



# Appendix for test report

**1 Appendix\_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	33.1	30.59	38.5	PASS
		MCH	32.89	30.38	38.5	PASS
		HCH	32.76	30.25	38.5	PASS
	GSM/TM2	LCH	26.95	24.44	38.5	PASS
		MCH	26.86	24.35	38.5	PASS
		HCH	26.84	24.33	38.5	PASS
Test Band	Test Mode	Test Channel	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
GSM1900	GSM/TM1	LCH	29.72	30.17	33	PASS
		MCH	29.81	30.26	33	PASS
		HCH	29.68	30.13	33	PASS
	GSM/TM2	LCH	25.6	26.05	33	PASS
		MCH	25.58	26.03	33	PASS
		HCH	25.55	26	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measure d[dBm]	ERP/EIR P [dBm]	Limit [dBm]	Verdict
BAND7	LTE/TM1	5	LCH	RB1#0	22.42	23.01	33	PASS
				RB1#13	22.35	22.94	33	PASS
				RB1#24	22.35	22.94	33	PASS
				RB12#0	21.55	22.14	33	PASS
				RB12#6	21.52	22.11	33	PASS
				RB12#13	21.58	22.17	33	PASS
			MCH	RB25#0	21.47	22.06	33	PASS
				RB1#0	22.05	22.64	33	PASS
				RB1#13	22.04	22.63	33	PASS
				RB1#24	22.03	22.62	33	PASS
				RB12#0	21.02	21.61	33	PASS



				RB12#6	21.15	21.74	33	PASS	
				RB12#13	21.06	21.65	33	PASS	
				RB25#0	21.22	21.81	33	PASS	
			HCH	RB1#0	22.13	22.72	33	PASS	
				RB1#13	22.08	22.67	33	PASS	
				RB1#24	22.18	22.77	33	PASS	
				RB12#0	21.22	21.81	33	PASS	
				RB12#6	21.1	21.69	33	PASS	
				RB12#13	21.12	21.71	33	PASS	
				RB25#0	21.2	21.79	33	PASS	
				LCH	RB1#0	22.38	22.97	33	PASS
					RB1#25	22.37	22.96	33	PASS
			RB1#49		22.06	22.65	33	PASS	
			RB25#0		21.45	22.04	33	PASS	
			RB25#13		21.55	22.14	33	PASS	
	RB25#25	21.15	21.74		33	PASS			
	RB50#0	21.27	21.86		33	PASS			
	MCH	RB1#0	21.92	22.51	33	PASS			
		RB1#25	22	22.59	33	PASS			
		RB1#49	22.12	22.71	33	PASS			
		RB25#0	20.96	21.55	33	PASS			
		RB25#13	21.08	21.67	33	PASS			
		RB25#25	21.15	21.74	33	PASS			
		RB50#0	21.15	21.74	33	PASS			
	HCH	RB1#0	22.14	22.73	33	PASS			
		RB1#25	22.14	22.73	33	PASS			
		RB1#49	22.06	22.65	33	PASS			
		RB25#0	21.21	21.8	33	PASS			
		RB25#13	21.09	21.68	33	PASS			
		RB25#25	21.14	21.73	33	PASS			
RB50#0		21.19	21.78	33	PASS				
15	LCH	RB1#0	22.34	22.93	33	PASS			
		RB1#38	22.2	22.79	33	PASS			
		RB1#74	21.89	22.48	33	PASS			
		RB36#0	21.46	22.05	33	PASS			
		RB36#18	21.28	21.87	33	PASS			
		RB36#39	21.08	21.67	33	PASS			
		RB75#0	21.26	21.85	33	PASS			
		MCH	RB1#0	21.89	22.48	33	PASS		
			RB1#38	22.01	22.6	33	PASS		
	RB1#74		22.09	22.68	33	PASS			



				RB36#0	21.01	21.6	33	PASS
				RB36#18	21.12	21.71	33	PASS
				RB36#39	21.07	21.66	33	PASS
				RB75#0	21.13	21.72	33	PASS
			HCH	RB1#0	22.3	22.89	33	PASS
				RB1#38	22.25	22.84	33	PASS
				RB1#74	22.18	22.77	33	PASS
				RB36#0	21.29	21.88	33	PASS
				RB36#18	21.13	21.72	33	PASS
				RB36#39	21.13	21.72	33	PASS
			LCH	RB75#0	21.14	21.73	33	PASS
				RB1#0	22.43	23.02	33	PASS
				RB1#50	22.03	22.62	33	PASS
				RB1#99	22.08	22.67	33	PASS
				RB50#0	21.26	21.85	33	PASS
				RB50#25	21.1	21.69	33	PASS
			MCH	RB50#50	21.01	21.6	33	PASS
				RB100#0	21.2	21.79	33	PASS
	RB1#0	22.09		22.68	33	PASS		
	RB1#50	22.11		22.7	33	PASS		
	RB1#99	22.02		22.61	33	PASS		
	RB50#0	21		21.59	33	PASS		
	HCH	RB50#25	21.15	21.74	33	PASS		
		RB50#50	21.05	21.64	33	PASS		
		RB100#0	20.99	21.58	33	PASS		
		RB1#0	22.12	22.71	33	PASS		
		RB1#50	22.25	22.84	33	PASS		
		RB1#99	22.2	22.79	33	PASS		
	LTE/TM2	5	LCH	RB50#0	21.29	21.88	33	PASS
				RB50#25	21.27	21.86	33	PASS
				RB50#50	21.14	21.73	33	PASS
				RB100#0	21.21	21.8	33	PASS
RB1#0				21.14	21.73	33	PASS	
RB1#13				21.1	21.69	33	PASS	
MCH			RB1#24	21.33	21.92	33	PASS	
			RB12#0	20.47	21.06	33	PASS	
			RB12#6	20.46	21.05	33	PASS	
			RB12#13	20.34	20.93	33	PASS	
			RB25#0	20.39	20.98	33	PASS	
			RB1#0	20.91	21.5	33	PASS	
			RB1#13	21.01	21.6	33	PASS	



				RB1#24	21.07	21.66	33	PASS	
				RB12#0	20.19	20.78	33	PASS	
				RB12#6	20.29	20.88	33	PASS	
				RB12#13	20.19	20.78	33	PASS	
				RB25#0	20.2	20.79	33	PASS	
			HCH	RB1#0	20.94	21.53	33	PASS	
				RB1#13	20.94	21.53	33	PASS	
				RB1#24	21.05	21.64	33	PASS	
				RB12#0	20.16	20.75	33	PASS	
				RB12#6	20	20.59	33	PASS	
				RB12#13	20.2	20.79	33	PASS	
			10	LCH	RB1#0	21.64	22.23	33	PASS
					RB1#25	21.63	22.22	33	PASS
					RB1#49	21.17	21.76	33	PASS
	RB25#0	20.31			20.9	33	PASS		
	RB25#13	20.5			21.09	33	PASS		
	RB25#25	20.15			20.74	33	PASS		
	RB50#0	20.26			20.85	33	PASS		
	MCH	RB1#0		21.24	21.83	33	PASS		
		RB1#25		21.24	21.83	33	PASS		
		RB1#49		21.32	21.91	33	PASS		
		RB25#0		20.11	20.7	33	PASS		
		RB25#13		20.03	20.62	33	PASS		
		RB25#25		20.16	20.75	33	PASS		
		RB50#0		20.24	20.83	33	PASS		
	HCH	RB1#0	21.03	21.62	33	PASS			
		RB1#25	21.06	21.65	33	PASS			
		RB1#49	21.04	21.63	33	PASS			
RB25#0		20.24	20.83	33	PASS				
RB25#13		20.02	20.61	33	PASS				
RB25#25		20.13	20.72	33	PASS				
RB50#0		20.26	20.85	33	PASS				
15	LCH	RB1#0	21.52	22.11	33	PASS			
		RB1#38	21.44	22.03	33	PASS			
		RB1#74	21.22	21.81	33	PASS			
		RB36#0	20.49	21.08	33	PASS			
		RB36#18	20.43	21.02	33	PASS			
		RB36#39	20.28	20.87	33	PASS			
		RB75#0	20.3	20.89	33	PASS			
	MCH	RB1#0	21.21	21.8	33	PASS			



