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	29.89	0.45	30.34	<=33.01	Pass
			1880	29.77	0.45	30.22	<=33.01	Pass
			1909.8	29.54	0.45	29.99	<=33.01	Pass
	GPRS	1 TX Slot	1850.2	29.90	0.45	30.35	<=33.01	Pass
		2 TX Slots	1850.2	29.88	0.45	30.33	<=33.01	Pass
		3 TX Slots	1850.2	27.62	0.45	28.07	<=33.01	Pass
		4 TX Slots	1850.2	26.50	0.45	26.95	<=33.01	Pass
		1 TX Slot	1880	29.79	0.45	30.24	<=33.01	Pass
		2 TX Slots	1880	29.78	0.45	30.23	<=33.01	Pass
		3 TX Slots	1880	27.41	0.45	27.86	<=33.01	Pass
		4 TX Slots	1880	26.32	0.45	26.77	<=33.01	Pass
		1 TX Slot	1909.8	29.50	0.45	29.95	<=33.01	Pass
		2 TX Slots	1909.8	29.49	0.45	29.94	<=33.01	Pass
		3 TX Slots	1909.8	26.76	0.45	27.21	<=33.01	Pass
		4 TX Slots	1909.8	25.71	0.45	26.16	<=33.01	Pass
	EGPRS	1 TX Slot	1850.2	26.58	0.45	27.03	<=33.01	Pass
		2 TX Slots	1850.2	24.94	0.45	25.39	<=33.01	Pass
		3 TX Slots	1850.2	22.79	0.45	23.24	<=33.01	Pass
		4 TX Slots	1850.2	20.46	0.45	20.91	<=33.01	Pass
		1 TX Slot	1880	26.04	0.45	26.49	<=33.01	Pass
		2 TX Slots	1880	24.43	0.45	24.88	<=33.01	Pass
		3 TX Slots	1880	22.48	0.45	22.93	<=33.01	Pass
		4 TX Slots	1880	20.13	0.45	20.58	<=33.01	Pass
		1 TX Slot	1909.8	24.78	0.45	25.23	<=33.01	Pass
		2 TX Slots	1909.8	23.18	0.45	23.63	<=33.01	Pass
		3 TX Slots	1909.8	21.05	0.45	21.5	<=33.01	Pass
		4 TX Slots	1909.8	18.86	0.45	19.31	<=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	3.842	0.0021	-2.5 to 2.5	Pass
			3.85	1.550	0.0008	-2.5 to 2.5	Pass
			4.43	0.000	0.0000	-2.5 to 2.5	Pass

		-30	3.85	-7.878	-0.0043	-2.5 to 2.5	Pass
		-20	3.85	-2.163	-0.0012	-2.5 to 2.5	Pass
		-10	3.85	-5.618	-0.0030	-2.5 to 2.5	Pass
		0	3.85	-1.227	-0.0007	-2.5 to 2.5	Pass
		10	3.85	1.711	0.0009	-2.5 to 2.5	Pass
		30	3.85	-5.747	-0.0031	-2.5 to 2.5	Pass
		40	3.85	-3.777	-0.0020	-2.5 to 2.5	Pass
		50	3.85	-8.039	-0.0043	-2.5 to 2.5	Pass
	1880	20	3.27	-4.714	-0.0025	-2.5 to 2.5	Pass
			3.85	-3.067	-0.0016	-2.5 to 2.5	Pass
			4.43	-2.551	-0.0014	-2.5 to 2.5	Pass
		-30	3.85	-1.453	-0.0008	-2.5 to 2.5	Pass
		-20	3.85	-7.716	-0.0041	-2.5 to 2.5	Pass
		-10	3.85	-3.907	-0.0021	-2.5 to 2.5	Pass
		0	3.85	-7.232	-0.0038	-2.5 to 2.5	Pass
		10	3.85	-3.003	-0.0016	-2.5 to 2.5	Pass
		30	3.85	-3.390	-0.0018	-2.5 to 2.5	Pass
		40	3.85	-3.551	-0.0019	-2.5 to 2.5	Pass
		50	3.85	-3.164	-0.0017	-2.5 to 2.5	Pass
	1909.8	20	3.27	-5.682	-0.0030	-2.5 to 2.5	Pass
			3.85	-3.519	-0.0018	-2.5 to 2.5	Pass
			4.43	-4.520	-0.0024	-2.5 to 2.5	Pass
		-30	3.85	-7.071	-0.0037	-2.5 to 2.5	Pass
		-20	3.85	-11.009	-0.0058	-2.5 to 2.5	Pass
		-10	3.85	-4.649	-0.0024	-2.5 to 2.5	Pass
		0	3.85	-5.101	-0.0027	-2.5 to 2.5	Pass
		10	3.85	-5.295	-0.0028	-2.5 to 2.5	Pass
		30	3.85	-3.099	-0.0016	-2.5 to 2.5	Pass
		40	3.85	-3.067	-0.0016	-2.5 to 2.5	Pass
		50	3.85	-3.067	-0.0016	-2.5 to 2.5	Pass
GPRS	1850.2	20	3.27	-3.196	-0.0017	-2.5 to 2.5	Pass
			3.85	-5.198	-0.0028	-2.5 to 2.5	Pass
			4.43	-2.454	-0.0013	-2.5 to 2.5	Pass
		-30	3.85	-7.006	-0.0038	-2.5 to 2.5	Pass
		-20	3.85	-6.909	-0.0037	-2.5 to 2.5	Pass
		-10	3.85	-5.973	-0.0032	-2.5 to 2.5	Pass
		0	3.85	-2.034	-0.0011	-2.5 to 2.5	Pass
		10	3.85	-4.133	-0.0022	-2.5 to 2.5	Pass
		30	3.85	-6.651	-0.0036	-2.5 to 2.5	Pass
		40	3.85	-6.586	-0.0036	-2.5 to 2.5	Pass
		50	3.85	-5.101	-0.0028	-2.5 to 2.5	Pass
	1880	20	3.27	-4.423	-0.0024	-2.5 to 2.5	Pass
			3.85	-4.843	-0.0026	-2.5 to 2.5	Pass
			4.43	-9.040	-0.0048	-2.5 to 2.5	Pass
		-30	3.85	-9.621	-0.0051	-2.5 to 2.5	Pass
		-20	3.85	-4.036	-0.0021	-2.5 to 2.5	Pass
		-10	3.85	-4.907	-0.0026	-2.5 to 2.5	Pass
		0	3.85	-6.619	-0.0035	-2.5 to 2.5	Pass
		10	3.85	-8.588	-0.0046	-2.5 to 2.5	Pass
		30	3.85	-5.037	-0.0027	-2.5 to 2.5	Pass
		40	3.85	-5.941	-0.0032	-2.5 to 2.5	Pass
		50	3.85	-6.651	-0.0035	-2.5 to 2.5	Pass
	1909.8	20	3.27	-9.040	-0.0047	-2.5 to 2.5	Pass
			3.85	-8.071	-0.0042	-2.5 to 2.5	Pass

			4.43	-4.617	-0.0024	-2.5 to 2.5	Pass
		-30	3.85	-3.681	-0.0019	-2.5 to 2.5	Pass
		-20	3.85	-10.170	-0.0053	-2.5 to 2.5	Pass
		-10	3.85	-9.266	-0.0049	-2.5 to 2.5	Pass
		0	3.85	-6.360	-0.0033	-2.5 to 2.5	Pass
		10	3.85	-7.167	-0.0038	-2.5 to 2.5	Pass
		30	3.85	-8.297	-0.0043	-2.5 to 2.5	Pass
		40	3.85	-7.071	-0.0037	-2.5 to 2.5	Pass
		50	3.85	-2.906	-0.0015	-2.5 to 2.5	Pass
EGPRS	1850.2	20	3.27	-8.846	-0.0048	-2.5 to 2.5	Pass
			3.85	-14.044	-0.0076	-2.5 to 2.5	Pass
			4.43	-13.657	-0.0074	-2.5 to 2.5	Pass
		-30	3.85	-12.172	-0.0066	-2.5 to 2.5	Pass
		-20	3.85	-10.977	-0.0059	-2.5 to 2.5	Pass
		-10	3.85	-9.169	-0.0050	-2.5 to 2.5	Pass
		0	3.85	-16.982	-0.0092	-2.5 to 2.5	Pass
		10	3.85	-10.009	-0.0054	-2.5 to 2.5	Pass
		30	3.85	-11.784	-0.0064	-2.5 to 2.5	Pass
		40	3.85	-11.300	-0.0061	-2.5 to 2.5	Pass
		50	3.85	-14.303	-0.0077	-2.5 to 2.5	Pass
	1880	20	3.27	-5.133	-0.0027	-2.5 to 2.5	Pass
			3.85	-8.685	-0.0046	-2.5 to 2.5	Pass
			4.43	-9.621	-0.0051	-2.5 to 2.5	Pass
		-30	3.85	-8.620	-0.0046	-2.5 to 2.5	Pass
		-20	3.85	-10.041	-0.0053	-2.5 to 2.5	Pass
		-10	3.85	-9.427	-0.0050	-2.5 to 2.5	Pass
		0	3.85	-10.945	-0.0058	-2.5 to 2.5	Pass
		10	3.85	-5.973	-0.0032	-2.5 to 2.5	Pass
		30	3.85	-10.428	-0.0055	-2.5 to 2.5	Pass
		40	3.85	-10.654	-0.0057	-2.5 to 2.5	Pass
		50	3.85	-8.362	-0.0044	-2.5 to 2.5	Pass
	1909.8	20	3.27	-10.654	-0.0056	-2.5 to 2.5	Pass
			3.85	-11.978	-0.0063	-2.5 to 2.5	Pass
			4.43	-10.267	-0.0054	-2.5 to 2.5	Pass
		-30	3.85	-9.944	-0.0052	-2.5 to 2.5	Pass
		-20	3.85	-13.366	-0.0070	-2.5 to 2.5	Pass
		-10	3.85	-13.205	-0.0069	-2.5 to 2.5	Pass
		0	3.85	-5.521	-0.0029	-2.5 to 2.5	Pass
		10	3.85	-14.916	-0.0078	-2.5 to 2.5	Pass
		30	3.85	-18.242	-0.0096	-2.5 to 2.5	Pass
		40	3.85	-10.396	-0.0054	-2.5 to 2.5	Pass
		50	3.85	-11.526	-0.0060	-2.5 to 2.5	Pass

3. Modulation Characteristics

3.1 PCS1900

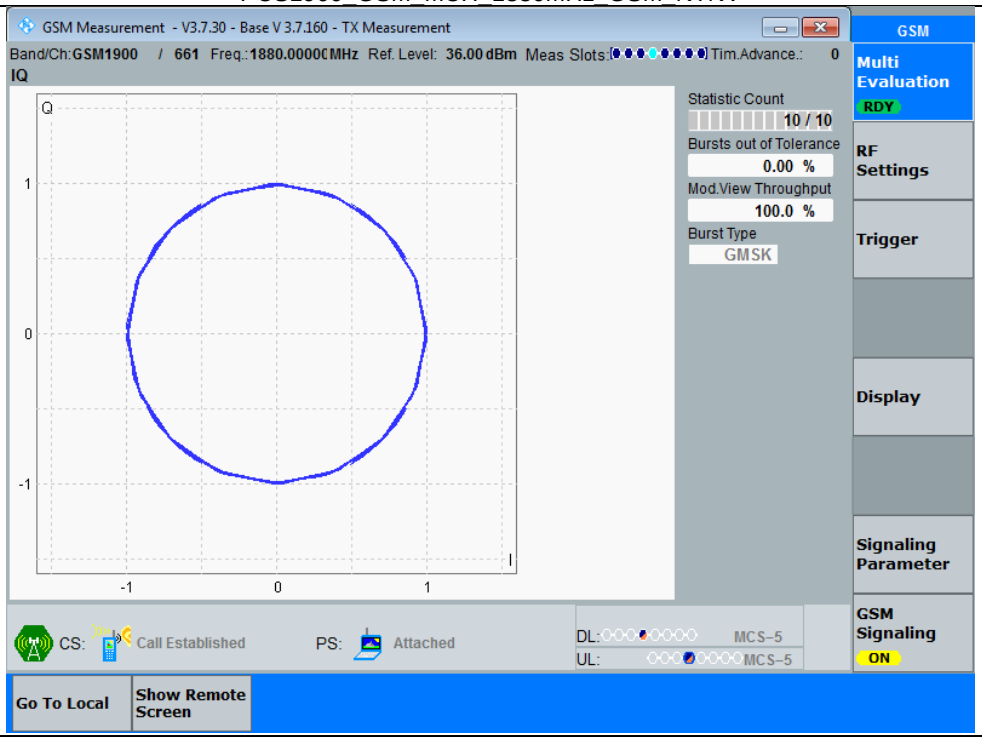
3.1.1 Test Result

Band: PCS1900						
ENV	Mode		Frequency (MHz)	Modulation Characteristics		Verdict
	Network	Subset		Result	Limit	

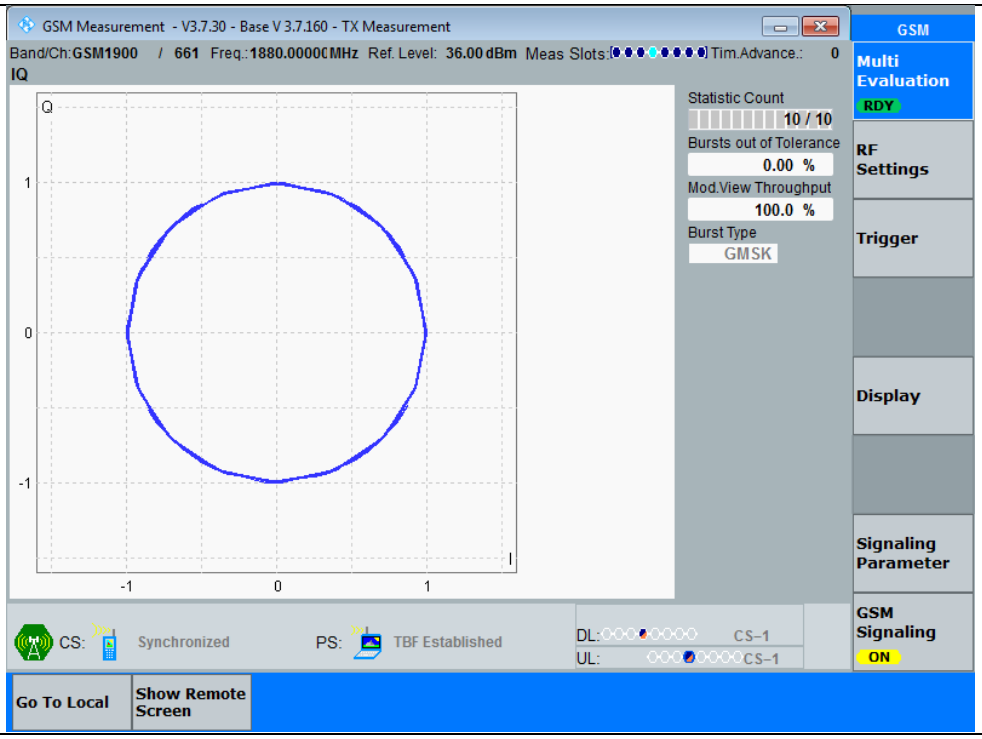
NTNV	GSM	GSM	1880	Refer To Test Graph	Pass
	GPRS	1 TX Slot	1880	Refer To Test Graph	Pass
	EGPRS	1 TX Slot	1880	Refer To Test Graph	Pass

