

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	31.16	0.48	29.01	<=38.45	Pass
			836.6	31.24	0.48	29.09	<=38.45	Pass
			848.8	31.21	0.48	29.06	<=38.45	Pass
	GPRS	1 TX Slot	824.2	31.41	0.48	29.26	<=38.45	Pass
		2 TX Slots	824.2	30.70	0.48	28.55	<=38.45	Pass
		3 TX Slots	824.2	28.82	0.48	26.67	<=38.45	Pass
		4 TX Slots	824.2	27.61	0.48	25.46	<=38.45	Pass
		1 TX Slot	836.6	31.45	0.48	29.30	<=38.45	Pass
		2 TX Slots	836.6	30.78	0.48	28.63	<=38.45	Pass
		3 TX Slots	836.6	28.91	0.48	26.76	<=38.45	Pass
		4 TX Slots	836.6	27.71	0.48	25.56	<=38.45	Pass
		1 TX Slot	848.8	31.42	0.48	29.27	<=38.45	Pass
		2 TX Slots	848.8	30.74	0.48	28.59	<=38.45	Pass
		3 TX Slots	848.8	28.88	0.48	26.73	<=38.45	Pass
		4 TX Slots	848.8	27.65	0.48	25.50	<=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	10.493	0.0127	-2.5 to 2.5	Pass
			3.85	8.717	0.0106	-2.5 to 2.5	Pass
			4.43	7.006	0.0085	-2.5 to 2.5	Pass
		-30	3.85	7.942	0.0096	-2.5 to 2.5	Pass
		-20	3.85	8.556	0.0104	-2.5 to 2.5	Pass
		-10	3.85	3.616	0.0044	-2.5 to 2.5	Pass
		0	3.85	9.460	0.0115	-2.5 to 2.5	Pass
		10	3.85	7.361	0.0089	-2.5 to 2.5	Pass
		30	3.85	7.200	0.0087	-2.5 to 2.5	Pass
		40	3.85	-1.388	-0.0017	-2.5 to 2.5	Pass
	50	3.85	-3.455	-0.0042	-2.5 to 2.5	Pass	
	836.6	20	3.27	5.424	0.0065	-2.5 to 2.5	Pass
			3.85	4.455	0.0053	-2.5 to 2.5	Pass
			4.43	4.165	0.0050	-2.5 to 2.5	Pass
		-30	3.85	6.231	0.0074	-2.5 to 2.5	Pass

		-20	3.85	-1.227	-0.0015	-2.5 to 2.5	Pass	
		-10	3.85	6.554	0.0078	-2.5 to 2.5	Pass	
		0	3.85	7.523	0.0090	-2.5 to 2.5	Pass	
		10	3.85	7.361	0.0088	-2.5 to 2.5	Pass	
		30	3.85	6.780	0.0081	-2.5 to 2.5	Pass	
		40	3.85	5.650	0.0068	-2.5 to 2.5	Pass	
	50	3.85	6.263	0.0075	-2.5 to 2.5	Pass		
	848.8	20	3.27	9.653	0.0114	-2.5 to 2.5	Pass	
			3.85	3.422	0.0040	-2.5 to 2.5	Pass	
			4.43	9.524	0.0112	-2.5 to 2.5	Pass	
		-30	3.85	5.682	0.0067	-2.5 to 2.5	Pass	
		-20	3.85	7.555	0.0089	-2.5 to 2.5	Pass	
		-10	3.85	8.071	0.0095	-2.5 to 2.5	Pass	
		0	3.85	6.619	0.0078	-2.5 to 2.5	Pass	
		10	3.85	10.493	0.0124	-2.5 to 2.5	Pass	
		30	3.85	9.718	0.0114	-2.5 to 2.5	Pass	
		40	3.85	12.043	0.0142	-2.5 to 2.5	Pass	
		50	3.85	6.263	0.0074	-2.5 to 2.5	Pass	
		GPRS	824.2	20	3.27	11.655	0.0141	-2.5 to 2.5
3.85					9.492	0.0115	-2.5 to 2.5	Pass
4.43	11.591				0.0141	-2.5 to 2.5	Pass	
-30	3.85			8.556	0.0104	-2.5 to 2.5	Pass	
-20	3.85			7.200	0.0087	-2.5 to 2.5	Pass	
-10	3.85			10.654	0.0129	-2.5 to 2.5	Pass	
0	3.85			10.138	0.0123	-2.5 to 2.5	Pass	
10	3.85			8.911	0.0108	-2.5 to 2.5	Pass	
30	3.85			8.071	0.0098	-2.5 to 2.5	Pass	
40	3.85			6.167	0.0075	-2.5 to 2.5	Pass	
50	3.85			4.907	0.0060	-2.5 to 2.5	Pass	
836.6	20			3.27	4.972	0.0059	-2.5 to 2.5	Pass
				3.85	4.972	0.0059	-2.5 to 2.5	Pass
			4.43	7.297	0.0087	-2.5 to 2.5	Pass	
	-30		3.85	6.748	0.0081	-2.5 to 2.5	Pass	
	-20		3.85	5.359	0.0064	-2.5 to 2.5	Pass	
	-10		3.85	6.425	0.0077	-2.5 to 2.5	Pass	
	0		3.85	6.522	0.0078	-2.5 to 2.5	Pass	
	10		3.85	7.426	0.0089	-2.5 to 2.5	Pass	
	30		3.85	5.747	0.0069	-2.5 to 2.5	Pass	
	40		3.85	8.588	0.0103	-2.5 to 2.5	Pass	
	50		3.85	7.813	0.0093	-2.5 to 2.5	Pass	
	848.8		20	3.27	4.197	0.0049	-2.5 to 2.5	Pass
				3.85	7.329	0.0086	-2.5 to 2.5	Pass
4.43				5.069	0.0060	-2.5 to 2.5	Pass	
-30			3.85	3.842	0.0045	-2.5 to 2.5	Pass	
-20			3.85	4.488	0.0053	-2.5 to 2.5	Pass	
-10			3.85	6.877	0.0081	-2.5 to 2.5	Pass	
0			3.85	7.684	0.0091	-2.5 to 2.5	Pass	
10			3.85	4.036	0.0048	-2.5 to 2.5	Pass	
30		3.85	6.360	0.0075	-2.5 to 2.5	Pass		
40		3.85	5.198	0.0061	-2.5 to 2.5	Pass		
50		3.85	8.846	0.0104	-2.5 to 2.5	Pass		

