



# 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	23.53	-1.71	19.67	<=38.45	Pass			
			836.6	23.39	-1.71	19.53	<=38.45	Pass			
			846.6	23.51	-1.71	19.65	<=38.45	Pass			
	HSDPA		Subtest 1	826.4	21.16	-1.71	17.3	<=38.45	Pass		
			Subtest 2	826.4	21.17	-1.71	17.31	<=38.45	Pass		
			Subtest 3	826.4	21.31	-1.71	17.45	<=38.45	Pass		
			Subtest 4	826.4	21.17	-1.71	17.31	<=38.45	Pass		
			Subtest 1	836.6	21.32	-1.71	17.46	<=38.45	Pass		
			Subtest 2	836.6	21.32	-1.71	17.46	<=38.45	Pass		
			Subtest 3	836.6	21.32	-1.71	17.46	<=38.45	Pass		
			Subtest 4	836.6	21.32	-1.71	17.46	<=38.45	Pass		
			Subtest 1	846.6	21.34	-1.71	17.48	<=38.45	Pass		
			Subtest 2	846.6	21.40	-1.71	17.54	<=38.45	Pass		
			Subtest 3	846.6	21.30	-1.71	17.44	<=38.45	Pass		
			Subtest 4	846.6	21.37	-1.71	17.51	<=38.45	Pass		
			HSUPA		Subtest 1	826.4	19.18	-1.71	15.32	<=38.45	Pass
					Subtest 2	826.4	19.30	-1.71	15.44	<=38.45	Pass
					Subtest 3	826.4	19.28	-1.71	15.42	<=38.45	Pass
					Subtest 4	826.4	19.38	-1.71	15.52	<=38.45	Pass
					Subtest 5	826.4	19.38	-1.71	15.52	<=38.45	Pass
	Subtest 1	836.6			18.76	-1.71	14.9	<=38.45	Pass		
	Subtest 2	836.6			19.03	-1.71	15.17	<=38.45	Pass		
	Subtest 3	836.6			19.11	-1.71	15.25	<=38.45	Pass		
	Subtest 4	836.6			19.04	-1.71	15.18	<=38.45	Pass		
	Subtest 5	836.6			18.98	-1.71	15.12	<=38.45	Pass		
	Subtest 1	846.6			19.03	-1.71	15.17	<=38.45	Pass		
	Subtest 2	846.6			19.04	-1.71	15.18	<=38.45	Pass		
	Subtest 3	846.6			18.77	-1.71	14.91	<=38.45	Pass		
	Subtest 4	846.6	18.80	-1.71	14.94	<=38.45	Pass				
	Subtest 5	846.6	18.81	-1.71	14.95	<=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	-6.924	-0.0084	-2.5 to 2.5	Pass
			3.85	-5.093	-0.0062	-2.5 to 2.5	Pass
			4.43	-7.281	-0.0088	-2.5 to 2.5	Pass
		-30	3.85	-6.573	-0.0080	-2.5 to 2.5	Pass



	836.6	-20	3.85	-6.988	-0.0085	-2.5 to 2.5	Pass
		-10	3.85	-6.258	-0.0076	-2.5 to 2.5	Pass
		0	3.85	-3.548	-0.0043	-2.5 to 2.5	Pass
		10	3.85	-5.672	-0.0069	-2.5 to 2.5	Pass
		30	3.85	-5.600	-0.0068	-2.5 to 2.5	Pass
		40	3.85	-4.427	-0.0054	-2.5 to 2.5	Pass
		50	3.85	-5.379	-0.0065	-2.5 to 2.5	Pass
	836.6	20	3.27	-5.572	-0.0067	-2.5 to 2.5	Pass
			3.85	-3.455	-0.0041	-2.5 to 2.5	Pass
			4.43	-6.187	-0.0074	-2.5 to 2.5	Pass
		-30	3.85	-7.846	-0.0094	-2.5 to 2.5	Pass
		-20	3.85	-3.898	-0.0047	-2.5 to 2.5	Pass
		-10	3.85	-4.756	-0.0057	-2.5 to 2.5	Pass
		0	3.85	-4.277	-0.0051	-2.5 to 2.5	Pass
		10	3.85	-7.217	-0.0086	-2.5 to 2.5	Pass
		30	3.85	-6.788	-0.0081	-2.5 to 2.5	Pass
		40	3.85	-3.054	-0.0037	-2.5 to 2.5	Pass
	50	3.85	-2.339	-0.0028	-2.5 to 2.5	Pass	
	846.6	20	3.27	-4.177	-0.0049	-2.5 to 2.5	Pass
			3.85	-3.269	-0.0039	-2.5 to 2.5	Pass
			4.43	-5.872	-0.0069	-2.5 to 2.5	Pass
		-30	3.85	-4.299	-0.0051	-2.5 to 2.5	Pass
		-20	3.85	-3.397	-0.0040	-2.5 to 2.5	Pass
		-10	3.85	-4.156	-0.0049	-2.5 to 2.5	Pass
		0	3.85	-4.342	-0.0051	-2.5 to 2.5	Pass
		10	3.85	-2.875	-0.0034	-2.5 to 2.5	Pass
		30	3.85	-2.003	-0.0024	-2.5 to 2.5	Pass
40		3.85	-1.602	-0.0019	-2.5 to 2.5	Pass	
50	3.85	-4.199	-0.0050	-2.5 to 2.5	Pass		
HSDPA	826.4	20	3.27	-5.937	-0.0072	-2.5 to 2.5	Pass
			3.85	-6.337	-0.0077	-2.5 to 2.5	Pass
			4.43	-6.881	-0.0083	-2.5 to 2.5	Pass
		-30	3.85	-7.725	-0.0093	-2.5 to 2.5	Pass
		-20	3.85	-8.075	-0.0098	-2.5 to 2.5	Pass
		-10	3.85	-2.911	-0.0035	-2.5 to 2.5	Pass
		0	3.85	-3.240	-0.0039	-2.5 to 2.5	Pass
		10	3.85	-3.104	-0.0038	-2.5 to 2.5	Pass
		30	3.85	-1.953	-0.0024	-2.5 to 2.5	Pass
		40	3.85	-6.530	-0.0079	-2.5 to 2.5	Pass
	50	3.85	-6.316	-0.0076	-2.5 to 2.5	Pass	
	836.6	20	3.27	-4.606	-0.0055	-2.5 to 2.5	Pass
			3.85	-3.970	-0.0047	-2.5 to 2.5	Pass
			4.43	-2.775	-0.0033	-2.5 to 2.5	Pass
		-30	3.85	-7.210	-0.0086	-2.5 to 2.5	Pass
		-20	3.85	-5.515	-0.0066	-2.5 to 2.5	Pass
		-10	3.85	-5.429	-0.0065	-2.5 to 2.5	Pass
		0	3.85	-6.301	-0.0075	-2.5 to 2.5	Pass
		10	3.85	-5.400	-0.0065	-2.5 to 2.5	Pass
		30	3.85	-4.942	-0.0059	-2.5 to 2.5	Pass
		40	3.85	-3.605	-0.0043	-2.5 to 2.5	Pass
	50	3.85	-4.721	-0.0056	-2.5 to 2.5	Pass	
	846.6	20	3.27	-3.297	-0.0039	-2.5 to 2.5	Pass
			3.85	-3.283	-0.0039	-2.5 to 2.5	Pass
			4.43	-2.139	-0.0025	-2.5 to 2.5	Pass
		-30	3.85	-1.645	-0.0019	-2.5 to 2.5	Pass
		-20	3.85	-1.101	-0.0013	-2.5 to 2.5	Pass
-10		3.85	-2.604	-0.0031	-2.5 to 2.5	Pass	
0		3.85	-1.838	-0.0022	-2.5 to 2.5	Pass	



		10	3.85	-2.739	-0.0032	-2.5 to 2.5	Pass
		30	3.85	-2.854	-0.0034	-2.5 to 2.5	Pass
		40	3.85	-3.526	-0.0042	-2.5 to 2.5	Pass
		50	3.85	-2.890	-0.0034	-2.5 to 2.5	Pass
HSUPA	826.4	20	3.27	-5.271	-0.0064	-2.5 to 2.5	Pass
			3.85	-4.249	-0.0051	-2.5 to 2.5	Pass
			4.43	-4.835	-0.0059	-2.5 to 2.5	Pass
		-30	3.85	-4.857	-0.0059	-2.5 to 2.5	Pass
		-20	3.85	-5.014	-0.0061	-2.5 to 2.5	Pass
		-10	3.85	-4.885	-0.0059	-2.5 to 2.5	Pass
		0	3.85	-4.692	-0.0057	-2.5 to 2.5	Pass
		10	3.85	-4.556	-0.0055	-2.5 to 2.5	Pass
		30	3.85	-4.170	-0.0050	-2.5 to 2.5	Pass
		40	3.85	-4.678	-0.0057	-2.5 to 2.5	Pass
		50	3.85	-3.326	-0.0040	-2.5 to 2.5	Pass
		836.6	20	3.27	-4.184	-0.0050	-2.5 to 2.5
	3.85			-2.704	-0.0032	-2.5 to 2.5	Pass
	4.43			-1.960	-0.0023	-2.5 to 2.5	Pass
	-30		3.85	-1.609	-0.0019	-2.5 to 2.5	Pass
	-20		3.85	-0.794	-0.0009	-2.5 to 2.5	Pass
	-10		3.85	0.429	0.0005	-2.5 to 2.5	Pass
	0		3.85	-2.003	-0.0024	-2.5 to 2.5	Pass
	10		3.85	-0.515	-0.0006	-2.5 to 2.5	Pass
	30		3.85	-1.352	-0.0016	-2.5 to 2.5	Pass
	40		3.85	-1.924	-0.0023	-2.5 to 2.5	Pass
	50		3.85	-1.652	-0.0020	-2.5 to 2.5	Pass
	846.6		20	3.27	-1.588	-0.0019	-2.5 to 2.5
		3.85		-1.402	-0.0017	-2.5 to 2.5	Pass
		4.43		-0.637	-0.0008	-2.5 to 2.5	Pass
		-30	3.85	-0.565	-0.0007	-2.5 to 2.5	Pass
		-20	3.85	-1.681	-0.0020	-2.5 to 2.5	Pass
		-10	3.85	-0.393	-0.0005	-2.5 to 2.5	Pass
		0	3.85	-0.651	-0.0008	-2.5 to 2.5	Pass
		10	3.85	-0.708	-0.0008	-2.5 to 2.5	Pass
		30	3.85	-1.466	-0.0017	-2.5 to 2.5	Pass
		40	3.85	-1.481	-0.0017	-2.5 to 2.5	Pass
50		3.85	-1.280	-0.0015	-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\_RMC\_MCH\_836.6MHz\_12.2kbps RMC\_NTNV**

WCDMA UE TX Measurement - V3.7.22 - Base V 3.7.172

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

UL Frequency: 836.600000 MHz   Ref. Level: 32.40 dBm   Connector: RF1COM   Meas. Period: Full Slot

IQ

Statistic Count  
20 / 20

1st Measured Slot No	0
Statistics @ Pre. ...	CurrentStdDev
Power [dBm]	NCAP NCAP
Power Steps [dB]	NCAP NCAP
EVM RMS [%]	NCAP NCAP
EVM Peak [%]	NCAP NCAP
Magn. Error RMS [%]	NCAP NCAP
Magn. Error Peak [%]	NCAP NCAP
Phase Error RMS [°]	NCAP NCAP
Phase Error Peak [°]	NCAP NCAP
IQ Origin Offset [dB]	NCAP NCAP
IQ Imbalance [dB]	NCAP NCAP
CF Error [Hz]	NCAP NCAP
Phase Disc. [°]	NCAP

HSDPA    CPO   Circuit Switched:
 Packet Switched:
 Power: ON
 HSPA+    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

ON

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

WCDMA UE TX Measurement - V3.7.22 - Base V 3.7.172

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

IQ

Statistic Count  
20 / 20

1st Measured Slot No	0
Statistics @ Pre. ...	CurrentStdDev
Power [dBm]	NCAP NCAP
Power Steps [dB]	NCAP NCAP
EVM RMS [%]	NCAP NCAP
EVM Peak [%]	NCAP NCAP
Magn. Error RMS [%]	NCAP NCAP
Magn. Error Peak [%]	NCAP NCAP
Phase Error RMS [°]	NCAP NCAP
Phase Error Peak [°]	NCAP NCAP
IQ Origin Offset [dB]	NCAP NCAP
IQ Imbalance [dB]	NCAP NCAP
CF Error [Hz]	NCAP NCAP
Phase Disc. [°]	NCAP

HSDPA+    CPO   Circuit Switched:
 Packet Switched:
 Power: ON
 HSPA+    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

