



1. Effective (Isotropic) Radiated Power Output Data

1.1 GSM850_ERP

1.1.1 Test Result

Band: GSM850										
ENV	Mode		Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict		
	Network	Subset				Result	Limit			
NTNV	GSM	GSM	824.2	32.57	-0.38	30.04	<=38.45	Pass		
			836.6	32.41	-0.38	29.88	<=38.45	Pass		
			848.8	32.30	-0.38	29.77	<=38.45	Pass		
	GPRS	1 TX Slot	824.2	32.49	-0.38	29.96	<=38.45	Pass		
			2 TX Slots	824.2	30.52	-0.38	27.99	<=38.45	Pass	
			3 TX Slots	824.2	28.85	-0.38	26.32	<=38.45	Pass	
			4 TX Slots	824.2	26.98	-0.38	24.45	<=38.45	Pass	
		2 TX Slots	836.6	32.39	-0.38	29.86	<=38.45	Pass		
			3 TX Slots	836.6	30.55	-0.38	28.02	<=38.45	Pass	
			4 TX Slots	836.6	28.89	-0.38	26.36	<=38.45	Pass	
			4 TX Slots	836.6	27.02	-0.38	24.49	<=38.45	Pass	
		3 TX Slots	848.8	32.23	-0.38	29.70	<=38.45	Pass		
			2 TX Slots	848.8	30.46	-0.38	27.93	<=38.45	Pass	
			4 TX Slots	848.8	28.81	-0.38	26.28	<=38.45	Pass	
			4 TX Slots	848.8	26.91	-0.38	24.38	<=38.45	Pass	
		EGPRS	1 TX Slot	824.2	25.26	-0.38	22.73	<=38.45	Pass	
				2 TX Slots	824.2	24.01	-0.38	21.48	<=38.45	Pass
				3 TX Slots	824.2	21.70	-0.38	19.17	<=38.45	Pass
				4 TX Slots	824.2	19.59	-0.38	17.06	<=38.45	Pass
	2 TX Slots		836.6	25.04	-0.38	22.51	<=38.45	Pass		
			3 TX Slots	836.6	23.91	-0.38	21.38	<=38.45	Pass	
			4 TX Slots	836.6	21.56	-0.38	19.03	<=38.45	Pass	
			4 TX Slots	836.6	19.43	-0.38	16.90	<=38.45	Pass	
	3 TX Slots		848.8	24.57	-0.38	22.04	<=38.45	Pass		
			2 TX Slots	848.8	26.16	-0.38	23.63	<=38.45	Pass	
			4 TX Slots	848.8	21.21	-0.38	18.68	<=38.45	Pass	
			4 TX Slots	848.8	19.24	-0.38	16.71	<=38.45	Pass	

Note1: ERP=Conducted Power+Antenna Gain-2.15

2. Frequency Stability

2.1 GSM850

2.1.1 Test Result

Band: GSM850							
Network	Frequency (MHz)	Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
					Result	Limit	
GSM	824.2	20	3.27	-3.971	-0.0048	-2.5 to 2.5	Pass
			3.85	-7.071	-0.0086	-2.5 to 2.5	Pass
			4.43	-8.136	-0.0099	-2.5 to 2.5	Pass
		-30	3.85	-8.749	-0.0106	-2.5 to 2.5	Pass

		-20	3.85	-6.263	-0.0076	-2.5 to 2.5	Pass		
		-10	3.85	-9.557	-0.0116	-2.5 to 2.5	Pass		
		0	3.85	-1.291	-0.0016	-2.5 to 2.5	Pass		
		10	3.85	-7.523	-0.0091	-2.5 to 2.5	Pass		
		30	3.85	-3.455	-0.0042	-2.5 to 2.5	Pass		
		40	3.85	-1.098	-0.0013	-2.5 to 2.5	Pass		
		50	3.85	-1.937	-0.0024	-2.5 to 2.5	Pass		
	836.6	20	3.27	-5.198	-0.0062	-2.5 to 2.5	Pass		
			3.85	-4.552	-0.0054	-2.5 to 2.5	Pass		
			4.43	-10.267	-0.0123	-2.5 to 2.5	Pass		
		-30	3.85	-14.077	-0.0168	-2.5 to 2.5	Pass		
		-20	3.85	-10.719	-0.0128	-2.5 to 2.5	Pass		
		-10	3.85	-7.587	-0.0091	-2.5 to 2.5	Pass		
		0	3.85	-13.754	-0.0164	-2.5 to 2.5	Pass		
		10	3.85	-11.300	-0.0135	-2.5 to 2.5	Pass		
		30	3.85	-13.399	-0.0160	-2.5 to 2.5	Pass		
		40	3.85	-14.690	-0.0176	-2.5 to 2.5	Pass		
		50	3.85	-4.391	-0.0052	-2.5 to 2.5	Pass		
		848.8	20	3.27	-16.143	-0.0190	-2.5 to 2.5	Pass	
				3.85	-10.525	-0.0124	-2.5 to 2.5	Pass	
	4.43			-9.169	-0.0108	-2.5 to 2.5	Pass		
	-30		3.85	-13.980	-0.0165	-2.5 to 2.5	Pass		
	-20		3.85	-20.566	-0.0242	-2.5 to 2.5	Pass		
	-10		3.85	-6.263	-0.0074	-2.5 to 2.5	Pass		
	0		3.85	-17.112	-0.0202	-2.5 to 2.5	Pass		
	10		3.85	-12.075	-0.0142	-2.5 to 2.5	Pass		
	30		3.85	-7.232	-0.0085	-2.5 to 2.5	Pass		
	40		3.85	-4.585	-0.0054	-2.5 to 2.5	Pass		
	50		3.85	-8.039	-0.0095	-2.5 to 2.5	Pass		
	GPRS		824.2	20	3.27	2.938	0.0036	-2.5 to 2.5	Pass
					3.85	4.585	0.0056	-2.5 to 2.5	Pass
		4.43			1.227	0.0015	-2.5 to 2.5	Pass	
		-30		3.85	0.291	0.0004	-2.5 to 2.5	Pass	
-20		3.85		1.873	0.0023	-2.5 to 2.5	Pass		
-10		3.85		3.261	0.0040	-2.5 to 2.5	Pass		
0		3.85		7.167	0.0087	-2.5 to 2.5	Pass		
10		3.85		3.584	0.0043	-2.5 to 2.5	Pass		
30		3.85		4.197	0.0051	-2.5 to 2.5	Pass		
40		3.85		3.874	0.0047	-2.5 to 2.5	Pass		
50		3.85		1.679	0.0020	-2.5 to 2.5	Pass		
836.6		20		3.27	5.811	0.0069	-2.5 to 2.5	Pass	
				3.85	4.714	0.0056	-2.5 to 2.5	Pass	
			4.43	5.295	0.0063	-2.5 to 2.5	Pass		
		-30	3.85	4.778	0.0057	-2.5 to 2.5	Pass		
		-20	3.85	3.939	0.0047	-2.5 to 2.5	Pass		
		-10	3.85	3.551	0.0042	-2.5 to 2.5	Pass		
		0	3.85	4.649	0.0056	-2.5 to 2.5	Pass		
		10	3.85	-4.359	-0.0052	-2.5 to 2.5	Pass		
		30	3.85	-5.359	-0.0064	-2.5 to 2.5	Pass		
		40	3.85	-6.909	-0.0083	-2.5 to 2.5	Pass		
		50	3.85	-9.008	-0.0108	-2.5 to 2.5	Pass		
		848.8	20	3.27	2.486	0.0029	-2.5 to 2.5	Pass	
				3.85	1.324	0.0016	-2.5 to 2.5	Pass	
4.43				4.746	0.0056	-2.5 to 2.5	Pass		
-30			3.85	2.938	0.0035	-2.5 to 2.5	Pass		

		-20	3.85	5.521	0.0065	-2.5 to 2.5	Pass	
		-10	3.85	5.747	0.0068	-2.5 to 2.5	Pass	
		0	3.85	4.133	0.0049	-2.5 to 2.5	Pass	
		10	3.85	-6.360	-0.0075	-2.5 to 2.5	Pass	
		30	3.85	-6.586	-0.0078	-2.5 to 2.5	Pass	
		40	3.85	-7.975	-0.0094	-2.5 to 2.5	Pass	
		50	3.85	-9.524	-0.0112	-2.5 to 2.5	Pass	
EGPRS	824.2	20	3.27	12.236	0.0148	-2.5 to 2.5	Pass	
			3.85	11.752	0.0143	-2.5 to 2.5	Pass	
			4.43	14.722	0.0179	-2.5 to 2.5	Pass	
		-30	3.85	8.749	0.0106	-2.5 to 2.5	Pass	
		-20	3.85	12.398	0.0150	-2.5 to 2.5	Pass	
		-10	3.85	12.075	0.0147	-2.5 to 2.5	Pass	
		0	3.85	9.298	0.0113	-2.5 to 2.5	Pass	
		10	3.85	15.982	0.0194	-2.5 to 2.5	Pass	
		30	3.85	12.591	0.0153	-2.5 to 2.5	Pass	
		40	3.85	15.820	0.0192	-2.5 to 2.5	Pass	
		50	3.85	9.976	0.0121	-2.5 to 2.5	Pass	
		836.6	20	3.27	-1.743	-0.0021	-2.5 to 2.5	Pass
				3.85	-3.099	-0.0037	-2.5 to 2.5	Pass
				4.43	1.130	0.0014	-2.5 to 2.5	Pass
	-30		3.85	-0.969	-0.0012	-2.5 to 2.5	Pass	
	-20		3.85	-4.036	-0.0048	-2.5 to 2.5	Pass	
	-10		3.85	-4.391	-0.0052	-2.5 to 2.5	Pass	
	0		3.85	-3.035	-0.0036	-2.5 to 2.5	Pass	
	10		3.85	0.839	0.0010	-2.5 to 2.5	Pass	
	30		3.85	2.841	0.0034	-2.5 to 2.5	Pass	
	40		3.85	-0.161	-0.0002	-2.5 to 2.5	Pass	
	50		3.85	-2.131	-0.0025	-2.5 to 2.5	Pass	
	848.8		20	3.27	-2.195	-0.0026	-2.5 to 2.5	Pass
				3.85	-1.840	-0.0022	-2.5 to 2.5	Pass
				4.43	-2.454	-0.0029	-2.5 to 2.5	Pass
		-30	3.85	-3.358	-0.0040	-2.5 to 2.5	Pass	
		-20	3.85	-8.201	-0.0097	-2.5 to 2.5	Pass	
		-10	3.85	-2.583	-0.0030	-2.5 to 2.5	Pass	
		0	3.85	-5.844	-0.0069	-2.5 to 2.5	Pass	
		10	3.85	-1.679	-0.0020	-2.5 to 2.5	Pass	
		30	3.85	-2.034	-0.0024	-2.5 to 2.5	Pass	
		40	3.85	-1.776	-0.0021	-2.5 to 2.5	Pass	
		50	3.85	-0.872	-0.0010	-2.5 to 2.5	Pass	

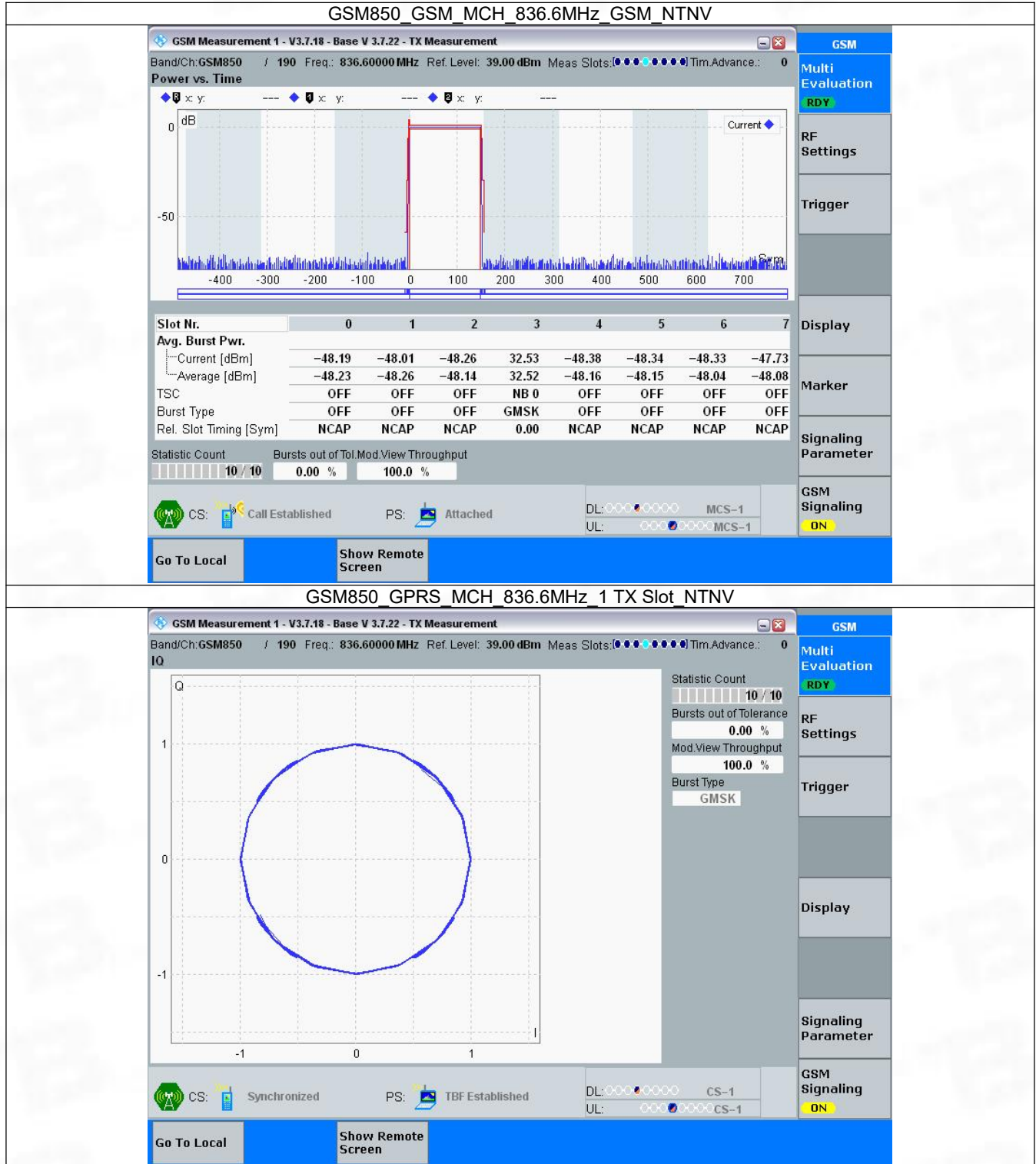
3. Modulation Characteristics

3.1 GSM850

3.1.1 Test Result

Band: GSM850						
ENV	Mode		Frequency (MHz)	Modulation Characteristics		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	836.6	Refer To Test Graph		Pass
	GPRS	1 TX Slot	836.6	Refer To Test Graph		Pass
	EGPRS	1 TX Slot	836.6	Refer To Test Graph		Pass

