

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	26.90	0.81	27.71	<=33.01	Pass		
			1880	26.26	0.81	27.07	<=33.01	Pass		
			1909.8	25.36	0.81	26.17	<=33.01	Pass		
	GPRS	1 TX Slot	1850.2	26.94	0.81	27.75	<=33.01	Pass		
			2 TX Slots	1850.2	26.24	0.81	27.05	<=33.01	Pass	
			3 TX Slots	1850.2	24.51	0.81	25.32	<=33.01	Pass	
			4 TX Slots	1850.2	23.32	0.81	24.13	<=33.01	Pass	
		1 TX Slot	1880	26.14	0.81	26.95	<=33.01	Pass		
			2 TX Slots	1880	25.44	0.81	26.25	<=33.01	Pass	
			3 TX Slots	1880	23.65	0.81	24.46	<=33.01	Pass	
			4 TX Slots	1880	22.50	0.81	23.31	<=33.01	Pass	
		1 TX Slot	1909.8	25.22	0.81	26.03	<=33.01	Pass		
			2 TX Slots	1909.8	24.47	0.81	25.28	<=33.01	Pass	
			3 TX Slots	1909.8	22.63	0.81	23.44	<=33.01	Pass	
			4 TX Slots	1909.8	21.46	0.81	22.27	<=33.01	Pass	
		EGPRS	1 TX Slot	1850.2	23.78	0.81	24.59	<=33.01	Pass	
				2 TX Slots	1850.2	22.60	0.81	23.41	<=33.01	Pass
				3 TX Slots	1850.2	20.52	0.81	21.33	<=33.01	Pass
				4 TX Slots	1850.2	20.00	0.81	20.81	<=33.01	Pass
	1 TX Slot		1880	23.52	0.81	24.33	<=33.01	Pass		
			2 TX Slots	1880	22.24	0.81	23.05	<=33.01	Pass	
			3 TX Slots	1880	20.27	0.81	21.08	<=33.01	Pass	
			4 TX Slots	1880	19.23	0.81	20.04	<=33.01	Pass	
	1 TX Slot		1909.8	22.86	0.81	23.67	<=33.01	Pass		
			2 TX Slots	1909.8	21.85	0.81	22.66	<=33.01	Pass	
			3 TX Slots	1909.8	19.67	0.81	20.48	<=33.01	Pass	
			4 TX Slots	1909.8	18.66	0.81	19.47	<=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	19.759	0.0107	-2.5 to 2.5	Pass
			3.85	18.468	0.0100	-2.5 to 2.5	Pass
			4.43	26.442	0.0143	-2.5 to 2.5	Pass

		-30	3.85	26.894	0.0145	-2.5 to 2.5	Pass		
		-20	3.85	22.632	0.0122	-2.5 to 2.5	Pass		
		-10	3.85	22.503	0.0122	-2.5 to 2.5	Pass		
		0	3.85	25.829	0.0140	-2.5 to 2.5	Pass		
		10	3.85	22.697	0.0123	-2.5 to 2.5	Pass		
		30	3.85	26.410	0.0143	-2.5 to 2.5	Pass		
		40	3.85	29.090	0.0157	-2.5 to 2.5	Pass		
		50	3.85	25.603	0.0138	-2.5 to 2.5	Pass		
		1880	20	3.27	23.762	0.0126	-2.5 to 2.5	Pass	
				3.85	19.920	0.0106	-2.5 to 2.5	Pass	
				4.43	26.604	0.0142	-2.5 to 2.5	Pass	
			-30	3.85	21.987	0.0117	-2.5 to 2.5	Pass	
			-20	3.85	24.989	0.0133	-2.5 to 2.5	Pass	
			-10	3.85	24.247	0.0129	-2.5 to 2.5	Pass	
	0		3.85	26.636	0.0142	-2.5 to 2.5	Pass		
	10		3.85	23.214	0.0123	-2.5 to 2.5	Pass		
	30		3.85	23.892	0.0127	-2.5 to 2.5	Pass		
	40		3.85	26.119	0.0139	-2.5 to 2.5	Pass		
	50		3.85	26.410	0.0140	-2.5 to 2.5	Pass		
	1909.8		20	3.27	22.794	0.0119	-2.5 to 2.5	Pass	
				3.85	25.829	0.0135	-2.5 to 2.5	Pass	
				4.43	28.121	0.0147	-2.5 to 2.5	Pass	
		-30	3.85	20.921	0.0110	-2.5 to 2.5	Pass		
		-20	3.85	25.054	0.0131	-2.5 to 2.5	Pass		
		-10	3.85	27.927	0.0146	-2.5 to 2.5	Pass		
		0	3.85	19.985	0.0105	-2.5 to 2.5	Pass		
		10	3.85	20.437	0.0107	-2.5 to 2.5	Pass		
		30	3.85	20.340	0.0107	-2.5 to 2.5	Pass		
		40	3.85	26.313	0.0138	-2.5 to 2.5	Pass		
		50	3.85	28.153	0.0147	-2.5 to 2.5	Pass		
		GPRS	1850.2	20	3.27	49.526	0.0268	-2.5 to 2.5	Pass
					3.85	42.036	0.0227	-2.5 to 2.5	Pass
					4.43	47.202	0.0255	-2.5 to 2.5	Pass
-30	3.85			46.814	0.0253	-2.5 to 2.5	Pass		
-20	3.85			43.489	0.0235	-2.5 to 2.5	Pass		
-10	3.85			41.423	0.0224	-2.5 to 2.5	Pass		
0	3.85			41.972	0.0227	-2.5 to 2.5	Pass		
10	3.85			41.746	0.0226	-2.5 to 2.5	Pass		
30	3.85			38.000	0.0205	-2.5 to 2.5	Pass		
40	3.85			42.682	0.0231	-2.5 to 2.5	Pass		
50	3.85			36.806	0.0199	-2.5 to 2.5	Pass		
1880	20			3.27	37.484	0.0199	-2.5 to 2.5	Pass	
				3.85	36.548	0.0194	-2.5 to 2.5	Pass	
				4.43	39.679	0.0211	-2.5 to 2.5	Pass	
	-30		3.85	39.712	0.0211	-2.5 to 2.5	Pass		
	-20		3.85	37.129	0.0197	-2.5 to 2.5	Pass		
	-10		3.85	38.872	0.0207	-2.5 to 2.5	Pass		
	0		3.85	40.260	0.0214	-2.5 to 2.5	Pass		
	10		3.85	38.226	0.0203	-2.5 to 2.5	Pass		
	30		3.85	38.452	0.0205	-2.5 to 2.5	Pass		
	40		3.85	38.097	0.0203	-2.5 to 2.5	Pass		
	50		3.85	34.546	0.0184	-2.5 to 2.5	Pass		
	1909.8		20	3.27	36.515	0.0191	-2.5 to 2.5	Pass	
				3.85	32.221	0.0169	-2.5 to 2.5	Pass	
				4.43	39.130	0.0205	-2.5 to 2.5	Pass	

		-30	3.85	40.745	0.0213	-2.5 to 2.5	Pass	
		-20	3.85	38.065	0.0199	-2.5 to 2.5	Pass	
		-10	3.85	36.838	0.0193	-2.5 to 2.5	Pass	
		0	3.85	35.805	0.0187	-2.5 to 2.5	Pass	
		10	3.85	42.165	0.0221	-2.5 to 2.5	Pass	
		30	3.85	35.418	0.0185	-2.5 to 2.5	Pass	
		40	3.85	38.904	0.0204	-2.5 to 2.5	Pass	
EGPRS	1850.2	50	3.85	34.740	0.0182	-2.5 to 2.5	Pass	
		20	3.27	43.005	0.0232	-2.5 to 2.5	Pass	
			3.85	37.484	0.0203	-2.5 to 2.5	Pass	
			4.43	37.290	0.0202	-2.5 to 2.5	Pass	
		-30	3.85	32.512	0.0176	-2.5 to 2.5	Pass	
		-20	3.85	30.672	0.0166	-2.5 to 2.5	Pass	
		-10	3.85	33.061	0.0179	-2.5 to 2.5	Pass	
		0	3.85	34.804	0.0188	-2.5 to 2.5	Pass	
		10	3.85	34.578	0.0187	-2.5 to 2.5	Pass	
		30	3.85	29.445	0.0159	-2.5 to 2.5	Pass	
		40	3.85	27.895	0.0151	-2.5 to 2.5	Pass	
		50	3.85	34.707	0.0188	-2.5 to 2.5	Pass	
		1880	20	3.27	32.706	0.0174	-2.5 to 2.5	Pass
				3.85	36.451	0.0194	-2.5 to 2.5	Pass
	4.43			33.900	0.0180	-2.5 to 2.5	Pass	
	-30		3.85	37.548	0.0200	-2.5 to 2.5	Pass	
	-20		3.85	38.323	0.0204	-2.5 to 2.5	Pass	
	-10		3.85	35.547	0.0189	-2.5 to 2.5	Pass	
	0		3.85	37.774	0.0201	-2.5 to 2.5	Pass	
	10		3.85	31.576	0.0168	-2.5 to 2.5	Pass	
	30		3.85	33.803	0.0180	-2.5 to 2.5	Pass	
	40		3.85	31.995	0.0170	-2.5 to 2.5	Pass	
	50		3.85	31.253	0.0166	-2.5 to 2.5	Pass	
	1909.8		20	3.27	35.902	0.0188	-2.5 to 2.5	Pass
				3.85	33.158	0.0174	-2.5 to 2.5	Pass
				4.43	33.836	0.0177	-2.5 to 2.5	Pass
		-30	3.85	35.547	0.0186	-2.5 to 2.5	Pass	
		-20	3.85	31.963	0.0167	-2.5 to 2.5	Pass	
		-10	3.85	30.994	0.0162	-2.5 to 2.5	Pass	
		0	3.85	34.514	0.0181	-2.5 to 2.5	Pass	
10		3.85	35.062	0.0184	-2.5 to 2.5	Pass		
30		3.85	31.091	0.0163	-2.5 to 2.5	Pass		
40		3.85	31.995	0.0168	-2.5 to 2.5	Pass		
50		3.85	32.932	0.0172	-2.5 to 2.5	Pass		

3. Modulation Characteristics

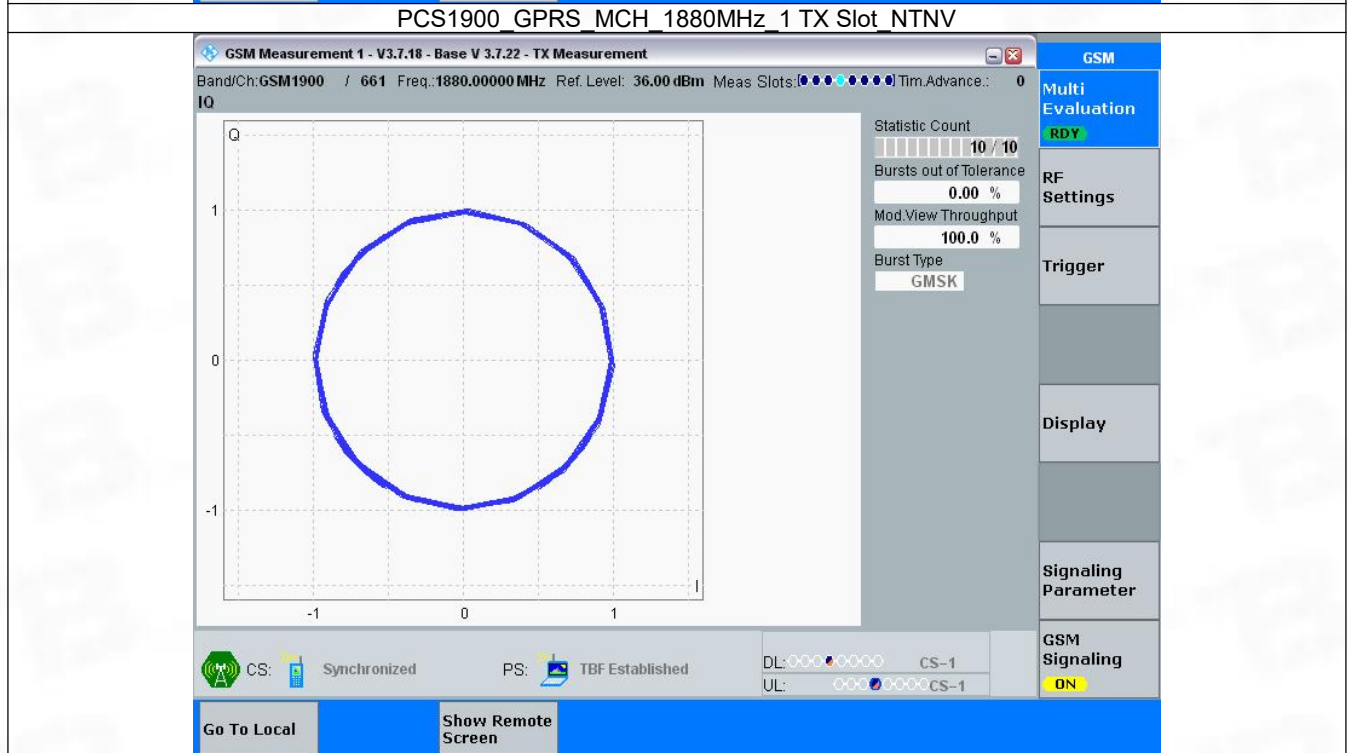
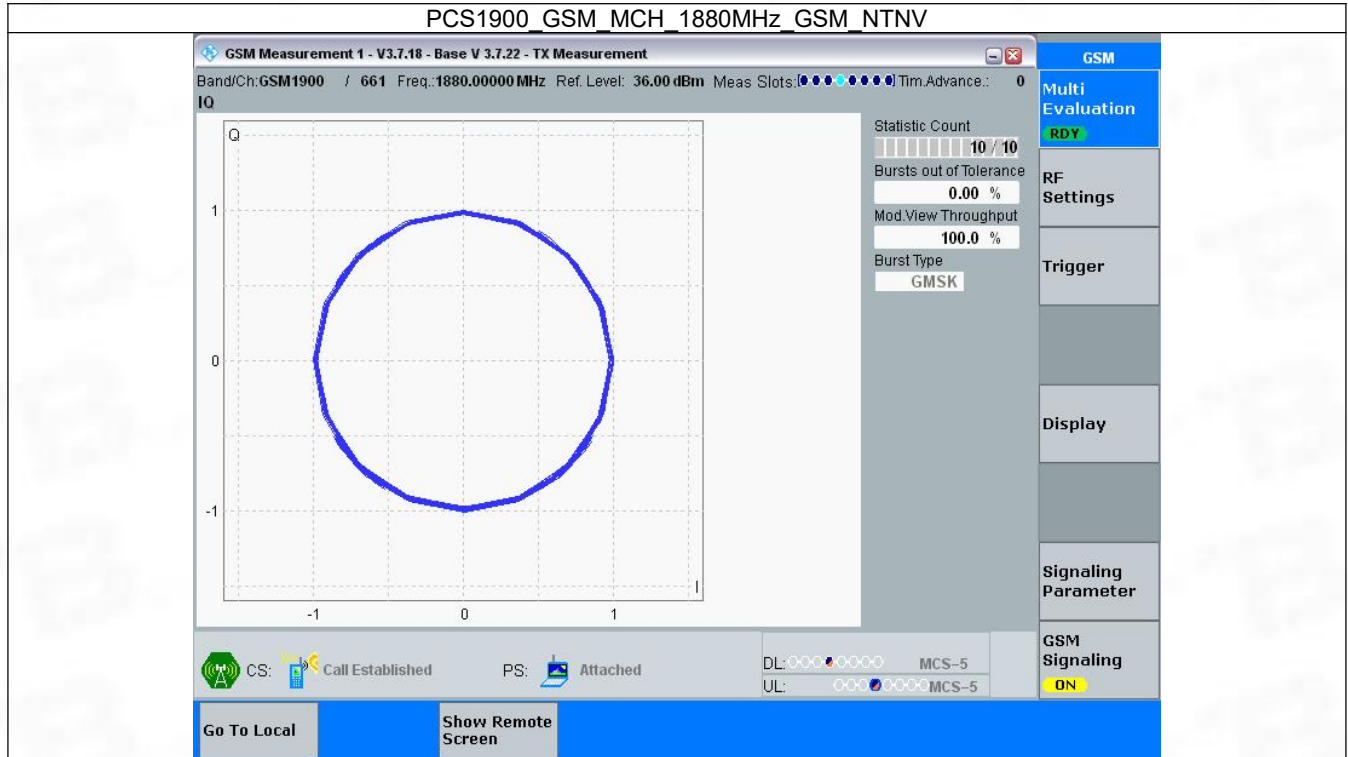
3.1 PCS1900

