

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	27.83	-1.88	25.95	<=33.01	Pass
			1880	27.95	-1.88	26.07	<=33.01	Pass
			1909.8	27.95	-1.88	26.07	<=33.01	Pass
	GPRS	1 TX Slot	1850.2	27.83	-1.88	25.95	<=33.01	Pass
		2 TX Slots	1850.2	27.36	-1.88	25.48	<=33.01	Pass
		3 TX Slots	1850.2	25.88	-1.88	24.00	<=33.01	Pass
		4 TX Slots	1850.2	24.79	-1.88	22.91	<=33.01	Pass
		1 TX Slot	1880	27.92	-1.88	26.04	<=33.01	Pass
		2 TX Slots	1880	27.47	-1.88	25.59	<=33.01	Pass
		3 TX Slots	1880	25.99	-1.88	24.11	<=33.01	Pass
		4 TX Slots	1880	24.92	-1.88	23.04	<=33.01	Pass
		1 TX Slot	1909.8	27.93	-1.88	26.05	<=33.01	Pass
		2 TX Slots	1909.8	27.48	-1.88	25.60	<=33.01	Pass
		3 TX Slots	1909.8	26.07	-1.88	24.19	<=33.01	Pass
		4 TX Slots	1909.8	25.00	-1.88	23.12	<=33.01	Pass
	EGPRS	1 TX Slot	1850.2	25.91	-1.88	24.03	<=33.01	Pass
		2 TX Slots	1850.2	24.84	-1.88	22.96	<=33.01	Pass
		3 TX Slots	1850.2	22.81	-1.88	20.93	<=33.01	Pass
		4 TX Slots	1850.2	21.48	-1.88	19.60	<=33.01	Pass
		1 TX Slot	1880	26.07	-1.88	24.19	<=33.01	Pass
		2 TX Slots	1880	25.70	-1.88	23.82	<=33.01	Pass
		3 TX Slots	1880	23.07	-1.88	21.19	<=33.01	Pass
		4 TX Slots	1880	21.85	-1.88	19.97	<=33.01	Pass
		1 TX Slot	1909.8	26.25	-1.88	24.37	<=33.01	Pass
		2 TX Slots	1909.8	25.50	-1.88	23.62	<=33.01	Pass
		3 TX Slots	1909.8	23.43	-1.88	21.55	<=33.01	Pass
		4 TX Slots	1909.8	22.08	-1.88	20.20	<=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	5.973	0.0032	-2.5 to 2.5	Pass
			3.85	19.113	0.0103	-2.5 to 2.5	Pass
			4.43	18.952	0.0102	-2.5 to 2.5	Pass
		-30	3.85	21.858	0.0118	-2.5 to 2.5	Pass
		-20	3.85	14.238	0.0077	-2.5 to 2.5	Pass
		-10	3.85	16.498	0.0089	-2.5 to 2.5	Pass
		0	3.85	19.468	0.0105	-2.5 to 2.5	Pass
		10	3.85	13.302	0.0072	-2.5 to 2.5	Pass

		30	3.85	18.500	0.0100	-2.5 to 2.5	Pass
		40	3.85	18.274	0.0099	-2.5 to 2.5	Pass
		50	3.85	15.207	0.0082	-2.5 to 2.5	Pass
	1880	20	3.27	17.273	0.0092	-2.5 to 2.5	Pass
			3.85	20.824	0.0111	-2.5 to 2.5	Pass
			4.43	16.111	0.0086	-2.5 to 2.5	Pass
		-30	3.85	17.757	0.0094	-2.5 to 2.5	Pass
		-20	3.85	21.793	0.0116	-2.5 to 2.5	Pass
		-10	3.85	17.499	0.0093	-2.5 to 2.5	Pass
		0	3.85	15.207	0.0081	-2.5 to 2.5	Pass
		10	3.85	19.759	0.0105	-2.5 to 2.5	Pass
		30	3.85	16.111	0.0086	-2.5 to 2.5	Pass
		40	3.85	17.596	0.0094	-2.5 to 2.5	Pass
		50	3.85	19.339	0.0103	-2.5 to 2.5	Pass
	1909.8	20	3.27	22.213	0.0116	-2.5 to 2.5	Pass
			3.85	19.953	0.0104	-2.5 to 2.5	Pass
			4.43	22.858	0.0120	-2.5 to 2.5	Pass
		-30	3.85	17.499	0.0092	-2.5 to 2.5	Pass
		-20	3.85	16.272	0.0085	-2.5 to 2.5	Pass
		-10	3.85	14.884	0.0078	-2.5 to 2.5	Pass
		0	3.85	20.760	0.0109	-2.5 to 2.5	Pass
10		3.85	20.728	0.0109	-2.5 to 2.5	Pass	
30		3.85	24.537	0.0128	-2.5 to 2.5	Pass	
40		3.85	17.628	0.0092	-2.5 to 2.5	Pass	
50	3.85	17.951	0.0094	-2.5 to 2.5	Pass		
GPRS	1850.2	20	3.27	11.526	0.0062	-2.5 to 2.5	Pass
			3.85	6.748	0.0036	-2.5 to 2.5	Pass
			4.43	16.530	0.0089	-2.5 to 2.5	Pass
		-30	3.85	15.400	0.0083	-2.5 to 2.5	Pass
		-20	3.85	14.077	0.0076	-2.5 to 2.5	Pass
		-10	3.85	13.915	0.0075	-2.5 to 2.5	Pass
		0	3.85	14.077	0.0076	-2.5 to 2.5	Pass
		10	3.85	10.880	0.0059	-2.5 to 2.5	Pass
		30	3.85	11.332	0.0061	-2.5 to 2.5	Pass
		40	3.85	11.042	0.0060	-2.5 to 2.5	Pass
	50	3.85	14.270	0.0077	-2.5 to 2.5	Pass	
	1880	20	3.27	12.430	0.0066	-2.5 to 2.5	Pass
			3.85	13.560	0.0072	-2.5 to 2.5	Pass
			4.43	15.659	0.0083	-2.5 to 2.5	Pass
		-30	3.85	11.268	0.0060	-2.5 to 2.5	Pass
		-20	3.85	13.689	0.0073	-2.5 to 2.5	Pass
		-10	3.85	16.950	0.0090	-2.5 to 2.5	Pass
		0	3.85	14.722	0.0078	-2.5 to 2.5	Pass
		10	3.85	16.724	0.0089	-2.5 to 2.5	Pass
		30	3.85	9.879	0.0053	-2.5 to 2.5	Pass
		40	3.85	15.303	0.0081	-2.5 to 2.5	Pass
	50	3.85	12.914	0.0069	-2.5 to 2.5	Pass	
	1909.8	20	3.27	10.816	0.0057	-2.5 to 2.5	Pass
			3.85	10.590	0.0055	-2.5 to 2.5	Pass
			4.43	16.724	0.0088	-2.5 to 2.5	Pass
		-30	3.85	10.525	0.0055	-2.5 to 2.5	Pass
		-20	3.85	10.461	0.0055	-2.5 to 2.5	Pass
		-10	3.85	15.788	0.0083	-2.5 to 2.5	Pass
		0	3.85	13.463	0.0070	-2.5 to 2.5	Pass
		10	3.85	12.882	0.0067	-2.5 to 2.5	Pass
		30	3.85	6.780	0.0036	-2.5 to 2.5	Pass
		40	3.85	10.557	0.0055	-2.5 to 2.5	Pass
	50	3.85	12.559	0.0066	-2.5 to 2.5	Pass	
EGPRS	1850.2	20	3.27	13.076	0.0071	-2.5 to 2.5	Pass

			3.85	19.662	0.0106	-2.5 to 2.5	Pass	
			4.43	13.592	0.0073	-2.5 to 2.5	Pass	
		-30	3.85	17.176	0.0093	-2.5 to 2.5	Pass	
		-20	3.85	11.494	0.0062	-2.5 to 2.5	Pass	
		-10	3.85	17.370	0.0094	-2.5 to 2.5	Pass	
		0	3.85	13.302	0.0072	-2.5 to 2.5	Pass	
		10	3.85	16.660	0.0090	-2.5 to 2.5	Pass	
		30	3.85	11.946	0.0065	-2.5 to 2.5	Pass	
		40	3.85	17.112	0.0092	-2.5 to 2.5	Pass	
		50	3.85	15.529	0.0084	-2.5 to 2.5	Pass	
	1880	20		3.27	17.079	0.0091	-2.5 to 2.5	Pass
				3.85	10.719	0.0057	-2.5 to 2.5	Pass
				4.43	16.272	0.0087	-2.5 to 2.5	Pass
		-30	3.85	15.852	0.0084	-2.5 to 2.5	Pass	
		-20	3.85	12.139	0.0065	-2.5 to 2.5	Pass	
		-10	3.85	8.685	0.0046	-2.5 to 2.5	Pass	
		0	3.85	15.465	0.0082	-2.5 to 2.5	Pass	
		10	3.85	11.978	0.0064	-2.5 to 2.5	Pass	
		30	3.85	12.398	0.0066	-2.5 to 2.5	Pass	
		40	3.85	11.978	0.0064	-2.5 to 2.5	Pass	
	50	3.85	9.912	0.0053	-2.5 to 2.5	Pass		
	1909.8	20		3.27	16.078	0.0084	-2.5 to 2.5	Pass
				3.85	8.717	0.0046	-2.5 to 2.5	Pass
				4.43	19.113	0.0100	-2.5 to 2.5	Pass
		-30	3.85	8.846	0.0046	-2.5 to 2.5	Pass	
		-20	3.85	14.044	0.0074	-2.5 to 2.5	Pass	
		-10	3.85	14.787	0.0077	-2.5 to 2.5	Pass	
		0	3.85	13.980	0.0073	-2.5 to 2.5	Pass	
		10	3.85	14.464	0.0076	-2.5 to 2.5	Pass	
		30	3.85	11.655	0.0061	-2.5 to 2.5	Pass	
40		3.85	12.043	0.0063	-2.5 to 2.5	Pass		
50	3.85	16.789	0.0088	-2.5 to 2.5	Pass			

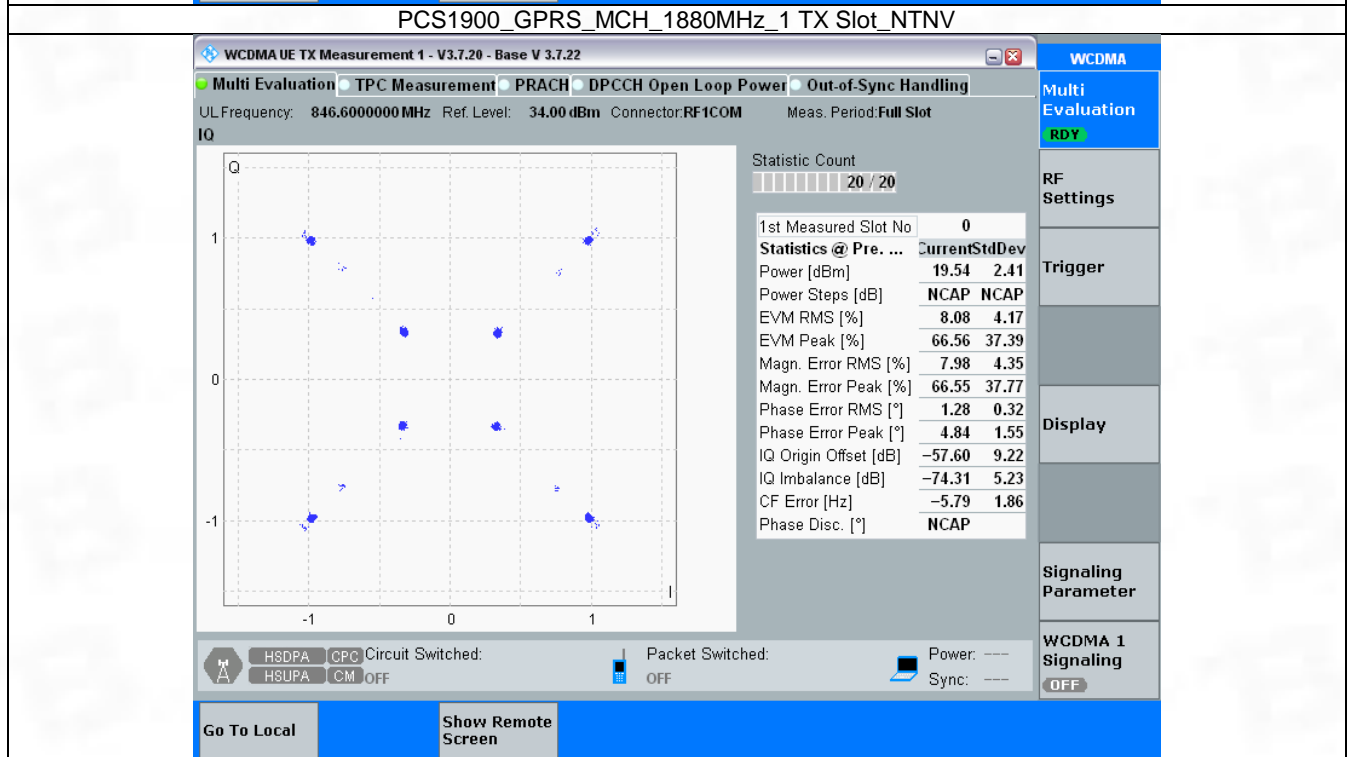
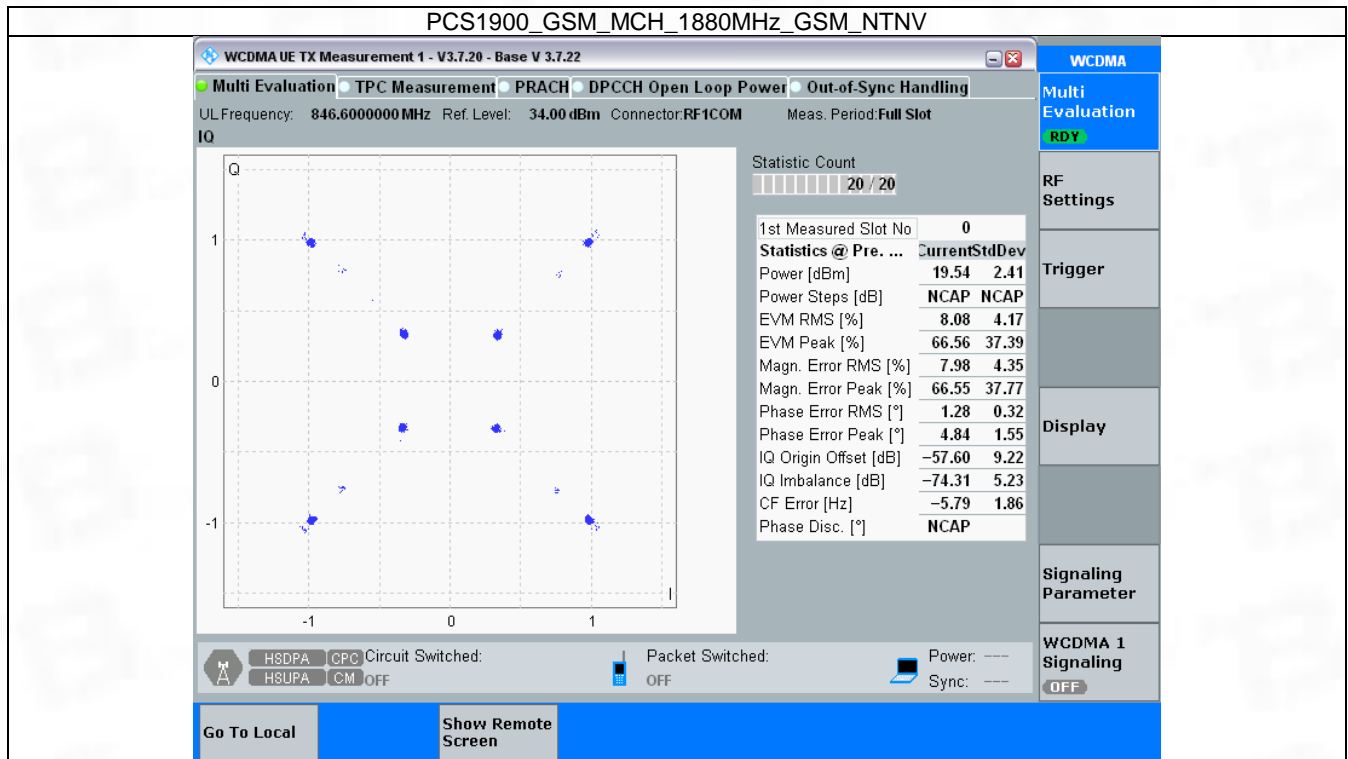
3. Modulation Characteristics

