

Annex for PCS1900

Test Report No.: CTL2405163031-WF

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1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 PCS1900_EIRP

Band: PCS1900								
ENV	Mode		Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)		Verdict
	Network	Subset				Result	Limit	
NTNV	GPRS	1 TX Slot	1850.2	28.81	1.36	30.17	<=33.01	Pass
		2 TX Slots	1850.2	27.60	1.36	28.96	<=33.01	Pass
		3 TX Slots	1850.2	25.85	1.36	27.21	<=33.01	Pass
		4 TX Slots	1850.2	24.47	1.36	25.83	<=33.01	Pass
		1 TX Slot	1880	28.92	1.36	30.28	<=33.01	Pass
		2 TX Slots	1880	27.70	1.36	29.06	<=33.01	Pass
		3 TX Slots	1880	25.83	1.36	27.19	<=33.01	Pass
		4 TX Slots	1880	24.48	1.36	25.84	<=33.01	Pass
		1 TX Slot	1909.8	28.86	1.36	30.22	<=33.01	Pass
		2 TX Slots	1909.8	27.61	1.36	28.97	<=33.01	Pass
		3 TX Slots	1909.8	25.80	1.36	27.16	<=33.01	Pass
		4 TX Slots	1909.8	24.35	1.36	25.71	<=33.01	Pass
	EGPRS	1 TX Slot	1850.2	25.12	1.36	26.48	<=33.01	Pass
		2 TX Slots	1850.2	24.30	1.36	25.66	<=33.01	Pass
		3 TX Slots	1850.2	22.78	1.36	24.14	<=33.01	Pass
		4 TX Slots	1850.2	21.39	1.36	22.75	<=33.01	Pass
		1 TX Slot	1880	25.26	1.36	26.62	<=33.01	Pass
		2 TX Slots	1880	24.55	1.36	25.91	<=33.01	Pass
		3 TX Slots	1880	22.91	1.36	24.27	<=33.01	Pass
		4 TX Slots	1880	21.47	1.36	22.83	<=33.01	Pass
		1 TX Slot	1909.8	25.17	1.36	26.53	<=33.01	Pass
		2 TX Slots	1909.8	24.35	1.36	25.71	<=33.01	Pass
		3 TX Slots	1909.8	22.64	1.36	24.00	<=33.01	Pass
		4 TX Slots	1909.8	21.23	1.36	22.59	<=33.01	Pass

Note1: EIRP=Conducted Power+Antenna Gain

2. Frequency Stability

2.1 Test Result

2.1.1 PCS1900

Band: PCS1900							
Network	Frequency (MHz)	Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
					Result	Limit	
GPRS	1850.2	20	3.27	7.490	0.0040	-2.5 to 2.5	Pass
			3.85	5.682	0.0031	-2.5 to 2.5	Pass
			4.43	2.195	0.0012	-2.5 to 2.5	Pass
		-30	3.85	3.745	0.0020	-2.5 to 2.5	Pass
		-20	3.85	8.588	0.0046	-2.5 to 2.5	Pass
		-10	3.85	5.521	0.0030	-2.5 to 2.5	Pass
		0	3.85	3.939	0.0021	-2.5 to 2.5	Pass

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		10	3.85	6.005	0.0032	-2.5 to 2.5	Pass
		30	3.85	7.458	0.0040	-2.5 to 2.5	Pass
		40	3.85	7.587	0.0041	-2.5 to 2.5	Pass
		50	3.85	9.363	0.0051	-2.5 to 2.5	Pass
	1880	20	3.27	11.106	0.0059	-2.5 to 2.5	Pass
			3.85	8.717	0.0046	-2.5 to 2.5	Pass
			4.43	7.555	0.0040	-2.5 to 2.5	Pass
		-30	3.85	6.651	0.0035	-2.5 to 2.5	Pass
		-20	3.85	8.168	0.0043	-2.5 to 2.5	Pass
		-10	3.85	7.716	0.0041	-2.5 to 2.5	Pass
		0	3.85	9.008	0.0048	-2.5 to 2.5	Pass
		10	3.85	9.976	0.0053	-2.5 to 2.5	Pass
		30	3.85	10.396	0.0055	-2.5 to 2.5	Pass
		40	3.85	10.751	0.0057	-2.5 to 2.5	Pass
		50	3.85	11.591	0.0062	-2.5 to 2.5	Pass
	1909.8	20	3.27	2.873	0.0015	-2.5 to 2.5	Pass
			3.85	5.650	0.0030	-2.5 to 2.5	Pass
			4.43	0.839	0.0004	-2.5 to 2.5	Pass
		-30	3.85	3.390	0.0018	-2.5 to 2.5	Pass
		-20	3.85	4.391	0.0023	-2.5 to 2.5	Pass
		-10	3.85	3.745	0.0020	-2.5 to 2.5	Pass
		0	3.85	2.809	0.0015	-2.5 to 2.5	Pass
		10	3.85	6.812	0.0036	-2.5 to 2.5	Pass
		30	3.85	2.066	0.0011	-2.5 to 2.5	Pass
		40	3.85	-1.098	-0.0006	-2.5 to 2.5	Pass
		50	3.85	0.710	0.0004	-2.5 to 2.5	Pass
EGPRS	1850.2	20	3.27	15.077	0.0081	-2.5 to 2.5	Pass
			3.85	15.336	0.0083	-2.5 to 2.5	Pass
			4.43	14.690	0.0079	-2.5 to 2.5	Pass
		-30	3.85	9.718	0.0053	-2.5 to 2.5	Pass
		-20	3.85	13.754	0.0074	-2.5 to 2.5	Pass
		-10	3.85	16.530	0.0089	-2.5 to 2.5	Pass
		0	3.85	16.111	0.0087	-2.5 to 2.5	Pass
		10	3.85	13.883	0.0075	-2.5 to 2.5	Pass
		30	3.85	16.918	0.0091	-2.5 to 2.5	Pass
		40	3.85	15.400	0.0083	-2.5 to 2.5	Pass
		50	3.85	16.950	0.0092	-2.5 to 2.5	Pass
	1880	20	3.27	16.595	0.0088	-2.5 to 2.5	Pass
			3.85	16.208	0.0086	-2.5 to 2.5	Pass
			4.43	14.625	0.0078	-2.5 to 2.5	Pass
		-30	3.85	17.628	0.0094	-2.5 to 2.5	Pass
		-20	3.85	16.886	0.0090	-2.5 to 2.5	Pass
		-10	3.85	13.334	0.0071	-2.5 to 2.5	Pass
		0	3.85	18.371	0.0098	-2.5 to 2.5	Pass
		10	3.85	12.785	0.0068	-2.5 to 2.5	Pass
		30	3.85	17.757	0.0094	-2.5 to 2.5	Pass
		40	3.85	12.591	0.0067	-2.5 to 2.5	Pass
		50	3.85	9.944	0.0053	-2.5 to 2.5	Pass
	1909.8	20	3.27	7.587	0.0040	-2.5 to 2.5	Pass
			3.85	6.328	0.0033	-2.5 to 2.5	Pass
			4.43	3.810	0.0020	-2.5 to 2.5	Pass
		-30	3.85	9.072	0.0048	-2.5 to 2.5	Pass
		-20	3.85	7.684	0.0040	-2.5 to 2.5	Pass
		-10	3.85	6.231	0.0033	-2.5 to 2.5	Pass
		0	3.85	7.167	0.0038	-2.5 to 2.5	Pass
		10	3.85	9.944	0.0052	-2.5 to 2.5	Pass
		30	3.85	4.133	0.0022	-2.5 to 2.5	Pass

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		40	3.85	6.393	0.0033	-2.5 to 2.5	Pass
		50	3.85	4.068	0.0021	-2.5 to 2.5	Pass