				RB1#38	21.3	21.89	33	PASS	
				RB1#74	21.35	21.94	33	PASS	
				RB36#0	20.04	20.63	33	PASS	
				RB36#18	20.1	20.69	33	PASS	
				RB36#39	20.21	20.8	33	PASS	
				RB75#0	20.09	20.68	33	PASS	
			HCH	RB1#0	21.19	21.78	33	PASS	
				RB1#38	21.03	21.62	33	PASS	
				RB1#74	21.07	21.66	33	PASS	
				RB36#0	20.24	20.83	33	PASS	
				RB36#18	20.07	20.66	33	PASS	
				RB36#39	20.12	20.71	33	PASS	
			20	LCH	RB1#0	21.62	22.21	33	PASS
					RB1#50	21.17	21.76	33	PASS
	RB1#99	21.28			21.87	33	PASS		
	RB50#0	20.13			20.72	33	PASS		
	RB50#25	20.1			20.69	33	PASS		
	RB50#50	20.05			20.64	33	PASS		
	RB100#0	20.25			20.84	33	PASS		
	MCH	RB1#0		21.28	21.87	33	PASS		
		RB1#50		21.29	21.88	33	PASS		
		RB1#99		21.21	21.8	33	PASS		
		RB50#0		20.2	20.79	33	PASS		
		RB50#25		20.12	20.71	33	PASS		
		RB50#50		20.14	20.73	33	PASS		
		RB100#0		20.18	20.77	33	PASS		
	HCH	RB1#0	21.36	21.95	33	PASS			
		RB1#50	21.67	22.26	33	PASS			
RB1#99		21.53	22.12	33	PASS				
RB50#0		20.44	21.03	33	PASS				
RB50#25		20.36	20.95	33	PASS				
RB50#50		20.2	20.79	33	PASS				
RB100#0		20.29	20.88	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: RBW > emission bandwidth, VBW > 3 x RBW.

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

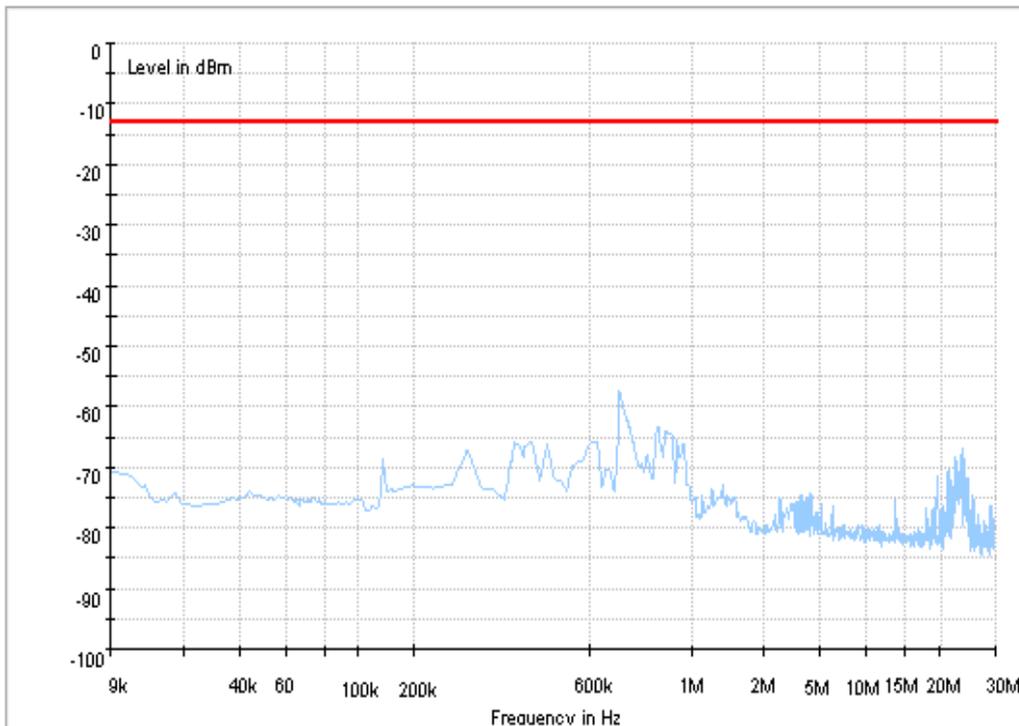
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

