

# 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	21.80	0.44	20.09	<=38.45	Pass	
			836.6	21.89	0.44	20.18	<=38.45	Pass	
			846.6	22.04	0.44	20.33	<=38.45	Pass	
	HSDPA	Subtest 1	826.4	19.65	0.44	17.94	<=38.45	Pass	
		Subtest 2	826.4	19.61	0.44	17.9	<=38.45	Pass	
		Subtest 3	826.4	19.63	0.44	17.92	<=38.45	Pass	
		Subtest 4	826.4	19.61	0.44	17.9	<=38.45	Pass	
		Subtest 1	836.6	19.60	0.44	17.89	<=38.45	Pass	
		Subtest 2	836.6	19.61	0.44	17.9	<=38.45	Pass	
		Subtest 3	836.6	19.59	0.44	17.88	<=38.45	Pass	
		Subtest 4	836.6	19.64	0.44	17.93	<=38.45	Pass	
		Subtest 1	846.6	19.56	0.44	17.85	<=38.45	Pass	
		Subtest 2	846.6	19.57	0.44	17.86	<=38.45	Pass	
		Subtest 3	846.6	19.54	0.44	17.83	<=38.45	Pass	
		Subtest 4	846.6	19.56	0.44	17.85	<=38.45	Pass	
		HSUPA	Subtest 1	826.4	17.48	0.44	15.77	<=38.45	Pass
			Subtest 2	826.4	17.68	0.44	15.97	<=38.45	Pass
	Subtest 3		826.4	17.43	0.44	15.72	<=38.45	Pass	
	Subtest 4		826.4	17.71	0.44	16	<=38.45	Pass	
	Subtest 5		826.4	17.49	0.44	15.78	<=38.45	Pass	
	Subtest 1		836.6	17.15	0.44	15.44	<=38.45	Pass	
	Subtest 2		836.6	17.73	0.44	16.02	<=38.45	Pass	
	Subtest 3		836.6	17.16	0.44	15.45	<=38.45	Pass	
	Subtest 4		836.6	17.71	0.44	16	<=38.45	Pass	
	Subtest 5		836.6	17.54	0.44	15.83	<=38.45	Pass	
	Subtest 1		846.6	17.29	0.44	15.58	<=38.45	Pass	
	Subtest 2		846.6	17.29	0.44	15.58	<=38.45	Pass	
	Subtest 3		846.6	17.31	0.44	15.6	<=38.45	Pass	
	Subtest 4	846.6	17.78	0.44	16.07	<=38.45	Pass		
	Subtest 5	846.6	17.32	0.44	15.61	<=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	-3.440	-0.0042	-2.5 to 2.5	Pass
			3.85	-4.964	-0.0060	-2.5 to 2.5	Pass
			4.43	-2.782	-0.0034	-2.5 to 2.5	Pass
		-30	3.85	-3.018	-0.0037	-2.5 to 2.5	Pass
		-20	3.85	-3.612	-0.0044	-2.5 to 2.5	Pass
		-10	3.85	-3.669	-0.0044	-2.5 to 2.5	Pass
		0	3.85	-2.782	-0.0034	-2.5 to 2.5	Pass
		10	3.85	-3.290	-0.0040	-2.5 to 2.5	Pass
		30	3.85	-2.553	-0.0031	-2.5 to 2.5	Pass
		40	3.85	-3.626	-0.0044	-2.5 to 2.5	Pass
	50	3.85	-3.762	-0.0046	-2.5 to 2.5	Pass	
	836.6	20	3.27	1.266	0.0015	-2.5 to 2.5	Pass
			3.85	-1.101	-0.0013	-2.5 to 2.5	Pass
			4.43	-0.615	-0.0007	-2.5 to 2.5	Pass
		-30	3.85	-1.774	-0.0021	-2.5 to 2.5	Pass
		-20	3.85	0.494	0.0006	-2.5 to 2.5	Pass
		-10	3.85	-1.230	-0.0015	-2.5 to 2.5	Pass
		0	3.85	-2.360	-0.0028	-2.5 to 2.5	Pass
		10	3.85	-1.774	-0.0021	-2.5 to 2.5	Pass
		30	3.85	-2.768	-0.0033	-2.5 to 2.5	Pass
		40	3.85	-0.472	-0.0006	-2.5 to 2.5	Pass
	50	3.85	-1.202	-0.0014	-2.5 to 2.5	Pass	
	846.6	20	3.27	1.495	0.0018	-2.5 to 2.5	Pass
			3.85	0.279	0.0003	-2.5 to 2.5	Pass
			4.43	-0.873	-0.0010	-2.5 to 2.5	Pass
		-30	3.85	0.215	0.0003	-2.5 to 2.5	Pass
		-20	3.85	0.930	0.0011	-2.5 to 2.5	Pass
		-10	3.85	-0.393	-0.0005	-2.5 to 2.5	Pass
		0	3.85	0.157	0.0002	-2.5 to 2.5	Pass
		10	3.85	-1.395	-0.0016	-2.5 to 2.5	Pass
30		3.85	-1.202	-0.0014	-2.5 to 2.5	Pass	
40		3.85	-1.173	-0.0014	-2.5 to 2.5	Pass	
50	3.85	-1.459	-0.0017	-2.5 to 2.5	Pass		
HSDPA	826.4	20	3.27	0.114	0.0001	-2.5 to 2.5	Pass
			3.85	0.079	0.0001	-2.5 to 2.5	Pass
			4.43	-0.172	-0.0002	-2.5 to 2.5	Pass
		-30	3.85	0.215	0.0003	-2.5 to 2.5	Pass
		-20	3.85	-1.516	-0.0018	-2.5 to 2.5	Pass
		-10	3.85	-0.494	-0.0006	-2.5 to 2.5	Pass
		0	3.85	0.336	0.0004	-2.5 to 2.5	Pass
		10	3.85	-0.944	-0.0011	-2.5 to 2.5	Pass
		30	3.85	0.014	0.0000	-2.5 to 2.5	Pass
		40	3.85	-2.031	-0.0025	-2.5 to 2.5	Pass
	50	3.85	-0.658	-0.0008	-2.5 to 2.5	Pass	
	836.6	20	3.27	0.422	0.0005	-2.5 to 2.5	Pass

