

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	30.63	-0.71	27.77	<=38.45	Pass	
			836.6	30.70	-0.71	27.84	<=38.45	Pass	
			848.8	30.44	-0.71	27.58	<=38.45	Pass	
	GPRS	1 TX Slot	824.2	30.70	-0.71	27.84	<=38.45	Pass	
			2 TX Slots	824.2	29.86	-0.71	27.00	<=38.45	Pass
			3 TX Slots	824.2	28.00	-0.71	25.14	<=38.45	Pass
			4 TX Slots	824.2	26.72	-0.71	23.86	<=38.45	Pass
		2 TX Slots	836.6	30.64	-0.71	27.78	<=38.45	Pass	
			836.6	29.82	-0.71	26.96	<=38.45	Pass	
			836.6	27.97	-0.71	25.11	<=38.45	Pass	
			836.6	26.78	-0.71	23.92	<=38.45	Pass	
		3 TX Slots	848.8	30.33	-0.71	27.47	<=38.45	Pass	
			848.8	29.52	-0.71	26.66	<=38.45	Pass	
			848.8	27.66	-0.71	24.80	<=38.45	Pass	
			848.8	26.46	-0.71	23.60	<=38.45	Pass	
		EGPRS	1 TX Slot	824.2	26.47	-0.71	23.61	<=38.45	Pass
				824.2	25.22	-0.71	22.36	<=38.45	Pass
				824.2	22.81	-0.71	19.95	<=38.45	Pass
				824.2	21.78	-0.71	18.92	<=38.45	Pass
	2 TX Slots		836.6	26.35	-0.71	23.49	<=38.45	Pass	
			836.6	26.56	-0.71	23.70	<=38.45	Pass	
			836.6	25.78	-0.71	22.92	<=38.45	Pass	
			836.6	23.24	-0.71	20.38	<=38.45	Pass	
	3 TX Slots		848.8	26.25	-0.71	23.39	<=38.45	Pass	
			848.8	25.07	-0.71	22.21	<=38.45	Pass	
			848.8	22.71	-0.71	19.85	<=38.45	Pass	
			848.8	21.53	-0.71	18.67	<=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	8.620	0.0105	-2.5 to 2.5	Pass
			3.85	5.908	0.0072	-2.5 to 2.5	Pass
			4.43	10.396	0.0126	-2.5 to 2.5	Pass

	836.6	-30	3.85	8.297	0.0101	-2.5 to 2.5	Pass		
		-20	3.85	8.588	0.0104	-2.5 to 2.5	Pass		
		-10	3.85	5.682	0.0069	-2.5 to 2.5	Pass		
		0	3.85	8.782	0.0107	-2.5 to 2.5	Pass		
		10	3.85	7.910	0.0096	-2.5 to 2.5	Pass		
		30	3.85	9.395	0.0114	-2.5 to 2.5	Pass		
		40	3.85	7.878	0.0096	-2.5 to 2.5	Pass		
		50	3.85	4.811	0.0058	-2.5 to 2.5	Pass		
		20	3.27	13.399	0.0160	-2.5 to 2.5	Pass		
			3.85	8.943	0.0107	-2.5 to 2.5	Pass		
			4.43	9.266	0.0111	-2.5 to 2.5	Pass		
		-30	3.85	9.395	0.0112	-2.5 to 2.5	Pass		
		-20	3.85	8.782	0.0105	-2.5 to 2.5	Pass		
		-10	3.85	9.105	0.0109	-2.5 to 2.5	Pass		
	0	3.85	7.426	0.0089	-2.5 to 2.5	Pass			
	10	3.85	10.848	0.0130	-2.5 to 2.5	Pass			
	30	3.85	10.783	0.0129	-2.5 to 2.5	Pass			
	40	3.85	10.687	0.0128	-2.5 to 2.5	Pass			
	50	3.85	11.332	0.0135	-2.5 to 2.5	Pass			
	848.8	20	3.27	8.104	0.0095	-2.5 to 2.5	Pass		
			3.85	9.266	0.0109	-2.5 to 2.5	Pass		
			4.43	8.427	0.0099	-2.5 to 2.5	Pass		
		-30	3.85	9.750	0.0115	-2.5 to 2.5	Pass		
		-20	3.85	10.880	0.0128	-2.5 to 2.5	Pass		
		-10	3.85	8.685	0.0102	-2.5 to 2.5	Pass		
		0	3.85	7.684	0.0091	-2.5 to 2.5	Pass		
		10	3.85	9.879	0.0116	-2.5 to 2.5	Pass		
		30	3.85	3.035	0.0036	-2.5 to 2.5	Pass		
		40	3.85	5.747	0.0068	-2.5 to 2.5	Pass		
		50	3.85	6.070	0.0072	-2.5 to 2.5	Pass		
		GPRS	824.2	20	3.27	19.856	0.0241	-2.5 to 2.5	Pass
					3.85	19.113	0.0232	-2.5 to 2.5	Pass
					4.43	19.565	0.0237	-2.5 to 2.5	Pass
-30	3.85			17.983	0.0218	-2.5 to 2.5	Pass		
-20	3.85			16.304	0.0198	-2.5 to 2.5	Pass		
-10	3.85			15.755	0.0191	-2.5 to 2.5	Pass		
0	3.85			16.078	0.0195	-2.5 to 2.5	Pass		
10	3.85			16.111	0.0195	-2.5 to 2.5	Pass		
30	3.85			16.175	0.0196	-2.5 to 2.5	Pass		
40	3.85			18.177	0.0221	-2.5 to 2.5	Pass		
50	3.85			20.954	0.0254	-2.5 to 2.5	Pass		
836.6	20			3.27	19.856	0.0237	-2.5 to 2.5	Pass	
				3.85	18.209	0.0218	-2.5 to 2.5	Pass	
				4.43	16.886	0.0202	-2.5 to 2.5	Pass	
	-30	3.85	18.952	0.0227	-2.5 to 2.5	Pass			
	-20	3.85	18.790	0.0225	-2.5 to 2.5	Pass			
	-10	3.85	12.139	0.0145	-2.5 to 2.5	Pass			
	0	3.85	13.851	0.0166	-2.5 to 2.5	Pass			
	10	3.85	17.693	0.0211	-2.5 to 2.5	Pass			
	30	3.85	18.758	0.0224	-2.5 to 2.5	Pass			
	40	3.85	20.082	0.0240	-2.5 to 2.5	Pass			
	50	3.85	23.310	0.0279	-2.5 to 2.5	Pass			
848.8	20	3.27	18.371	0.0216	-2.5 to 2.5	Pass			
		3.85	18.694	0.0220	-2.5 to 2.5	Pass			
		4.43	19.468	0.0229	-2.5 to 2.5	Pass			

		-30	3.85	19.824	0.0234	-2.5 to 2.5	Pass	
		-20	3.85	15.110	0.0178	-2.5 to 2.5	Pass	
		-10	3.85	17.531	0.0207	-2.5 to 2.5	Pass	
		0	3.85	17.338	0.0204	-2.5 to 2.5	Pass	
		10	3.85	14.787	0.0174	-2.5 to 2.5	Pass	
		30	3.85	17.402	0.0205	-2.5 to 2.5	Pass	
		40	3.85	17.176	0.0202	-2.5 to 2.5	Pass	
EGPRS	824.2	50	3.85	14.819	0.0175	-2.5 to 2.5	Pass	
		20	3.27	14.981	0.0182	-2.5 to 2.5	Pass	
			3.85	12.947	0.0157	-2.5 to 2.5	Pass	
			4.43	14.044	0.0170	-2.5 to 2.5	Pass	
		-30	3.85	14.141	0.0172	-2.5 to 2.5	Pass	
		-20	3.85	12.979	0.0157	-2.5 to 2.5	Pass	
		-10	3.85	10.719	0.0130	-2.5 to 2.5	Pass	
		0	3.85	12.979	0.0157	-2.5 to 2.5	Pass	
		10	3.85	12.398	0.0150	-2.5 to 2.5	Pass	
		30	3.85	14.593	0.0177	-2.5 to 2.5	Pass	
		40	3.85	12.850	0.0156	-2.5 to 2.5	Pass	
		50	3.85	14.270	0.0173	-2.5 to 2.5	Pass	
		836.6	20	3.27	10.170	0.0122	-2.5 to 2.5	Pass
				3.85	17.176	0.0205	-2.5 to 2.5	Pass
	4.43			14.787	0.0177	-2.5 to 2.5	Pass	
	-30		3.85	15.917	0.0190	-2.5 to 2.5	Pass	
	-20		3.85	14.432	0.0173	-2.5 to 2.5	Pass	
	-10		3.85	11.881	0.0142	-2.5 to 2.5	Pass	
	0		3.85	12.688	0.0152	-2.5 to 2.5	Pass	
	10		3.85	13.625	0.0163	-2.5 to 2.5	Pass	
	30		3.85	13.818	0.0165	-2.5 to 2.5	Pass	
	40		3.85	12.559	0.0150	-2.5 to 2.5	Pass	
	50		3.85	12.301	0.0147	-2.5 to 2.5	Pass	
	848.8		20	3.27	10.945	0.0129	-2.5 to 2.5	Pass
				3.85	11.558	0.0136	-2.5 to 2.5	Pass
				4.43	14.399	0.0170	-2.5 to 2.5	Pass
		-30	3.85	12.010	0.0141	-2.5 to 2.5	Pass	
		-20	3.85	11.494	0.0135	-2.5 to 2.5	Pass	
		-10	3.85	10.525	0.0124	-2.5 to 2.5	Pass	
		0	3.85	14.044	0.0165	-2.5 to 2.5	Pass	
		10	3.85	12.785	0.0151	-2.5 to 2.5	Pass	
		30	3.85	13.721	0.0162	-2.5 to 2.5	Pass	
		40	3.85	11.203	0.0132	-2.5 to 2.5	Pass	
50		3.85	12.721	0.0150	-2.5 to 2.5	Pass		

3. Modulation Characteristics

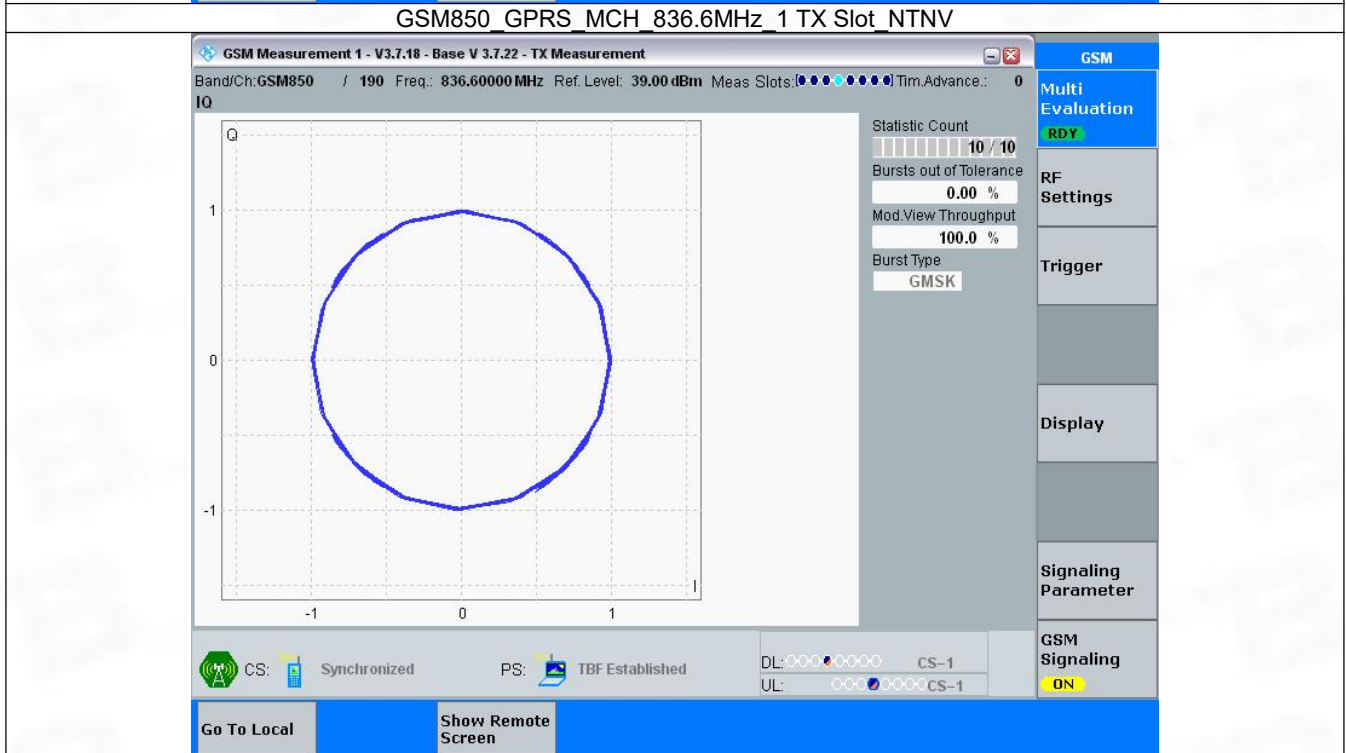
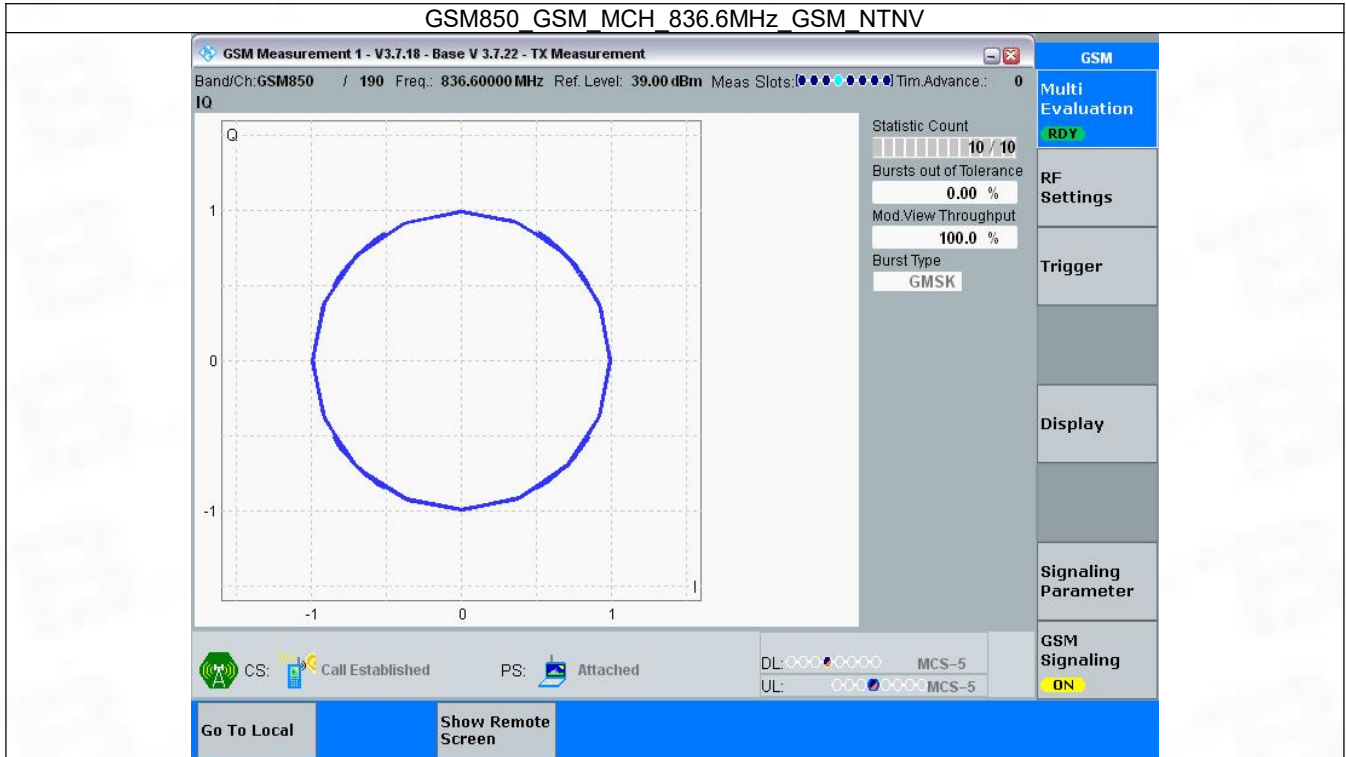
3.1 GSM850

