

# 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	19.62	2.68	22.30	<=33.01	Pass			
			1880	19.92	2.68	22.60	<=33.01	Pass			
			1907.6	20.07	2.68	22.75	<=33.01	Pass			
	HSDPA		Subtest 1	1852.4	17.18	2.68	19.86	<=33.01	Pass		
			Subtest 2	1852.4	17.19	2.68	19.87	<=33.01	Pass		
			Subtest 3	1852.4	17.19	2.68	19.87	<=33.01	Pass		
			Subtest 4	1852.4	17.22	2.68	19.90	<=33.01	Pass		
			Subtest 1	1880	17.57	2.68	20.25	<=33.01	Pass		
			Subtest 2	1880	17.57	2.68	20.25	<=33.01	Pass		
			Subtest 3	1880	17.57	2.68	20.25	<=33.01	Pass		
			Subtest 4	1880	17.62	2.68	20.30	<=33.01	Pass		
			Subtest 1	1907.6	17.62	2.68	20.30	<=33.01	Pass		
			Subtest 2	1907.6	17.60	2.68	20.28	<=33.01	Pass		
			Subtest 3	1907.6	17.59	2.68	20.27	<=33.01	Pass		
			Subtest 4	1907.6	17.61	2.68	20.29	<=33.01	Pass		
			HSUPA		Subtest 1	1852.4	15.29	2.68	17.97	<=33.01	Pass
					Subtest 2	1852.4	15.06	2.68	17.74	<=33.01	Pass
					Subtest 3	1852.4	15.29	2.68	17.97	<=33.01	Pass
	Subtest 4	1852.4			14.78	2.68	17.46	<=33.01	Pass		
	Subtest 5	1852.4			15.03	2.68	17.71	<=33.01	Pass		
	Subtest 1	1880			15.61	2.68	18.29	<=33.01	Pass		
	Subtest 2	1880			15.12	2.68	17.80	<=33.01	Pass		
	Subtest 3	1880			15.14	2.68	17.82	<=33.01	Pass		
	Subtest 4	1880			15.61	2.68	18.29	<=33.01	Pass		
	Subtest 5	1880			15.42	2.68	18.10	<=33.01	Pass		
	Subtest 1	1907.6			15.75	2.68	18.43	<=33.01	Pass		
	Subtest 2	1907.6			15.21	2.68	17.89	<=33.01	Pass		
	Subtest 3	1907.6			15.27	2.68	17.95	<=33.01	Pass		
	Subtest 4	1907.6			15.75	2.68	18.43	<=33.01	Pass		
	Subtest 5	1907.6			15.22	2.68	17.90	<=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	-12.968	-0.0070	-2.5 to 2.5	Pass
			3.85	-14.327	-0.0077	-2.5 to 2.5	Pass
			4.43	-16.780	-0.0091	-2.5 to 2.5	Pass
		-30	3.85	-18.568	-0.0100	-2.5 to 2.5	Pass
		-20	3.85	-14.198	-0.0077	-2.5 to 2.5	Pass

	1880	-10	3.85	-18.382	-0.0099	-2.5 to 2.5	Pass	
		0	3.85	-18.168	-0.0098	-2.5 to 2.5	Pass	
		10	3.85	-12.295	-0.0066	-2.5 to 2.5	Pass	
		30	3.85	-15.242	-0.0082	-2.5 to 2.5	Pass	
		40	3.85	-16.980	-0.0092	-2.5 to 2.5	Pass	
		50	3.85	-15.500	-0.0084	-2.5 to 2.5	Pass	
		20	3.27	-10.958	-0.0058	-2.5 to 2.5	Pass	
			3.85	-16.165	-0.0086	-2.5 to 2.5	Pass	
			4.43	-9.756	-0.0052	-2.5 to 2.5	Pass	
		-30	3.85	-14.248	-0.0076	-2.5 to 2.5	Pass	
		-20	3.85	-17.216	-0.0092	-2.5 to 2.5	Pass	
		-10	3.85	-17.703	-0.0094	-2.5 to 2.5	Pass	
		0	3.85	-8.669	-0.0046	-2.5 to 2.5	Pass	
		10	3.85	-12.224	-0.0065	-2.5 to 2.5	Pass	
		30	3.85	-16.651	-0.0089	-2.5 to 2.5	Pass	
	40	3.85	-19.376	-0.0103	-2.5 to 2.5	Pass		
	50	3.85	-15.063	-0.0080	-2.5 to 2.5	Pass		
	1907.6	20	3.27	-10.815	-0.0057	-2.5 to 2.5	Pass	
			3.85	-9.570	-0.0050	-2.5 to 2.5	Pass	
			4.43	-11.530	-0.0060	-2.5 to 2.5	Pass	
		-30	3.85	-14.291	-0.0075	-2.5 to 2.5	Pass	
		-20	3.85	-19.298	-0.0101	-2.5 to 2.5	Pass	
		-10	3.85	-14.176	-0.0074	-2.5 to 2.5	Pass	
		0	3.85	-12.295	-0.0064	-2.5 to 2.5	Pass	
		10	3.85	-16.923	-0.0089	-2.5 to 2.5	Pass	
		30	3.85	-14.062	-0.0074	-2.5 to 2.5	Pass	
		40	3.85	-12.910	-0.0068	-2.5 to 2.5	Pass	
50		3.85	-18.568	-0.0097	-2.5 to 2.5	Pass		
HSDPA		1852.4	20	3.27	-21.915	-0.0118	-2.5 to 2.5	Pass
	3.85			-18.682	-0.0101	-2.5 to 2.5	Pass	
	4.43			-21.007	-0.0113	-2.5 to 2.5	Pass	
	-30		3.85	-19.512	-0.0105	-2.5 to 2.5	Pass	
	-20		3.85	-16.844	-0.0091	-2.5 to 2.5	Pass	
	-10		3.85	-15.371	-0.0083	-2.5 to 2.5	Pass	
	0		3.85	-20.514	-0.0111	-2.5 to 2.5	Pass	
	10		3.85	-16.301	-0.0088	-2.5 to 2.5	Pass	
	30		3.85	-18.790	-0.0101	-2.5 to 2.5	Pass	
	40		3.85	-17.180	-0.0093	-2.5 to 2.5	Pass	
	50		3.85	-15.514	-0.0084	-2.5 to 2.5	Pass	
	1880		20	3.27	-10.965	-0.0058	-2.5 to 2.5	Pass
				3.85	-6.087	-0.0032	-2.5 to 2.5	Pass
				4.43	-10.865	-0.0058	-2.5 to 2.5	Pass
			-30	3.85	-10.915	-0.0058	-2.5 to 2.5	Pass
		-20	3.85	-8.926	-0.0047	-2.5 to 2.5	Pass	
		-10	3.85	-6.981	-0.0037	-2.5 to 2.5	Pass	
		0	3.85	-11.065	-0.0059	-2.5 to 2.5	Pass	
		10	3.85	-8.218	-0.0044	-2.5 to 2.5	Pass	
		30	3.85	-7.167	-0.0038	-2.5 to 2.5	Pass	
		40	3.85	-5.486	-0.0029	-2.5 to 2.5	Pass	
		50	3.85	-7.310	-0.0039	-2.5 to 2.5	Pass	
		1907.6	20	3.27	-18.632	-0.0098	-2.5 to 2.5	Pass
	3.85			-13.161	-0.0069	-2.5 to 2.5	Pass	
	4.43			-16.437	-0.0086	-2.5 to 2.5	Pass	
	-30		3.85	-16.809	-0.0088	-2.5 to 2.5	Pass	
	-20		3.85	-15.771	-0.0083	-2.5 to 2.5	Pass	
-10	3.85		-18.017	-0.0094	-2.5 to 2.5	Pass		
0	3.85		-16.015	-0.0084	-2.5 to 2.5	Pass		
10	3.85		-17.474	-0.0092	-2.5 to 2.5	Pass		
30	3.85		-16.608	-0.0087	-2.5 to 2.5	Pass		

		40	3.85	-14.584	-0.0076	-2.5 to 2.5	Pass
		50	3.85	-22.717	-0.0119	-2.5 to 2.5	Pass
HSUPA	1852.4	20	3.27	-9.921	-0.0054	-2.5 to 2.5	Pass
			3.85	-10.543	-0.0057	-2.5 to 2.5	Pass
			4.43	-10.343	-0.0056	-2.5 to 2.5	Pass
		-30	3.85	-12.760	-0.0069	-2.5 to 2.5	Pass
		-20	3.85	-15.471	-0.0084	-2.5 to 2.5	Pass
		-10	3.85	-9.277	-0.0050	-2.5 to 2.5	Pass
		0	3.85	-11.101	-0.0060	-2.5 to 2.5	Pass
		10	3.85	-13.475	-0.0073	-2.5 to 2.5	Pass
		30	3.85	-13.411	-0.0072	-2.5 to 2.5	Pass
		40	3.85	-9.398	-0.0051	-2.5 to 2.5	Pass
	50	3.85	-10.636	-0.0057	-2.5 to 2.5	Pass	
	1880	20	3.27	-11.916	-0.0063	-2.5 to 2.5	Pass
			3.85	-15.271	-0.0081	-2.5 to 2.5	Pass
			4.43	-14.277	-0.0076	-2.5 to 2.5	Pass
		-30	3.85	-13.304	-0.0071	-2.5 to 2.5	Pass
		-20	3.85	-12.224	-0.0065	-2.5 to 2.5	Pass
		-10	3.85	-12.782	-0.0068	-2.5 to 2.5	Pass
		0	3.85	-11.687	-0.0062	-2.5 to 2.5	Pass
		10	3.85	-14.591	-0.0078	-2.5 to 2.5	Pass
		30	3.85	-12.689	-0.0067	-2.5 to 2.5	Pass
		40	3.85	-10.450	-0.0056	-2.5 to 2.5	Pass
	50	3.85	-14.498	-0.0077	-2.5 to 2.5	Pass	
	1907.6	20	3.27	-11.408	-0.0060	-2.5 to 2.5	Pass
			3.85	-15.550	-0.0082	-2.5 to 2.5	Pass
			4.43	-8.490	-0.0045	-2.5 to 2.5	Pass
		-30	3.85	-9.949	-0.0052	-2.5 to 2.5	Pass
		-20	3.85	-12.681	-0.0066	-2.5 to 2.5	Pass
		-10	3.85	-16.022	-0.0084	-2.5 to 2.5	Pass
		0	3.85	-10.972	-0.0058	-2.5 to 2.5	Pass
		10	3.85	-13.855	-0.0073	-2.5 to 2.5	Pass
30		3.85	-11.523	-0.0060	-2.5 to 2.5	Pass	
40		3.85	-9.871	-0.0052	-2.5 to 2.5	Pass	
50	3.85	-17.431	-0.0091	-2.5 to 2.5	Pass		

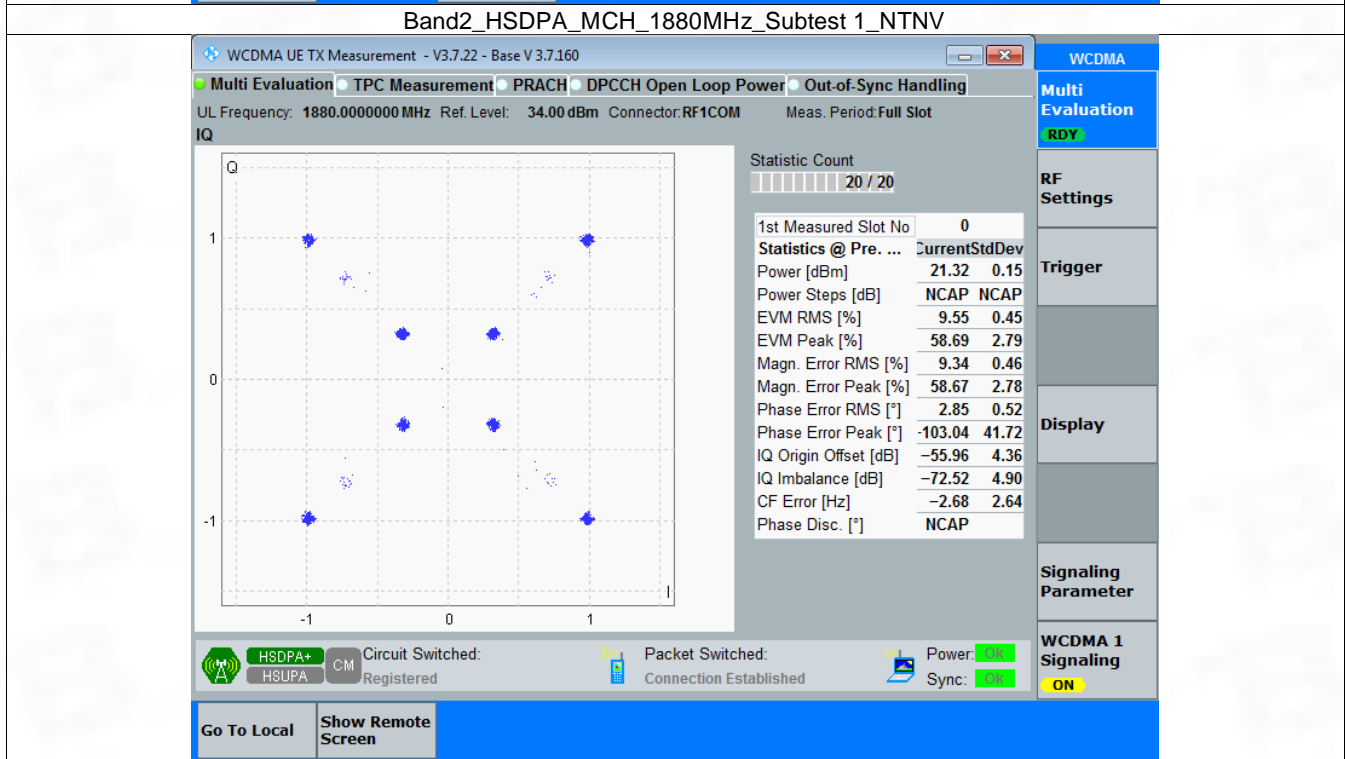
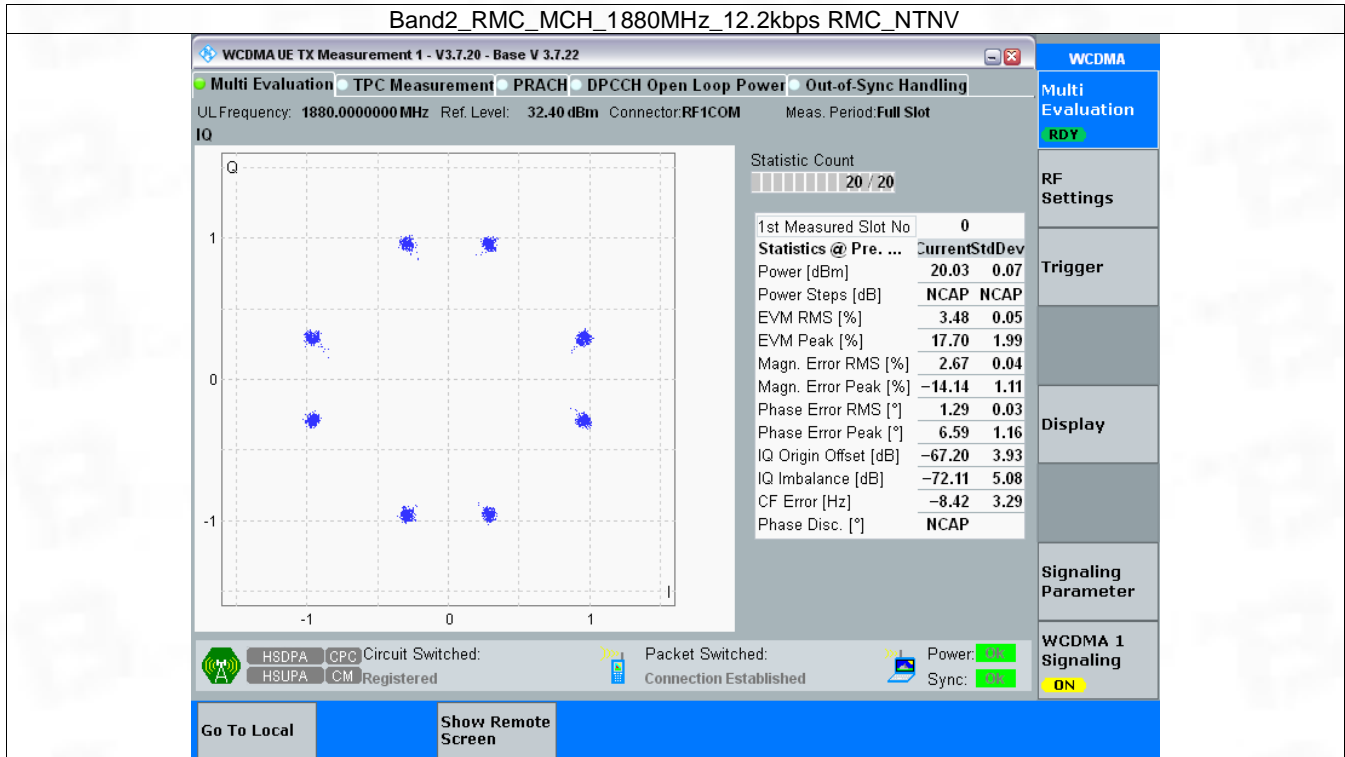
### 3. Modulation Characteristics