3.1.2 Test Graph



GSM850_EGPRS_MCH_836.6MHz_1_TX_Slot_NTNV

GSM Measurement 1 - V3.7.18 - Base V 3.7.22 - TX Measurement

Band/Ch: GSM850 / 190 Freq.: 836.60000 MHz Ref. Level: 42.23 dBm Meas Slots: [0][1][2][3][4][5][6][7] Tim. Advance.: 0

Power vs. Time

Slot Nr. 0 1 2 3 4 5 6 7

Avg. Burst Pwr.	0	1	2	3	4	5	6	7
Current [dBm]	-44.51	-44.84	-44.58	31.68	-44.95	-44.40	-44.86	-44.84
Average [dBm]	-44.71	-44.85	-44.87	31.68	-44.84	-44.79	-44.79	-44.67
TSC	OFF	OFF	OFF	NB 0	OFF	OFF	OFF	OFF
Burst Type	OFF	OFF	OFF	GMSK	OFF	OFF	OFF	OFF
Rel. Slot Timing [Sym]	NCAP	NCAP	NCAP	0.00	NCAP	NCAP	NCAP	NCAP

Statistic Count Bursts out of Tol. Mod. View Throughput

10 / 10 100.00 % 100.0 %

CS: Synchronized PS: TBF Established DL: MCS-5 UL: MCS-5

GSM Signaling ON

Go To Local Show Remote Screen

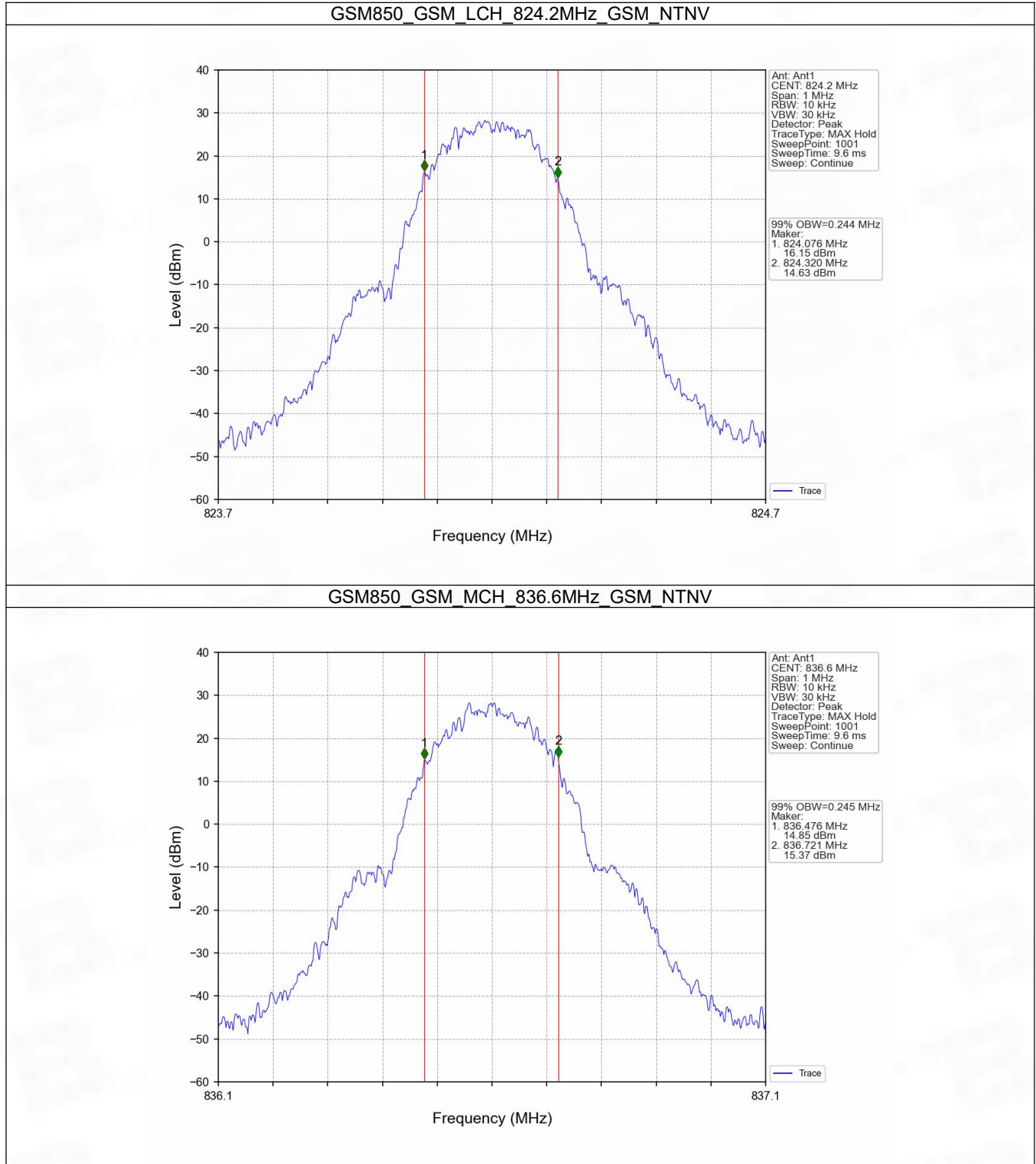
4. 99% & 26dB Bandwidth

4.1 GSM850_OBW

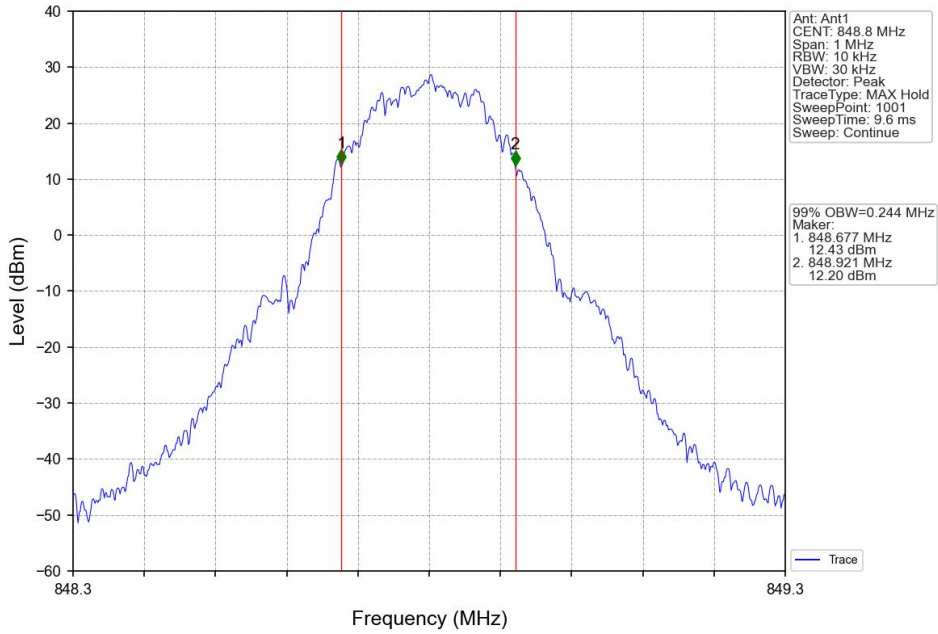
4.1.1 Test Result

Band: GSM850						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	0.244	/	Pass
			836.6	0.245	/	Pass
			848.8	0.244	/	Pass
	GPRS	1 TX Slot	824.2	0.245	/	Pass
			836.6	0.236	/	Pass
			848.8	0.238	/	Pass
	EGPRS	1 TX Slot	824.2	0.244	/	Pass
			836.6	0.231	/	Pass
			848.8	0.246	/	Pass

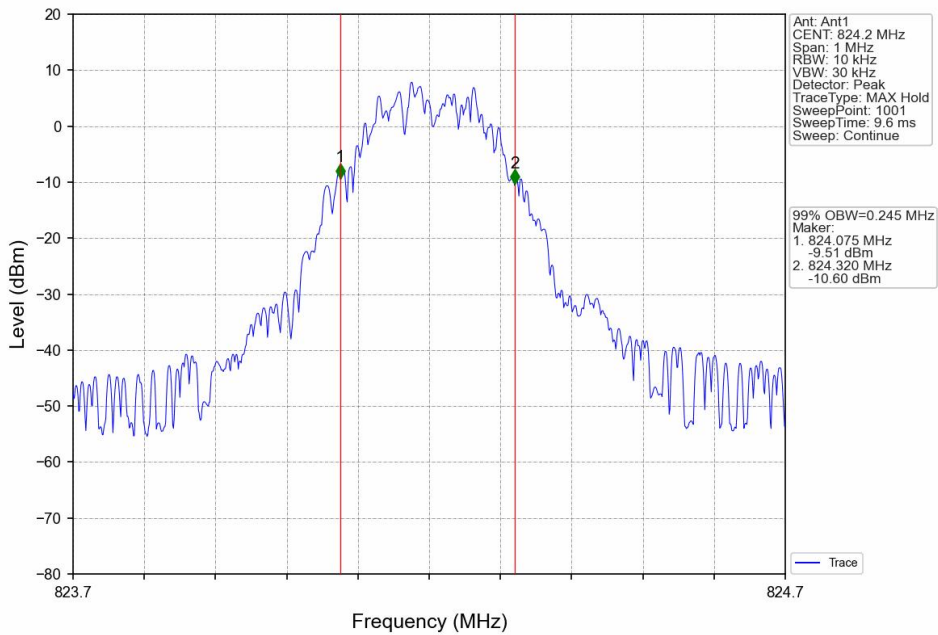
4.1.2 Test Graph



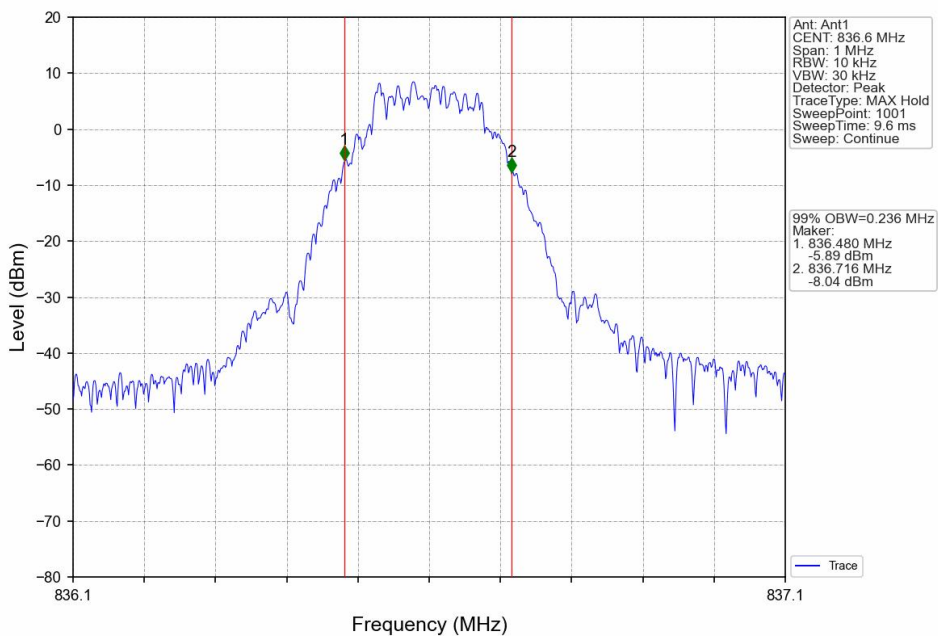
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



