

# 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	29.89	0.34	30.23	<=33.01	Pass	
			1880	29.77	0.34	30.11	<=33.01	Pass	
			1909.8	29.54	0.34	29.88	<=33.01	Pass	
	GPRS	1 TX Slot	1850.2	29.90	0.34	30.24	<=33.01	Pass	
		2 TX Slots	1850.2	29.88	0.34	30.22	<=33.01	Pass	
		3 TX Slots	1850.2	27.62	0.34	27.96	<=33.01	Pass	
		4 TX Slots	1850.2	26.50	0.34	26.84	<=33.01	Pass	
		1 TX Slot	1880	29.79	0.34	30.13	<=33.01	Pass	
		2 TX Slots	1880	29.78	0.34	30.12	<=33.01	Pass	
		3 TX Slots	1880	27.41	0.34	27.75	<=33.01	Pass	
		4 TX Slots	1880	26.32	0.34	26.66	<=33.01	Pass	
		1 TX Slot	1909.8	29.50	0.34	29.84	<=33.01	Pass	
		2 TX Slots	1909.8	29.49	0.34	29.83	<=33.01	Pass	
		3 TX Slots	1909.8	26.76	0.34	27.1	<=33.01	Pass	
		4 TX Slots	1909.8	25.71	0.34	26.05	<=33.01	Pass	
		EGPRS	1 TX Slot	1850.2	26.59	0.34	26.93	<=33.01	Pass
			2 TX Slots	1850.2	25.27	0.34	25.61	<=33.01	Pass
			3 TX Slots	1850.2	23.26	0.34	23.6	<=33.01	Pass
			4 TX Slots	1850.2	21.46	0.34	21.8	<=33.01	Pass
	1 TX Slot		1880	26.24	0.34	26.58	<=33.01	Pass	
	2 TX Slots		1880	25.05	0.34	25.39	<=33.01	Pass	
	3 TX Slots		1880	22.60	0.34	22.94	<=33.01	Pass	
	4 TX Slots		1880	21.27	0.34	21.61	<=33.01	Pass	
	1 TX Slot		1909.8	25.57	0.34	25.91	<=33.01	Pass	
	2 TX Slots		1909.8	24.68	0.34	25.02	<=33.01	Pass	
	3 TX Slots		1909.8	22.24	0.34	22.58	<=33.01	Pass	
	4 TX Slots		1909.8	20.54	0.34	20.88	<=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	3.23	15.982	0.0086	-2.5 to 2.5	Pass
			3.8	7.523	0.0041	-2.5 to 2.5	Pass
			4.37	3.422	0.0018	-2.5 to 2.5	Pass

		-30	3.8	17.499	0.0095	-2.5 to 2.5	Pass	
		-20	3.8	16.401	0.0089	-2.5 to 2.5	Pass	
		-10	3.8	11.494	0.0062	-2.5 to 2.5	Pass	
		0	3.8	8.653	0.0047	-2.5 to 2.5	Pass	
		10	3.8	11.494	0.0062	-2.5 to 2.5	Pass	
		30	3.8	8.039	0.0043	-2.5 to 2.5	Pass	
		40	3.8	9.847	0.0053	-2.5 to 2.5	Pass	
	50	3.8	20.017	0.0108	-2.5 to 2.5	Pass		
	1880	20	3.23	16.498	0.0088	-2.5 to 2.5	Pass	
			3.8	22.988	0.0122	-2.5 to 2.5	Pass	
			4.37	1.130	0.0006	-2.5 to 2.5	Pass	
		-30	3.8	-1.356	-0.0007	-2.5 to 2.5	Pass	
		-20	3.8	1.485	0.0008	-2.5 to 2.5	Pass	
		-10	3.8	17.079	0.0091	-2.5 to 2.5	Pass	
		0	3.8	20.179	0.0107	-2.5 to 2.5	Pass	
		10	3.8	10.590	0.0056	-2.5 to 2.5	Pass	
		30	3.8	16.918	0.0090	-2.5 to 2.5	Pass	
		40	3.8	15.659	0.0083	-2.5 to 2.5	Pass	
	50	3.8	12.107	0.0064	-2.5 to 2.5	Pass		
	1909.8	20	3.23	12.817	0.0067	-2.5 to 2.5	Pass	
			3.8	5.166	0.0027	-2.5 to 2.5	Pass	
			4.37	10.557	0.0055	-2.5 to 2.5	Pass	
		-30	3.8	1.808	0.0009	-2.5 to 2.5	Pass	
		-20	3.8	5.844	0.0031	-2.5 to 2.5	Pass	
		-10	3.8	2.841	0.0015	-2.5 to 2.5	Pass	
		0	3.8	-7.297	-0.0038	-2.5 to 2.5	Pass	
		10	3.8	27.895	0.0146	-2.5 to 2.5	Pass	
		30	3.8	5.521	0.0029	-2.5 to 2.5	Pass	
		40	3.8	8.459	0.0044	-2.5 to 2.5	Pass	
	50	3.8	-6.780	-0.0036	-2.5 to 2.5	Pass		
	GPRS	1850.2	20	3.23	21.115	0.0114	-2.5 to 2.5	Pass
				3.8	23.859	0.0129	-2.5 to 2.5	Pass
				4.37	17.531	0.0095	-2.5 to 2.5	Pass
-30			3.8	13.205	0.0071	-2.5 to 2.5	Pass	
-20			3.8	15.626	0.0084	-2.5 to 2.5	Pass	
-10			3.8	2.615	0.0014	-2.5 to 2.5	Pass	
0			3.8	22.406	0.0121	-2.5 to 2.5	Pass	
10			3.8	32.802	0.0177	-2.5 to 2.5	Pass	
30			3.8	30.801	0.0166	-2.5 to 2.5	Pass	
40			3.8	32.157	0.0174	-2.5 to 2.5	Pass	
50		3.8	17.176	0.0093	-2.5 to 2.5	Pass		
1880		20	3.23	13.689	0.0073	-2.5 to 2.5	Pass	
			3.8	21.180	0.0113	-2.5 to 2.5	Pass	
			4.37	18.209	0.0097	-2.5 to 2.5	Pass	
		-30	3.8	3.099	0.0016	-2.5 to 2.5	Pass	
		-20	3.8	25.861	0.0138	-2.5 to 2.5	Pass	
		-10	3.8	19.501	0.0104	-2.5 to 2.5	Pass	
		0	3.8	-0.581	-0.0003	-2.5 to 2.5	Pass	
		10	3.8	7.200	0.0038	-2.5 to 2.5	Pass	
		30	3.8	18.048	0.0096	-2.5 to 2.5	Pass	
		40	3.8	11.009	0.0059	-2.5 to 2.5	Pass	
50		3.8	24.634	0.0131	-2.5 to 2.5	Pass		
1909.8		20	3.23	10.202	0.0053	-2.5 to 2.5	Pass	
			3.8	5.263	0.0028	-2.5 to 2.5	Pass	
			4.37	13.818	0.0072	-2.5 to 2.5	Pass	

		-30	3.8	24.796	0.0130	-2.5 to 2.5	Pass	
		-20	3.8	11.494	0.0060	-2.5 to 2.5	Pass	
		-10	3.8	17.886	0.0094	-2.5 to 2.5	Pass	
		0	3.8	16.369	0.0086	-2.5 to 2.5	Pass	
		10	3.8	5.844	0.0031	-2.5 to 2.5	Pass	
		30	3.8	7.426	0.0039	-2.5 to 2.5	Pass	
		40	3.8	28.573	0.0150	-2.5 to 2.5	Pass	
EGPRS	1850.2	20	3.23	27.088	0.0146	-2.5 to 2.5	Pass	
			3.8	18.274	0.0099	-2.5 to 2.5	Pass	
			4.37	22.923	0.0124	-2.5 to 2.5	Pass	
		-30	3.8	22.568	0.0122	-2.5 to 2.5	Pass	
		-20	3.8	13.657	0.0074	-2.5 to 2.5	Pass	
		-10	3.8	19.598	0.0106	-2.5 to 2.5	Pass	
		0	3.8	19.694	0.0106	-2.5 to 2.5	Pass	
		10	3.8	27.217	0.0147	-2.5 to 2.5	Pass	
		30	3.8	23.246	0.0126	-2.5 to 2.5	Pass	
		40	3.8	6.715	0.0036	-2.5 to 2.5	Pass	
		50	3.8	20.340	0.0110	-2.5 to 2.5	Pass	
		1880	20	3.23	14.690	0.0078	-2.5 to 2.5	Pass
				3.8	21.987	0.0117	-2.5 to 2.5	Pass
				4.37	20.340	0.0108	-2.5 to 2.5	Pass
	-30		3.8	14.141	0.0075	-2.5 to 2.5	Pass	
	-20		3.8	29.412	0.0156	-2.5 to 2.5	Pass	
	-10		3.8	12.947	0.0069	-2.5 to 2.5	Pass	
	0		3.8	7.975	0.0042	-2.5 to 2.5	Pass	
	10		3.8	7.393	0.0039	-2.5 to 2.5	Pass	
	30		3.8	12.365	0.0066	-2.5 to 2.5	Pass	
	40		3.8	0.710	0.0004	-2.5 to 2.5	Pass	
	50		3.8	19.210	0.0102	-2.5 to 2.5	Pass	
	1909.8		20	3.23	18.306	0.0096	-2.5 to 2.5	Pass
				3.8	16.434	0.0086	-2.5 to 2.5	Pass
				4.37	23.730	0.0124	-2.5 to 2.5	Pass
		-30	3.8	14.464	0.0076	-2.5 to 2.5	Pass	
		-20	3.8	8.685	0.0045	-2.5 to 2.5	Pass	
		-10	3.8	10.622	0.0056	-2.5 to 2.5	Pass	
		0	3.8	12.107	0.0063	-2.5 to 2.5	Pass	
		10	3.8	3.616	0.0019	-2.5 to 2.5	Pass	
30		3.8	17.338	0.0091	-2.5 to 2.5	Pass		
40		3.8	28.734	0.0150	-2.5 to 2.5	Pass		
50		3.8	11.106	0.0058	-2.5 to 2.5	Pass		

### 3. Modulation Characteristics

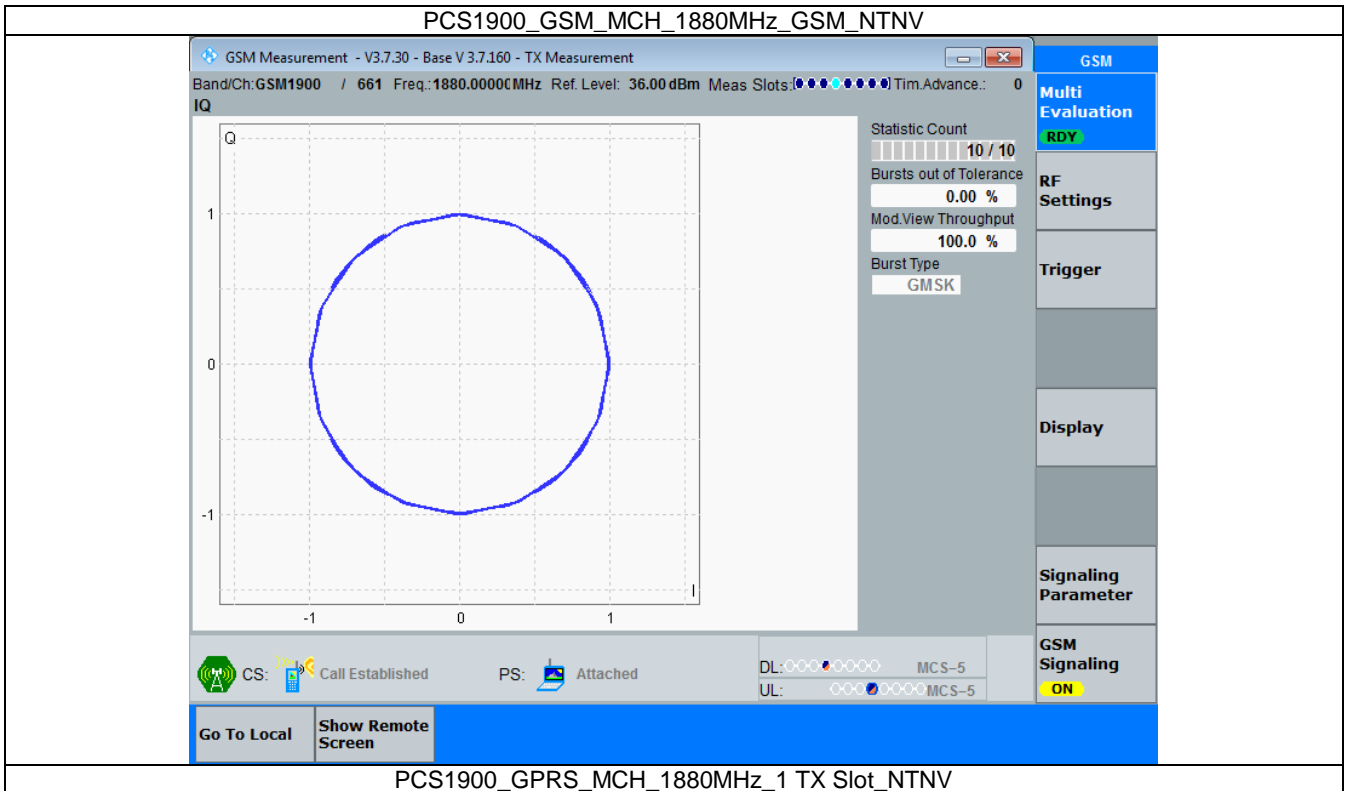
#### 3.1 PCS1900

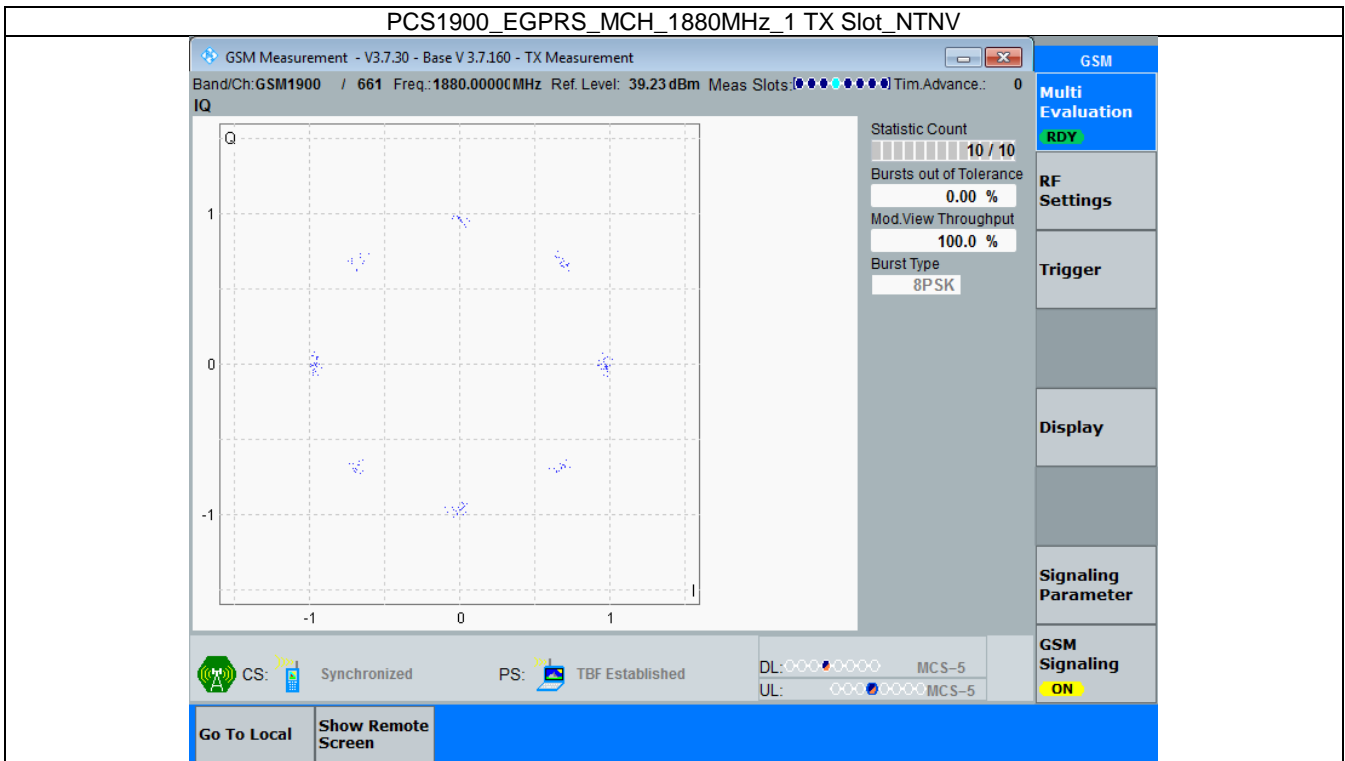
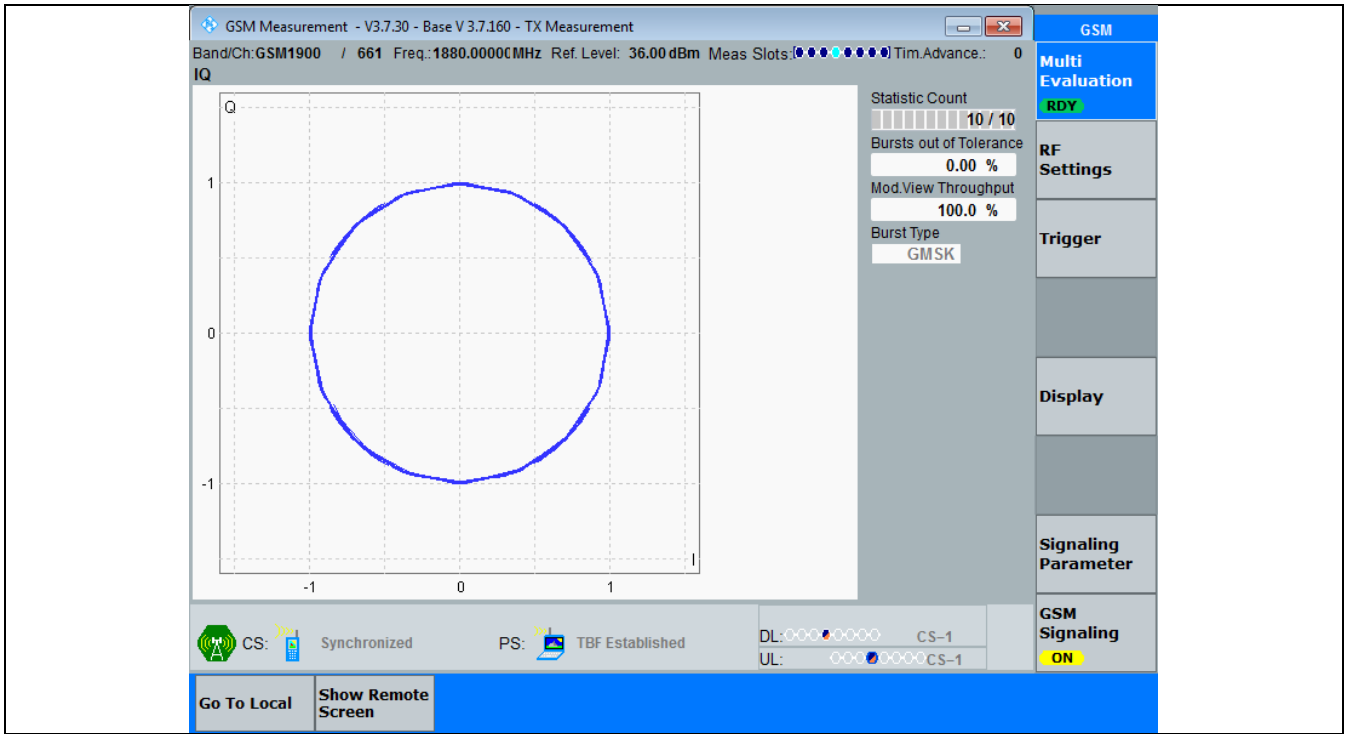
##### 3.1.1 Test Result

