

1. Effective (Isotropic) Radiated Power Output Data

1.1 PCS1900_EIRP

1.1.1 Test Result

Band: PCS1900								
ENV	Mode		Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)		Verdict
	Network	Subset				Result	Limit	
NTNV	GSM	GSM	1850.2	27.80	-1.88	25.92	<=33.01	Pass
			1880	27.92	-1.88	26.04	<=33.01	Pass
			1909.8	27.94	-1.88	26.06	<=33.01	Pass
	GPRS	1 TX Slot	1850.2	27.80	-1.88	25.92	<=33.01	Pass
		2 TX Slots	1850.2	27.32	-1.88	25.44	<=33.01	Pass
		3 TX Slots	1850.2	25.84	-1.88	23.96	<=33.01	Pass
		4 TX Slots	1850.2	24.77	-1.88	22.89	<=33.01	Pass
		1 TX Slot	1880	27.89	-1.88	26.01	<=33.01	Pass
		2 TX Slots	1880	27.44	-1.88	25.56	<=33.01	Pass
		3 TX Slots	1880	25.97	-1.88	24.09	<=33.01	Pass
		4 TX Slots	1880	24.90	-1.88	23.02	<=33.01	Pass
		1 TX Slot	1909.8	27.91	-1.88	26.03	<=33.01	Pass
		2 TX Slots	1909.8	27.47	-1.88	25.59	<=33.01	Pass
		3 TX Slots	1909.8	26.05	-1.88	24.17	<=33.01	Pass
		4 TX Slots	1909.8	24.98	-1.88	23.10	<=33.01	Pass
	EGPRS	1 TX Slot	1850.2	25.95	-1.88	24.07	<=33.01	Pass
		2 TX Slots	1850.2	24.78	-1.88	22.90	<=33.01	Pass
		3 TX Slots	1850.2	22.87	-1.88	20.99	<=33.01	Pass
		4 TX Slots	1850.2	21.46	-1.88	19.58	<=33.01	Pass
		1 TX Slot	1880	26.07	-1.88	24.19	<=33.01	Pass
		2 TX Slots	1880	25.27	-1.88	23.39	<=33.01	Pass
		3 TX Slots	1880	23.21	-1.88	21.33	<=33.01	Pass
		4 TX Slots	1880	21.65	-1.88	19.77	<=33.01	Pass
		1 TX Slot	1909.8	26.36	-1.88	24.48	<=33.01	Pass
		2 TX Slots	1909.8	25.61	-1.88	23.73	<=33.01	Pass
		3 TX Slots	1909.8	23.52	-1.88	21.64	<=33.01	Pass
		4 TX Slots	1909.8	22.20	-1.88	20.32	<=33.01	Pass

Note1: EIRP=Conducted Power+Antenna Gain

2. Frequency Stability

2.1 PCS1900

2.1.1 Test Result

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	22.600	0.0122	-2.5 to 2.5	Pass
			3.85	22.600	0.0122	-2.5 to 2.5	Pass
			4.43	23.052	0.0125	-2.5 to 2.5	Pass
		-30	3.85	22.858	0.0124	-2.5 to 2.5	Pass
		-20	3.85	19.598	0.0106	-2.5 to 2.5	Pass
		-10	3.85	16.014	0.0087	-2.5 to 2.5	Pass
		0	3.85	18.177	0.0098	-2.5 to 2.5	Pass
		10	3.85	17.338	0.0094	-2.5 to 2.5	Pass

		30	3.85	20.082	0.0109	-2.5 to 2.5	Pass	
		40	3.85	21.502	0.0116	-2.5 to 2.5	Pass	
		50	3.85	23.730	0.0128	-2.5 to 2.5	Pass	
	1880	20	3.27	16.240	0.0086	-2.5 to 2.5	Pass	
			3.85	16.111	0.0086	-2.5 to 2.5	Pass	
			4.43	16.950	0.0090	-2.5 to 2.5	Pass	
		-30	3.85	15.723	0.0084	-2.5 to 2.5	Pass	
		-20	3.85	16.595	0.0088	-2.5 to 2.5	Pass	
		-10	3.85	19.565	0.0104	-2.5 to 2.5	Pass	
		0	3.85	14.044	0.0075	-2.5 to 2.5	Pass	
		10	3.85	13.592	0.0072	-2.5 to 2.5	Pass	
		30	3.85	14.173	0.0075	-2.5 to 2.5	Pass	
		40	3.85	16.304	0.0087	-2.5 to 2.5	Pass	
		50	3.85	12.785	0.0068	-2.5 to 2.5	Pass	
	1909.8	20	3.27	19.985	0.0105	-2.5 to 2.5	Pass	
			3.85	19.275	0.0101	-2.5 to 2.5	Pass	
			4.43	14.432	0.0076	-2.5 to 2.5	Pass	
		-30	3.85	12.850	0.0067	-2.5 to 2.5	Pass	
		-20	3.85	13.334	0.0070	-2.5 to 2.5	Pass	
		-10	3.85	19.824	0.0104	-2.5 to 2.5	Pass	
		0	3.85	10.622	0.0056	-2.5 to 2.5	Pass	
10		3.85	16.724	0.0088	-2.5 to 2.5	Pass		
30		3.85	12.947	0.0068	-2.5 to 2.5	Pass		
40		3.85	15.626	0.0082	-2.5 to 2.5	Pass		
50	3.85	14.884	0.0078	-2.5 to 2.5	Pass			
GPRS	1850.2	20	3.27	16.886	0.0091	-2.5 to 2.5	Pass	
			3.85	14.916	0.0081	-2.5 to 2.5	Pass	
			4.43	13.205	0.0071	-2.5 to 2.5	Pass	
		-30	3.85	16.756	0.0091	-2.5 to 2.5	Pass	
		-20	3.85	10.396	0.0056	-2.5 to 2.5	Pass	
		-10	3.85	12.365	0.0067	-2.5 to 2.5	Pass	
		0	3.85	10.073	0.0054	-2.5 to 2.5	Pass	
		10	3.85	13.269	0.0072	-2.5 to 2.5	Pass	
		30	3.85	18.629	0.0101	-2.5 to 2.5	Pass	
		40	3.85	13.883	0.0075	-2.5 to 2.5	Pass	
		50	3.85	16.498	0.0089	-2.5 to 2.5	Pass	
	1880	20	3.27	18.338	0.0098	-2.5 to 2.5	Pass	
			3.85	18.726	0.0100	-2.5 to 2.5	Pass	
			4.43	12.914	0.0069	-2.5 to 2.5	Pass	
		-30	3.85	10.913	0.0058	-2.5 to 2.5	Pass	
		-20	3.85	12.817	0.0068	-2.5 to 2.5	Pass	
		-10	3.85	12.753	0.0068	-2.5 to 2.5	Pass	
		0	3.85	15.142	0.0081	-2.5 to 2.5	Pass	
		10	3.85	15.465	0.0082	-2.5 to 2.5	Pass	
		30	3.85	19.016	0.0101	-2.5 to 2.5	Pass	
		40	3.85	16.950	0.0090	-2.5 to 2.5	Pass	
		50	3.85	16.434	0.0087	-2.5 to 2.5	Pass	
	1909.8	20	3.27	15.174	0.0079	-2.5 to 2.5	Pass	
			3.85	16.175	0.0085	-2.5 to 2.5	Pass	
			4.43	13.528	0.0071	-2.5 to 2.5	Pass	
		-30	3.85	15.917	0.0083	-2.5 to 2.5	Pass	
		-20	3.85	15.465	0.0081	-2.5 to 2.5	Pass	
		-10	3.85	15.659	0.0082	-2.5 to 2.5	Pass	
		0	3.85	14.916	0.0078	-2.5 to 2.5	Pass	
		10	3.85	10.009	0.0052	-2.5 to 2.5	Pass	
		30	3.85	17.531	0.0092	-2.5 to 2.5	Pass	
		40	3.85	17.628	0.0092	-2.5 to 2.5	Pass	
	50	3.85	13.431	0.0070	-2.5 to 2.5	Pass		
	EGPRS	1850.2	20	3.27	23.407	0.0127	-2.5 to 2.5	Pass

			3.85	20.534	0.0111	-2.5 to 2.5	Pass	
			4.43	20.276	0.0110	-2.5 to 2.5	Pass	
		-30	3.85	22.858	0.0124	-2.5 to 2.5	Pass	
		-20	3.85	13.947	0.0075	-2.5 to 2.5	Pass	
		-10	3.85	20.372	0.0110	-2.5 to 2.5	Pass	
		0	3.85	21.309	0.0115	-2.5 to 2.5	Pass	
		10	3.85	18.500	0.0100	-2.5 to 2.5	Pass	
		30	3.85	19.953	0.0108	-2.5 to 2.5	Pass	
		40	3.85	18.823	0.0102	-2.5 to 2.5	Pass	
		50	3.85	20.017	0.0108	-2.5 to 2.5	Pass	
	1880	20		3.27	28.056	0.0149	-2.5 to 2.5	Pass
				3.85	20.792	0.0111	-2.5 to 2.5	Pass
				4.43	22.955	0.0122	-2.5 to 2.5	Pass
		-30	3.85	27.023	0.0144	-2.5 to 2.5	Pass	
		-20	3.85	20.469	0.0109	-2.5 to 2.5	Pass	
		-10	3.85	22.342	0.0119	-2.5 to 2.5	Pass	
		0	3.85	16.208	0.0086	-2.5 to 2.5	Pass	
		10	3.85	22.051	0.0117	-2.5 to 2.5	Pass	
		30	3.85	28.153	0.0150	-2.5 to 2.5	Pass	
		40	3.85	21.825	0.0116	-2.5 to 2.5	Pass	
	50	3.85	23.762	0.0126	-2.5 to 2.5	Pass		
	1909.8	20		3.27	29.509	0.0155	-2.5 to 2.5	Pass
				3.85	30.446	0.0159	-2.5 to 2.5	Pass
				4.43	21.341	0.0112	-2.5 to 2.5	Pass
		-30	3.85	33.158	0.0174	-2.5 to 2.5	Pass	
		-20	3.85	26.830	0.0140	-2.5 to 2.5	Pass	
		-10	3.85	27.217	0.0143	-2.5 to 2.5	Pass	
		0	3.85	28.605	0.0150	-2.5 to 2.5	Pass	
		10	3.85	29.961	0.0157	-2.5 to 2.5	Pass	
		30	3.85	29.251	0.0153	-2.5 to 2.5	Pass	
40		3.85	17.176	0.0090	-2.5 to 2.5	Pass		
50	3.85	32.932	0.0172	-2.5 to 2.5	Pass			

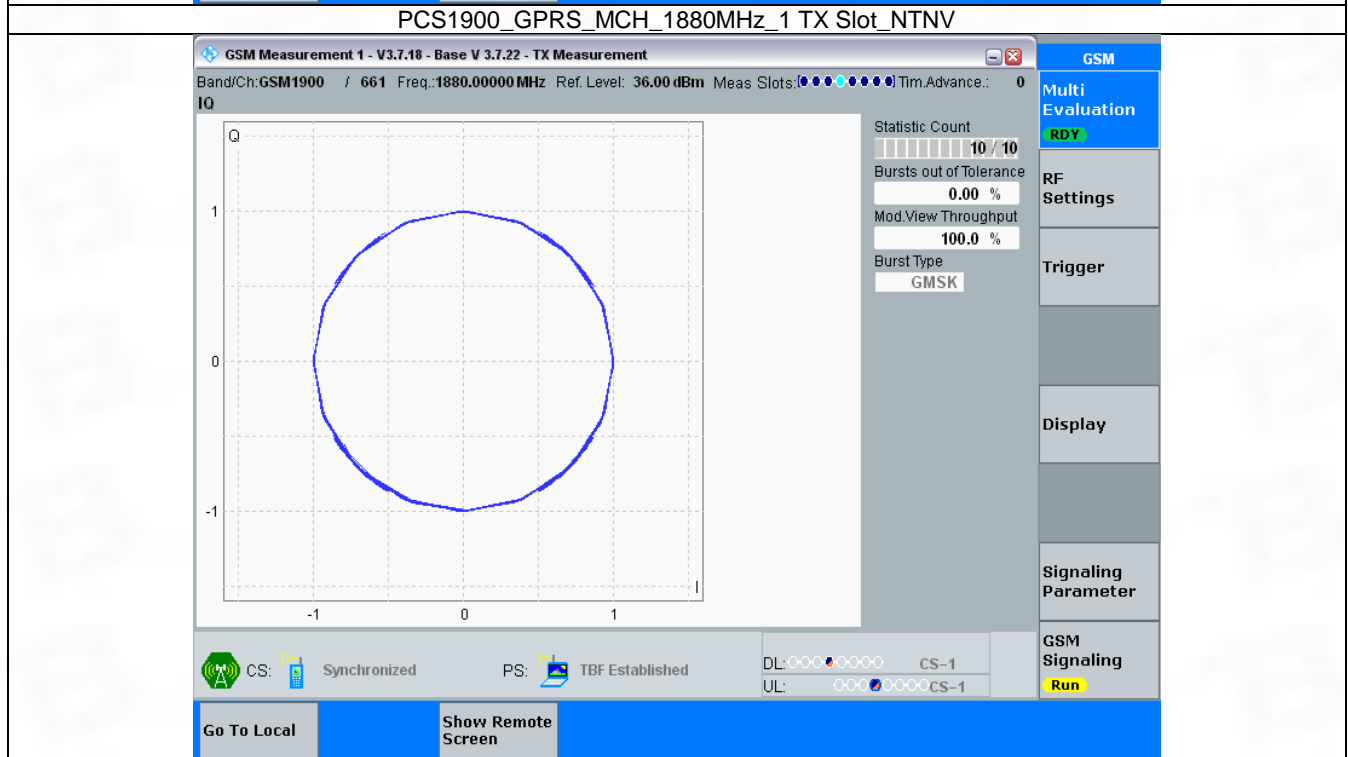
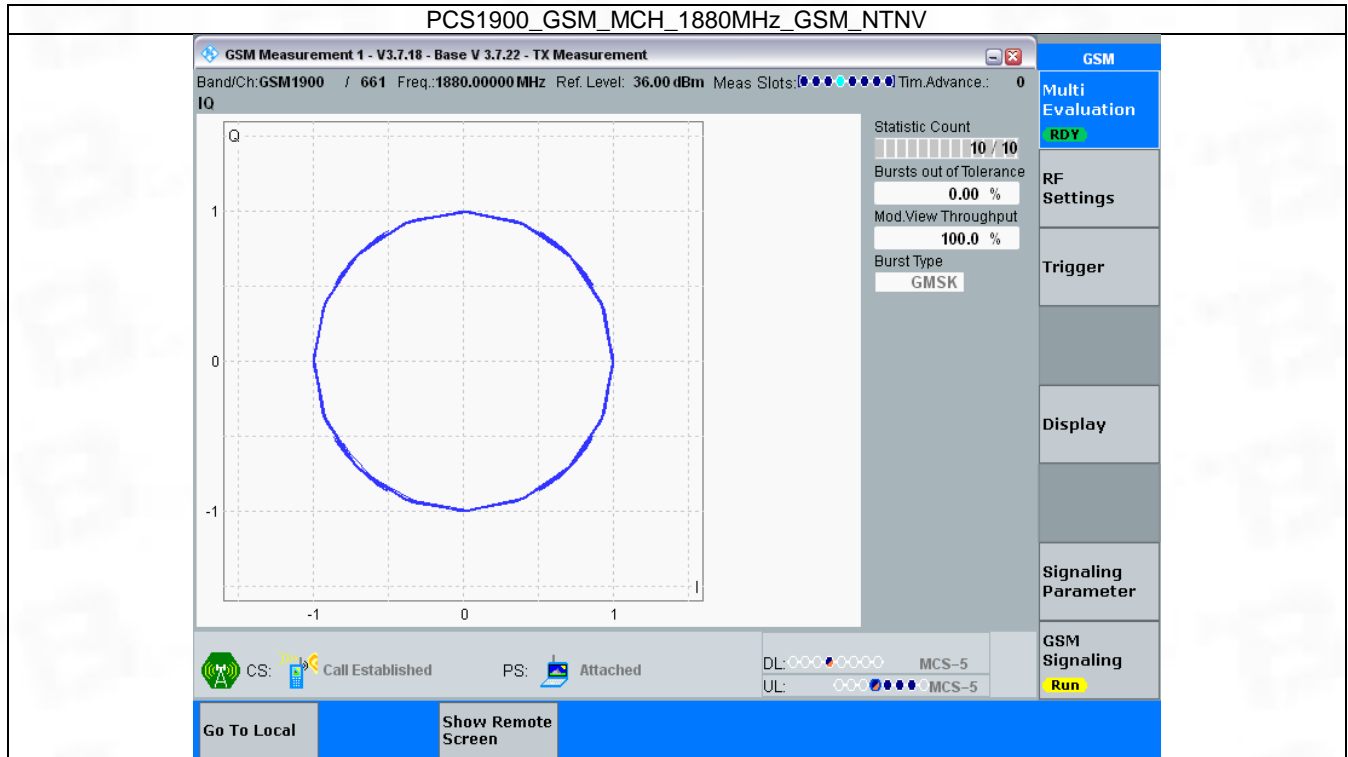
3. Modulation Characteristics

