24.01	24.74
GPRS 4 Tx slot	27.16	27.22	27.14	28.00	24.16	24.22	24.14	25.00
EDGE 1 Tx slot	26.77	26.78	26.73	28.00	17.77	17.78	17.73	19.00
EDGE 2 Tx slot	24.38	24.33	24.34	25.50	18.38	18.33	18.34	19.50
EDGE 3 Tx slot	22.56	22.54	22.51	24.00	18.30	18.28	18.25	19.74
EDGE 4 Tx slot	22.34	22.23	22.26	23.50	19.34	19.23	19.26	20.50

GSM1900 Ant4_Default

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Tx Channel	512	661	810	1850.2	1880	1908.8	1850.2	1880
Frequency (MHz)	512	661	810	1850.2	1880	1908.8	1850.2	1880
GSM 1 Tx slot	28.25	29.31	29.47	30.50	20.25	20.31	20.47	21.50
GPRS 1 Tx slot	29.21	29.30	29.46	30.50	20.21	20.30	20.46	21.50
GPRS 2 Tx slot	27.59	27.41	27.36	28.00	21.59	21.41	21.36	22.00
GPRS 3 Tx slot	24.96	25.23	25.40	26.00	20.70	20.97	21.14	21.74
GPRS 4 Tx slot	24.16	24.35	24.12	25.00	21.16	21.35	21.12	22.00
EDGE 1 Tx slot	25.45	25.63	25.45	27.00	16.45	16.63	16.45	18.00
EDGE 2 Tx slot	23.34	23.27	23.32	24.50	17.34	17.27	17.32	18.50
EDGE 3 Tx slot	21.93	21.84	21.87	23.00	17.67	17.58	17.61	18.74
EDGE 4 Tx slot	20.93	20.96	20.93	22.00	17.93	17.96	17.93	19.00

WCDMA II Ant4_Default

WCDMA IV Ant4_Default

WCDMA V Ant4_Default

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)	
	9262	9400	9538		1312	1413	1513		4132	4182	4233		
Tx Channel	9262	9400	9538	1537	1638	1738	4357	4407	4458	4357	4407	4458	
Rx Channel	9662	9800	9938	1537	1638	1738	4357	4407	4458	4357	4407	4458	
Frequency (MHz)	1852.4	1880	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6	826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	24.17	24.20	24.30	25.50	24.01	24.10	24.15	25.50	24.28	24.37	24.29	25.50
3GPP Rel 99	RMC 12.2Kbps	24.11	24.32	24.23	25.50	24.05	24.29	24.11	25.50	24.31	24.41	24.39	25.50
3GPP Rel 6	HSDPA Subtest-1	23.44	23.53	23.49	24.50	23.36	23.33	23.35	24.50	23.35	23.32	23.34	24.50
3GPP Rel 6	HSDPA Subtest-2	23.46	23.57	23.52	24.50	23.37	23.35	23.38	24.50	23.36	23.34	23.37	24.50
3GPP Rel 6	HSDPA Subtest-3	22.96	23.02	23.03	24.00	22.84	22.87	22.86	24.00	22.83	22.86	22.85	24.00
3GPP Rel 6	HSDPA Subtest-4	22.97	23.04	23.04	24.00	22.81	22.83	22.86	24.00	22.80	22.82	22.85	24.00
3GPP Rel 6	DC-HSDPA Subtest-1	23.41	23.50	23.45	24.50	23.33	23.29	23.32	24.50	23.32	23.29	23.31	24.50
3GPP Rel 6	DC-HSDPA Subtest-2	23.43	23.54	23.48	24.50	23.34	23.31	23.35	24.50	23.33	23.30	23.34	24.50
3GPP Rel 6	DC-HSDPA Subtest-3	22.93	22.99	22.99	24.00	22.81	22.83	22.83	24.00	22.80	22.82	22.82	24.00
3GPP Rel 6	DC-HSDPA Subtest-4	22.94	23.01	23.00	24.00	22.78	22.79	22.83	24.00	22.77	22.78	22.82	24.00
3GPP Rel 6	HSUPA Subtest-1	23.48	23.57	23.51	24.50	23.35	23.32	23.33	24.50	23.34	23.31	23.32	24.50
3GPP Rel 6	HSUPA Subtest-2	21.50	21.54	21.53	22.50	21.34	21.34	21.37	22.50	21.33	21.33	21.36	22.50
3GPP Rel 6	HSUPA Subtest-3	22.48	22.56	22.56	23.50	22.35	22.30	22.34	23.50	22.34	22.29	22.33	23.50
3GPP Rel 6	HSUPA Subtest-4	21.51	21.53	21.55	22.50	21.38	21.38	21.36	22.50	21.37	21.37	21.35	22.50
3GPP Rel 6	HSUPA Subtest-5	23.51	23.53	23.52	24.50	23.30	23.40	23.40	24.50	23.29	23.39	23.39	24.50



Band 4 Ant 4_Default														
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch. / Freq. 20550	Power Ch. / Freq. 21575	Power Ch. / Freq. 22600	Turn-up (dBm)	MPR (dB)						
Frequency (MHz)														
20	QPSK	1	0	24.35	24.30	24.37	25.5	0						
20	QPSK	1	49	24.48	24.67	24.11	25.5	0						
20	QPSK	1	99	24.60	24.22	24.61	25.5	0						
20	QPSK	25	0	23.52	23.54	23.56	24.5	1						
20	QPSK	50	24	23.21	23.24	23.18	24.5	1						
20	QPSK	50	50	23.65	23.16	23.62	24.5	1						
20	QPSK	100	0	22.67	22.67	22.67	23.5	2						
20	QPSK	1	6	23.70	23.63	23.71	24.5	1						
20	HQAM	1	49	23.48	23.42	23.44	24.5	1						
20	HQAM	1	99	23.47	23.38	23.52	24.5	1						
20	HQAM	10	0	22.90	22.93	22.87	23.5	2						
20	HQAM	50	24	22.27	22.30	22.18	23.5	2						
20	HQAM	50	50	22.19	22.08	22.21	23.5	2						
20	HQAM	100	0	22.22	22.18	22.19	23.5	2						
20	HQAM	1	49	22.98	22.87	22.95	23.5	2						
20	HQAM	1	49	22.38	22.24	22.38	23.5	2						
20	HQAM	1	99	22.22	22.17	22.25	23.5	2						
20	HQAM	10	0	21.92	21.93	21.92	22.5	3						
20	HQAM	50	24	21.25	21.19	21.18	22.5	3						
20	HQAM	50	50	21.11	21.08	21.02	22.5	3						
20	HQAM	100	0	21.22	21.15	21.11	22.5	3						
Channel				1770.5	1782.5	1747.5	Turn-up (dBm)	MPR (dB)						
Frequency (MHz)	1770.5	1782.5	1747.5											
15	QPSK	1	0	24.38	24.23	24.21	25.5	0						
15	QPSK	1	37	24.20	24.68	24.06	25.5	0						
15	QPSK	1	74	24.04	24.02	24.04	25.5	0						
15	QPSK	36	0	23.37	23.26	23.21	24.5	1						
15	QPSK	36	20	23.34	23.23	23.15	24.5	1						
15	QPSK	36	29	23.12	23.09	23.06	24.5	1						
15	QPSK	75	0	23.30	23.19	23.17	24.5	1						
15	HQAM	1	0	23.72	23.66	23.61	24.5	1						
15	HQAM	1	37	23.47	23.48	23.39	24.5	1						
15	HQAM	1	74	23.47	23.27	23.19	24.5	1						
15	HQAM	36	0	22.38	22.20	22.13	23.5	2						
15	HQAM	36	20	22.35	22.24	22.18	23.5	2						
15	HQAM	36	29	22.08	22.02	22.02	23.5	2						
15	HQAM	75	0	22.31	22.17	22.15	23.5	2						
15	HQAM	1	0	22.60	22.39	22.46	23.5	2						
15	HQAM	1	37	22.34	22.20	22.15	23.5	2						
15	HQAM	1	74	22.34	22.12	22.12	23.5	2						
15	HQAM	36	0	21.43	21.21	21.22	22.5	3						
15	HQAM	36	20	21.34	21.24	21.18	22.5	3						
15	HQAM	36	29	21.26	21.09	21.06	22.5	3						
15	HQAM	75	0	21.29	21.19	21.18	22.5	3						
Channel				3030.0	3075.5	3059.0	Turn-up (dBm)	MPR (dB)						
Frequency (MHz)	3030.0	3075.5	3059.0											
10	QPSK	1	0	24.30	24.32	24.24	25.5	0						
10	QPSK	1	49	24.17	24.51	23.88	25.5	0						
10	QPSK	1	99	24.49	24.59	23.88	25.5	0						
10	QPSK	25	0	23.49	23.51	23.52	24.5	1						
10	QPSK	25	25	23.46	23.51	23.52	24.5	1						
10	QPSK	25	25	23.36	23.31	23.12	24.5	1						
10	QPSK	50	0	23.44	23.38	23.17	24.5	1						
10	QPSK	1	0	23.72	23.38	23.17	24.5	1						
10	HQAM	1	10	23.46	23.47	23.38	24.5	1						
10	HQAM	1	49	23.48	23.43	23.23	24.5	1						
10	HQAM	1	99	23.49	23.37	23.28	24.5	1						
10	HQAM	10	0	22.96	22.93	22.93	23.5	2						
10	HQAM	25	25	22.99	22.93	22.98	23.5	2						
10	HQAM	50	0	22.46	22.38	22.20	23.5	2						
10	HQAM	1	0	22.81	22.48	22.46	23.5	2						
10	HQAM	1	49	22.47	22.47	22.39	23.5	2						
10	HQAM	1	49	22.33	22.34	22.23	23.5	2						
10	HQAM	25	0	21.51	21.33	21.28	22.5	3						
10	HQAM	25	12	21.48	21.42	21.39	22.5	3						
10	HQAM	25	25	21.37	21.31	21.12	22.5	3						
10	HQAM	50	0	21.44	21.42	21.43	22.5	3						
Channel				1907.5	2075.5	2077.5	Turn-up (dBm)	MPR (dB)						
Frequency (MHz)	1907.5	2075.5	2077.5											
5	QPSK	1	0	24.38	24.30	24.15	25.5	0						
5	QPSK	1	12	24.26	24.27	24.62	25.5	0						
5	QPSK	1	24	24.26	24.26	23.92	25.5	0						
5	QPSK	12	0	23.45	23.45	23.45	24.5	1						
5	QPSK	12	7	23.45	23.39	23.15	24.5	1						
5	QPSK	12	13	23.38	23.37	23.08	24.5	1						
5	QPSK	25	0	23.40	23.28	23.12	24.5	1						
5	QPSK	25	12	23.42	23.19	23.18	24.5	1						
5	QPSK	1	12	23.86	23.86	23.38	24.5	1						
5	HQAM	1	24	23.89	23.80	23.27	24.5	1						
5	HQAM	1	24	23.42	23.38	23.19	24.5	1						
5	HQAM	12	7	23.43	23.40	23.15	23.5	2						
5	HQAM	12	13	22.37	22.38	22.07	23.5	2						
5	HQAM	25	0	22.40	22.38	22.14	23.5	2						
5	HQAM	1	12	22.82	22.82	22.37	23.5	2						
5	HQAM	1	12	22.55	22.55	22.25	23.5	2						
5	HQAM	1	24	22.47	22.53	22.22	23.5	2						
5	HQAM	10	0	21.59	21.59	21.59	22.5	3						
5	HQAM	12	7	21.42	21.40	21.15	22.5	3						
5	HQAM	12	13	21.38	21.34	21.09	22.5	3						
5	HQAM	25	0	21.38	21.37	21.13	22.5	3						
Channel				1715.5	1732.5	1753.5	Turn-up (dBm)	MPR (dB)						
Frequency (MHz)	1715.5	1732.5	1753.5											
3	QPSK	1	0	24.33	24.24	24.07	25.5	0						
3	QPSK	1	8	24.23	24.20	24.05	25.5	0						
3	QPSK	1	16	24.24	24.23	23.96	25.5	0						
3	QPSK	8	0	23.42	23.38	23.12	24.5	1						
3	QPSK	8	4	23.43	23.38	23.10	24.5	1						
3	QPSK	8	7	23.38	23.37	23.07	24.5	1						
3	QPSK	15	0	23.42	23.37	23.10	24.5	1						
3	HQAM	1	0	23.68	23.62	23.34	24.5	1						
3	HQAM	1	8	23.62	23.69	23.35	24.5	1						
3	HQAM	1	16	23.63	23.55	23.21	24.5	1						
3	HQAM	8	0	22.48	22.43	22.17	23.5	2						
3	HQAM	8	4	22.51	22.45	22.19	23.5	2						
3	HQAM	8	7	22.44	22.42	22.19	23.5	2						
3	HQAM	15	0	22.43	22.39	22.11	23.5	2						
3	HQAM	1	0	22.56	22.54	22.28	23.5	2						
3	HQAM	1	8	22.62	22.56	22.28	23.5	2						
3	HQAM	1	16	22.54	22.51	22.18	23.5	2						
3	HQAM	8	0	21.48	21.38	21.14	22.5	3						
3	HQAM	8	4	21.48	21.42	21.11	22.5	3						
3	HQAM	8	7	21.40	21.37	21.07	22.5	3						
3	HQAM	15	0	21.41	21.35	21.07	22.5	3						
Channel				1967.5	2075.5	2093.5	Turn-up (dBm)	MPR (dB)						
Frequency (MHz)	1967.5	2075.5	2093.5											
14	QPSK	1	0	24.31	24.20	24.03	25.5	0						
14	QPSK	1	31	24.37	24.26	24.08	25.5	0						
14	QPSK	1	6	24.34	24.26	23.95	25.5	0						
14	QPSK	3	0	24.37	24.36	24.05	25.5	0						
14	QPSK	3	3	24.38	24.38	24.07	25.5	0						
14	QPSK	3	3	24.38	24.36	24.03	25.5	0						
14	QPSK	6	0	23.43	23.44	23.13	24.5	1						
14	HQAM	1	0	23.67	23.66	23.34	24.5	1						
14	HQAM	1	31	23.63	23.66	23.38	24.5	1						
14	HQAM	1	6	23.67	23.60	23.31	24.5	1						
14	HQAM	3	0	23.45	23.41	23.12	24.5	1						
14	HQAM	3	3	23.50	23.44	23.18	24.5	1						
14	HQAM	3	3	23.44	23.39	23.10	24.5	1						
14	HQAM	6	0	22.52	22.49	22.20	23.5	2						
14	HQAM	1	0	22.37	22.50	22.25	23.5	2						
14	HQAM	1	31	22.54	22.51	22.21	23.5	2						
14	HQAM	3	0	22.50	22.48	22.17	23.5	2						
14	HQAM	3	3	22.54	22.51	22.21	23.5	2						
14	HQAM	6	0	21.48	21.43	21.15	22.5	3						