3.1.2 Test Graph

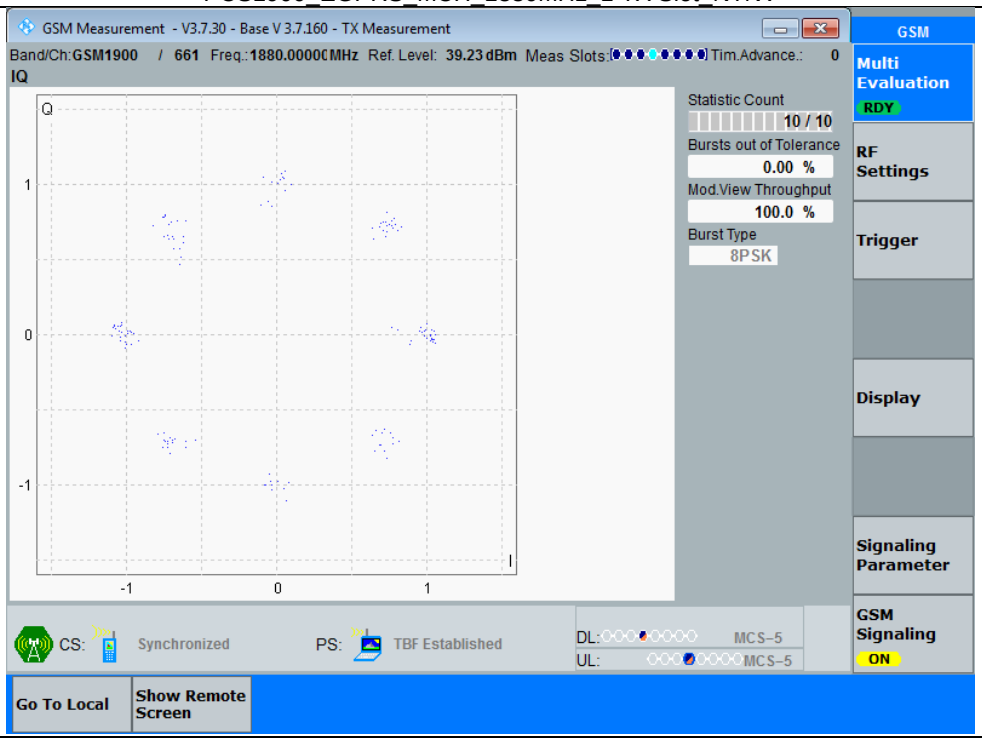
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



4. 99% & 26dB Bandwidth

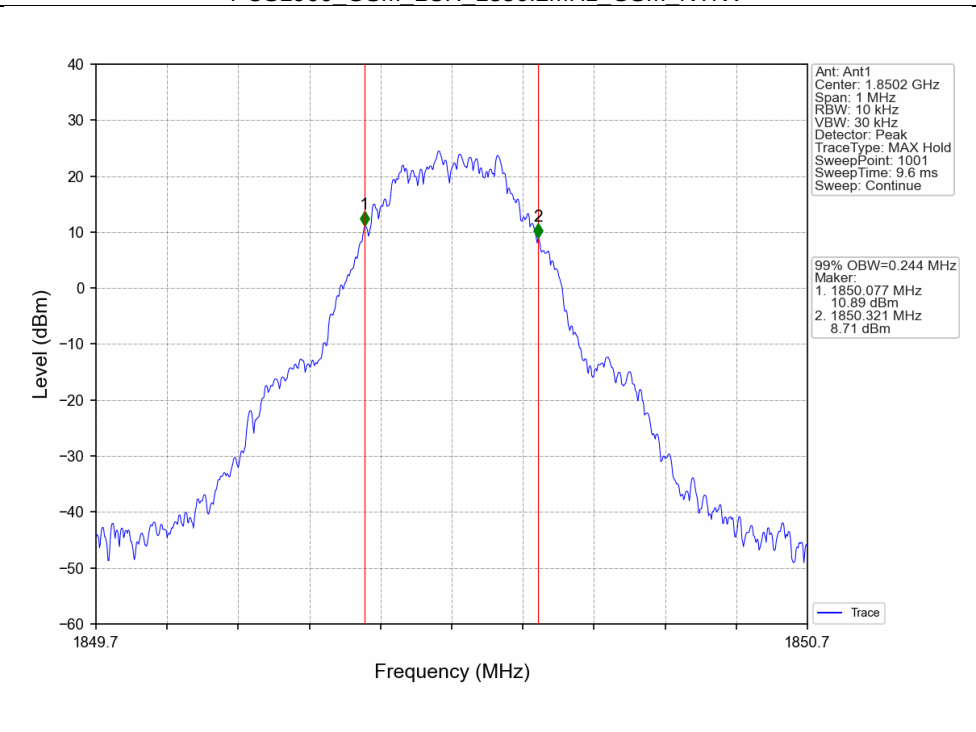
4.1 PCS1900_OBW

4.1.1 Test Result

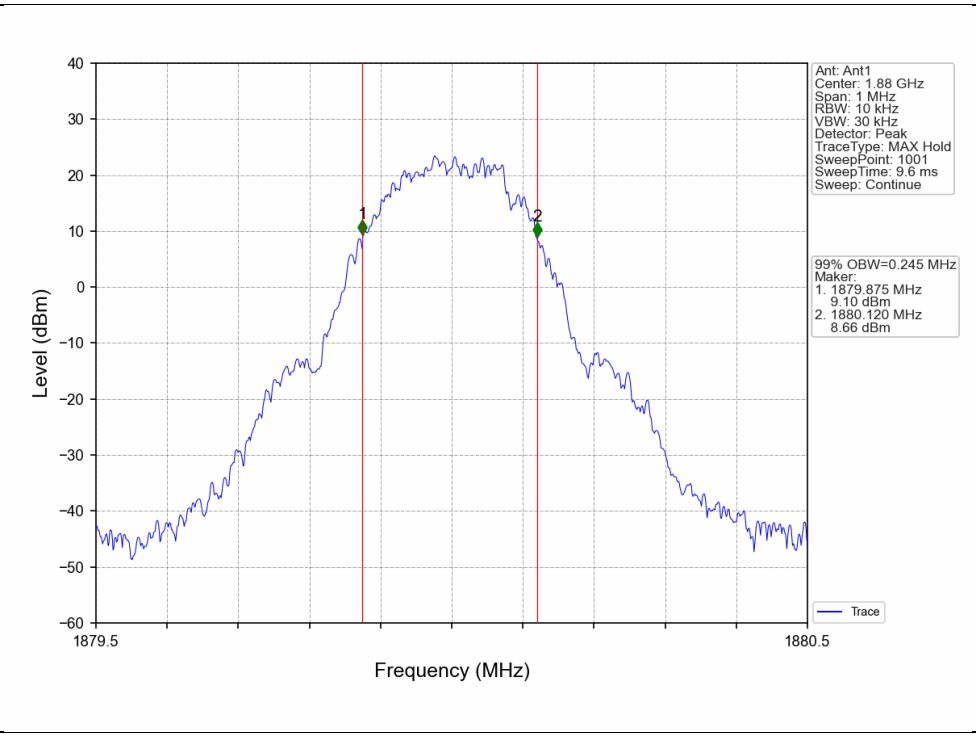
Band: PCS1900					
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	GSM	GSM	1850.2	0.244	Pass
			1880	0.245	Pass
			1909.8	0.249	Pass
	GPRS	1 TX Slot	1850.2	0.240	Pass
			1880	0.243	Pass
			1909.8	0.253	Pass
	EGPRS	1 TX Slot	1850.2	0.249	Pass
			1880	0.245	Pass
			1909.8	0.247	Pass

4.1.2 Test Graph

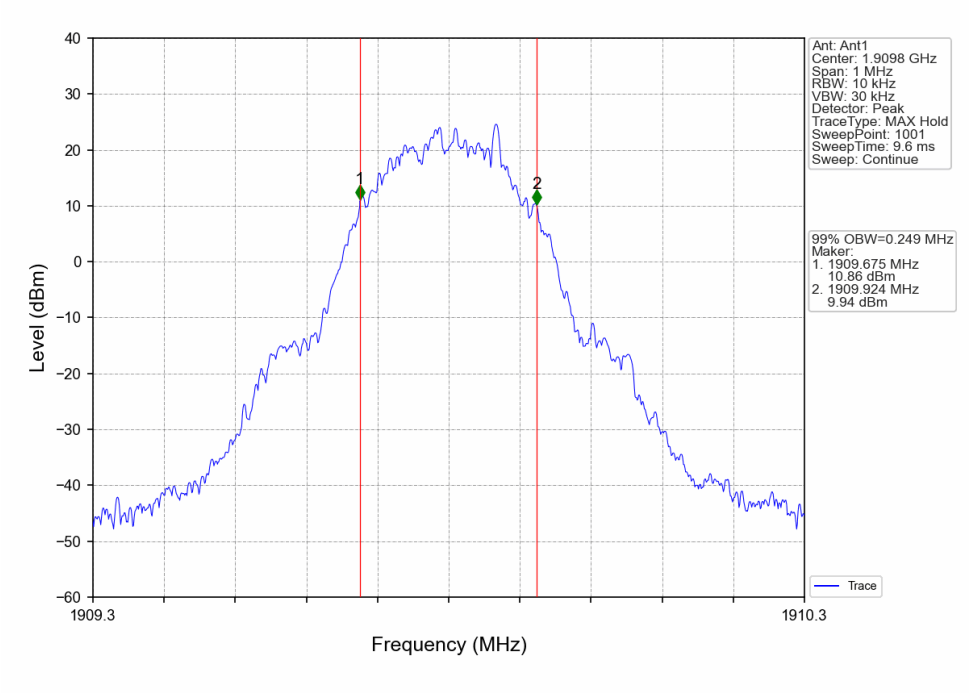
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



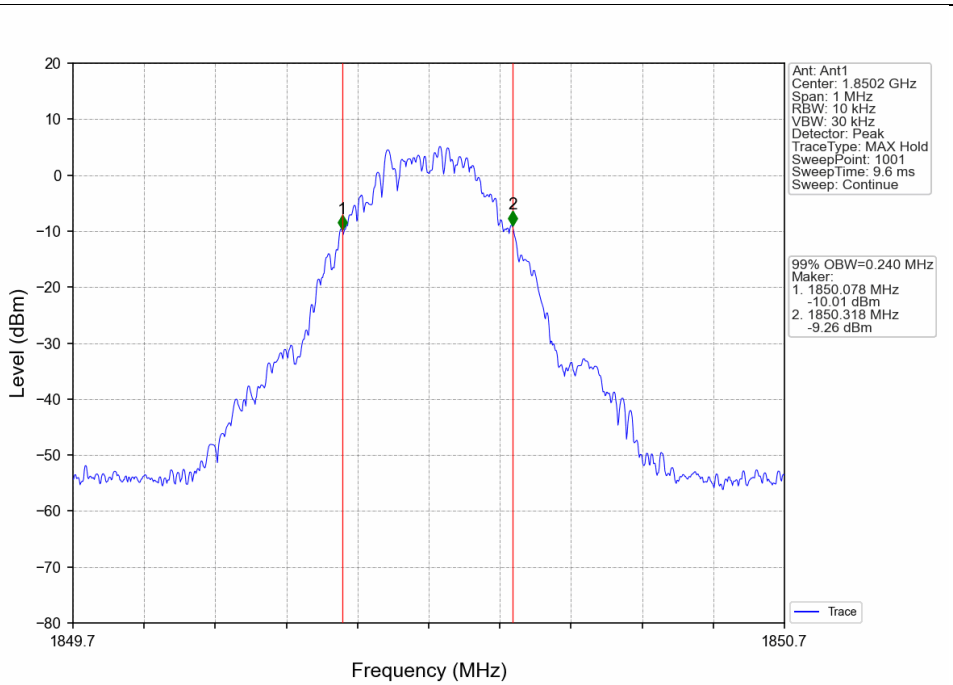
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



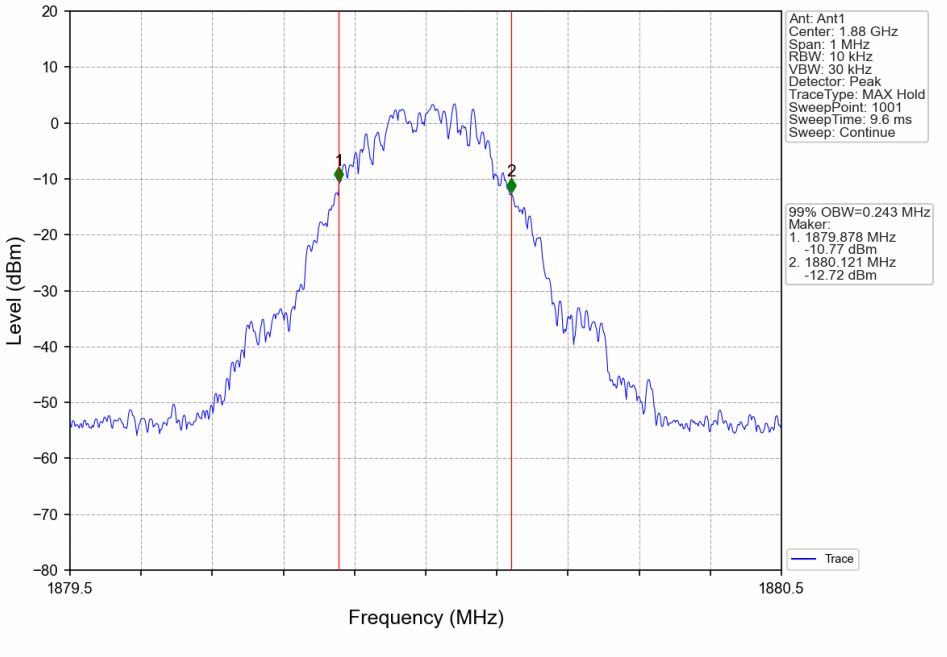
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



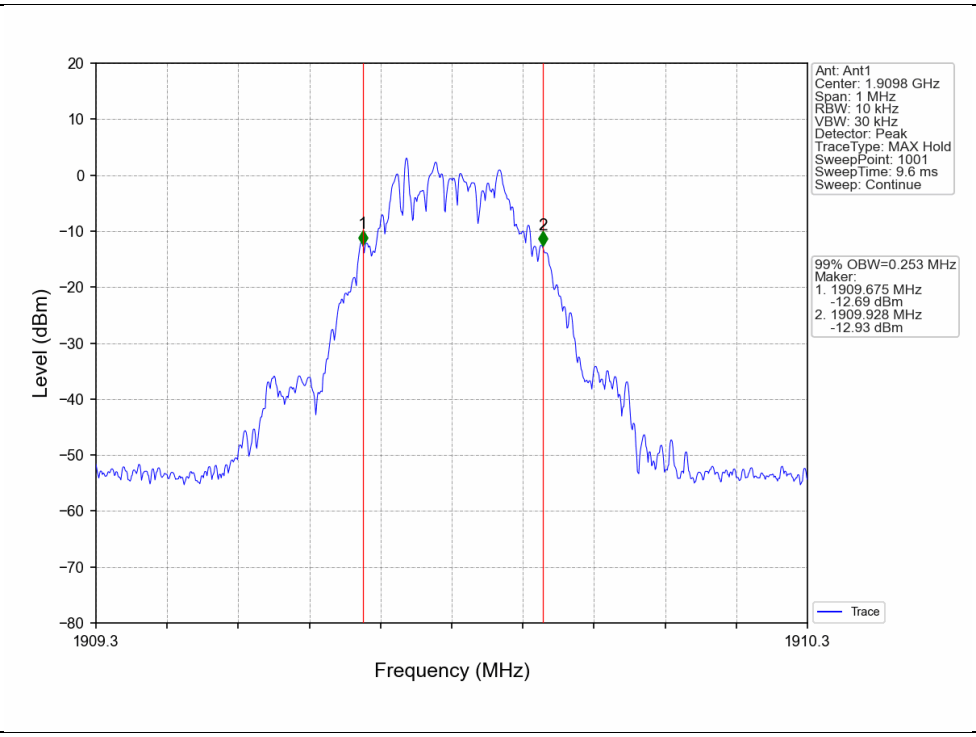
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



