

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	31.26	-2.35	26.76	<=38.45	Pass
			836.6	31.19	-2.35	26.69	<=38.45	Pass
			848.8	30.96	-2.35	26.46	<=38.45	Pass
	GPRS	1 TX Slot	824.2	31.37	-2.35	26.87	<=38.45	Pass
		2 TX Slots	824.2	29.12	-2.35	24.62	<=38.45	Pass
		3 TX Slots	824.2	27.08	-2.35	22.58	<=38.45	Pass
		4 TX Slots	824.2	24.66	-2.35	20.16	<=38.45	Pass
		1 TX Slot	836.6	31.24	-2.35	26.74	<=38.45	Pass
		2 TX Slots	836.6	29.01	-2.35	24.51	<=38.45	Pass
		3 TX Slots	836.6	28.17	-2.35	23.67	<=38.45	Pass
		4 TX Slots	836.6	24.58	-2.35	20.08	<=38.45	Pass
		1 TX Slot	848.8	31.06	-2.35	26.56	<=38.45	Pass
		2 TX Slots	848.8	28.77	-2.35	24.27	<=38.45	Pass
		3 TX Slots	848.8	26.73	-2.35	22.23	<=38.45	Pass
		4 TX Slots	848.8	24.33	-2.35	19.83	<=38.45	Pass
	EGPRS	1 TX Slot	824.2	25.25	-2.35	20.75	<=38.45	Pass
		2 TX Slots	824.2	23.72	-2.35	19.22	<=38.45	Pass
		3 TX Slots	824.2	21.19	-2.35	16.69	<=38.45	Pass
		4 TX Slots	824.2	18.31	-2.35	13.81	<=38.45	Pass
		1 TX Slot	836.6	24.81	-2.35	20.31	<=38.45	Pass
		2 TX Slots	836.6	25.24	-2.35	20.74	<=38.45	Pass
		3 TX Slots	836.6	25.22	-2.35	20.72	<=38.45	Pass
		4 TX Slots	836.6	19.85	-2.35	15.35	<=38.45	Pass
		1 TX Slot	848.8	24.76	-2.35	20.26	<=38.45	Pass
		2 TX Slots	848.8	23.48	-2.35	18.98	<=38.45	Pass
		3 TX Slots	848.8	20.92	-2.35	16.42	<=38.45	Pass
		4 TX Slots	848.8	18.14	-2.35	13.64	<=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	16.078	0.0195	-2.5 to 2.5	Pass
			3.85	9.008	0.0109	-2.5 to 2.5	Pass
			4.43	6.328	0.0077	-2.5 to 2.5	Pass
		-30	3.85	2.809	0.0034	-2.5 to 2.5	Pass
		-20	3.85	6.296	0.0076	-2.5 to 2.5	Pass
		-10	3.85	6.586	0.0080	-2.5 to 2.5	Pass
		0	3.85	7.555	0.0092	-2.5 to 2.5	Pass
		10	3.85	2.518	0.0031	-2.5 to 2.5	Pass

		30	3.85	0.355	0.0004	-2.5 to 2.5	Pass
		40	3.85	0.678	0.0008	-2.5 to 2.5	Pass
		50	3.85	10.267	0.0125	-2.5 to 2.5	Pass
	836.6	20	3.27	6.070	0.0073	-2.5 to 2.5	Pass
			3.85	10.654	0.0127	-2.5 to 2.5	Pass
			4.43	7.749	0.0093	-2.5 to 2.5	Pass
		-30	3.85	0.549	0.0007	-2.5 to 2.5	Pass
		-20	3.85	10.267	0.0123	-2.5 to 2.5	Pass
		-10	3.85	14.109	0.0169	-2.5 to 2.5	Pass
		0	3.85	7.458	0.0089	-2.5 to 2.5	Pass
		10	3.85	8.459	0.0101	-2.5 to 2.5	Pass
		30	3.85	9.460	0.0113	-2.5 to 2.5	Pass
		40	3.85	8.233	0.0098	-2.5 to 2.5	Pass
		50	3.85	12.753	0.0152	-2.5 to 2.5	Pass
	848.8	20	3.27	0.646	0.0008	-2.5 to 2.5	Pass
			3.85	2.906	0.0034	-2.5 to 2.5	Pass
			4.43	4.778	0.0056	-2.5 to 2.5	Pass
		-30	3.85	12.269	0.0145	-2.5 to 2.5	Pass
		-20	3.85	5.037	0.0059	-2.5 to 2.5	Pass
		-10	3.85	9.589	0.0113	-2.5 to 2.5	Pass
		0	3.85	13.237	0.0156	-2.5 to 2.5	Pass
		10	3.85	13.076	0.0154	-2.5 to 2.5	Pass
		30	3.85	4.455	0.0052	-2.5 to 2.5	Pass
		40	3.85	9.137	0.0108	-2.5 to 2.5	Pass
		50	3.85	6.231	0.0073	-2.5 to 2.5	Pass
GPRS	824.2	20	3.27	9.201	0.0112	-2.5 to 2.5	Pass
			3.85	8.459	0.0103	-2.5 to 2.5	Pass
			4.43	5.037	0.0061	-2.5 to 2.5	Pass
		-30	3.85	12.269	0.0149	-2.5 to 2.5	Pass
		-20	3.85	4.133	0.0050	-2.5 to 2.5	Pass
		-10	3.85	5.424	0.0066	-2.5 to 2.5	Pass
		0	3.85	4.359	0.0053	-2.5 to 2.5	Pass
		10	3.85	5.779	0.0070	-2.5 to 2.5	Pass
		30	3.85	5.876	0.0071	-2.5 to 2.5	Pass
		40	3.85	6.812	0.0083	-2.5 to 2.5	Pass
		50	3.85	1.743	0.0021	-2.5 to 2.5	Pass
	836.6	20	3.27	9.266	0.0111	-2.5 to 2.5	Pass
			3.85	7.426	0.0089	-2.5 to 2.5	Pass
			4.43	4.197	0.0050	-2.5 to 2.5	Pass
		-30	3.85	6.845	0.0082	-2.5 to 2.5	Pass
		-20	3.85	13.818	0.0165	-2.5 to 2.5	Pass
		-10	3.85	3.358	0.0040	-2.5 to 2.5	Pass
		0	3.85	5.166	0.0062	-2.5 to 2.5	Pass
		10	3.85	6.586	0.0079	-2.5 to 2.5	Pass
		30	3.85	6.489	0.0078	-2.5 to 2.5	Pass
		40	3.85	8.071	0.0096	-2.5 to 2.5	Pass
		50	3.85	4.972	0.0059	-2.5 to 2.5	Pass
	848.8	20	3.27	8.846	0.0104	-2.5 to 2.5	Pass
			3.85	6.005	0.0071	-2.5 to 2.5	Pass
			4.43	8.975	0.0106	-2.5 to 2.5	Pass
		-30	3.85	7.813	0.0092	-2.5 to 2.5	Pass
		-20	3.85	8.168	0.0096	-2.5 to 2.5	Pass
		-10	3.85	11.235	0.0132	-2.5 to 2.5	Pass
		0	3.85	10.783	0.0127	-2.5 to 2.5	Pass
		10	3.85	8.394	0.0099	-2.5 to 2.5	Pass
		30	3.85	12.624	0.0149	-2.5 to 2.5	Pass
		40	3.85	8.975	0.0106	-2.5 to 2.5	Pass
		50	3.85	9.976	0.0118	-2.5 to 2.5	Pass
EGPRS	824.2	20	3.27	9.976	0.0121	-2.5 to 2.5	Pass

			3.85	6.199	0.0075	-2.5 to 2.5	Pass
			4.43	9.524	0.0116	-2.5 to 2.5	Pass
		-30	3.85	10.751	0.0130	-2.5 to 2.5	Pass
		-20	3.85	13.334	0.0162	-2.5 to 2.5	Pass
		-10	3.85	11.913	0.0145	-2.5 to 2.5	Pass
		0	3.85	6.909	0.0084	-2.5 to 2.5	Pass
		10	3.85	10.461	0.0127	-2.5 to 2.5	Pass
		30	3.85	11.526	0.0140	-2.5 to 2.5	Pass
		40	3.85	10.105	0.0123	-2.5 to 2.5	Pass
		50	3.85	12.817	0.0156	-2.5 to 2.5	Pass
	836.6	20	3.27	8.330	0.0100	-2.5 to 2.5	Pass
			3.85	16.563	0.0198	-2.5 to 2.5	Pass
			4.43	16.563	0.0198	-2.5 to 2.5	Pass
		-30	3.85	12.721	0.0152	-2.5 to 2.5	Pass
		-20	3.85	6.231	0.0074	-2.5 to 2.5	Pass
		-10	3.85	2.615	0.0031	-2.5 to 2.5	Pass
		0	3.85	10.557	0.0126	-2.5 to 2.5	Pass
		10	3.85	4.294	0.0051	-2.5 to 2.5	Pass
		30	3.85	7.619	0.0091	-2.5 to 2.5	Pass
		40	3.85	5.037	0.0060	-2.5 to 2.5	Pass
		50	3.85	1.873	0.0022	-2.5 to 2.5	Pass
	848.8	20	3.27	7.393	0.0087	-2.5 to 2.5	Pass
			3.85	6.134	0.0072	-2.5 to 2.5	Pass
			4.43	5.779	0.0068	-2.5 to 2.5	Pass
		-30	3.85	4.391	0.0052	-2.5 to 2.5	Pass
		-20	3.85	9.944	0.0117	-2.5 to 2.5	Pass
		-10	3.85	6.070	0.0072	-2.5 to 2.5	Pass
		0	3.85	16.950	0.0200	-2.5 to 2.5	Pass
		10	3.85	9.234	0.0109	-2.5 to 2.5	Pass
		30	3.85	10.590	0.0125	-2.5 to 2.5	Pass
		40	3.85	9.234	0.0109	-2.5 to 2.5	Pass
		50	3.85	10.461	0.0123	-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

GSM850 GSM MCH 836.6MHz GSM NTN

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

Band/Ch: GSM850 / 190 Freq.: 836.60000 MHz Ref. Level: 39.00 dBm Meas Slots: Tim.Advance.: 0

IQ

Statistic Count: 10 / 10

Bursts out of Tolerance: 0.00 %

Mod.View Throughput: 100.0 %

Burst Type: GMSK

DL: MCS-5

UL: MCS-5

CS: Call Established PS: Attached

Go To Local Show Remote Screen

GSM Signaling: ON

GSM850 GPRS MCH 836.6MHz 1 TX Slot NTN

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

Band/Ch: GSM850 / 190 Freq.: 836.60000 MHz Ref. Level: 39.00 dBm Meas Slots: Tim.Advance.: 0