ON



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

WCDMA UE TX Measurement - V3.7.22 - Base V 3.7.172WCDMA

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

-1      0      1

Statistic Count

20 / 20

1st Measured Slot No	0
Statistics @ Pre. ...	CurrentStdDev
Power [dBm]	NCAP NCAP
Power Steps [dB]	NCAP NCAP
EVM RMS [%]	NCAP NCAP
EVM Peak [%]	NCAP NCAP
Magn. Error RMS [%]	NCAP NCAP
Magn. Error Peak [%]	NCAP NCAP
Phase Error RMS [°]	NCAP NCAP
Phase Error Peak [°]	NCAP NCAP
IQ Origin Offset [dB]	NCAP NCAP
IQ Imbalance [dB]	NCAP NCAP
CF Error [Hz]	NCAP NCAP
Phase Disc. [°]	NCAP

HSDPA+ CPO Circuit Switched:

HSDPA CM Registered

Packet Switched: Connection Established

Power: ON

Sync: ON

Go To Local Show Remote Screen

WCDMA 1 Signaling ON



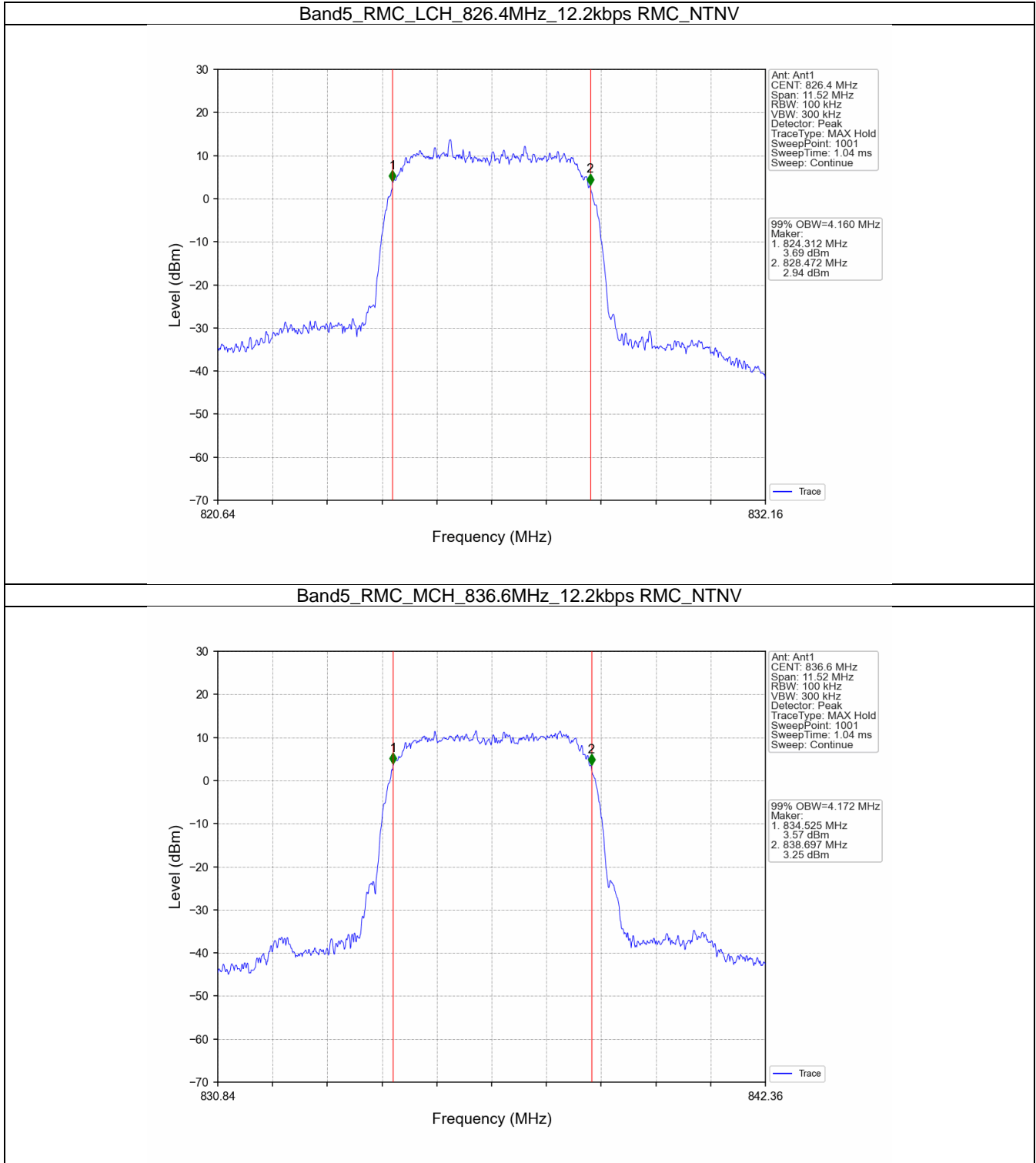
#### 4. 99% & 26dB Bandwidth

##### 4.1 Band5\_OBW

##### 4.1.1 Test Result

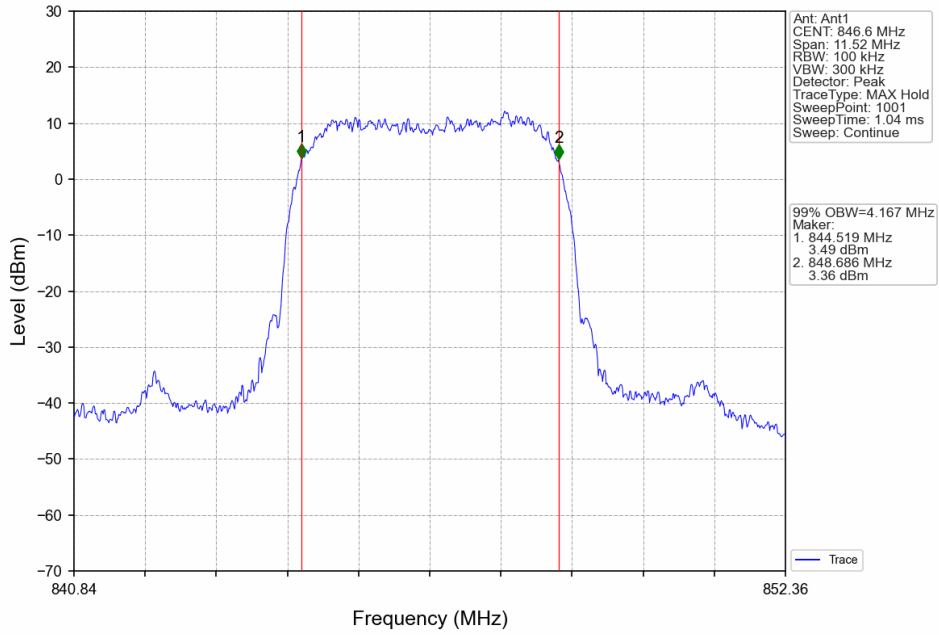
Band: 5						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	4.160	/	Pass
			836.6	4.172	/	Pass
			846.6	4.167	/	Pass
	HSDPA	Subtest 1	826.4	4.180	/	Pass
			836.6	4.175	/	Pass
			846.6	4.182	/	Pass
	HSUPA	Subtest 1	826.4	4.182	/	Pass
			836.6	4.176	/	Pass
			846.6	4.173	/	Pass