3.1 PCS1900

3.1.1 Test Result

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

3.1.2 Test Graph

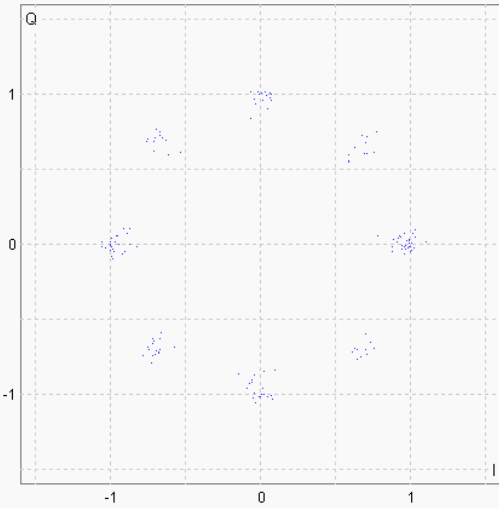


PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV

GSM Measurement 1 - V3.7.18 - Base V 3.7.22 - TX Measurement

Band/Ch: GSM1900 / 661 Freq.: 1880.00000 MHz Ref. Level: 39.23 dBm Meas Slots: [Progress Bar] Tim. Advance.: 0

IQ



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

Multi Evaluation **RDY**

RF Settings

Trigger

Display

Signaling Parameter

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

GSM Signaling **Run**

Go To Local **Show Remote Screen**

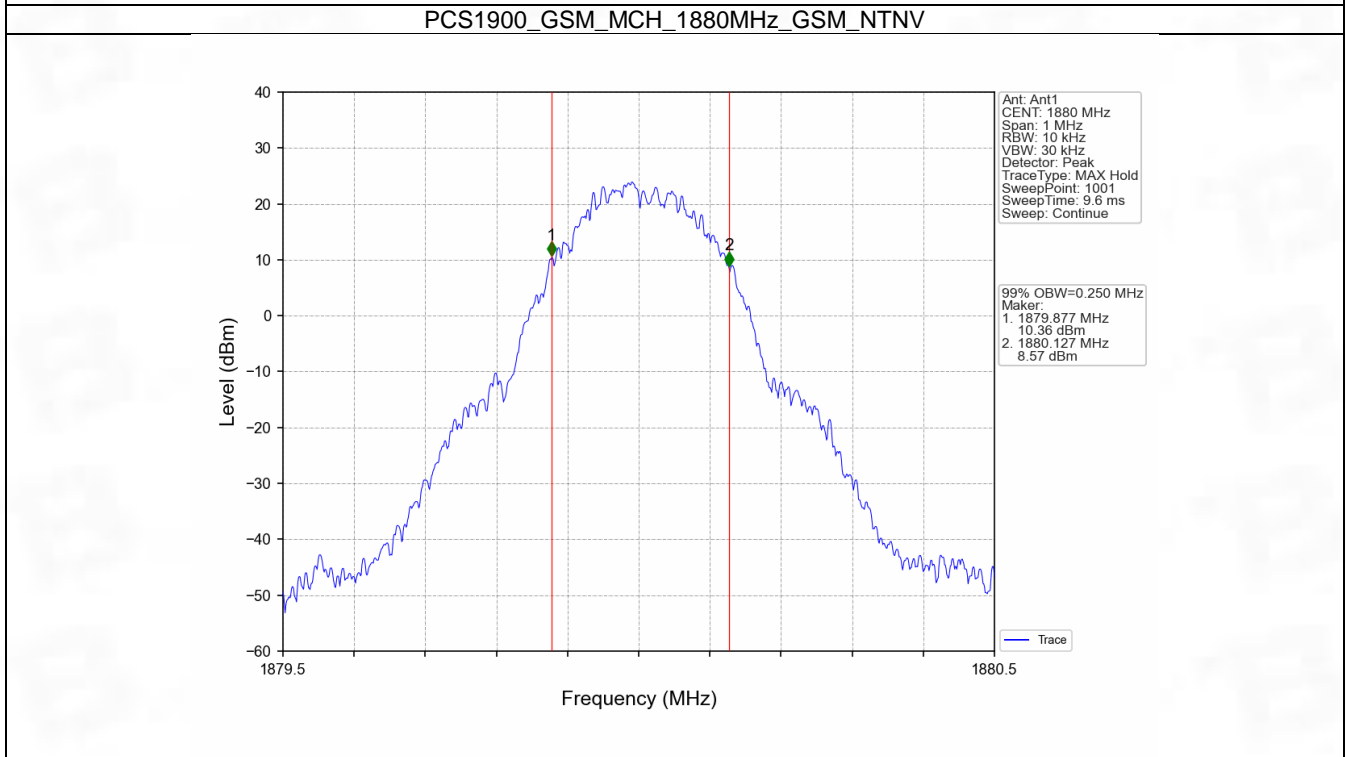
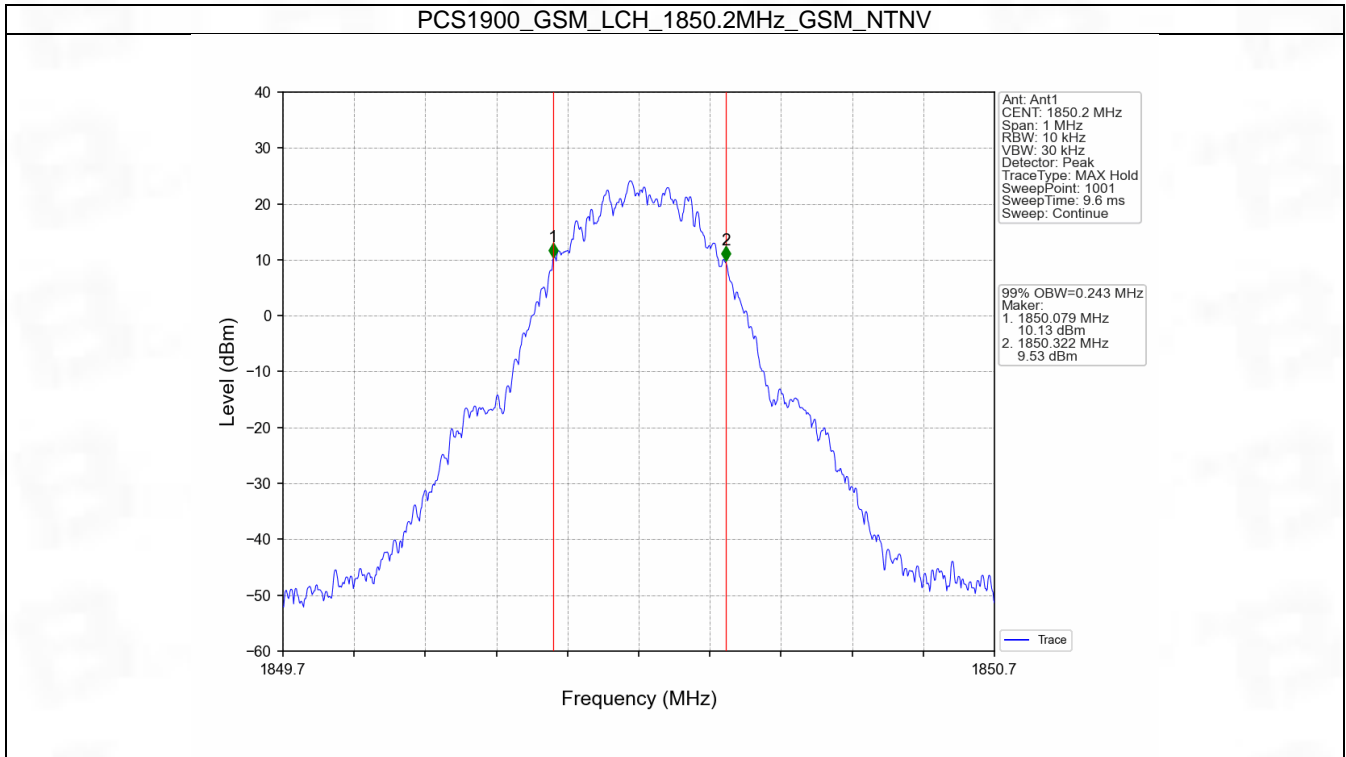
4. 99% & 26dB Bandwidth

4.1 PCS1900_OBW

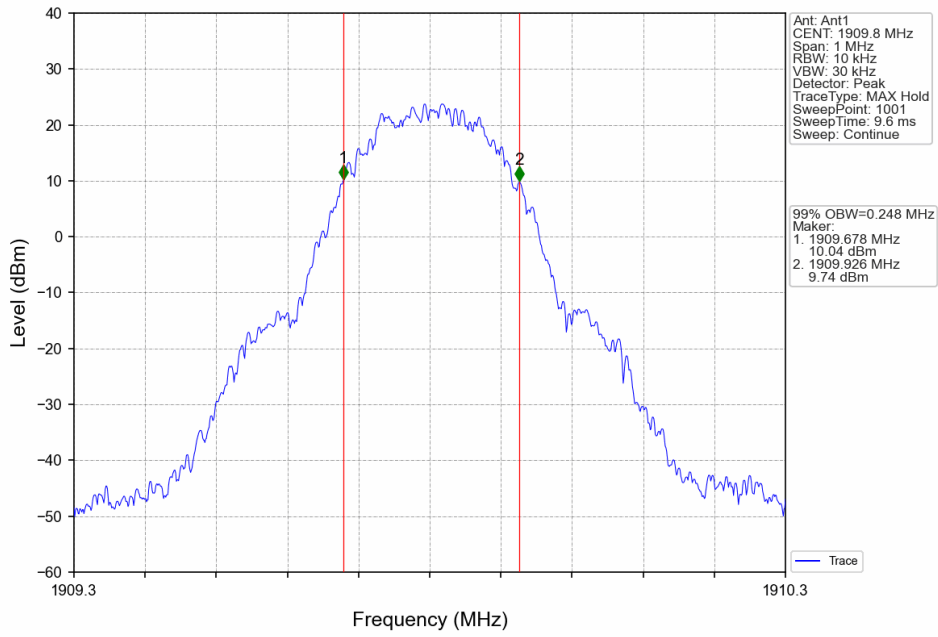
4.1.1 Test Result

Band: PCS1900						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	0.243	/	Pass
			1880	0.250	/	Pass
			1909.8	0.248	/	Pass
	GPRS	1 TX Slot	1850.2	0.248	/	Pass
			1880	0.244	/	Pass
			1909.8	0.242	/	Pass
	EGPRS	1 TX Slot	1850.2	0.247	/	Pass
			1880	0.257	/	Pass
			1909.8	0.250	/	Pass

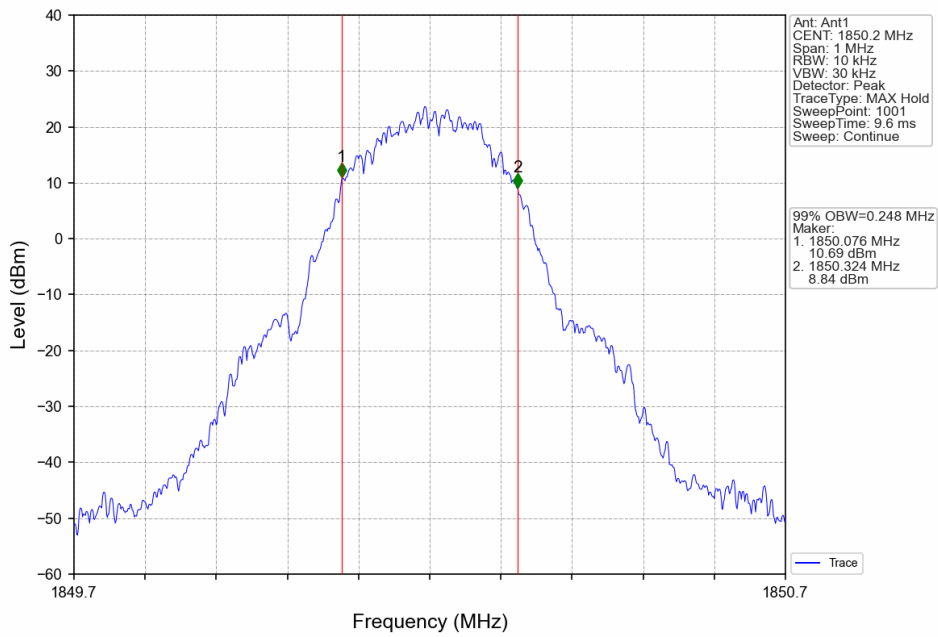
4.1.2 Test Graph



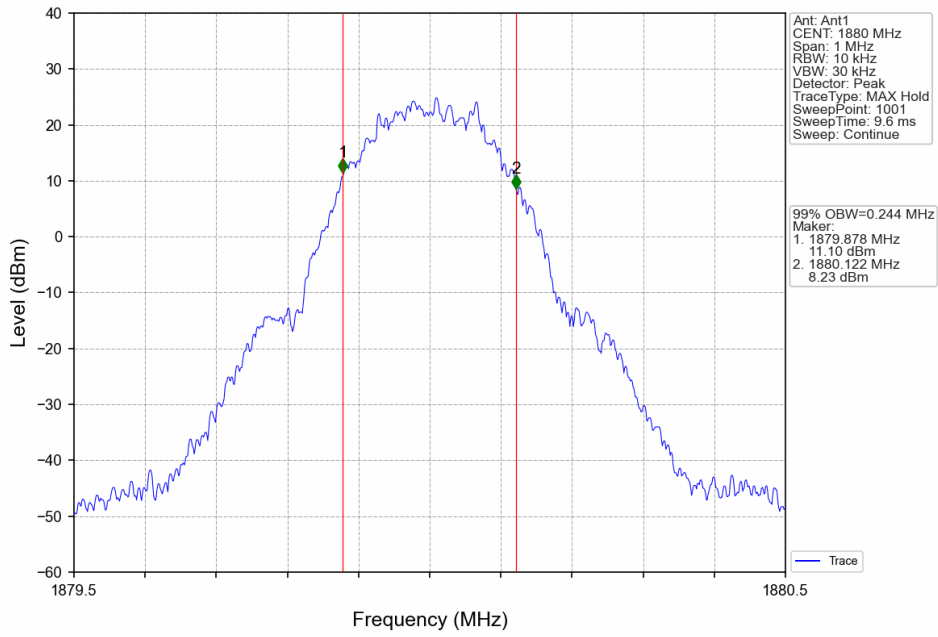
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



