

# 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	23.26	0.63	21.74	<=38.45	Pass	
			836.6	23.43	0.63	21.91	<=38.45	Pass	
			846.6	23.48	0.63	21.96	<=38.45	Pass	
	HSDPA	Subtest 1	826.4	20.98	0.63	19.46	<=38.45	Pass	
		Subtest 2	826.4	20.98	0.63	19.46	<=38.45	Pass	
		Subtest 3	826.4	20.98	0.63	19.46	<=38.45	Pass	
		Subtest 4	826.4	20.98	0.63	19.46	<=38.45	Pass	
		Subtest 1	836.6	21.07	0.63	19.55	<=38.45	Pass	
		Subtest 2	836.6	21.07	0.63	19.55	<=38.45	Pass	
		Subtest 3	836.6	21.09	0.63	19.57	<=38.45	Pass	
		Subtest 4	836.6	21.10	0.63	19.58	<=38.45	Pass	
		Subtest 1	846.6	21.16	0.63	19.64	<=38.45	Pass	
		Subtest 2	846.6	21.15	0.63	19.63	<=38.45	Pass	
		Subtest 3	846.6	21.17	0.63	19.65	<=38.45	Pass	
		Subtest 4	846.6	21.17	0.63	19.65	<=38.45	Pass	
		HSUPA	Subtest 1	826.4	18.99	0.63	17.47	<=38.45	Pass
			Subtest 2	826.4	18.50	0.63	16.98	<=38.45	Pass
			Subtest 3	826.4	18.50	0.63	16.98	<=38.45	Pass
			Subtest 4	826.4	18.75	0.63	17.23	<=38.45	Pass
			Subtest 5	826.4	18.98	0.63	17.46	<=38.45	Pass
	Subtest 1		836.6	18.92	0.63	17.40	<=38.45	Pass	
	Subtest 2		836.6	18.98	0.63	17.46	<=38.45	Pass	
	Subtest 3		836.6	19.16	0.63	17.64	<=38.45	Pass	
	Subtest 4		836.6	18.99	0.63	17.47	<=38.45	Pass	
	Subtest 5		836.6	18.92	0.63	17.40	<=38.45	Pass	
	Subtest 1		846.6	19.21	0.63	17.69	<=38.45	Pass	
	Subtest 2		846.6	18.74	0.63	17.22	<=38.45	Pass	
	Subtest 3		846.6	18.73	0.63	17.21	<=38.45	Pass	
	Subtest 4		846.6	19.02	0.63	17.50	<=38.45	Pass	
	Subtest 5		846.6	18.67	0.63	17.15	<=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	-8.068	-0.0098	-2.5 to 2.5	Pass
			3.85	-13.368	-0.0162	-2.5 to 2.5	Pass
			4.43	-8.597	-0.0104	-2.5 to 2.5	Pass
		-30	3.85	-6.230	-0.0075	-2.5 to 2.5	Pass
		-20	3.85	-8.118	-0.0098	-2.5 to 2.5	Pass
		-10	3.85	-10.064	-0.0122	-2.5 to 2.5	Pass
		0	3.85	-12.453	-0.0151	-2.5 to 2.5	Pass
		10	3.85	-5.758	-0.0070	-2.5 to 2.5	Pass
		30	3.85	-9.084	-0.0110	-2.5 to 2.5	Pass
		40	3.85	-13.325	-0.0161	-2.5 to 2.5	Pass
	50	3.85	-9.978	-0.0121	-2.5 to 2.5	Pass	
	836.6	20	3.27	-11.673	-0.0140	-2.5 to 2.5	Pass
			3.85	-6.351	-0.0076	-2.5 to 2.5	Pass
			4.43	-12.553	-0.0150	-2.5 to 2.5	Pass
		-30	3.85	-10.965	-0.0131	-2.5 to 2.5	Pass
		-20	3.85	-7.846	-0.0094	-2.5 to 2.5	Pass
		-10	3.85	-15.550	-0.0186	-2.5 to 2.5	Pass
		0	3.85	-13.332	-0.0159	-2.5 to 2.5	Pass
		10	3.85	-9.964	-0.0119	-2.5 to 2.5	Pass
		30	3.85	-8.025	-0.0096	-2.5 to 2.5	Pass
		40	3.85	-15.099	-0.0180	-2.5 to 2.5	Pass
	50	3.85	-11.802	-0.0141	-2.5 to 2.5	Pass	
	846.6	20	3.27	-6.216	-0.0073	-2.5 to 2.5	Pass
			3.85	-10.543	-0.0125	-2.5 to 2.5	Pass
			4.43	-10.071	-0.0119	-2.5 to 2.5	Pass
		-30	3.85	-6.294	-0.0074	-2.5 to 2.5	Pass
		-20	3.85	-12.088	-0.0143	-2.5 to 2.5	Pass
		-10	3.85	-8.755	-0.0103	-2.5 to 2.5	Pass
		0	3.85	-6.609	-0.0078	-2.5 to 2.5	Pass
		10	3.85	-11.759	-0.0139	-2.5 to 2.5	Pass
30		3.85	-7.739	-0.0091	-2.5 to 2.5	Pass	
40		3.85	-13.876	-0.0164	-2.5 to 2.5	Pass	
50	3.85	-9.463	-0.0112	-2.5 to 2.5	Pass		
HSDPA	826.4	20	3.27	-11.408	-0.0138	-2.5 to 2.5	Pass
			3.85	-5.844	-0.0071	-2.5 to 2.5	Pass
			4.43	-8.104	-0.0098	-2.5 to 2.5	Pass
		-30	3.85	-10.192	-0.0123	-2.5 to 2.5	Pass
		-20	3.85	-12.059	-0.0146	-2.5 to 2.5	Pass
		-10	3.85	-9.434	-0.0114	-2.5 to 2.5	Pass
		0	3.85	-7.038	-0.0085	-2.5 to 2.5	Pass
		10	3.85	-6.709	-0.0081	-2.5 to 2.5	Pass
		30	3.85	-7.124	-0.0086	-2.5 to 2.5	Pass
		40	3.85	-9.120	-0.0110	-2.5 to 2.5	Pass
	50	3.85	-11.415	-0.0138	-2.5 to 2.5	Pass	
	836.6	20	3.27	-11.165	-0.0133	-2.5 to 2.5	Pass
			3.85	-9.863	-0.0118	-2.5 to 2.5	Pass
			4.43	-7.746	-0.0093	-2.5 to 2.5	Pass
		-30	3.85	-3.970	-0.0047	-2.5 to 2.5	Pass
		-20	3.85	-9.499	-0.0114	-2.5 to 2.5	Pass
		-10	3.85	-4.578	-0.0055	-2.5 to 2.5	Pass
		0	3.85	-10.121	-0.0121	-2.5 to 2.5	Pass
		10	3.85	-5.229	-0.0063	-2.5 to 2.5	Pass
		30	3.85	-7.918	-0.0095	-2.5 to 2.5	Pass
		40	3.85	-9.205	-0.0110	-2.5 to 2.5	Pass
	50	3.85	-9.384	-0.0112	-2.5 to 2.5	Pass	

	846.6	20	3.27	-7.932	-0.0094	-2.5 to 2.5	Pass
			3.85	-7.017	-0.0083	-2.5 to 2.5	Pass
			4.43	-5.472	-0.0065	-2.5 to 2.5	Pass
		-30	3.85	-10.021	-0.0118	-2.5 to 2.5	Pass
		-20	3.85	-6.588	-0.0078	-2.5 to 2.5	Pass
		-10	3.85	-2.475	-0.0029	-2.5 to 2.5	Pass
		0	3.85	-9.134	-0.0108	-2.5 to 2.5	Pass
		10	3.85	-5.751	-0.0068	-2.5 to 2.5	Pass
		30	3.85	-10.393	-0.0123	-2.5 to 2.5	Pass
		40	3.85	-6.301	-0.0074	-2.5 to 2.5	Pass
50	3.85	-2.332	-0.0028	-2.5 to 2.5	Pass		
HSUPA	826.4	20	3.27	-3.891	-0.0047	-2.5 to 2.5	Pass
			3.85	-7.210	-0.0087	-2.5 to 2.5	Pass
			4.43	-8.061	-0.0098	-2.5 to 2.5	Pass
		-30	3.85	-7.567	-0.0092	-2.5 to 2.5	Pass
		-20	3.85	-6.151	-0.0074	-2.5 to 2.5	Pass
		-10	3.85	-5.050	-0.0061	-2.5 to 2.5	Pass
		0	3.85	-3.805	-0.0046	-2.5 to 2.5	Pass
		10	3.85	-2.224	-0.0027	-2.5 to 2.5	Pass
		30	3.85	-12.102	-0.0146	-2.5 to 2.5	Pass
		40	3.85	-11.129	-0.0135	-2.5 to 2.5	Pass
	50	3.85	-11.165	-0.0135	-2.5 to 2.5	Pass	
	836.6	20	3.27	-10.343	-0.0124	-2.5 to 2.5	Pass
			3.85	-14.813	-0.0177	-2.5 to 2.5	Pass
			4.43	-6.130	-0.0073	-2.5 to 2.5	Pass
		-30	3.85	-8.354	-0.0100	-2.5 to 2.5	Pass
		-20	3.85	-10.772	-0.0129	-2.5 to 2.5	Pass
		-10	3.85	-9.170	-0.0110	-2.5 to 2.5	Pass
		0	3.85	-10.872	-0.0130	-2.5 to 2.5	Pass
		10	3.85	-8.433	-0.0101	-2.5 to 2.5	Pass
		30	3.85	-12.460	-0.0149	-2.5 to 2.5	Pass
		40	3.85	-8.783	-0.0105	-2.5 to 2.5	Pass
	50	3.85	-8.876	-0.0106	-2.5 to 2.5	Pass	
	846.6	20	3.27	-9.642	-0.0114	-2.5 to 2.5	Pass
			3.85	-7.102	-0.0084	-2.5 to 2.5	Pass
			4.43	-8.411	-0.0099	-2.5 to 2.5	Pass
		-30	3.85	-6.995	-0.0083	-2.5 to 2.5	Pass
		-20	3.85	-5.958	-0.0070	-2.5 to 2.5	Pass
		-10	3.85	-7.510	-0.0089	-2.5 to 2.5	Pass
		0	3.85	-10.707	-0.0126	-2.5 to 2.5	Pass
		10	3.85	-14.091	-0.0166	-2.5 to 2.5	Pass
30		3.85	-10.057	-0.0119	-2.5 to 2.5	Pass	
40		3.85	-8.233	-0.0097	-2.5 to 2.5	Pass	
50	3.85	-11.358	-0.0134	-2.5 to 2.5	Pass		

### 3. Modulation Characteristics

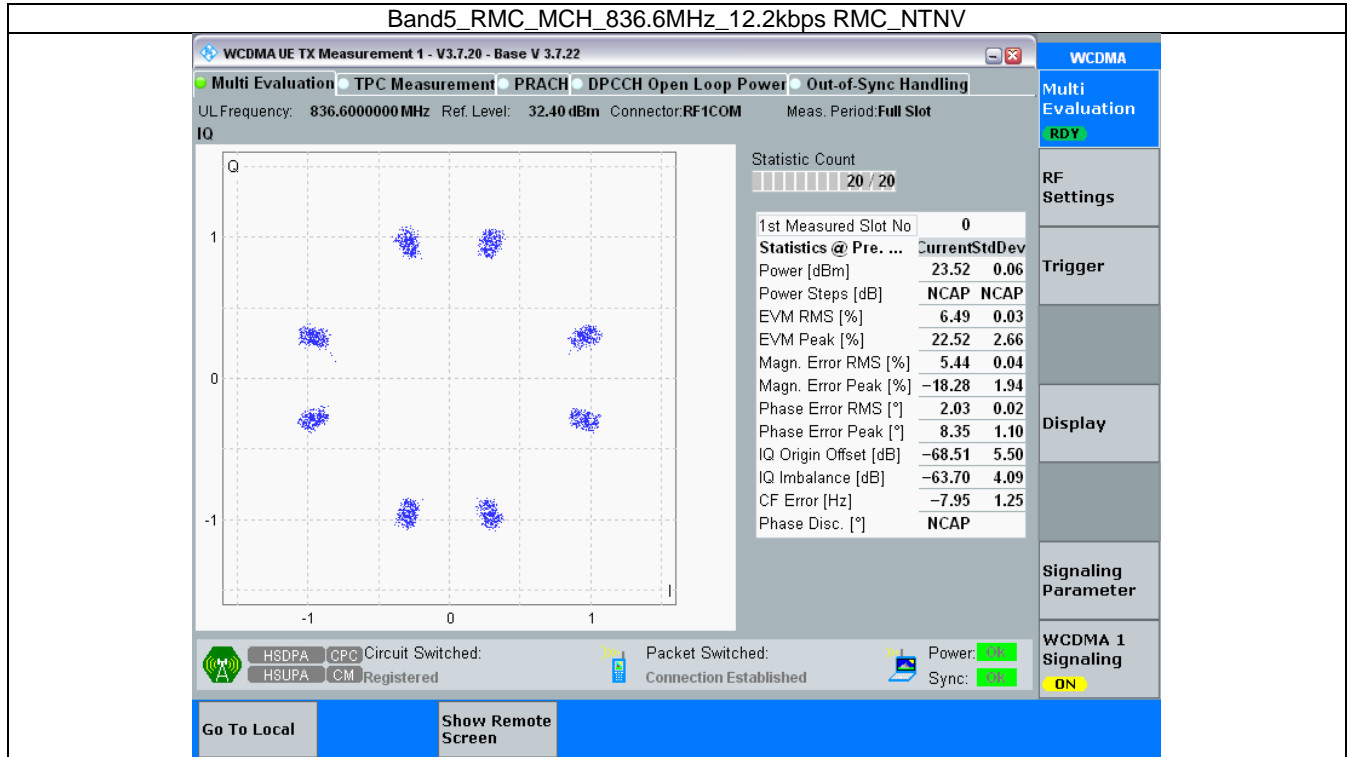
#### 3.1 Band5

##### 3.1.1 Test Result

Band: 5
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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		Delete
	HSUPA	Subtest 1	836.6	Refer To Test Graph		Pass