IQ

Statistic Count: 10 / 10

Bursts out of Tolerance: 0.00 %

Mod.View Throughput: 100.0 %

Burst Type: GMSK

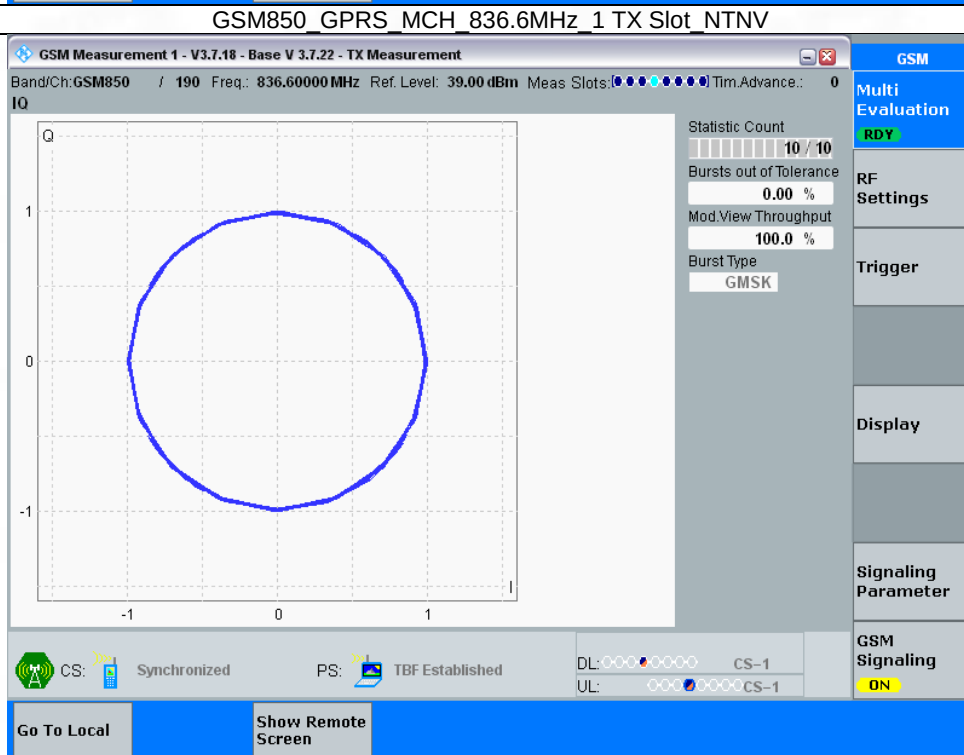
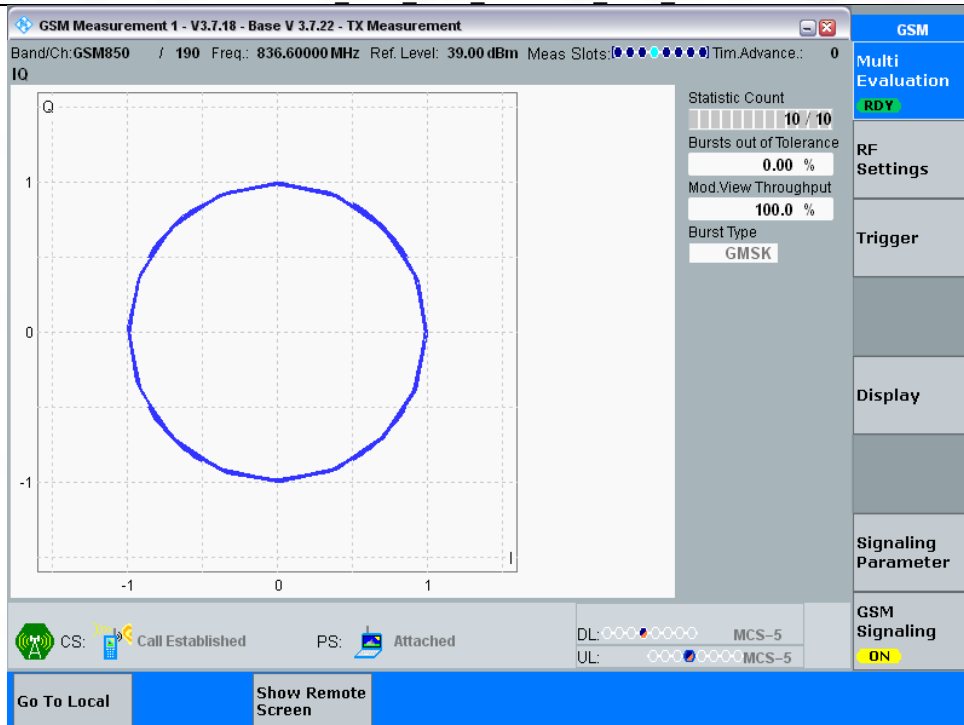
DL: CS-1

UL: CS-1

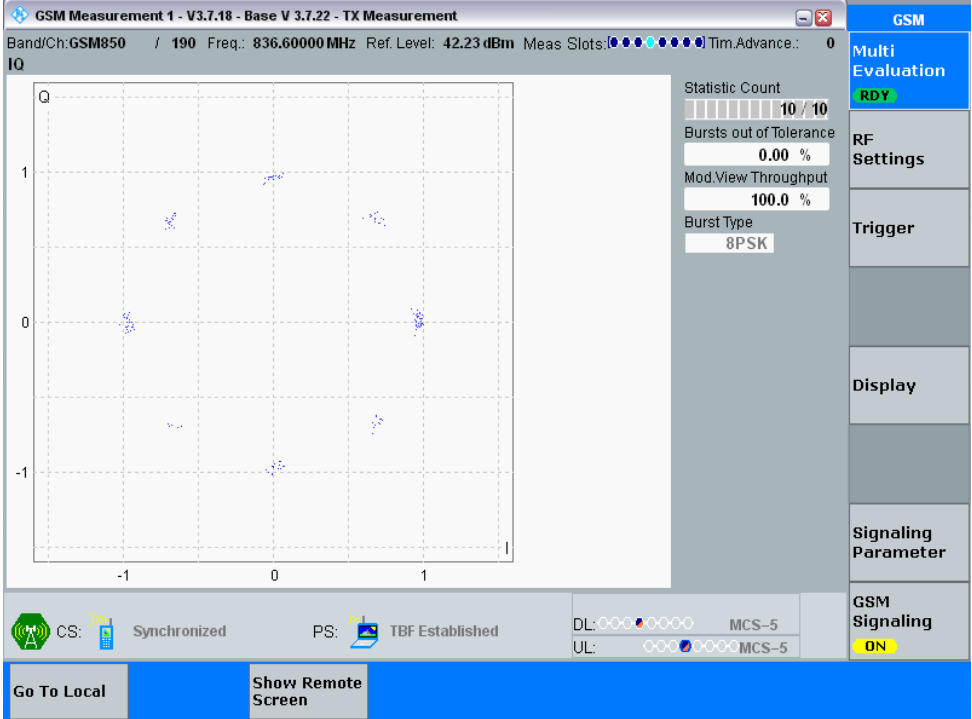
CS: Synchronized PS: TBF Established

Go To Local Show Remote Screen

GSM Signaling: ON



GSM850 EGPRS MCH 836.6MHz 1 TX Slot NTNV



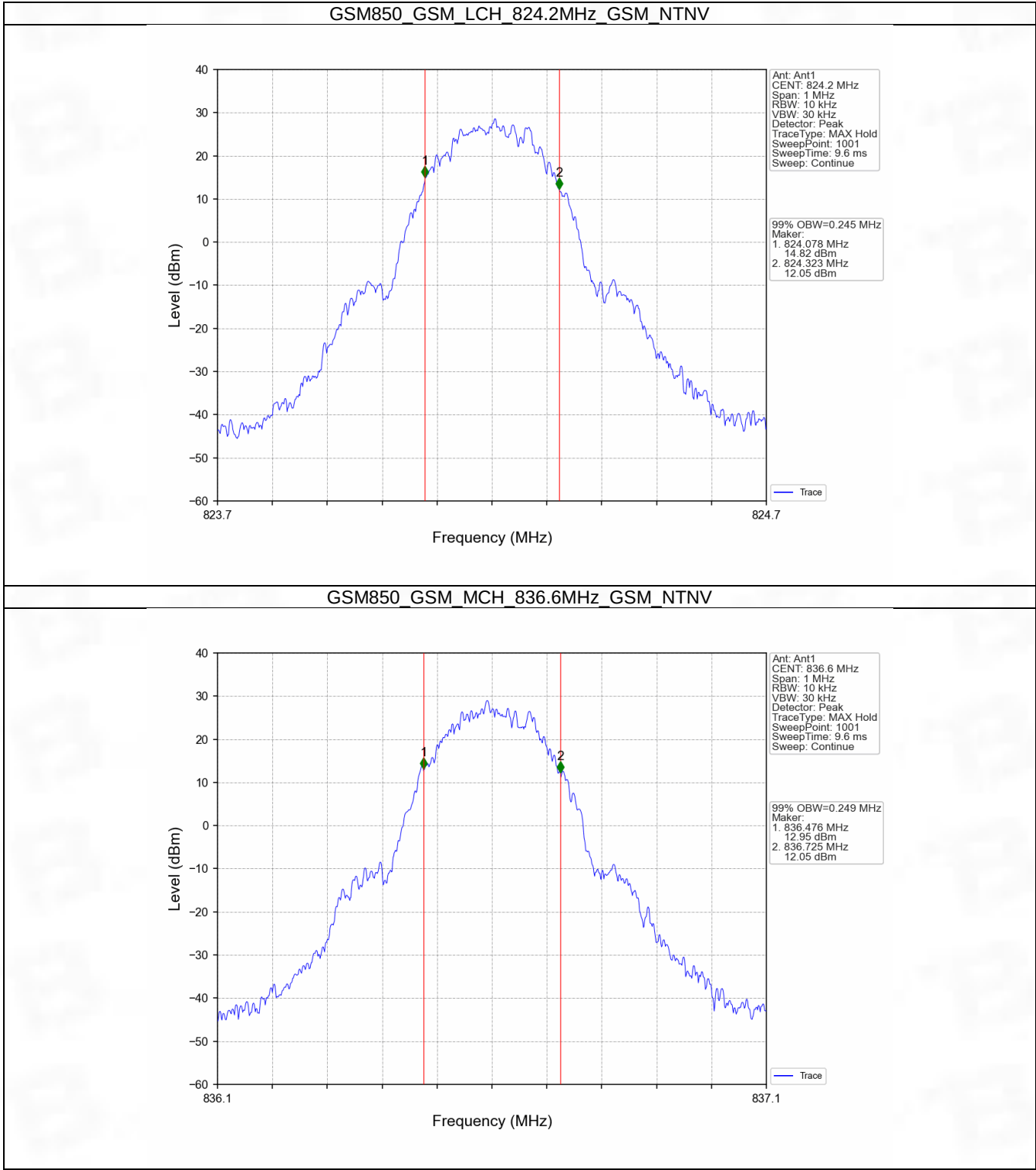
4. 99% & 26dB Bandwidth

4.1 GSM850_OBW

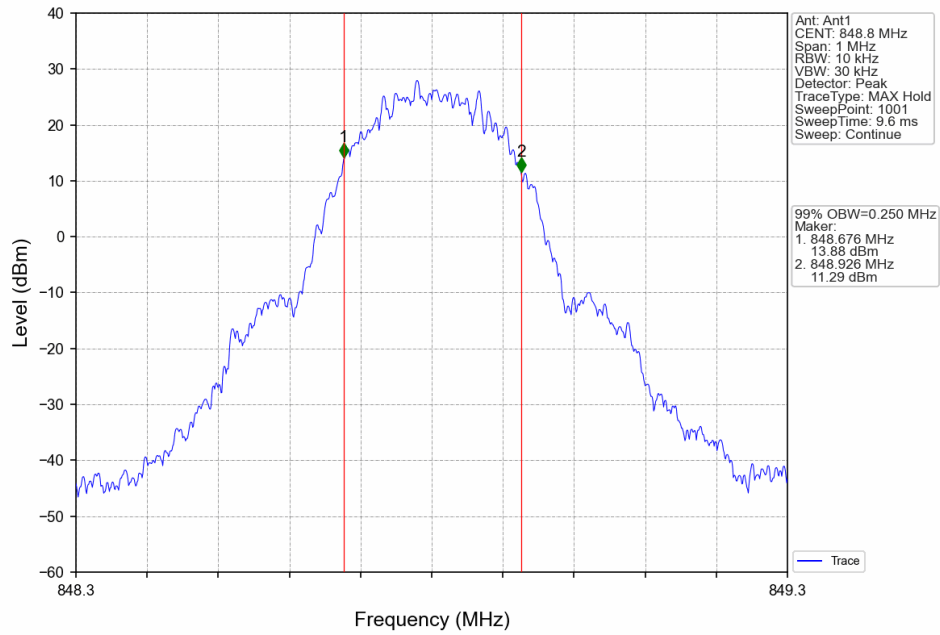
4.1.1 Test Result

Band: GSM850					
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	GSM	GSM	824.2	0.245	Pass
			836.6	0.249	Pass
			848.8	0.250	Pass
	GPRS	1 TX Slot	824.2	0.241	Pass
			836.6	0.246	Pass
			848.8	0.243	Pass
	EGPRS	1 TX Slot	824.2	0.247	Pass
			836.6	0.251	Pass
			848.8	0.241	Pass

