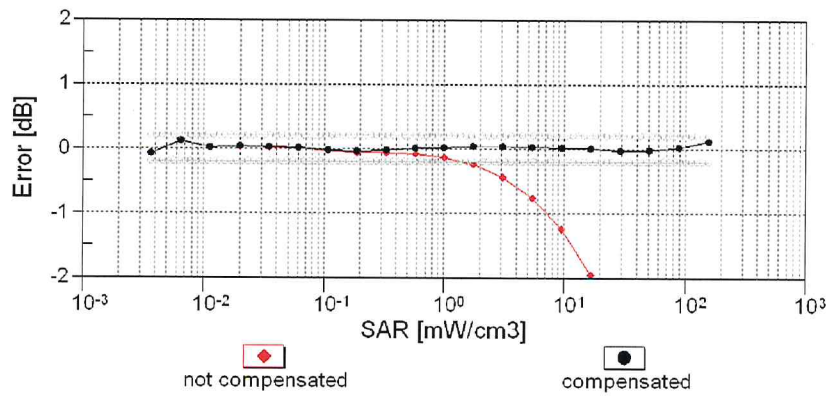
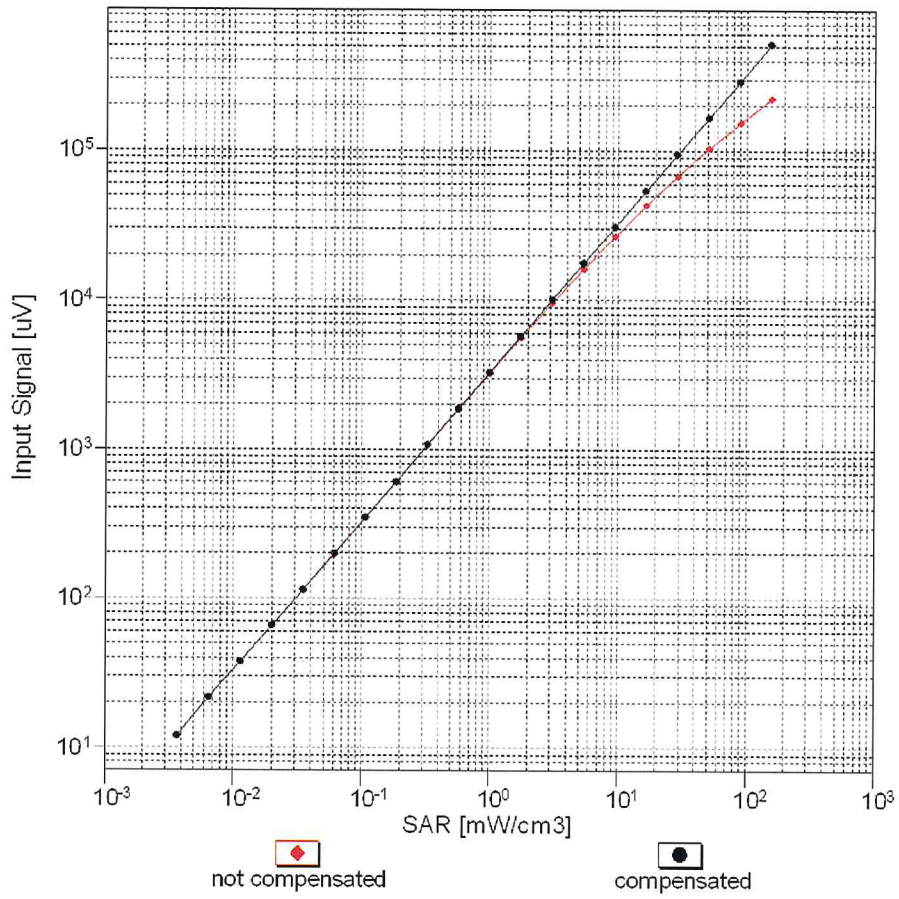
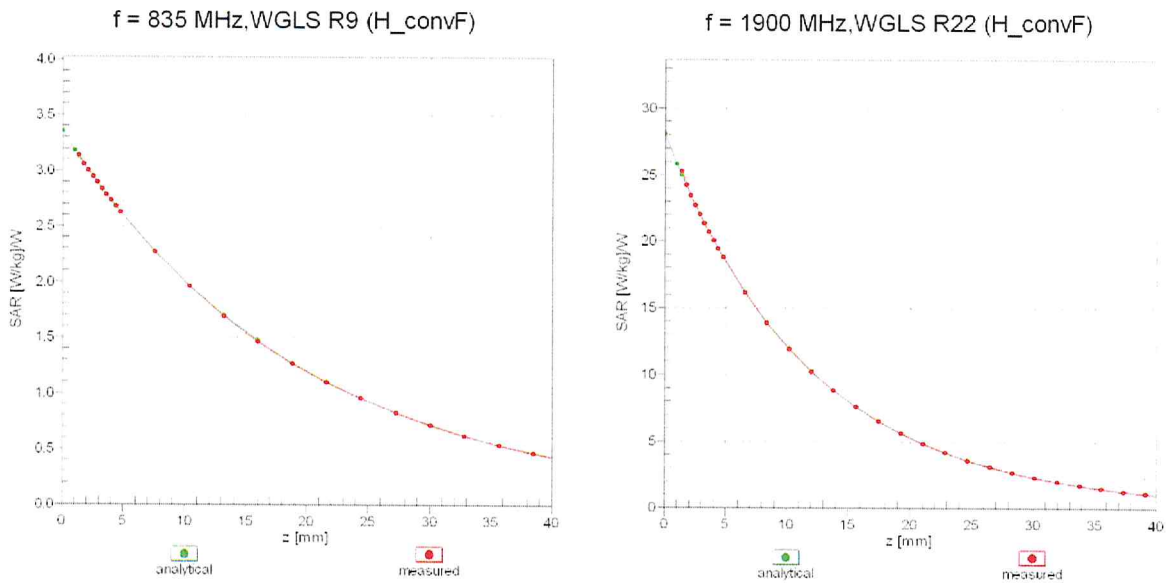