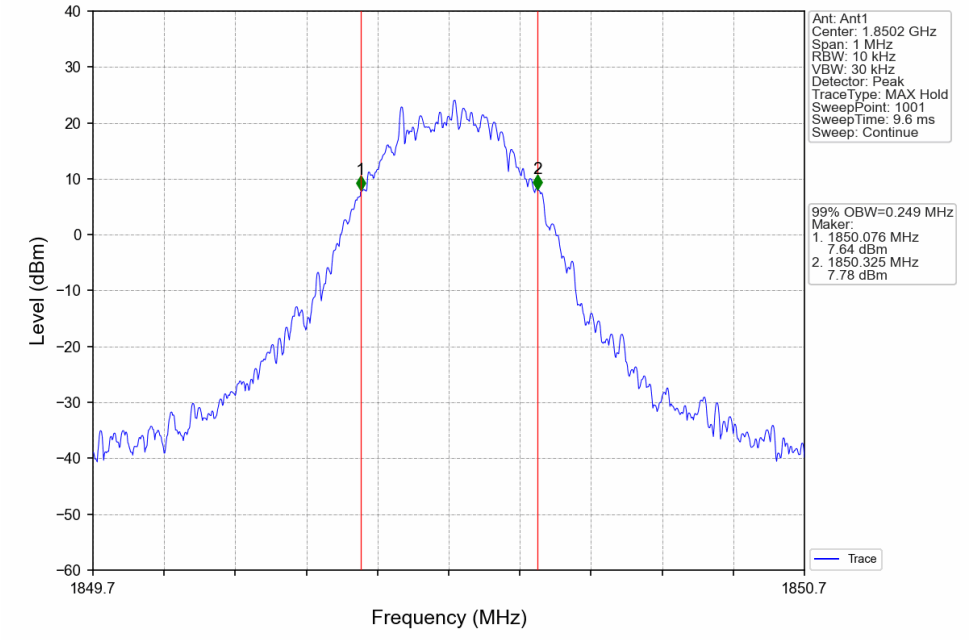
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



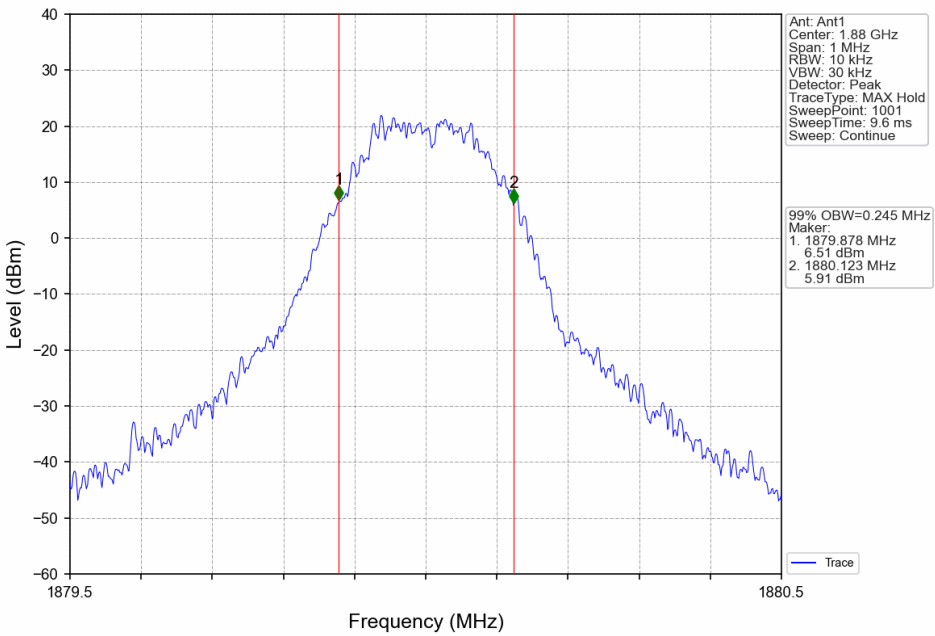
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



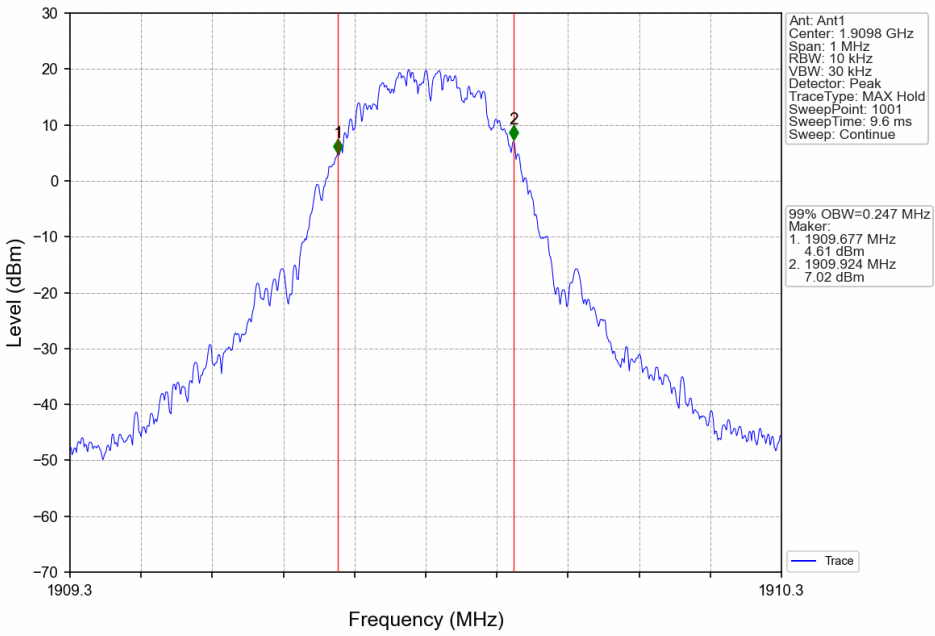
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



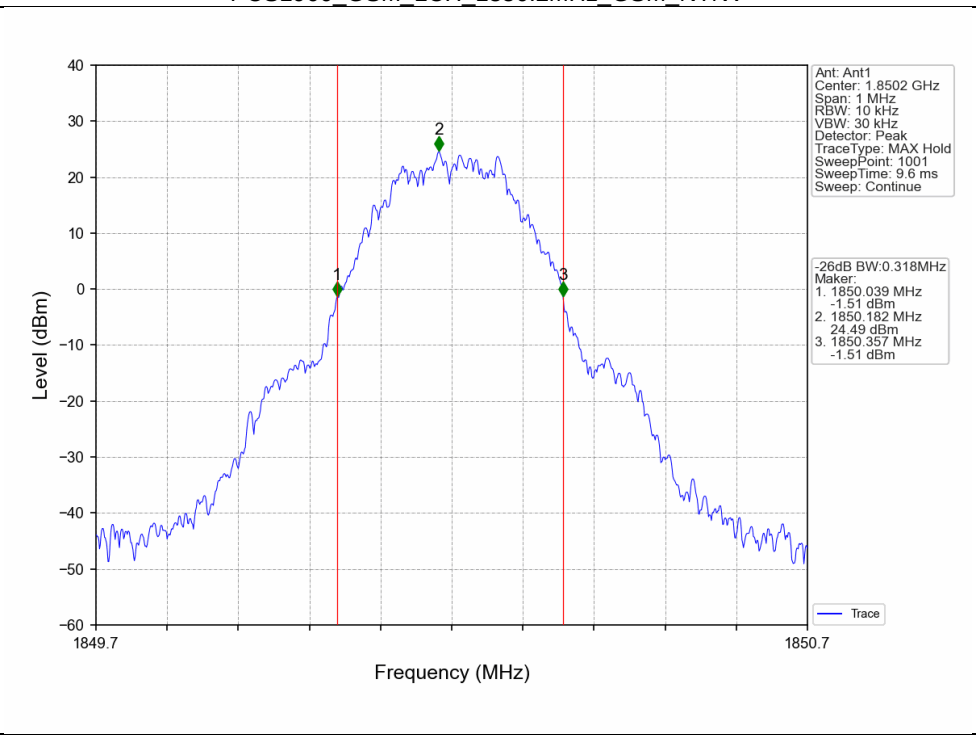
4.2 PCS1900_XDB

4.2.1 Test Result

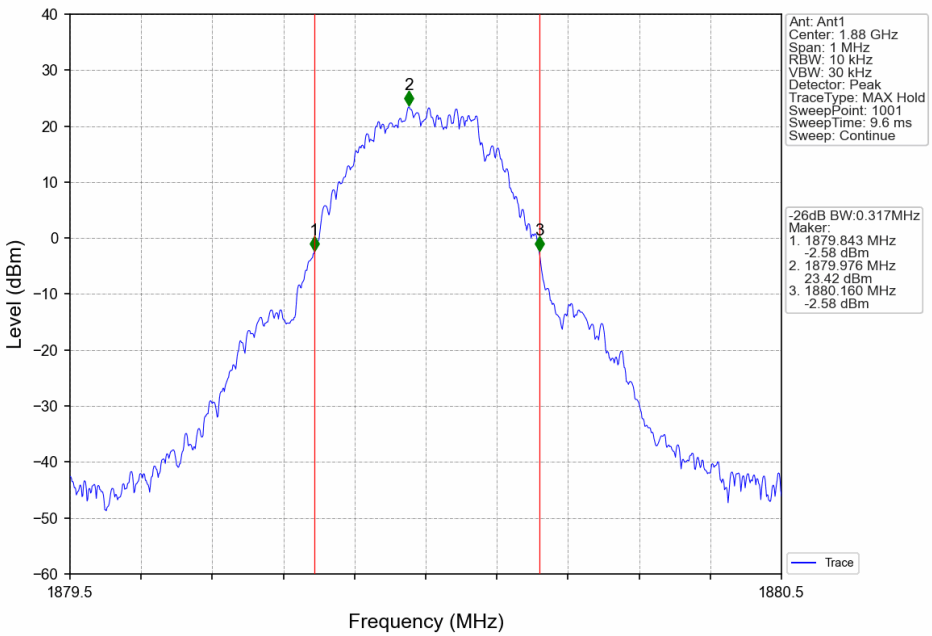
Band: PCS1900					
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	GSM	GSM	1850.2	0.318	Pass
			1880	0.317	Pass
			1909.8	0.308	Pass
	GPRS	1 TX Slot	1850.2	0.313	Pass
			1880	0.330	Pass
			1909.8	0.313	Pass
	EGPRS	1 TX Slot	1850.2	0.314	Pass
			1880	0.320	Pass
			1909.8	0.317	Pass

4.2.2 Test Graph

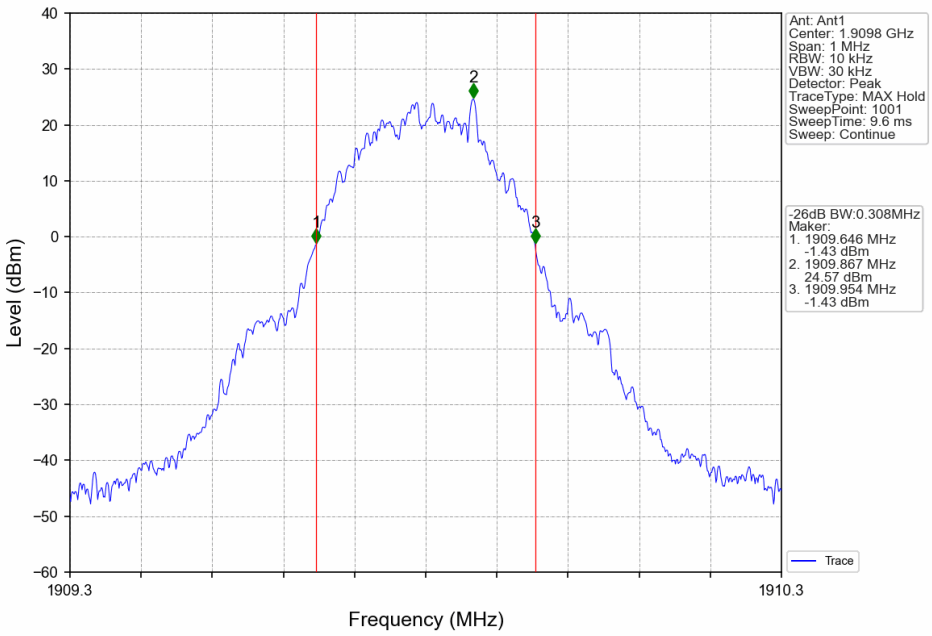
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



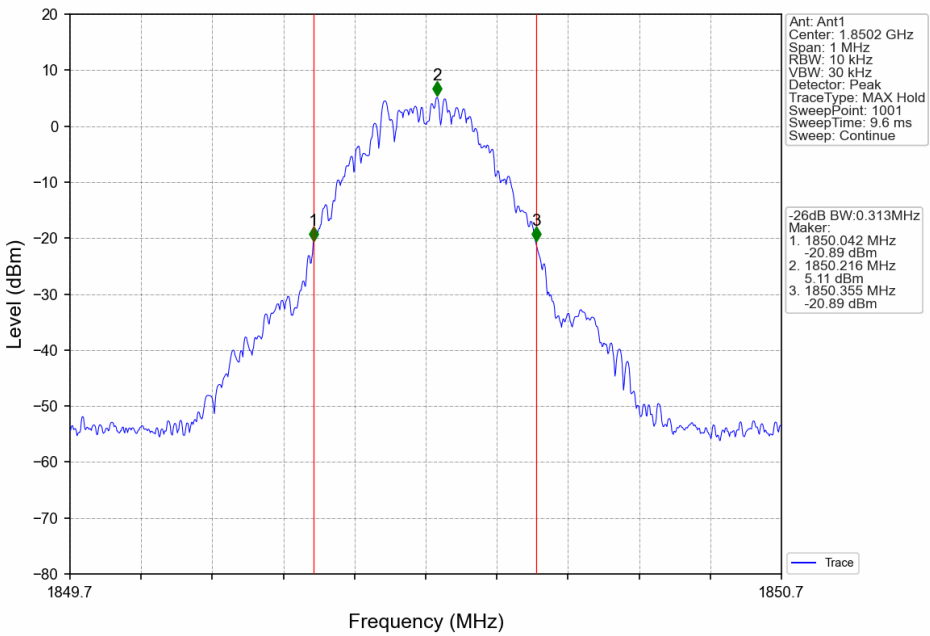
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



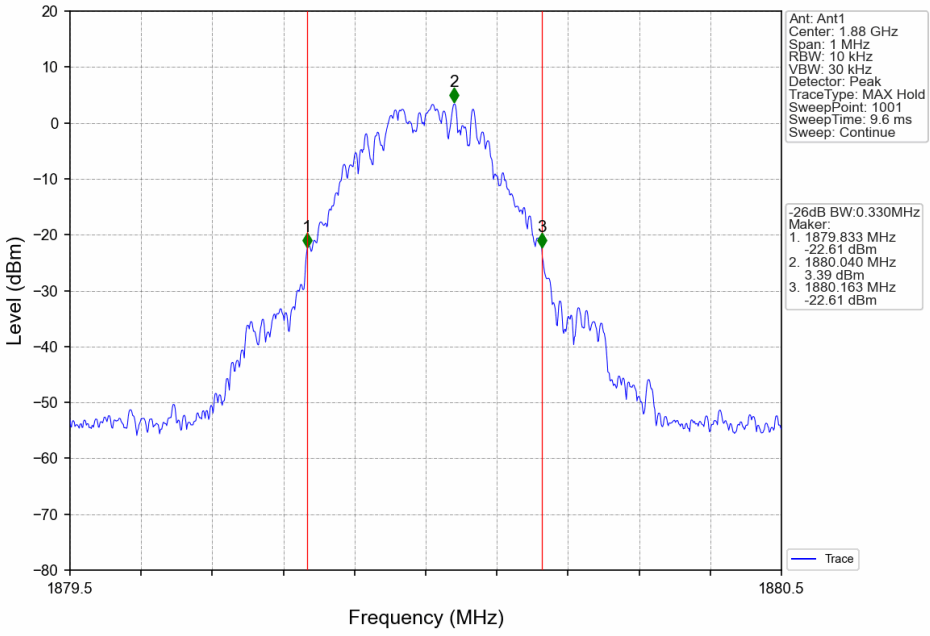
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