4.1.2 Test Graph

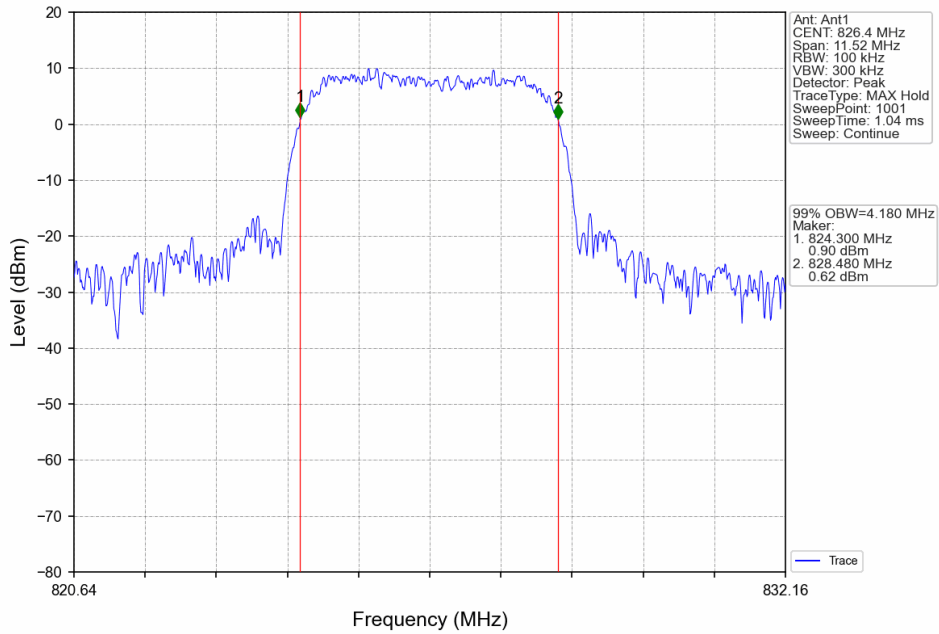




Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV

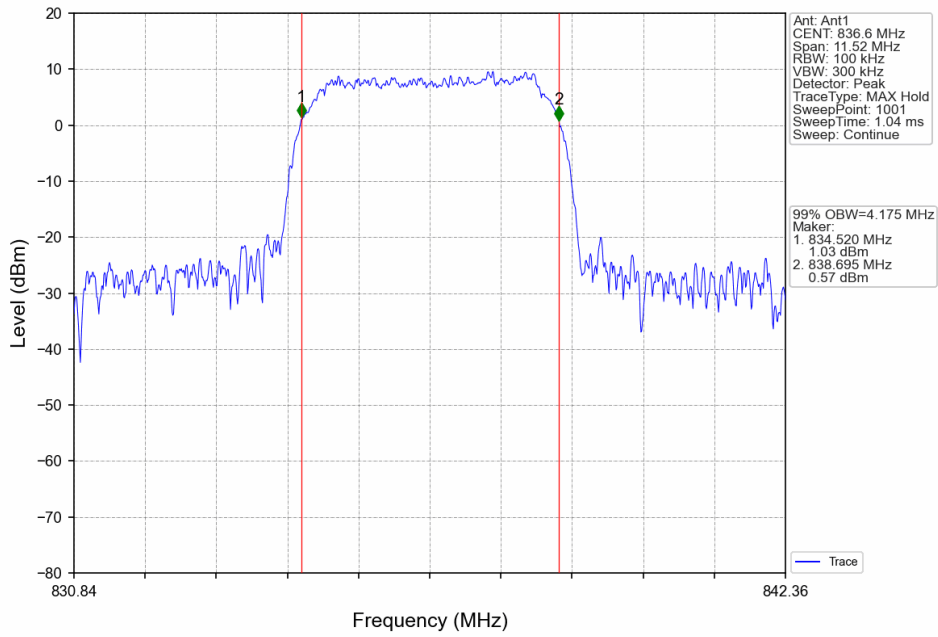


Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV

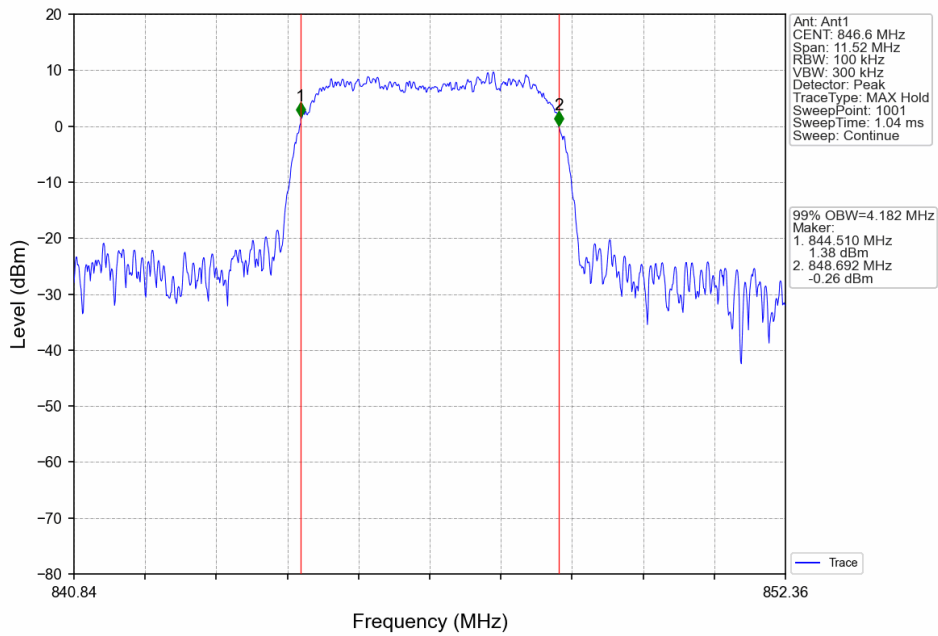




Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV

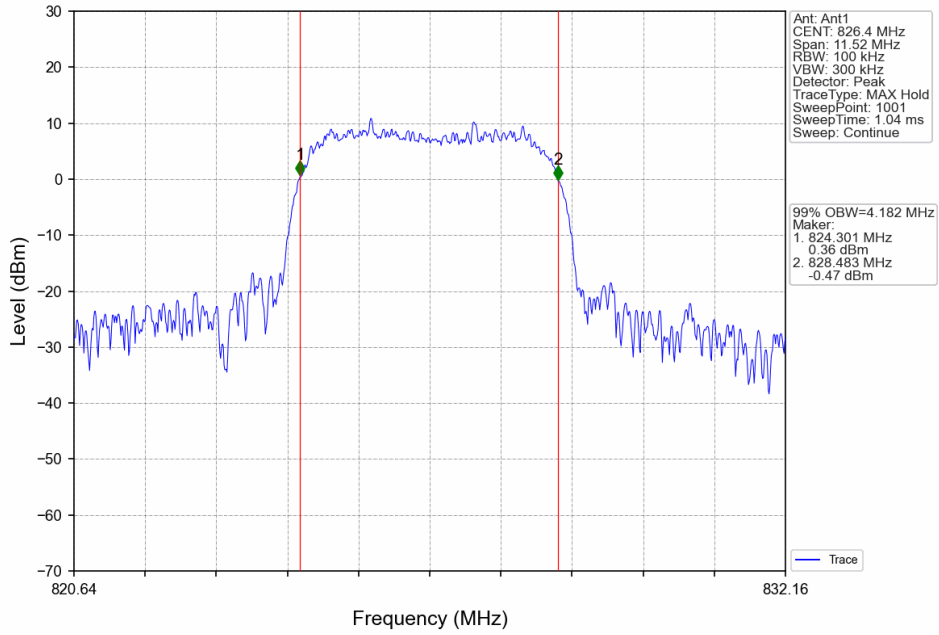


Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV

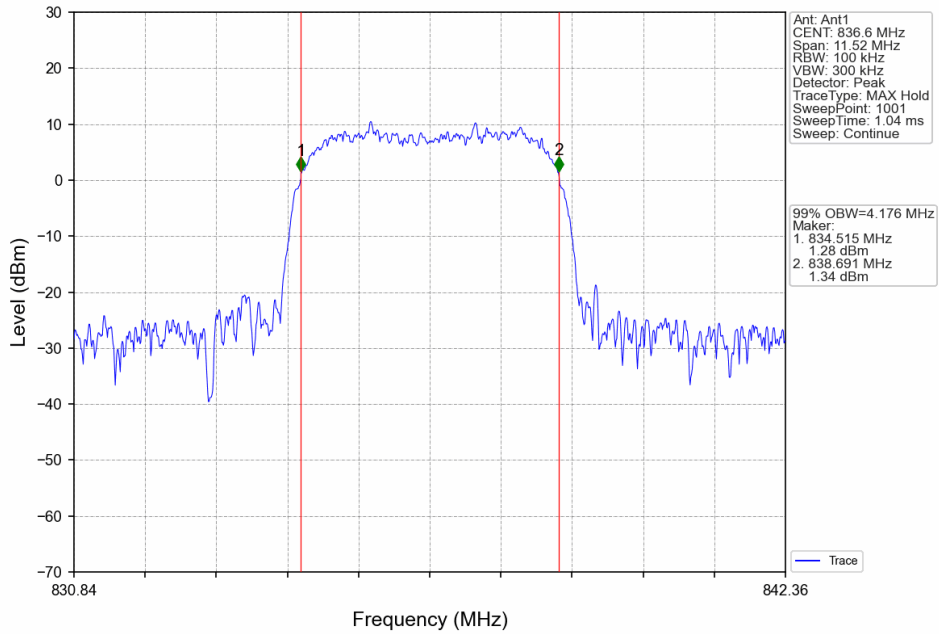


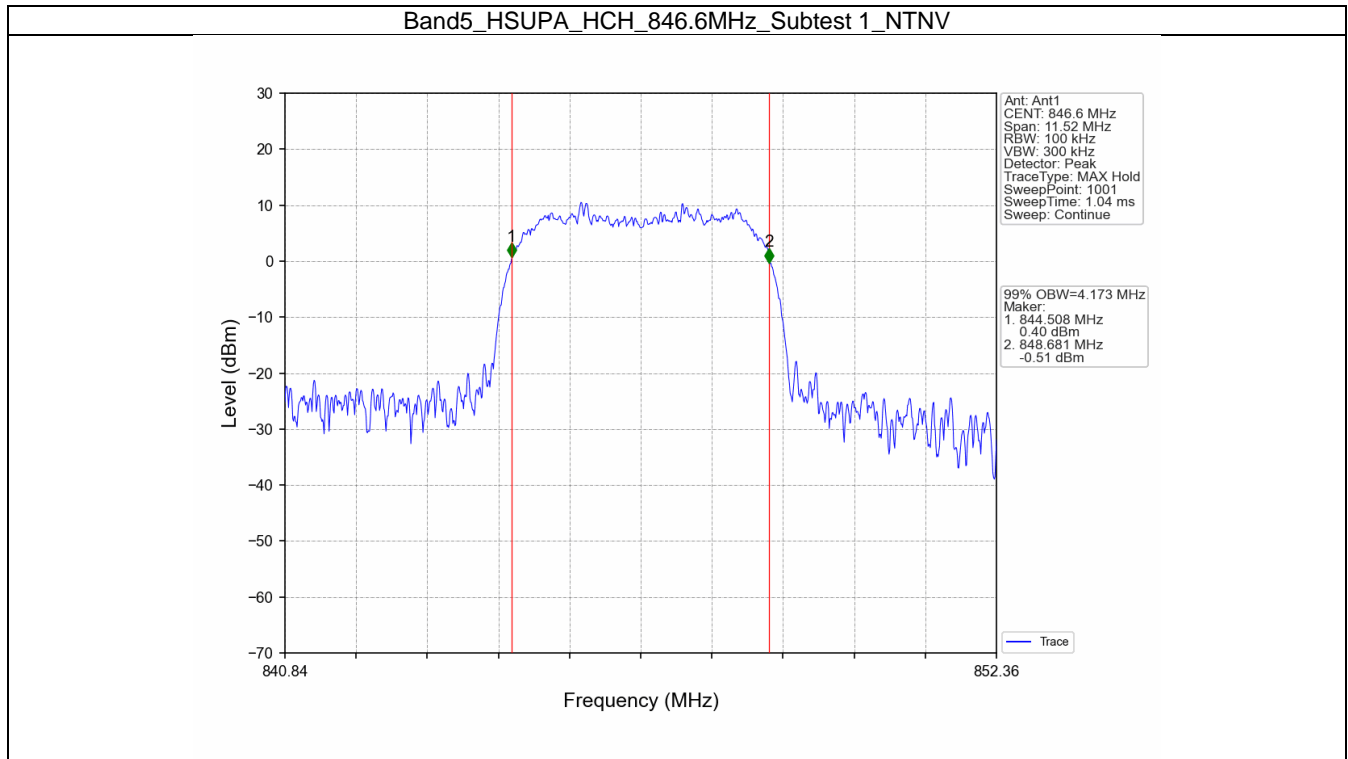


Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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







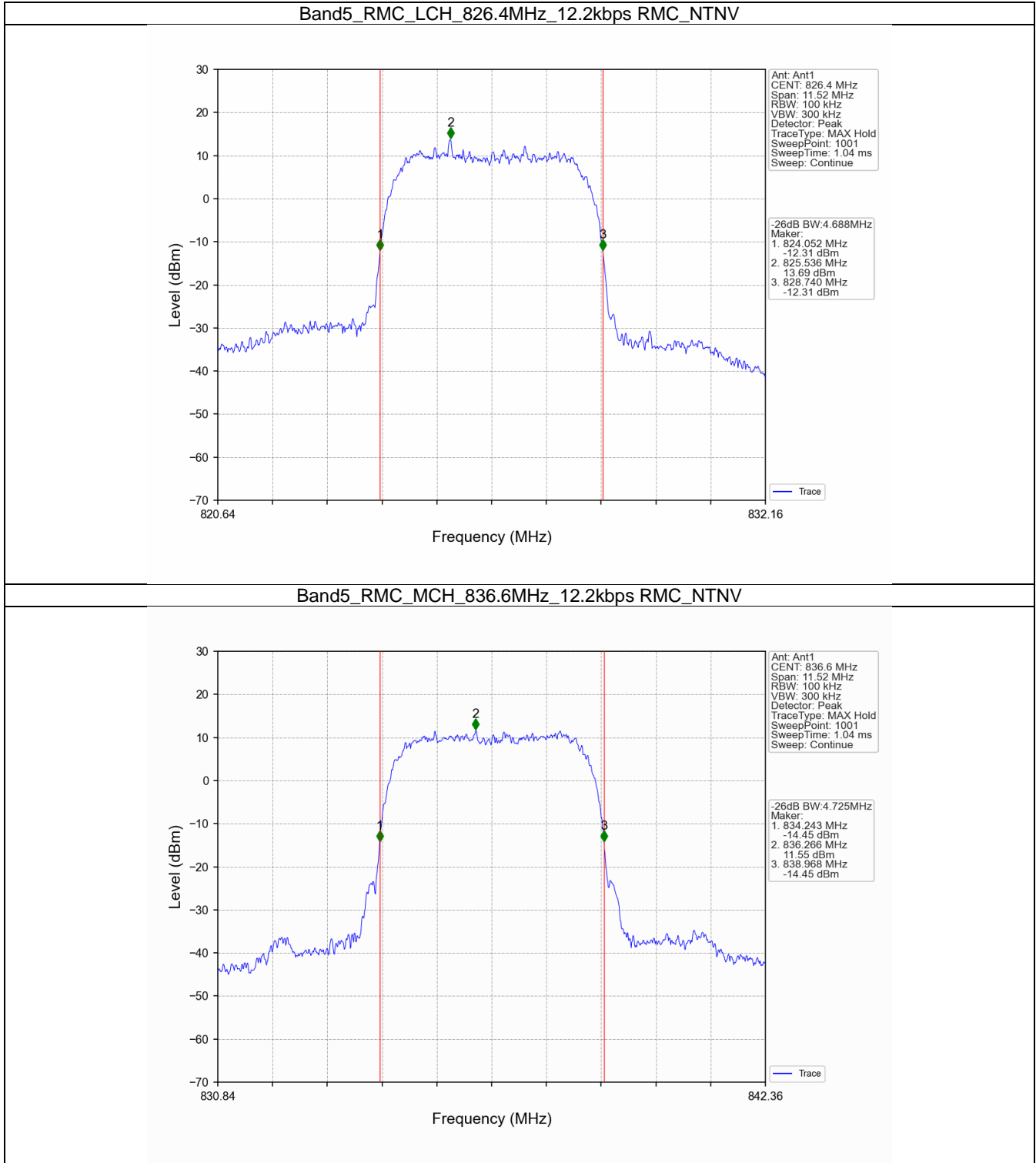
## 4.2 Band5\_XDB

### 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	4.688	/	Pass
			836.6	4.725	/	Pass
			846.6	4.707	/	Pass
	HSDPA	Subtest 1	826.4	4.973	/	Pass
			836.6	4.716	/	Pass
			846.6	4.714	/	Pass
	HSUPA	Subtest 1	826.4	4.688	/	Pass
			836.6	4.708	/	Pass
			846.6	4.709	/	Pass