### Dynamic Range $f(SAR_{head})$ (TEM cell, $f_{eval} = 1900$ MHz)

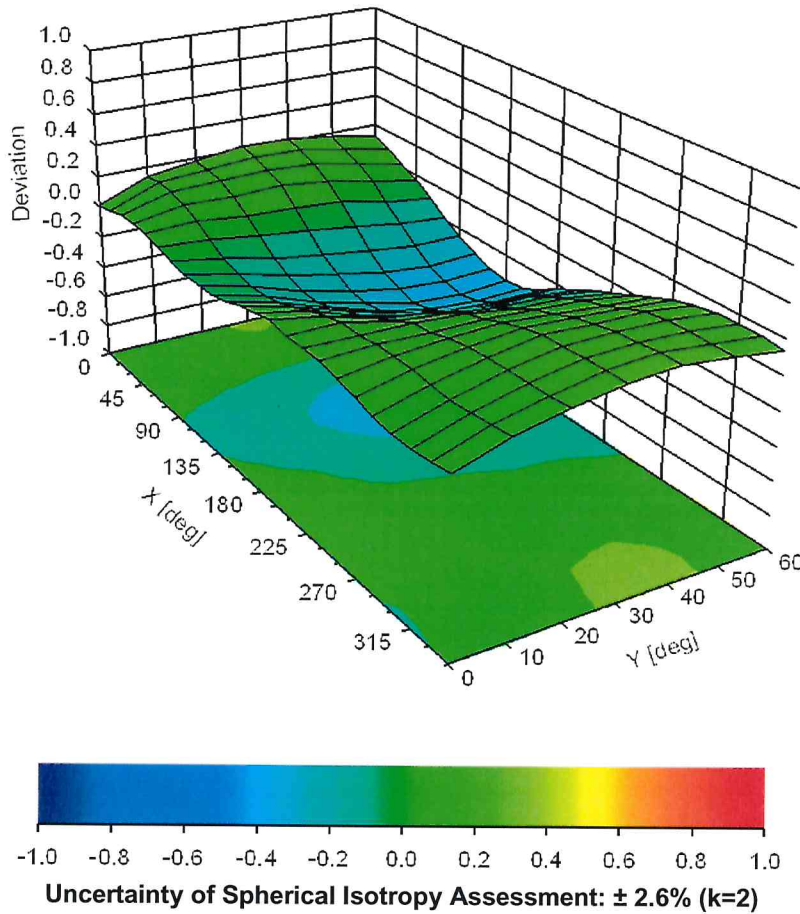


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

# Conversion Factor Assessment



## Deviation from Isotropy in Liquid Error ( $\phi, \vartheta$ ), f = 900 MHz





## **Appendix E. Conducted RF Output Power Table**

The detailed power tables are shown as follows.