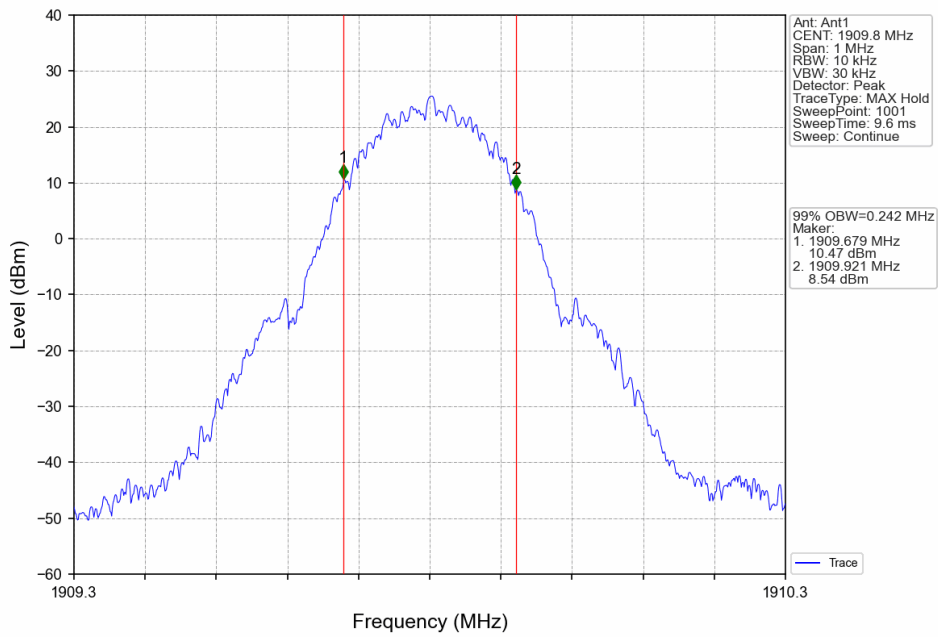
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



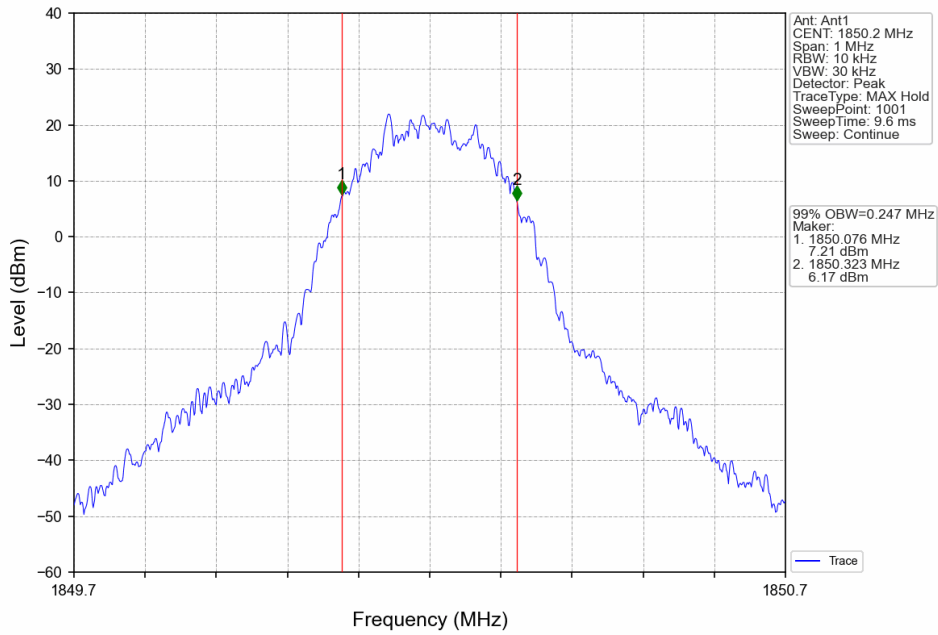
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



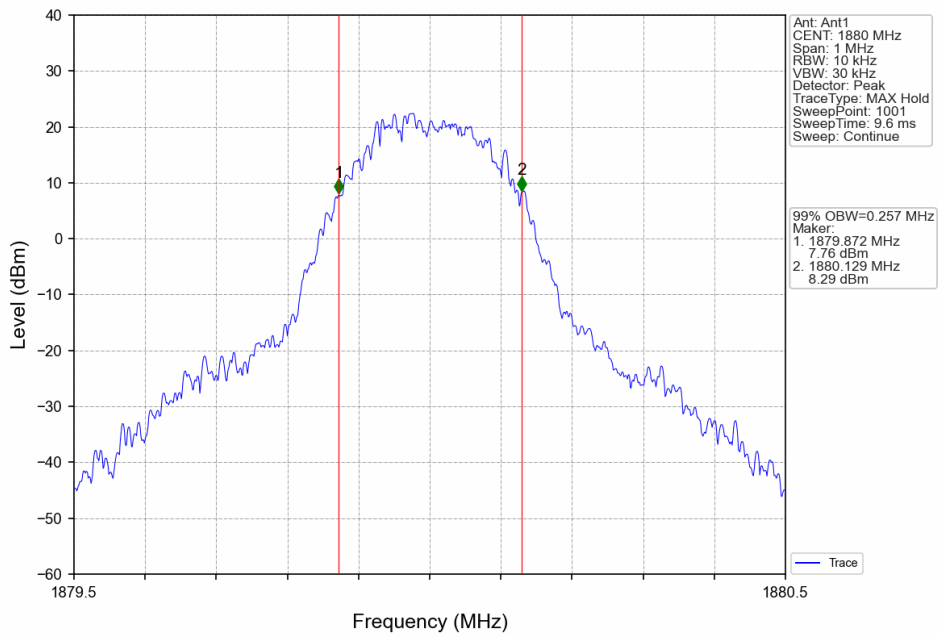
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



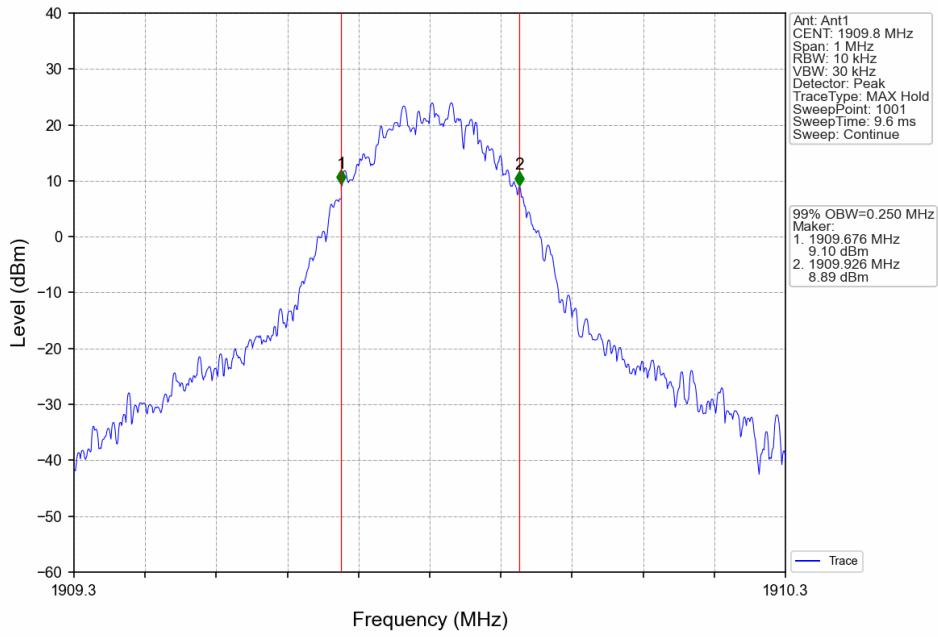
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV

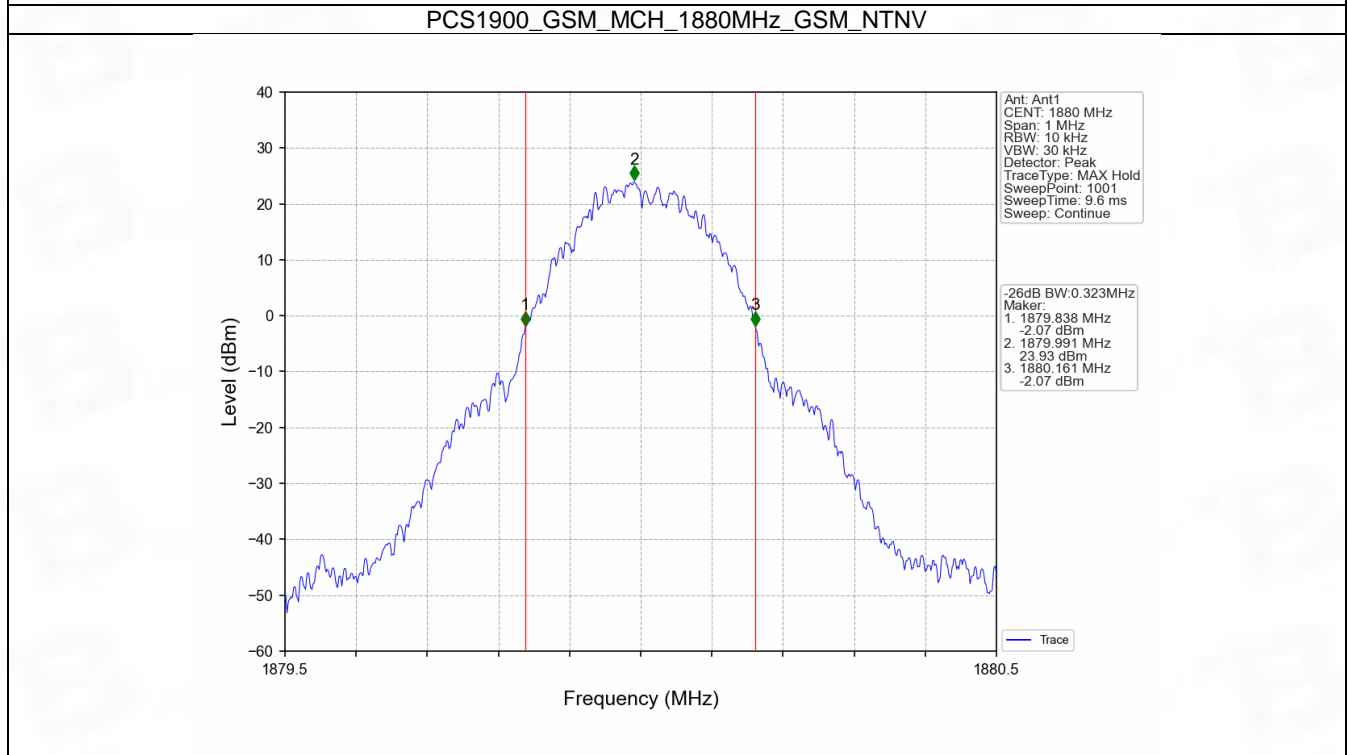
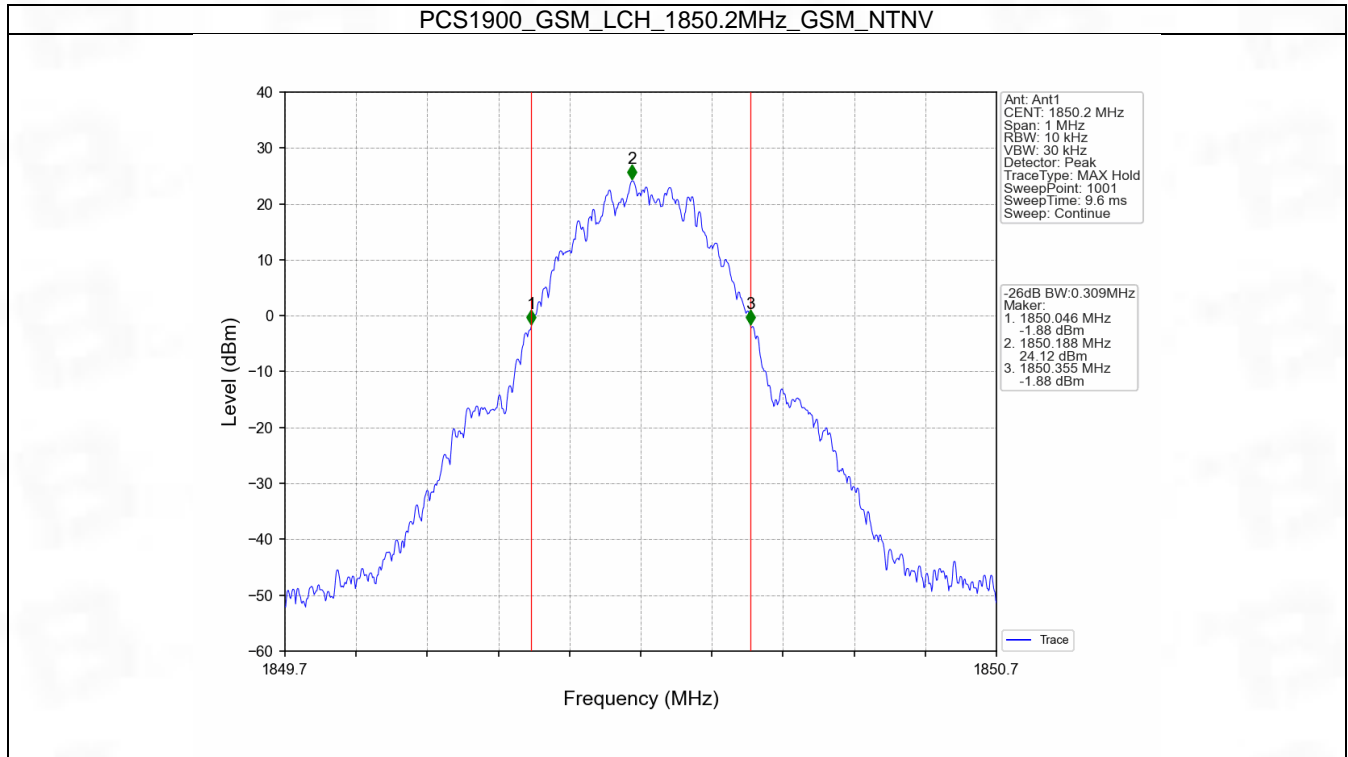


4.2 PCS1900_XDB

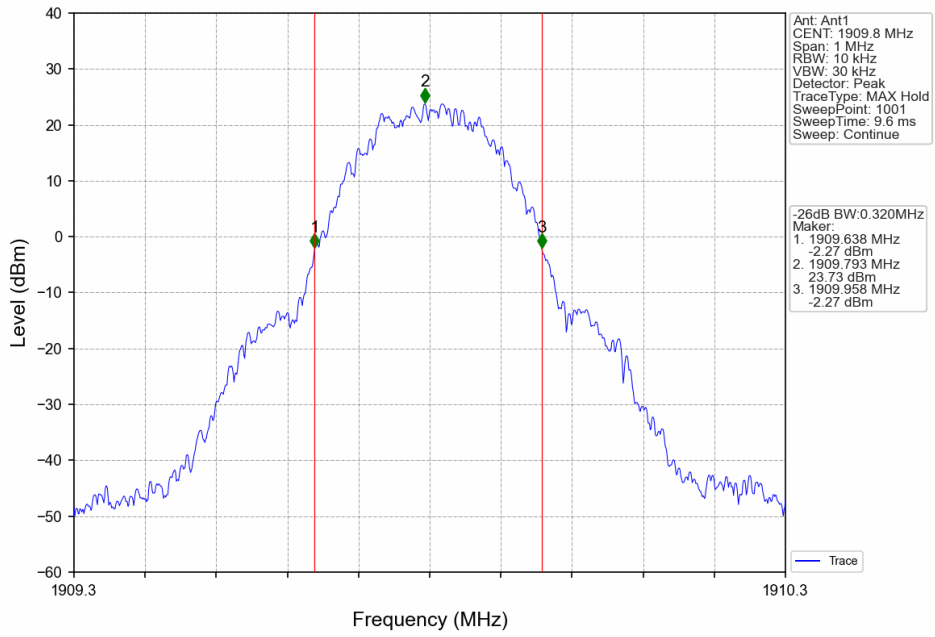
4.2.1 Test Result

Band: PCS1900						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	0.309	/	Pass
			1880	0.323	/	Pass
			1909.8	0.320	/	Pass
	GPRS	1 TX Slot	1850.2	0.311	/	Pass
			1880	0.314	/	Pass
			1909.8	0.306	/	Pass
	EGPRS	1 TX Slot	1850.2	0.322	/	Pass
			1880	0.318	/	Pass
			1909.8	0.328	/	Pass

