

# 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	14.93	-3.70	9.08	<=38.45	Pass	
			836.6	23.41	-3.70	17.56	<=38.45	Pass	
			846.6	23.39	-3.70	17.54	<=38.45	Pass	
	HSDPA	Subtest 1	826.4	21.23	-3.70	15.38	<=38.45	Pass	
		Subtest 2	826.4	21.21	-3.70	15.36	<=38.45	Pass	
		Subtest 3	826.4	21.20	-3.70	15.35	<=38.45	Pass	
		Subtest 4	826.4	21.22	-3.70	15.37	<=38.45	Pass	
		Subtest 1	836.6	21.13	-3.70	15.28	<=38.45	Pass	
		Subtest 2	836.6	21.11	-3.70	15.26	<=38.45	Pass	
		Subtest 3	836.6	21.12	-3.70	15.27	<=38.45	Pass	
		Subtest 4	836.6	21.11	-3.70	15.26	<=38.45	Pass	
		Subtest 1	846.6	21.07	-3.70	15.22	<=38.45	Pass	
		Subtest 2	846.6	21.05	-3.70	15.20	<=38.45	Pass	
		Subtest 3	846.6	21.10	-3.70	15.25	<=38.45	Pass	
		Subtest 4	846.6	21.05	-3.70	15.20	<=38.45	Pass	
		HSUPA	Subtest 1	826.4	19.15	-3.70	13.30	<=38.45	Pass
			Subtest 2	826.4	18.69	-3.70	12.84	<=38.45	Pass
	Subtest 3		826.4	19.00	-3.70	13.15	<=38.45	Pass	
	Subtest 4		826.4	18.95	-3.70	13.10	<=38.45	Pass	
	Subtest 5		826.4	18.69	-3.70	12.84	<=38.45	Pass	
	Subtest 1		836.6	18.83	-3.70	12.98	<=38.45	Pass	
	Subtest 2		836.6	19.12	-3.70	13.27	<=38.45	Pass	
	Subtest 3		836.6	18.86	-3.70	13.01	<=38.45	Pass	
	Subtest 4		836.6	18.62	-3.70	12.77	<=38.45	Pass	
	Subtest 5		836.6	19.09	-3.70	13.24	<=38.45	Pass	
	Subtest 1		846.6	19.11	-3.70	13.26	<=38.45	Pass	
	Subtest 2		846.6	19.11	-3.70	13.26	<=38.45	Pass	
	Subtest 3		846.6	18.88	-3.70	13.03	<=38.45	Pass	
	Subtest 4	846.6	18.63	-3.70	12.78	<=38.45	Pass		
	Subtest 5	846.6	19.09	-3.70	13.24	<=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	-8.290	-0.0100	-2.5 to 2.5	Pass
			3.85	-6.974	-0.0084	-2.5 to 2.5	Pass
			4.43	-8.183	-0.0099	-2.5 to 2.5	Pass
		-30	3.85	-8.934	-0.0108	-2.5 to 2.5	Pass
		-20	3.85	-7.753	-0.0094	-2.5 to 2.5	Pass

	836.6	-10	3.85	-8.626	-0.0104	-2.5 to 2.5	Pass
		0	3.85	-9.320	-0.0113	-2.5 to 2.5	Pass
		10	3.85	-7.424	-0.0090	-2.5 to 2.5	Pass
		30	3.85	-7.939	-0.0096	-2.5 to 2.5	Pass
		40	3.85	-6.573	-0.0080	-2.5 to 2.5	Pass
	50	3.85	-6.781	-0.0082	-2.5 to 2.5	Pass	
	836.6	20	3.27	-6.373	-0.0076	-2.5 to 2.5	Pass
			3.85	-4.771	-0.0057	-2.5 to 2.5	Pass
			4.43	-6.022	-0.0072	-2.5 to 2.5	Pass
		-30	3.85	-5.901	-0.0071	-2.5 to 2.5	Pass
		-20	3.85	-6.759	-0.0081	-2.5 to 2.5	Pass
		-10	3.85	-5.393	-0.0064	-2.5 to 2.5	Pass
		0	3.85	-5.136	-0.0061	-2.5 to 2.5	Pass
		10	3.85	-5.972	-0.0071	-2.5 to 2.5	Pass
		30	3.85	-5.715	-0.0068	-2.5 to 2.5	Pass
		40	3.85	-5.658	-0.0068	-2.5 to 2.5	Pass
		50	3.85	-4.771	-0.0057	-2.5 to 2.5	Pass
	846.6	20	3.27	-4.456	-0.0053	-2.5 to 2.5	Pass
			3.85	-4.799	-0.0057	-2.5 to 2.5	Pass
			4.43	-4.249	-0.0050	-2.5 to 2.5	Pass
		-30	3.85	-4.599	-0.0054	-2.5 to 2.5	Pass
		-20	3.85	-5.350	-0.0063	-2.5 to 2.5	Pass
		-10	3.85	-4.106	-0.0048	-2.5 to 2.5	Pass
		0	3.85	-3.569	-0.0042	-2.5 to 2.5	Pass
		10	3.85	-3.219	-0.0038	-2.5 to 2.5	Pass
30		3.85	-5.085	-0.0060	-2.5 to 2.5	Pass	
40		3.85	-5.107	-0.0060	-2.5 to 2.5	Pass	
50		3.85	-4.513	-0.0053	-2.5 to 2.5	Pass	
HSDPA	826.4	20	3.27	0.973	0.0012	-2.5 to 2.5	Pass
			3.85	1.516	0.0018	-2.5 to 2.5	Pass
			4.43	0.458	0.0006	-2.5 to 2.5	Pass
		-30	3.85	0.365	0.0004	-2.5 to 2.5	Pass
		-20	3.85	1.495	0.0018	-2.5 to 2.5	Pass
		-10	3.85	0.801	0.0010	-2.5 to 2.5	Pass
		0	3.85	1.538	0.0019	-2.5 to 2.5	Pass
		10	3.85	0.300	0.0004	-2.5 to 2.5	Pass
		30	3.85	-2.489	-0.0030	-2.5 to 2.5	Pass
		40	3.85	-1.724	-0.0021	-2.5 to 2.5	Pass
		50	3.85	0.279	0.0003	-2.5 to 2.5	Pass
	836.6	20	3.27	-1.802	-0.0022	-2.5 to 2.5	Pass
			3.85	2.081	0.0025	-2.5 to 2.5	Pass
			4.43	1.202	0.0014	-2.5 to 2.5	Pass
		-30	3.85	-1.516	-0.0018	-2.5 to 2.5	Pass
		-20	3.85	-3.026	-0.0036	-2.5 to 2.5	Pass
		-10	3.85	-0.136	-0.0002	-2.5 to 2.5	Pass
		0	3.85	-2.453	-0.0029	-2.5 to 2.5	Pass
		10	3.85	-0.801	-0.0010	-2.5 to 2.5	Pass
		30	3.85	-2.718	-0.0032	-2.5 to 2.5	Pass
		40	3.85	-1.552	-0.0019	-2.5 to 2.5	Pass
		50	3.85	-1.667	-0.0020	-2.5 to 2.5	Pass
	846.6	20	3.27	0.207	0.0002	-2.5 to 2.5	Pass
			3.85	1.166	0.0014	-2.5 to 2.5	Pass
			4.43	-3.948	-0.0047	-2.5 to 2.5	Pass
-30		3.85	-2.024	-0.0024	-2.5 to 2.5	Pass	
-20		3.85	-3.591	-0.0042	-2.5 to 2.5	Pass	
-10		3.85	0.165	0.0002	-2.5 to 2.5	Pass	
0		3.85	-0.422	-0.0005	-2.5 to 2.5	Pass	
10		3.85	-0.179	-0.0002	-2.5 to 2.5	Pass	
30		3.85	-0.994	-0.0012	-2.5 to 2.5	Pass	

		40	3.85	1.016	0.0012	-2.5 to 2.5	Pass
		50	3.85	-3.061	-0.0036	-2.5 to 2.5	Pass
HSUPA	826.4	20	3.27	-4.249	-0.0051	-2.5 to 2.5	Pass
			3.85	-3.297	-0.0040	-2.5 to 2.5	Pass
			4.43	-2.518	-0.0030	-2.5 to 2.5	Pass
		-30	3.85	-6.044	-0.0073	-2.5 to 2.5	Pass
		-20	3.85	-5.858	-0.0071	-2.5 to 2.5	Pass
		-10	3.85	-6.266	-0.0076	-2.5 to 2.5	Pass
		0	3.85	-6.387	-0.0077	-2.5 to 2.5	Pass
		10	3.85	-4.771	-0.0058	-2.5 to 2.5	Pass
		30	3.85	-5.000	-0.0061	-2.5 to 2.5	Pass
		40	3.85	-3.362	-0.0041	-2.5 to 2.5	Pass
		50	3.85	-5.443	-0.0066	-2.5 to 2.5	Pass
	836.6	20	3.27	-0.358	-0.0004	-2.5 to 2.5	Pass
			3.85	-2.697	-0.0032	-2.5 to 2.5	Pass
			4.43	-3.018	-0.0036	-2.5 to 2.5	Pass
		-30	3.85	-2.575	-0.0031	-2.5 to 2.5	Pass
		-20	3.85	-3.018	-0.0036	-2.5 to 2.5	Pass
		-10	3.85	-2.818	-0.0034	-2.5 to 2.5	Pass
		0	3.85	-2.232	-0.0027	-2.5 to 2.5	Pass
		10	3.85	-3.269	-0.0039	-2.5 to 2.5	Pass
		30	3.85	-4.828	-0.0058	-2.5 to 2.5	Pass
		40	3.85	-1.681	-0.0020	-2.5 to 2.5	Pass
		50	3.85	-3.555	-0.0042	-2.5 to 2.5	Pass
	846.6	20	3.27	-3.083	-0.0036	-2.5 to 2.5	Pass
			3.85	-4.835	-0.0057	-2.5 to 2.5	Pass
			4.43	-4.642	-0.0055	-2.5 to 2.5	Pass
		-30	3.85	-2.224	-0.0026	-2.5 to 2.5	Pass
		-20	3.85	-8.712	-0.0103	-2.5 to 2.5	Pass
		-10	3.85	-6.680	-0.0079	-2.5 to 2.5	Pass
		0	3.85	-6.602	-0.0078	-2.5 to 2.5	Pass
		10	3.85	-9.191	-0.0109	-2.5 to 2.5	Pass
		30	3.85	-3.912	-0.0046	-2.5 to 2.5	Pass
		40	3.85	-6.430	-0.0076	-2.5 to 2.5	Pass
		50	3.85	-6.216	-0.0073	-2.5 to 2.5	Pass