3. Modulation Characteristics

3.1 Test Result

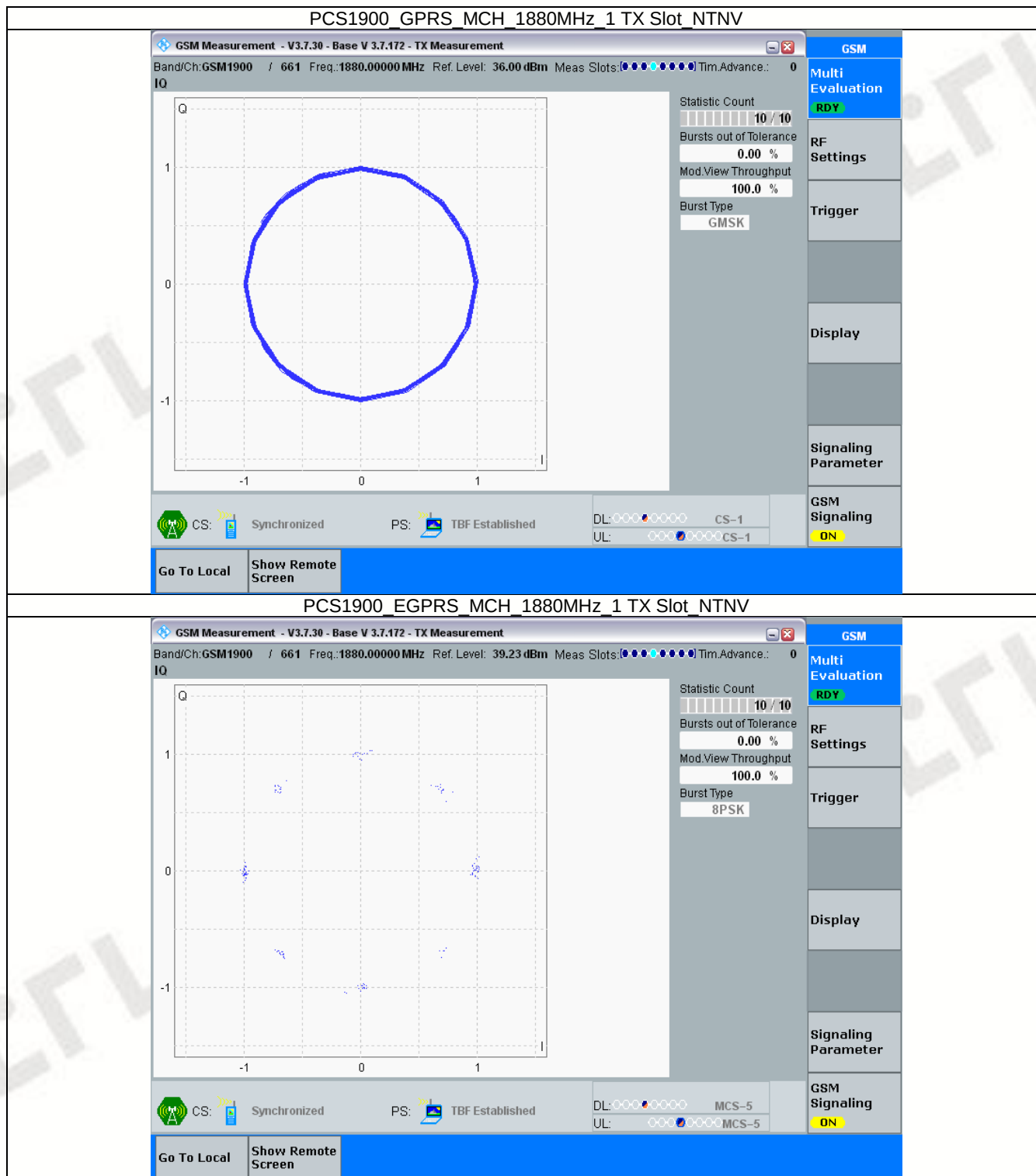
3.1.1 PCS1900

Band: PCS1900						
ENV	Mode		Frequency (MHz)	Modulation Characteristics		Verdict
	Network	Subset		Result	Limit	
NTNV	GPRS	1 TX Slot	1880	Refer To Test Graph		Pass
	EGPRS	1 TX Slot	1880	Refer To Test Graph		Pass

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3.2 Test Graph

3.2.1 PCS1900



4. 99% & 26dB Bandwidth

4.1 Test Result

4.1.1 PCS1900_OBW

Band: PCS1900						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GPRS	1 TX Slot	1850.2	0.248	/	Pass
			1880	0.243	/	Pass
			1909.8	0.240	/	Pass
	EGPRS	1 TX Slot	1850.2	0.242	/	Pass
			1880	0.240	/	Pass
			1909.8	0.244	/	Pass

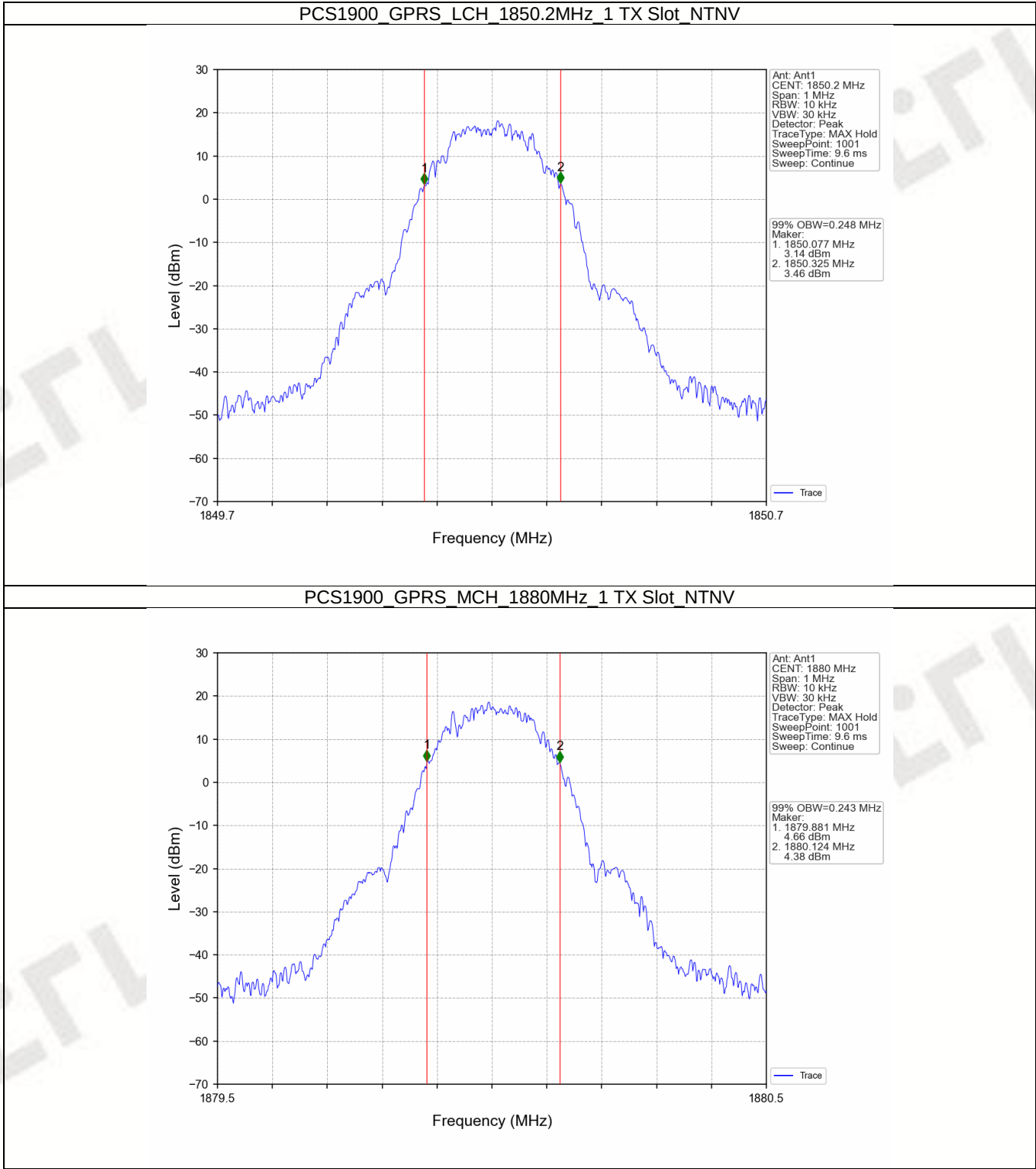
4.1.2 PCS1900_XDB

Band: PCS1900						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GPRS	1 TX Slot	1850.2	0.323	/	Pass
			1880	0.318	/	Pass
			1909.8	0.304	/	Pass
	EGPRS	1 TX Slot	1850.2	0.305	/	Pass
			1880	0.300	/	Pass
			1909.8	0.307	/	Pass

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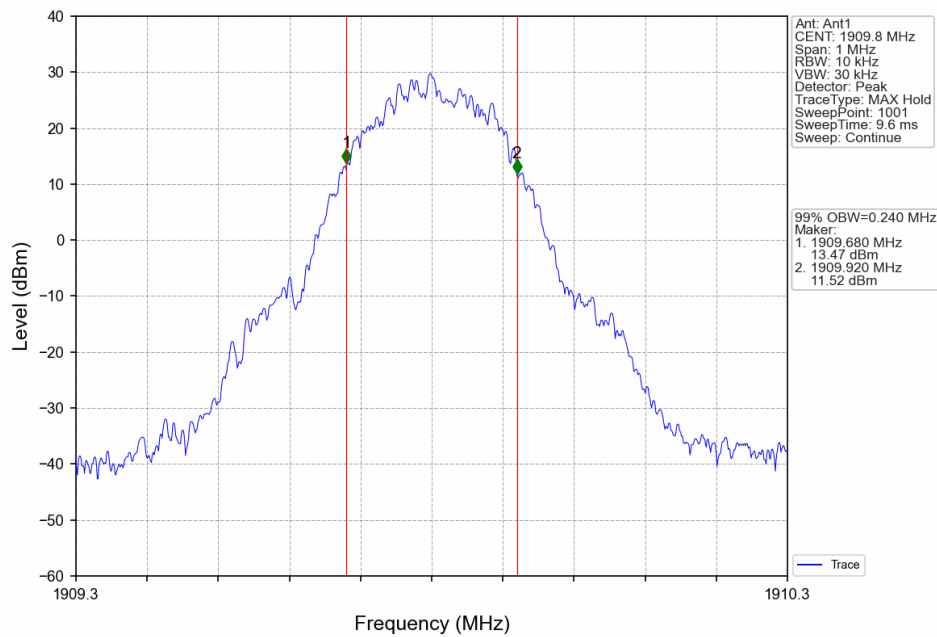
4.2 Test Graph

4.2.1 PCS1900_OBW

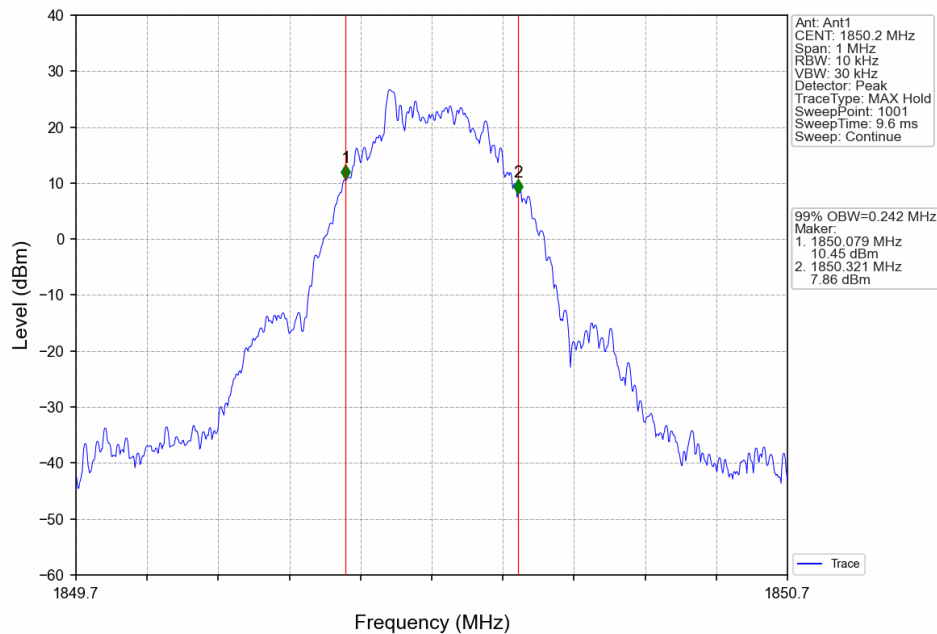


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PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV

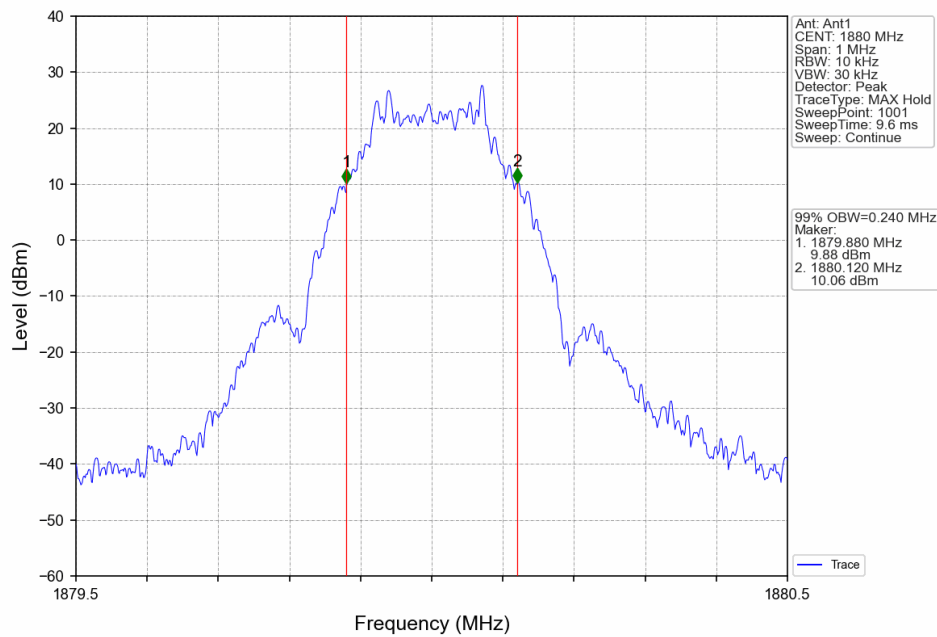


PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV

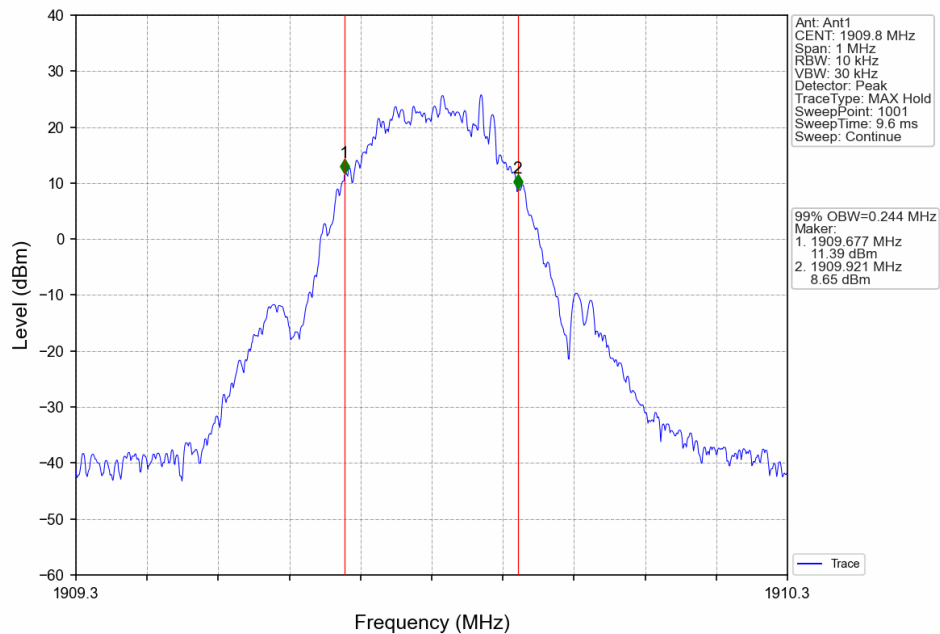


FCCID: 2BCUE-P8GLOBAL

PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV

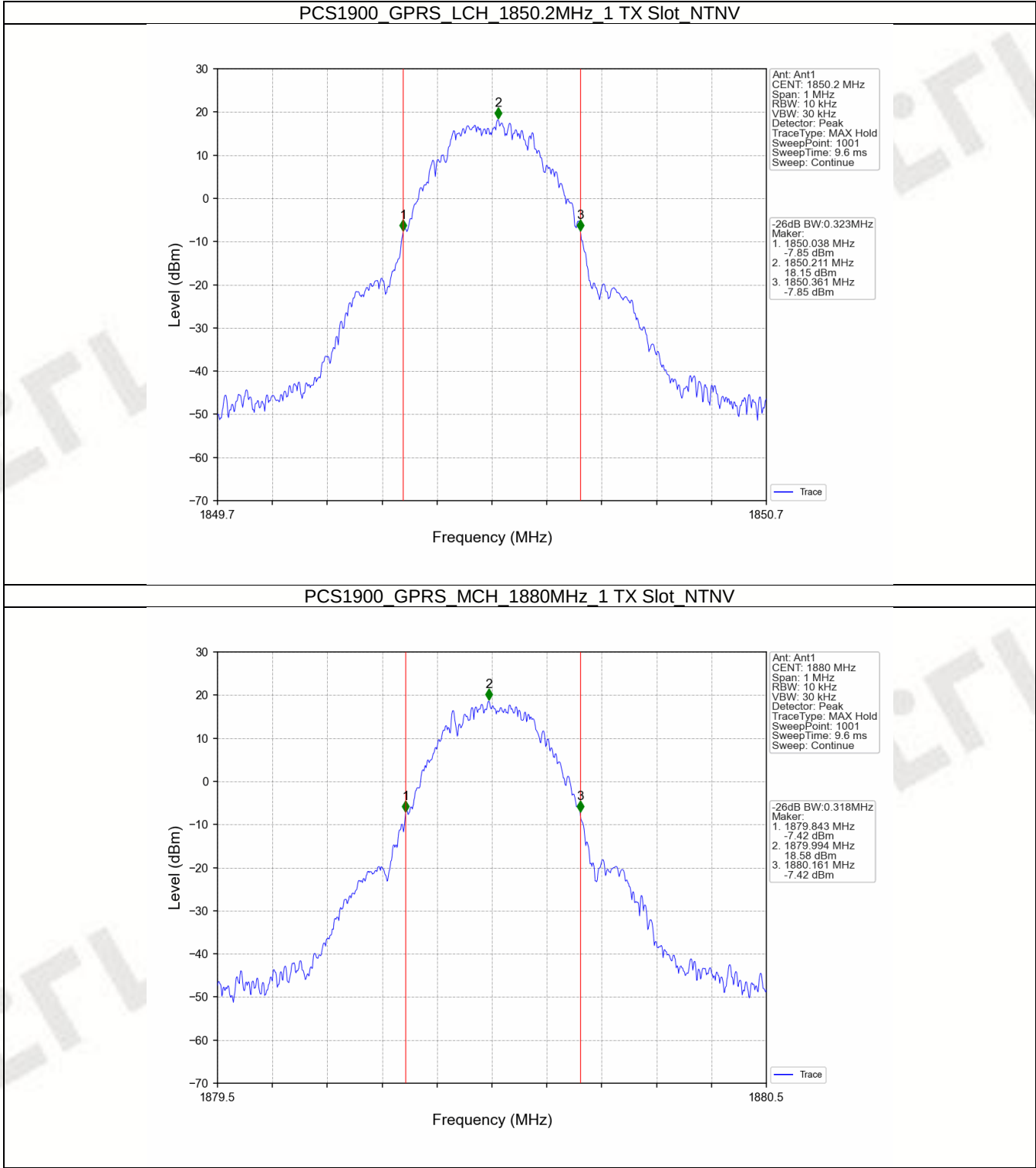


PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



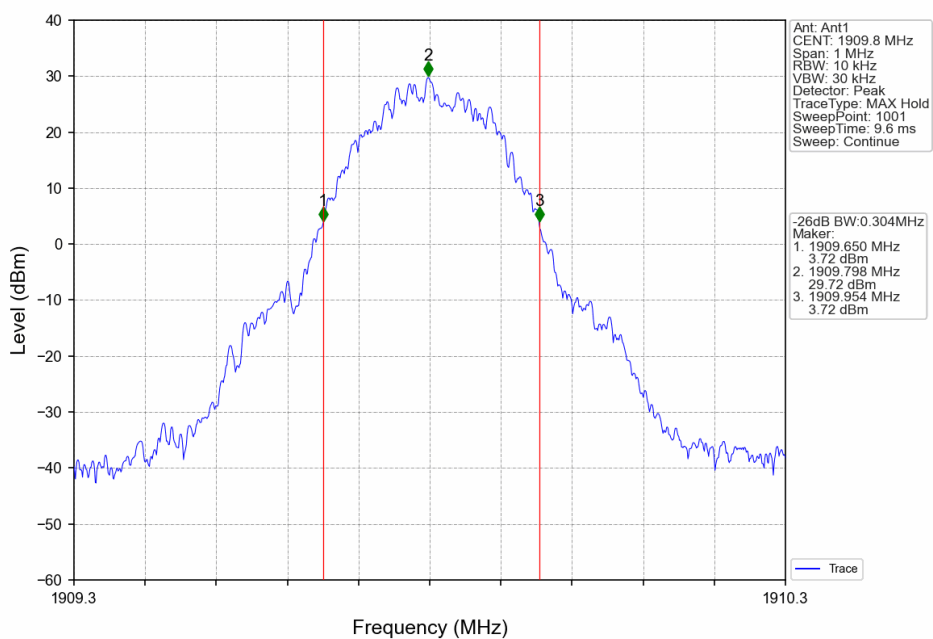
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4.2.2 PCS1900_XDB

