

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	32.64	-4.00	26.49	<=38.45	Pass
			836.6	32.68	-4.00	26.53	<=38.45	Pass
			848.8	32.27	-4.00	26.12	<=38.45	Pass
	GPRS	1 TX Slot	824.2	32.67	-4.00	26.52	<=38.45	Pass
			836.6	32.72	-4.00	26.57	<=38.45	Pass
			848.8	32.32	-4.00	26.17	<=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	-3.630	-0.0044	-2.5 to 2.5	Pass
			3.85	-1.505	-0.0018	-2.5 to 2.5	Pass
			4.43	-6.248	-0.0076	-2.5 to 2.5	Pass
		-30	3.85	-2.822	-0.0034	-2.5 to 2.5	Pass
		-20	3.85	-3.071	-0.0037	-2.5 to 2.5	Pass
		-10	3.85	-9.497	-0.0115	-2.5 to 2.5	Pass
		0	3.85	-10.284	-0.0125	-2.5 to 2.5	Pass
		10	3.85	-10.382	-0.0126	-2.5 to 2.5	Pass
		30	3.85	-9.712	-0.0118	-2.5 to 2.5	Pass
		40	3.85	-8.359	-0.0101	-2.5 to 2.5	Pass
		50	3.85	-7.922	-0.0096	-2.5 to 2.5	Pass
	836.6	20	3.27	-0.854	-0.0010	-2.5 to 2.5	Pass
			3.85	-1.669	-0.0020	-2.5 to 2.5	Pass
			4.43	-2.664	-0.0032	-2.5 to 2.5	Pass
		-30	3.85	-3.474	-0.0042	-2.5 to 2.5	Pass
		-20	3.85	-1.444	-0.0017	-2.5 to 2.5	Pass
		-10	3.85	-4.092	-0.0049	-2.5 to 2.5	Pass
		0	3.85	-8.292	-0.0099	-2.5 to 2.5	Pass
		10	3.85	-8.539	-0.0102	-2.5 to 2.5	Pass
		30	3.85	-11.503	-0.0137	-2.5 to 2.5	Pass
		40	3.85	-6.837	-0.0082	-2.5 to 2.5	Pass
		50	3.85	-3.109	-0.0037	-2.5 to 2.5	Pass
	848.8	20	3.27	-0.484	-0.0006	-2.5 to 2.5	Pass
			3.85	1.668	0.0020	-2.5 to 2.5	Pass
			4.43	-0.892	-0.0011	-2.5 to 2.5	Pass
		-30	3.85	-1.673	-0.0020	-2.5 to 2.5	Pass
		-20	3.85	-3.568	-0.0042	-2.5 to 2.5	Pass
		-10	3.85	-2.427	-0.0029	-2.5 to 2.5	Pass
		0	3.85	-5.561	-0.0066	-2.5 to 2.5	Pass
		10	3.85	-9.561	-0.0113	-2.5 to 2.5	Pass

		30	3.85	-9.109	-0.0107	-2.5 to 2.5	Pass
		40	3.85	-9.730	-0.0115	-2.5 to 2.5	Pass
		50	3.85	-9.859	-0.0116	-2.5 to 2.5	Pass
GPRS	824.2	20	3.27	-8.298	-0.0101	-2.5 to 2.5	Pass
			3.85	-4.627	-0.0056	-2.5 to 2.5	Pass
			4.43	-9.185	-0.0111	-2.5 to 2.5	Pass
		-30	3.85	-10.901	-0.0132	-2.5 to 2.5	Pass
		-20	3.85	-7.574	-0.0092	-2.5 to 2.5	Pass
		-10	3.85	-9.495	-0.0115	-2.5 to 2.5	Pass
		0	3.85	-10.614	-0.0129	-2.5 to 2.5	Pass
		10	3.85	-11.181	-0.0136	-2.5 to 2.5	Pass
		30	3.85	-12.579	-0.0153	-2.5 to 2.5	Pass
		40	3.85	-7.671	-0.0093	-2.5 to 2.5	Pass
		50	3.85	-10.268	-0.0125	-2.5 to 2.5	Pass
	836.6	20	3.27	-10.233	-0.0122	-2.5 to 2.5	Pass
			3.85	-7.164	-0.0086	-2.5 to 2.5	Pass
			4.43	-6.867	-0.0082	-2.5 to 2.5	Pass
		-30	3.85	-9.988	-0.0119	-2.5 to 2.5	Pass
		-20	3.85	-11.747	-0.0140	-2.5 to 2.5	Pass
		-10	3.85	-8.534	-0.0102	-2.5 to 2.5	Pass
		0	3.85	-14.447	-0.0173	-2.5 to 2.5	Pass
		10	3.85	-12.919	-0.0154	-2.5 to 2.5	Pass
		30	3.85	-13.010	-0.0156	-2.5 to 2.5	Pass
		40	3.85	-10.693	-0.0128	-2.5 to 2.5	Pass
		50	3.85	-9.967	-0.0119	-2.5 to 2.5	Pass
	848.8	20	3.27	-10.198	-0.0120	-2.5 to 2.5	Pass
			3.85	-8.847	-0.0104	-2.5 to 2.5	Pass
			4.43	-8.722	-0.0103	-2.5 to 2.5	Pass
		-30	3.85	-9.718	-0.0114	-2.5 to 2.5	Pass
		-20	3.85	-12.093	-0.0142	-2.5 to 2.5	Pass
		-10	3.85	-7.973	-0.0094	-2.5 to 2.5	Pass
		0	3.85	-10.015	-0.0118	-2.5 to 2.5	Pass
		10	3.85	-13.225	-0.0156	-2.5 to 2.5	Pass
		30	3.85	-12.221	-0.0144	-2.5 to 2.5	Pass
		40	3.85	-12.732	-0.0150	-2.5 to 2.5	Pass
		50	3.85	-11.130	-0.0131	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 GSM850_OBW