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: ●●●●●● Tim. Advance.: **0**

GSM

Multi Evaluation

RDY

RF Settings

Trigger

Display

Signaling Parameter

GSM Signaling

ON

Statistic Count
■■■■■■■■■■ **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

Go To Local

Show Remote Screen

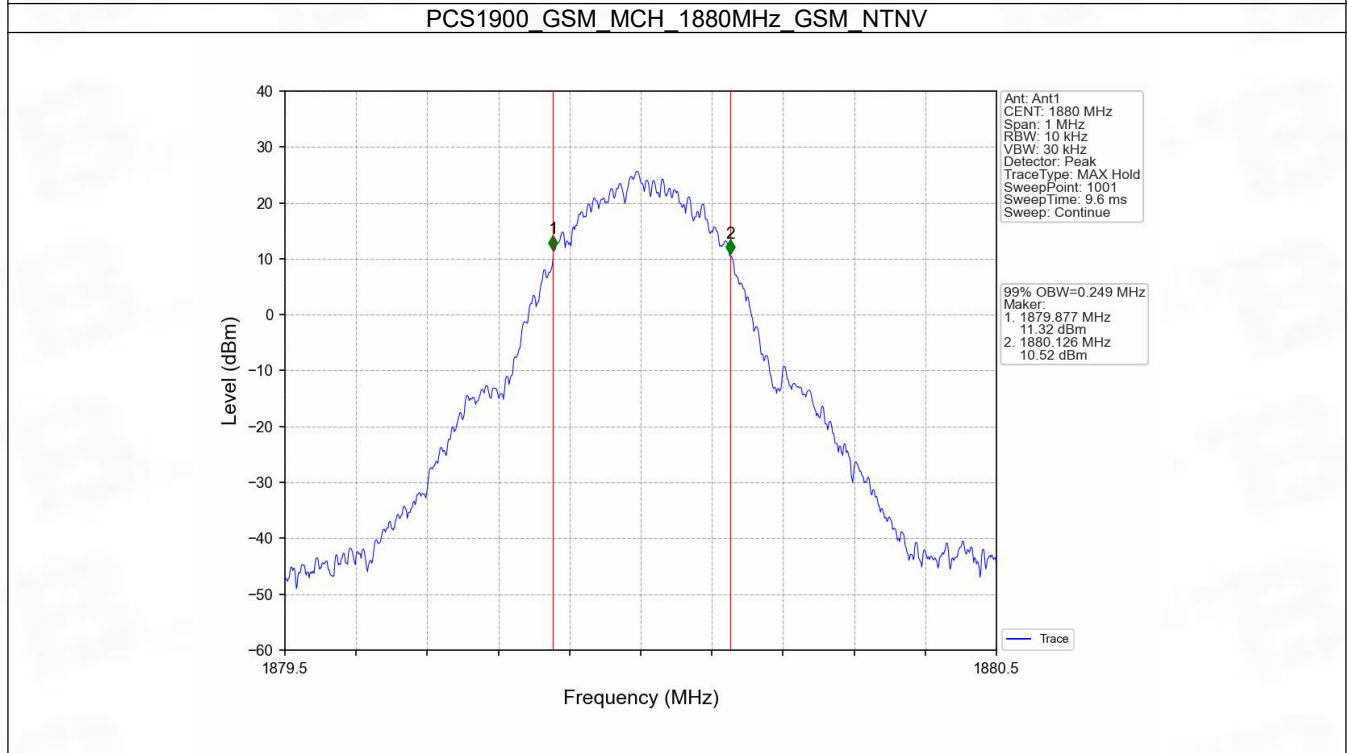
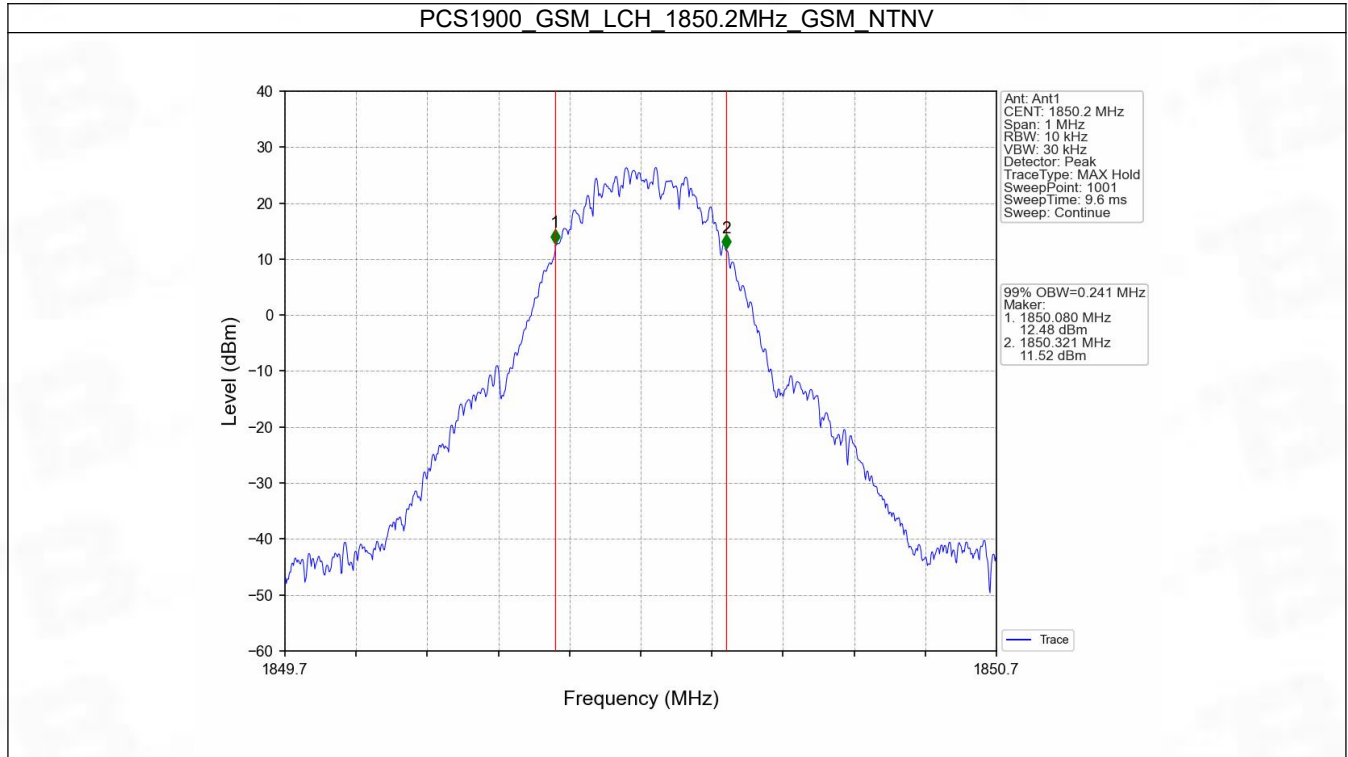
4. 99% & 26dB Bandwidth

4.1 PCS1900_OBW

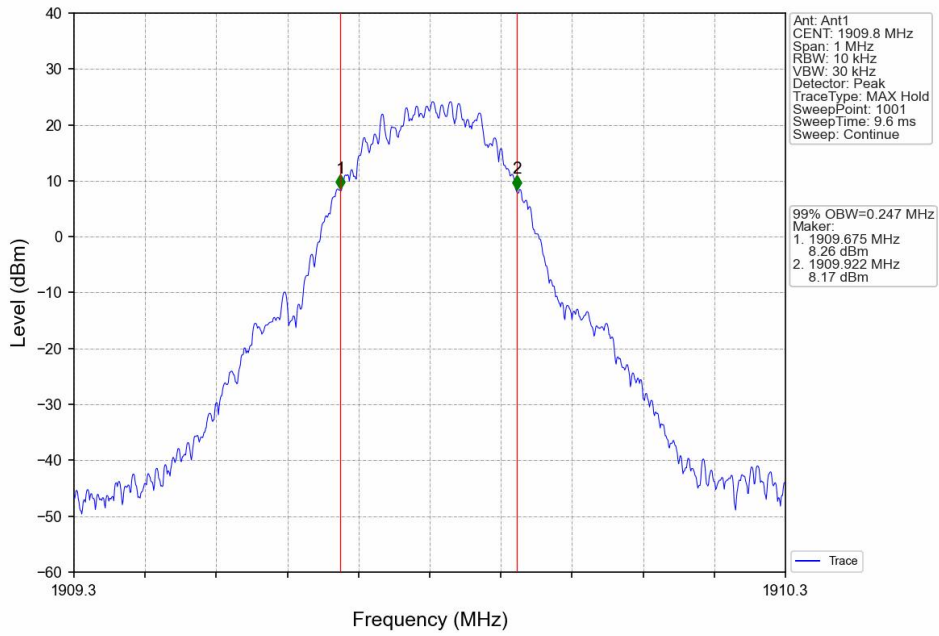
4.1.1 Test Result

Band: PCS1900					
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	GSM	GSM	1850.2	0.241	Pass
			1880	0.249	Pass
			1909.8	0.247	Pass
	GPRS	1 TX Slot	1850.2	0.242	Pass
			1880	0.245	Pass
			1909.8	0.246	Pass
	EGPRS	1 TX Slot	1850.2	0.255	Pass
			1880	0.253	Pass
			1909.8	0.252	Pass

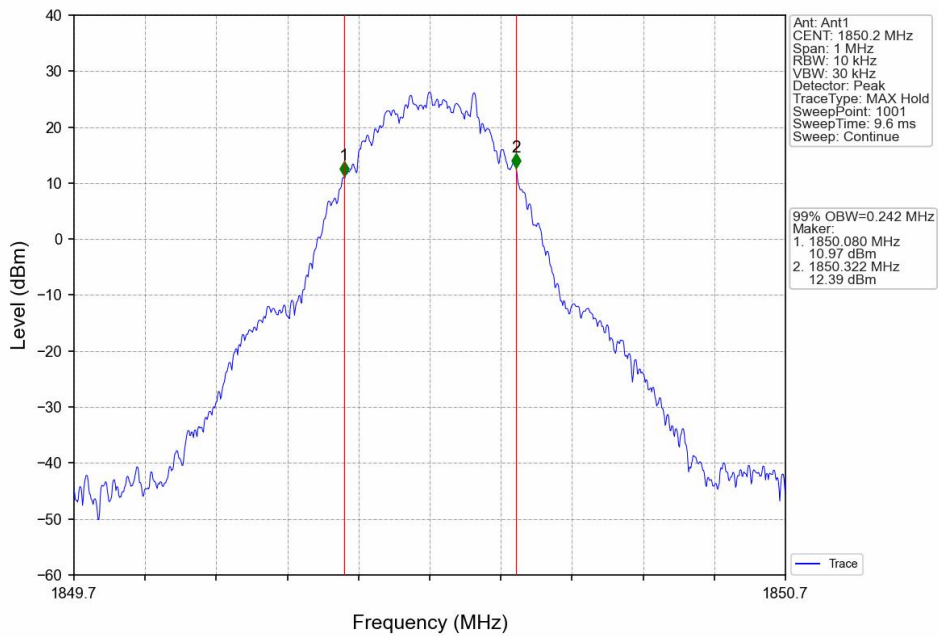
4.1.2 Test Graph



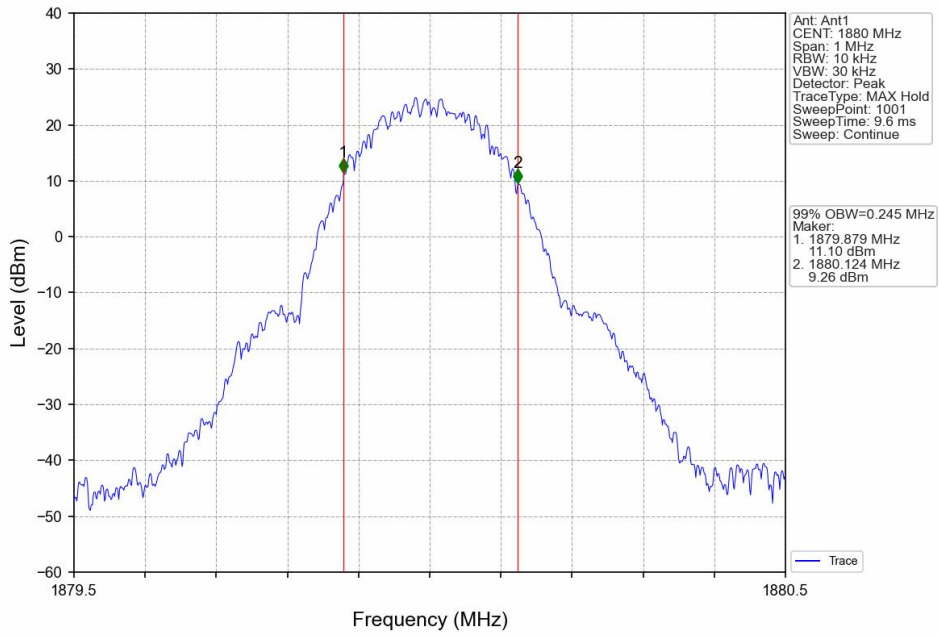
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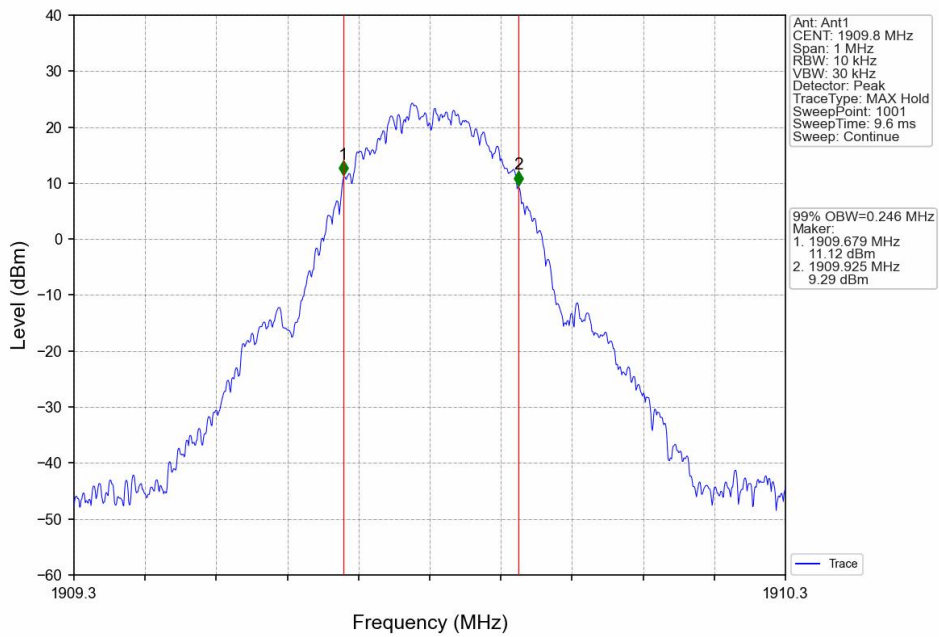
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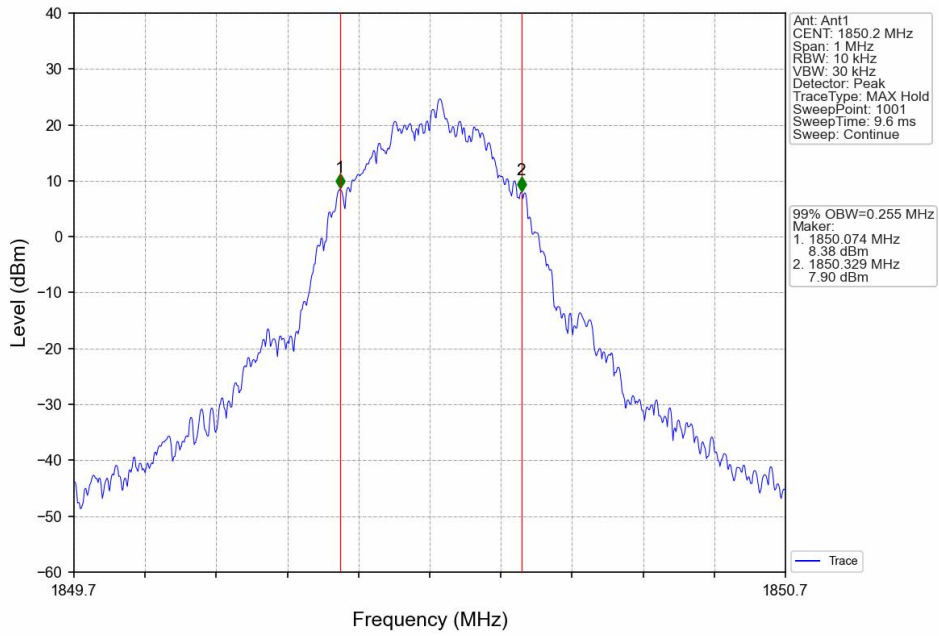
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



