



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	28.85	1.58	30.43	<=33.01	Pass
			1880	28.90	1.58	30.48	<=33.01	Pass
			1909.8	28.72	1.58	30.3	<=33.01	Pass
	GPRS	1 TX Slot	1850.2	28.87	1.58	30.45	<=33.01	Pass
		2 TX Slots	1850.2	28.54	1.58	30.12	<=33.01	Pass
		3 TX Slots	1850.2	27.18	1.58	28.76	<=33.01	Pass
		4 TX Slots	1850.2	26.01	1.58	27.59	<=33.01	Pass
		1 TX Slot	1880	28.85	1.58	30.43	<=33.01	Pass
		2 TX Slots	1880	28.57	1.58	30.15	<=33.01	Pass
		3 TX Slots	1880	27.25	1.58	28.83	<=33.01	Pass
		4 TX Slots	1880	26.14	1.58	27.72	<=33.01	Pass
		1 TX Slot	1909.8	28.69	1.58	30.27	<=33.01	Pass
		2 TX Slots	1909.8	28.43	1.58	30.01	<=33.01	Pass
		3 TX Slots	1909.8	27.16	1.58	28.74	<=33.01	Pass
		4 TX Slots	1909.8	26.11	1.58	27.69	<=33.01	Pass
	EGPRS	1 TX Slot	1850.2	24.48	1.58	26.06	<=33.01	Pass
		2 TX Slots	1850.2	23.36	1.58	24.94	<=33.01	Pass
		3 TX Slots	1850.2	20.90	1.58	22.48	<=33.01	Pass
		4 TX Slots	1850.2	19.58	1.58	21.16	<=33.01	Pass
		1 TX Slot	1880	24.36	1.58	25.94	<=33.01	Pass
		2 TX Slots	1880	23.14	1.58	24.72	<=33.01	Pass
		3 TX Slots	1880	20.71	1.58	22.29	<=33.01	Pass
		4 TX Slots	1880	19.42	1.58	21	<=33.01	Pass
		1 TX Slot	1909.8	23.96	1.58	25.54	<=33.01	Pass
		2 TX Slots	1909.8	22.66	1.58	24.24	<=33.01	Pass
		3 TX Slots	1909.8	20.24	1.58	21.82	<=33.01	Pass
		4 TX Slots	1909.8	18.91	1.58	20.49	<=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	-3.939	-0.0021	-2.5 to 2.5	Pass
			3.85	-9.427	-0.0051	-2.5 to 2.5	Pass
			4.43	-11.397	-0.0062	-2.5 to 2.5	Pass
		-30	3.85	-6.909	-0.0037	-2.5 to 2.5	Pass
		-20	3.85	-9.557	-0.0052	-2.5 to 2.5	Pass
		-10	3.85	-7.781	-0.0042	-2.5 to 2.5	Pass
		0	3.85	-4.681	-0.0025	-2.5 to 2.5	Pass



		10	3.85	-7.684	-0.0042	-2.5 to 2.5	Pass
		30	3.85	-7.749	-0.0042	-2.5 to 2.5	Pass
		40	3.85	-6.780	-0.0037	-2.5 to 2.5	Pass
		50	3.85	0.678	0.0004	-2.5 to 2.5	Pass
	1880	20	3.27	-11.332	-0.0060	-2.5 to 2.5	Pass
			3.85	-5.489	-0.0029	-2.5 to 2.5	Pass
			4.43	-7.329	-0.0039	-2.5 to 2.5	Pass
		-30	3.85	-6.489	-0.0035	-2.5 to 2.5	Pass
		-20	3.85	-5.424	-0.0029	-2.5 to 2.5	Pass
		-10	3.85	-8.943	-0.0048	-2.5 to 2.5	Pass
		0	3.85	-7.135	-0.0038	-2.5 to 2.5	Pass
		10	3.85	-4.552	-0.0024	-2.5 to 2.5	Pass
		30	3.85	-6.102	-0.0032	-2.5 to 2.5	Pass
		40	3.85	4.229	0.0022	-2.5 to 2.5	Pass
		50	3.85	-5.037	-0.0027	-2.5 to 2.5	Pass
		1909.8	20	3.27	-5.553	-0.0029	-2.5 to 2.5
	3.85			-7.716	-0.0040	-2.5 to 2.5	Pass
	4.43			-5.166	-0.0027	-2.5 to 2.5	Pass
	-30		3.85	-11.461	-0.0060	-2.5 to 2.5	Pass
	-20		3.85	-4.552	-0.0024	-2.5 to 2.5	Pass
-10	3.85		-8.879	-0.0046	-2.5 to 2.5	Pass	
0	3.85		-1.517	-0.0008	-2.5 to 2.5	Pass	
10	3.85		-5.876	-0.0031	-2.5 to 2.5	Pass	
30	3.85		-5.359	-0.0028	-2.5 to 2.5	Pass	
40	3.85		-1.162	-0.0006	-2.5 to 2.5	Pass	
50	3.85		-4.068	-0.0021	-2.5 to 2.5	Pass	
GPRS	1850.2		20	3.27	-11.171	-0.0060	-2.5 to 2.5
		3.85		-12.753	-0.0069	-2.5 to 2.5	Pass
		4.43		-15.303	-0.0083	-2.5 to 2.5	Pass
		-30	3.85	-8.104	-0.0044	-2.5 to 2.5	Pass
		-20	3.85	-10.428	-0.0056	-2.5 to 2.5	Pass
		-10	3.85	-10.783	-0.0058	-2.5 to 2.5	Pass
		0	3.85	-13.980	-0.0076	-2.5 to 2.5	Pass
		10	3.85	-7.490	-0.0040	-2.5 to 2.5	Pass
		30	3.85	-15.433	-0.0083	-2.5 to 2.5	Pass
		40	3.85	-5.230	-0.0028	-2.5 to 2.5	Pass
		50	3.85	-3.261	-0.0018	-2.5 to 2.5	Pass
		1880	20	3.27	-9.589	-0.0051	-2.5 to 2.5
	3.85			-8.330	-0.0044	-2.5 to 2.5	Pass
	4.43			-11.913	-0.0063	-2.5 to 2.5	Pass
	-30		3.85	-14.464	-0.0077	-2.5 to 2.5	Pass
	-20		3.85	-9.427	-0.0050	-2.5 to 2.5	Pass
	-10		3.85	-8.491	-0.0045	-2.5 to 2.5	Pass
	0		3.85	-8.168	-0.0043	-2.5 to 2.5	Pass
	10		3.85	-6.199	-0.0033	-2.5 to 2.5	Pass
	30		3.85	-9.847	-0.0052	-2.5 to 2.5	Pass
40	3.85		-7.555	-0.0040	-2.5 to 2.5	Pass	
50	3.85		-1.388	-0.0007	-2.5 to 2.5	Pass	
1909.8	20		3.27	-8.039	-0.0042	-2.5 to 2.5	Pass
		3.85	-6.134	-0.0032	-2.5 to 2.5	Pass	
		4.43	-5.941	-0.0031	-2.5 to 2.5	Pass	
	-30	3.85	-6.554	-0.0034	-2.5 to 2.5	Pass	
	-20	3.85	-9.363	-0.0049	-2.5 to 2.5	Pass	
	-10	3.85	-7.038	-0.0037	-2.5 to 2.5	Pass	
	0	3.85	-6.974	-0.0037	-2.5 to 2.5	Pass	
	10	3.85	-6.134	-0.0032	-2.5 to 2.5	Pass	
30	3.85	-4.552	-0.0024	-2.5 to 2.5	Pass		
40	3.85	-1.001	-0.0005	-2.5 to 2.5	Pass		



EGPRS	1850.2	50	3.85	-1.679	-0.0009	-2.5 to 2.5	Pass
		20	3.27	-31.414	-0.0170	-2.5 to 2.5	Pass
			3.85	-34.966	-0.0189	-2.5 to 2.5	Pass
			4.43	-30.123	-0.0163	-2.5 to 2.5	Pass
		-30	3.85	-27.830	-0.0150	-2.5 to 2.5	Pass
		-20	3.85	-26.216	-0.0142	-2.5 to 2.5	Pass
		-10	3.85	-34.126	-0.0184	-2.5 to 2.5	Pass
		0	3.85	-26.022	-0.0141	-2.5 to 2.5	Pass
		10	3.85	-33.384	-0.0180	-2.5 to 2.5	Pass
		30	3.85	-30.284	-0.0164	-2.5 to 2.5	Pass
	40	3.85	-27.314	-0.0148	-2.5 to 2.5	Pass	
	50	3.85	-23.827	-0.0129	-2.5 to 2.5	Pass	
	1880	20	3.27	-32.706	-0.0174	-2.5 to 2.5	Pass
			3.85	-33.125	-0.0176	-2.5 to 2.5	Pass
			4.43	-28.282	-0.0150	-2.5 to 2.5	Pass
		-30	3.85	-33.900	-0.0180	-2.5 to 2.5	Pass
		-20	3.85	-34.772	-0.0185	-2.5 to 2.5	Pass
		-10	3.85	-33.480	-0.0178	-2.5 to 2.5	Pass
		0	3.85	-28.315	-0.0151	-2.5 to 2.5	Pass
		10	3.85	-26.313	-0.0140	-2.5 to 2.5	Pass
		30	3.85	-26.636	-0.0142	-2.5 to 2.5	Pass
		40	3.85	-28.282	-0.0150	-2.5 to 2.5	Pass
	50	3.85	-25.280	-0.0134	-2.5 to 2.5	Pass	
	1909.8	20	3.27	-28.153	-0.0147	-2.5 to 2.5	Pass
			3.85	-30.801	-0.0161	-2.5 to 2.5	Pass
			4.43	-29.380	-0.0154	-2.5 to 2.5	Pass
		-30	3.85	-26.797	-0.0140	-2.5 to 2.5	Pass
		-20	3.85	-29.864	-0.0156	-2.5 to 2.5	Pass
		-10	3.85	-25.280	-0.0132	-2.5 to 2.5	Pass
		0	3.85	-28.928	-0.0151	-2.5 to 2.5	Pass
		10	3.85	-27.508	-0.0144	-2.5 to 2.5	Pass
		30	3.85	-26.442	-0.0138	-2.5 to 2.5	Pass
		40	3.85	-30.349	-0.0159	-2.5 to 2.5	Pass
	50	3.85	-33.513	-0.0175	-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

GSM Measurement - V3.7.30 - Base V 3.7.172 - TX Measurement

Band/Ch:GSM1900 / 661 Freq.:1880.00000 MHz Ref. Level: 36.00 dBm Meas Slots: [Progress Bar] Tim.Advance.: 0

IQ

Statistic Count
[Progress Bar] 10 / 10

Bursts out of Tolerance
0.00 %

Mod.View Throughput
100.0 %

Burst Type
GMSK

GSM

Multi Evaluation
RDY

RF Settings

Trigger

Display

Signaling Parameter

GSM Signaling
ON

CS: [Icon] Call Established

PS: [Icon] Attached

DL: [Progress Bar] MCS-5

UL: [Progress Bar] MCS-5

Go To Local

Show Remote Screen

PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV

GSM Measurement - V3.7.30 - Base V 3.7.172 - TX Measurement

Band/Ch:GSM1900 / 661 Freq.:1880.00000 MHz Ref. Level: 36.00 dBm Meas Slots: [Progress Bar] Tim.Advance.: 0

