

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	28.60	0.37	28.97	<=33.01	Pass		
			1880	28.75	0.37	29.12	<=33.01	Pass		
			1909.8	29.22	0.37	29.59	<=33.01	Pass		
	GPRS	1 TX Slot	1850.2	28.58	0.37	28.95	<=33.01	Pass		
			2 TX Slots	1850.2	27.64	0.37	28.01	<=33.01	Pass	
			3 TX Slots	1850.2	25.26	0.37	25.63	<=33.01	Pass	
			4 TX Slots	1850.2	24.14	0.37	24.51	<=33.01	Pass	
			1880	1 TX Slot	1880	28.74	0.37	29.11	<=33.01	Pass
				2 TX Slots	1880	27.73	0.37	28.10	<=33.01	Pass
				3 TX Slots	1880	25.42	0.37	25.79	<=33.01	Pass
				4 TX Slots	1880	24.34	0.37	24.71	<=33.01	Pass
			1909.8	1 TX Slot	1909.8	29.10	0.37	29.47	<=33.01	Pass
				2 TX Slots	1909.8	28.29	0.37	28.66	<=33.01	Pass
				3 TX Slots	1909.8	26.14	0.37	26.51	<=33.01	Pass
				4 TX Slots	1909.8	26.20	0.37	26.57	<=33.01	Pass
	EGPRS	1 TX Slot		1850.2	26.75	0.37	27.12	<=33.01	Pass	
				1850.2	26.56	0.37	26.93	<=33.01	Pass	
				1850.2	25.94	0.37	26.31	<=33.01	Pass	
				1850.2	25.42	0.37	25.79	<=33.01	Pass	
	1880	2 TX Slots	1880	27.05	0.37	27.42	<=33.01	Pass		
			1880	26.99	0.37	27.36	<=33.01	Pass		
			1880	26.59	0.37	26.96	<=33.01	Pass		
			1880	25.94	0.37	26.31	<=33.01	Pass		
			1909.8	1 TX Slot	1909.8	27.58	0.37	27.95	<=33.01	Pass
					1909.8	27.51	0.37	27.88	<=33.01	Pass
					1909.8	26.92	0.37	27.29	<=33.01	Pass
					1909.8	26.44	0.37	26.81	<=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	23.343	0.0126	-2.5 to 2.5	Pass	
			3.85	23.310	0.0126	-2.5 to 2.5	Pass	
			4.43	25.441	0.0138	-2.5 to 2.5	Pass	
		-30	3.85	24.860	0.0134	-2.5 to 2.5	Pass	
		-20	3.85	26.733	0.0144	-2.5 to 2.5	Pass	
		-10	3.85	25.248	0.0136	-2.5 to 2.5	Pass	
		0	3.85	26.184	0.0142	-2.5 to 2.5	Pass	
		10	3.85	25.118	0.0136	-2.5 to 2.5	Pass	
		30	3.85	26.604	0.0144	-2.5 to 2.5	Pass	
		40	3.85	25.054	0.0135	-2.5 to 2.5	Pass	
	50	3.85	31.188	0.0169	-2.5 to 2.5	Pass		
	1880	20	3.27	27.637	0.0147	-2.5 to 2.5	Pass	
			3.85	25.215	0.0134	-2.5 to 2.5	Pass	
			4.43	23.084	0.0123	-2.5 to 2.5	Pass	
		-30	3.85	26.087	0.0139	-2.5 to 2.5	Pass	
		-20	3.85	25.377	0.0135	-2.5 to 2.5	Pass	
		-10	3.85	24.118	0.0128	-2.5 to 2.5	Pass	
		0	3.85	22.471	0.0120	-2.5 to 2.5	Pass	
		10	3.85	25.086	0.0133	-2.5 to 2.5	Pass	
		30	3.85	20.760	0.0110	-2.5 to 2.5	Pass	
		40	3.85	22.310	0.0119	-2.5 to 2.5	Pass	
	50	3.85	21.244	0.0113	-2.5 to 2.5	Pass		
	1909.8	20	3.27	27.378	0.0143	-2.5 to 2.5	Pass	
			3.85	27.314	0.0143	-2.5 to 2.5	Pass	
			4.43	29.961	0.0157	-2.5 to 2.5	Pass	
		-30	3.85	29.961	0.0157	-2.5 to 2.5	Pass	
		-20	3.85	33.900	0.0178	-2.5 to 2.5	Pass	
		-10	3.85	25.732	0.0135	-2.5 to 2.5	Pass	
		0	3.85	28.767	0.0151	-2.5 to 2.5	Pass	
		10	3.85	29.445	0.0154	-2.5 to 2.5	Pass	
		30	3.85	31.382	0.0164	-2.5 to 2.5	Pass	
		40	3.85	29.897	0.0157	-2.5 to 2.5	Pass	
	50	3.85	29.380	0.0154	-2.5 to 2.5	Pass		
	GPRS	1850.2	20	3.27	25.441	0.0138	-2.5 to 2.5	Pass
				3.85	23.149	0.0125	-2.5 to 2.5	Pass
				4.43	23.666	0.0128	-2.5 to 2.5	Pass
-30			3.85	27.830	0.0150	-2.5 to 2.5	Pass	
-20			3.85	23.149	0.0125	-2.5 to 2.5	Pass	
-10			3.85	25.151	0.0136	-2.5 to 2.5	Pass	
0			3.85	22.697	0.0123	-2.5 to 2.5	Pass	
10			3.85	19.210	0.0104	-2.5 to 2.5	Pass	
30			3.85	20.114	0.0109	-2.5 to 2.5	Pass	
40			3.85	30.381	0.0164	-2.5 to 2.5	Pass	
50		3.85	25.312	0.0137	-2.5 to 2.5	Pass		
1880		20	3.27	24.440	0.0130	-2.5 to 2.5	Pass	
			3.85	25.280	0.0134	-2.5 to 2.5	Pass	
			4.43	21.083	0.0112	-2.5 to 2.5	Pass	
		-30	3.85	21.728	0.0116	-2.5 to 2.5	Pass	
		-20	3.85	19.016	0.0101	-2.5 to 2.5	Pass	
		-10	3.85	22.406	0.0119	-2.5 to 2.5	Pass	
		0	3.85	24.182	0.0129	-2.5 to 2.5	Pass	
		10	3.85	18.242	0.0097	-2.5 to 2.5	Pass	
		30	3.85	23.117	0.0123	-2.5 to 2.5	Pass	
		40	3.85	23.633	0.0126	-2.5 to 2.5	Pass	
		50	3.85	23.633	0.0126	-2.5 to 2.5	Pass	

	1909.8	20	3.27	18.209	0.0095	-2.5 to 2.5	Pass
			3.85	24.311	0.0127	-2.5 to 2.5	Pass
			4.43	25.054	0.0131	-2.5 to 2.5	Pass
		-30	3.85	20.954	0.0110	-2.5 to 2.5	Pass
		-20	3.85	22.213	0.0116	-2.5 to 2.5	Pass
		-10	3.85	27.088	0.0142	-2.5 to 2.5	Pass
		0	3.85	27.572	0.0144	-2.5 to 2.5	Pass
		10	3.85	25.893	0.0136	-2.5 to 2.5	Pass
		30	3.85	23.698	0.0124	-2.5 to 2.5	Pass
		40	3.85	20.986	0.0110	-2.5 to 2.5	Pass
50	3.85	21.406	0.0112	-2.5 to 2.5	Pass		
EGPRS	1850.2	20	3.27	24.828	0.0134	-2.5 to 2.5	Pass
			3.85	18.048	0.0098	-2.5 to 2.5	Pass
			4.43	23.698	0.0128	-2.5 to 2.5	Pass
		-30	3.85	23.633	0.0128	-2.5 to 2.5	Pass
		-20	3.85	14.884	0.0080	-2.5 to 2.5	Pass
		-10	3.85	17.370	0.0094	-2.5 to 2.5	Pass
		0	3.85	22.439	0.0121	-2.5 to 2.5	Pass
		10	3.85	14.593	0.0079	-2.5 to 2.5	Pass
		30	3.85	22.697	0.0123	-2.5 to 2.5	Pass
		40	3.85	19.565	0.0106	-2.5 to 2.5	Pass
	50	3.85	23.343	0.0126	-2.5 to 2.5	Pass	
	1880	20	3.27	22.471	0.0120	-2.5 to 2.5	Pass
			3.85	24.666	0.0131	-2.5 to 2.5	Pass
			4.43	25.118	0.0134	-2.5 to 2.5	Pass
		-30	3.85	15.691	0.0083	-2.5 to 2.5	Pass
		-20	3.85	20.146	0.0107	-2.5 to 2.5	Pass
		-10	3.85	20.405	0.0109	-2.5 to 2.5	Pass
		0	3.85	22.794	0.0121	-2.5 to 2.5	Pass
		10	3.85	11.365	0.0060	-2.5 to 2.5	Pass
		30	3.85	15.562	0.0083	-2.5 to 2.5	Pass
		40	3.85	23.601	0.0126	-2.5 to 2.5	Pass
	50	3.85	18.887	0.0100	-2.5 to 2.5	Pass	
	1909.8	20	3.27	18.371	0.0096	-2.5 to 2.5	Pass
			3.85	16.434	0.0086	-2.5 to 2.5	Pass
			4.43	14.819	0.0078	-2.5 to 2.5	Pass
		-30	3.85	17.079	0.0089	-2.5 to 2.5	Pass
		-20	3.85	20.308	0.0106	-2.5 to 2.5	Pass
		-10	3.85	13.754	0.0072	-2.5 to 2.5	Pass
		0	3.85	17.144	0.0090	-2.5 to 2.5	Pass
		10	3.85	19.113	0.0100	-2.5 to 2.5	Pass
30		3.85	17.757	0.0093	-2.5 to 2.5	Pass	
40		3.85	13.625	0.0071	-2.5 to 2.5	Pass	
50	3.85	12.204	0.0064	-2.5 to 2.5	Pass		

3. Modulation Characteristics

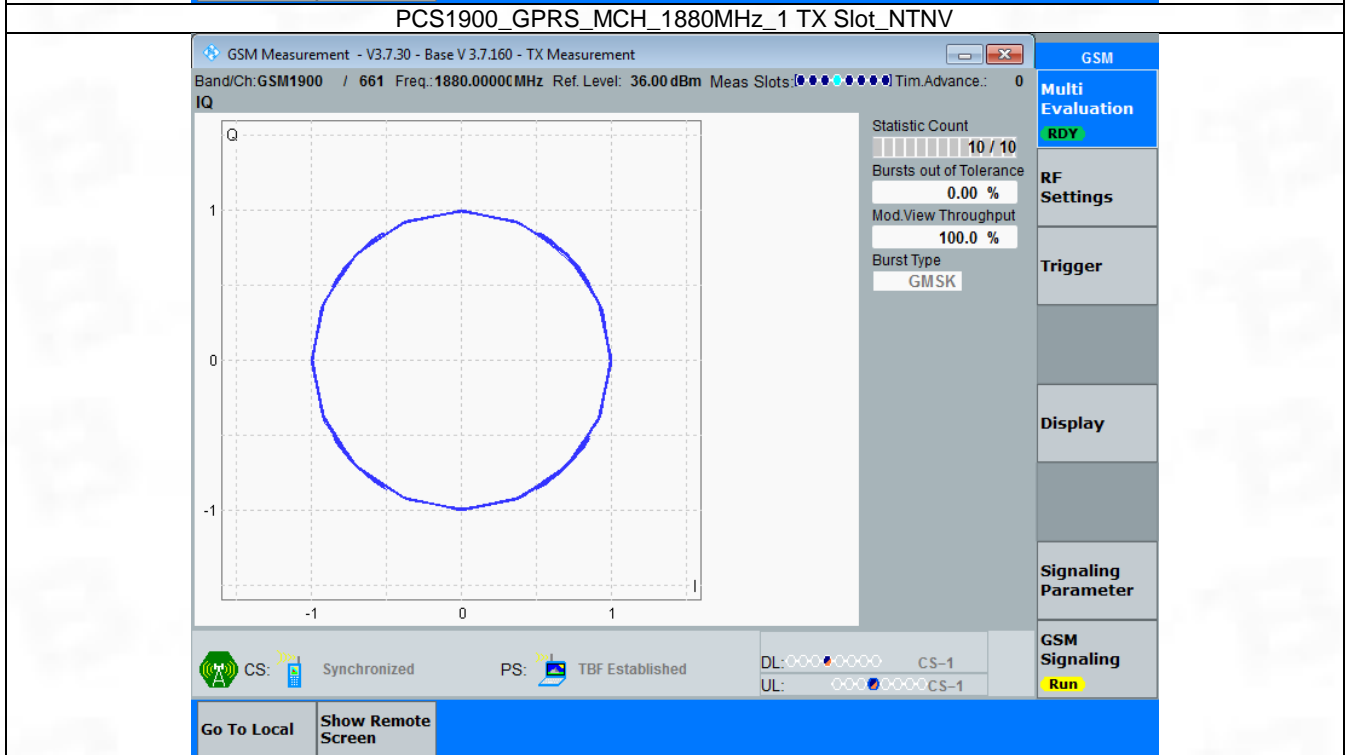
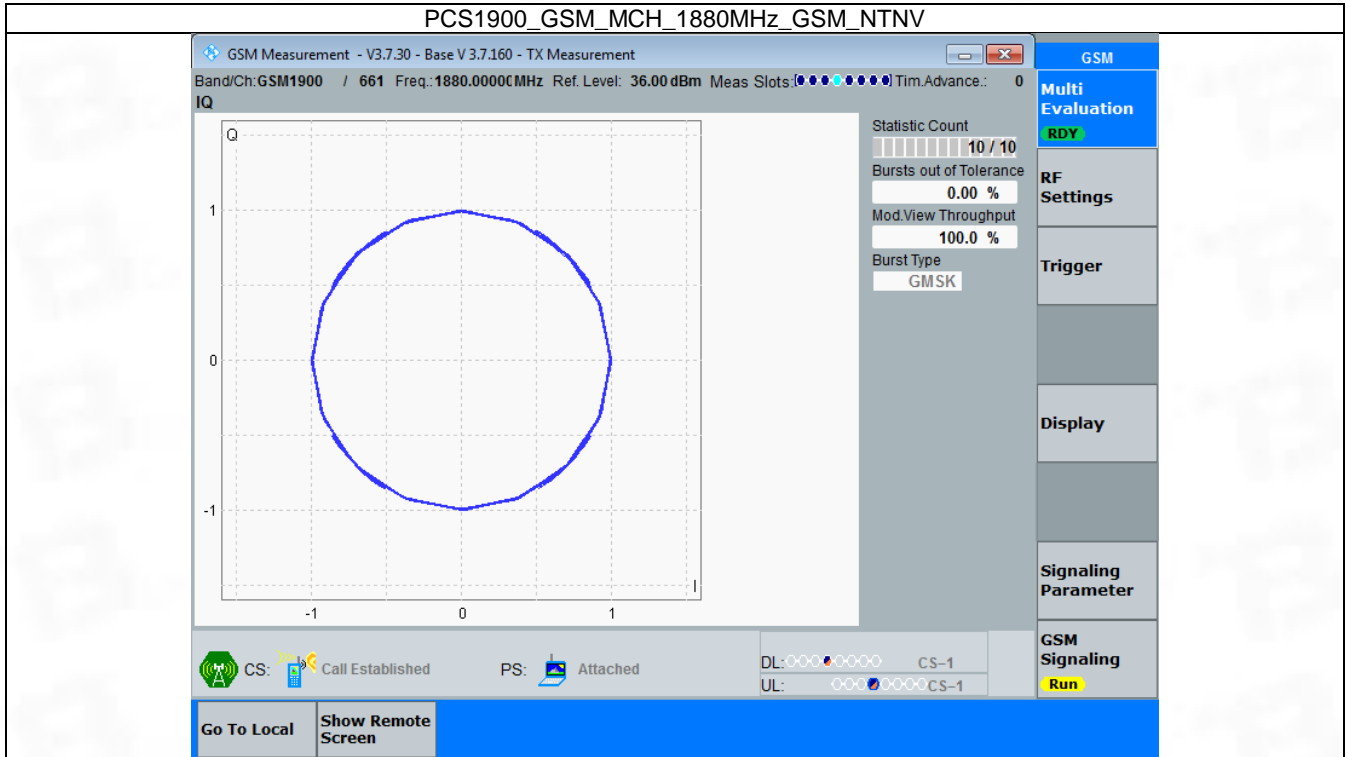
3.1 PCS1900

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

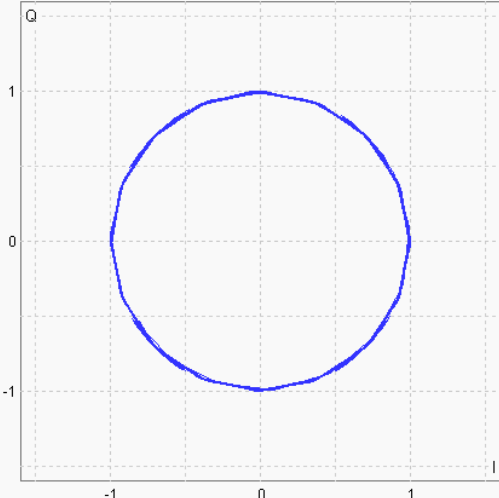


PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV

GSM Measurement - V3.7.30 - Base V3.7.160 - TX Measurement

Band/Ch: GSM1900 / 661 Freq.: 1880.0000MHz Ref. Level: 36.00 dBm Meas Slots: [●●●●●●●●●●] Tim. Advance.: 0

IQ



Statistic Count: 10 / 10

Bursts out of Tolerance: 0.00 %

Mod. View Throughput: 100.0 %

Burst Type: GMSK

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

Go To Local Show Remote Screen

GSM

Multi Evaluation RDY

RF Settings

Trigger

Display

Signaling Parameter

GSM Signaling ON

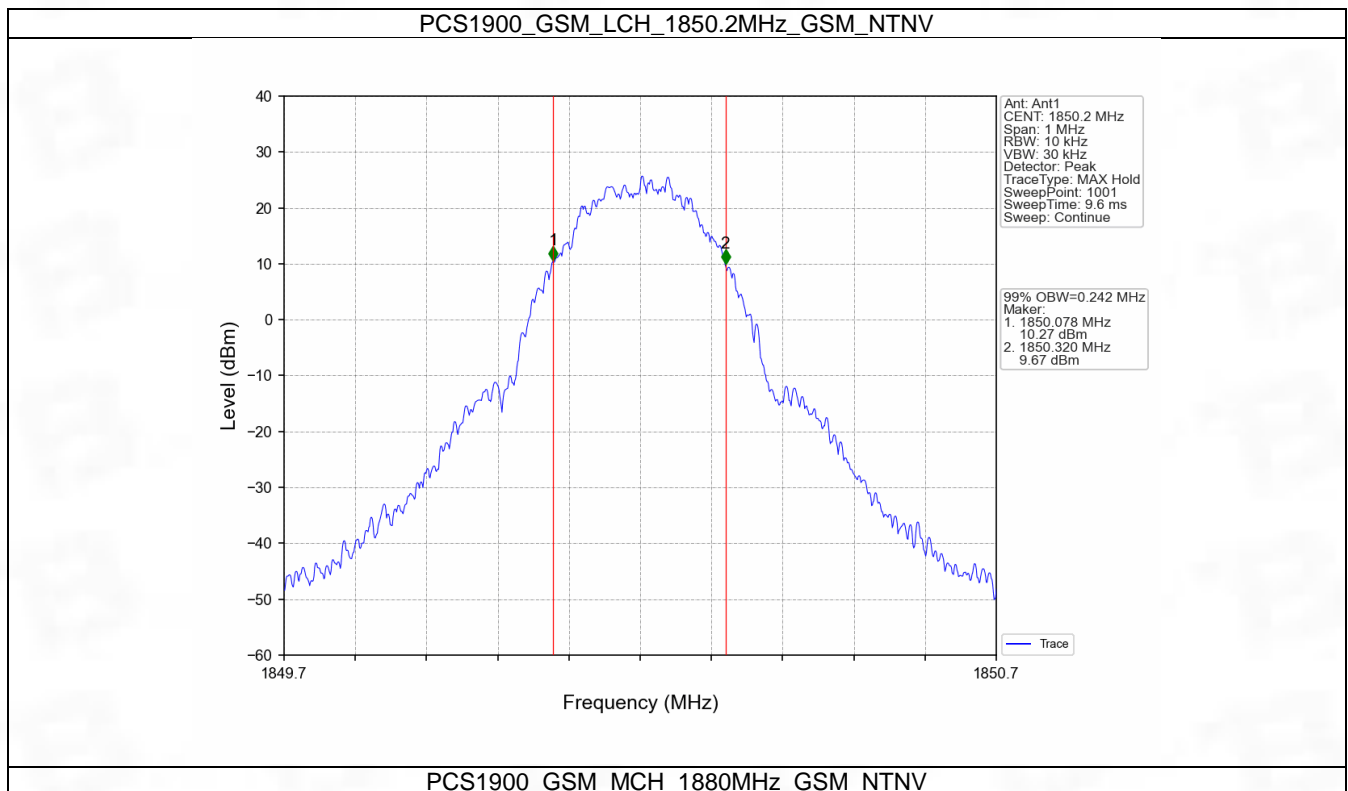
4. 99% & 26dB Bandwidth

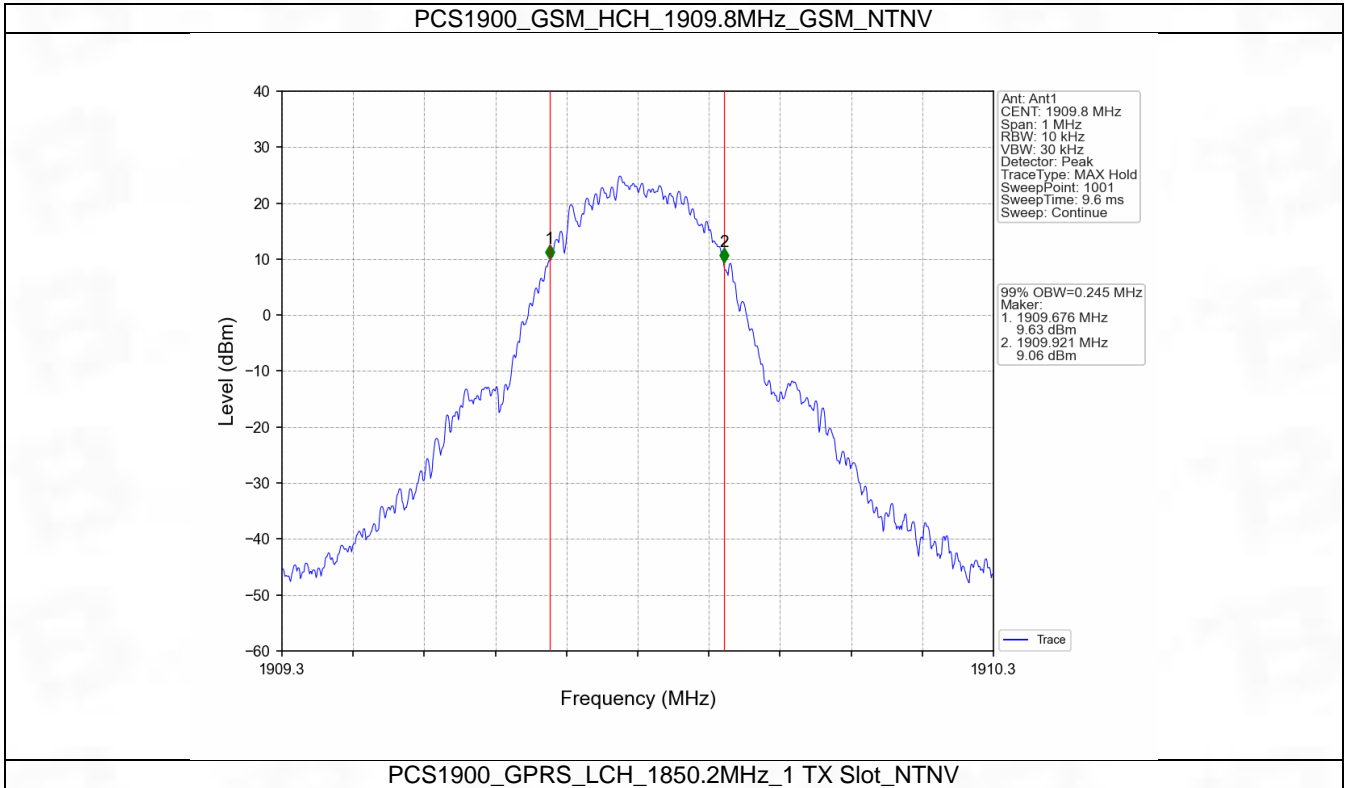
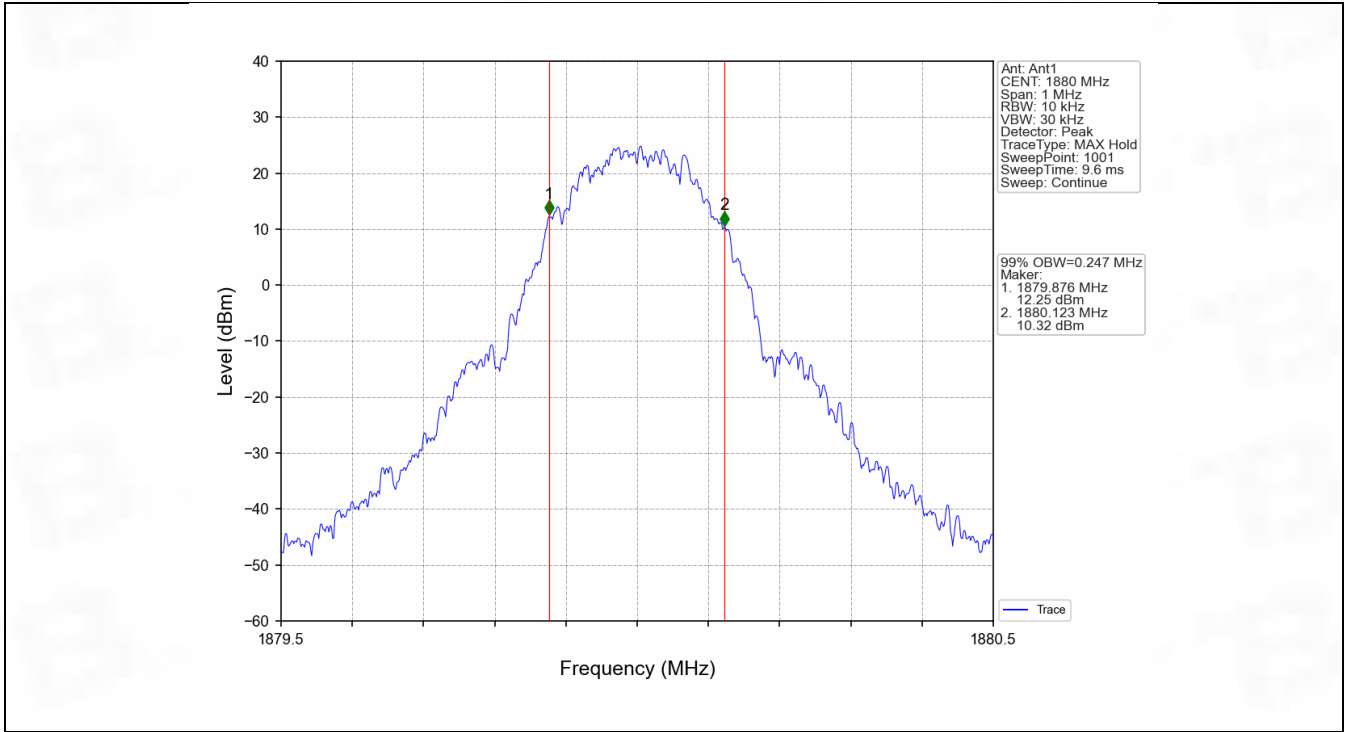
4.1 PCS1900_OBW

