

1. Effective (Isotropic) Radiated Power Output Data

1.1 Band2_EIRP

1.1.1 Test Result

Band: 2									
ENV	Mode		Frequency (MHz)	Conducted Power (dBm)	Gain (dbi)	EIRP (dBm)		Verdict	
	Network	Subset				Result	Limit		
NTNV	RMC	12.2kbps RMC	1852.4	23.49	0.33	23.82	<=33.01	Pass	
			1880	23.32	0.33	23.65	<=33.01	Pass	
			1907.6	23.29	0.33	23.62	<=33.01	Pass	
	HSDPA	Subtest 1	1852.4	21.39	0.33	21.72	<=33.01	Pass	
		Subtest 2	1852.4	21.39	0.33	21.72	<=33.01	Pass	
		Subtest 3	1852.4	21.41	0.33	21.74	<=33.01	Pass	
		Subtest 4	1852.4	21.43	0.33	21.76	<=33.01	Pass	
		Subtest 1	1880	21.40	0.33	21.73	<=33.01	Pass	
		Subtest 2	1880	21.40	0.33	21.73	<=33.01	Pass	
		Subtest 3	1880	21.44	0.33	21.77	<=33.01	Pass	
		Subtest 4	1880	21.43	0.33	21.76	<=33.01	Pass	
		Subtest 1	1907.6	21.42	0.33	21.75	<=33.01	Pass	
		Subtest 2	1907.6	21.37	0.33	21.70	<=33.01	Pass	
		Subtest 3	1907.6	21.33	0.33	21.66	<=33.01	Pass	
		Subtest 4	1907.6	21.37	0.33	21.70	<=33.01	Pass	
		HSUPA	Subtest 1	1852.4	19.26	0.33	19.59	<=33.01	Pass
			Subtest 2	1852.4	19.26	0.33	19.59	<=33.01	Pass
	Subtest 3		1852.4	19.49	0.33	19.82	<=33.01	Pass	
	Subtest 4		1852.4	19.61	0.33	19.94	<=33.01	Pass	
	Subtest 5		1852.4	19.05	0.33	19.38	<=33.01	Pass	
	Subtest 1		1880	19.28	0.33	19.61	<=33.01	Pass	
	Subtest 2		1880	19.28	0.33	19.61	<=33.01	Pass	
	Subtest 3		1880	19.59	0.33	19.92	<=33.01	Pass	
	Subtest 4		1880	18.87	0.33	19.20	<=33.01	Pass	
	Subtest 5		1880	19.34	0.33	19.67	<=33.01	Pass	
	Subtest 1		1907.6	19.09	0.33	19.42	<=33.01	Pass	
	Subtest 2		1907.6	19.16	0.33	19.49	<=33.01	Pass	
	Subtest 3		1907.6	18.84	0.33	19.17	<=33.01	Pass	
	Subtest 4	1907.6	19.46	0.33	19.79	<=33.01	Pass		
	Subtest 5	1907.6	19.05	0.33	19.38	<=33.01	Pass		

Note1: EIRP=Conducted Power+Antenna Gain

2. Frequency Stability

2.1 Band2

2.1.1 Test Result

Band: 2							
Network	Frequency (MHz)	Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
					Result	Limit	
RMC	1852.4	20	3.27	3.948	0.0021	-2.5 to 2.5	Pass
			3.85	3.290	0.0018	-2.5 to 2.5	Pass
			4.43	3.169	0.0017	-2.5 to 2.5	Pass

		-30	3.85	2.525	0.0014	-2.5 to 2.5	Pass	
		-20	3.85	3.211	0.0017	-2.5 to 2.5	Pass	
		-10	3.85	2.954	0.0016	-2.5 to 2.5	Pass	
		0	3.85	2.918	0.0016	-2.5 to 2.5	Pass	
		10	3.85	2.503	0.0014	-2.5 to 2.5	Pass	
		30	3.85	2.868	0.0015	-2.5 to 2.5	Pass	
		40	3.85	2.832	0.0015	-2.5 to 2.5	Pass	
	50	3.85	3.269	0.0018	-2.5 to 2.5	Pass		
	1880	20	3.27	2.546	0.0014	-2.5 to 2.5	Pass	
			3.85	3.326	0.0018	-2.5 to 2.5	Pass	
			4.43	3.347	0.0018	-2.5 to 2.5	Pass	
		-30	3.85	3.147	0.0017	-2.5 to 2.5	Pass	
		-20	3.85	3.462	0.0018	-2.5 to 2.5	Pass	
		-10	3.85	3.133	0.0017	-2.5 to 2.5	Pass	
		0	3.85	3.090	0.0016	-2.5 to 2.5	Pass	
		10	3.85	2.854	0.0015	-2.5 to 2.5	Pass	
		30	3.85	3.161	0.0017	-2.5 to 2.5	Pass	
		40	3.85	2.975	0.0016	-2.5 to 2.5	Pass	
		50	3.85	3.641	0.0019	-2.5 to 2.5	Pass	
		1907.6	20	3.27	2.561	0.0013	-2.5 to 2.5	Pass
				3.85	3.154	0.0017	-2.5 to 2.5	Pass
	4.43			3.369	0.0018	-2.5 to 2.5	Pass	
	-30		3.85	3.440	0.0018	-2.5 to 2.5	Pass	
	-20		3.85	3.684	0.0019	-2.5 to 2.5	Pass	
	-10		3.85	3.004	0.0016	-2.5 to 2.5	Pass	
	0		3.85	2.925	0.0015	-2.5 to 2.5	Pass	
	10		3.85	2.890	0.0015	-2.5 to 2.5	Pass	
30	3.85		2.139	0.0011	-2.5 to 2.5	Pass		
40	3.85		3.190	0.0017	-2.5 to 2.5	Pass		
50	3.85	3.169	0.0017	-2.5 to 2.5	Pass			
HSDPA	1852.4	20	3.27	2.174	0.0012	-2.5 to 2.5	Pass	
			3.85	2.739	0.0015	-2.5 to 2.5	Pass	
			4.43	1.509	0.0008	-2.5 to 2.5	Pass	
		-30	3.85	2.224	0.0012	-2.5 to 2.5	Pass	
		-20	3.85	2.010	0.0011	-2.5 to 2.5	Pass	
		-10	3.85	2.704	0.0015	-2.5 to 2.5	Pass	
		0	3.85	1.931	0.0010	-2.5 to 2.5	Pass	
		10	3.85	2.210	0.0012	-2.5 to 2.5	Pass	
		30	3.85	3.240	0.0017	-2.5 to 2.5	Pass	
		40	3.85	2.089	0.0011	-2.5 to 2.5	Pass	
	50	3.85	3.211	0.0017	-2.5 to 2.5	Pass		
	1880	20	3.27	2.453	0.0013	-2.5 to 2.5	Pass	
			3.85	3.018	0.0016	-2.5 to 2.5	Pass	
			4.43	2.575	0.0014	-2.5 to 2.5	Pass	
		-30	3.85	3.669	0.0020	-2.5 to 2.5	Pass	
		-20	3.85	2.654	0.0014	-2.5 to 2.5	Pass	
		-10	3.85	2.925	0.0016	-2.5 to 2.5	Pass	
		0	3.85	2.854	0.0015	-2.5 to 2.5	Pass	
		10	3.85	2.990	0.0016	-2.5 to 2.5	Pass	
		30	3.85	3.011	0.0016	-2.5 to 2.5	Pass	
		40	3.85	2.539	0.0014	-2.5 to 2.5	Pass	
	50	3.85	2.768	0.0015	-2.5 to 2.5	Pass		
	1907.6	20	3.27	2.203	0.0012	-2.5 to 2.5	Pass	
			3.85	1.981	0.0010	-2.5 to 2.5	Pass	
			4.43	1.180	0.0006	-2.5 to 2.5	Pass	
		-30	3.85	2.360	0.0012	-2.5 to 2.5	Pass	
	-20	3.85	1.423	0.0007	-2.5 to 2.5	Pass		

		-10	3.85	1.287	0.0007	-2.5 to 2.5	Pass
		0	3.85	0.880	0.0005	-2.5 to 2.5	Pass
		10	3.85	2.689	0.0014	-2.5 to 2.5	Pass
		30	3.85	1.724	0.0009	-2.5 to 2.5	Pass
		40	3.85	1.738	0.0009	-2.5 to 2.5	Pass
		50	3.85	2.296	0.0012	-2.5 to 2.5	Pass
HSUPA	1852.4	20	3.27	4.642	0.0025	-2.5 to 2.5	Pass
			3.85	6.008	0.0032	-2.5 to 2.5	Pass
			4.43	6.058	0.0033	-2.5 to 2.5	Pass
		-30	3.85	5.322	0.0029	-2.5 to 2.5	Pass
		-20	3.85	5.100	0.0028	-2.5 to 2.5	Pass
		-10	3.85	7.060	0.0038	-2.5 to 2.5	Pass
		0	3.85	5.944	0.0032	-2.5 to 2.5	Pass
		10	3.85	6.015	0.0032	-2.5 to 2.5	Pass
		30	3.85	6.444	0.0035	-2.5 to 2.5	Pass
		40	3.85	6.266	0.0034	-2.5 to 2.5	Pass
	50	3.85	5.751	0.0031	-2.5 to 2.5	Pass	
	1880	20	3.27	6.845	0.0036	-2.5 to 2.5	Pass
			3.85	6.680	0.0036	-2.5 to 2.5	Pass
			4.43	5.765	0.0031	-2.5 to 2.5	Pass
		-30	3.85	6.087	0.0032	-2.5 to 2.5	Pass
		-20	3.85	6.380	0.0034	-2.5 to 2.5	Pass
		-10	3.85	5.407	0.0029	-2.5 to 2.5	Pass
		0	3.85	5.028	0.0027	-2.5 to 2.5	Pass
		10	3.85	6.366	0.0034	-2.5 to 2.5	Pass
		30	3.85	5.479	0.0029	-2.5 to 2.5	Pass
		40	3.85	6.258	0.0033	-2.5 to 2.5	Pass
	50	3.85	4.971	0.0026	-2.5 to 2.5	Pass	
	1907.6	20	3.27	6.058	0.0032	-2.5 to 2.5	Pass
			3.85	5.729	0.0030	-2.5 to 2.5	Pass
			4.43	5.271	0.0028	-2.5 to 2.5	Pass
		-30	3.85	5.944	0.0031	-2.5 to 2.5	Pass
		-20	3.85	6.194	0.0032	-2.5 to 2.5	Pass
		-10	3.85	5.236	0.0027	-2.5 to 2.5	Pass
		0	3.85	4.113	0.0022	-2.5 to 2.5	Pass
		10	3.85	6.280	0.0033	-2.5 to 2.5	Pass
30		3.85	5.286	0.0028	-2.5 to 2.5	Pass	
40		3.85	4.735	0.0025	-2.5 to 2.5	Pass	
50	3.85	5.357	0.0028	-2.5 to 2.5	Pass		

3. Modulation Characteristics

3.1 Band2

3.1.1 Test Result

Band: 2						
ENV	Mode		Frequency (MHz)	Modulation Characteristics		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1880	Refer To Test Graph		Pass
	HSDPA	Subtest 1	1880	Refer To Test Graph		Pass
	HSUPA	Subtest 1	1880	Refer To Test Graph		Pass

3.1.2 Test Graph

Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV

WCDMA UE Signaling 1 - V3.7.22 - Base V 3.7.160

Connection Status

Cell: HSDPA HSPA CM

Circuit Switched: Registered

Packet Switched: Connection Established

CMW Demod. Info: Power: Sync:

Event Log

11:45:54 Call Established

11:45:54 Test Loop Closed

11:45:53 PS Radiobearer Established

11:45:50 RRC Connection Established

11:45:47 Establish PS RMC Test Mode Call

11:45:46 RRC Connection Released

11:45:45 UE Registered and Attached

UE Measurement Report **On**

UTRA FDD (Current Cell)	Lower	Upper
CPICH RSCP [dBm]	-74	-73
CPICH Ec/No [dB]	-3.5	-3
Log10(TCH BLER)	0	0
Transmitted UE Power [dBm]	24	25
UE RX-TX Time Difference [Chip]	1023	1024
Pathloss [dB]	105	

Cell Setup

Band: **Band 2**

Downlink: 9800 Ch Uplink: 9400 Ch

Frequency: 1960.0 MHz 1880.0 MHz

Output Power: -70.00 dBm

Total Output: -70.00 dBm

Scrambling Code: 0 hex 0 hex

P-CPICH: -3.3 dB Code: 0

PS Domain: Reduced Signaling:

Connection Setup

Current Connection: **Test Mode**

Type: **RMC**

Domain: PS

Data Rate: DL 12.2 kbps UL 12.2 kbps

Test Mode: Loop Mode 2

Loop Mode 2:

Sym. UL CRC:

DL Resource in Use: 100 %

Data Pattern: PRBS9

WCDMA

WCDMA 1 TX Meas

WCDMA 1 RX Meas

Go to...

Routing

Signaling Parameter

WCDMA-UE Signaling

ON

Go To Local
Show Remote Screen

Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV

WCDMA UE TX Measurement - V3.7.22 - Base V 3.7.160

Multi Evaluation TPC Measurement PRACH DPCCH Open Loop Power Out-of-Sync Handling

UL Frequency: 1880.0000000 MHz Ref. Level: 34.00 dBm Connector: RF1COM Meas. Period: Full Slot

IQ

Statistic Count

20 / 20

1st Measured Slot No	0
Statistics @ Pre. ...	CurrentStdDev
Power [dBm]	21.32 0.15
Power Steps [dB]	NCAP NCAP
EVM RMS [%]	9.55 0.45
EVM Peak [%]	58.69 2.79
Magn. Error RMS [%]	9.34 0.46
Magn. Error Peak [%]	58.67 2.78
Phase Error RMS [°]	2.85 0.52
Phase Error Peak [°]	-103.04 41.72
IQ Origin Offset [dB]	-55.96 4.36
IQ Imbalance [dB]	-72.52 4.90
CF Error [Hz]	-2.68 2.64
Phase Disc. [°]	NCAP