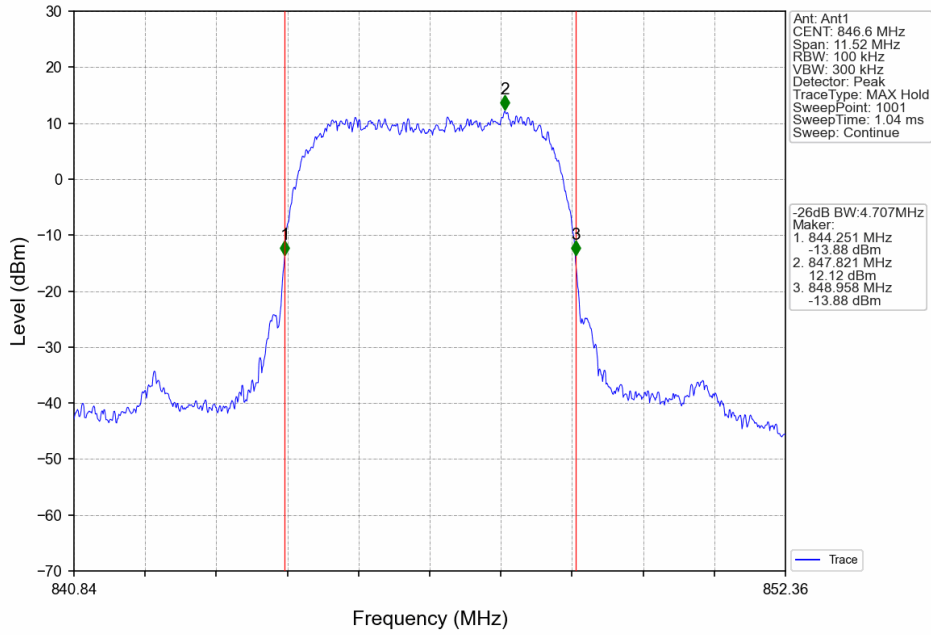


### 4.2.2 Test Graph

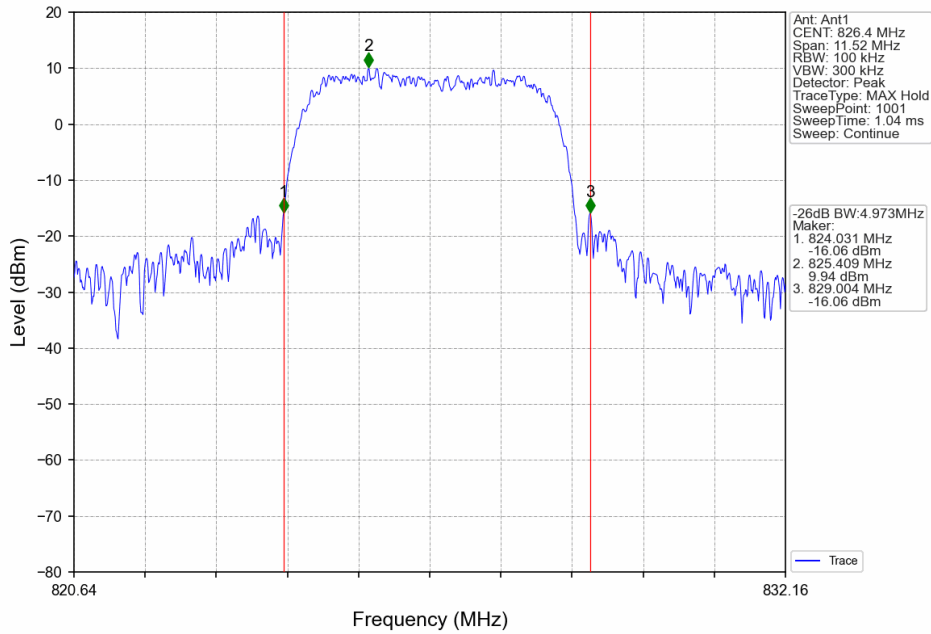




Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV

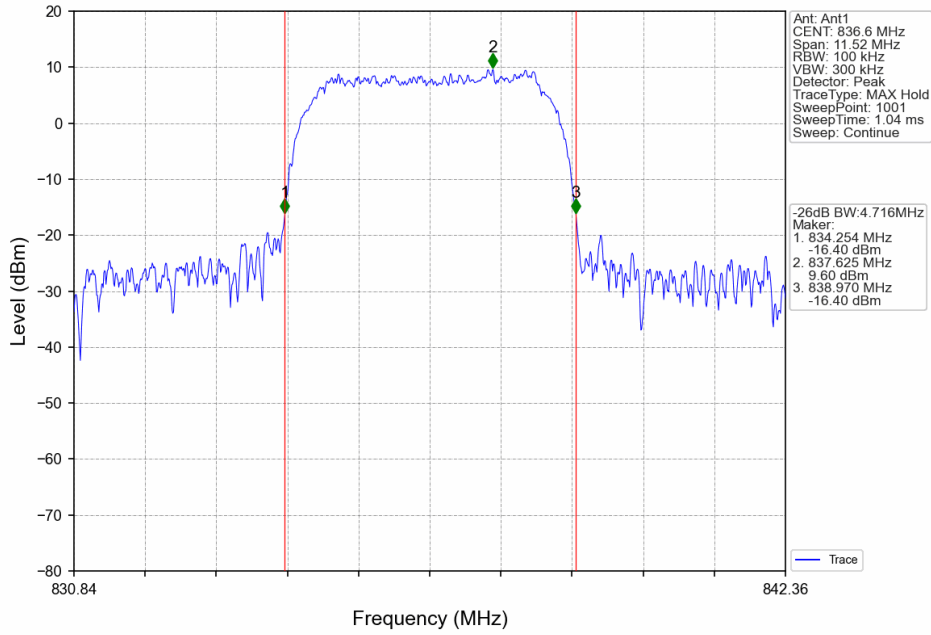


Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV

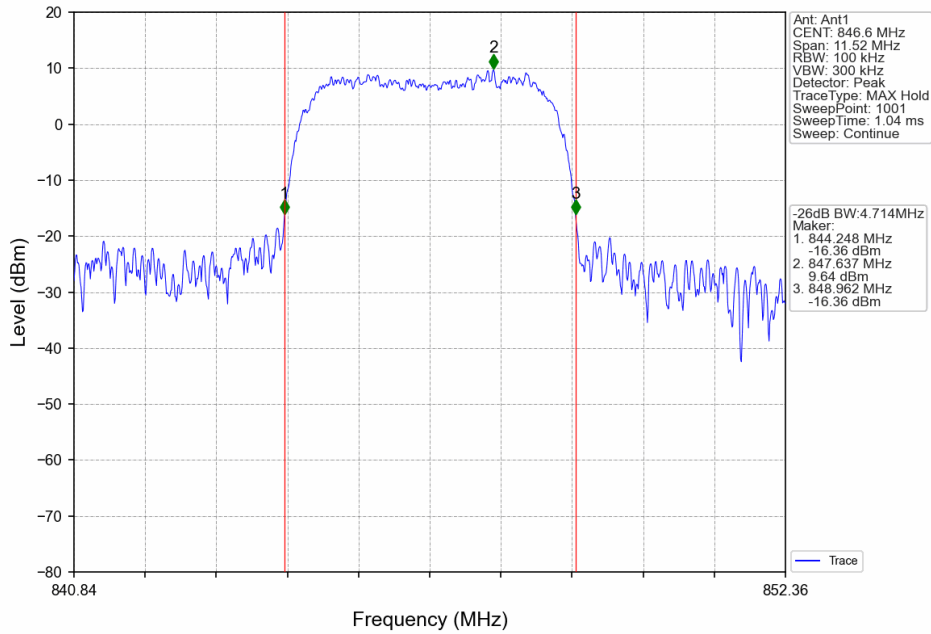




Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV

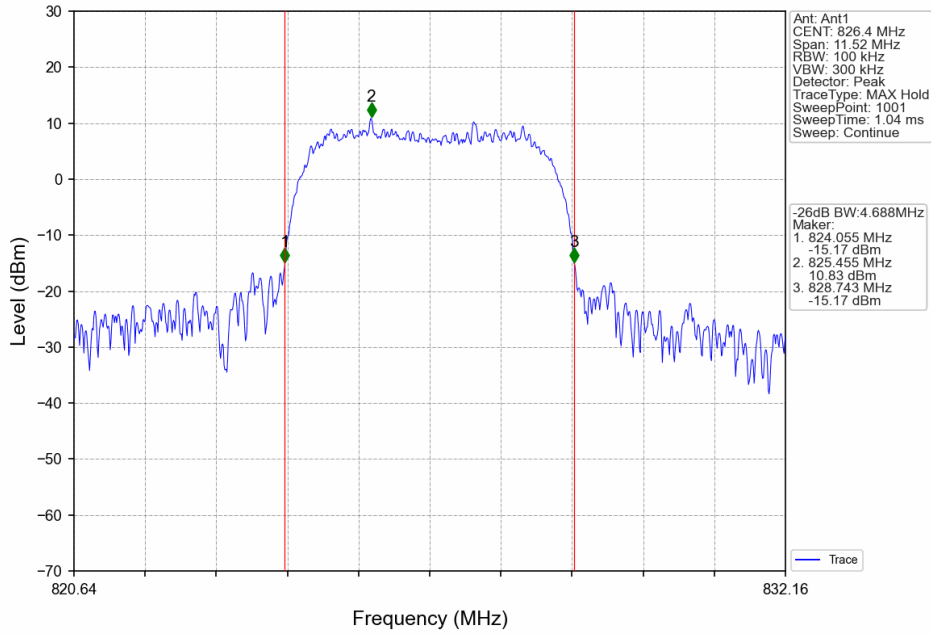


Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV

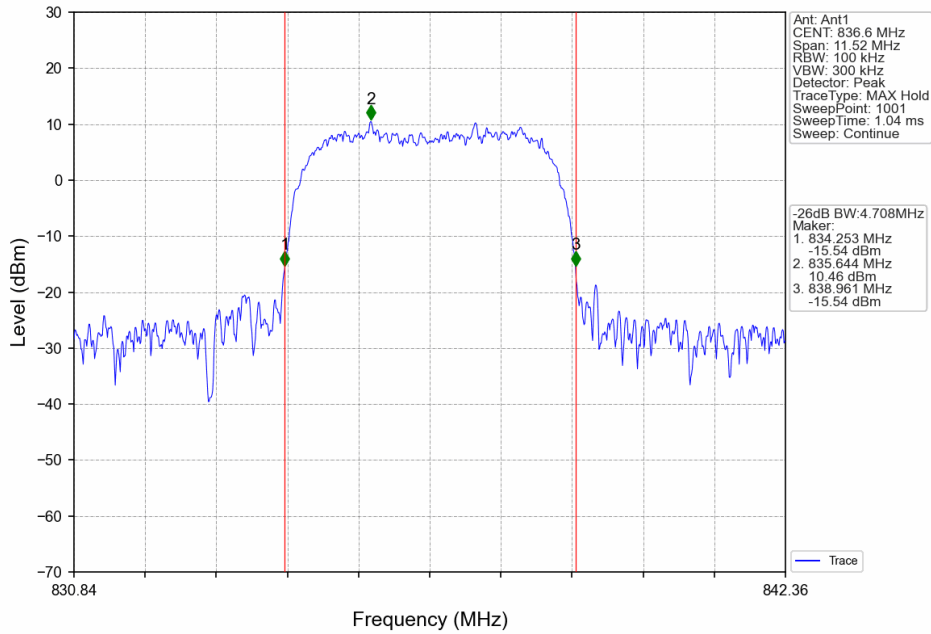




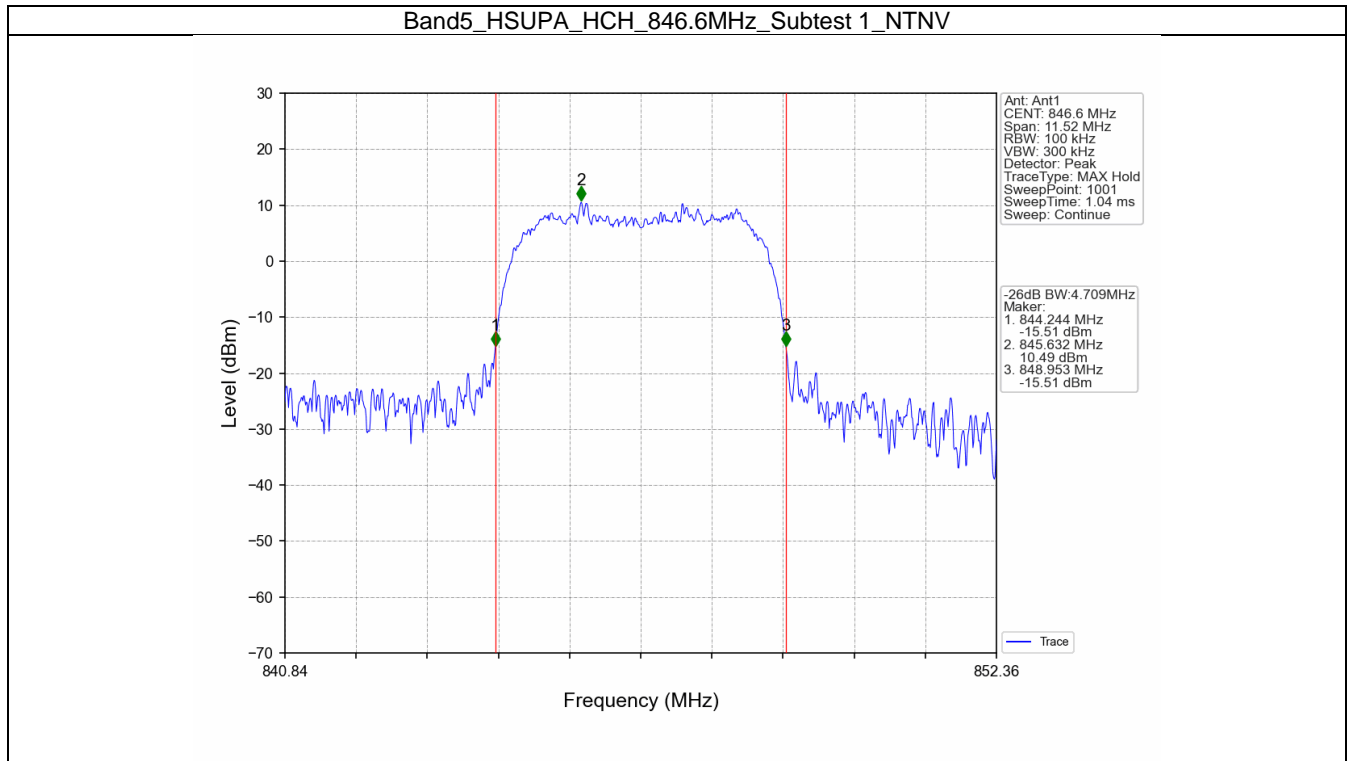
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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