#### 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: 16.80 dBm Connector: RF1COM Meas. Period: Full Slot

IQ

Statistic Count: 20 / 20

Statistics @ Pre. ...		Current	StdDev
Power [dBm]	-0.76	3.27	
Power Steps [dB]	NCAP	NCAP	
EVM RMS [%]	3.49	3.95	
EVM Peak [%]	8.72	34.48	
Magn. Error RMS [%]	2.26	4.28	
Magn. Error Peak [%]	-6.48	35.47	
Phase Error RMS [°]	2.53	0.50	
Phase Error Peak [°]	9.53	2.20	
IQ Origin Offset [dB]	-54.41	2.87	
IQ Imbalance [dB]	-58.47	5.10	
CF Error [Hz]	-14.36	5.49	
Phase Disc. [°]	NCAP		

1st Measured Slot No: 0

HSDPA+  CPC Circuit Switched  
 HSUPA  CM Registered

Packet Switched  
 Connection Established

Power: ON  
 Sync: ON

WCDMA 1 Signaling: ON

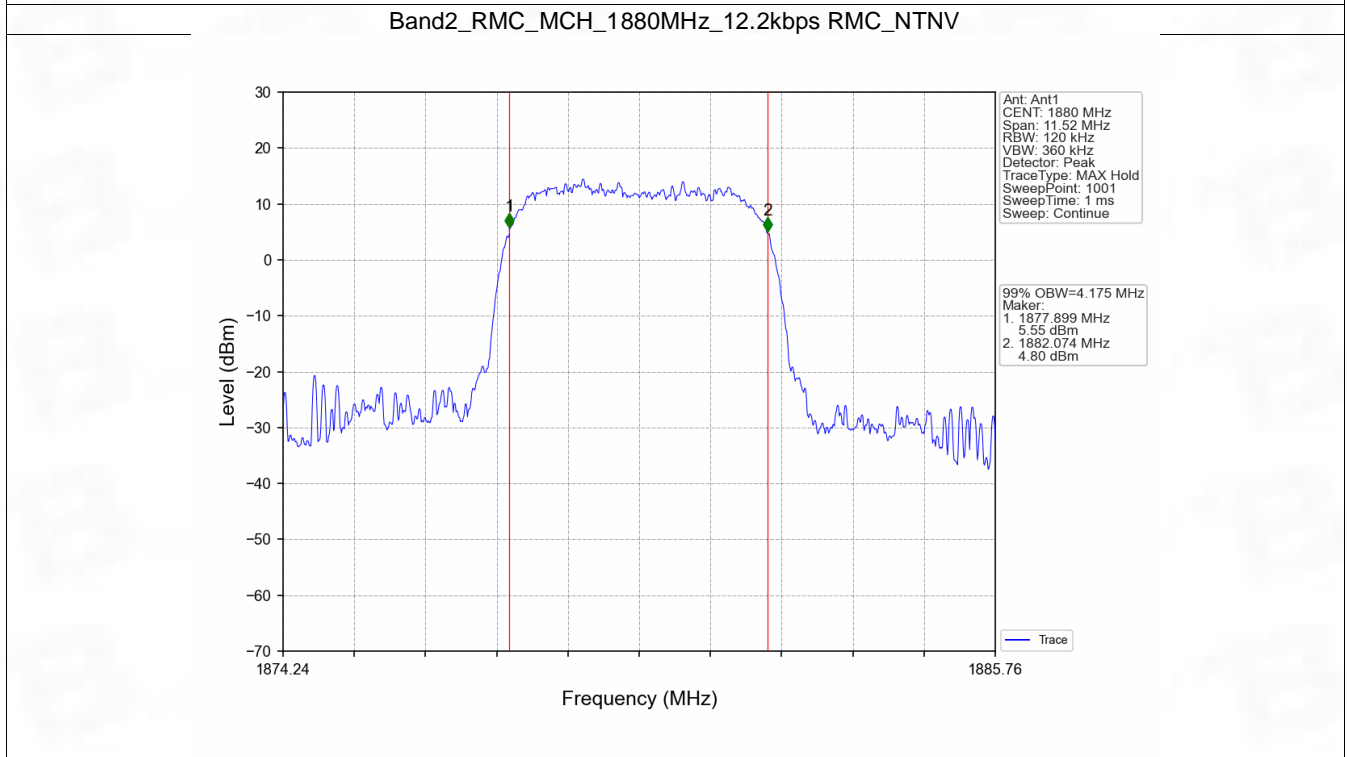
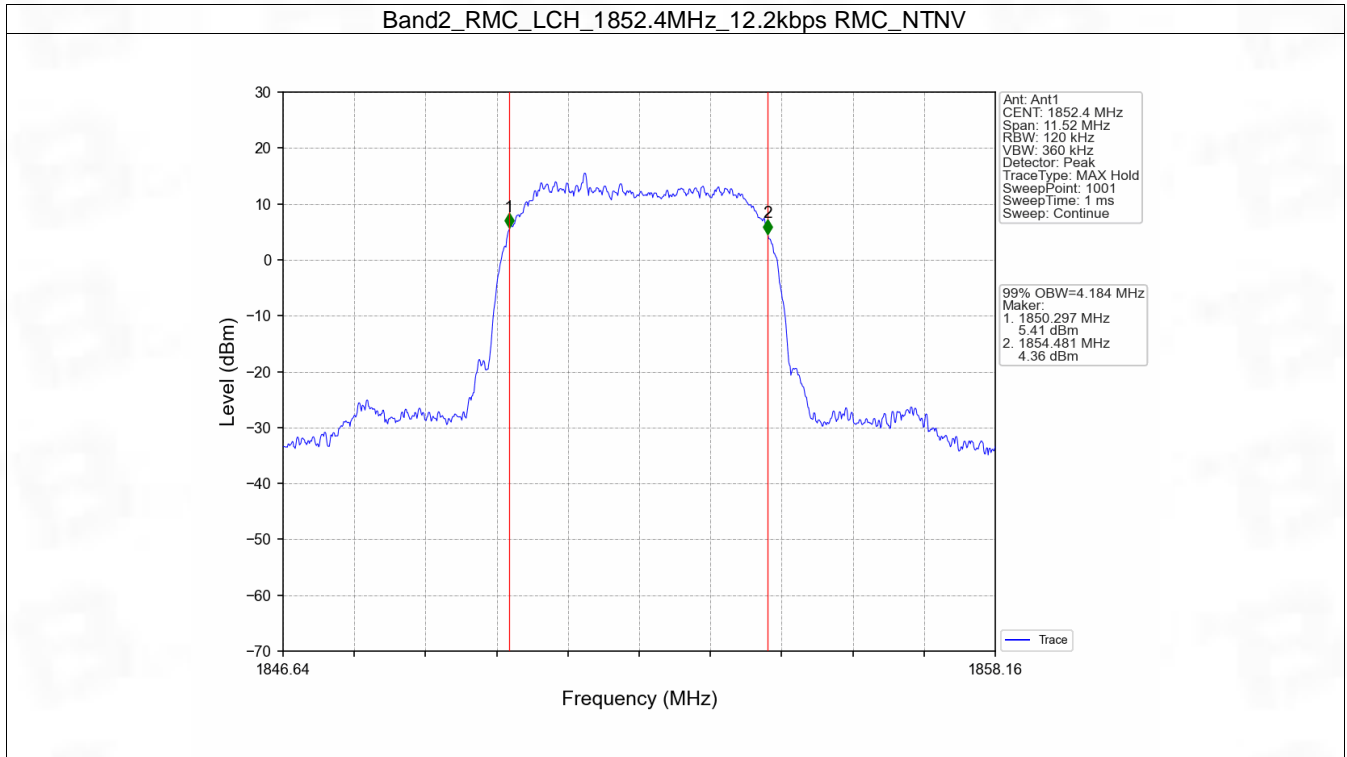
## 4. 99% & 26dB Bandwidth

### 4.1 Band2\_OBW

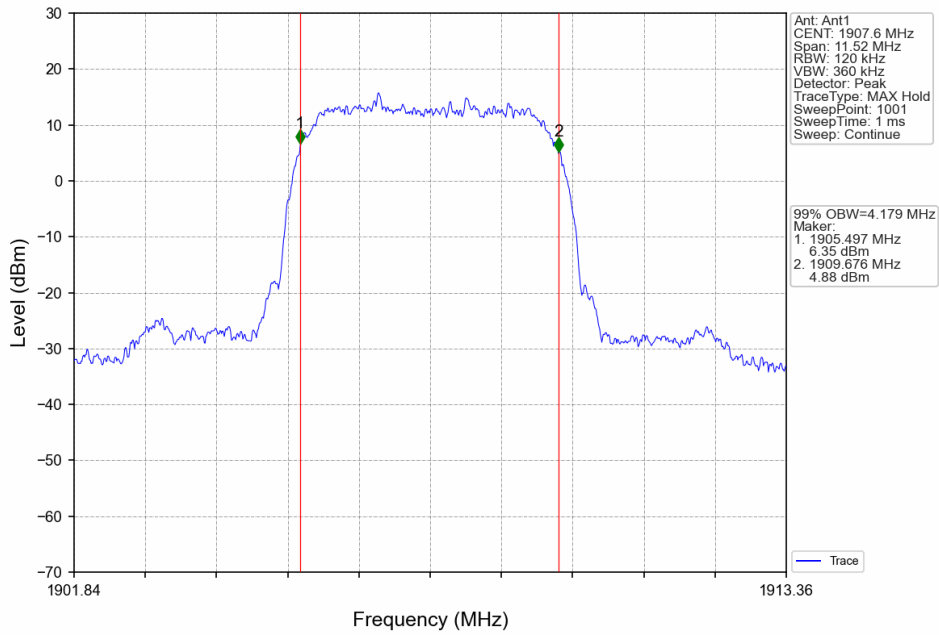
#### 4.1.1 Test Result

Band: 2					
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	RMC	12.2kbps RMC	1852.4	4.184	Pass
			1880	4.175	Pass
			1907.6	4.179	Pass
	HSDPA	Subtest 1	1852.4	4.244	Pass
			1880	4.247	Pass
			1907.6	4.249	Pass
	HSUPA	Subtest 1	1852.4	4.241	Pass
			1880	4.213	Pass
			1907.6	4.241	Pass