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





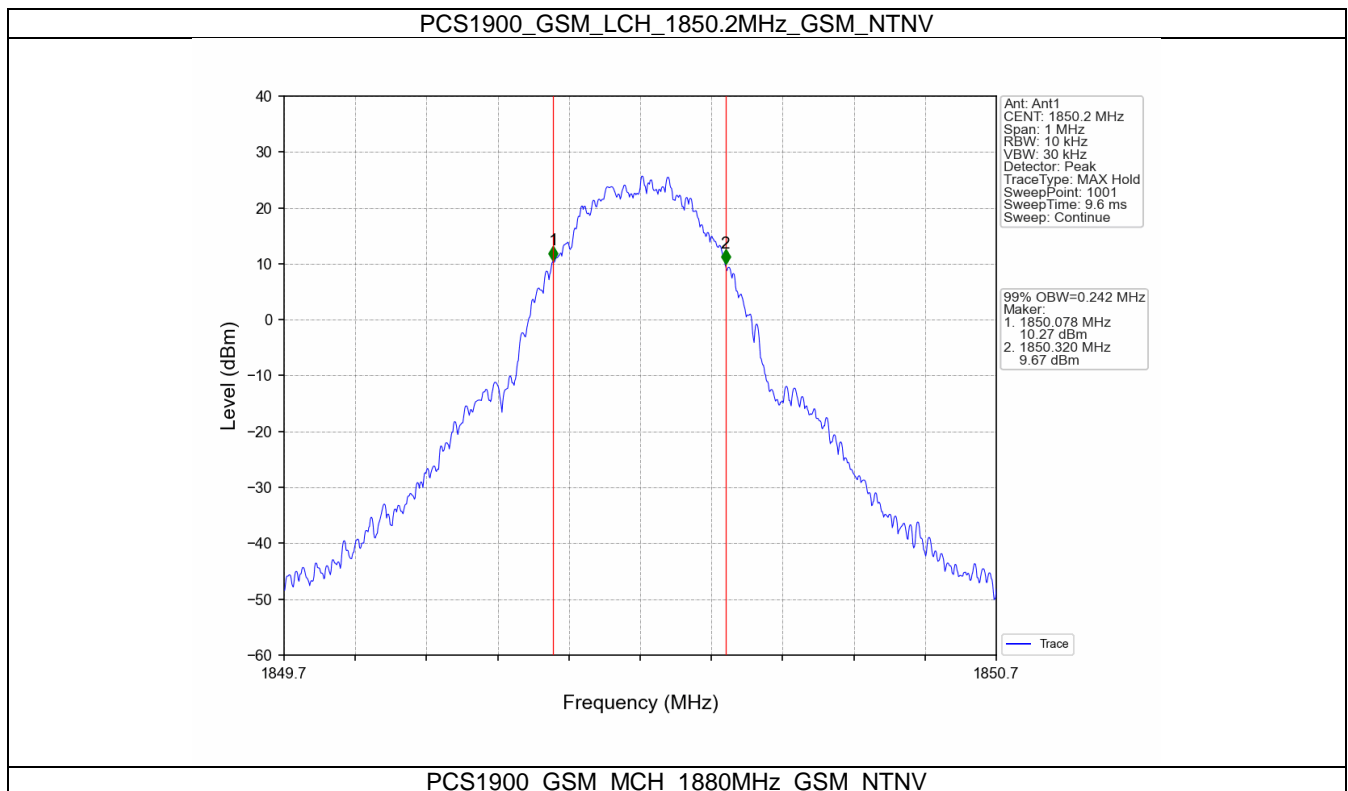
## 4. 99% & 26dB Bandwidth

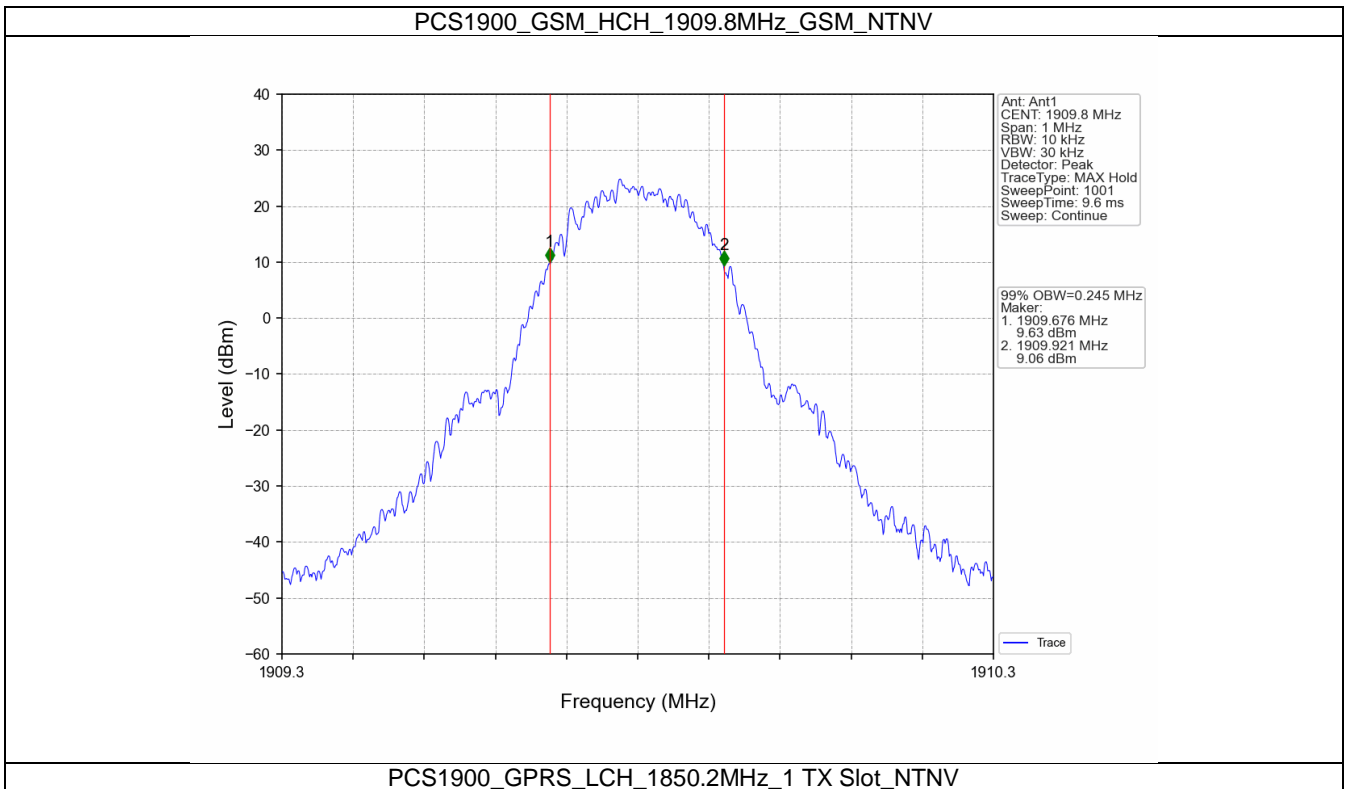
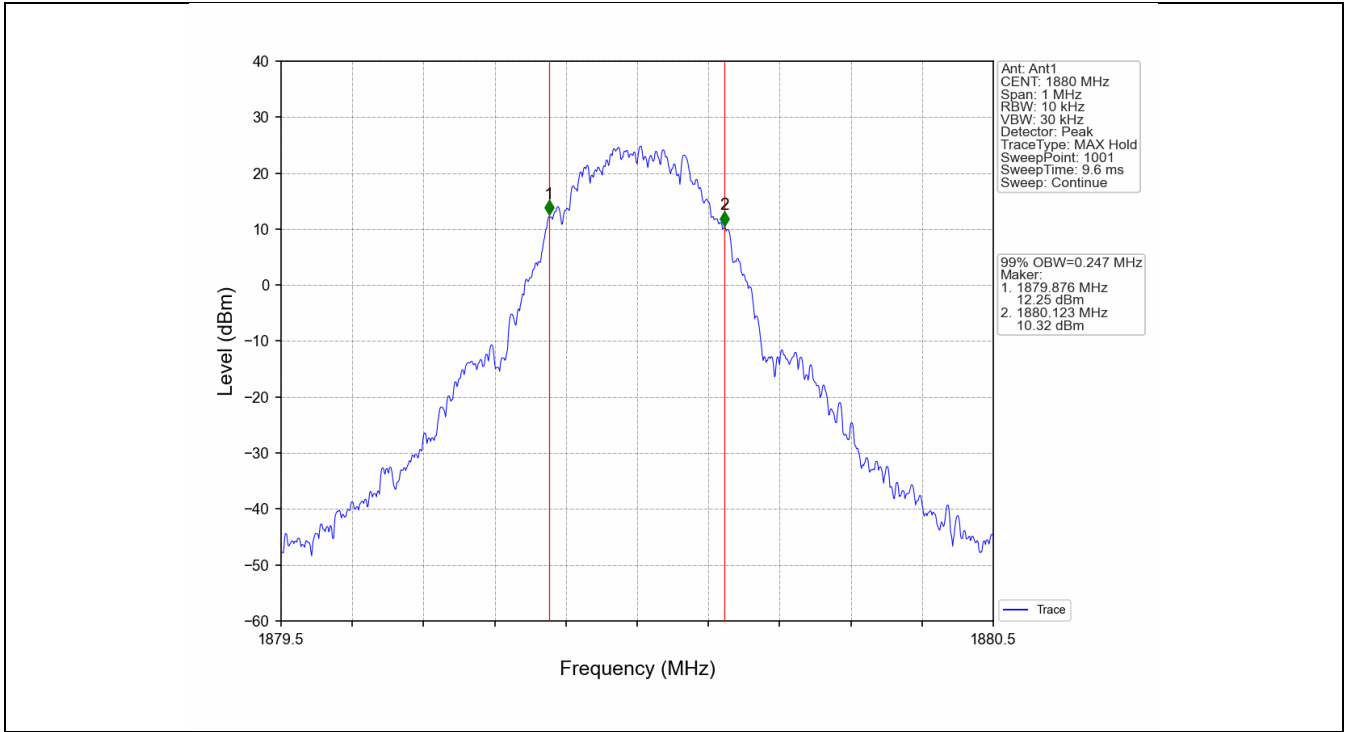
### 4.1 PCS1900\_OBW

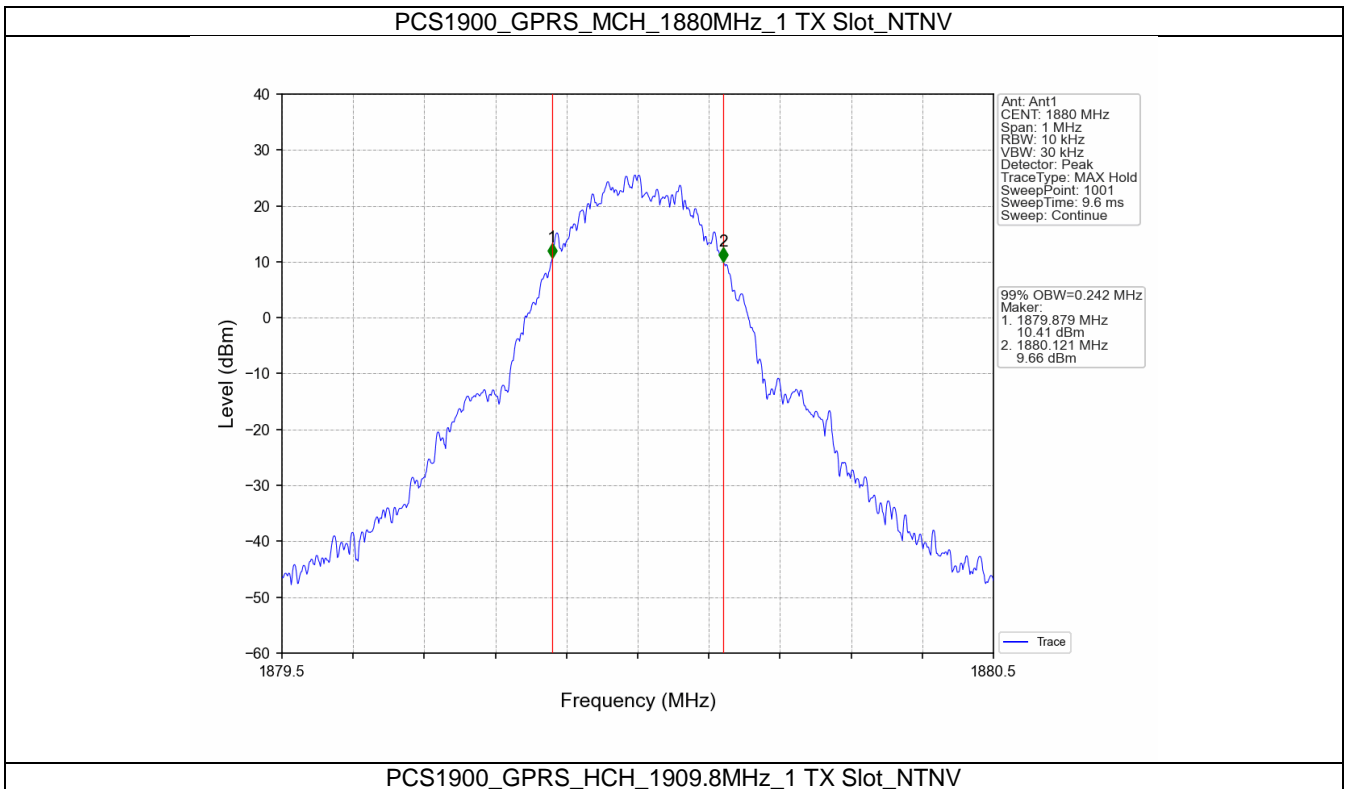
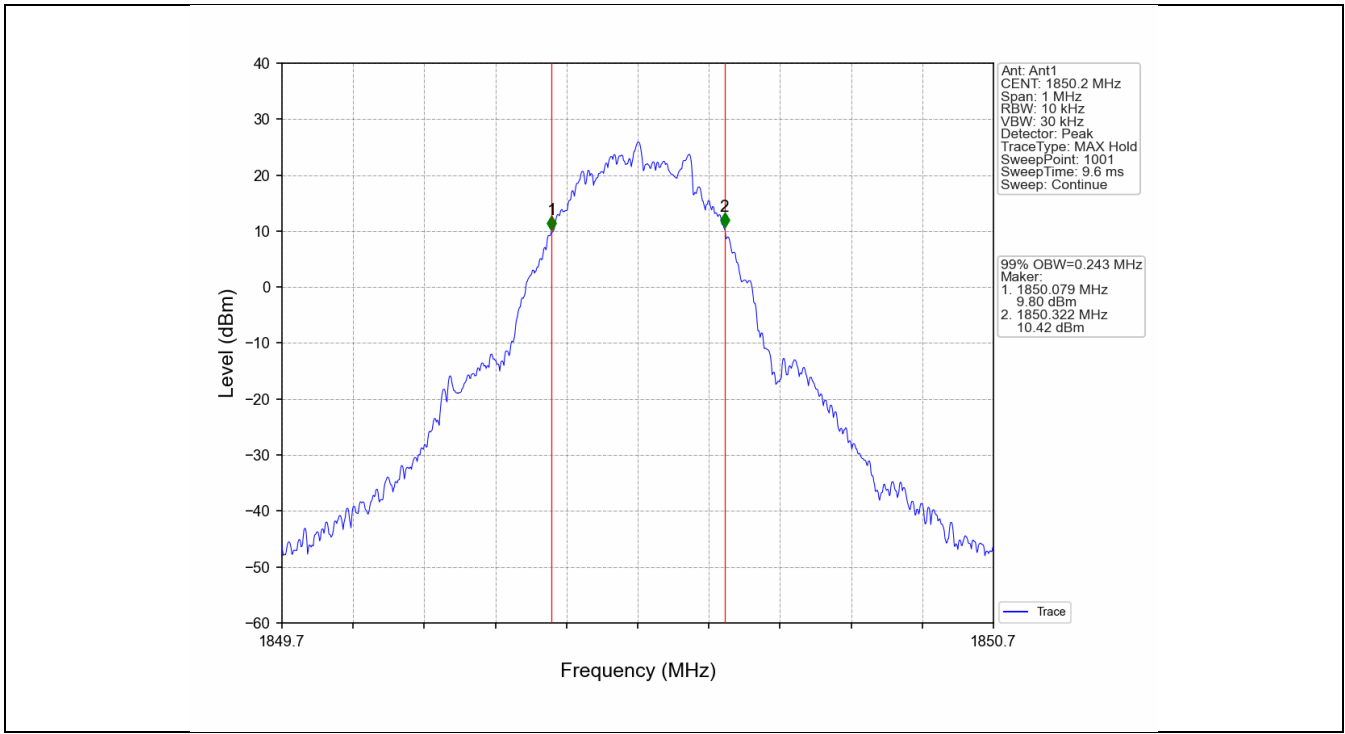
#### 4.1.1 Test Result

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

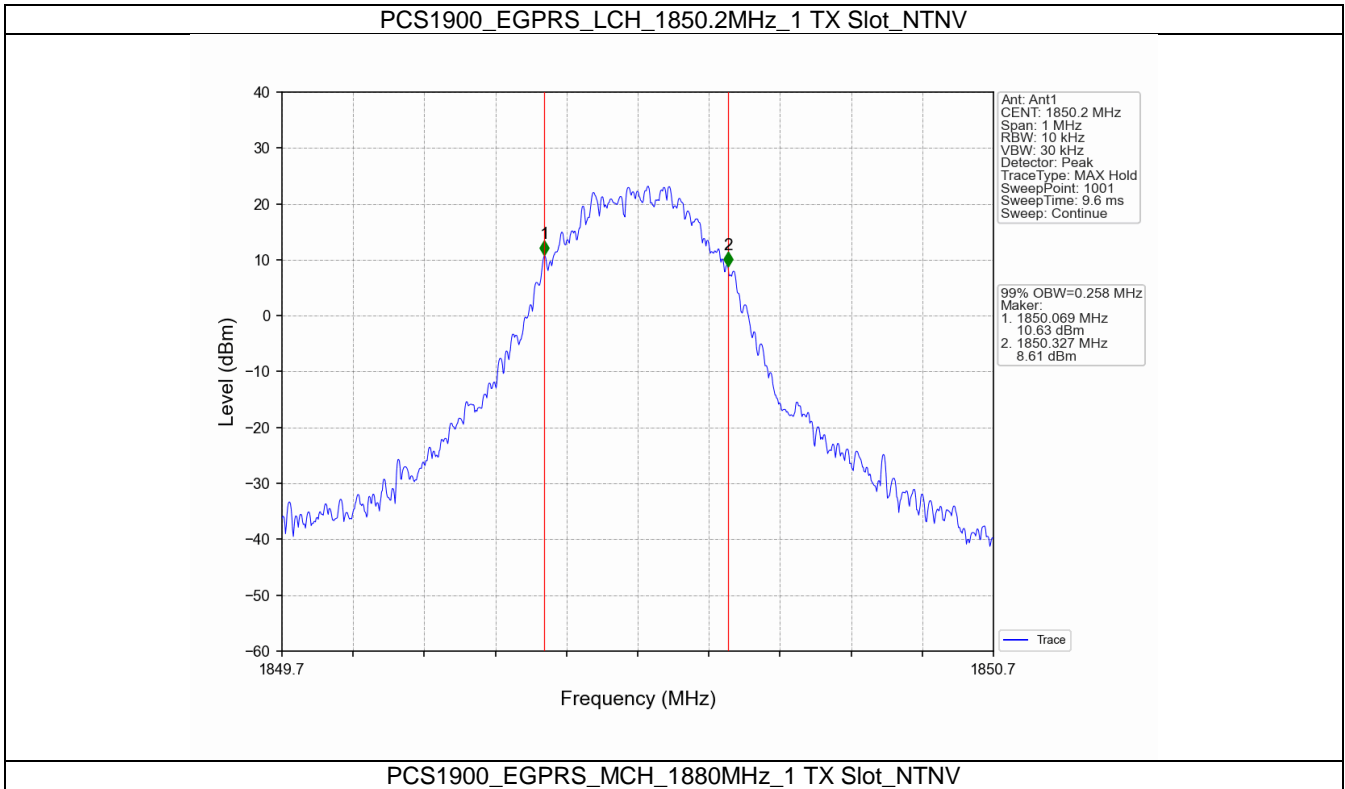
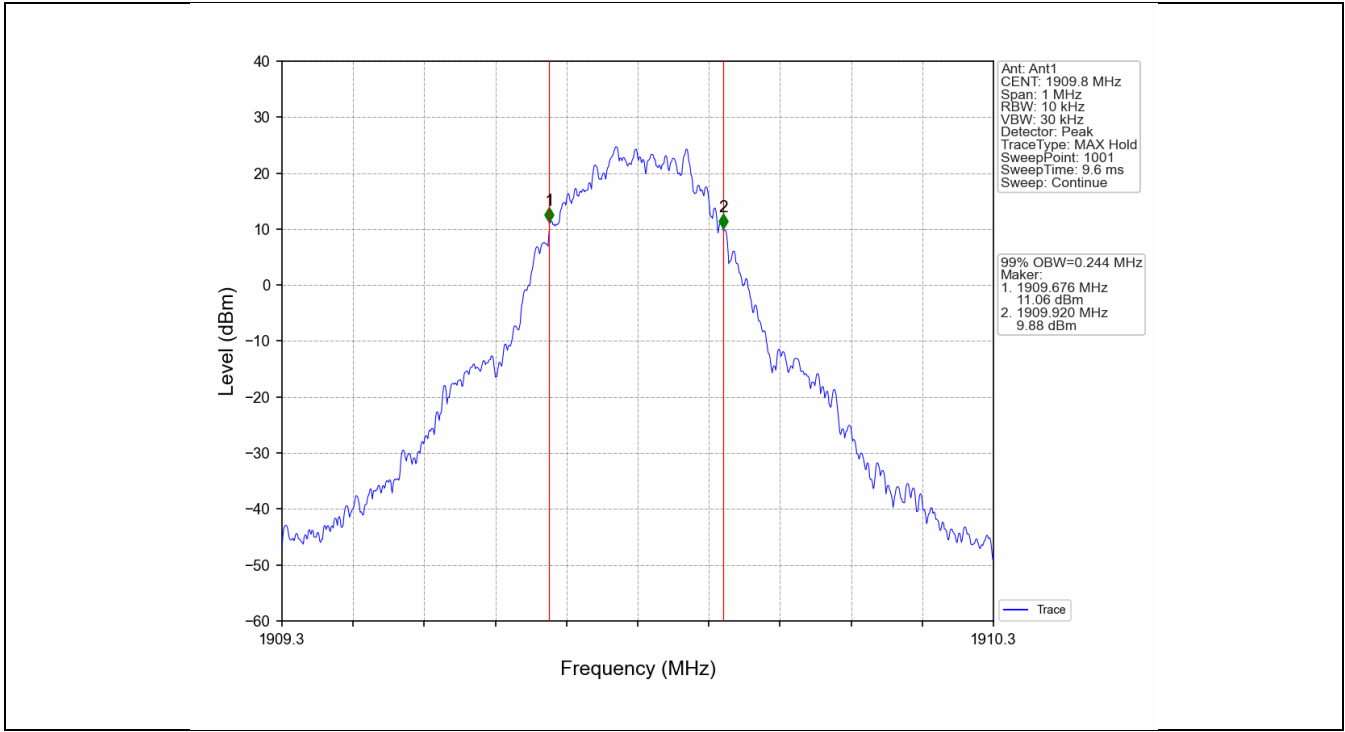
#### 4.1.2 Test Graph

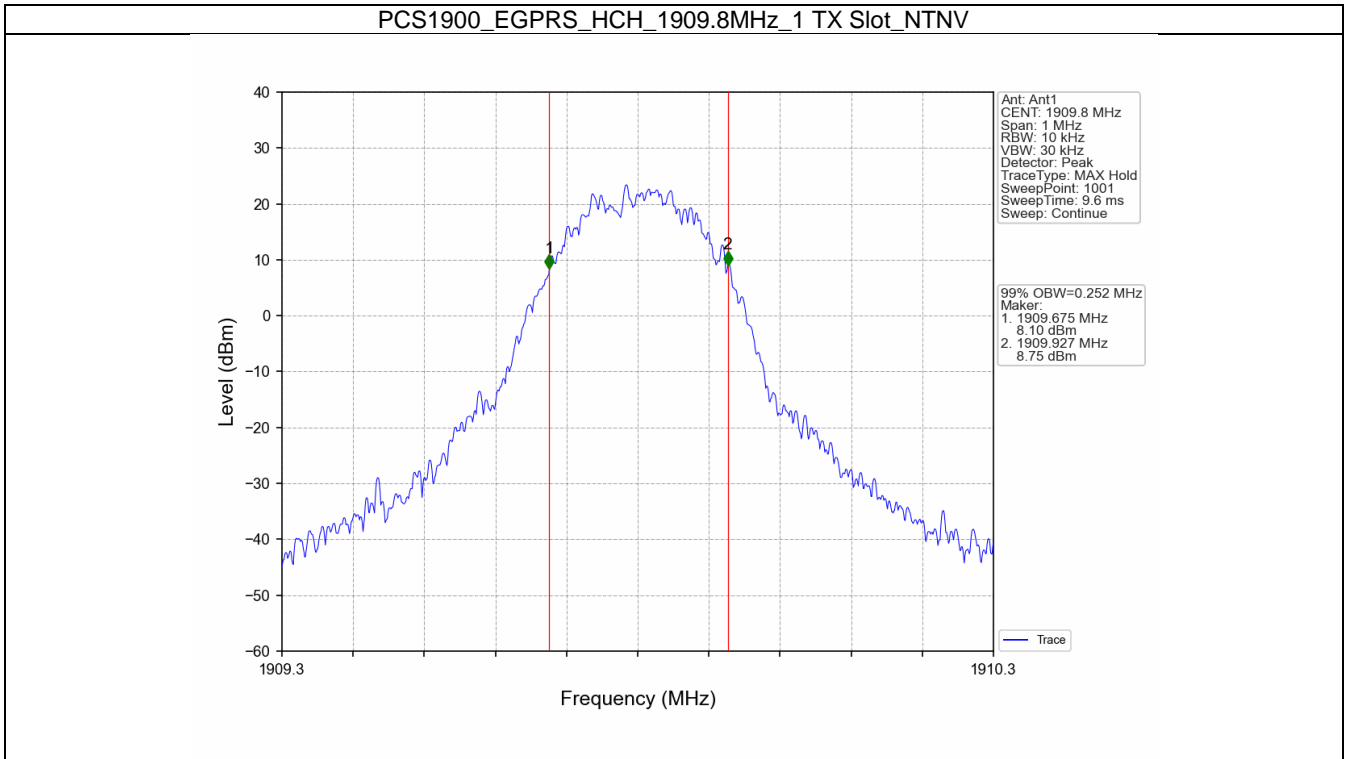
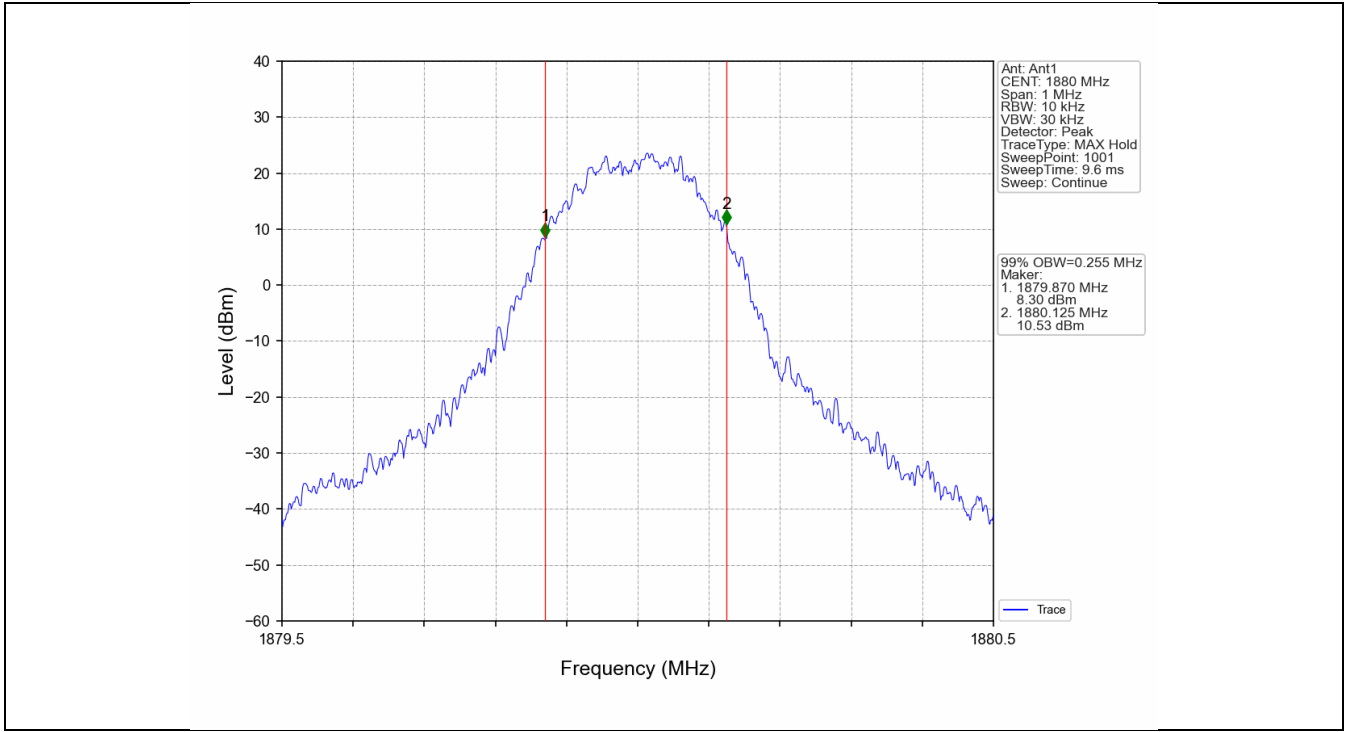










