

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 PCS1900_EIRP

Band: PCS1900								
ENV	Mode		Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)		Verdict
	Network	Subset				Result	Limit	
NTNV	GSM	GSM	1850.2	29.43	-2.40	27.03	<=33.00	Pass
			1880	29.33	-2.40	26.93	<=33.00	Pass
			1909.8	29.48	-2.40	27.08	<=33.00	Pass
	GPRS	1 TX Slot	1850.2	29.47	-2.40	27.07	<=33.00	Pass
			1880	29.34	-2.40	26.94	<=33.00	Pass
			1909.8	29.51	-2.40	27.11	<=33.00	Pass

Note1: EIRP=Conducted Power+Antenna Gain

2. Frequency Stability

2.1 Test Result

2.1.1 PCS1900

Band: PCS1900							
Network	Frequency (MHz)	Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
					Result	Limit	
GSM	1850.2	20	3.27	-9.979	-0.0054	-2.5 to 2.5	Pass
			3.85	-8.723	-0.0047	-2.5 to 2.5	Pass
			4.43	-7.349	-0.0040	-2.5 to 2.5	Pass
		-30	3.85	-7.098	-0.0038	-2.5 to 2.5	Pass
		-20	3.85	-11.452	-0.0062	-2.5 to 2.5	Pass
		-10	3.85	-10.525	-0.0057	-2.5 to 2.5	Pass
		0	3.85	-12.092	-0.0065	-2.5 to 2.5	Pass
		10	3.85	-12.634	-0.0068	-2.5 to 2.5	Pass
		30	3.85	-15.457	-0.0084	-2.5 to 2.5	Pass
		40	3.85	-11.610	-0.0063	-2.5 to 2.5	Pass
		50	3.85	-12.701	-0.0069	-2.5 to 2.5	Pass
	1880	20	3.27	-5.477	-0.0029	-2.5 to 2.5	Pass
			3.85	-7.757	-0.0041	-2.5 to 2.5	Pass
			4.43	-8.668	-0.0046	-2.5 to 2.5	Pass
		-30	3.85	-9.120	-0.0049	-2.5 to 2.5	Pass
		-20	3.85	-7.355	-0.0039	-2.5 to 2.5	Pass
		-10	3.85	-8.866	-0.0047	-2.5 to 2.5	Pass
		0	3.85	-20.173	-0.0107	-2.5 to 2.5	Pass
		10	3.85	-21.188	-0.0113	-2.5 to 2.5	Pass
		30	3.85	-21.906	-0.0117	-2.5 to 2.5	Pass
		40	3.85	-23.011	-0.0122	-2.5 to 2.5	Pass
		50	3.85	-18.662	-0.0099	-2.5 to 2.5	Pass
	1909.8	20	3.27	-7.961	-0.0042	-2.5 to 2.5	Pass
			3.85	-6.370	-0.0033	-2.5 to 2.5	Pass
			4.43	-7.904	-0.0041	-2.5 to 2.5	Pass
		-30	3.85	-8.246	-0.0043	-2.5 to 2.5	Pass
		-20	3.85	-9.723	-0.0051	-2.5 to 2.5	Pass
		-10	3.85	-8.165	-0.0043	-2.5 to 2.5	Pass
		0	3.85	-12.667	-0.0066	-2.5 to 2.5	Pass
		10	3.85	-25.941	-0.0136	-2.5 to 2.5	Pass

		30	3.85	-16.200	-0.0085	-2.5 to 2.5	Pass
		40	3.85	-9.354	-0.0049	-2.5 to 2.5	Pass
		50	3.85	-8.923	-0.0047	-2.5 to 2.5	Pass
GPRS	1850.2	20	3.27	-16.117	-0.0087	-2.5 to 2.5	Pass
			3.85	-13.550	-0.0073	-2.5 to 2.5	Pass
			4.43	-14.233	-0.0077	-2.5 to 2.5	Pass
		-30	3.85	-13.866	-0.0075	-2.5 to 2.5	Pass
		-20	3.85	-15.080	-0.0082	-2.5 to 2.5	Pass
		-10	3.85	-13.583	-0.0073	-2.5 to 2.5	Pass
		0	3.85	-19.953	-0.0108	-2.5 to 2.5	Pass
		10	3.85	-18.327	-0.0099	-2.5 to 2.5	Pass
		30	3.85	-21.140	-0.0114	-2.5 to 2.5	Pass
		40	3.85	-18.734	-0.0101	-2.5 to 2.5	Pass
		50	3.85	-18.031	-0.0097	-2.5 to 2.5	Pass
	1880	20	3.27	-16.423	-0.0087	-2.5 to 2.5	Pass
			3.85	-16.567	-0.0088	-2.5 to 2.5	Pass
			4.43	-10.881	-0.0058	-2.5 to 2.5	Pass
		-30	3.85	-11.085	-0.0059	-2.5 to 2.5	Pass
		-20	3.85	-18.255	-0.0097	-2.5 to 2.5	Pass
		-10	3.85	-13.286	-0.0071	-2.5 to 2.5	Pass
		0	3.85	-16.589	-0.0088	-2.5 to 2.5	Pass
		10	3.85	-14.263	-0.0076	-2.5 to 2.5	Pass
		30	3.85	-16.492	-0.0088	-2.5 to 2.5	Pass
		40	3.85	-18.796	-0.0100	-2.5 to 2.5	Pass
		50	3.85	-15.700	-0.0084	-2.5 to 2.5	Pass
	1909.8	20	3.27	-18.134	-0.0095	-2.5 to 2.5	Pass
			3.85	-13.043	-0.0068	-2.5 to 2.5	Pass
			4.43	-11.939	-0.0063	-2.5 to 2.5	Pass
		-30	3.85	-12.374	-0.0065	-2.5 to 2.5	Pass
		-20	3.85	-12.772	-0.0067	-2.5 to 2.5	Pass
		-10	3.85	-14.406	-0.0075	-2.5 to 2.5	Pass
		0	3.85	-13.637	-0.0071	-2.5 to 2.5	Pass
		10	3.85	-16.525	-0.0087	-2.5 to 2.5	Pass
		30	3.85	-21.233	-0.0111	-2.5 to 2.5	Pass
		40	3.85	-20.270	-0.0106	-2.5 to 2.5	Pass
		50	3.85	-23.370	-0.0122	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 PCS1900_OBW

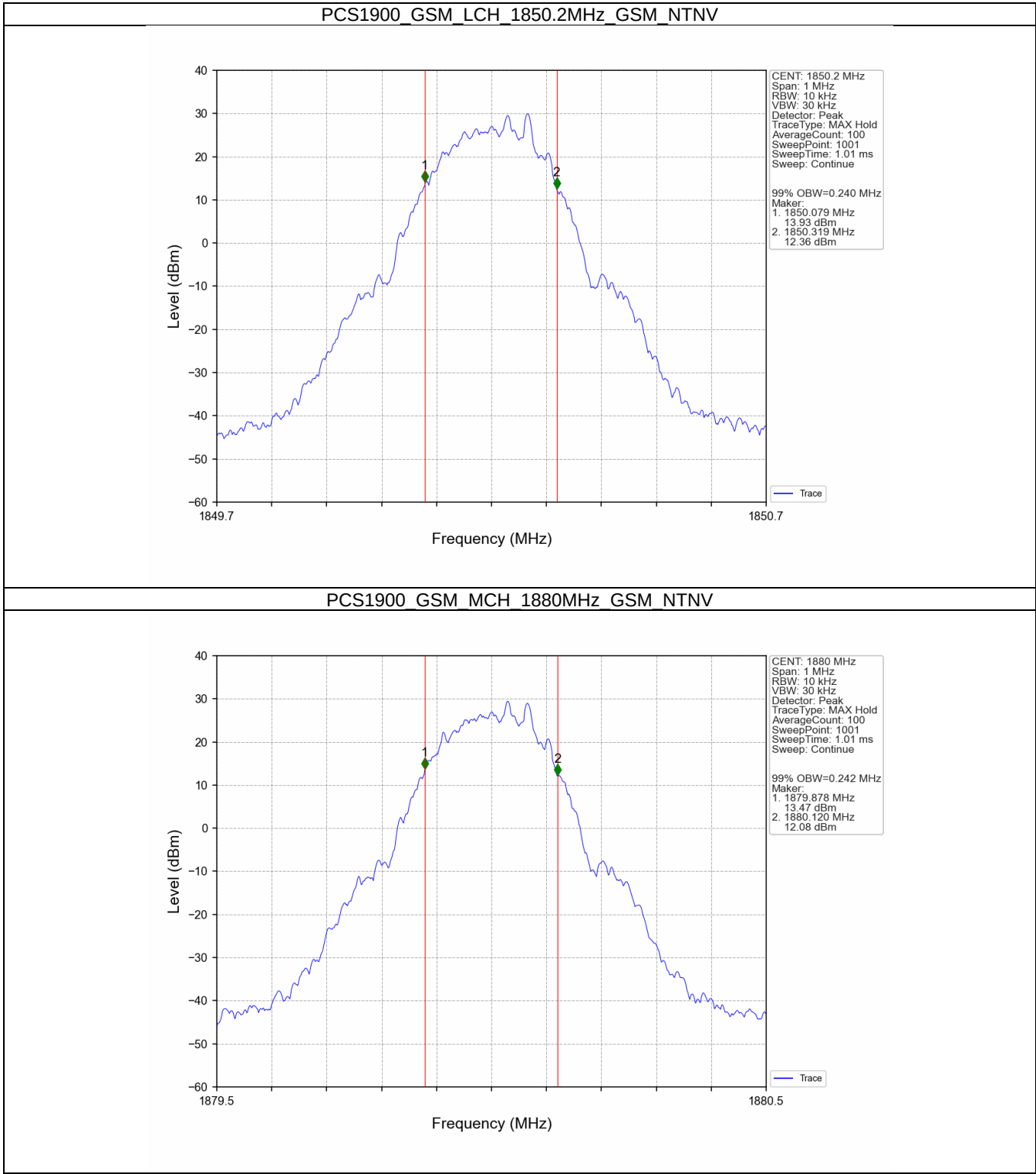
Band: PCS1900						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	0.240	/	Pass
			1880	0.242	/	Pass
			1909.8	0.243	/	Pass
	GPRS	1 TX Slot	1850.2	0.246	/	Pass
			1880	0.243	/	Pass
			1909.8	0.245	/	Pass

