

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 GSM850_ERP

Conducted Power

ENV	Mode		Conducted Power (dBm)		
	Network	Subset	Frequency (MHz)		
			824.2	836.6	848.8
NTNV	GSM	GSM	33.07	33.16	33.13
	GPRS	1 TX Slot	33.06	33.11	33.05
		2 TX Slots	32.31	32.38	32.33
		3 TX Slots	30.53	30.59	30.57
		4 TX Slots	29.33	29.44	29.41
	EGPRS	1 TX Slot	26.13	26.14	25.80
		2 TX Slots	24.95	24.78	24.58
		3 TX Slots	22.56	22.36	22.20
		4 TX Slots	21.29	21.03	20.85

ERP

ENV	Mode		ERP/EIRP(dBm)			ERP/EIRP(W)			Limit (W)	Verdict
	Network	Subset	Frequency (MHz)			Frequency (MHz)				
			824.2	836.6	848.8	824.2	836.6	848.8		
NTNV	GSM	GSM	30.72	30.81	30.78	1.180	1.205	1.197	7.0	Pass
	GPRS	1 TX Slot	30.71	30.76	30.70	1.178	1.191	1.175		Pass
		2 TX Slots	29.96	30.03	29.98	0.991	1.007	0.995		Pass
		3 TX Slots	28.18	28.24	28.22	0.658	0.667	0.664		Pass
		4 TX Slots	26.98	27.09	27.06	0.499	0.512	0.508		Pass
	EGPRS	1 TX Slot	23.78	23.79	23.45	0.239	0.239	0.221		Pass
		2 TX Slots	22.60	22.43	22.23	0.182	0.175	0.167		Pass
		3 TX Slots	20.21	20.01	19.85	0.105	0.100	0.097		Pass
		4 TX Slots	18.94	18.68	18.50	0.078	0.074	0.071		Pass
Note1: ERP=Conducted Power+Antenna Gain-2.15										

Note1: ERP=Conducted Power+Antenna Gain-2.15

2. Frequency Stability

2.1 Test Result

2.1.1 GSM850

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	-5.327	-0.0065	-2.5 to 2.5	Pass
			3.85	-4.585	-0.0056	-2.5 to 2.5	Pass
			4.43	-7.361	-0.0089	-2.5 to 2.5	Pass
		-30	3.85	-4.875	-0.0059	-2.5 to 2.5	Pass
		-20	3.85	-3.713	-0.0045	-2.5 to 2.5	Pass
		-10	3.85	-9.040	-0.0110	-2.5 to 2.5	Pass
		0	3.85	-3.648	-0.0044	-2.5 to 2.5	Pass
		10	3.85	-5.101	-0.0062	-2.5 to 2.5	Pass
		30	3.85	-4.585	-0.0056	-2.5 to 2.5	Pass
		40	3.85	-8.879	-0.0108	-2.5 to 2.5	Pass
		50	3.85	-13.011	-0.0158	-2.5 to 2.5	Pass
	836.6	20	3.27	-6.489	-0.0078	-2.5 to 2.5	Pass
			3.85	-7.652	-0.0091	-2.5 to 2.5	Pass
			4.43	-4.520	-0.0054	-2.5 to 2.5	Pass
		-30	3.85	-4.326	-0.0052	-2.5 to 2.5	Pass
		-20	3.85	-6.651	-0.0080	-2.5 to 2.5	Pass
		-10	3.85	-4.778	-0.0057	-2.5 to 2.5	Pass
		0	3.85	-4.197	-0.0050	-2.5 to 2.5	Pass
		10	3.85	-5.908	-0.0071	-2.5 to 2.5	Pass
		30	3.85	-7.684	-0.0092	-2.5 to 2.5	Pass
		40	3.85	-5.327	-0.0064	-2.5 to 2.5	Pass
		50	3.85	-4.036	-0.0048	-2.5 to 2.5	Pass
	848.8	20	3.27	-4.068	-0.0048	-2.5 to 2.5	Pass
			3.85	-6.167	-0.0073	-2.5 to 2.5	Pass
			4.43	-3.777	-0.0044	-2.5 to 2.5	Pass
		-30	3.85	-5.198	-0.0061	-2.5 to 2.5	Pass
		-20	3.85	-7.200	-0.0085	-2.5 to 2.5	Pass
		-10	3.85	-8.071	-0.0095	-2.5 to 2.5	Pass
		0	3.85	-5.715	-0.0067	-2.5 to 2.5	Pass
		10	3.85	-9.460	-0.0111	-2.5 to 2.5	Pass
		30	3.85	-6.522	-0.0077	-2.5 to 2.5	Pass
		40	3.85	-4.811	-0.0057	-2.5 to 2.5	Pass
GPRS	824.2	20	3.27	-6.231	-0.0076	-2.5 to 2.5	Pass
			3.85	-10.041	-0.0122	-2.5 to 2.5	Pass
			4.43	-8.588	-0.0104	-2.5 to 2.5	Pass
		-30	3.85	-5.489	-0.0067	-2.5 to 2.5	Pass
		-20	3.85	-6.941	-0.0084	-2.5 to 2.5	Pass
		-10	3.85	-5.844	-0.0071	-2.5 to 2.5	Pass
		0	3.85	-7.555	-0.0092	-2.5 to 2.5	Pass
		10	3.85	-4.262	-0.0052	-2.5 to 2.5	Pass
		30	3.85	-6.780	-0.0082	-2.5 to 2.5	Pass
		40	3.85	-3.713	-0.0045	-2.5 to 2.5	Pass
		50	3.85	-4.552	-0.0055	-2.5 to 2.5	Pass
	836.6	20	3.27	-6.134	-0.0073	-2.5 to 2.5	Pass
			3.85	-6.651	-0.0080	-2.5 to 2.5	Pass
			4.43	-8.620	-0.0103	-2.5 to 2.5	Pass
		-30	3.85	-4.907	-0.0059	-2.5 to 2.5	Pass
		-20	3.85	-7.942	-0.0095	-2.5 to 2.5	Pass
		-10	3.85	-7.845	-0.0094	-2.5 to 2.5	Pass

		0	3.85	-7.426	-0.0089	-2.5 to 2.5	Pass
		10	3.85	-7.490	-0.0090	-2.5 to 2.5	Pass
		30	3.85	-8.168	-0.0098	-2.5 to 2.5	Pass
		40	3.85	-8.459	-0.0101	-2.5 to 2.5	Pass
		50	3.85	-6.134	-0.0073	-2.5 to 2.5	Pass
	848.8	20	3.27	-5.941	-0.0070	-2.5 to 2.5	Pass
			3.85	-7.523	-0.0089	-2.5 to 2.5	Pass
			4.43	-3.293	-0.0039	-2.5 to 2.5	Pass
		-30	3.85	-6.715	-0.0079	-2.5 to 2.5	Pass
		-20	3.85	-4.488	-0.0053	-2.5 to 2.5	Pass
		-10	3.85	-8.039	-0.0095	-2.5 to 2.5	Pass
		0	3.85	-2.454	-0.0029	-2.5 to 2.5	Pass
		10	3.85	-5.941	-0.0070	-2.5 to 2.5	Pass
		30	3.85	-4.520	-0.0053	-2.5 to 2.5	Pass
		40	3.85	-7.103	-0.0084	-2.5 to 2.5	Pass
		50	3.85	-5.747	-0.0068	-2.5 to 2.5	Pass
EGPRS	824.2	20	3.27	-8.782	-0.0107	-2.5 to 2.5	Pass
			3.85	-9.686	-0.0118	-2.5 to 2.5	Pass
			4.43	-5.908	-0.0072	-2.5 to 2.5	Pass
		-30	3.85	-6.651	-0.0081	-2.5 to 2.5	Pass
		-20	3.85	-5.424	-0.0066	-2.5 to 2.5	Pass
		-10	3.85	-4.649	-0.0056	-2.5 to 2.5	Pass
		0	3.85	-5.585	-0.0068	-2.5 to 2.5	Pass
		10	3.85	-11.203	-0.0136	-2.5 to 2.5	Pass
		30	3.85	-7.652	-0.0093	-2.5 to 2.5	Pass
		40	3.85	-6.102	-0.0074	-2.5 to 2.5	Pass
		50	3.85	-3.358	-0.0041	-2.5 to 2.5	Pass
	836.6	20	3.27	-5.908	-0.0071	-2.5 to 2.5	Pass
			3.85	-9.331	-0.0112	-2.5 to 2.5	Pass
			4.43	-7.361	-0.0088	-2.5 to 2.5	Pass
		-30	3.85	-4.940	-0.0059	-2.5 to 2.5	Pass
		-20	3.85	-3.713	-0.0044	-2.5 to 2.5	Pass
		-10	3.85	-4.907	-0.0059	-2.5 to 2.5	Pass
		0	3.85	-5.715	-0.0068	-2.5 to 2.5	Pass
		10	3.85	-5.521	-0.0066	-2.5 to 2.5	Pass
		30	3.85	-9.589	-0.0115	-2.5 to 2.5	Pass
		40	3.85	-7.297	-0.0087	-2.5 to 2.5	Pass
		50	3.85	-8.233	-0.0098	-2.5 to 2.5	Pass
	848.8	20	3.27	-7.200	-0.0085	-2.5 to 2.5	Pass
			3.85	-7.232	-0.0085	-2.5 to 2.5	Pass
			4.43	-9.040	-0.0107	-2.5 to 2.5	Pass
		-30	3.85	-3.713	-0.0044	-2.5 to 2.5	Pass
		-20	3.85	-9.234	-0.0109	-2.5 to 2.5	Pass
		-10	3.85	-8.233	-0.0097	-2.5 to 2.5	Pass
		0	3.85	-8.782	-0.0103	-2.5 to 2.5	Pass
		10	3.85	-7.684	-0.0091	-2.5 to 2.5	Pass
		30	3.85	-8.136	-0.0096	-2.5 to 2.5	Pass
		40	3.85	-8.136	-0.0096	-2.5 to 2.5	Pass
		50	3.85	-2.195	-0.0026	-2.5 to 2.5	Pass