WCDMA

Multi Evaluation

RDY

RF Settings

Trigger

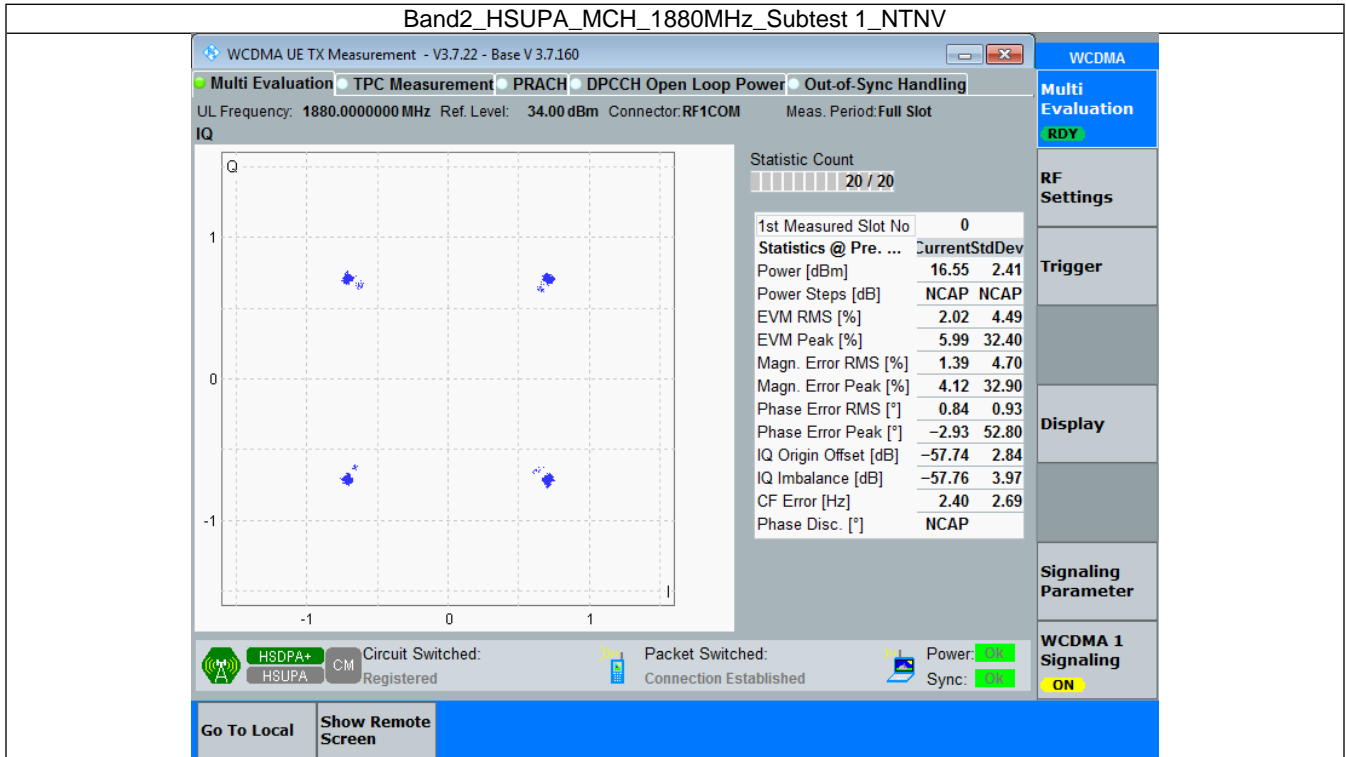
Display

Signaling Parameter

WCDMA 1 Signaling

ON

Go To Local
Show Remote Screen



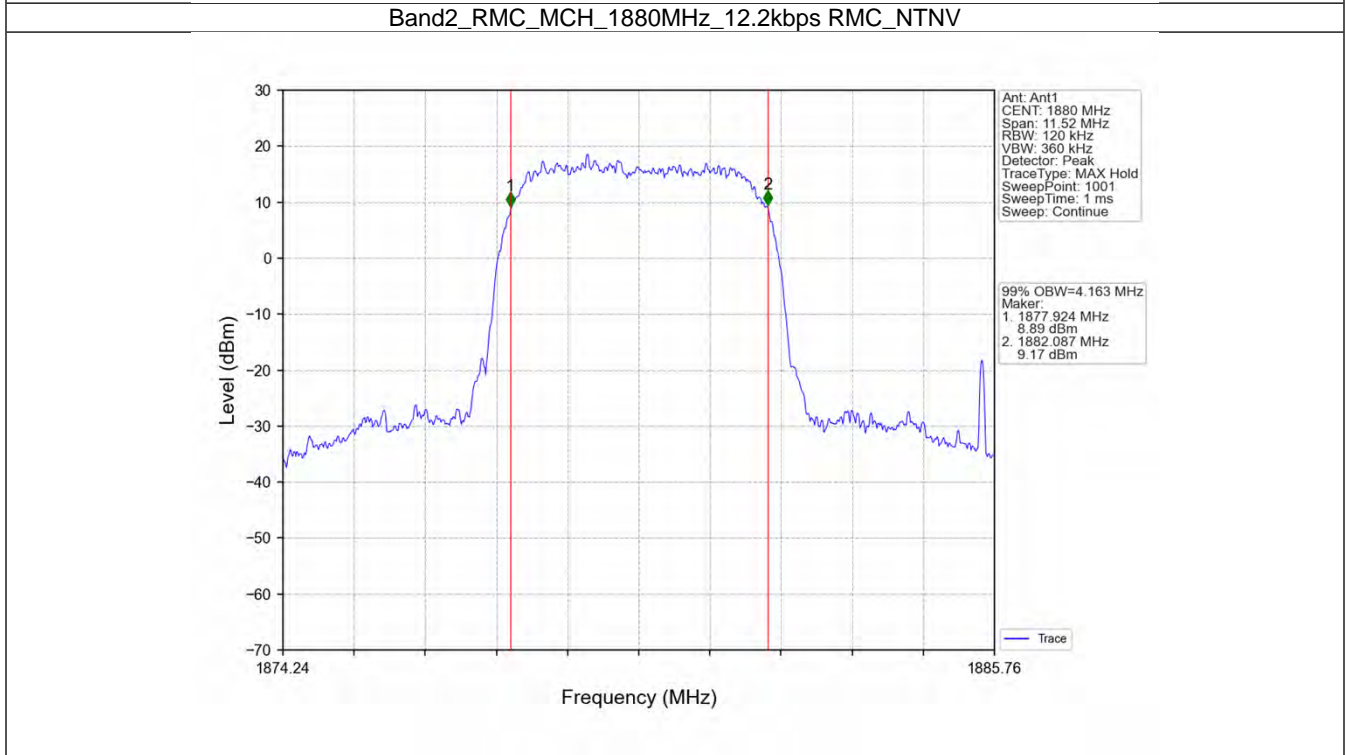
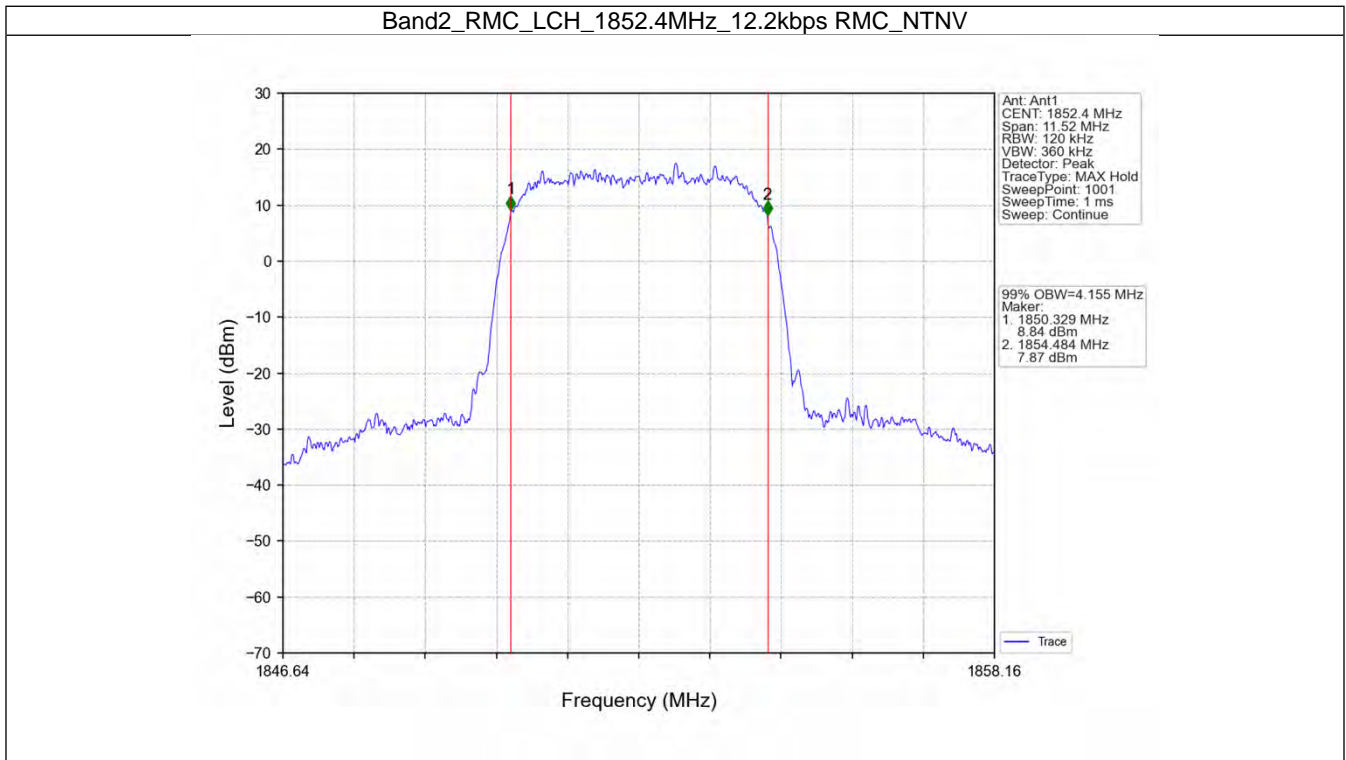
4. 99% & 26dB Bandwidth

4.1 Band2_OBW

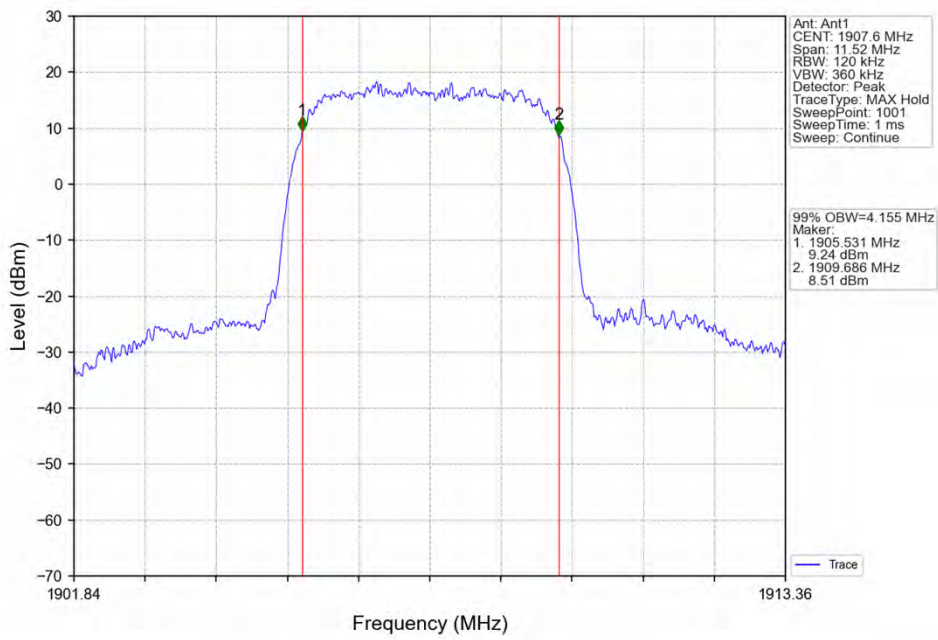
4.1.1 Test Result

Band: 2					
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	RMC	12.2kbps RMC	1852.4	4.155	Pass
			1880	4.163	Pass
			1907.6	4.155	Pass
	HSDPA	Subtest 1	1852.4	4.181	Pass
			1880	4.190	Pass
			1907.6	4.179	Pass
	HSUPA	Subtest 1	1852.4	4.192	Pass
			1880	4.196	Pass
			1907.6	4.183	Pass

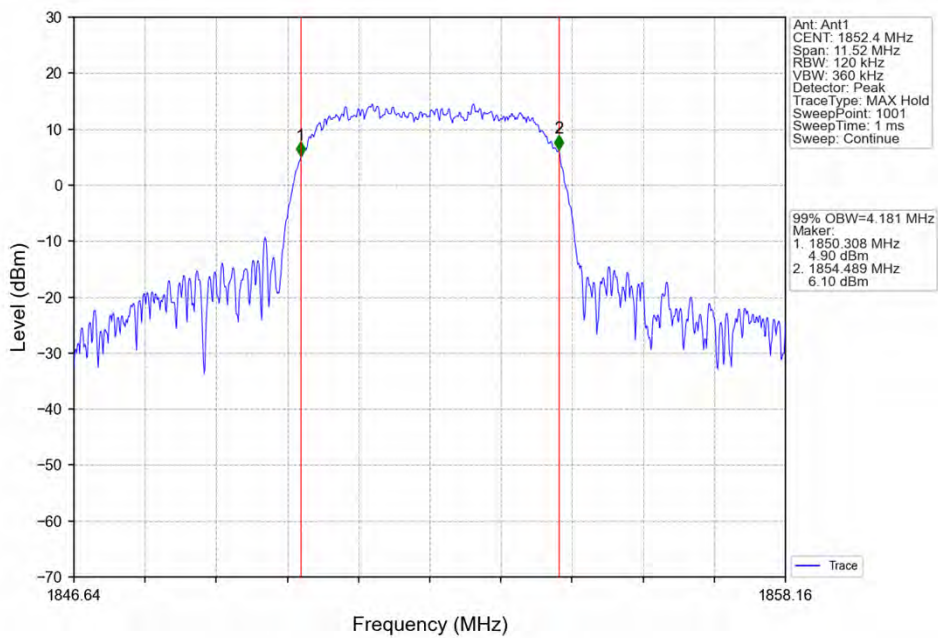
4.1.2 Test Graph



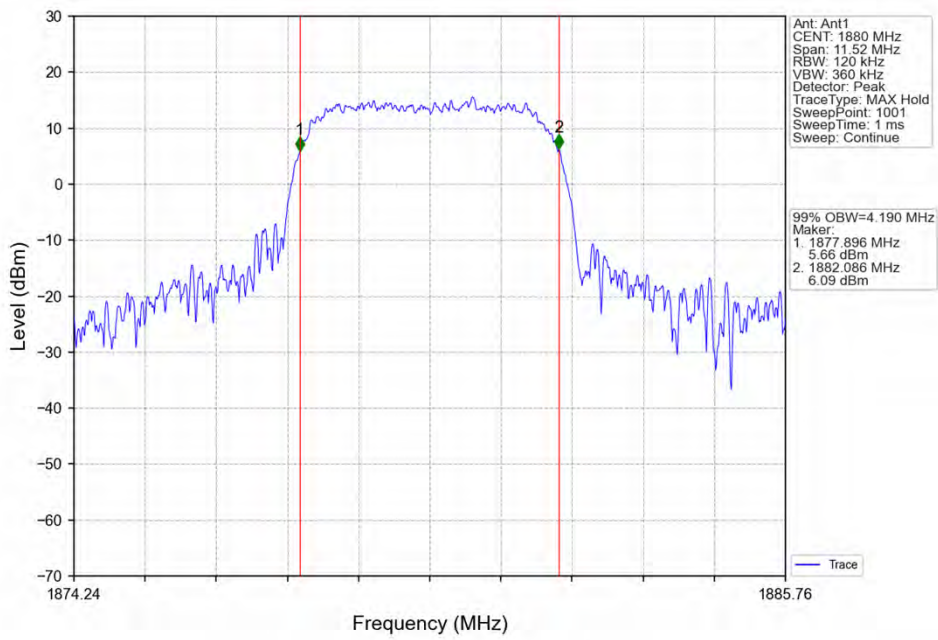
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