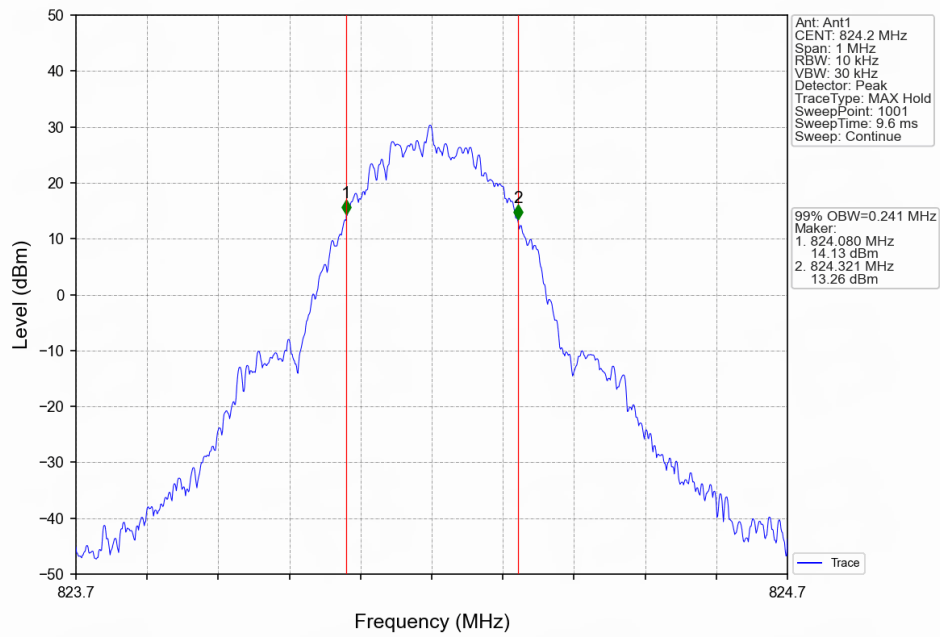
4.1.2 Test Graph



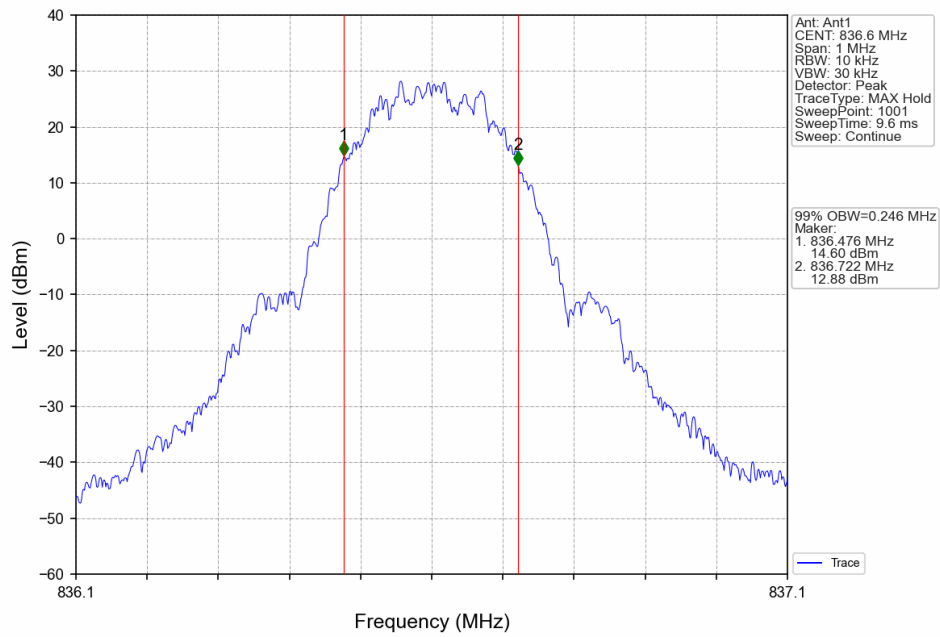
GSM850 GSM HCH 848.8MHz GSM NTN



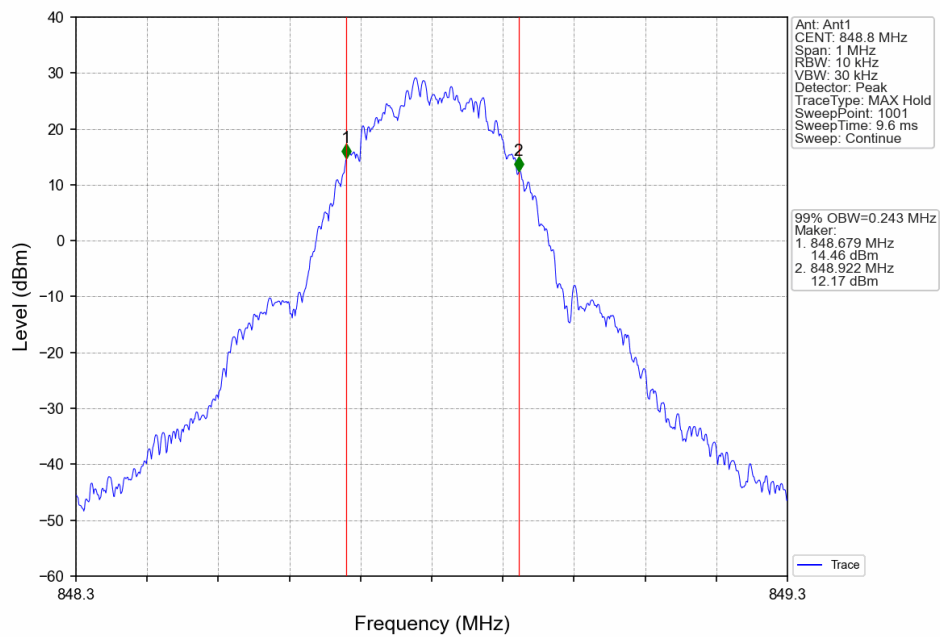
GSM850 GPRS LCH 824.2MHz 1 TX Slot NTN



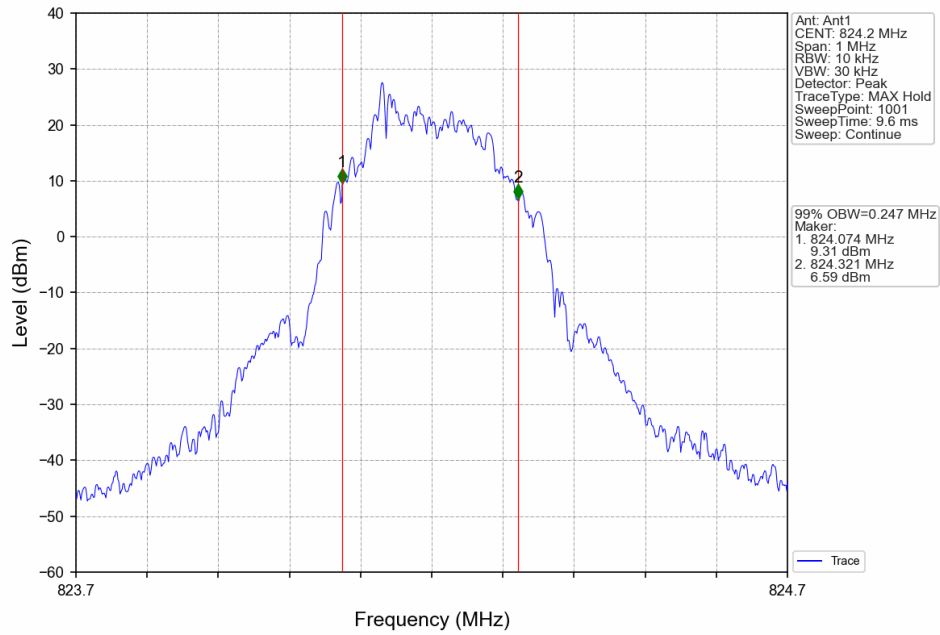
GSM850 GPRS MCH 836.6MHz 1 TX Slot NTN



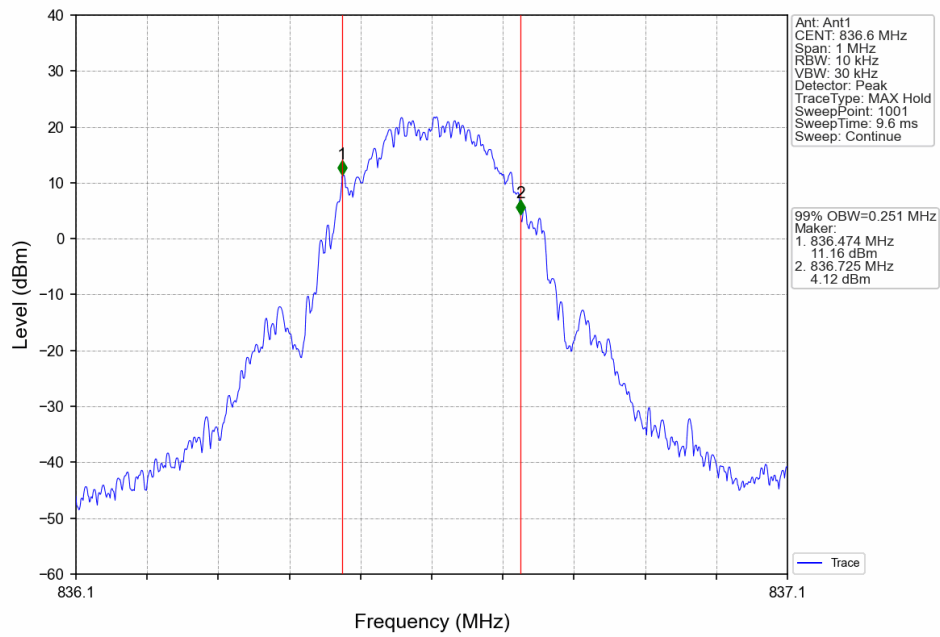
GSM850 GPRS HCH 848.8MHz 1 TX Slot NTN



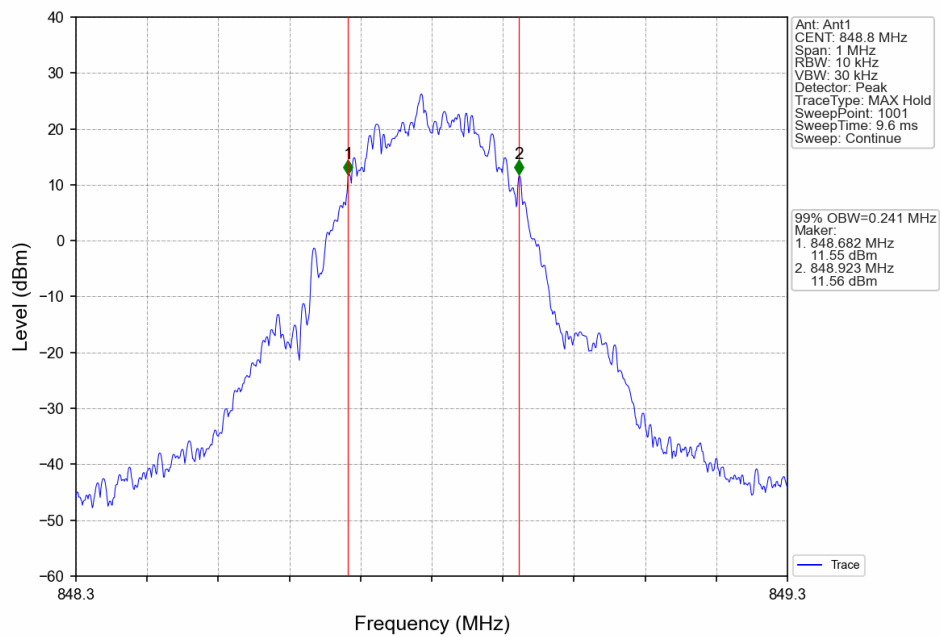
GSM850 EGPRS LCH 824.2MHz 1 TX Slot NTNV



