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	30.20	-1.95	28.25	<=33.01	Pass
			1880	30.47	-1.95	28.52	<=33.01	Pass
			1909.8	30.65	-1.95	28.70	<=33.01	Pass
	GPRS	1 TX Slot	1850.2	30.19	-1.95	28.24	<=33.01	Pass
		2 TX Slots	1850.2	27.56	-1.95	25.61	<=33.01	Pass
		3 TX Slots	1850.2	25.87	-1.95	23.92	<=33.01	Pass
		4 TX Slots	1850.2	24.83	-1.95	22.88	<=33.01	Pass
		1 TX Slot	1880	30.49	-1.95	28.54	<=33.01	Pass
		2 TX Slots	1880	27.74	-1.95	25.79	<=33.01	Pass
		3 TX Slots	1880	25.92	-1.95	23.97	<=33.01	Pass
		4 TX Slots	1880	24.98	-1.95	23.03	<=33.01	Pass
		1 TX Slot	1909.8	30.57	-1.95	28.62	<=33.01	Pass
		2 TX Slots	1909.8	27.97	-1.95	26.02	<=33.01	Pass
		3 TX Slots	1909.8	26.27	-1.95	24.32	<=33.01	Pass
		4 TX Slots	1909.8	25.31	-1.95	23.36	<=33.01	Pass
	EGPRS	1 TX Slot	1850.2	25.83	-1.95	23.88	<=33.01	Pass
		2 TX Slots	1850.2	23.90	-1.95	21.95	<=33.01	Pass
		3 TX Slots	1850.2	23.44	-1.95	21.49	<=33.01	Pass
		4 TX Slots	1850.2	22.55	-1.95	20.60	<=33.01	Pass
		1 TX Slot	1880	26.19	-1.95	24.24	<=33.01	Pass
		2 TX Slots	1880	24.04	-1.95	22.09	<=33.01	Pass
		3 TX Slots	1880	22.98	-1.95	21.03	<=33.01	Pass
		4 TX Slots	1880	22.36	-1.95	20.41	<=33.01	Pass
		1 TX Slot	1909.8	26.25	-1.95	24.30	<=33.01	Pass
		2 TX Slots	1909.8	24.37	-1.95	22.42	<=33.01	Pass
		3 TX Slots	1909.8	22.85	-1.95	20.90	<=33.01	Pass
		4 TX Slots	1909.8	22.56	-1.95	20.61	<=33.01	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	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
					Result	Limit	
GSM	1850.2	20	LV	6.748	0.0036	-2.5 to 2.5	Pass
			NV	10.654	0.0058	-2.5 to 2.5	Pass
			HV	2.777	0.0015	-2.5 to 2.5	Pass
		-30	NV	9.072	0.0049	-2.5 to 2.5	Pass
		-20	NV	8.588	0.0046	-2.5 to 2.5	Pass
		-10	NV	11.655	0.0063	-2.5 to 2.5	Pass
		0	NV	12.365	0.0067	-2.5 to 2.5	Pass
		10	NV	3.358	0.0018	-2.5 to 2.5	Pass
		30	NV	7.135	0.0039	-2.5 to 2.5	Pass
		40	NV	6.457	0.0035	-2.5 to 2.5	Pass
		50	NV	3.455	0.0019	-2.5 to 2.5	Pass
	1880	20	LV	7.232	0.0038	-2.5 to 2.5	Pass
			NV	9.363	0.0050	-2.5 to 2.5	Pass
			HV	8.975	0.0048	-2.5 to 2.5	Pass
		-30	NV	4.972	0.0026	-2.5 to 2.5	Pass
		-20	NV	11.461	0.0061	-2.5 to 2.5	Pass
		-10	NV	8.297	0.0044	-2.5 to 2.5	Pass
		0	NV	9.492	0.0050	-2.5 to 2.5	Pass
		10	NV	15.174	0.0081	-2.5 to 2.5	Pass
		30	NV	10.751	0.0057	-2.5 to 2.5	Pass
		40	NV	8.588	0.0046	-2.5 to 2.5	Pass
		50	NV	7.781	0.0041	-2.5 to 2.5	Pass
	1909.8	20	LV	11.268	0.0059	-2.5 to 2.5	Pass
			NV	7.329	0.0038	-2.5 to 2.5	Pass
			HV	9.524	0.0050	-2.5 to 2.5	Pass
		-30	NV	10.138	0.0053	-2.5 to 2.5	Pass
		-20	NV	7.167	0.0038	-2.5 to 2.5	Pass
		-10	NV	11.203	0.0059	-2.5 to 2.5	Pass
		0	NV	7.264	0.0038	-2.5 to 2.5	Pass
		10	NV	7.490	0.0039	-2.5 to 2.5	Pass
		30	NV	9.169	0.0048	-2.5 to 2.5	Pass
		40	NV	11.365	0.0060	-2.5 to 2.5	Pass
		50	NV	7.232	0.0038	-2.5 to 2.5	Pass
GPRS	1850.2	20	LV	15.723	0.0085	-2.5 to 2.5	Pass
			NV	16.627	0.0090	-2.5 to 2.5	Pass
			HV	16.886	0.0091	-2.5 to 2.5	Pass
		-30	NV	15.142	0.0082	-2.5 to 2.5	Pass
		-20	NV	15.852	0.0086	-2.5 to 2.5	Pass
		-10	NV	15.659	0.0085	-2.5 to 2.5	Pass
		0	NV	14.077	0.0076	-2.5 to 2.5	Pass
		10	NV	16.046	0.0087	-2.5 to 2.5	Pass
		30	NV	16.304	0.0088	-2.5 to 2.5	Pass
		40	NV	17.660	0.0095	-2.5 to 2.5	Pass
		50	NV	15.529	0.0084	-2.5 to 2.5	Pass
	1880	20	LV	17.822	0.0095	-2.5 to 2.5	Pass
			NV	17.015	0.0091	-2.5 to 2.5	Pass
			HV	19.372	0.0103	-2.5 to 2.5	Pass

		-30	NV	17.596	0.0094	-2.5 to 2.5	Pass
		-20	NV	17.757	0.0094	-2.5 to 2.5	Pass
		-10	NV	19.372	0.0103	-2.5 to 2.5	Pass
		0	NV	16.304	0.0087	-2.5 to 2.5	Pass
		10	NV	16.498	0.0088	-2.5 to 2.5	Pass
		30	NV	18.274	0.0097	-2.5 to 2.5	Pass
		40	NV	19.275	0.0103	-2.5 to 2.5	Pass
		50	NV	16.982	0.0090	-2.5 to 2.5	Pass
		20	LV	16.627	0.0087	-2.5 to 2.5	Pass
			NV	17.499	0.0092	-2.5 to 2.5	Pass
			HV	15.465	0.0081	-2.5 to 2.5	Pass
	1909.8	-30	NV	14.109	0.0074	-2.5 to 2.5	Pass
		-20	NV	15.465	0.0081	-2.5 to 2.5	Pass
		-10	NV	19.049	0.0100	-2.5 to 2.5	Pass
		0	NV	16.950	0.0089	-2.5 to 2.5	Pass
		10	NV	17.370	0.0091	-2.5 to 2.5	Pass
		30	NV	19.694	0.0103	-2.5 to 2.5	Pass
		40	NV	17.112	0.0090	-2.5 to 2.5	Pass
		50	NV	18.661	0.0098	-2.5 to 2.5	Pass
EGPRS	1850.2	20	LV	15.303	0.0083	-2.5 to 2.5	Pass
			NV	15.562	0.0084	-2.5 to 2.5	Pass
			HV	16.014	0.0087	-2.5 to 2.5	Pass
		-30	NV	16.175	0.0087	-2.5 to 2.5	Pass
		-20	NV	17.467	0.0094	-2.5 to 2.5	Pass
		-10	NV	15.755	0.0085	-2.5 to 2.5	Pass
		0	NV	15.820	0.0086	-2.5 to 2.5	Pass
		10	NV	17.790	0.0096	-2.5 to 2.5	Pass
		30	NV	16.369	0.0088	-2.5 to 2.5	Pass
		40	NV	14.141	0.0076	-2.5 to 2.5	Pass
		50	NV	15.723	0.0085	-2.5 to 2.5	Pass
	1880	20	LV	16.304	0.0087	-2.5 to 2.5	Pass
			NV	15.755	0.0084	-2.5 to 2.5	Pass
			HV	17.112	0.0091	-2.5 to 2.5	Pass
		-30	NV	15.820	0.0084	-2.5 to 2.5	Pass
		-20	NV	17.854	0.0095	-2.5 to 2.5	Pass
		-10	NV	20.146	0.0107	-2.5 to 2.5	Pass
		0	NV	18.629	0.0099	-2.5 to 2.5	Pass
		10	NV	16.498	0.0088	-2.5 to 2.5	Pass
		30	NV	17.338	0.0092	-2.5 to 2.5	Pass
		40	NV	15.465	0.0082	-2.5 to 2.5	Pass
		50	NV	16.498	0.0088	-2.5 to 2.5	Pass
	1909.8	20	LV	16.434	0.0086	-2.5 to 2.5	Pass
			NV	17.015	0.0089	-2.5 to 2.5	Pass
			HV	15.820	0.0083	-2.5 to 2.5	Pass
		-30	NV	13.915	0.0073	-2.5 to 2.5	Pass
		-20	NV	17.886	0.0094	-2.5 to 2.5	Pass
		-10	NV	18.468	0.0097	-2.5 to 2.5	Pass
		0	NV	17.499	0.0092	-2.5 to 2.5	Pass
		10	NV	17.564	0.0092	-2.5 to 2.5	Pass
		30	NV	15.110	0.0079	-2.5 to 2.5	Pass
		40	NV	16.143	0.0085	-2.5 to 2.5	Pass
		50	NV	17.208	0.0090	-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	0.245	/	Pass
			1880	0.244	/	Pass
			1909.8	0.251	/	Pass
	GPRS	1 TX Slot	1850.2	0.245	/	Pass
			1880	0.248	/	Pass
			1909.8	0.245	/	Pass
	EGPRS	1 TX Slot	1850.2	0.242	/	Pass
			1880	0.235	/	Pass
			1909.8	0.246	/	Pass

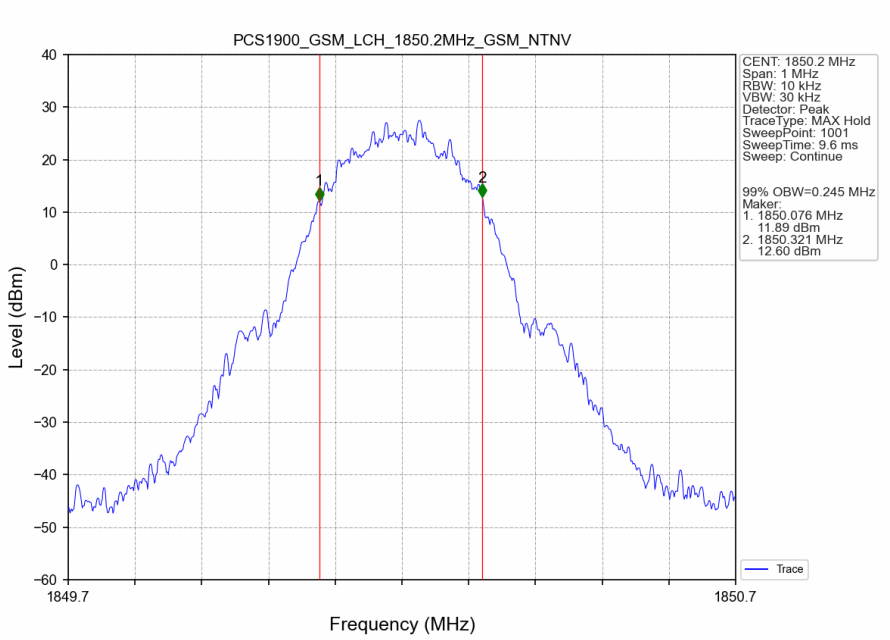
3.1.2 PCS1900_XDB

Band: PCS1900						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	0.310	/	Pass
			1880	0.310	/	Pass
			1909.8	0.325	/	Pass
	GPRS	1 TX Slot	1850.2	0.322	/	Pass
			1880	0.315	/	Pass
			1909.8	0.307	/	Pass
	EGPRS	1 TX Slot	1850.2	0.305	/	Pass
			1880	0.300	/	Pass
			1909.8	0.299	/	Pass