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 NTV

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: [●●●●●●●●] Tim. Advance: 0

IQ

Statistic Count: 10 / 10
Bursts out of Tolerance: 0.00 %
Mod. View Throughput: 100.0 %
Burst Type: 8PSK

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

Go To Local Show Remote Screen

- GSM
- Multi Evaluation RDY
- RF Settings
- Trigger
- Display
- Signaling Parameter
- GSM Signaling ON

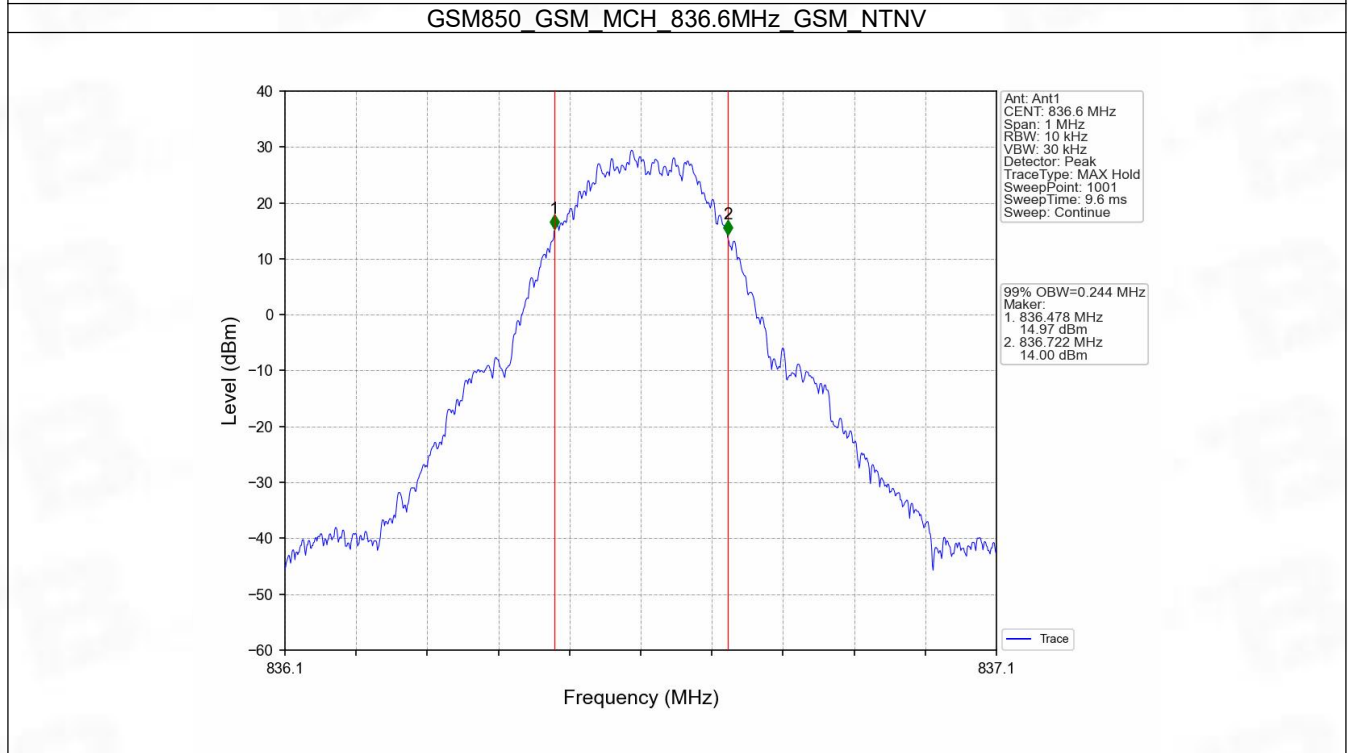
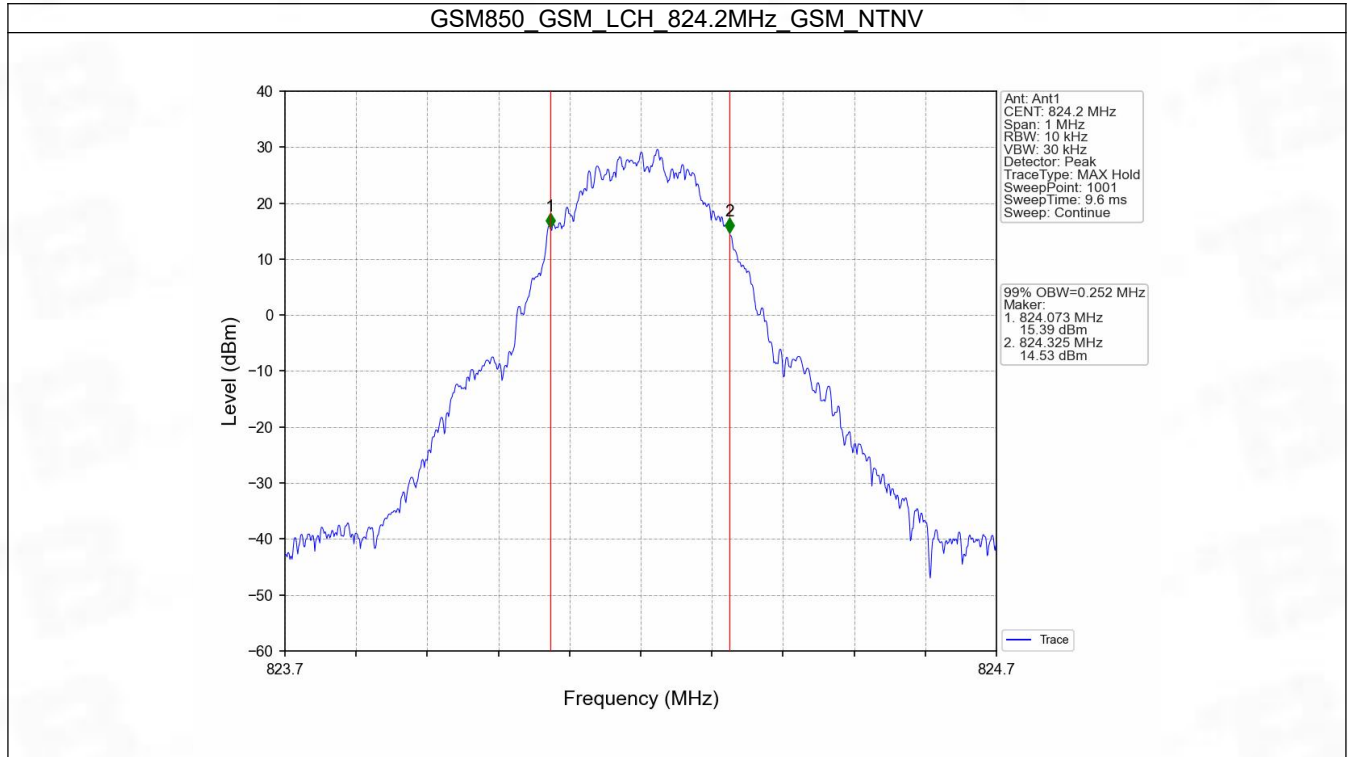
4. 99% & 26dB Bandwidth

4.1 GSM850_OBW

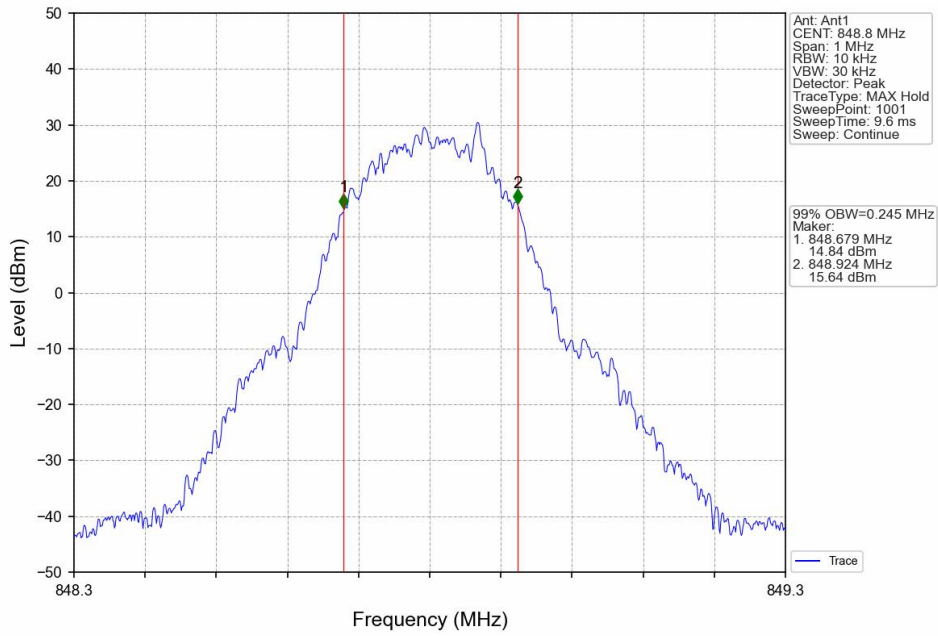
4.1.1 Test Result

Band: GSM850					
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	GSM	GSM	824.2	0.252	Pass
			836.6	0.244	Pass
			848.8	0.245	Pass
	GPRS	1 TX Slot	824.2	0.246	Pass
			836.6	0.252	Pass
			848.8	0.243	Pass
	EGPRS	1 TX Slot	824.2	0.242	Pass
			836.6	0.245	Pass
			848.8	0.249	Pass