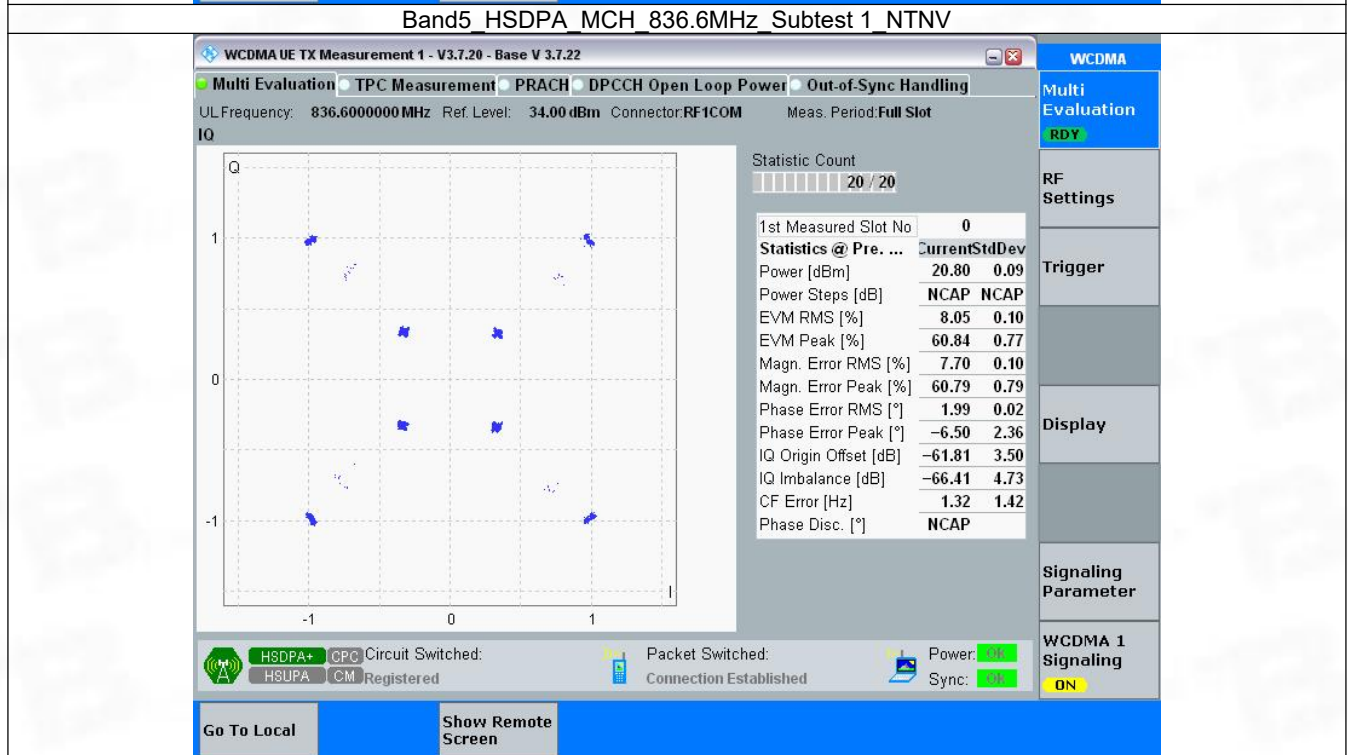
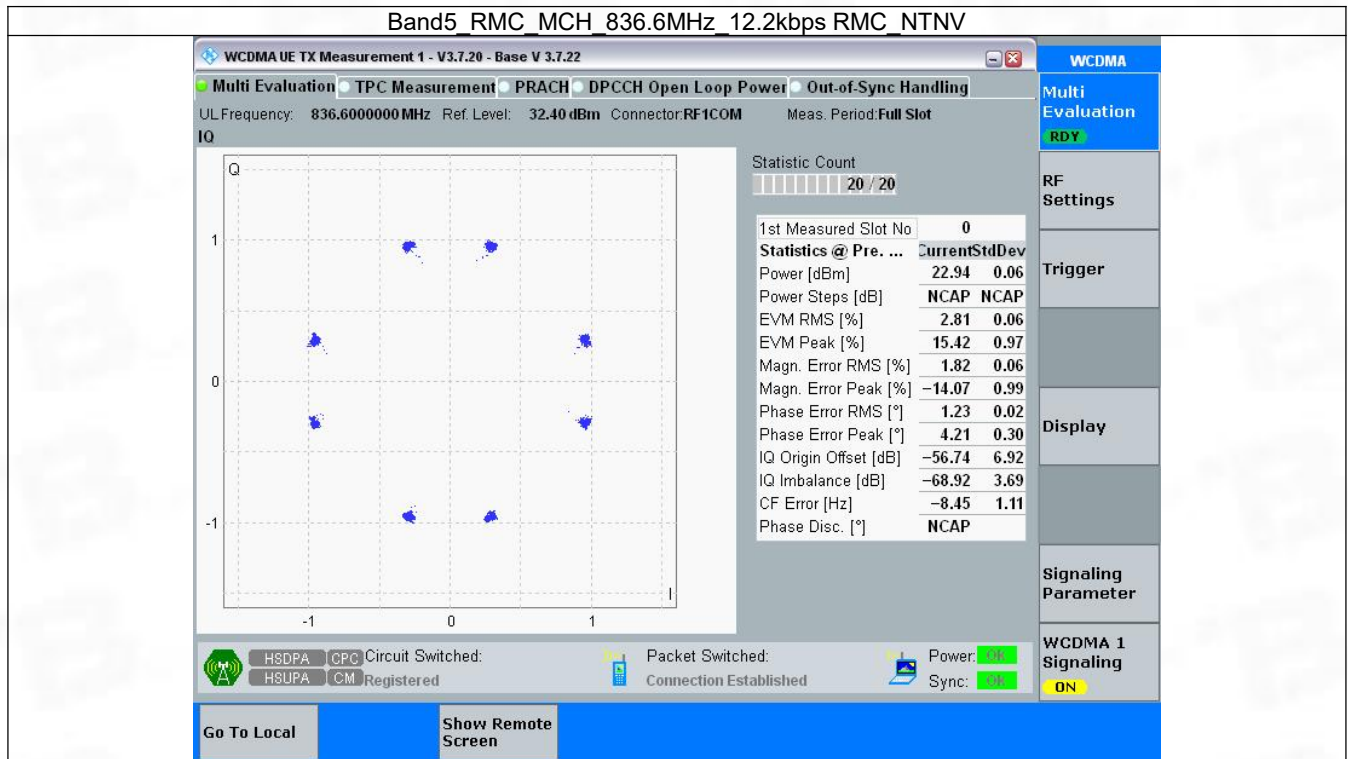
### 3. Modulation Characteristics

#### 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 NTN

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: 836.600000 MHz Ref. Level: 34.00 dBm Connector: RF1COM Meas. Period: Full Slot

WCDMA

Multi Evaluation

RDY

IQ

Statistic Count

██████████ 20 / 20

1st Measured Slot No	0
<b>Statistics @ Pre. ...</b>	<b>CurrentStdDev</b>
Power [dBm]	20.85 2.44
Power Steps [dB]	NCAP NCAP
EVM RMS [%]	8.05 3.79
EVM Peak [%]	61.01 36.07
Magn. Error RMS [%]	7.68 4.17
Magn. Error Peak [%]	61.01 36.70
Phase Error RMS [°]	2.04 0.34
Phase Error Peak [°]	-7.37 4.60
IQ Origin Offset [dB]	-54.21 5.85
IQ Imbalance [dB]	-65.43 4.82
CF Error [Hz]	-1.22 5.29
Phase Disc. [°]	NCAP

HSDPA+  CPC Circuit Switched  
 HSUPA  CM Registered

Packet Switched  
 Connection Established

Power: 3.6  
 Sync: 3.3

Go To Local

Show Remote Screen

Signaling Parameter

WCDMA 1 Signaling

ON

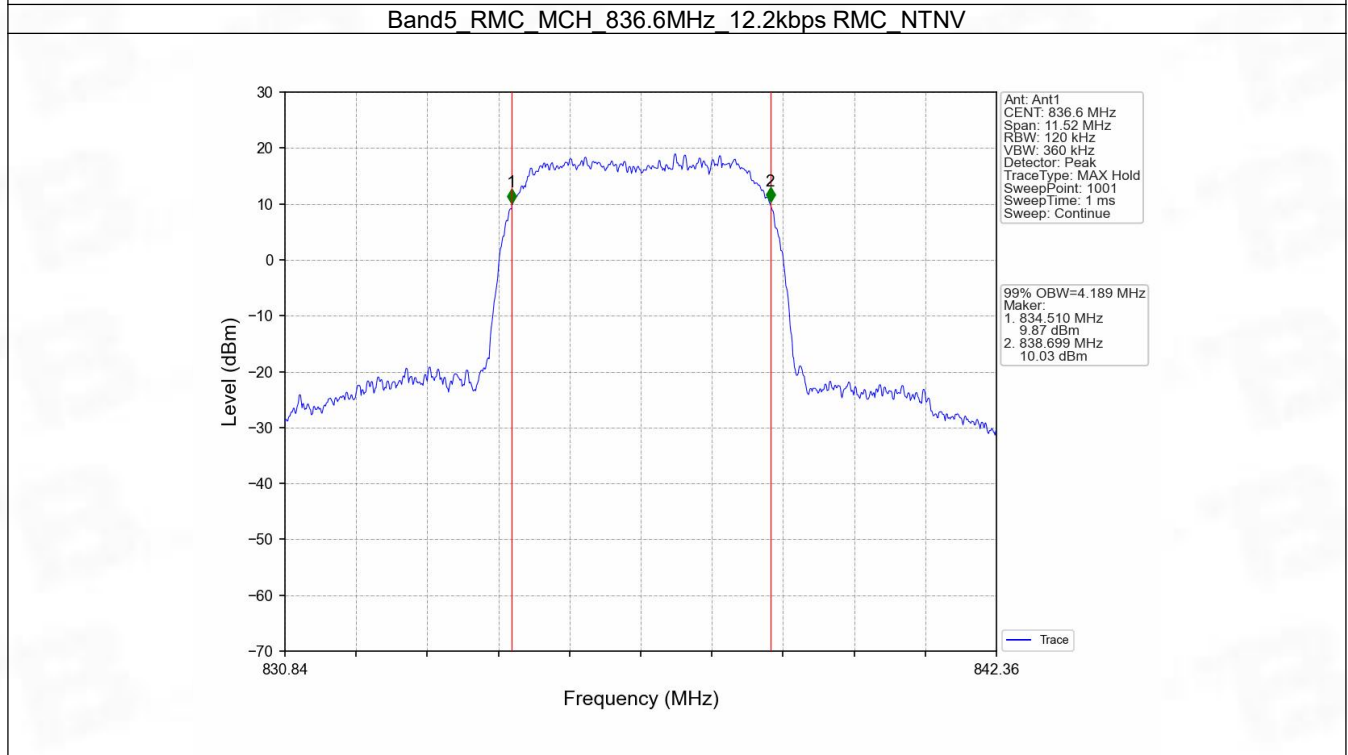
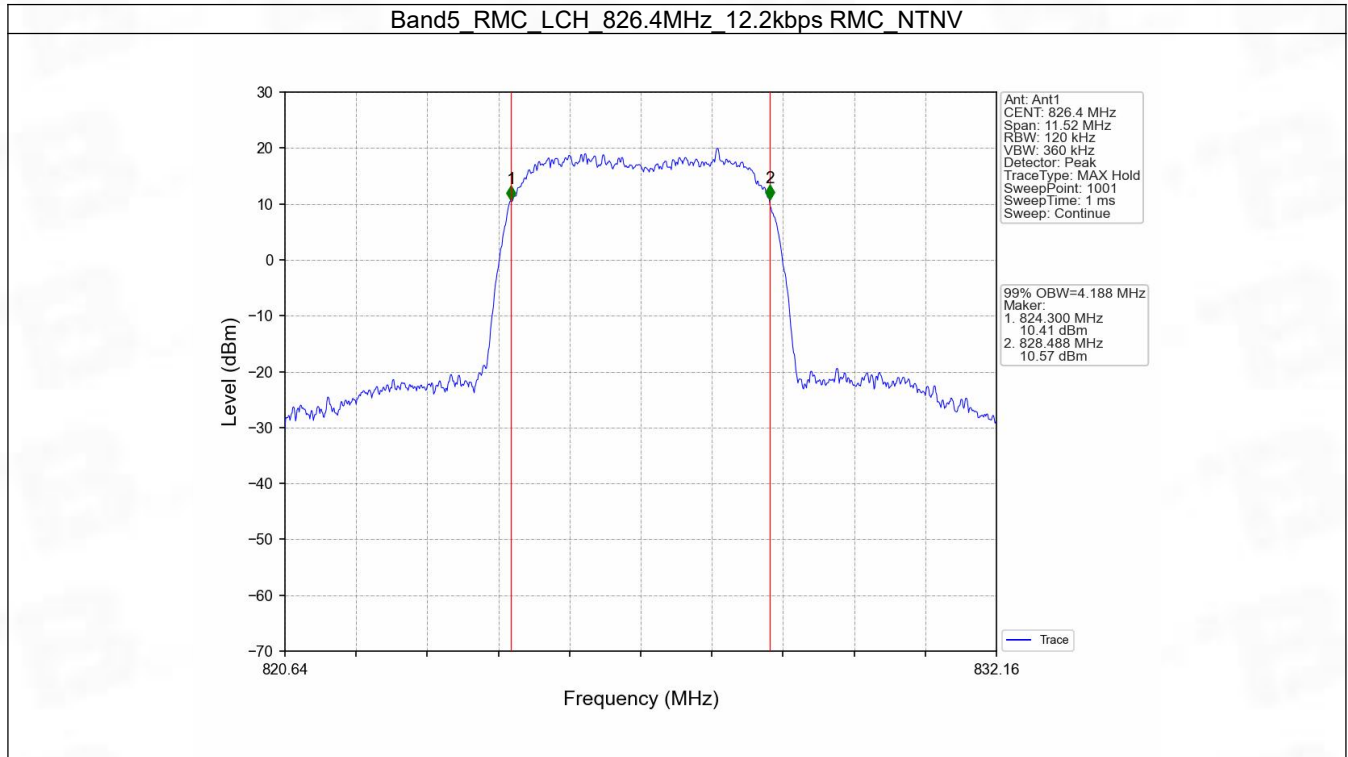
## 4. 99% & 26dB Bandwidth

### 4.1 Band5\_OBW

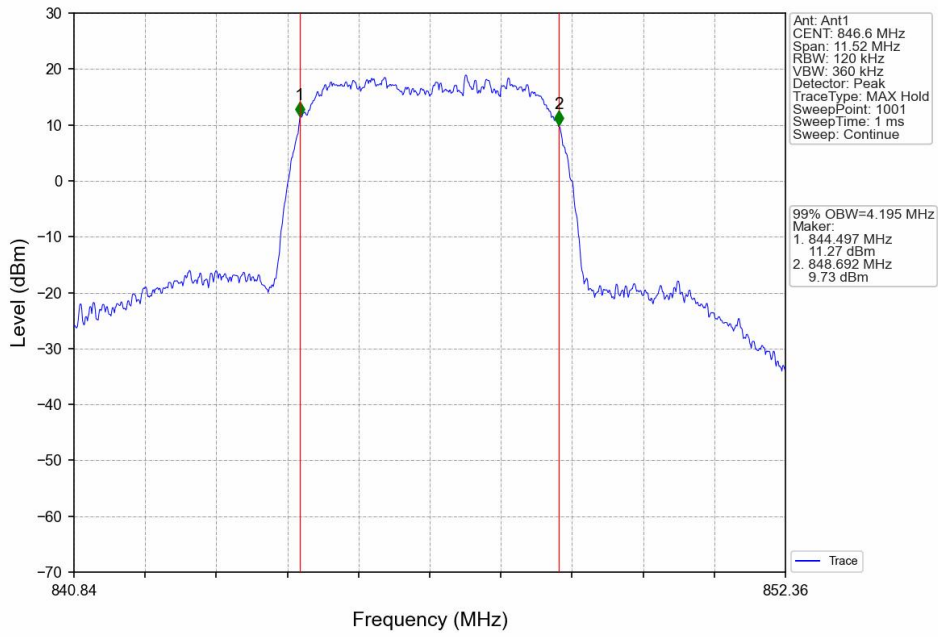
#### 4.1.1 Test Result

Band: 5						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	4.188	/	Pass
			836.6	4.189	/	Pass
			846.6	4.195	/	Pass
	HSDPA	Subtest 1	826.4	4.193	/	Pass
			836.6	4.212	/	Pass
			846.6	4.197	/	Pass
	HSUPA	Subtest 1	826.4	4.183	/	Pass
			836.6	4.225	/	Pass
			846.6	4.199	/	Pass