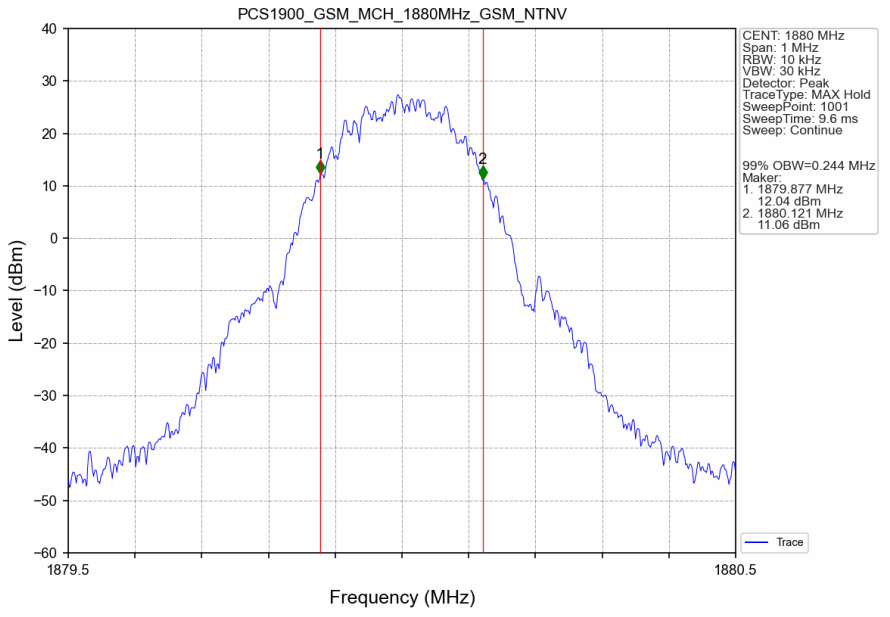
3.2 Test Graph

3.2.1 PCS1900_OBW

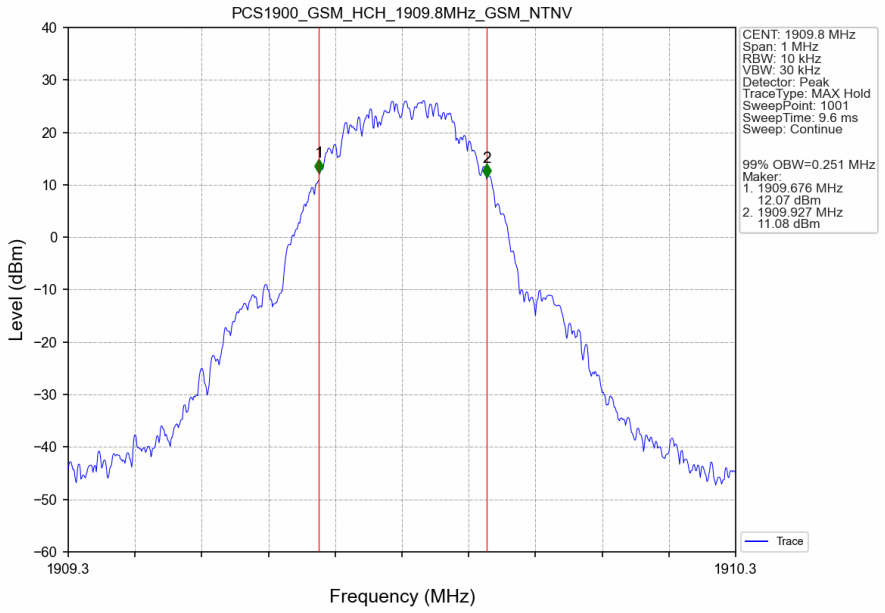
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



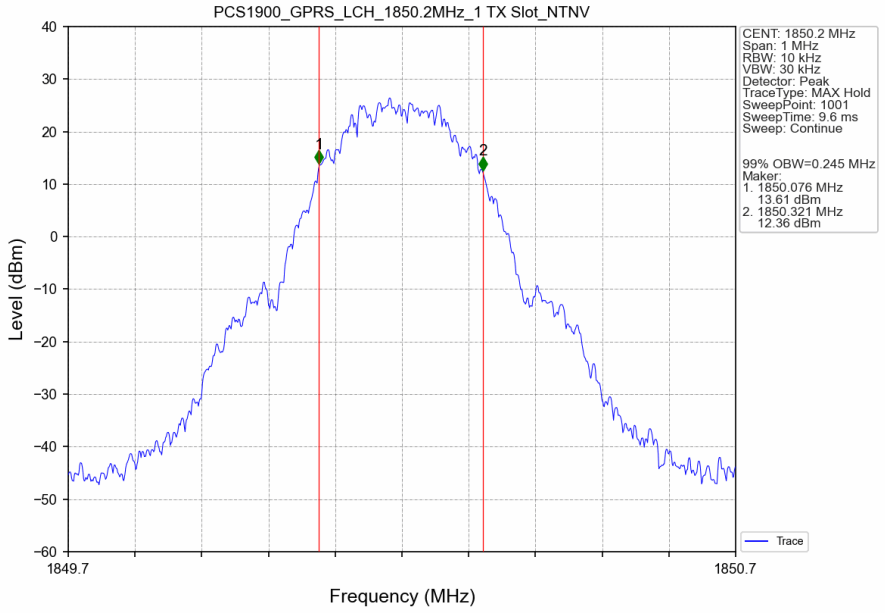
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



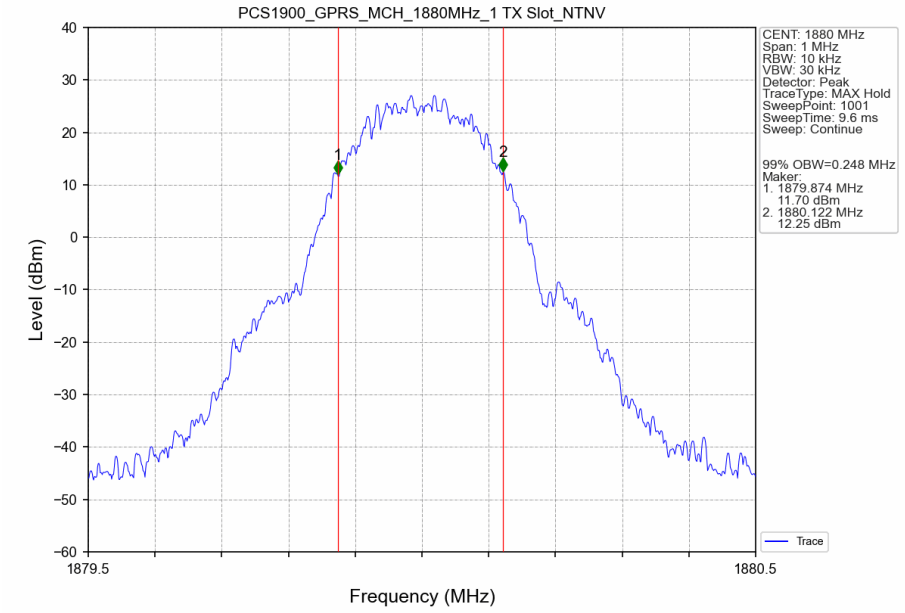
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



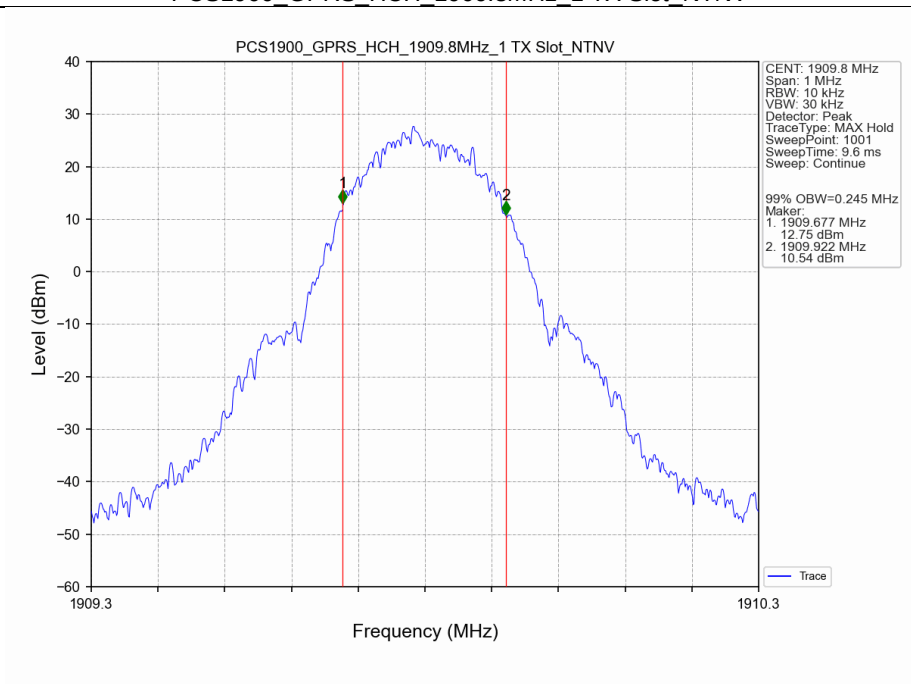
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



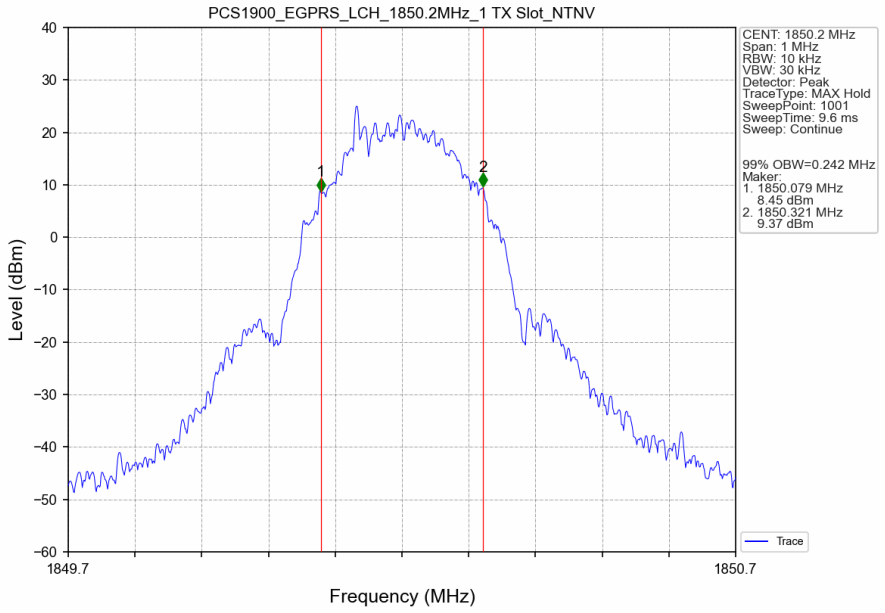
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



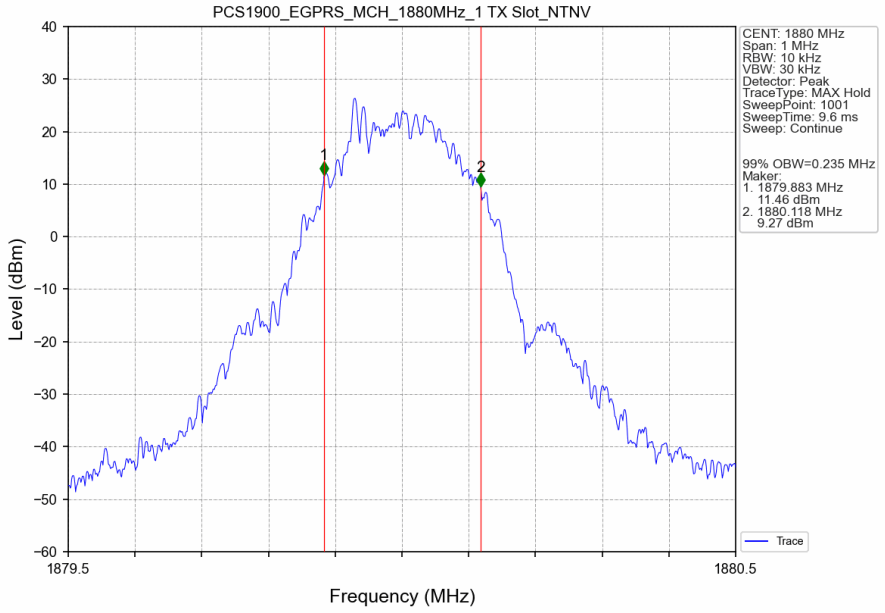
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



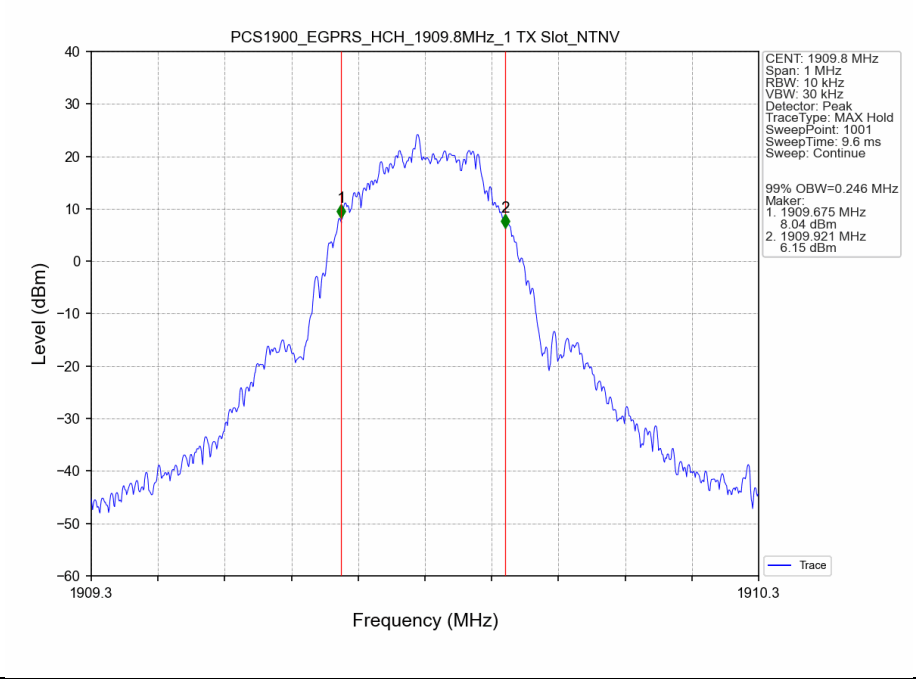
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