Band 5 Ant 4_Default													
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch. / Freq. 2400	Power Ch. / Freq. 2495	Power Ch. / Freq. 2590	Turn-up (dBm)	MPR (dB)					
Frequency (MHz)													
10	QPSK	1	0	24.01	24.03	24.03	25.5	0					
10	QPSK	1	25	24.05	23.79	23.81	25.5	0					
10	QPSK	1	49	24.02	24.04	24.02	25.5	0					
10	QPSK	25	0	23.07	23.09	23.10	24.5	1					
10	QPSK	25	25	23.04	23.02	23.03	24.5	1					
10	HQAM	1	0	23.34	23.29	23.40	24.5	1					
10	HQAM	1	25	23.19	23.14	23.32							



Band 13 Ant 4_Default										
BW (MHz)	Modulation	RB Size	RB Offset	Power Line Ch / Freq	Power Main Ch / Freq	Power High Ch / Freq	Turn-up (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.52			25.5	0		
10	QPSK	1	25	24.22						
10	QPSK	1	49	24.22						
10	QPSK	25	0	23.35						
10	QPSK	25	12	23.38			24.5	1		
10	QPSK	25	25	23.41						
10	QPSK	50	0	22.58						
10	QPSK	50	12	22.58						
10	QPSK	50	25	22.58						
10	QPSK	100	0	22.22			24.5	1		
10	QPSK	100	12	22.22						
10	QPSK	100	25	22.22						
10	QPSK	200	0	22.22			23.5	2		
10	QPSK	200	12	22.22						
10	QPSK	200	25	22.22						
10	QPSK	400	0	22.22			23.5	2		
10	QPSK	400	12	22.22						
10	QPSK	400	25	22.22						
10	QPSK	800	0	22.22			22.5	3		
10	QPSK	800	12	22.22						
10	QPSK	800	25	22.22						
Channel										
				2335	2335	2335	Turn-up (dBm)	MPR (dB)		
Frequency (MHz)										
5	QPSK	1	0	24.34	24.27	24.18				
5	QPSK	1	12	24.39	24.07	24.22	25.5	0		
5	QPSK	1	24	24.15	24.07	24.18				
5	QPSK	12	0	23.51	23.38	23.22				
5	QPSK	12	7	23.35	23.16	23.28	24.5	1		
5	QPSK	12	14	23.29	23.18	23.28				
5	QPSK	25	0	23.20	23.11	23.22				
5	QPSK	25	12	23.50	23.49	23.45				
5	QPSK	25	25	23.44	23.08	23.46	24.5	1		
5	QPSK	50	0	23.24	23.20	23.30				
5	QPSK	50	12	23.24	23.20	23.14				
5	QPSK	100	0	22.98	22.29	22.44	23.5	2		
5	QPSK	100	12	23.44	23.08	23.46				
5	QPSK	100	25	23.29	23.23	23.38				
5	QPSK	200	0	22.28	22.48	22.13				
5	QPSK	200	12	23.30	22.11	22.11	23.5	2		
5	QPSK	200	25	23.42	22.20	22.30				
5	QPSK	400	0	21.41	21.38	21.32				
5	QPSK	400	12	21.43	21.45	21.32	22.5	3		
5	QPSK	400	25	21.46	21.34	21.24				
5	QPSK	800	0	21.44	21.43	21.45				

Band 17 Ant 4_Default										
BW (MHz)	Modulation	RB Size	RB Offset	Power Line Ch / Freq	Power Main Ch / Freq	Power High Ch / Freq	Turn-up (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.02	24.14	24.12	25.5	0		
10	QPSK	1	25	24.01	24.11	23.98				
10	QPSK	1	49	23.92	24.12	24.12				
10	QPSK	25	0	23.20	23.51	23.20				
10	QPSK	25	12	23.20	23.94	23.19	24.5	1		
10	QPSK	25	25	23.17	23.80	23.17				
10	QPSK	50	0	23.26	23.24	23.23				
10	QPSK	50	12	23.49	23.23	23.41				
10	QPSK	50	25	23.40	23.37	23.28	24.5	1		
10	QPSK	100	0	23.25	23.19	23.19				
10	QPSK	100	12	22.32	21.81	22.22	23.5	2		
10	QPSK	100	25	22.18	21.89	22.14				
10	QPSK	200	0	22.28	21.89	22.14				
10	QPSK	200	12	22.43	22.12	22.54	23.5	2		
10	QPSK	200	25	22.18	22.14	22.35				
10	QPSK	400	0	22.15	22.31	22.50				
10	QPSK	400	12	21.92	20.87	21.20	22.5	3		
10	QPSK	400	25	21.19	20.84	21.19				
10	QPSK	800	0	21.14	20.79	21.10				
10	QPSK	800	12	21.28	20.80	21.10				
Channel										
				2390	2390	2390	Turn-up (dBm)	MPR (dB)		
Frequency (MHz)										
5	QPSK	1	0	24.05	24.05	24.03				
5	QPSK	1	12	24.12	24.11	24.00	25.5	0		
5	QPSK	1	24	24.10	24.10	24.10				
5	QPSK	12	0	23.06	23.00	22.97				
5	QPSK	12	7	23.08	22.90	22.96	24.5	1		
5	QPSK	12	14	23.03	22.94	22.90				
5	QPSK	25	0	23.09	23.03	23.03				
5	QPSK	25	12	23.35	23.49	23.27				
5	QPSK	25	25	23.10	23.31	23.21	24.5	1		
5	QPSK	50	0	23.12	23.13	23.18				
5	QPSK	50	12	22.05	22.01	21.90	23.5	2		
5	QPSK	100	0	22.02	22.00	21.94				
5	QPSK	100	12	21.99	21.87	21.81				
5	QPSK	100	25	22.03	22.05	22.01	23.5	2		
5	QPSK	200	0	22.20	22.22	22.15				
5	QPSK	200	12	22.16	22.12	22.06				
5	QPSK	200	25	22.00	22.02	21.90	22.5	3		
5	QPSK	400	0	21.02	20.95	20.91				
5	QPSK	400	12	20.97	20.90	20.93				
5	QPSK	400	25	20.92	20.94	20.90				

Band 26 Ant 4_Default										
BW (MHz)	Modulation	RB Size	RB Offset	Power Line Ch / Freq	Power Main Ch / Freq	Power High Ch / Freq	Turn-up (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
15	QPSK	1	0	24.58	24.64	24.54	25.5	0		
15	QPSK	1	37	24.54	24.61	24.55				
15	QPSK	1	74	24.46	24.59	24.47				
15	QPSK	38	0	24.60	23.57	23.64				
15	QPSK	38	38	23.87	23.67	23.69	24.5	1		
15	QPSK	38	75	23.84	23.59	23.62				
15	QPSK	75	0	23.76	23.76	23.67				
15	QPSK	75	38	23.40	23.68	23.47				
15	QPSK	75	75	23.80	24.05	23.82	24.5	1		
15	QPSK	150	0	23.65	23.59	23.61				
15	QPSK	150	38	22.54	22.84	22.60	23.5	2		
15	QPSK	150	75	22.61	22.89	22.70				
15	QPSK	300	0	22.61	22.62	22.89				
15	QPSK	300	38	22.61	22.60	22.65	23.5	2		
15	QPSK	300	75	22.61	22.60	22.78				
15	QPSK	600	0	22.61	22.60	22.78	23.5	2		
15	QPSK	600	38	22.61	22.60	22.78				
15	QPSK	600	75	22.65	22.78	22.97				
15	QPSK	1200	0	21.63	21.70	21.38	22.5	3		
15	QPSK	1200	38	21.67	21.48	21.69				
15	QPSK	1200	75	21.94	21.68	21.68				
Channel										
				2670	2665	2705	Turn-up (dBm)	MPR (dB)		
Frequency (MHz)										
3	QPSK	1	0	24.51	24.48	24.59	25.5	0		
3	QPSK	1	96	24.20	24.25	24.31				
3	QPSK	1	191	24.44	24.38	24.57				
3	QPSK	25	0	23.47	23.46	23.53				
3	QPSK	25	12	23.53	23.58	23.39	24.5	1		
3	QPSK	25	25	23.60	23.61	23.62				
3	QPSK	50	0	23.63	23.57	23.17				
3	QPSK	50	12	23.38	23.48	23.60				
3	QPSK	50	25	23.58	23.59	23.60	24.5	1		
3	QPSK	100	0	23.59	23.60	23.60				
3	QPSK	100	12	22.60	22.64	22.64	23.5	2		
3	QPSK	100	25	22.39	22.40	22.28				
3	QPSK	200	0	22.40	22.41	22.22				
3	QPSK	200	12	22.40	22.40	22.39				
3	QPSK	200	25	22.48	22.48	22.00	23.5	2		
3	QPSK	400	0	22.50	22.41	22.51				
3	QPSK	400	12	22.58	22.31	22.28				
3	QPSK	400	25	22.50	22.44	22.28	22.5	2		
3	QPSK	800	0	21.30	21.35	21.20	22.5	3		
3	QPSK	800	12	21.40	21.38	21.68				
3	QPSK	800	25	21.54	21.45	21.54				
Channel										
				3670	3665	3705	Turn-up (dBm)	MPR (dB)		
Frequency (MHz)										