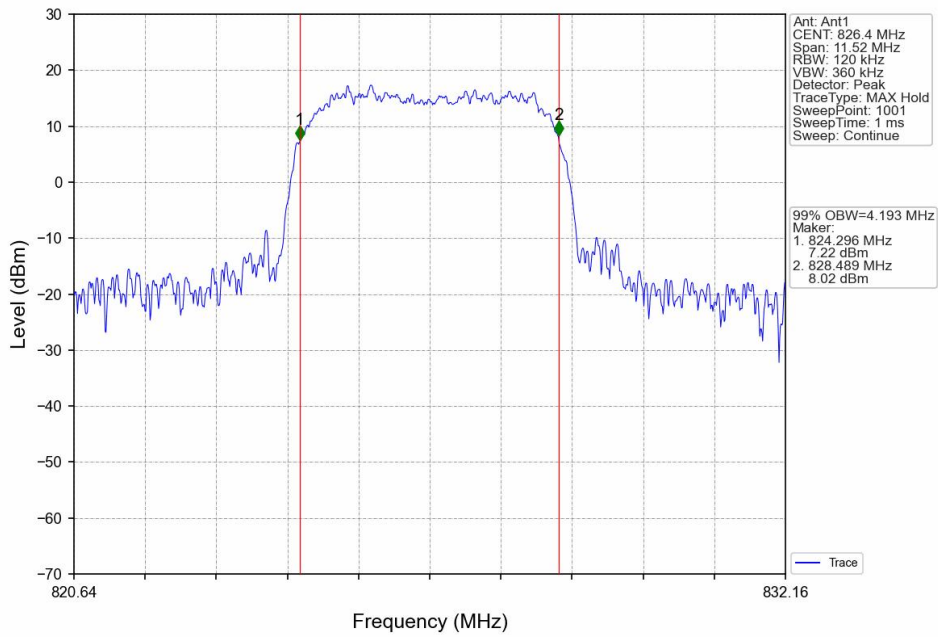
### 4.1.2 Test Graph



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

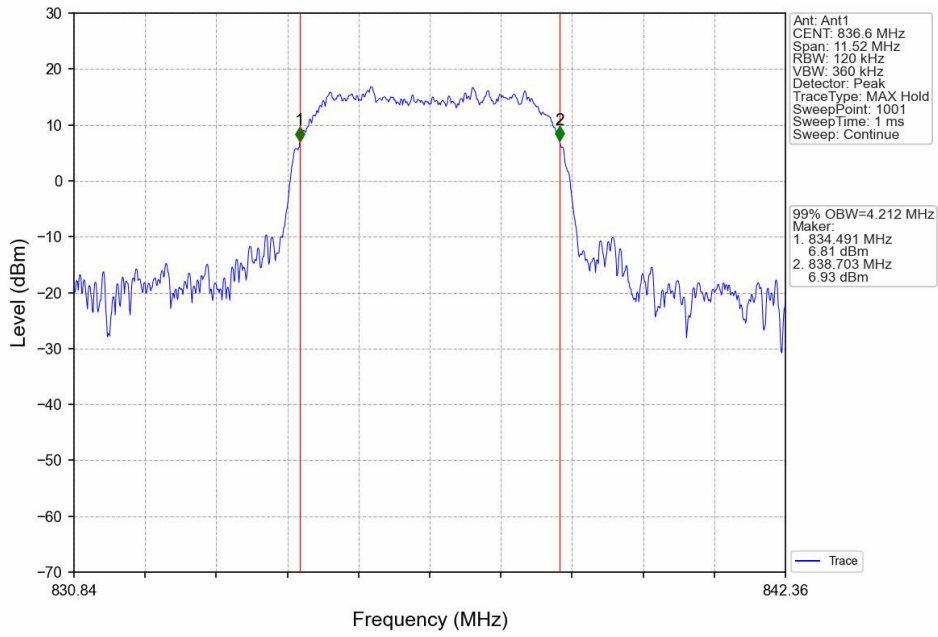


Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV

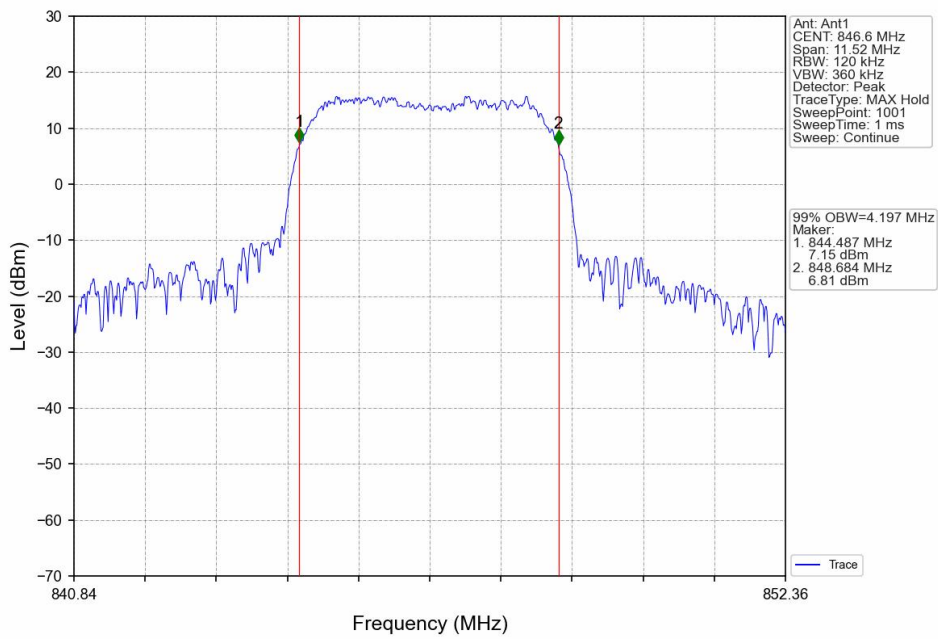




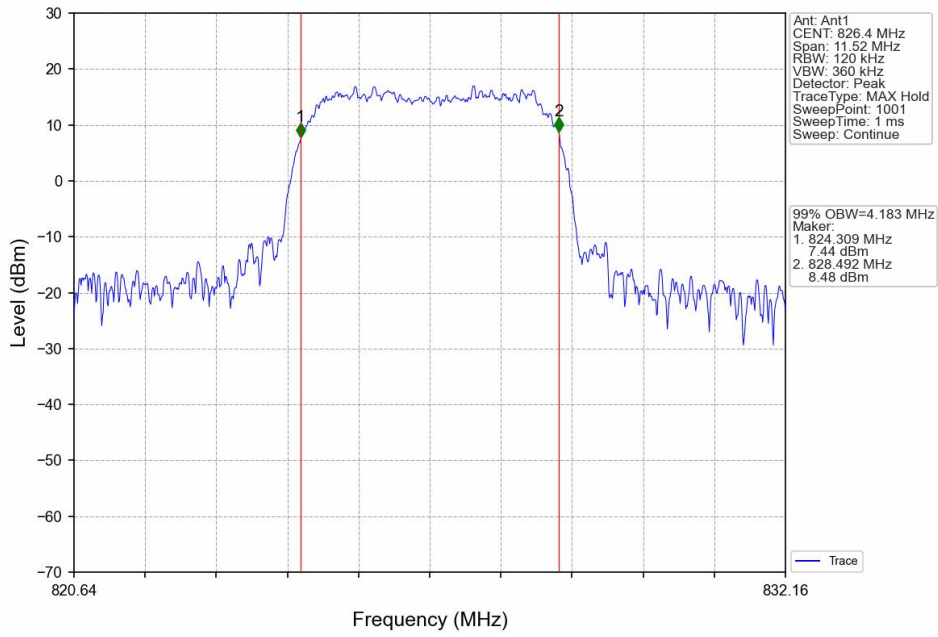
Band5 HSDPA MCH 836.6MHz Subtest 1\_NTNV



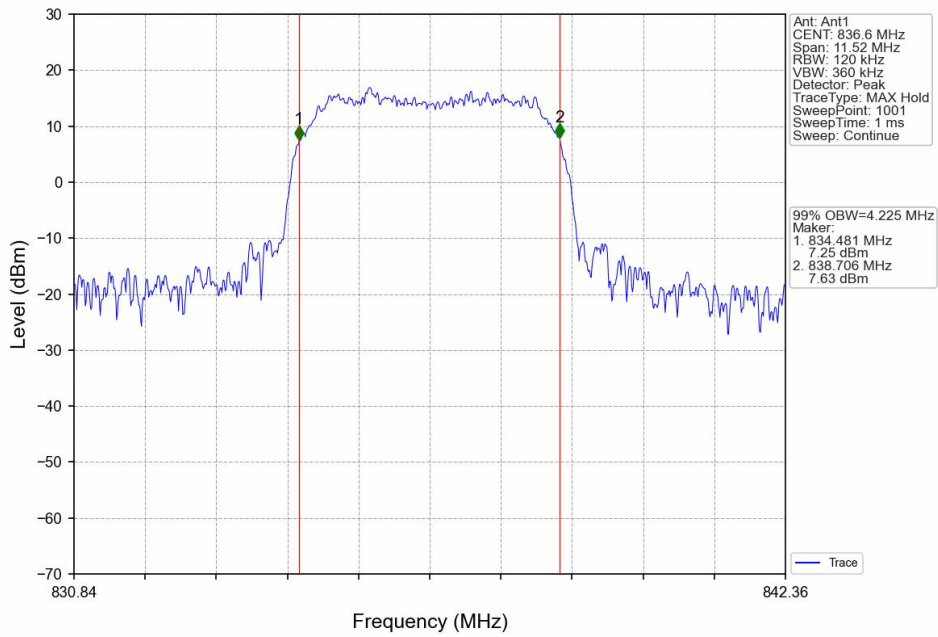
Band5 HSDPA HCH 846.6MHz Subtest 1\_NTNV



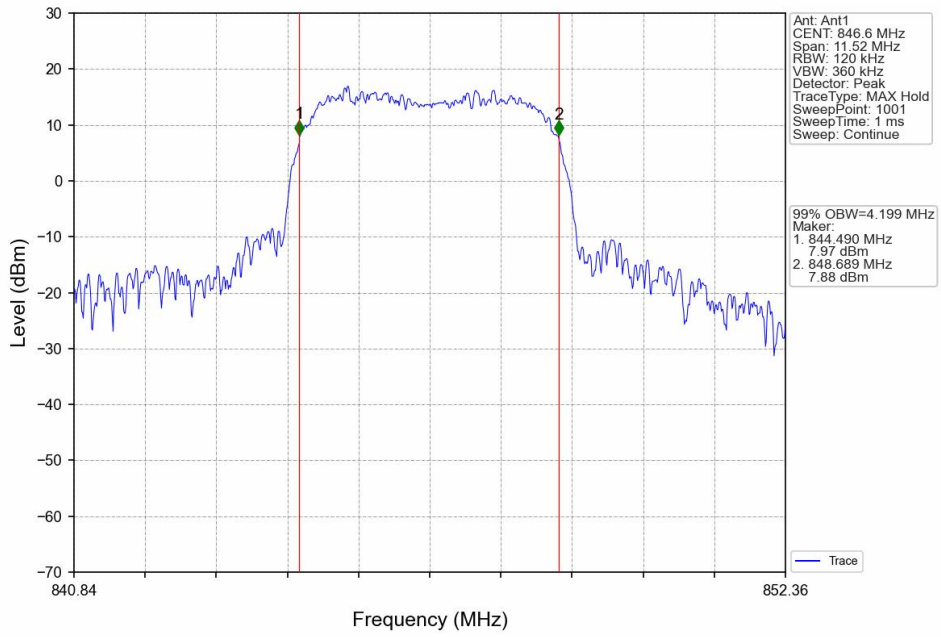
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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



