



Appendix for test report

1Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band	Test Mode	Test Channel	Conducted Power [dBm]	ERP [dBm]	Limit [dBm]	Verdict
GSM850	GSM/TM1	LCH	31.42	31.04	38.5	PASS
		MCH	31.73	31.33	38.5	PASS
		HCH	31.87	31.42	38.5	PASS
	GSM/TM2	LCH	25.52	25.08	38.5	PASS
		MCH	25.41	25.01	38.5	PASS
		HCH	25.44	25.04	38.5	PASS
Test Band	Test Mode	Test Channel	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
GSM1900	GSM/TM1	LCH	29.29	32.24	33	PASS
		MCH	29.38	32.28	33	PASS
		HCH	29.34	32.33	33	PASS
	GSM/TM2	LCH	25.23	28.23	33	PASS
		MCH	25.47	28.41	33	PASS
		HCH	25.42	28.42	33	PASS
WCDMA1900	UMTS/TM1	LCH	22.82	25.75	33	PASS
		MCH	22.88	25.88	33	PASS
		HCH	22.79	25.81	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
BAND7	LTE/TM1	5	LCH	RB1#0	21.13	24.63	33	PASS
				RB1#13	22.06	25.56	33	PASS
				RB1#24	21.6	25.1	33	PASS
				RB12#0	20.54	24.04	33	PASS
				RB12#6	20.88	24.38	33	PASS
				RB12#13	20.75	24.25	33	PASS
				RB25#0	21.22	24.72	33	PASS
			MCH	RB1#0	21.76	25.26	33	PASS
				RB1#13	22.65	26.15	33	PASS
				RB1#24	21.87	25.37	33	PASS
				RB12#0	21.48	24.98	33	PASS
				RB12#6	21.84	25.34	33	PASS
				RB12#13	21.59	25.09	33	PASS
				RB25#0	21.56	25.06	33	PASS
			HCH	RB1#0	21.48	24.98	33	PASS
				RB1#13	22.01	25.51	33	PASS
				RB1#24	21.21	24.71	33	PASS
				RB12#0	21.15	24.65	33	PASS
				RB12#6	21.32	24.82	33	PASS
				RB12#13	21.01	24.51	33	PASS
				RB25#0	21.16	24.66	33	PASS
		10	LCH	RB1#0	21.87	25.37	33	PASS
				RB1#25	22.76	26.26	33	PASS
				RB1#49	22.29	25.79	33	PASS
				RB25#0	21.14	24.64	33	PASS
				RB25#13	21.6	25.1	33	PASS
				RB25#25	21.47	24.97	33	PASS
				RB50#0	21.58	25.08	33	PASS
			MCH	RB1#0	22.57	26.07	33	PASS
				RB1#25	22.95	26.45	33	PASS
				RB1#49	22.41	25.91	33	PASS
				RB25#0	21.69	25.19	33	PASS
				RB25#13	21.9	25.4	33	PASS
				RB25#25	21.64	25.14	33	PASS
				RB50#0	21.64	25.14	33	PASS
			HCH	RB1#0	22.6	26.1	33	PASS
				RB1#25	22.41	25.91	33	PASS

				RB1#49	21.59	25.09	33	PASS
				RB25#0	21.4	24.9	33	PASS
				RB25#13	21.52	25.02	33	PASS
				RB25#25	21.18	24.68	33	PASS
				RB50#0	21.28	24.78	33	PASS
		15	LCH	RB1#0	21.8	25.3	33	PASS
				RB1#38	22.53	26.03	33	PASS
				RB1#74	22.09	25.59	33	PASS
				RB38#0	21.26	24.76	33	PASS
				RB38#19	21.57	25.07	33	PASS
				RB38#39	21.37	24.87	33	PASS
				RB75#0	21.31	24.81	33	PASS
			MCH	RB1#0	22.29	25.79	33	PASS
				RB1#38	22.4	25.9	33	PASS
				RB1#74	21.94	25.44	33	PASS
				RB38#0	21.23	24.73	33	PASS
				RB38#19	21.28	24.78	33	PASS
				RB38#39	21.13	24.63	33	PASS
				RB75#0	21.49	24.99	33	PASS
			HCH	RB1#0	22.64	26.14	33	PASS
				RB1#38	22.42	25.92	33	PASS
				RB1#74	21.38	24.88	33	PASS
				RB38#0	21.53	25.03	33	PASS
				RB38#19	21.48	24.98	33	PASS
				RB38#39	21.13	24.63	33	PASS
				RB75#0	21.45	24.95	33	PASS
		20	LCH	RB1#0	21.86	25.36	33	PASS
				RB1#50	22.3	25.8	33	PASS
				RB1#99	22.26	25.76	33	PASS
				RB50#0	21.19	24.69	33	PASS
				RB50#25	21.34	24.84	33	PASS
				RB50#50	21.28	24.78	33	PASS
				RB100#0	21.17	24.67	33	PASS
			MCH	RB1#0	22.35	25.85	33	PASS
				RB1#50	22.26	25.76	33	PASS
				RB1#99	22.19	25.69	33	PASS
				RB50#0	21.17	24.67	33	PASS
				RB50#25	21.06	24.56	33	PASS
				RB50#50	21.15	24.65	33	PASS
				RB100#0	21.14	24.64	33	PASS
			HCH	RB1#0	22.59	26.09	33	PASS

	LTE/TM2			RB1#50	22.02	25.52	33	PASS
				RB1#99	21.08	24.58	33	PASS
				RB50#0	21.42	24.92	33	PASS
				RB50#25	21.21	24.71	33	PASS
				RB50#50	20.73	24.23	33	PASS
				RB100#0	20.96	24.46	33	PASS
		5	LCH	RB1#0	21.32	24.82	33	PASS
				RB1#13	22.27	25.77	33	PASS
				RB1#24	21.86	25.36	33	PASS
				RB12#0	20.75	24.25	33	PASS
				RB12#6	21.11	24.61	33	PASS
				RB12#13	21.02	24.52	33	PASS
				RB25#0	20.83	24.33	33	PASS
			MCH	RB1#0	21.5	25	33	PASS
				RB1#13	22.33	25.83	33	PASS
				RB1#24	21.66	25.16	33	PASS
				RB12#0	21.08	24.58	33	PASS
				RB12#6	21.44	24.94	33	PASS
				RB12#13	21.21	24.71	33	PASS
				RB25#0	21.23	24.73	33	PASS
			HCH	RB1#0	21.27	24.77	33	PASS
				RB1#13	21.78	25.28	33	PASS
				RB1#24	21.03	24.53	33	PASS
				RB12#0	20.41	23.91	33	PASS
				RB12#6	20.61	24.11	33	PASS
				RB12#13	20.66	24.16	33	PASS
				RB25#0	20.79	24.29	33	PASS
		10	LCH	RB1#0	22.25	25.75	33	PASS
				RB1#25	22.91	26.41	33	PASS
				RB1#49	22.66	26.16	33	PASS
				RB25#0	21.17	24.67	33	PASS
				RB25#13	21.61	25.11	33	PASS
				RB25#25	21.48	24.98	33	PASS
				RB50#0	21.33	24.83	33	PASS
			MCH	RB1#0	22.45	25.95	33	PASS
				RB1#25	22.72	26.22	33	PASS
				RB1#49	22.21	25.71	33	PASS
				RB25#0	21.42	24.92	33	PASS
				RB25#13	21.62	25.12	33	PASS
				RB25#25	21.37	24.87	33	PASS
				RB50#0	21.35	24.85	33	PASS