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

WCDMA UE TX Measurement 1 - V3.7.20 - Base V 3.7.22
WCDMA

Multi Evaluation
 TPC Measurement
 PRACH
 DPCCH Open Loop Power
 Out-of-Sync Handling

Multi Evaluation

UL Frequency: 846.600000 MHz Ref. Level: 34.00 dBm Connector: RF1COM Meas. Period: Full Slot
RDY

IQ

Statistic Count
 ■■■■■■■■ 20 / 20

1st Measured Slot No		0
Statistics @ Pre. ...		CurrentStdDev
Power [dBm]	19.54	2.41
Power Steps [dB]	NCAP	NCAP
EVM RMS [%]	8.08	4.17
EVM Peak [%]	66.56	37.39
Magn. Error RMS [%]	7.98	4.35
Magn. Error Peak [%]	66.55	37.77
Phase Error RMS [°]	1.28	0.32
Phase Error Peak [°]	4.84	1.55
IQ Origin Offset [dB]	-57.60	9.22
IQ Imbalance [dB]	-74.31	5.23
CF Error [Hz]	-5.79	1.86
Phase Disc. [°]	NCAP	

HSDPA CPO Circuit Switched:
 HSUPA CM OFF

Packet Switched:
 OFF

Power: ---
 Sync: ---

Go To Local
Show Remote Screen

WCDMA

Multi Evaluation

RDY

RF Settings

Trigger

Display

Signaling Parameter

WCDMA 1 Signaling

OFF

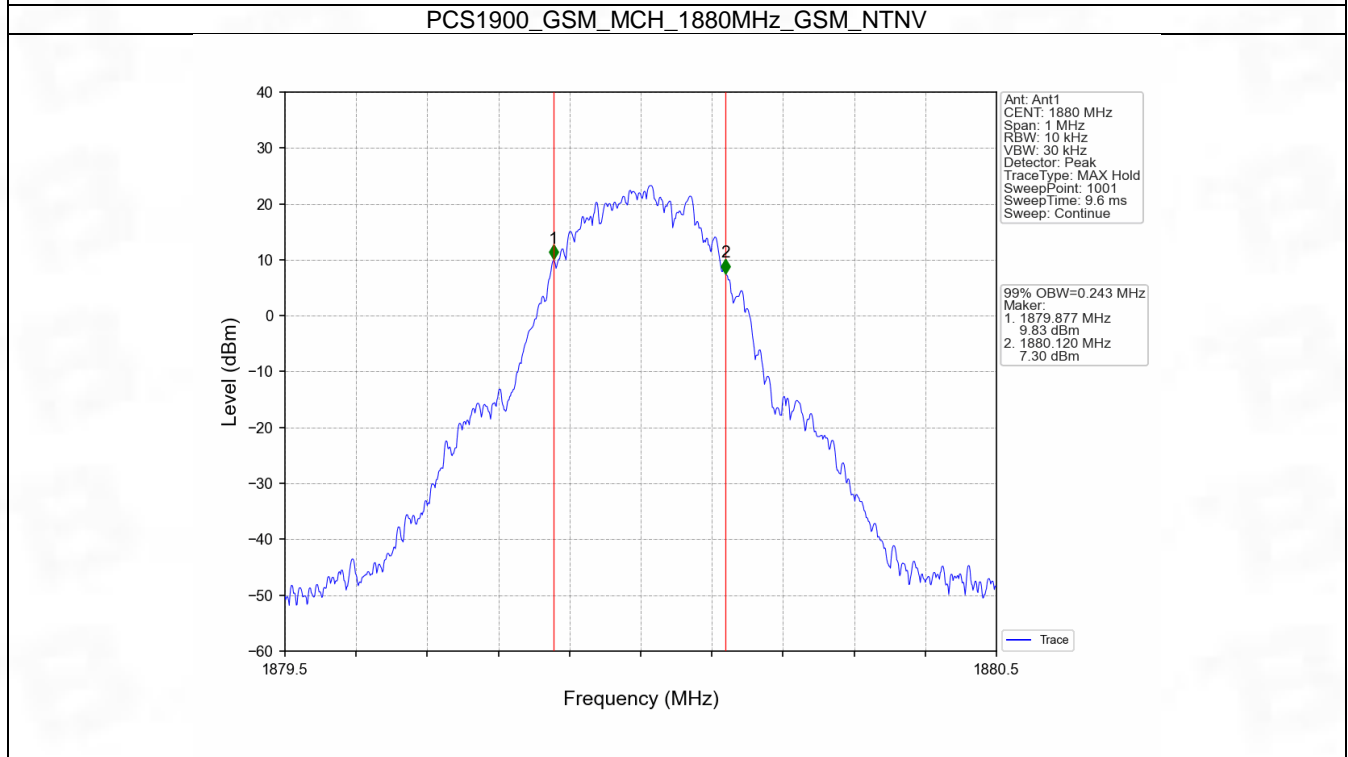
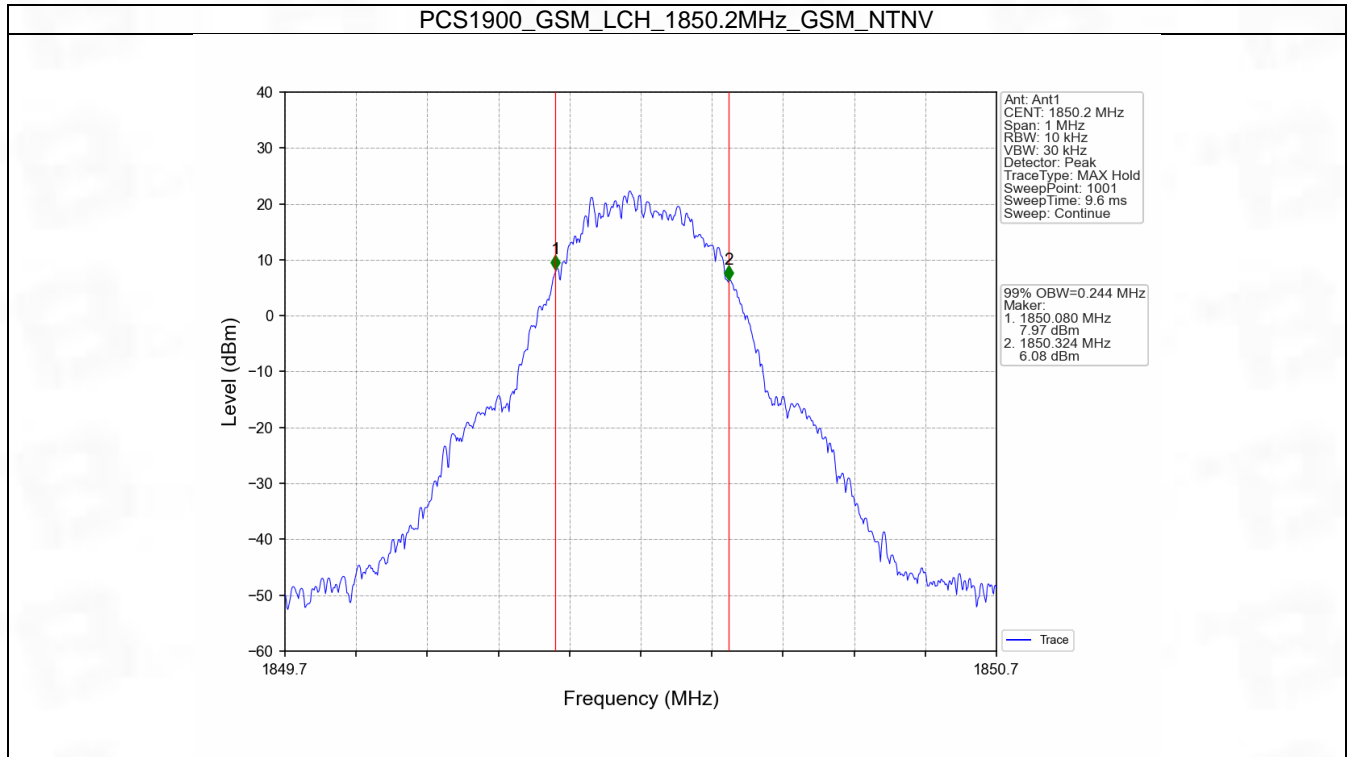
4. 99% & 26dB Bandwidth

4.1 PCS1900_OBW

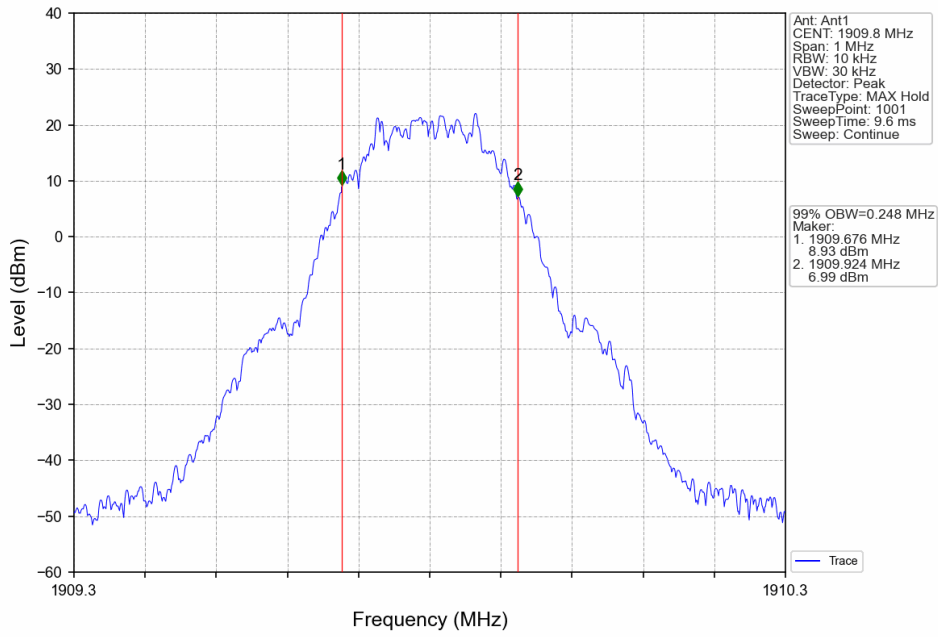
4.1.1 Test Result

Band: PCS1900						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	0.244	/	Pass
			1880	0.243	/	Pass
			1909.8	0.248	/	Pass
	GPRS	1 TX Slot	1850.2	0.243	/	Pass
			1880	0.248	/	Pass
			1909.8	0.248	/	Pass
	EGPRS	1 TX Slot	1850.2	0.246	/	Pass
			1880	0.257	/	Pass
			1909.8	0.251	/	Pass

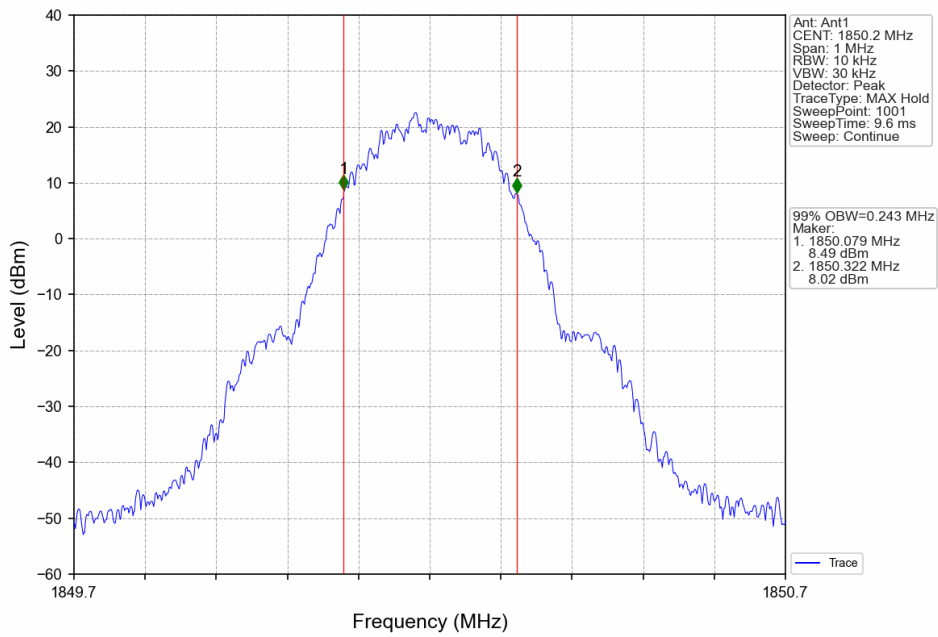
4.1.2 Test Graph



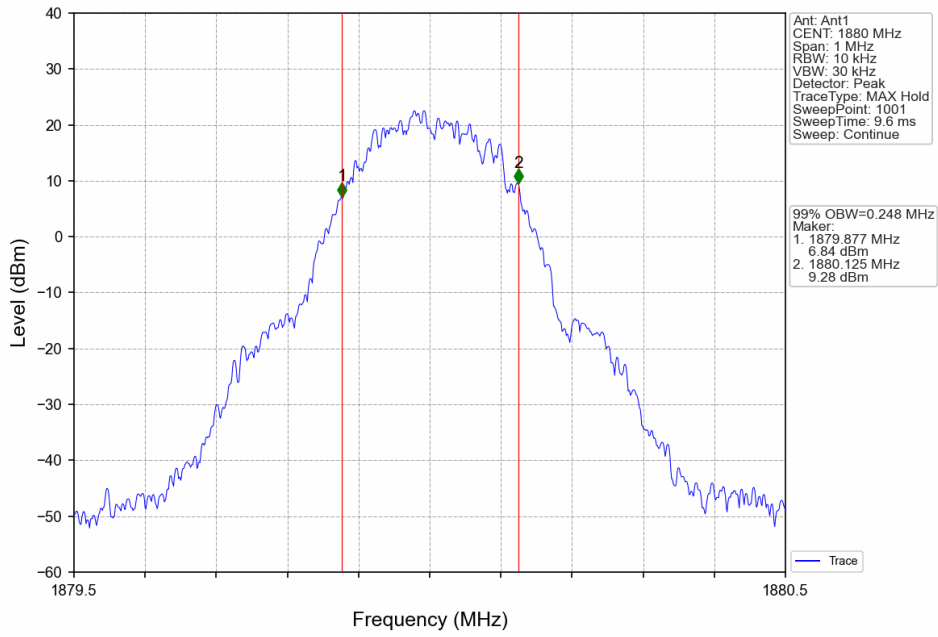
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



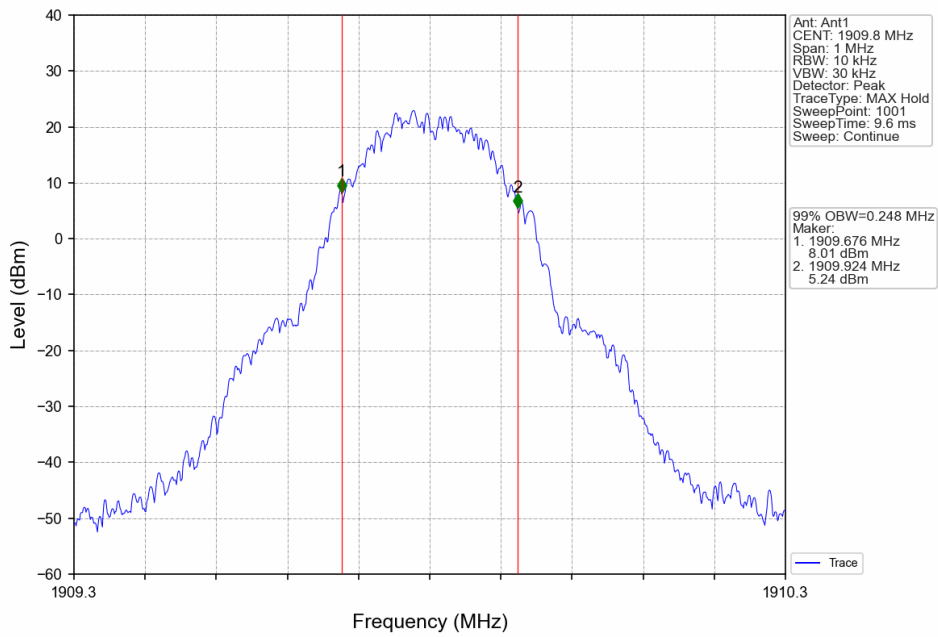
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