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

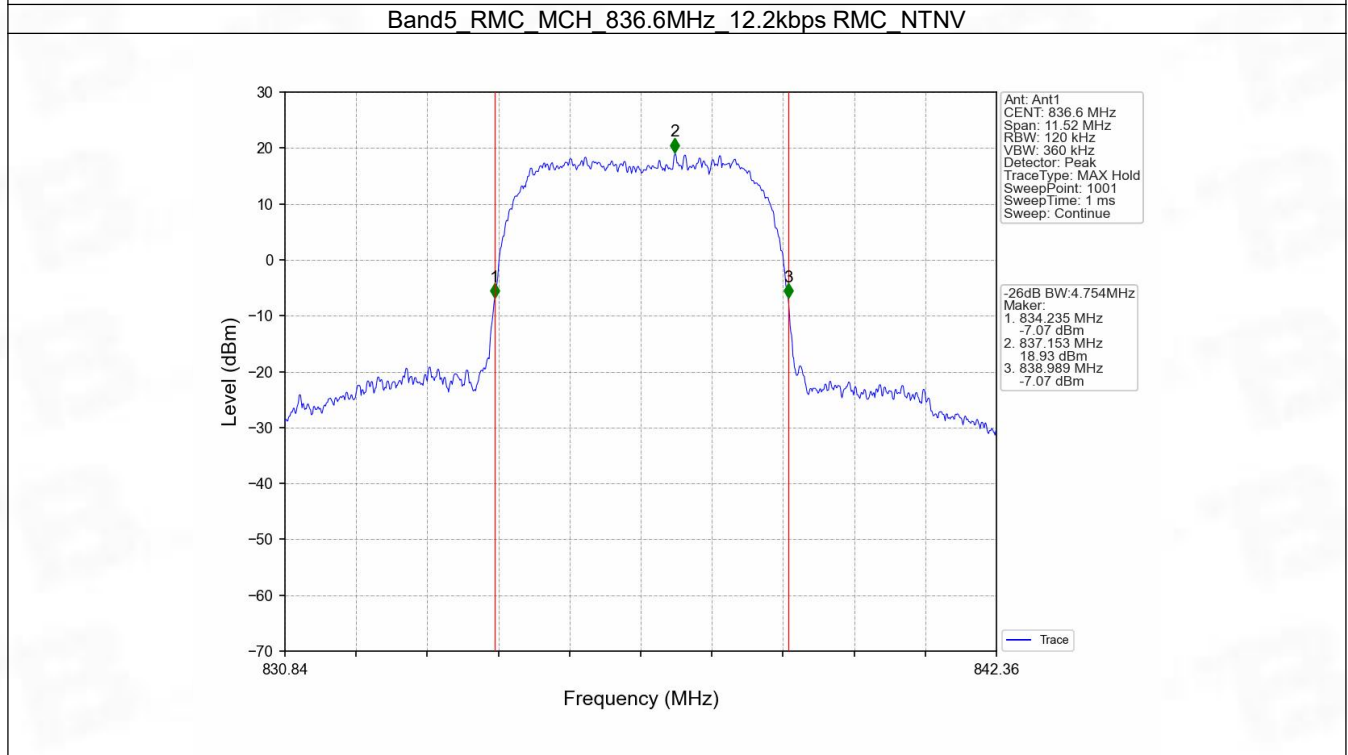
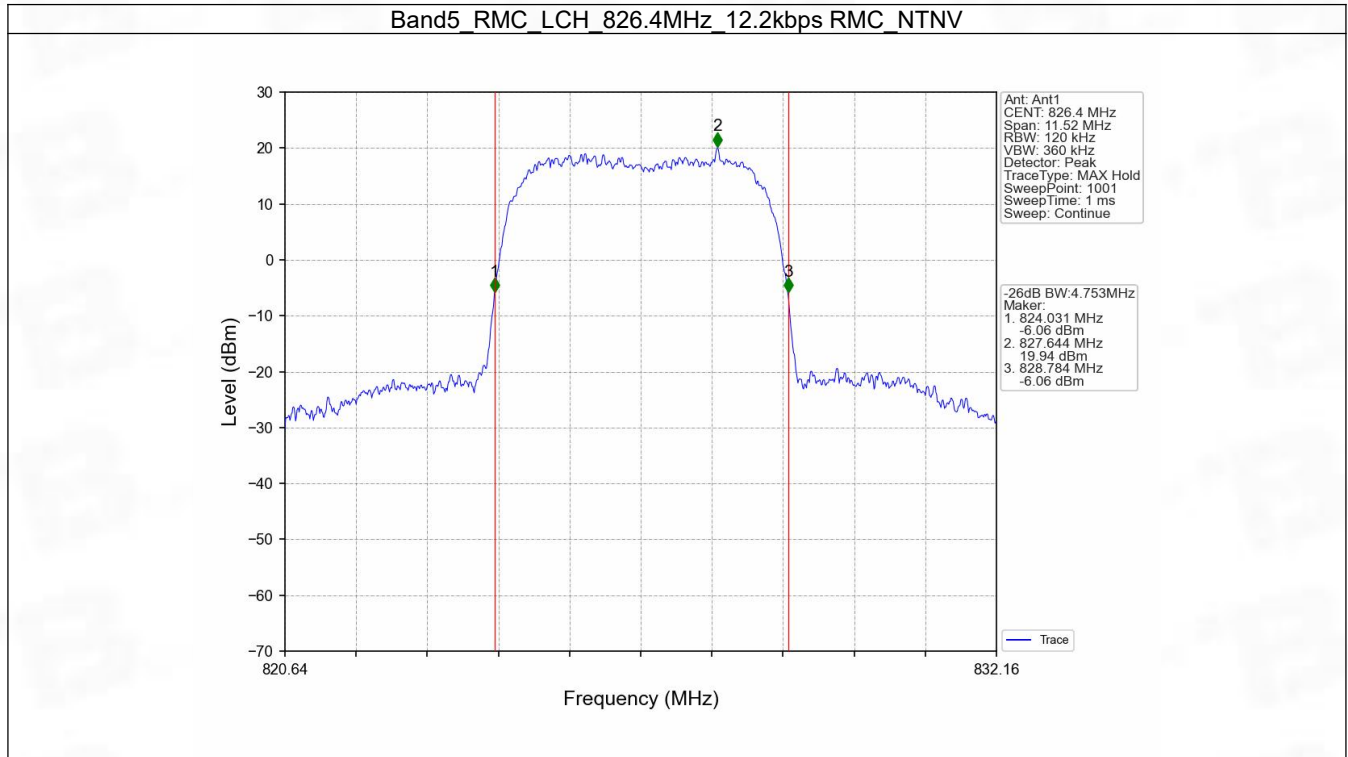


## 4.2 Band5\_XDB

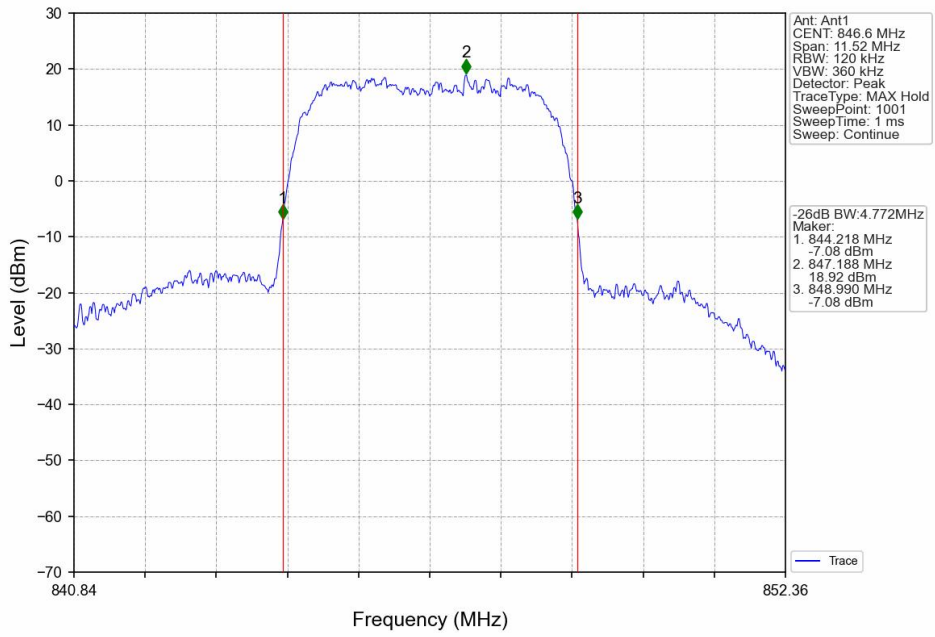
### 4.2.1 Test Result

Band: 5						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	4.753	/	Pass
			836.6	4.754	/	Pass
			846.6	4.772	/	Pass
	HSDPA	Subtest 1	826.4	5.022	/	Pass
			836.6	4.752	/	Pass
			846.6	4.884	/	Pass
	HSUPA	Subtest 1	826.4	4.738	/	Pass
			836.6	4.737	/	Pass
			846.6	4.936	/	Pass

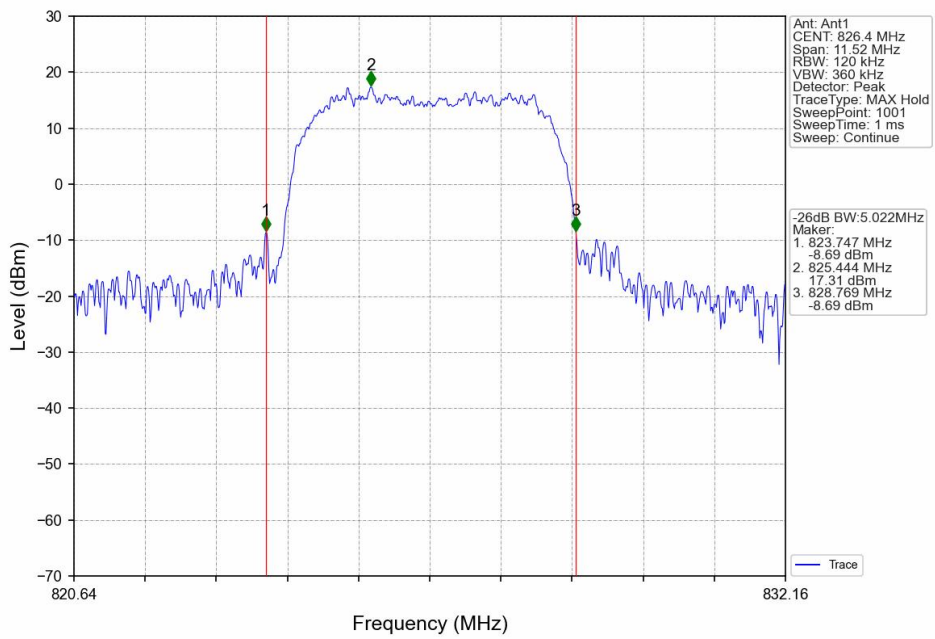
## 4.2.2 Test Graph



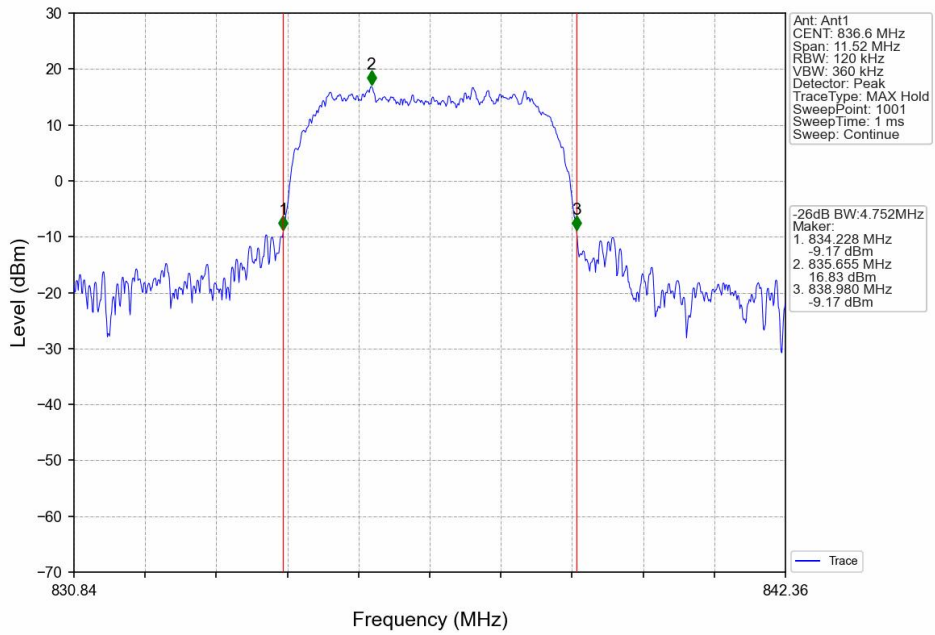
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps\_RMC\_NTNV



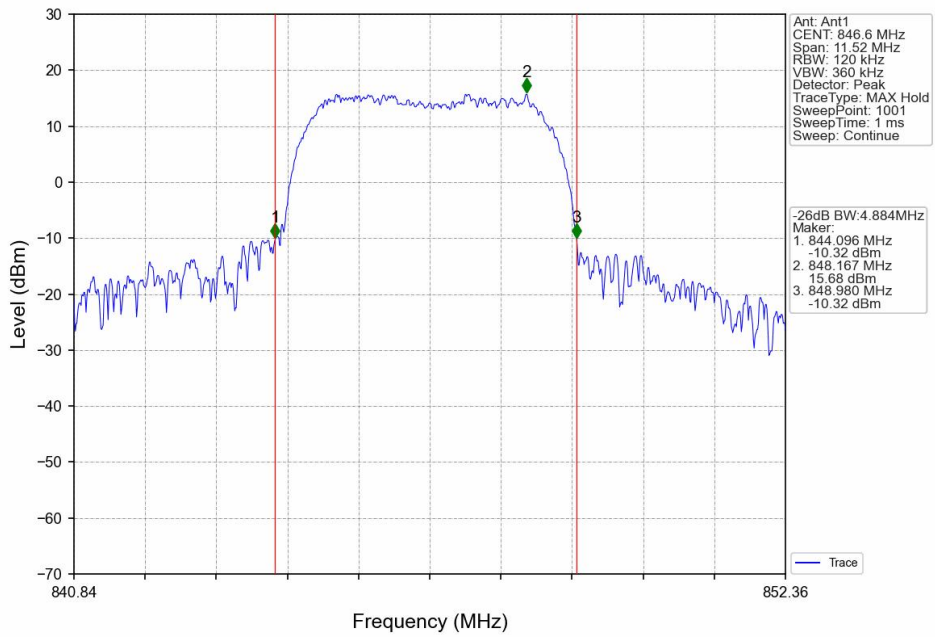
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



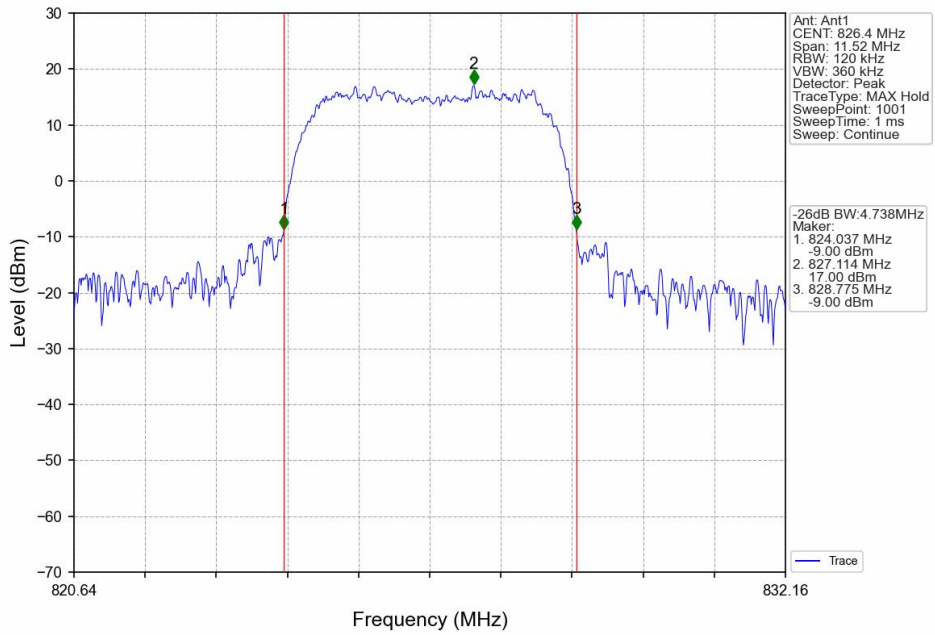
Band5 HSDPA MCH 836.6MHz Subtest 1\_NTNV