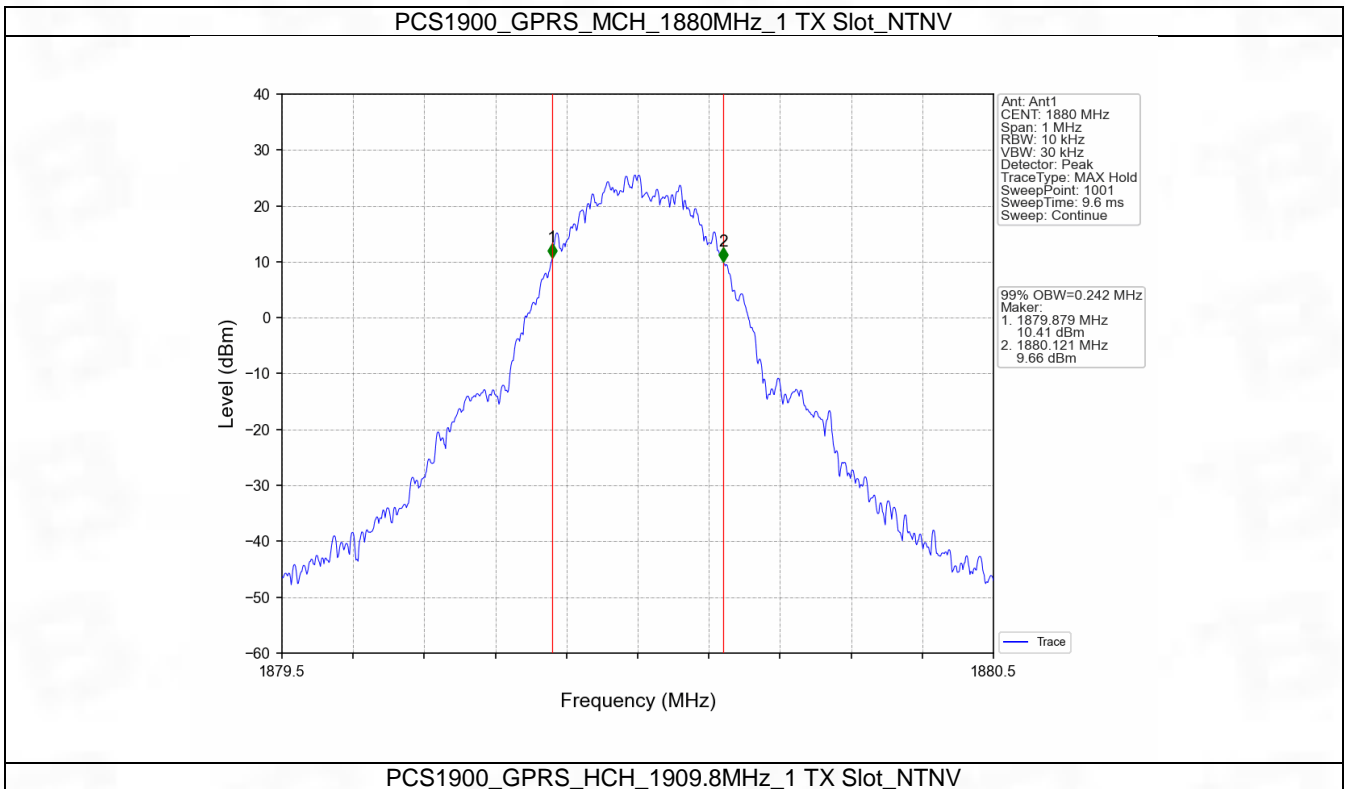
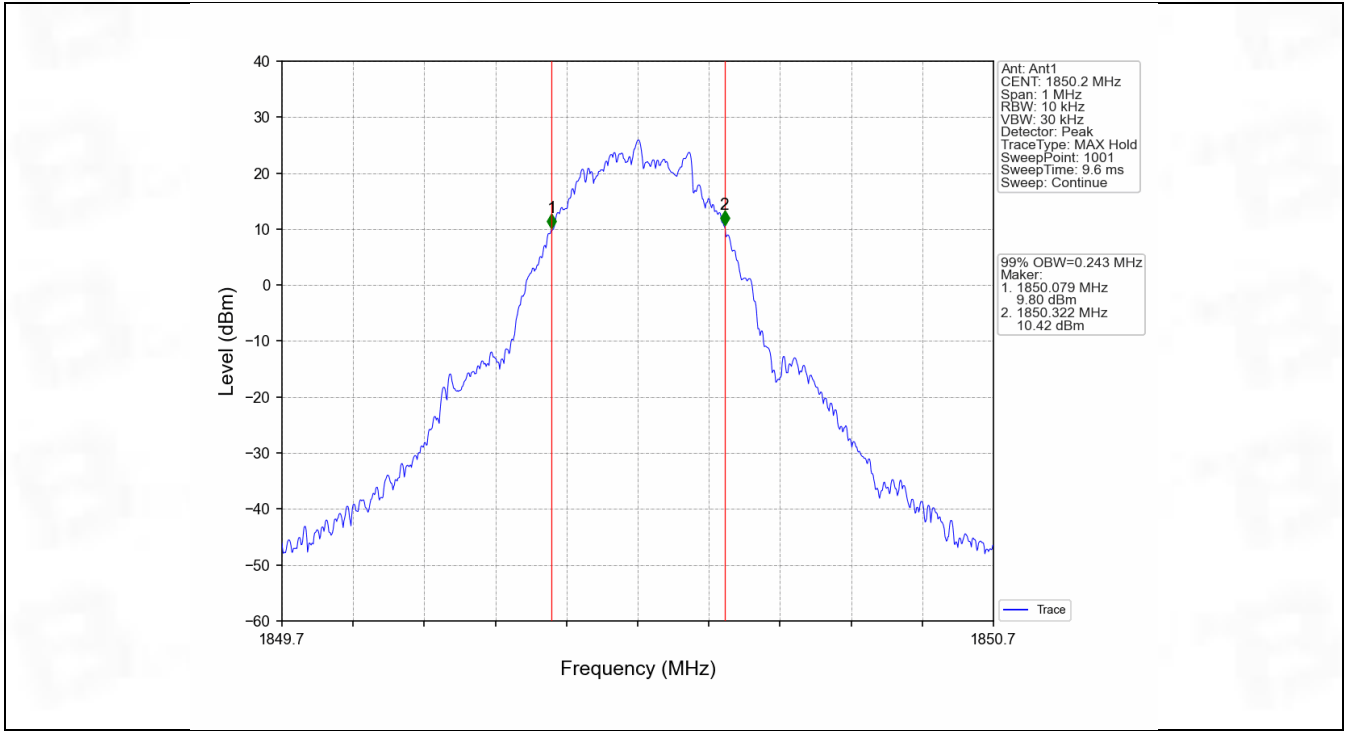
4.1.1 Test Result

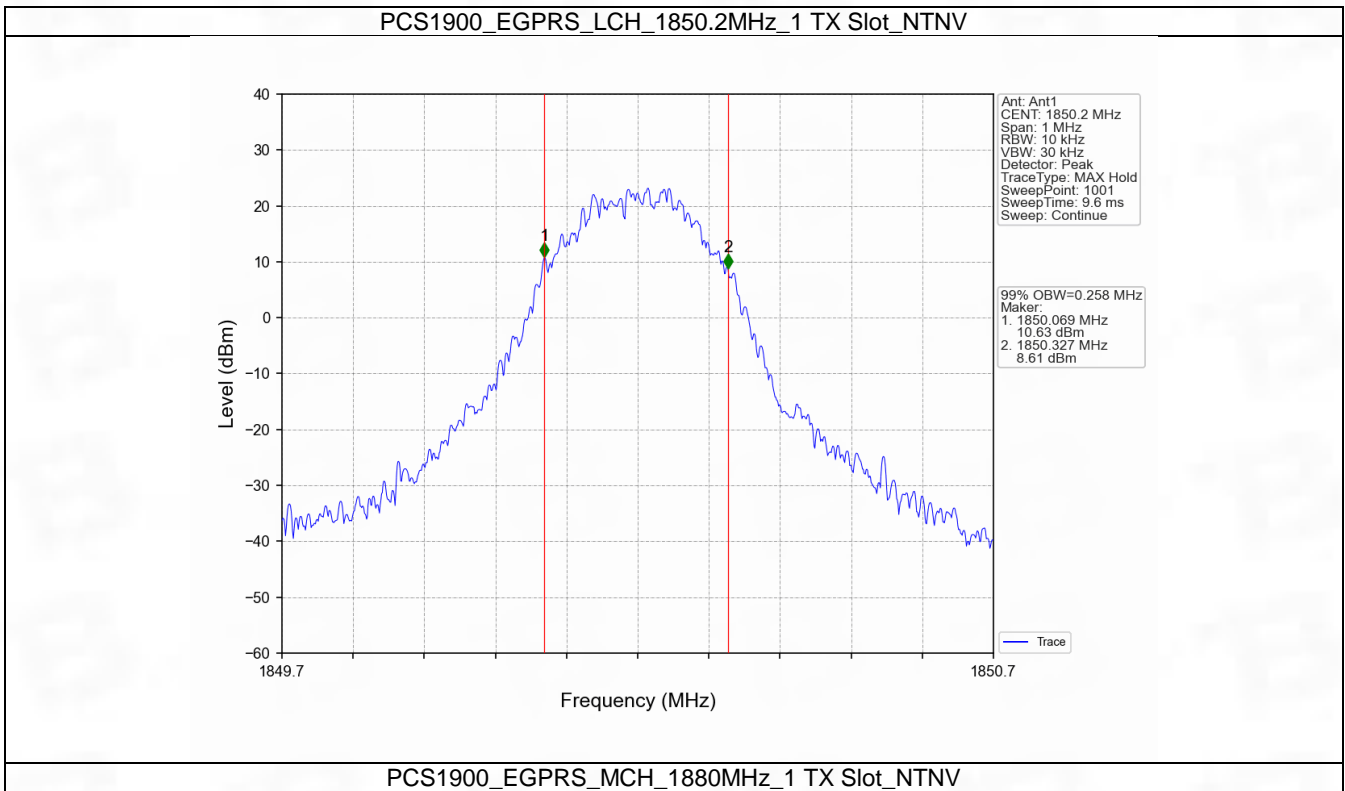
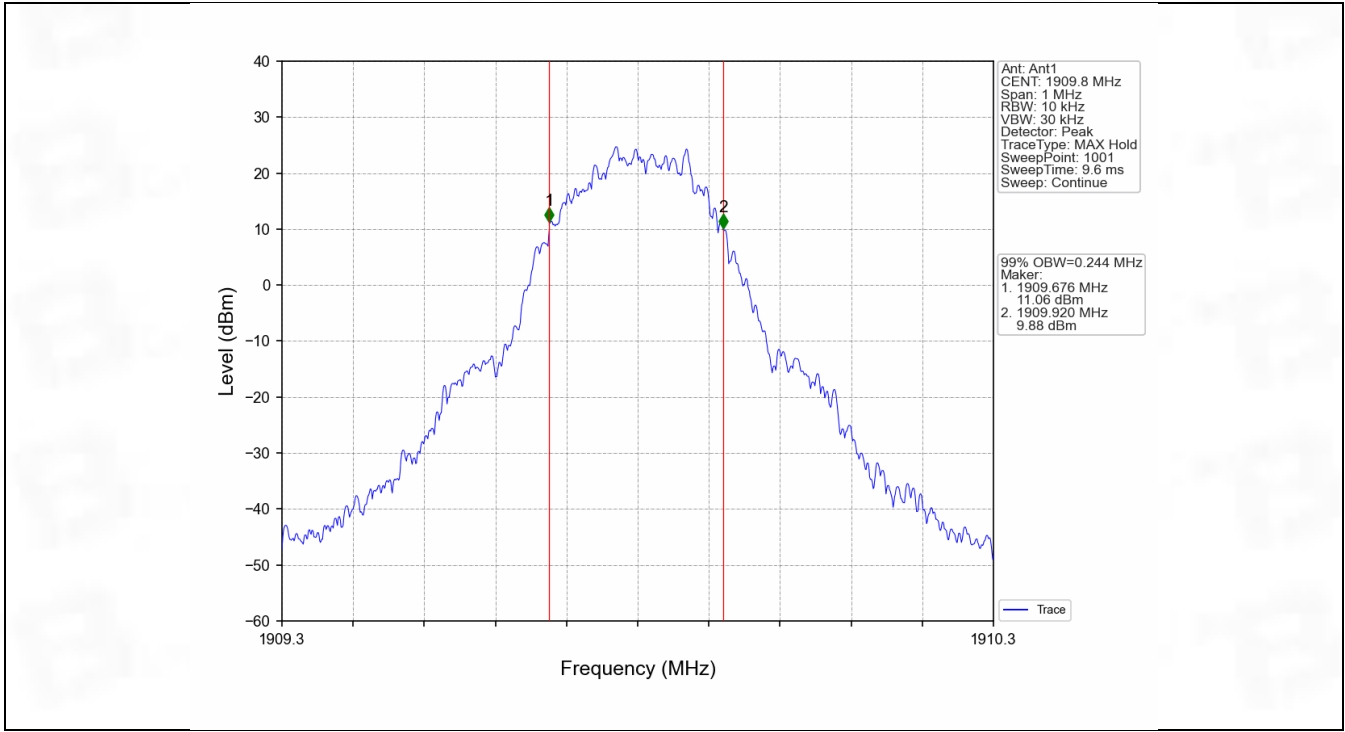
Band: PCS1900					
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	GSM	GSM	1850.2	0.242	Pass
			1880	0.247	Pass
			1909.8	0.245	Pass
	GPRS	1 TX Slot	1850.2	0.243	Pass
			1880	0.242	Pass
			1909.8	0.244	Pass
	EGPRS	1 TX Slot	1850.2	0.258	Pass
			1880	0.255	Pass
			1909.8	0.252	Pass

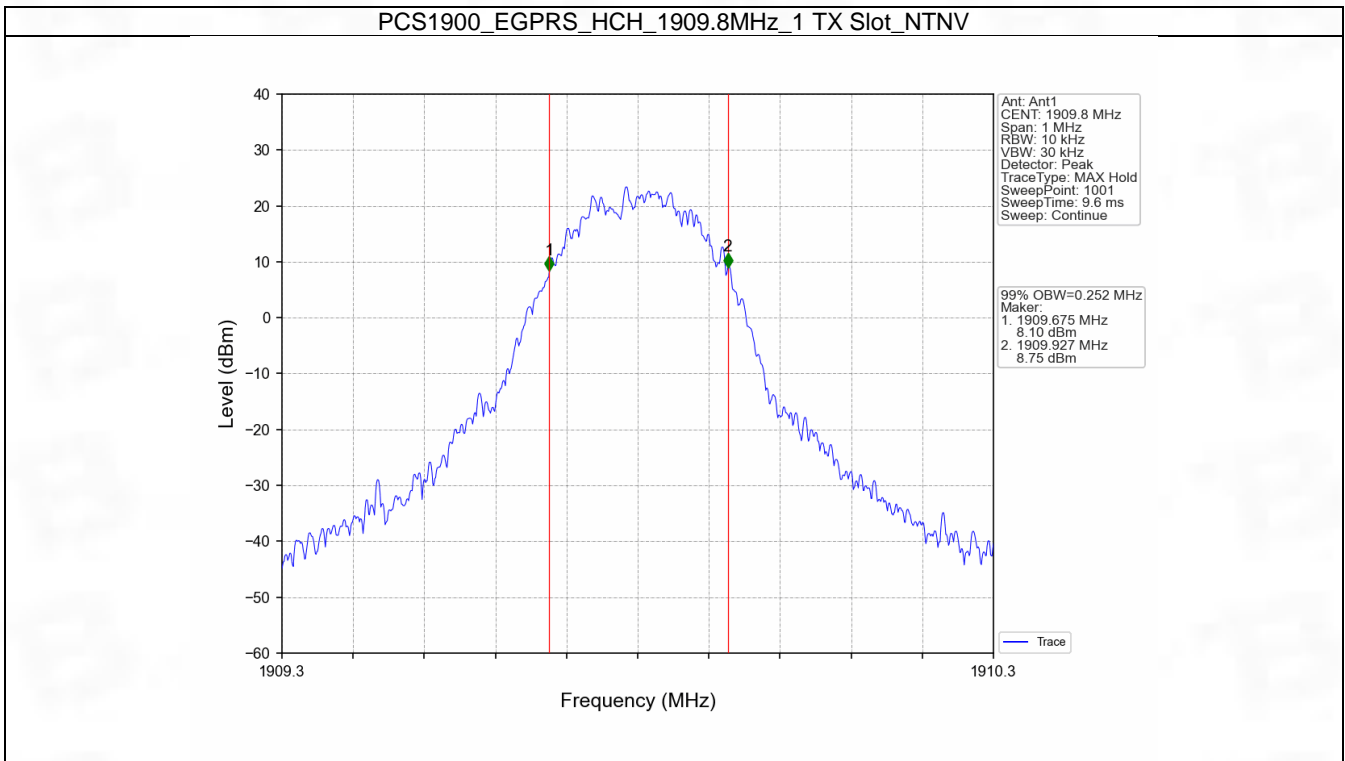
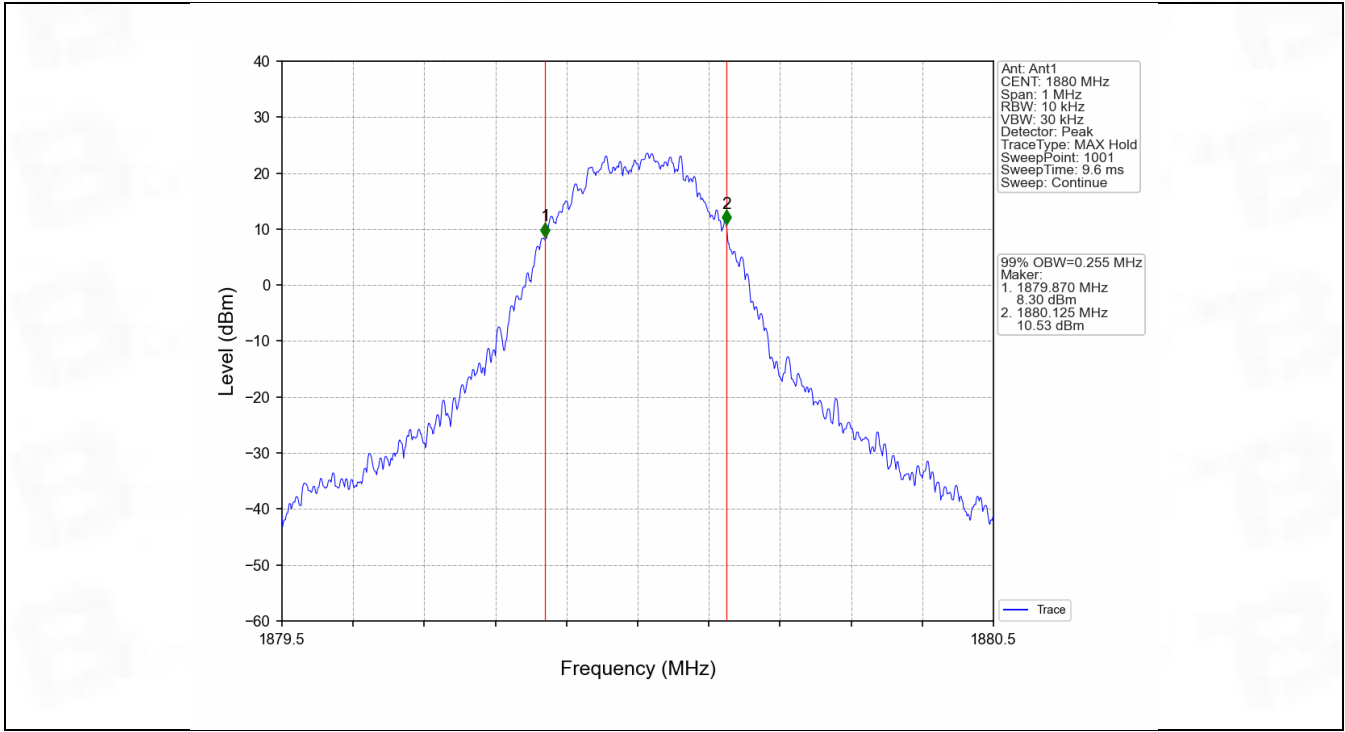
4.1.2 Test Graph