3. Modulation Characteristics

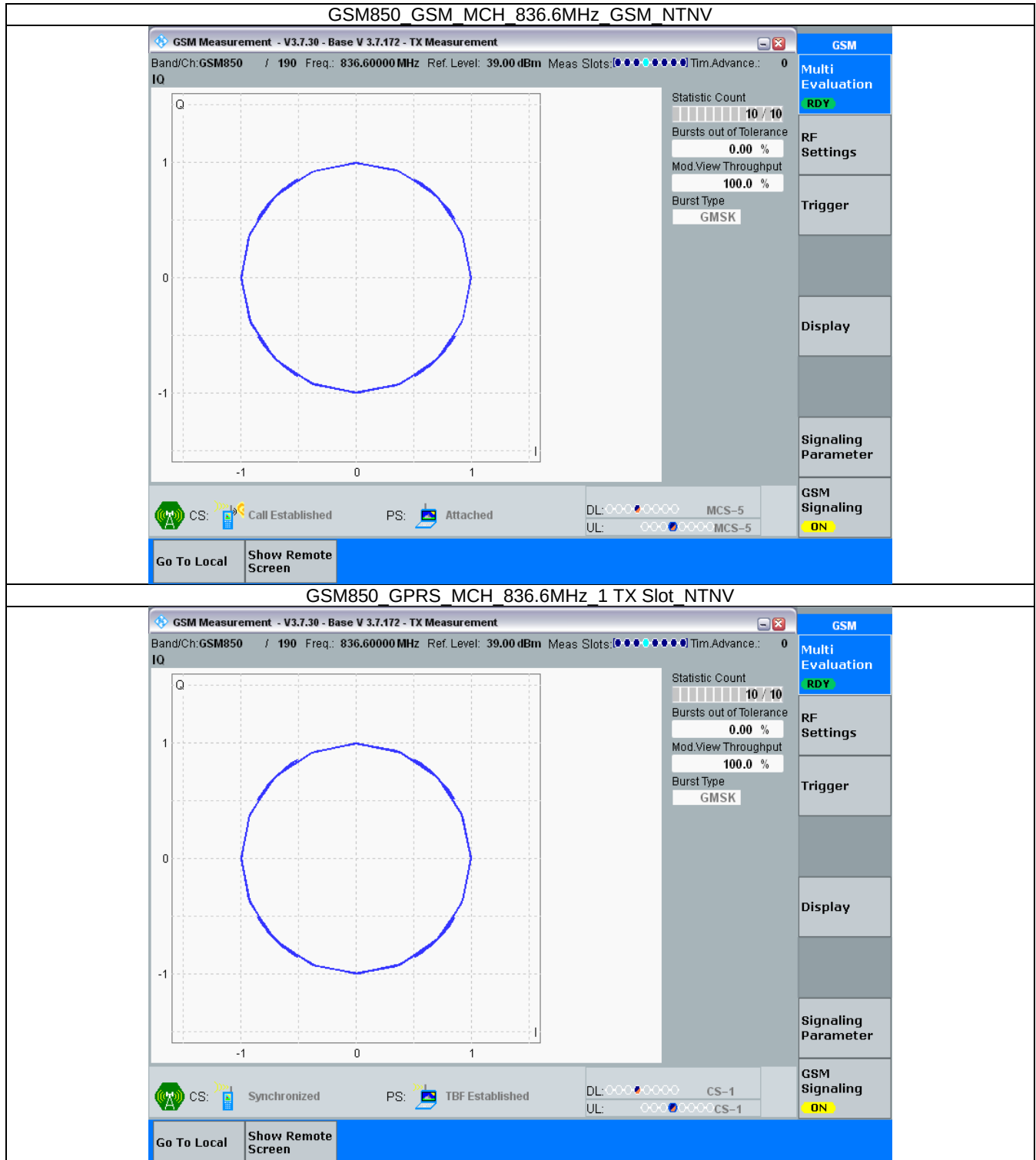
3.1 Test Result

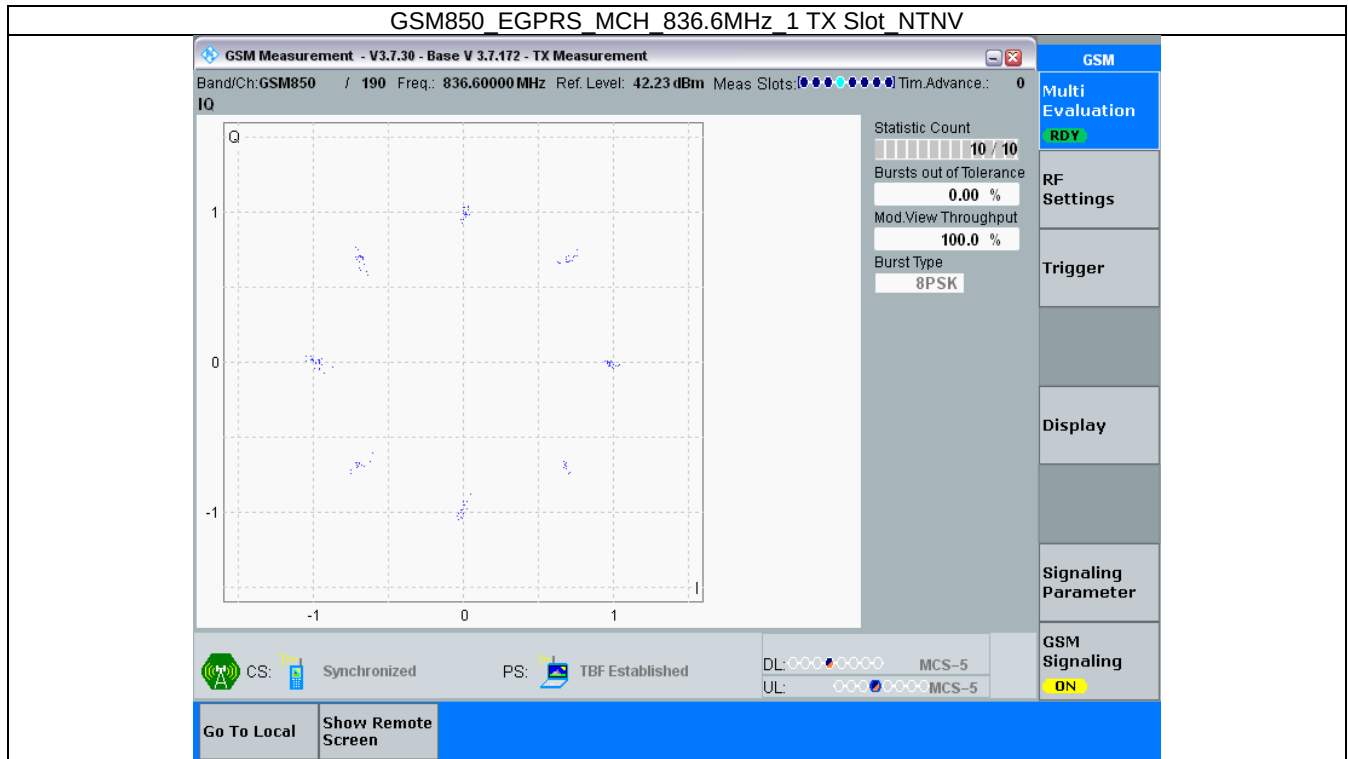
3.1.1 GSM850

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

3.2 Test Graph

3.2.1 GSM850





4. 99% & 26dB Bandwidth

4.1 Test Result

4.1.1 GSM850_OBW

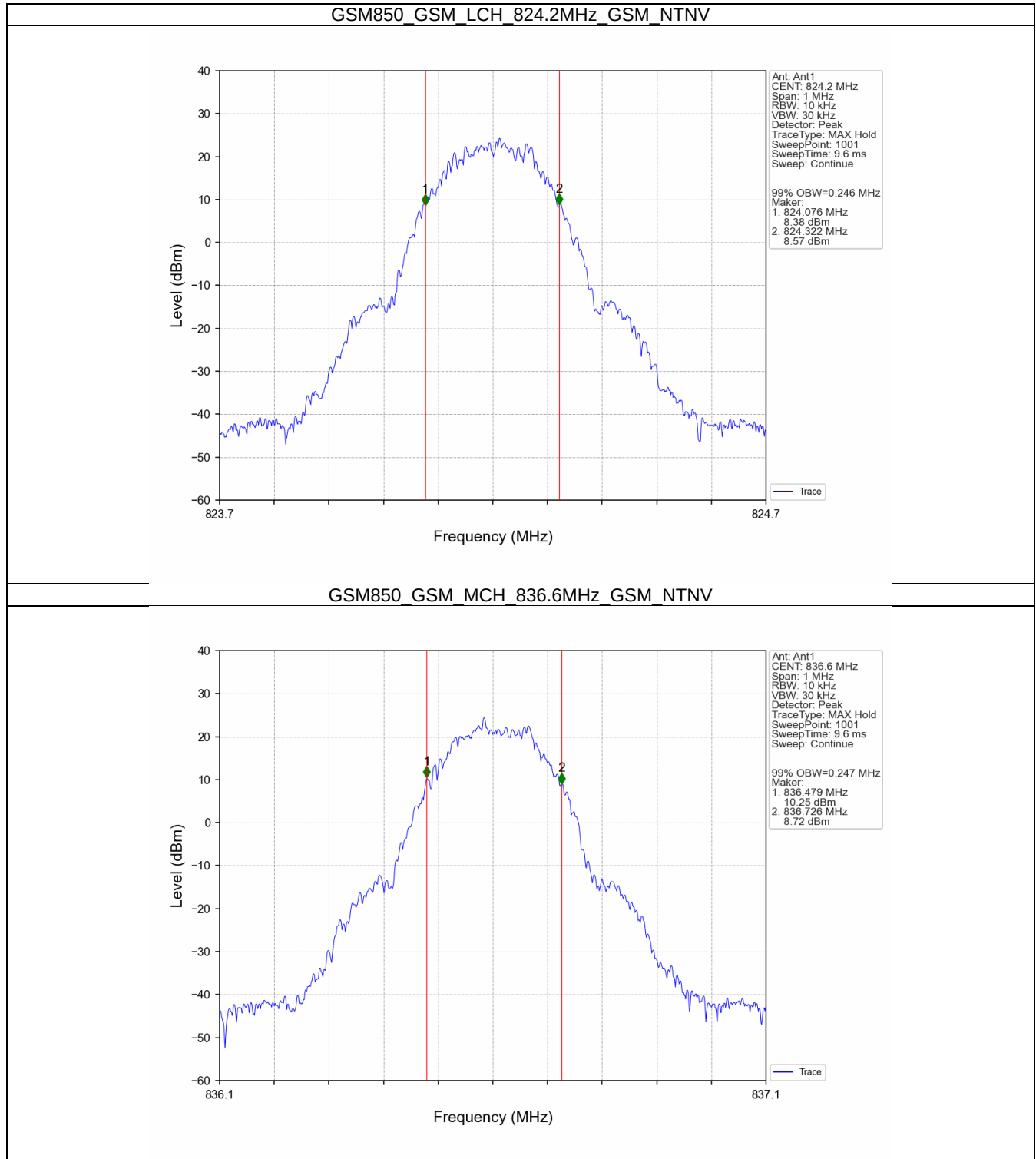
Band: GSM850						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	0.246	/	Pass
			836.6	0.247	/	Pass
			848.8	0.245	/	Pass
	GPRS	1 TX Slot	824.2	0.251	/	Pass
			836.6	0.247	/	Pass
			848.8	0.247	/	Pass
	EGPRS	1 TX Slot	824.2	0.247	/	Pass
			836.6	0.237	/	Pass
			848.8	0.245	/	Pass