Band 38 Ant 4_Default

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	24.60	24.79	24.62	25.5	0
20	QPSK	1	49	24.57	24.54	24.53		
20	QPSK	1	99	24.45	24.43	24.45		
20	QPSK	50	0	23.73	23.72	23.61	24.5	1
20	QPSK	50	24	23.74	23.62	23.64		
20	QPSK	50	50	23.63	23.62	23.69		
20	QPSK	100	0	23.84	23.70	23.69	24.5	1
20	16QAM	1	0	23.85	23.73	23.75		
20	16QAM	1	49	23.74	23.73	23.80		
20	16QAM	1	99	23.75	23.90	23.83	23.5	2
20	16QAM	50	0	22.76	22.66	22.63		
20	16QAM	50	24	22.76	22.62	22.69		
20	16QAM	50	50	22.64	22.70	22.67	23.5	2
20	16QAM	100	0	22.71	22.65	22.69		
20	64QAM	1	0	22.55	22.74	22.59		
20	64QAM	1	49	22.72	22.82	22.71	23.5	2
20	64QAM	1	99	22.73	22.70	22.77		
20	64QAM	50	0	21.49	21.36	21.49		
20	64QAM	50	24	21.46	21.46	21.35	22.5	3
20	64QAM	50	50	21.30	21.45	21.27		
20	64QAM	100	0	21.36	21.39	21.28		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	24.72	24.61	24.62	25.5	0
15	QPSK	1	37	24.74	24.60	24.63		
15	QPSK	1	74	24.62	24.65	24.72		
15	QPSK	36	0	23.62	23.63	23.61	24.5	1
15	QPSK	36	20	23.63	23.61	23.67		
15	QPSK	36	39	23.61	23.60	23.67		
15	QPSK	75	0	23.75	23.64	23.63	24.5	1
15	16QAM	1	0	23.63	23.62	23.66		
15	16QAM	1	37	24.00	23.68	23.64		
15	16QAM	1	74	23.60	23.61	23.76	23.5	2
15	16QAM	36	0	22.99	22.64	22.75		
15	16QAM	36	20	22.91	22.81	22.83		
15	16QAM	36	39	22.80	22.60	22.70	23.5	2
15	16QAM	75	0	22.67	22.60	22.63		
15	64QAM	1	0	23.02	22.96	23.00		
15	64QAM	1	37	23.21	23.13	23.04	23.5	2
15	64QAM	1	74	23.24	23.11	23.01		
15	64QAM	36	0	22.11	22.29	22.18		
15	64QAM	36	20	22.23	22.22	22.36	22.5	3
15	64QAM	36	39	22.11	22.29	22.35		
15	64QAM	75	0	22.19	22.37	22.23		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	24.74	24.78	24.71	25.5	0
10	QPSK	1	25	24.61	24.66	24.74		
10	QPSK	1	49	24.74	24.69	24.69		
10	QPSK	25	0	23.79	23.80	23.63	24.5	1
10	QPSK	25	12	23.61	23.58	23.74		
10	QPSK	25	25	23.79	23.54	23.69		
10	QPSK	50	0	23.74	23.77	23.70	24.5	1
10	16QAM	1	0	23.83	23.70	23.63		
10	16QAM	1	25	23.89	23.89	23.81		
10	16QAM	1	49	23.66	23.68	23.64	23.5	2
10	16QAM	25	0	22.73	22.71	23.01		
10	16QAM	25	12	22.77	22.72	22.86		
10	16QAM	25	25	22.77	22.61	22.66	23.5	2
10	16QAM	50	0	22.88	22.66	22.67		
10	64QAM	1	0	23.19	22.91	22.95		
10	64QAM	1	25	23.17	22.90	23.20	23.5	2
10	64QAM	1	49	22.96	22.82	22.99		
10	64QAM	25	0	21.82	22.00	21.88		
10	64QAM	25	12	21.87	21.63	21.72	22.5	3
10	64QAM	25	25	21.74	21.63	21.65		
10	64QAM	50	0	21.73	21.68	21.63		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	24.62	24.71	24.67	25.5	0
5	QPSK	1	12	24.63	24.60	24.61		
5	QPSK	1	24	24.68	24.74	24.64		
5	QPSK	12	0	23.78	23.67	23.65	24.5	1
5	QPSK	12	7	23.66	23.69	23.79		
5	QPSK	12	13	23.66	23.61	23.69		
5	QPSK	25	0	23.66	23.63	23.69	24.5	1
5	16QAM	1	0	23.69	23.66	23.67		
5	16QAM	1	12	23.96	23.74	23.77		
5	16QAM	1	24	23.73	23.69	23.67	23.5	2
5	16QAM	12	0	22.62	22.77	22.62		
5	16QAM	12	7	22.67	22.78	22.65		
5	16QAM	12	13	22.69	22.68	22.67	23.5	2
5	16QAM	25	0	22.65	22.75	22.62		
5	64QAM	1	0	23.00	22.98	23.00		
5	64QAM	1	12	23.16	22.91	23.16	23.5	2
5	64QAM	1	24	23.07	23.08	23.11		
5	64QAM	12	0	21.71	21.62	21.62		
5	64QAM	12	7	21.76	21.64	21.72	22.5	3
5	64QAM	12	13	21.68	21.65	21.60		
5	64QAM	25	0	21.69	21.60	21.69		



GSM850 Ant4_DS1&2&4

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel	824.2	836.4	848.8	33.50	824.2	836.4	848.8	24.50
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.15	32.52	32.57	33.50	23.15	23.52	23.57	24.50
GPRS 1 Tx slot	32.11	32.51	32.56	33.50	23.11	23.51	23.56	24.50
GPRS 2 Tx slots	30.90	30.65	30.66	31.00	24.90	24.65	24.66	25.00
GPRS 3 Tx slots	28.49	28.22	28.27	29.00	24.23	23.96	24.01	24.74
GPRS 4 Tx slots	27.16	27.22	27.14	28.00	24.16	24.22	24.14	25.00
EDGE 1 Tx slot	26.77	26.78	26.73	28.00	17.77	17.78	17.73	19.00
EDGE 2 Tx slots	24.38	24.33	24.34	25.50	18.38	18.33	18.34	19.50
EDGE 3 Tx slots	22.56	22.54	22.51	24.00	18.30	18.28	18.25	19.74
EDGE 4 Tx slots	22.34	22.23	22.26	23.50	19.34	19.23	19.26	20.50

GSM1900 Ant4_DS12

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	1850.2	1880	1909.8	30.50	1850.2	1880	1909.8	21.50
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	29.25	29.31	29.47	30.50	20.25	20.31	20.47	21.50
GPRS 1 Tx slot	29.21	29.30	29.46	30.50	20.21	20.30	20.46	21.50
GPRS 2 Tx slots	27.59	27.41	27.36	28.00	21.59	21.41	21.36	22.00
GPRS 3 Tx slots	24.96	25.23	25.40	26.00	20.70	20.97	21.14	21.74
GPRS 4 Tx slots	24.16	24.35	24.12	25.00	21.16	21.35	21.12	22.00
EDGE 1 Tx slot	25.45	25.63	25.45	27.00	16.45	16.63	16.45	18.00
EDGE 2 Tx slots	23.34	23.27	23.32	24.50	17.34	17.27	17.32	18.50
EDGE 3 Tx slots	21.93	21.84	21.87	23.00	17.67	17.58	17.61	18.74
EDGE 4 Tx slots	20.93	20.96	20.93	22.00	17.93	17.96	17.93	19.00

WCDMA II Ant4_DS12

WCDMA IV Ant4_DS12

WCDMA V Ant4_DS12&4

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)	
	9262	9400	9538		1312	1413	1513		4132	4182	4233		
TX Channel	9662	9800	9938	1712.4	1638	1738	4357	4407	4458				
Rx Channel	1852.4	1880	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6				
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	23.15	23.25	23.24	23.50	24.01	24.10	24.15	24.50	24.28	24.37	24.29	25.50
3GPP Rel 99	RM C 12.2Kbps	23.16	23.27	23.25	23.50	24.05	24.29	24.11	24.50	24.31	24.41	24.39	25.50
3GPP Rel 6	HSDPA Subtest-1	22.24	22.42	22.41	22.50	23.36	23.33	23.35	23.50	23.35	23.32	23.34	24.50
3GPP Rel 6	HSDPA Subtest-2	22.25	22.41	22.43	22.50	23.37	23.35	23.38	23.50	23.36	23.34	23.37	24.50
3GPP Rel 6	HSDPA Subtest-3	21.76	21.91	21.91	22.00	22.84	22.87	22.86	23.00	22.83	22.86	22.85	24.00
3GPP Rel 6	HSDPA Subtest-4	21.80	21.90	21.91	22.00	22.81	22.83	22.86	23.00	22.80	22.82	22.85	24.00
3GPP Rel 8	DC-HSDPA Subtest-1	22.29	22.40	22.47	22.50	23.33	23.29	23.32	23.50	23.32	23.28	23.31	24.50
3GPP Rel 8	DC-HSDPA Subtest-2	22.21	22.38	22.48	22.50	23.34	23.31	23.35	23.50	23.33	23.30	23.34	24.50
3GPP Rel 8	DC-HSDPA Subtest-3	21.81	21.86	21.88	22.00	22.81	22.83	22.83	23.00	22.80	22.82	22.82	24.00
3GPP Rel 8	DC-HSDPA Subtest-4	21.85	21.95	21.91	22.00	22.78	22.79	22.83	23.00	22.77	22.78	22.82	24.00
3GPP Rel 6	HSUPA Subtest-1	22.26	22.38	22.35	23.00	23.35	23.32	23.33	23.50	23.34	23.31	23.32	24.50
3GPP Rel 6	HSUPA Subtest-2	20.26	20.41	20.39	21.00	21.34	21.34	21.37	21.50	21.33	21.33	21.36	22.50
3GPP Rel 6	HSUPA Subtest-3	21.33	21.40	21.36	22.00	22.35	22.30	22.34	22.50	22.34	22.29	22.33	23.50
3GPP Rel 6	HSUPA Subtest-4	20.30	20.41	20.43	21.00	21.38	21.38	21.36	21.50	21.37	21.37	21.35	22.50
3GPP Rel 6	HSUPA Subtest-5	22.30	22.40	22.40	23.00	23.30	23.40	23.40	23.50	23.29	23.39	23.39	24.50