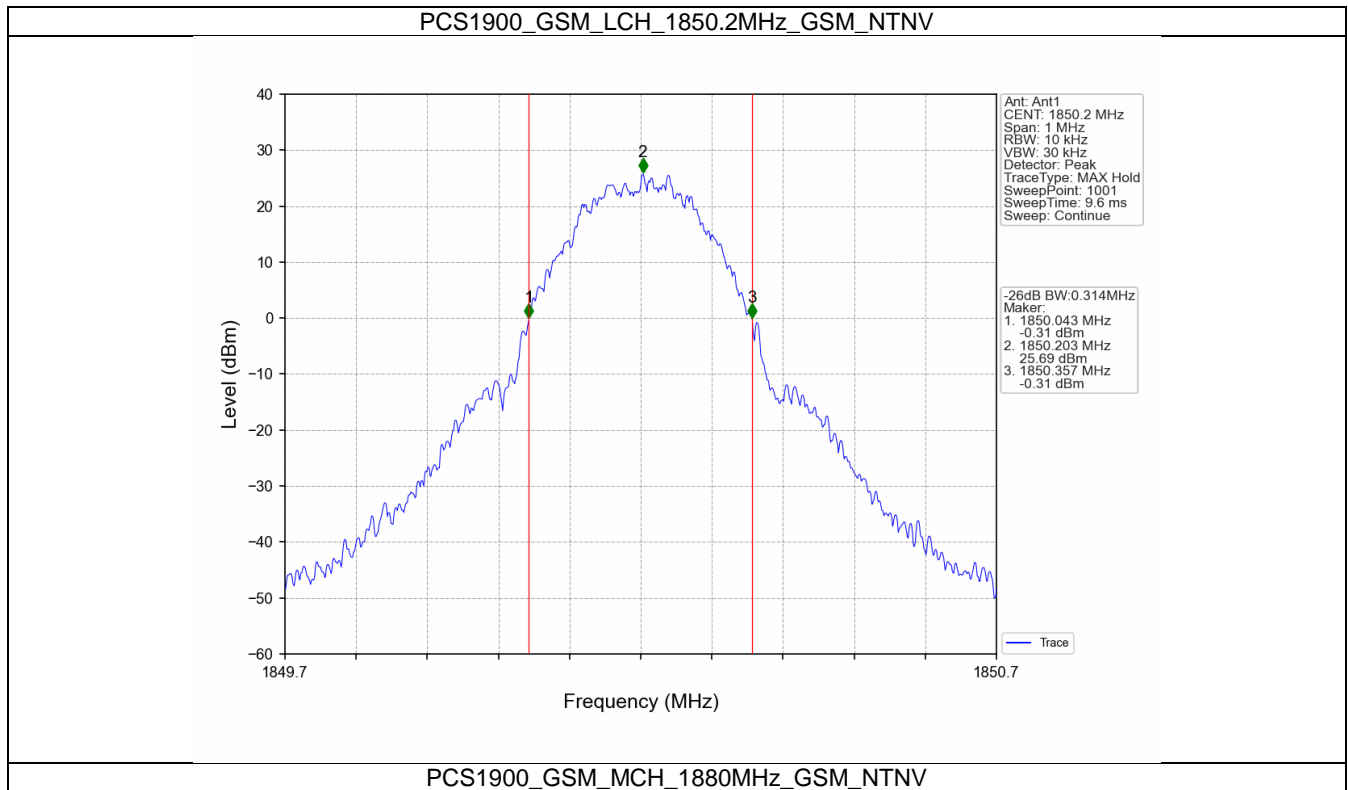


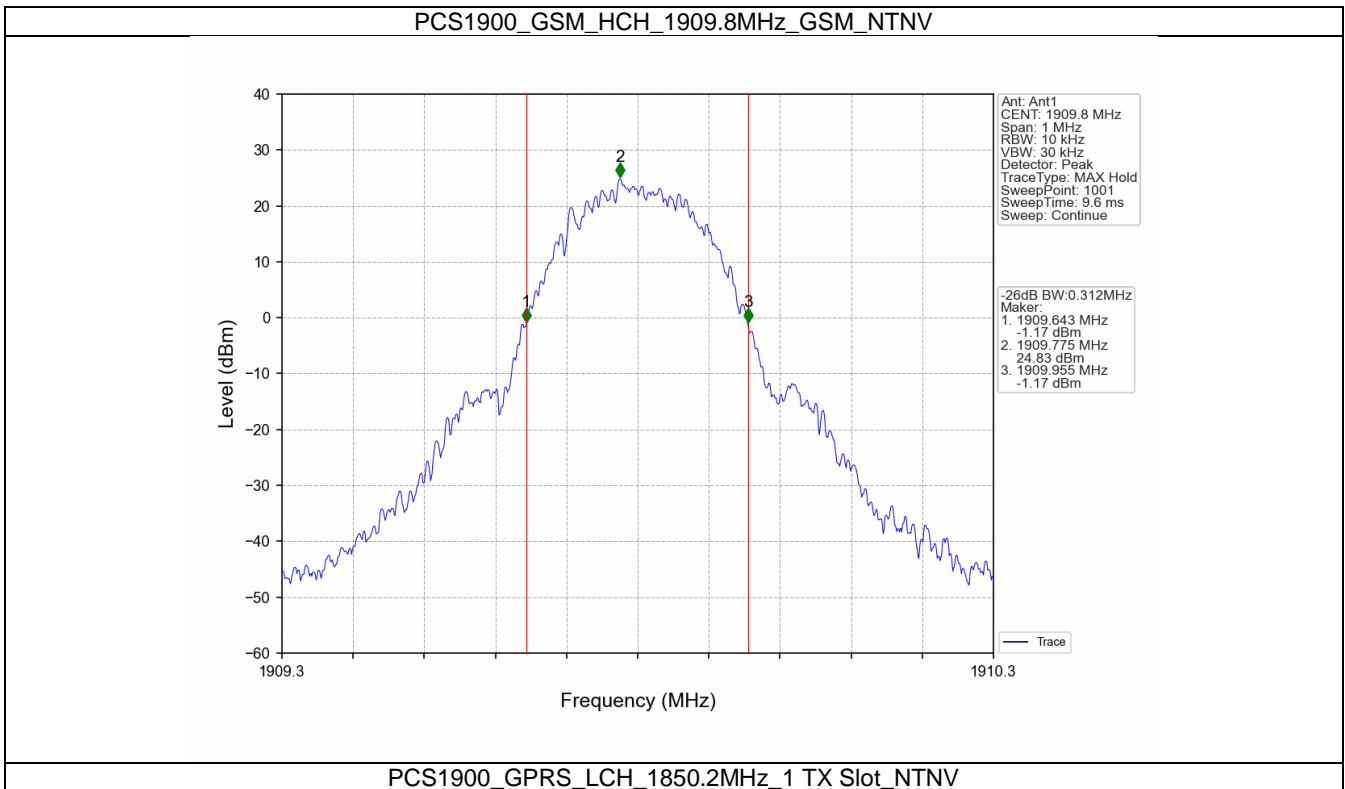
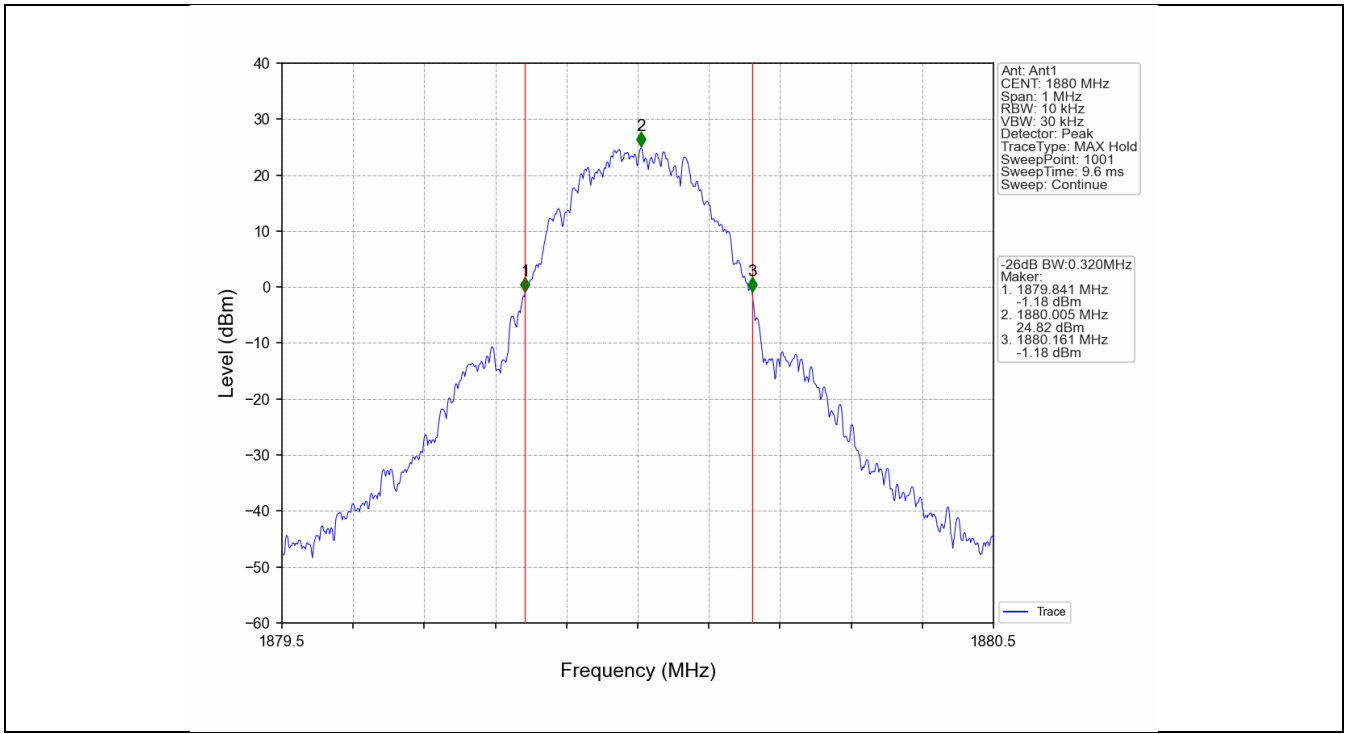
## 4.2 PCS1900\_XDB

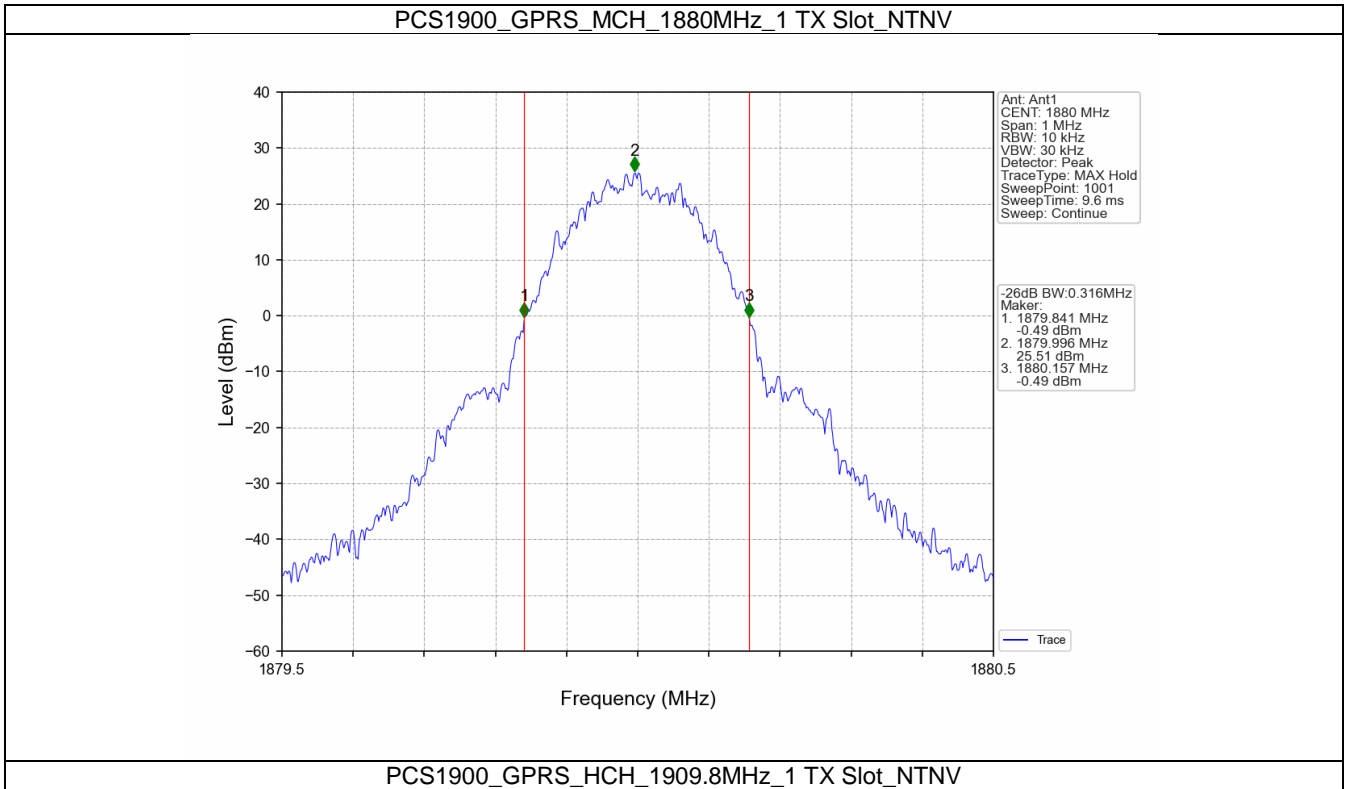
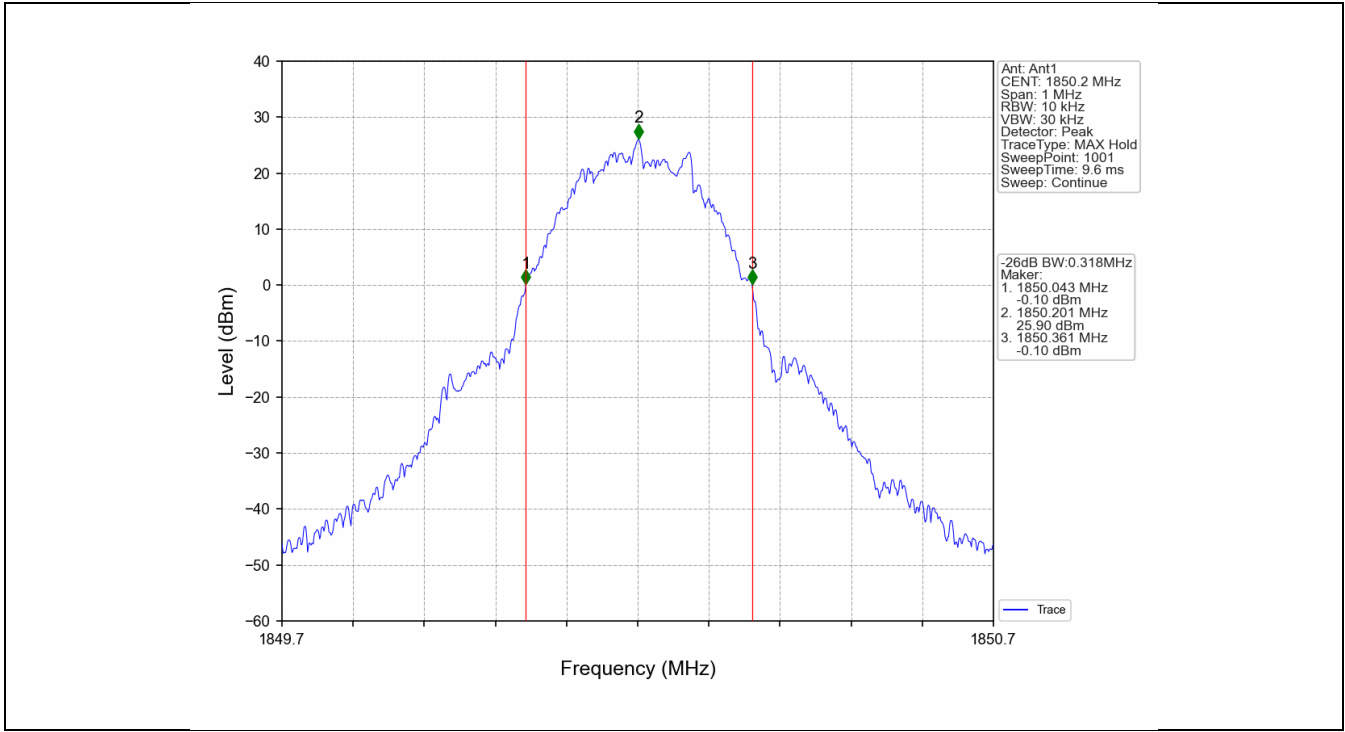
### 4.2.1 Test Result

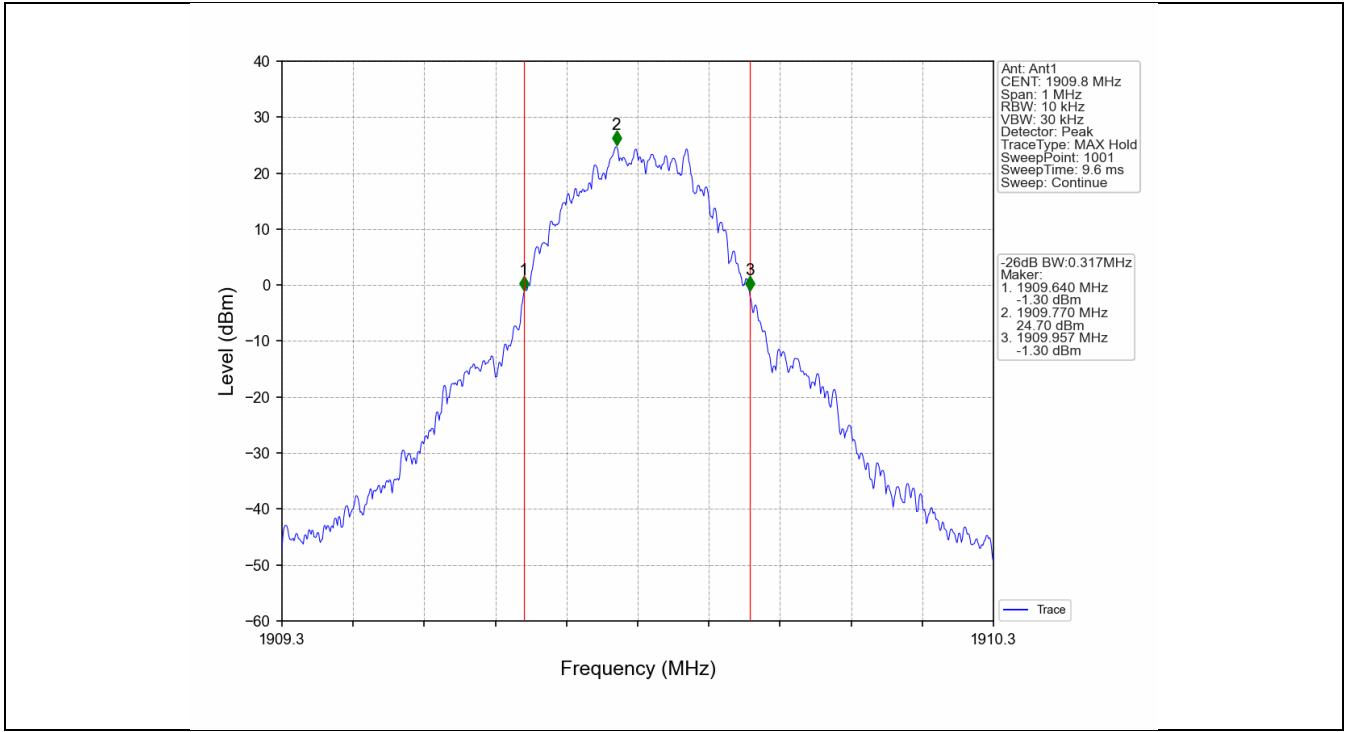
Band: PCS1900					
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	GSM	GSM	1850.2	0.314	Pass
			1880	0.320	Pass
			1909.8	0.312	Pass
	GPRS	1 TX Slot	1850.2	0.318	Pass
			1880	0.316	Pass
			1909.8	0.317	Pass
	EGPRS	1 TX Slot	1850.2	0.321	Pass
			1880	0.331	Pass
		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