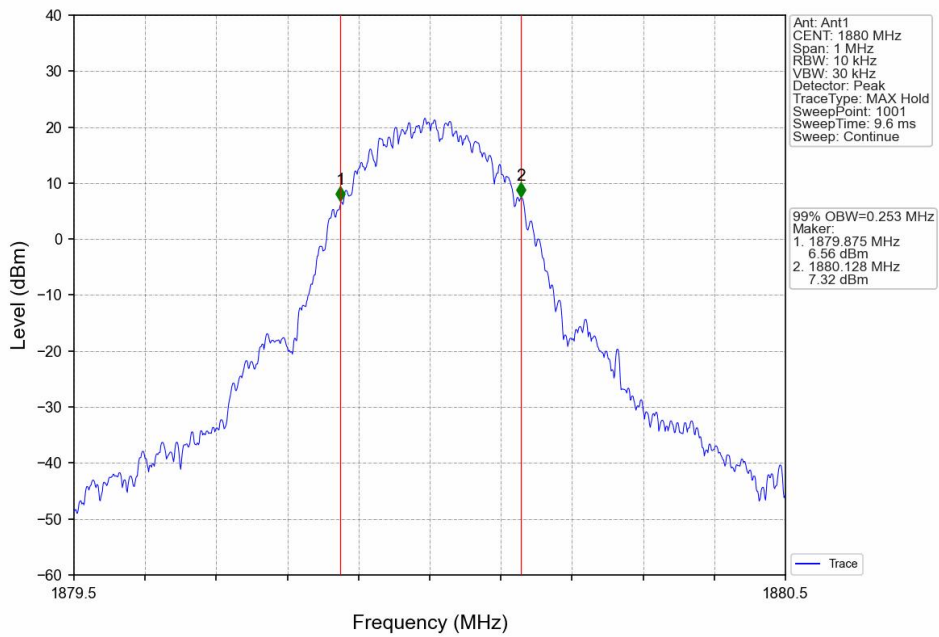
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



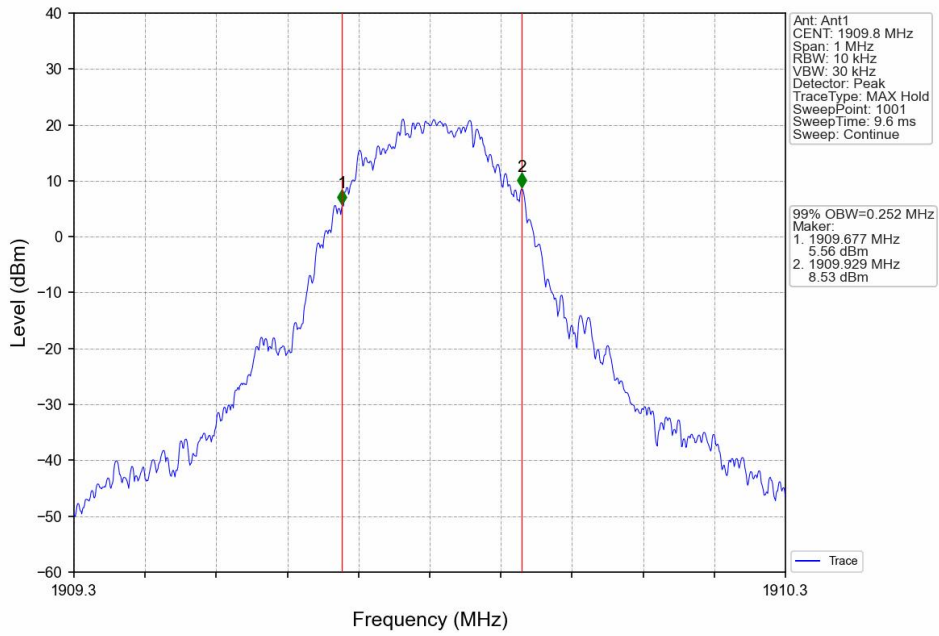
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PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV

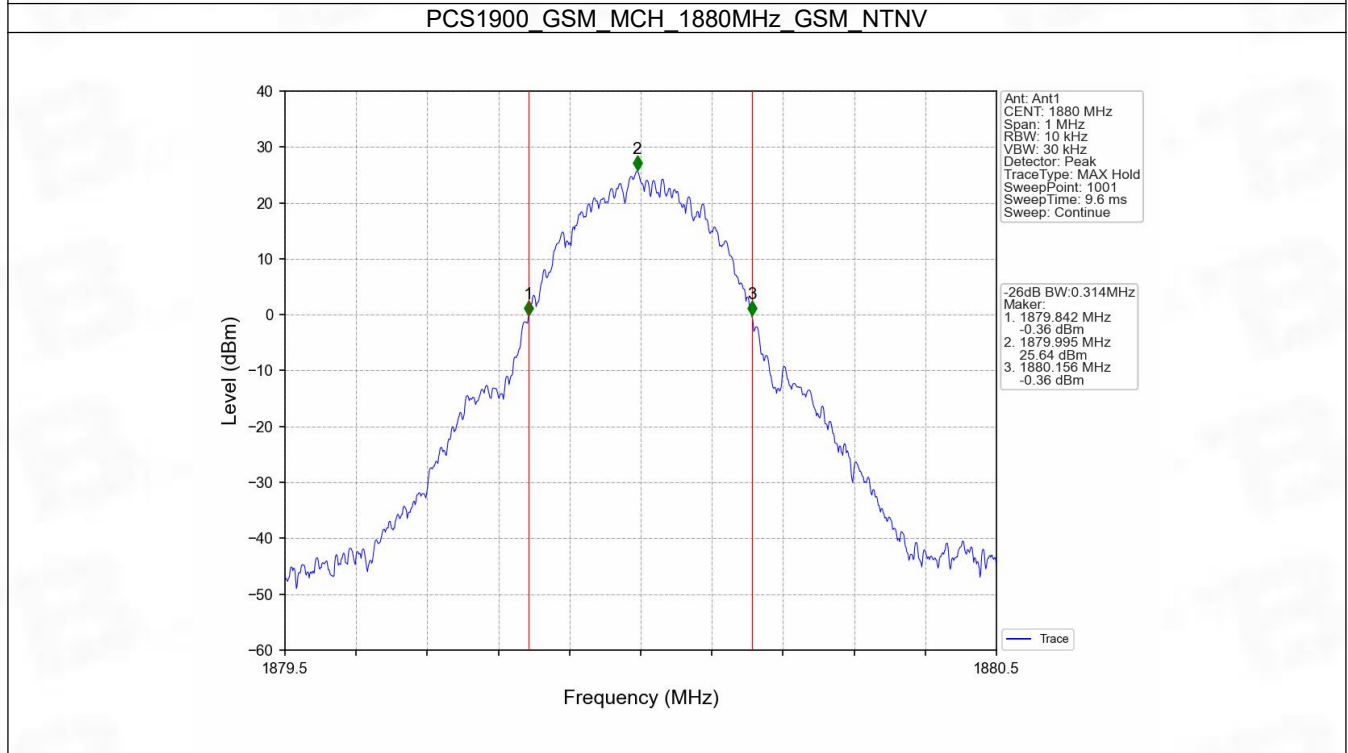
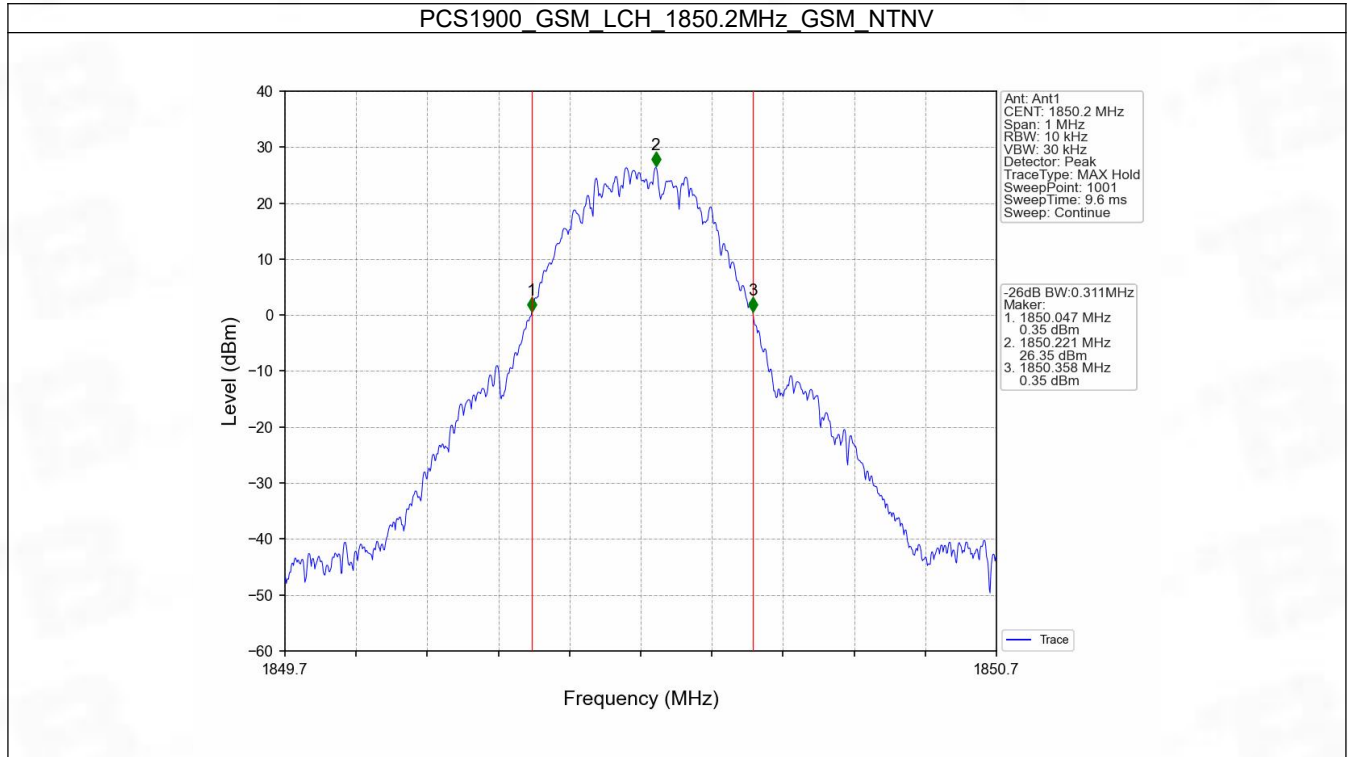


4.2 PCS1900_XDB

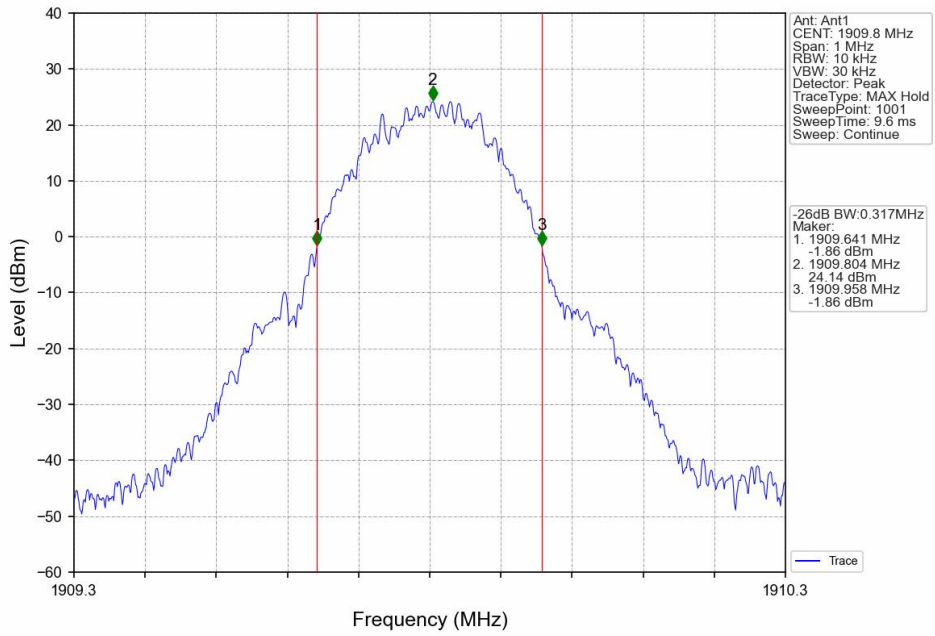
4.2.1 Test Result

Band: PCS1900					
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	GSM	GSM	1850.2	0.311	Pass
			1880	0.314	Pass
			1909.8	0.317	Pass
	GPRS	1 TX Slot	1850.2	0.315	Pass
			1880	0.318	Pass
			1909.8	0.321	Pass
	EGPRS	1 TX Slot	1850.2	0.309	Pass
			1880	0.320	Pass
			1909.8	0.320	Pass