### 5. Peak-Average Ratio

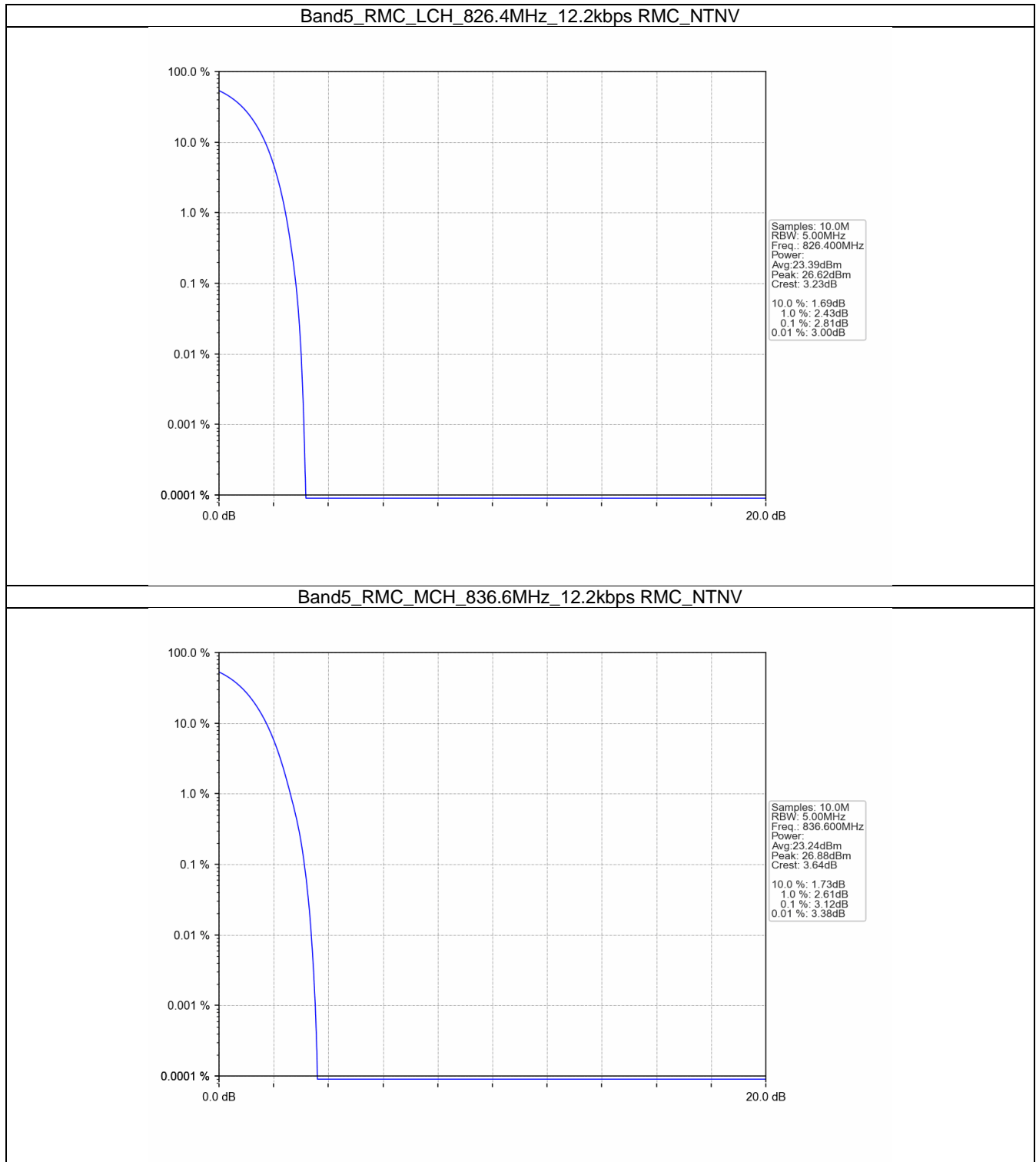
#### 5.1 Band5

##### 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	2.81	<=13	Pass
			836.6	3.12	<=13	Pass
			846.6	3.09	<=13	Pass
	HSDPA	Subtest 1	826.4	5.93	<=13	Pass
			836.6	5.99	<=13	Pass
			846.6	6.05	<=13	Pass
	HSUPA	Subtest 1	826.4	5.95	<=13	Pass
			836.6	5.92	<=13	Pass
			846.6	6.10	<=13	Pass