			HCH	RB1#0	22.36	25.86	33	PASS
				RB1#25	22.16	25.66	33	PASS
				RB1#49	21.29	24.79	33	PASS
				RB25#0	21.06	24.56	33	PASS
				RB25#13	21.59	25.09	33	PASS
				RB25#25	21.05	24.55	33	PASS
				RB50#0	21.32	24.82	33	PASS
		15	LCH	RB1#0	22.05	25.55	33	PASS
				RB1#38	22.76	26.26	33	PASS
				RB1#74	22.25	25.75	33	PASS
				RB38#0	21.2	24.7	33	PASS
				RB38#19	21.49	24.99	33	PASS
				RB38#39	21.5	25	33	PASS
				RB75#0	21.23	24.73	33	PASS
			MCH	RB1#0	22.5	26	33	PASS
				RB1#38	22.64	26.14	33	PASS
				RB1#74	22.28	25.78	33	PASS
				RB38#0	21.36	24.86	33	PASS
				RB38#19	21.43	24.93	33	PASS
				RB38#39	21.26	24.76	33	PASS
				RB75#0	21.3	24.8	33	PASS
			HCH	RB1#0	22.37	25.87	33	PASS
				RB1#38	22.11	25.61	33	PASS
				RB1#74	21.1	24.6	33	PASS
				RB38#0	21.13	24.63	33	PASS
				RB38#19	21.07	24.57	33	PASS
				RB38#39	20.72	24.22	33	PASS
				RB75#0	21.05	24.55	33	PASS
		20	LCH	RB1#0	21.95	25.45	33	PASS
				RB1#50	22.24	25.74	33	PASS
				RB1#99	22.29	25.79	33	PASS
				RB50#0	20.87	24.37	33	PASS
				RB50#25	21.01	24.51	33	PASS
				RB50#50	20.94	24.44	33	PASS
				RB100#0	20.86	24.36	33	PASS
			MCH	RB1#0	22.45	25.95	33	PASS
				RB1#50	22.39	25.89	33	PASS
				RB1#99	22.4	25.9	33	PASS
				RB50#0	21.21	24.71	33	PASS
				RB50#25	21.14	24.64	33	PASS
				RB50#50	21.19	24.69	33	PASS

				RB100#0	21.17	24.67	33	PASS
				RB1#0	22.57	26.07	33	PASS
				RB1#50	22.23	25.73	33	PASS
				RB1#99	21.18	24.68	33	PASS
			HCH	RB50#0	21.16	24.66	33	PASS
				RB50#25	20.92	24.42	33	PASS
				RB50#50	20.66	24.16	33	PASS
				RB100#0	20.93	24.43	33	PASS

Note1:

a, For getting the ERP (Efficient Radiated Power) or EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b, SGP=Signal Generator Level

Note2:

SET Span=1.5*OBW

SET RBW=1% of the OBW ,not to exceed 1MHz

SET VBW $\geq 3 \times \text{RBW}$

SET Sweep time = auto-couple.

Detector: RMS

2Appendix_B: Peak-to-Average Ratio

void

3Appendix_C: Modulation Characteristics

void

4Appendix_D: Bandwidth

void

5Appendix_E: Band Edges Compliance

void

6Appendix_F: Spurious Emission at Antenna Terminal

void

7Appendix_G: Field Strength of Spurious Radiation

Note:

9kHz~150kHz, VBW = 200Hz, VBW = 600 Hz, Detector: PK

150kHz~30MHz, VBW = 9kHz, VBW = 30k Hz, Detector: PK

30MHz~1GHz, RBW = 100 kHz, VBW = 300 kHz. Detector: PK

Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

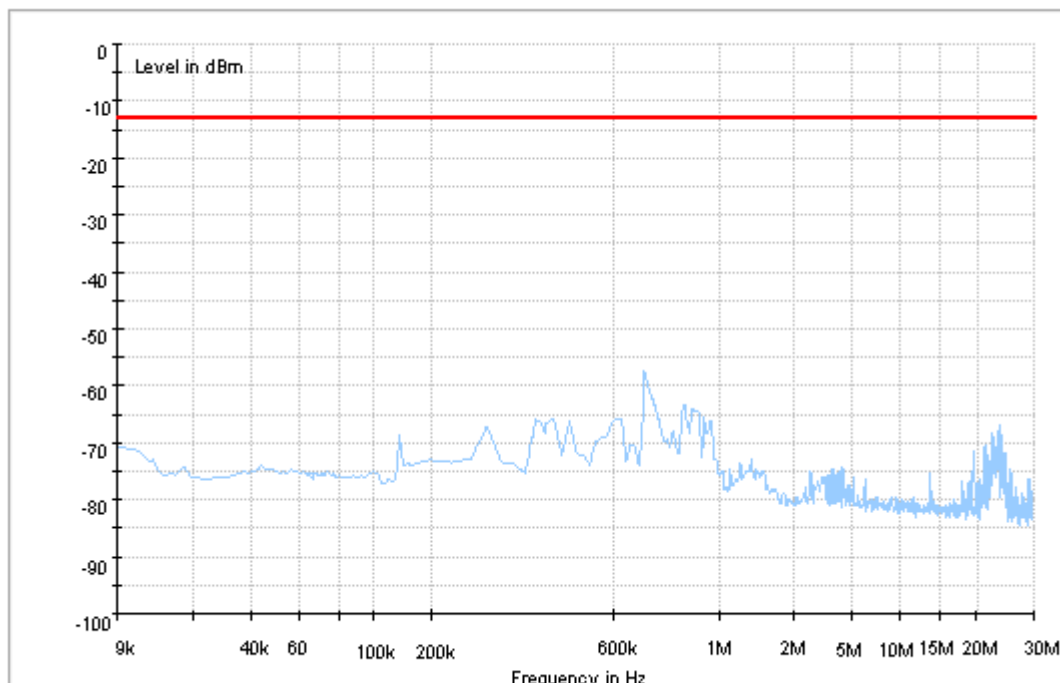
We tested all modes, but the data presented below is the worst case.