### 4.2.2 Test Graph

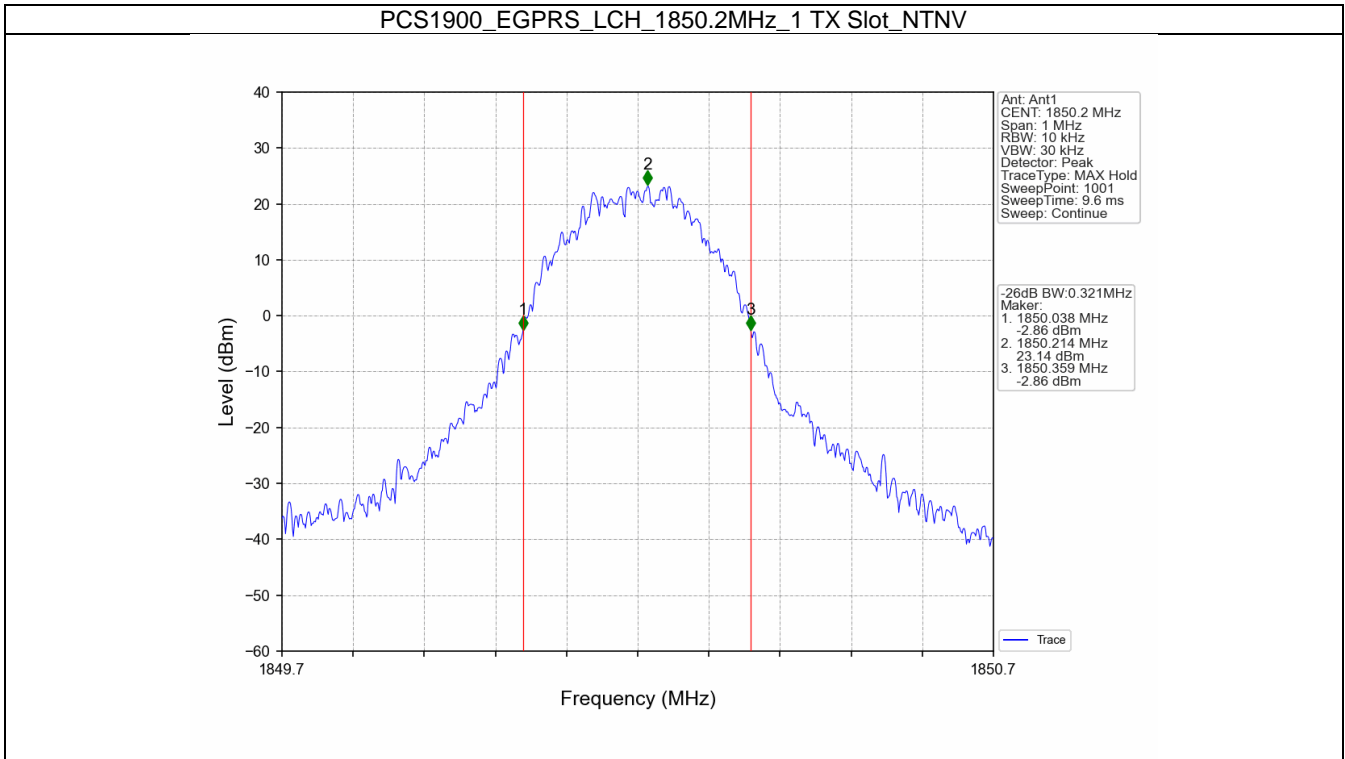




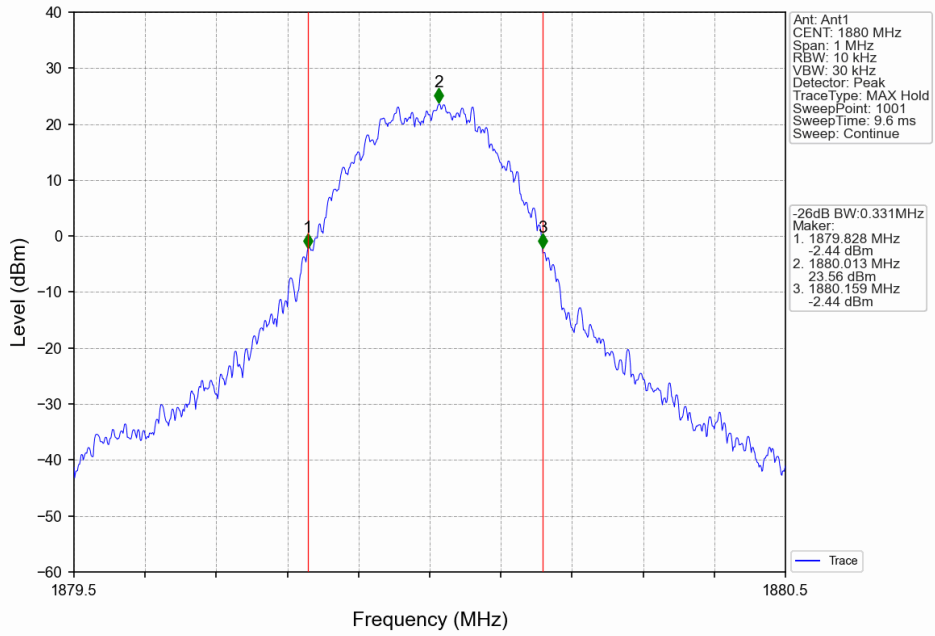




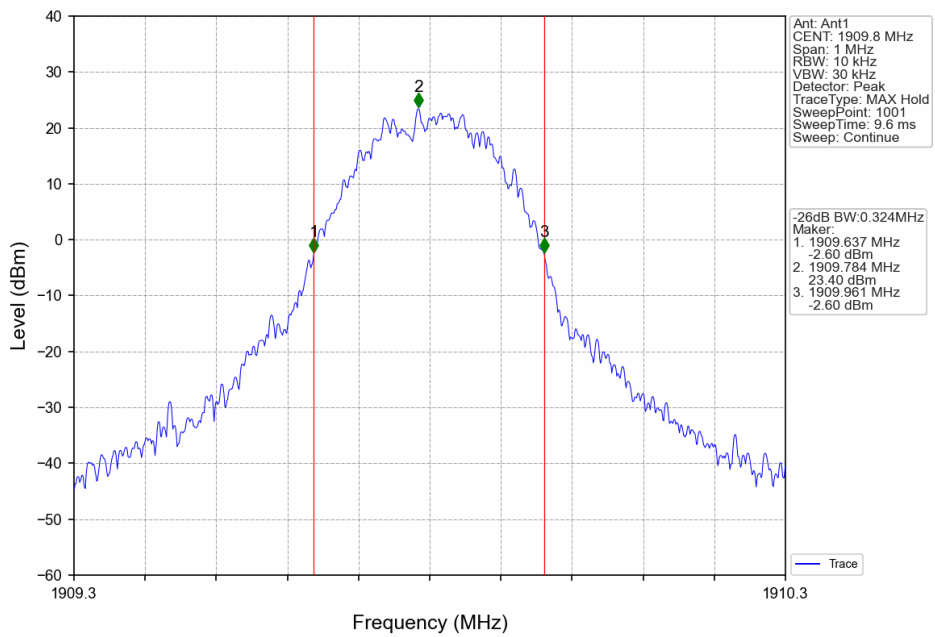
PCS1900\_EGPRS\_LCH\_1850.2MHz\_1 TX Slot\_NTNV



PCS1900\_EGPRS\_MCH\_1880MHz\_1 TX Slot\_NTNV



PCS1900\_EGPRS\_HCH\_1909.8MHz\_1 TX Slot\_NTNV



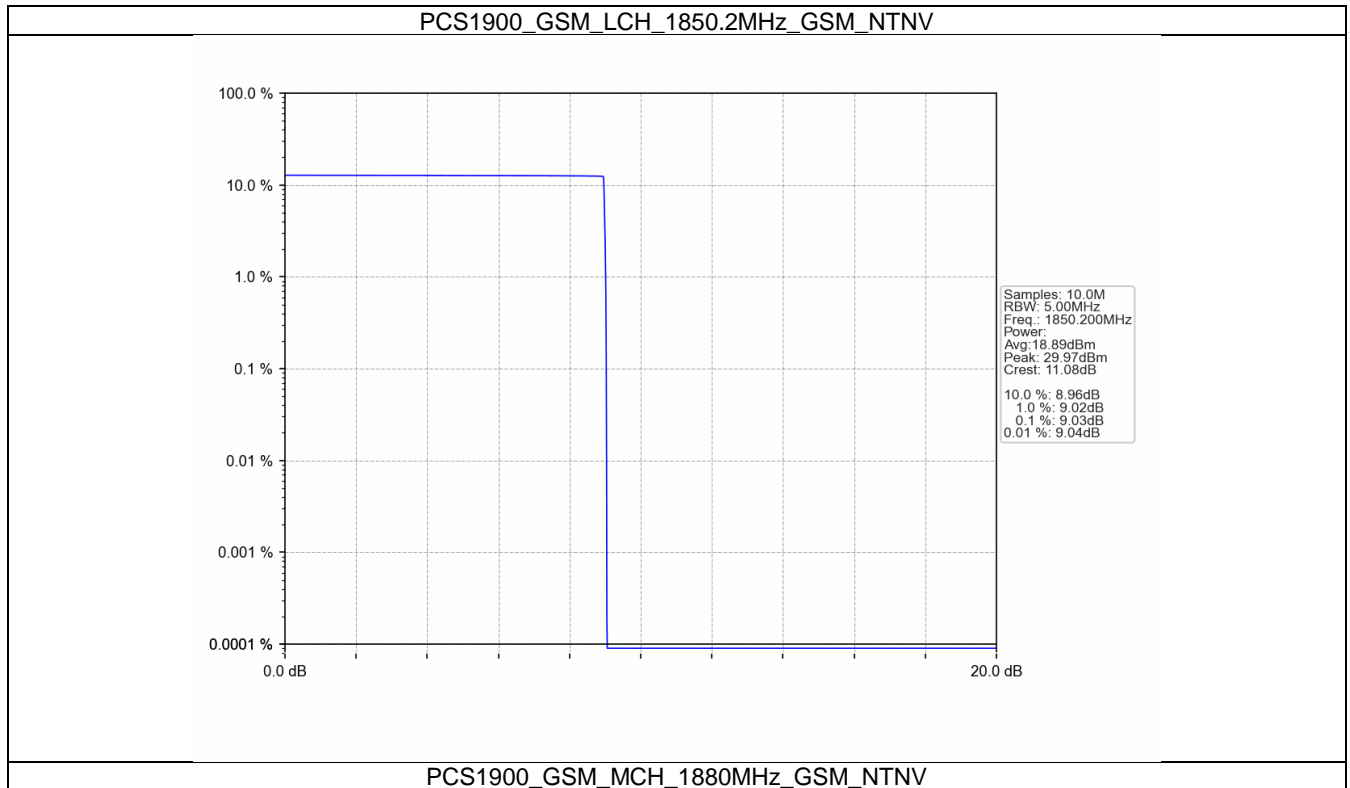
## 5. Peak-Average Ratio

### 5.1 PCS1900

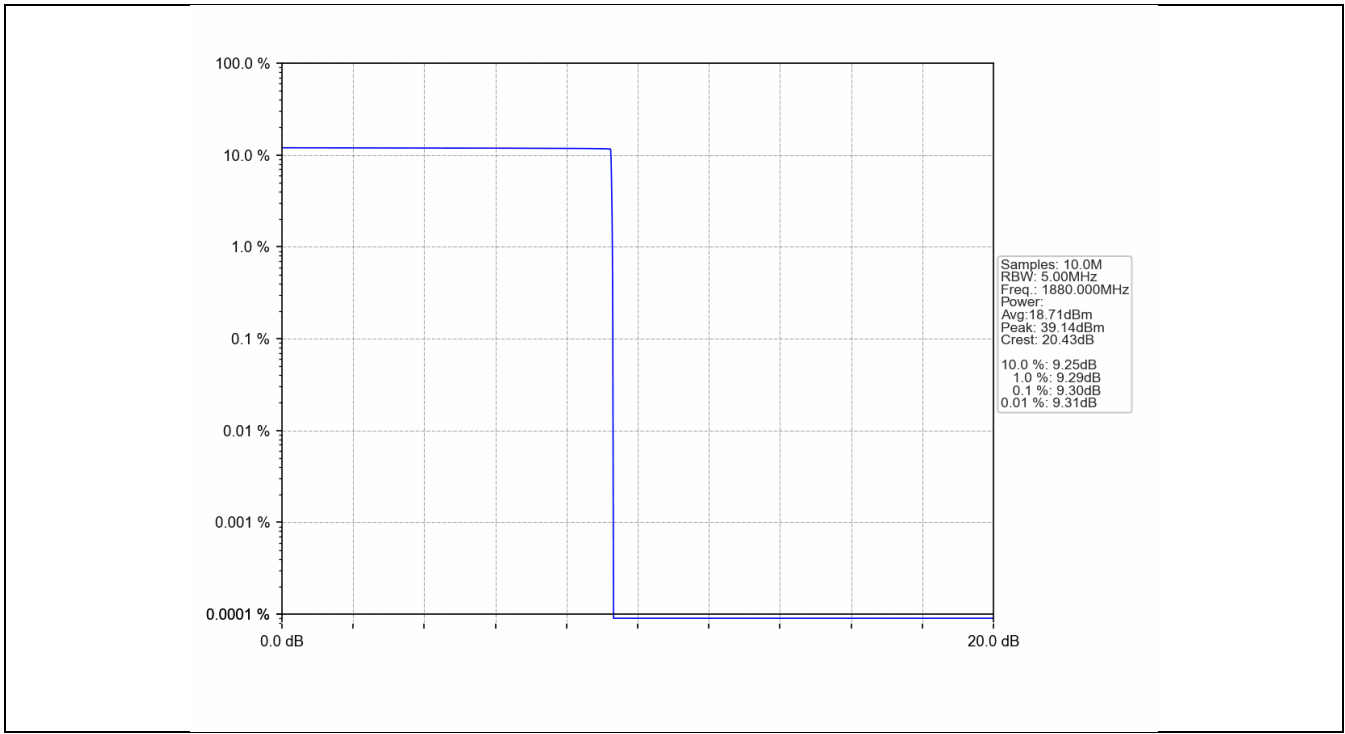
#### 5.1.1 Test Result

Band: PCS1900						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	9.03	<=13	Pass
			1880	9.30	<=13	Pass
			1909.8	9.31	<=13	Pass
	GPRS	4 TX Slots	1850.2	9.80	<=13	Pass
			1880	3.73	<=13	Pass
			1909.8	3.53	<=13	Pass
	EGPRS	4 TX Slots	1850.2	9.06	<=13	Pass
			1880	7.04	<=13	Pass
			1909.8	6.65	<=13	Pass