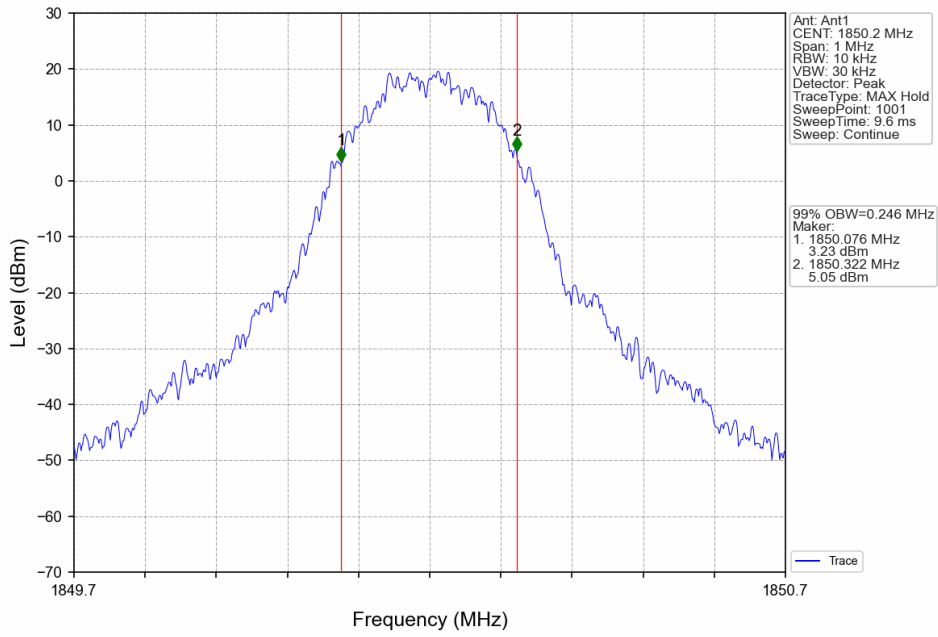
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



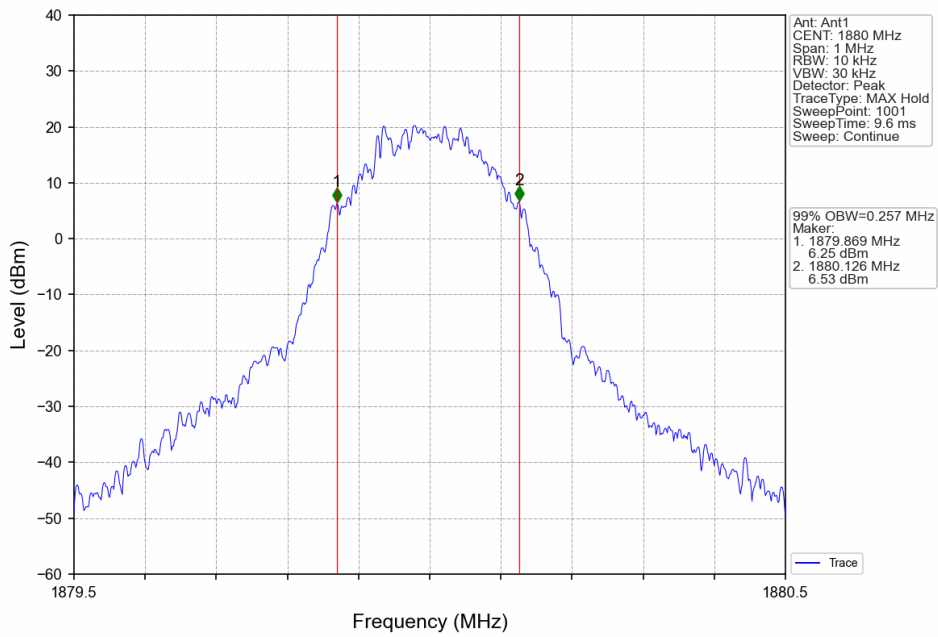
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



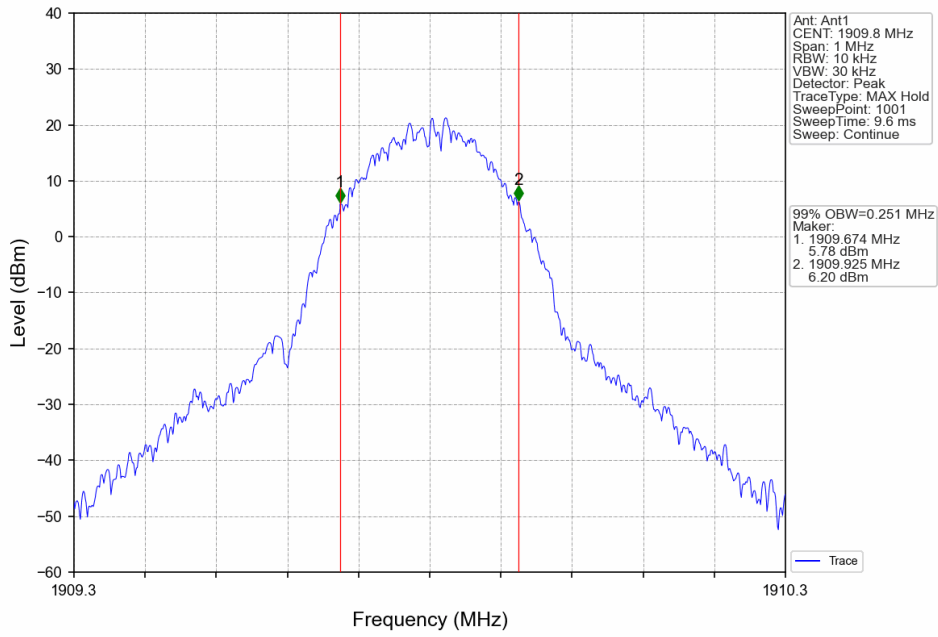
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV

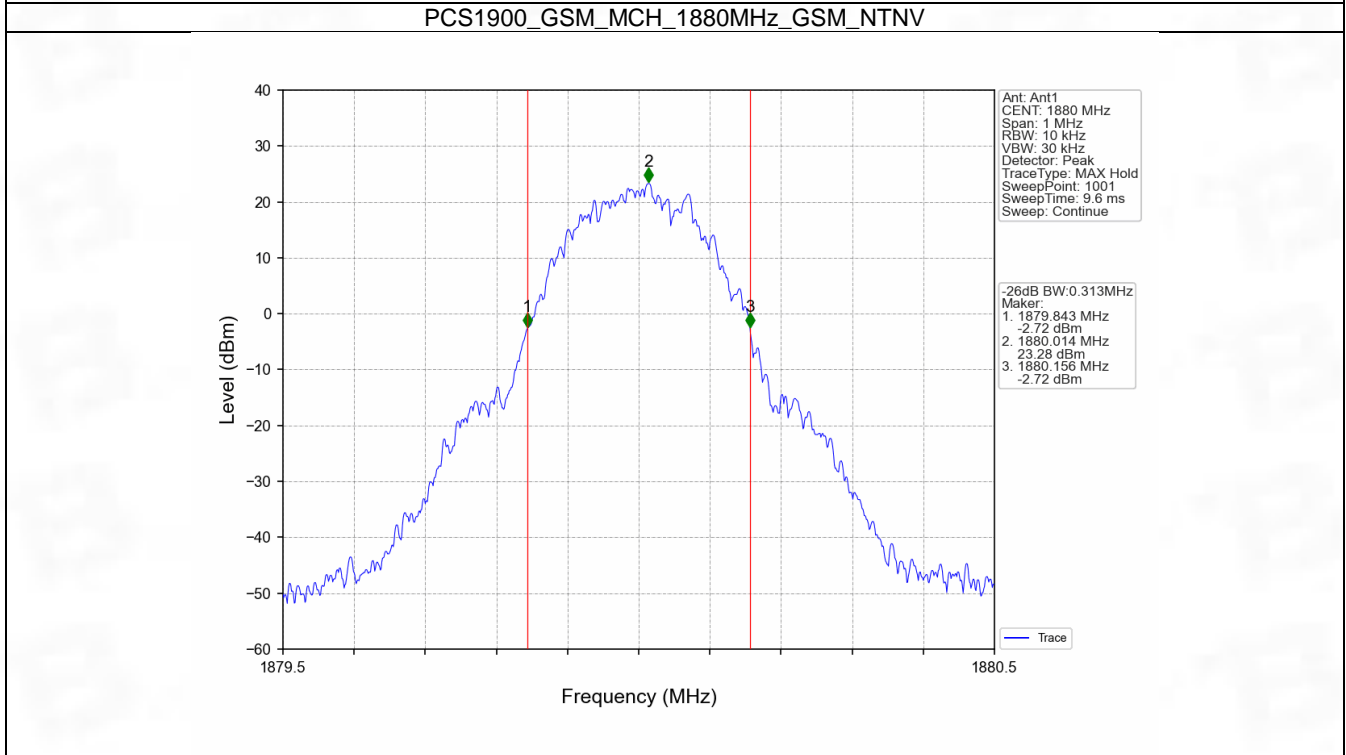
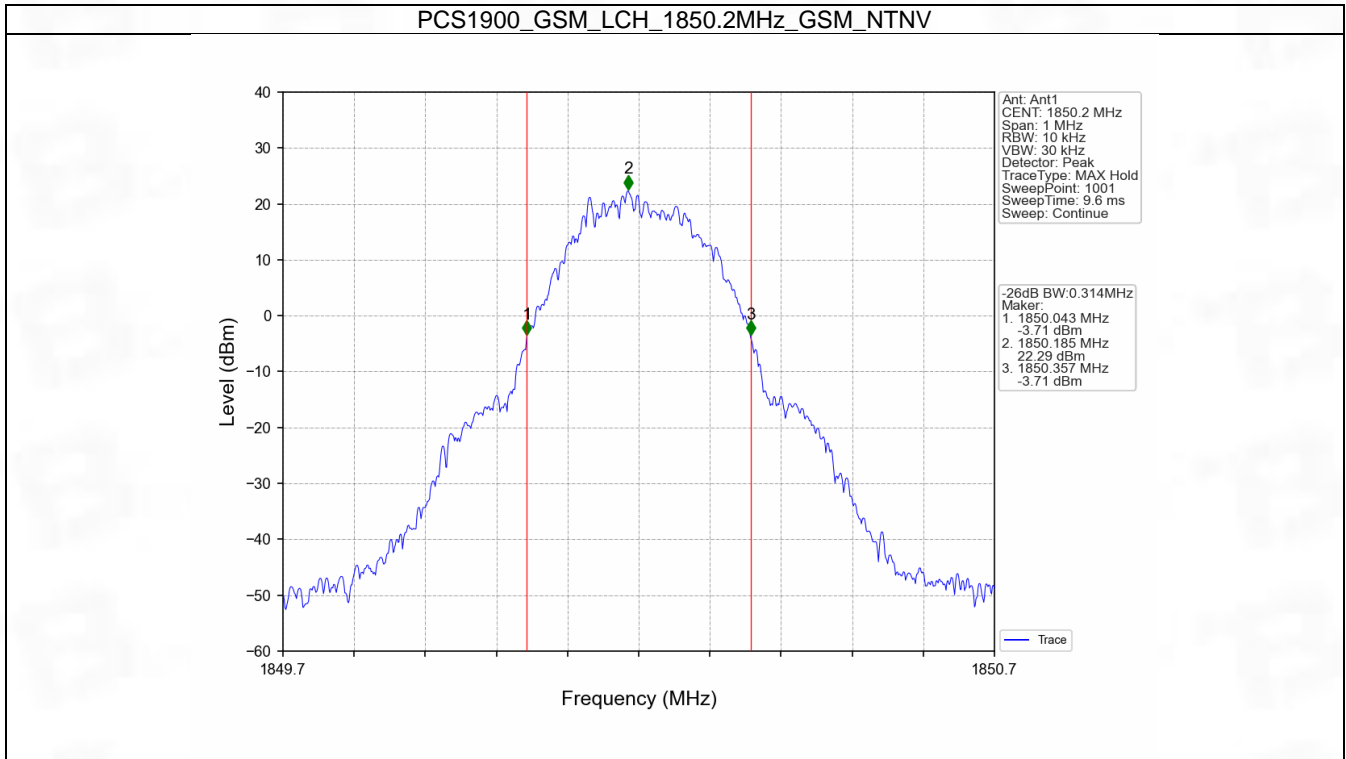


4.2 PCS1900_XDB

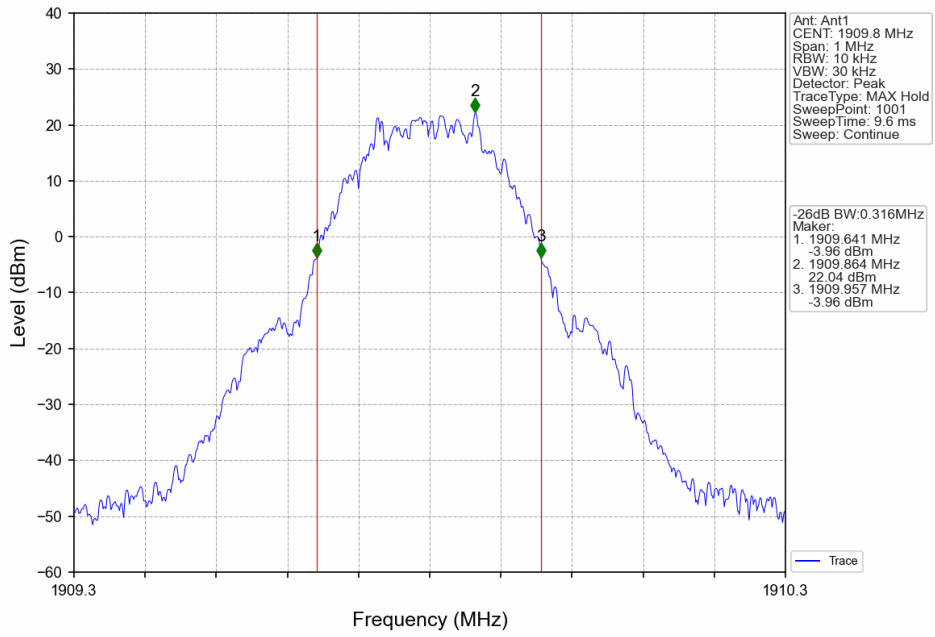
4.2.1 Test Result

Band: PCS1900						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	0.314	/	Pass
			1880	0.313	/	Pass
			1909.8	0.316	/	Pass
	GPRS	1 TX Slot	1850.2	0.319	/	Pass
			1880	0.321	/	Pass
			1909.8	0.312	/	Pass
	EGPRS	1 TX Slot	1850.2	0.322	/	Pass
			1880	0.323	/	Pass
			1909.8	0.318	/	Pass