Part I - Test Plots

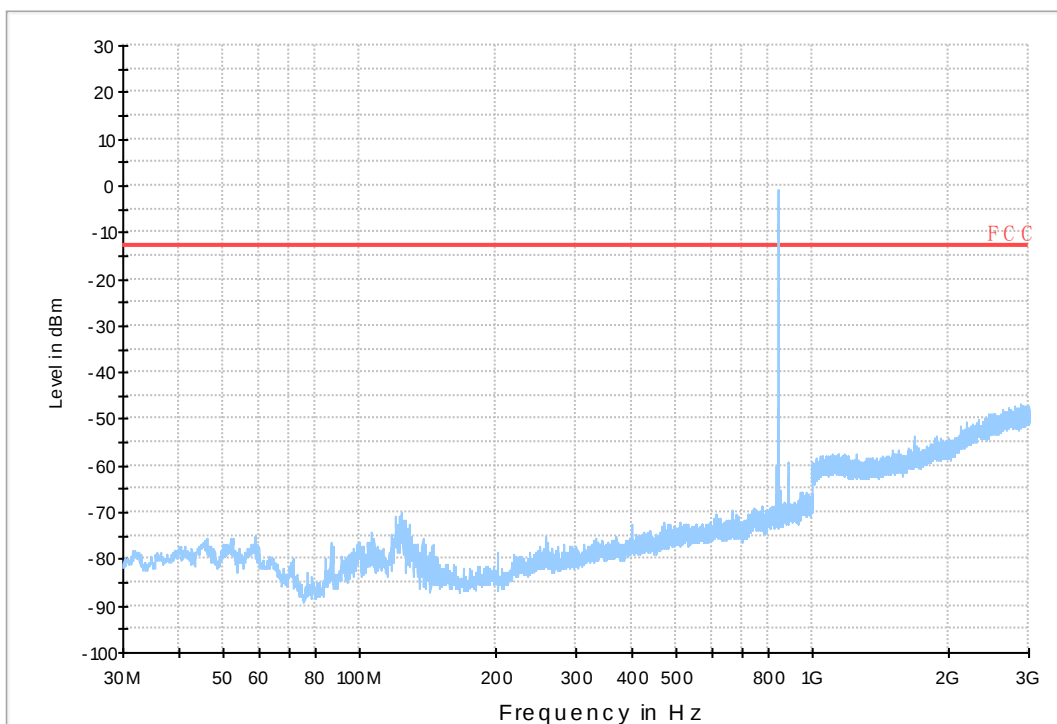
7.1 For GSM

7.1.1 Test Band = GSM850

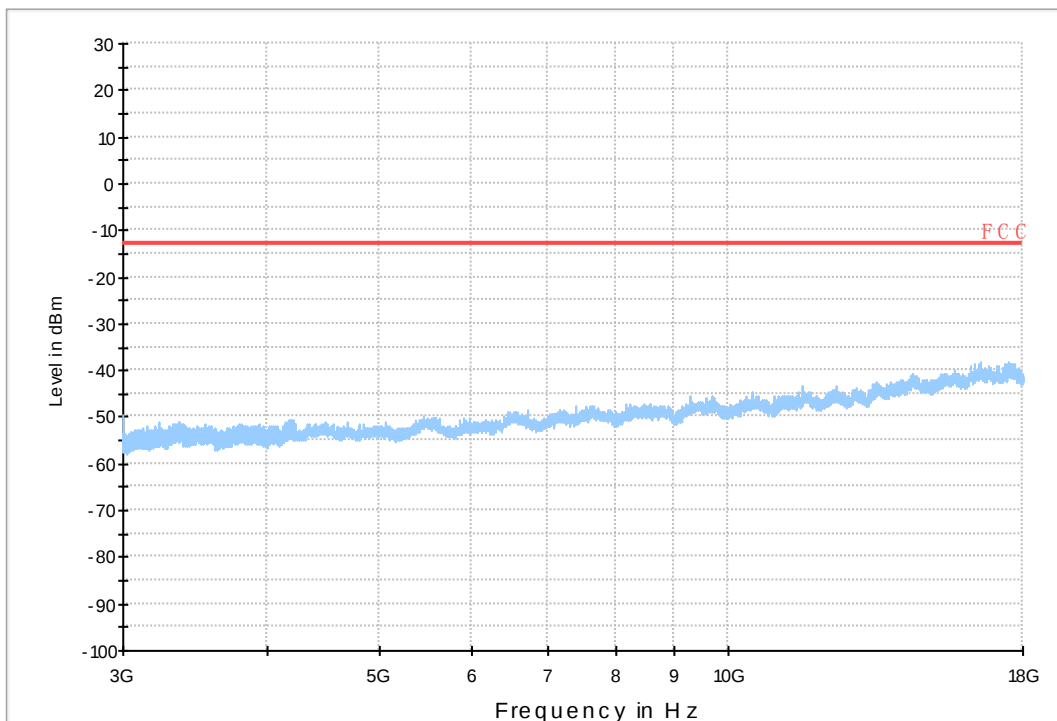
7.1.1.1 Test Mode = GSM/TM1



Copy of FCC PART22 GSM850_L

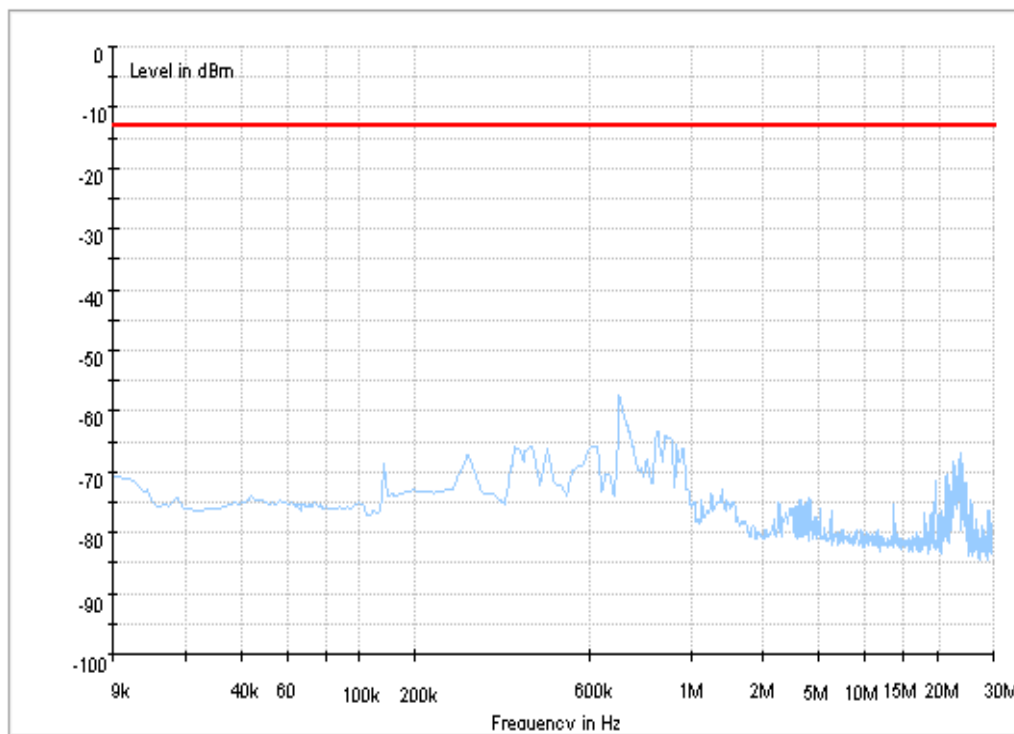


