

## 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	23.29	0.18	21.32	<=38.45	Pass			
			836.6	23.17	0.18	21.20	<=38.45	Pass			
			846.6	23.15	0.18	21.18	<=38.45	Pass			
	HSDPA		Subtest 1	826.4	21.14	0.18	19.17	<=38.45	Pass		
			Subtest 2	826.4	21.08	0.18	19.11	<=38.45	Pass		
			Subtest 3	826.4	21.14	0.18	19.17	<=38.45	Pass		
			Subtest 4	826.4	21.11	0.18	19.14	<=38.45	Pass		
			Subtest 1	836.6	20.99	0.18	19.02	<=38.45	Pass		
			Subtest 2	836.6	21.06	0.18	19.09	<=38.45	Pass		
			Subtest 3	836.6	21.05	0.18	19.08	<=38.45	Pass		
			Subtest 4	836.6	21.01	0.18	19.04	<=38.45	Pass		
			Subtest 1	846.6	21.02	0.18	19.05	<=38.45	Pass		
			Subtest 2	846.6	21.06	0.18	19.09	<=38.45	Pass		
			Subtest 3	846.6	20.98	0.18	19.01	<=38.45	Pass		
			Subtest 4	846.6	21.05	0.18	19.08	<=38.45	Pass		
			HSUPA		Subtest 1	826.4	19.06	0.18	17.09	<=38.45	Pass
					Subtest 2	826.4	18.69	0.18	16.72	<=38.45	Pass
					Subtest 3	826.4	19.24	0.18	17.27	<=38.45	Pass
	Subtest 4	826.4			19.25	0.18	17.28	<=38.45	Pass		
	Subtest 5	826.4			19.09	0.18	17.12	<=38.45	Pass		
	Subtest 1	836.6			18.96	0.18	16.99	<=38.45	Pass		
	Subtest 2	836.6			19.48	0.18	17.51	<=38.45	Pass		
	Subtest 3	836.6			18.97	0.18	17.00	<=38.45	Pass		
	Subtest 4	836.6			18.66	0.18	16.69	<=38.45	Pass		
	Subtest 5	836.6			18.81	0.18	16.84	<=38.45	Pass		
	Subtest 1	846.6			18.77	0.18	16.80	<=38.45	Pass		
	Subtest 2	846.6			18.70	0.18	16.73	<=38.45	Pass		
	Subtest 3	846.6			19.05	0.18	17.08	<=38.45	Pass		
	Subtest 4	846.6			18.94	0.18	16.97	<=38.45	Pass		
	Subtest 5	846.6			18.95	0.18	16.98	<=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	-0.072	-0.0001	-2.5 to 2.5	Pass
			3.85	0.243	0.0003	-2.5 to 2.5	Pass
			4.43	-0.236	-0.0003	-2.5 to 2.5	Pass

		-30	3.85	-0.894	-0.0011	-2.5 to 2.5	Pass
		-20	3.85	-1.073	-0.0013	-2.5 to 2.5	Pass
		-10	3.85	-0.808	-0.0010	-2.5 to 2.5	Pass
		0	3.85	-1.094	-0.0013	-2.5 to 2.5	Pass
		10	3.85	-1.602	-0.0019	-2.5 to 2.5	Pass
		30	3.85	-1.044	-0.0013	-2.5 to 2.5	Pass
		40	3.85	-1.059	-0.0013	-2.5 to 2.5	Pass
		50	3.85	-0.393	-0.0005	-2.5 to 2.5	Pass
	836.6	20	3.27	-0.837	-0.0010	-2.5 to 2.5	Pass
			3.85	-1.602	-0.0019	-2.5 to 2.5	Pass
			4.43	-0.393	-0.0005	-2.5 to 2.5	Pass
		-30	3.85	-0.679	-0.0008	-2.5 to 2.5	Pass
		-20	3.85	-0.451	-0.0005	-2.5 to 2.5	Pass
		-10	3.85	-0.608	-0.0007	-2.5 to 2.5	Pass
		0	3.85	-0.279	-0.0003	-2.5 to 2.5	Pass
		10	3.85	-0.508	-0.0006	-2.5 to 2.5	Pass
		30	3.85	-1.023	-0.0012	-2.5 to 2.5	Pass
		40	3.85	-0.336	-0.0004	-2.5 to 2.5	Pass
		50	3.85	-0.458	-0.0005	-2.5 to 2.5	Pass
		846.6	20	3.27	0.358	0.0004	-2.5 to 2.5
	3.85			-0.336	-0.0004	-2.5 to 2.5	Pass
	4.43			0.222	0.0003	-2.5 to 2.5	Pass
	-30		3.85	0.358	0.0004	-2.5 to 2.5	Pass
	-20		3.85	0.465	0.0005	-2.5 to 2.5	Pass
	-10		3.85	0.772	0.0009	-2.5 to 2.5	Pass
	0		3.85	0.043	0.0001	-2.5 to 2.5	Pass
	10		3.85	0.479	0.0006	-2.5 to 2.5	Pass
	30		3.85	1.166	0.0014	-2.5 to 2.5	Pass
40	3.85		0.043	0.0001	-2.5 to 2.5	Pass	
50	3.85		0.243	0.0003	-2.5 to 2.5	Pass	
HSDPA	826.4		20	3.27	-0.637	-0.0008	-2.5 to 2.5
		3.85		-0.114	-0.0001	-2.5 to 2.5	Pass
		4.43		-0.343	-0.0004	-2.5 to 2.5	Pass
		-30	3.85	-0.300	-0.0004	-2.5 to 2.5	Pass
		-20	3.85	-0.014	0.0000	-2.5 to 2.5	Pass
		-10	3.85	-1.194	-0.0014	-2.5 to 2.5	Pass
		0	3.85	-0.379	-0.0005	-2.5 to 2.5	Pass
		10	3.85	-1.109	-0.0013	-2.5 to 2.5	Pass
		30	3.85	-1.552	-0.0019	-2.5 to 2.5	Pass
		40	3.85	-0.651	-0.0008	-2.5 to 2.5	Pass
		50	3.85	-0.951	-0.0012	-2.5 to 2.5	Pass
		836.6	20	3.27	-0.057	-0.0001	-2.5 to 2.5
	3.85			0.157	0.0002	-2.5 to 2.5	Pass
	4.43			-0.229	-0.0003	-2.5 to 2.5	Pass
	-30		3.85	0.165	0.0002	-2.5 to 2.5	Pass
	-20		3.85	-0.851	-0.0010	-2.5 to 2.5	Pass
	-10		3.85	-0.544	-0.0007	-2.5 to 2.5	Pass
	0		3.85	0.544	0.0007	-2.5 to 2.5	Pass
	10		3.85	0.029	0.0000	-2.5 to 2.5	Pass
	30		3.85	-0.193	-0.0002	-2.5 to 2.5	Pass
	40		3.85	0.236	0.0003	-2.5 to 2.5	Pass
	50		3.85	-0.250	-0.0003	-2.5 to 2.5	Pass
	846.6		20	3.27	0.515	0.0006	-2.5 to 2.5
		3.85		-0.651	-0.0008	-2.5 to 2.5	Pass
		4.43		-0.057	-0.0001	-2.5 to 2.5	Pass
		-30	3.85	0.200	0.0002	-2.5 to 2.5	Pass
	-20	3.85	-0.129	-0.0002	-2.5 to 2.5	Pass	

		-10	3.85	0.150	0.0002	-2.5 to 2.5	Pass
		0	3.85	-0.272	-0.0003	-2.5 to 2.5	Pass
		10	3.85	0.014	0.0000	-2.5 to 2.5	Pass
		30	3.85	-0.215	-0.0003	-2.5 to 2.5	Pass
		40	3.85	0.329	0.0004	-2.5 to 2.5	Pass
		50	3.85	0.393	0.0005	-2.5 to 2.5	Pass
HSUPA	826.4	20	3.27	1.466	0.0018	-2.5 to 2.5	Pass
			3.85	1.109	0.0013	-2.5 to 2.5	Pass
			4.43	0.229	0.0003	-2.5 to 2.5	Pass
		-30	3.85	0.701	0.0008	-2.5 to 2.5	Pass
		-20	3.85	1.559	0.0019	-2.5 to 2.5	Pass
		-10	3.85	1.388	0.0017	-2.5 to 2.5	Pass
		0	3.85	1.874	0.0023	-2.5 to 2.5	Pass
		10	3.85	1.273	0.0015	-2.5 to 2.5	Pass
		30	3.85	0.644	0.0008	-2.5 to 2.5	Pass
		40	3.85	1.166	0.0014	-2.5 to 2.5	Pass
		50	3.85	0.737	0.0009	-2.5 to 2.5	Pass
		836.6	20	3.27	1.137	0.0014	-2.5 to 2.5
	3.85			1.438	0.0017	-2.5 to 2.5	Pass
	4.43			1.030	0.0012	-2.5 to 2.5	Pass
	-30		3.85	1.109	0.0013	-2.5 to 2.5	Pass
	-20		3.85	3.126	0.0037	-2.5 to 2.5	Pass
	-10		3.85	1.452	0.0017	-2.5 to 2.5	Pass
	0		3.85	0.908	0.0011	-2.5 to 2.5	Pass
	10		3.85	1.602	0.0019	-2.5 to 2.5	Pass
	30		3.85	0.858	0.0010	-2.5 to 2.5	Pass
	40		3.85	1.395	0.0017	-2.5 to 2.5	Pass
	50		3.85	0.873	0.0010	-2.5 to 2.5	Pass
	846.6		20	3.27	1.674	0.0020	-2.5 to 2.5
		3.85		2.167	0.0026	-2.5 to 2.5	Pass
		4.43		1.445	0.0017	-2.5 to 2.5	Pass
		-30	3.85	1.481	0.0017	-2.5 to 2.5	Pass
		-20	3.85	1.266	0.0015	-2.5 to 2.5	Pass
		-10	3.85	1.531	0.0018	-2.5 to 2.5	Pass
		0	3.85	1.416	0.0017	-2.5 to 2.5	Pass
		10	3.85	1.466	0.0017	-2.5 to 2.5	Pass
		30	3.85	2.339	0.0028	-2.5 to 2.5	Pass
		40	3.85	1.566	0.0018	-2.5 to 2.5	Pass
		50	3.85	1.903	0.0022	-2.5 to 2.5	Pass

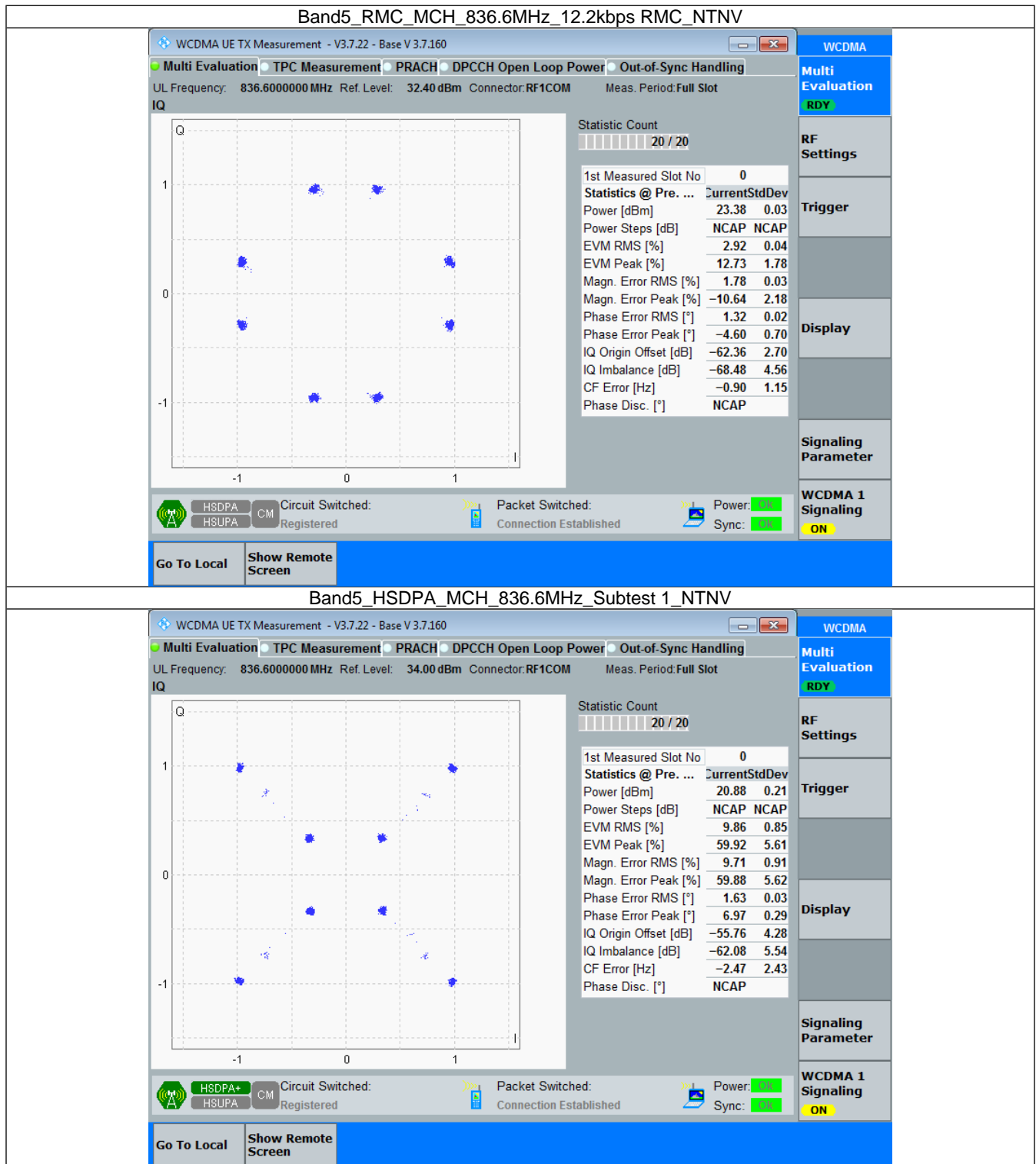
### 3. Modulation Characteristics

#### 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 - V3.7.22 - Base V 3.7.160

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

RF Settings

Trigger

Display

Signaling Parameter

WCDMA 1 Signaling

ON

Statistic Count

20 / 20

1st Measured Slot No	0
Statistics @ Pre. ...	CurrentStdDev
Power [dBm]	20.88 2.50
Power Steps [dB]	NCAP NCAP
EVM RMS [%]	9.88 5.18
EVM Peak [%]	60.04 38.69
Magn. Error RMS [%]	9.73 5.49
Magn. Error Peak [%]	60.02 39.16
Phase Error RMS [°]	1.67 0.29
Phase Error Peak [°]	6.11 2.30
IQ Origin Offset [dB]	-47.88 2.54
IQ Imbalance [dB]	-59.96 4.05
CF Error [Hz]	0.62 2.37
Phase Disc. [°]	NCAP