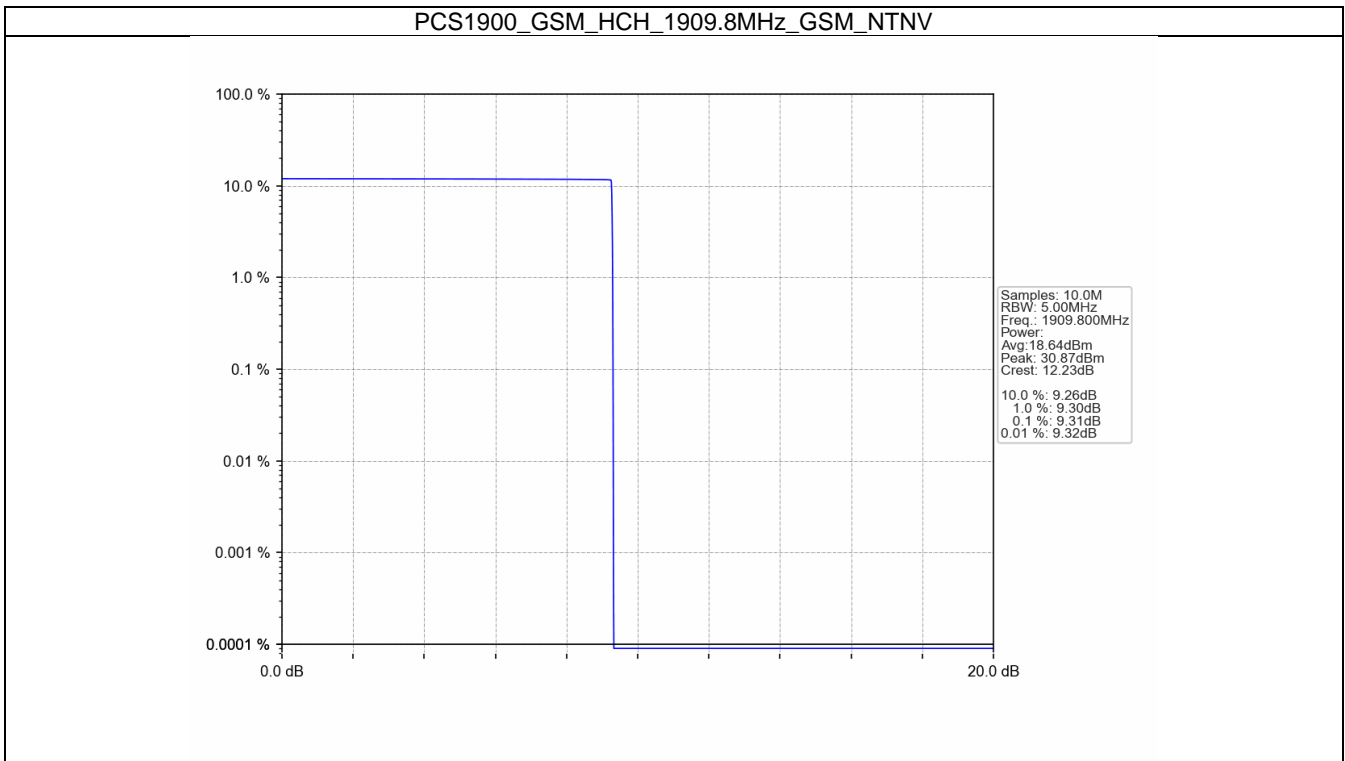
#### 5.1.2 Test Graph



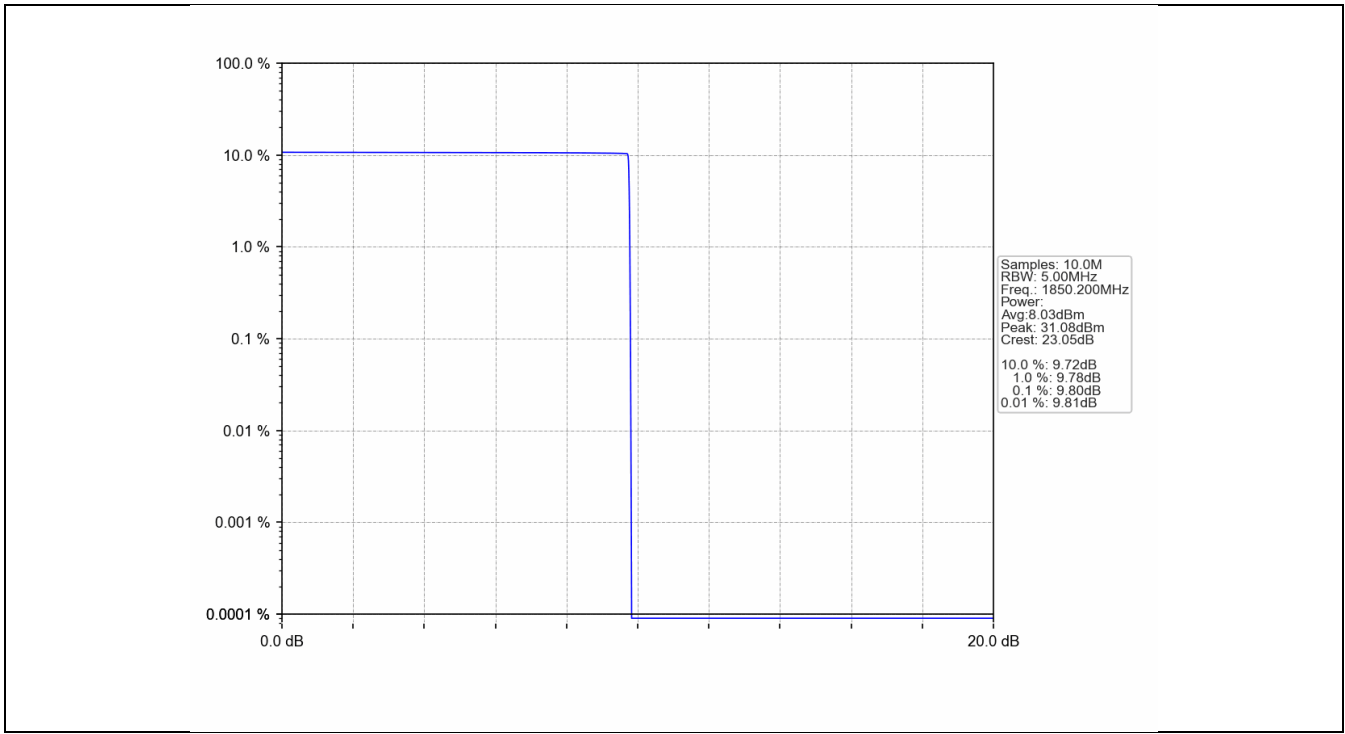




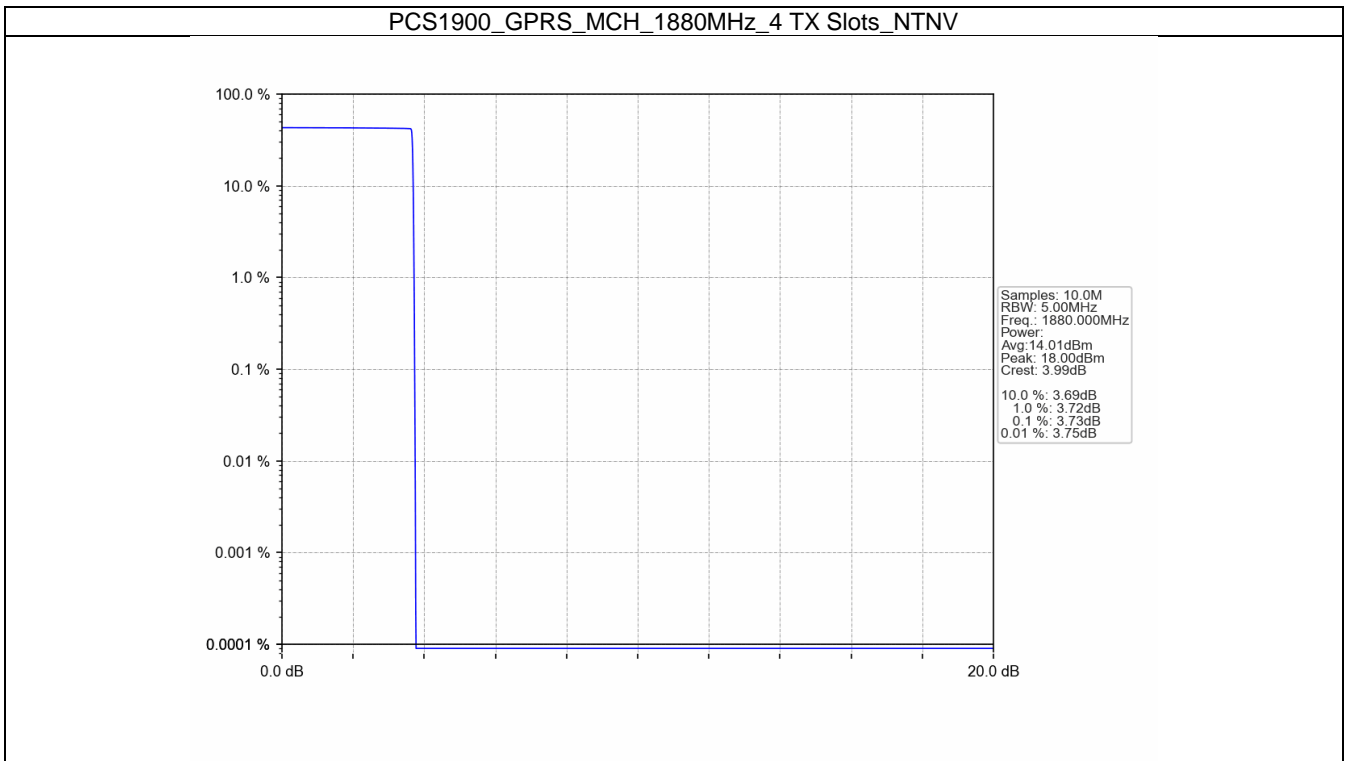
PCS1900\_GSM\_HCH\_1909.8MHz\_GSM\_NTNV



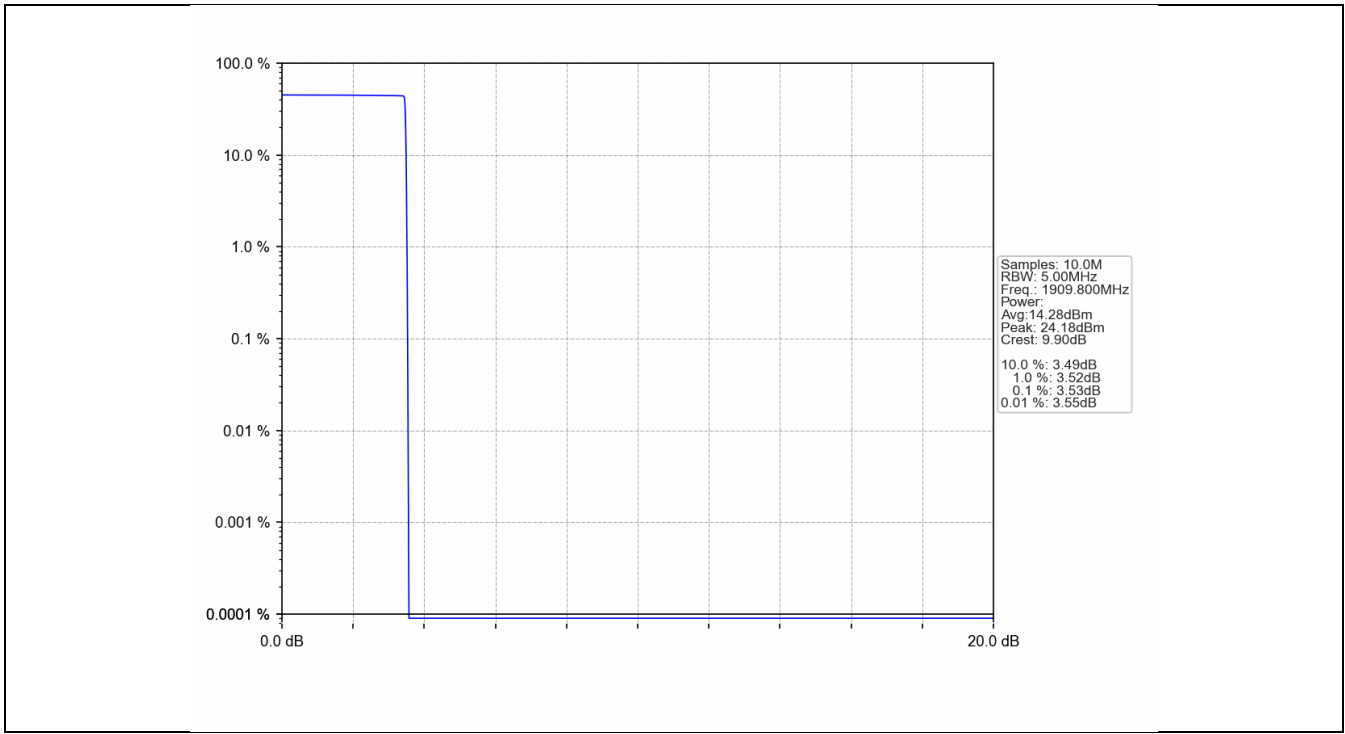
PCS1900\_GPRS\_LCH\_1850.2MHz\_4 TX Slots\_NTNV



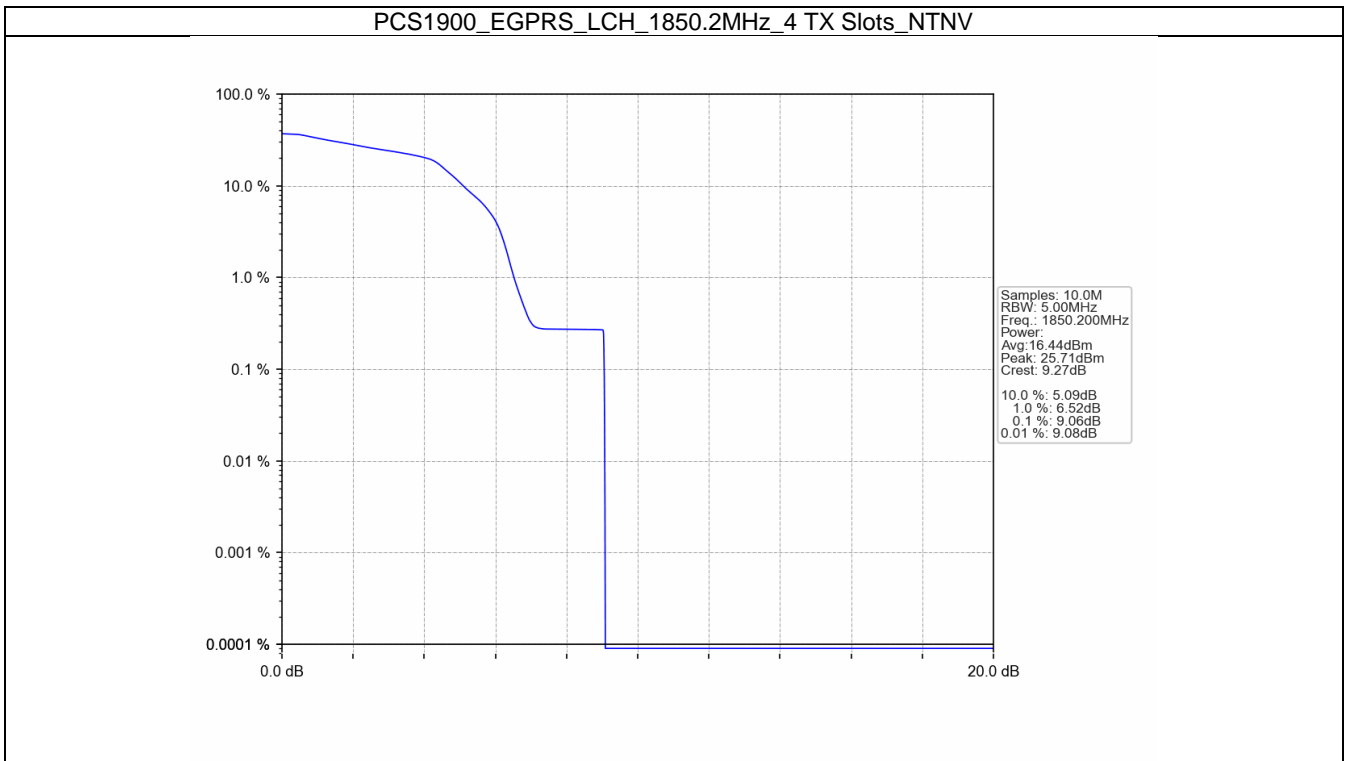
PCS1900\_GPRS\_MCH\_1880MHz\_4 TX Slots\_NTNV



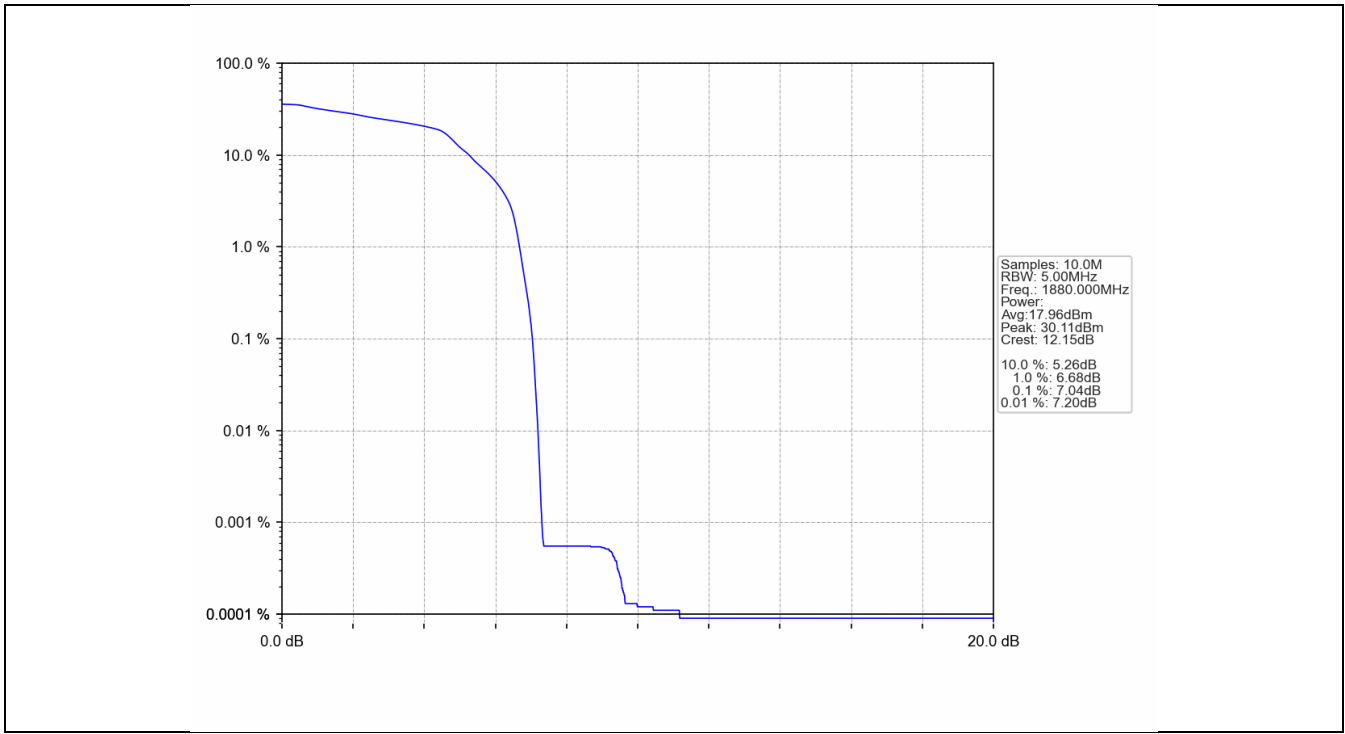
PCS1900\_GPRS\_HCH\_1909.8MHz\_4 TX Slots\_NTNV



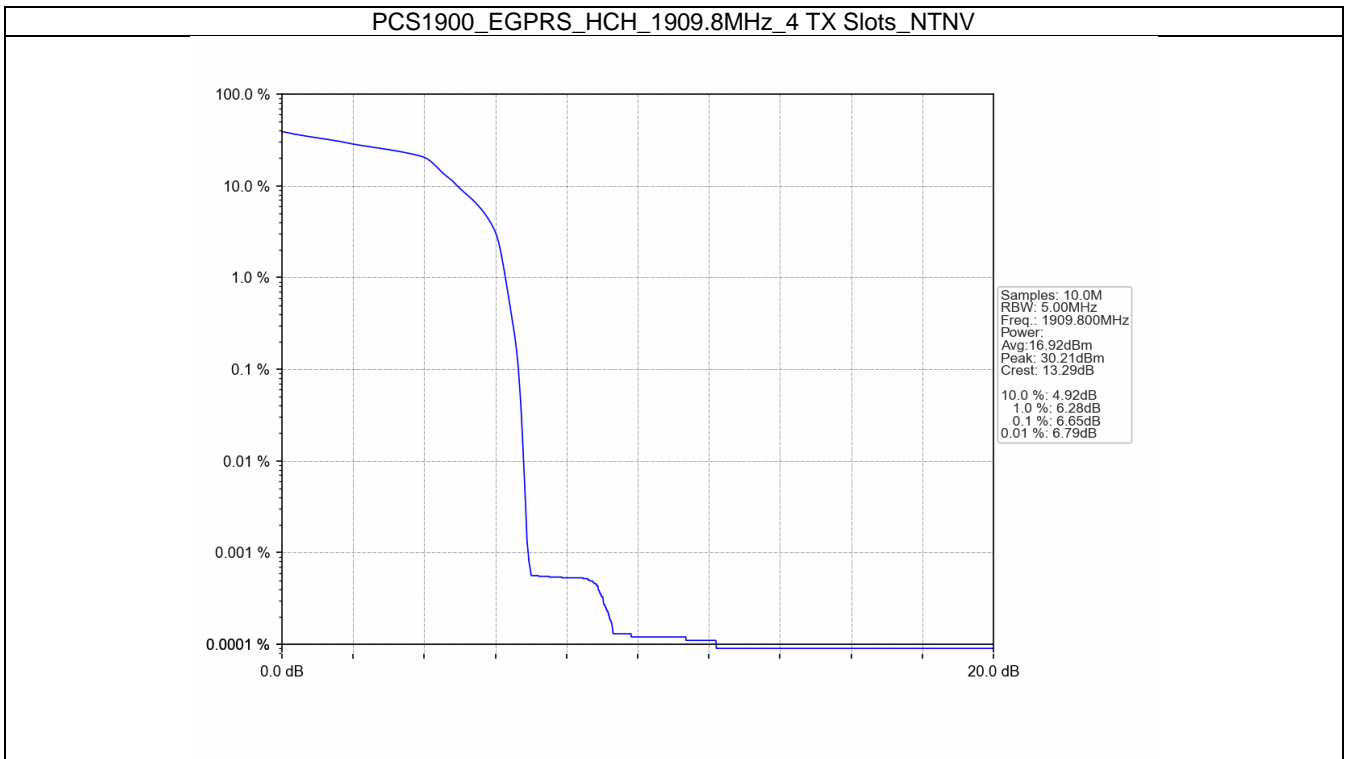
PCS1900\_EGPRS\_LCH\_1850.2MHz\_4 TX Slots\_NTNV



PCS1900\_EGPRS\_MCH\_1880MHz\_4 TX Slots\_NTNV



PCS1900\_EGPRS\_HCH\_1909.8MHz\_4 TX Slots\_NTNV



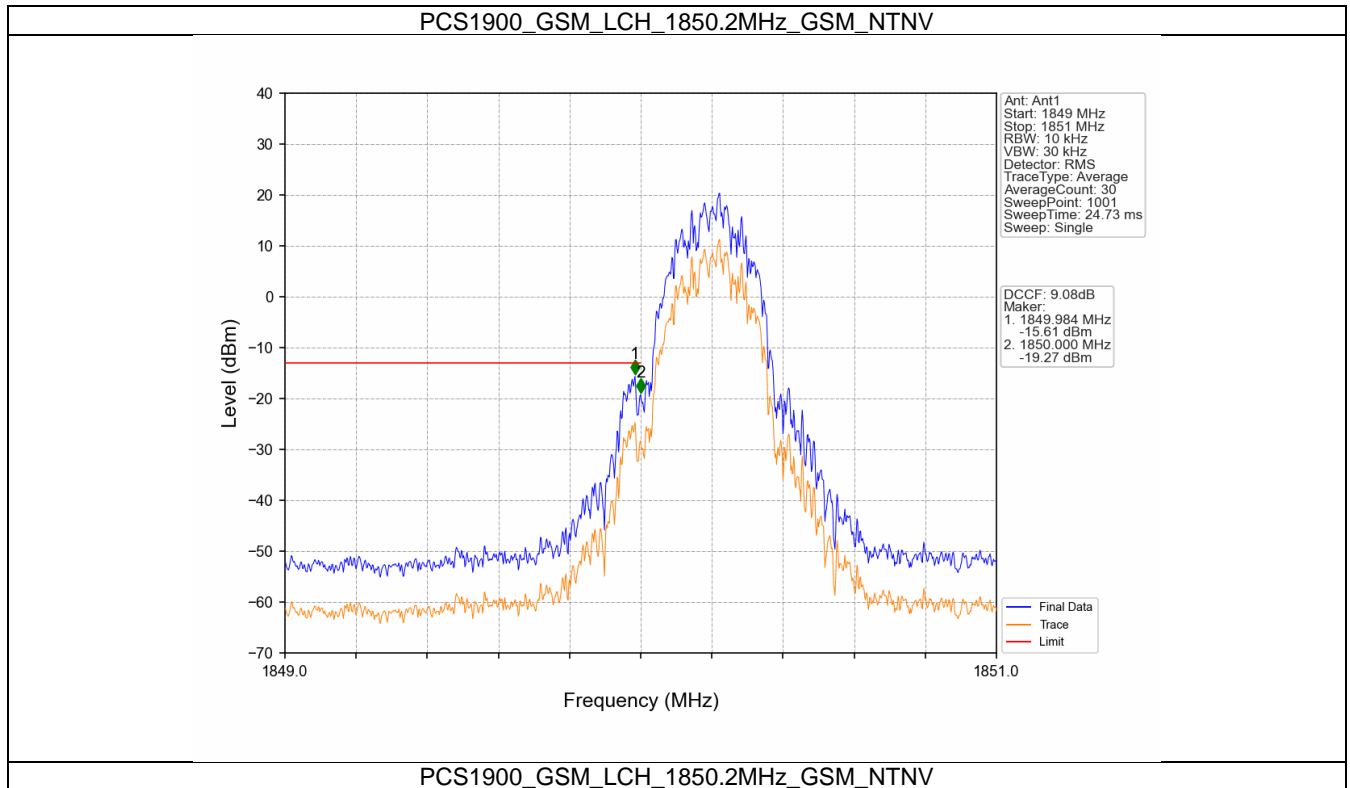
## 6. Spurious Emission

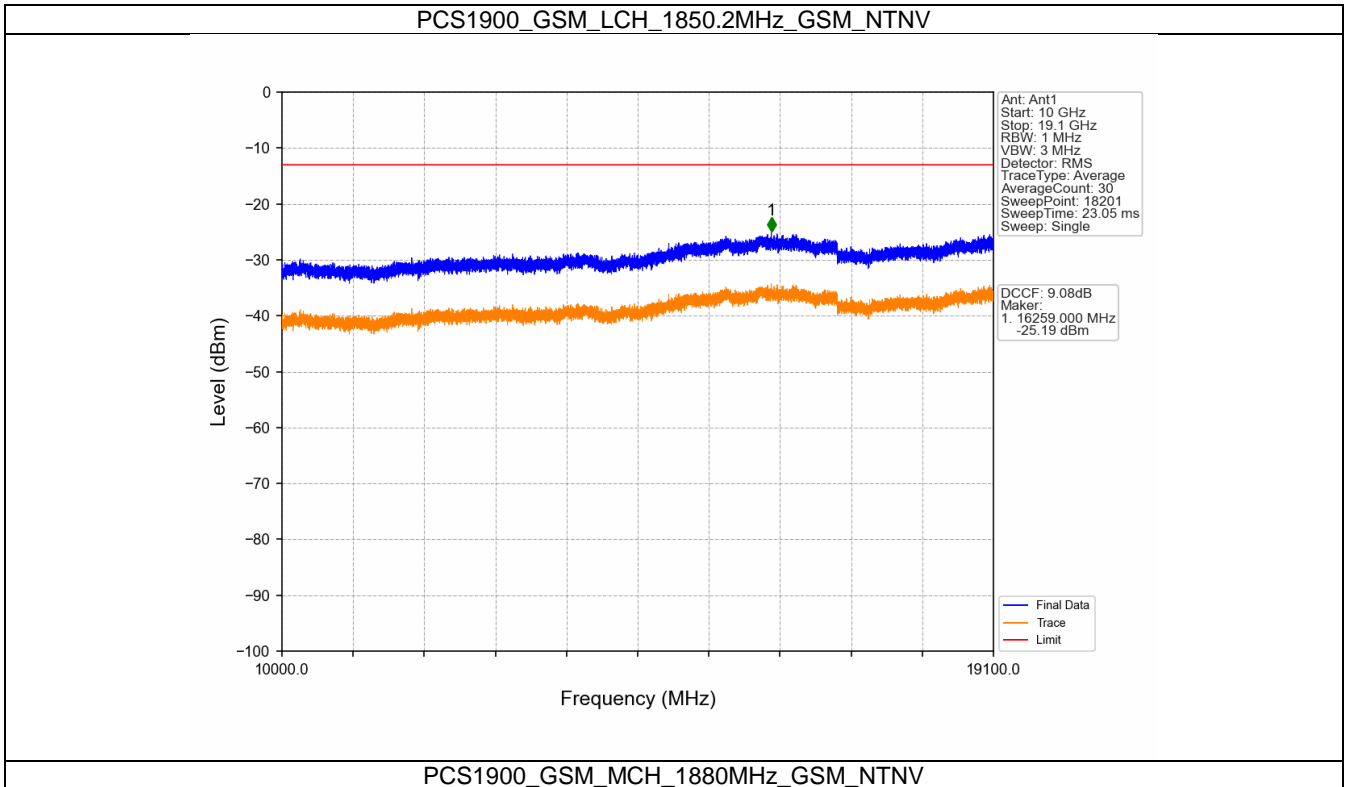
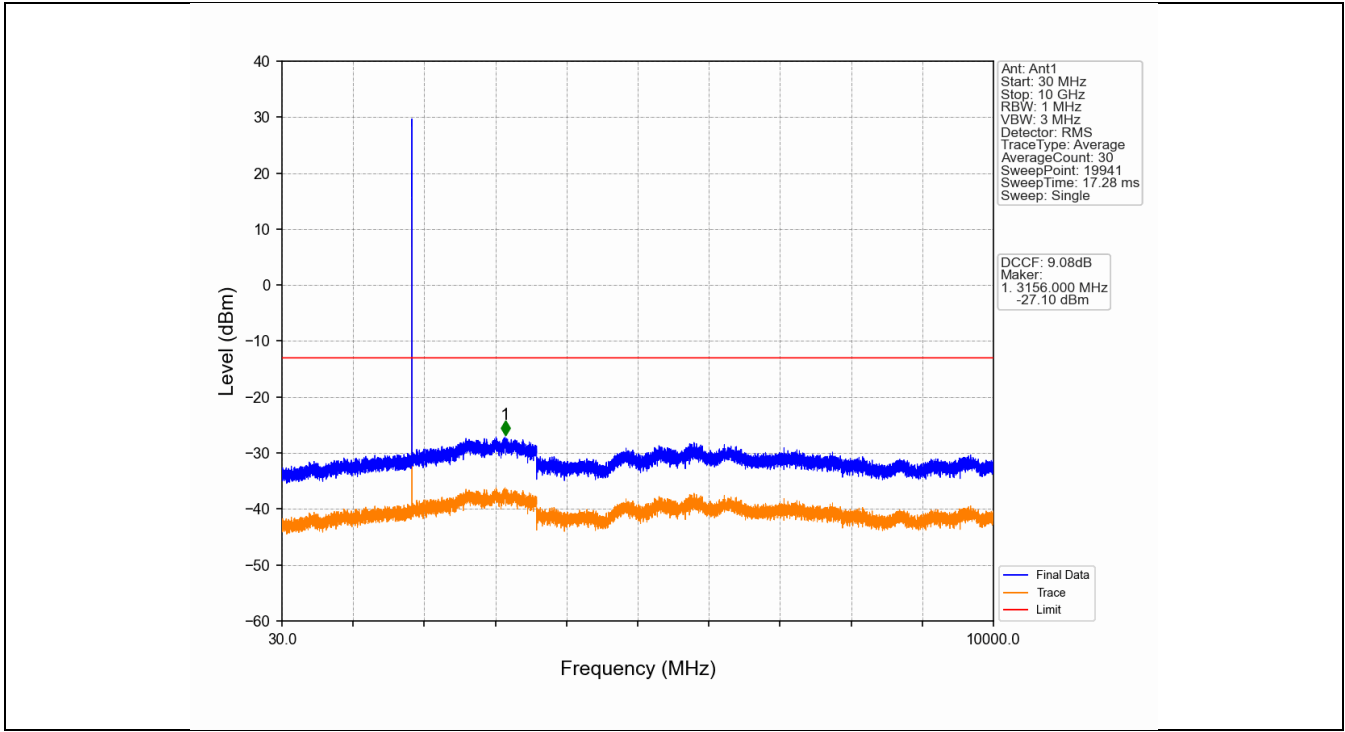
### 6.1 PCS1900