Band 12 Ant 4_DSI1&2&4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power High Ch. / Freq.	Power Mid Ch. / Freq.	Time-up (dB)	MPR (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.18	24.17	24.18				
10	QPSK	1	26	24.03	23.98	24.02	25.5	0		
10	QPSK	1	49	24.14	24.15	24.12				
10	QPSK	25	0	23.14	23.18	23.09				
10	QPSK	25	12	23.12	23.10	23.02	24.5	1		
10	QPSK	25	25	23.05	23.13	23.10				
10	QPSK	50	0	22.92	23.11	23.06				
10	HQAM	1	0	23.57	23.55	23.51				
10	HQAM	1	26	23.28	23.32	23.32	24.5	1		
10	HQAM	1	49	23.46	23.46	23.46				
10	HQAM	25	0	22.26	22.50	22.44				
10	HQAM	25	12	22.48	22.44	22.43	23.5	2		
10	HQAM	25	25	22.43	22.45	22.47				
10	HQAM	50	0	22.42	22.51	22.47				
10	HQAM	1	0	22.36	22.34	22.37				
10	HQAM	1	26	22.30	22.33	22.33	23.5	2		
10	HQAM	1	49	22.28	22.26	22.23				
10	HQAM	25	0	21.01	21.14	21.07				
10	HQAM	25	12	21.11	21.10	21.03	22.5	3		
10	HQAM	25	25	21.02	21.09	21.09				
10	HQAM	50	0	21.00	21.09	21.00				
Channel										
Frequency (MHz)										
5	QPSK	1	0	23.88	23.93	23.91				
5	QPSK	1	12	23.84	23.89	23.90	25.5	0		
5	QPSK	1	24	23.84	23.98	24.00				
5	QPSK	12	0	23.81	23.82	23.87				
5	QPSK	12	7	23.83	23.98	23.83	24.5	1		
5	QPSK	12	13	23.80	23.94	23.82				
5	QPSK	25	0	22.95	22.97	22.94				
5	HQAM	1	0	23.17	23.22	23.28				
5	HQAM	1	12	23.06	23.11	23.14	24.5	1		
5	HQAM	1	24	23.16	23.23	23.26				
5	HQAM	12	0	21.94	21.97	22.10				
5	HQAM	12	7	22.00	22.01	22.09	23.5	2		
5	HQAM	12	13	22.07	22.00	22.00				
5	HQAM	25	0	21.90	21.93	21.99				
5	HQAM	1	0	22.00	22.09	22.10	23.5	2		
5	HQAM	1	12	22.01	21.95	22.03				
5	HQAM	1	24	22.00	22.06	22.06				
5	HQAM	12	0	20.90	20.95	21.06				
5	HQAM	12	7	20.89	20.98	21.08	22.5	3		
5	HQAM	12	13	20.92	20.95	21.05				
5	HQAM	25	0	20.90	20.98	21.05				
Channel										
Frequency (MHz)										
3	QPSK	1	0	24.04	24.03	24.04				
3	QPSK	1	8	24.09	23.97	24.00	25.5	0		
3	QPSK	1	14	24.03	23.95	23.93				
3	QPSK	8	0	22.97	22.98	23.00				
3	QPSK	8	4	22.91	22.87	22.91	24.5	1		
3	QPSK	8	7	22.99	22.94	22.98				
3	QPSK	16	0	23.02	22.96	22.90				
3	HQAM	1	0	23.22	23.28	23.31	24.5	1		
3	HQAM	1	14	23.25	23.19	23.34				
3	HQAM	8	0	22.08	22.08	22.10				
3	HQAM	8	4	22.14	22.03	22.06	23.5	2		
3	HQAM	8	7	22.09	22.05	22.03				
3	HQAM	16	0	22.02	21.94	21.97				
3	HQAM	1	0	22.01	22.12	22.12	23.5	2		
3	HQAM	1	14	22.14	22.12	22.14				
3	HQAM	1	14	22.10	22.06	22.18				
3	HQAM	8	0	20.97	20.95	20.98				
3	HQAM	8	4	21.03	20.87	21.01	22.5	3		
3	HQAM	8	7	20.99	20.94	21.00				
3	HQAM	16	0	21.03	20.91	21.04				
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	23.83	23.87	23.98				
1.4	QPSK	1	3	23.92	23.94	23.92	25.5	0		
1.4	QPSK	1	5	23.94	23.92	23.93				
1.4	QPSK	3	0	23.85	23.92	23.90				
1.4	QPSK	3	1	23.93	23.82	23.94	24.5	1		
1.4	QPSK	3	3	23.95	23.91	23.82				
1.4	QPSK	6	0	22.94	22.90	23.09				
1.4	HQAM	1	0	23.17	23.19	23.47	24.5	1		
1.4	HQAM	1	3	23.24	23.33	23.41				
1.4	HQAM	1	5	23.17	23.23	23.25				
1.4	HQAM	3	0	22.10	22.18	22.23	23.5	2		
1.4	HQAM	3	1	22.10	22.13	22.01				
1.4	HQAM	3	3	22.02	22.06	22.06				
1.4	HQAM	6	0	21.09	21.02	21.09				
1.4	HQAM	6	1	22.06	22.10	22.07	23.5	2		
1.4	HQAM	1	0	22.07	22.06	22.17				
1.4	HQAM	1	5	22.04	21.99	22.12	23.5	2		
1.4	HQAM	3	0	22.05	21.90	21.99				
1.4	HQAM	3	1	22.05	22.10	22.00				
1.4	HQAM	3	3	21.98	21.96	21.94	22.5	3		
1.4	HQAM	6	0	20.90	20.88	20.88				

Band 13 Ant 4_DSI1&2&4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power High Ch. / Freq.	Power Mid Ch. / Freq.	Time-up (dB)	MPR (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.52						
10	QPSK	1	26	24.22			26.5	0		
10	QPSK	1	49	24.22						
10	QPSK	25	0	23.33						
10	QPSK	25	12	23.28			24.5	1		
10	QPSK	25	25	23.41						
10	QPSK	50	0	22.39						
10	HQAM	1	0	23.58						
10	HQAM	1	26	23.42			24.5	1		
10	HQAM	1	49	23.22						
10	HQAM	25	0	22.33						
10	HQAM	25	12	22.32			23.5	2		
10	HQAM	25	25	22.31						
10	HQAM	50	0	22.23						
10	HQAM	1	0	22.26			23.5	2		
10	HQAM	1	26	22.19						
10	HQAM	1	49	22.20						
10	HQAM	25	0	21.29						
10	HQAM	25	12	21.30			22.5	3		
10	HQAM	25	25	21.82						
10	HQAM	50	0	21.74						
Channel										
Frequency (MHz)										
5	QPSK	1	0	24.34	24.27	24.18				
5	QPSK	1	12	24.38	24.43	24.22	26.5	0		
5	QPSK	1	24	24.10	24.07	24.06				
5	QPSK	12	0	23.51	23.38	23.22				
5	QPSK	12	7	23.36	23.15	23.28	24.5	1		
5	QPSK	12	13	23.59	23.18	23.38				
5	QPSK	25	0	23.20	23.11	23.22				
5	HQAM	1	0	23.50	23.49	23.45				
5	HQAM	1	12	23.44	23.03	23.46	24.5	1		
5	HQAM	1	24	23.54	23.20	23.30				
5	HQAM	12	0	22.24	22.29	22.14				
5	HQAM	12	7	22.58	22.29	22.44	23.5	2		
5	HQAM	12	13	22.98	22.20	22.30				
5	HQAM	25	0	22.30	22.33	22.38				
5	HQAM	1	0	22.28	22.48	22.13	23.5	2		
5	HQAM	1	12	22.30	22.11	22.11				
5	HQAM	1	24	22.42	22.20	22.30				
5	HQAM	12	0	21.41	21.38	21.30				
5	HQAM	12	7	21.43	21.45	21.12	22.5	3		
5	HQAM	12	13	21.68	21.24	21.24				
5	HQAM	25	0	21.44	21.43	21.48				

Band 17 Ant 4_DSI1&2&4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power High Ch. / Freq.	Power Mid Ch. / Freq.	Time-up (dB)	MPR (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.02	24.14	24.12				
10	QPSK	1	26	24.01	24.01	23.98	25.5	0		
10	QPSK	1	49	24.02	24.12	24.12				
10	QPSK	25	0	23.00	23.01	23.00				
10	QPSK	25	12	23.30	22.94	23.19	24.5	1		
10	QPSK	25	25	23.17	22.80	23.17				
10	QPSK	50	0	22.00	22.04	22.00				
10	HQAM	1	0	23.49	23.23	23.41				
10	HQAM	1	26	23.40	23.37	23.28	24.5	1		
10	HQAM	1	49	23.25	23.19	23.10				
10	HQAM	25	0	22.02	21.81	22.02				
10	HQAM	25	12	22.31	21.88	22.31	23.5	2		
10	HQAM	25	25	22.18	21.89	22.14				
10	HQAM	50	0	22.28	21.98	22.18				
10	HQAM	1	0	22.43	22.12	22.44				
10	HQAM	1	26	22.18	22.14	22.36	23.5	2		
10	HQAM	1	49	22.15	22.31	22.02				
10	HQAM	25	0	21.02	20.87	21.00				
10	HQAM	25	12	21.10	20.84	21.10	22.5	3		
10	HQAM	25	25	21.14	20.79	21.10				
10	HQAM	50	0	21.08	20.80	21.10				
Channel										
Frequency (MHz)										
5	QPSK	1	0	24.05	24.05	24.				



Band 38 Ant 4_DS12

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	24.80	24.79	24.62	25.5	0
20	QPSK	1	49	24.57	24.54	24.53		
20	QPSK	1	99	24.45	24.43	24.45		
20	QPSK	50	0	23.73	23.72	23.81	24.5	1
20	QPSK	50	24	23.74	23.62	23.64		
20	QPSK	50	50	23.63	23.62	23.69		
20	QPSK	100	0	23.64	23.70	23.69	24.5	1
20	16QAM	1	0	23.85	23.73	23.75		
20	16QAM	1	49	23.74	23.73	23.80		
20	16QAM	1	99	23.75	23.90	23.83	23.5	2
20	16QAM	50	0	22.76	22.66	22.63		
20	16QAM	50	24	22.76	22.62	22.69		
20	16QAM	50	50	22.64	22.70	22.67	23.5	2
20	16QAM	100	0	22.71	22.65	22.69		
20	64QAM	1	0	22.55	22.74	22.59		
20	64QAM	1	49	22.72	22.82	22.71	23.5	2
20	64QAM	1	99	22.73	22.70	22.77		
20	64QAM	50	0	21.49	21.36	21.49		
20	64QAM	50	24	21.46	21.46	21.35	22.5	3
20	64QAM	50	50	21.30	21.45	21.27		
20	64QAM	100	0	21.36	21.39	21.28		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	24.72	24.61	24.62	25.5	0
15	QPSK	1	37	24.74	24.60	24.63		
15	QPSK	1	74	24.62	24.65	24.72		
15	QPSK	36	0	23.62	23.63	23.61	24.5	1
15	QPSK	36	20	23.63	23.61	23.67		
15	QPSK	36	39	23.61	23.60	23.67		
15	QPSK	75	0	23.75	23.64	23.63	24.5	1
15	16QAM	1	0	23.83	23.62	23.66		
15	16QAM	1	37	24.00	23.68	23.64		
15	16QAM	1	74	23.60	23.61	23.76	23.5	2
15	16QAM	36	0	22.99	22.64	22.75		
15	16QAM	36	20	22.91	22.81	22.83		
15	16QAM	36	39	22.60	22.60	22.70	23.5	2
15	16QAM	75	0	22.67	22.60	22.63		
15	64QAM	1	0	23.02	22.96	23.00		
15	64QAM	1	37	23.21	23.13	23.04	23.5	2
15	64QAM	1	74	23.24	23.11	23.01		
15	64QAM	36	0	22.11	22.29	22.18		
15	64QAM	36	20	22.23	22.22	22.36	22.5	3
15	64QAM	36	39	22.11	22.29	22.35		
15	64QAM	75	0	22.19	22.37	22.23		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	24.74	24.78	24.71	25.5	0
10	QPSK	1	25	24.61	24.66	24.74		
10	QPSK	1	49	24.74	24.69	24.69		
10	QPSK	25	0	23.79	23.80	23.63	24.5	1
10	QPSK	25	12	23.61	23.58	23.74		
10	QPSK	25	25	23.79	23.54	23.69		
10	QPSK	50	0	23.74	23.77	23.70	24.5	1
10	16QAM	1	0	23.83	23.70	23.63		
10	16QAM	1	25	23.89	23.89	23.81		
10	16QAM	1	49	23.66	23.68	23.64	23.5	2
10	16QAM	25	0	22.73	22.71	23.01		
10	16QAM	25	12	22.77	22.72	22.86		
10	16QAM	25	25	22.77	22.61	22.66	23.5	2
10	16QAM	50	0	22.88	22.66	22.67		
10	64QAM	1	0	23.19	22.91	22.95		
10	64QAM	1	25	23.17	22.90	23.20	23.5	2
10	64QAM	1	49	22.96	22.82	22.99		
10	64QAM	25	0	21.82	22.00	21.88		
10	64QAM	25	12	21.87	21.63	21.72	22.5	3
10	64QAM	25	25	21.74	21.63	21.65		
10	64QAM	50	0	21.73	21.68	21.63		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	24.62	24.71	24.67	25.5	0
5	QPSK	1	12	24.63	24.60	24.61		
5	QPSK	1	24	24.68	24.74	24.64		
5	QPSK	12	0	23.78	23.67	23.65	24.5	1
5	QPSK	12	7	23.66	23.69	23.79		
5	QPSK	12	13	23.66	23.61	23.69		
5	QPSK	25	0	23.66	23.63	23.69	24.5	1
5	16QAM	1	0	23.69	23.66	23.67		
5	16QAM	1	12	23.96	23.74	23.77		
5	16QAM	1	24	23.73	23.69	23.67	23.5	2
5	16QAM	12	0	22.62	22.77	22.62		
5	16QAM	12	7	22.67	22.78	22.65		
5	16QAM	12	13	22.69	22.68	22.67	23.5	2
5	16QAM	25	0	22.65	22.75	22.62		
5	64QAM	1	0	23.00	22.98	23.00		
5	64QAM	1	12	23.16	22.91	23.16	23.5	2
5	64QAM	1	24	23.07	23.08	23.11		
5	64QAM	12	0	21.71	21.62	21.62		
5	64QAM	12	7	21.76	21.64	21.72	22.5	3
5	64QAM	12	13	21.68	21.65	21.60		
5	64QAM	25	0	21.69	21.60	21.69		