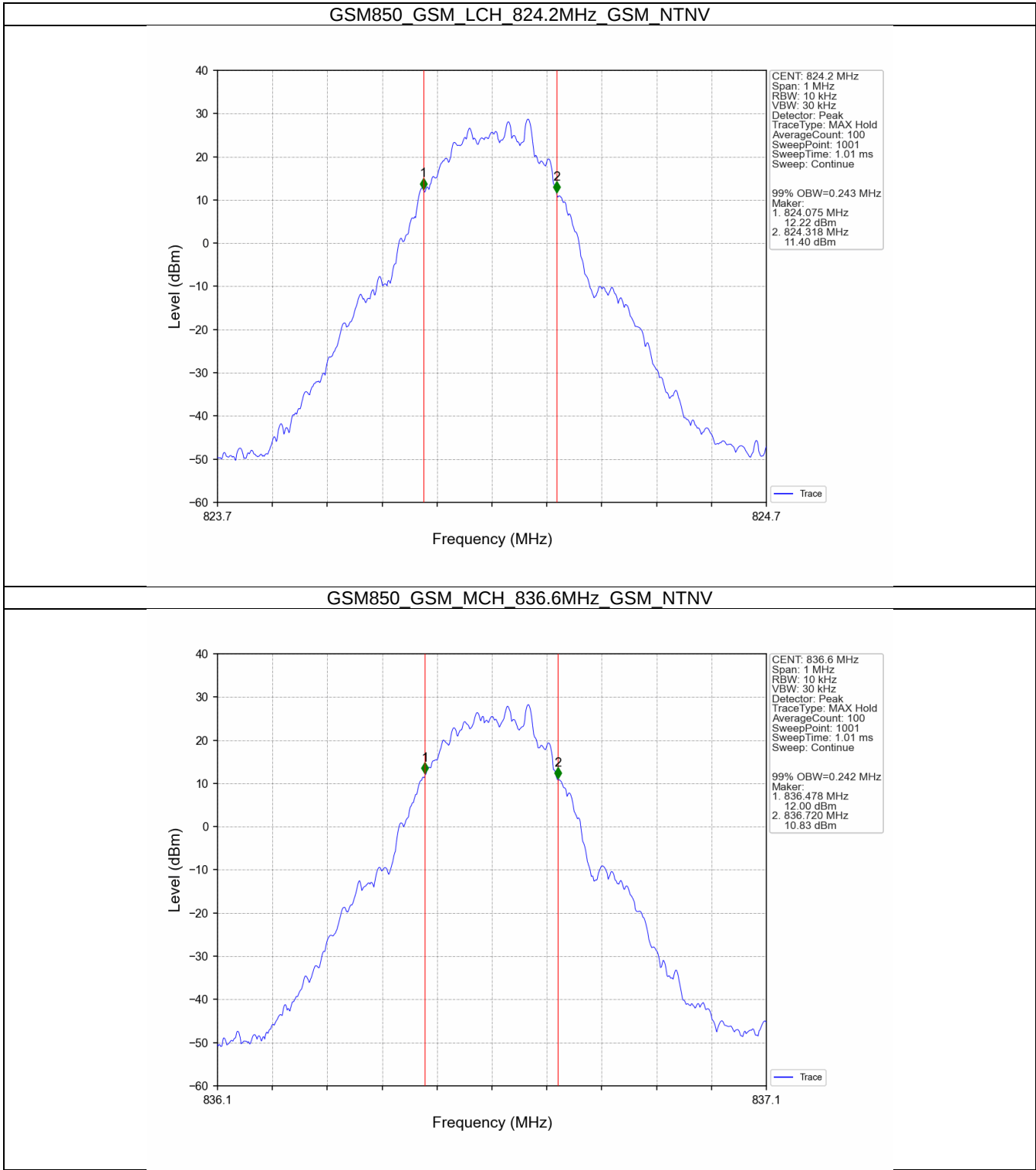
Band: GSM850						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	0.243	/	Pass
			836.6	0.242	/	Pass
			848.8	0.240	/	Pass
	GPRS	1 TX Slot	824.2	0.244	/	Pass
			836.6	0.243	/	Pass
			848.8	0.243	/	Pass

3.1.2 GSM850_XDB

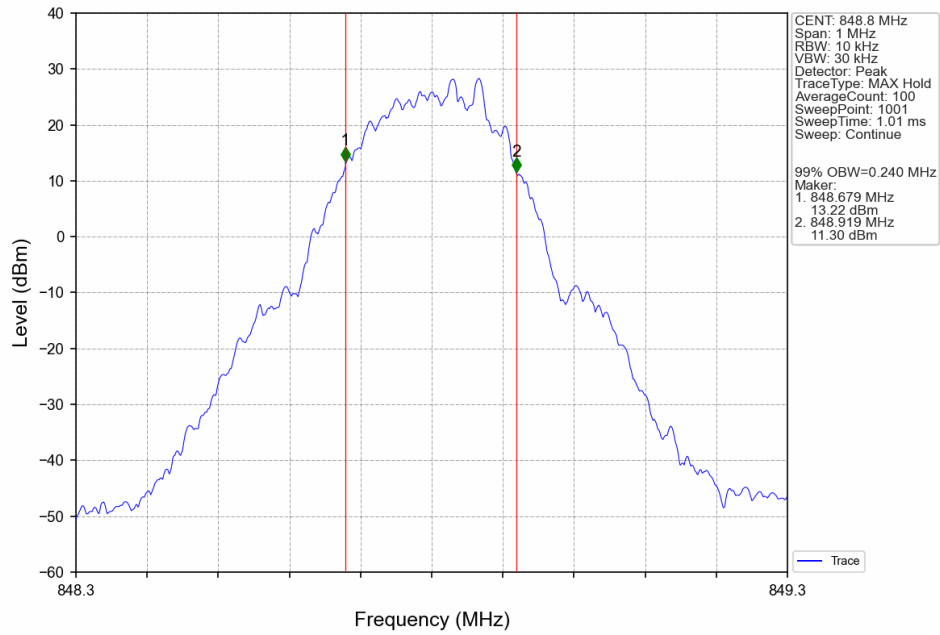
Band: GSM850						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	0.303	/	Pass
			836.6	0.307	/	Pass
			848.8	0.309	/	Pass
	GPRS	1 TX Slot	824.2	0.319	/	Pass
			836.6	0.317	/	Pass
			848.8	0.312	/	Pass