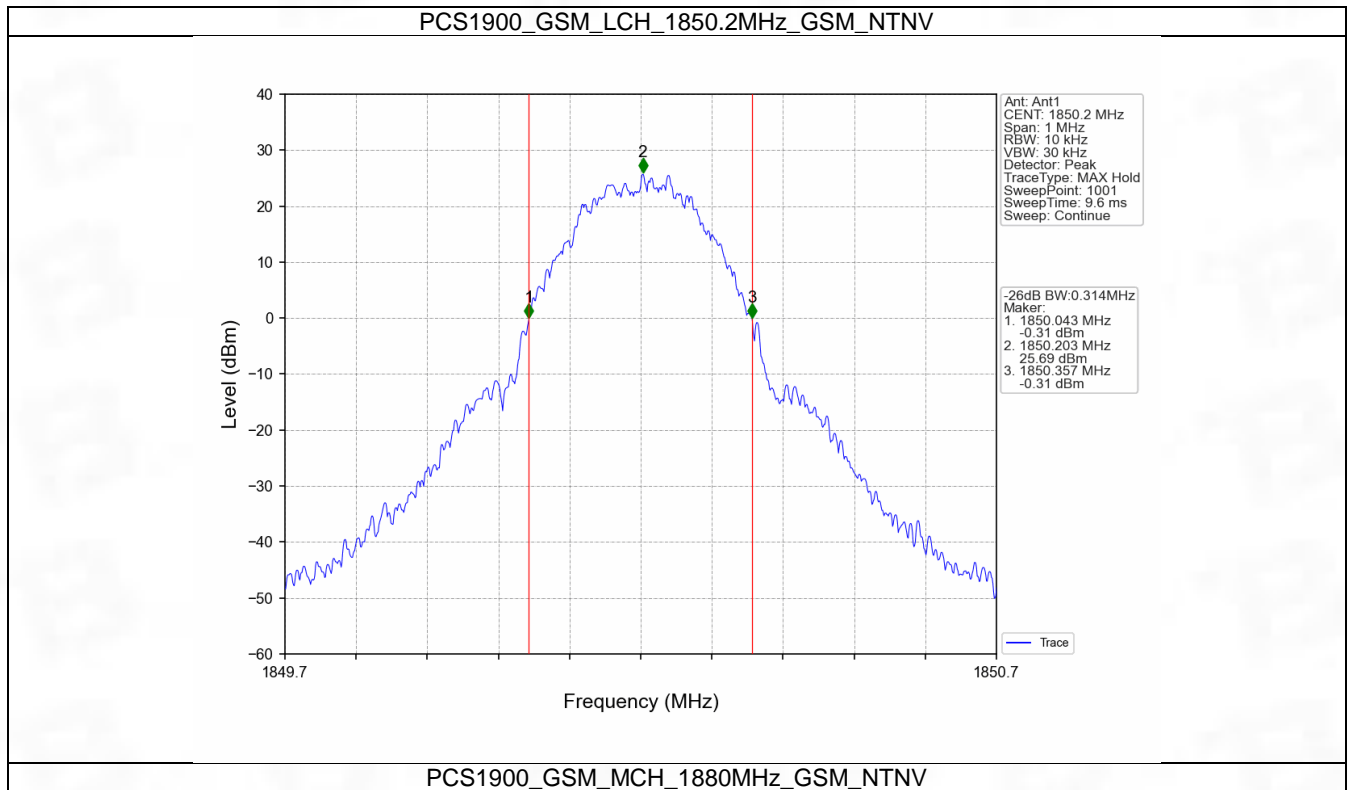


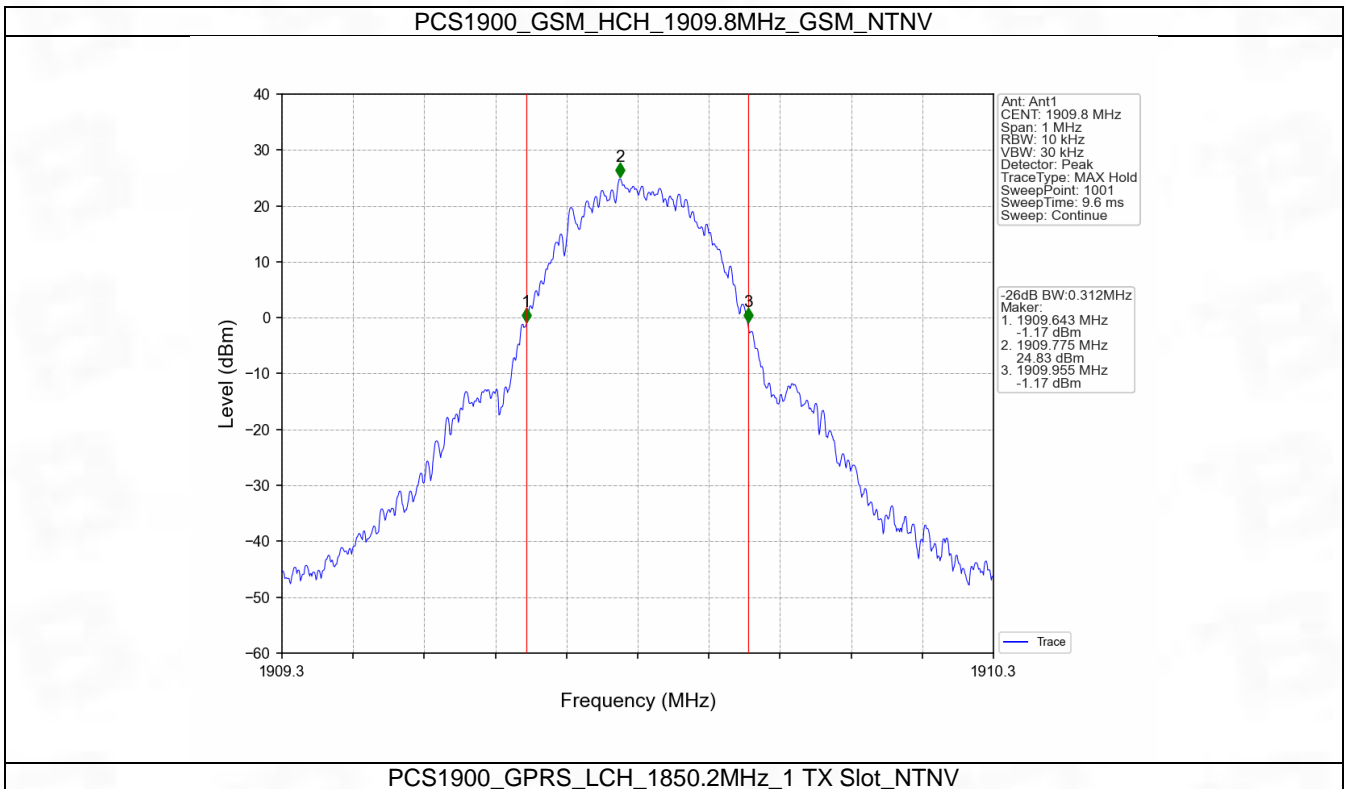
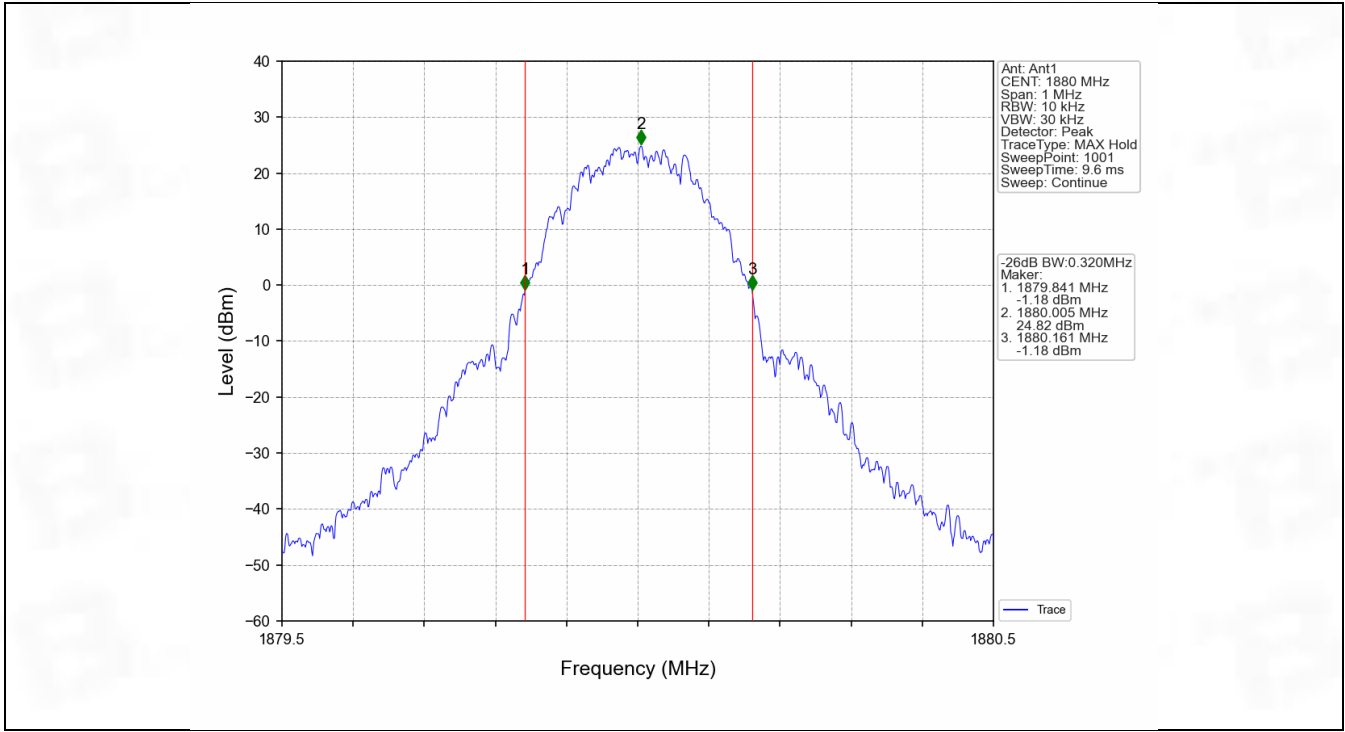
4.2 PCS1900_XDB

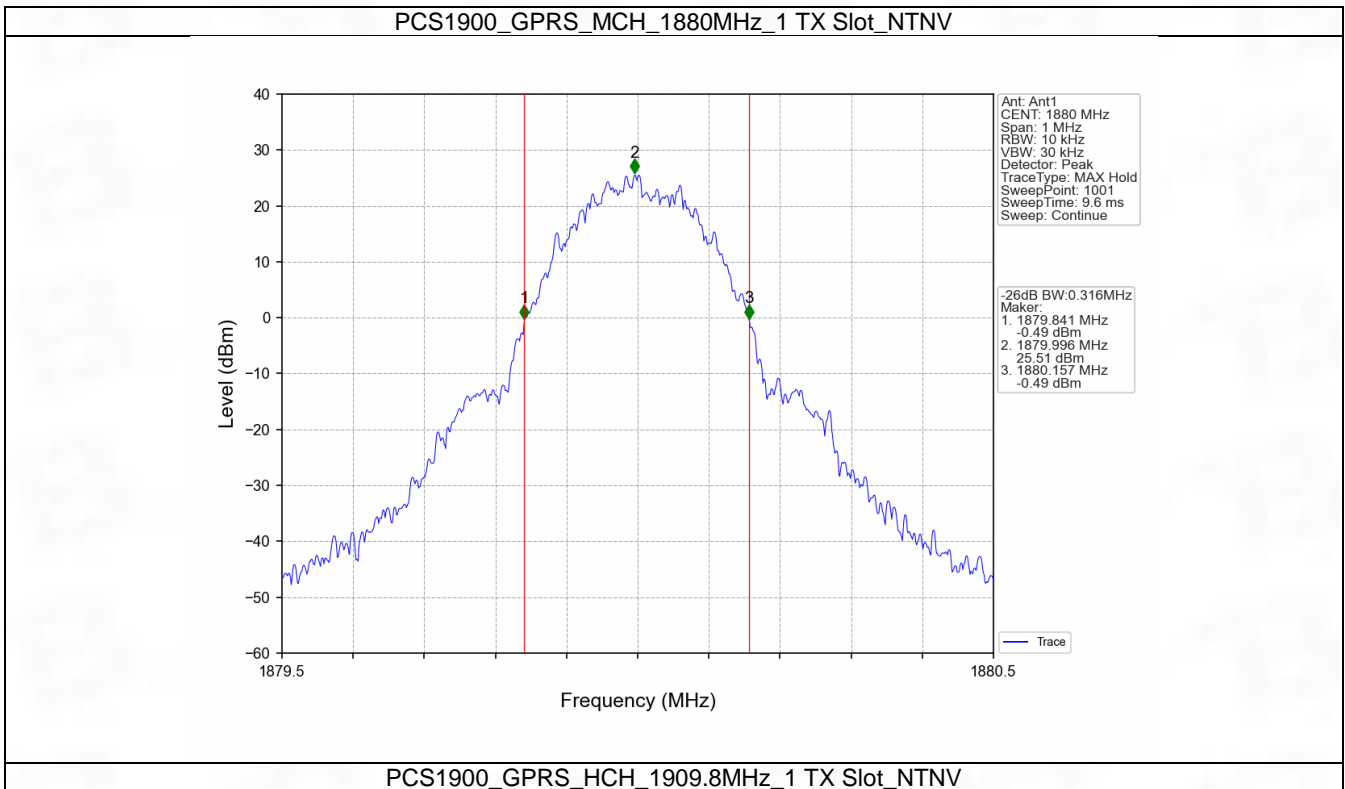
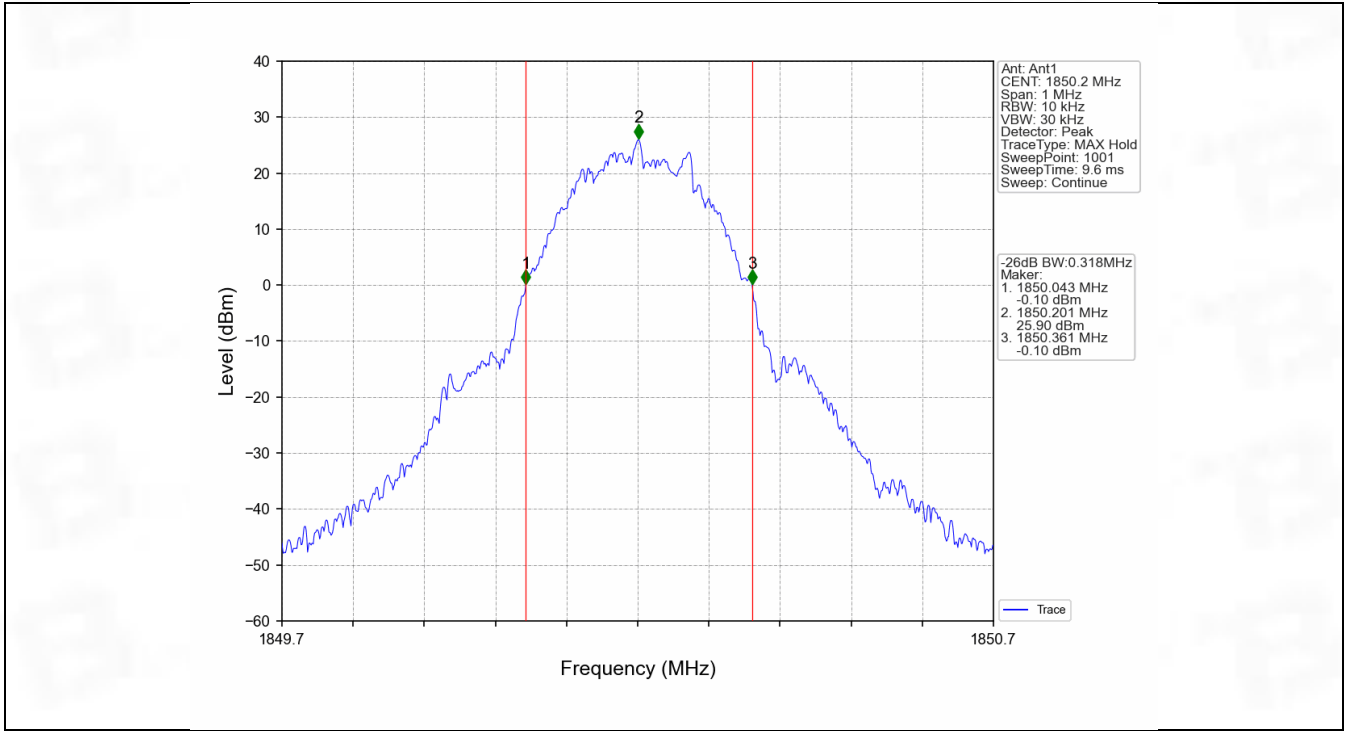
4.2.1 Test Result

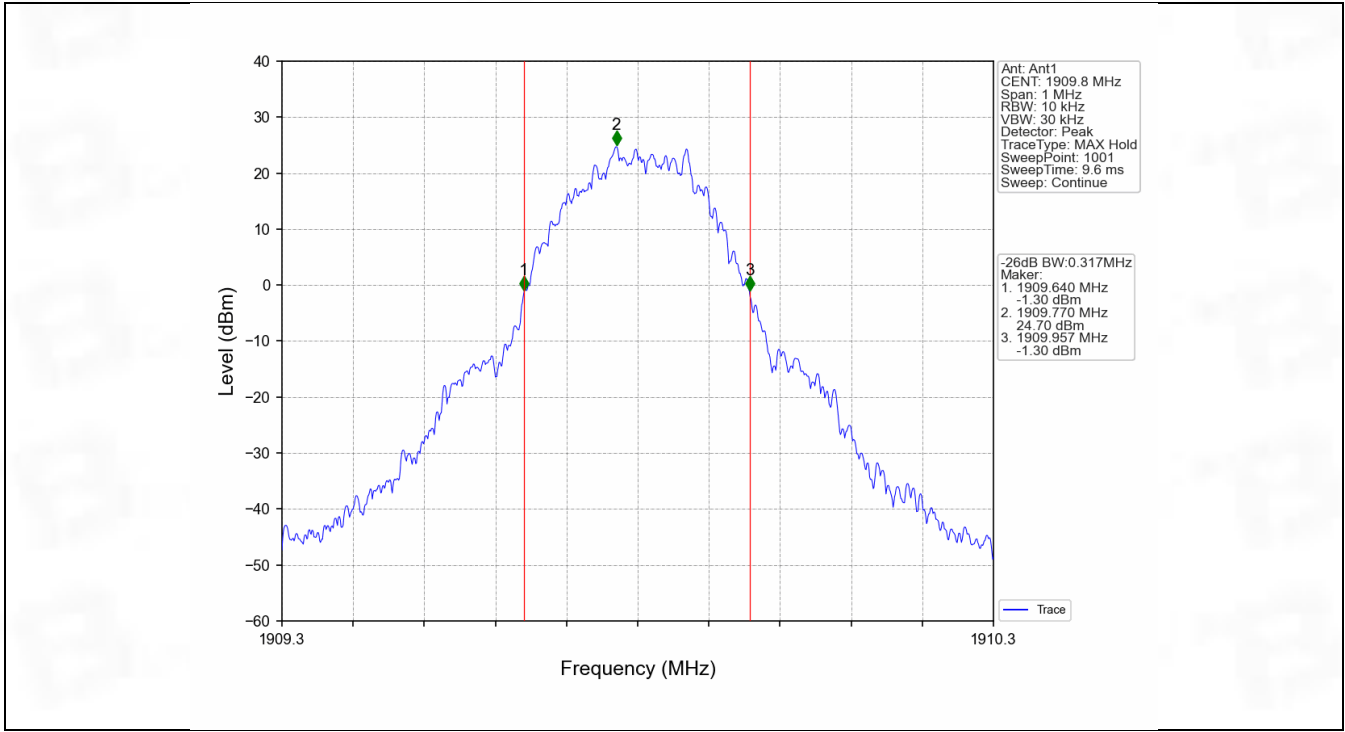
Band: PCS1900					
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	GSM	GSM	1850.2	0.314	Pass
			1880	0.320	Pass
			1909.8	0.312	Pass
	GPRS	1 TX Slot	1850.2	0.318	Pass
			1880	0.316	Pass
			1909.8	0.317	Pass
	EGPRS	1 TX Slot	1850.2	0.321	Pass
			1880	0.331	Pass
			1909.8	0.324	Pass

4.2.2 Test Graph

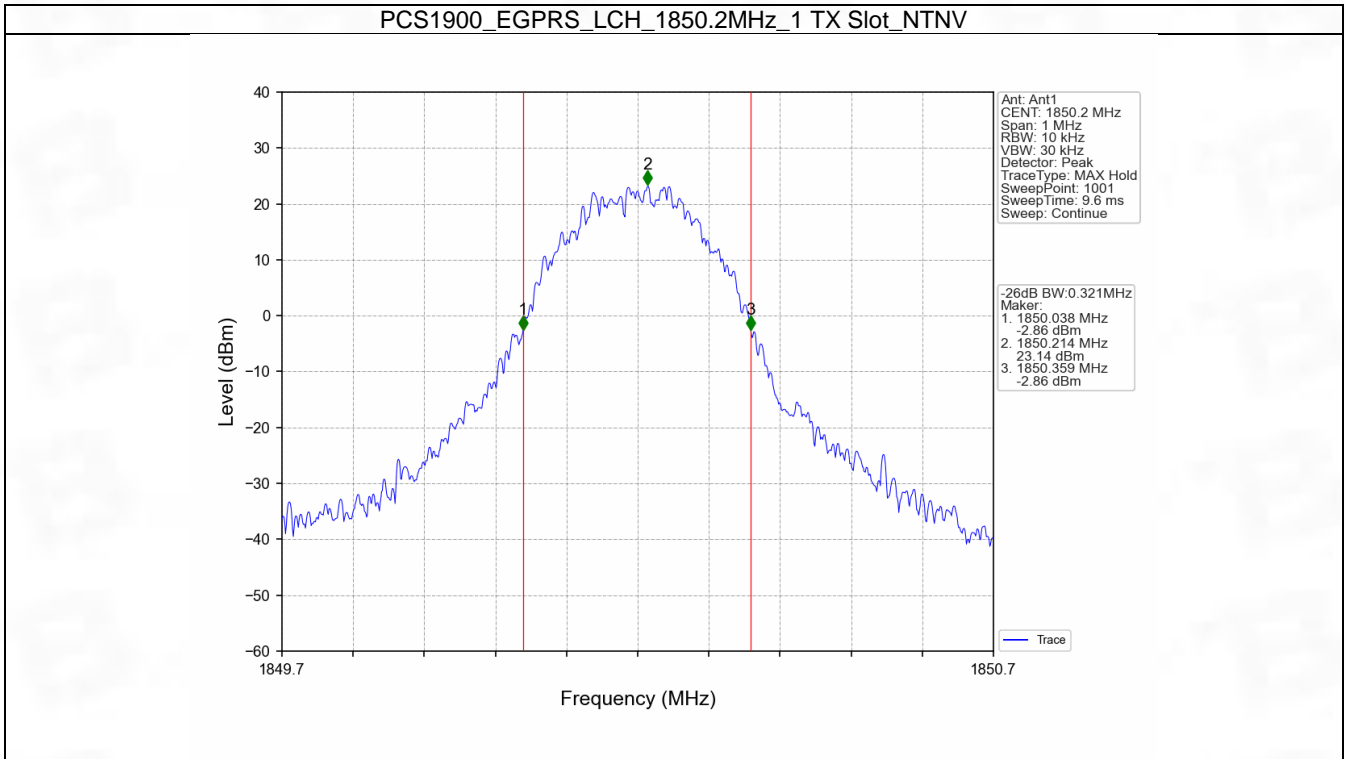




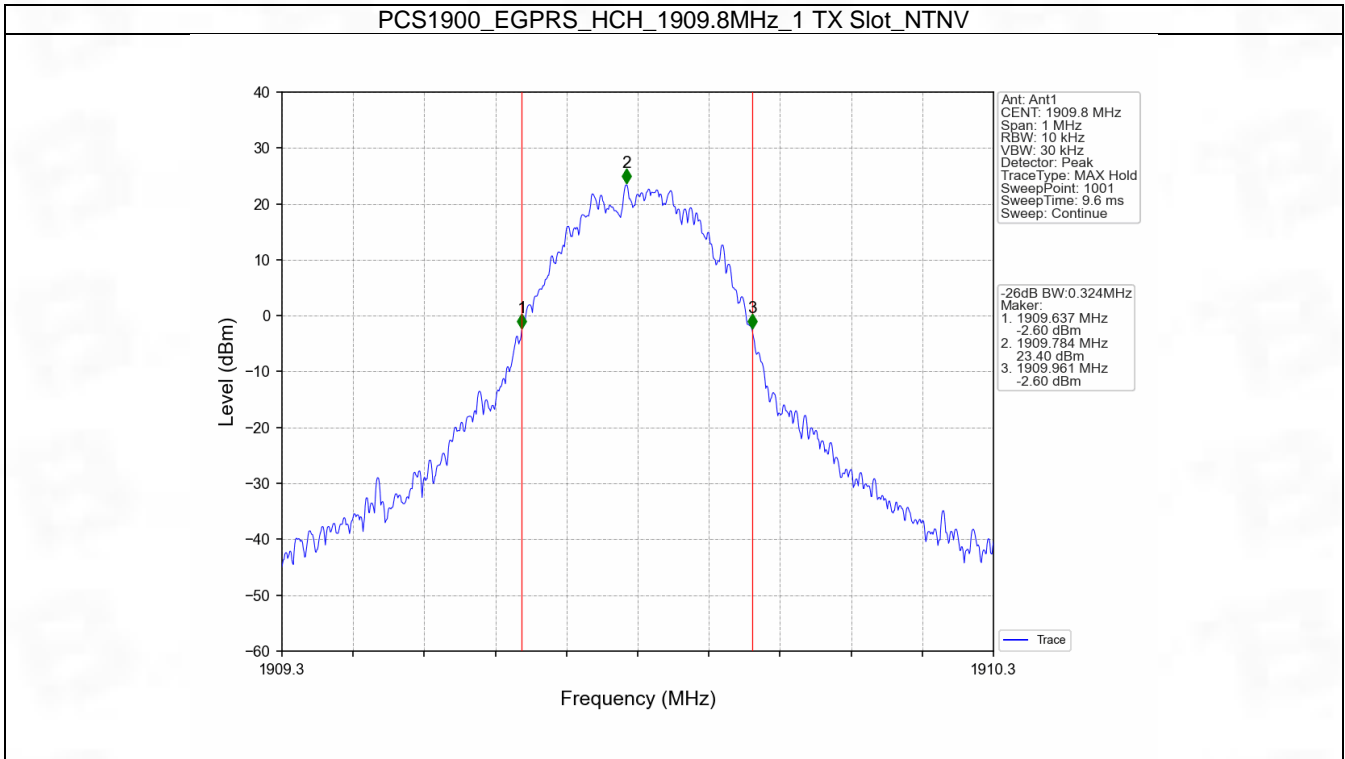
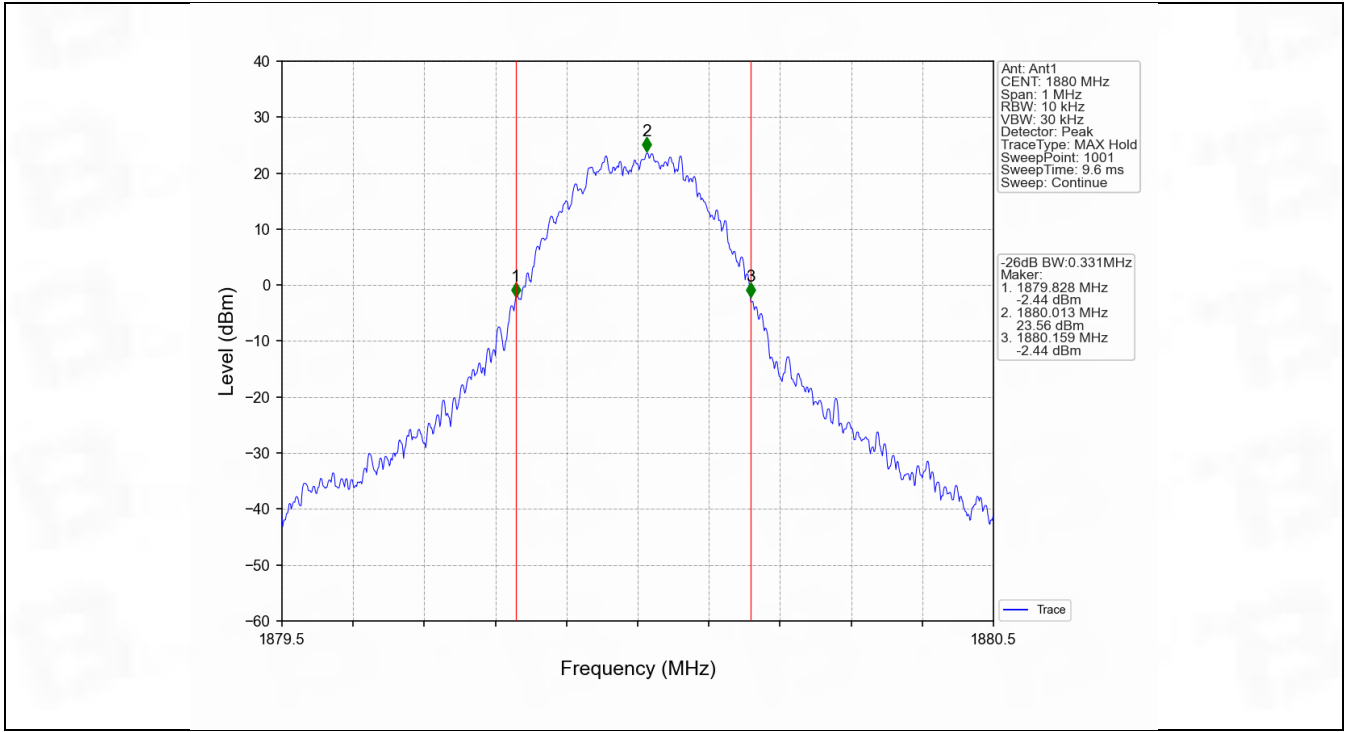




PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



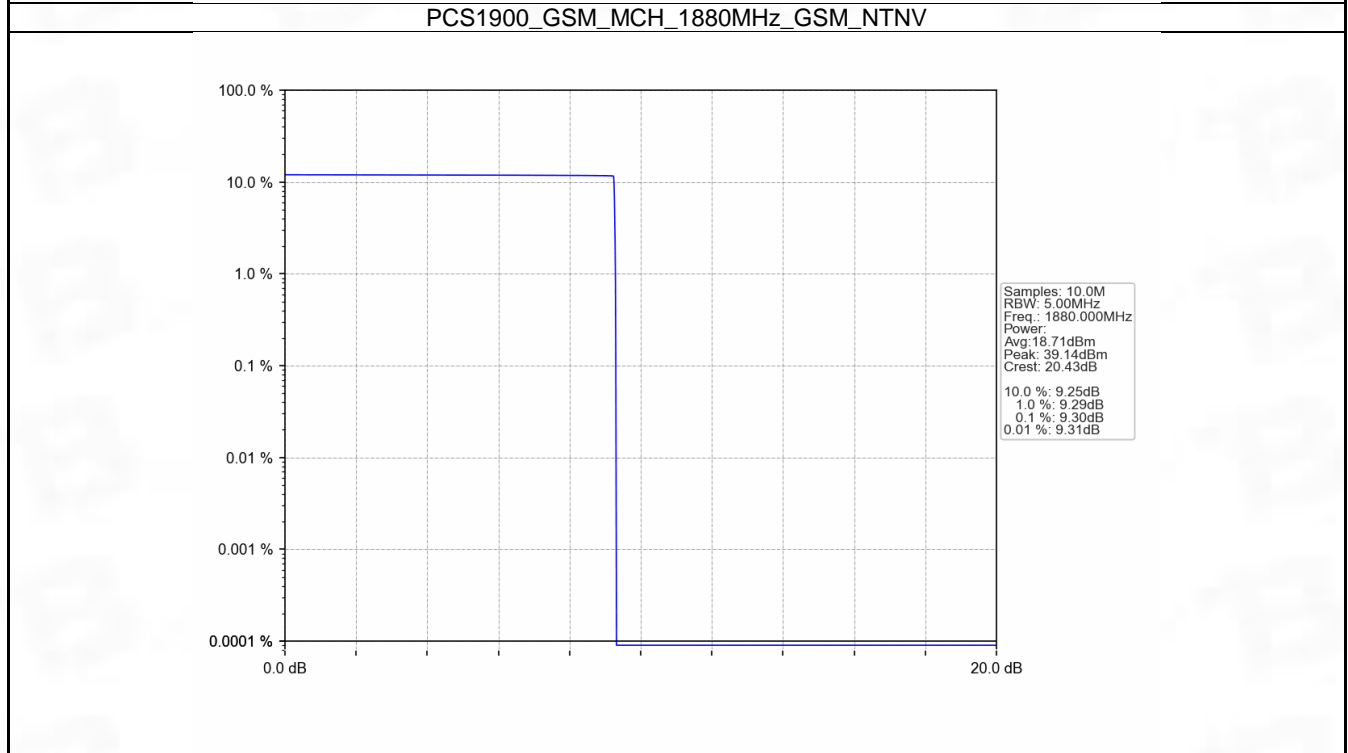
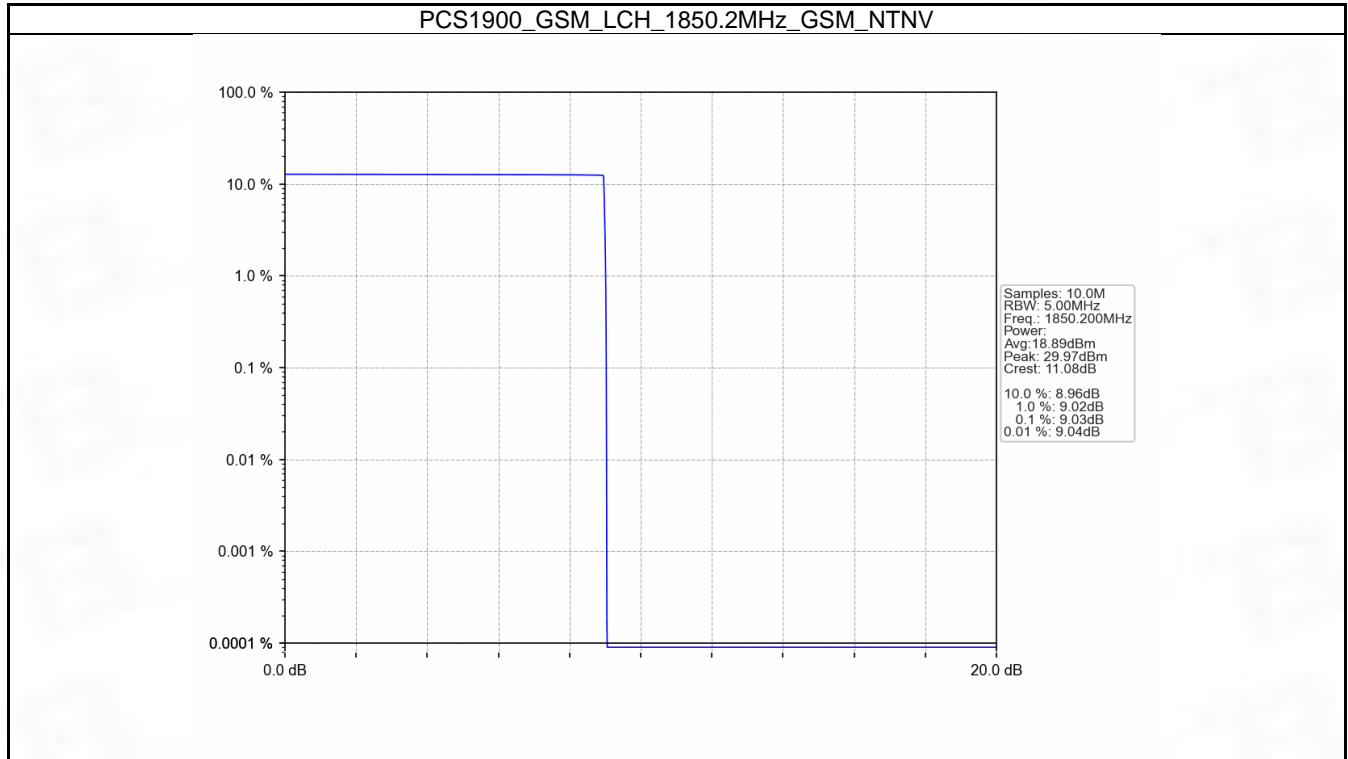
5. Peak-Average Ratio

5.1 PCS1900

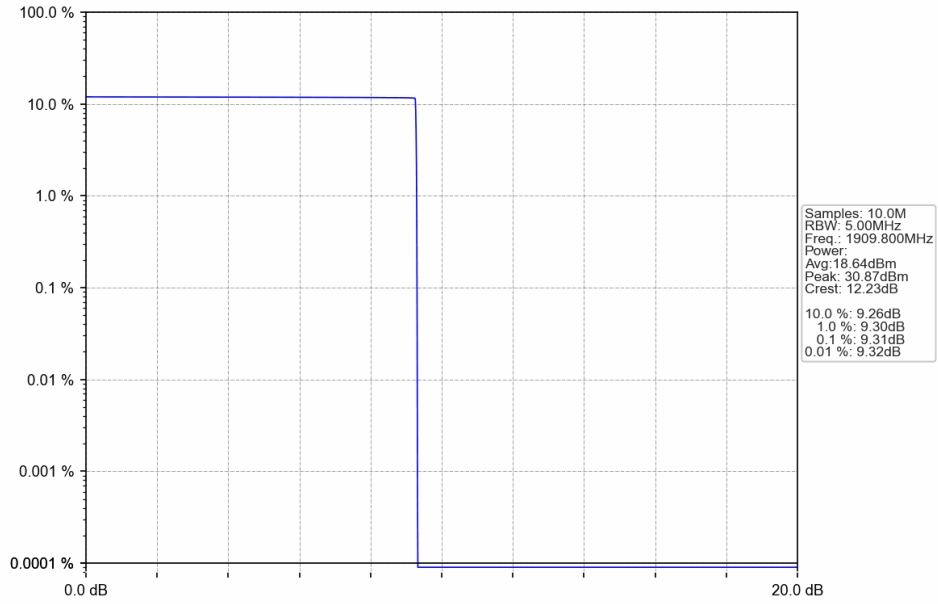
5.1.1 Test Result

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	3.81	<=13	Pass
			1909.8	3.60	<=13	Pass
	EGPRS	4 TX Slots	1850.2	7.41	<=13	Pass
			1880	8.74	<=13	Pass
			1909.8	9.52	<=13	Pass

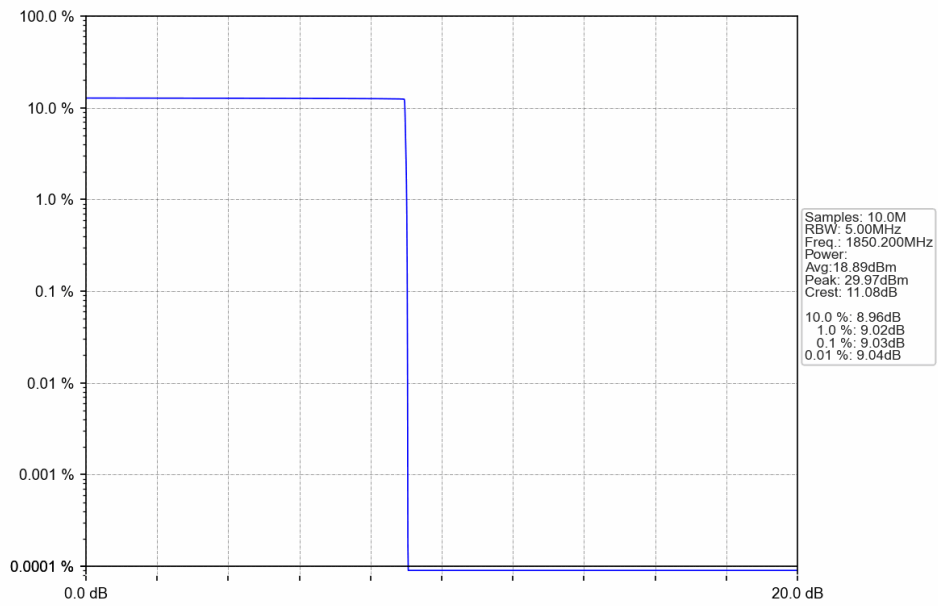
5.1.2 Test Graph



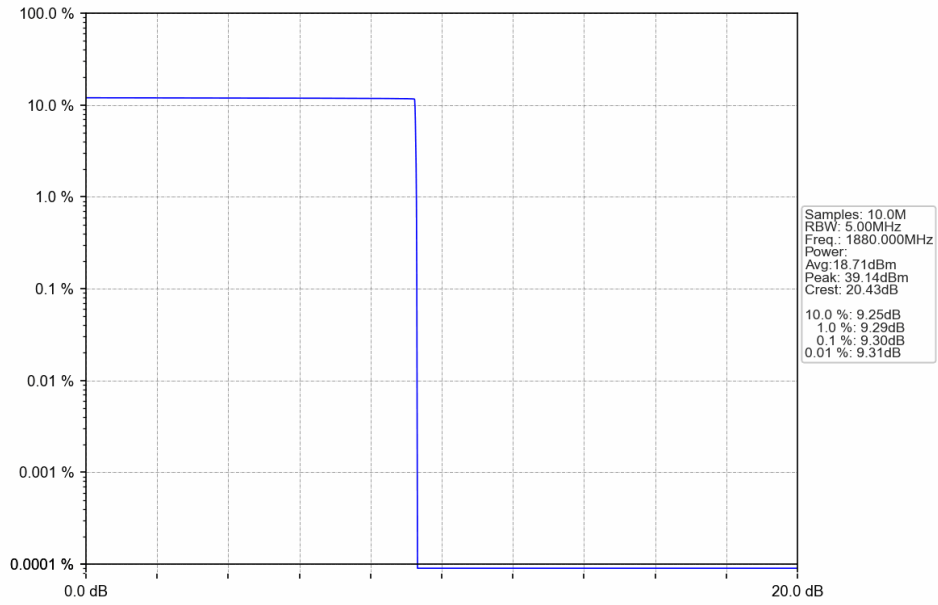
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



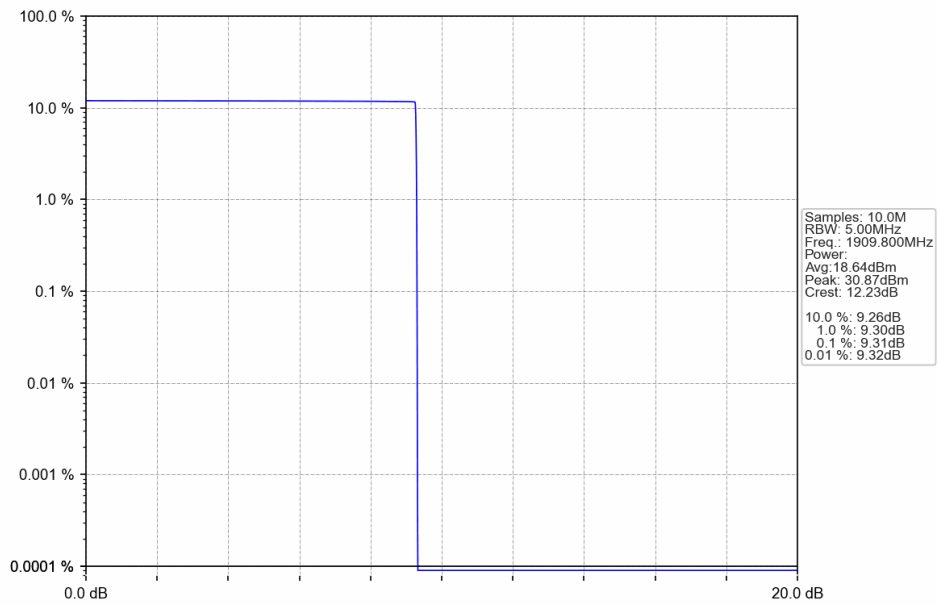
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



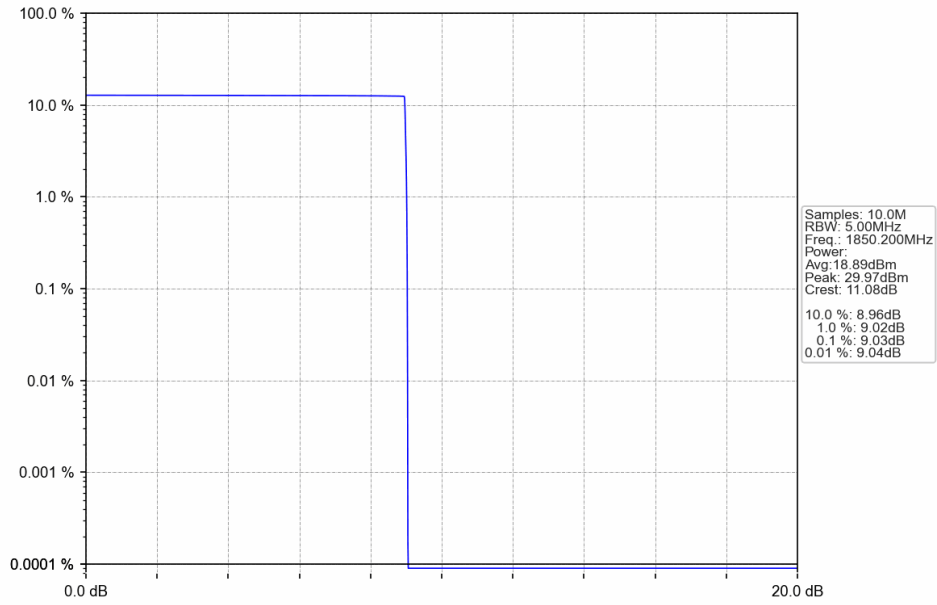
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



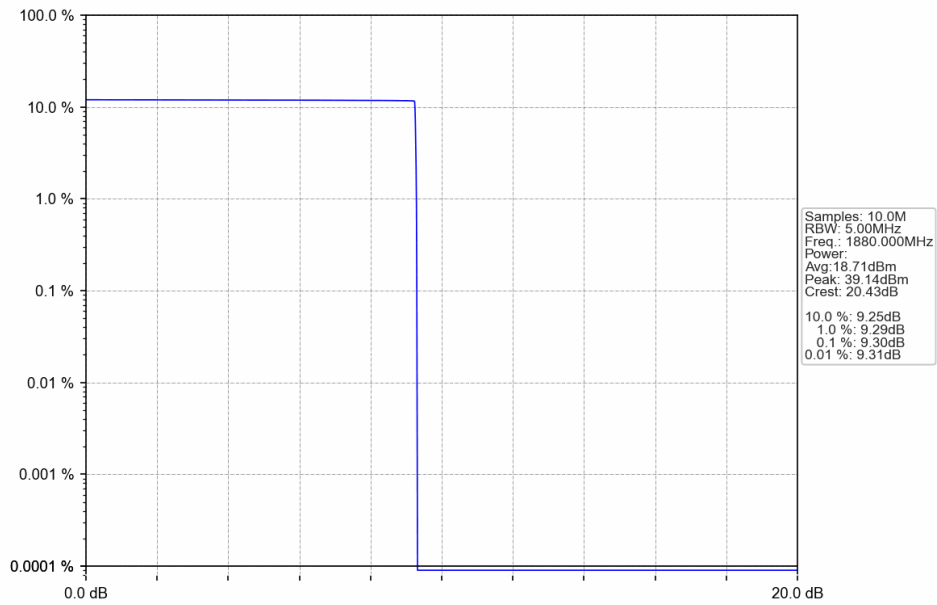
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



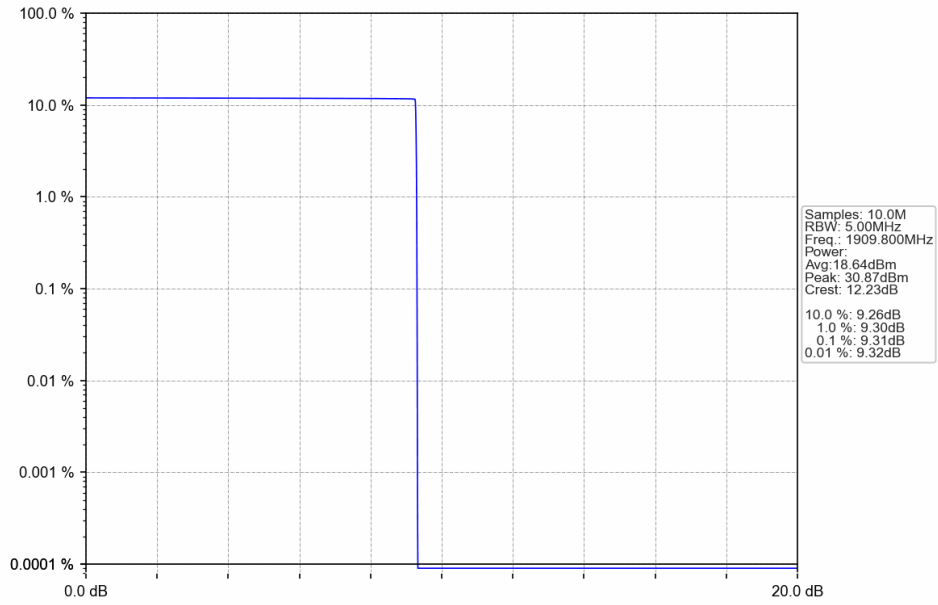
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



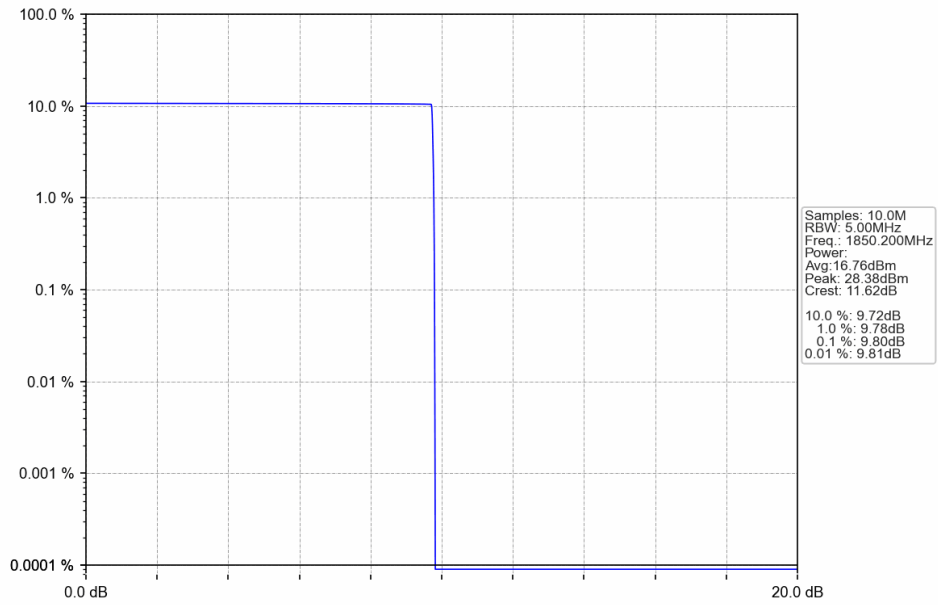
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



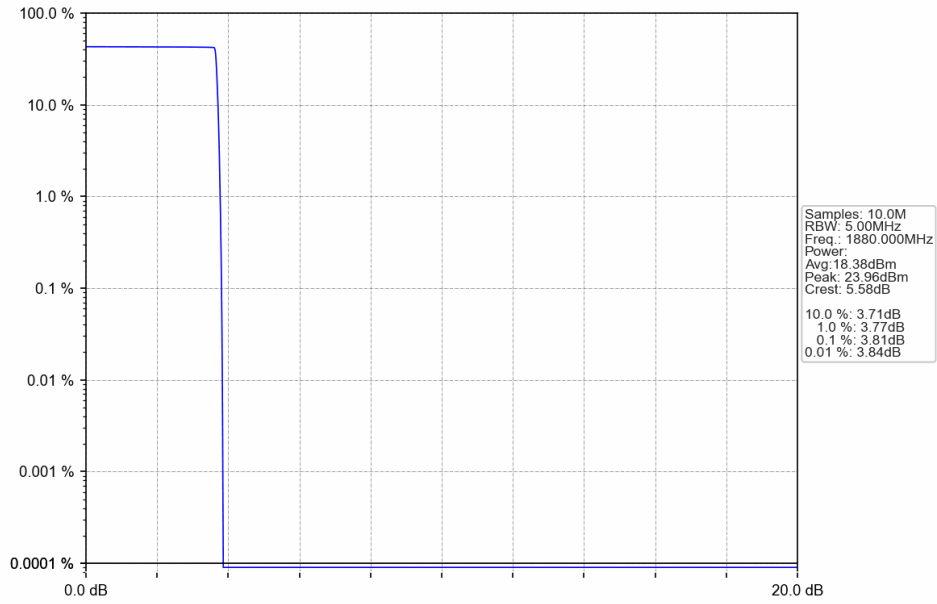
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



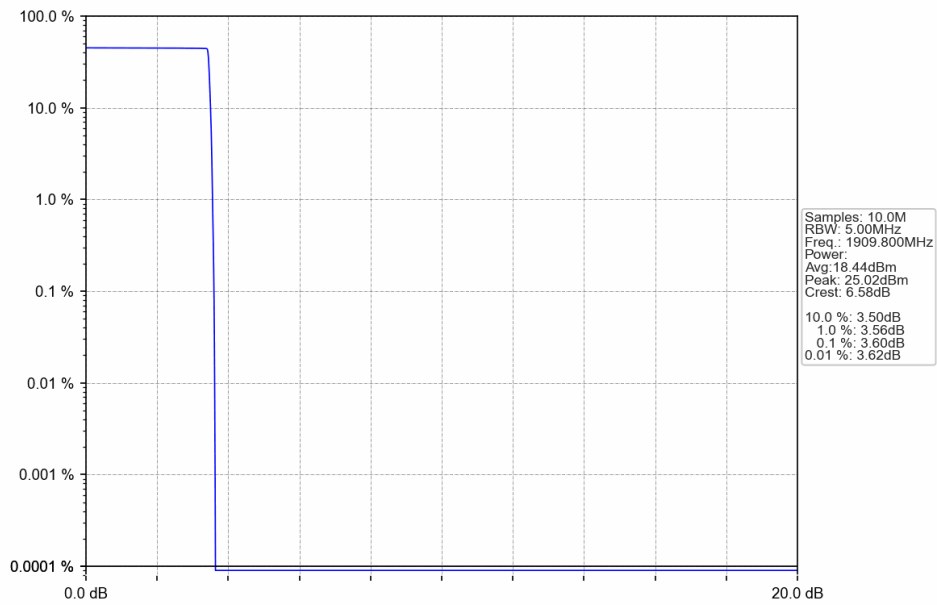
PCS1900_GPRS_LCH_1850.2MHz_4 TX Slots_NTNV