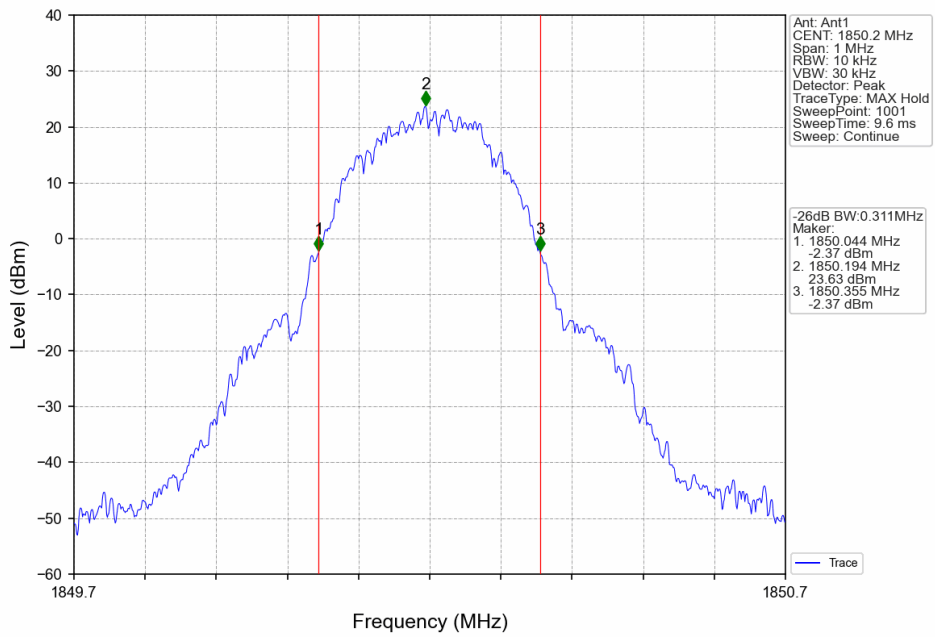
4.2.2 Test Graph



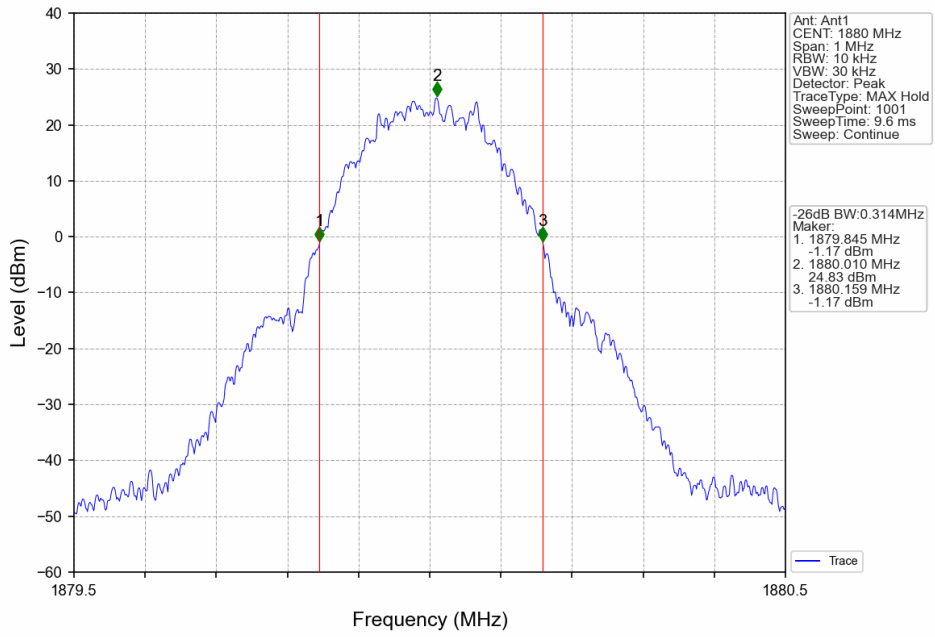
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



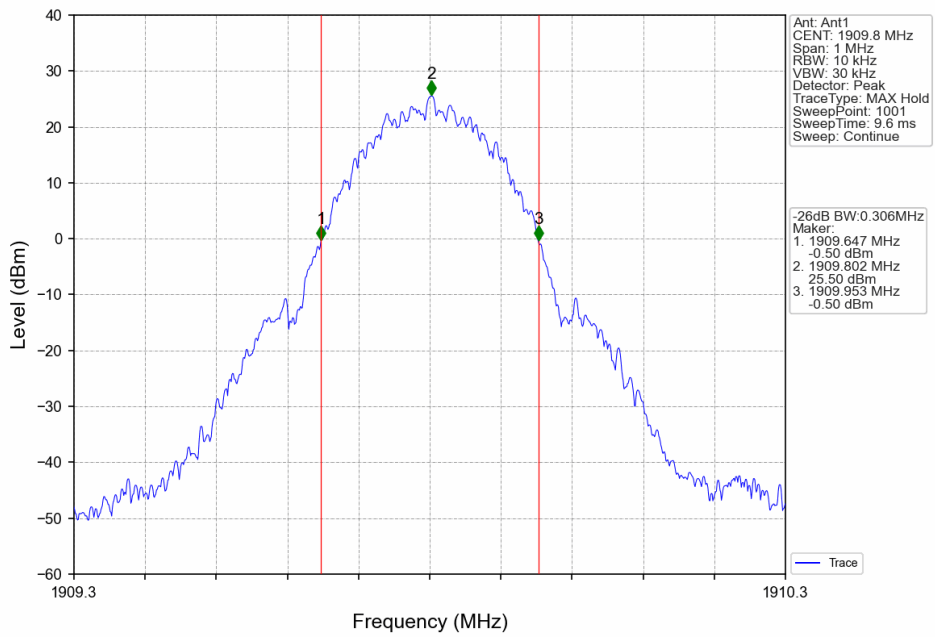
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



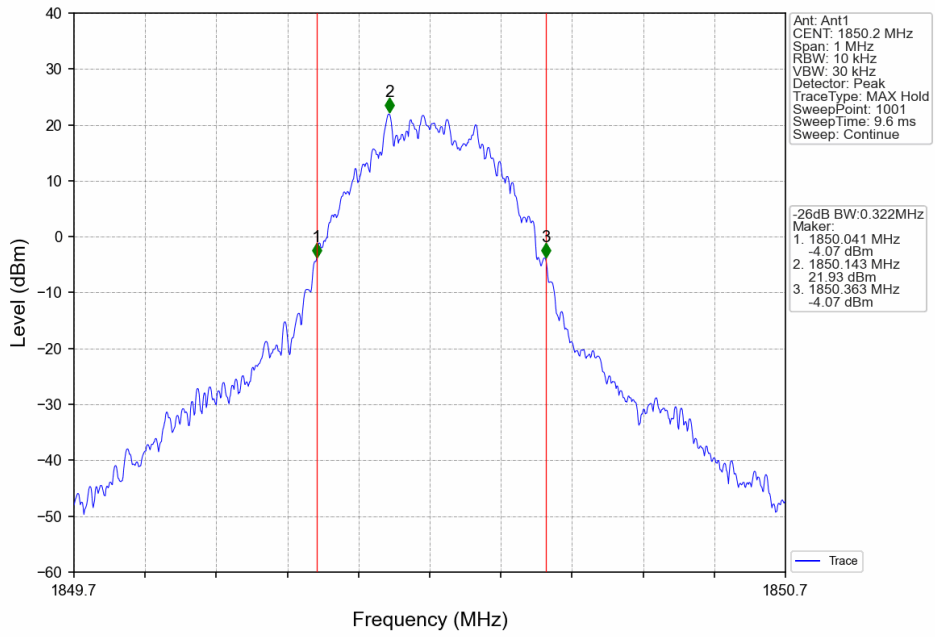
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



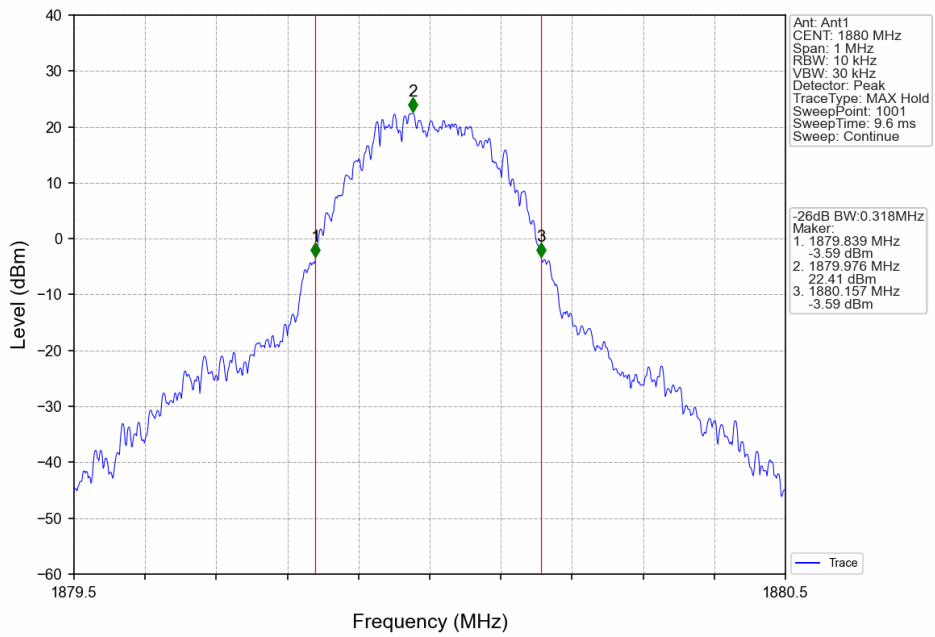
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



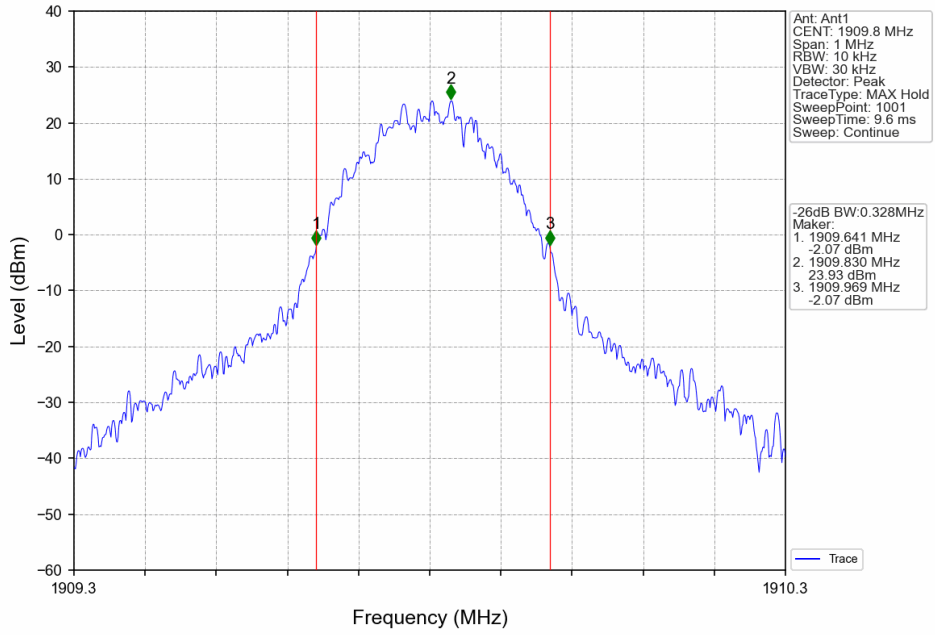
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



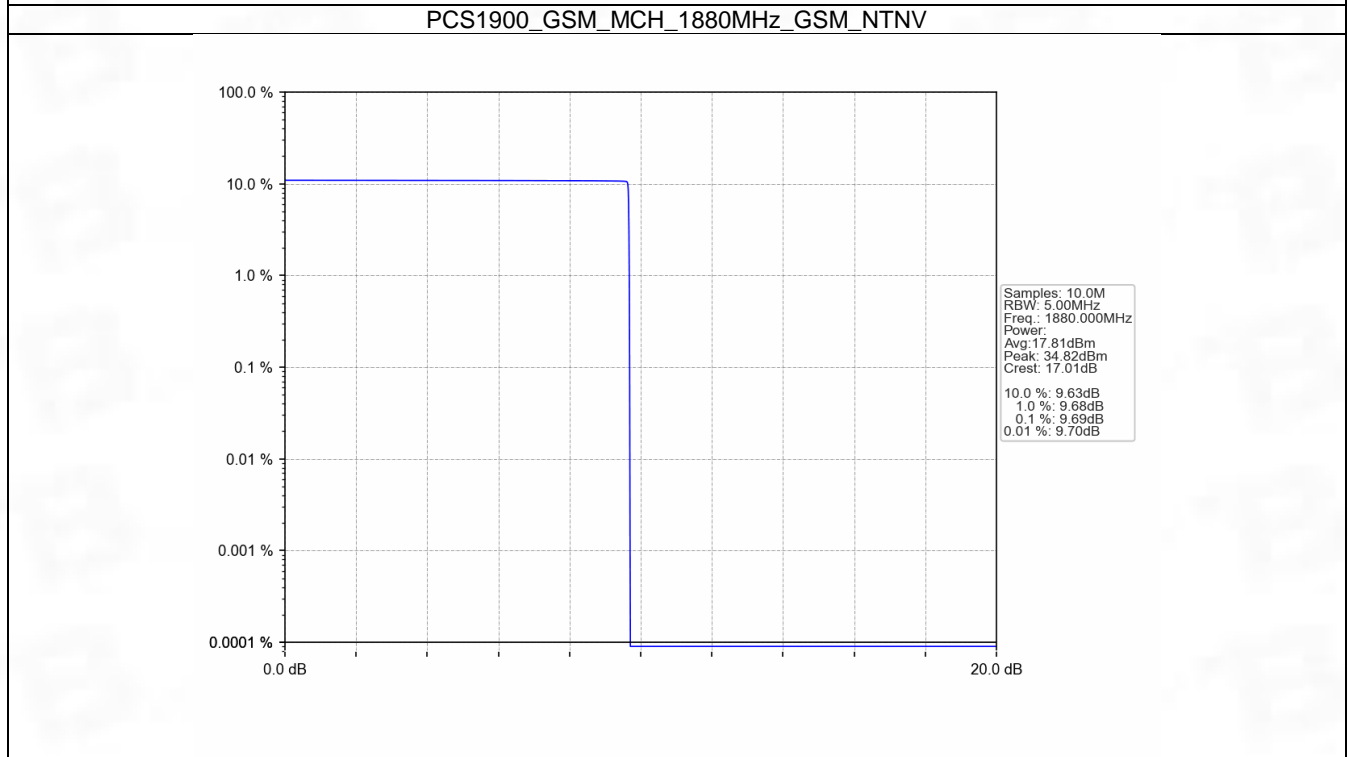
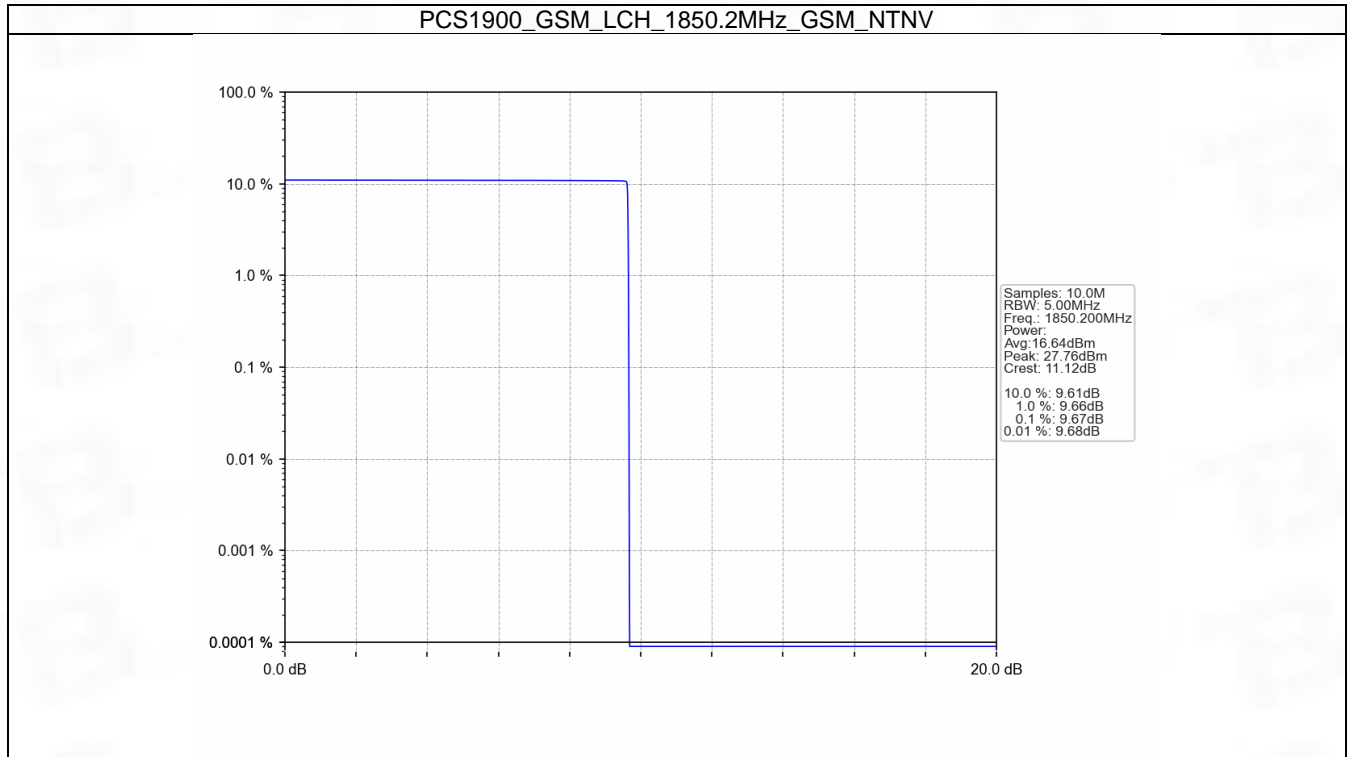
5. Peak-Average Ratio