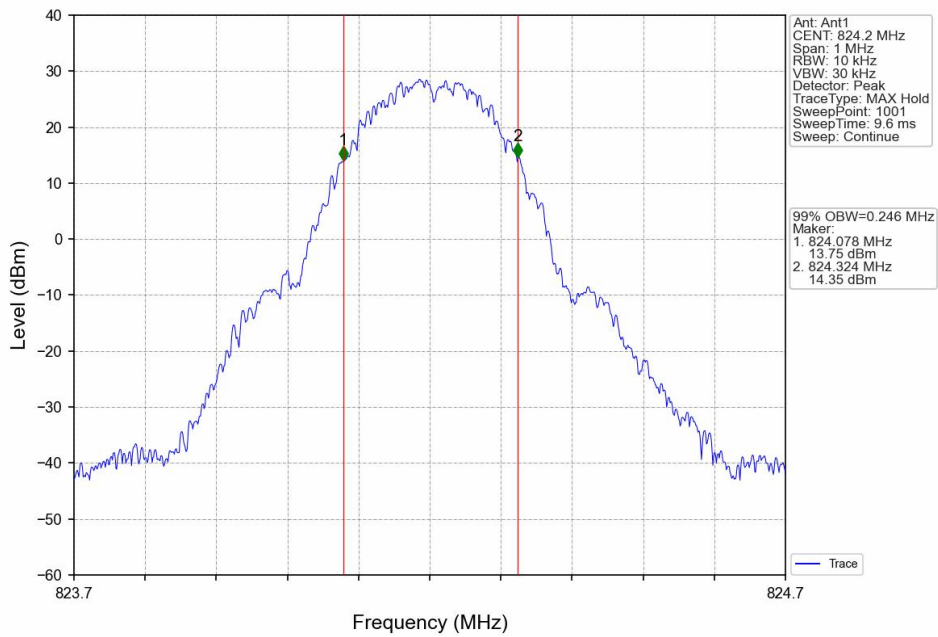
4.1.2 Test Graph



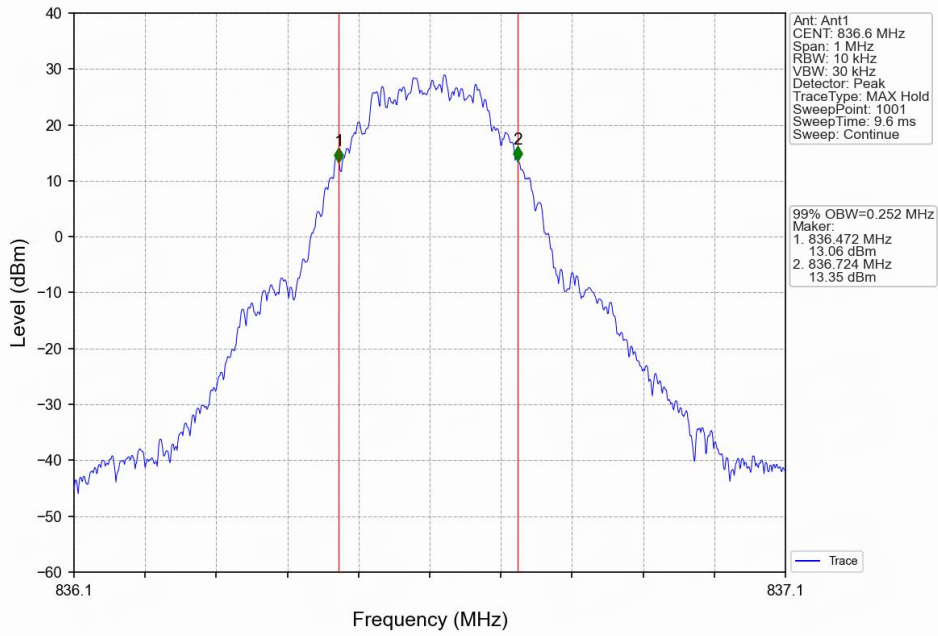
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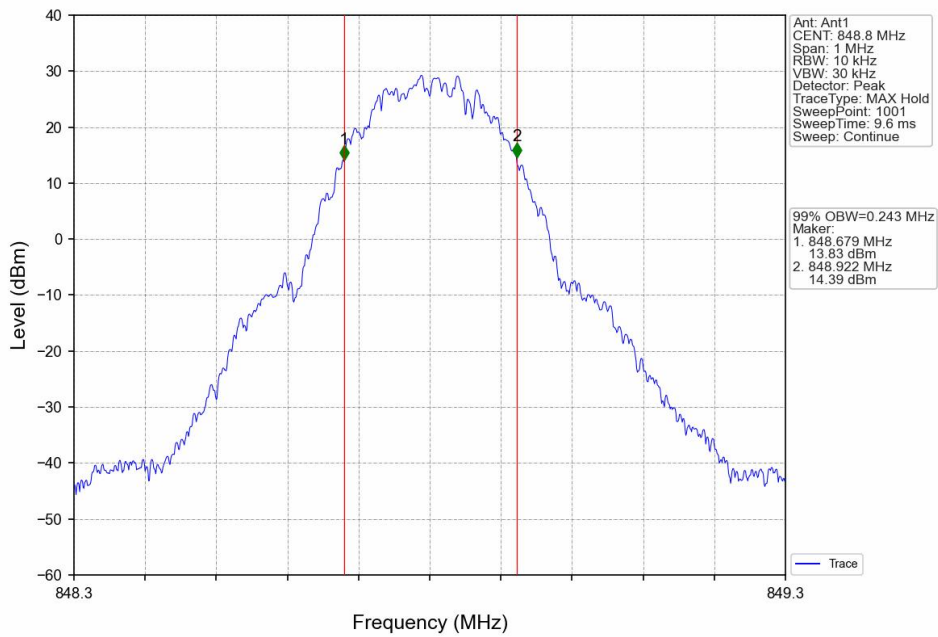
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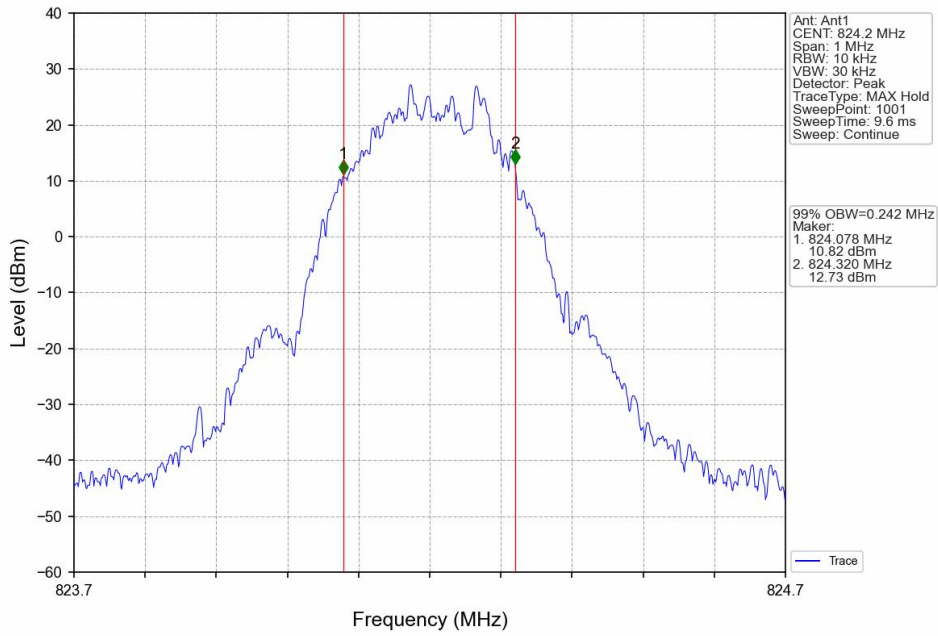
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



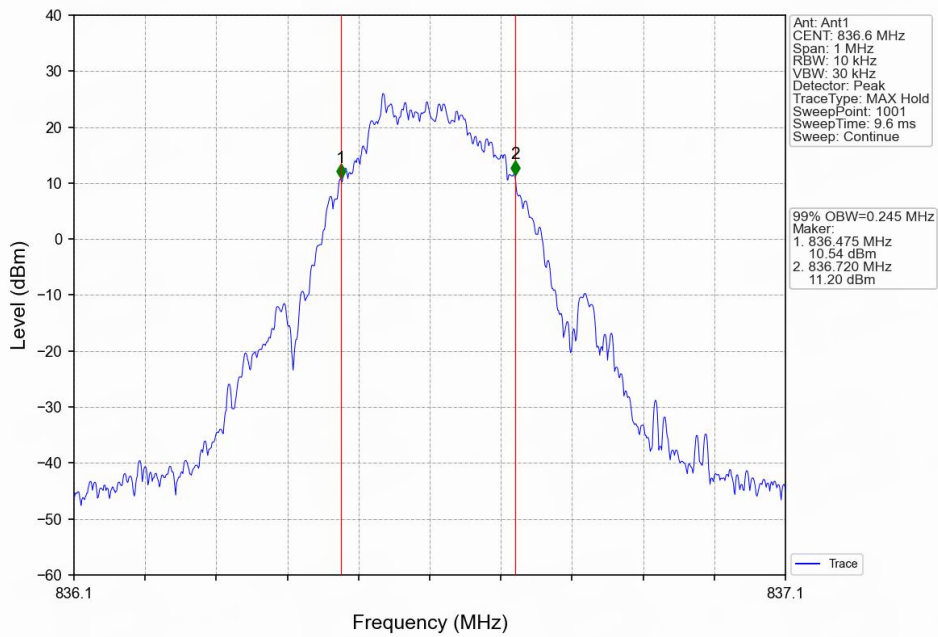
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



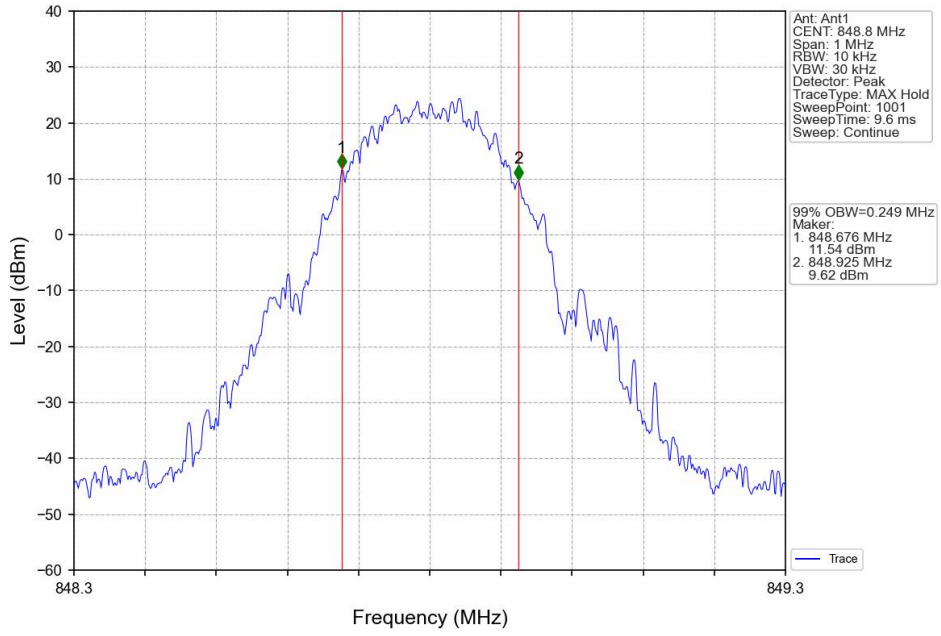
GSM850_EGPRS_LCH_824.2MHz_1 TX Slot_NTNV