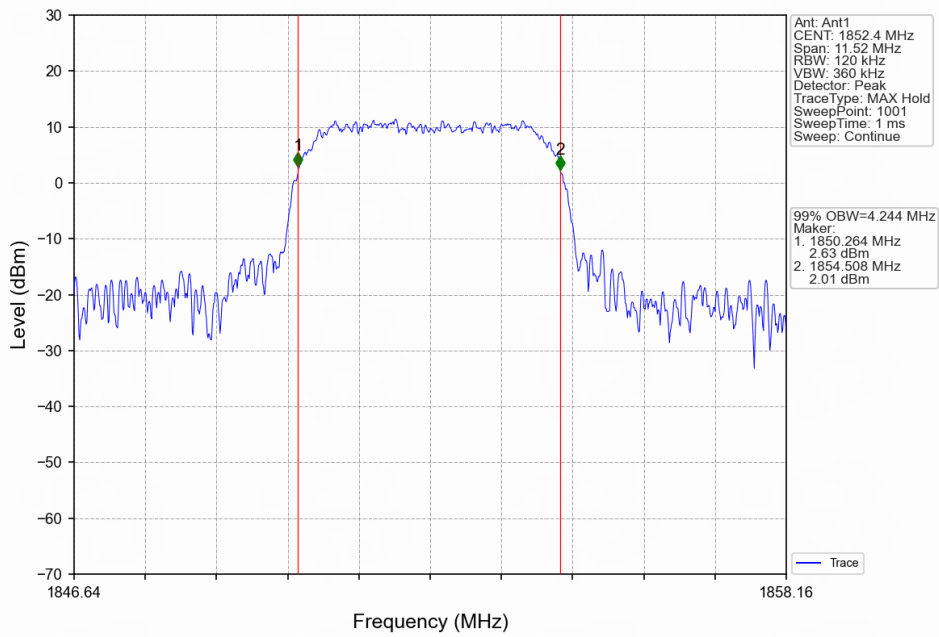
### 4.1.2 Test Graph



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

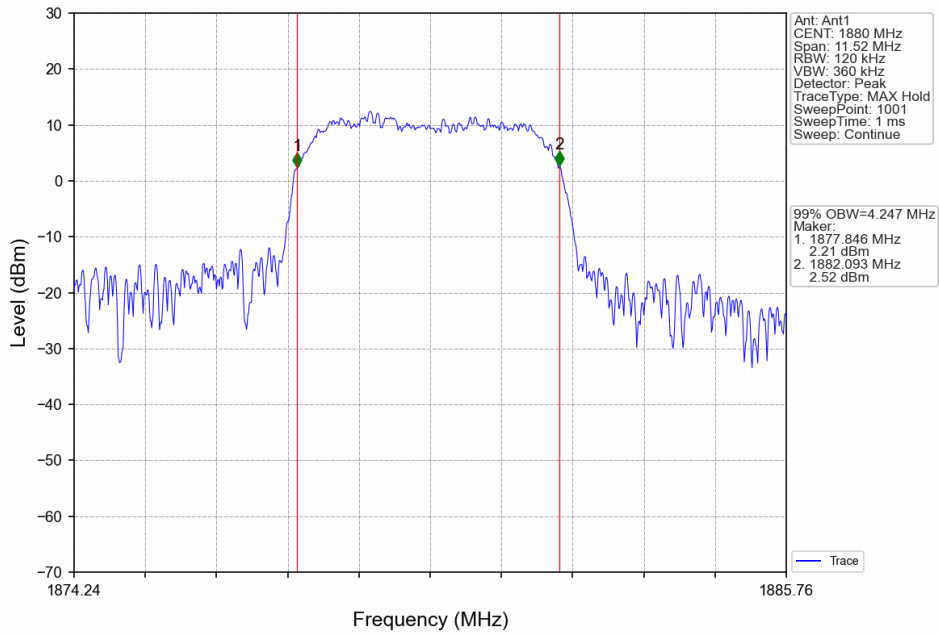


Band2\_HSDPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV

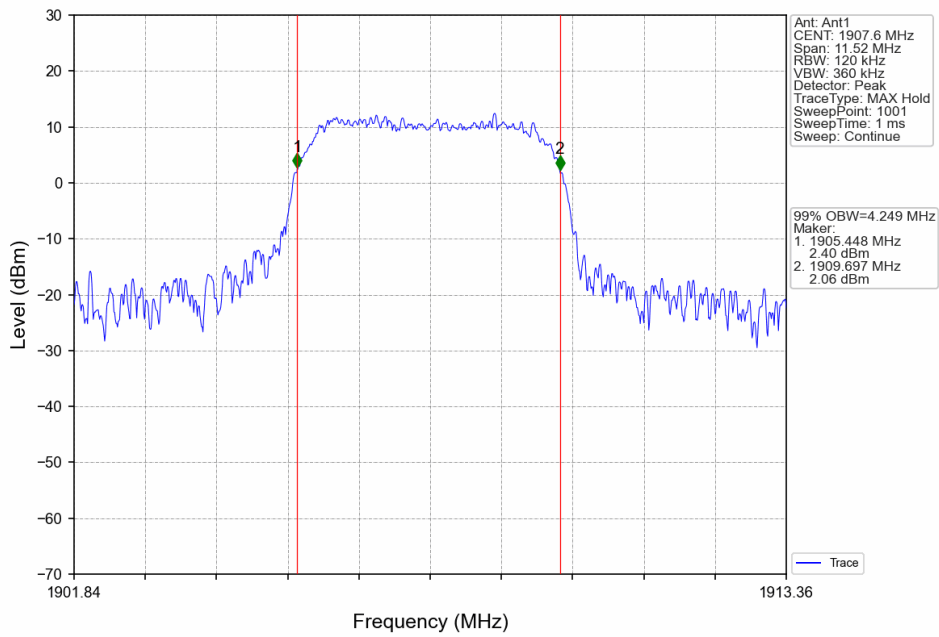




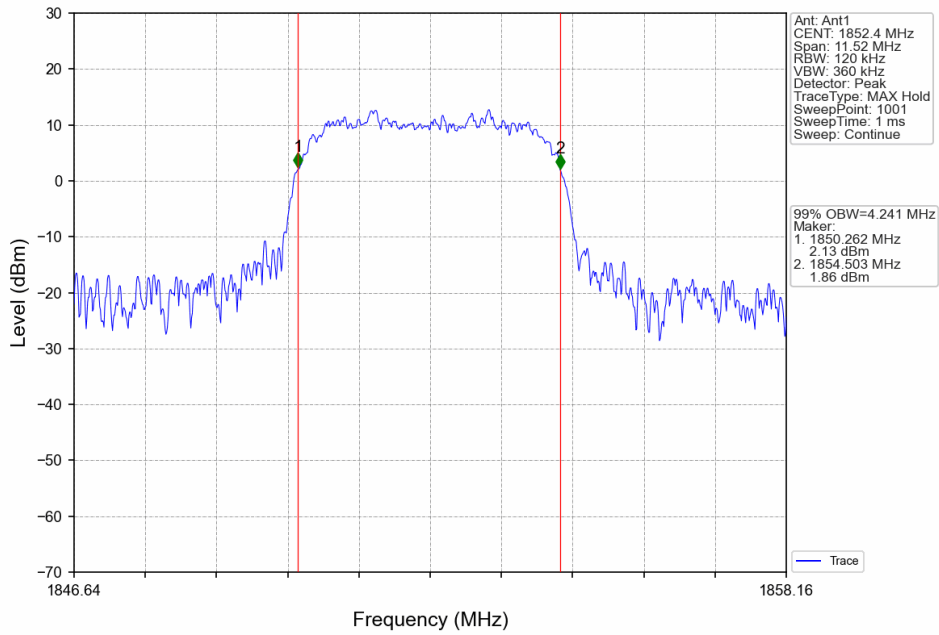
Band2\_HSDPA\_MCH\_1880MHz\_Subtest 1\_NTNV



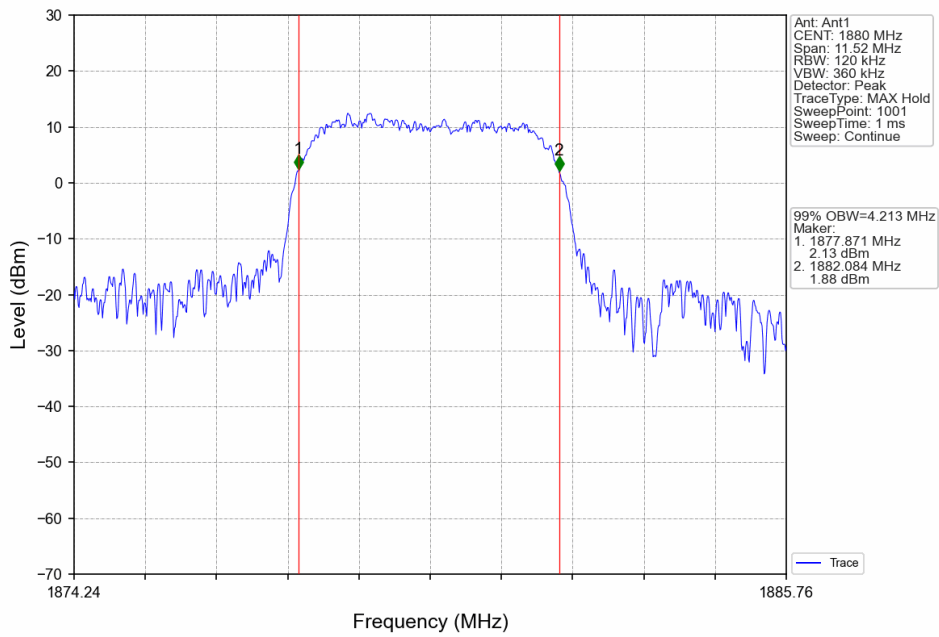
Band2\_HSDPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV



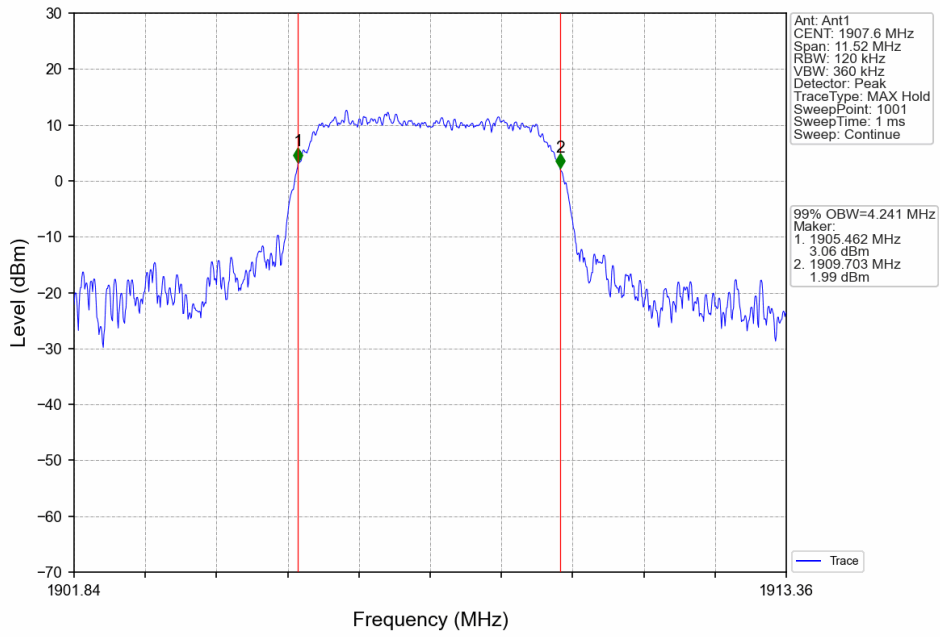
Band2\_HSUPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



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



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

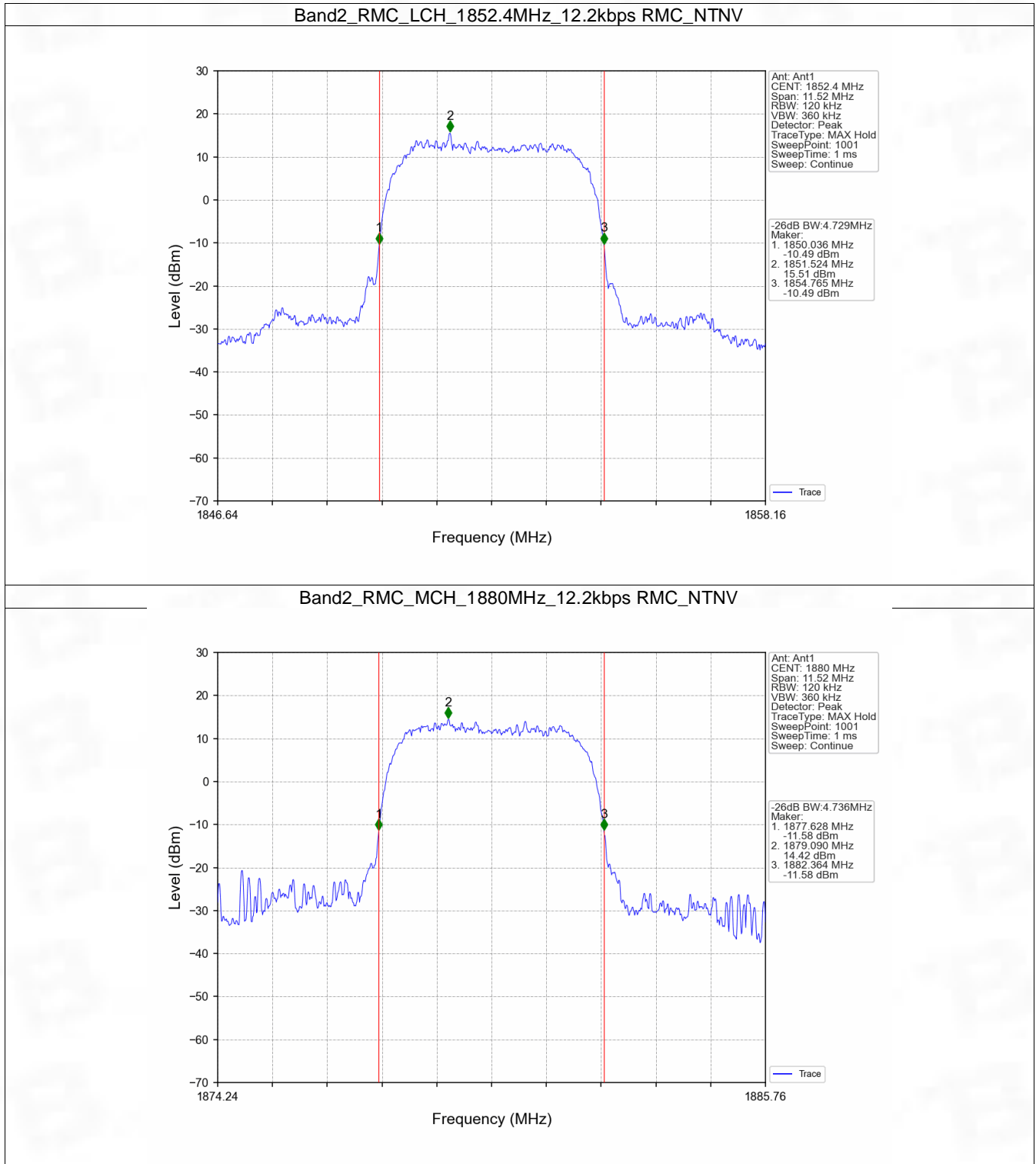


## 4.2 Band2\_XDB

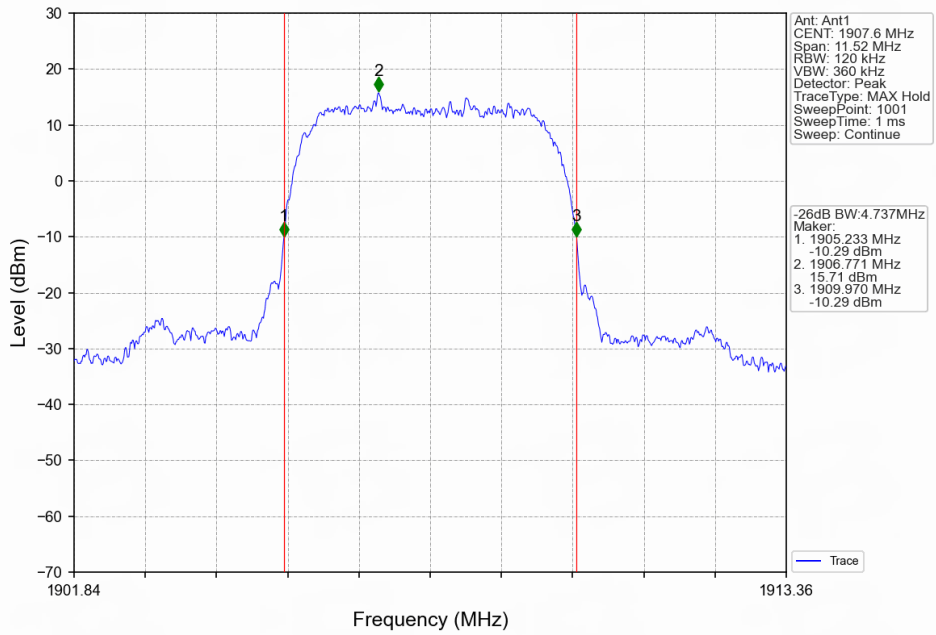
### 4.2.1 Test Result

Band: 2					
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	RMC	12.2kbps RMC	1852.4	4.729	Pass
			1880	4.736	Pass
			1907.6	4.737	Pass
	HSDPA	Subtest 1	1852.4	5.849	Pass
			1880	5.595	Pass
			1907.6	5.368	Pass
	HSUPA	Subtest 1	1852.4	5.261	Pass
			1880	5.132	Pass
			1907.6	5.611	Pass

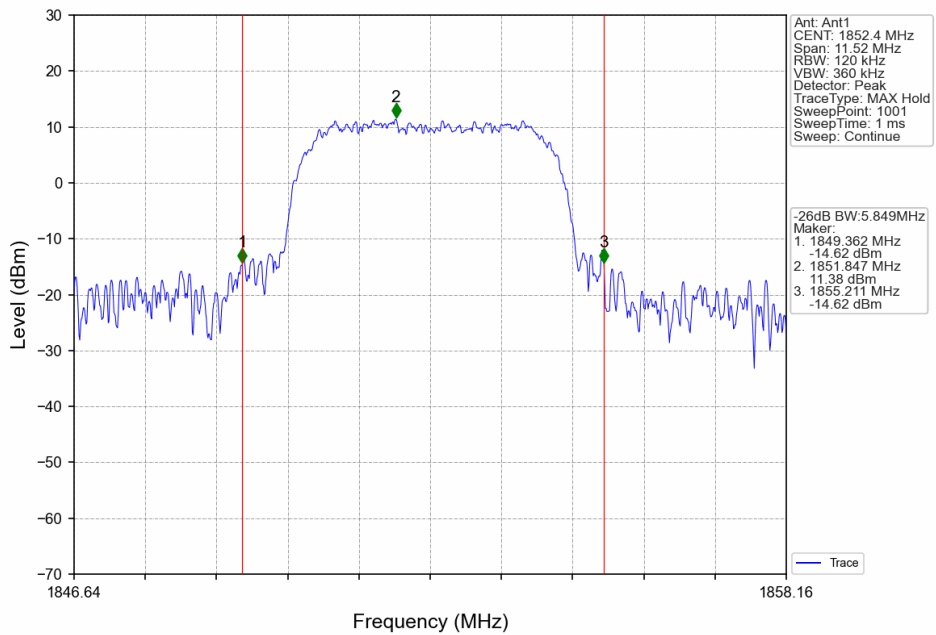
## 4.2.2 Test Graph



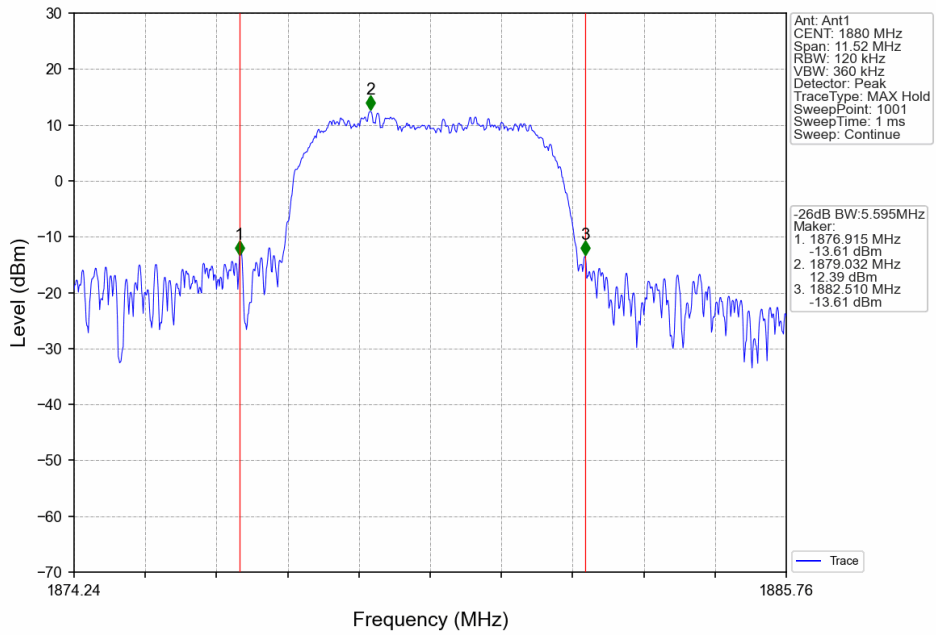
Band2\_RMC\_HCH\_1907.6MHz\_12.2kbps RMC\_NTNV



