

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 E^2 -field uncertainty inside TSL (see Page 5).

^B Numerical linearization parameter: uncertainty not required.

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

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

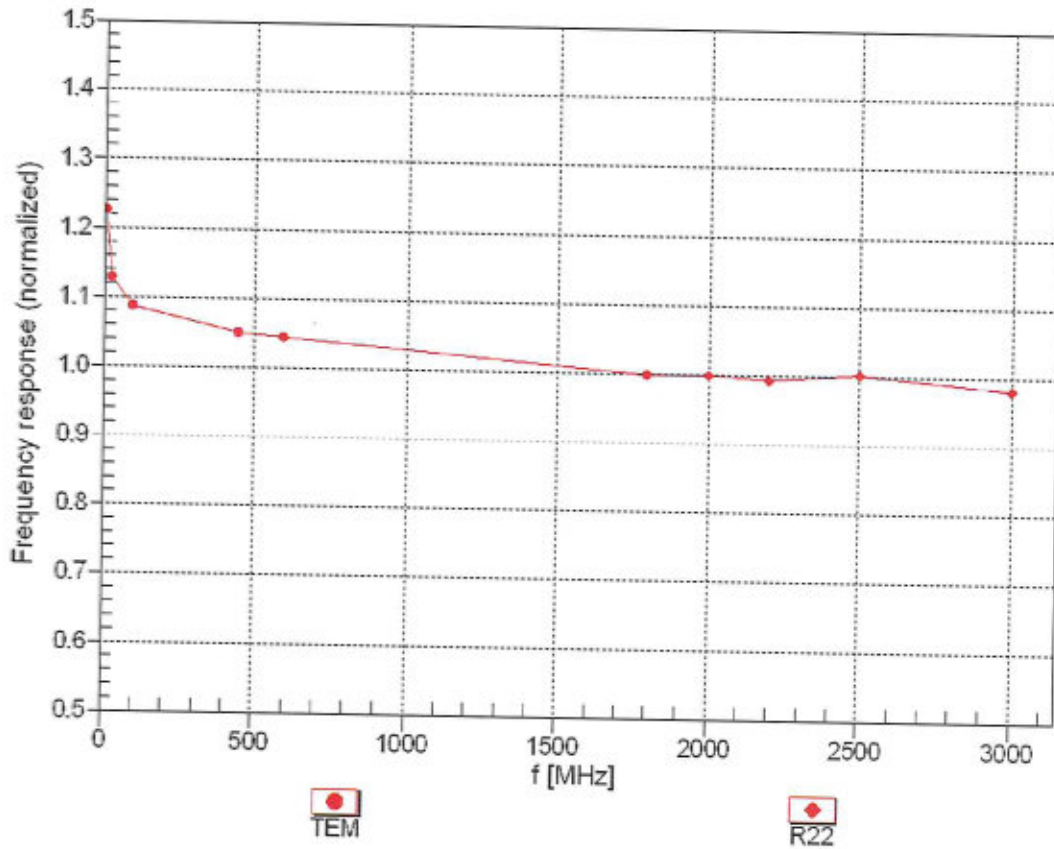
f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k=2)
750	41.9	0.89	9.06	9.06	9.06	0.36	1.11	± 12.0 %
835	41.5	0.90	8.69	8.69	8.69	0.35	1.01	± 12.0 %
900	41.5	0.97	8.62	8.62	8.62	0.41	0.96	± 12.0 %
1450	40.5	1.20	7.82	7.82	7.82	0.47	0.80	± 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.

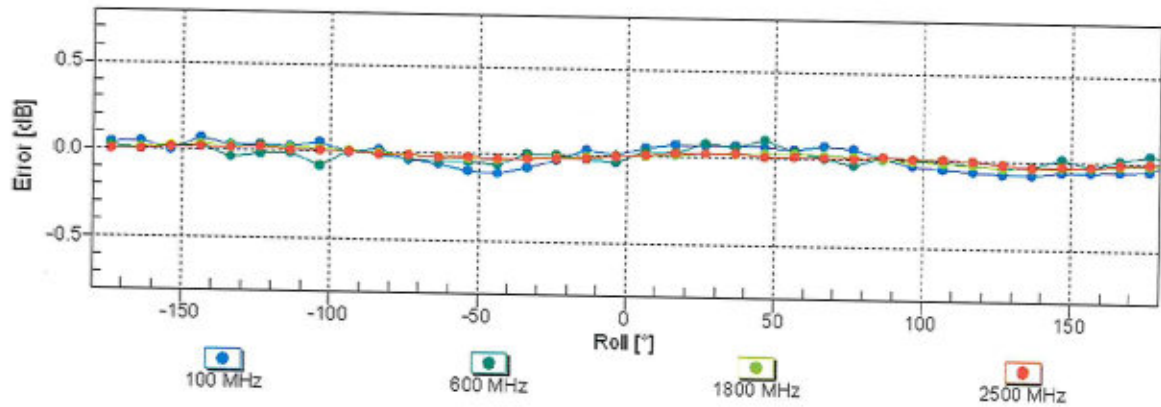
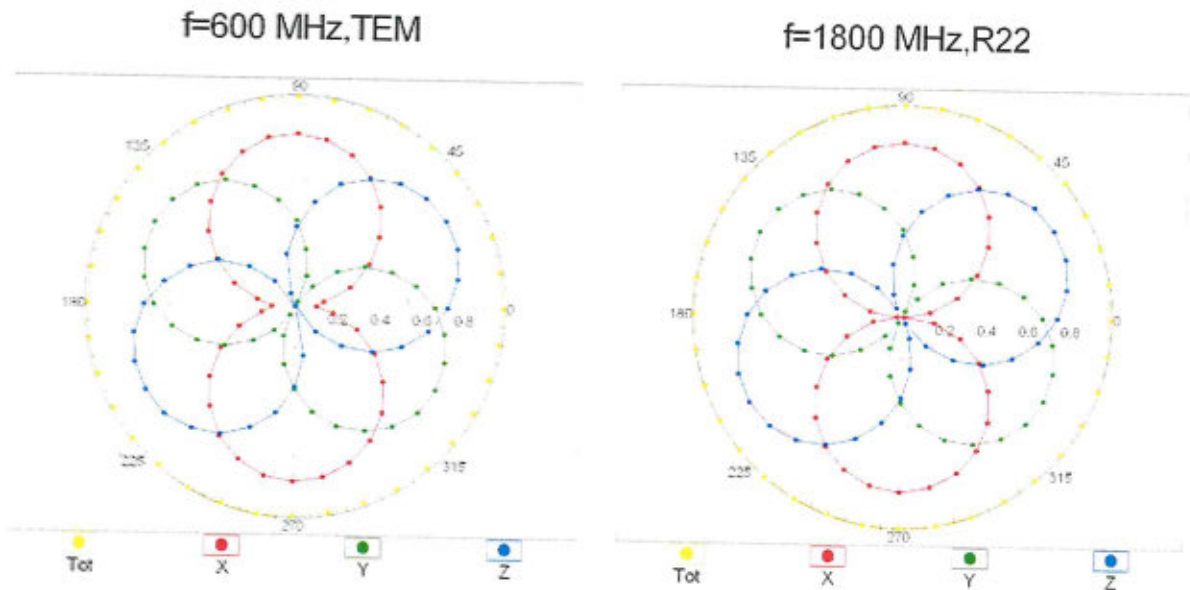
^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from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

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



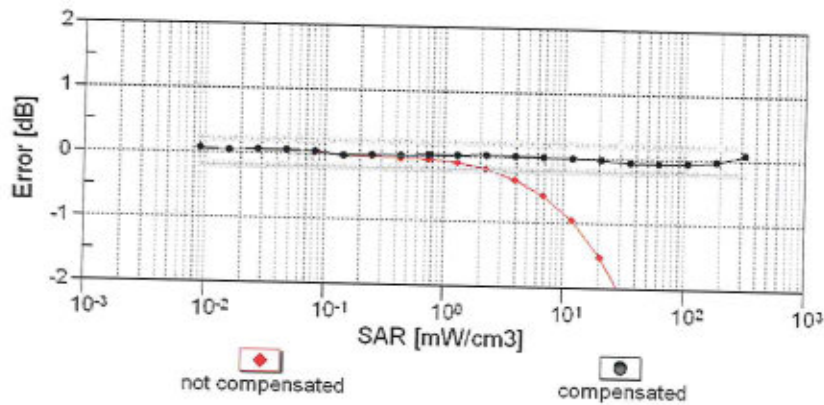
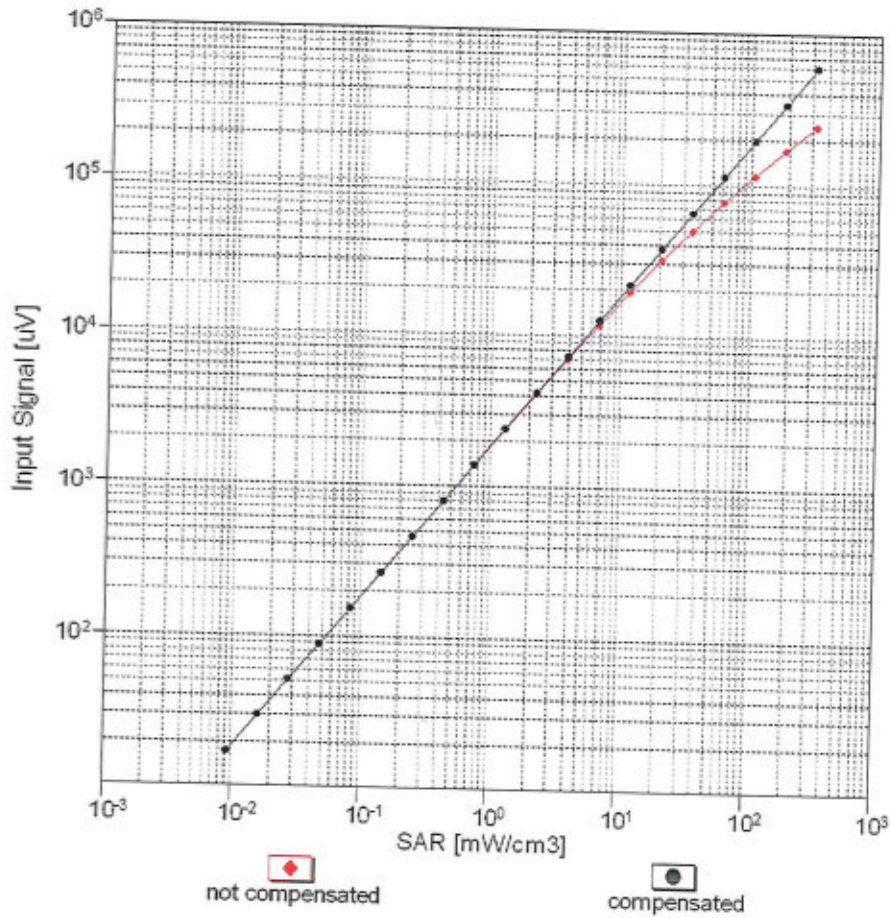
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ (k=2)