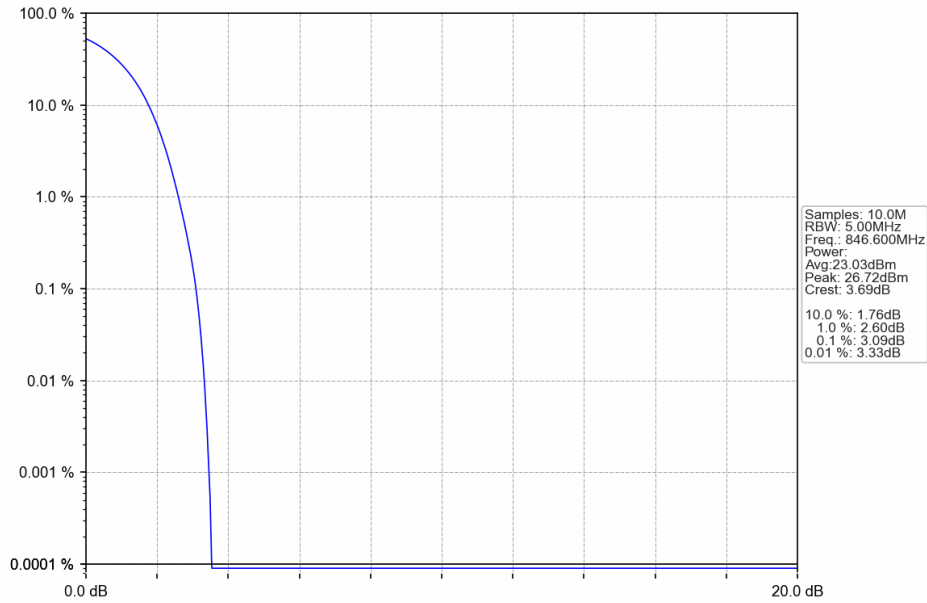


### 5.1.2 Test Graph

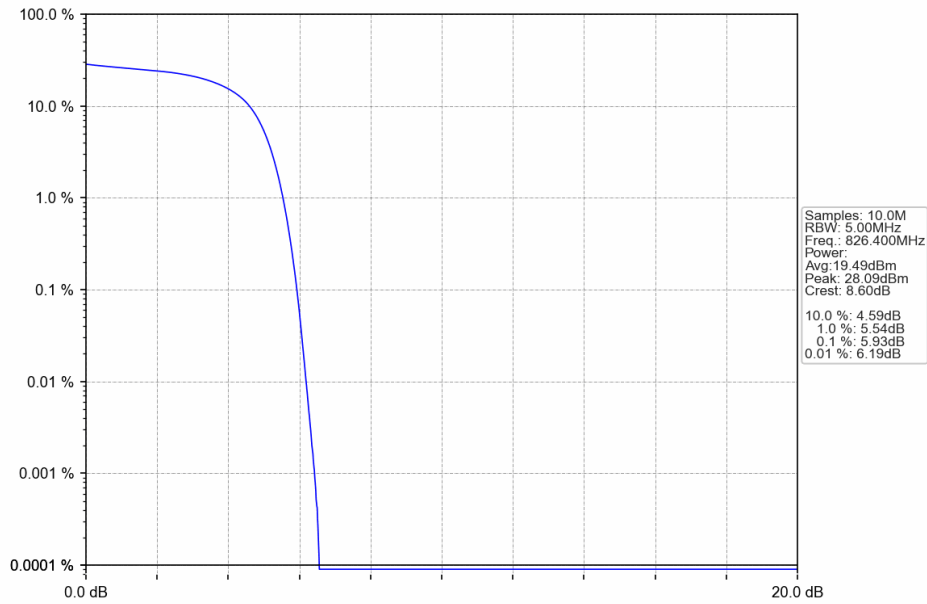




Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV

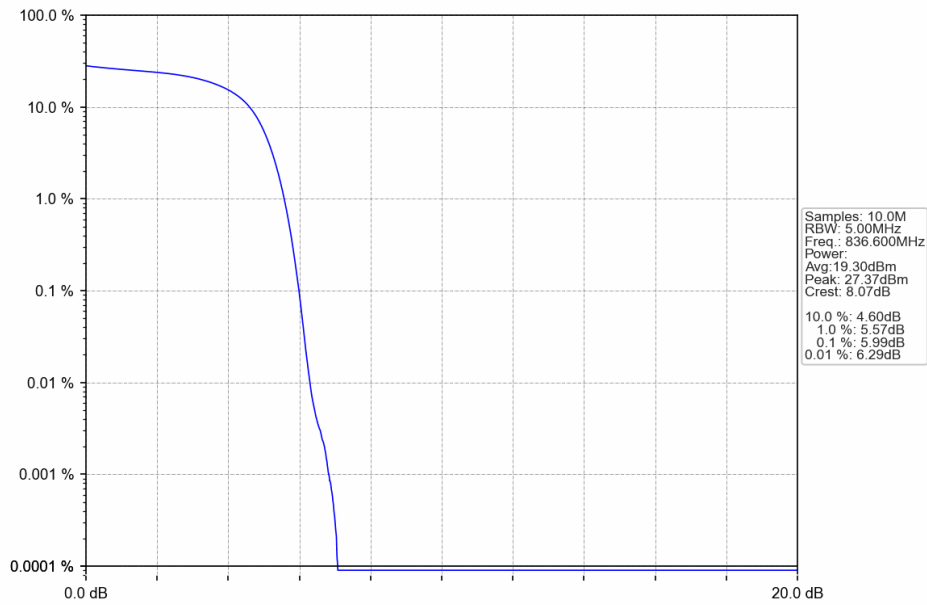


Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV

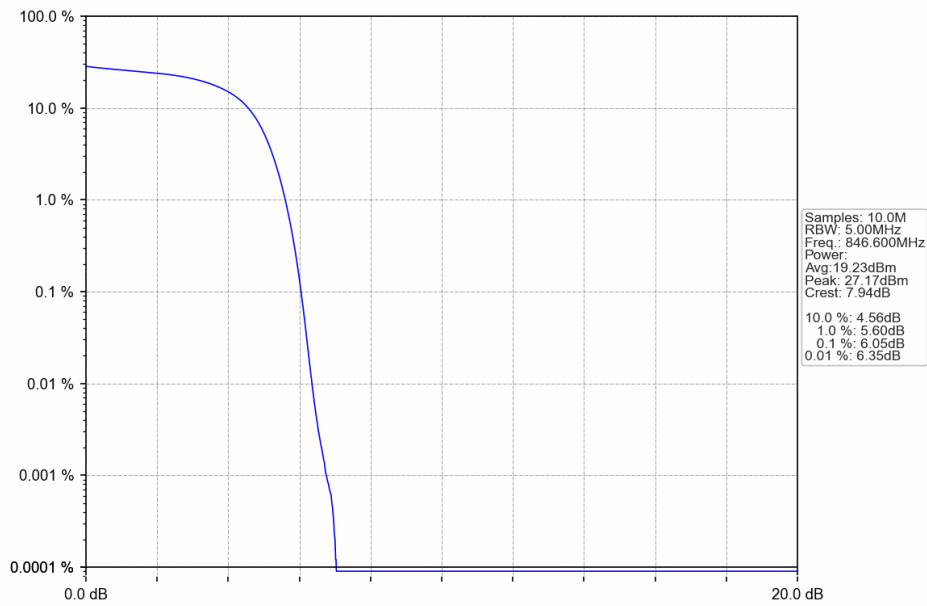




Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV

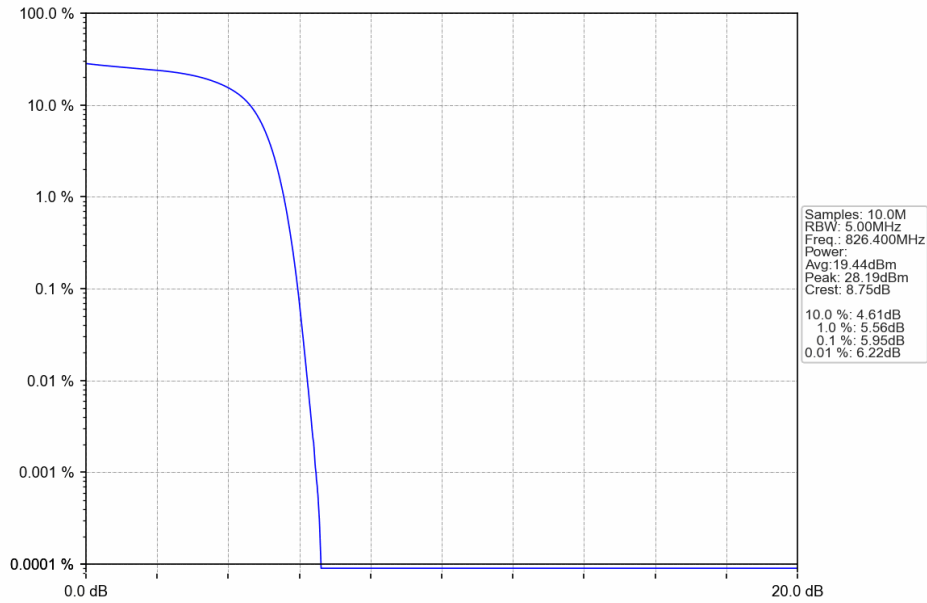


Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV

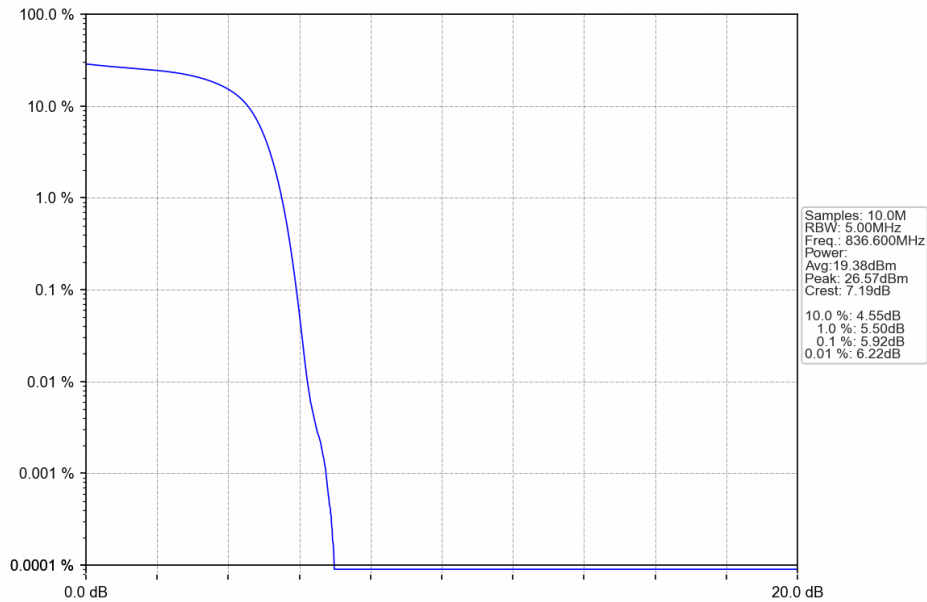




Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV

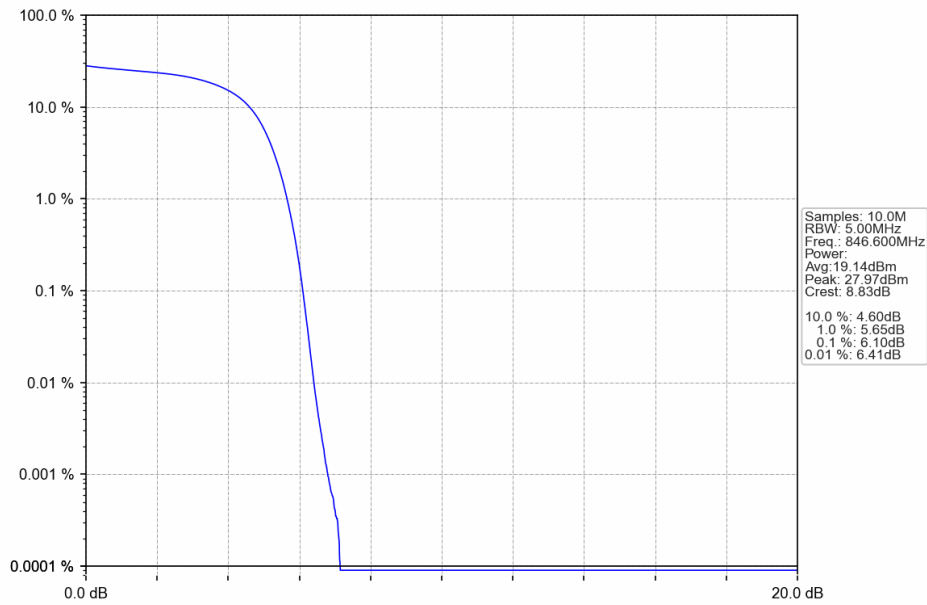


Band5\_HSUPA\_MCH\_836.6MHz\_Subtest 1\_NTNV





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





## 6. Spurious Emission

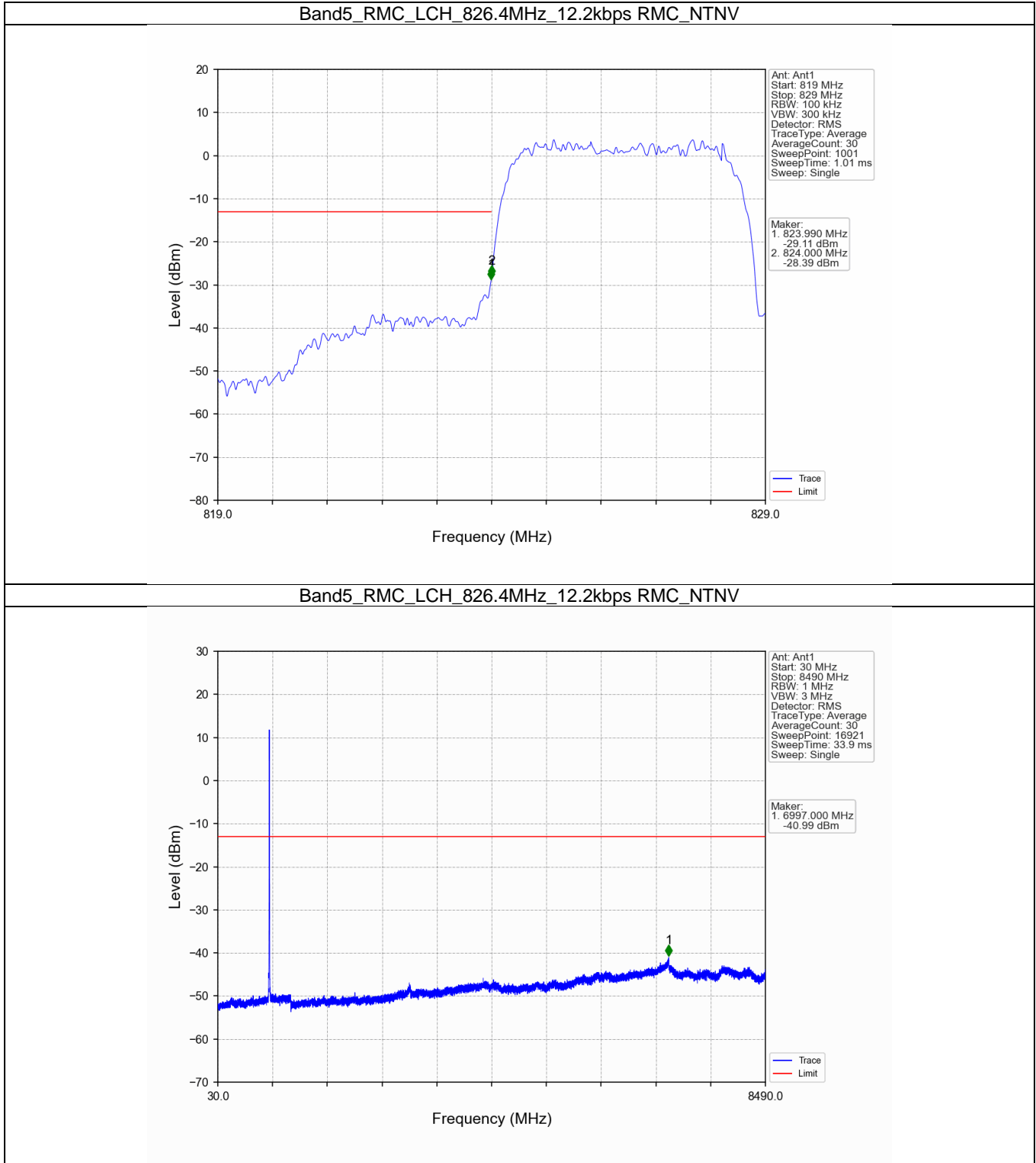