IQ

Statistic Count
[Progress Bar] 10 / 10

Bursts out of Tolerance
0.00 %

Mod.View Throughput
100.0 %

Burst Type
GMSK

GSM

Multi Evaluation
RDY

RF Settings

Trigger

Display

Signaling Parameter

GSM Signaling
ON

CS: [Icon] Synchronized

PS: [Icon] TBF Established

DL: [Progress Bar] CS-1

UL: [Progress Bar] CS-1

Go To Local

Show Remote Screen

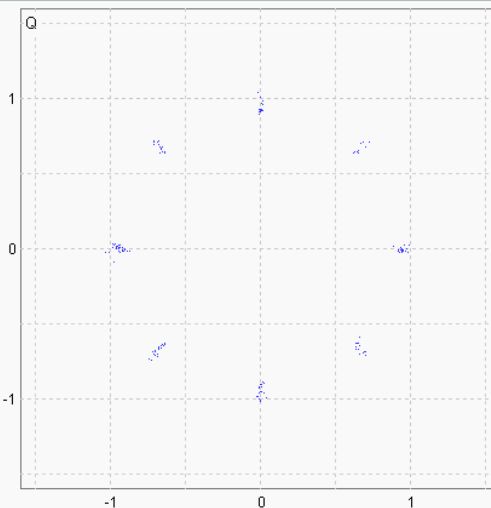


PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV

GSM Measurement - V3.7.30 - Base V 3.7.172 - TX Measurement

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

IQ



Statistic Count
[Progress Bar] 10 / 10

Bursts out of Tolerance
0.00 %

Mod. View Throughput
100.0 %

Burst Type
8PSK

CS: Synchronized

PS: TBF Established

DL: ○○○○○○ MCS-5

UL: ○○○○○○ MCS-5

GSM

Multi Evaluation
RDY

RF Settings

Trigger

Display

Signaling Parameter

GSM Signaling
ON

Go To LocalShow Remote Screen



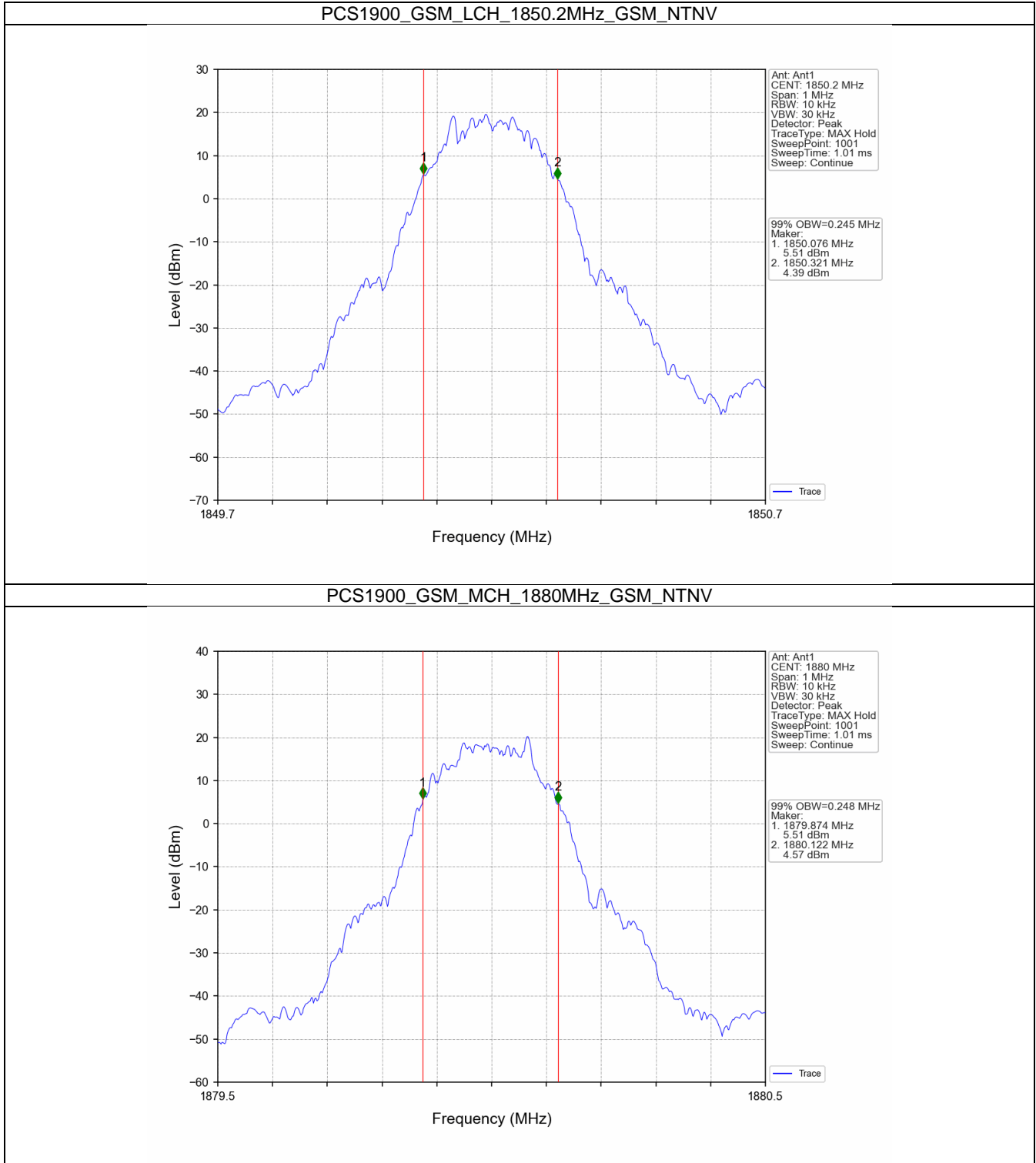
4. 99% & 26dB Bandwidth

4.1 PCS1900_OBW

4.1.1 Test Result

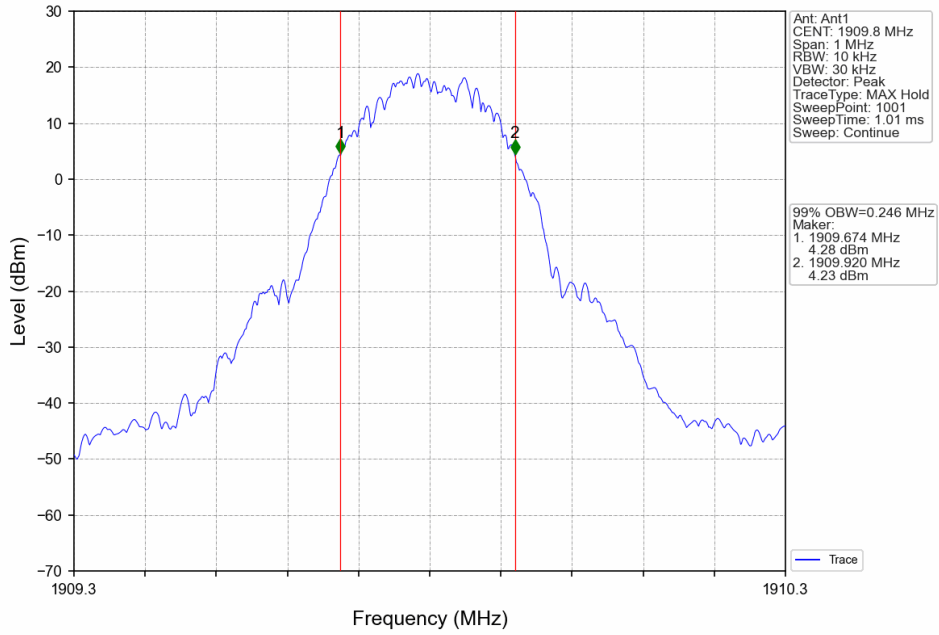
Band: PCS1900						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	0.245	/	Pass
			1880	0.248	/	Pass
			1909.8	0.246	/	Pass
	GPRS	1 TX Slot	1850.2	0.242	/	Pass
			1880	0.243	/	Pass
			1909.8	0.247	/	Pass
	EGPRS	1 TX Slot	1850.2	0.241	/	Pass
			1880	0.236	/	Pass
			1909.8	0.251	/	Pass