GSM850 EGPRS MCH 836.6MHz 1 TX Slot NTNV



GSM850 EGPRS HCH 848.8MHz 1 TX Slot NTNV

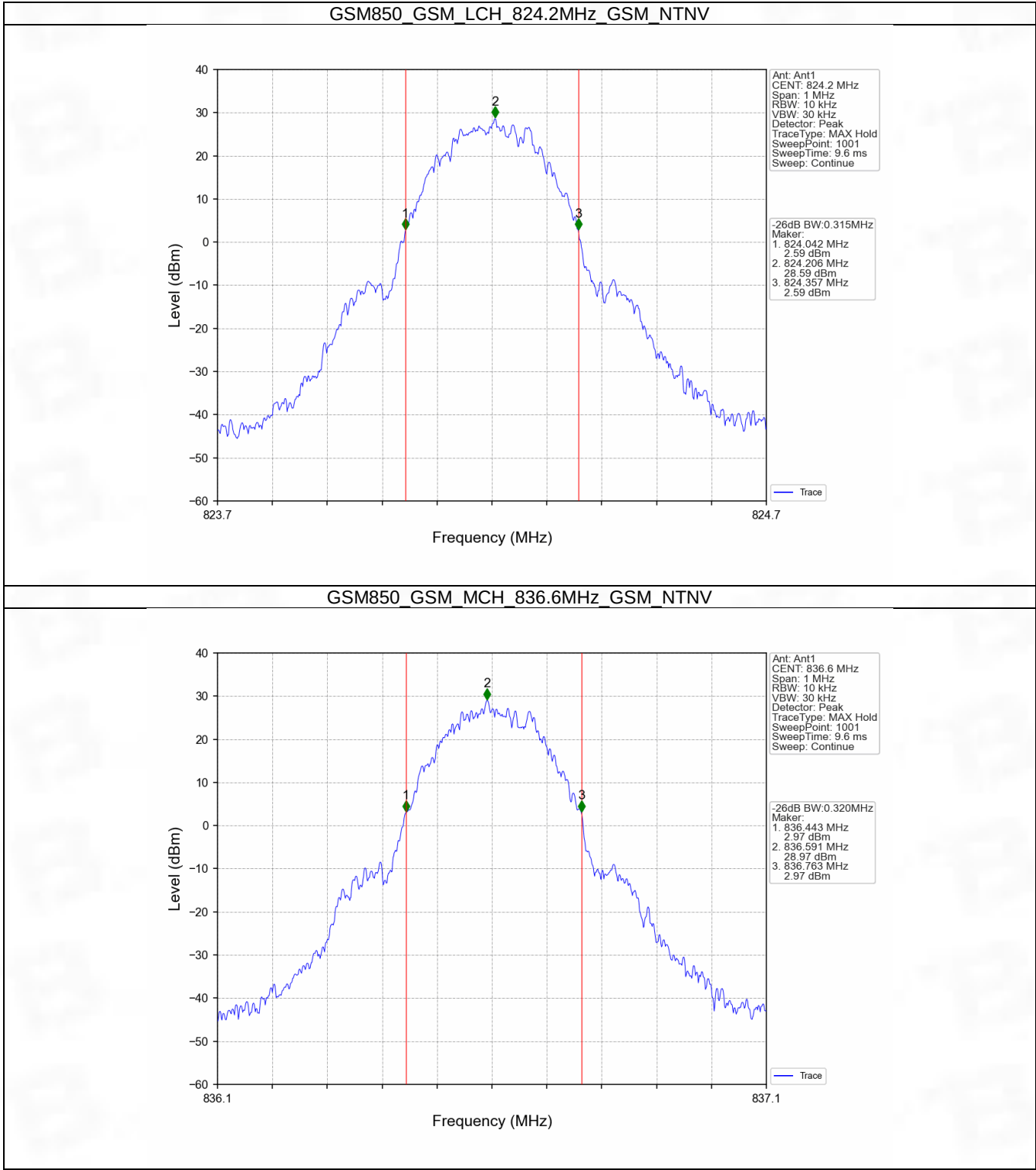


4.2 GSM850_XDB

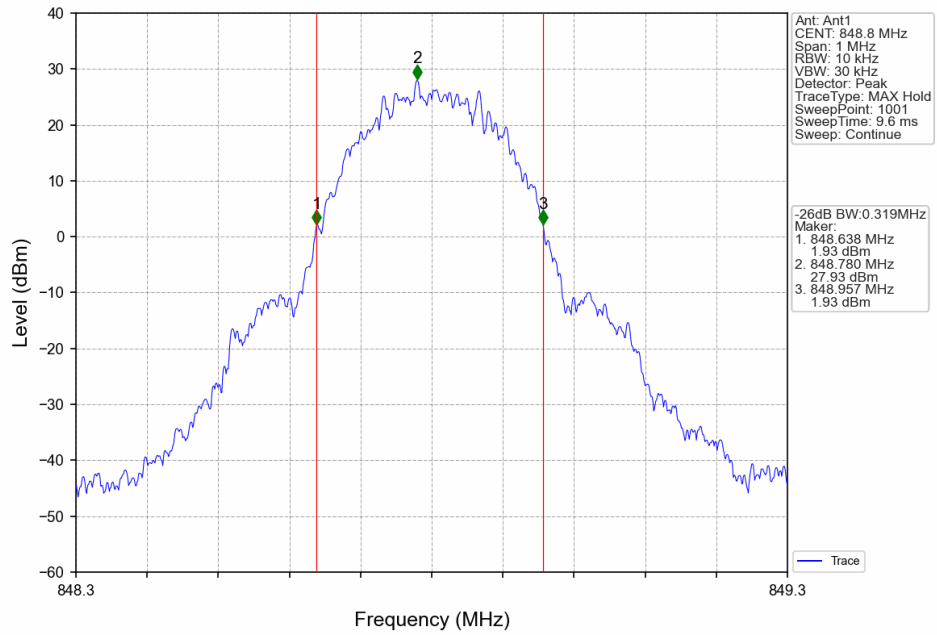
4.2.1 Test Result

Band: GSM850					
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	GSM	GSM	824.2	0.315	Pass
			836.6	0.320	Pass
			848.8	0.319	Pass
	GPRS	1 TX Slot	824.2	0.309	Pass
			836.6	0.317	Pass
			848.8	0.305	Pass
	EGPRS	1 TX Slot	824.2	0.310	Pass
			836.6	0.321	Pass
			848.8	0.294	Pass