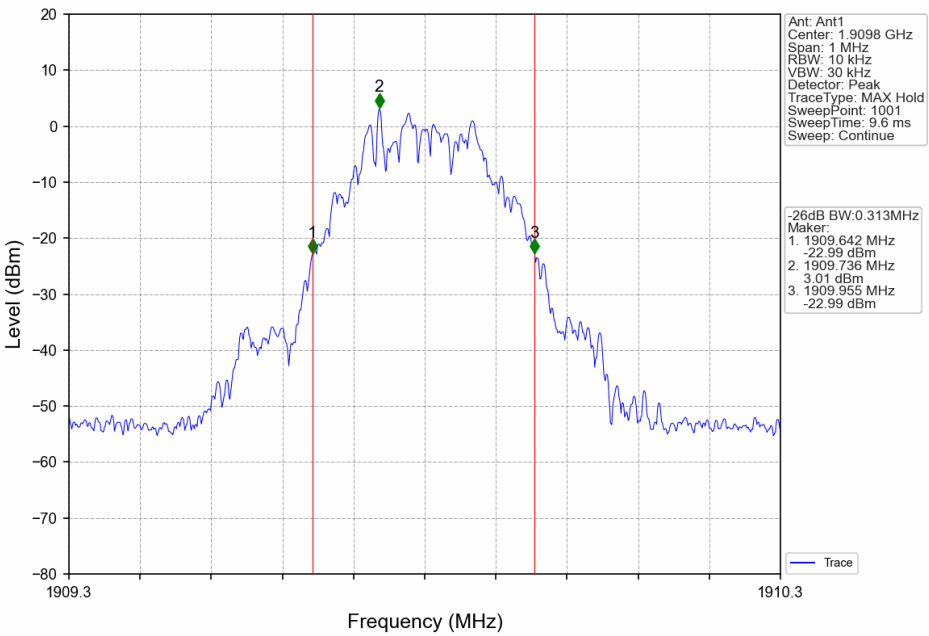
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



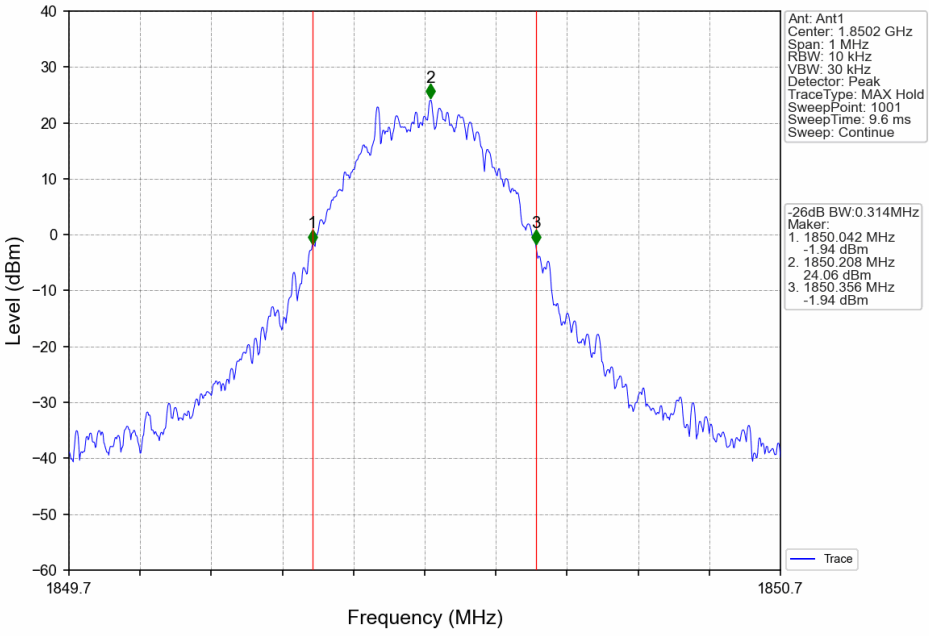
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



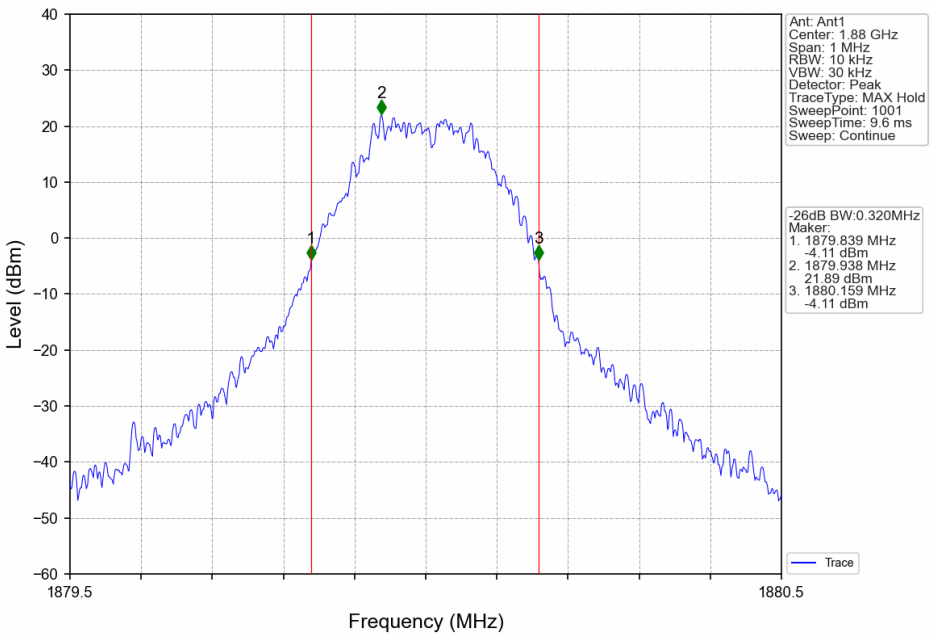
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



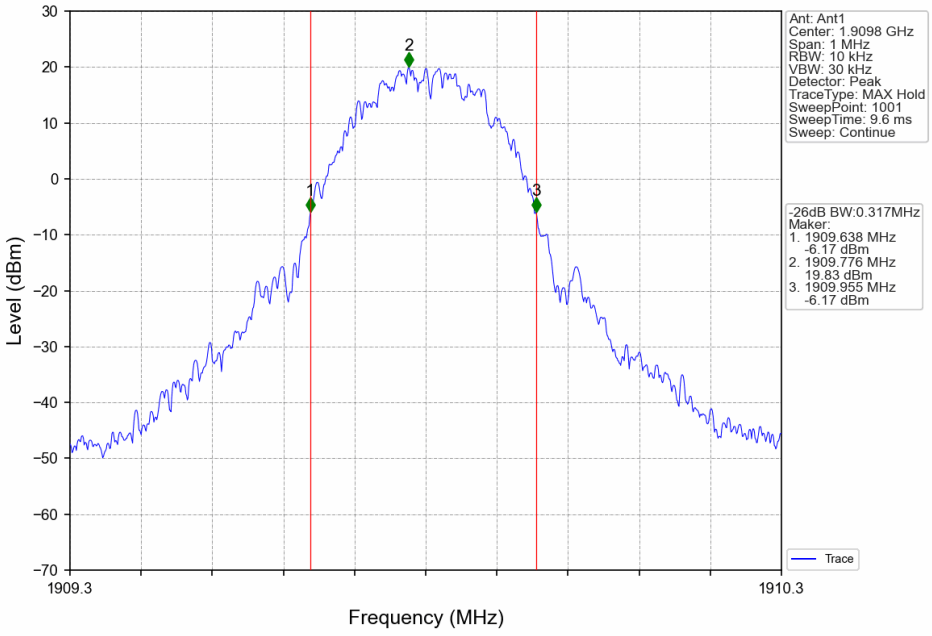
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



5. Peak-Average Ratio

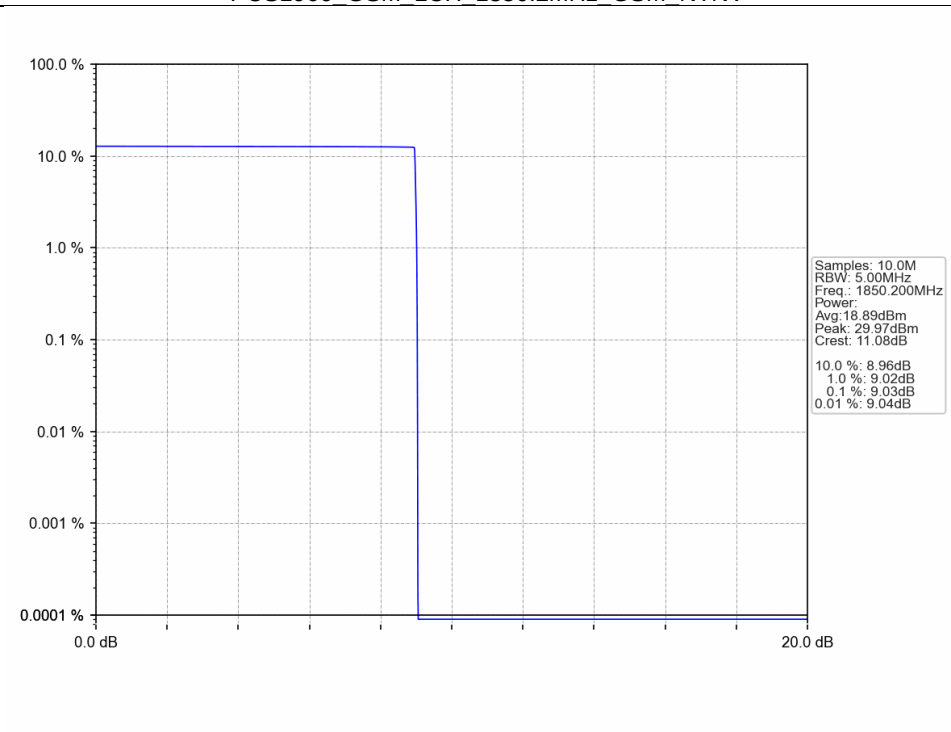
5.1 PCS1900

5.1.1 Test Result

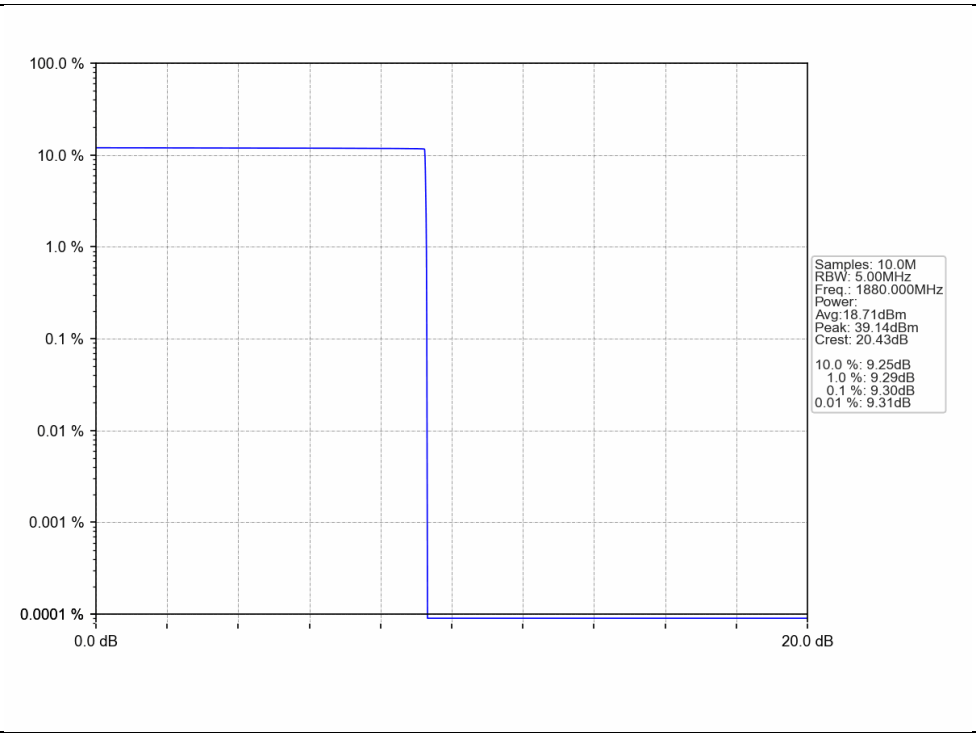
Band: PCS1900						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	9.03	<=13	Pass
			1880	9.30	<=13	Pass
			1909.8	9.31	<=13	Pass
	GPRS	4 TX Slots	1850.2	9.80	<=13	Pass
			1880	3.73	<=13	Pass
			1909.8	3.53	<=13	Pass
	EGPRS	4 TX Slots	1850.2	9.06	<=13	Pass
			1880	7.04	<=13	Pass
			1909.8	6.65	<=13	Pass

5.1.2 Test Graph

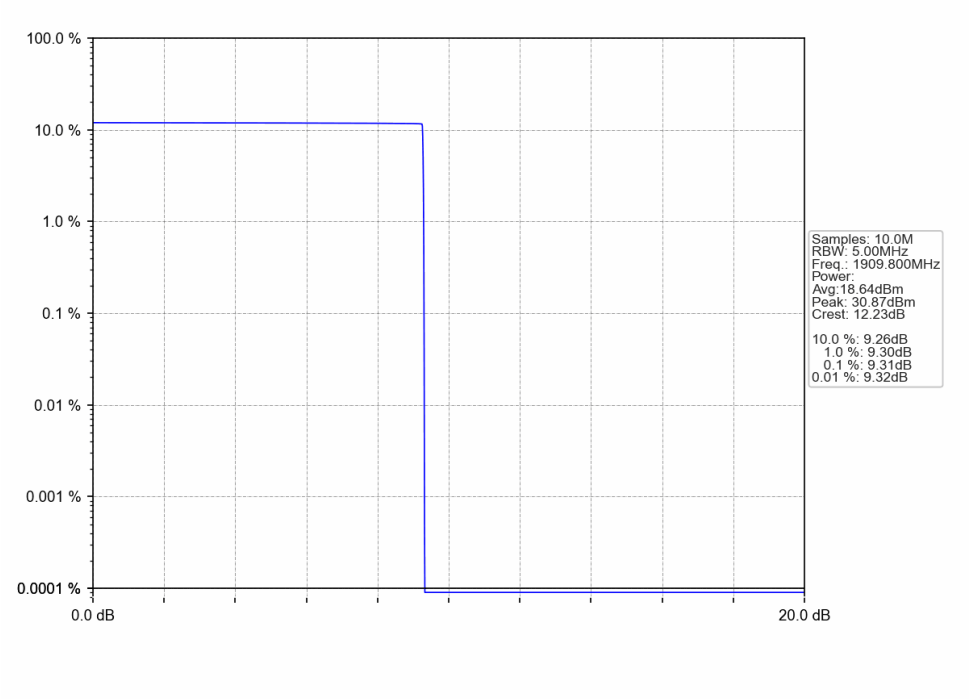
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



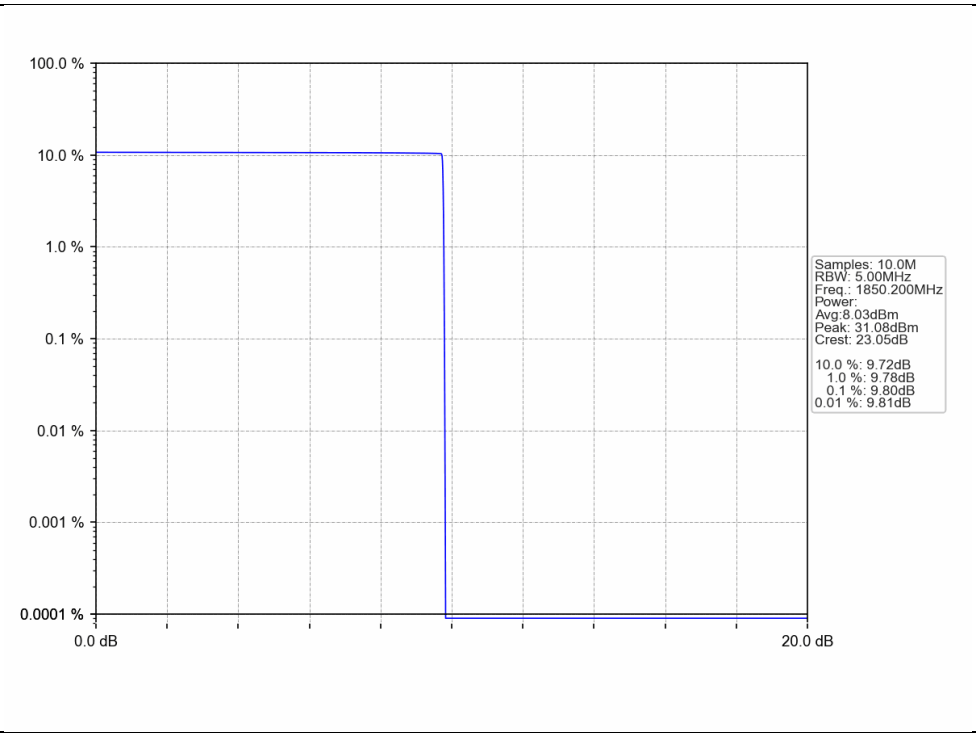
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