4.1.2 Test Graph

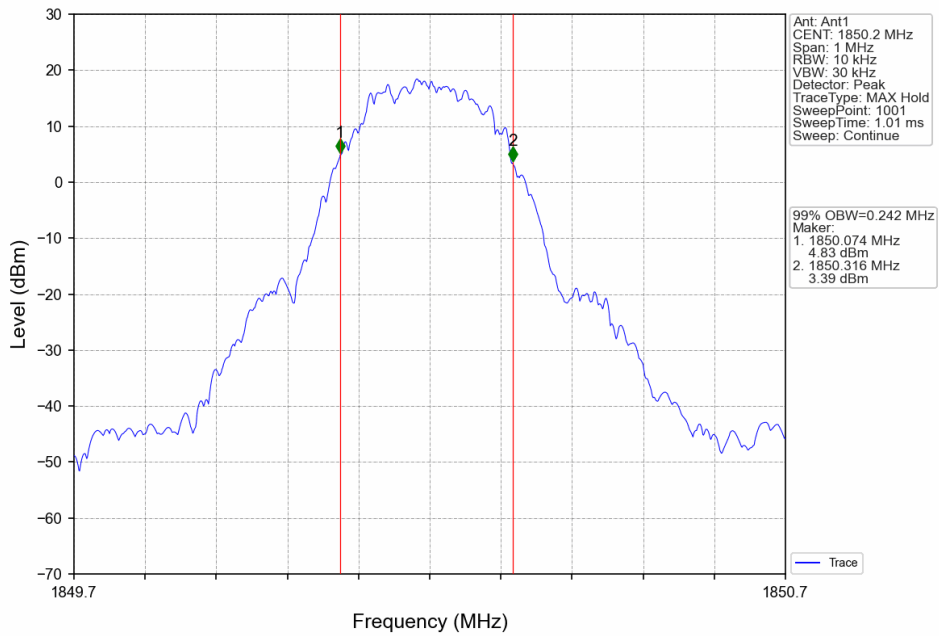




PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV

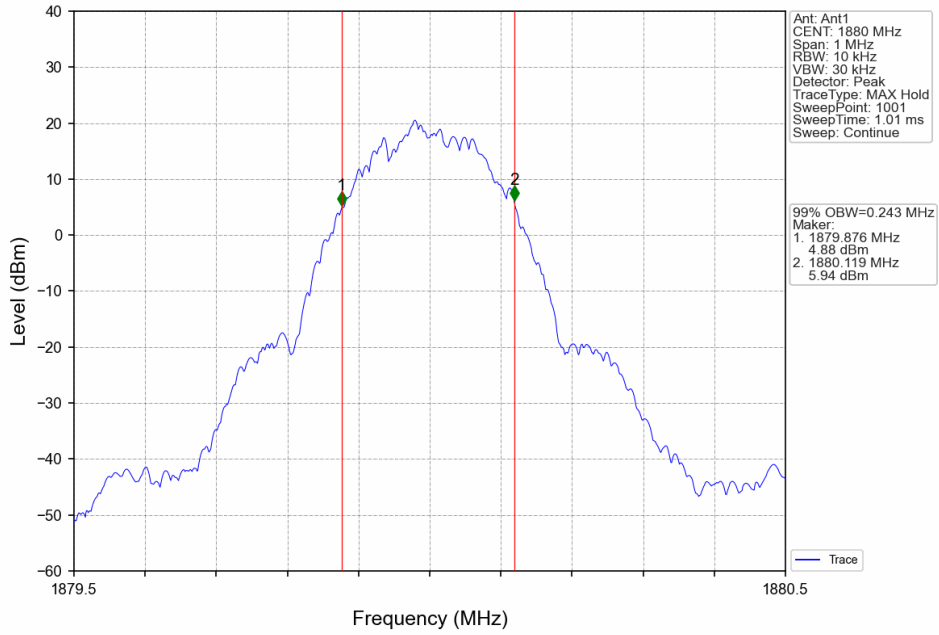


PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV

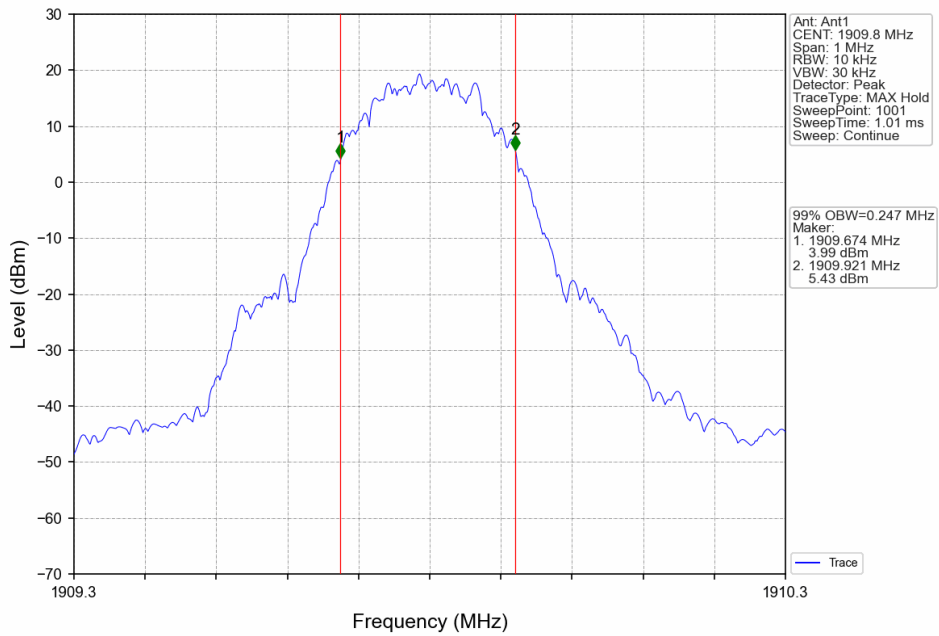




PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV

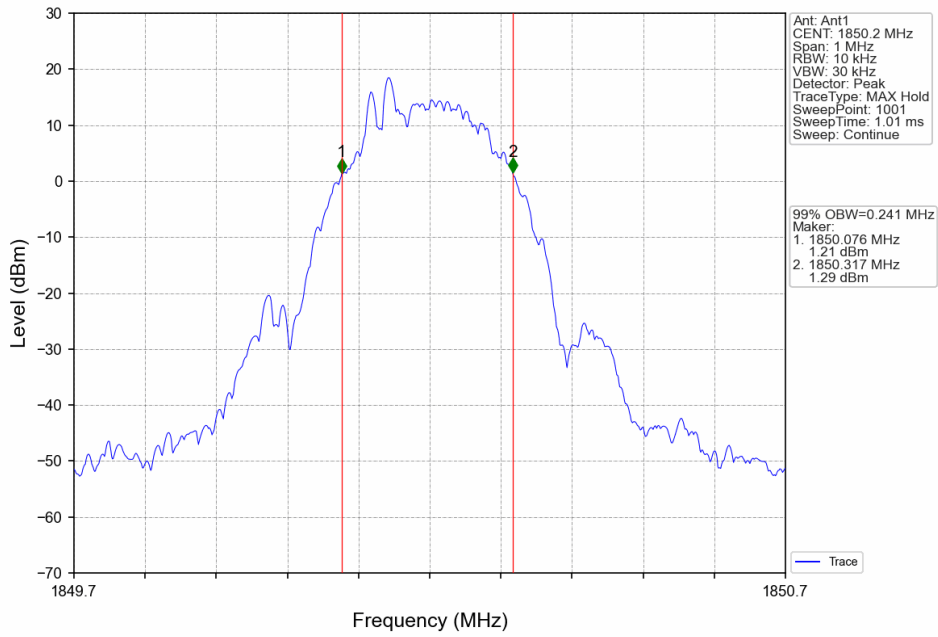


PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV

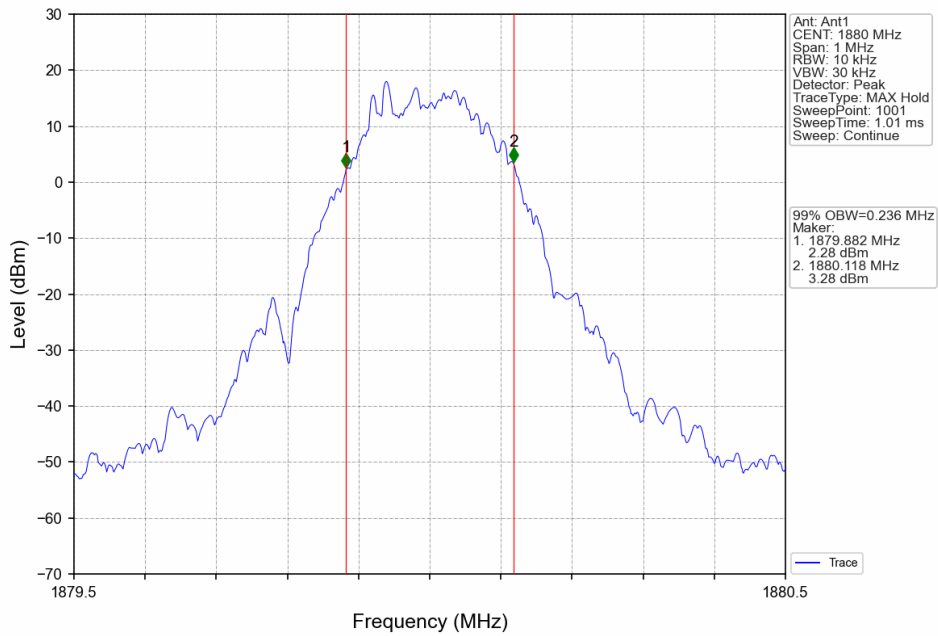


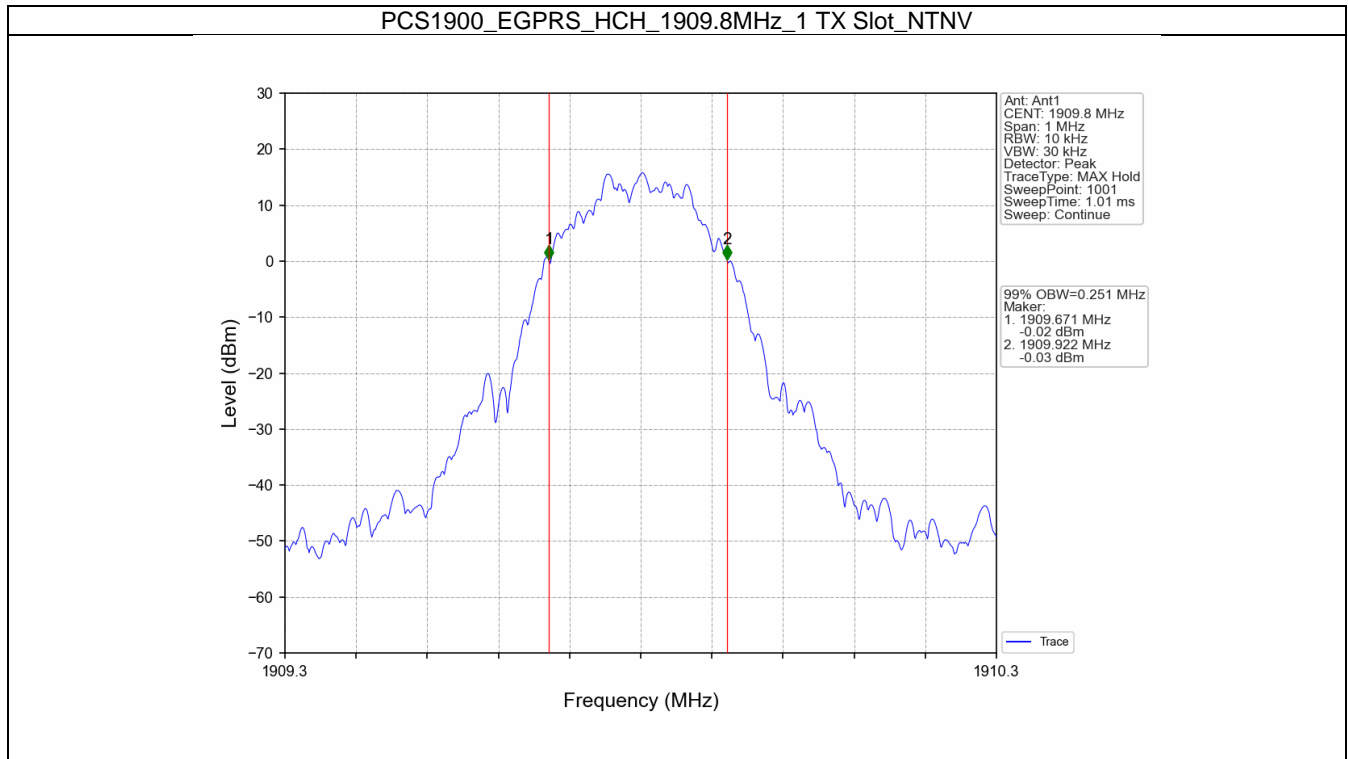


PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV





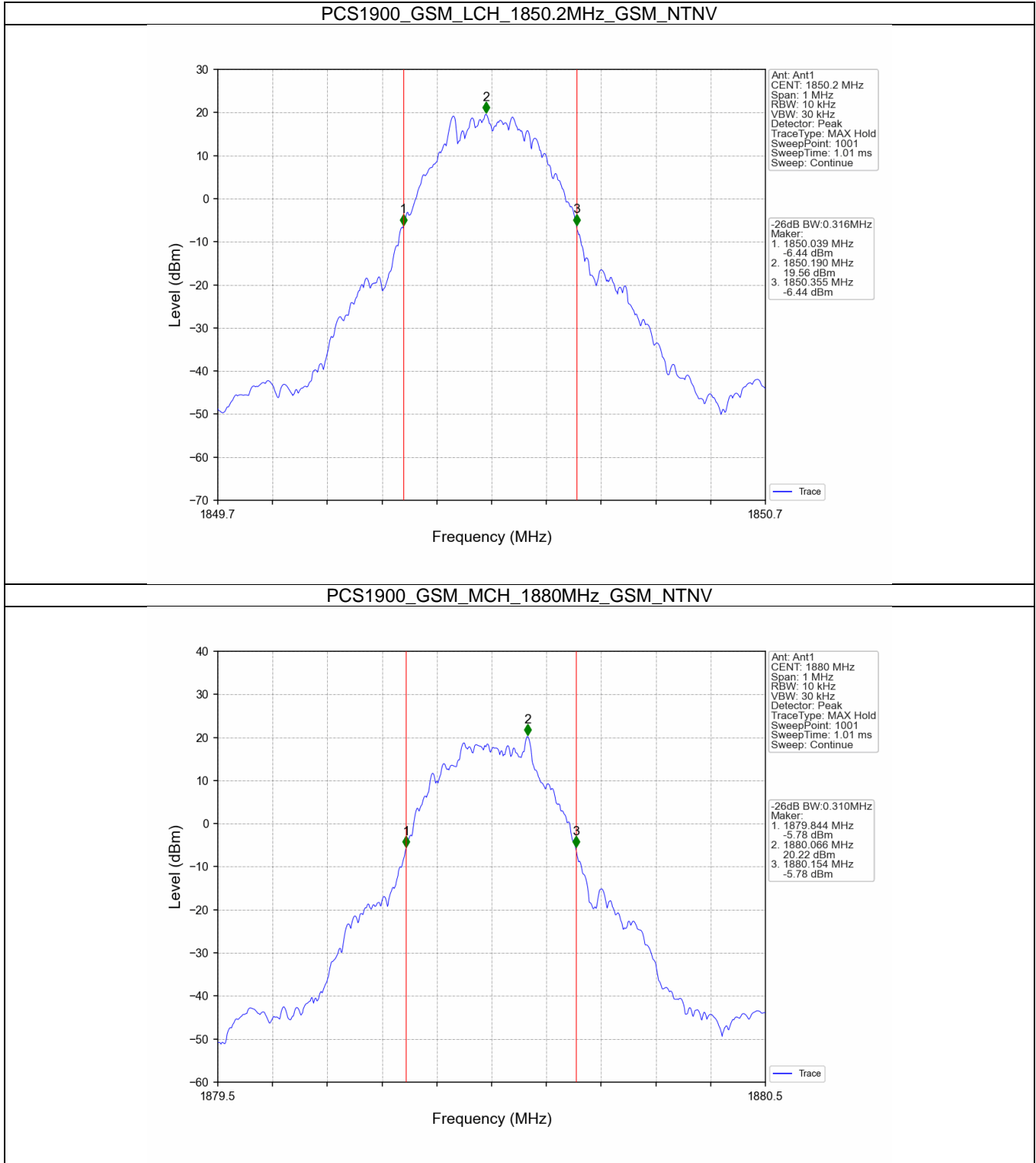


4.2 PCS1900_XDB

4.2.1 Test Result

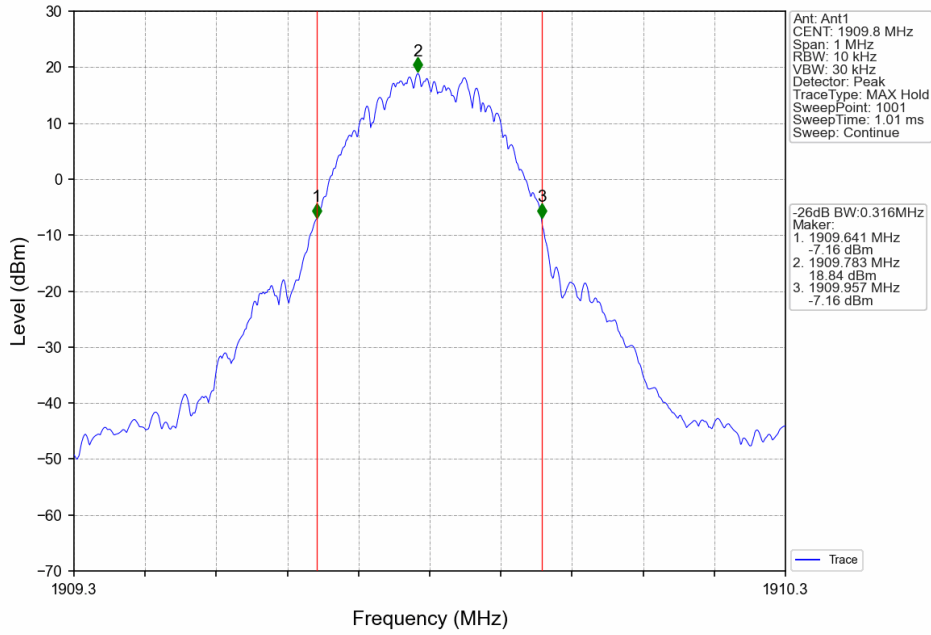
Band: PCS1900						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	0.316	/	Pass
			1880	0.310	/	Pass
			1909.8	0.316	/	Pass
	GPRS	1 TX Slot	1850.2	0.315	/	Pass
			1880	0.316	/	Pass
			1909.8	0.311	/	Pass
	EGPRS	1 TX Slot	1850.2	0.294	/	Pass
			1880	0.310	/	Pass
			1909.8	0.309	/	Pass

4.2.2 Test Graph

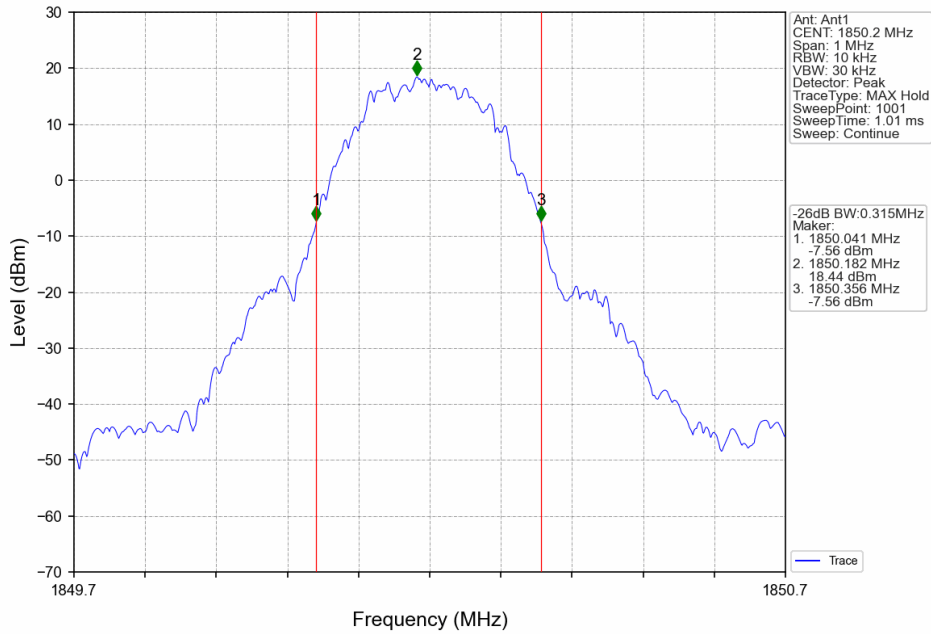




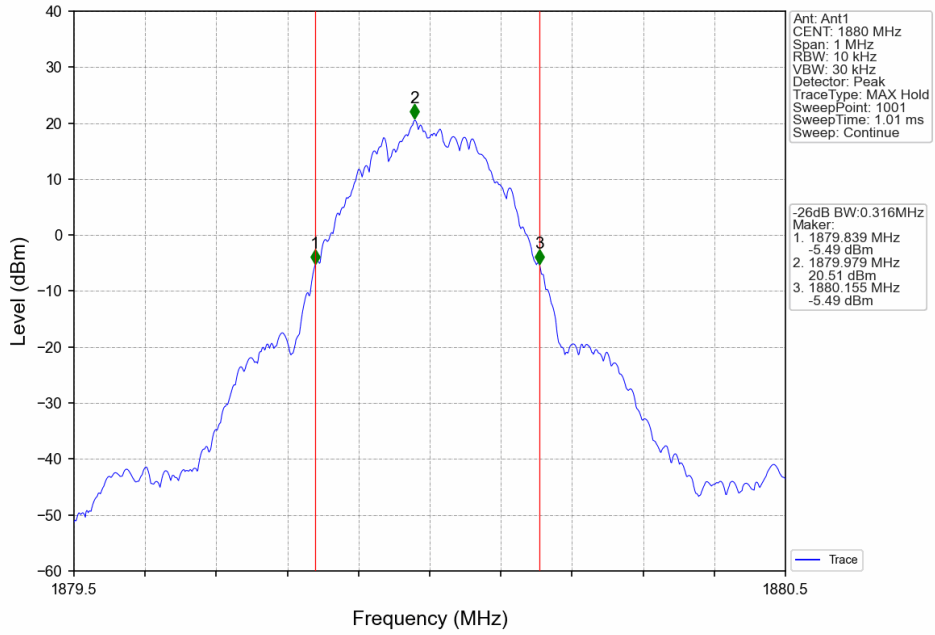
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



