

# 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	21.59	-2.33	17.11	<=38.45	Pass			
			836.6	21.62	-2.33	17.14	<=38.45	Pass			
			846.6	21.44	-2.33	16.96	<=38.45	Pass			
	HSDPA		Subtest 1	826.4	19.33	-2.33	14.85	<=38.45	Pass		
			Subtest 2	826.4	19.33	-2.33	14.85	<=38.45	Pass		
			Subtest 3	826.4	19.34	-2.33	14.86	<=38.45	Pass		
			Subtest 4	826.4	19.32	-2.33	14.84	<=38.45	Pass		
			Subtest 1	836.6	19.44	-2.33	14.96	<=38.45	Pass		
			Subtest 2	836.6	19.44	-2.33	14.96	<=38.45	Pass		
			Subtest 3	836.6	19.46	-2.33	14.98	<=38.45	Pass		
			Subtest 4	836.6	19.44	-2.33	14.96	<=38.45	Pass		
			Subtest 1	846.6	19.20	-2.33	14.72	<=38.45	Pass		
			Subtest 2	846.6	19.21	-2.33	14.73	<=38.45	Pass		
			Subtest 3	846.6	19.19	-2.33	14.71	<=38.45	Pass		
			Subtest 4	846.6	19.17	-2.33	14.69	<=38.45	Pass		
			HSUPA		Subtest 1	826.4	17.34	-2.33	12.86	<=38.45	Pass
					Subtest 2	826.4	16.86	-2.33	12.38	<=38.45	Pass
					Subtest 3	826.4	17.12	-2.33	12.64	<=38.45	Pass
	Subtest 4	826.4			17.35	-2.33	12.87	<=38.45	Pass		
	Subtest 5	826.4			17.35	-2.33	12.87	<=38.45	Pass		
	Subtest 1	836.6			17.37	-2.33	12.89	<=38.45	Pass		
	Subtest 2	836.6			16.86	-2.33	12.38	<=38.45	Pass		
	Subtest 3	836.6			17.38	-2.33	12.90	<=38.45	Pass		
	Subtest 4	836.6			17.37	-2.33	12.89	<=38.45	Pass		
	Subtest 5	836.6			17.14	-2.33	12.66	<=38.45	Pass		
	Subtest 1	846.6			17.22	-2.33	12.74	<=38.45	Pass		
	Subtest 2	846.6			17.03	-2.33	12.55	<=38.45	Pass		
	Subtest 3	846.6			17.01	-2.33	12.53	<=38.45	Pass		
	Subtest 4	846.6			17.26	-2.33	12.78	<=38.45	Pass		
	Subtest 5	846.6			17.25	-2.33	12.77	<=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	-13.754	-0.0166	-2.5 to 2.5	Pass
			3.85	-14.613	-0.0177	-2.5 to 2.5	Pass
			4.43	-12.124	-0.0147	-2.5 to 2.5	Pass
		-30	3.85	-13.919	-0.0168	-2.5 to 2.5	Pass
		-20	3.85	-6.516	-0.0079	-2.5 to 2.5	Pass
		-10	3.85	-14.405	-0.0174	-2.5 to 2.5	Pass
		0	3.85	-12.975	-0.0157	-2.5 to 2.5	Pass
		10	3.85	-11.094	-0.0134	-2.5 to 2.5	Pass
		30	3.85	-11.244	-0.0136	-2.5 to 2.5	Pass
		40	3.85	-13.740	-0.0166	-2.5 to 2.5	Pass
	50	3.85	-14.327	-0.0173	-2.5 to 2.5	Pass	
	836.6	20	3.27	-13.847	-0.0166	-2.5 to 2.5	Pass
			3.85	-12.059	-0.0144	-2.5 to 2.5	Pass
			4.43	-14.606	-0.0175	-2.5 to 2.5	Pass
		-30	3.85	-13.611	-0.0163	-2.5 to 2.5	Pass
		-20	3.85	-11.280	-0.0135	-2.5 to 2.5	Pass
		-10	3.85	-11.880	-0.0142	-2.5 to 2.5	Pass
		0	3.85	-9.027	-0.0108	-2.5 to 2.5	Pass
		10	3.85	-8.805	-0.0105	-2.5 to 2.5	Pass
		30	3.85	-13.747	-0.0164	-2.5 to 2.5	Pass
		40	3.85	-11.265	-0.0135	-2.5 to 2.5	Pass
	50	3.85	-15.750	-0.0188	-2.5 to 2.5	Pass	
	846.6	20	3.27	-9.863	-0.0117	-2.5 to 2.5	Pass
			3.85	-9.570	-0.0113	-2.5 to 2.5	Pass
			4.43	-14.856	-0.0175	-2.5 to 2.5	Pass
		-30	3.85	-13.475	-0.0159	-2.5 to 2.5	Pass
		-20	3.85	-12.066	-0.0143	-2.5 to 2.5	Pass
		-10	3.85	-9.878	-0.0117	-2.5 to 2.5	Pass
		0	3.85	-7.374	-0.0087	-2.5 to 2.5	Pass
		10	3.85	-11.287	-0.0133	-2.5 to 2.5	Pass
30		3.85	-5.035	-0.0059	-2.5 to 2.5	Pass	
40		3.85	-10.800	-0.0128	-2.5 to 2.5	Pass	
50	3.85	-10.672	-0.0126	-2.5 to 2.5	Pass		
HSDPA	826.4	20	3.27	-7.231	-0.0088	-2.5 to 2.5	Pass
			3.85	-8.390	-0.0102	-2.5 to 2.5	Pass
			4.43	-10.879	-0.0132	-2.5 to 2.5	Pass
		-30	3.85	-15.986	-0.0193	-2.5 to 2.5	Pass
		-20	3.85	-11.530	-0.0140	-2.5 to 2.5	Pass
		-10	3.85	-13.740	-0.0166	-2.5 to 2.5	Pass
		0	3.85	-13.804	-0.0167	-2.5 to 2.5	Pass
		10	3.85	-14.563	-0.0176	-2.5 to 2.5	Pass
		30	3.85	-15.407	-0.0186	-2.5 to 2.5	Pass
		40	3.85	-10.271	-0.0124	-2.5 to 2.5	Pass
	50	3.85	-16.150	-0.0195	-2.5 to 2.5	Pass	
	836.6	20	3.27	-8.962	-0.0107	-2.5 to 2.5	Pass
			3.85	-9.634	-0.0115	-2.5 to 2.5	Pass
			4.43	-8.283	-0.0099	-2.5 to 2.5	Pass
		-30	3.85	-16.165	-0.0193	-2.5 to 2.5	Pass
		-20	3.85	-14.040	-0.0168	-2.5 to 2.5	Pass
		-10	3.85	-12.474	-0.0149	-2.5 to 2.5	Pass
		0	3.85	-11.938	-0.0143	-2.5 to 2.5	Pass
		10	3.85	-9.570	-0.0114	-2.5 to 2.5	Pass
		30	3.85	-12.345	-0.0148	-2.5 to 2.5	Pass
40		3.85	-12.996	-0.0155	-2.5 to 2.5	Pass	
50	3.85	-8.698	-0.0104	-2.5 to 2.5	Pass		

	846.6	20	3.27	-15.821	-0.0187	-2.5 to 2.5	Pass
			3.85	-15.442	-0.0182	-2.5 to 2.5	Pass
			4.43	-15.492	-0.0183	-2.5 to 2.5	Pass
		-30	3.85	-16.236	-0.0192	-2.5 to 2.5	Pass
		-20	3.85	-16.043	-0.0189	-2.5 to 2.5	Pass
		-10	3.85	-18.775	-0.0222	-2.5 to 2.5	Pass
		0	3.85	-13.118	-0.0155	-2.5 to 2.5	Pass
		10	3.85	-18.268	-0.0216	-2.5 to 2.5	Pass
		30	3.85	-13.454	-0.0159	-2.5 to 2.5	Pass
		40	3.85	-12.760	-0.0151	-2.5 to 2.5	Pass
50	3.85	-14.169	-0.0167	-2.5 to 2.5	Pass		
HSUPA	826.4	20	3.27	-8.440	-0.0102	-2.5 to 2.5	Pass
			3.85	-10.793	-0.0131	-2.5 to 2.5	Pass
			4.43	-9.584	-0.0116	-2.5 to 2.5	Pass
		-30	3.85	-10.428	-0.0126	-2.5 to 2.5	Pass
		-20	3.85	-13.225	-0.0160	-2.5 to 2.5	Pass
		-10	3.85	-8.168	-0.0099	-2.5 to 2.5	Pass
		0	3.85	-8.433	-0.0102	-2.5 to 2.5	Pass
		10	3.85	-10.972	-0.0133	-2.5 to 2.5	Pass
		30	3.85	-7.474	-0.0090	-2.5 to 2.5	Pass
		40	3.85	-10.722	-0.0130	-2.5 to 2.5	Pass
	50	3.85	-3.734	-0.0045	-2.5 to 2.5	Pass	
	836.6	20	3.27	-7.868	-0.0094	-2.5 to 2.5	Pass
			3.85	-10.707	-0.0128	-2.5 to 2.5	Pass
			4.43	-11.802	-0.0141	-2.5 to 2.5	Pass
		-30	3.85	-9.756	-0.0117	-2.5 to 2.5	Pass
		-20	3.85	-10.600	-0.0127	-2.5 to 2.5	Pass
		-10	3.85	-9.155	-0.0109	-2.5 to 2.5	Pass
		0	3.85	-15.399	-0.0184	-2.5 to 2.5	Pass
		10	3.85	-13.676	-0.0163	-2.5 to 2.5	Pass
		30	3.85	-10.214	-0.0122	-2.5 to 2.5	Pass
		40	3.85	-11.501	-0.0137	-2.5 to 2.5	Pass
	50	3.85	-8.233	-0.0098	-2.5 to 2.5	Pass	
	846.6	20	3.27	-12.016	-0.0142	-2.5 to 2.5	Pass
			3.85	-13.826	-0.0163	-2.5 to 2.5	Pass
			4.43	-14.226	-0.0168	-2.5 to 2.5	Pass
		-30	3.85	-10.271	-0.0121	-2.5 to 2.5	Pass
		-20	3.85	-14.584	-0.0172	-2.5 to 2.5	Pass
		-10	3.85	-11.315	-0.0134	-2.5 to 2.5	Pass
		0	3.85	-12.066	-0.0143	-2.5 to 2.5	Pass
		10	3.85	-14.055	-0.0166	-2.5 to 2.5	Pass
30		3.85	-8.798	-0.0104	-2.5 to 2.5	Pass	
40		3.85	-10.872	-0.0128	-2.5 to 2.5	Pass	
50	3.85	-13.983	-0.0165	-2.5 to 2.5	Pass		

### 3. Modulation Characteristics

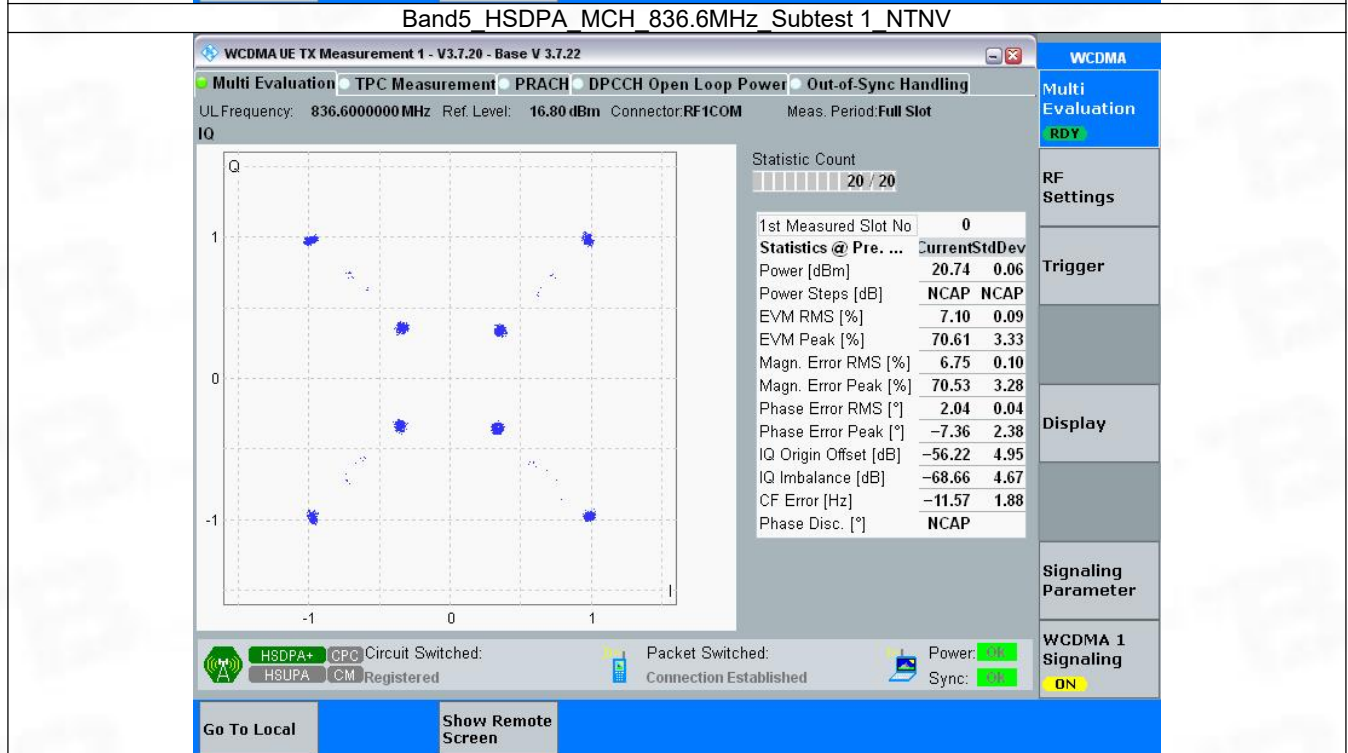
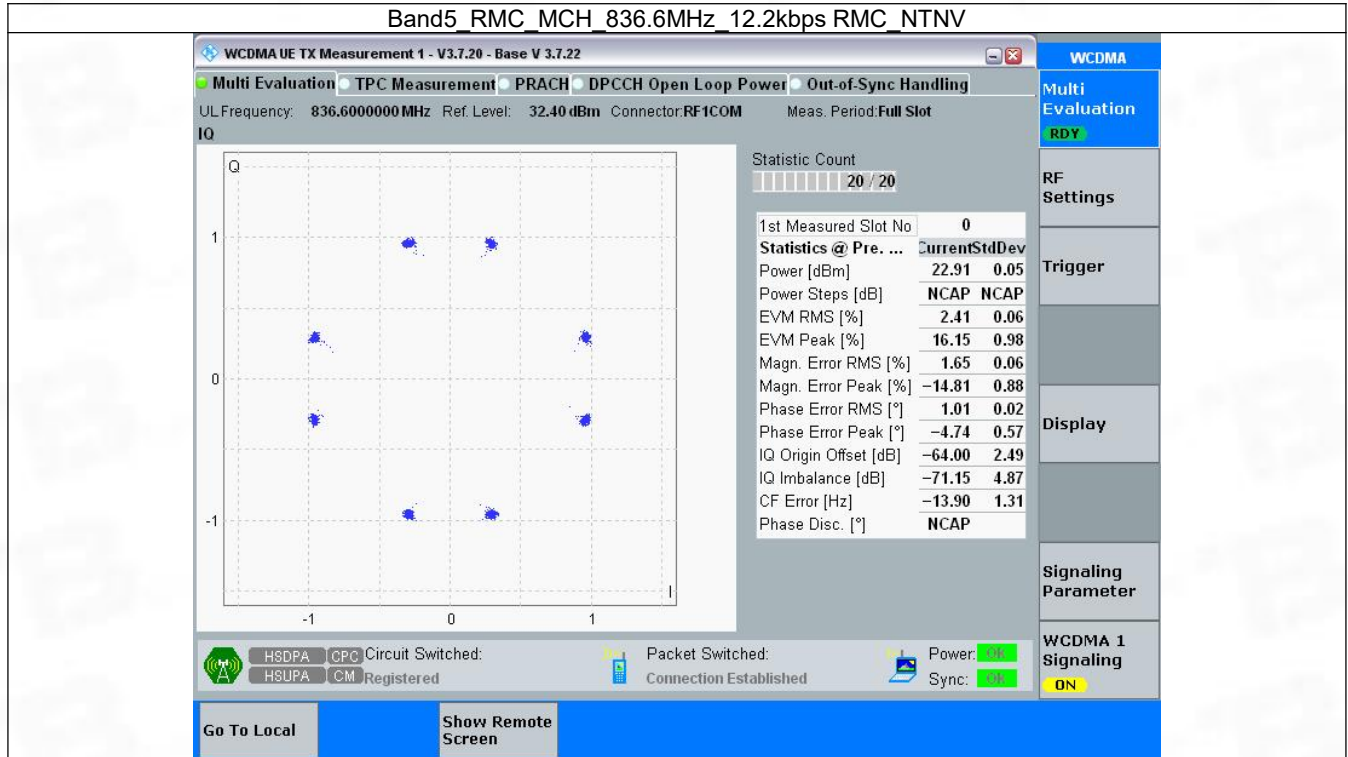
#### 3.1 Band5

