

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 GSM850_ERP

Band: GSM850									
ENV	Mode		Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict	
	Network	Subset				Result	Limit		
NTNV	GSM	GSM	824.2	30.78	3.00	31.63	<=38.45	Pass	
			836.6	29.39	3.00	30.24	<=38.45	Pass	
			848.8	30.55	3.00	31.40	<=38.45	Pass	
	GPRS	1 TX Slot	824.2	30.78	3.00	31.63	<=38.45	Pass	
			2 TX Slots	824.2	30.32	3.00	31.17	<=38.45	Pass
			3 TX Slots	824.2	28.77	3.00	29.62	<=38.45	Pass
			4 TX Slots	824.2	27.44	3.00	28.29	<=38.45	Pass
		2 TX Slots	836.6	29.29	3.00	30.14	<=38.45	Pass	
			836.6	28.88	3.00	29.73	<=38.45	Pass	
			836.6	27.33	3.00	28.18	<=38.45	Pass	
			836.6	25.96	3.00	26.81	<=38.45	Pass	
		4 TX Slots	848.8	30.43	3.00	31.28	<=38.45	Pass	
			848.8	30.00	3.00	30.85	<=38.45	Pass	
			848.8	28.46	3.00	29.31	<=38.45	Pass	
			848.8	27.13	3.00	27.98	<=38.45	Pass	
	EGPRS	1 TX Slot	824.2	25.65	3.00	26.50	<=38.45	Pass	
			2 TX Slots	824.2	24.75	3.00	25.60	<=38.45	Pass
			3 TX Slots	824.2	22.75	3.00	23.60	<=38.45	Pass
			4 TX Slots	824.2	21.51	3.00	22.36	<=38.45	Pass
		2 TX Slots	836.6	25.54	3.00	26.39	<=38.45	Pass	
			836.6	24.73	3.00	25.58	<=38.45	Pass	
			836.6	22.75	3.00	23.60	<=38.45	Pass	
			836.6	21.52	3.00	22.37	<=38.45	Pass	
		4 TX Slots	848.8	25.35	3.00	26.20	<=38.45	Pass	
			848.8	26.25	3.00	27.10	<=38.45	Pass	
			848.8	22.45	3.00	23.30	<=38.45	Pass	
			848.8	21.28	3.00	22.13	<=38.45	Pass	
			848.8	21.28	3.00	22.13	<=38.45	Pass	

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	7.071	0.0086	-2.5 to 2.5	Pass
			3.85	5.585	0.0068	-2.5 to 2.5	Pass
			4.43	7.942	0.0096	-2.5 to 2.5	Pass
		-30	3.85	5.230	0.0063	-2.5 to 2.5	Pass
		-20	3.85	4.552	0.0055	-2.5 to 2.5	Pass
		-10	3.85	5.166	0.0063	-2.5 to 2.5	Pass
		0	3.85	9.234	0.0112	-2.5 to 2.5	Pass
		10	3.85	6.489	0.0079	-2.5 to 2.5	Pass
		30	3.85	2.486	0.0030	-2.5 to 2.5	Pass
		40	3.85	6.651	0.0081	-2.5 to 2.5	Pass
	50	3.85	7.587	0.0092	-2.5 to 2.5	Pass	
	836.6	20	3.27	2.809	0.0034	-2.5 to 2.5	Pass
			3.85	7.006	0.0084	-2.5 to 2.5	Pass
			4.43	5.133	0.0061	-2.5 to 2.5	Pass
		-30	3.85	6.877	0.0082	-2.5 to 2.5	Pass
		-20	3.85	2.131	0.0025	-2.5 to 2.5	Pass
		-10	3.85	2.938	0.0035	-2.5 to 2.5	Pass
		0	3.85	5.973	0.0071	-2.5 to 2.5	Pass
		10	3.85	5.811	0.0069	-2.5 to 2.5	Pass
		30	3.85	7.490	0.0090	-2.5 to 2.5	Pass
		40	3.85	5.682	0.0068	-2.5 to 2.5	Pass
	50	3.85	5.166	0.0062	-2.5 to 2.5	Pass	
	848.8	20	3.27	8.297	0.0098	-2.5 to 2.5	Pass
			3.85	11.139	0.0131	-2.5 to 2.5	Pass
			4.43	11.978	0.0141	-2.5 to 2.5	Pass
		-30	3.85	7.619	0.0090	-2.5 to 2.5	Pass
		-20	3.85	9.040	0.0107	-2.5 to 2.5	Pass
		-10	3.85	9.783	0.0115	-2.5 to 2.5	Pass
		0	3.85	8.975	0.0106	-2.5 to 2.5	Pass
		10	3.85	5.941	0.0070	-2.5 to 2.5	Pass
30		3.85	5.747	0.0068	-2.5 to 2.5	Pass	
40		3.85	7.684	0.0091	-2.5 to 2.5	Pass	
50	3.85	7.393	0.0087	-2.5 to 2.5	Pass		
GPRS	824.2	20	3.27	5.650	0.0069	-2.5 to 2.5	Pass
			3.85	5.456	0.0066	-2.5 to 2.5	Pass
			4.43	5.295	0.0064	-2.5 to 2.5	Pass
		-30	3.85	6.457	0.0078	-2.5 to 2.5	Pass
		-20	3.85	6.102	0.0074	-2.5 to 2.5	Pass
		-10	3.85	6.812	0.0083	-2.5 to 2.5	Pass
		0	3.85	4.649	0.0056	-2.5 to 2.5	Pass
		10	3.85	8.394	0.0102	-2.5 to 2.5	Pass
		30	3.85	6.102	0.0074	-2.5 to 2.5	Pass
		40	3.85	8.233	0.0100	-2.5 to 2.5	Pass
	50	3.85	6.489	0.0079	-2.5 to 2.5	Pass	
	836.6	20	3.27	2.389	0.0029	-2.5 to 2.5	Pass
			3.85	4.100	0.0049	-2.5 to 2.5	Pass
			4.43	4.133	0.0049	-2.5 to 2.5	Pass
		-30	3.85	3.777	0.0045	-2.5 to 2.5	Pass
-20		3.85	2.744	0.0033	-2.5 to 2.5	Pass	
-10	3.85	1.743	0.0021	-2.5 to 2.5	Pass		

		0	3.85	-0.161	-0.0002	-2.5 to 2.5	Pass
		10	3.85	6.393	0.0076	-2.5 to 2.5	Pass
		30	3.85	3.261	0.0039	-2.5 to 2.5	Pass
		40	3.85	7.781	0.0093	-2.5 to 2.5	Pass
		50	3.85	5.521	0.0066	-2.5 to 2.5	Pass
	848.8	20	3.27	5.747	0.0068	-2.5 to 2.5	Pass
			3.85	4.681	0.0055	-2.5 to 2.5	Pass
			4.43	8.717	0.0103	-2.5 to 2.5	Pass
		-30	3.85	2.292	0.0027	-2.5 to 2.5	Pass
		-20	3.85	8.168	0.0096	-2.5 to 2.5	Pass
		-10	3.85	6.425	0.0076	-2.5 to 2.5	Pass
		0	3.85	9.492	0.0112	-2.5 to 2.5	Pass
		10	3.85	9.686	0.0114	-2.5 to 2.5	Pass
		30	3.85	10.138	0.0119	-2.5 to 2.5	Pass
		40	3.85	8.814	0.0104	-2.5 to 2.5	Pass
50	3.85	6.780	0.0080	-2.5 to 2.5	Pass		
EGPRS	824.2	20	3.27	-0.872	-0.0011	-2.5 to 2.5	Pass
			3.85	-1.098	-0.0013	-2.5 to 2.5	Pass
			4.43	-0.678	-0.0008	-2.5 to 2.5	Pass
		-30	3.85	0.161	0.0002	-2.5 to 2.5	Pass
		-20	3.85	-4.552	-0.0055	-2.5 to 2.5	Pass
		-10	3.85	0.872	0.0011	-2.5 to 2.5	Pass
		0	3.85	3.777	0.0046	-2.5 to 2.5	Pass
		10	3.85	6.070	0.0074	-2.5 to 2.5	Pass
		30	3.85	7.781	0.0094	-2.5 to 2.5	Pass
		40	3.85	6.231	0.0076	-2.5 to 2.5	Pass
	50	3.85	7.264	0.0088	-2.5 to 2.5	Pass	
	836.6	20	3.27	-2.518	-0.0030	-2.5 to 2.5	Pass
			3.85	-1.195	-0.0014	-2.5 to 2.5	Pass
			4.43	-0.646	-0.0008	-2.5 to 2.5	Pass
		-30	3.85	-4.165	-0.0050	-2.5 to 2.5	Pass
		-20	3.85	-2.228	-0.0027	-2.5 to 2.5	Pass
		-10	3.85	-3.584	-0.0043	-2.5 to 2.5	Pass
		0	3.85	-2.938	-0.0035	-2.5 to 2.5	Pass
		10	3.85	1.808	0.0022	-2.5 to 2.5	Pass
		30	3.85	3.874	0.0046	-2.5 to 2.5	Pass
		40	3.85	3.713	0.0044	-2.5 to 2.5	Pass
	50	3.85	4.133	0.0049	-2.5 to 2.5	Pass	
	848.8	20	3.27	-0.613	-0.0007	-2.5 to 2.5	Pass
			3.85	-1.743	-0.0021	-2.5 to 2.5	Pass
			4.43	4.229	0.0050	-2.5 to 2.5	Pass
		-30	3.85	1.873	0.0022	-2.5 to 2.5	Pass
		-20	3.85	3.519	0.0041	-2.5 to 2.5	Pass
		-10	3.85	2.680	0.0032	-2.5 to 2.5	Pass
		0	3.85	-3.810	-0.0045	-2.5 to 2.5	Pass
		10	3.85	5.198	0.0061	-2.5 to 2.5	Pass
30		3.85	4.552	0.0054	-2.5 to 2.5	Pass	
40		3.85	1.937	0.0023	-2.5 to 2.5	Pass	
50	3.85	8.071	0.0095	-2.5 to 2.5	Pass		

3. Modulation Characteristics

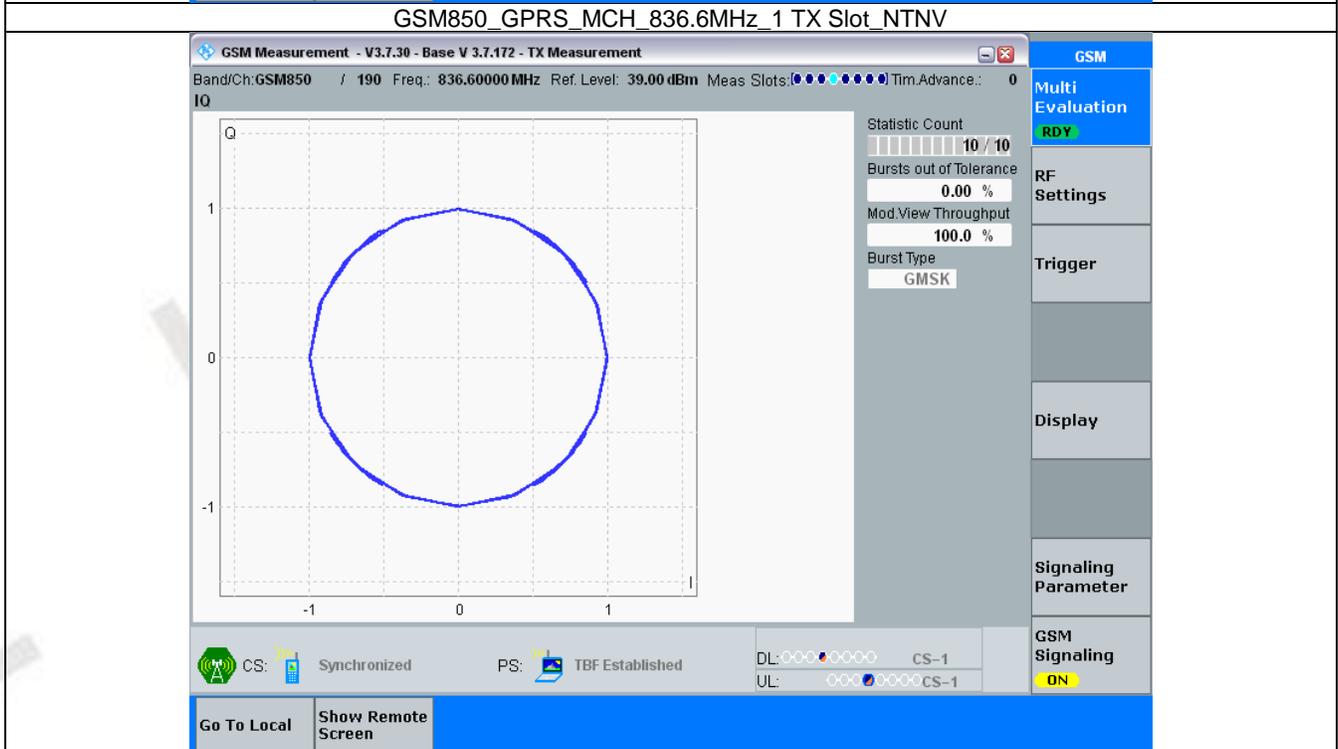
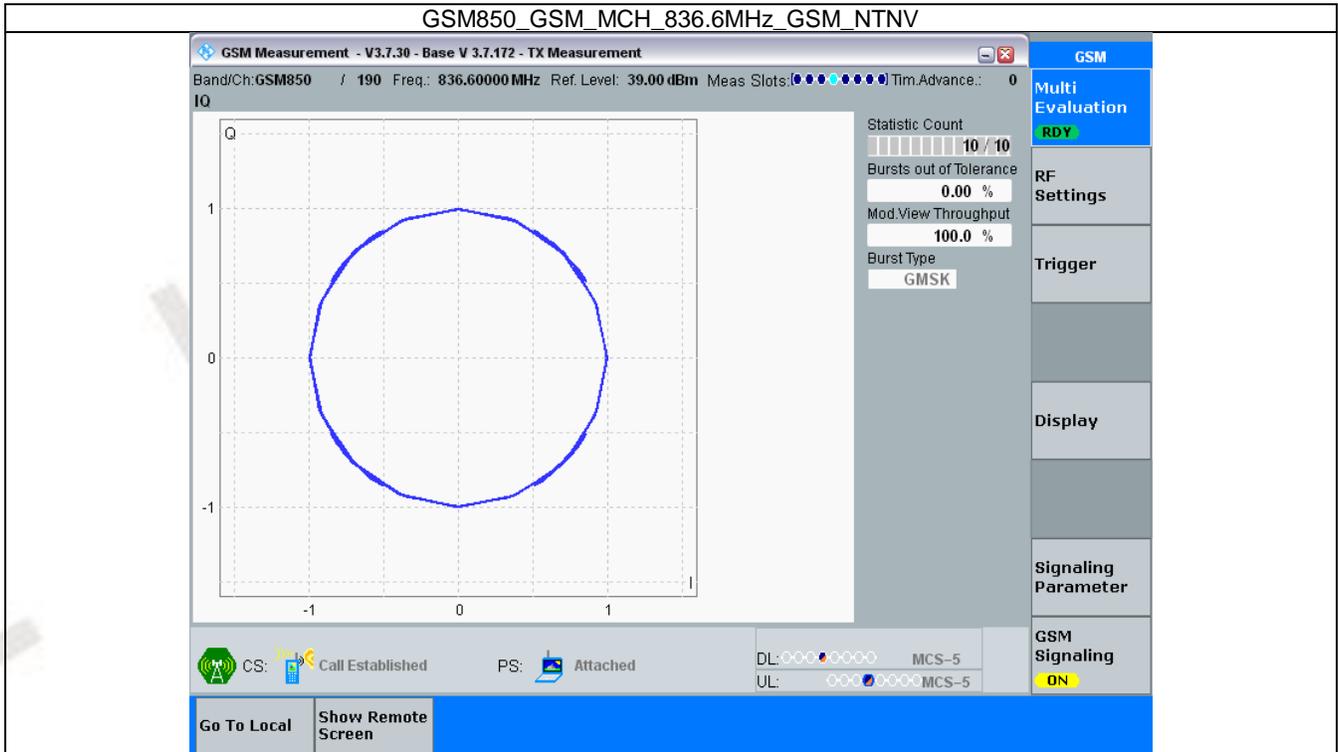
3.1 Test Result