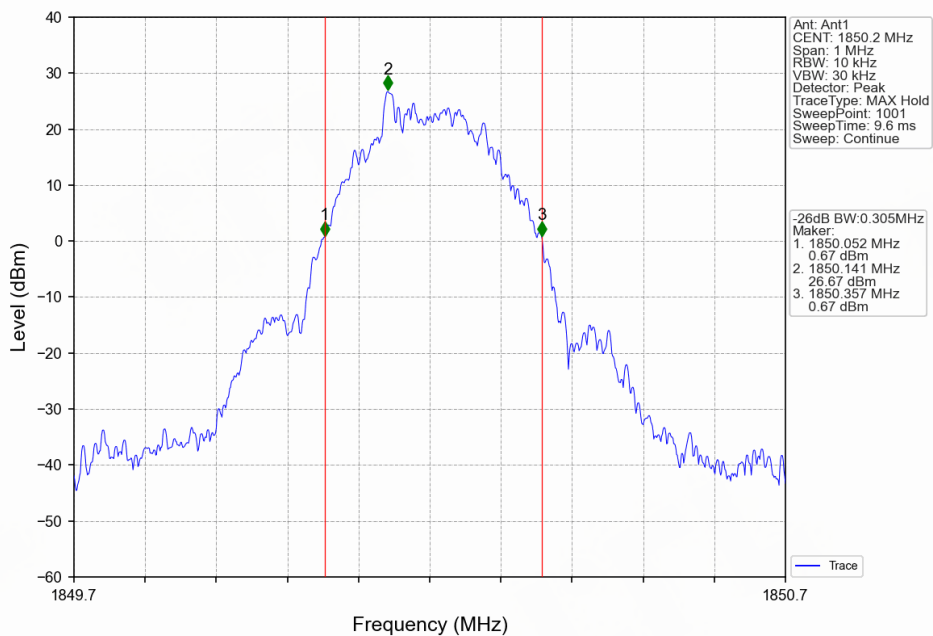


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PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV

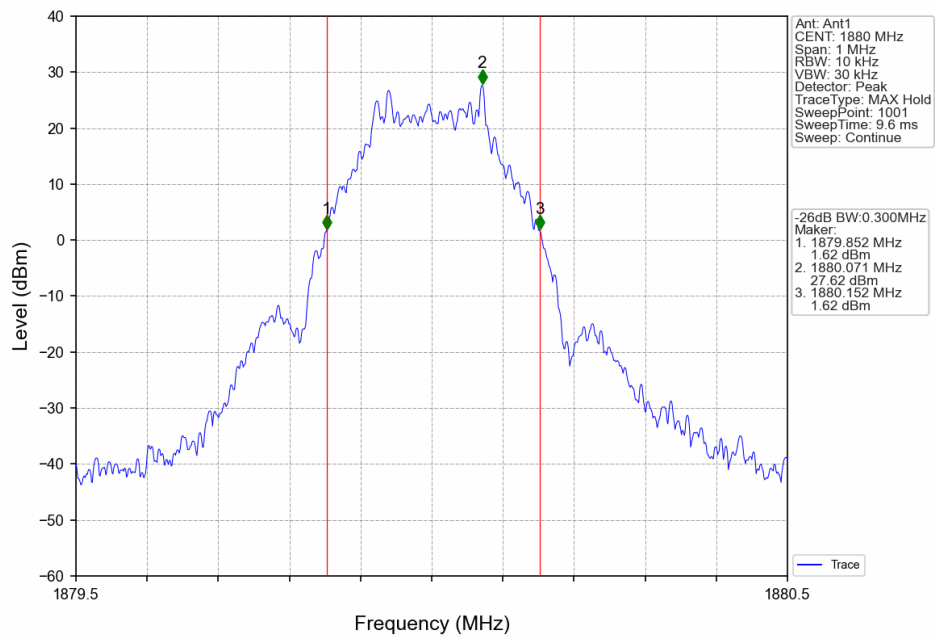


PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV

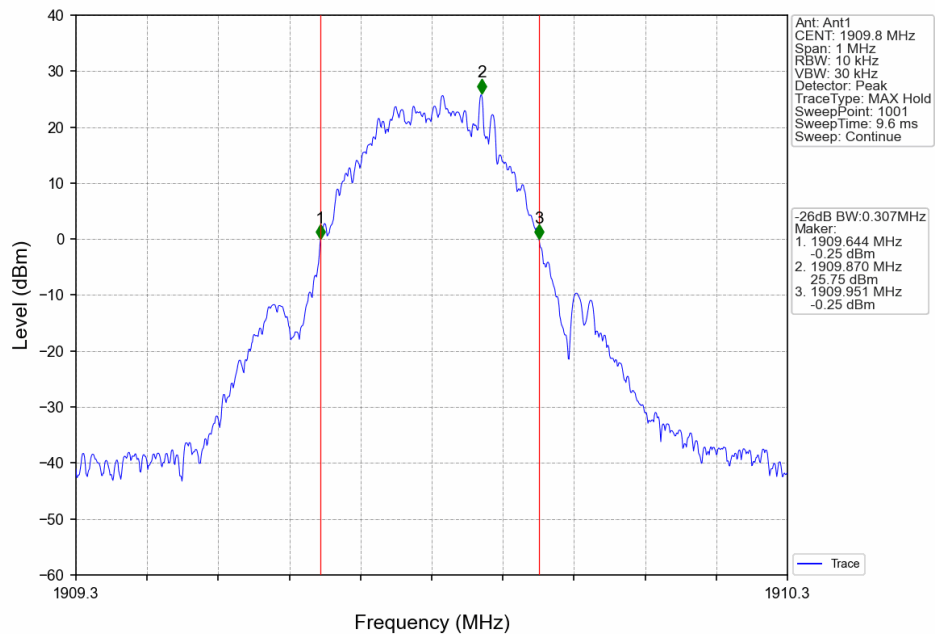


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PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



5. Peak-Average Ratio

5.1 Test Result

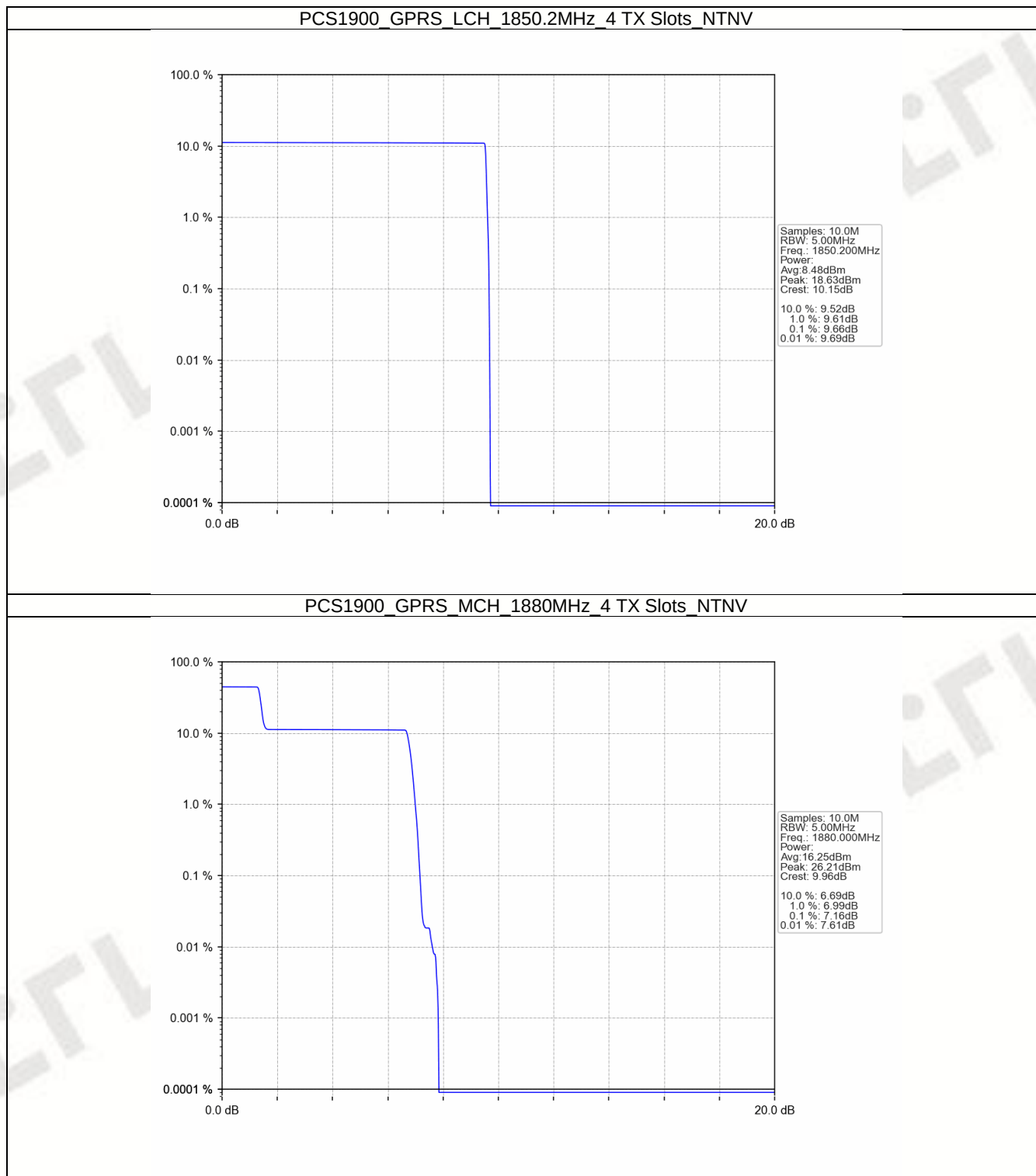
5.1.1 PCS1900

Band: PCS1900						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GPRS	4 TX Slots	1850.2	9.66	<=13	Pass
			1880	7.16	<=13	Pass
			1909.8	3.92	<=13	Pass
	EGPRS	4 TX Slots	1850.2	7.02	<=13	Pass
			1880	6.93	<=13	Pass
			1909.8	7.08	<=13	Pass