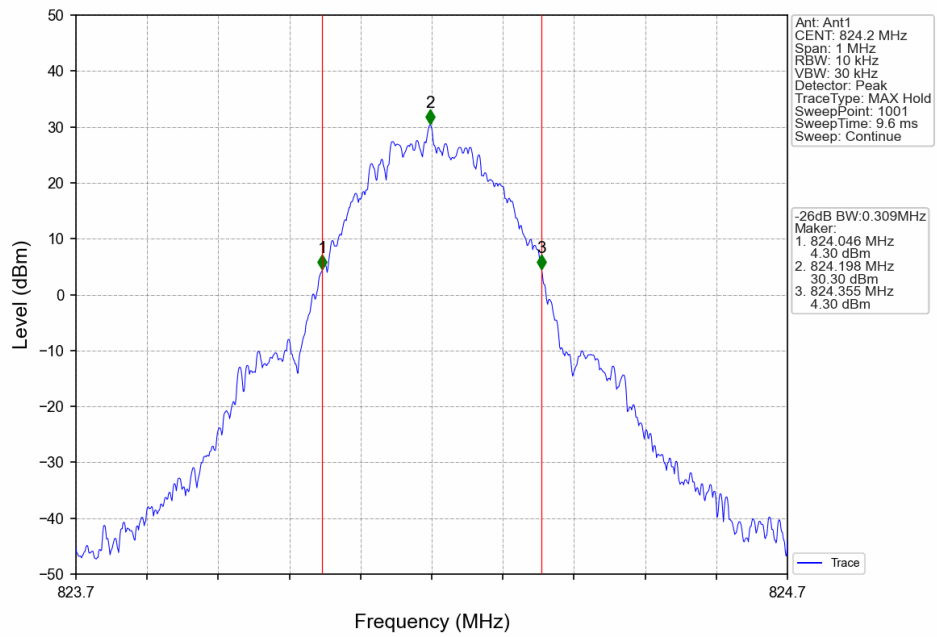
4.2.2 Test Graph



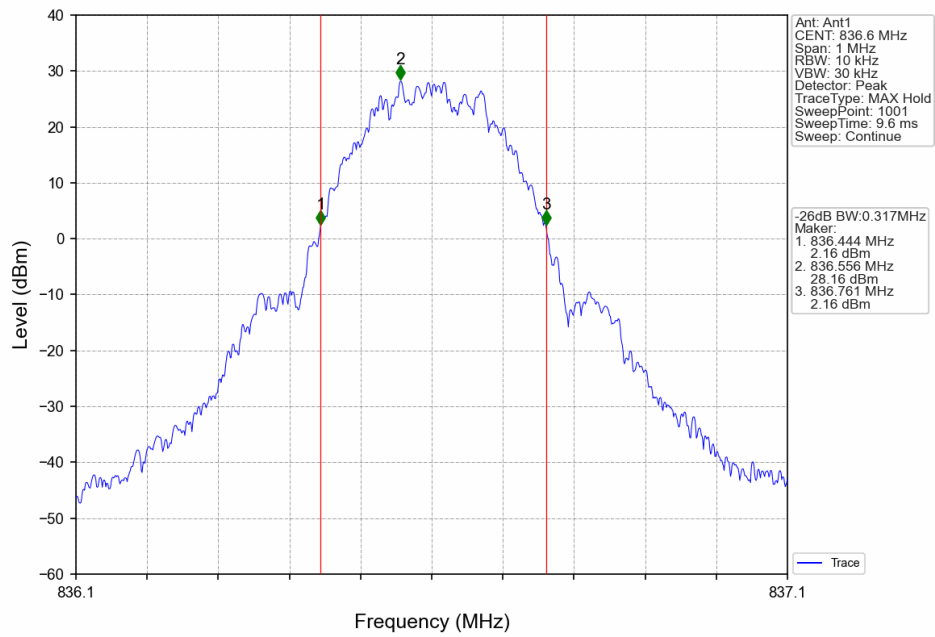
GSM850 GSM HCH 848.8MHz GSM NTN



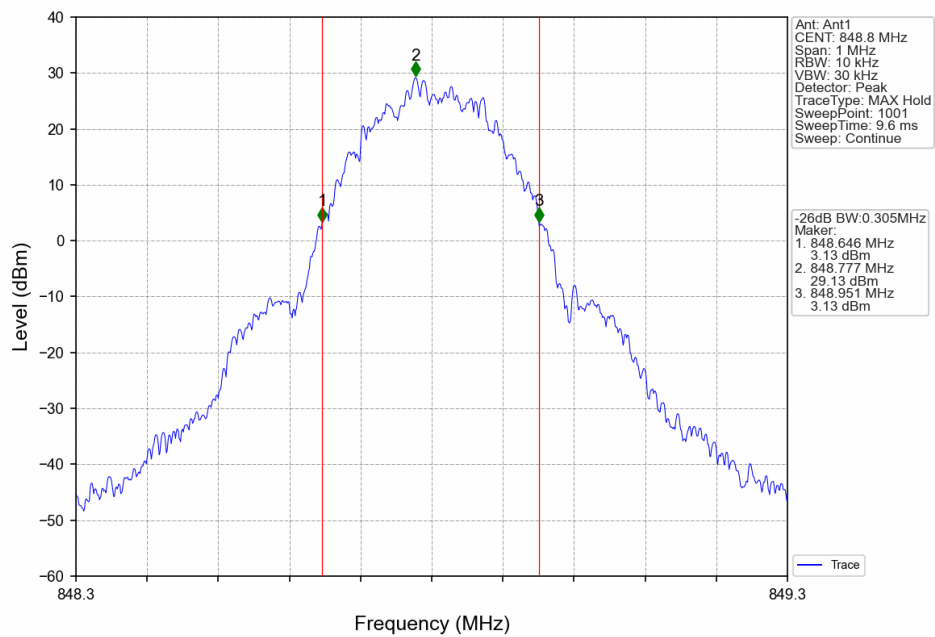
GSM850 GPRS LCH 824.2MHz 1 TX Slot NTN



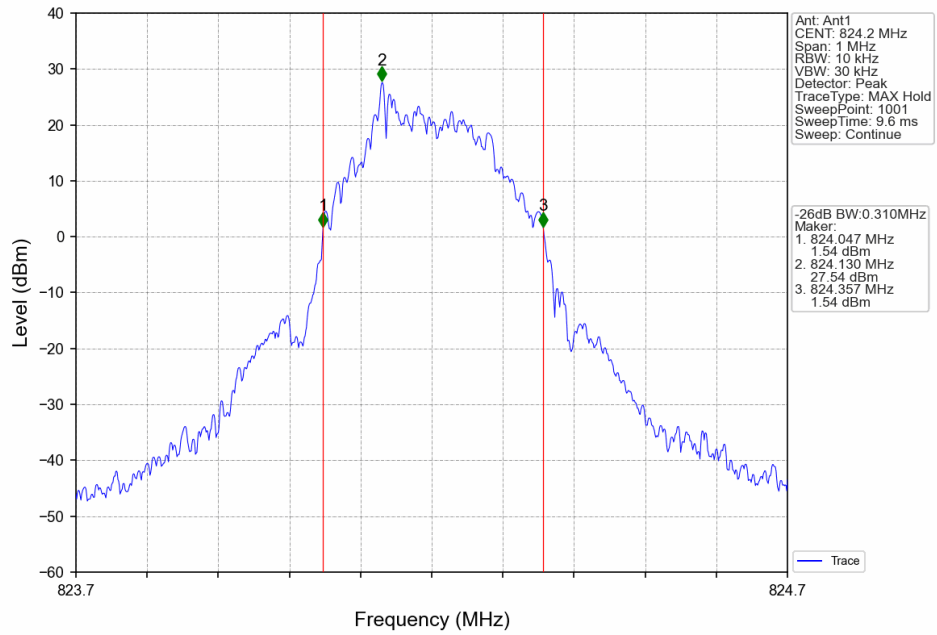
GSM850 GPRS MCH 836.6MHz 1 TX Slot NTN



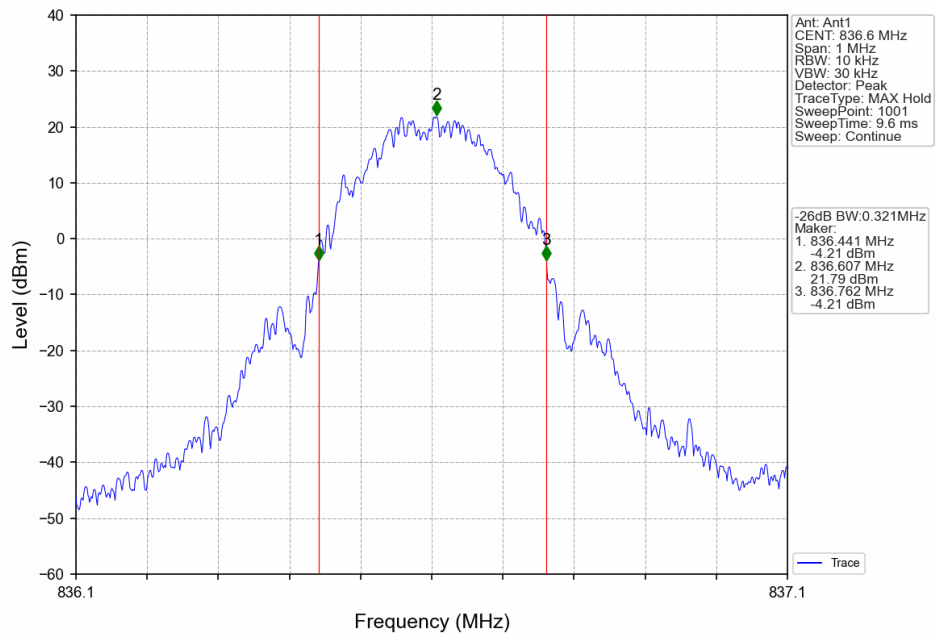
GSM850 GPRS HCH 848.8MHz 1 TX Slot NTN



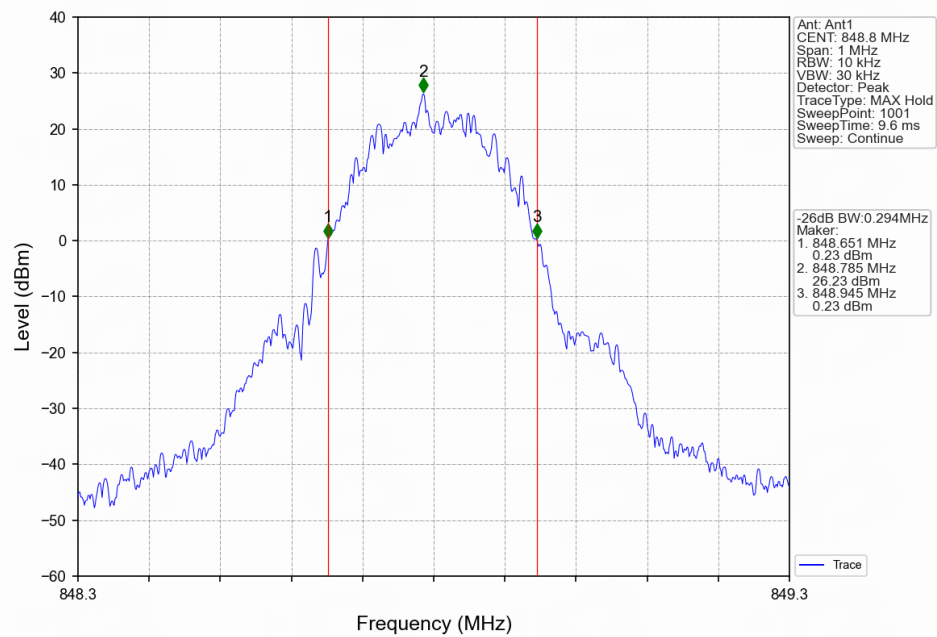
GSM850 EGPRS LCH 824.2MHz 1 TX Slot NTNV



GSM850 EGPRS MCH 836.6MHz 1 TX Slot NTNV



GSM850 EGPRS HCH 848.8MHz 1 TX Slot NTNV



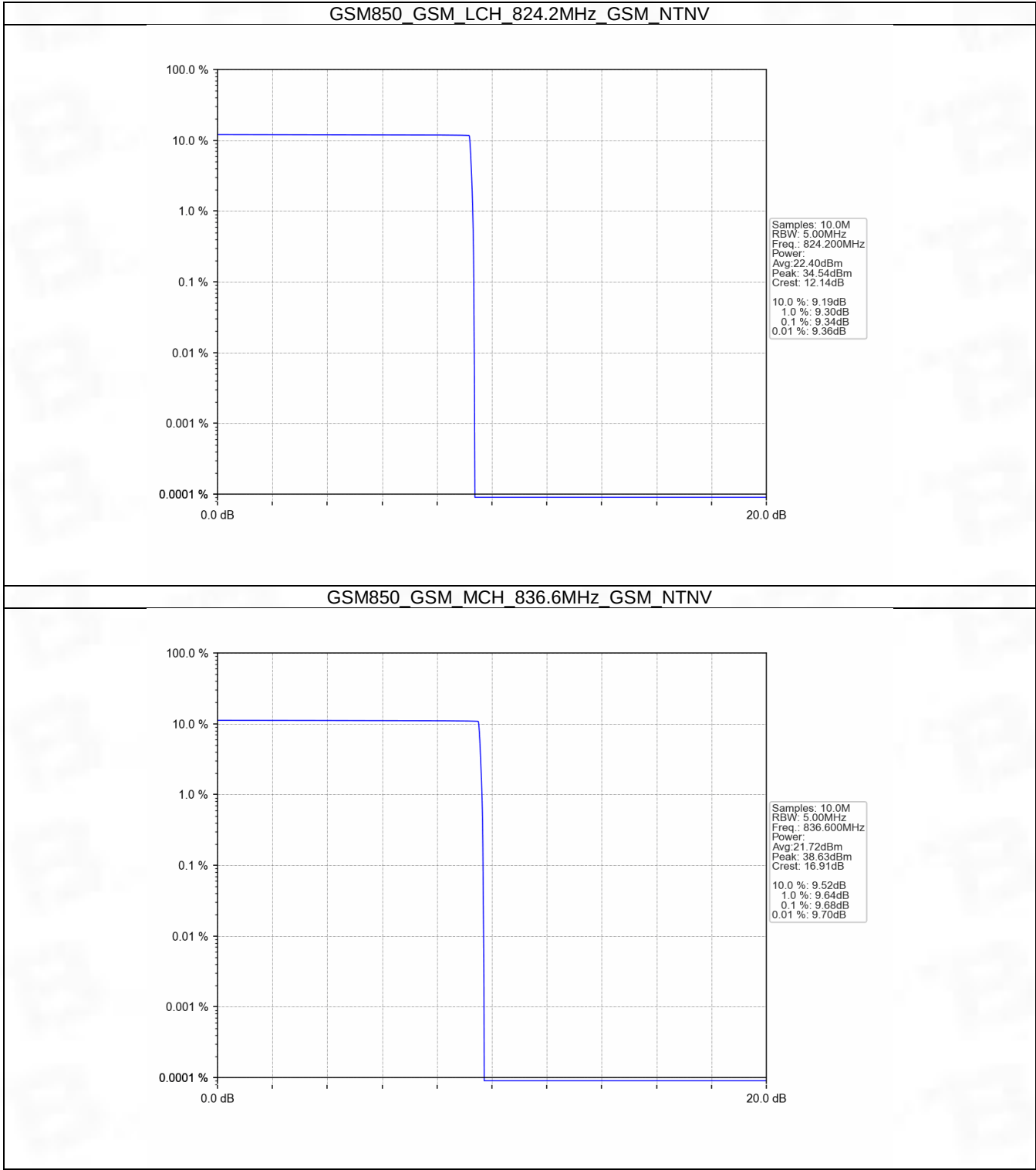
5. Peak-Average Ratio

5.1 GSM850

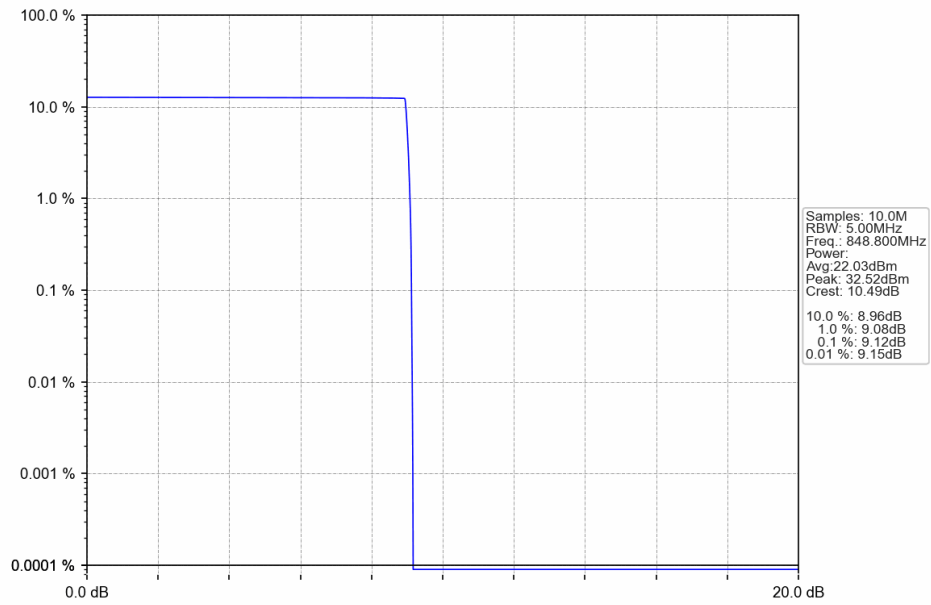
5.1.1 Test Result

Band: GSM850						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	9.34	<=13	Pass
			836.6	9.68	<=13	Pass
			848.8	9.12	<=13	Pass
	GPRS	4 TX Slots	824.2	3.71	<=13	Pass
			836.6	3.65	<=13	Pass
			848.8	3.91	<=13	Pass
	EGPRS	4 TX Slots	824.2	8.61	<=13	Pass
			836.6	8.44	<=13	Pass
			848.8	8.24	<=13	Pass