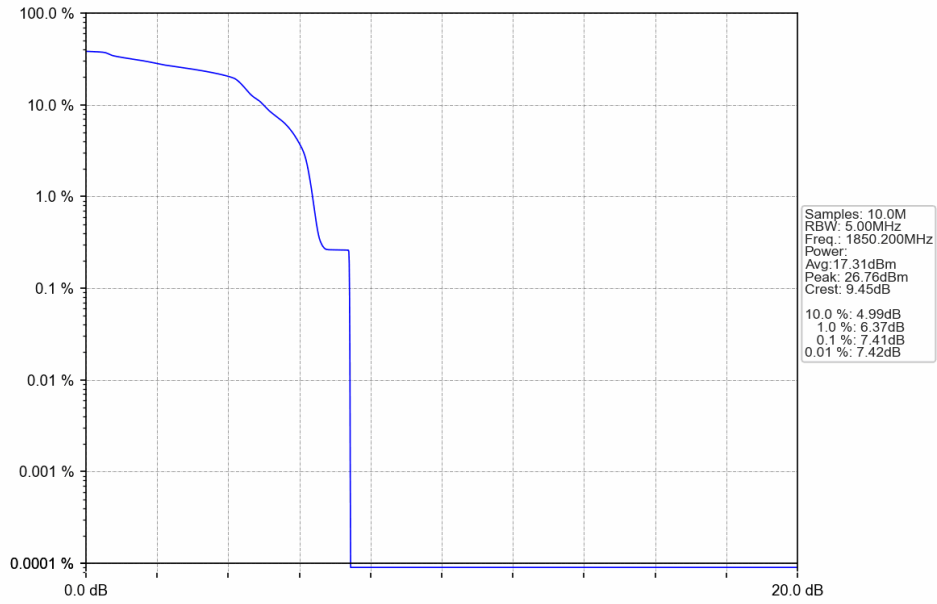
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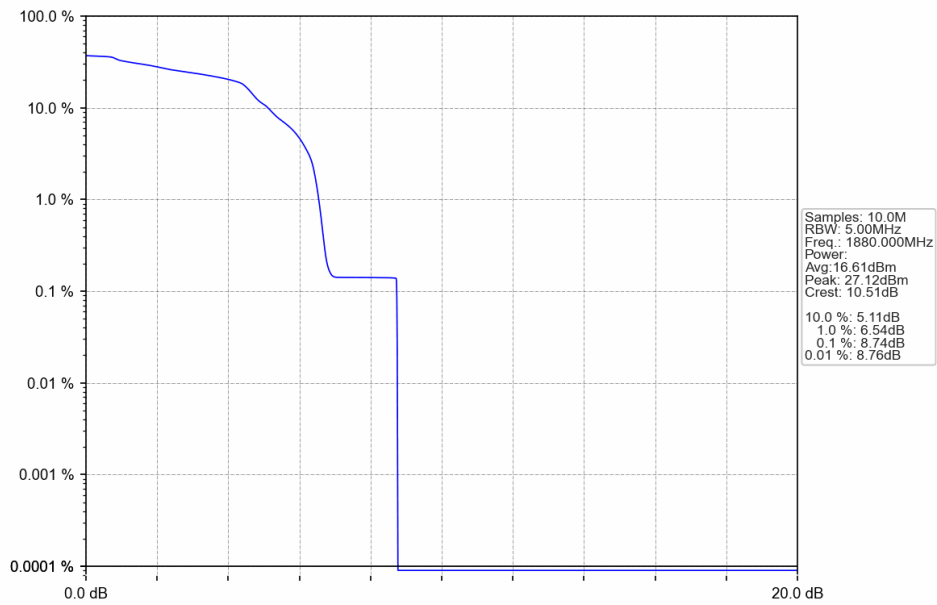
PCS1900_GPRS_HCH_1909.8MHz_4 TX Slots_NTNV



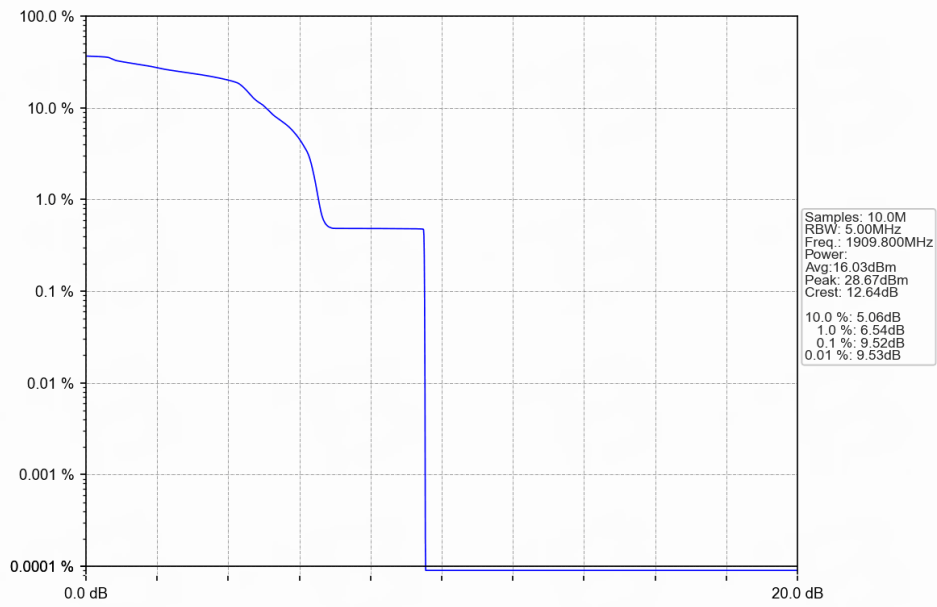
PCS1900_EGPRS_LCH_1850.2MHz_4 TX Slots_NTNV



PCS1900_EGPRS_MCH_1880MHz_4 TX Slots_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_4 TX Slots_NTNV



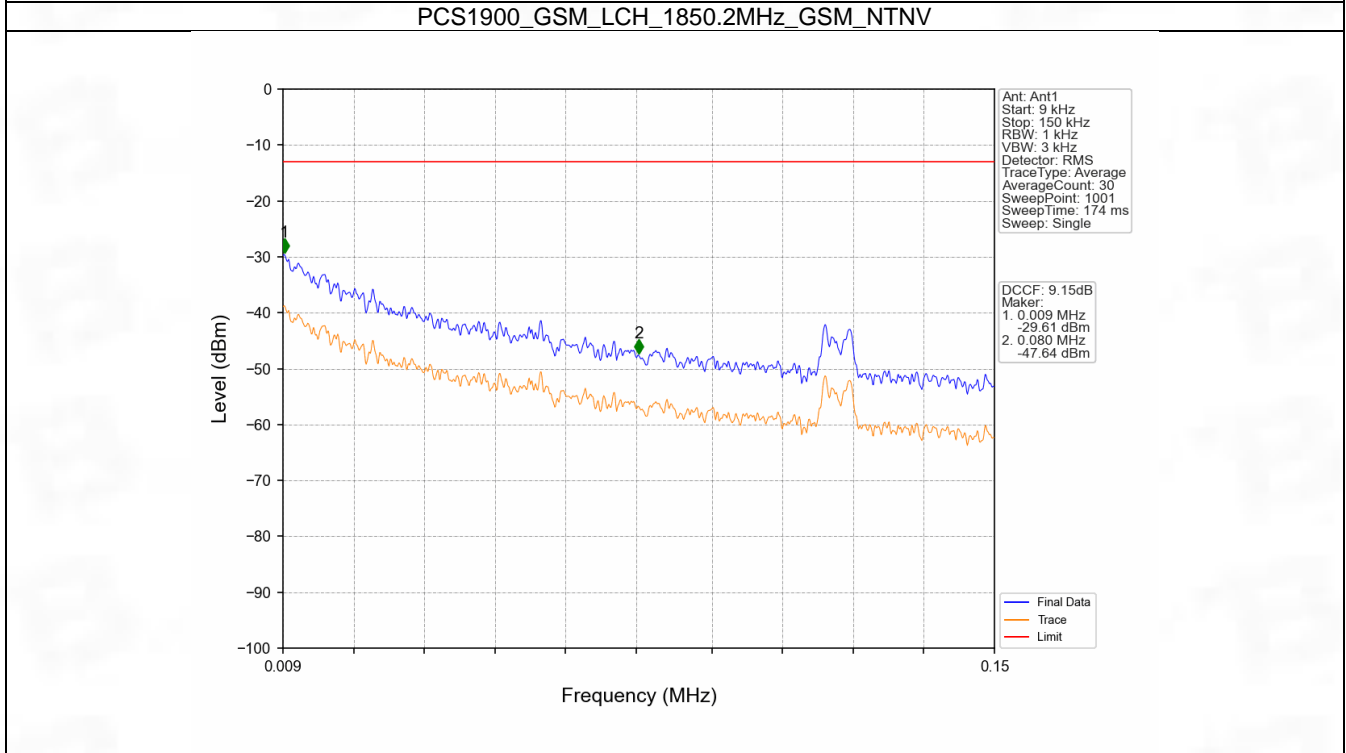
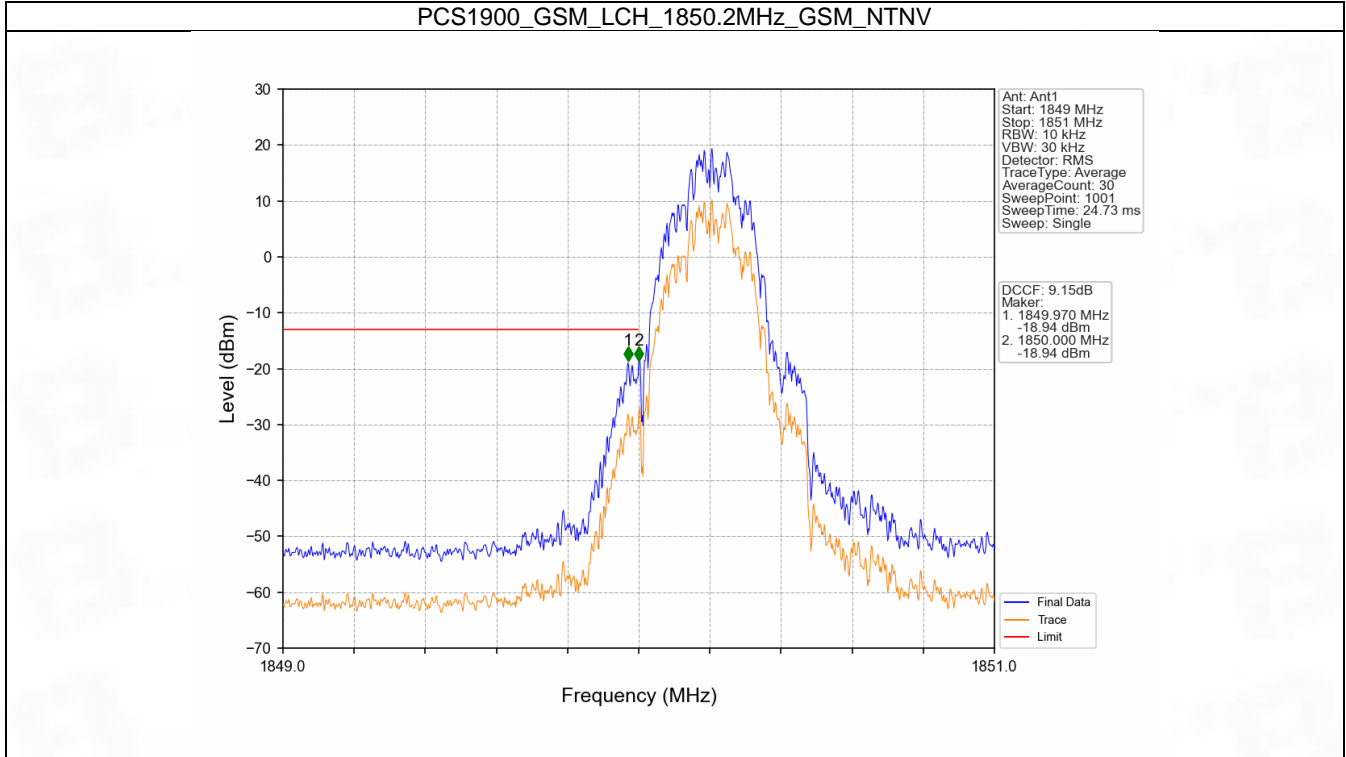
6. Spurious Emission

6.1 PCS1900

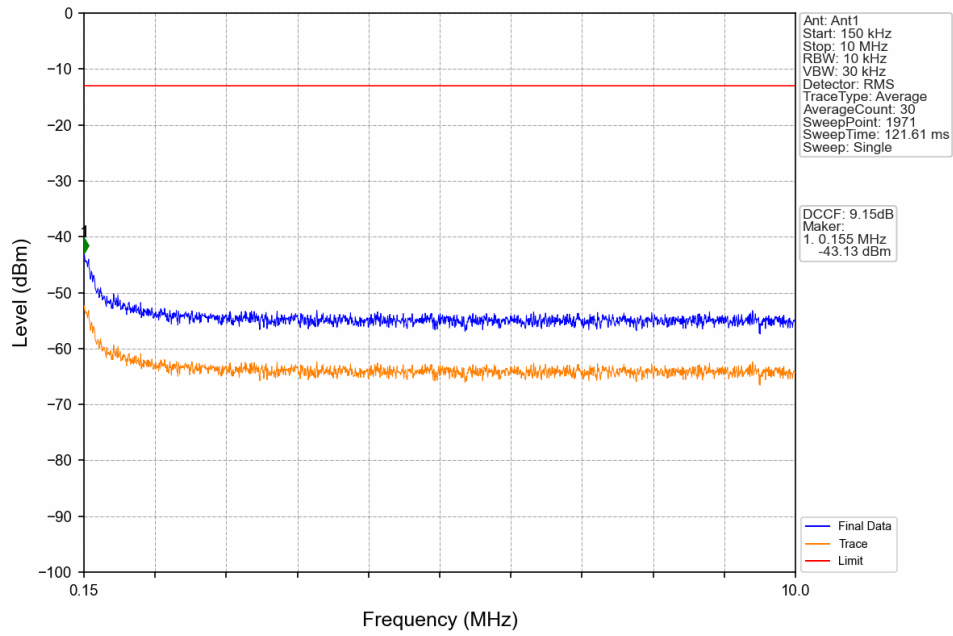
6.1.1 Test Result

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

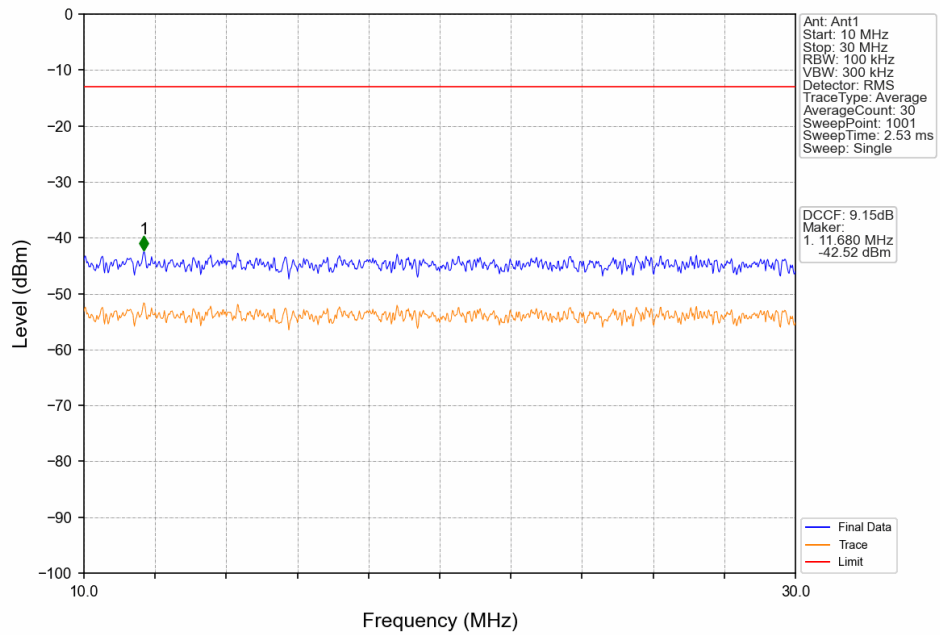
6.1.2 Test Graph



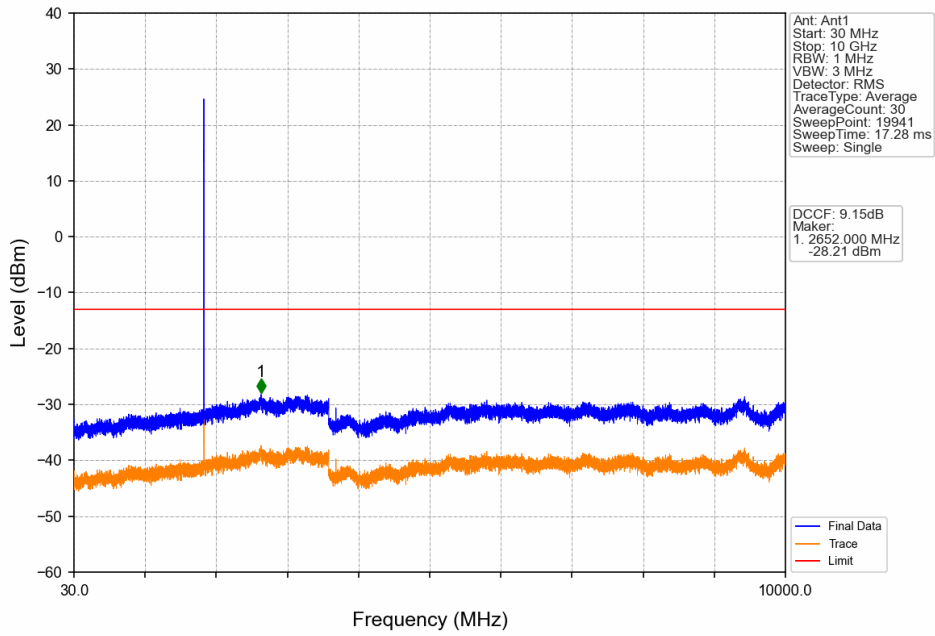
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



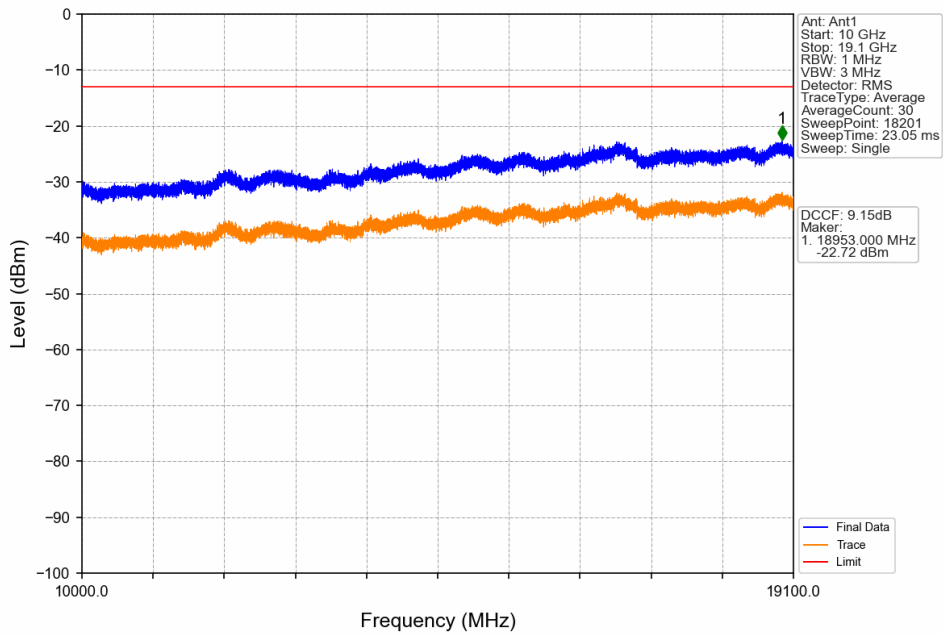
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



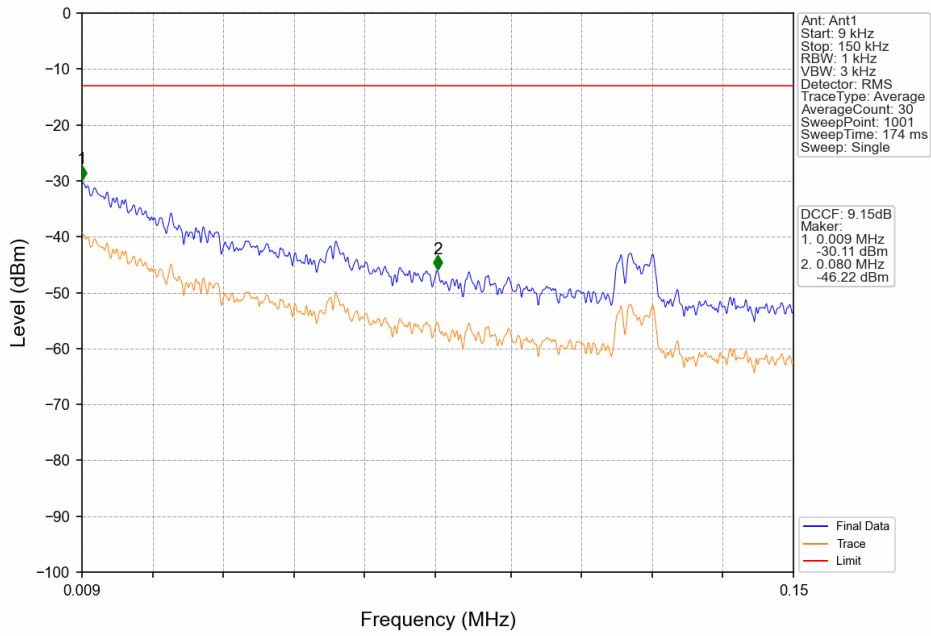
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



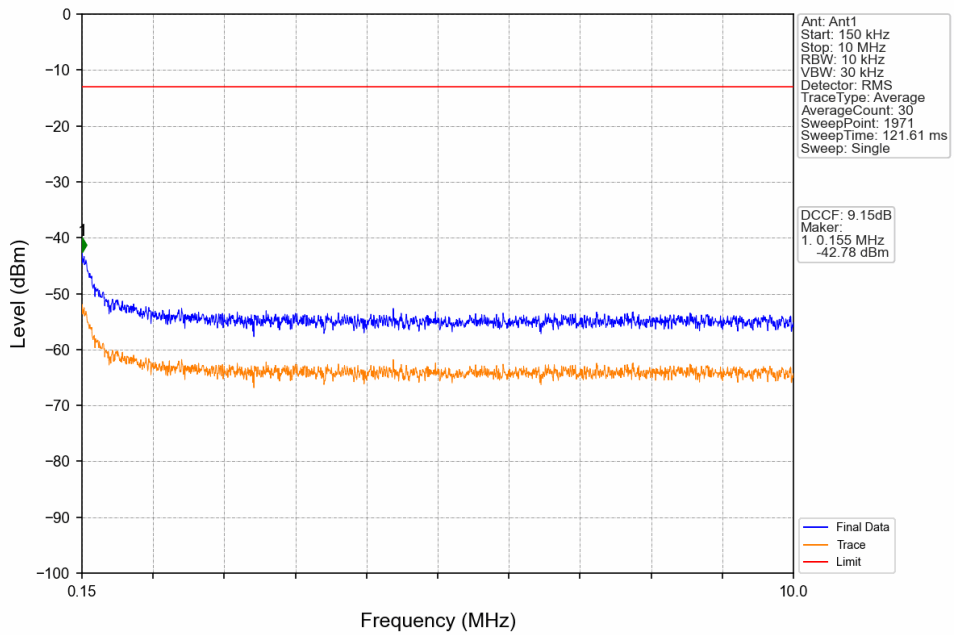
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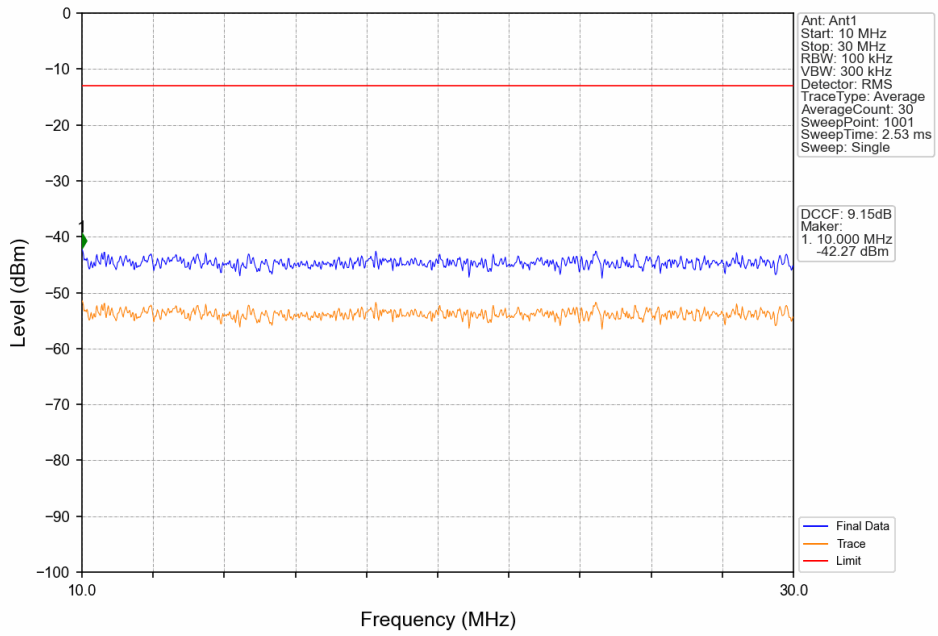
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



