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	GSM	GSM	1850.2	28.80	1.14	29.94	<=33.01	Pass
			1880	28.85	1.14	29.99	<=33.01	Pass
			1909.8	28.60	1.14	29.74	<=33.01	Pass
	GPRS	1 TX Slot	1850.2	28.79	1.14	29.93	<=33.01	Pass
		2 TX Slots	1850.2	28.00	1.14	29.14	<=33.01	Pass
		3 TX Slots	1850.2	26.00	1.14	27.14	<=33.01	Pass
		4 TX Slots	1850.2	24.67	1.14	25.81	<=33.01	Pass
		1 TX Slot	1880	28.51	1.14	29.65	<=33.01	Pass
		2 TX Slots	1880	28.20	1.14	29.34	<=33.01	Pass
		3 TX Slots	1880	26.18	1.14	27.32	<=33.01	Pass
		4 TX Slots	1880	24.87	1.14	26.01	<=33.01	Pass
		1 TX Slot	1909.8	28.67	1.14	29.81	<=33.01	Pass
		2 TX Slots	1909.8	27.89	1.14	29.03	<=33.01	Pass
		3 TX Slots	1909.8	25.87	1.14	27.01	<=33.01	Pass
		4 TX Slots	1909.8	24.52	1.14	25.66	<=33.01	Pass
	EGPRS	1 TX Slot	1850.2	24.28	1.14	25.42	<=33.01	Pass
		2 TX Slots	1850.2	23.46	1.14	24.60	<=33.01	Pass
		3 TX Slots	1850.2	21.50	1.14	22.64	<=33.01	Pass
		4 TX Slots	1850.2	21.63	1.14	22.77	<=33.01	Pass
		1 TX Slot	1880	24.44	1.14	25.58	<=33.01	Pass
		2 TX Slots	1880	23.53	1.14	24.67	<=33.01	Pass
		3 TX Slots	1880	21.57	1.14	22.71	<=33.01	Pass
		4 TX Slots	1880	20.40	1.14	21.54	<=33.01	Pass
		1 TX Slot	1909.8	24.09	1.14	25.23	<=33.01	Pass
		2 TX Slots	1909.8	24.64	1.14	25.78	<=33.01	Pass
		3 TX Slots	1909.8	21.51	1.14	22.65	<=33.01	Pass
		4 TX Slots	1909.8	20.41	1.14	21.55	<=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	
GSM	1850.2	20	3.27	4.585	0.0025	-2.5 to 2.5	Pass
			3.85	12.269	0.0066	-2.5 to 2.5	Pass
			4.43	8.330	0.0045	-2.5 to 2.5	Pass
		-30	3.85	12.269	0.0066	-2.5 to 2.5	Pass
		-20	3.85	-2.454	-0.0013	-2.5 to 2.5	Pass
		-10	3.85	-0.839	-0.0005	-2.5 to 2.5	Pass
		0	3.85	3.519	0.0019	-2.5 to 2.5	Pass
		10	3.85	-0.097	-0.0001	-2.5 to 2.5	Pass

		30	3.85	6.651	0.0036	-2.5 to 2.5	Pass
		40	3.85	5.004	0.0027	-2.5 to 2.5	Pass
		50	3.85	5.876	0.0032	-2.5 to 2.5	Pass
	1880	20	3.27	12.301	0.0065	-2.5 to 2.5	Pass
			3.85	9.589	0.0051	-2.5 to 2.5	Pass
			4.43	10.493	0.0056	-2.5 to 2.5	Pass
		-30	3.85	13.334	0.0071	-2.5 to 2.5	Pass
		-20	3.85	13.754	0.0073	-2.5 to 2.5	Pass
		-10	3.85	13.592	0.0072	-2.5 to 2.5	Pass
		0	3.85	9.750	0.0052	-2.5 to 2.5	Pass
		10	3.85	9.686	0.0052	-2.5 to 2.5	Pass
		30	3.85	7.458	0.0040	-2.5 to 2.5	Pass
		40	3.85	13.495	0.0072	-2.5 to 2.5	Pass
		50	3.85	6.489	0.0035	-2.5 to 2.5	Pass
	1909.8	20	3.27	12.591	0.0066	-2.5 to 2.5	Pass
			3.85	13.173	0.0069	-2.5 to 2.5	Pass
			4.43	12.333	0.0065	-2.5 to 2.5	Pass
		-30	3.85	9.492	0.0050	-2.5 to 2.5	Pass
		-20	3.85	11.300	0.0059	-2.5 to 2.5	Pass
		-10	3.85	10.783	0.0056	-2.5 to 2.5	Pass
		0	3.85	13.366	0.0070	-2.5 to 2.5	Pass
		10	3.85	9.201	0.0048	-2.5 to 2.5	Pass
		30	3.85	6.457	0.0034	-2.5 to 2.5	Pass
		40	3.85	7.264	0.0038	-2.5 to 2.5	Pass
		50	3.85	13.528	0.0071	-2.5 to 2.5	Pass
GPRS	1850.2	20	3.27	13.915	0.0075	-2.5 to 2.5	Pass
			3.85	4.940	0.0027	-2.5 to 2.5	Pass
			4.43	5.166	0.0028	-2.5 to 2.5	Pass
		-30	3.85	8.071	0.0044	-2.5 to 2.5	Pass
		-20	3.85	5.908	0.0032	-2.5 to 2.5	Pass
		-10	3.85	7.845	0.0042	-2.5 to 2.5	Pass
		0	3.85	17.015	0.0092	-2.5 to 2.5	Pass
		10	3.85	17.208	0.0093	-2.5 to 2.5	Pass
		30	3.85	12.979	0.0070	-2.5 to 2.5	Pass
		40	3.85	16.304	0.0088	-2.5 to 2.5	Pass
		50	3.85	10.654	0.0058	-2.5 to 2.5	Pass
	1880	20	3.27	8.265	0.0044	-2.5 to 2.5	Pass
			3.85	10.364	0.0055	-2.5 to 2.5	Pass
			4.43	12.269	0.0065	-2.5 to 2.5	Pass
		-30	3.85	12.850	0.0068	-2.5 to 2.5	Pass
		-20	3.85	8.653	0.0046	-2.5 to 2.5	Pass
		-10	3.85	8.104	0.0043	-2.5 to 2.5	Pass
		0	3.85	19.372	0.0103	-2.5 to 2.5	Pass
		10	3.85	14.787	0.0079	-2.5 to 2.5	Pass
		30	3.85	15.303	0.0081	-2.5 to 2.5	Pass
		40	3.85	24.634	0.0131	-2.5 to 2.5	Pass
		50	3.85	23.859	0.0127	-2.5 to 2.5	Pass
	1909.8	20	3.27	11.655	0.0061	-2.5 to 2.5	Pass
			3.85	7.071	0.0037	-2.5 to 2.5	Pass
			4.43	8.265	0.0043	-2.5 to 2.5	Pass
		-30	3.85	4.811	0.0025	-2.5 to 2.5	Pass
		-20	3.85	9.395	0.0049	-2.5 to 2.5	Pass
		-10	3.85	3.777	0.0020	-2.5 to 2.5	Pass
		0	3.85	19.275	0.0101	-2.5 to 2.5	Pass
		10	3.85	20.017	0.0105	-2.5 to 2.5	Pass
		30	3.85	11.042	0.0058	-2.5 to 2.5	Pass
		40	3.85	12.882	0.0067	-2.5 to 2.5	Pass
		50	3.85	13.560	0.0071	-2.5 to 2.5	Pass
EGPRS	1850.2	20	3.27	2.325	0.0013	-2.5 to 2.5	Pass

			3.85	7.232	0.0039	-2.5 to 2.5	Pass
			4.43	0.581	0.0003	-2.5 to 2.5	Pass
		-30	3.85	10.105	0.0055	-2.5 to 2.5	Pass
		-20	3.85	2.680	0.0014	-2.5 to 2.5	Pass
		-10	3.85	0.678	0.0004	-2.5 to 2.5	Pass
		0	3.85	2.195	0.0012	-2.5 to 2.5	Pass
		10	3.85	3.293	0.0018	-2.5 to 2.5	Pass
		30	3.85	5.553	0.0030	-2.5 to 2.5	Pass
		40	3.85	7.393	0.0040	-2.5 to 2.5	Pass
		50	3.85	13.043	0.0070	-2.5 to 2.5	Pass
	1880	20	3.27	3.777	0.0020	-2.5 to 2.5	Pass
			3.85	3.648	0.0019	-2.5 to 2.5	Pass
			4.43	6.554	0.0035	-2.5 to 2.5	Pass
		-30	3.85	4.455	0.0024	-2.5 to 2.5	Pass
		-20	3.85	6.425	0.0034	-2.5 to 2.5	Pass
		-10	3.85	7.393	0.0039	-2.5 to 2.5	Pass
		0	3.85	12.204	0.0065	-2.5 to 2.5	Pass
		10	3.85	6.748	0.0036	-2.5 to 2.5	Pass
		30	3.85	11.591	0.0062	-2.5 to 2.5	Pass
		40	3.85	8.620	0.0046	-2.5 to 2.5	Pass
		50	3.85	13.560	0.0072	-2.5 to 2.5	Pass
	1909.8	20	3.27	-4.455	-0.0023	-2.5 to 2.5	Pass
			3.85	1.614	0.0008	-2.5 to 2.5	Pass
			4.43	9.879	0.0052	-2.5 to 2.5	Pass
		-30	3.85	7.684	0.0040	-2.5 to 2.5	Pass
		-20	3.85	11.009	0.0058	-2.5 to 2.5	Pass
		-10	3.85	12.947	0.0068	-2.5 to 2.5	Pass
		0	3.85	17.047	0.0089	-2.5 to 2.5	Pass
		10	3.85	17.628	0.0092	-2.5 to 2.5	Pass
		30	3.85	4.811	0.0025	-2.5 to 2.5	Pass
		40	3.85	11.752	0.0062	-2.5 to 2.5	Pass
		50	3.85	15.529	0.0081	-2.5 to 2.5	Pass

3. Modulation Characteristics

3.1 Test Result

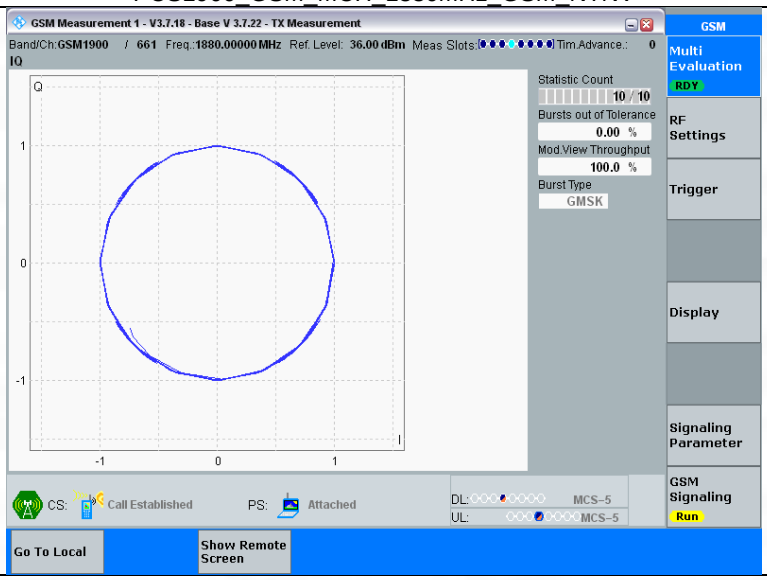
3.1.1 PCS1900

Band: PCS1900						
ENV	Mode		Frequency (MHz)	Modulation Characteristics		Verdict
	Network	Subset		Result	Limit	
NTNV	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

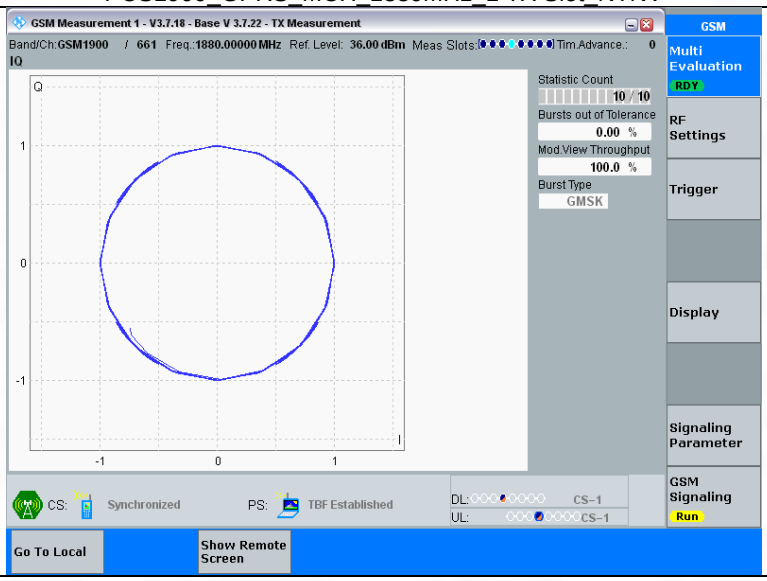
3.2 Test Graph

3.2.1 PCS1900

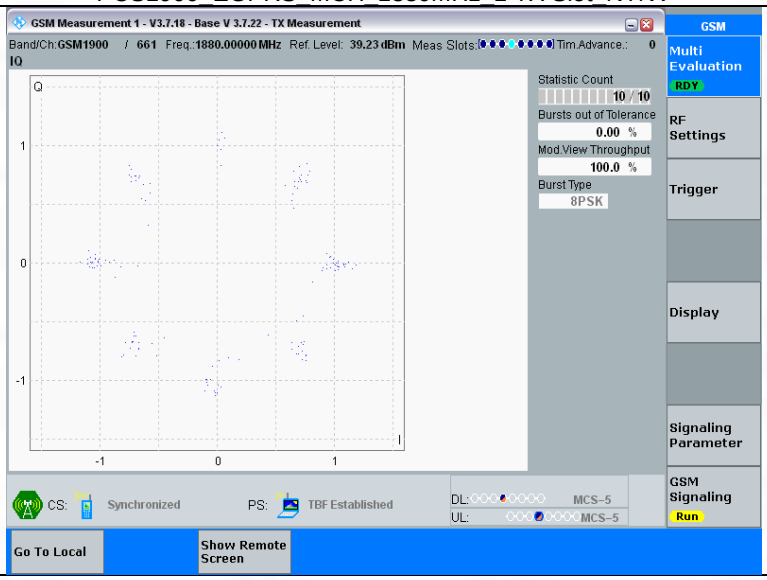
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