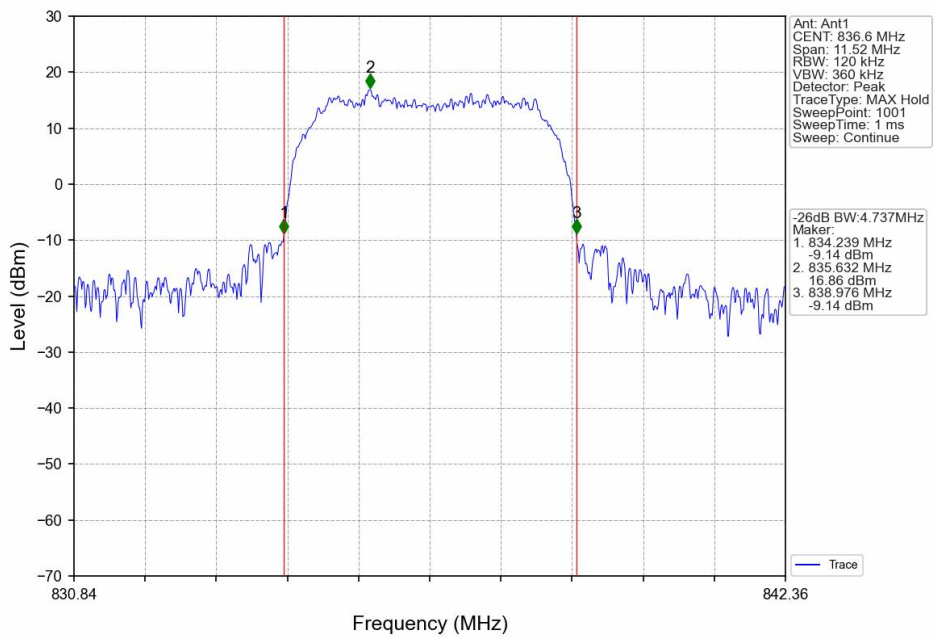
Band5 HSDPA HCH 846.6MHz Subtest 1\_NTNV



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

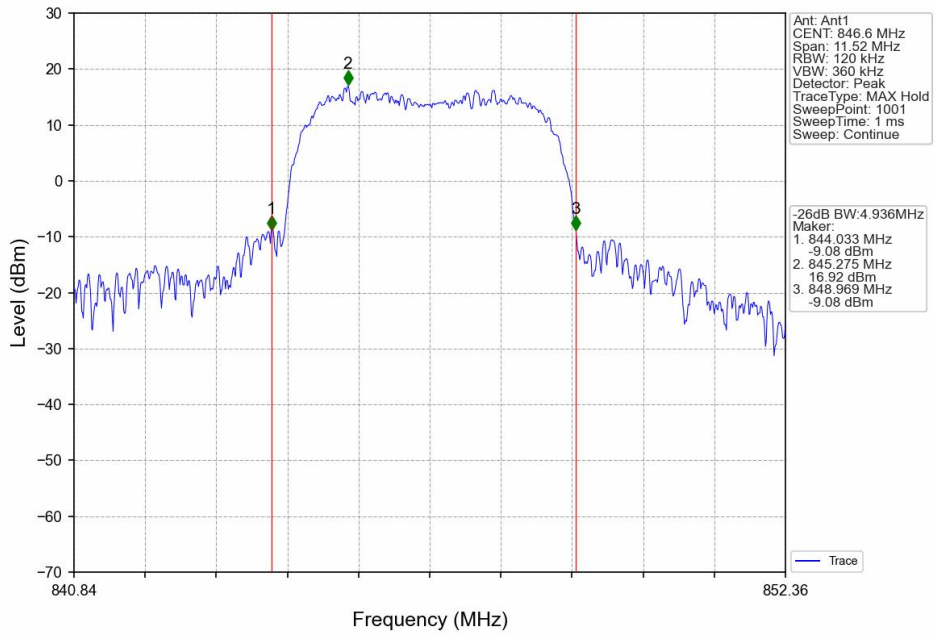


Band5\_HSUPA\_MCH\_836.6MHz\_Subtest 1\_NTNV





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



## 5. Peak-Average Ratio

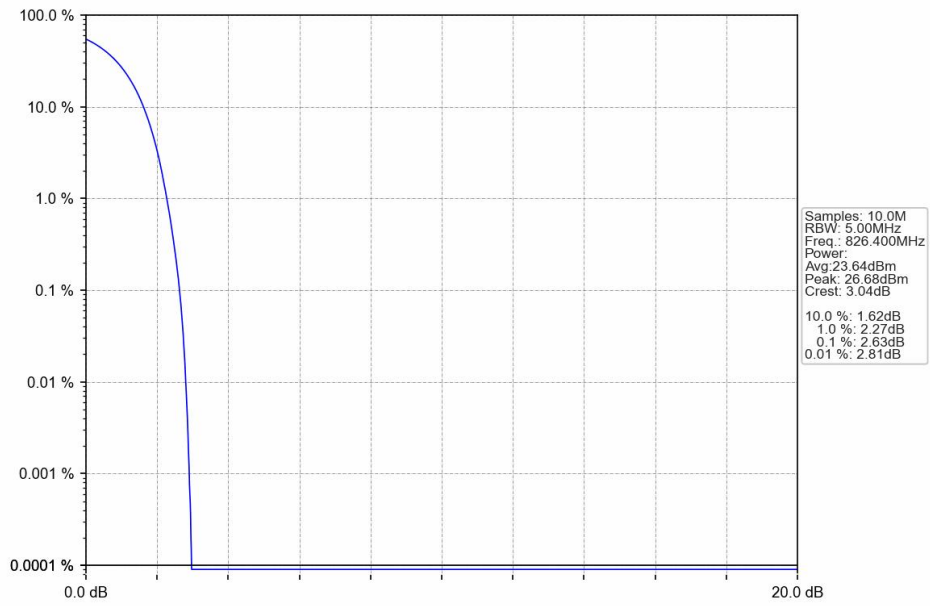
### 5.1 Band5

#### 5.1.1 Test Result

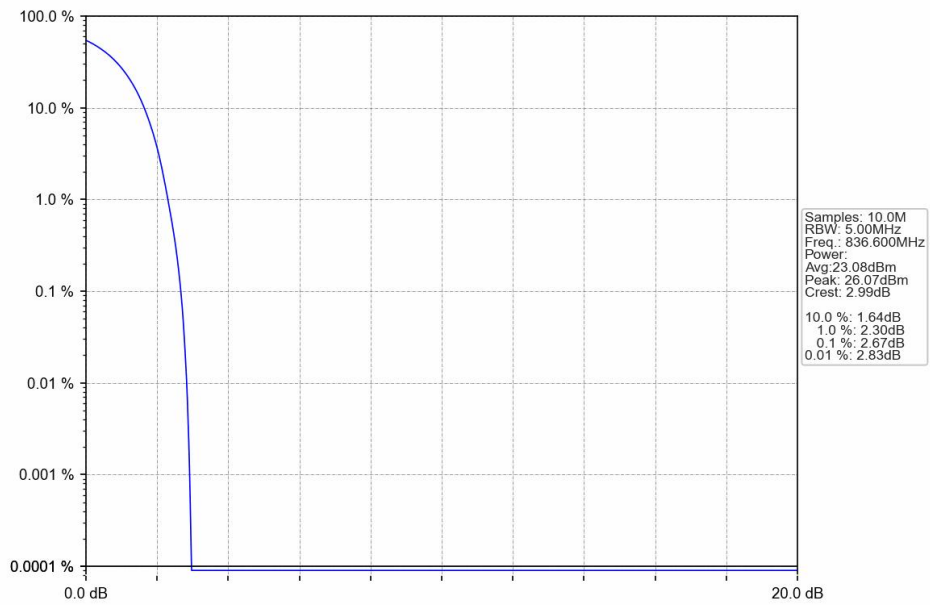
Band: 5						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	2.63	<=13	Pass
			836.6	2.67	<=13	Pass
			846.6	2.49	<=13	Pass
	HSDPA	Subtest 1	826.4	5.71	<=13	Pass
			836.6	5.76	<=13	Pass
			846.6	5.85	<=13	Pass
	HSUPA	Subtest 1	826.4	5.76	<=13	Pass
			836.6	5.75	<=13	Pass
			846.6	5.94	<=13	Pass

## 5.1.2 Test Graph

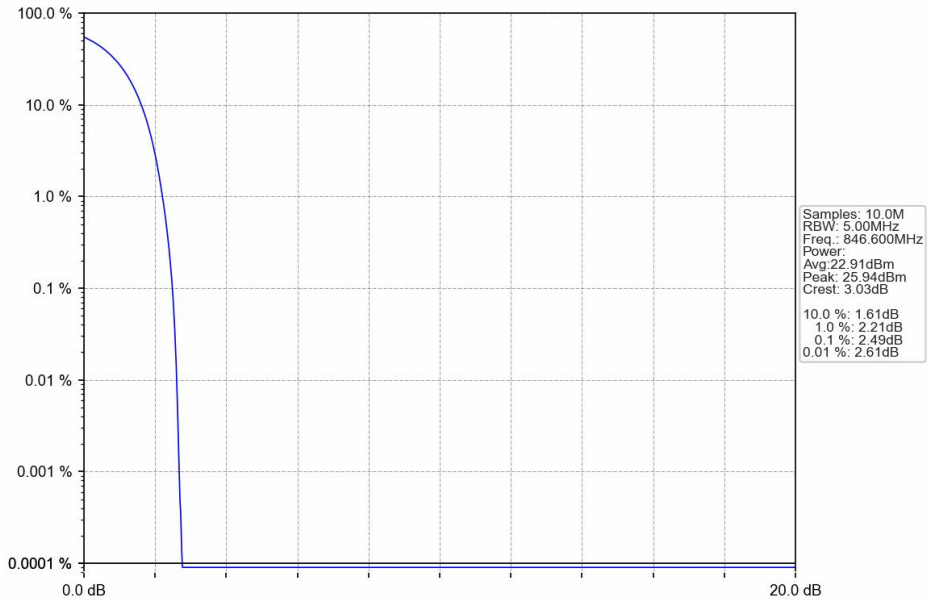
Band5\_RMC\_LCH\_826.4MHz\_12.2kbps\_RMC\_NTNV



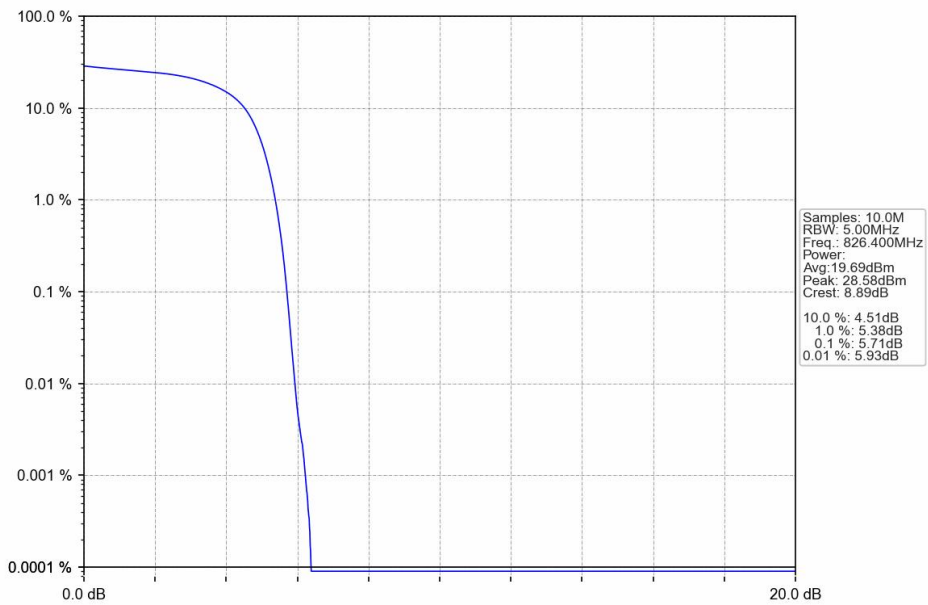
Band5\_RMC\_MCH\_836.6MHz\_12.2kbps\_RMC\_NTNV