3.1.2 PCS1900_XDB

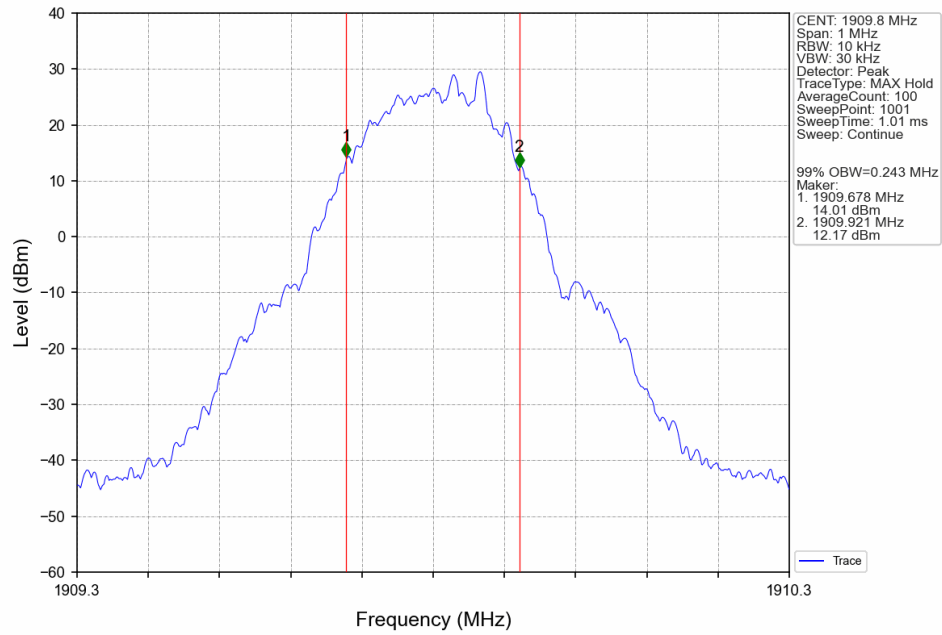
Band: PCS1900						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	0.305	/	Pass
			1880	0.308	/	Pass
			1909.8	0.307	/	Pass
	GPRS	1 TX Slot	1850.2	0.323	/	Pass
			1880	0.327	/	Pass
			1909.8	0.320	/	Pass

3.2 Test Graph

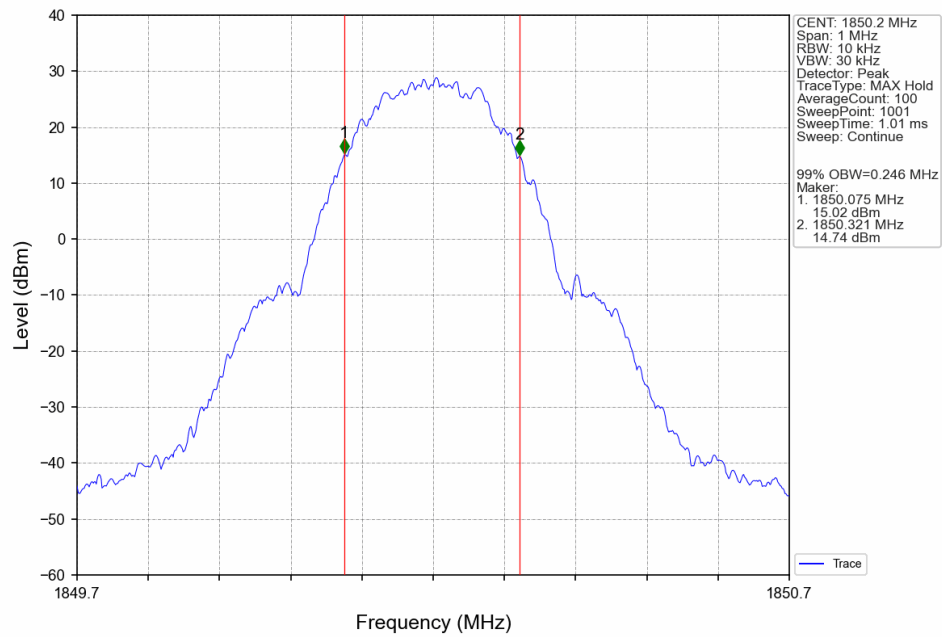
3.2.1 PCS1900_OBW



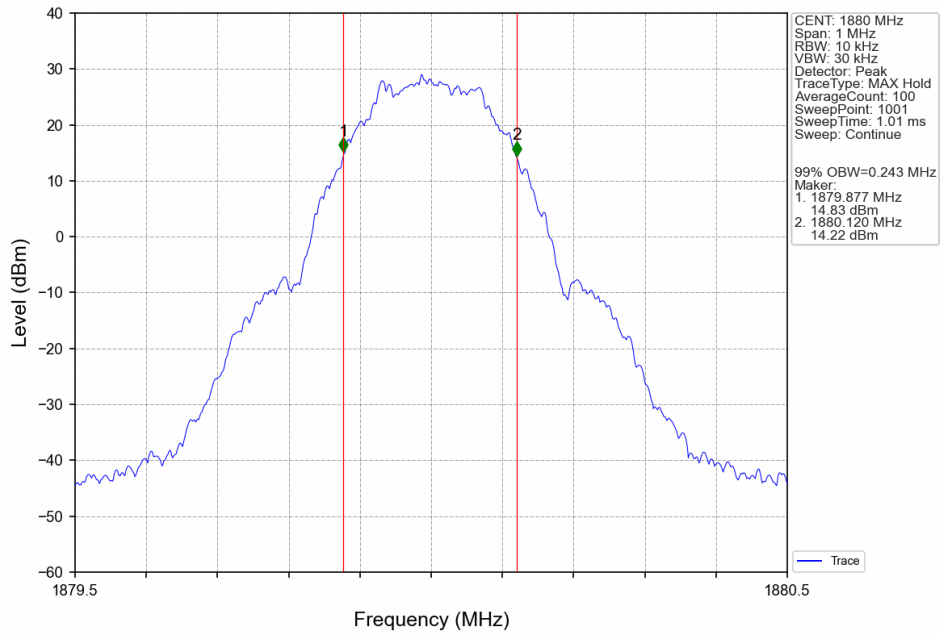
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