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	GSM	GSM	1850.2	0.247	/	Pass
			1880	0.252	/	Pass
			1909.8	0.246	/	Pass
	GPRS	1 TX Slot	1850.2	0.246	/	Pass
			1880	0.242	/	Pass
			1909.8	0.244	/	Pass
	EGPRS	1 TX Slot	1850.2	0.259	/	Pass
			1880	0.255	/	Pass
			1909.8	0.263	/	Pass

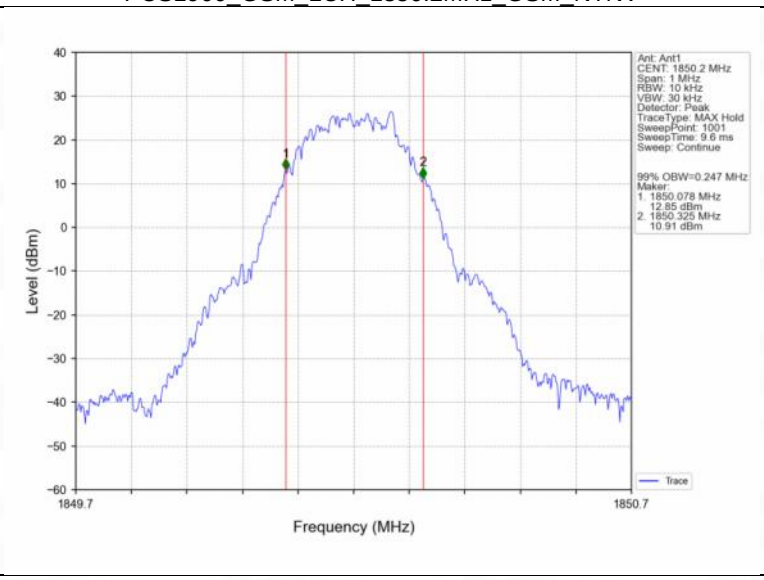
4.1.2 PCS1900_XDB

Band: PCS1900						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	0.320	/	Pass
			1880	0.319	/	Pass
			1909.8	0.316	/	Pass
	GPRS	1 TX Slot	1850.2	0.315	/	Pass
			1880	0.313	/	Pass
			1909.8	0.311	/	Pass
	EGPRS	1 TX Slot	1850.2	0.339	/	Pass
			1880	0.325	/	Pass
			1909.8	0.336	/	Pass

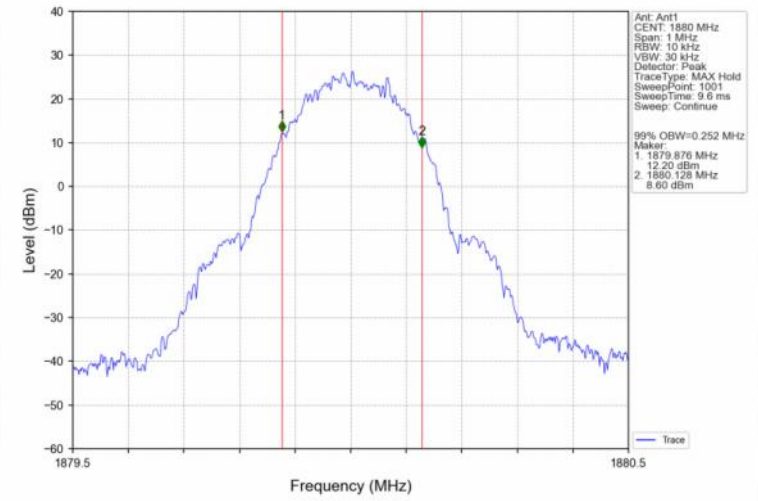
4.2 Test Graph

4.2.1 PCS1900_OBW

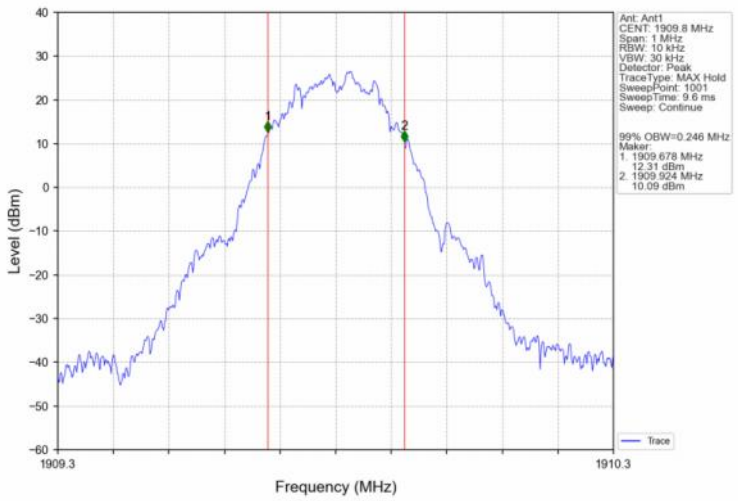
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



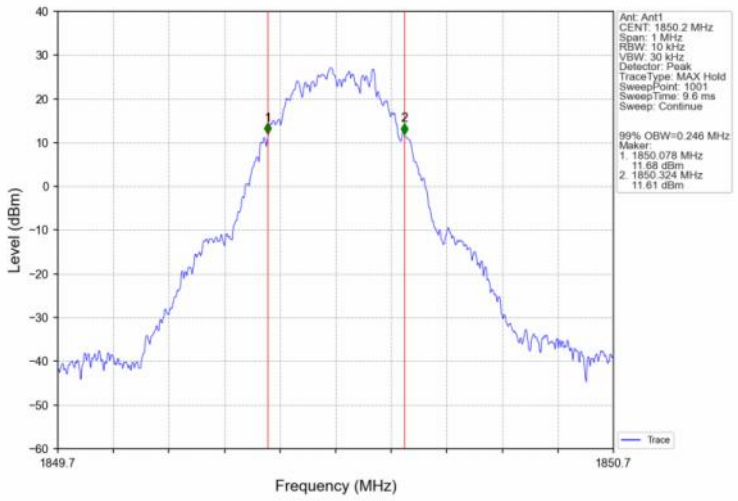
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



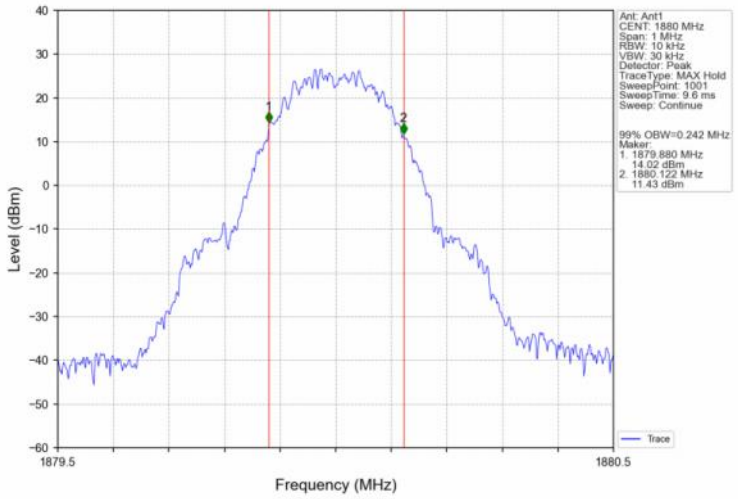
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



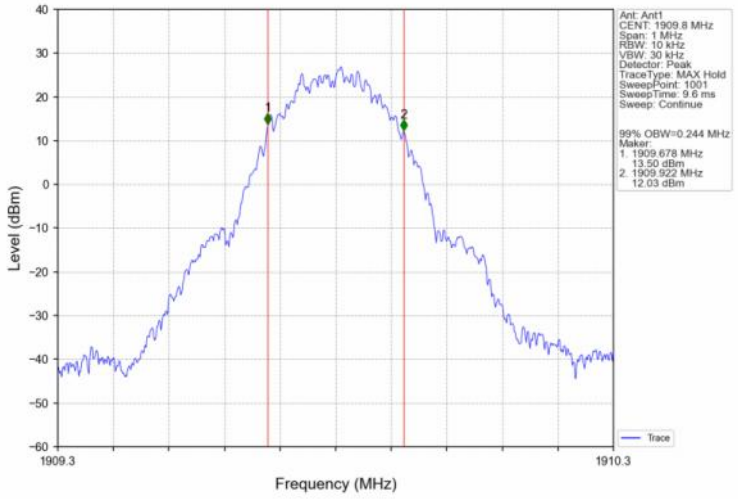
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



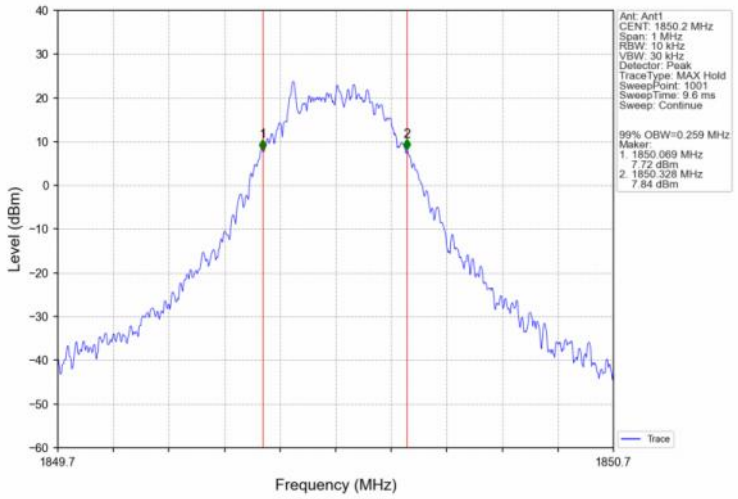
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



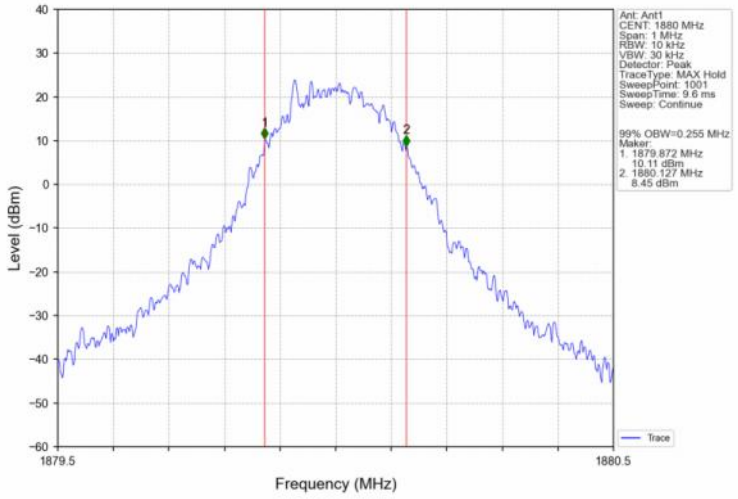
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



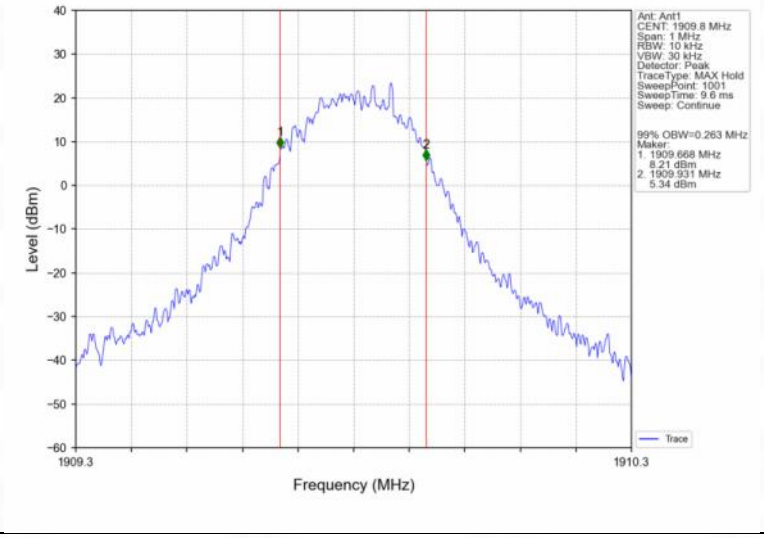
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV

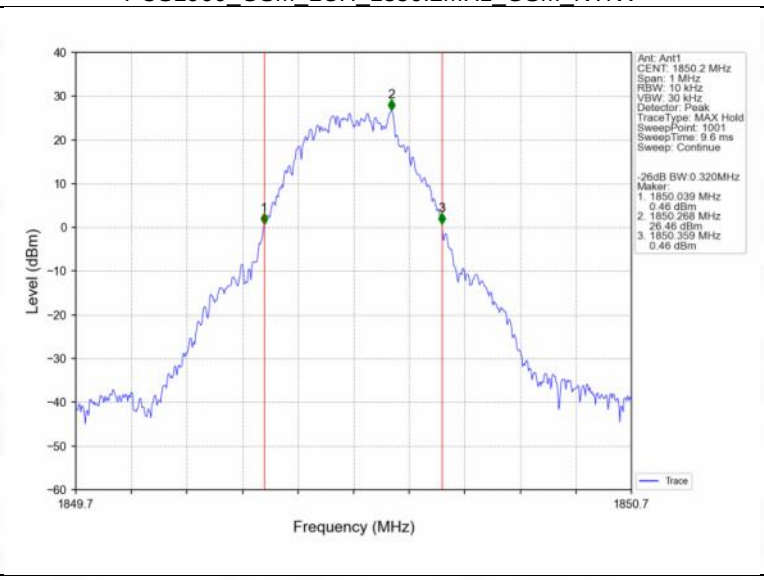


PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV

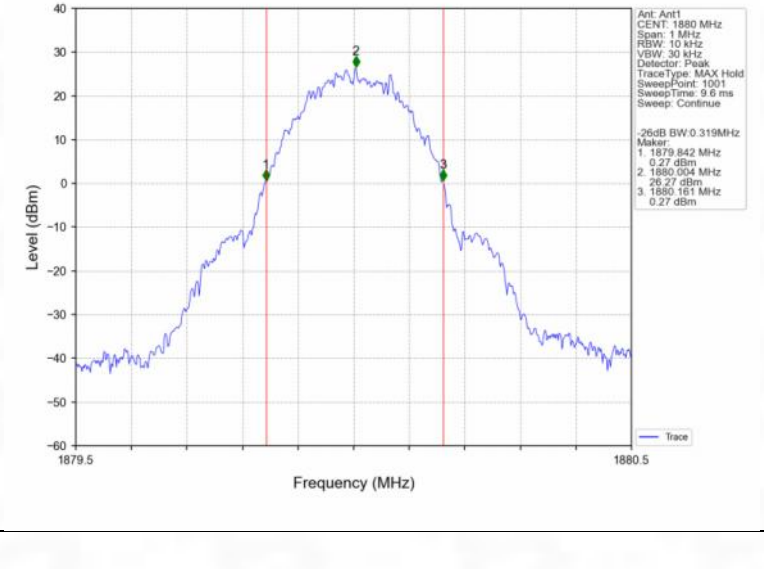


4.2.2 PCS1900_XDB

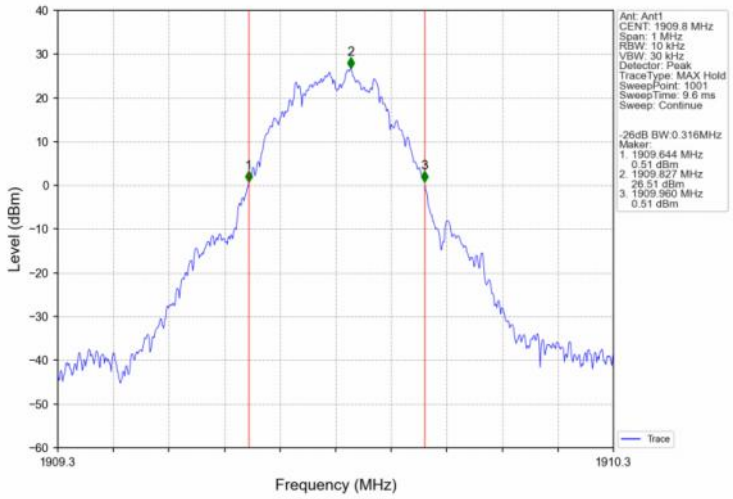
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



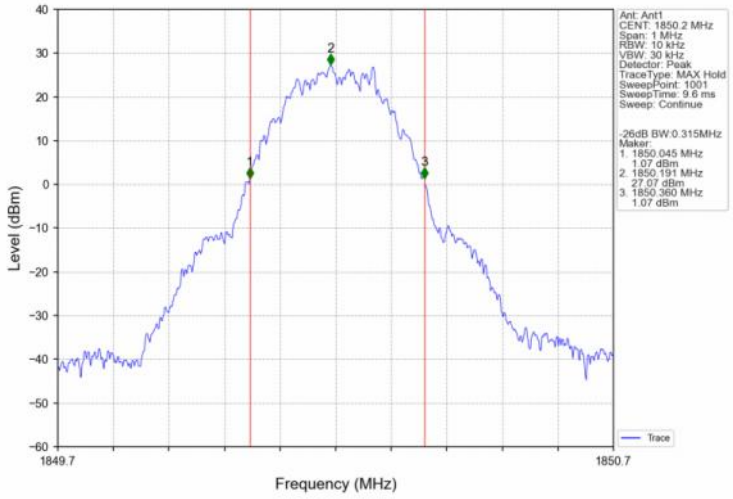
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



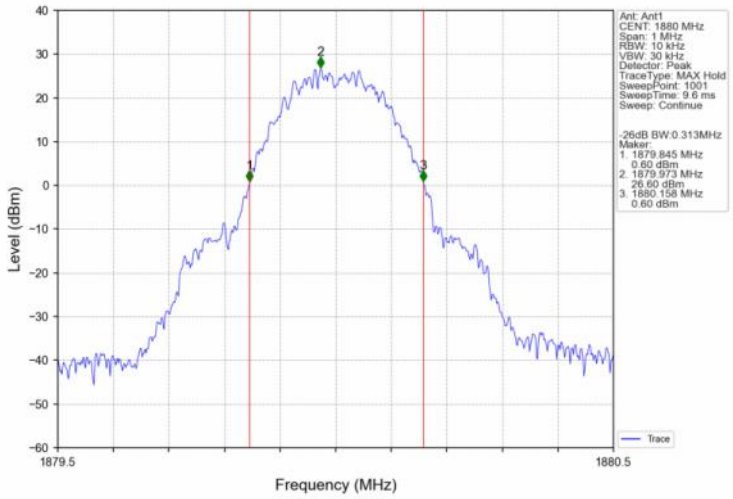
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



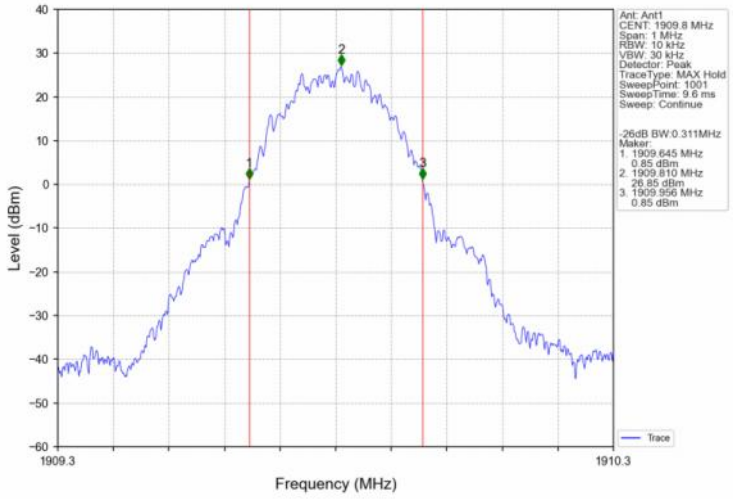
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



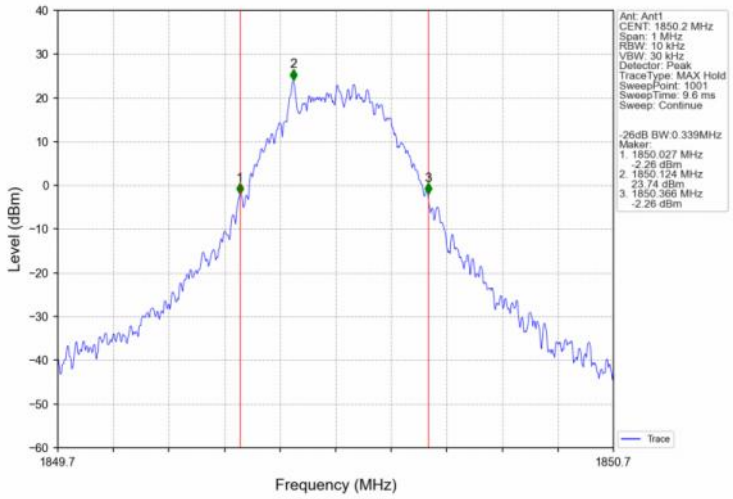
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



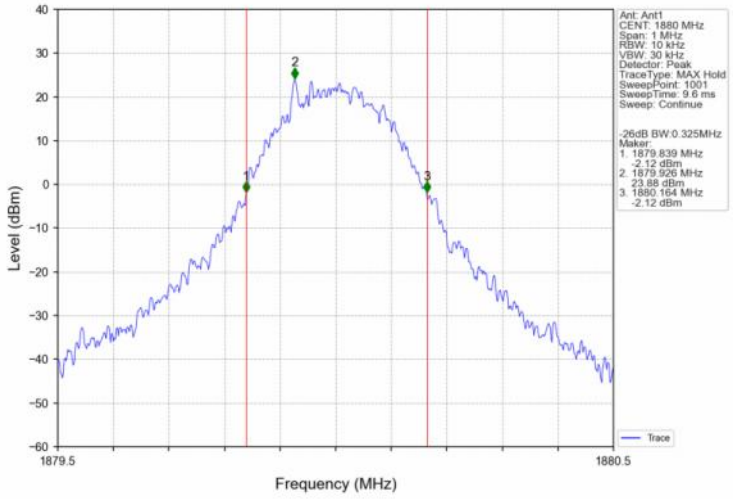
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



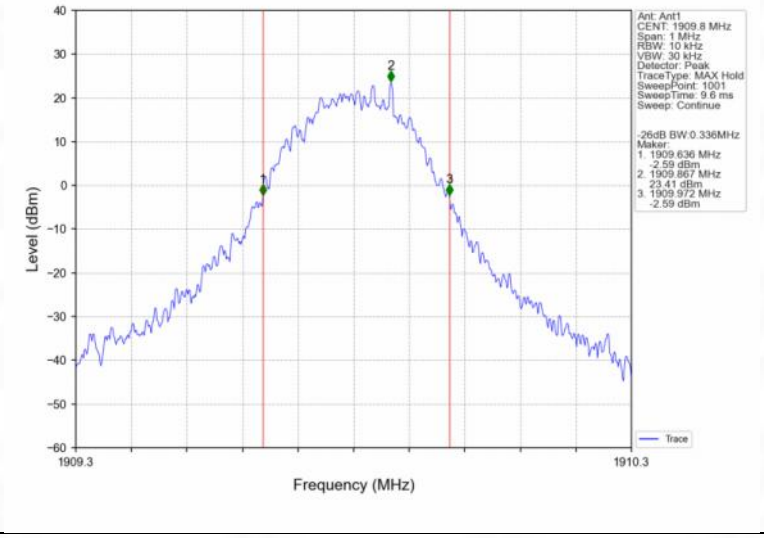
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



5. Peak-Average Ratio

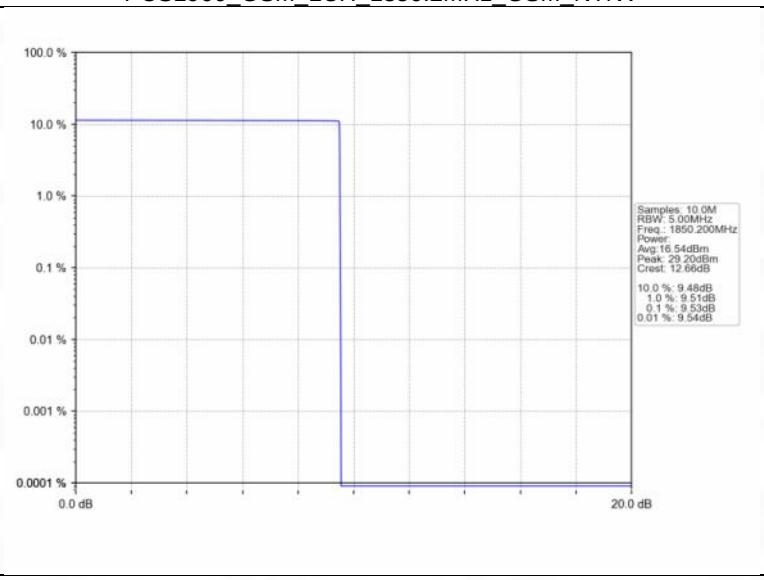
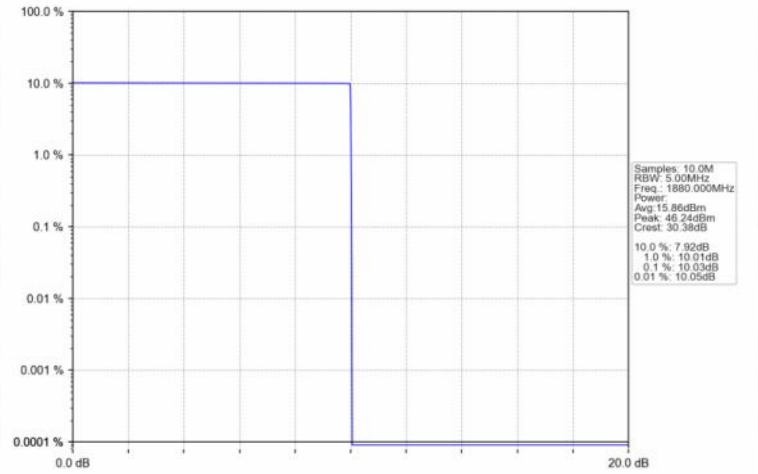
5.1 Test Result

5.1.1 PCS1900

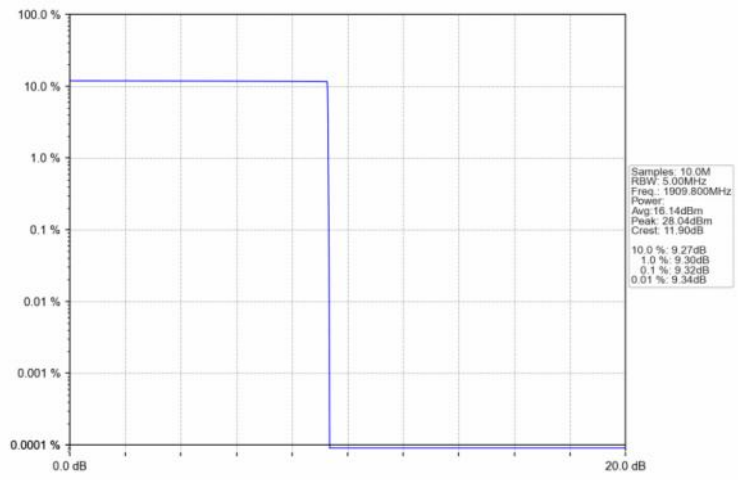
Band: PCS1900						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	9.53	<=13	Pass
			1880	10.03	<=13	Pass
			1909.8	9.32	<=13	Pass
	GPRS	4 TX Slots	1850.2	3.56	<=13	Pass
			1880	3.70	<=13	Pass
			1909.8	3.34	<=13	Pass
	EGPRS	4 TX Slots	1850.2	7.65	<=13	Pass
			1880	7.48	<=13	Pass
			1909.8	7.62	<=13	Pass