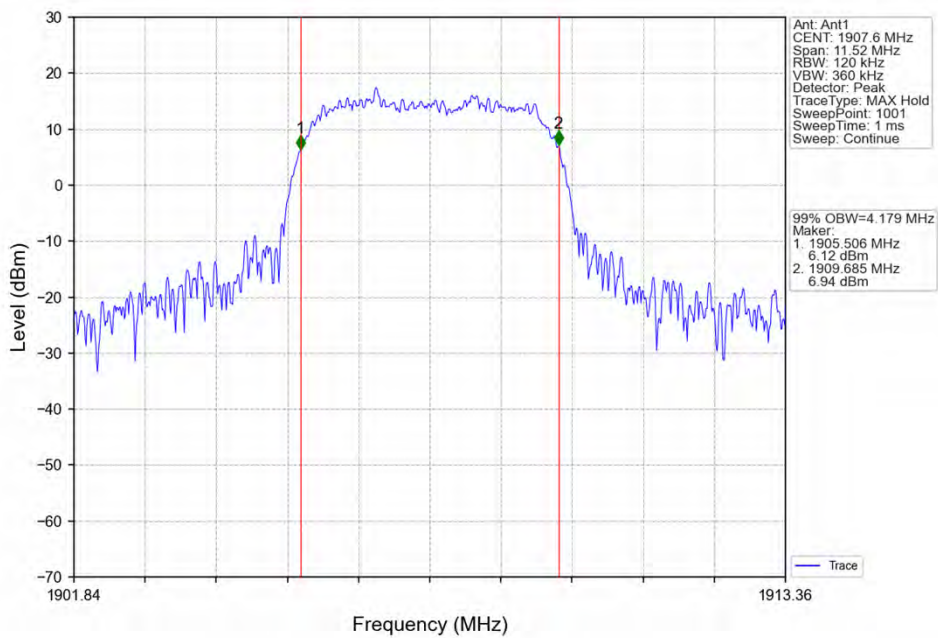
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



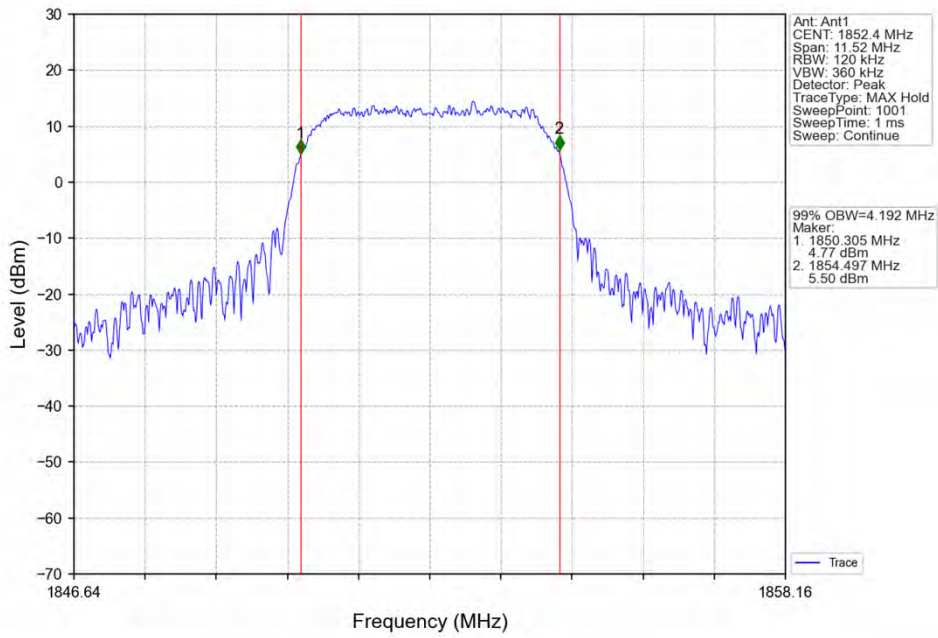
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



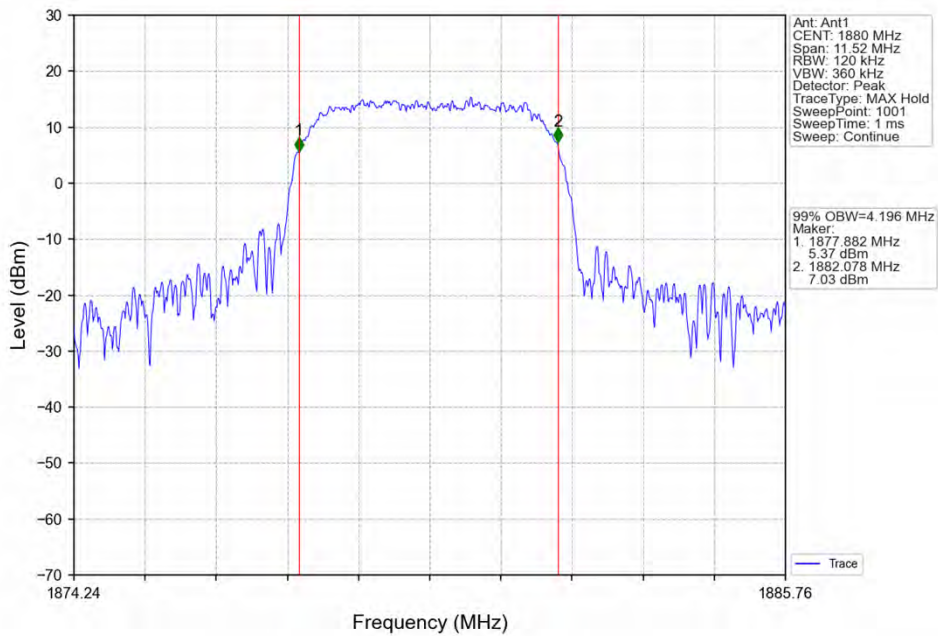
Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



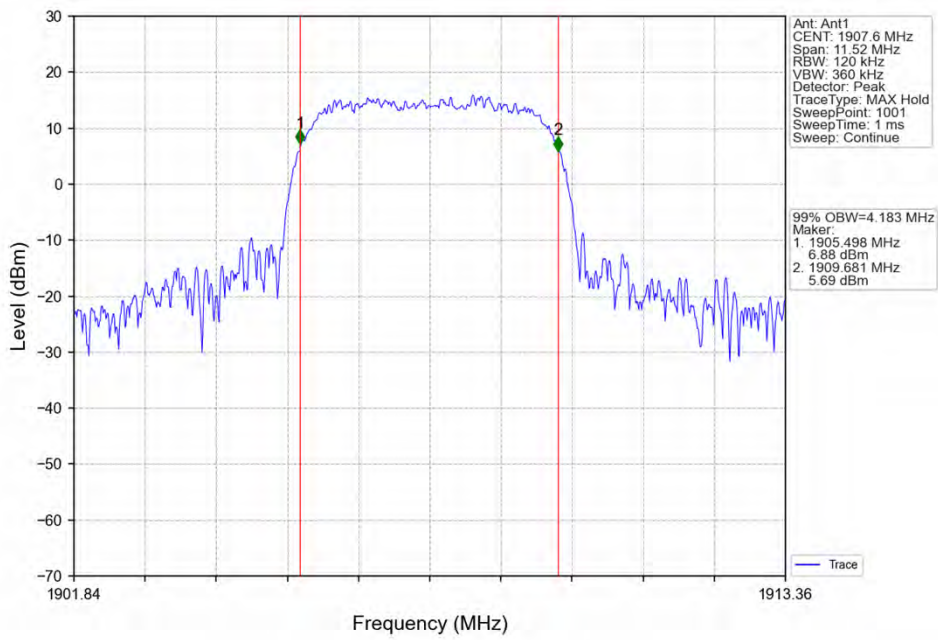
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV



Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV

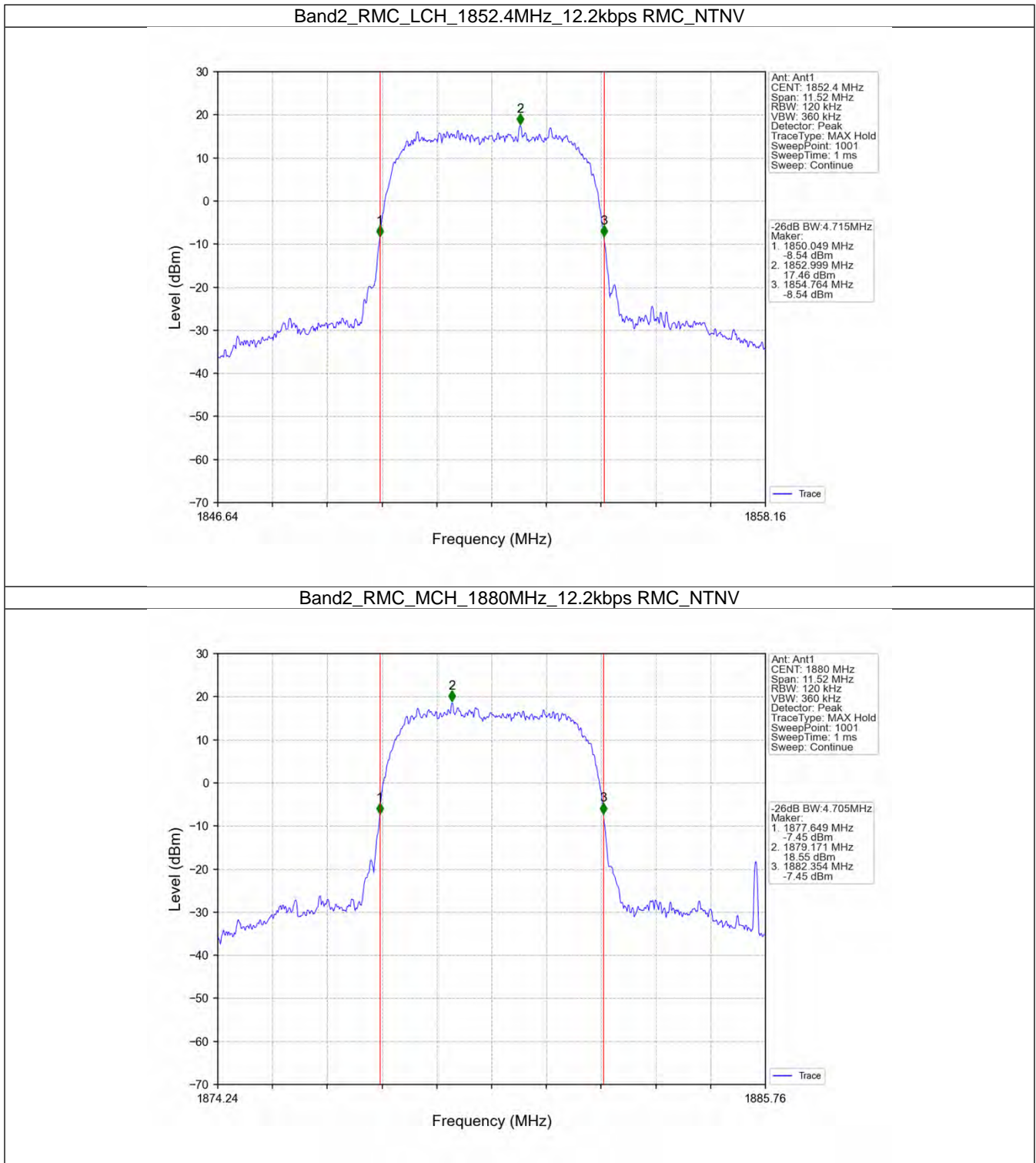


4.2 Band2_XDB

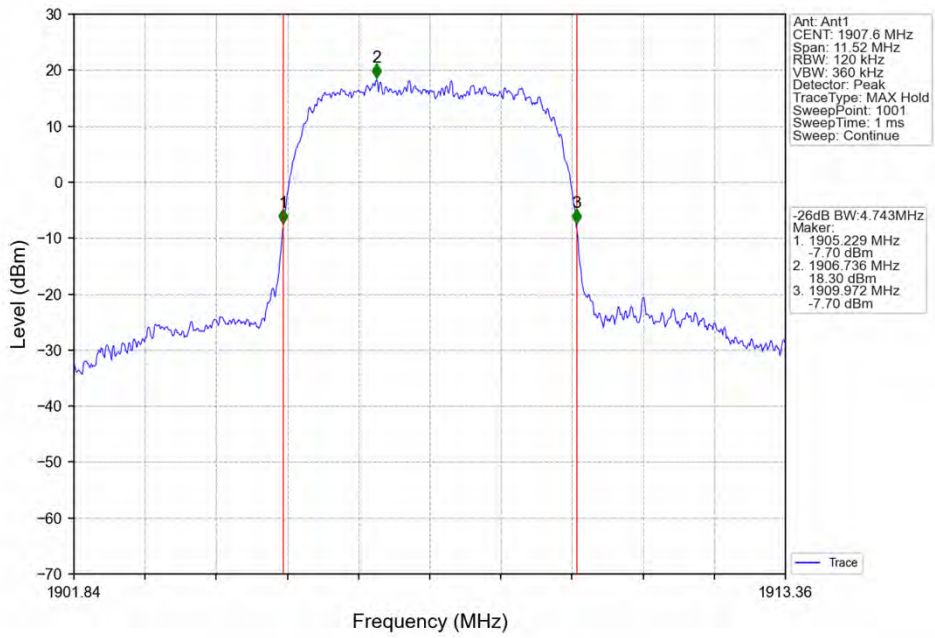
4.2.1 Test Result

Band: 2					
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz) Result	Verdict
	Network	Subset			
NTNV	RMC	12.2kbps RMC	1852.4	4.715	Pass
			1880	4.705	Pass
			1907.6	4.743	Pass
	HSDPA	Subtest 1	1852.4	5.057	Pass
			1880	5.195	Pass
			1907.6	4.936	Pass
	HSUPA	Subtest 1	1852.4	5.327	Pass
			1880	5.147	Pass
			1907.6	5.401	Pass