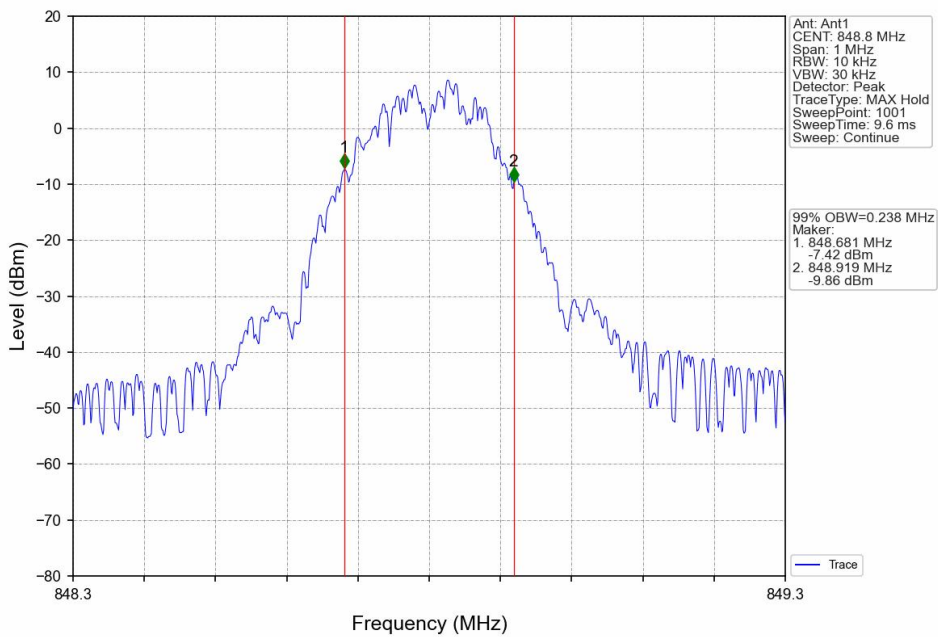
GSM850_GPRS_LCH_824.2MHz_1 TX Slot_NTNV



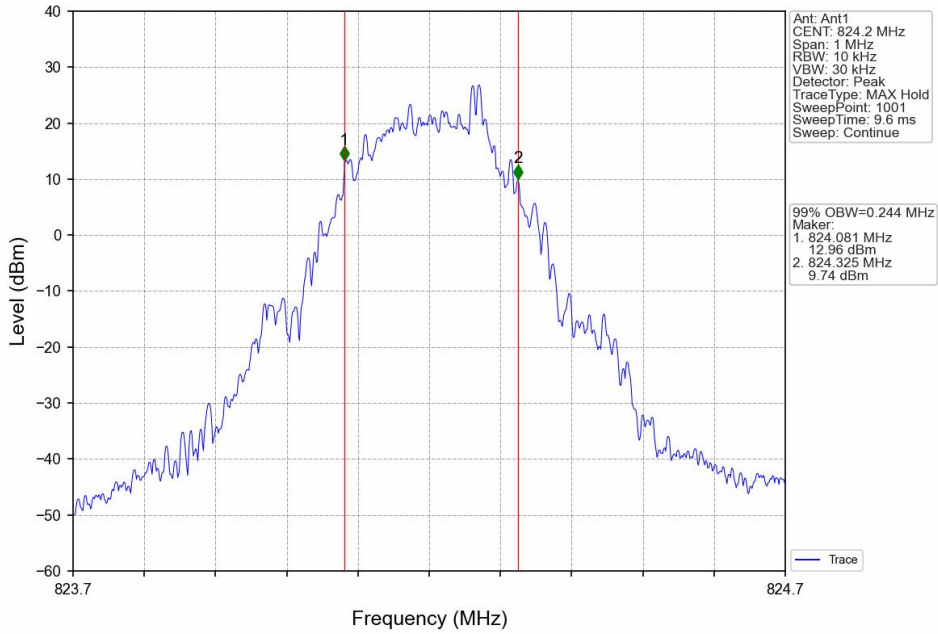
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



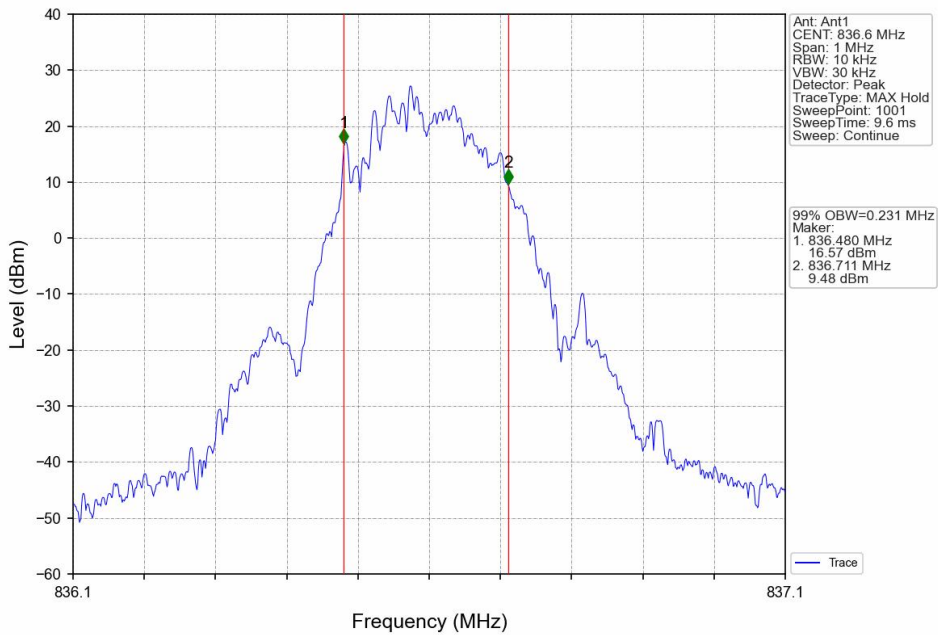
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



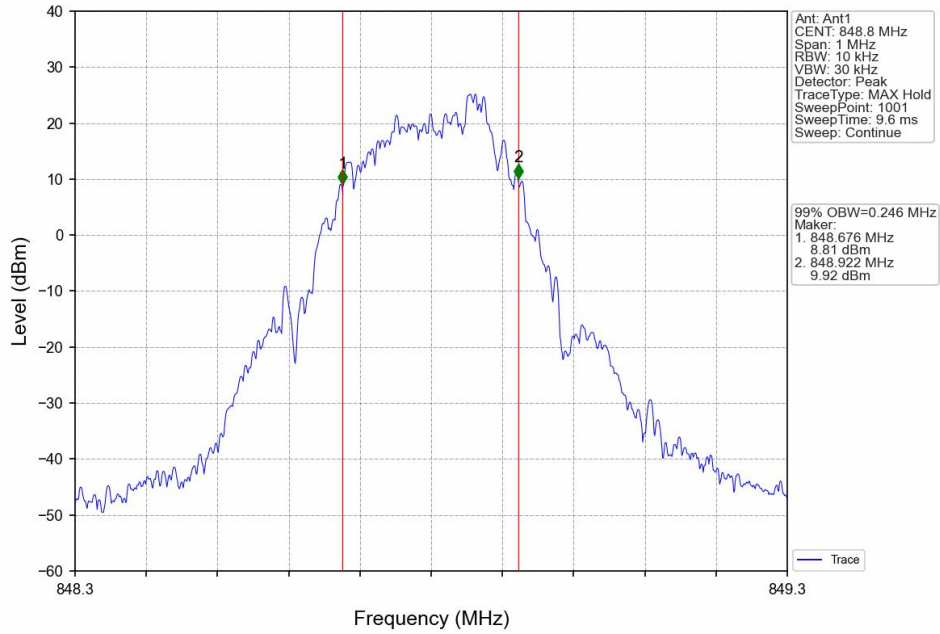
GSM850_EGPRS_LCH_824.2MHz_1 TX Slot_NTNV



GSM850_EGPRS_MCH_836.6MHz_1 TX Slot_NTNV



GSM850_EGPRS_HCH_848.8MHz_1_TX_Slot_NTNV

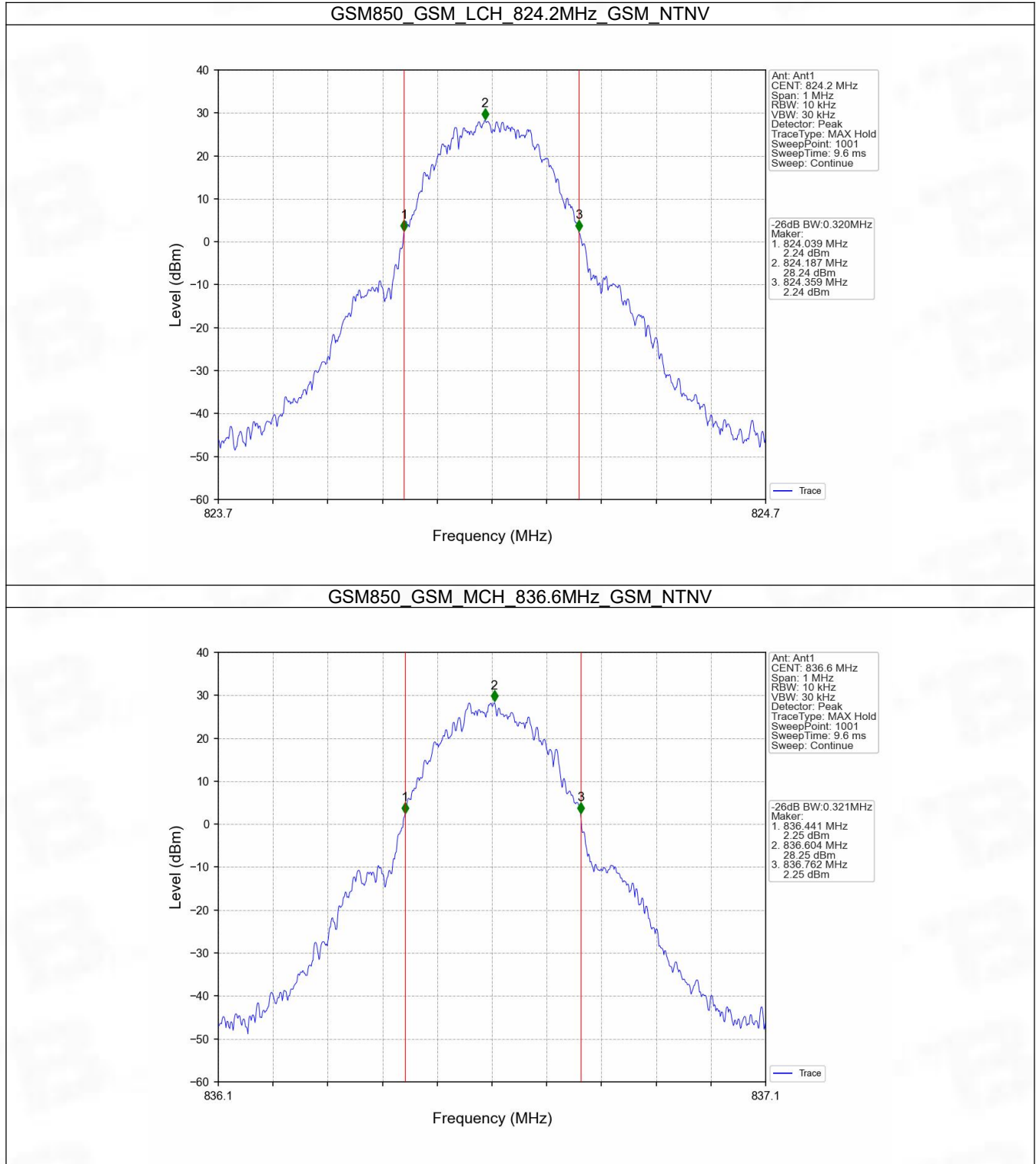


4.2 GSM850_XDB

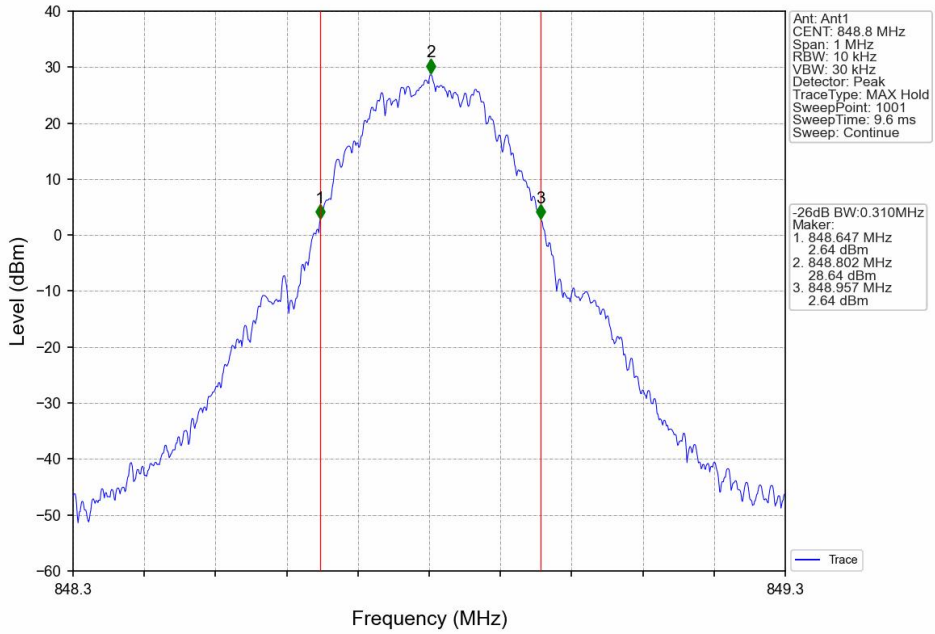
4.2.1 Test Result

Band: GSM850						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	0.320	/	Pass
			836.6	0.321	/	Pass
			848.8	0.310	/	Pass
	GPRS	1 TX Slot	824.2	0.310	/	Pass
			836.6	0.315	/	Pass
			848.8	0.305	/	Pass
	EGPRS	1 TX Slot	824.2	0.320	/	Pass
			836.6	0.275	/	Pass
			848.8	0.310	/	Pass