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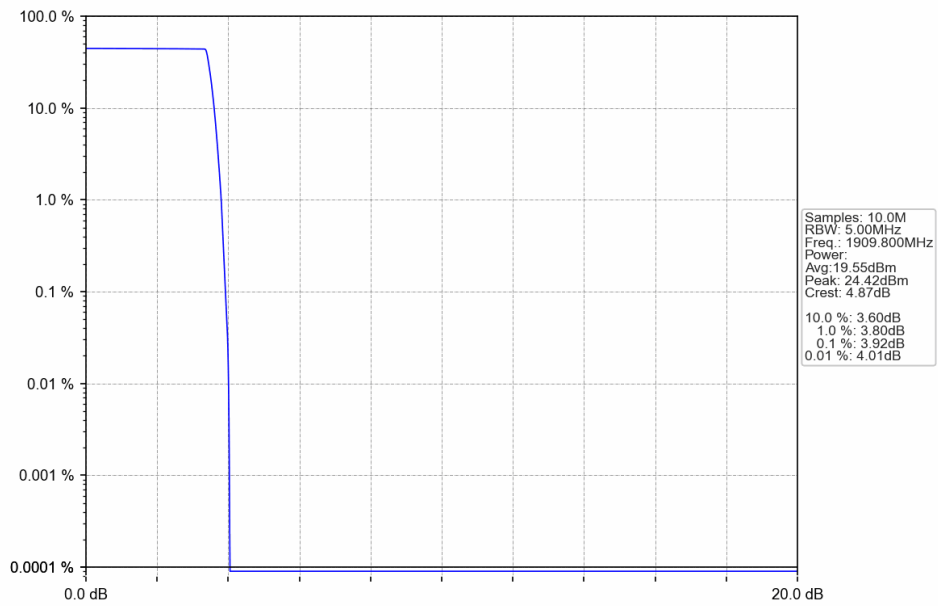
5.2 Test Graph

5.2.1 PCS1900

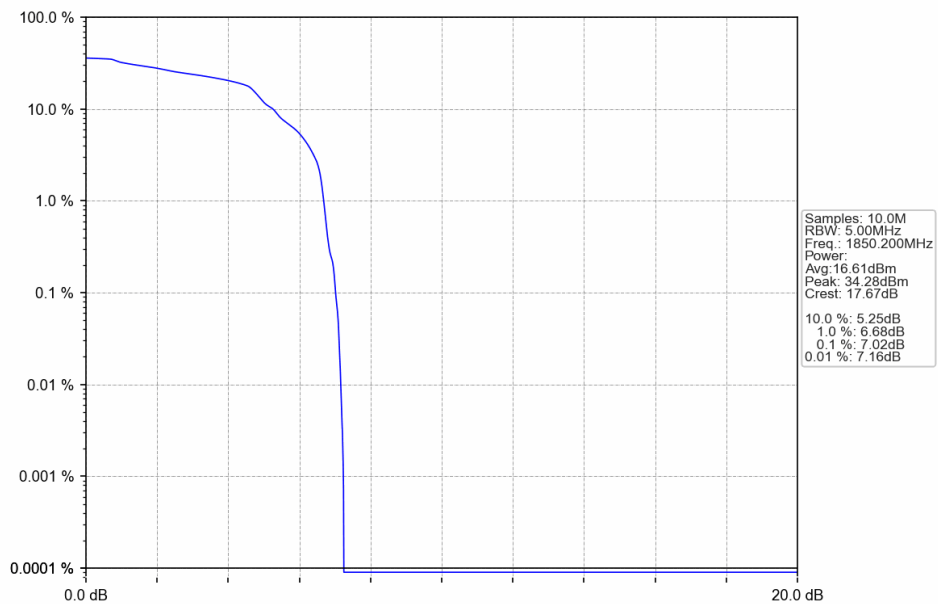


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PCS1900_GPRS_HCH_1909.8MHz_4 TX Slots_NTNV

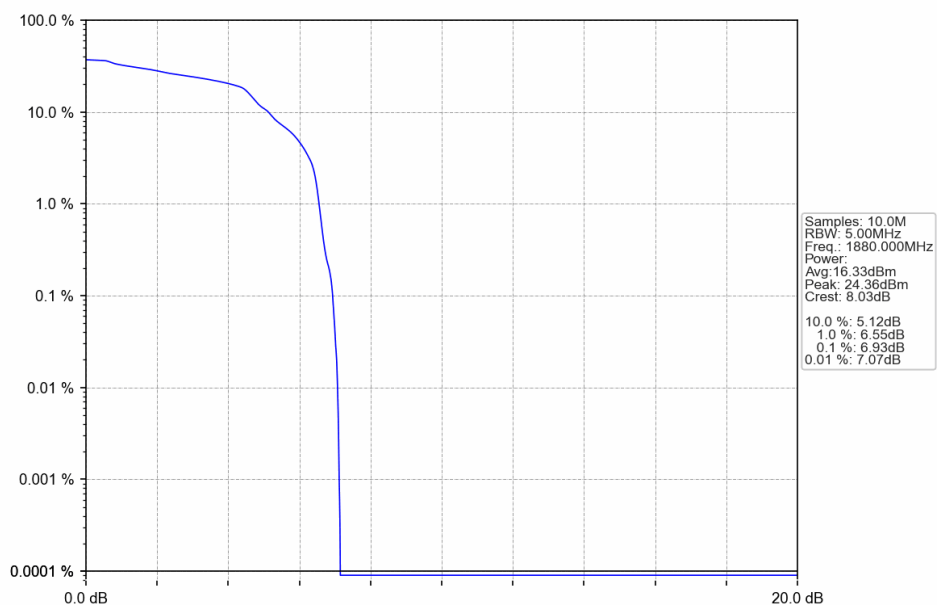


PCS1900_EGPRS_LCH_1850.2MHz_4 TX Slots_NTNV

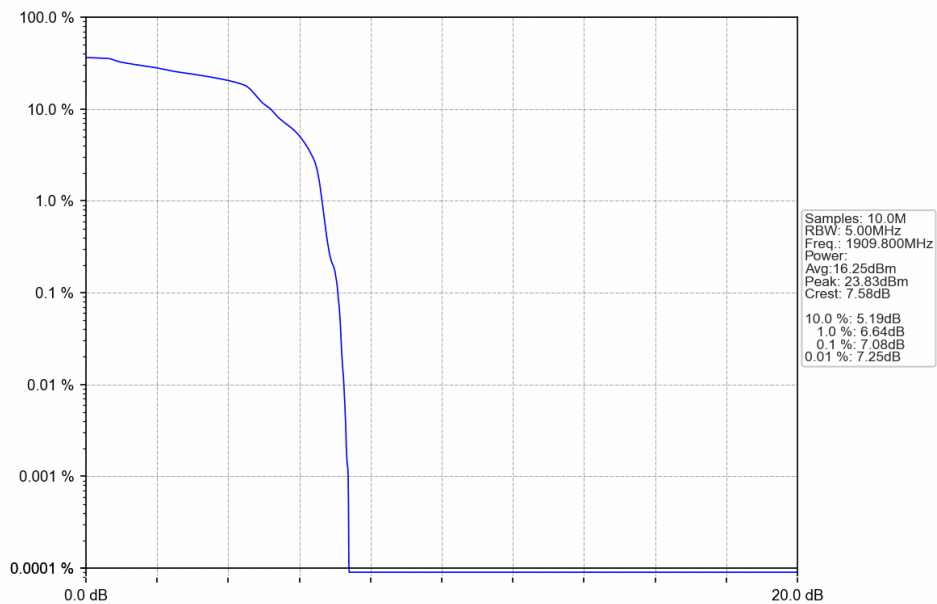


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PCS1900_EGPRS_MCH_1880MHz_4 TX Slots_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_4 TX Slots_NTNV



6. Spurious Emission

6.1 Test Result

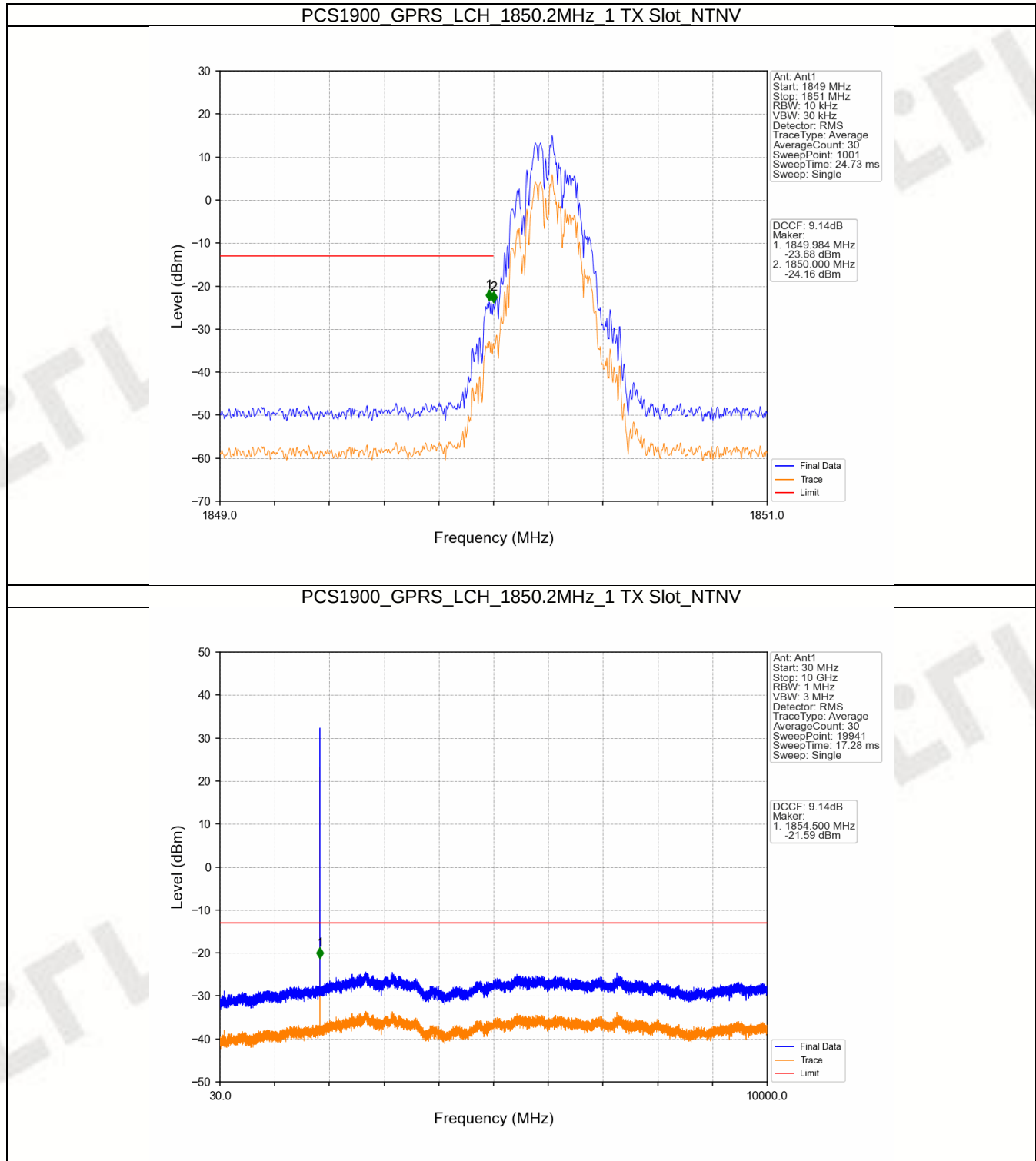
6.1.1 PCS1900

Band: PCS1900						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	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