4.1.2 GSM850_XDB

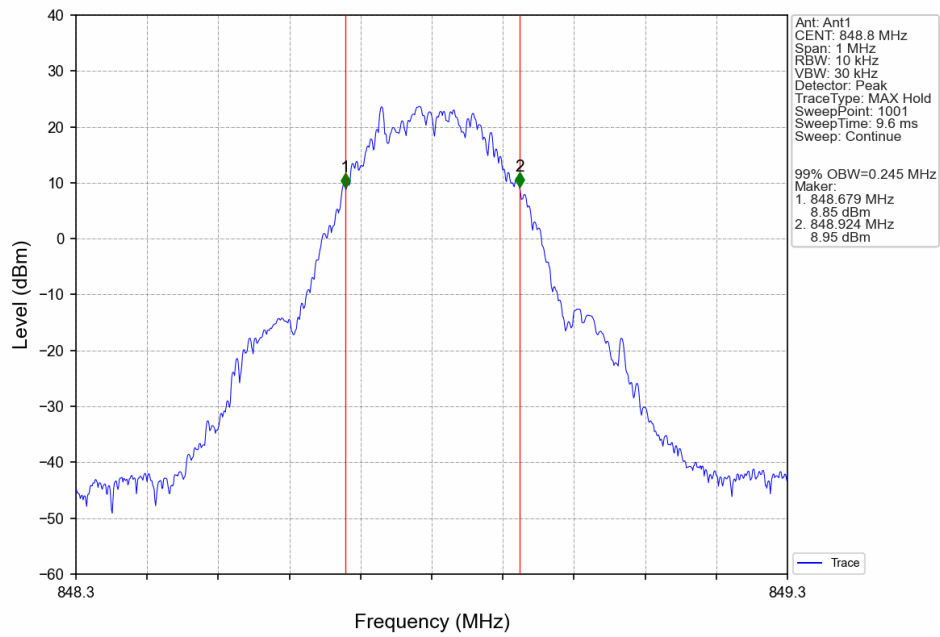
Band: GSM850						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	0.318	/	Pass
			836.6	0.314	/	Pass
			848.8	0.315	/	Pass
	GPRS	1 TX Slot	824.2	0.318	/	Pass
			836.6	0.322	/	Pass
			848.8	0.317	/	Pass
	EGPRS	1 TX Slot	824.2	0.317	/	Pass
			836.6	0.288	/	Pass
			848.8	0.310	/	Pass

4.2 Test Graph

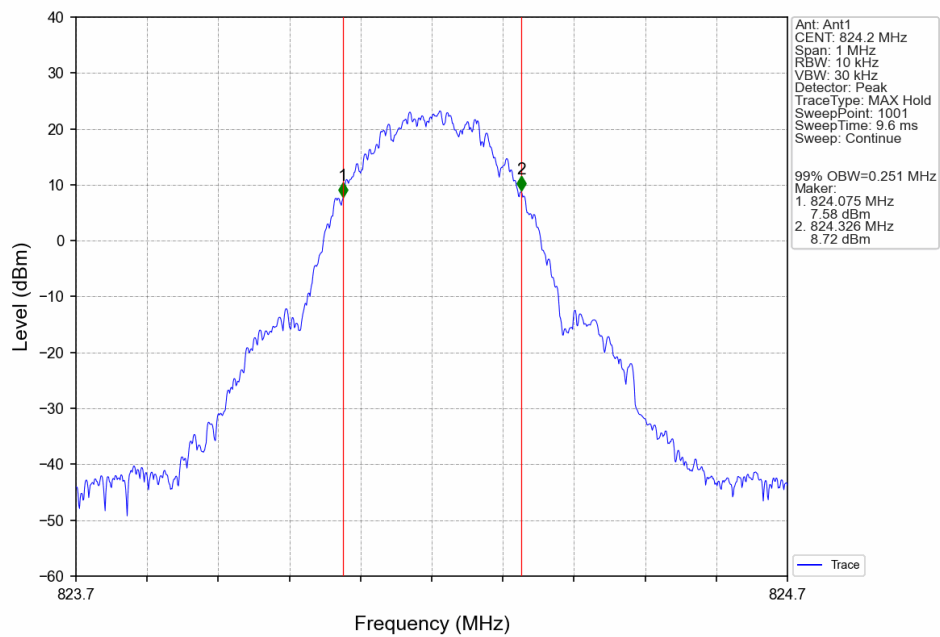
4.2.1 GSM850_OBW



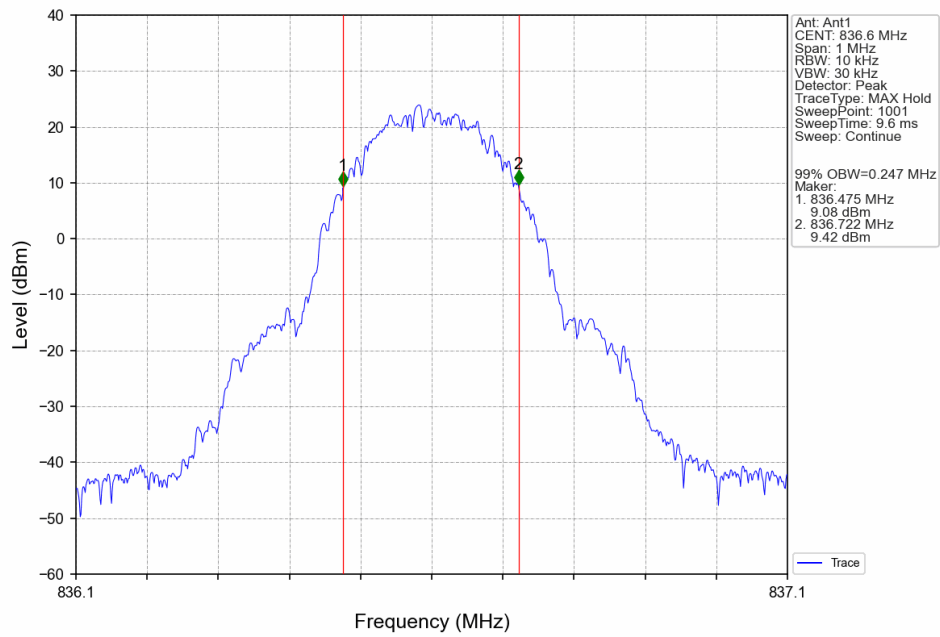
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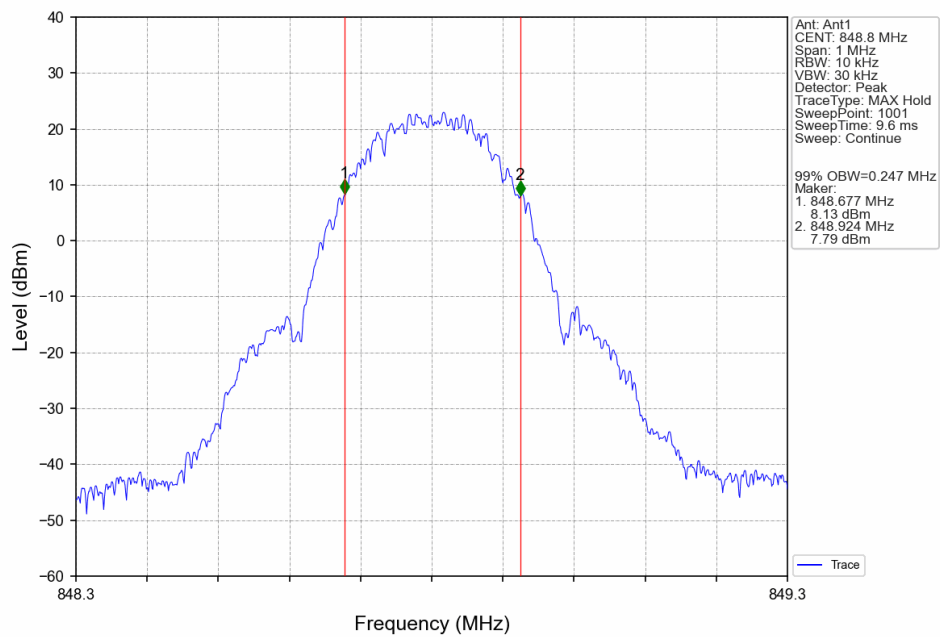
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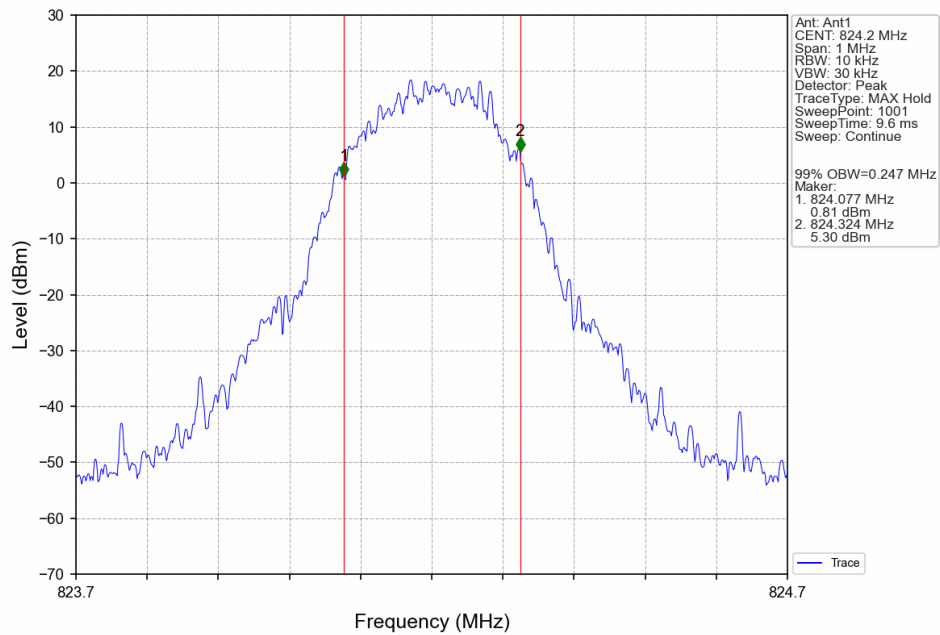
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