3.2 Test Graph

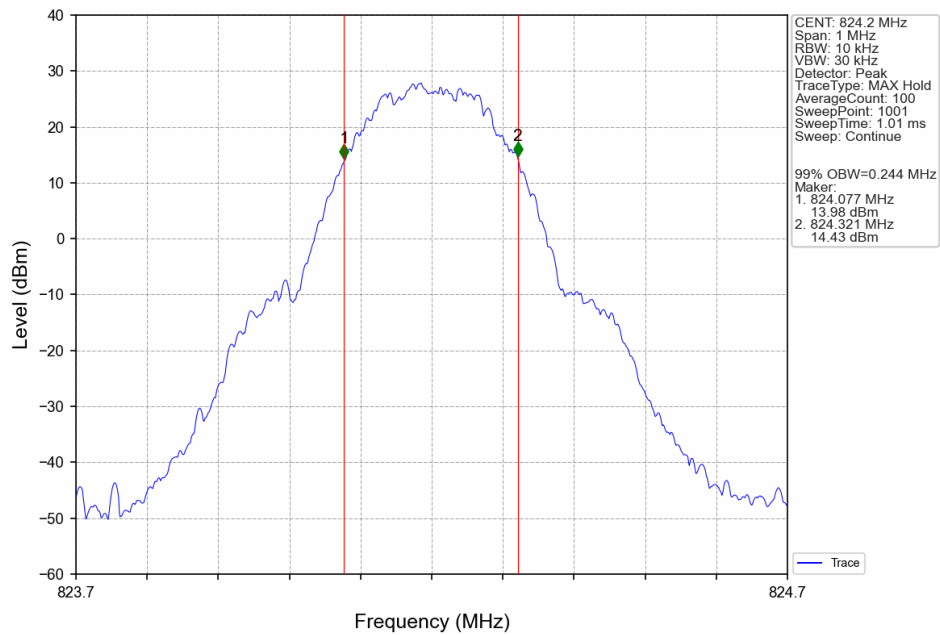
3.2.1 GSM850_OBW



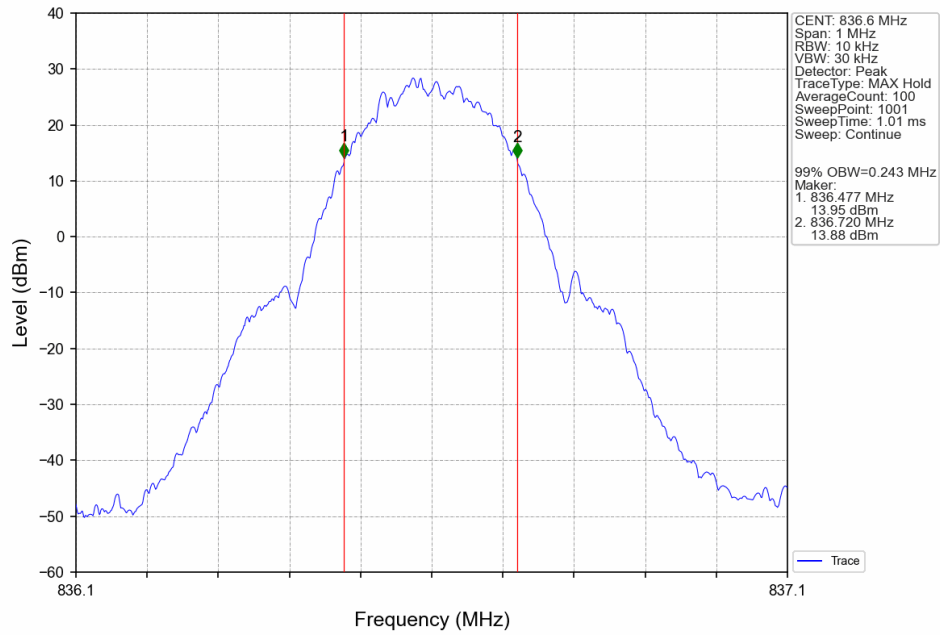
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



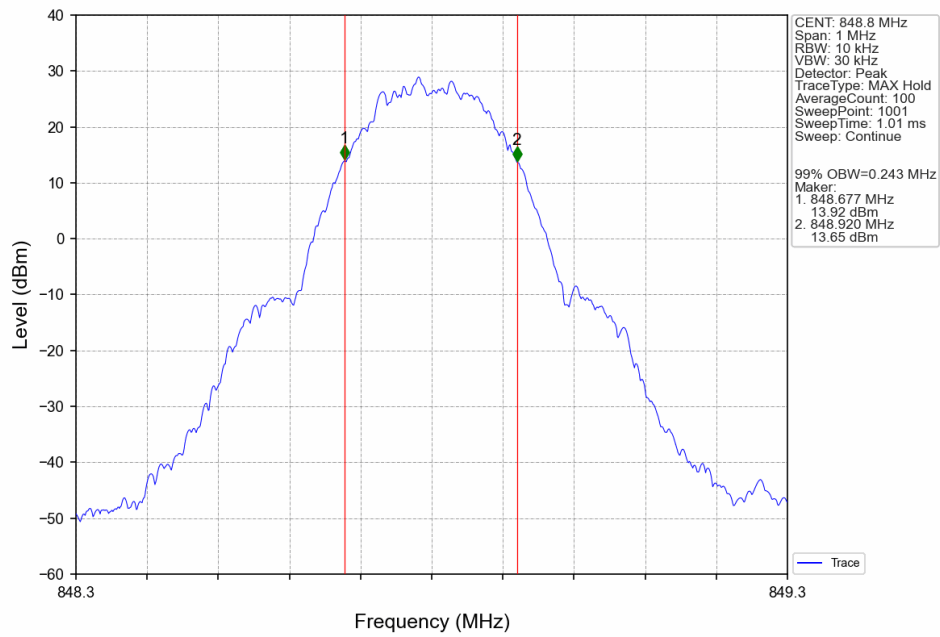
GSM850_GPRS_LCH_824.2MHz_1 TX Slot NTN



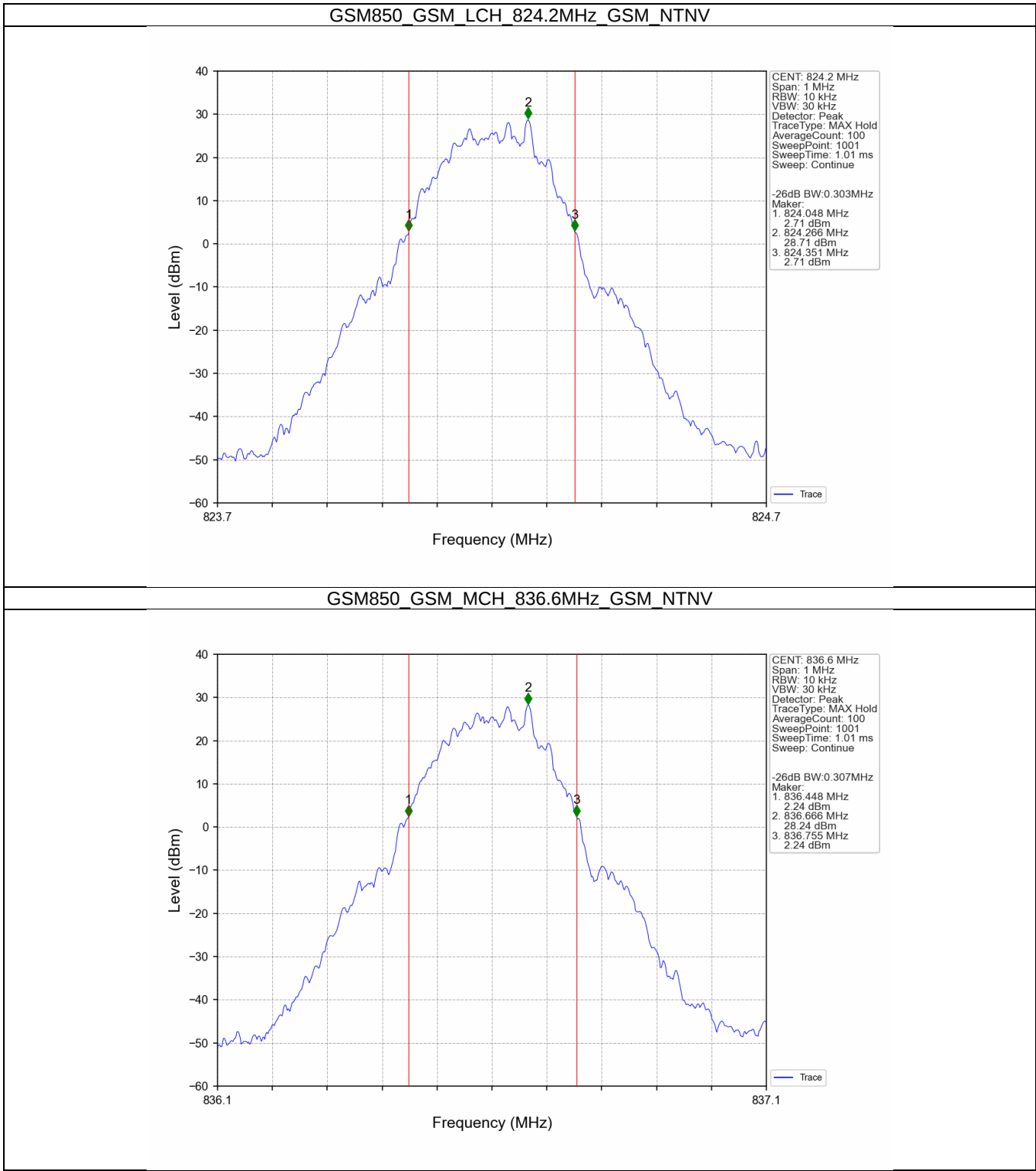
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