### 3.1.2 Test Graph



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





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

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

UL Frequency: 836.600000 MHz Ref. Level: 16.80 dBm Connector: RF1COM Meas. Period: Full Slot

WCDMA

Multi Evaluation

RDY

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

IQ

Statistic Count

20 / 20

1st Measured Slot No	0
Statistics @ Pre. ...	CurrentStdDev
Power [dBm]	1.35 3.05
Power Steps [dB]	NCAP NCAP
EVM RMS [%]	5.59 2.59
EVM Peak [%]	12.76 34.57
Magn. Error RMS [%]	4.59 2.82
Magn. Error Peak [%]	-12.27 34.70
Phase Error RMS [°]	3.62 0.84
Phase Error Peak [°]	12.28 4.57
IQ Origin Offset [dB]	-64.84 4.82
IQ Imbalance [dB]	-70.31 5.86
CF Error [Hz]	-7.00 3.03
Phase Disc. [°]	NCAP

HSDPA+ CPC 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

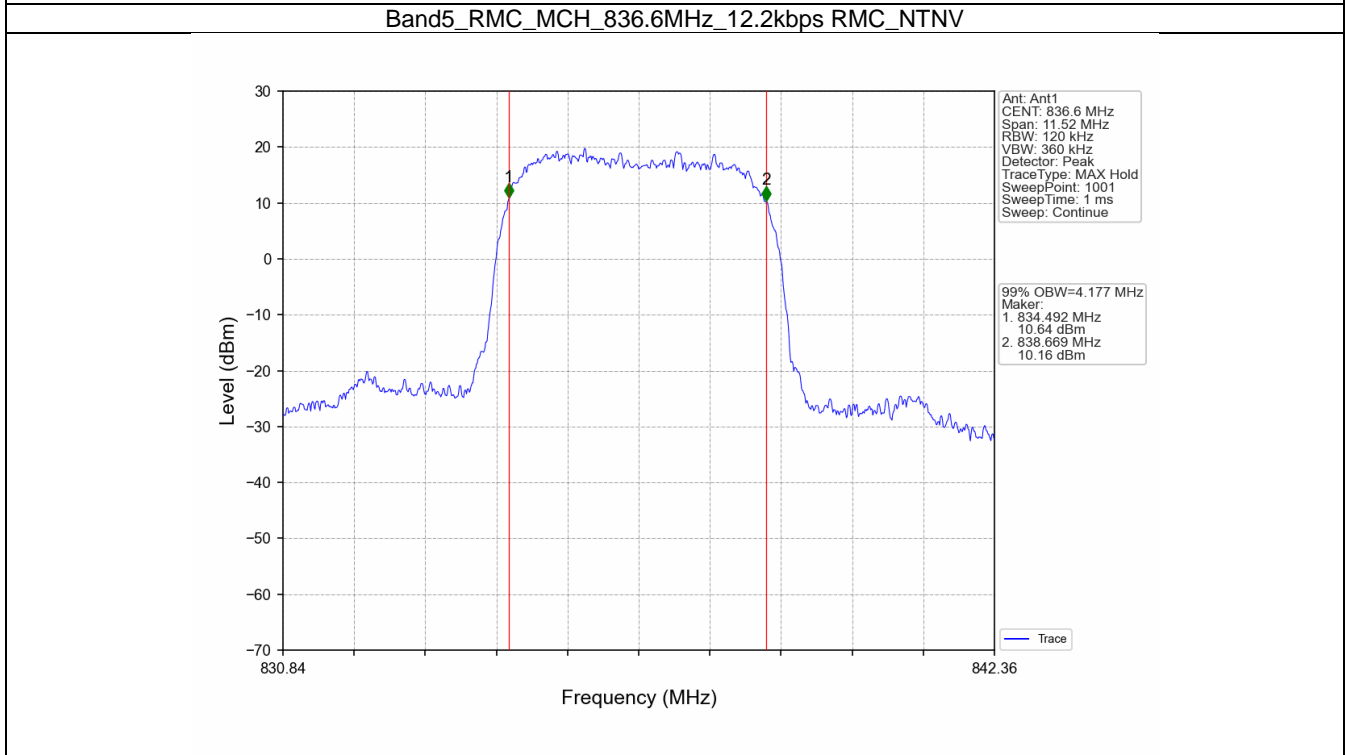
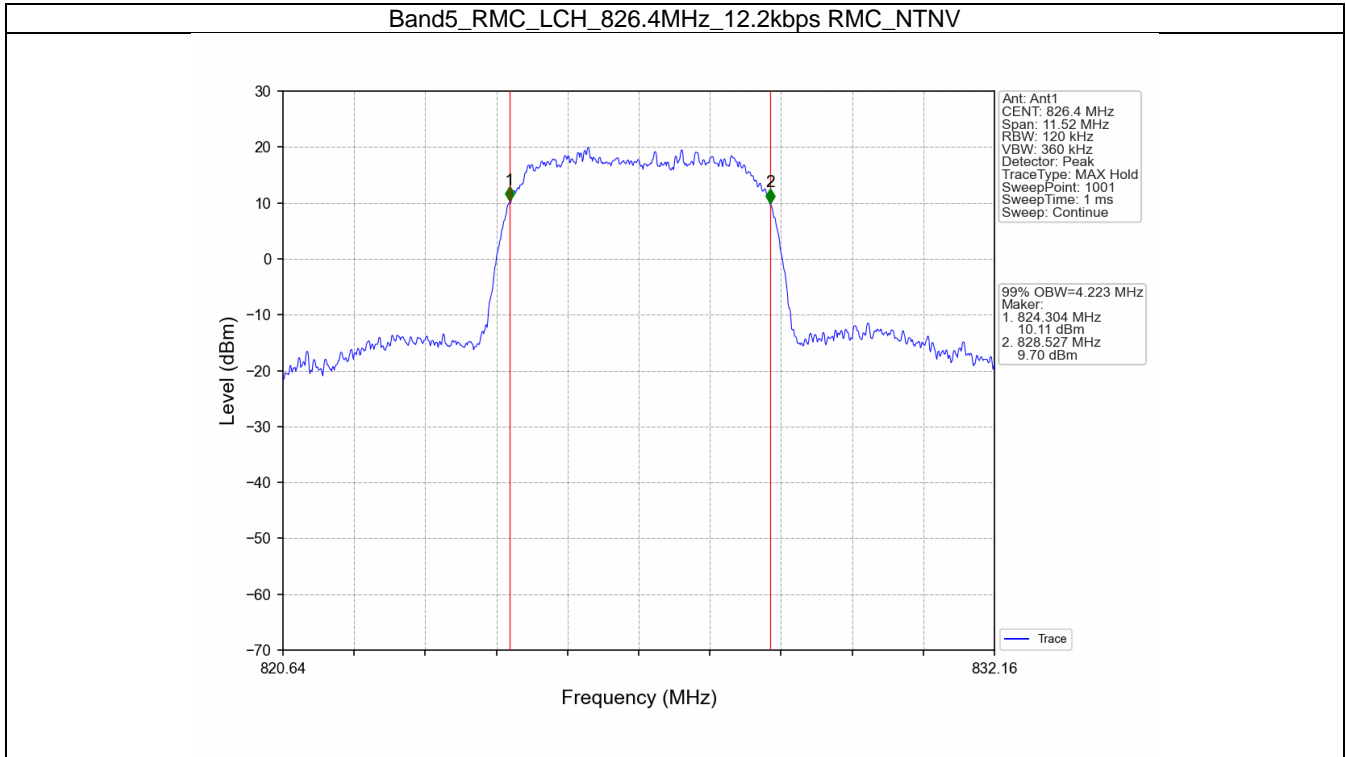
### 4.1 Band5\_OBW

#### 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	4.223	Pass
			836.6	4.177	Pass
			846.6	4.147	Pass
	HSDPA	Subtest 1	826.4	4.233	Pass
			836.6	4.224	Pass
			846.6	4.172	Pass
	HSUPA	Subtest 1	826.4	4.238	Pass
			836.6	4.205	Pass
			846.6	4.155	Pass

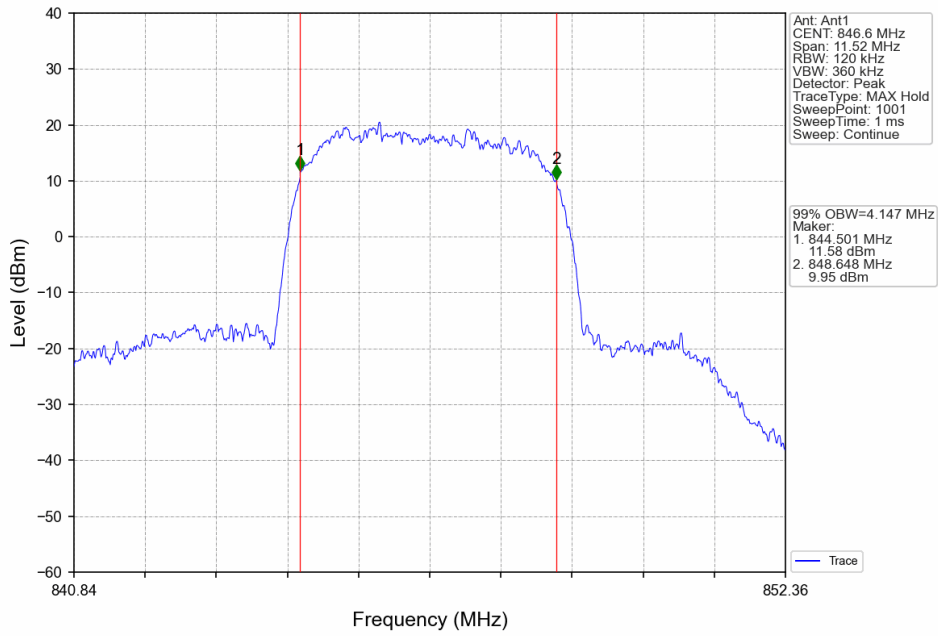


### 4.1.2 Test Graph

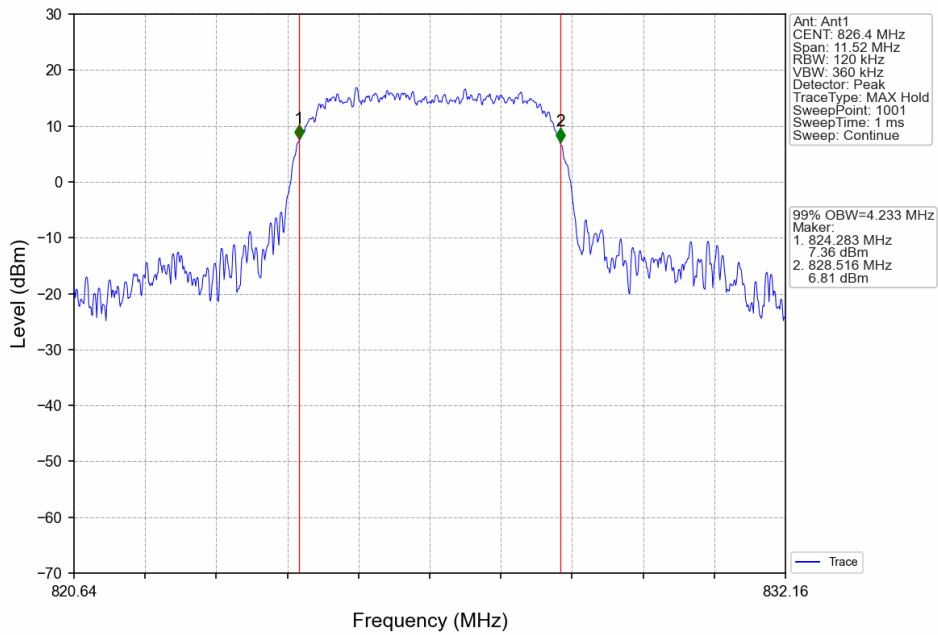




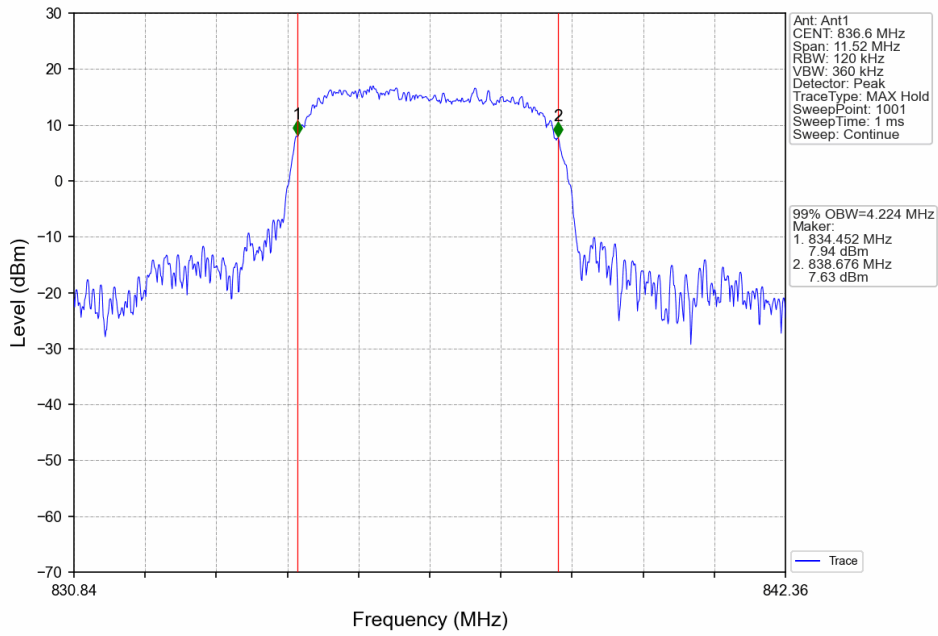
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