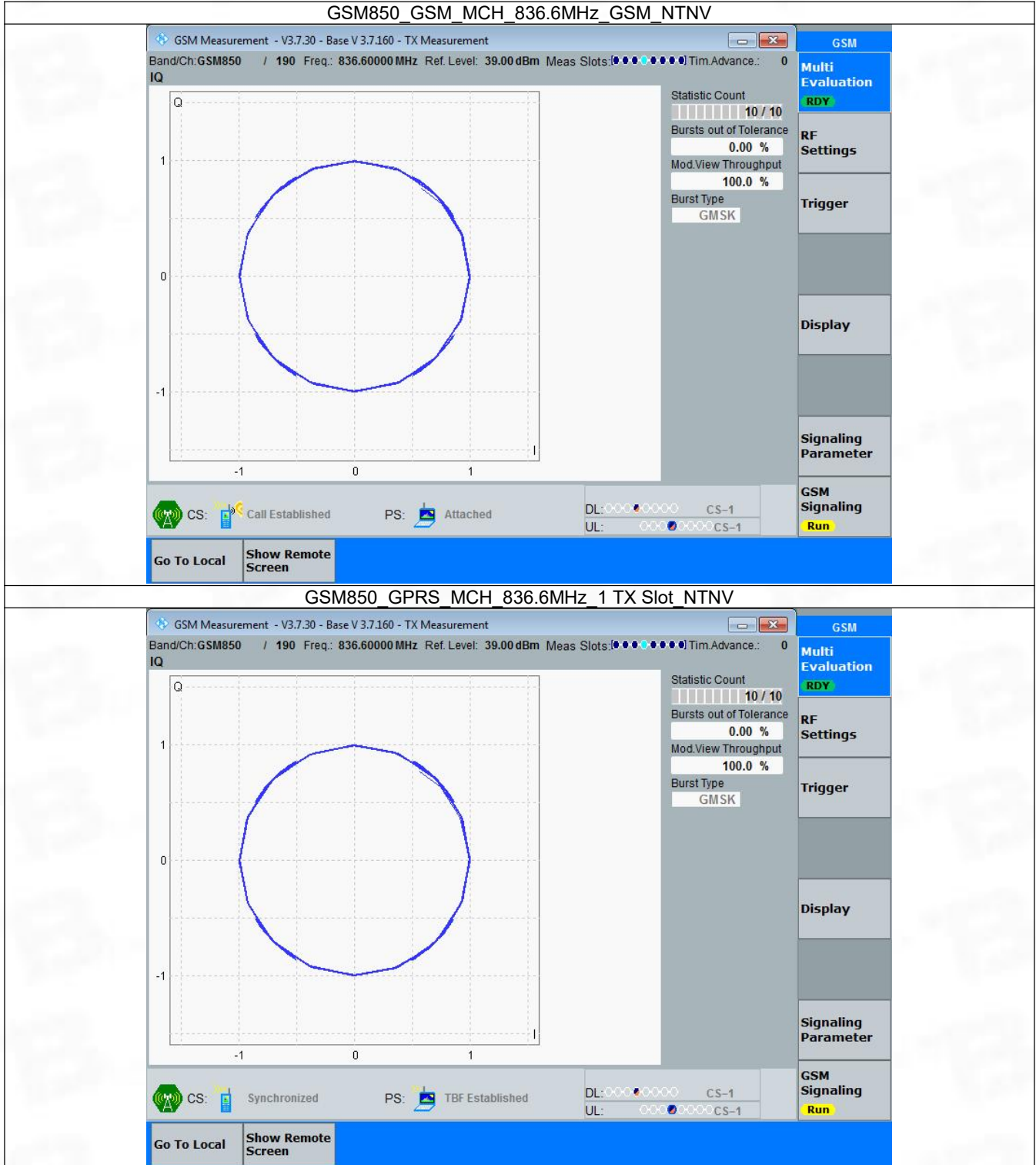
3. Modulation Characteristics

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

3.1.2 Test Graph



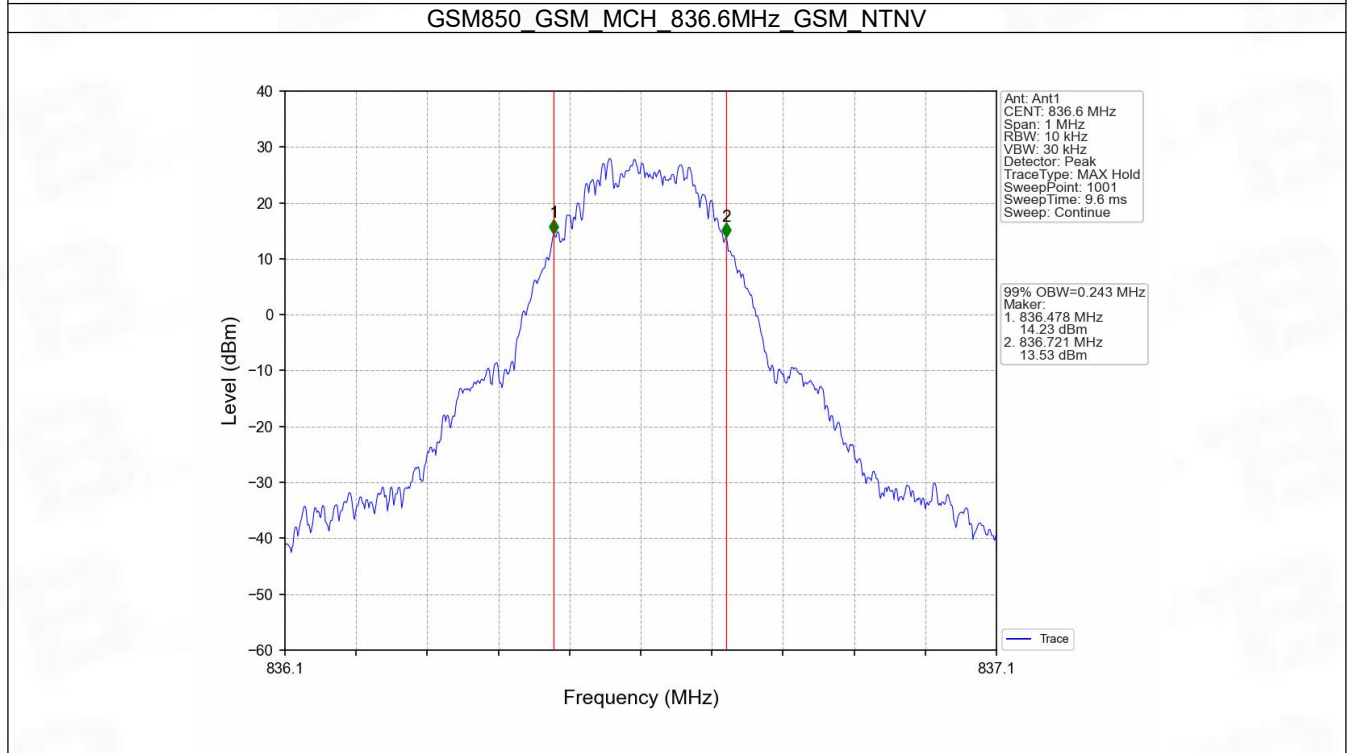
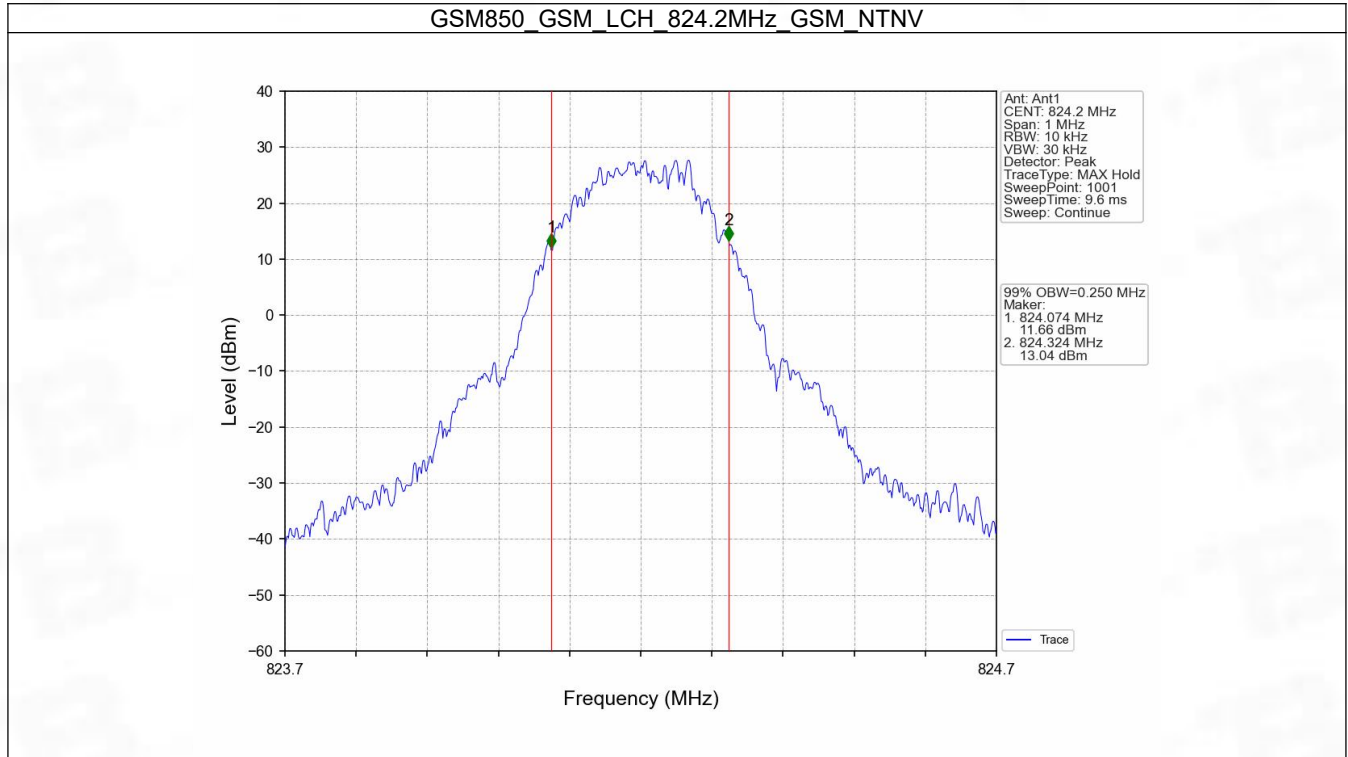
4. 99% & 26dB Bandwidth

4.1 GSM850_OBW

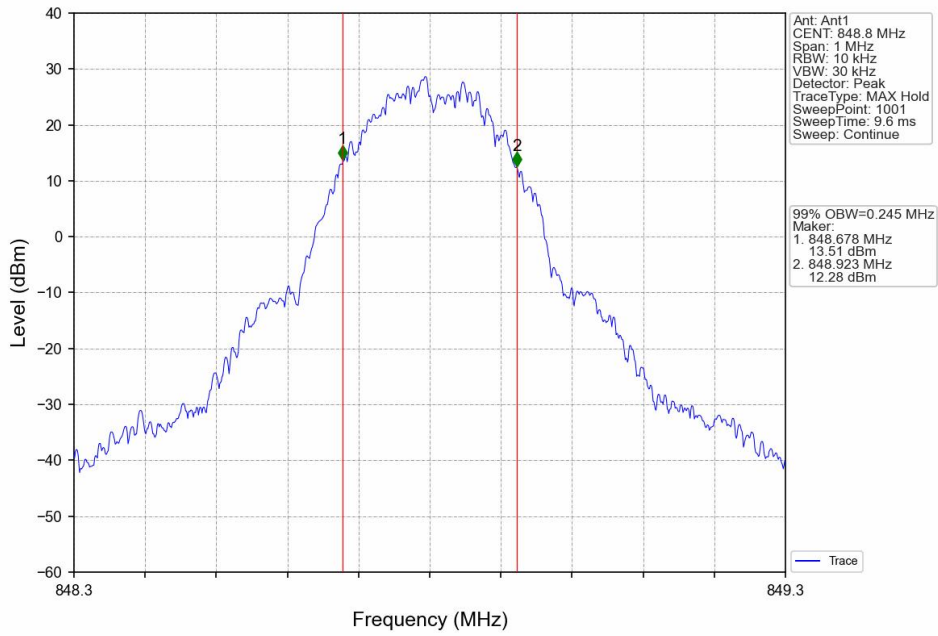
4.1.1 Test Result

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

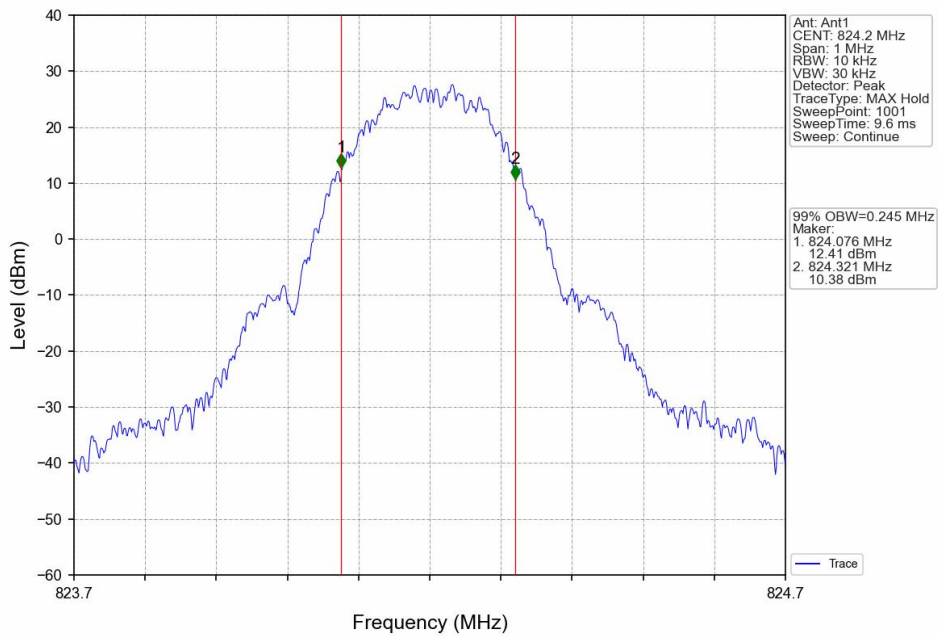
4.1.2 Test Graph



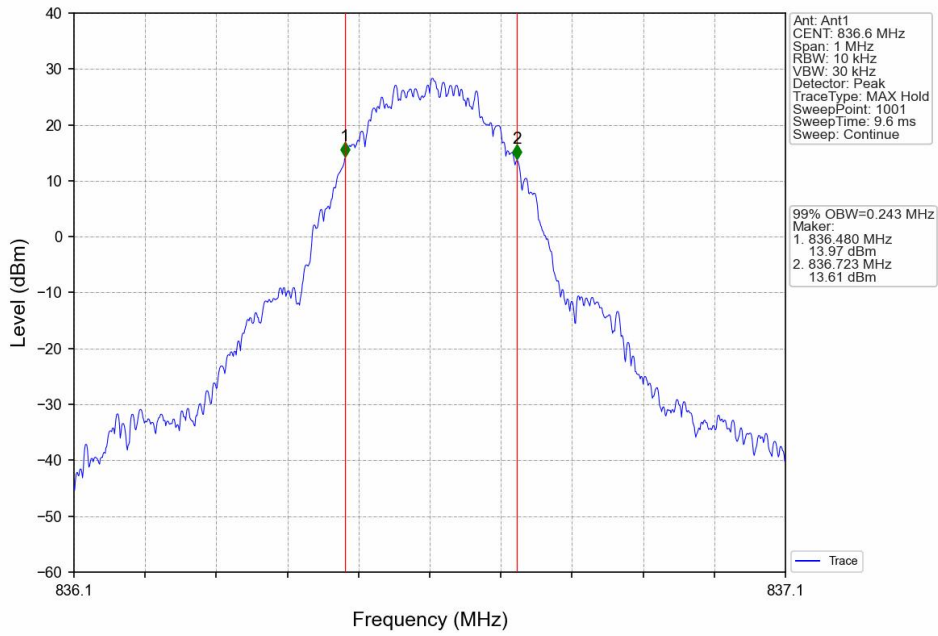
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



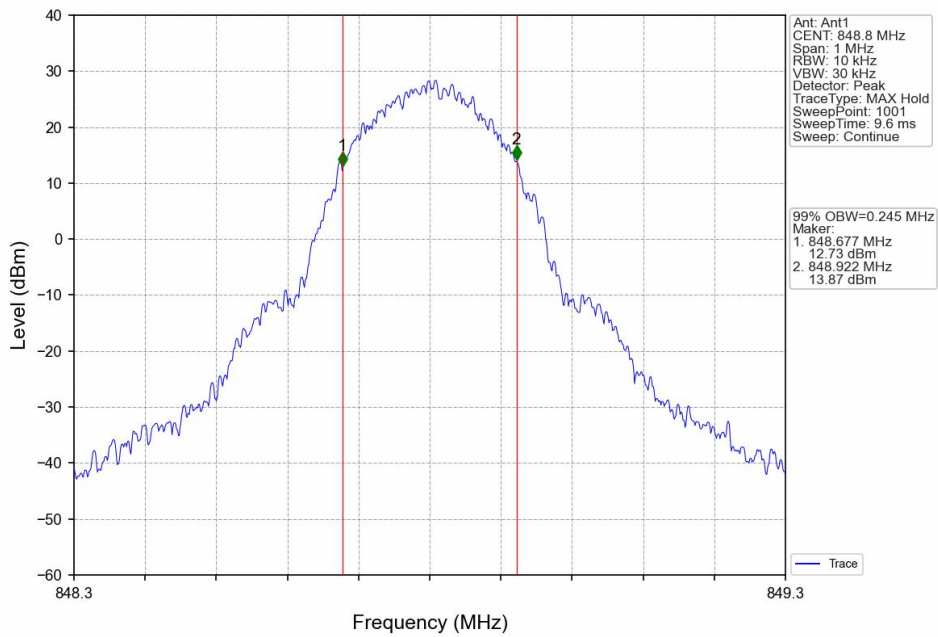
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GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV