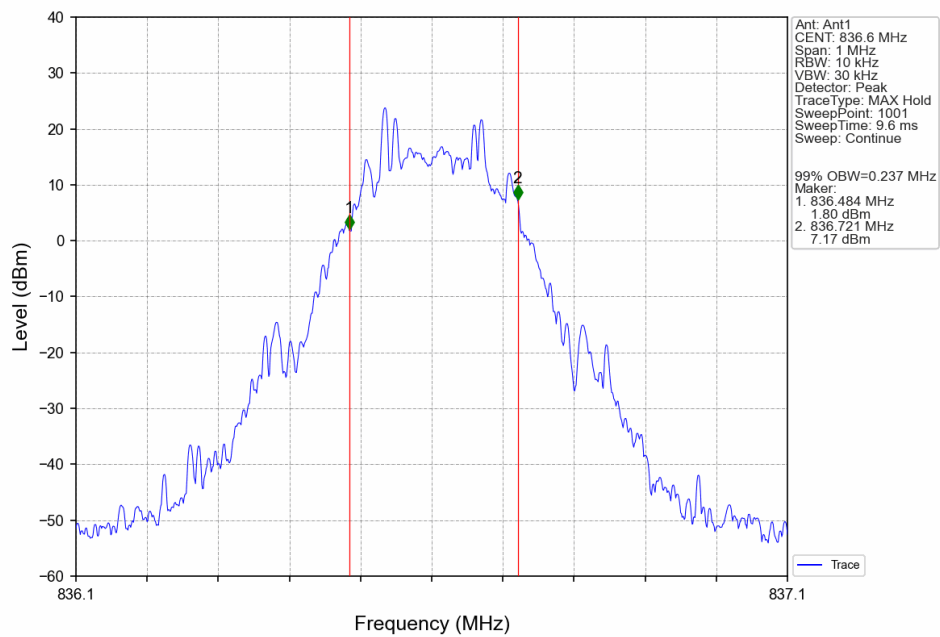
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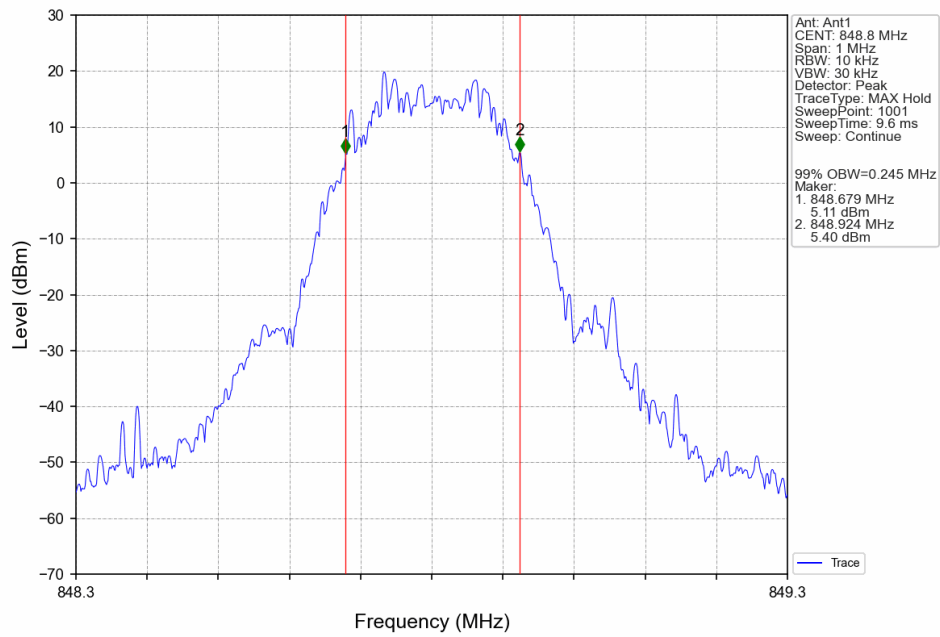
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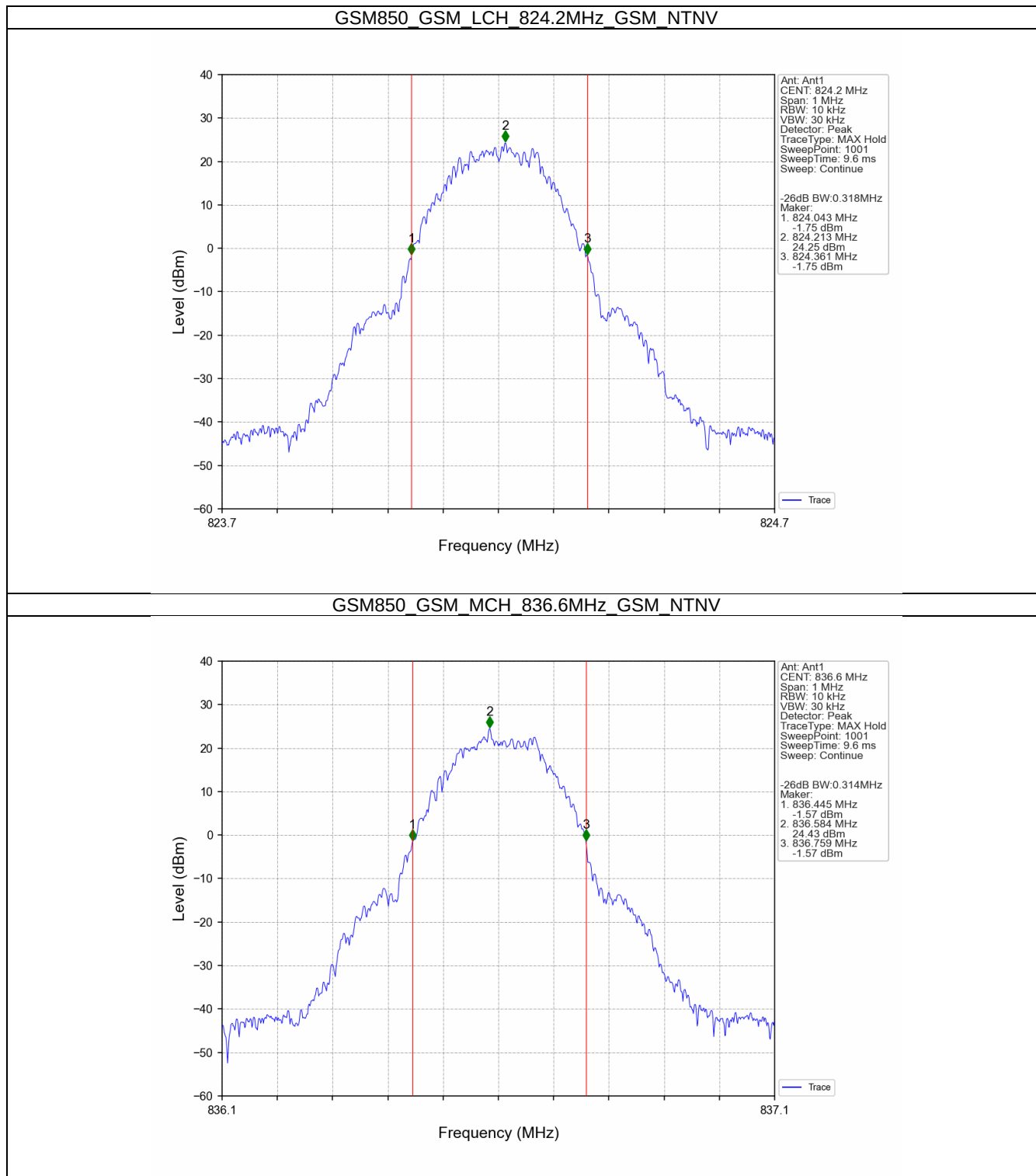
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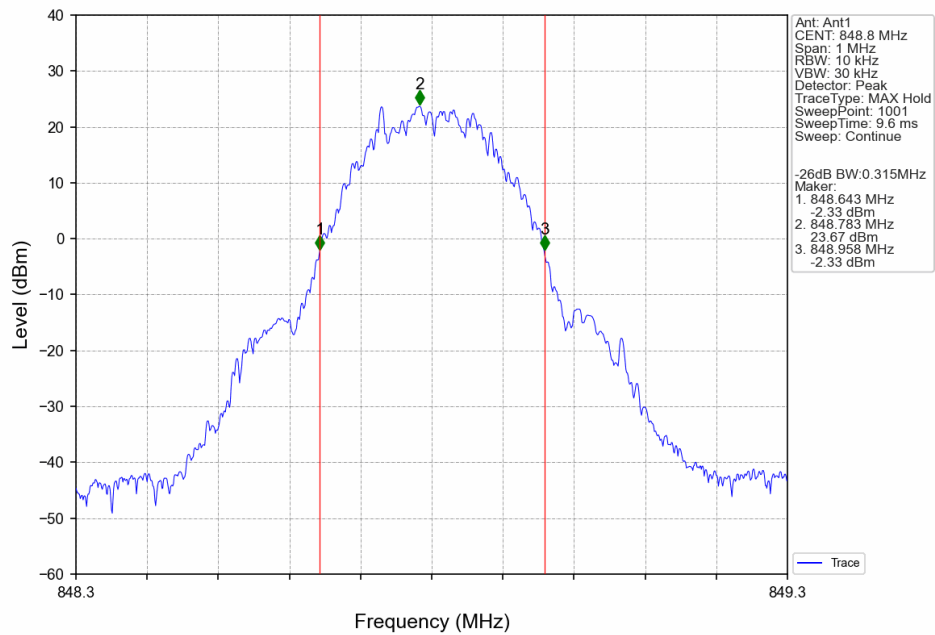
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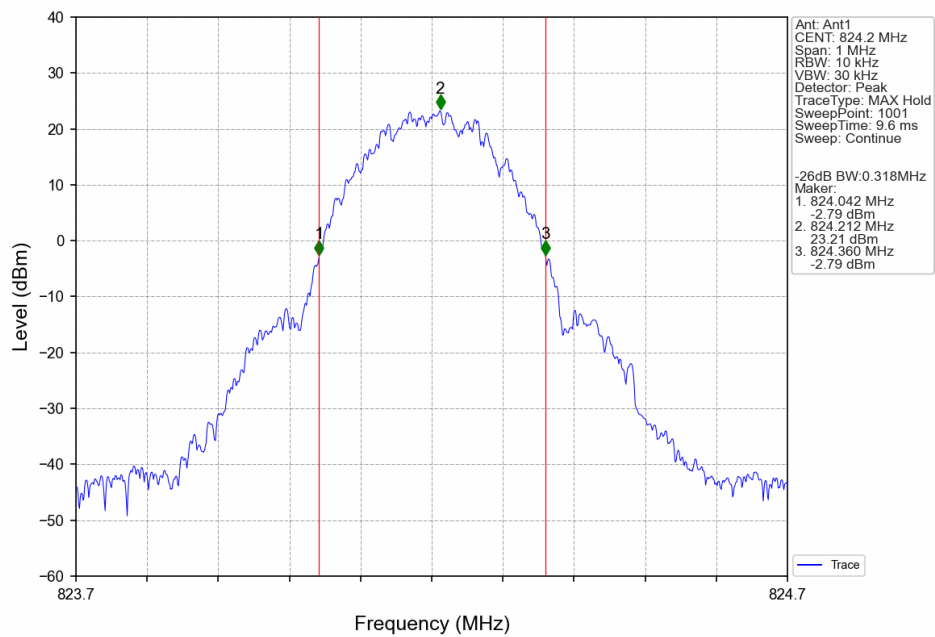
4.2.2 GSM850_XDB