### Part I - Test Plots

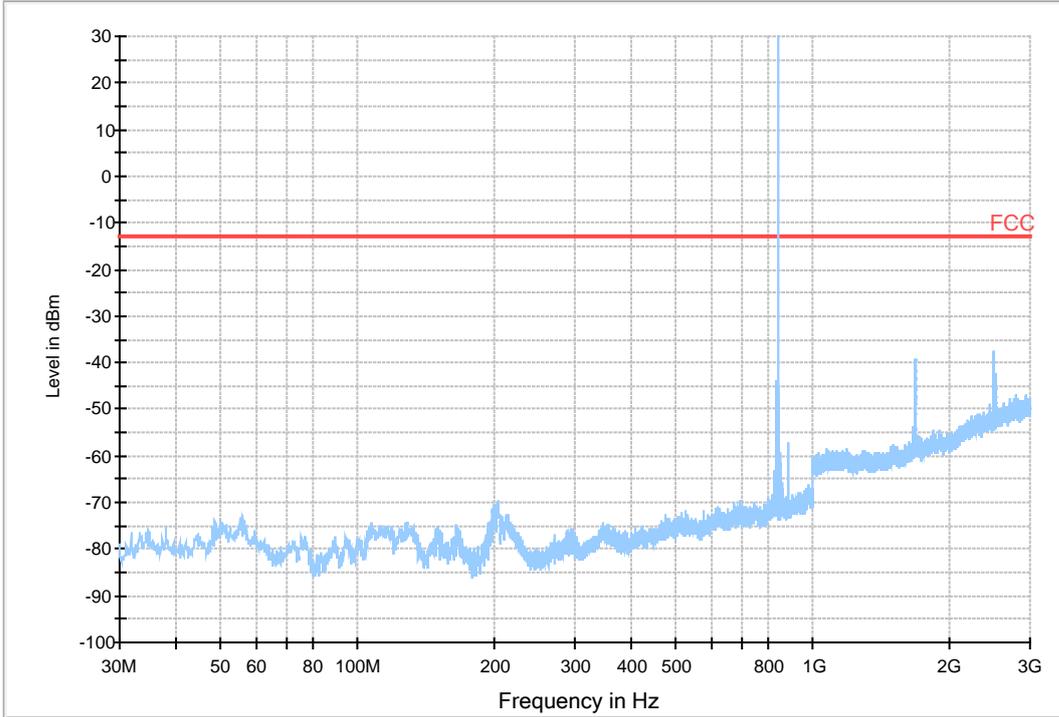
#### 7.1 For GSM

##### 7.1.1 Test Band = GSM850

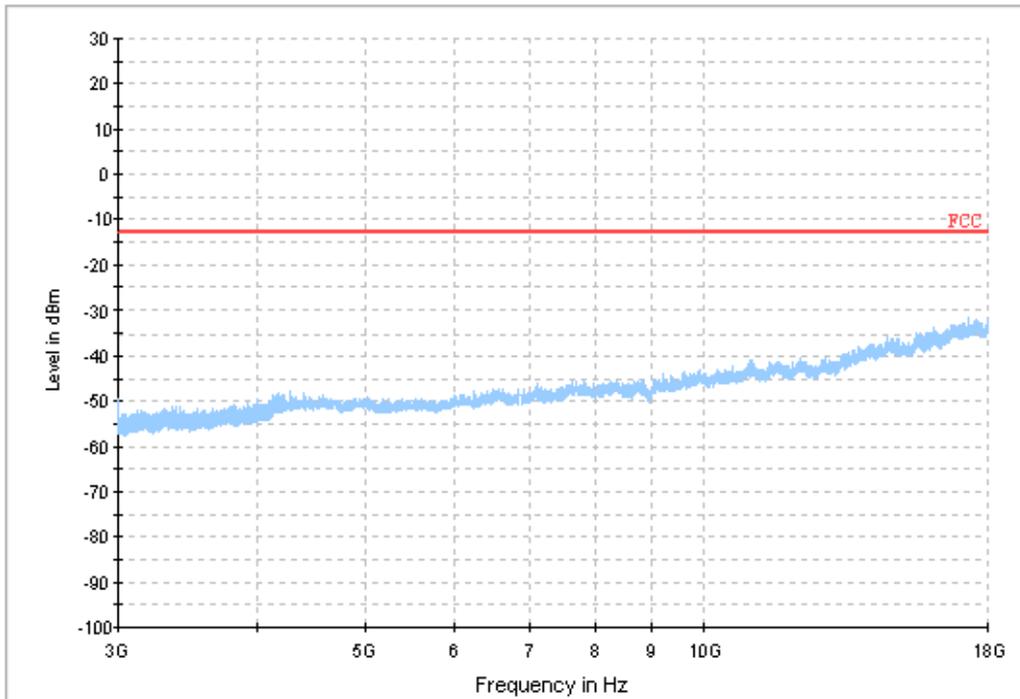
##### 7.1.1.1 Test Mode = GSM/TM1



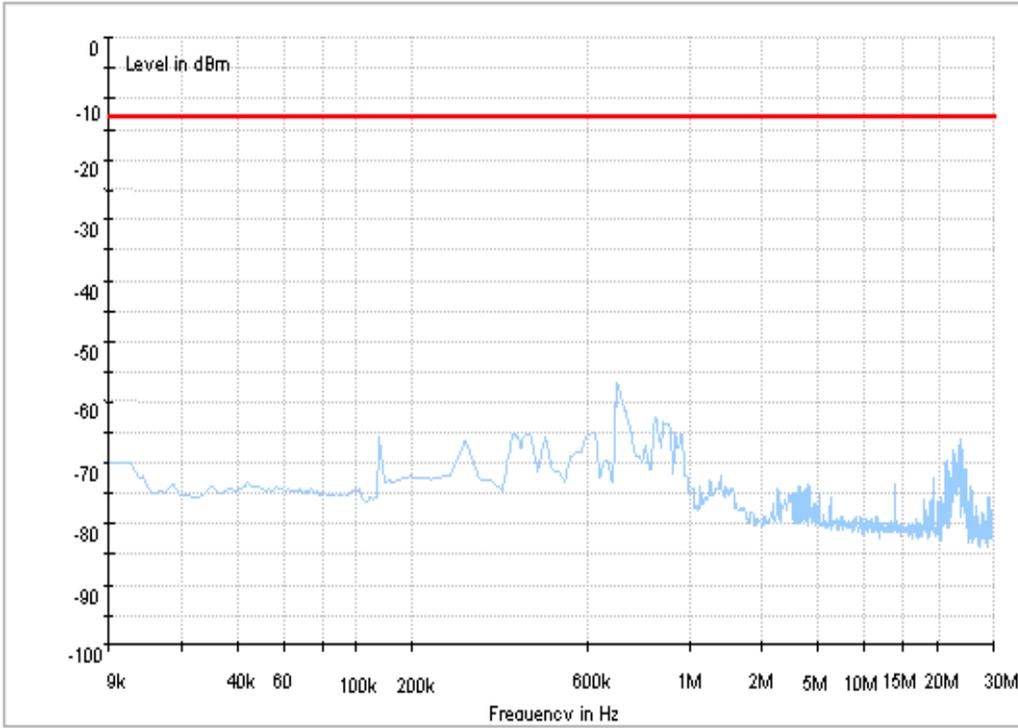
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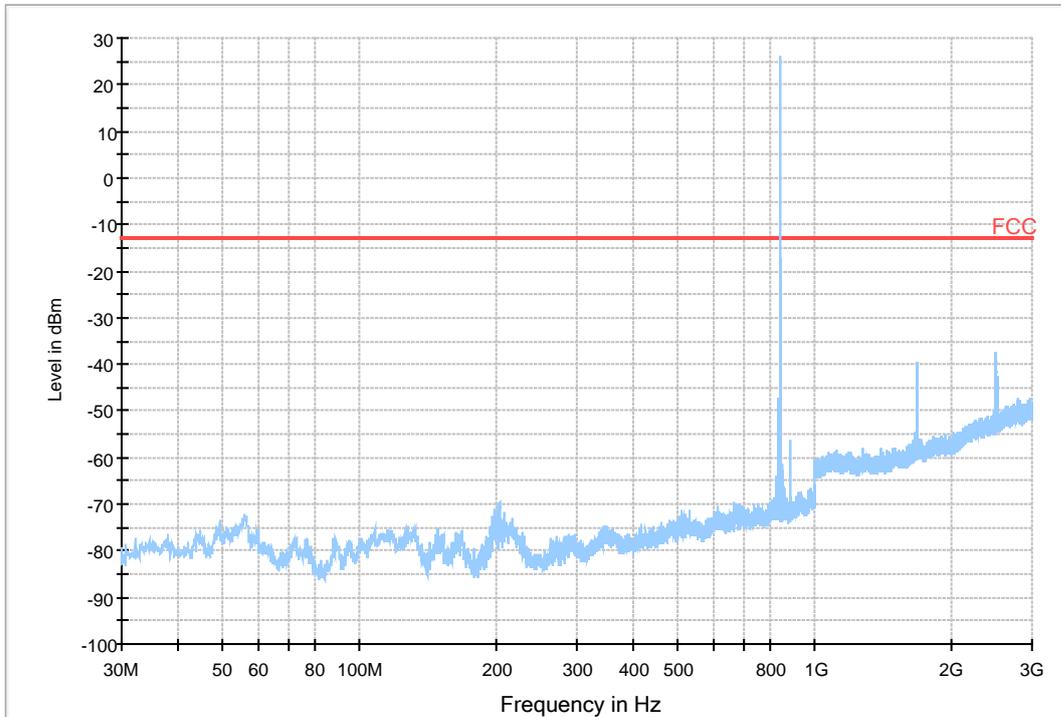
Copy of FCC PART22 GSM850\_H