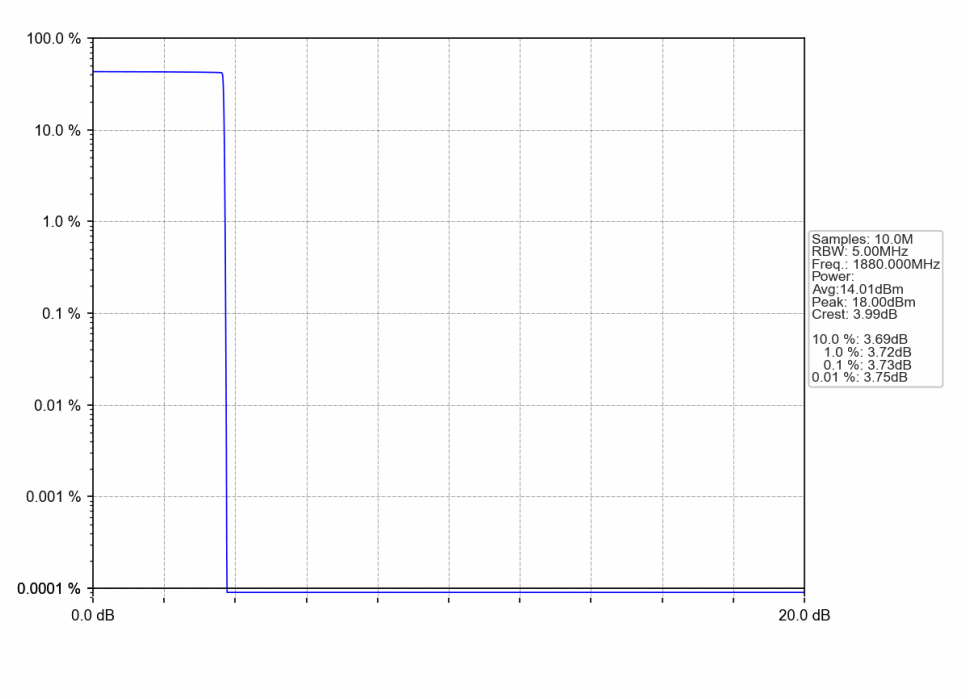
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



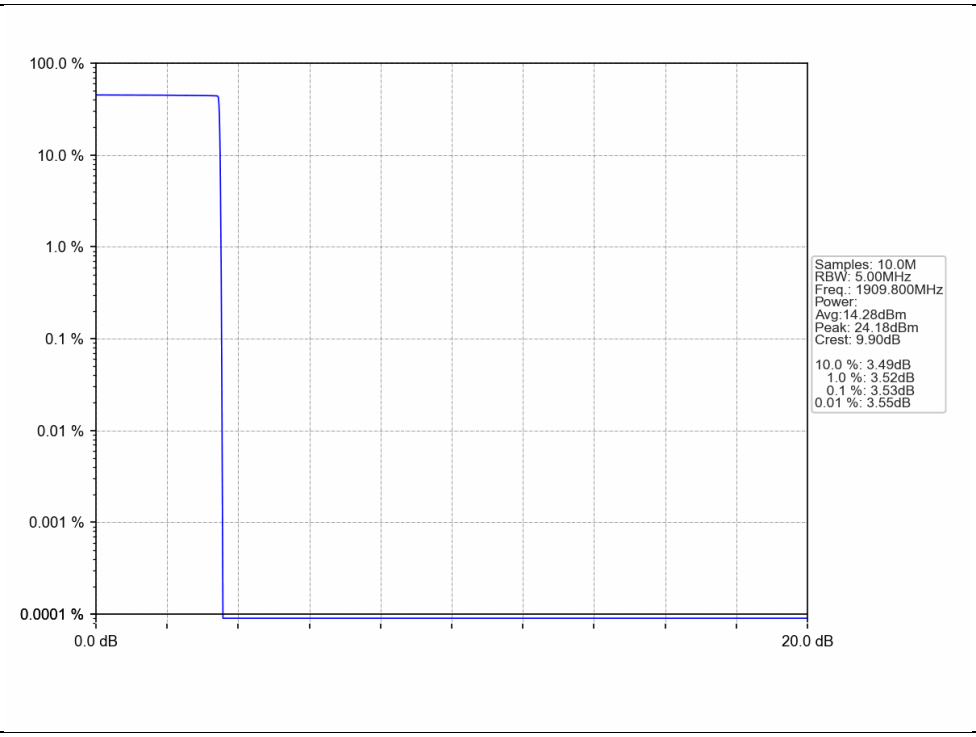
PCS1900_GPRS_LCH_1850.2MHz_4 TX Slots_NTNV



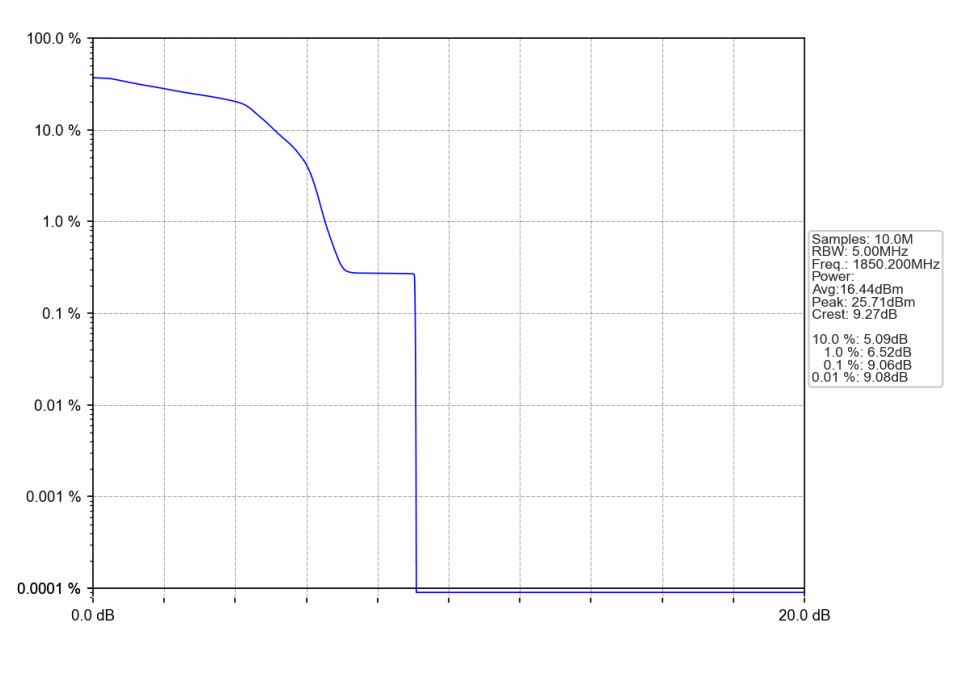
PCS1900_GPRS_MCH_1880MHz_4 TX Slots_NTNV



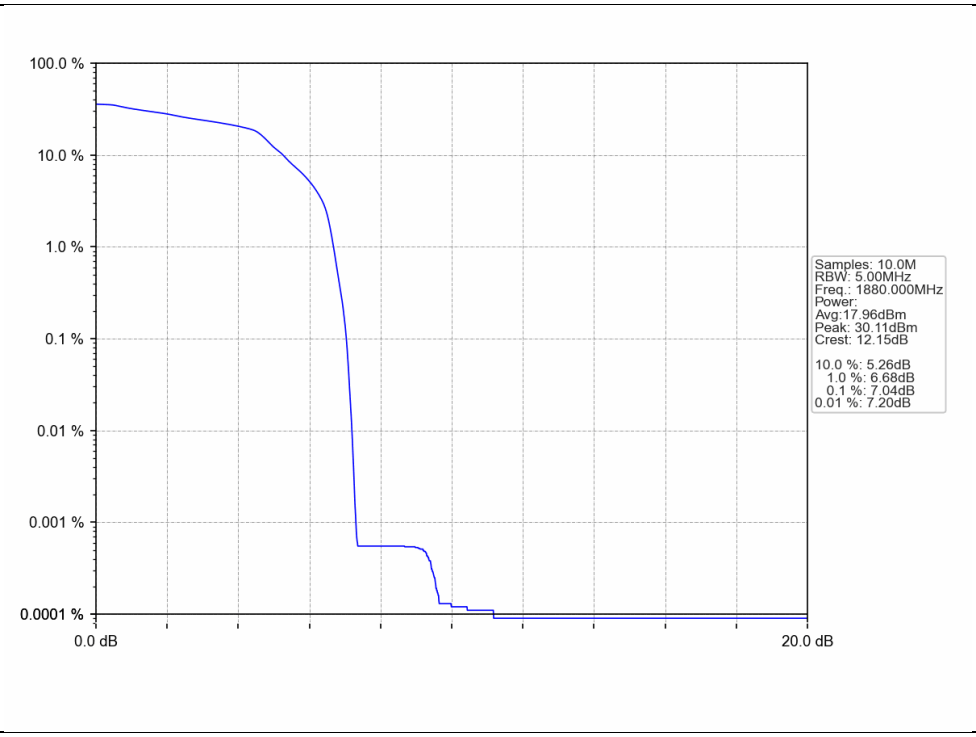
PCS1900_GPRS_HCH_1909.8MHz_4 TX Slots_NTNV



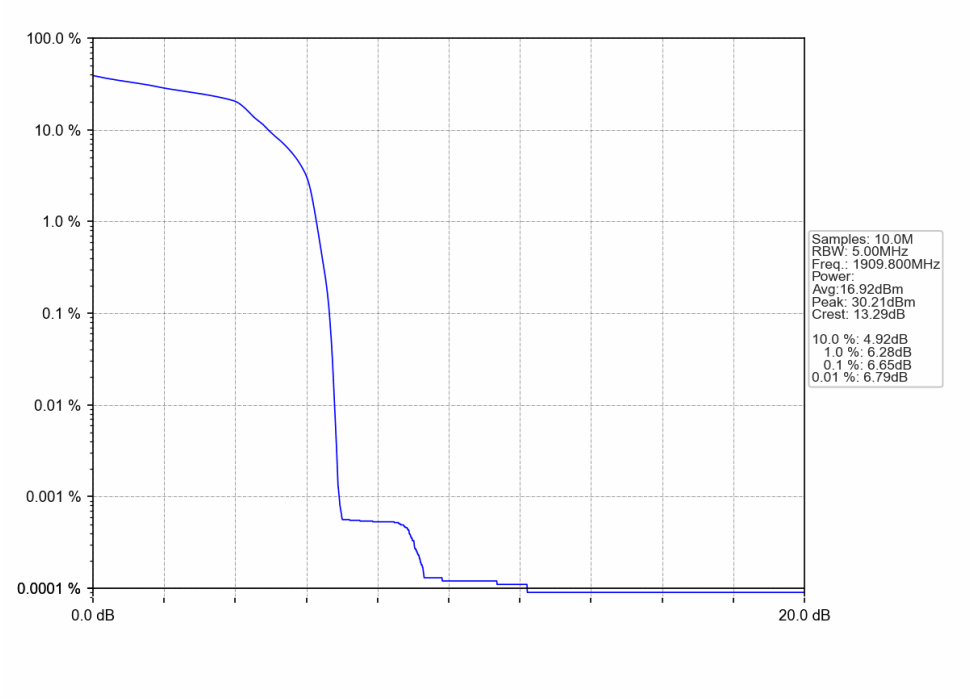
PCS1900_EGPRS_LCH_1850.2MHz_4 TX Slots_NTNV



PCS1900_EGPRS_MCH_1880MHz_4 TX Slots_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_4 TX Slots_NTNV



6. Spurious Emission

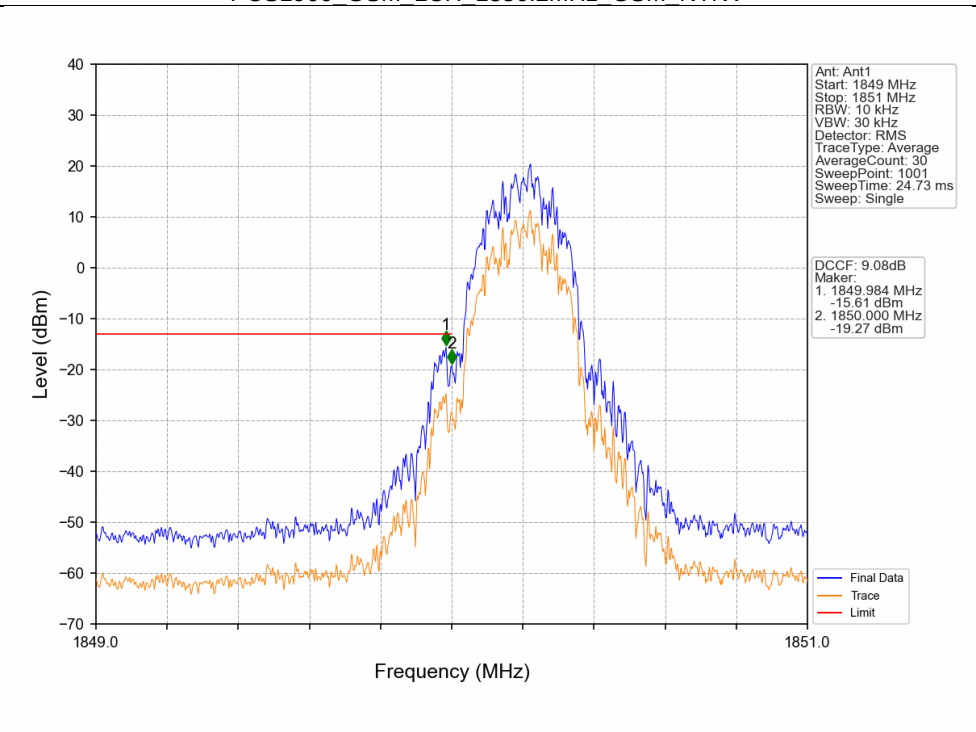
6.1 PCS1900

6.1.1 Test Result

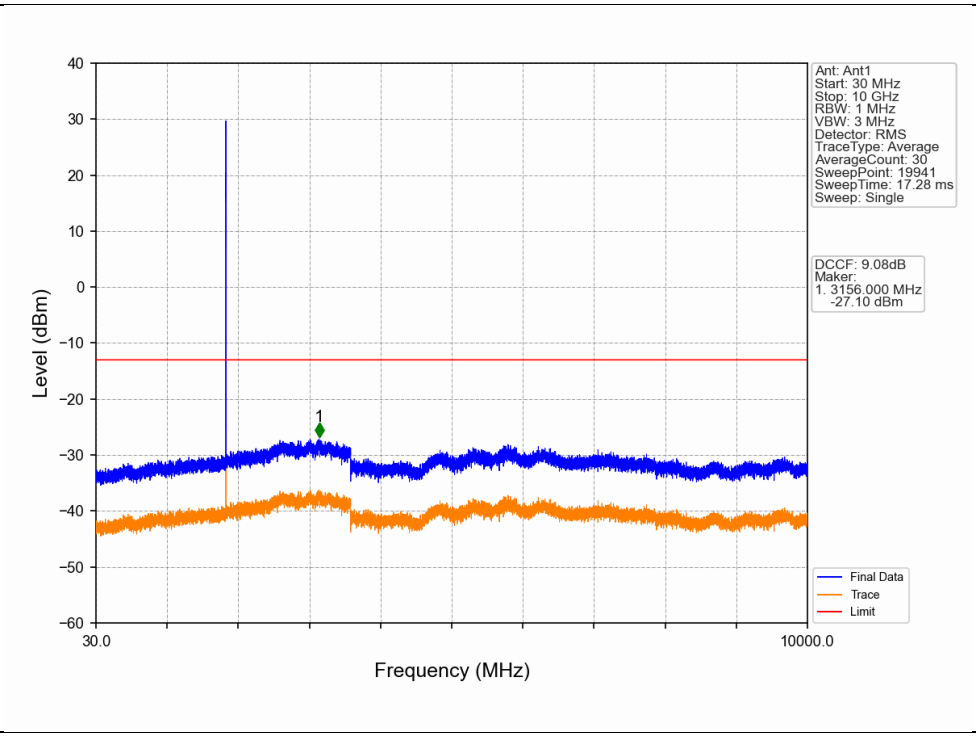
Band: PCS1900						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	Refer To Test Graph		Pass
			1880	Refer To Test Graph		Pass
			1909.8	Refer To Test Graph		Pass
	GPRS	1 TX Slot	1850.2	Refer To Test Graph		Pass
			1880	Refer To Test Graph		Pass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