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



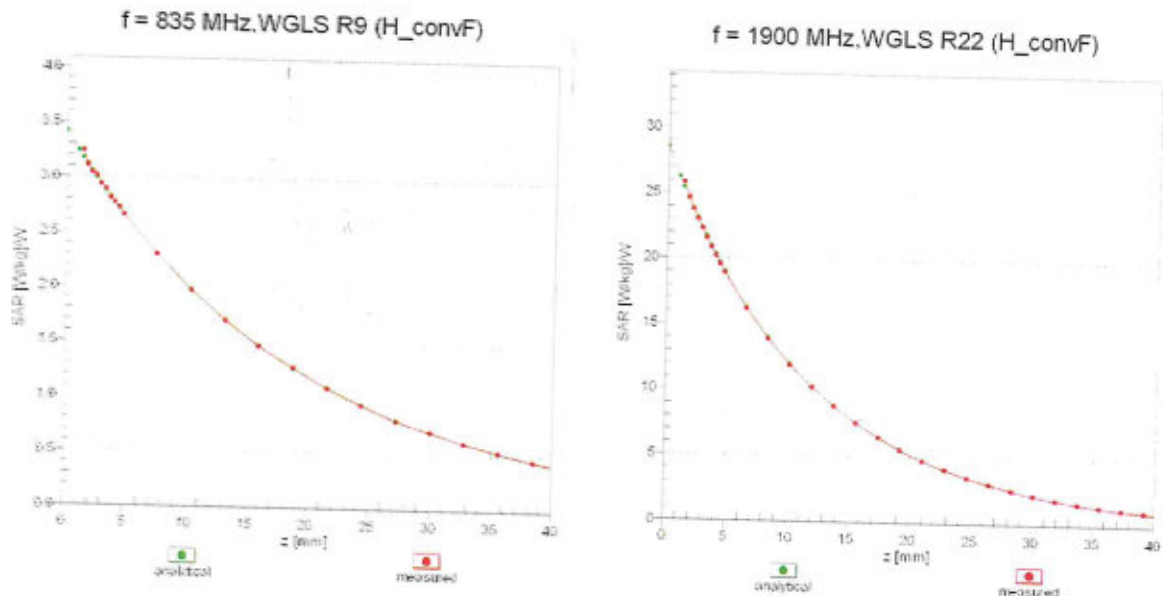
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ (k=2)

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

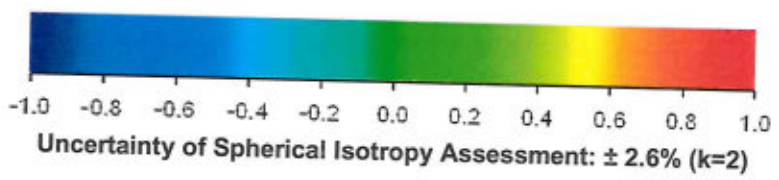
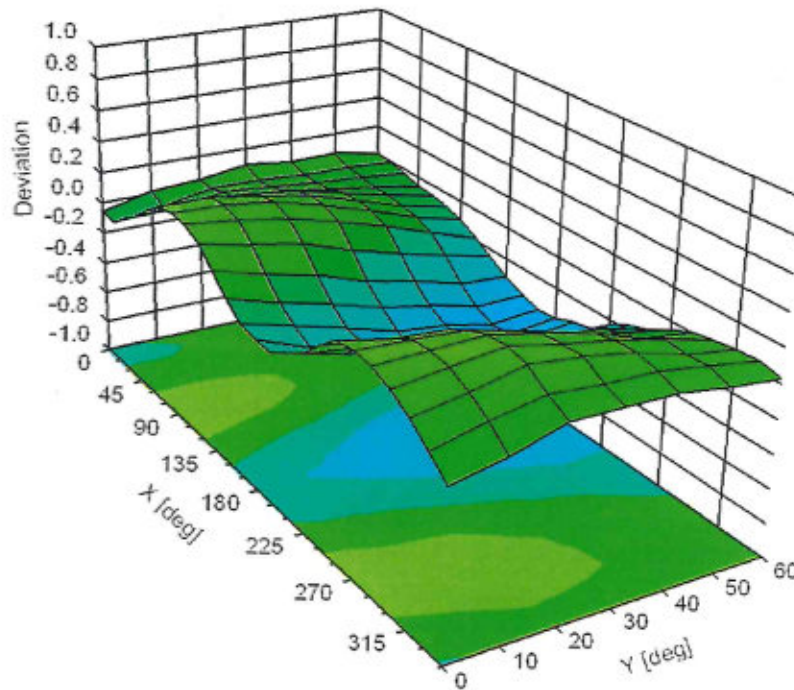


Uncertainty of Linearity Assessment: $\pm 0.6\%$ (k=2)

Conversion Factor Assessment



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





Appendix E. Conducted RF Output Power Table

The detailed power tables are shown as follows.

Full Power

GSM900	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	33.00	824.2	836.4	848.8	24.00
Frequency (MHz)	32.50	32.54	32.39	33.00	23.50	23.54	23.39	24.00
GSM 1 Tx slot	32.48	32.53	32.37	33.00	23.48	23.53	23.37	24.00
GPRS 2 Tx slots	30.79	30.84	30.68	31.50	24.79	24.84	24.68	25.50
GPRS 3 Tx slots	28.80	28.82	28.62	29.50	24.54	24.56	24.36	25.24
GPRS 4 Tx slots	27.80	27.86	27.62	28.50	24.80	24.86	24.62	25.50
EDGE 1 Tx slot	27.30	27.21	27.30	28.00	18.30	18.21	18.30	19.00
EDGE 2 Tx slots	25.06	25.01	25.07	26.00	19.06	19.01	19.07	20.00
EDGE 3 Tx slots	22.55	22.44	22.51	23.50	18.28	18.18	18.25	19.24
EDGE 4 Tx slots	21.24	21.14	21.25	22.00	18.24	18.14	18.25	19.00

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)	29.45	29.65	29.69	30.50	20.45	20.65	20.69	21.50
GSM 1 Tx slot	29.43	29.64	29.67	30.50	20.43	20.64	20.67	21.50
GPRS 1 Tx slot	27.83	28.05	28.17	29.00	21.83	22.05	22.17	23.00
GPRS 2 Tx slots	25.80	26.07	26.19	27.00	21.54	21.81	21.93	22.74
GPRS 3 Tx slots	25.80	26.07	26.19	27.00	21.54	21.81	21.93	22.74
GPRS 4 Tx slots	25.10	25.26	25.21	26.00	22.10	22.26	22.21	23.00
EDGE 1 Tx slot	26.28	26.02	26.03	27.00	17.28	17.02	17.03	18.00
EDGE 2 Tx slots	24.44	24.13	24.21	25.00	18.44	18.13	18.21	19.00
EDGE 3 Tx slots	22.44	22.05	22.07	23.00	18.18	17.79	17.81	18.74
EDGE 4 Tx slots	21.31	20.97	20.94	22.00	18.31	17.97	17.94	19.00

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
	9282	9400	9538		4192	4182	4233	
TX Channel	8682	8800	8938	33.00	4367	4407	4458	24.00
Rx Channel	1852.4	1880	1907.6	33.00	826.4	836.4	846.6	24.00
Frequency (MHz)	23.15	23.20	23.13	24.00	23.12	23.20	23.17	24.00
3GPP Rel 99 AMR 12.2kbps	23.22	23.23	23.14	24.00	23.14	23.21	23.19	24.00
3GPP Rel 99 RMC 12.2kbps	22.16	22.10	21.97	23.00	22.09	22.15	22.11	23.00
3GPP Rel 6 HSDPA Subtest-1	22.10	22.09	21.94	23.00	22.03	22.07	22.10	23.00
3GPP Rel 6 HSDPA Subtest-2	21.58	21.58	21.50	22.50	21.63	21.60	21.61	22.50
3GPP Rel 6 HSDPA Subtest-3	21.56	21.64	21.53	22.50	21.61	21.56	21.55	22.50
3GPP Rel 6 HSDPA Subtest-4	22.04	22.04	21.88	23.00	22.01	22.02	22.00	23.00
3GPP Rel 8 DC-HSDPA Subtest-1	22.14	22.18	21.88	23.00	21.90	21.95	21.99	23.00
3GPP Rel 8 DC-HSDPA Subtest-2	21.49	21.66	21.48	22.50	21.51	21.60	21.48	22.50
3GPP Rel 8 DC-HSDPA Subtest-3	21.63	21.57	21.44	22.50	21.49	21.46	21.50	22.50
3GPP Rel 8 DC-HSDPA Subtest-4	20.08	19.93	19.81	23.00	20.04	19.95	20.05	23.00
3GPP Rel 6 HSUPA Subtest-1	20.11	19.93	19.87	21.00	20.02	19.93	20.05	21.00
3GPP Rel 6 HSUPA Subtest-2	21.02	20.98	20.88	22.00	20.98	20.92	21.02	22.00
3GPP Rel 6 HSUPA Subtest-3	19.59	19.51	19.42	21.00	19.53	19.41	19.54	21.00
3GPP Rel 6 HSUPA Subtest-4	21.04	21.00	21.01	23.00	21.01	21.03	21.00	23.00
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	19.61	19.47	19.57	20.50	19.47	19.53	19.51	20.50