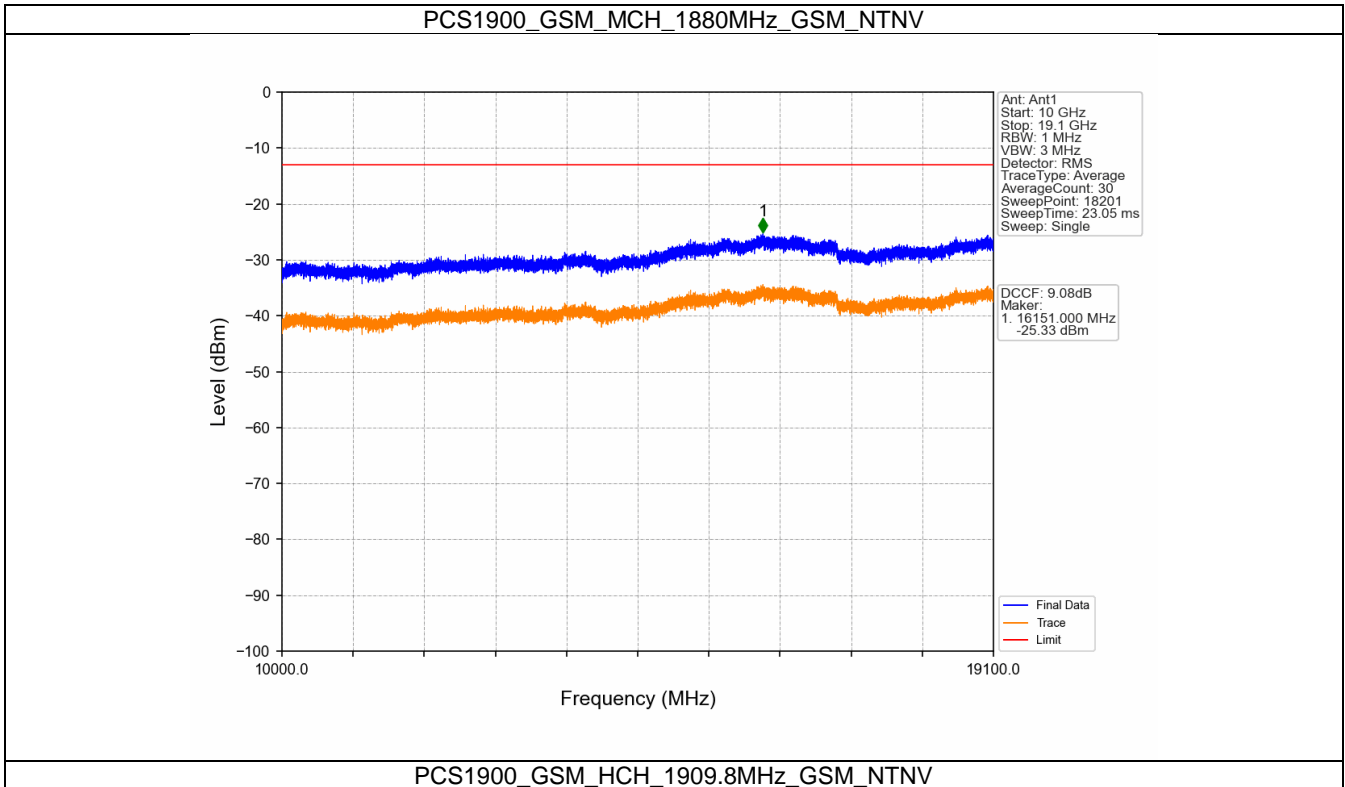
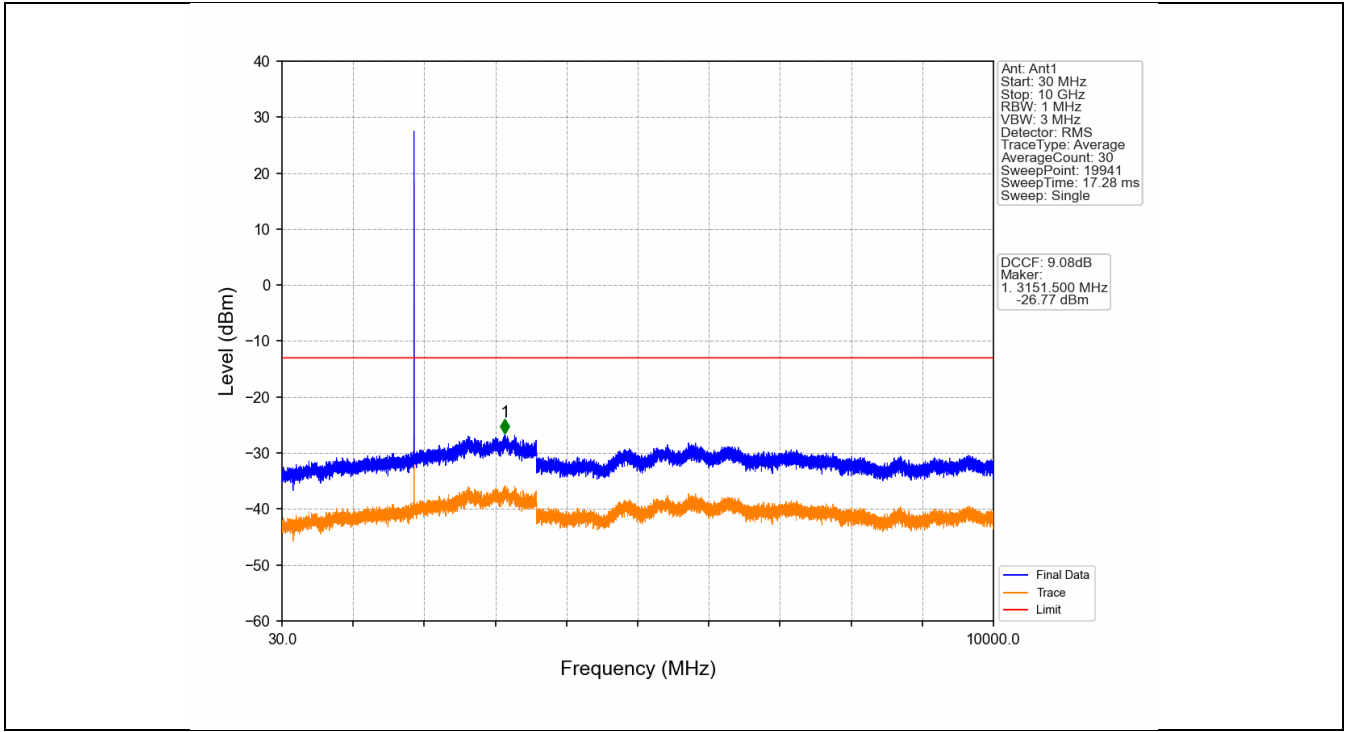
#### 6.1.1 Test Result

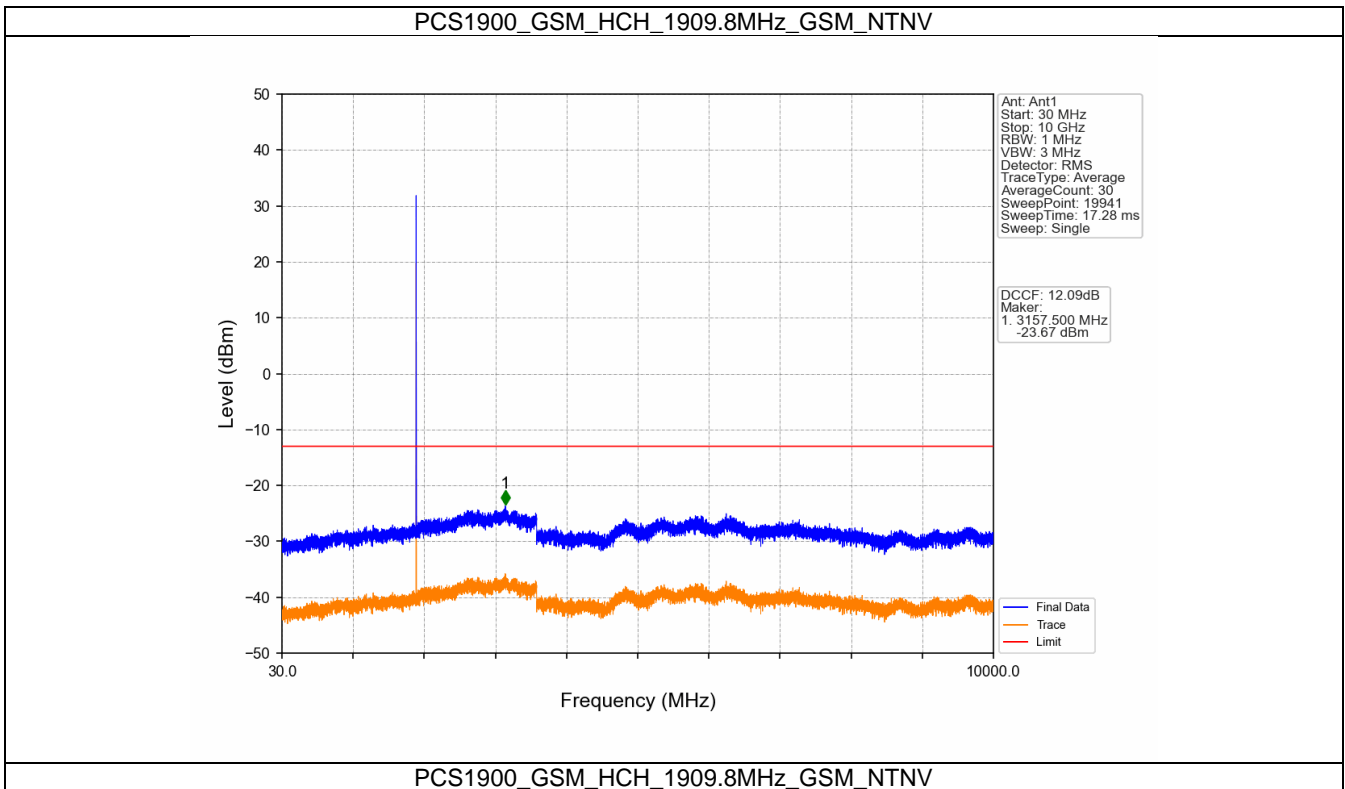
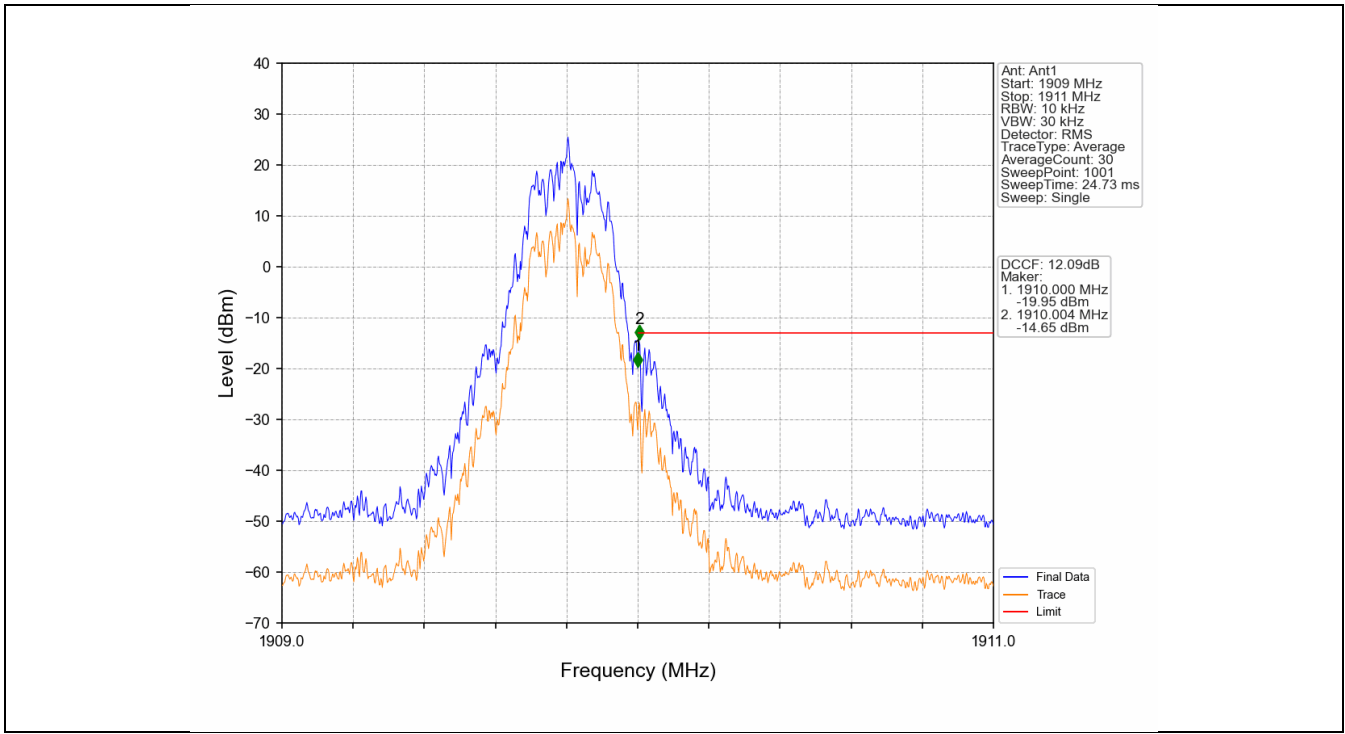
Band: PCS1900						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	GSM	GSM	1850.2	Refer To Test Graph		Pass
			1880	Refer To Test Graph		Pass
			1909.8	Refer To Test Graph		Pass
	GPRS	1 TX Slot	1850.2	Refer To Test Graph		Pass
			1880	Refer To Test Graph		Pass
			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

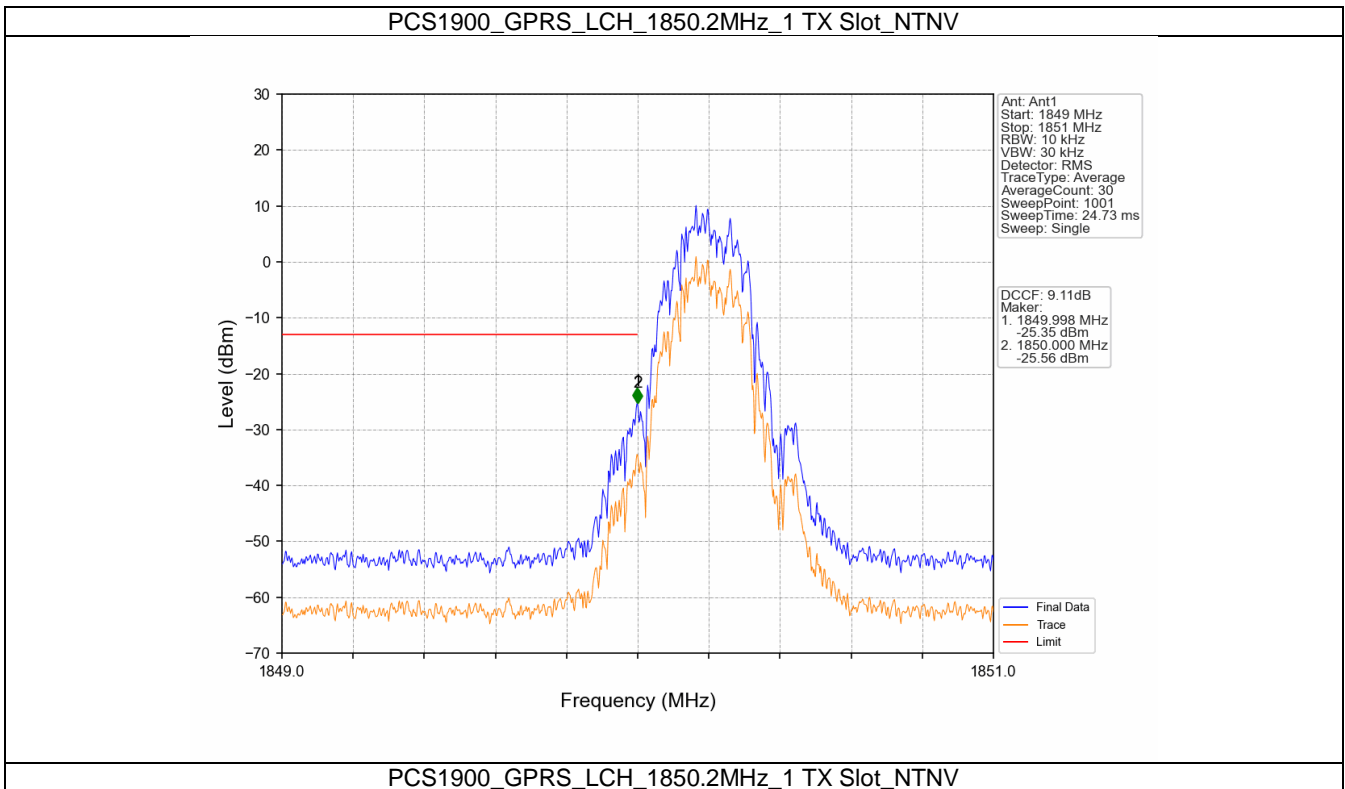
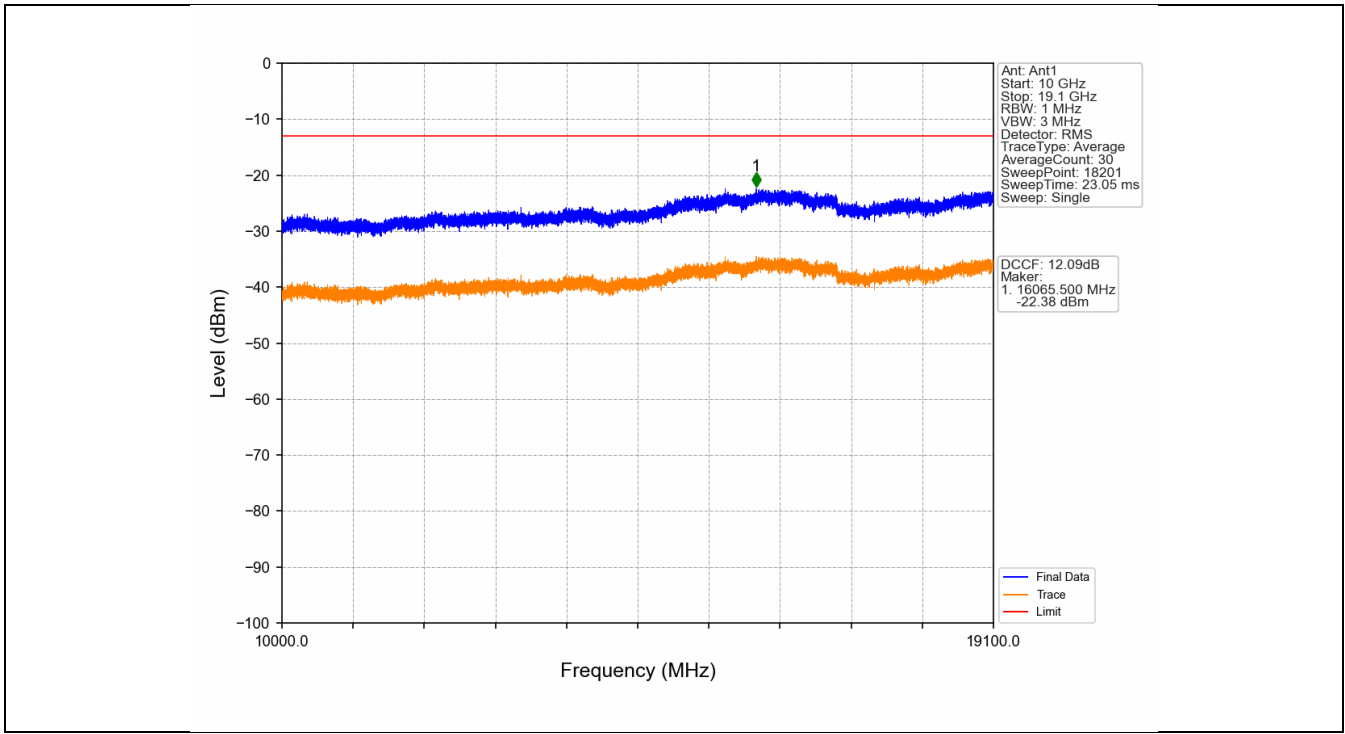