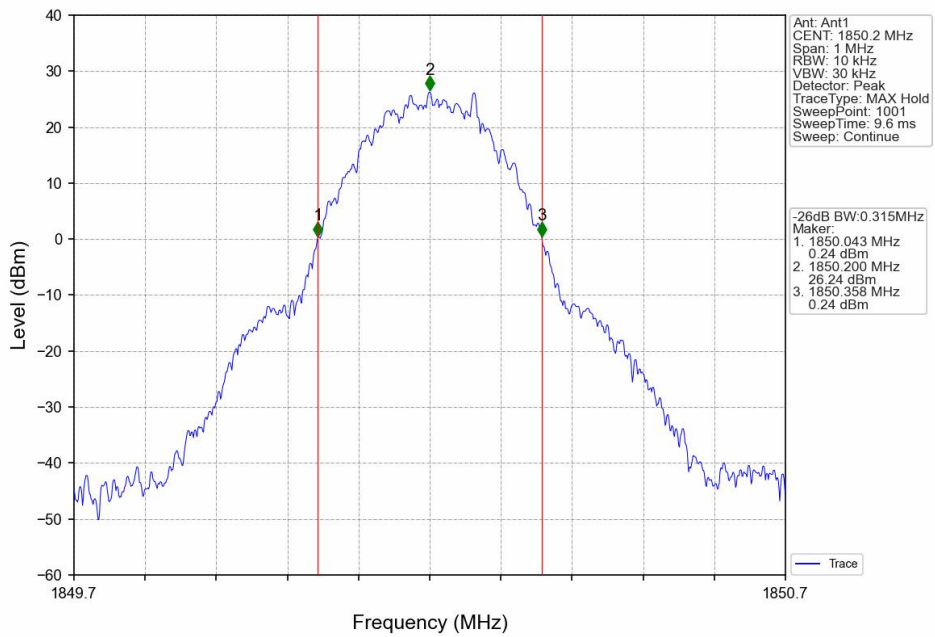
4.2.2 Test Graph



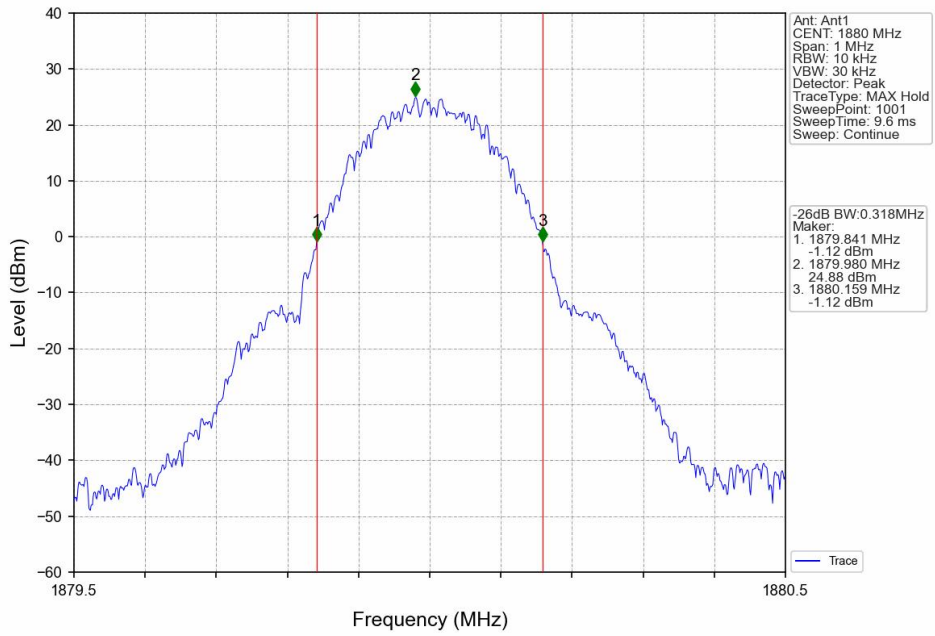
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



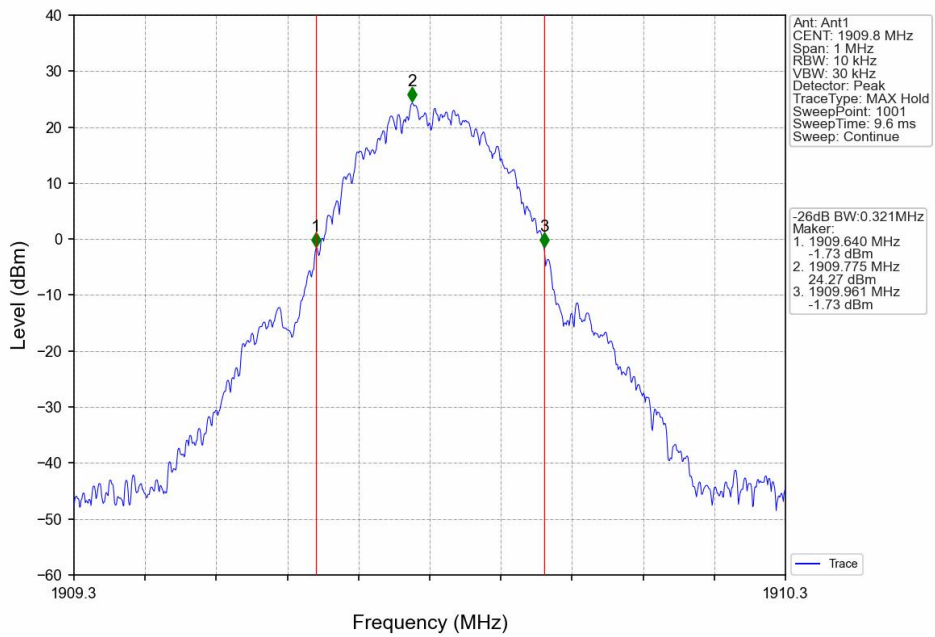
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



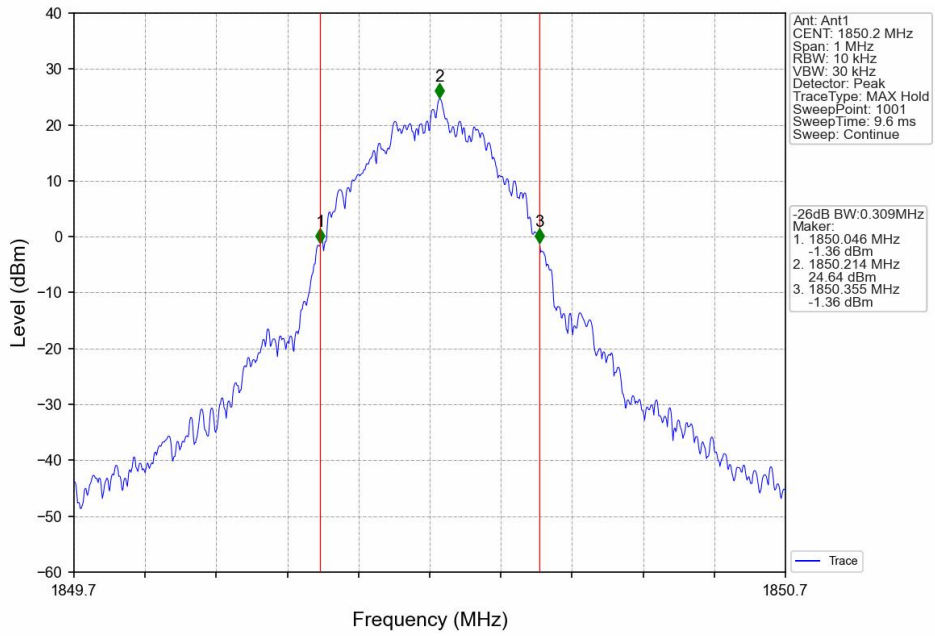
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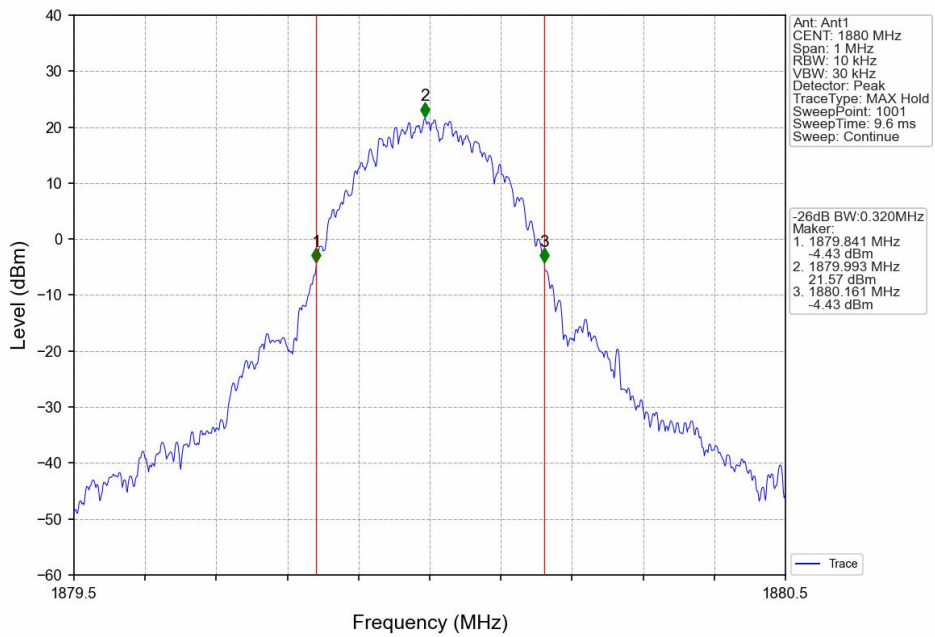
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



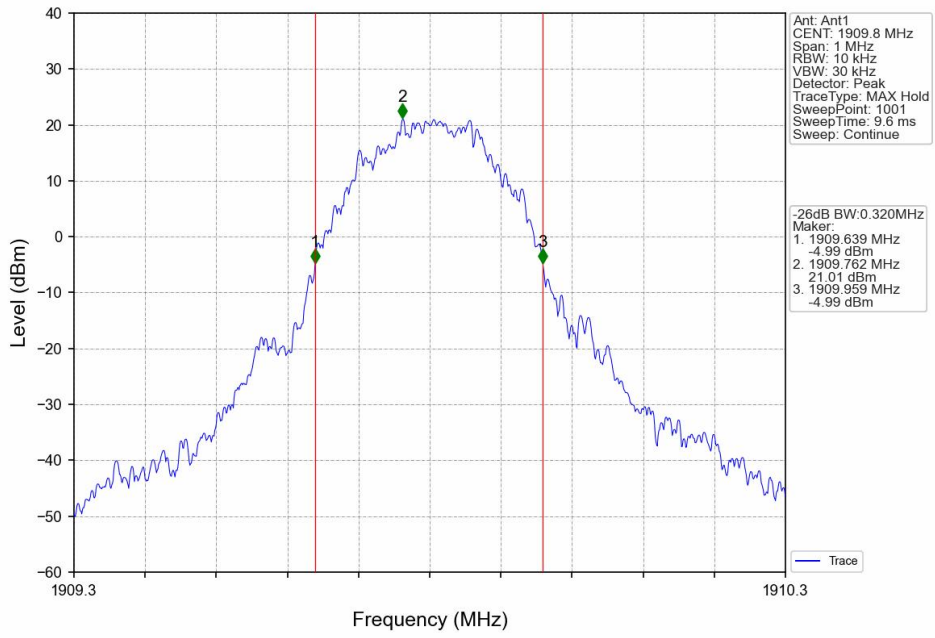
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



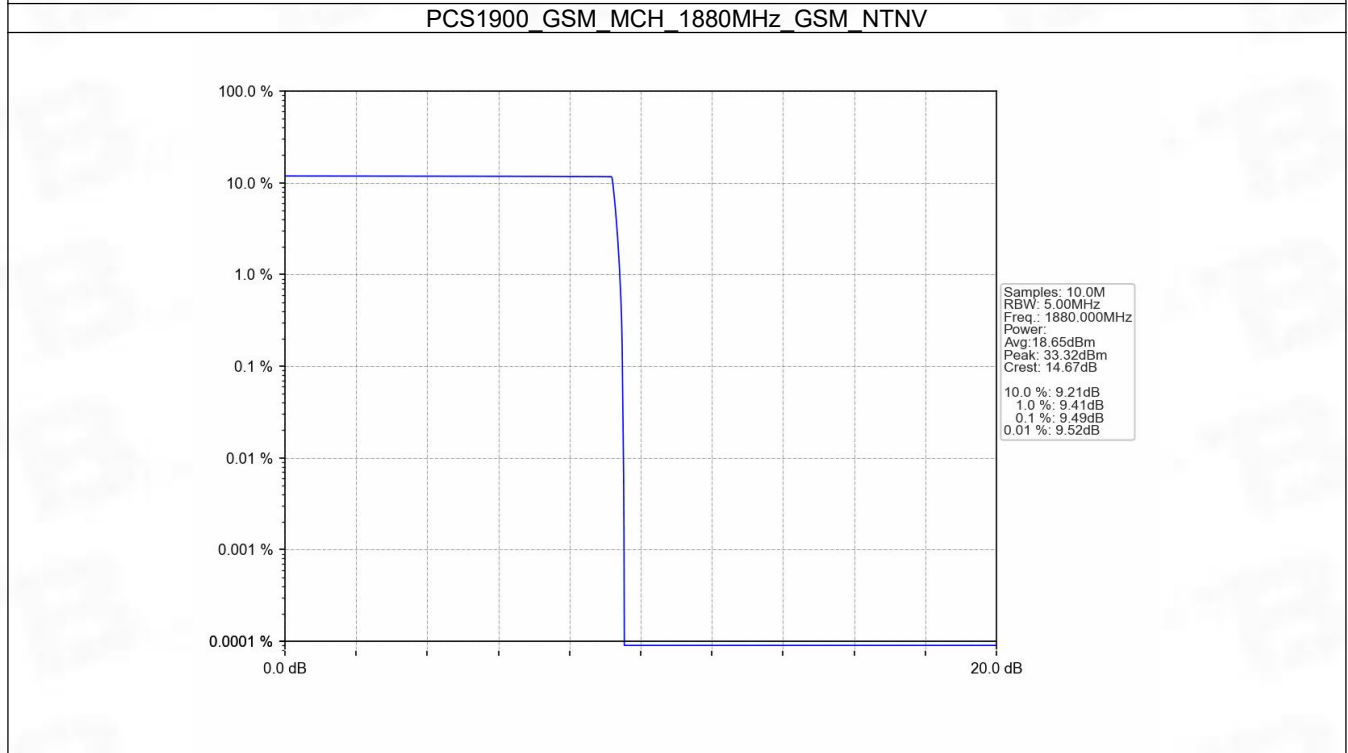
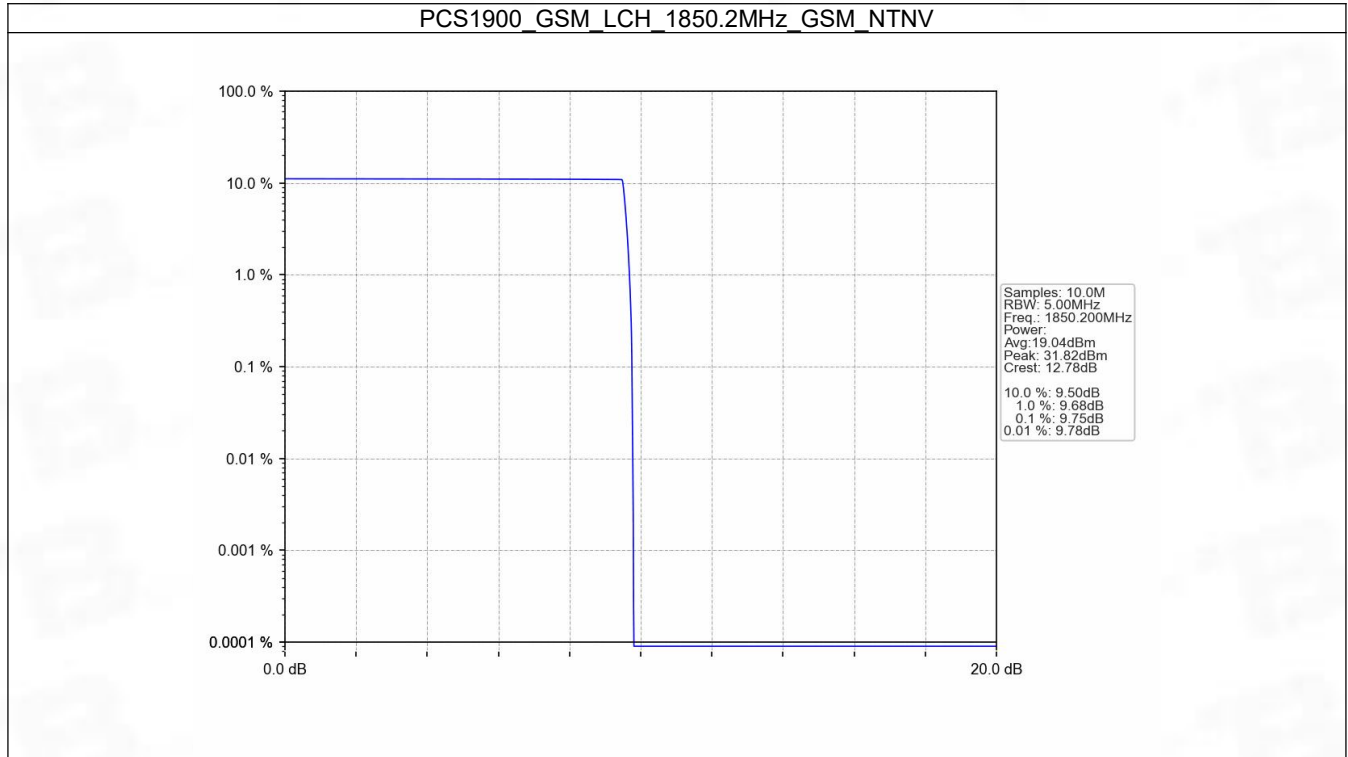
5. Peak-Average Ratio