GSM850_EGPRS_MCH_836.6MHz_1 TX Slot_NTNV



GSM850_EGPRS_HCH_848.8MHz_1_TX_Slot_NTNV

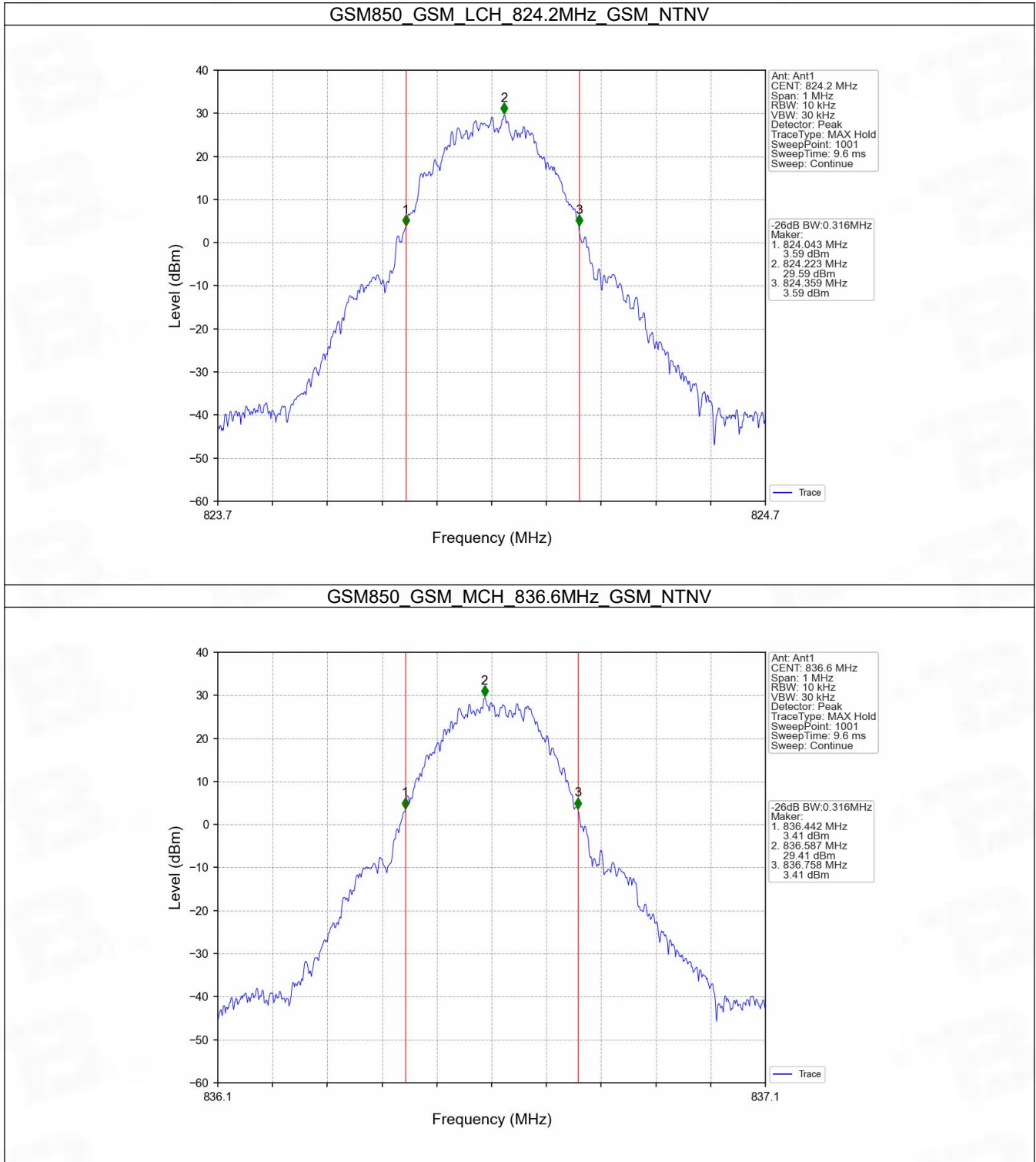


4.2 GSM850_XDB

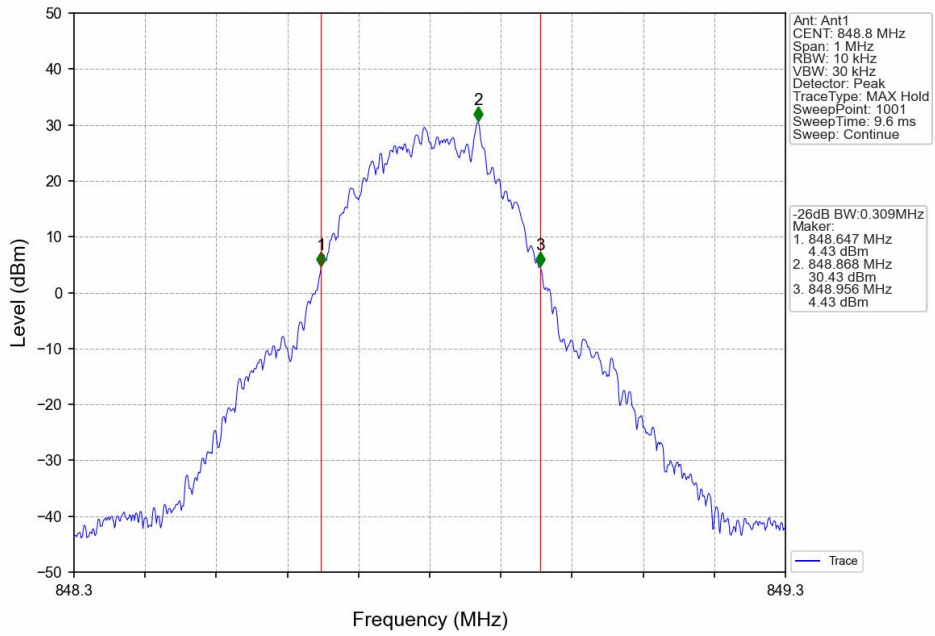
4.2.1 Test Result

Band: GSM850					
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	GSM	GSM	824.2	0.316	Pass
			836.6	0.316	Pass
			848.8	0.309	Pass
	GPRS	1 TX Slot	824.2	0.319	Pass
			836.6	0.319	Pass
			848.8	0.321	Pass
	EGPRS	1 TX Slot	824.2	0.307	Pass
			836.6	0.309	Pass
			848.8	0.321	Pass

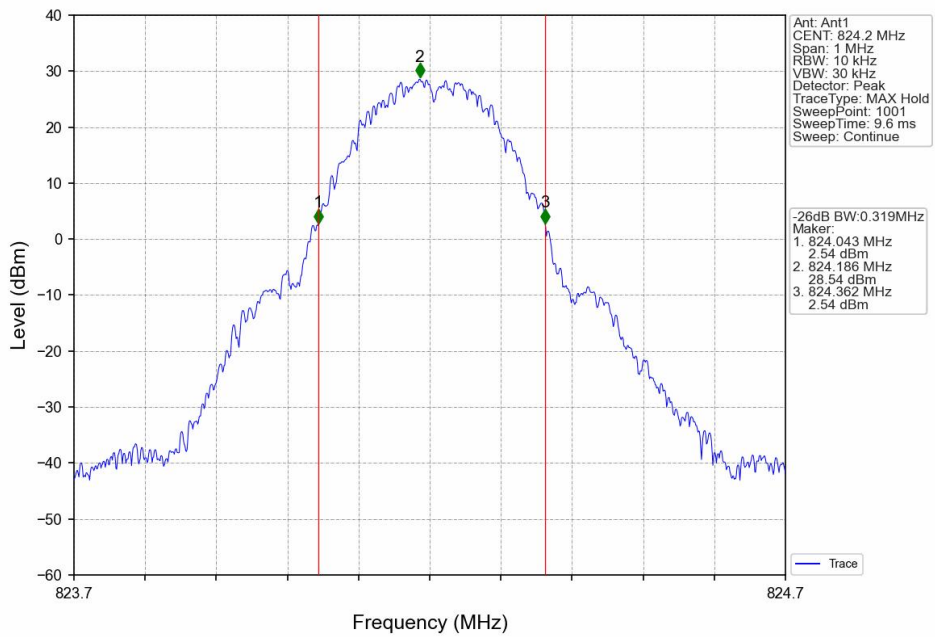
4.2.2 Test Graph



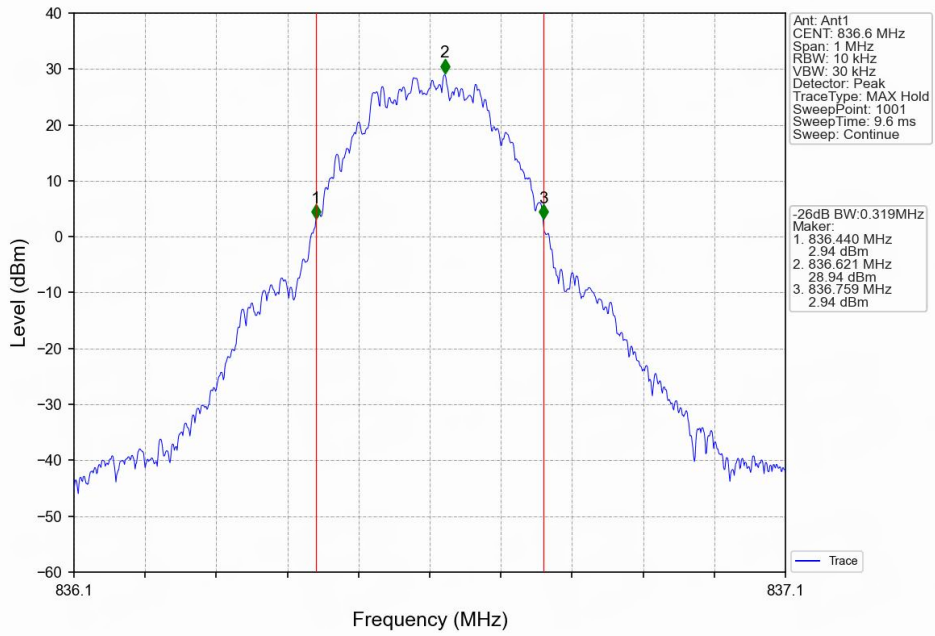
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



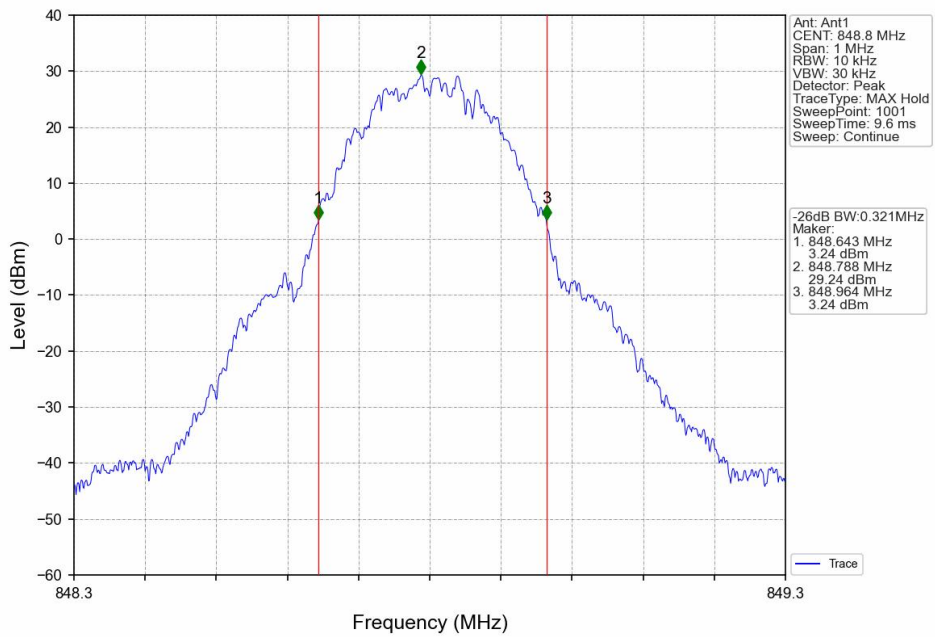
GSM850_GPRS_LCH_824.2MHz_1 TX Slot_NTNV



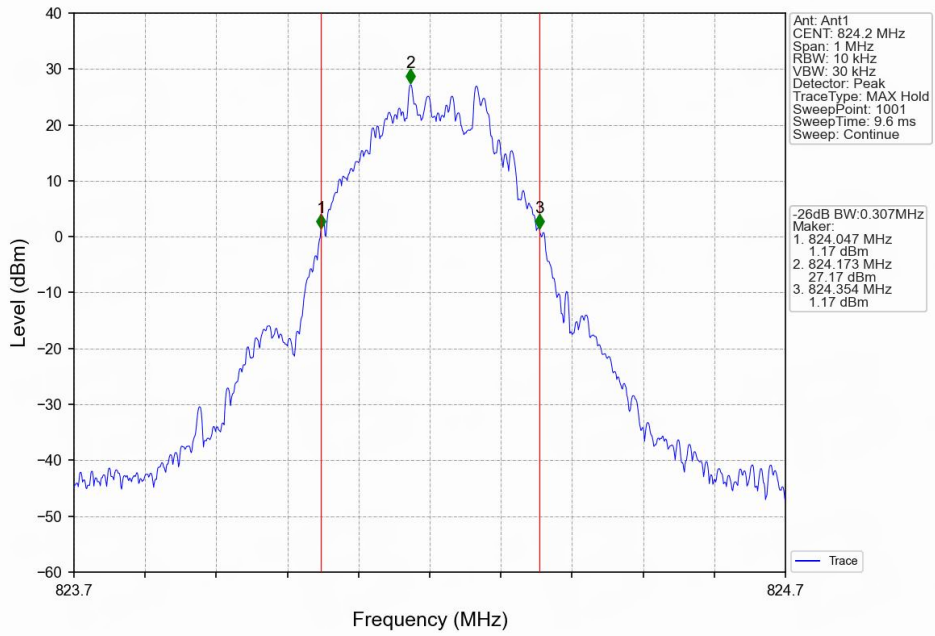
GSM850_GPRS_MCH_836.6MHz_1_TX_Slot_NTNV



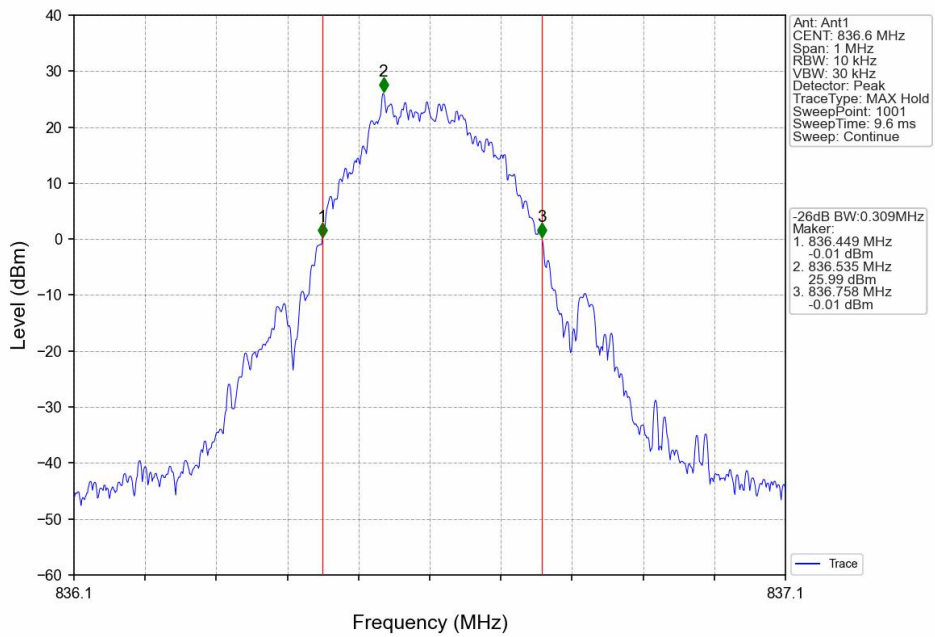
GSM850_GPRS_HCH_848.8MHz_1_TX_Slot_NTNV



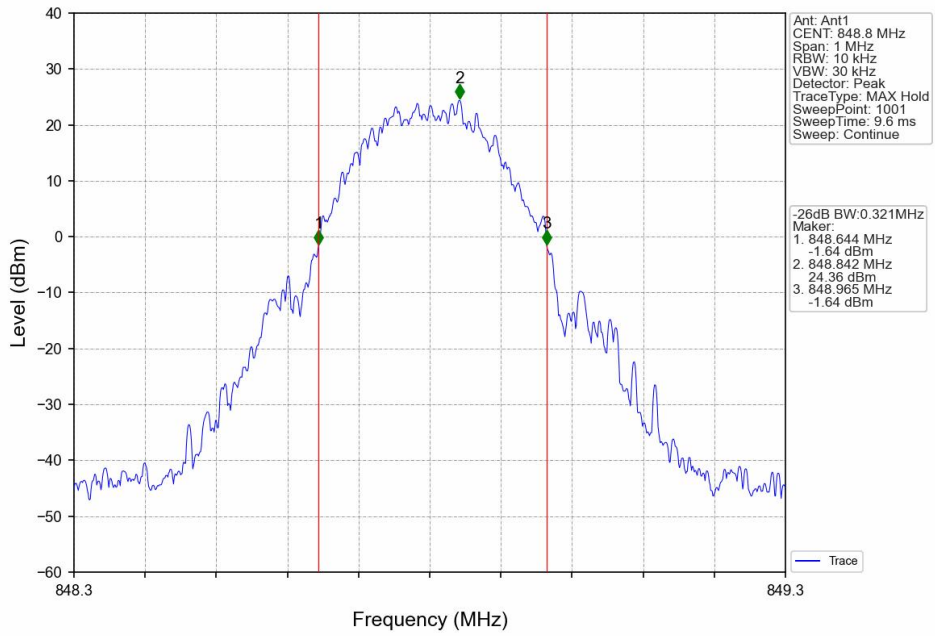
GSM850_EGPRS_LCH_824.2MHz_1 TX Slot_NTNV