5.1 PCS1900

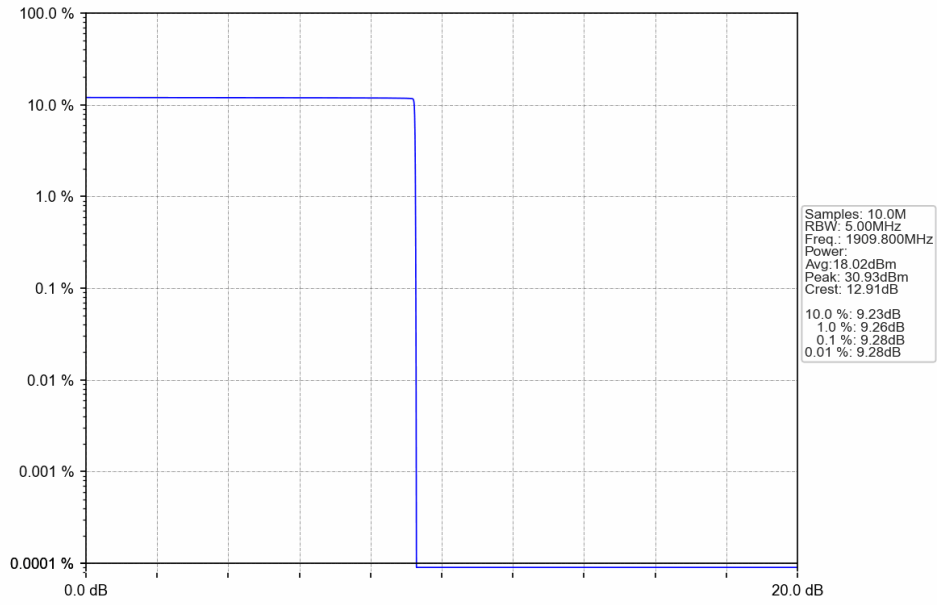
5.1.1 Test Result

Band: PCS1900						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	9.67	<=13	Pass
			1880	9.69	<=13	Pass
			1909.8	9.28	<=13	Pass
	GPRS	4 TX Slots	1850.2	3.53	<=13	Pass
			1880	3.61	<=13	Pass
			1909.8	3.60	<=13	Pass
	EGPRS	4 TX Slots	1850.2	8.13	<=13	Pass
			1880	7.72	<=13	Pass
			1909.8	7.44	<=13	Pass

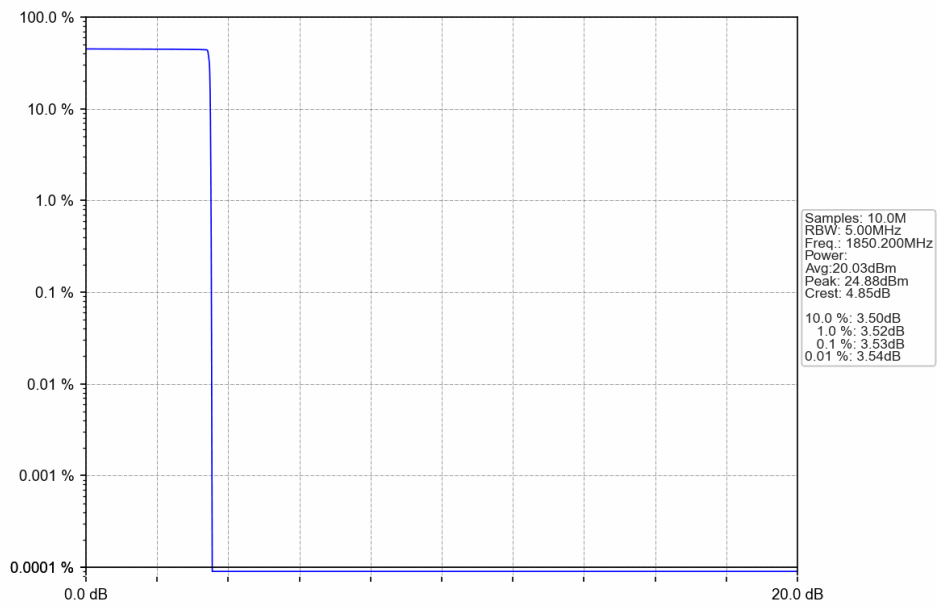
5.1.2 Test Graph



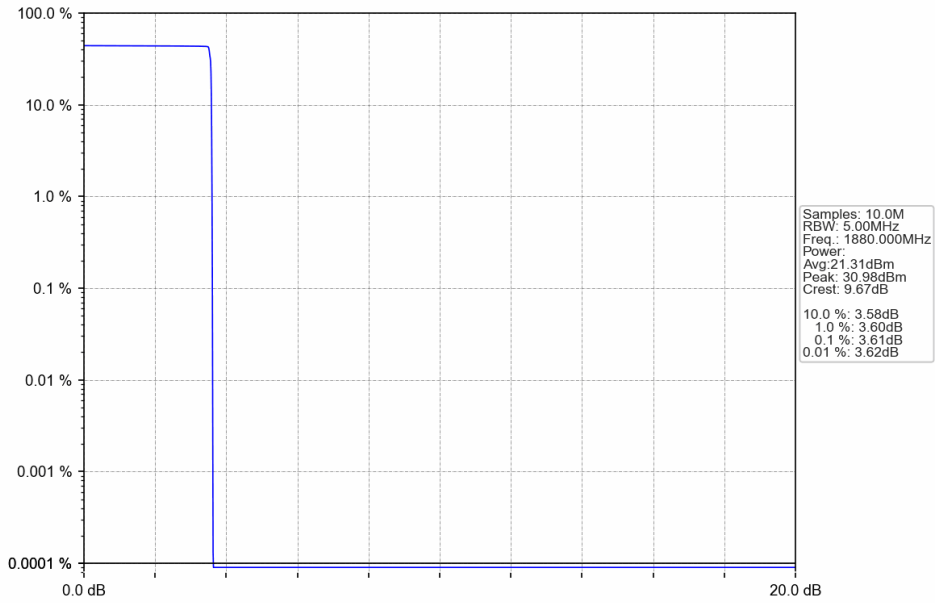
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



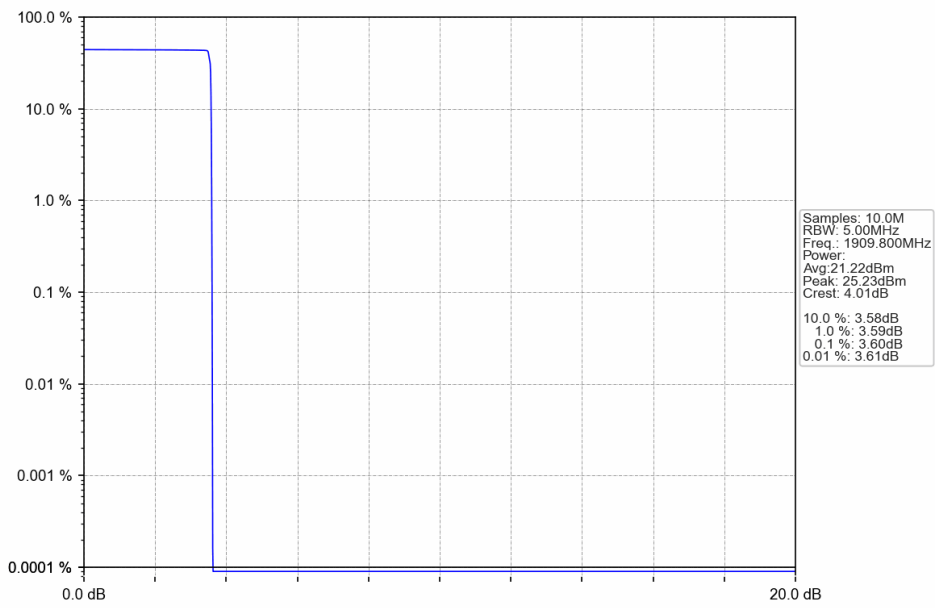
PCS1900_GPRS_LCH_1850.2MHz_4 TX Slots_NTNV



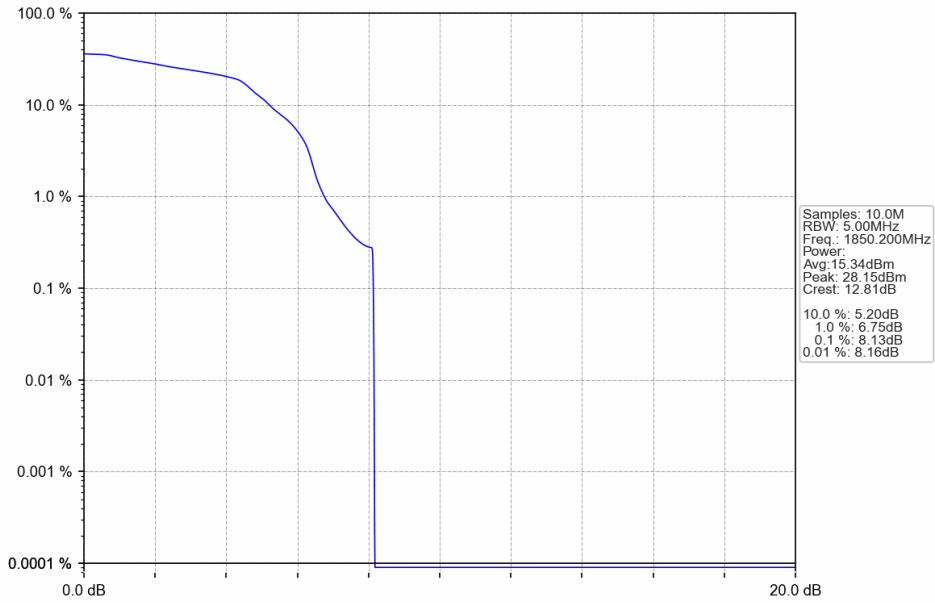
PCS1900_GPRS_MCH_1880MHz_4 TX Slots_NTNV



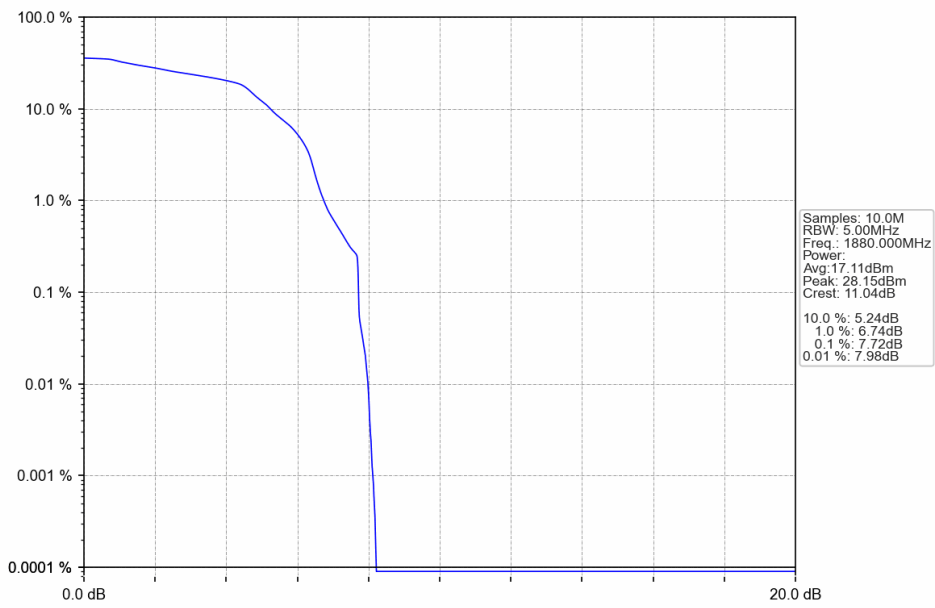
PCS1900_GPRS_HCH_1909.8MHz_4 TX Slots_NTNV



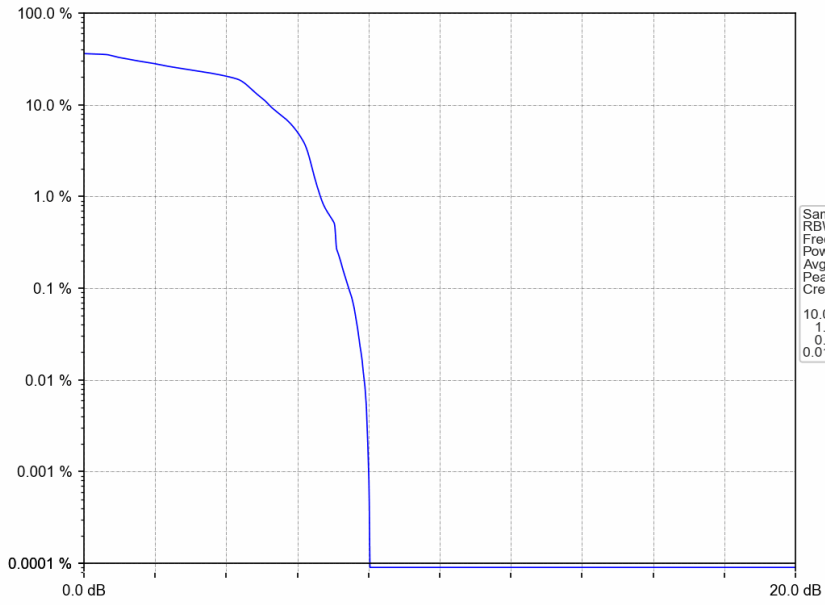
PCS1900_EGPRS_LCH_1850.2MHz_4 TX Slots_NTNV



PCS1900_EGPRS_MCH_1880MHz_4 TX Slots_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_4 TX Slots_NTNV



Samples: 10.0M
RBW: 5.00MHz
Freq.: 1909.800MHz
Power:
Avg: 17.64dBm
Peak: 26.79dBm
Crest: 8.15dB
10.0 %: 5.20dB
1.0 %: 6.65dB
0.1 %: 7.44dB
0.01 %: 7.88dB

