

# 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	19.29	0.52	19.81	<=33.01	Pass	
			1880	19.03	0.52	19.55	<=33.01	Pass	
			1907.6	19.13	0.52	19.65	<=33.01	Pass	
	HSDPA	Subtest 1	1852.4	17.17	0.52	17.69	<=33.01	Pass	
		Subtest 2	1852.4	17.19	0.52	17.71	<=33.01	Pass	
		Subtest 3	1852.4	17.17	0.52	17.69	<=33.01	Pass	
		Subtest 4	1852.4	17.15	0.52	17.67	<=33.01	Pass	
		Subtest 1	1880	16.68	0.52	17.20	<=33.01	Pass	
		Subtest 2	1880	16.70	0.52	17.22	<=33.01	Pass	
		Subtest 3	1880	16.70	0.52	17.22	<=33.01	Pass	
		Subtest 4	1880	16.69	0.52	17.21	<=33.01	Pass	
		Subtest 1	1907.6	16.91	0.52	17.43	<=33.01	Pass	
		Subtest 2	1907.6	16.88	0.52	17.40	<=33.01	Pass	
		Subtest 3	1907.6	16.88	0.52	17.40	<=33.01	Pass	
		Subtest 4	1907.6	16.86	0.52	17.38	<=33.01	Pass	
		HSUPA	Subtest 1	1852.4	14.58	0.52	15.10	<=33.01	Pass
			Subtest 2	1852.4	14.83	0.52	15.35	<=33.01	Pass
			Subtest 3	1852.4	14.52	0.52	15.04	<=33.01	Pass
			Subtest 4	1852.4	15.01	0.52	15.53	<=33.01	Pass
	Subtest 5		1852.4	14.76	0.52	15.28	<=33.01	Pass	
	Subtest 1		1880	14.66	0.52	15.18	<=33.01	Pass	
	Subtest 2		1880	14.37	0.52	14.89	<=33.01	Pass	
	Subtest 3		1880	14.62	0.52	15.14	<=33.01	Pass	
	Subtest 4		1880	14.33	0.52	14.85	<=33.01	Pass	
	Subtest 5		1880	14.87	0.52	15.39	<=33.01	Pass	
	Subtest 1		1907.6	14.45	0.52	14.97	<=33.01	Pass	
	Subtest 2		1907.6	14.47	0.52	14.99	<=33.01	Pass	
	Subtest 3		1907.6	14.96	0.52	15.48	<=33.01	Pass	
	Subtest 4		1907.6	14.50	0.52	15.02	<=33.01	Pass	
	Subtest 5	1907.6	14.45	0.52	14.97	<=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	-14.098	-0.0076	-2.5 to 2.5	Pass
			3.85	-17.846	-0.0096	-2.5 to 2.5	Pass

			4.43	-6.573	-0.0035	-2.5 to 2.5	Pass	
		-30	3.85	-1.824	-0.0010	-2.5 to 2.5	Pass	
		-20	3.85	-0.443	-0.0002	-2.5 to 2.5	Pass	
		-10	3.85	-13.261	-0.0072	-2.5 to 2.5	Pass	
		0	3.85	-15.070	-0.0081	-2.5 to 2.5	Pass	
		10	3.85	-3.119	-0.0017	-2.5 to 2.5	Pass	
		30	3.85	-11.809	-0.0064	-2.5 to 2.5	Pass	
		40	3.85	-2.446	-0.0013	-2.5 to 2.5	Pass	
		50	3.85	-6.981	-0.0038	-2.5 to 2.5	Pass	
		1880	20	3.27	-13.168	-0.0070	-2.5 to 2.5	Pass
				3.85	-6.545	-0.0035	-2.5 to 2.5	Pass
				4.43	-9.456	-0.0050	-2.5 to 2.5	Pass
			-30	3.85	-1.681	-0.0009	-2.5 to 2.5	Pass
			-20	3.85	-5.586	-0.0030	-2.5 to 2.5	Pass
	-10		3.85	-7.217	-0.0038	-2.5 to 2.5	Pass	
	0		3.85	-8.519	-0.0045	-2.5 to 2.5	Pass	
	10		3.85	-2.997	-0.0016	-2.5 to 2.5	Pass	
	30		3.85	-7.582	-0.0040	-2.5 to 2.5	Pass	
	40		3.85	-8.669	-0.0046	-2.5 to 2.5	Pass	
	50	3.85	-6.952	-0.0037	-2.5 to 2.5	Pass		
	1907.6	20	3.27	-6.924	-0.0036	-2.5 to 2.5	Pass	
			3.85	-4.749	-0.0025	-2.5 to 2.5	Pass	
			4.43	-5.393	-0.0028	-2.5 to 2.5	Pass	
		-30	3.85	-12.546	-0.0066	-2.5 to 2.5	Pass	
		-20	3.85	-3.712	-0.0019	-2.5 to 2.5	Pass	
		-10	3.85	-7.782	-0.0041	-2.5 to 2.5	Pass	
		0	3.85	-5.736	-0.0030	-2.5 to 2.5	Pass	
		10	3.85	-2.975	-0.0016	-2.5 to 2.5	Pass	
		30	3.85	-12.138	-0.0064	-2.5 to 2.5	Pass	
		40	3.85	-3.176	-0.0017	-2.5 to 2.5	Pass	
	50	3.85	0.708	0.0004	-2.5 to 2.5	Pass		
	HSDPA	1852.4	20	3.27	7.832	0.0042	-2.5 to 2.5	Pass
				3.85	3.226	0.0017	-2.5 to 2.5	Pass
4.43				8.626	0.0047	-2.5 to 2.5	Pass	
-30			3.85	8.869	0.0048	-2.5 to 2.5	Pass	
-20			3.85	7.889	0.0043	-2.5 to 2.5	Pass	
-10			3.85	8.626	0.0047	-2.5 to 2.5	Pass	
0			3.85	7.224	0.0039	-2.5 to 2.5	Pass	
10			3.85	4.077	0.0022	-2.5 to 2.5	Pass	
30			3.85	13.976	0.0075	-2.5 to 2.5	Pass	
40			3.85	-1.967	-0.0011	-2.5 to 2.5	Pass	
50			3.85	4.199	0.0023	-2.5 to 2.5	Pass	
1880			20	3.27	0.451	0.0002	-2.5 to 2.5	Pass
				3.85	5.686	0.0030	-2.5 to 2.5	Pass
				4.43	1.488	0.0008	-2.5 to 2.5	Pass
		-30	3.85	7.203	0.0038	-2.5 to 2.5	Pass	
		-20	3.85	4.184	0.0022	-2.5 to 2.5	Pass	
		-10	3.85	7.632	0.0041	-2.5 to 2.5	Pass	
		0	3.85	13.239	0.0070	-2.5 to 2.5	Pass	
		10	3.85	10.707	0.0057	-2.5 to 2.5	Pass	
		30	3.85	10.471	0.0056	-2.5 to 2.5	Pass	
		40	3.85	8.118	0.0043	-2.5 to 2.5	Pass	
50		3.85	8.025	0.0043	-2.5 to 2.5	Pass		
1907.6		20	3.27	-3.655	-0.0019	-2.5 to 2.5	Pass	
			3.85	14.391	0.0075	-2.5 to 2.5	Pass	
			4.43	6.230	0.0033	-2.5 to 2.5	Pass	
		-30	3.85	11.323	0.0059	-2.5 to 2.5	Pass	

		-20	3.85	3.483	0.0018	-2.5 to 2.5	Pass
		-10	3.85	5.736	0.0030	-2.5 to 2.5	Pass
		0	3.85	11.652	0.0061	-2.5 to 2.5	Pass
		10	3.85	3.912	0.0021	-2.5 to 2.5	Pass
		30	3.85	5.736	0.0030	-2.5 to 2.5	Pass
		40	3.85	3.512	0.0018	-2.5 to 2.5	Pass
		50	3.85	0.000	0.0000	-2.5 to 2.5	Pass
HSUPA	1852.4	20	3.27	-12.503	-0.0067	-2.5 to 2.5	Pass
			3.85	-10.021	-0.0054	-2.5 to 2.5	Pass
			4.43	-17.059	-0.0092	-2.5 to 2.5	Pass
		-30	3.85	-7.217	-0.0039	-2.5 to 2.5	Pass
		-20	3.85	-13.504	-0.0073	-2.5 to 2.5	Pass
		-10	3.85	-13.947	-0.0075	-2.5 to 2.5	Pass
		0	3.85	-9.828	-0.0053	-2.5 to 2.5	Pass
		10	3.85	-6.294	-0.0034	-2.5 to 2.5	Pass
		30	3.85	-6.323	-0.0034	-2.5 to 2.5	Pass
		40	3.85	-15.128	-0.0082	-2.5 to 2.5	Pass
	50	3.85	-9.720	-0.0052	-2.5 to 2.5	Pass	
	1880	20	3.27	-7.403	-0.0039	-2.5 to 2.5	Pass
			3.85	-9.398	-0.0050	-2.5 to 2.5	Pass
			4.43	-3.405	-0.0018	-2.5 to 2.5	Pass
		-30	3.85	-3.748	-0.0020	-2.5 to 2.5	Pass
		-20	3.85	-15.228	-0.0081	-2.5 to 2.5	Pass
		-10	3.85	-13.011	-0.0069	-2.5 to 2.5	Pass
		0	3.85	-6.967	-0.0037	-2.5 to 2.5	Pass
		10	3.85	-3.734	-0.0020	-2.5 to 2.5	Pass
		30	3.85	-11.272	-0.0060	-2.5 to 2.5	Pass
		40	3.85	-12.717	-0.0068	-2.5 to 2.5	Pass
	50	3.85	-15.342	-0.0082	-2.5 to 2.5	Pass	
	1907.6	20	3.27	-10.064	-0.0053	-2.5 to 2.5	Pass
			3.85	-8.812	-0.0046	-2.5 to 2.5	Pass
			4.43	-12.195	-0.0064	-2.5 to 2.5	Pass
		-30	3.85	-3.097	-0.0016	-2.5 to 2.5	Pass
		-20	3.85	-14.892	-0.0078	-2.5 to 2.5	Pass
		-10	3.85	-2.525	-0.0013	-2.5 to 2.5	Pass
		0	3.85	-8.390	-0.0044	-2.5 to 2.5	Pass
		10	3.85	-6.230	-0.0033	-2.5 to 2.5	Pass
30		3.85	-8.140	-0.0043	-2.5 to 2.5	Pass	
40		3.85	-14.842	-0.0078	-2.5 to 2.5	Pass	
50	3.85	-3.169	-0.0017	-2.5 to 2.5	Pass		

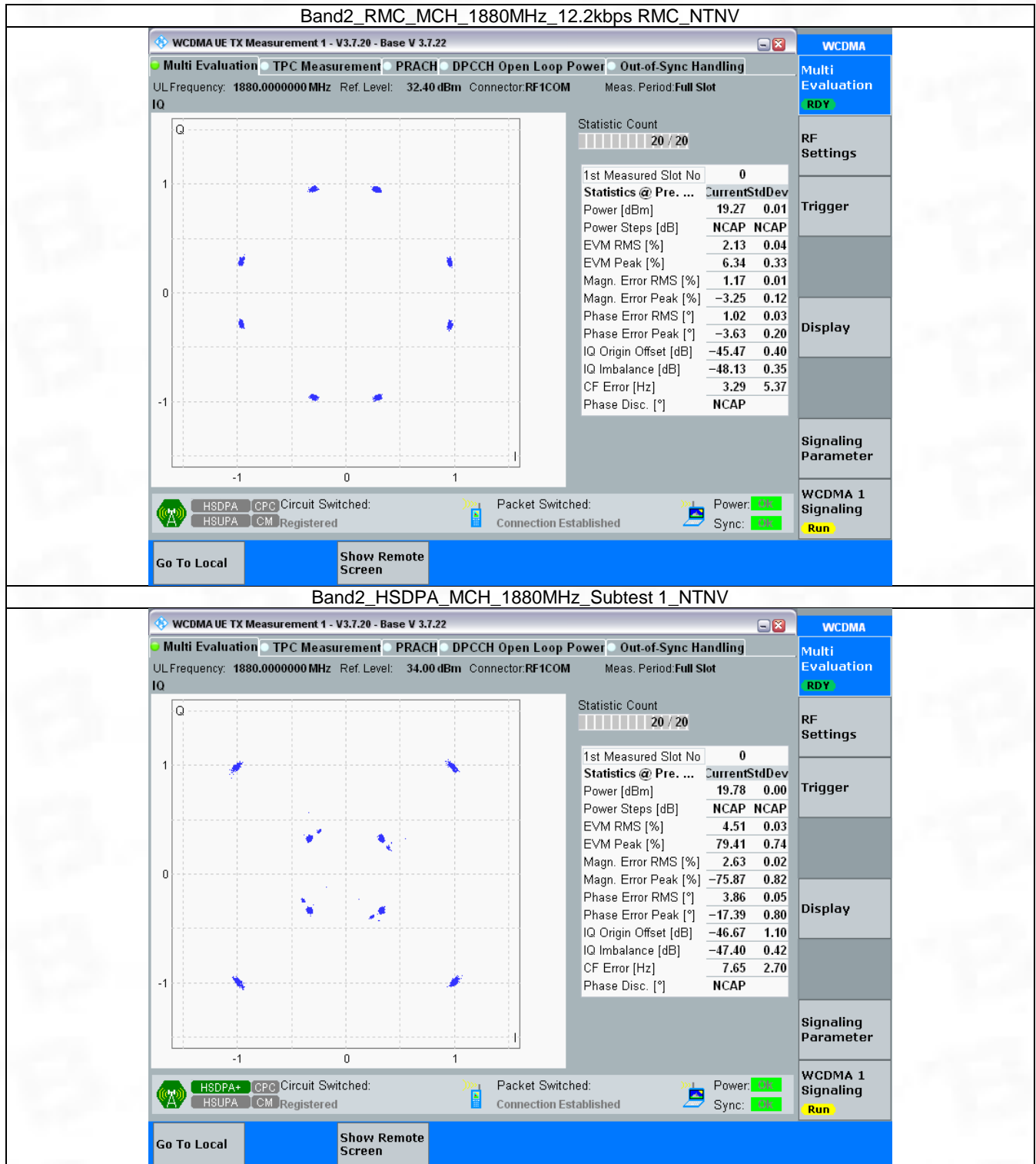
### 3. Modulation Characteristics

#### 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\_HSUPA\_MCH\_1880MHz\_Subtest\_1\_NTNV

WCDMA UE TX Measurement 1 - V3.7.20 - Base V 3.7.22

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

UL Frequency: 1880.000000 MHz Ref. Level: 34.00 dBm Connector: RF1COM Meas. Period: Full Slot

IQ

Statistic Count: 20 / 20

Statistics @ Pre. ...		Current	StdDev
1st Measured Slot No		0	
Power [dBm]		19.76	2.41
Power Steps [dB]		NCAP	NCAP
EVM RMS [%]		4.52	2.47
EVM Peak [%]		78.00	39.62
Magn. Error RMS [%]		2.63	1.13
Magn. Error Peak [%]		-75.20	40.40
Phase Error RMS [°]		3.90	1.56
Phase Error Peak [°]		-16.84	6.16
IQ Origin Offset [dB]		-46.48	1.24
IQ Imbalance [dB]		-46.91	1.19
CF Error [Hz]		4.91	25.11
Phase Disc. [°]		NCAP	

HSDPA+ CPO Circuit Switched: Packet Switched: Power: ON  
HSUPA CM Registered Connection Established Sync: ON

[Go To Local](#) [Show Remote Screen](#)

**WCDMA**  
**Multi Evaluation**  
RDY  
**RF Settings**  
**Trigger**  
**Display**  
**Signaling Parameter**  
**WCDMA 1 Signaling**  
Run