GSM850_EGPRS_MCH_836.6MHz_1 TX Slot_NTNV



GSM850_EGPRS_HCH_848.8MHz_1_TX_Slot_NTNV



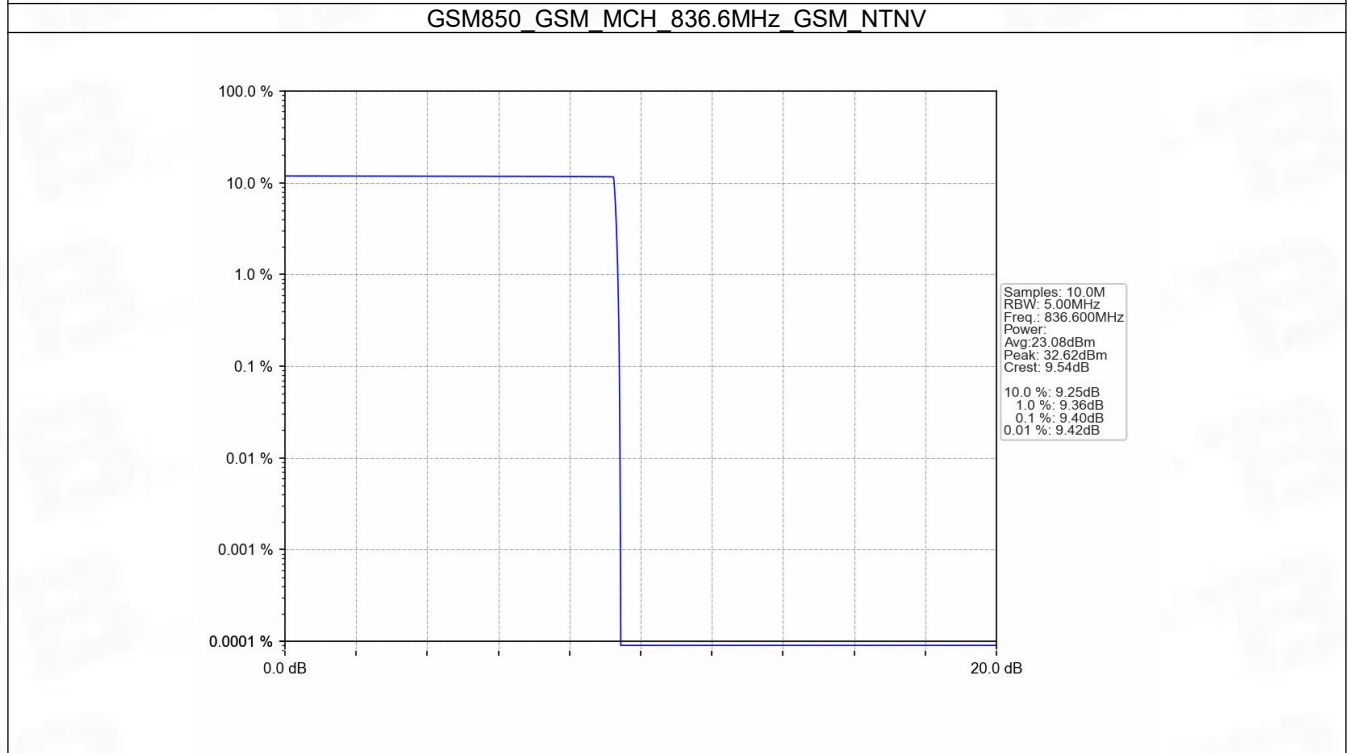
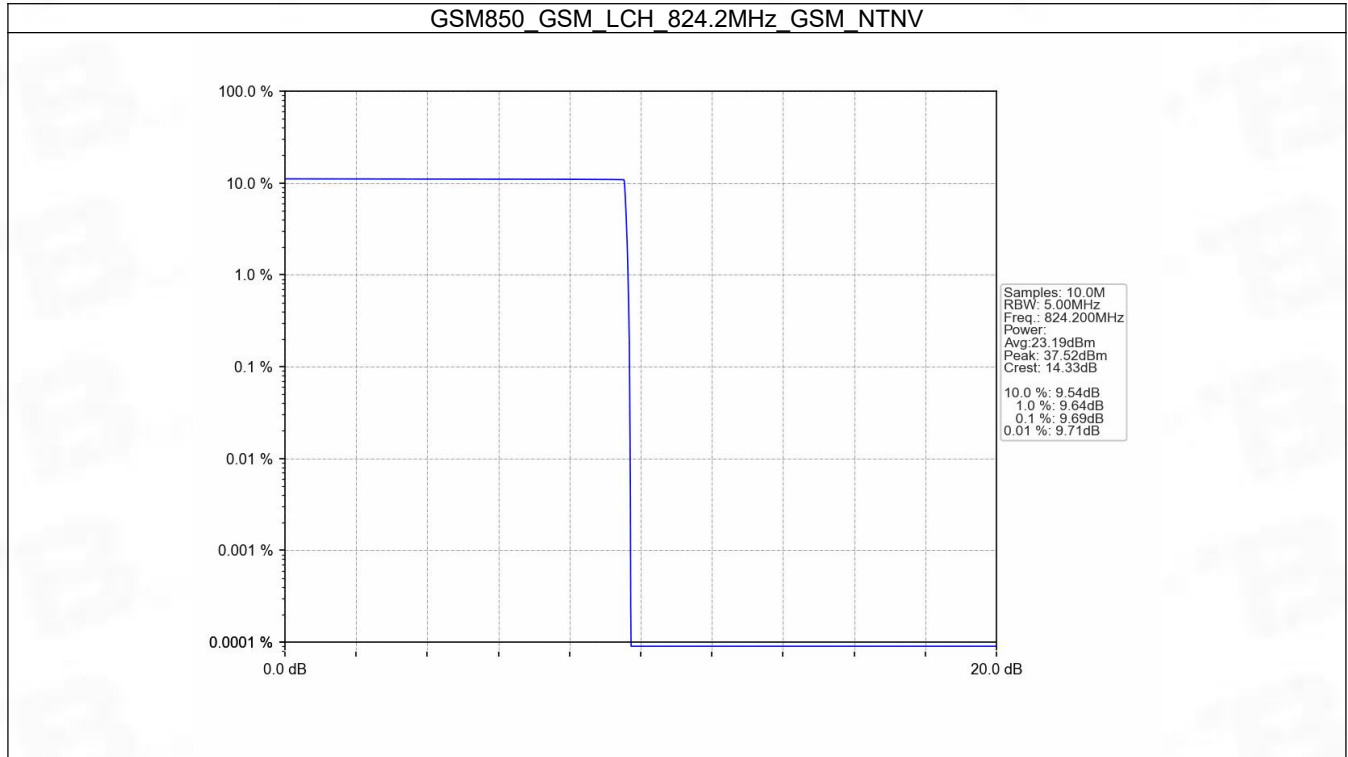
5. Peak-Average Ratio

5.1 GSM850

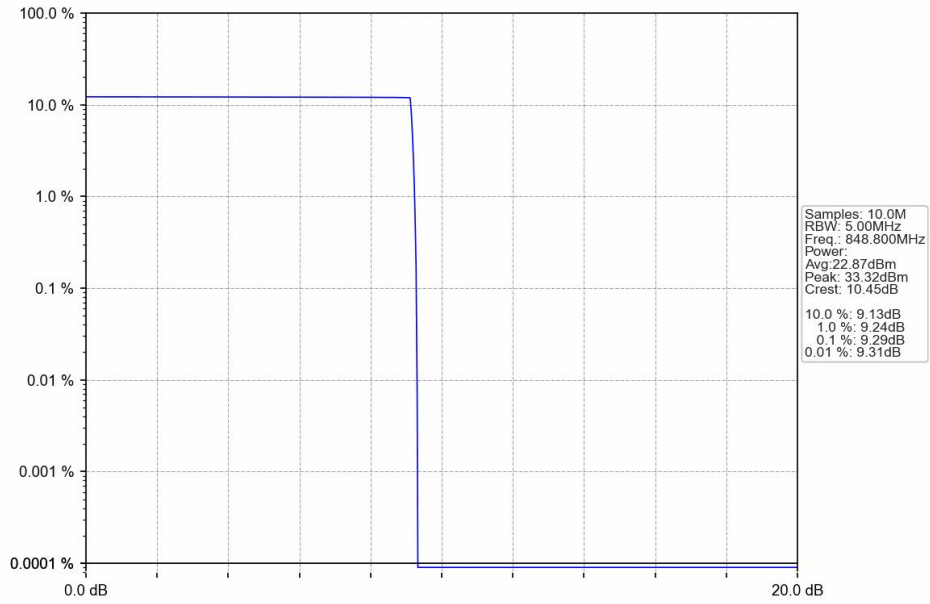
5.1.1 Test Result

Band: GSM850						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	9.69	<=13	Pass
			836.6	9.40	<=13	Pass
			848.8	9.29	<=13	Pass
	GPRS	4 TX Slots	824.2	3.73	<=13	Pass
			836.6	3.68	<=13	Pass
			848.8	3.78	<=13	Pass
	EGPRS	4 TX Slots	824.2	9.39	<=13	Pass
			836.6	9.02	<=13	Pass
			848.8	8.84	<=13	Pass

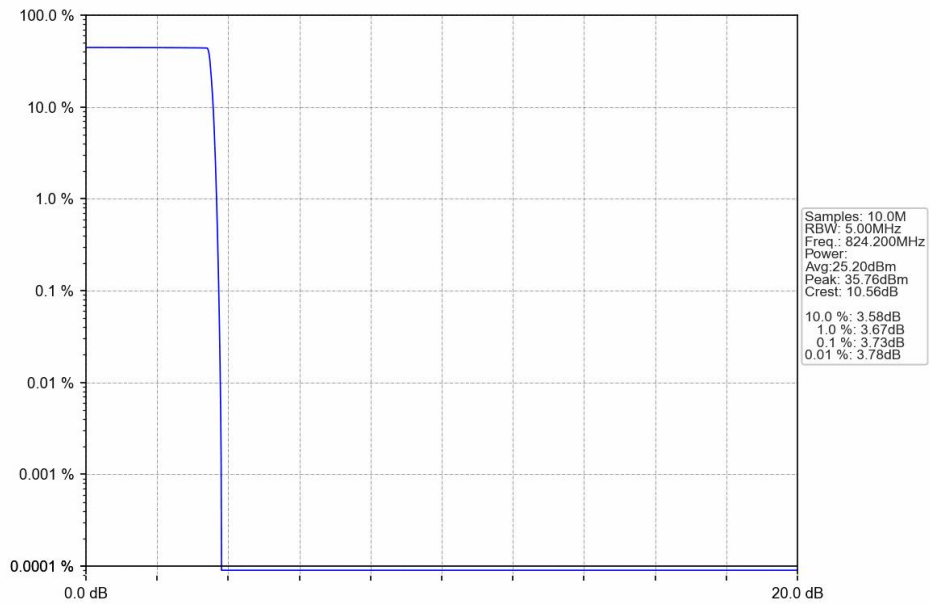
5.1.2 Test Graph



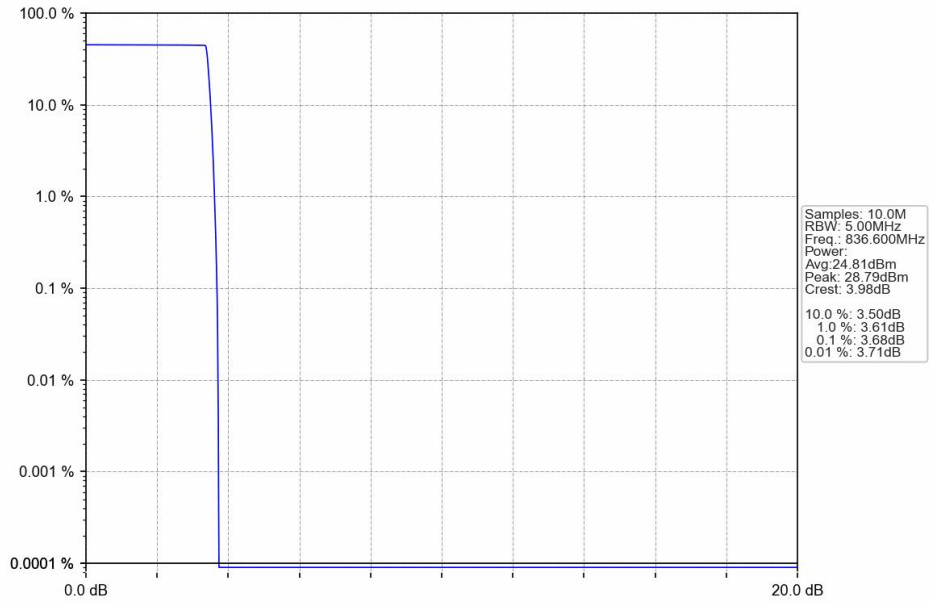
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