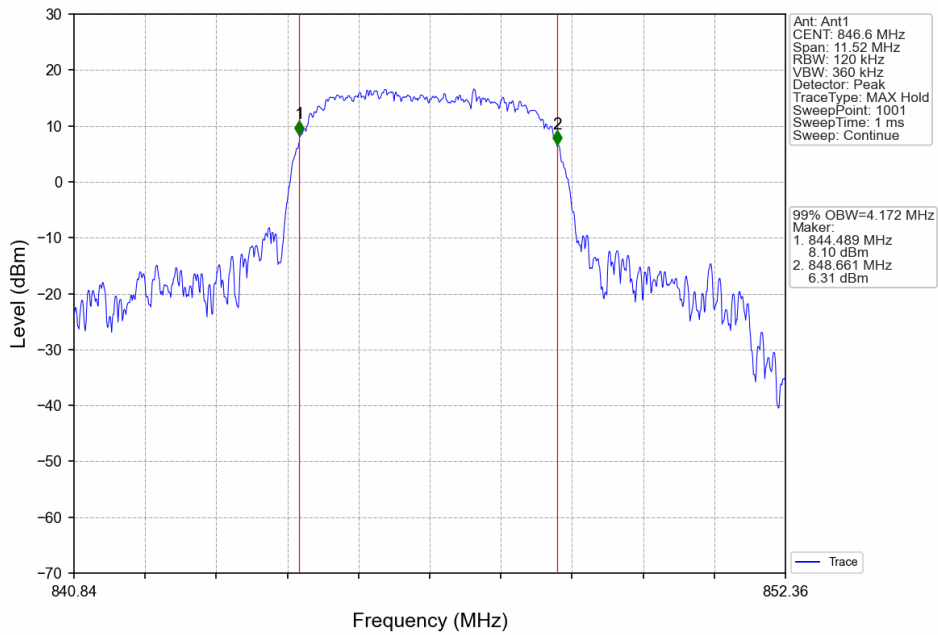
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



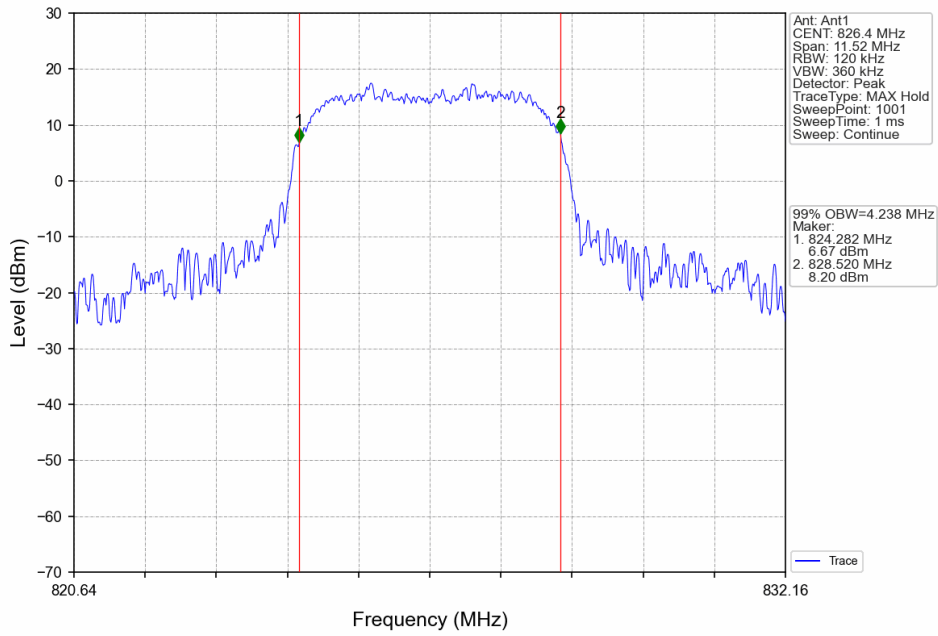
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



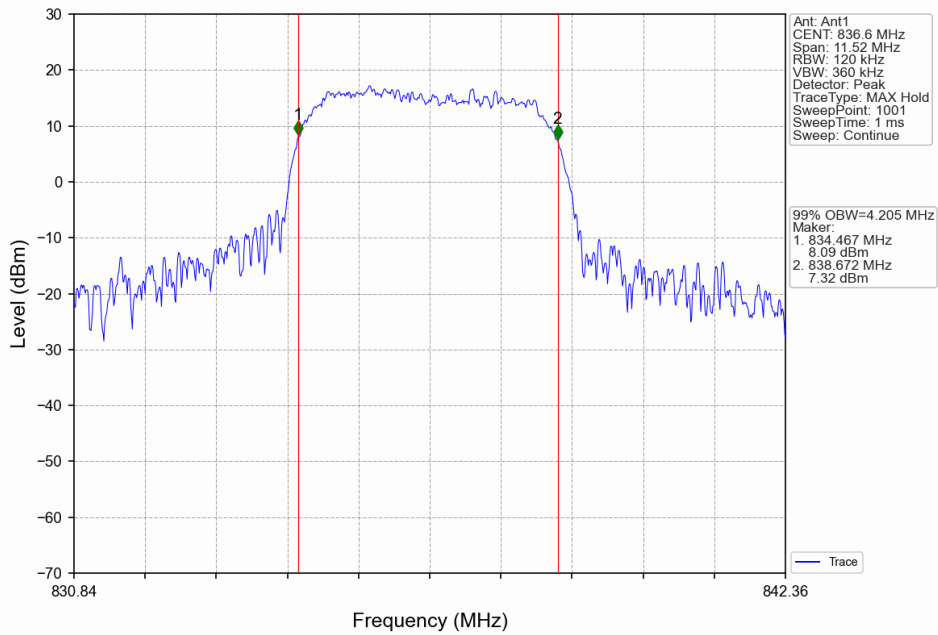
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



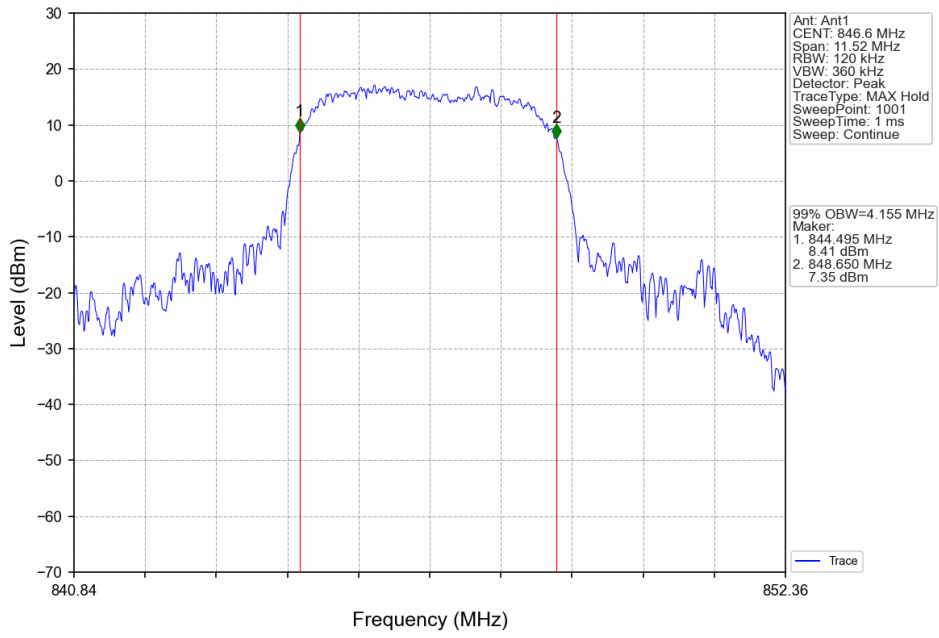
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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



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

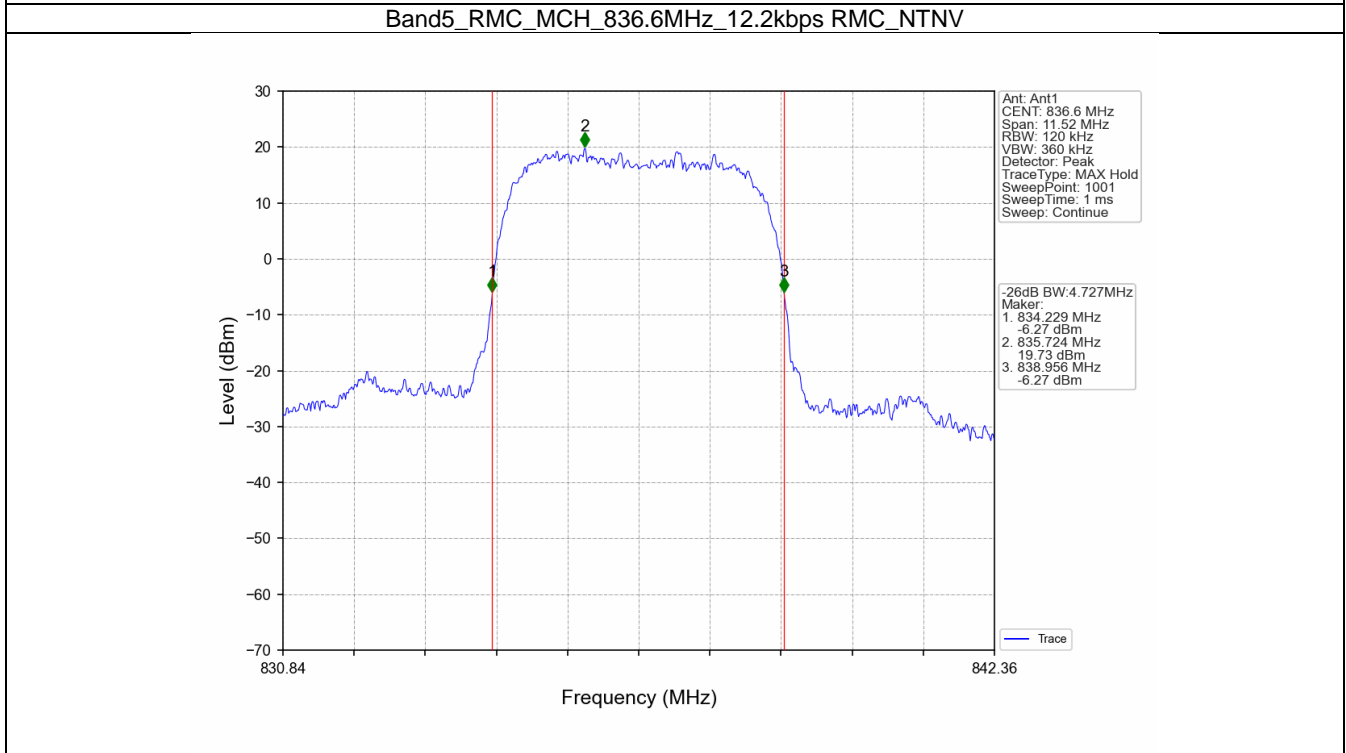
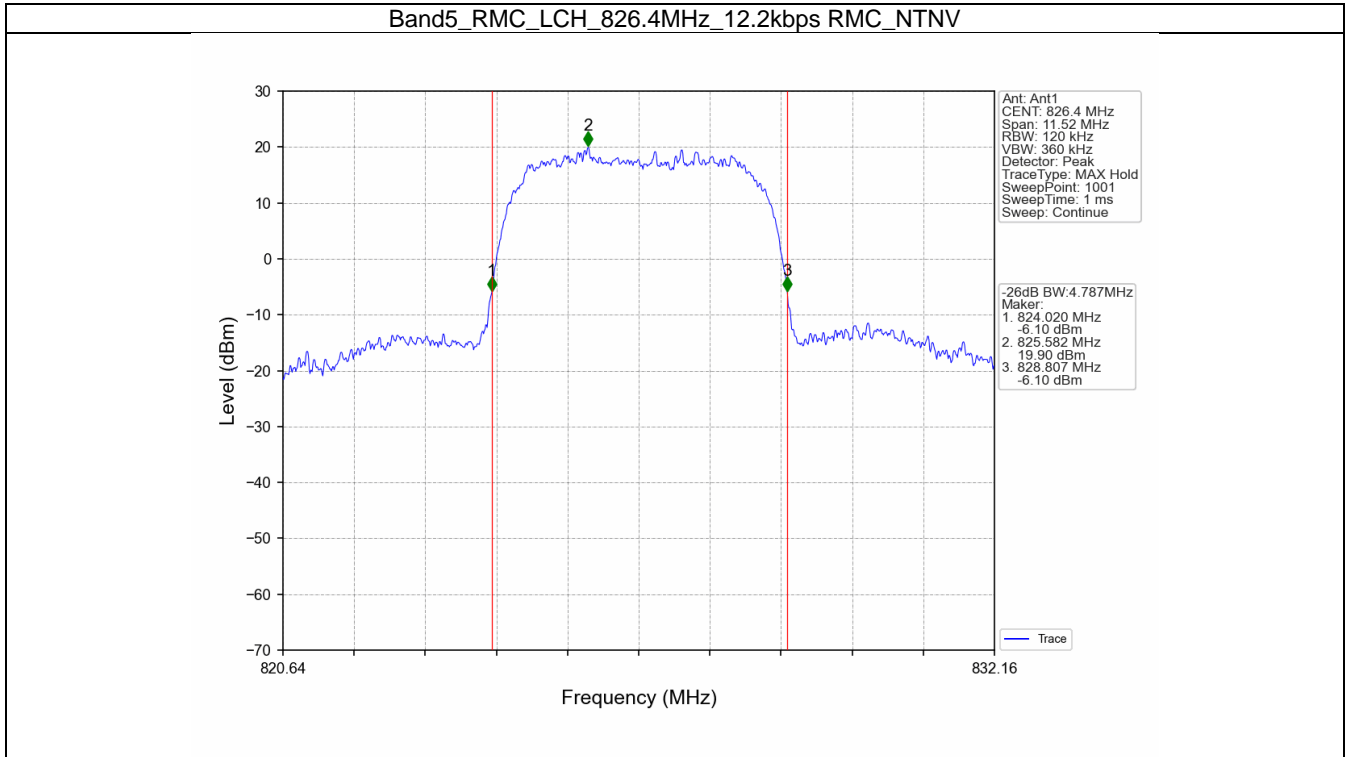