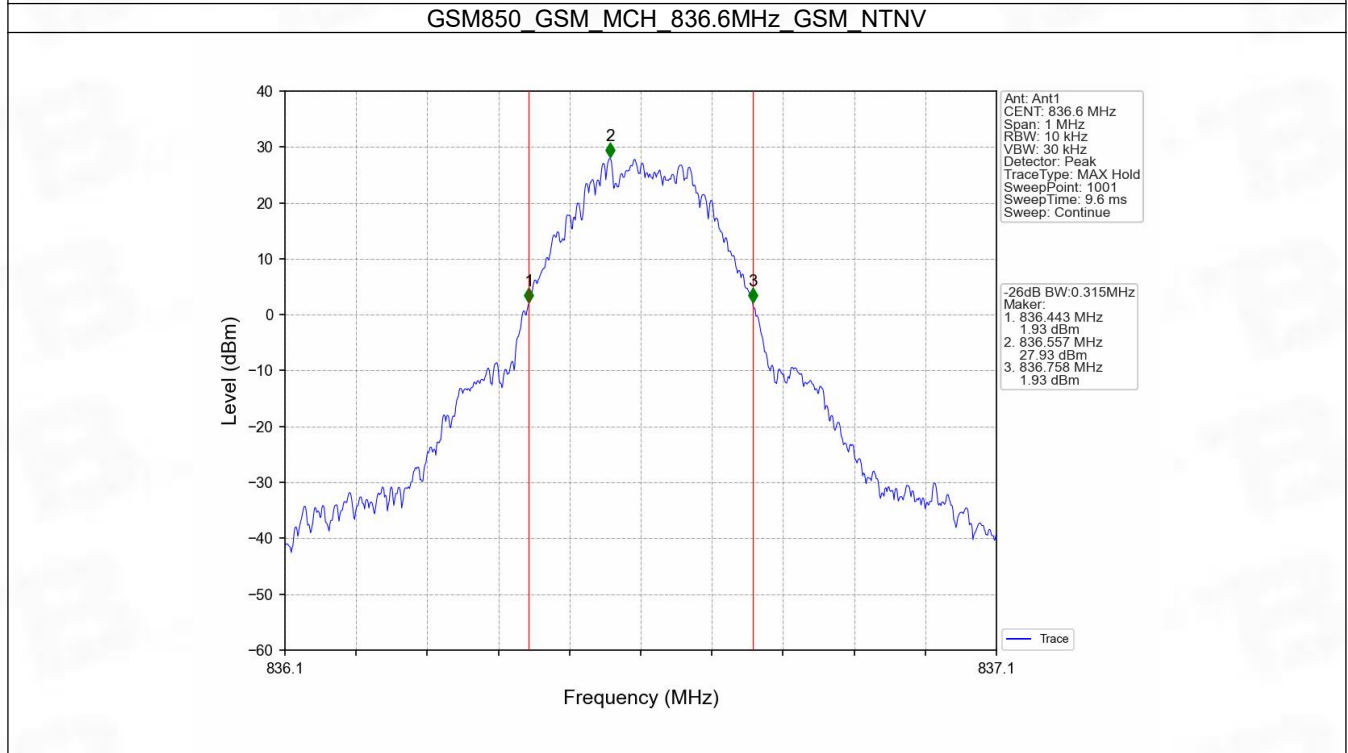
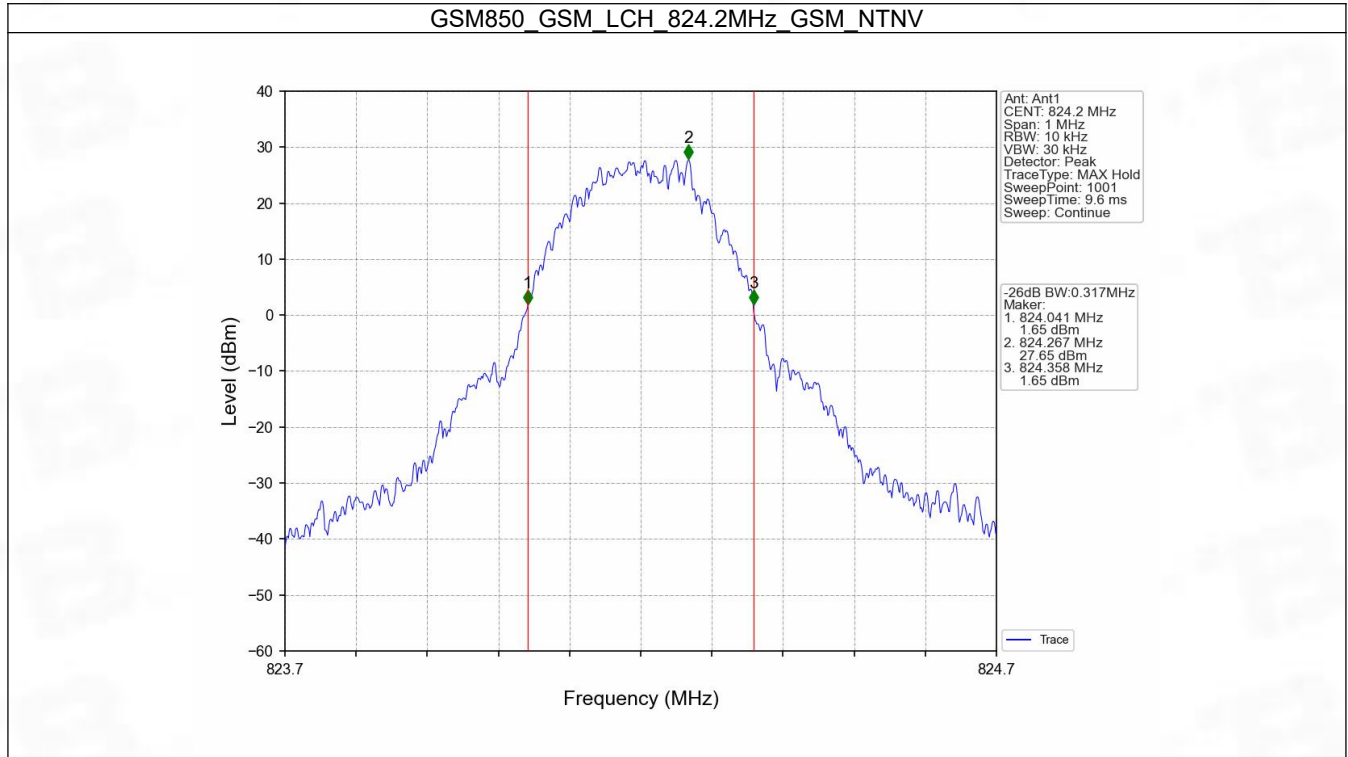


4.2 GSM850_XDB

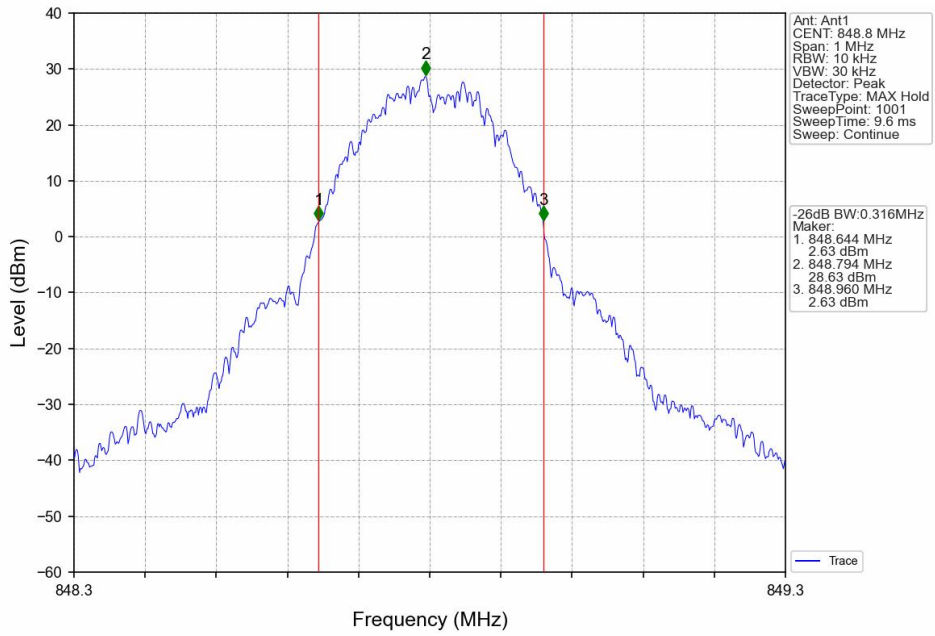
4.2.1 Test Result

Band: GSM850					
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz) Result	Verdict
	Network	Subset			
NTNV	GSM	GSM	824.2	0.317	Pass
			836.6	0.315	Pass
			848.8	0.316	Pass
	GPRS	1 TX Slot	824.2	0.324	Pass
			836.6	0.312	Pass
			848.8	0.315	Pass