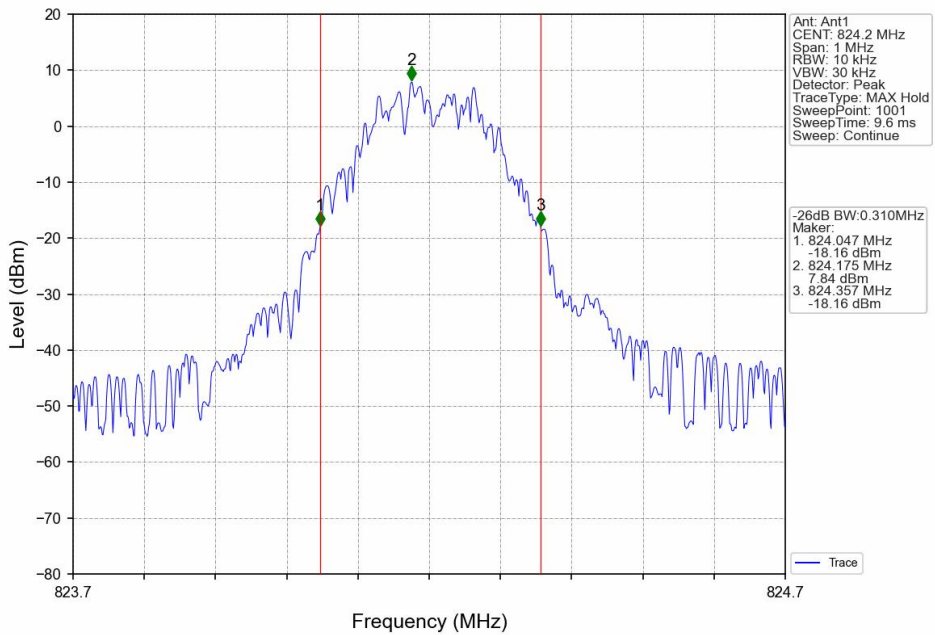
4.2.2 Test Graph



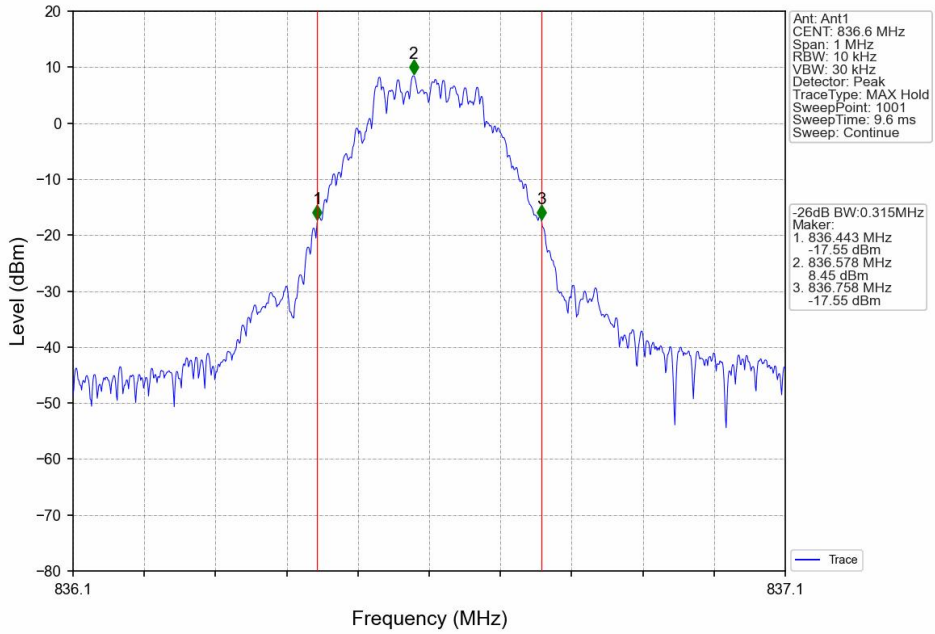
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



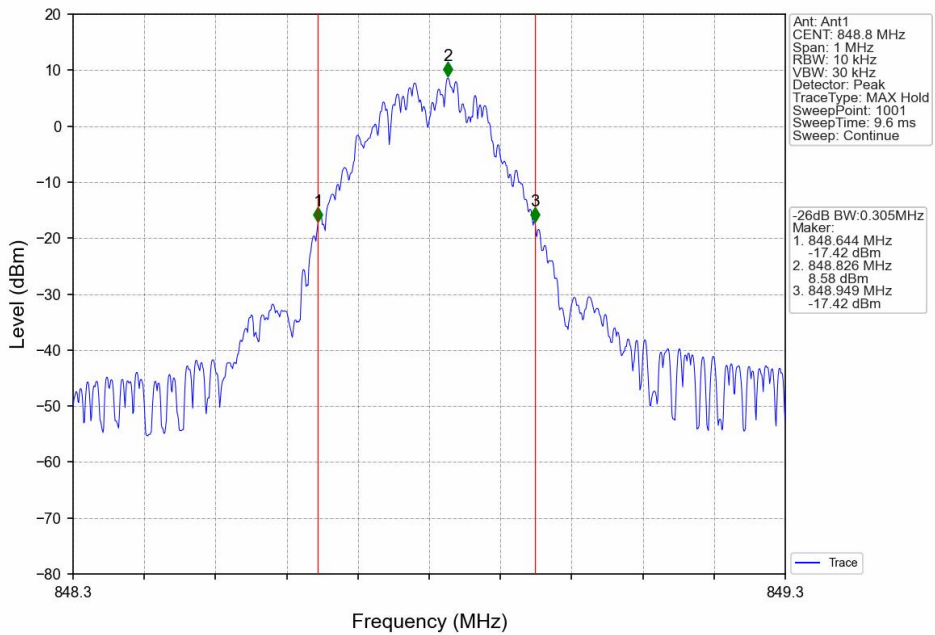
GSM850_GPRS_LCH_824.2MHz_1 TX Slot_NTNV



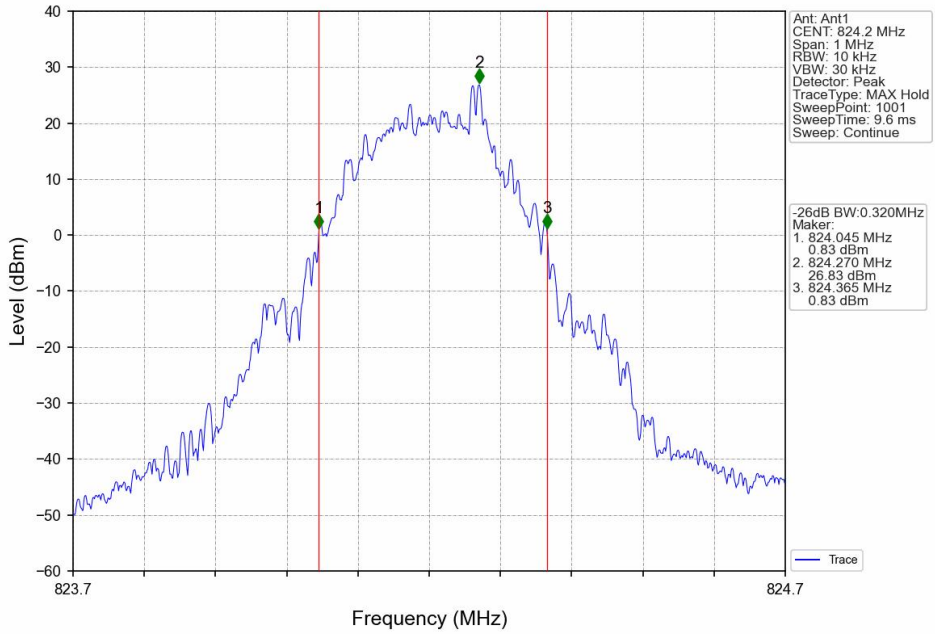
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



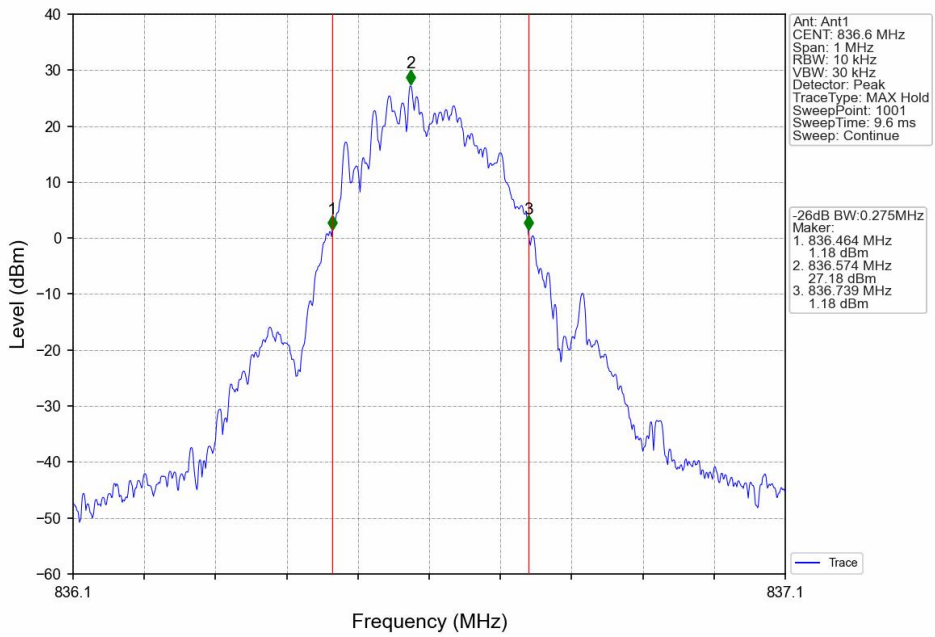
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



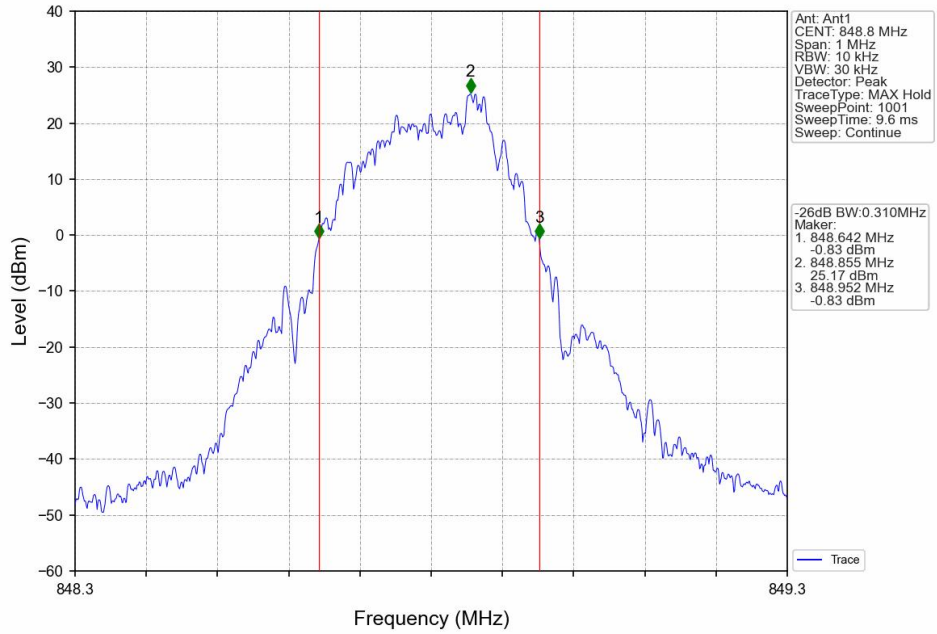
GSM850_EGPRS_LCH_824.2MHz_1 TX Slot_NTNV