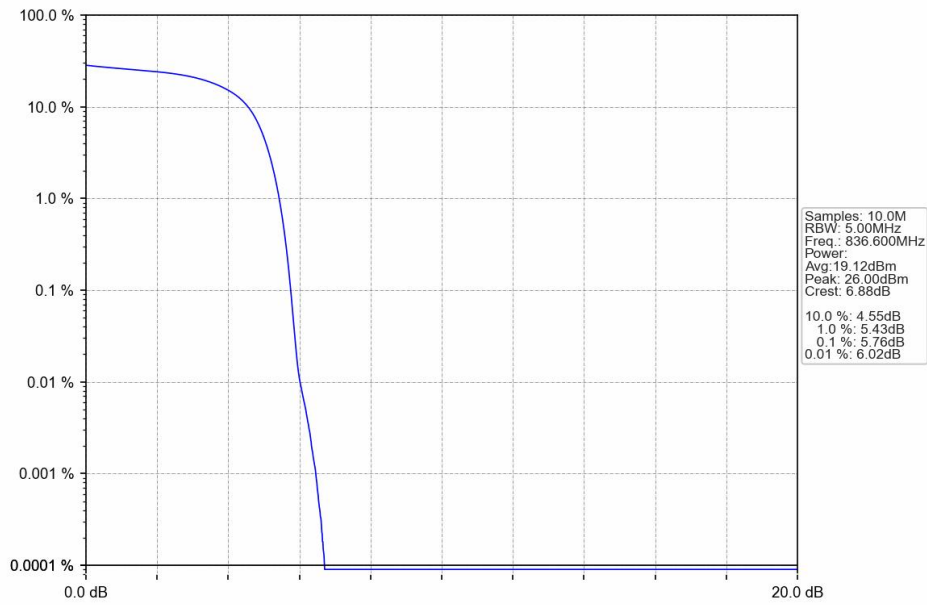
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps\_RMC\_NTNV



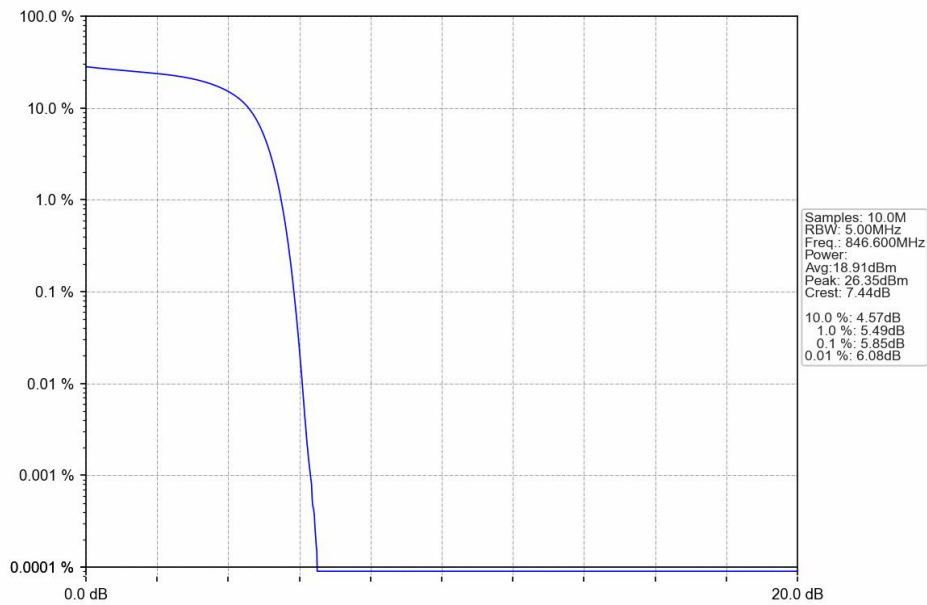
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



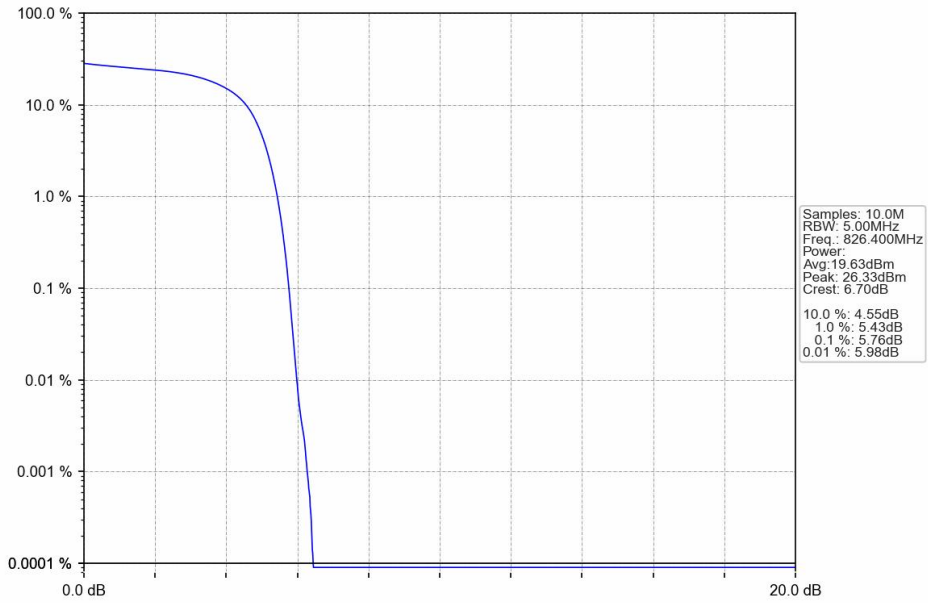
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest\_1\_NTNV



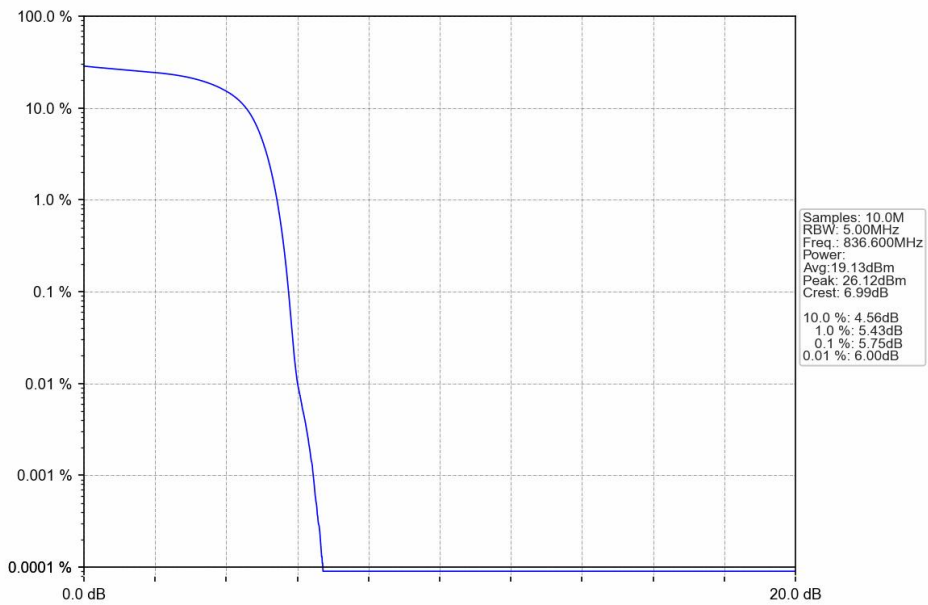
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest\_1\_NTNV



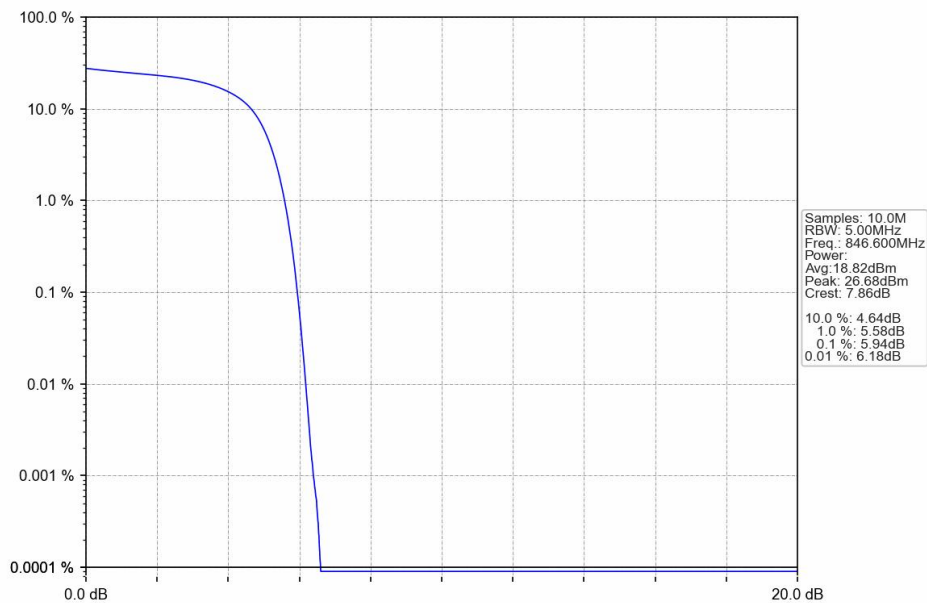
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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



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



## 6. Spurious Emission

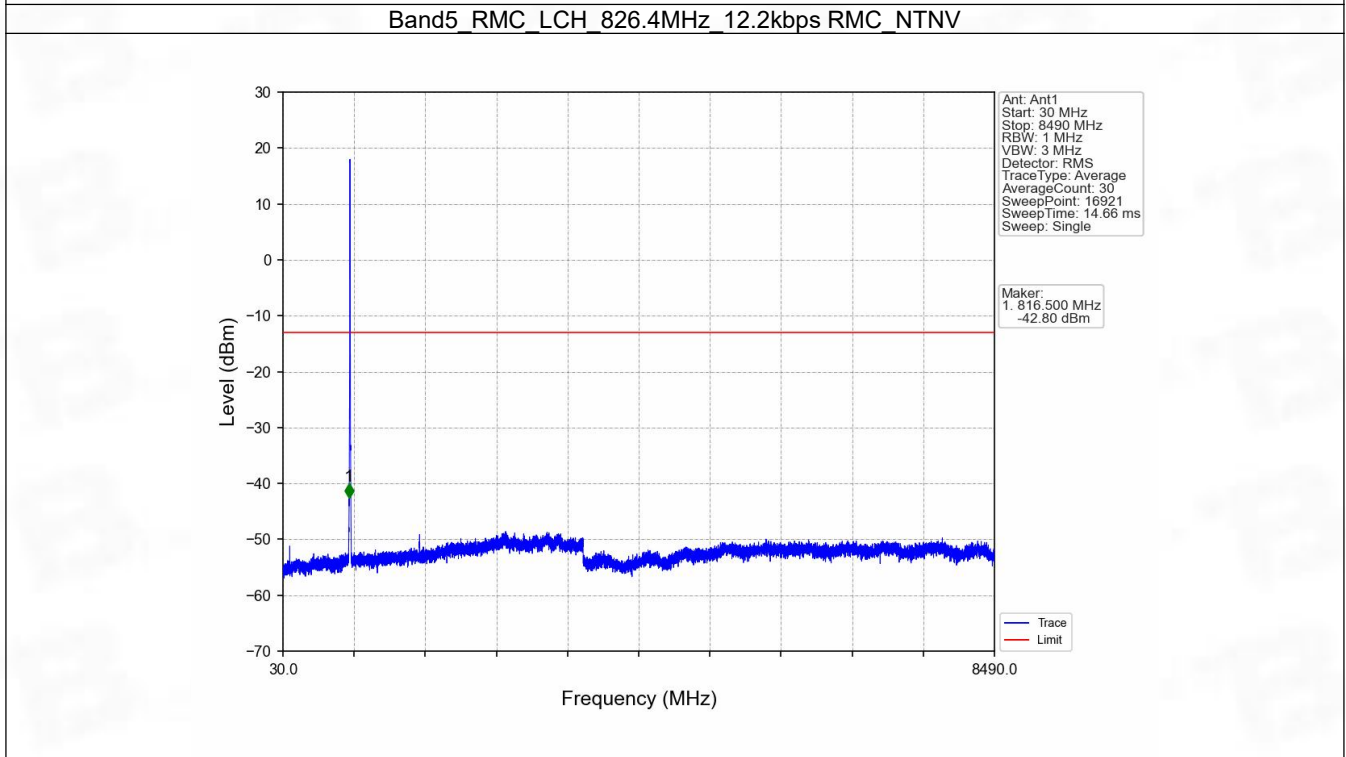
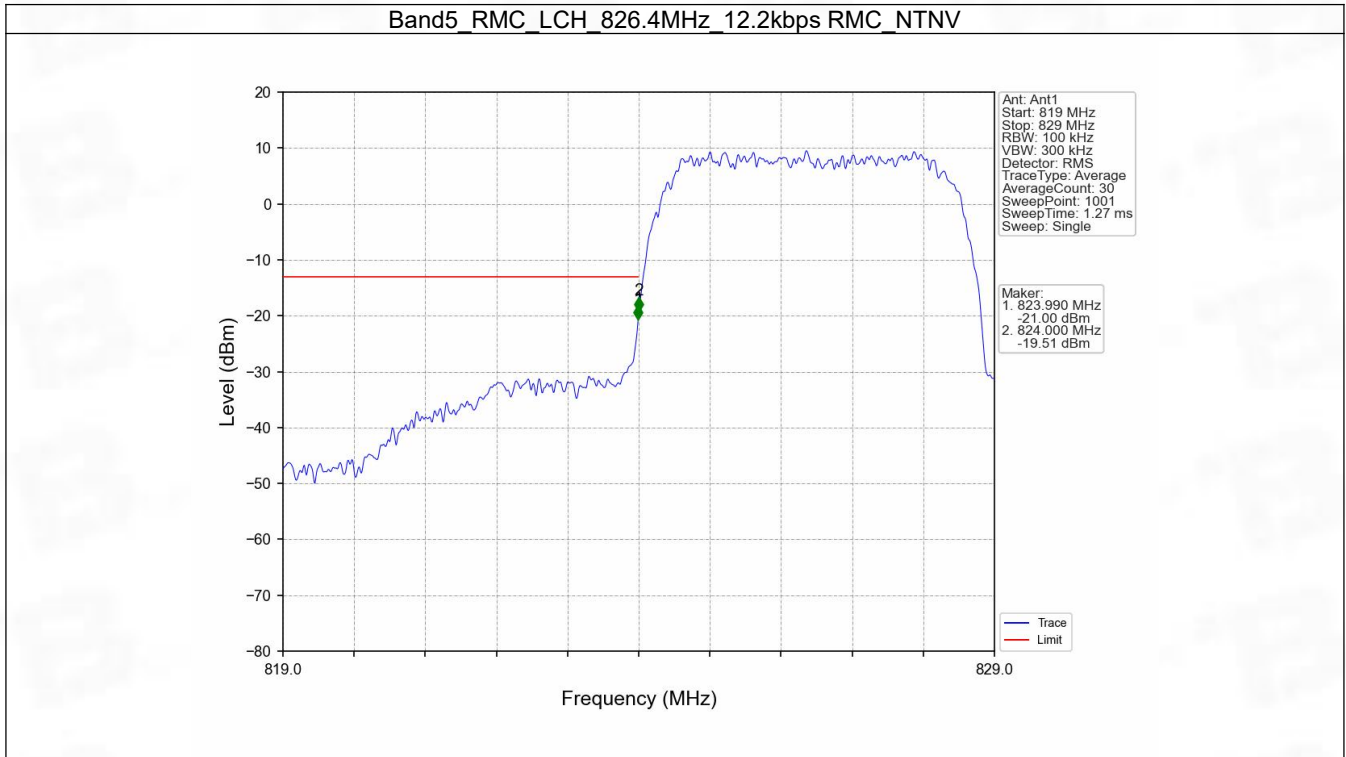
### 6.1 Band5