Copy of FCC PART22 GSM850_H

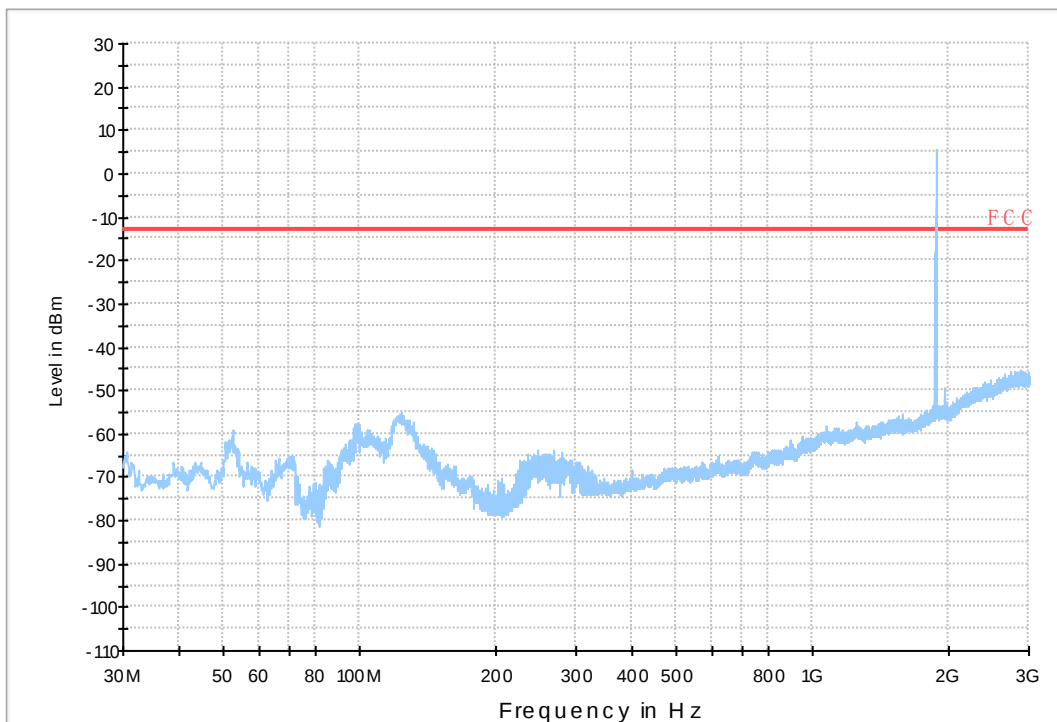


7.1.2 Test Band = GSM1900

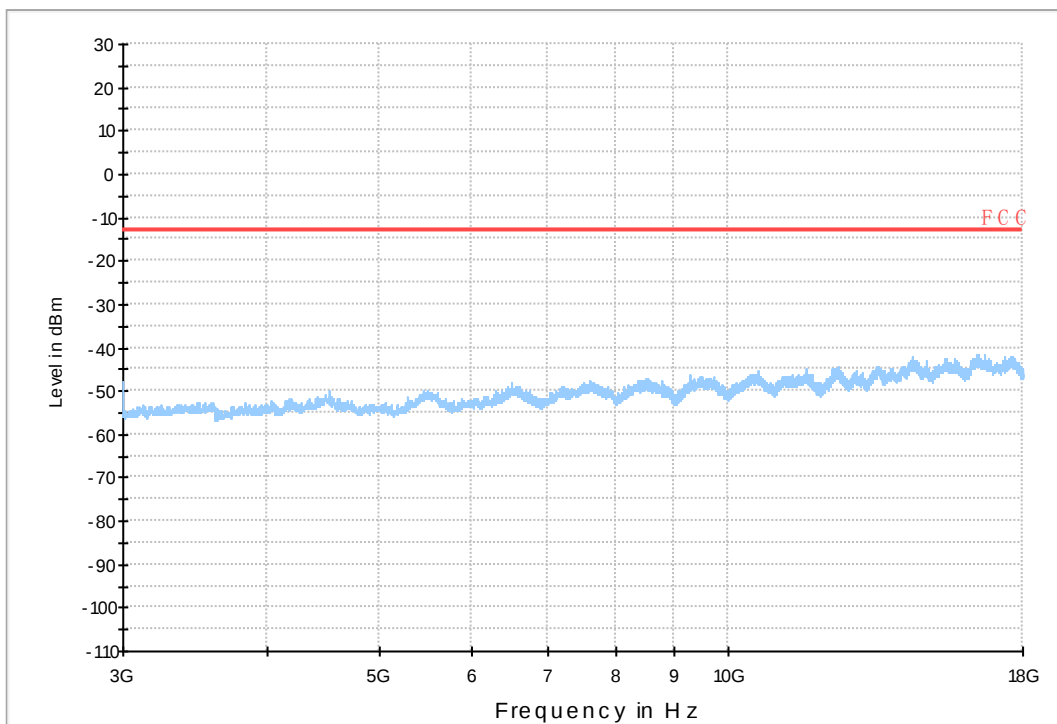
7.1.2.1 Test Mode = GSM/TM1

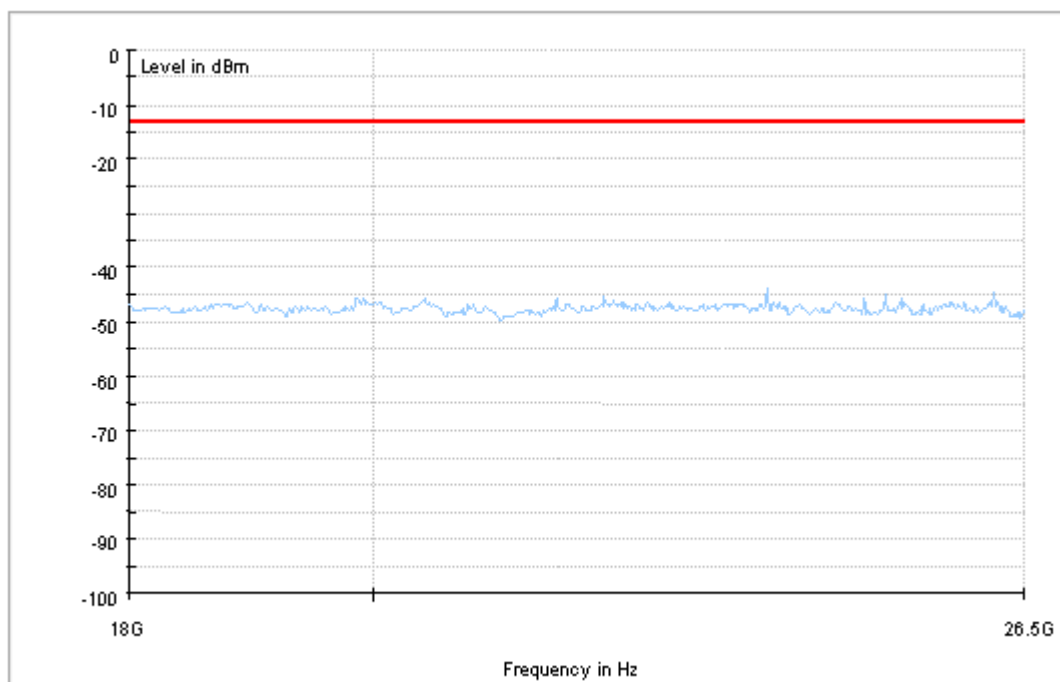


Copy of FCC PART24 GSM1900_L