## 4.2 Band5\_XDB

### 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	4.787	Pass
			836.6	4.727	Pass
			846.6	4.745	Pass
	HSDPA	Subtest 1	826.4	5.721	Pass
			836.6	4.989	Pass
			846.6	5.031	Pass
	HSUPA	Subtest 1	826.4	5.238	Pass
			836.6	5.281	Pass
			846.6	4.996	Pass

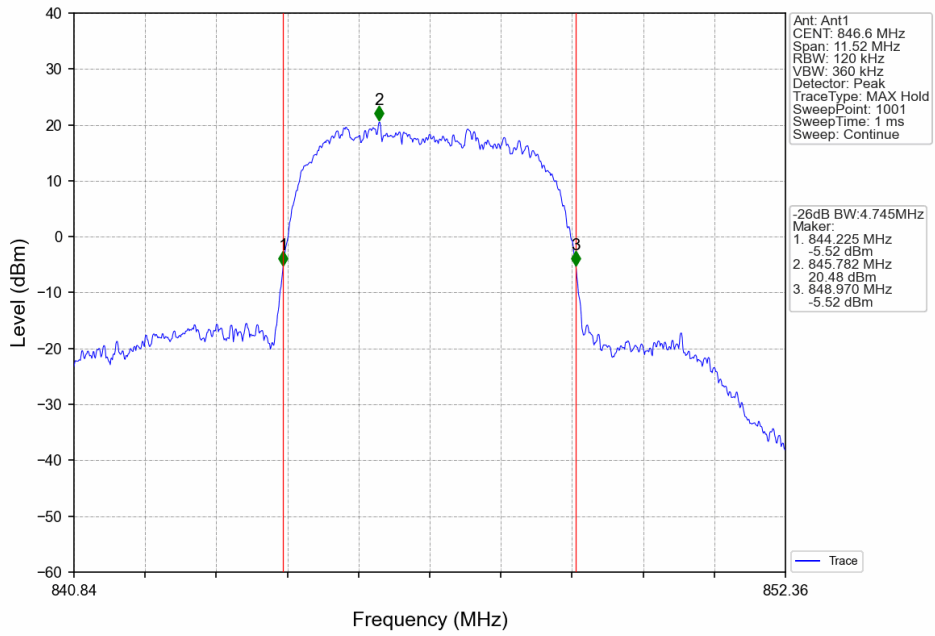
## 4.2.2 Test Graph



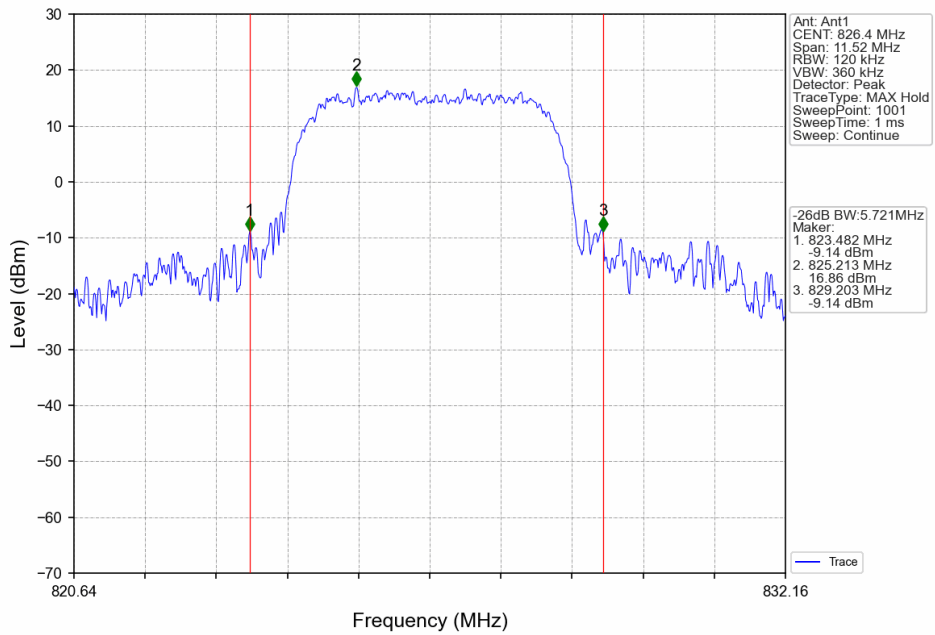




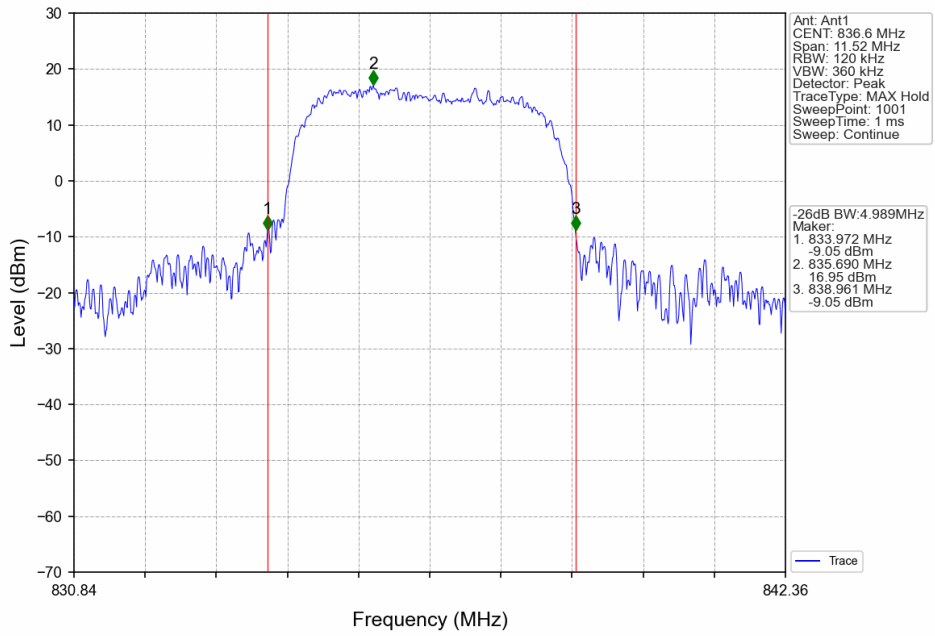
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



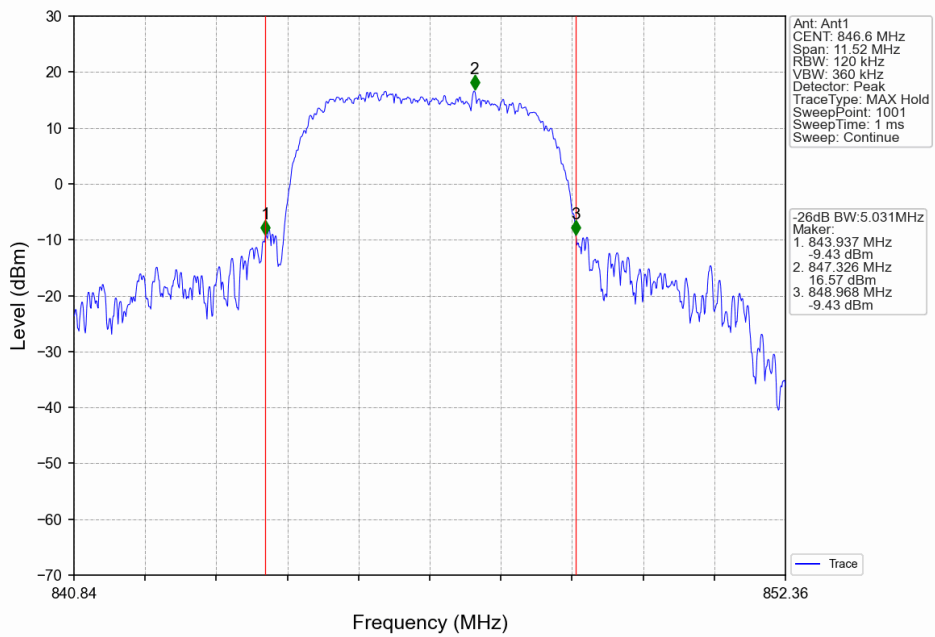
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



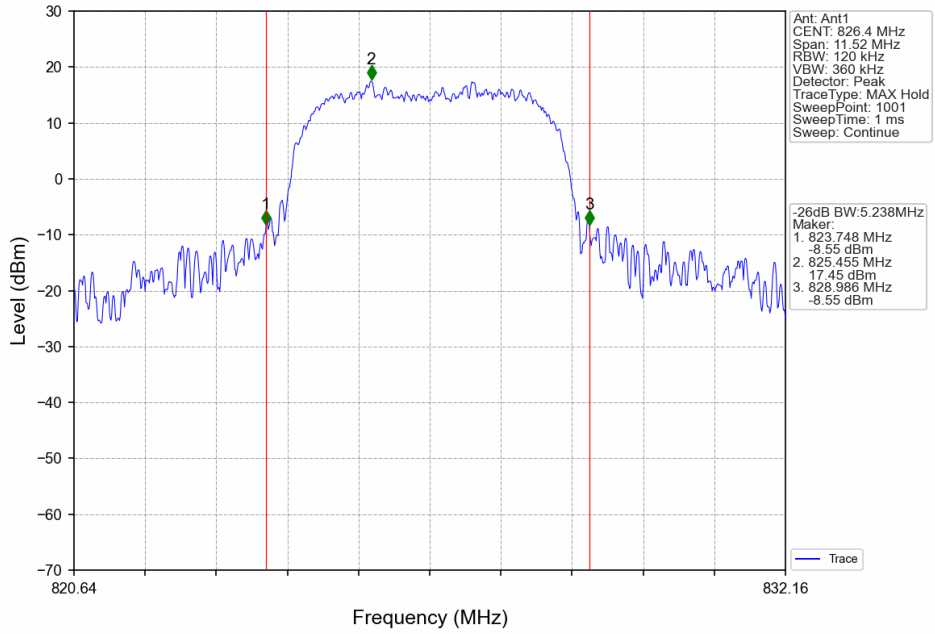
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



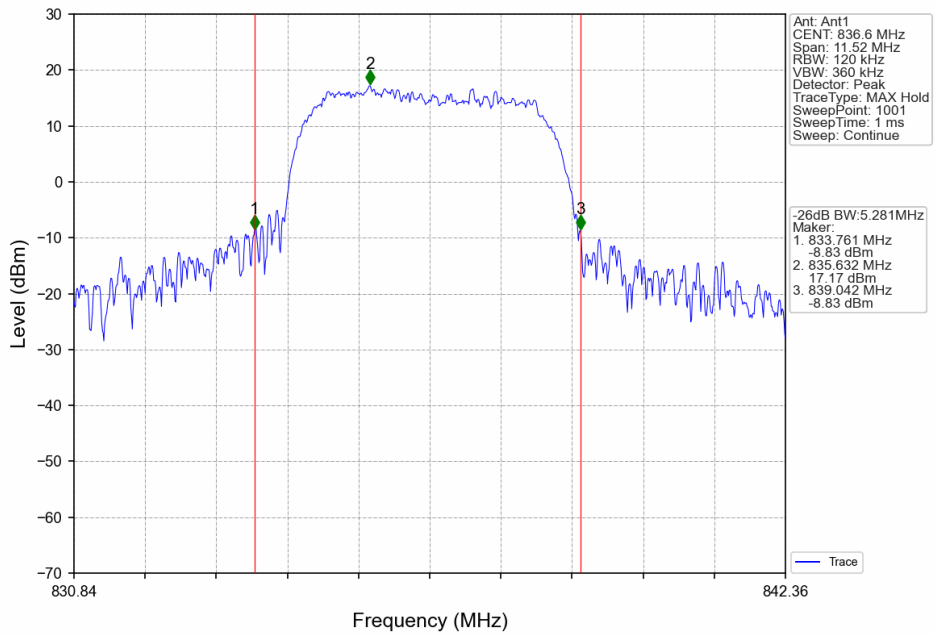
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