HSDPA+  HSDPA  CM

Circuit Switched: Registered

Packet Switched: Connection Established

Power: ■

Sync: ■

Go To Local

Show Remote Screen

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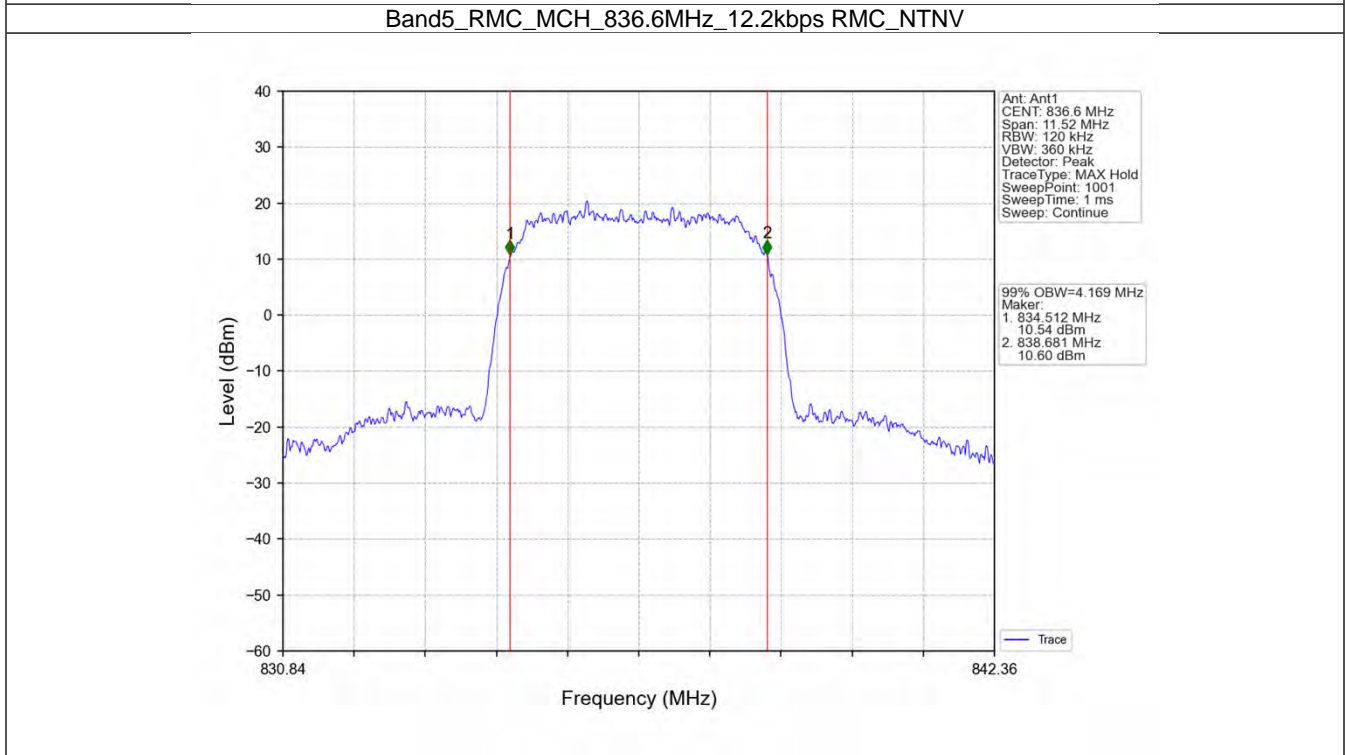
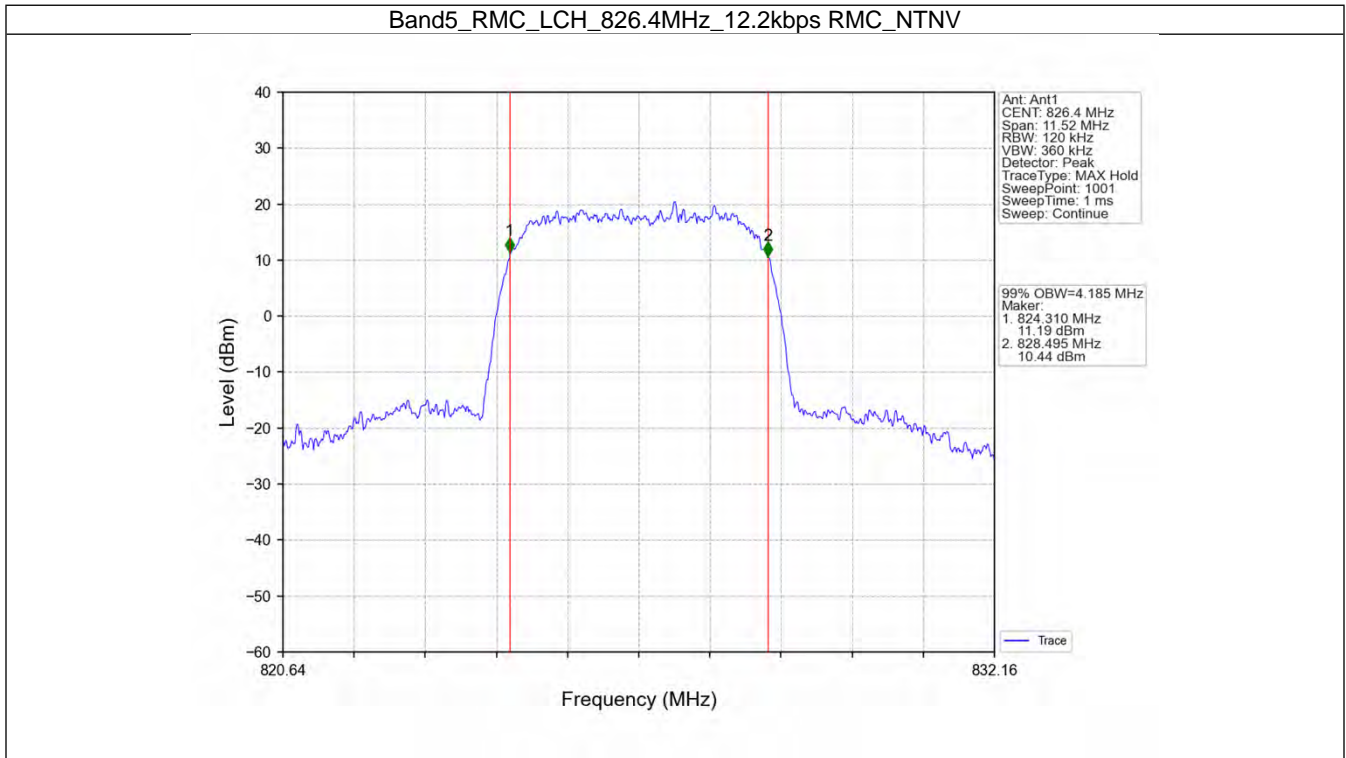
## 4. 99% & 26dB Bandwidth

### 4.1 Band5\_OBW

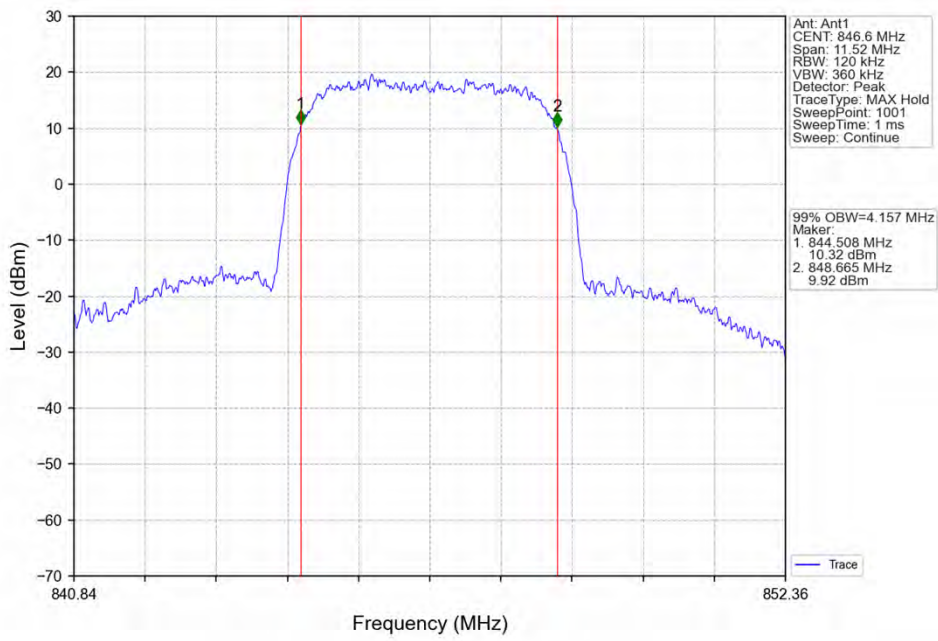
#### 4.1.1 Test Result

Band: 5					
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	RMC	12.2kbps RMC	826.4	4.185	Pass
			836.6	4.169	Pass
			846.6	4.157	Pass
	HSDPA	Subtest 1	826.4	4.176	Pass
			836.6	4.172	Pass
			846.6	4.157	Pass
	HSUPA	Subtest 1	826.4	4.163	Pass
			836.6	4.151	Pass
			846.6	4.149	Pass