			3.85	-0.079	-0.0001	-2.5 to 2.5	Pass	
			4.43	-1.080	-0.0013	-2.5 to 2.5	Pass	
		-30	3.85	0.043	0.0001	-2.5 to 2.5	Pass	
		-20	3.85	-0.794	-0.0009	-2.5 to 2.5	Pass	
		-10	3.85	0.644	0.0008	-2.5 to 2.5	Pass	
		0	3.85	-0.944	-0.0011	-2.5 to 2.5	Pass	
		10	3.85	0.107	0.0001	-2.5 to 2.5	Pass	
		30	3.85	0.951	0.0011	-2.5 to 2.5	Pass	
		40	3.85	-2.089	-0.0025	-2.5 to 2.5	Pass	
	50	3.85	-1.009	-0.0012	-2.5 to 2.5	Pass		
	846.6	20		3.27	2.024	0.0024	-2.5 to 2.5	Pass
				3.85	0.751	0.0009	-2.5 to 2.5	Pass
				4.43	0.129	0.0002	-2.5 to 2.5	Pass
		-30	3.85	0.279	0.0003	-2.5 to 2.5	Pass	
		-20	3.85	0.179	0.0002	-2.5 to 2.5	Pass	
		-10	3.85	-1.438	-0.0017	-2.5 to 2.5	Pass	
		0	3.85	1.352	0.0016	-2.5 to 2.5	Pass	
		10	3.85	-0.429	-0.0005	-2.5 to 2.5	Pass	
30		3.85	-0.508	-0.0006	-2.5 to 2.5	Pass		
40	3.85	-0.408	-0.0005	-2.5 to 2.5	Pass			
50	3.85	-1.037	-0.0012	-2.5 to 2.5	Pass			
HSUPA	826.4	20		3.27	0.615	0.0007	-2.5 to 2.5	Pass
				3.85	-2.246	-0.0027	-2.5 to 2.5	Pass
				4.43	-3.605	-0.0044	-2.5 to 2.5	Pass
		-30	3.85	-3.061	-0.0037	-2.5 to 2.5	Pass	
		-20	3.85	-2.053	-0.0025	-2.5 to 2.5	Pass	
		-10	3.85	-1.330	-0.0016	-2.5 to 2.5	Pass	
		0	3.85	-0.958	-0.0012	-2.5 to 2.5	Pass	
		10	3.85	-3.419	-0.0041	-2.5 to 2.5	Pass	
		30	3.85	-2.246	-0.0027	-2.5 to 2.5	Pass	
	40	3.85	-2.117	-0.0026	-2.5 to 2.5	Pass		
	50	3.85	-2.081	-0.0025	-2.5 to 2.5	Pass		
	836.6	20		3.27	1.202	0.0014	-2.5 to 2.5	Pass
				3.85	-1.237	-0.0015	-2.5 to 2.5	Pass
				4.43	-0.036	0.0000	-2.5 to 2.5	Pass
		-30	3.85	-1.988	-0.0024	-2.5 to 2.5	Pass	
		-20	3.85	-1.459	-0.0017	-2.5 to 2.5	Pass	
		-10	3.85	-1.438	-0.0017	-2.5 to 2.5	Pass	
		0	3.85	-0.415	-0.0005	-2.5 to 2.5	Pass	
		10	3.85	-1.509	-0.0018	-2.5 to 2.5	Pass	
		30	3.85	-0.901	-0.0011	-2.5 to 2.5	Pass	
	40	3.85	-1.452	-0.0017	-2.5 to 2.5	Pass		
	50	3.85	-3.247	-0.0039	-2.5 to 2.5	Pass		
	846.6	20		3.27	2.418	0.0029	-2.5 to 2.5	Pass
				3.85	-1.338	-0.0016	-2.5 to 2.5	Pass
				4.43	0.014	0.0000	-2.5 to 2.5	Pass
		-30	3.85	-0.615	-0.0007	-2.5 to 2.5	Pass	
		-20	3.85	-0.372	-0.0004	-2.5 to 2.5	Pass	
-10		3.85	0.672	0.0008	-2.5 to 2.5	Pass		
0		3.85	-0.679	-0.0008	-2.5 to 2.5	Pass		
10		3.85	0.200	0.0002	-2.5 to 2.5	Pass		
30		3.85	-0.207	-0.0002	-2.5 to 2.5	Pass		
40	3.85	-0.100	-0.0001	-2.5 to 2.5	Pass			
50	3.85	-0.043	-0.0001	-2.5 to 2.5	Pass			

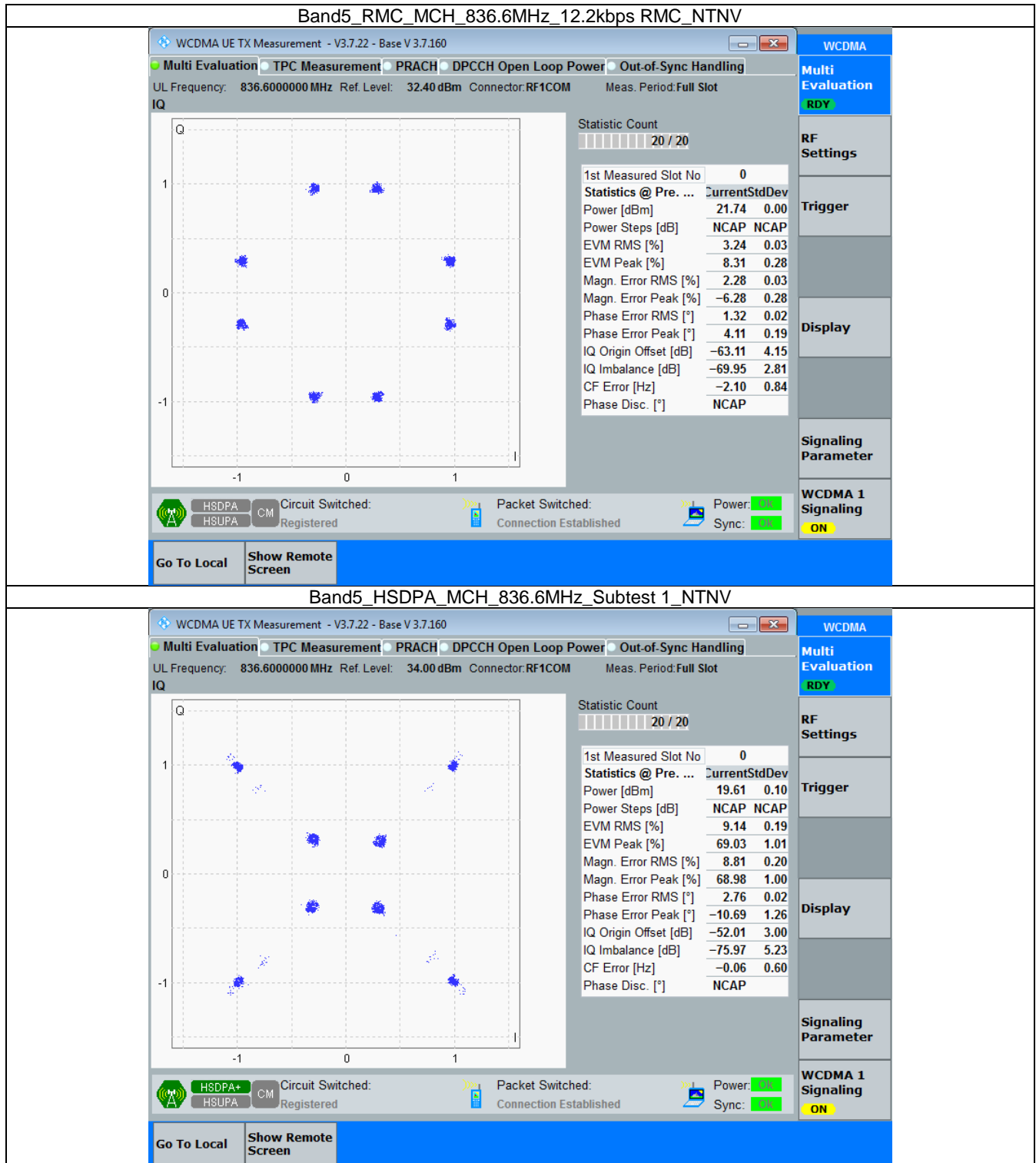
### 3. Modulation Characteristics

#### 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

WCDMA

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

UL Frequency: 836.6000000 MHz Ref. Level: 34.00 dBm Connector: RF1COM Meas. Period: Full Slot