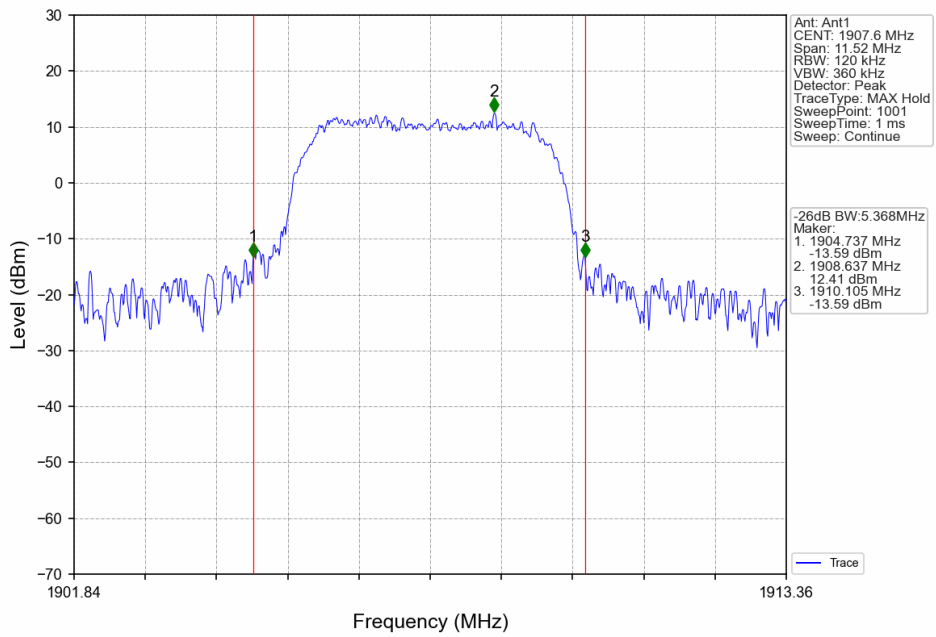
Band2\_HSDPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



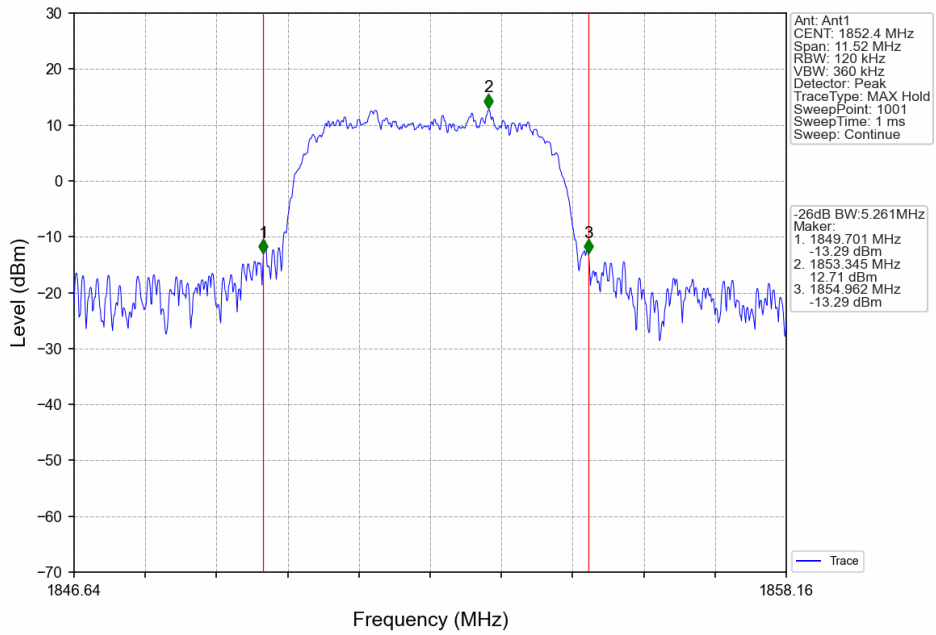
Band2\_HSDPA\_MCH\_1880MHz\_Subtest 1\_NTNV



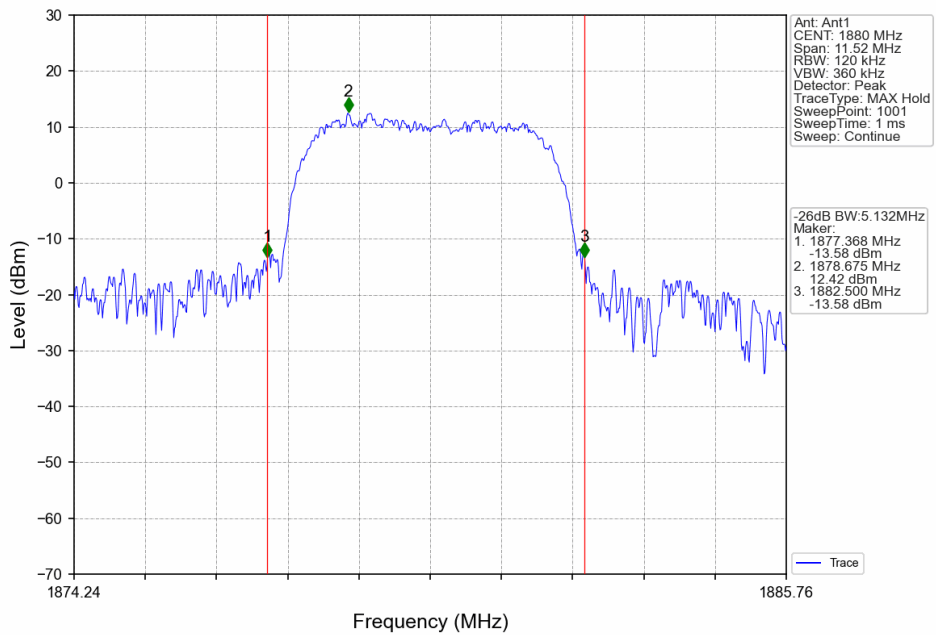
Band2\_HSDPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV



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

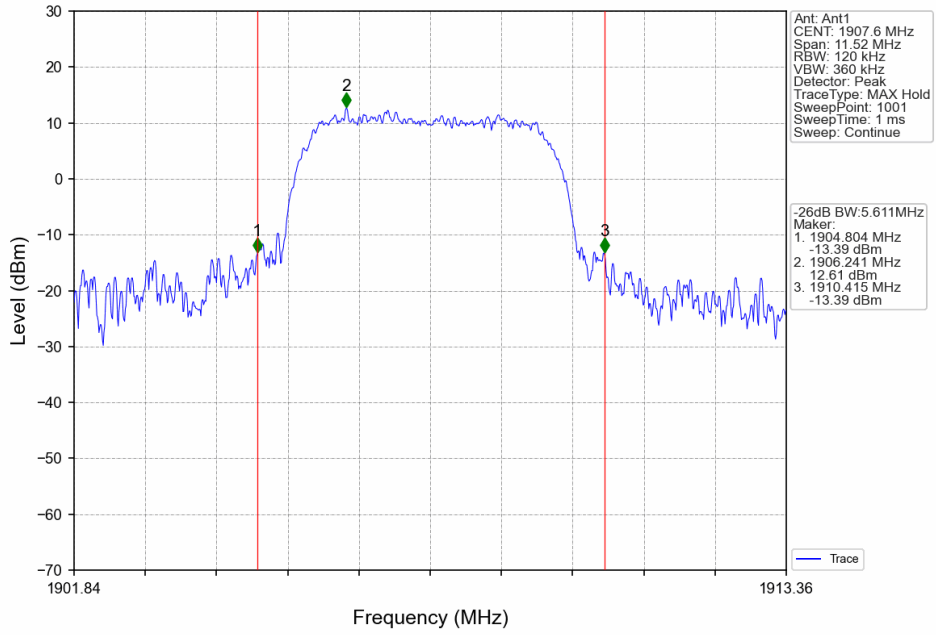


Band2\_HSUPA\_MCH\_1880MHz\_Subtest 1\_NTNV





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



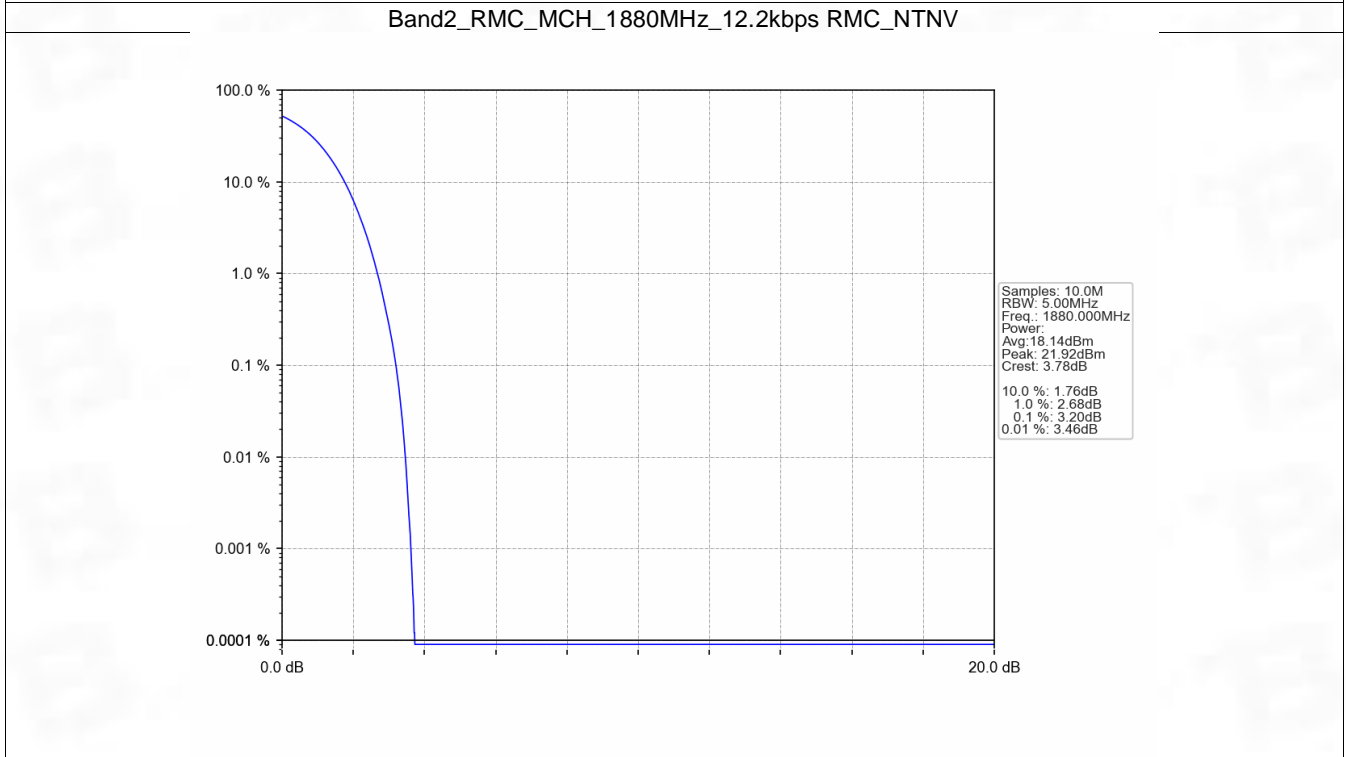
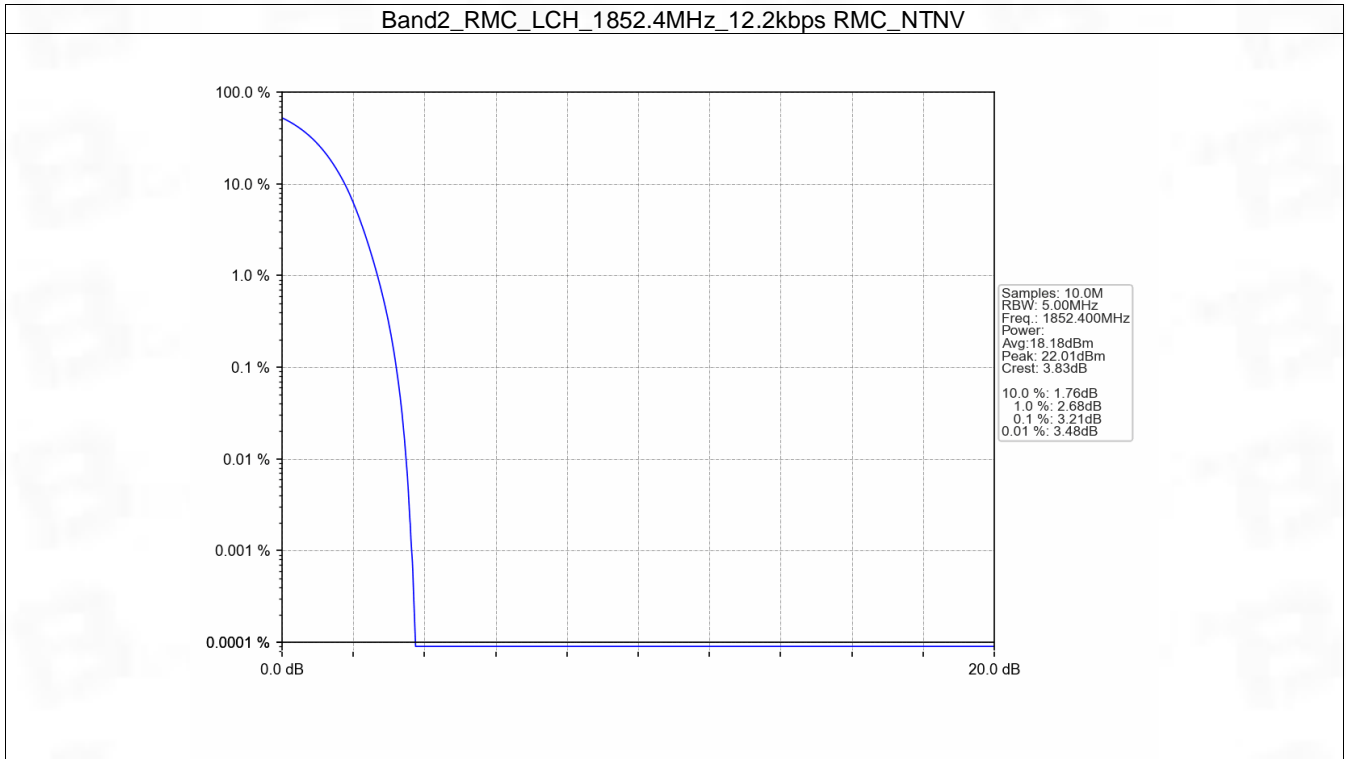
## 5. Peak-Average Ratio