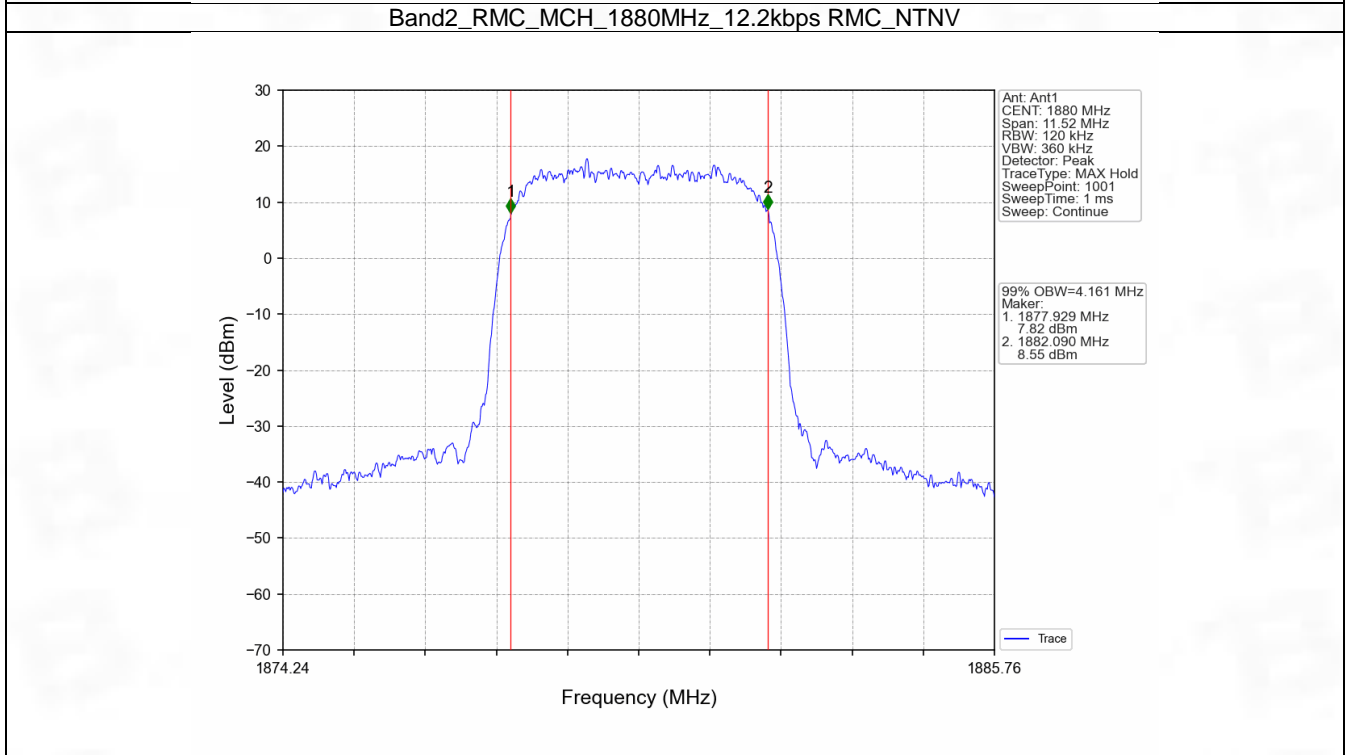
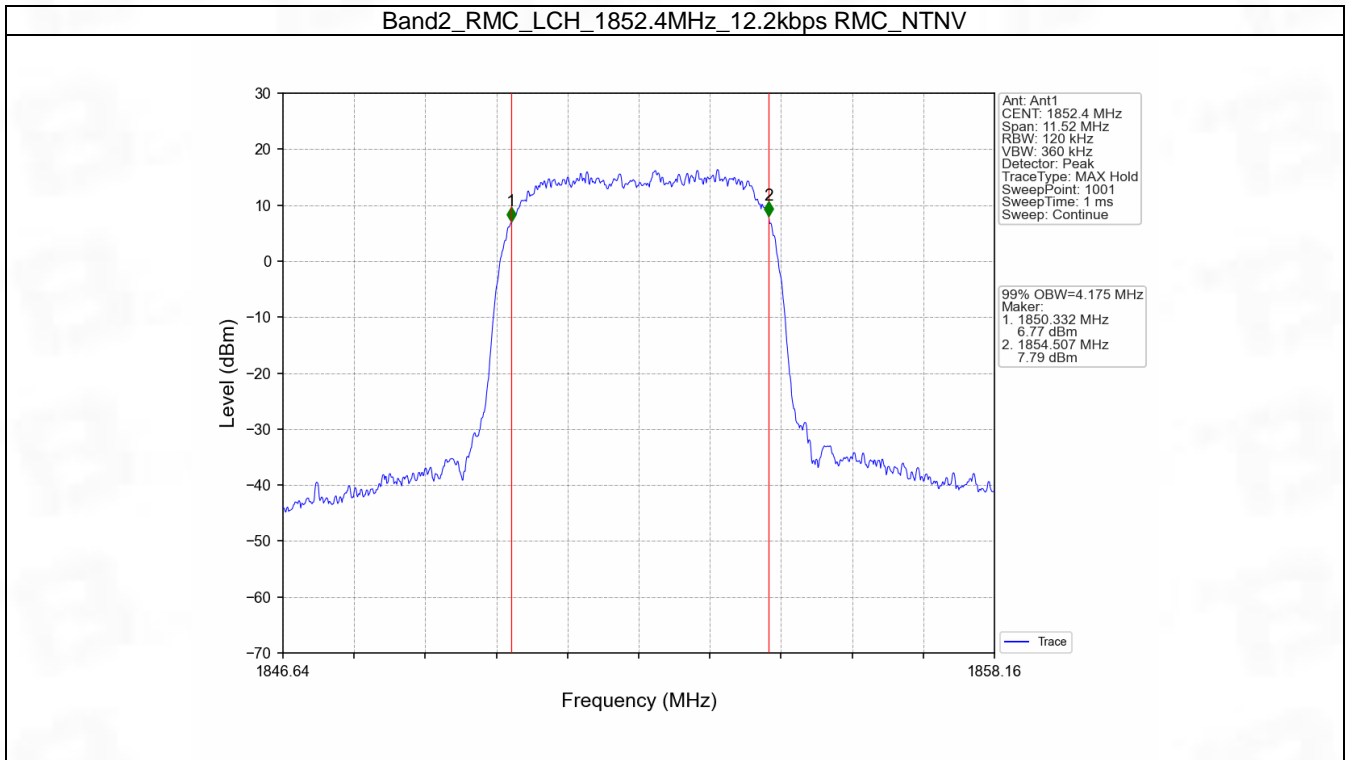
## 4. 99% & 26dB Bandwidth

### 4.1 Band2\_OBW

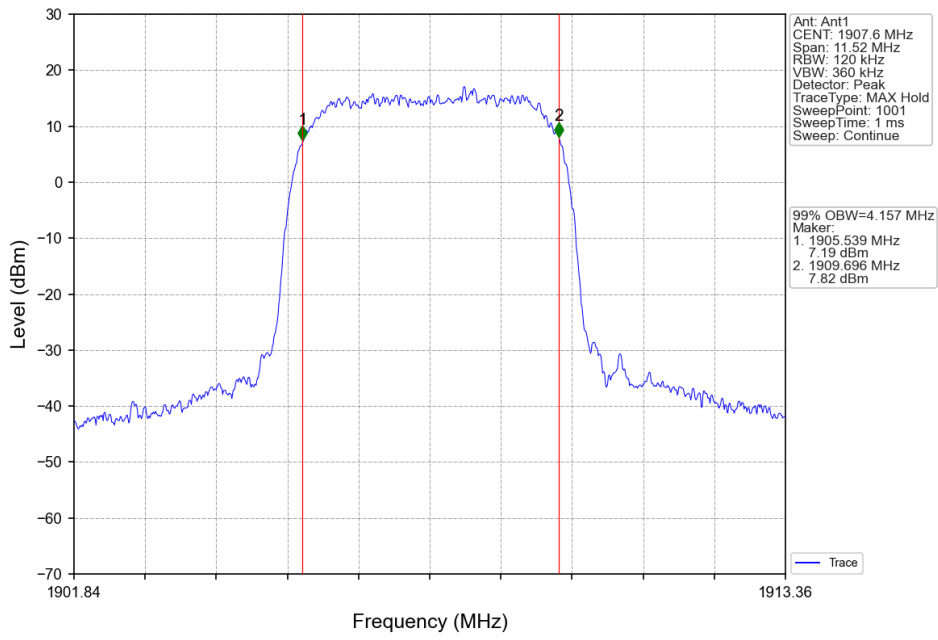
#### 4.1.1 Test Result

Band: 2						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1852.4	4.175	/	Pass
			1880	4.161	/	Pass
			1907.6	4.157	/	Pass
	HSDPA	Subtest 1	1852.4	4.151	/	Pass
			1880	4.173	/	Pass
			1907.6	4.159	/	Pass
	HSUPA	Subtest 1	1852.4	4.177	/	Pass
			1880	4.152	/	Pass
			1907.6	4.141	/	Pass

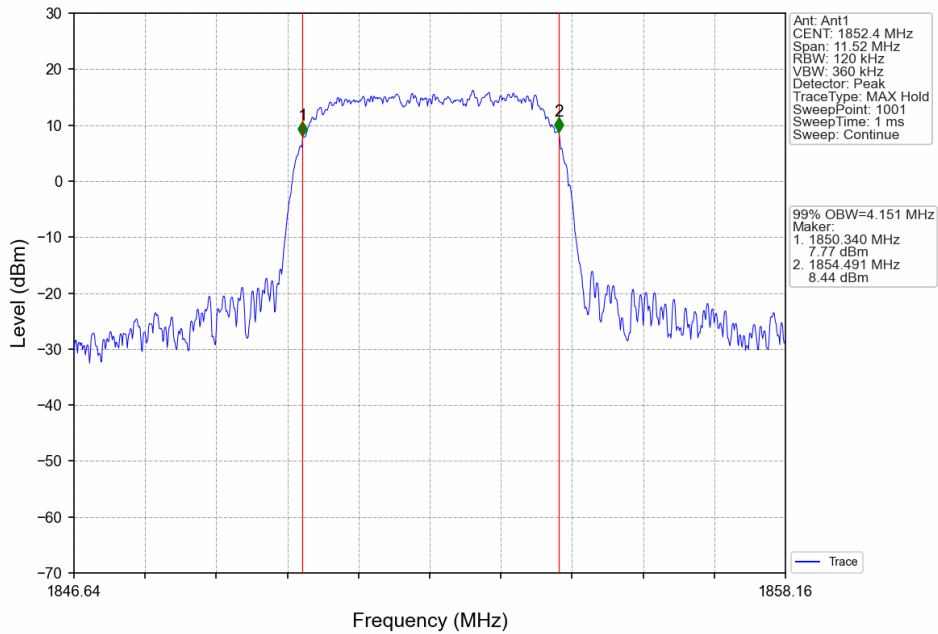
### 4.1.2 Test Graph



Band2\_RMC\_HCH\_1907.6MHz\_12.2kbps RMC\_NTNV

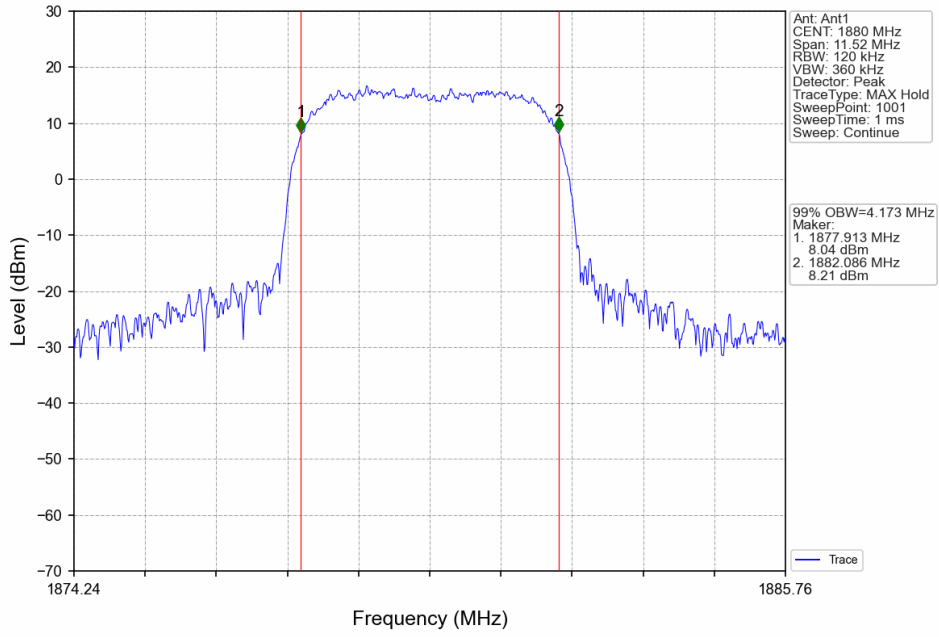


Band2\_HSDPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV

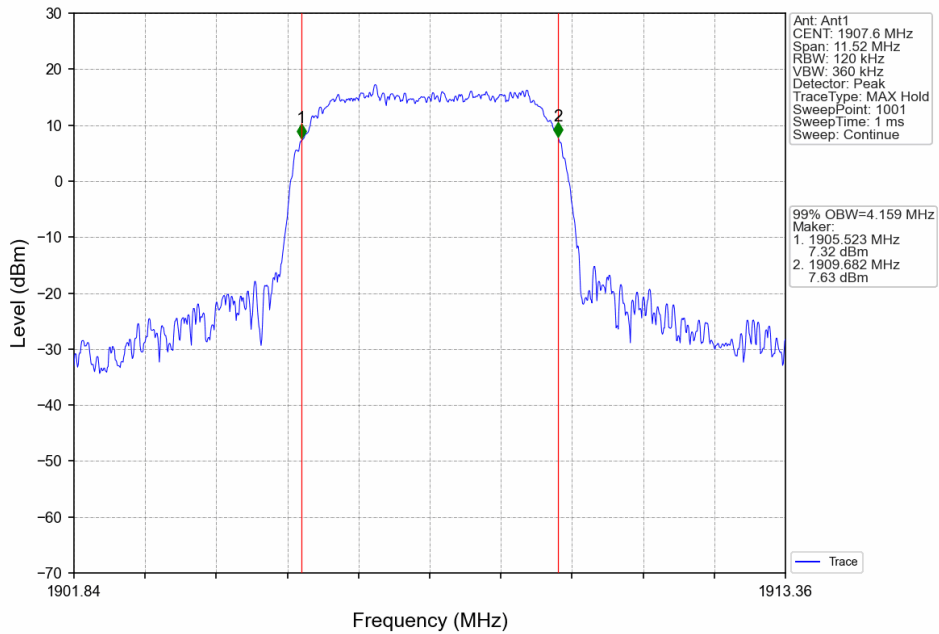




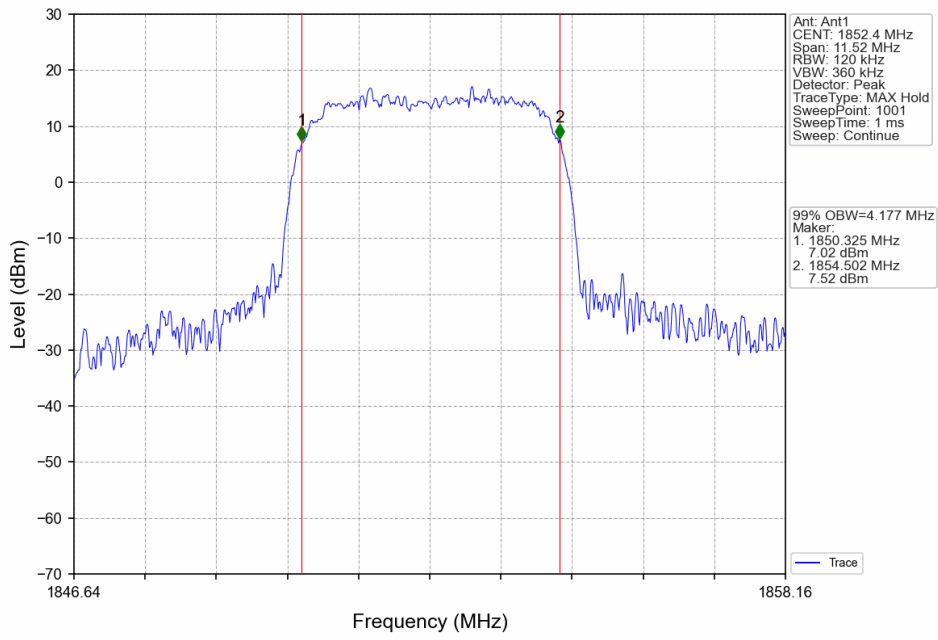
Band2\_HSDPA\_MCH\_1880MHz\_Subtest 1\_NTNV