##### 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

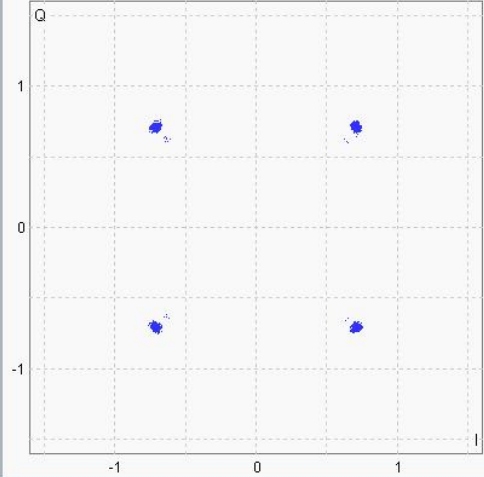
WCDMA UE TX Measurement 1 - V3.7.20 - Base V 3.7.22

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

WCDMA

Multi Evaluation

RDY



Statistic Count: 20 / 20

1st Measured Slot No	0
Statistics @ Pre. ...	CurrentStdDev
Power [dBm]	16.00 2.35
Power Steps [dB]	NCAP NCAP
EVM RMS [%]	2.16 2.94
EVM Peak [%]	6.17 33.33
Magn. Error RMS [%]	1.39 3.19
Magn. Error Peak [%]	-4.07 34.06
Phase Error RMS [°]	0.95 0.52
Phase Error Peak [°]	-3.44 4.73
IQ Origin Offset [dB]	-58.52 3.61
IQ Imbalance [dB]	-59.75 6.78
CF Error [Hz]	-9.62 2.71
Phase Disc. [°]	NCAP

HSDPA+ CPO Circuit Switched:

HSUPA CM Registered

Packet Switched:

Connection Established

Power: ON

Sync: ON

Go To Local

Show Remote Screen

WCDMA 1 Signaling

ON

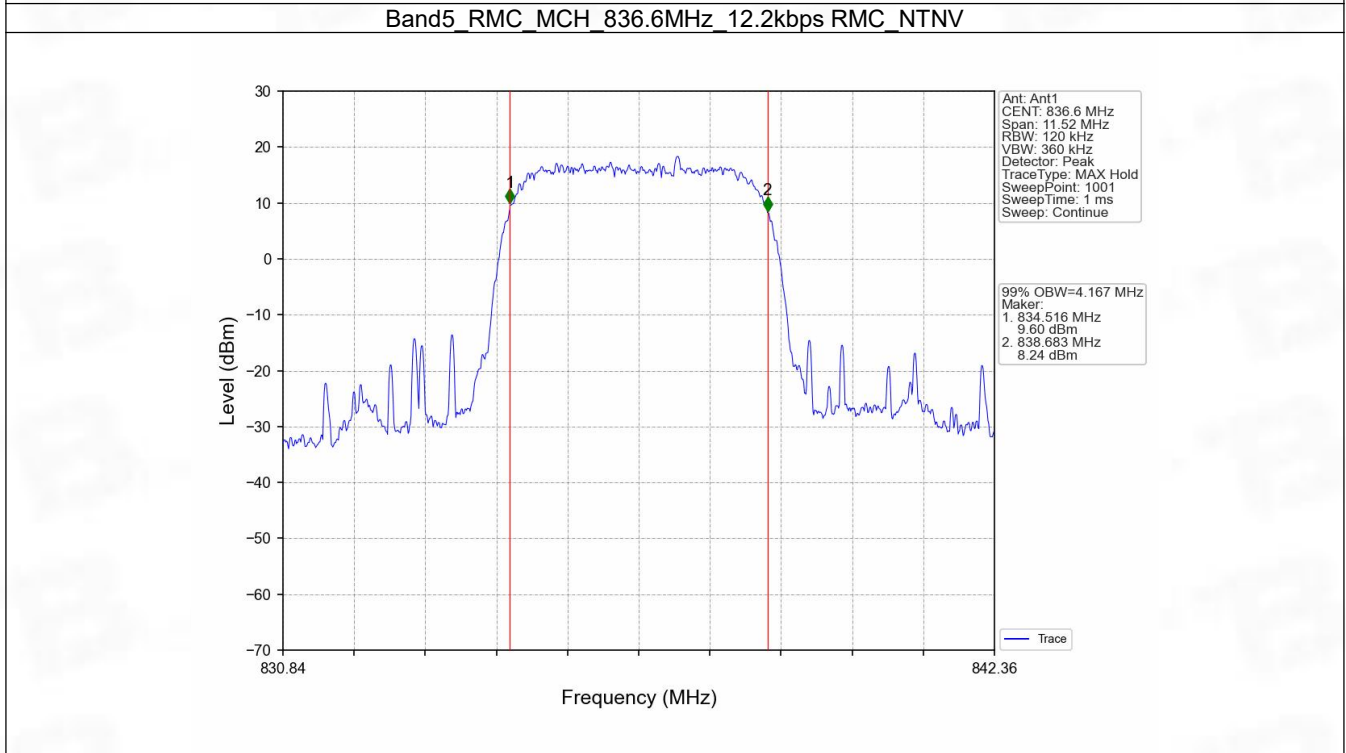
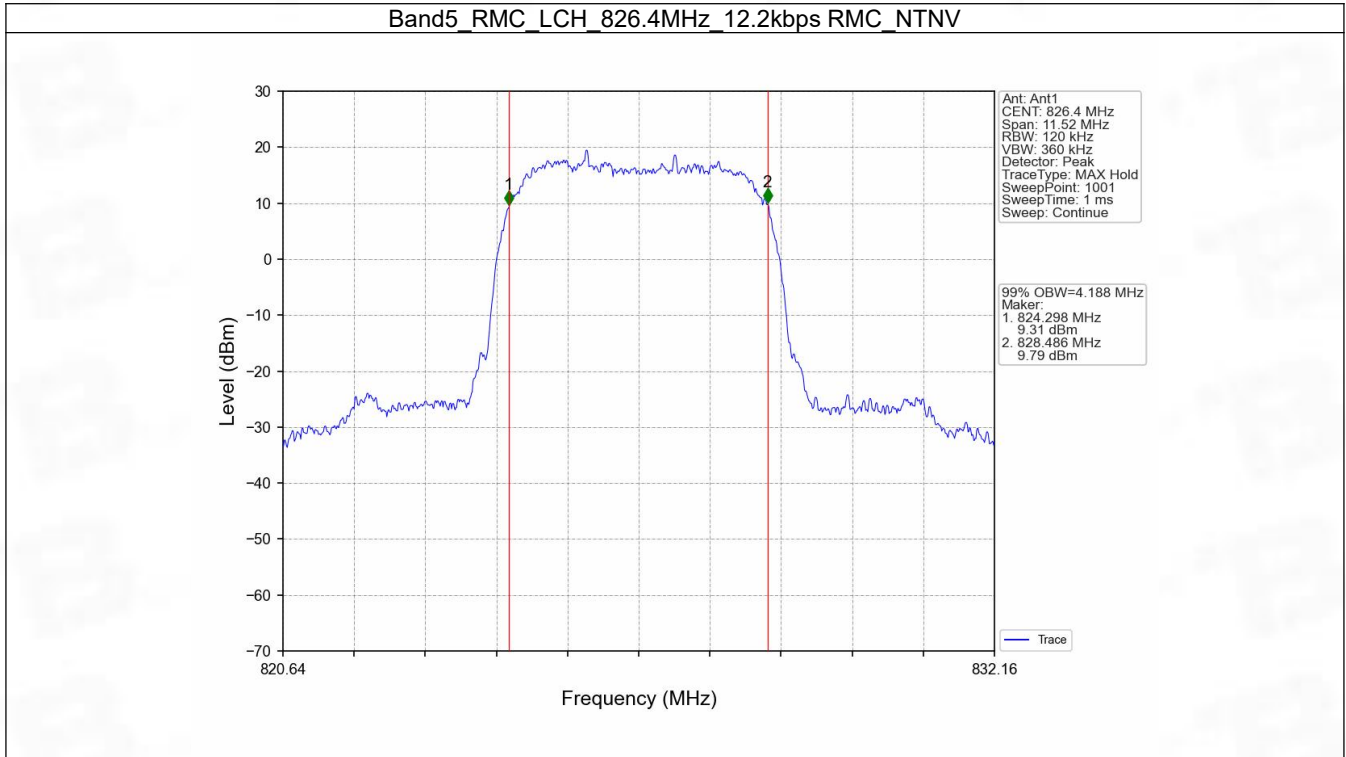
## 4. 99% & 26dB Bandwidth

### 4.1 Band5\_OBW

#### 4.1.1 Test Result

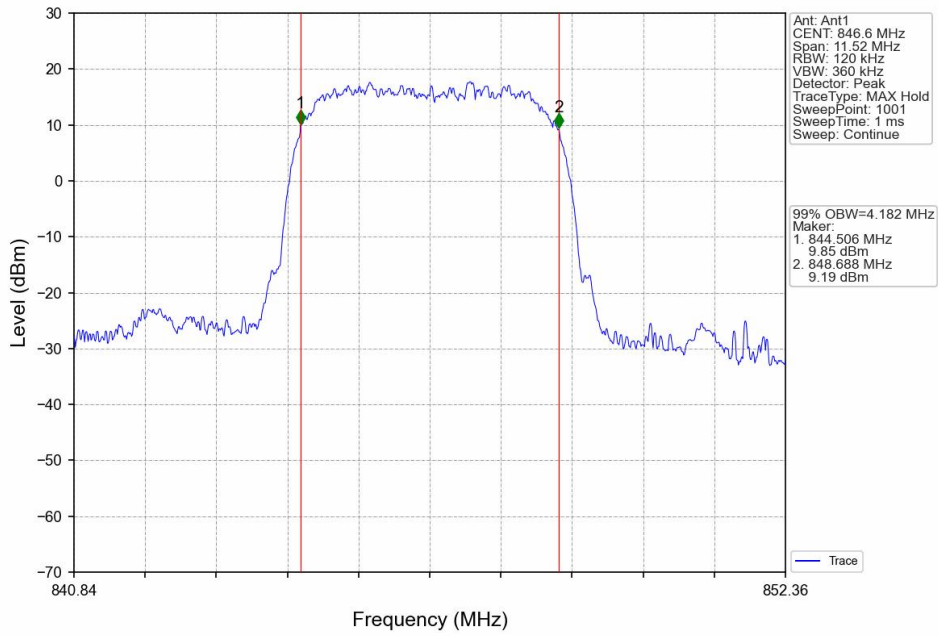
Band: 5					
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	RMC	12.2kbps RMC	826.4	4.188	Pass
			836.6	4.167	Pass
			846.6	4.182	Pass
	HSDPA	Subtest 1	826.4	4.228	Pass
			836.6	4.226	Pass
			846.6	4.230	Pass
	HSUPA	Subtest 1	826.4	4.242	Pass
			836.6	4.237	Pass
			846.6	4.235	Pass