GSM850_EGPRS_MCH_836.6MHz_1 TX Slot_NTNV



GSM850_EGPRS_HCH_848.8MHz_1 TX Slot_NTNV



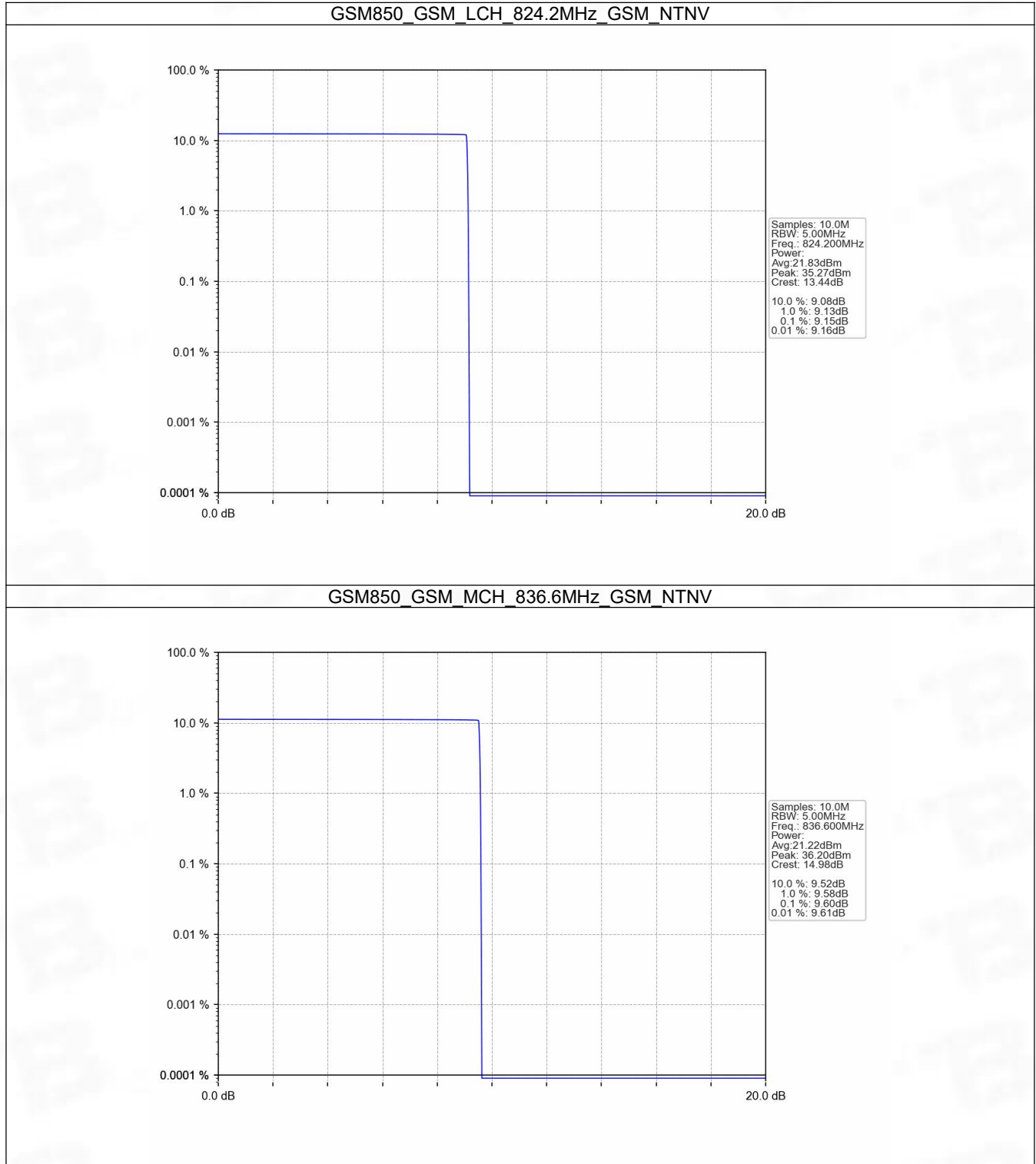
5. Peak-Average Ratio

5.1 GSM850

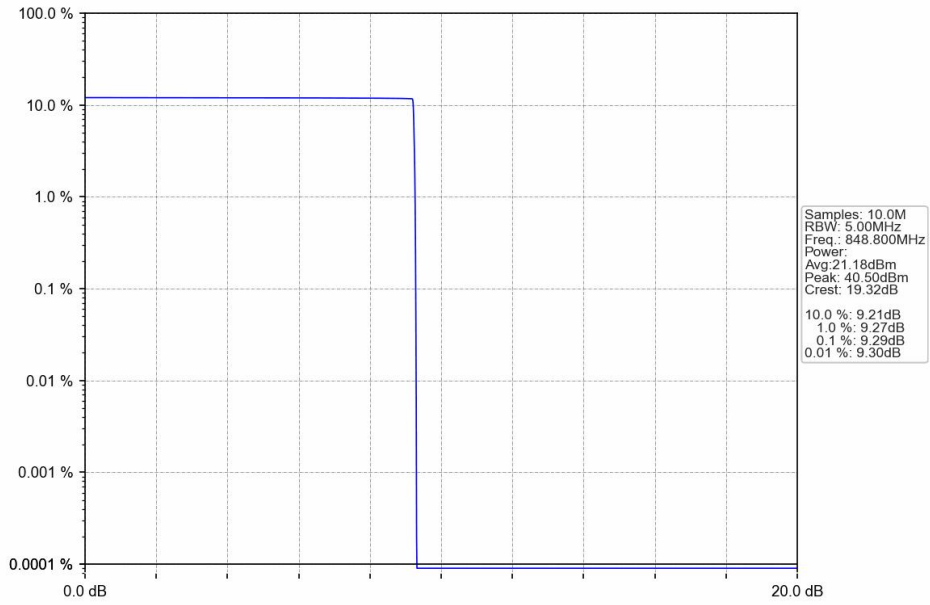
5.1.1 Test Result

Band: GSM850						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	9.15	<=13	Pass
			836.6	9.60	<=13	Pass
			848.8	9.29	<=13	Pass
	GPRS	4 TX Slots	824.2	3.80	<=13	Pass
			836.6	3.64	<=13	Pass
			848.8	3.69	<=13	Pass
	EGPRS	4 TX Slots	824.2	3.83	<=13	Pass
			836.6	3.87	<=13	Pass
			848.8	3.60	<=13	Pass

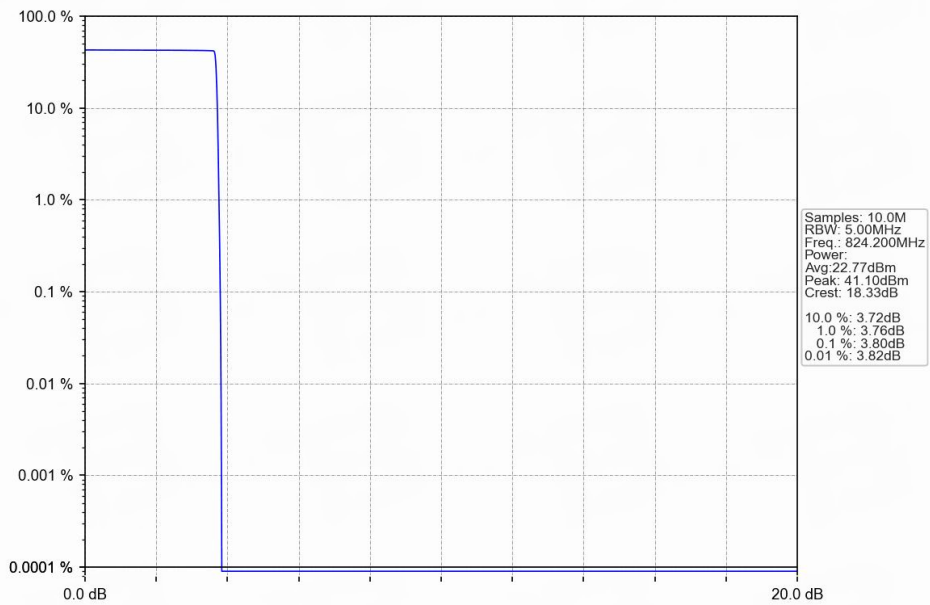
5.1.2 Test Graph



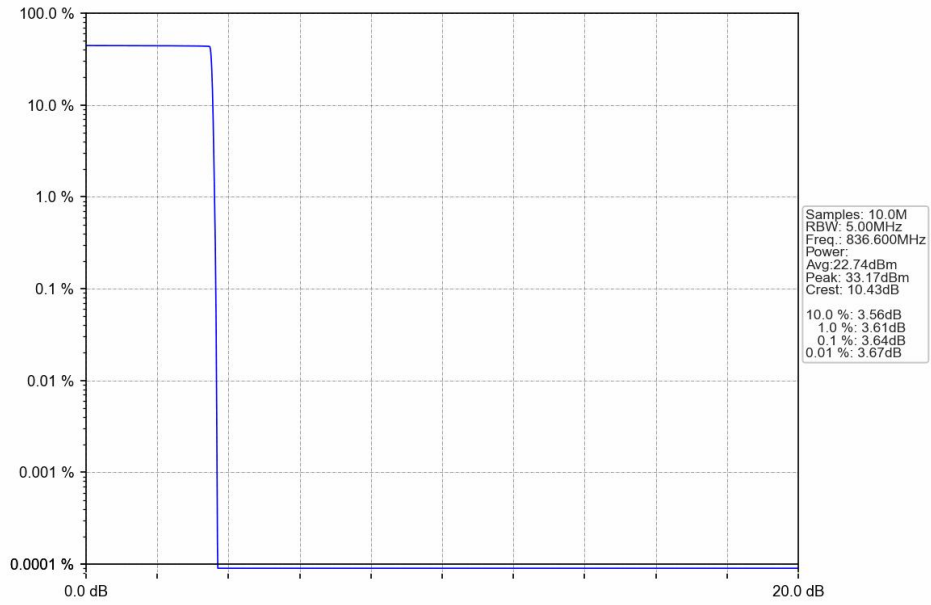
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



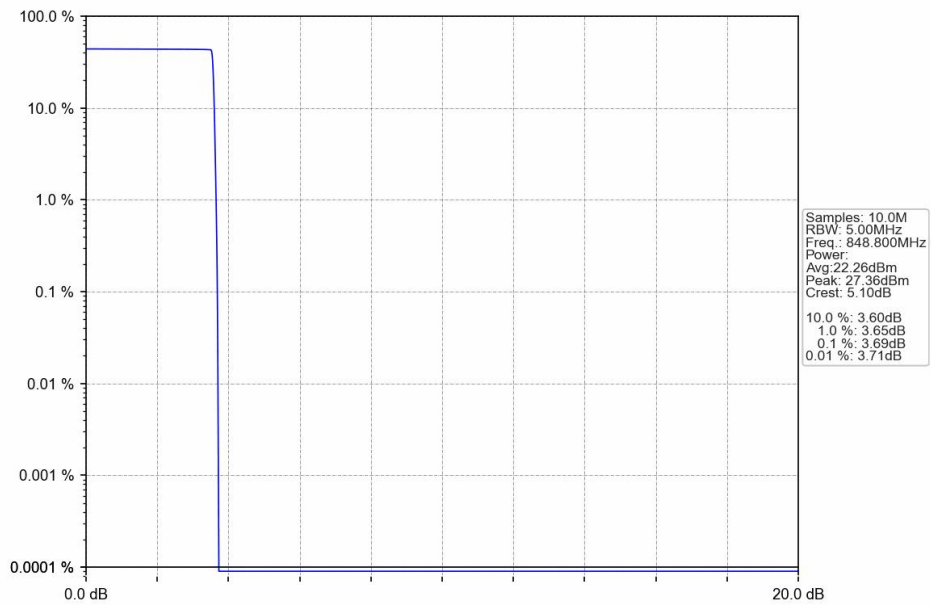
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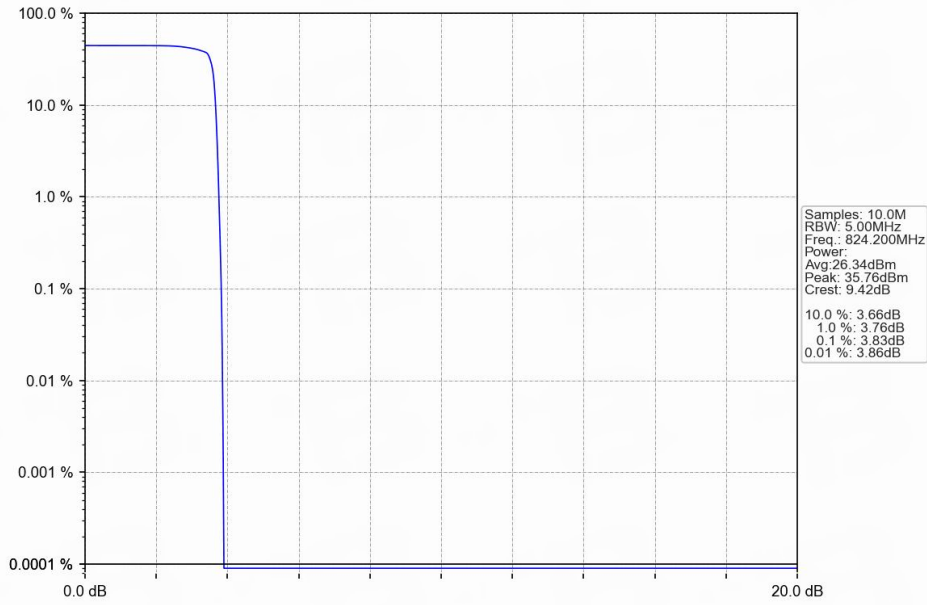
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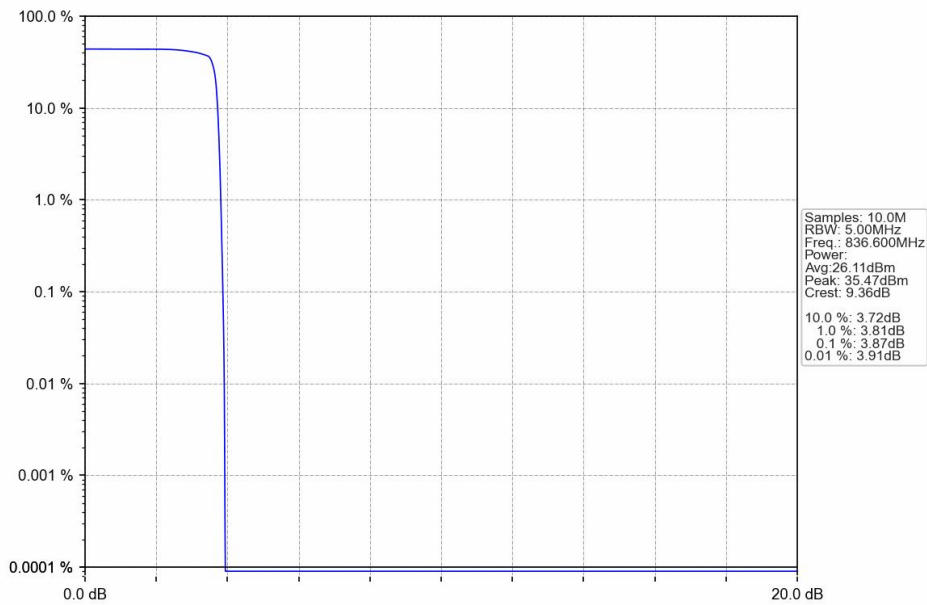
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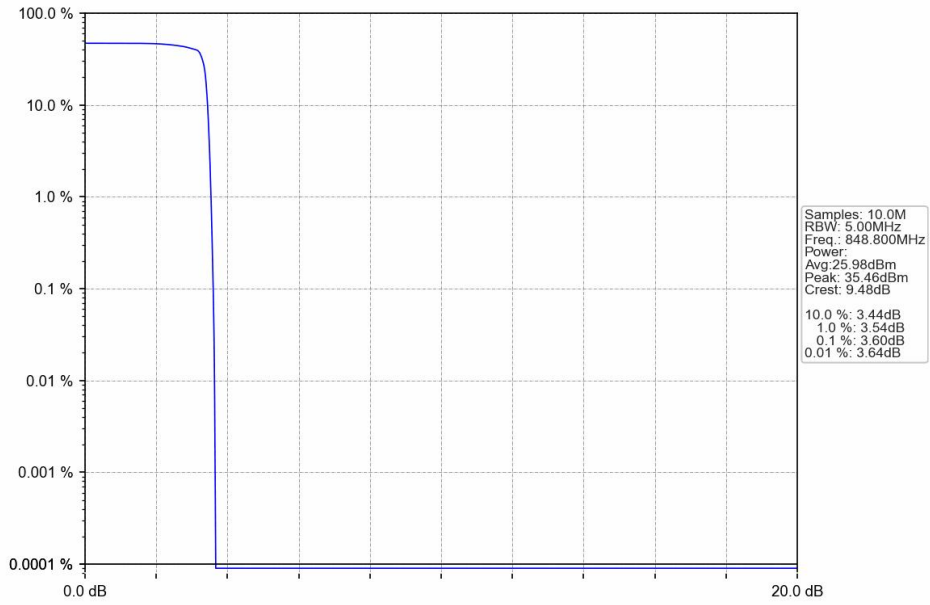
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GSM850_EGPRS_MCH_836.6MHz_4 TX Slots_NTNV