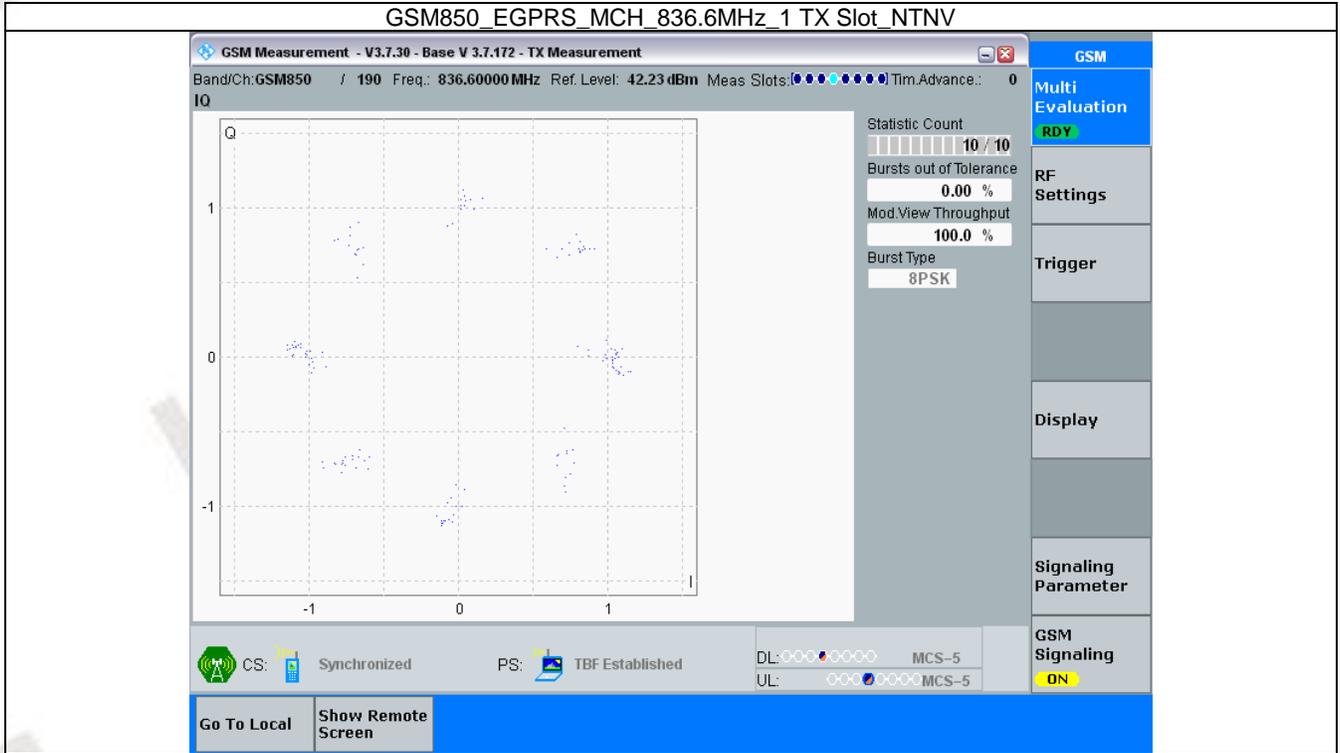
3.1.1 GSM850

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

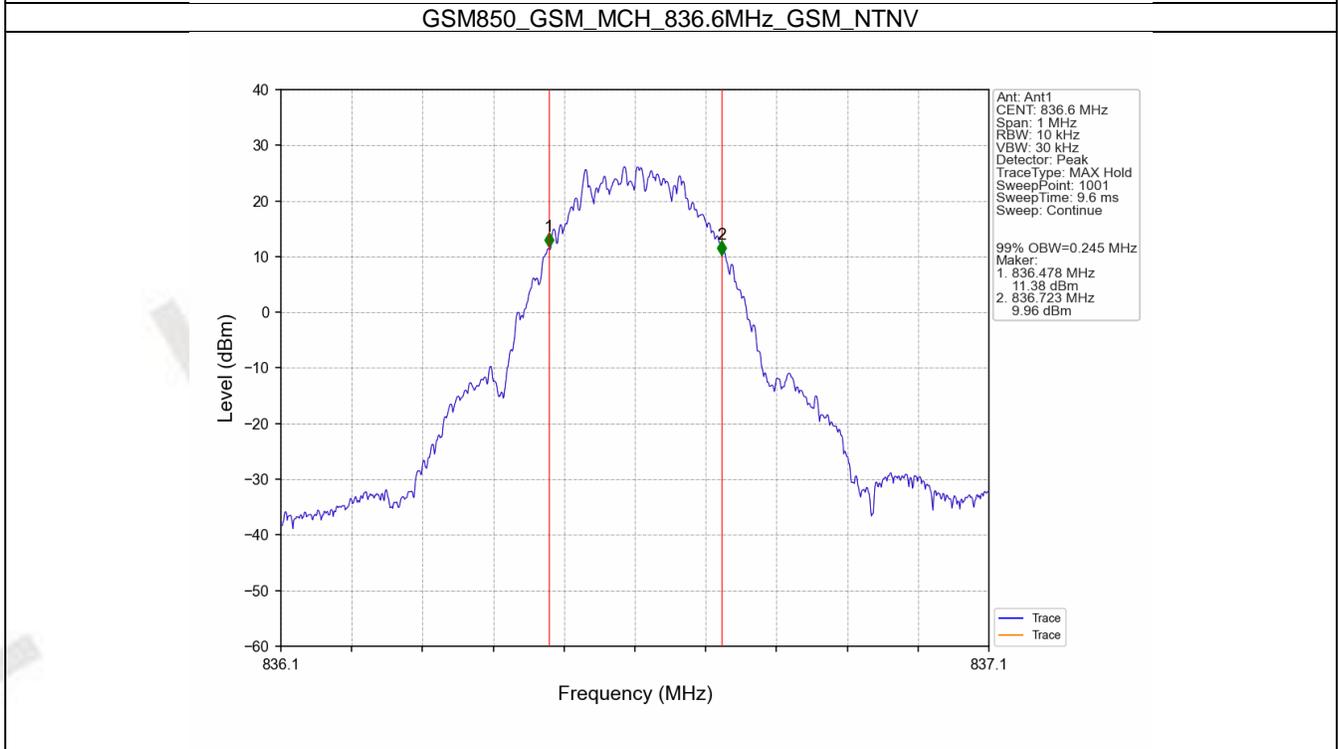
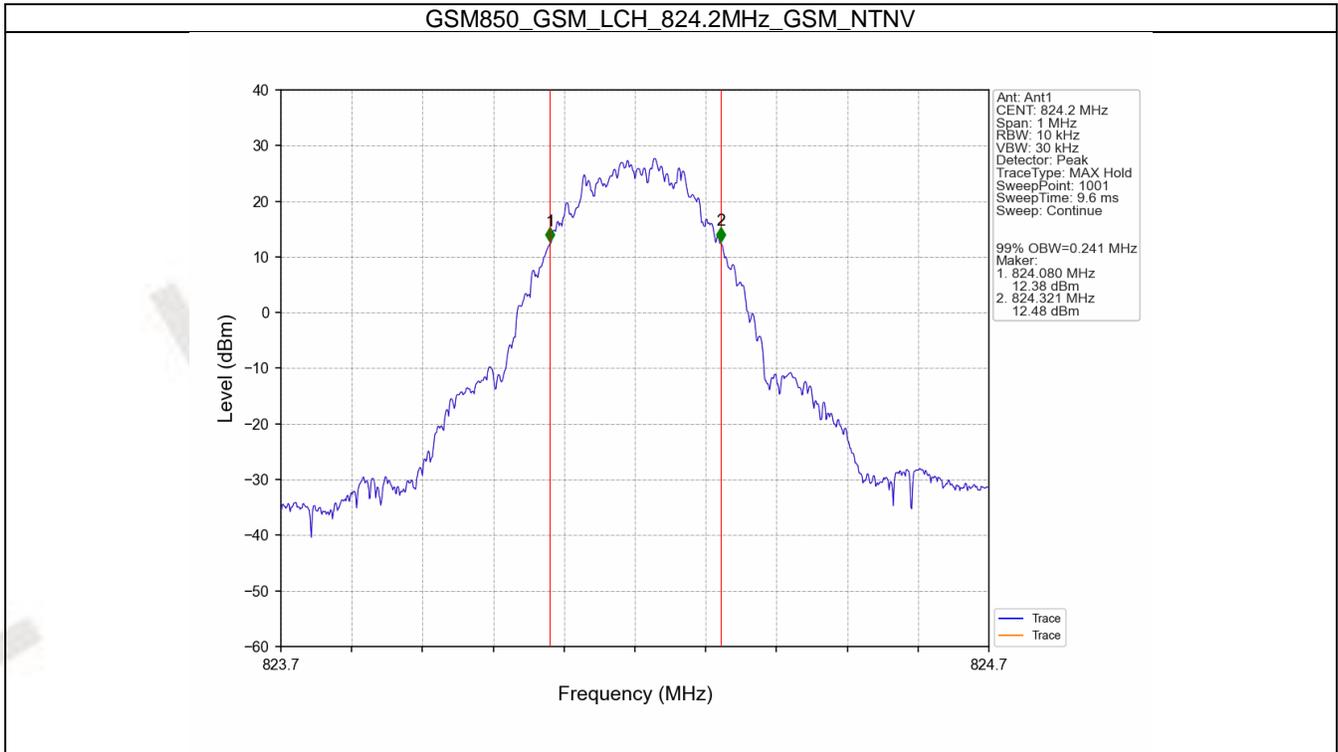
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ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	0.241	/	Pass
			836.6	0.245	/	Pass
			848.8	0.249	/	Pass
	GPRS	1 TX Slot	824.2	0.250	/	Pass
			836.6	0.244	/	Pass
			848.8	0.246	/	Pass
	EGPRS	1 TX Slot	824.2	0.254	/	Pass
			836.6	0.263	/	Pass
			848.8	0.258	/	Pass

4.1.2 GSM850_XDB

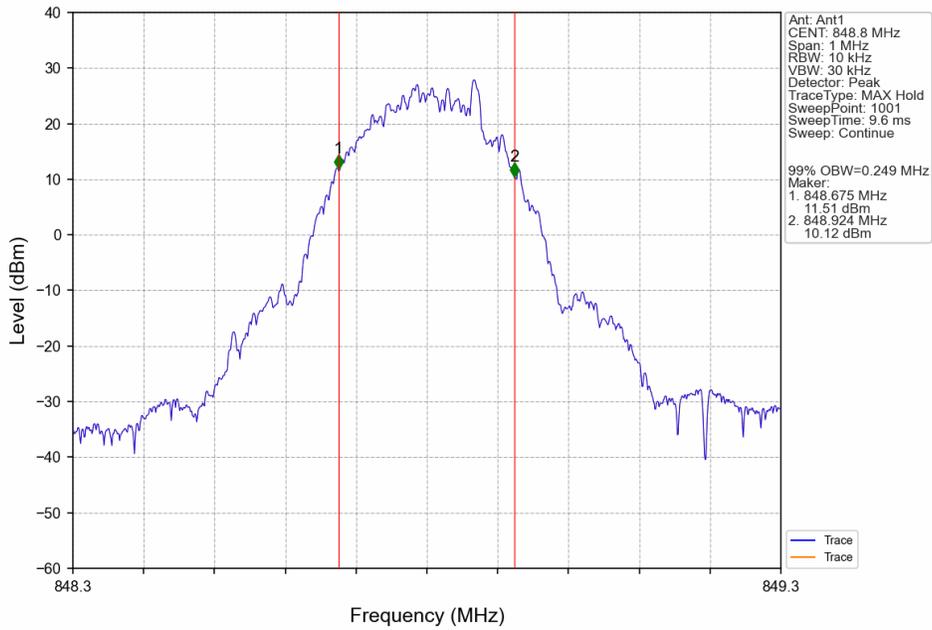
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ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	0.316	/	Pass
			836.6	0.314	/	Pass
			848.8	0.319	/	Pass
	GPRS	1 TX Slot	824.2	0.316	/	Pass
			836.6	0.312	/	Pass
			848.8	0.314	/	Pass
	EGPRS	1 TX Slot	824.2	0.332	/	Pass
			836.6	0.340	/	Pass
			848.8	0.320	/	Pass