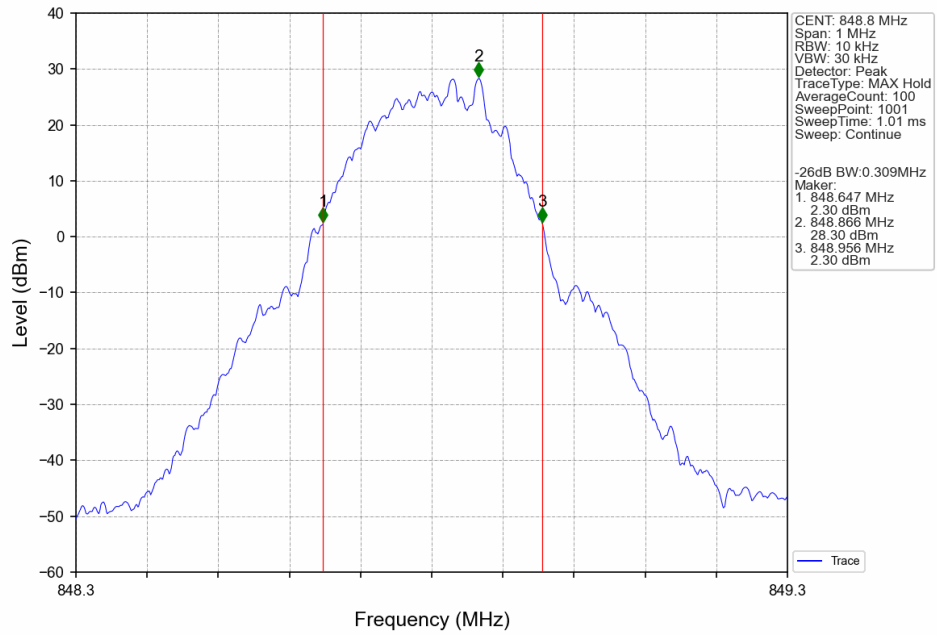
GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



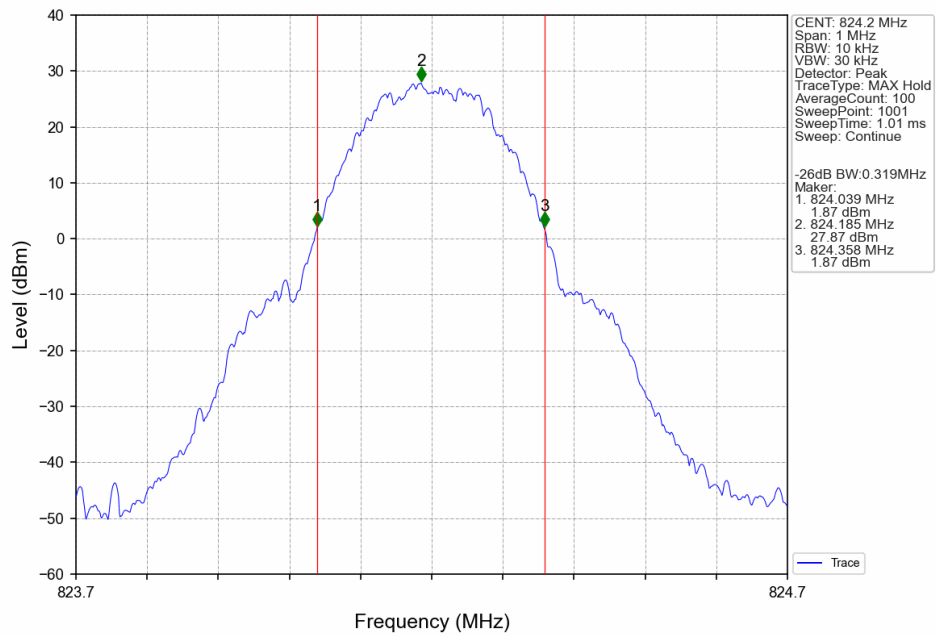
3.2.2 GSM850_XDB



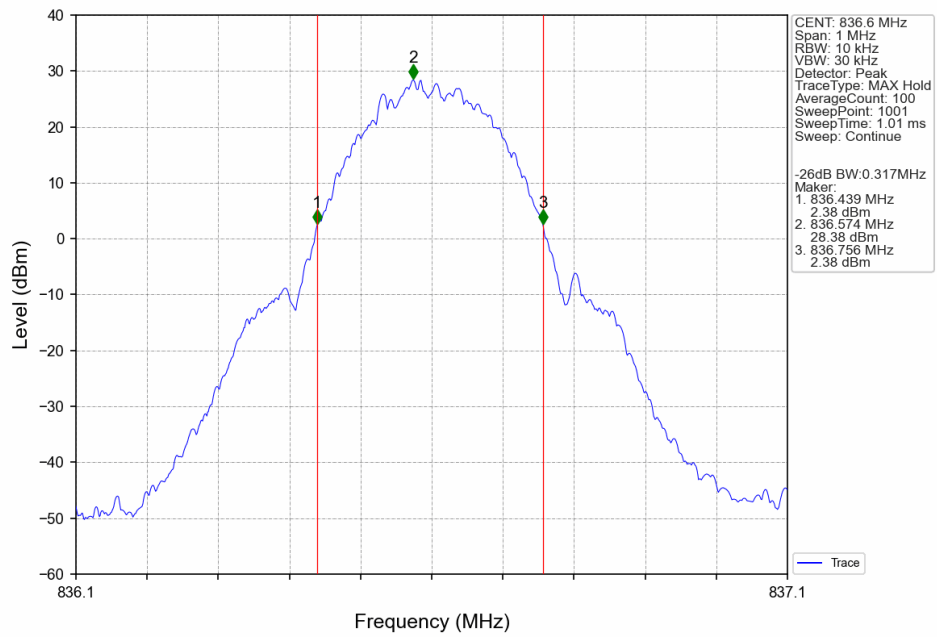
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