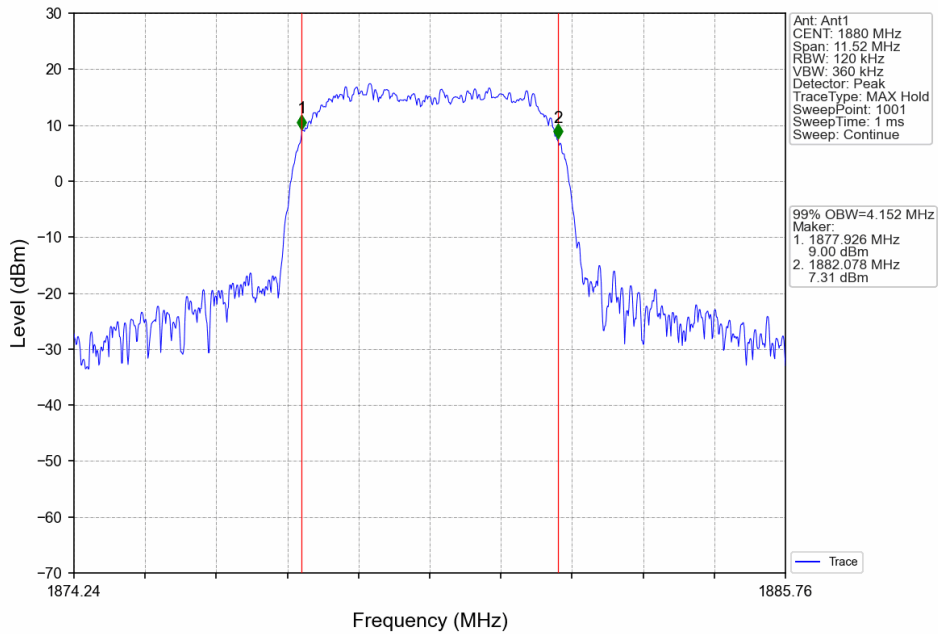
Band2\_HSDPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV



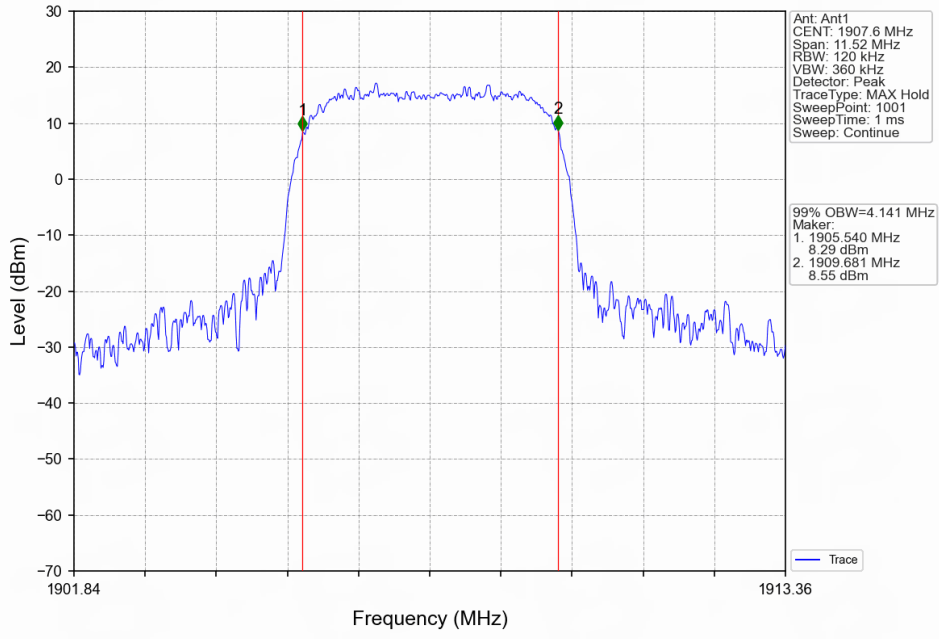
Band2\_HSUPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



Band2\_HSUPA\_MCH\_1880MHz\_Subtest 1\_NTNV



Band2\_HSUPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV

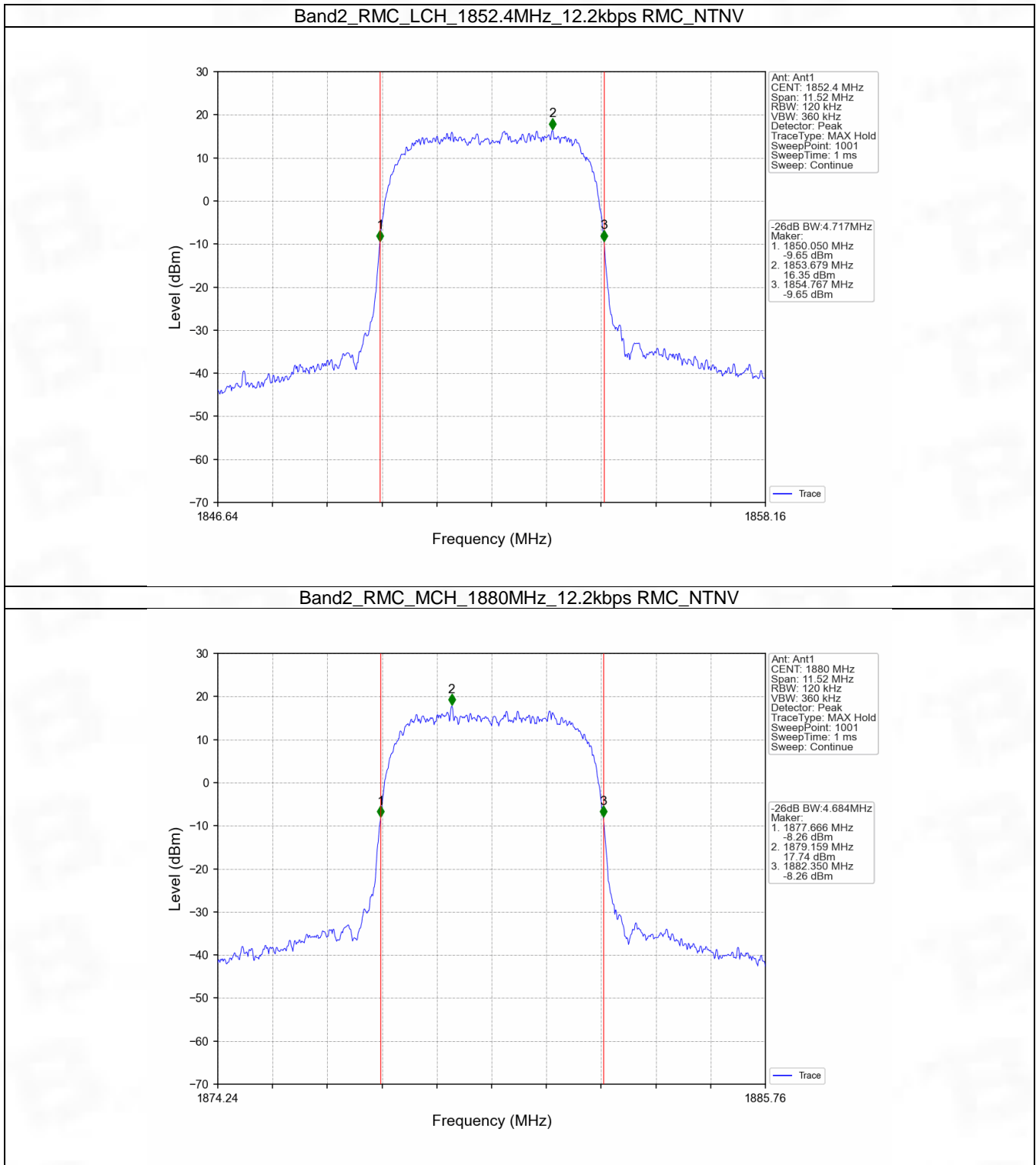


## 4.2 Band2\_XDB

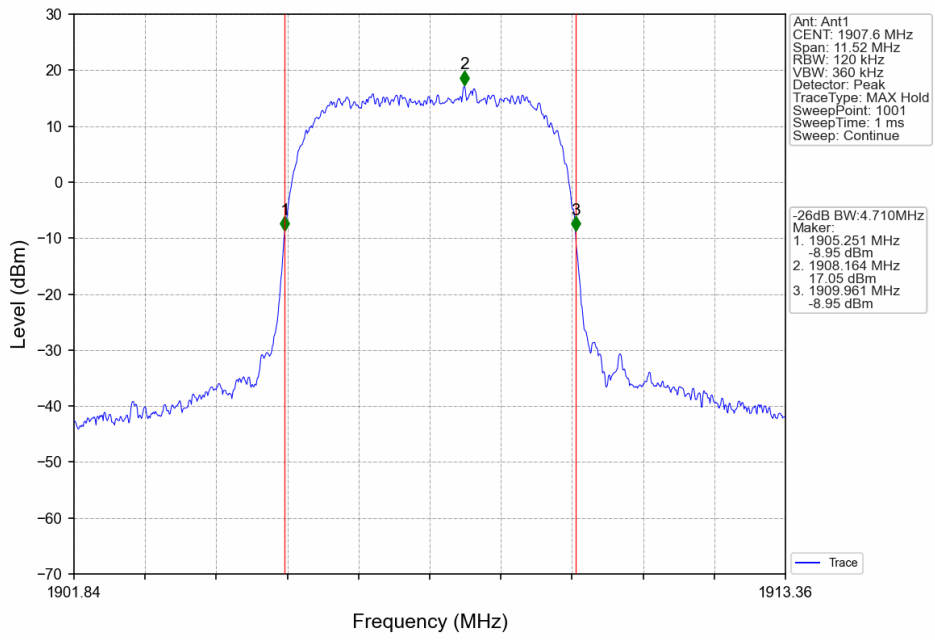
### 4.2.1 Test Result

Band: 2						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1852.4	4.717	/	Pass
			1880	4.684	/	Pass
			1907.6	4.710	/	Pass
	HSDPA	Subtest 1	1852.4	4.699	/	Pass
			1880	4.716	/	Pass
			1907.6	4.694	/	Pass
	HSUPA	Subtest 1	1852.4	4.709	/	Pass
			1880	4.711	/	Pass
			1907.6	4.689	/	Pass

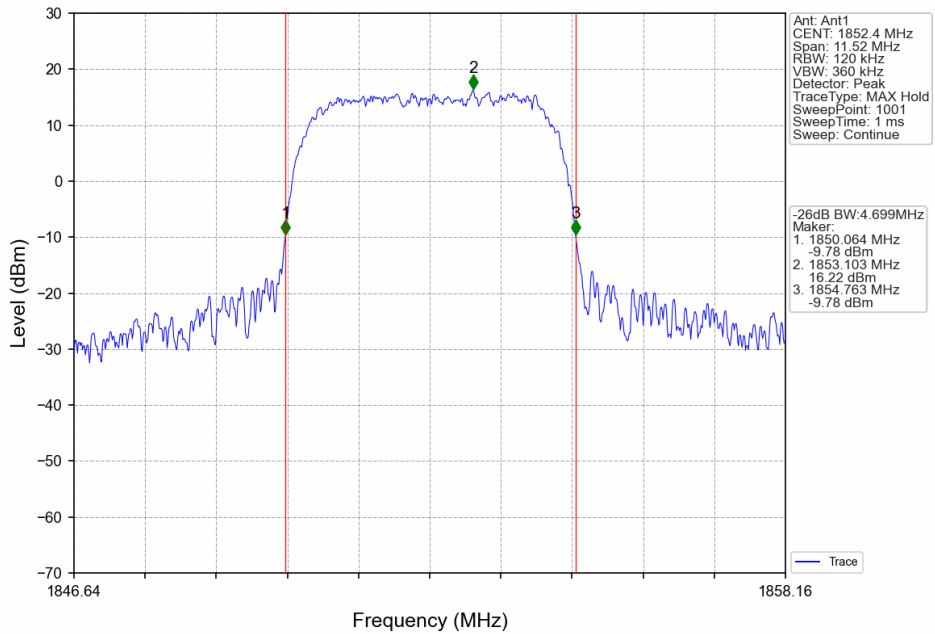
### 4.2.2 Test Graph



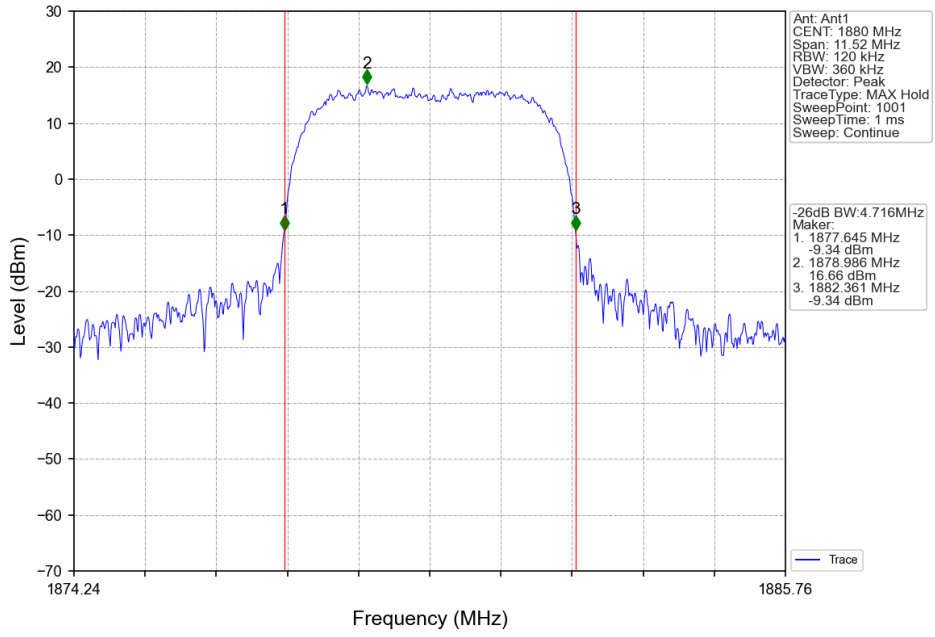
Band2\_RMC\_HCH\_1907.6MHz\_12.2kbps RMC\_NTNV



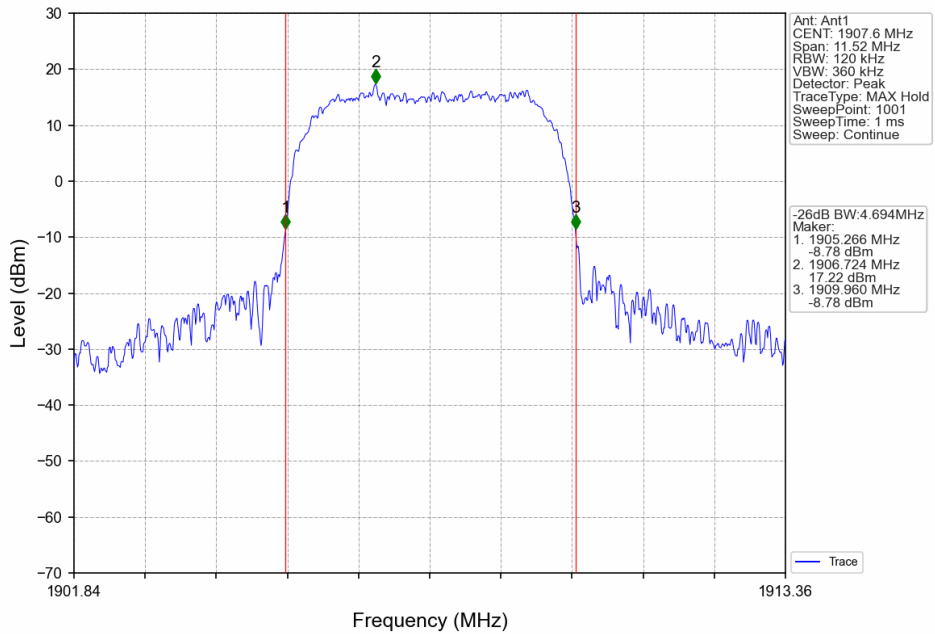
Band2\_HSDPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