4.2 Test Graph

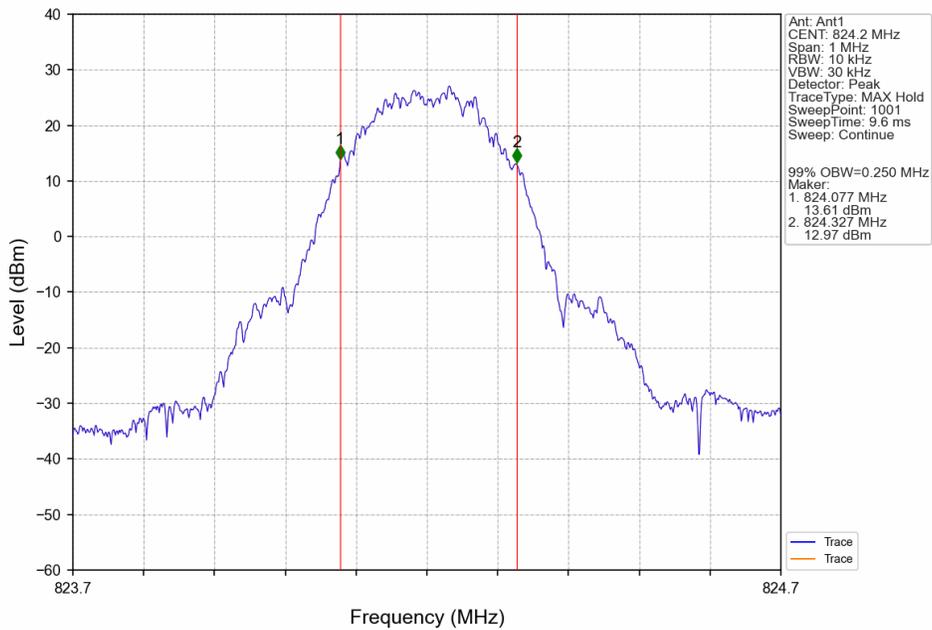
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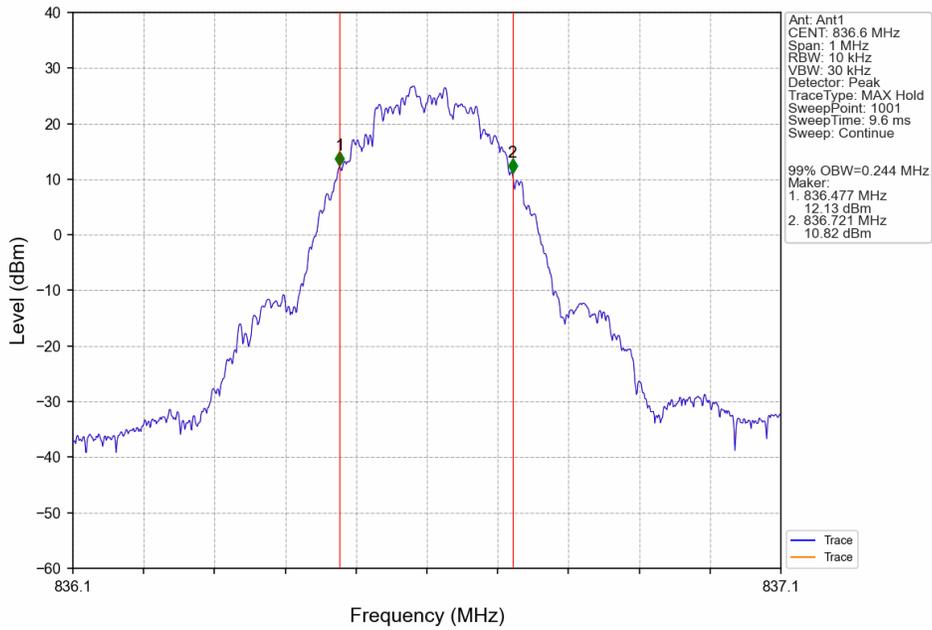
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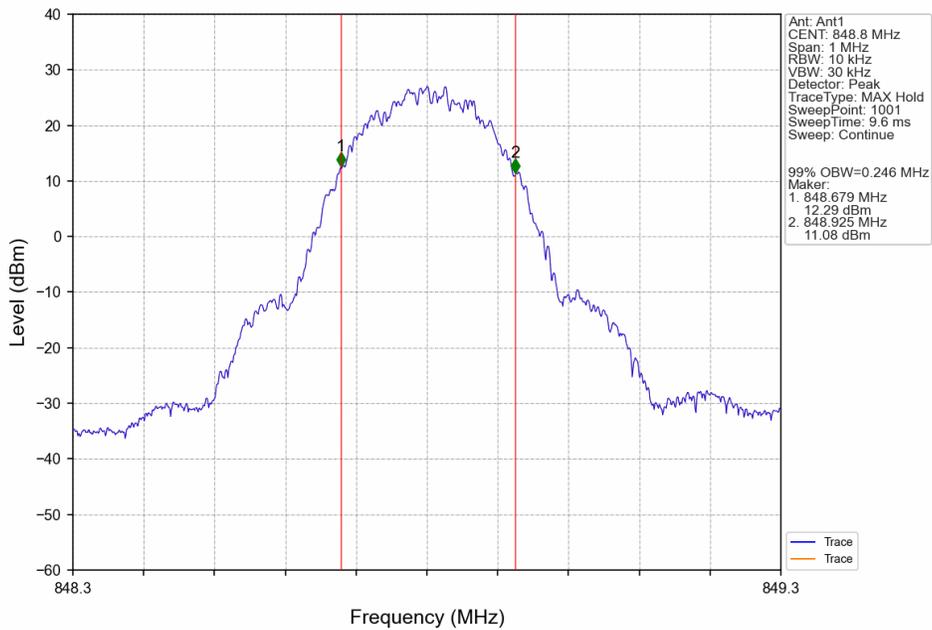
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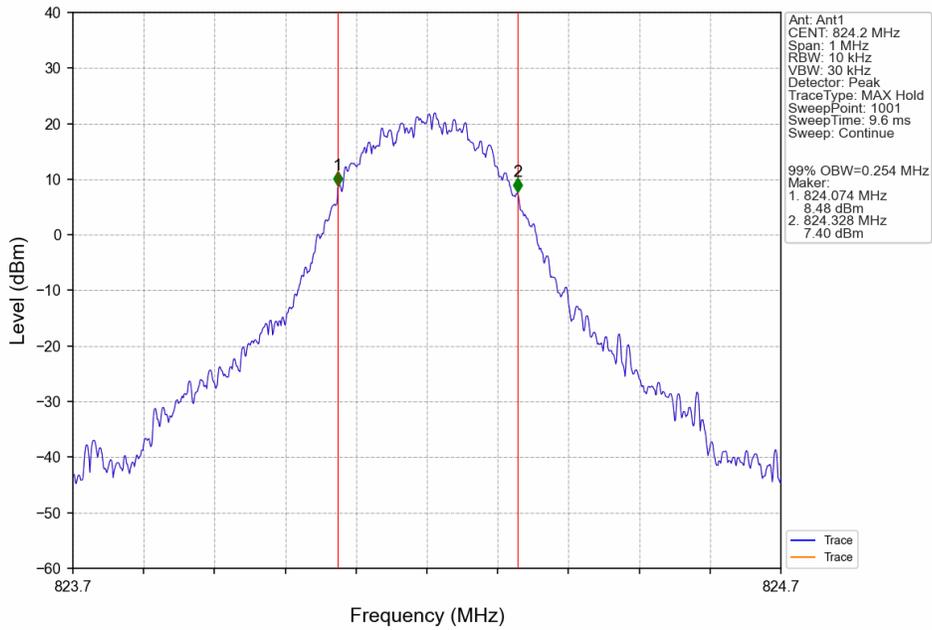
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



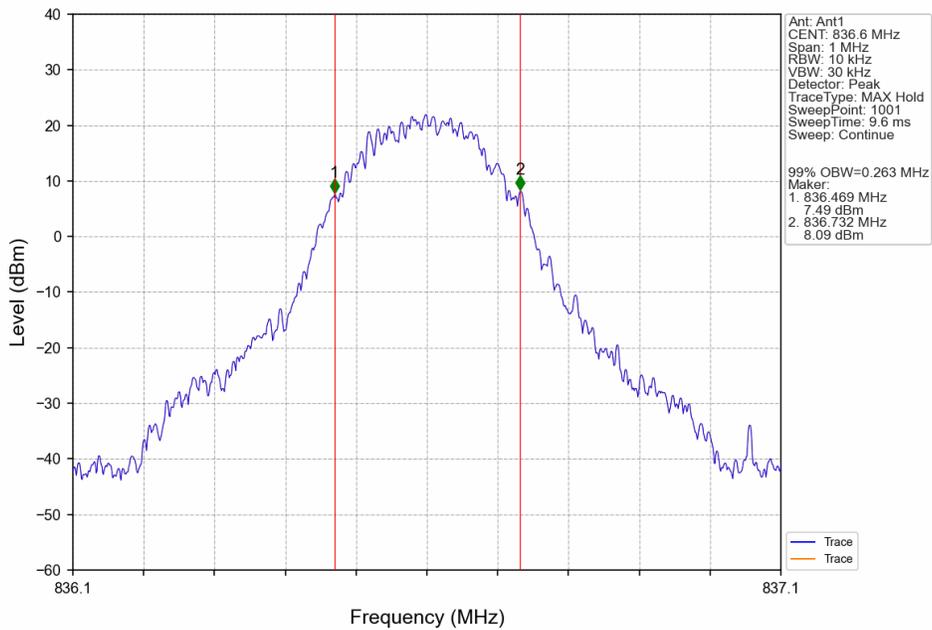
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV

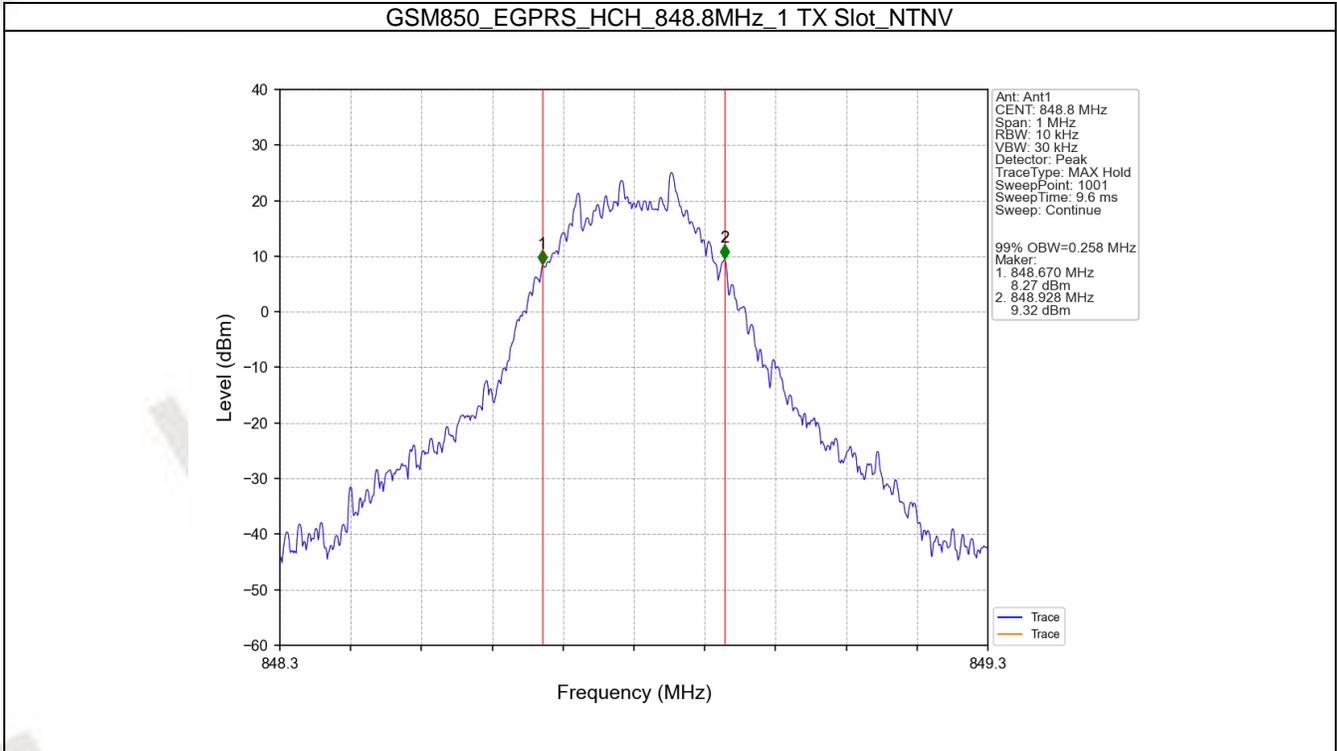


GSM850_EGPRS_LCH_824.2MHz_1 TX Slot_NTNV

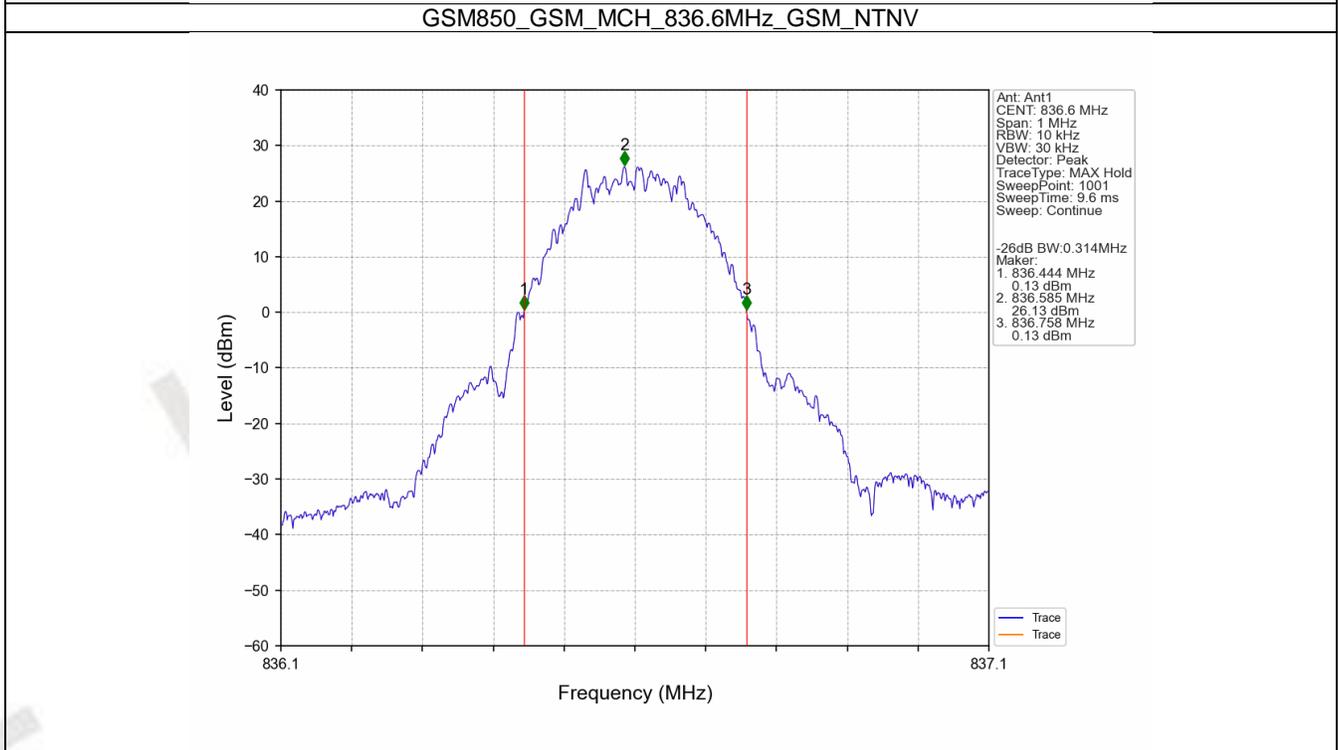
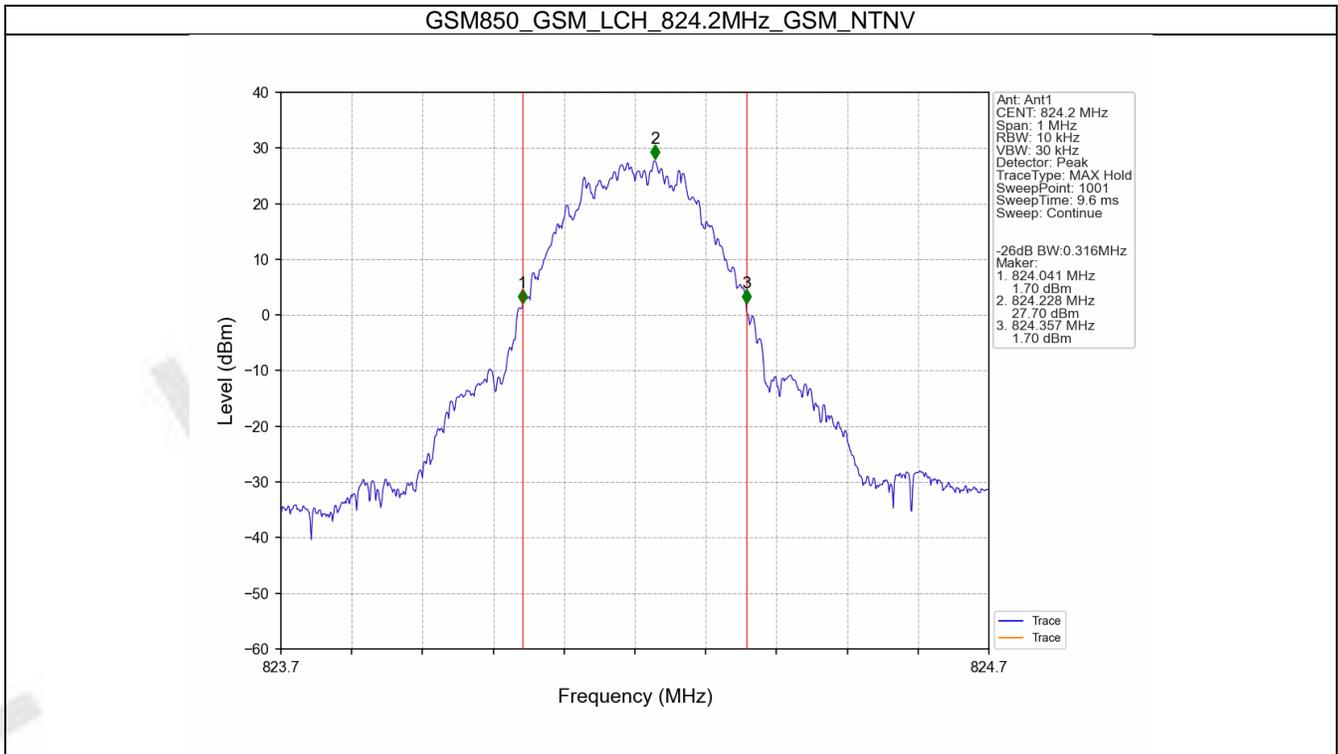


GSM850_EGPRS_MCH_836.6MHz_1 TX Slot_NTNV

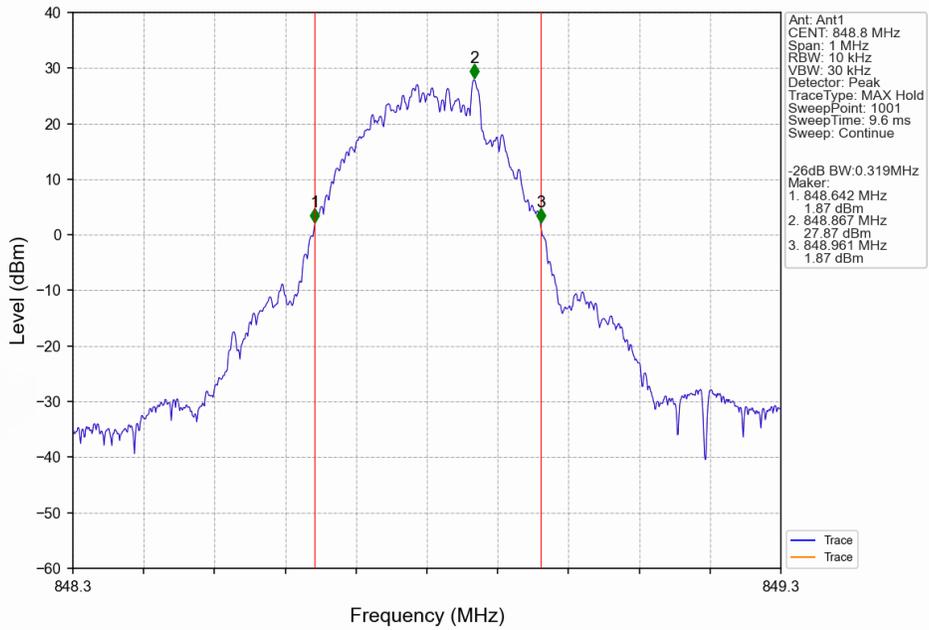




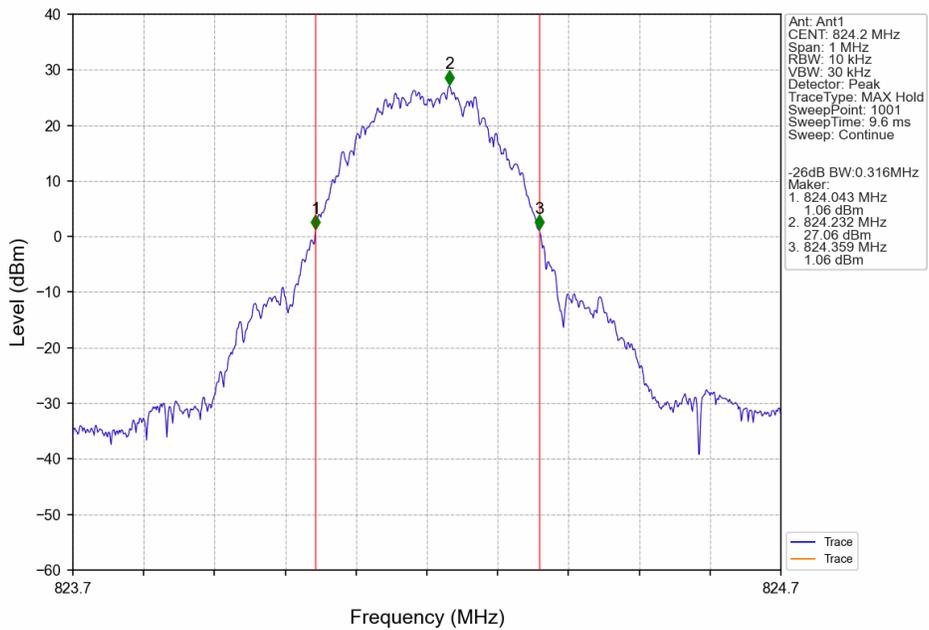
4.2.2 GSM850_XDB



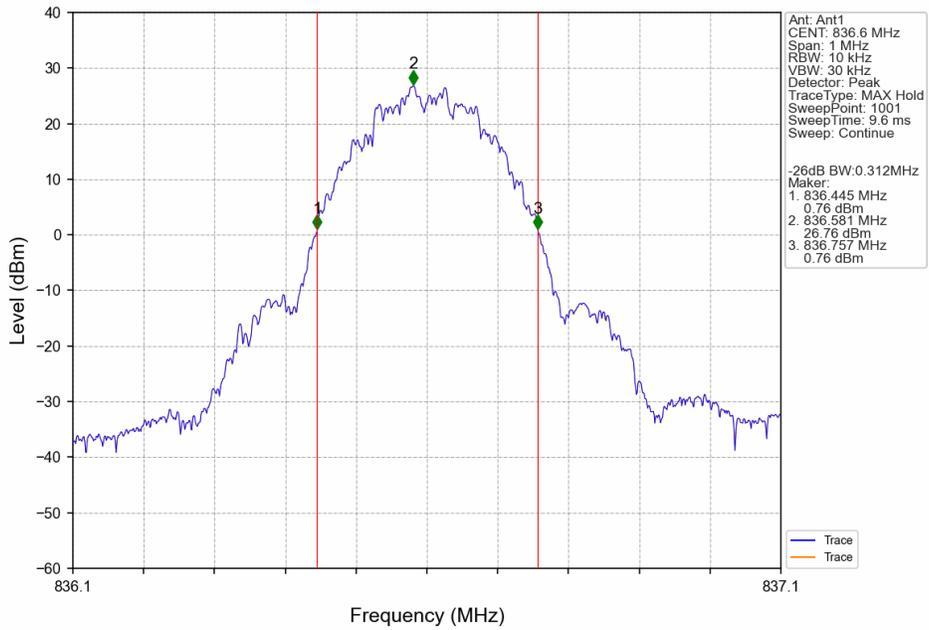
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



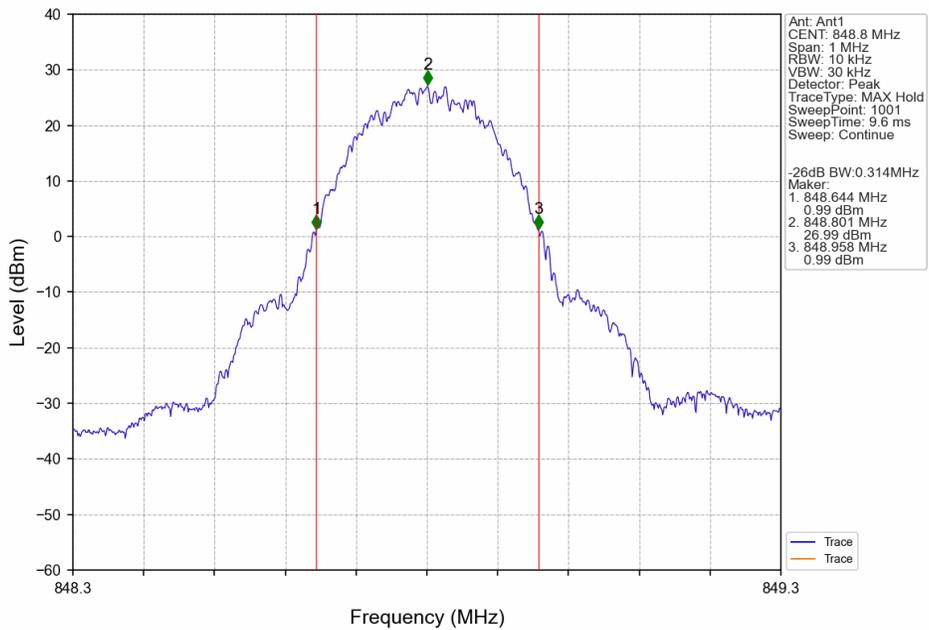
GSM850_GPRS_LCH_824.2MHz_1 TX Slot_NTNV



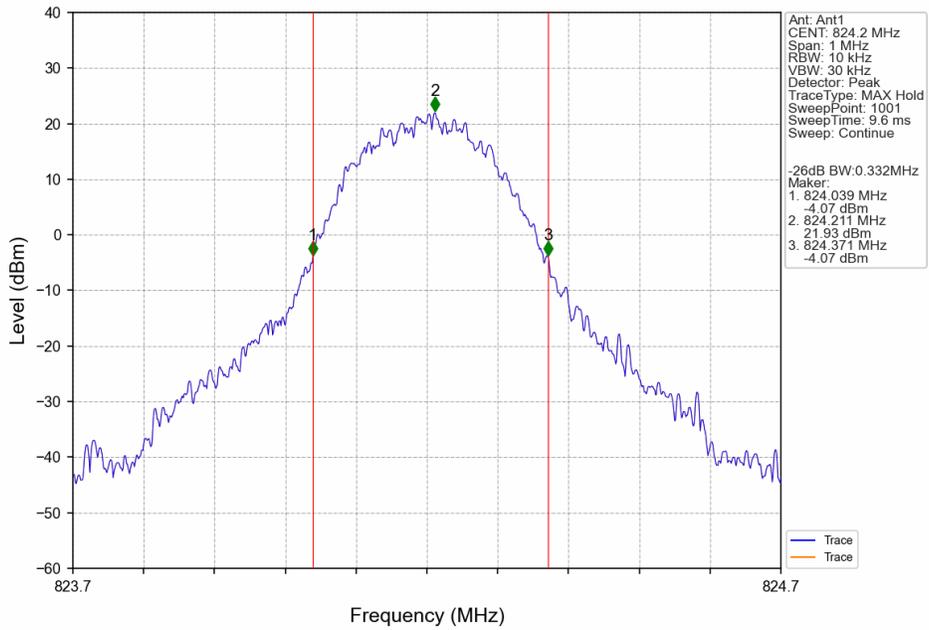
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