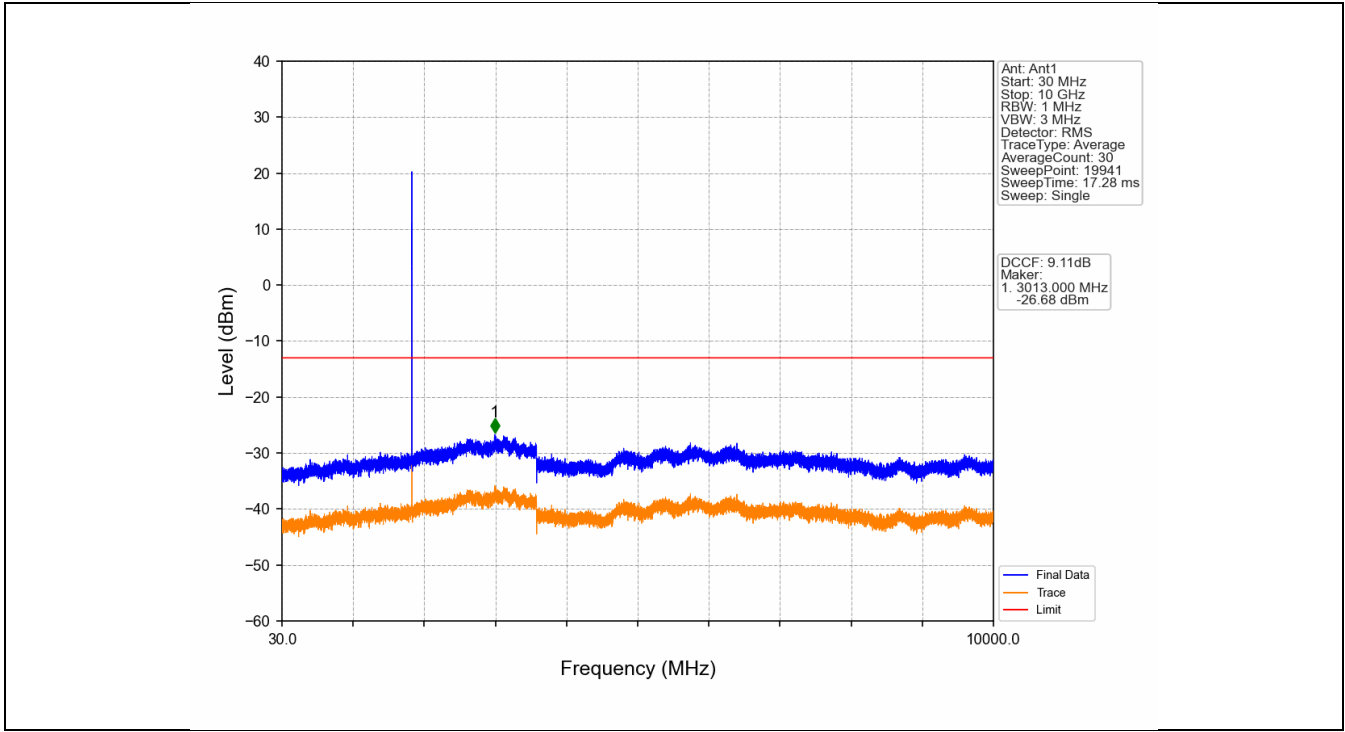




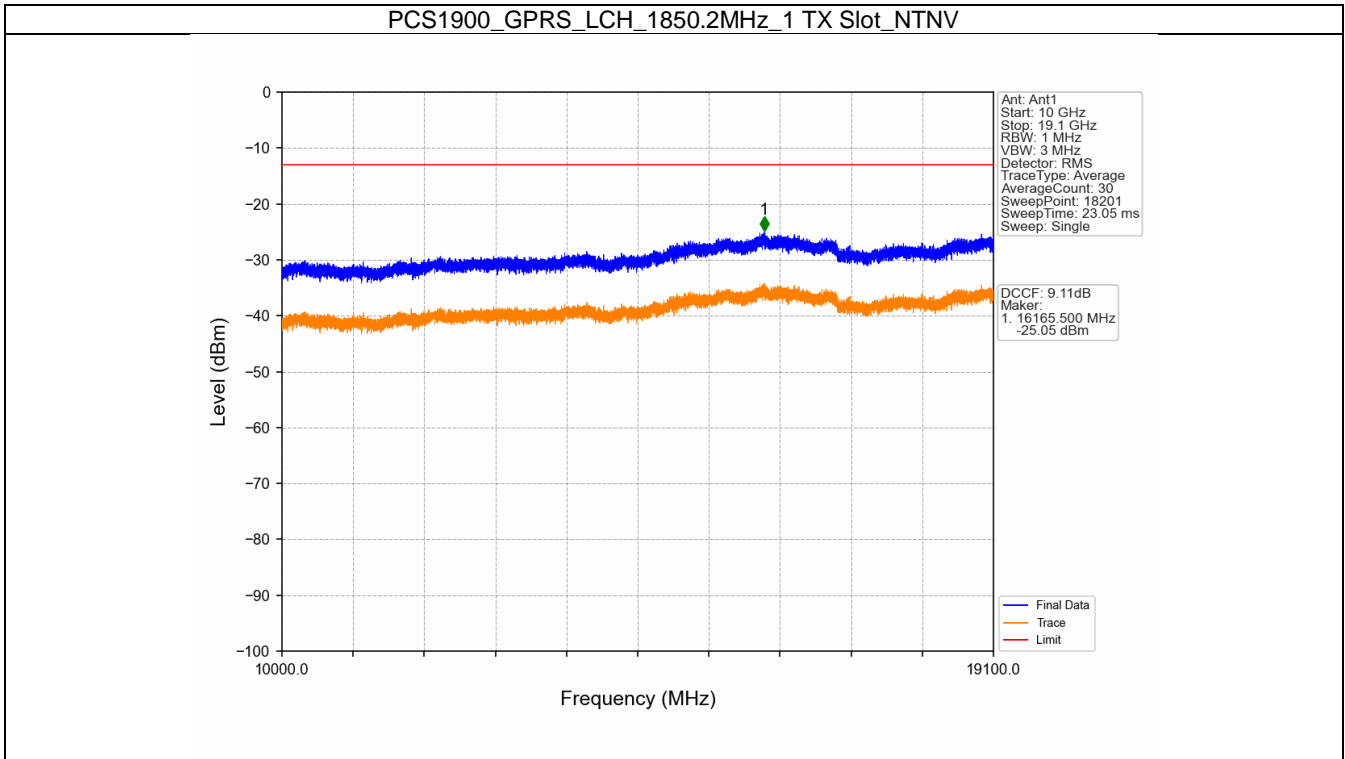




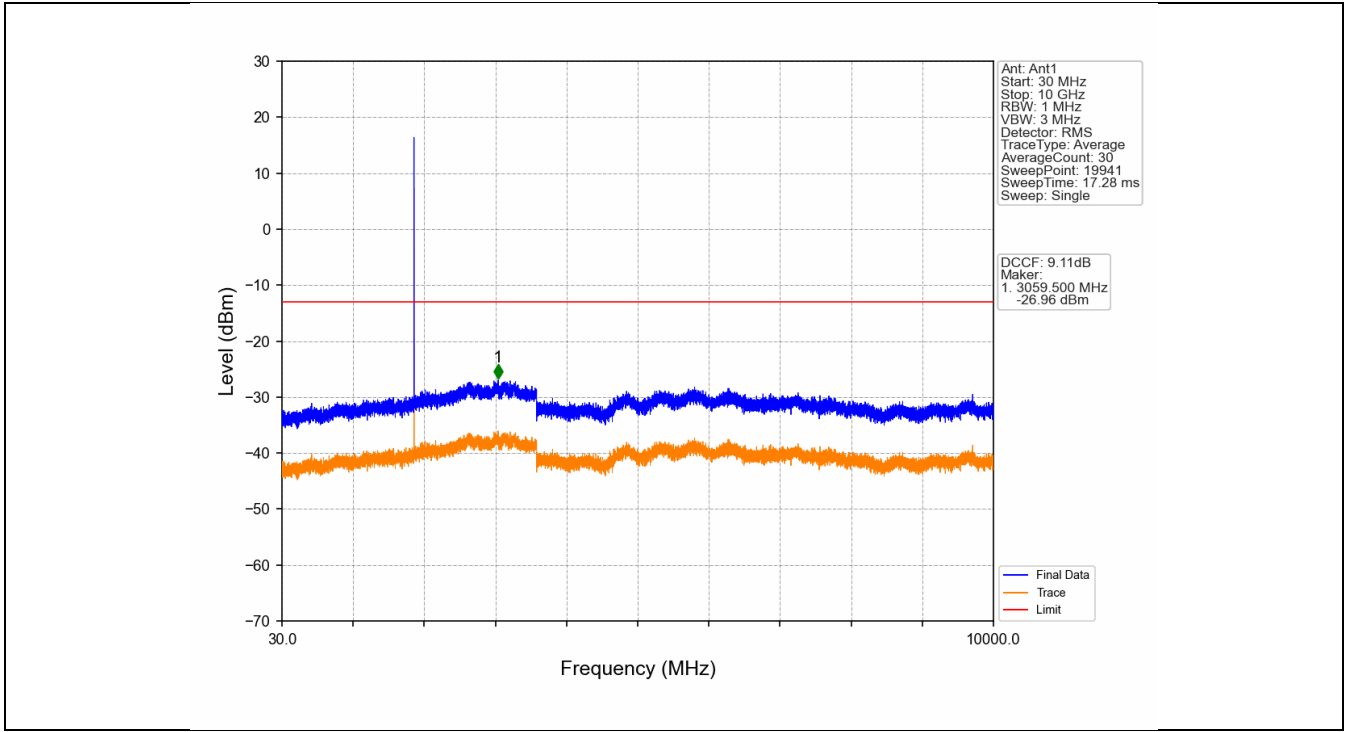




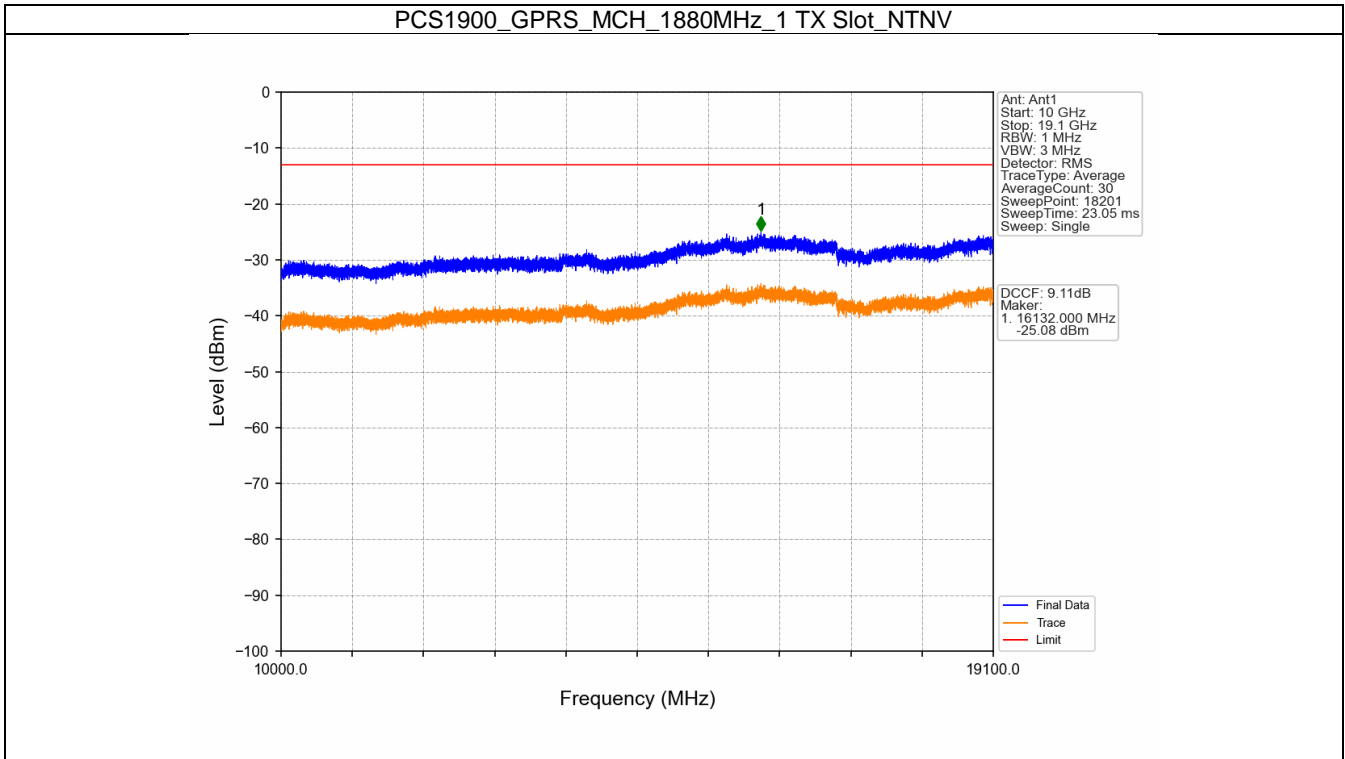
PCS1900\_GPRS\_LCH\_1850.2MHz\_1 TX Slot\_NTNV



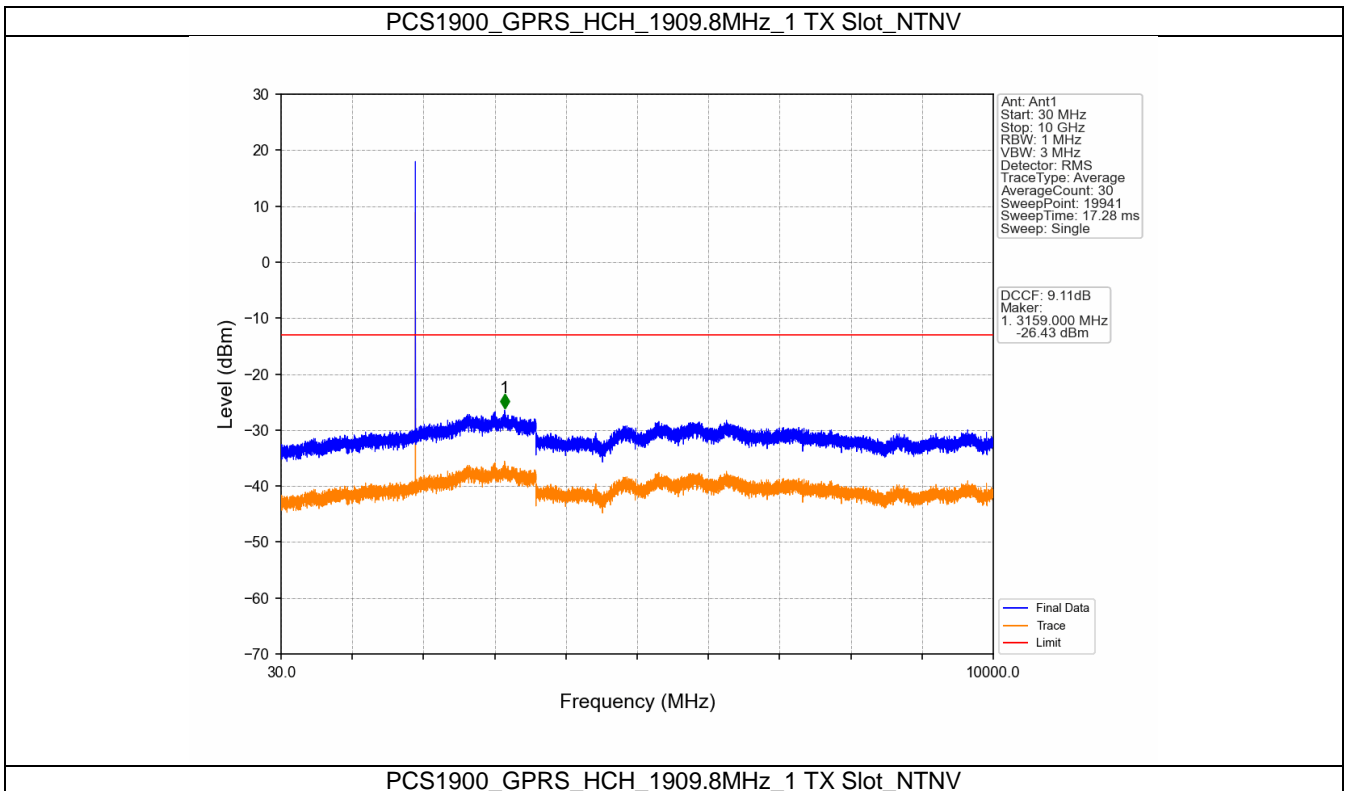
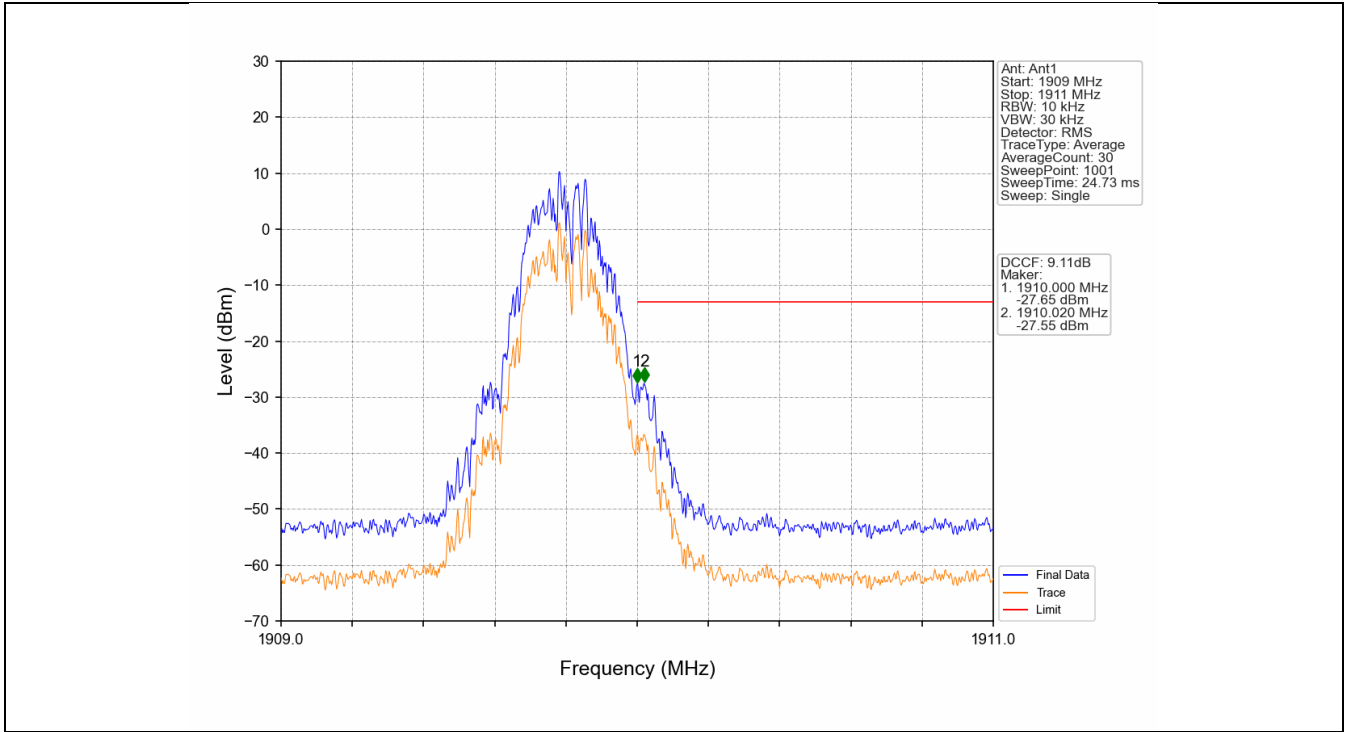
PCS1900\_GPRS\_MCH\_1880MHz\_1 TX Slot\_NTNV

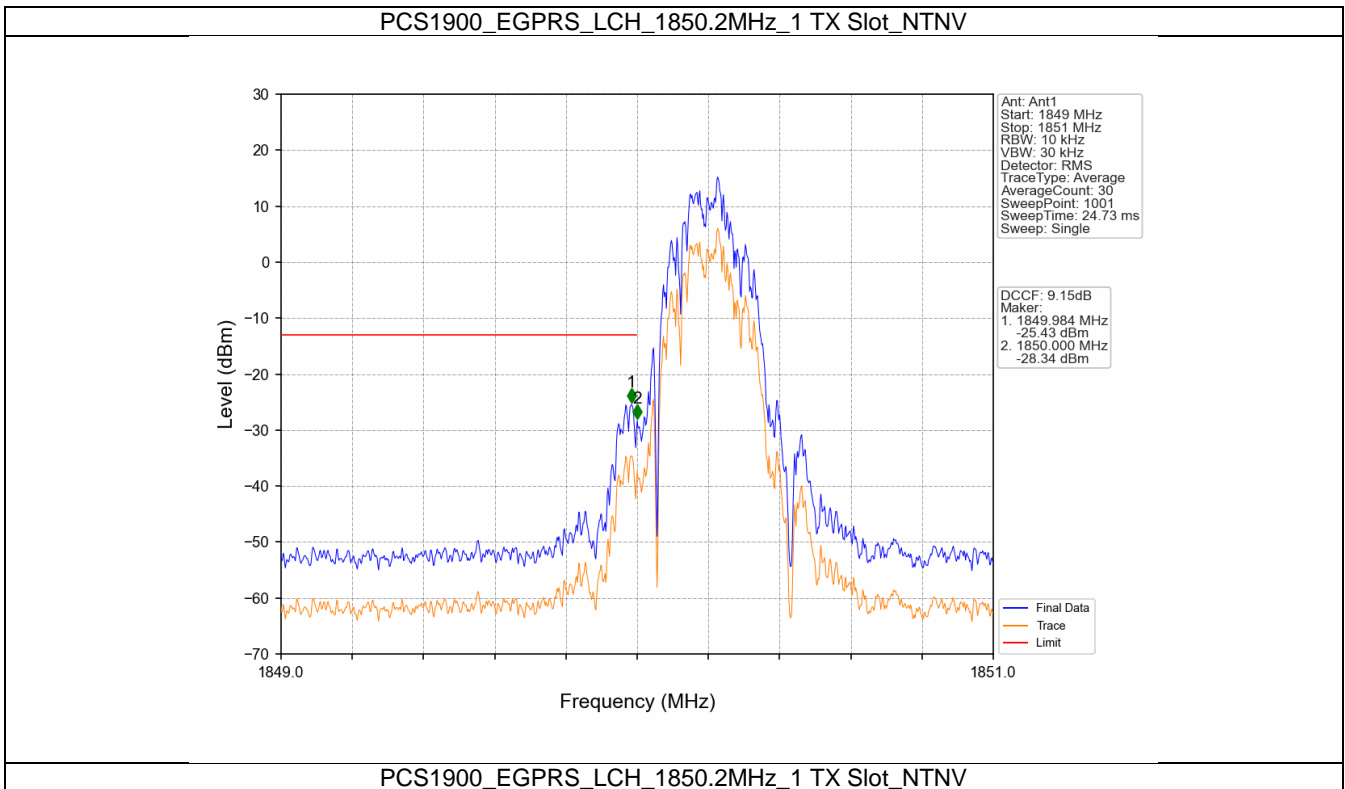
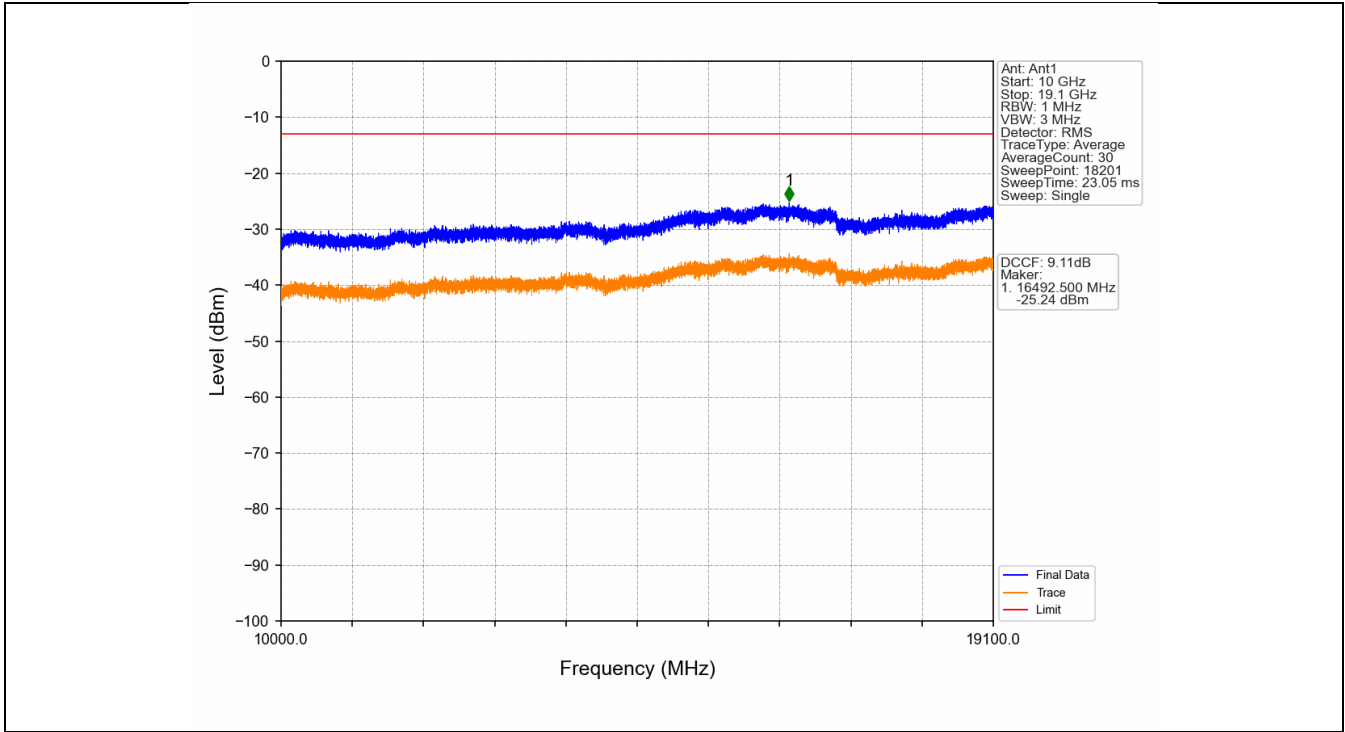