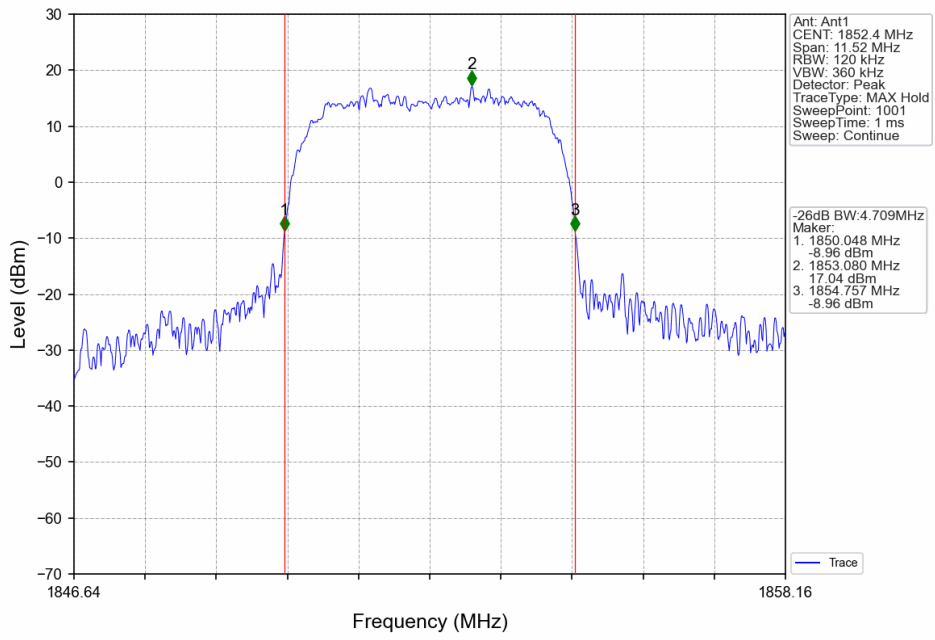
Band2\_HSDPA\_MCH\_1880MHz\_Subtest 1\_NTNV



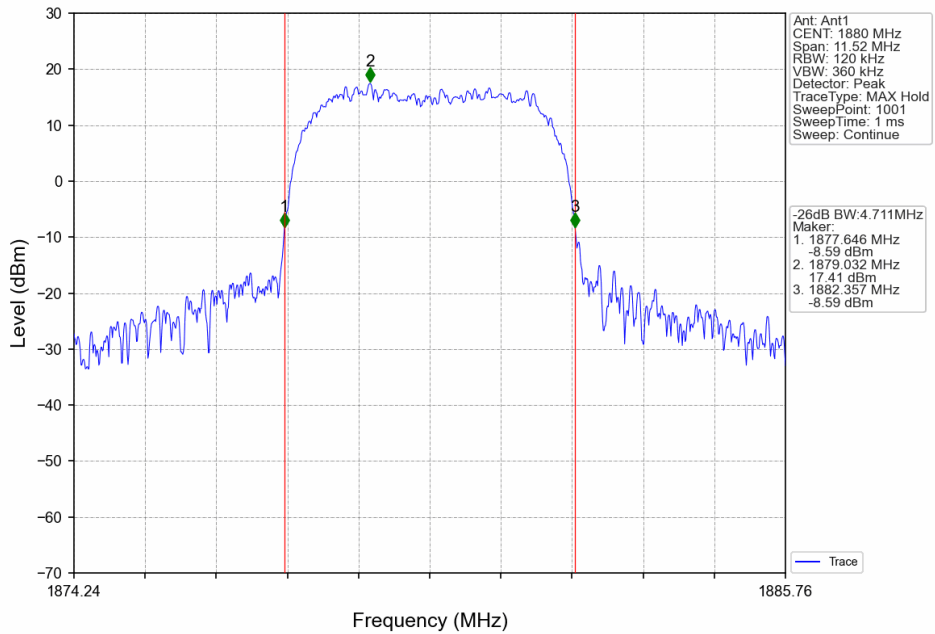
Band2\_HSDPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV



Band2\_HSUPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV

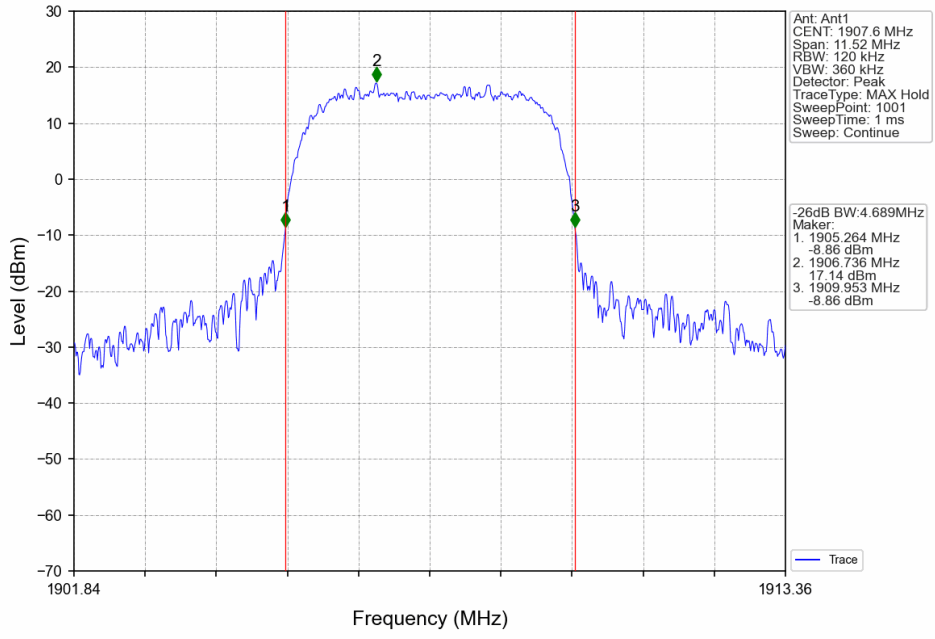


Band2\_HSUPA\_MCH\_1880MHz\_Subtest 1\_NTNV





Band2\_HSUPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV



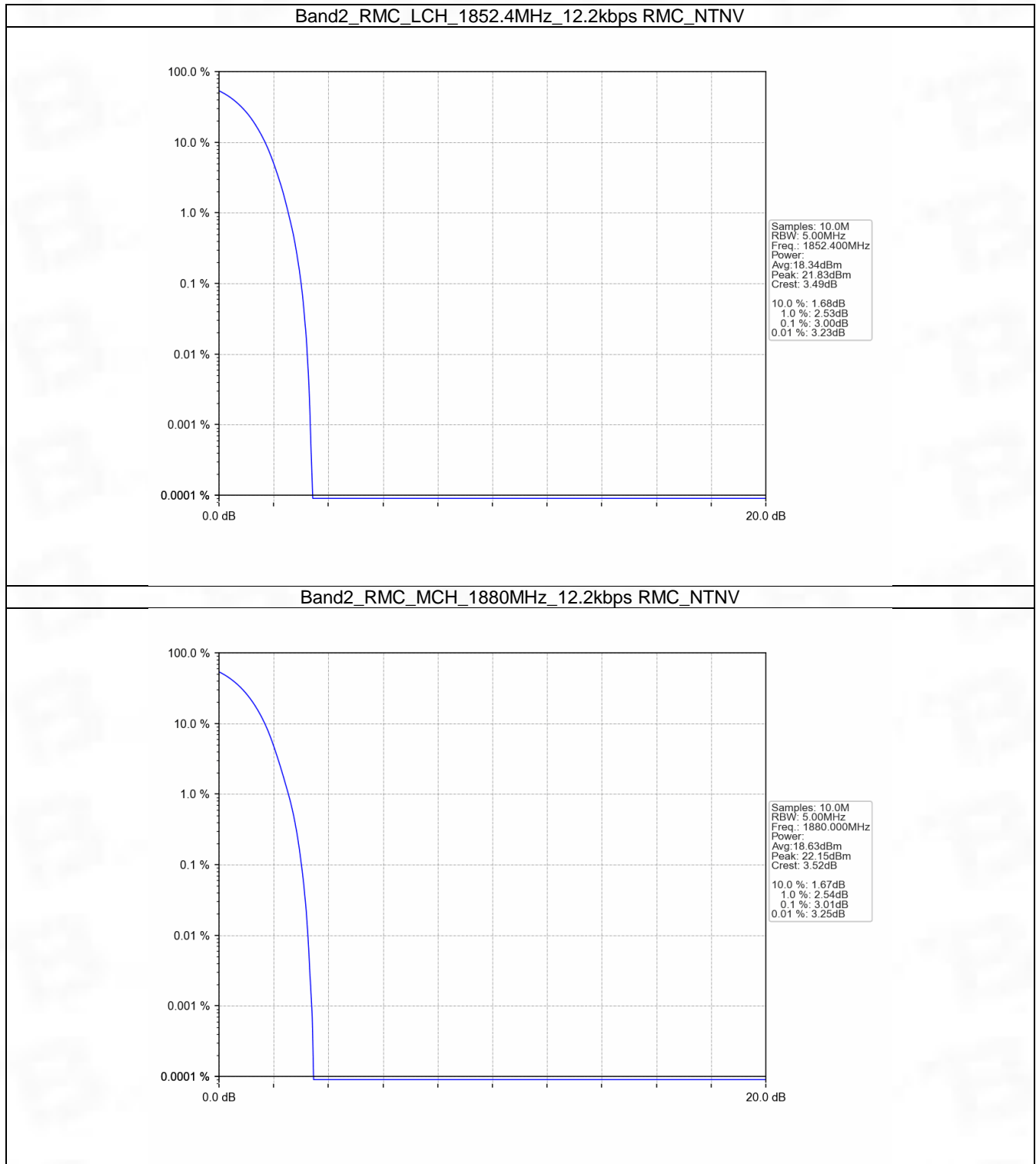
## 5. Peak-Average Ratio

### 5.1 Band2

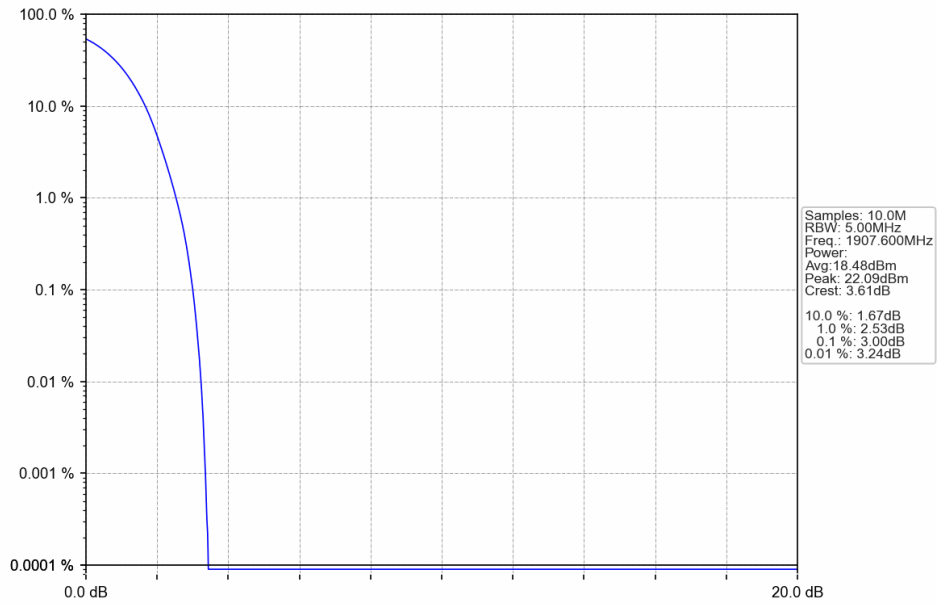
#### 5.1.1 Test Result

Band: 2						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1852.4	3.00	<=13	Pass
			1880	3.01	<=13	Pass
			1907.6	3.00	<=13	Pass
	HSDPA	Subtest 1	1852.4	5.66	<=13	Pass
			1880	5.63	<=13	Pass
			1907.6	5.71	<=13	Pass
	HSUPA	Subtest 1	1852.4	5.67	<=13	Pass
			1880	5.84	<=13	Pass
			1907.6	5.68	<=13	Pass

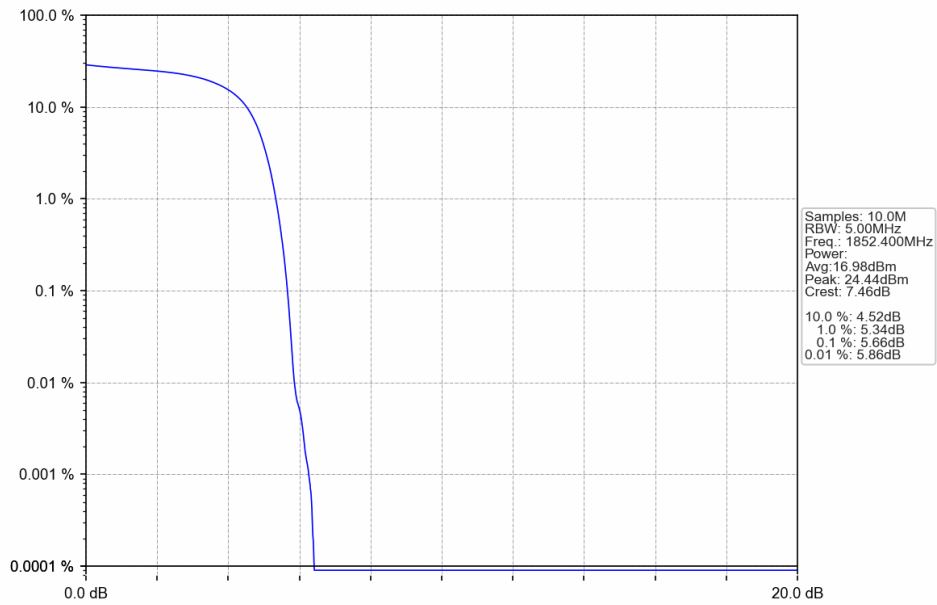
### 5.1.2 Test Graph



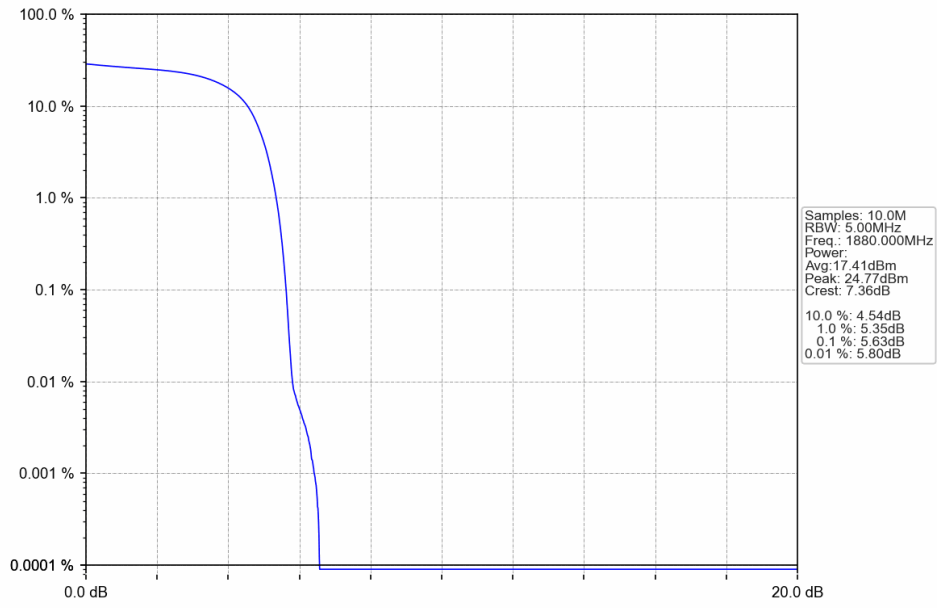
Band2\_RMC\_HCH\_1907.6MHz\_12.2kbps RMC\_NTNV