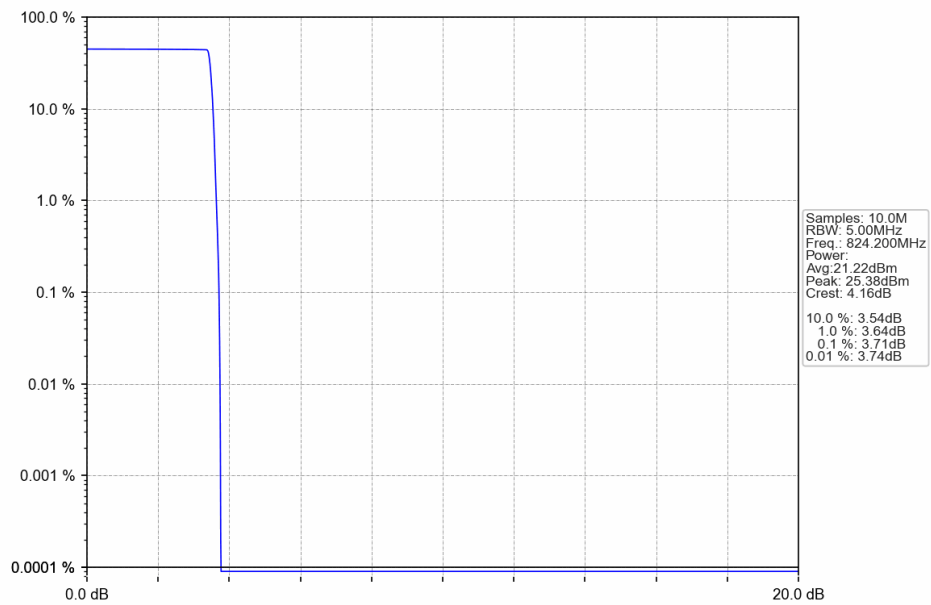
5.1.2 Test Graph



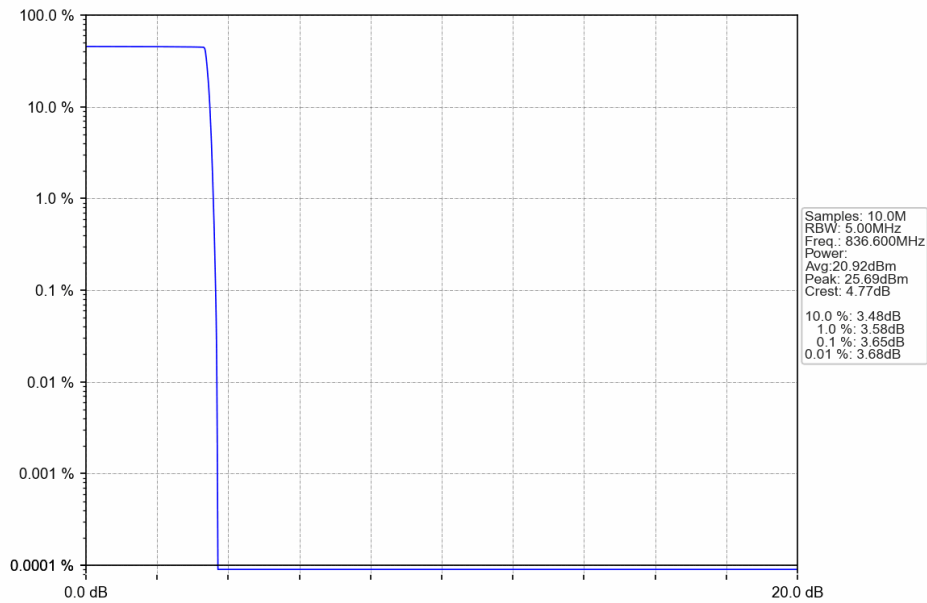
GSM850 GSM HCH 848.8MHz GSM NTN



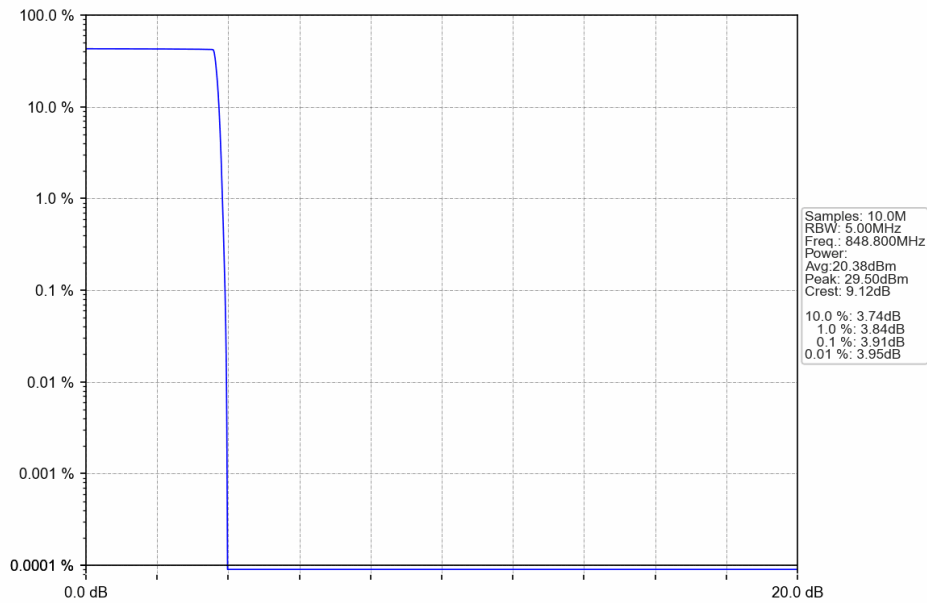
GSM850 GPRS LCH 824.2MHz 4 TX Slots NTN



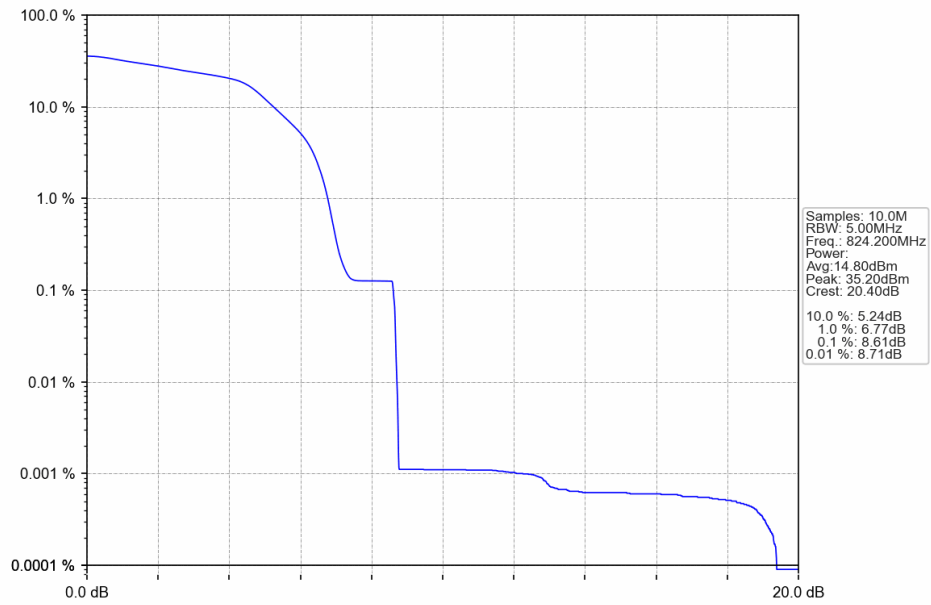
GSM850 GPRS MCH 836.6MHz 4 TX Slots NTNV



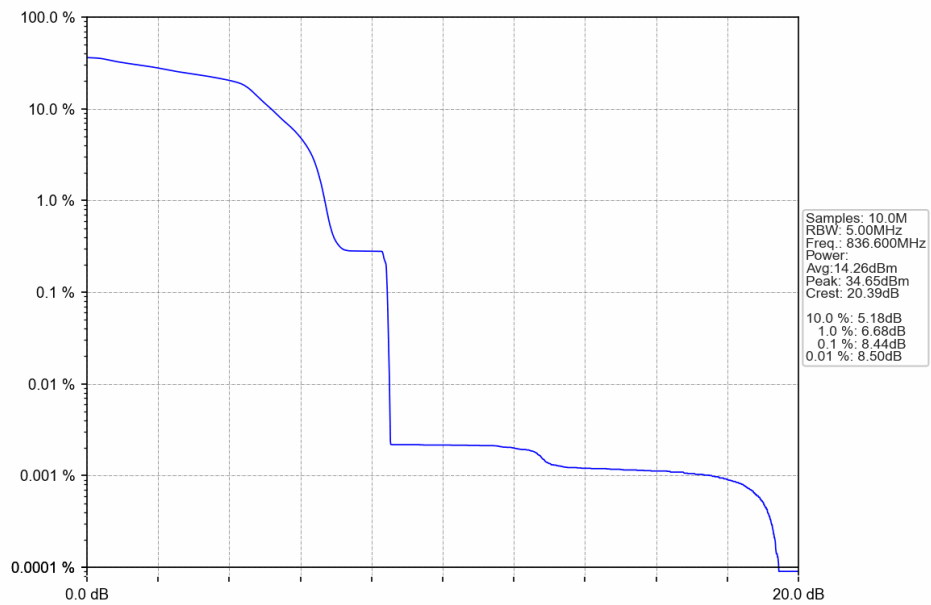
GSM850 GPRS HCH 848.8MHz 4 TX Slots NTNV



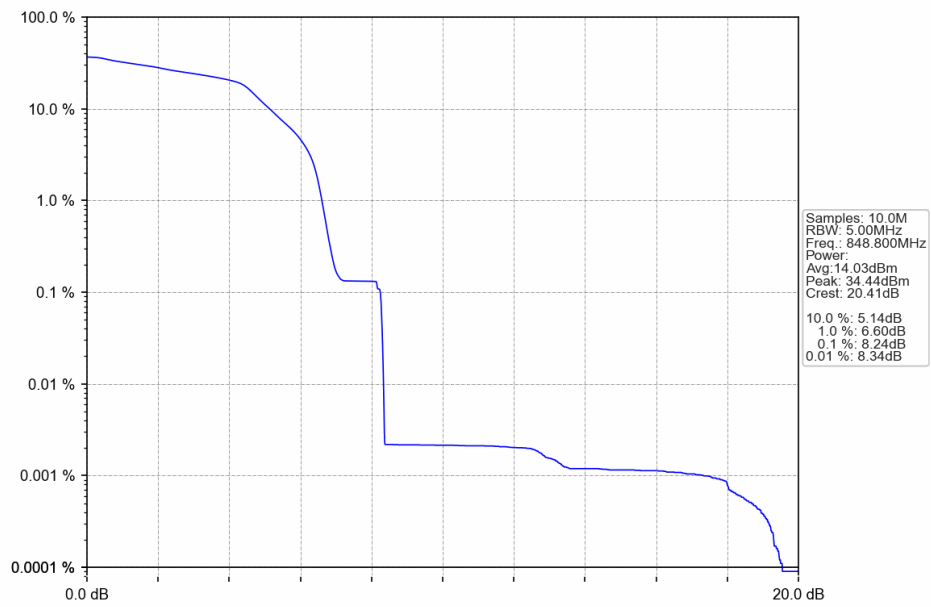
GSM850 EGPRS LCH 824.2MHz 4 TX Slots NTNV