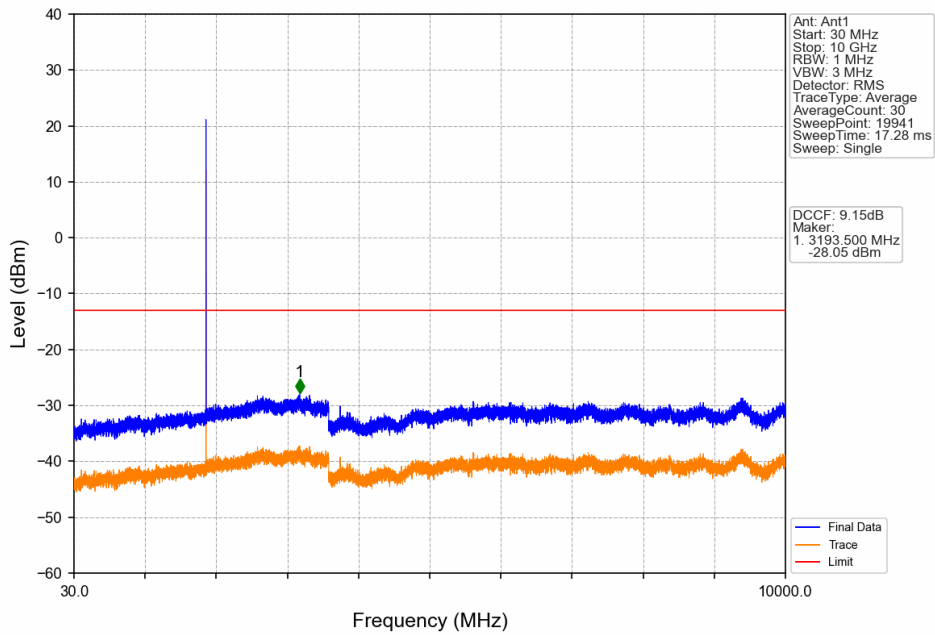
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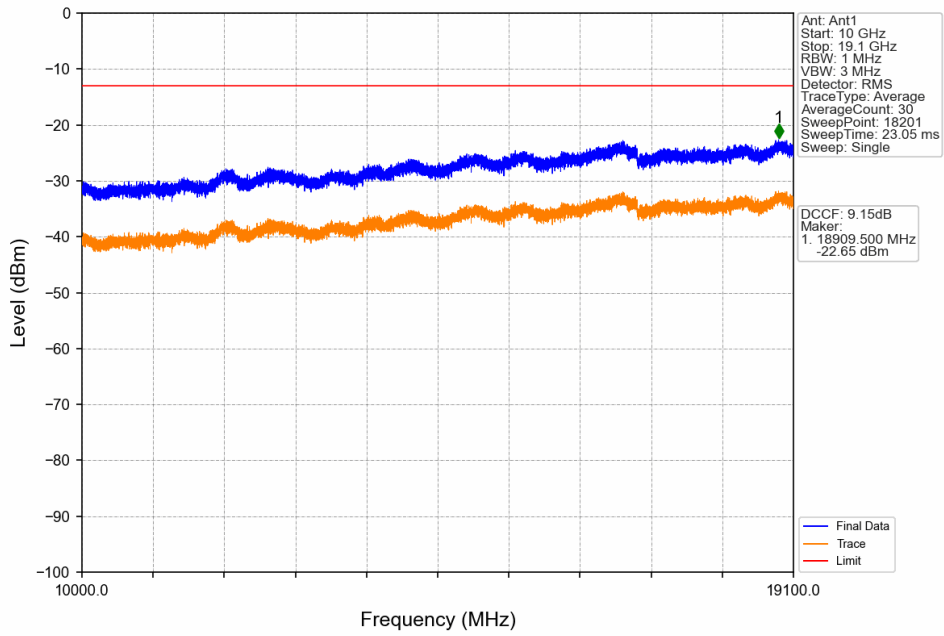
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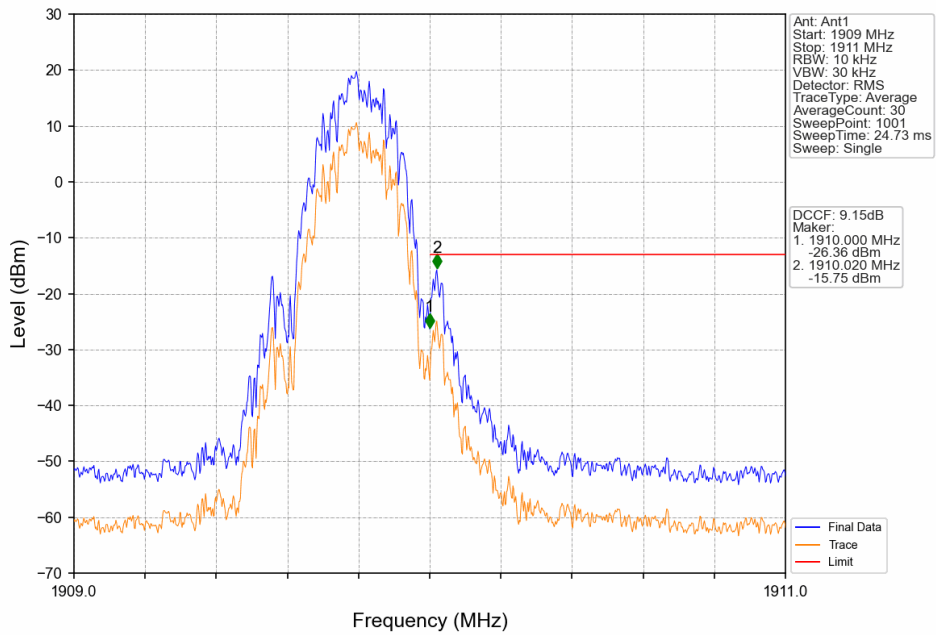
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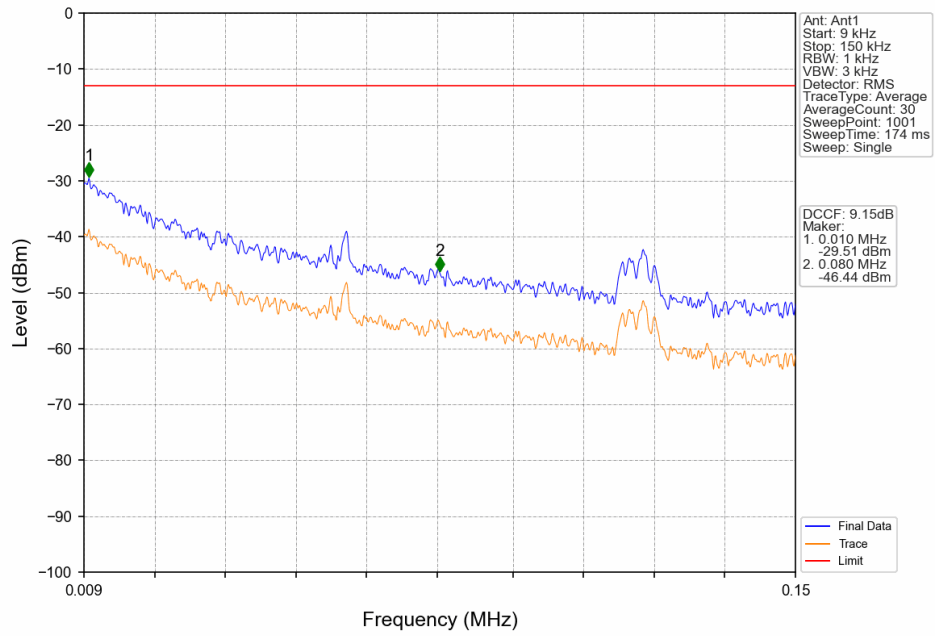
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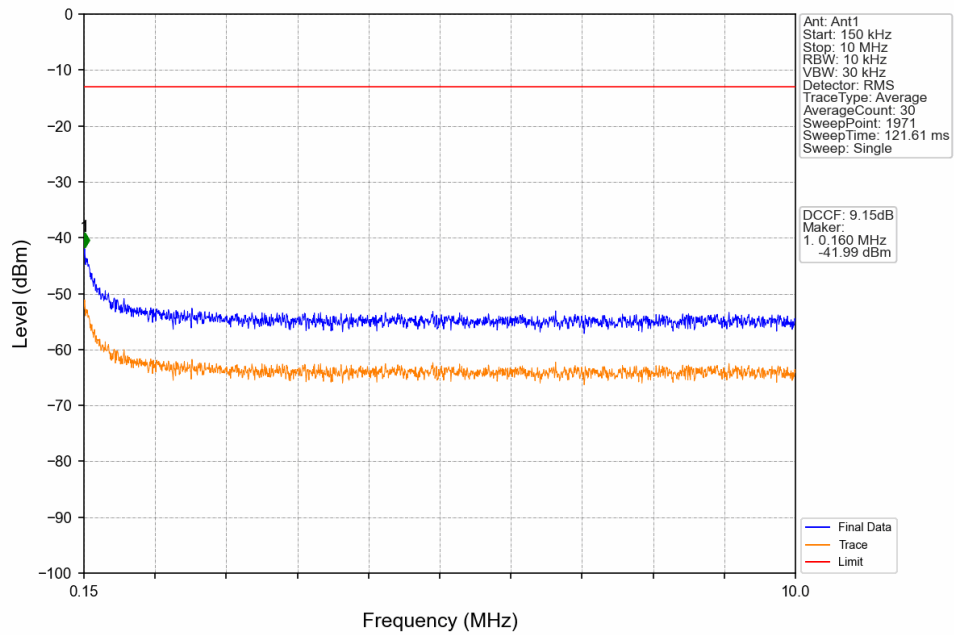
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



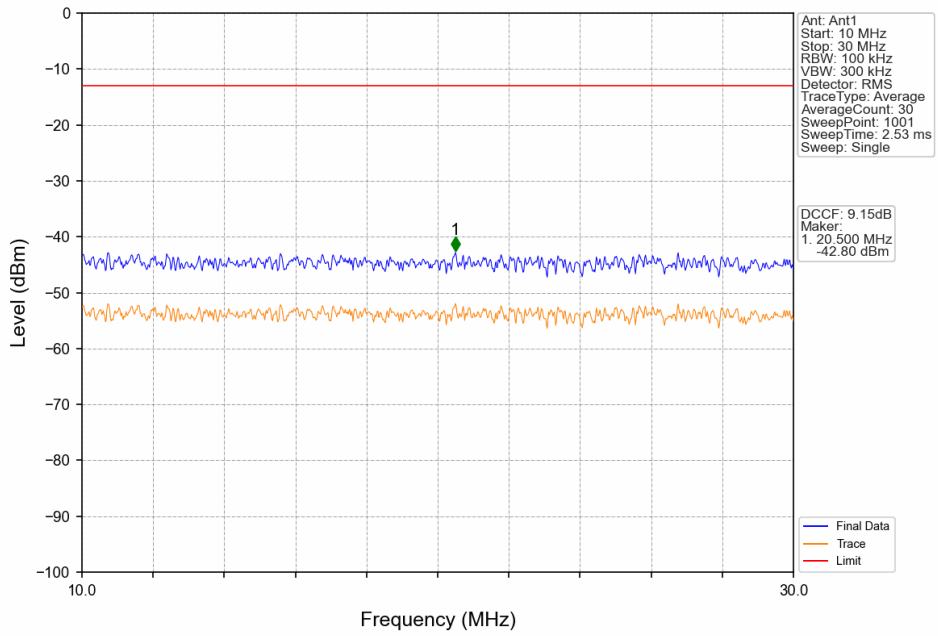
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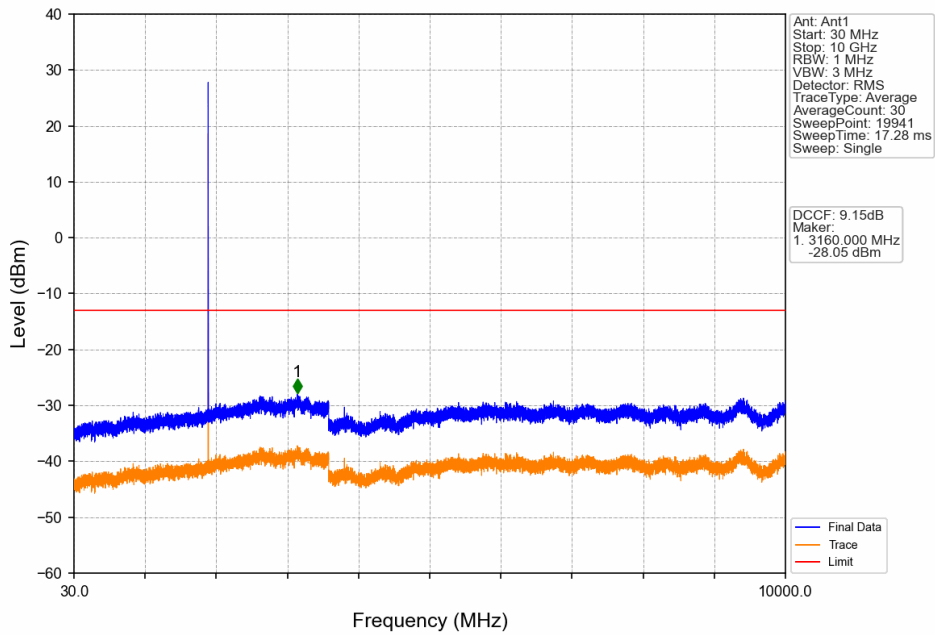
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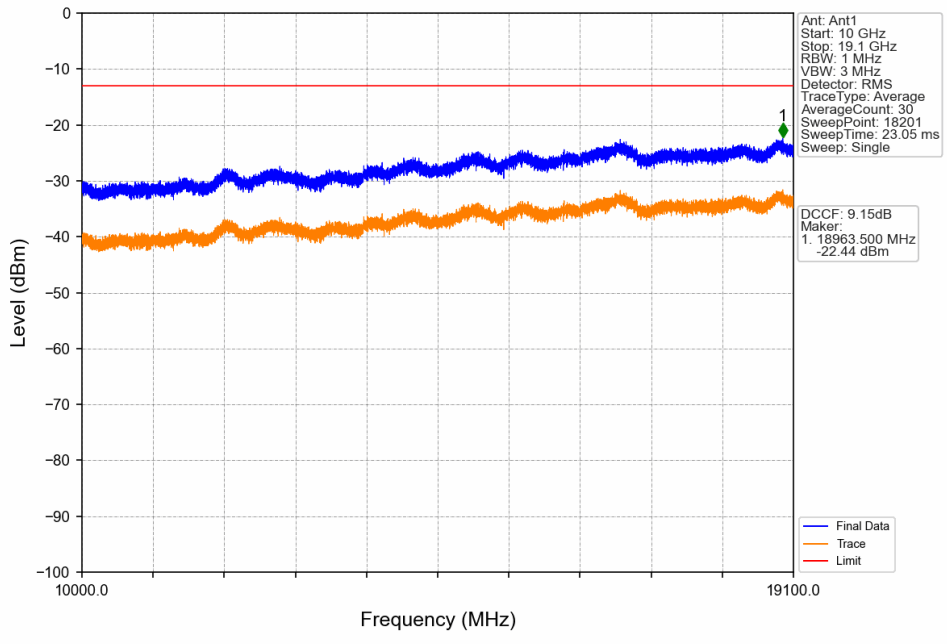
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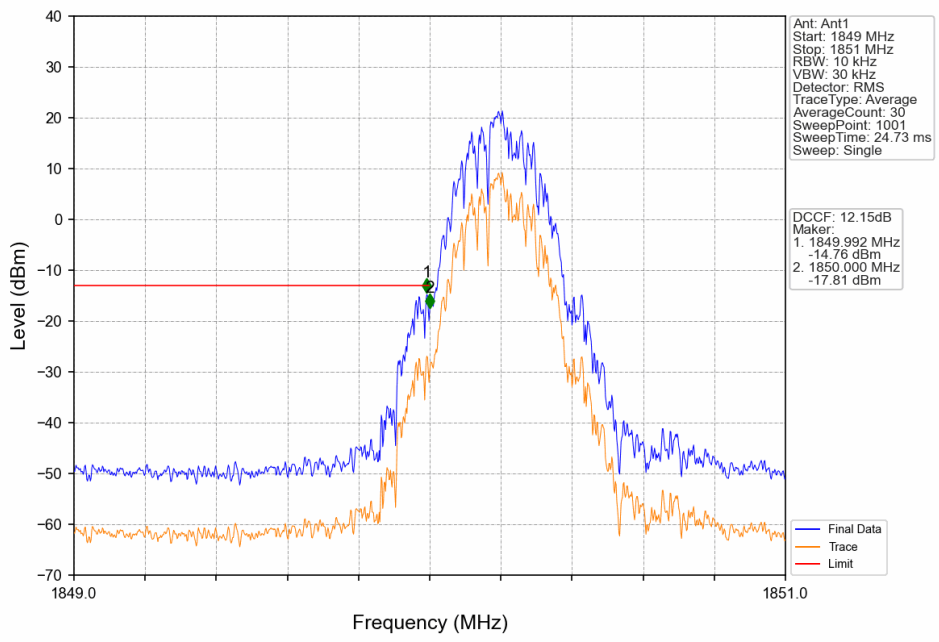
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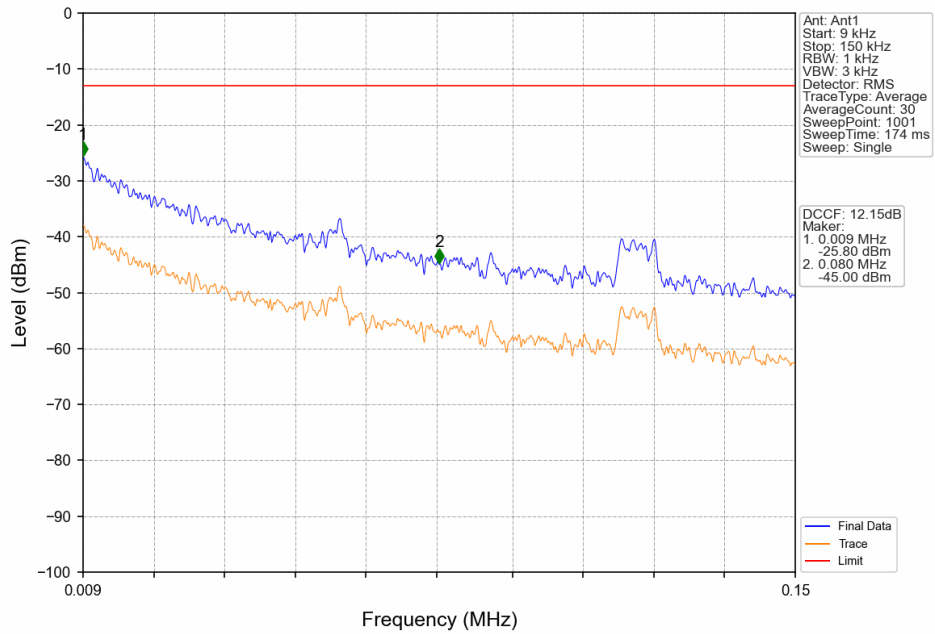
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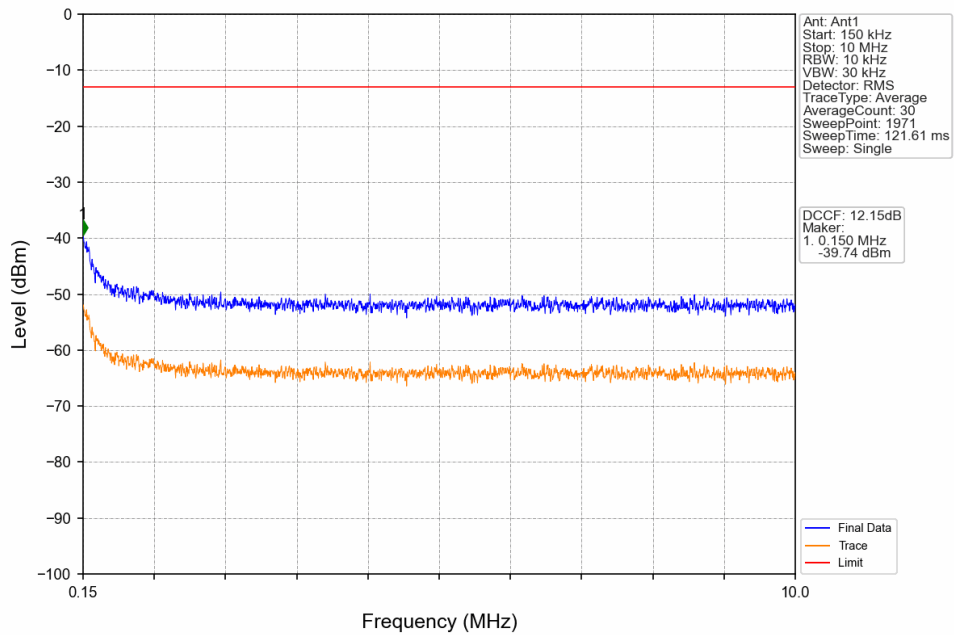
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



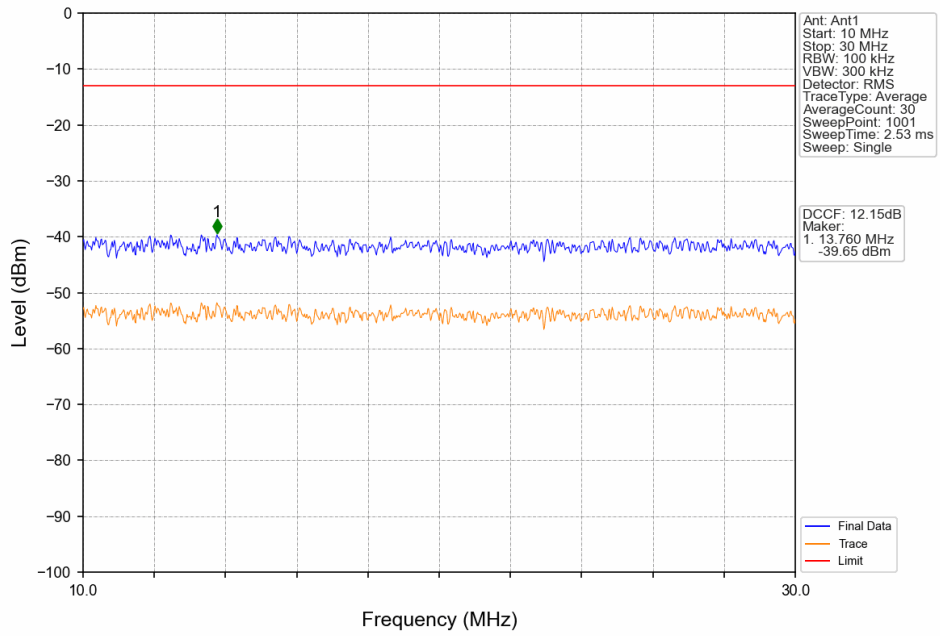
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



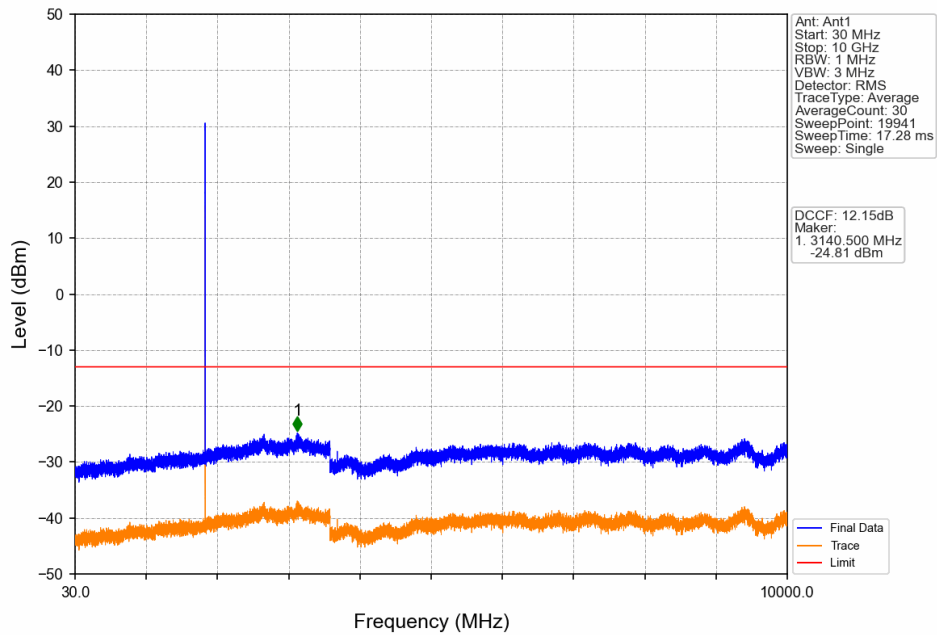
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



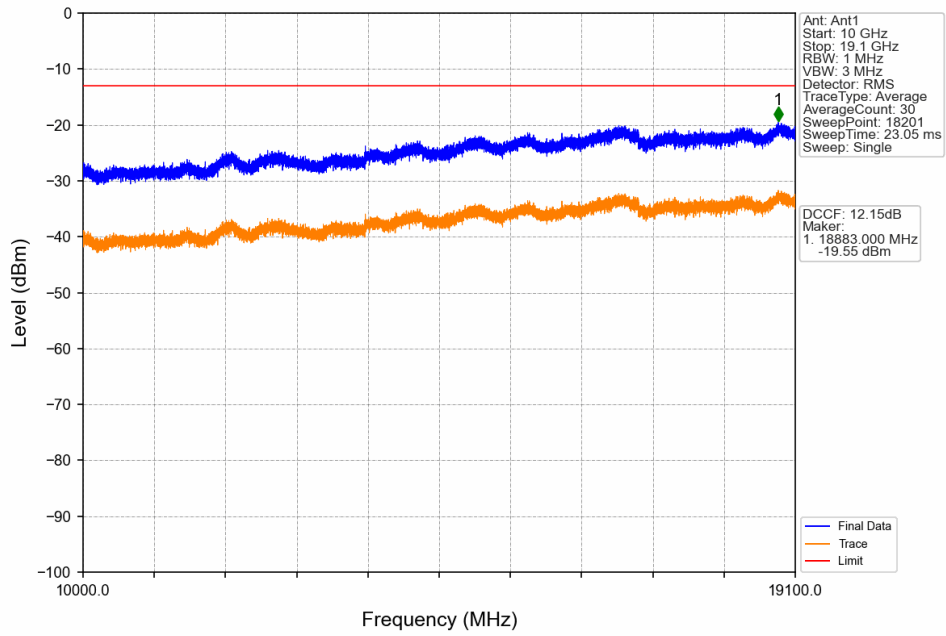
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