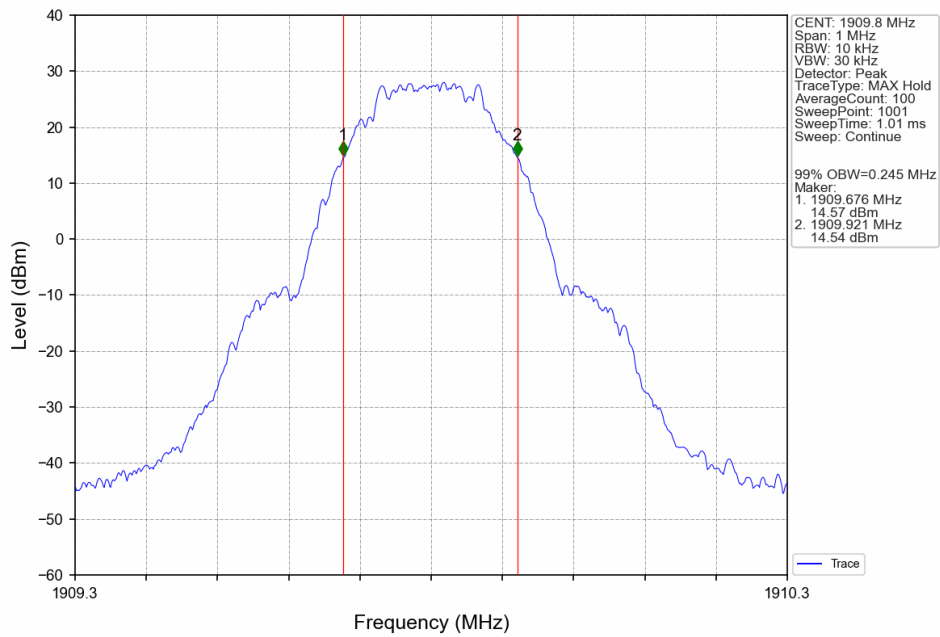
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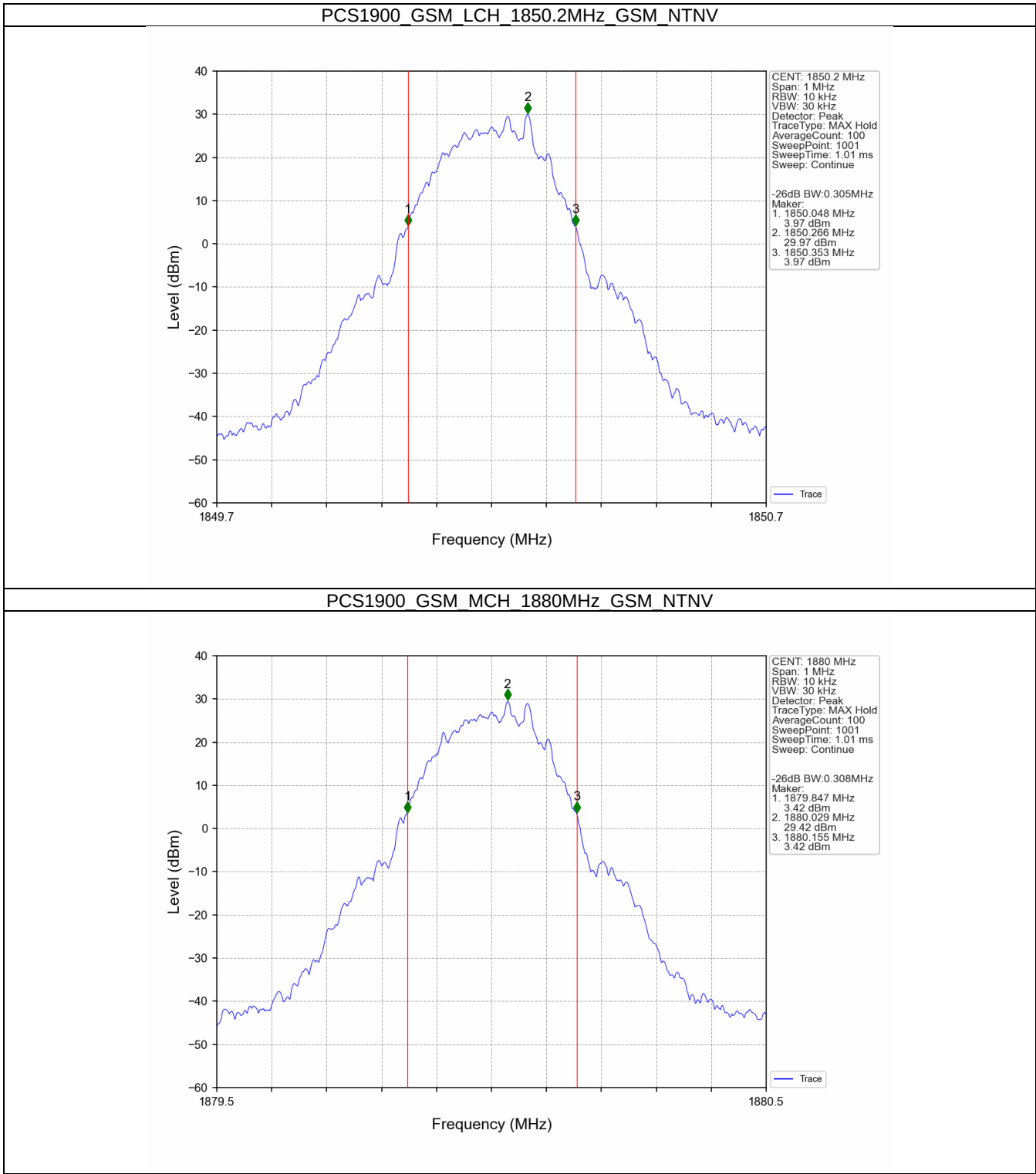
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



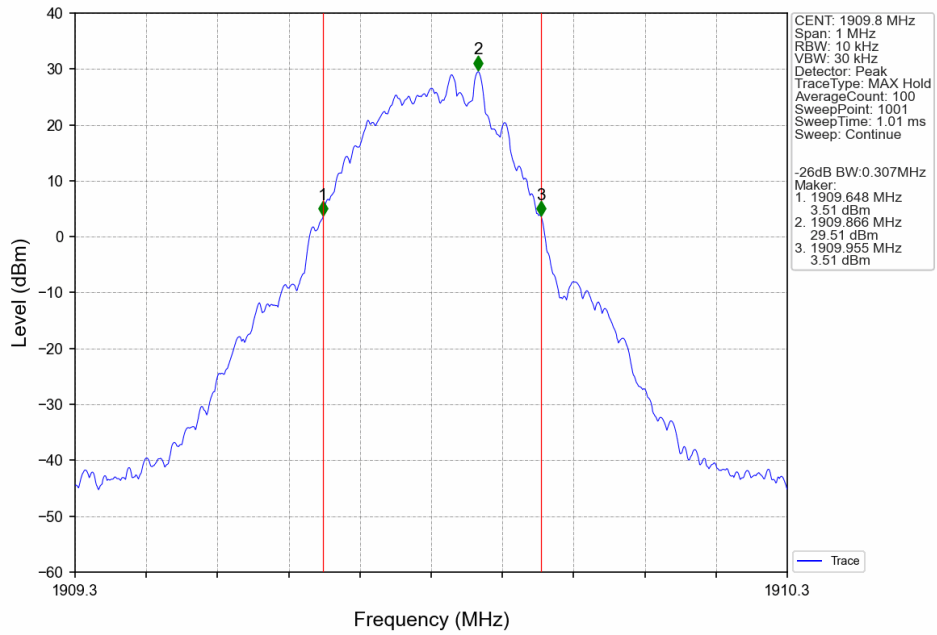
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



