

# 1. Effective (Isotropic) Radiated Power Output Data

## 1.1 Band5\_ERP

### 1.1.1 Test Result

Band: 5									
ENV	Mode		Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict	
	Network	Subset				Result	Limit		
NTNV	RMC	12.2kbps RMC	826.4	20.35	0.42	18.62	<=38.45	Pass	
			836.6	20.39	0.42	18.66	<=38.45	Pass	
			846.6	20.36	0.42	18.63	<=38.45	Pass	
	HSDPA	Subtest 1	826.4	18.14	0.42	16.41	<=38.45	Pass	
		Subtest 2	826.4	18.12	0.42	16.39	<=38.45	Pass	
		Subtest 3	826.4	18.10	0.42	16.37	<=38.45	Pass	
		Subtest 4	826.4	18.13	0.42	16.40	<=38.45	Pass	
		Subtest 1	836.6	18.14	0.42	16.41	<=38.45	Pass	
		Subtest 2	836.6	18.14	0.42	16.41	<=38.45	Pass	
		Subtest 3	836.6	18.16	0.42	16.43	<=38.45	Pass	
		Subtest 4	836.6	18.15	0.42	16.42	<=38.45	Pass	
		Subtest 1	846.6	18.07	0.42	16.34	<=38.45	Pass	
		Subtest 2	846.6	18.06	0.42	16.33	<=38.45	Pass	
		Subtest 3	846.6	18.06	0.42	16.33	<=38.45	Pass	
		Subtest 4	846.6	18.07	0.42	16.34	<=38.45	Pass	
		HSUPA	Subtest 1	826.4	15.64	0.42	13.91	<=38.45	Pass
			Subtest 2	826.4	15.79	0.42	14.06	<=38.45	Pass
			Subtest 3	826.4	16.03	0.42	14.30	<=38.45	Pass
			Subtest 4	826.4	16.07	0.42	14.34	<=38.45	Pass
			Subtest 5	826.4	15.88	0.42	14.15	<=38.45	Pass
			Subtest 1	836.6	16.10	0.42	14.37	<=38.45	Pass
			Subtest 2	836.6	15.86	0.42	14.13	<=38.45	Pass
			Subtest 3	836.6	15.94	0.42	14.21	<=38.45	Pass
	Subtest 4		836.6	16.11	0.42	14.38	<=38.45	Pass	
	Subtest 5		836.6	16.14	0.42	14.41	<=38.45	Pass	
	Subtest 1		846.6	15.88	0.42	14.15	<=38.45	Pass	
	Subtest 2		846.6	15.83	0.42	14.10	<=38.45	Pass	
	Subtest 3		846.6	15.82	0.42	14.09	<=38.45	Pass	
	Subtest 4		846.6	15.53	0.42	13.80	<=38.45	Pass	
	Subtest 5		846.6	15.86	0.42	14.13	<=38.45	Pass	

Note1: ERP=Conducted Power+Antenna Gain-2.15

# 2. Frequency Stability

## 2.1 Band5

### 2.1.1 Test Result

Band: 5							
Network	Frequency (MHz)	Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
					Result	Limit	
RMC	826.4	20	3.27	-1.123	-0.0014	-2.5 to 2.5	Pass
			3.85	0.536	0.0006	-2.5 to 2.5	Pass

			4.43	1.144	0.0014	-2.5 to 2.5	Pass		
		-30	3.85	1.230	0.0015	-2.5 to 2.5	Pass		
		-20	3.85	1.924	0.0023	-2.5 to 2.5	Pass		
		-10	3.85	0.815	0.0010	-2.5 to 2.5	Pass		
		0	3.85	1.860	0.0023	-2.5 to 2.5	Pass		
		10	3.85	1.016	0.0012	-2.5 to 2.5	Pass		
		30	3.85	-0.536	-0.0006	-2.5 to 2.5	Pass		
		40	3.85	0.136	0.0002	-2.5 to 2.5	Pass		
		50	3.85	0.994	0.0012	-2.5 to 2.5	Pass		
		836.6	20		3.27	1.631	0.0019	-2.5 to 2.5	Pass
					3.85	2.861	0.0034	-2.5 to 2.5	Pass
					4.43	0.200	0.0002	-2.5 to 2.5	Pass
			-30	3.85	-0.029	0.0000	-2.5 to 2.5	Pass	
			-20	3.85	-0.529	-0.0006	-2.5 to 2.5	Pass	
	-10		3.85	2.074	0.0025	-2.5 to 2.5	Pass		
	0		3.85	0.508	0.0006	-2.5 to 2.5	Pass		
	10		3.85	0.973	0.0012	-2.5 to 2.5	Pass		
	30		3.85	2.089	0.0025	-2.5 to 2.5	Pass		
	40		3.85	0.722	0.0009	-2.5 to 2.5	Pass		
	50	3.85	0.465	0.0006	-2.5 to 2.5	Pass			
	846.6	20		3.27	-0.401	-0.0005	-2.5 to 2.5	Pass	
				3.85	-0.815	-0.0010	-2.5 to 2.5	Pass	
				4.43	0.687	0.0008	-2.5 to 2.5	Pass	
		-30	3.85	-0.658	-0.0008	-2.5 to 2.5	Pass		
		-20	3.85	-1.352	-0.0016	-2.5 to 2.5	Pass		
		-10	3.85	0.601	0.0007	-2.5 to 2.5	Pass		
		0	3.85	-0.293	-0.0003	-2.5 to 2.5	Pass		
		10	3.85	0.329	0.0004	-2.5 to 2.5	Pass		
		30	3.85	-0.594	-0.0007	-2.5 to 2.5	Pass		
		40	3.85	-0.157	-0.0002	-2.5 to 2.5	Pass		
50	3.85	0.229	0.0003	-2.5 to 2.5	Pass				
HSDPA	826.4	20		3.27	-0.551	-0.0007	-2.5 to 2.5	Pass	
				3.85	1.967	0.0024	-2.5 to 2.5	Pass	
				4.43	2.360	0.0029	-2.5 to 2.5	Pass	
		-30	3.85	2.832	0.0034	-2.5 to 2.5	Pass		
		-20	3.85	2.761	0.0033	-2.5 to 2.5	Pass		
		-10	3.85	3.326	0.0040	-2.5 to 2.5	Pass		
		0	3.85	3.476	0.0042	-2.5 to 2.5	Pass		
		10	3.85	2.968	0.0036	-2.5 to 2.5	Pass		
		30	3.85	2.632	0.0032	-2.5 to 2.5	Pass		
		40	3.85	1.967	0.0024	-2.5 to 2.5	Pass		
		50	3.85	2.689	0.0033	-2.5 to 2.5	Pass		
		836.6	20		3.27	0.830	0.0010	-2.5 to 2.5	Pass
					3.85	1.724	0.0021	-2.5 to 2.5	Pass
					4.43	1.760	0.0021	-2.5 to 2.5	Pass
	-30		3.85	1.309	0.0016	-2.5 to 2.5	Pass		
	-20		3.85	0.801	0.0010	-2.5 to 2.5	Pass		
	-10		3.85	1.302	0.0016	-2.5 to 2.5	Pass		
	0		3.85	3.676	0.0044	-2.5 to 2.5	Pass		
	10		3.85	0.558	0.0007	-2.5 to 2.5	Pass		
	30		3.85	-0.043	-0.0001	-2.5 to 2.5	Pass		
	40		3.85	4.199	0.0050	-2.5 to 2.5	Pass		
	50	3.85	5.322	0.0064	-2.5 to 2.5	Pass			
	846.6	20		3.27	-1.130	-0.0013	-2.5 to 2.5	Pass	
				3.85	-1.709	-0.0020	-2.5 to 2.5	Pass	
				4.43	-0.107	-0.0001	-2.5 to 2.5	Pass	
		-30	3.85	-0.293	-0.0003	-2.5 to 2.5	Pass		

		-20	3.85	-0.873	-0.0010	-2.5 to 2.5	Pass
		-10	3.85	0.057	0.0001	-2.5 to 2.5	Pass
		0	3.85	0.558	0.0007	-2.5 to 2.5	Pass
		10	3.85	0.801	0.0009	-2.5 to 2.5	Pass
		30	3.85	1.330	0.0016	-2.5 to 2.5	Pass
		40	3.85	-1.967	-0.0023	-2.5 to 2.5	Pass
		50	3.85	-1.438	-0.0017	-2.5 to 2.5	Pass
HSUPA	826.4	20	3.27	-1.202	-0.0015	-2.5 to 2.5	Pass
			3.85	-3.312	-0.0040	-2.5 to 2.5	Pass
			4.43	-3.798	-0.0046	-2.5 to 2.5	Pass
		-30	3.85	-4.199	-0.0051	-2.5 to 2.5	Pass
		-20	3.85	-3.884	-0.0047	-2.5 to 2.5	Pass
		-10	3.85	-1.338	-0.0016	-2.5 to 2.5	Pass
		0	3.85	-1.967	-0.0024	-2.5 to 2.5	Pass
		10	3.85	-3.612	-0.0044	-2.5 to 2.5	Pass
		30	3.85	0.122	0.0001	-2.5 to 2.5	Pass
		40	3.85	-0.758	-0.0009	-2.5 to 2.5	Pass
	50	3.85	-2.046	-0.0025	-2.5 to 2.5	Pass	
	836.6	20	3.27	-0.465	-0.0006	-2.5 to 2.5	Pass
			3.85	0.944	0.0011	-2.5 to 2.5	Pass
			4.43	0.007	0.0000	-2.5 to 2.5	Pass
		-30	3.85	0.250	0.0003	-2.5 to 2.5	Pass
		-20	3.85	0.064	0.0001	-2.5 to 2.5	Pass
		-10	3.85	-0.608	-0.0007	-2.5 to 2.5	Pass
		0	3.85	-0.558	-0.0007	-2.5 to 2.5	Pass
		10	3.85	-1.023	-0.0012	-2.5 to 2.5	Pass
		30	3.85	-2.153	-0.0026	-2.5 to 2.5	Pass
		40	3.85	-3.455	-0.0041	-2.5 to 2.5	Pass
	50	3.85	-2.189	-0.0026	-2.5 to 2.5	Pass	
	846.6	20	3.27	-0.408	-0.0005	-2.5 to 2.5	Pass
			3.85	-1.059	-0.0013	-2.5 to 2.5	Pass
			4.43	-2.718	-0.0032	-2.5 to 2.5	Pass
		-30	3.85	-3.333	-0.0039	-2.5 to 2.5	Pass
		-20	3.85	-2.425	-0.0029	-2.5 to 2.5	Pass
		-10	3.85	-2.317	-0.0027	-2.5 to 2.5	Pass
		0	3.85	-4.213	-0.0050	-2.5 to 2.5	Pass
		10	3.85	-3.941	-0.0047	-2.5 to 2.5	Pass
30		3.85	-2.446	-0.0029	-2.5 to 2.5	Pass	
40		3.85	-2.782	-0.0033	-2.5 to 2.5	Pass	
50	3.85	-1.159	-0.0014	-2.5 to 2.5	Pass		