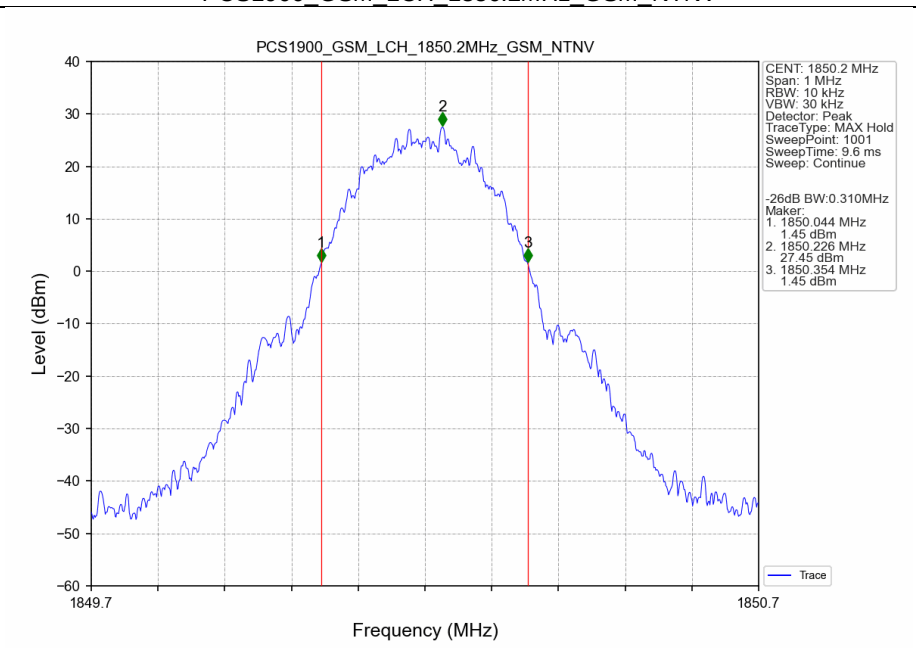
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV

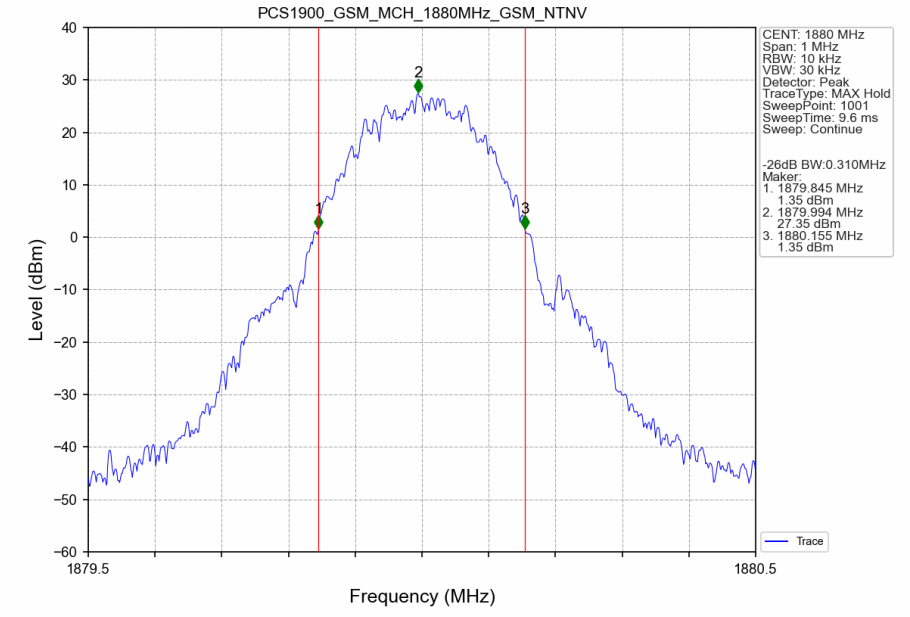


PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV

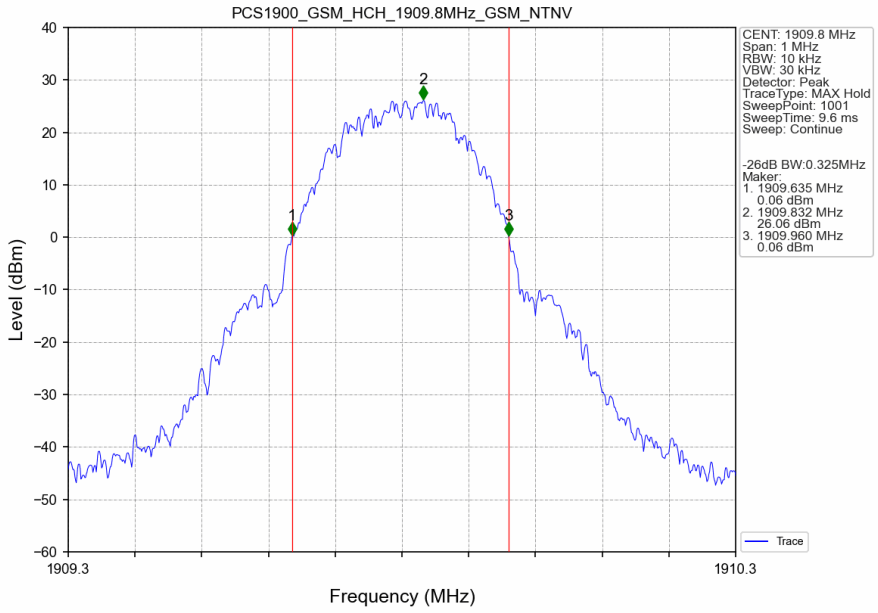


3.2.2 PCS1900_XDB

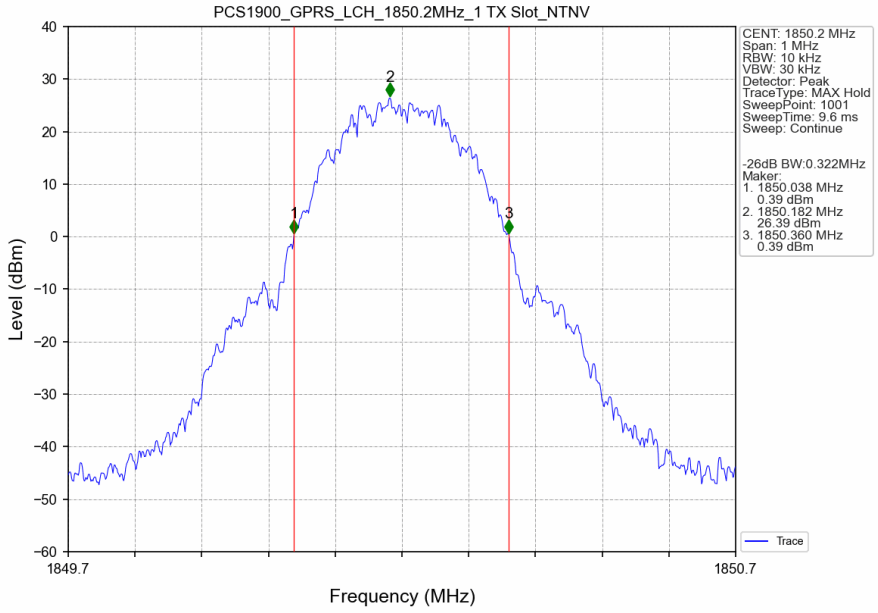
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV


PCS1900_GSM_MCH_1880MHz_GSM_NTNV


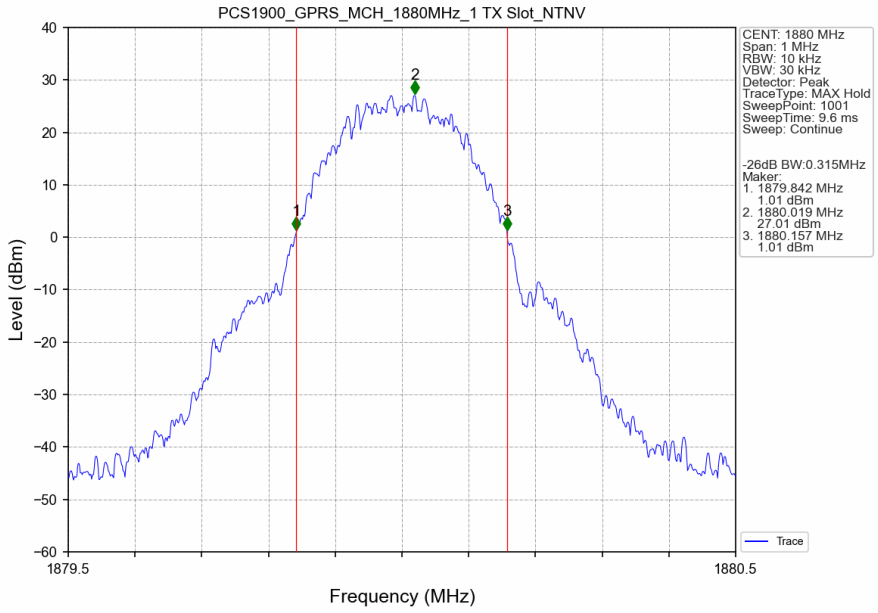
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



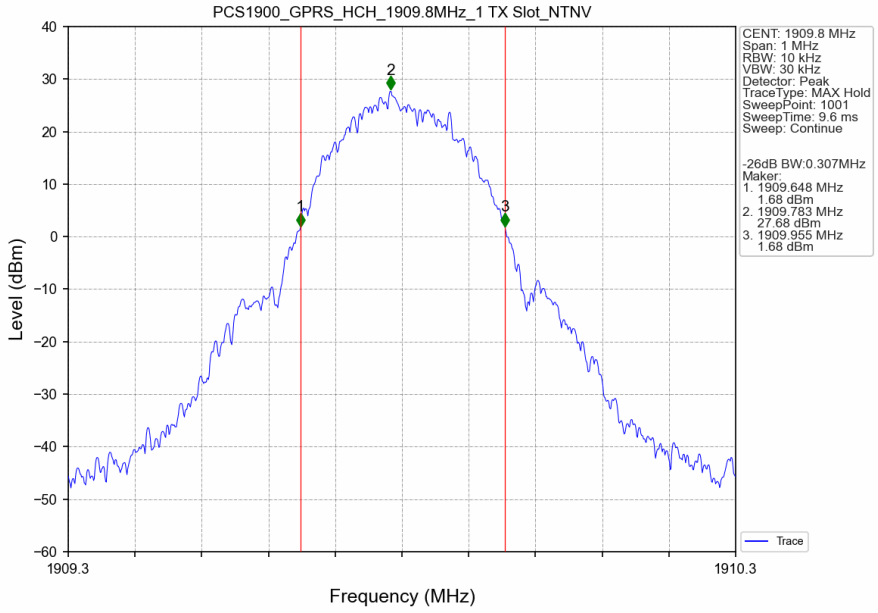
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



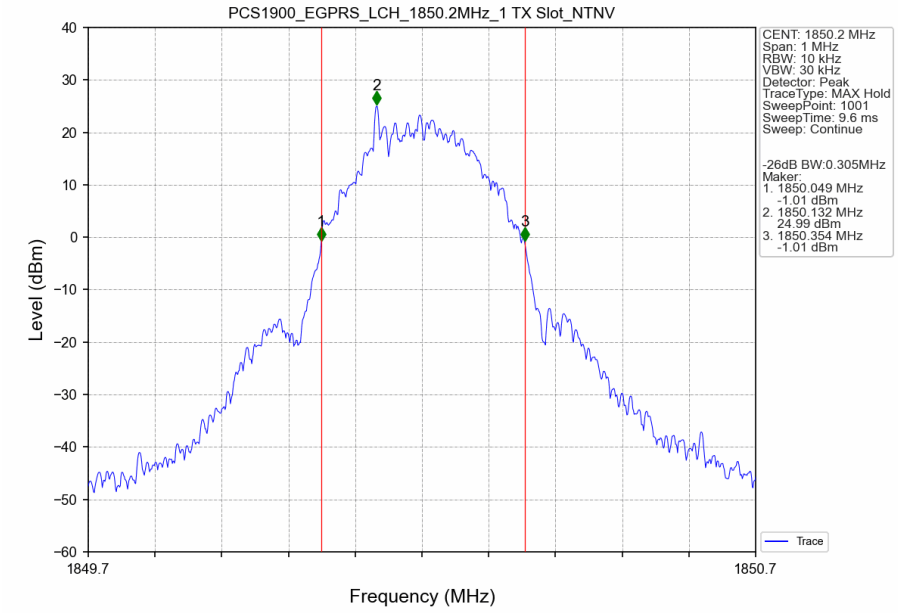
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