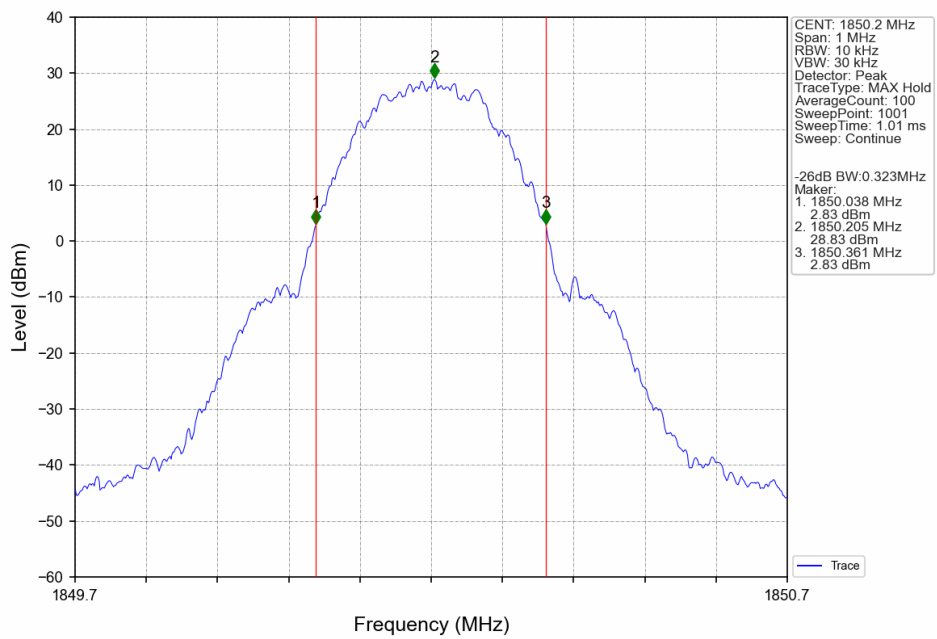
3.2.2 PCS1900_XDB



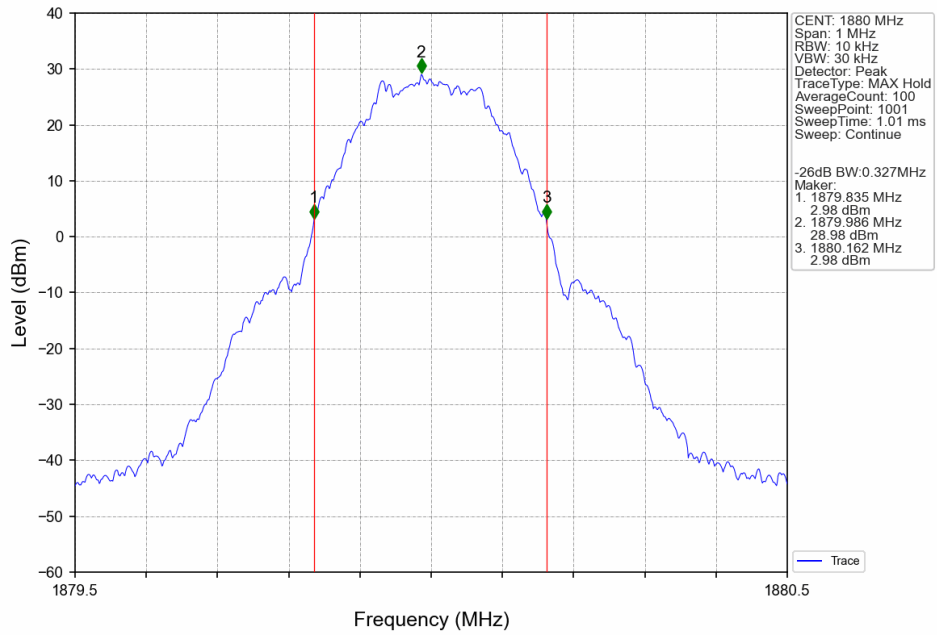
PCS1900 GSM_HCH_1909.8MHz_GSM_NTNV



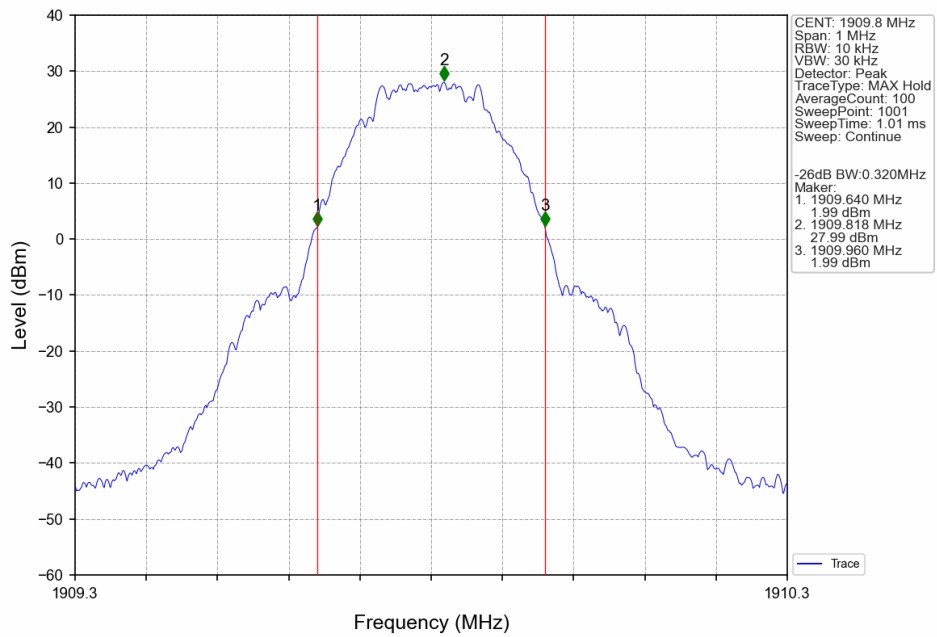
PCS1900 GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



4. Peak-Average Ratio

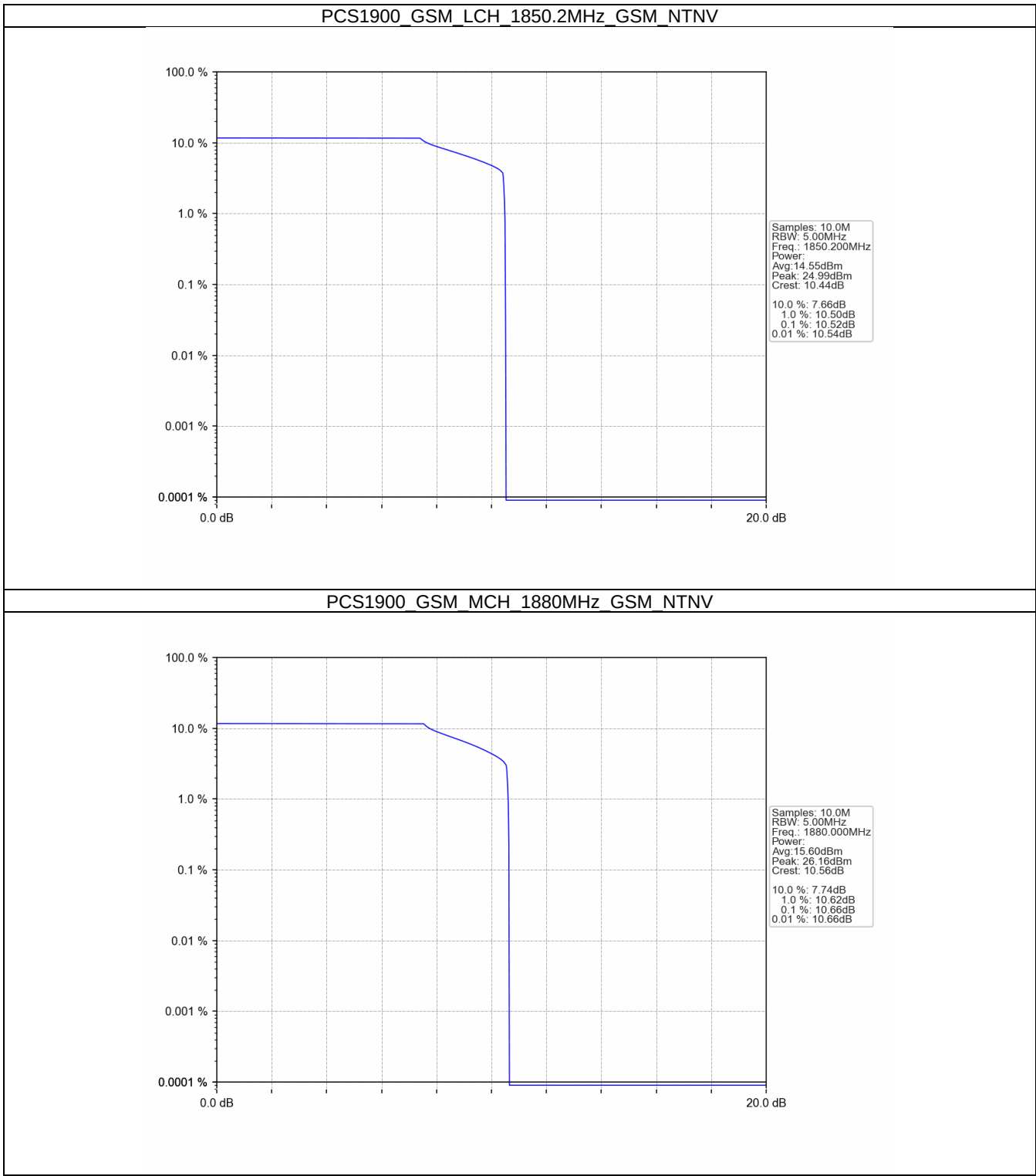
4.1 Test Result

4.1.1 PCS1900

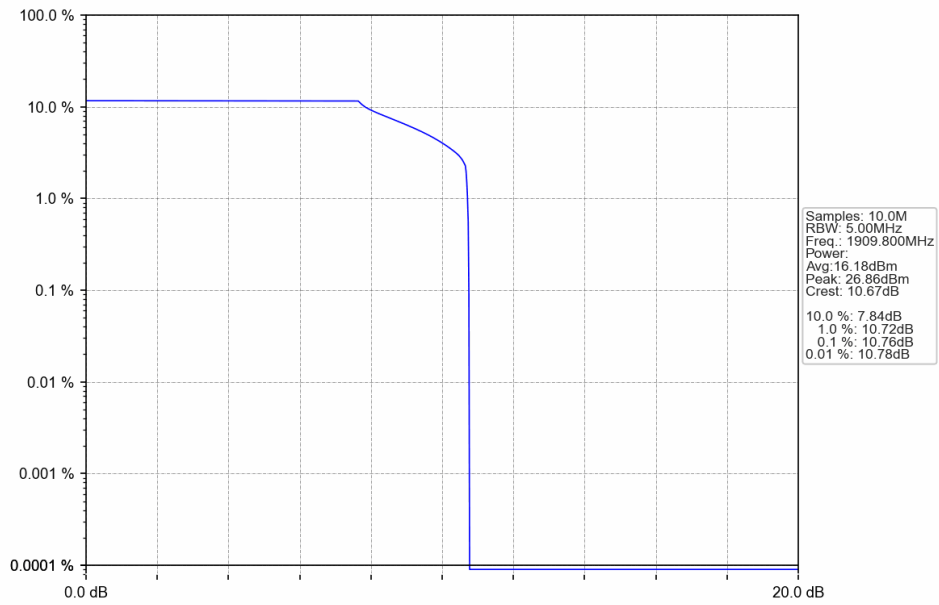
Band: PCS1900						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	10.52	<=13	Pass
			1880	10.66	<=13	Pass
			1909.8	10.76	<=13	Pass