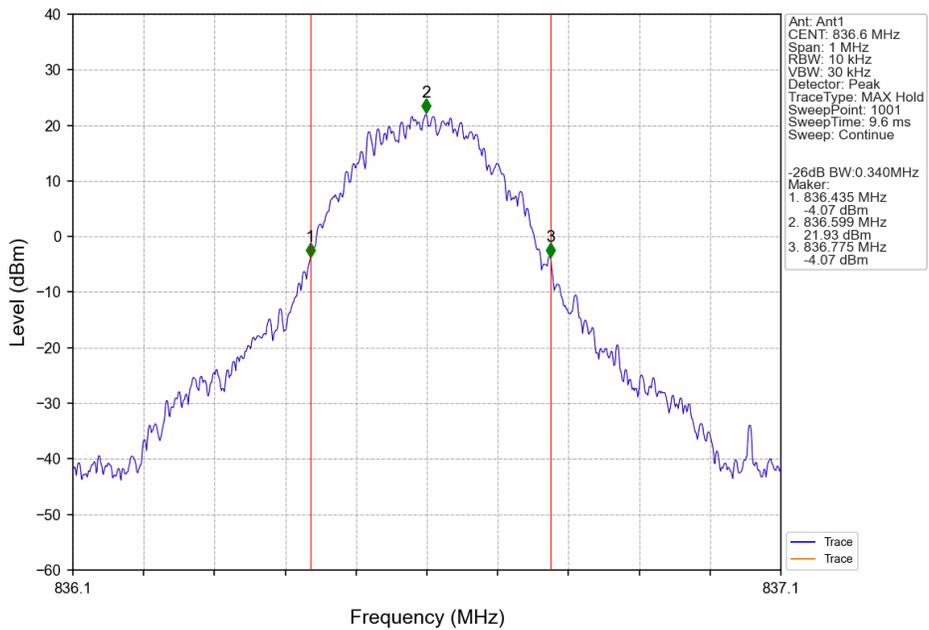
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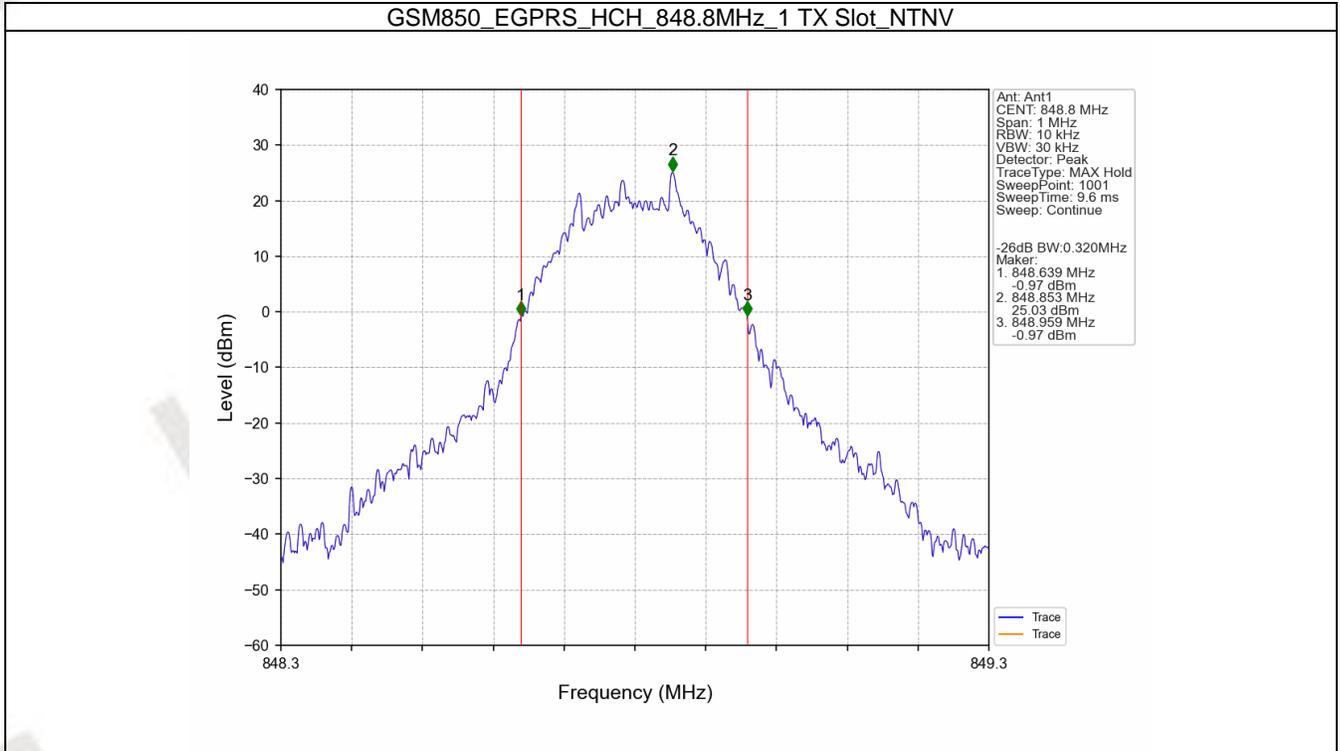


GSM850_EGPRS_LCH_824.2MHz_1 TX Slot_NTNV



GSM850_EGPRS_MCH_836.6MHz_1 TX Slot_NTNV





5. Peak-Average Ratio

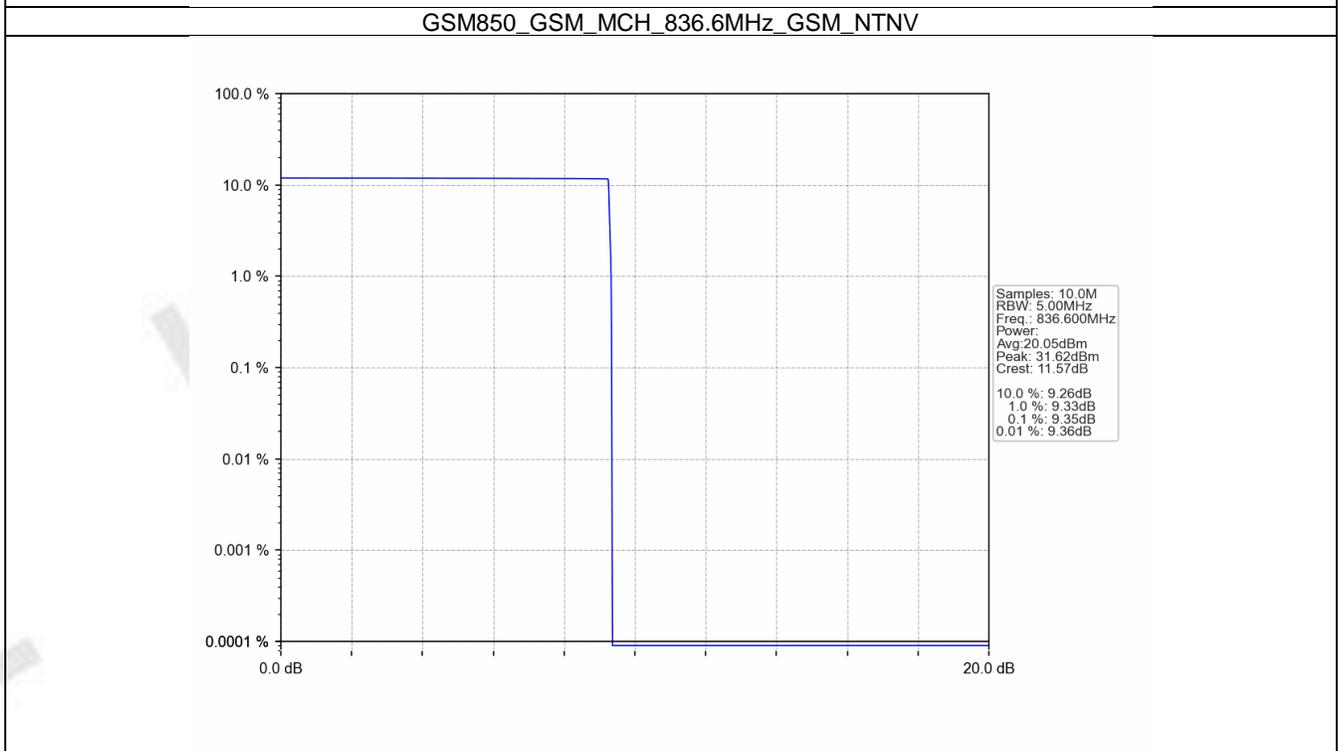
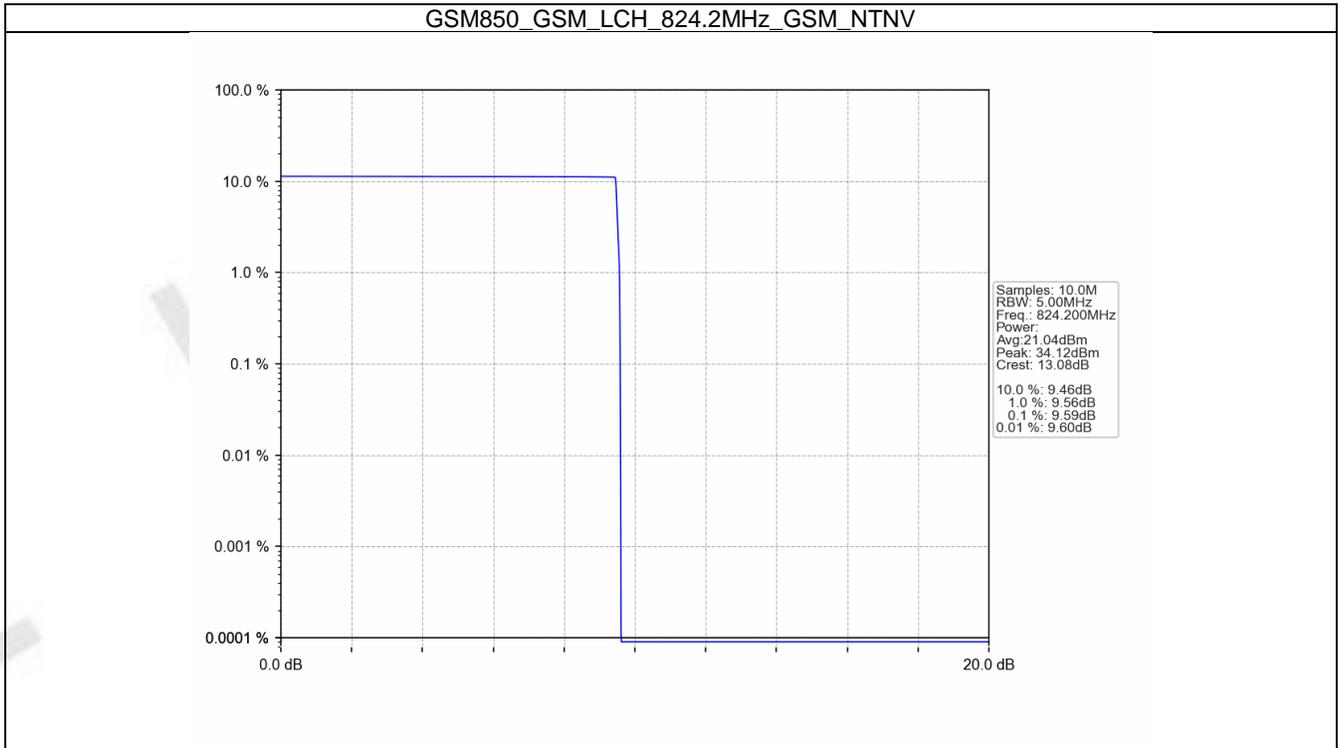
5.1 Test Result