5.2 Test Graph

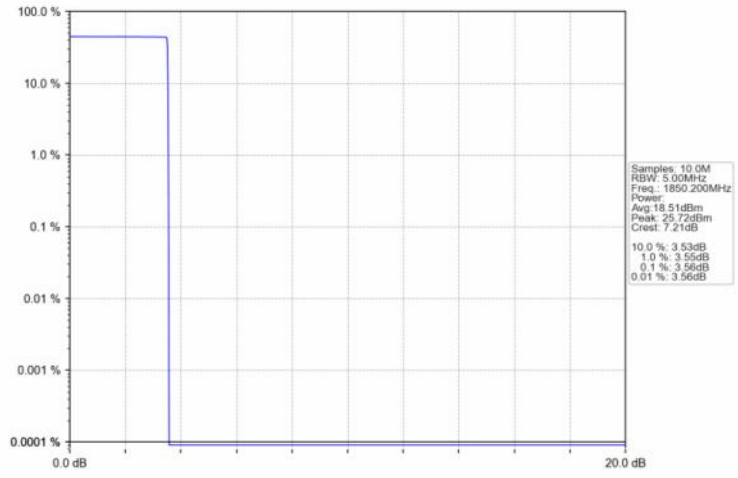
5.2.1 PCS1900

PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV

PCS1900_GSM_MCH_1880MHz_GSM_NTNV


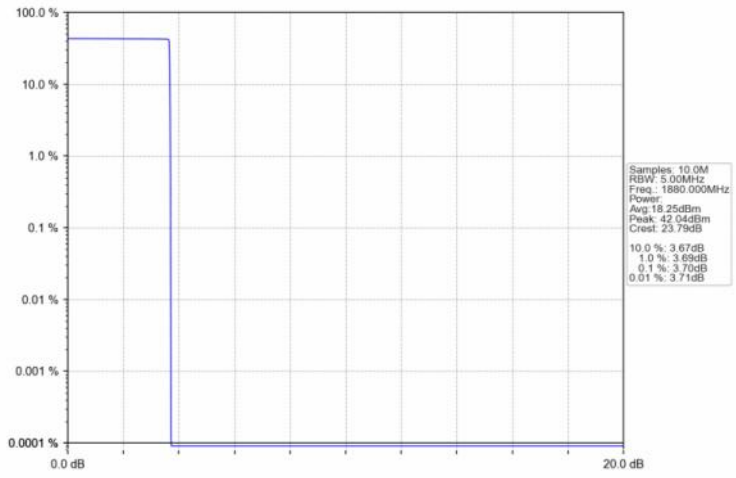
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



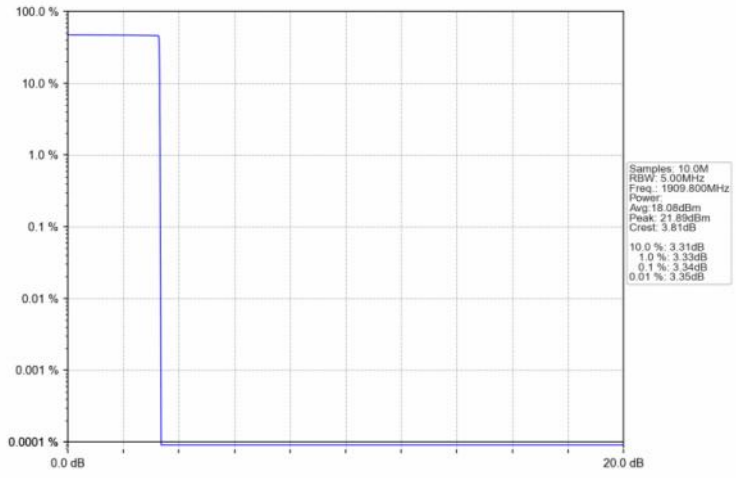
PCS1900_GPRS_LCH_1850.2MHz_4 TX Slots_NTNV



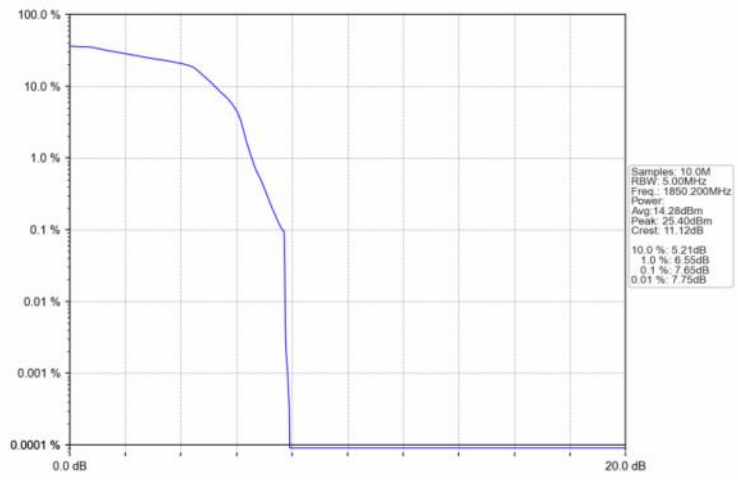
PCS1900_GPRS_MCH_1880MHz_4 TX Slots_NTNV



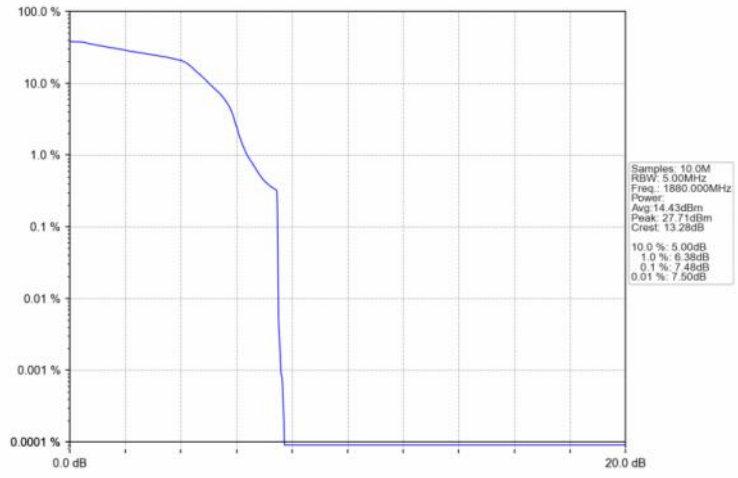
PCS1900_GPRS_HCH_1909.8MHz_4 TX Slots_NTNV



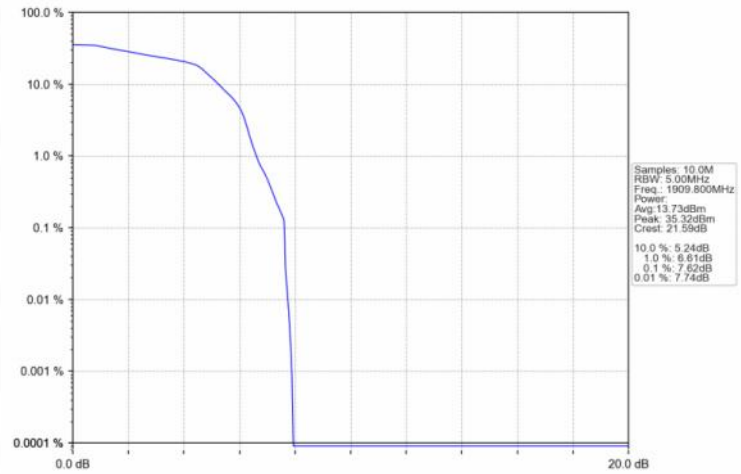
PCS1900_EGPRS_LCH_1850.2MHz_4 TX Slots_NTNV



PCS1900_EGPRS_MCH_1880MHz_4 TX Slots_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_4 TX Slots_NTNV



6. Spurious Emission

6.1 Test Result

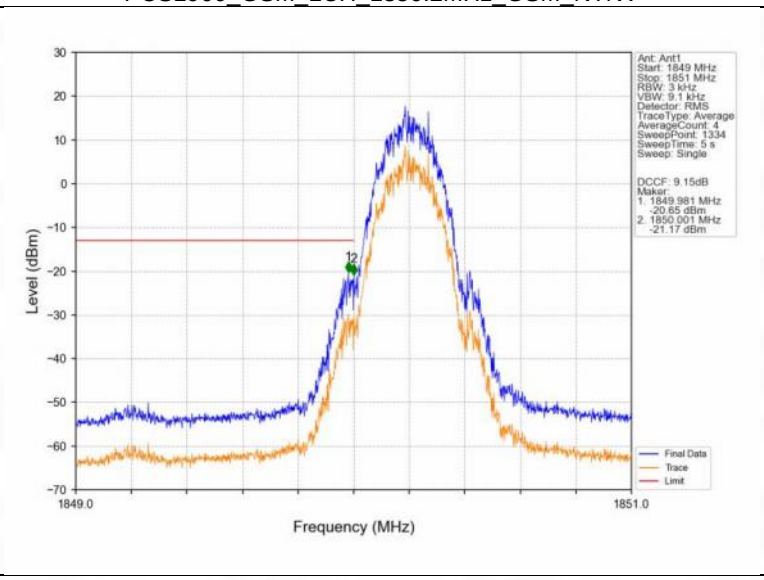
6.1.1 PCS1900

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

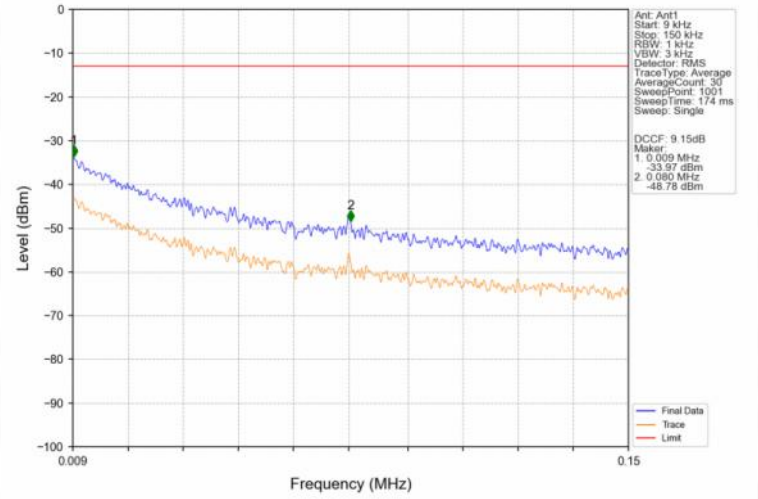
6.2 Test Graph

6.2.1 PCS1900

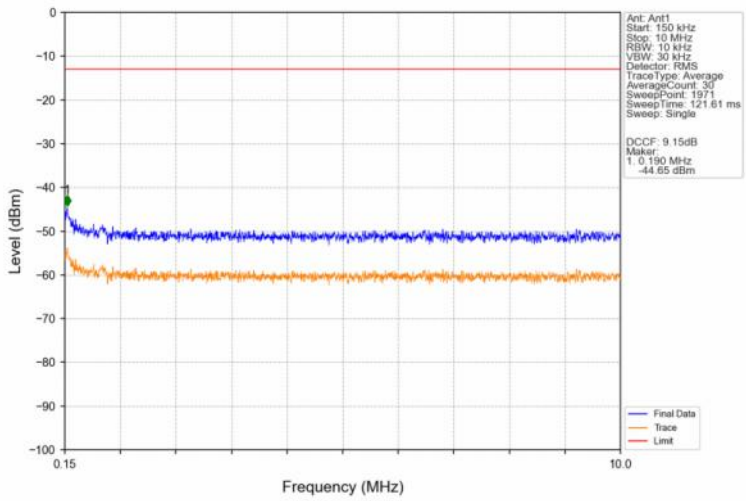
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



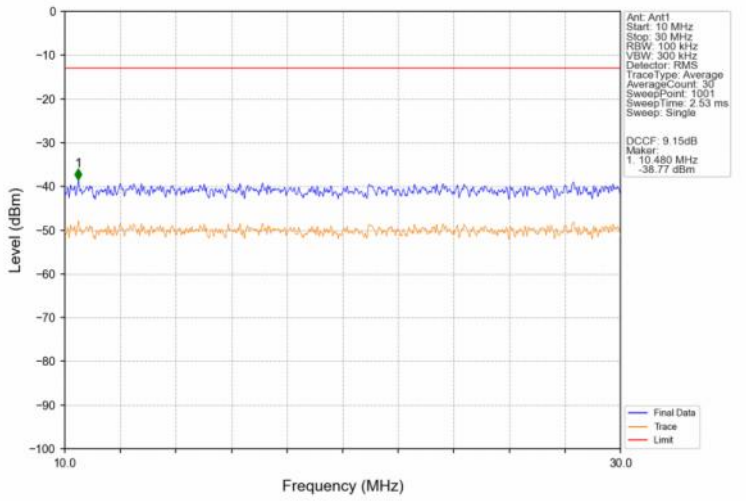
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



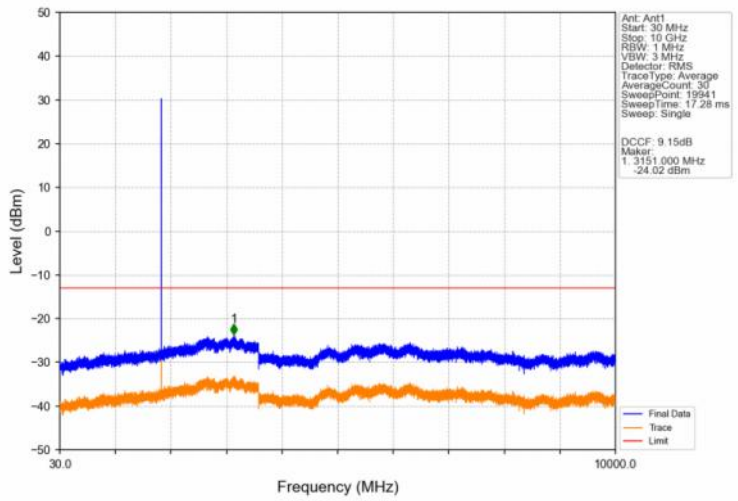
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