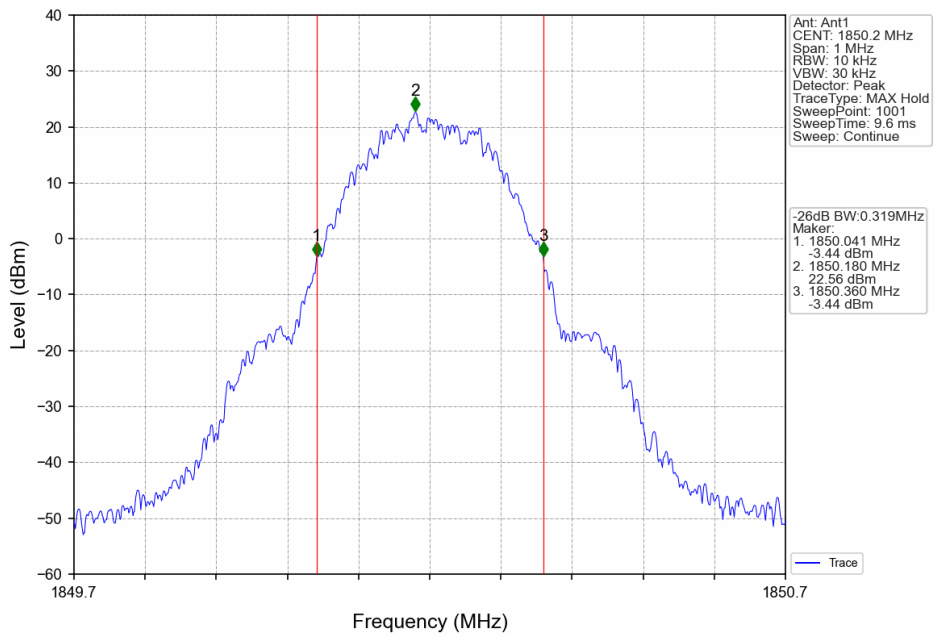
4.2.2 Test Graph



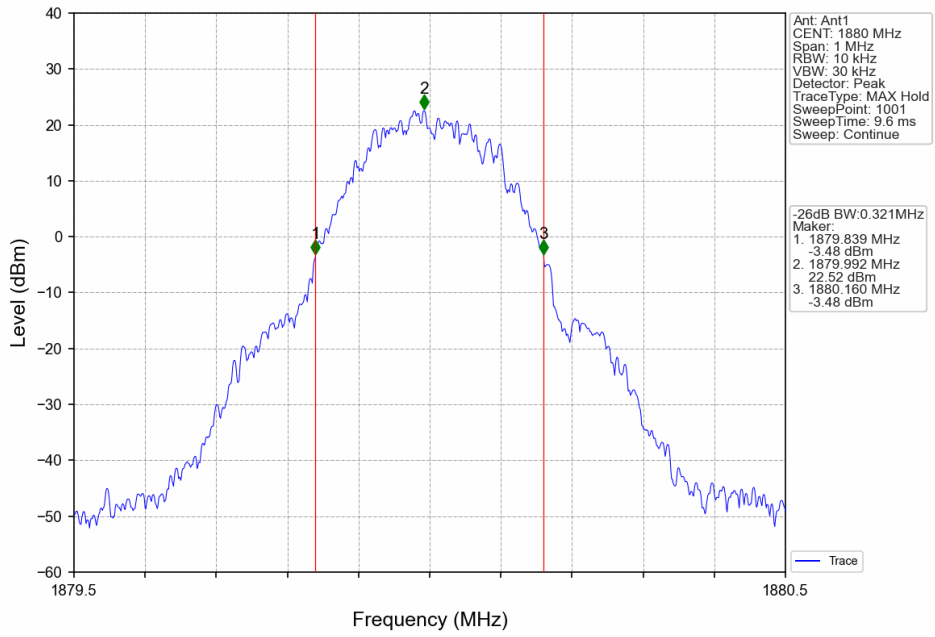
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



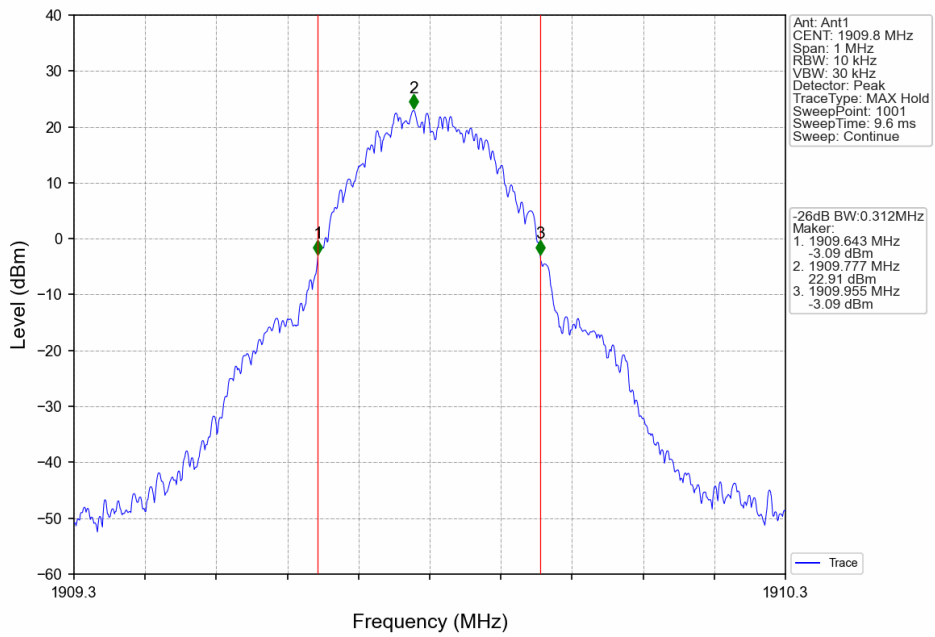
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



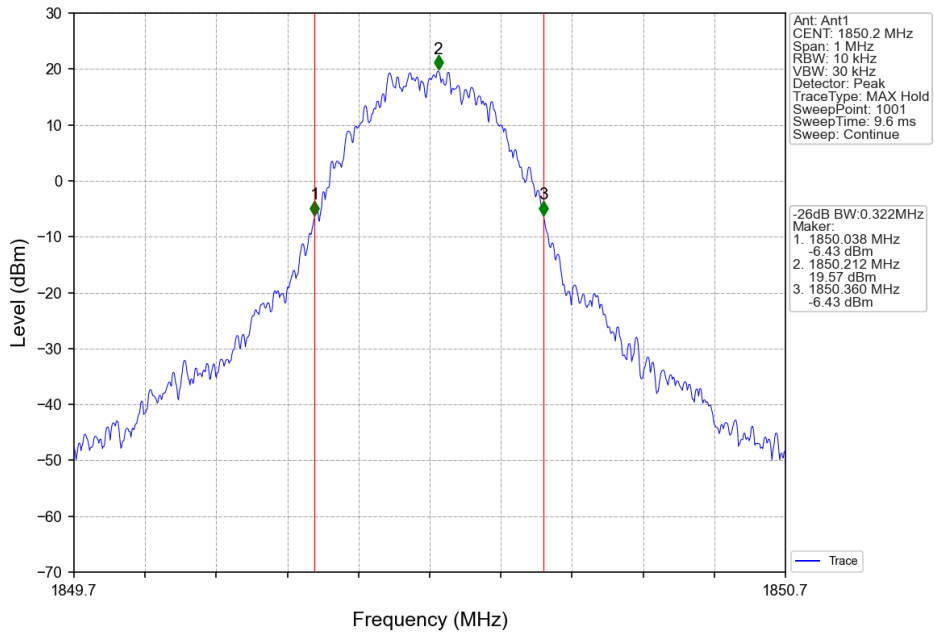
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



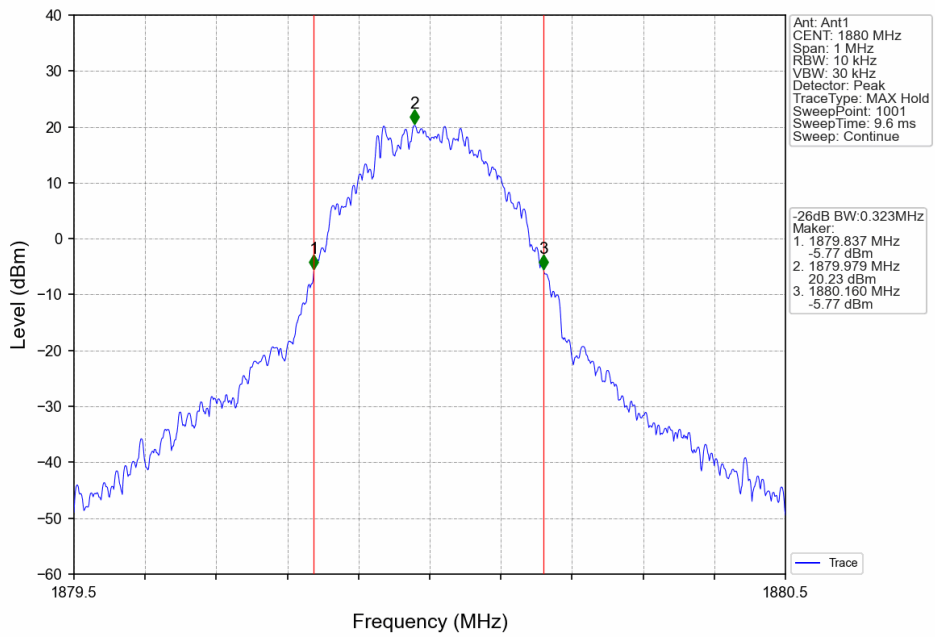
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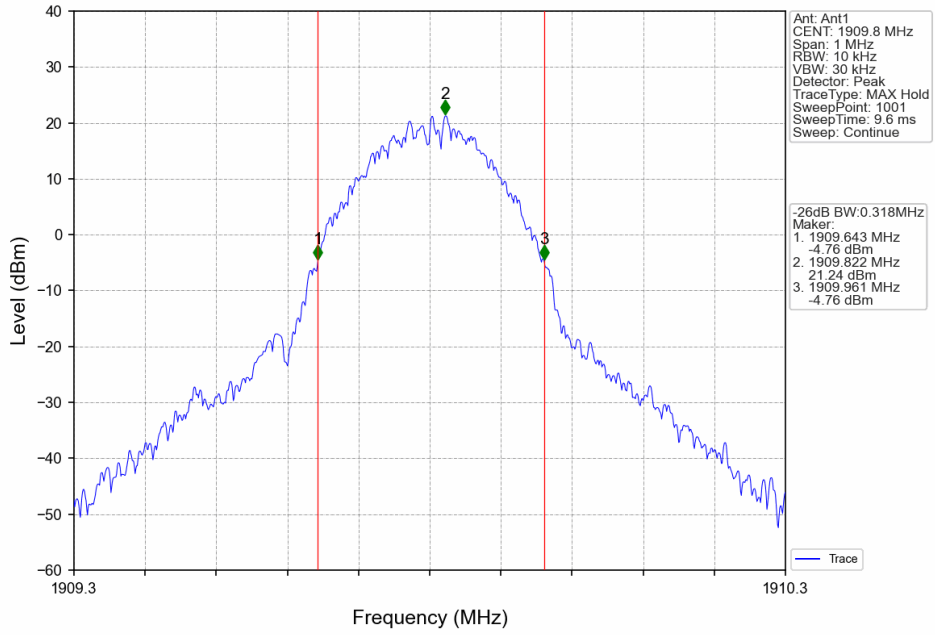
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



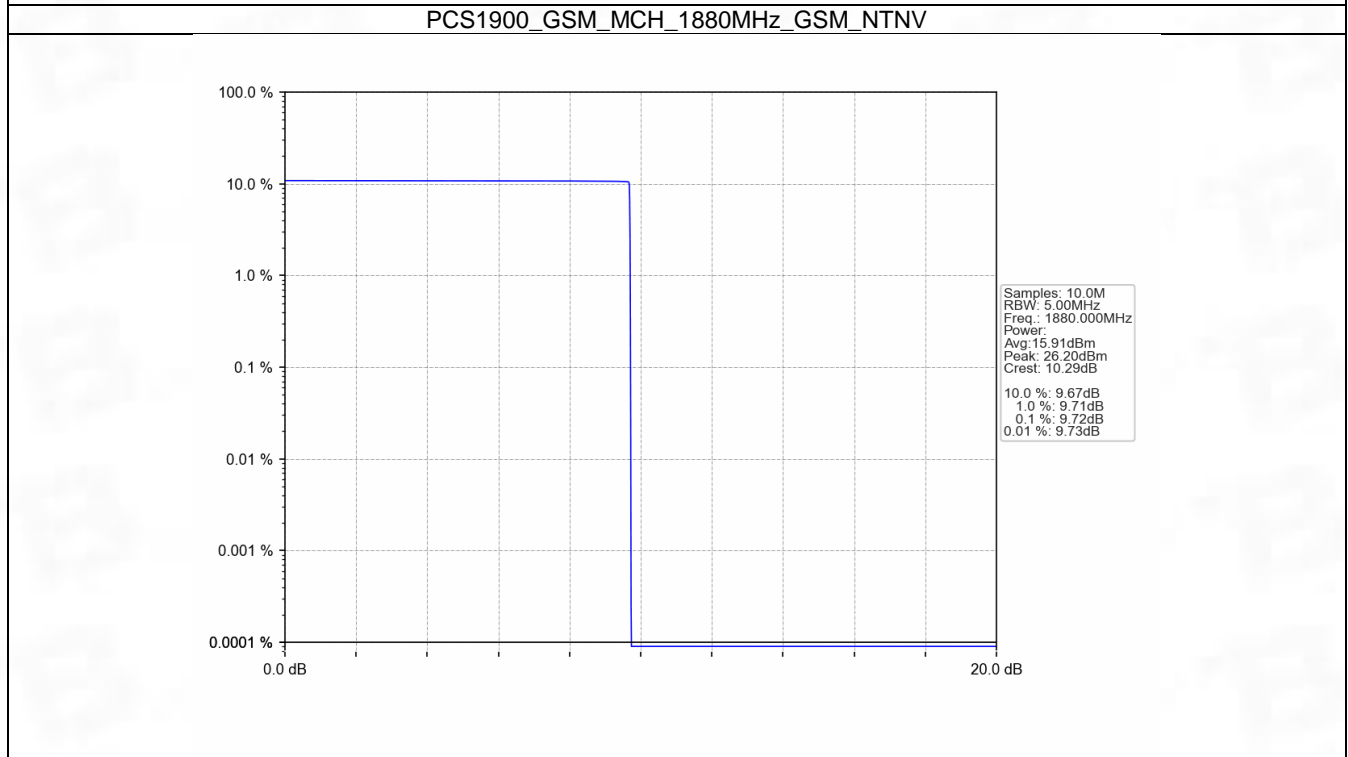
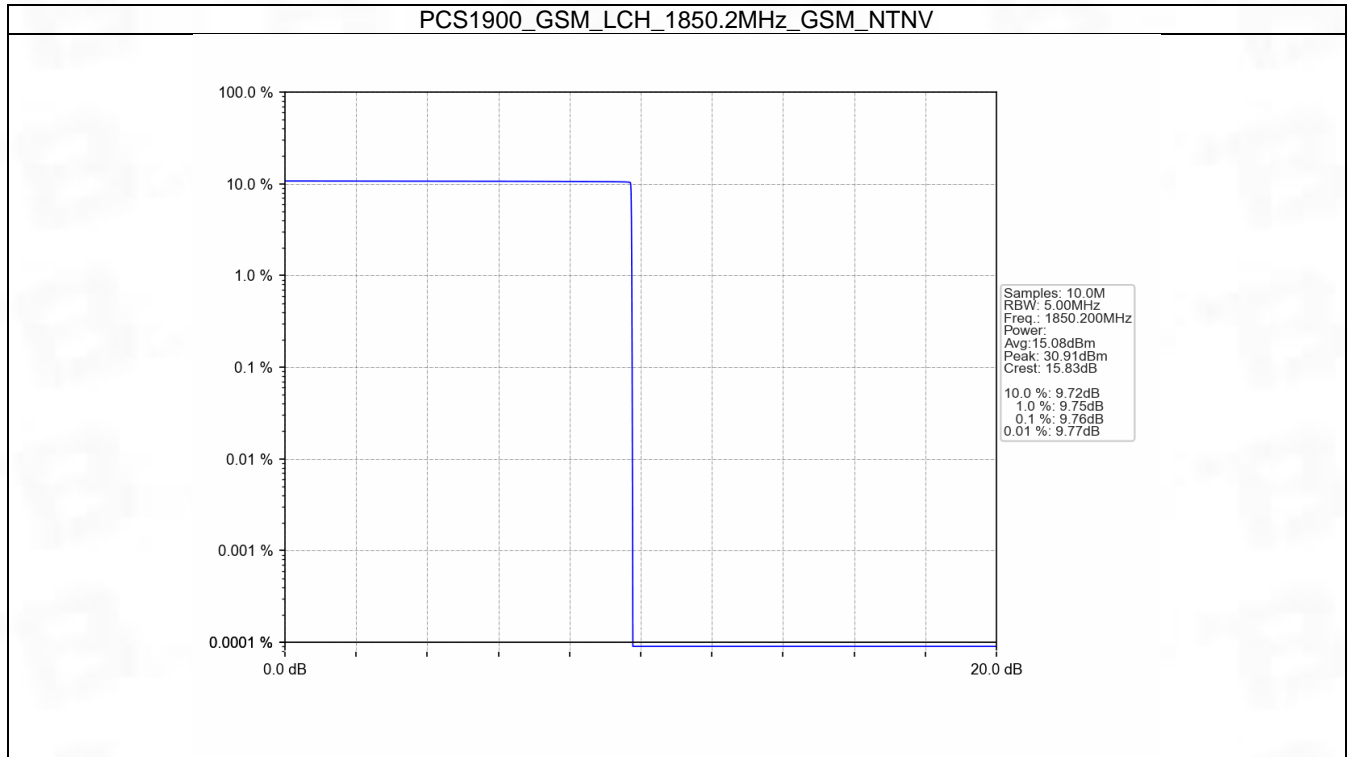
5. Peak-Average Ratio