GSM1900 Ant4_DS11 Down

GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8	25.50	1850.2	1880	1909.8	16.50
GSM 1 Tx slot	24.07	24.19	24.23	25.50	15.07	15.19	15.23	16.50
GPRS 1 Tx slots	24.24	24.31	24.30	25.50	15.24	15.31	15.30	16.50
GPRS 2 Tx slots	22.59	22.38	22.12	23.00	16.59	16.38	16.12	17.00
GPRS 3 Tx slots	19.95	20.02	19.97	21.00	15.69	15.76	15.71	16.74
GPRS 4 Tx slots	18.95	19.35	19.01	20.00	15.95	16.35	16.01	17.00
EDGE 1 Tx slot	23.78	23.91	23.49	25.50	14.78	14.91	14.49	16.50
EDGE 2 Tx slots	19.59	19.76	19.52	21.00	13.59	13.76	13.52	15.00
EDGE 3 Tx slots	17.79	17.81	17.83	19.00	13.53	13.55	13.37	14.74
EDGE 4 Tx slots	15.91	15.97	15.94	17.00	12.91	12.97	12.94	14.00

WCDMA II Ant4_DS11 Down

WCDMA IV Ant4_DS11 Down

WCDMA V Ant4_DS11 Down

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)	
	9682	9460	9538		1312	1413	1513		4132	4492	4233		
TX Channel	9682	9460	9538	1537	1638	1738	4357	4407	4468				
Rx Channel	1852.4	1880	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6				
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	16.45	16.58	16.68	17.50	16.86	16.86	16.85	17.50	21.85	22.25	22.23	23.00
3GPP Rel 99	RMC 12.2Kbps	16.49	16.70	16.61	17.50	16.87	16.88	16.87	17.50	21.86	22.27	22.24	23.00
3GPP Rel 6	HSDPA Subtest-1	15.82	15.91	15.87	16.50	16.36	16.33	16.35	17.50	21.35	21.32	21.34	22.00
3GPP Rel 6	HSDPA Subtest-2	15.84	15.95	15.90	16.50	16.37	16.35	16.38	17.50	21.36	21.34	21.37	22.00
3GPP Rel 6	HSDPA Subtest-3	15.34	15.40	15.41	16.00	15.84	15.87	15.86	17.00	20.83	20.86	20.85	21.50
3GPP Rel 6	HSDPA Subtest-4	15.35	15.42	15.42	16.00	15.81	15.83	15.86	17.00	20.80	20.82	20.85	21.50
3GPP Rel 8	DC-HSDPA Subtest-1	15.79	15.88	15.83	16.50	16.33	16.29	16.32	17.50	21.32	21.28	21.31	22.00
3GPP Rel 8	DC-HSDPA Subtest-2	15.81	15.92	15.86	16.50	16.34	16.31	16.35	17.50	21.33	21.30	21.34	22.00
3GPP Rel 8	DC-HSDPA Subtest-3	15.31	15.37	15.37	16.00	15.81	15.83	15.83	17.00	20.80	20.82	20.82	21.50
3GPP Rel 8	DC-HSDPA Subtest-4	15.32	15.39	15.38	16.00	15.78	15.79	15.83	17.00	20.77	20.78	20.82	21.50
3GPP Rel 6	HSUPA Subtest-1	15.88	15.95	15.89	16.50	16.35	16.32	16.33	17.50	21.34	21.31	21.32	22.00
3GPP Rel 6	HSUPA Subtest-2	13.88	13.92	13.91	14.50	14.34	14.34	14.37	15.50	19.33	19.33	19.36	20.00
3GPP Rel 6	HSUPA Subtest-3	14.86	14.94	14.94	15.50	15.35	15.30	15.34	16.50	20.34	20.29	20.33	21.00
3GPP Rel 6	HSUPA Subtest-4	13.89	13.91	13.93	14.50	14.38	14.38	14.36	15.50	19.37	19.37	19.35	20.00
3GPP Rel 6	HSUPA Subtest-5	15.90	15.90	15.90	16.50	16.30	16.40	16.40	17.50	21.29	21.39	21.39	22.00



Band 4 Ant4_DS1I Down										
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch./F.Freq.	Power Hd./F.Freq.	Power Ch./F.Freq.	Turn-up limit (dB)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	17.21	17.62	17.20				
20	QPSK	1	49	17.15	17.56	17.15	18.5	0		
20	QPSK	1	99	17.04	17.46	17.05				
20	QPSK	50	0	17.19	17.60	17.17				
20	QPSK	50	24	17.23	17.64	17.23				
20	QPSK	50	50	17.17	17.58	17.18	18.5	0		
20	QPSK	100	0	17.47	17.88	17.46				
20	QPSK	100	0	17.49	17.90	17.49				
20	HQAM	1	49	17.48	17.44	17.47	18.5	0		
20	HQAM	1	99	17.42	17.41	17.40				
20	HQAM	50	0	17.23	17.46	17.23				
20	HQAM	50	24	17.33	17.25	17.32	18.5	0		
20	HQAM	50	50	17.23	17.22	17.23				
20	HQAM	100	0	17.28	17.29	17.27				
20	HQAM	100	0	17.39	17.41	17.39				
20	HQAM	1	49	17.39	17.39	17.32	18.5	0		
20	HQAM	1	99	17.34	17.37	17.30				
20	HQAM	50	0	17.22	17.24	17.20				
20	HQAM	50	24	17.29	17.21	17.19	18.5	0		
20	HQAM	50	50	17.23	17.23	17.21				
20	HQAM	100	0	17.28	17.20	17.13				
Channel										
Frequency (MHz)										
15	QPSK	1	0	17.49	17.45	17.43				
15	QPSK	1	37	17.44	17.47	17.43	18.5	0		
15	QPSK	1	74	17.38	17.47	17.43				
15	QPSK	36	0	17.46	17.44	17.48				
15	QPSK	36	20	17.36	17.41	17.47	18.5	0		
15	QPSK	36	39	17.49	17.46	17.41				
15	QPSK	75	0	17.34	17.45	17.45				
15	HQAM	1	0	17.44	17.41	17.37				
15	HQAM	1	37	17.34	17.37	17.33	18.5	0		
15	HQAM	1	74	17.33	17.29	17.33				
15	HQAM	36	0	17.37	17.36	17.33				
15	HQAM	36	20	17.49	17.46	17.43	18.5	0		
15	HQAM	36	39	17.39	17.37	17.37				
15	HQAM	75	0	17.49	17.39	17.39				
15	HQAM	75	0	17.47	17.41	17.43				
15	HQAM	1	37	17.49	17.44	17.44	18.5	0		
15	HQAM	1	74	17.38	17.37	17.33				
15	HQAM	36	0	17.40	17.36	17.34				
15	HQAM	36	20	17.44	17.37	17.42	18.5	0		
15	HQAM	36	39	17.34	17.33	17.34				
15	HQAM	75	0	17.44	17.34	17.32				
Channel										
Frequency (MHz)										
10	QPSK	1	0	17.23	17.26	17.20				
10	QPSK	1	25	17.30	17.41	17.42	18.5	0		
10	QPSK	1	49	17.25	17.30	17.33				
10	QPSK	50	0	17.46	17.47	17.41				
10	QPSK	25	12	17.45	17.44	17.42	18.5	0		
10	QPSK	25	25	17.41	17.49	17.43				
10	QPSK	50	0	17.46	17.43	17.41				
10	HQAM	1	0	17.36	17.37	17.35				
10	HQAM	1	25	17.30	17.39	17.32	18.5	0		
10	HQAM	1	49	17.26	17.30	17.31				
10	HQAM	25	0	17.19	17.13	17.14				
10	HQAM	25	12	17.25	17.15	17.11	18.5	0		
10	HQAM	25	25	17.16	17.16	17.14				
10	HQAM	50	0	17.18	17.10	17.10				
10	HQAM	50	0	17.28	17.28	17.28				
10	HQAM	1	25	17.24	17.23	17.22	18.5	0		
10	HQAM	1	49	17.19	17.17	17.18				
10	HQAM	25	0	17.19	17.16	17.16				
10	HQAM	25	12	17.15	17.17	17.14	18.5	0		
10	HQAM	25	25	17.16	17.17	17.14				
10	HQAM	50	0	17.25	17.25	17.25				
Channel										
Frequency (MHz)										
5	QPSK	1	0	17.30	17.48	17.28				
5	QPSK	1	14	17.18	17.28	17.28	18.5	0		
5	QPSK	1	24	17.30	17.28	17.37				
5	QPSK	12	0	17.31	17.35	17.28				
5	QPSK	12	7	17.26	17.36	17.42	18.5	0		
5	QPSK	12	13	17.34	17.33	17.37				
5	QPSK	25	0	17.41	17.38	17.39				
5	HQAM	1	0	17.28	17.28	17.28				
5	HQAM	1	12	17.25	17.17	17.22	18.5	0		
5	HQAM	1	24	17.26	17.28	17.28				
5	HQAM	12	0	17.05	17.06	16.99				
5	HQAM	12	7	17.11	16.92	17.08	18.5	0		
5	HQAM	12	13	17.08	17.08	17.08				
5	HQAM	25	0	17.22	16.93	16.93				
5	HQAM	1	0	17.25	17.14	17.22	18.5	0		
5	HQAM	1	12	17.06	17.06	17.06				
5	HQAM	1	24	17.14	17.14	17.13				
5	HQAM	12	0	17.15	16.95	17.13	18.5	0		
5	HQAM	12	7	17.08	17.08	17.08				
5	HQAM	12	13	17.11	17.04	16.98	18.5	0		
5	HQAM	25	0	17.08	16.90	16.98				
Channel										
Frequency (MHz)										
3	QPSK	1	0	17.19	17.35	17.40				
3	QPSK	1	8	17.47	17.49	17.20	18.5	0		
3	QPSK	1	14	17.37	17.41	17.34				
3	QPSK	8	0	17.47	17.40	17.46				
3	QPSK	8	4	17.45	17.42	17.46	18.5	0		
3	QPSK	3	0	17.43	17.46	17.40				
3	HQAM	1	0	17.45	17.30	17.44				
3	HQAM	1	8	17.16	17.06	17.20	18.5	0		
3	HQAM	1	14	17.22	17.18	17.20				
3	HQAM	8	0	17.45	17.36	17.21				
3	HQAM	8	4	17.25	17.11	17.19	18.5	0		
3	HQAM	3	0	17.19	17.02	16.96				
3	HQAM	3	8	17.18	16.99	17.00				
3	HQAM	3	14	17.24	16.98	17.20				
3	HQAM	1	0	17.24	16.98	17.20	18.5	0		
3	HQAM	1	8	17.43	17.22	17.37				
3	HQAM	1	14	17.36	17.36	17.21				
3	HQAM	8	0	17.22	16.95	17.11				
3	HQAM	8	4	17.20	17.08	17.06	18.5	0		
3	HQAM	8	7	17.10	17.14	16.97				
3	HQAM	15	0	17.20	16.94	17.04				
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	17.28	17.34	17.46				
1.4	QPSK	1	3	17.35	17.40	17.36	18.5	0		
1.4	QPSK	1	6	17.32	17.36	17.45				
1.4	QPSK	3	0	17.37	17.36	17.33				
1.4	QPSK	3	3	17.42	17.39	17.30	18.5	0		
1.4	QPSK	6	0	17.40	17.42	17.39				
1.4	HQAM	1	0	17.36	17.17	17.15				
1.4	HQAM	1	3	17.28	17.06	17.07	18.5	0		
1.4	HQAM	1	6	17.20	17.19	17.23				
1.4	HQAM	3	0	16.96	17.06	17.05				
1.4	HQAM	3	3	17.08	16.99	17.08	18.5	0		
1.4	HQAM	3	6	17.08	16.97	16.99				
1.4	HQAM	6	0	17.19	16.97	16.98				
1.4	HQAM	6	3	17.13	17.31	17.11				
1.4	HQAM	1	0	17.19	17.23	17.05	18.5	0		
1.4	HQAM	1	3	17.13	17.02	17.02				
1.4	HQAM	3	0	17.09	17.00	16.97				
1.4	HQAM	3	3	17.12	16.97	17.11	18.5	0		
1.4	HQAM	6	0	17.05	17.09	16.91				