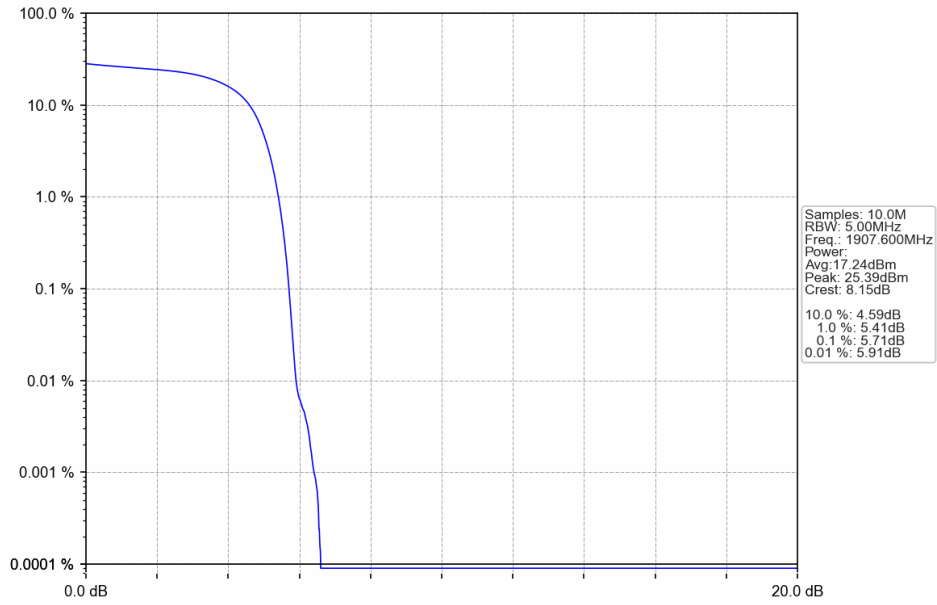
Band2\_HSDPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



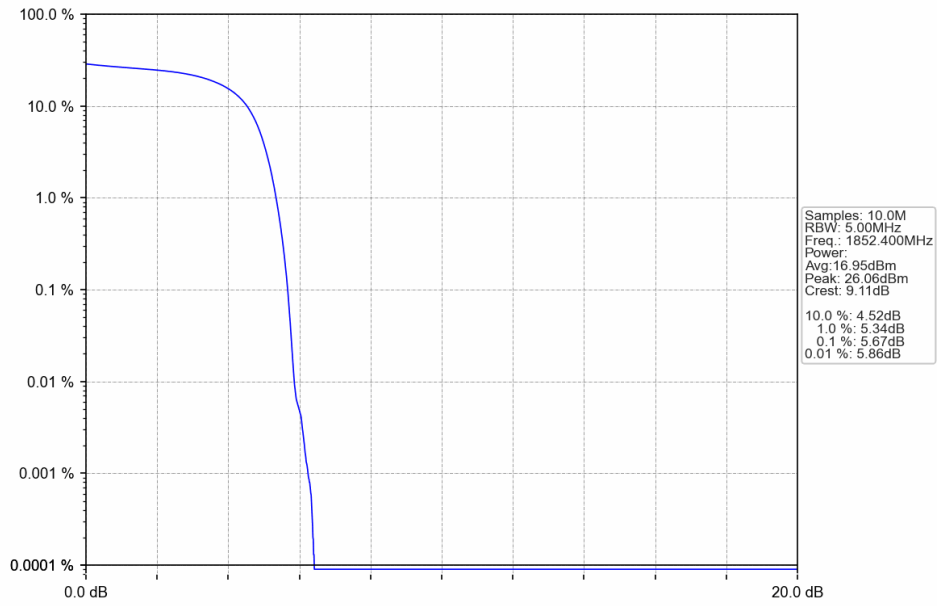
Band2\_HSDPA\_MCH\_1880MHz\_Subtest 1\_NTNV



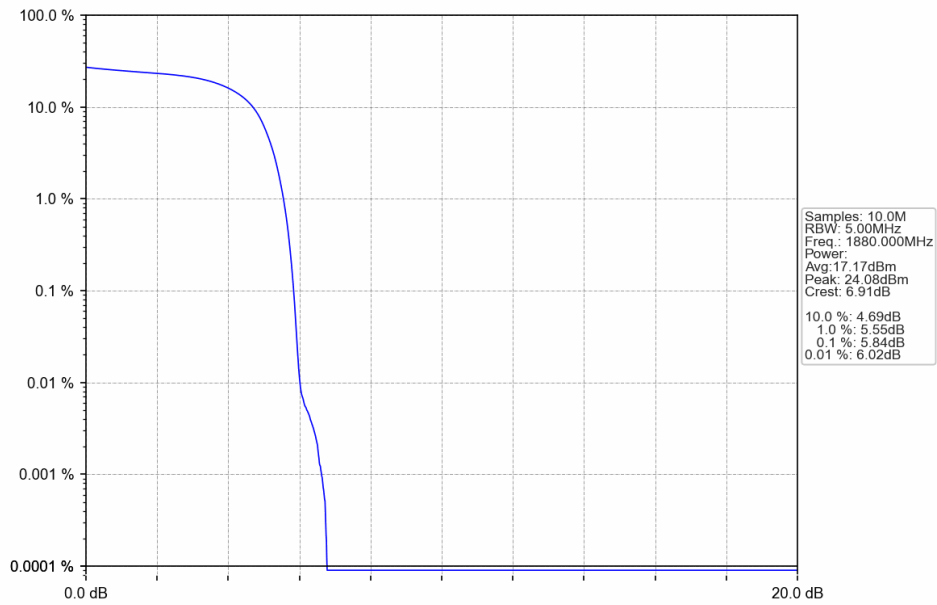
Band2\_HSDPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV



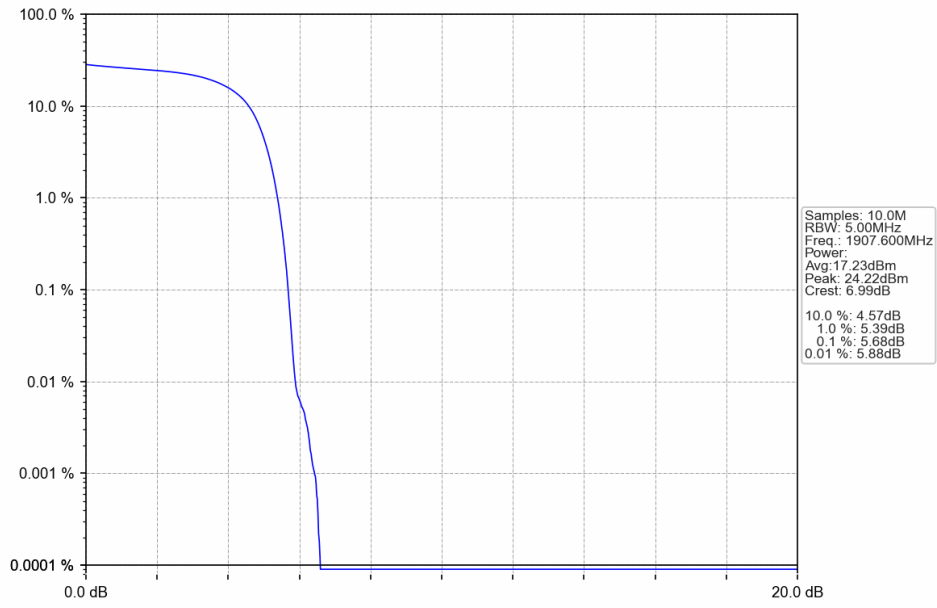
Band2\_HSUPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



Band2\_HSUPA\_MCH\_1880MHz\_Subtest 1\_NTNV



Band2\_HSUPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV



## 6. Spurious Emission

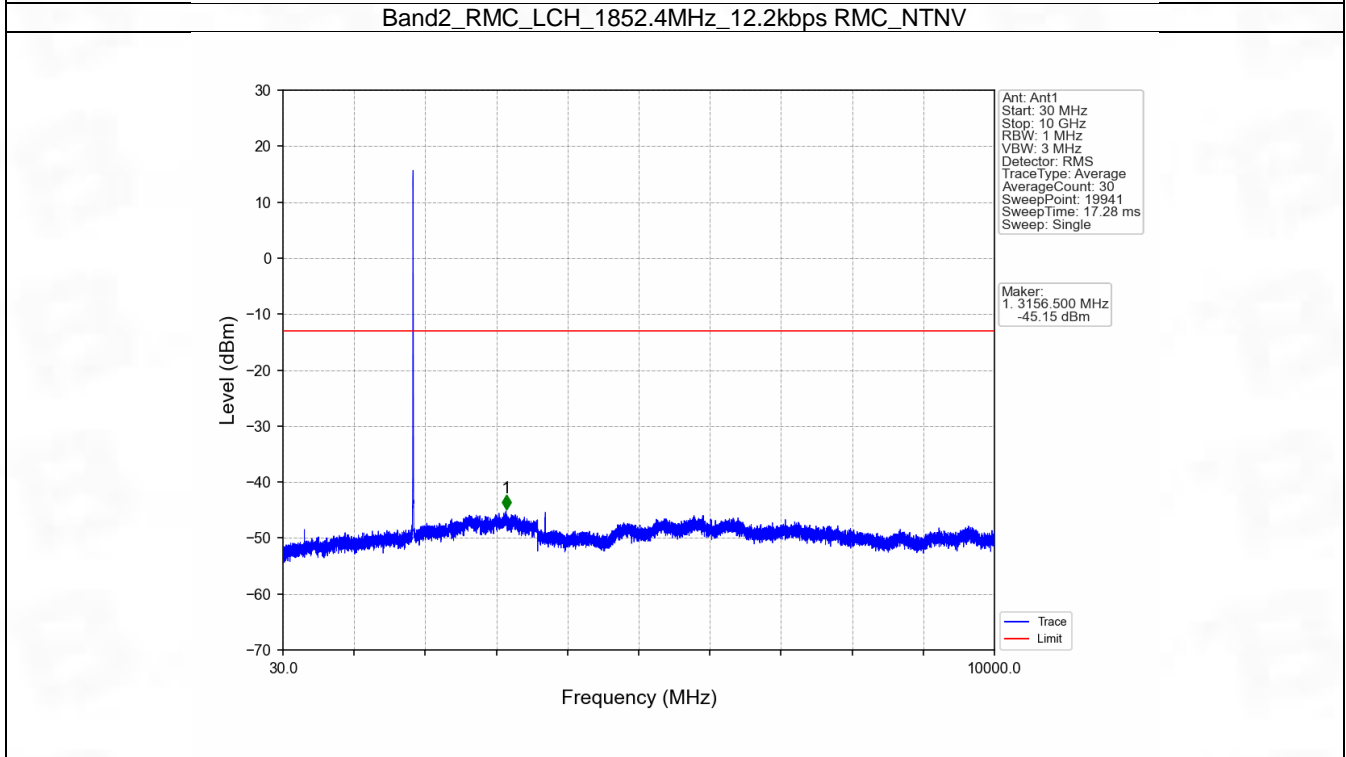
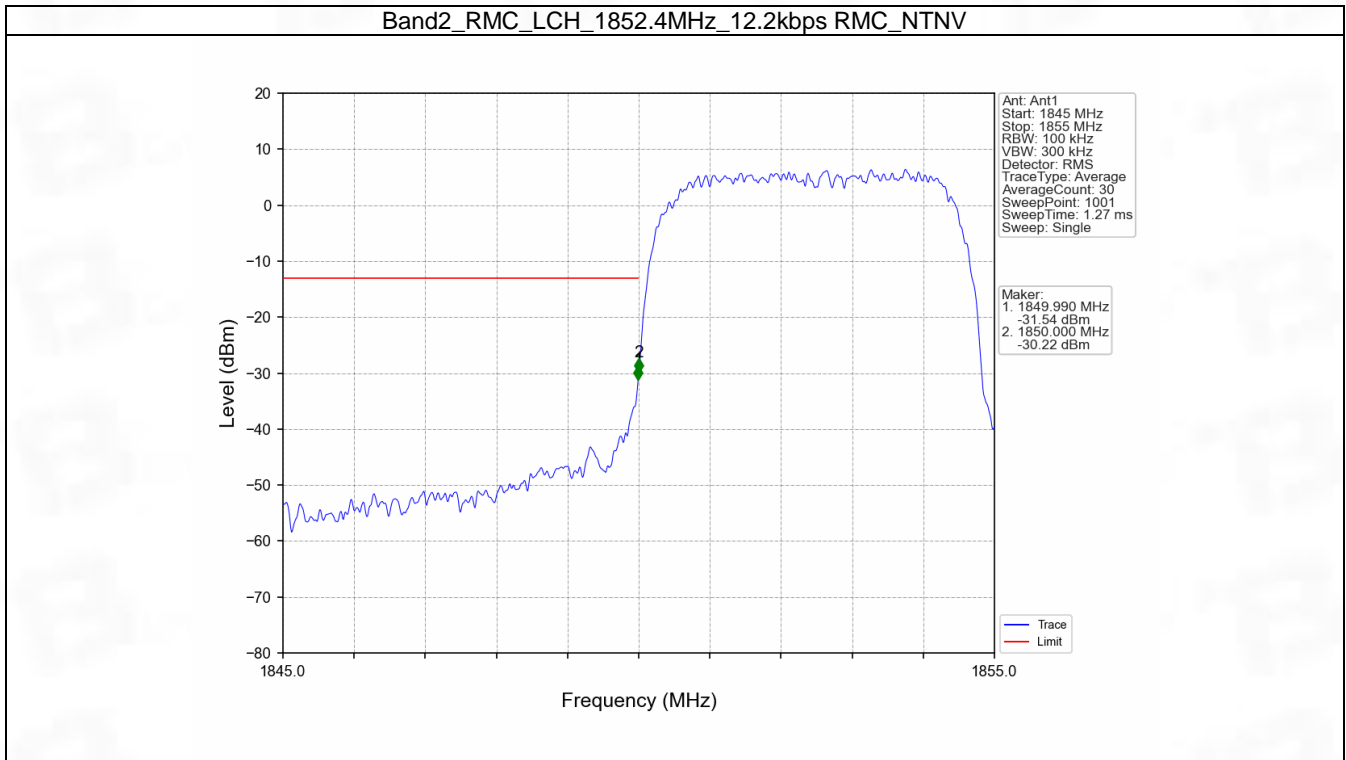
### 6.1 Band2

#### 6.1.1 Test Result

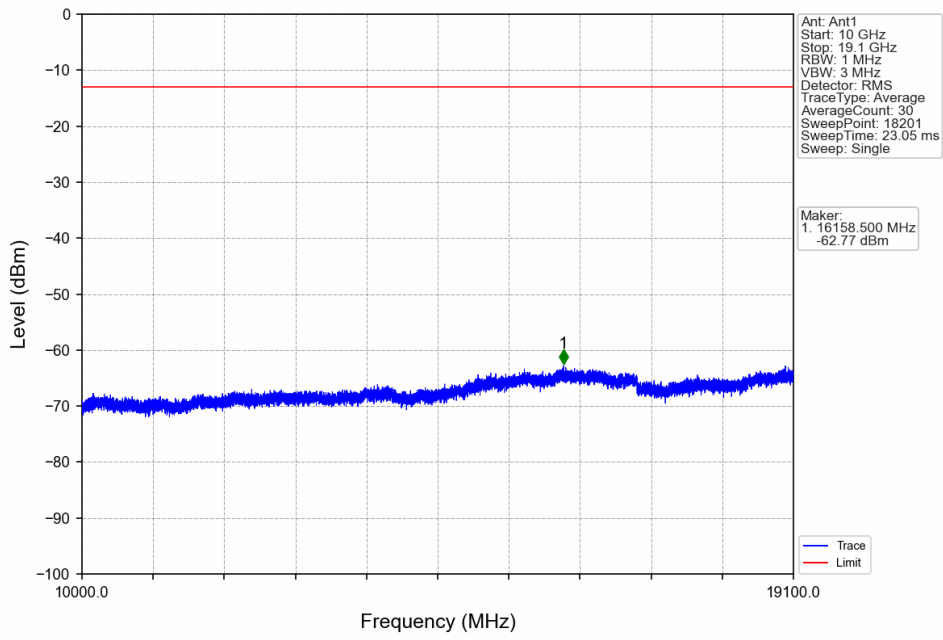
Band: 2						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1852.4	Refer To Test Graph		Pass
			1880	Refer To Test Graph		Pass
			1907.6	Refer To Test Graph		Pass
	HSDPA	Subtest 1	1852.4	Refer To Test Graph		Pass
			1880	Refer To Test Graph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