GSM850_EGPRS_HCH_848.8MHz_4 TX Slots_NTNV



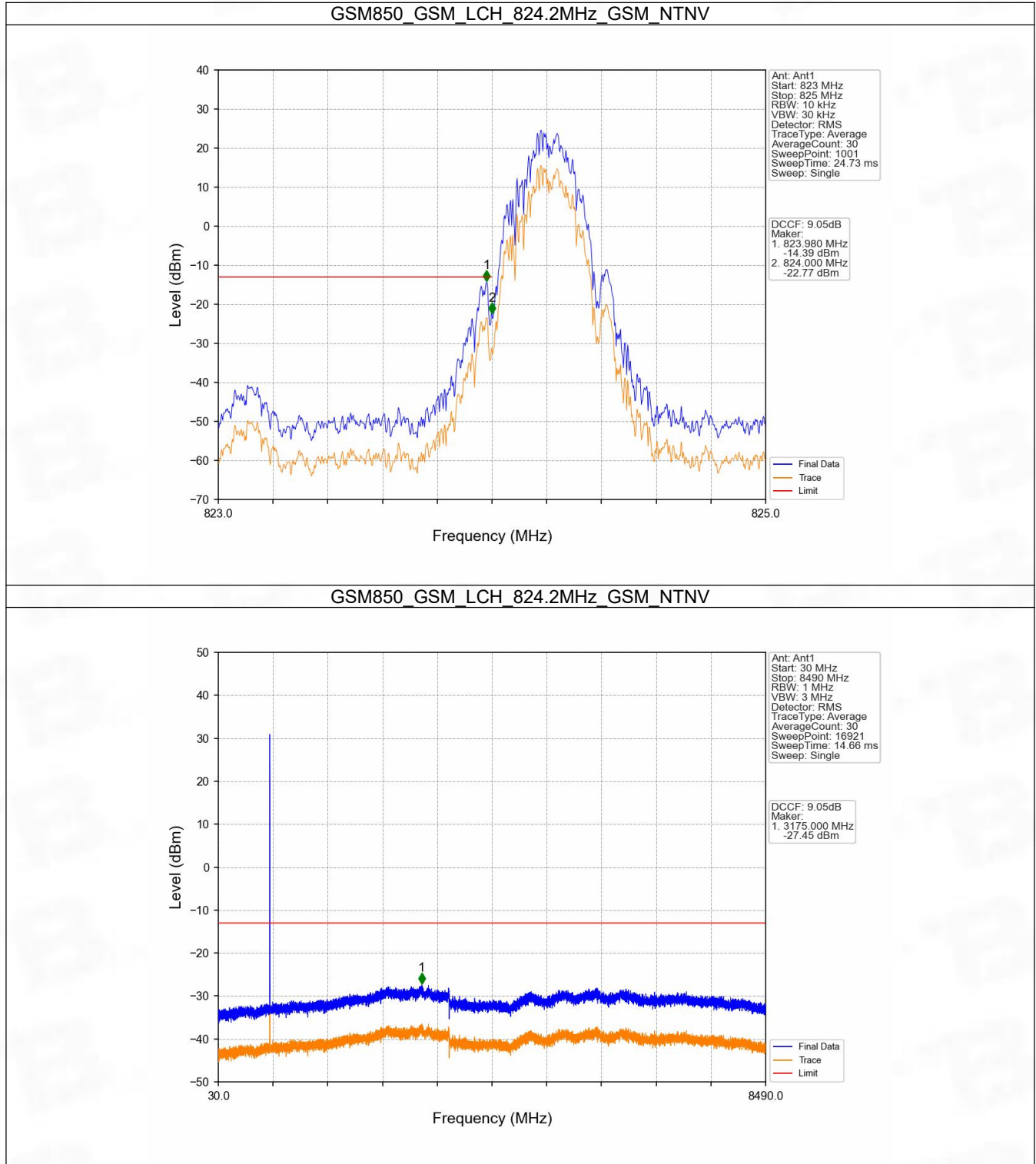
6. Spurious Emission

6.1 GSM850

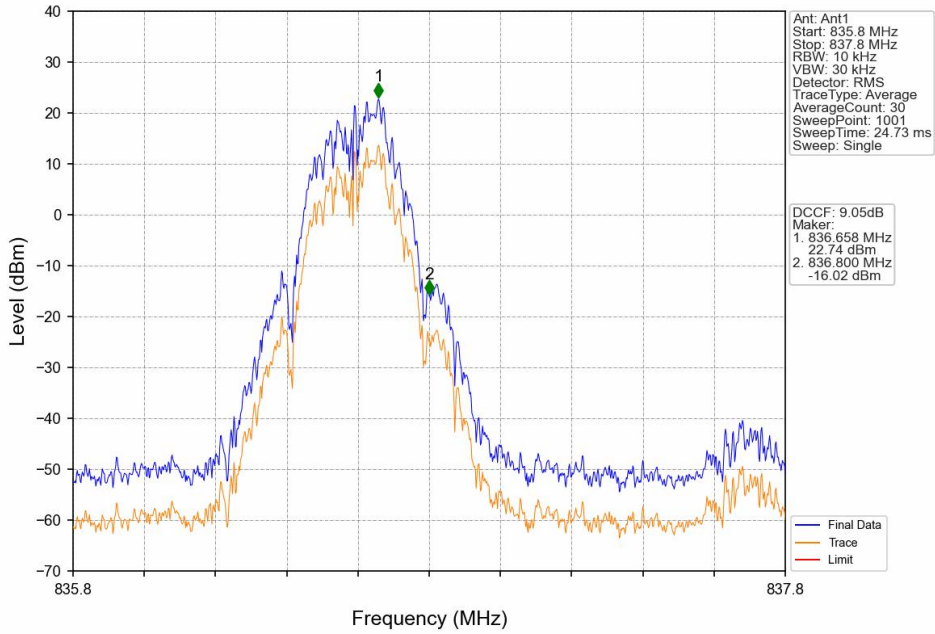
6.1.1 Test Result

Band: GSM850						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass
			848.8	Refer To Test Graph		Pass
	GPRS	1 TX Slot	824.2	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass
			848.8	Refer To Test Graph		Pass
	EGPRS	1 TX Slot	824.2	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass
			848.8	Refer To Test Graph		Pass