Band 5 Ant4_DS1I Down										
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch./F.Freq.	Power Hd./F.Freq.	Power Ch./F.Freq.	Turn-up limit (dB)	MFR (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	22.12	22.14	22.13				
10	QPSK	1	25	22.04	22.03	2				



Band 38 Ant4_DSI1 Down								
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	23.45	23.57	23.43	24	0
20	QPSK	1	49	23.49	23.53	23.51		
20	QPSK	1	99	23.44	23.47	23.43		
20	QPSK	50	0	23.48	23.55	23.46	24	0
20	QPSK	50	24	23.50	23.51	23.50		
20	QPSK	50	50	23.50	23.54	23.52		
20	QPSK	100	0	23.46	23.48	23.47	24	0
20	16QAM	1	0	23.50	23.49	23.51		
20	16QAM	1	49	23.52	23.52	23.51		
20	16QAM	1	99	23.50	23.49	23.48	23.5	0.5
20	16QAM	50	0	23.05	23.05	23.03		
20	16QAM	50	24	23.18	23.12	23.08		
20	16QAM	50	50	23.15	23.14	23.13	23.5	0.5
20	16QAM	100	0	23.13	23.08	23.07		
20	64QAM	1	0	23.04	23.07	23.13		
20	64QAM	1	49	23.12	23.17	23.11	23.5	0.5
20	64QAM	1	99	23.12	23.16	23.10		
20	64QAM	50	0	22.19	22.17	22.14		
20	64QAM	50	24	22.30	22.22	22.18	22.5	1.5
20	64QAM	50	50	22.27	22.24	22.23		
20	64QAM	100	0	22.36	22.29	22.28		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	23.54	23.56	23.51	24	0
15	QPSK	1	37	23.52	23.49	23.52		
15	QPSK	1	74	23.56	23.51	23.46		
15	QPSK	36	0	23.51	23.52	23.46	24	0
15	QPSK	36	20	23.50	23.54	23.54		
15	QPSK	36	39	23.55	23.47	23.54		
15	QPSK	75	0	23.53	23.49	23.50	24	0
15	16QAM	1	0	23.55	23.54	23.45		
15	16QAM	1	37	23.52	23.54	23.55		
15	16QAM	1	74	23.47	23.49	23.53	23.5	0.5
15	16QAM	36	0	23.04	23.05	23.01		
15	16QAM	36	20	23.16	23.09	23.10		
15	16QAM	36	39	23.10	23.10	23.08	23.5	0.5
15	16QAM	75	0	23.15	23.11	23.07		
15	64QAM	1	0	23.03	23.06	23.10		
15	64QAM	1	37	23.03	23.13	23.11	23.5	0.5
15	64QAM	1	74	23.06	23.12	23.04		
15	64QAM	36	0	22.17	22.16	22.15		
15	64QAM	36	20	22.28	22.23	22.21	22.5	1.5
15	64QAM	36	39	22.24	22.25	22.21		
15	64QAM	75	0	22.28	22.19	22.17		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	23.55	23.53	23.54	24	0
10	QPSK	1	25	23.53	23.53	23.55		
10	QPSK	1	49	23.46	23.54	23.52		
10	QPSK	25	0	23.54	23.48	23.56	24	0
10	QPSK	25	12	23.54	23.55	23.56		
10	QPSK	25	25	23.52	23.53	23.51		
10	QPSK	50	0	23.53	23.56	23.56	24	0
10	16QAM	1	0	23.53	23.50	23.48		
10	16QAM	1	25	23.53	23.54	23.50		
10	16QAM	1	49	23.47	23.50	23.55	23.5	0.5
10	16QAM	25	0	23.08	23.03	23.01		
10	16QAM	25	12	23.14	23.05	23.06		
10	16QAM	25	25	23.06	23.06	23.06	23.5	0.5
10	16QAM	50	0	23.11	23.02	23.03		
10	64QAM	1	0	23.03	23.03	23.03		
10	64QAM	1	25	22.97	23.02	23.02	23.5	0.5
10	64QAM	1	49	23.04	22.98	23.01		
10	64QAM	25	0	22.07	22.03	22.00		
10	64QAM	25	12	22.14	22.05	22.06	22.5	1.5
10	64QAM	25	25	22.07	22.09	22.08		
10	64QAM	50	0	22.08	21.99	22.03		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	23.50	23.52	23.53	24	0
5	QPSK	1	12	23.54	23.50	23.51		
5	QPSK	1	24	23.56	23.49	23.42		
5	QPSK	12	0	23.51	23.55	23.51	24	0
5	QPSK	12	7	23.50	23.56	23.53		
5	QPSK	12	13	23.51	23.56	23.53		
5	QPSK	25	0	23.55	23.49	23.56	24	0
5	16QAM	1	0	23.54	23.50	23.55		
5	16QAM	1	12	23.55	23.51	23.55		
5	16QAM	1	24	23.56	23.52	23.47	23.5	0.5
5	16QAM	12	0	23.08	23.02	23.07		
5	16QAM	12	7	23.08	23.03	23.07		
5	16QAM	12	13	23.11	23.05	23.07	23.5	0.5
5	16QAM	25	0	23.40	23.39	23.40		
5	64QAM	1	0	23.08	23.03	23.03		
5	64QAM	1	12	23.09	23.01	23.06	23.5	0.5
5	64QAM	1	24	23.09	23.01	22.81		
5	64QAM	12	0	22.06	22.02	21.93		
5	64QAM	12	7	22.03	22.03	22.03	22.5	1.5
5	64QAM	12	13	22.04	22.02	22.02		
5	64QAM	25	0	21.61	21.55	21.90		

GSM1900 Ant4_DS14

GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	28.66	28.45	28.84	29.50	19.66	19.45	19.84	20.50
GPRS 1 Tx slot	28.65	28.44	28.82	29.50	19.65	19.44	19.82	20.50
GPRS 2 Tx slots	26.38	26.28	26.04	27.00	20.38	20.28	20.04	21.00
GPRS 3 Tx slots	24.35	24.09	23.88	25.00	20.09	19.83	19.82	20.74
GPRS 4 Tx slots	23.56	23.57	23.46	24.00	20.56	20.57	20.46	21.00
EDGE 1 Tx slot	25.13	25.53	25.54	27.00	16.13	16.53	16.54	18.00
EDGE 2 Tx slots	20.42	20.25	19.95	21.00	14.42	14.25	13.85	15.00
EDGE 3 Tx slots	18.62	18.84	18.80	19.00	14.36	14.58	14.54	14.74
EDGE 4 Tx slots	16.44	16.21	15.95	17.00	13.44	13.21	12.95	14.00

WCDMA II Ant4_DS14

WCDMA IV Ant4_DS14

Band TX Channel	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
	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	18.99	19.10	19.09	20.00	19.54	19.55	19.53	20.50
3GPP Rel 99 RMC 12.2Kbps	19.00	19.11	19.10	20.00	19.56	19.57	19.54	20.50
3GPP Rel 6 HSDPA Subtest-1	18.02	18.05	18.07	19.50	18.72	18.67	18.66	19.50
3GPP Rel 6 HSDPA Subtest-2	17.94	18.09	18.03	19.50	18.69	18.61	18.66	19.50
3GPP Rel 6 HSDPA Subtest-3	17.80	17.78	17.80	19.00	18.18	18.15	18.13	19.00
3GPP Rel 6 HSDPA Subtest-4	17.73	17.77	17.80	19.00	18.19	18.06	18.13	19.00
3GPP Rel 6 DC-HSDPA Subtest-1	18.21	18.27	18.25	19.50	18.68	18.66	18.63	19.50
3GPP Rel 6 DC-HSDPA Subtest-2	18.17	18.34	18.27	19.50	18.67	18.62	18.61	19.50
3GPP Rel 6 DC-HSDPA Subtest-3	17.75	17.84	17.74	19.00	18.18	18.15	18.10	19.00
3GPP Rel 6 DC-HSDPA Subtest-4	17.82	17.77	17.77	19.00	18.15	18.09	18.07	19.00
3GPP Rel 6 HSUPA Subtest-1	18.00	18.24	18.28	19.50	18.62	18.63	18.58	19.50
3GPP Rel 6 HSUPA Subtest-2	16.01	16.23	16.24	17.50	16.65	16.66	16.64	17.50
3GPP Rel 6 HSUPA Subtest-3	17.03	17.25	17.23	18.50	17.64	17.59	17.64	18.50
3GPP Rel 6 HSUPA Subtest-4	16.10	16.26	16.22	17.50	16.60	16.59	16.57	17.50
3GPP Rel 6 HSUPA Subtest-5	18.15	18.25	18.25	19.50	18.70	18.60	18.60	19.50