5.1 PCS1900

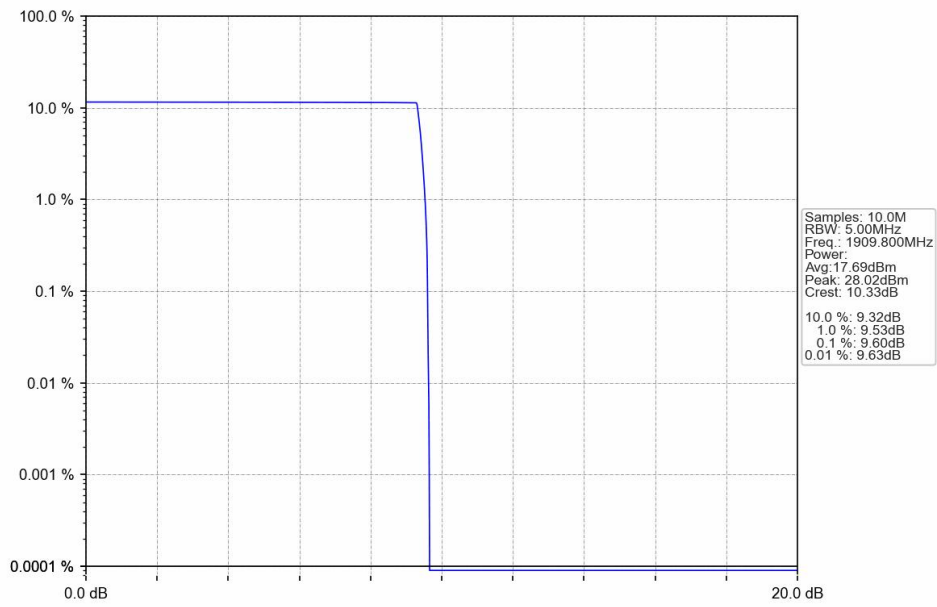
5.1.1 Test Result

Band: PCS1900						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	9.75	<=13	Pass
			1880	9.49	<=13	Pass
			1909.8	9.60	<=13	Pass
	GPRS	4 TX Slots	1850.2	3.76	<=13	Pass
			1880	3.83	<=13	Pass
			1909.8	3.99	<=13	Pass
	EGPRS	4 TX Slots	1850.2	7.73	<=13	Pass
			1880	7.26	<=13	Pass
			1909.8	6.65	<=13	Pass

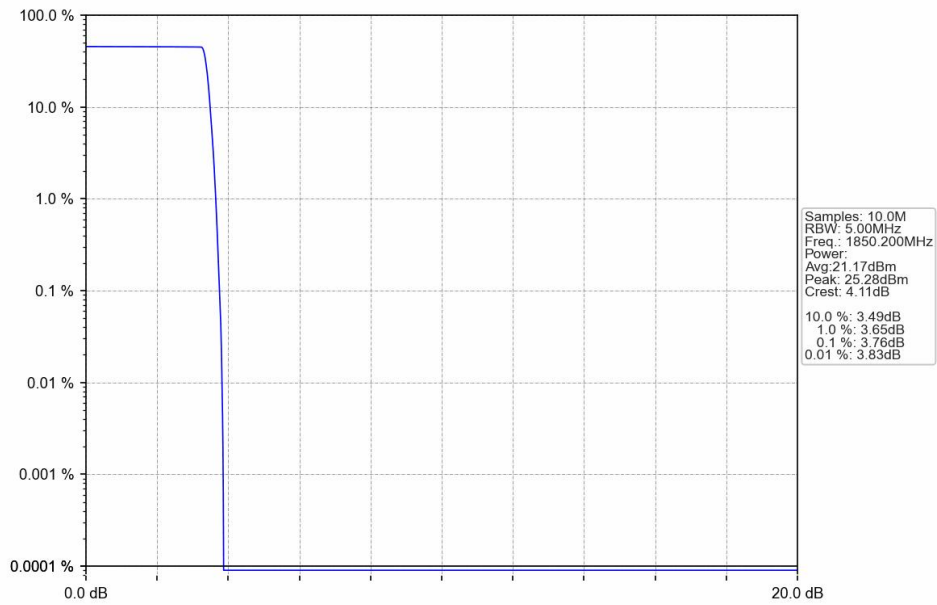
5.1.2 Test Graph



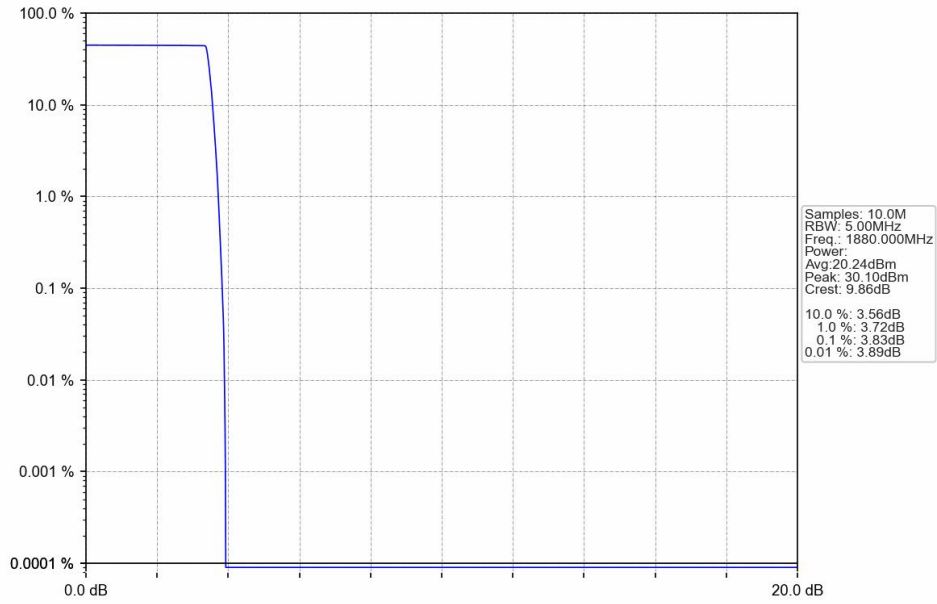
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



PCS1900_GPRS_LCH_1850.2MHz_4 TX Slots_NTNV



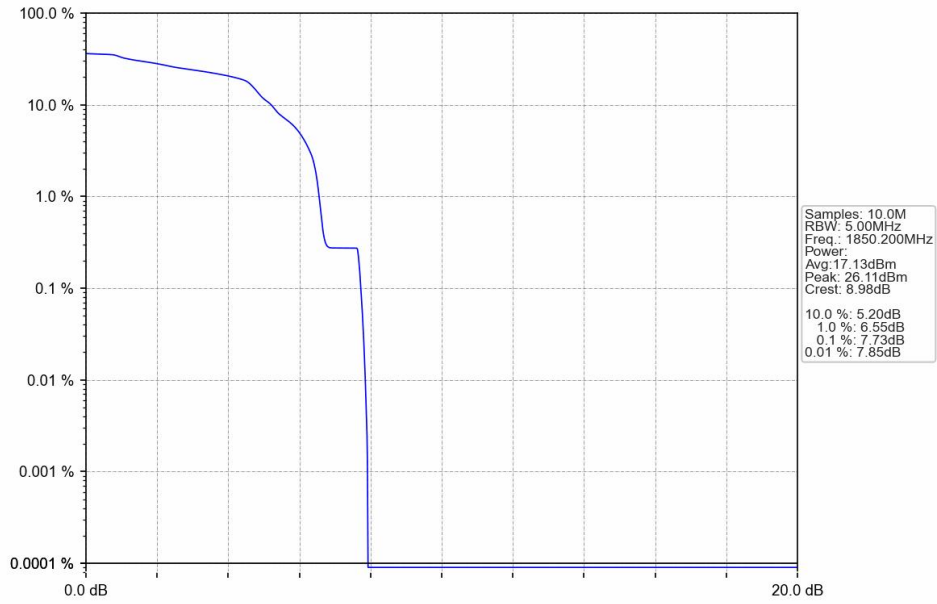
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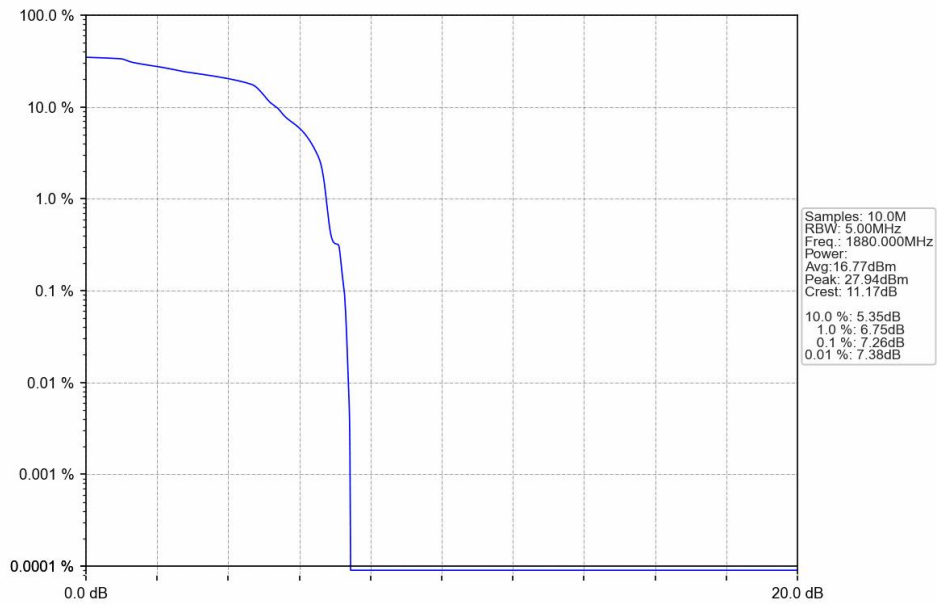
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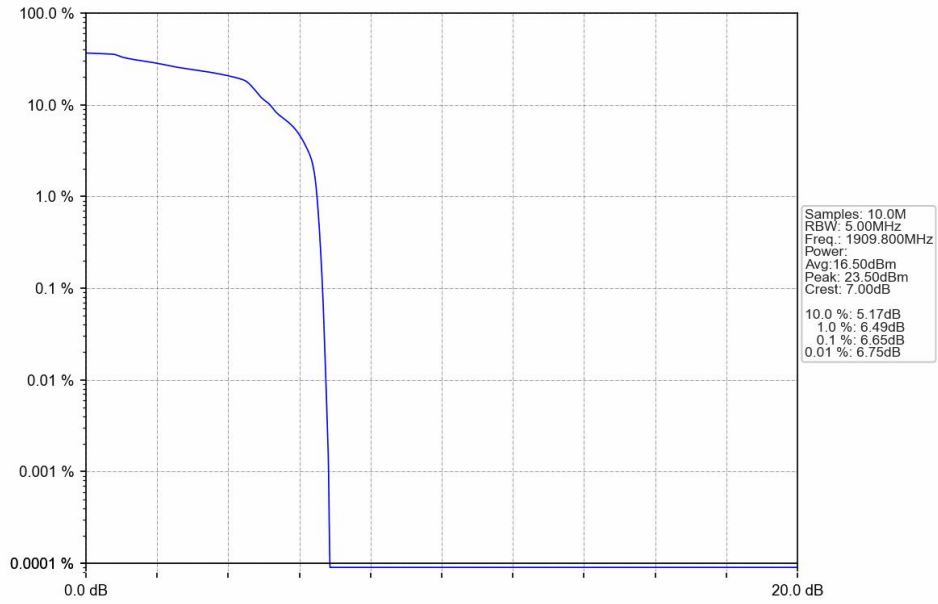
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PCS1900_EGPRS_MCH_1880MHz_4 TX Slots_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_4 TX Slots_NTNV