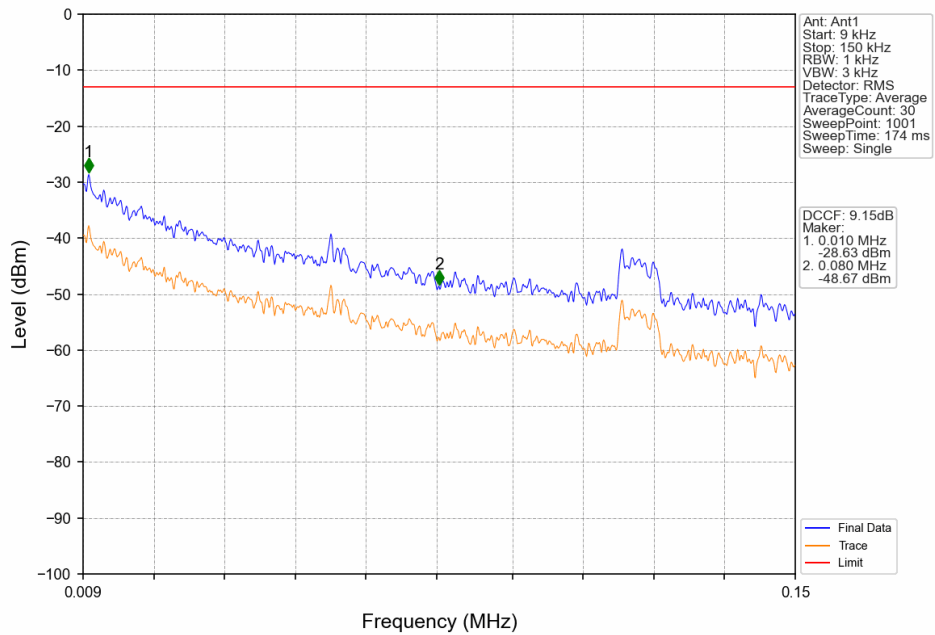
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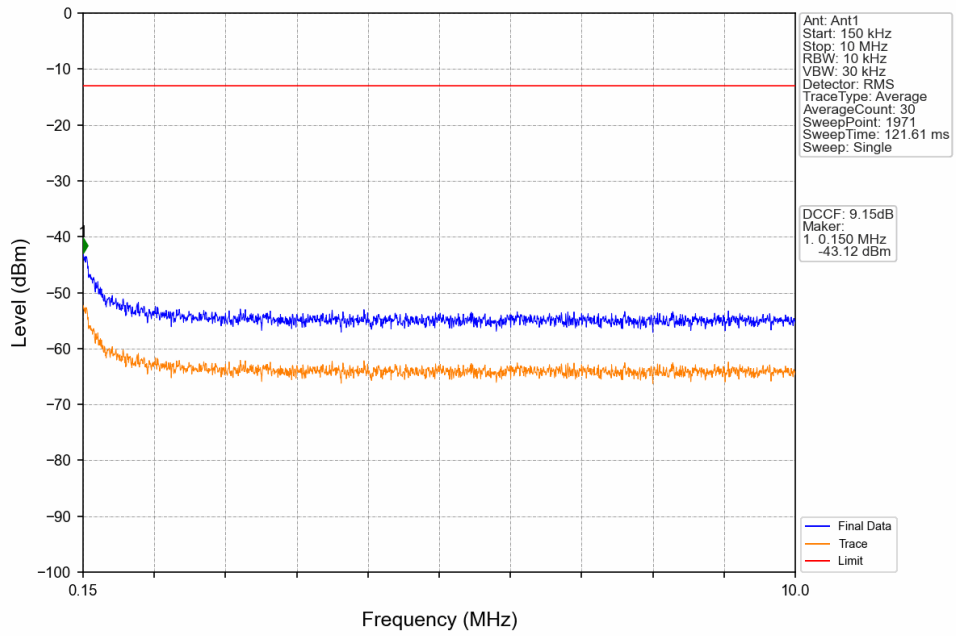
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



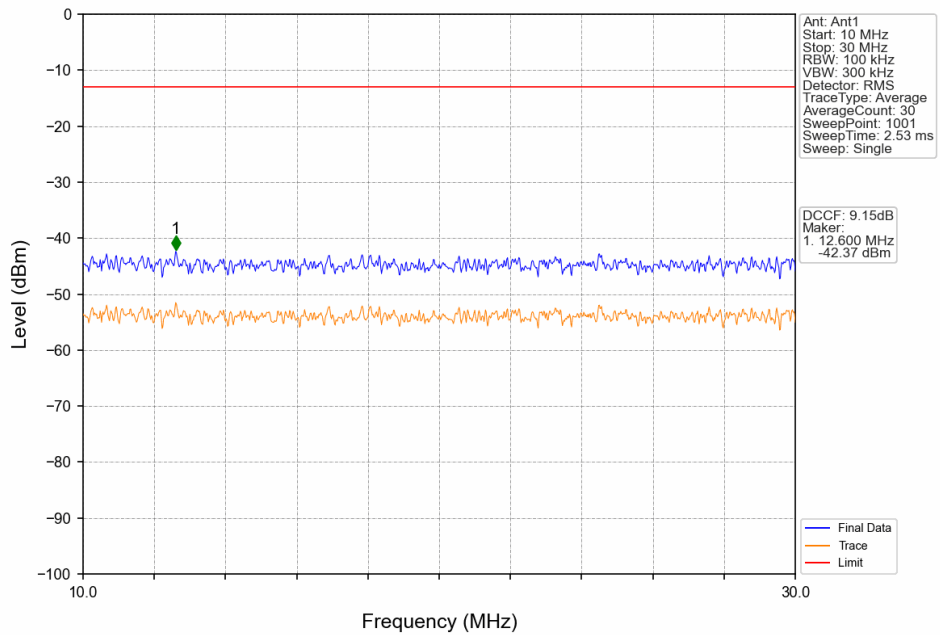
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



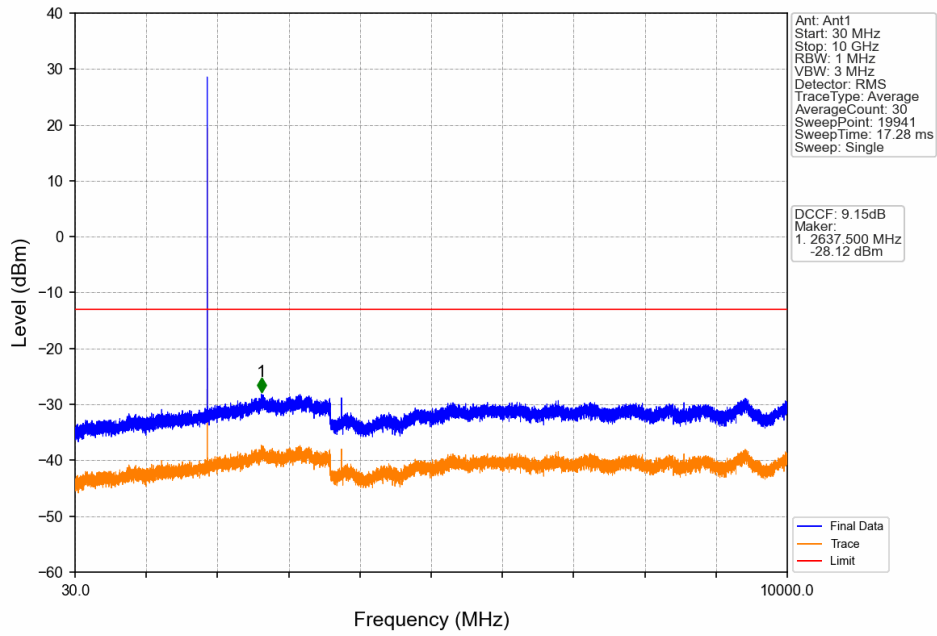
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



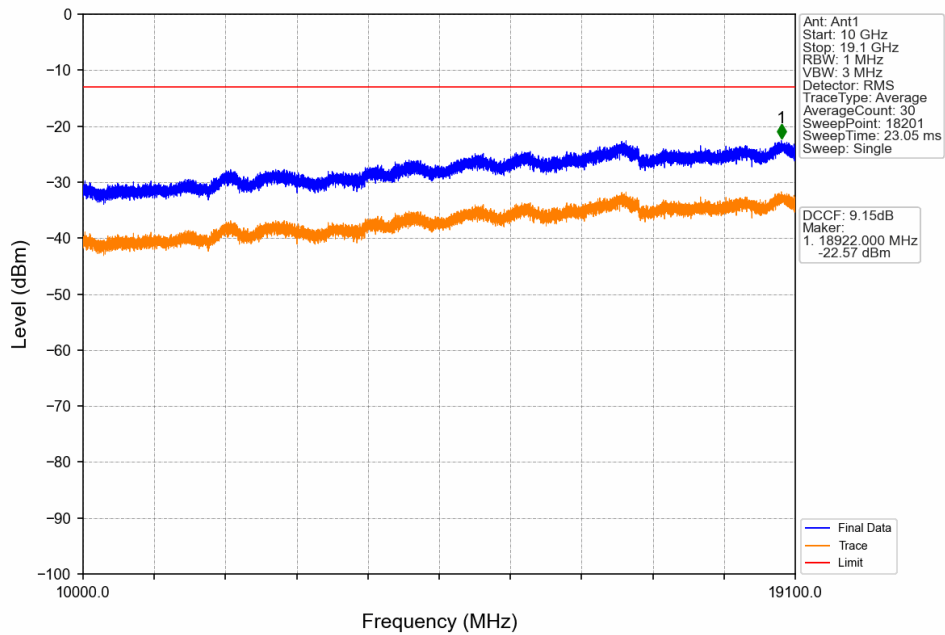
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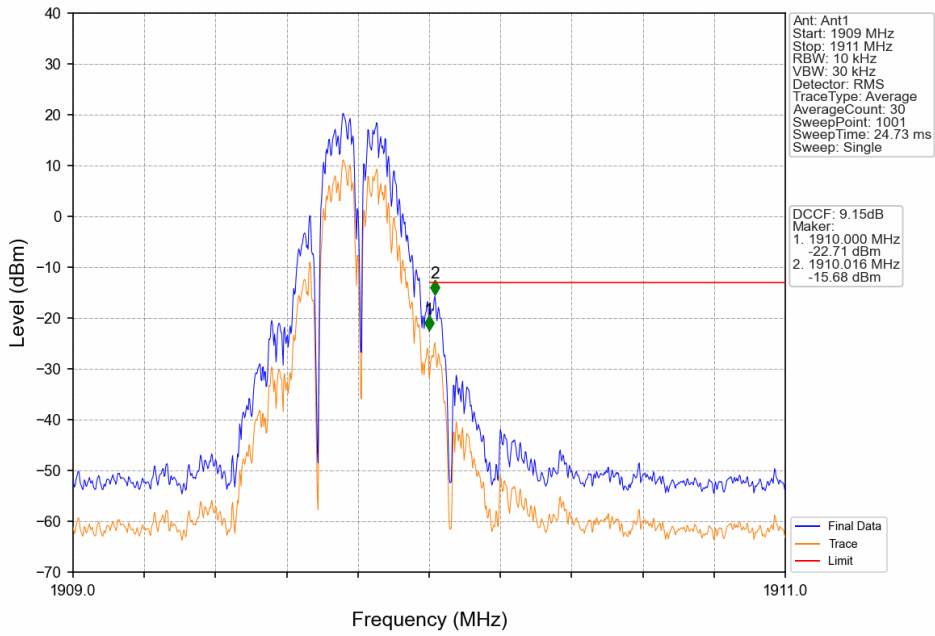
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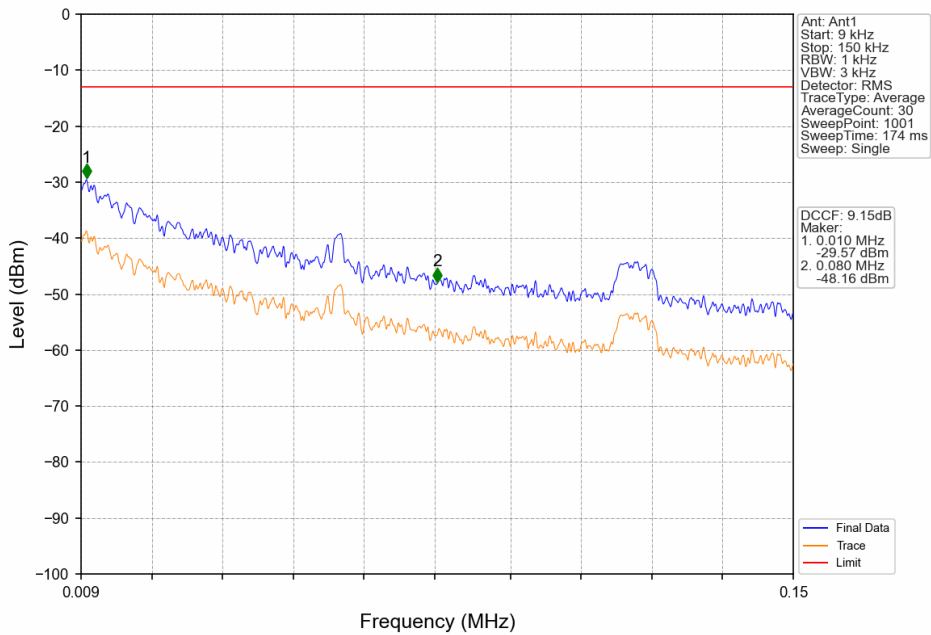
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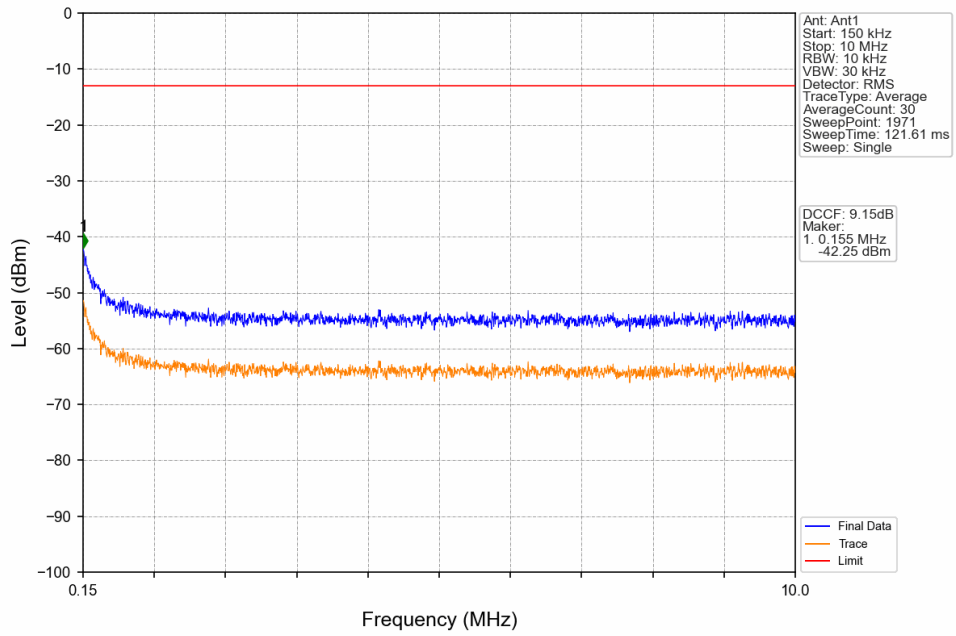
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



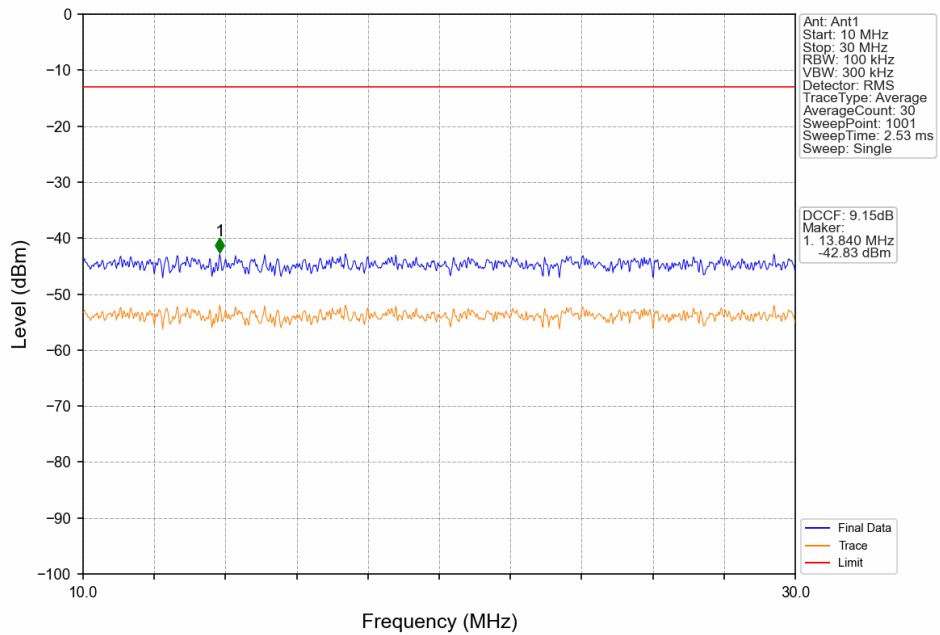
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



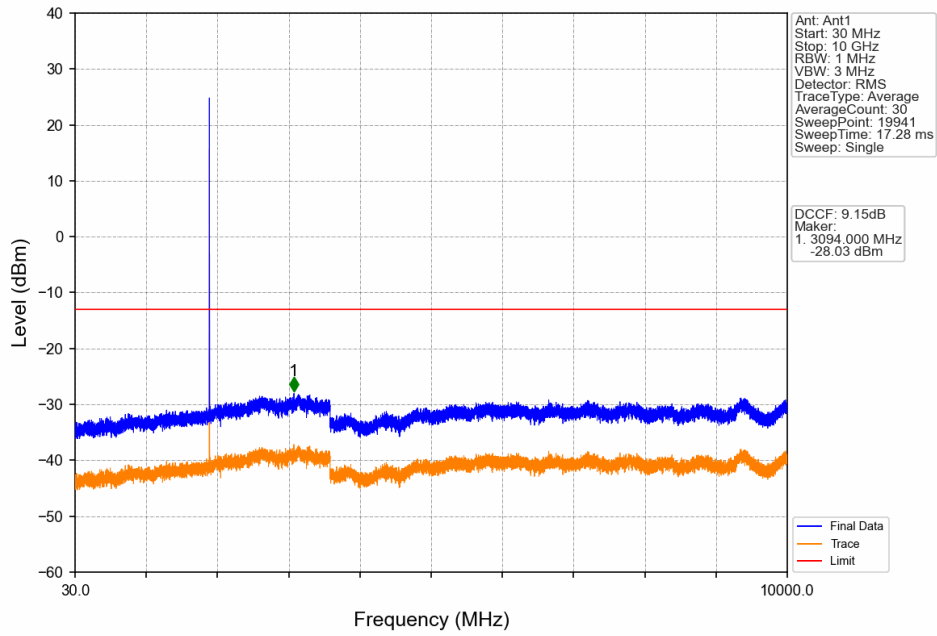
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



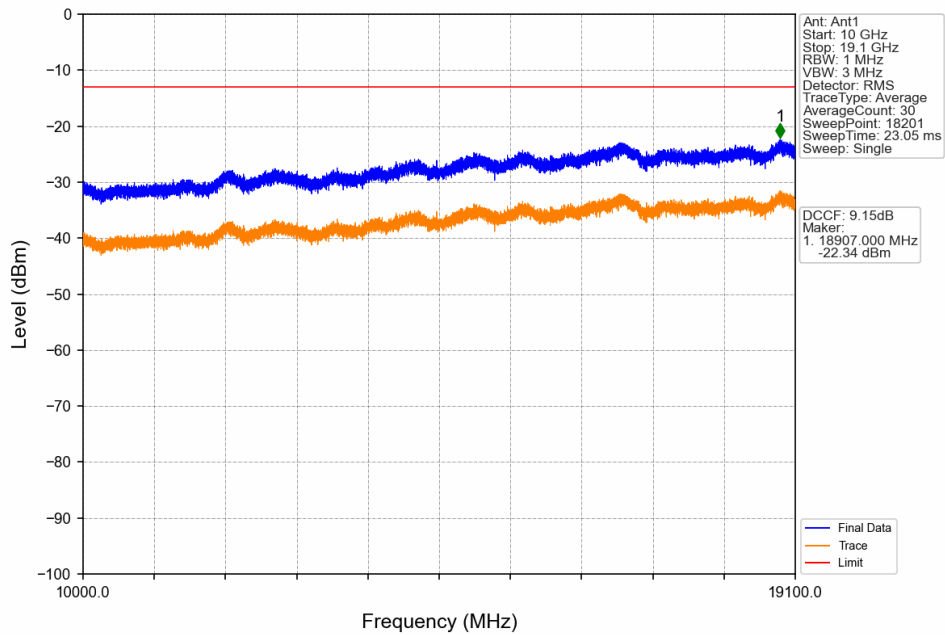
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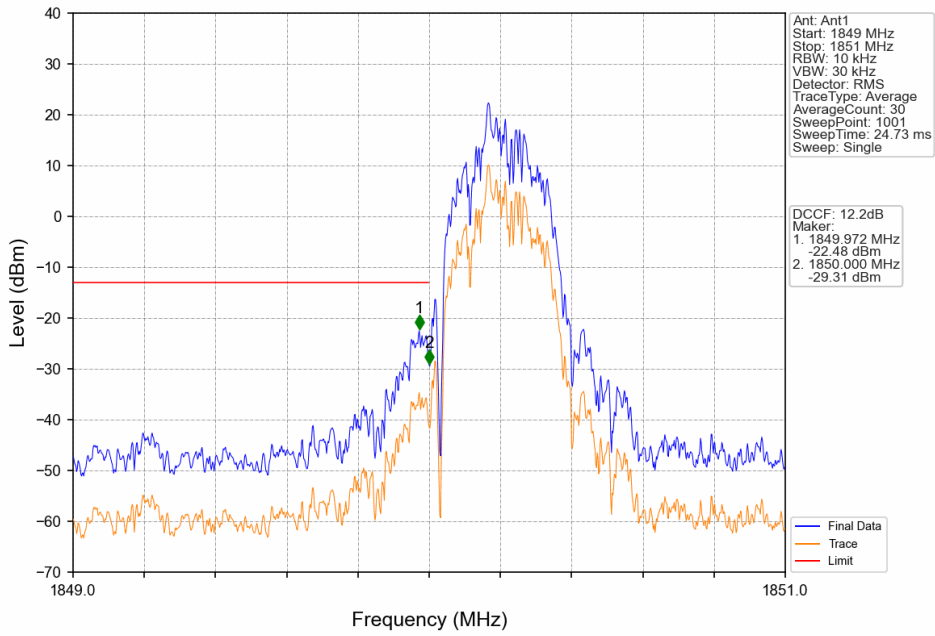
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



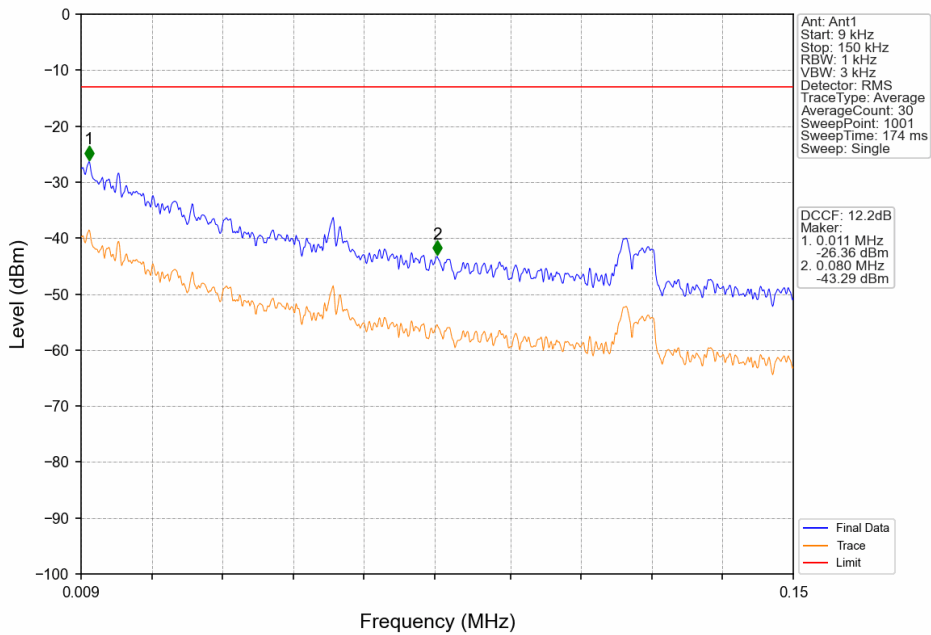
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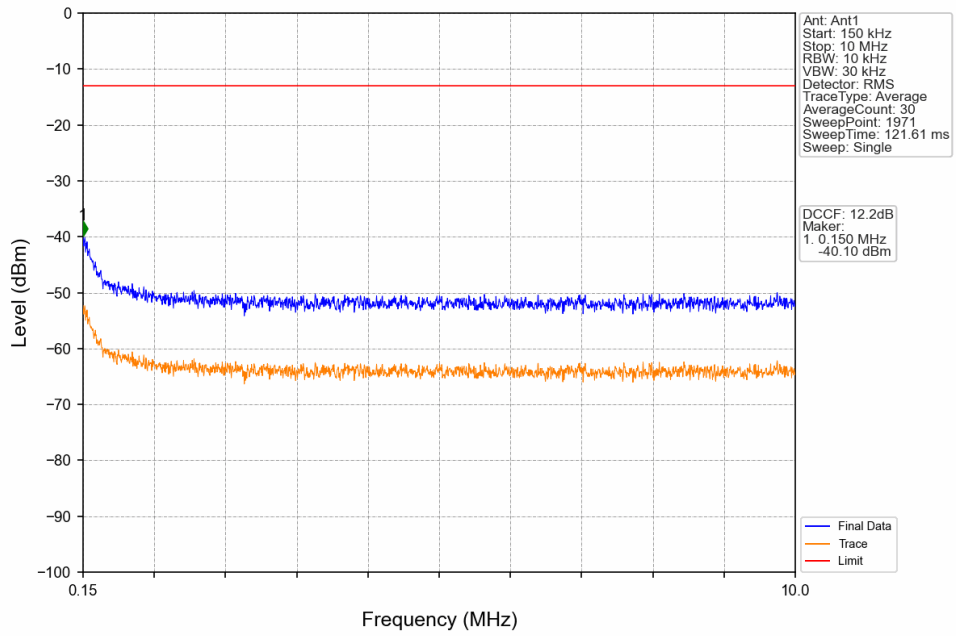
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