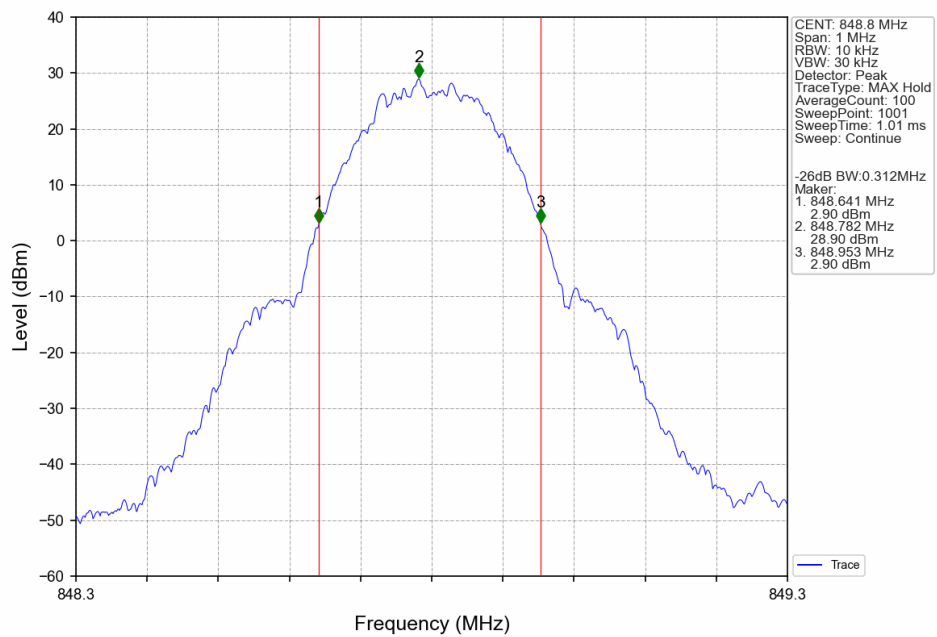
GSM850_GPRS_LCH_824.2MHz_1 TX Slot NTN



GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



4. Peak-Average Ratio

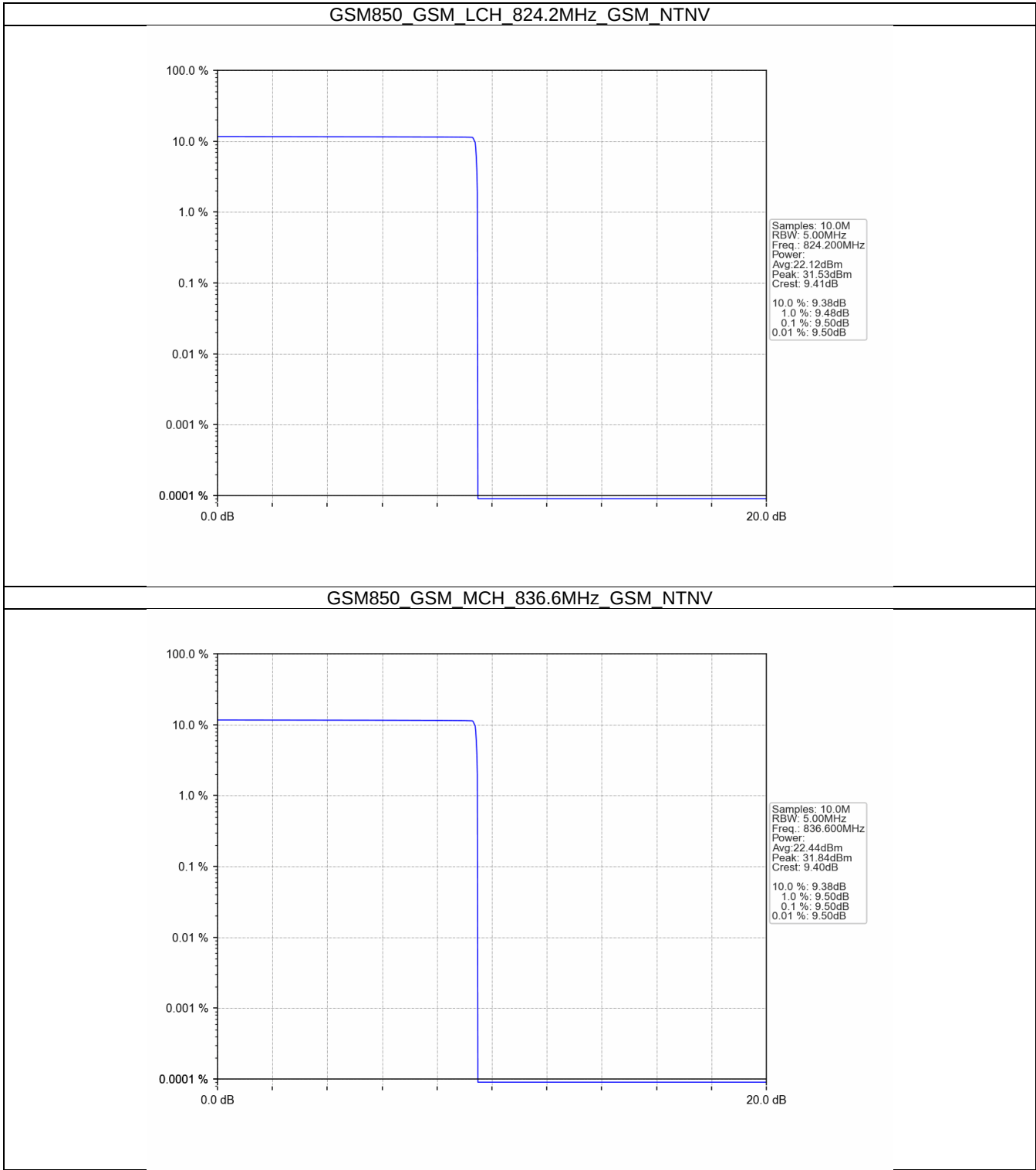
4.1 Test Result

4.1.1 GSM850

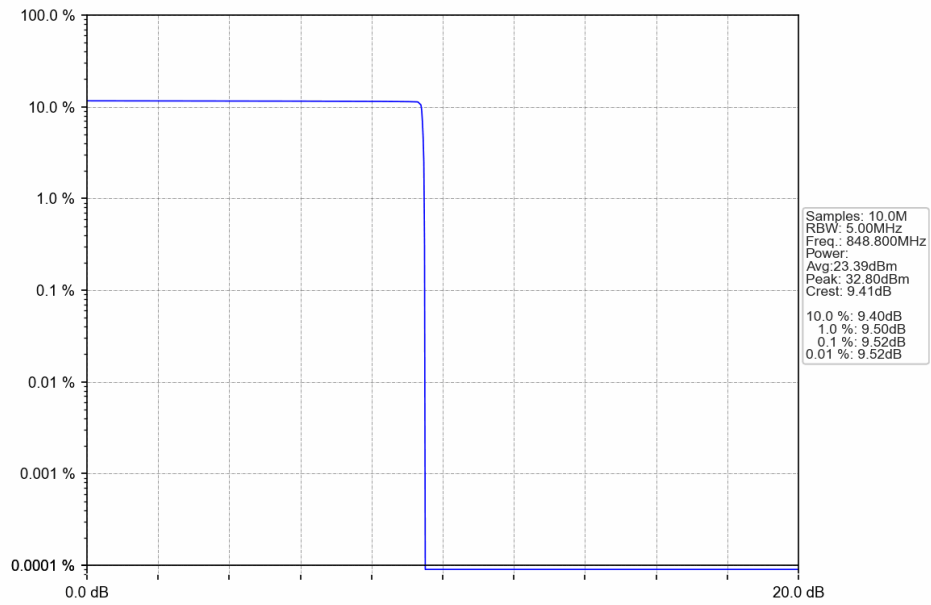
Band: GSM850						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	9.50	<=13	Pass
			836.6	9.50	<=13	Pass
			848.8	9.52	<=13	Pass