Band 4 Ant4_DSI4								
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	21.22	21.30	21.20		
20	QPSK	1	49	21.24	21.21	21.24	22.5	0
20	QPSK	1	99	21.12	21.17	21.13		
20	QPSK	50	0	21.22	21.24	21.21		
20	QPSK	50	24	21.20	21.20	21.22	22.5	0
20	QPSK	50	50	21.19	21.23	21.21		
20	QPSK	100	0	21.20	21.22	21.19		
20	16QAM	1	0	21.20	21.25	21.22		
20	16QAM	1	49	21.22	21.24	21.28	22.5	0
20	16QAM	1	99	21.29	21.11	21.22		
20	16QAM	50	0	21.22	21.25	21.22		
20	16QAM	50	24	21.29	21.26	21.27		
20	16QAM	50	50	21.21	21.24	21.18	22.5	0
20	16QAM	100	0	21.25	21.28	21.28		
20	64QAM	1	0	21.23	21.20	21.22		
20	64QAM	1	49	21.23	21.29	21.25	22.5	0
20	64QAM	1	99	21.27	21.21	21.28		
20	64QAM	50	0	21.20	21.18	21.18		
20	64QAM	50	24	21.25	21.19	21.24	22.5	0
20	64QAM	50	50	21.19	21.17	21.19		
20	64QAM	100	0	21.15	21.17	21.24		
Channel				20025	20175	20325		
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	21.19	21.27	21.21		
15	QPSK	1	37	21.15	21.16	21.23	22.5	0
15	QPSK	1	74	21.13	21.09	21.04		
15	QPSK	36	0	21.04	21.01	21.00		
15	QPSK	36	20	21.09	21.04	21.09	22.5	0
15	QPSK	36	39	21.03	21.05	21.02		
15	QPSK	75	0	21.06	21.00	20.98		
15	16QAM	1	0	21.22	21.23	21.26		
15	16QAM	1	37	21.24	21.20	21.24	22.5	0
15	16QAM	1	74	21.15	21.18	21.25		
15	16QAM	36	0	21.00	21.02	21.02		
15	16QAM	36	20	21.08	21.03	21.10	22.5	0
15	16QAM	36	39	21.03	21.05	21.03		
15	16QAM	75	0	21.03	20.98	21.01		
15	64QAM	1	0	21.23	21.21	21.26		
15	64QAM	1	37	21.25	21.05	21.16	22.5	0
15	64QAM	1	74	21.17	21.14	21.15		
15	64QAM	36	0	21.16	21.15	21.14		
15	64QAM	36	20	21.21	21.14	21.21	22.5	0
15	64QAM	36	39	21.15	21.17	21.14		
15	64QAM	75	0	21.20	21.11	21.12		
Channel				20300	20175	20350		
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	21.17	21.29	21.16		
10	QPSK	1	25	21.18	21.22	21.21	22.5	0
10	QPSK	1	49	21.13	21.11	21.15		
10	QPSK	25	0	21.21	21.28	21.25		
10	QPSK	25	12	21.21	21.27	21.24	22.5	0
10	QPSK	25	25	21.26	21.19	21.28		
10	QPSK	50	0	21.21	21.24	21.23		
10	16QAM	1	0	21.24	21.23	21.15		
10	16QAM	1	25	21.21	21.14	21.14	22.5	0
10	16QAM	1	49	21.22	21.24	21.23		
10	16QAM	25	0	21.22	21.18	21.13		
10	16QAM	25	12	21.24	21.19	21.18	22.5	0
10	16QAM	25	25	21.20	21.16	21.16		
10	16QAM	50	0	21.22	21.14	21.15		
10	64QAM	1	0	21.25	21.27	21.23	22.5	0
10	64QAM	1	25	21.26	21.19	21.22		
10	64QAM	1	49	21.21	21.21	21.23		
10	64QAM	25	0	21.26	21.17	21.16		
10	64QAM	25	12	21.23	21.16	21.16	22.5	0
10	64QAM	25	25	21.21	21.19	21.23		
10	64QAM	50	0	21.23	21.16	21.14		
Channel				19975	20175	20375		
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	21.25	21.29	21.20		
5	QPSK	1	12	21.21	21.23	21.28	22.5	0
5	QPSK	1	24	21.19	21.21	21.28		
5	QPSK	12	0	21.24	21.25	21.23		
5	QPSK	12	7	21.22	21.26	21.23	22.5	0
5	QPSK	12	13	21.21	21.20	21.26		
5	QPSK	25	0	21.23	21.27	21.20		
5	16QAM	1	0	21.27	21.24	21.26		
5	16QAM	1	12	21.23	21.22	21.21	22.5	0
5	16QAM	1	24	21.22	21.23	21.21		
5	16QAM	12	0	21.03	20.96	21.00		
5	16QAM	12	7	21.03	20.96	20.97	22.5	0
5	16QAM	12	13	20.99	20.98	20.97		
5	16QAM	25	0	21.01	20.96	20.95		
5	64QAM	1	0	21.20	21.12	21.23		
5	64QAM	1	12	21.15	21.15	21.16	22.5	0
5	64QAM	1	24	21.17	21.15	21.17		
5	64QAM	12	0	21.23	21.17	21.22		
5	64QAM	12	7	21.24	21.19	21.23	22.5	0
5	64QAM	12	13	21.20	21.19	21.14		
5	64QAM	25	0	21.25	21.16	21.19		
Channel				19965	20175	20385		
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	21.22	21.29	21.14		
3	QPSK	1	8	21.10	21.27	21.22	22.5	0
3	QPSK	1	14	21.20	21.19	21.16		
3	QPSK	8	0	21.16	21.21	21.22		
3	QPSK	8	4	21.22	21.20	21.22	22.5	0
3	QPSK	8	7	21.29	21.28	21.22		
3	QPSK	15	0	21.28	21.20	21.23		
3	16QAM	1	0	21.23	21.18	21.13		
3	16QAM	1	8	21.16	21.24	21.18	22.5	0
3	16QAM	1	14	21.20	21.16	21.12		
3	16QAM	8	0	21.03	20.95	20.98		
3	16QAM	8	4	21.05	21.05	21.00	22.5	0
3	16QAM	8	7	21.02	20.98	20.97		
3	16QAM	15	0	21.00	20.95	20.96		
3	64QAM	1	0	21.14	21.03	21.17		
3	64QAM	1	8	21.25	21.17	21.24	22.5	0
3	64QAM	1	14	21.14	21.11	21.12		
3	64QAM	8	0	21.25	21.15	21.18		
3	64QAM	8	4	21.29	21.26	21.21	22.5	0
3	64QAM	8	7	21.23	21.20	21.17		
3	64QAM	15	0	21.21	21.16	21.16		
Channel				19957	20175	20393		
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	21.21	21.29	21.26		
1.4	QPSK	1	3	21.11	21.26	21.23	22.5	0
1.4	QPSK	1	5	21.27	21.21	21.23		
1.4	QPSK	3	0	21.26	21.21	21.26		
1.4	QPSK	3	1	21.20	21.20	21.26		
1.4	QPSK	3	3	21.24	21.19	21.17	22.5	0
1.4	QPSK	6	0	21.29	21.23	21.24		
1.4	16QAM	1	0	21.23	21.24	21.17		
1.4	16QAM	1	3	21.27	21.24	21.22	22.5	0
1.4	16QAM	1	5	21.23	21.27	21.19		
1.4	16QAM	3	0	21.02	21.02	20.97		
1.4	16QAM	3	1	21.09	21.10	20.99	22.5	0
1.4	16QAM	3	3	21.01	21.03	20.97		
1.4	16QAM	6	0	21.10	21.09	21.04	22.5	0
1.4	64QAM	1	0	21.25	21.20	21.24		
1.4	64QAM	1	3	21.21	21.26	21.22	22.5	0
1.4	64QAM	1	5	21.27	21.24	21.22		
1.4	64QAM	3	0	21.18	21.16	21.14		
1.4	64QAM	3	1	21.23	21.20	21.15		
1.4	64QAM	3	3	21.15	21.13	21.07		
1.4	64QAM	6	0	21.22	21.16	21.16	21.5	1

Band 7 Ant4_DSI4								
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	19.43	19.46	19.20		
20	QPSK	1	49	19.41	19.36	19.26	20.5	0
20	QPSK	1	99	19.40	19.39	19.32		
20	QPSK	50	0	19.42	19.44	19.36		
20	QPSK	50	24	19.29	19.22	19.29	20.5	0
20	QPSK	50	50	19.37	19.38	19.25		
20	QPS							



Band 38 Ant 4_DS14								
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	24.32	24.34	24.28	25	0
20	QPSK	1	49	24.26	24.32	24.27		
20	QPSK	1	99	24.32	24.26	24.25		
20	QPSK	50	0	23.70	23.78	23.69	24.5	0.5
20	QPSK	50	24	23.72	23.75	23.73		
20	QPSK	50	50	23.77	23.76	23.72		
20	QPSK	100	0	23.64	23.68	23.67	24.5	0.5
20	16QAM	1	0	23.68	23.74	23.57		
20	16QAM	1	49	23.73	23.79	23.76		
20	16QAM	1	99	23.72	23.67	23.68	23.5	1.5
20	16QAM	50	0	22.90	22.76	22.81		
20	16QAM	50	24	22.70	22.78	22.66		
20	16QAM	50	50	22.72	22.88	22.74	23.5	1.5
20	16QAM	100	0	22.81	22.79	22.73		
20	64QAM	1	0	22.81	23.02	22.61		
20	64QAM	1	49	22.70	22.94	22.77	23.5	1.5
20	64QAM	1	99	22.79	22.82	22.87		
20	64QAM	50	0	21.92	21.84	21.65		
20	64QAM	50	24	21.85	21.90	21.77	22.5	2.5
20	64QAM	50	50	21.72	21.75	21.87		
20	64QAM	100	0	21.93	21.86	21.76		
Channel				37825	38000	38175		
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	24.25	24.30	24.32	25	0
15	QPSK	1	37	24.29	24.24	24.28		
15	QPSK	1	74	24.28	24.27	24.24		
15	QPSK	36	0	23.74	23.72	23.59	24.5	0.5
15	QPSK	36	20	23.78	23.70	23.70		
15	QPSK	36	39	23.69	23.66	23.66		
15	QPSK	75	0	23.59	23.58	23.63	24.5	0.5
15	16QAM	1	0	23.77	23.78	23.55		
15	16QAM	1	37	23.69	23.68	23.86		
15	16QAM	1	74	23.79	23.70	23.69	23.5	1.5
15	16QAM	36	0	22.80	22.85	22.86		
15	16QAM	36	20	22.63	22.88	22.58		
15	16QAM	36	39	22.76	22.83	22.63	23.5	1.5
15	16QAM	75	0	22.83	22.79	22.74		
15	64QAM	1	0	22.74	22.98	22.66		
15	64QAM	1	37	22.60	23.05	22.84	23.5	1.5
15	64QAM	1	74	22.69	22.87	22.81		
15	64QAM	36	0	21.95	21.82	21.66		
15	64QAM	36	20	21.74	21.93	21.88	22.5	2.5
15	64QAM	36	39	21.71	21.71	21.90		
15	64QAM	75	0	21.93	21.94	21.73		
Channel				37800	38000	38200		
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	24.22	24.13	24.33	25	0
10	QPSK	1	25	24.21	24.24	24.32		
10	QPSK	1	49	24.32	24.23	24.26		
10	QPSK	25	0	23.73	23.90	23.83	24.5	0.5
10	QPSK	25	12	23.94	23.76	23.54		
10	QPSK	25	25	23.80	23.62	23.70		
10	QPSK	50	0	23.59	23.78	23.74	24.5	0.5
10	16QAM	1	0	23.63	23.67	23.62		
10	16QAM	1	25	23.90	23.81	23.62		
10	16QAM	1	49	23.56	23.87	23.80	23.5	1.5
10	16QAM	25	0	22.86	22.74	22.76		
10	16QAM	25	12	22.52	22.80	22.65		
10	16QAM	25	25	22.79	22.96	22.76	23.5	1.5
10	16QAM	50	0	22.84	22.78	22.69		
10	64QAM	1	0	22.67	22.88	22.63		
10	64QAM	1	25	22.70	22.87	22.69	23.5	1.5
10	64QAM	1	49	22.84	22.75	22.76		
10	64QAM	25	0	21.89	21.95	21.53		
10	64QAM	25	12	21.79	21.86	21.96	22.5	2.5
10	64QAM	25	25	21.82	21.60	21.86		
10	64QAM	50	0	21.92	21.89	21.74		
Channel				37775	38000	38225		
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	24.31	24.29	24.31	25	0
5	QPSK	1	12	24.30	24.26	24.26		
5	QPSK	1	24	24.22	24.20	24.06		
5	QPSK	12	0	23.84	23.74	23.79	24.5	0.5
5	QPSK	12	7	23.86	23.62	23.59		
5	QPSK	12	13	24.03	23.91	23.84		
5	QPSK	25	0	23.58	23.69	23.75	24.5	0.5
5	16QAM	1	0	23.68	23.77	23.63		
5	16QAM	1	12	23.84	23.62	23.76		
5	16QAM	1	24	23.61	23.83	23.63	24.5	0.5
5	16QAM	12	0	22.86	22.83	22.87		
5	16QAM	12	7	22.68	22.85	22.74		
5	16QAM	12	13	22.59	22.94	22.59	23.5	1.5
5	16QAM	25	0	22.87	22.77	22.66		
5	64QAM	1	0	22.72	22.84	22.56		
5	64QAM	1	12	22.72	22.87	22.83	23.5	1.5
5	64QAM	1	24	22.67	22.87	22.76		
5	64QAM	12	0	21.71	21.90	21.67		
5	64QAM	12	7	21.88	21.81	21.84	22.5	2.5
5	64QAM	12	13	21.79	21.54	21.92		
5	64QAM	25	0	21.82	21.91	21.58		