5.1.1 GSM850

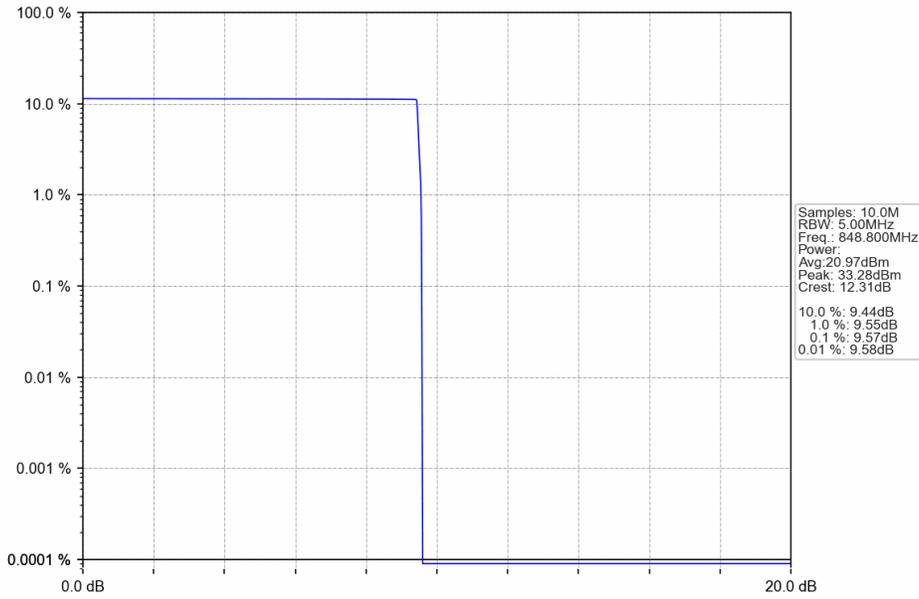
Band: GSM850						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	9.59	<=13	Pass
			836.6	9.35	<=13	Pass
			848.8	9.57	<=13	Pass
	GPRS	4 TX Slots	824.2	3.69	<=13	Pass
			836.6	3.63	<=13	Pass
			848.8	3.61	<=13	Pass
	EGPRS	4 TX Slots	824.2	9.76	<=13	Pass
			836.6	8.37	<=13	Pass
			848.8	9.61	<=13	Pass

5.2 Test Graph

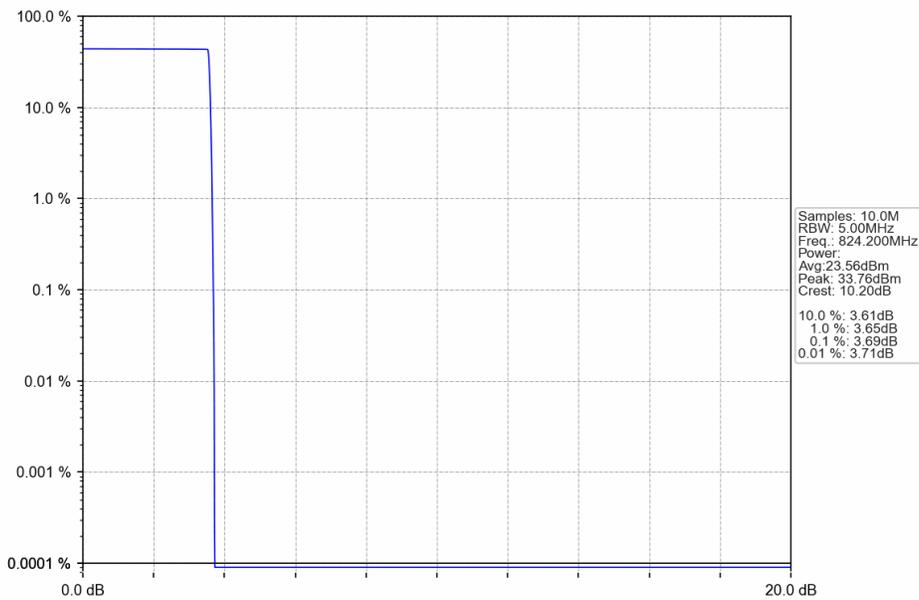
5.2.1 GSM850



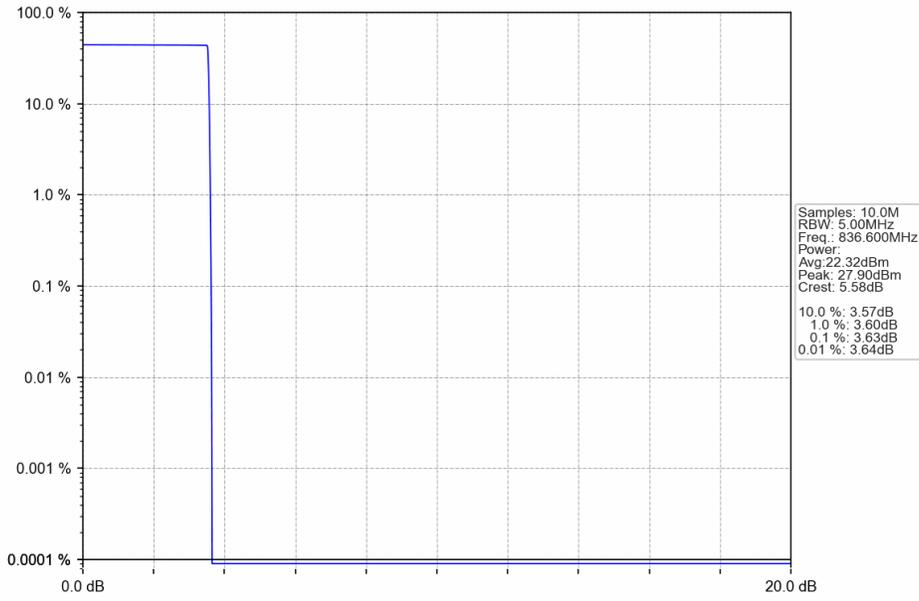
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



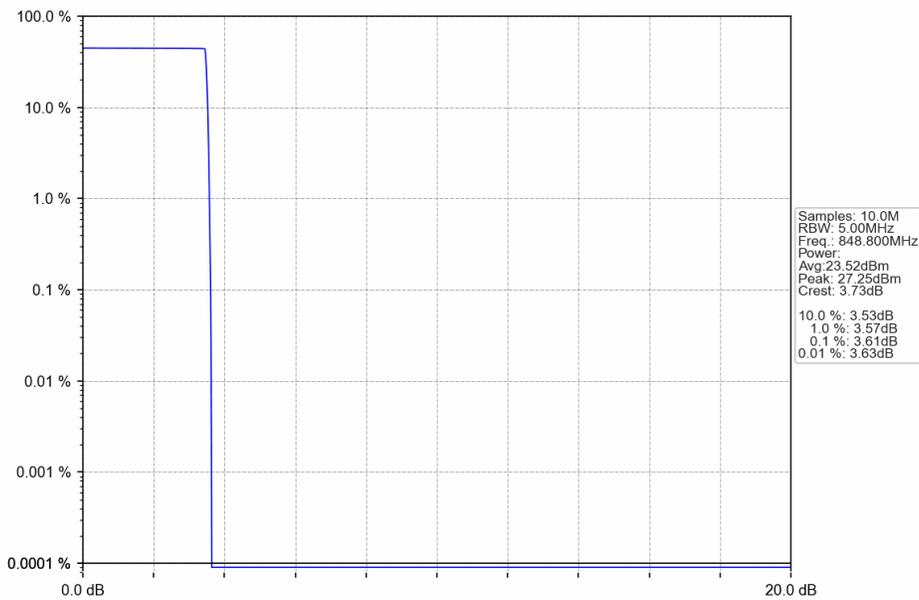
GSM850_GPRS_LCH_824.2MHz_4 TX Slots_NTNV



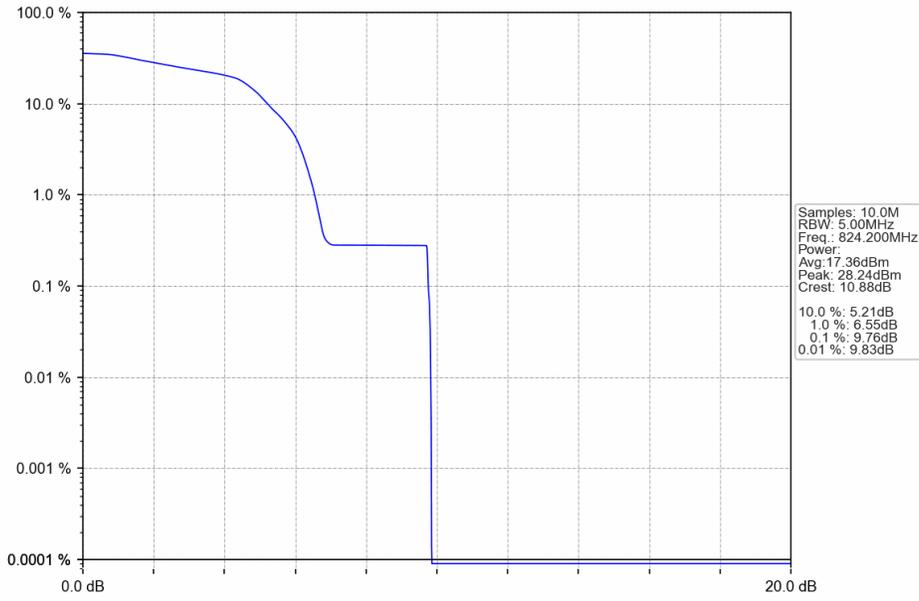
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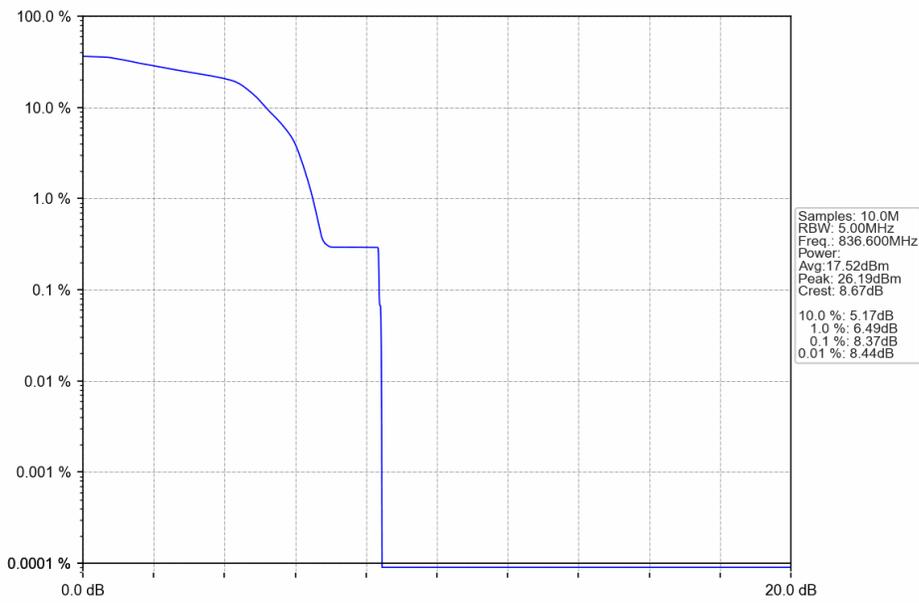
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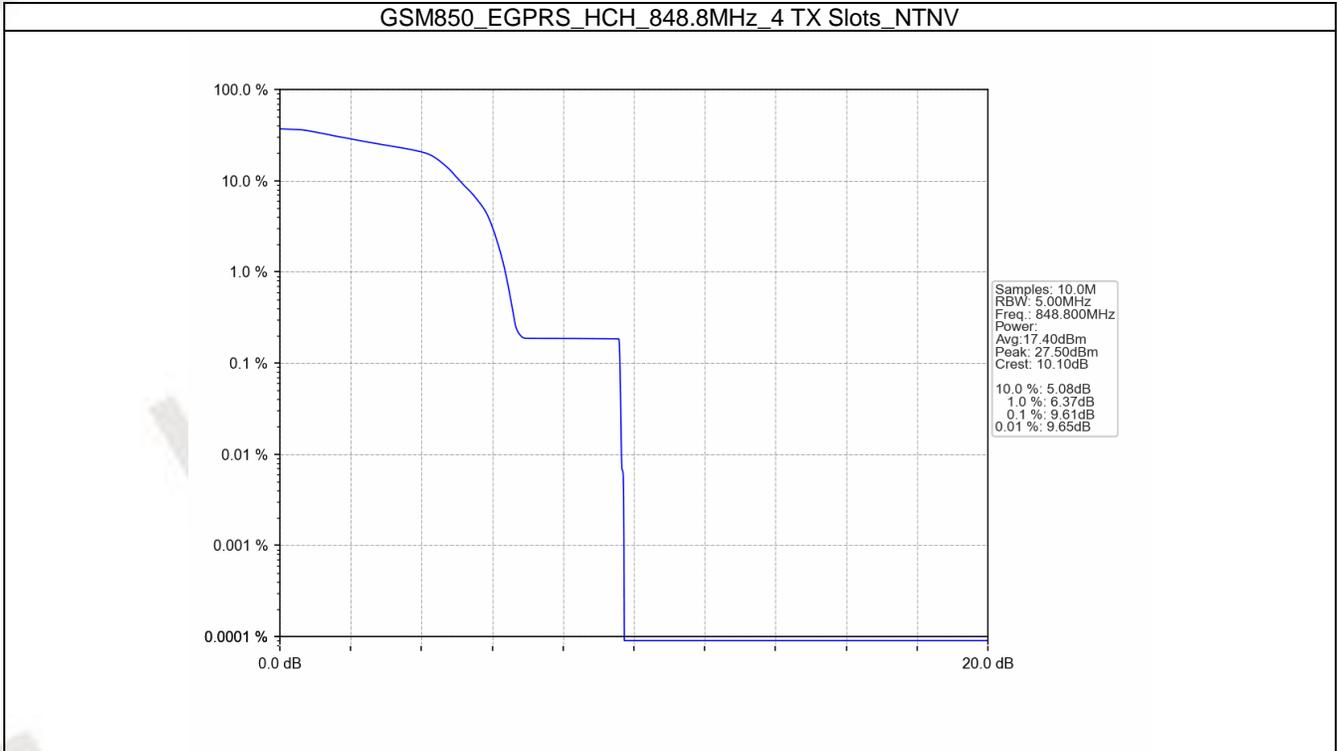