### 5.1 Band2

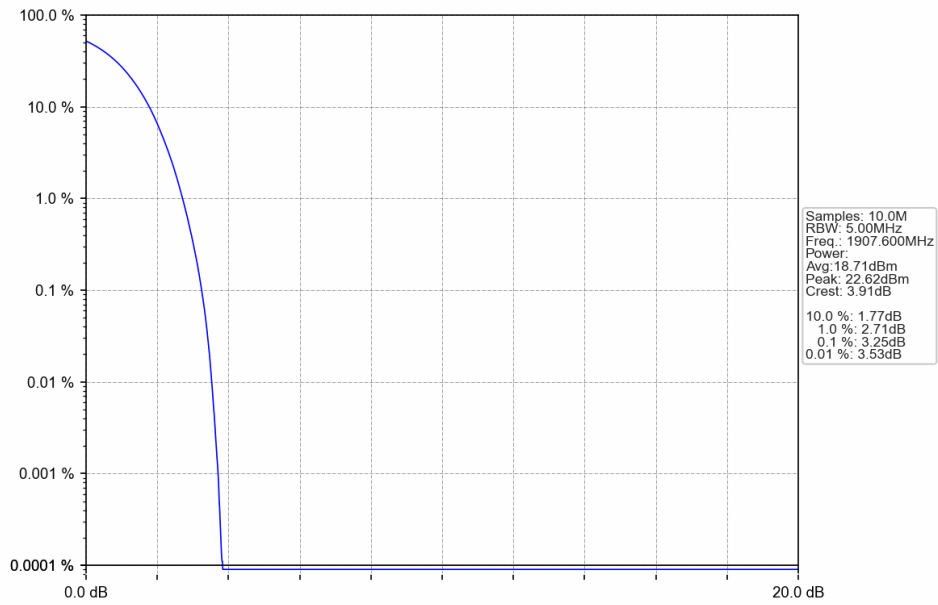
#### 5.1.1 Test Result

Band: 2						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1852.4	3.21	<=13	Pass
			1880	3.20	<=13	Pass
			1907.6	3.25	<=13	Pass
	HSDPA	Subtest 1	1852.4	5.93	<=13	Pass
			1880	6.19	<=13	Pass
			1907.6	6.37	<=13	Pass
	HSUPA	Subtest 1	1852.4	6.33	<=13	Pass
			1880	6.30	<=13	Pass
			1907.6	6.23	<=13	Pass

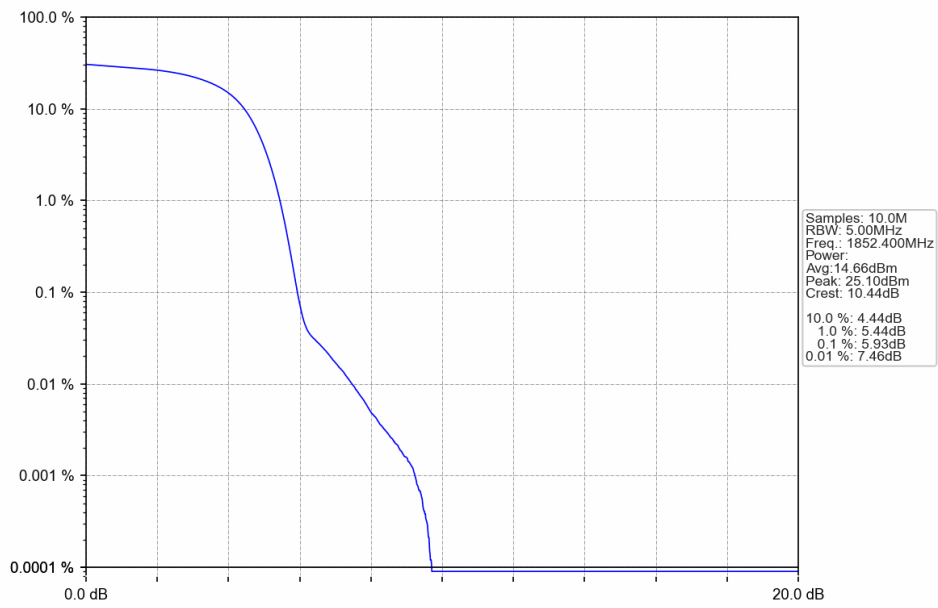
### 5.1.2 Test Graph



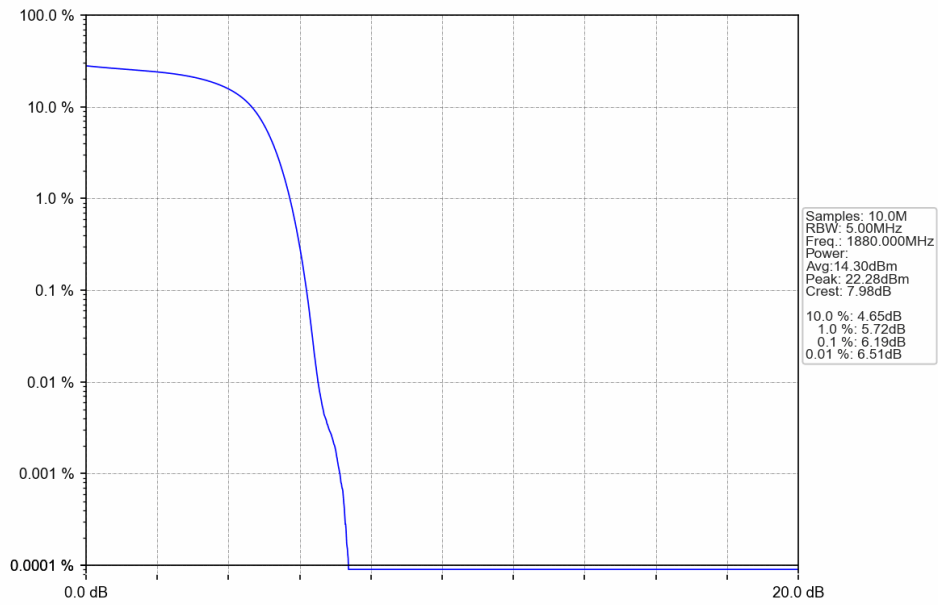
Band2\_RMC\_HCH\_1907.6MHz\_12.2kbps RMC\_NTNV



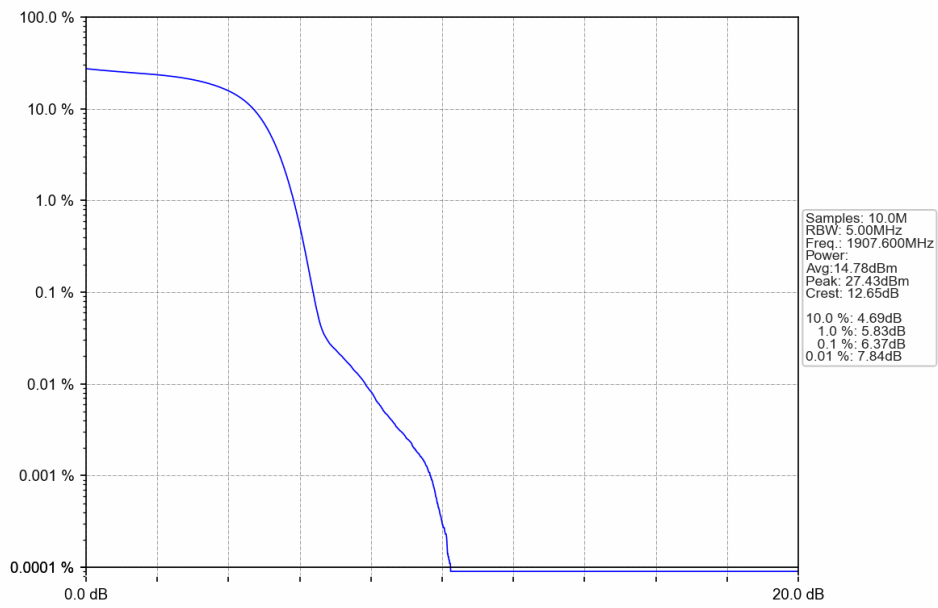
Band2\_HSDPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



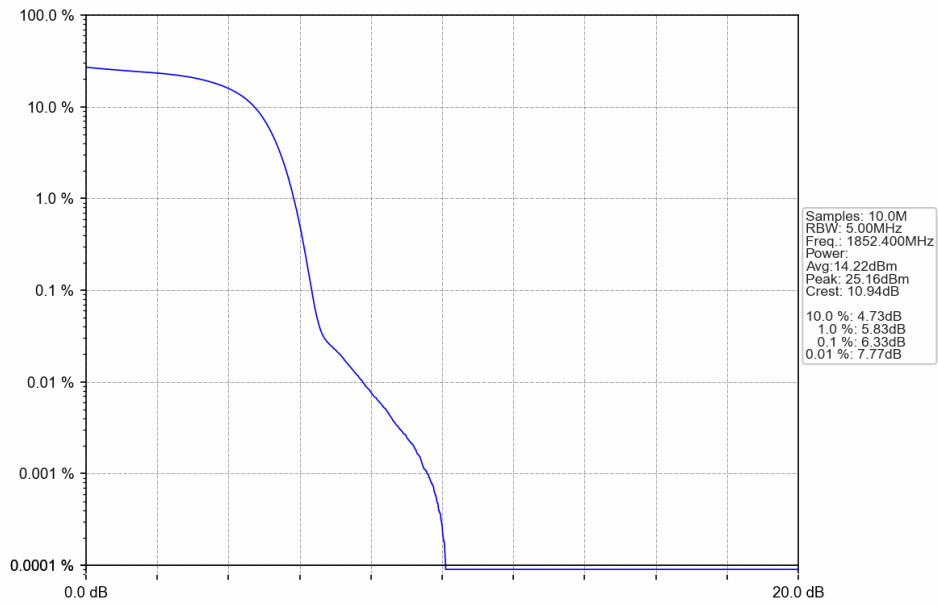
Band2\_HSDPA\_MCH\_1880MHz\_Subtest 1\_NTNV



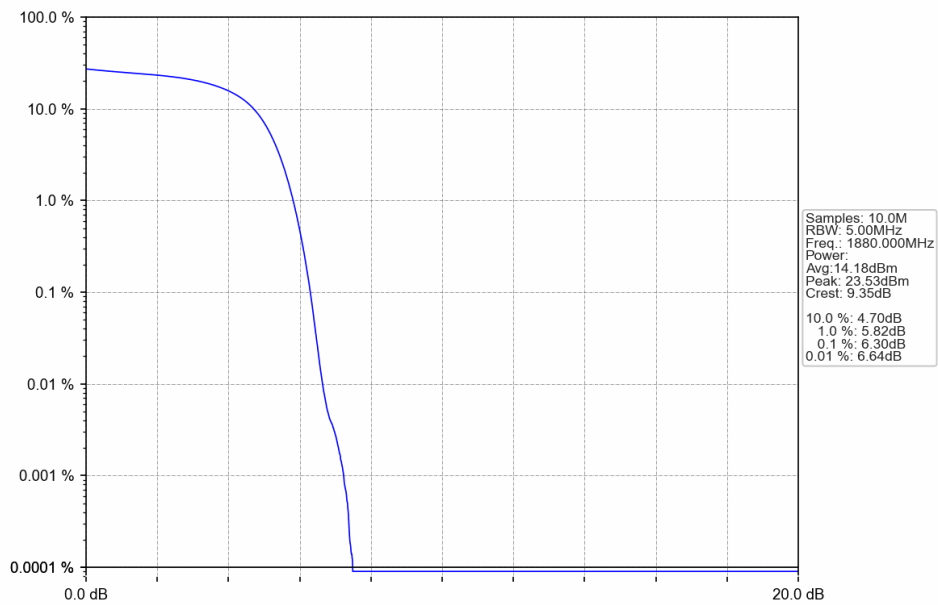
Band2\_HSDPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV



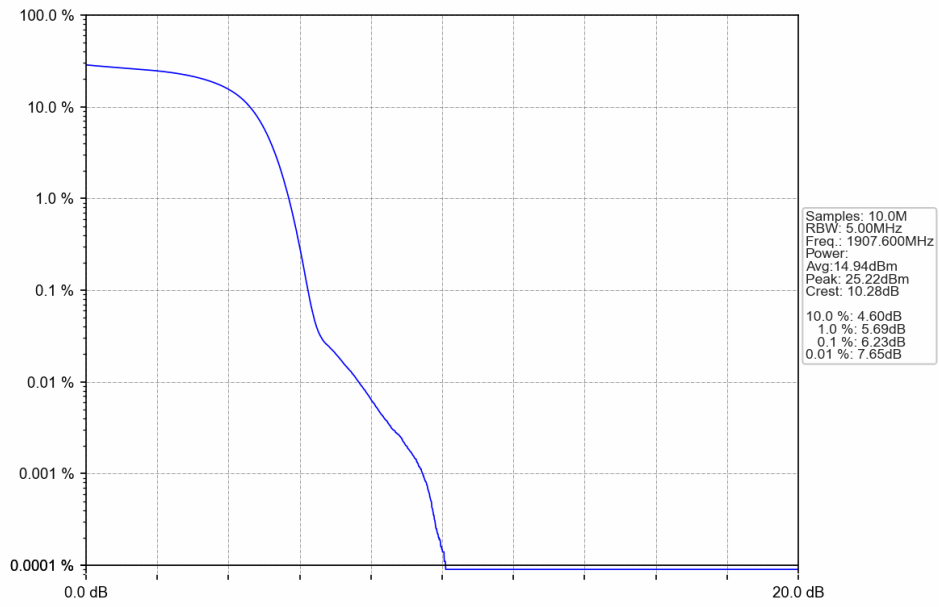
Band2\_HSUPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