### Power Level for Receiver on

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	192	199	251		192	199	251	
Tx Channel	834.2	835.4	848.3	834.2	835.4	848.3		
Frequency (MHz)	32.36	32.39	32.32	33.50	23.36	23.39	23.32	24.50
GSM 1 Tx slot	32.35	32.38	32.30	33.50	23.35	23.38	23.30	24.50
GPRS 2 Tx slots	31.57	31.60	31.51	32.50	25.57	25.60	25.51	26.50
GPRS 3 Tx slots	29.85	29.85	29.75	30.50	25.59	25.59	25.49	26.24
GPRS 4 Tx slots	28.68	28.69	28.59	29.50	25.68	25.69	25.59	26.50
EDGE 1 Tx slot	26.67	26.65	26.41	27.50	17.67	17.65	17.41	18.50
EDGE 2 Tx slots	25.41	25.34	25.16	26.50	19.41	19.34	19.16	20.50
EDGE 3 Tx slots	23.01	22.90	22.66	23.50	18.75	18.64	18.40	19.24
EDGE 4 Tx slots	21.81	21.71	21.45	22.50	18.81	18.71	18.45	19.50

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)	28.76	29.24	28.83	30.50	19.76	20.24	19.83	21.50
GSM 1 Tx slot	28.75	29.23	28.80	30.50	19.75	20.23	19.80	21.50
GPRS 2 Tx slots	28.03	28.50	28.08	29.50	22.03	22.50	22.08	23.50
GPRS 3 Tx slots	26.23	26.50	26.36	27.50	21.97	22.24	22.10	23.24
GPRS 4 Tx slots	25.08	25.45	25.25	26.50	22.08	22.45	22.25	23.50
EDGE 1 Tx slot	24.89	25.11	25.06	26.50	18.69	18.11	18.06	17.50
EDGE 2 Tx slots	23.70	24.12	24.08	25.00	17.70	18.12	18.08	19.00
EDGE 3 Tx slots	21.74	22.14	22.08	23.00	17.48	17.88	17.82	18.74
EDGE 4 Tx slots	20.88	21.08	21.03	22.00	17.98	18.08	18.03	19.00

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)	
	9262	9400	9538		4132	4182	4233		
Tx Channel	9662	9800	9938	4357	4407	4458			
Rx Channel	1852.4	1880	1907.6	826.4	836.4	846.6			
Frequency (MHz)	1852.4	1880	1907.6	826.4	836.4	846.6			
SGPP Rel 99	AMR 12.2Kbps	22.81	22.88	22.85	24.00	22.94	23.04	23.01	24.00
SGPP Rel 99	RMK 12.2Kbps	22.52	22.89	22.88	24.00	22.99	23.86	23.04	24.00
SGPP Rel 6	HSDPA Subtest-1	21.58	21.69	21.66	23.00	21.95	21.79	21.82	23.00
SGPP Rel 6	HSDPA Subtest-2	21.59	21.58	21.65	23.00	21.88	21.82	21.83	23.00
SGPP Rel 6	HSDPA Subtest-3	21.06	21.11	21.20	22.50	21.40	21.34	21.35	22.50
SGPP Rel 6	HSDPA Subtest-4	21.07	21.04	21.14	22.50	21.41	21.35	21.33	22.50
SGPP Rel 8	DC-HSDPA Subtest-1	21.55	21.68	21.62	23.00	21.93	21.78	21.79	23.00
SGPP Rel 8	DC-HSDPA Subtest-2	21.56	21.57	21.61	23.00	21.86	21.81	21.80	23.00
SGPP Rel 8	DC-HSDPA Subtest-3	21.03	21.10	21.16	22.50	21.38	21.33	21.32	22.50
SGPP Rel 8	DC-HSDPA Subtest-4	21.04	21.03	21.10	22.50	21.39	21.34	21.30	22.50
SGPP Rel 6	HSUPA Subtest-1	21.66	21.51	21.39	23.00	22.03	22.02	21.81	23.00
SGPP Rel 6	HSUPA Subtest-2	19.78	19.53	19.51	21.00	20.01	19.90	19.97	21.00
SGPP Rel 6	HSUPA Subtest-3	20.67	20.54	20.34	22.00	20.81	20.78	20.71	22.00
SGPP Rel 6	HSUPA Subtest-4	19.82	19.51	19.51	21.00	19.92	19.79	19.79	21.00
SGPP Rel 6	HSUPA Subtest-5	21.70	21.68	21.56	23.00	22.03	21.92	21.90	23.00
SGPP Rel 7	HSPA+ (16QAM) Subtest-1	19.77	19.80	19.78	20.50	19.84	20.02	19.92	20.50