#### 6.1.1 Test Result

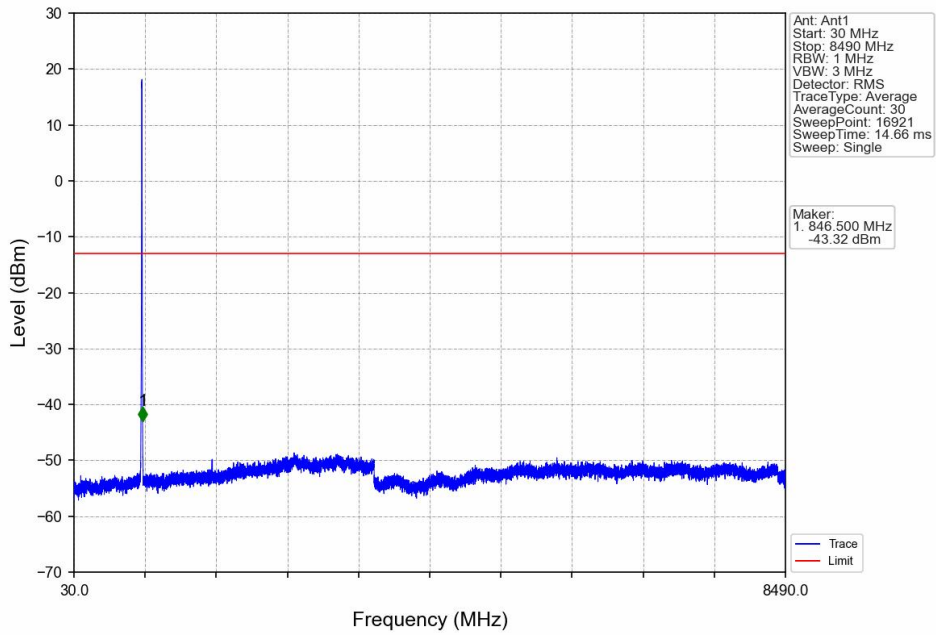
Band: 5						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	Refer To Test Graph	Pass	
			836.6	Refer To Test Graph	Pass	
			846.6	Refer To Test Graph	Pass	
	HSDPA	Subtest 1	826.4	Refer To Test Graph	Pass	
			836.6	Refer To Test Graph	Pass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



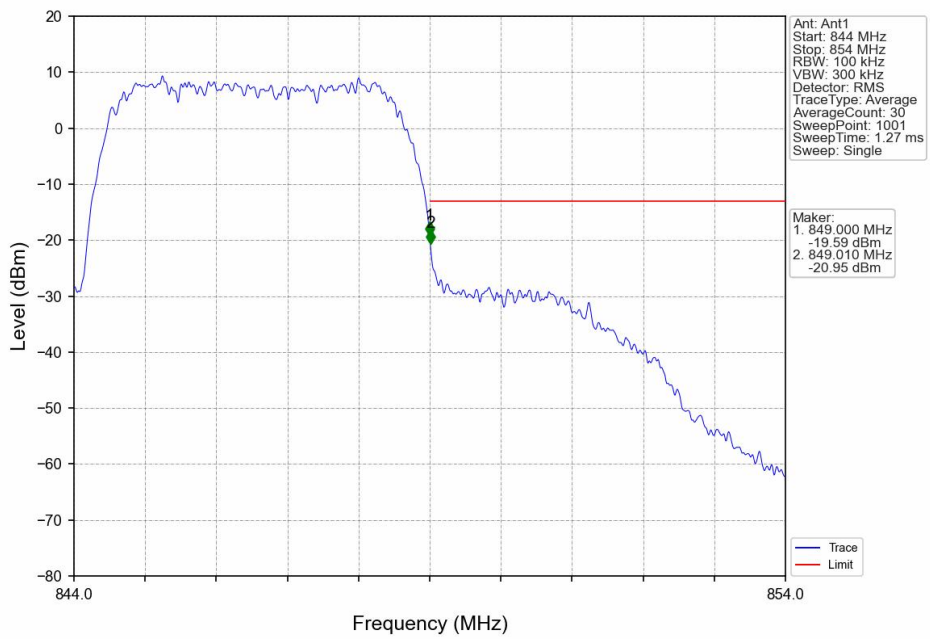
### 6.1.2 Test Graph



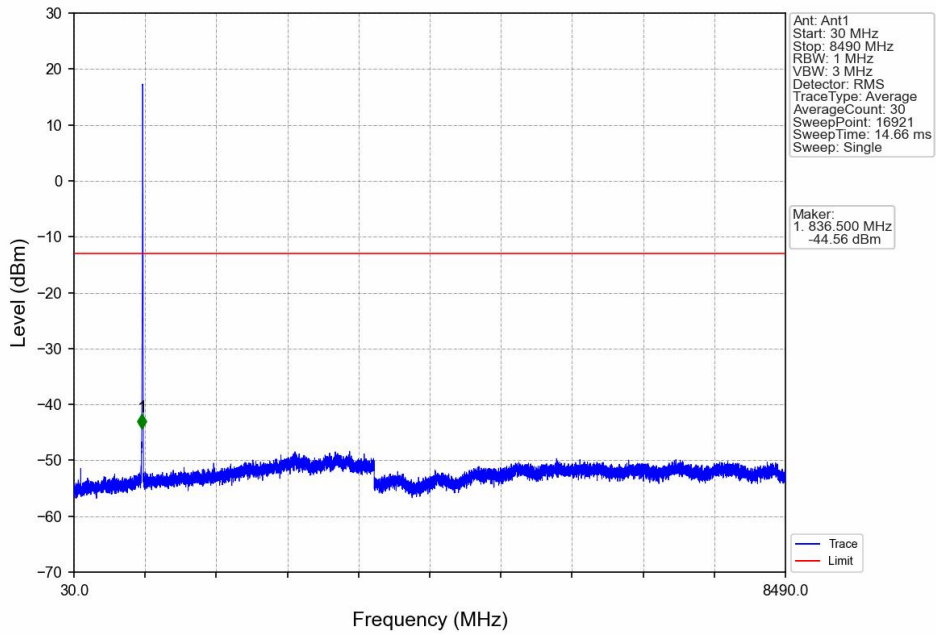
Band5\_RMC\_MCH\_836.6MHz\_12.2kbps\_RMC\_NTNV



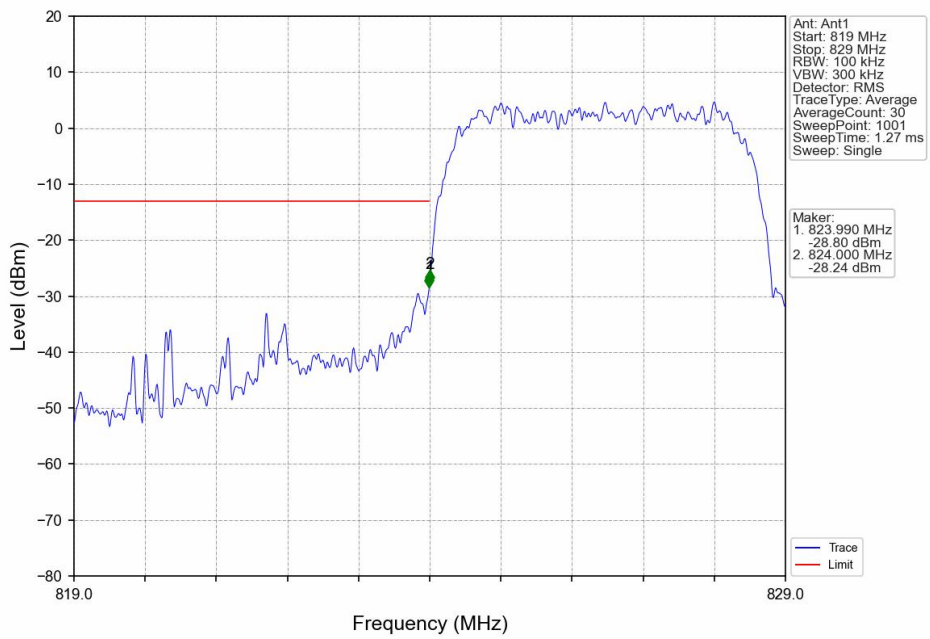
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps\_RMC\_NTNV



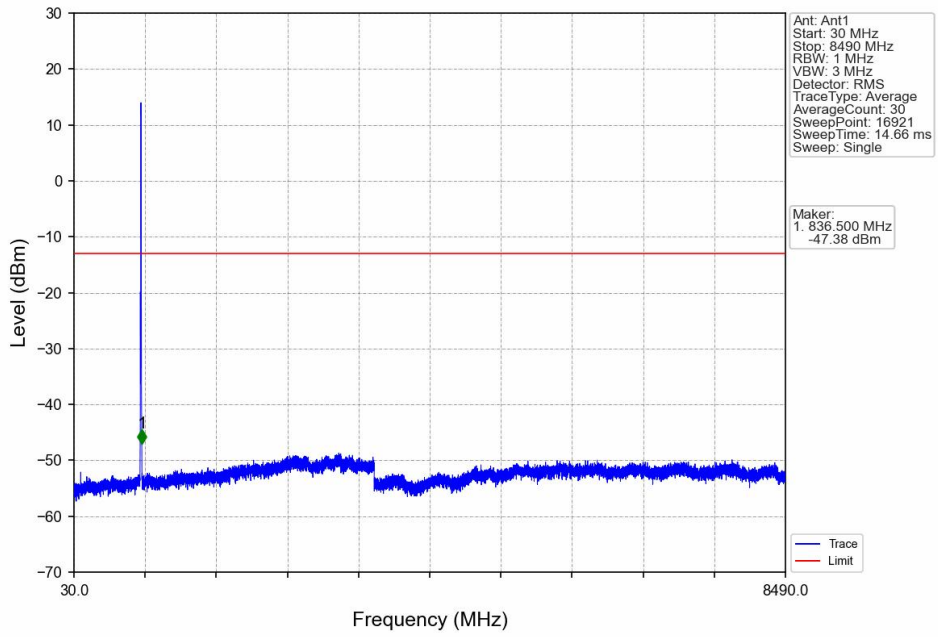
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps\_RMC\_NTNV



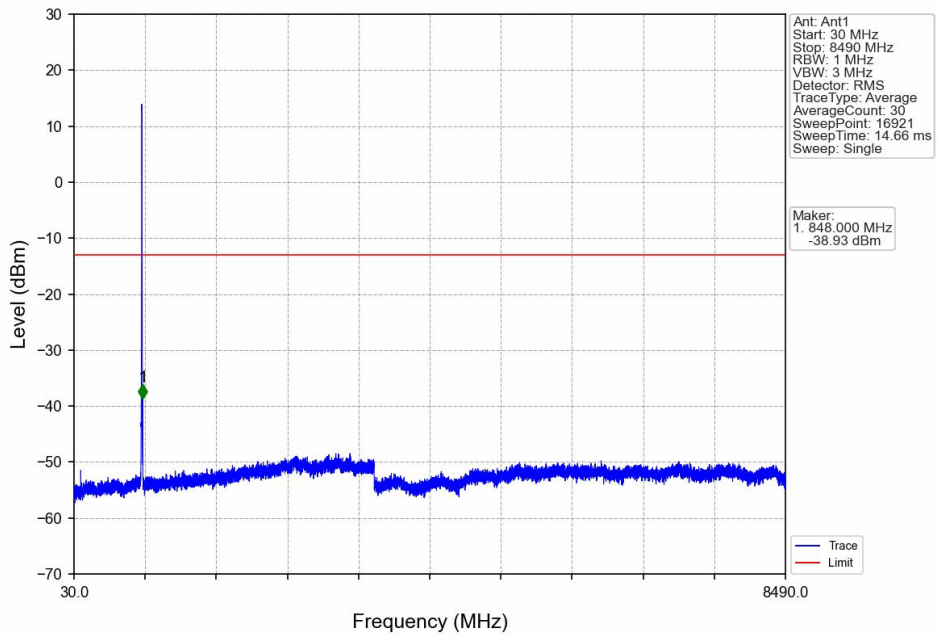
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