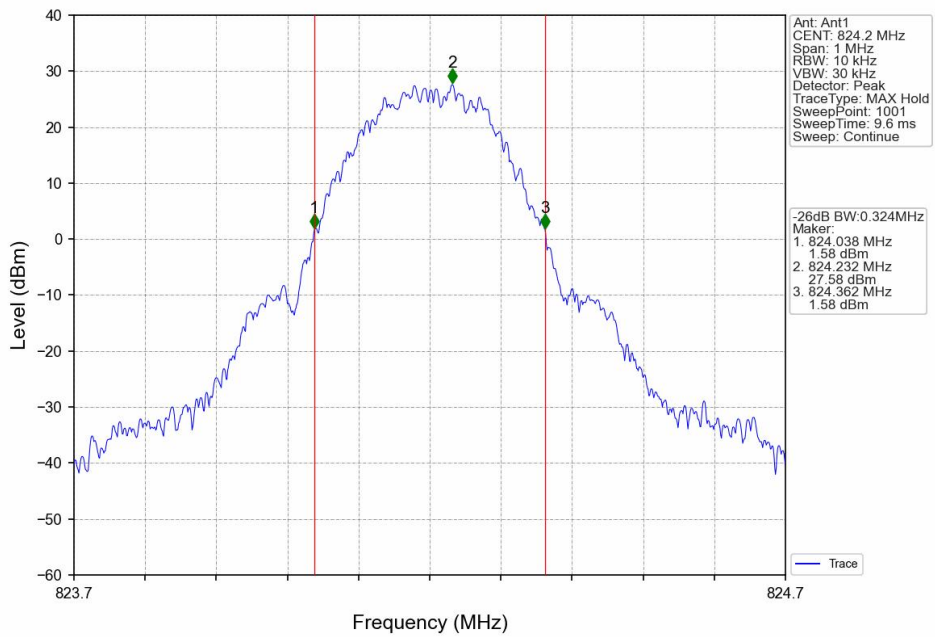
4.2.2 Test Graph



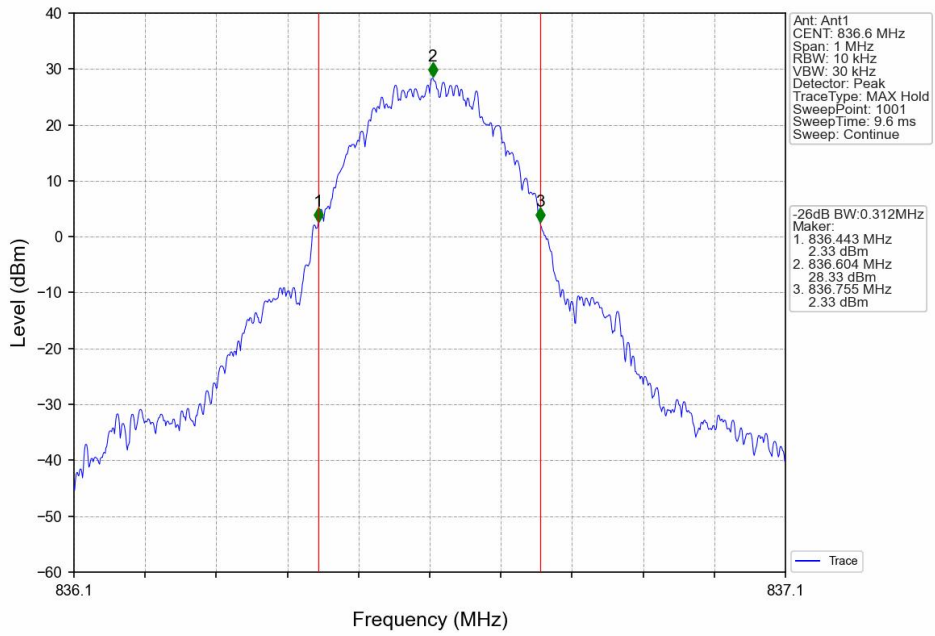
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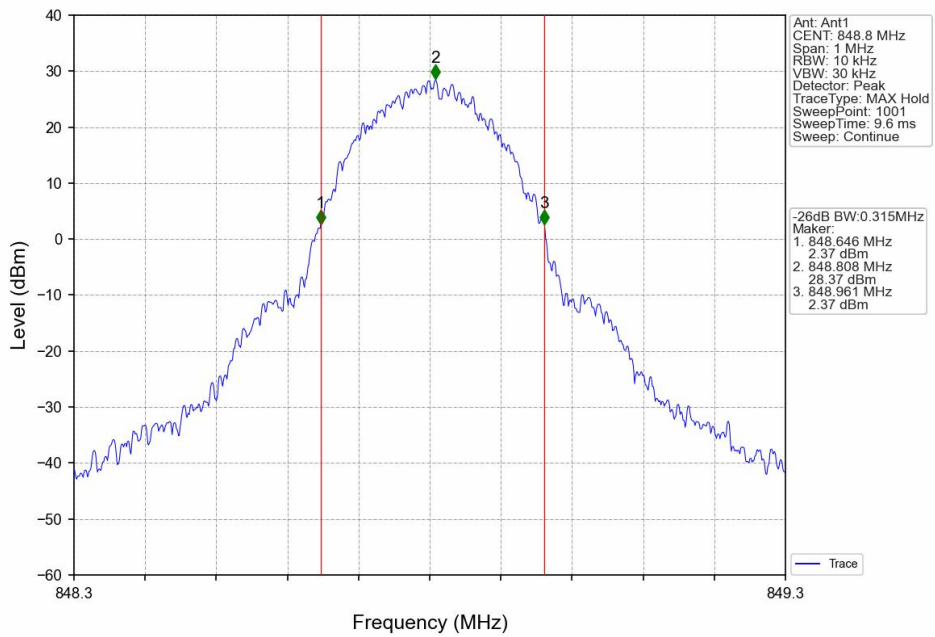
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GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



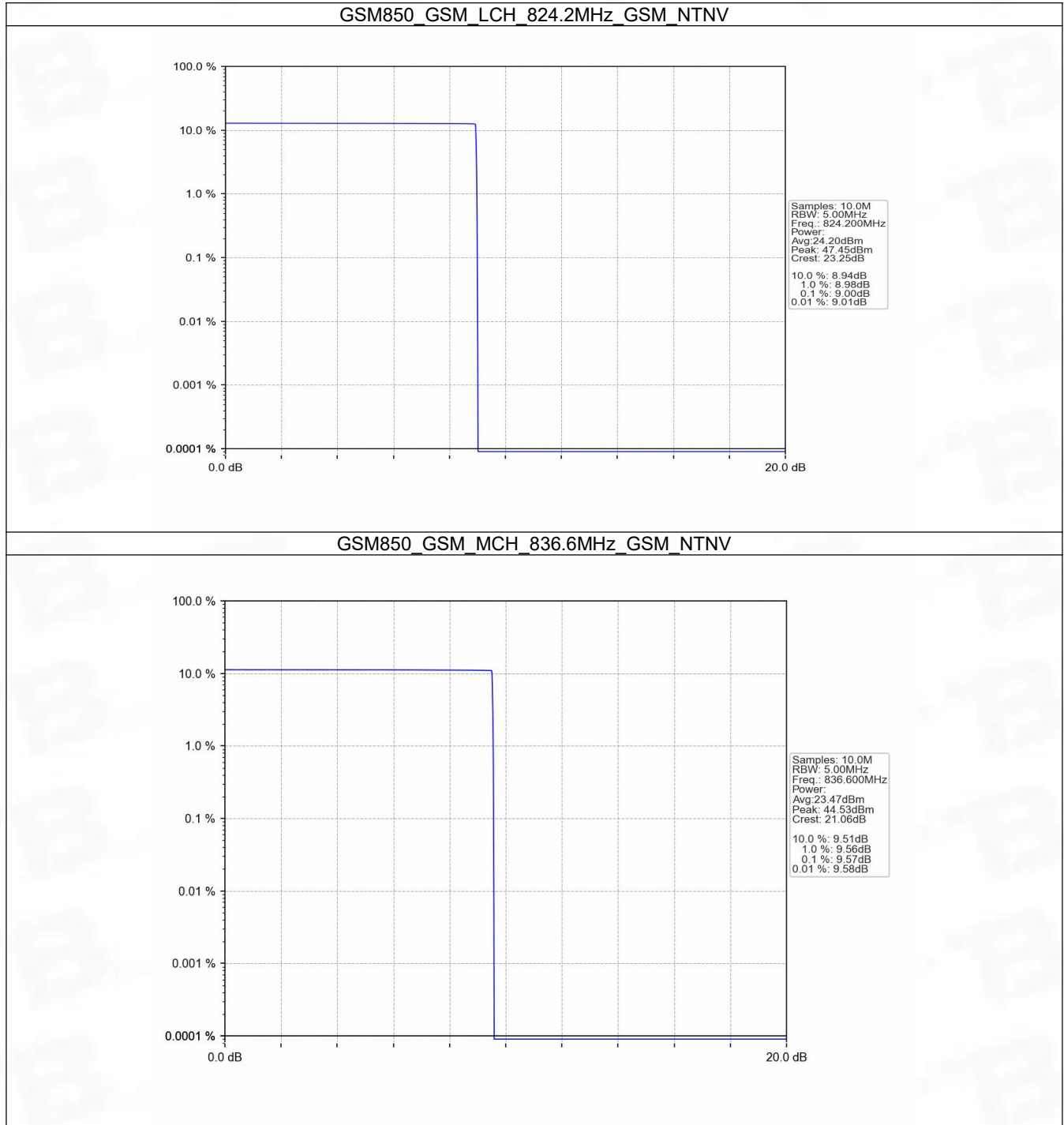
5. Peak-Average Ratio

5.1 GSM850

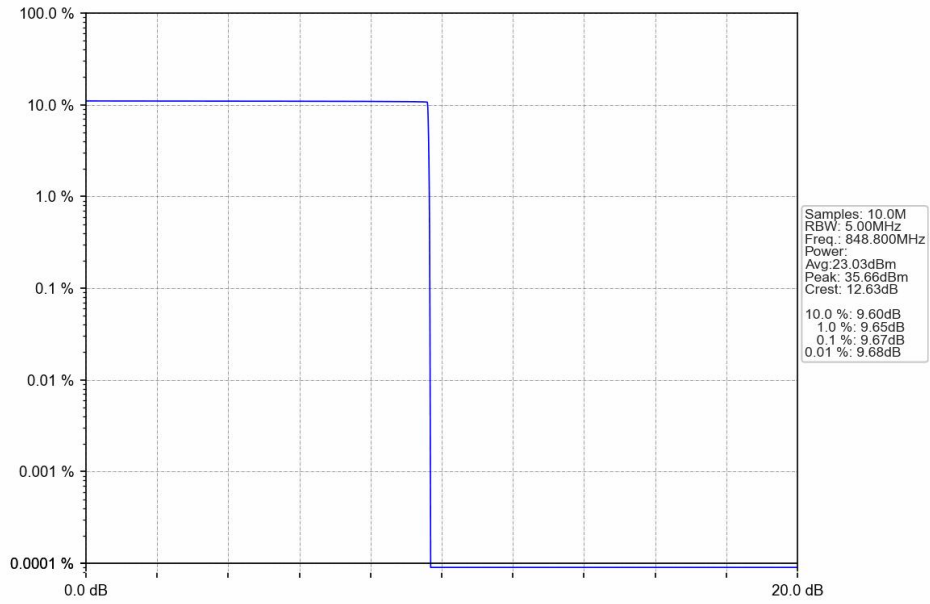
5.1.1 Test Result

Band: GSM850						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	9.00	<=13	Pass
			836.6	9.57	<=13	Pass
			848.8	9.67	<=13	Pass
	GPRS	4 TX Slots	824.2	9.74	<=13	Pass
			836.6	3.84	<=13	Pass
			848.8	3.54	<=13	Pass