Statistic Count  
 20 / 20

1st Measured Slot No		0	
Statistics @ Pre. ...		CurrentStdDev	
Power [dBm]	19.62	2.35	
Power Steps [dB]	NCAP	NCAP	
EVM RMS [%]	3.58	3.57	
EVM Peak [%]	7.49	35.58	
Magn. Error RMS [%]	2.69	3.86	
Magn. Error Peak [%]	-7.46	35.68	
Phase Error RMS [°]	2.81	0.62	
Phase Error Peak [°]	-10.05	5.47	
IQ Origin Offset [dB]	-77.19	8.29	
IQ Imbalance [dB]	-64.55	5.97	
CF Error [Hz]	-1.30	1.43	
Phase Disc. [°]	NCAP		

Multi Evaluation  
RDY  
  
RF Settings  
  
Trigger  
  
  
Display  
  
  
Signaling Parameter  
  
WCDMA 1 Signaling  
ON

HSDPA+ CM
Circuit Switched: Registered

Packet Switched: Connection Established

Power: █

Sync: █

Go To Local
Show Remote Screen

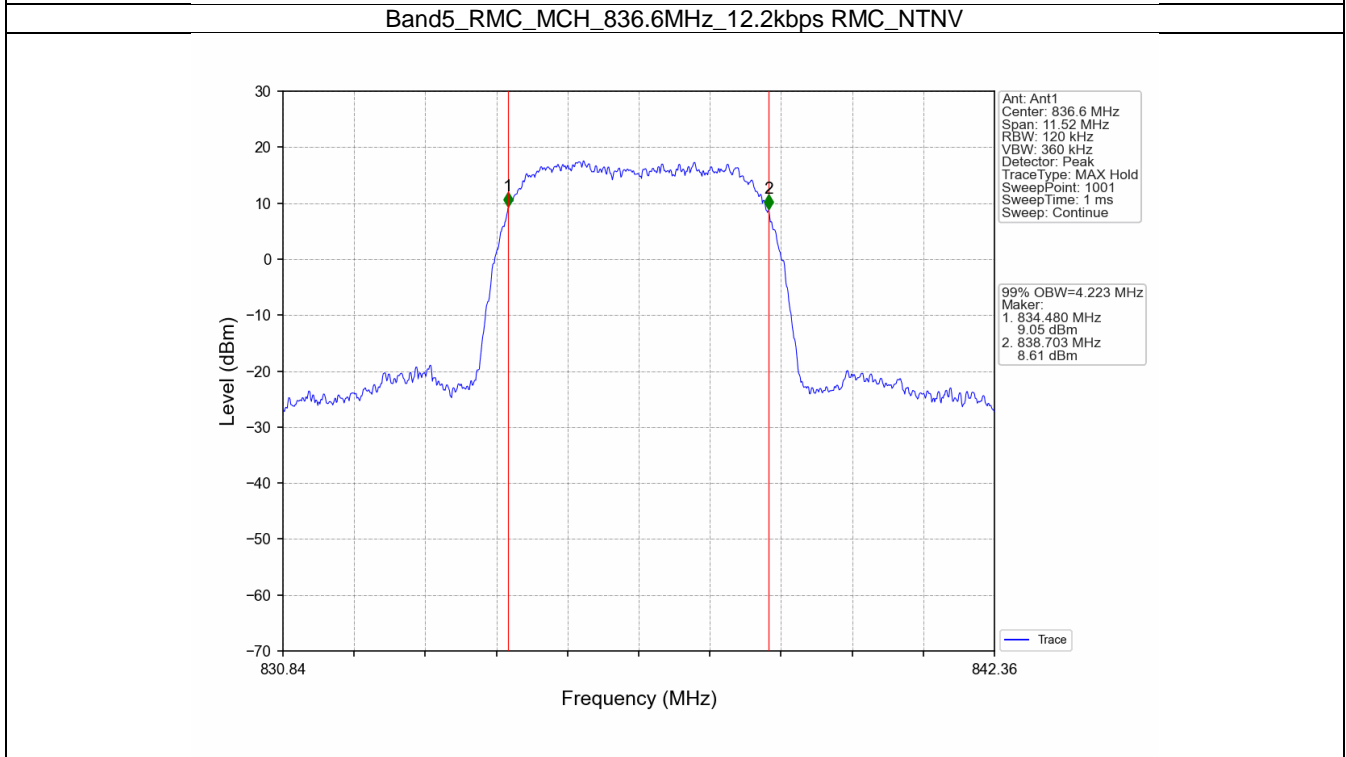
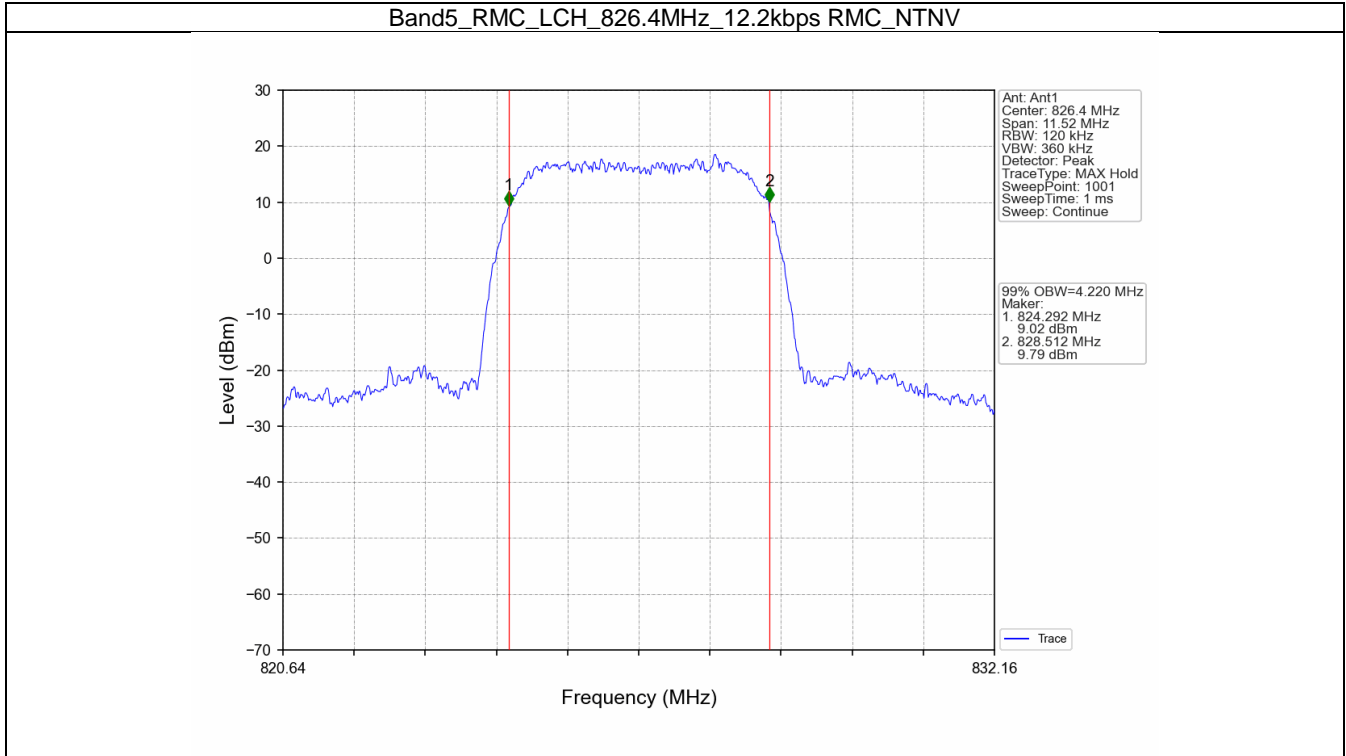
## 4. 99% & 26dB Bandwidth