4.2 Test Graph

4.2.1 GSM850



GSM850_GSM_HCH_848.8MHz_GSM_NTNV



5. Spurious Emission

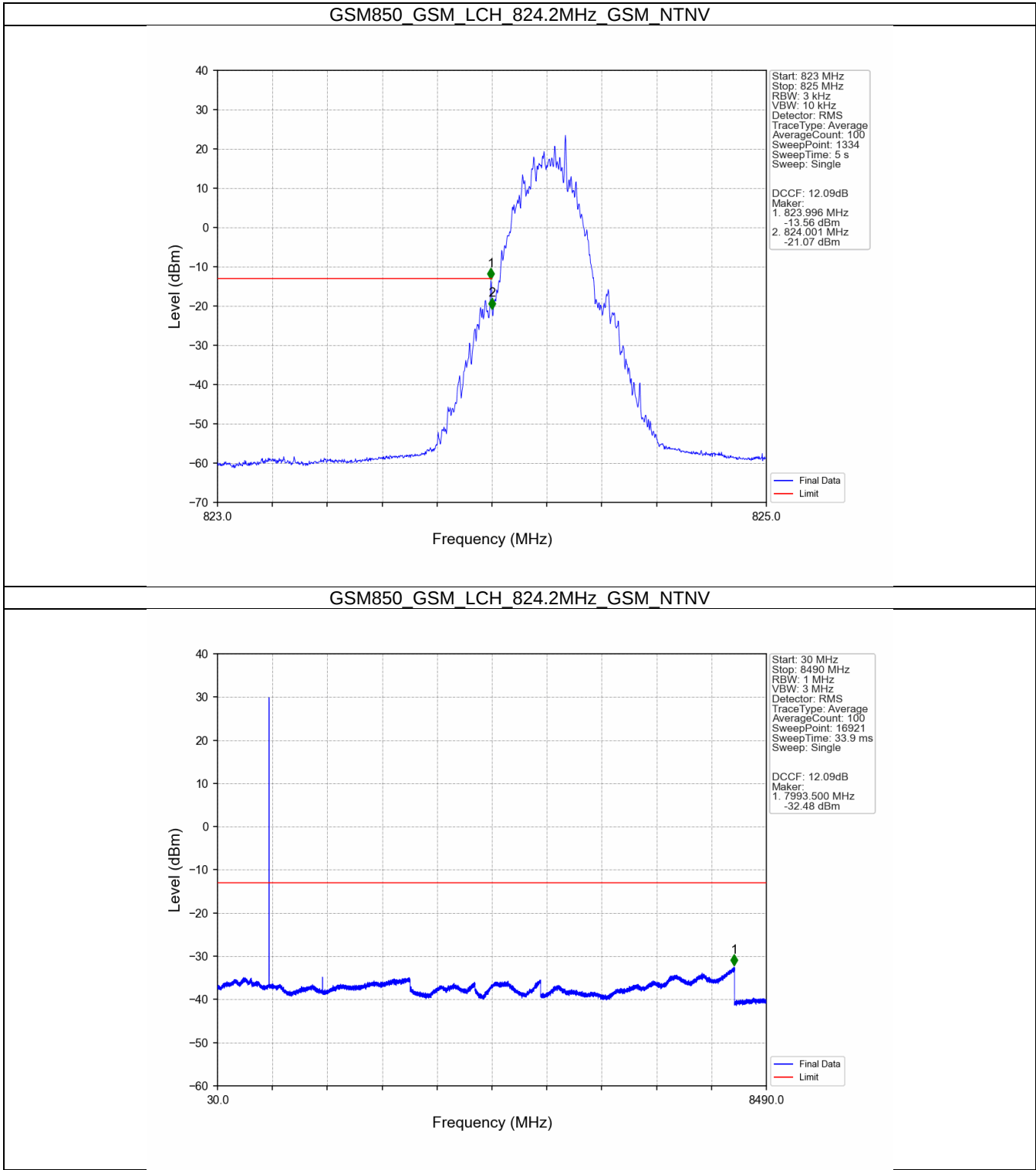
5.1 Test Result

5.1.1 GSM850

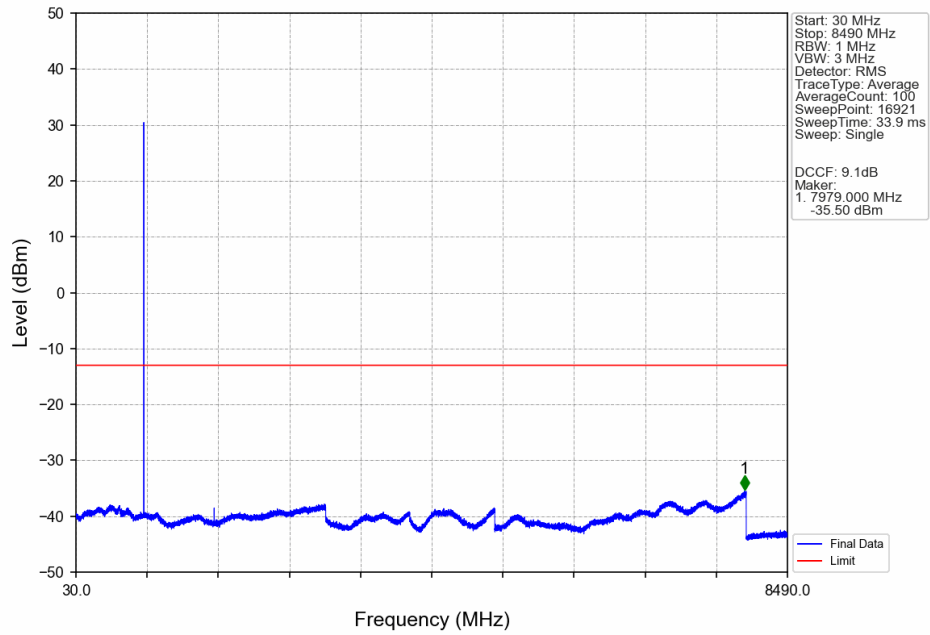
Band: GSM850						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	824.2	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass
			848.8	Refer To Test Graph		Pass
	GPRS	1 TX Slot	824.2	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass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