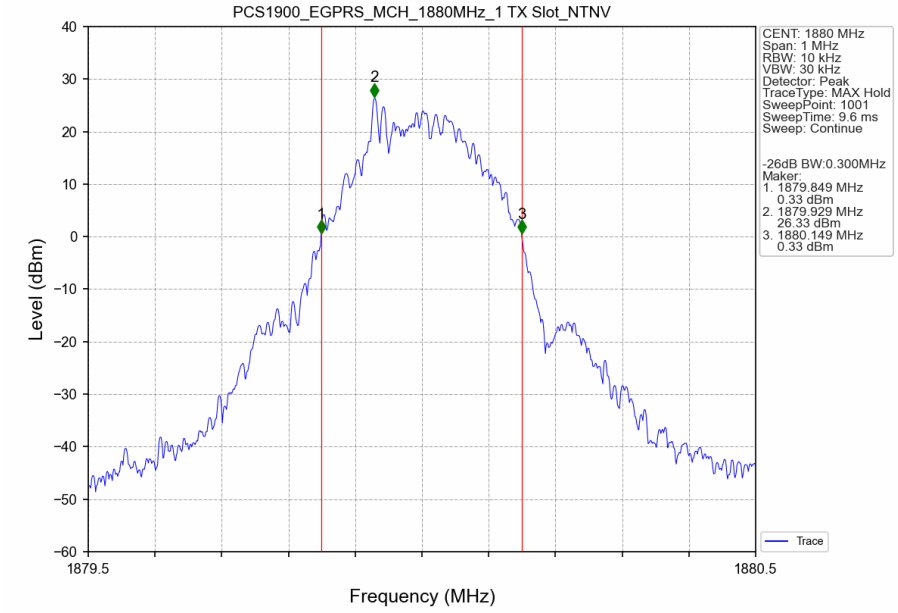
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



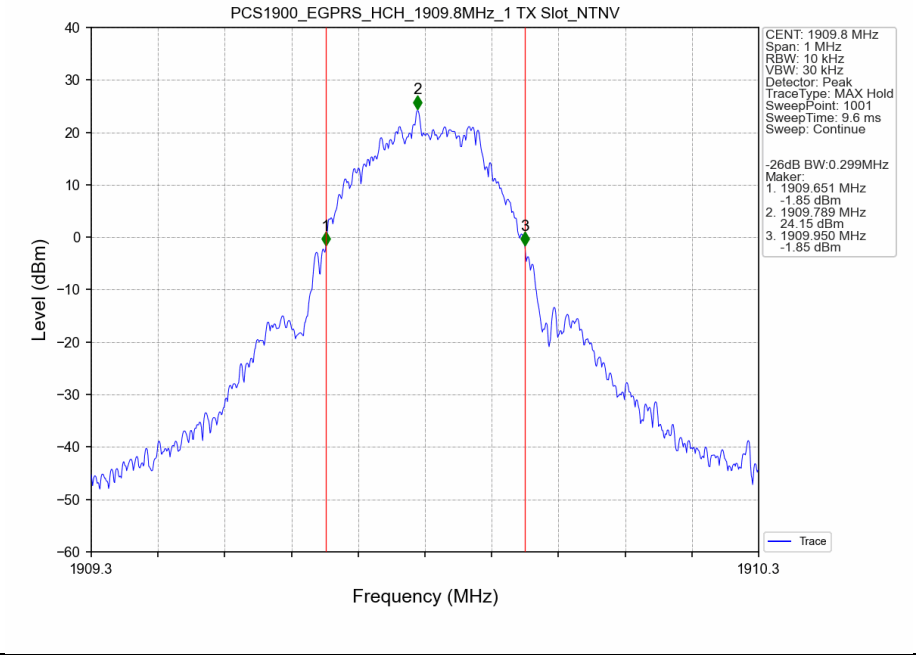
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



4. Peak-Average Ratio

4.1 Test Result

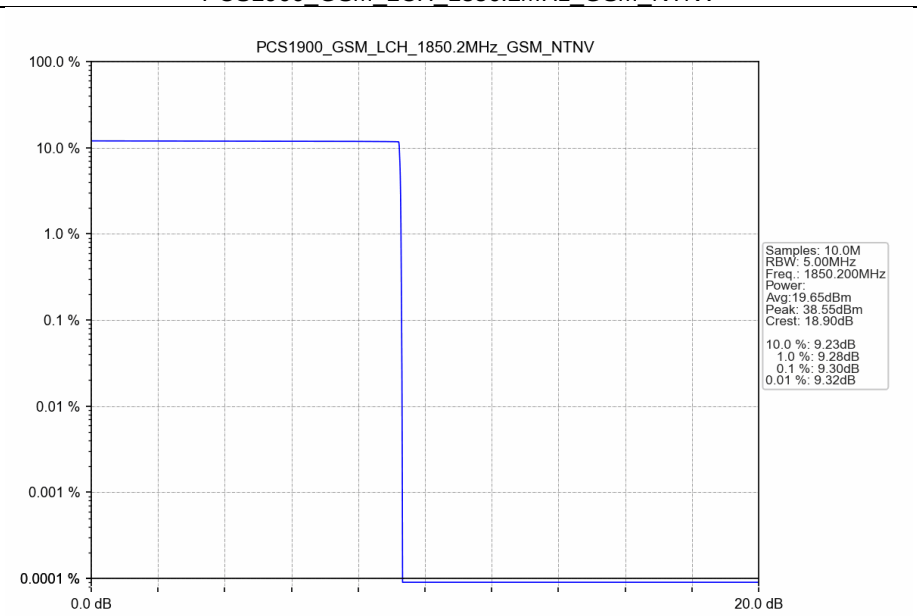
4.1.1 PCS1900

Band: PCS1900						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	9.30	<=13	Pass
			1880	9.71	<=13	Pass
			1909.8	9.50	<=13	Pass
	GPRS	4 TX Slots	1850.2	3.89	<=13	Pass
			1880	3.98	<=13	Pass
			1909.8	3.93	<=13	Pass
	EGPRS	4 TX Slots	1850.2	6.91	<=13	Pass
			1880	6.85	<=13	Pass
			1909.8	6.93	<=13	Pass

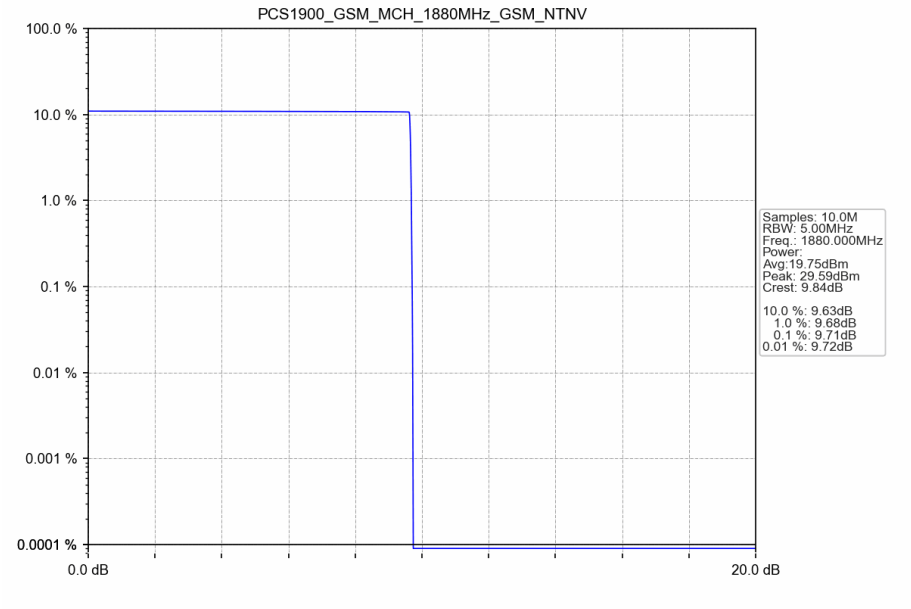
4.2 Test Graph

4.2.1 PCS1900

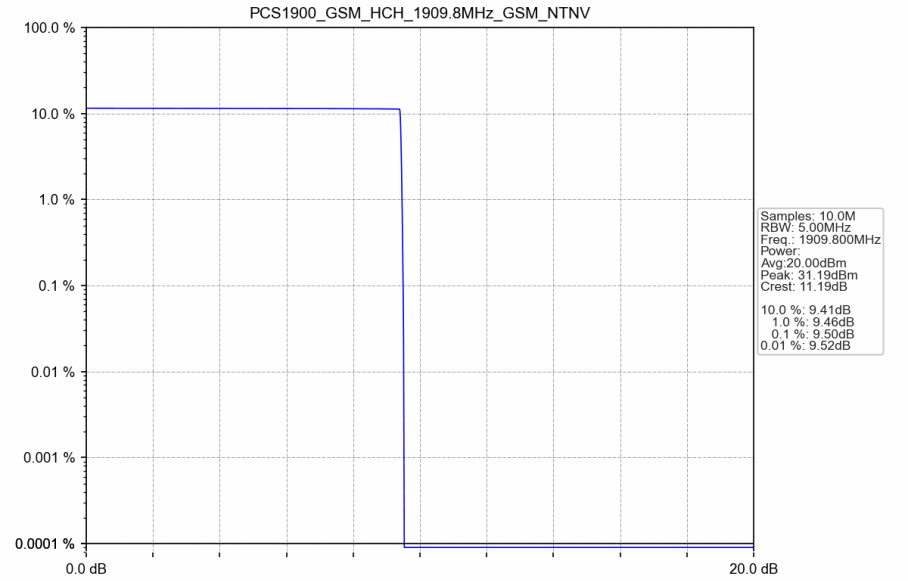
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



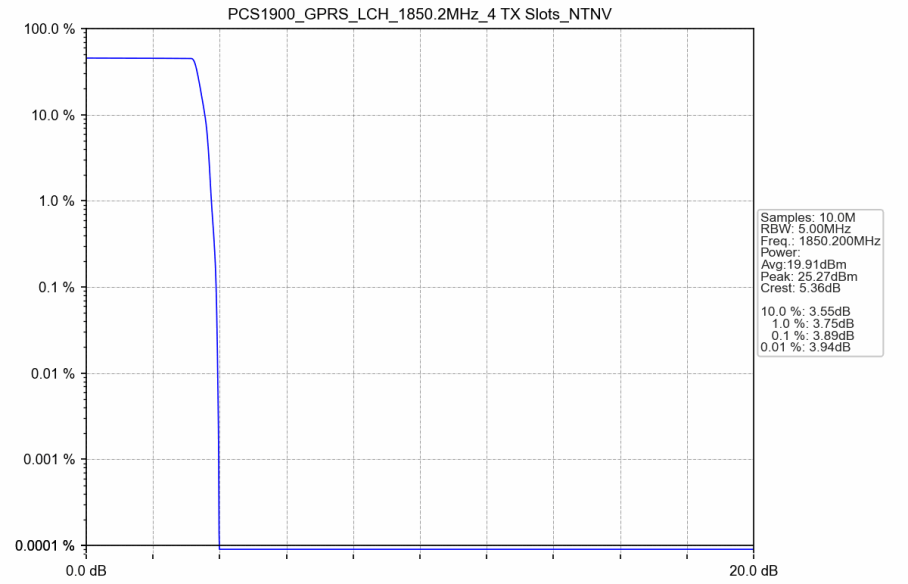
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



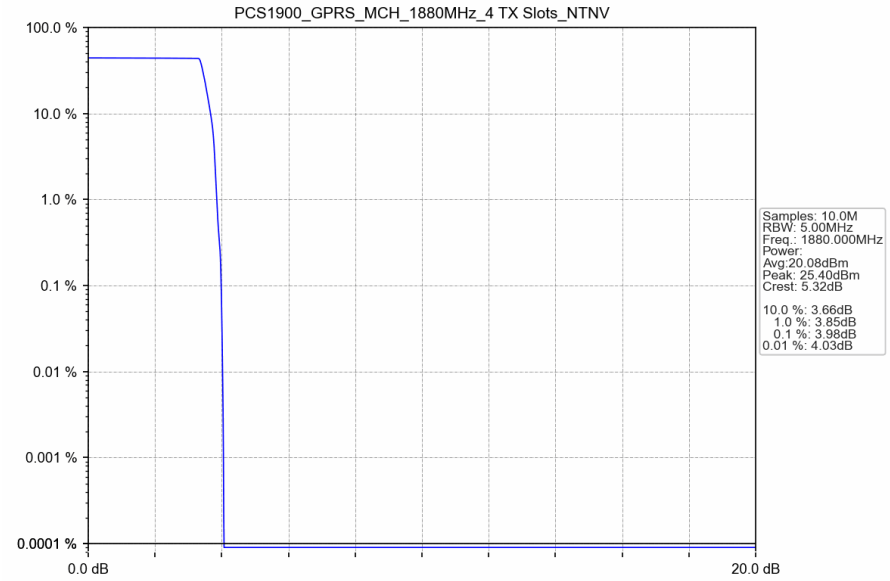
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