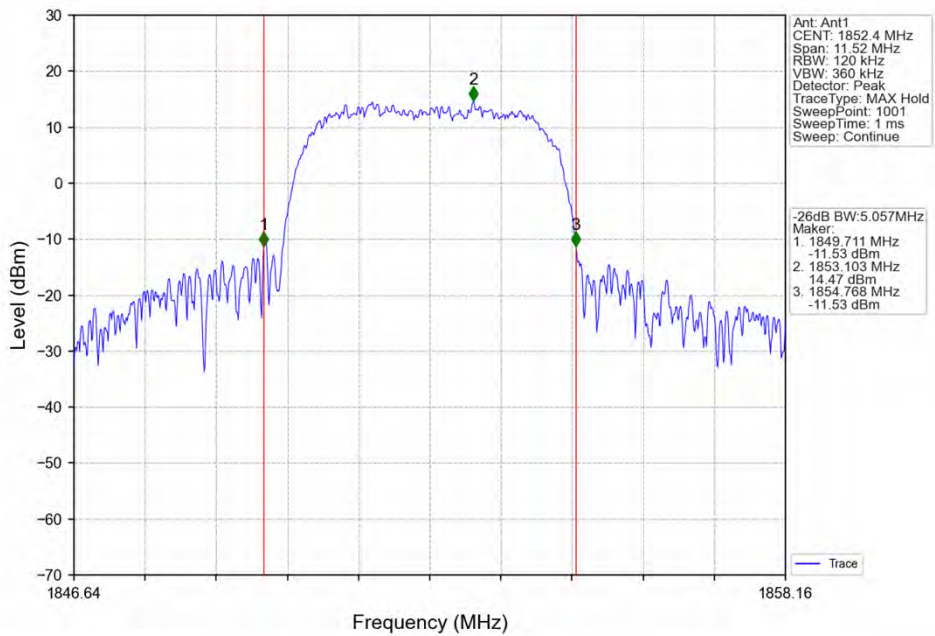
4.2.2 Test Graph



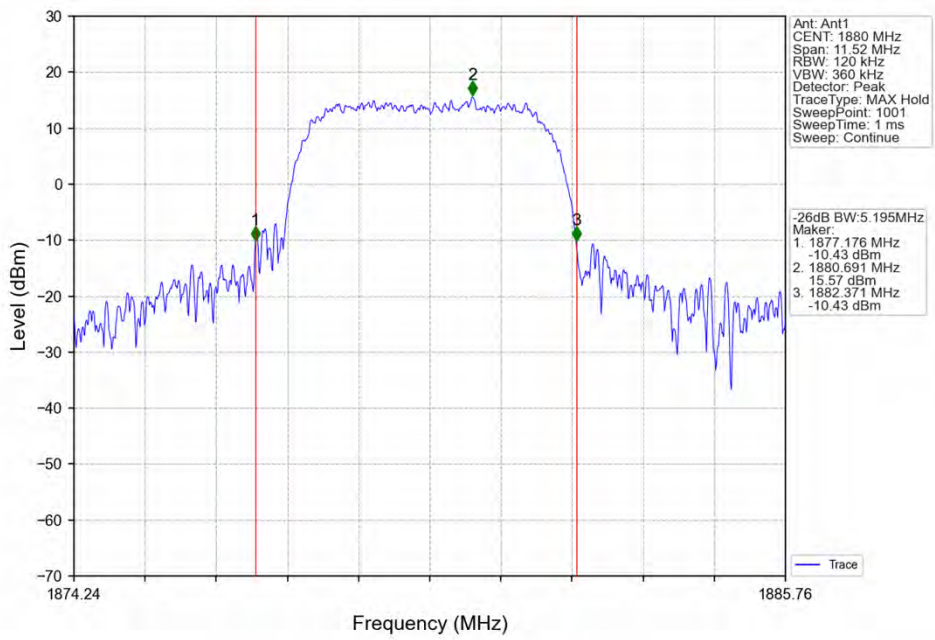
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



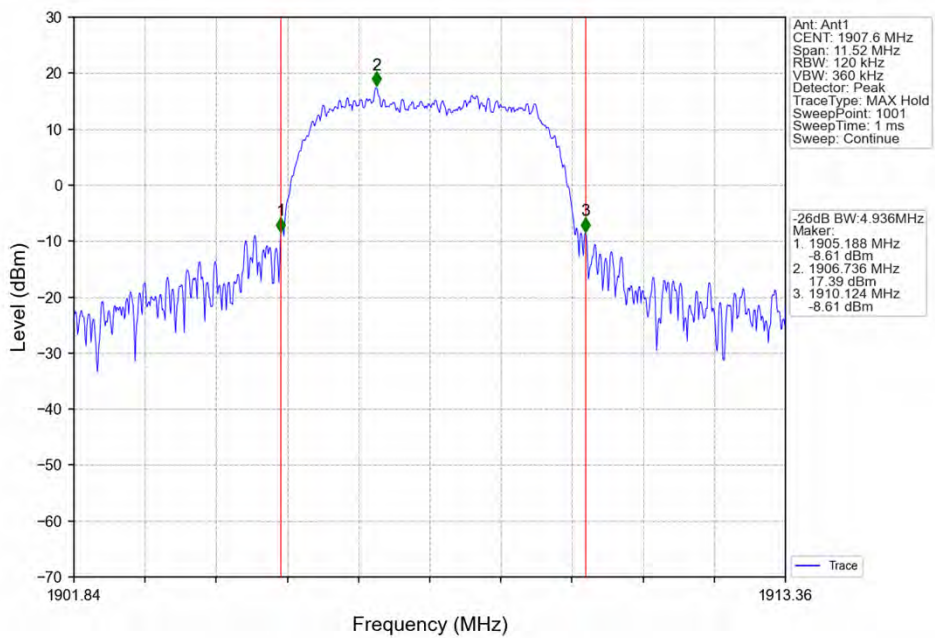
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



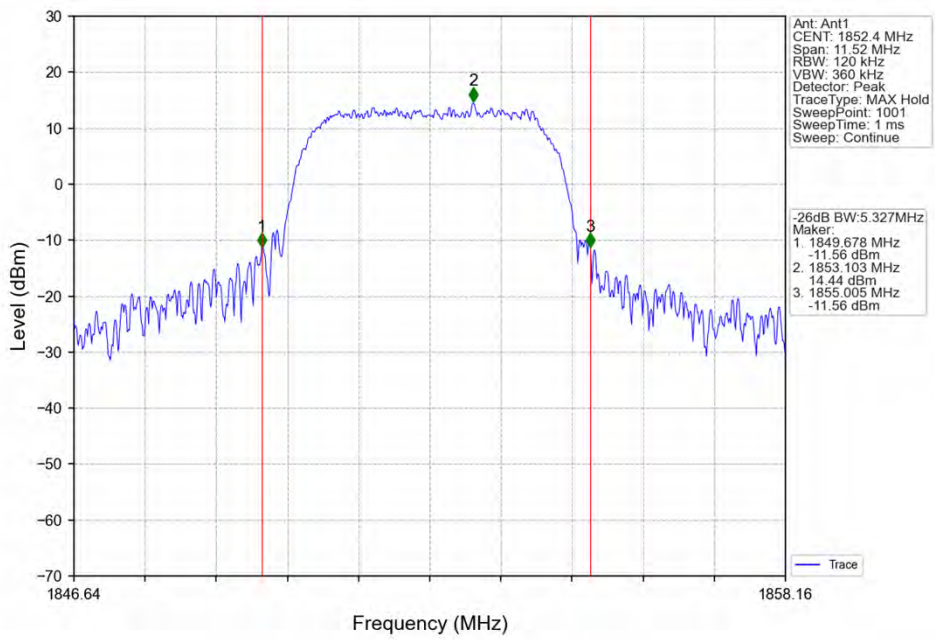
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



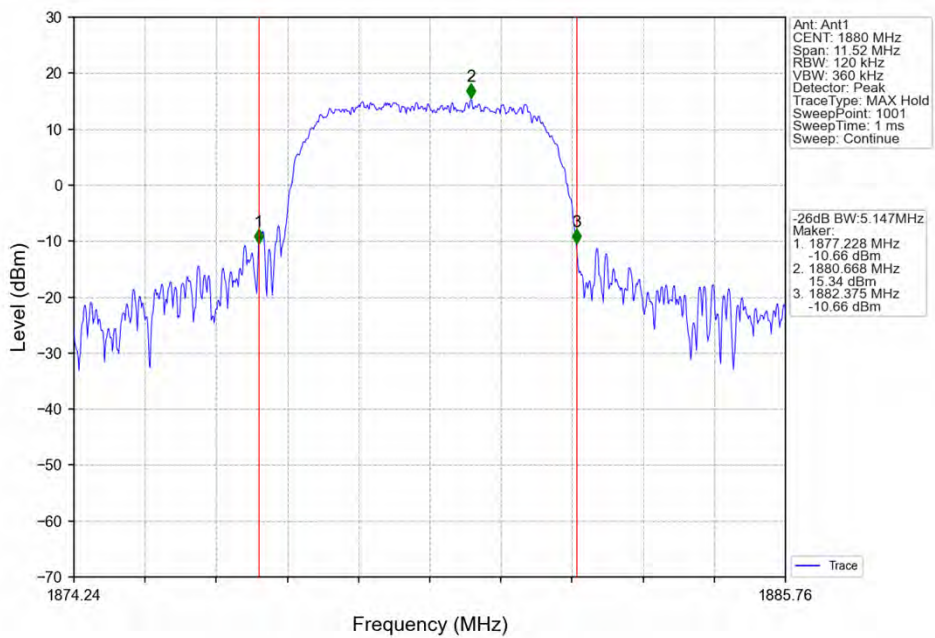
Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



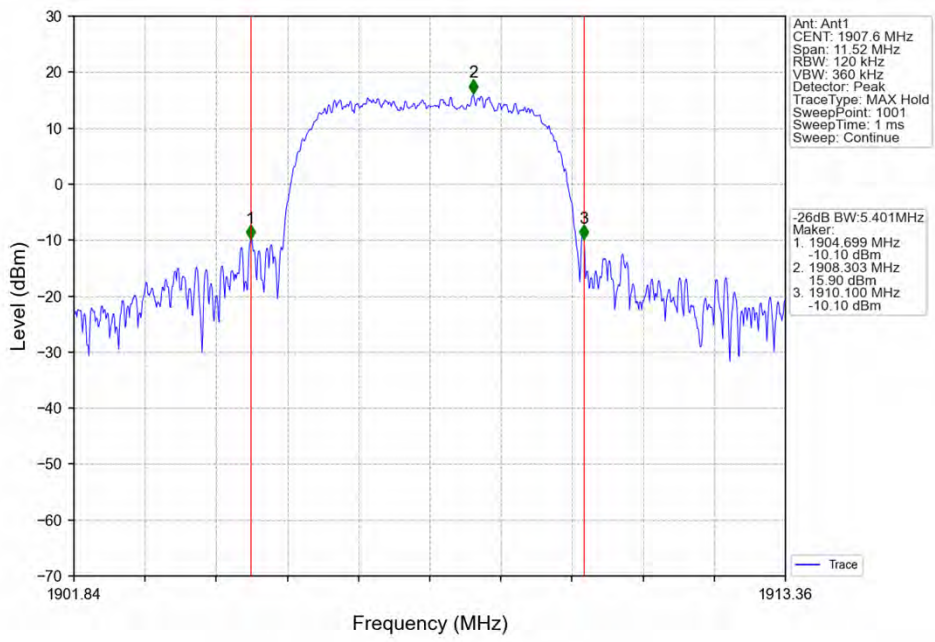
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV



Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



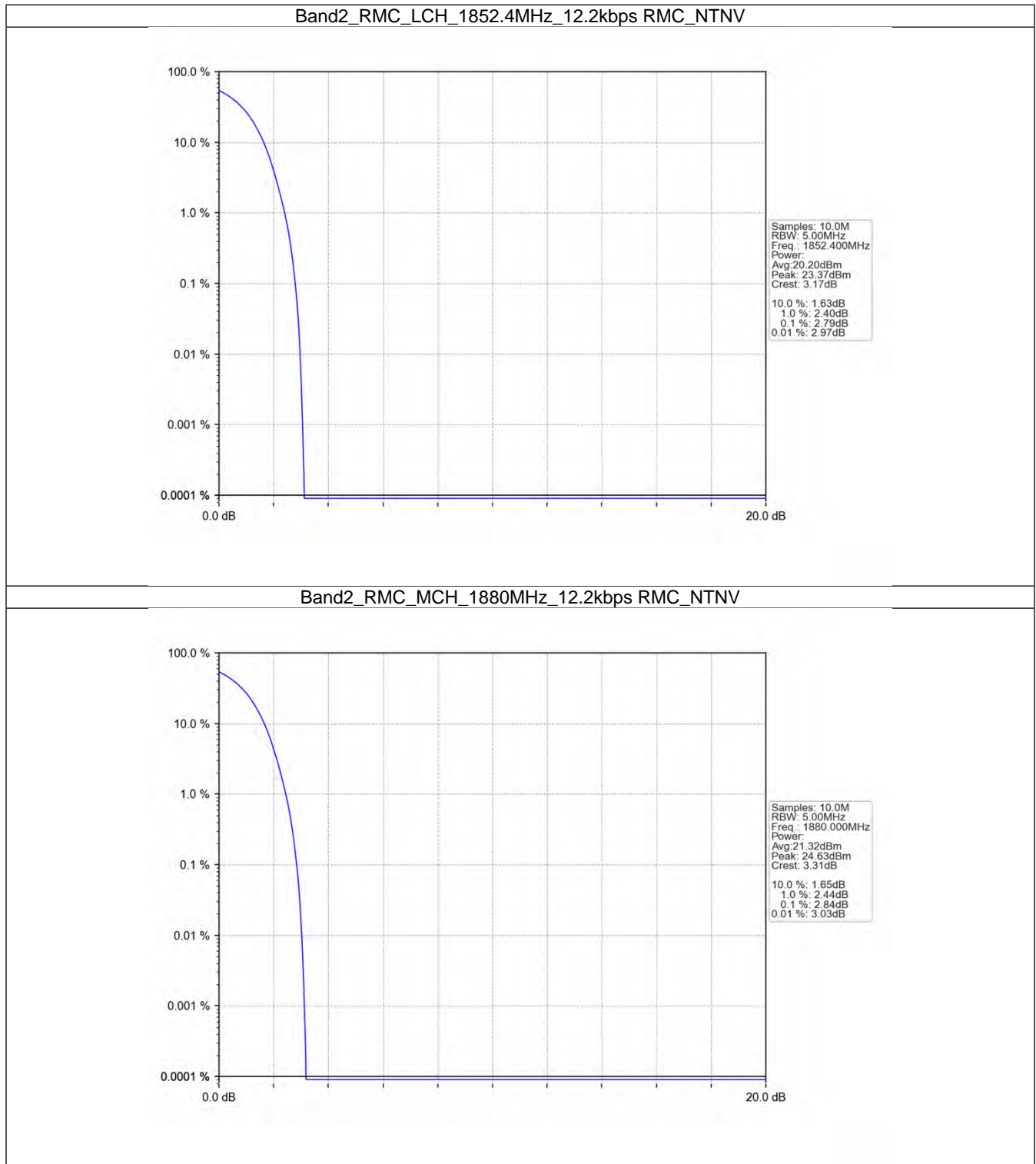
5. Peak-Average Ratio

5.1 Band2

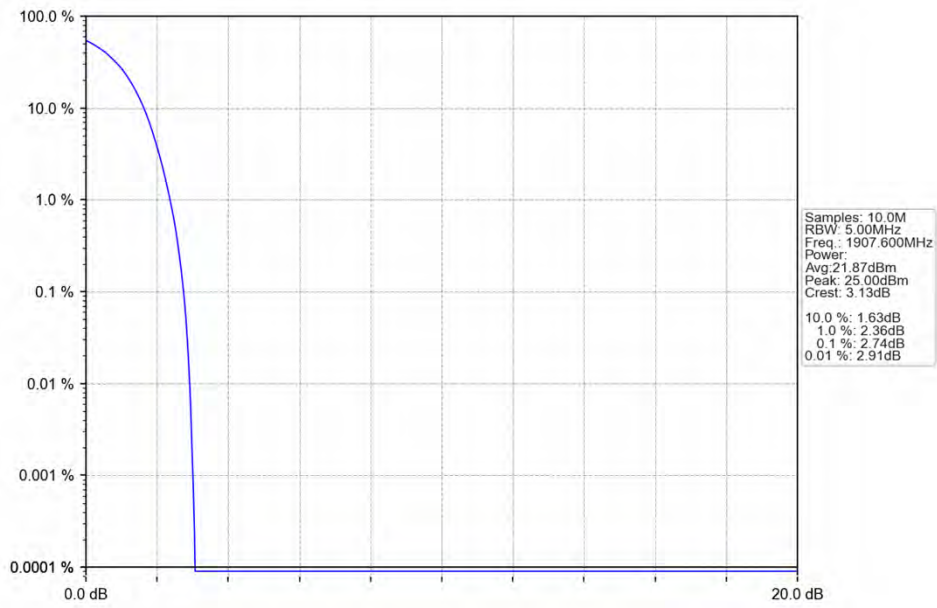
5.1.1 Test Result

Band: 2						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1852.4	2.79	<=13	Pass
			1880	2.84	<=13	Pass
			1907.6	2.74	<=13	Pass
	HSDPA	Subtest 1	1852.4	5.84	<=13	Pass
			1880	5.60	<=13	Pass
			1907.6	5.64	<=13	Pass
	HSUPA	Subtest 1	1852.4	5.60	<=13	Pass
			1880	5.68	<=13	Pass
			1907.6	5.63	<=13	Pass