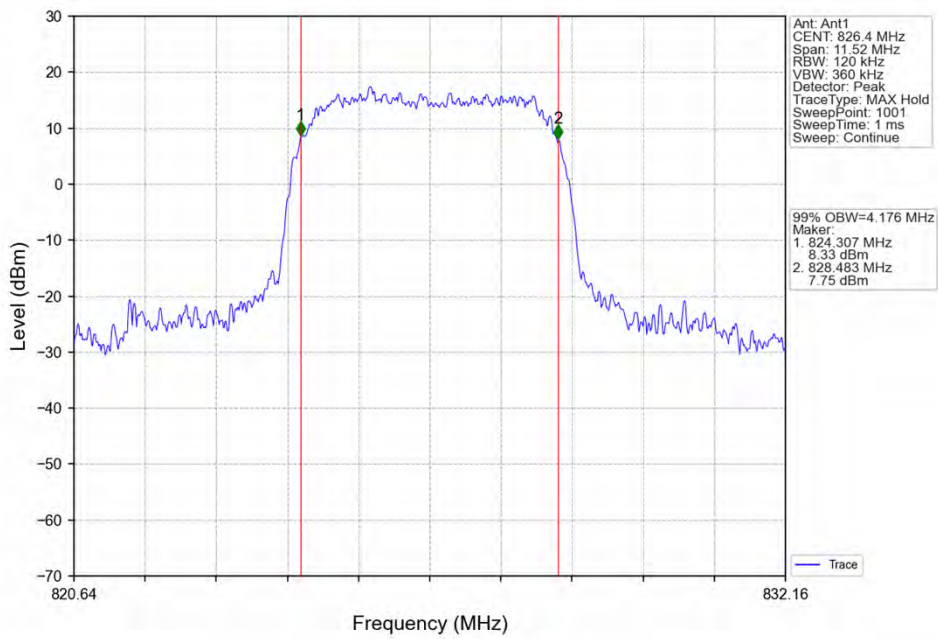
### 4.1.2 Test Graph



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

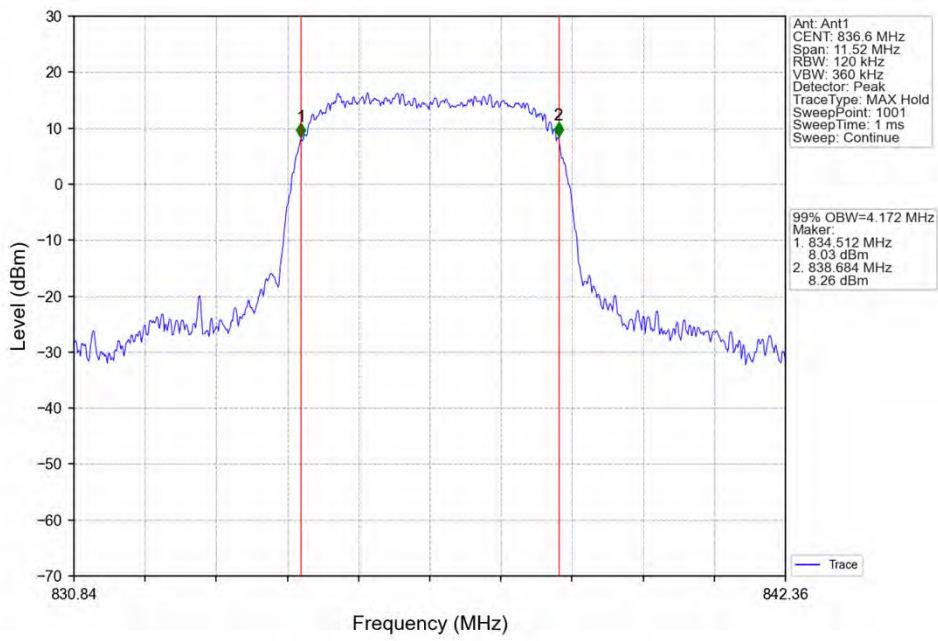


Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV

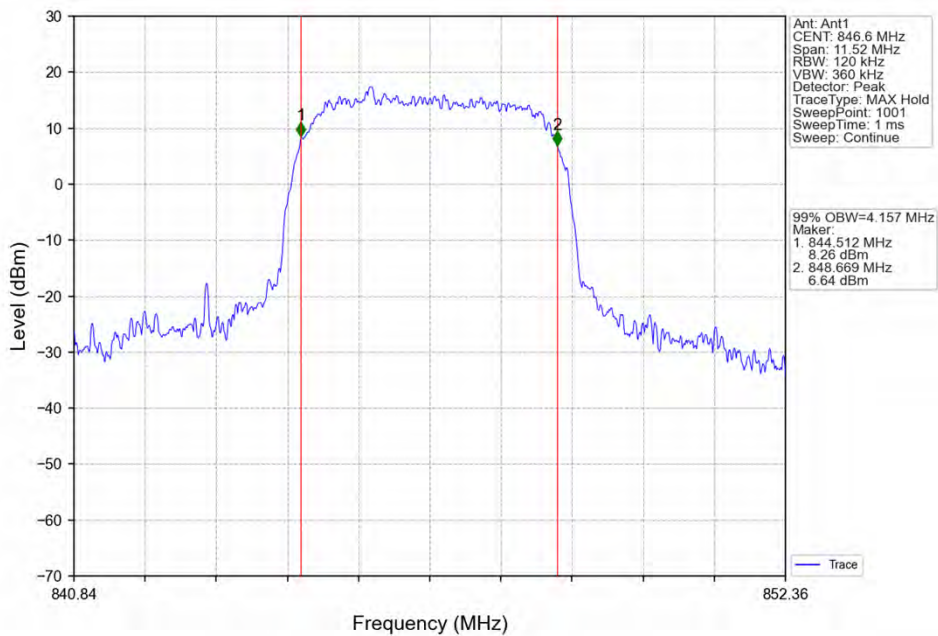




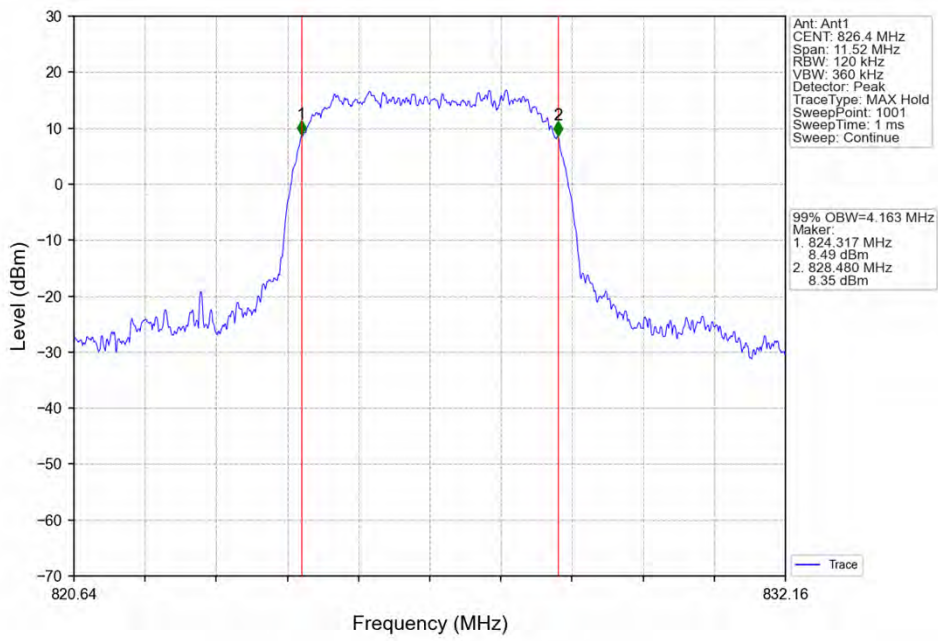
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



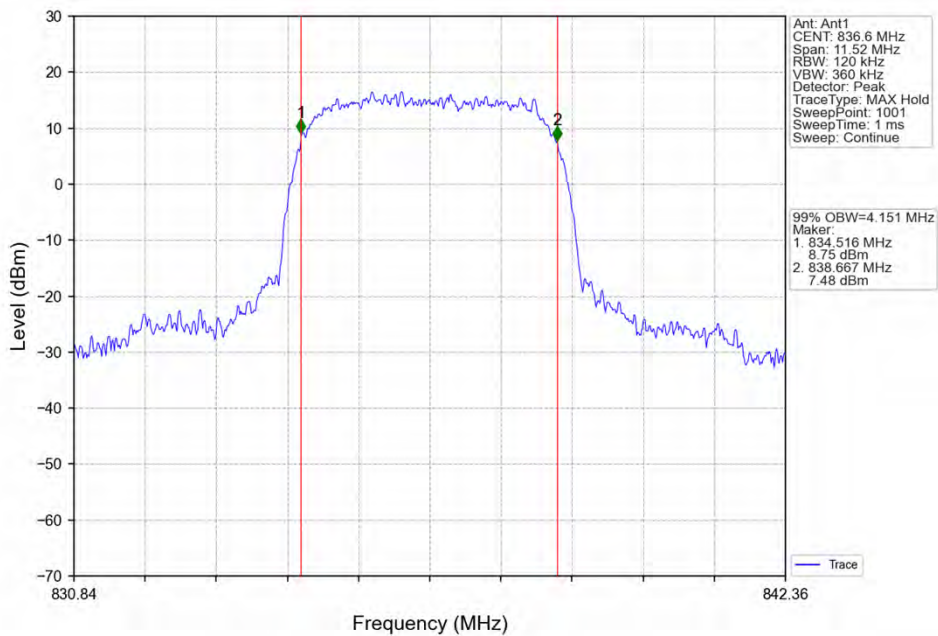
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



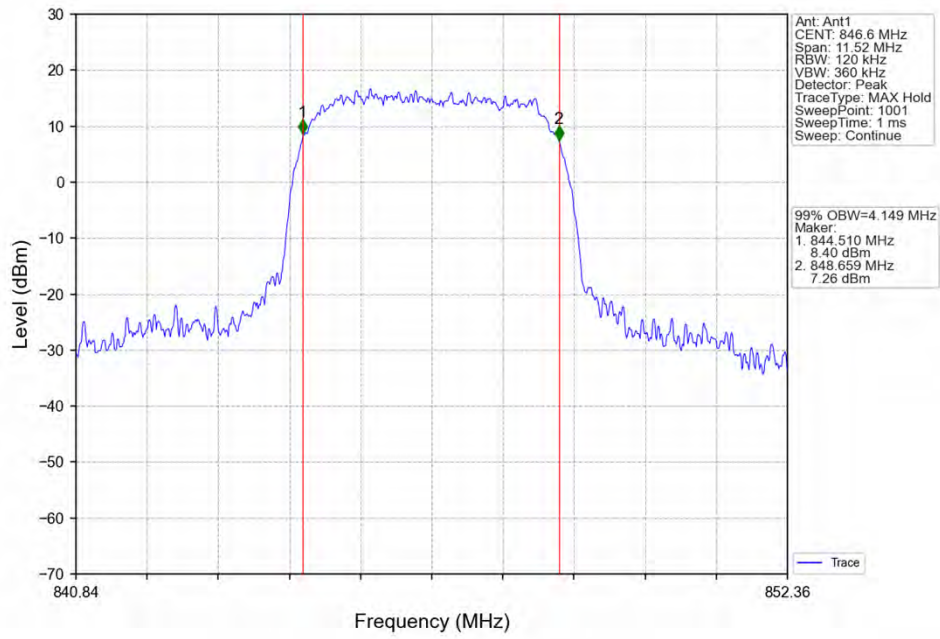
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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