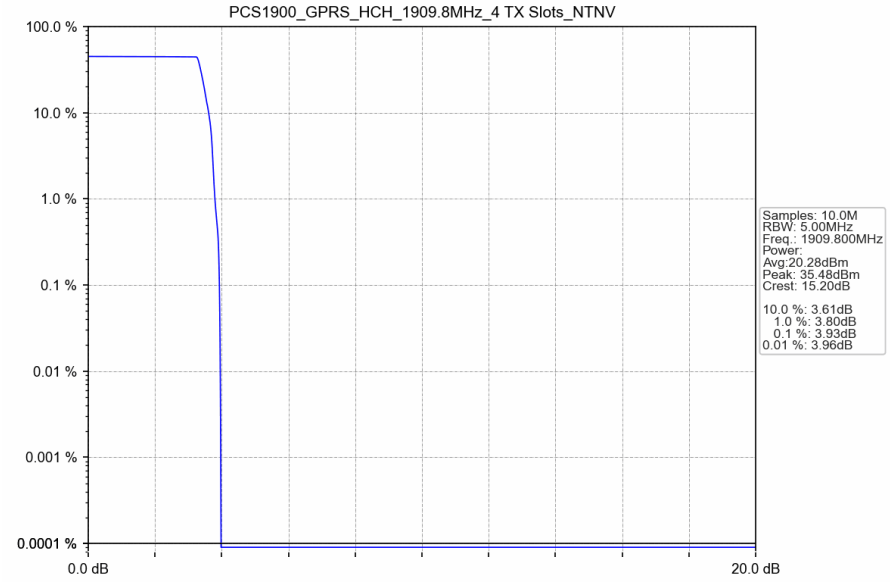
PCS1900_GPRS_LCH_1850.2MHz_4 TX Slots_NTNV



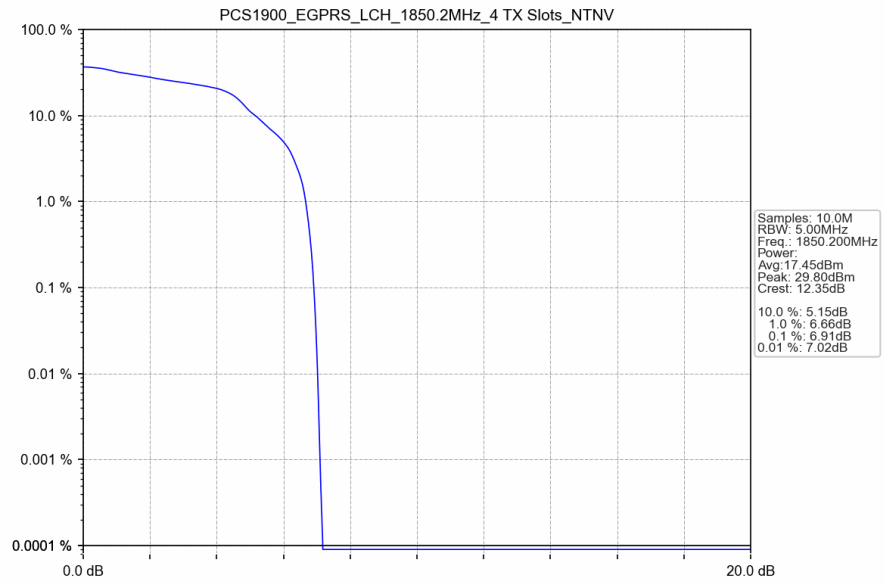
PCS1900_GPRS_MCH_1880MHz_4 TX Slots_NTNV



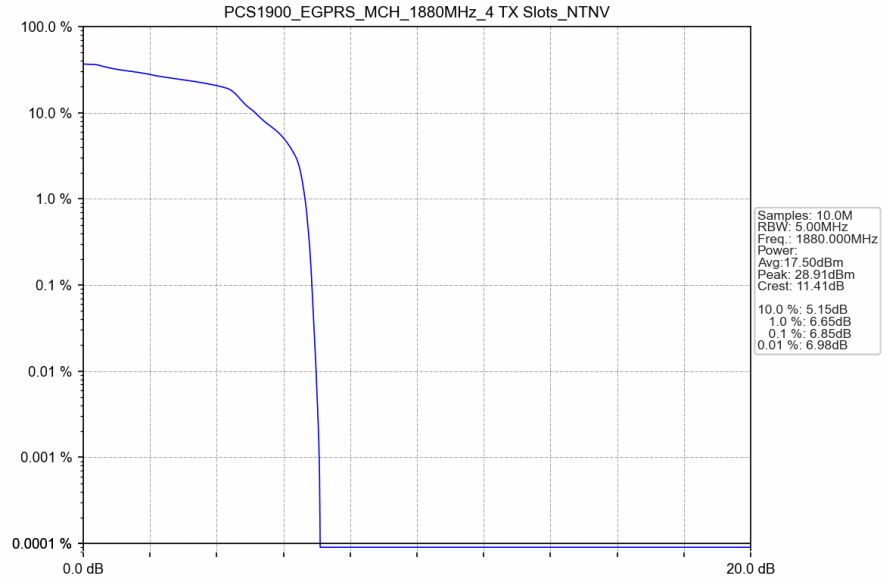
PCS1900_GPRS_HCH_1909.8MHz_4 TX Slots_NTNV



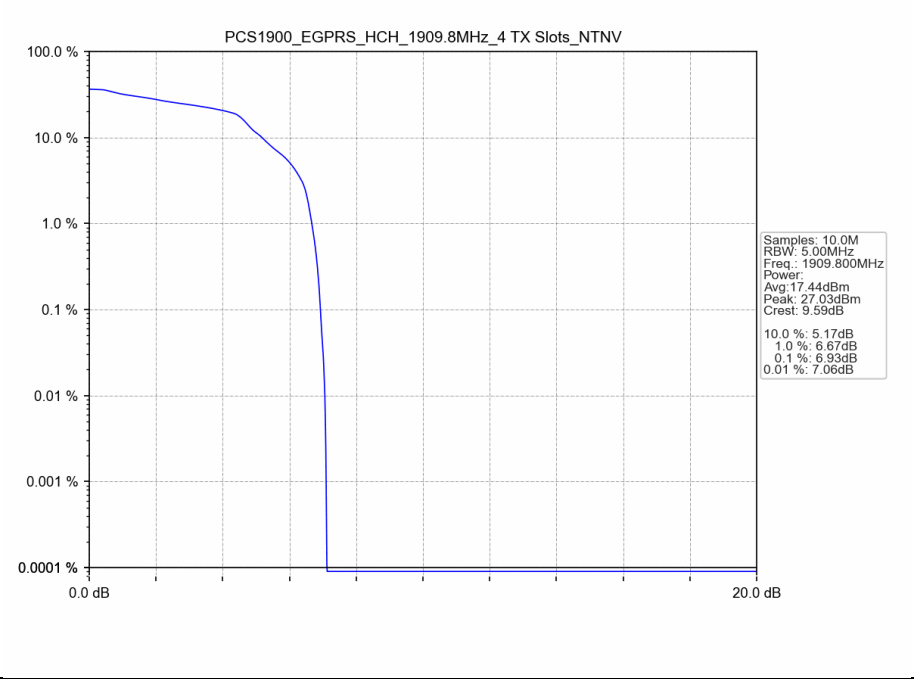
PCS1900_EGPRS_LCH_1850.2MHz_4 TX Slots_NTNV



PCS1900_EGPRS_MCH_1880MHz_4 TX Slots_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_4 TX Slots_NTNV



5. Spurious Emission

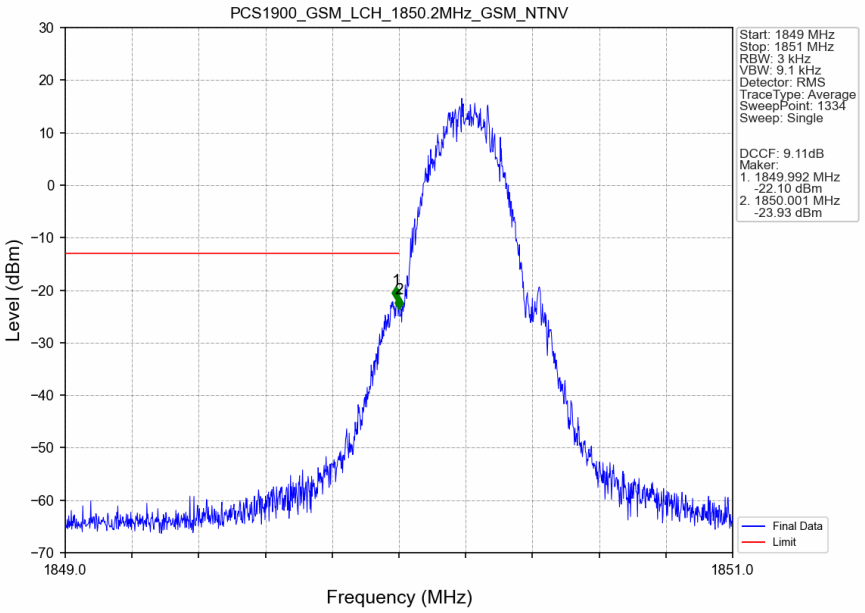
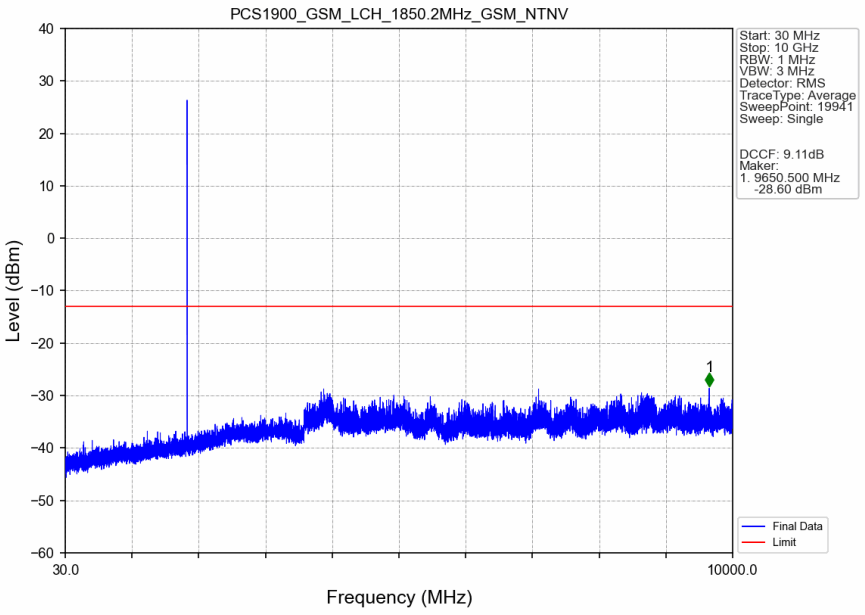
5.1 Test Result

5.1.1 PCS1900

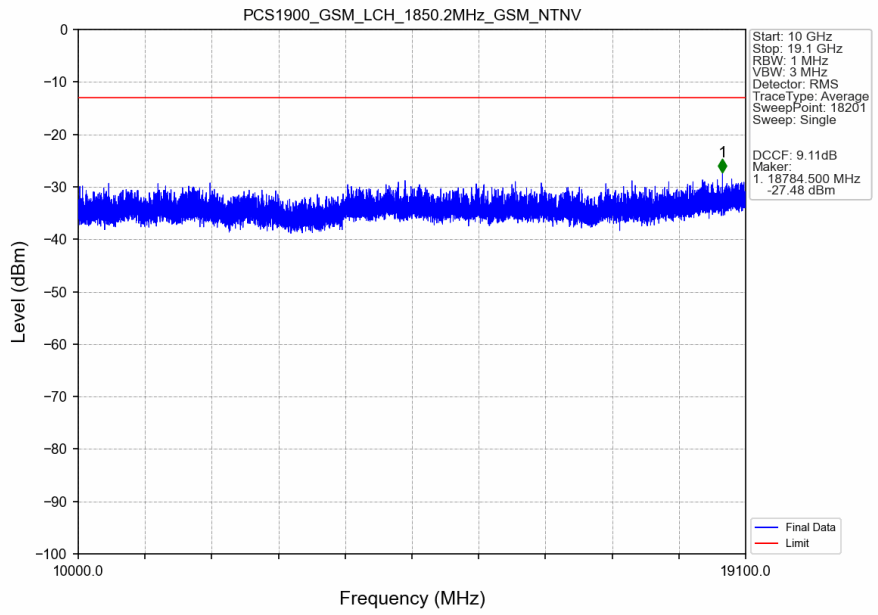
Band: PCS1900						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	Refer To Test Graph		Pass
			1880	Refer To Test Graph		Pass
			1909.8	Refer To Test Graph		Pass
	GPRS	1 TX Slot	1850.2	Refer To Test Graph		Pass
			1880	Refer To Test Graph		Pass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