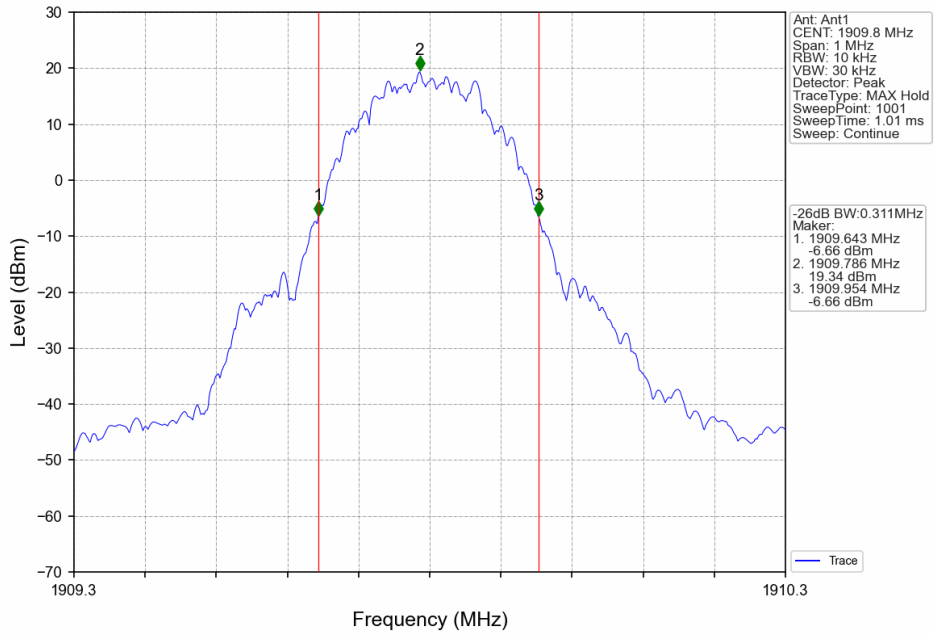
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV

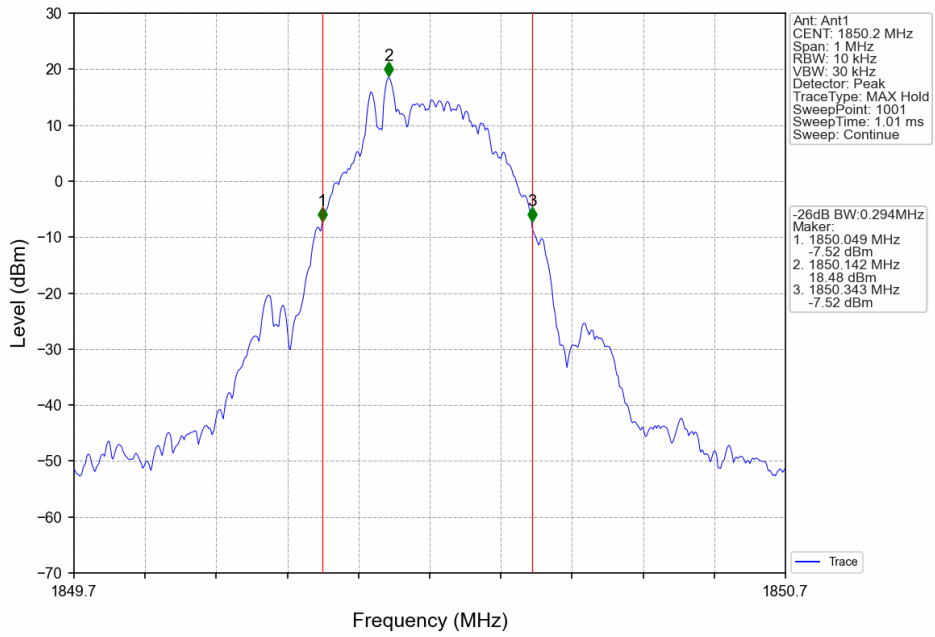


PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV

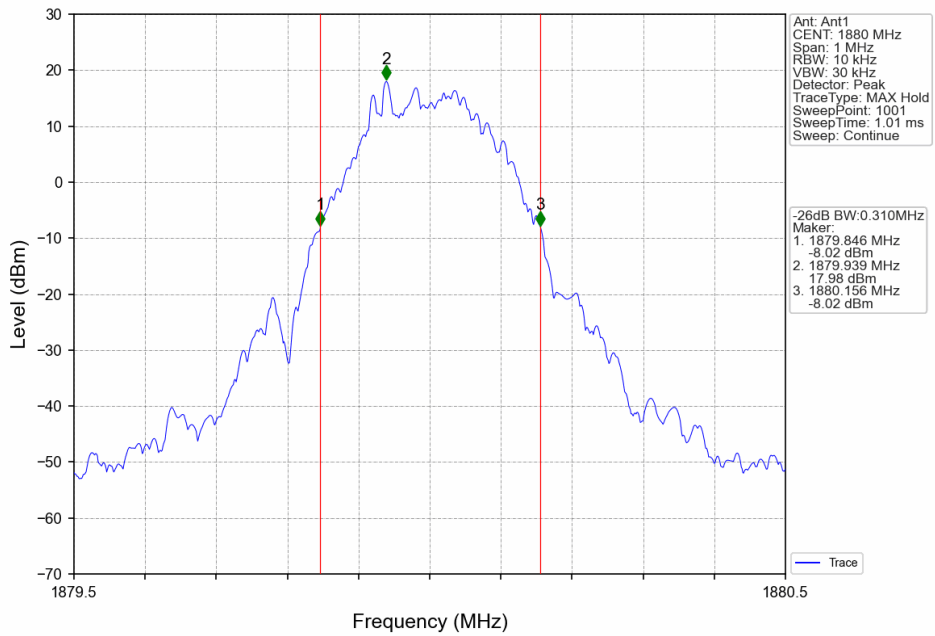




PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV

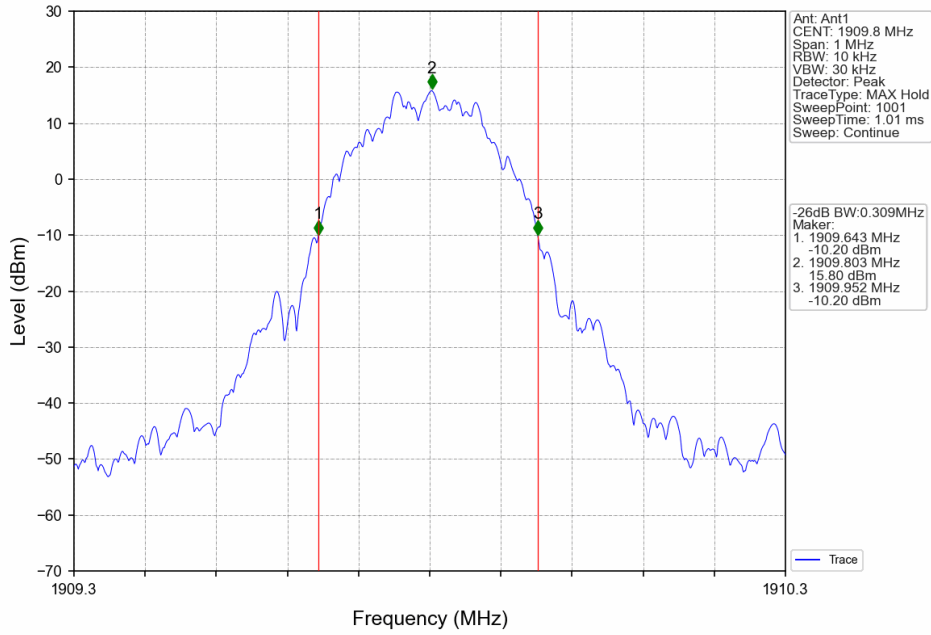


PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV





PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV





5. Peak-Average Ratio

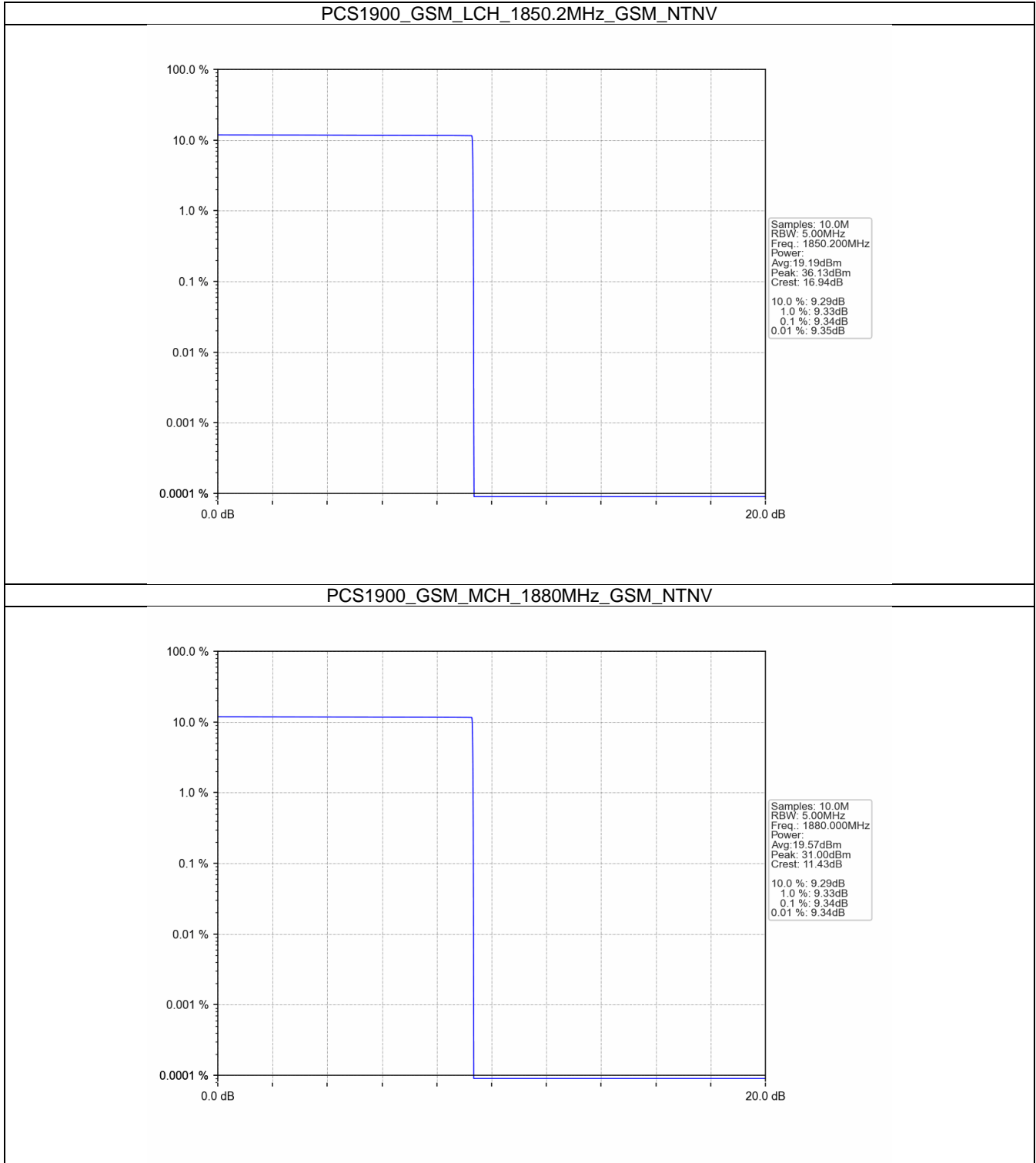
5.1 PCS1900

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	9.34	<=13	Pass
			1880	9.34	<=13	Pass
			1909.8	9.53	<=13	Pass
	GPRS	4 TX Slots	1850.2	3.55	<=13	Pass
			1880	3.55	<=13	Pass
			1909.8	3.54	<=13	Pass
	EGPRS	4 TX Slots	1850.2	10.86	<=13	Pass
			1880	10.94	<=13	Pass
			1909.8	11.27	<=13	Pass