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

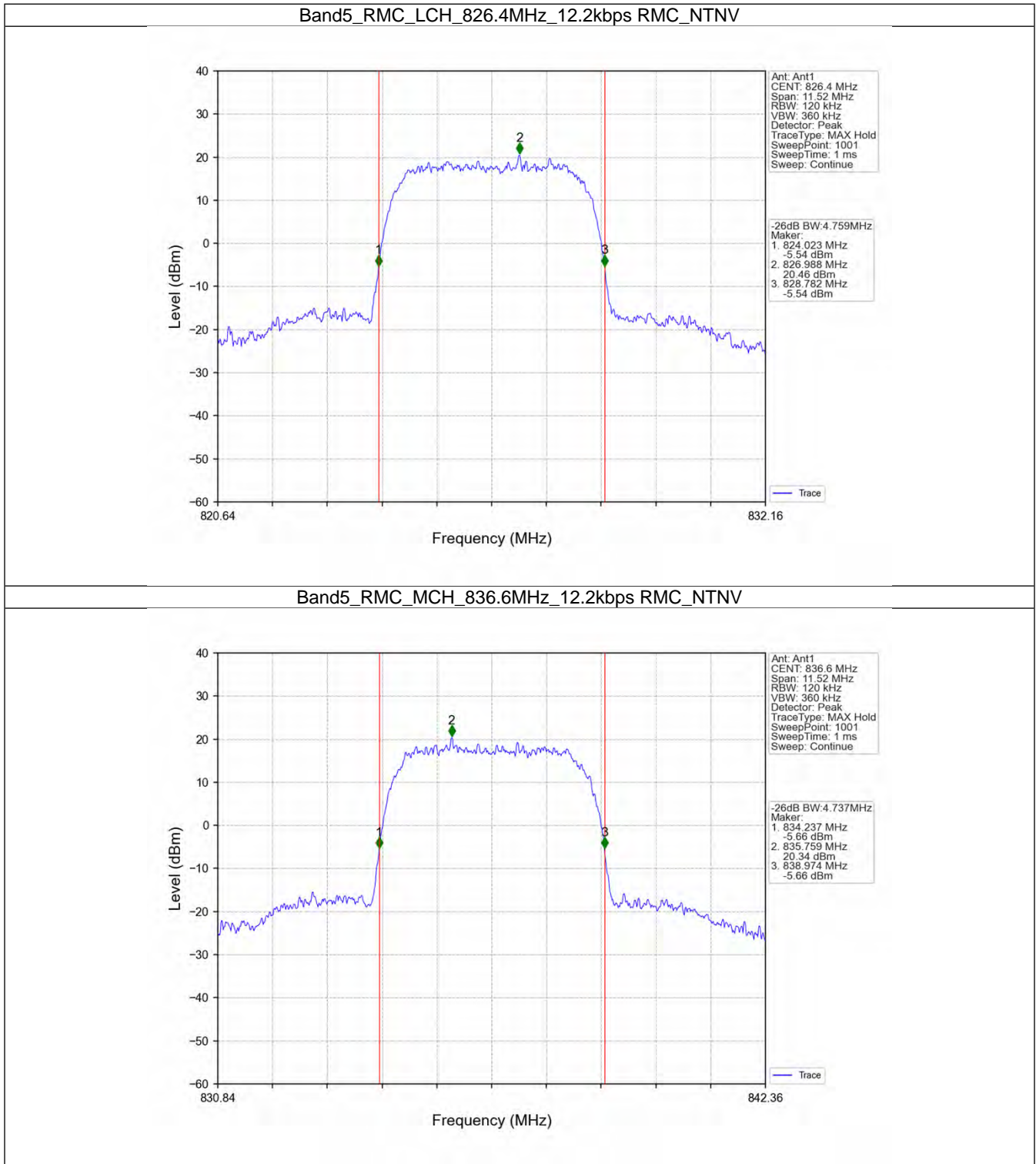


## 4.2 Band5\_XDB

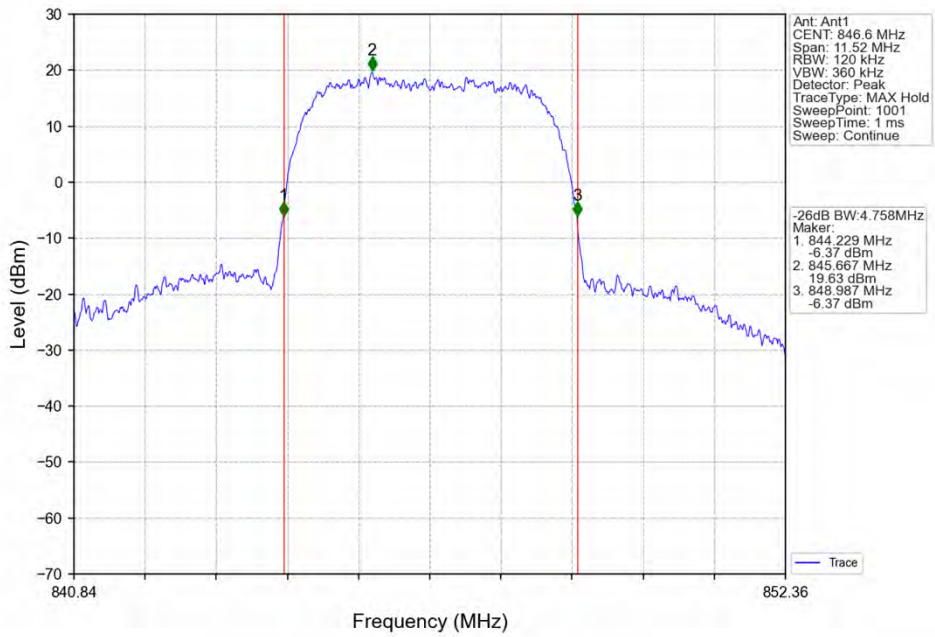
## 4.2.1 Test Result

Band: 5					
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	RMC	12.2kbps RMC	826.4	4.759	Pass
			836.6	4.737	Pass
			846.6	4.758	Pass
	HSDPA	Subtest 1	826.4	4.720	Pass
			836.6	4.749	Pass
			846.6	4.728	Pass
	HSUPA	Subtest 1	826.4	4.737	Pass
			836.6	4.742	Pass
			846.6	4.723	Pass

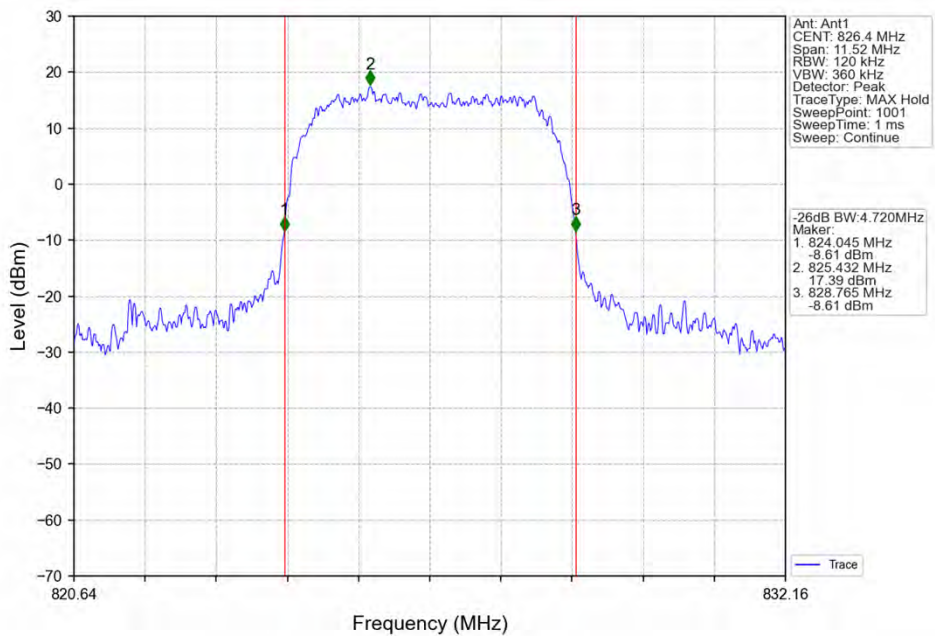
### 4.2.2 Test Graph



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

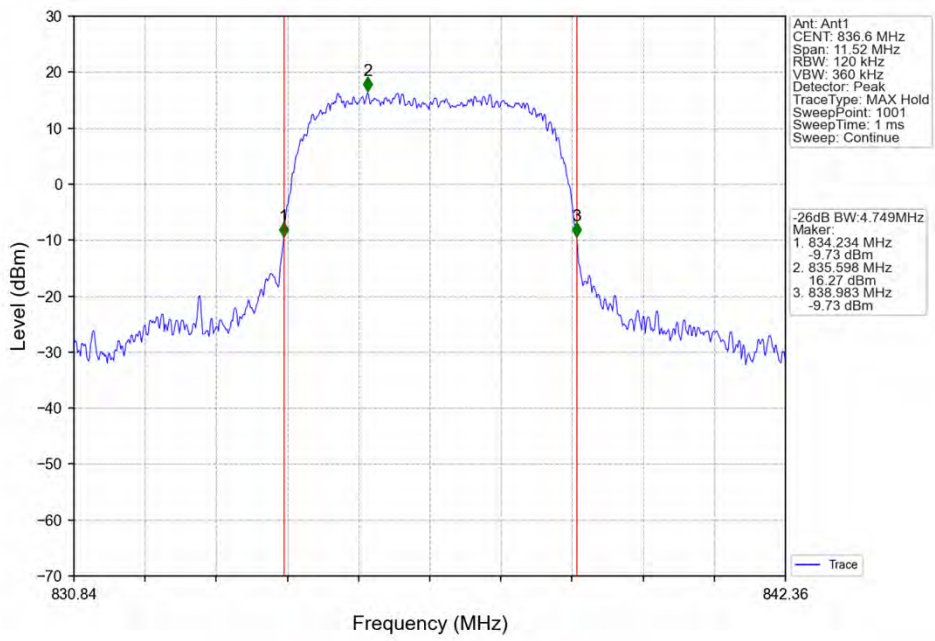


Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV

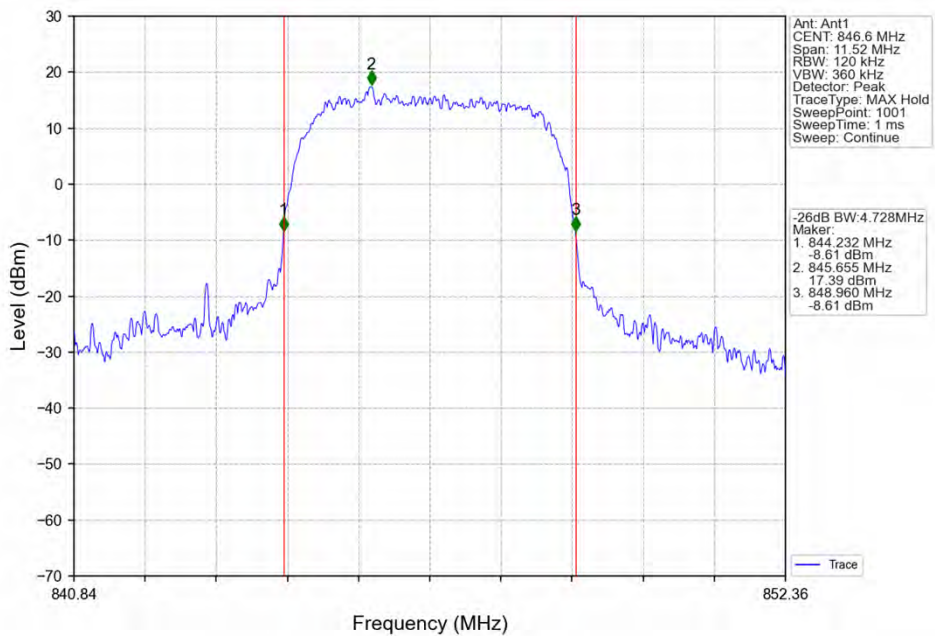




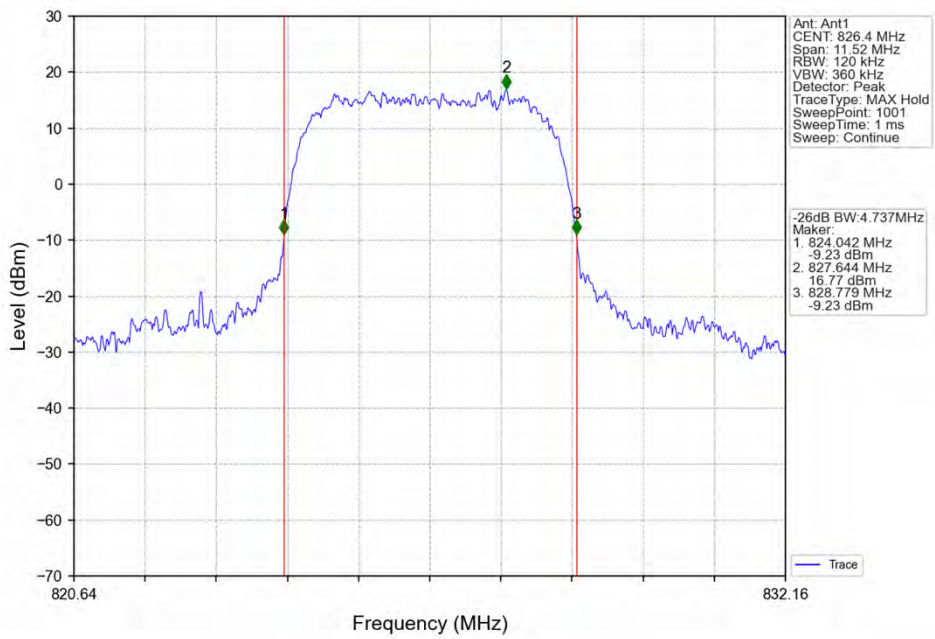
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



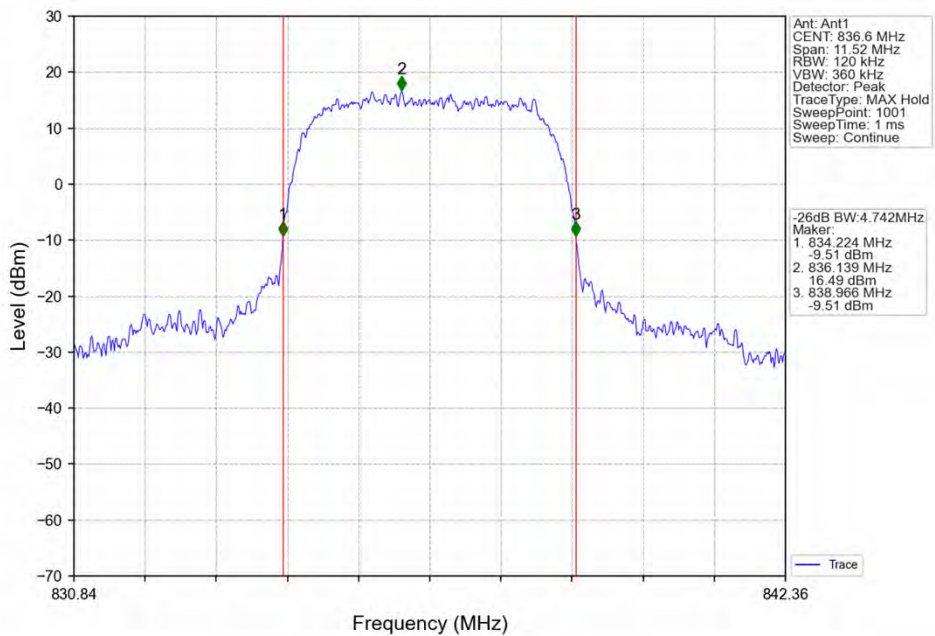
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