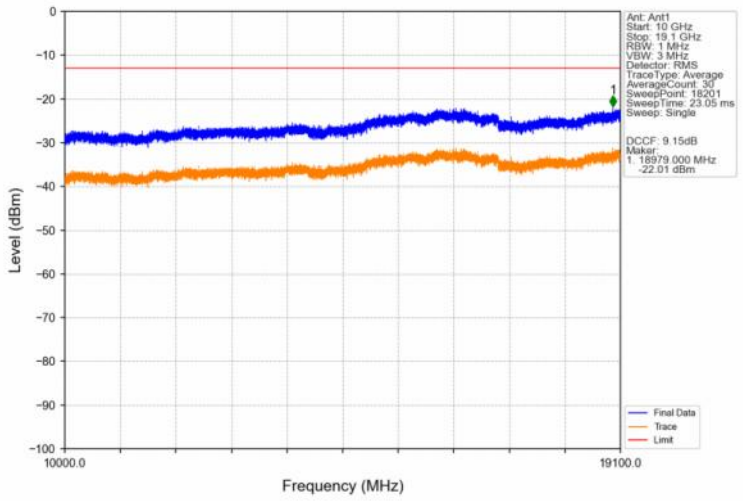
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



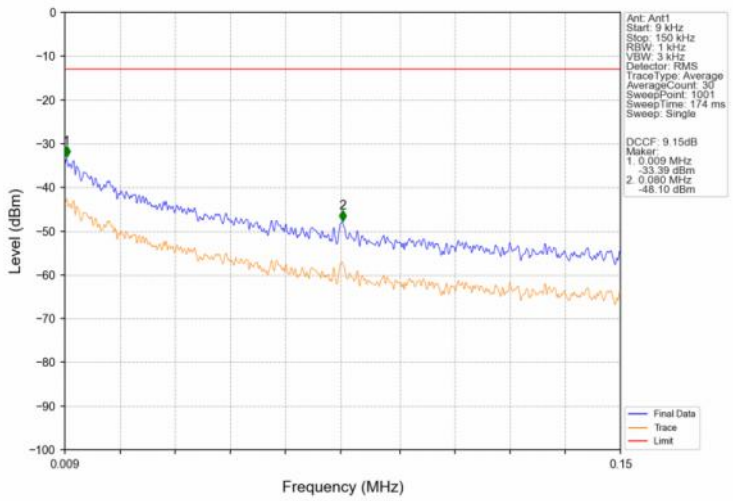
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



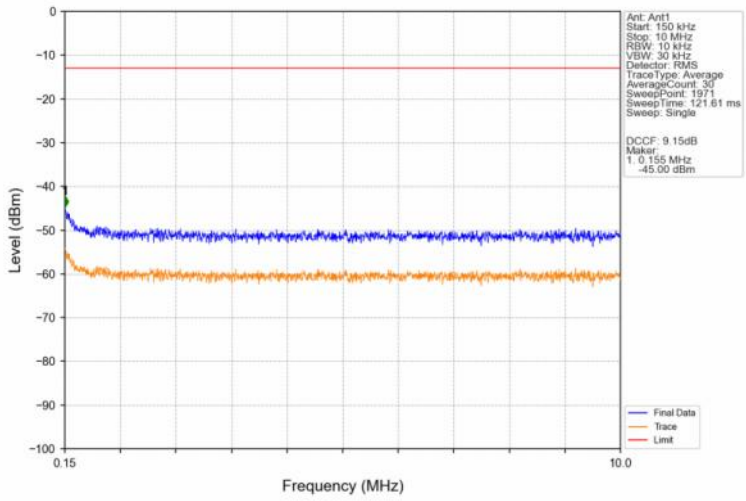
PCS1900_GSM_LCH_1850.2MHz_GSM_NTNV



PCS1900_GSM_MCH_1880MHz_GSM_NTNV



PCS1900_GSM_MCH_1880MHz_GSM_NTNV



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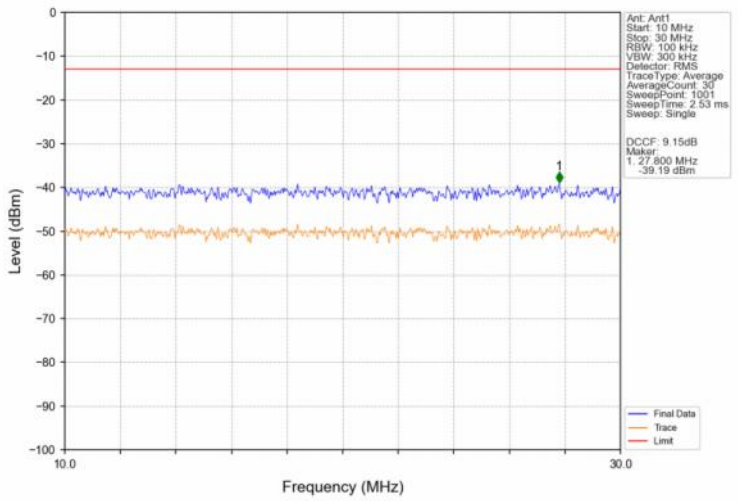
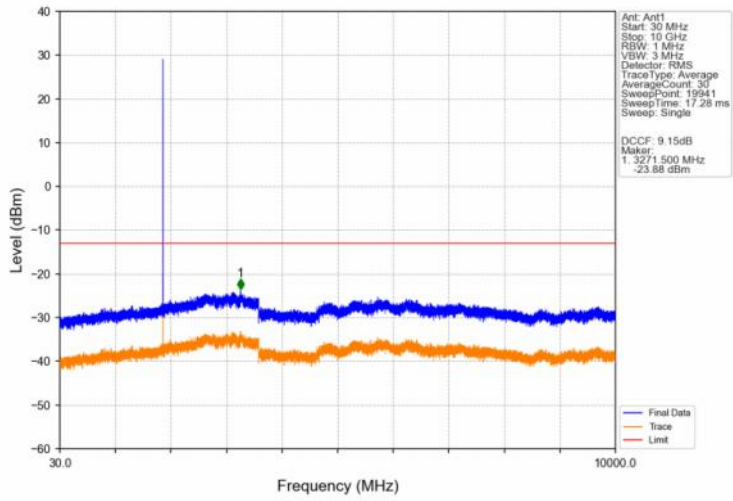
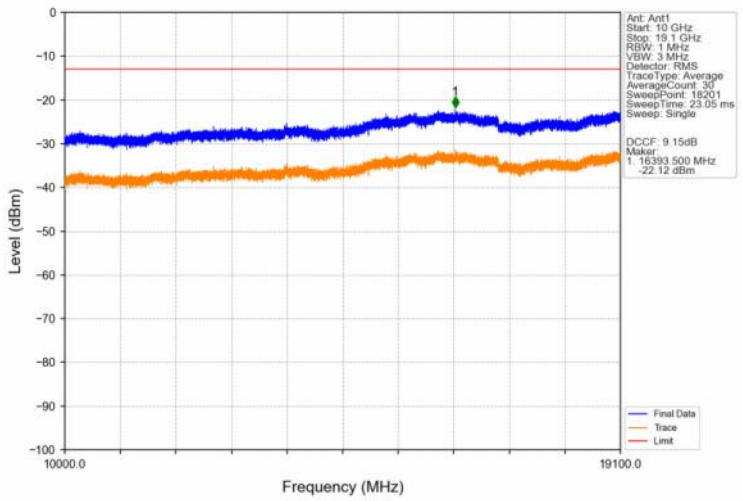


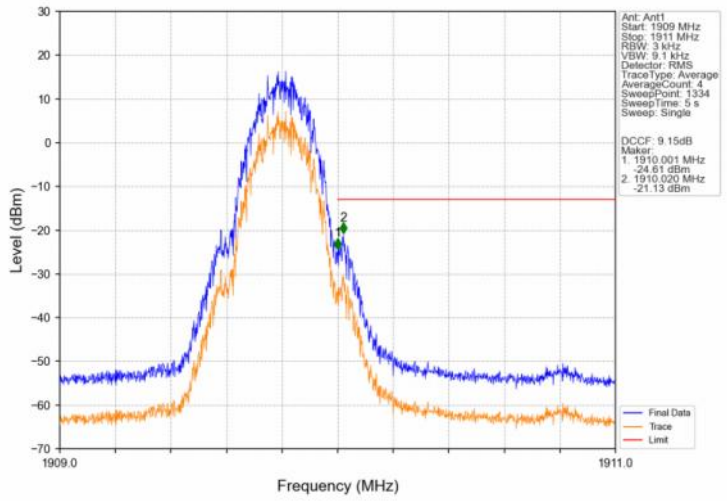
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



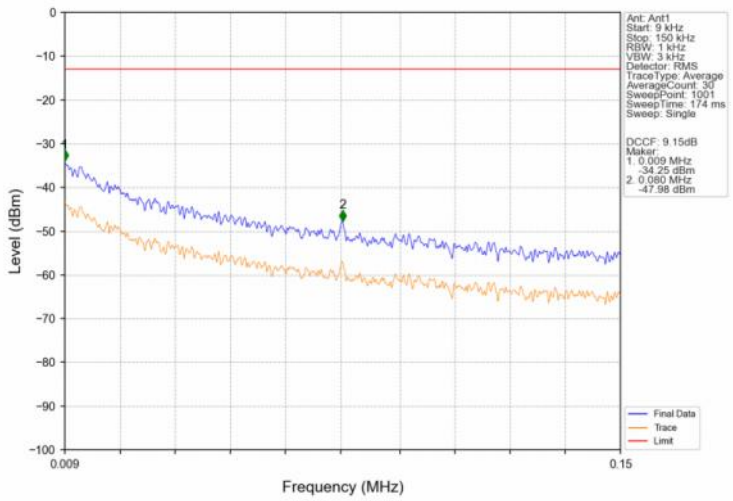
PCS1900_GSM_MCH_1880MHz_GSM_NTNV



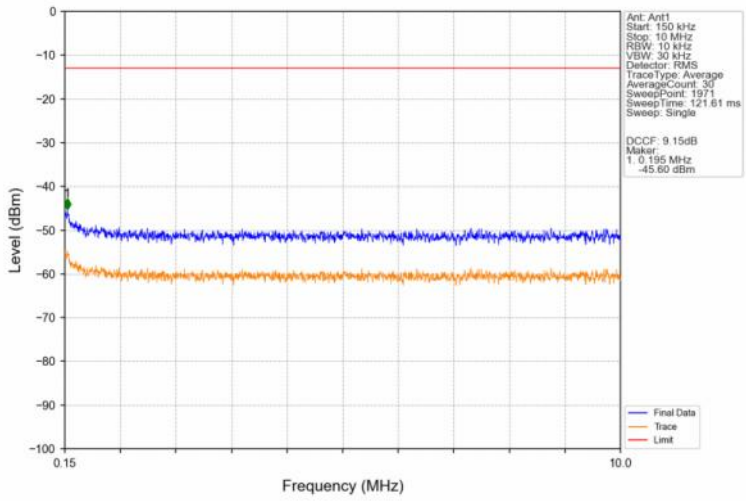
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



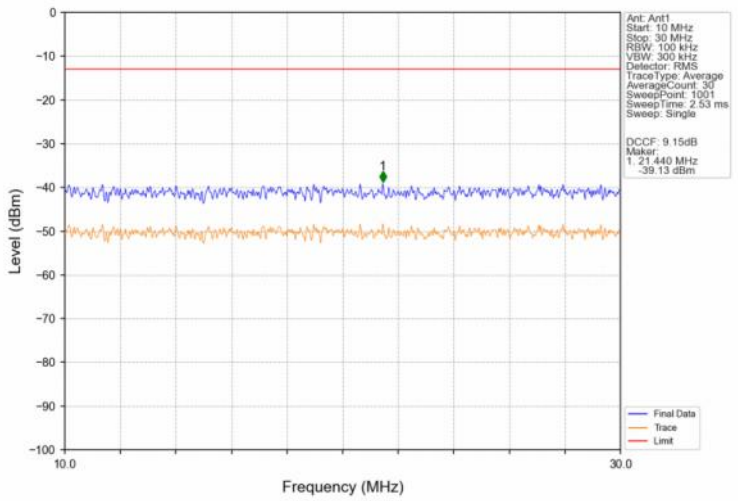
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