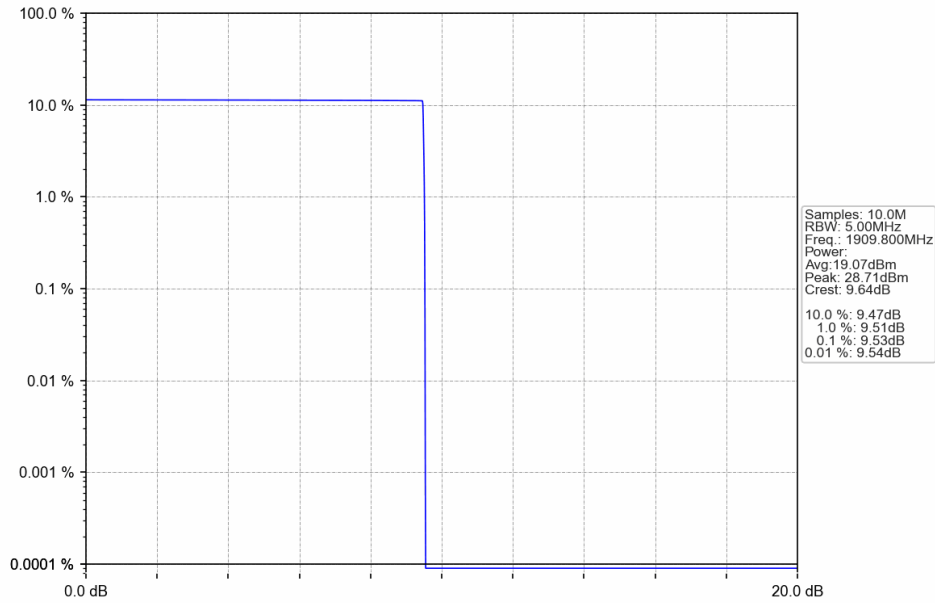


5.1.2 Test Graph

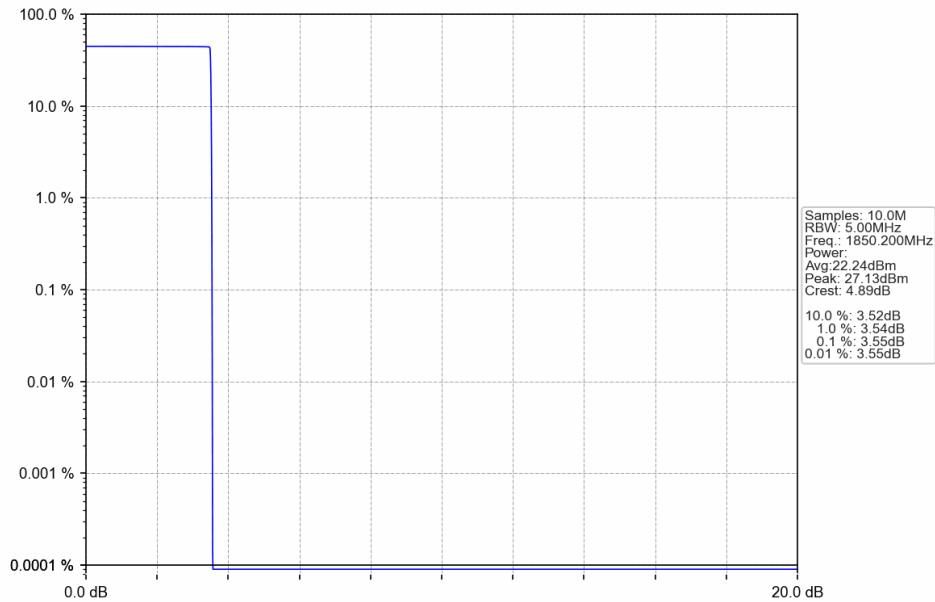




PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV

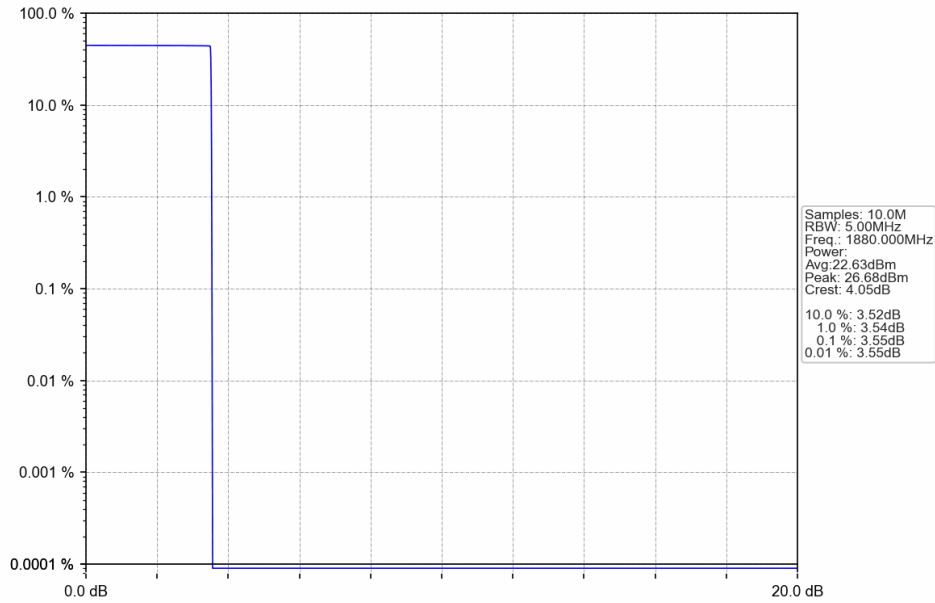


PCS1900_GPRS_LCH_1850.2MHz_4 TX Slots_NTNV

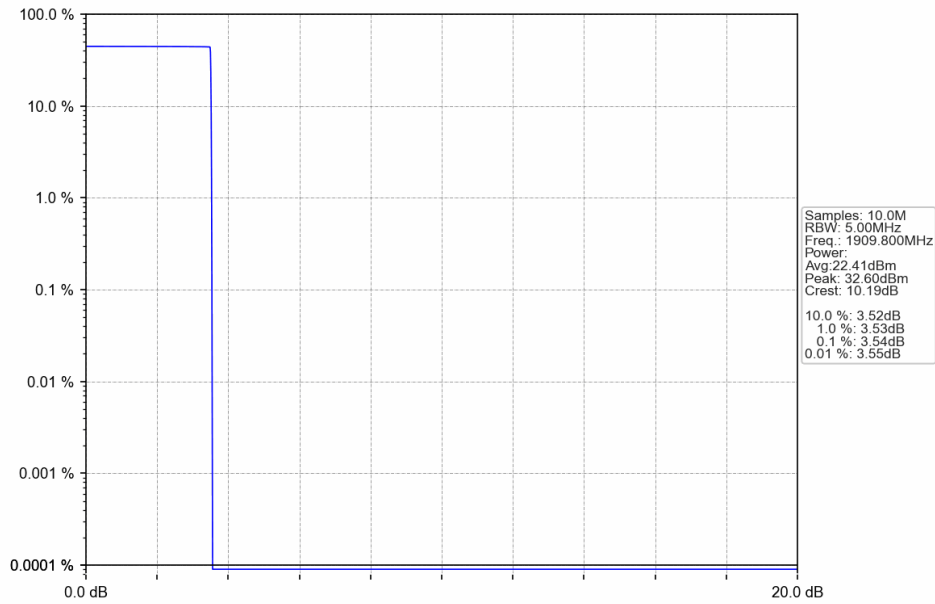




PCS1900_GPRS_MCH_1880MHz_4 TX Slots_NTNV

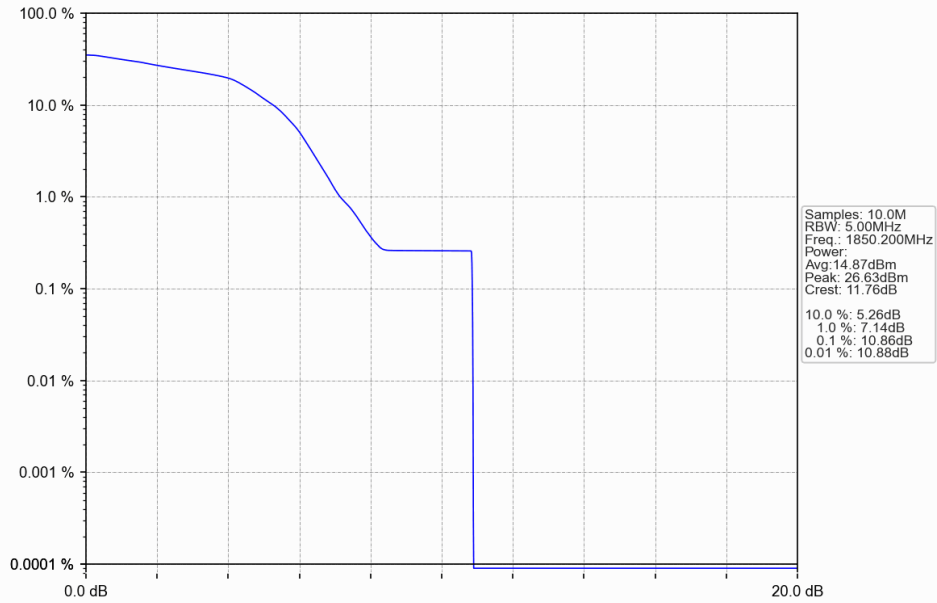


PCS1900_GPRS_HCH_1909.8MHz_4 TX Slots_NTNV

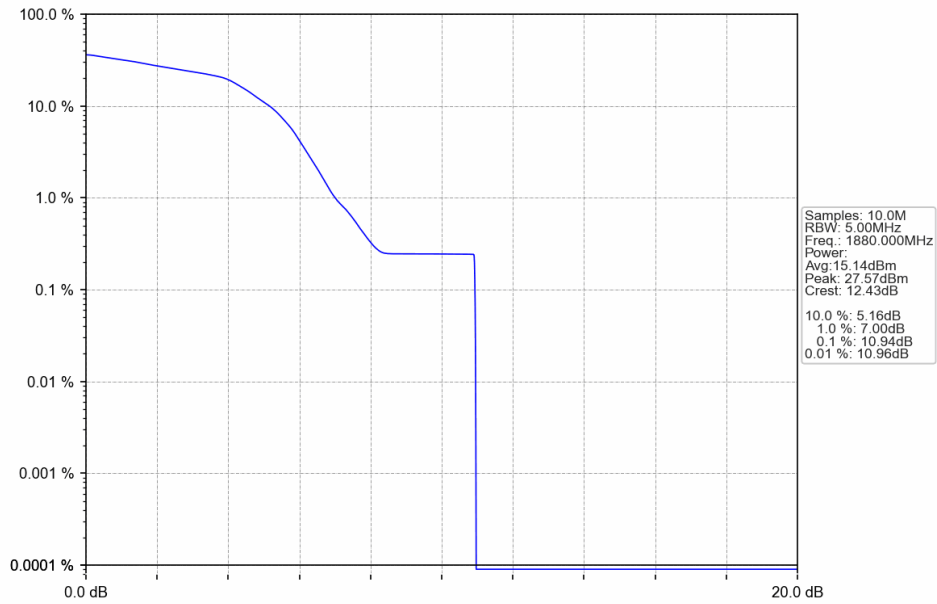




PCS1900_EGPRS_LCH_1850.2MHz_4 TX Slots_NTNV

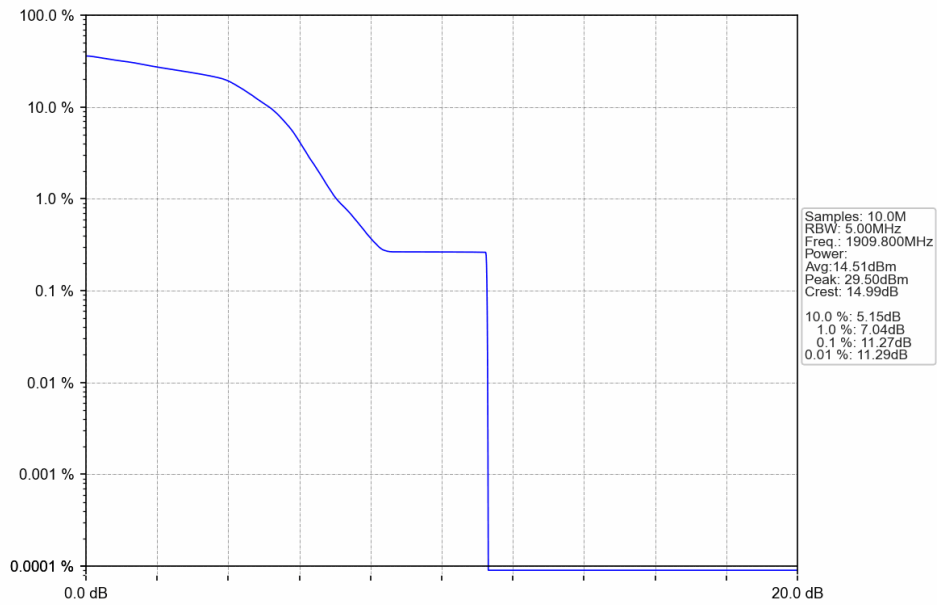


PCS1900_EGPRS_MCH_1880MHz_4 TX Slots_NTNV





PCS1900_EGPRS_HCH_1909.8MHz_4 TX Slots_NTNV





6. Spurious Emission

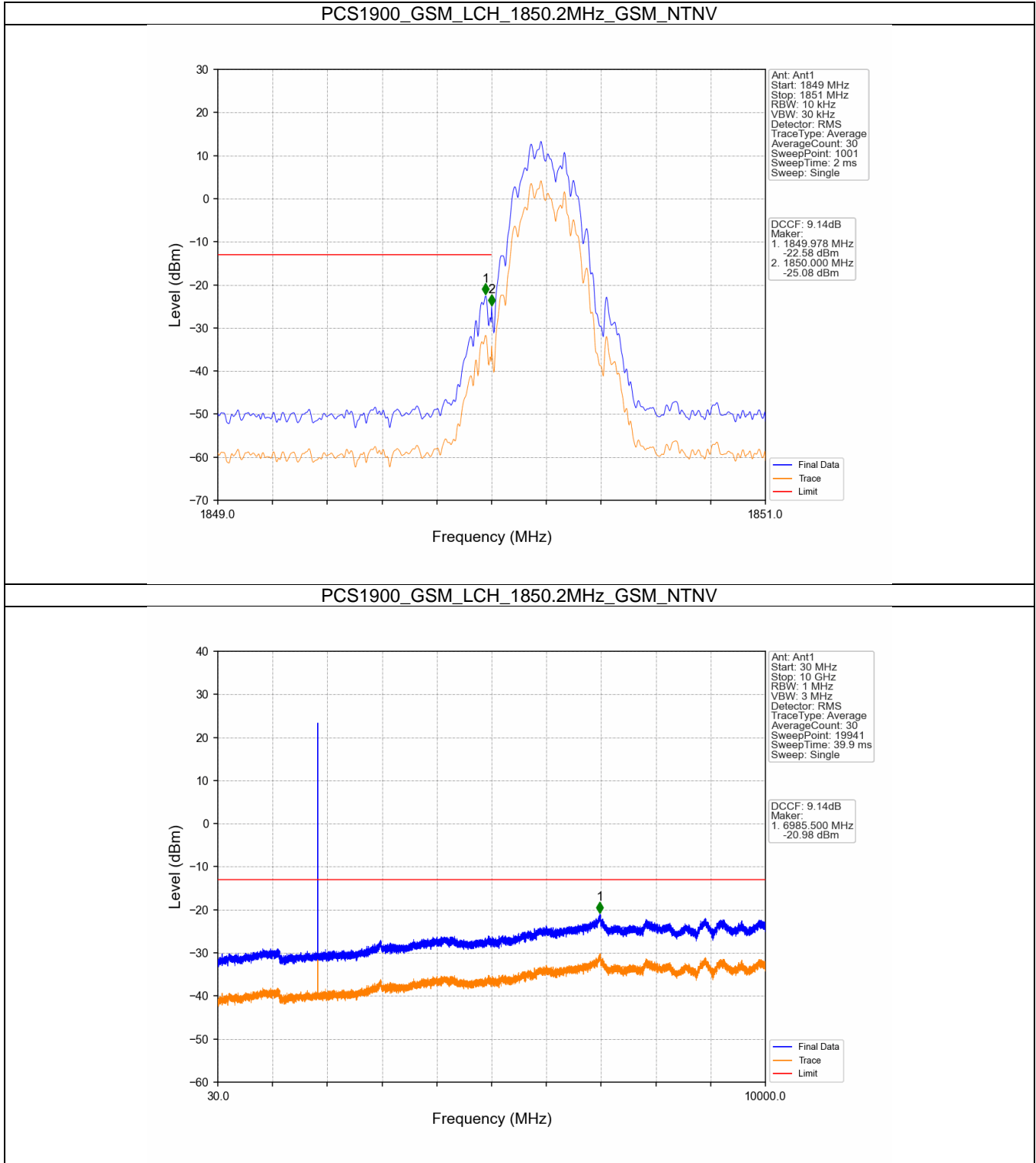