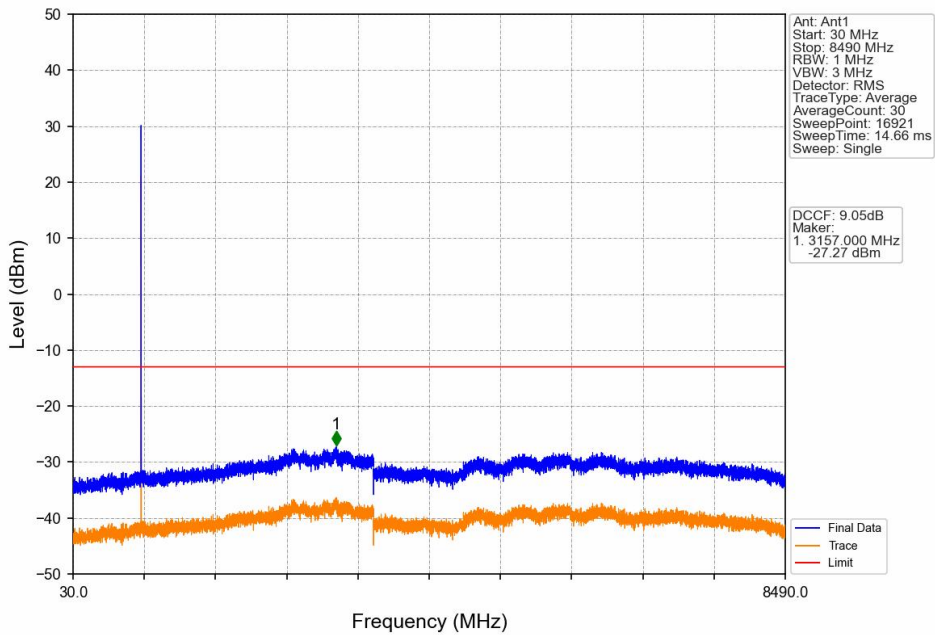
6.1.2 Test Graph



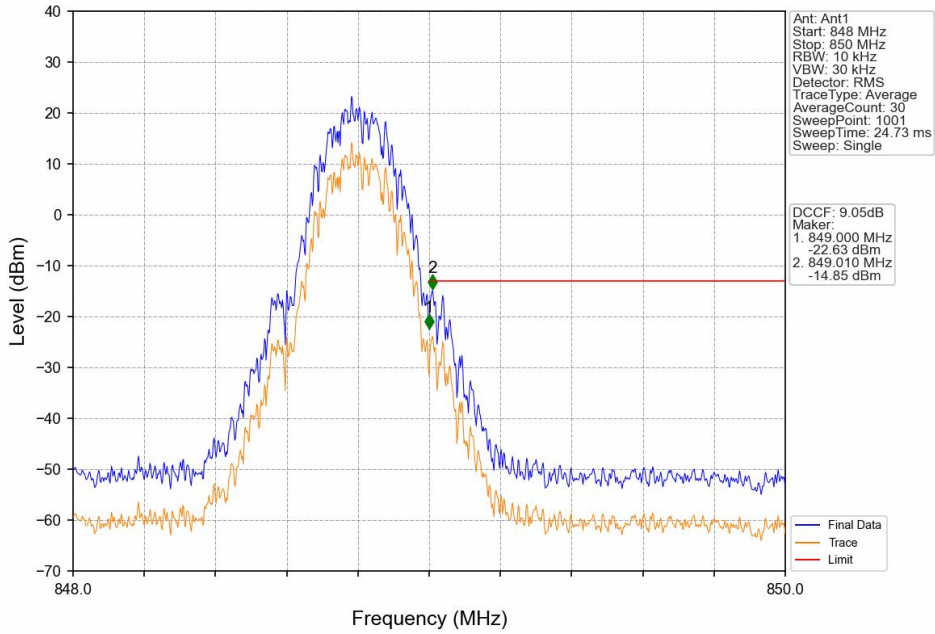
GSM850_GSM_MCH_836.6MHz_GSM_NTNV



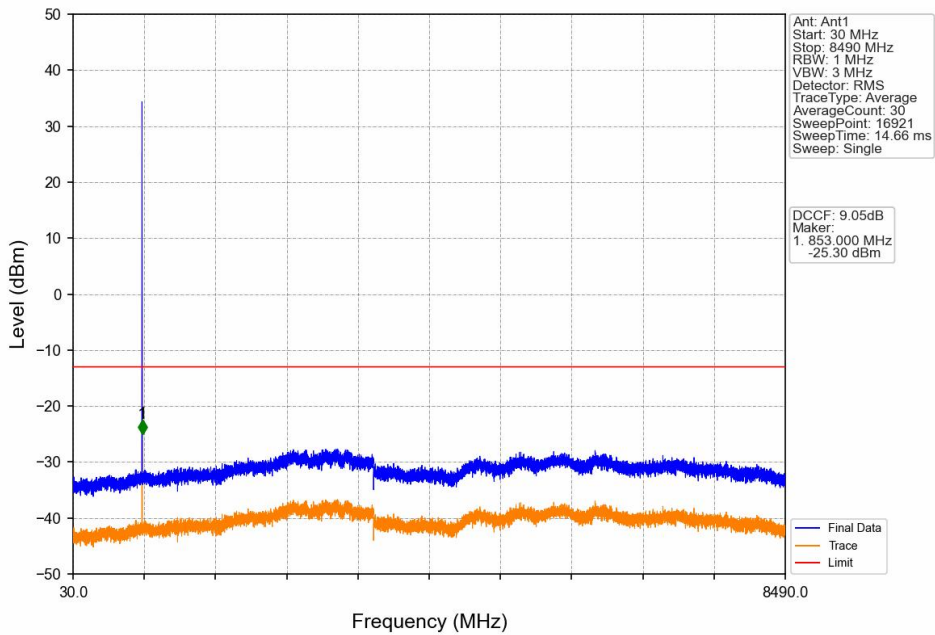
GSM850_GSM_MCH_836.6MHz_GSM_NTNV



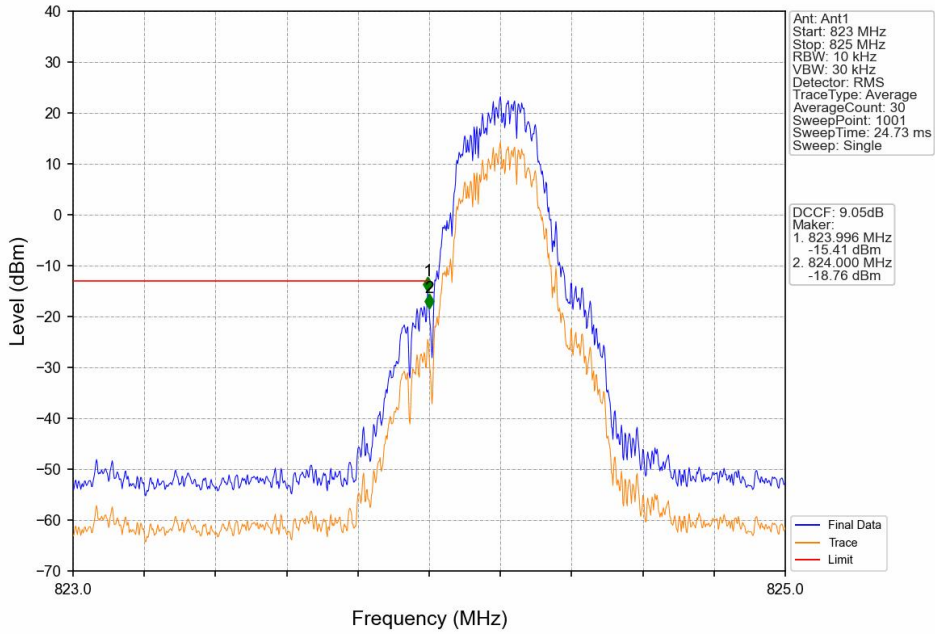
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



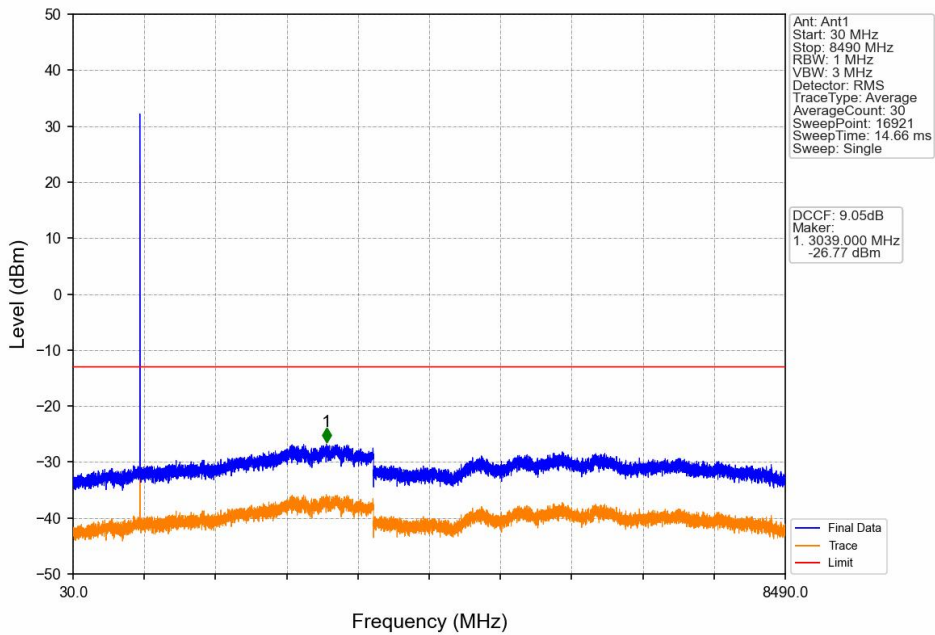
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



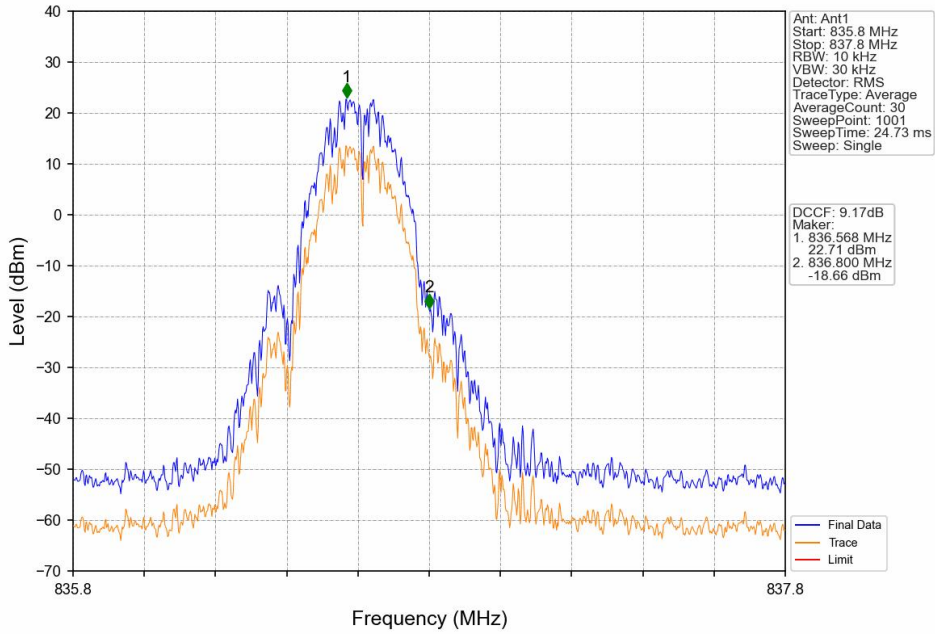
GSM850_GPRS_LCH_824.2MHz_1 TX Slot_NTNV



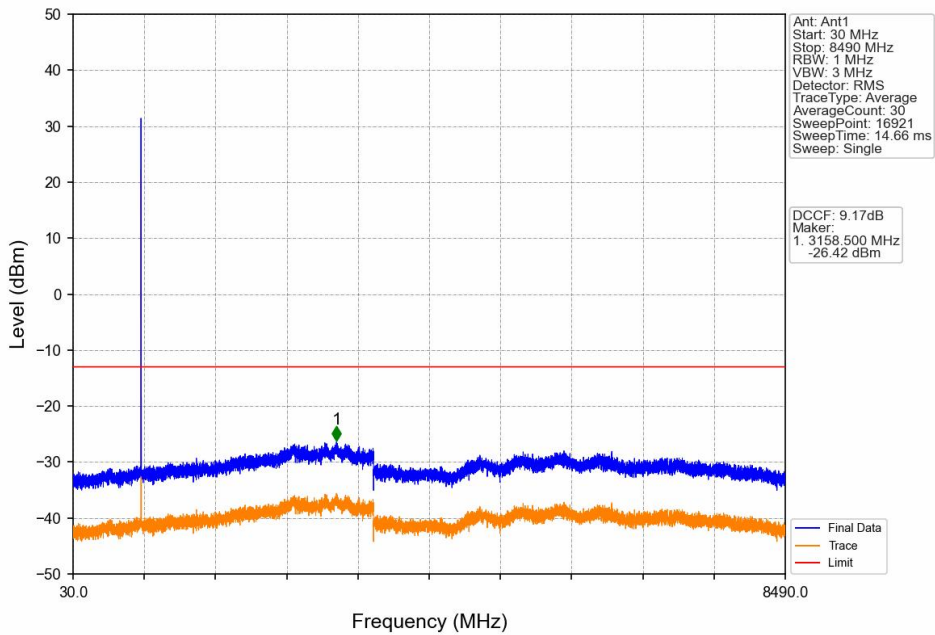
GSM850_GPRS_LCH_824.2MHz_1 TX Slot_NTNV



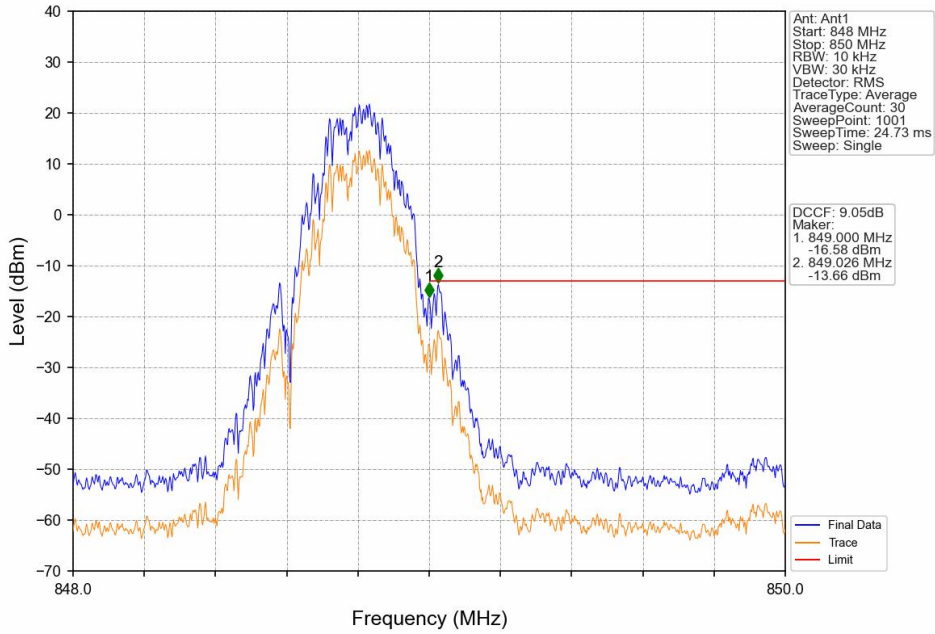
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



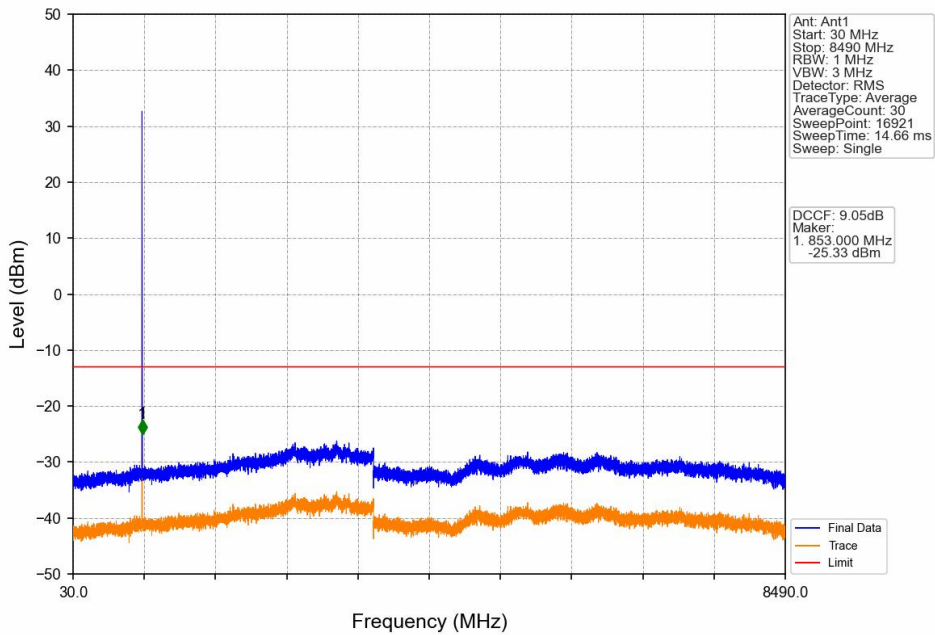
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