### 4.1 Band5\_OBW

#### 4.1.1 Test Result

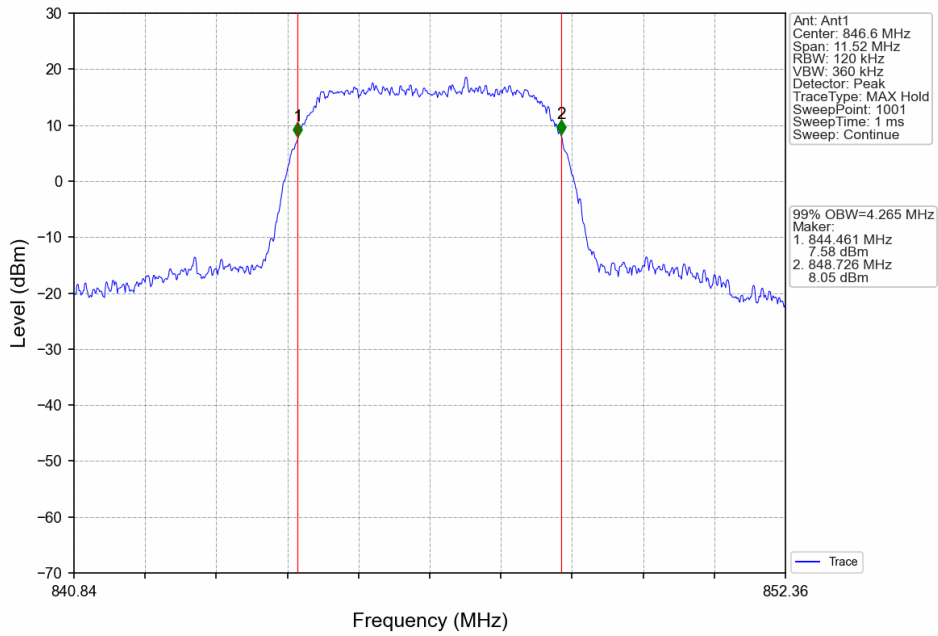
Band: 5					
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	RMC	12.2kbps RMC	826.4	4.220	Pass
			836.6	4.223	Pass
			846.6	4.265	Pass
	HSDPA	Subtest 1	826.4	4.244	Pass
			836.6	4.278	Pass
			846.6	4.219	Pass
	HSUPA	Subtest 1	826.4	4.251	Pass
			836.6	4.276	Pass
			846.6	4.246	Pass

### 4.1.2 Test Graph

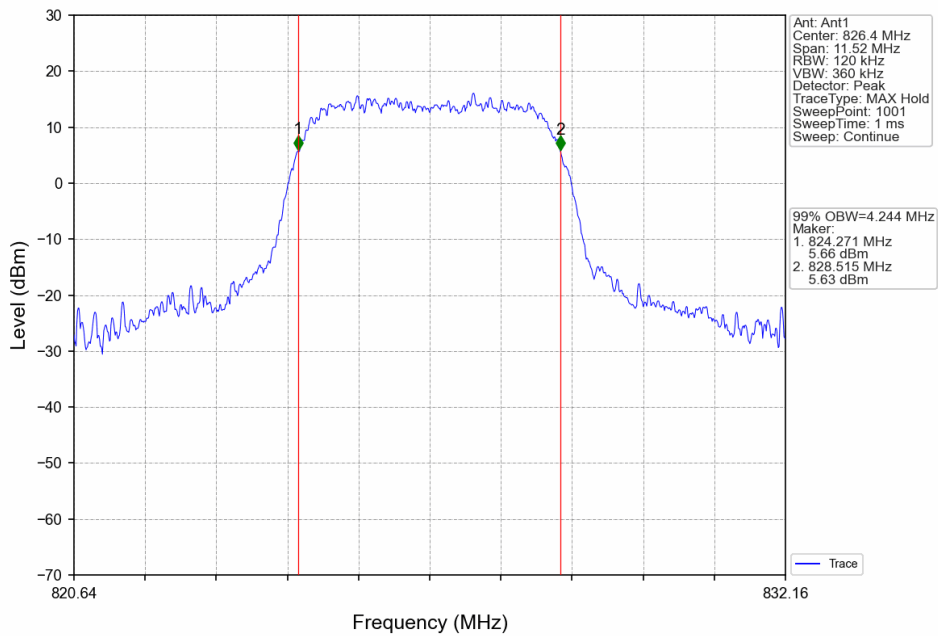




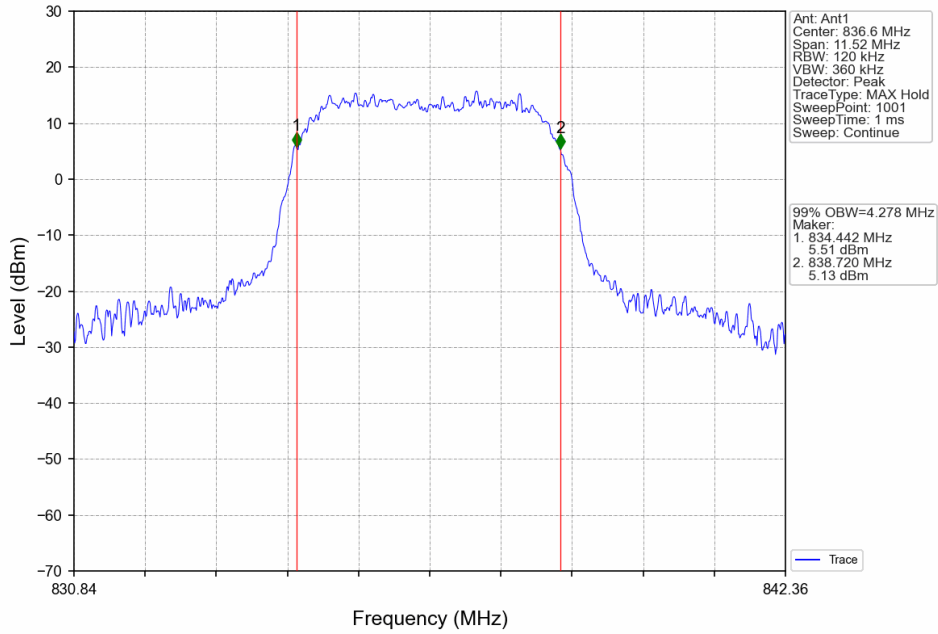
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