GSM850_EGPRS_LCH_824.2MHz_4 TX Slots_NTNV



GSM850_EGPRS_MCH_836.6MHz_4 TX Slots_NTNV





6. Spurious Emission

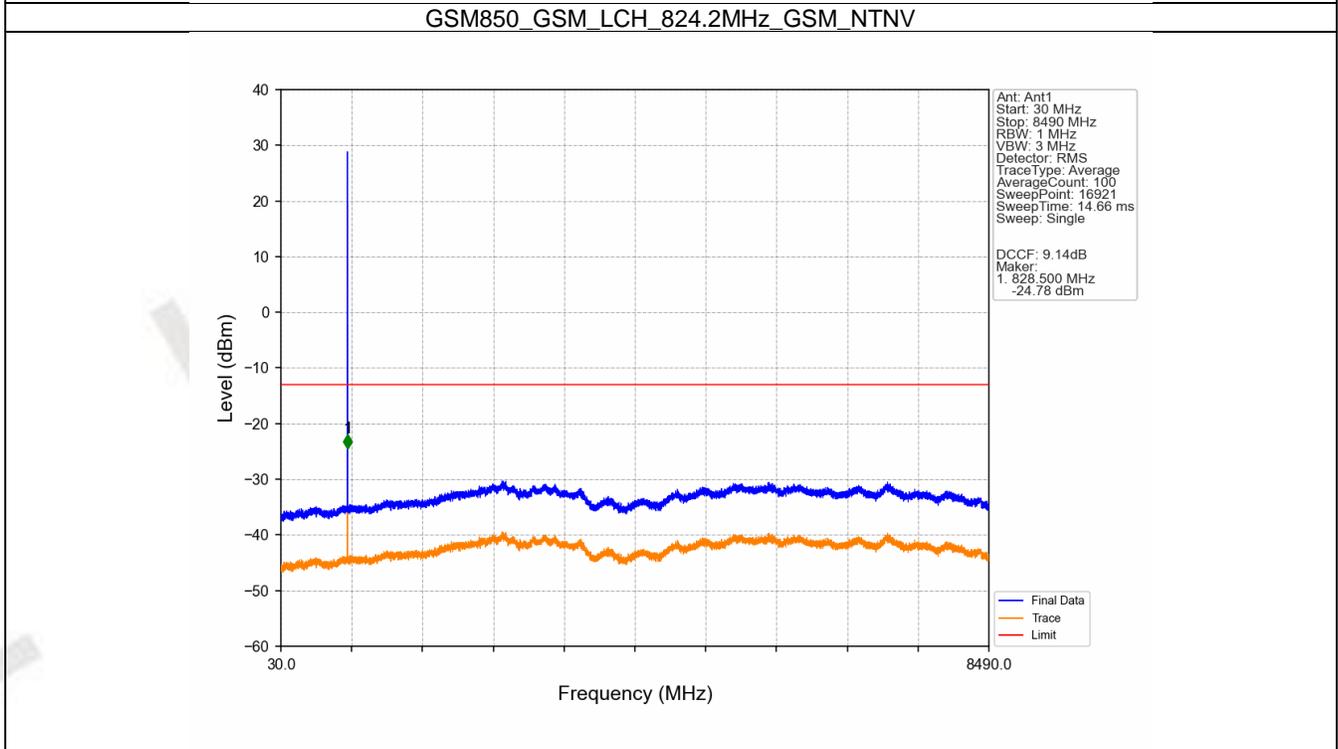
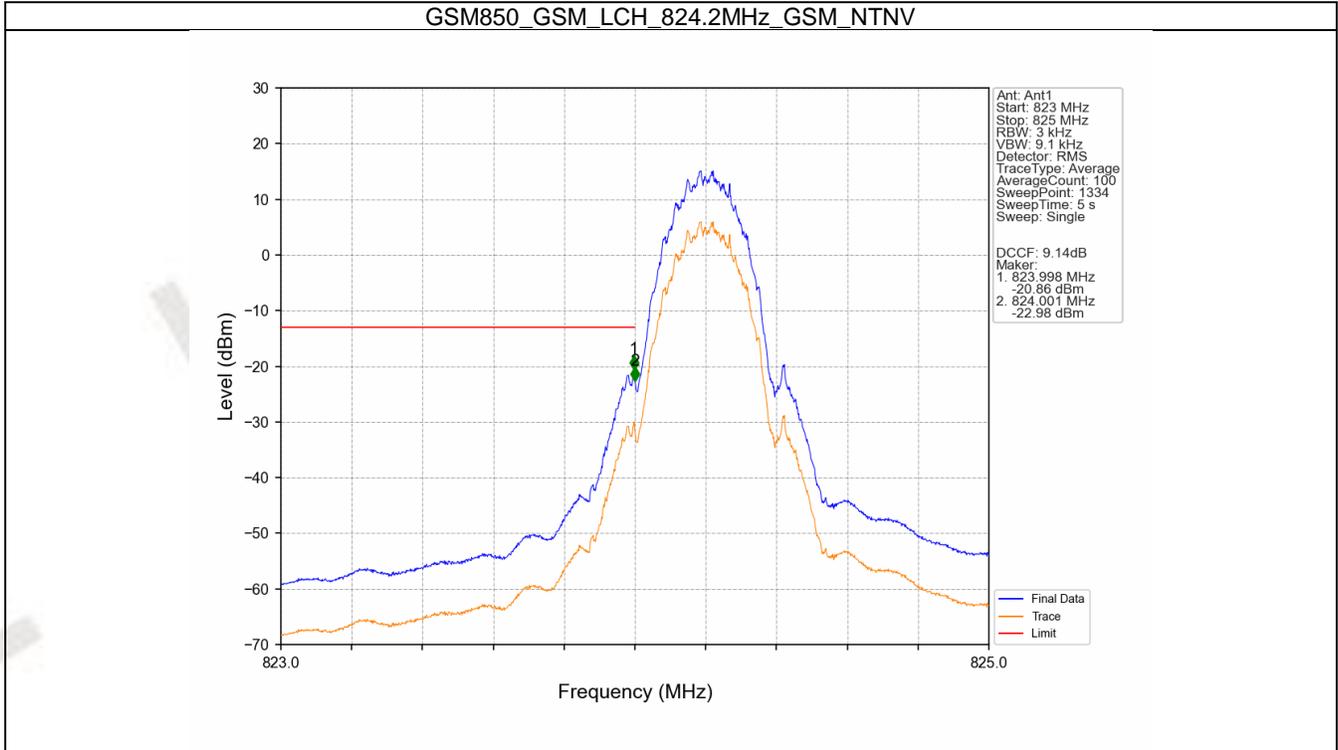
6.1 Test Result

6.1.1 GSM850

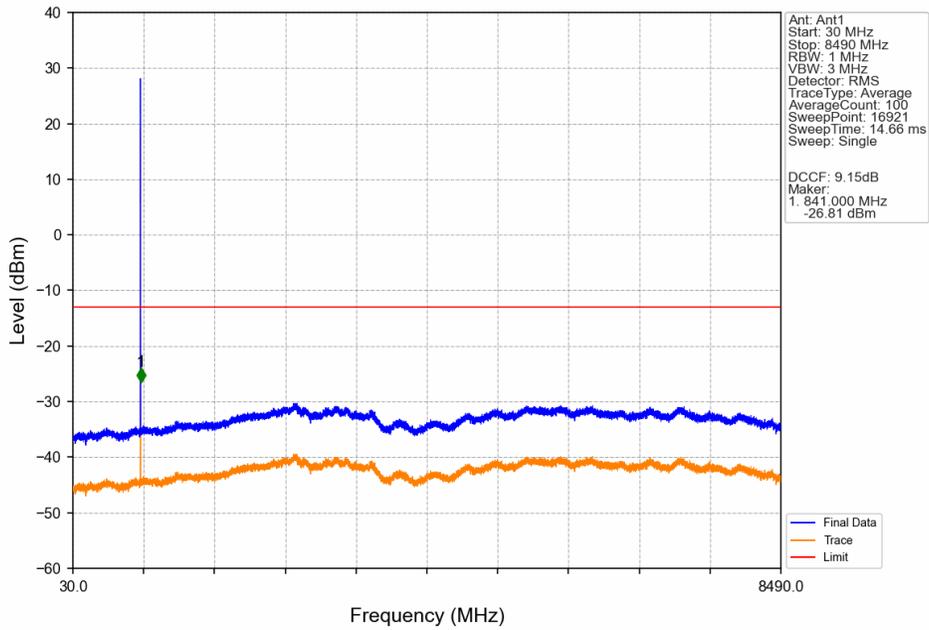
Band: GSM850						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass
			848.8	Refer To Test Graph		Pass
	GPRS	1 TX Slot	824.2	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass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

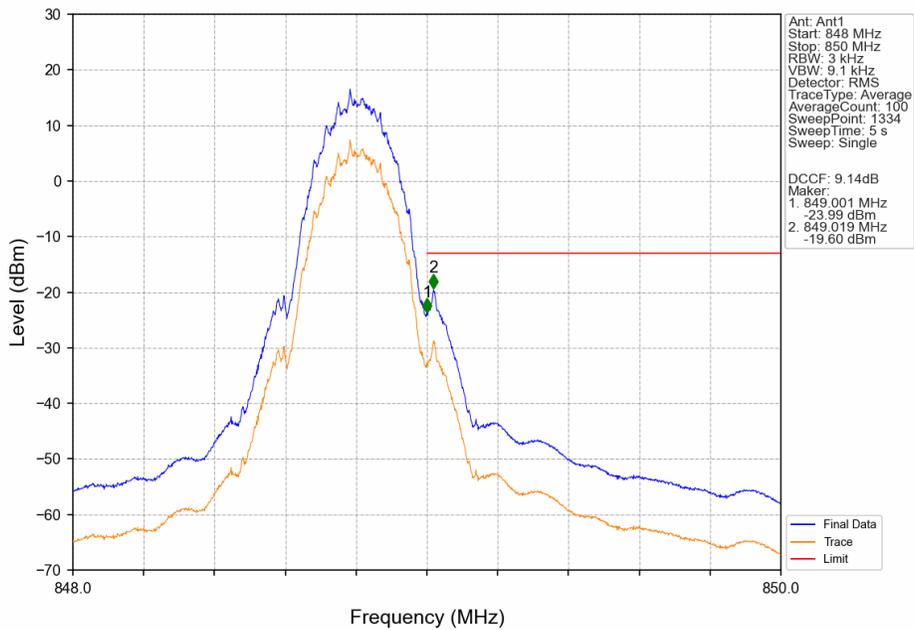
6.2.1 GSM850



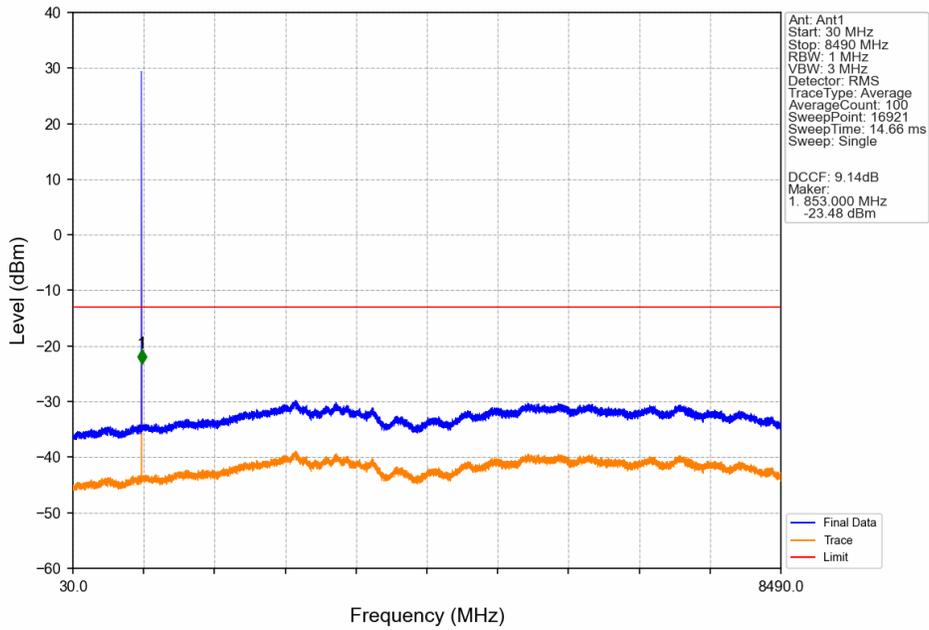
GSM850_GSM_MCH_836.6MHz_GSM_NTNV



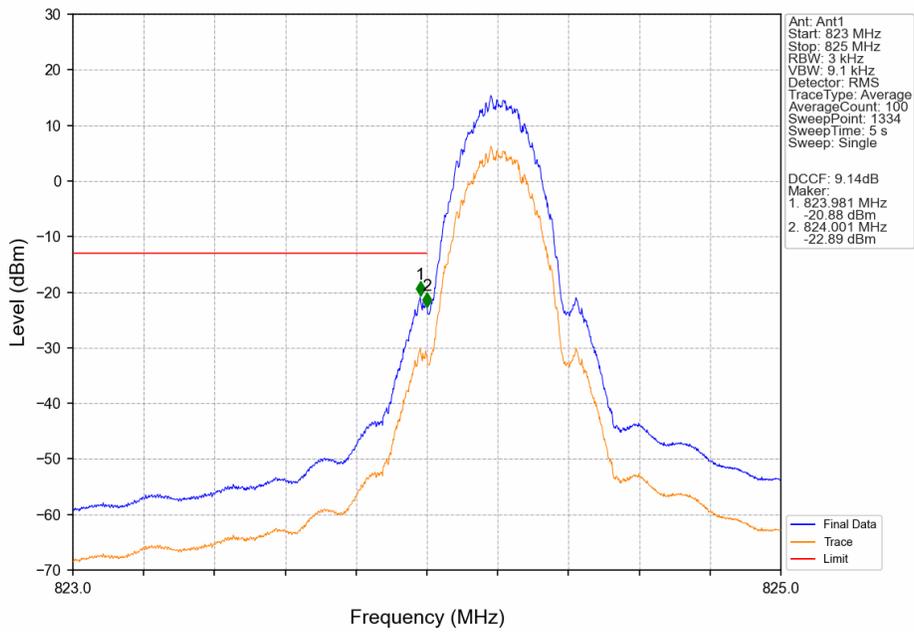
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