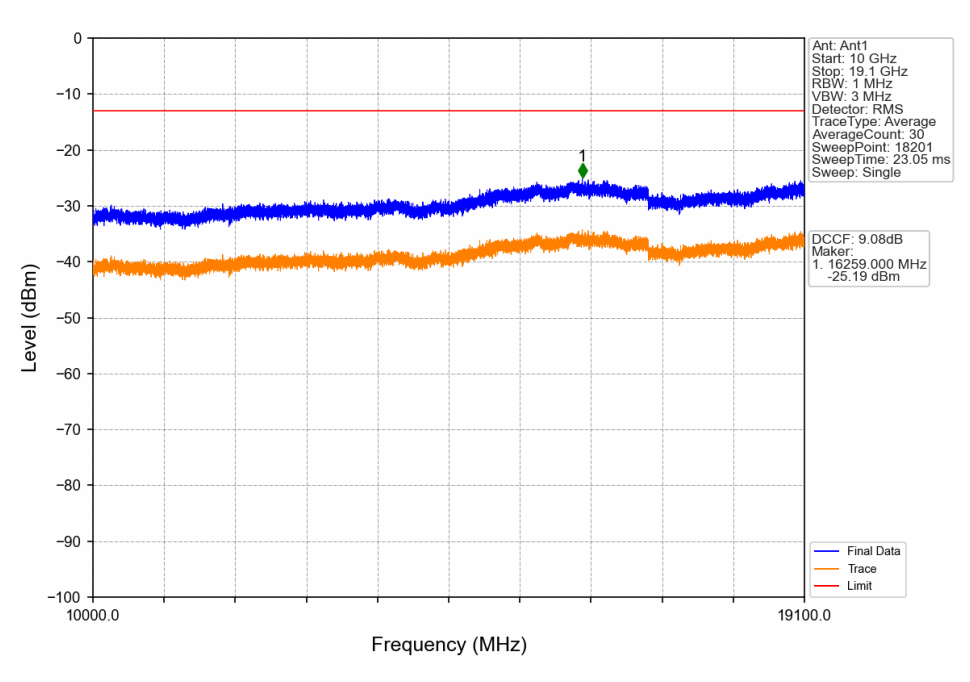
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



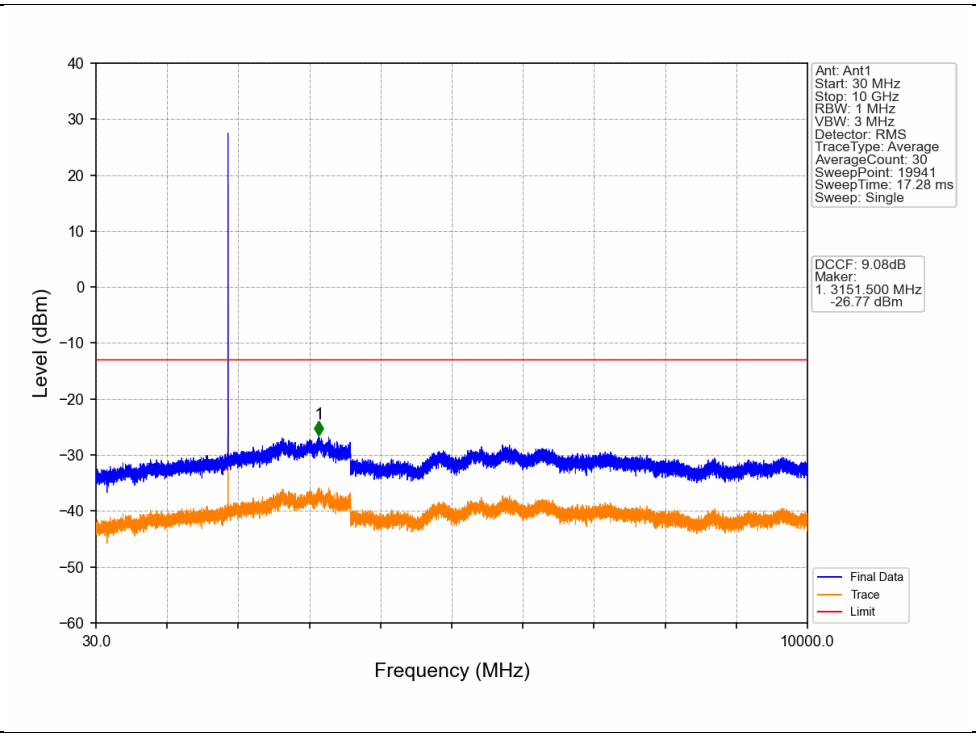
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



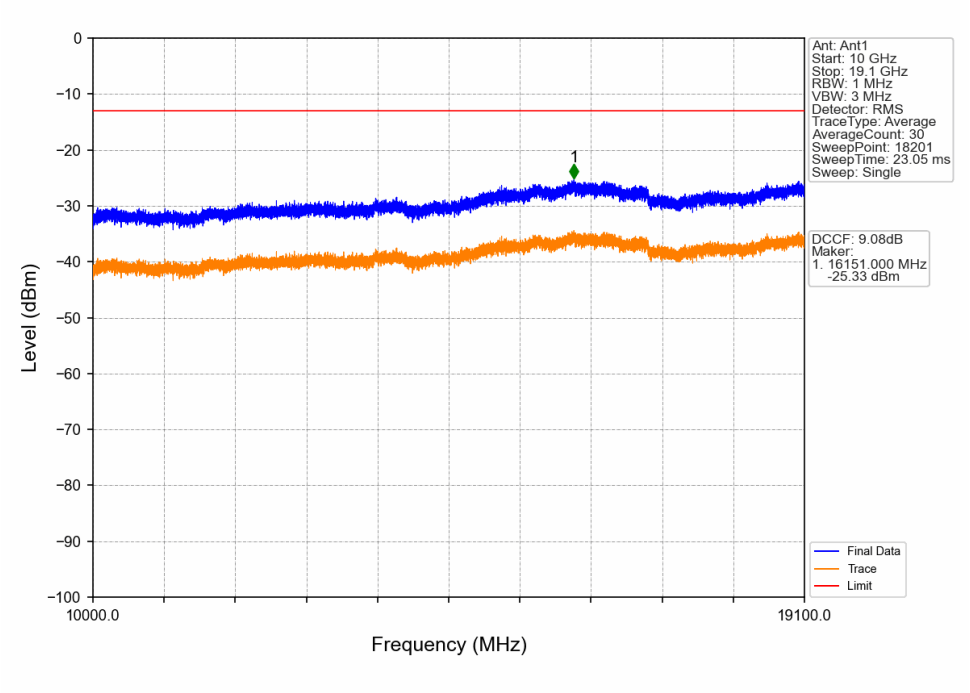
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



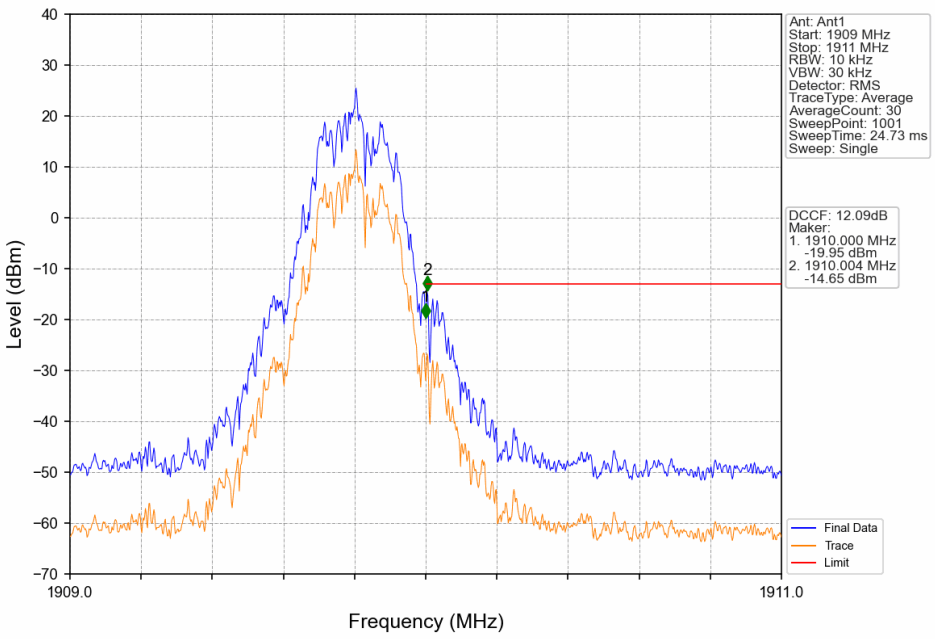
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



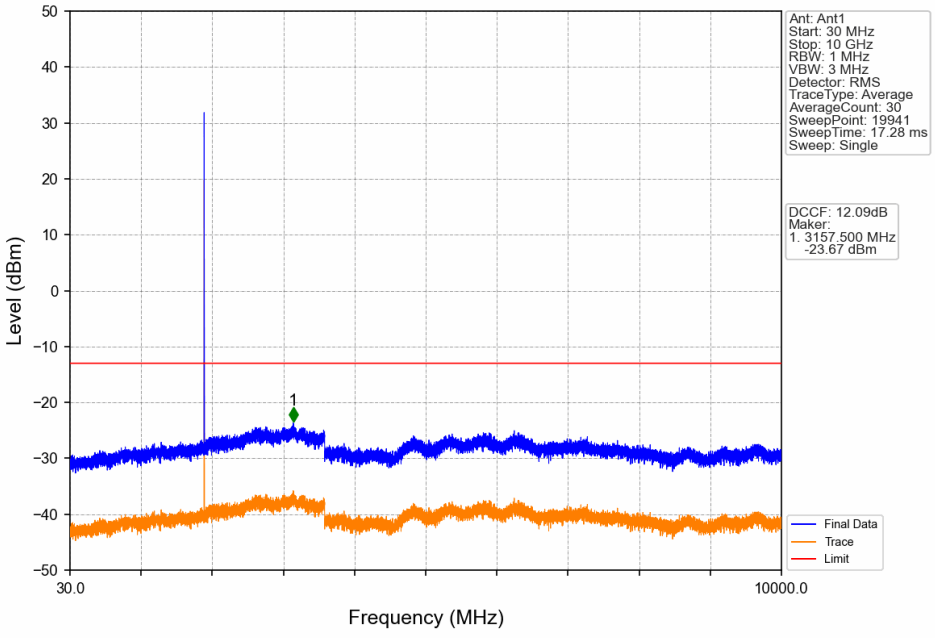
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



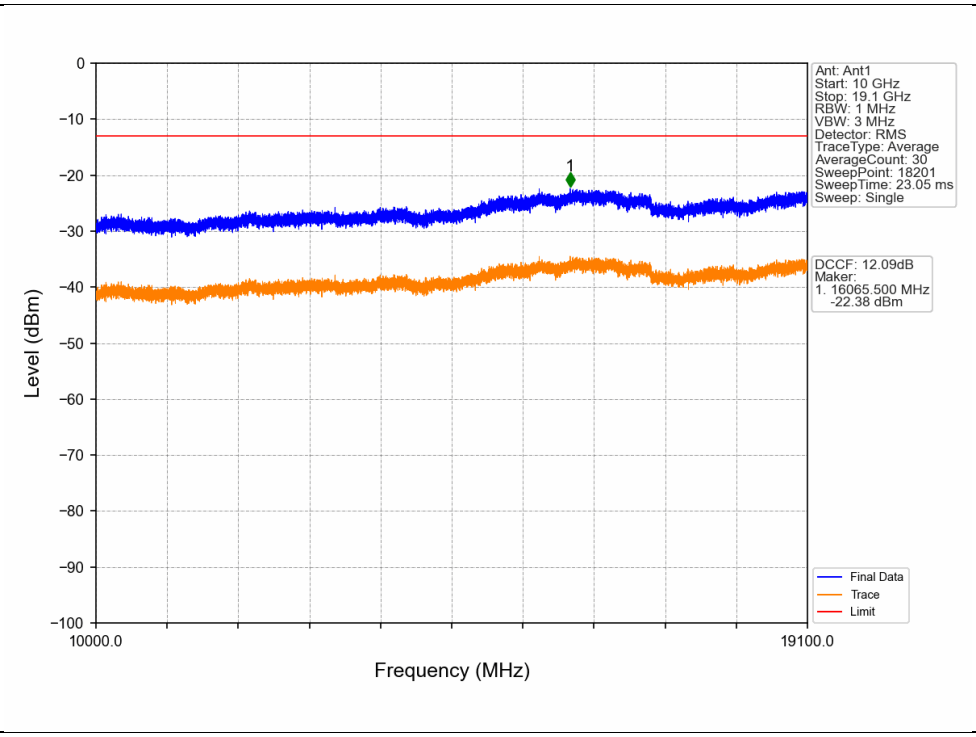
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



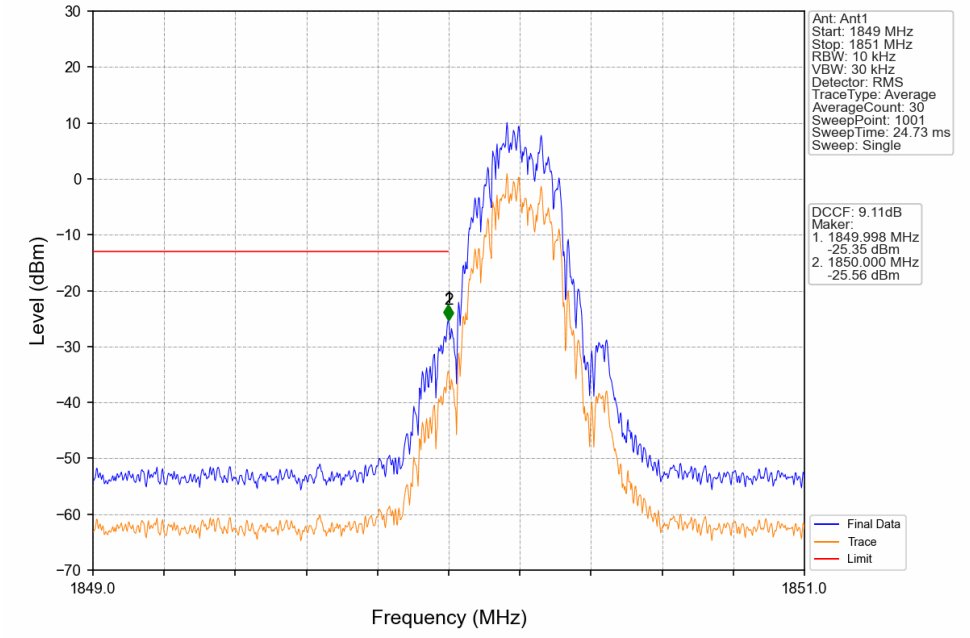
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



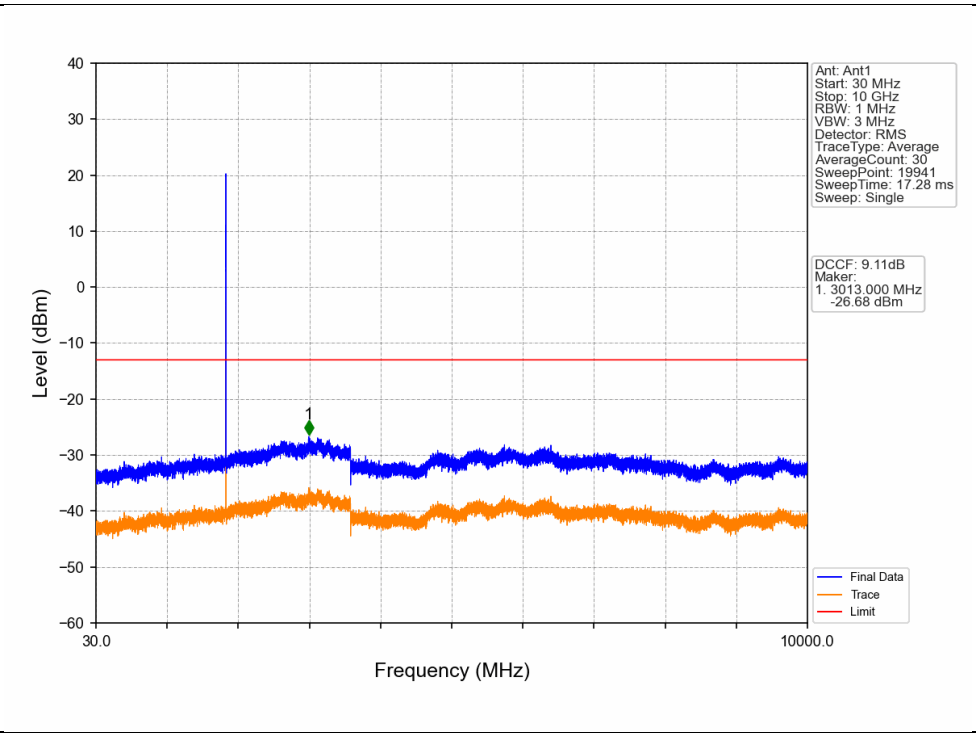
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