4.2 Test Graph

4.2.1 PCS1900



PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



5. Spurious Emission

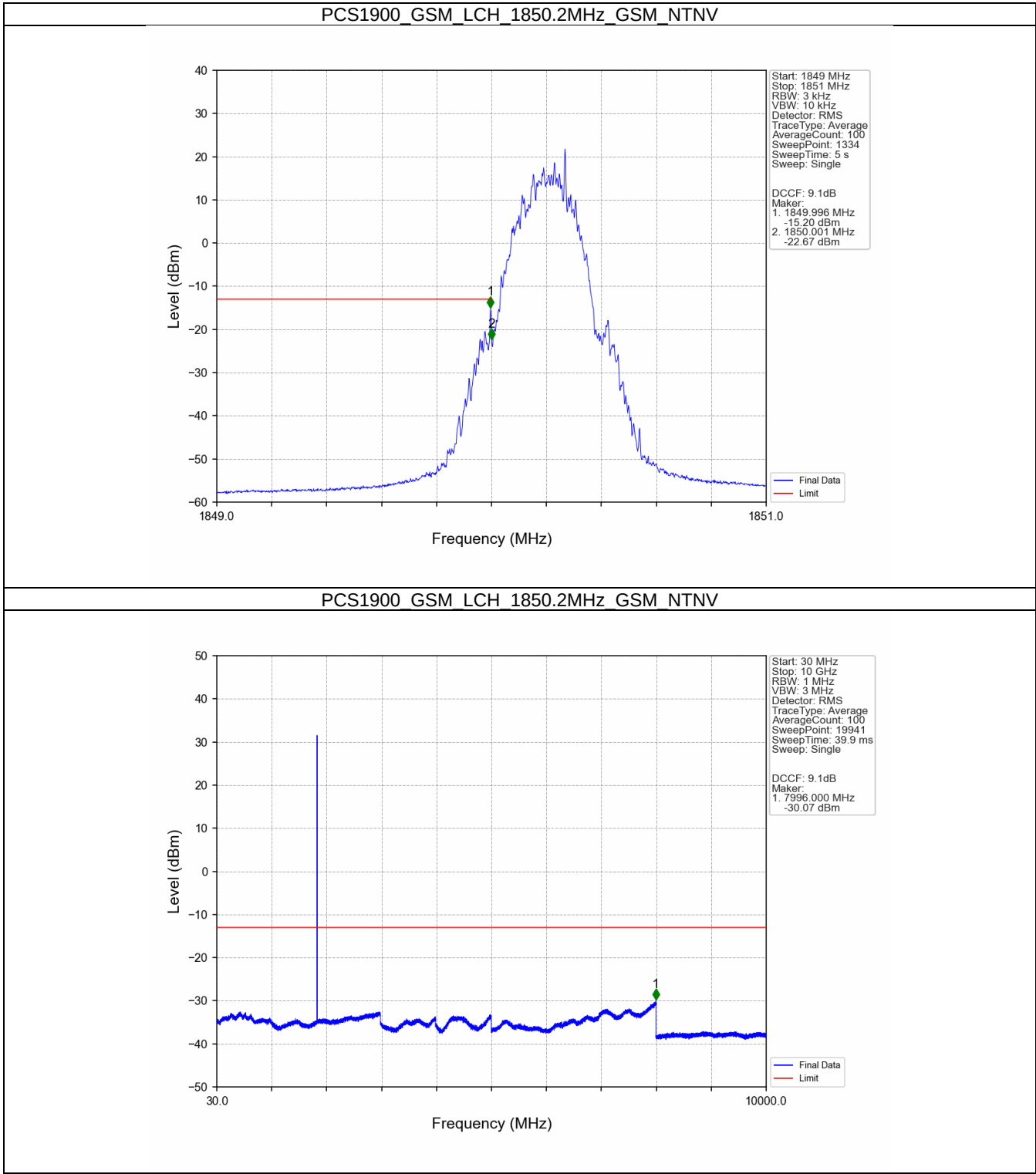
5.1 Test Result

5.1.1 PCS1900

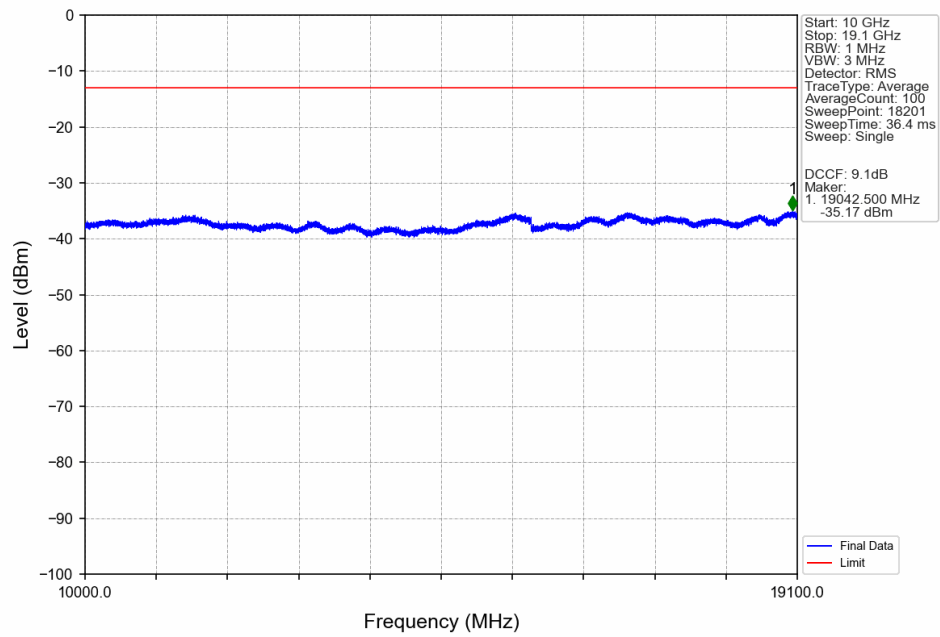
Band: PCS1900						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	Refer To Test Graph		Pass
			1880	Refer To Test Graph		Pass
			1909.8	Refer To Test Graph		Pass
	GPRS	1 TX Slot	1850.2	Refer To Test Graph		Pass
			1880	Refer To Test Graph		Pass
			1909.8	Refer To Test Graph		Pass