Copy of FCC PART24 GSM1900_H

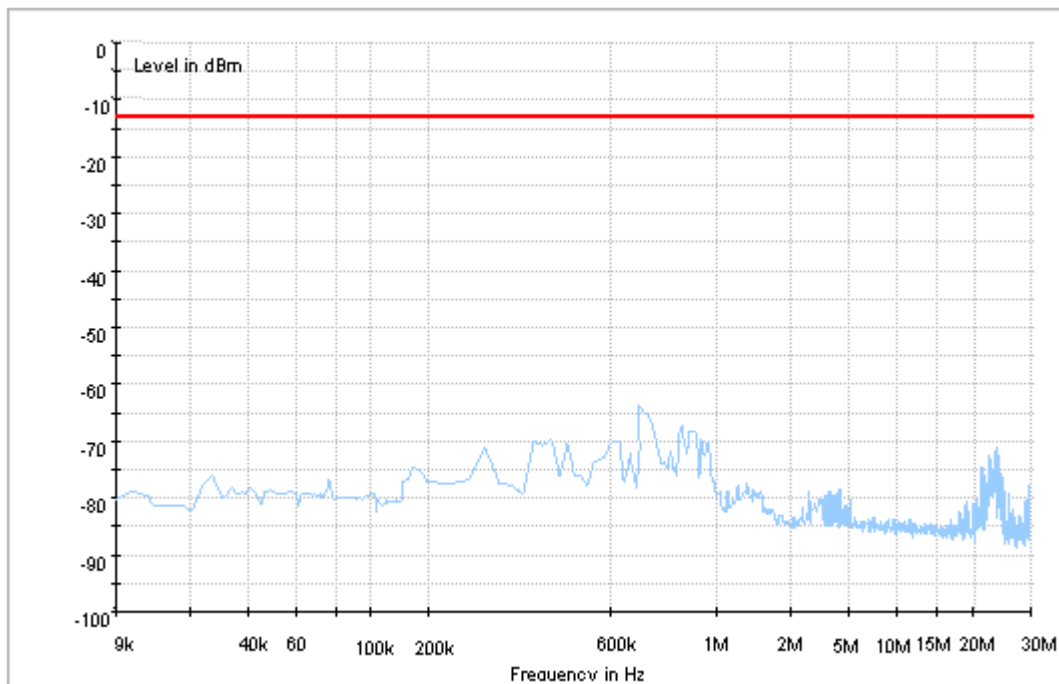




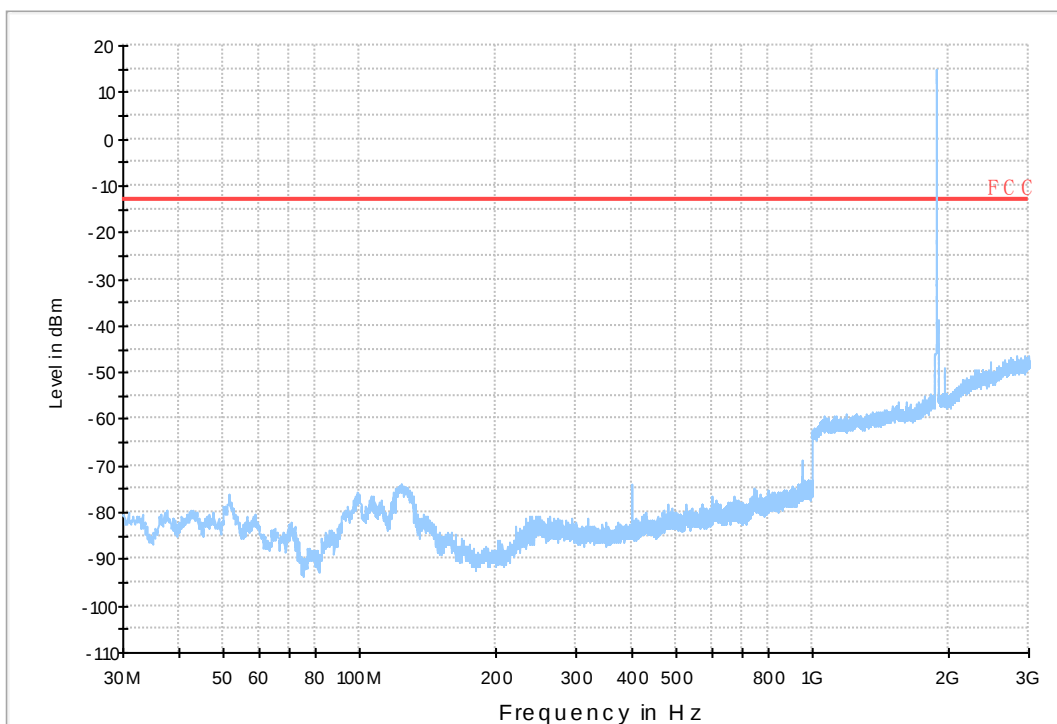
7.2 For UMTS

7.2.2 Test Band = WCDMA1900

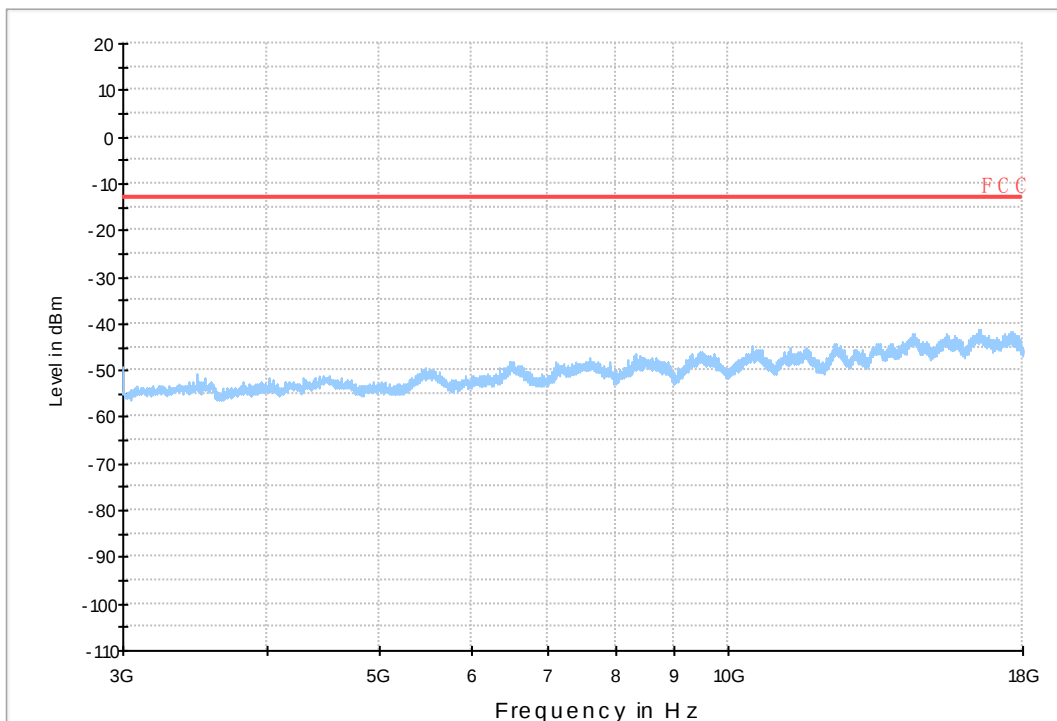
7.2.2.1 Test Mode = UMTS/TM1