Band 2 (1900MHz Band) Part 24E									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				18700	18900	19100			
Frequency (MHz)				1860	1880	1900			
20	QPSK	1	0	23.06	23.16	22.96	24	0	
20	QPSK	1	49	23.07	22.95	23.12			
20	QPSK	1	99	22.75	22.89	22.87			
20	QPSK	50	0	22.24	22.26	22.07			
20	QPSK	50	24	22.25	22.15	22.16	23	1	
20	QPSK	50	50	22.19	22.07	22.05			
20	QPSK	100	0	22.13	22.18	22.10			
20	16QAM	1	0	22.30	22.09	22.18			
20	16QAM	1	49	22.17	22.15	21.91	23	1	
20	16QAM	1	99	22.04	21.91	21.97			
20	16QAM	50	0	21.22	21.14	21.04			
20	16QAM	50	24	21.24	21.14	21.09			
20	16QAM	50	50	21.17	21.06	20.98	22	2	
20	16QAM	100	0	21.20	21.10	21.08			
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1857.5	1880	1902.5			
15	QPSK	1	0	23.02	23.07	22.86	24	0	
15	QPSK	1	37	23.06	22.81	23.03			
15	QPSK	1	74	22.72	22.91	22.74			
15	QPSK	36	0	22.18	22.14	22.03			
15	QPSK	36	20	22.26	22.18	22.02	23	1	
15	QPSK	36	39	22.13	22.04	21.95			
15	QPSK	75	0	22.03	22.14	22.10			
15	16QAM	1	0	22.28	21.95	22.08			
15	16QAM	1	37	22.09	22.06	21.85	23	1	
15	16QAM	1	74	21.94	21.84	21.94			
15	16QAM	36	0	21.18	21.15	21.03			
15	16QAM	36	20	21.10	21.04	21.08			
15	16QAM	36	39	21.05	20.98	20.91	22	2	
15	16QAM	75	0	21.08	21.10	20.95			
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1855	1880	1905			
10	QPSK	1	0	23.00	23.06	22.89	24	0	
10	QPSK	1	25	22.94	22.95	23.13			
10	QPSK	1	49	22.74	22.92	22.75			
10	QPSK	25	0	22.13	22.15	21.97			
10	QPSK	25	12	22.14	22.11	22.14	23	1	
10	QPSK	25	25	22.16	21.98	22.03			
10	QPSK	50	0	22.13	22.16	22.08			
10	16QAM	1	0	22.21	22.01	22.10			
10	16QAM	1	25	22.08	22.09	21.94	23	1	
10	16QAM	1	49	22.05	21.80	21.99			
10	16QAM	25	0	21.20	21.01	20.90			
10	16QAM	25	12	21.15	21.17	21.11	22	2	
10	16QAM	25	25	21.10	21.07	21.02			
10	16QAM	50	0	21.16	20.97	21.02			
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1852.5	1880	1907.5			
5	QPSK	1	0	22.97	23.09	22.85	24	0	
5	QPSK	1	12	22.98	22.89	23.13			
5	QPSK	1	24	22.78	22.97	22.79			
5	QPSK	12	0	22.18	22.27	21.97	23	1	
5	QPSK	12	7	22.22	22.06	22.14			
5	QPSK	12	13	22.13	21.94	21.93			
5	QPSK	25	0	22.11	22.16	22.11			
5	16QAM	1	0	22.17	22.04	22.16			
5	16QAM	1	12	22.12	22.09	21.79	23	1	
5	16QAM	1	24	22.01	21.83	21.91			
5	16QAM	12	0	21.13	21.12	20.98			
5	16QAM	12	7	21.27	21.05	21.11	22	2	
5	16QAM	12	13	21.07	21.01	20.99			
5	16QAM	25	0	21.11	21.12	20.98			
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1851.5	1880	1908.5			
3	QPSK	1	0	22.95	23.01	22.86	24	0	
3	QPSK	1	8	22.93	22.79	23.01			
3	QPSK	1	14	22.57	22.82	22.68			
3	QPSK	8	0	22.07	22.21	22.02	23	1	
3	QPSK	8	4	22.06	22.12	22.12			
3	QPSK	8	7	22.10	21.89	22.30			
3	QPSK	15	0	22.02	21.99	22.03			
3	16QAM	1	0	22.23	22.01	22.06			
3	16QAM	1	8	22.08	22.04	21.80	23	1	
3	16QAM	1	14	22.01	21.86	21.84			
3	16QAM	8	0	21.20	21.02	20.90			
3	16QAM	8	4	21.06	21.03	21.06	22	2	
3	16QAM	8	7	21.15	21.01	20.95			
3	16QAM	15	0	21.08	20.99	20.99			
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1850.7	1880	1909.3			
1.4	QPSK	1	0	22.88	22.90	22.81	24	0	
1.4	QPSK	1	3	22.97	22.80	22.97			
1.4	QPSK	1	5	22.73	22.82	22.77			
1.4	QPSK	3	0	22.94	22.99	22.76			
1.4	QPSK	3	1	22.88	22.72	22.81			
1.4	QPSK	3	3	22.88	22.77	22.70			
1.4	QPSK	6	0	21.96	22.10	21.97	23	1	
1.4	16QAM	1	0	21.99	21.89	22.11			
1.4	16QAM	1	3	22.06	22.07	21.88			
1.4	16QAM	1	5	21.91	21.75	21.84	23	1	
1.4	16QAM	3	0	21.85	21.92	21.83			
1.4	16QAM	3	1	22.07	21.89	21.86			
1.4	16QAM	3	3	21.89	21.75	21.70			
1.4	16QAM	6	0	21.07	20.95	20.96	22	2	

Band 4 (AWS Band) Part 27L (only on channel required)									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				20650	20175	20300			
Frequency (MHz)				1720	1732.5	1745			
20	QPSK	1	0	22.96	23.10	22.94	24	0	
20	QPSK	1	49	23.07	23.01	23.00			
20	QPSK	1	99	22.79	22.92	22.92			
20	QPSK	50	0	22.16	22.38	22.37			
20	QPSK	50	24	22.24	22.33	22.32	23	1	
20	QPSK	50	50	22.20	22.23	22.18			
20	QPSK	100	0	22.22	22.28	22.23			
20	16QAM	1	0	22.10	22.26	22.42			
20	16QAM	1	49	22.02	22.27	22.26	23	1	
20	16QAM	1	99	22.10	22.08	22.18			
20	16QAM	50	0	21.17	21.32	21.41			
20	16QAM	50	24	21.26	21.30	21.37			
20	16QAM	50	50	21.17	21.25	21.19	22	2	
20	16QAM	100	0	21.21	21.29	21.30			
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1717.5	1732.5	1747.5			
15	QPSK	1	0	22.81	22.97	22.81	24	0	
15	QPSK	1	37	23.00	22.93	22.93			
15	QPSK	1	74	22.81	22.81	22.80			
15	QPSK	36	0	22.02	22.26	22.22			
15	QPSK	36	20	22.07	22.15	22.18	23	1	
15	QPSK	36	39	22.16	22.15	22.10			
15	QPSK	75	0	22.18	22.09	22.04			
15	16QAM	1	0	21.98	22.17	22.34			
15	16QAM	1	37	21.86	22.23	22.11	23	1	
15	16QAM	1	74	22.03	21.92	22.14			
15	16QAM	36	0	21.00	21.19	21.32			
15	16QAM	36	20	21.11	21.14	21.24			
15	16QAM	36	39	21.16	21.11	21.14	22	2	
15	16QAM	75	0	21.18	21.11	21.25			
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1715	1732.5	1750			
10	QPSK	1	0	22.91	23.00	22.86	24	0	
10	QPSK	1	25	23.04	22.95	22.85			
10	QPSK	1	49	22.75	22.78	22.91			
10	QPSK	25	0	22.07	22.34	22.23			
10	QPSK	25	12	22.17	22.21	22.18	23	1	
10	QPSK	25	25	22.18	22.23	22.09			
10	QPSK	50	0	22.19	22.29	22.09			
10	16QAM	1	0	22.11	22.09	22.42			
10	16QAM	1	25	21.97	22.2				



Band 7 (2600MHz Band)								
Part 27								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	23.05	23.18	22.79	24	0
20	QPSK	1	49	23.11	22.98	23.12		
20	QPSK	1	99	22.95	22.87	22.85		
20	QPSK	50	0	21.93	22.05	21.72		
20	QPSK	50	24	22.04	22.01	21.81		
20	QPSK	50	50	21.97	21.80	21.68	23	1
20	QPSK	100	0	21.82	21.95	21.70		
20	16QAM	1	0	21.90	21.93	21.76		
20	16QAM	1	49	21.92	21.92	21.82	23	1
20	16QAM	1	99	21.80	21.74	21.86		
20	16QAM	50	0	21.36	21.25	21.05		
20	16QAM	50	24	21.30	21.42	21.23		
20	16QAM	50	50	21.32	21.23	21.01	22	2
20	16QAM	100	0	21.22	21.16	21.05		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	22.83	23.04	22.65	24	0
15	QPSK	1	37	23.04	22.84	23.00		
15	QPSK	1	74	22.80	22.78	22.76		
15	QPSK	36	0	21.73	21.97	21.52		
15	QPSK	36	20	21.94	21.94	21.67	23	1
15	QPSK	36	39	21.78	21.65	21.58		
15	QPSK	75	0	21.86	21.76	21.59		
15	16QAM	1	0	21.83	21.82	21.55		
15	16QAM	1	37	21.75	21.78	21.76	23	1
15	16QAM	1	74	21.71	21.62	21.65		
15	16QAM	36	0	21.16	21.13	20.90		
15	16QAM	36	20	21.98	21.20	21.08	22	2
15	16QAM	36	39	21.13	21.12	20.79		
15	16QAM	75	0	21.15	21.02	20.93		
Channel				20900	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	22.84	22.95	22.58	24	0
10	QPSK	1	25	23.00	22.76	22.93		
10	QPSK	1	49	22.73	22.70	22.76		
10	QPSK	25	0	21.73	21.92	21.60		
10	QPSK	25	12	21.92	21.91	21.67	23	1
10	QPSK	25	25	21.78	21.71	21.46		
10	QPSK	50	0	21.85	21.89	21.52		
10	16QAM	1	0	21.72	21.81	21.60		
10	16QAM	1	25	21.83	21.74	21.72	23	1
10	16QAM	1	49	21.60	21.53	21.78		
10	16QAM	25	0	21.16	21.16	20.91		
10	16QAM	25	12	21.16	21.36	21.11	22	2
10	16QAM	25	25	21.18	21.13	20.93		
10	16QAM	50	0	21.13	21.06	20.82		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	22.82	23.04	22.71	24	0
5	QPSK	1	12	23.03	22.83	23.02		
5	QPSK	1	24	22.74	22.78	22.51		
5	QPSK	12	0	21.69	21.96	21.59		
5	QPSK	12	7	21.81	21.85	21.71	23	1
5	QPSK	12	13	21.74	21.68	21.60		
5	QPSK	25	0	21.76	21.77	21.56		
5	16QAM	1	0	21.82	21.79	21.63		
5	16QAM	1	12	21.71	21.70	21.59	23	1
5	16QAM	1	24	21.63	21.66	21.69		
5	16QAM	12	0	21.24	21.13	20.90		
5	16QAM	12	7	21.09	21.23	21.08	22	2
5	16QAM	12	13	21.22	21.13	20.83		
5	16QAM	25	0	21.09	20.97	20.95		

Band 26 for FCC								
(only on channel required)								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26765	26865	26965		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	0	23.12	23.38	23.21	24	0
15	QPSK	1	37	23.16	23.09	23.07		
15	QPSK	1	74	22.88	23.10	23.20		
15	QPSK	36	0	22.17	22.26	22.15		
15	QPSK	36	20	22.17	22.25	22.21	23	1
15	QPSK	36	39	22.14	22.14	22.05		
15	QPSK	75	0	22.12	22.20	22.19		
15	16QAM	1	0	22.29	22.32	22.12		
15	16QAM	1	37	22.44	22.35	22.38	23	1
15	16QAM	1	74	22.30	22.32	22.28		
15	16QAM	36	0	21.27	21.33	21.34		
15	16QAM	36	20	21.33	21.39	21.40	22	2
15	16QAM	36	39	21.32	21.26	21.19		
15	16QAM	75	0	21.22	21.23	21.21		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	22.99	23.12	23.07	24	0
10	QPSK	1	25	23.06	23.18	23.01		
10	QPSK	1	49	22.81	22.93	22.87		
10	QPSK	25	0	22.02	22.12	22.16		
10	QPSK	25	12	22.03	22.10	22.10	23	1
10	QPSK	25	25	22.14	22.18	22.00		
10	QPSK	50	0	22.16	22.19	22.12		
10	16QAM	1	0	22.28	22.32	22.14		
10	16QAM	1	25	22.31	22.41	22.43	23	1
10	16QAM	1	49	22.29	22.24	22.21		
10	16QAM	25	0	21.33	21.33	21.35		
10	16QAM	25	12	21.24	21.43	21.42	22	2
10	16QAM	25	25	21.28	21.25	21.14		
10	16QAM	50	0	21.27	21.36	21.11		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	22.83	23.08	23.02	24	0
5	QPSK	1	12	23.09	22.90	22.92		
5	QPSK	1	24	22.79	22.75	22.78		
5	QPSK	12	0	22.14	22.11	22.09		
5	QPSK	12	7	21.89	22.05	22.07	23	1
5	QPSK	12	13	21.94	22.07	21.80		
5	QPSK	25	0	22.07	22.02	21.96		
5	16QAM	1	0	22.15	22.28	21.98		
5	16QAM	1	12	22.16	22.33	22.19	23	1
5	16QAM	1	24	22.15	22.17	22.12		
5	16QAM	12	0	21.14	21.22	21.17		
5	16QAM	12	7	21.15	21.18	21.24	22	2
5	16QAM	12	13	21.16	21.16	21.07		
5	16QAM	25	0	21.08	21.13	21.08		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	22.81	23.15	23.03	24	0
3	QPSK	1	8	23.10	22.97	22.91		
3	QPSK	1	14	22.79	22.79	22.79		
3	QPSK	8	0	22.10	22.09	22.12		
3	QPSK	8	4	21.93	21.99	22.08	23	1
3	QPSK	8	7	21.88	22.09	21.82		
3	QPSK	15	0	22.02	22.00	21.97		
3	16QAM	1	0	22.14	22.26	21.95		
3	16QAM	1	8	22.15	22.28	22.28	23	1
3	16QAM	1	14	22.16	22.22	22.19		
3	16QAM	8	0	21.17	21.28	21.21		
3	16QAM	8	4	21.13	21.19	21.25	22	2
3	16QAM	8	7	21.19	21.16	21.06		
3	16QAM	15	0	21.13	21.12	21.12		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	22.80	23.15	22.90	24	0
1.4	QPSK	1	3	23.07	22.97	22.92		
1.4	QPSK	1	5	22.83	22.79	22.76		
1.4	QPSK	3	0	22.71	22.97	22.91		
1.4	QPSK	3	1	22.75	22.83	22.78		
1.4	QPSK	3	3	22.74	22.84	22.86	23	1
1.4	QPSK	6	0	21.90	22.04	22.06		
1.4	16QAM	1	0	22.09	22.16	21.88		
1.4	16QAM	1	3	22.15	22.23	22.25	23	1
1.4	16QAM	1	5	22.15	22.14	22.15		
1.4	16QAM	3	0	22.04	22.09	22.15		
1.4	16QAM	3	1	22.12	22.13	22.10		
1.4	16QAM	3	3	22.17	22.07	21.98		
1.4	16QAM	6	0	21.00	21.05	21.11	22	2



Band 38(only on channel required)									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				37850	38000	38150			
Frequency (MHz)				2580	2595	2610			
20	QPSK	1	0	22.72	22.94	22.54	24	0	
20	QPSK	1	49	22.68	22.76	22.55			
20	QPSK	1	99	22.56	22.61	22.58			
20	QPSK	50	0	21.69	21.86	21.39	23	1	
20	QPSK	50	24	21.68	21.60	21.44			
20	QPSK	50	50	21.69	21.49	21.40			
20	QPSK	100	0	21.80	21.82	21.41	23	1	
20	16QAM	1	0	21.84	21.61	21.41			
20	16QAM	1	49	21.78	21.84	21.63			
20	16QAM	1	99	21.45	21.50	21.45	22	2	
20	16QAM	50	0	20.74	20.68	20.50			
20	16QAM	50	24	20.88	20.65	20.49			
20	16QAM	50	50	20.75	20.58	20.50	22	2	
20	16QAM	50	50	20.75	20.58	20.50			
20	16QAM	100	0	20.87	20.67	20.51			
Channel				37825	38000	38175			
Frequency (MHz)				2577.5	2595	2612.5			
15	QPSK	1	0	22.69	22.66	22.40	24	0	
15	QPSK	1	37	22.74	22.77	22.54			
15	QPSK	1	74	22.61	22.37	22.49			
15	QPSK	36	0	21.74	21.69	21.48	23	1	
15	QPSK	36	20	21.89	21.65	21.43			
15	QPSK	36	39	21.84	21.55	21.43			
15	QPSK	75	0	21.89	21.65	21.57	23	1	
15	16QAM	1	0	21.77	21.72	21.45			
15	16QAM	1	37	21.81	21.80	21.60			
15	16QAM	1	74	21.68	21.44	21.58	22	2	
15	16QAM	36	0	20.73	20.70	20.41			
15	16QAM	36	20	20.83	20.65	20.44			
15	16QAM	36	39	20.76	20.53	20.57	22	2	
15	16QAM	36	39	20.76	20.53	20.57			
15	16QAM	75	0	20.89	20.71	20.47			
Channel				37800	38000	38200			
Frequency (MHz)				2575	2595	2615			
10	QPSK	1	0	22.69	22.72	22.46	24	0	
10	QPSK	1	25	22.76	22.54	22.34			
10	QPSK	1	49	22.76	22.58	22.37			
10	QPSK	25	0	21.77	21.70	21.52	23	1	
10	QPSK	25	12	21.74	21.66	21.48			
10	QPSK	25	25	21.74	21.59	21.51			
10	QPSK	50	0	21.85	21.61	21.43	23	1	
10	16QAM	1	0	21.87	21.78	21.69			
10	16QAM	1	25	21.86	21.77	21.62			
10	16QAM	1	49	21.88	21.57	21.67	22	2	
10	16QAM	25	0	20.81	20.75	20.54			
10	16QAM	25	12	20.79	20.71	20.47			
10	16QAM	25	25	20.91	20.64	20.52	22	2	
10	16QAM	25	25	20.91	20.64	20.52			
10	16QAM	50	0	20.81	20.73	20.52			
Channel				37775	38000	38225			
Frequency (MHz)				2572.5	2595	2617.5			
5	QPSK	1	0	22.65	22.55	22.31	24	0	
5	QPSK	1	12	22.69	22.75	22.52			
5	QPSK	1	24	22.72	22.45	22.45			
5	QPSK	12	0	21.73	21.65	21.40	23	1	
5	QPSK	12	7	21.74	21.63	21.43			
5	QPSK	12	13	21.73	21.62	21.55			
5	QPSK	25	0	21.70	21.59	21.42	23	1	
5	16QAM	1	0	21.77	21.67	21.59			
5	16QAM	1	12	21.82	21.84	21.62			
5	16QAM	1	24	21.87	21.56	21.57	22	2	
5	16QAM	12	0	20.71	20.63	20.55			
5	16QAM	12	7	20.72	20.63	20.42			
5	16QAM	12	13	20.84	20.56	20.54	22	2	
5	16QAM	12	13	20.84	20.56	20.54			
5	16QAM	25	0	20.72	20.62	20.46			