GSM850 EGPRS MCH 836.6MHz 4 TX Slots NTNV



GSM850 EGPRS HCH 848.8MHz 4 TX Slots NTNV



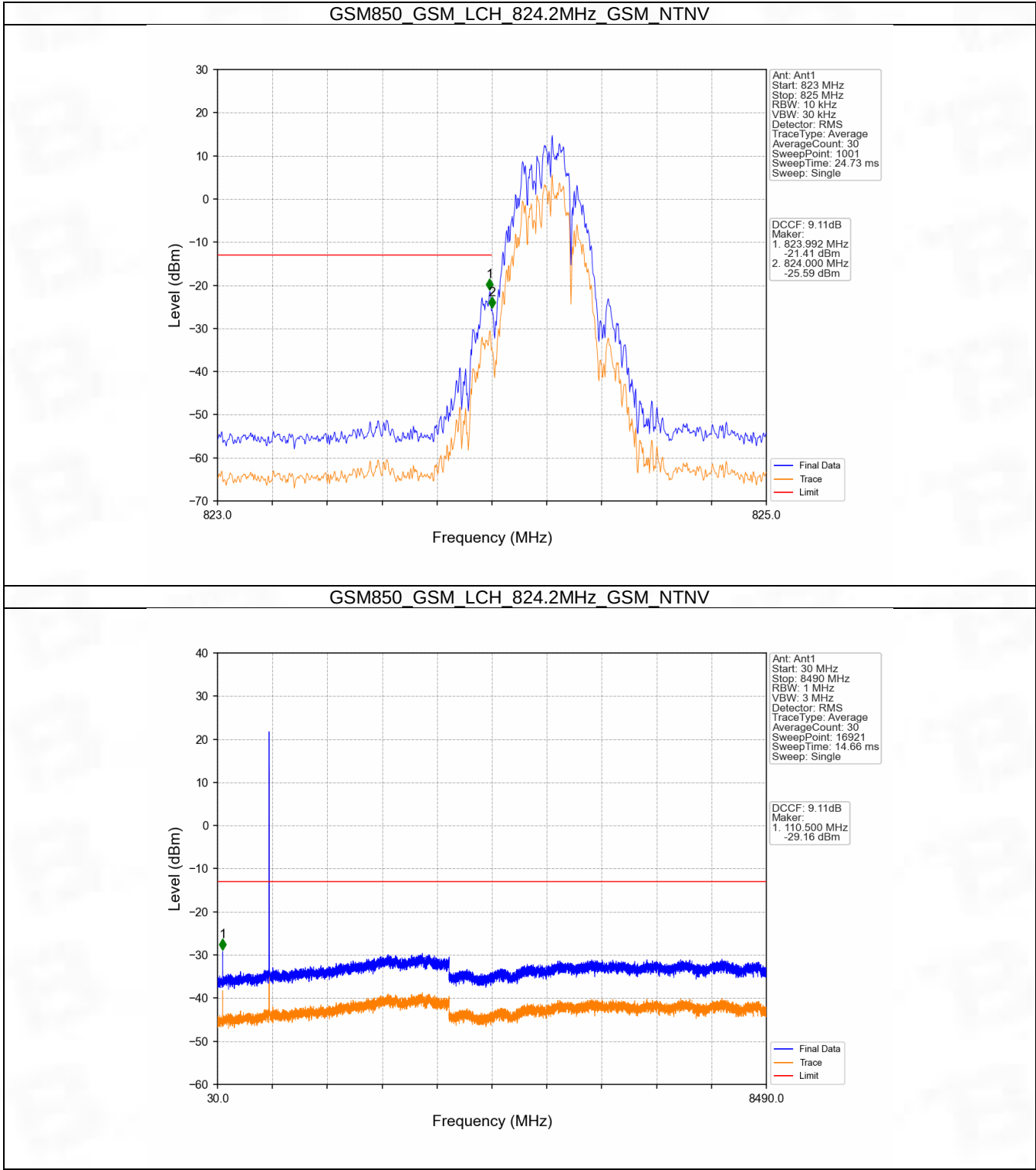
6. Spurious Emission

6.1 GSM850

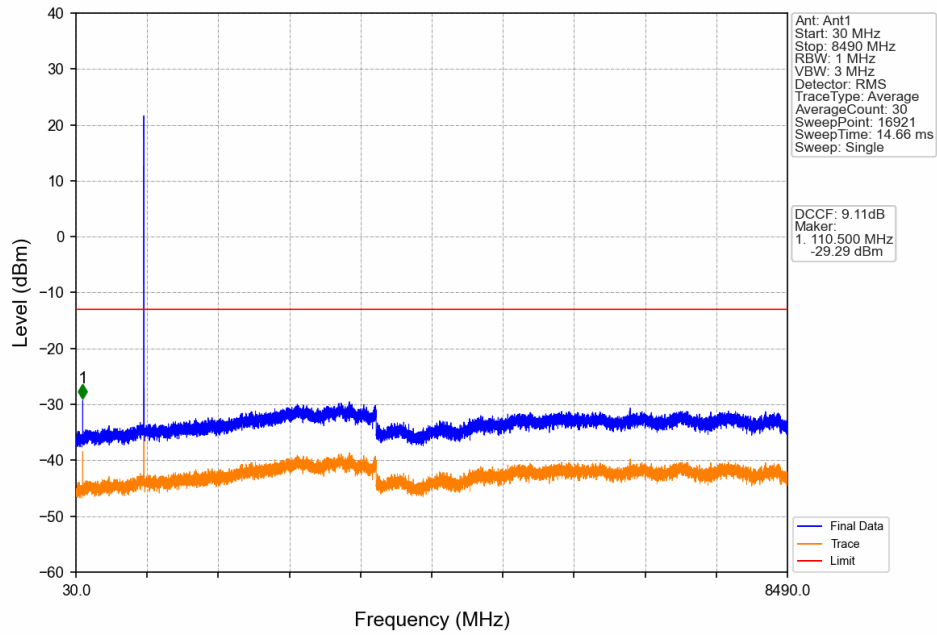
6.1.1 Test Result

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

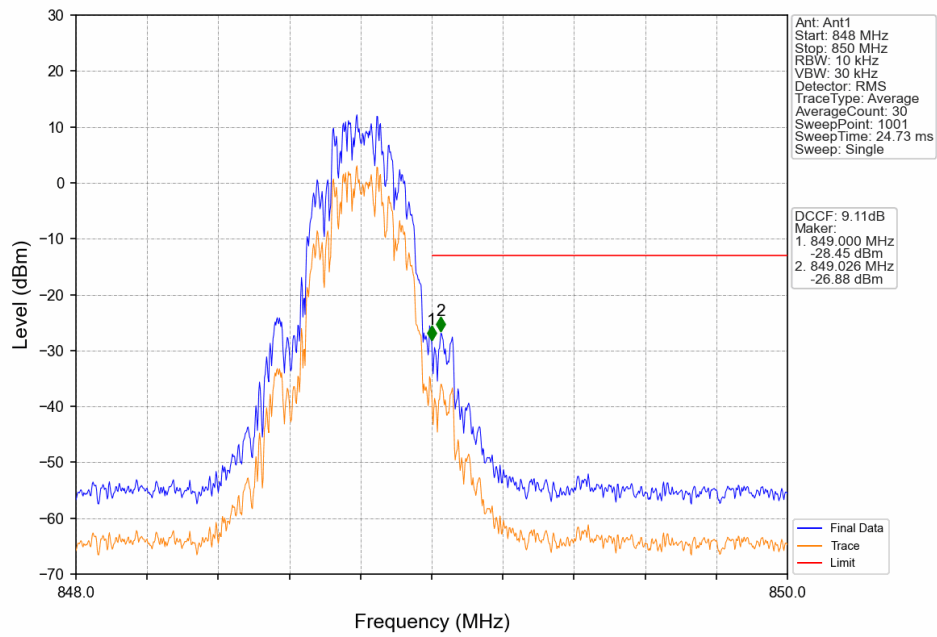
6.1.2 Test Graph



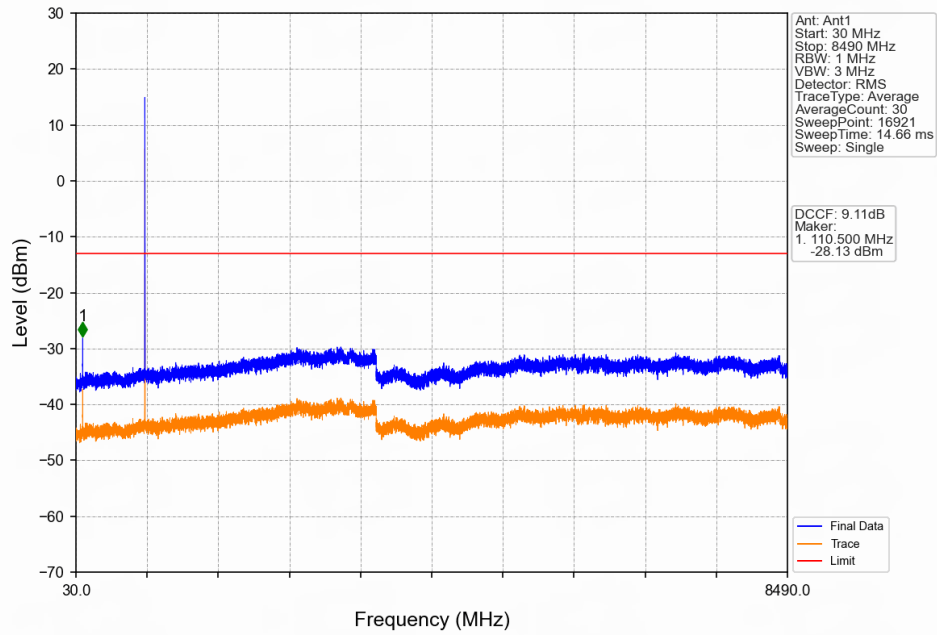
GSM850 GSM MCH 836.6MHz GSM NTNV



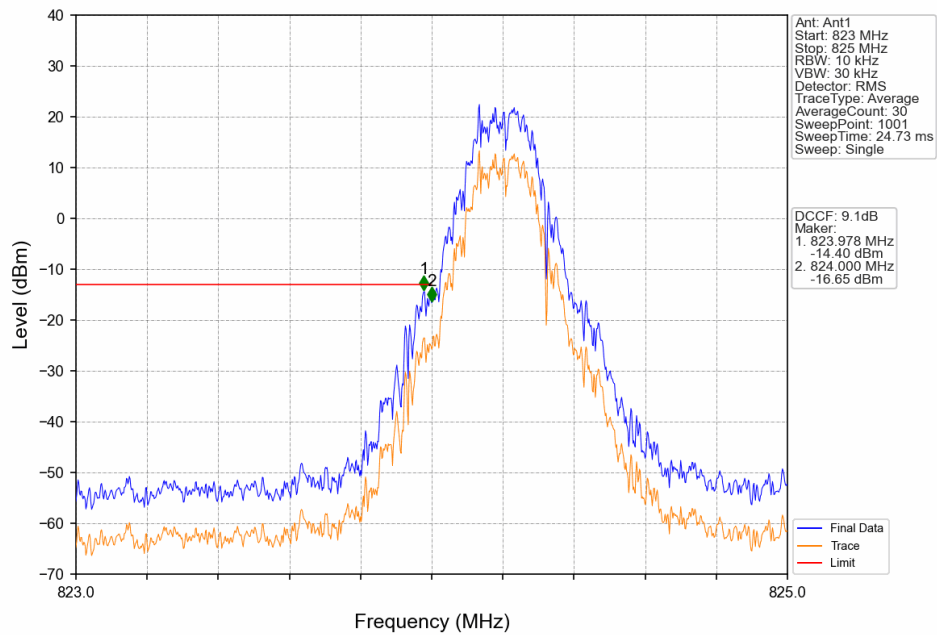
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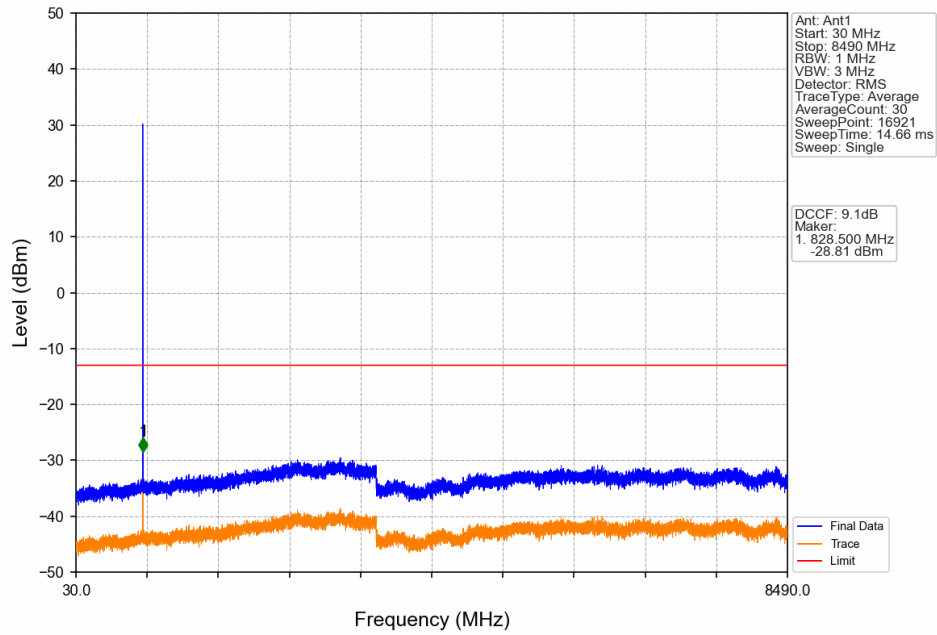
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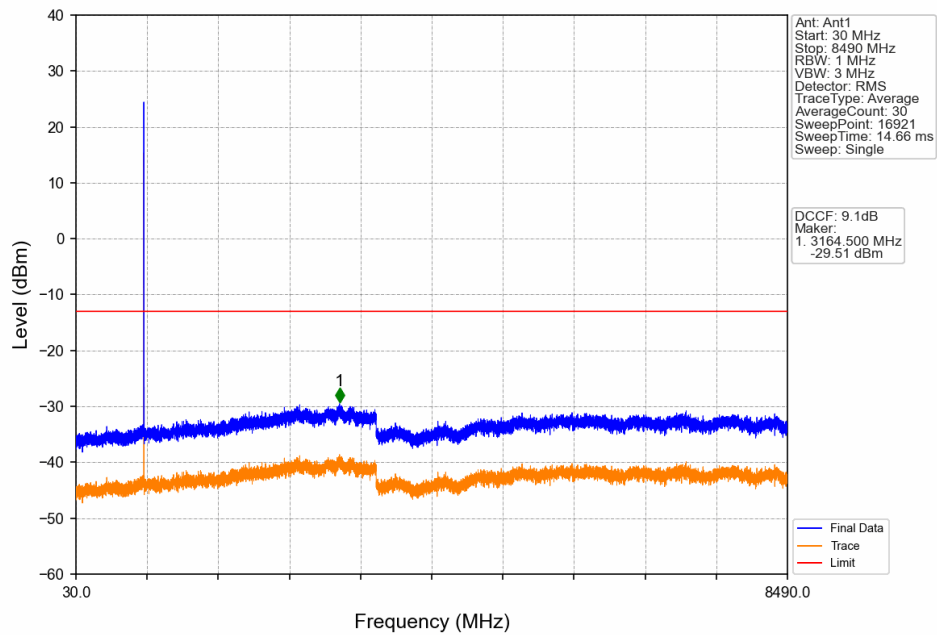
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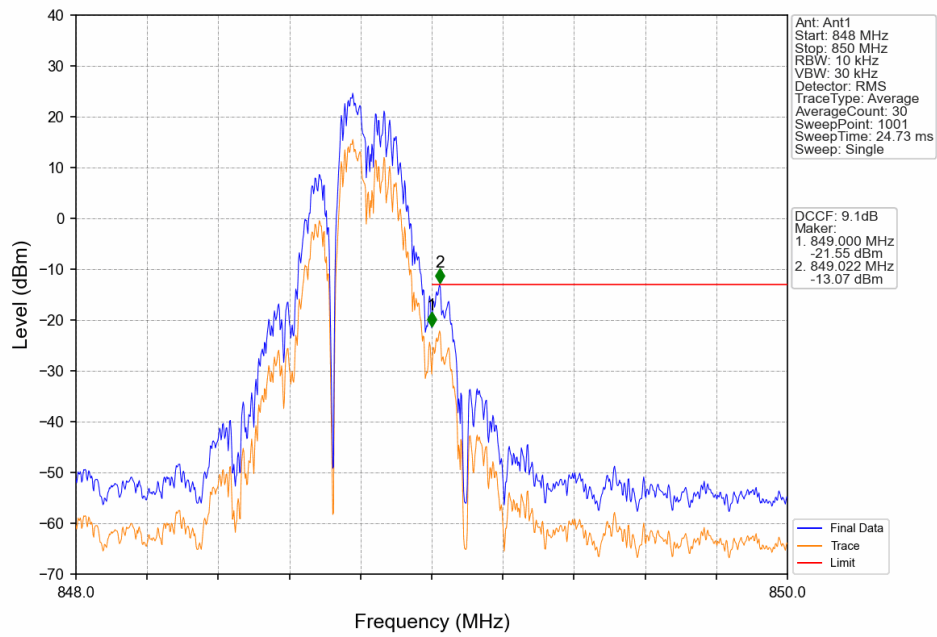
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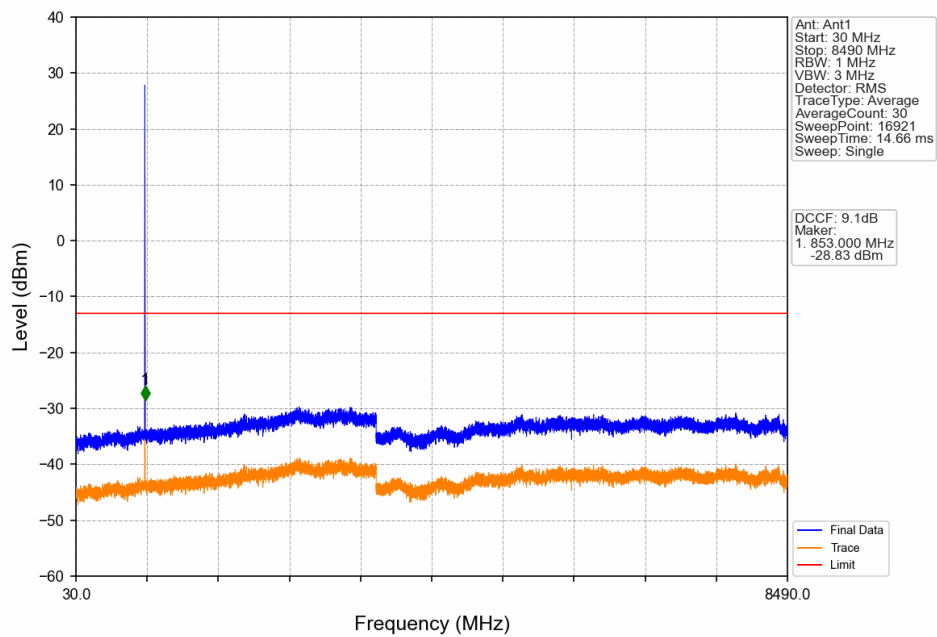