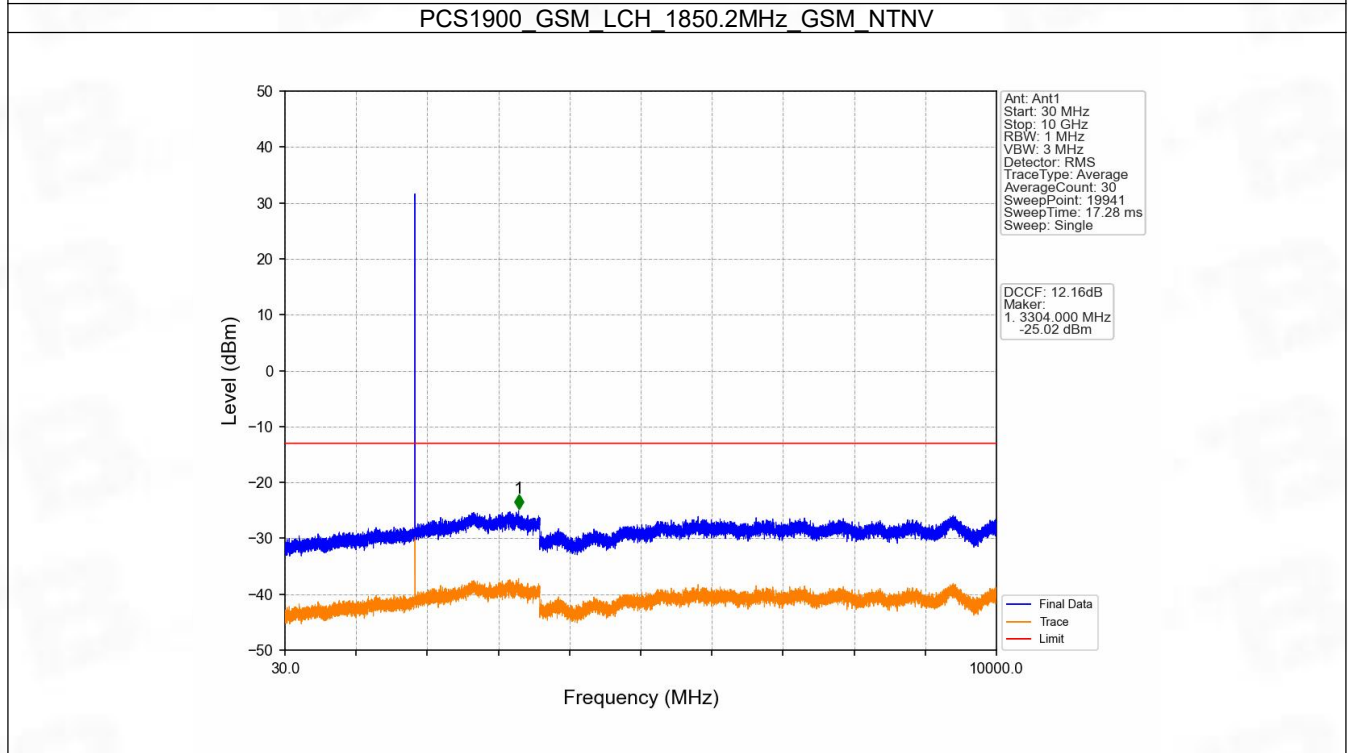
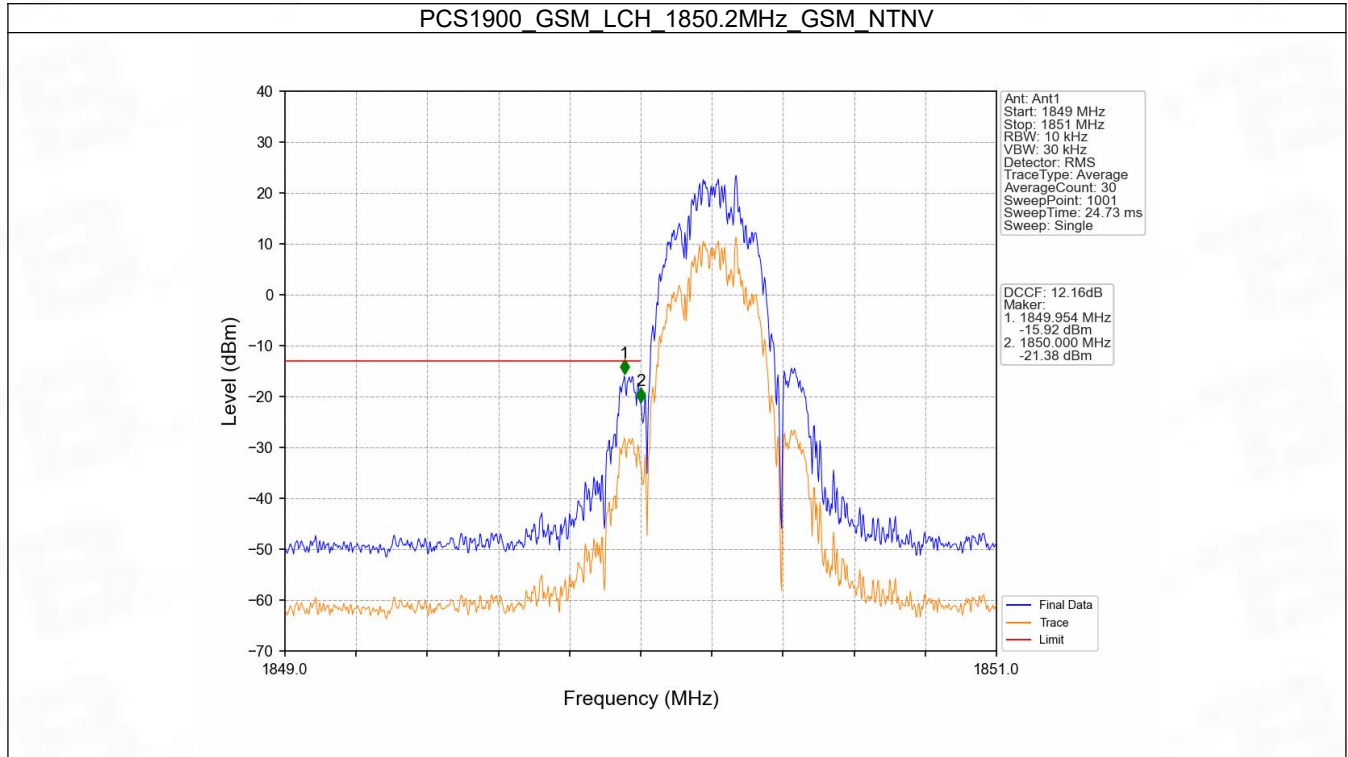
6. Spurious Emission

6.1 PCS1900

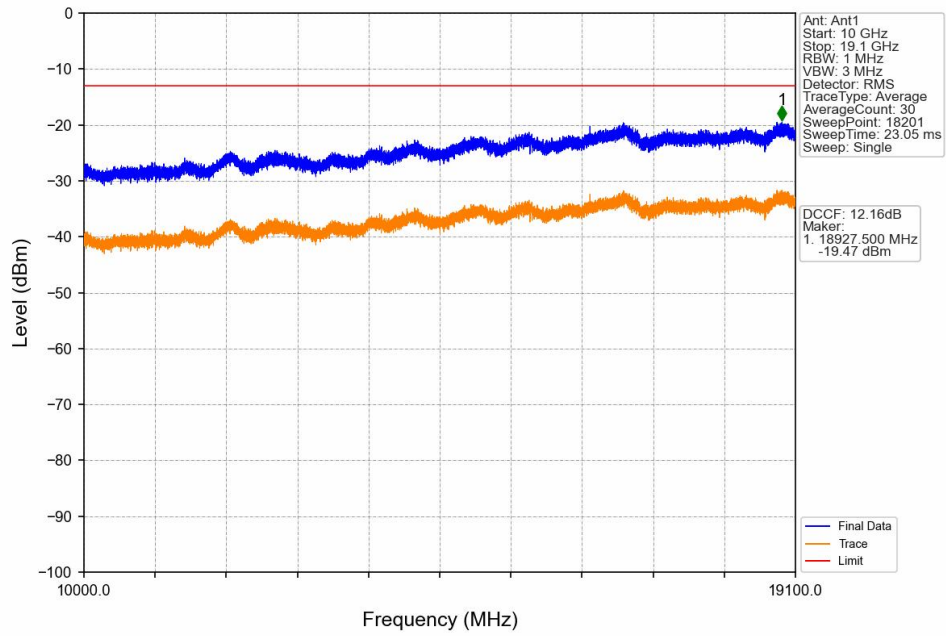
6.1.1 Test Result

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

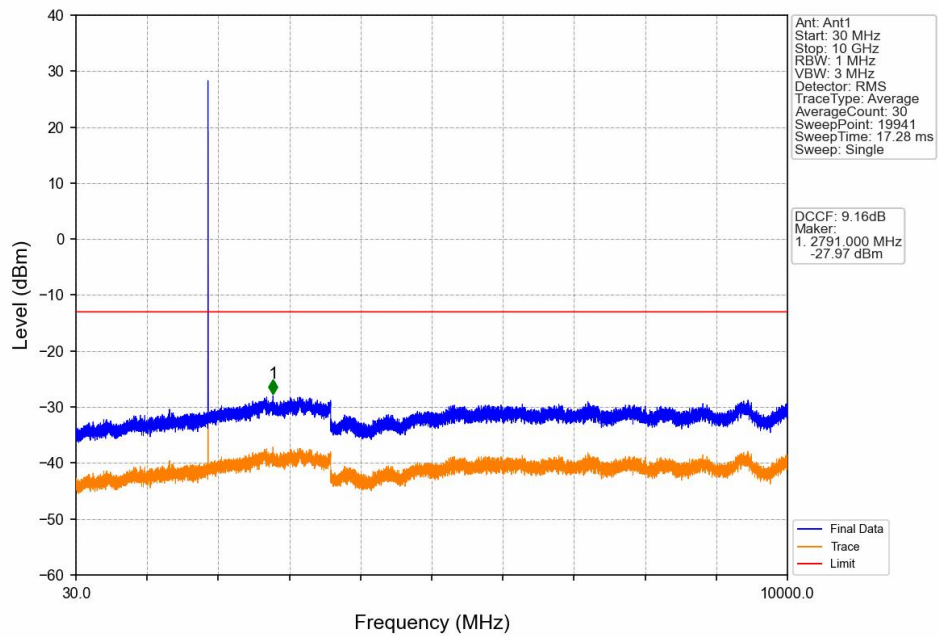
6.1.2 Test Graph



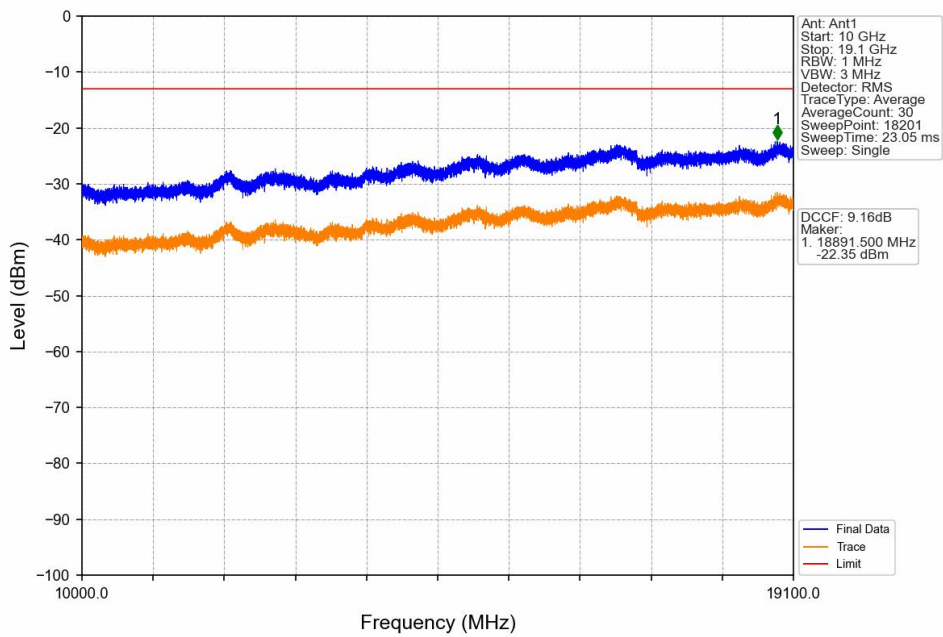
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



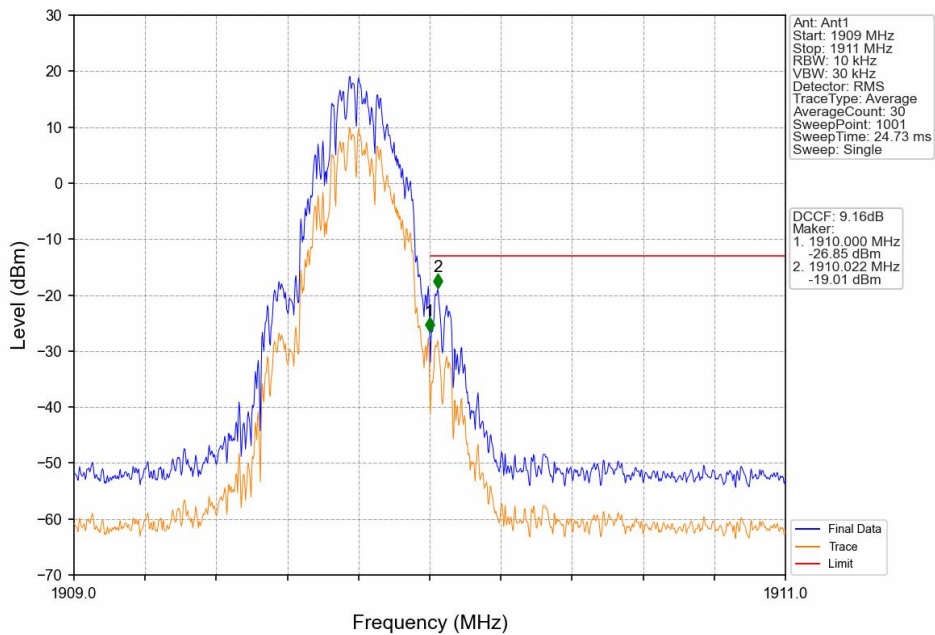
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



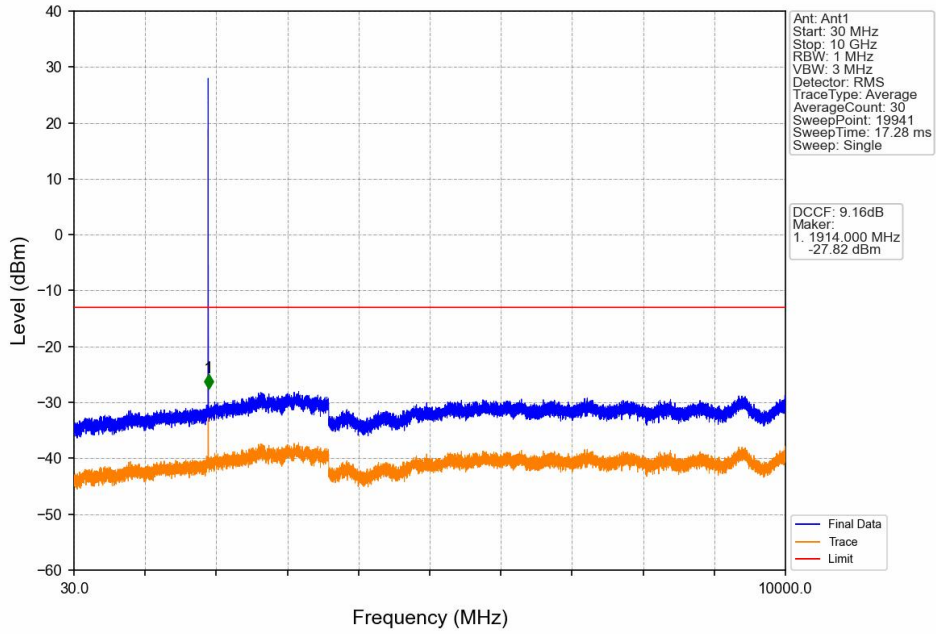
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



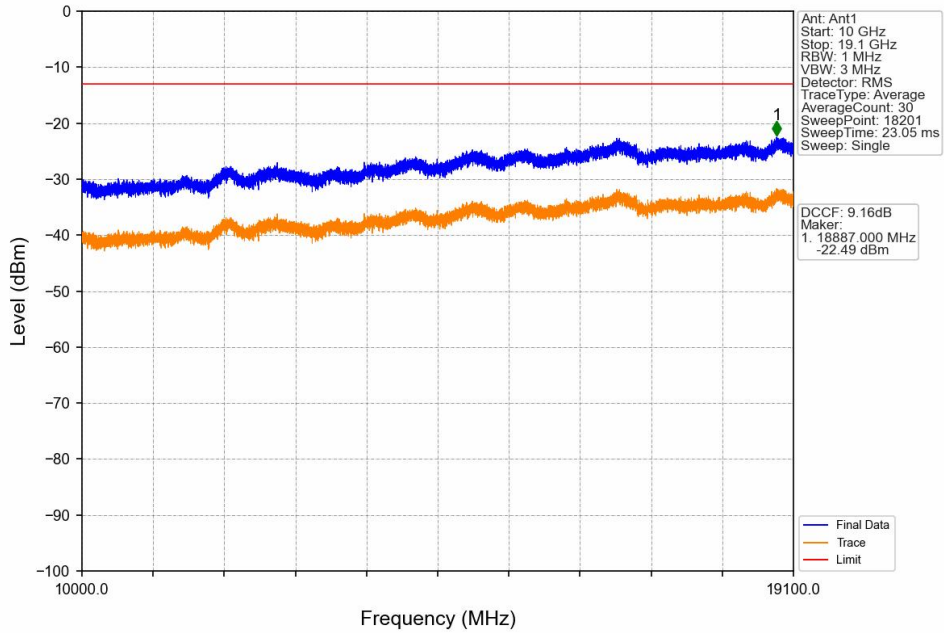
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