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

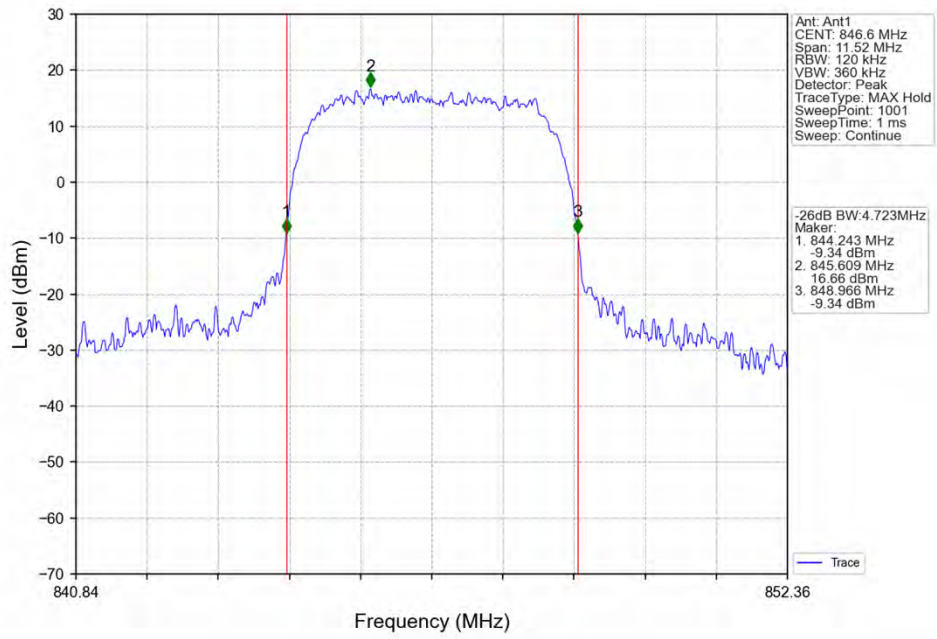


Band5\_HSUPA\_MCH\_836.6MHz\_Subtest 1\_NTNV





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



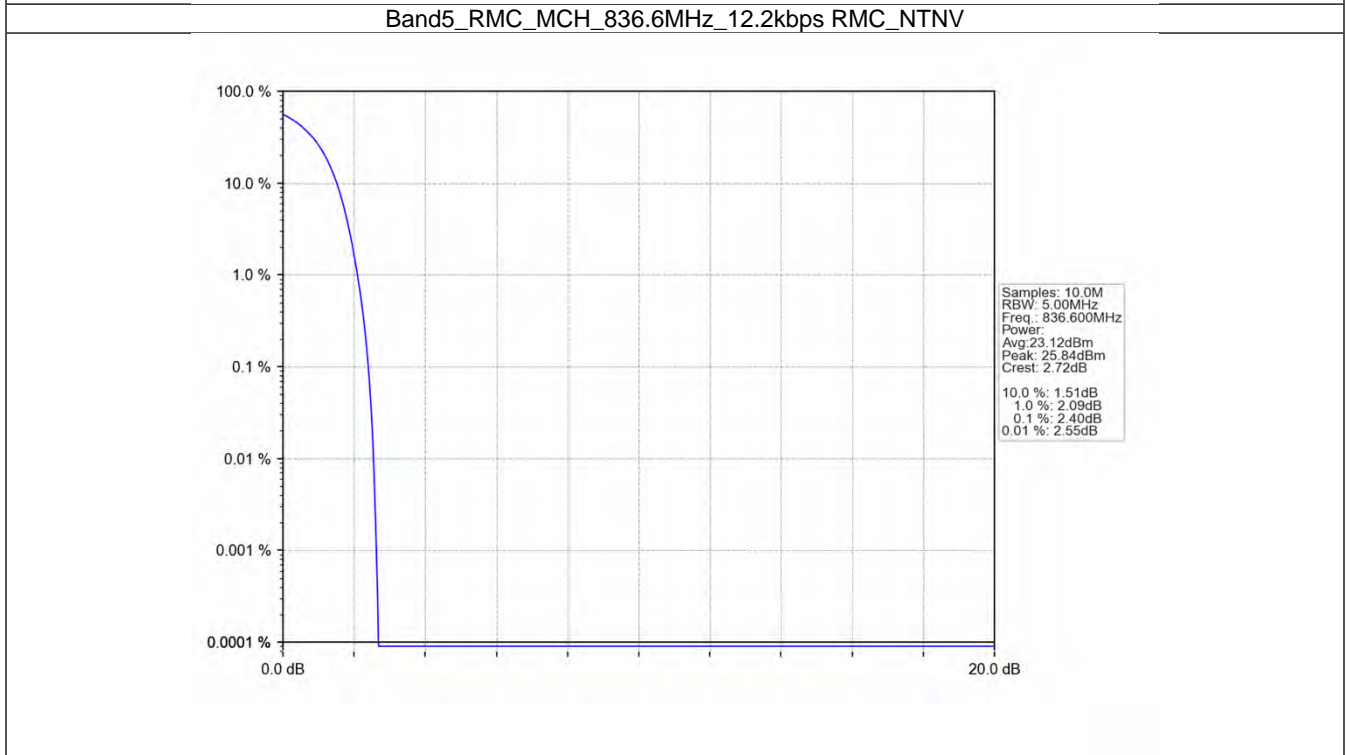
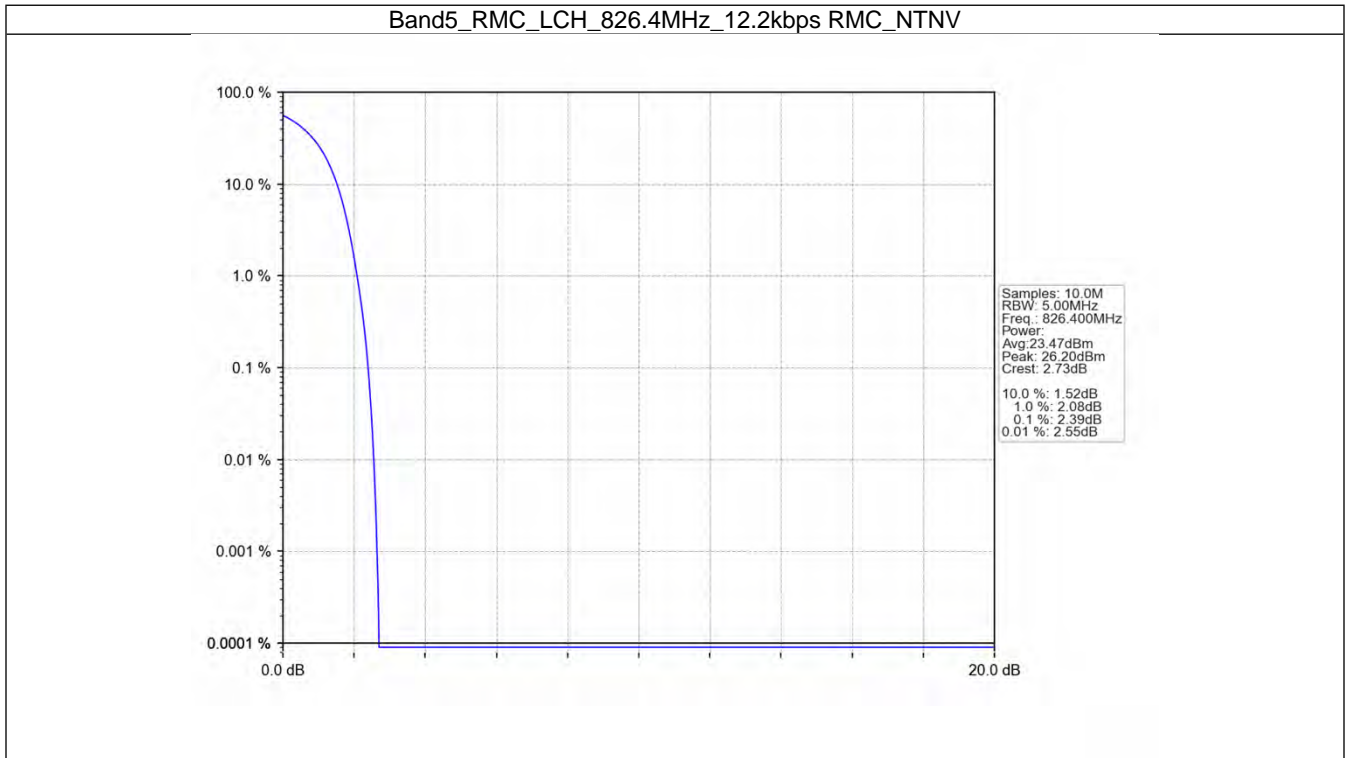
## 5. Peak-Average Ratio

### 5.1 Band5

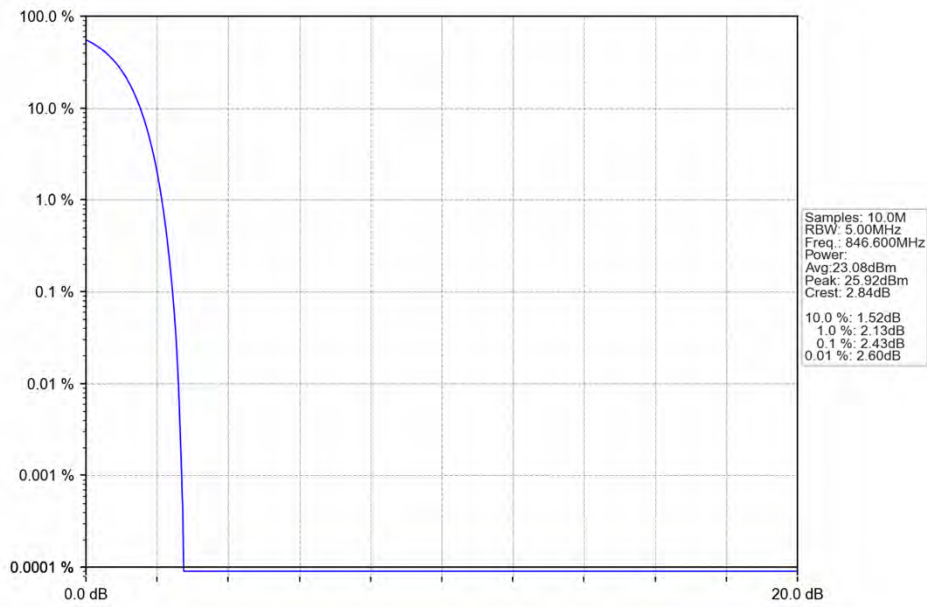
#### 5.1.1 Test Result

Band: 5						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	2.39	<=13	Pass
			836.6	2.40	<=13	Pass
			846.6	2.43	<=13	Pass
	HSDPA	Subtest 1	826.4	5.47	<=13	Pass
			836.6	5.44	<=13	Pass
			846.6	5.51	<=13	Pass
	HSUPA	Subtest 1	826.4	5.52	<=13	Pass
			836.6	5.43	<=13	Pass
			846.6	5.53	<=13	Pass

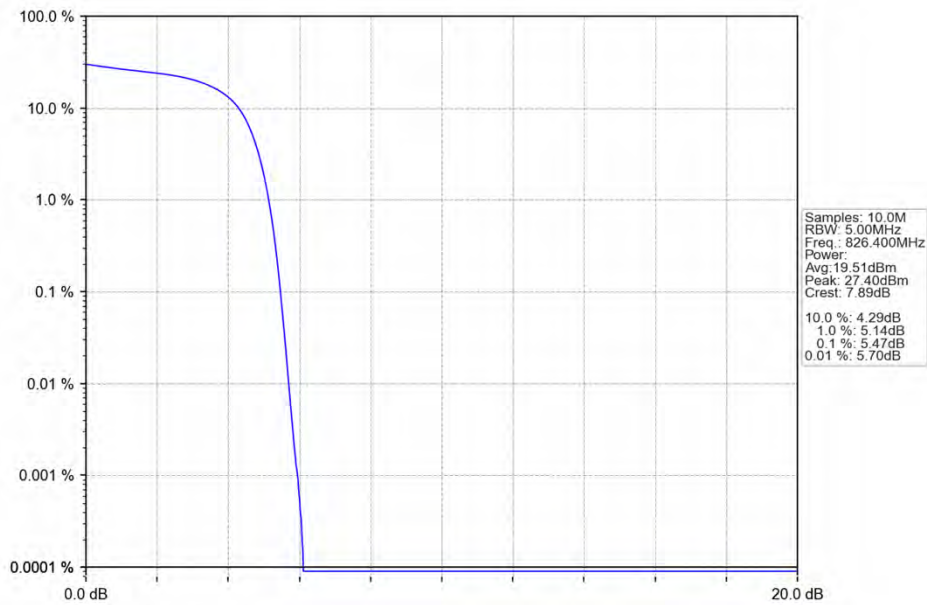
### 5.1.2 Test Graph



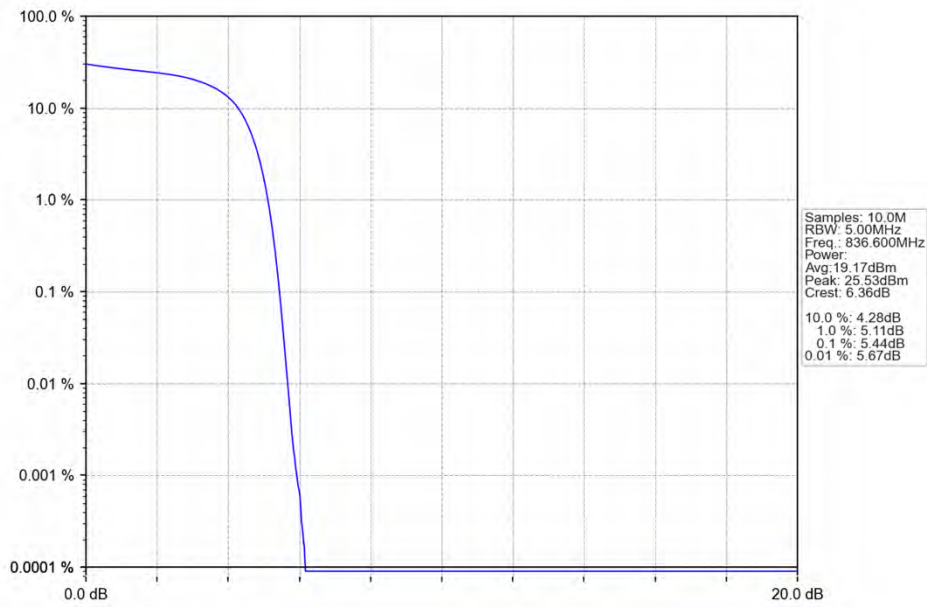
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