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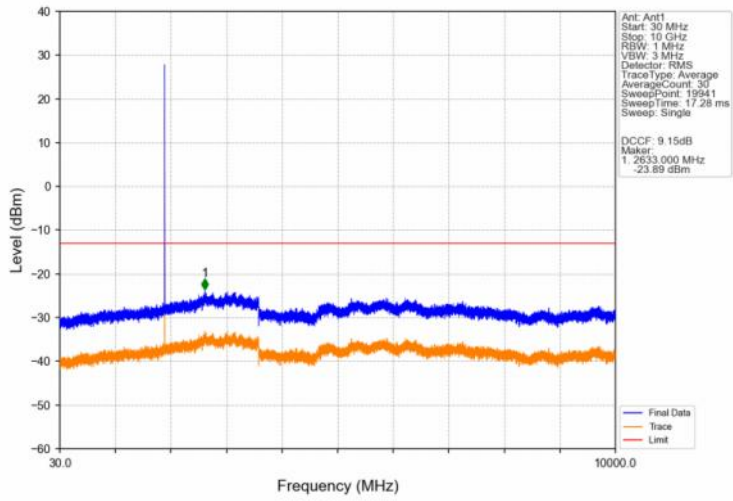
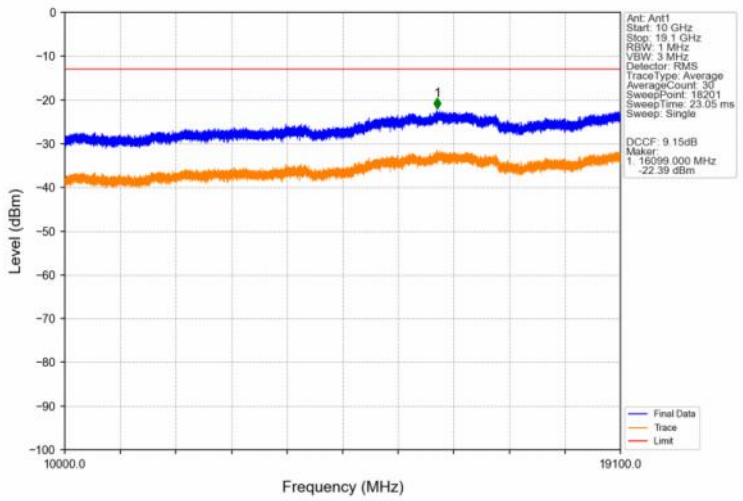
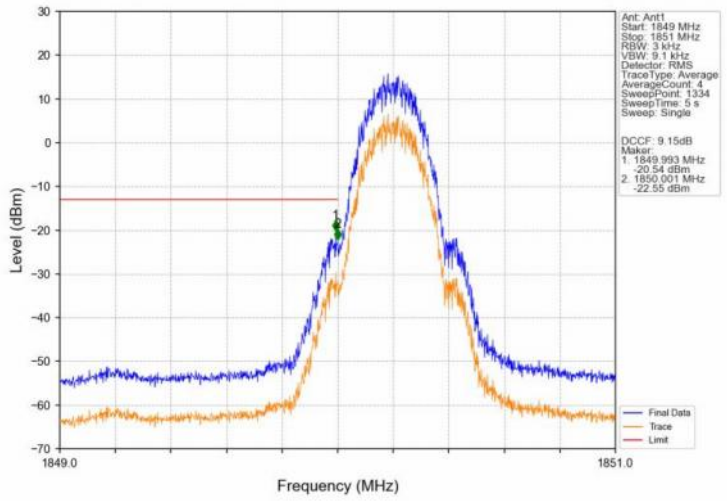


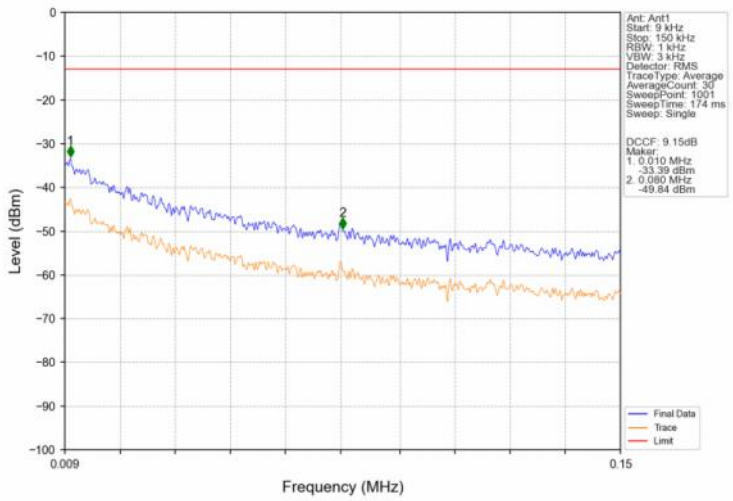
PCS1900_GSM_HCH_1909.8MHz_GSM_NTNV



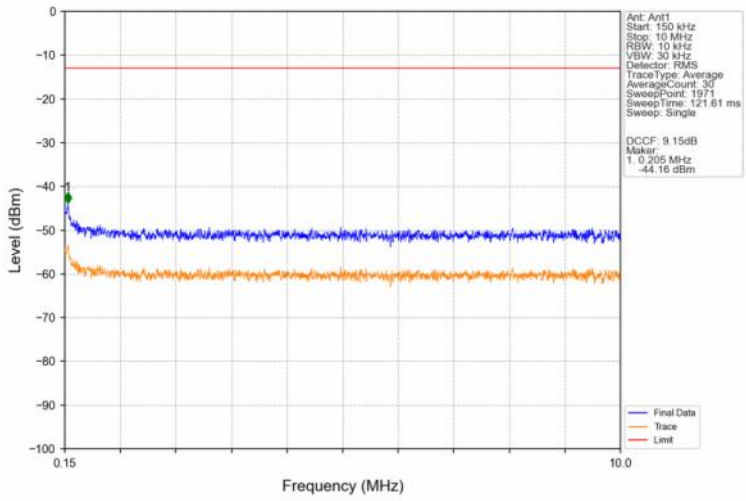
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



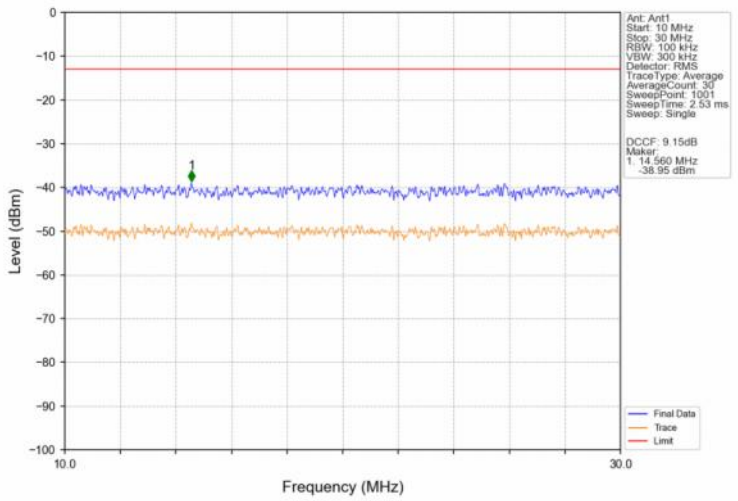
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



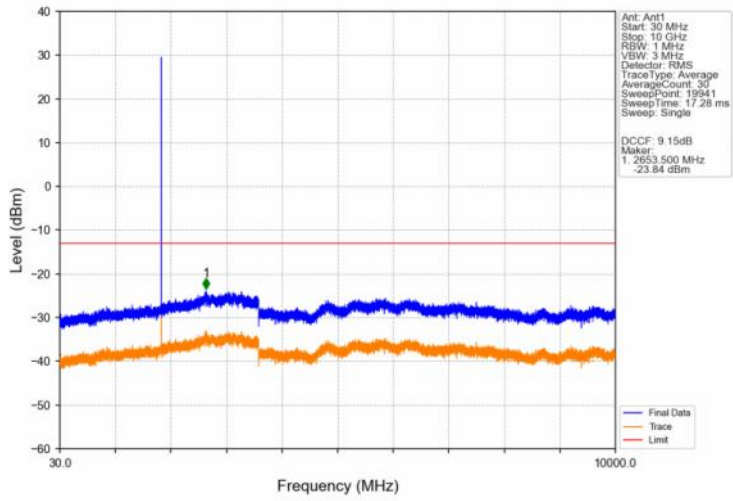
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



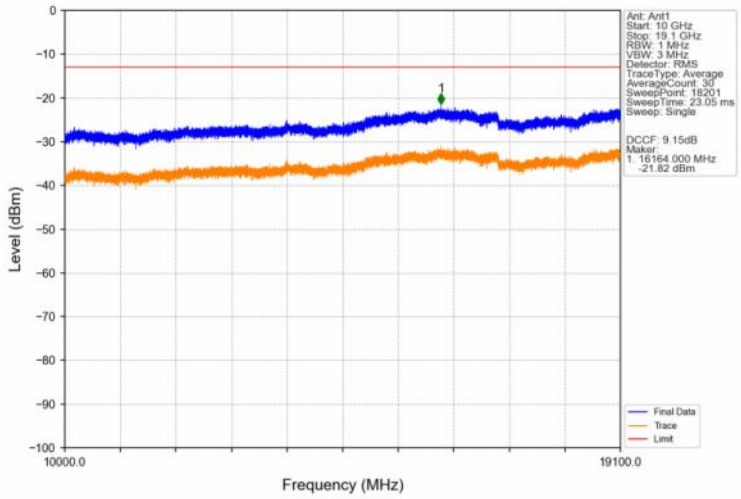
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



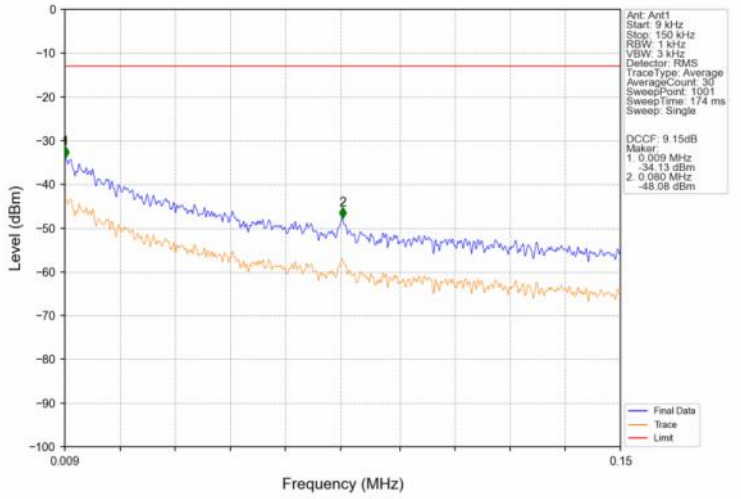
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



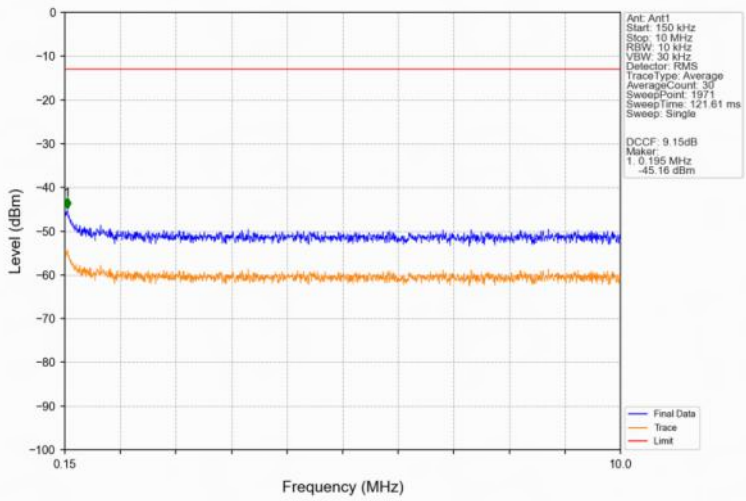
PCS1900_GPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



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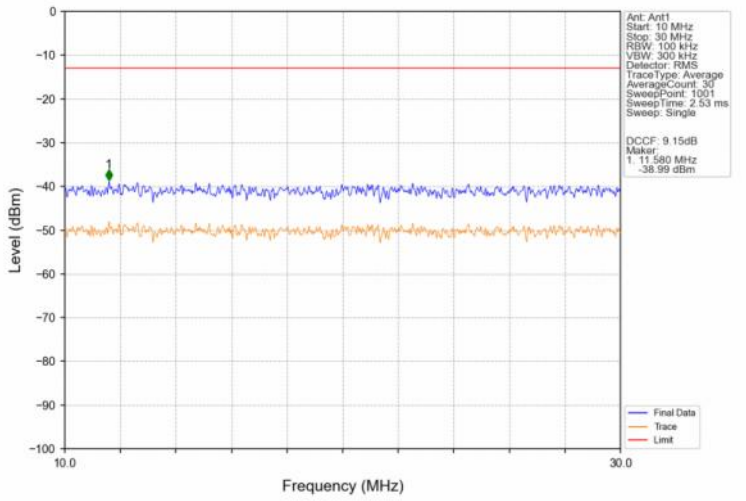
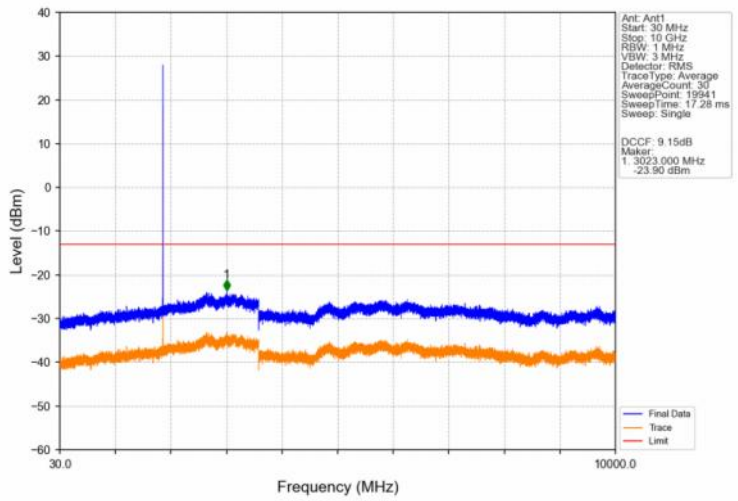
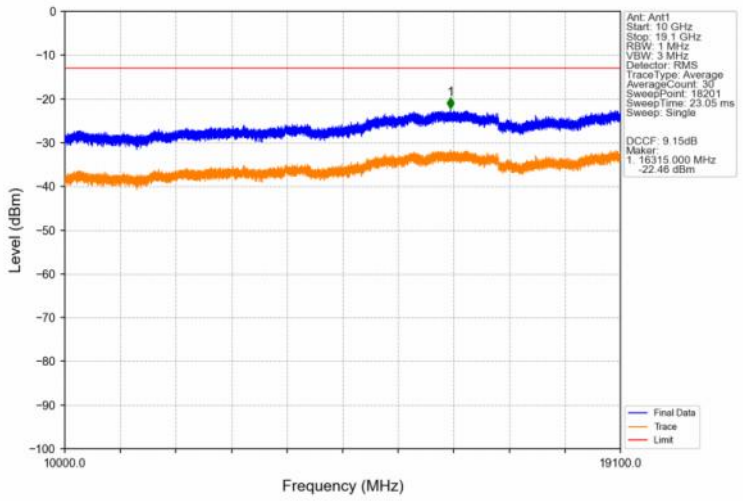