### 4.1.2 Test Graph

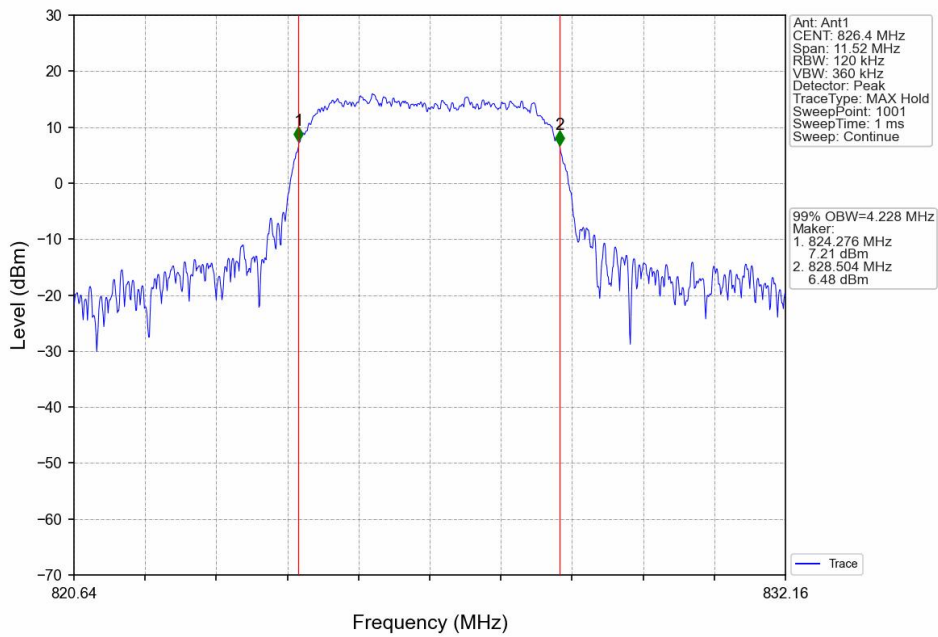




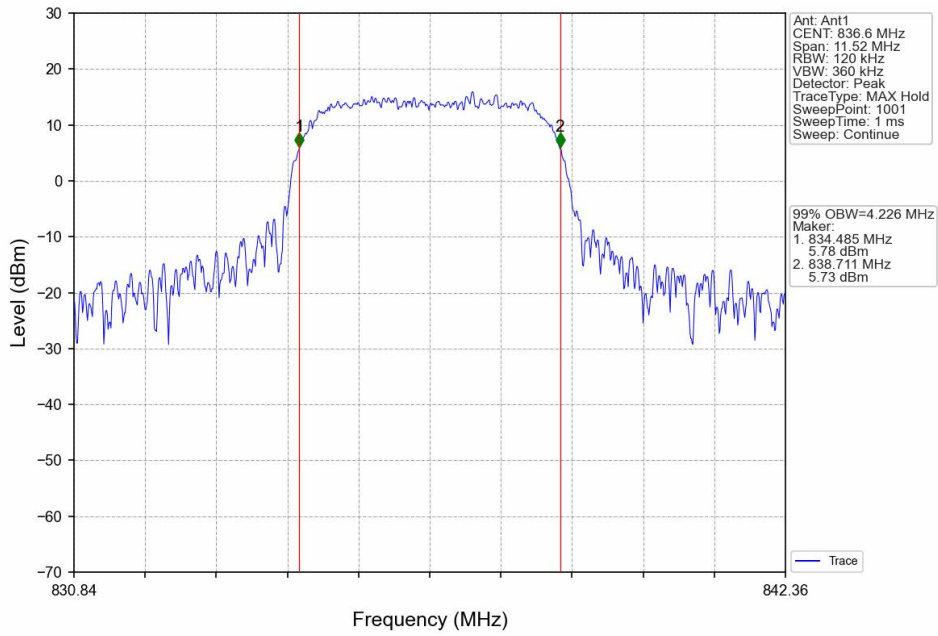
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



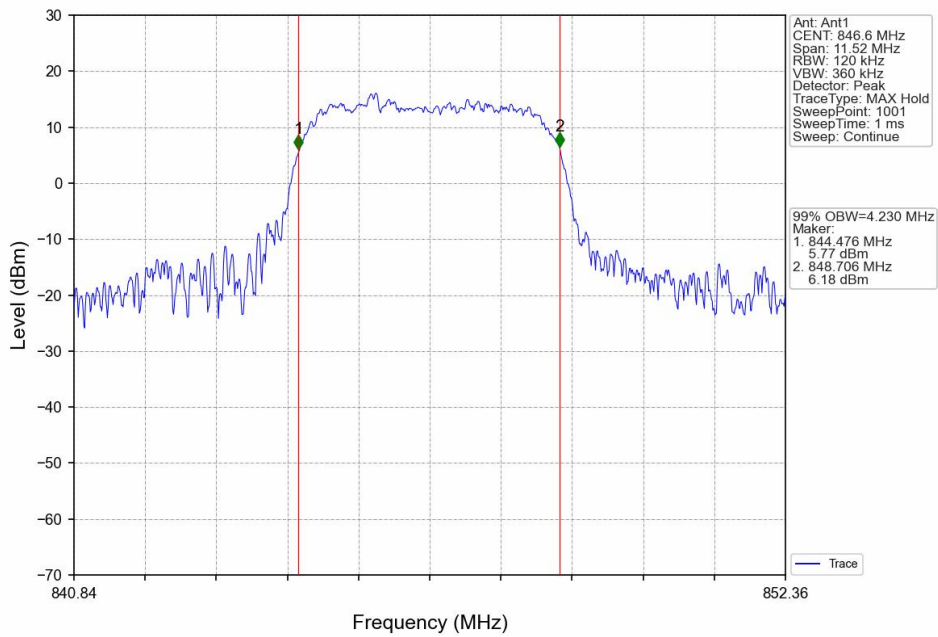
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



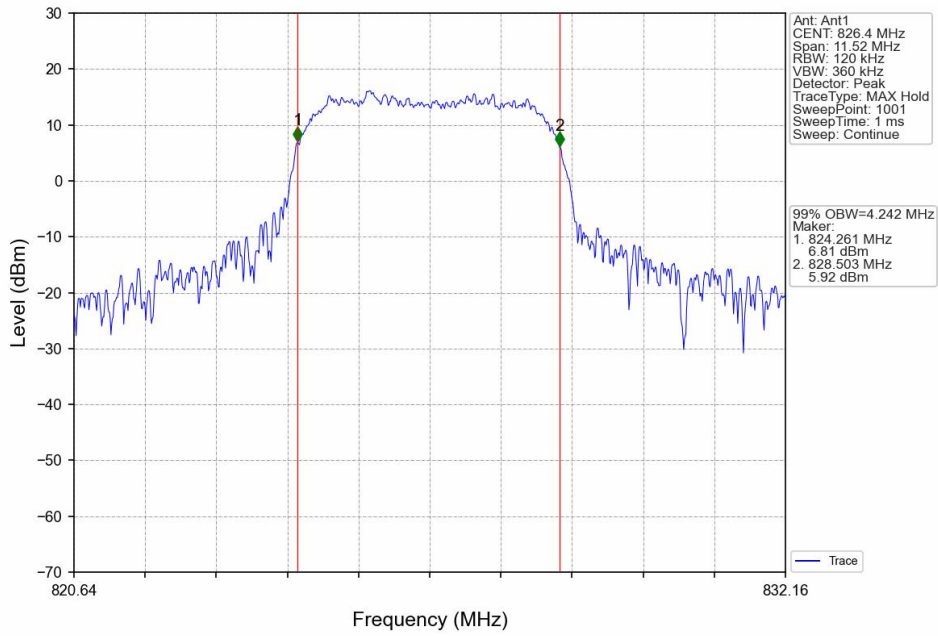
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



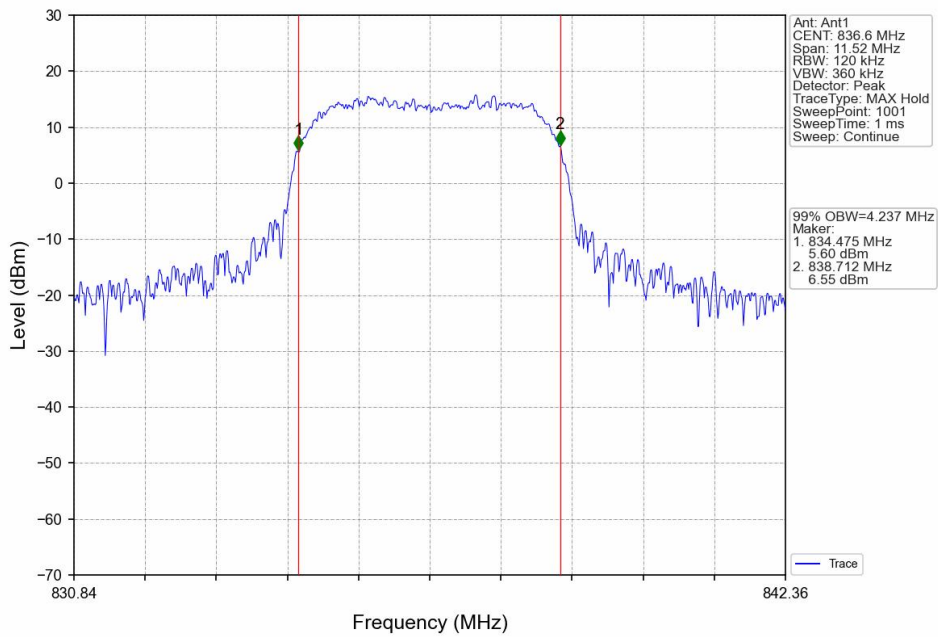
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



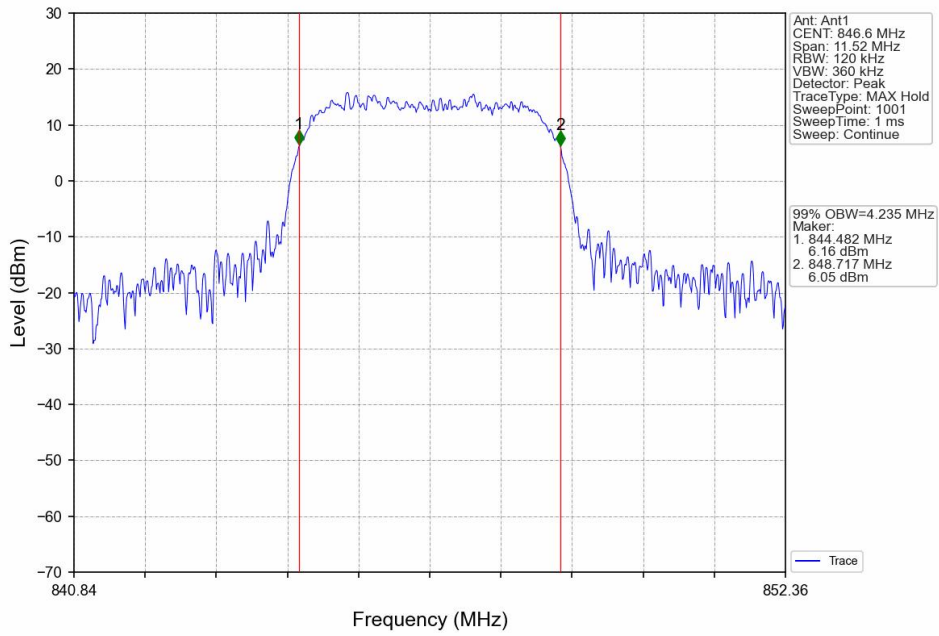
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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