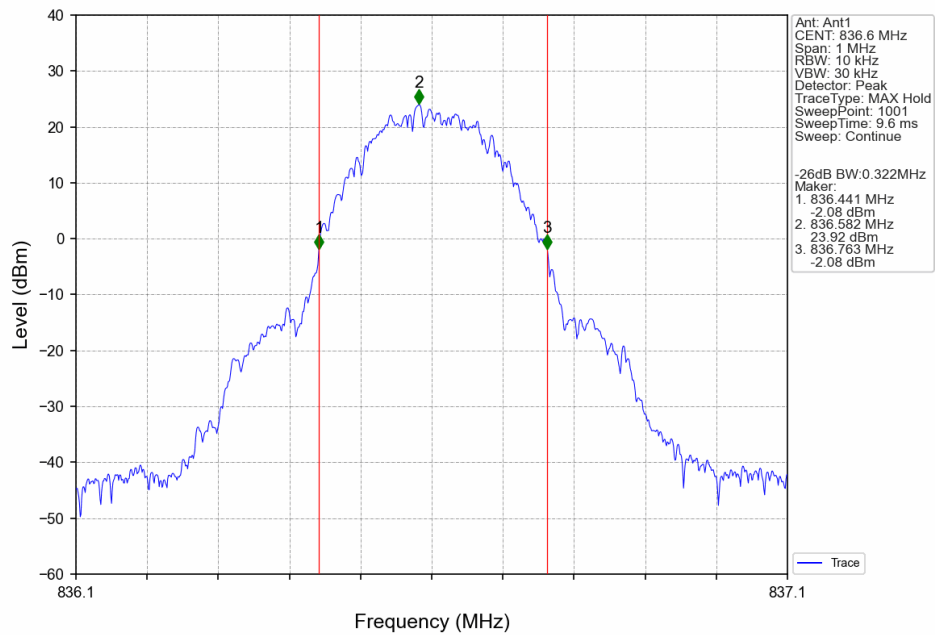
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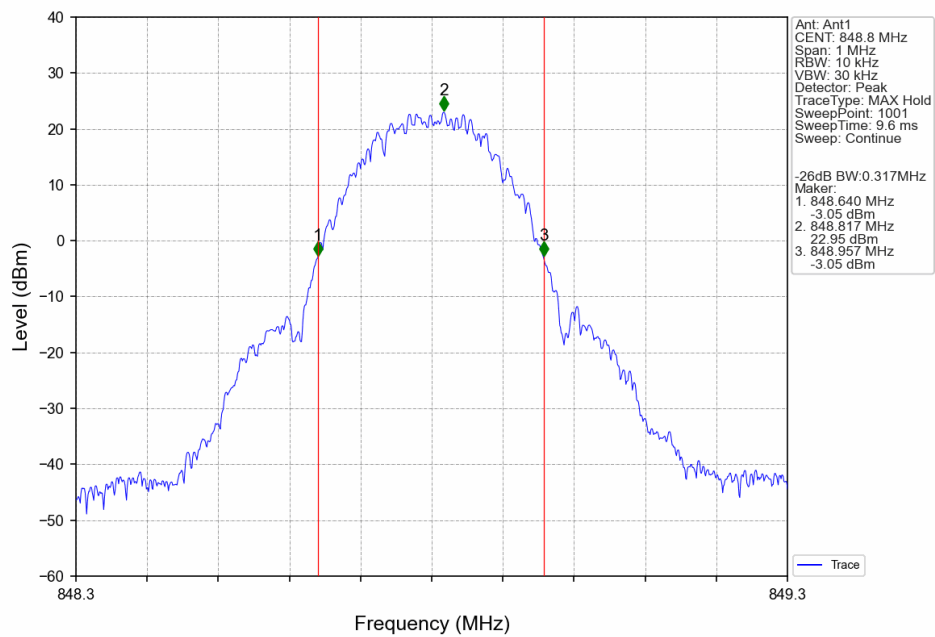
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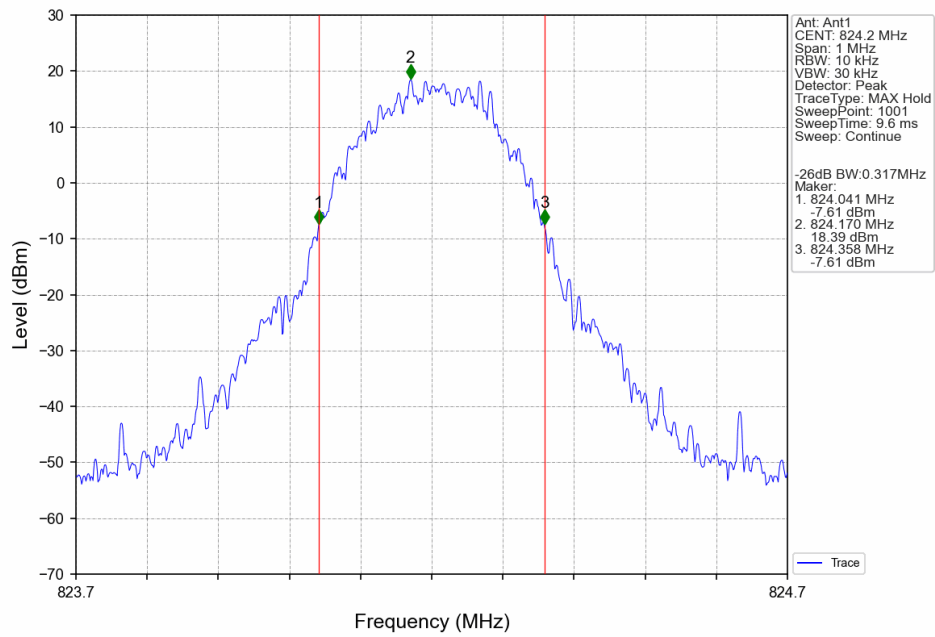
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



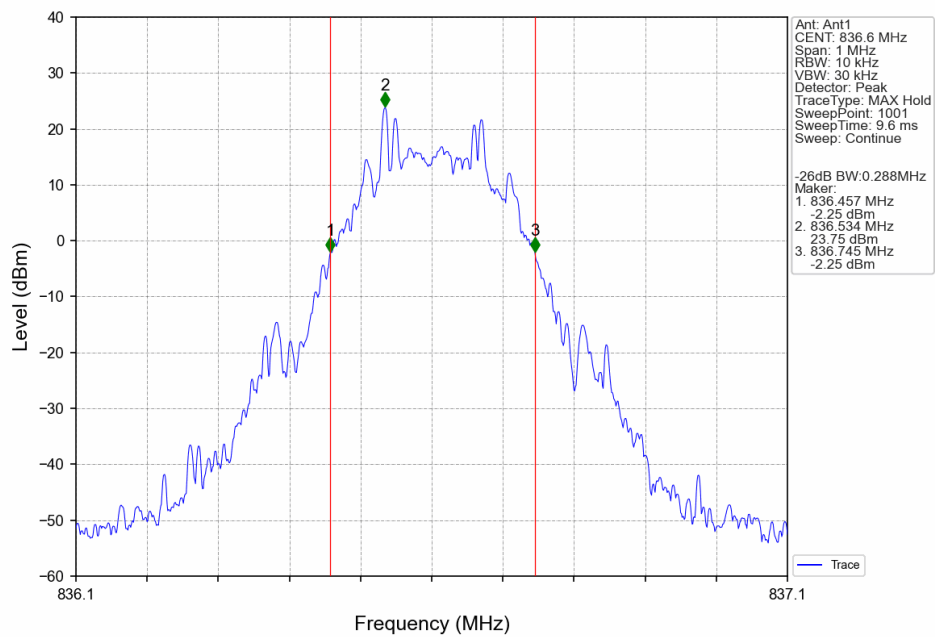
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



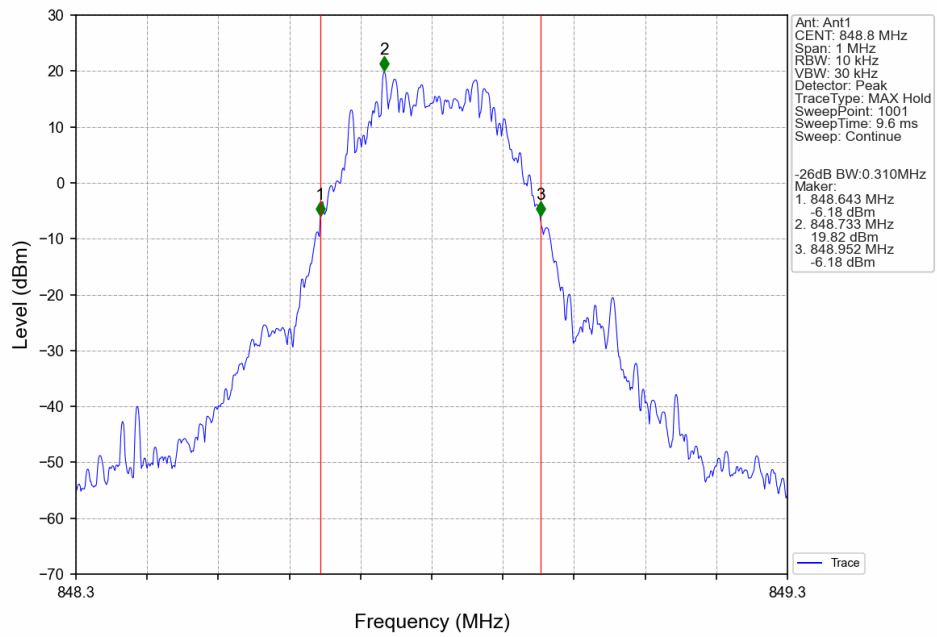
GSM850_EGPRS_LCH_824.2MHz_1 TX Slot_NTNV



GSM850_EGPRS_MCH_836.6MHz_1 TX Slot_NTNV



GSM850_EGPRS_HCH_848.8MHz_1 TX Slot_NTNV



5. Peak-Average

5.1 Test Result

5.1.1 GSM850

Band: GSM850						
ENV	Mode		Frequency (MHz)	Peak-Average (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	0.52	<=13	Pass
			836.6	0.63	<=13	Pass
			848.8	0.72	<=13	Pass
	GPRS	4 TX Slots	824.2	0.46	<=13	Pass
			836.6	0.85	<=13	Pass
			848.8	0.75	<=13	Pass
	EGPRS	4 TX Slots	824.2	0.47	<=13	Pass
			836.6	0.53	<=13	Pass
			848.8	0.58	<=13	Pass