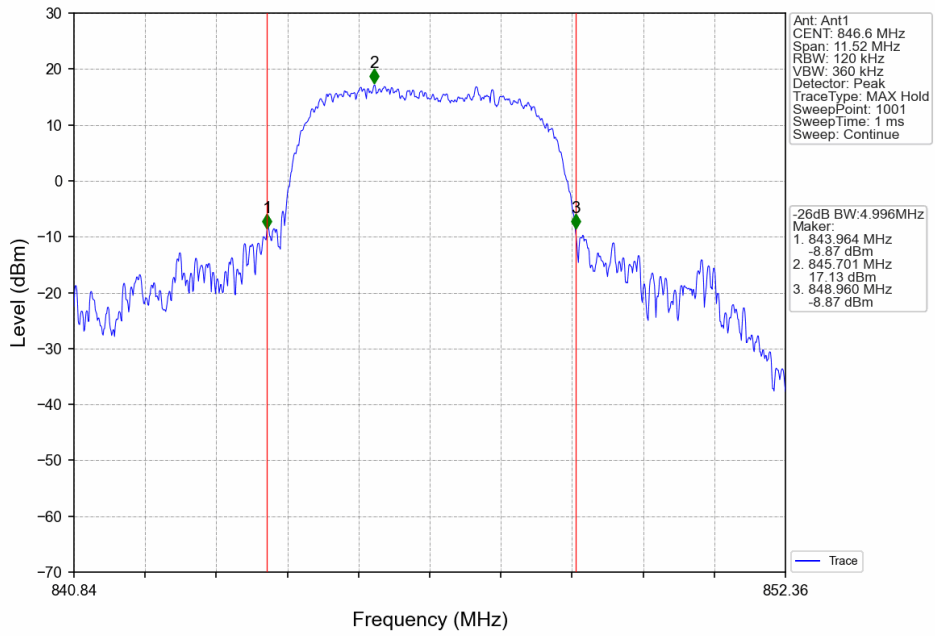
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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



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



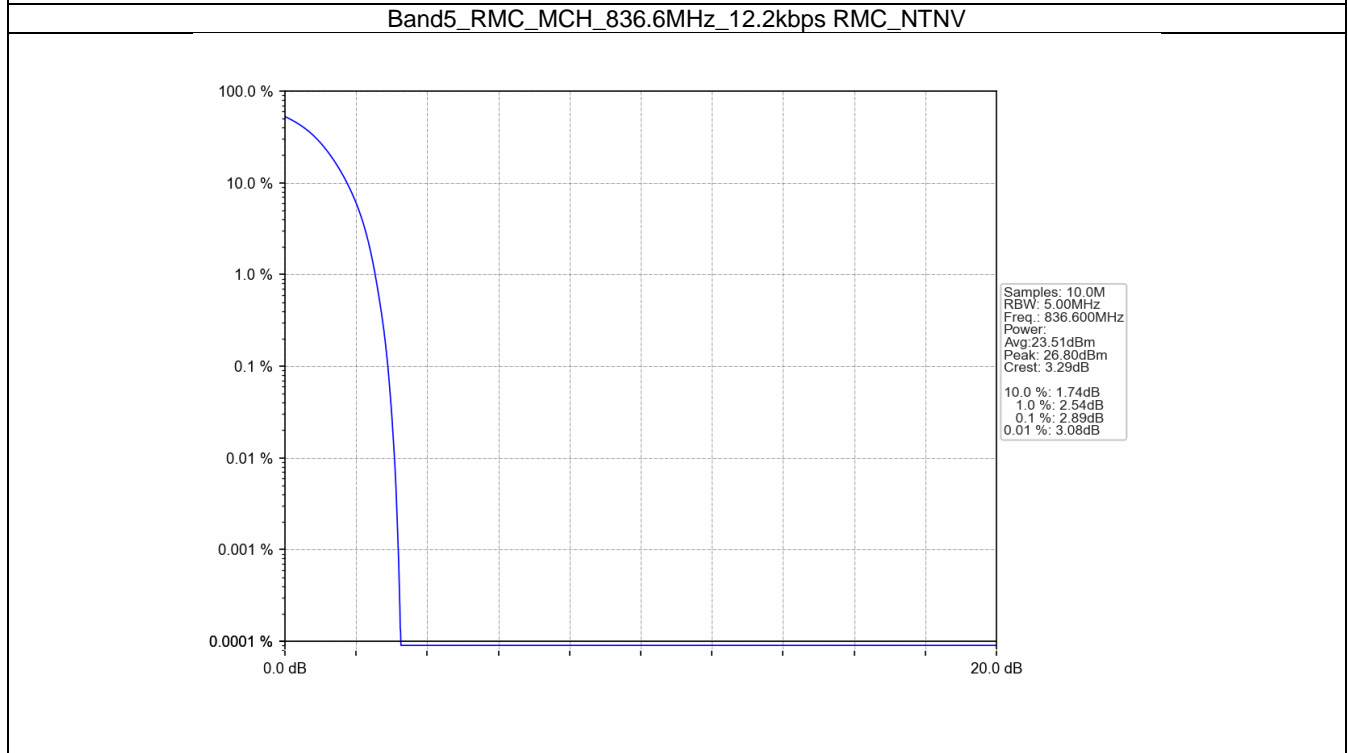
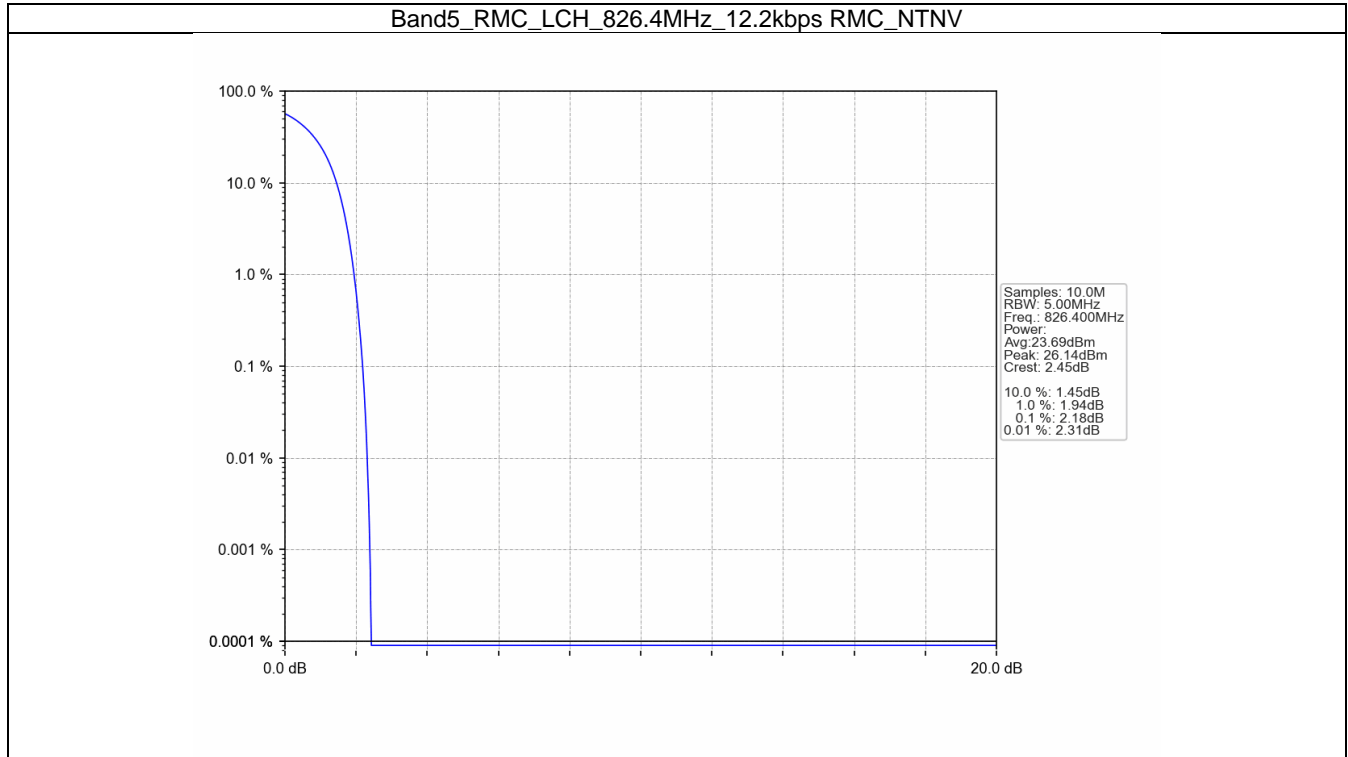
## 5. Peak-Average Ratio

### 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	2.18	<=13	Pass
			836.6	2.89	<=13	Pass
			846.6	2.71	<=13	Pass
	HSDPA	Subtest 1	826.4	5.68	<=13	Pass
			836.6	6.09	<=13	Pass
			846.6	5.76	<=13	Pass
	HSUPA	Subtest 1	826.4	5.42	<=13	Pass
			836.6	6.19	<=13	Pass
			846.6	5.69	<=13	Pass

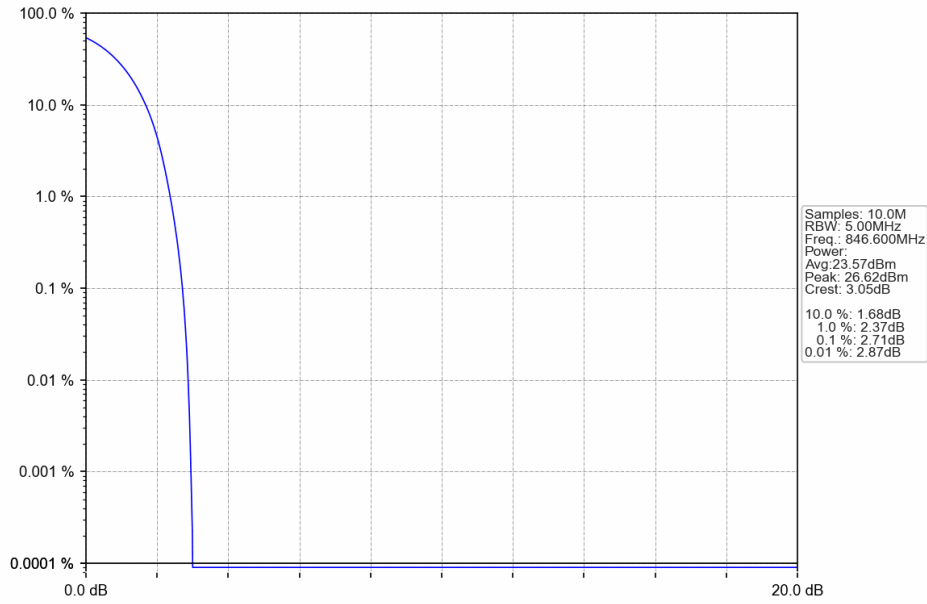
### 5.1.2 Test Graph



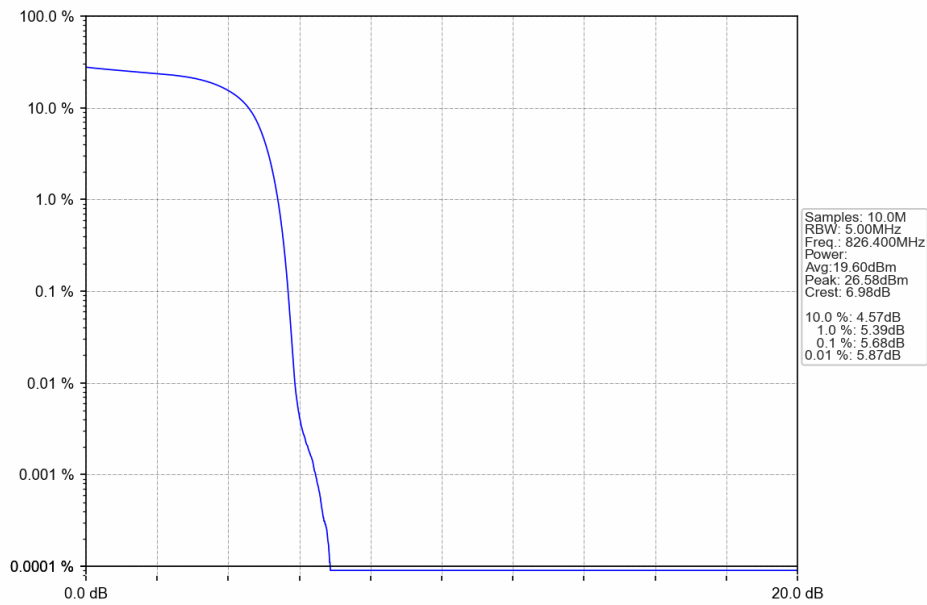




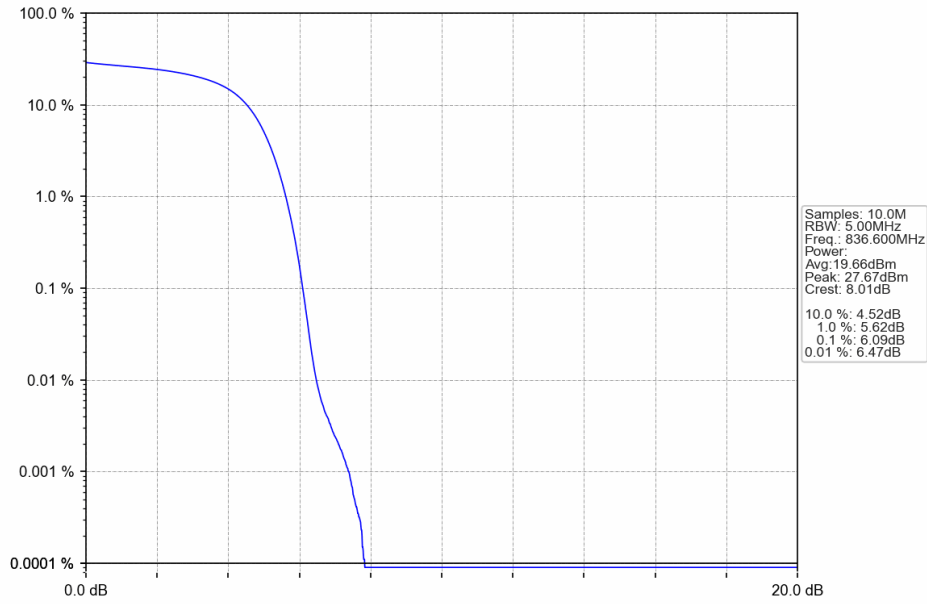
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