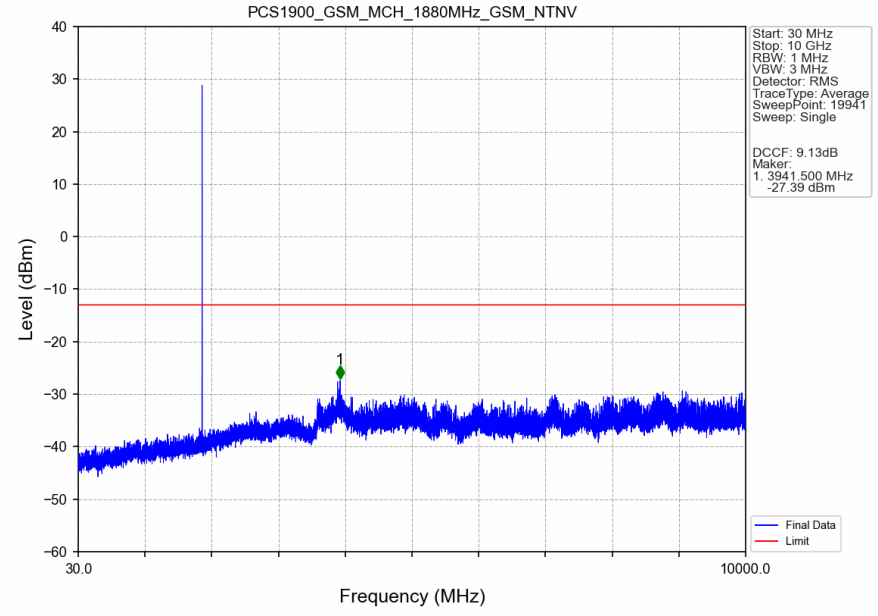
5.2.1 PCS1900

PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV

PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV


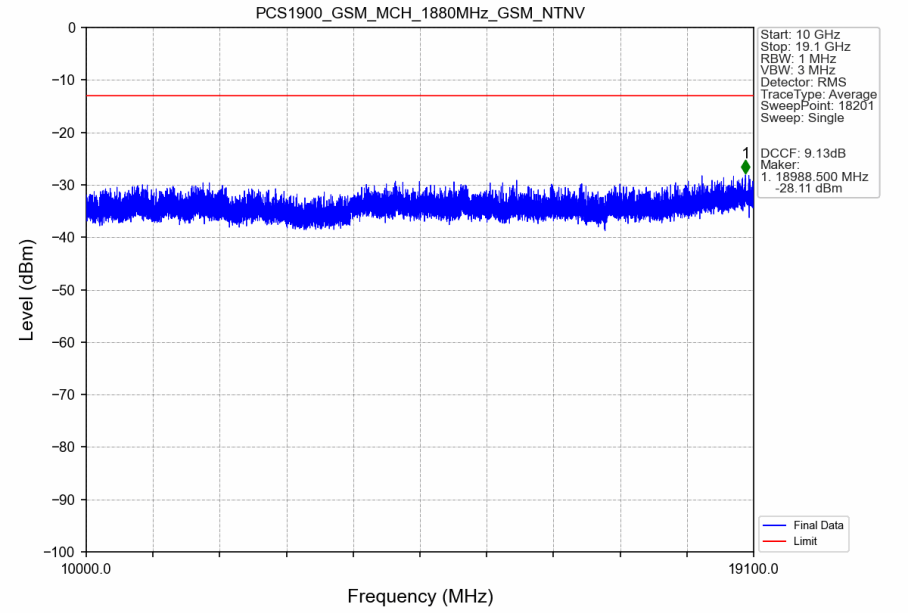
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



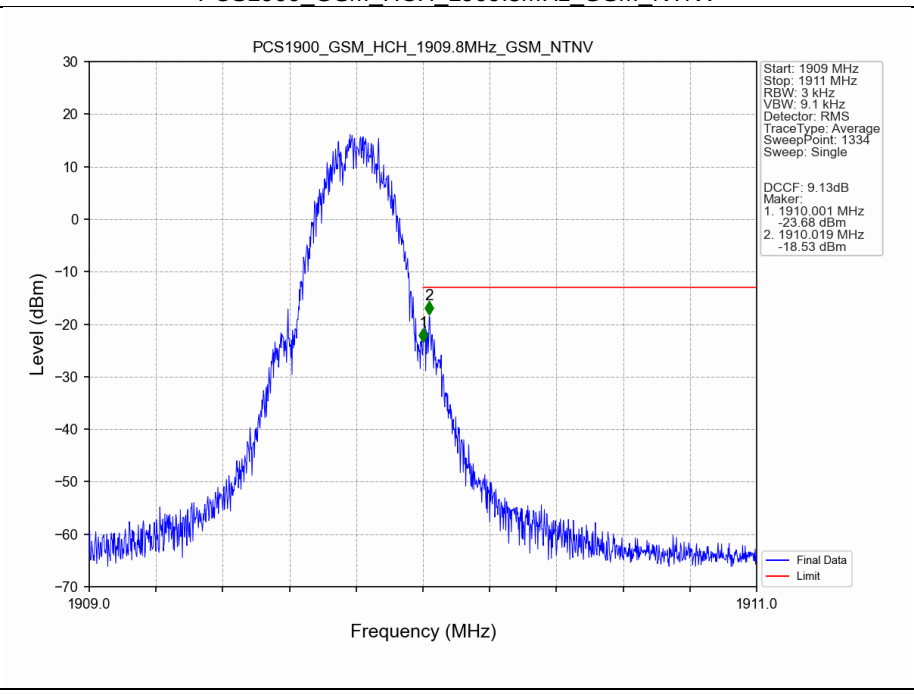
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



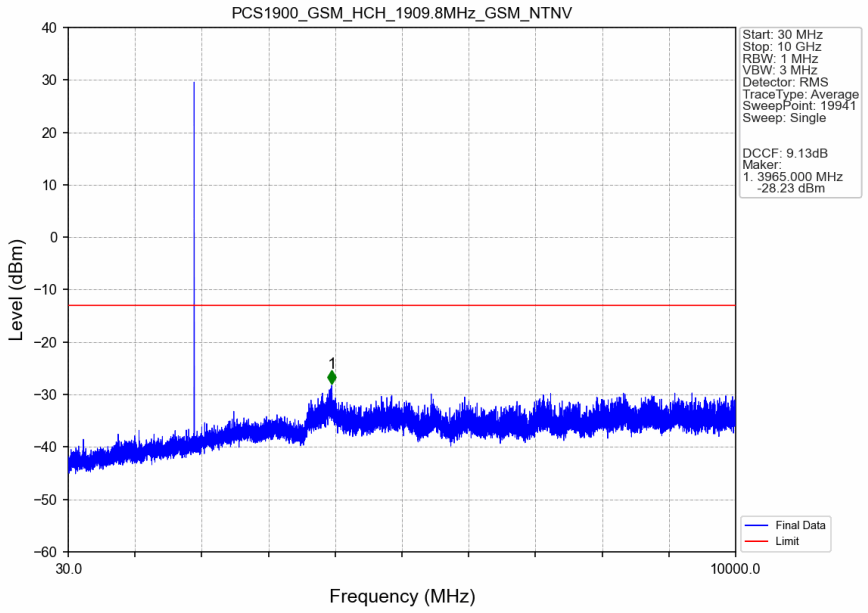
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



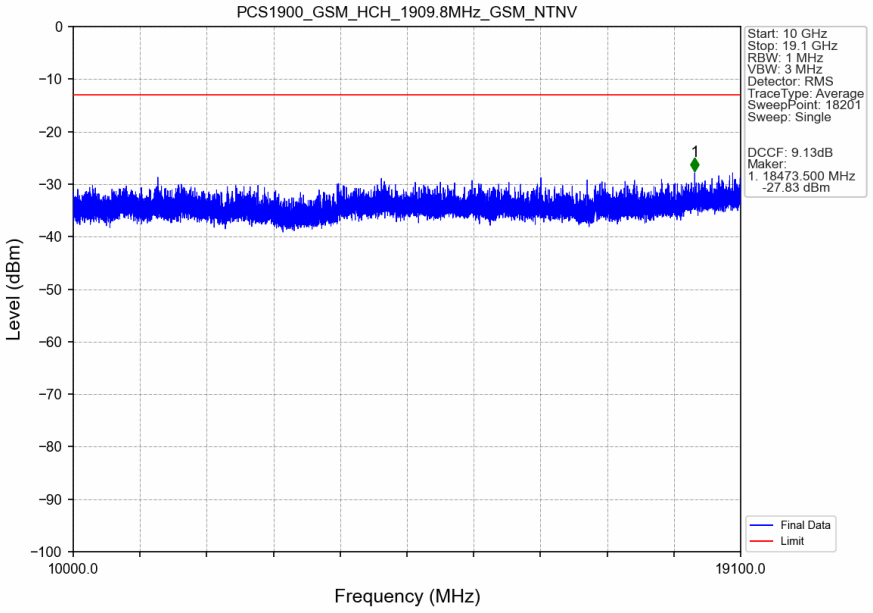
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



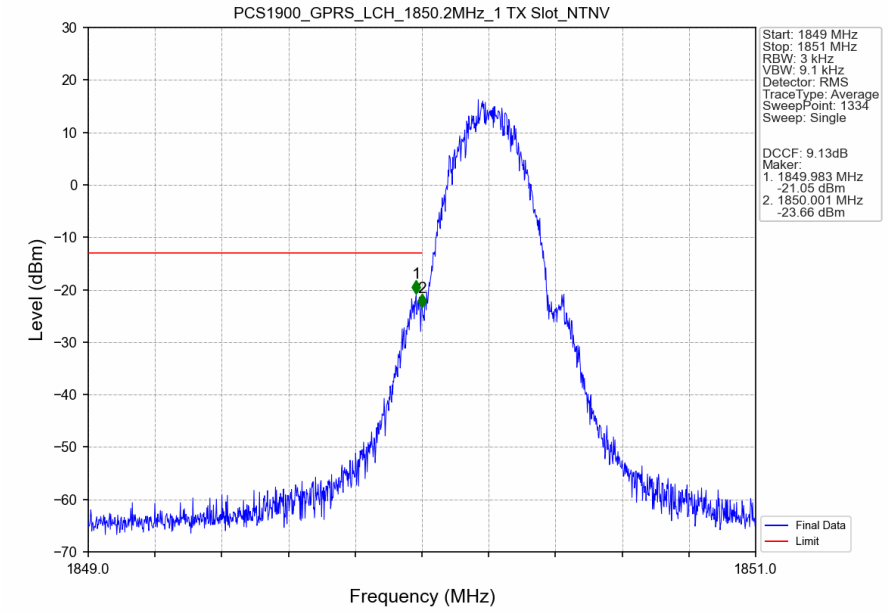
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



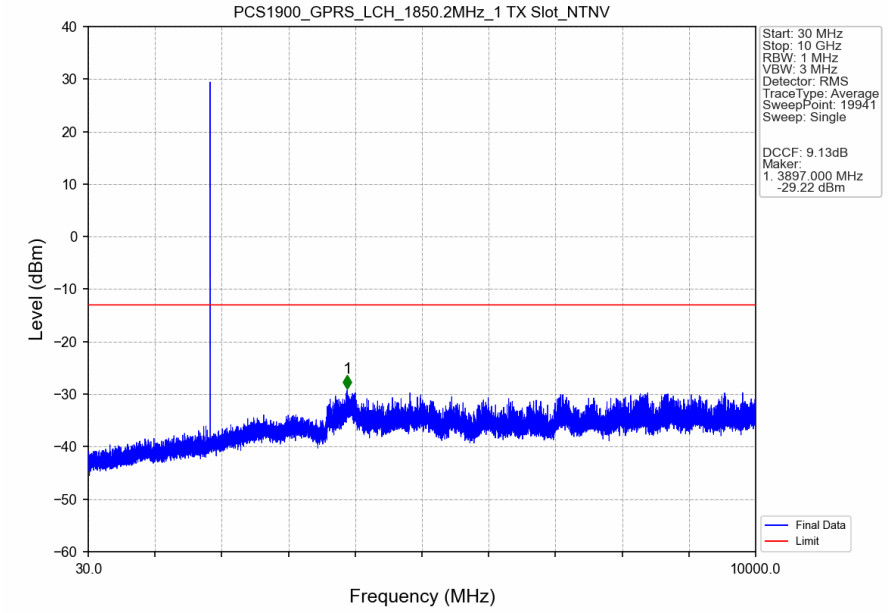
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