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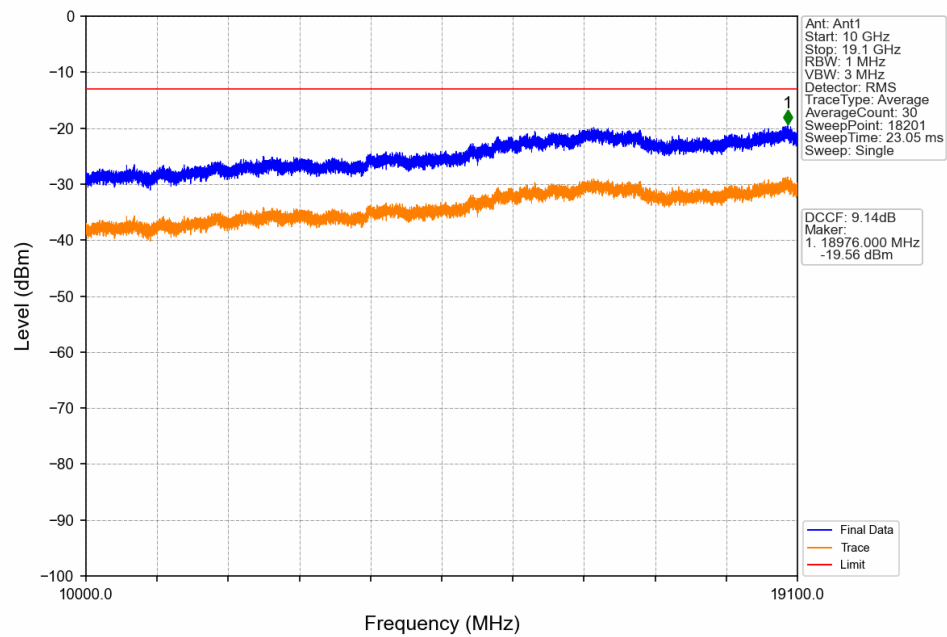
6.2 Test Graph

6.2.1 PCS1900

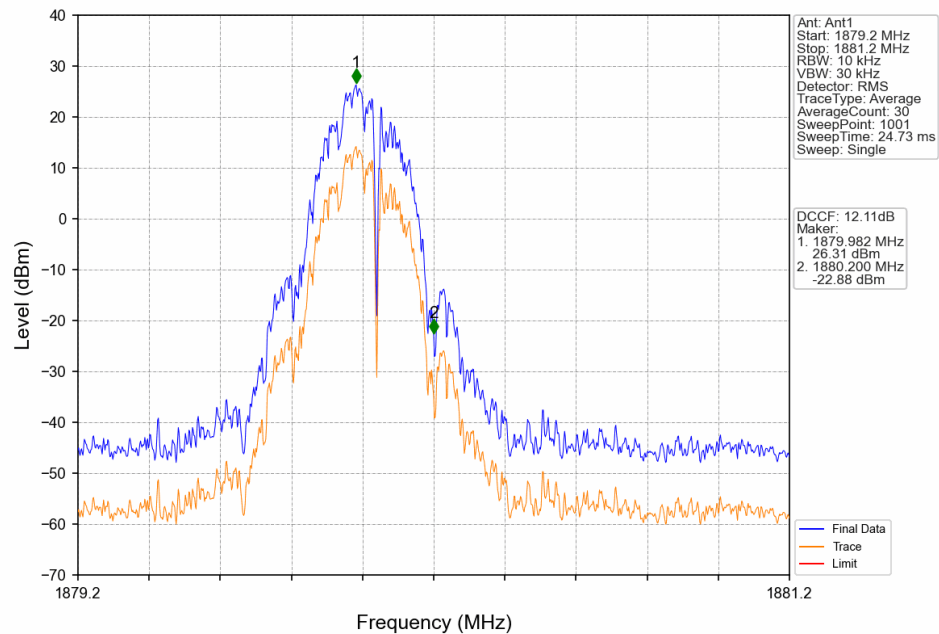


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PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV

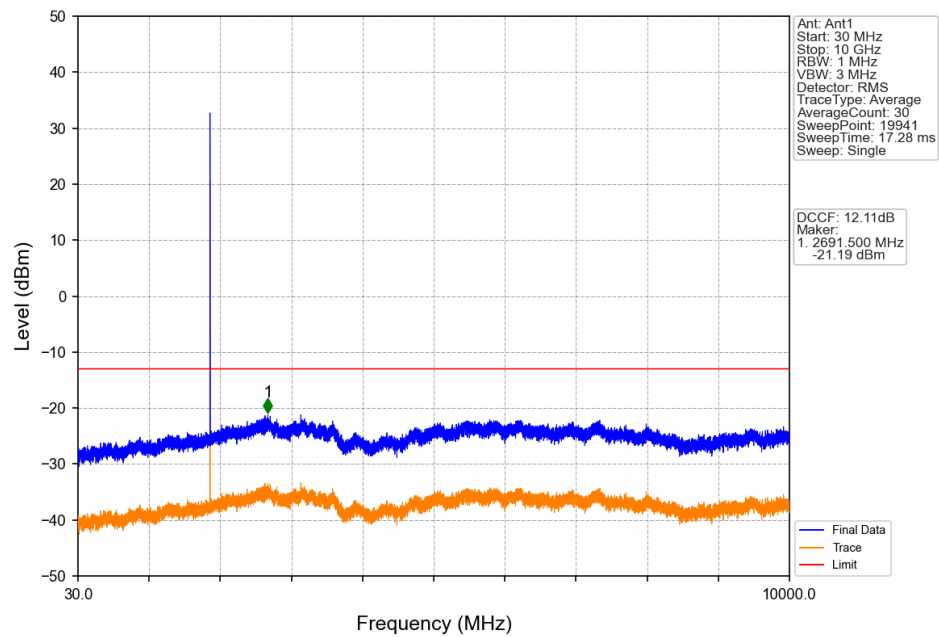


PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV

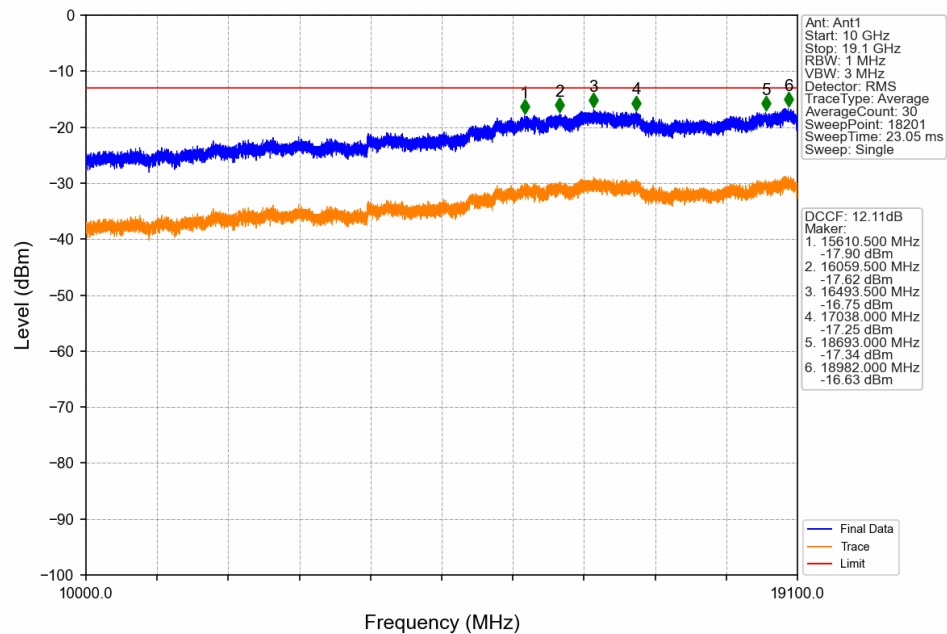


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PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV

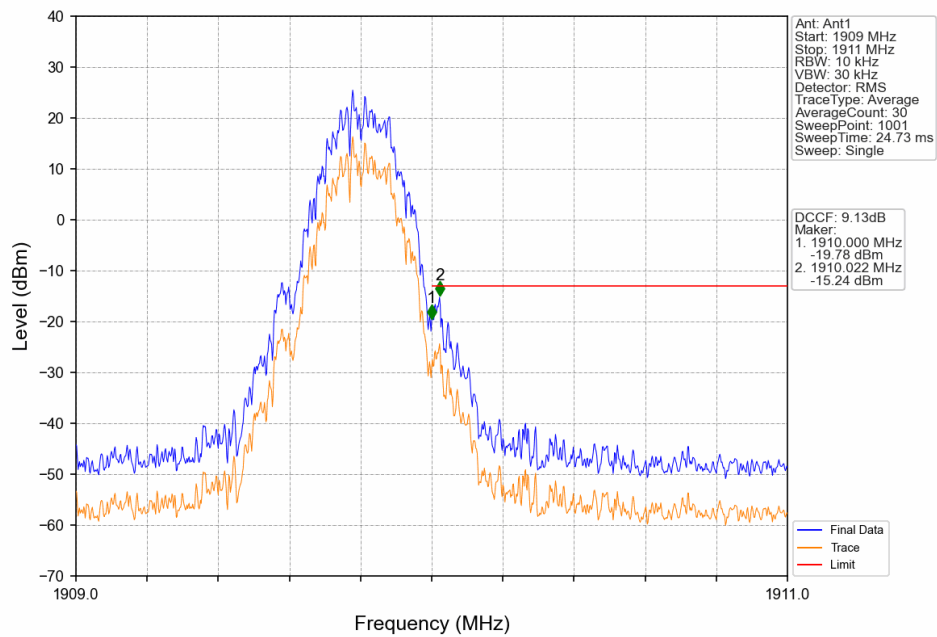


PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV

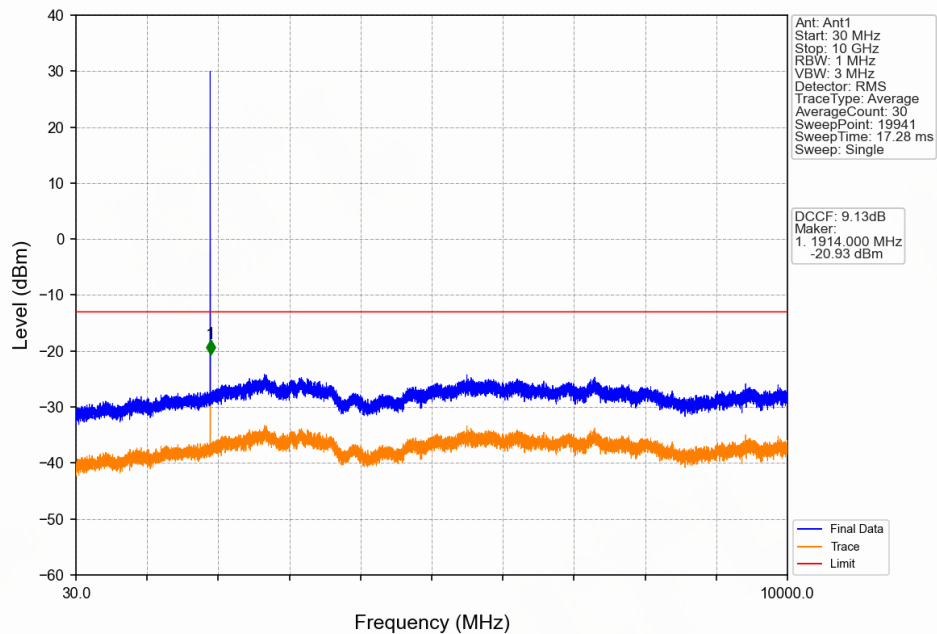


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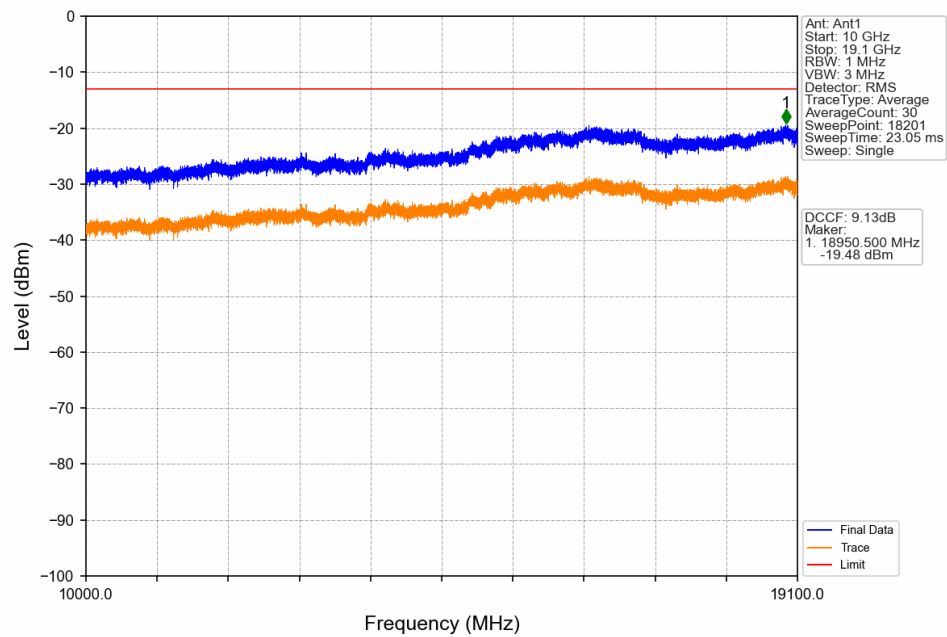


PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV

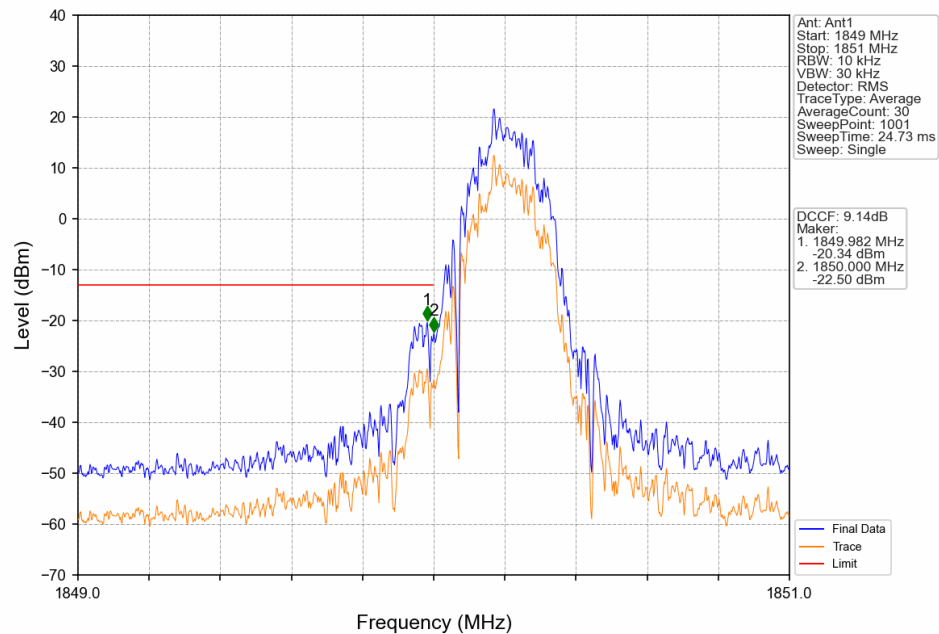


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PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV

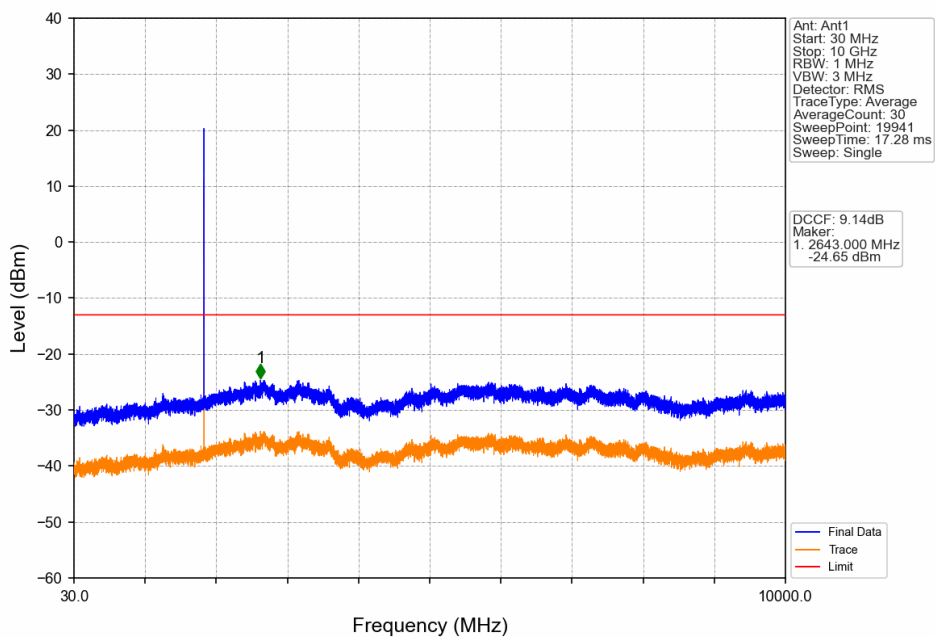


PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV

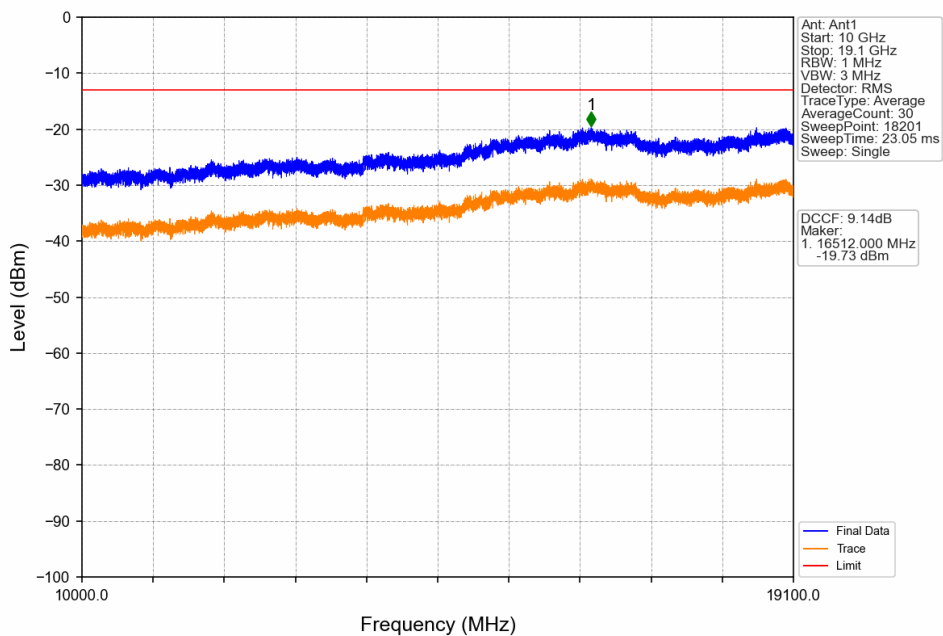


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PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV