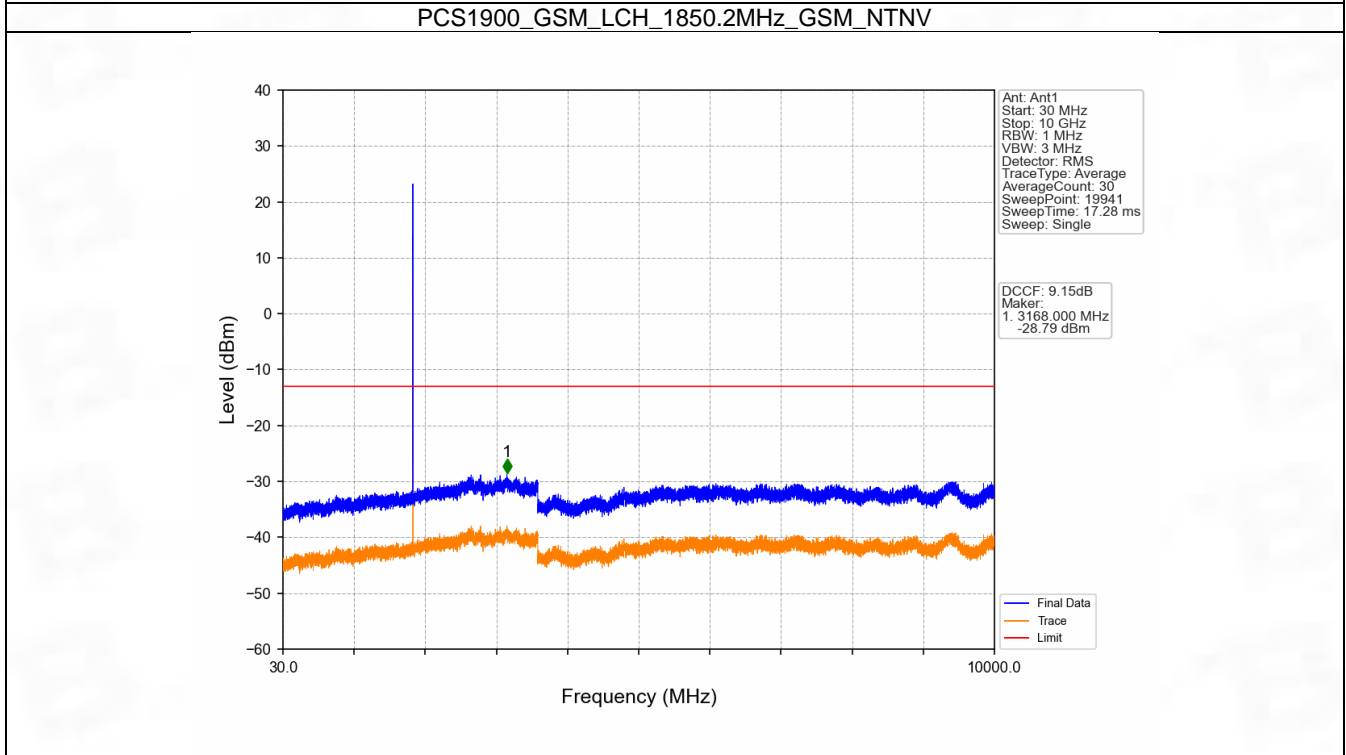
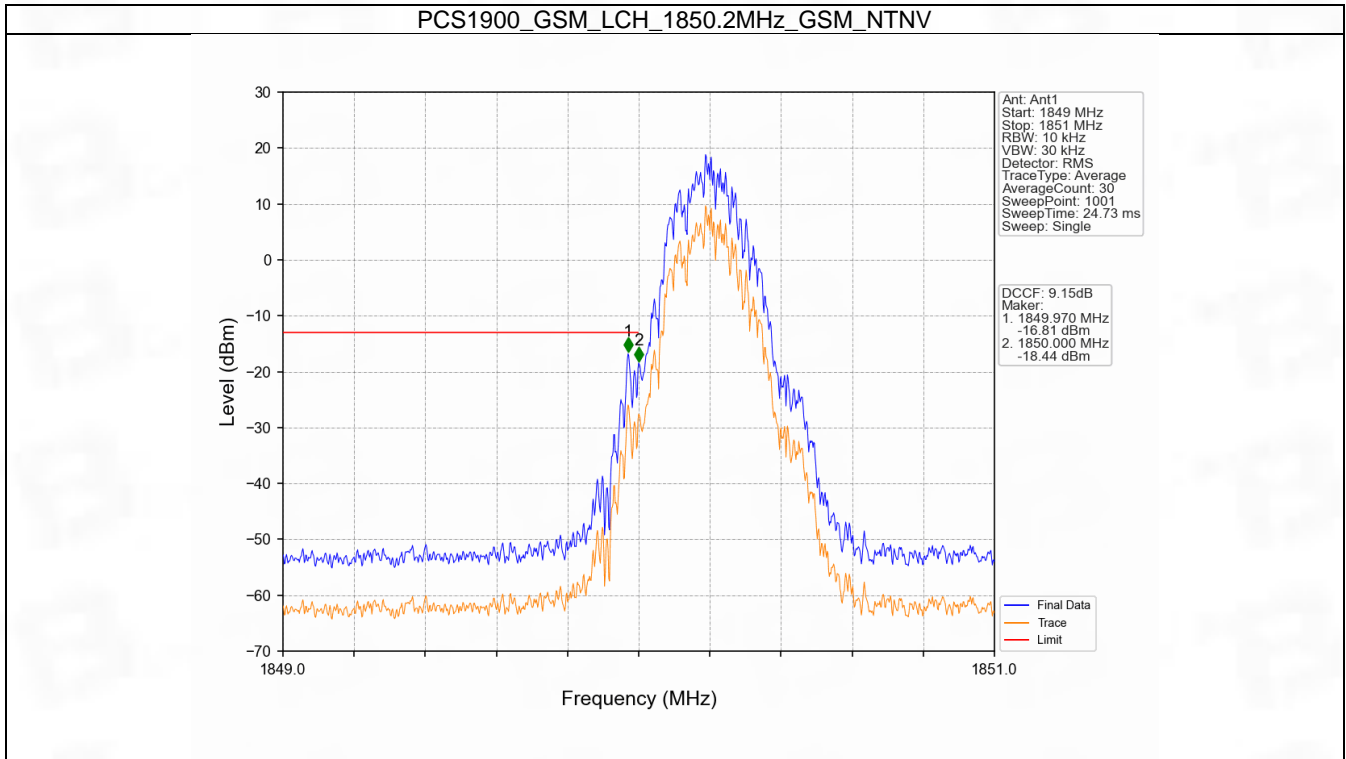
6. Spurious Emission

6.1 PCS1900

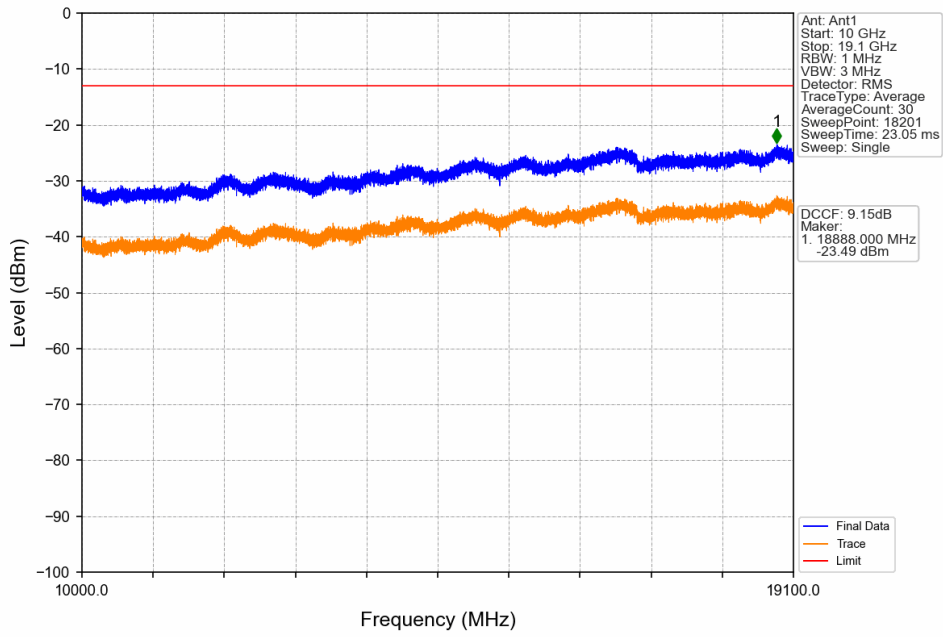
6.1.1 Test Result

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	

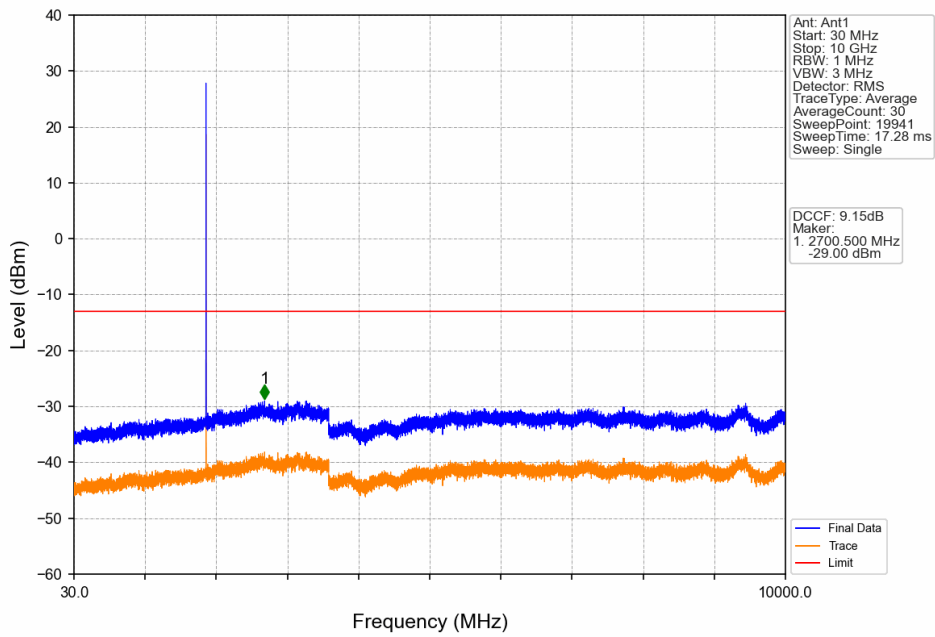
6.1.2 Test Graph



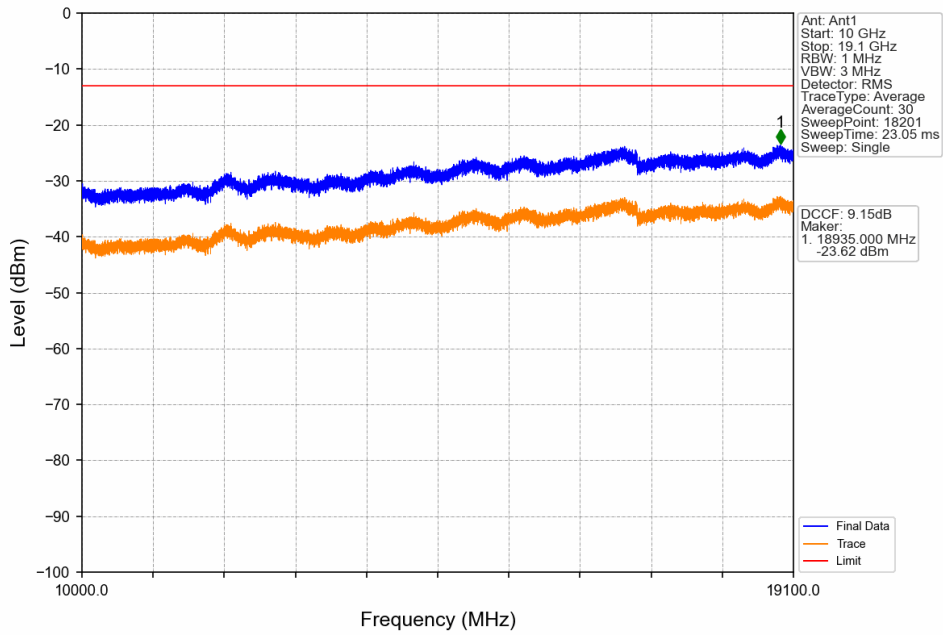
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



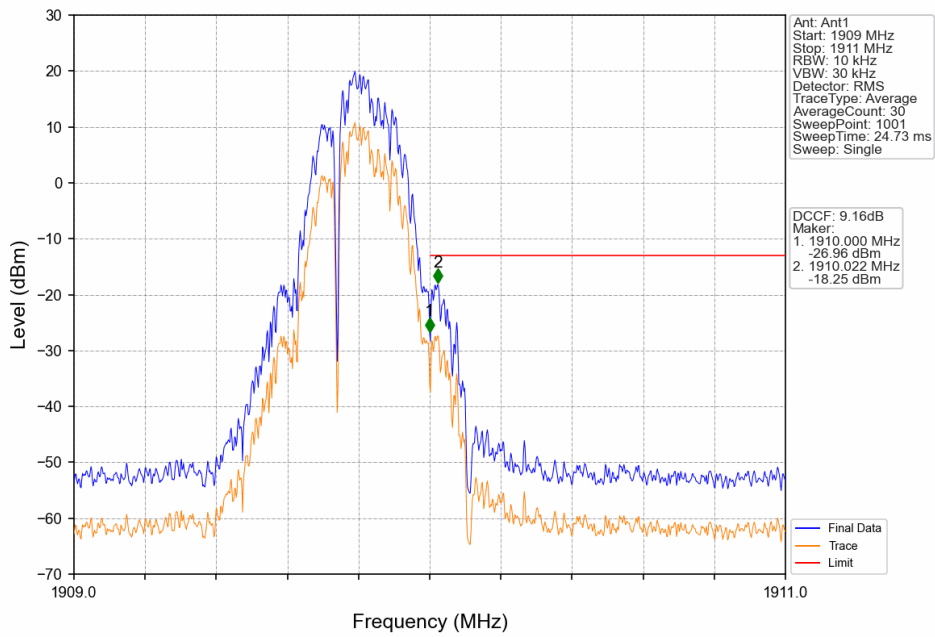
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



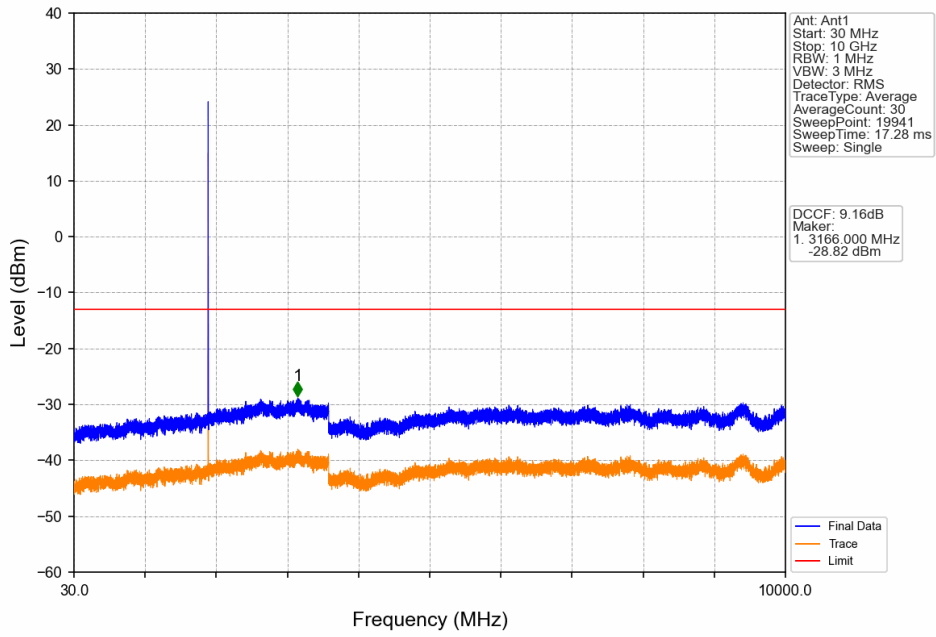
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