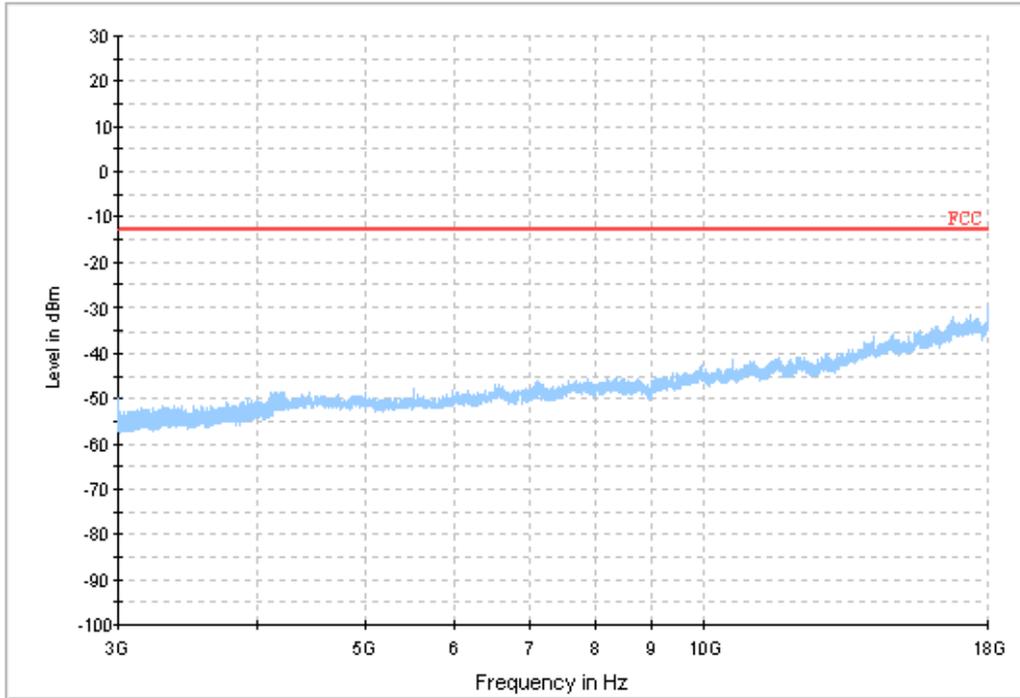
7.1.1.2 Test Mode = GSM/TM2



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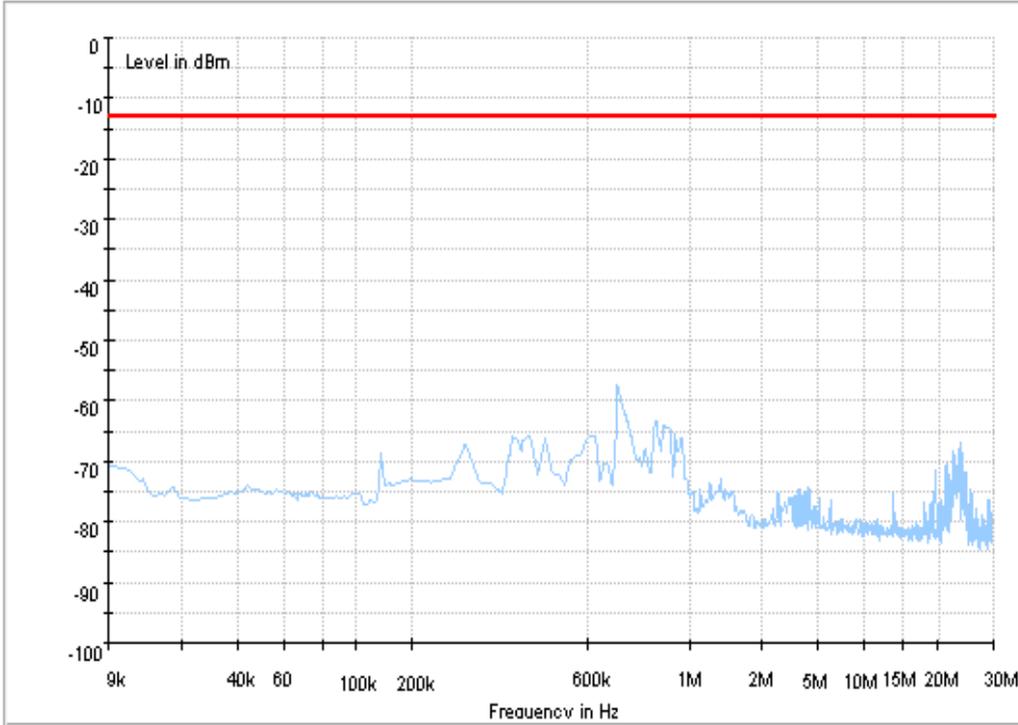


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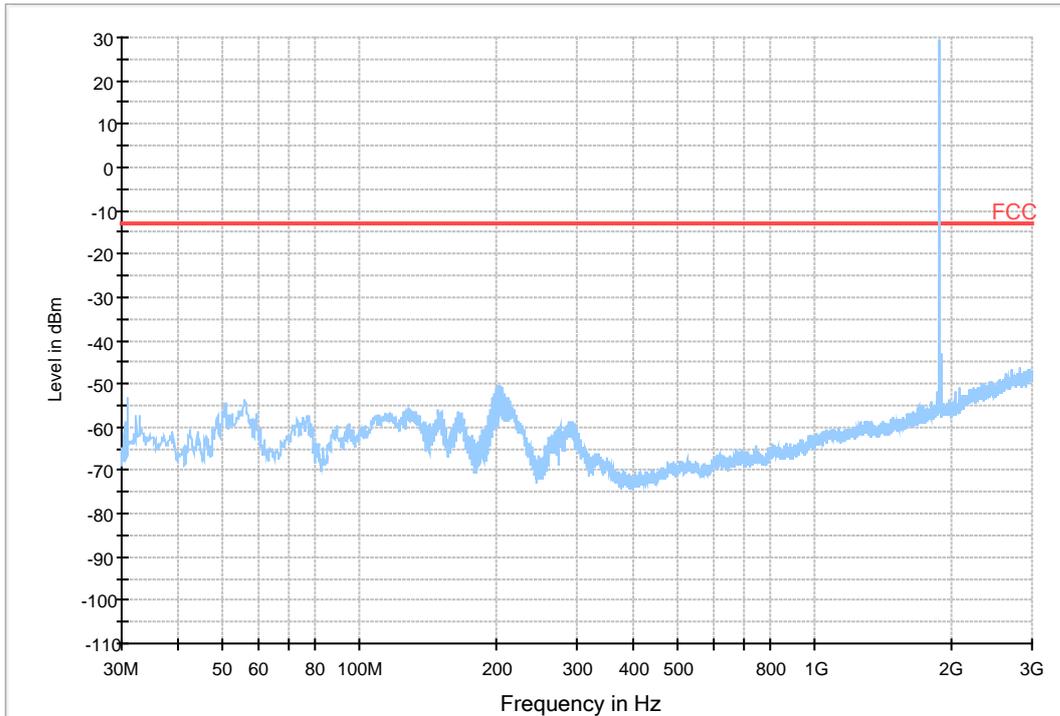


**7.1.2 Test Band = GSM1900**

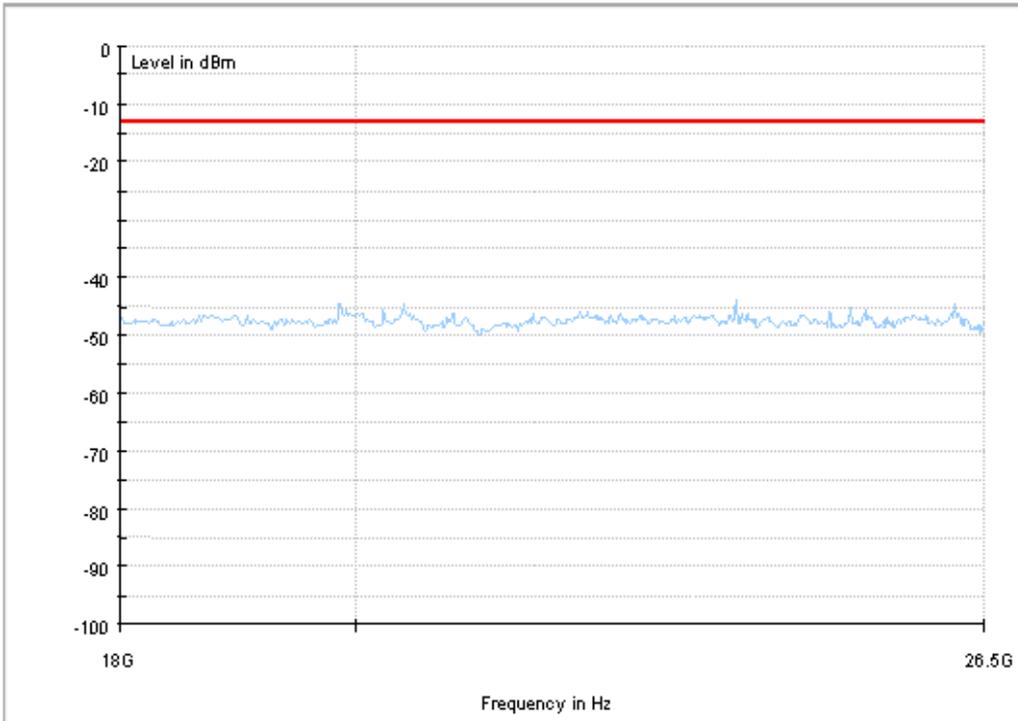
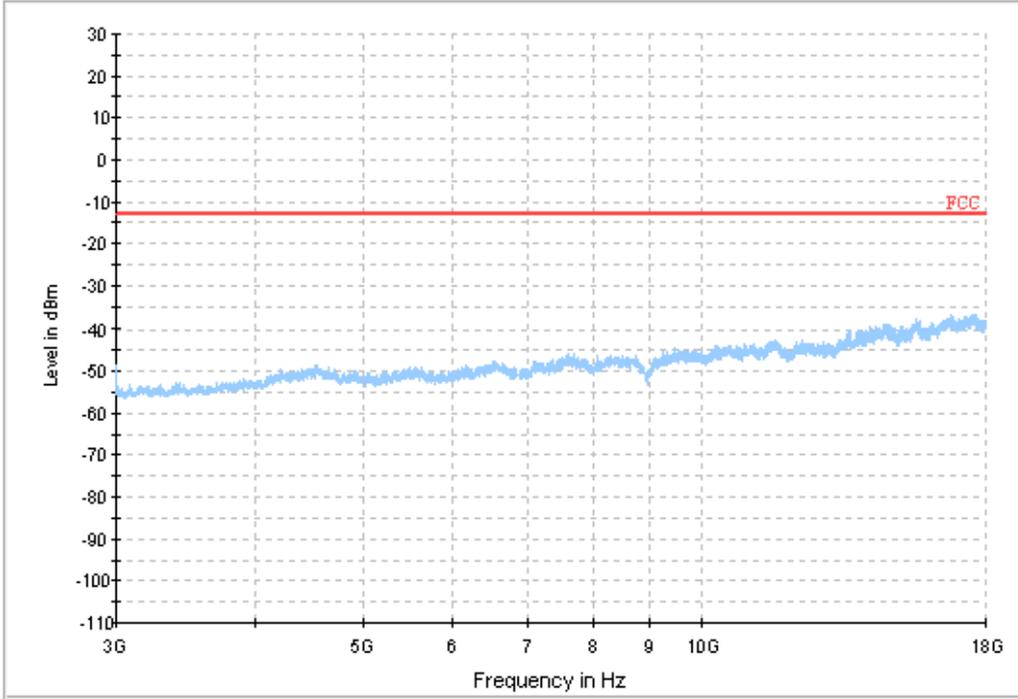
**7.1.2.1 Test Mode = GSM/TM1**