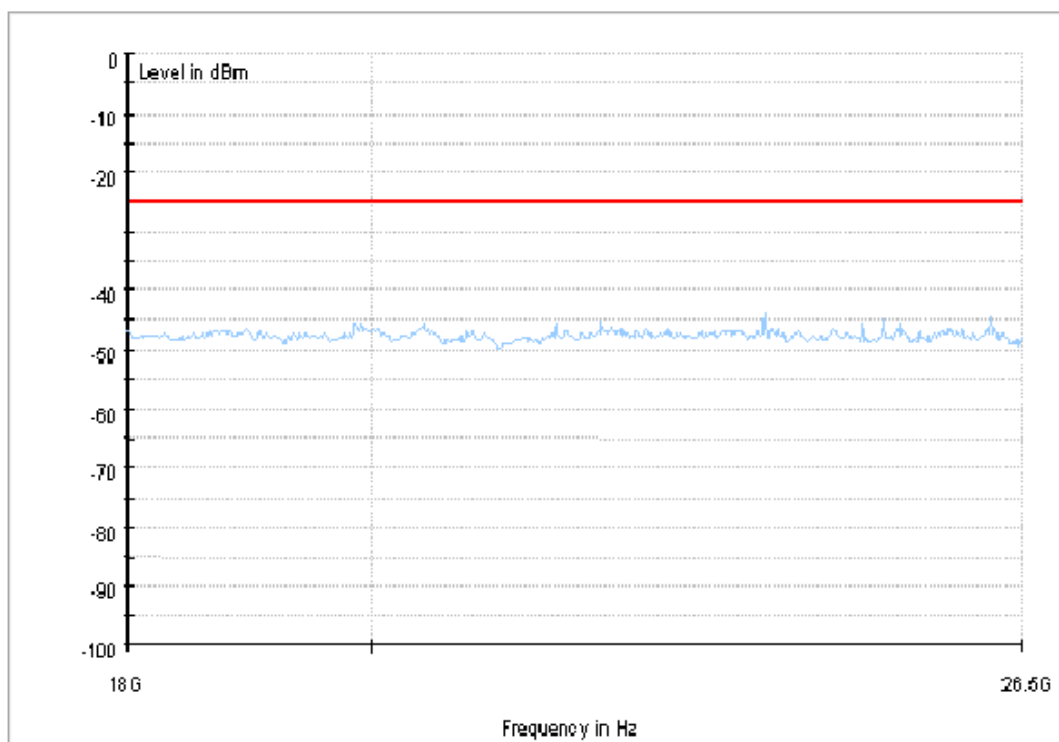


Copy of FCC PART24 W CDMA1900_L



Copy of FCC PART24 W CDMA1900_H

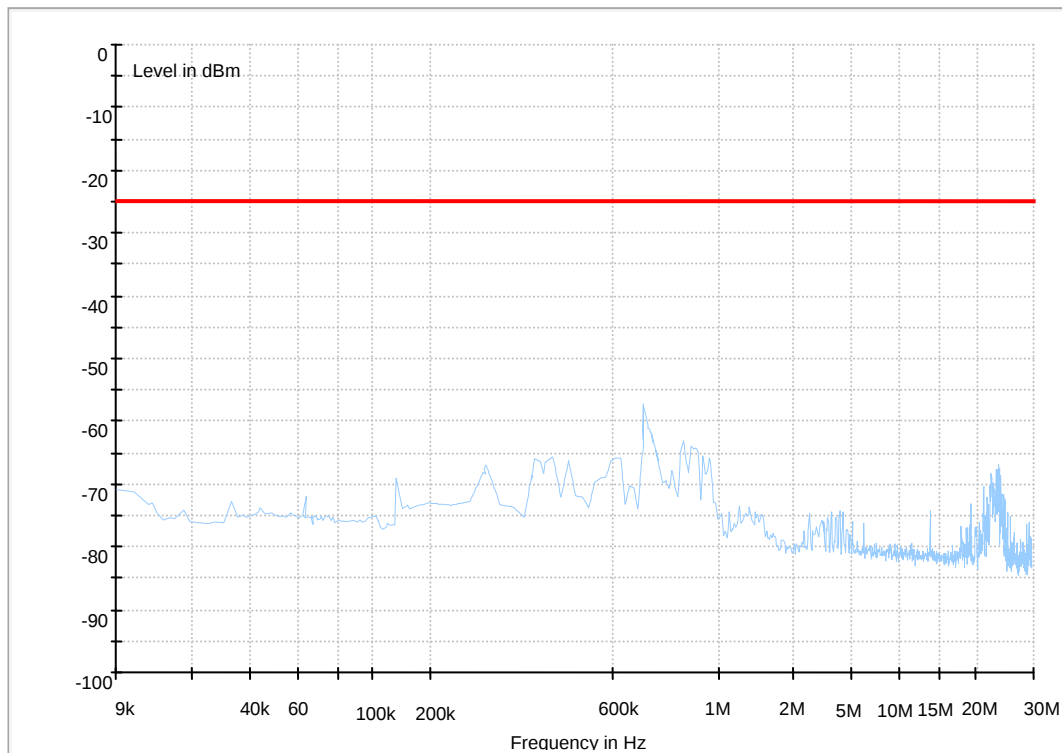




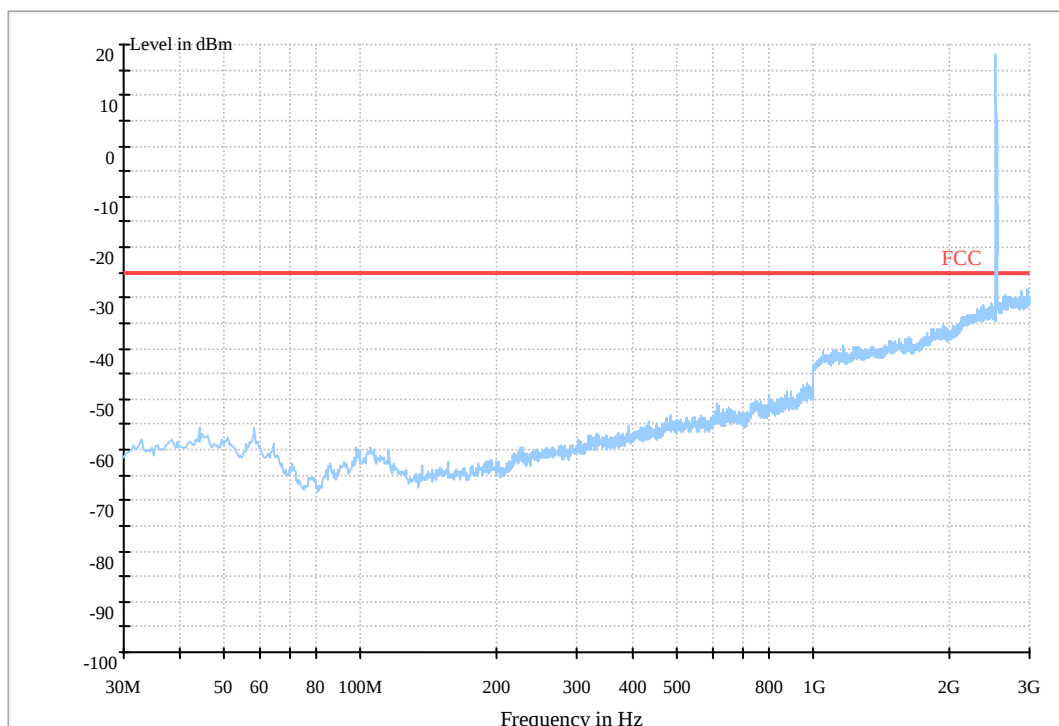
7.3 For LTE

7.3.4 Test Band = BAND7

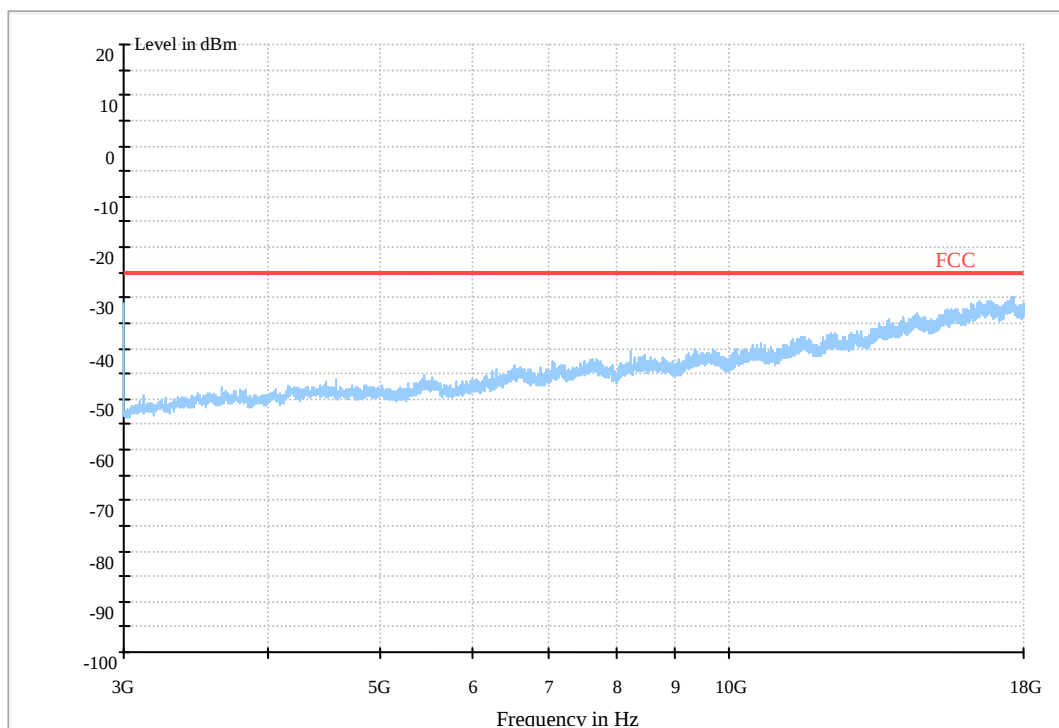