### 6.1 Band5

#### 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	

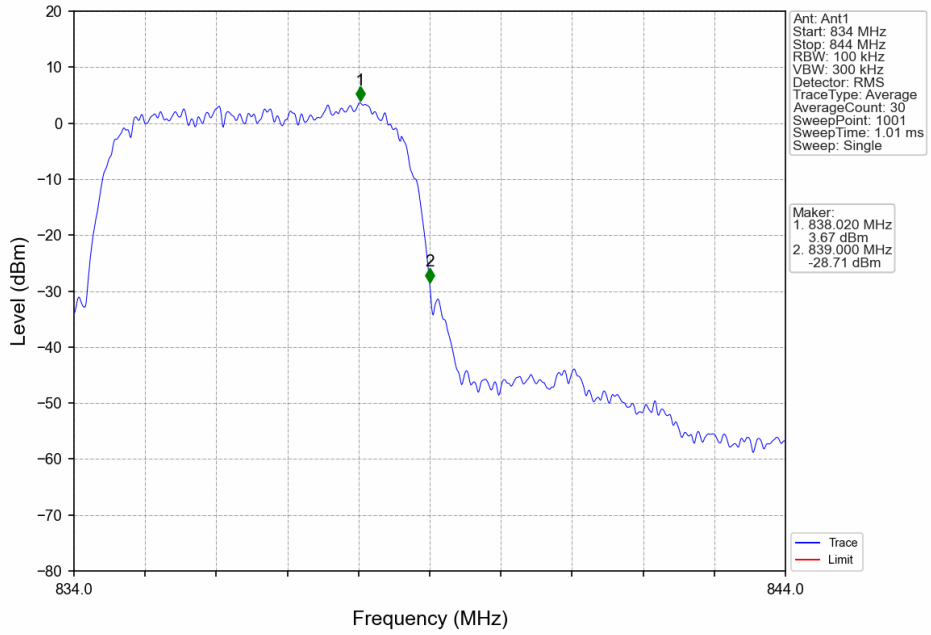


6.1.2 Test Graph

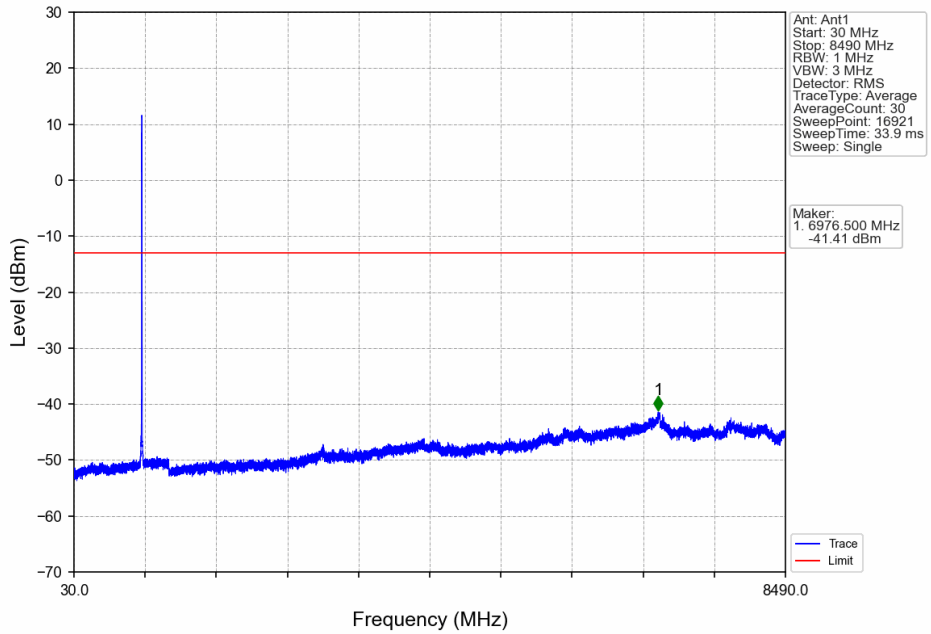




Band5\_RMC\_MCH\_836.6MHz\_12.2kbps RMC\_NTNV

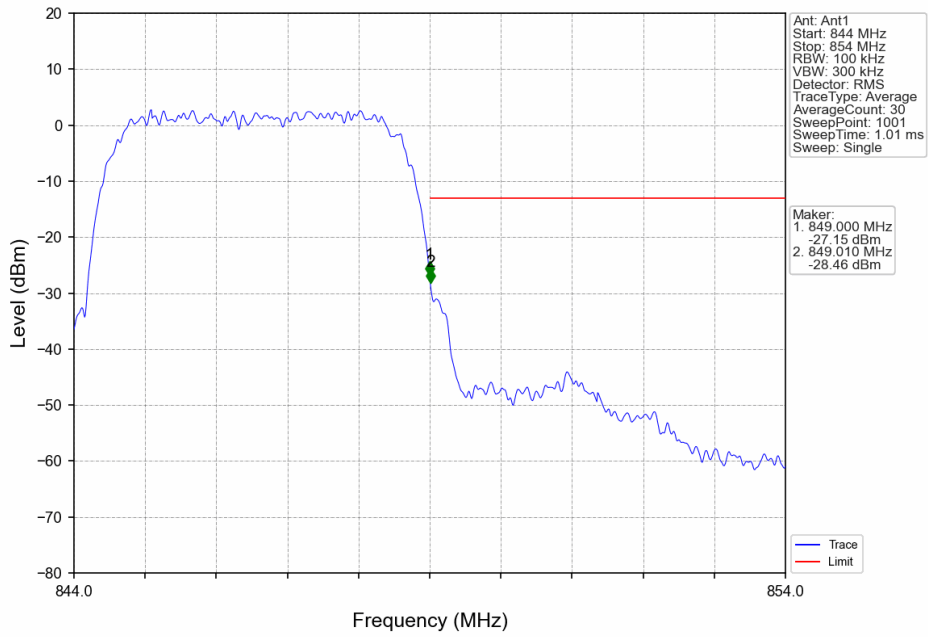


Band5\_RMC\_MCH\_836.6MHz\_12.2kbps RMC\_NTNV

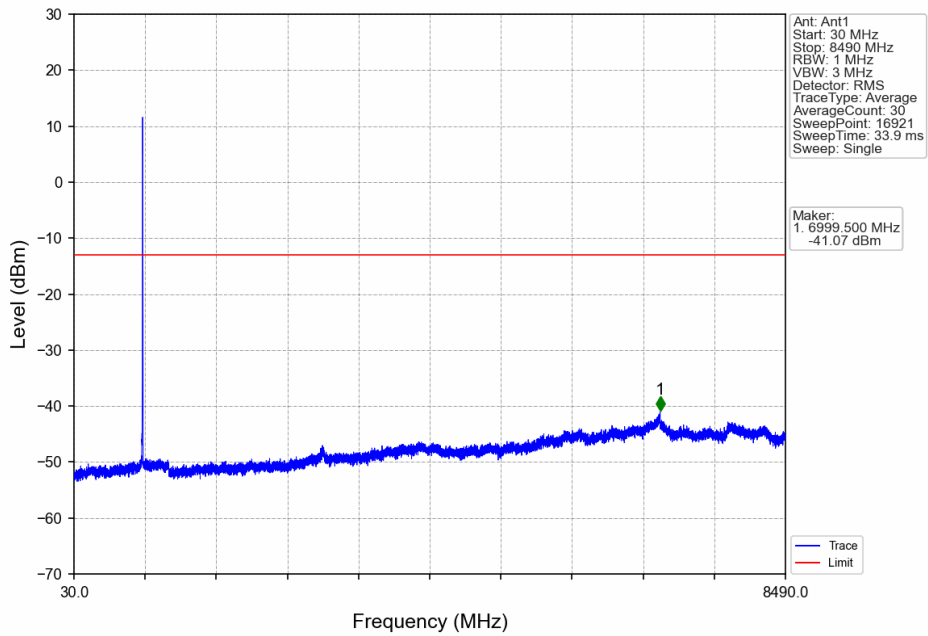




Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV

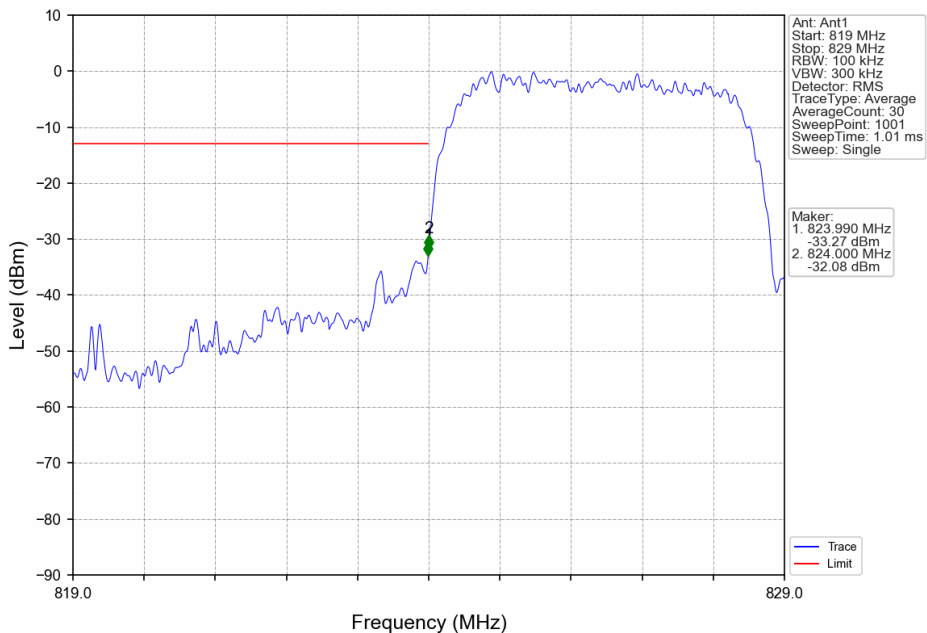


Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV

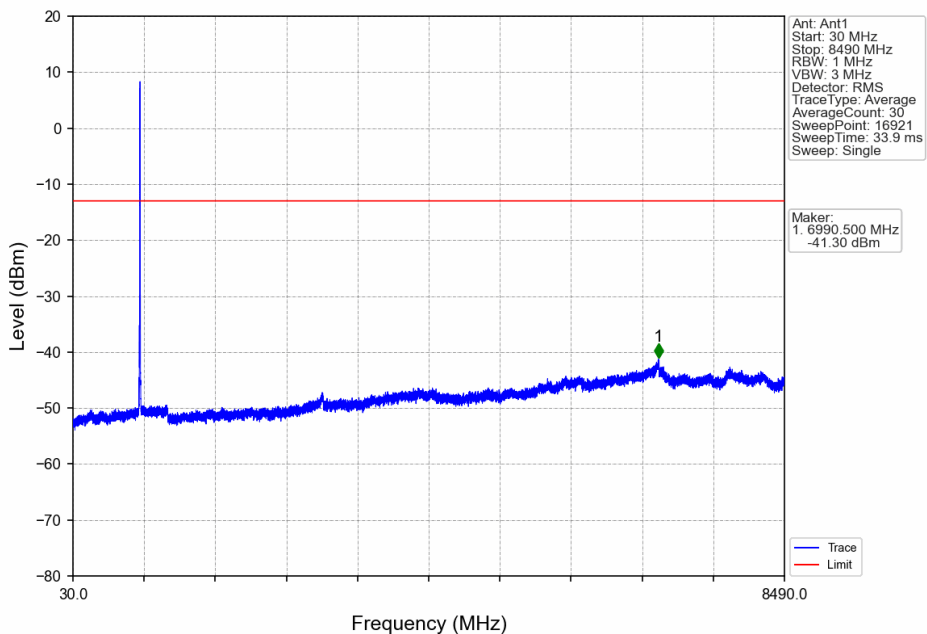




Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV

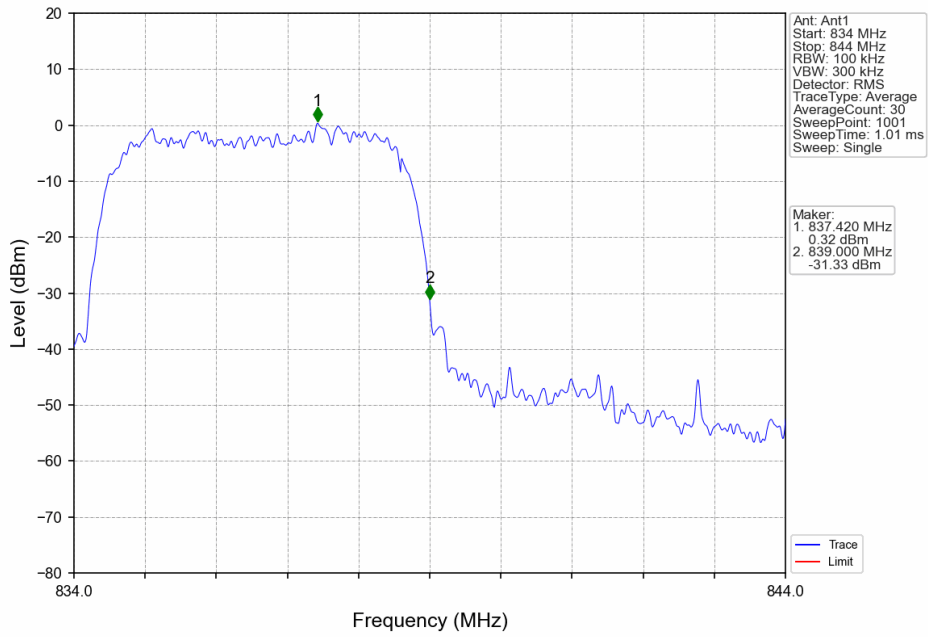


Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV

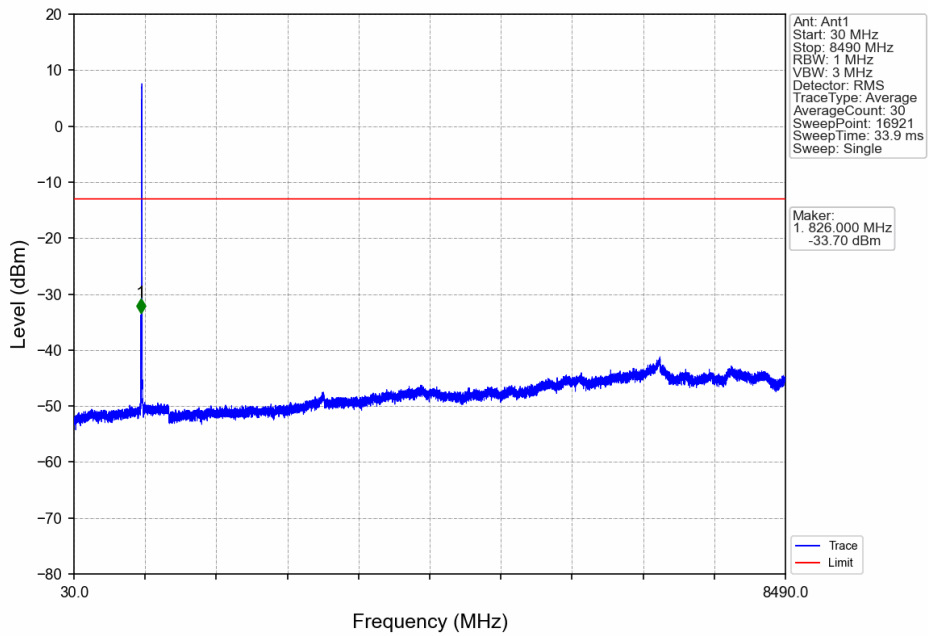




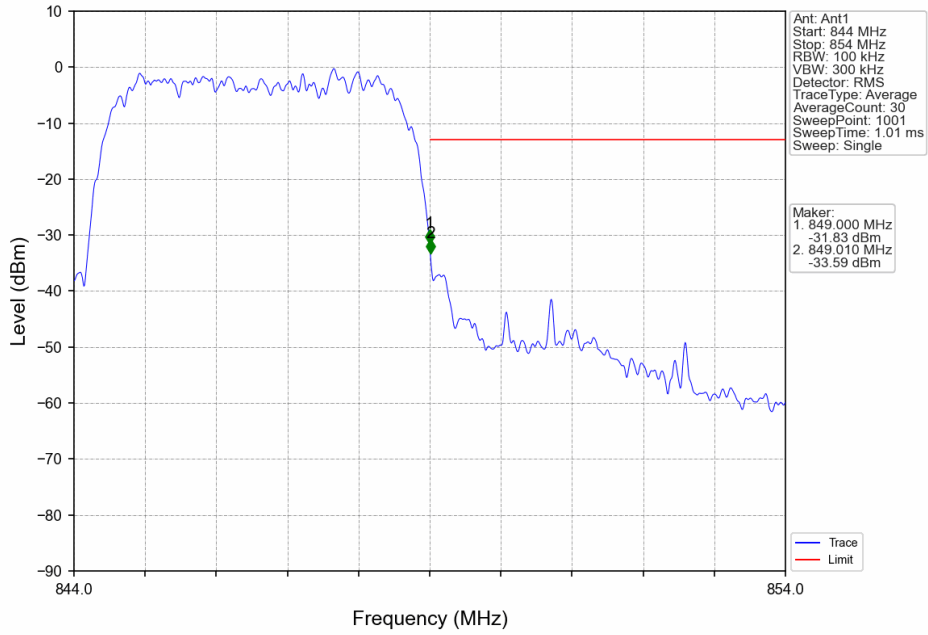
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