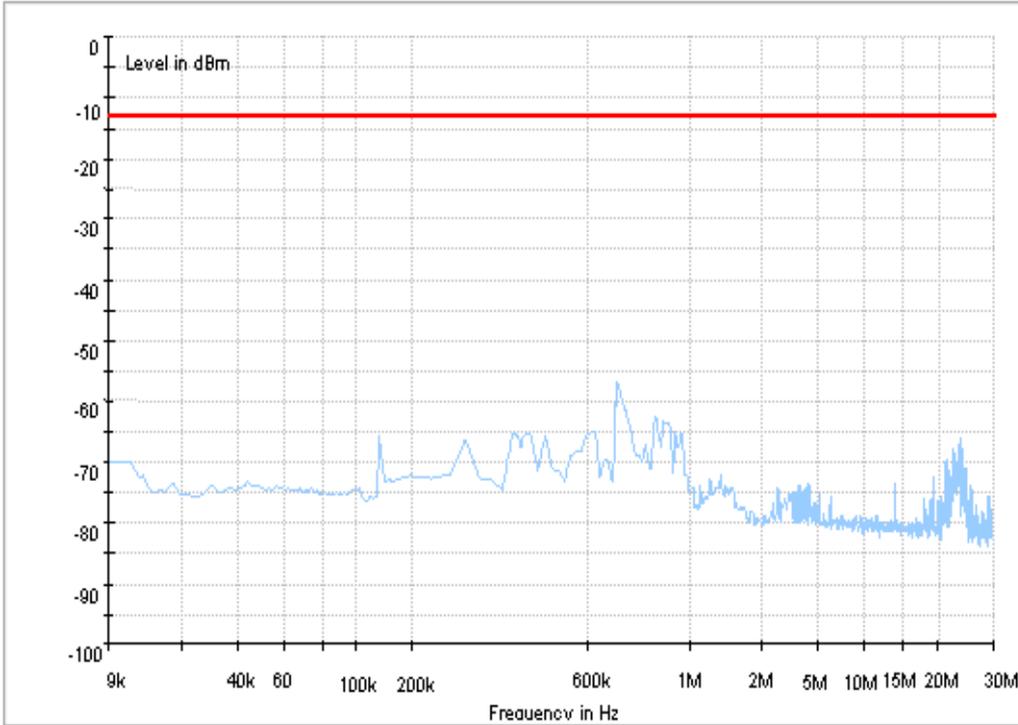
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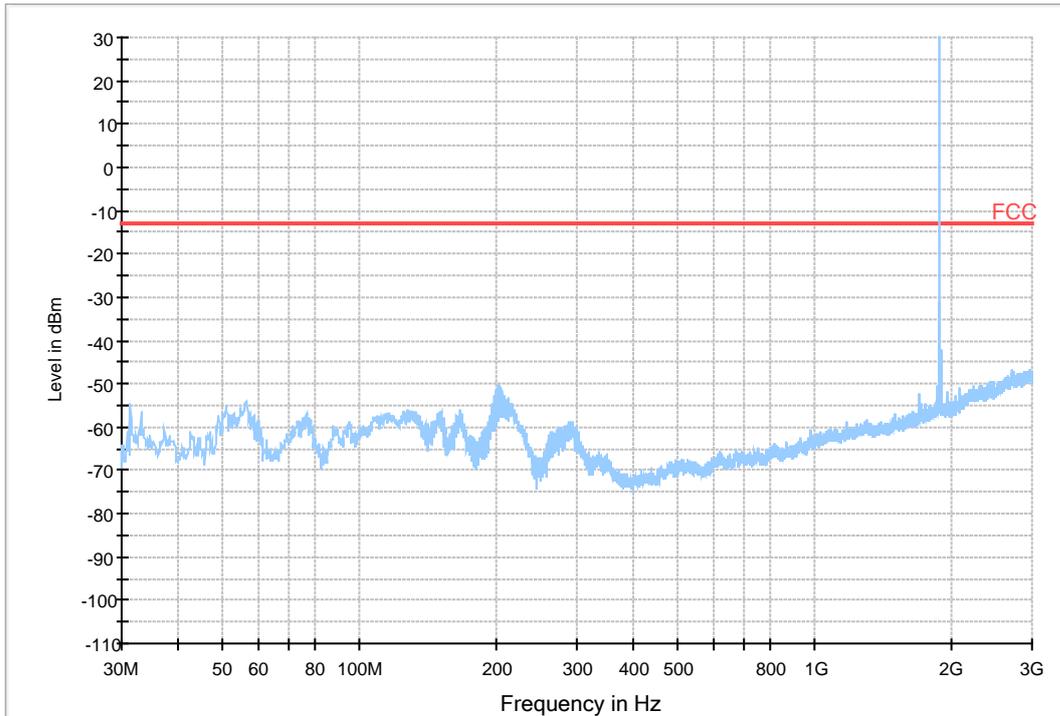
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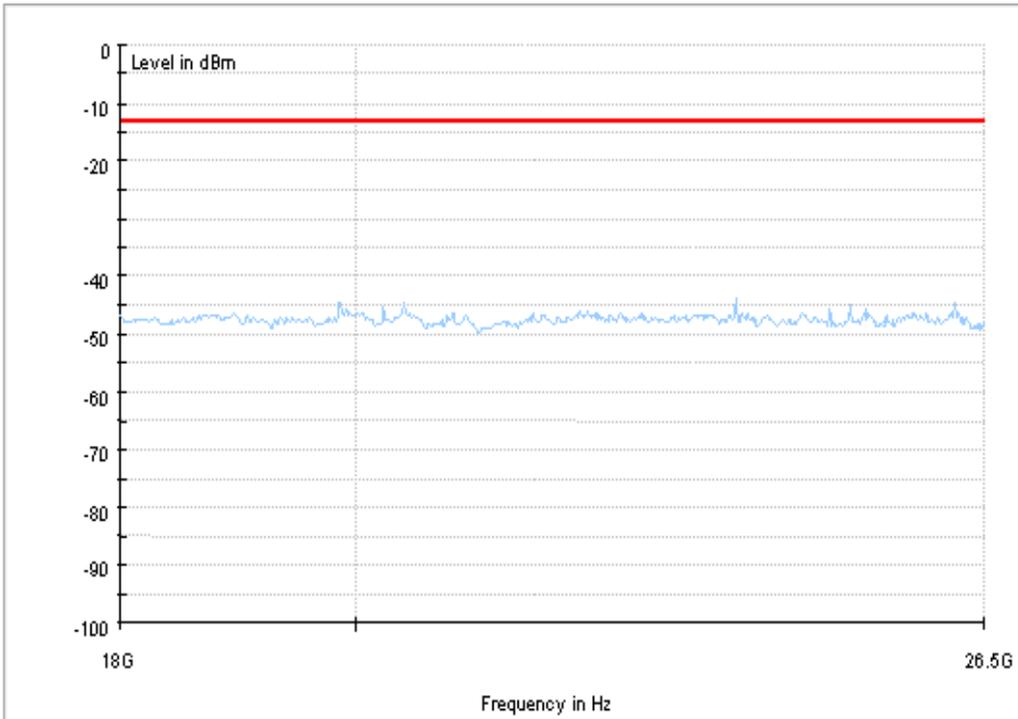
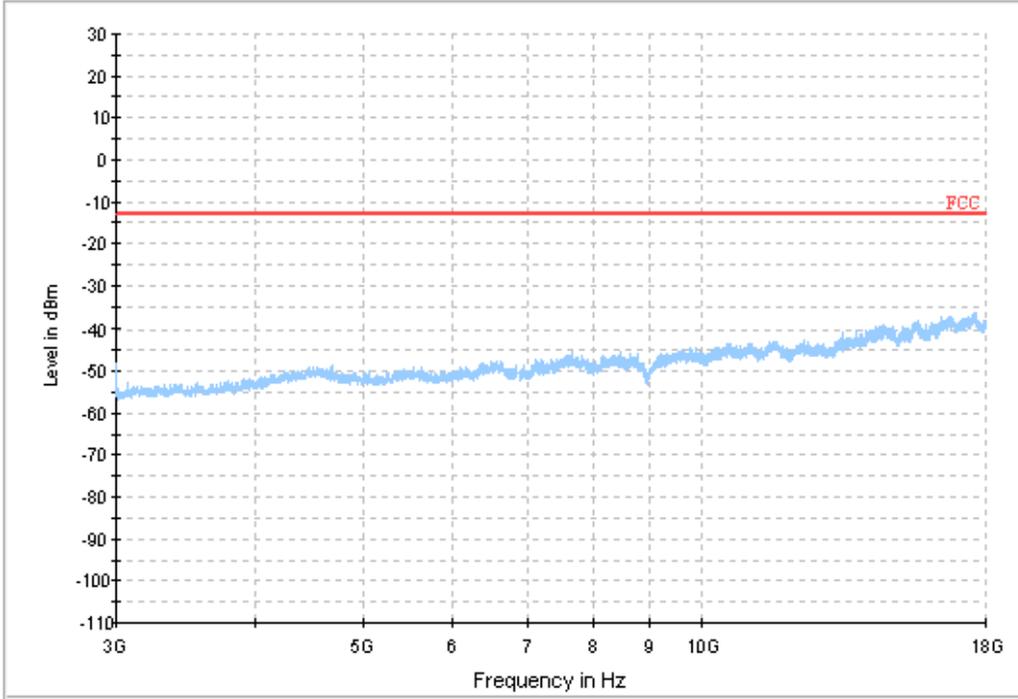
### 7.1.2.2 Test Mode = GSM/TM2