7.3.4.1 Test Bandwidth = 5

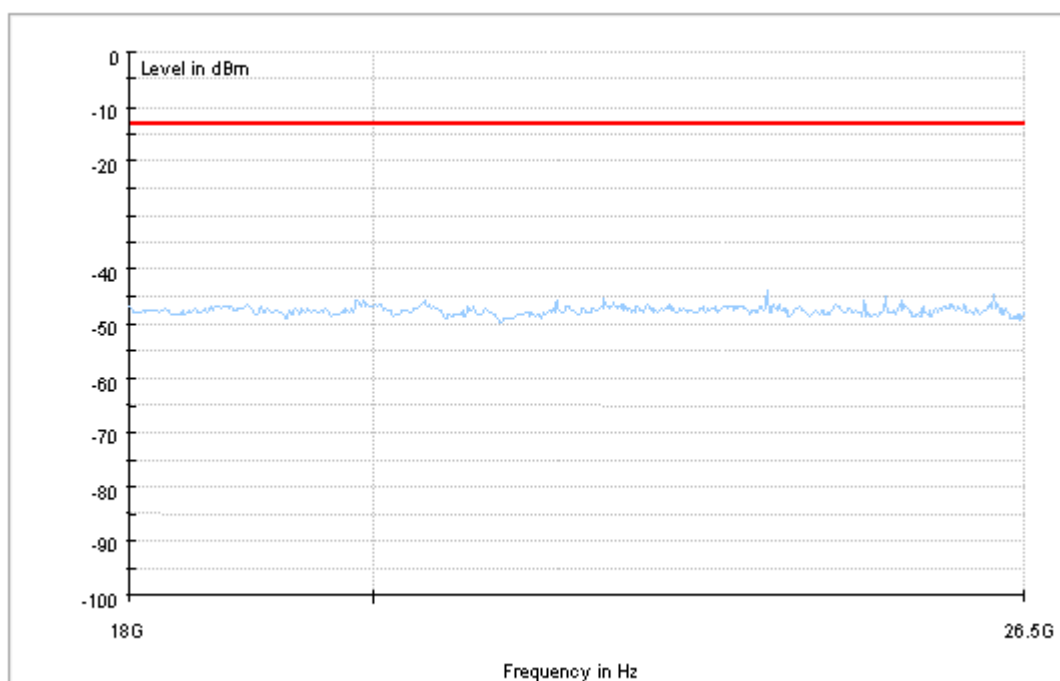


Copy of RSE-TX-DIRECTOR ABOVE 1.5G_L

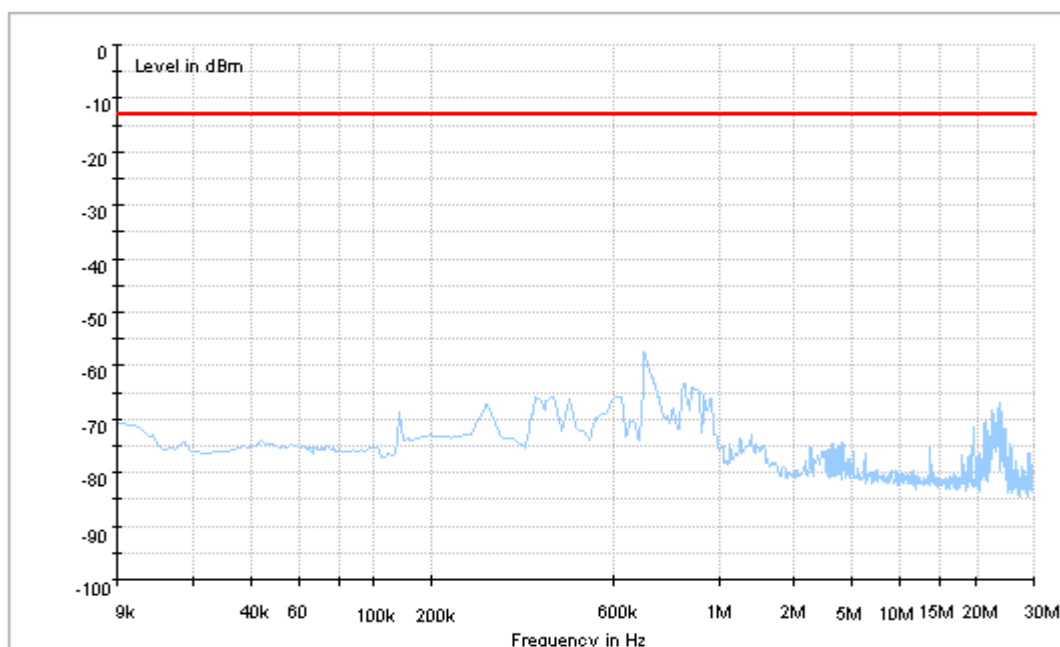


Copy of RSE-TX-DIRECTOR ABOVE 1.5G_H

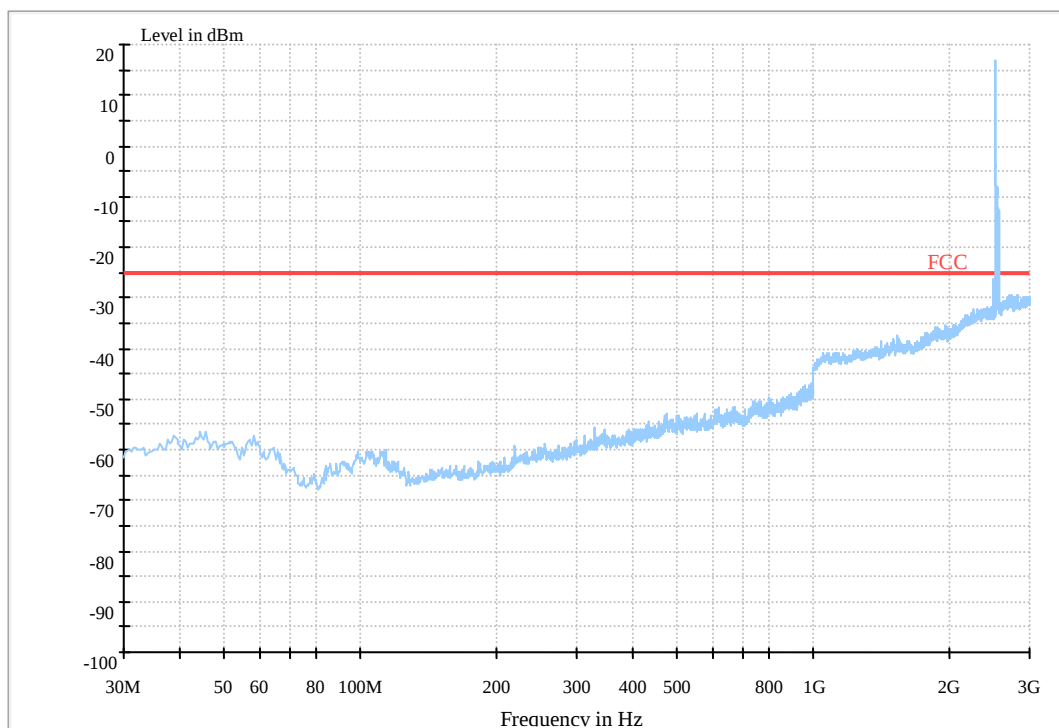