5.2 Test Graph

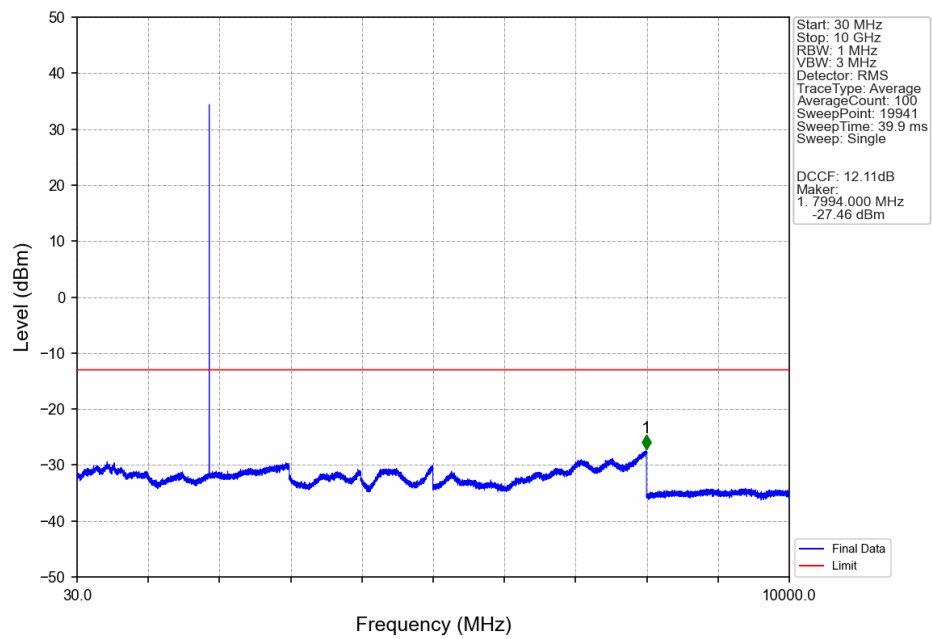
5.2.1 PCS1900



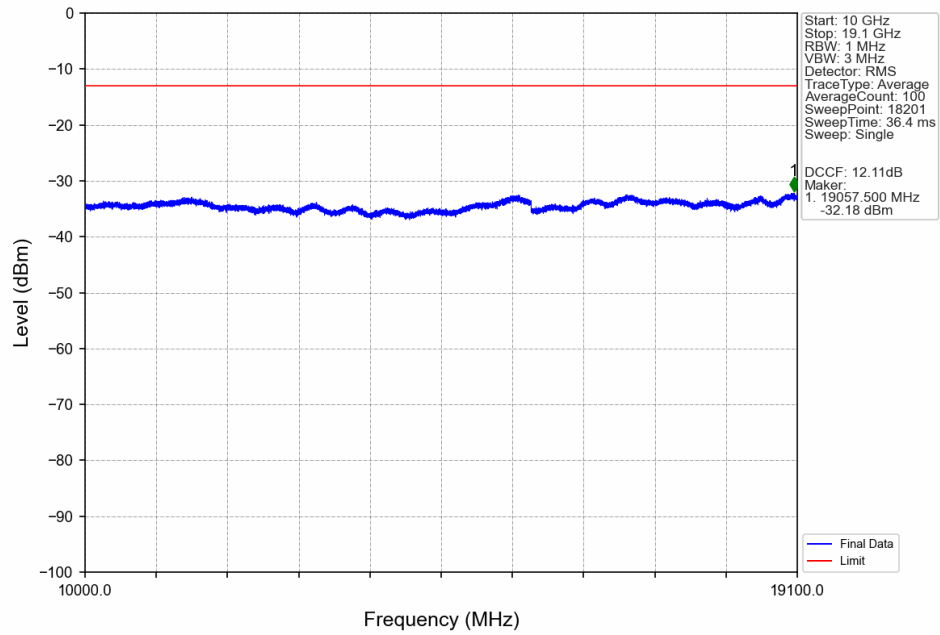
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



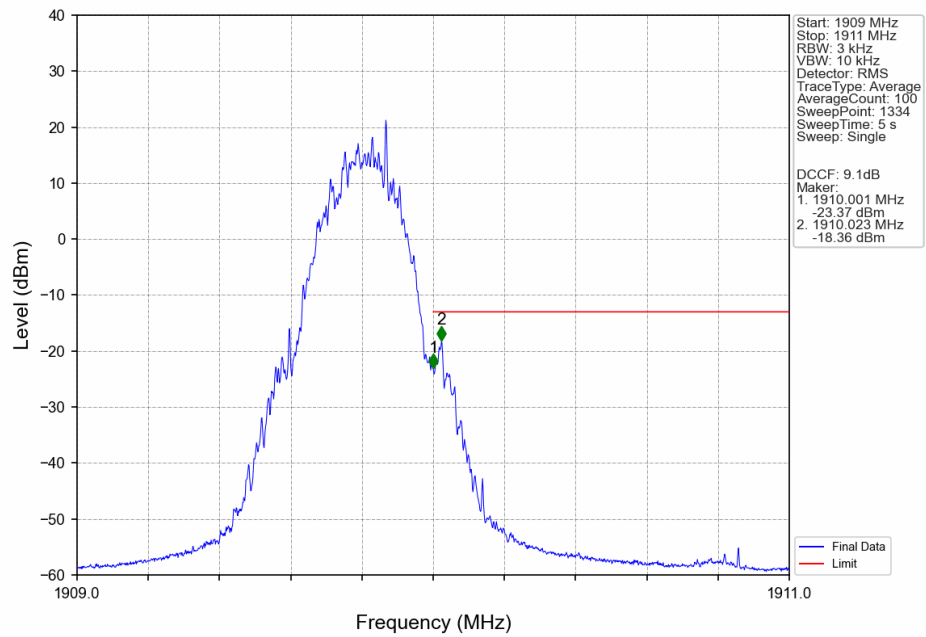
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



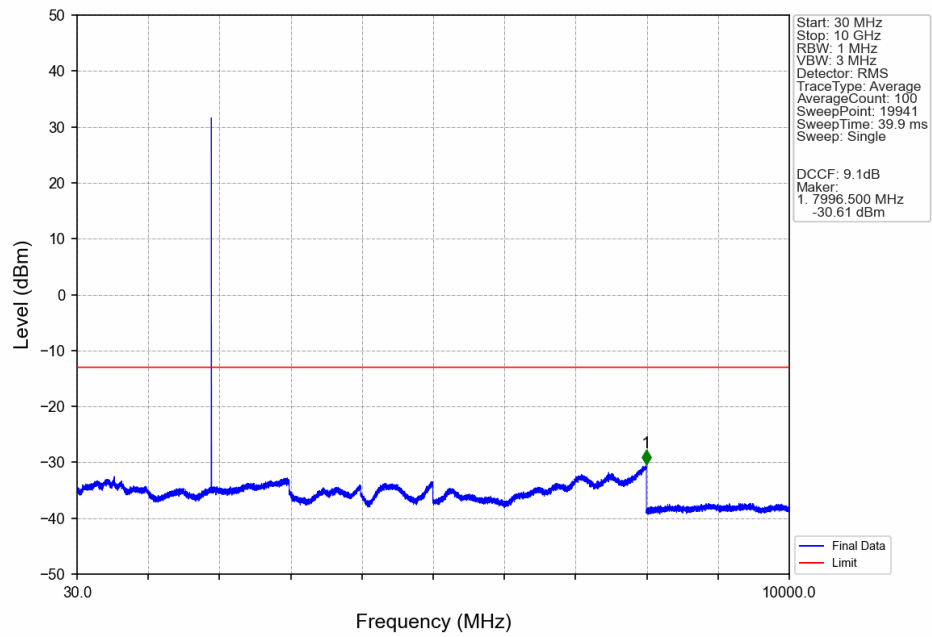
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



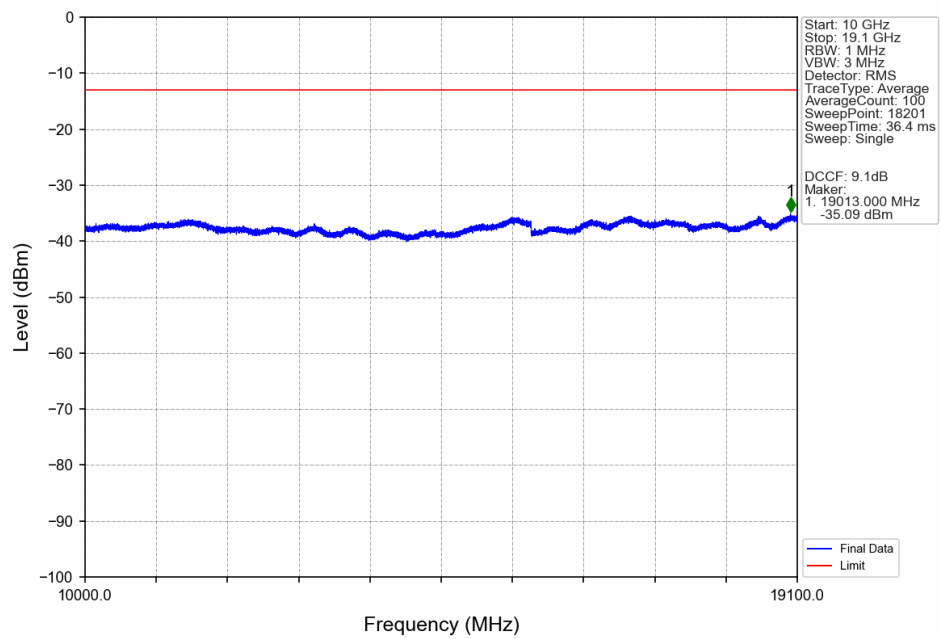
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