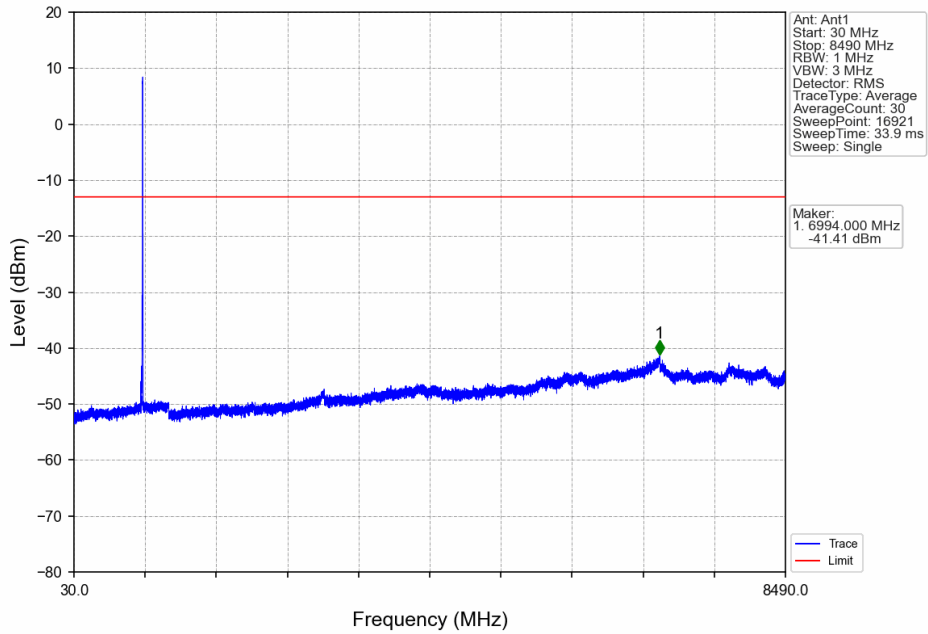
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



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

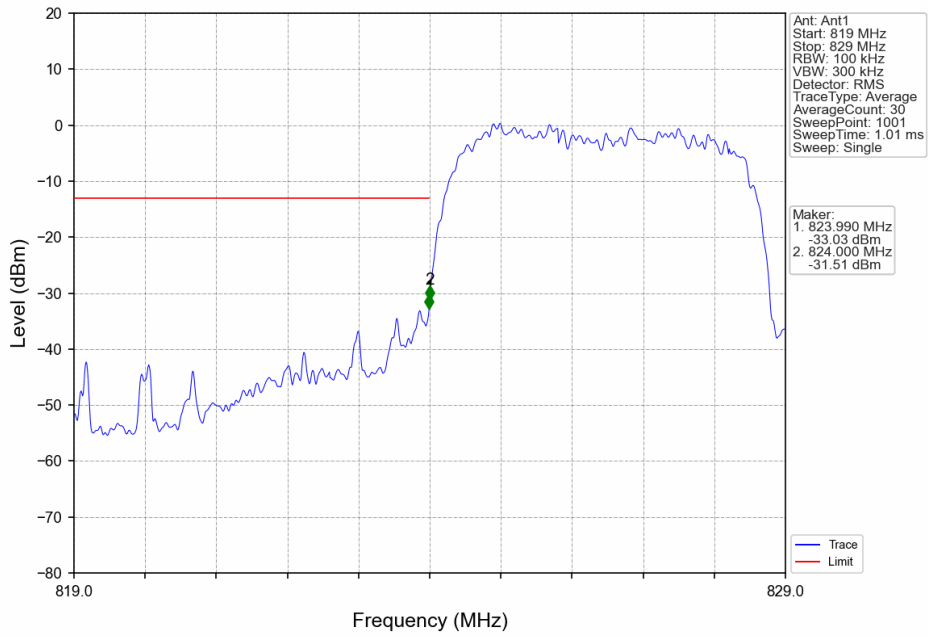


Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV

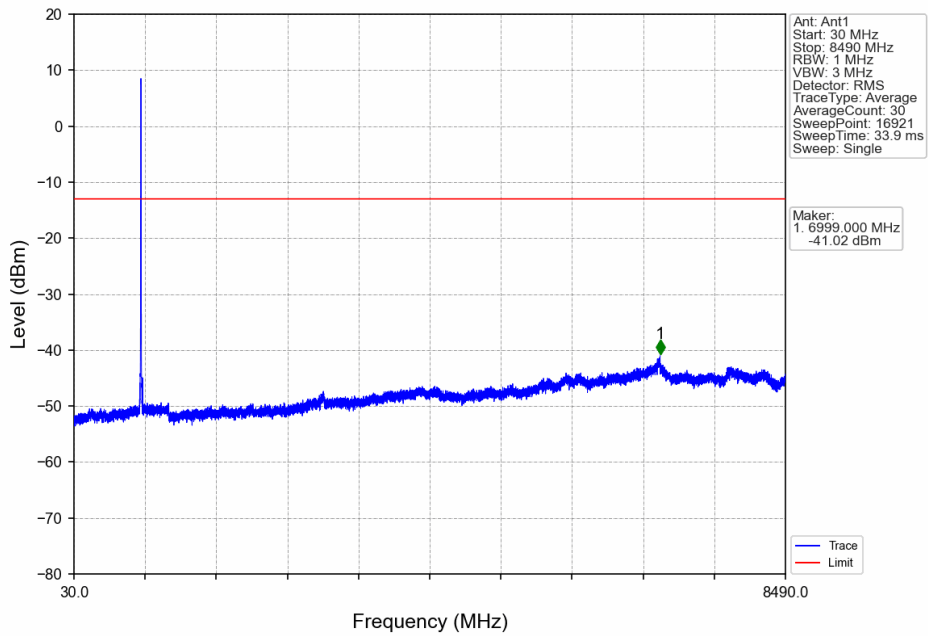




Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV

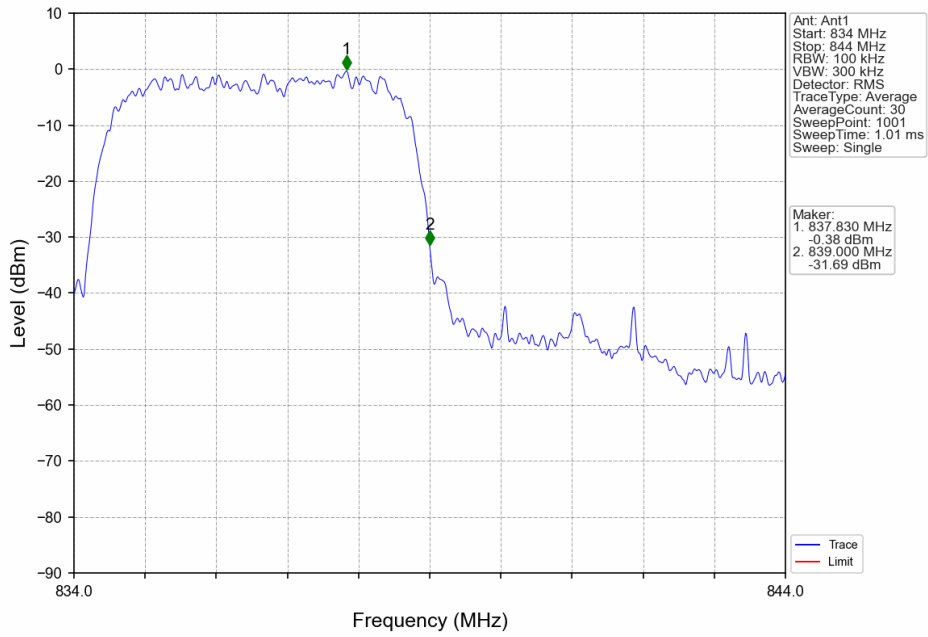


Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV

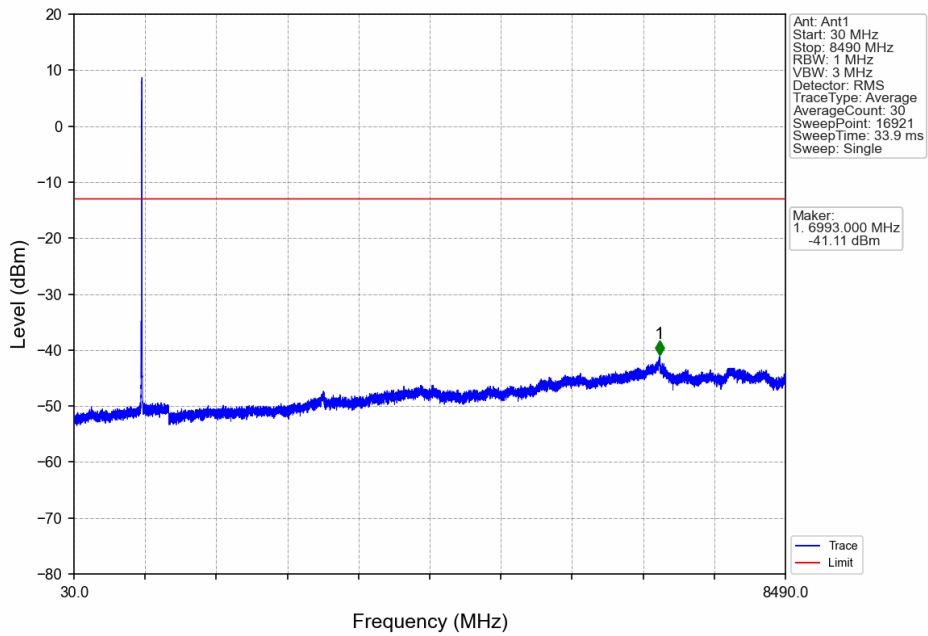




Band5\_HSUPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



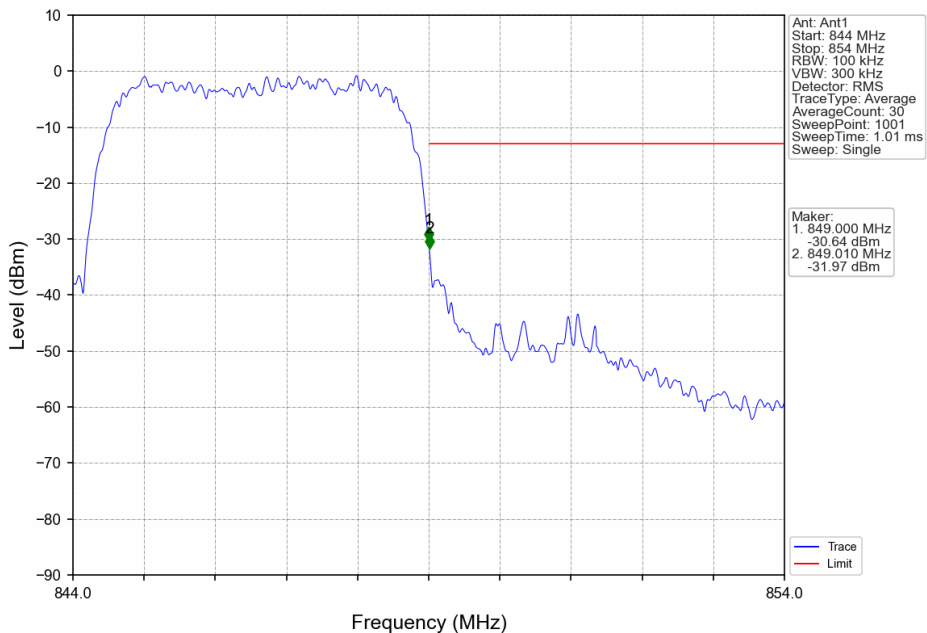
Band5\_HSUPA\_MCH\_836.6MHz\_Subtest 1\_NTNV







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



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