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



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



## 6. Spurious Emission

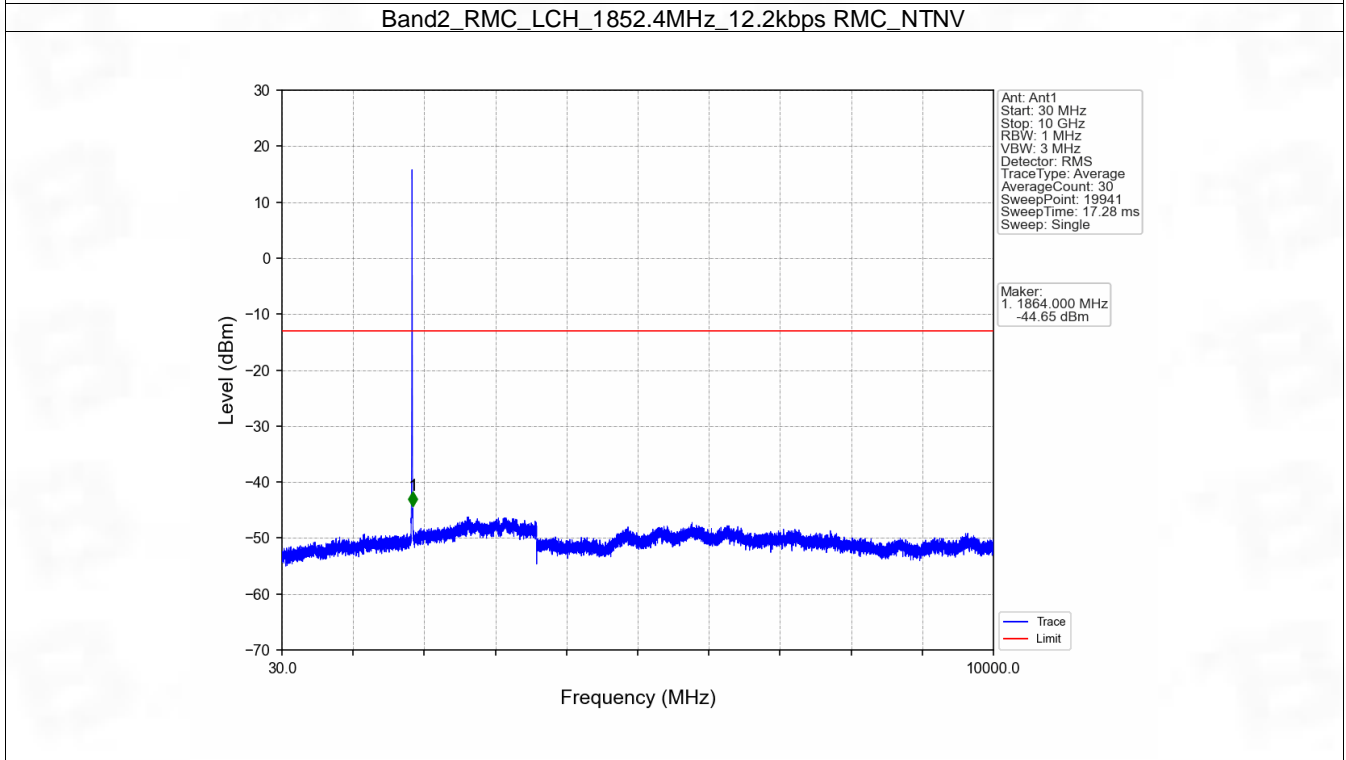
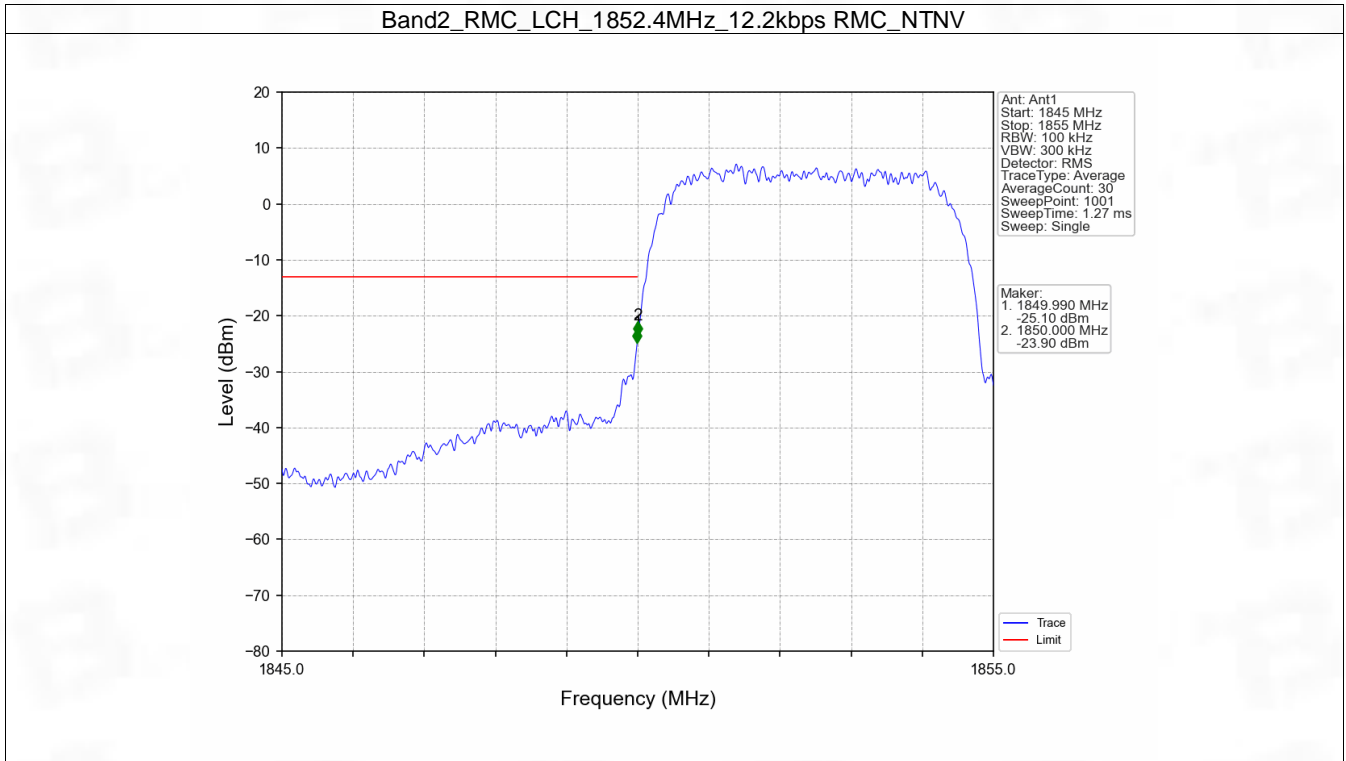
### 6.1 Band2

#### 6.1.1 Test Result

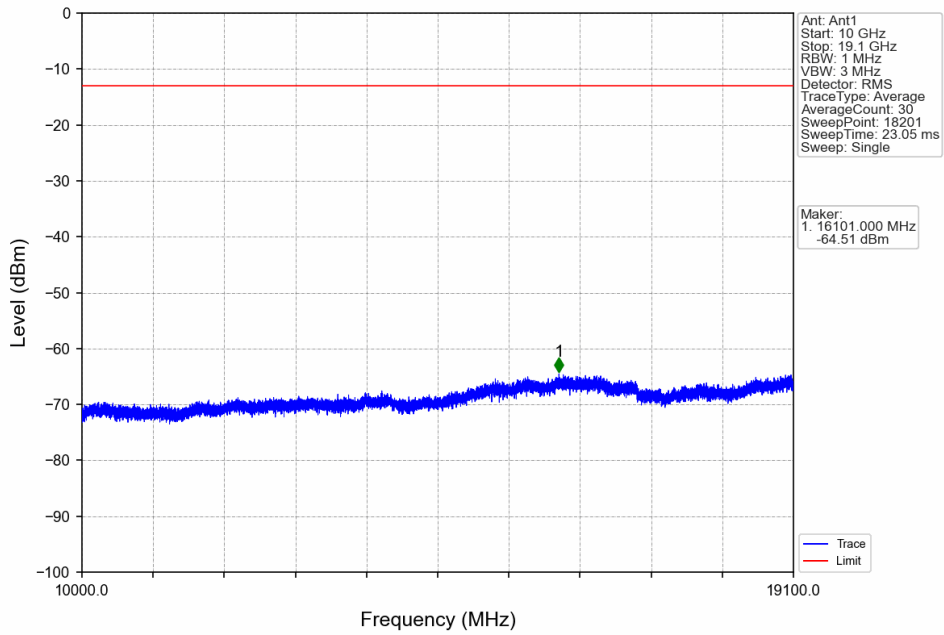
Band: 2						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1852.4	Refer To Test Graph		Pass
			1880	Refer To Test Graph		Pass
			1907.6	Refer To Test Graph		Pass
	HSDPA	Subtest 1	1852.4	Refer To Test Graph		Pass
			1880	Refer To Test Graph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



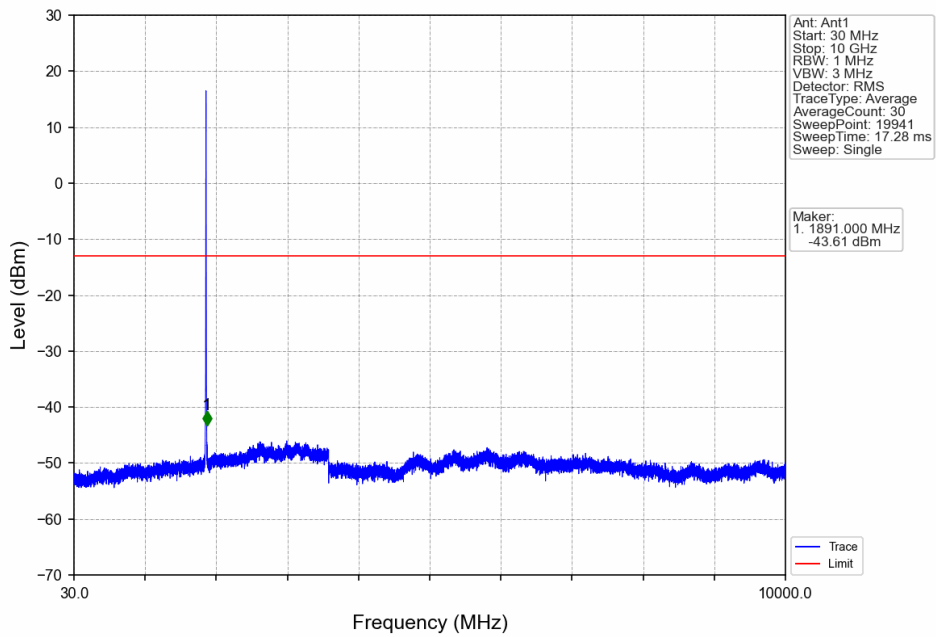
### 6.1.2 Test Graph



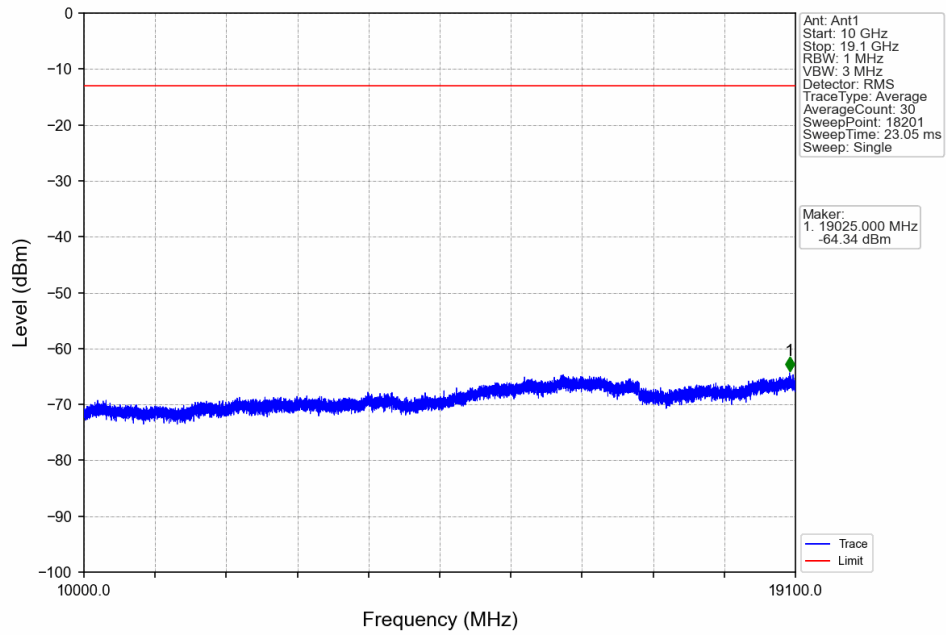
Band2\_RMC\_LCH\_1852.4MHz\_12.2kbps RMC\_NTNV



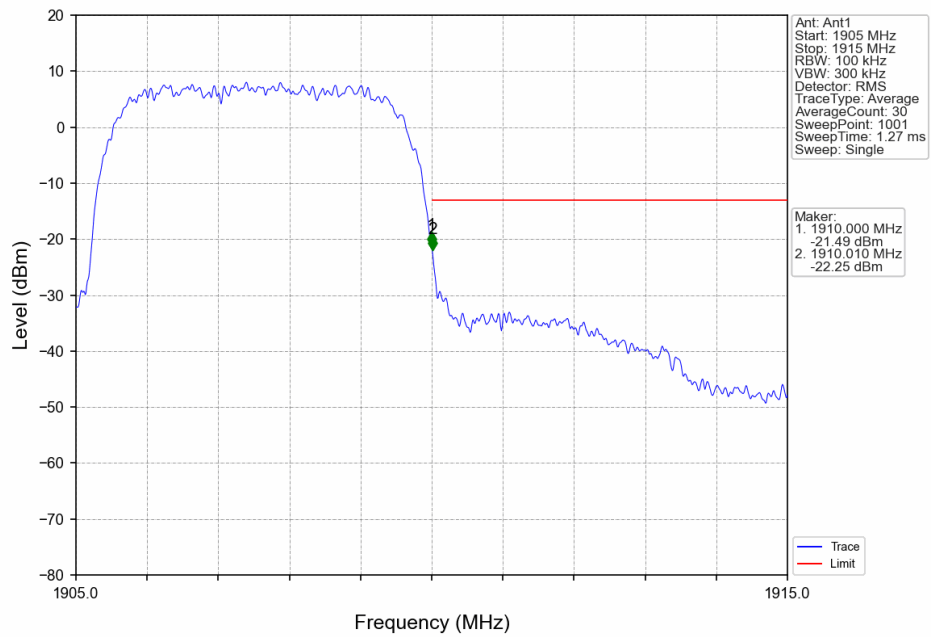
Band2\_RMC\_MCH\_1880MHz\_12.2kbps RMC\_NTNV



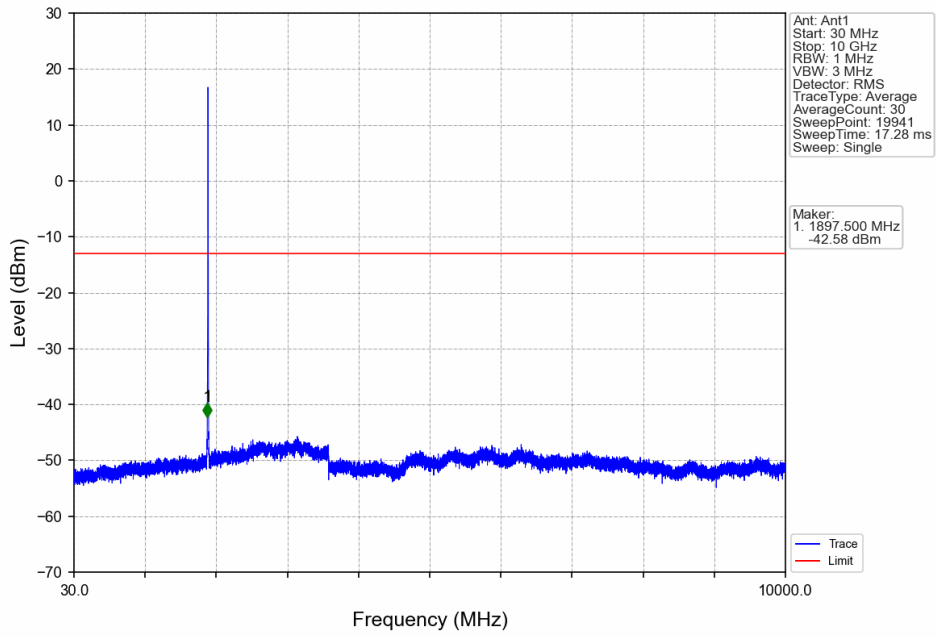
Band2\_RMC\_MCH\_1880MHz\_12.2kbps RMC\_NTNV



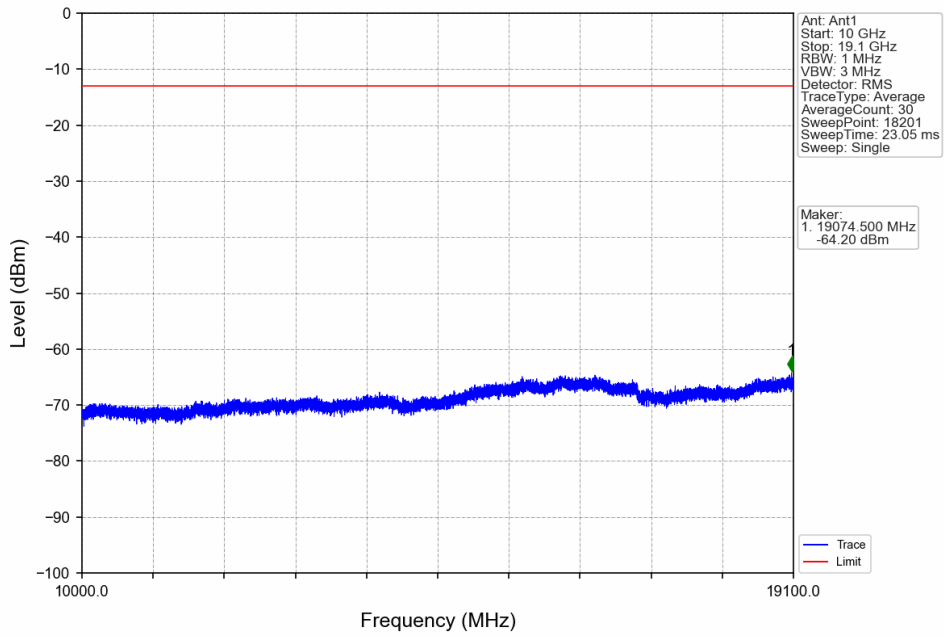
Band2\_RMC\_HCH\_1907.6MHz\_12.2kbps RMC\_NTNV