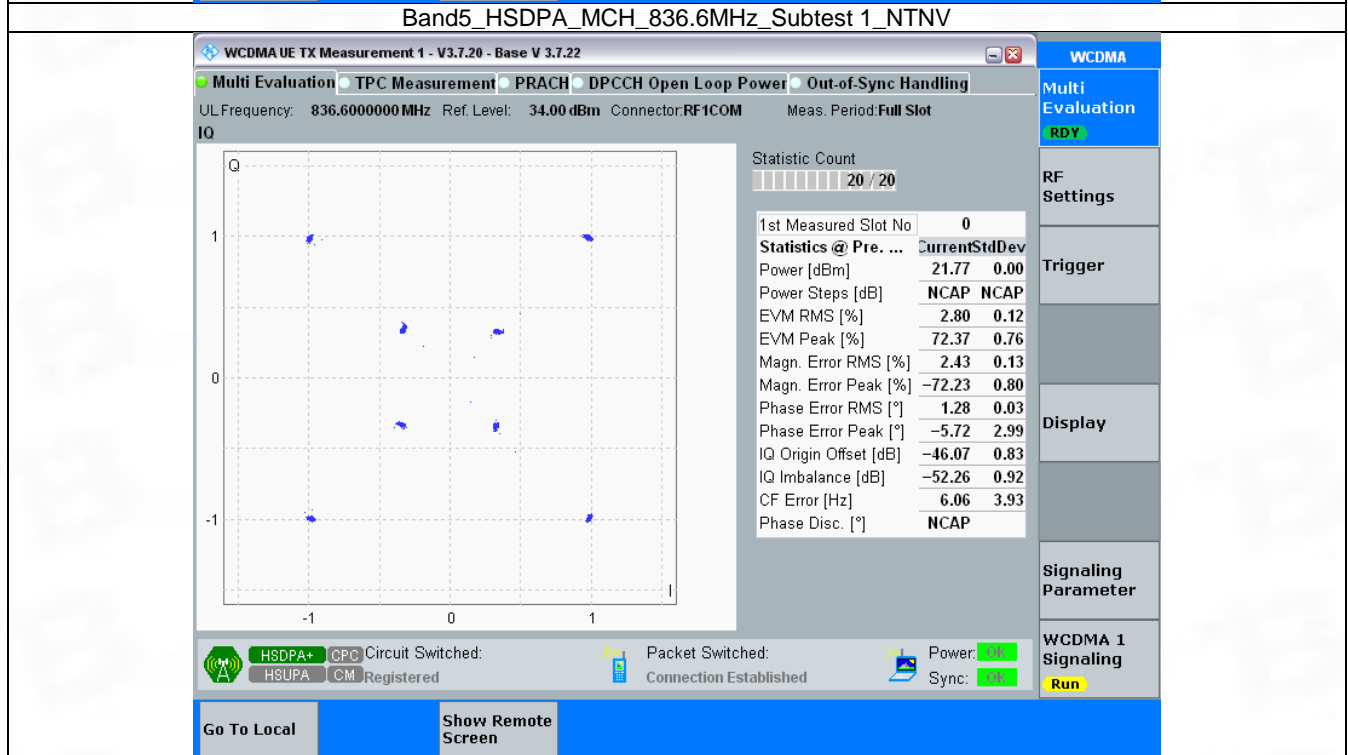
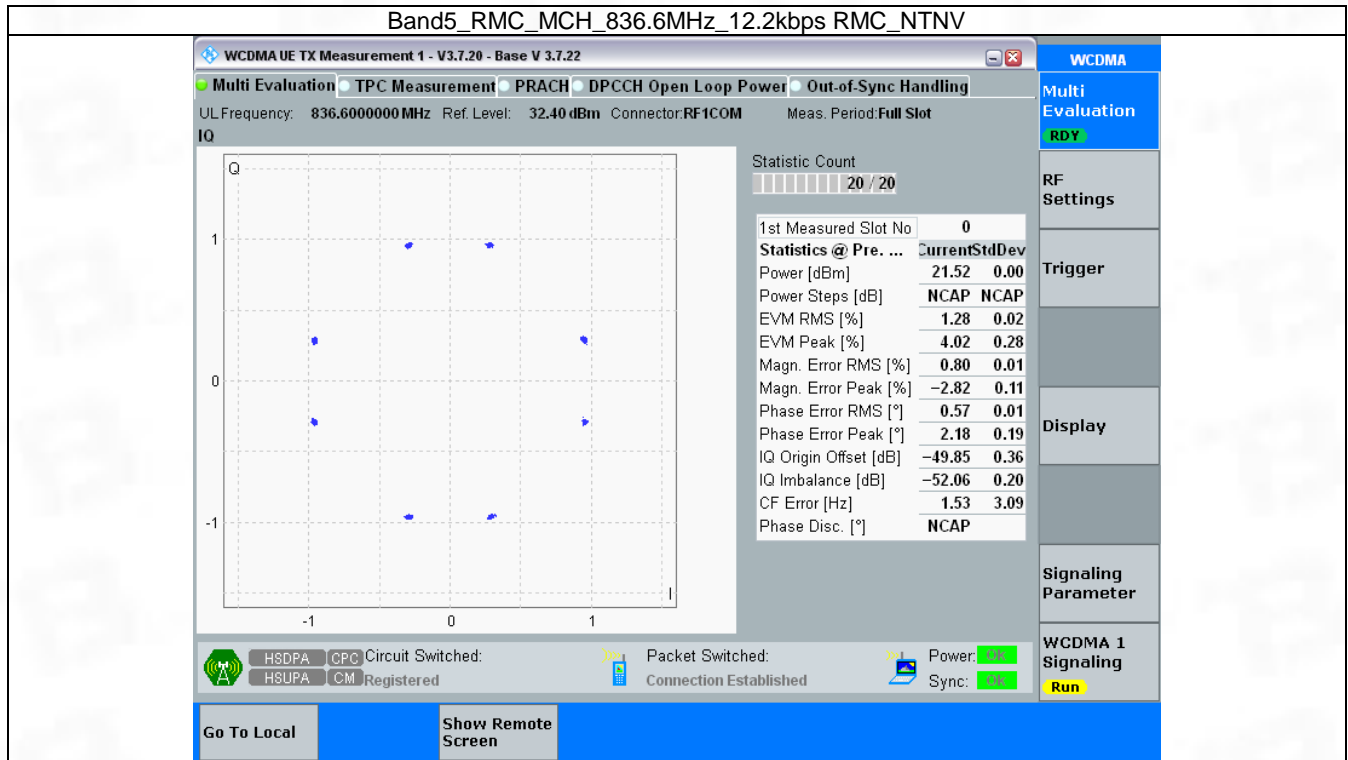
### 3. Modulation Characteristics

#### 3.1 Band5

##### 3.1.1 Test Result

Band: 5						
ENV	Mode		Frequency (MHz)	Modulation Characteristics		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	836.6	Refer To Test Graph		Pass
	HSDPA	Subtest 1	836.6	Refer To Test Graph		Pass
	HSUPA	Subtest 1	836.6	Refer To Test Graph		Pass

### 3.1.2 Test Graph



Band5 HSUPA MCH\_836.6MHz 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: 836.600000MHz Ref. Level: 34.00 dBm Connector:RF1COM Meas. Period:Full Slot

IQ

Statistic Count: 20 / 20

1st Measured Slot No	CurrentStdDev
0	
Power [dBm]	22.07 2.39
Power Steps [dB]	NCAP NCAP
EVM RMS [%]	1.38 1.38
EVM Peak [%]	3.94 40.25
Magn. Error RMS [%]	0.84 1.40
Magn. Error Peak [%]	2.41 40.91
Phase Error RMS [°]	0.95 0.28
Phase Error Peak [°]	-3.54 5.51
IQ Origin Offset [dB]	-46.96 0.83
IQ Imbalance [dB]	-51.95 1.43
CF Error [Hz]	-1.70 7.14
Phase Disc. [°]	NCAP

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

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

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

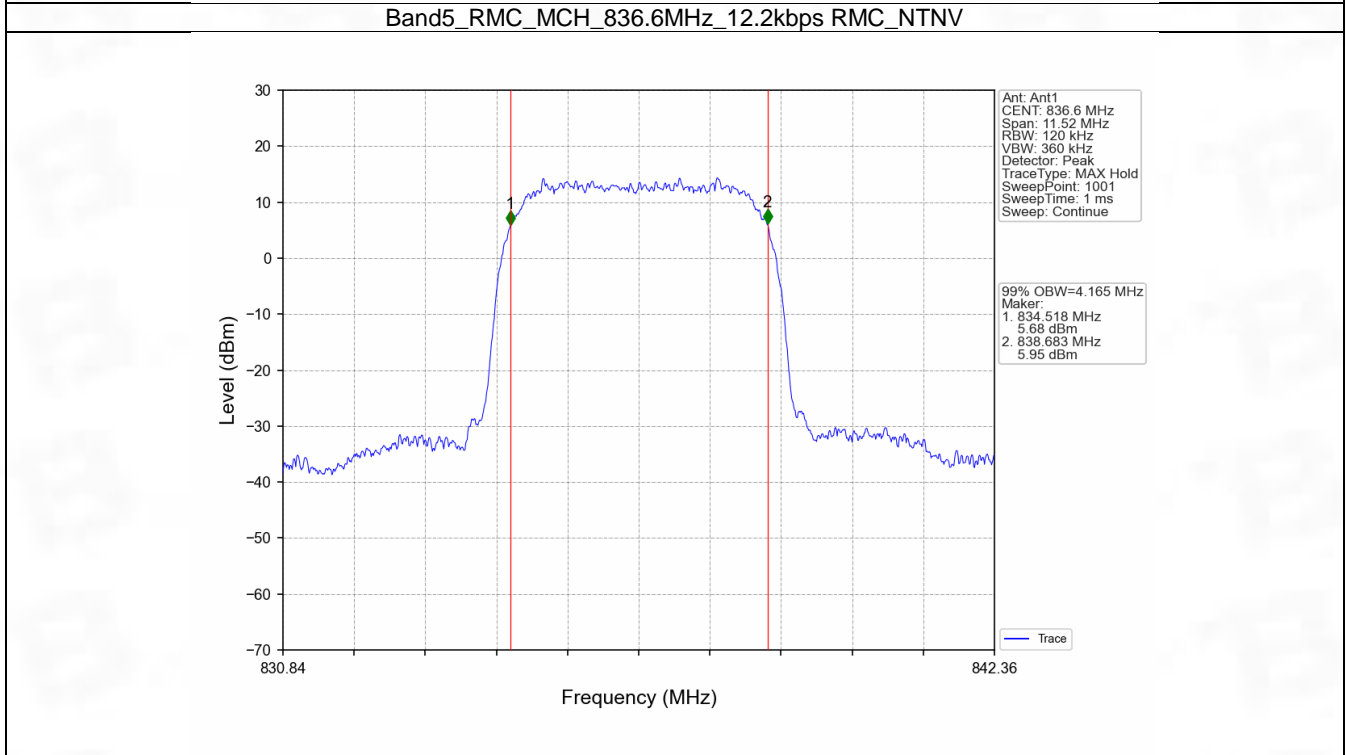
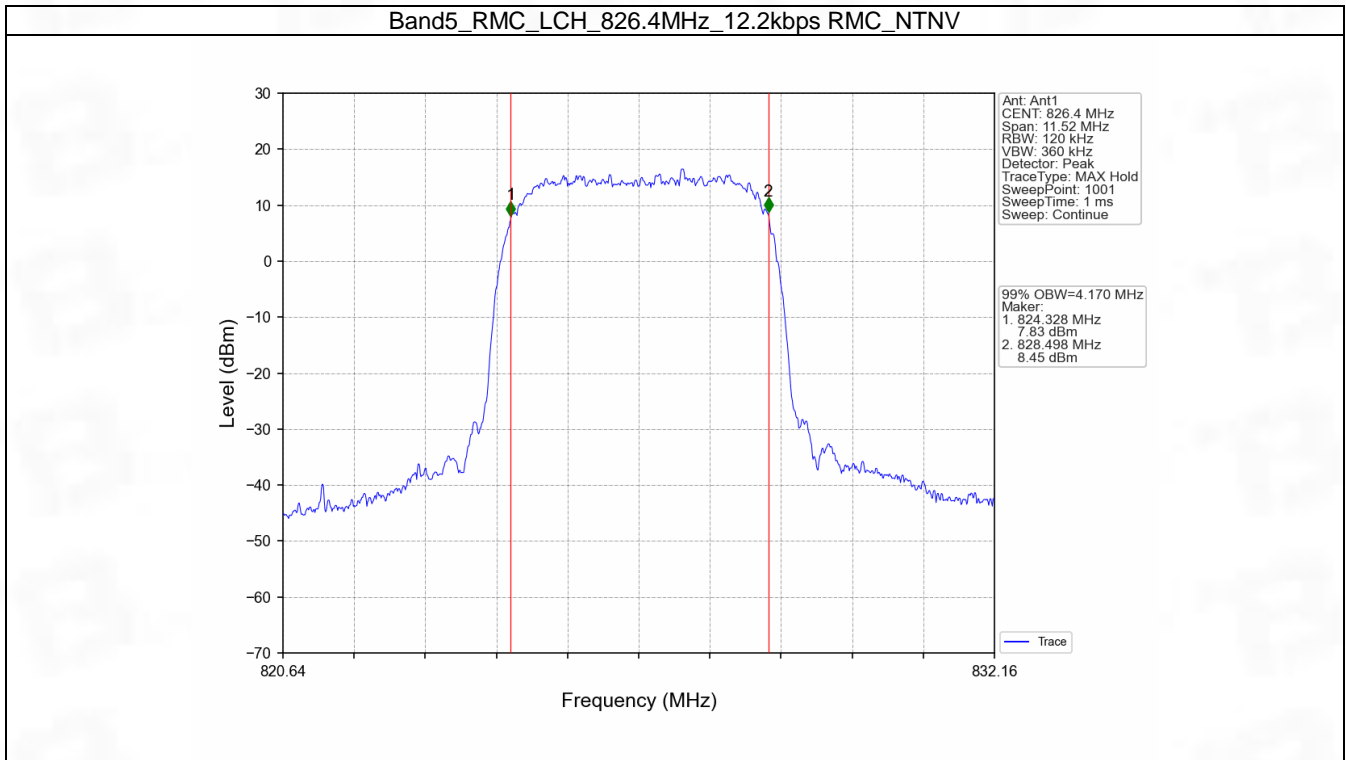
## 4. 99% & 26dB Bandwidth

### 4.1 Band5\_OBW

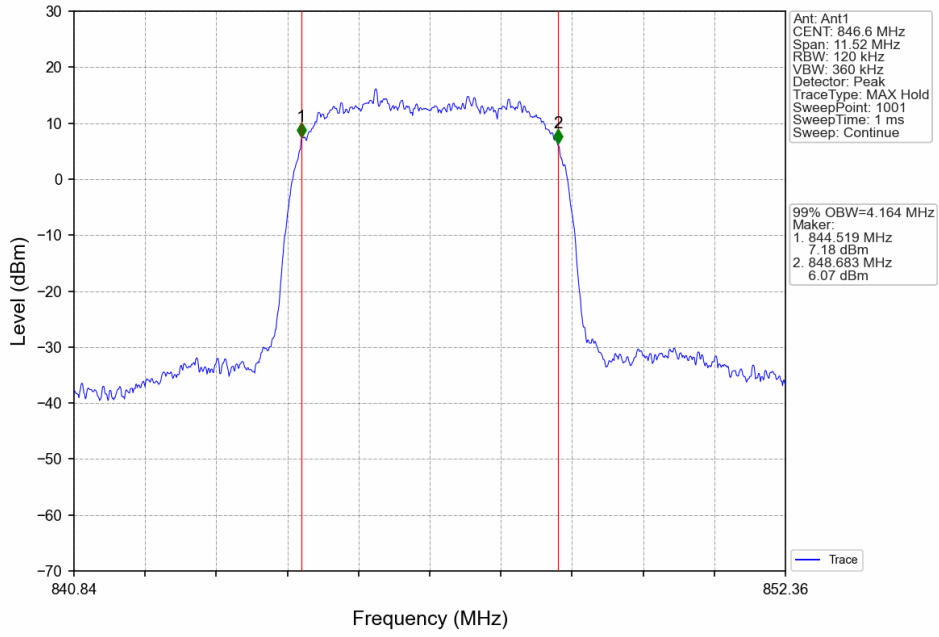
#### 4.1.1 Test Result

Band: 5						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	4.170	/	Pass
			836.6	4.165	/	Pass
			846.6	4.164	/	Pass
	HSDPA	Subtest 1	826.4	4.161	/	Pass
			836.6	4.145	/	Pass
			846.6	4.158	/	Pass
	HSUPA	Subtest 1	826.4	4.169	/	Pass
			836.6	4.163	/	Pass
			846.6	4.147	/	Pass