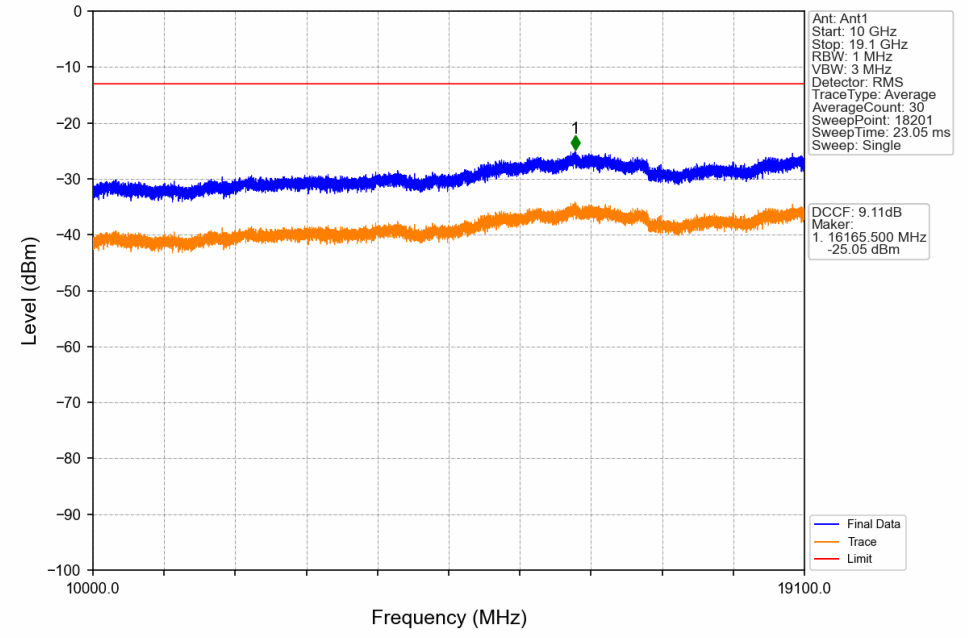
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



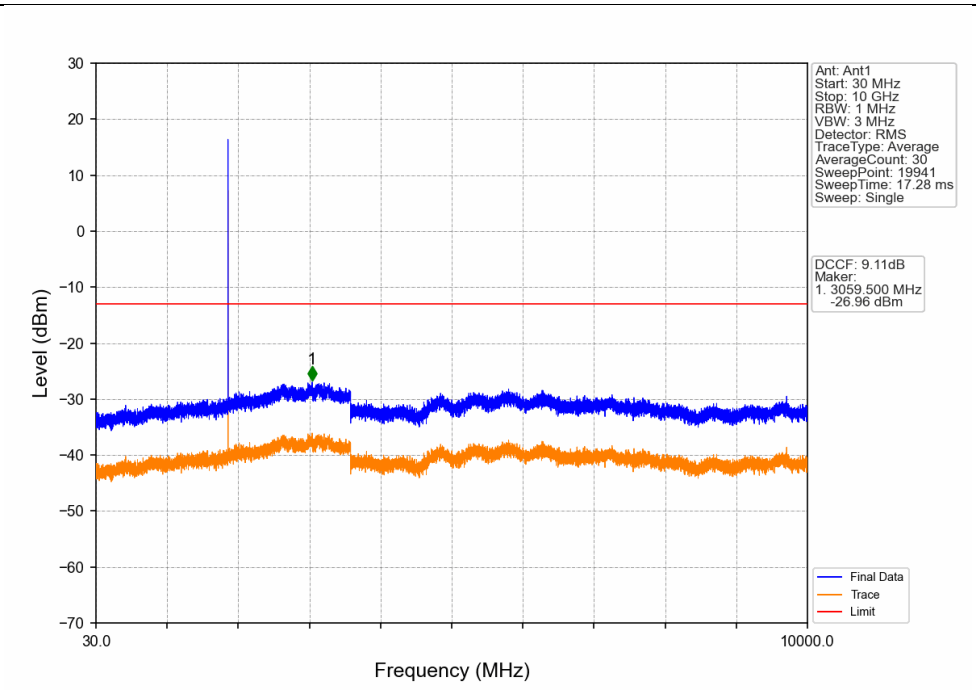
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



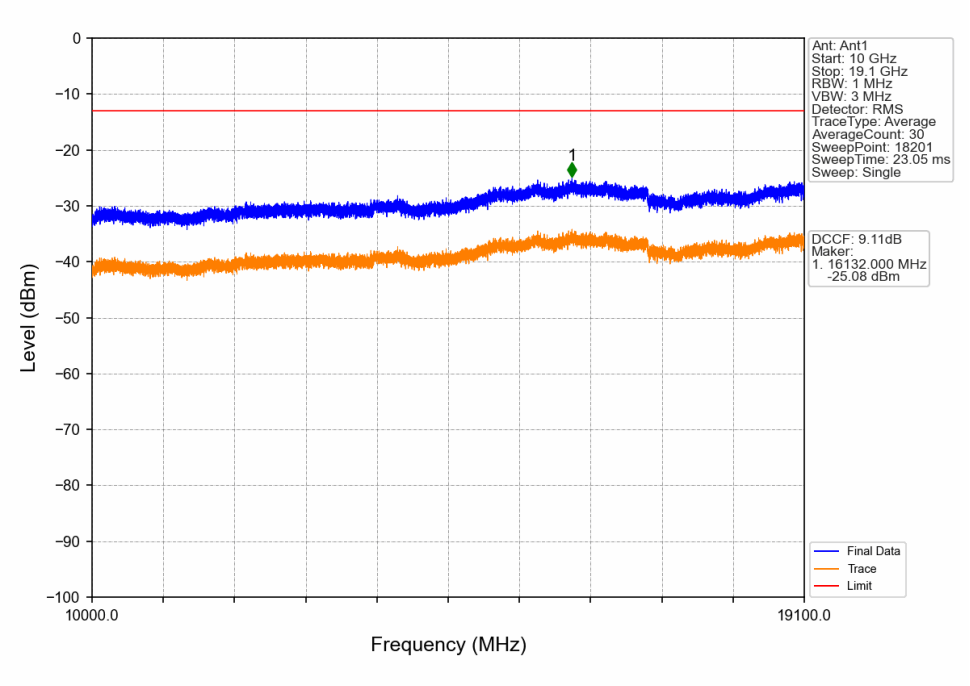
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



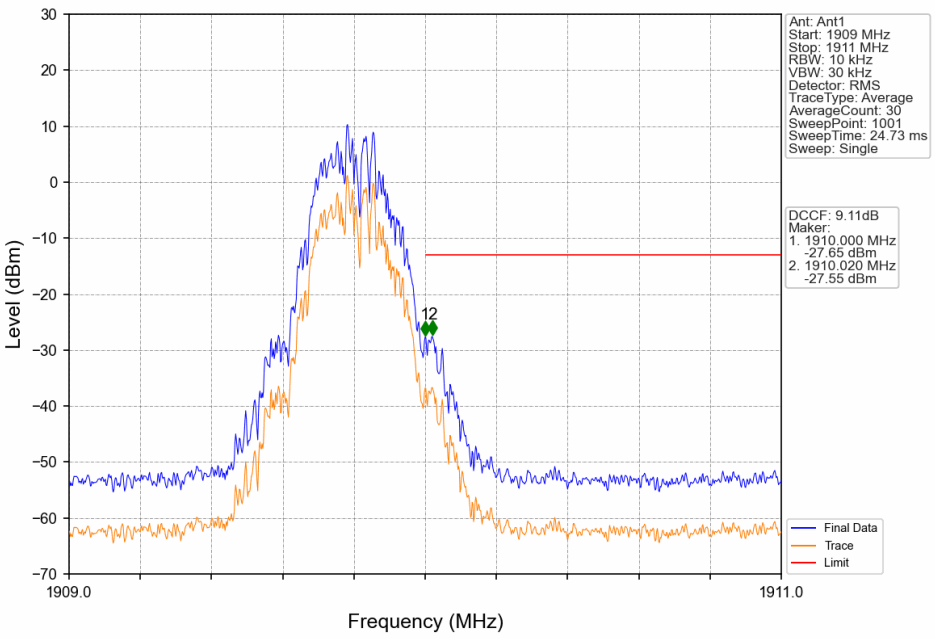
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



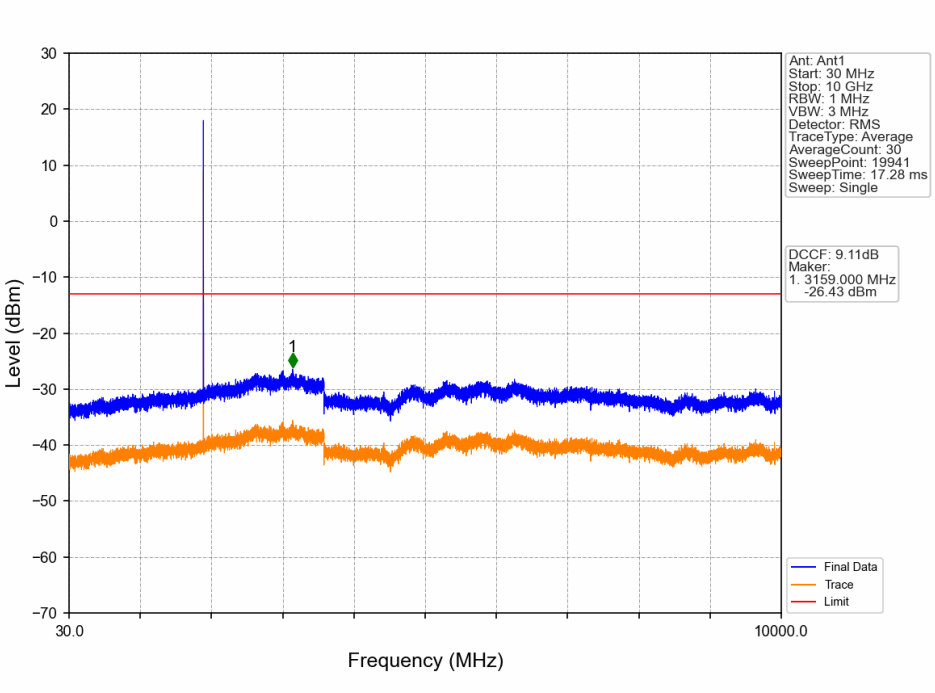
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



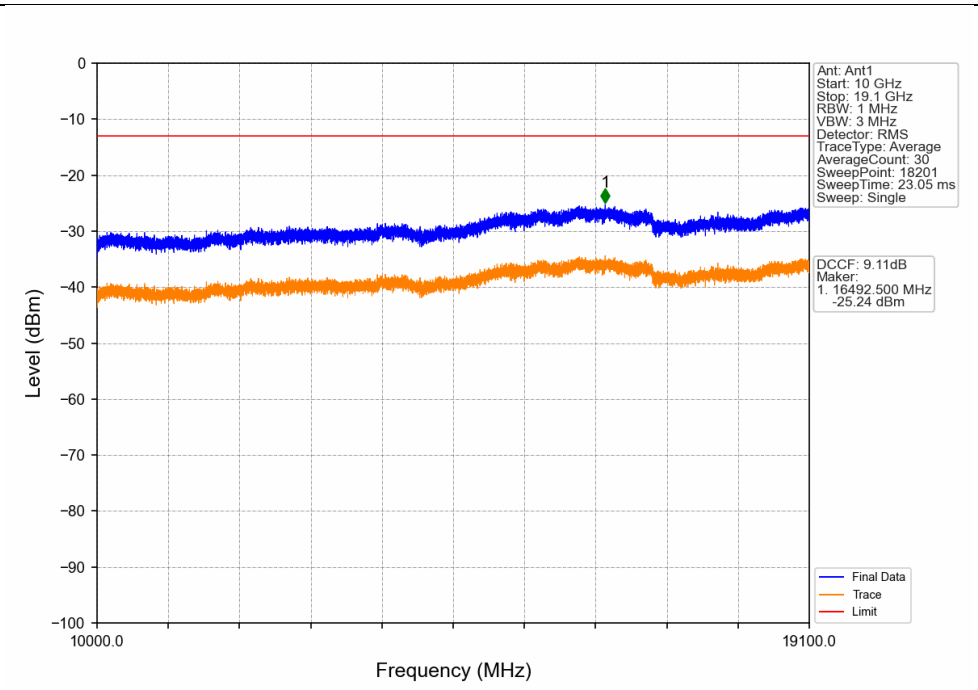
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



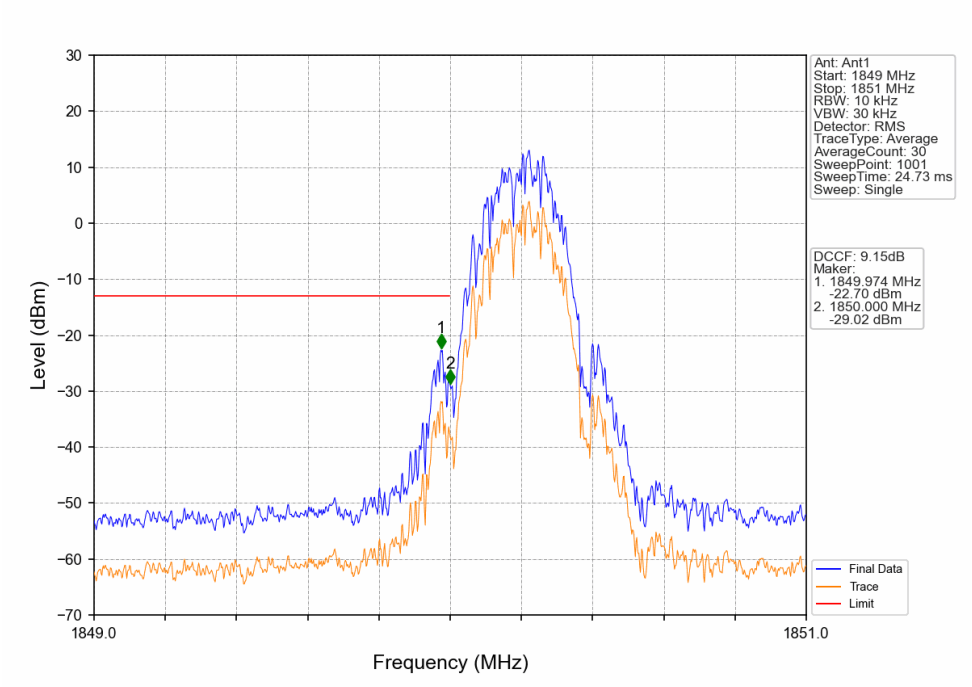
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