6. Spurious Emission

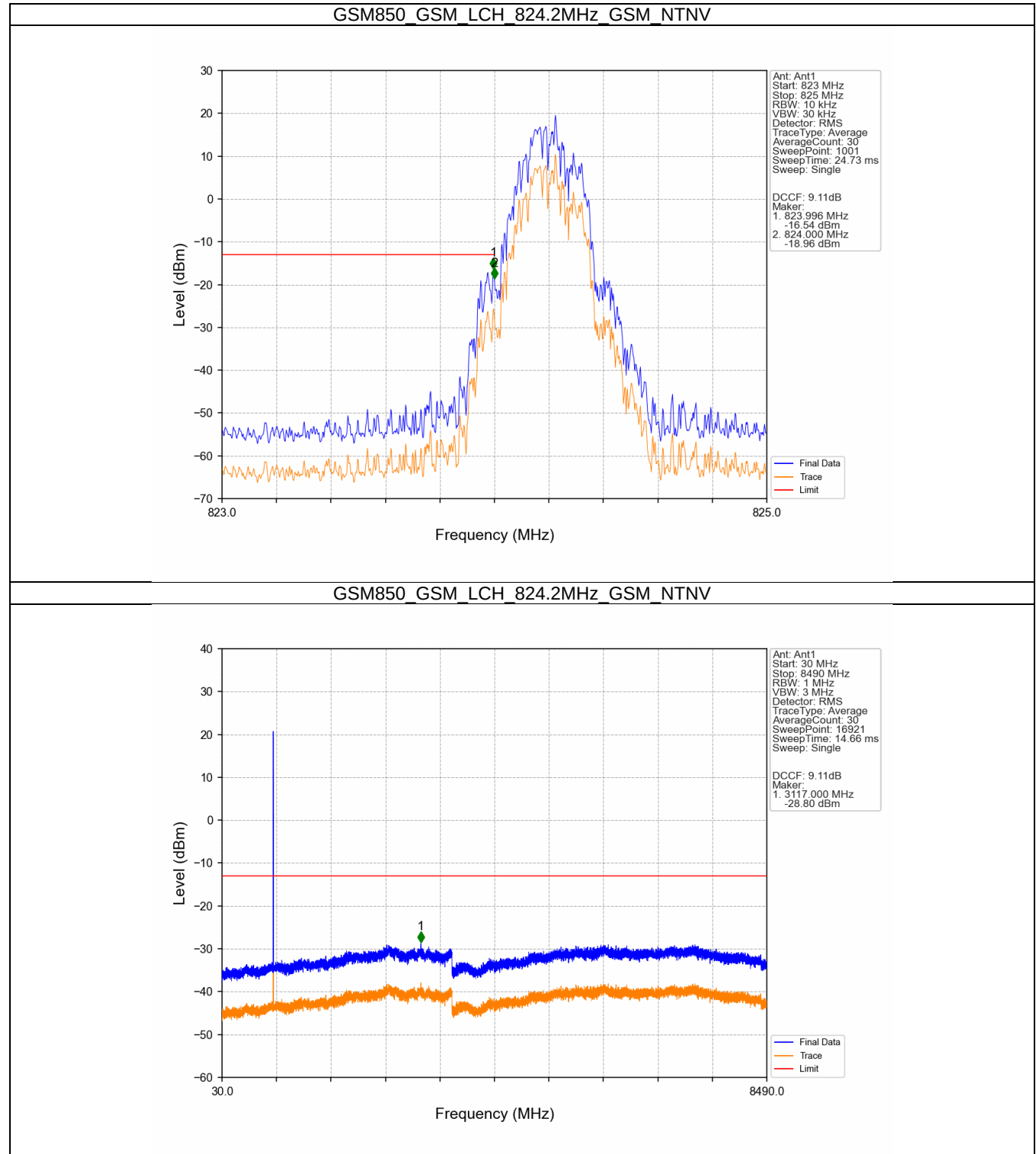
6.1 Test Result

6.1.1 GSM850

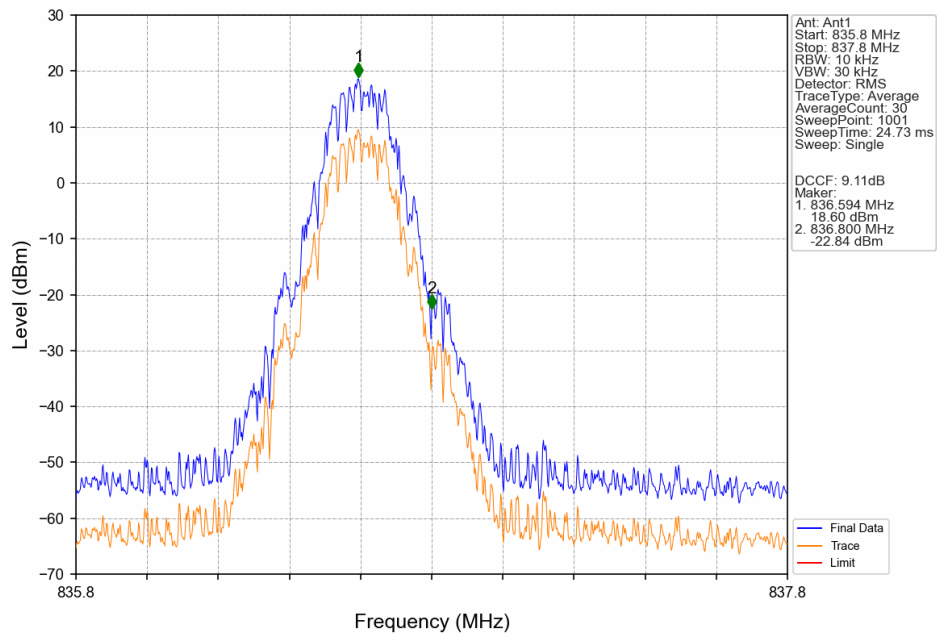
Band: GSM850						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	Refer To Test Graph	Pass	
			836.6	Refer To Test Graph	Pass	
			848.8	Refer To Test Graph	Pass	
	GPRS	1 TX Slot	824.2	Refer To Test Graph	Pass	
			836.6	Refer To Test Graph	Pass	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