5.1 PCS1900

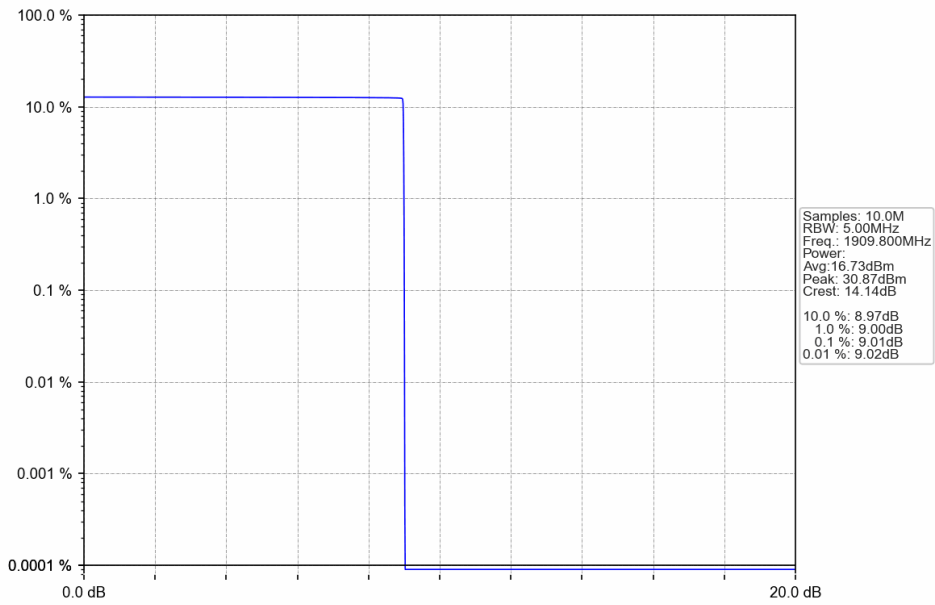
5.1.1 Test Result

Band: PCS1900						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	9.76	<=13	Pass
			1880	9.72	<=13	Pass
			1909.8	9.01	<=13	Pass
	GPRS	4 TX Slots	1850.2	3.49	<=13	Pass
			1880	3.78	<=13	Pass
			1909.8	3.53	<=13	Pass
	EGPRS	4 TX Slots	1850.2	7.99	<=13	Pass
			1880	7.60	<=13	Pass
			1909.8	7.46	<=13	Pass

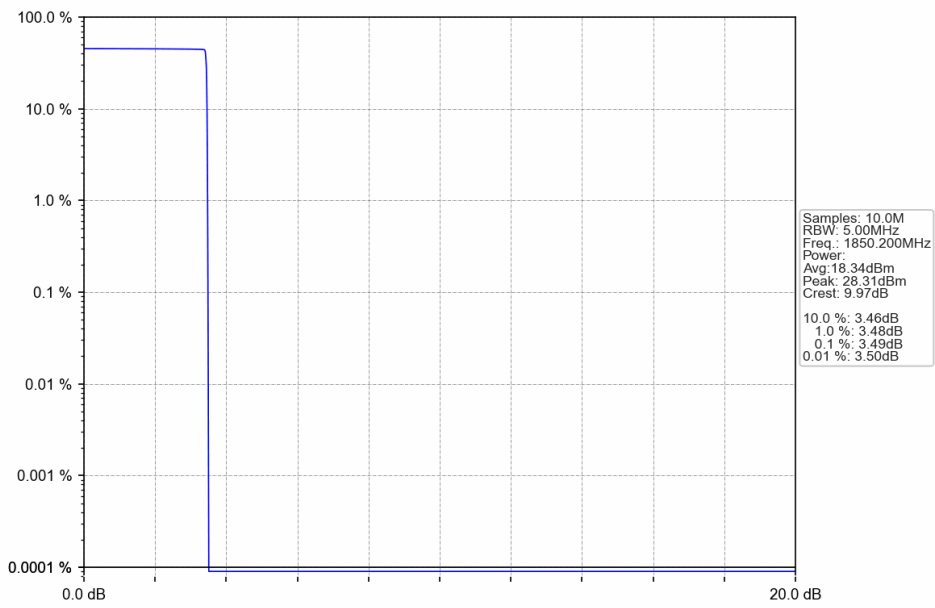
5.1.2 Test Graph



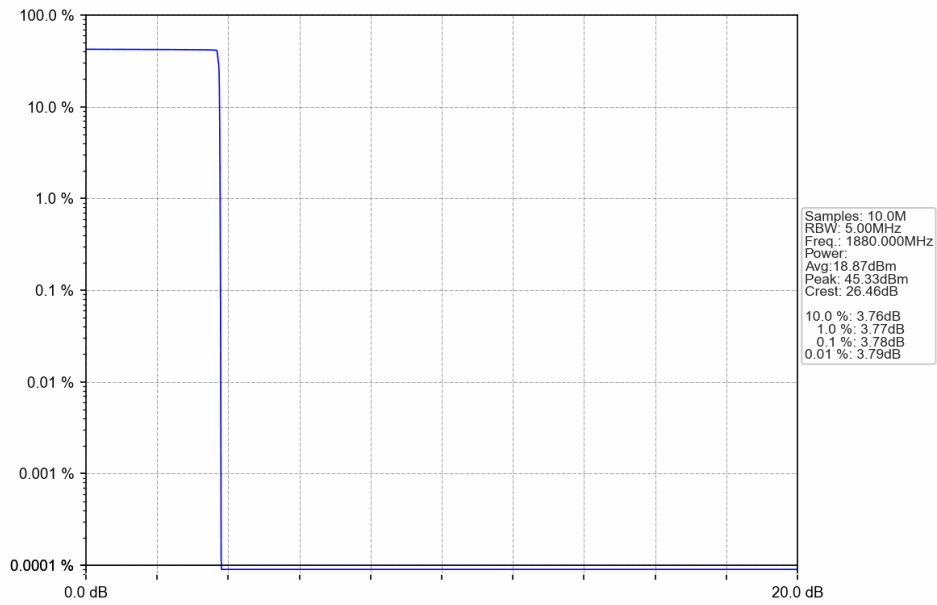
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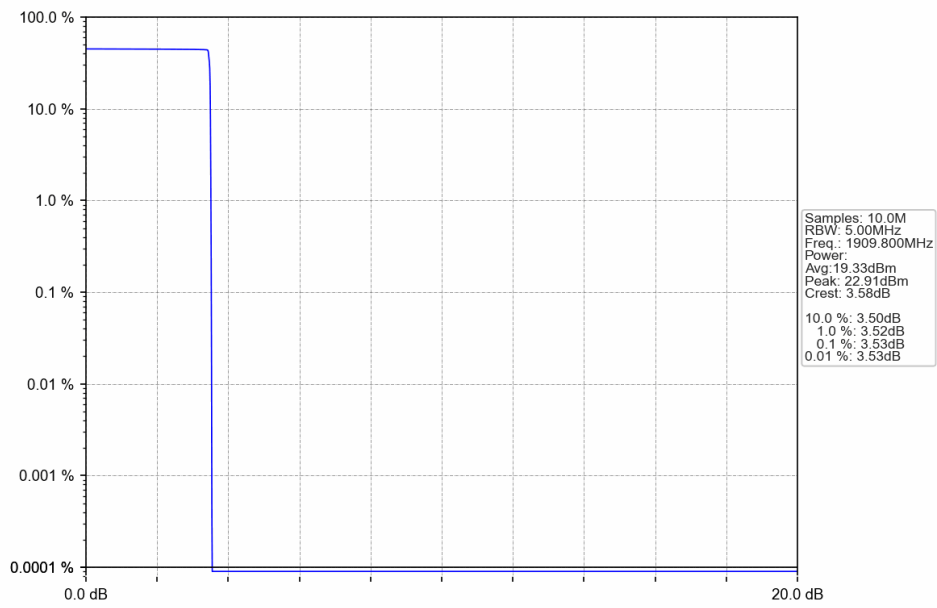
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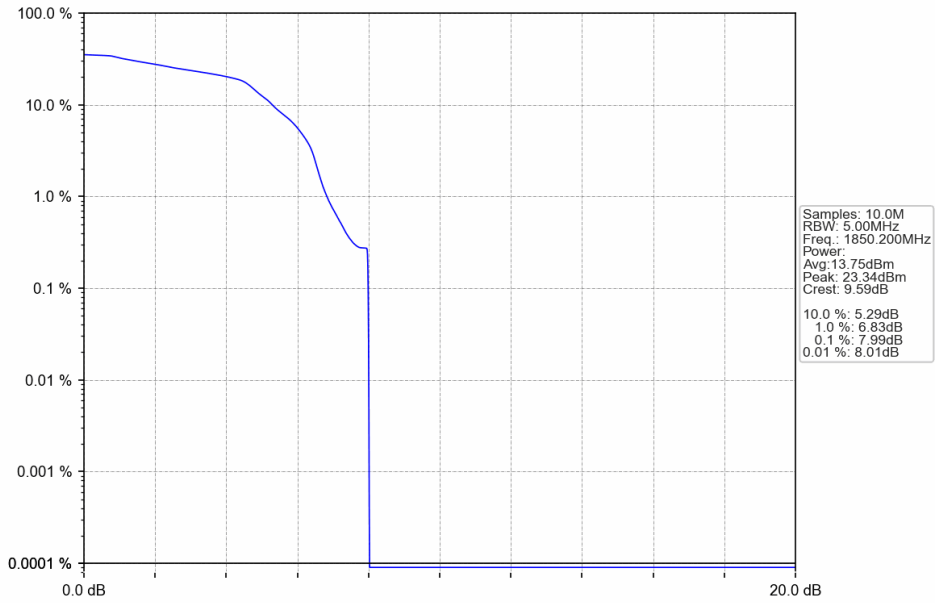
PCS1900_GPRS_MCH_1880MHz_4 TX Slots_NTNV



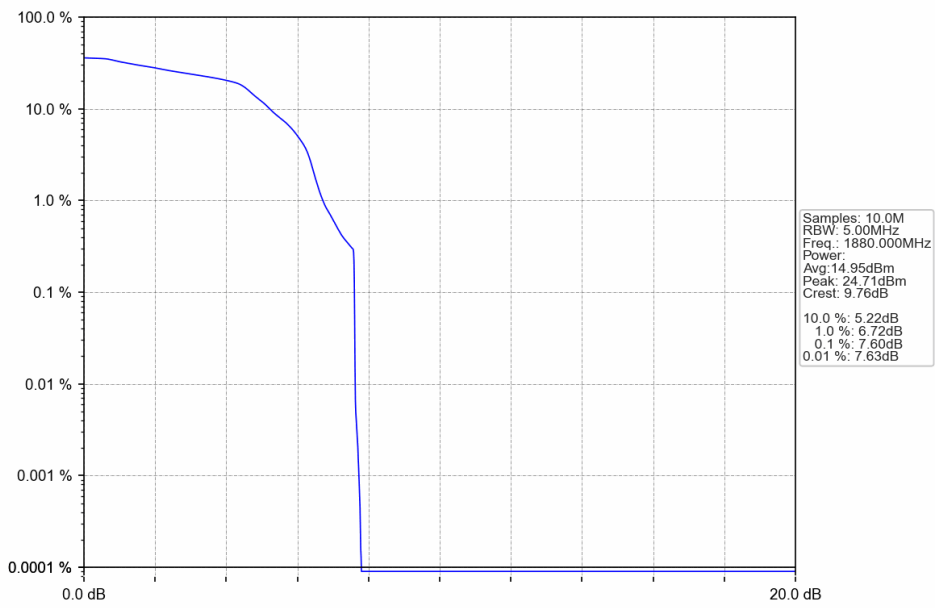
PCS1900_GPRS_HCH_1909.8MHz_4 TX Slots_NTNV



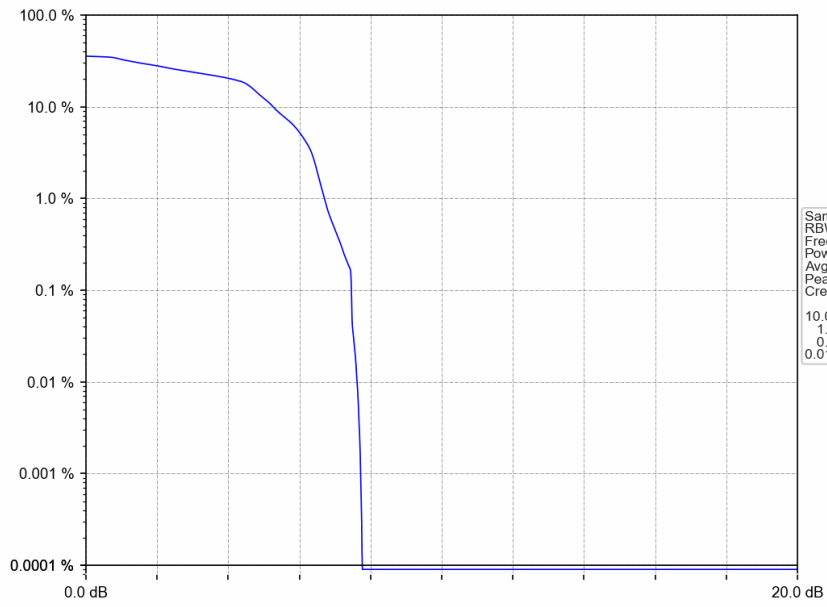
PCS1900_EGPRS_LCH_1850.2MHz_4 TX Slots_NTNV



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: 15.30dBm
Peak: 44.58dBm
Crest: 29.28dB
10.0 %: 5.26dB
1.0 %: 6.70dB
0.1 %: 7.46dB
0.01 %: 7.62dB