Band 26									
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				20785	20865	20950			
Frequency (MHz)				821.5	831.5	841.5			
15	QPSK	1	0	22.67	22.76	22.55	24	0	
15	QPSK	1	37	22.47	22.61	22.56			
15	QPSK	1	74	22.52	22.54	22.53			
15	QPSK	36	0	21.33	21.55	21.48	23	1	
15	QPSK	36	39	21.42	21.38	21.51			
15	QPSK	36	75	21.39	21.40	21.48			
15	QPSK	75	0	21.38	21.50	21.47	23	1	
15	16QAM	1	0	21.46	21.48	21.50			
15	16QAM	1	37	21.72	21.71	21.80			
15	16QAM	1	74	21.45	21.52	21.64	22	2	
15	16QAM	36	0	20.30	20.35	20.43			
15	16QAM	36	20	20.36	20.37	20.46			
15	16QAM	36	39	20.35	20.36	20.45	22	2	
15	16QAM	75	0	20.34	20.35	20.48			
15	64QAM	1	0	20.36	20.35	20.39			
15	64QAM	1	37	20.65	20.63	20.67	22	2	
15	64QAM	1	74	20.35	20.41	20.52			
15	64QAM	36	0	19.30	19.35	19.41			
15	64QAM	36	20	19.36	19.38	19.48	21	3	
15	64QAM	36	39	19.33	19.36	19.44			
15	64QAM	75	0	19.33	19.36	19.43			
Channel				21740	21805	21890			
Frequency (MHz)				819	821.5	841	Tune-up limit (dBm)	MPR (dB)	
10	QPSK	1	0	22.29	22.25	22.36	24	0	
10	QPSK	1	25	22.37	22.40	22.60			
10	QPSK	1	49	22.34	22.35	22.43			
10	QPSK	25	0	21.31	21.48	21.57	23	1	
10	QPSK	25	12	21.36	21.39	21.54			
10	QPSK	25	25	21.44	21.41	21.50			
10	QPSK	50	0	21.35	21.47	21.53	23	1	
10	16QAM	1	0	21.53	21.50	21.63			
10	16QAM	1	25	21.60	21.65	21.86			
10	16QAM	1	49	21.54	21.61	21.71	22	2	
10	16QAM	25	0	20.27	20.45	20.56			
10	16QAM	25	12	20.35	20.37	20.55			
10	16QAM	25	25	20.42	20.39	20.48	22	2	
10	16QAM	50	0	20.34	20.45	20.54			
10	64QAM	1	0	20.43	20.41	20.51			
10	64QAM	1	25	20.52	20.55	20.71	22	2	
10	64QAM	1	49	20.46	20.50	20.63			
10	64QAM	25	0	19.28	19.45	19.55			
10	64QAM	25	12	19.34	19.36	19.54	21	3	
10	64QAM	25	25	19.38	19.39	19.47			
10	64QAM	50	0	19.30	19.43	19.52			
Channel				26715	26865	27015			
Frequency (MHz)				816.5	831.5	846.5	Tune-up limit (dBm)	MPR (dB)	
5	QPSK	1	0	22.20	22.20	22.34	24	0	
5	QPSK	1	12	22.42	22.46	22.57			
5	QPSK	1	24	22.13	22.18	22.35			
5	QPSK	12	0	21.24	21.36	21.53	23	1	
5	QPSK	12	7	21.34	21.43	21.53			
5	QPSK	12	13	21.27	21.35	21.44			
5	QPSK	25	0	21.25	21.35	21.49	23	1	
5	16QAM	1	0	21.42	21.42	21.60			