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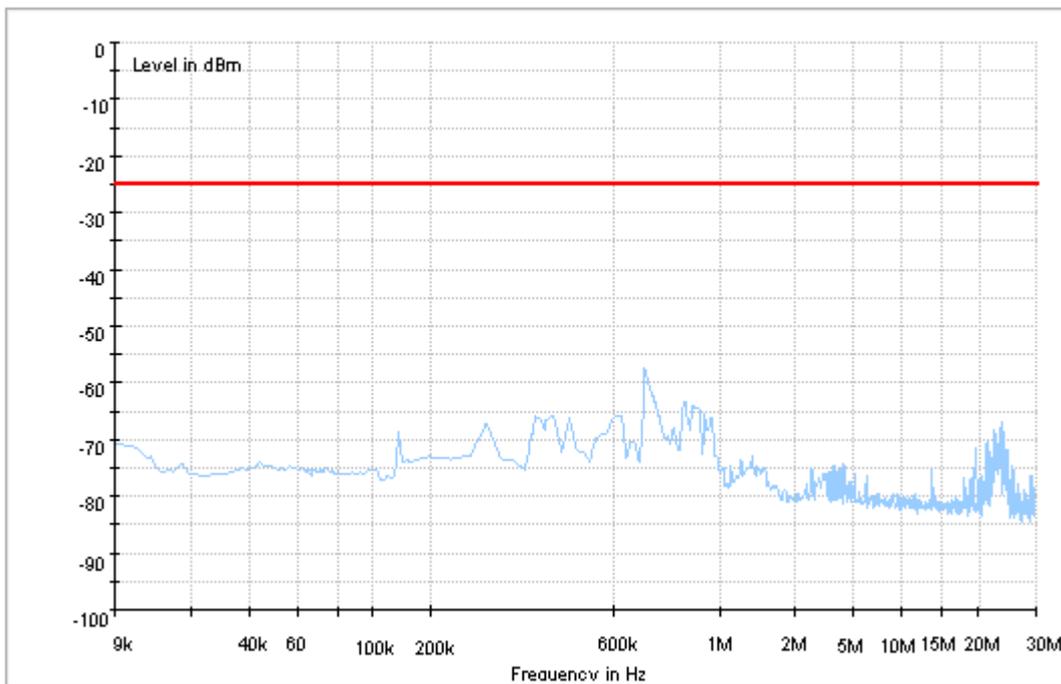
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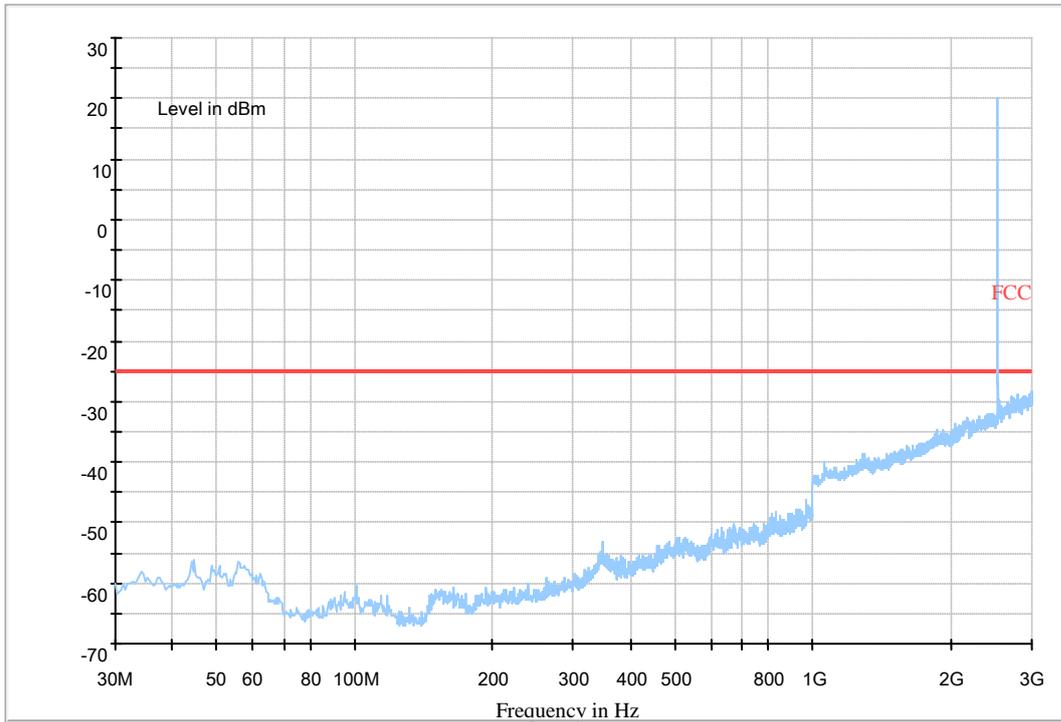
### 7.3 For LTE