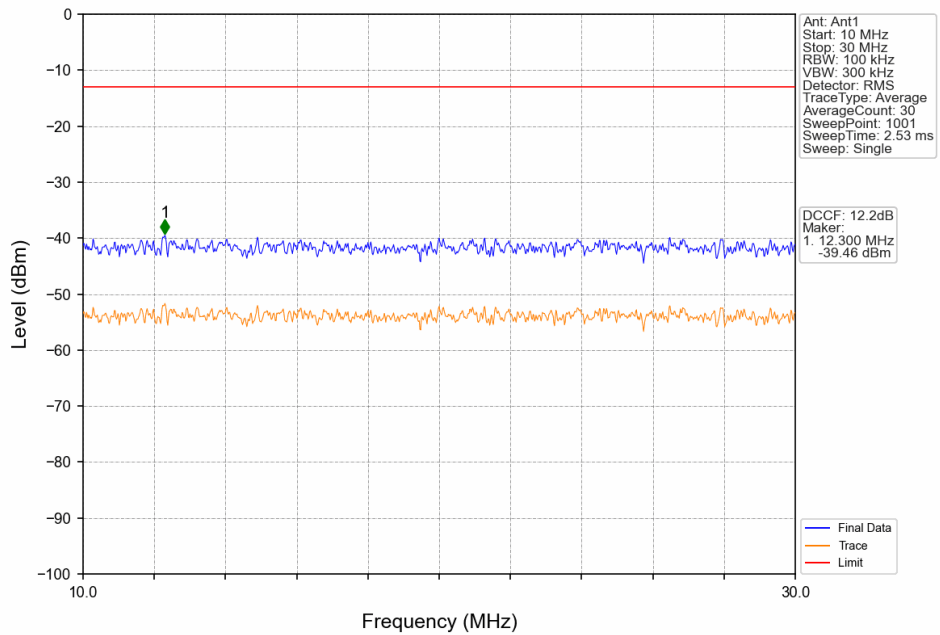
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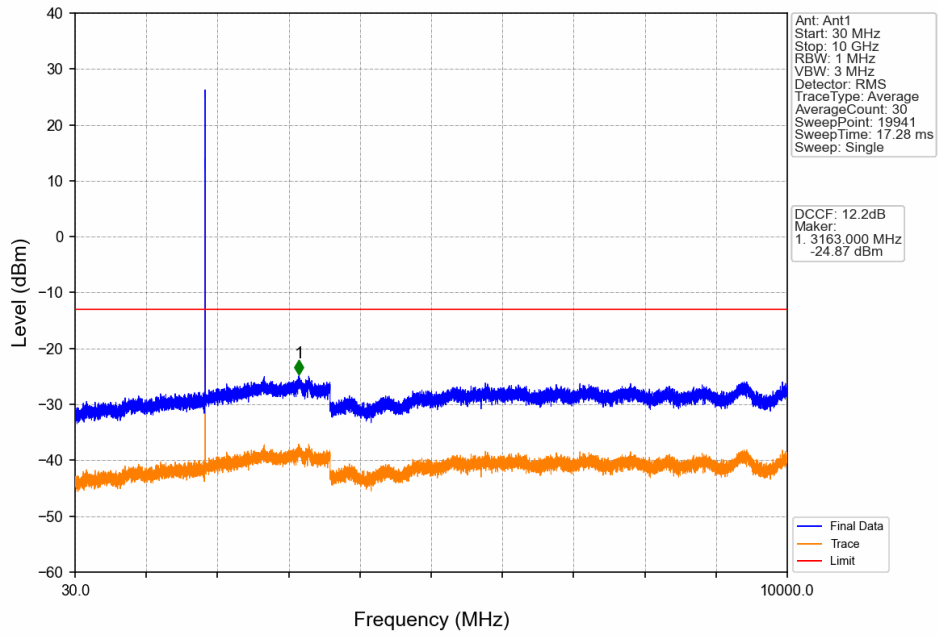
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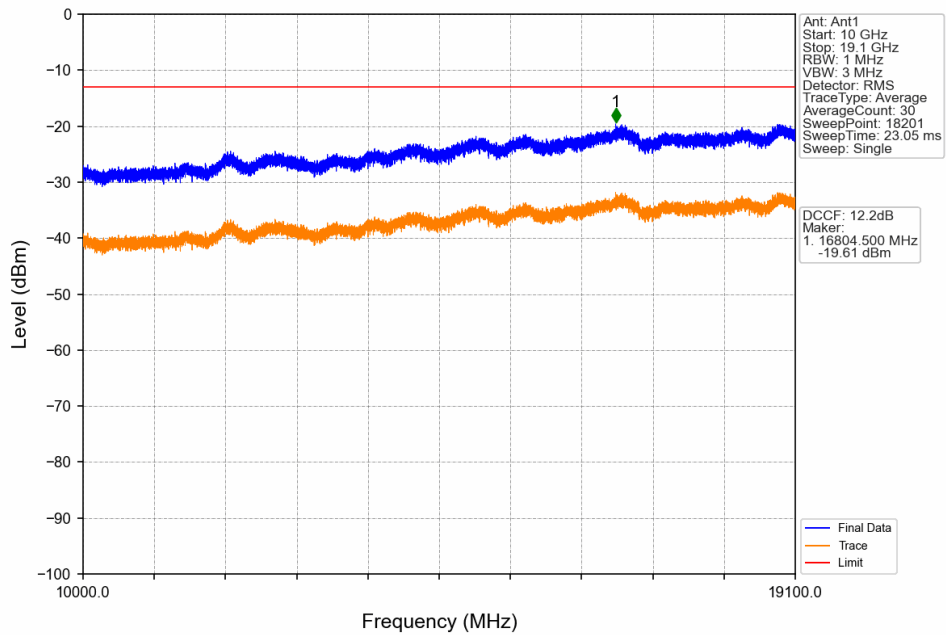
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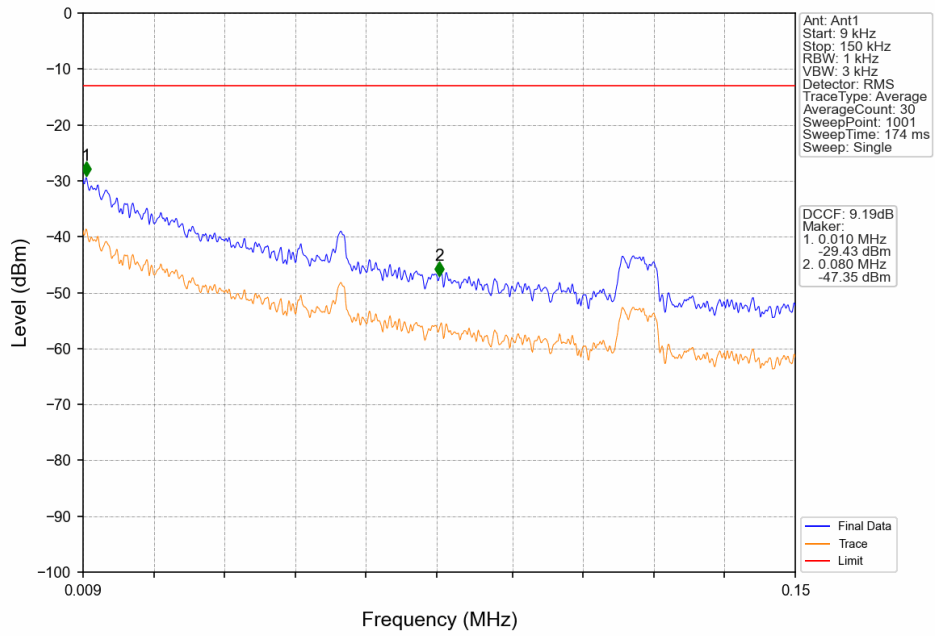
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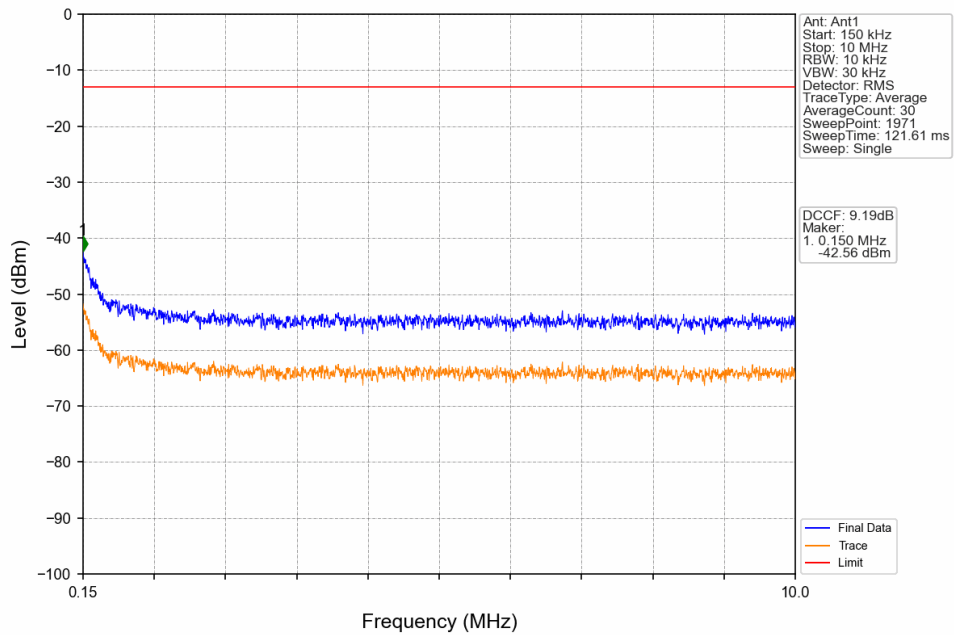
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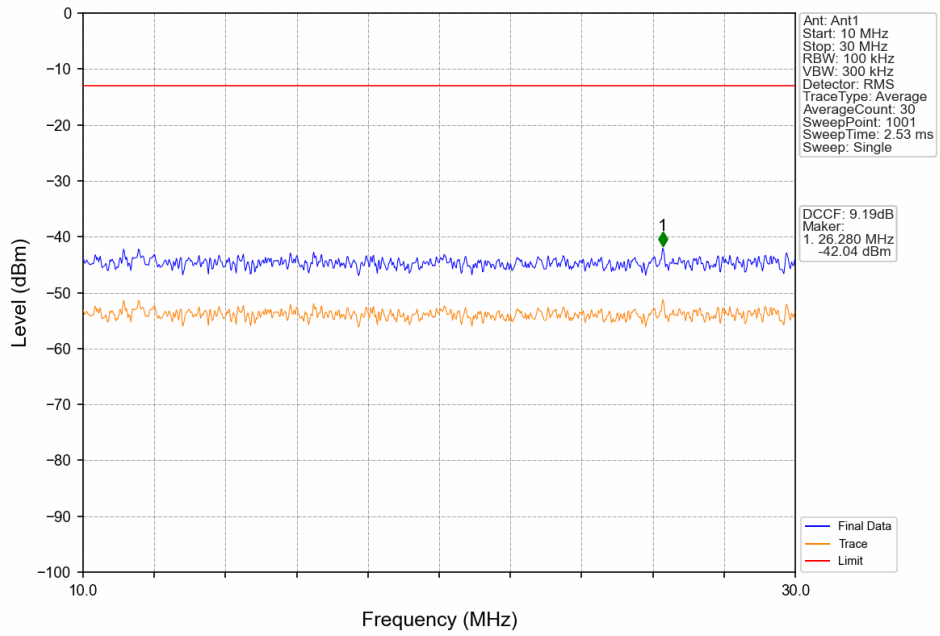
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



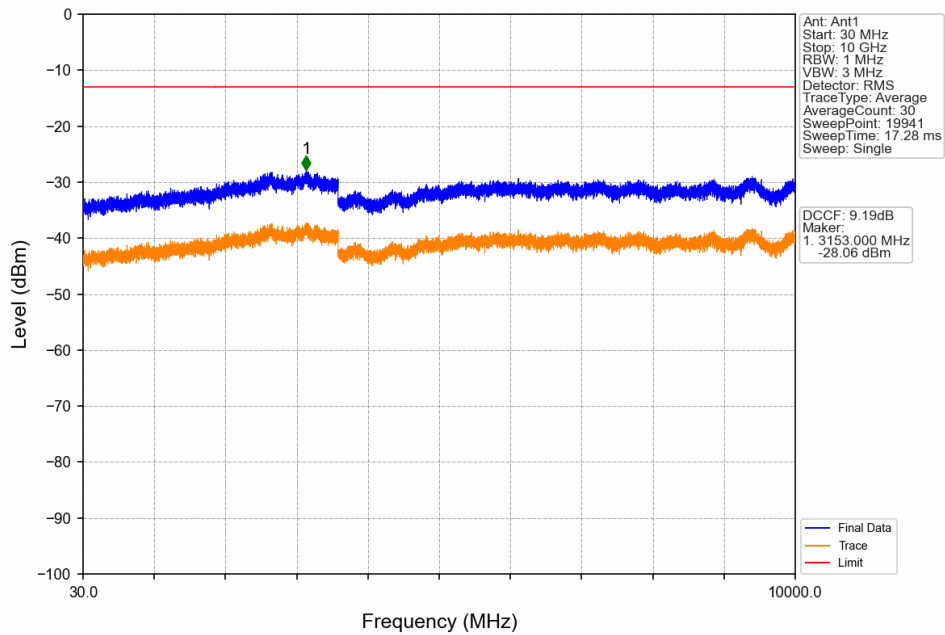
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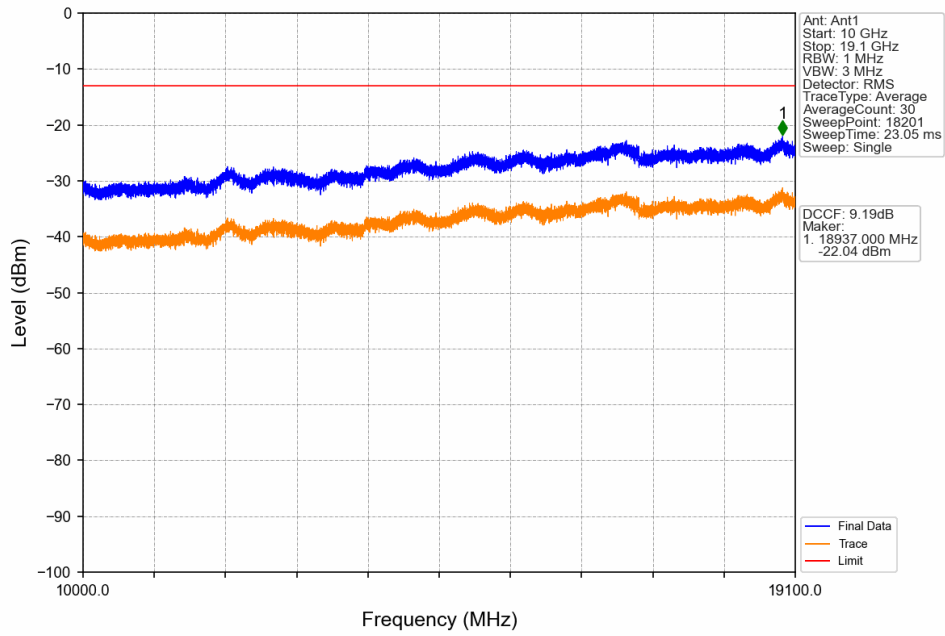
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



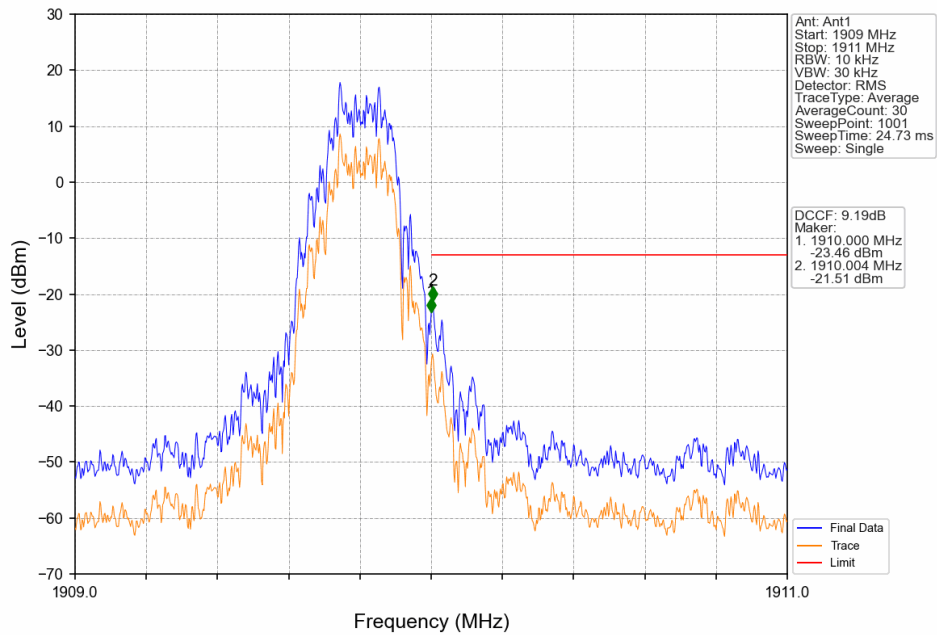
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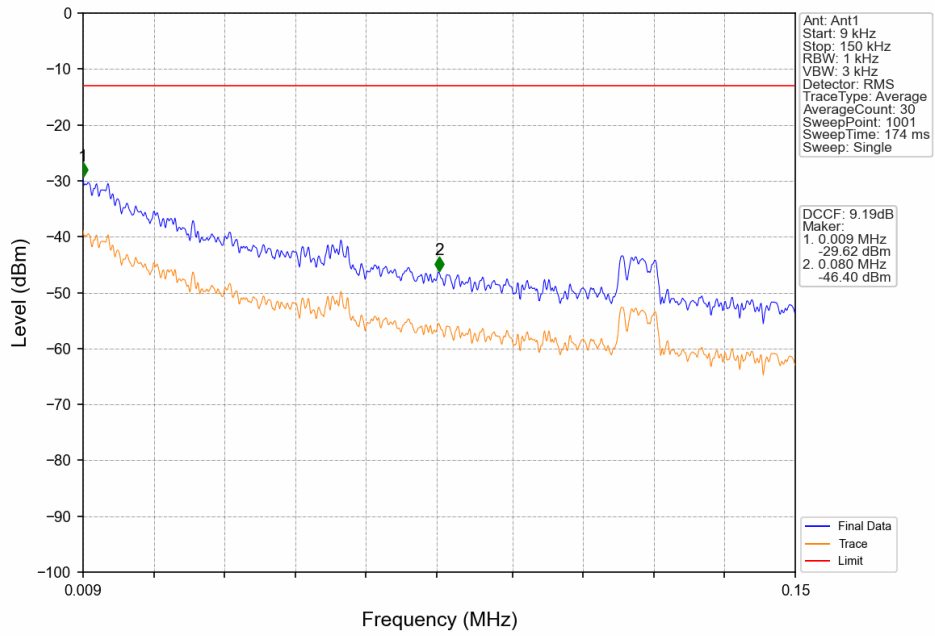
PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



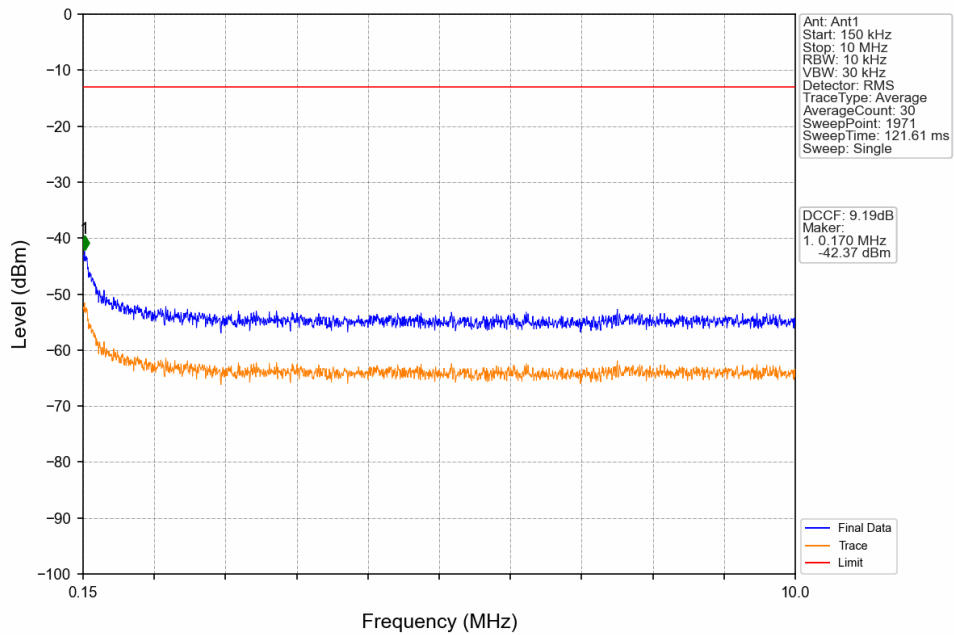
PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



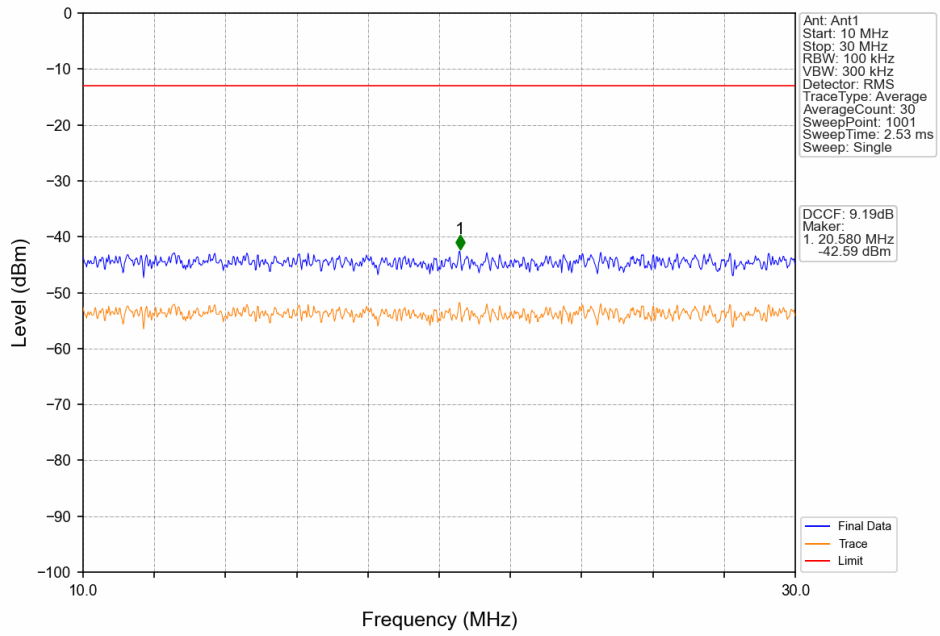
PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



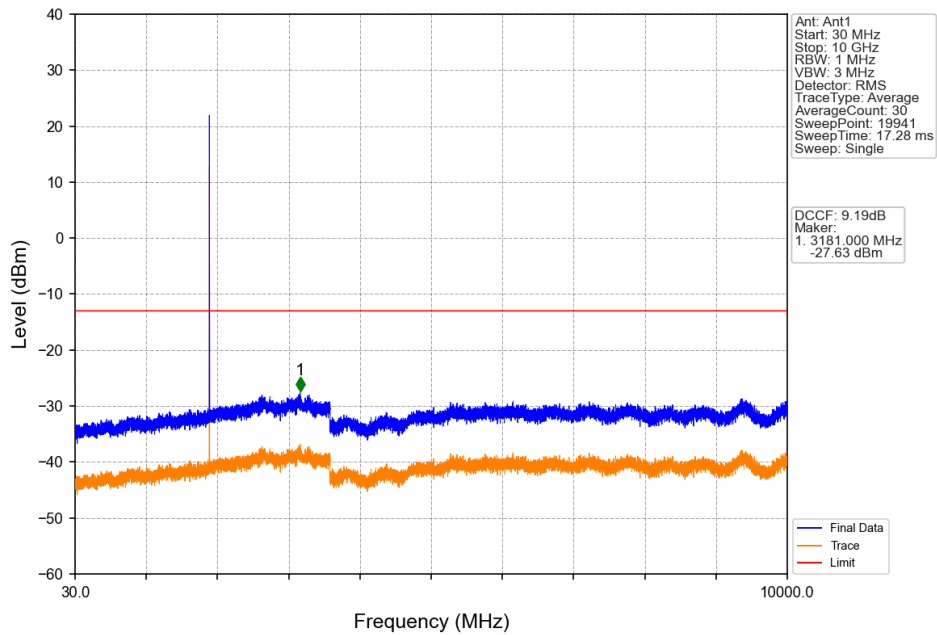
PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



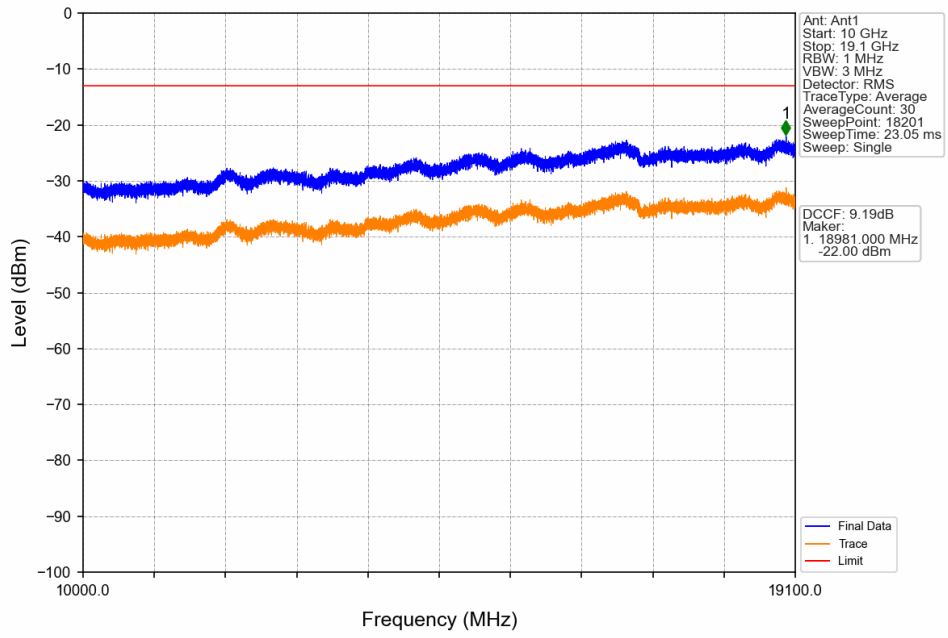
PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



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	0.8356	0.0058	ppm	247KGXW	24E	29.22
PCS1900	0.2	1850.2	1909.8	0.5728	0.0096	ppm	258KG7W	24E	27.58

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	0.9099	0.0058	ppm	247KGXW	24E	29.59
PCS1900	0.2	1850.2	1909.8	0.6237	0.0096	ppm	258KG7W	24E	27.95