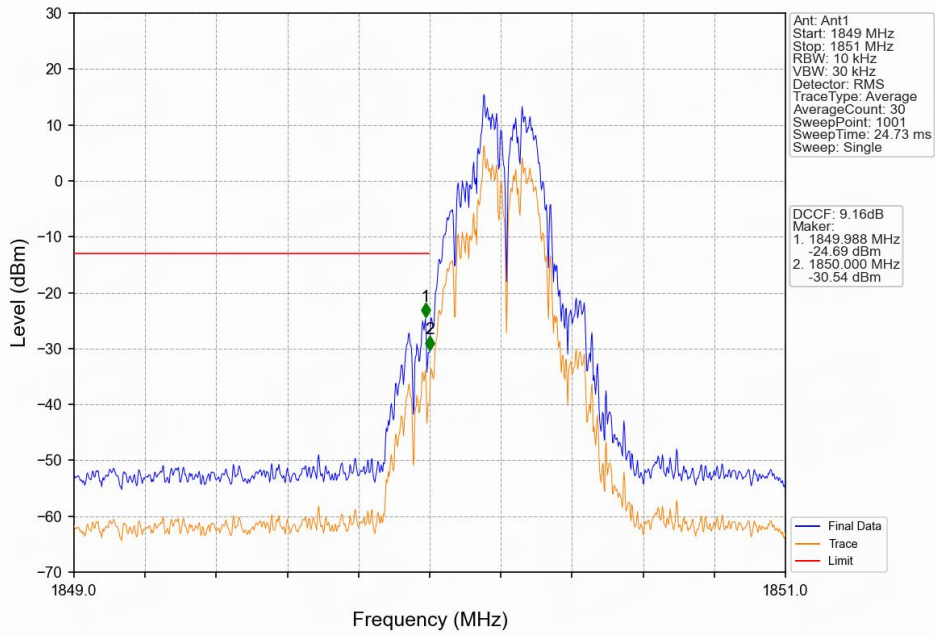
PCS1900 GSM HCH 1909.8MHz GSM NTN



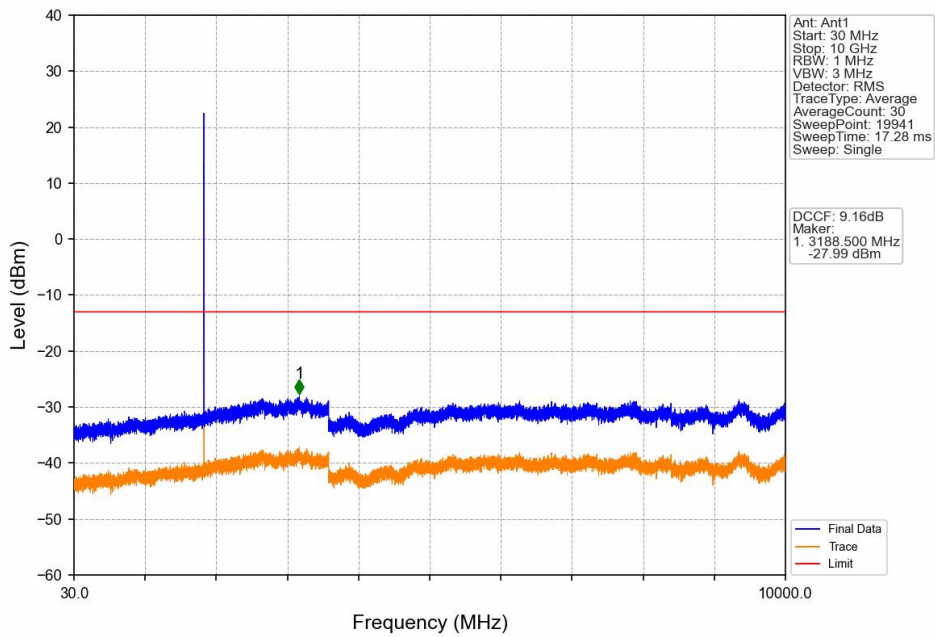
PCS1900 GSM HCH 1909.8MHz GSM NTN



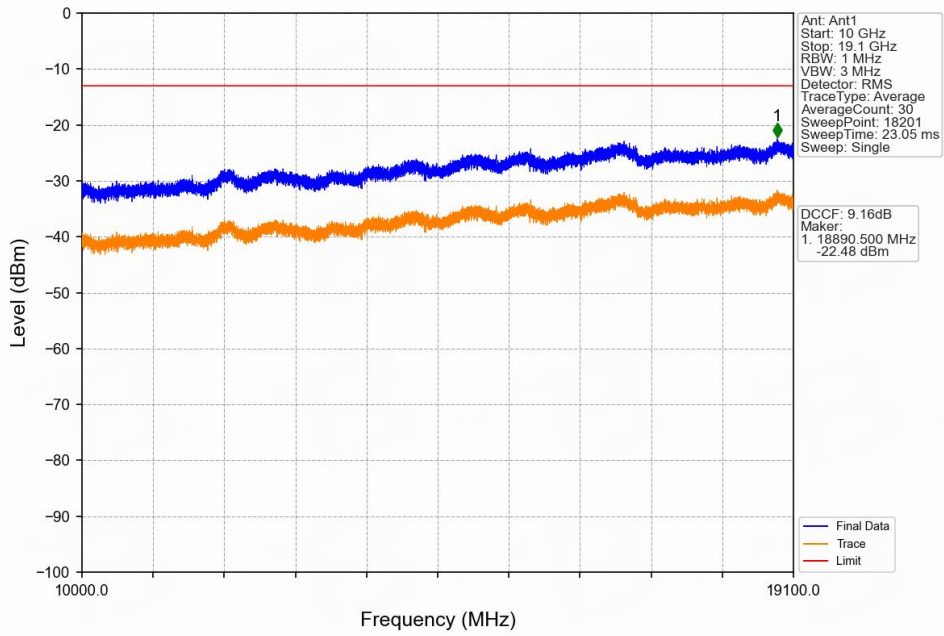
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



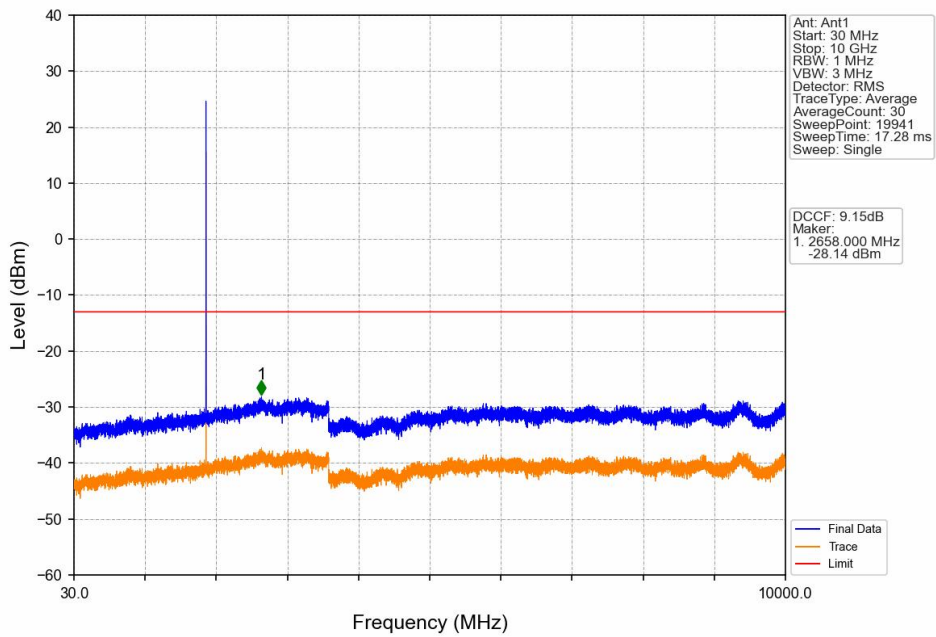
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



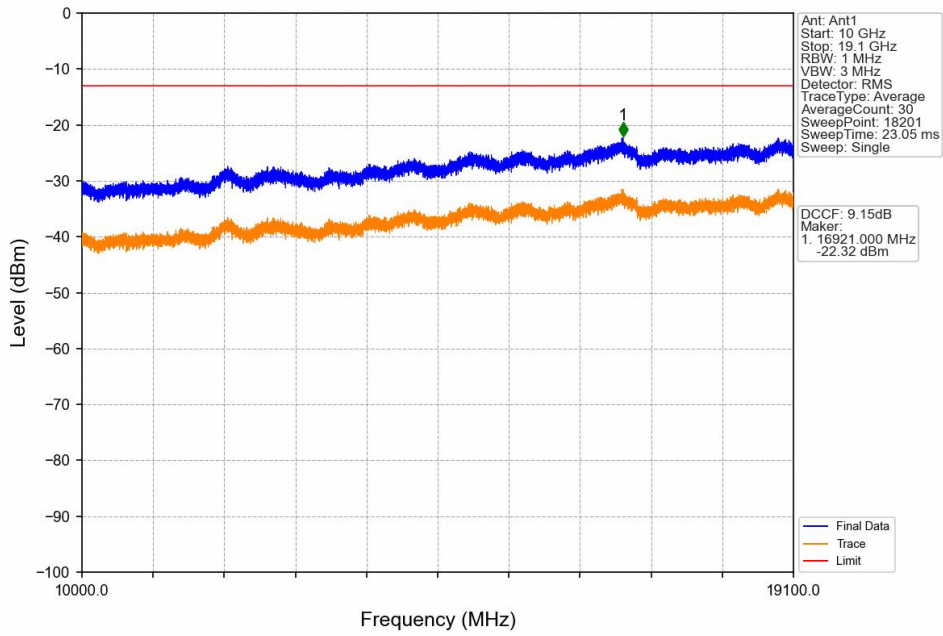
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



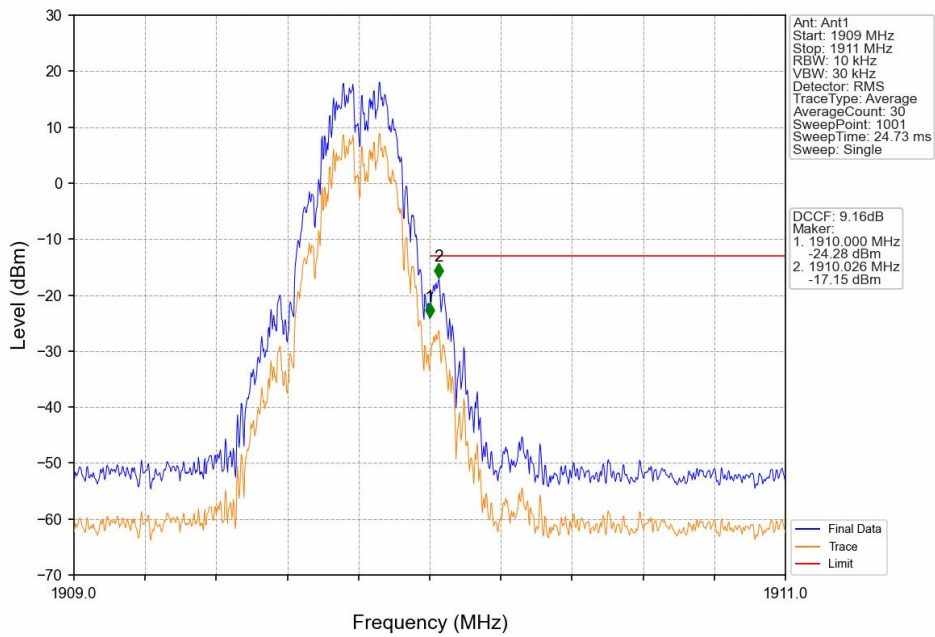
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



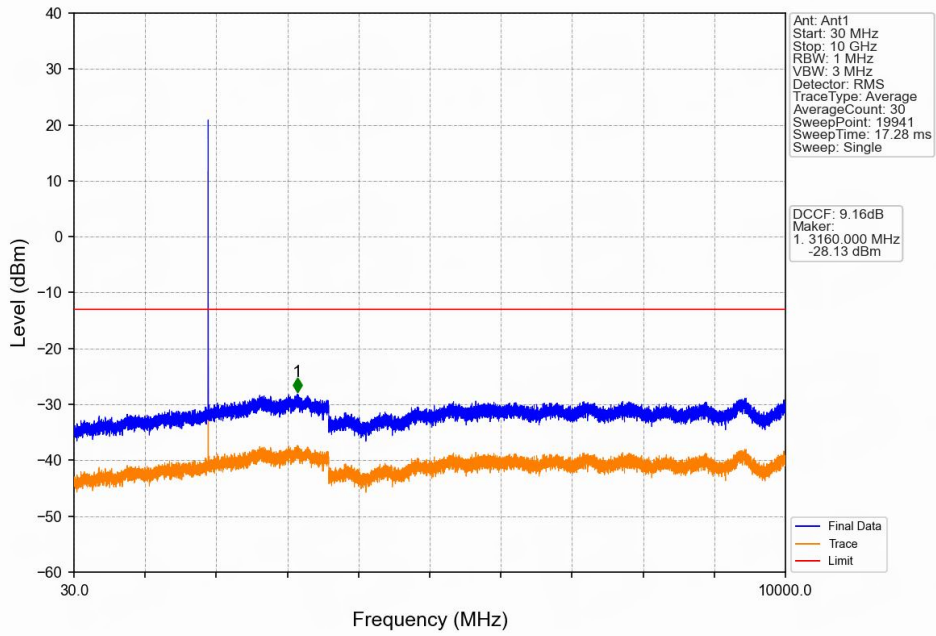
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



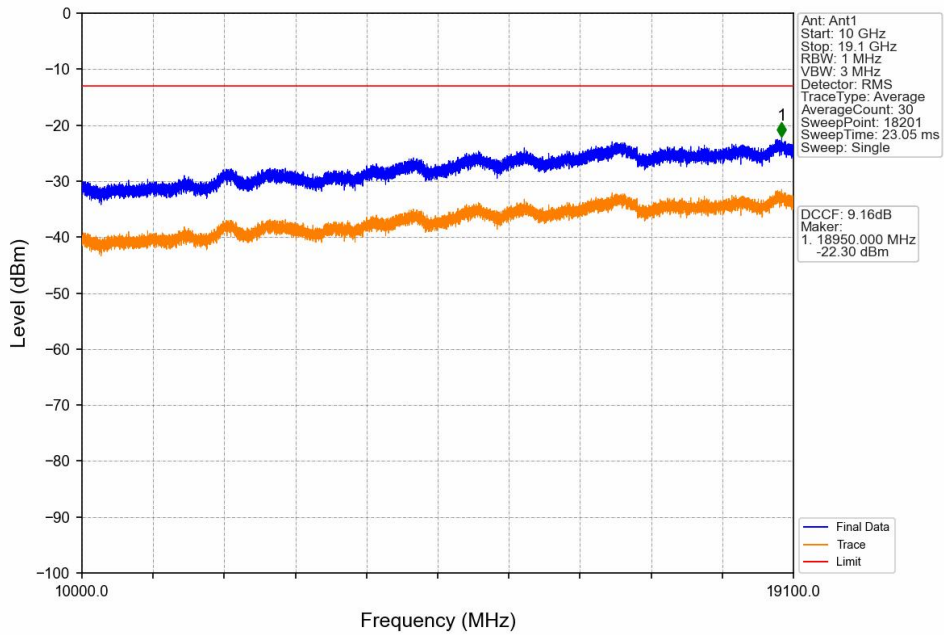
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