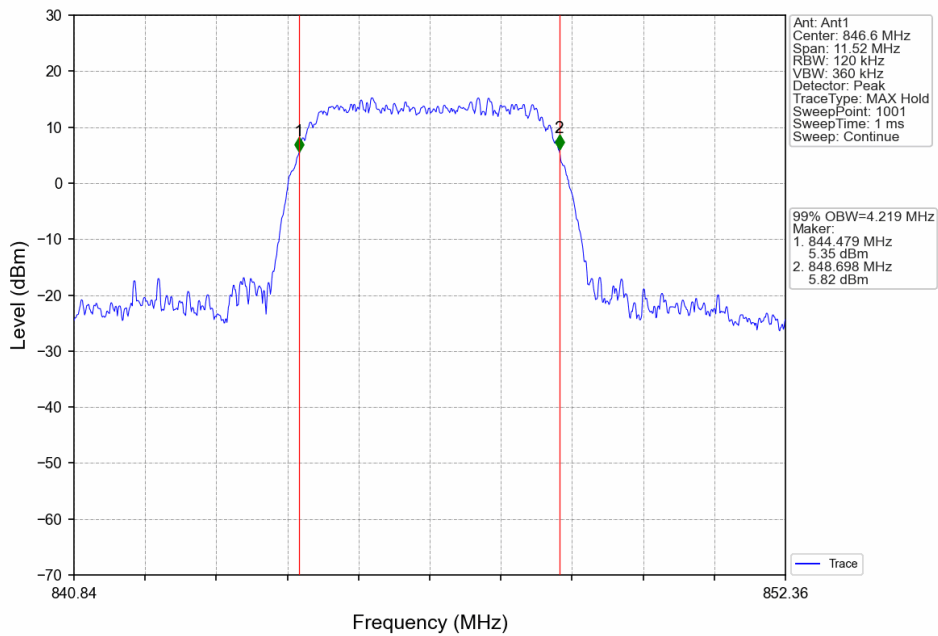
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



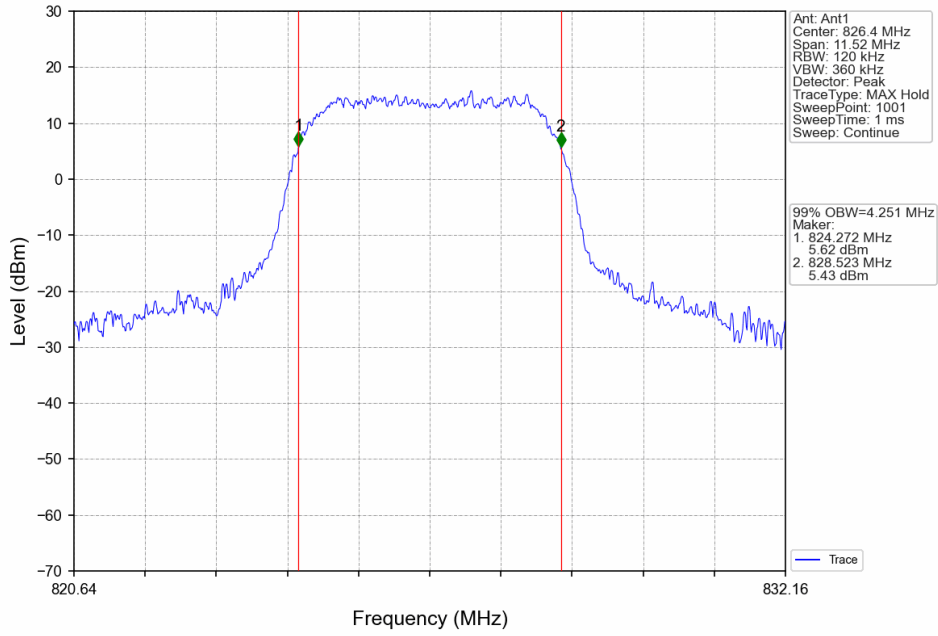
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



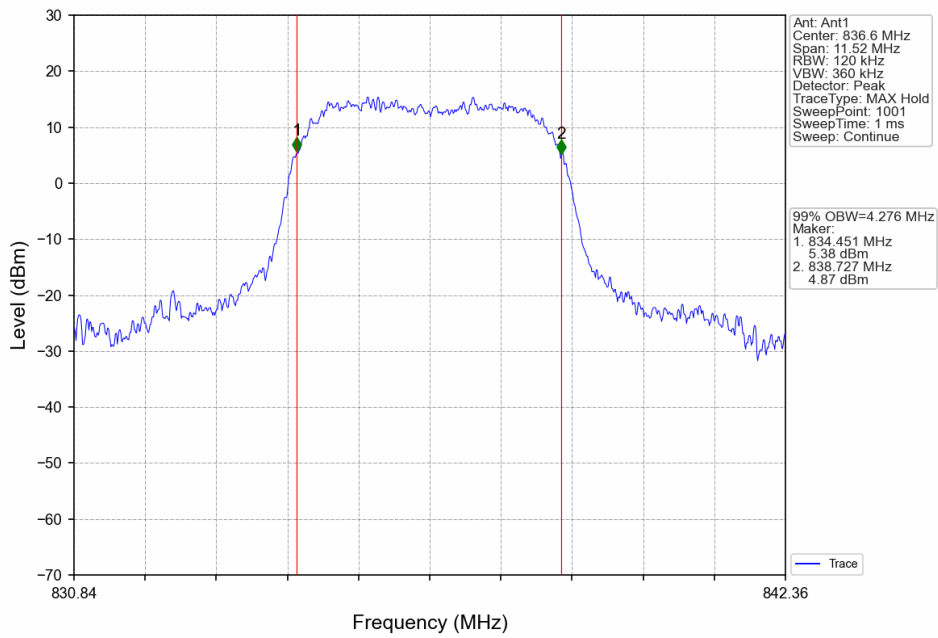
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



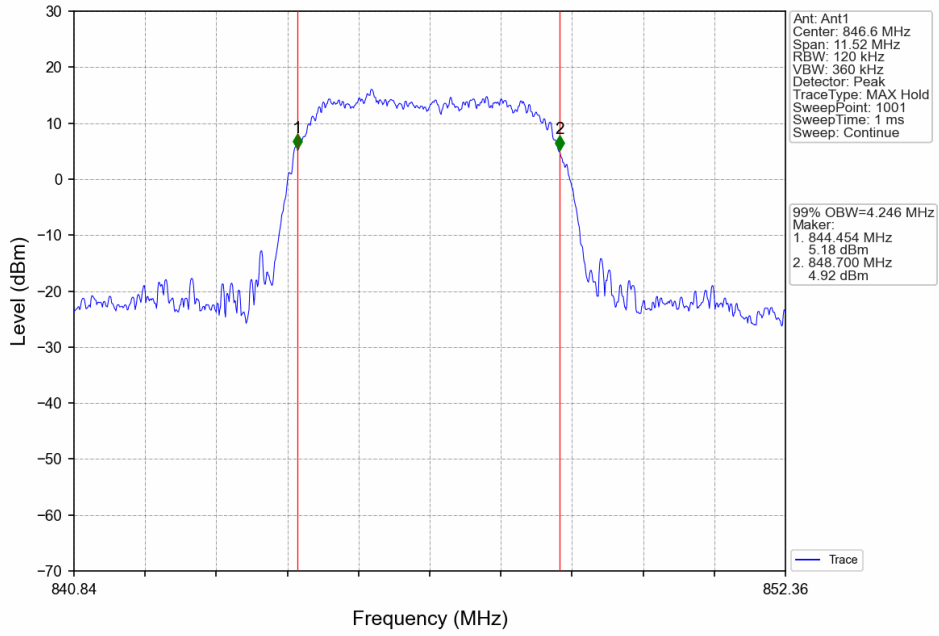
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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