6.1 PCS1900

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	

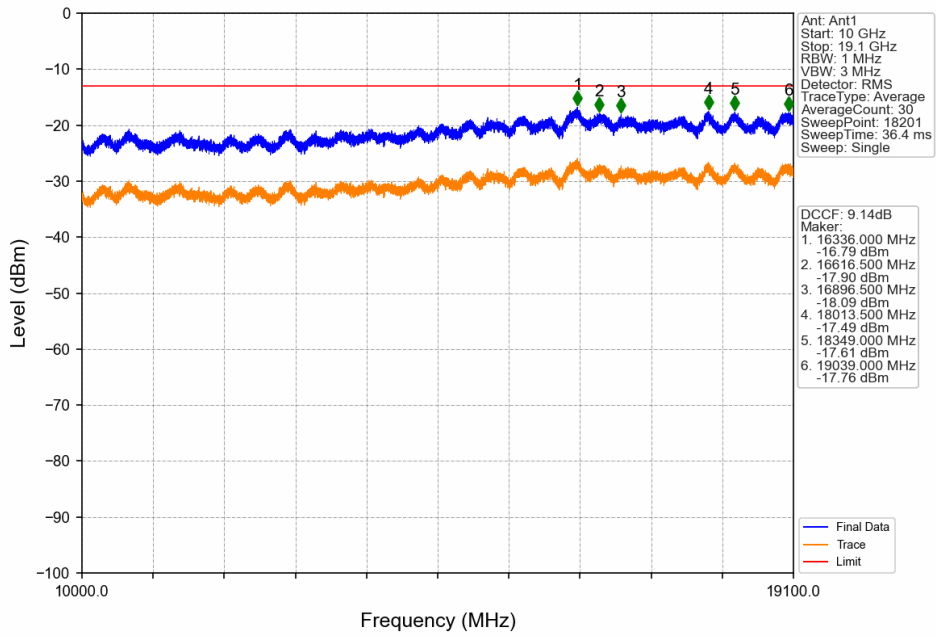


6.1.2 Test Graph

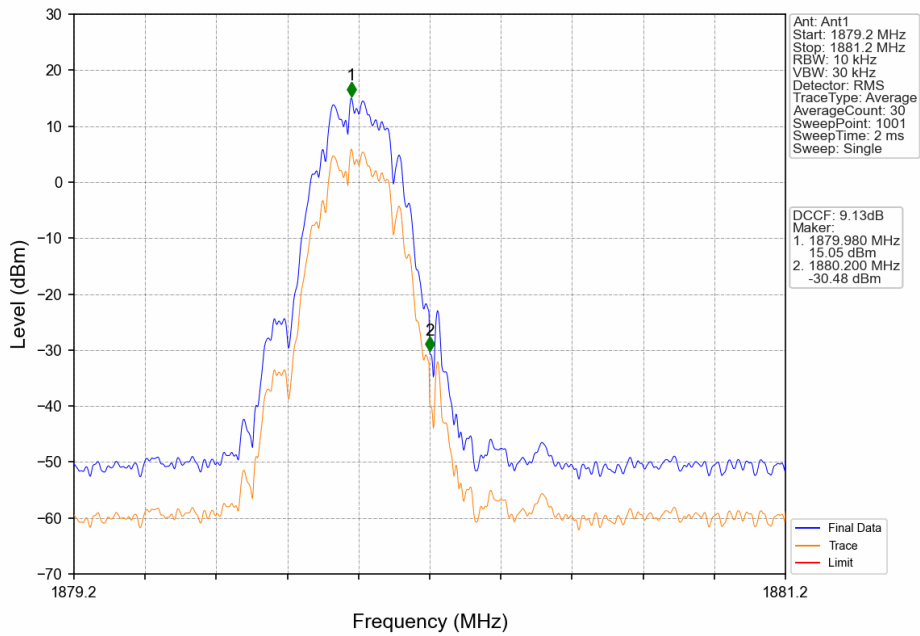




PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV

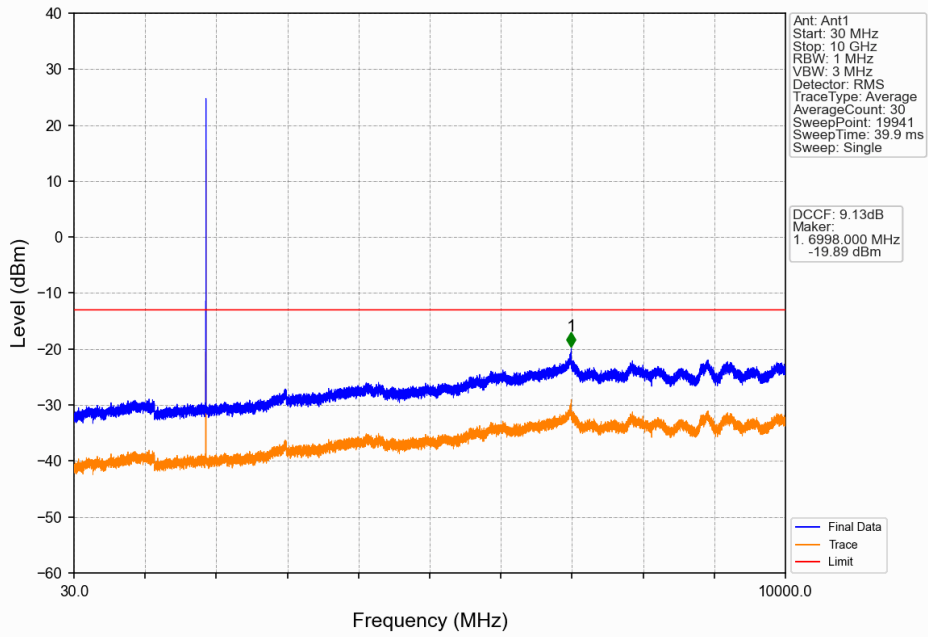


PCS1900_GSM_MCH_1880MHz_GSM_NTNV

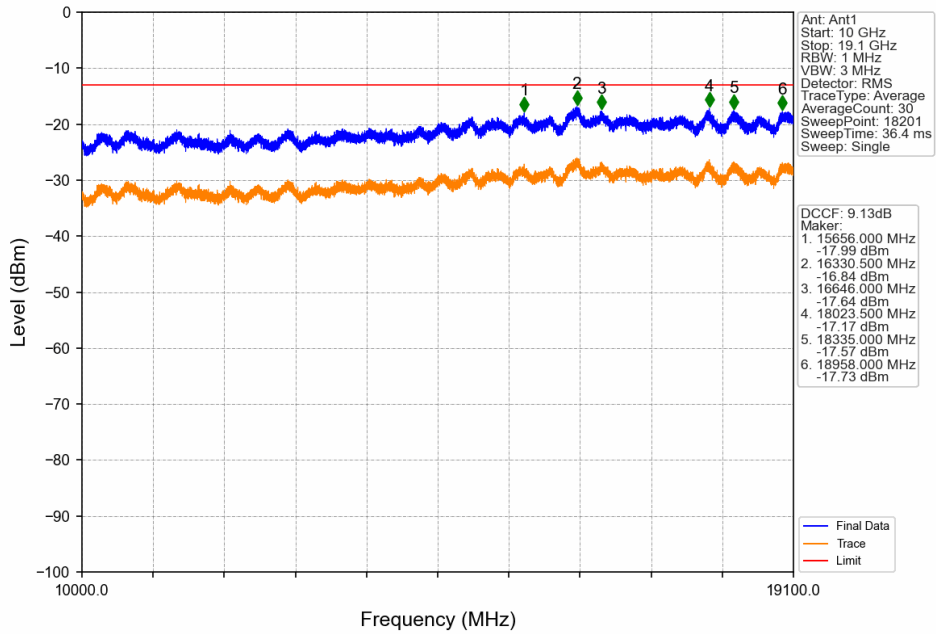




PCS1900_GSM_MCH_1880MHz_GSM_NTNV

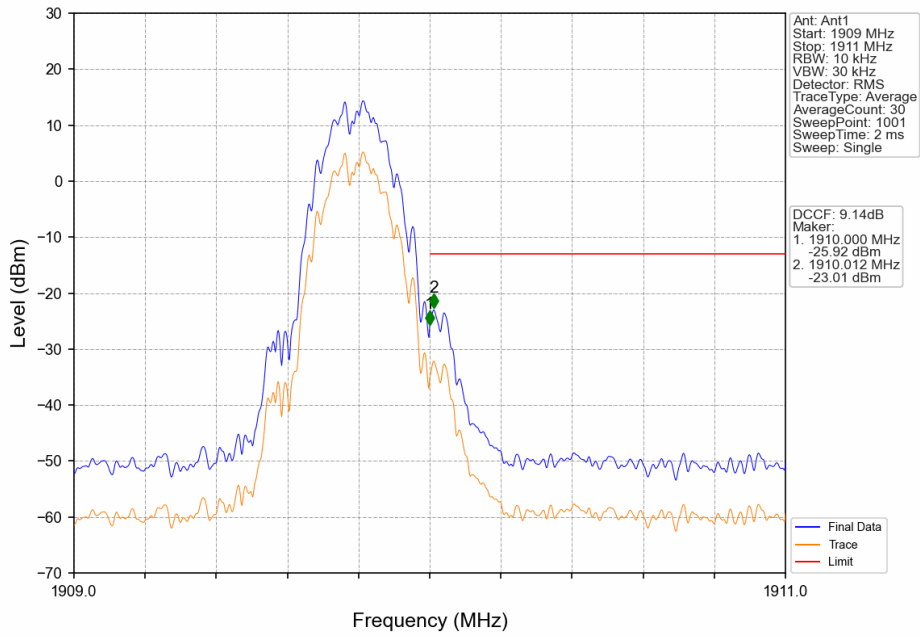


PCS1900_GSM_MCH_1880MHz_GSM_NTNV

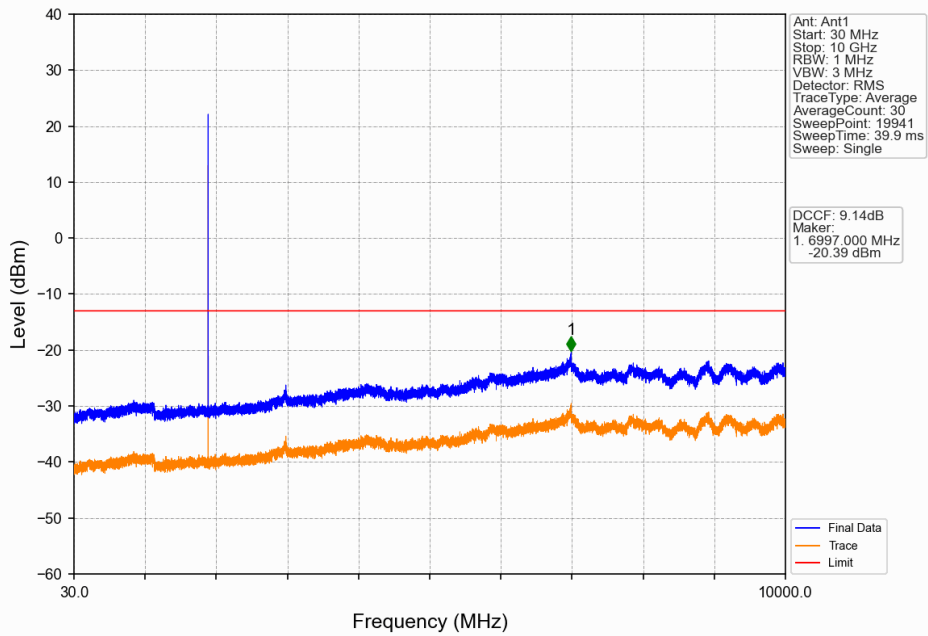




PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV

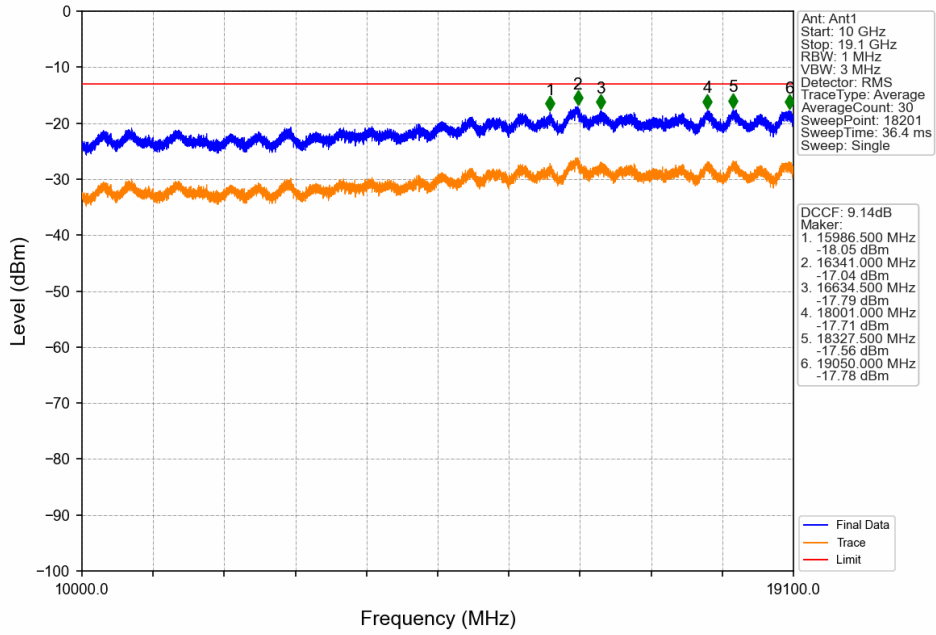


PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV

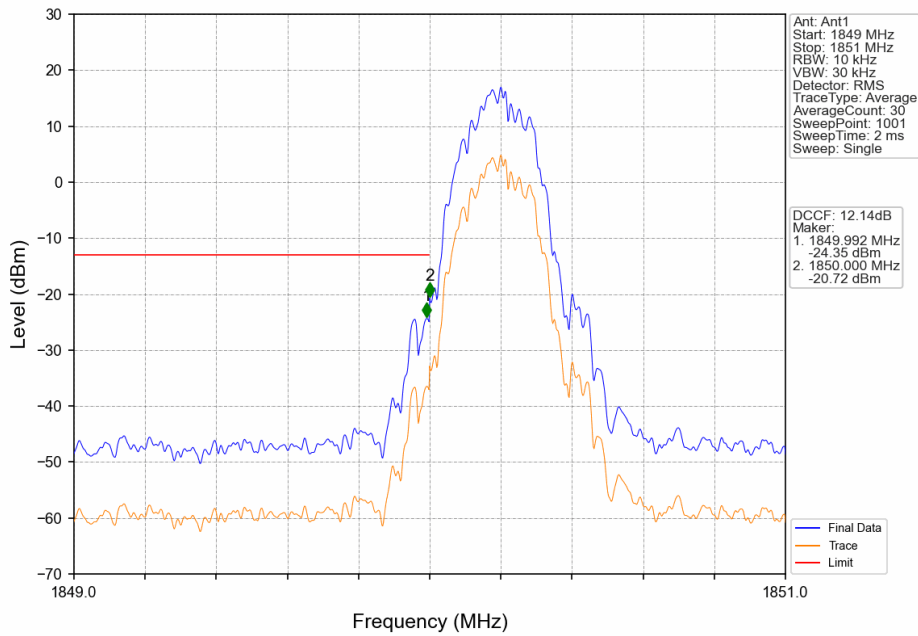




PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV

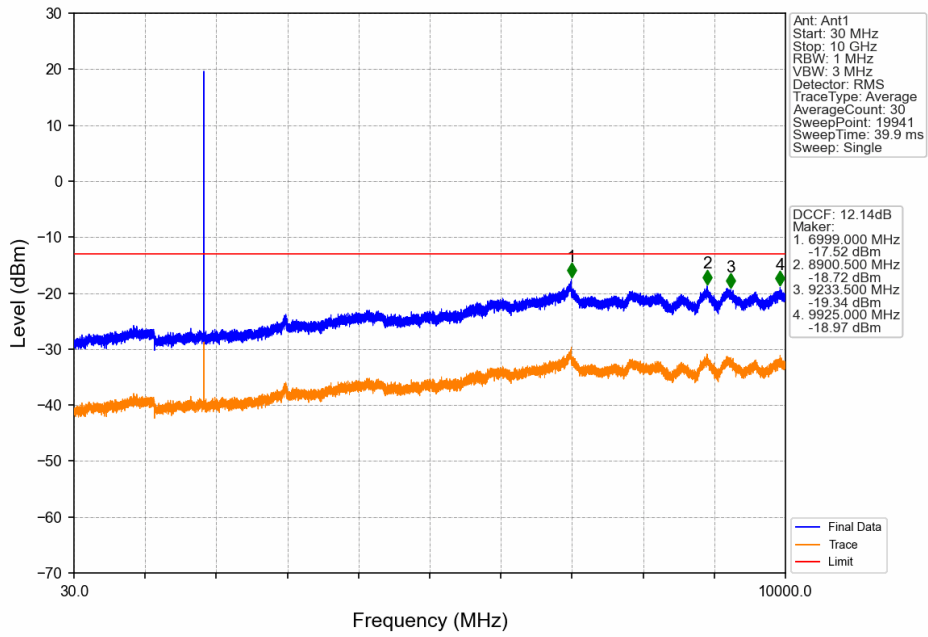


PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV

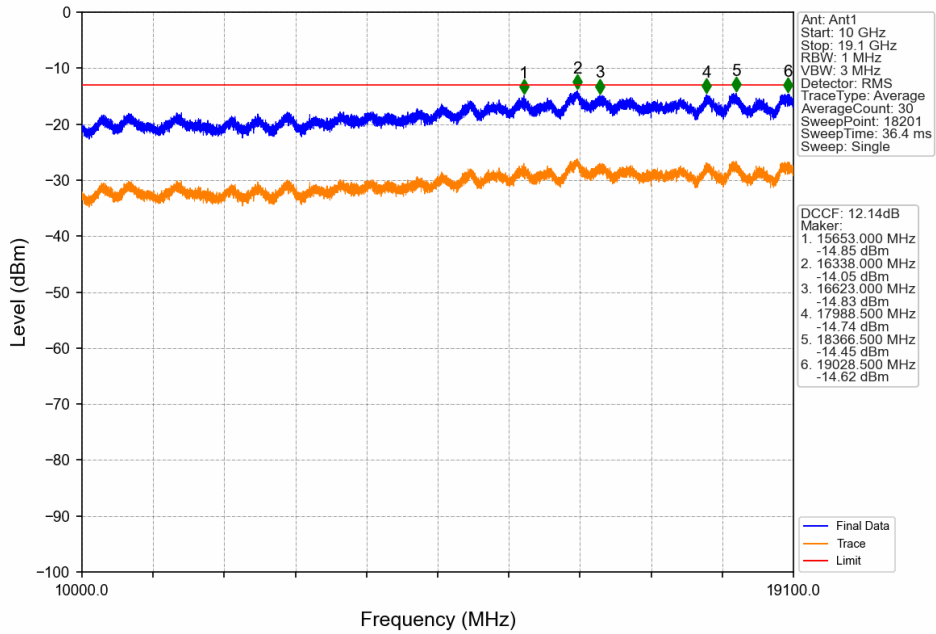




PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV

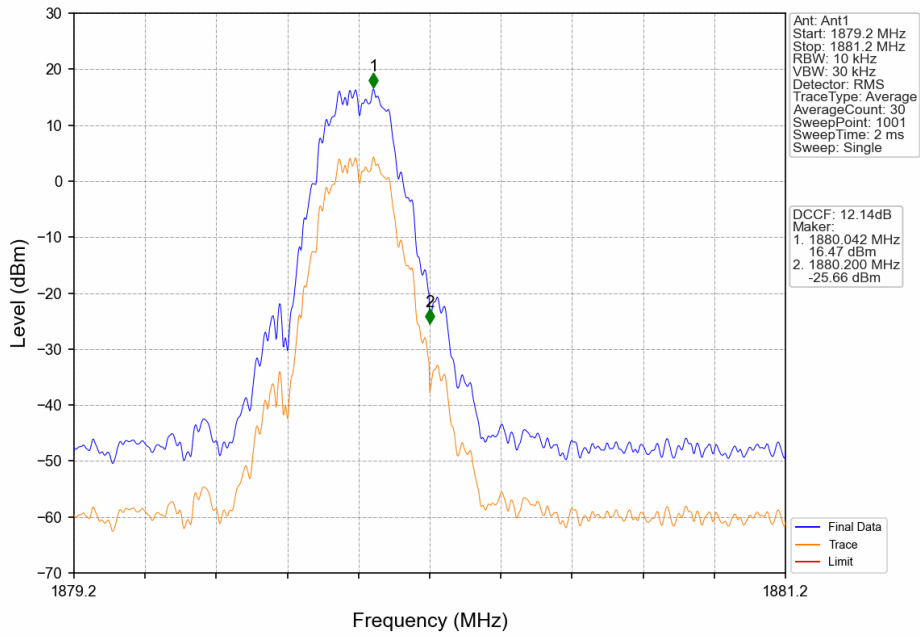


PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV

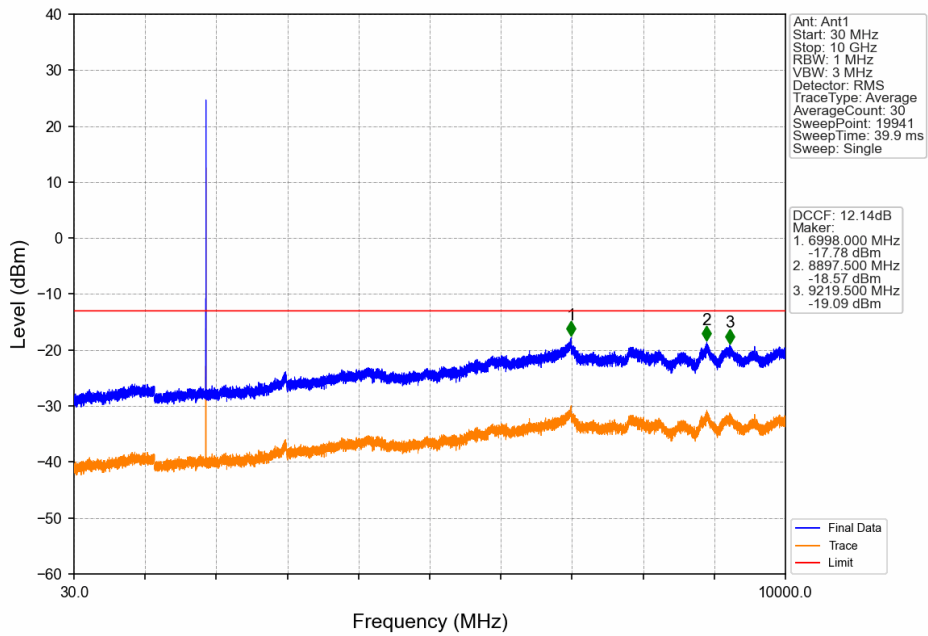




PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV

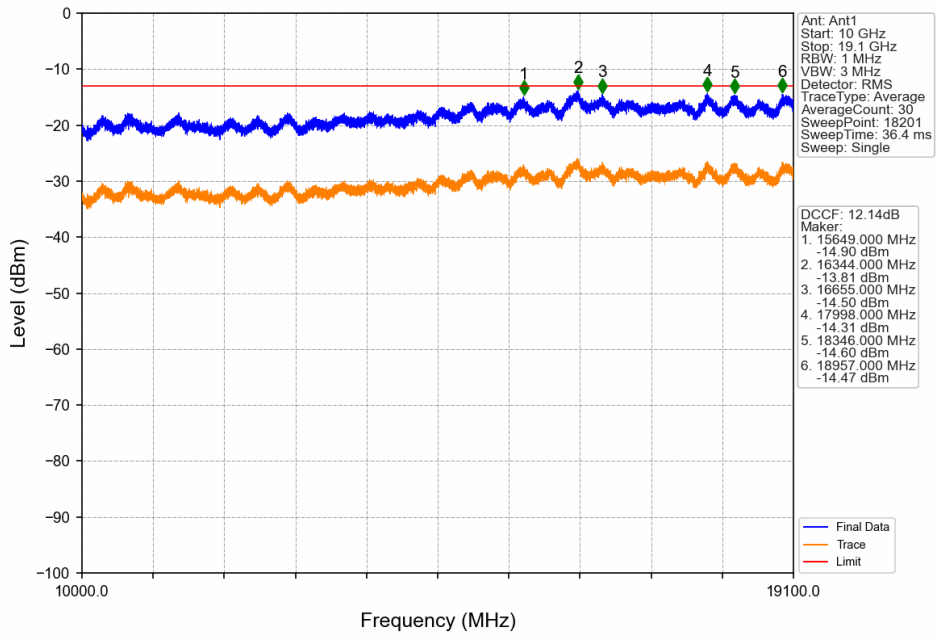


PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV

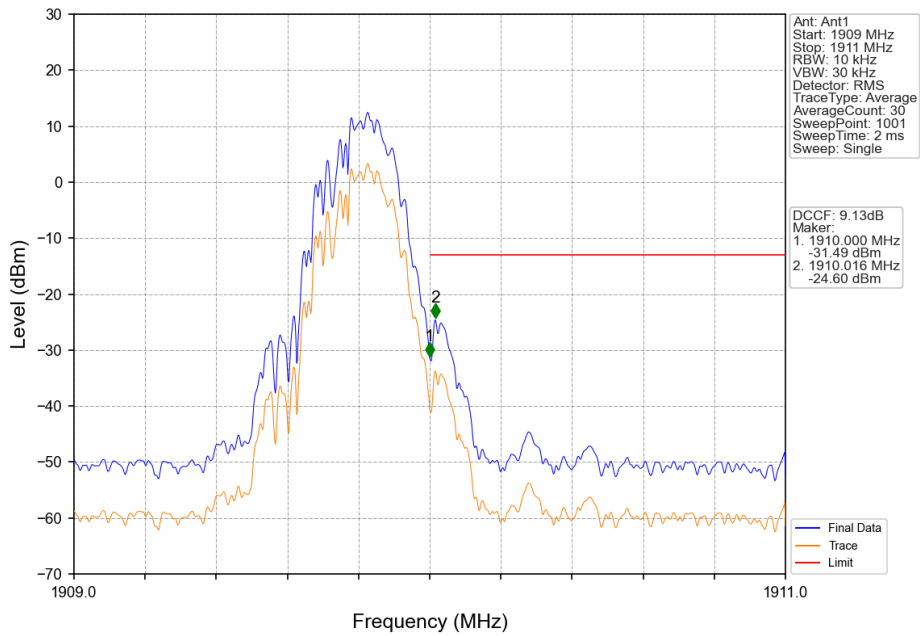




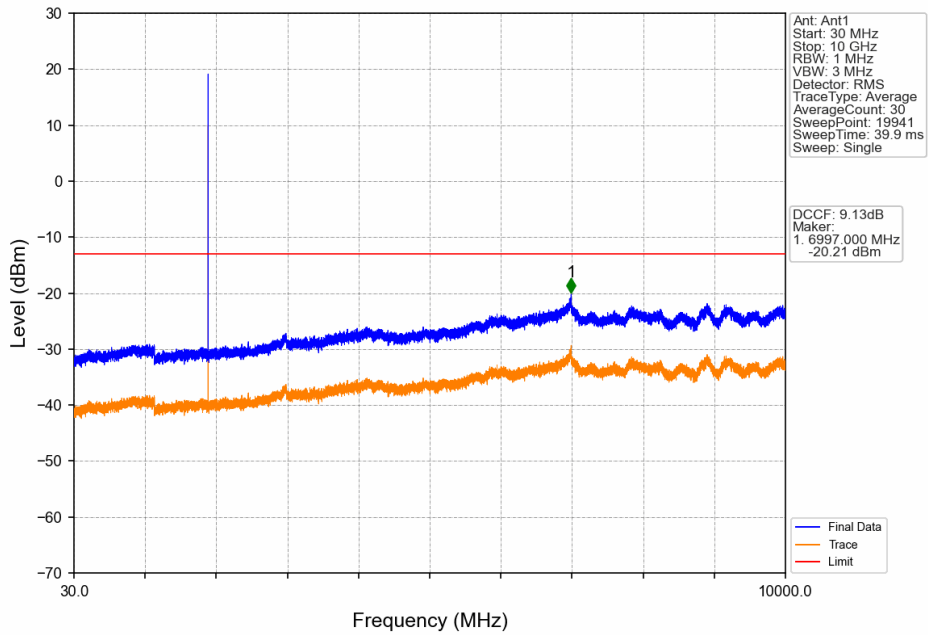
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