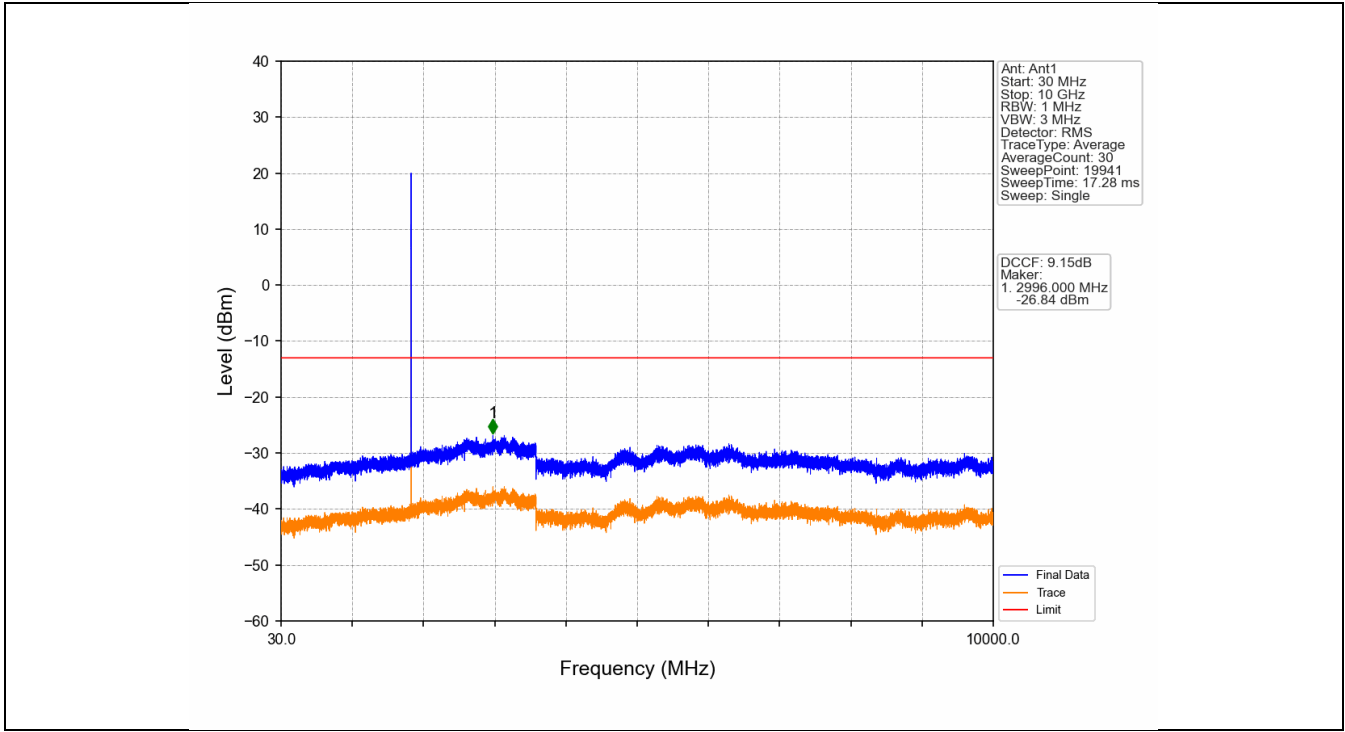
PCS1900\_GPRS\_MCH\_1880MHz\_1 TX Slot\_NTNV



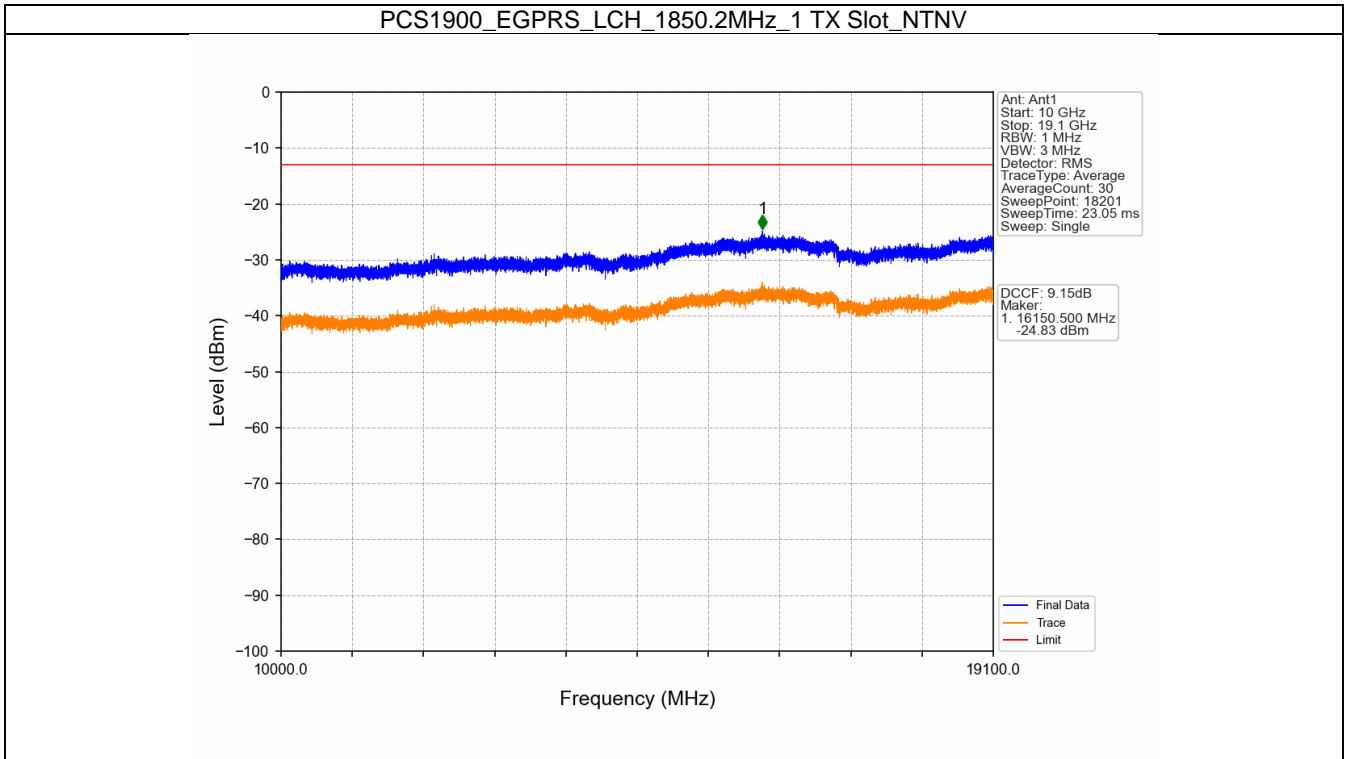
PCS1900\_GPRS\_HCH\_1909.8MHz\_1 TX Slot\_NTNV



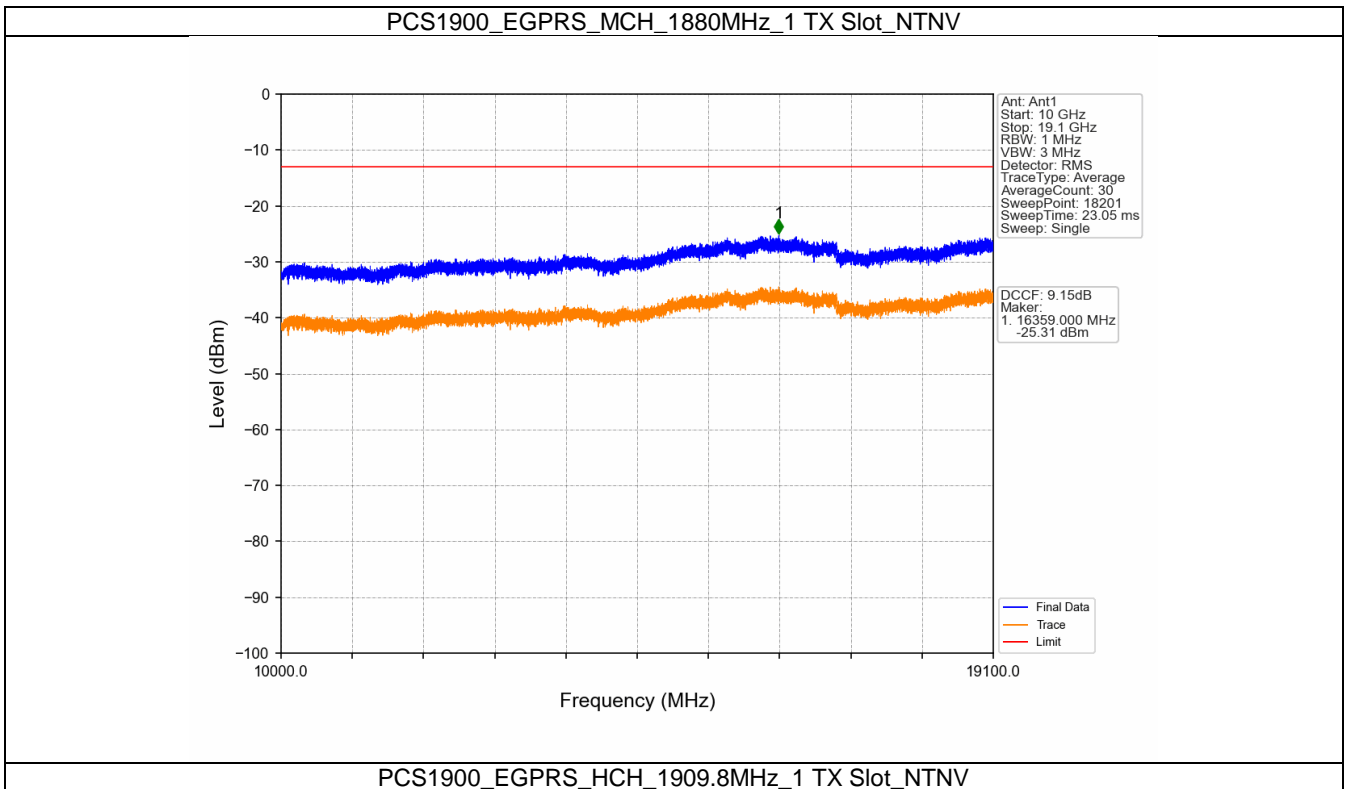
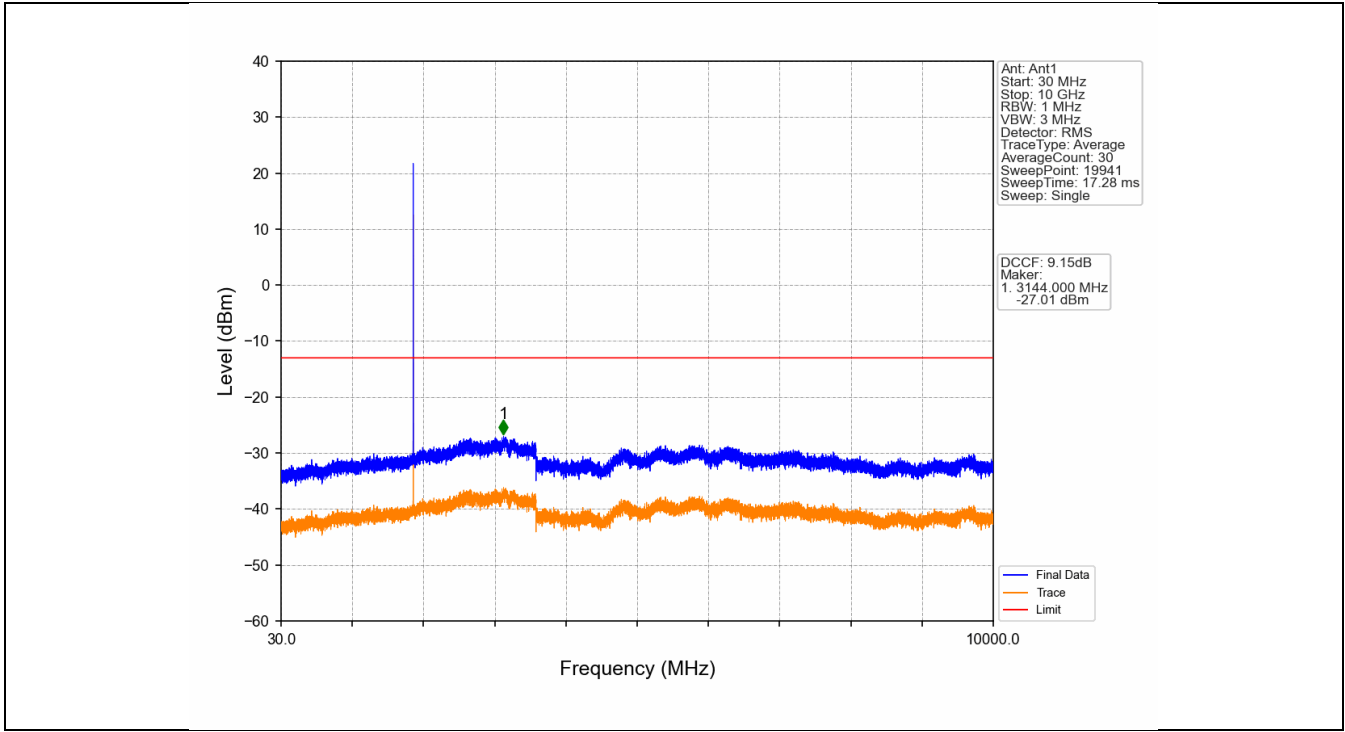


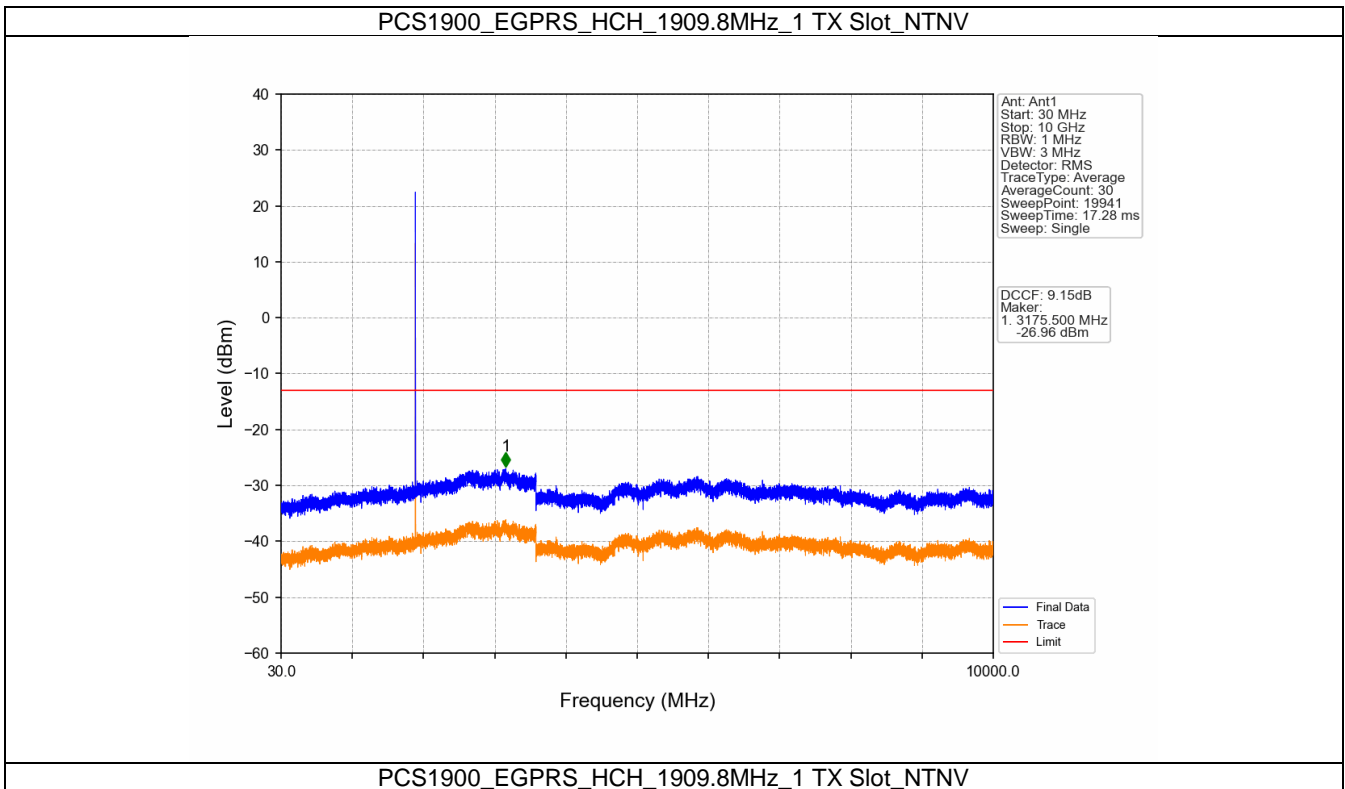
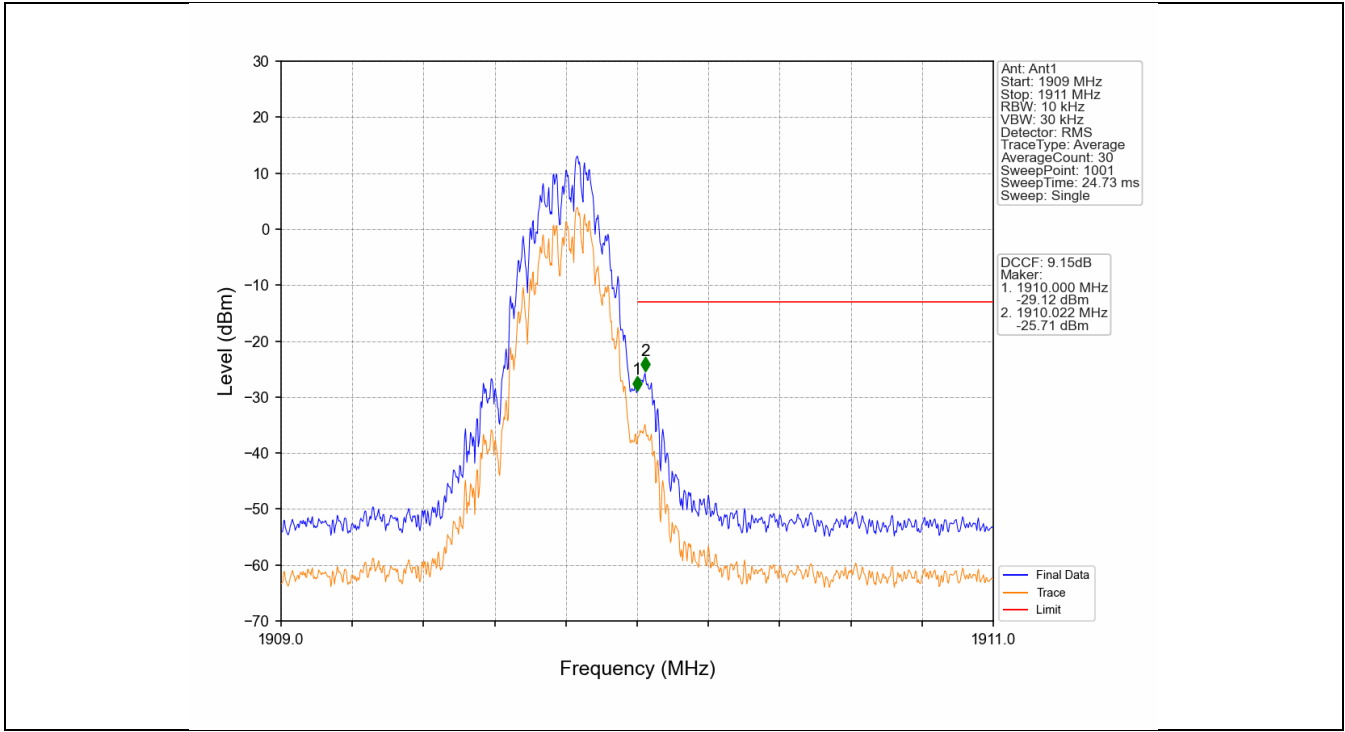


PCS1900\_EGPRS\_LCH\_1850.2MHz\_1 TX Slot\_NTNV

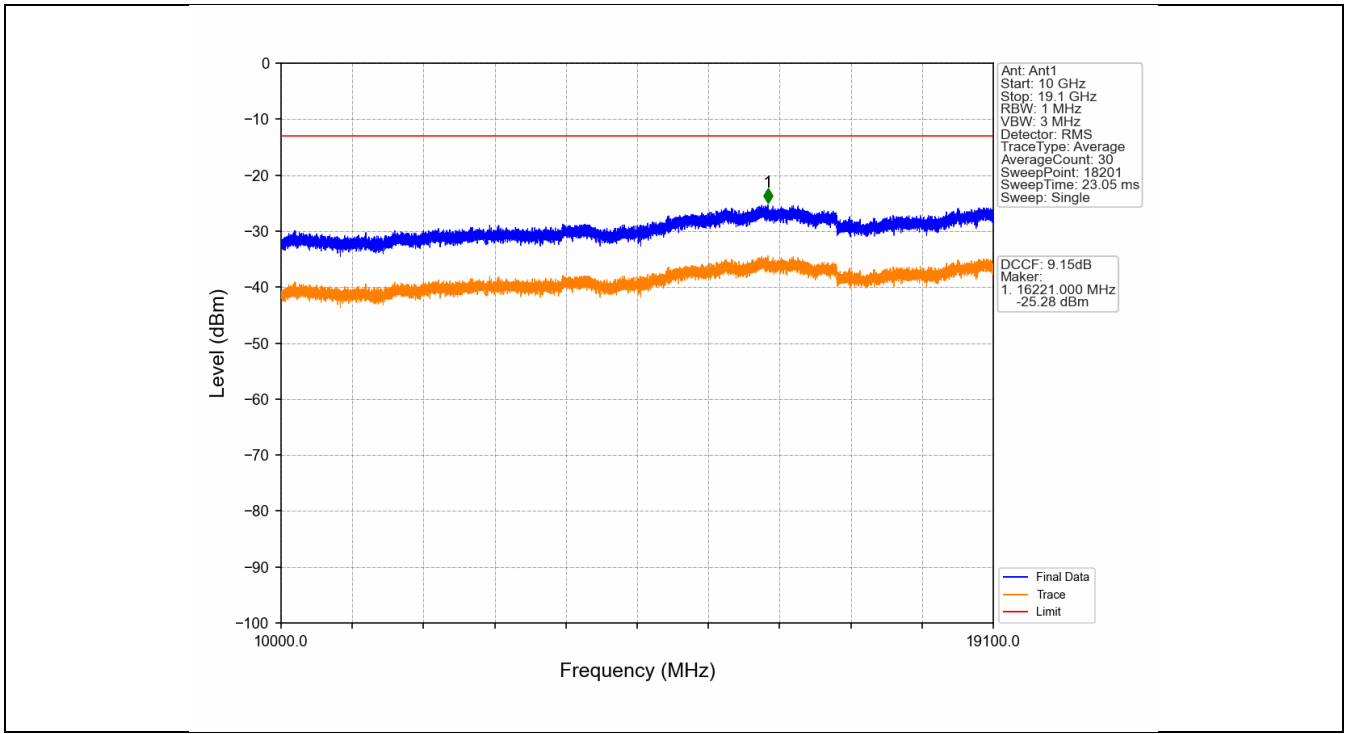


PCS1900\_EGPRS\_MCH\_1880MHz\_1 TX Slot\_NTNV









## 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	0.9772	0.0177	ppm	247KGXW	24E	29.90
PCS1900	0.2	1850.2	1909.8	0.4560	0.0156	ppm	258KG7W	24E	26.59

### 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	1.0568	0.0177	ppm	247KGXW	24E	30.24
PCS1900	0.2	1850.2	1909.8	0.4931	0.0156	ppm	258KG7W	24E	26.93