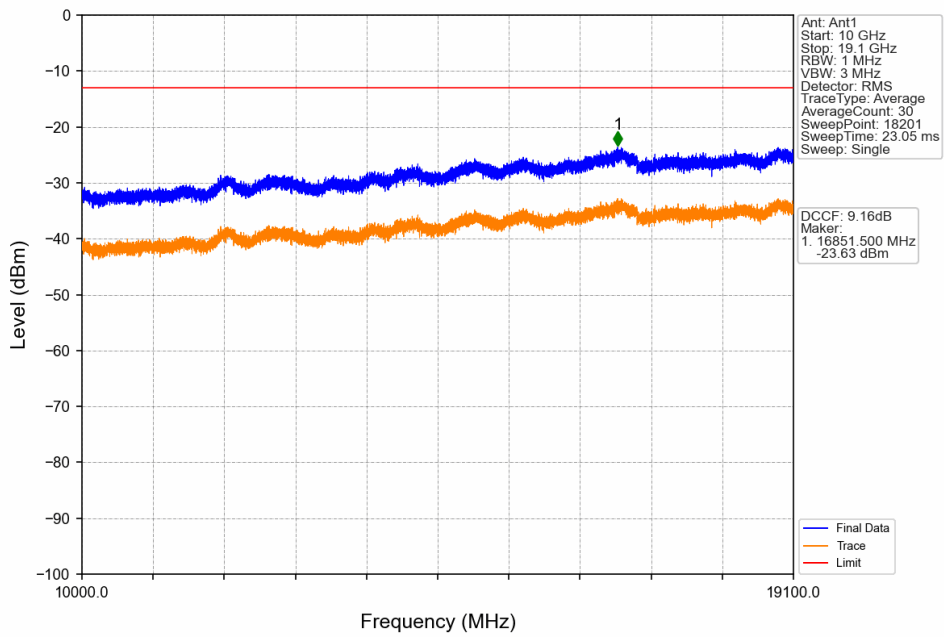
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



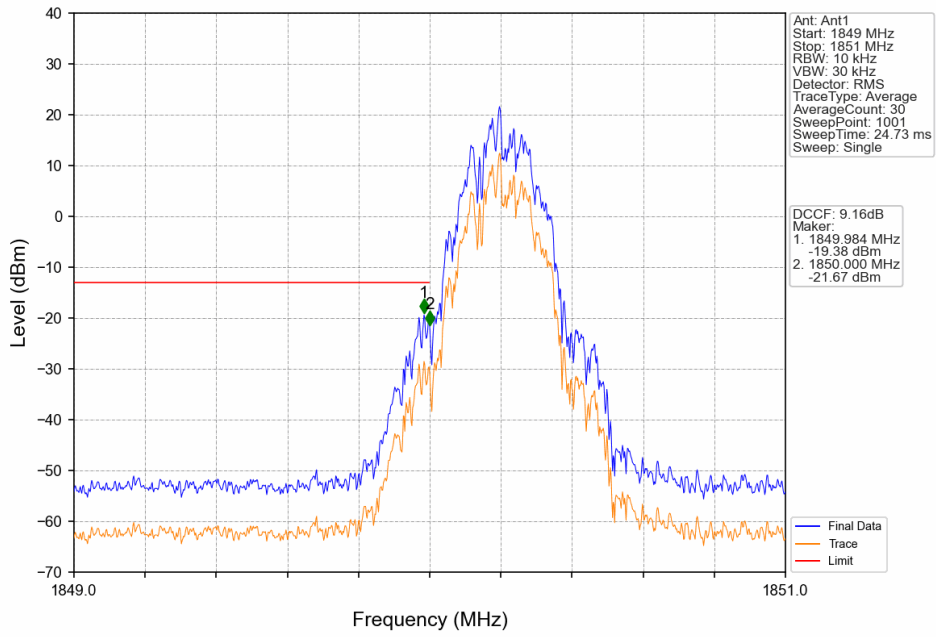
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



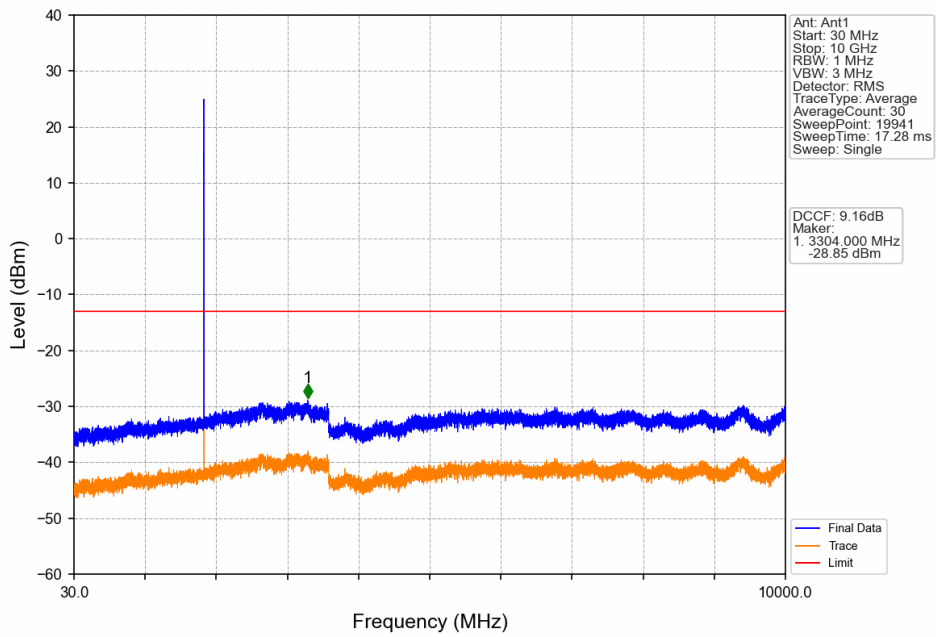
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



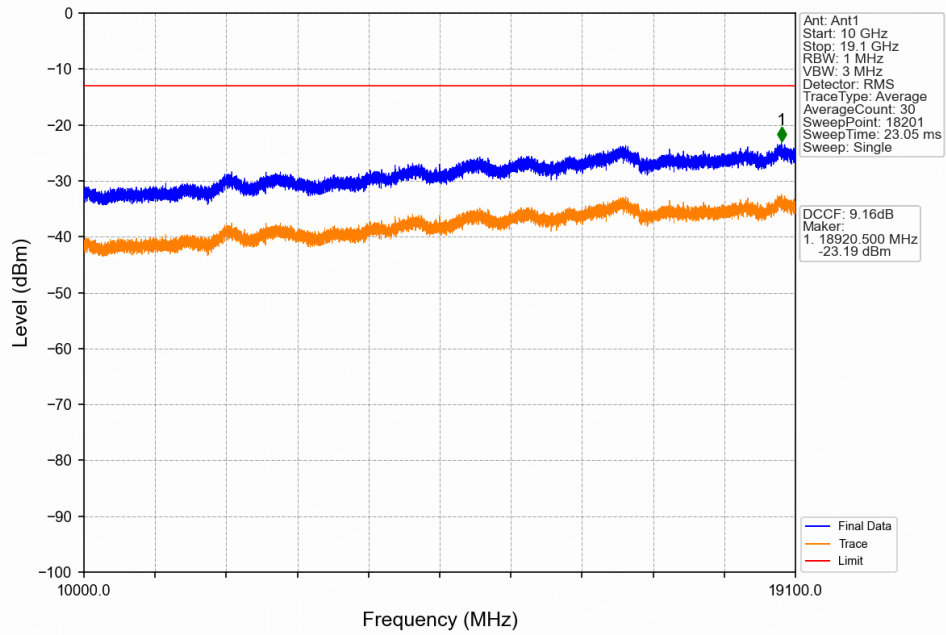
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



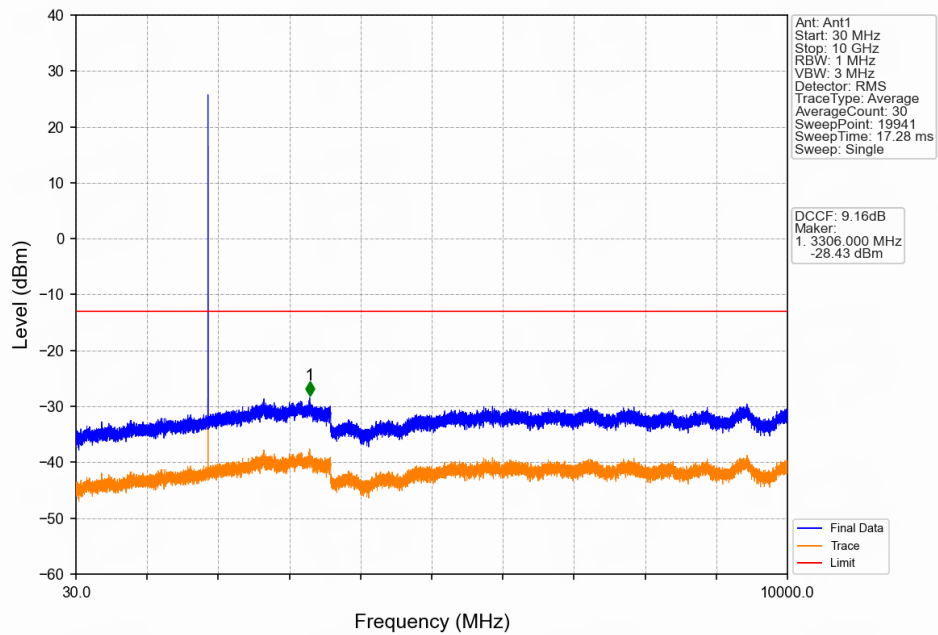
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



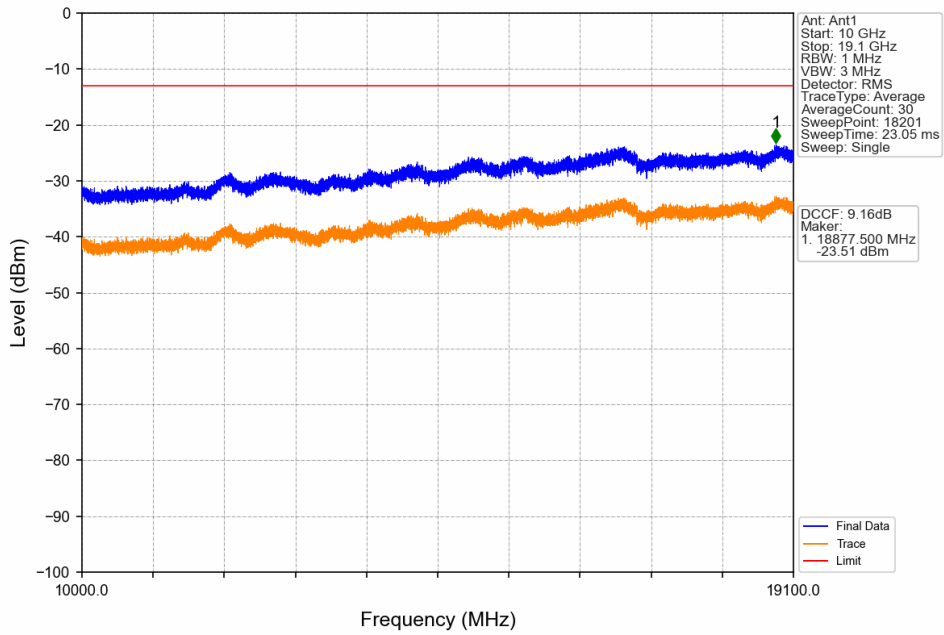
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



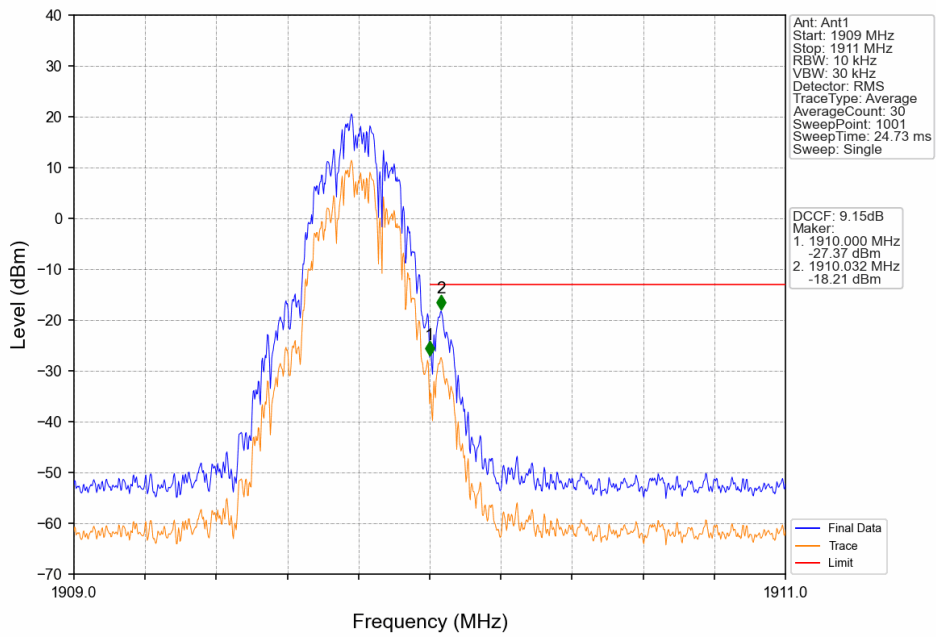
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



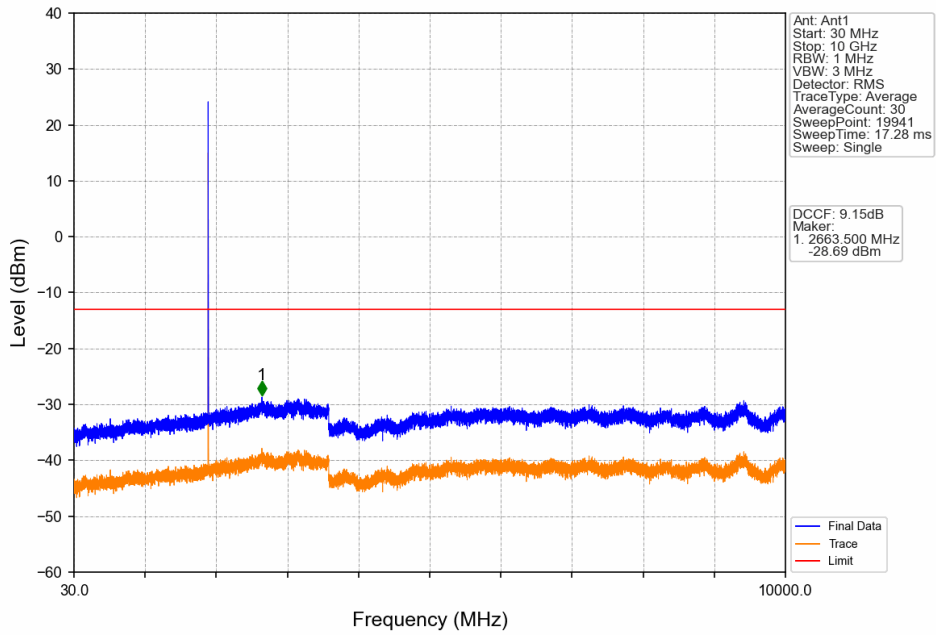
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



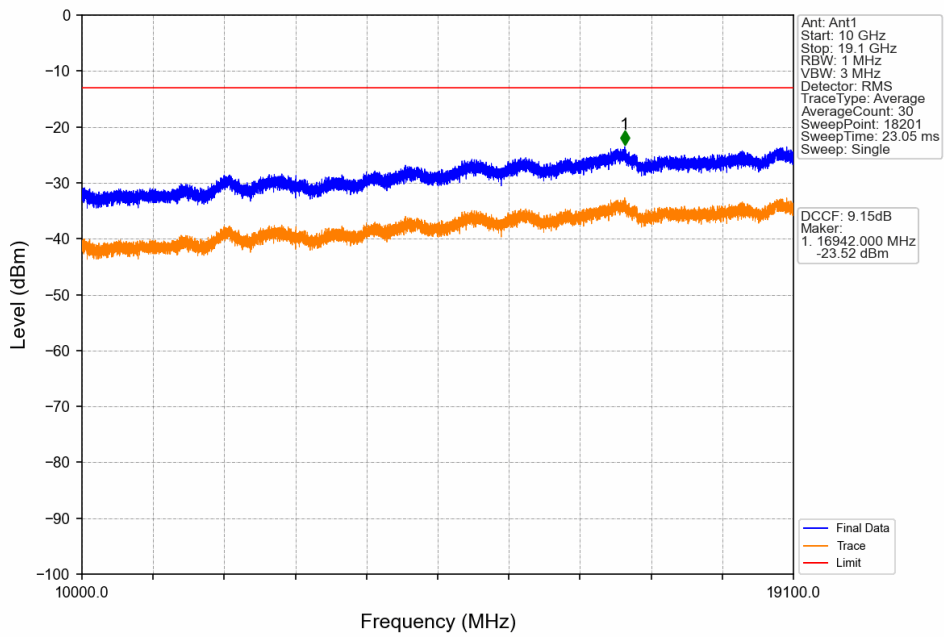
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