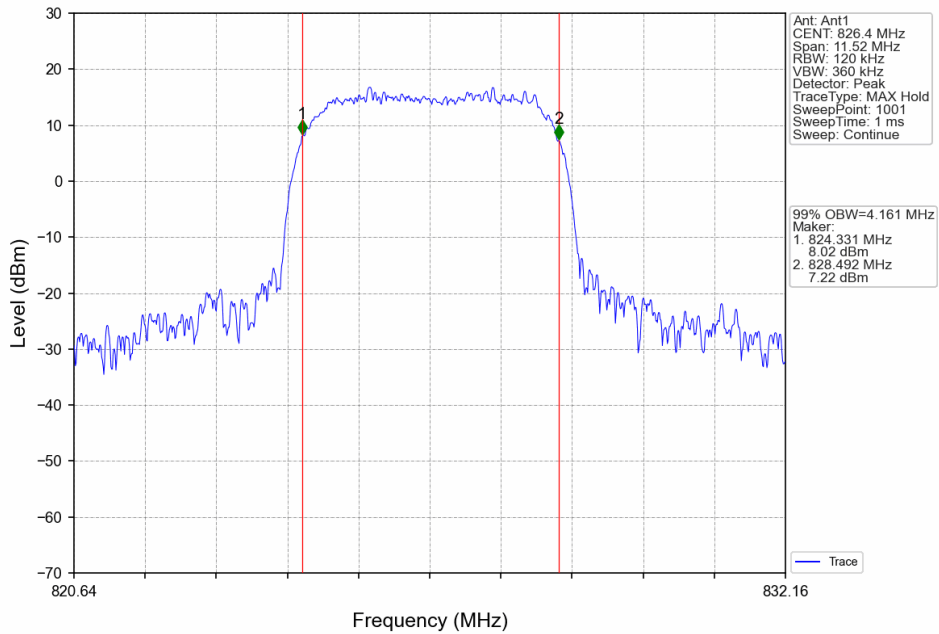
### 4.1.2 Test Graph



Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV

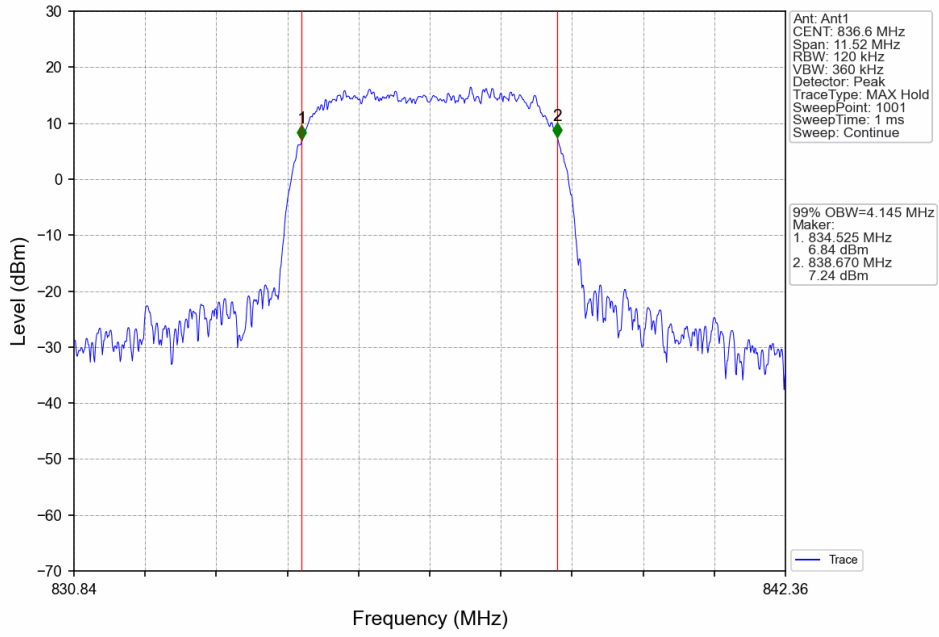


Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV

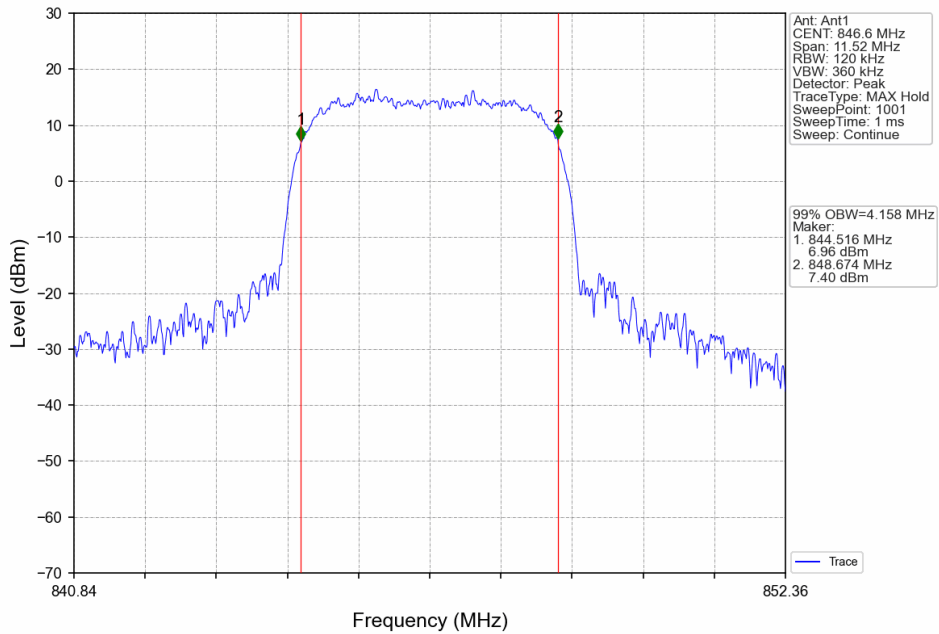




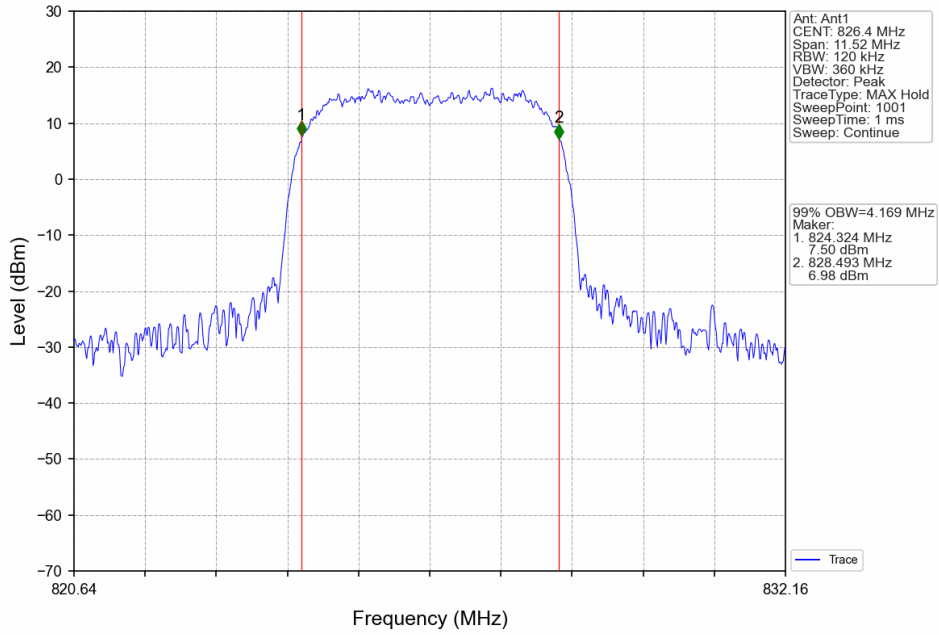
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



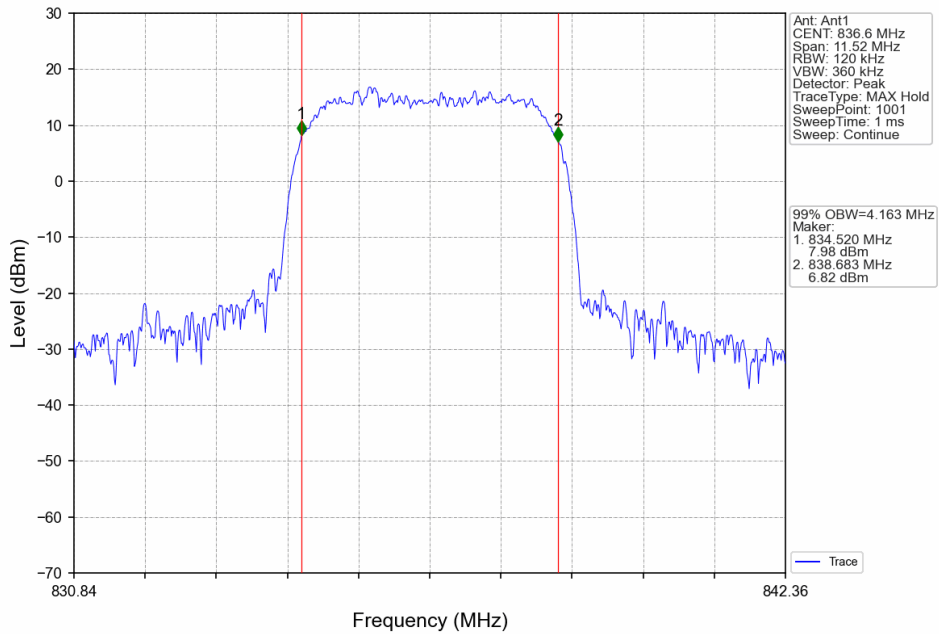
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



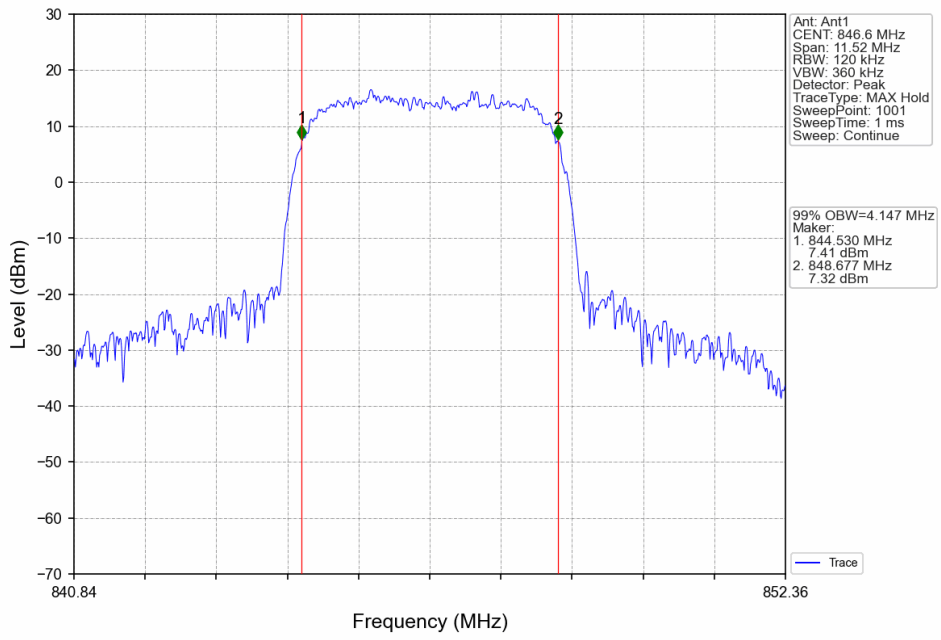
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