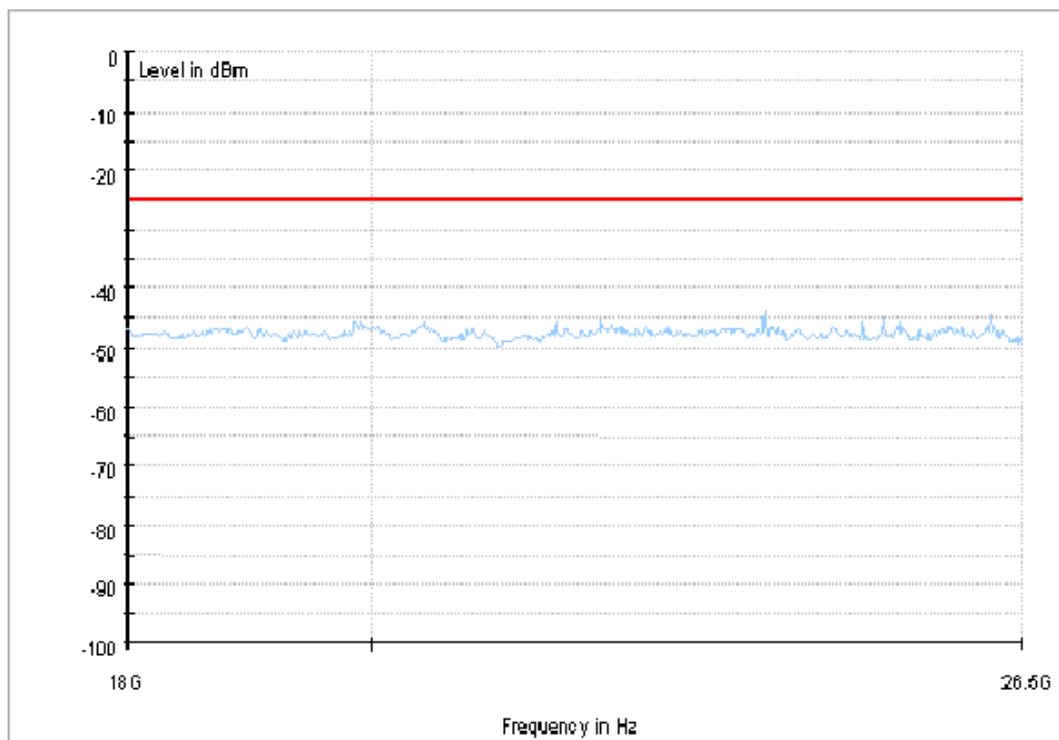
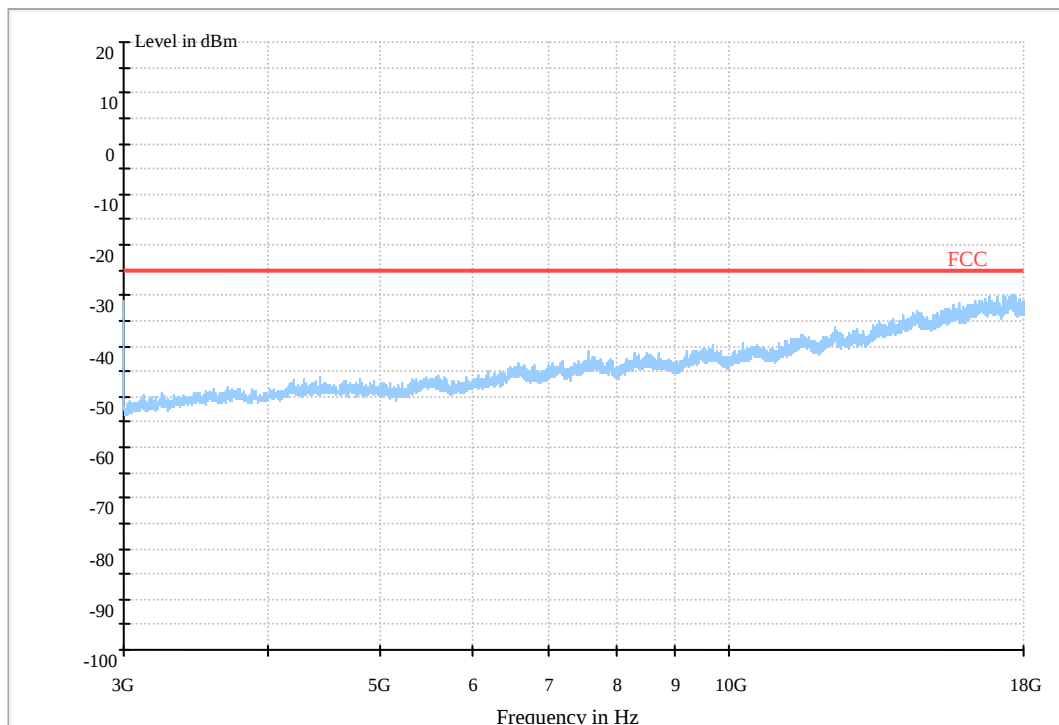
7.3.4.2 Test Bandwidth = 20



Copy of RSE-TX-DIRECTOR ABOVE 1.5G_L



Copy of RSE-TX-DIRECTOR ABOVE 1.5G_H





8Appendix_H: Frequency Stability

void

END