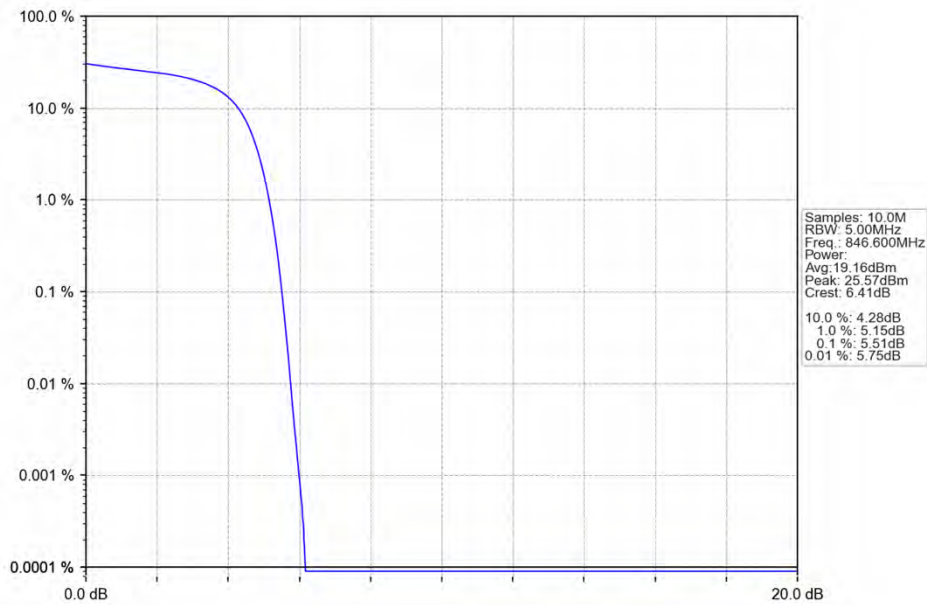
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



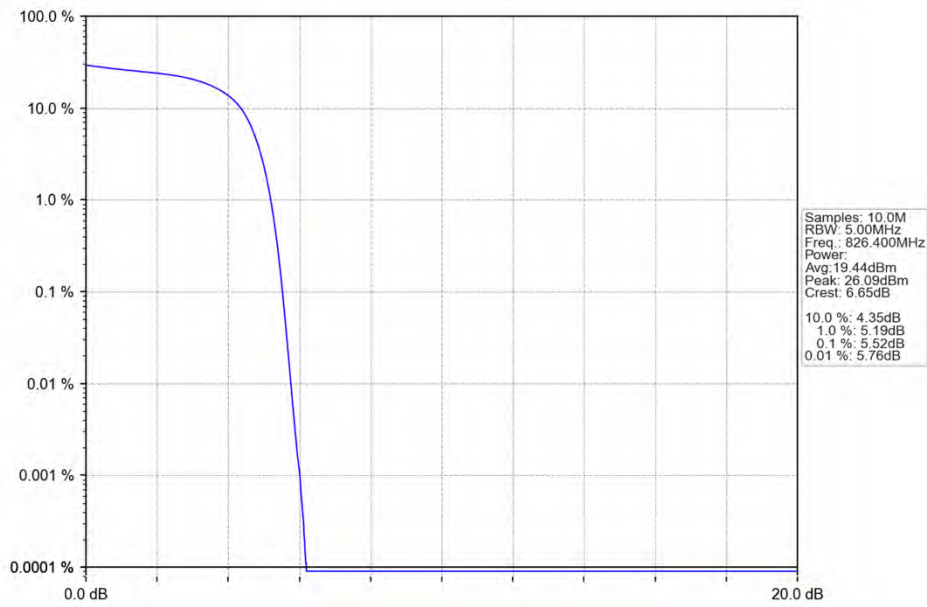
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



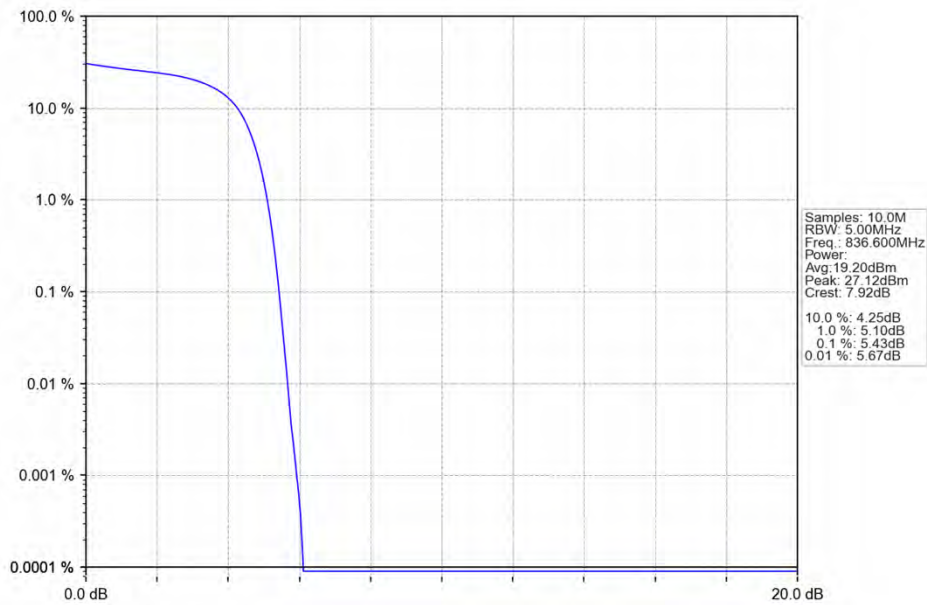
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



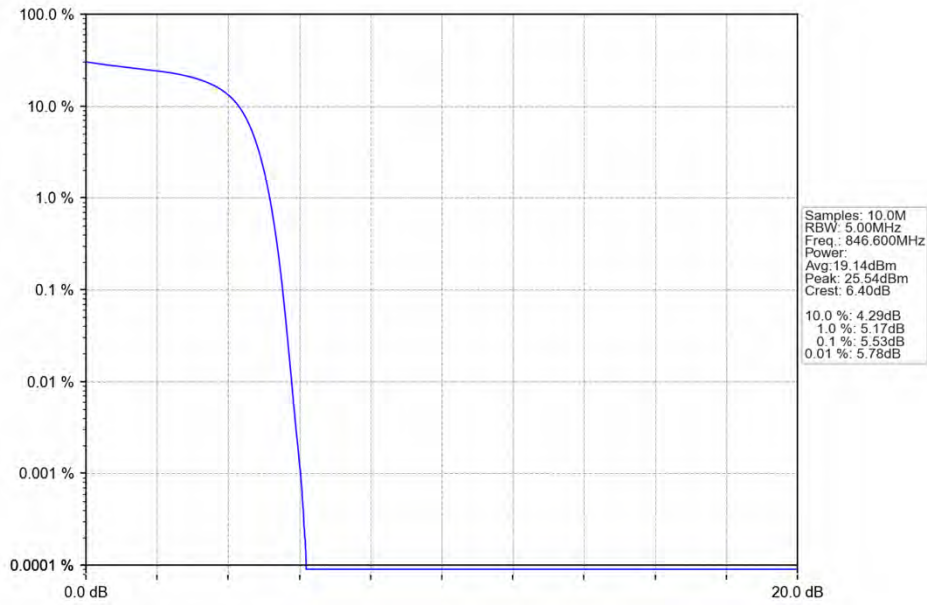
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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



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



## 6. Spurious Emission

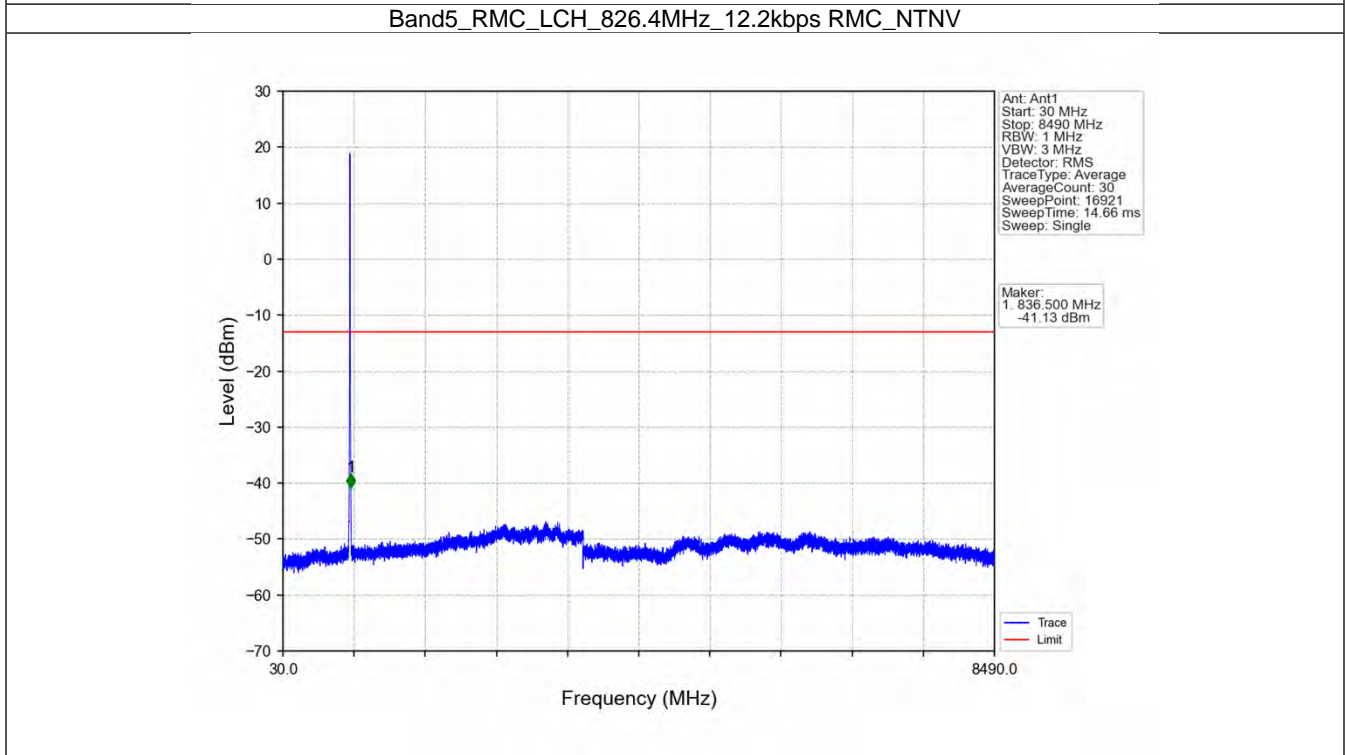
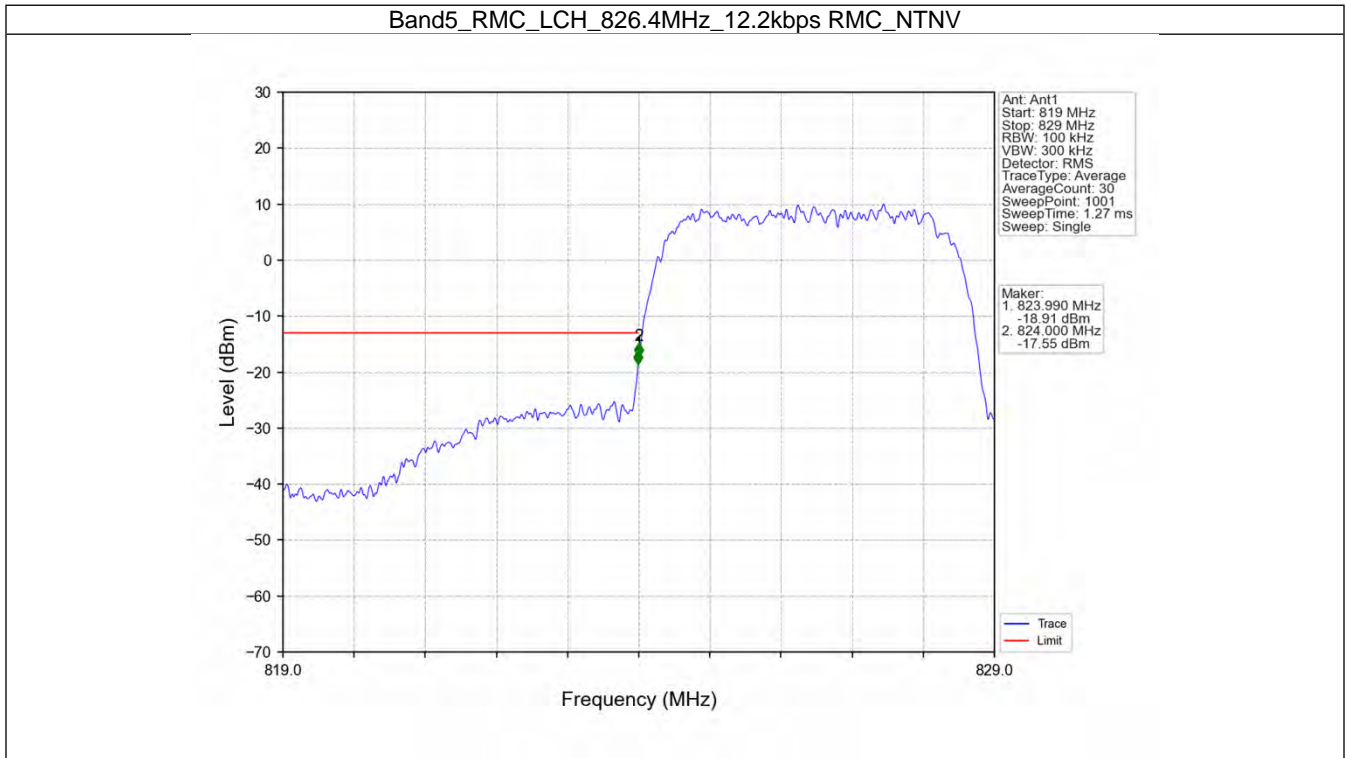
### 6.1 Band5