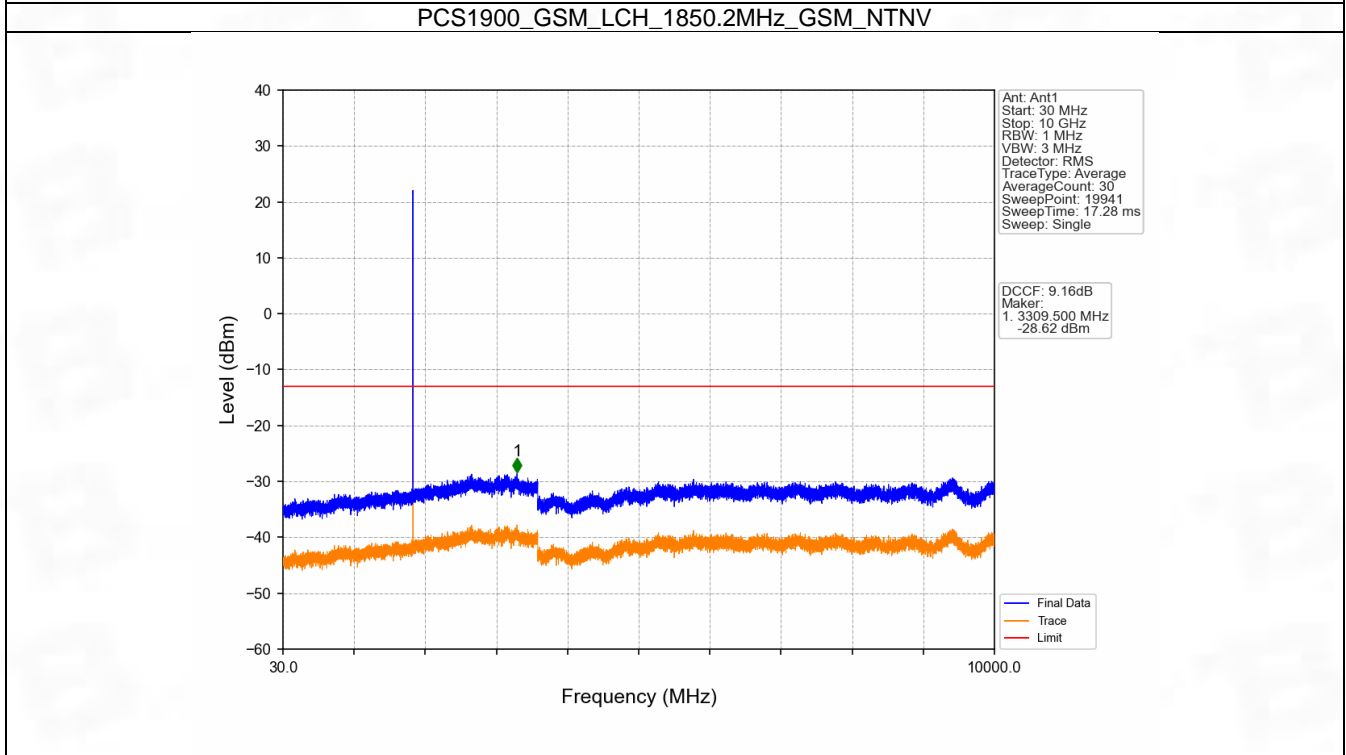
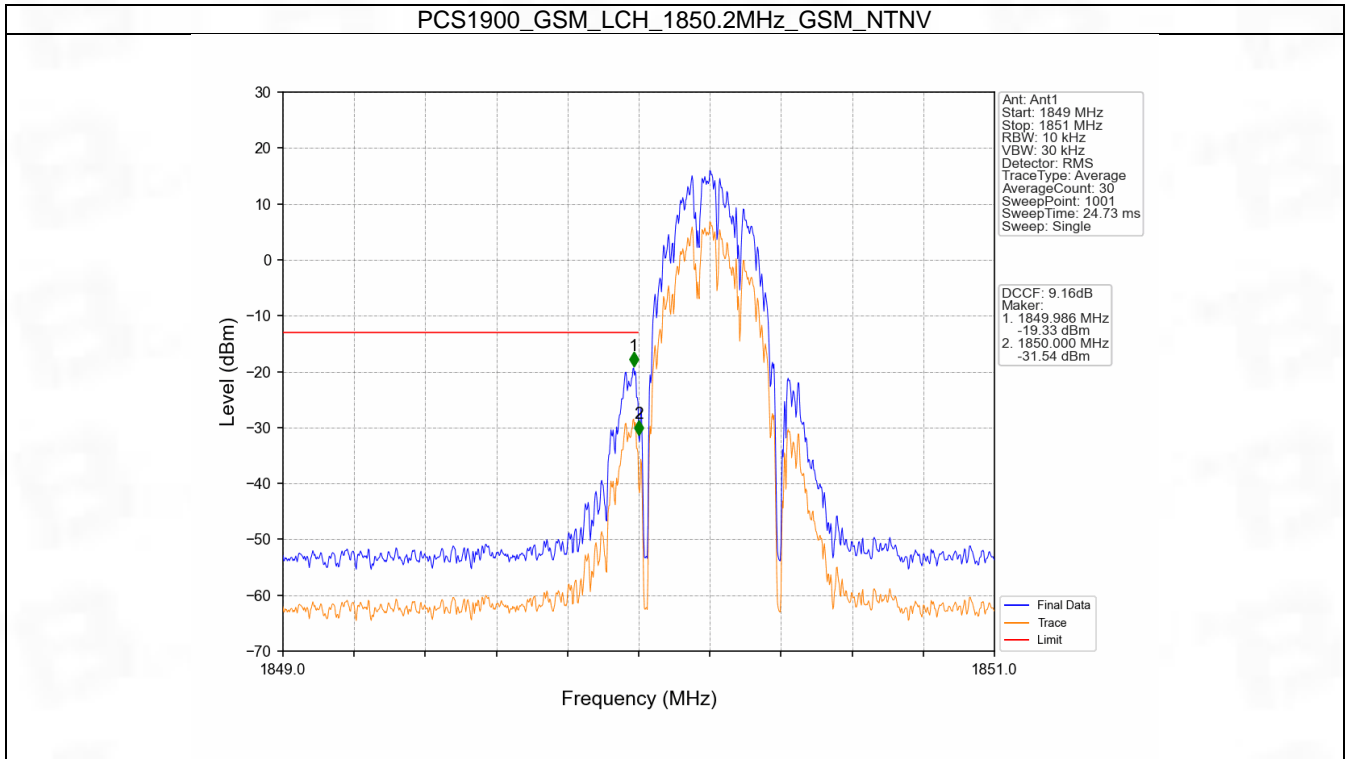
6. Spurious Emission

6.1 PCS1900

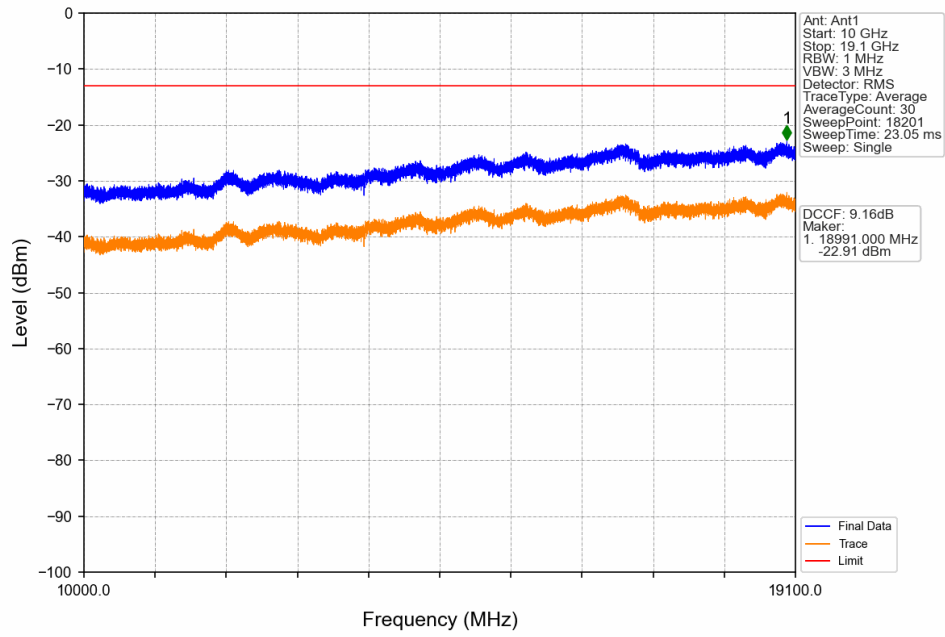
6.1.1 Test Result

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

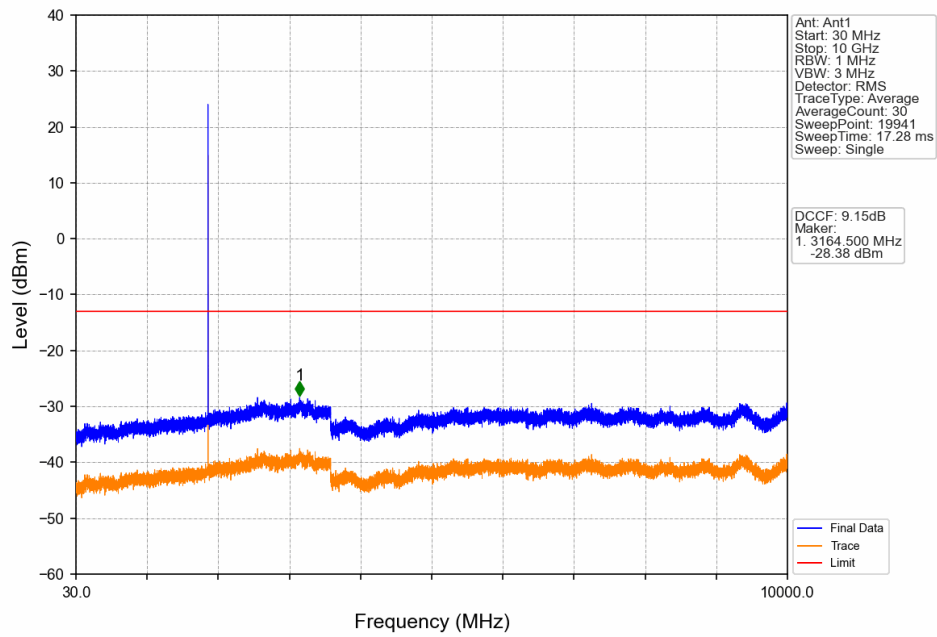
6.1.2 Test Graph



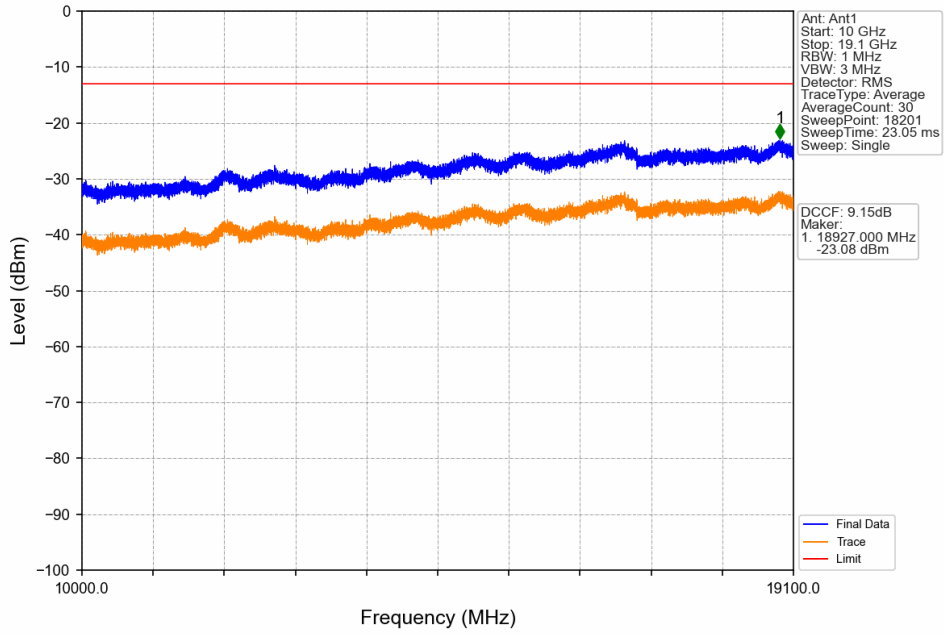
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



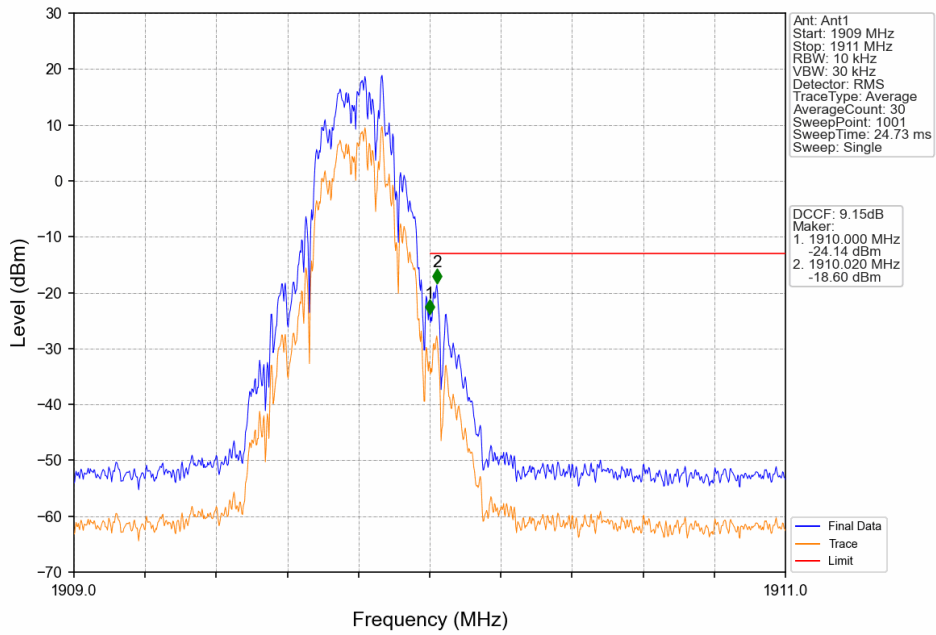
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



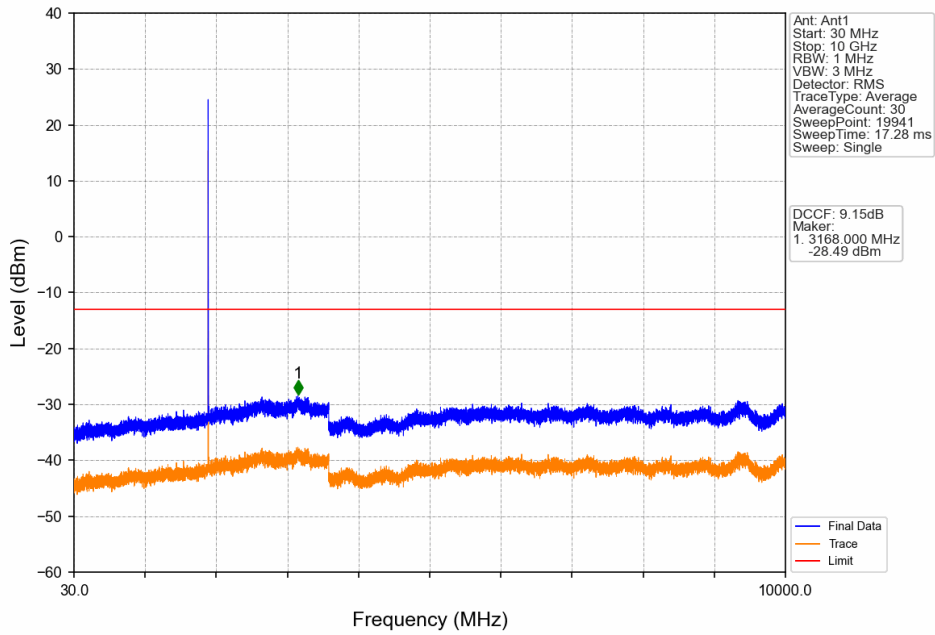
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