Band5\_HSUPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



Band5\_HSUPA\_HCH\_846.6MHz\_Subtest 1\_NTNV

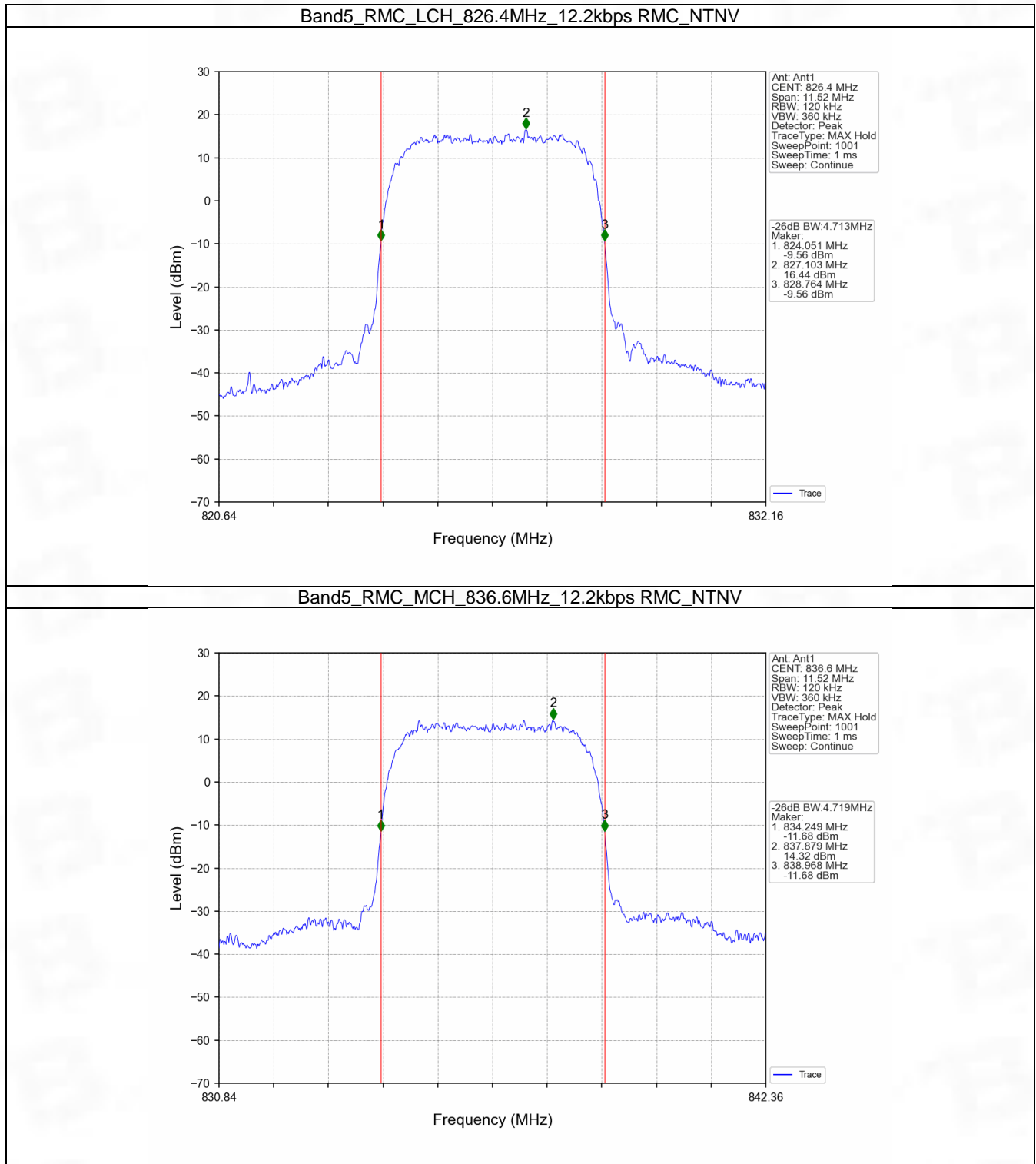


## 4.2 Band5\_XDB

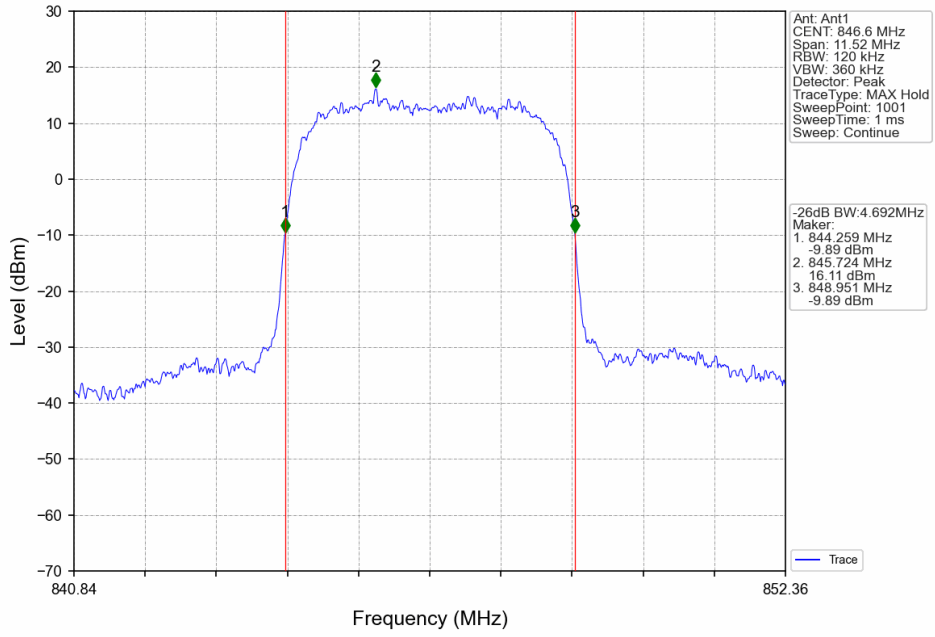
### 4.2.1 Test Result

Band: 5						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	4.713	/	Pass
			836.6	4.719	/	Pass
			846.6	4.692	/	Pass
	HSDPA	Subtest 1	826.4	4.711	/	Pass
			836.6	4.716	/	Pass
			846.6	4.710	/	Pass
	HSUPA	Subtest 1	826.4	4.707	/	Pass
			836.6	4.713	/	Pass
			846.6	4.706	/	Pass

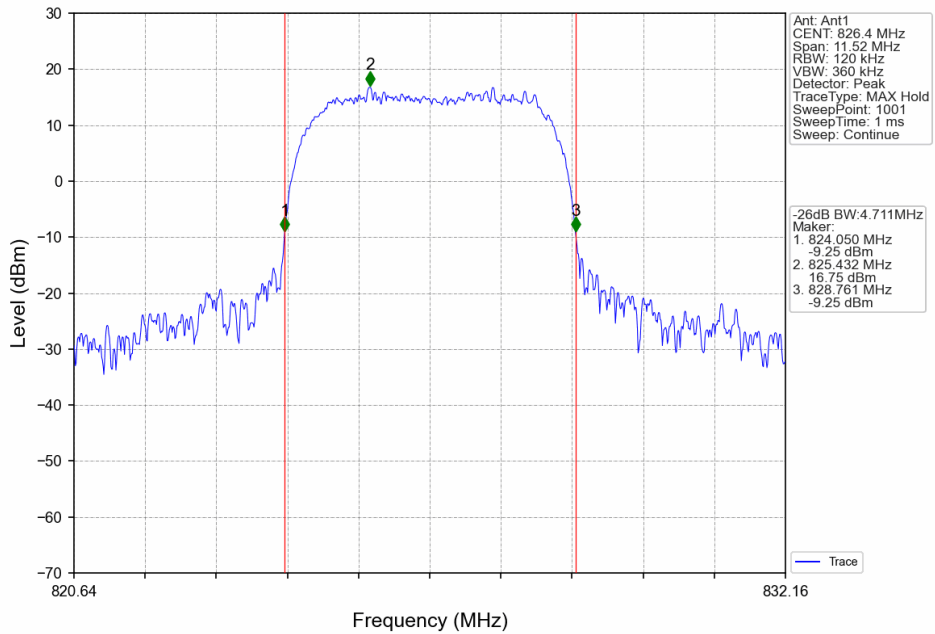
## 4.2.2 Test Graph



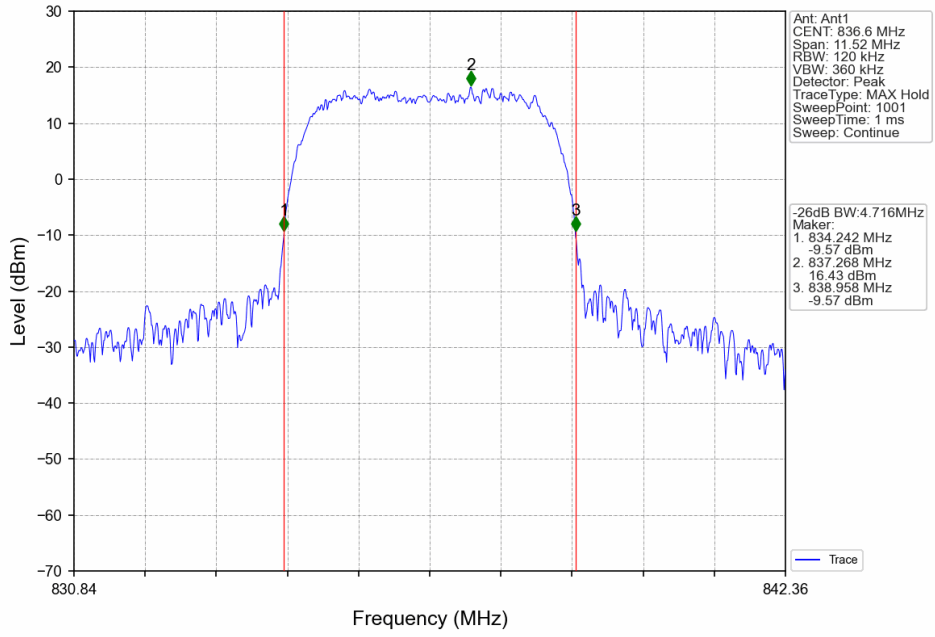
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



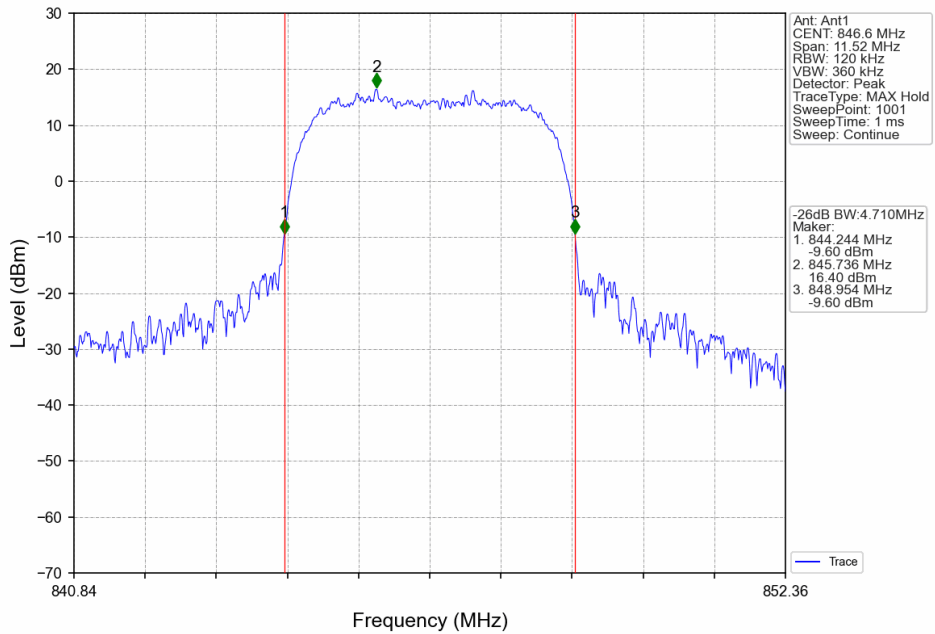
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



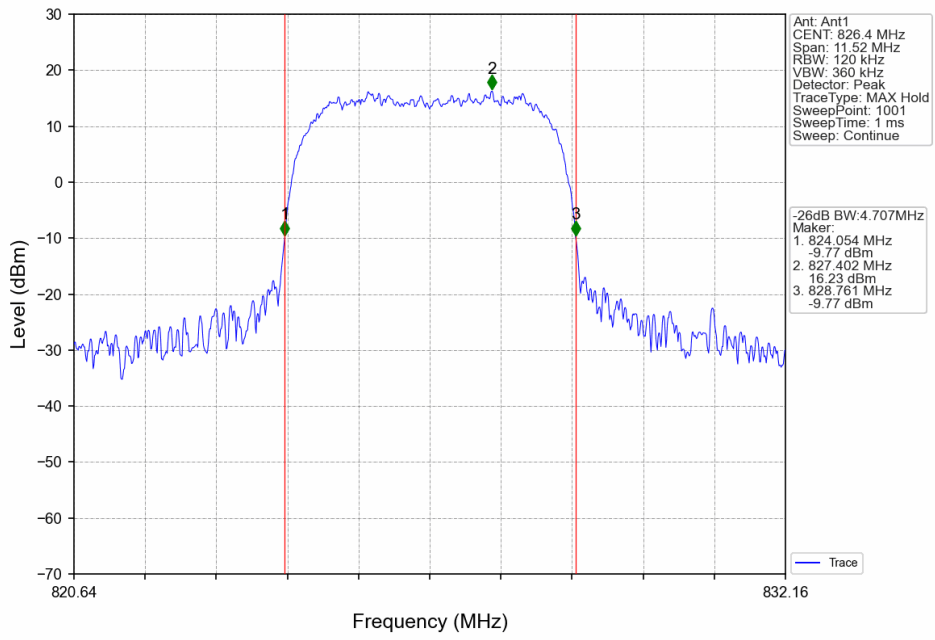
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



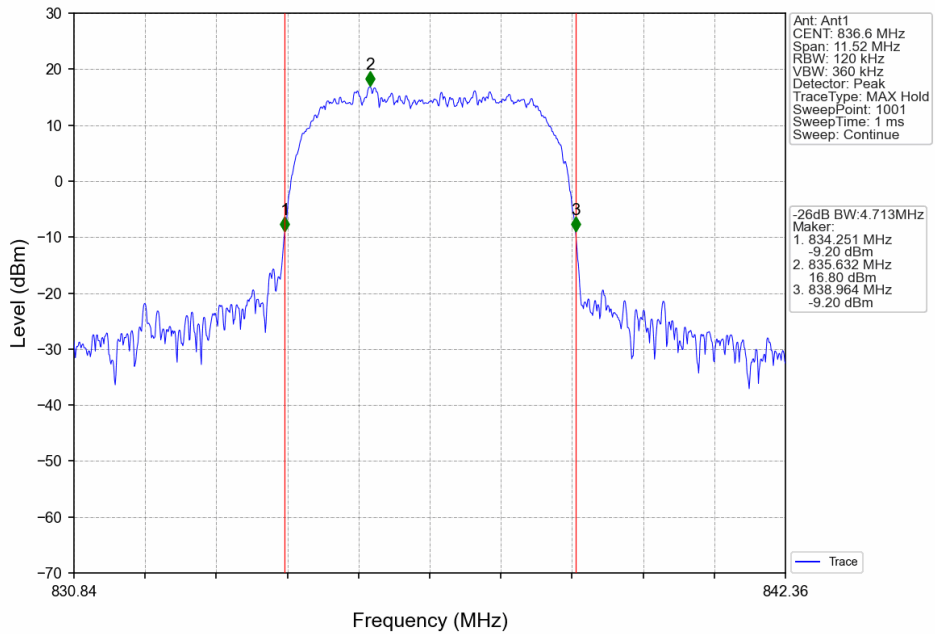
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV

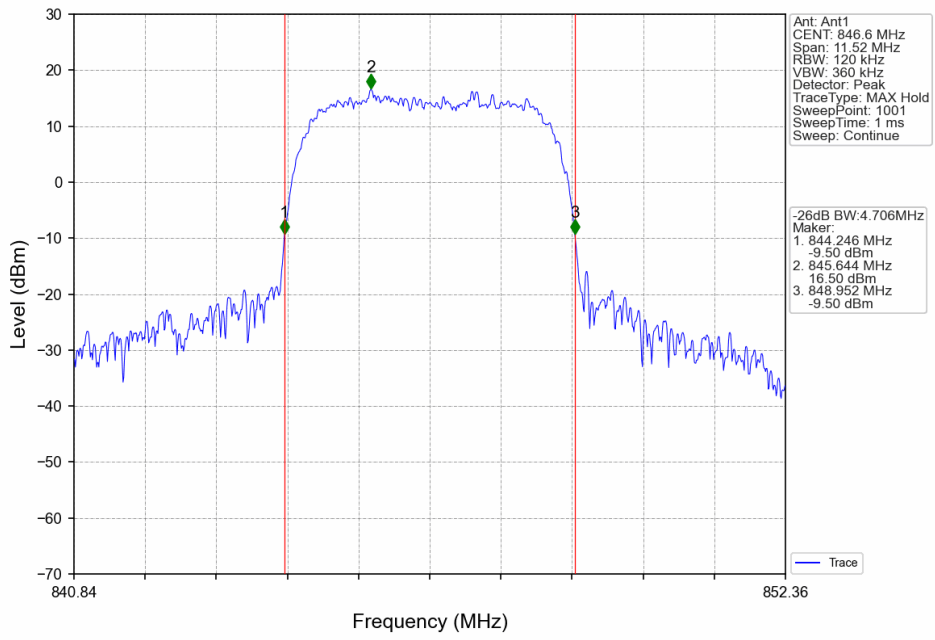


Band5\_HSUPA\_MCH\_836.6MHz\_Subtest 1\_NTNV





Band5\_HSUPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



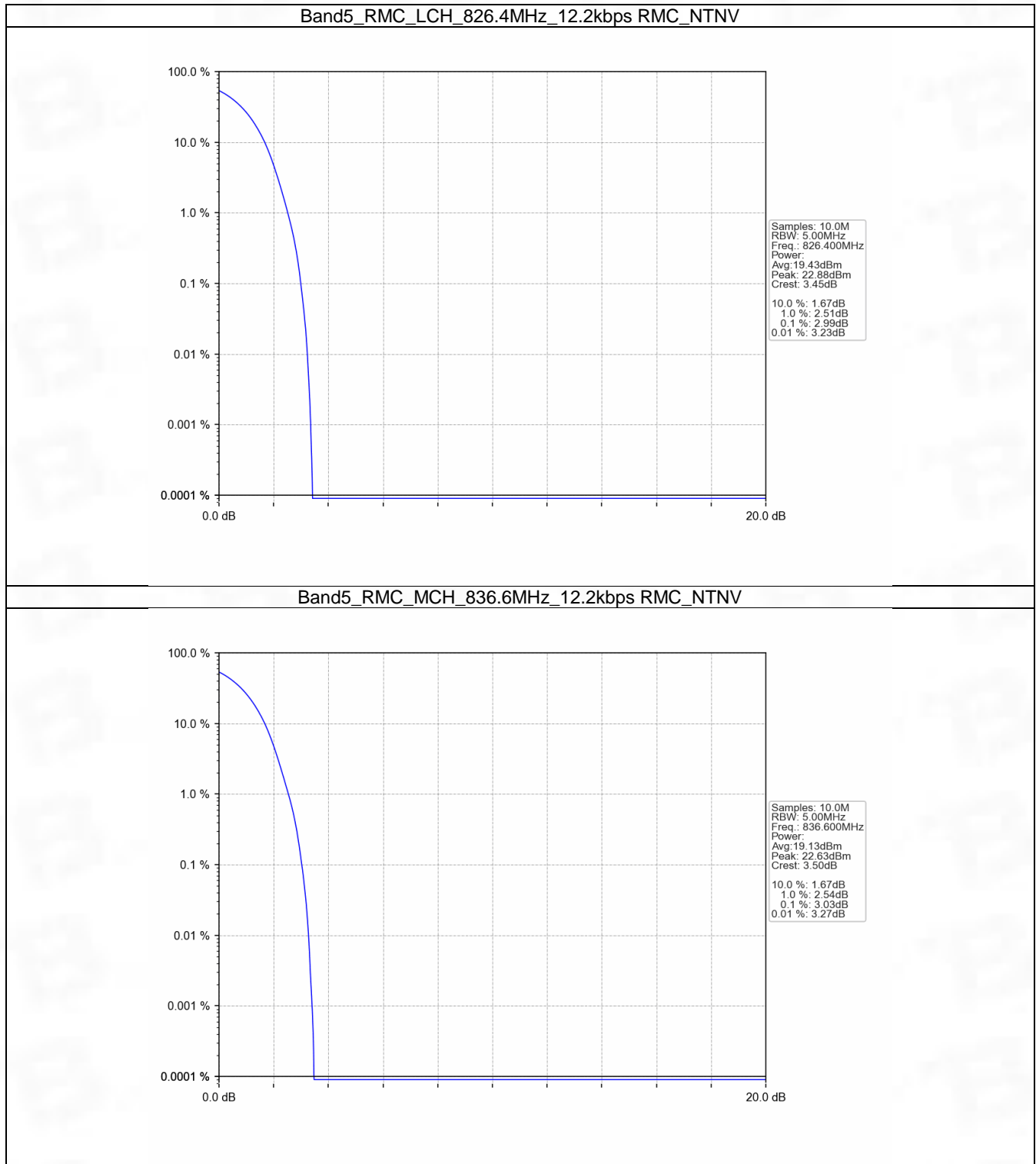
## 5. Peak-Average Ratio

### 5.1 Band5

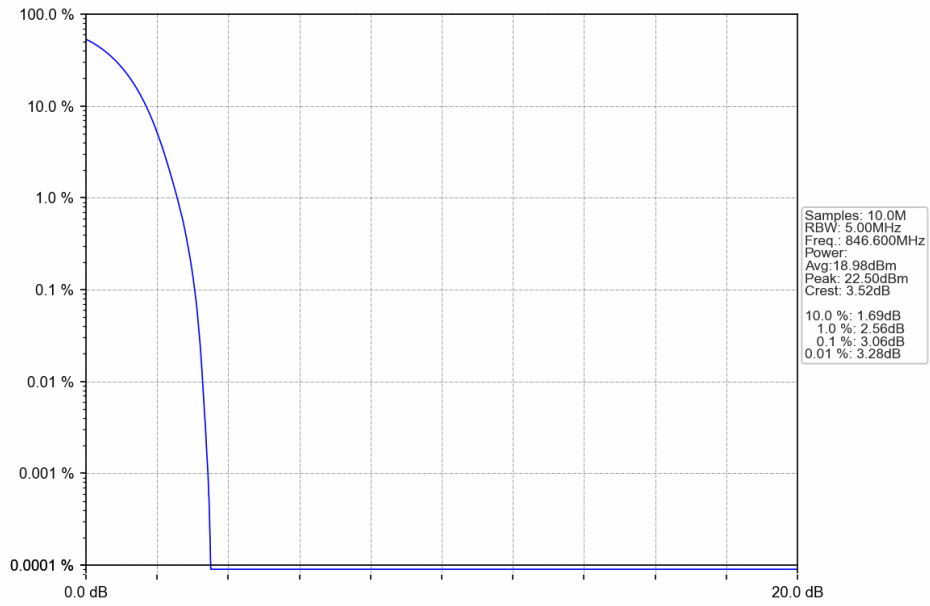
#### 5.1.1 Test Result

Band: 5						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	2.99	<=13	Pass
			836.6	3.03	<=13	Pass
			846.6	3.06	<=13	Pass
	HSDPA	Subtest 1	826.4	5.60	<=13	Pass
			836.6	5.68	<=13	Pass
			846.6	5.98	<=13	Pass
	HSUPA	Subtest 1	826.4	5.59	<=13	Pass
			836.6	5.83	<=13	Pass
			846.6	5.69	<=13	Pass

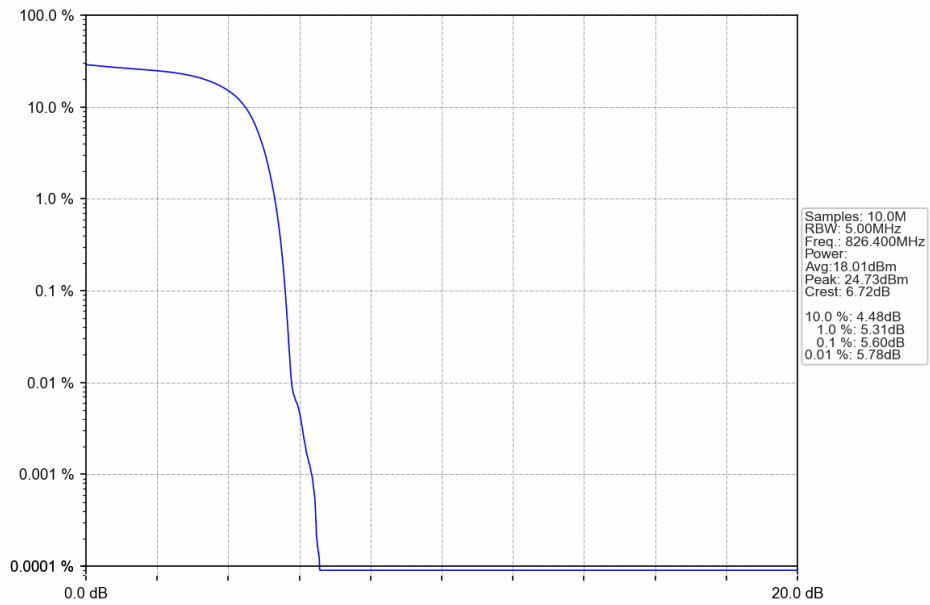
### 5.1.2 Test Graph



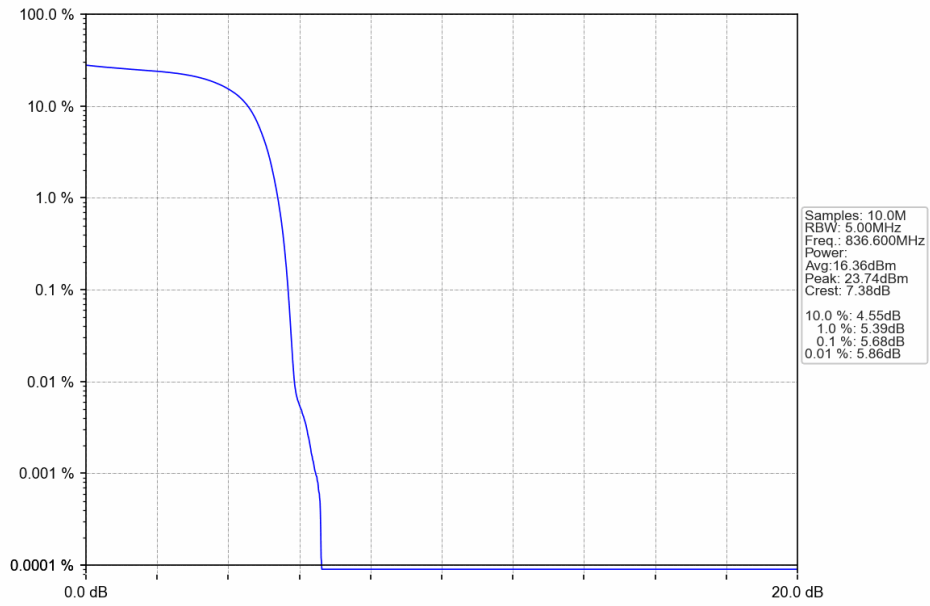
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



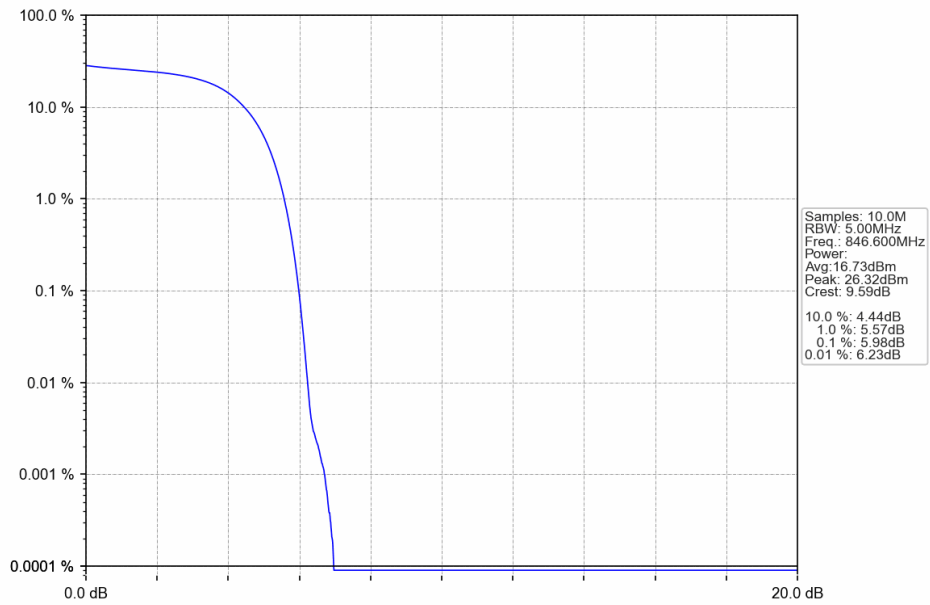
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



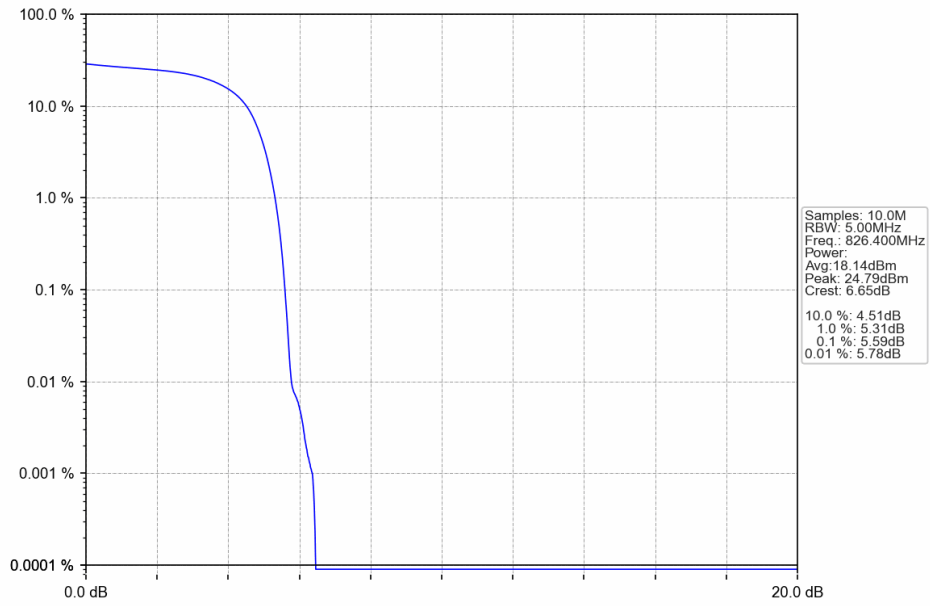
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