Band 41 (2.6G Band)										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	22.96	23.10	22.76	22.66	22.66	24	0
20	QPSK	1	49	22.95	22.98	22.96	22.74	22.90		
20	QPSK	1	99	22.75	22.84	22.66	22.64	22.68		
20	QPSK	50	0	21.96	22.06	21.73	21.71	21.75	23	1
20	QPSK	50	24	22.04	22.04	21.67	21.72	21.60		
20	QPSK	50	50	21.97	21.96	21.76	21.69	21.74		
20	QPSK	100	0	22.04	22.06	21.66	21.73	21.64	23	1
20	16QAM	1	0	21.97	21.91	21.71	21.62	21.67		
20	16QAM	1	49	21.91	21.92	21.90	21.70	21.86		
20	16QAM	1	99	21.70	21.78	21.60	21.59	21.63	22	2
20	16QAM	50	0	21.09	21.13	20.82	20.80	20.83		
20	16QAM	50	24	21.12	21.01	20.76	20.81	20.85		
20	16QAM	50	50	21.09	21.09	20.84	20.80	20.83	22	2
20	16QAM	50	50	21.09	21.10	20.74	20.80	20.68		
20	16QAM	100	0	21.09	21.10	20.74	20.80	20.68		
Channel				39725	40173	40620	41058	41515		
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	23.02	22.97	22.75	22.70	22.58	24	0
15	QPSK	1	37	22.91	22.93	22.80	22.60	22.72		
15	QPSK	1	74	22.85	22.96	22.71	22.70	22.72		
15	QPSK	36	0	22.13	22.09	21.80	21.80	21.86	23	1
15	QPSK	36	20	22.02	22.15	21.73	21.81	21.74		
15	QPSK	36	39	22.10	22.10	21.85	21.81	21.85		
15	QPSK	75	0	22.11	22.04	21.71	21.75	21.79	23	1
15	16QAM	1	0	22.17	22.05	21.82	21.79	21.83		
15	16QAM	1	37	22.04	22.04	21.91	21.70	21.80		
15	16QAM	1	74	21.85	22.01	21.79	21.78	21.81	22	2
15	16QAM	36	0	21.06	21.03	20.76	20.76	20.64		
15	16QAM	36	20	21.10	21.10	20.71	20.75	20.66		
15	16QAM	36	39	21.00	21.09	20.80	20.75	20.79	22	2
15	16QAM	36	39	21.00	21.09	20.80	20.75	20.79		
15	16QAM	75	0	21.13	21.11	20.74	20.79	20.82		
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	22.97	23.03	22.80	22.77	22.66	24	0
10	QPSK	1	25	23.03	23.03	22.68	22.76	22.80		
10	QPSK	1	49	22.97	23.02	22.80	22.77	22.78		
10	QPSK	25	0	22.11	22.10	21.78	21.83	21.87	23	1
10	QPSK	25	12	22.16	22.14	21.81	21.84	21.87		
10	QPSK	25	25	22.15	22.11	21.88	21.83	21.86		
10	QPSK	50	0	21.96	22.02	21.72	21.76	21.79	23	1
10	16QAM	1	0	22.21	22.13	21.91	21.87	21.91		
10	16QAM	1	25	22.09	22.09	21.94	21.90	21.84		
10	16QAM	1	49	22.11	22.14	21.89	21.87	21.89	22	2
10	16QAM	25	0	21.20	21.12	20.85	20.85	20.88		
10	16QAM	25	12	21.17	21.05	20.83	20.85	20.72		
10	16QAM	25	25	21.14	21.14	20.72	20.83	20.88	22	2
10	16QAM	25	25	21.14	21.14	20.72	20.83	20.88		
10	16QAM	50	0	21.17	21.18	20.81	20.87	20.90		
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2488.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	23.04	22.95	22.68	22.73	22.76	24	0
5	QPSK	1	12	22.98	22.98	22.85	22.65	22.70		
5	QPSK	1	24	22.96	22.94	22.78	22.74	22.76		
5	QPSK	12	0	22.02	22.07	21.78	21.82	21.71	23	1
5	QPSK	12	7	22.03	22.16	21.78	21.82	21.75		
5	QPSK	12	13	22.01	22.11	21.72	21.81	21.71		
5	QPSK	25	0	22.03	22.12	21.76	21.82	21.85	23	1
5	16QAM	1	0	22.17	22.12	21.79	21.86	21.91		
5	16QAM	1	12	22.14	22.11	21.95	21.95	21.81		
5	16QAM	1	24	22.12	22.14	21.92	21.86	21.89	22	2
5	16QAM	12	0	21.16	21.07	20.75	20.80	20.83		
5	16QAM	12	7	21.00	21.14	20.77	20.81	20.70		
5	16QAM	12	13	21.12	21.09	20.84	20.79	20.82	22	2
5										

Reduced Power

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	193	195	251		193	199	251	
TX Channel	824.2	836.4	848.8	28.00	824.2	836.4	848.8	19.00
Frequency (MHz)	27.42	27.40	27.28	28.00	18.42	18.40	18.28	19.00
GPRS 1 Tx slot	27.41	27.39	27.26	28.00	18.41	18.39	18.26	19.00
GPRS 2 Tx slots	25.69	25.69	25.61	26.50	19.69	19.69	19.61	20.50
GPRS 3 Tx slots	23.73	23.72	23.56	24.50	19.47	19.46	19.30	20.24
GPRS 4 Tx slots	22.72	22.82	22.68	23.50	19.72	19.82	19.68	20.50
EDGE 1 Tx slot	22.21	22.08	22.23	23.00	13.21	13.08	13.23	14.00
EDGE 2 Tx slots	19.93	19.90	19.92	21.00	13.93	13.90	13.92	15.00
EDGE 3 Tx slots	17.44	17.36	17.39	18.50	13.18	13.10	13.13	14.24
EDGE 4 Tx slots	16.14	16.04	16.16	17.00	13.14	13.04	13.16	14.00

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	23.50	1850.2	1880	1909.8	14.50
Frequency (MHz)	21.85	22.03	22.12	23.50	12.85	13.03	13.12	14.50
GPRS 1 Tx slot	21.84	22.01	22.10	23.50	12.84	13.01	13.10	14.50
GPRS 2 Tx slots	20.23	20.42	20.52	22.00	14.23	14.42	14.52	16.00
GPRS 3 Tx slots	18.17	18.42	18.55	20.00	13.91	14.16	14.29	15.74
GPRS 4 Tx slots	17.46	17.62	17.65	19.00	14.46	14.62	14.65	16.00
EDGE 1 Tx slot	16.64	16.43	16.47	20.00	9.64	9.43	9.47	11.00
EDGE 2 Tx slots	16.87	16.51	16.64	18.00	10.87	10.51	10.64	12.00
EDGE 3 Tx slots	14.83	14.47	14.46	16.00	10.57	10.21	10.20	11.74
EDGE 4 Tx slots	13.68	13.34	13.31	15.00	10.68	10.34	10.31	12.00

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
	9262	9400	9538		4132	4182	4233	
TX Channel	9662	9800	9938	16.076	4367	4407	4468	17.00
Rx Channel	1852.4	1880	1907.6	14.50	826.4	836.4	846.6	16.00
Frequency (MHz)	13.10	13.13	13.00	14.50	17.01	17.03	17.06	16.00
3GPP Rel 99 AMR 12.2Kbps	13.12	13.14	13.01	14.50	17.02	17.10	17.08	16.00
3GPP Rel 99 RMC 12.2Kbps	12.10	12.00	11.88	13.00	16.01	16.05	16.02	17.00
3GPP Rel 6 HSDPA Subtest-1	11.96	12.01	11.89	13.00	15.92	16.01	15.99	17.00
3GPP Rel 6 HSDPA Subtest-2	11.52	11.43	11.42	12.50	15.53	15.46	15.48	16.50
3GPP Rel 6 HSDPA Subtest-3	11.48	11.51	11.42	12.50	15.48	15.43	15.48	16.50
3GPP Rel 6 HSDPA Subtest-4	11.38	11.51	11.34	12.50	15.43	15.35	15.34	16.50
3GPP Rel 8 DC-HSDPA Subtest-1	11.96	11.90	11.83	13.00	15.96	15.92	15.91	17.00
3GPP Rel 8 DC-HSDPA Subtest-2	12.07	12.04	11.83	13.00	15.84	15.89	15.88	17.00
3GPP Rel 8 DC-HSDPA Subtest-3	11.38	11.51	11.34	12.50	15.43	15.35	15.34	16.50
3GPP Rel 8 DC-HSDPA Subtest-4	11.51	11.47	11.39	12.50	15.40	15.35	15.38	16.50
3GPP Rel 6 HSUPA Subtest-1	10.10	10.21	10.00	13.00	13.96	13.88	13.92	17.00
3GPP Rel 6 HSUPA Subtest-2	9.99	9.80	9.74	11.00	13.95	13.87	13.93	15.00
3GPP Rel 6 HSUPA Subtest-3	10.95	10.84	10.82	12.00	14.84	14.81	14.82	16.00
3GPP Rel 6 HSUPA Subtest-4	9.49	9.45	9.31	11.00	13.44	13.28	13.44	15.00
3GPP Rel 6 HSUPA Subtest-5	10.94	10.93	10.89	13.00	14.88	14.90	14.91	17.00
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	9.51	9.36	9.50	10.50	13.42	13.45	13.45	14.50



Band 2 (1900MHz Band) Part 24E										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel				18700	18900	19100				
Frequency (MHz)				1880	1880	1900				
20	QPSK	1	0	13.42	13.58	13.37	14.5	0		
20	QPSK	1	49	13.52	13.36	13.48				
20	QPSK	1	99	13.19	13.30	13.30				
20	QPSK	50	0	12.59	12.69	12.61	13.5	1		
20	QPSK	50	24	12.68	12.57	12.53				
20	QPSK	50	50	12.62	12.47	12.50				
20	QPSK	100	0	12.49	12.54	12.47	13.5	1		
20	16QAM	1	0	12.89	12.49	12.58				
20	16QAM	1	49	12.61	12.57	12.29				
20	16QAM	1	99	12.43	12.31	12.37	12.5	2		
20	16QAM	50	0	11.64	11.53	11.44				
20	16QAM	50	24	11.60	11.52	11.47				
20	16QAM	50	50	11.59	11.47	11.40	12.5	2		
20	16QAM	100	0	11.63	11.46	11.46				
Channel				18675	18900	19125			Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5				
15	QPSK	1	0	13.40	13.47	13.23	14.5	0		
15	QPSK	1	37	13.49	13.20	13.42				
15	QPSK	1	74	13.09	13.34	13.15				
15	QPSK	36	0	12.61	12.56	12.41	13.5	1		
15	QPSK	36	20	12.63	12.57	12.39				
15	QPSK	36	39	12.53	12.46	12.40				
15	QPSK	75	0	12.47	12.58	12.51	13.5	1		
15	16QAM	1	0	12.68	12.36	12.46				
15	16QAM	1	37	12.47	12.44	12.23				
15	16QAM	1	74	12.33	12.22	12.30	12.5	2		
15	16QAM	36	0	11.63	11.52	11.43				
15	16QAM	36	20	11.50	11.42	11.48				
15	16QAM	36	39	11.41	11.36	11.27	12.5	2		
15	16QAM	75	0	11.46	11.52	11.32				
Channel				18650	18900	19150			Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905				
10	QPSK	1	0	13.40	13.49	13.32	14.5	0		
10	QPSK	1	25	13.38	13.34	13.57				
10	QPSK	1	49	13.09	13.30	13.17				
10	QPSK	25	0	12.49	12.59	12.40	13.5	1		
10	QPSK	25	12	12.58	12.51	12.58				
10	QPSK	25	25	12.55	12.40	12.48				
10	QPSK	50	0	12.54	12.54	12.50	13.5	1		
10	16QAM	1	0	12.63	12.37	12.52				
10	16QAM	1	25	12.49	12.49	12.34				
10	16QAM	1	49	12.48	12.22	12.41	12.5	2		
10	16QAM	25	0	11.58	11.45	11.27				
10	16QAM	25	12	11.53	11.57	11.50				
10	16QAM	25	25	11.52	11.51	11.39	12.5	2		
10	16QAM	50	0	11.57	11.38	11.43				
Channel				18625	18900	19175			Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5				
5	QPSK	1	0	13.39	13.48	13.29	14.5	0		
5	QPSK	1	12	13.42	13.25	13.54				
5	QPSK	1	24	13.15	13.32	13.18				
5	QPSK	12	0	12.57	12.70	12.40	13.5	1		
5	QPSK	12	7	12.58	12.46	12.58				
5	QPSK	12	13	12.52	12.31	12.34				
5	QPSK	25	0	12.49	12.54	12.54	13.5	1		
5	16QAM	1	0	12.56	12.45	12.61				
5	16QAM	1	12	12.55	12.49	12.17				
5	16QAM	1	24	12.37	12.26	12.31	12.5	2		
5	16QAM	12	0	11.49	11.50	11.39				
5	16QAM	12	7	11.68	11.47	11.49				
5	16QAM	12	13	11.43	11.42	11.42	12.5	2		
5	16QAM	25	0	11.52	11.50	11.42				
Channel				18615	18900	19185			Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5				
3	QPSK	1	0	13.36	13.37	13.28	14.5	0		
3	QPSK	1	8	13.28	13.21	13.43				
3	QPSK	1	14	13.00	13.23	13.05				
3	QPSK	8	0	12.51	12.65	12.38	13.5	1		
3	QPSK	8	4	12.45	12.54	12.51				
3	QPSK	8	7	12.52	12.25	12.33				
3	QPSK	15	0	12.45	12.35	12.47	13.5	1		
3	16QAM	1	0	12.63	12.43	12.41				
3	16QAM	1	8	12.51	12.45	12.22				
3	16QAM	1	14	12.44	12.27	12.27	12.5	2		
3	16QAM	8	0	11.64	11.39	11.30				
3	16QAM	8	4	11.48	11.46	11.48				
3	16QAM	8	7	11.59	11.44	11.35	12.5	2		
3	16QAM	15	0	11.45	11.35	11.43				
Channel				18607	18900	19193			Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3				
1.4	QPSK	1	0	13.32	13.34	13.18	14.5	0		
1.4	QPSK	1	3	13.32	13.20	13.35				
1.4	QPSK	1	5	13.16	13.23	13.14				
1.4	QPSK	3	0	13.31	13.41	13.18	13.5	1		
1.4	QPSK	3	1	13.28	13.17	13.13				
1.4	QPSK	3	3	13.32	13.13	13.06				
1.4	QPSK	6	0	12.34	12.50	12.34	14.5	1		
1.4	16QAM	1	0	12.40	12.29	12.49				
1.4	16QAM	1	3	12.48	12.51	12.09				
1.4	16QAM	1	5	12.35	12.19	12.28	13.5	1		
1.4	16QAM	3	0	12.31	12.29	12.18				
1.4	16QAM	3	1	12.50	12.28	12.24				
1.4	16QAM	3	3	12.29	12.13	12.14	12.5	2		
1.4	16QAM	6	0	11.43	11.38	11.37				

Band 4 (AWS Band) Part 27L (only on channel required)										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel				20650	20175	20300				
Frequency (MHz)				1720	1732.5	1745				
20	QPSK	1	0	13.37	13.50	13.34	15	0		
20	QPSK	1	49	13.48	13.37	13.42				
20	QPSK	1	99	13.22	13.33	13.37				
20	QPSK	50	0	12.58	12.83	12.81	14	1		
20	QPSK	50	24	12.62	12.74	12.69				
20	QPSK	50	50	12.59	12.67	12.54				
20	QPSK	100	0	12.64	12.69	12.67	14	1		
20	16QAM	1	0	12.55	12.58	12.38				
20	16QAM	1	49	12.45	12.64	12.67				
20	16QAM	1	99	12.53	12.44	12.56	13	2		
20	16QAM	50	0	11.85	11.72	11.83				
20	16QAM	50	24	11.62	11.71	11.81				
20	16QAM	50	50	11.53	11.64	11.56	13	2		
20	16QAM	100	0	11.65	11.69	11.66				
Channel				20025	20175	20325			Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5				
15	QPSK	1	0	13.17	13.36	13.21	15	0		
15	QPSK	1	37	13.37	13.36	13.34				
15	QPSK	1	74	13.23	13.20	13.16				
15	QPSK	36	0	12.38	12.64	12.59	14	1		
15	QPSK	36	20	12.44	12.55	12.58				
15	QPSK	36	39	12.53	12.56	12.53				
15	QPSK	75	0	12.60	12.53	12.39	14	1		
15	16QAM	1	0	12.36	12.59	12.72				
15	16QAM	1	37	12.26	12.64	12.47				
15	16QAM	1	74	12.43	12.33	12.54	13	2		
15	16QAM	36	0	11.37	11.60	11.71				
15	16QAM	36	20	11.50	11.56	11.61				
15	16QAM	36	39	11.55	11.54	11.56	13	2		
15	16QAM	75	0	11.53	11.50	11.59				
Channel				20000	20175	20350			Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750				
10	QPSK	1	0	13.28	13.44	13.29	15	0		
10	QPSK	1	25	13.44	13.36	13.20				
10	QPSK	1	49	13.17	13.16	13.30				
10	QPSK	25	0	12.42	12.75	12.60	14	1		
10	QPSK	25	12	12.55	12.64	12.57				
10	QPSK	25	25	12.59	12.67	12.48				
10	QPSK	50	0	12.58	12.68	12.46	14	1		
10	16QAM	1	0	12.54	12.47	12.81				
10	16QAM	1	25	12						



Band 7 (2600MHz Band) Part 27								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	9.50	9.54	9.20	10.5	0
20	QPSK	1	49	9.51	9.34	9.53		
20	QPSK	1	99	9.31	9.29	9.26		
20	16QAM	50	0	8.31	8.49	8.08		
20	QPSK	50	24	8.42	8.37	8.19		
20	QPSK	50	50	8.40	8.23	8.06	9.5	1
20	QPSK	100	0	8.29	8.34	8.06		
20	16QAM	1	0	8.28	8.33	8.16		
20	16QAM	1	49	8.35	8.33	8.19	9.5	1
20	16QAM	1	99	8.10	8.13	8.24		
20	16QAM	50	0	7.72	7.63	7.49		
20	16QAM	50	24	7.67	7.83	7.59		
20	16QAM	50	50	7.76	7.65	7.37	8.5	2
20	16QAM	100	0	7.61	7.56	7.50		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	9.25	9.43	9.04	10.5	0
15	QPSK	1	37	9.46	9.22	9.39		
15	QPSK	1	74	9.16	9.21	9.20		
15	QPSK	36	0	8.14	8.36	7.94		
15	QPSK	36	20	8.34	8.37	8.05	9.5	1
15	QPSK	36	39	8.18	8.04	8.01		
15	QPSK	75	0	8.30	8.13	8.01		
15	16QAM	1	0	8.20	8.22	7.94		
15	16QAM	1	37	8.17	8.18	8.21	9.5	1
15	16QAM	1	74	8.07	8.01	8.05		
15	16QAM	36	0	7.52	7.49	7.33		
15	16QAM	36	20	7.45	7.58	7.52	8.5	2
15	16QAM	36	39	7.52	7.48	7.23		
15	16QAM	75	0	7.53	7.45	7.38		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	9.25	9.39	8.94	10.5	0
10	QPSK	1	25	9.41	9.11	9.35		
10	QPSK	1	49	9.12	9.10	9.16		
10	QPSK	25	0	8.13	8.34	8.01		
10	QPSK	25	12	8.31	8.35	8.11	9.5	1
10	QPSK	25	25	8.19	8.12	7.86		
10	QPSK	50	0	8.24	8.31	7.89		
10	16QAM	1	0	8.13	8.25	7.97		
10	16QAM	1	25	8.26	8.17	8.12	9.5	1
10	16QAM	1	49	7.96	7.89	8.20		
10	16QAM	25	0	7.56	7.60	7.32		
10	16QAM	25	12	7.54	7.81	7.48	8.5	2
10	16QAM	25	25	7.60	7.52	7.31		
10	16QAM	50	0	7.50	7.42	7.25		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	9.18	9.42	9.13	10.5	0
5	QPSK	1	12	9.42	9.24	9.39		
5	QPSK	1	24	9.10	9.15	9.06		
5	QPSK	12	0	8.06	8.36	7.94		
5	QPSK	12	7	8.22	8.21	8.13	9.5	1
5	QPSK	12	13	8.12	8.12	8.02		
5	QPSK	25	0	8.14	8.14	7.92		
5	16QAM	1	0	8.21	8.21	8.01		
5	16QAM	1	12	8.13	8.08	8.03	9.5	1
5	16QAM	1	24	8.03	8.08	8.10		
5	16QAM	12	0	7.61	7.51	7.31		
5	16QAM	12	7	7.52	7.62	7.51	8.5	2
5	16QAM	12	13	7.60	7.54	7.27		
5	16QAM	25	0	7.49	7.35	7.33		