CA Uplink Power ANT1

DSI 1&2&Default Power										Tune up Power (dBm)
										25.5
CA_7C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	24.61	25.5
21100	20902	QPSK	1	0	1	99	2	0	24.92	25.5
21350	21152	QPSK	1	0	1	99	2	0	24.89	25.5

DSI 1&2&Default Power										Tune up Power (dBm)
										25.5
CA_38C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	24.87	25.5
38000	38198	QPSK	1	0	0	0	1	0	25.05	25.5
38150	37952	QPSK	1	0	1	99	2	0	24.93	25.5

DSI 3										Tune up Power (dBm)
										19.5
CA_7C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	18.59	19.5
21100	20902	QPSK	1	0	1	99	2	0	18.63	19.5
21350	21152	QPSK	1	0	1	99	2	0	18.54	19.5

DSI 3										Tune up Power (dBm)
										23
CA_38C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	22.16	23
38000	38198	QPSK	1	0	0	0	1	0	22.17	23
38150	37952	QPSK	1	0	1	99	2	0	22.06	23



ANT4

DSI 2										Tune up Power (dBm)
										24
CA_7C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	22.31	24
21100	20902	QPSK	1	0	1	99	2	0	22.65	24
21350	21152	QPSK	1	0	1	99	2	0	22.29	24

DSI 2&Default Power										Tune up Power (dBm)
										25.5
CA_38C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	24.55	25.5
38000	38198	QPSK	1	0	0	0	1	0	24.71	25.5
38150	37952	QPSK	1	0	1	99	2	0	24.58	25.5

DSI 1										Tune up Power (dBm)
										19
CA_7C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	18.43	19
21100	20902	QPSK	1	0	1	99	2	0	18.47	19
21350	21152	QPSK	1	0	1	99	2	0	18.41	19

DSI 1										Tune up Power (dBm)
										24
CA_38C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	23.43	24
38000	38198	QPSK	1	0	0	0	1	0	23.52	24
38150	37952	QPSK	1	0	1	99	2	0	23.39	24

DSI 4										Tune up Power (dBm)
										20.5
CA_7C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	19.39	20.5
21100	20902	QPSK	1	0	1	99	2	0	19.43	20.5
21350	21152	QPSK	1	0	1	99	2	0	19.17	20.5

DSI 4										Tune up Power (dBm)
										25
CA_38C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	24.25	25
38000	38198	QPSK	1	0	0	0	1	0	24.27	25
38150	37952	QPSK	1	0	1	99	2	0	24.21	25

Default Power										Tune up Power (dBm)
										25.5
CA_7C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	24.23	25.5
21100	20902	QPSK	1	0	1	99	2	0	24.43	25.5
21350	21152	QPSK	1	0	1	99	2	0	24.36	25.5



2CA Downlink Power

Configure		CA List	PCC								SCC				Power	
			LTE Band	Ant	BW (MHz)	UL	UL Channel	Mod.	UL#	UL	LTE Band	BW (MHz)	DL	DL Channel	With CA	Without CA
						Freq. (MHz)			RB	Offset			Freq. (MHz)		Tx. Power (dBm)	Tx. Power (dBm)
Intra-Band	Contiguous	CA_7C	Band 7	Ant 1	20M	2535	21100	QPSK	1	0	Band 7	20M	2674.8	3298	24.98	25.02
		CA_7C	Band 7	Ant 4	20M	2535	21100	QPSK	1	0	Band 7	20M	2674.8	3298	23.98	24.05
		CA_38C	Band 38	Ant 1	20M	2595	38000	QPSK	1	0	Band 38	20M	2614.8	38198	24.99	25.19
		CA_38C	Band 38	Ant 4	20M	2595	38000	QPSK	1	0	Band 38	20M	2614.8	38198	24.71	24.79



WLAN/Bluetooth Power

2.4GHz WLAN Receiver On/Receiver Off							
2.4GHz WLAN						Ant 7	
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %		
802.11b 1Mbps	1	2412	17.50	18.50	100.00		
	6	2437	17.30	18.50			
	11	2462	17.40	18.50			
	1	2412	16.10	17.00			
	802.11g 6Mbps	6	2437	16.90		17.00	98.28
		11	2462	16.00		17.00	
1		2412	14.70	15.50			
802.11n-HT20 MCS0	6	2437	14.50	15.50	98.16		
	11	2462	14.60	15.50			
	3	2422	11.60	12.30			
802.11n-HT40 MCS0	6	2437	11.40	12.50	94.93		
	9	2452	11.70	12.50			

5.2GHz WLAN Receiver Off						
5.2GHz WLAN						Ant 7
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	36	5180	15.02	16.00	98.28	
	44	5220	15.06	16.00		
	48	5240	15.36	16.50		
802.11n-HT20 MCS0	36	5180	15.35	16.50	98.16	
	44	5220	15.19	16.00		
	48	5240	15.09	16.00		
802.11n-HT40 MCS0	36	5190	15.36	16.50	96.32	
	44	5220	15.02	16.00		
	36	5180	15.25	16.50		
802.11ac-VHT20 MCS0	44	5220	15.09	16.00	98.16	
	48	5240	14.99	16.00		
	38	5190	15.28	16.50		
802.11ac-VHT40 MCS0	46	5230	14.94	16.00	96.32	
	42	5210	14.00	15.00		
802.11ac-VHT80 MCS0	42	5210	14.00	15.00	92.77	

5.2GHz WLAN Receiver On						
5.2GHz WLAN						Ant 7
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	36	5180		15.00	98.28	
	44	5220		15.00		
	48	5240		15.00		
802.11n-HT20 MCS0	36	5180		15.00	98.16	
	44	5220		15.00		
	48	5240		15.00		
802.11n-HT40 MCS0	36	5190		15.00	96.32	
	44	5220		15.00		
	38	5190		15.00		
802.11ac-VHT20 MCS0	44	5220		15.00	98.16	
	48	5240		15.00		
	38	5190		15.00		
802.11ac-VHT40 MCS0	46	5230		15.00	96.32	
	42	5210	14.00	15.00		
802.11ac-VHT80 MCS0	42	5210	14.00	15.00	92.77	

5.3GHz WLAN Receiver Off						
5.3GHz WLAN						Ant 7
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	52	5260	15.01	16.00	98.28	
	60	5300	15.07	16.00		
	64	5320	15.06	16.50		
802.11n-HT20 MCS0	52	5260	15.35	16.00	98.16	
	60	5300	15.02	16.00		
	64	5320	15.07	16.00		
802.11n-HT40 MCS0	54	5270	15.25	16.50	96.32	
	62	5310	15.10	16.00		
	52	5260	15.25	16.00		
802.11ac-VHT20 MCS0	60	5300	14.92	16.00	98.16	
	64	5320	14.97	16.00		
	54	5270	15.17	16.00		
802.11ac-VHT40 MCS0	62	5310	15.02	16.00	96.32	
	68	5390	14.02	15.00		
802.11ac-VHT80 MCS0	68	5390	14.02	15.00	92.77	

5.3GHz WLAN Receiver On						
5.3GHz WLAN						Ant 7
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	52	5260		15.00	98.28	
	60	5300		15.00		
	64	5320		15.00		
802.11n-HT20 MCS0	52	5260		15.00	98.16	
	60	5300		15.00		
	64	5320		15.00		
802.11n-HT40 MCS0	54	5270		15.00	96.32	
	62	5310		15.00		
	52	5260		15.00		
802.11ac-VHT20 MCS0	60	5300		15.00	98.16	
	64	5320		15.00		
	54	5270		15.00		
802.11ac-VHT40 MCS0	62	5310		15.00	96.32	
	68	5390	14.02	15.00		
802.11ac-VHT80 MCS0	68	5390	14.02	15.00	92.77	

5.5GHz WLAN Receiver Off						
5.5GHz WLAN						Ant 7
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	100	5500	15.06	16.00	98.28	
	116	5580	15.01	16.00		
	140	5700	15.36	16.00		
	144	5720	15.16	16.00		
802.11n-HT20 MCS0	100	5500	15.10	16.00	98.16	
	116	5580	15.03	16.00		
	140	5700	15.12	16.00		
	144	5720	15.06	16.00		
802.11n-HT40 MCS0	102	5510	15.13	16.00	96.32	
	110	5550	15.14	16.00		
	134	5670	15.17	16.00		
	142	5710	15.14	16.00		
802.11ac-VHT20 MCS0	100	5500	15.00	16.00	98.16	
	116	5580	14.96	16.00		
	140	5700	15.02	16.00		
	144	5720	15.05	16.00		
802.11ac-VHT40 MCS0	102	5510	15.05	16.00	96.32	
	110	5550	15.06	16.00		
	134	5670	15.09	16.00		
	142	5710	15.06	16.00		
802.11ac-VHT80 MCS0	106	5530	14.15	15.00	92.77	
	122	5610	13.99	15.00		
	138	5690	14.03	15.00		

5.5GHz WLAN Receiver On						
5.5GHz WLAN						Ant 7
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	100	5500		13.50	98.28	
	116	5580		13.50		
	140	5700		13.50		
	144	5720		13.50		
802.11n-HT20 MCS0	100	5500		13.50	98.16	
	116	5580		13.50		
	140	5700		13.50		
	144	5720		13.50		
802.11n-HT40 MCS0	102	5510		13.50	96.32	
	110	5550		13.50		
	134	5670		13.50		
	142	5710		13.50		
802.11ac-VHT20 MCS0	100	5500		13.50	98.16	
	116	5580		13.50		
	140	5700		13.50		
	144	5720		13.50		
802.11ac-VHT40 MCS0	102	5510		13.50	96.32	
	110	5550		13.50		
	134	5670		13.50		
	142	5710		13.50		
802.11ac-VHT80 MCS0	106	5530	12.22	13.50	92.77	
	122	5610	12.07	13.50		
	138	5690	12.20	13.50		

5.8GHz WLAN Receiver On/Receiver Off						
5.8GHz WLAN						Ant 7
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	149	5745	11.90	13.00	98.28	
	157	5785	12.00	13.00		
	165	5825	11.88	13.00		
802.11n-HT20 MCS0	149	5745	11.86	13.00	98.16	
	157	5785	11.93	13.00		
	165	5825	12.19	13.00		
802.11n-HT40 MCS0	151	5755	12.16	13.00	96.32	
	159	5795	12.28	13.00		
	149	5745	11.81	13.00		
802.11ac-VHT20 MCS0	157	5785	11.90	13.00	98.16	
	165	5825	12.10	13.00		
	151	5755	12.14	13.00		
802.11ac-VHT40 MCS0	159	5795	12.26	13.00	96.32	
	155	5775	12.10	13.00		
802.11ac-VHT80 MCS0	155	5775	12.10	13.00	92.77	

BT BR/EDR				
Mode	Channel	Frequency (MHz)	Average power (dBm)	
			1Mbps	3Mbps
CH 00	2402		8.72	8.27
CH 39	2441		8.99	8.59
CH 78	2480		8.94	8.50
Tune-up Limit			10.5	10.5

BT LE				
Mode	Channel	Frequency (MHz)	Average power (dBm)	
			CSF25	Tune-up Limit
CH 00	2402		4.91	6.00
CH 19	2440		6.19	7.00
CH 39	2480		6.48	7.50

BT LE v5.0				
Mode	Channel	Frequency (MHz)	Average power (dBm)	
			CSF25	Tune-up Limit
CH 00	2402		5.12	6.00
CH 19	2440		6.23	7.00
CH 39	2480		6.85	7.50