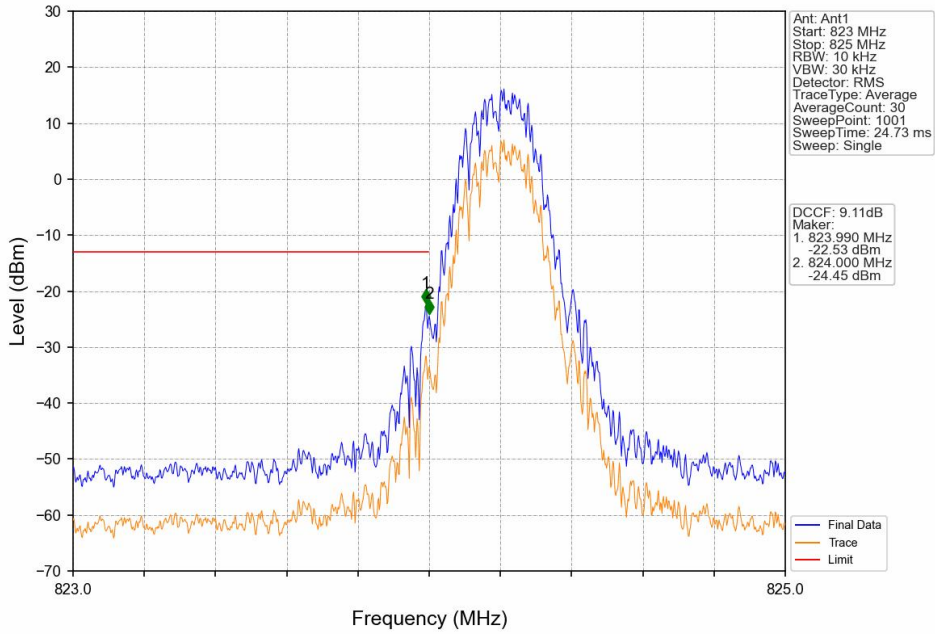
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



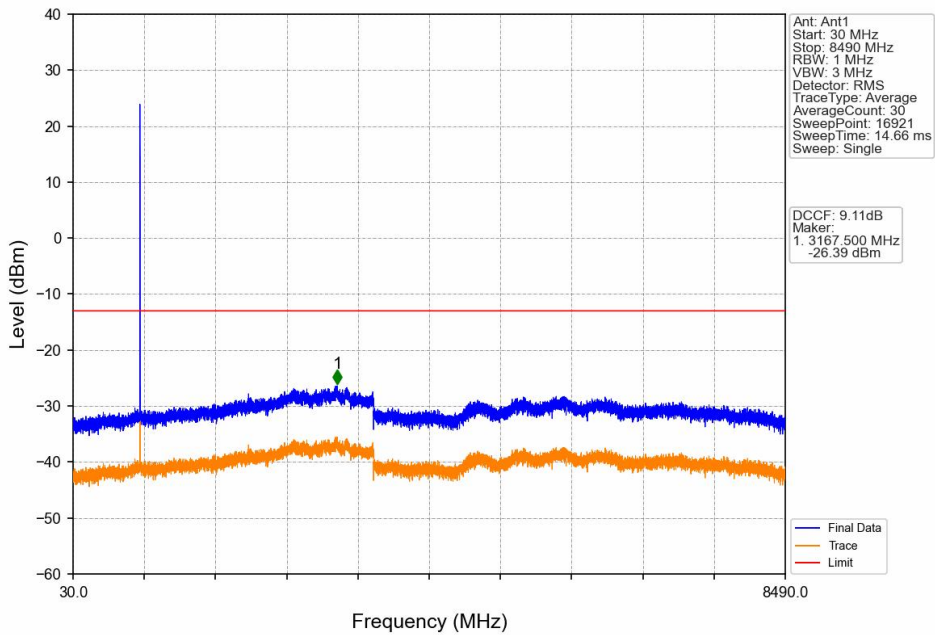
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



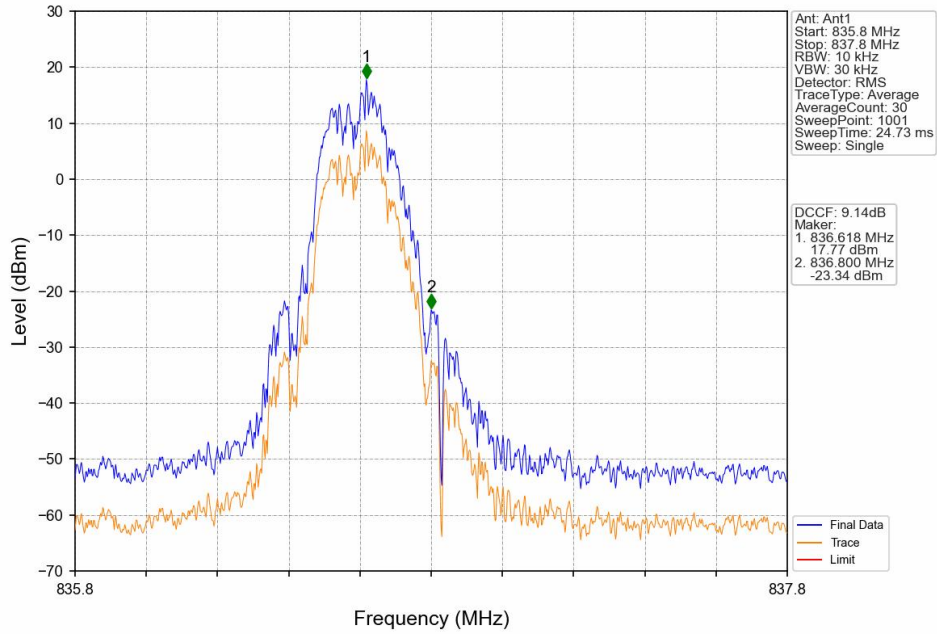
GSM850_EGPRS_LCH_824.2MHz_1 TX Slot_NTNV



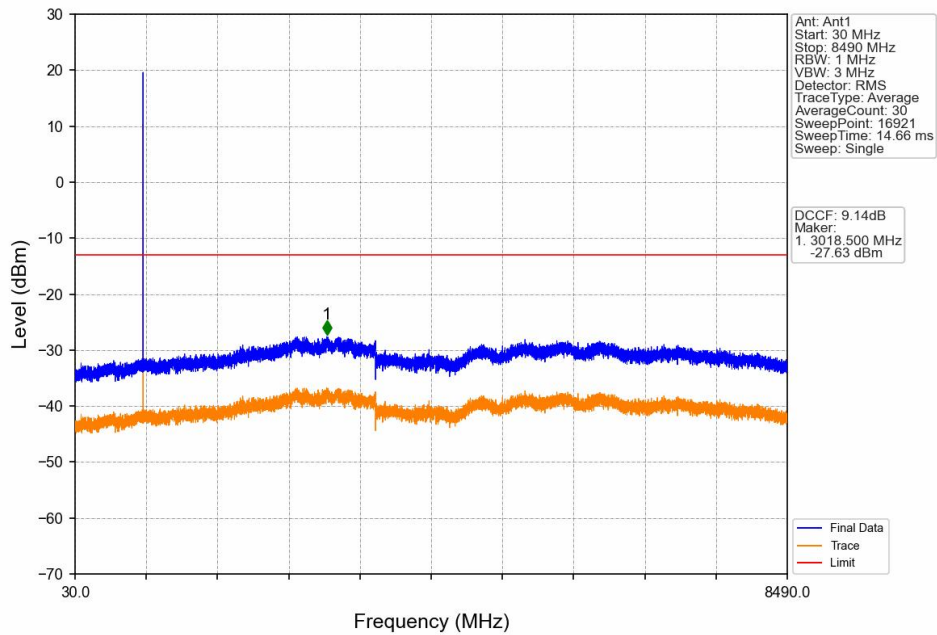
GSM850_EGPRS_LCH_824.2MHz_1 TX Slot_NTNV



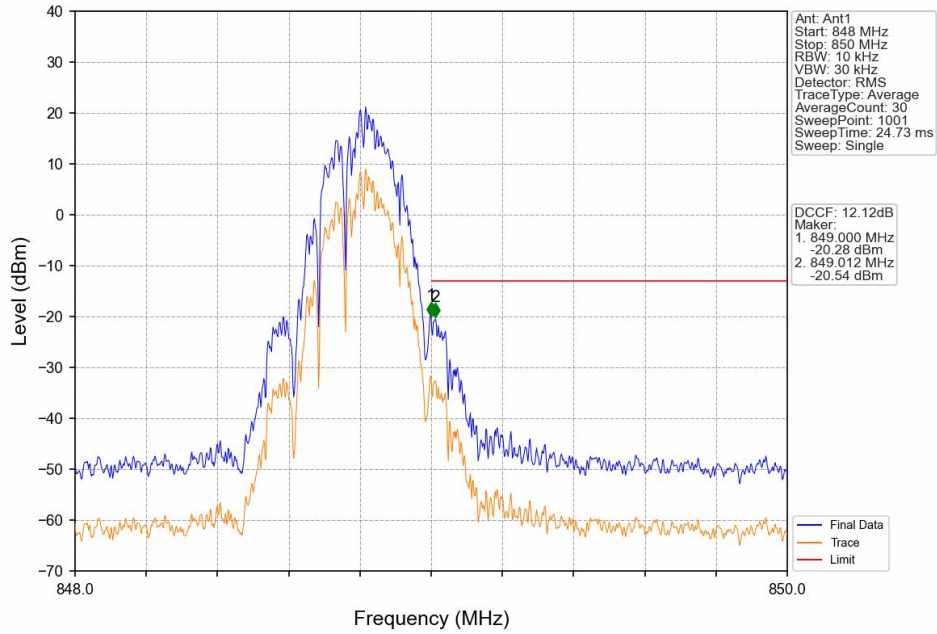
GSM850_EGPRS_MCH_836.6MHz_1_TX_Slot_NTNV



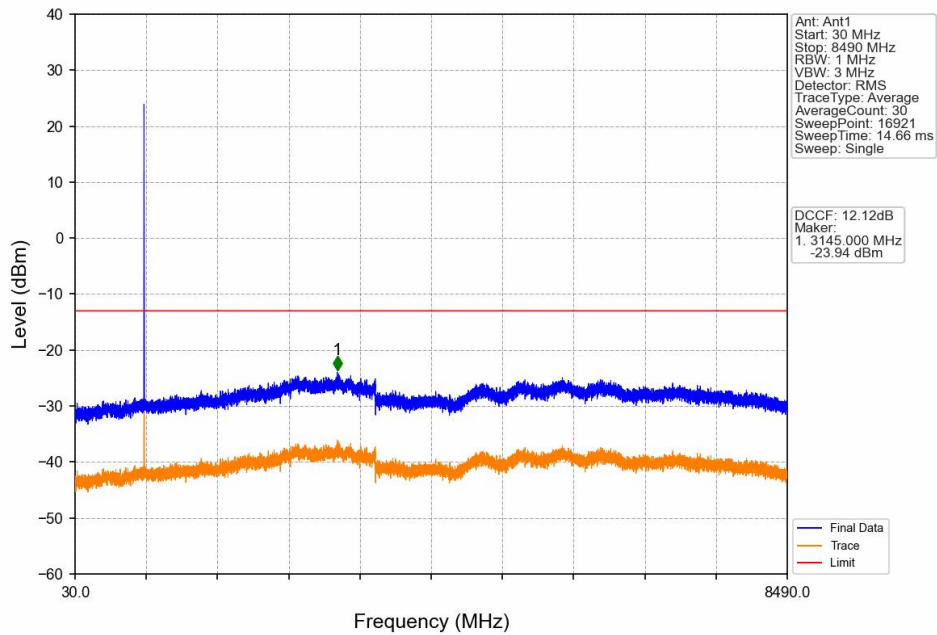
GSM850_EGPRS_MCH_836.6MHz_1_TX_Slot_NTNV



GSM850_EGPRS_HCH_848.8MHz_1_TX_Slot_NTNV



GSM850_EGPRS_HCH_848.8MHz_1_TX_Slot_NTNV





7. Form731

7.1 Form731_Power

7.1.1 Test Result

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
GSM850	0.2	824.2	848.8	1.8072	0.0242	ppm	245KGXW	22H	32.57
GSM850	0.2	824.2	848.8	0.4130	0.0194	ppm	246KG7W	22H	26.16

7.2 Form731_ERP

7.2.1 Test Result

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
GSM850	0.2	824.2	848.8	1.0093	0.0242	ppm	245KGXW	22H	30.04
GSM850	0.2	824.2	848.8	0.2307	0.0194	ppm	246KG7W	22H	23.63