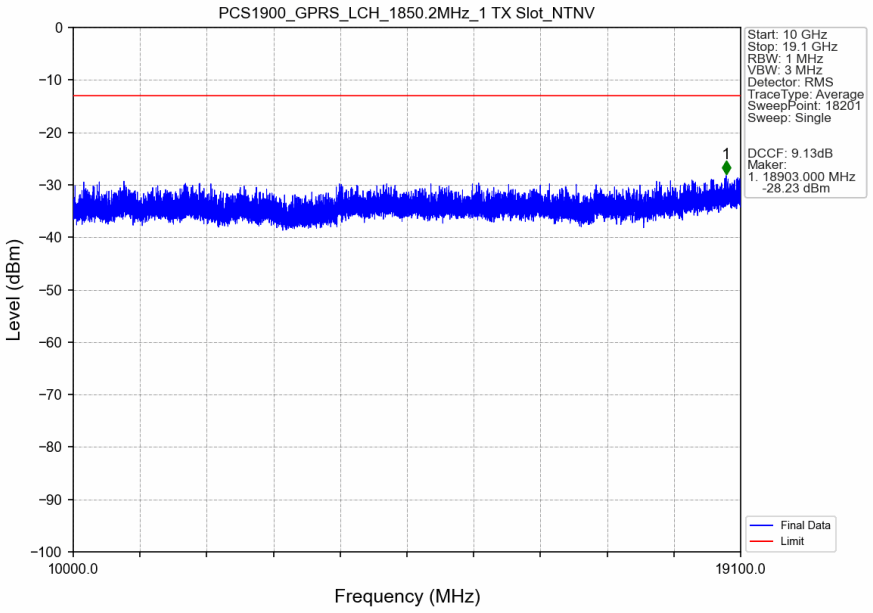
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



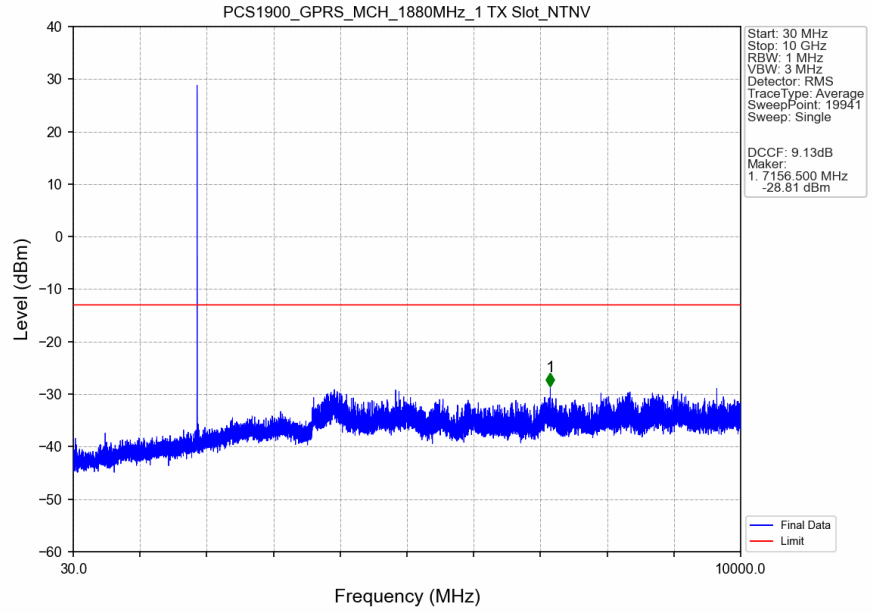
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



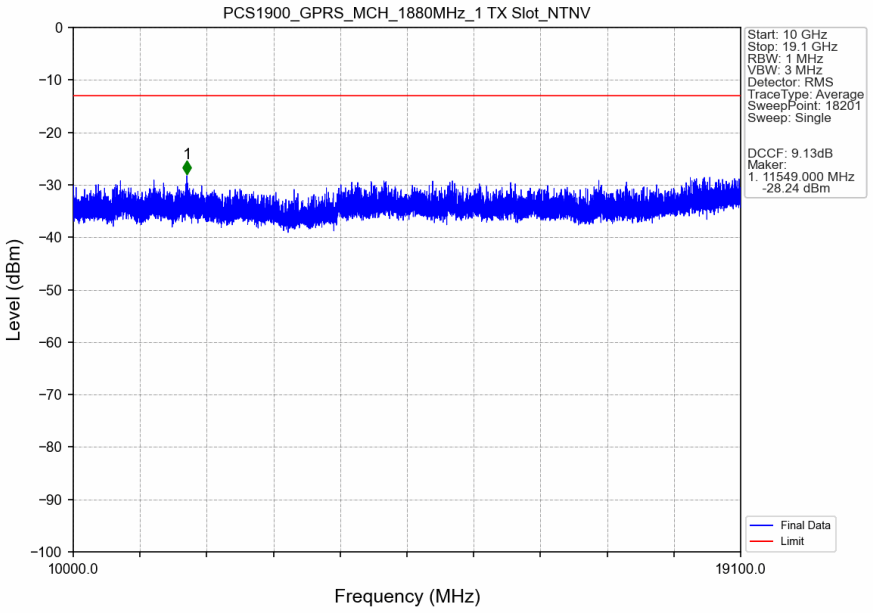
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



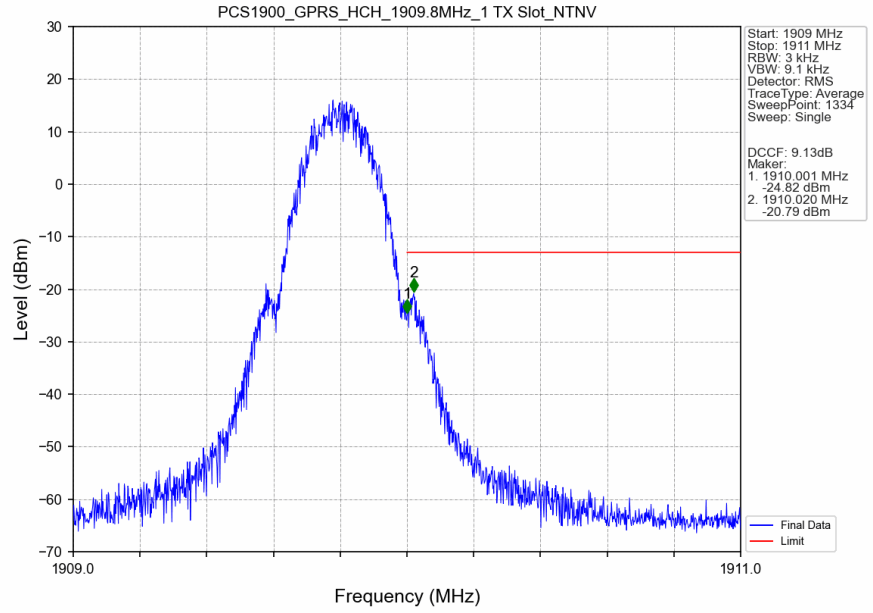
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



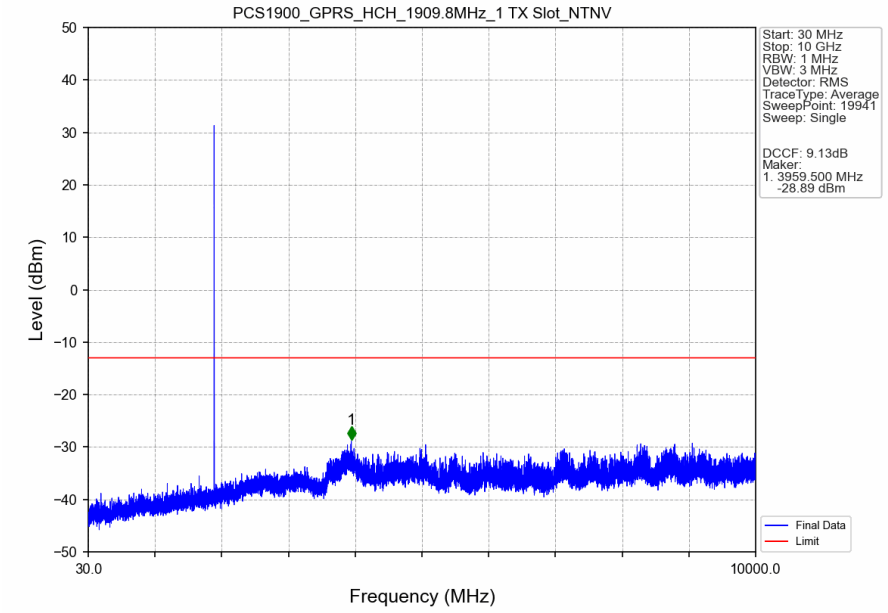
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



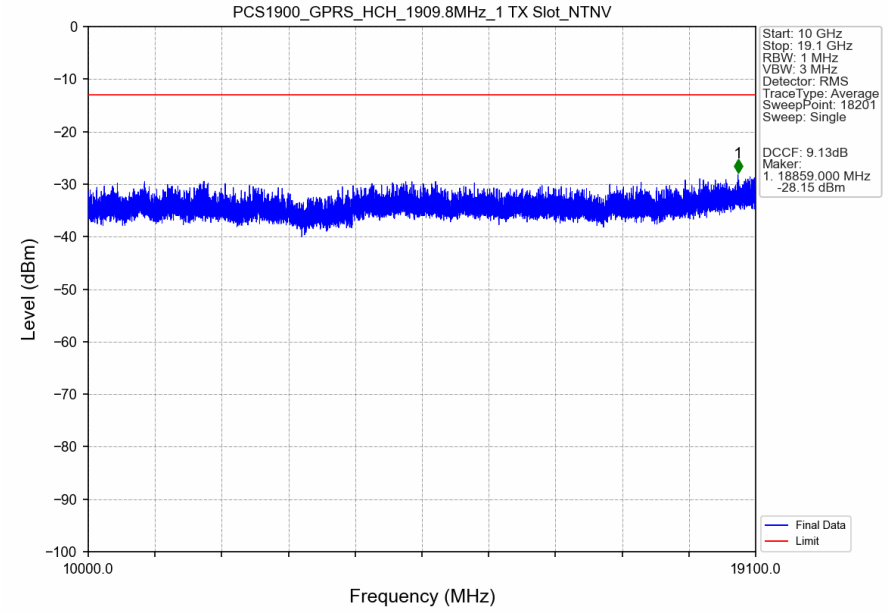
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



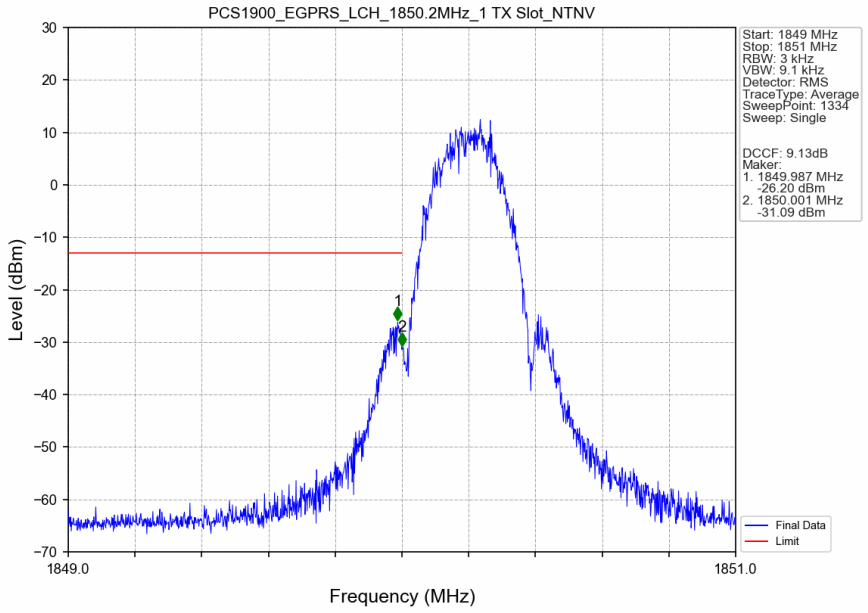
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



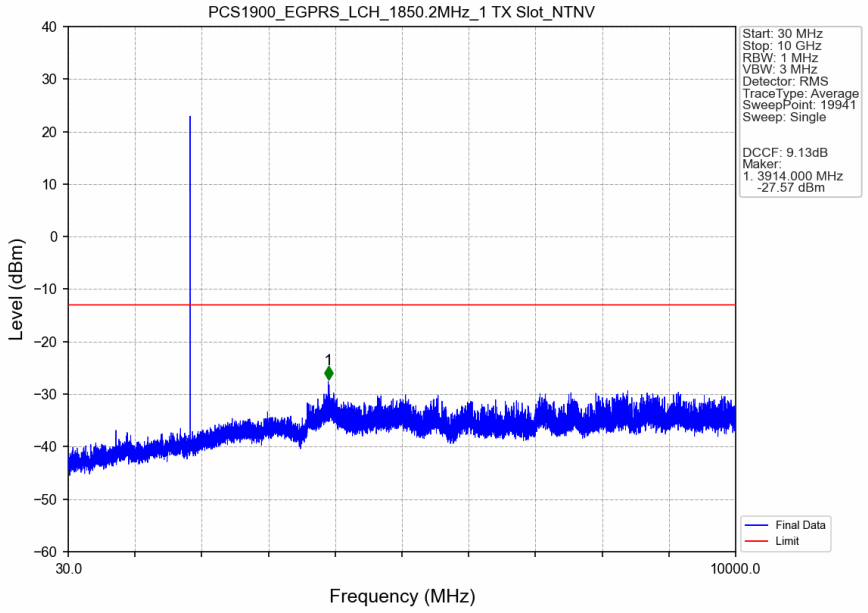
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