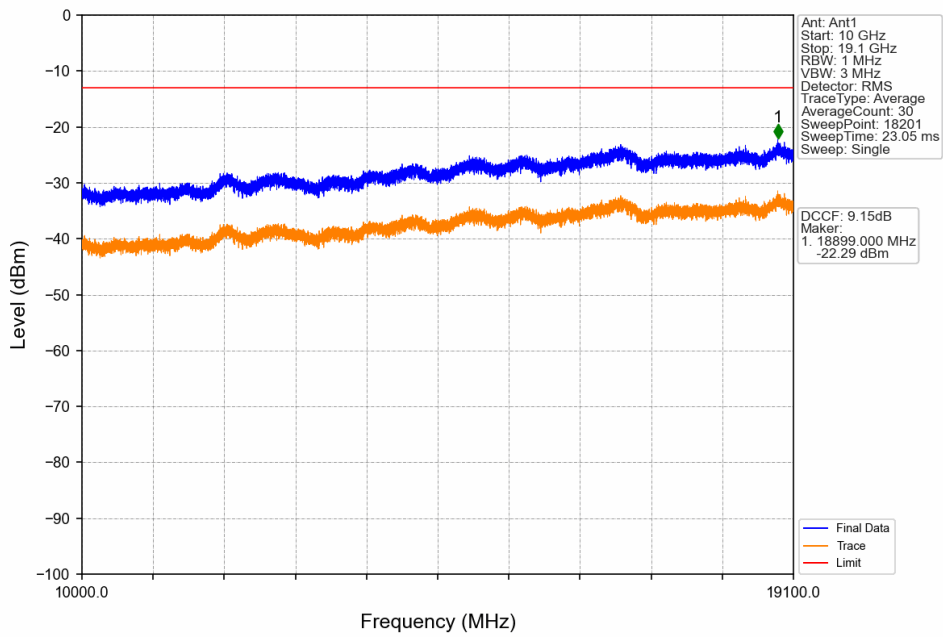
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



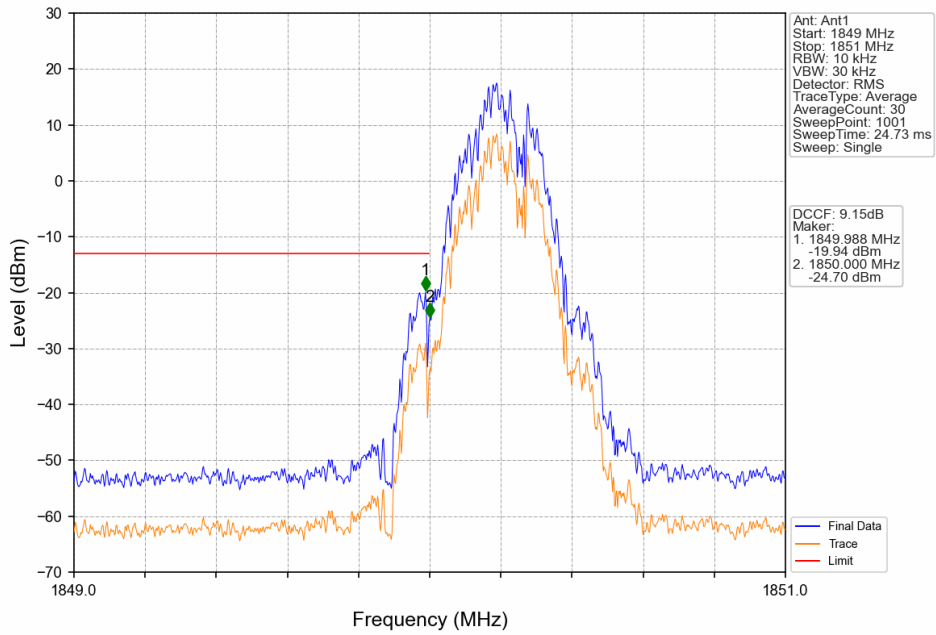
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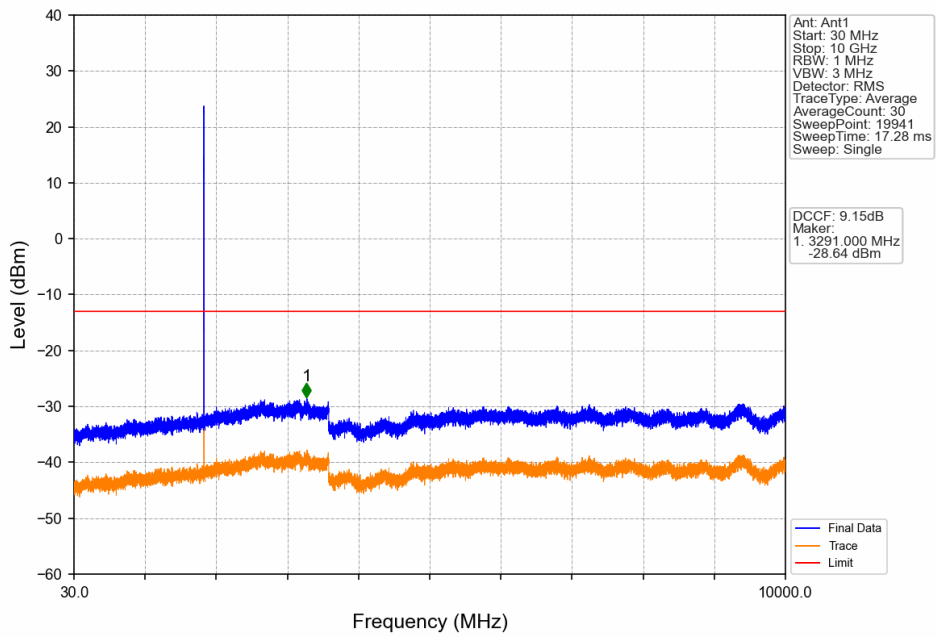
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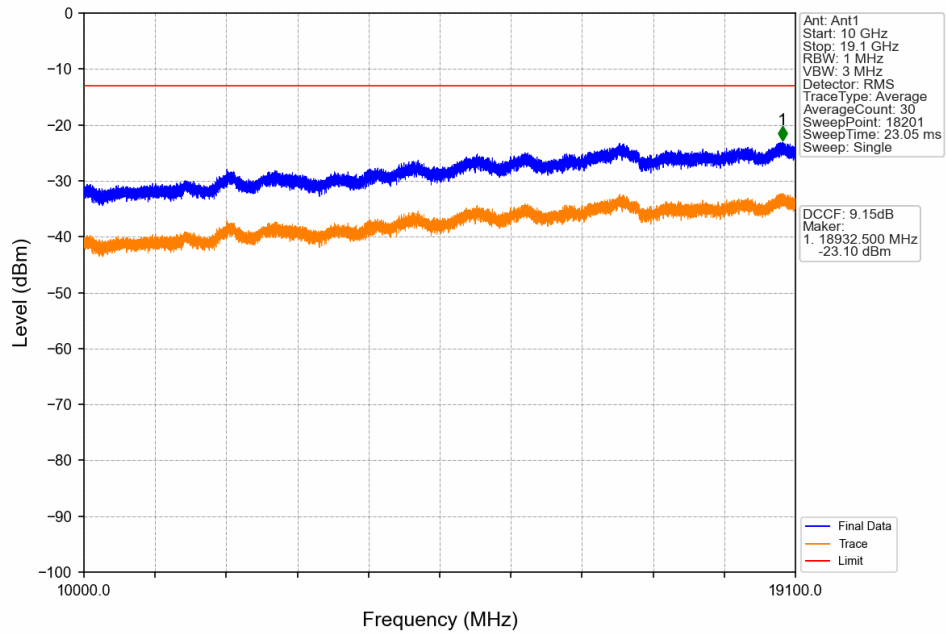
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



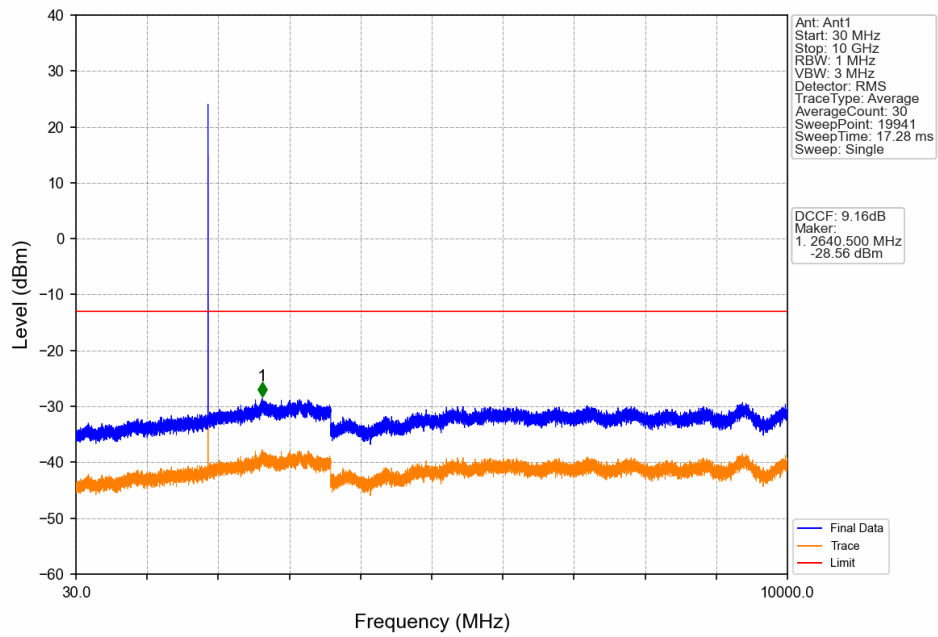
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



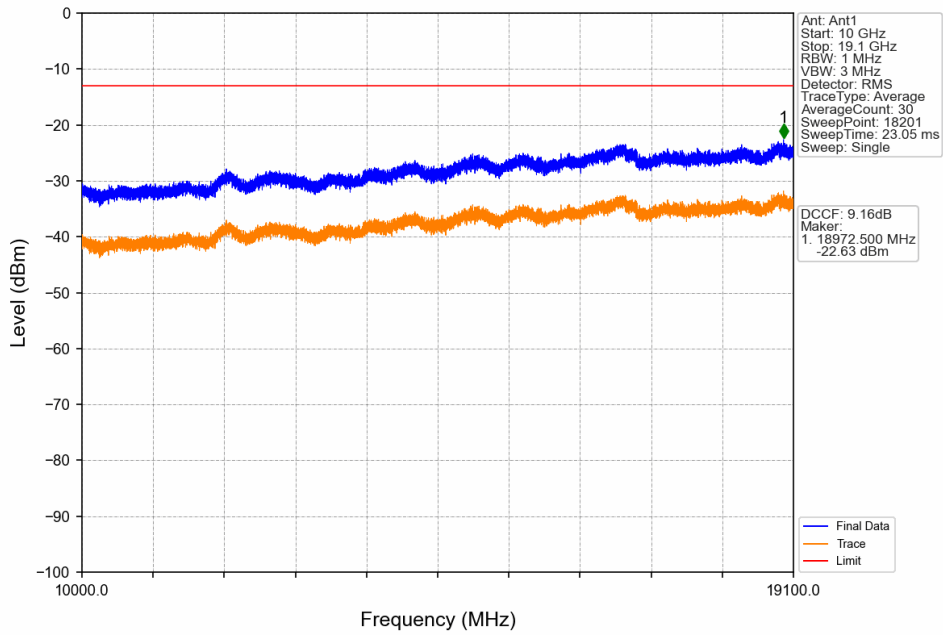
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



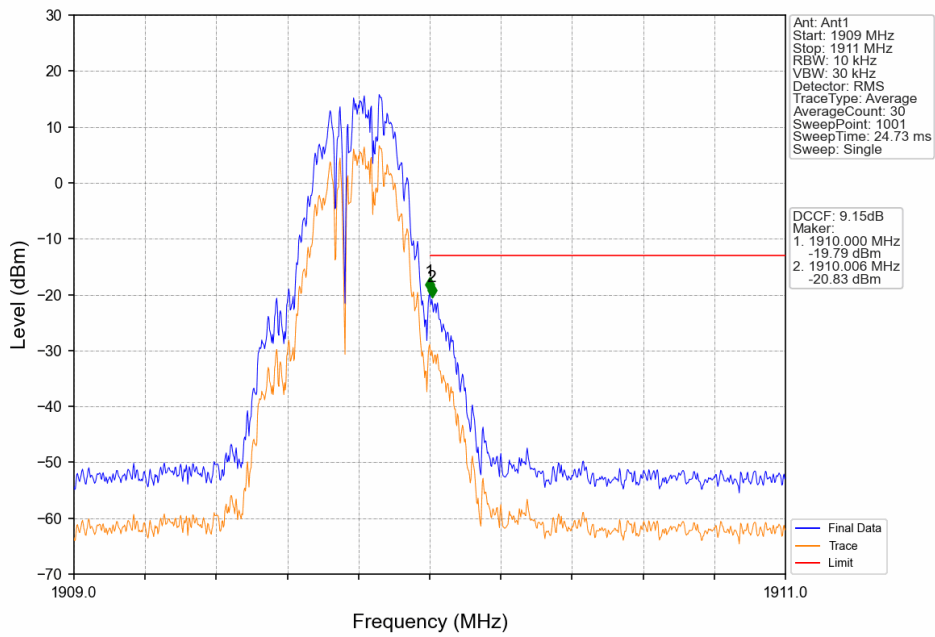
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



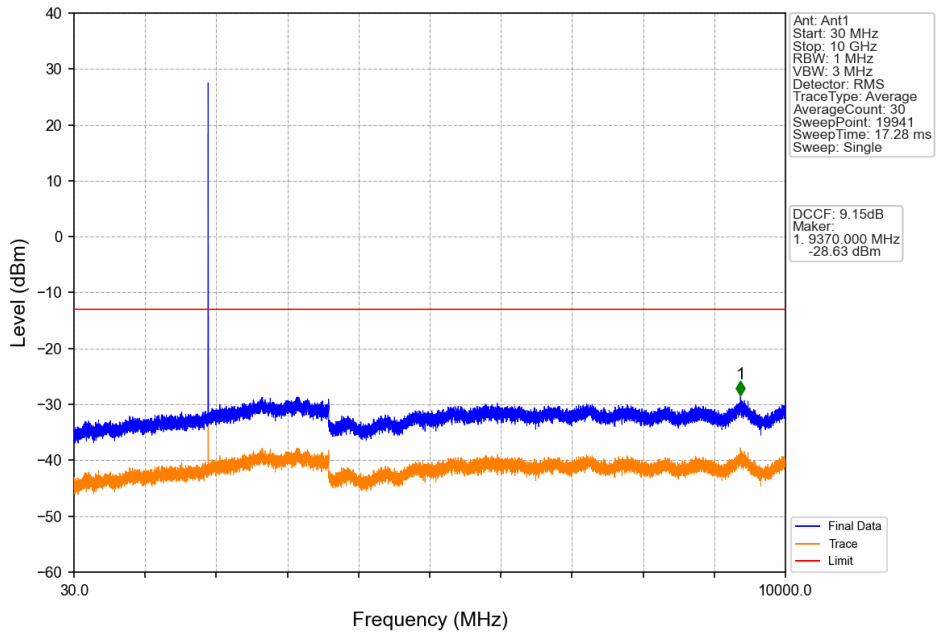
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



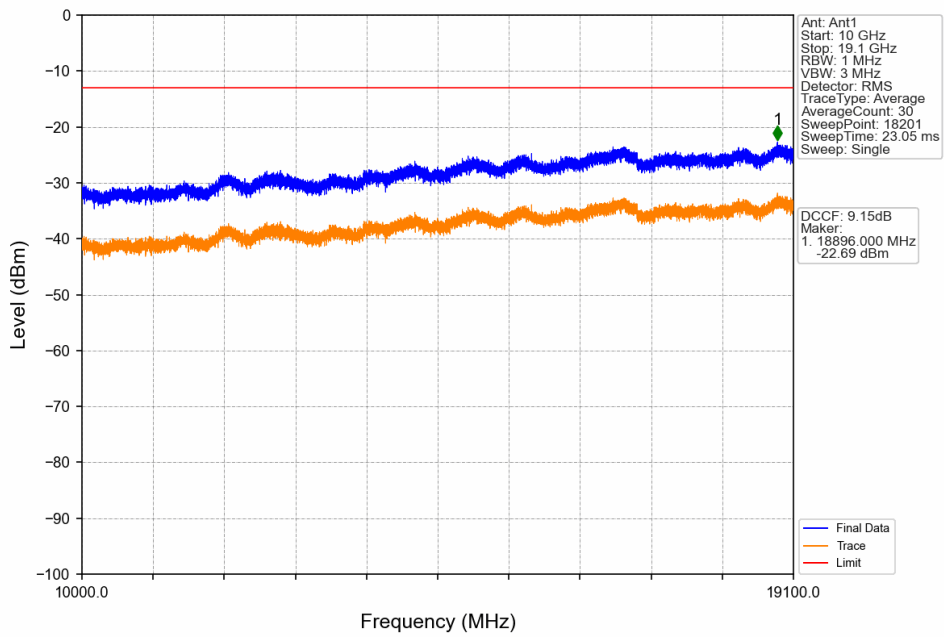
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