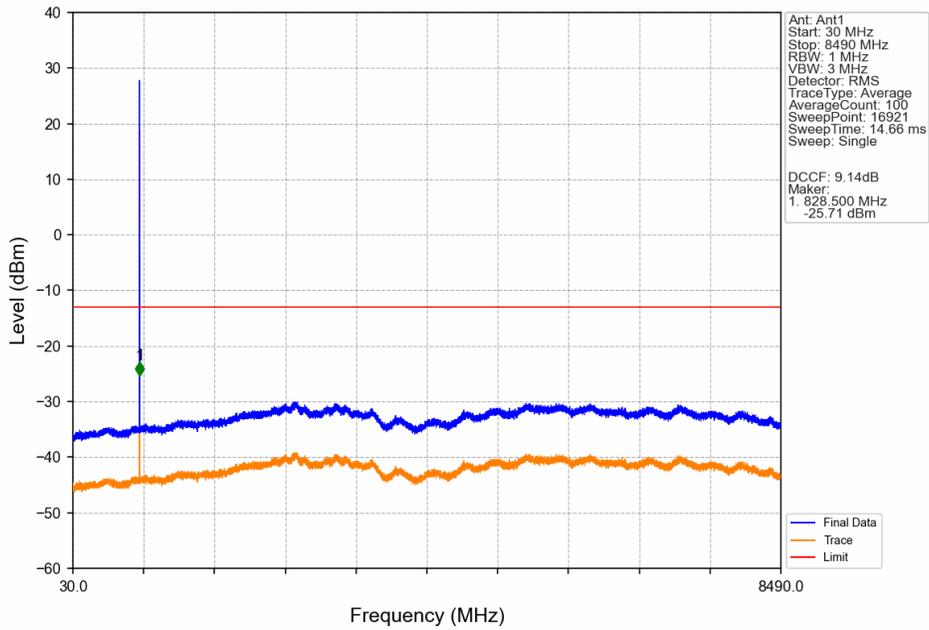
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



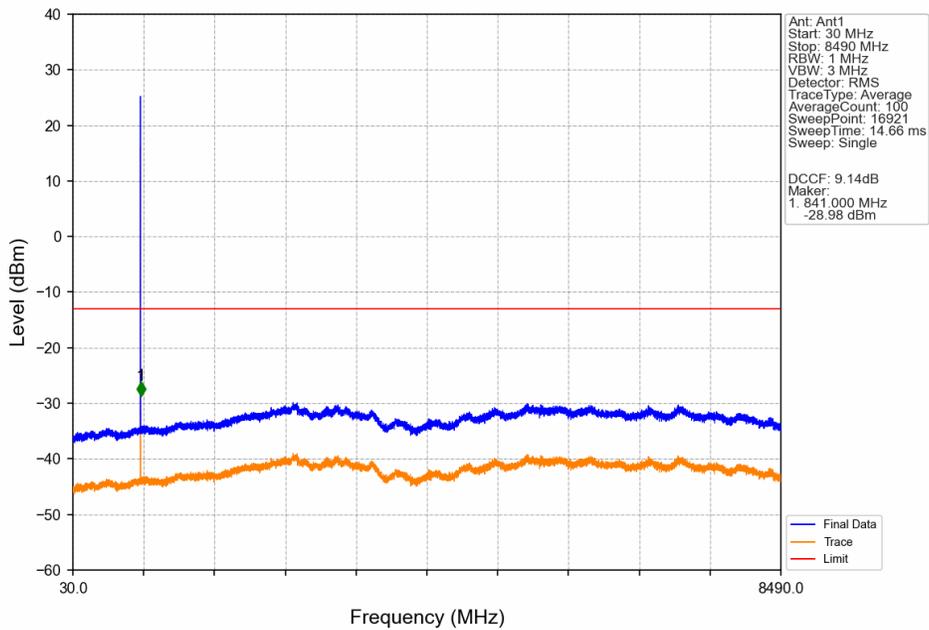
GSM850_GPRS_LCH_824.2MHz_1 TX Slot_NTNV



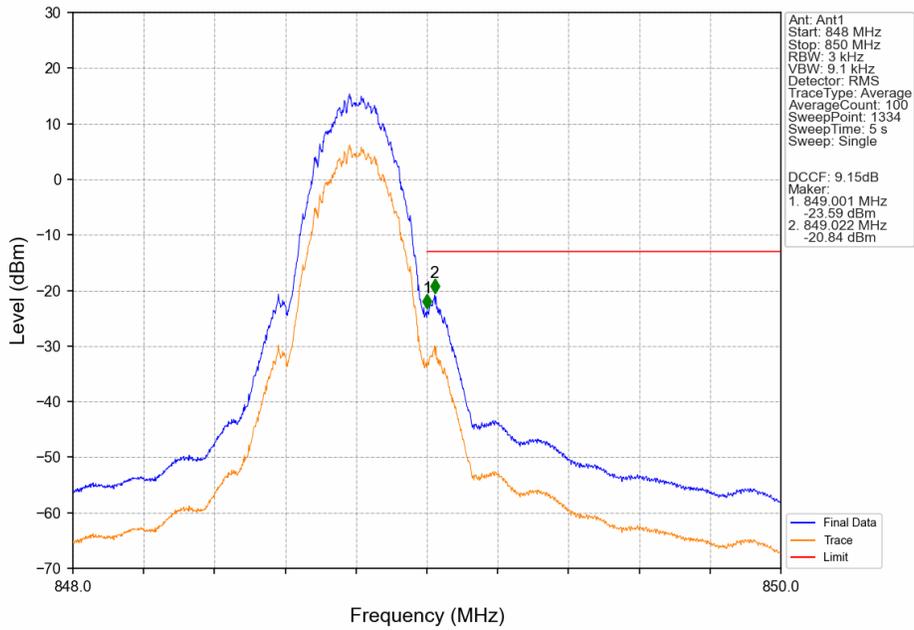
GSM850_GPRS_LCH_824.2MHz_1 TX Slot_NTNV



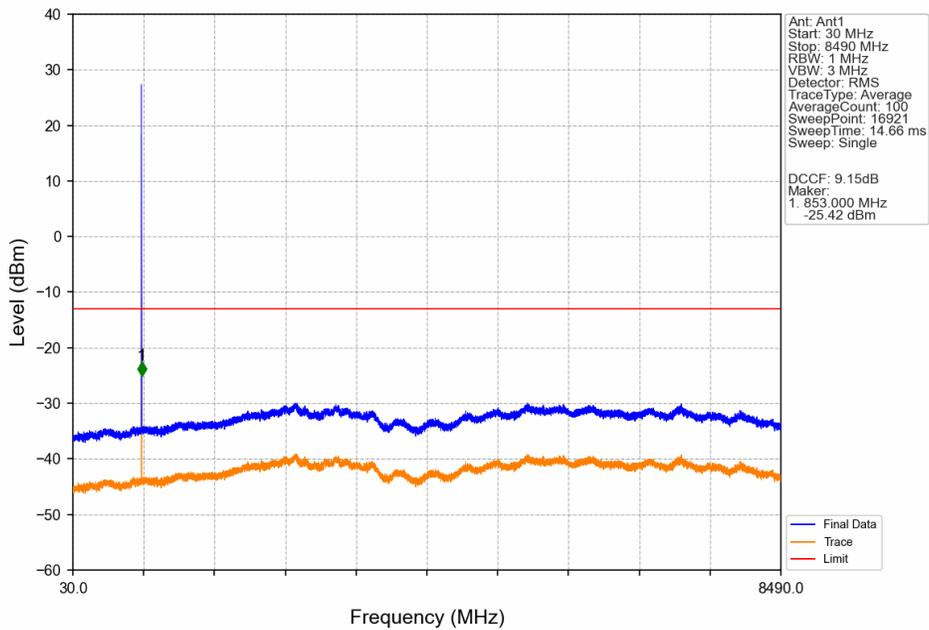
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



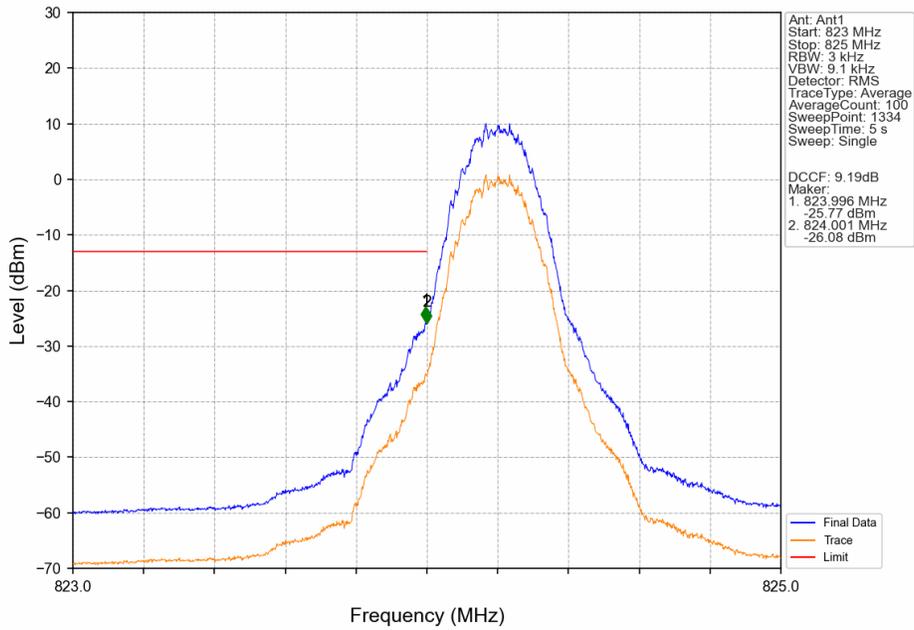
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



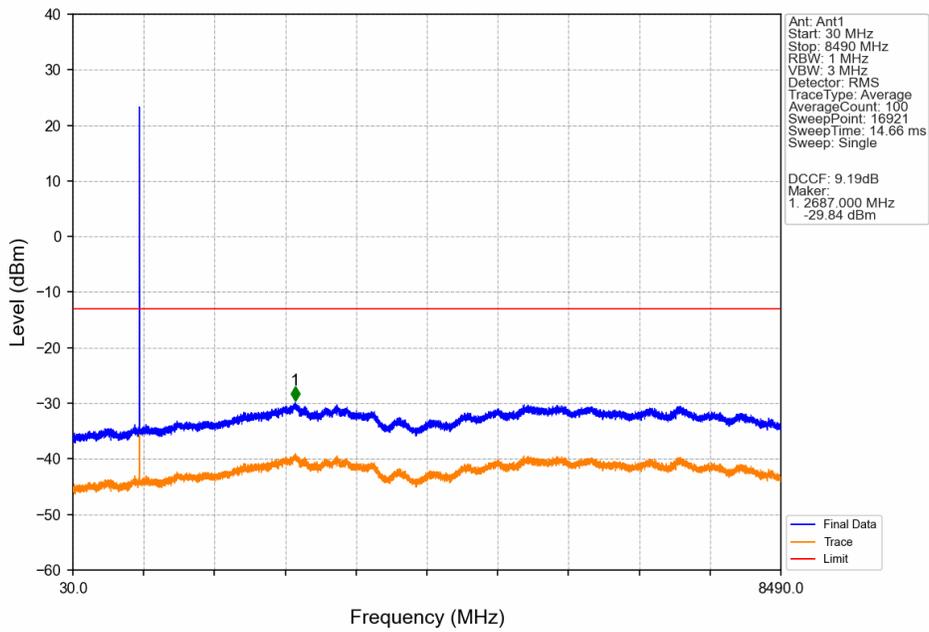
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



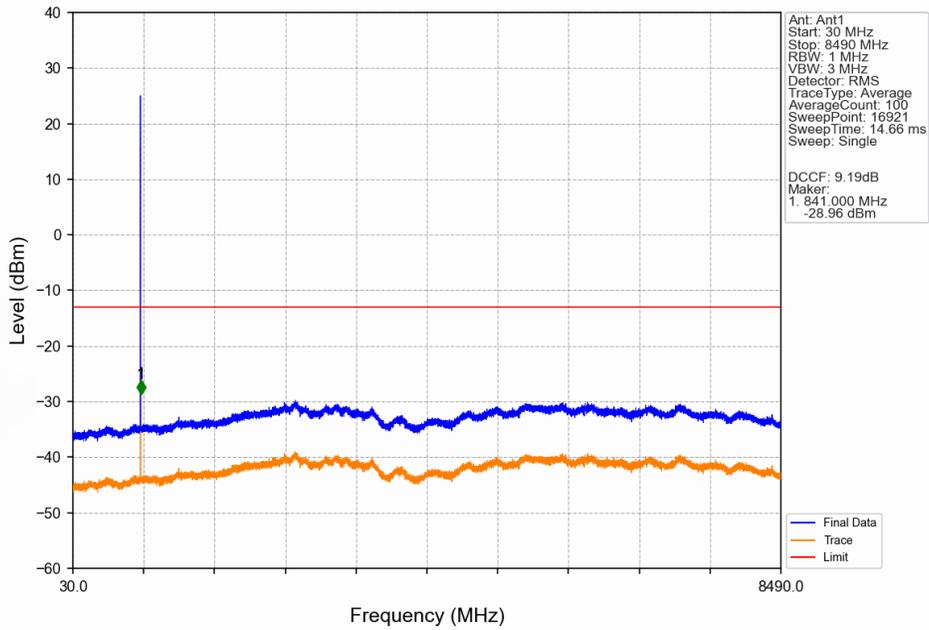
GSM850_EGPRS_LCH_824.2MHz_1 TX Slot_NTNV



GSM850_EGPRS_LCH_824.2MHz_1 TX Slot_NTNV



GSM850_EGPRS_MCH_836.6MHz_1 TX Slot_NTNV



GSM850_EGPRS_HCH_848.8MHz_1 TX Slot_NTNV