#### 7.3.3 Test Band = BAND7

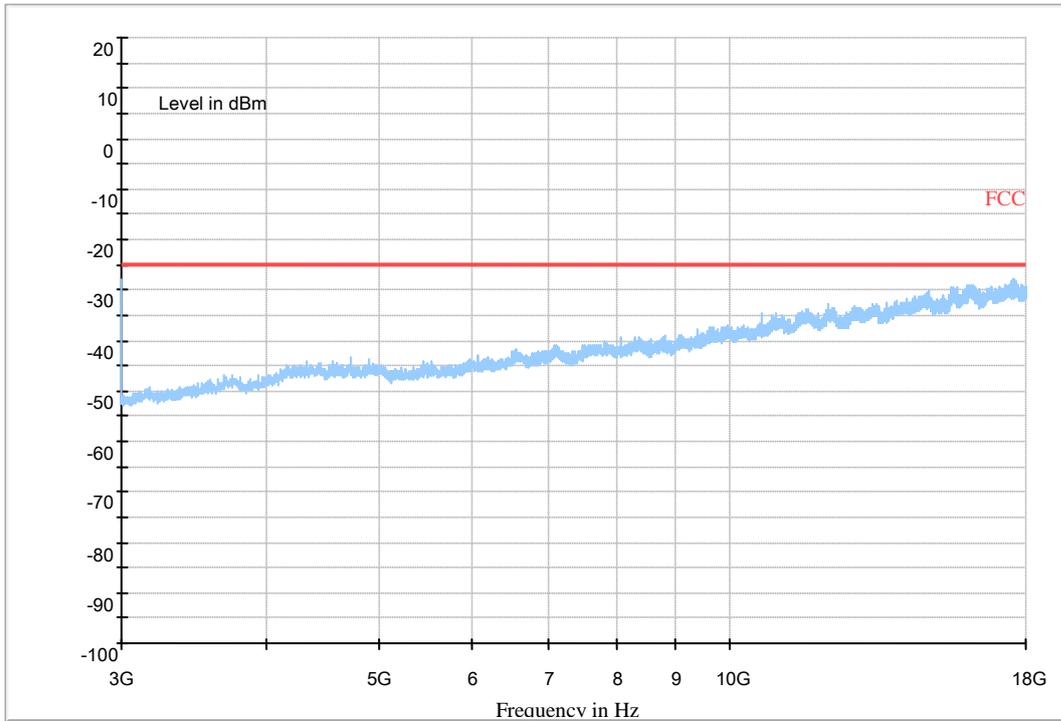
##### 7.3.3.1 Test Bandwidth = 5

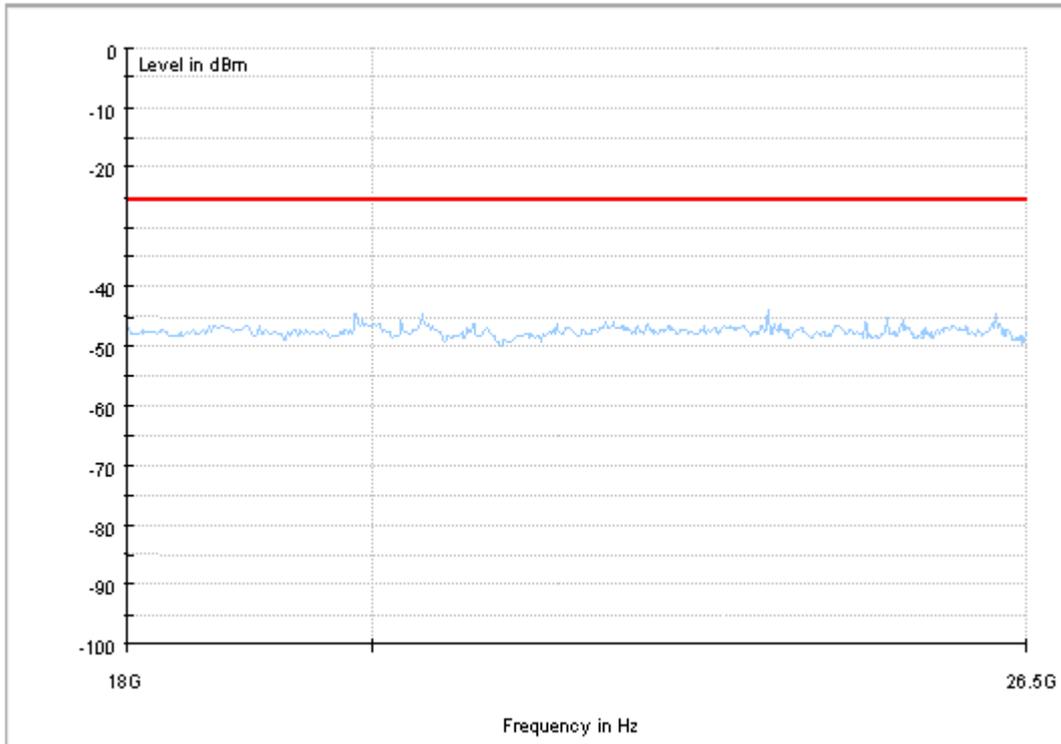


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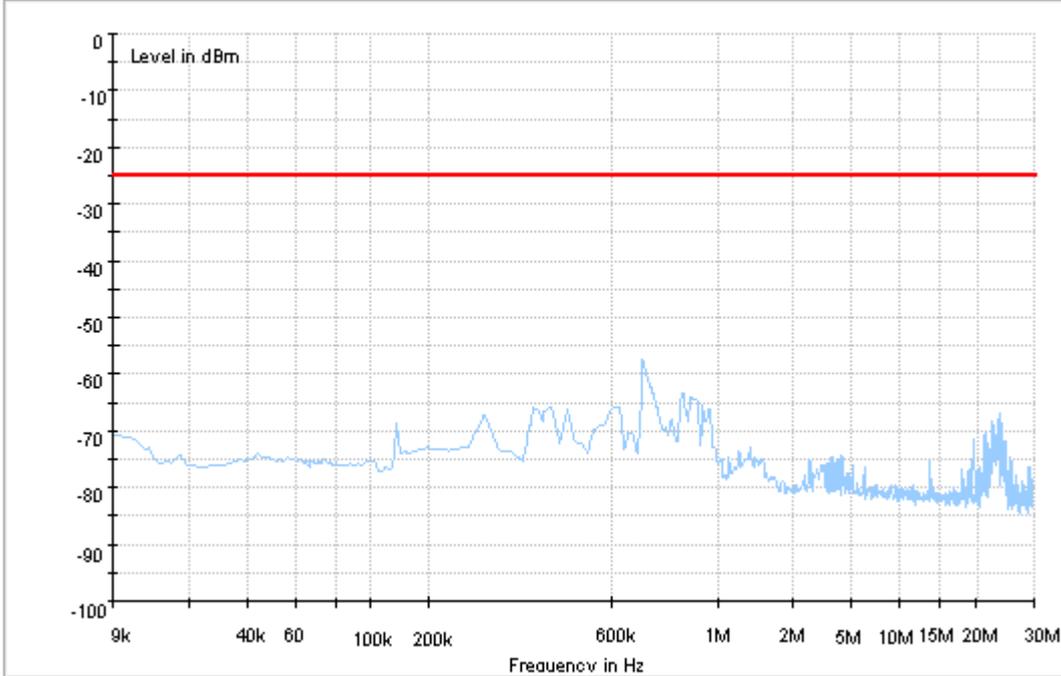