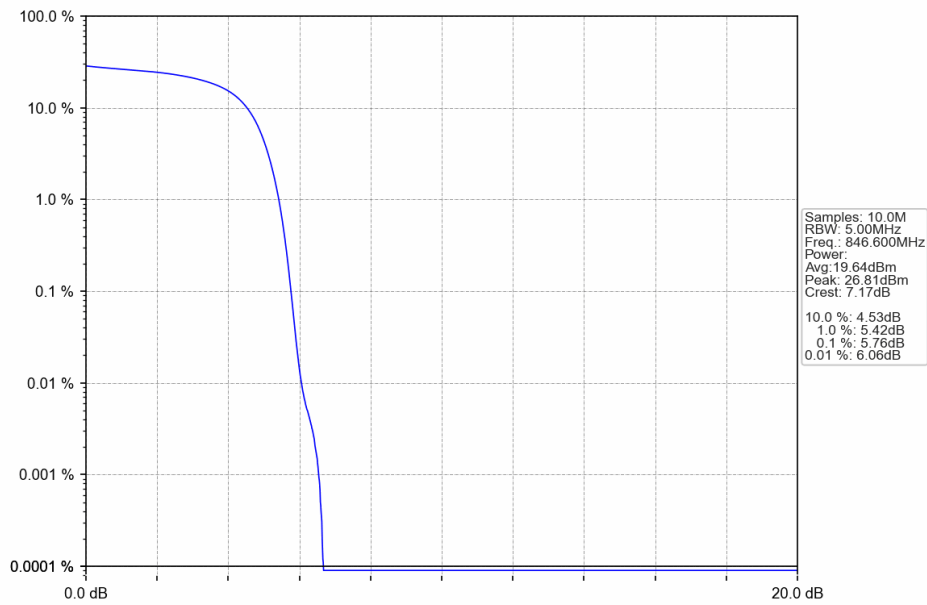
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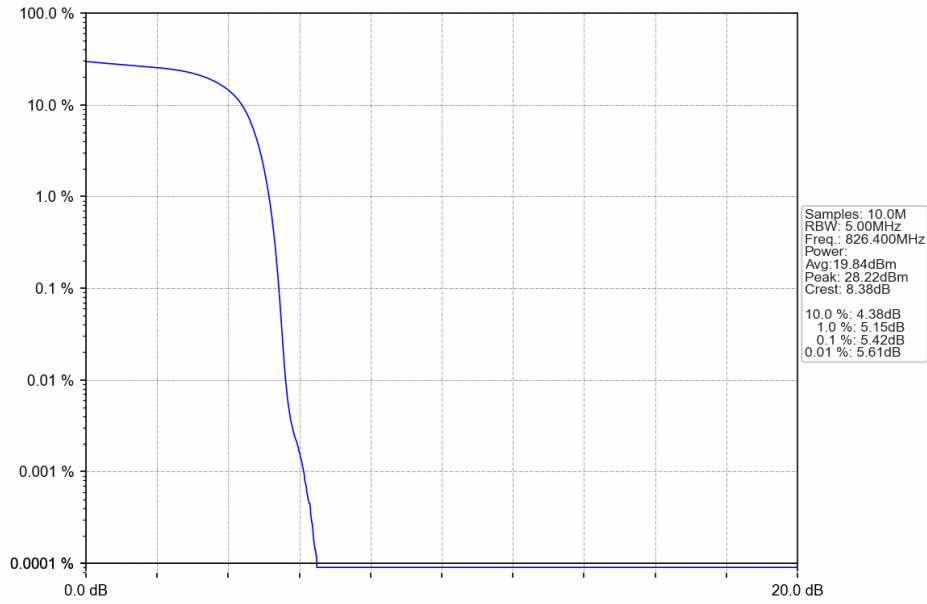
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



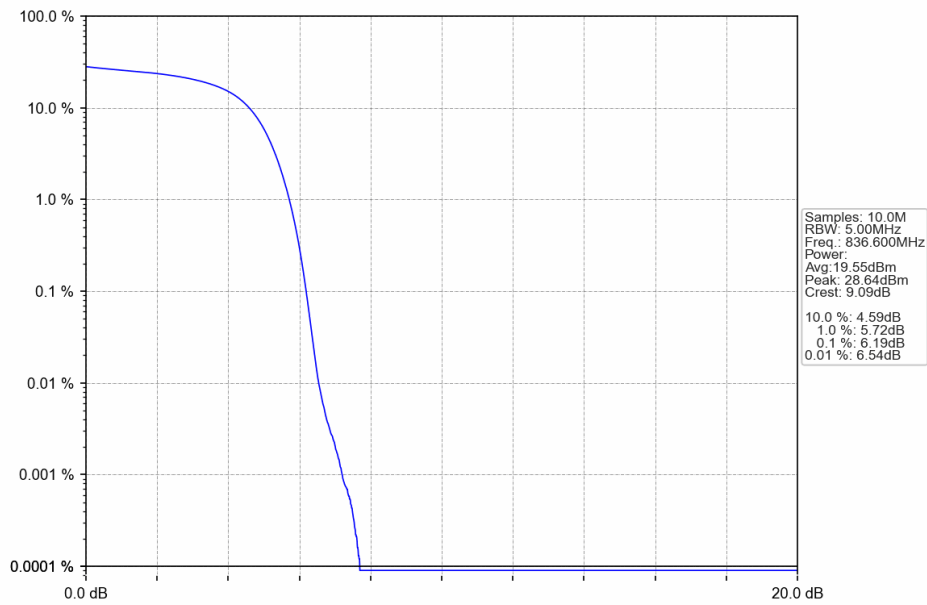
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



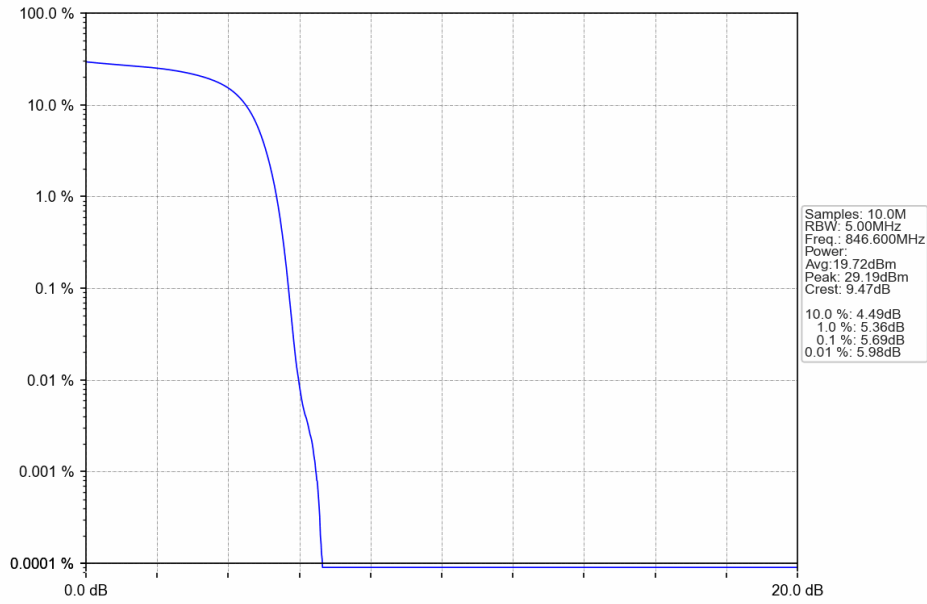
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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



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



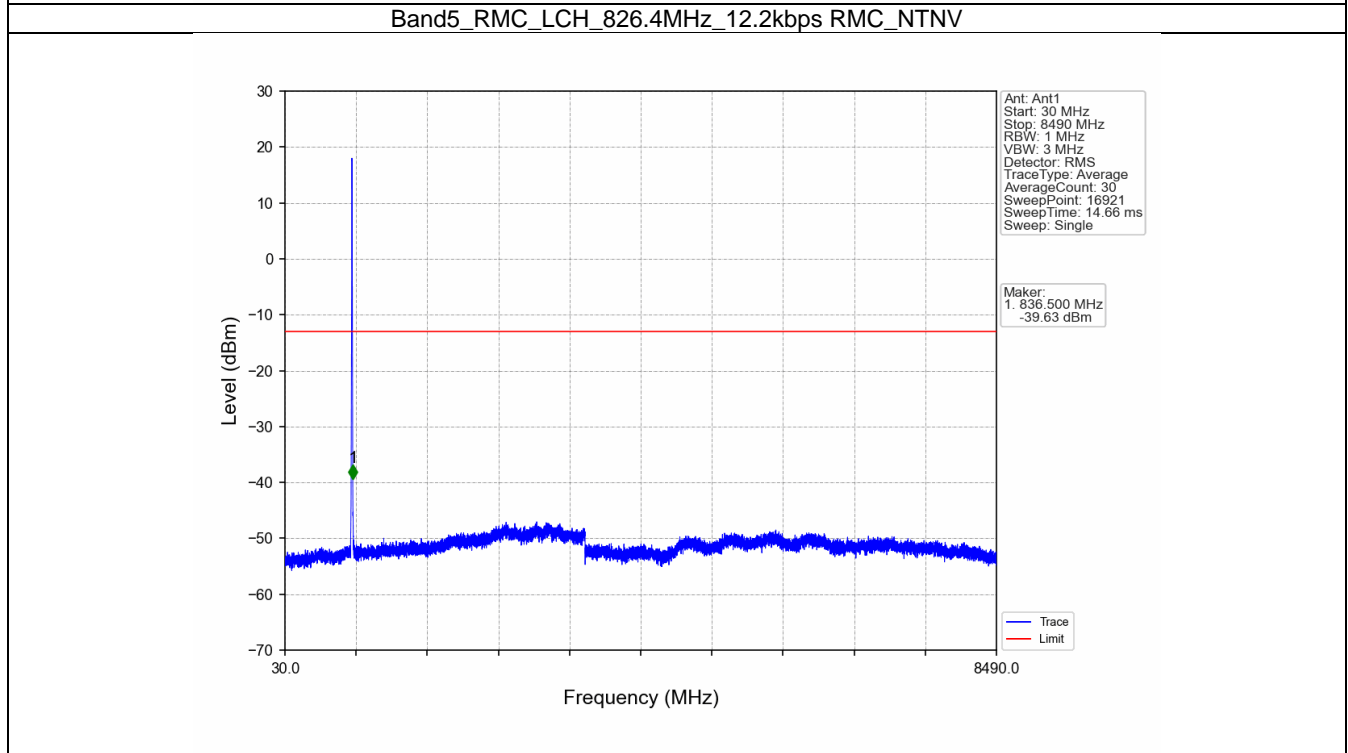
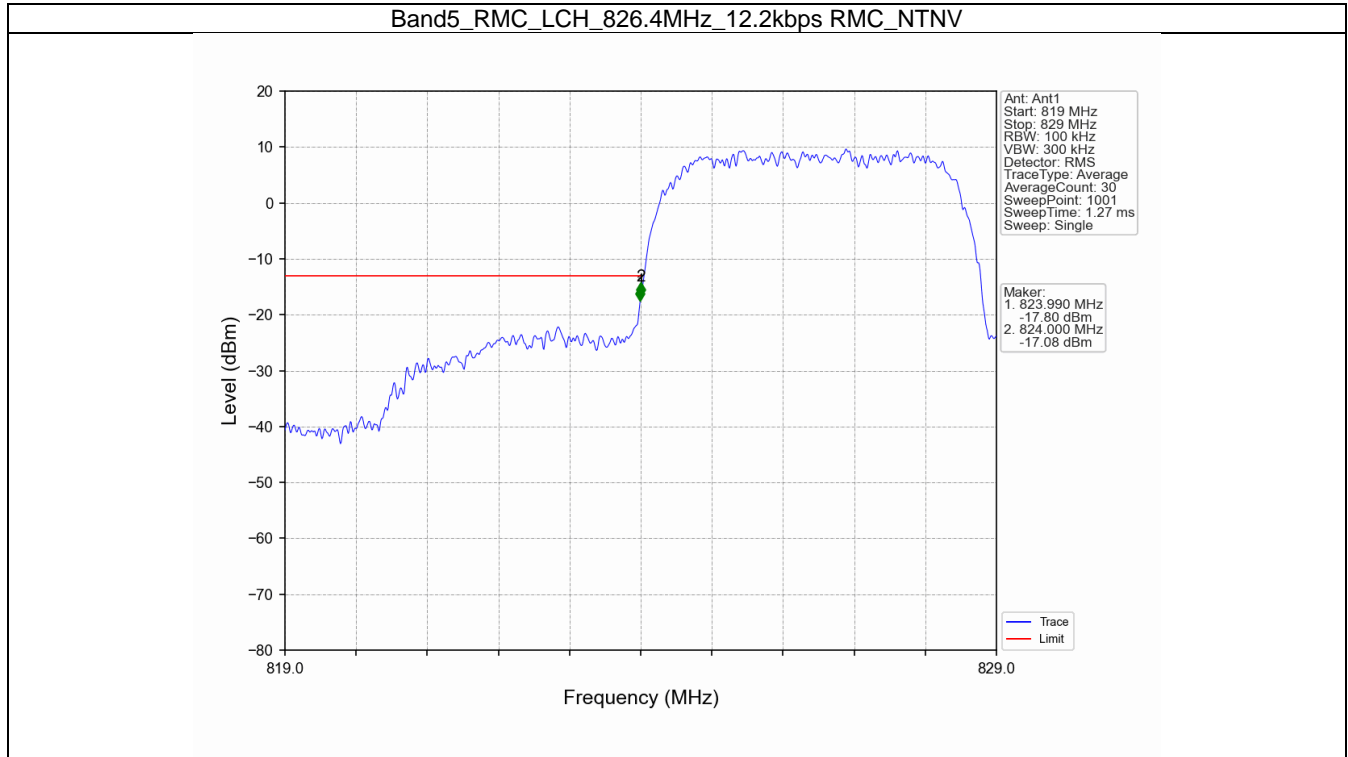
## 6. Spurious Emission