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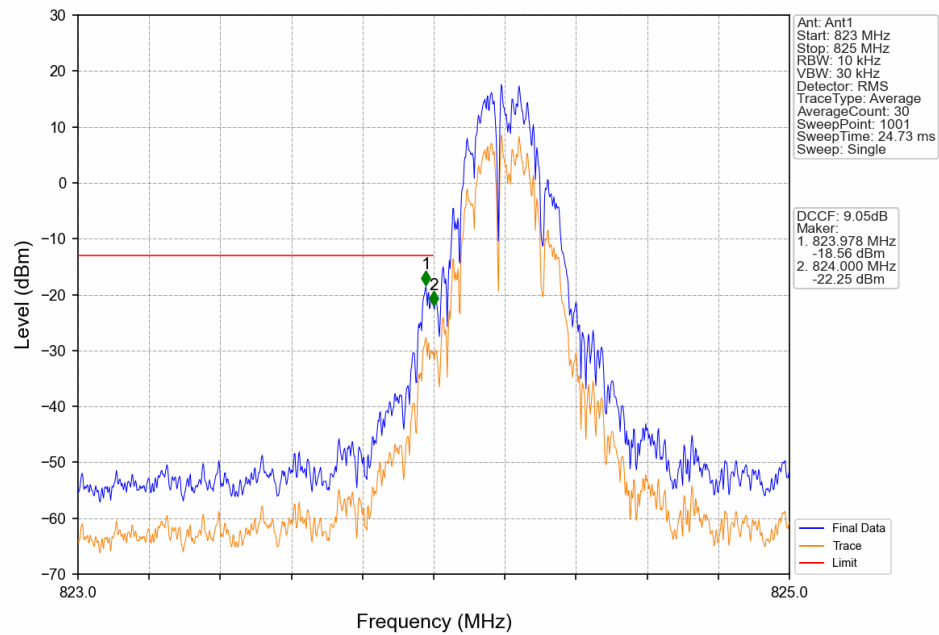
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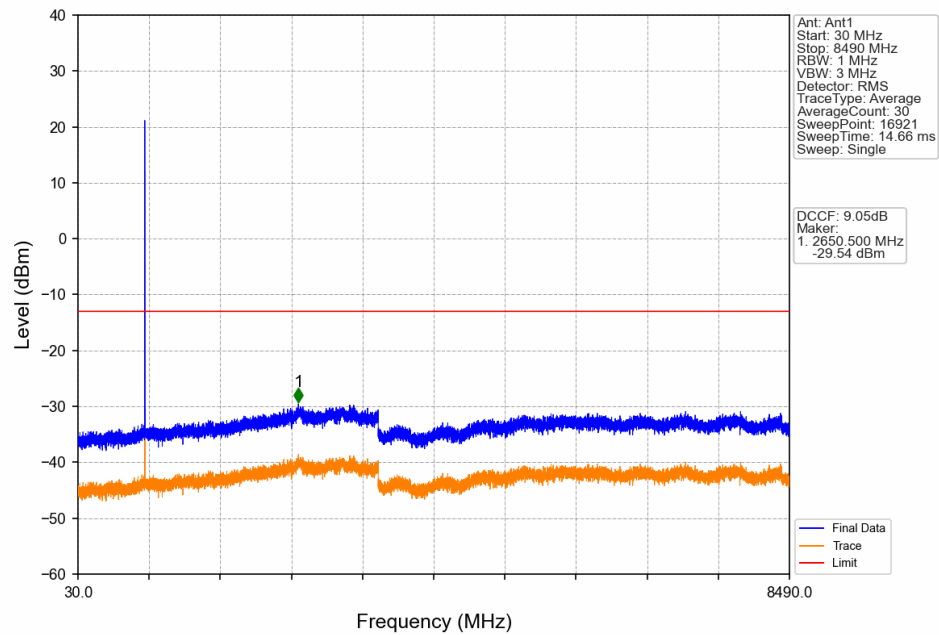
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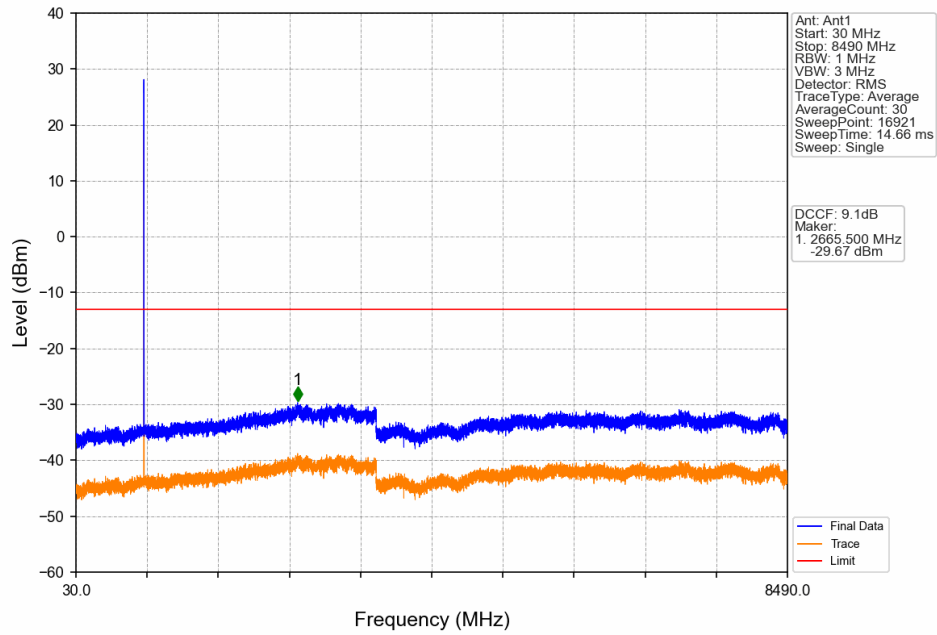
GSM850 EGPRS LCH 824.2MHz 1 TX Slot NTNV



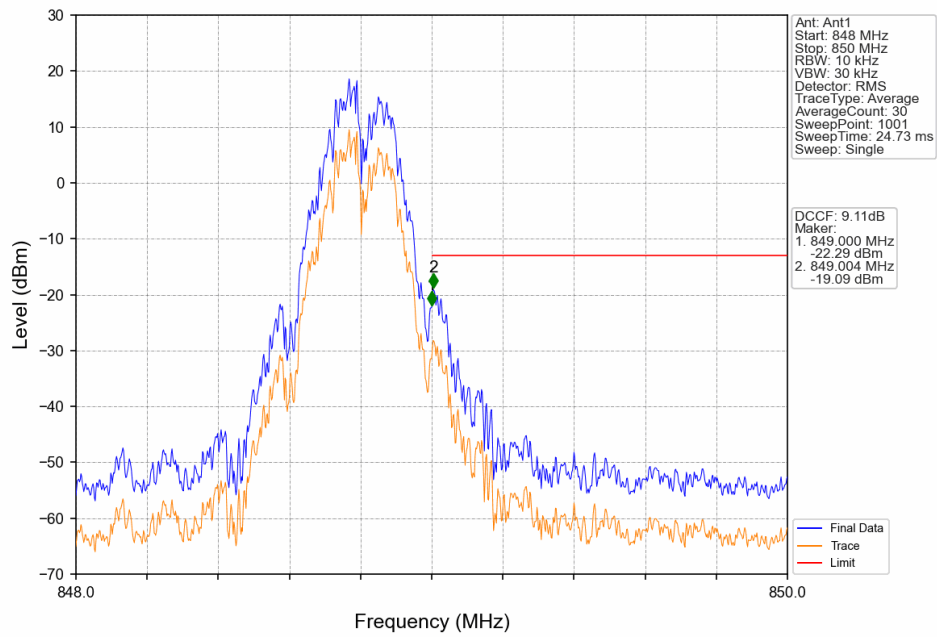
GSM850 EGPRS LCH 824.2MHz 1 TX Slot NTNV



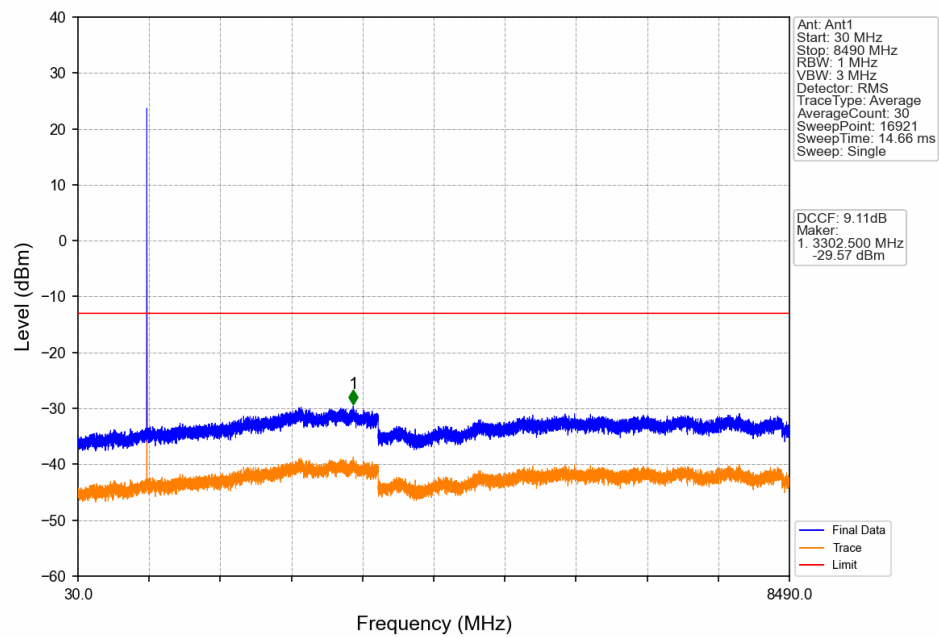
GSM850 EGPRS MCH 836.6MHz 1 TX Slot NTNV



GSM850 EGPRS 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	1.3709	0.0195	ppm	250KGXW	22H	31.37
GSM850	0.2	824.2	848.8	0.3350	0.0200	ppm	251KG7W	22H	25.25

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	0.4864	0.0195	ppm	250KGXW	22H	26.87
GSM850	0.2	824.2	848.8	0.1189	0.0200	ppm	251KG7W	22H	20.75