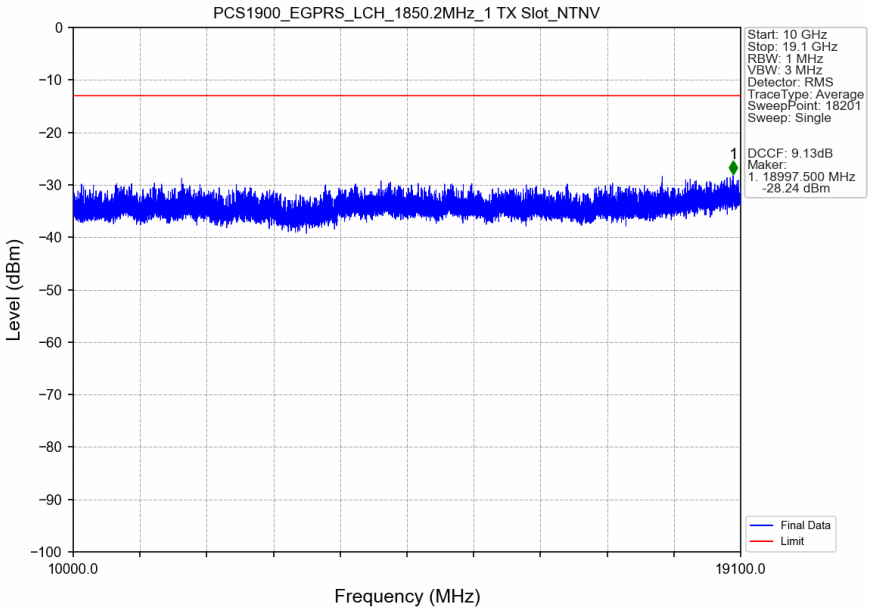
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



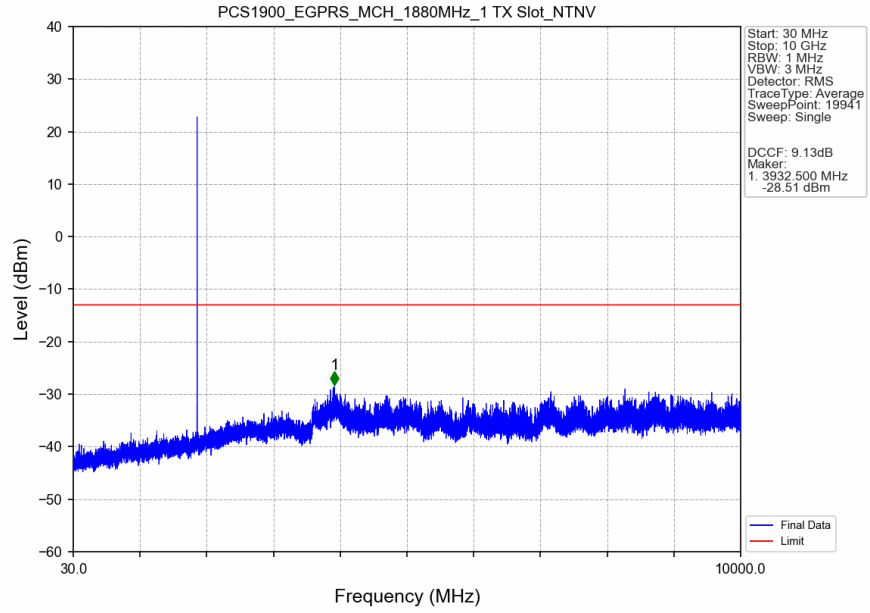
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



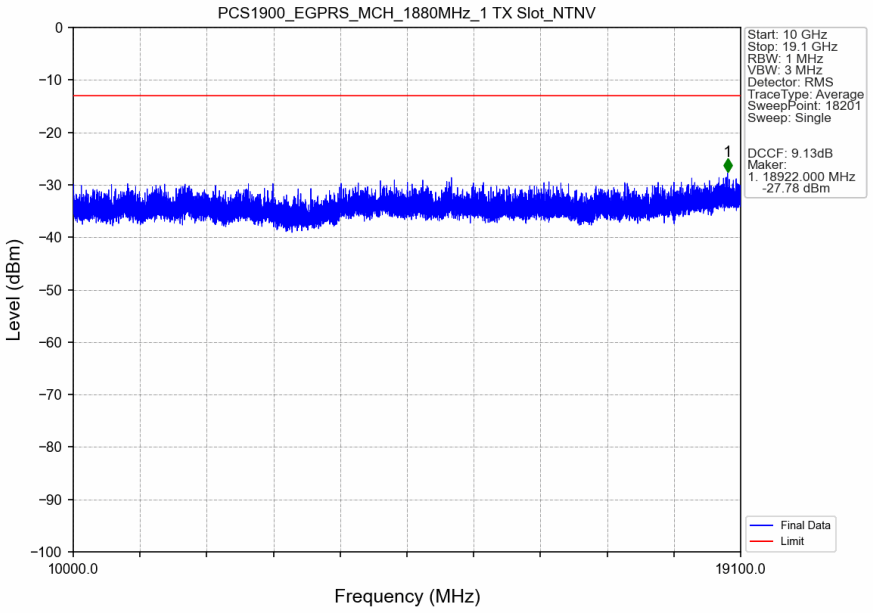
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



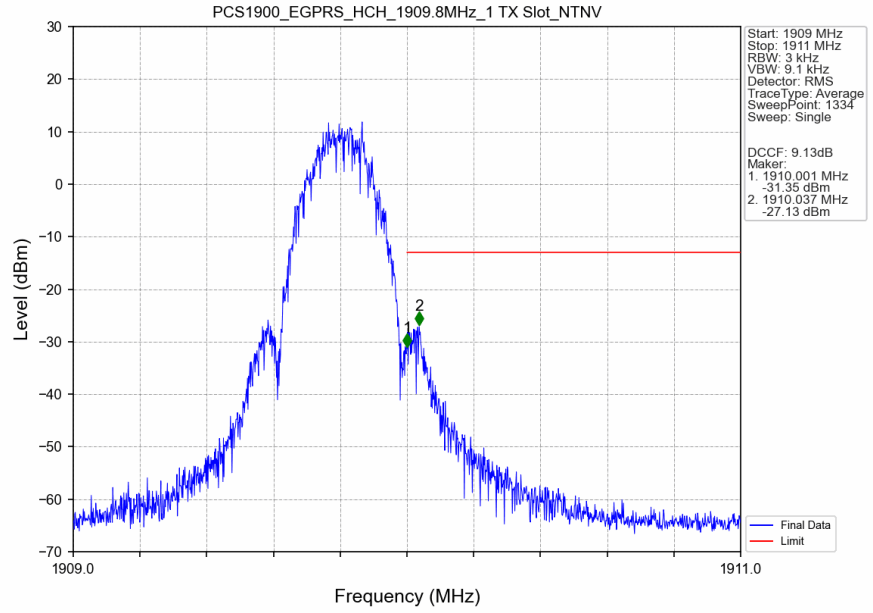
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



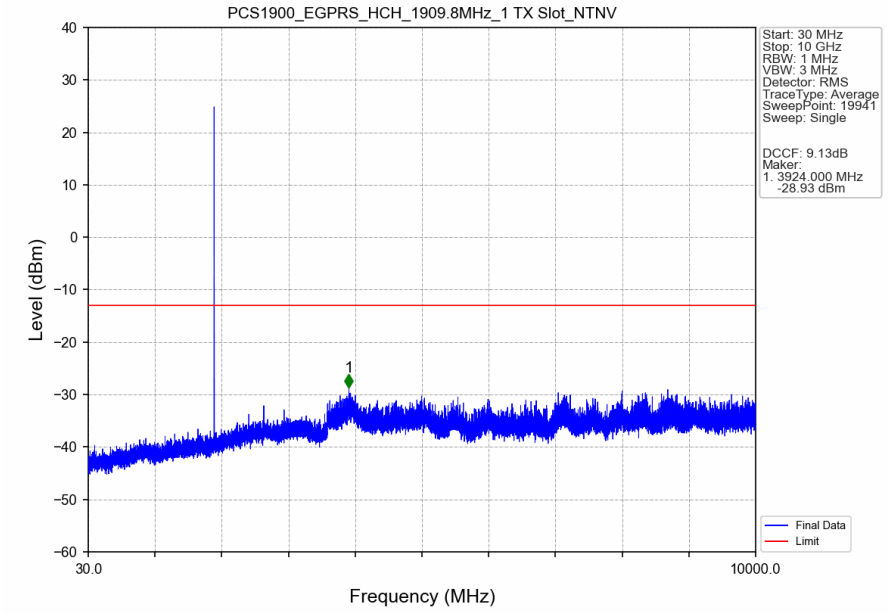
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



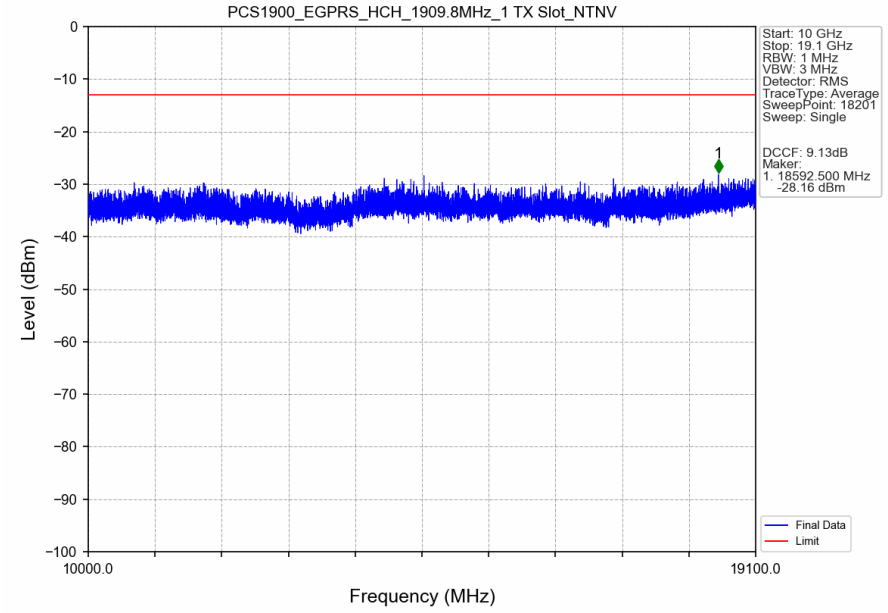
PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



6. Field Strength of Spurious Radiation

GSM1900 ANT3-Low channel								
Frequency (MHz)	**EIRP (dBm)**	**Limit (dBm)**	**Over Limit (dB)**	**S.G. Power (dBm)**	**Cable Loss (dB)**	**Antenna Gain (dBi)**	**Polarization (H/V)**	**Result**
3700.4	-63.3	-13	-50.3	-68.16	3.58	8.44	Horizontal	Pass
5550.6	-62.64	-13	-49.64	-68.35	4.74	10.45	Horizontal	Pass
7400.8	-60.22	-13	-47.22	-66.9	4.94	11.62	Horizontal	Pass
3700.4	-65.41	-13	-52.41	-70.27	3.58	8.44	Vertical	Pass
5550.6	-62.59	-13	-49.59	-68.3	4.74	10.45	Vertical	Pass
7400.8	-60.66	-13	-47.66	-67.34	4.94	11.62	Vertical	Pass

GSM1900 ANT3-Middle channel								
Frequency (MHz)	**EIRP (dBm)**	**Limit (dBm)**	**Over Limit (dB)**	**S.G. Power (dBm)**	**Cable Loss (dB)**	**Antenna Gain (dBi)**	**Polarization (H/V)**	**Result**
3760.0	-65.18	-13	-52.18	-70.07	3.63	8.52	Horizontal	Pass
5640.0	-62.26	-13	-49.26	-67.96	4.75	10.45	Horizontal	Pass
7520.0	-60.29	-13	-47.29	-67.11	4.94	11.76	Horizontal	Pass
3760.0	-65.94	-13	-52.94	-70.83	3.63	8.52	Vertical	Pass
5640.0	-62.08	-13	-49.08	-67.78	4.75	10.45	Vertical	Pass
7520.0	-59.93	-13	-46.93	-66.75	4.94	11.76	Vertical	Pass

GSM1900 ANT3-High channel								
Frequency (MHz)	**EIRP (dBm)**	**Limit (dBm)**	**Over Limit (dB)**	**S.G. Power (dBm)**	**Cable Loss (dB)**	**Antenna Gain (dBi)**	**Polarization (H/V)**	**Result**
3819.6	-64.56	-13	-51.56	-69.48	3.68	8.6	Horizontal	Pass
5729.4	-62.42	-13	-49.42	-68.11	4.76	10.45	Horizontal	Pass
7639.2	-59.53	-13	-46.53	-66.48	4.95	11.9	Horizontal	Pass
3819.6	-64.71	-13	-51.71	-69.63	3.68	8.6	Vertical	Pass
5729.4	-61.88	-13	-48.88	-67.57	4.76	10.45	Vertical	Pass
7639.2	-59.62	-13	-46.62	-66.57	4.95	11.9	Vertical	Pass