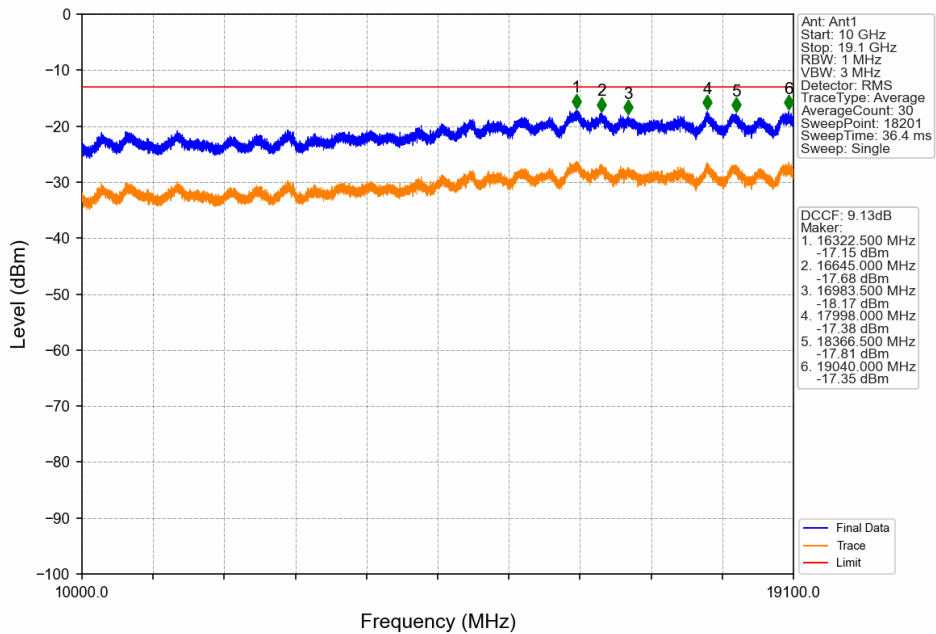
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV

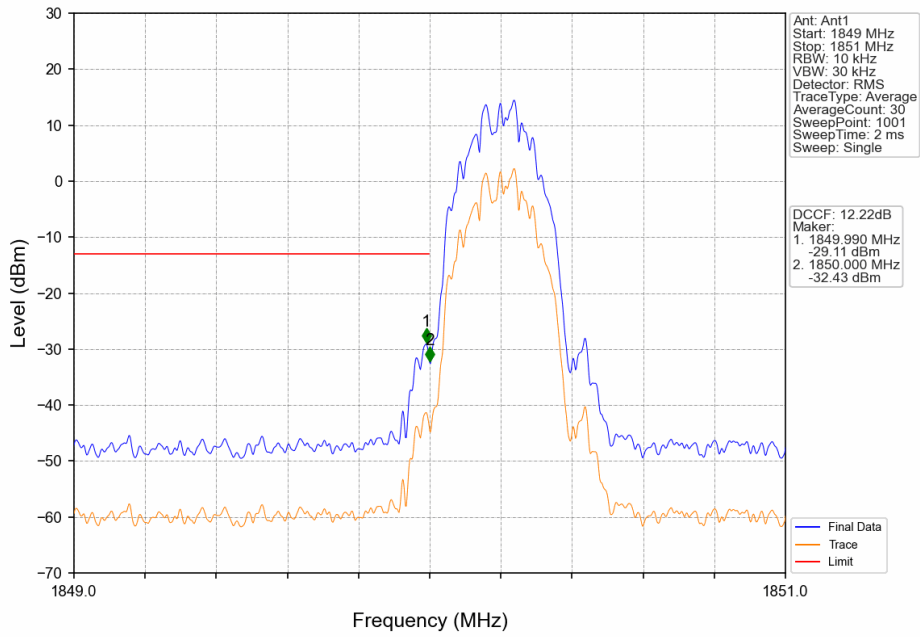


PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV

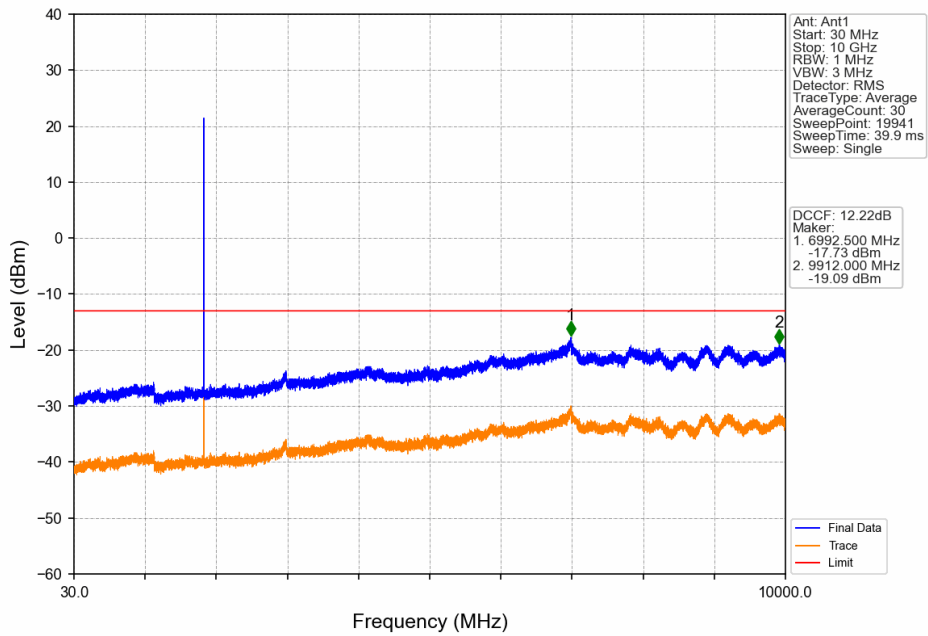




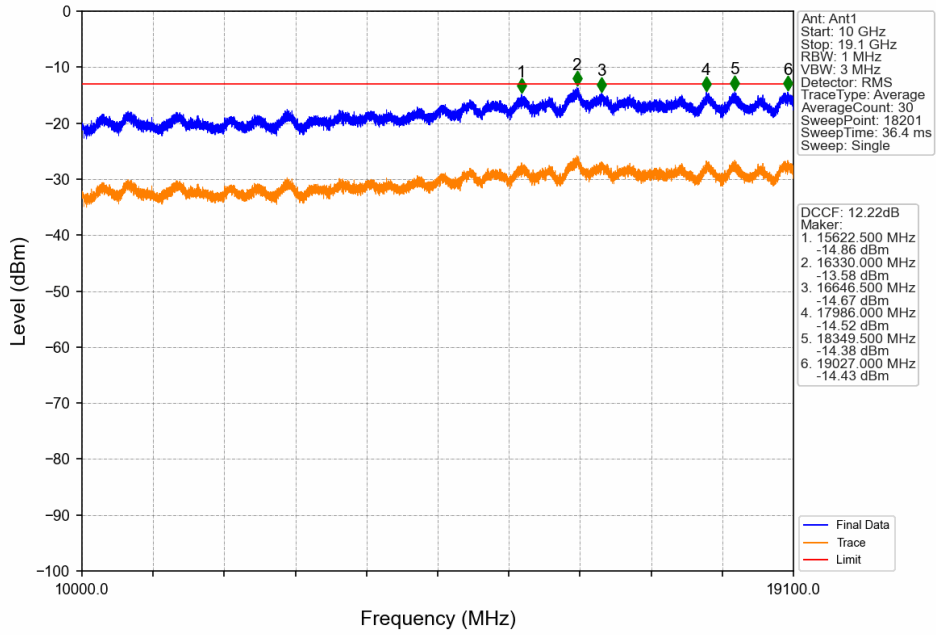
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



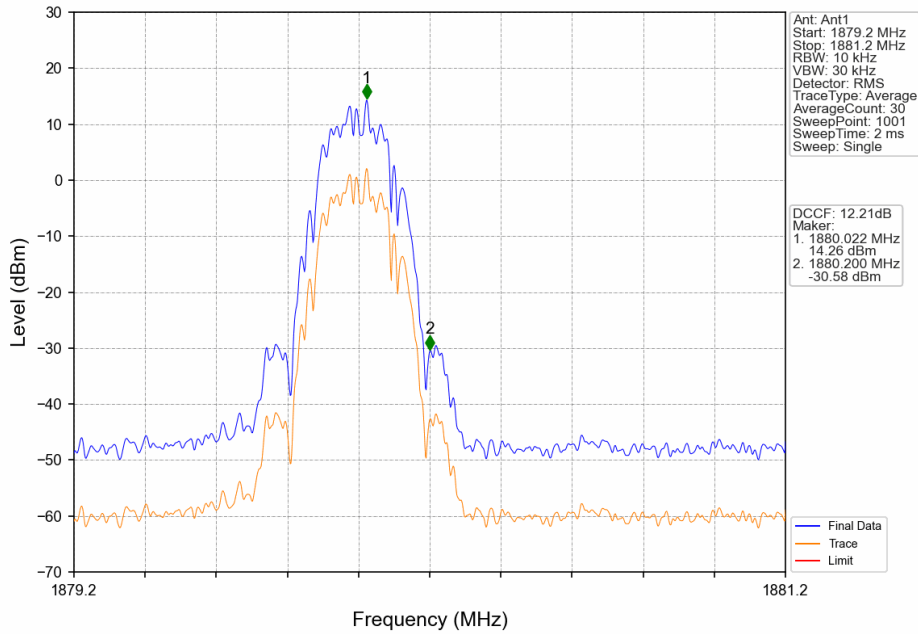
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV

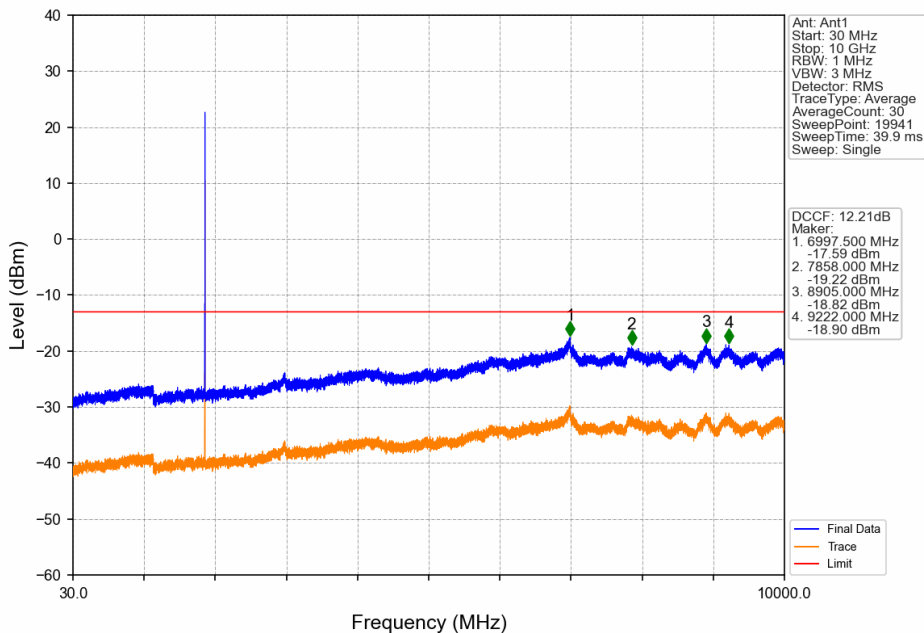


PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV

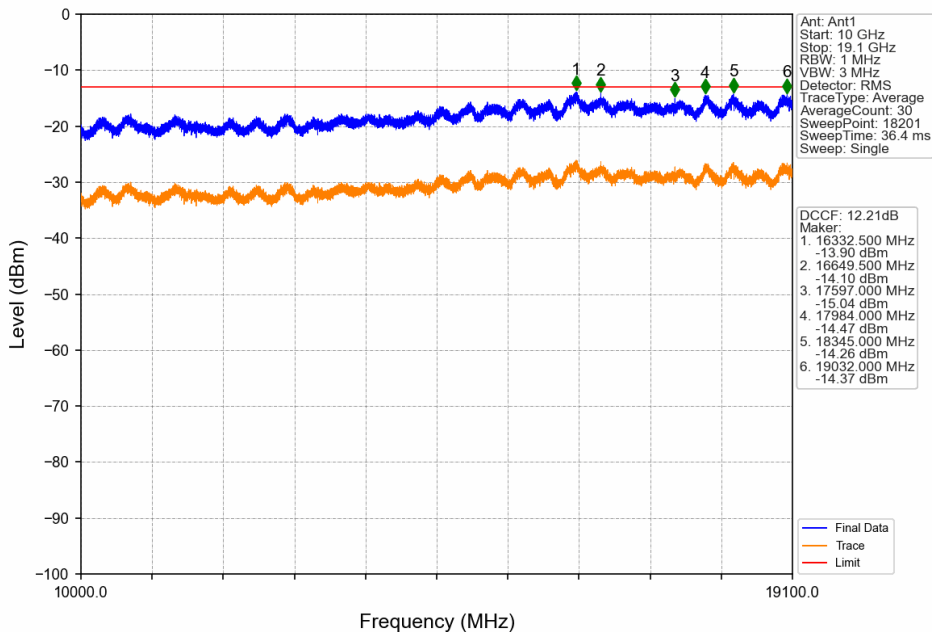




PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV

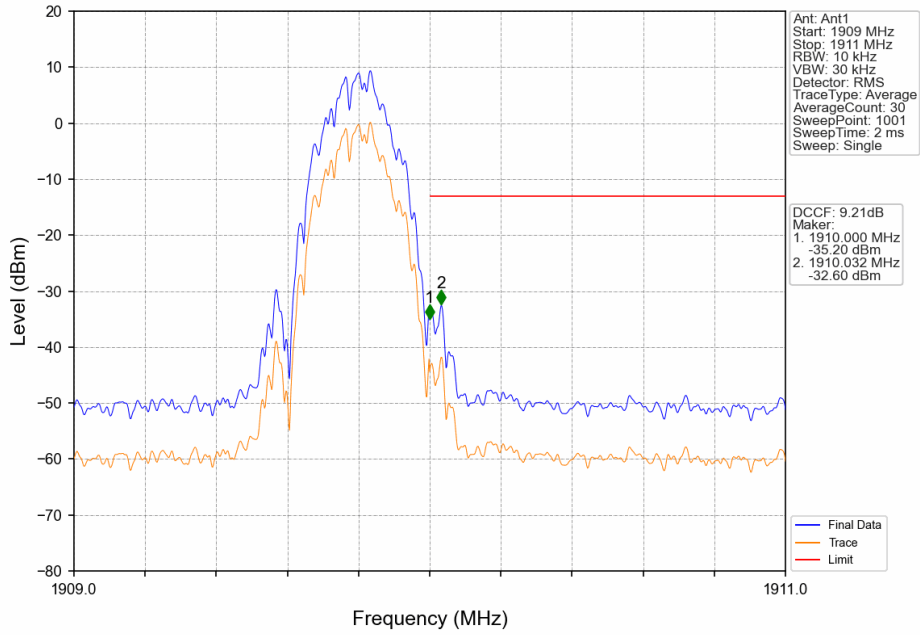


PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV





PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV