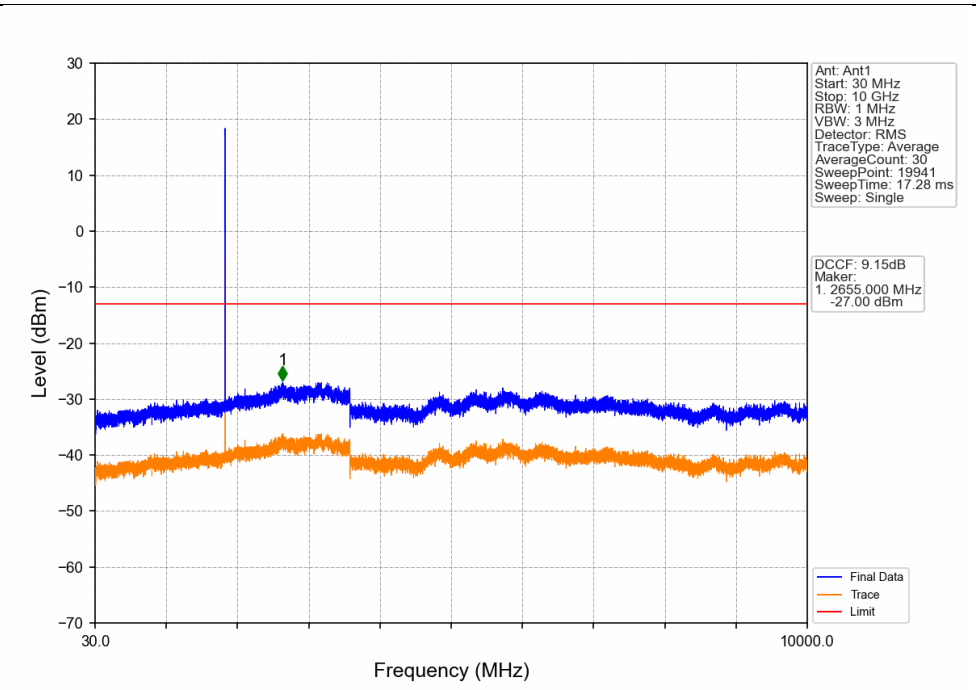
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



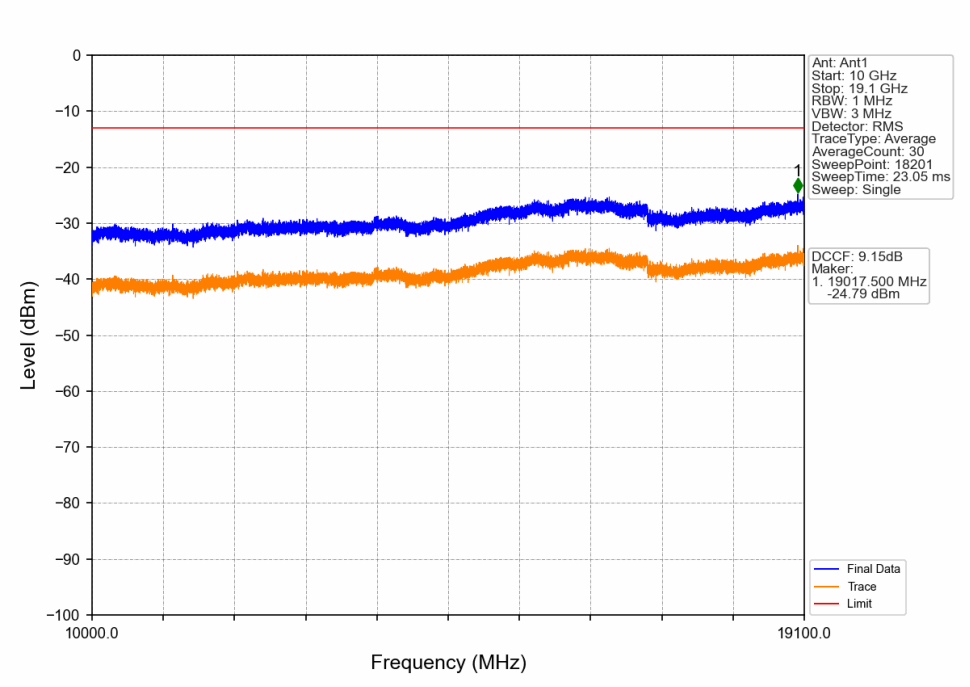
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



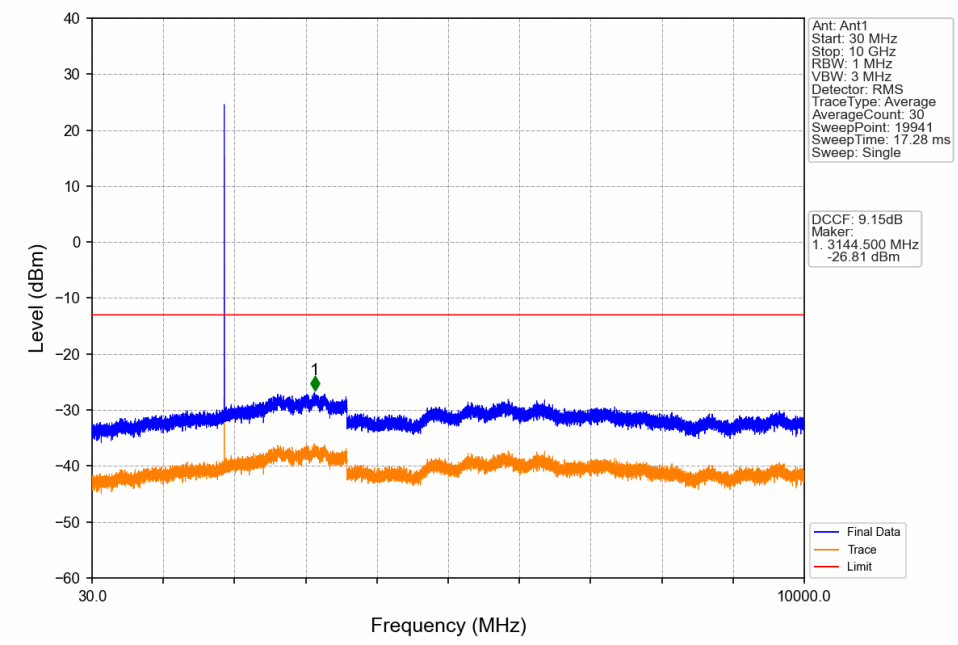
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



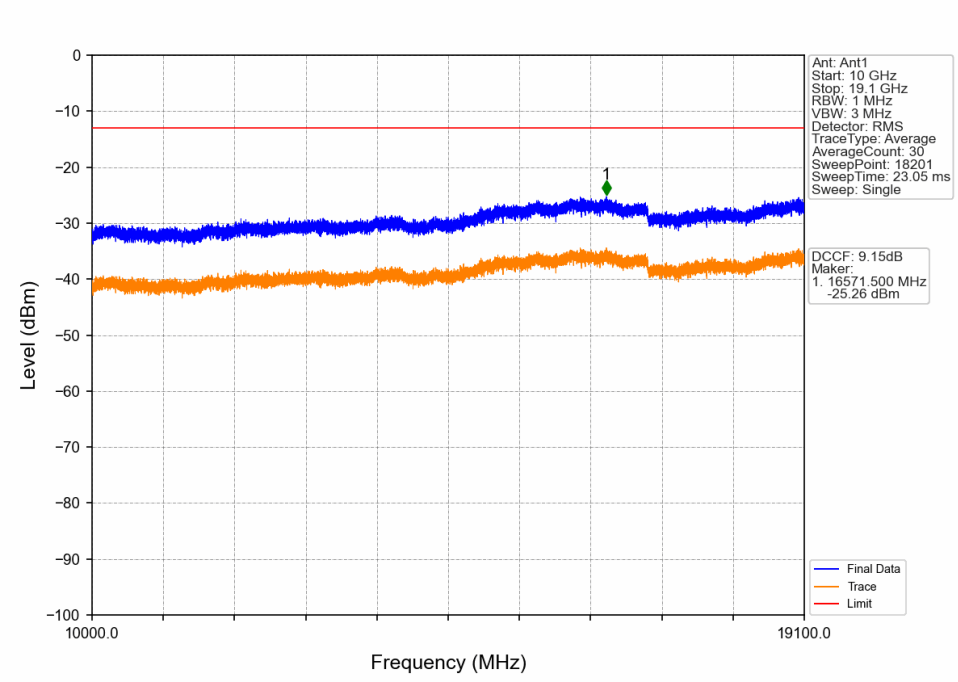
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



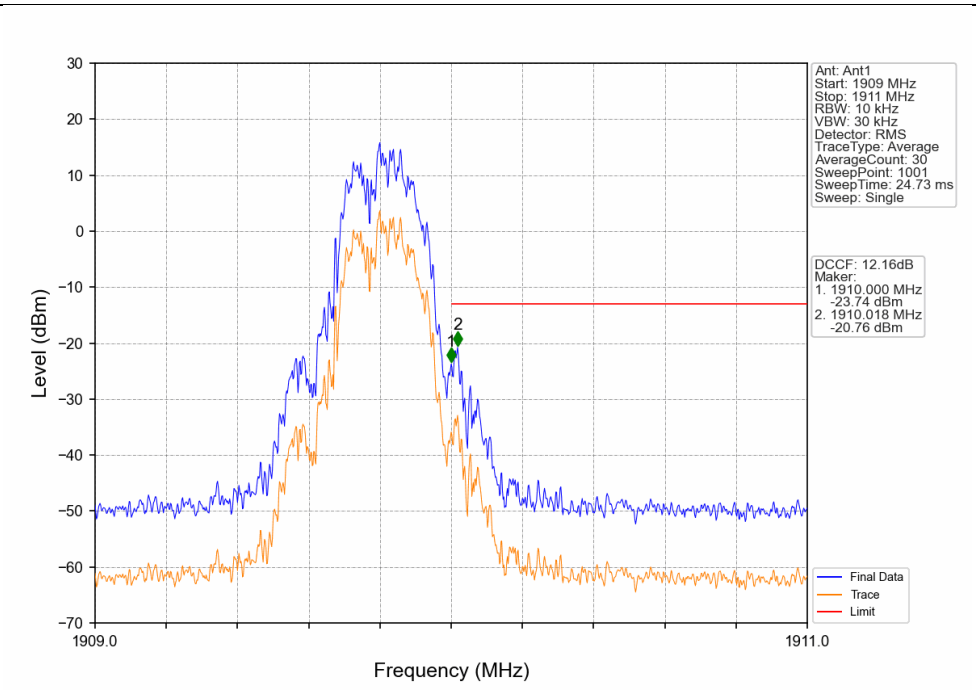
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



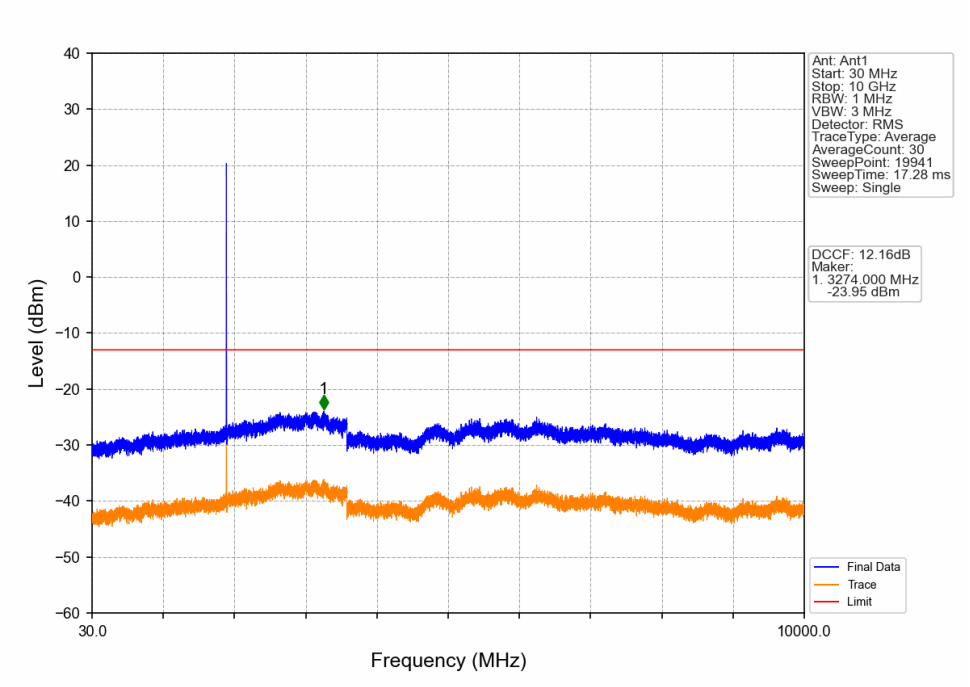
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



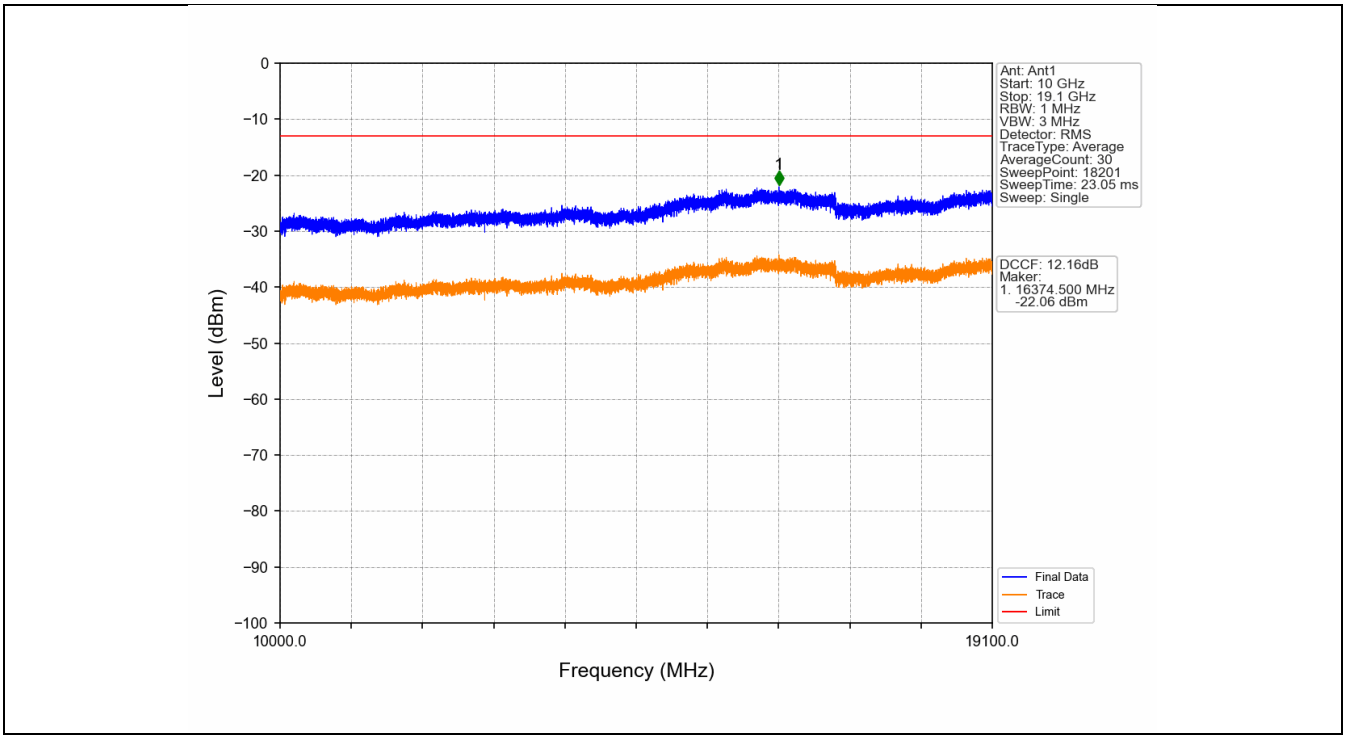
PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV


Ant: Ant1
Start: 10 GHz
Stop: 19.1 GHz
RBW: 1 MHz
VBW: 3 MHz
Detector: RMS
TraceType: Average
AverageCount: 30
SweepPoint: 18201
SweepTime: 23.05 ms
Sweep: Single
DCCF: 12.16dB
Maker:
1. 16374.500 MHz
-22.06 dBm
Final Data
Trace
Limit
Level (dBm)
Frequency (MHz)
0
−10
−20
−30
−40
−50
−60
−70
−80
−90
−100
10000.0
19100.0
1

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	0.9772	0.0058	ppm	253KGXW	24E	29.90
PCS1900	0.2	1850.2	1909.8	0.4560	0.0096	ppm	249KG7W	24E	26.58

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	1.0839	0.0058	ppm	253KGXW	24E	30.35
PCS1900	0.2	1850.2	1909.8	0.5046	0.0096	ppm	249KG7W	24E	27.03