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

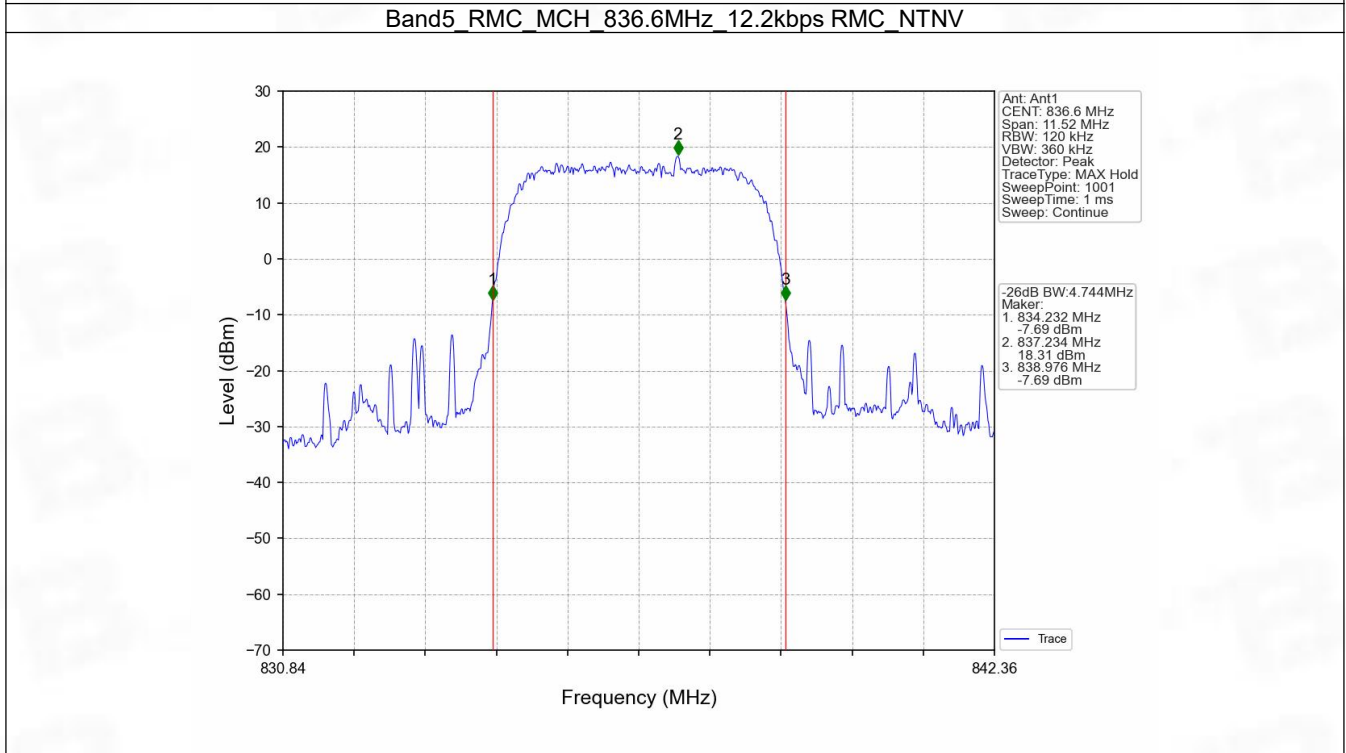
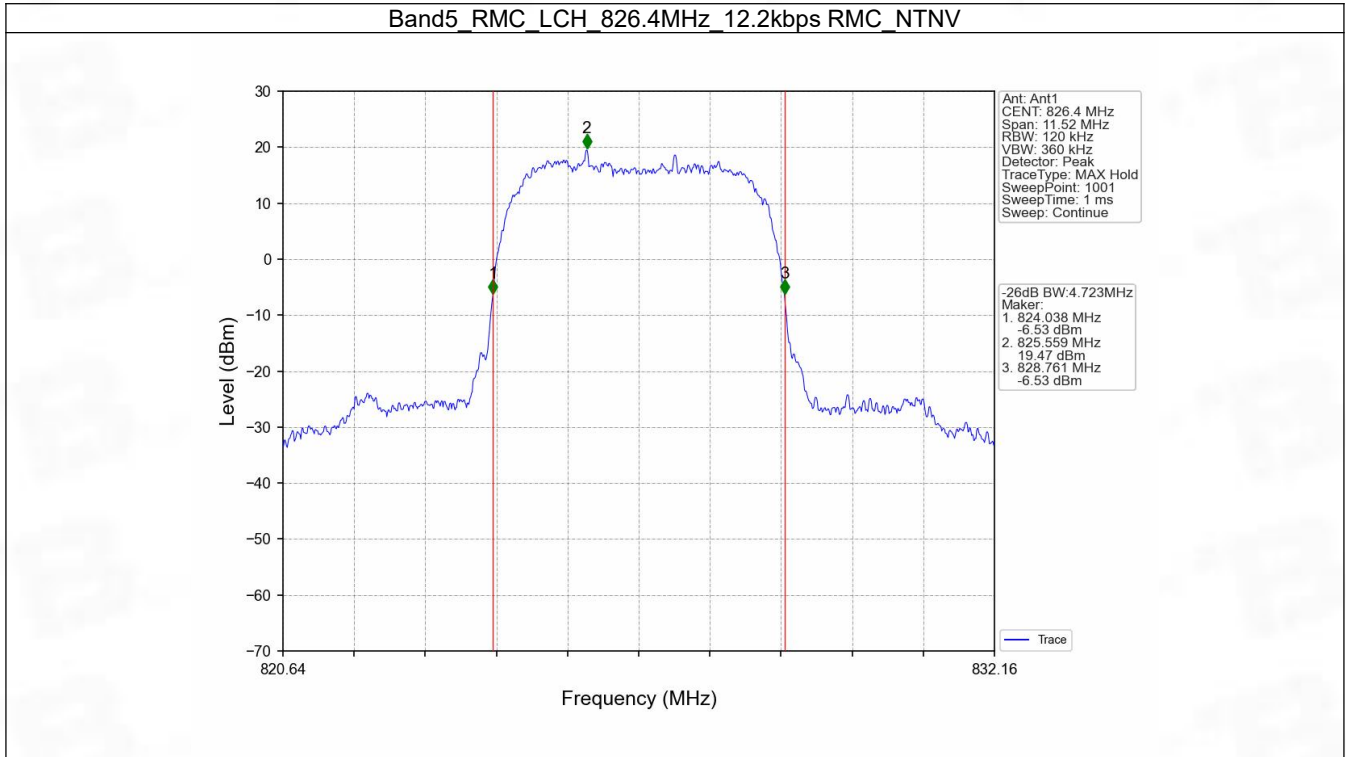


## 4.2 Band5\_XDB

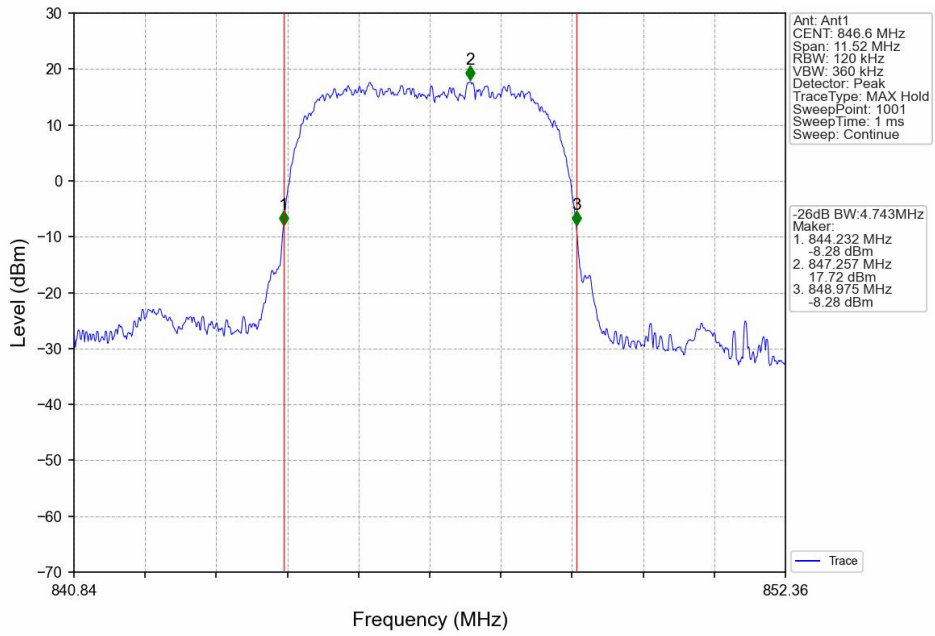
### 4.2.1 Test Result

Band: 5					
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	RMC	12.2kbps RMC	826.4	4.723	Pass
			836.6	4.744	Pass
			846.6	4.743	Pass
	HSDPA	Subtest 1	826.4	5.308	Pass
			836.6	5.446	Pass
			846.6	5.359	Pass
	HSUPA	Subtest 1	826.4	5.528	Pass
			836.6	5.518	Pass
			846.6	5.560	Pass

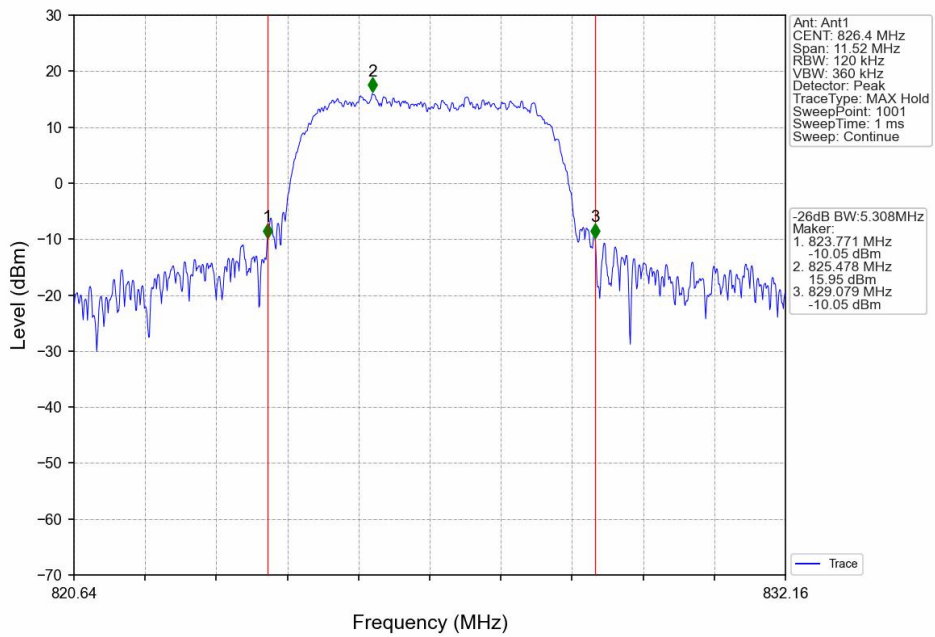
## 4.2.2 Test Graph



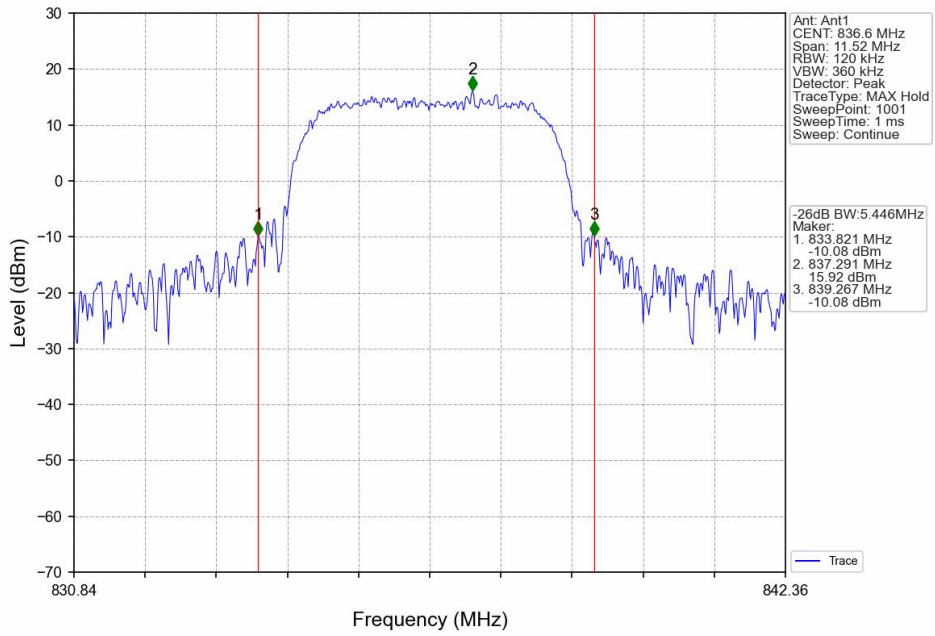
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps\_RMC\_NTNV



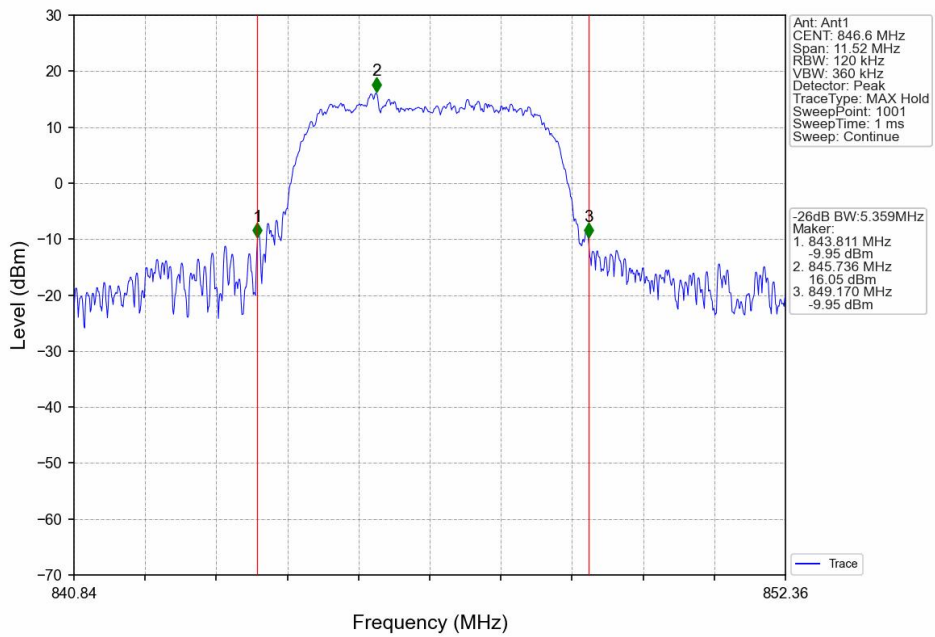
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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