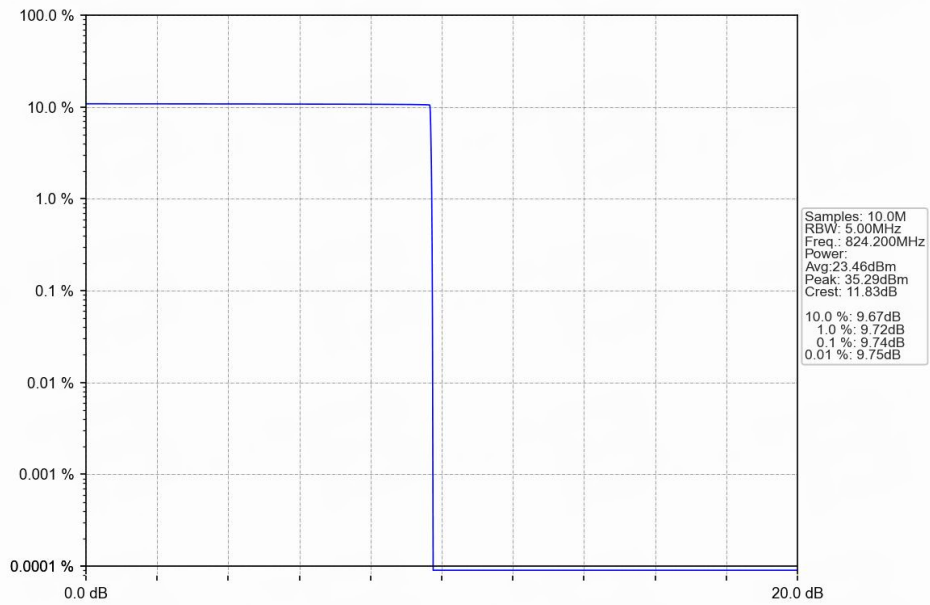
5.1.2 Test Graph



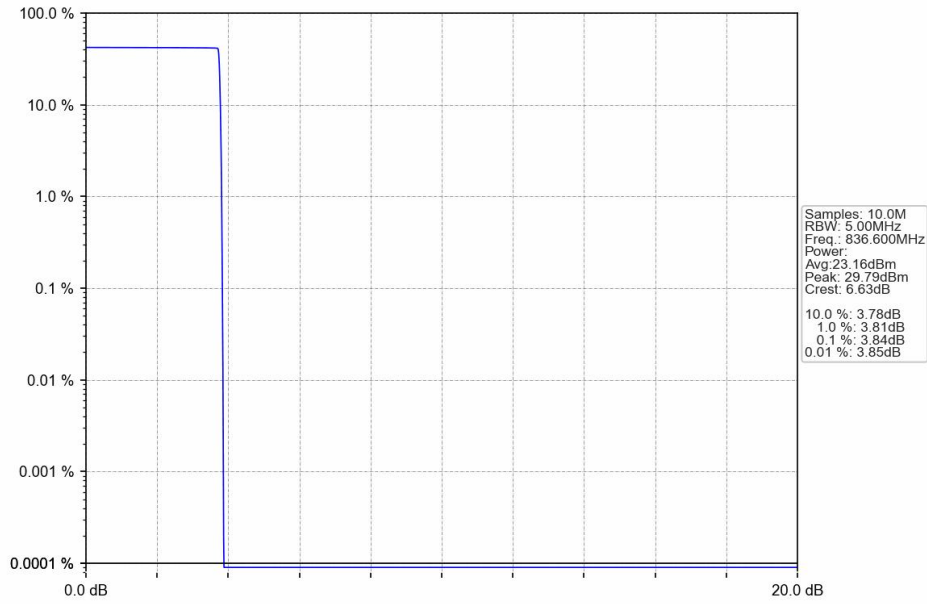
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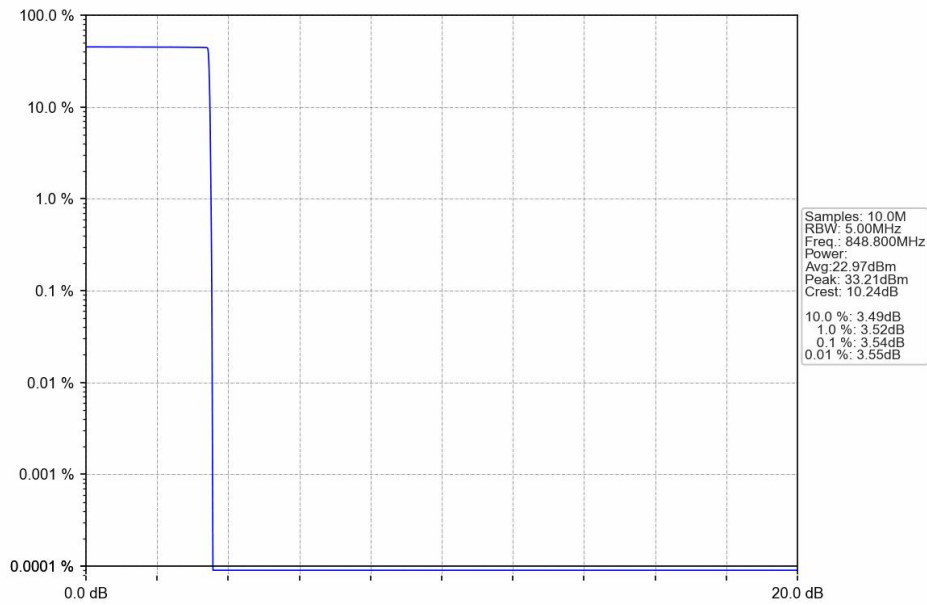
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GSM850_GPRS_MCH_836.6MHz_4_TX_Slots_NTNV



GSM850_GPRS_HCH_848.8MHz_4_TX_Slots_NTNV



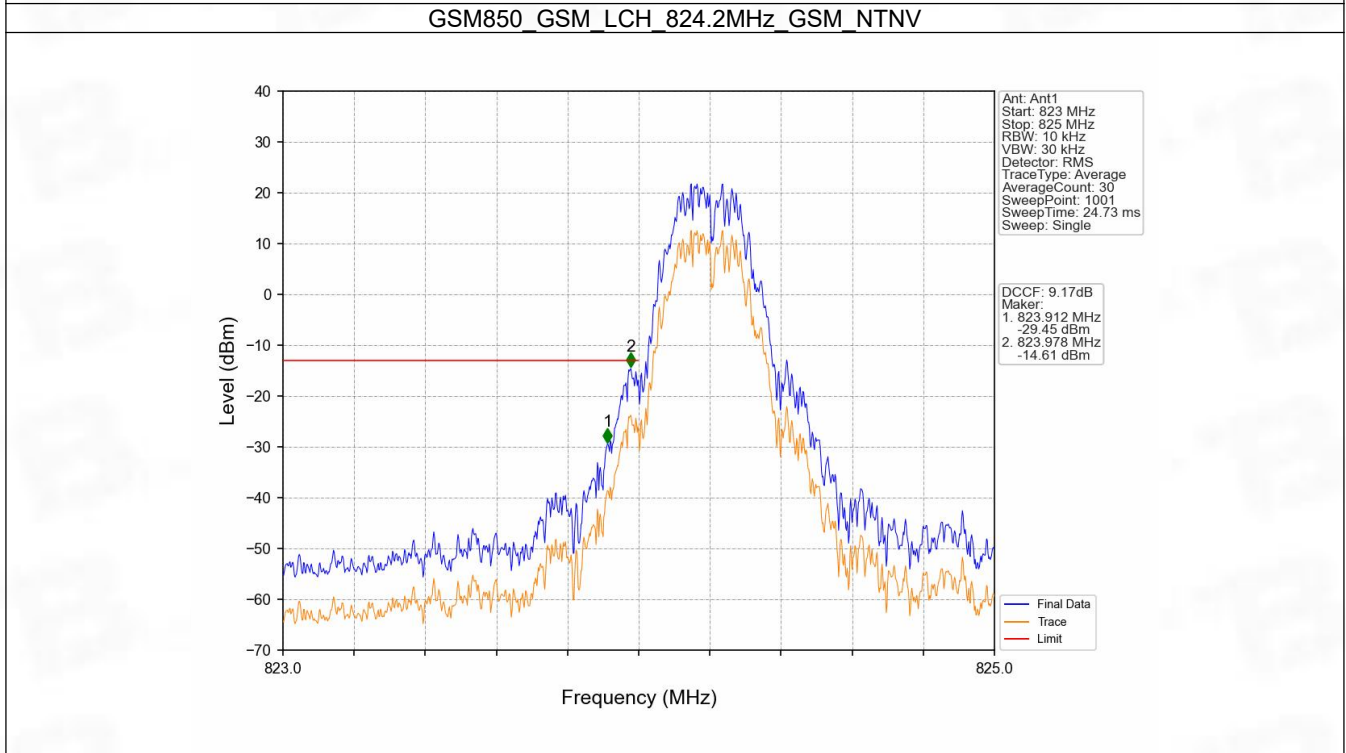
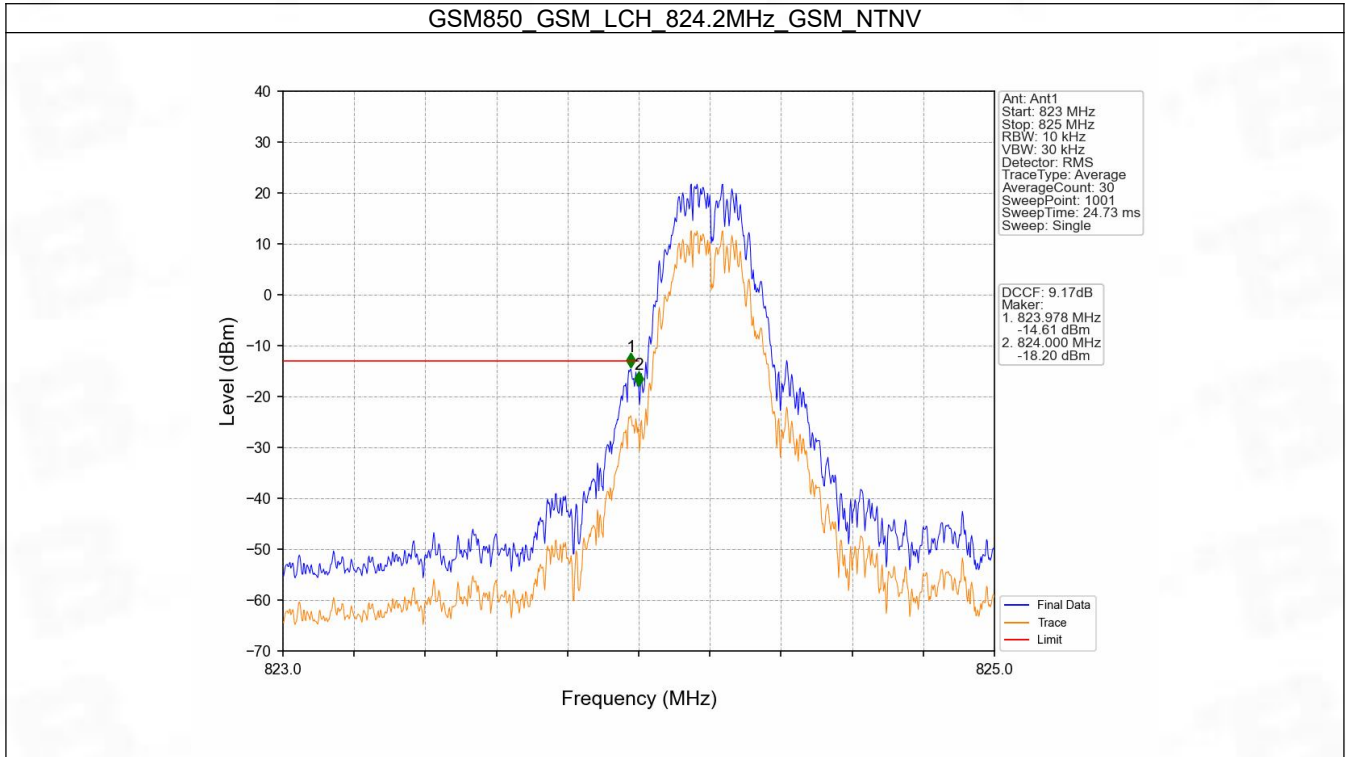
6. Spurious Emission