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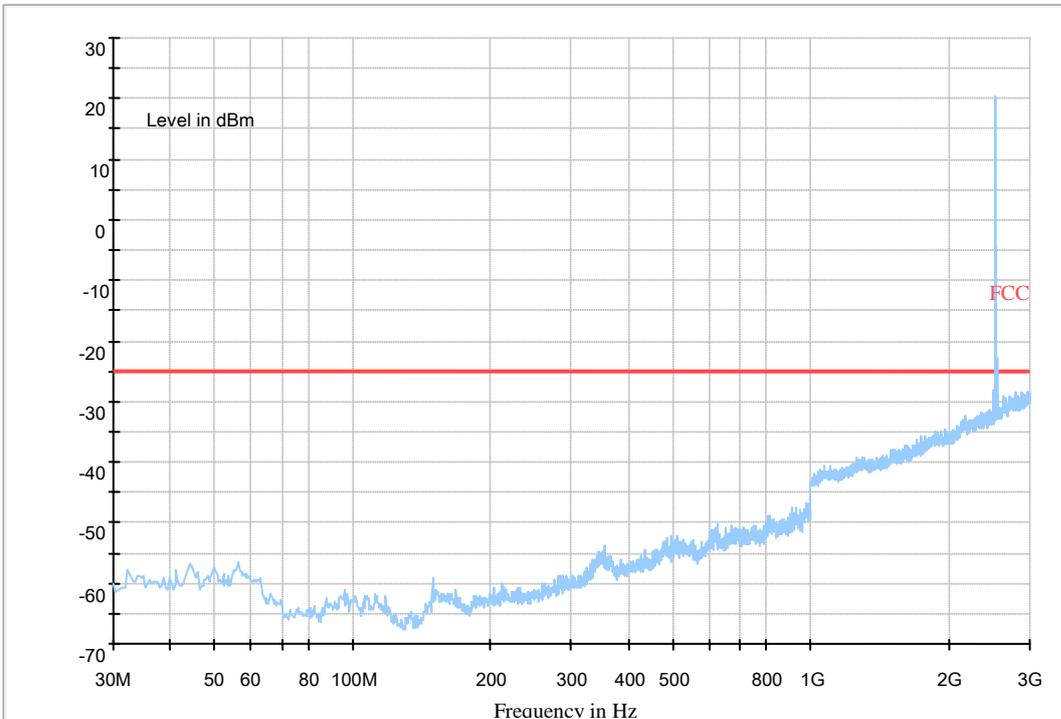




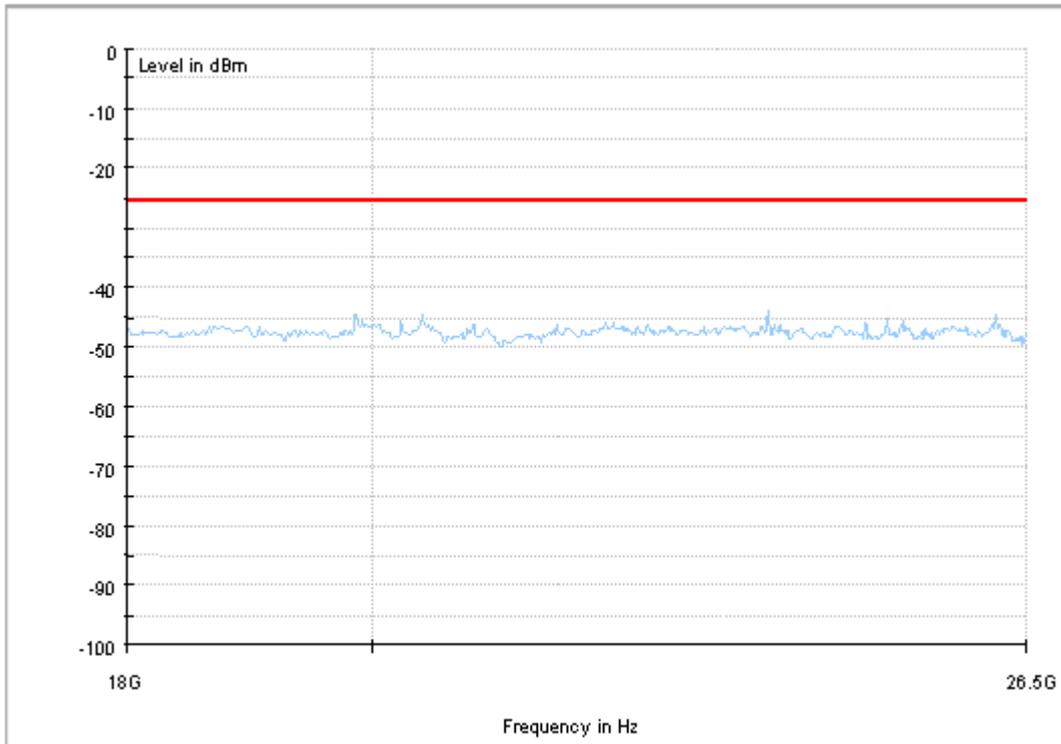
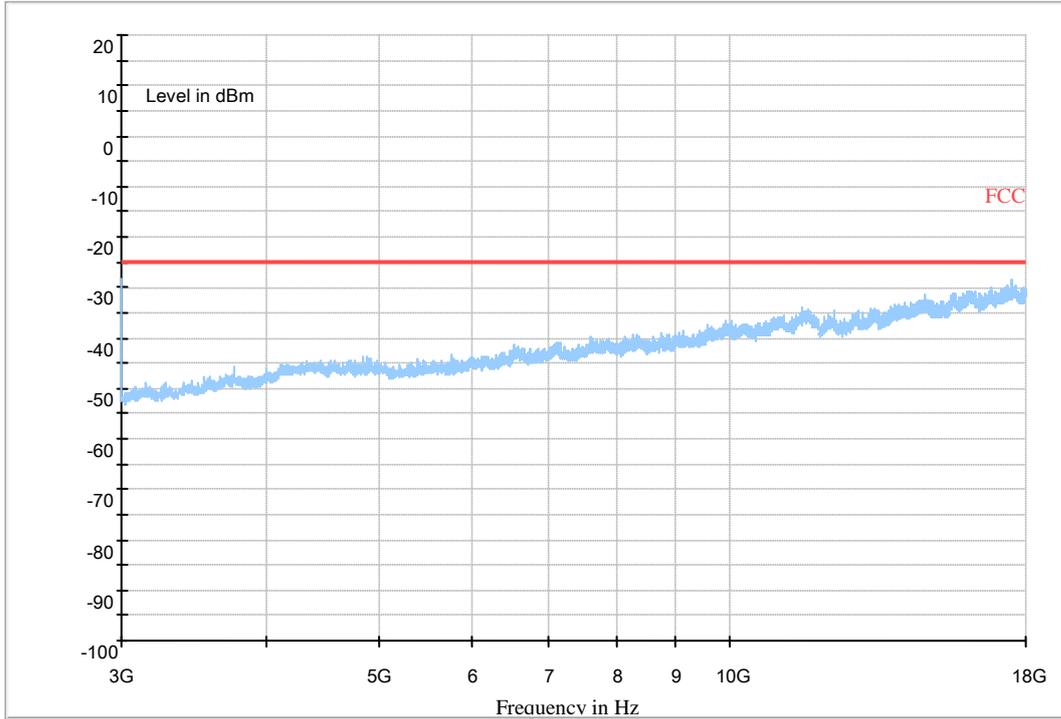
### 7.3.3.2 Test Bandwidth = 20



Copy of RSE-TX-DIRECTOR ABOVE 1.5G\_L



Copy of RSE-TX-DIRECTOR ABOVE 1.5G\_H





## 8Appendix\_H: Frequency Stability

(Void)

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END