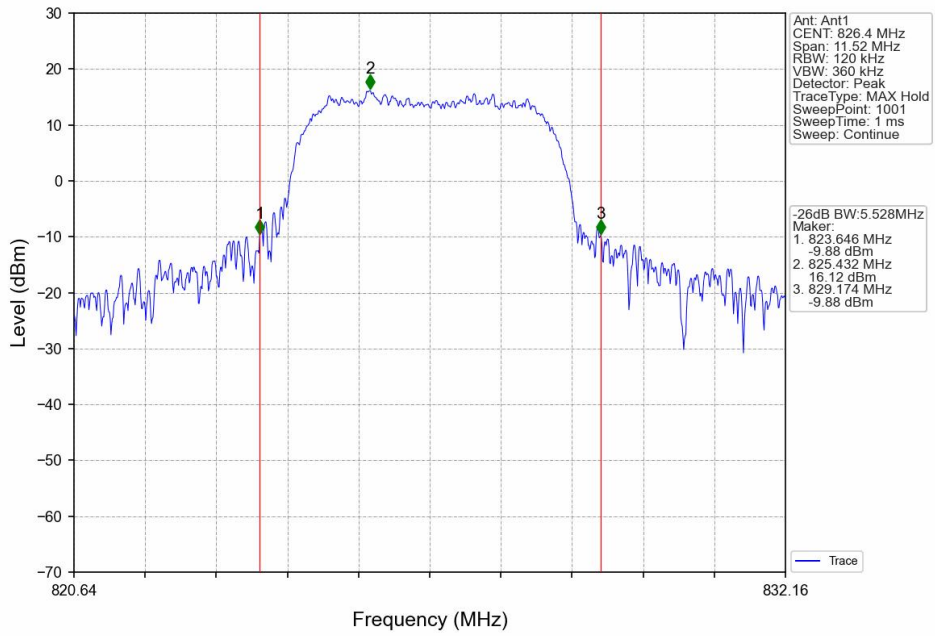


Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV

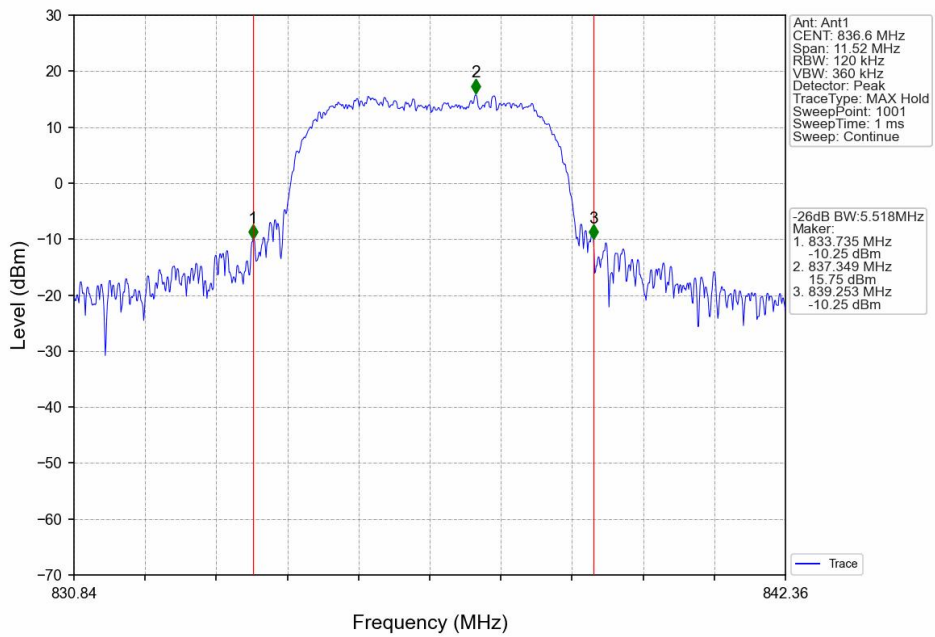




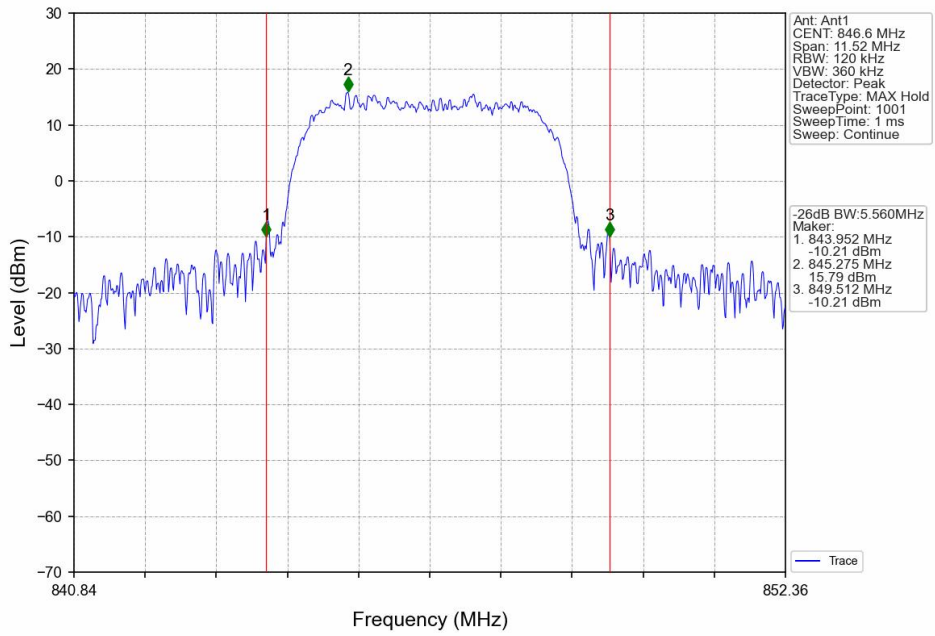
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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



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



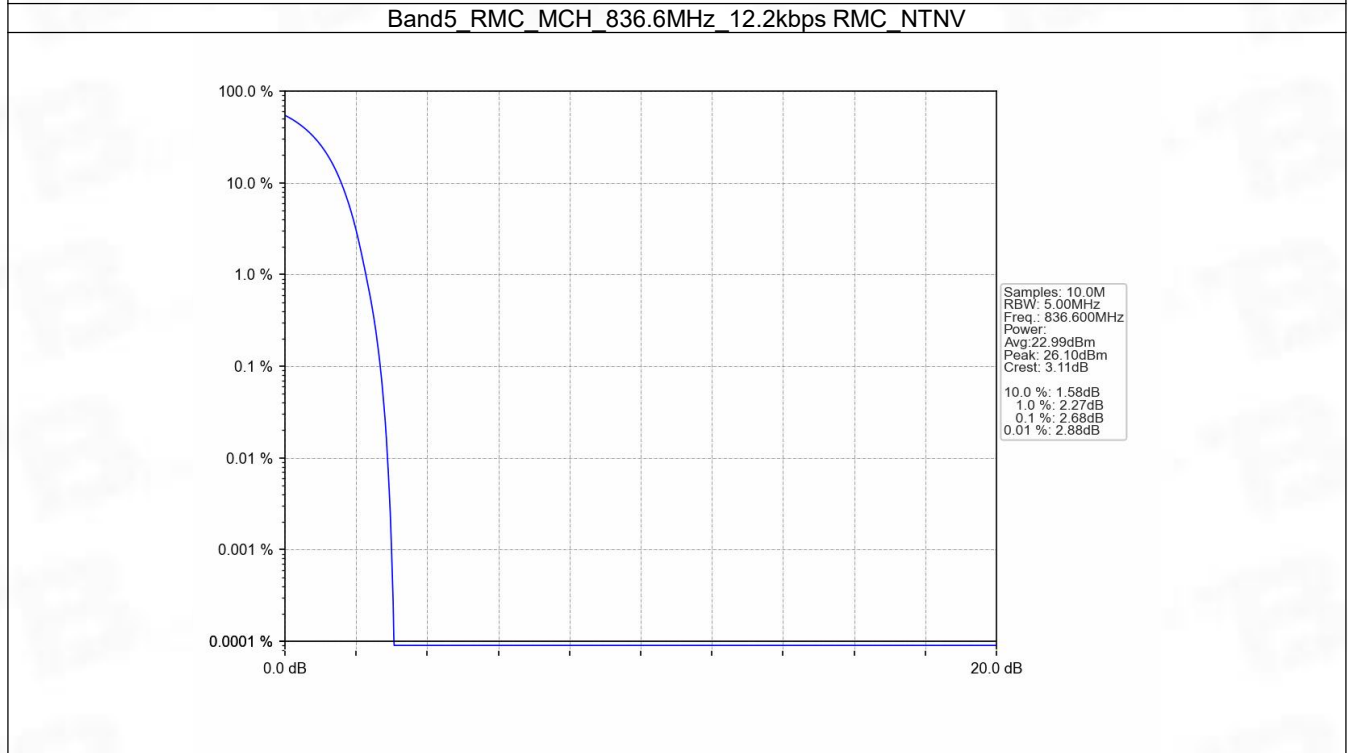
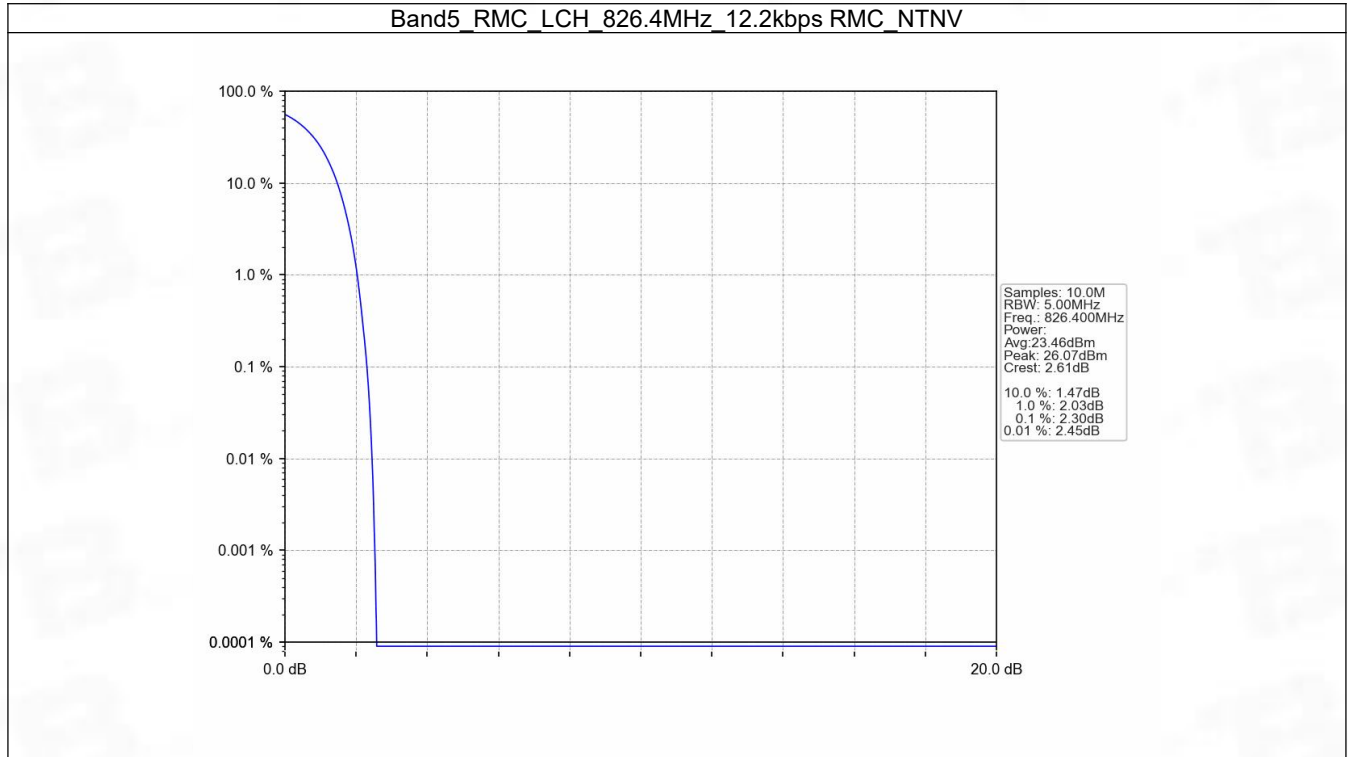
## 5. Peak-Average Ratio

### 5.1 Band5

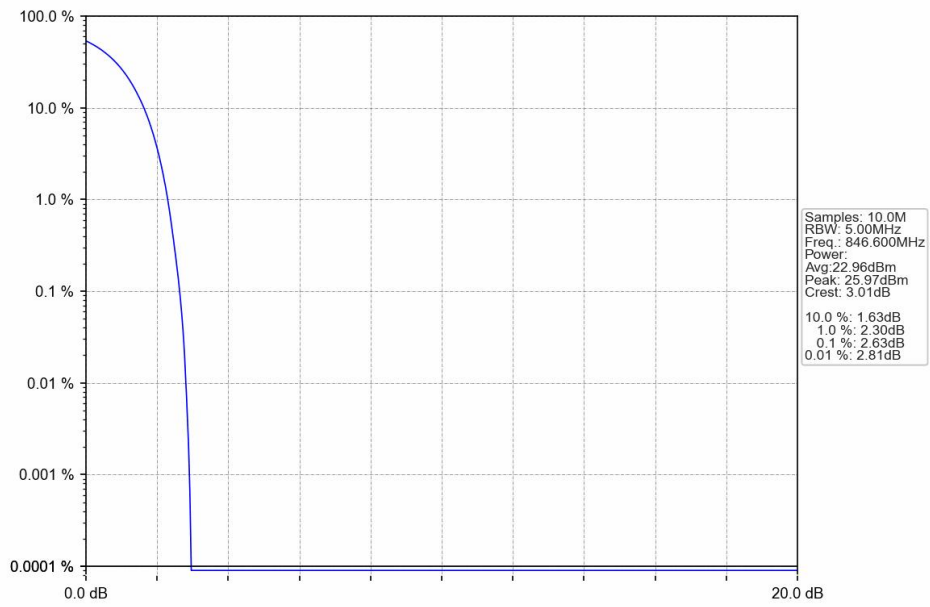
#### 5.1.1 Test Result

Band: 5						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	2.30	<=13	Pass
			836.6	2.68	<=13	Pass
			846.6	2.63	<=13	Pass
	HSDPA	Subtest 1	826.4	5.76	<=13	Pass
			836.6	5.80	<=13	Pass
			846.6	5.81	<=13	Pass
	HSUPA	Subtest 1	826.4	5.60	<=13	Pass
			836.6	5.70	<=13	Pass
			846.6	5.91	<=13	Pass