### 6.1 Band5

#### 6.1.1 Test Result

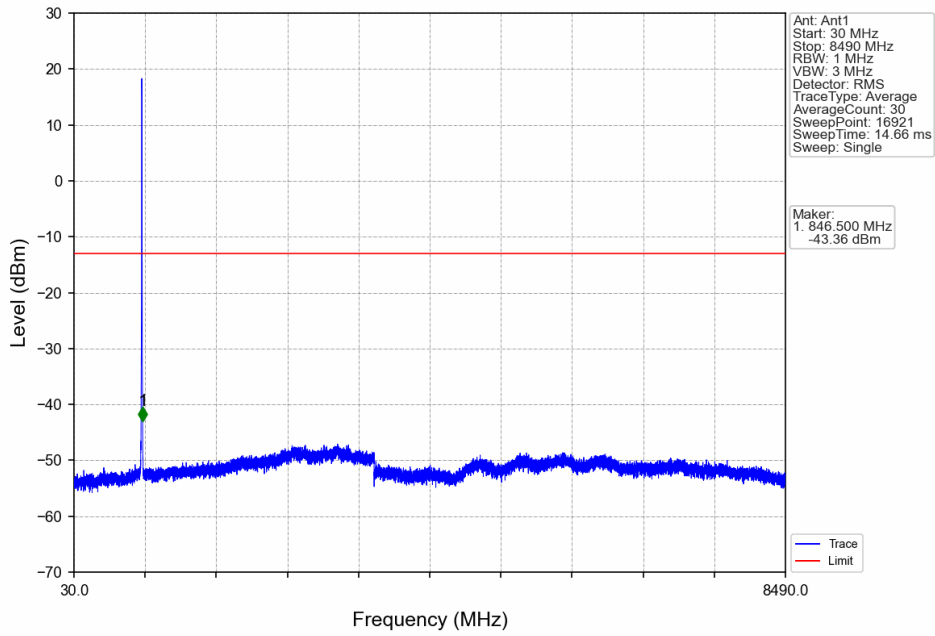
Band: 5						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass
			846.6	Refer To Test Graph		Pass
	HSDPA	Subtest 1	826.4	Refer To Test Graph		Pass
			836.6	Refer To Test Graph	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

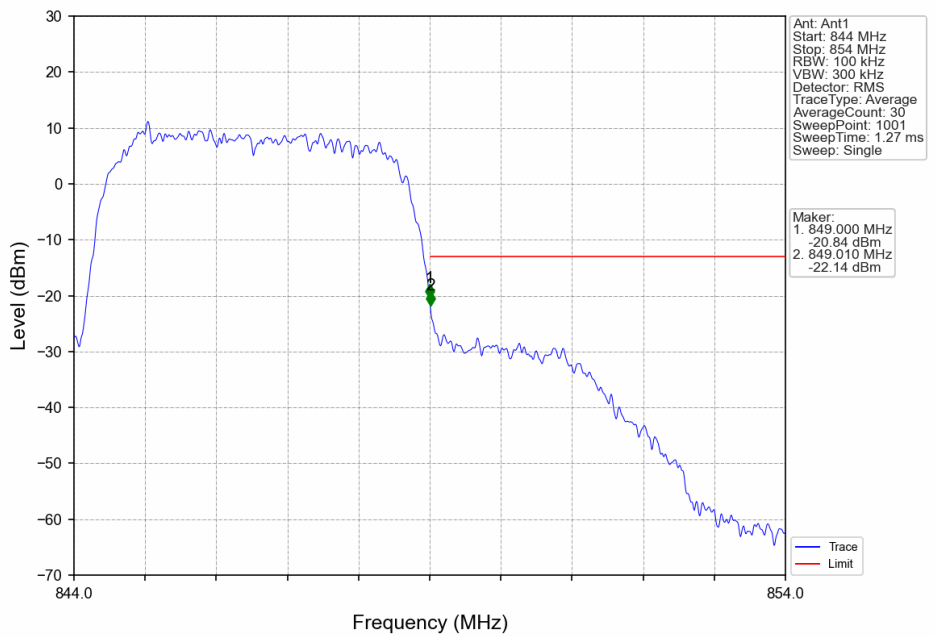




Band5\_RMC\_MCH\_836.6MHz\_12.2kbps RMC\_NTNV

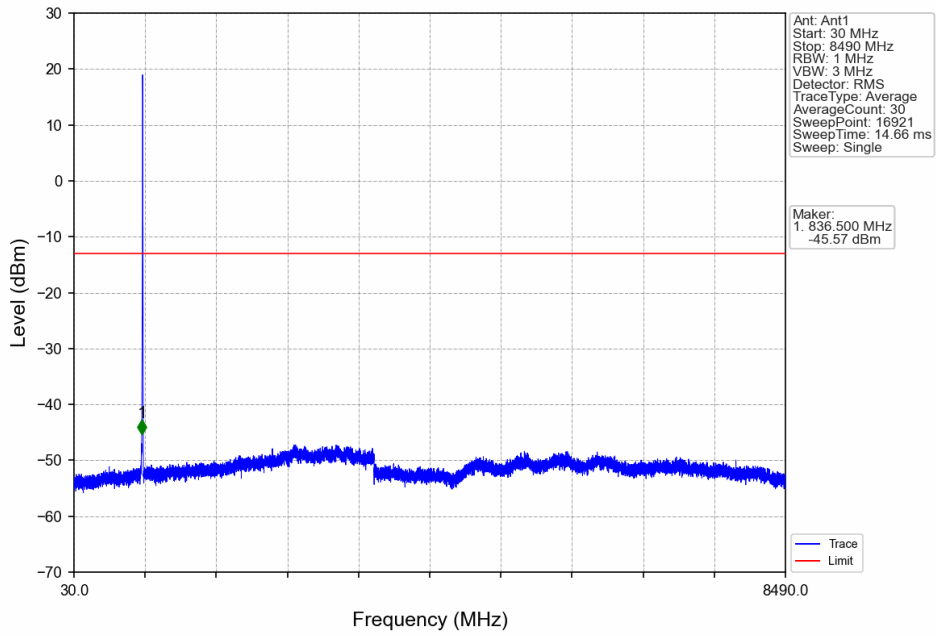


Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV

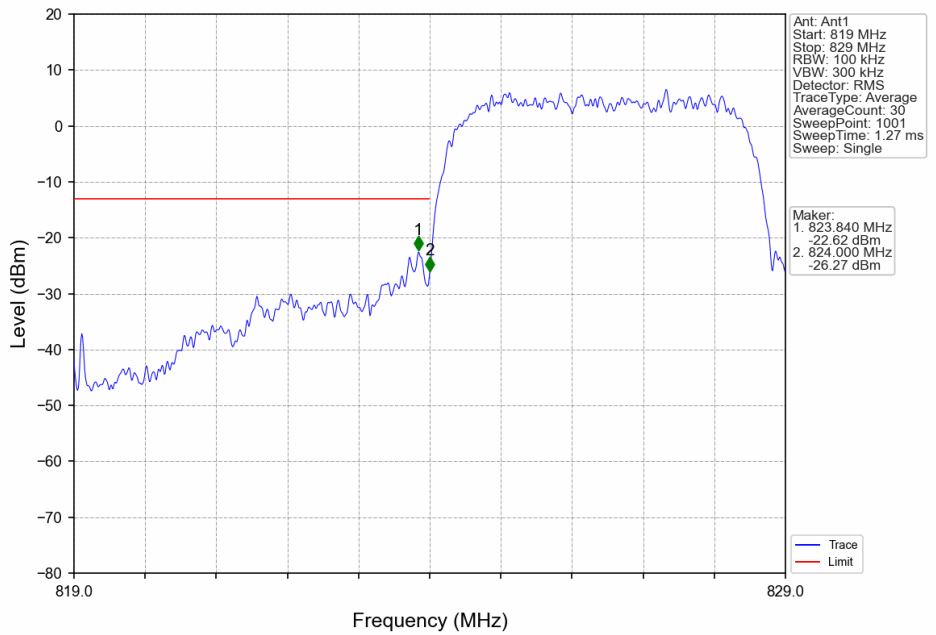




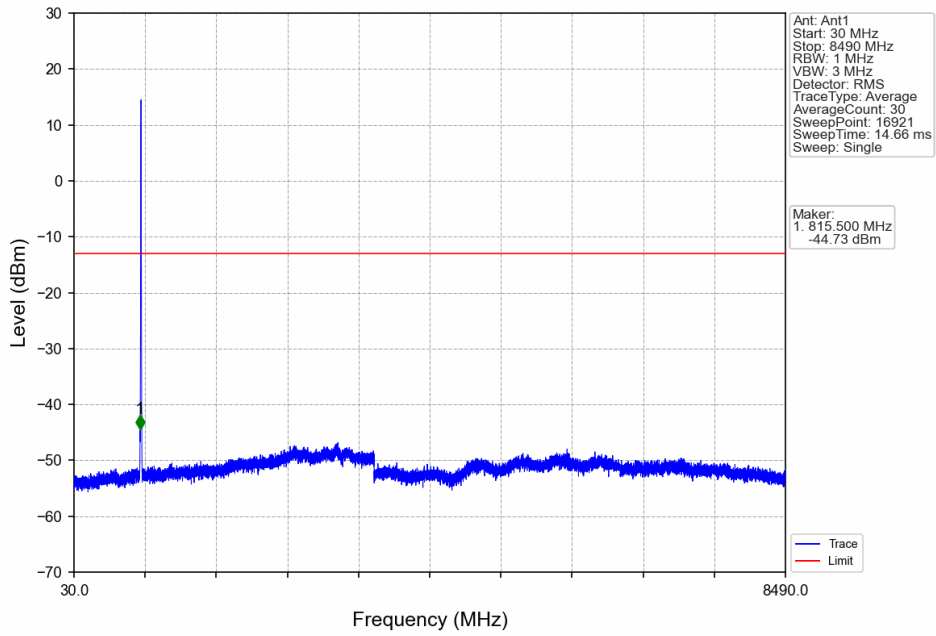
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



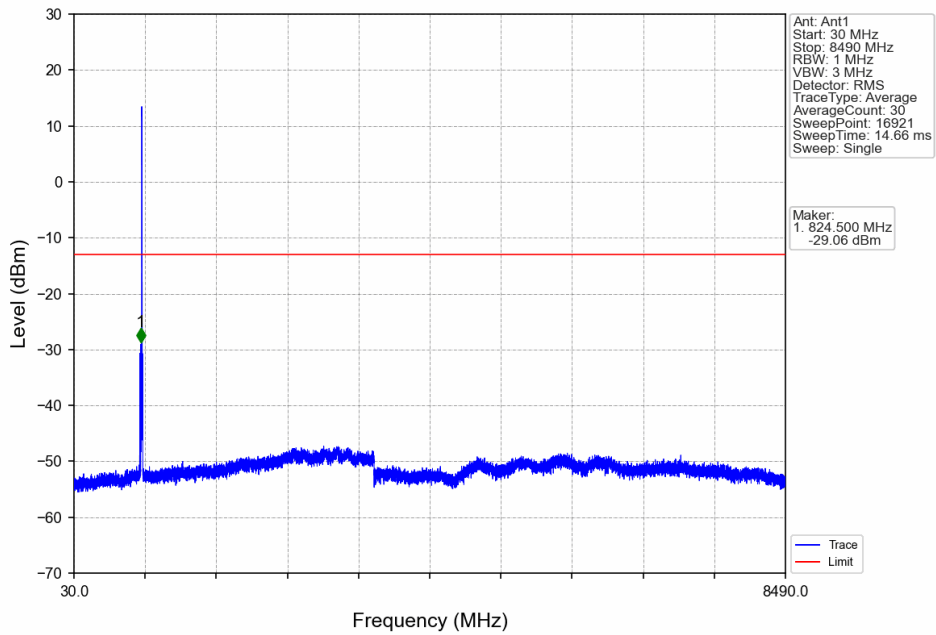
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