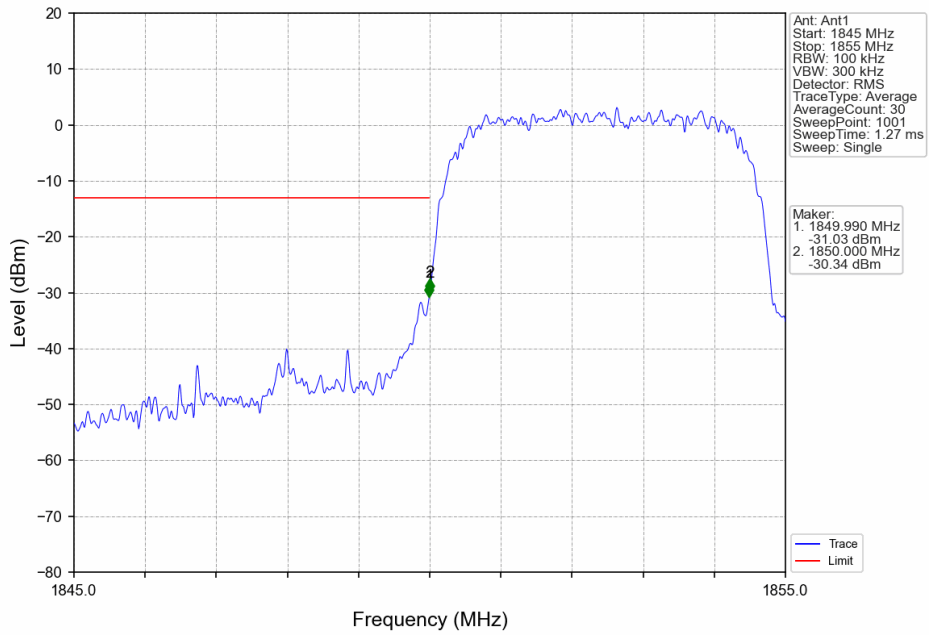
Band2\_RMC\_HCH\_1907.6MHz\_12.2kbps RMC\_NTNV



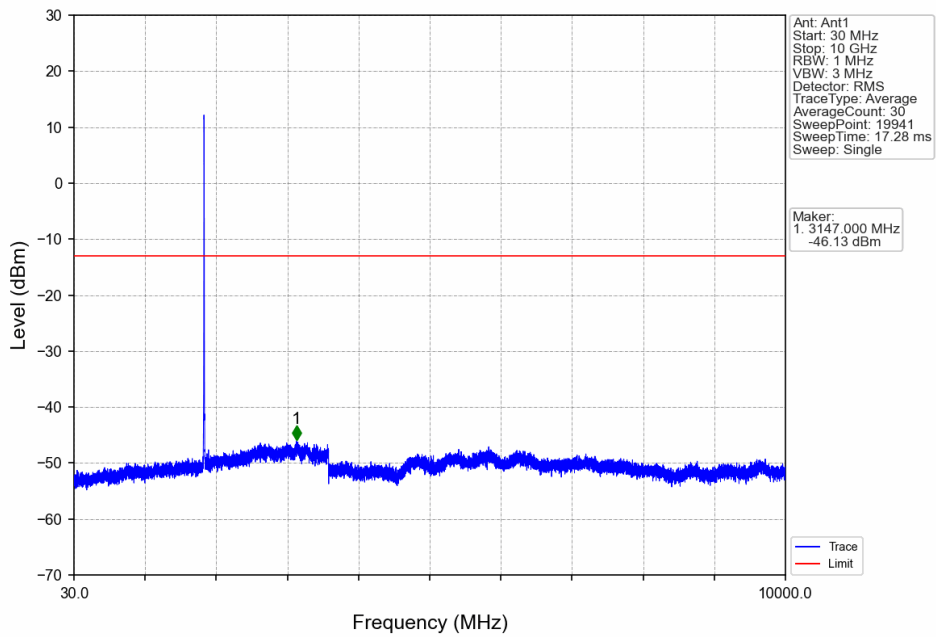
Band2\_RMC\_HCH\_1907.6MHz\_12.2kbps RMC\_NTNV



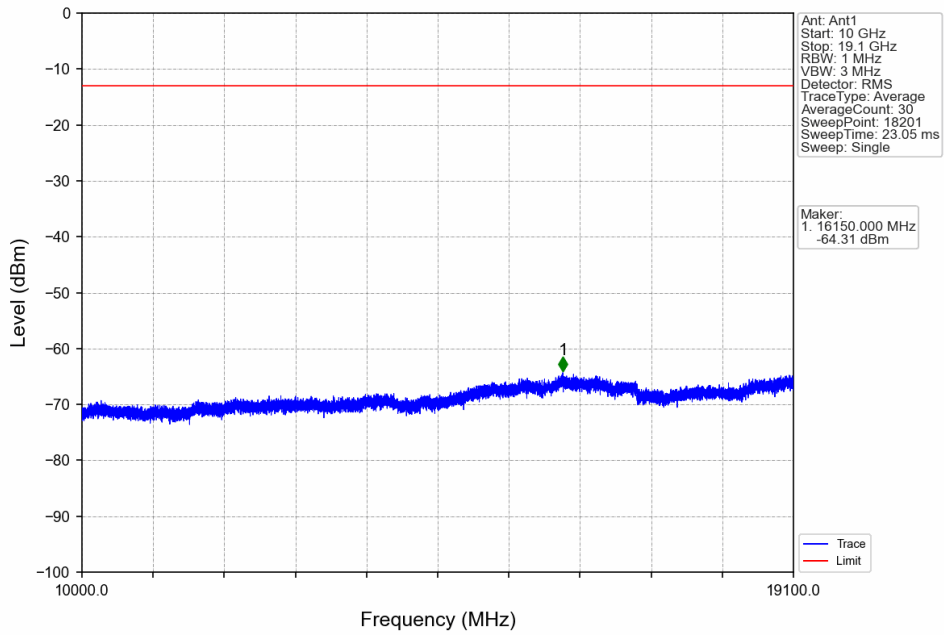
Band2\_HSDPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



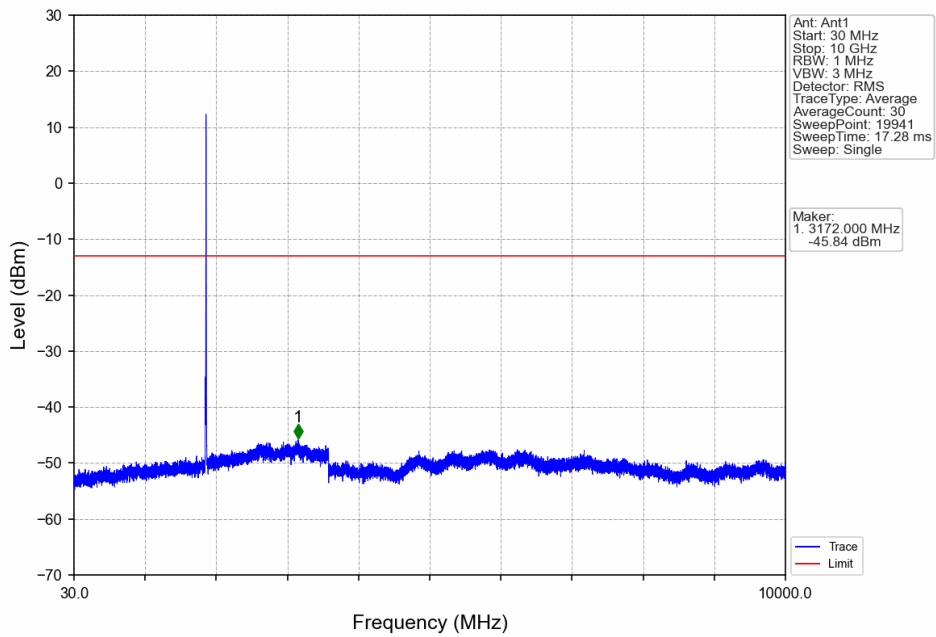
Band2\_HSDPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



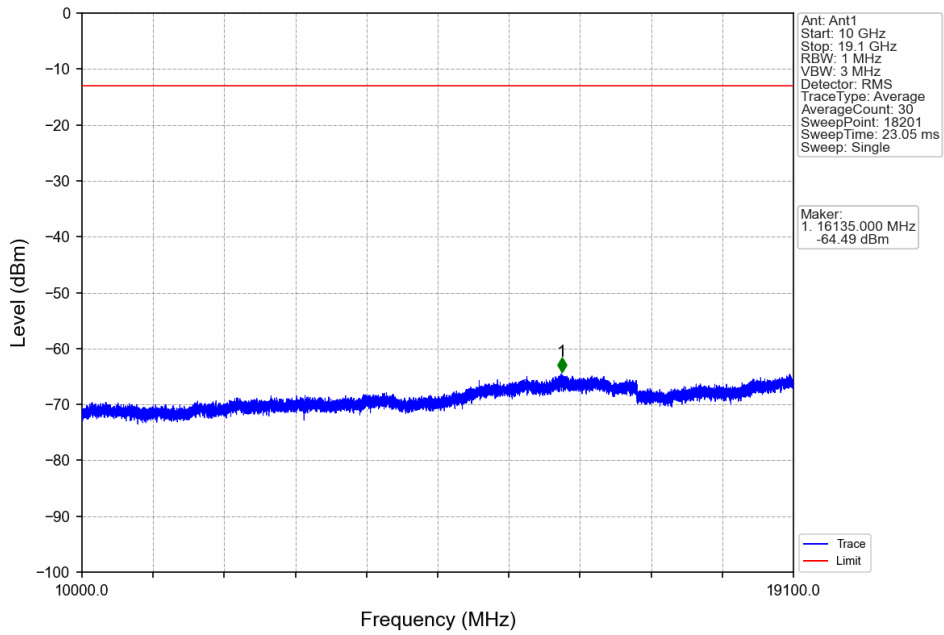
Band2\_HSDPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



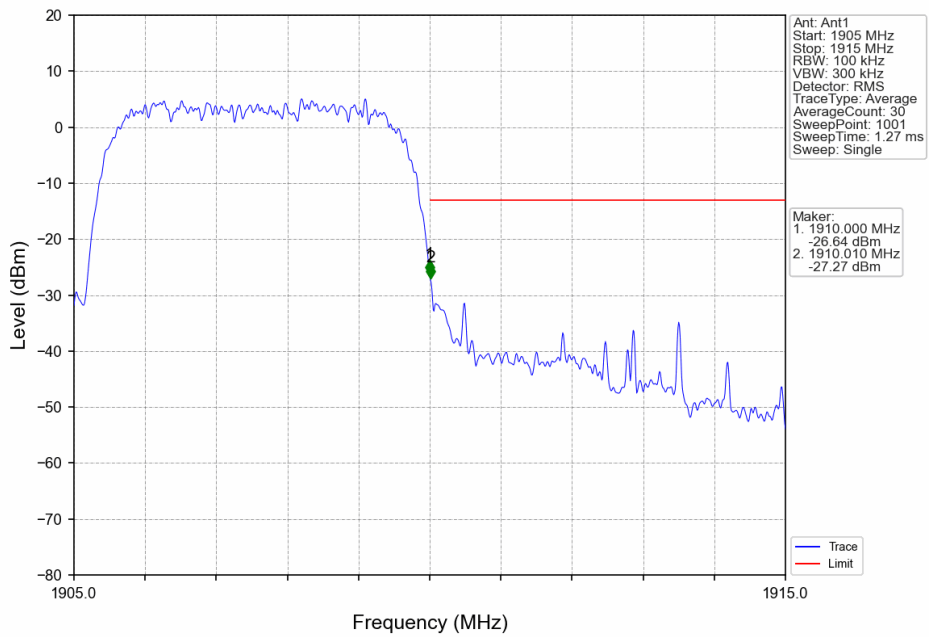
Band2\_HSDPA\_MCH\_1880MHz\_Subtest 1\_NTNV



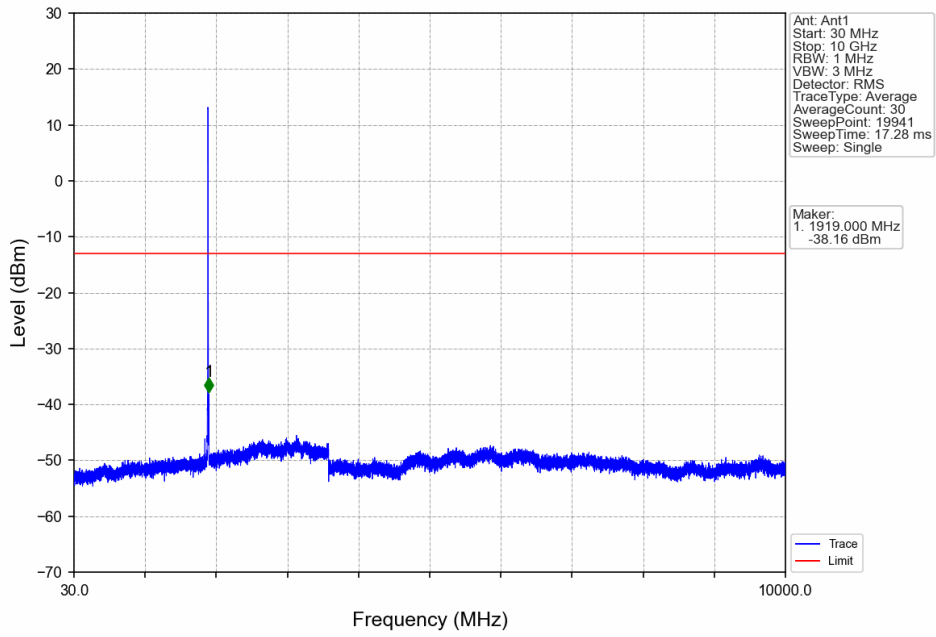
Band2\_HSDPA\_MCH\_1880MHz\_Subtest 1\_NTNV



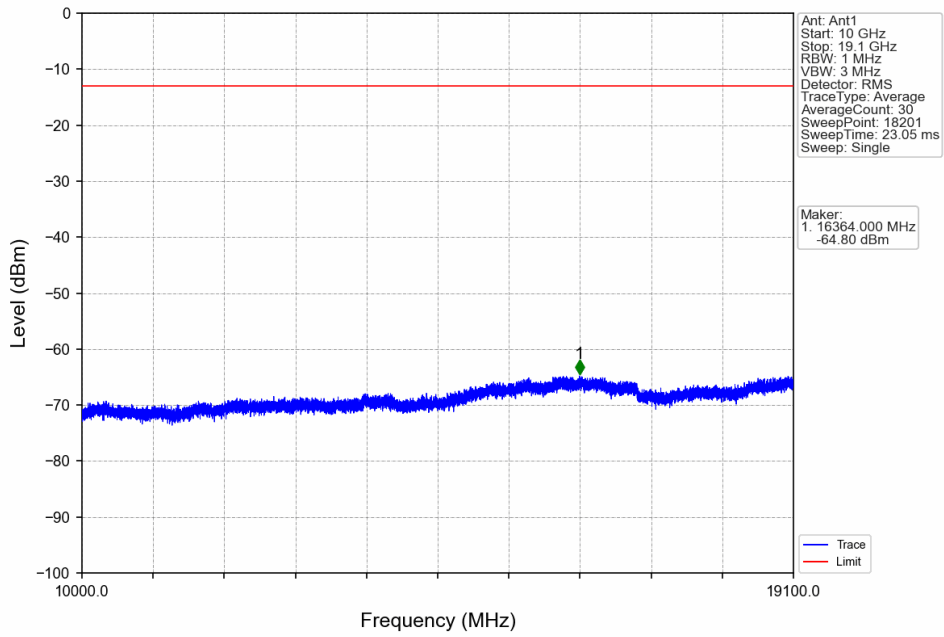
Band2\_HSDPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV



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

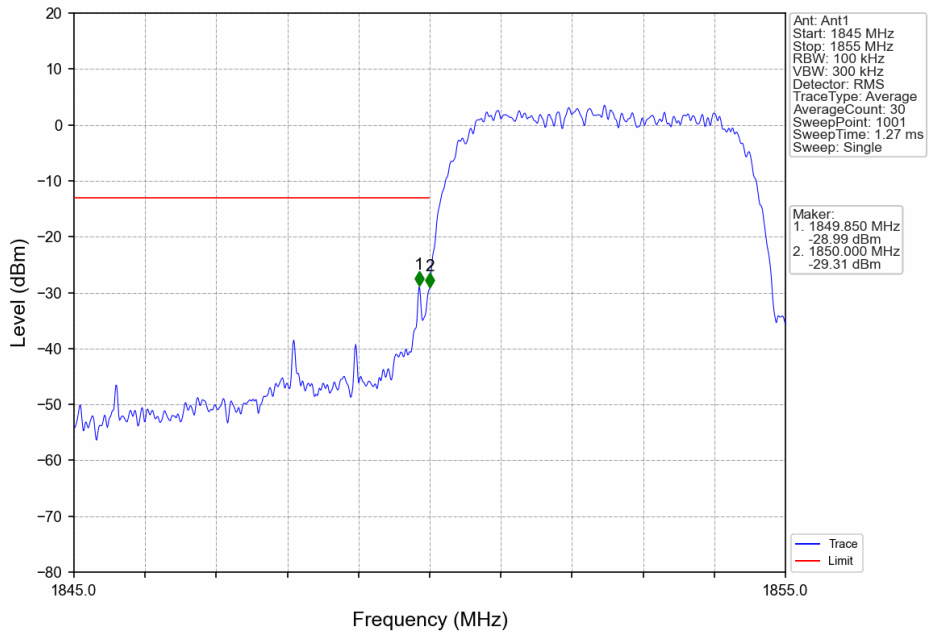


Band2\_HSDPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV

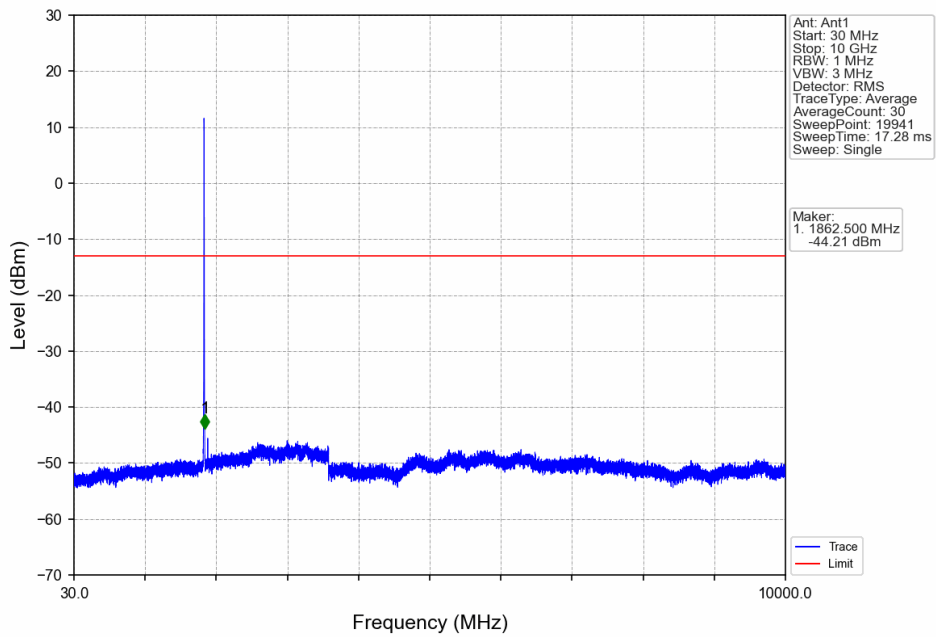




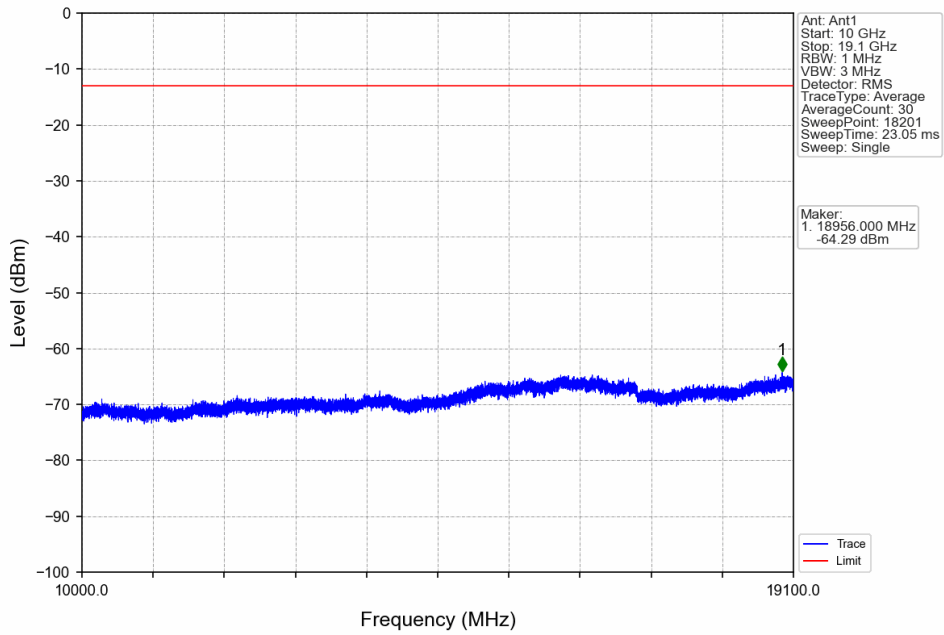
Band2\_HSUPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



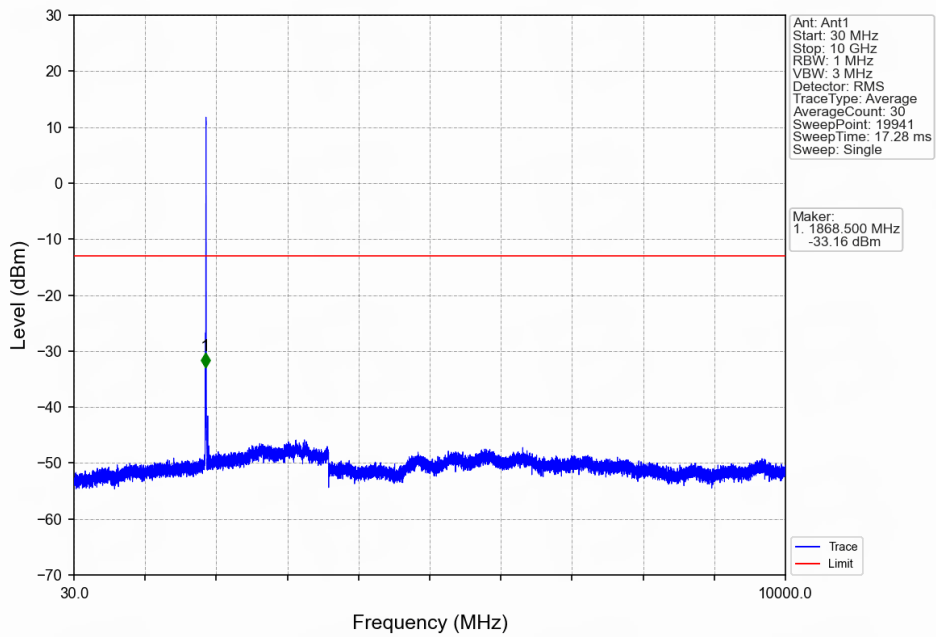
Band2\_HSUPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



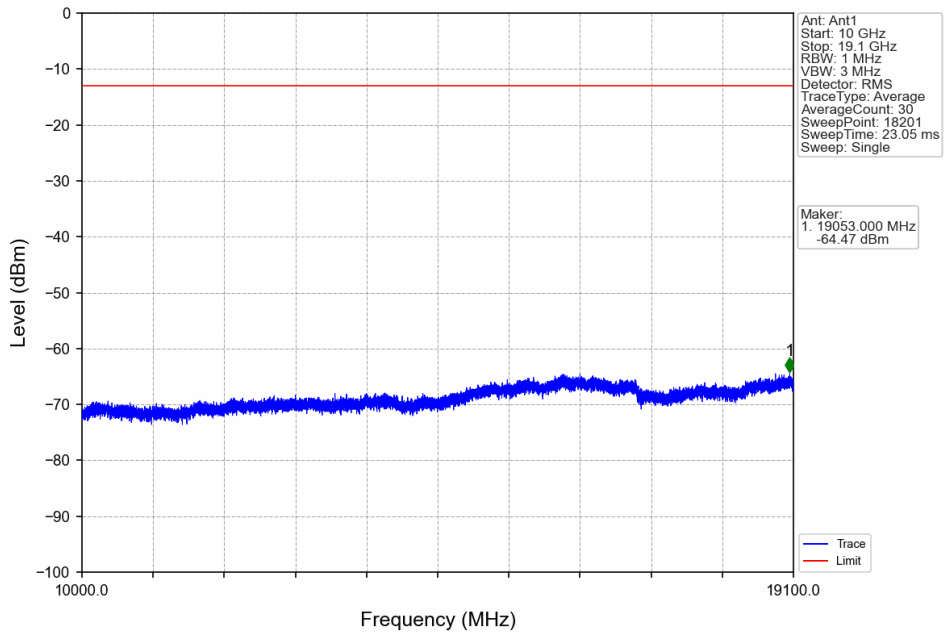
Band2\_HSUPA\_LCH\_1852.4MHz\_Subtest 1\_NTNV



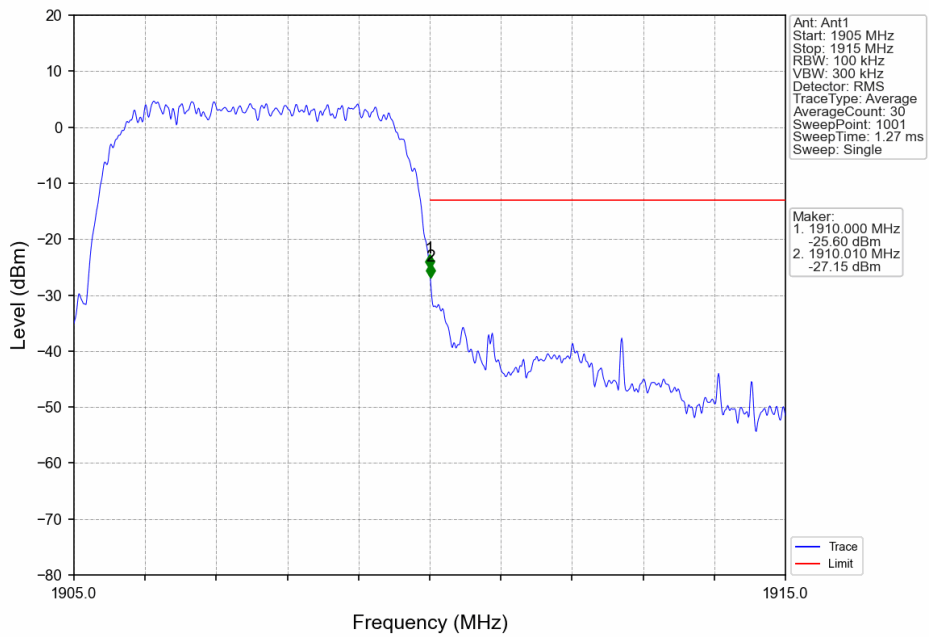
Band2\_HSUPA\_MCH\_1880MHz\_Subtest 1\_NTNV



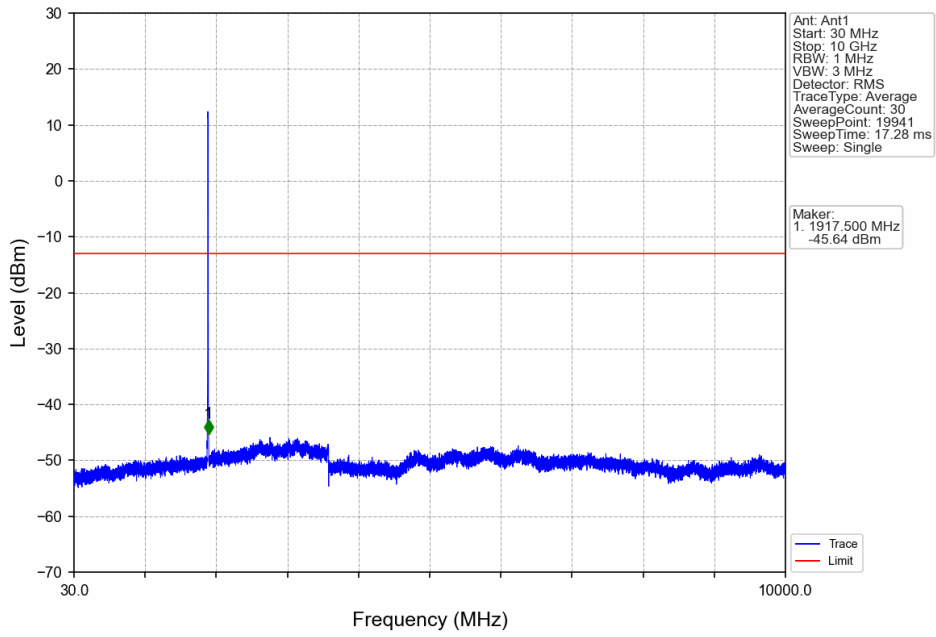
Band2\_HSUPA\_MCH\_1880MHz\_Subtest 1\_NTNV



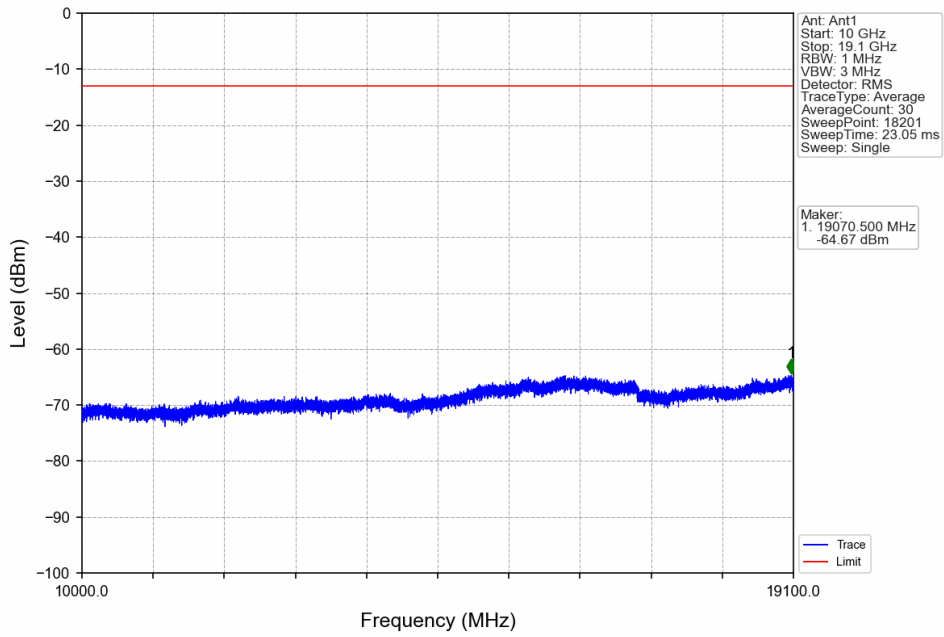
Band2\_HSUPA\_HCH\_1907.6MHz\_Subtest 1\_NTNV



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	0.1016	0.0119	ppm	4M25F9W	24E	20.07

### 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	0.1884	0.0119	ppm	4M25F9W	24E	22.75