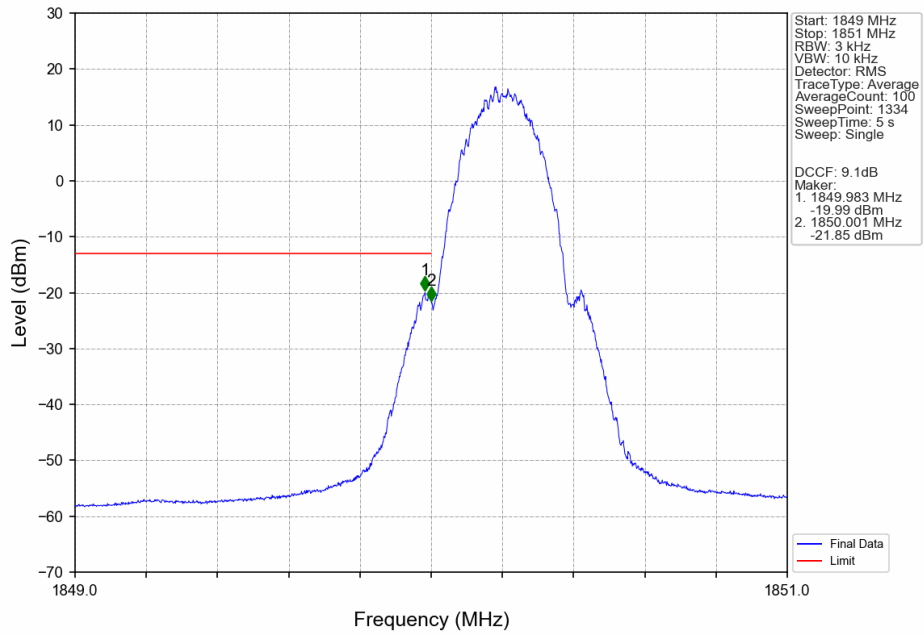
PCS1900 GSM_HCH_1909.8MHz_GSM_NTNV



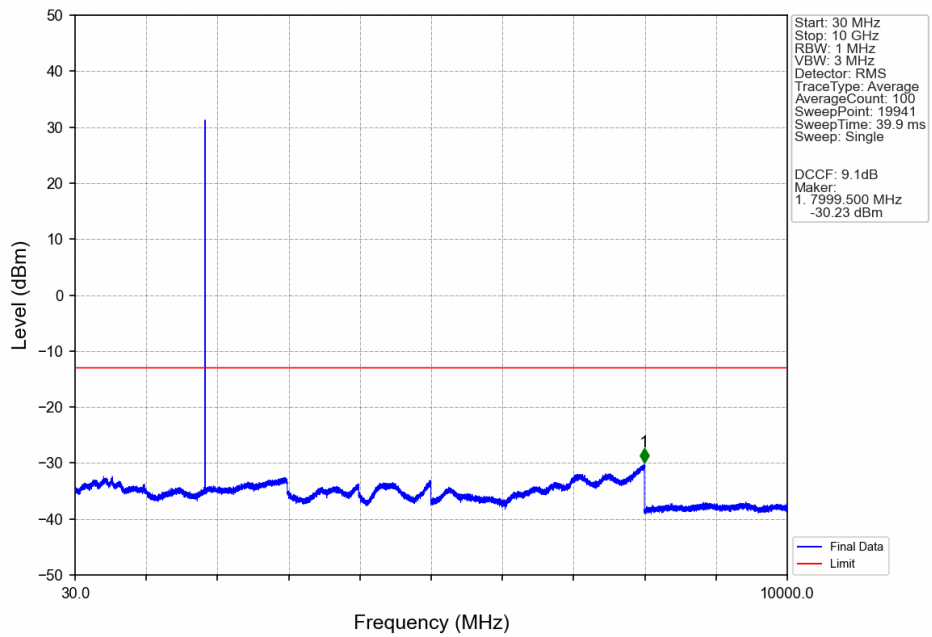
PCS1900 GSM_HCH_1909.8MHz_GSM_NTNV



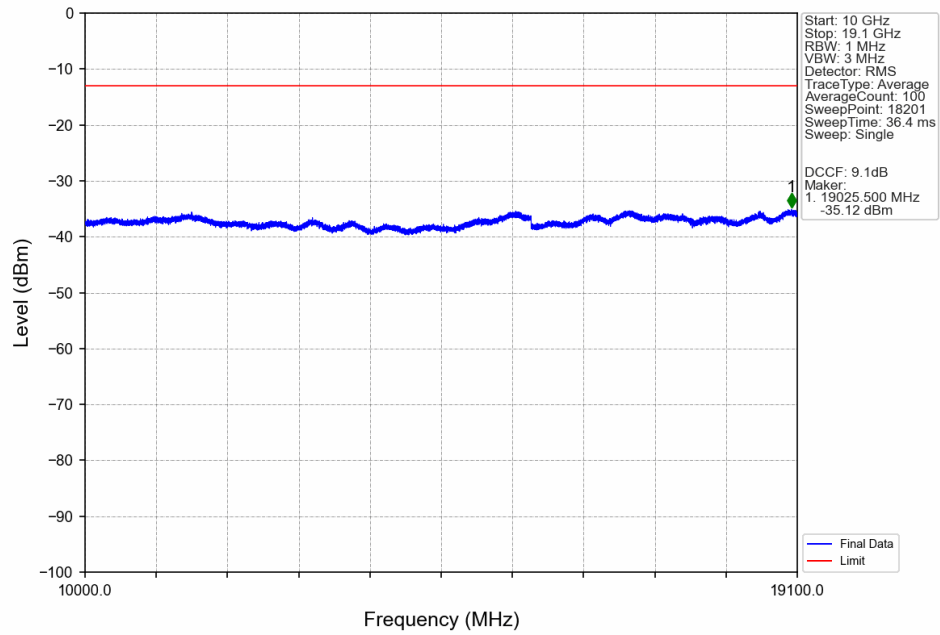
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



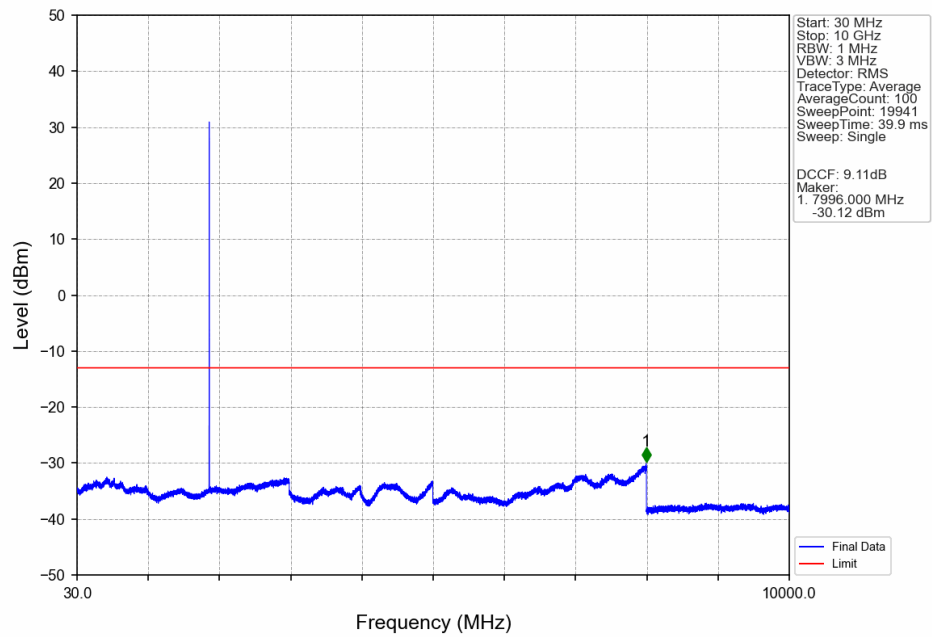
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



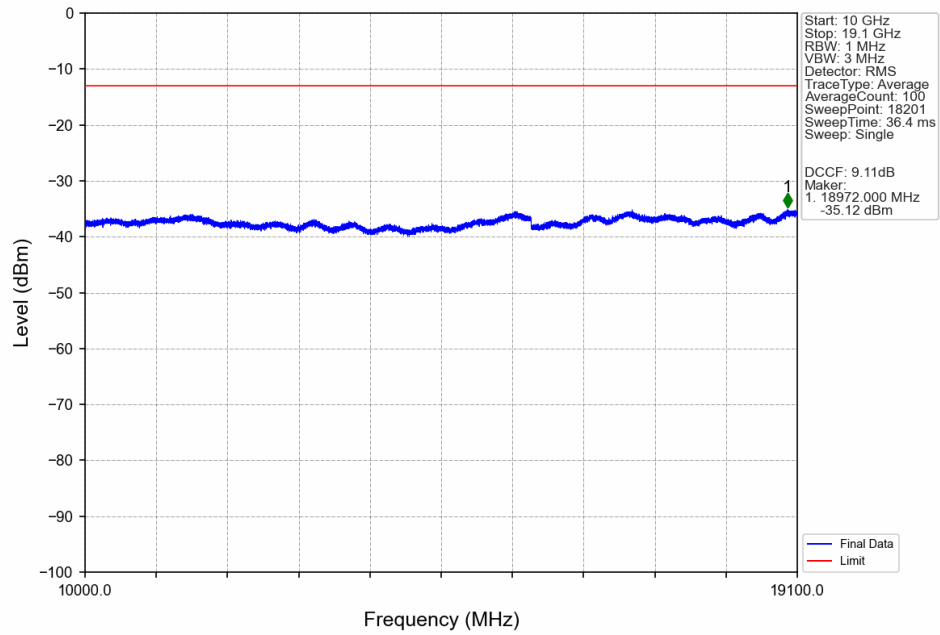
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