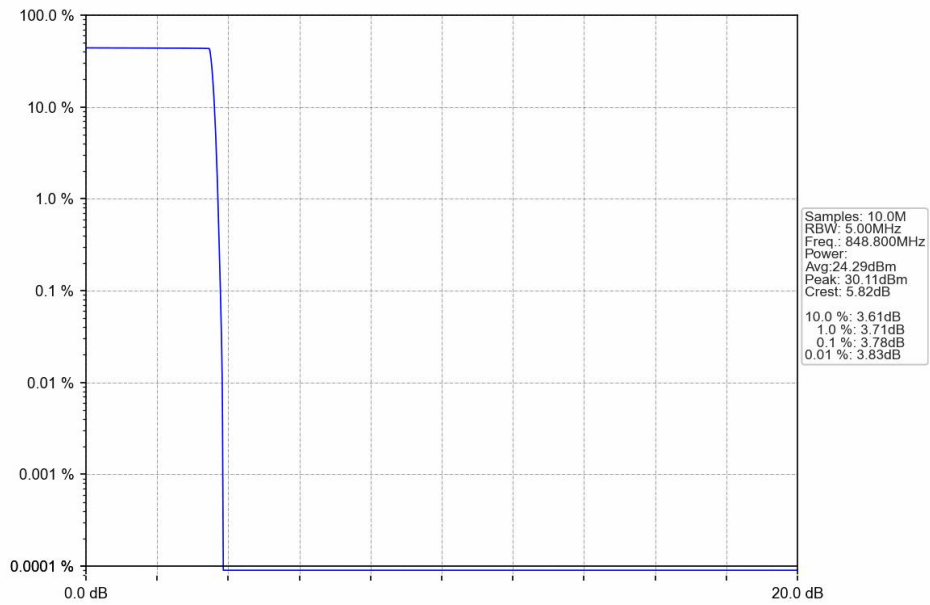
GSM850_GPRS_LCH_824.2MHz_4 TX Slots_NTNV



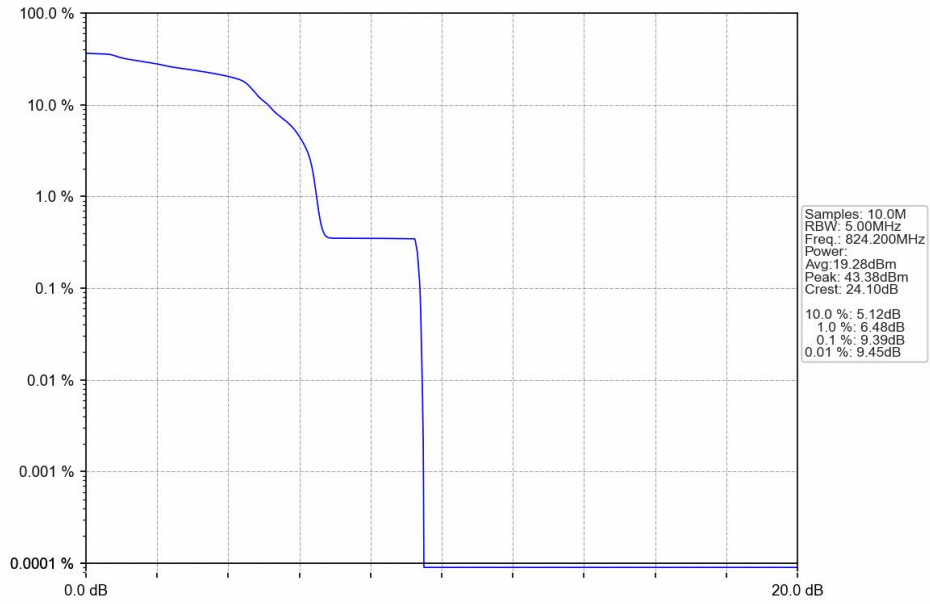
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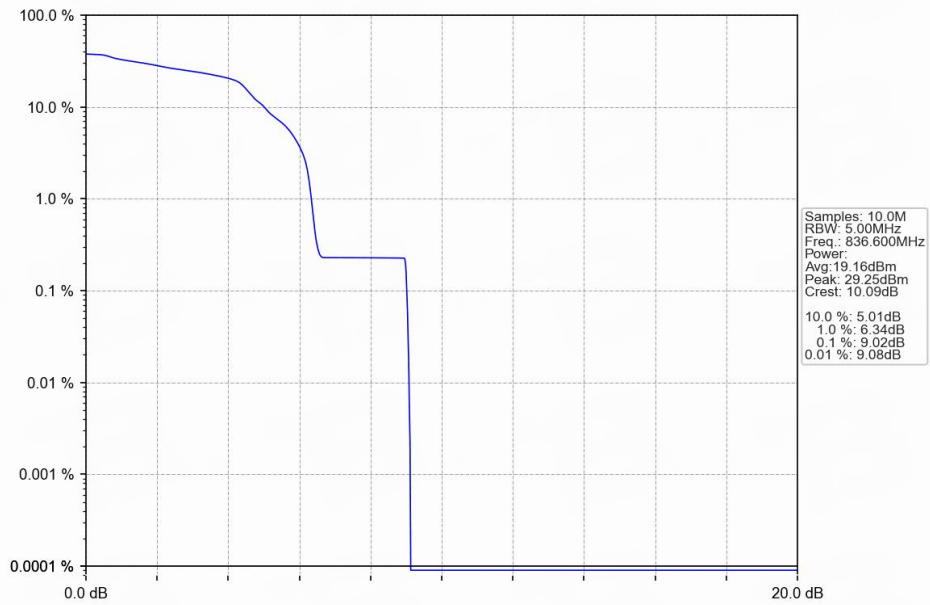
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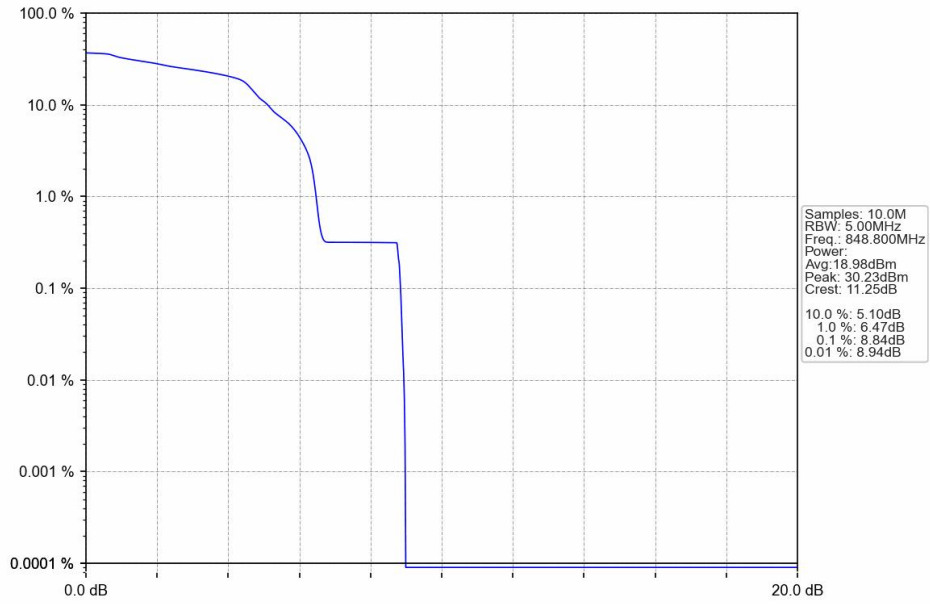
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GSM850_EGPRS_MCH_836.6MHz_4 TX Slots_NTNV



GSM850_EGPRS_HCH_848.8MHz_4_TX_Slots_NTNV



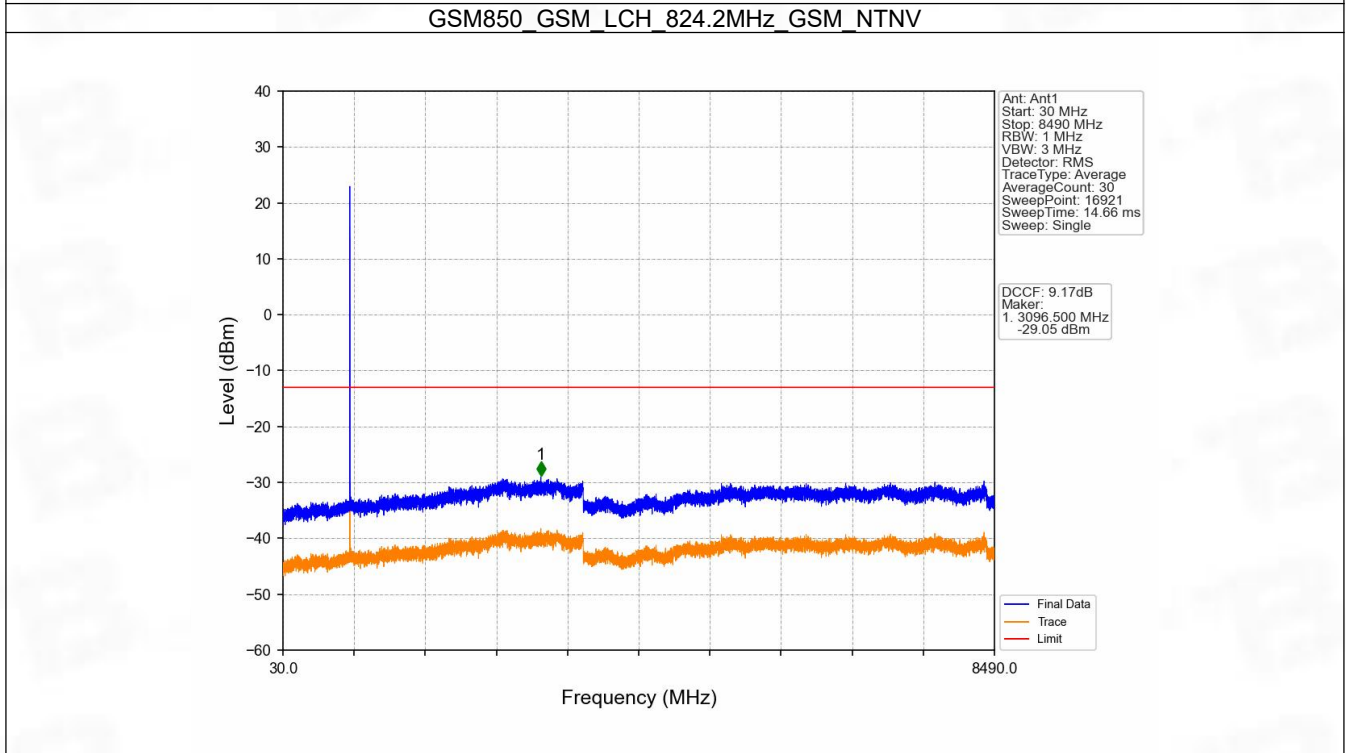
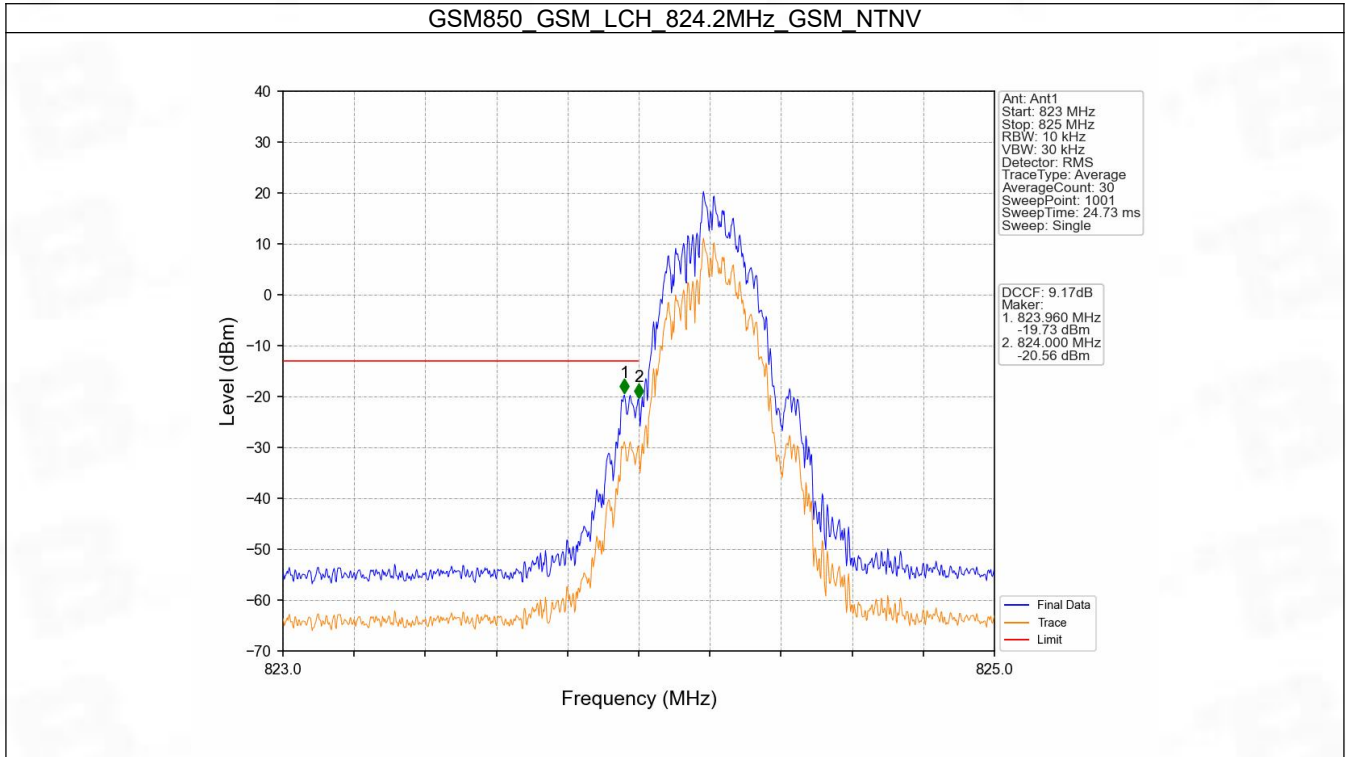
6. Spurious Emission