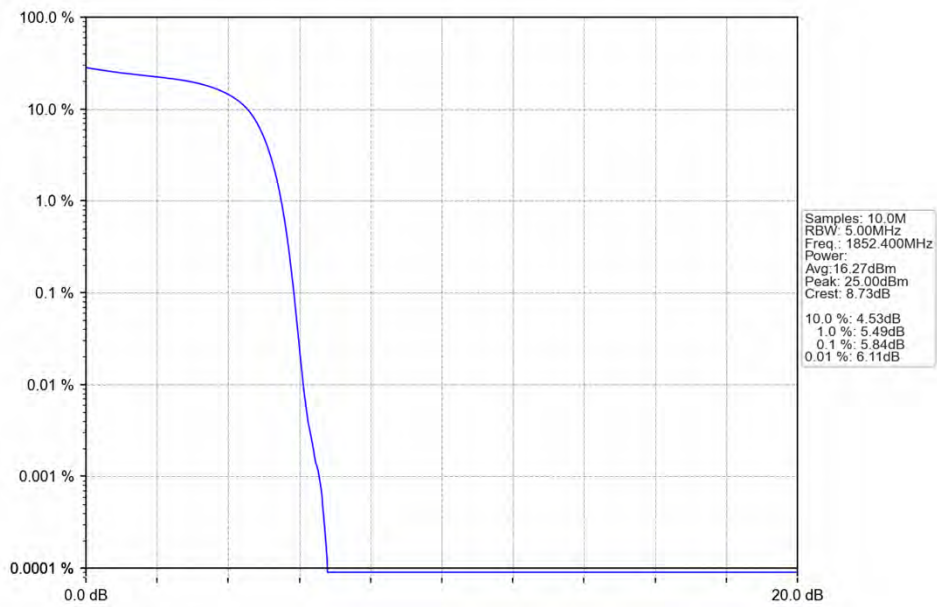
5.1.2 Test Graph



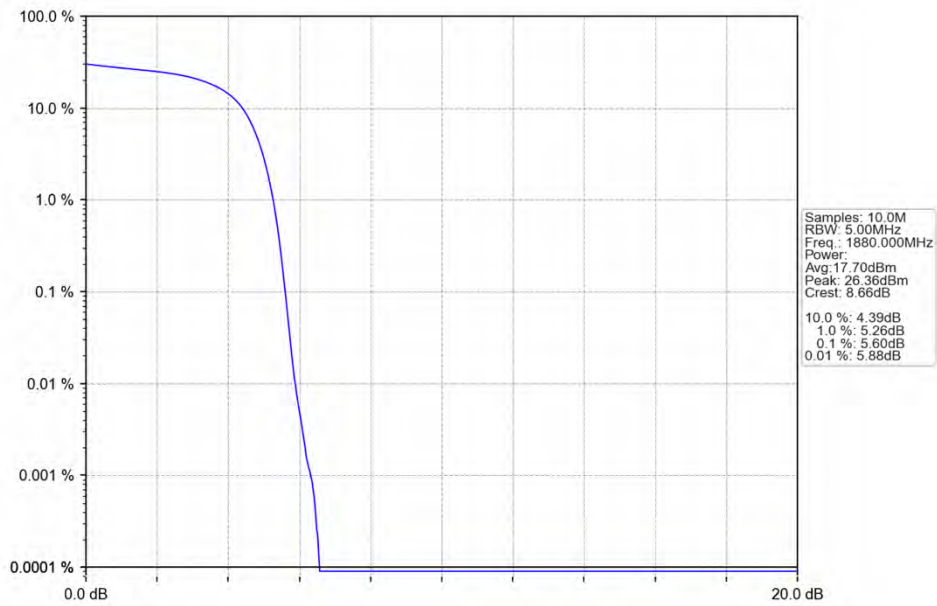
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



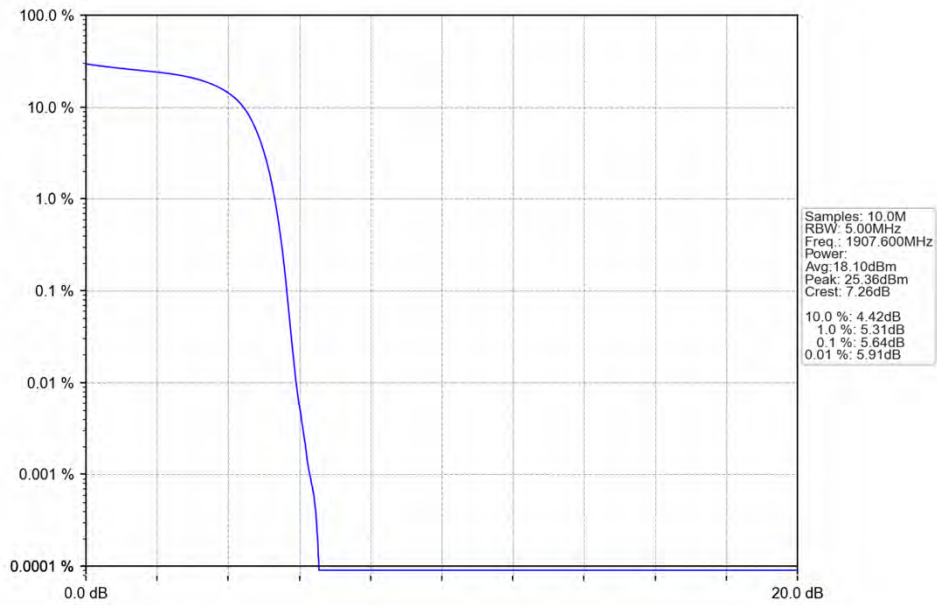
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



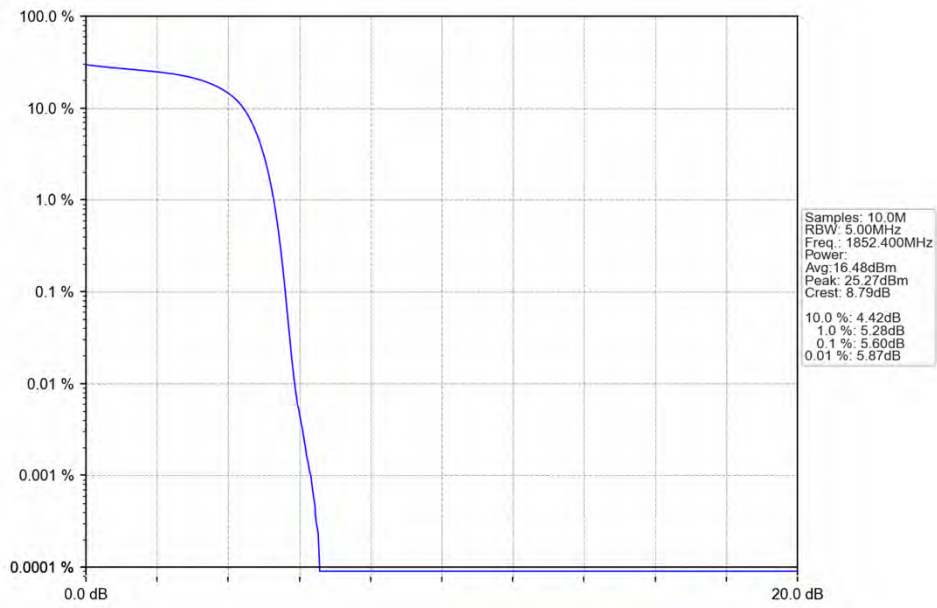
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



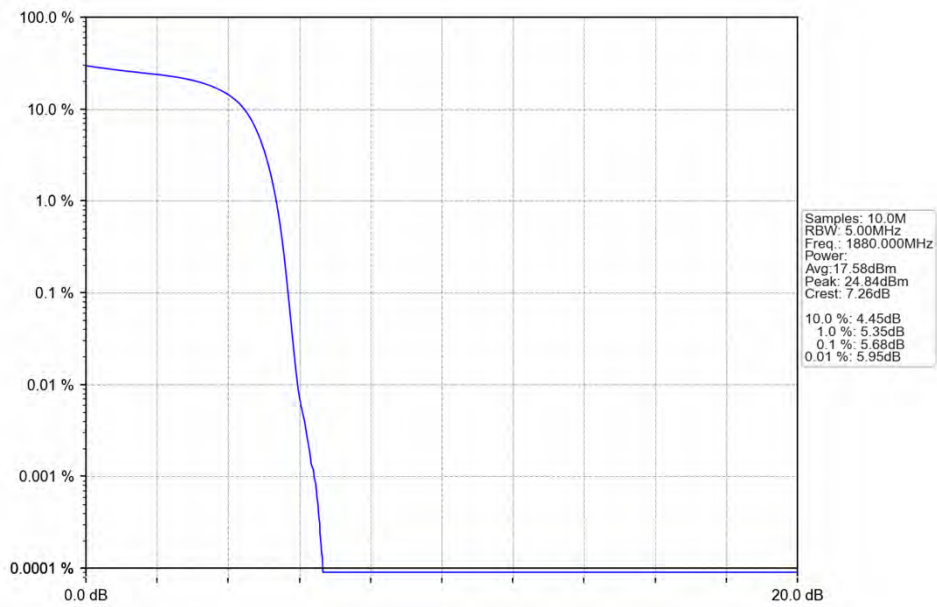
Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



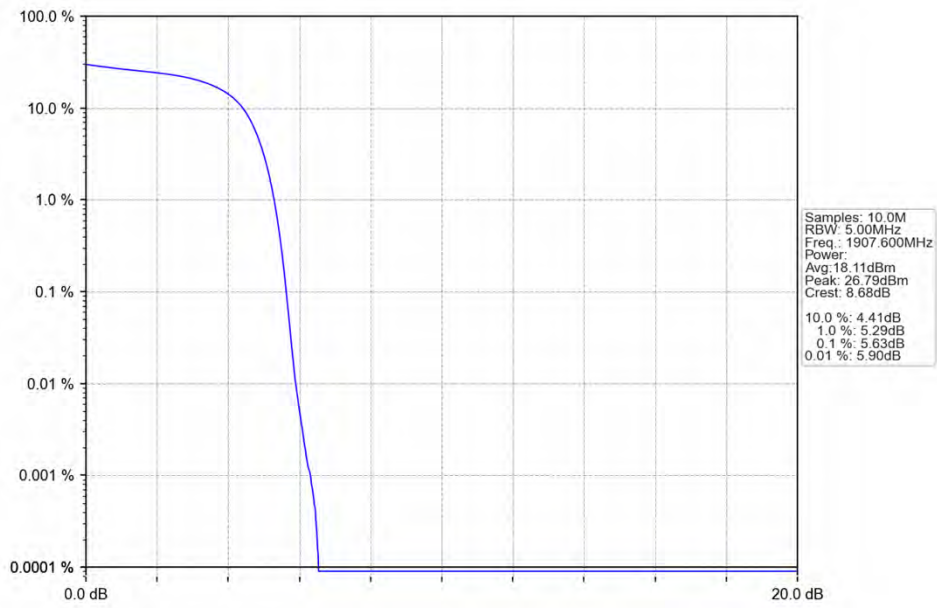
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV



Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



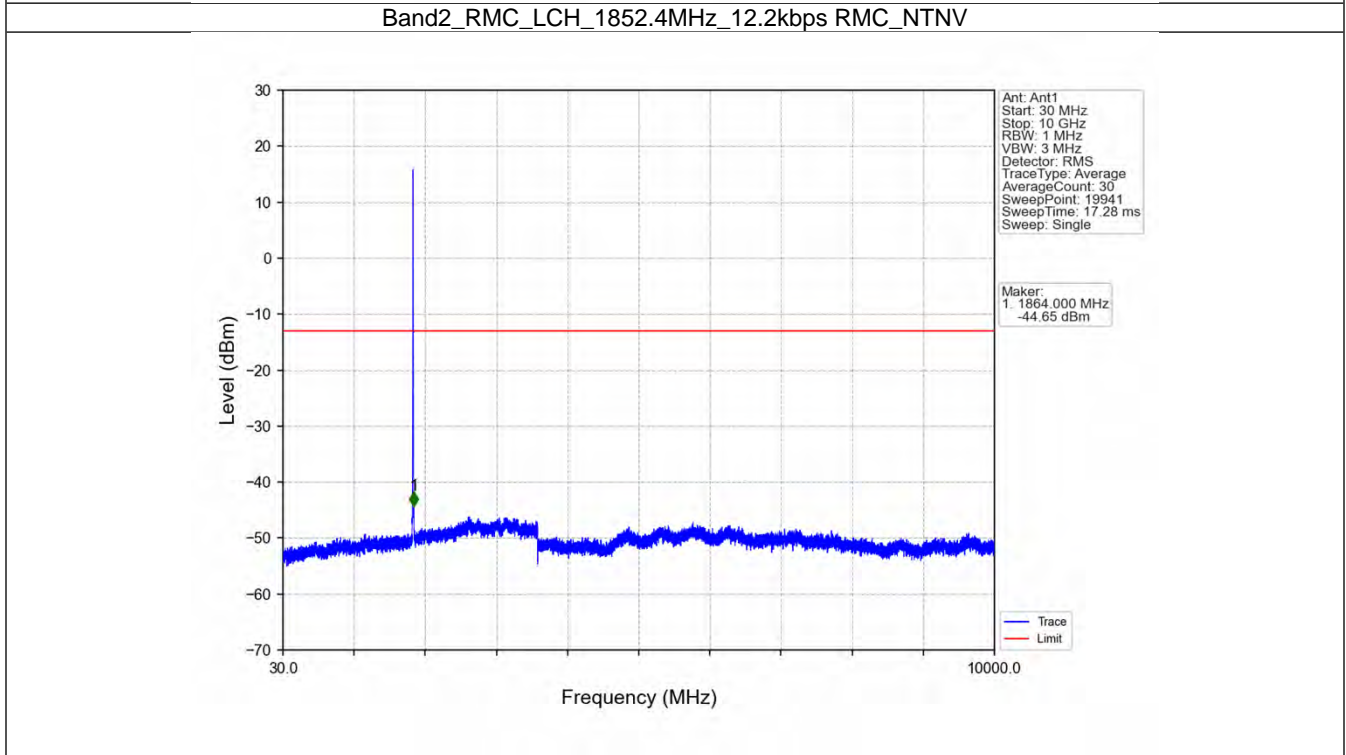
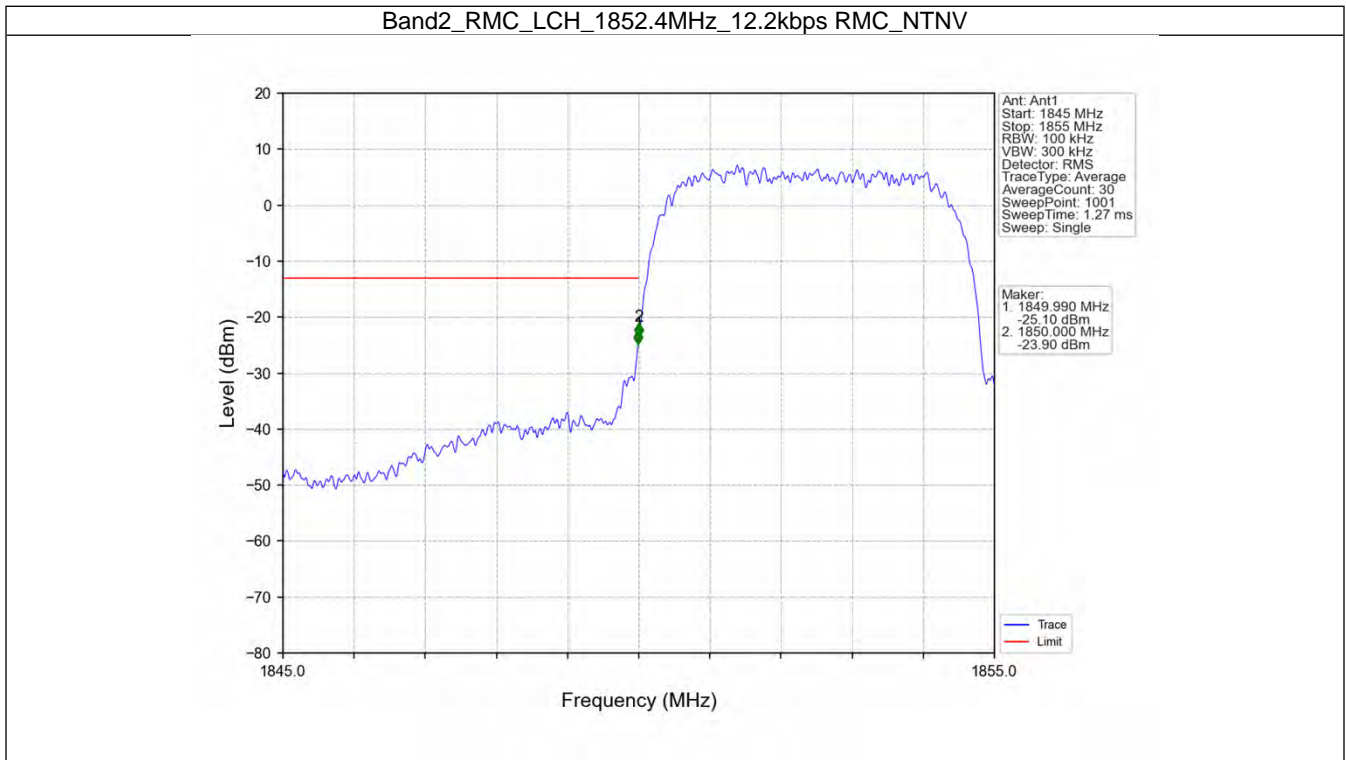
6. Spurious Emission