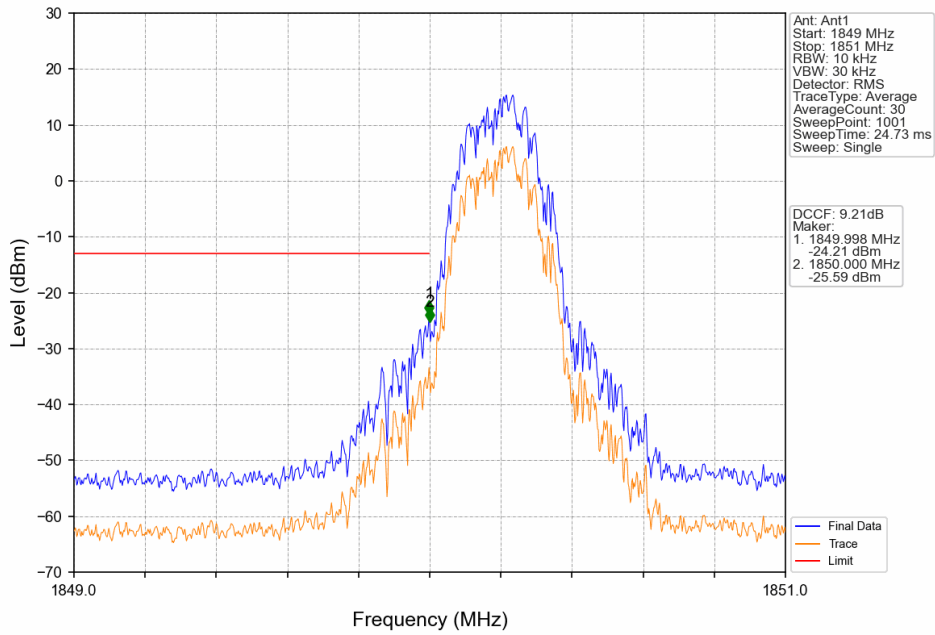
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



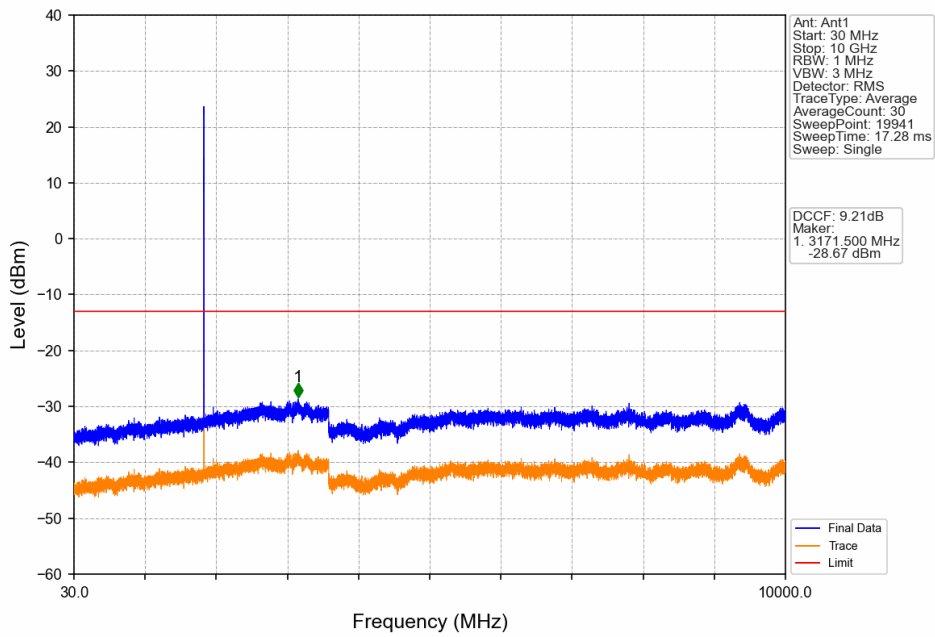
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



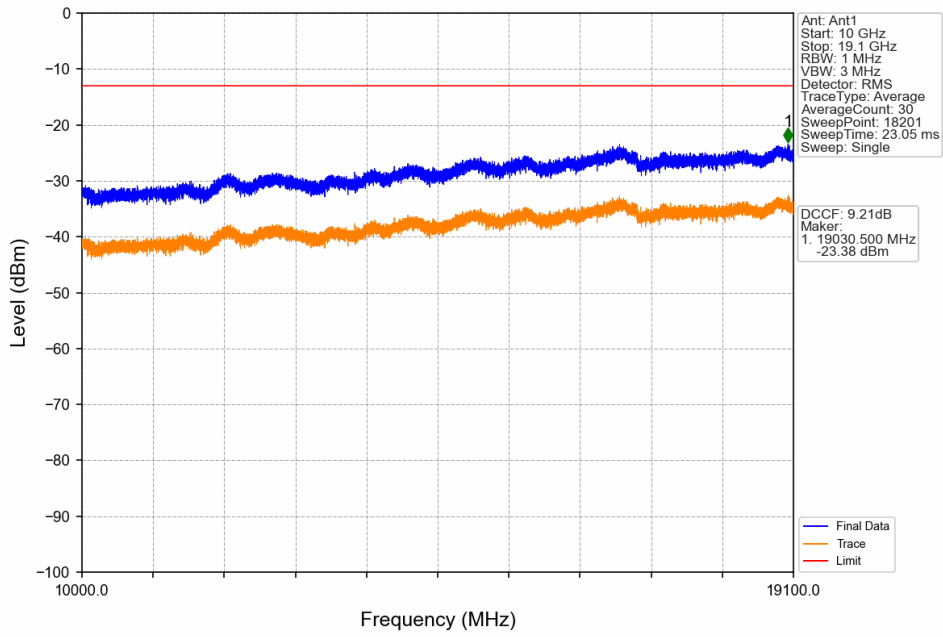
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



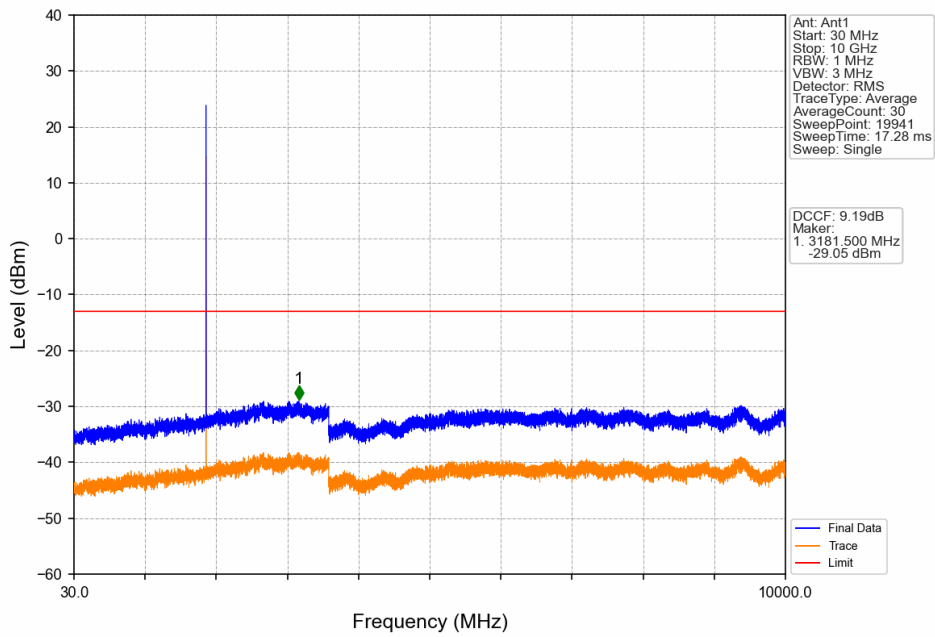
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



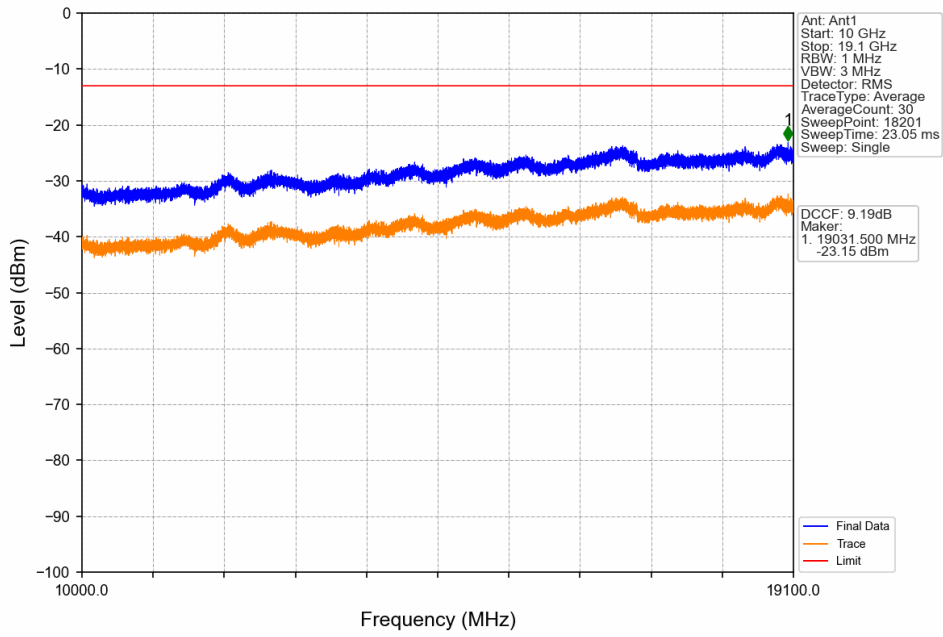
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



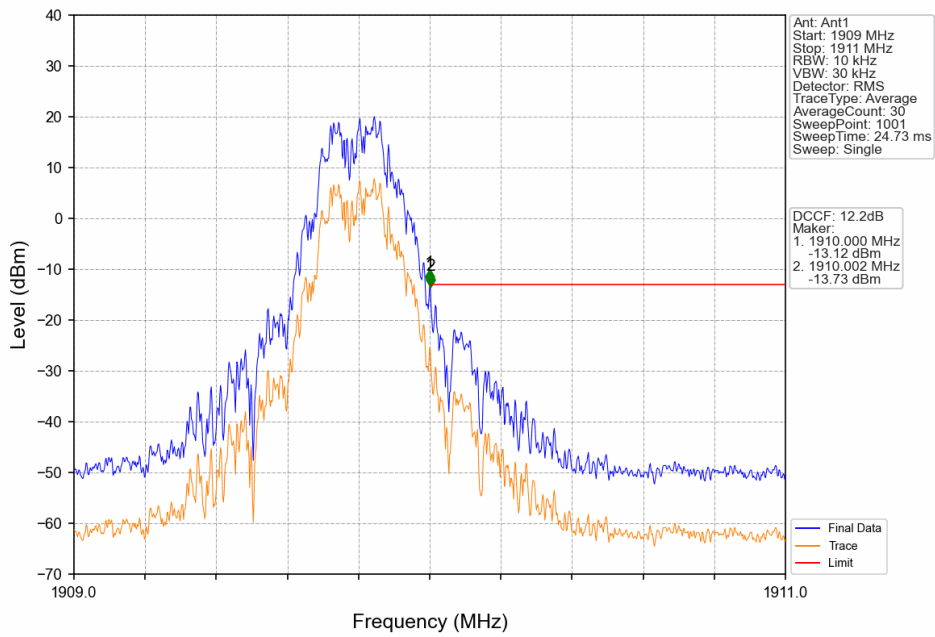
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



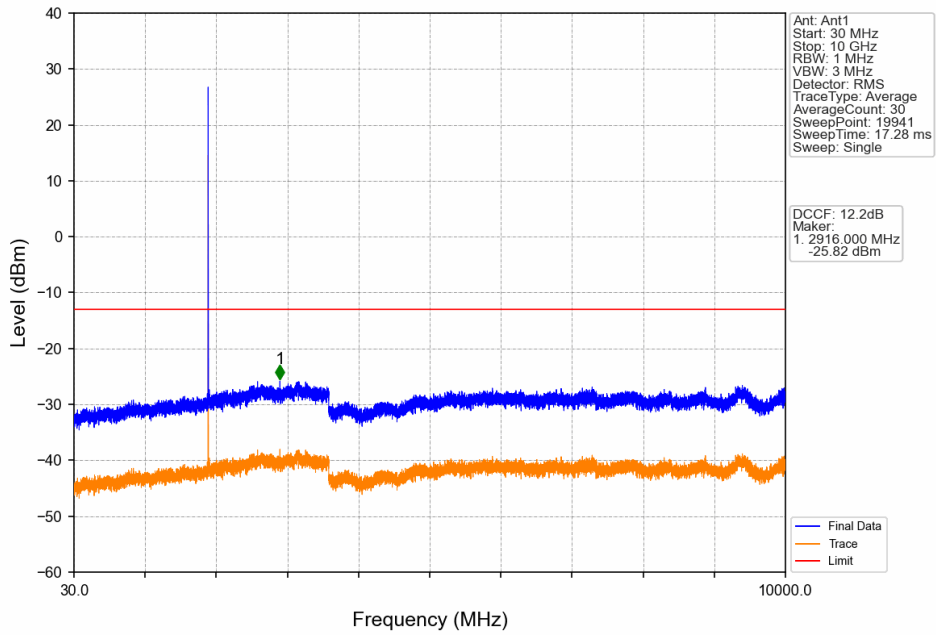
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



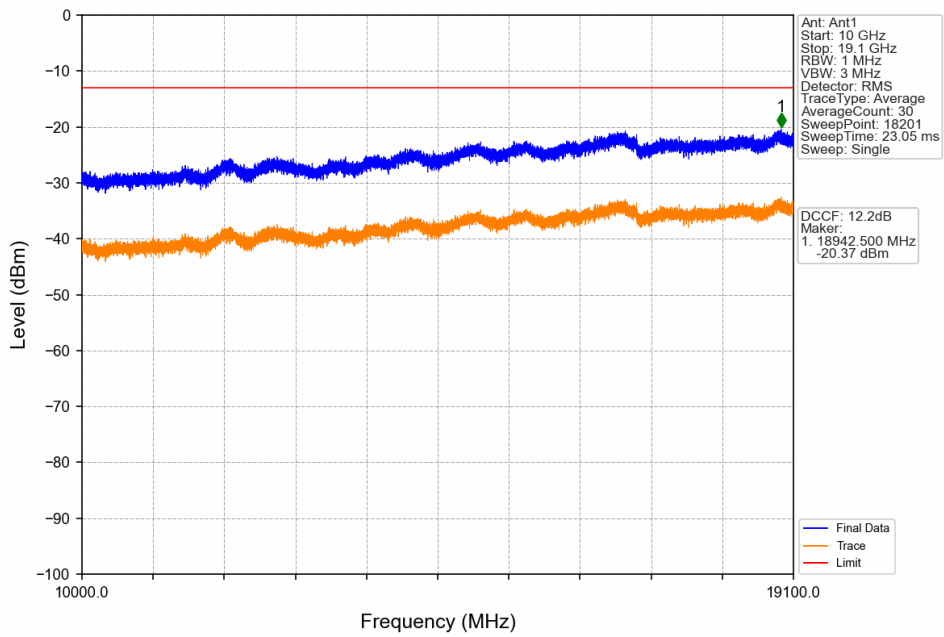
PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



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)
PCS1900	0.2	1850.2	1909.8	0.6223	0.0128	ppm	250KGXW	24E	27.94
PCS1900	0.2	1850.2	1909.8	0.4325	0.0174	ppm	257KG7W	24E	26.36

7.2 Form731_EIRP

7.2.1 Test Result

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
PCS1900	0.2	1850.2	1909.8	0.4036	0.0128	ppm	250KGXW	24E	26.06
PCS1900	0.2	1850.2	1909.8	0.2805	0.0174	ppm	257KG7W	24E	24.48