6.1 GSM850

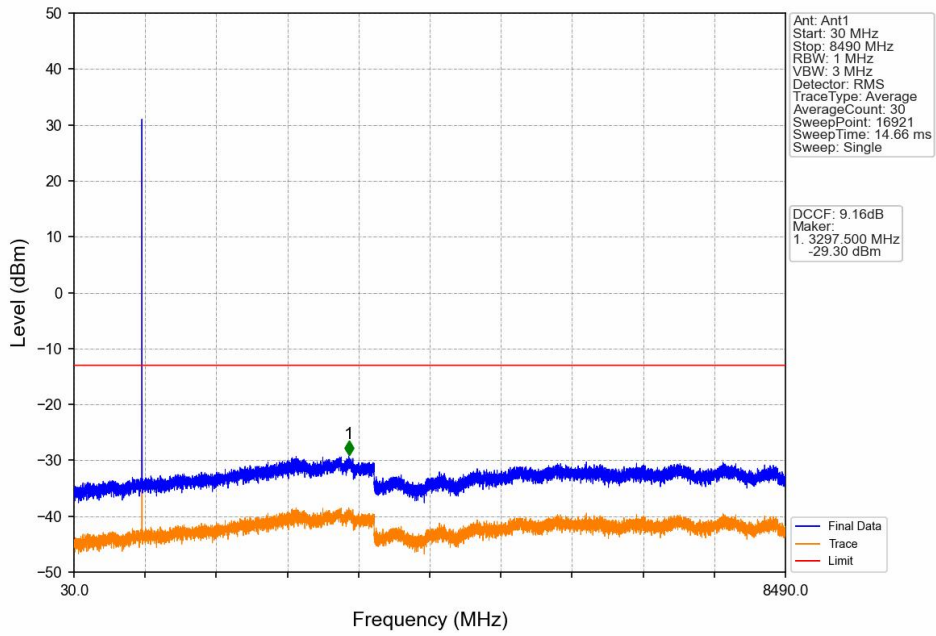
6.1.1 Test Result

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	

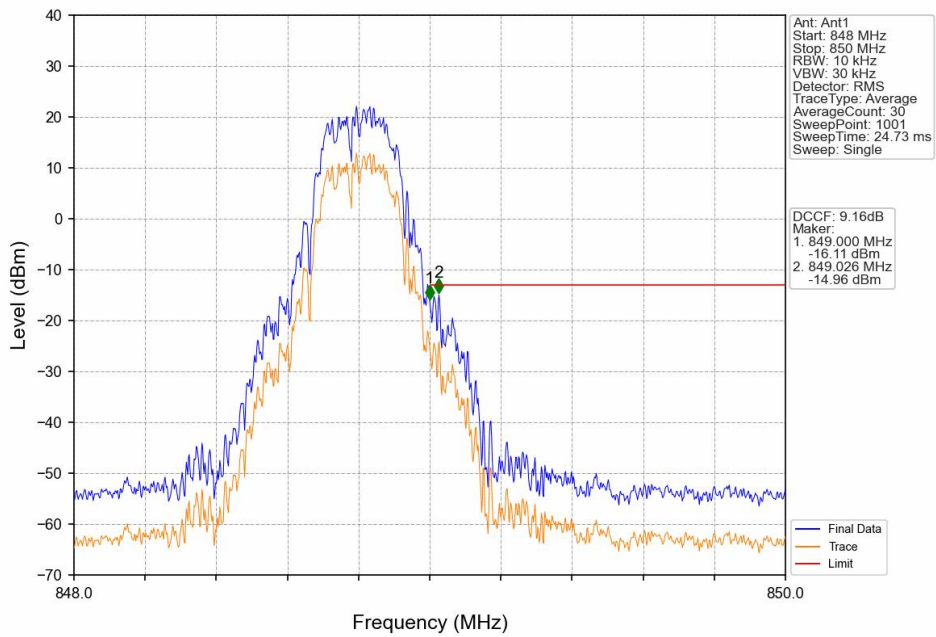
6.1.2 Test Graph



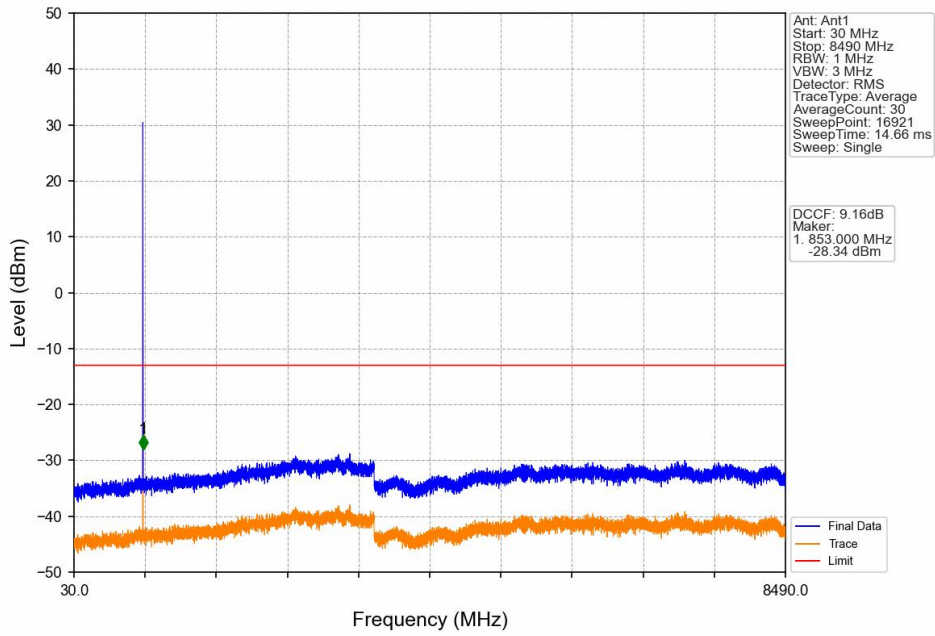
GSM850 GSM_MCH_836.6MHz_GSM_NTNV



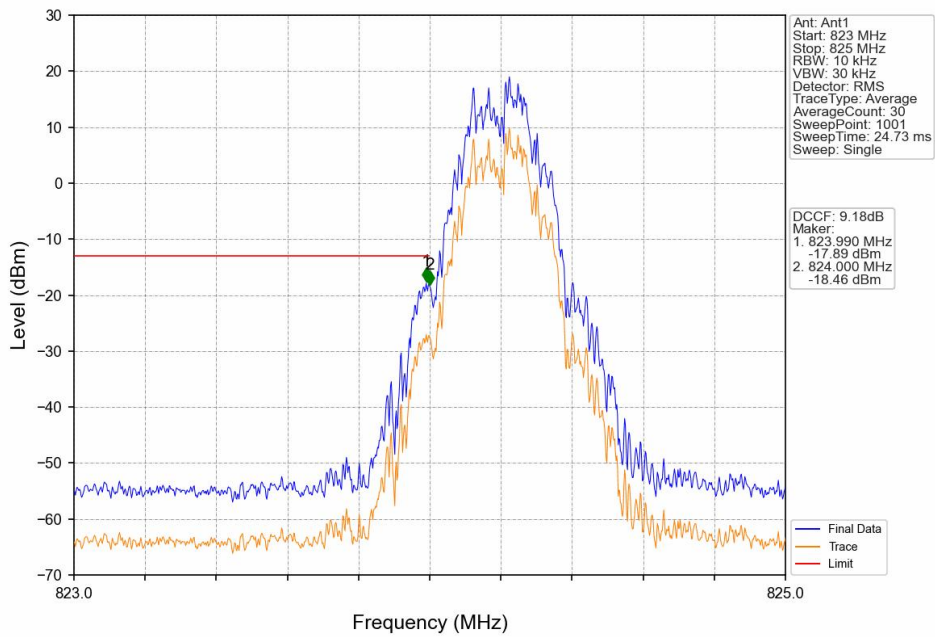
GSM850 GSM_HCH_848.8MHz_GSM_NTNV



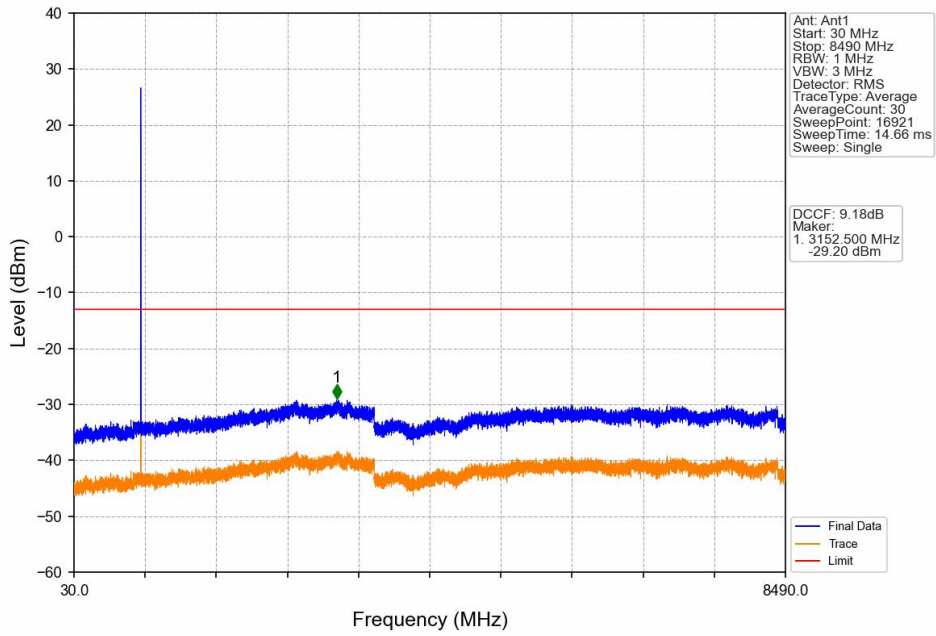
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