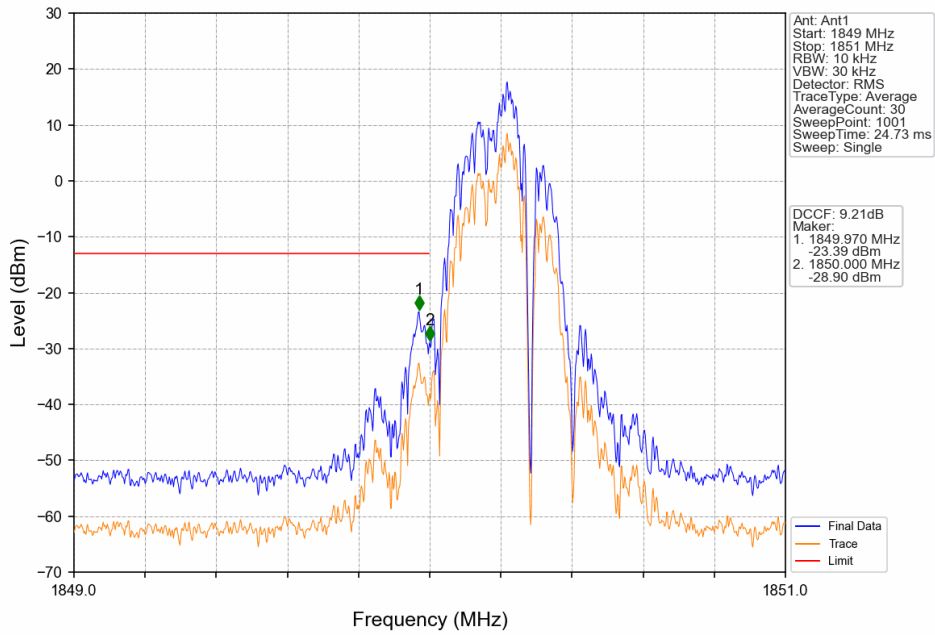
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



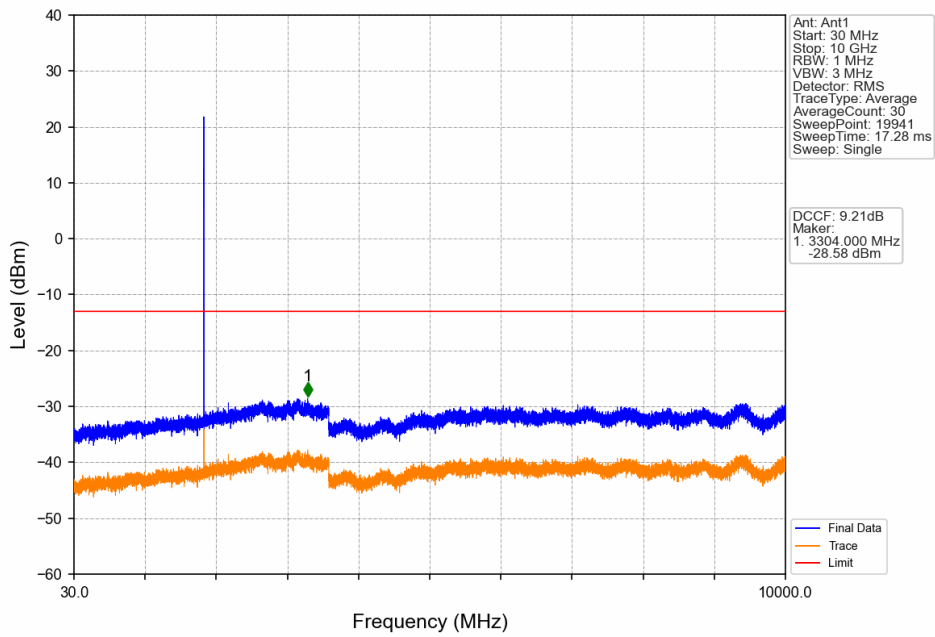
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



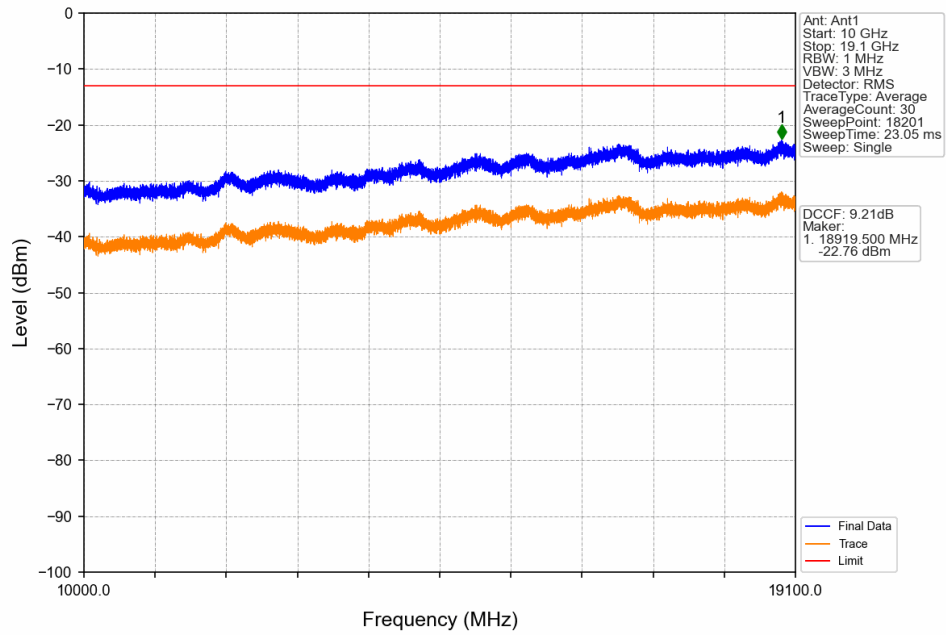
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



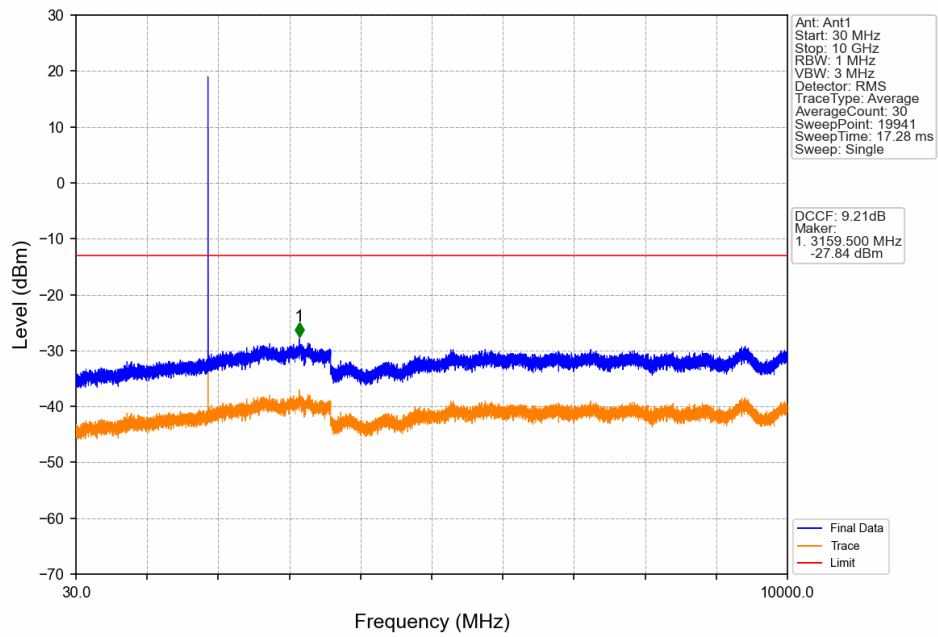
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



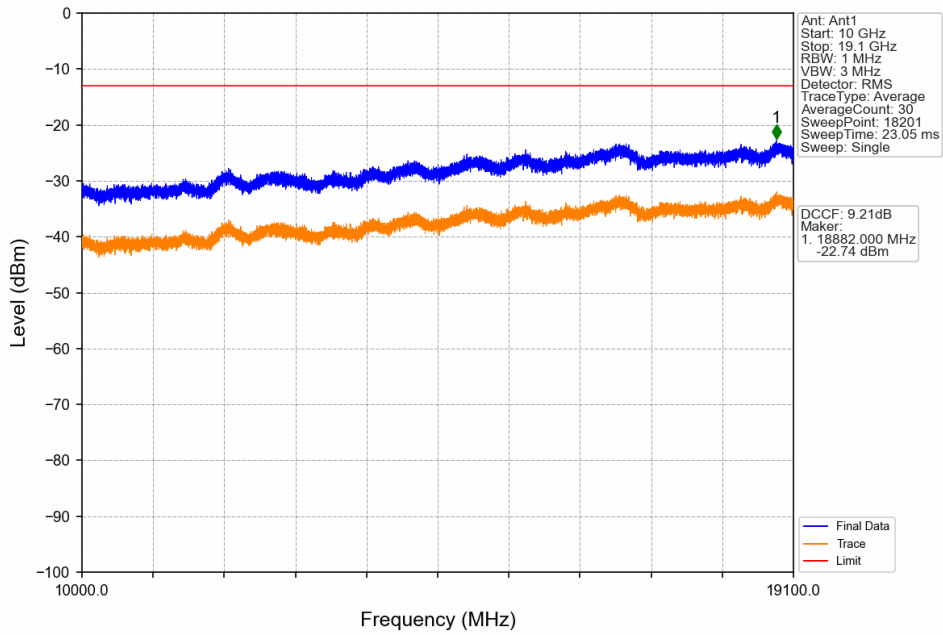
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



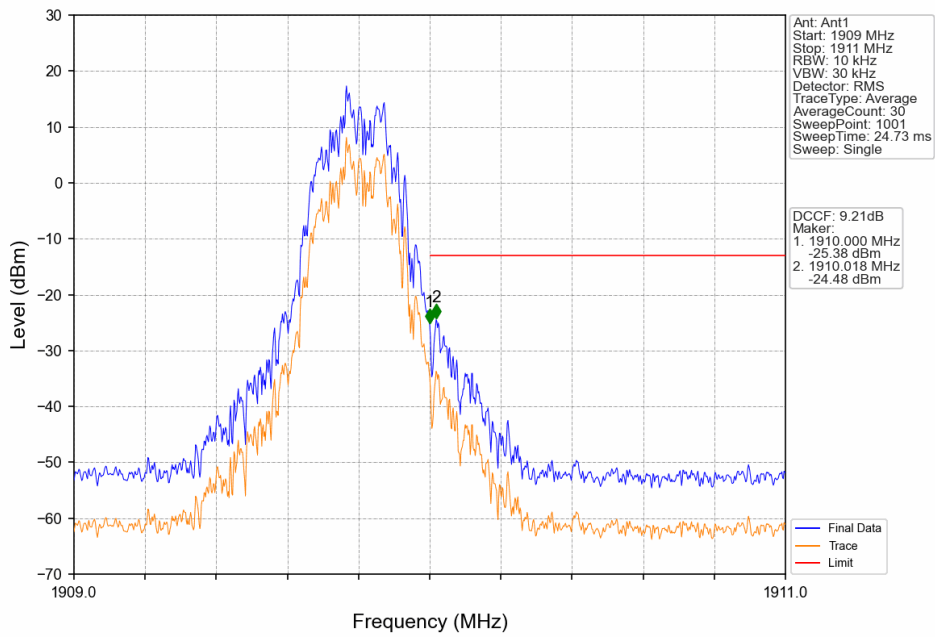
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



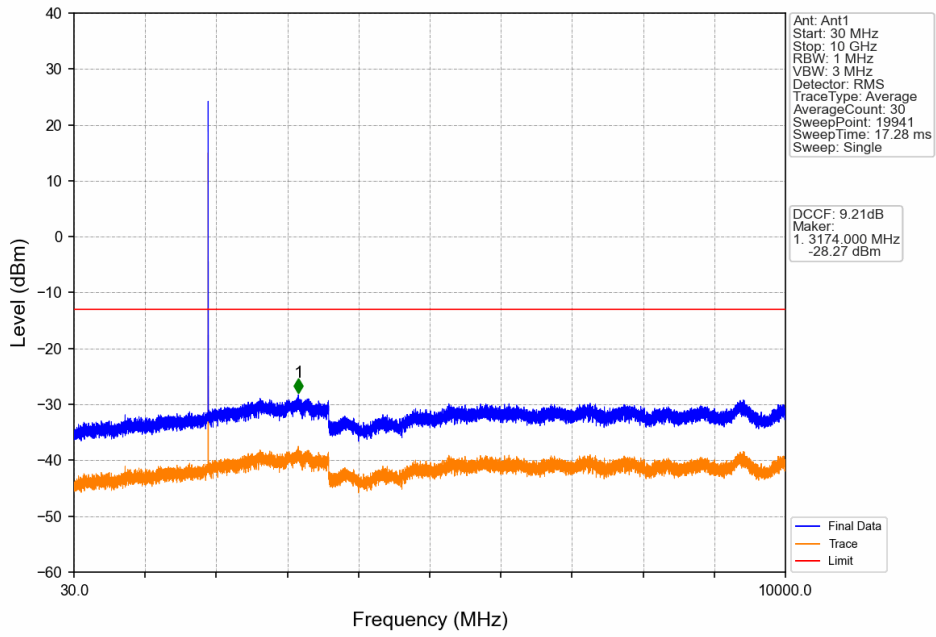
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



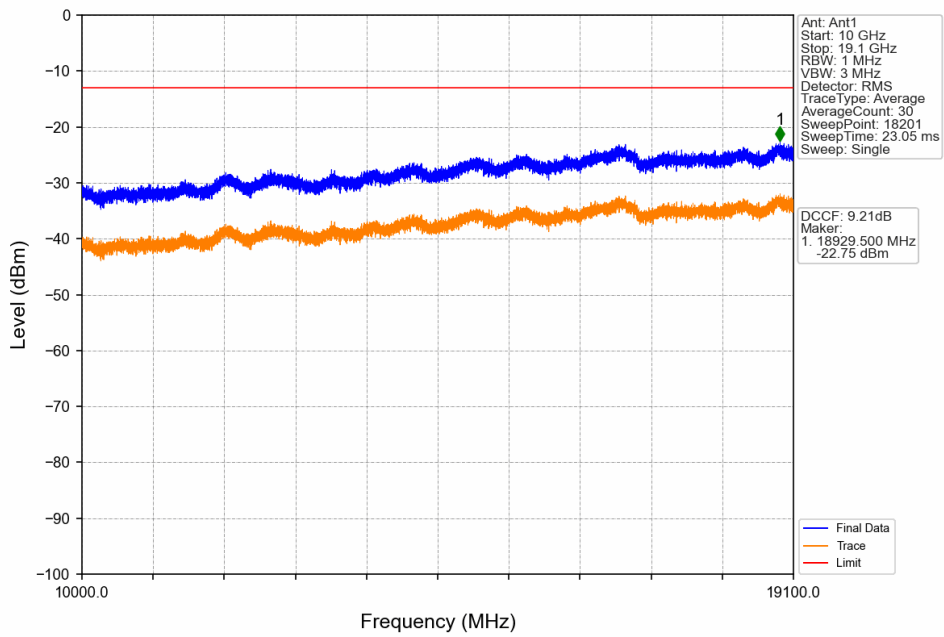
PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



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	0.6237	0.0128	ppm	248KGXW	24E	27.95
PCS1900	0.2	1850.2	1909.8	0.4217	0.0106	ppm	257KG7W	24E	26.25

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	0.4046	0.0128	ppm	248KGXW	24E	26.07
PCS1900	0.2	1850.2	1909.8	0.2735	0.0106	ppm	257KG7W	24E	24.37