6.1 GSM850

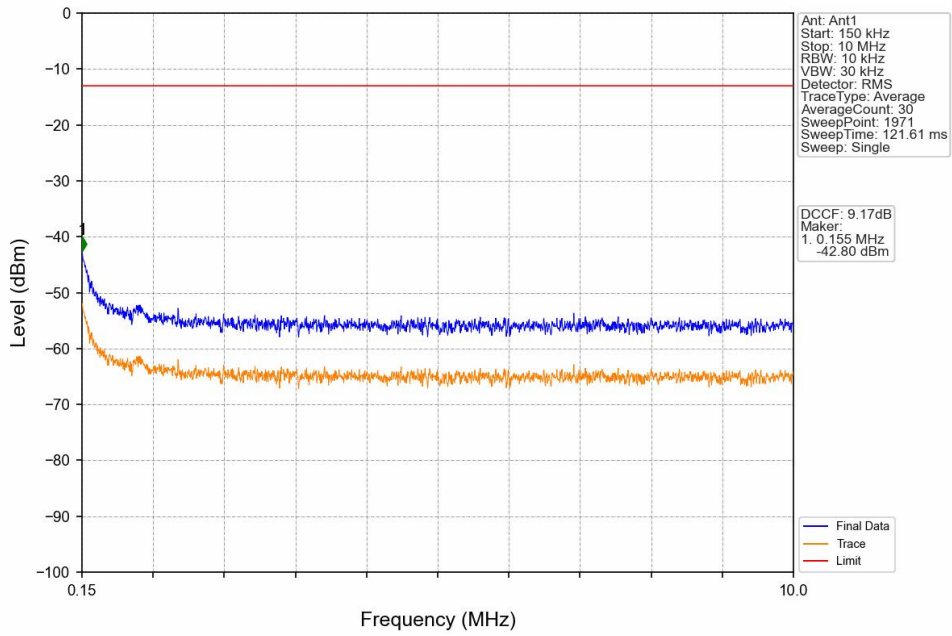
6.1.1 Test Result

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	

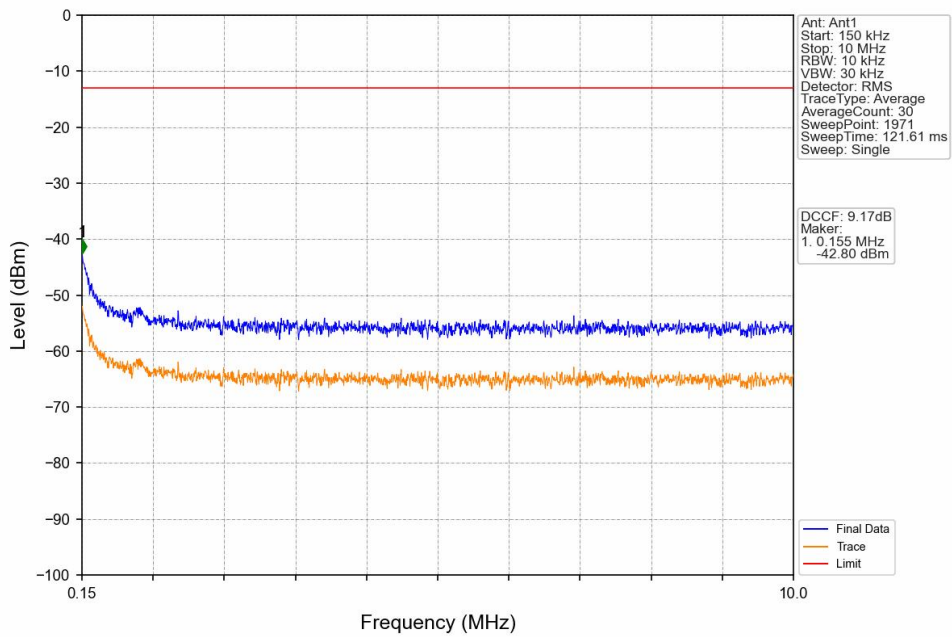
6.1.2 Test Graph



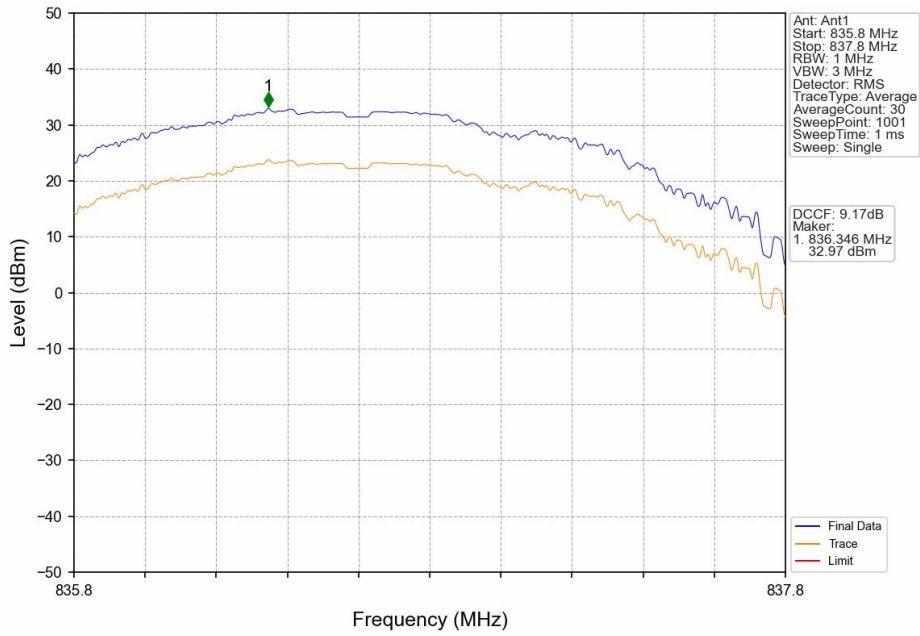
GSM850 GSM_LCH_824.2MHz GSM_NTNV



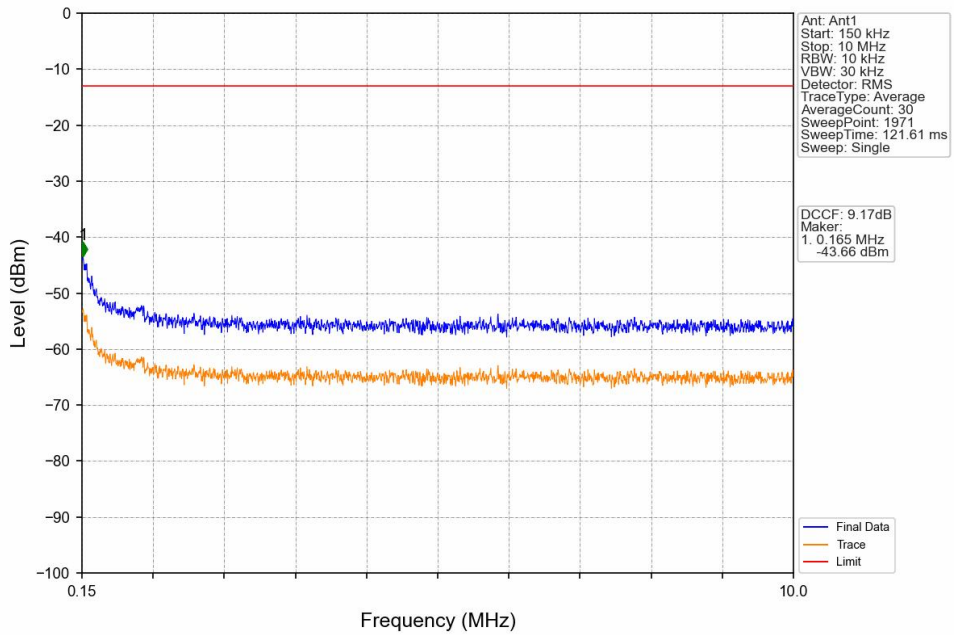
GSM850 GSM_LCH_824.2MHz GSM_NTNV



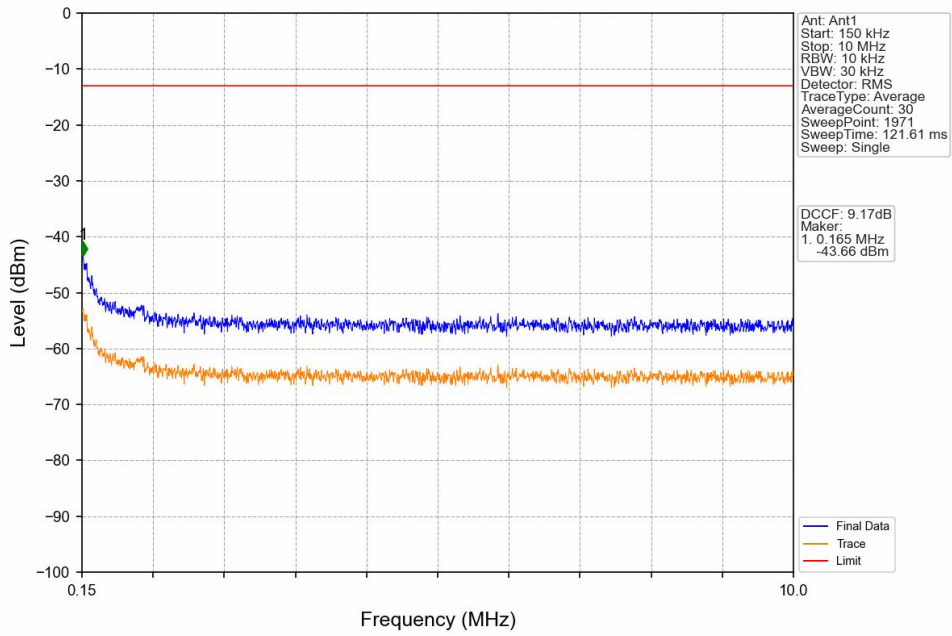
GSM850_GSM_MCH_836.6MHz_GSM_NTNV



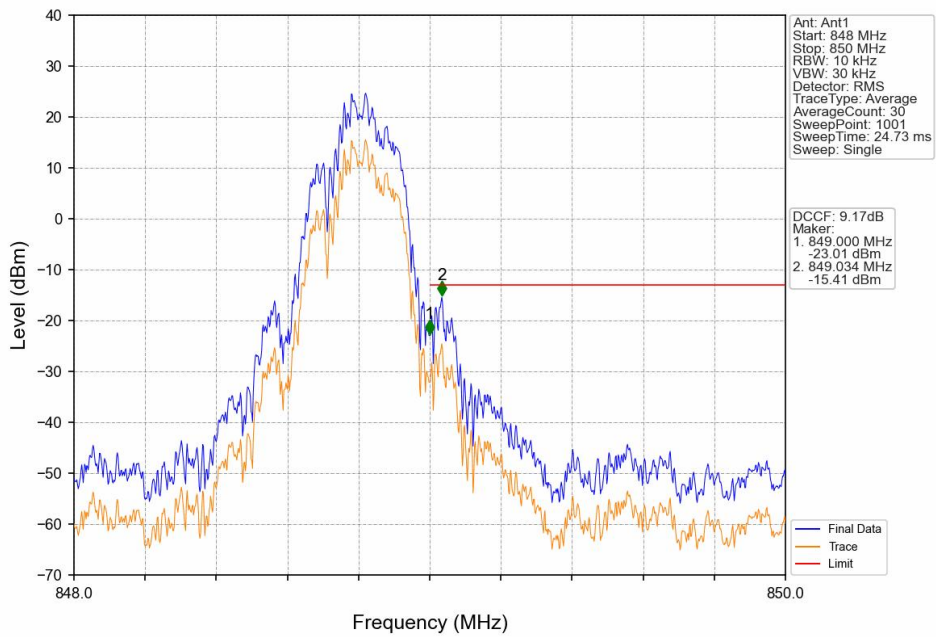
GSM850_GSM_MCH_836.6MHz_GSM_NTNV



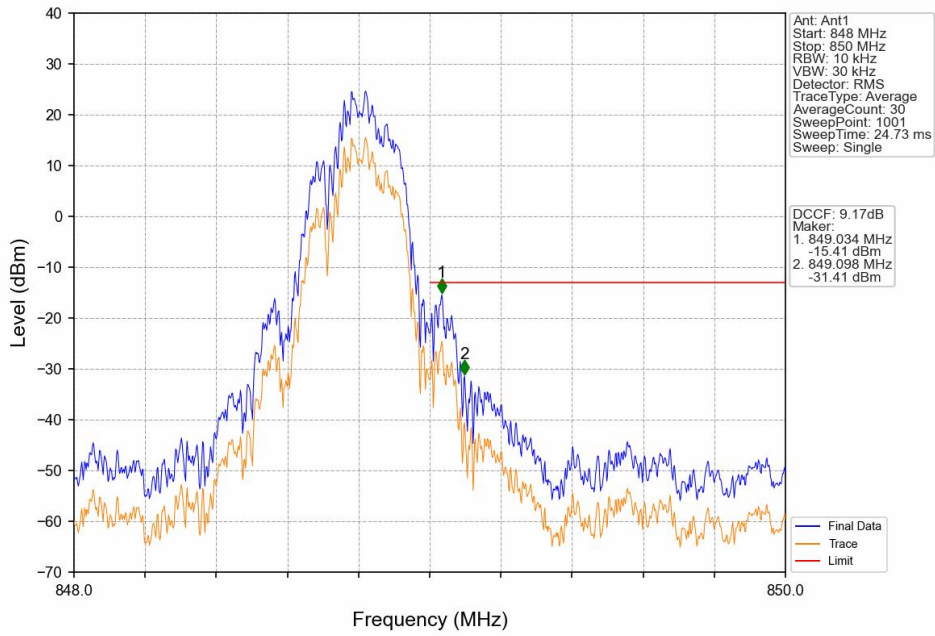
GSM850 GSM_MCH_836.6MHz GSM_NTNV



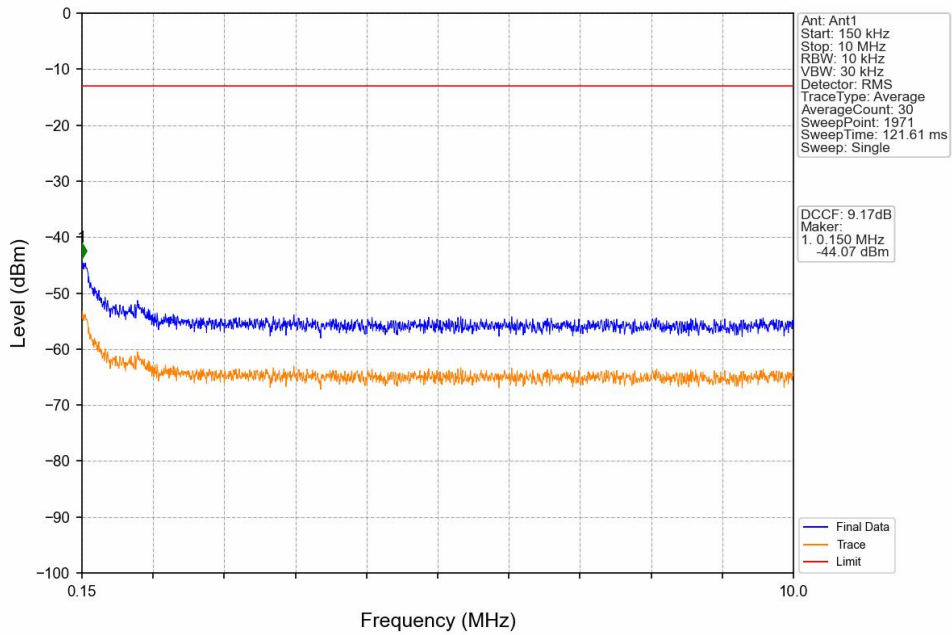
GSM850 GSM_HCH_848.8MHz GSM_NTNV