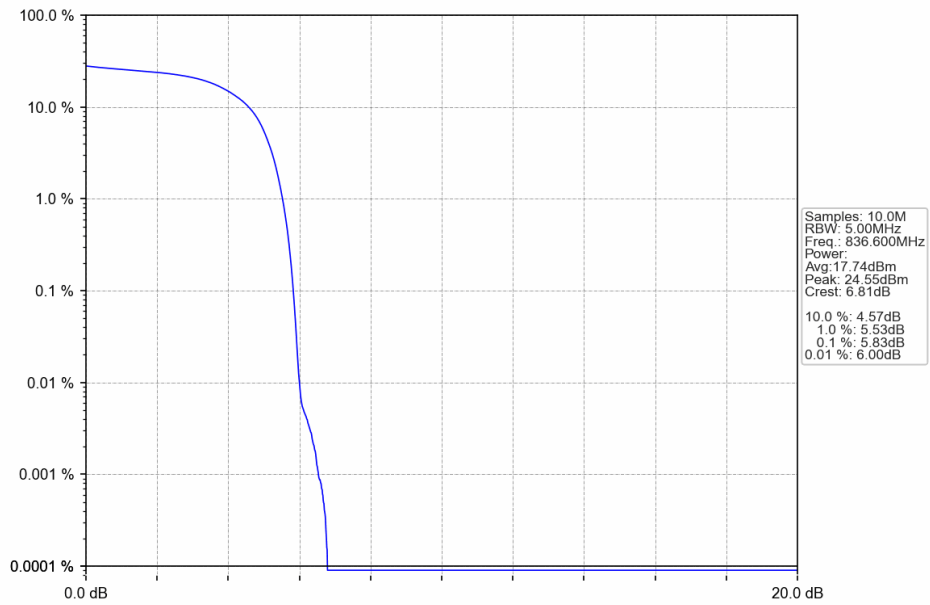
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



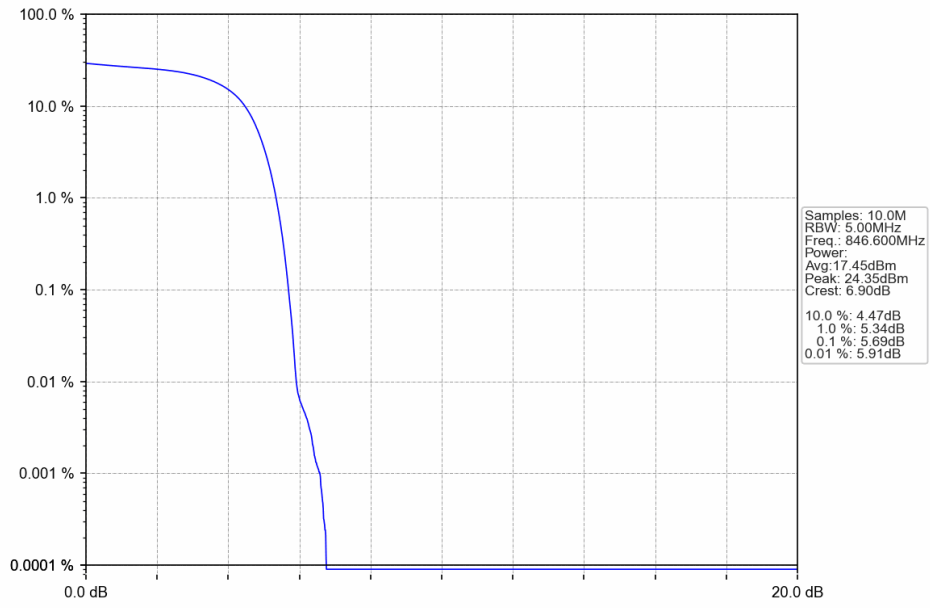
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



Band5\_HSUPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



Band5\_HSUPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



## 6. Spurious Emission

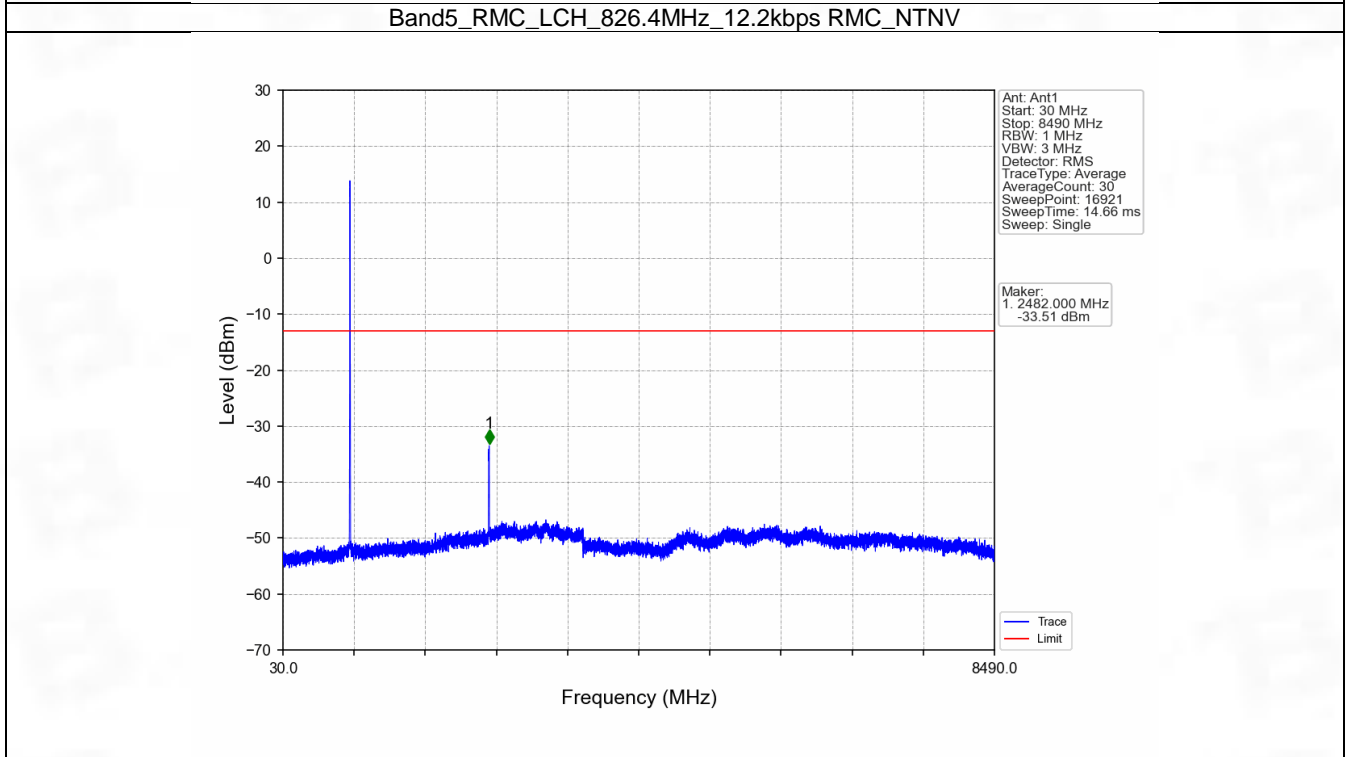
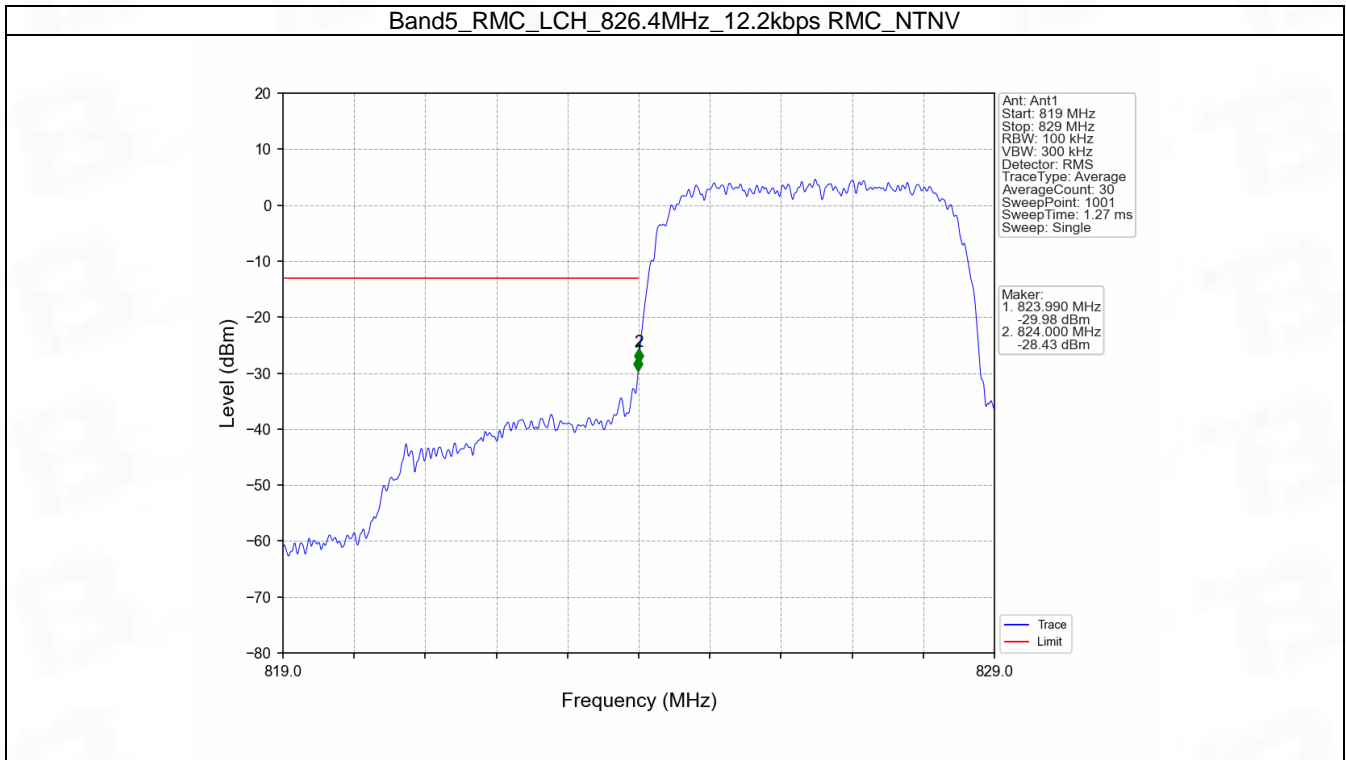
### 6.1 Band5

#### 6.1.1 Test Result

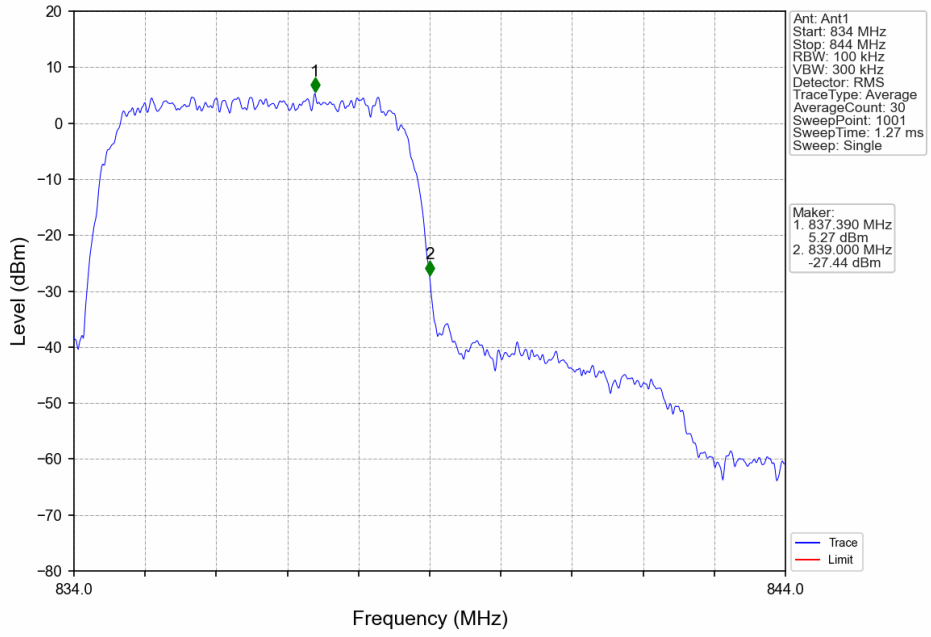
Band: 5						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass
			846.6	Refer To Test Graph		Pass
	HSDPA	Subtest 1	826.4	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass
			846.6	Refer To Test Graph		Pass
	HSUPA	Subtest 1	826.4	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass
			846.6	Refer To Test Graph		Pass