6.1 Band2

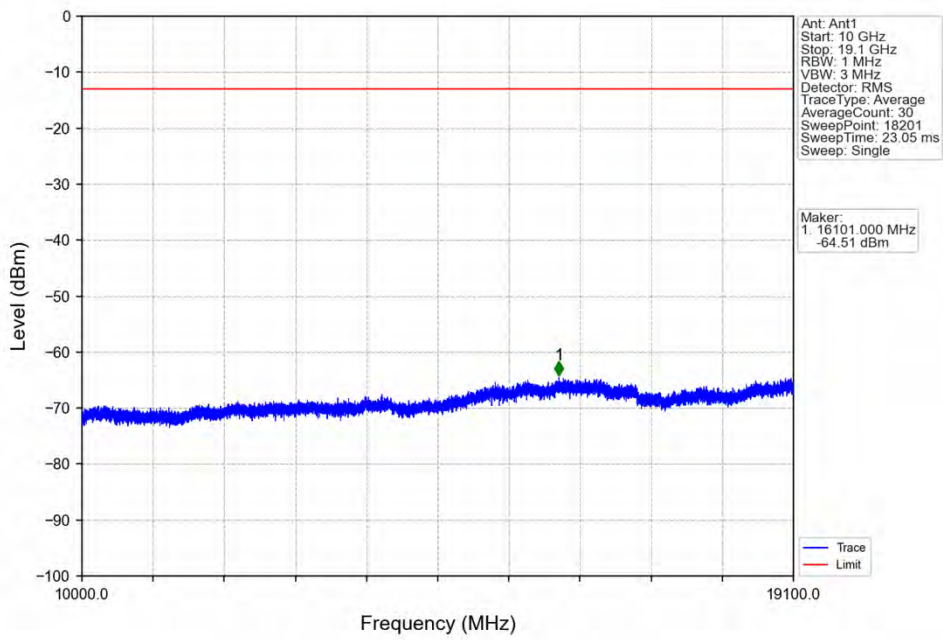
6.1.1 Test Result

Band: 2						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1852.4	Refer To Test Graph		Pass
			1880	Refer To Test Graph		Pass
			1907.6	Refer To Test Graph		Pass
	HSDPA	Subtest 1	1852.4	Refer To Test Graph		Pass
			1880	Refer To Test Graph		Pass
			1907.6	Refer To Test Graph		Pass
	HSUPA	Subtest 1	1852.4	Refer To Test Graph		Pass
			1880	Refer To Test Graph		Pass
			1907.6	Refer To Test Graph		Pass

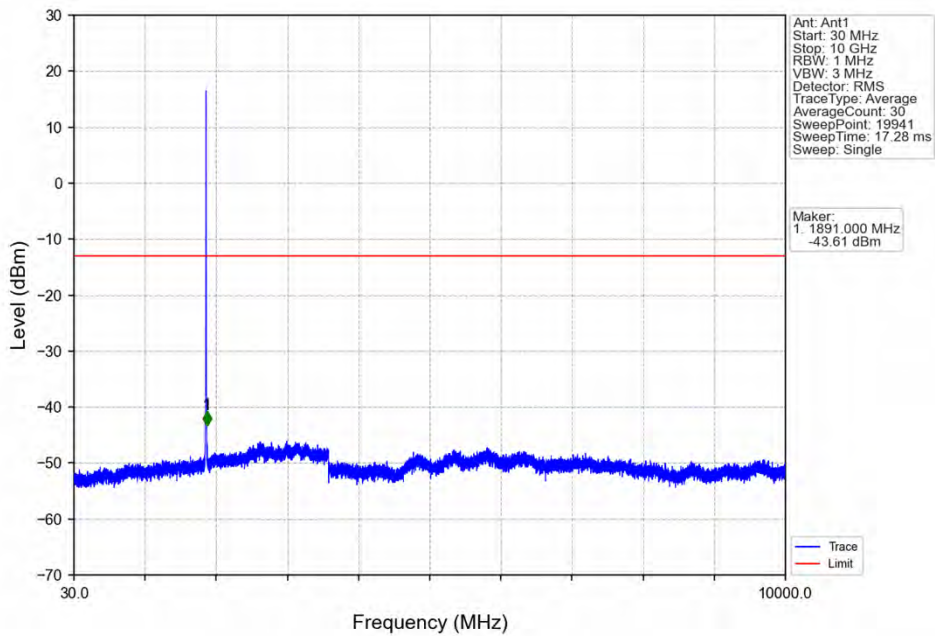
6.1.2 Test Graph



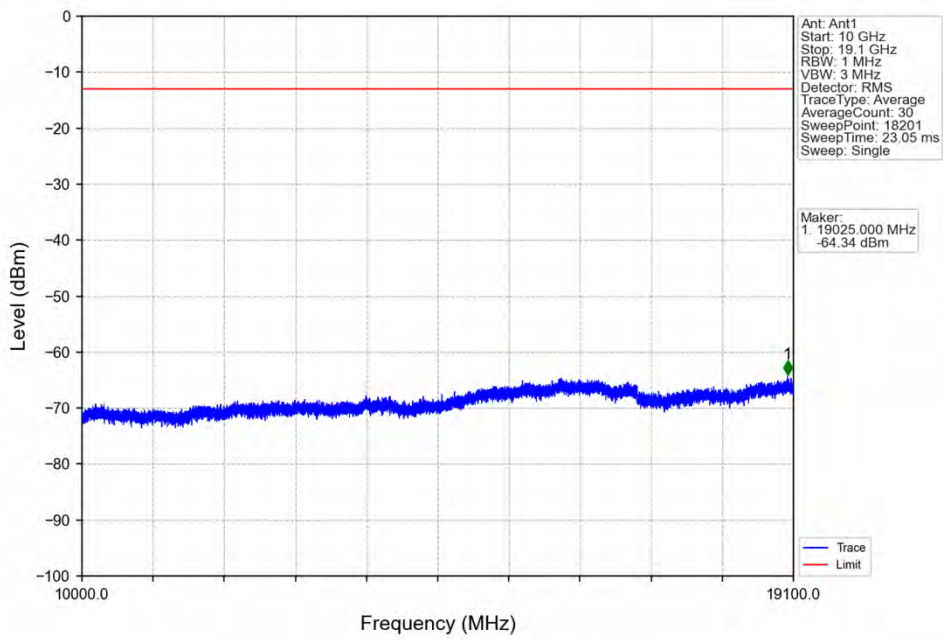
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



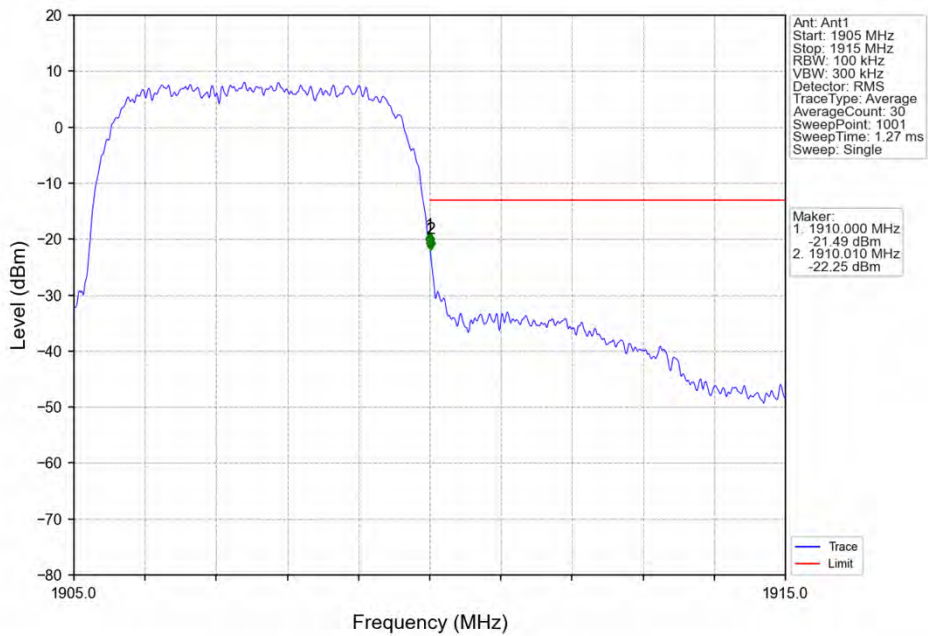
Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



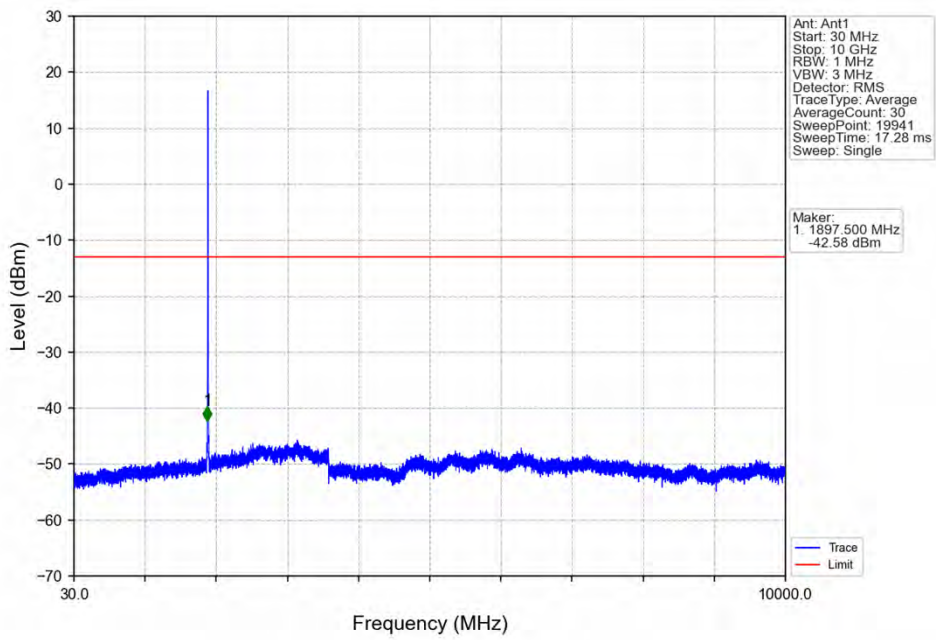
Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



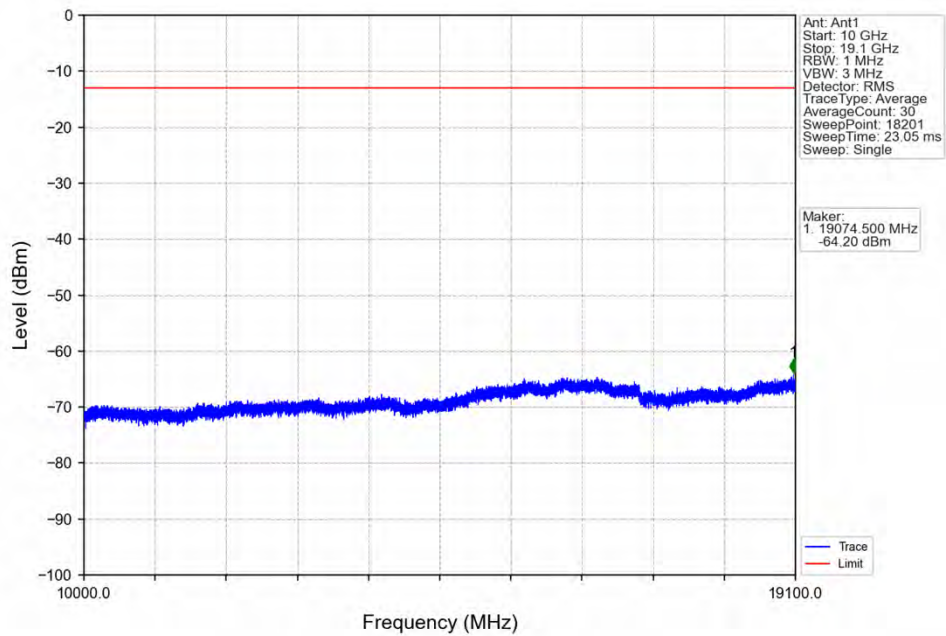
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