5.2 Test Graph

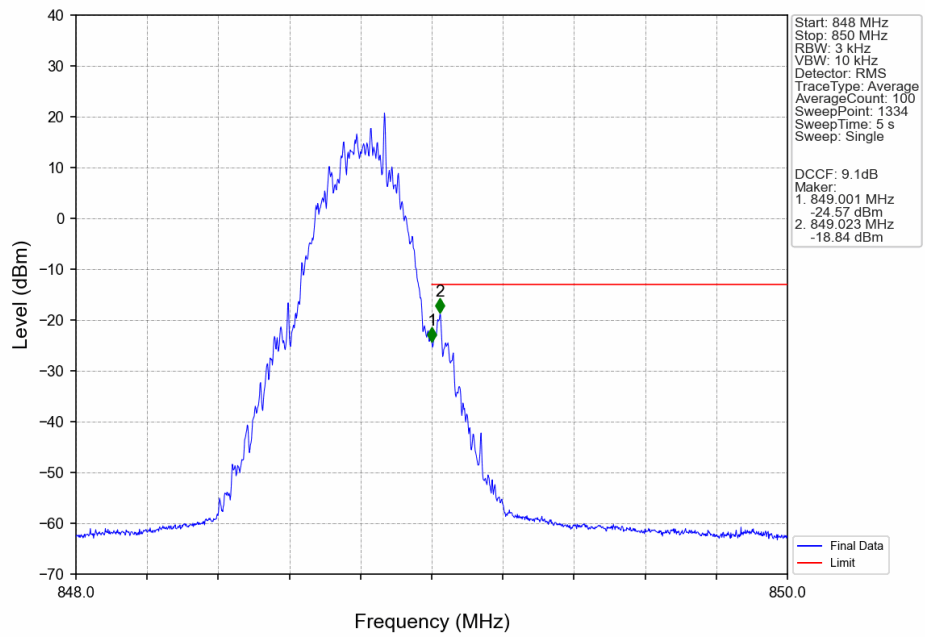
5.2.1 GSM850



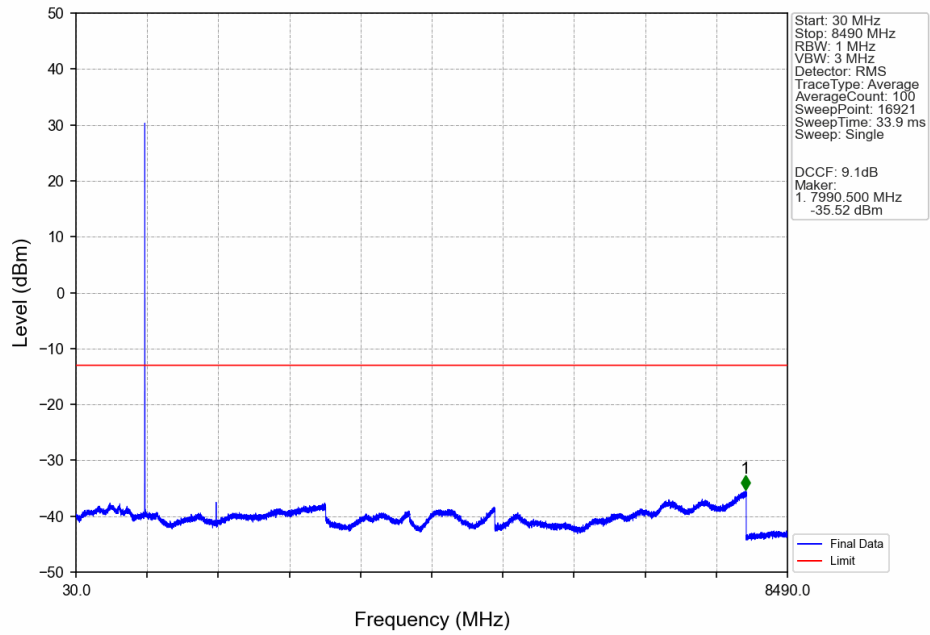
GSM850 GSM MCH 836.6MHz GSM NTNV



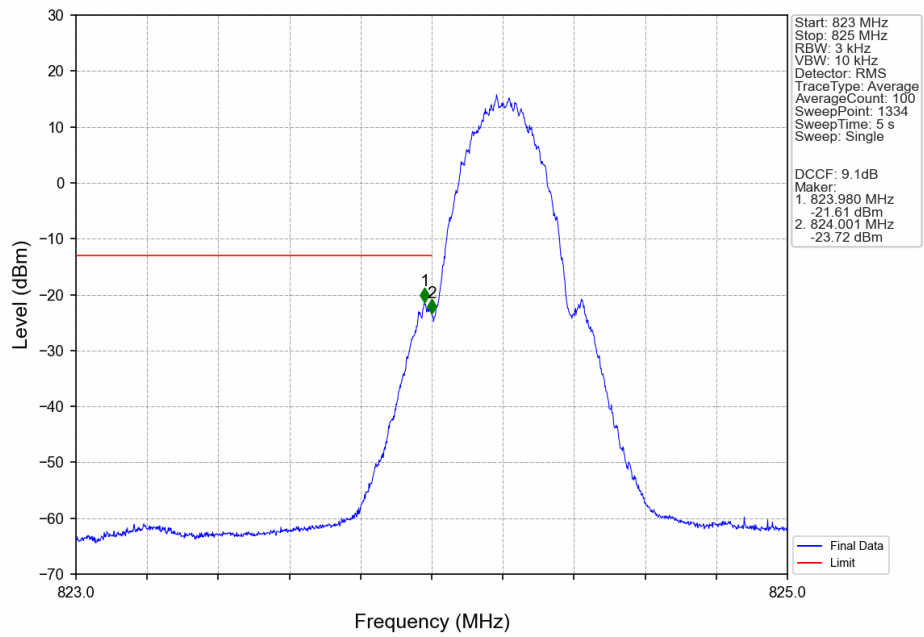
GSM850 GSM HCH 848.8MHz GSM NTNV



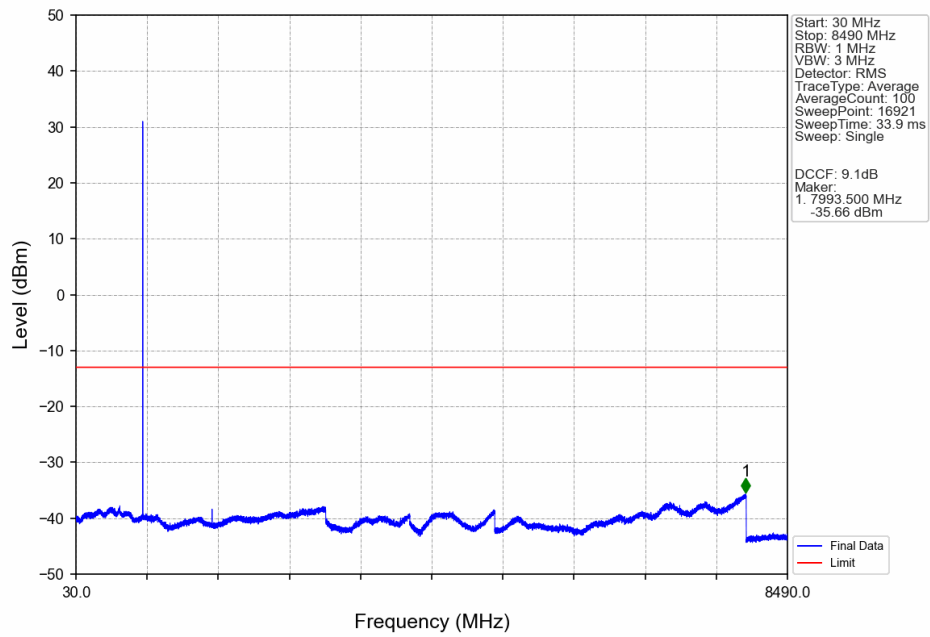
GSM850_GSM_HCH_848.8MHz_GSM_NTNV



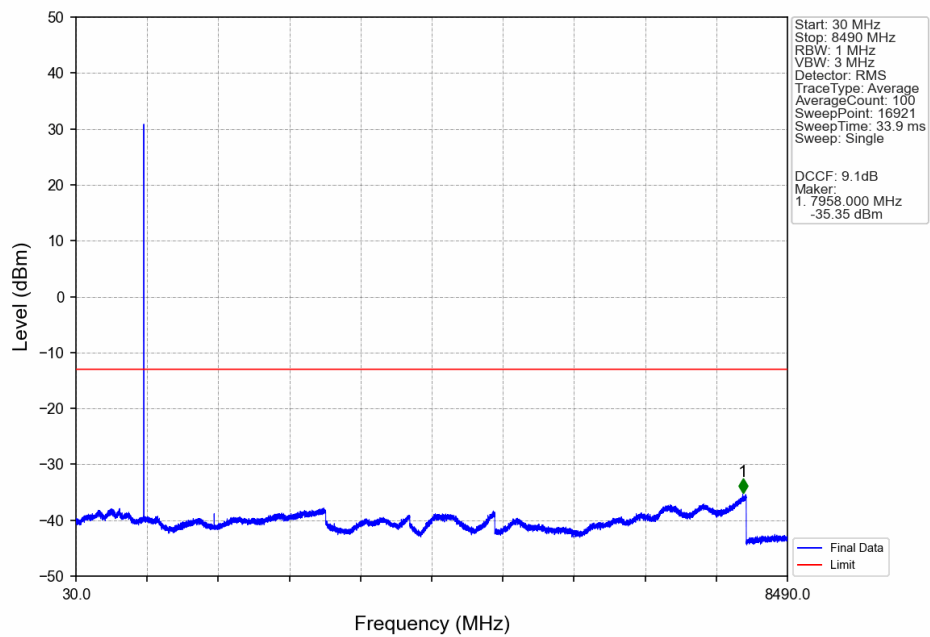
GSM850_GPRS_LCH_824.2MHz_1 TX Slot NTN



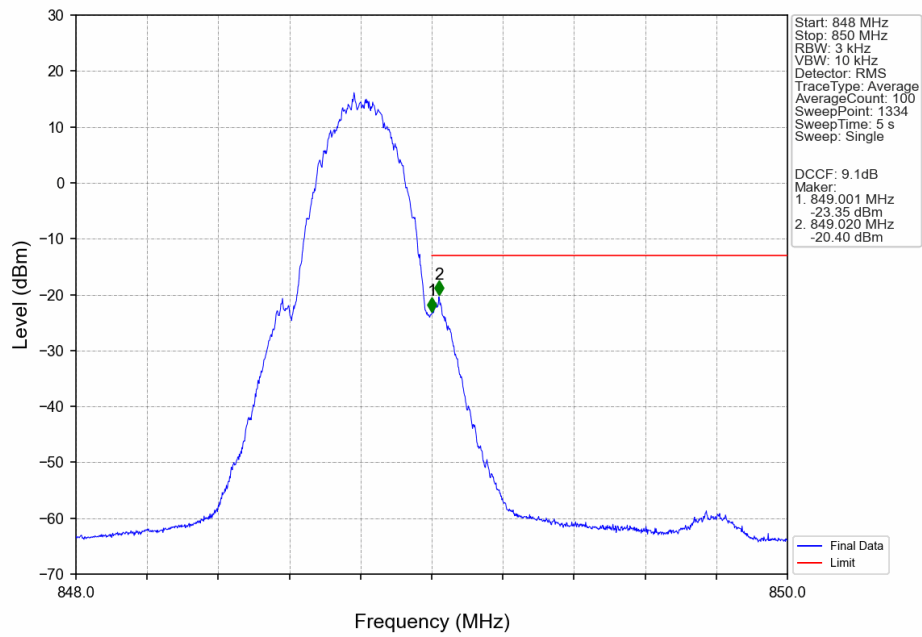
GSM850_GPRS_LCH_824.2MHz_1 TX Slot_NTNV



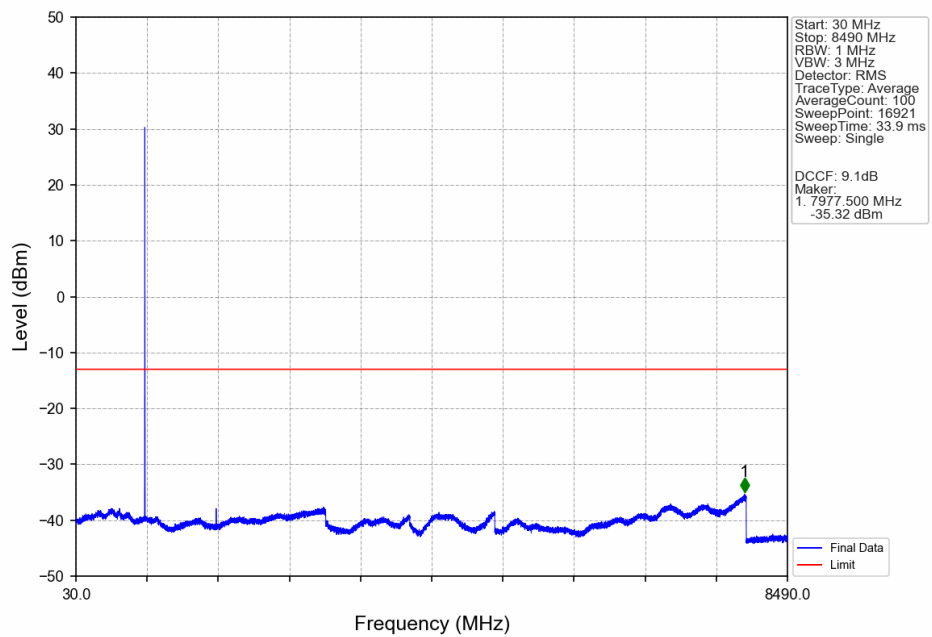
GSM850_GPRS_MCH_836.6MHz_1 TX Slot_NTNV



GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



GSM850_GPRS_HCH_848.8MHz_1 TX Slot_NTNV



6. Field Strength of Spurious Radiation

Test Band = GSM 850

Test Channel = Low

Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	2472.4444	77.00	-49.06	27.15	-40.17	-13.00	27.17	Horizontal
2	4121.7778	58.81	-48.28	29.49	-55.24	-13.00	42.24	Horizontal
3	1648.4	69.86	-49.83	25.57	-49.66	-13.00	36.66	Horizontal
4	3296.8	48.59	-48.63	28.34	-66.96	-13.00	53.96	Horizontal
5	4945.2	48.54	-48.07	31.08	-63.72	-13.00	50.72	Horizontal
6	5769.4	50.26	-47.65	32.71	-59.95	-13.00	46.95	Horizontal

Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	2472.4444	67.99	-49.06	27.15	-49.18	-13.00	36.18	Vertical
2	1648.4	66.25	-49.83	25.57	-53.27	-13.00	40.27	Vertical
3	3296.8	48.62	-48.63	28.34	-66.93	-13.00	53.93	Vertical
4	4121	50.25	-48.28	29.49	-63.80	-13.00	50.80	Vertical
5	4945.2	49.03	-48.07	31.08	-63.23	-13.00	50.23	Vertical
6	5769.4	49.95	-47.65	32.71	-60.26	-13.00	47.26	Vertical

Test Band = GSM 850
Test Channel = Mid

Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1672.8	71.71	-49.78	25.61	-47.72	-13.00	34.72	Horizontal
2	2509.2	78.14	-48.93	27.22	-38.83	-13.00	25.83	Horizontal
3	3345.6	48.99	-48.66	28.38	-66.55	-13.00	53.55	Horizontal
4	4182	51.42	-48.34	29.59	-62.59	-13.00	49.59	Horizontal
5	5018.4	49.36	-47.95	31.25	-62.60	-13.00	49.60	Horizontal
6	5854.8	49.83	-47.33	32.74	-60.02	-13.00	47.02	Horizontal

Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1672.8	67.31	-49.78	25.61	-52.12	-13.00	39.12	Vertical
2	2509.2	68.55	-48.93	27.22	-48.42	-13.00	35.42	Vertical
3	3345.6	48.16	-48.66	28.38	-67.38	-13.00	54.38	Vertical
4	4182	48.94	-48.34	29.59	-65.07	-13.00	52.07	Vertical
5	5018.4	48.58	-47.95	31.25	-63.38	-13.00	50.38	Vertical
6	5854.8	49.02	-47.33	32.74	-60.83	-13.00	47.83	Vertical

Test Band = GSM 850
Test Channel = High

Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1697.6	71.99	-49.72	25.65	-47.35	-13.00	34.35	Horizontal
2	2546.4	57.37	-49.03	27.28	-59.63	-13.00	46.63	Horizontal
3	3395.2	48.69	-48.69	28.42	-66.84	-13.00	53.84	Horizontal
4	4244	48.22	-48.21	29.69	-65.56	-13.00	52.56	Horizontal
5	5092.8	49.68	-47.92	31.46	-62.04	-13.00	49.04	Horizontal
6	5941.6	49.55	-47.26	32.78	-60.20	-13.00	47.20	Horizontal

Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	2546.2222	56.65	-49.02	27.28	-60.35	-13.00	47.35	Vertical
2	1697.6	63.51	-49.72	25.65	-55.83	-13.00	42.83	Vertical
3	3395.2	48.61	-48.69	28.42	-66.92	-13.00	53.92	Vertical
4	4244	47.99	-48.21	29.69	-65.79	-13.00	52.79	Vertical
5	5092.8	49.76	-47.92	31.46	-61.96	-13.00	48.96	Vertical
6	5941.6	50.51	-47.26	32.78	-59.24	-13.00	46.24	Vertical