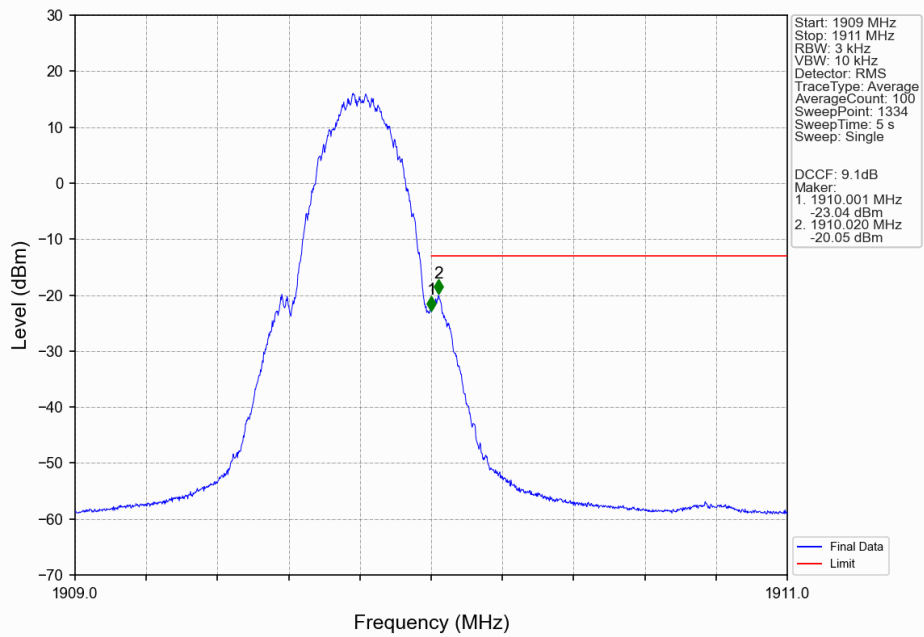
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



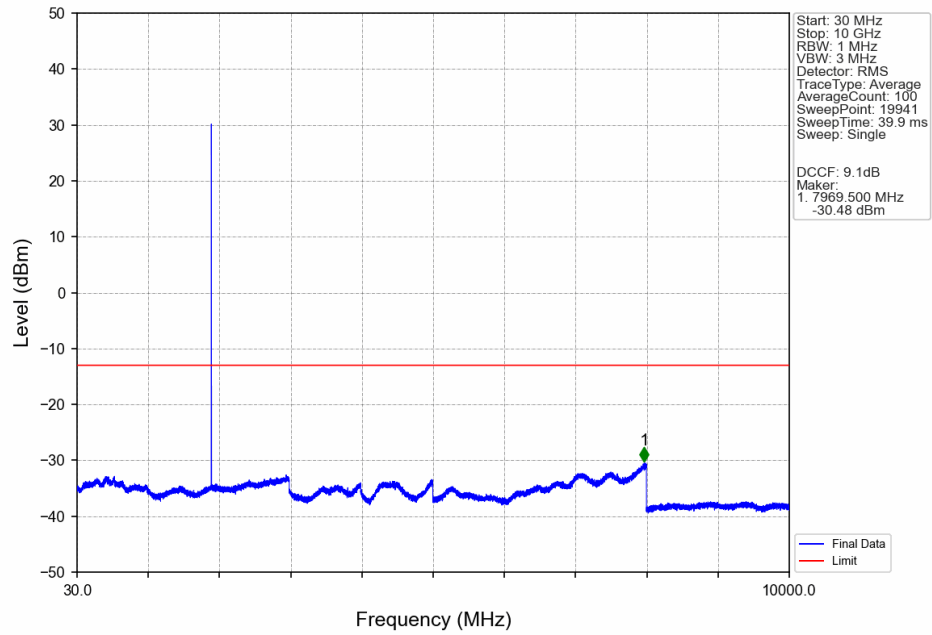
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



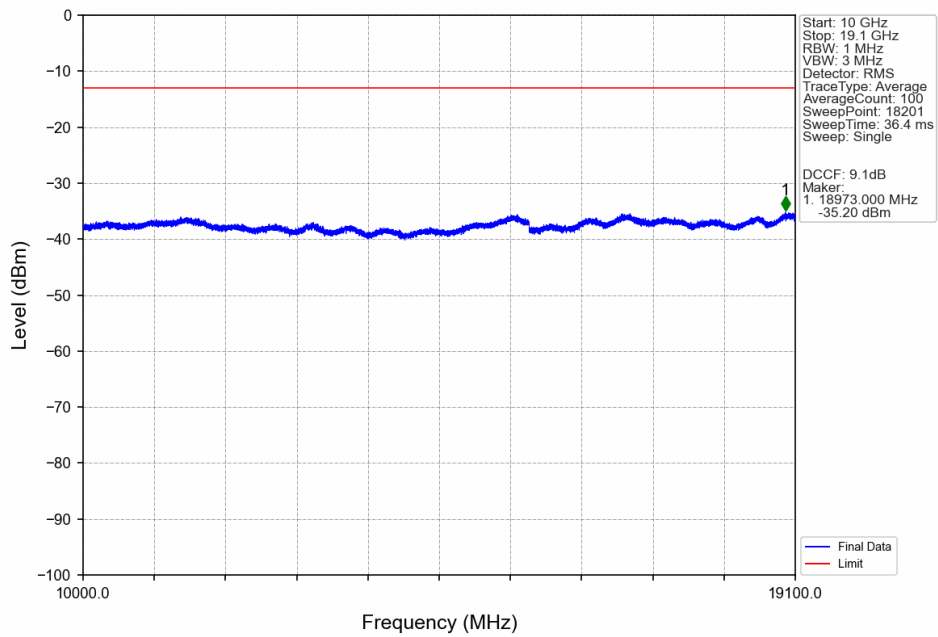
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



6. Field Strength of Spurious Radiation

Test Band = GSM 1900

Test Channel = Low

Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3700.4	56.35	-48.51	28.82	-58.60	-13.00	45.60	Horizontal
2	5550.6	64.34	-47.66	32.62	-45.96	-13.00	32.96	Horizontal
3	7400.8	49.58	-46.17	36.22	-55.63	-13.00	42.63	Horizontal
4	9251	46.13	-43.20	37.75	-54.58	-13.00	41.58	Horizontal
5	11101.2	47.25	-40.36	39.49	-48.88	-13.00	35.88	Horizontal
6	12951.4	48.73	-39.41	38.83	-47.11	-13.00	34.11	Horizontal

Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3700.4	58.19	-48.51	28.82	-56.76	-13.00	43.76	Vertical
2	5550.6	68.20	-47.66	32.62	-42.10	-13.00	29.10	Vertical
3	7400.8	49.23	-46.17	36.22	-55.98	-13.00	42.98	Vertical
4	9251	46.53	-43.20	37.75	-54.18	-13.00	41.18	Vertical
5	11101.2	47.38	-40.36	39.49	-48.75	-13.00	35.75	Vertical
6	12951.4	48.72	-39.41	38.83	-47.12	-13.00	34.12	Vertical

Test Band = GSM 1900
Test Channel = Mid

Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3759.75	54.82	-48.31	28.92	-59.84	-13.00	46.84	Horizontal
2	5640	67.23	-47.62	32.66	-42.99	-13.00	29.99	Horizontal
3	7520	48.71	-45.85	36.40	-56.00	-13.00	43.00	Horizontal
4	9400	47.12	-43.05	37.96	-53.23	-13.00	40.23	Horizontal
5	11280	47.71	-40.44	39.47	-48.51	-13.00	35.51	Horizontal
6	13160	48.78	-38.58	39.04	-46.02	-13.00	33.02	Horizontal

Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3759.75	53.84	-48.31	28.92	-60.82	-13.00	47.82	Vertical
2	5640	66.35	-47.62	32.66	-43.87	-13.00	30.87	Vertical
3	7520	49.39	-45.85	36.40	-55.32	-13.00	42.32	Vertical
4	9400	46.84	-43.05	37.96	-53.51	-13.00	40.51	Vertical
5	11280	46.90	-40.44	39.47	-49.32	-13.00	36.32	Vertical
6	13160	48.13	-38.58	39.04	-46.67	-13.00	33.67	Vertical

Test Band = GSM 1900
Test Channel = High

Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	5729.25	64.55	-47.54	32.69	-45.56	-13.00	32.56	Horizontal
2	3819.6	54.08	-48.20	29.01	-60.37	-13.00	47.37	Horizontal
3	7639.2	48.95	-44.82	36.37	-54.76	-13.00	41.76	Horizontal
4	9549	46.65	-42.31	38.17	-52.75	-13.00	39.75	Horizontal
5	11458.8	48.07	-40.07	39.45	-47.80	-13.00	34.80	Horizontal
6	13368.6	48.59	-39.15	39.35	-46.46	-13.00	33.46	Horizontal

Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	5729.25	67.53	-47.54	32.69	-42.58	-13.00	29.58	Vertical
2	3819.6	57.87	-48.20	29.01	-56.58	-13.00	43.58	Vertical
3	7639.2	48.83	-44.82	36.37	-54.88	-13.00	41.88	Vertical
4	9549	46.71	-42.31	38.17	-52.69	-13.00	39.69	Vertical
5	11458.8	48.32	-40.07	39.45	-47.55	-13.00	34.55	Vertical
6	13368.6	48.84	-39.15	39.35	-46.21	-13.00	33.21	Vertical