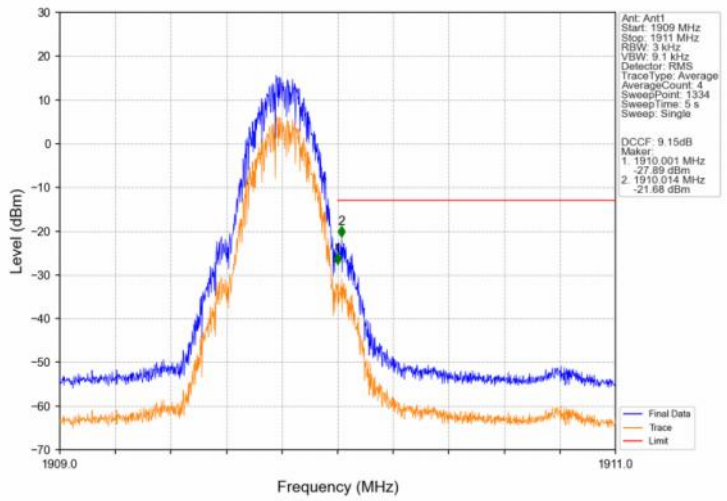
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



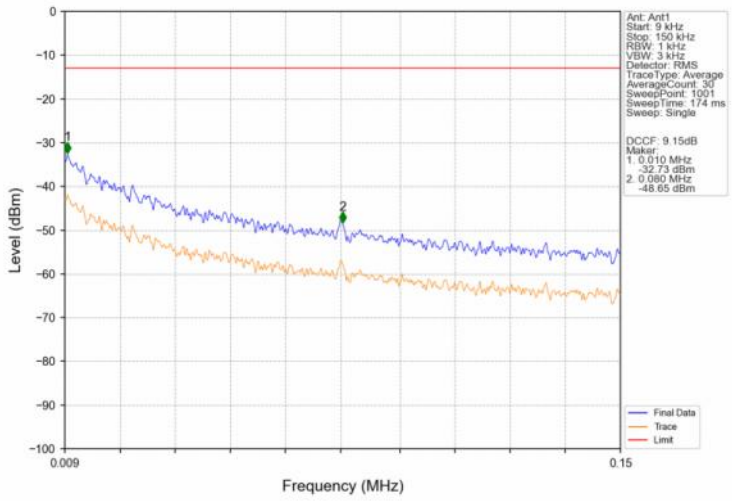
PCS1900_GPRS_MCH_1880MHz_1 TX Slot_NTNV



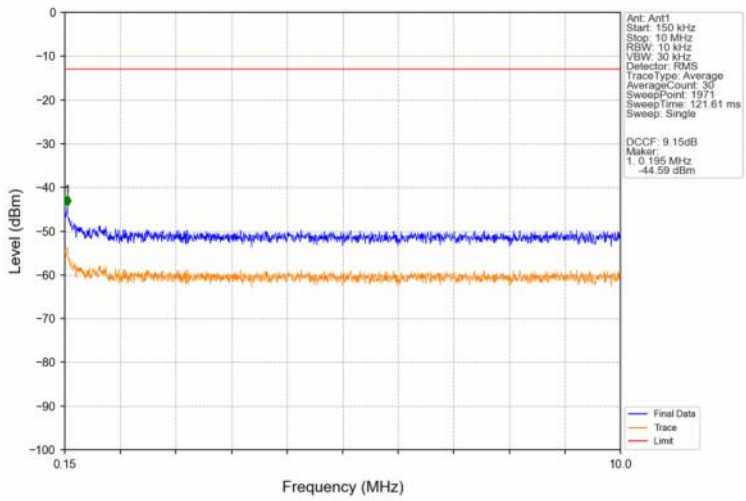
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



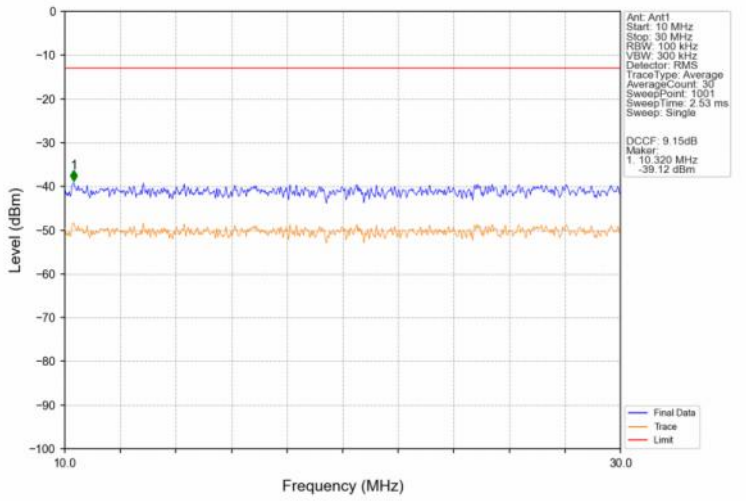
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



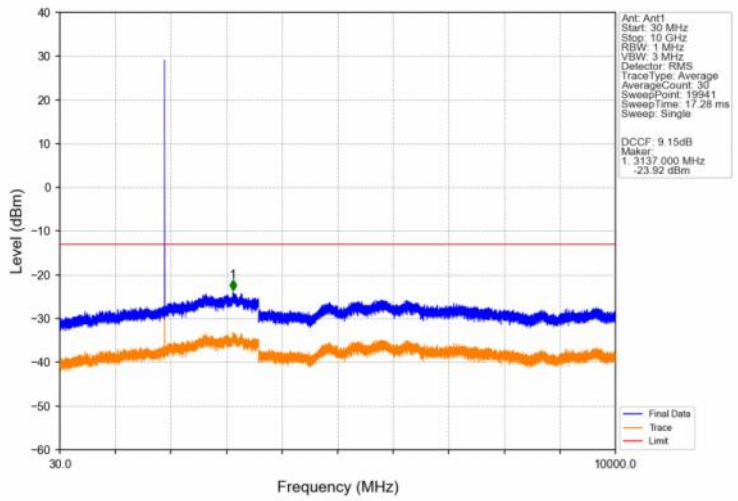
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



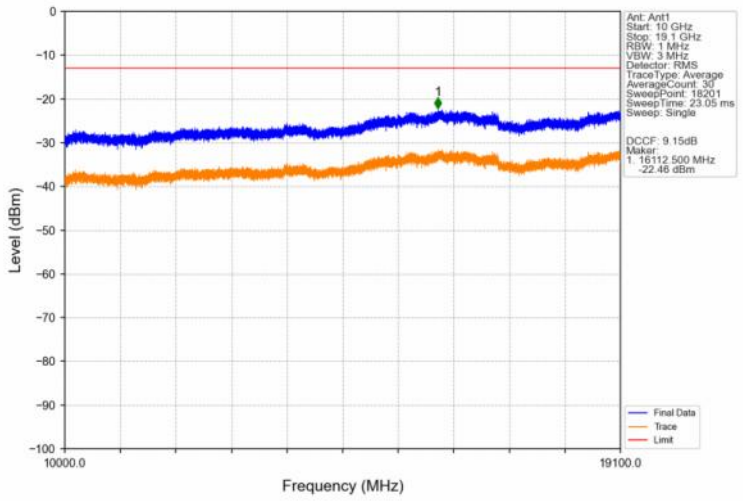
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



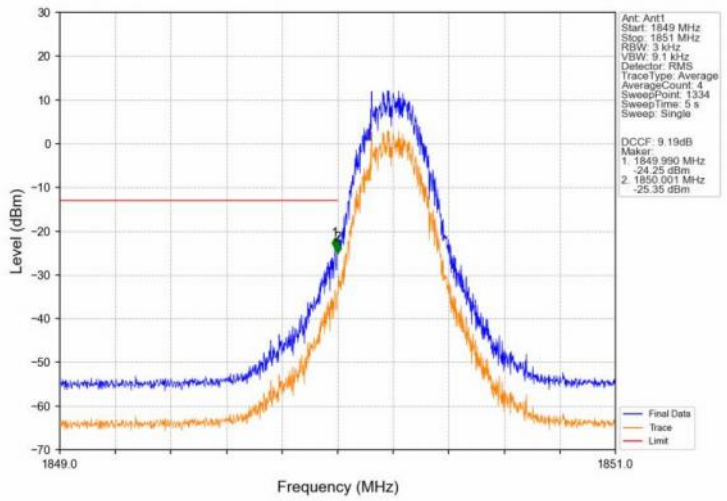
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



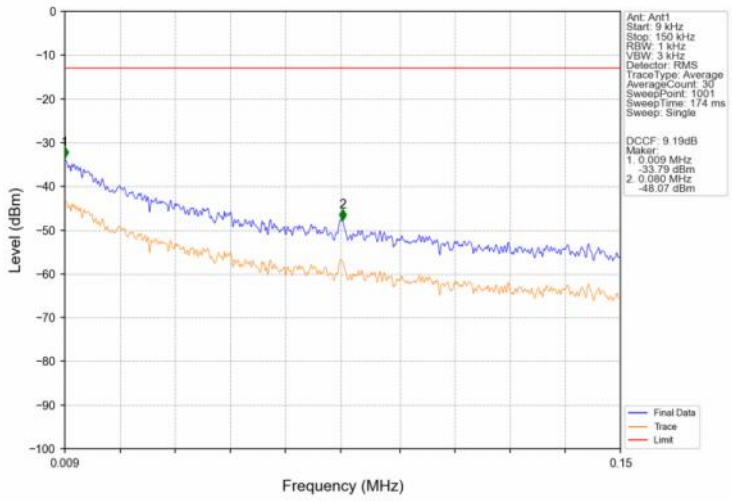
PCS1900_GPRS_HCH_1909.8MHz_1 TX Slot_NTNV



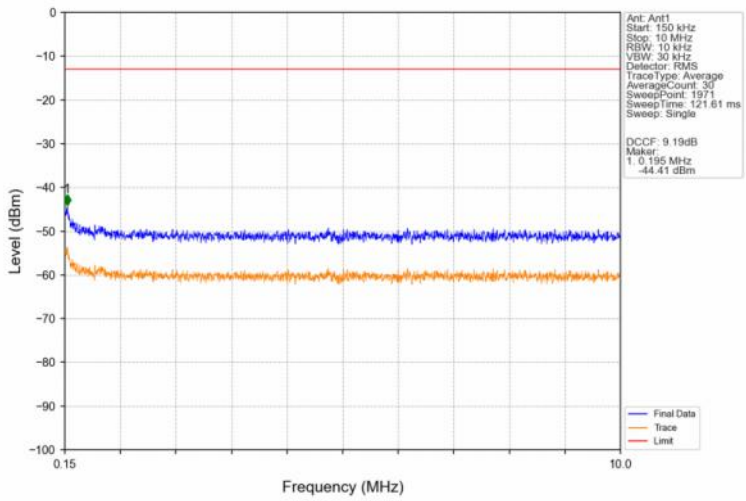
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



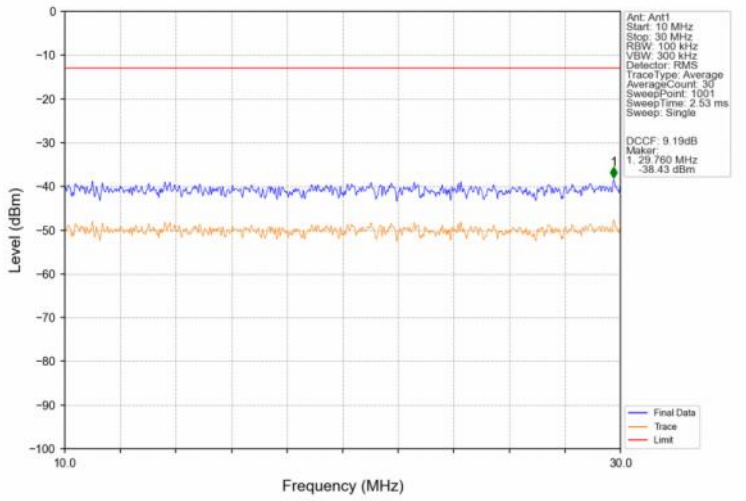
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



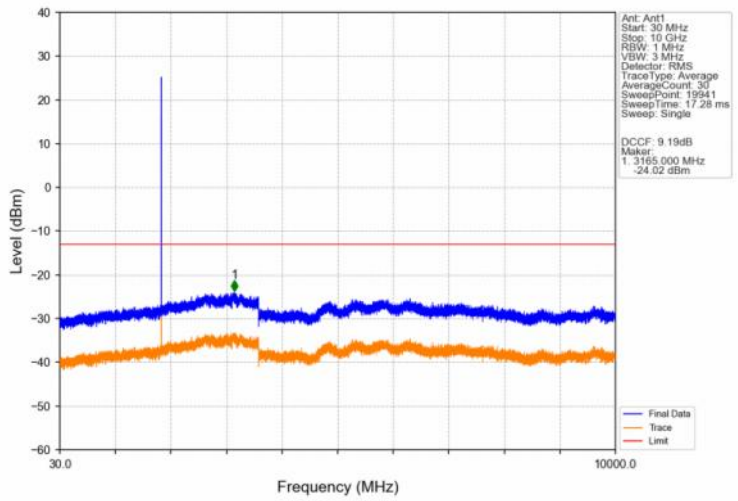
PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