5	16QAM	1	12	21.62	21.72	21.82			
5	16QAM	1	24	21.42	21.43	21.59	22	2	
5	16QAM	12	0	20.24	20.29	20.50			
5	16QAM	12	7	20.29	20.35	20.51			
5	16QAM	12	13	20.23	20.29	20.42	22	2	
5	16QAM	25	0	20.25	20.35	20.49			
5	64QAM	1	0	20.32	20.33	20.49			
5	64QAM	1	12	20.53	20.60	20.73	22	2	
5	64QAM	1	24	20.29	20.34	20.52			
5	64QAM	12	0	19.19	19.29	19.50			
5	64QAM	12	7	19.28	19.35	19.50	21	3	
5	64QAM	12	13	19.24	19.28	19.43			
5	64QAM	25	0	19.26	19.34	19.49			
Channel				26795	26865	27025			
Frequency (MHz)				815.5	831.5	847.5	Tune-up limit (dBm)	MPR (dB)	
3	QPSK	1	0	22.28	22.31	22.45	24	0	
3	QPSK	1	8	22.24	22.31	22.42			
3	QPSK	1	14	22.23	22.28	22.44			
3	QPSK	8	0	21.27	21.36	21.53	23	1	
3	QPSK	8	4	21.32	21.38	21.56			
3	QPSK	8	7	21.28	21.35	21.54			
3	QPSK	15	0	21.28	21.36	21.55	23	1	
3	16QAM	1	0	21.53	21.50	21.70			
3	16QAM	1	8	21.49	21.54	21.71			
3	16QAM	1	14	21.49	21.53	21.75	22	2	
3	16QAM	8	0	20.32	20.38	20.57			
3	16QAM	8	4	20.35	20.40	20.59			
3	16QAM	8	7	20.32	20.38	20.58	22	2	
3	16QAM	15	0	20.27	20.35	20.55			
3	64QAM	1	0	20.43	20.41	20.60			
3	64QAM	1	8	20.38	20.42	20.65	22	2	
3	64QAM	1	14	20.38	20.45	20.64			
3	64QAM	8	0	19.28	19.34	19.54			
3	64QAM	8	4	19.32	19.37	19.54	21	3	
3	64QAM	8	7	19.29	19.34	19.53			
3	64QAM	15	0	19.25	19.33	19.51			
Channel				26897	26965	27033			
Frequency (MHz)				814.7	831.5	848.3	Tune-up limit (dBm)	MPR (dB)	
1.4	QPSK	1	0	22.25	22.27	22.36	24	0	
1.4	QPSK	1	3	22.38	22.37	22.62			
1.4	QPSK	1	5	22.22	22.25	22.44			
1.4	QPSK	3	0	22.36	22.35	22.53	23	1	
1.4	QPSK	3	1	22.40	22.41	22.56			
1.4	QPSK	3	3	22.34	22.36	22.54			
1.4	QPSK	6	0	21.34	21.40	21.62	23	1	
1.4	16QAM	1	0	21.47	21.45	21.64			
1.4	16QAM	1	3	21.60	21.57	21.75			
1.4	16QAM	1	5	21.45	21.47	21.67	23	1	
1.4	16QAM	3	0	21.32	21.32	21.53			
1.4	16QAM	3	1	21.35	21.34	21.55			
1.4	16QAM	3	3	21.28	21.30	21.53	22	2	
1.4	16QAM	6	0	20.39	20.43	20.64			
1.4	64QAM	1	0	20.38	20.37	20.58			
1.4	64QAM	1	3	20.46	20.49	20.65	22	2	
1.4	64QAM	3	0	20.34	20.39	20.58			
1.4	64QAM	3	0	20.35	20.37	20.62			
1.4	64QAM	3	1	20.40	20.42	20.63	21	3	
1.4	64QAM	3	3	20.32	20.37	20.60			
1.4	64QAM	6	0	19.31	19.38	19.58			