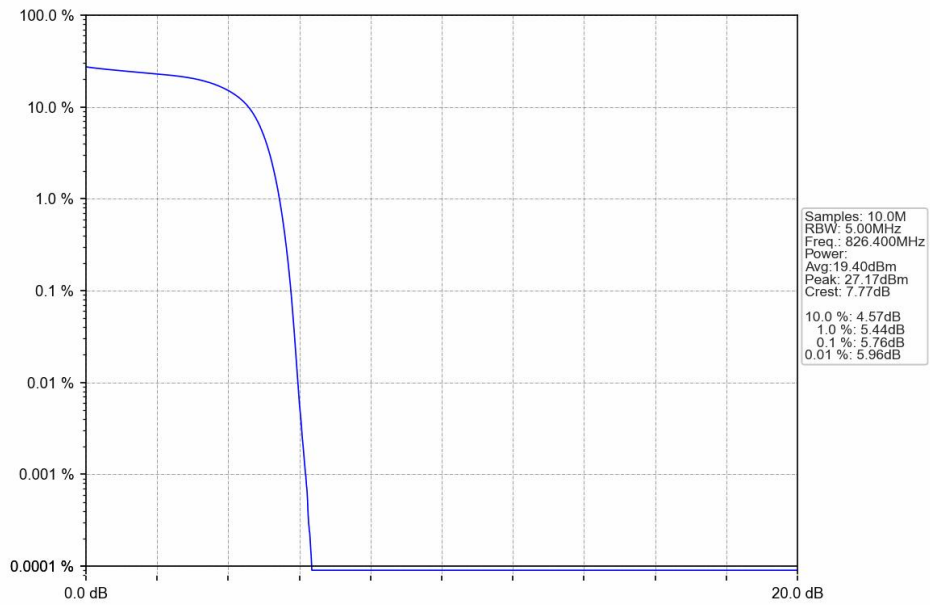
### 5.1.2 Test Graph



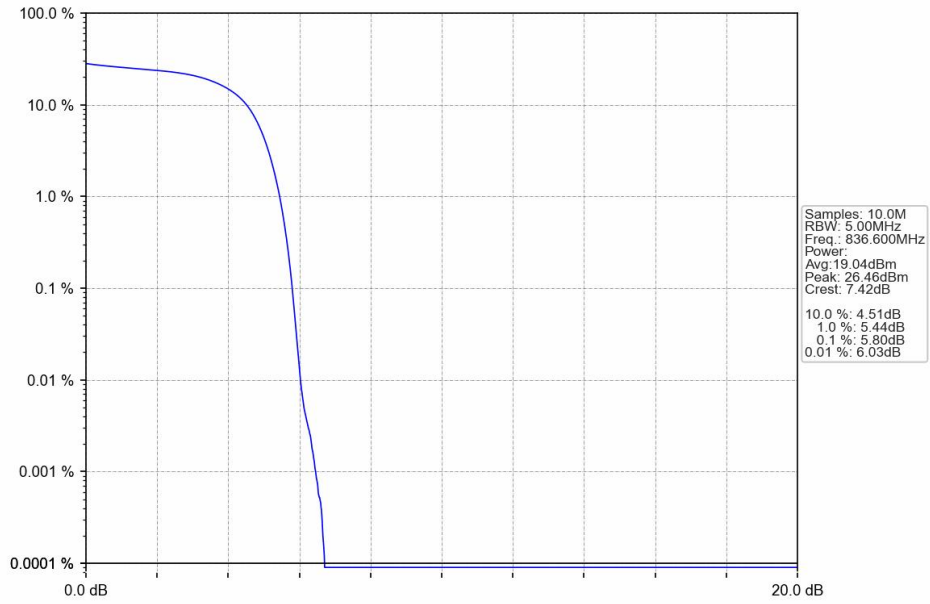
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



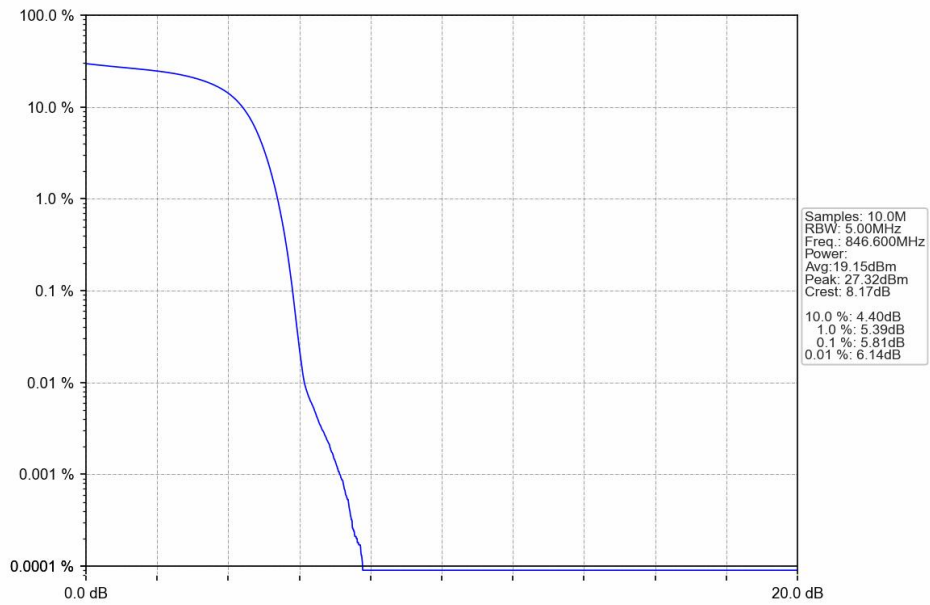
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



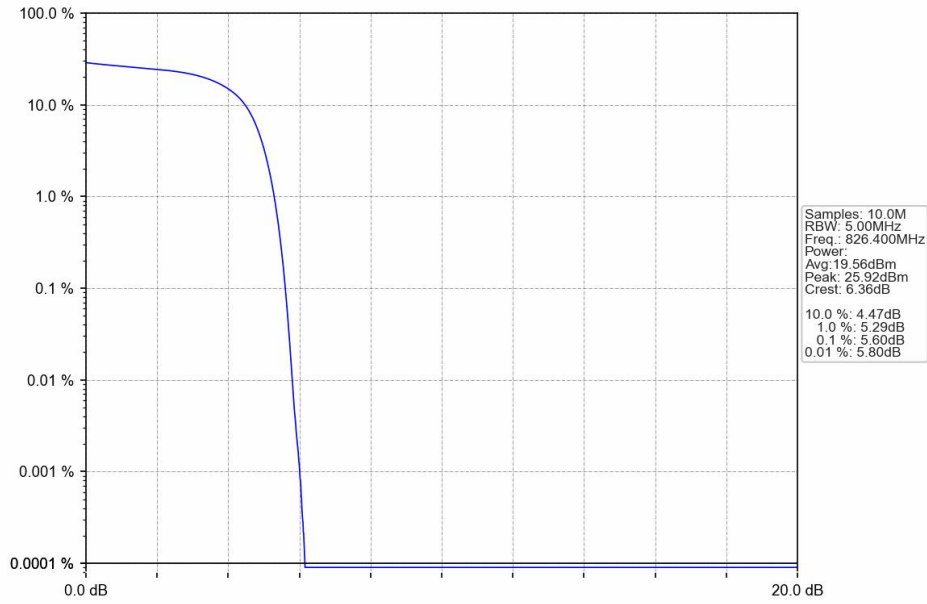
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



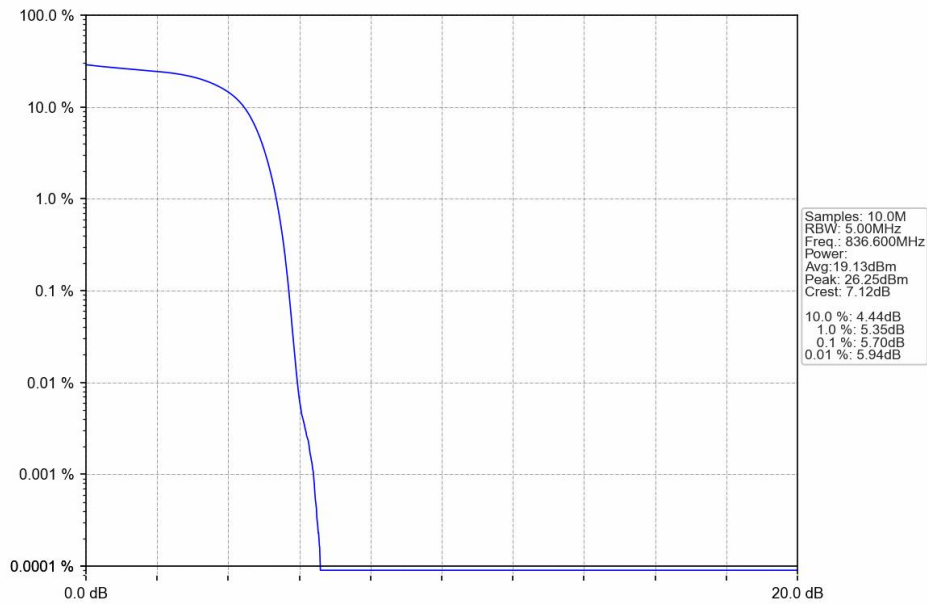
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



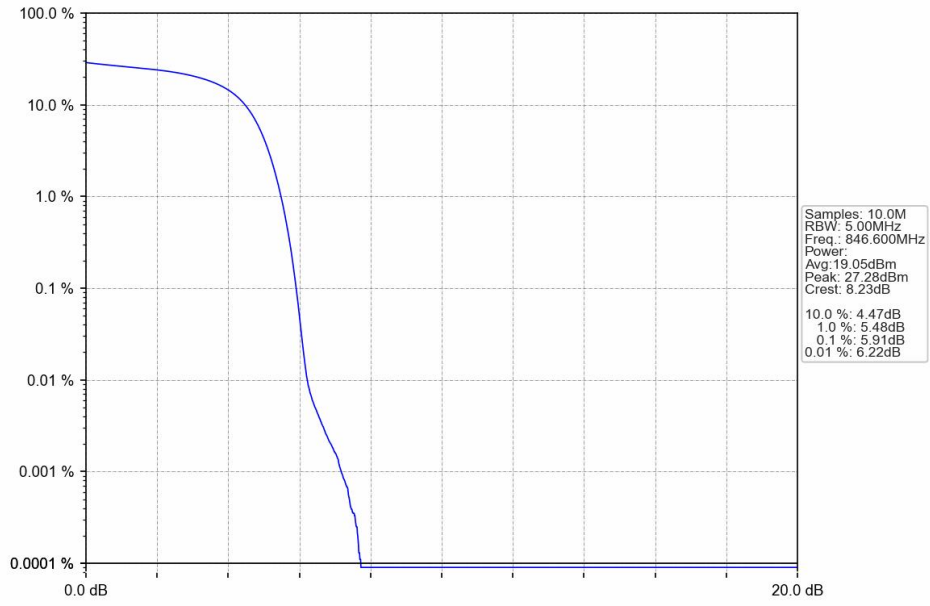
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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



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





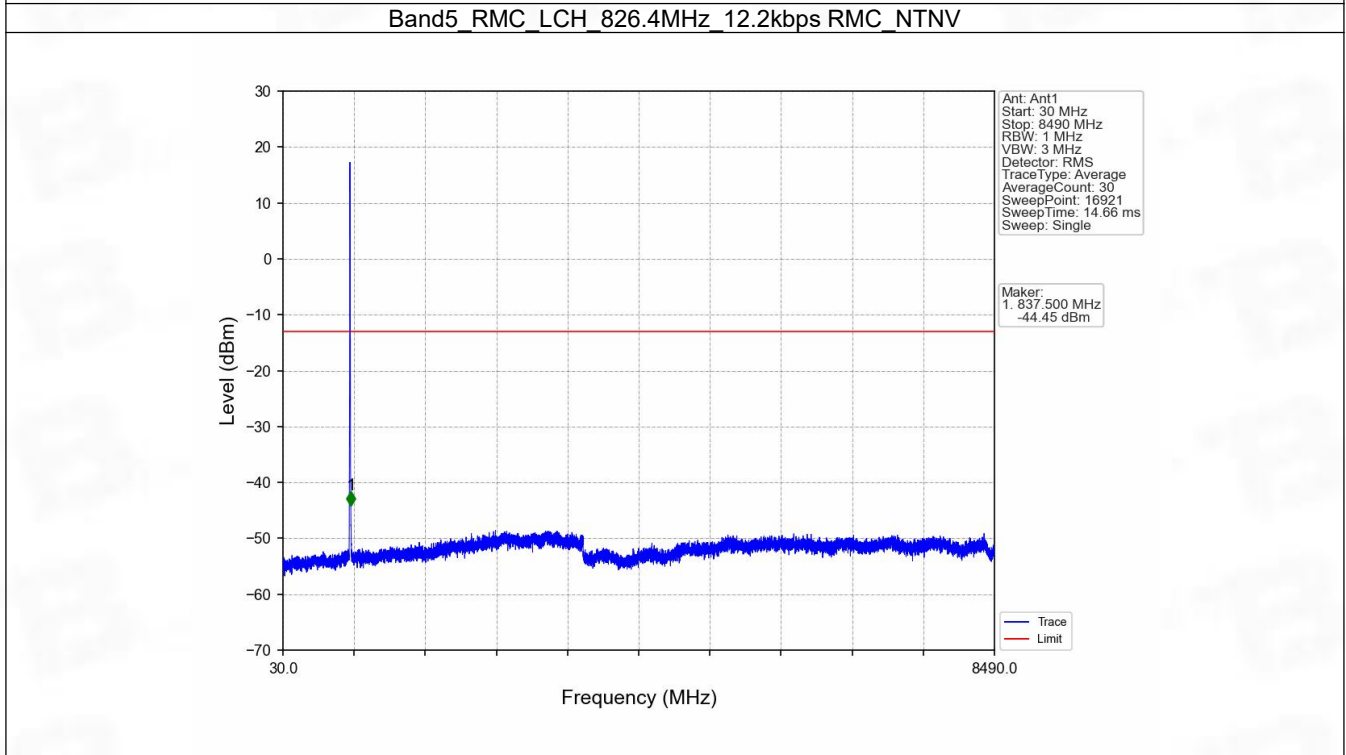
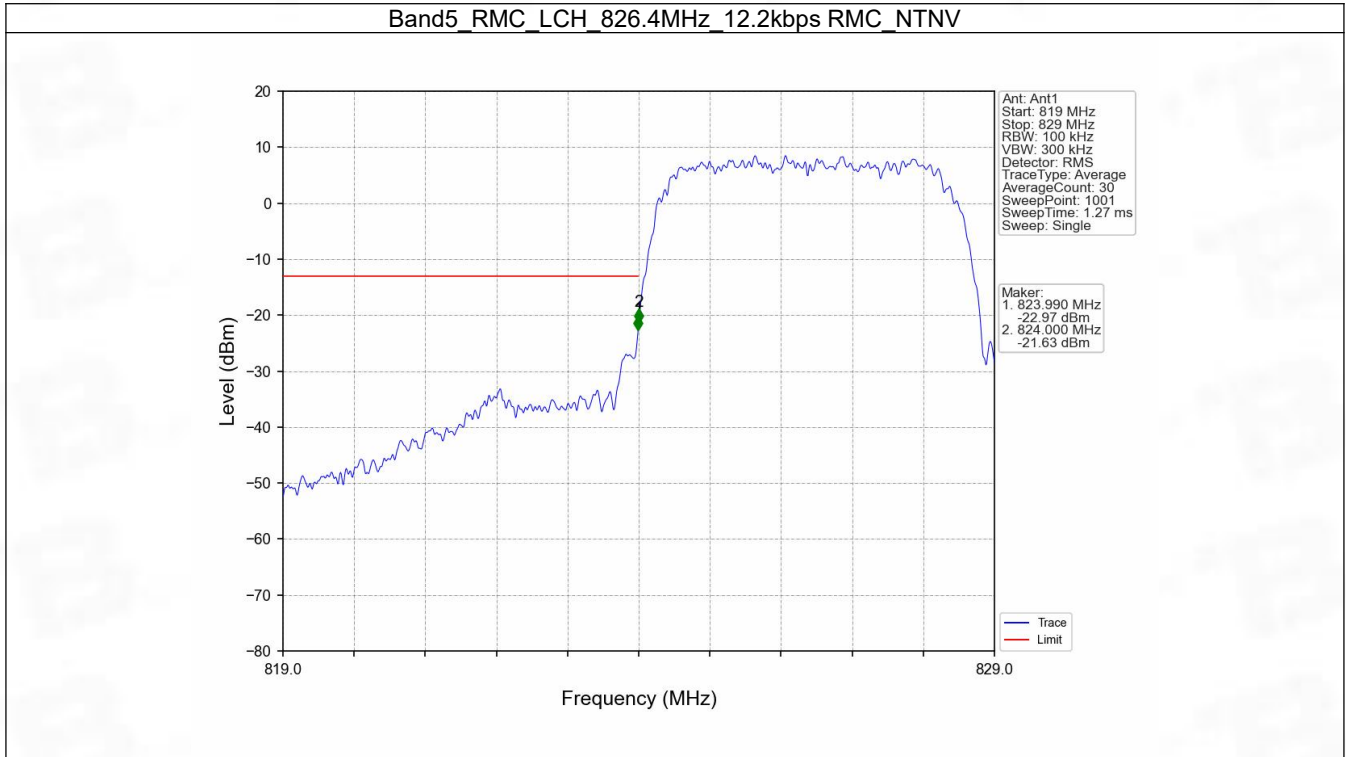
## 6. Spurious Emission