6.2 Test Graph

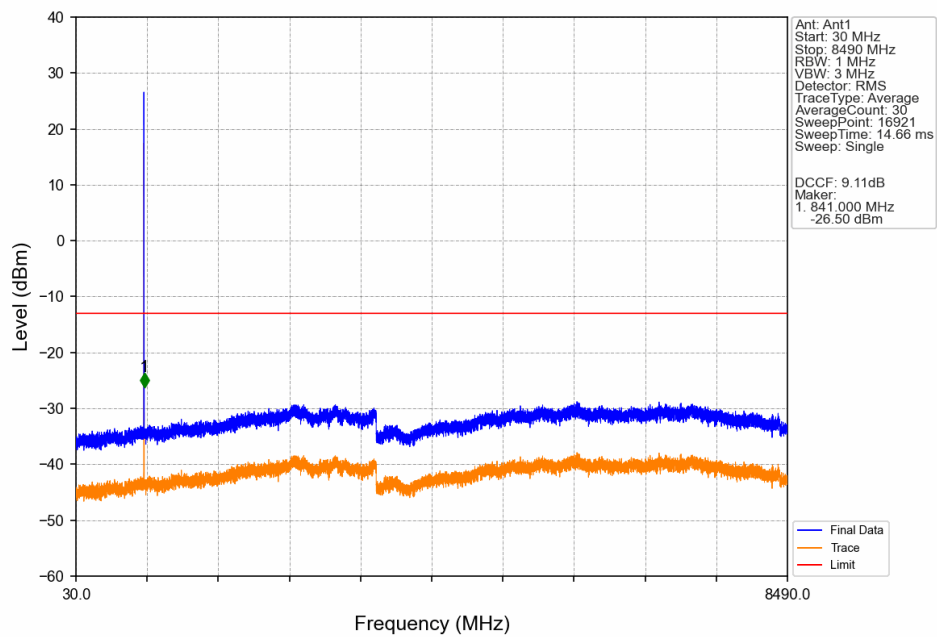
6.2.1 GSM850



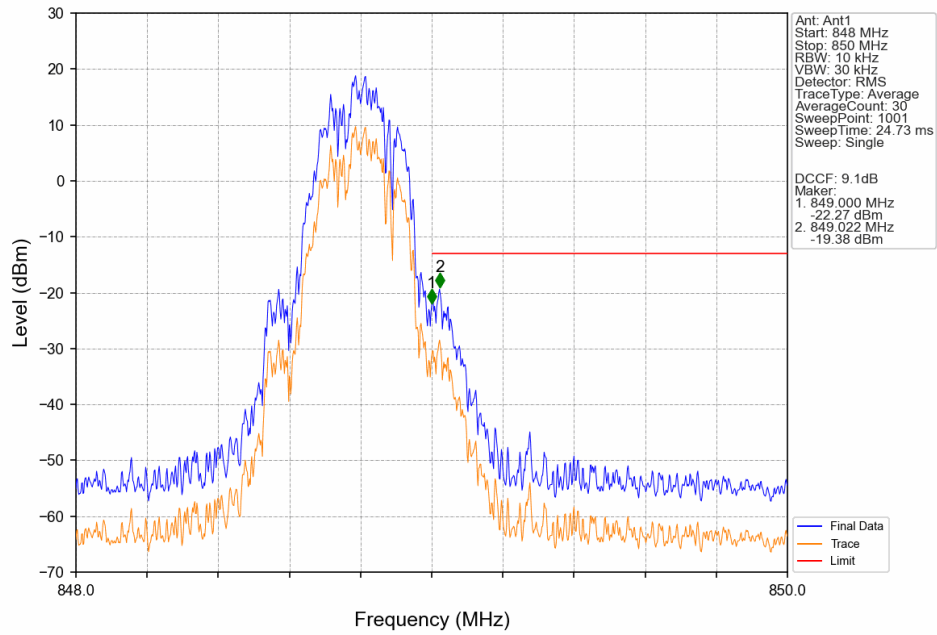
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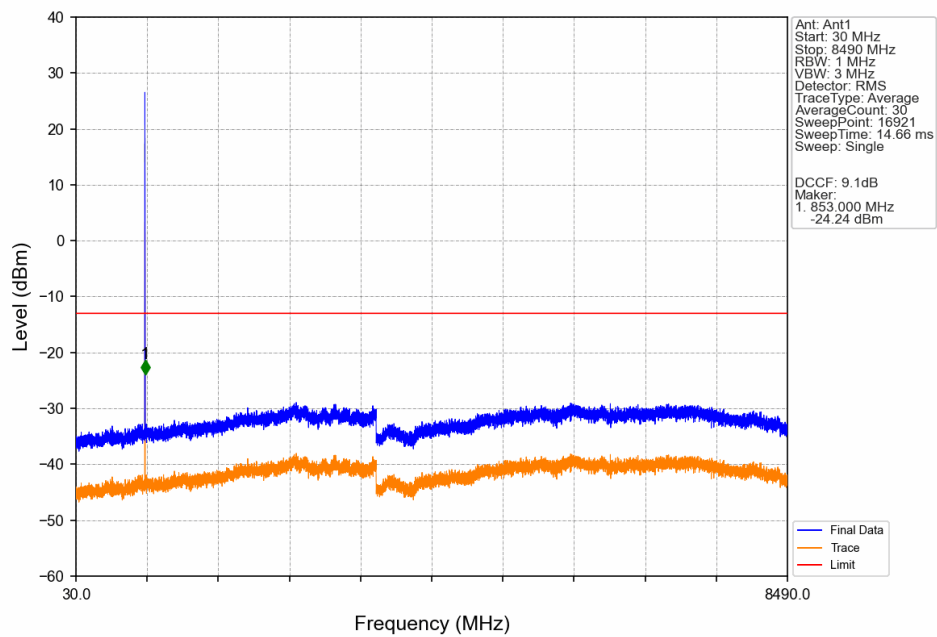
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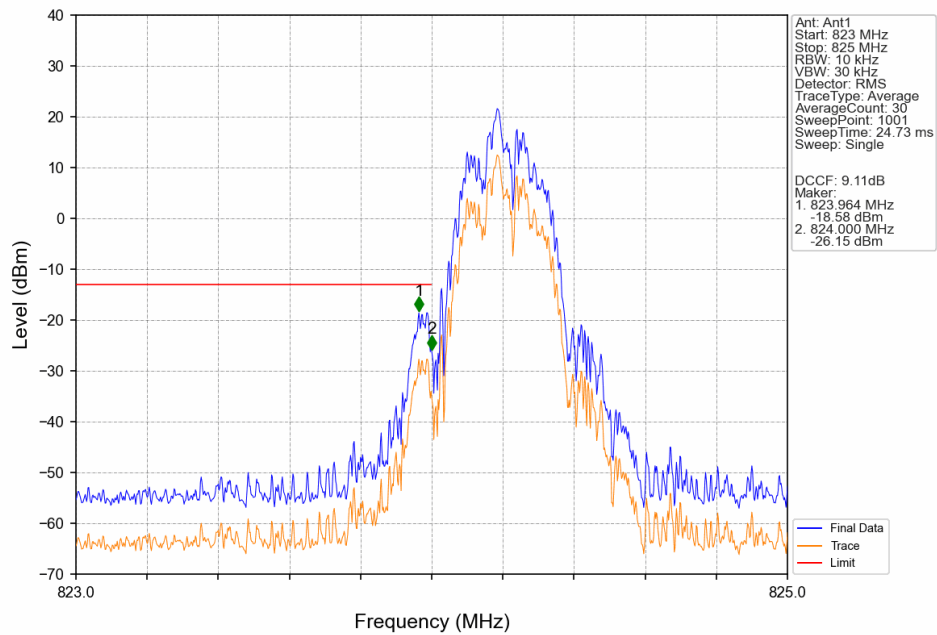
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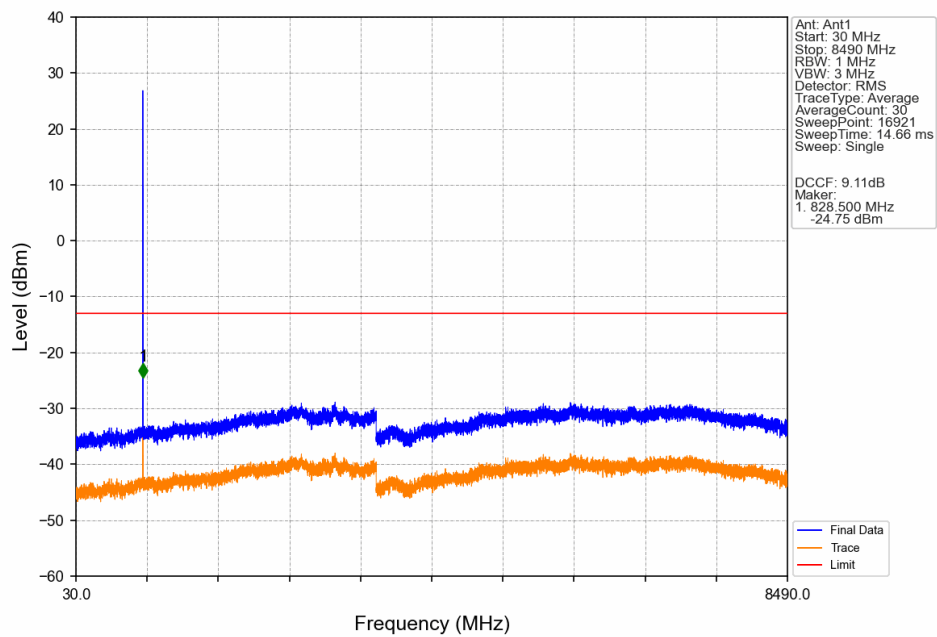
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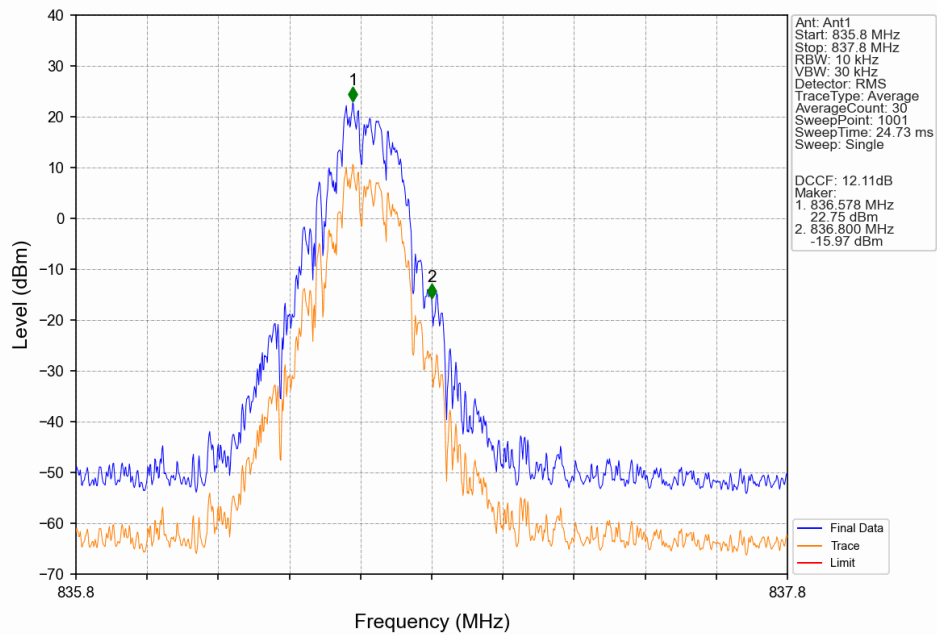
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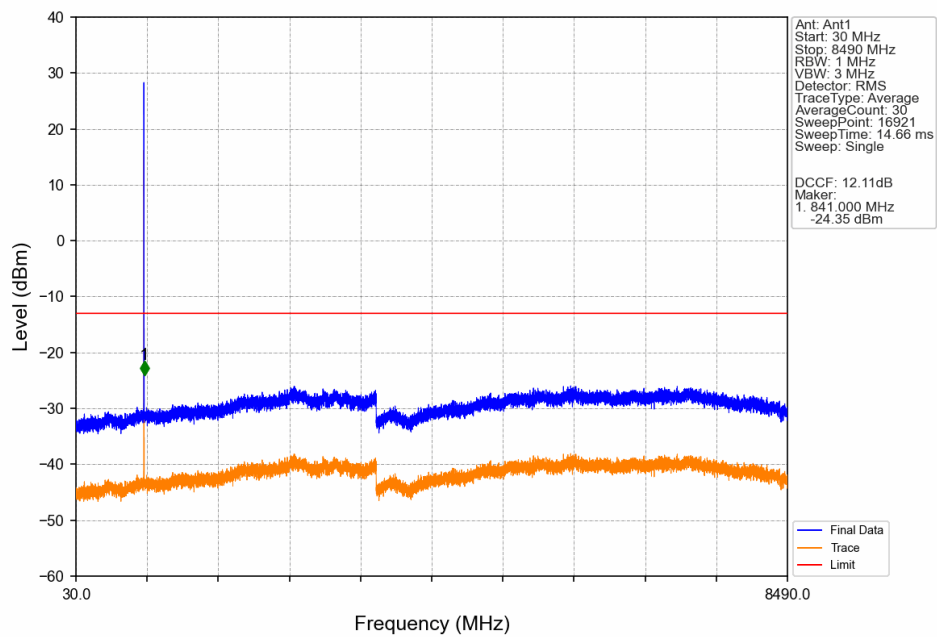
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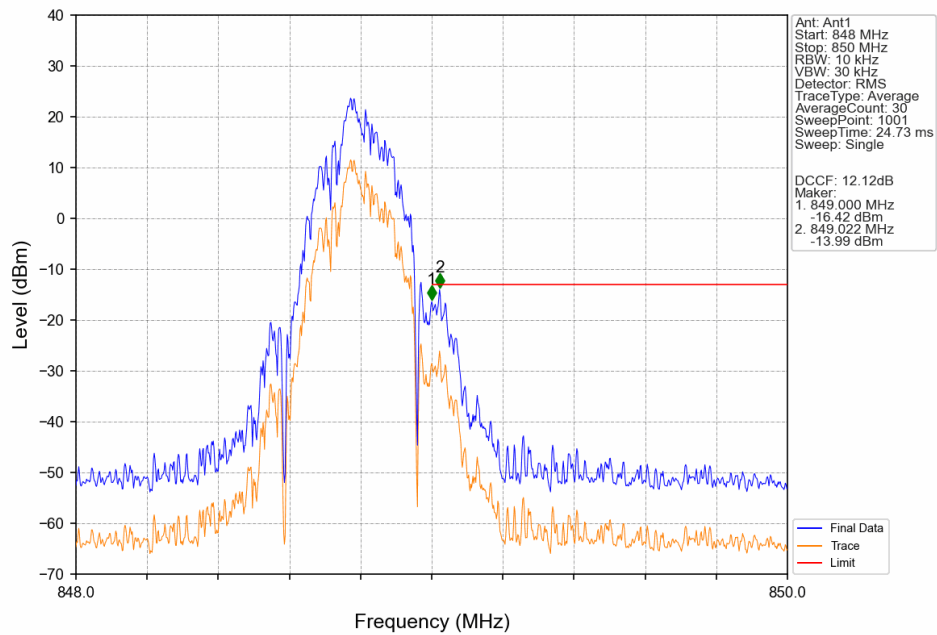
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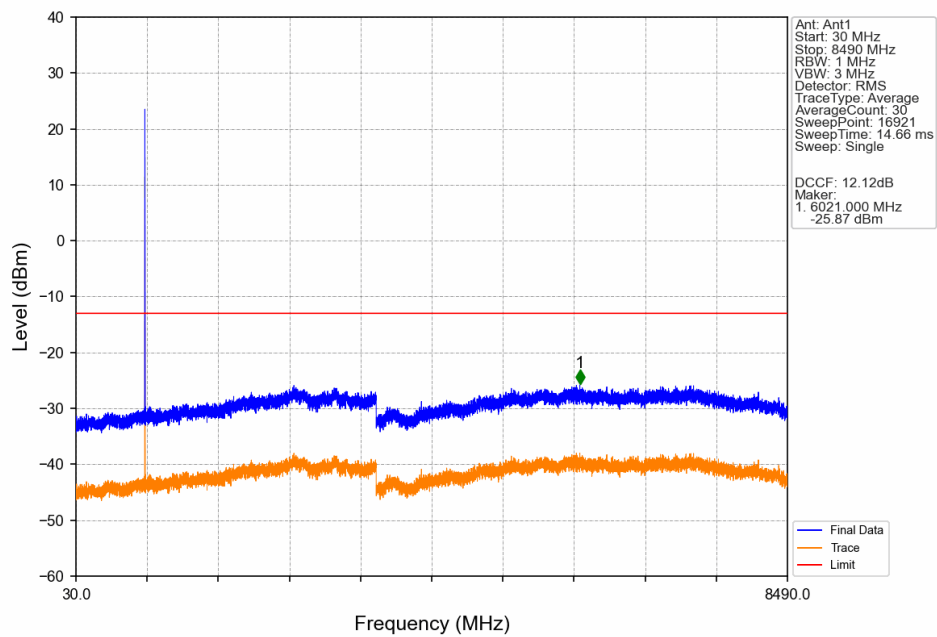
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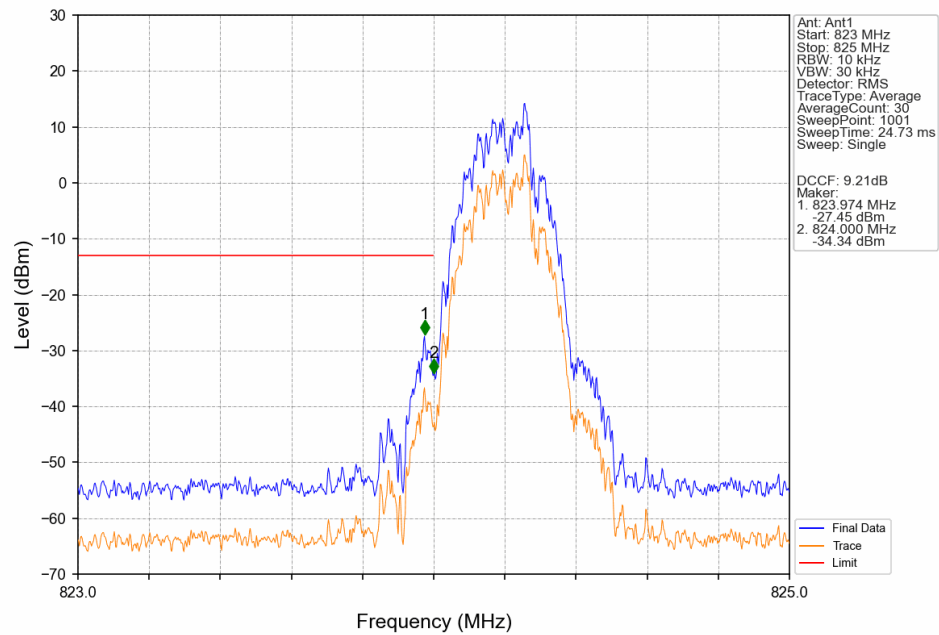
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