### Power Level for Receiver off

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame Average Power (dBm)			Tune-up Limit (dBm)
	Tx Channel	128	189		251	128	189	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.36	32.39	32.32	33.50	23.36	23.39	23.32	24.50
GPRS 1 Tx slot	32.35	32.38	32.30	33.50	23.35	23.38	23.30	24.50
GPRS 2 Tx slots	31.57	31.60	31.51	32.50	25.57	25.60	25.51	26.50
GPRS 3 Tx slots	29.85	29.85	29.75	30.50	25.59	25.59	25.49	26.24
GPRS 4 Tx slots	28.68	28.69	28.59	29.50	25.68	25.69	25.59	26.50
EDGE 1 Tx slot	26.67	26.65	26.41	27.50	17.67	17.65	17.41	18.50
EDGE 2 Tx slots	25.41	25.34	25.16	26.50	19.41	19.34	19.16	20.50
EDGE 3 Tx slots	23.01	22.90	22.66	23.50	18.75	18.64	18.40	19.24
EDGE 4 Tx slots	21.81	21.71	21.45	22.50	18.81	18.71	18.45	19.50

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame Average Power (dBm)			Tune-up Limit (dBm)
	Tx Channel	512	661		810	512	661	
Frequency (MHz)	1850.2	1860	1909.8		1850.2	1860	1909.8	
GSM 1 Tx slot	27.06	27.15	27.14	28.00	18.06	18.15	18.14	19.00
GPRS 1 Tx slot	27.12	27.16	27.15	28.00	18.12	18.16	18.15	19.00
GPRS 2 Tx slots	26.19	26.22	26.24	27.00	20.19	20.22	20.24	21.00
GPRS 3 Tx slots	24.17	24.21	24.28	25.00	19.91	19.95	20.02	20.74
GPRS 4 Tx slots	23.09	23.14	23.22	24.00	20.09	20.14	20.22	21.00
EDGE 1 Tx slot	22.56	22.97	22.91	24.00	13.56	13.97	13.91	15.00
EDGE 2 Tx slots	21.56	21.97	21.96	22.50	15.56	15.97	15.96	16.50
EDGE 3 Tx slots	19.57	20.02	19.93	20.50	15.31	15.76	15.67	16.24
EDGE 4 Tx slots	18.84	18.93	18.91	19.50	15.84	15.93	15.91	16.50

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)	
	Tx Channel	9262	9400		9538	4132	4182		4233
Rx Channel	9662	9800	9938		4357	4407	4458		
Frequency (MHz)	1852.4	1860	1907.8		826.4	836.4	846.6		
3GPP Rel 99	AMR 12.2Kbps	16.90	17.03	16.91	18.50	22.94	23.04	23.01	24.00
3GPP Rel 99	RMC 12.2Kbps	17.02	17.05	16.99	18.50	22.99	23.05	23.04	24.00
3GPP Rel 6	HSDPA Subtest-1	16.00	15.91	15.99	17.50	21.95	21.79	21.82	23.00
3GPP Rel 6	HSDPA Subtest-2	15.97	15.83	15.94	17.50	21.88	21.82	21.83	23.00
3GPP Rel 6	HSDPA Subtest-3	15.51	15.48	15.46	17.00	21.40	21.34	21.35	22.50
3GPP Rel 6	HSDPA Subtest-4	15.54	15.45	15.44	17.00	21.41	21.35	21.33	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	15.92	15.93	15.99	17.50	21.93	21.78	21.79	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	16.03	15.81	15.93	17.50	21.86	21.81	21.80	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	15.55	15.41	15.48	17.00	21.38	21.33	21.32	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	15.54	15.48	15.52	17.00	21.39	21.34	21.30	22.50
3GPP Rel 6	HSPA Subtest-1	15.92	15.91	16.03	17.50	22.03	22.02	21.81	23.00
3GPP Rel 6	HSPA Subtest-2	14.11	14.05	14.18	15.50	20.01	19.90	19.97	21.00
3GPP Rel 6	HSPA Subtest-3	15.18	15.03	14.98	16.50	20.81	20.78	20.71	22.00
3GPP Rel 6	HSPA Subtest-4	14.11	14.18	14.21	15.50	19.92	19.79	19.79	21.00
3GPP Rel 6	HSPA Subtest-5	15.80	15.70	15.70	17.50	22.03	21.92	21.90	23.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	14.34	14.46	14.30	15.00	19.84	20.02	19.92	20.50









2.4GHz WLAN		Ant 1				
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11b 1Mbps	1	2412	16.63	17.50	100.00
		6	2437	16.83	17.50	
		11	2462	16.59	17.50	
	802.11g 6Mbps	1	2412	16.26	17.50	96.97
		6	2437	16.67	17.50	
		11	2462	16.40	17.50	
	802.11n-HT20 MCS0	1	2412	15.24	16.50	96.76
		6	2437	16.55	17.50	
		11	2462	16.24	17.50	

Bluetooth BR/EDR					
Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	9.50	8.12	8.05
	CH 39	2441	10.04	8.30	8.31
	CH 78	2480	10.28	8.71	8.74
Tune-up Limit			11	9.5	9.5

Bluetooth LE 4.0				
Mode	Channel	Frequency (MHz)	Average power (dBm)	
			GFSK	
LE	CH 00	2402	-2.95	
	CH 19	2440	-2.05	
	CH 39	2480	-2.60	
Tune-up Limit			0	

Bluetooth LE 5.0			
Mode	Channel	Frequency (MHz)	Average power (dBm)
			1Mbps
LE	CH 00	2402	-2.94
	CH 19	2440	-2.06
	CH 39	2480	-2.60
Tune-up Limit			0