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

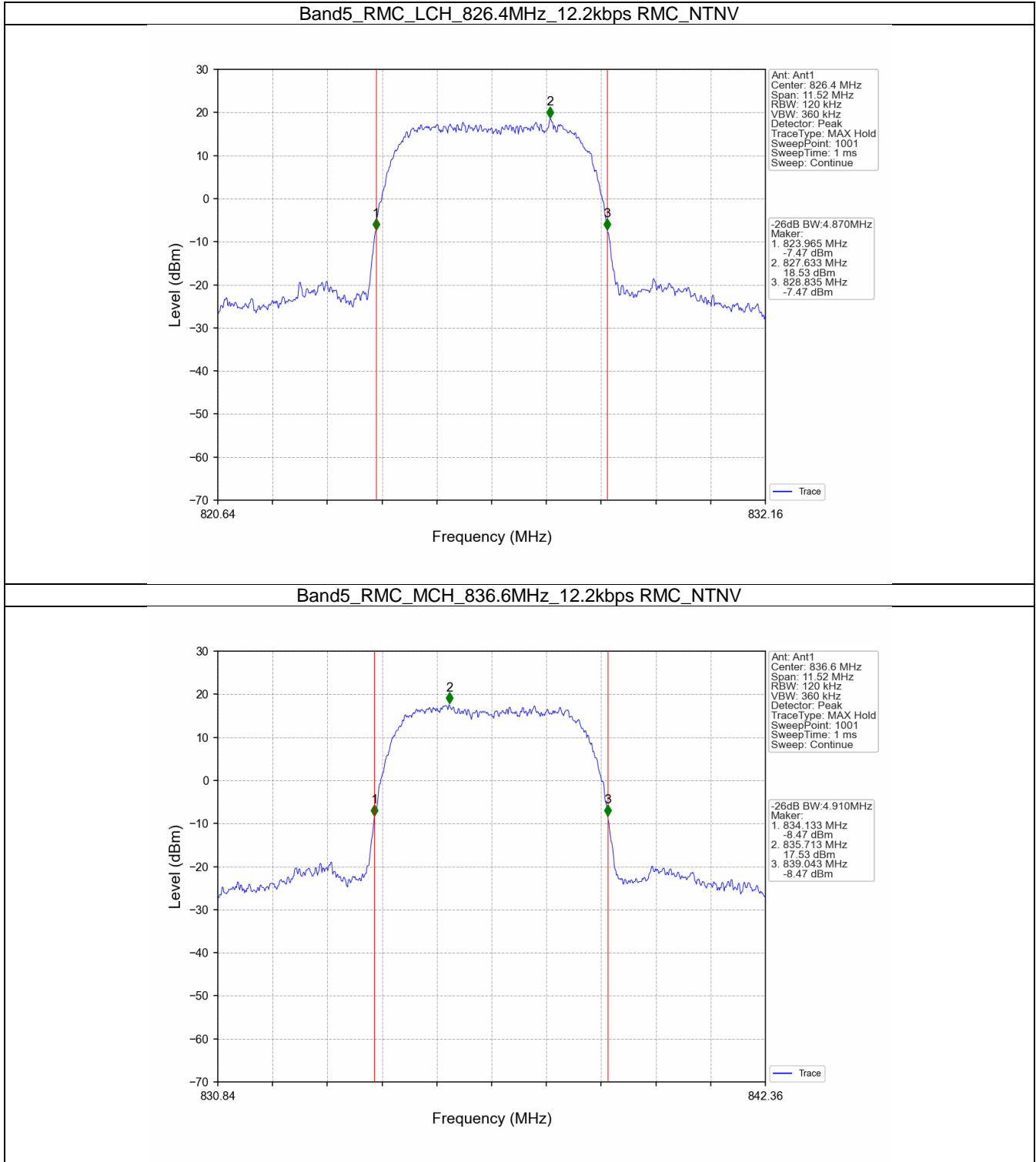


## 4.2 Band5\_XDB

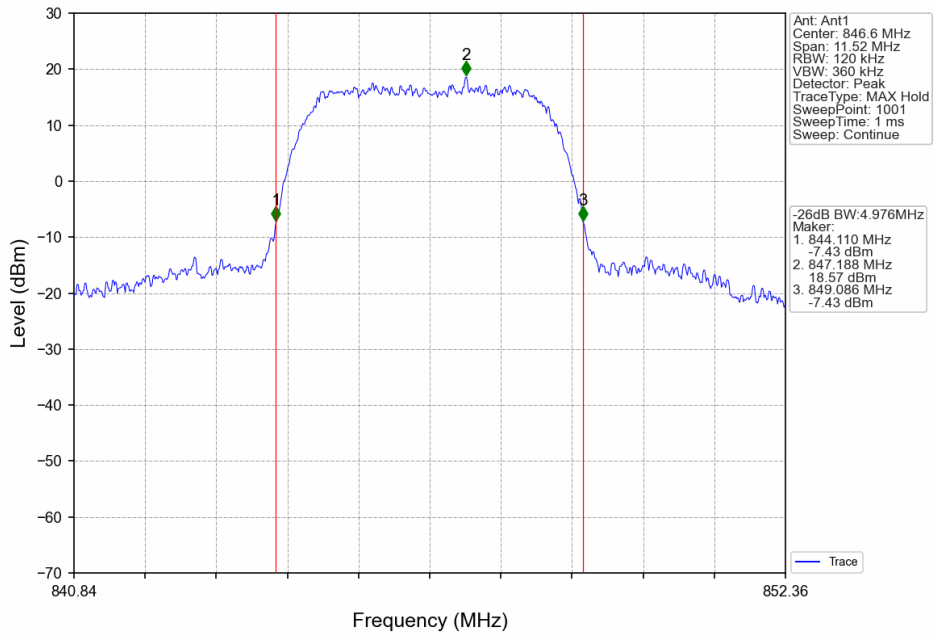
### 4.2.1 Test Result

Band: 5					
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	RMC	12.2kbps RMC	826.4	4.870	Pass
			836.6	4.910	Pass
			846.6	4.976	Pass
	HSDPA	Subtest 1	826.4	4.961	Pass
			836.6	4.947	Pass
			846.6	4.926	Pass
	HSUPA	Subtest 1	826.4	4.994	Pass
			836.6	4.949	Pass
			846.6	4.874	Pass