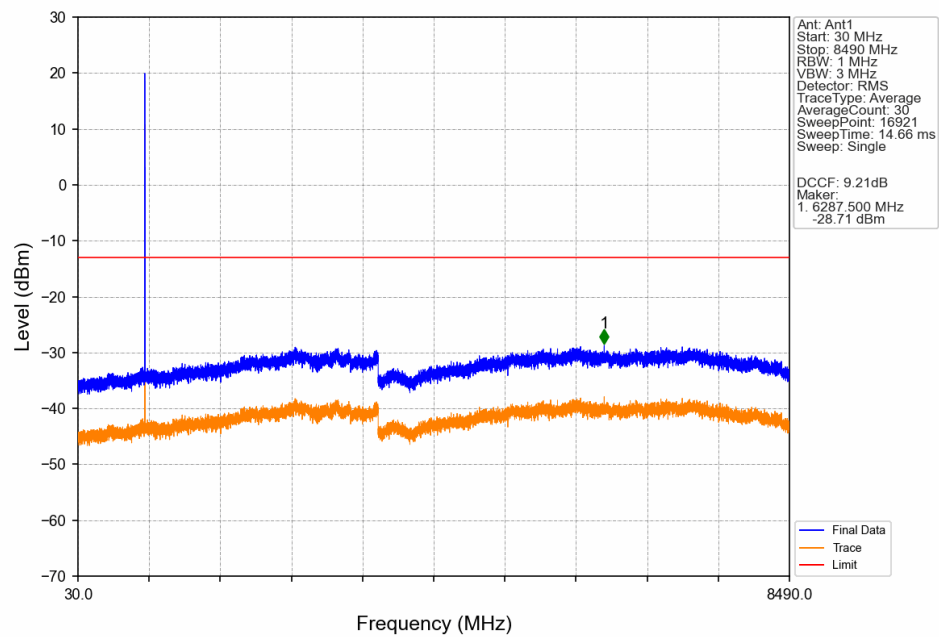
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



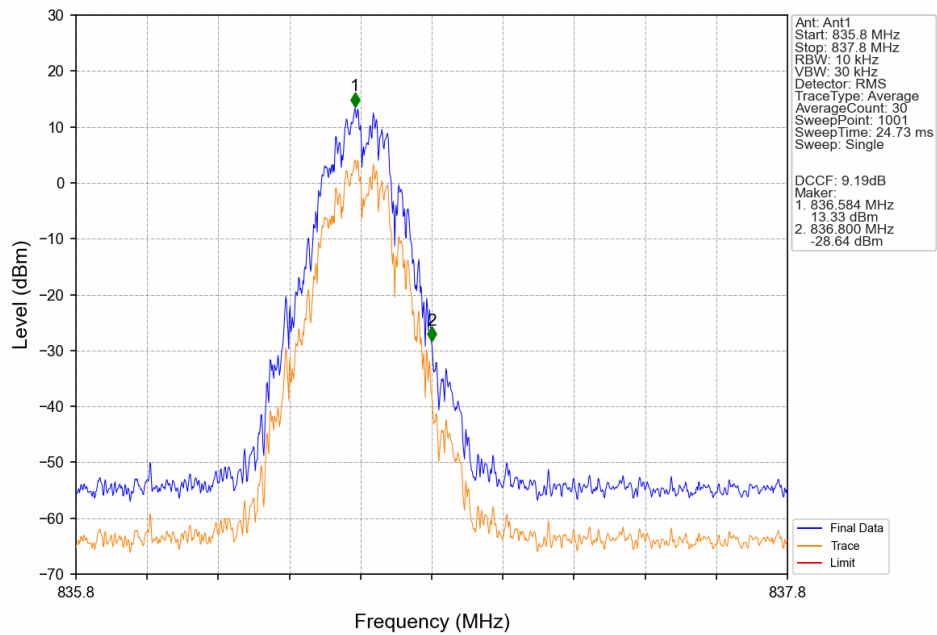
GSM850_EGPRS_LCH_824.2MHz_1 TX Slot_NTNV



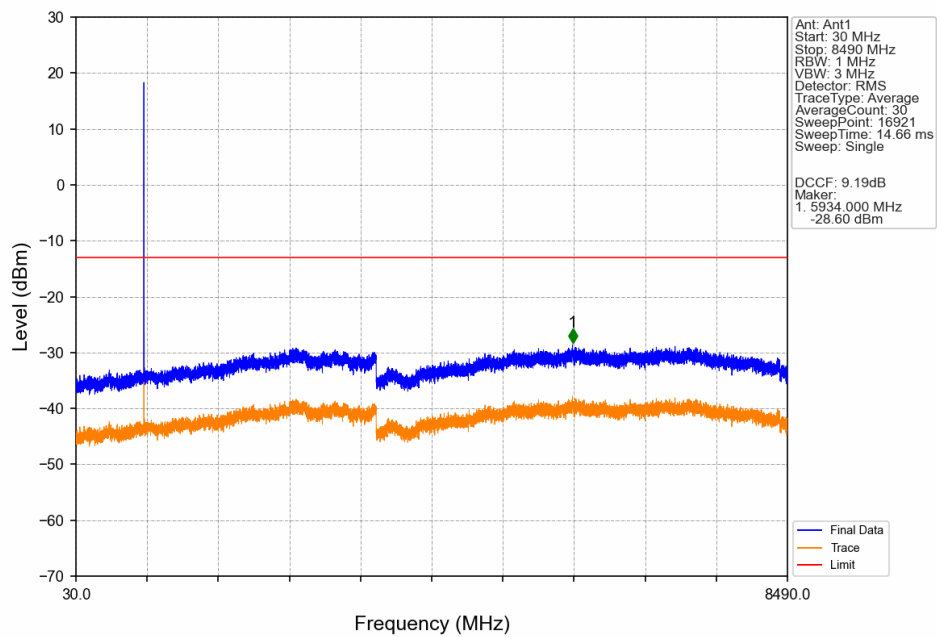
GSM850_EGPRS_LCH_824.2MHz_1 TX Slot_NTNV



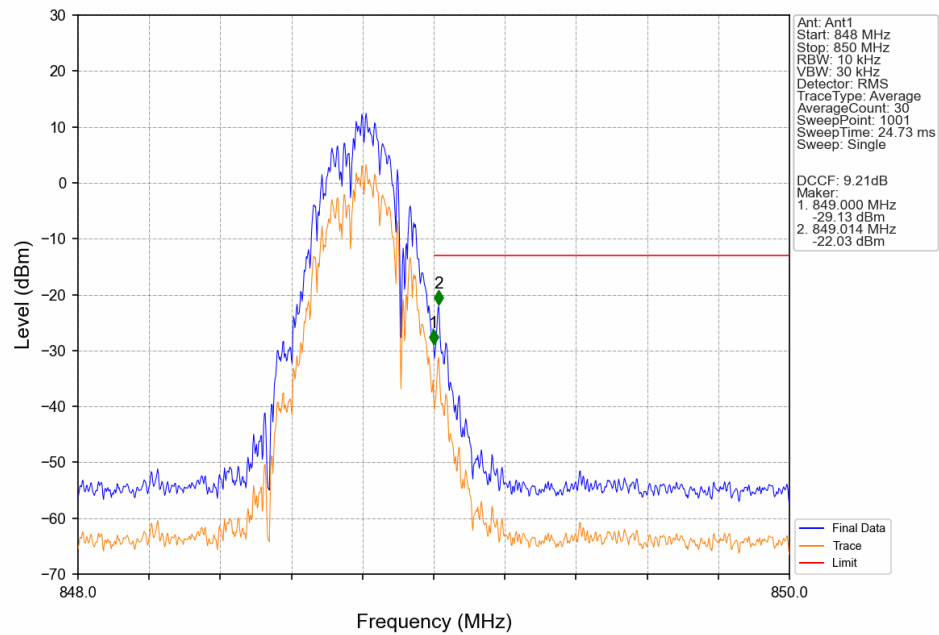
GSM850_EGPRS_MCH_836.6MHz_1 TX Slot_NTNV



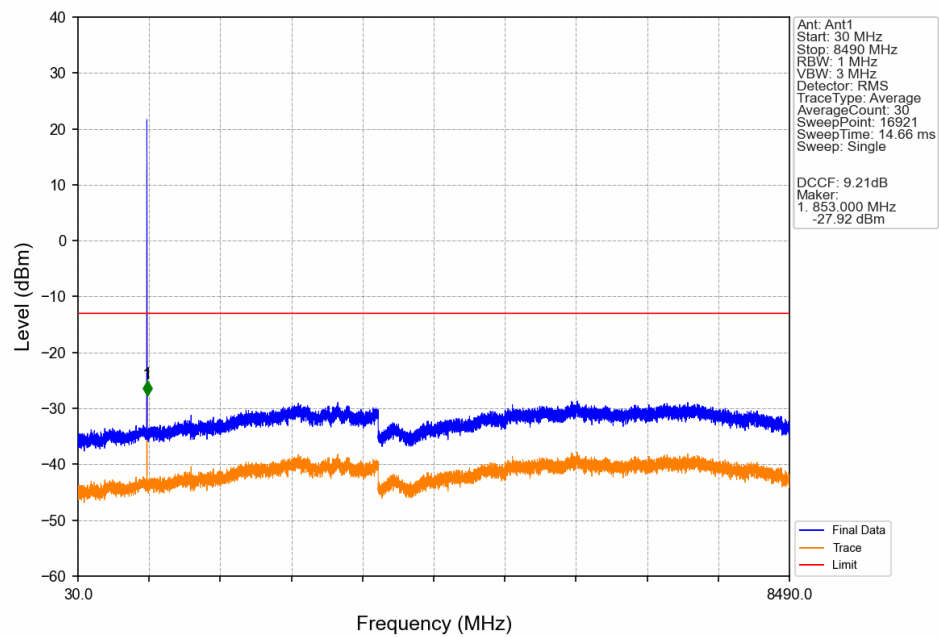
GSM850_EGPRS_MCH_836.6MHz_1 TX Slot_NTNV



GSM850_EGPRS_HCH_848.8MHz_1 TX Slot_NTNV



GSM850_EGPRS_HCH_848.8MHz_1 TX Slot_NTNV



7. Form731

7.1 Test Result

7.1.1 Form731_Power

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	2.0701	0.0158	ppm	251KGXW	22H	33.16
GSM850	0.2	824.2	848.8	0.4111	0.0136	ppm	247KG7W	22H	26.14

7.1.2 Form731_ERP

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	1.2050	0.0158	ppm	251KGXW	22H	30.81
GSM850	0.2	824.2	848.8	0.2393	0.0136	ppm	247KG7W	22H	23.79