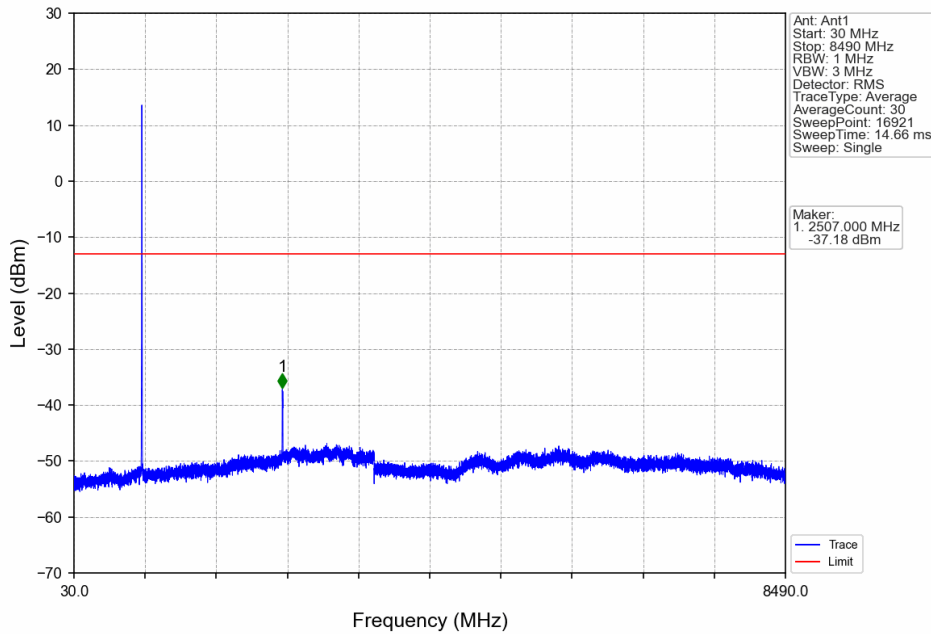
### 6.1.2 Test Graph



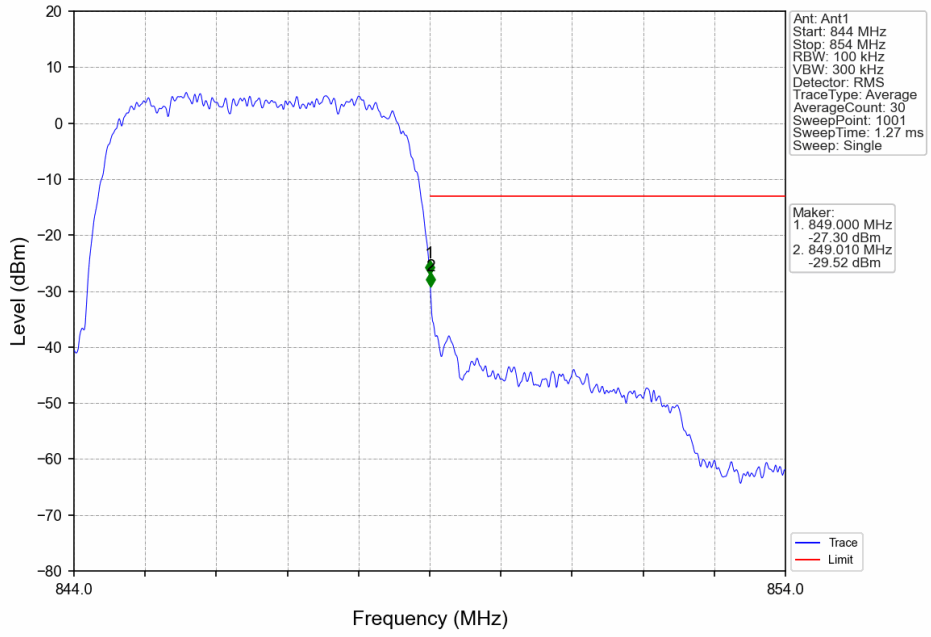
Band5\_RMC\_MCH\_836.6MHz\_12.2kbps RMC\_NTNV



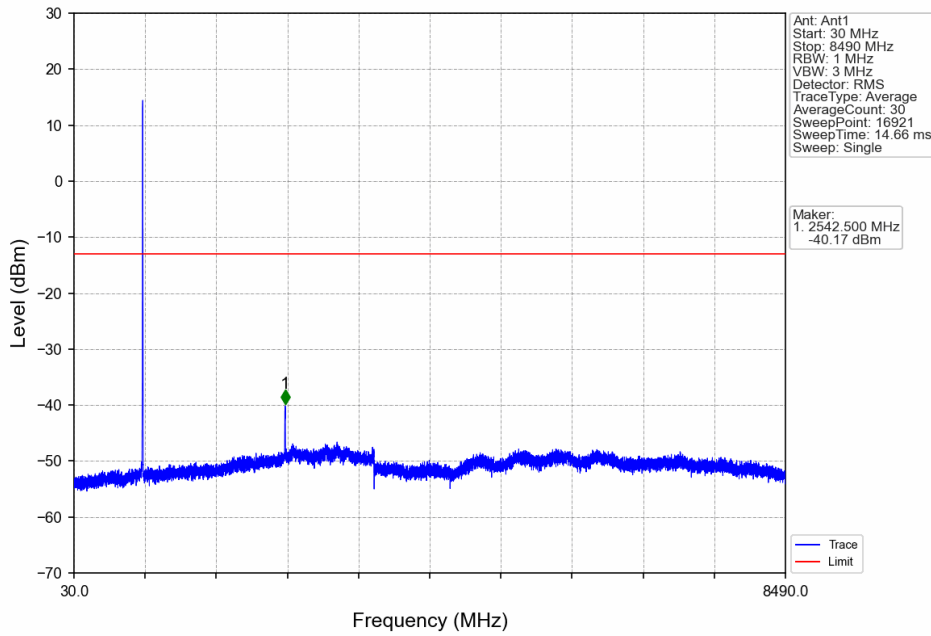
Band5\_RMC\_MCH\_836.6MHz\_12.2kbps RMC\_NTNV



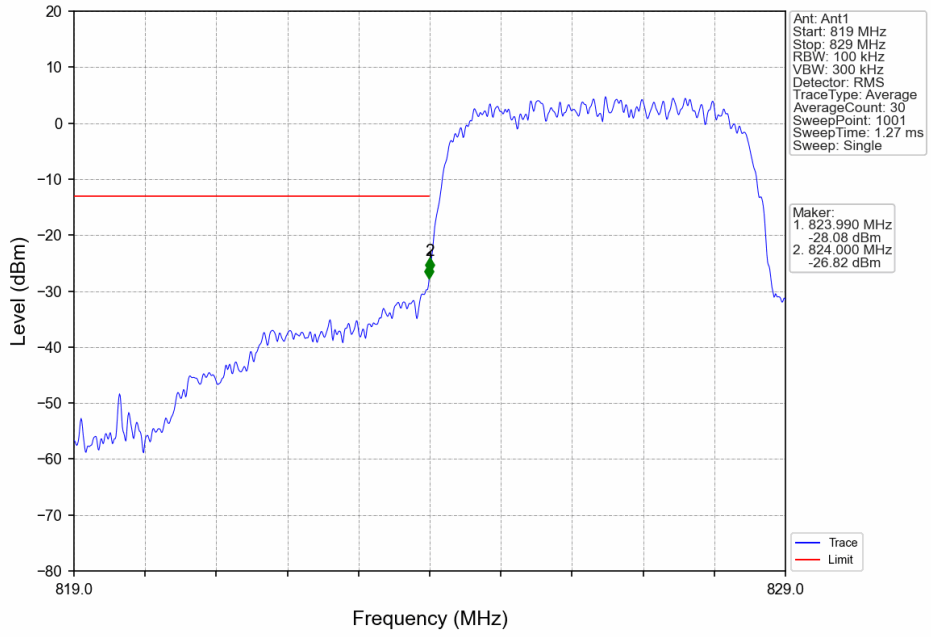
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



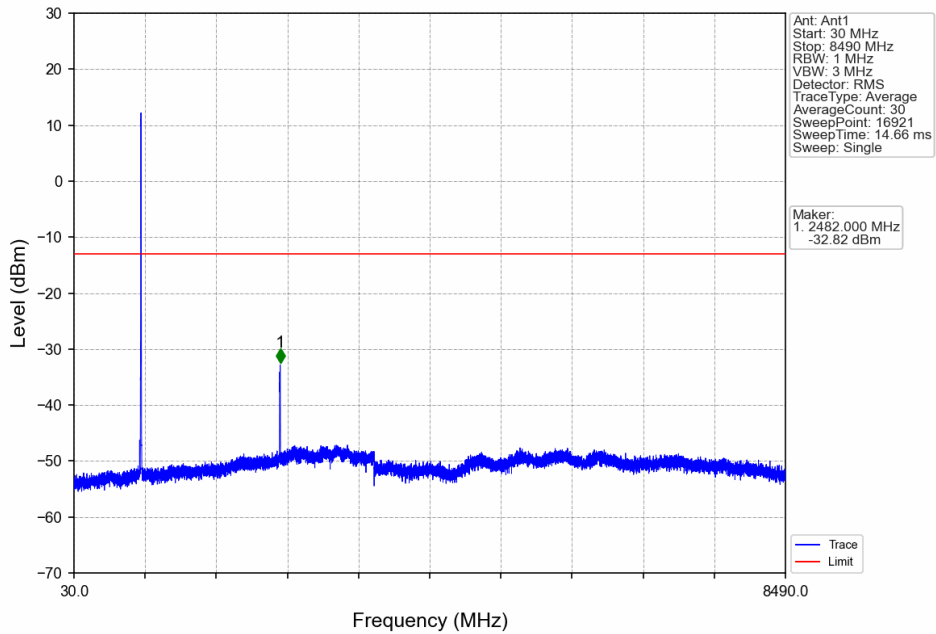
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



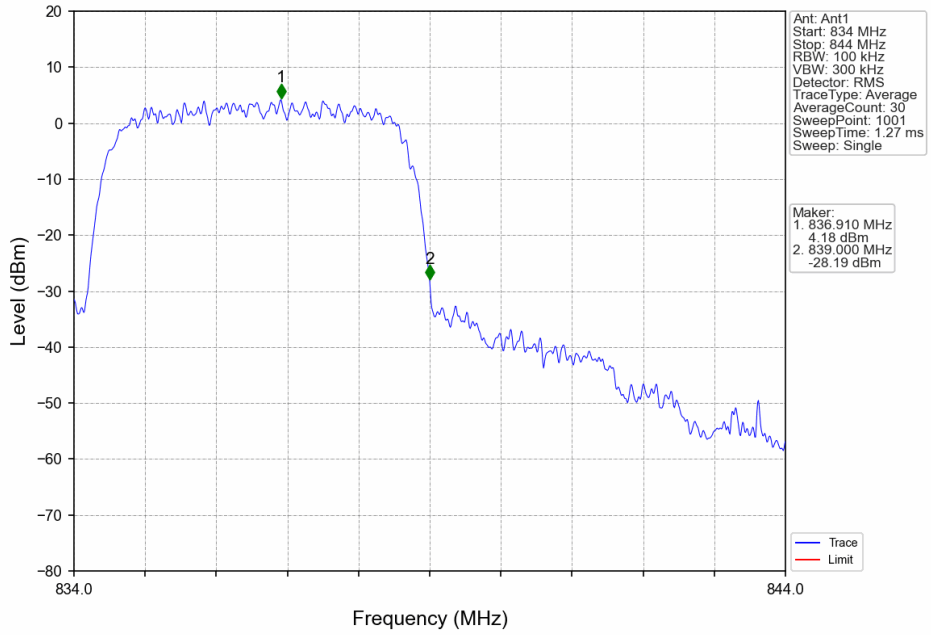
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



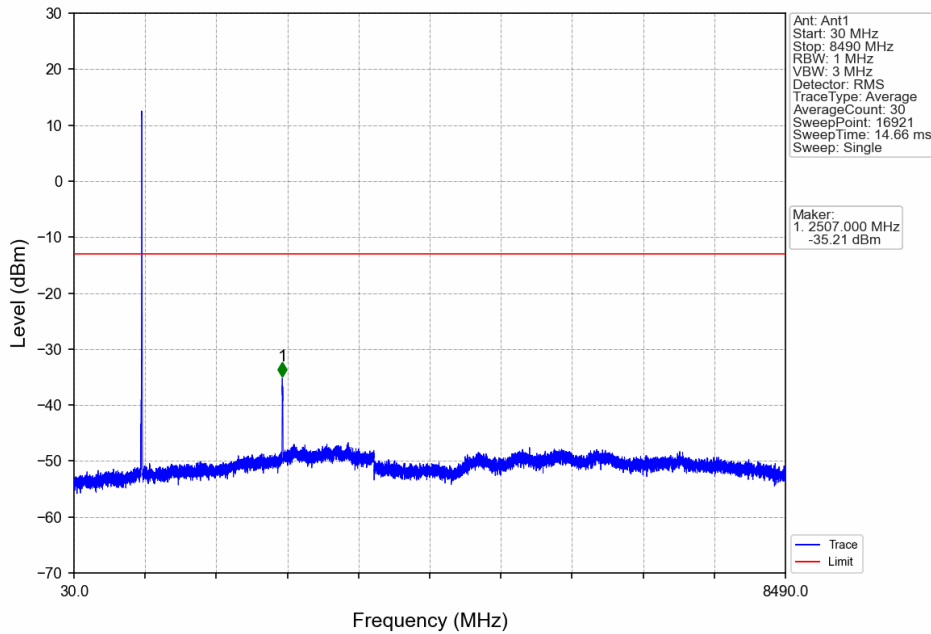
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



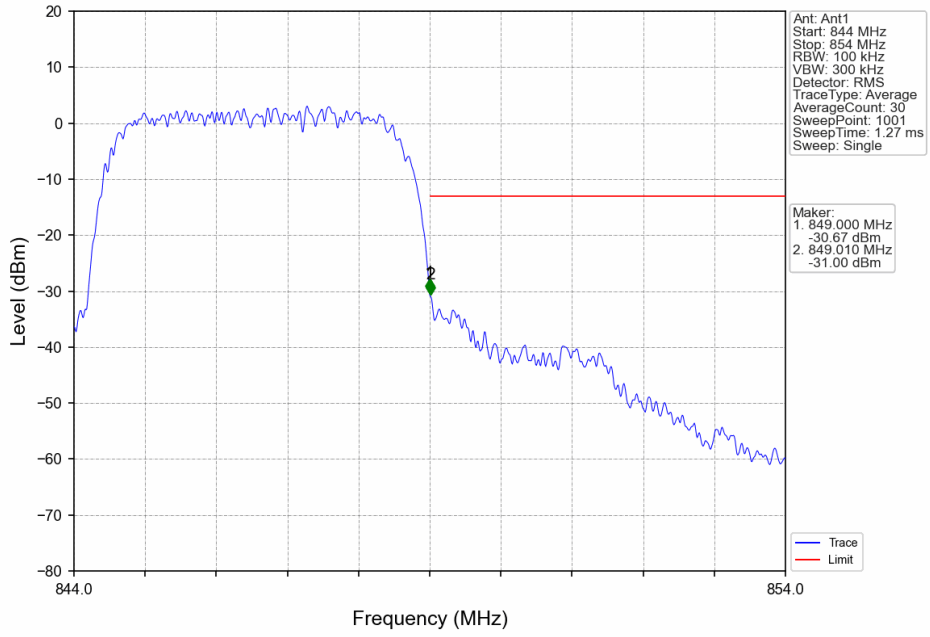
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