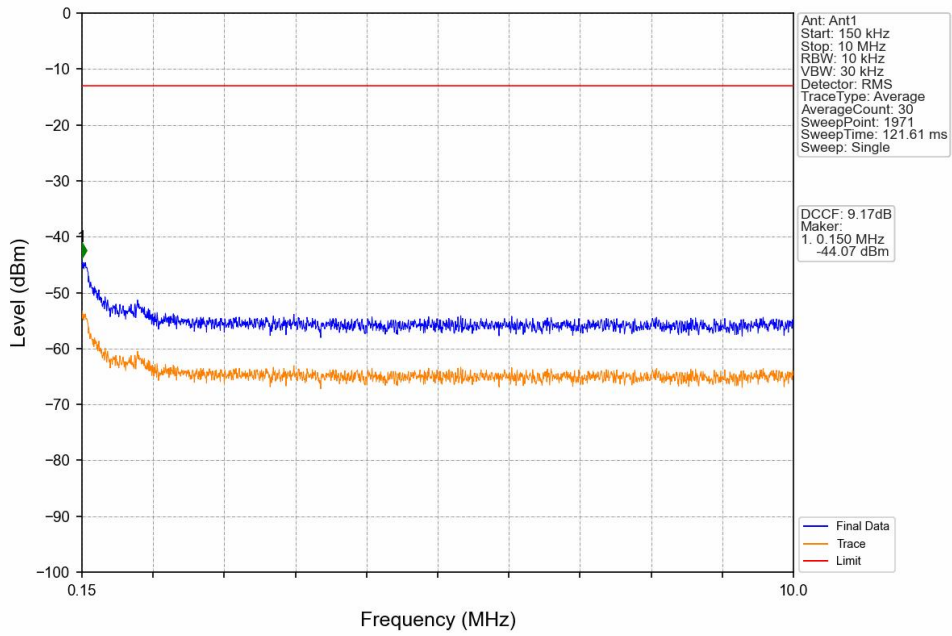
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



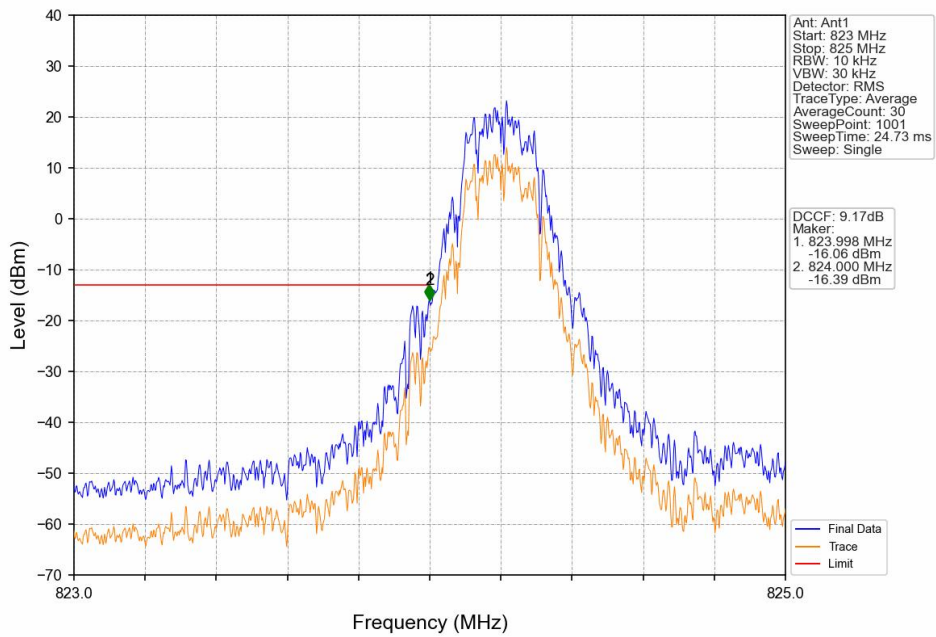
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



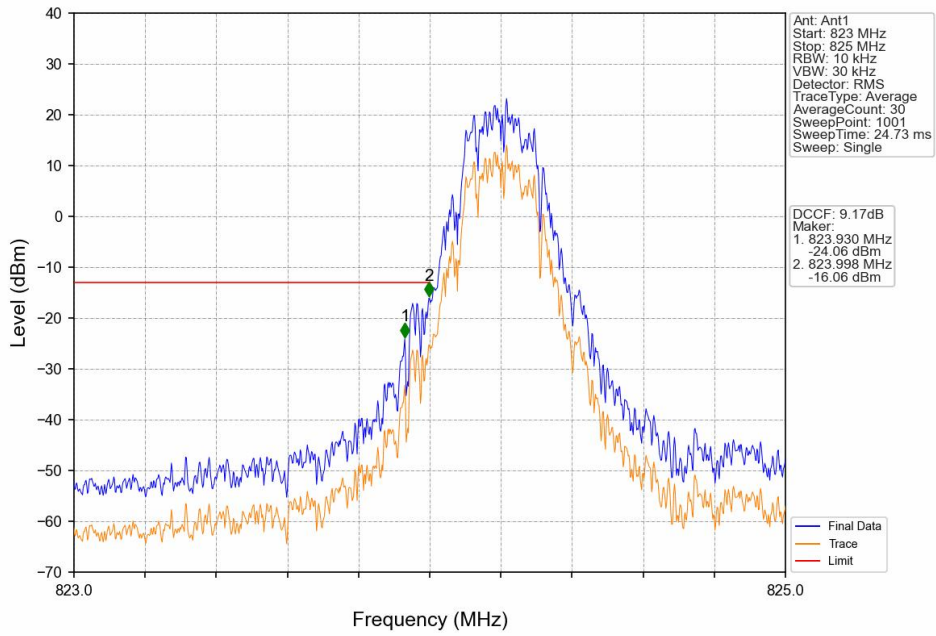
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



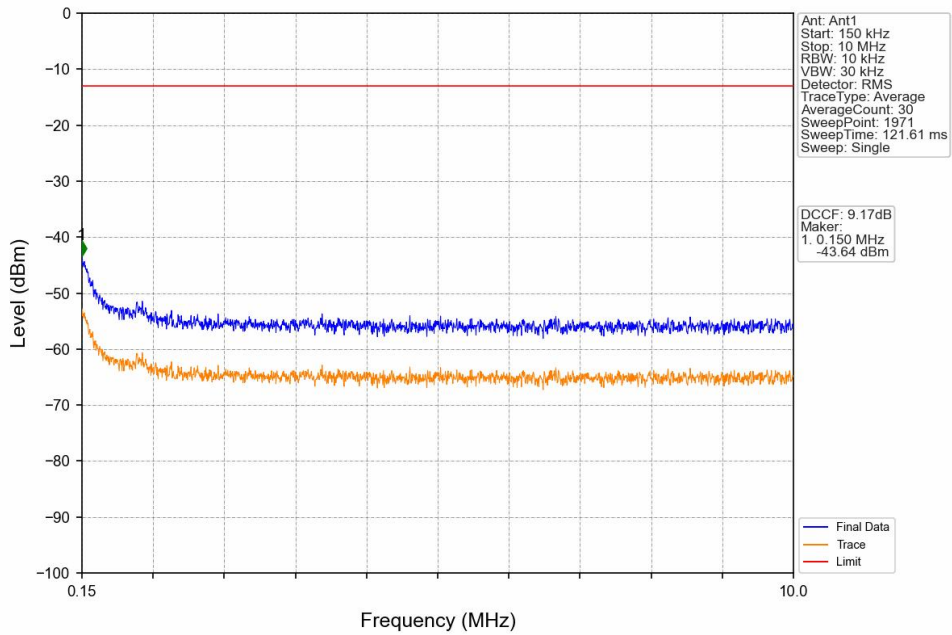
GSM850_GPRS_LCH_824.2MHz_1 TX Slot_NTNV



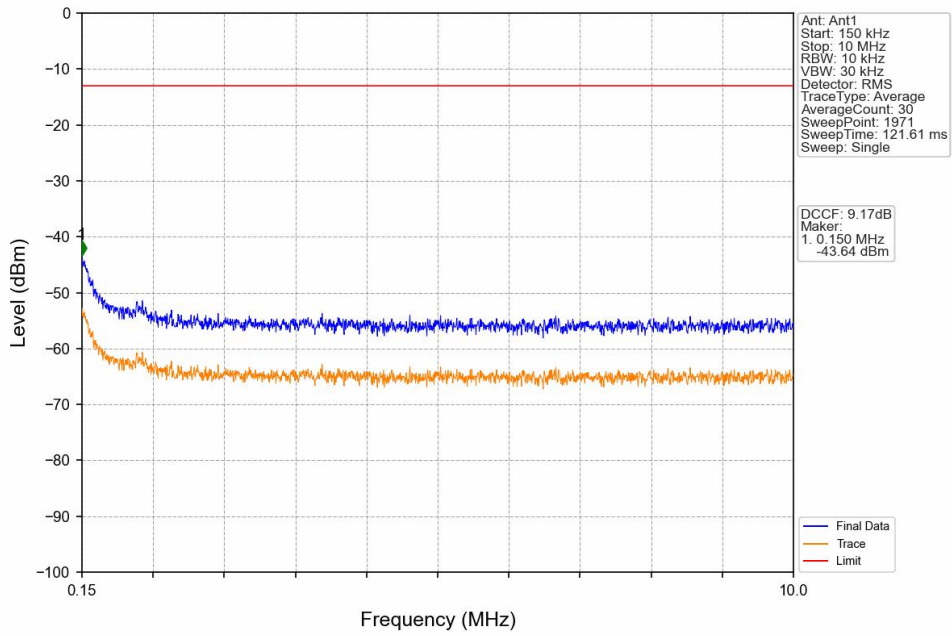
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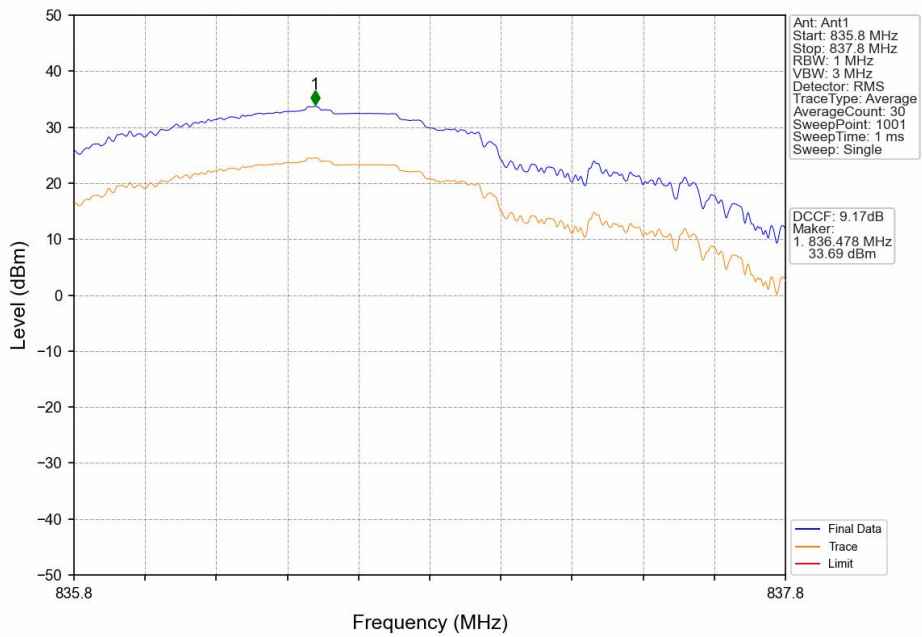
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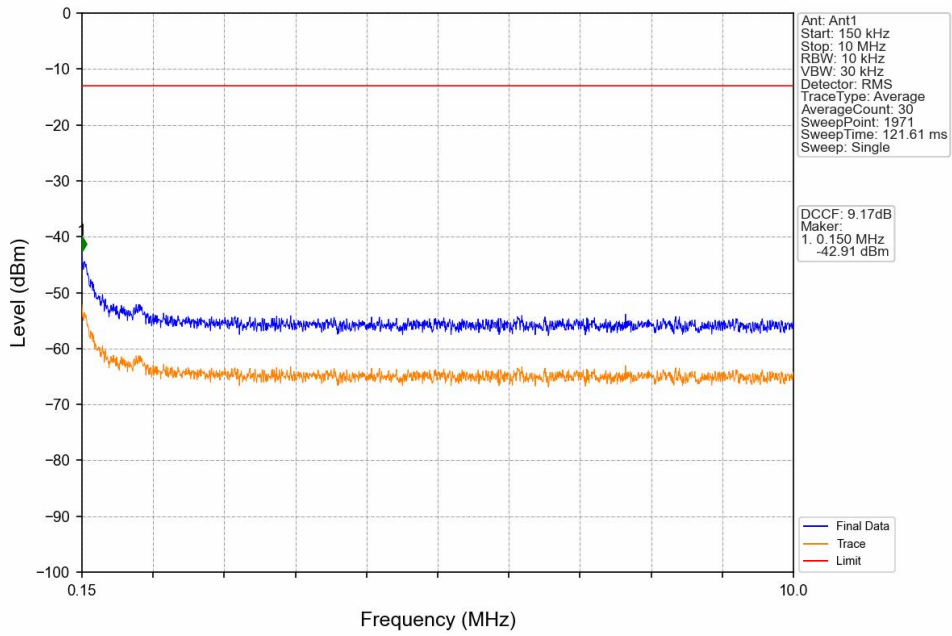
GSM850_GPRS_LCH_824.2MHz_1 TX Slot_NTNV