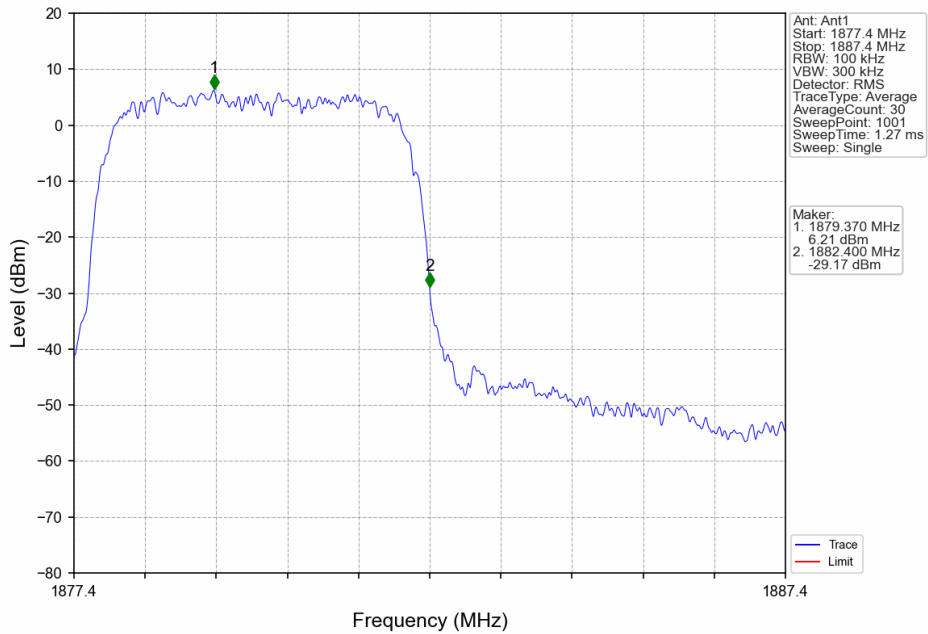
### 6.1.2 Test Graph



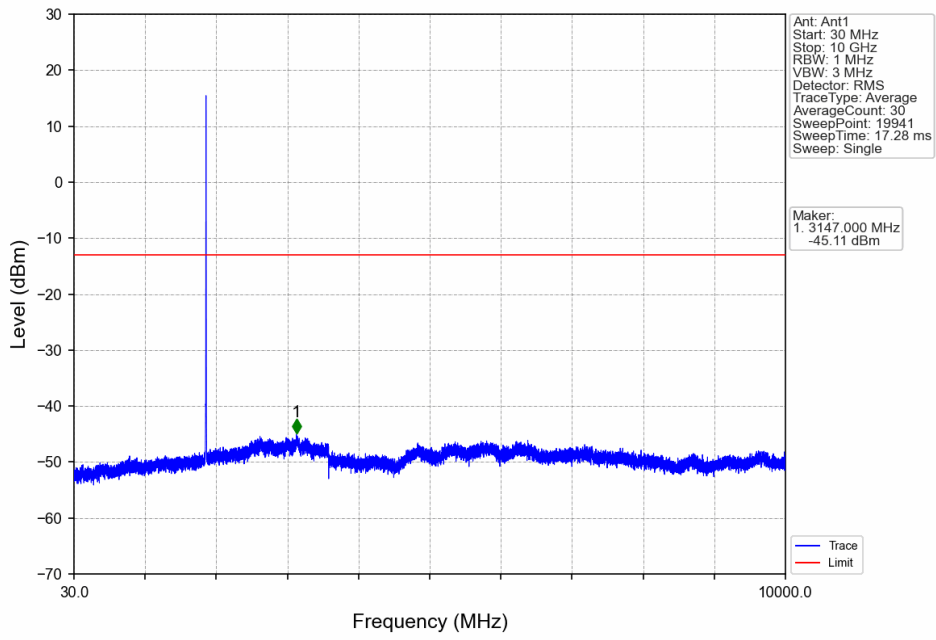
Band2\_RMC\_LCH\_1852.4MHz\_12.2kbps RMC\_NTNV



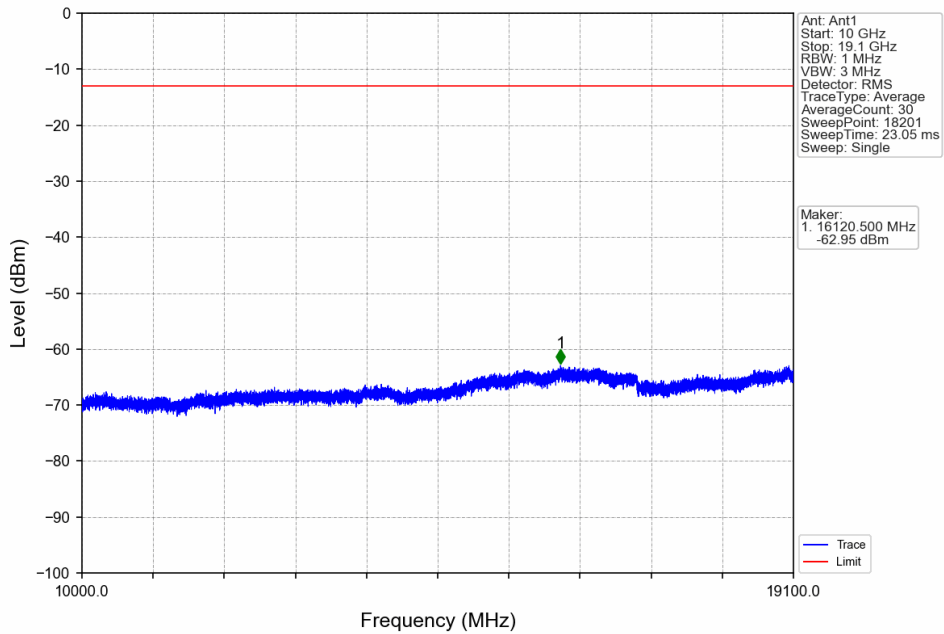
Band2\_RMC\_MCH\_1880MHz\_12.2kbps RMC\_NTNV



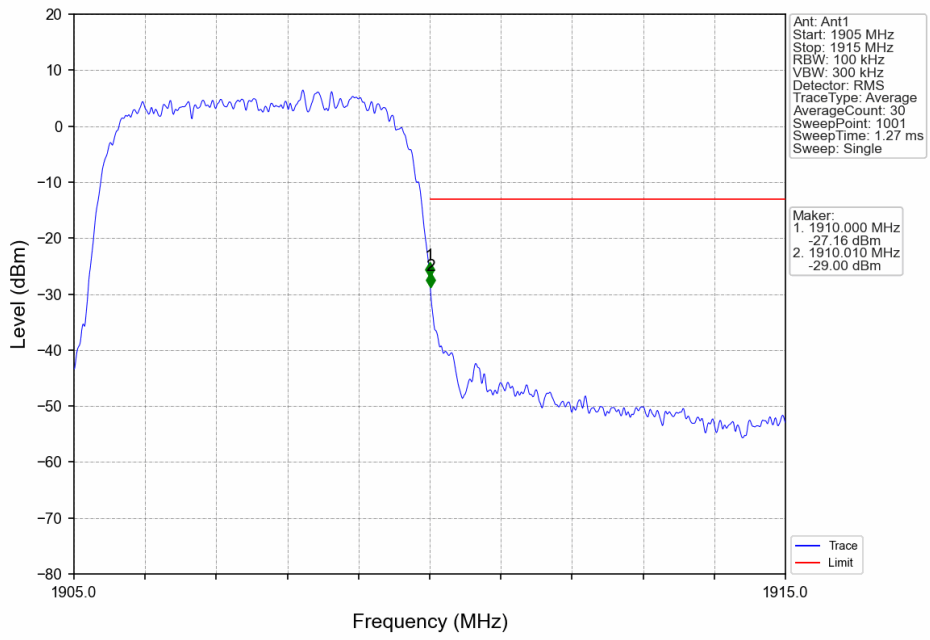
Band2\_RMC\_MCH\_1880MHz\_12.2kbps RMC\_NTNV



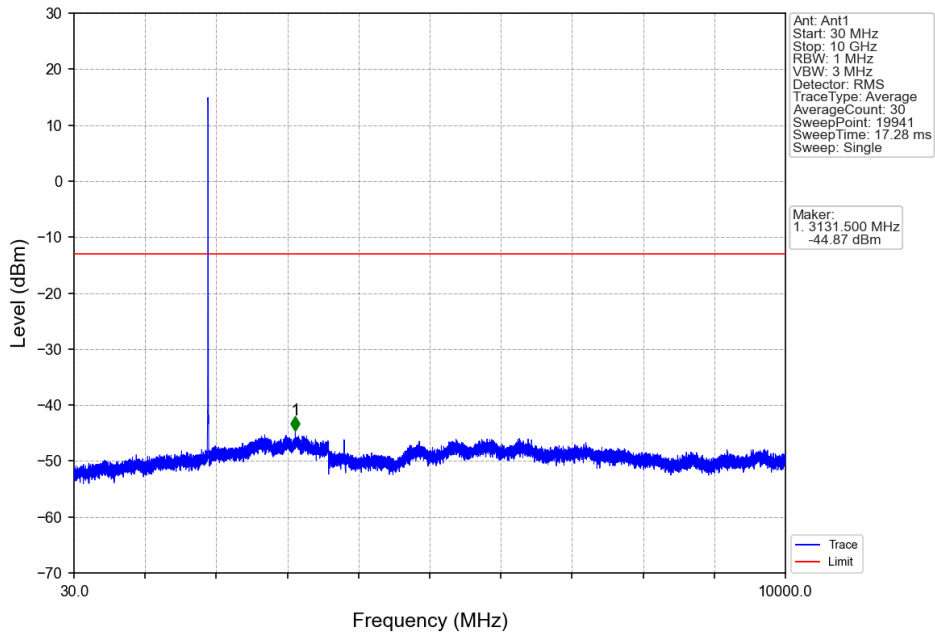
Band2\_RMC\_MCH\_1880MHz\_12.2kbps RMC\_NTNV



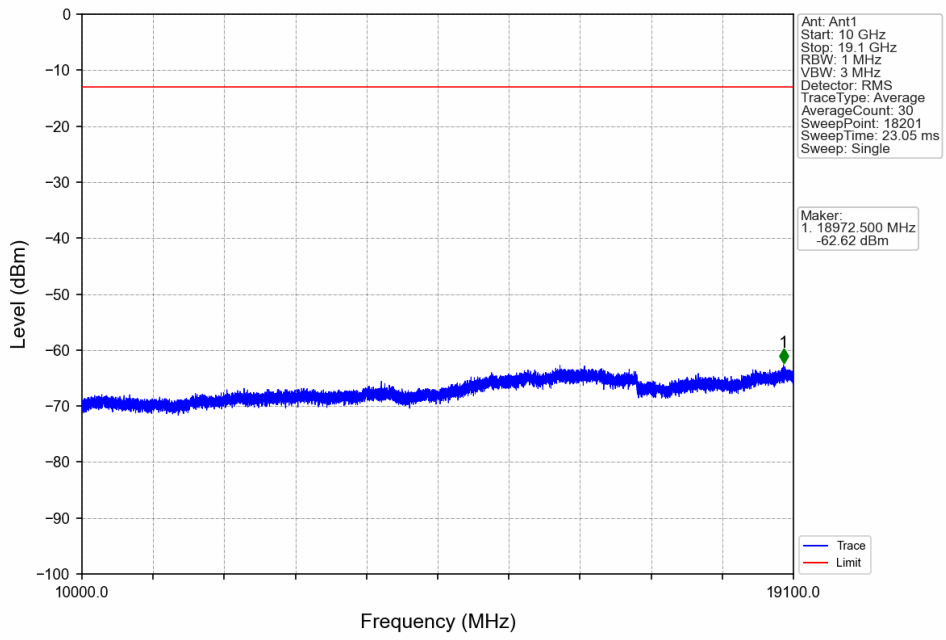
Band2\_RMC\_HCH\_1907.6MHz\_12.2kbps RMC\_NTNV



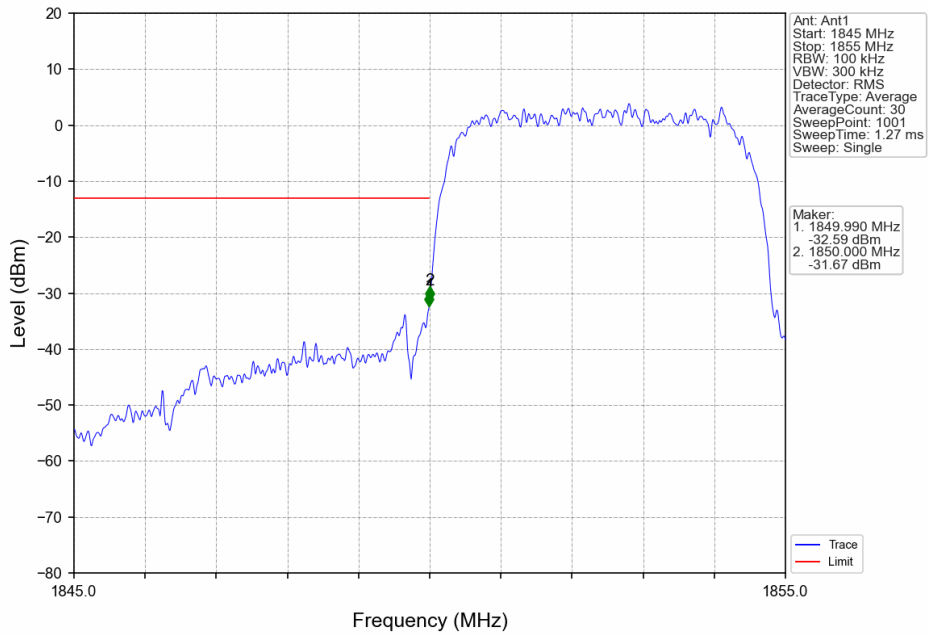
Band2\_RMC\_HCH\_1907.6MHz\_12.2kbps RMC\_NTNV



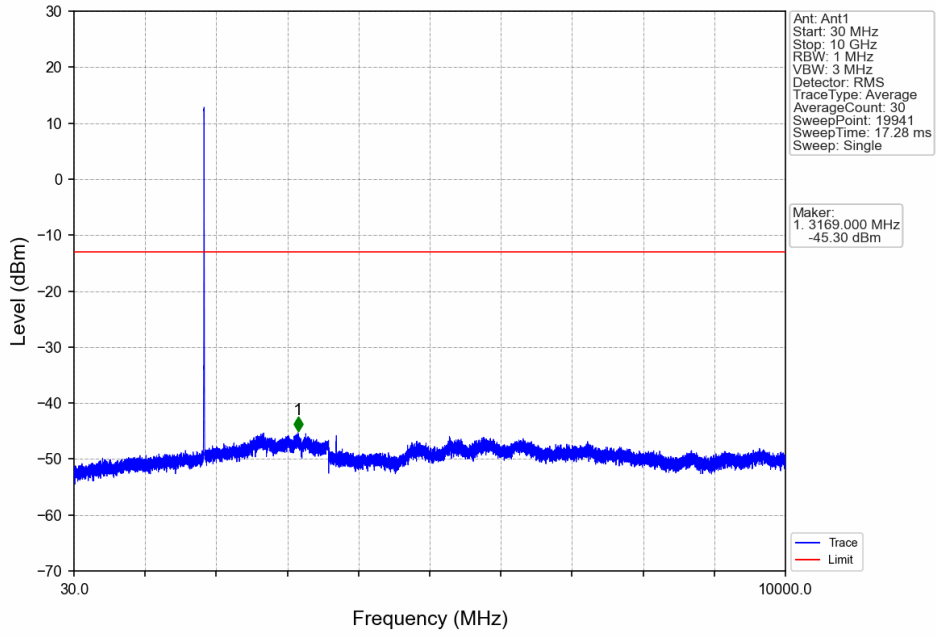
Band2\_RMC\_HCH\_1907.6MHz\_12.2kbps RMC\_NTNV