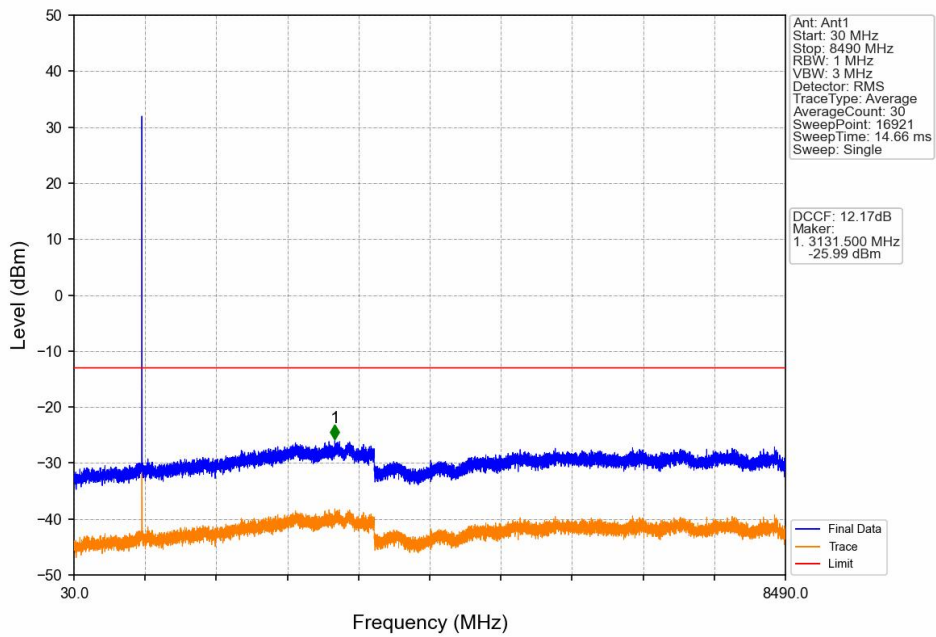
GSM850_GPRS_LCH_824.2MHz_1 TX Slot_NTNV



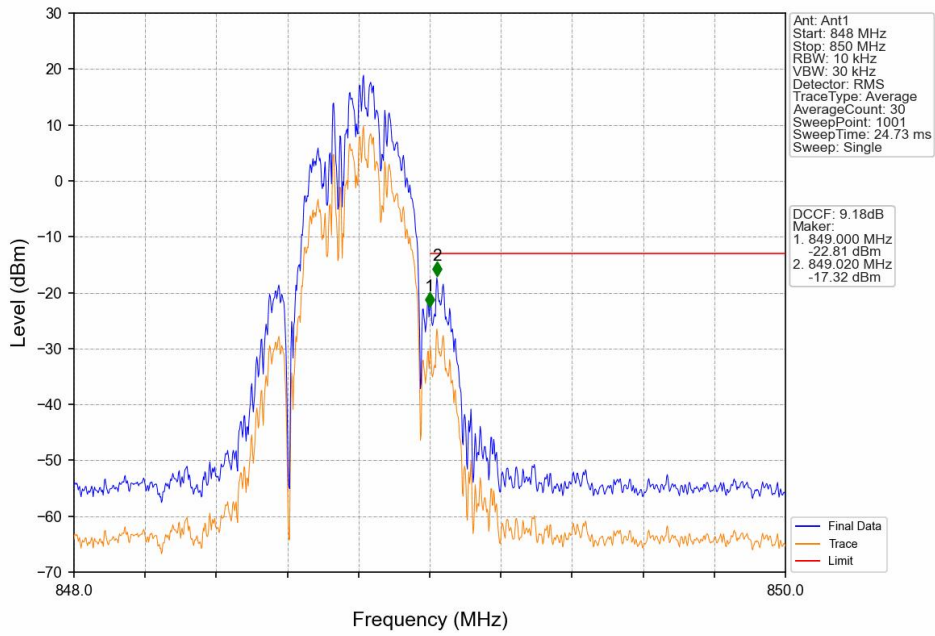
GSM850_GPRS_LCH_824.2MHz_1 TX Slot_NTNV



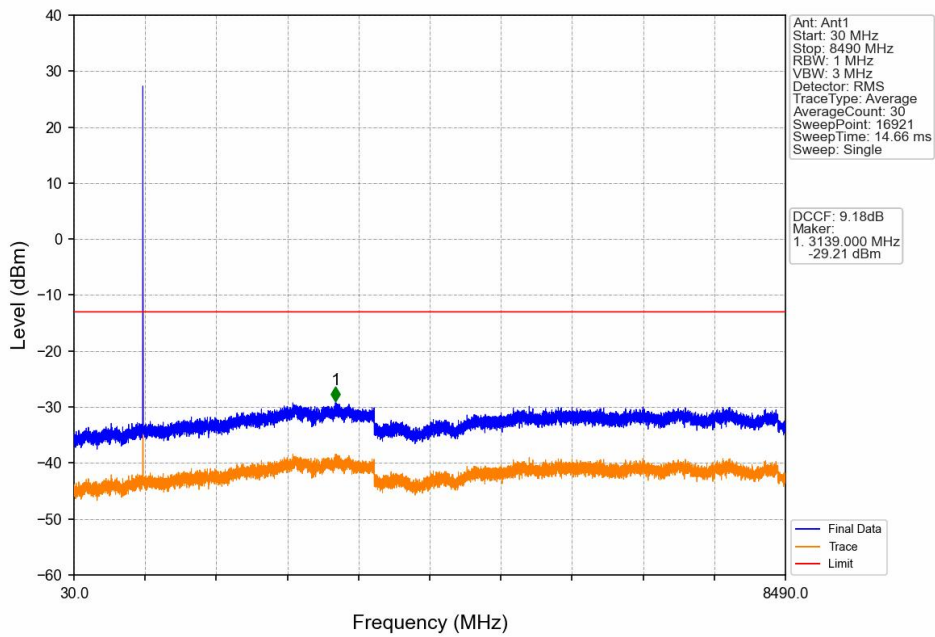
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



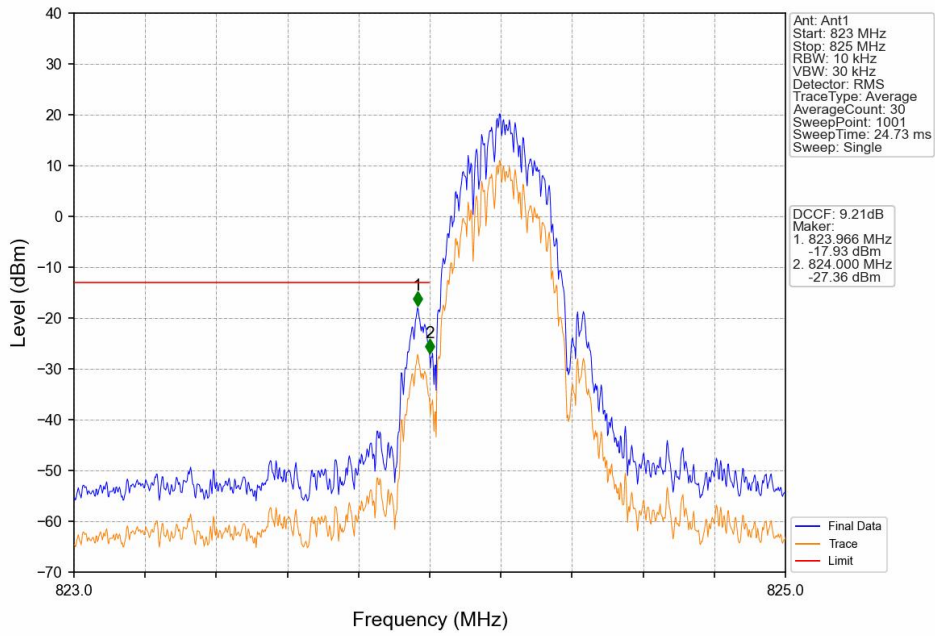
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



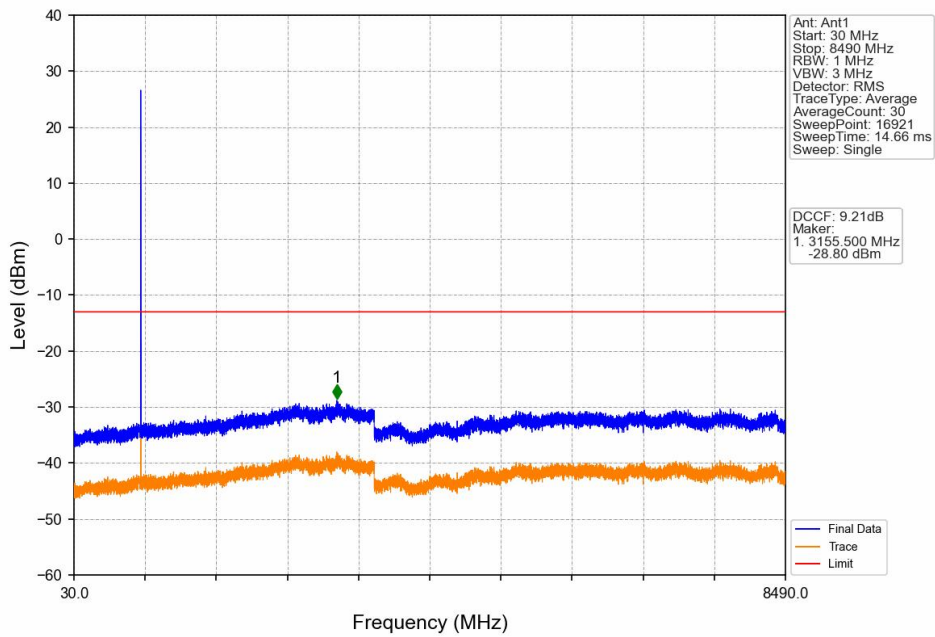
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



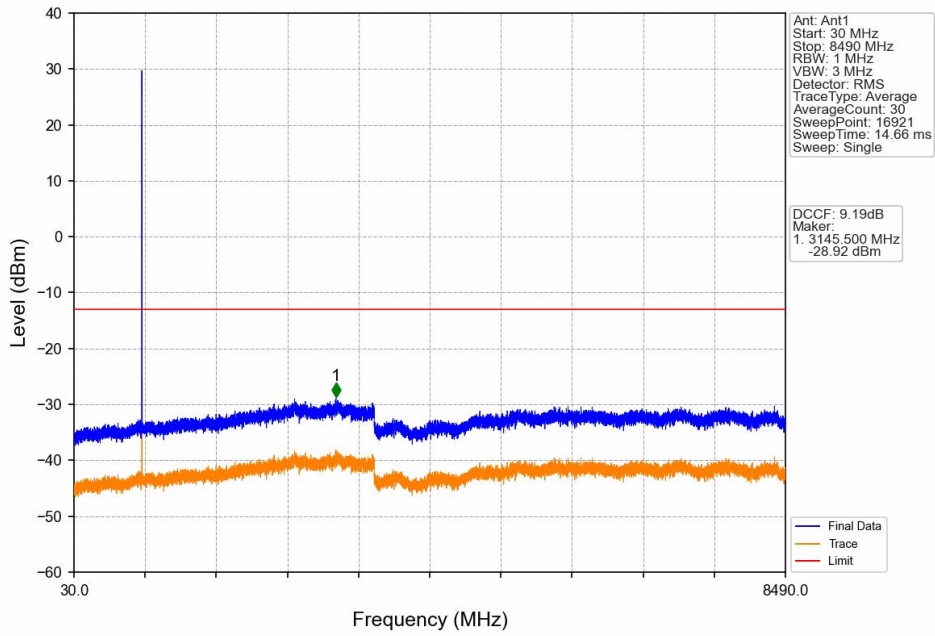
GSM850_EGPRS_LCH_824.2MHz_1_TX_Slot_NTNV



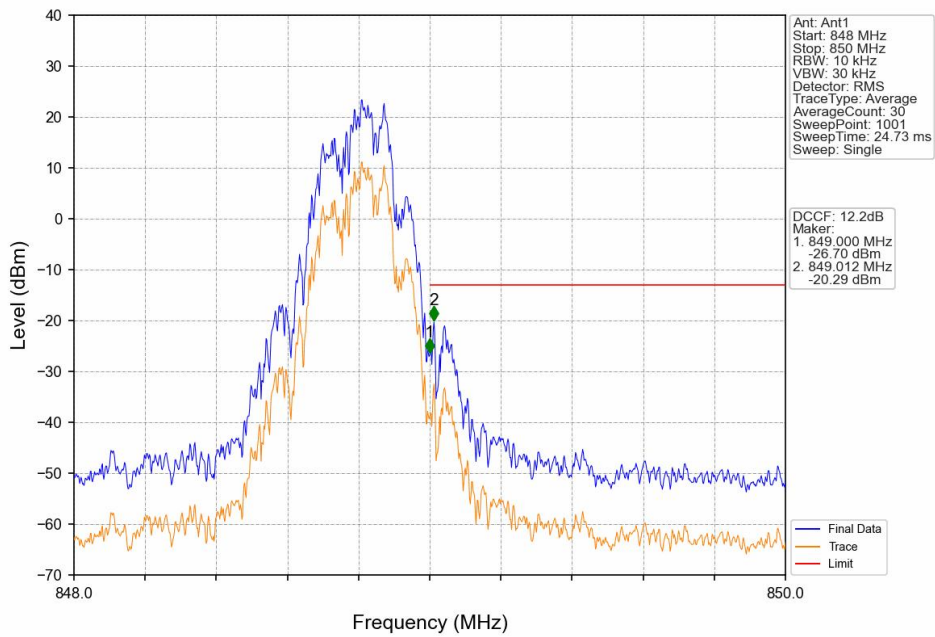
GSM850_EGPRS_LCH_824.2MHz_1_TX_Slot_NTNV



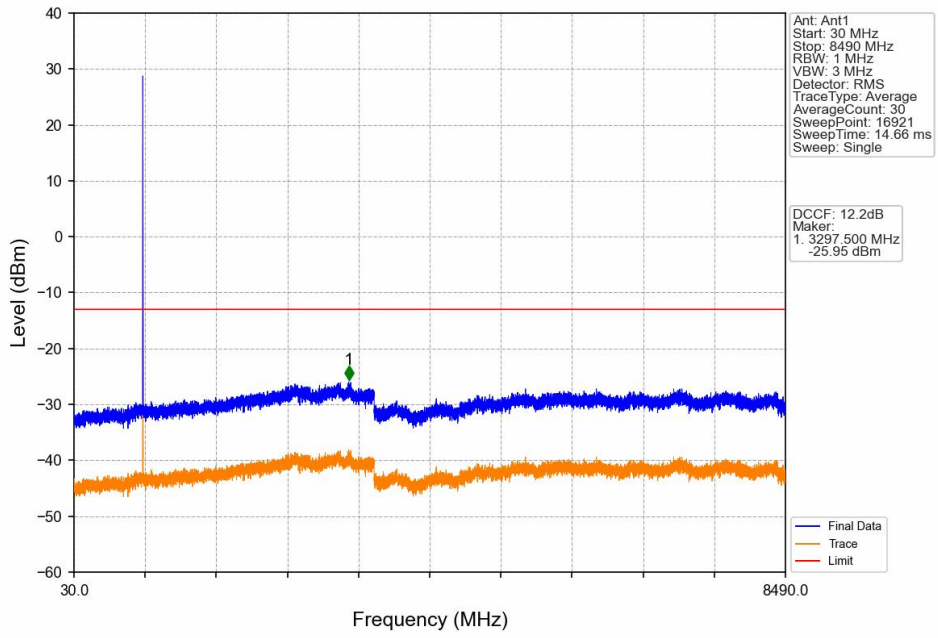
GSM850_EGPRS_MCH_836.6MHz_1 TX Slot_NTNV



GSM850_EGPRS_HCH_848.8MHz_1 TX Slot_NTNV



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	1.1749	0.0279	ppm	252KGXW	22H	30.70
GSM850	0.2	824.2	848.8	0.4529	0.0205	ppm	249KG7W	22H	26.56

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	0.6081	0.0279	ppm	252KGXW	22H	27.84
GSM850	0.2	824.2	848.8	0.2344	0.0205	ppm	249KG7W	22H	23.70