### 6.1 Band5

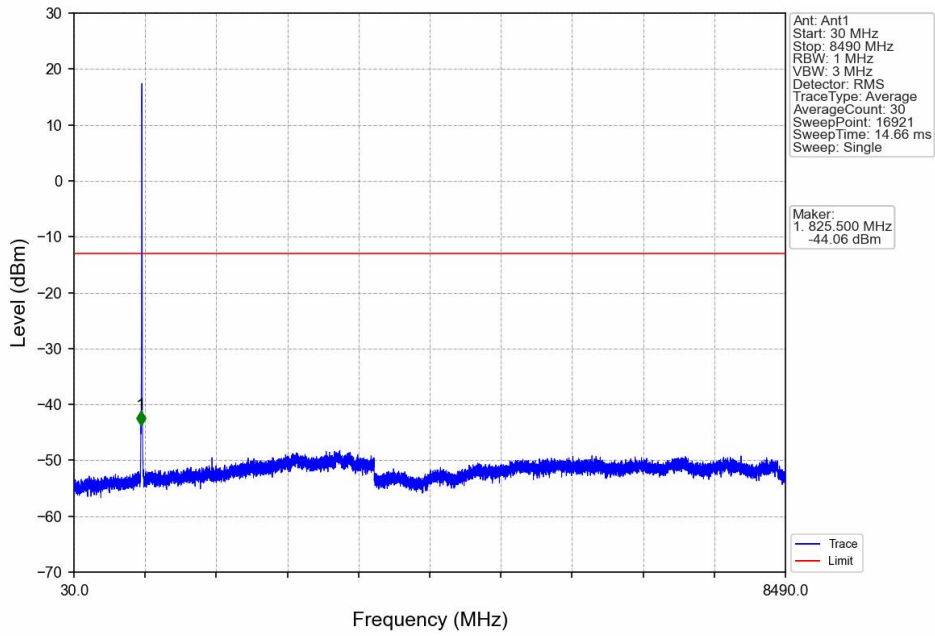
#### 6.1.1 Test Result

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

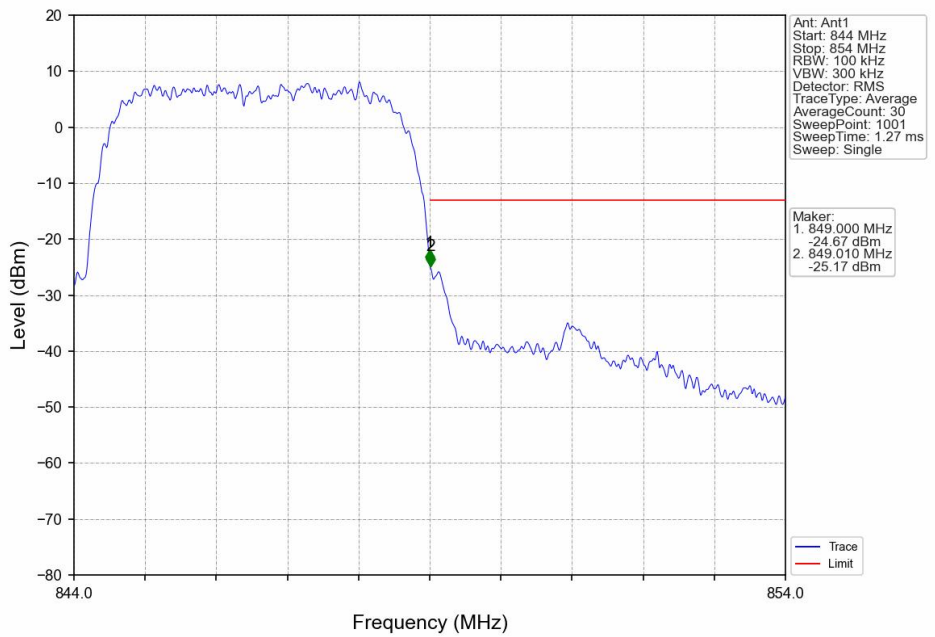
### 6.1.2 Test Graph



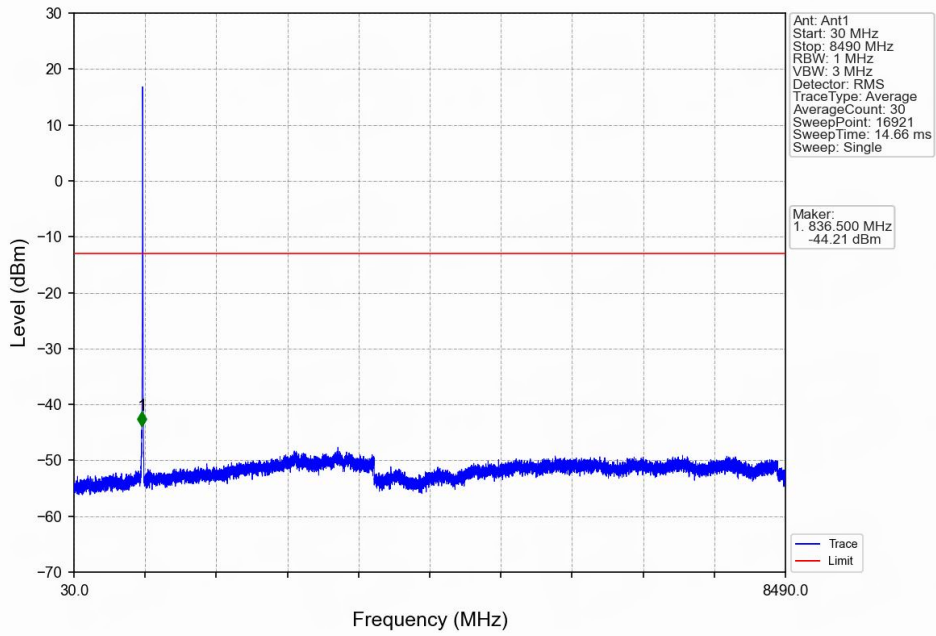
Band5\_RMC\_MCH\_836.6MHz\_12.2kbps RMC\_NTNV



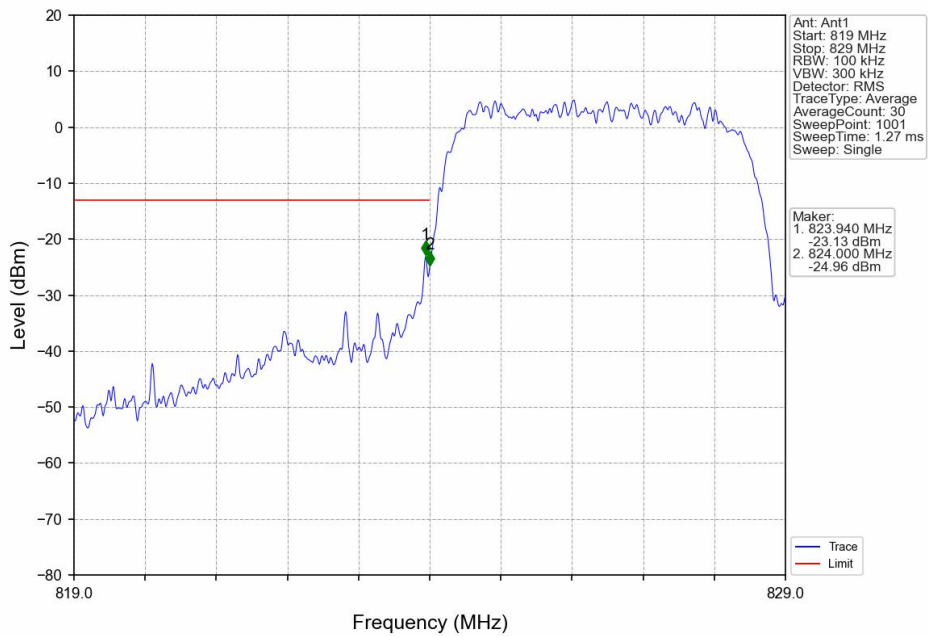
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



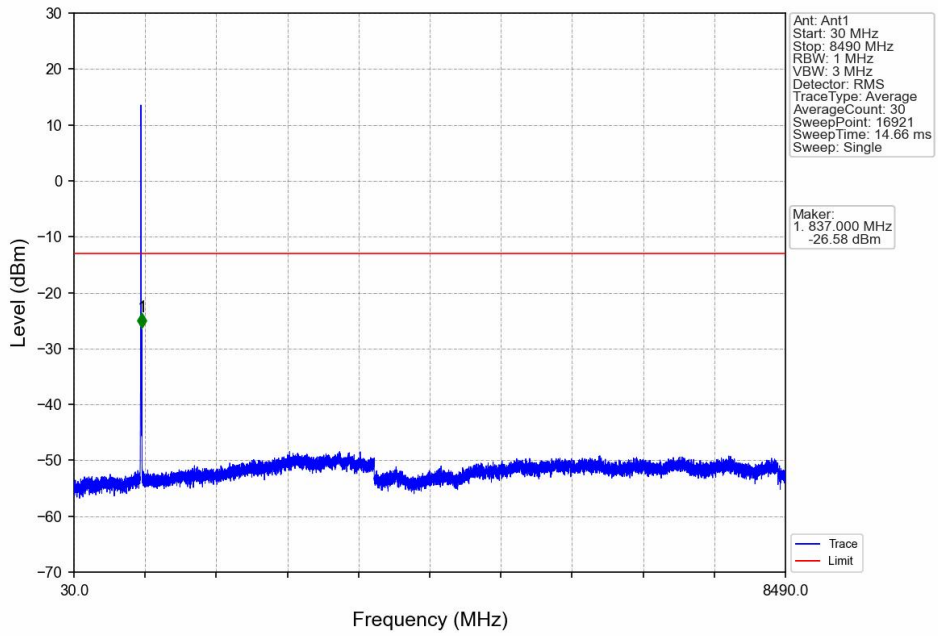
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



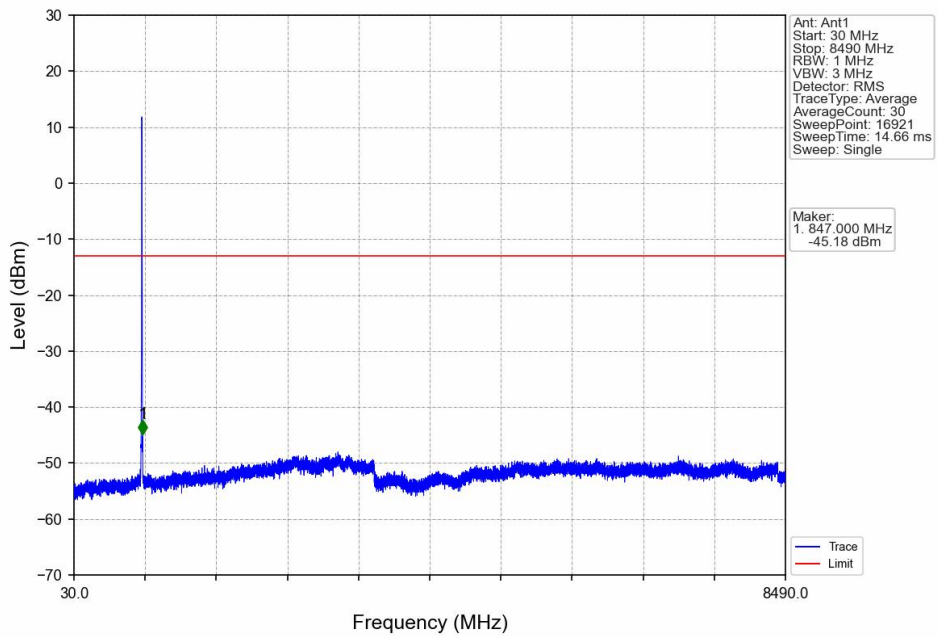
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