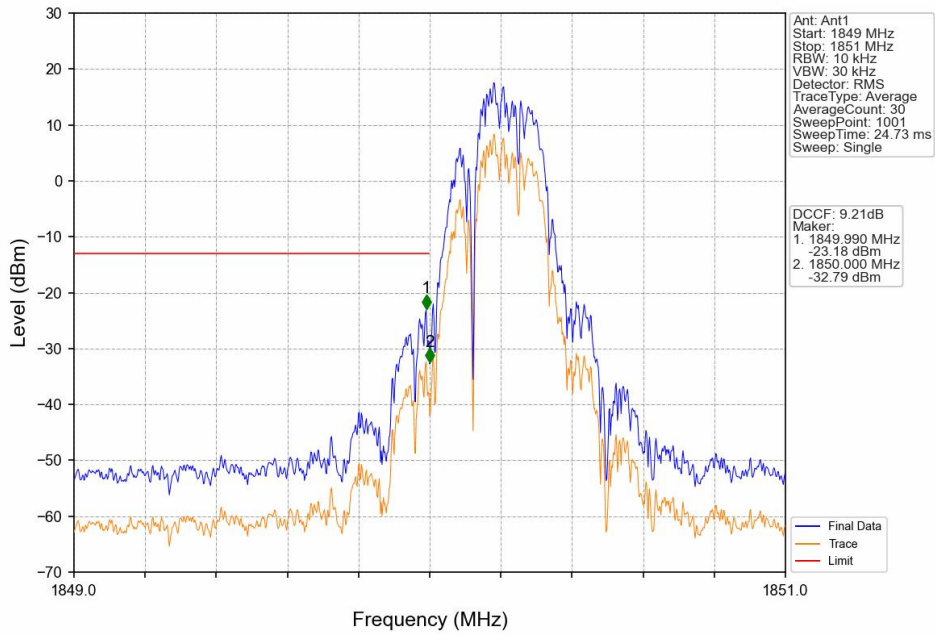
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



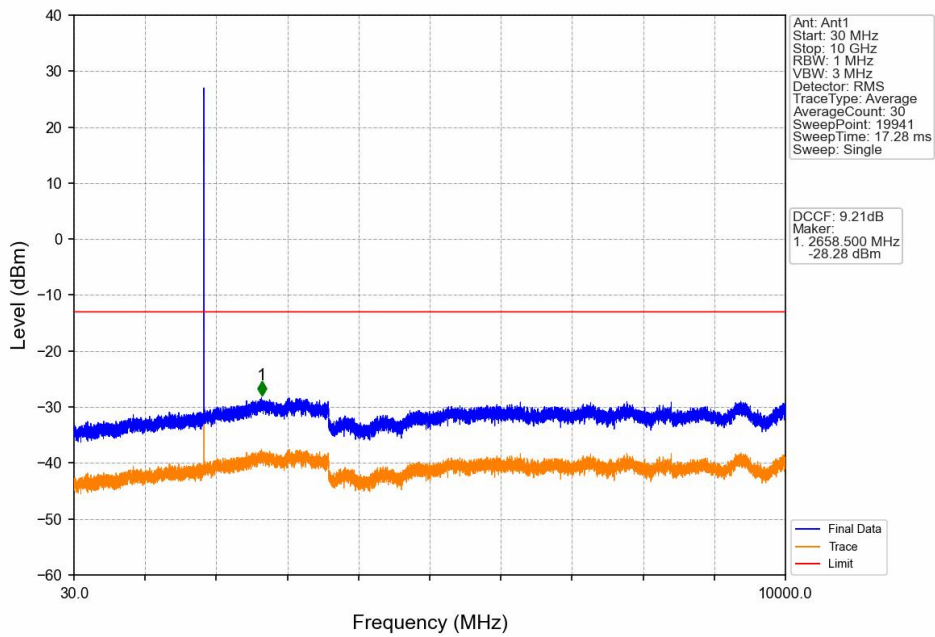
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



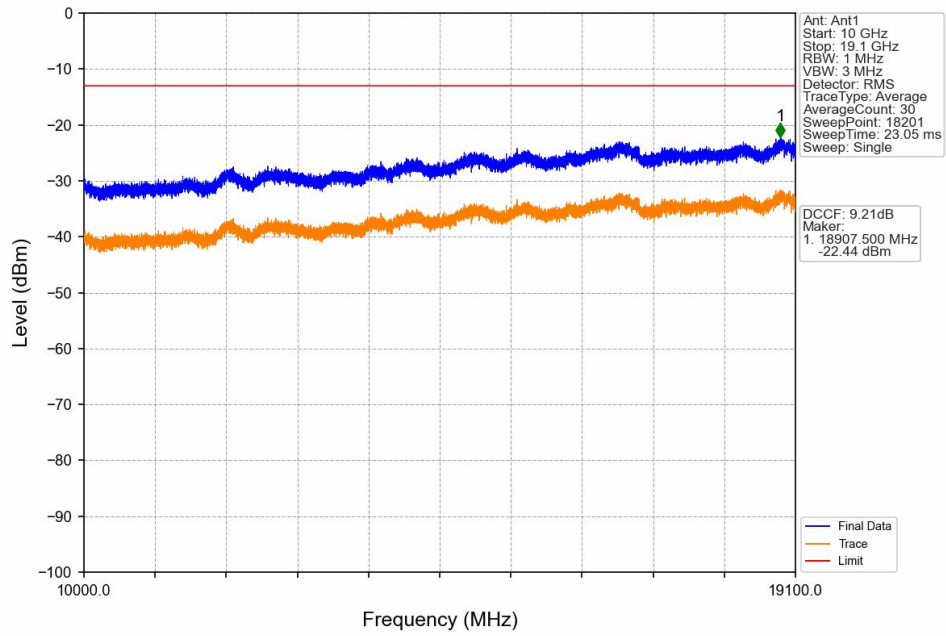
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



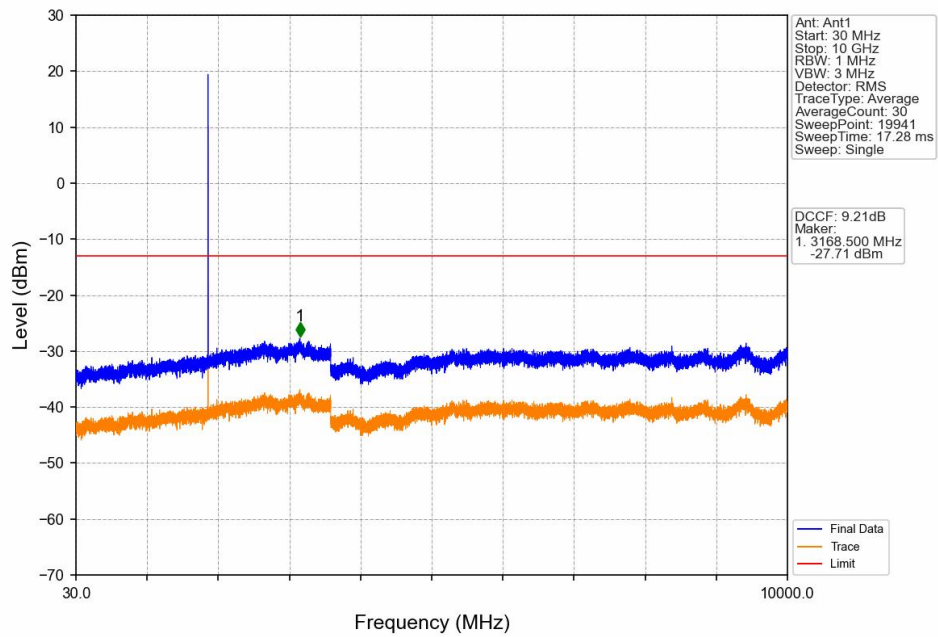
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



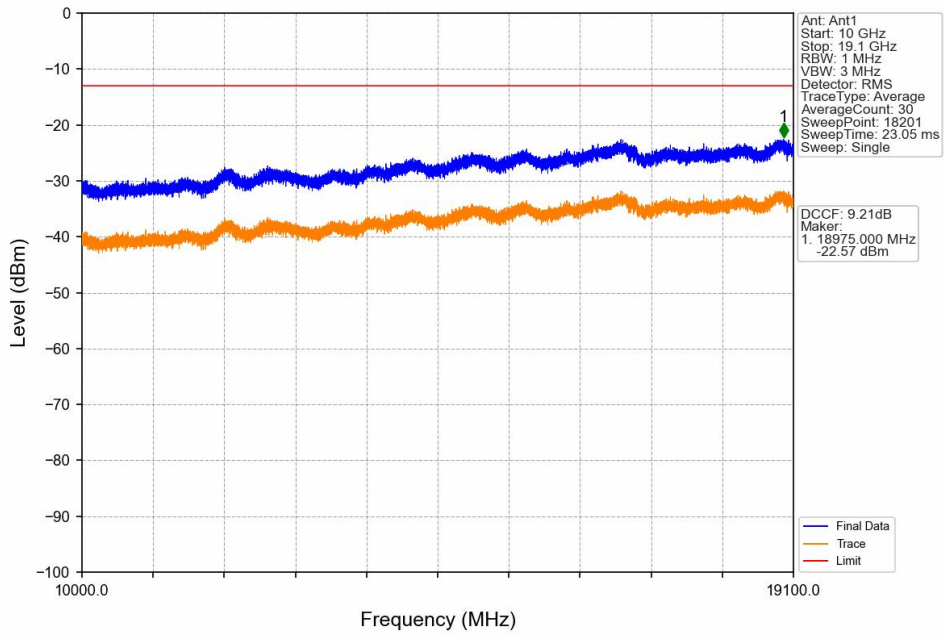
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



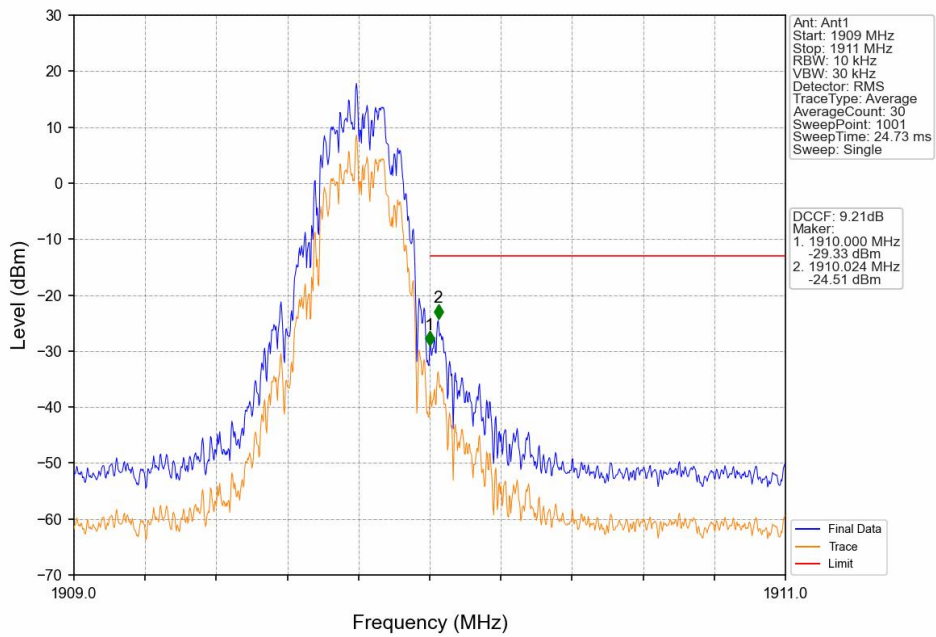
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



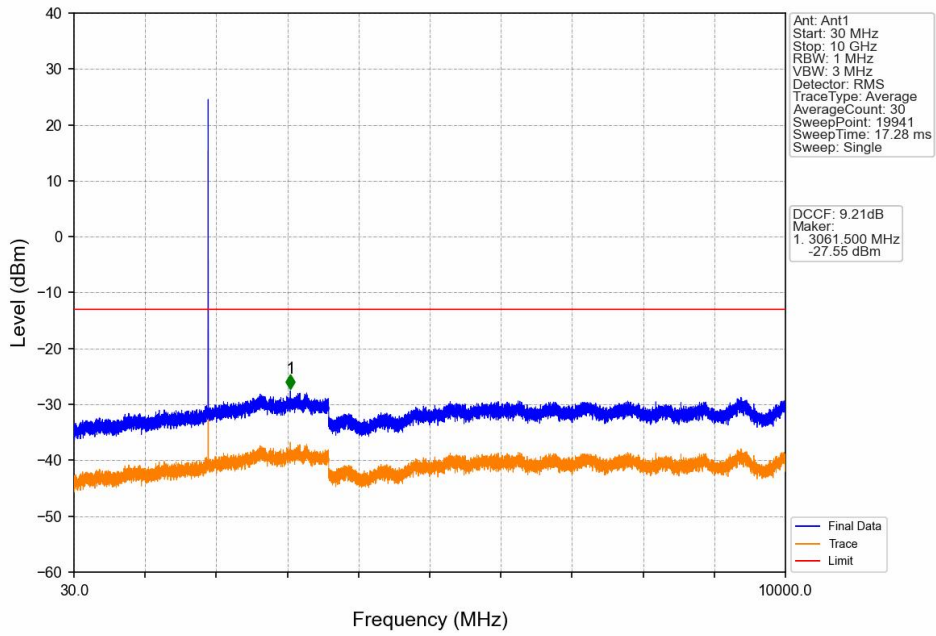
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



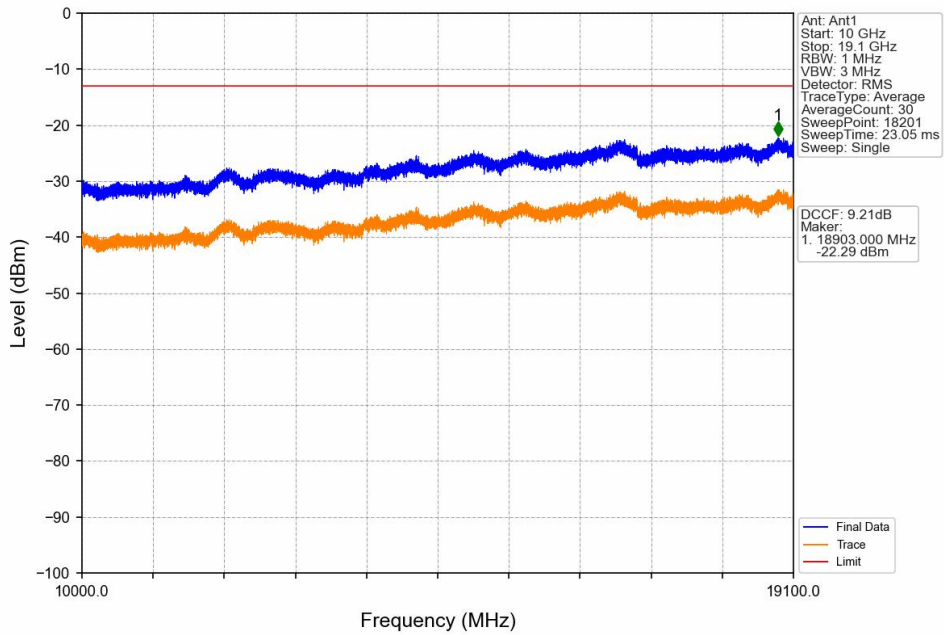
PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



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	0.4943	0.0268	ppm	249KGXW	24E	26.94
PCS1900	0.2	1850.2	1909.8	0.2388	0.0232	ppm	255KG7W	24E	23.78

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	0.5957	0.0268	ppm	249KGXW	24E	27.75
PCS1900	0.2	1850.2	1909.8	0.2877	0.0232	ppm	255KG7W	24E	24.59