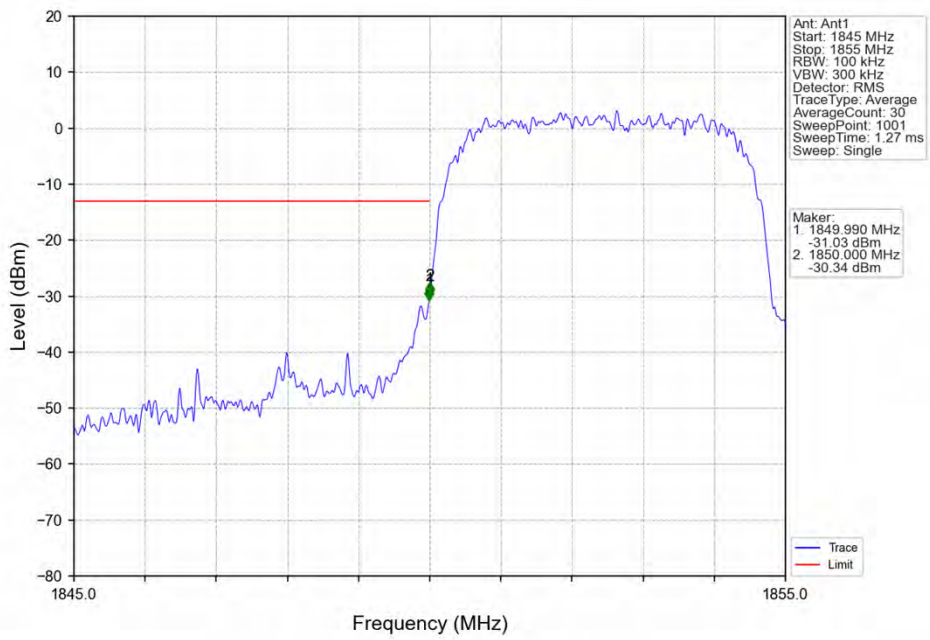
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



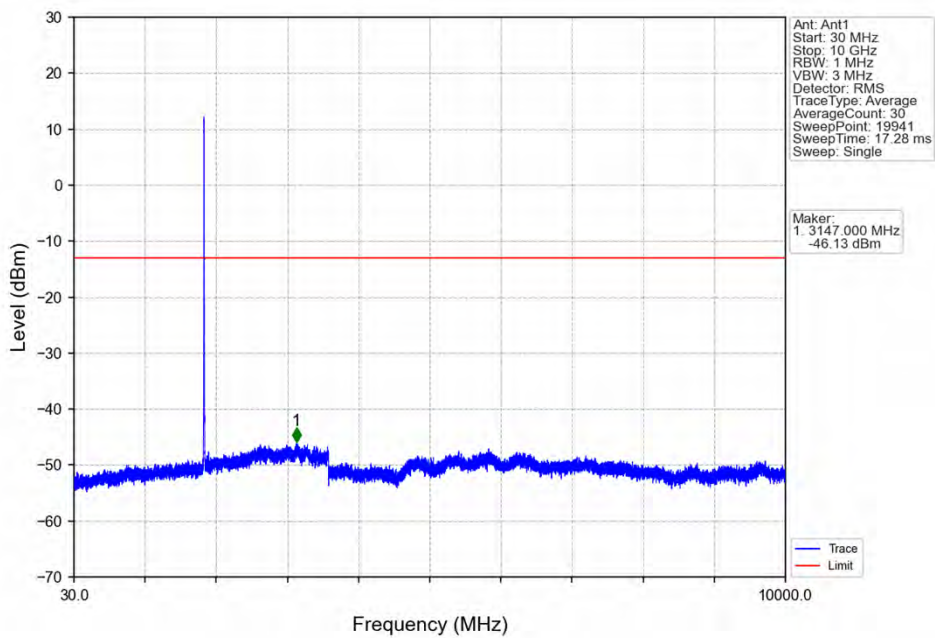
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



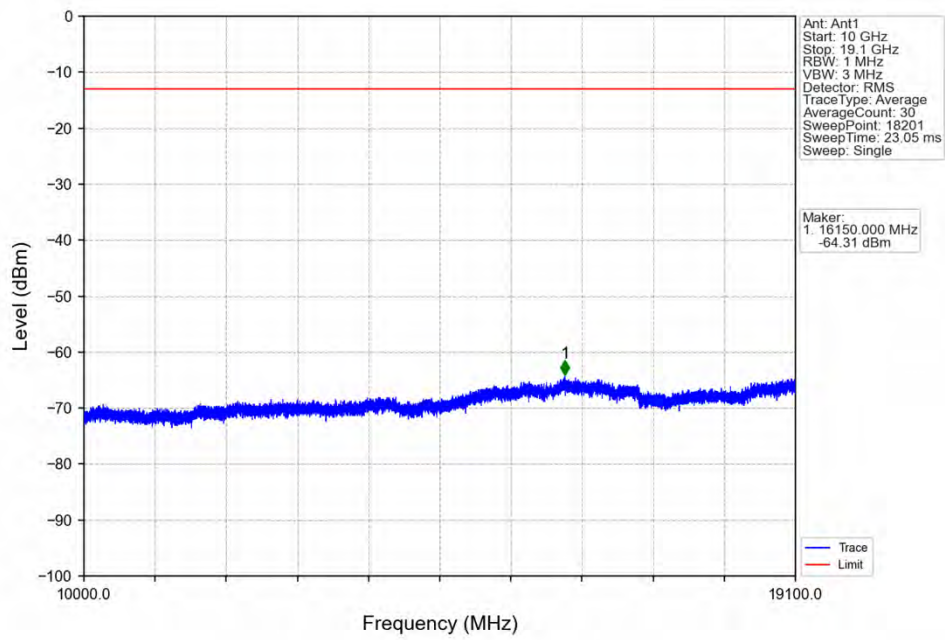
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



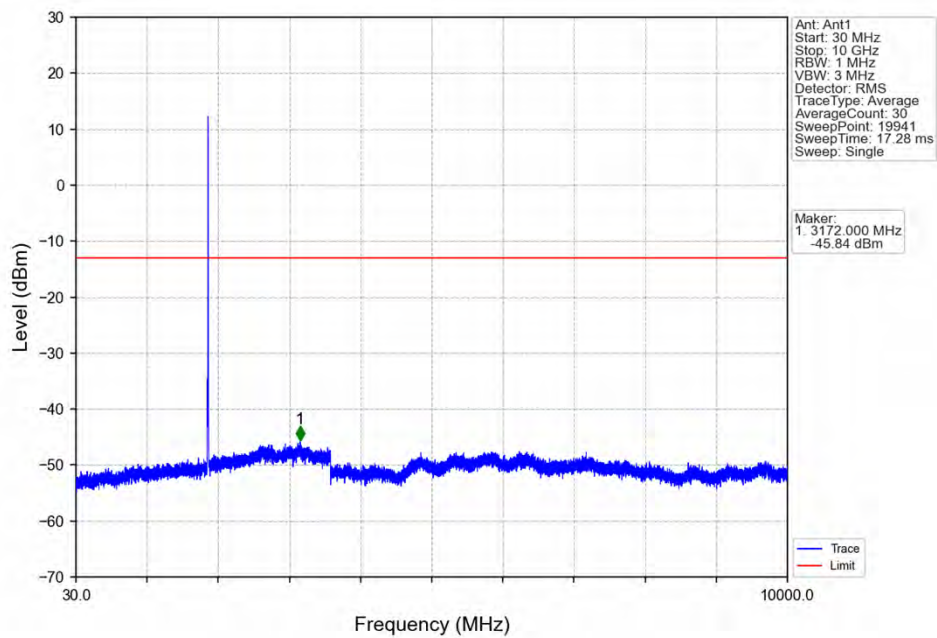
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



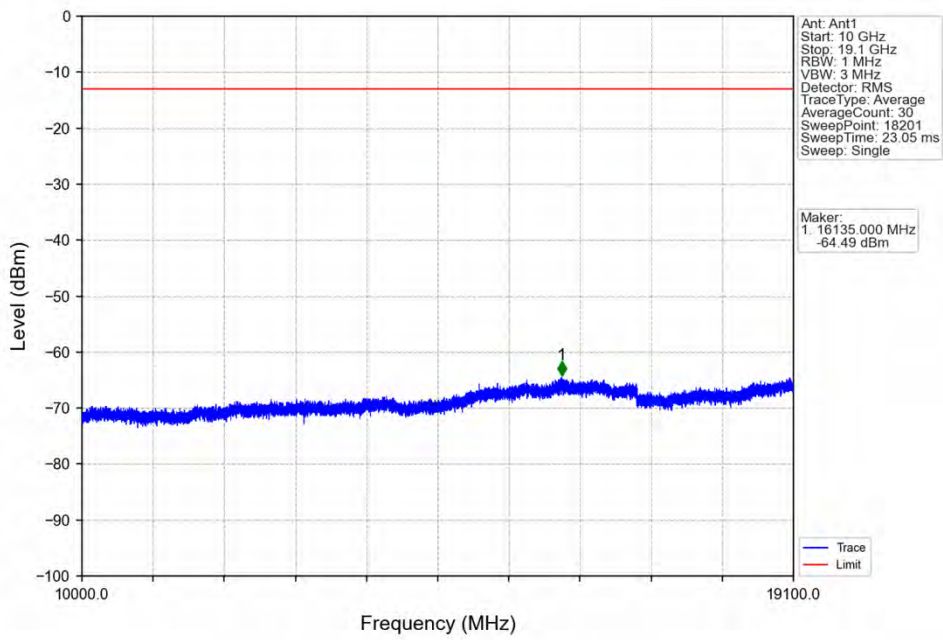
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



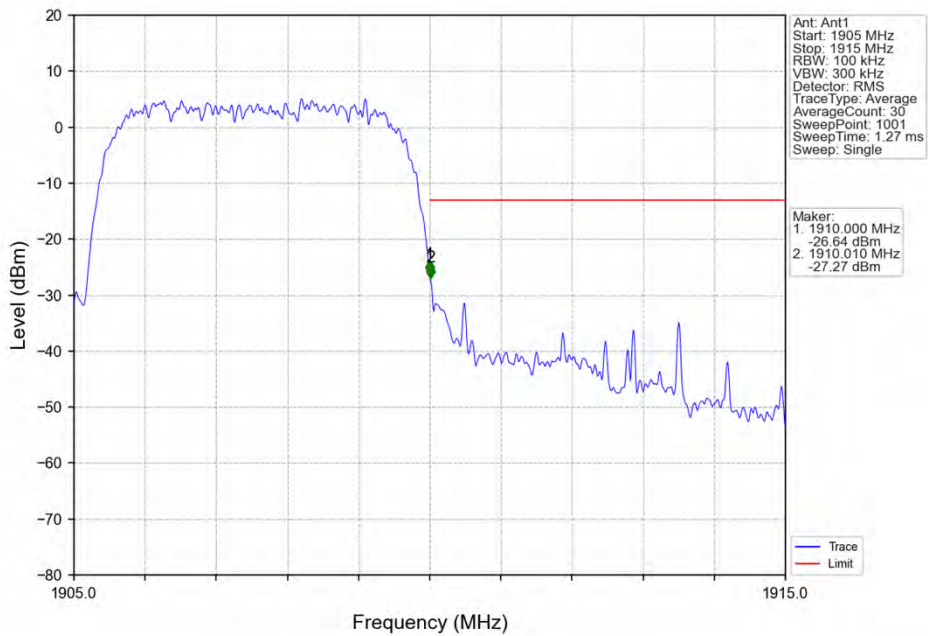
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



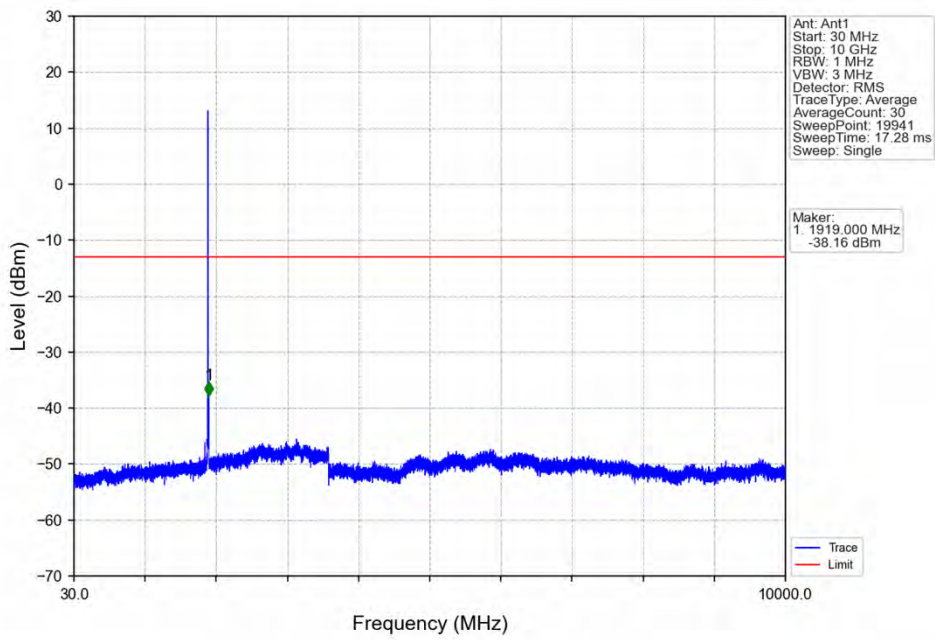
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



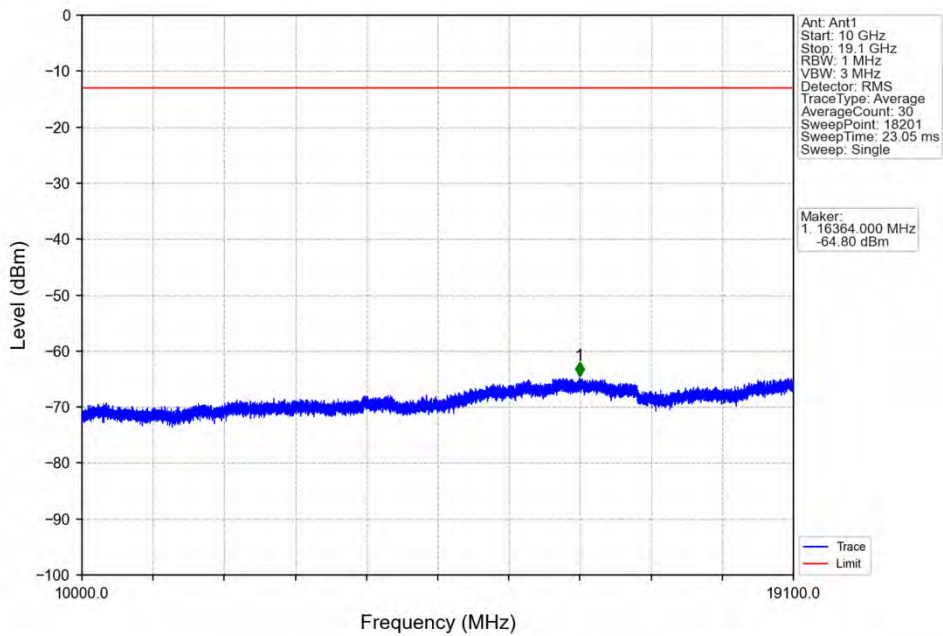
Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