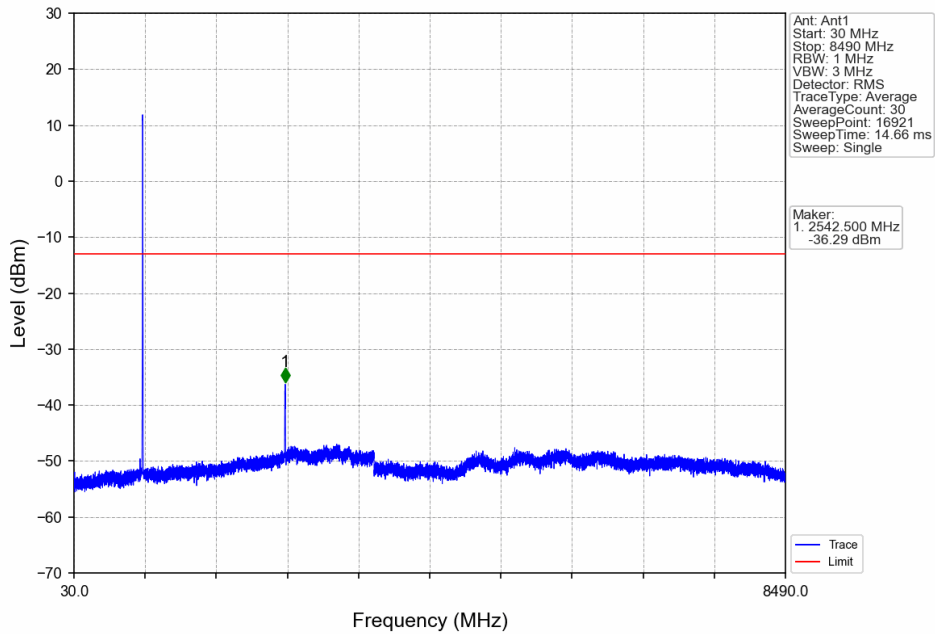
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



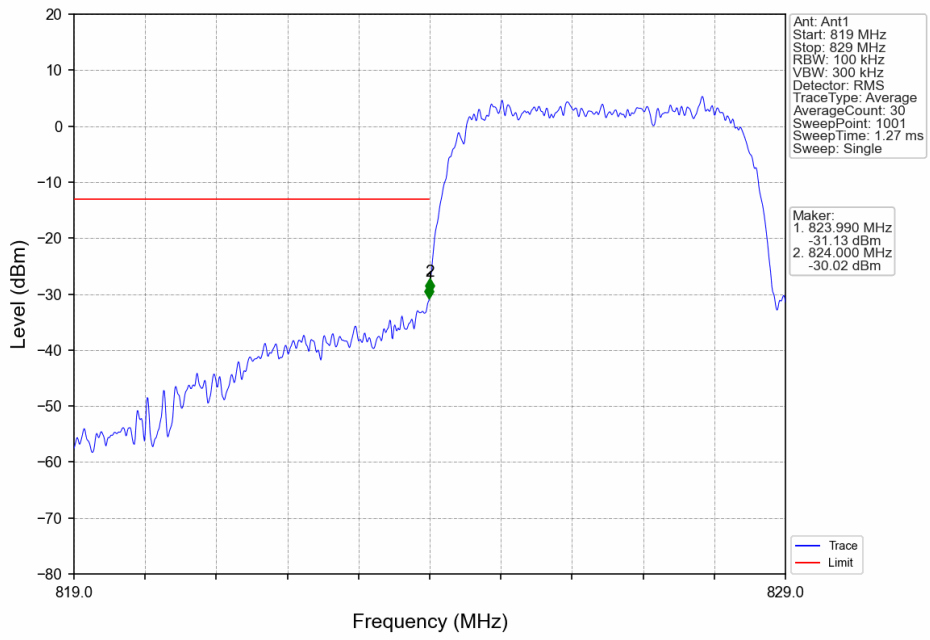
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



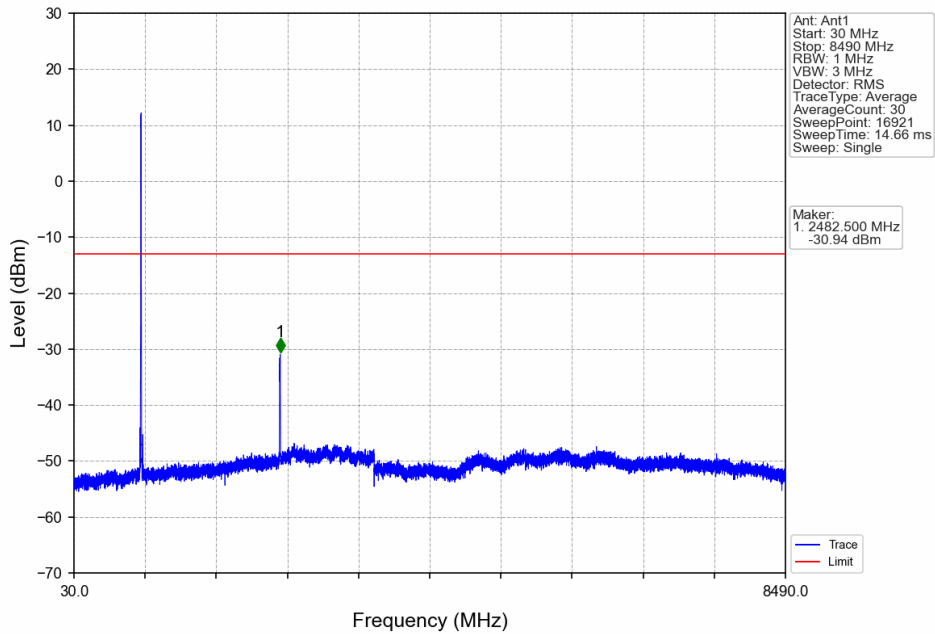
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



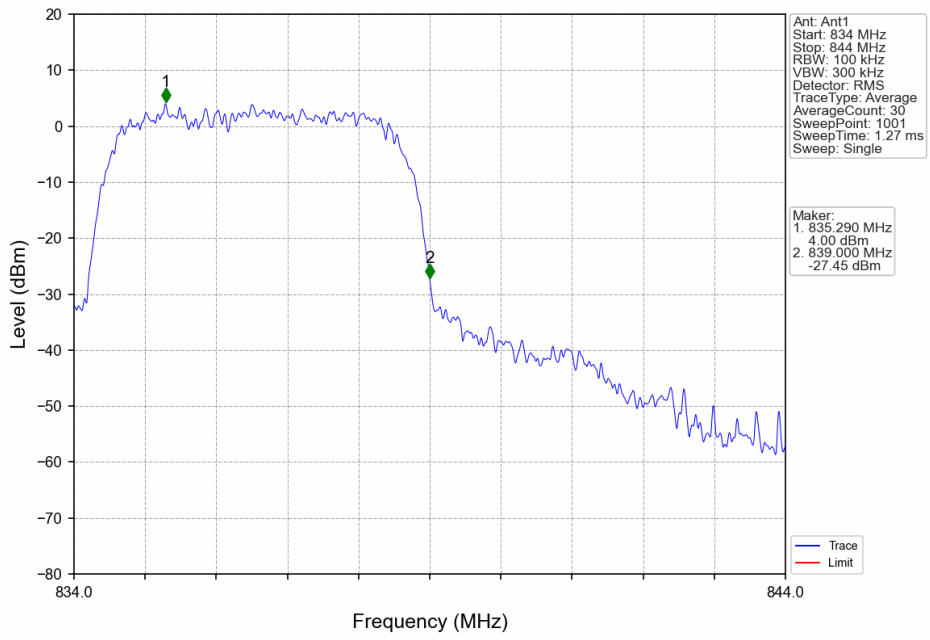
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



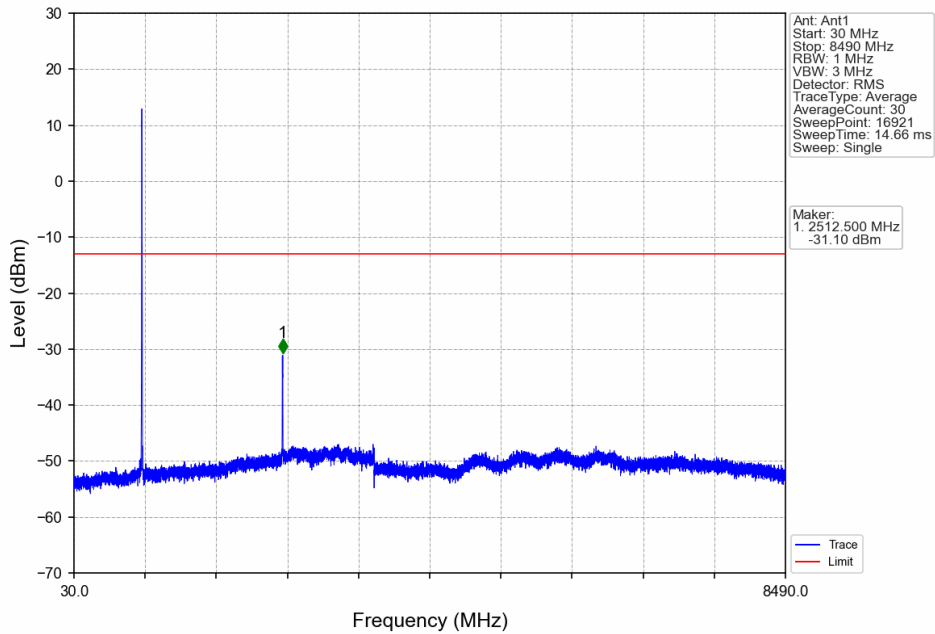
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



Band5\_HSUPA\_MCH\_836.6MHz\_Subtest 1\_NTNV

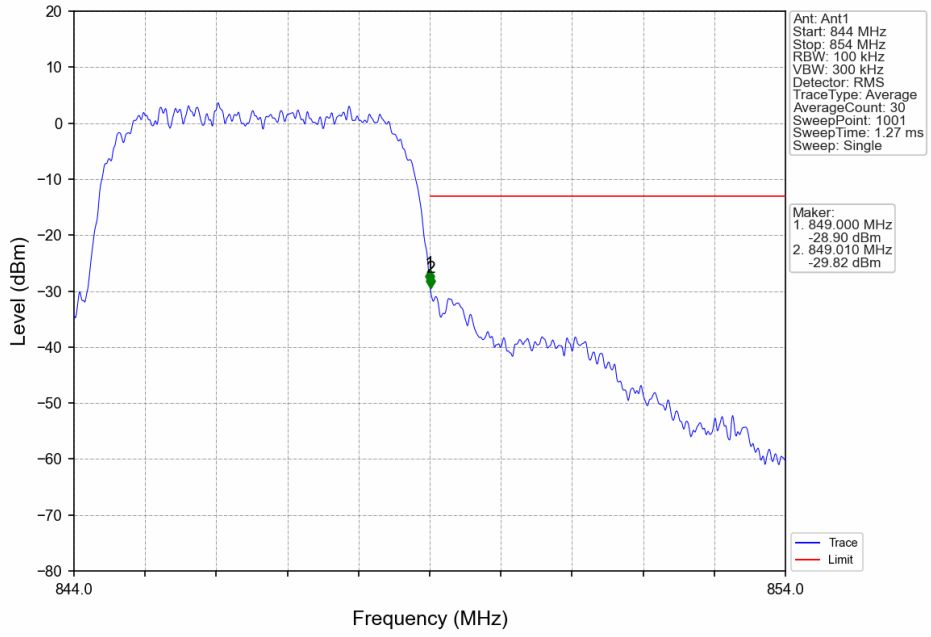


Band5\_HSUPA\_MCH\_836.6MHz\_Subtest 1\_NTNV

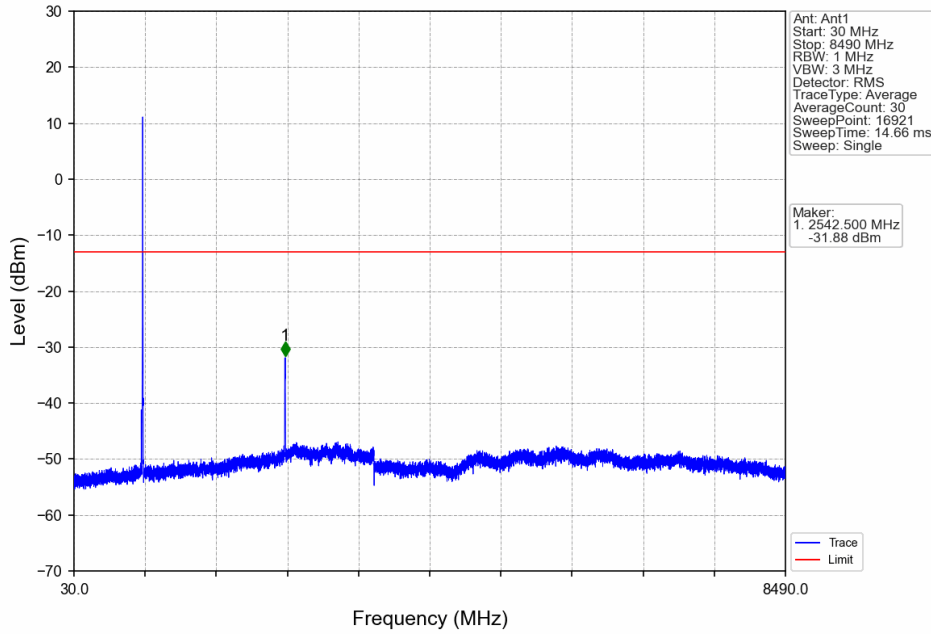




Band5\_HSUPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



Band5\_HSUPA\_HCH\_846.6MHz\_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)
5	3.84	826.4	846.6	0.1094	0.0064	ppm	4M17F9W	22H	20.39

### 7.2 Form731\_ERP

#### 7.2.1 Test Result

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
5	3.84	826.4	846.6	0.0735	0.0064	ppm	4M17F9W	22H	18.66