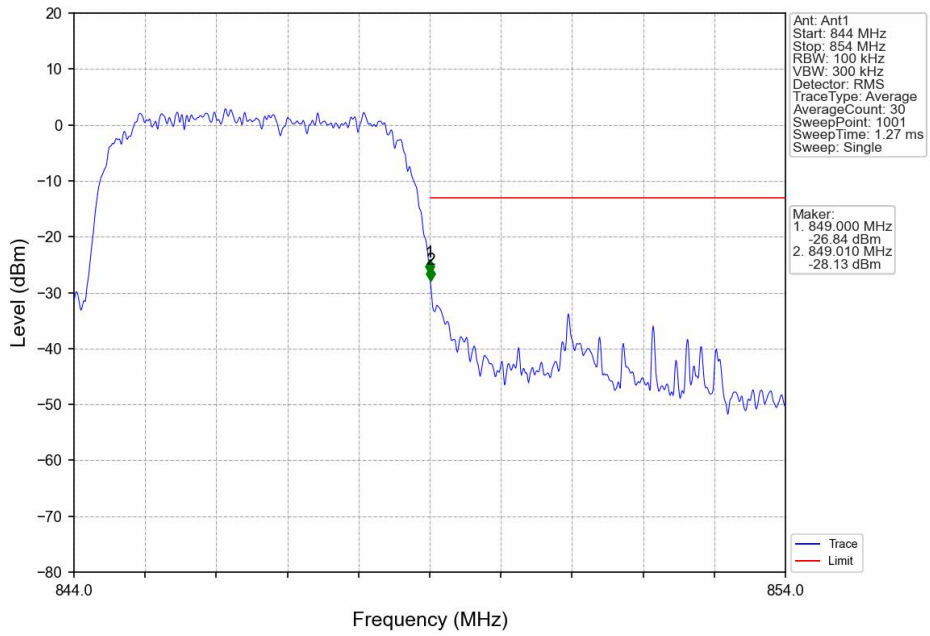
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



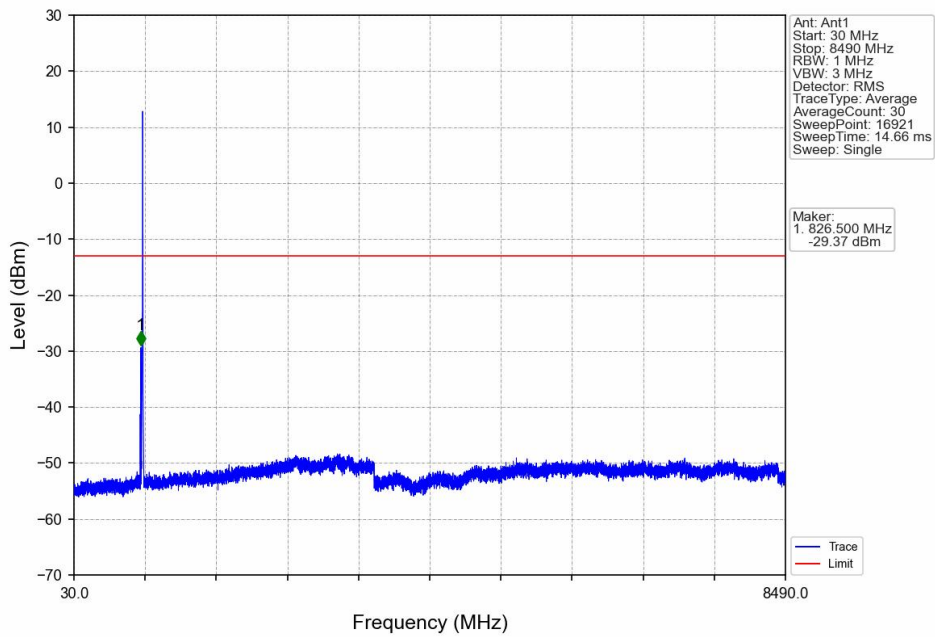
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



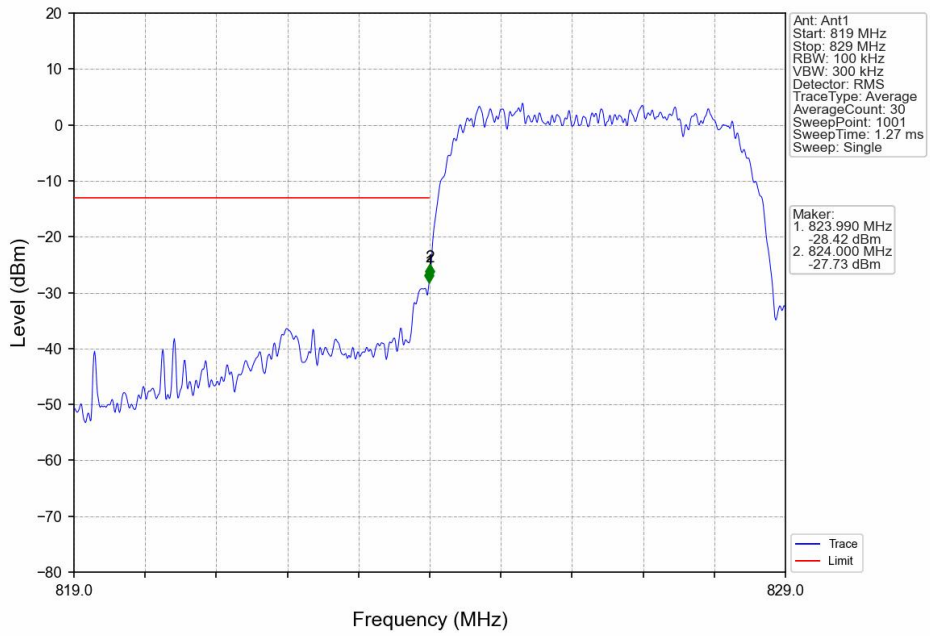
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



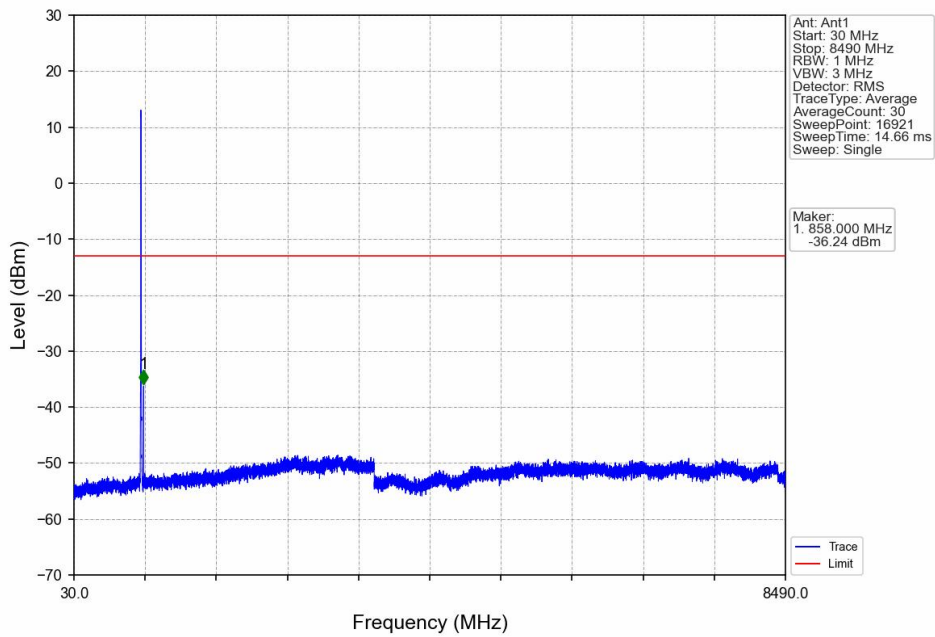
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



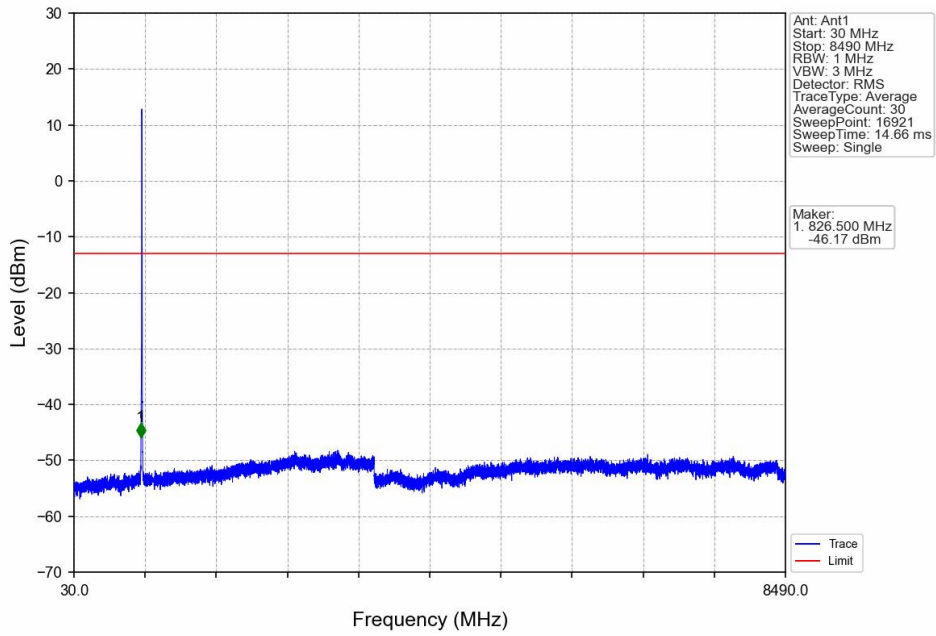
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



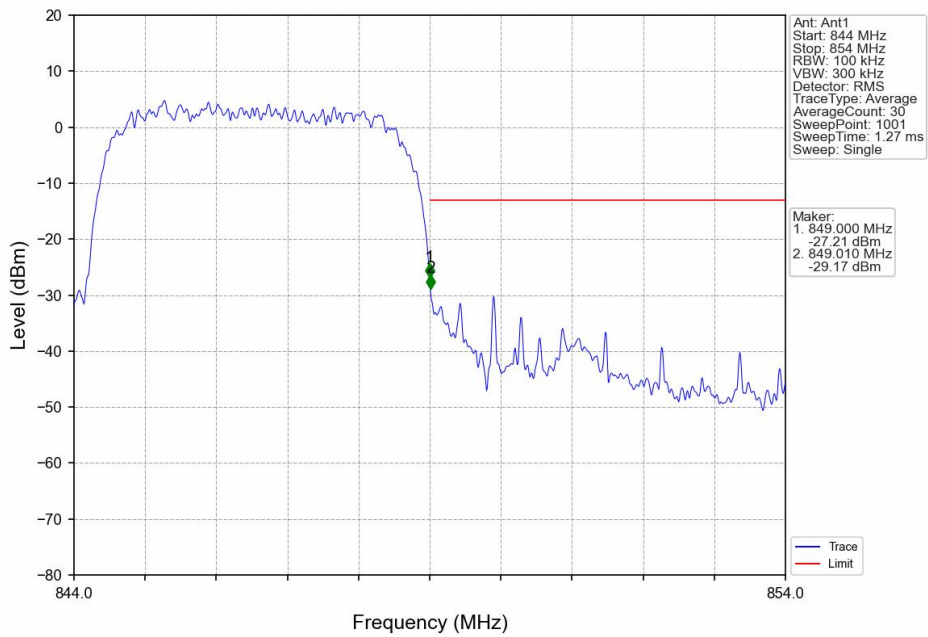
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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

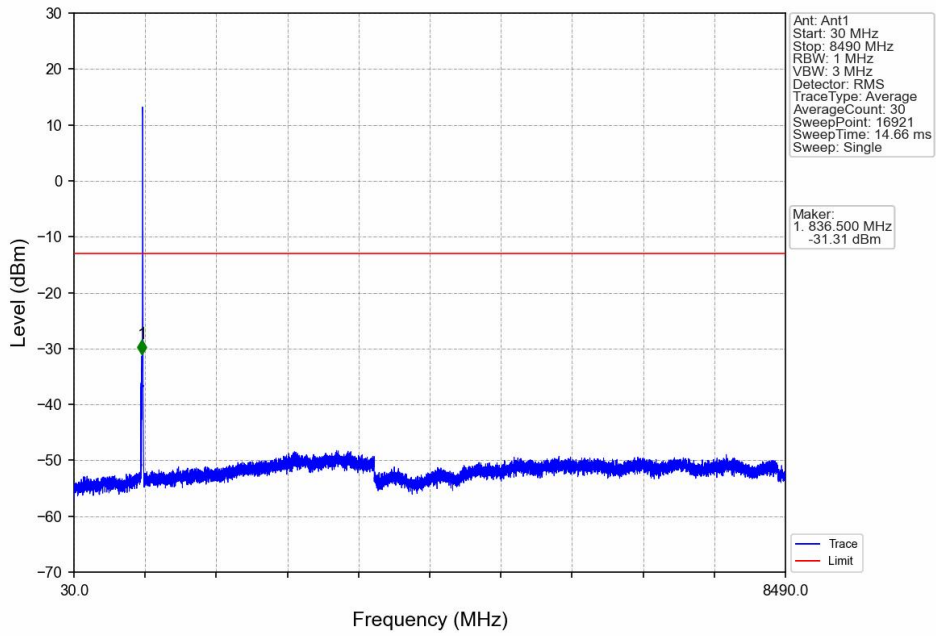


Band5\_HSUPA\_HCH\_846.6MHz\_Subtest 1\_NTNV





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	0.1452	0.0193	ppm	4M24F9W	24E	21.62

### 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	0.0518	0.0193	ppm	4M24F9W	24E	17.14