#### 6.1.1 Test Result

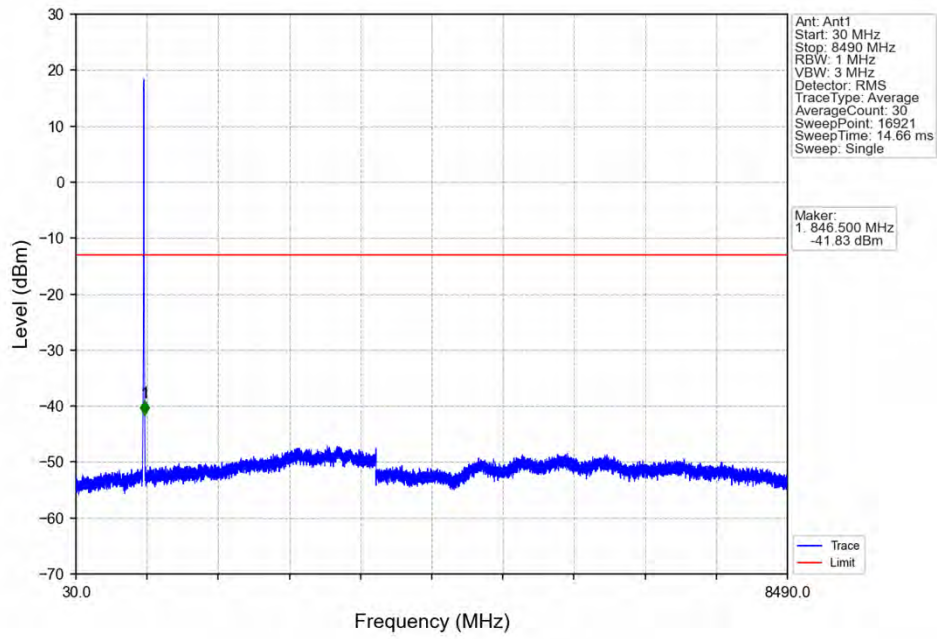
Band: 5						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass
			846.6	Refer To Test Graph		Pass
	HSDPA	Subtest 1	826.4	Refer To Test Graph		Pass
			836.6	Refer To Test Graph	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



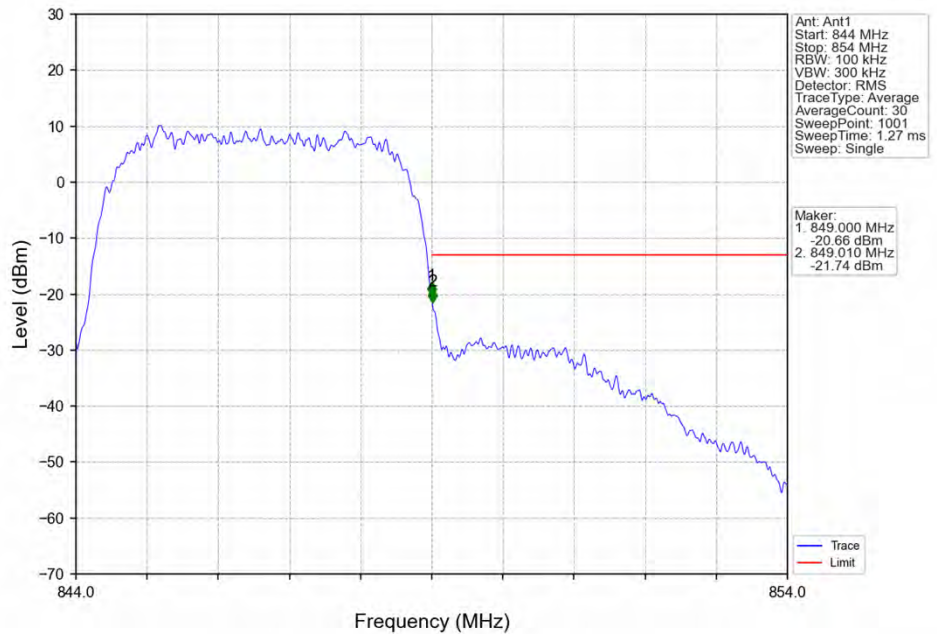
### 6.1.2 Test Graph



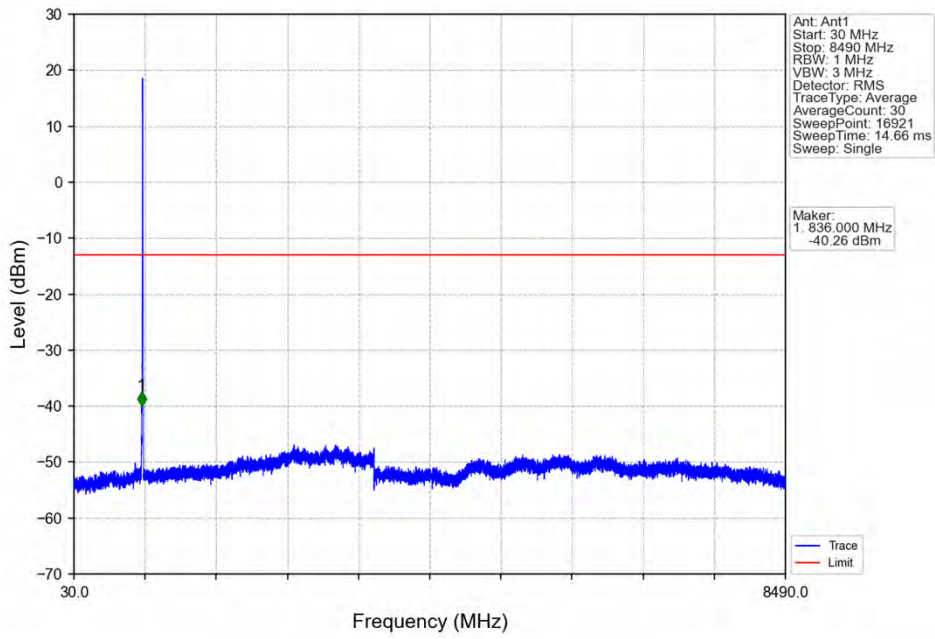
Band5\_RMC\_MCH\_836.6MHz\_12.2kbps RMC\_NTNV



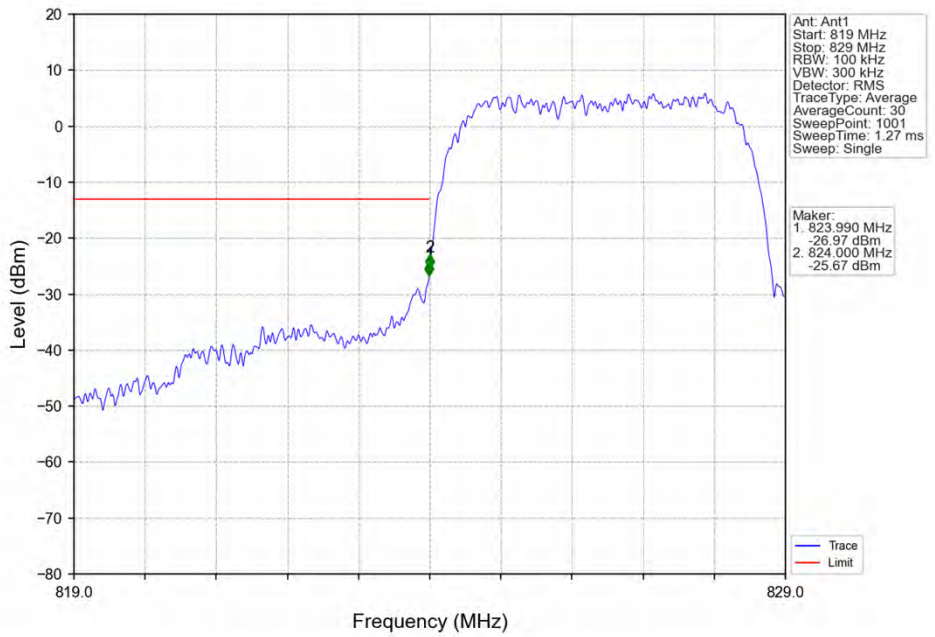
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



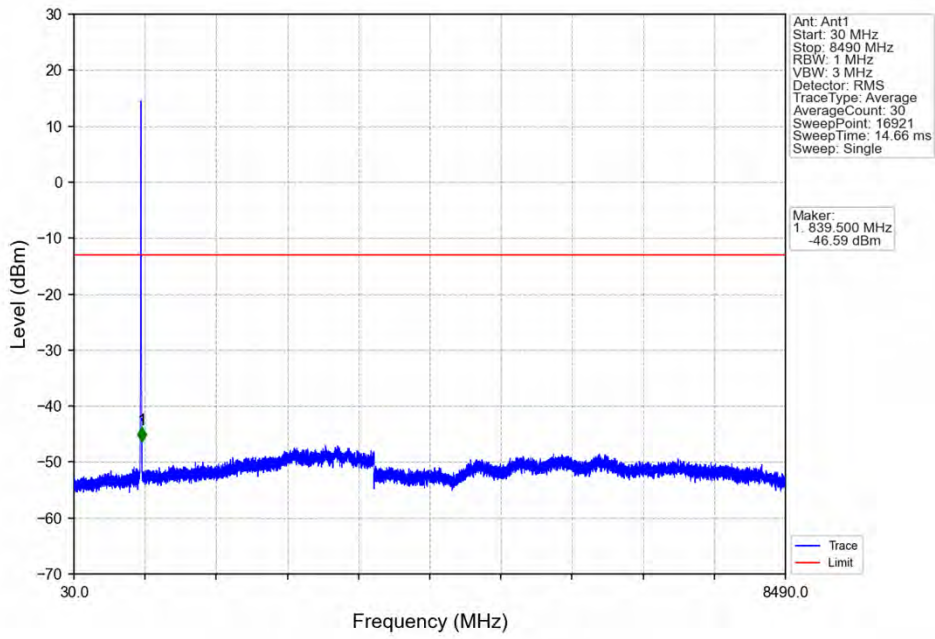
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



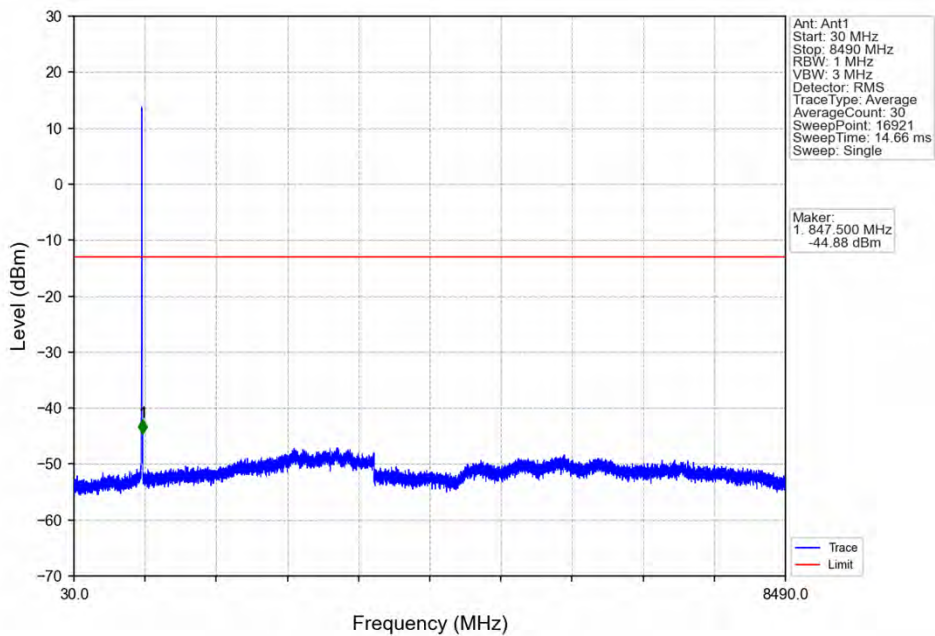
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