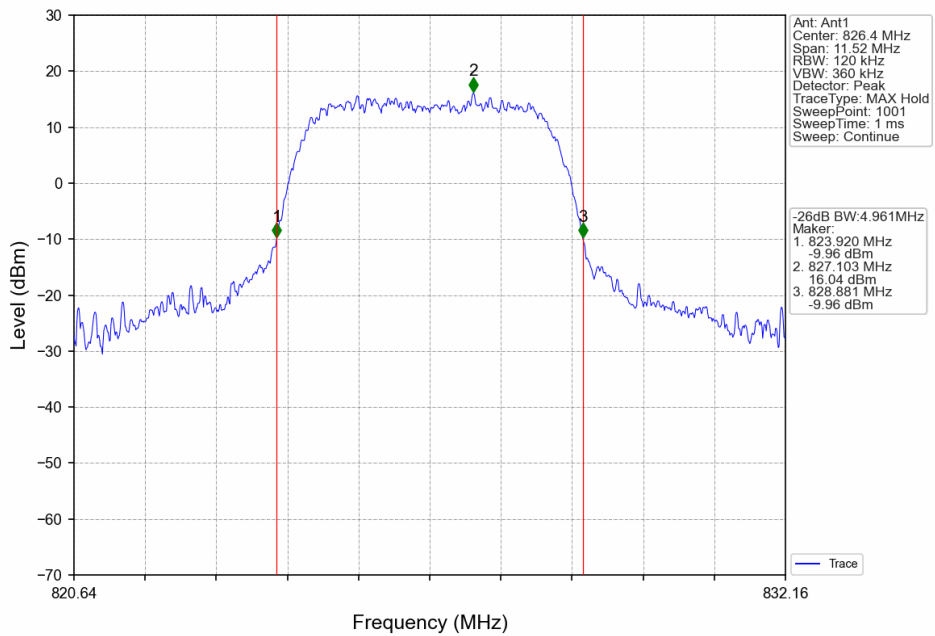
### 4.2.2 Test Graph



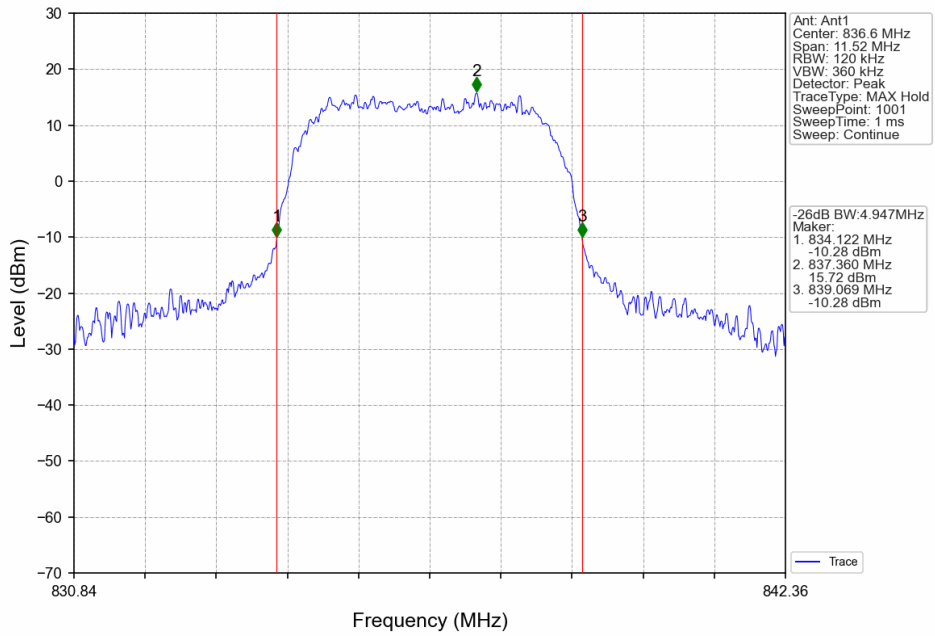
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



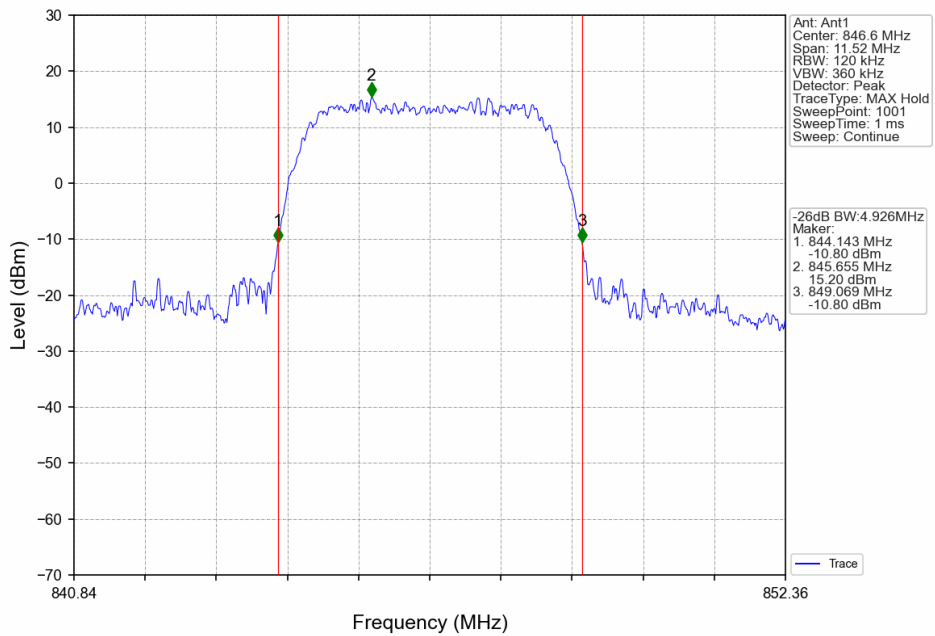
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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