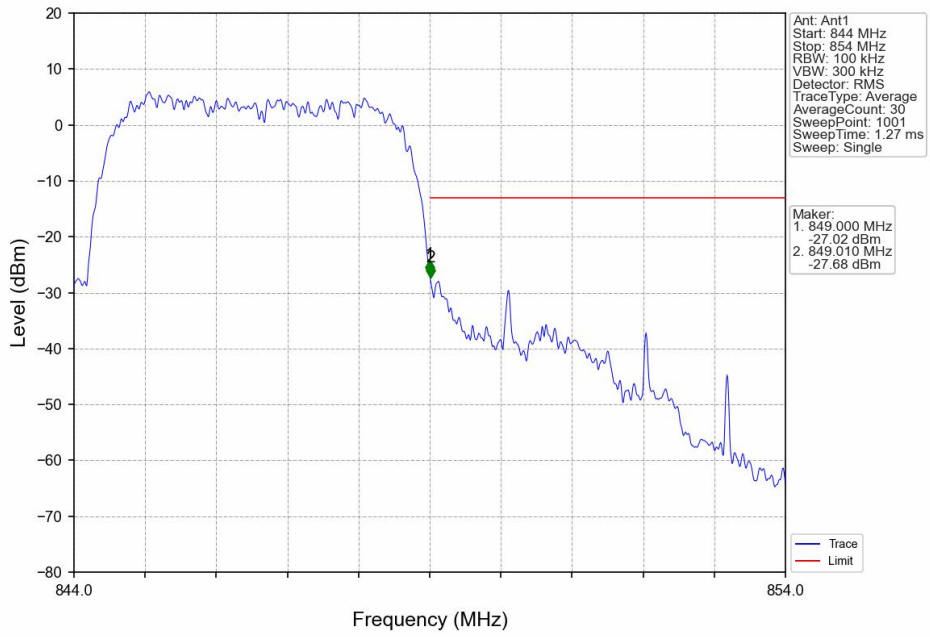
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest\_1\_NTNV



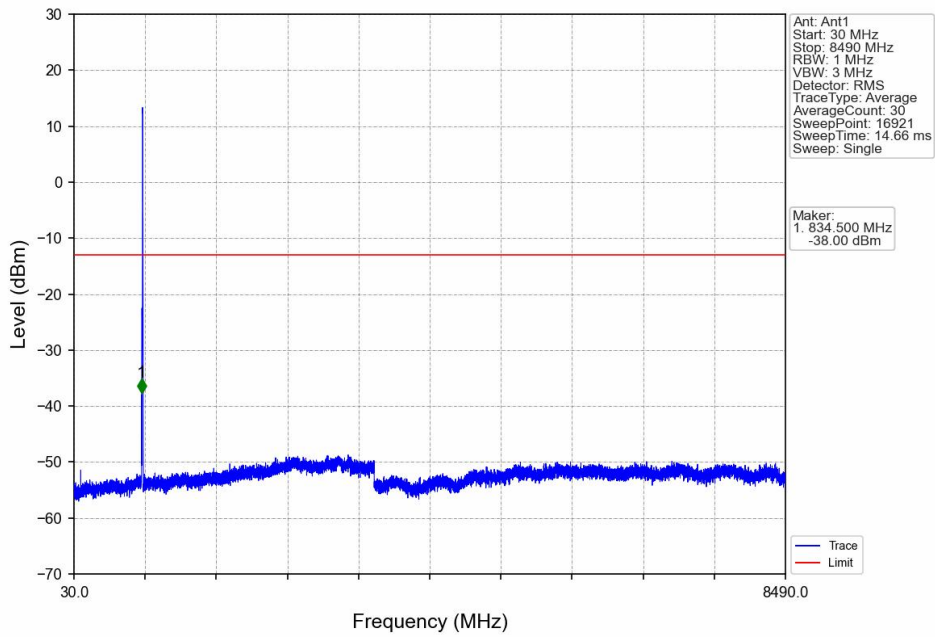
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest\_1\_NTNV



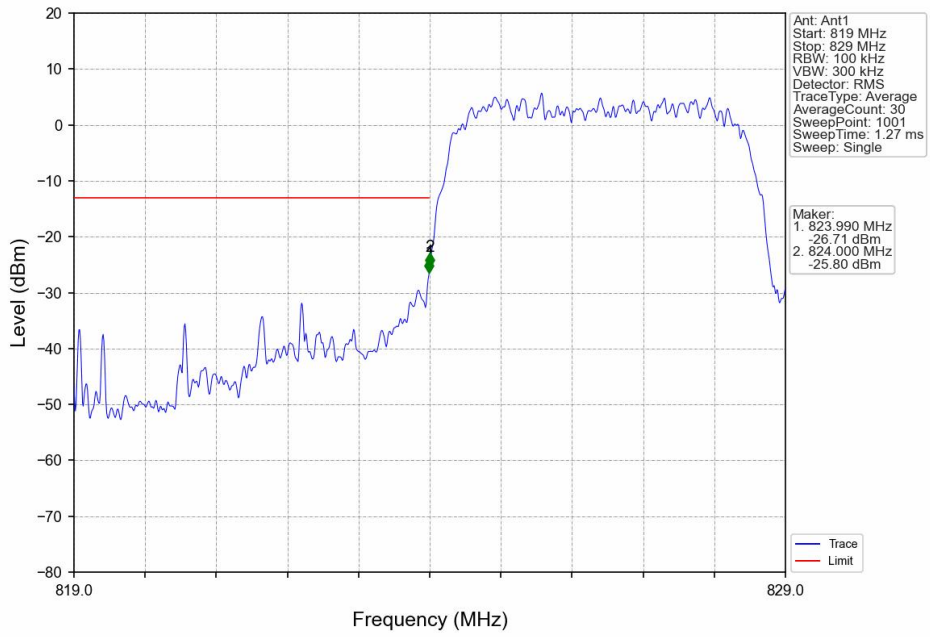
Band5 HSDPA HCH 846.6MHz Subtest 1\_NTNV



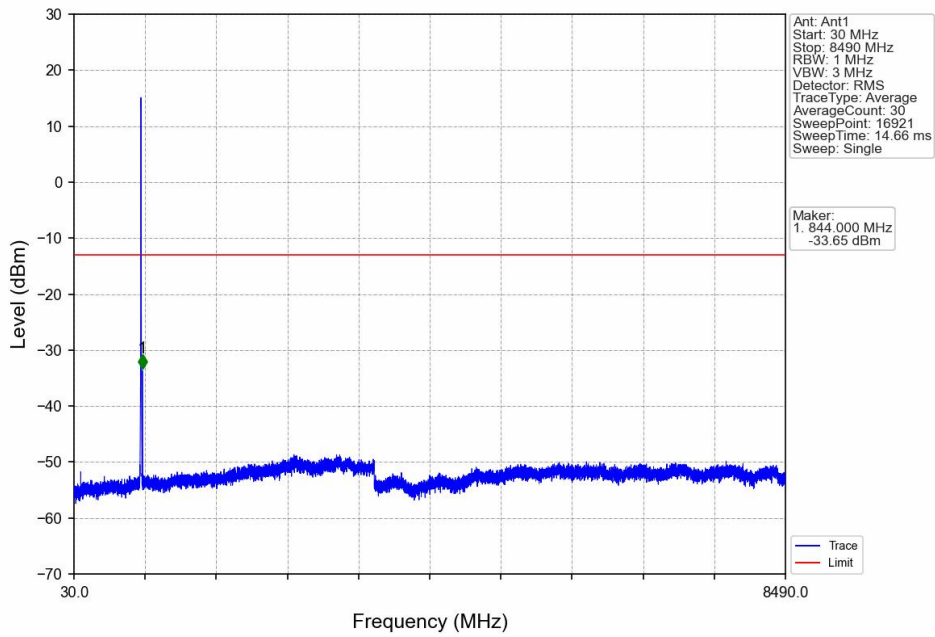
Band5 HSDPA HCH 846.6MHz Subtest 1\_NTNV



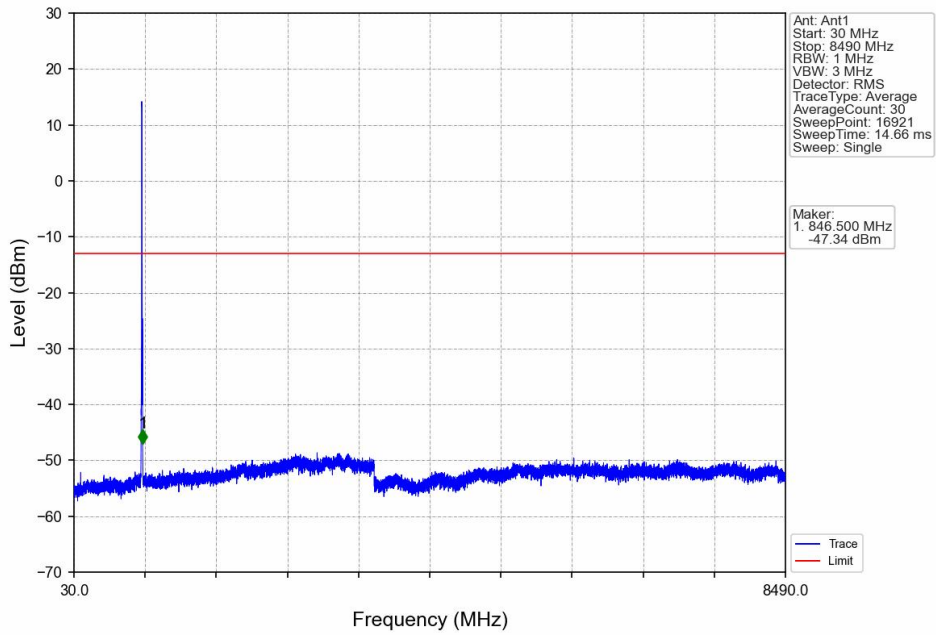
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



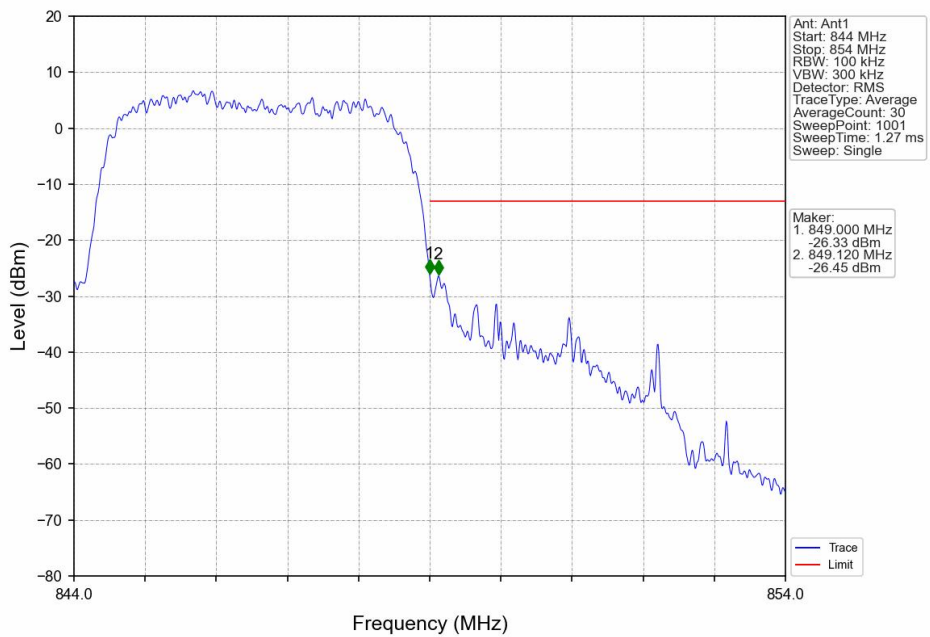
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



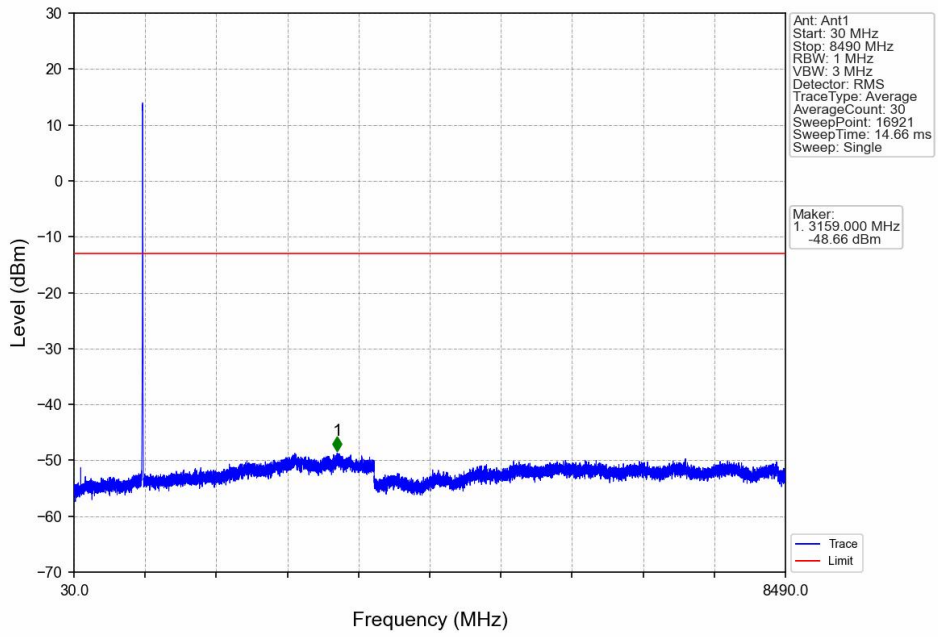
Band5\_HSUPA\_MCH\_836.6MHz\_Subtest\_1\_NTNV



Band5\_HSUPA\_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	0.2193	0.0113	ppm	4M22F9W	22H	23.41

### 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	0.0570	0.0113	ppm	4M22F9W	22H	17.56