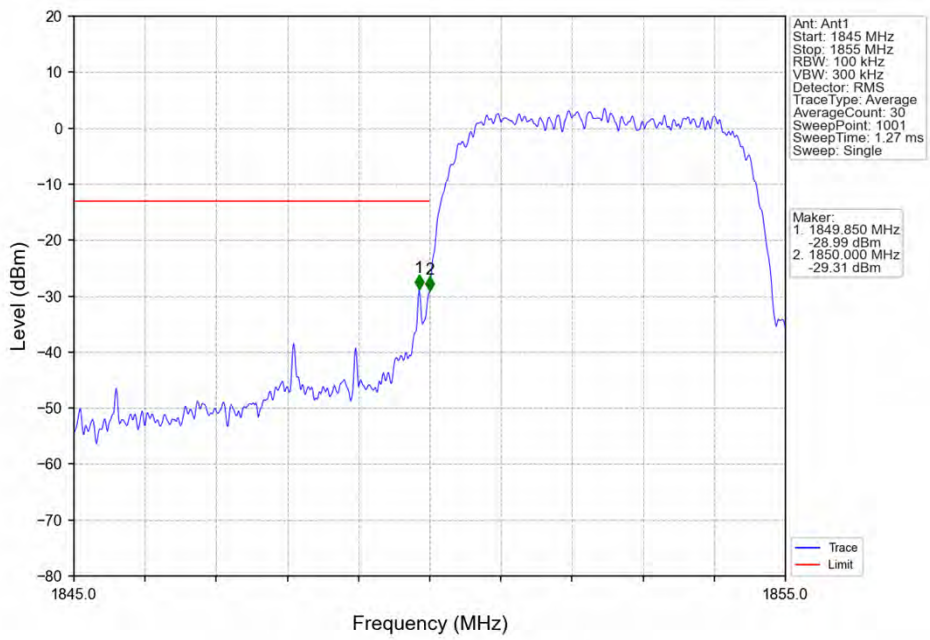
Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



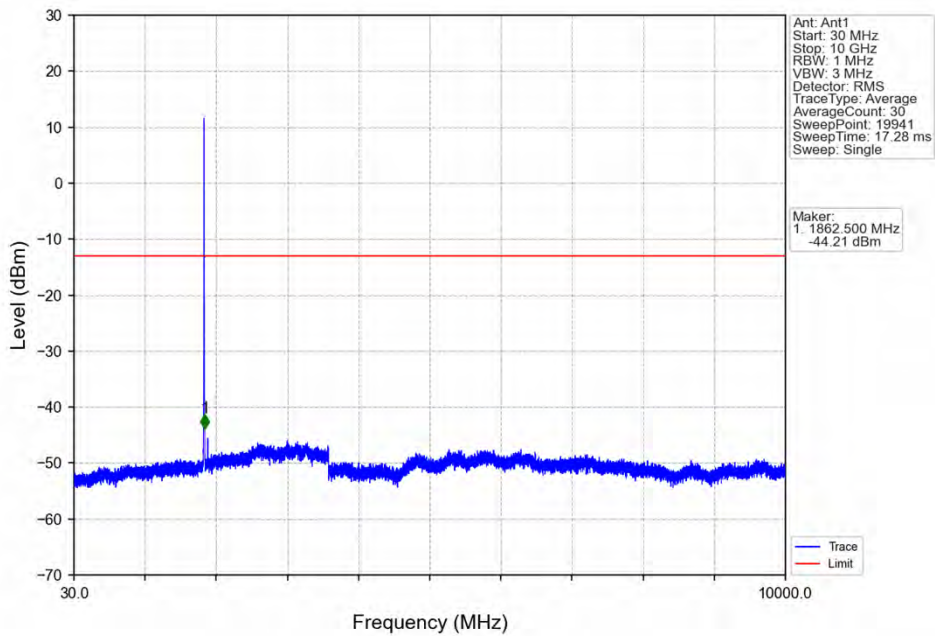
Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



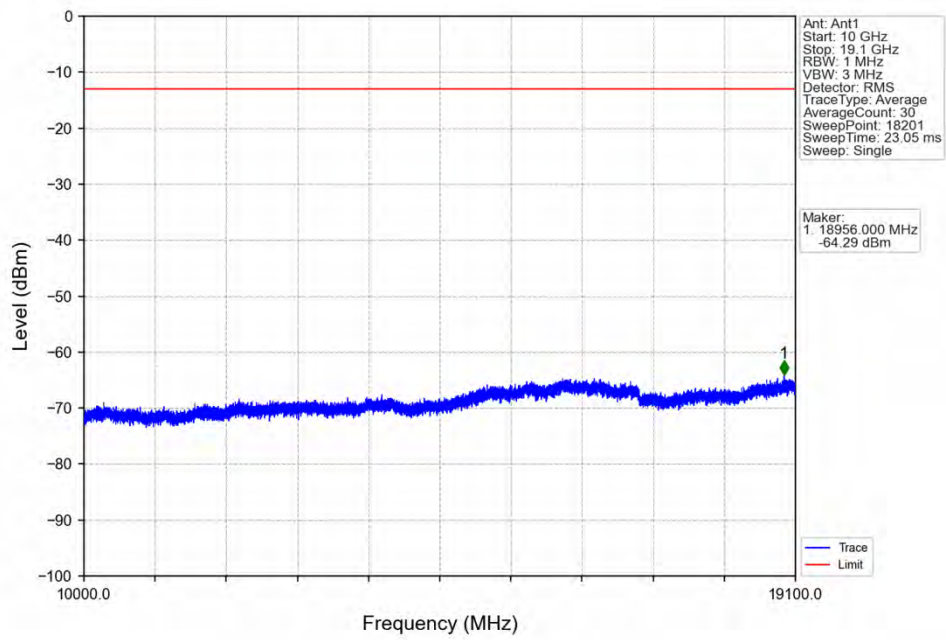
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV



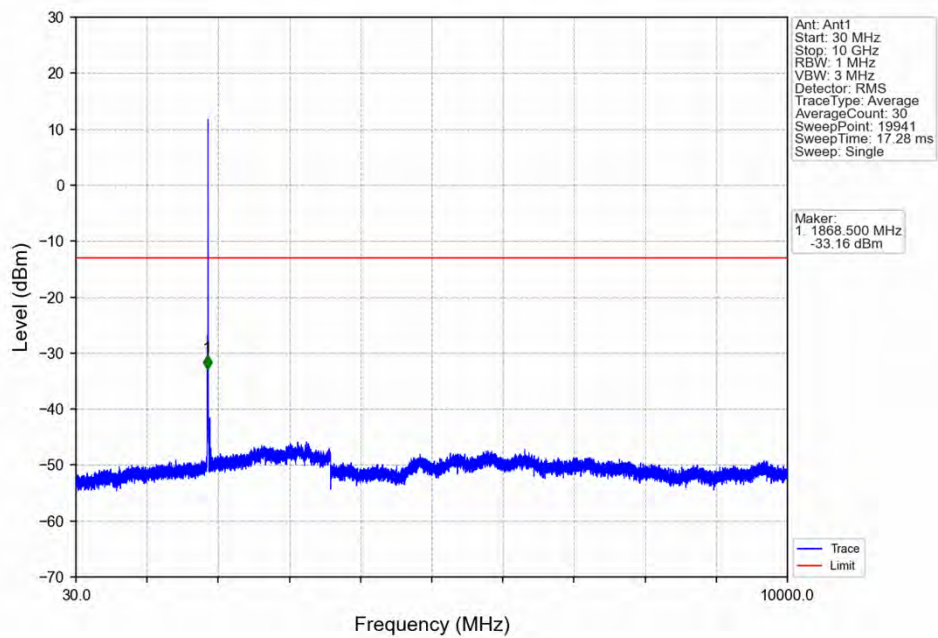
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV



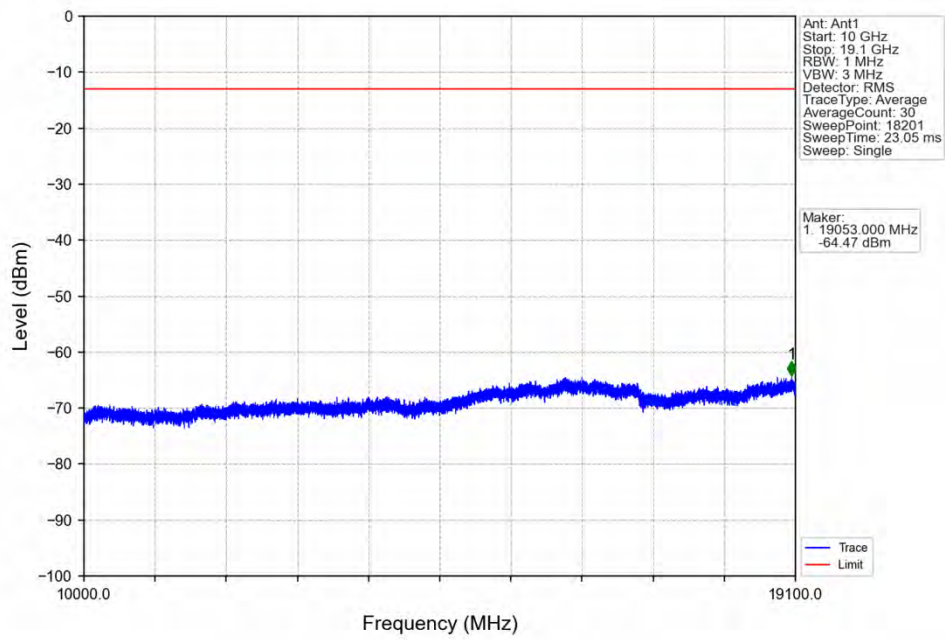
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV



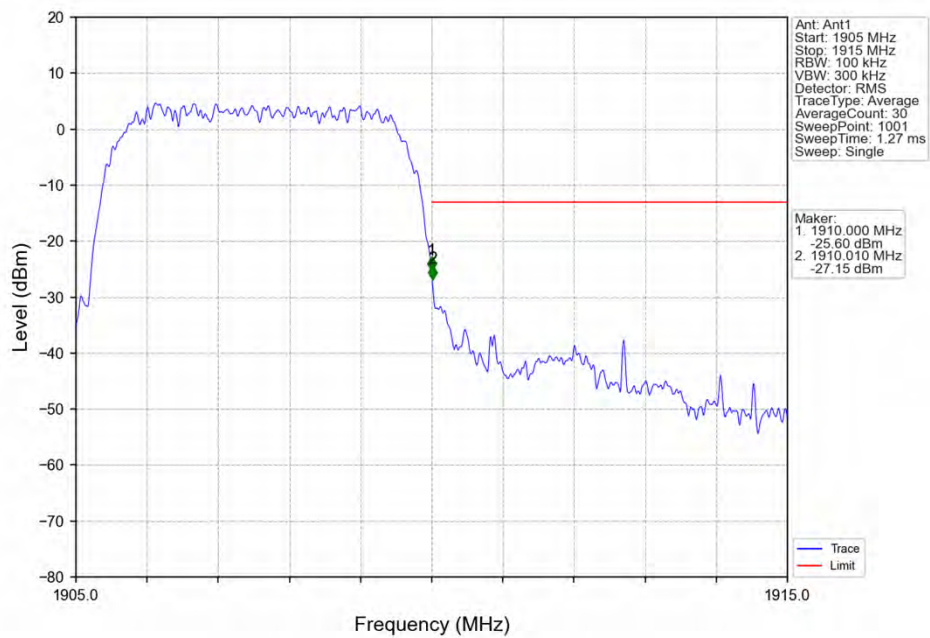
Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



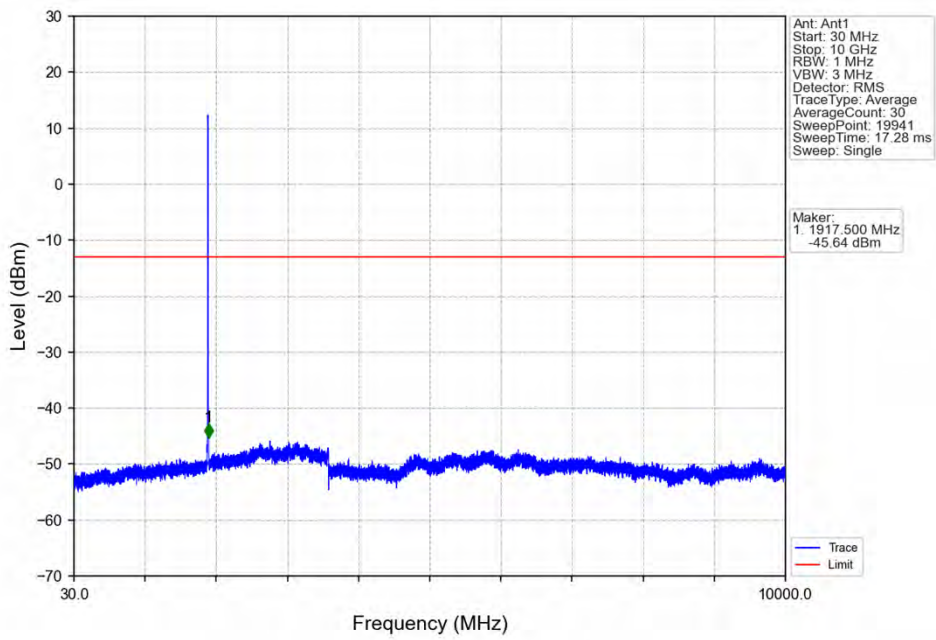
Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



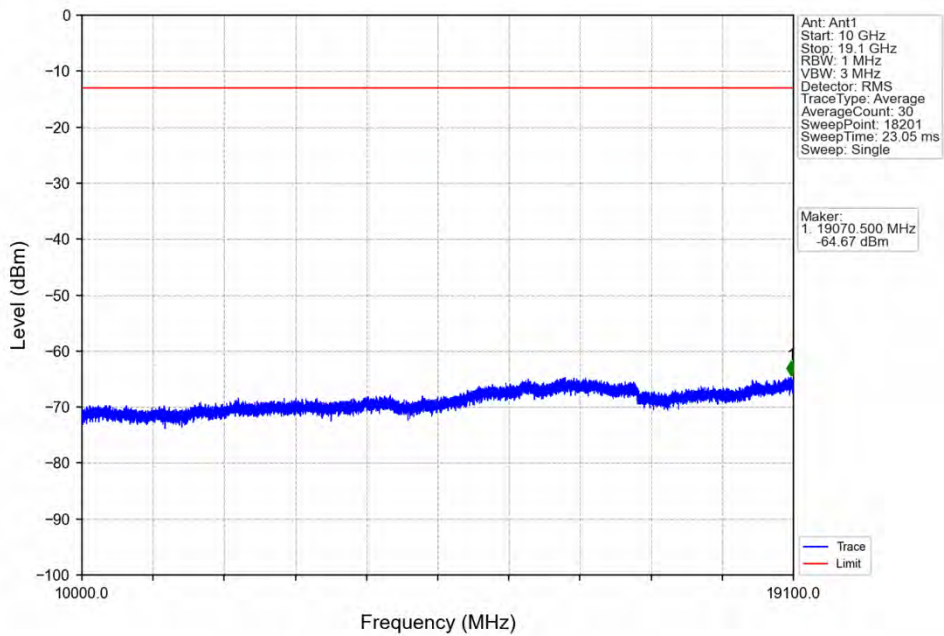
Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_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)
2	3.84	1852.4	1907.6	0.2234	0.0038	ppm	4M20F9W	24E	23.49

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)
2	3.84	1852.4	1907.6	0.2410	0.0038	ppm	4M20F9W	24E	23.82