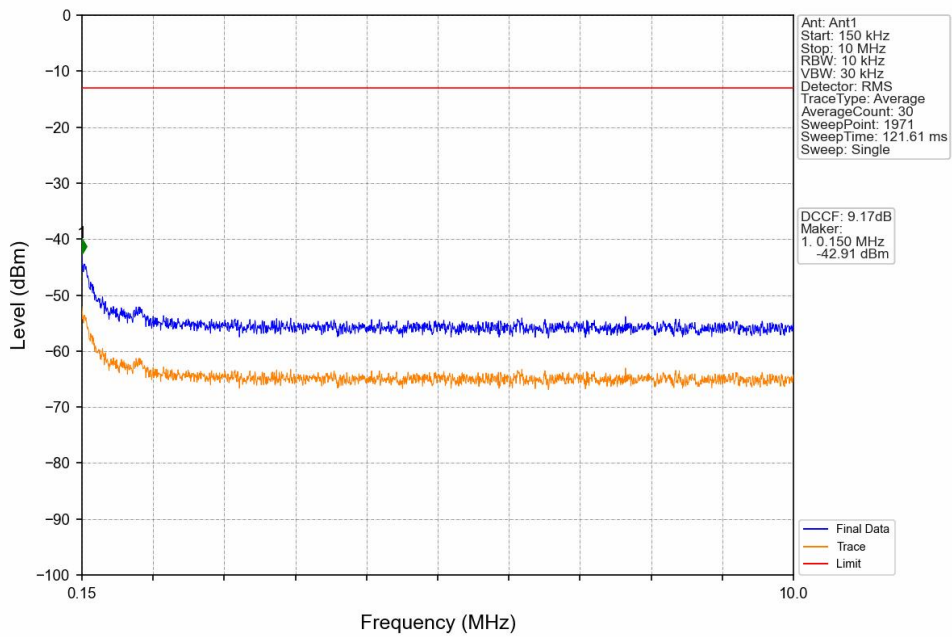
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



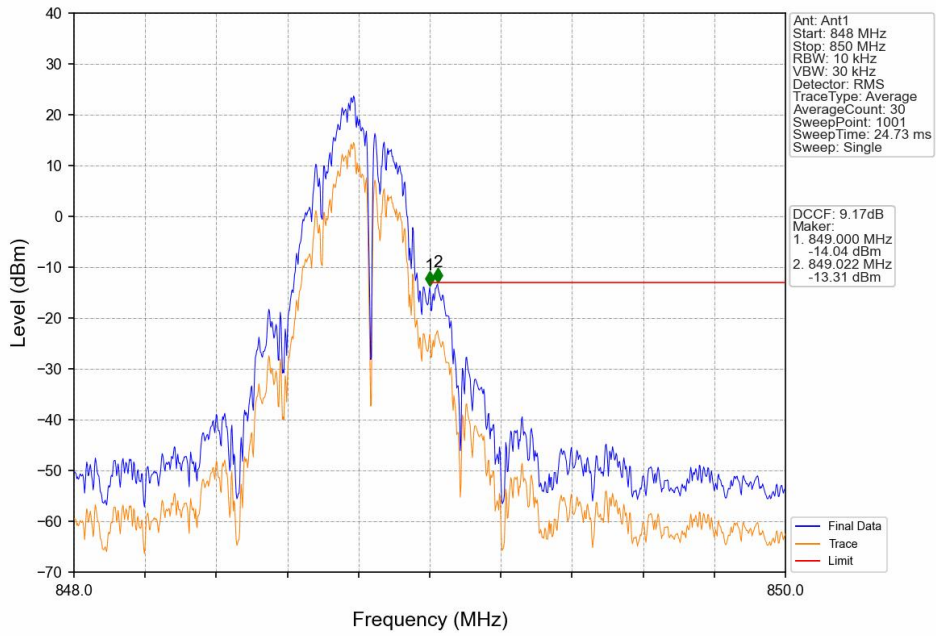
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



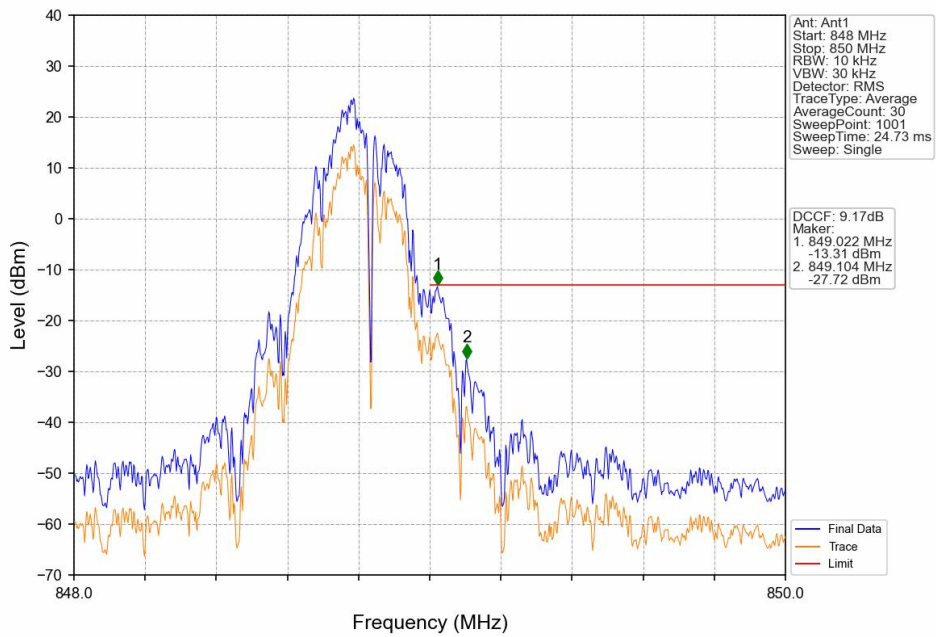
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



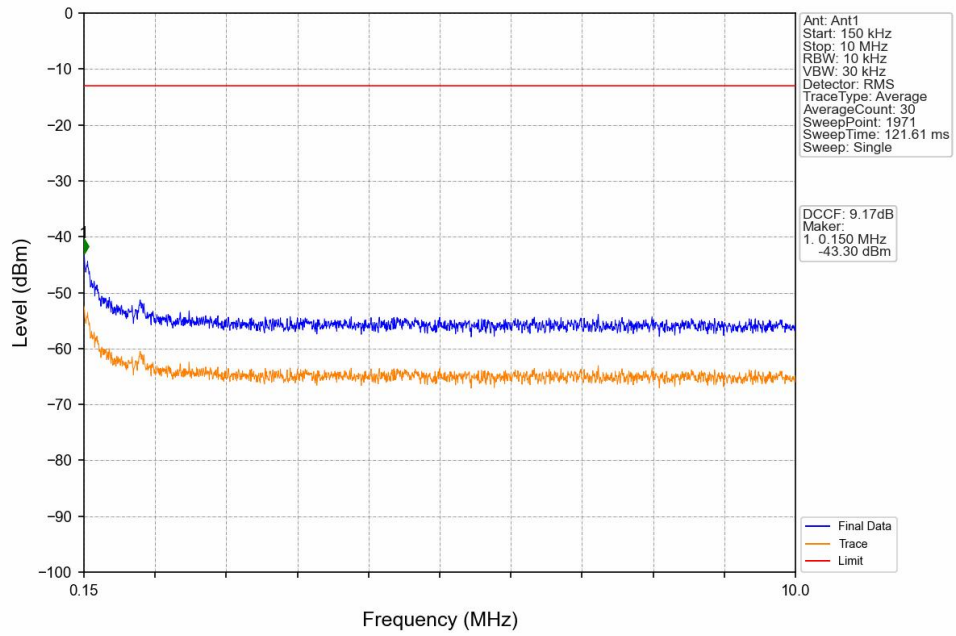
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



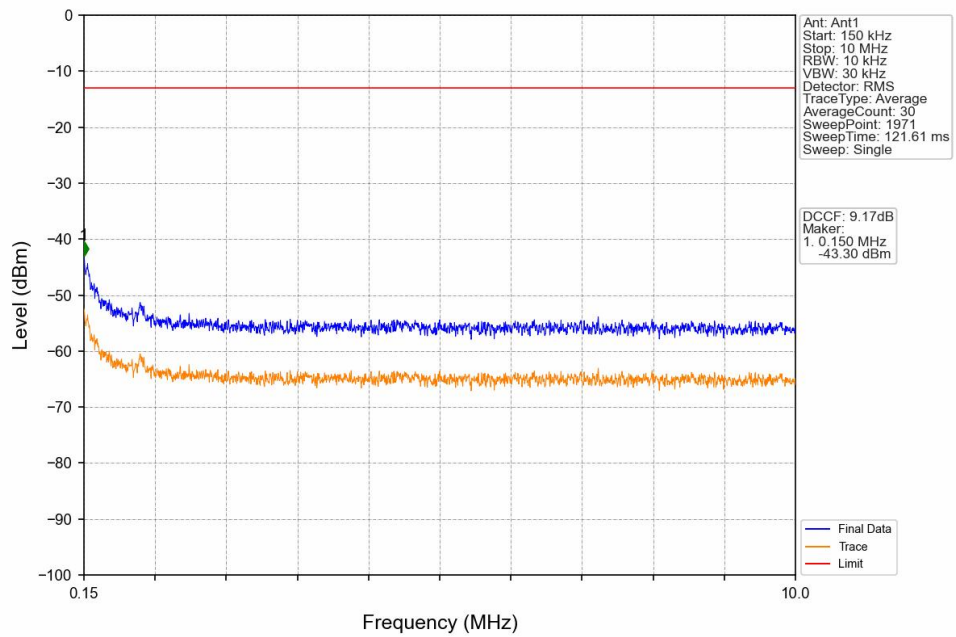
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



GSM850_GPRS_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	1.3964	0.0142	ppm	250KGXW	22H	31.45

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	0.8511	0.0142	ppm	250KGXW	22H	29.30