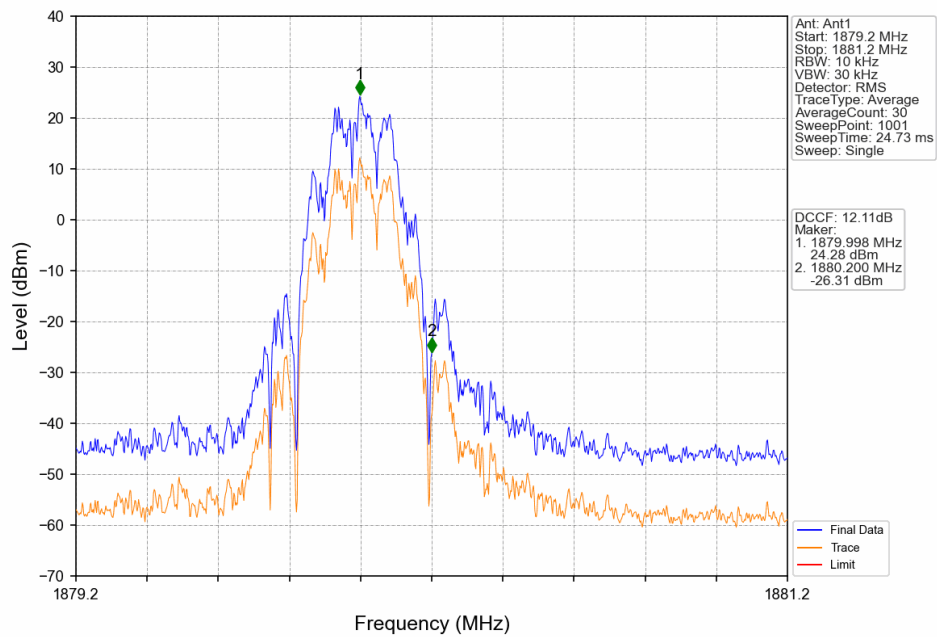


PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV

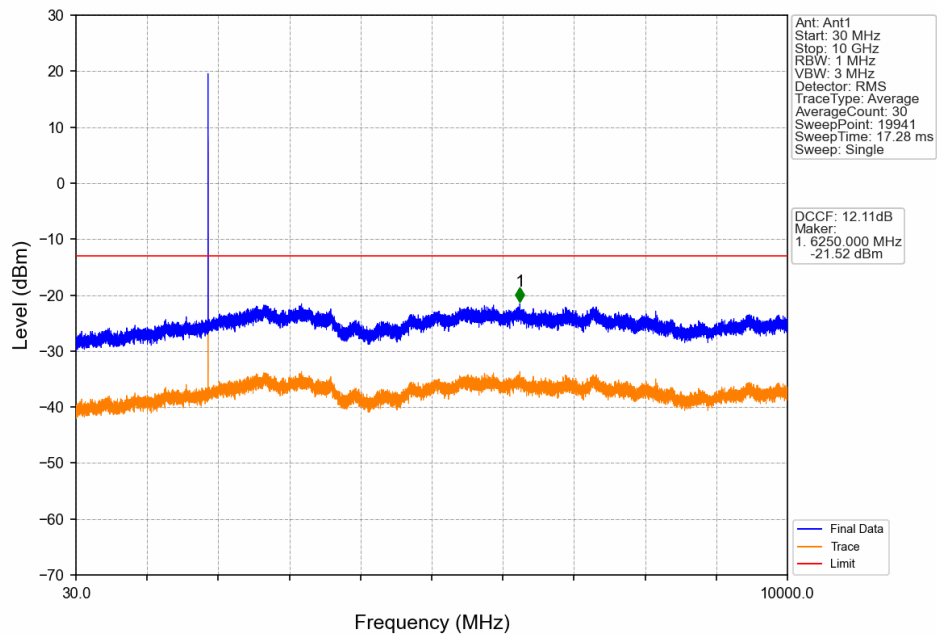


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PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV

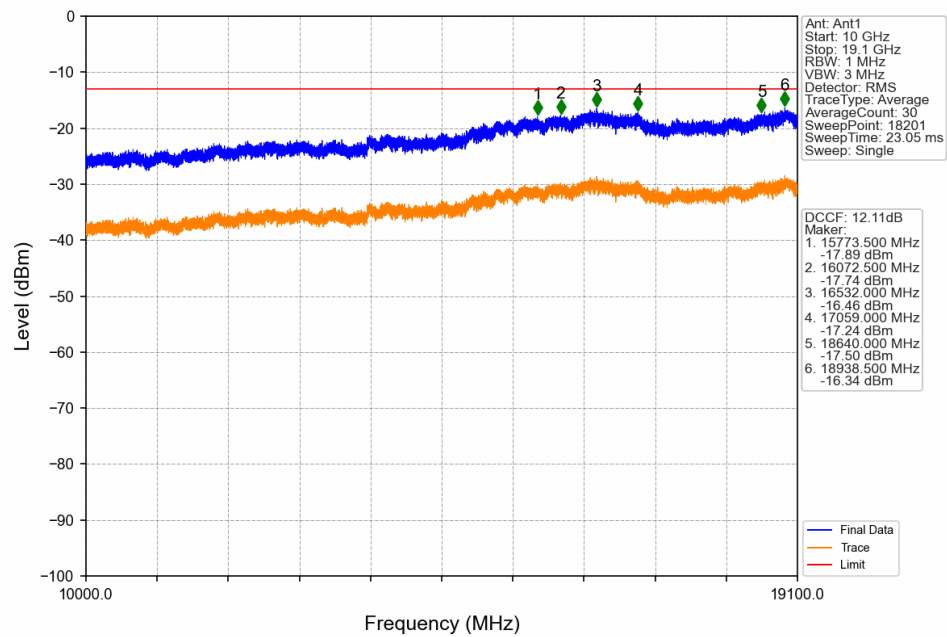


PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV

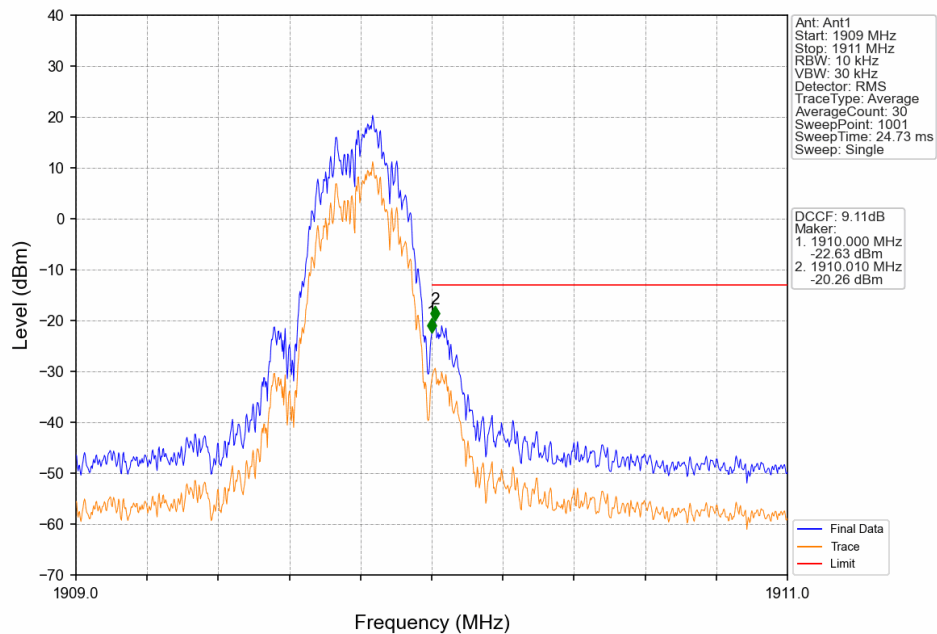


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PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV

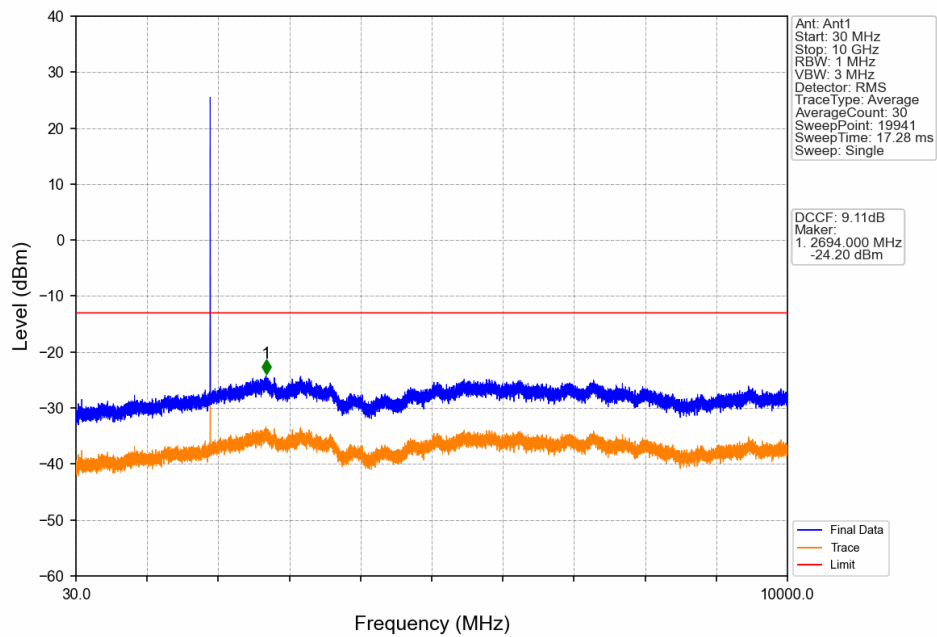


PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



FCCID: 2BCUE-P8GLOBAL

PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV