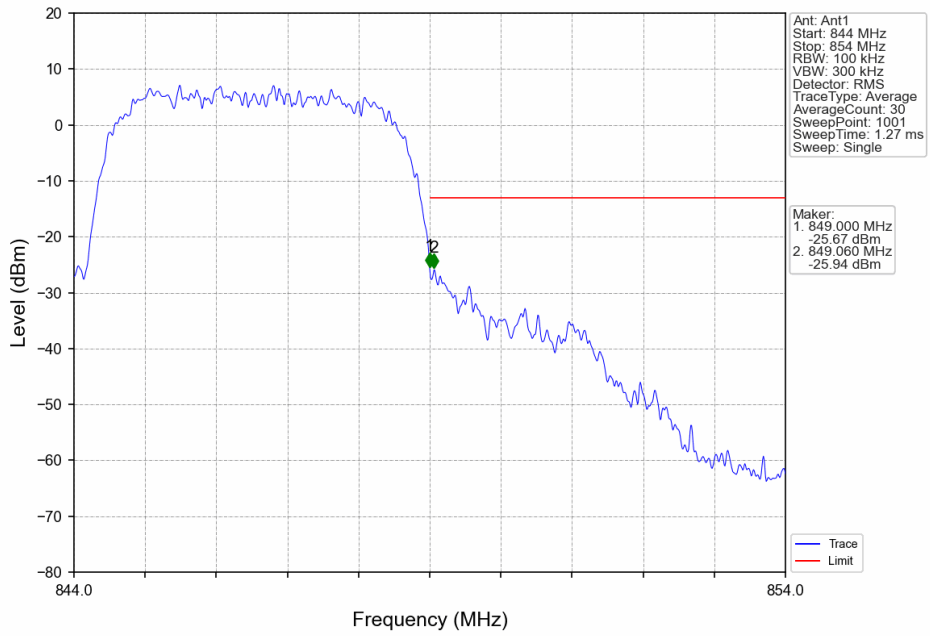
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



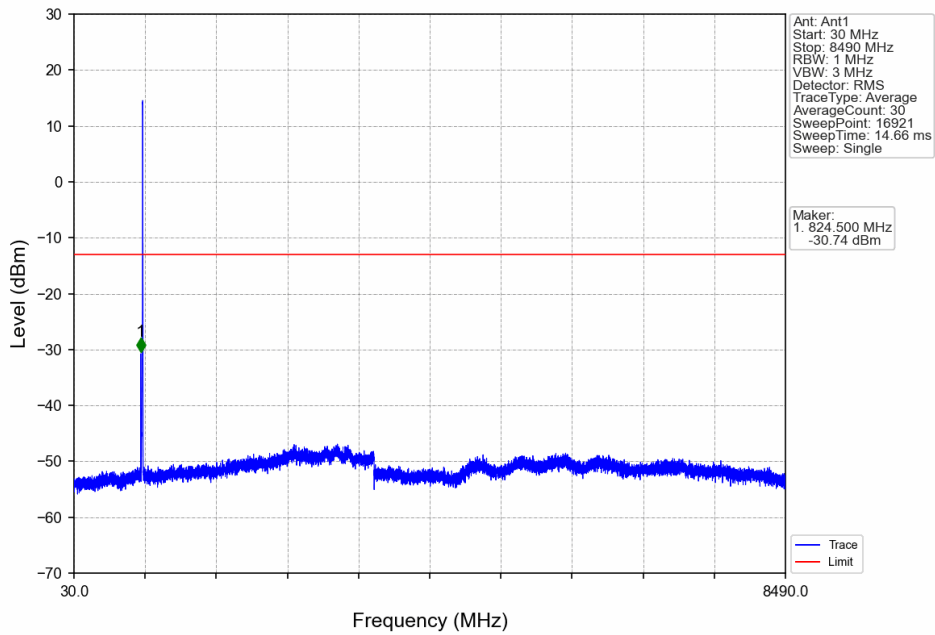
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



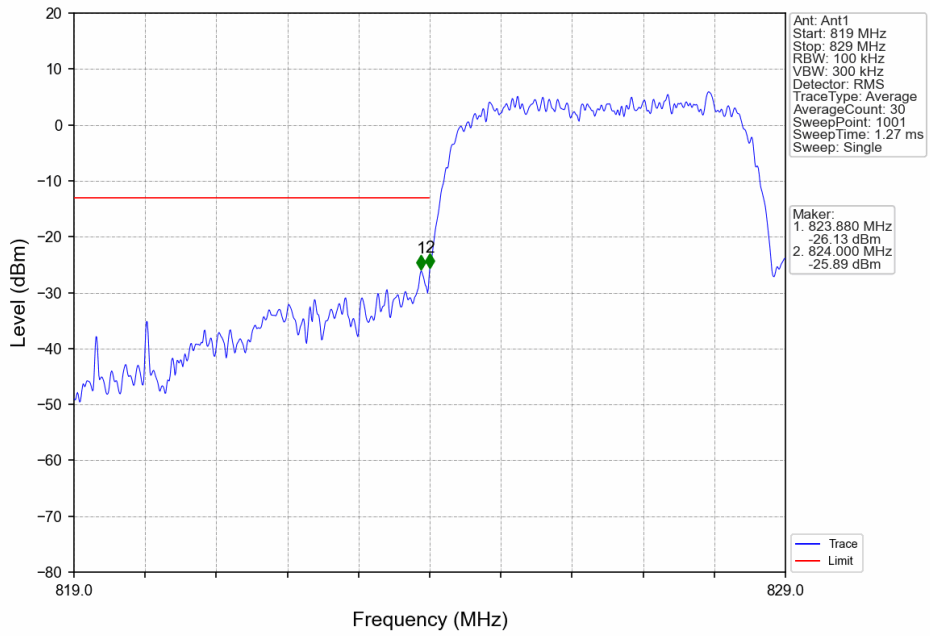
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



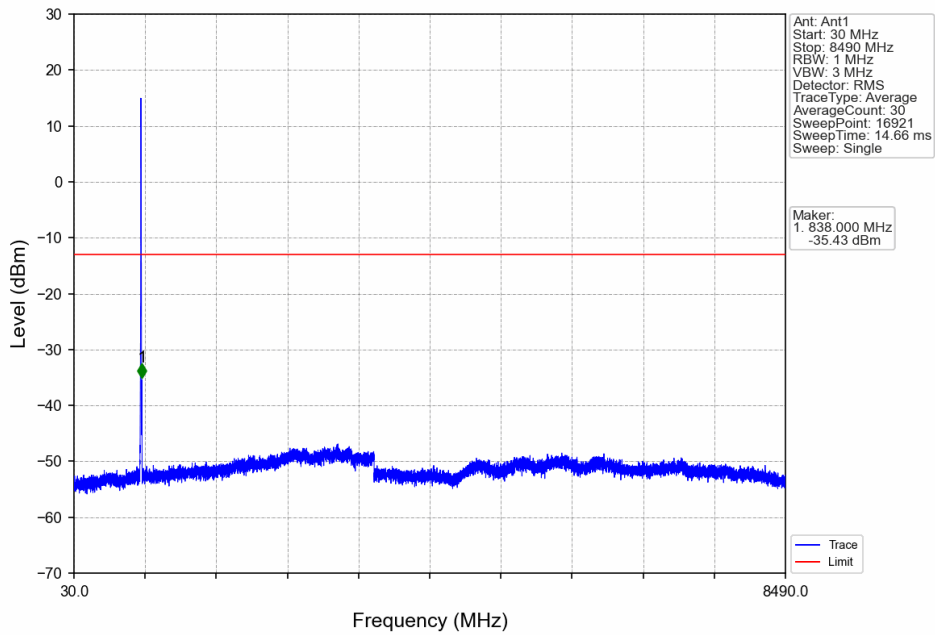
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



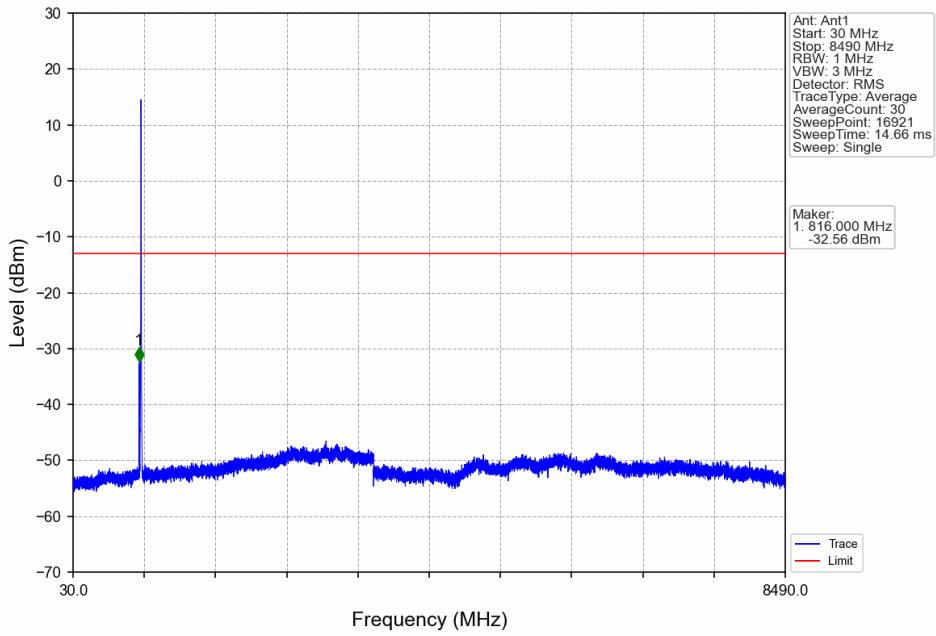
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



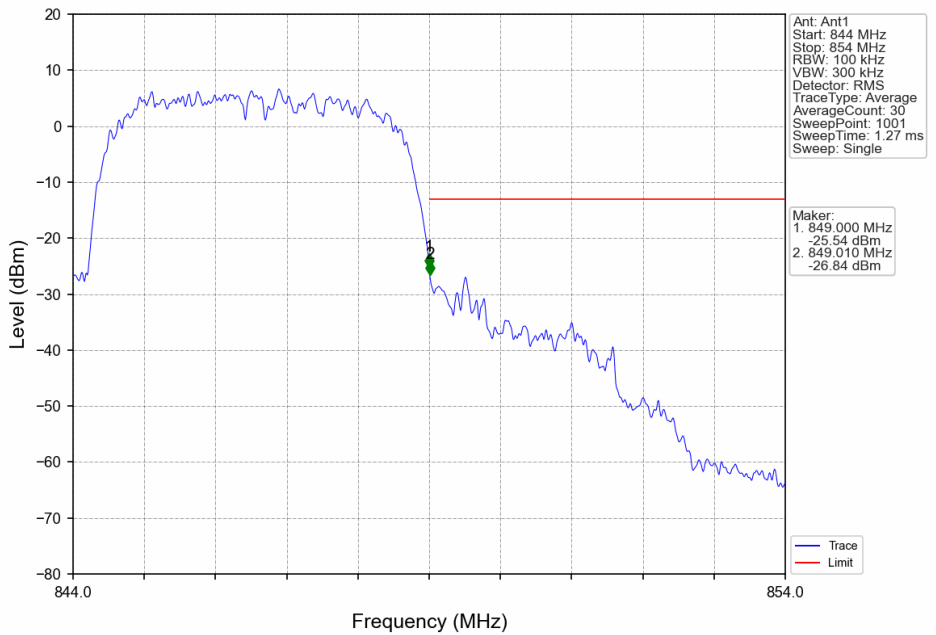
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



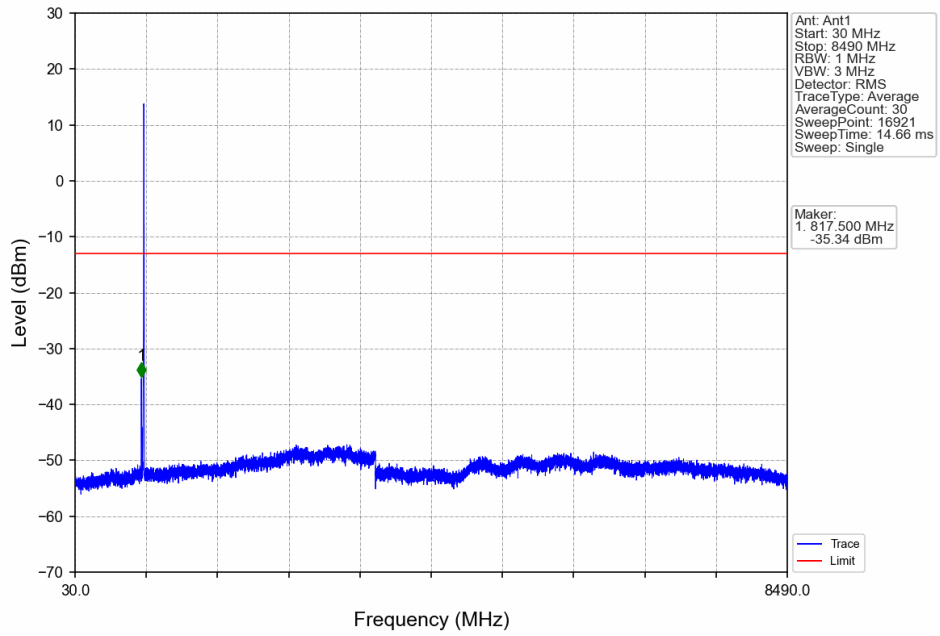
Band5\_HSUPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



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	0.2228	0.0186	ppm	4M24F9W	24E	23.48

### 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	0.1570	0.0186	ppm	4M24F9W	24E	21.96