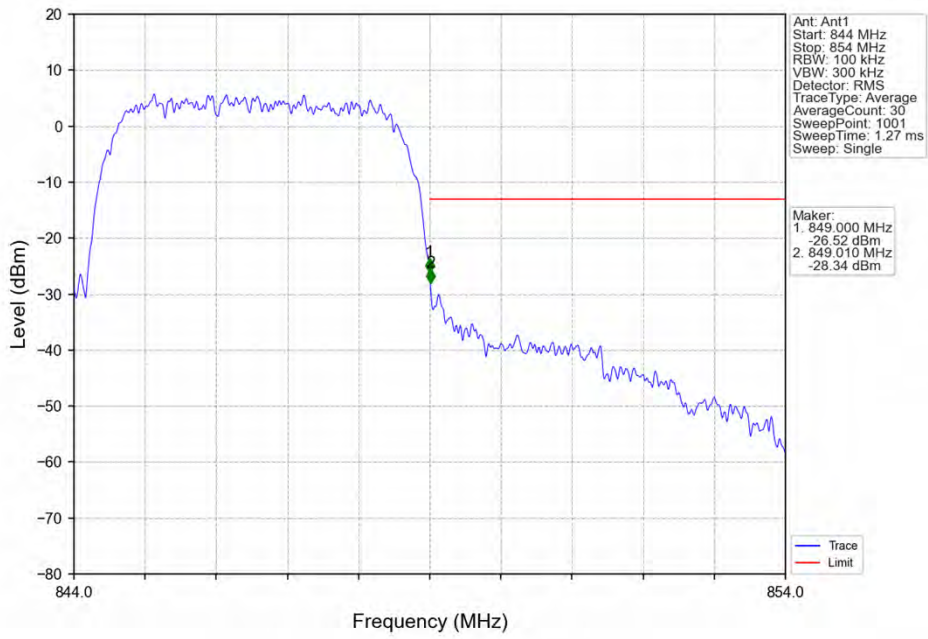
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



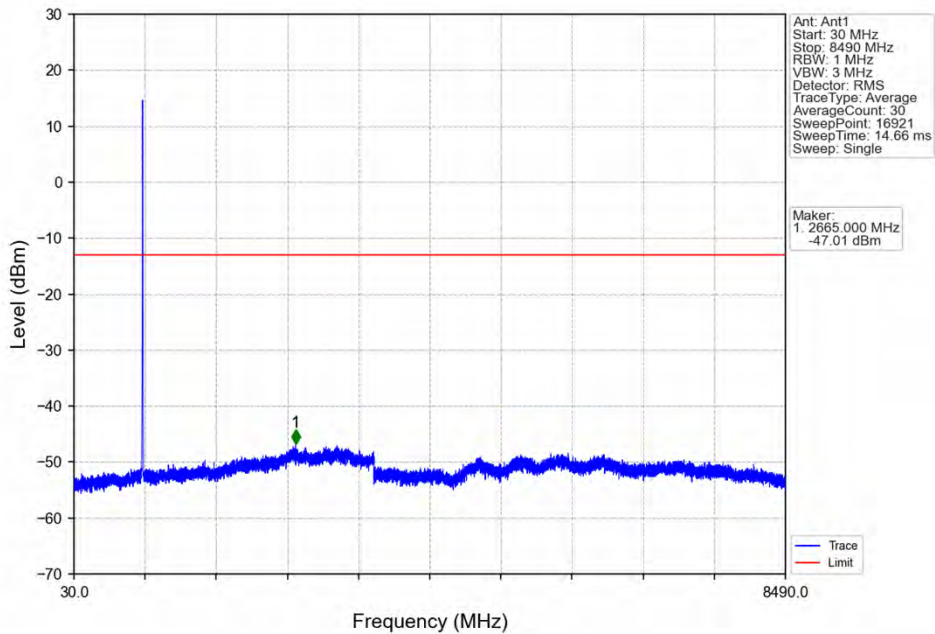
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



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

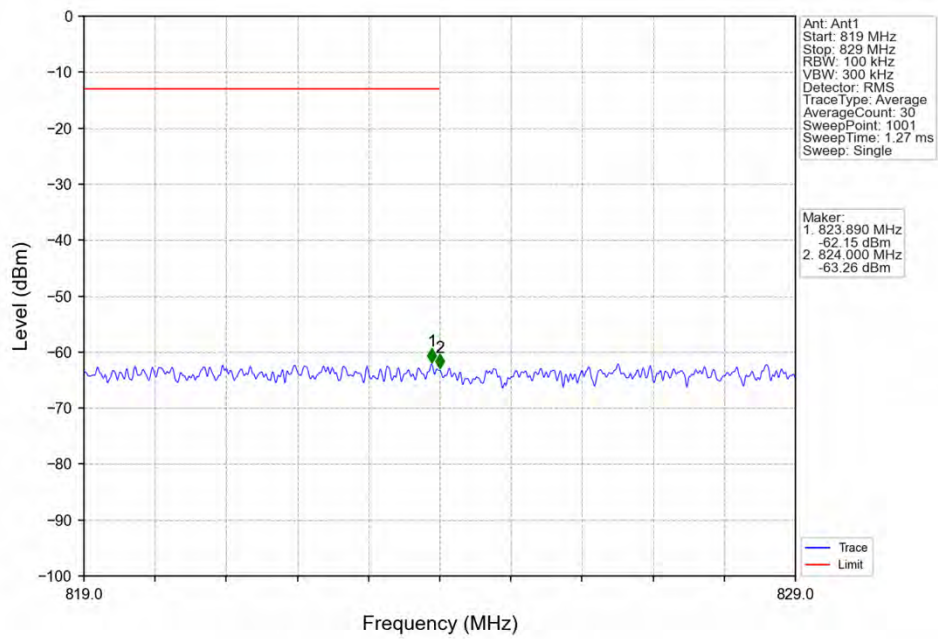


Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV

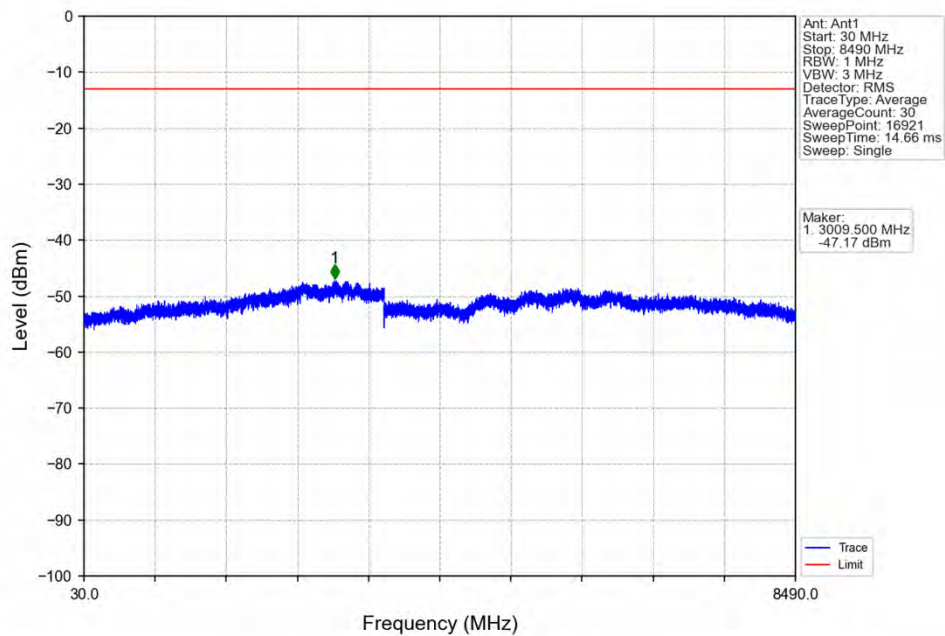




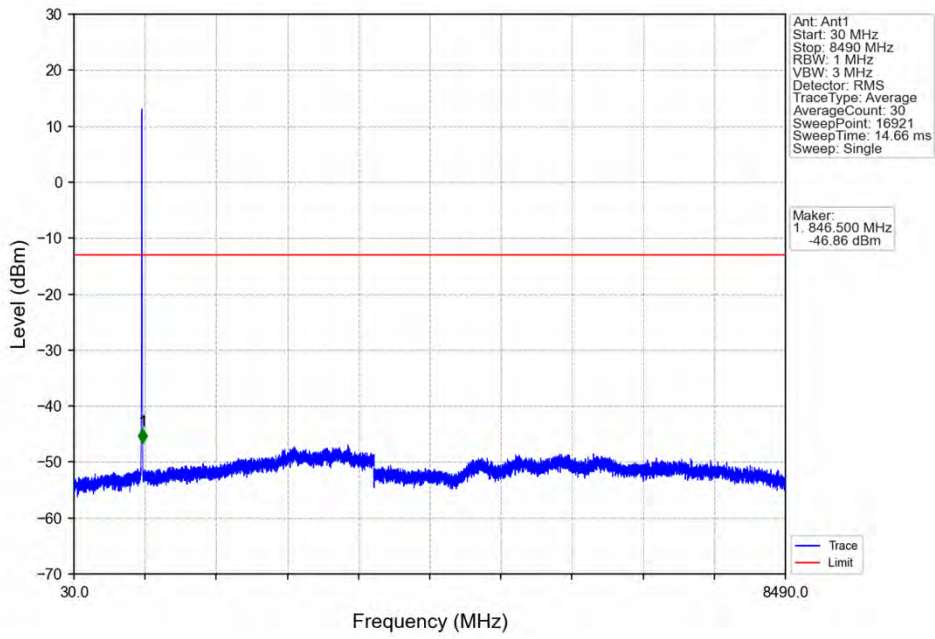
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



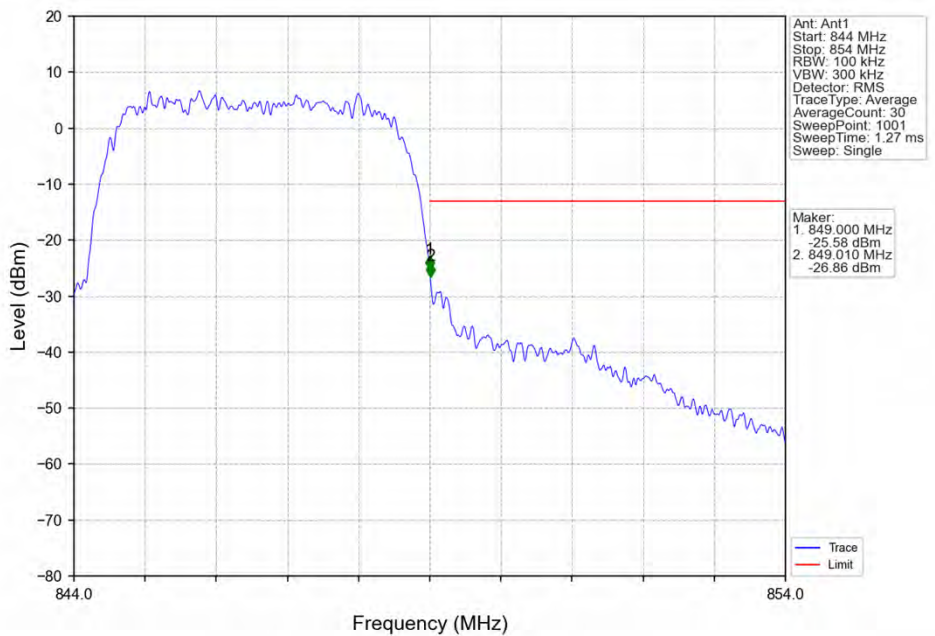
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



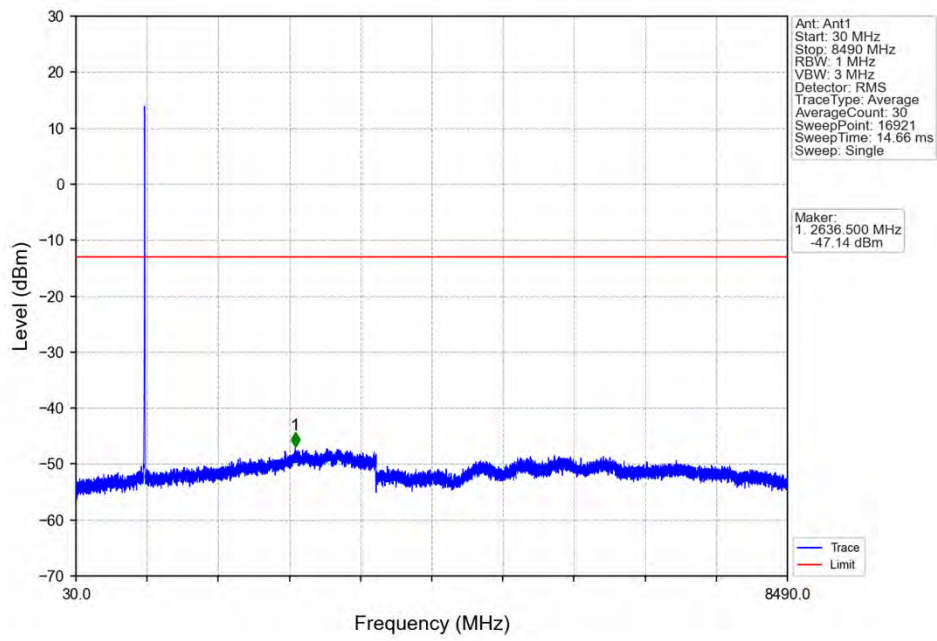
Band5\_HSUPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



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	0.2133	0.0037	ppm	4M18F9W	24E	23.29

### 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	0.1355	0.0037	ppm	4M18F9W	24E	21.32