Band 26 for FCC (only on channel required)								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26765	26865	26965		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	0	17.05	17.27	17.09	18.5	0
15	QPSK	1	37	17.05	16.95	16.83		
15	QPSK	1	74	16.79	16.97	17.11		
15	QPSK	36	0	16.08	16.23	16.09		
15	QPSK	36	20	16.09	16.20	16.10	17.5	1
15	QPSK	36	39	16.01	16.01	15.93		
15	QPSK	75	0	16.04	16.15	16.11		
15	16QAM	1	0	16.23	16.23	15.99		
15	16QAM	1	37	16.33	16.24	16.31	17.5	1
15	16QAM	1	74	16.20	16.26	16.14		
15	16QAM	36	0	15.20	15.26	15.20		
15	16QAM	36	20	15.25	15.29	15.26	16.5	2
15	16QAM	36	39	15.19	15.18	15.05		
15	16QAM	75	0	15.17	15.17	15.12		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	16.92	16.98	16.97	18.5	0
10	QPSK	1	25	16.98	17.07	16.90		
10	QPSK	1	49	16.67	16.81	16.78		
10	QPSK	25	0	15.94	16.07	16.05		
10	QPSK	25	12	15.92	16.01	16.01	17.5	1
10	QPSK	25	25	16.08	16.08	15.85		
10	QPSK	50	0	16.07	16.11	16.01		
10	16QAM	1	0	16.20	16.20	16.06		
10	16QAM	1	25	16.19	16.34	16.36	17.5	1
10	16QAM	1	49	16.18	16.12	16.09		
10	16QAM	25	0	15.25	15.23	15.30		
10	16QAM	25	12	15.11	15.32	15.31	16.5	2
10	16QAM	25	25	15.15	15.22	15.04		
10	16QAM	50	0	15.17	15.24	15.03		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	16.73	16.93	16.98	18.5	0
5	QPSK	1	12	16.97	16.81	16.78		
5	QPSK	1	24	16.72	16.68	16.65		
5	QPSK	12	0	16.08	15.97	15.98		
5	QPSK	12	7	15.76	15.94	15.94	17.5	1
5	QPSK	12	13	15.84	15.98	15.70		
5	QPSK	25	0	15.94	15.92	15.86		
5	16QAM	1	0	16.09	16.19	15.92		
5	16QAM	1	12	16.05	16.25	16.06	17.5	1
5	16QAM	1	24	16.04	16.06	16.05		
5	16QAM	12	0	15.03	15.08	15.10		
5	16QAM	12	7	15.02	15.12	15.15	16.5	2
5	16QAM	12	13	15.06	15.02	15.18		
5	16QAM	25	0	15.07	15.05	15.03		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	16.70	17.03	16.98	18.5	0
3	QPSK	1	8	17.02	16.83	16.78		
3	QPSK	1	14	16.72	16.68	16.67		
3	QPSK	8	0	16.05	16.02	16.05		
3	QPSK	8	4	15.84	15.85	16.00	17.5	1
3	QPSK	8	7	15.83	15.99	15.72		
3	QPSK	15	0	15.94	15.87	15.84		
3	16QAM	1	0	16.07	16.16	15.85		
3	16QAM	1	8	16.10	16.15	16.19	17.5	1
3	16QAM	1	14	16.05	16.15	16.13		
3	16QAM	8	0	15.08	15.20	15.13		
3	16QAM	8	4	15.09	15.09	15.15	16.5	2
3	16QAM	8	7	15.13	15.04	15.01		
3	16QAM	15	0	15.05	15.13	15.03		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	16.67	17.07	16.77	18.5	0
1.4	QPSK	1	3	16.97	16.89	16.78		
1.4	QPSK	1	5	16.73	16.67	16.61		
1.4	QPSK	3	0	16.60	16.89	16.80		
1.4	QPSK	3	1	16.63	16.68	16.73		
1.4	QPSK	3	3	16.66	16.69	16.54	17.5	1
1.4	16QAM	1	0	16.00	16.11	15.79		
1.4	16QAM	1	3	16.03	16.17	16.15		
1.4	16QAM	1	5	16.08	16.02	16.04	17.5	1
1.4	16QAM	3	0	15.94	15.95	16.08		
1.4	16QAM	3	1	15.99	15.99	16.01		
1.4	16QAM	3	3	16.09	15.98	15.89		
1.4	16QAM	6	0	15.06	15.00	15.00	16.5	2



Band 38(only on channel required)									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				37850	38000	38150			
Frequency (MHz)				2580	2595	2610			
20	QPSK	1	0	11.10	11.35	10.89	12.5	0	
20	QPSK	1	49	11.12	11.15	10.99			
20	QPSK	1	99	10.95	11.02	10.97			
20	QPSK	50	0	10.12	10.23	9.77	11.5	1	
20	QPSK	50	24	10.05	9.96	9.84			
20	QPSK	50	50	10.13	9.85	9.81			
20	QPSK	100	0	10.17	10.18	9.81	11.5	1	
20	16QAM	1	0	10.22	9.99	9.83			
20	16QAM	1	49	10.15	10.28	10.07			
20	16QAM	1	99	9.81	9.94	9.87	10.5	2	
20	16QAM	50	0	9.17	9.08	8.86			
20	16QAM	50	24	9.23	9.10	8.86			
20	16QAM	50	50	9.18	8.99	8.91	10.5	2	
20	16QAM	50	50	9.18	8.99	8.91			
20	16QAM	100	0	9.28	9.05	8.87			
Channel				37825	38000	38175			
Frequency (MHz)				2577.5	2595	2612.5			
15	QPSK	1	0	11.11	11.04	10.77	12.5	0	
15	QPSK	1	37	11.13	11.18	10.97			
15	QPSK	1	74	10.97	10.76	10.90			
15	QPSK	36	0	10.17	10.10	9.85	11.5	1	
15	QPSK	36	20	10.29	10.06	9.85			
15	QPSK	36	39	10.29	9.98	9.84			
15	QPSK	75	0	10.26	10.07	9.98	11.5	1	
15	16QAM	1	0	10.16	10.09	9.82			
15	16QAM	1	37	10.23	10.17	9.97			
15	16QAM	1	74	10.04	9.83	10.01	10.5	2	
15	16QAM	36	0	9.17	9.07	8.77			
15	16QAM	36	20	9.26	9.08	8.84			
15	16QAM	36	39	9.14	8.97	8.93	10.5	2	
15	16QAM	36	39	9.14	8.97	8.93			
15	16QAM	75	0	9.29	9.11	8.87			
Channel				37800	38000	38200			
Frequency (MHz)				2575	2595	2615			
10	QPSK	1	0	11.14	11.08	10.91	12.5	0	
10	QPSK	1	25	11.14	10.94	10.75			
10	QPSK	1	49	11.17	11.01	10.81			
10	QPSK	25	0	10.22	10.13	9.95	11.5	1	
10	QPSK	25	12	10.12	10.10	9.89			
10	QPSK	25	25	10.10	10.03	9.95			
10	QPSK	50	0	10.21	10.01	9.87	11.5	1	
10	16QAM	1	0	10.29	10.15	10.08			
10	16QAM	1	25	10.29	10.20	10.05			
10	16QAM	1	49	10.26	9.93	10.11	10.5	2	
10	16QAM	25	0	9.21	9.12	8.94			
10	16QAM	25	12	9.17	9.15	8.89			
10	16QAM	25	25	9.30	9.00	8.93	10.5	2	
10	16QAM	25	25	9.30	9.00	8.93			
10	16QAM	50	0	9.16	9.11	8.93			
Channel				37775	38000	38225			
Frequency (MHz)				2572.5	2595	2617.5			
5	QPSK	1	0	11.04	10.93	10.67	12.5	0	
5	QPSK	1	12	11.13	11.12	10.90			
5	QPSK	1	24	11.11	10.89	10.89			
5	QPSK	12	0	10.09	10.05	9.82	11.5	1	
5	QPSK	12	7	10.14	10.00	9.81			
5	QPSK	12	13	10.17	10.03	9.93			
5	QPSK	25	0	10.08	10.01	9.81	11.5	1	
5	16QAM	1	0	10.12	10.12	10.02			
5	16QAM	1	12	10.20	10.28	10.00			
5	16QAM	1	24	10.24	9.95	9.93	10.5	2	
5	16QAM	12	0	9.09	9.02	8.92			
5	16QAM	12	7	9.14	9.07	8.80			
5	16QAM	12	13	9.27	8.98	8.90	10.5	2	
5	16QAM	12	13	9.27	8.98	8.90			
5	16QAM	25	0	9.08	9.05	8.89			

Band 41 (2.6G Band)										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	11.36	11.23	11.38	11.21	11.12	12.5	0
20	QPSK	1	49	11.32	11.36	11.37	11.18	11.27		
20	QPSK	1	99	11.14	11.26	11.06	11.08	11.06		
20	QPSK	50	0	10.38	10.50	10.51	10.23	10.22	11.5	1
20	QPSK	50	24	10.40	10.48	10.17	10.31	10.15		
20	QPSK	50	50	10.34	10.34	10.13	10.11	10.21		
20	QPSK	100	0	10.32	10.32	10.47	10.11	10.22	11.5	1
20	16QAM	1	0	10.35	10.36	10.13	10.00	10.09		
20	16QAM	1	49	10.34	10.31	10.33	10.10	10.29		
20	16QAM	1	99	10.10	10.21	9.97	9.96	9.99	10.5	2
20	16QAM	50	0	9.47	9.57	9.25	9.25	9.22		
20	16QAM	50	24	9.52	9.43	9.15	9.18	9.30		
20	16QAM	50	50	9.46	9.48	9.21	9.25	9.23	10.5	2
20	16QAM	50	50	9.46	9.48	9.21	9.25	9.23		
20	16QAM	100	0	9.51	9.55	9.14	9.22	9.09		
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	11.43	11.39	11.12	11.12	10.94	12.5	0
15	QPSK	1	37	11.33	11.32	11.16	10.98	11.15		
15	QPSK	1	74	11.26	11.33	11.08	11.14	11.14		
15	QPSK	36	0	10.50	10.50	10.23	10.20	10.26	11.5	1
15	QPSK	36	20	10.45	10.51	10.14	10.21	10.11		
15	QPSK	36	39	10.49	10.55	10.22	10.25	10.26		
15	QPSK	75	0	10.47	10.47	10.12	10.16	10.20	11.5	1
15	16QAM	1	0	10.58	10.48	10.21	10.19	10.26		
15	16QAM	1	37	10.46	10.49	10.34	10.17	10.23		
15	16QAM	1	74	10.34	10.41	10.16	10.20	10.18	10.5	2
15	16QAM	36	0	9.47	9.40	9.21	9.16	9.02		
15	16QAM	36	20	9.48	9.52	9.09	9.17	9.03		
15	16QAM	36	39	9.42	9.51	9.22	9.15	9.23	10.5	2
15	16QAM	36	39	9.42	9.51	9.22	9.15	9.23		
15	16QAM	75	0	9.48	9.54	9.10	9.21	9.24		
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	11.37	11.42	11.16	11.18	11.03	12.5	0
10	QPSK	1	25	11.44	11.44	11.11	11.13	11.22		
10	QPSK	1	49	11.34	11.39	11.20	11.15	11.21		
10	QPSK	25	0	10.56	10.55	10.16	10.24	10.27	11.5	1
10	QPSK	25	12	10.60	10.58	10.25	10.20	10.29		
10	QPSK	25	25	10.56	10.51	10.27	10.26	10.30		
10	QPSK	50	0	10.37	10.39	10.12	10.20	10.17	11.5	1
10	16QAM	1	0	10.66	10.58	10.36	10.30	10.28		
10	16QAM	1	25	10.51	10.51	10.38	10.33	10.27		
10	16QAM	1	49	10.48	10.55	10.30	10.31	10.34	10.5	2
10	16QAM	25	0	9.62	9.55	9.28	9.23	9.25		
10	16QAM	25	12	9.54	9.44	9.25	9.26	9.20		
10	16QAM	25	25	9.49	9.53	9.13	9.26	9.24	10.5	2
10	16QAM	25	25	9.49	9.53	9.13	9.26	9.24		
10	16QAM	50	0	9.61	9.61	9.23	9.25	9.34		
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	11.49	11.33	11.06	11.12	11.18	12.5	0
5	QPSK	1	12	11.36	11.38	11.26	11.10	11.09		
5	QPSK	1	24	11.35	11.37	11.18	11.16	11.16		
5	QPSK	12	0	10.46	10.48	10.23	10.24	10.15	11.5	1
5	QPSK	12	7	10.42	10.55	10.14	10.24	10.16		
5	QPSK	12	13	10.42	10.49	10.13	10.18	10.14		
5	QPSK	25	0	10.39	10.54	10.17	10.18	10.25	11.5	1
5	16QAM	1	0	10.53	10.48	10.20	10.27	10.30		
5	16QAM	1	12	10.52	10.49	10.32	10.33	10.21		
5	16QAM	1	24	10.51	10.53	10.31	10.30	10.27	10.5	2
5	16QAM	12	0	9.58	9.46	9.16	9.18	9.25		
5	16QAM	12	7	9.40	9.58	9.18	9.20	9.14		
5	16QAM	12	13	9.52	9.52	9.19	9.16	9.26	10.5	2
5	16QAM	12	13	9.52	9.52	9.19	9.16	9.26		
5	16QAM									



WLAN/Bluetooth Power								
Full Power								
2.4GHz WLAN								
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %		
	2.4GHz WLAN	802.11b 1Mbps	1	2412	19.35	20.00	100.00	
6			2437	18.87	20.00			
11			2462	17.35	18.50			
802.11g 6Mbps		1	2412	14.62	16.00	96.48		
		6	2437	15.49	20.00			
		11	2462	15.00	16.00			
802.11n-HT20 MCS0		1	2412	13.69	15.00	96.77		
		6	2437	19.10	19.50			
		11	2462	14.90	15.00			
802.11n-HT40 MCS0	3	2422	14.55	15.50	93.73			
	6	2437	16.59	17.50				
	9	2452	11.90	13.00				
Reduced Power								
2.4GHz WLAN								
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %		
	2.4GHz WLAN	802.11b 1Mbps	1	2412	12.69	13.50	100.00	
6			2437	12.43	13.50			
11			2462	12.51	13.50			
802.11g 6Mbps		1	2412			96.48		
		6	2437					
		11	2462					
802.11n-HT20 MCS0		1	2412			96.77		
		6	2437					
		11	2462					
802.11n-HT40 MCS0	3	2422			93.73			
	6	2437						
	9	2452						
5.2GHz WLAN								
5.2GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %		
	5.2GHz WLAN	802.11a 6Mbps	36	5180	18.80	19.50	96.99	
40			5200	18.88	19.50			
44			5220	19.05	19.50			
48			5240	18.86	19.50			
36			5180	17.69	18.50			
40			5200	18.73	19.50			
802.11n-HT20 MCS0		44	5220	18.81	19.50	96.25		
		48	5240	18.89	19.50			
		38	5190	15.63	16.50			
802.11n-HT40 MCS0		46	5230	18.87	19.50	93.55		
		36	5180	16.97	17.50			
802.11ac VHT20 MCS0		40	5200	16.70	17.50	96.69		
		44	5220	16.96	17.50			
		48	5240	17.07	17.50			
		38	5190	14.77	15.50			
802.11ac VHT40 MCS0		46	5230	14.92	15.50	93.57		
		802.11ac VHT80 MCS0	42	5210	14.22		15.50	87.89
5.3GHz WLAN								
5.3GHz WLAN		Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
		5.3GHz WLAN	802.11a 6Mbps	52	5280	18.94	19.50	96.99
56				5280	18.78	19.50		
60				5300	18.07	19.50		
64				5320	17.69	18.50		
52				5280	18.68	19.50		
56	5280			18.64	19.50			
802.11n-HT20 MCS0	60		5300	18.89	19.50	96.25		
	64		5320	17.76	18.50			
	54		5270	18.54	19.50			
802.11n-HT40 MCS0	62		5310	18.23	16.00	93.55		
	52		5280	18.87	17.50			
802.11ac VHT20 MCS0	56		5280	16.81	17.50	96.69		
	60		5300	17.02	17.50			
802.11ac VHT40 MCS0	64		5320	17.13	17.50	93.57		
	54		5270	14.73	15.50			
802.11ac VHT80 MCS0	62		5310	15.03	15.50	87.89		
	58		5290	14.84	15.50			
5.5GHz WLAN								
5.5GHz WLAN	Mode		Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
	5.5GHz WLAN		802.11a 6Mbps	100	5500	18.26	19.50	96.99
116				5580	18.80	20.00		
124				5620	18.94	20.00		
132				5660	19.09	20.00		
140				5700	16.79	18.00		
144		5720		19.09	20.00			
802.11n-HT20 MCS0		100		5500	17.34	18.50	96.25	
		116		5580	18.82	19.50		
		124		5620	18.94	19.50		
		132		5660	18.86	19.50		
		140		5700	16.08	17.00		
		144		5720	19.10	19.50		
		802.11n-HT40 MCS0	102	5510	15.72	16.50		93.55
			110	5550	18.85	19.50		
			126	5630	18.86	19.50		
			134	5670	19.07	19.50		
			142	5710	18.95	19.50		
			142	5710	18.95	19.50		
802.11ac VHT20 MCS0		100	5500	16.79	17.50	96.69		
		116	5580	16.70	17.50			
		124	5620	17.01	17.50			
		132	5660	16.99	17.50			
		140	5700	16.01	17.50			
		144	5720	17.03	17.50			
		802.11ac VHT40 MCS0	102	5510	14.80		15.50	93.57
			110	5550	14.85		15.50	
			126	5630	14.96		15.50	
			134	5670	14.91		15.50	
			142	5710	14.95		15.50	
			106	5530	14.86		15.50	
802.11ac VHT80 MCS0		122	5610	14.82	15.50	87.89		
		138	5690	14.97	15.50			
5.8GHz WLAN								
5.8GHz WLAN		Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
		5.8GHz WLAN	802.11a 6Mbps	149	5745	17.96	19.00	96.99
157				5785	18.00	19.00		
165				5825	18.08	19.00		
149				5745	16.29	19.00		
157				5785	16.42	19.00		
165				5825	16.38	19.00		
802.11n-HT20 MCS0			151	5795	18.16	19.00	96.25	
			159	5795	18.30	19.00		
			149	5745	16.91	18.00		
			157	5785	17.02	18.00		
			165	5825	17.07	18.00		
			151	5795	14.76	16.00		
802.11ac VHT20 MCS0			159	5795	14.90	16.00	93.57	
			155	5775	15.00	16.00		
	149		5745					
	157		5785					
	165		5825					
	151		5795					
802.11ac VHT40 MCS0	159		5795			93.57		
	155		5775					
	149		5745					
	157		5785					
	165		5825					
	151		5795					
802.11ac VHT80 MCS0	155	5775	10.13	11.00	87.89			
	155	5775						

BT BR/EDR					
Mode	Channel	Frequency (MHz)	Average power (dBm)	2Mbps	3Mbps
BR / EDR	CH 00	2402	10.17	8.00	8.04
	CH 39	2441	10.11	8.38	8.28
	CH 75	2480	9.51	7.71	7.69
	Tune-up Limit			11	

BLE					
Mode	Channel	Frequency (MHz)	Average power (dBm)	GFSK	
LE	CH 00	2402	-3.41		
	CH 19	2440	-2.18		
	CH 39	2480	-3.16		
Tune-up Limit			0		

BLE5.0					
Mode	Channel	Frequency (MHz)	Average power (dBm)	2Mbps	
LE	CH 00	2402	-3.21		
	CH 19	2440	-2.19		
	CH 39	2480	-3.04		
Tune-up Limit			0.00		