PCS1900_EGPRS_LCH_1850.2MHz_1 TX Slot_NTNV



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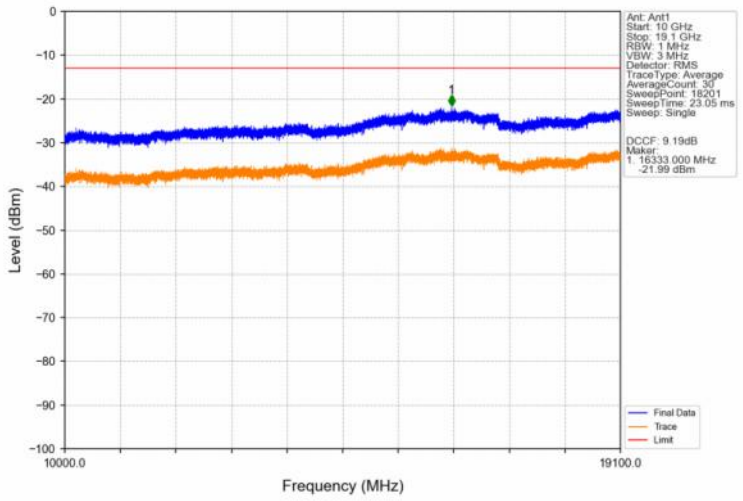
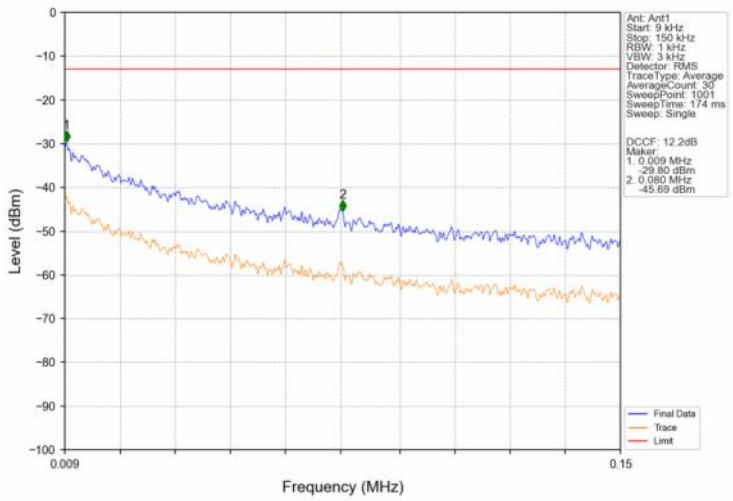


PCS1900_EGPRS_MCH_1880MHz_1 TX Slot_NTNV



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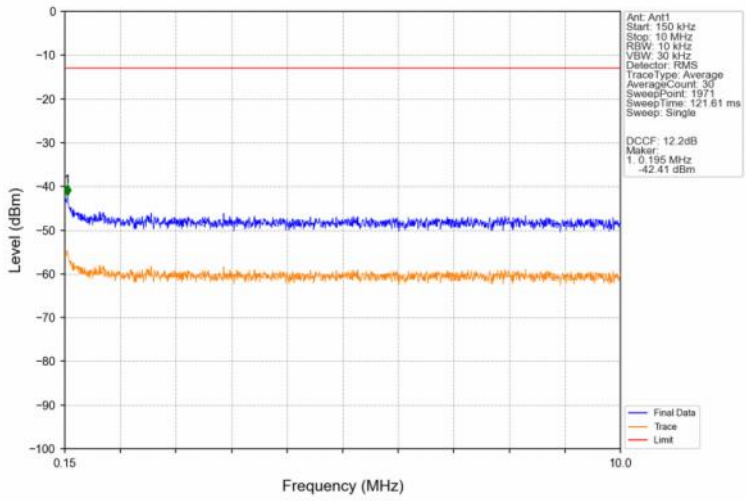

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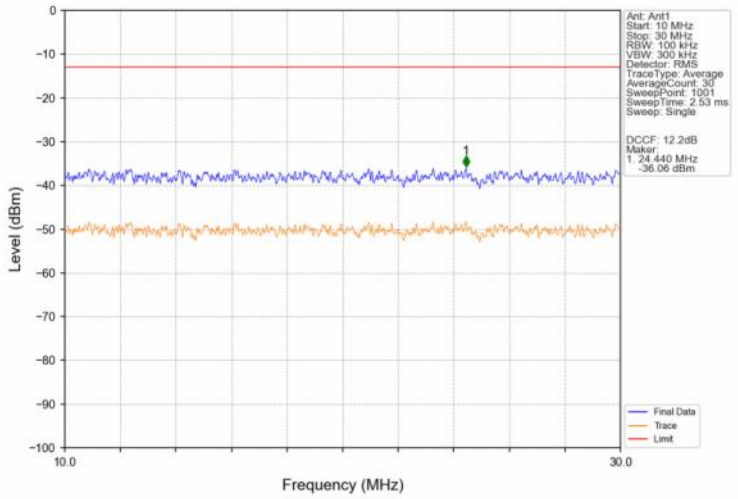

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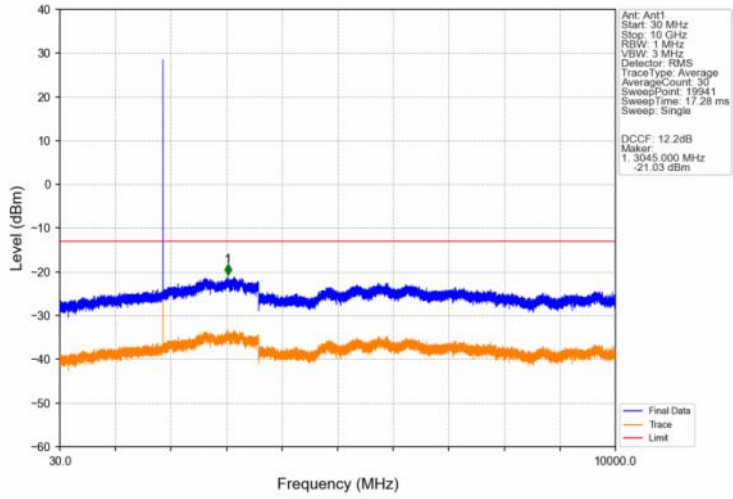

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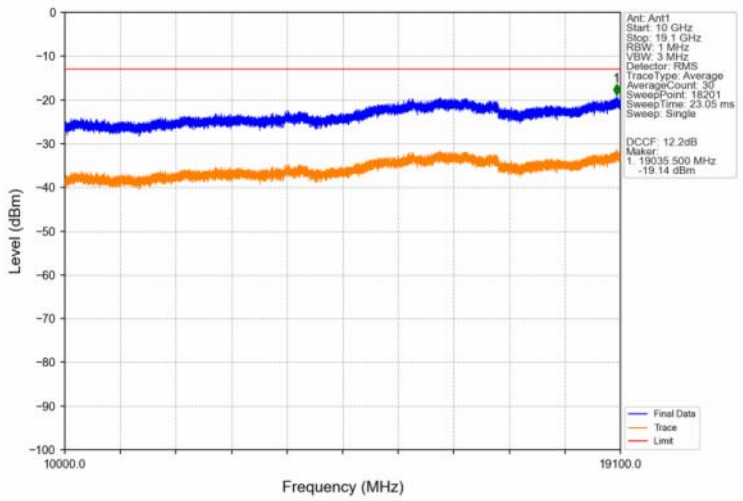
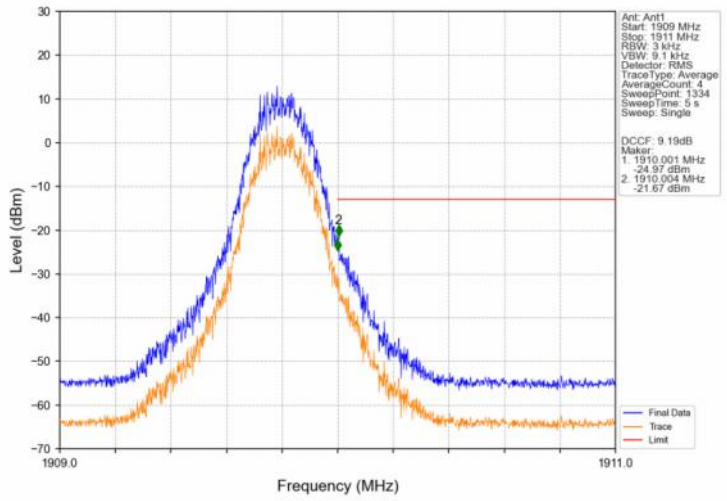


PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



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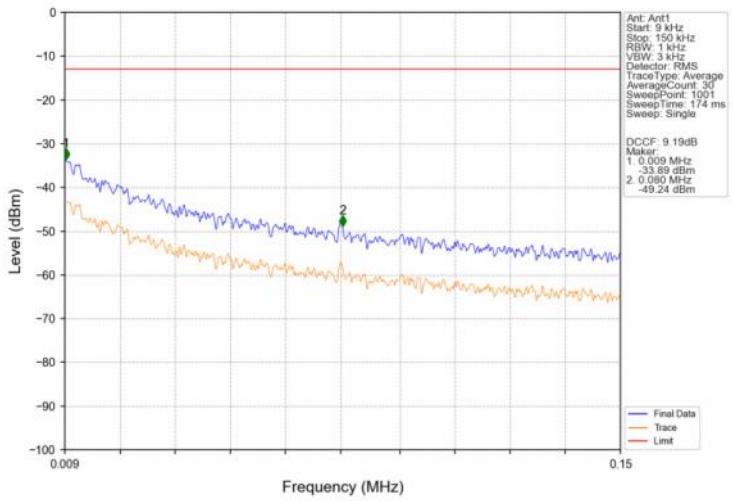

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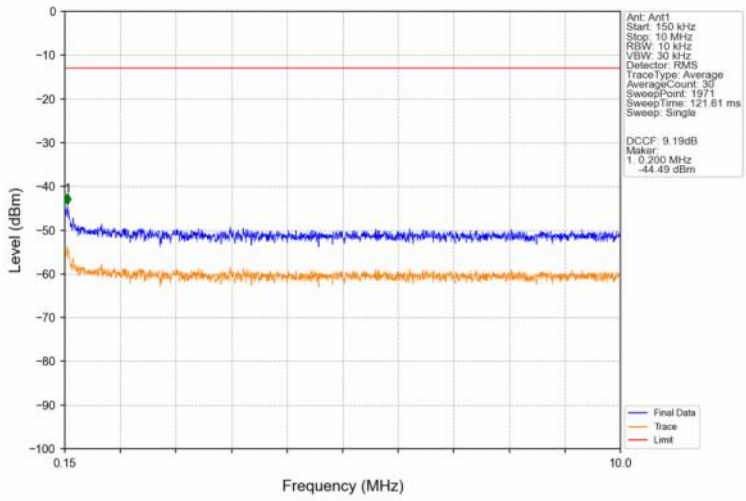
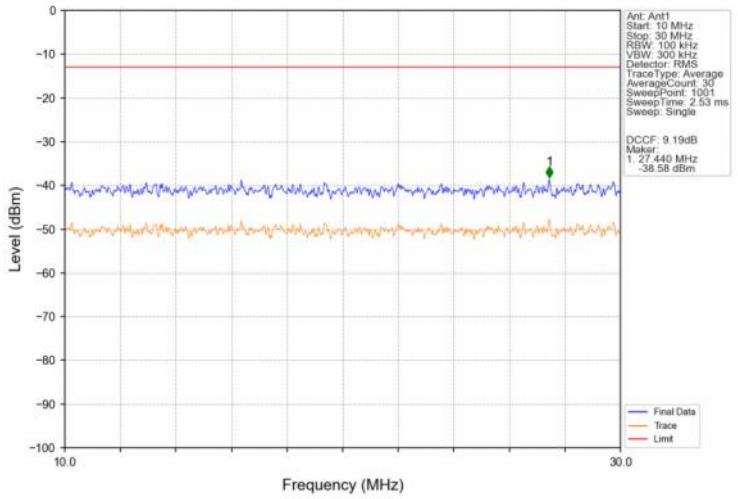
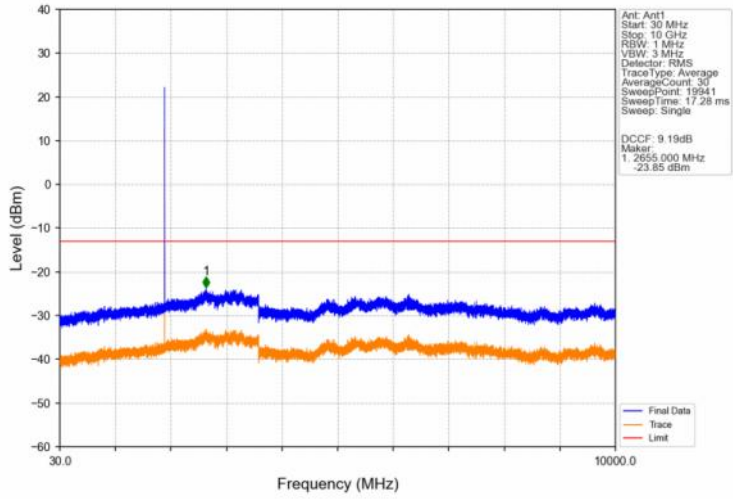


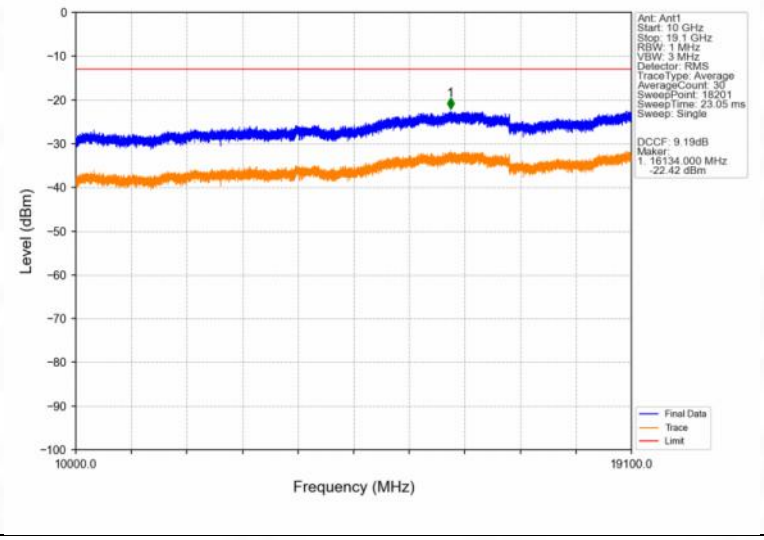
PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



PCS1900_EGPRS_HCH_1909.8MHz_1 TX Slot_NTNV



7. Form731

7.1 Test Result

7.1.1 Form731_Power

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	0.7674	0.0131	ppm	252KGXW	24E	28.85
PCS1900	0.2	1850.2	1909.8	0.2911	0.0092	ppm	263KG7W	24E	24.64

7.1.2 Form731_EIRP

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	0.9977	0.0131	ppm	252KGXW	24E	29.99
PCS1900	0.2	1850.2	1909.8	0.3784	0.0092	ppm	263KG7W	24E	25.78