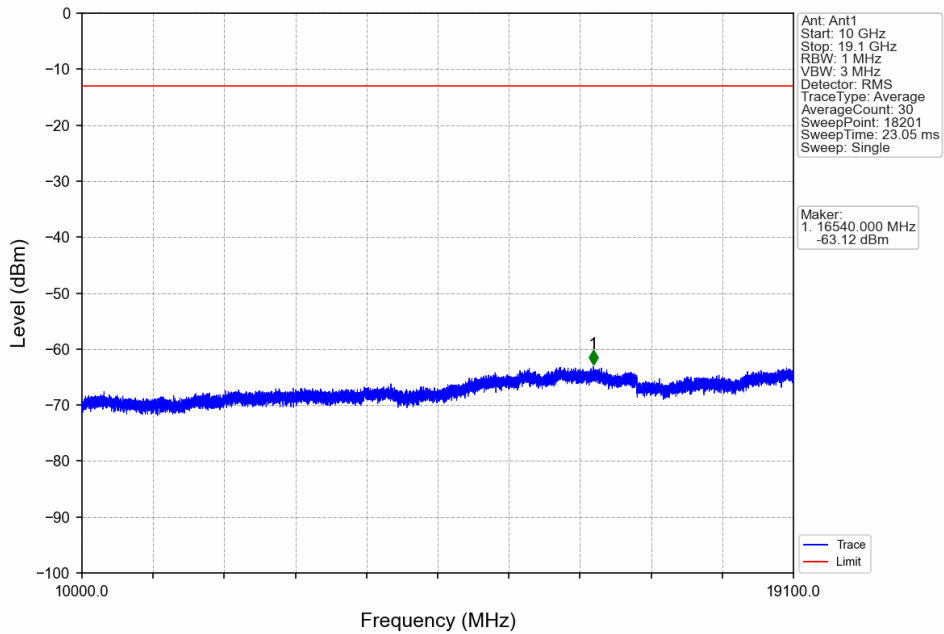
Band2\_HSDPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



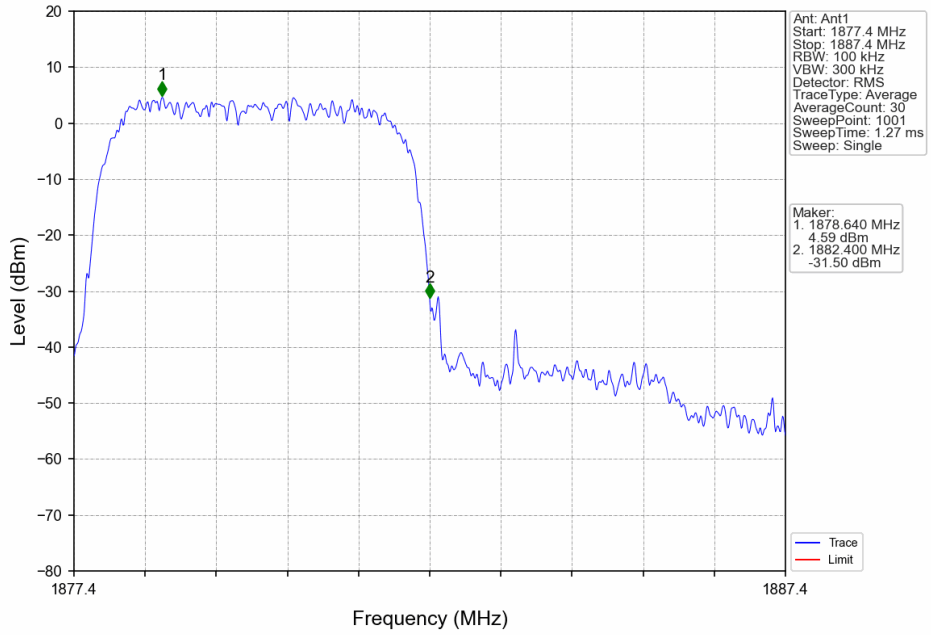
Band2\_HSDPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



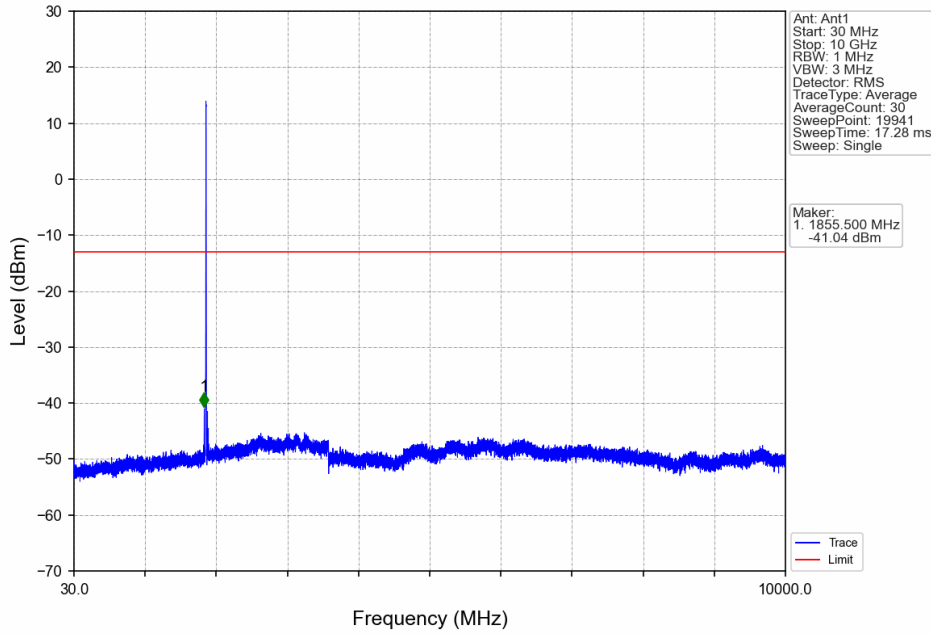
Band2\_HSDPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



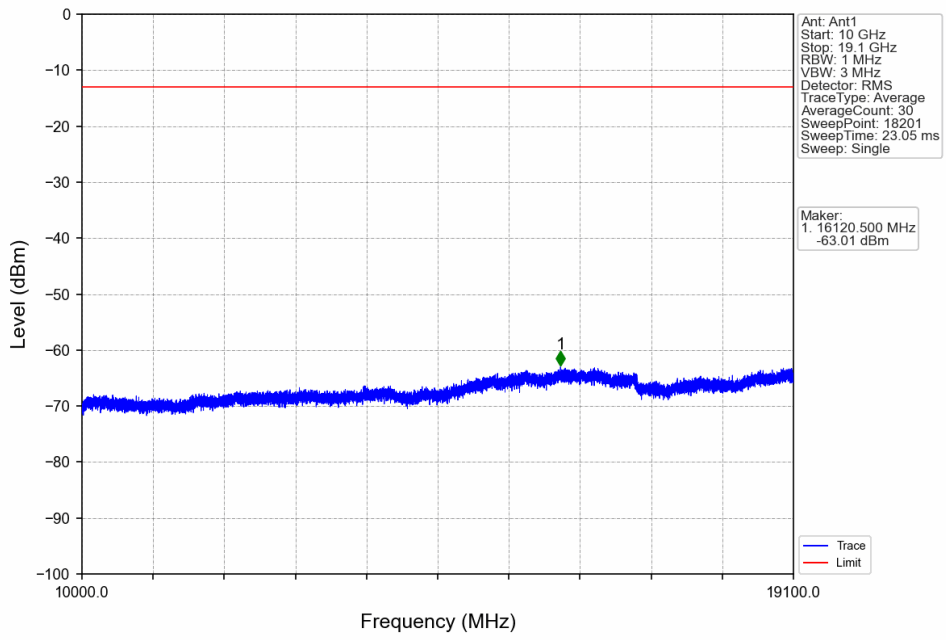
Band2\_HSDPA\_MCH\_1880MHz\_Subtest 1\_NTNV



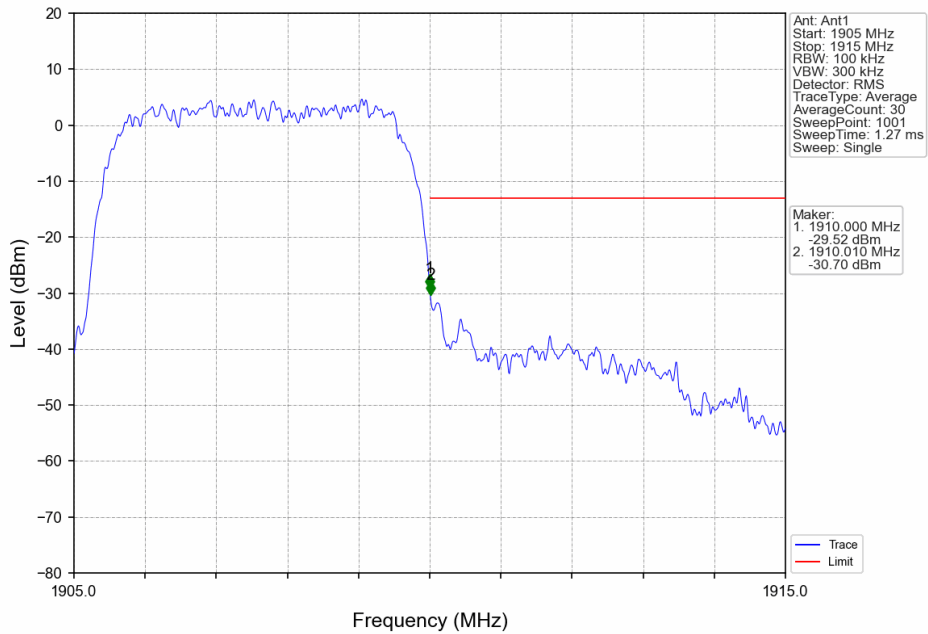
Band2\_HSDPA\_MCH\_1880MHz\_Subtest 1\_NTNV



Band2\_HSDPA\_MCH\_1880MHz\_Subtest 1\_NTNV

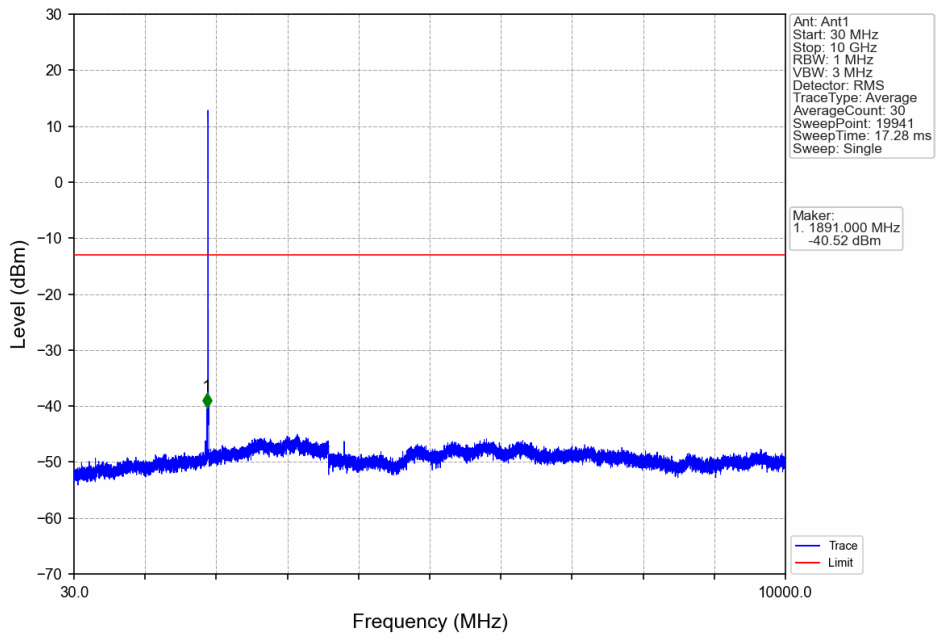


Band2\_HSDPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV

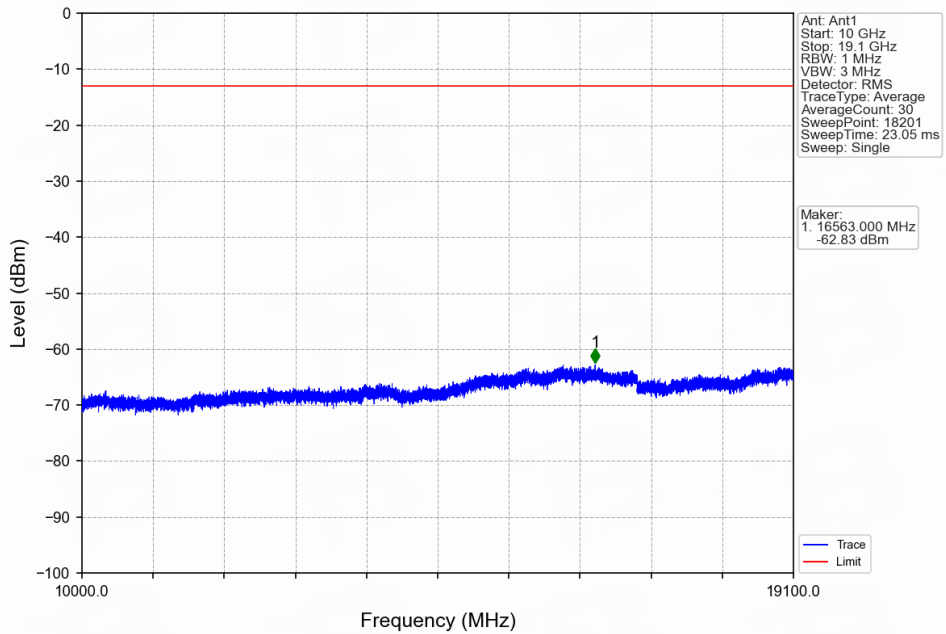




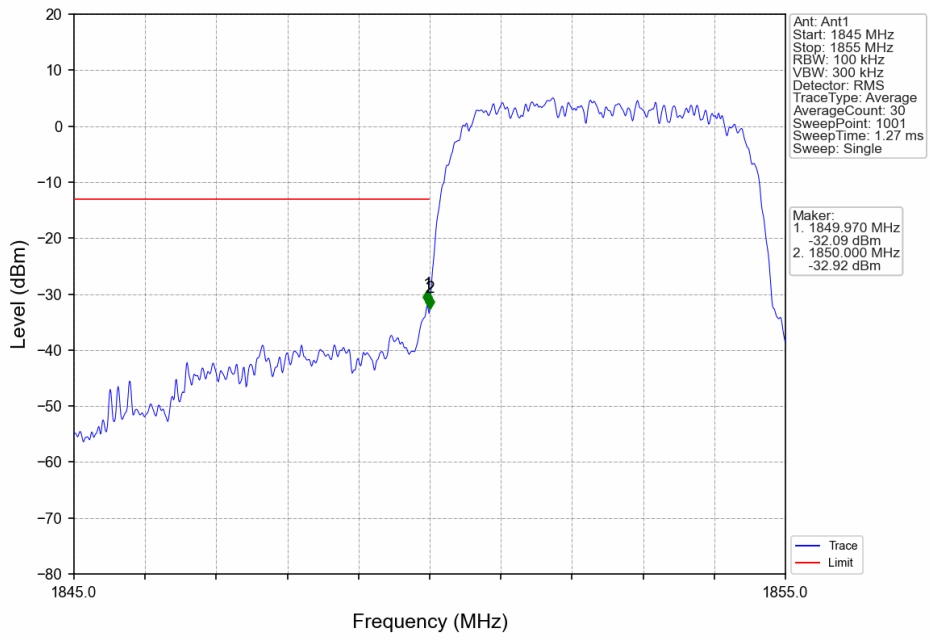
Band2\_HSDPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV



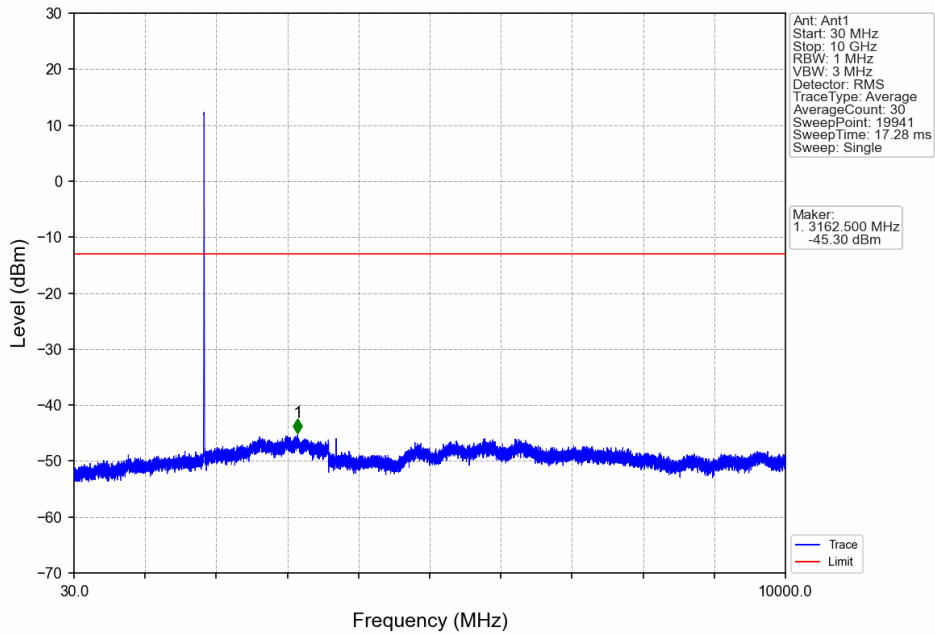
Band2\_HSDPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV



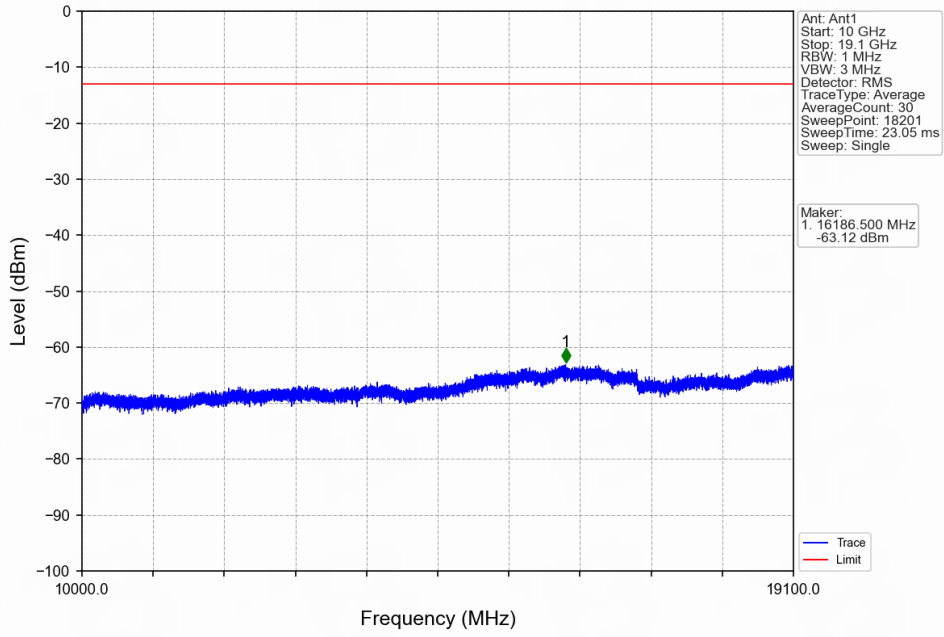
Band2\_HSUPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



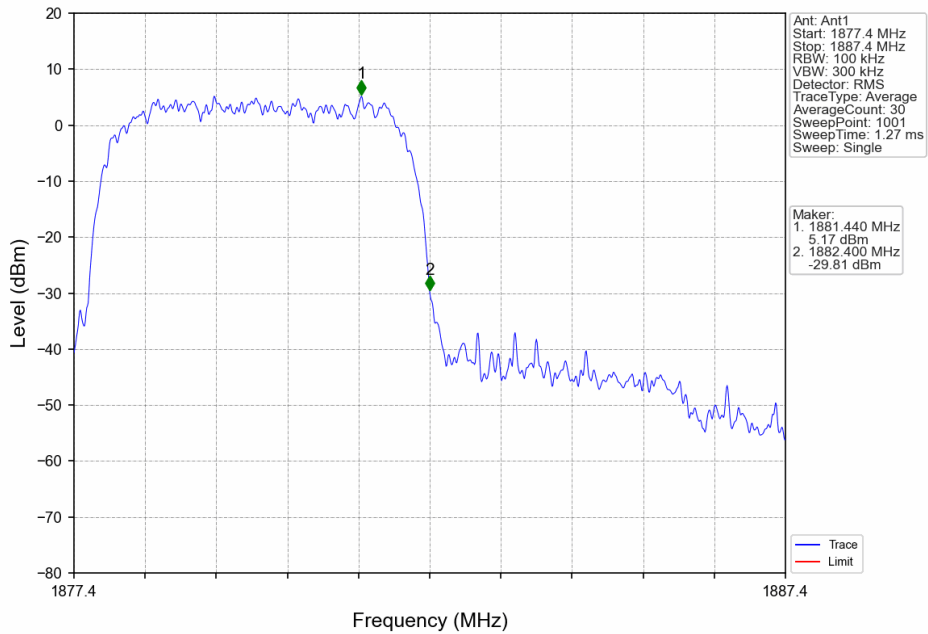
Band2\_HSUPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



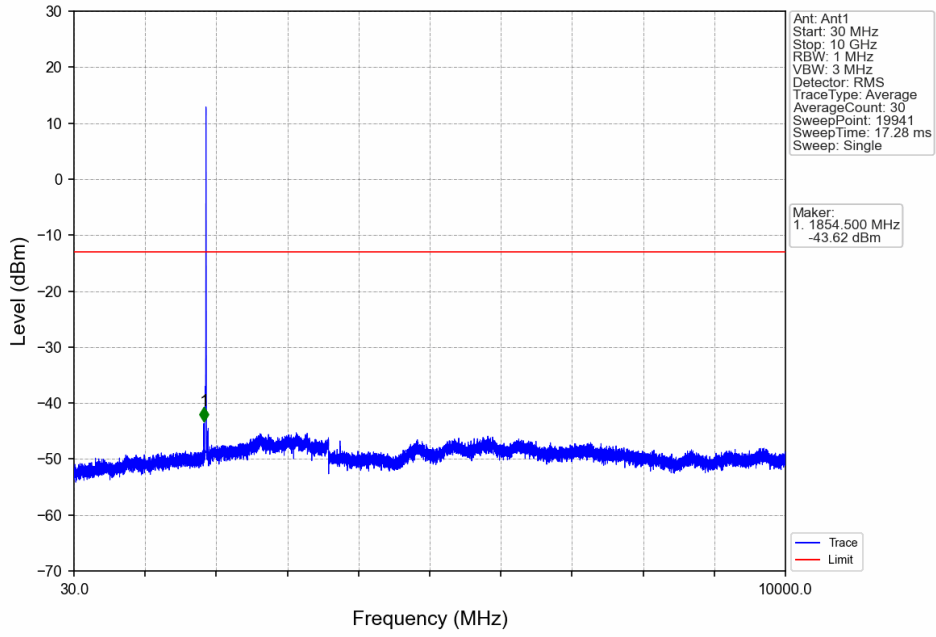
Band2\_HSUPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



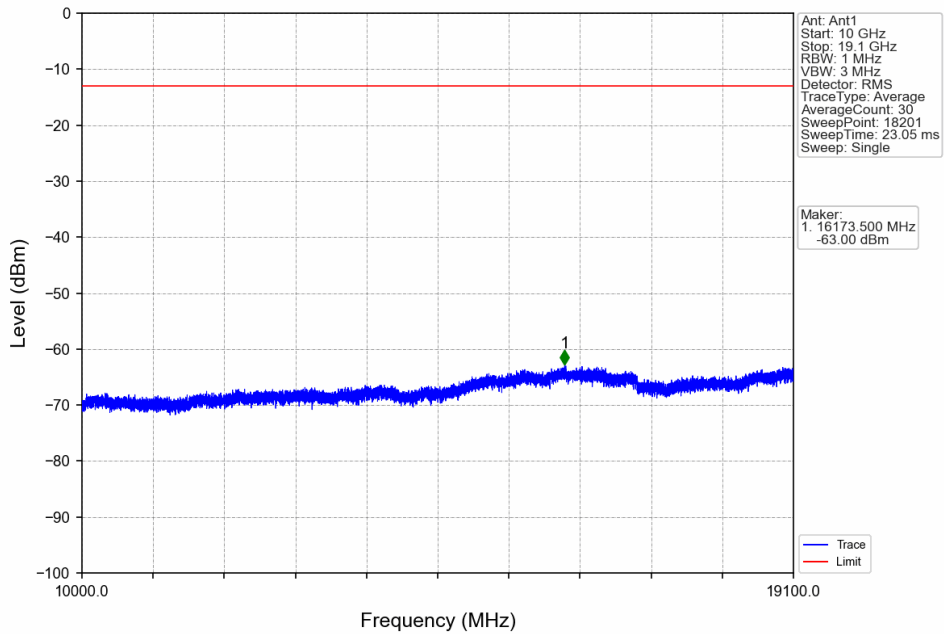
Band2\_HSUPA\_MCH\_1880MHz\_Subtest 1\_NTNV



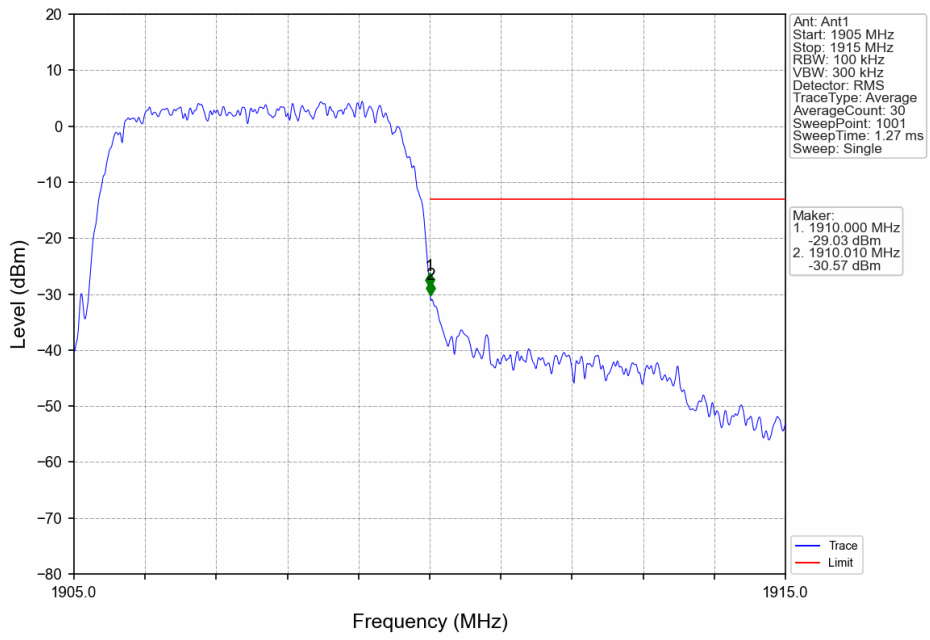
Band2\_HSUPA\_MCH\_1880MHz\_Subtest 1\_NTNV



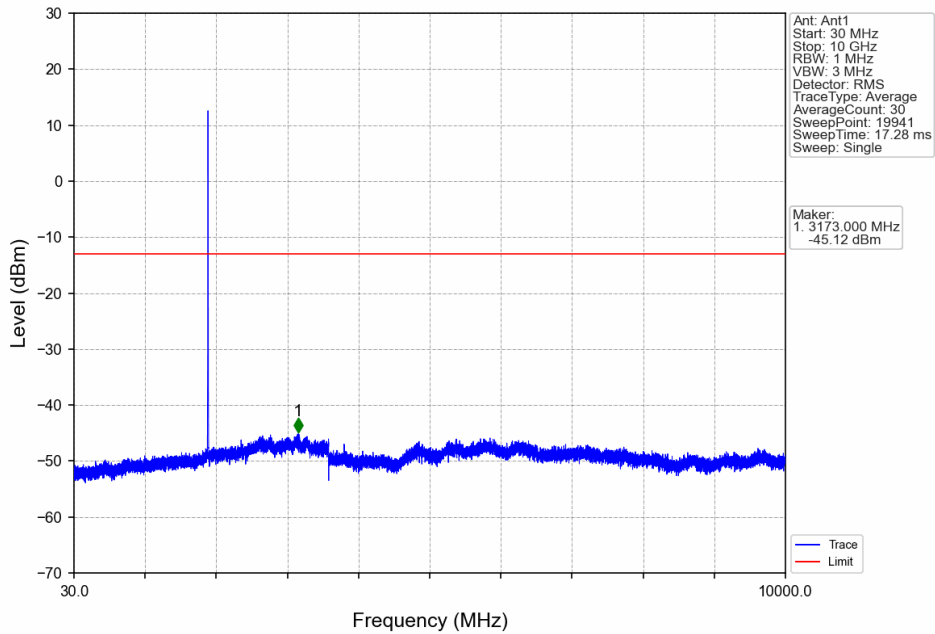
Band2\_HSUPA\_MCH\_1880MHz\_Subtest 1\_NTNV



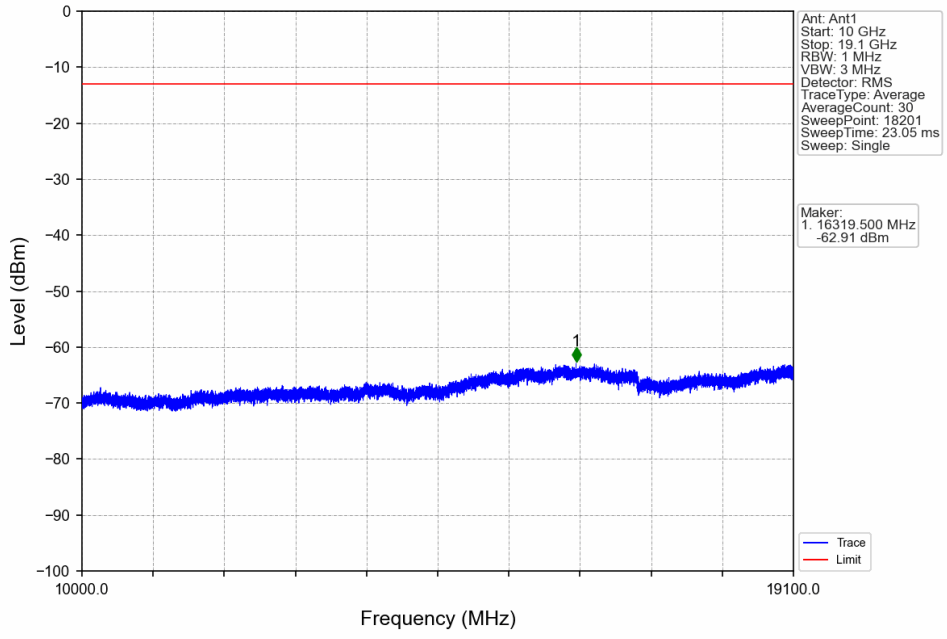
Band2\_HSUPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV



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	0.0849	0.0096	ppm	4M18F9W	24E	19.29

### 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	0.0957	0.0096	ppm	4M18F9W	24E	19.81