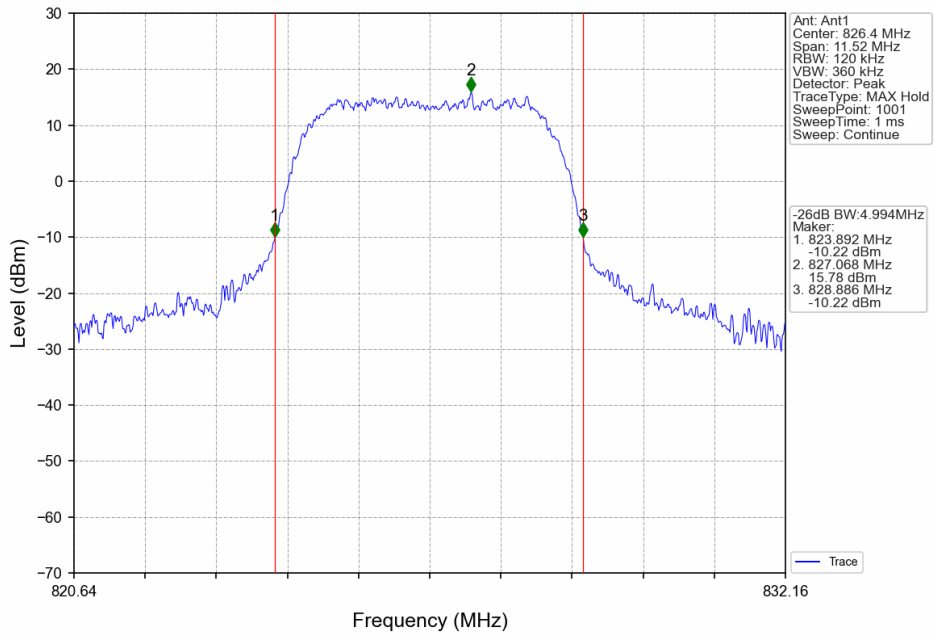


Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV

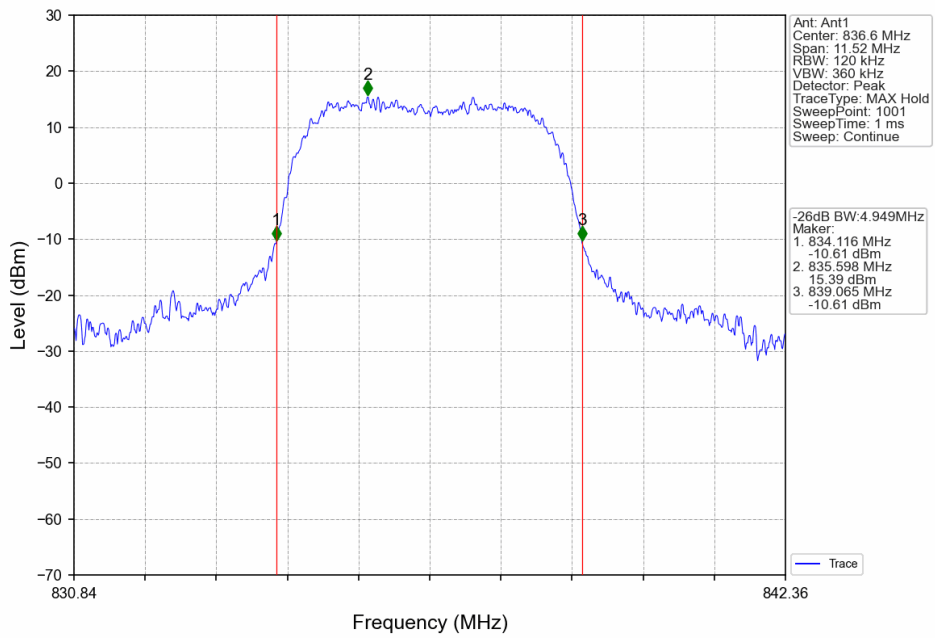




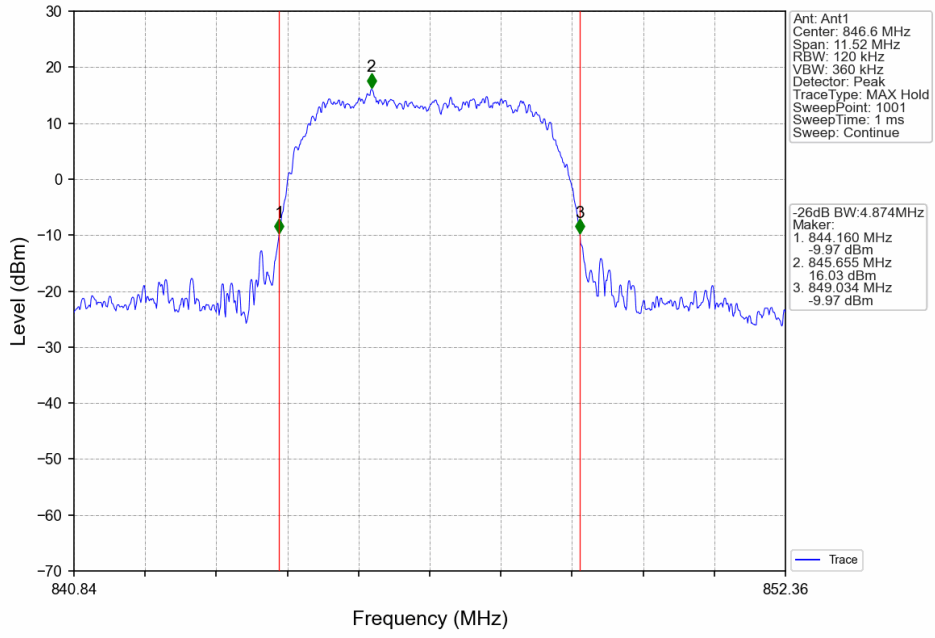
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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



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



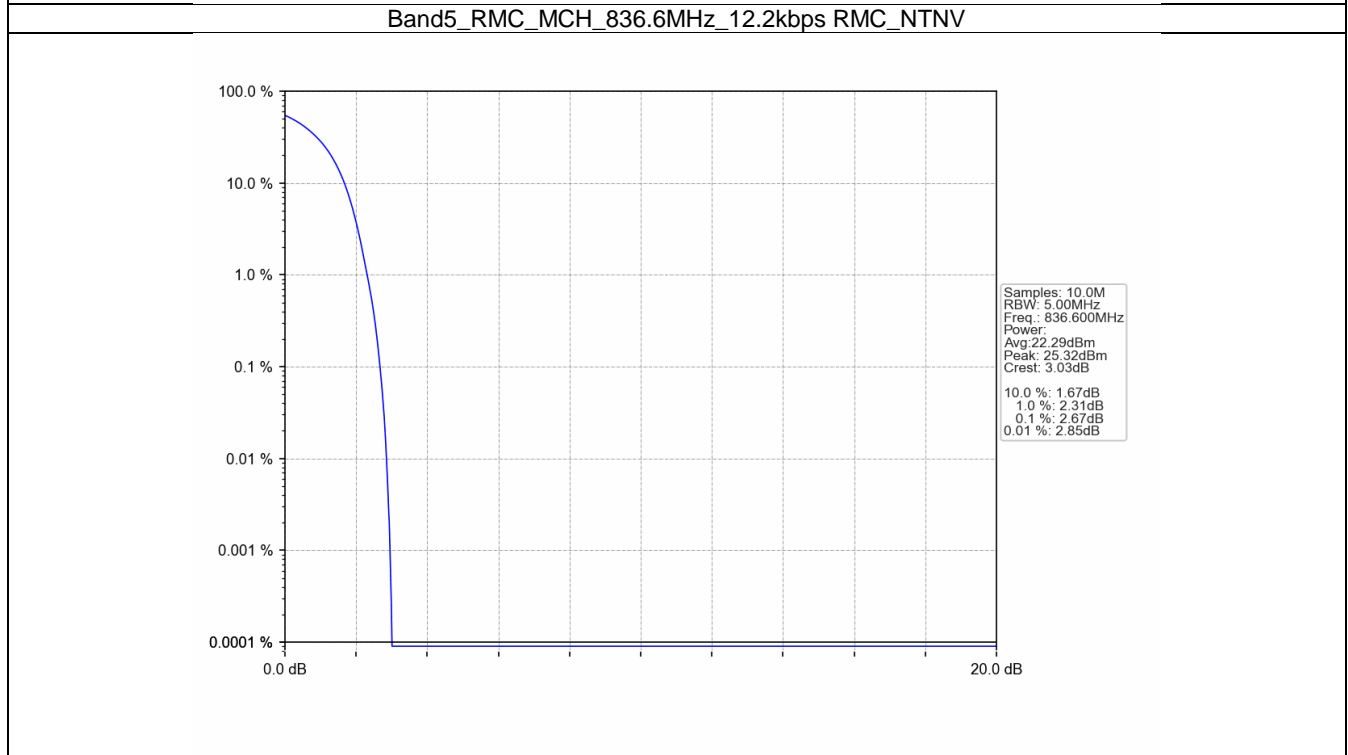
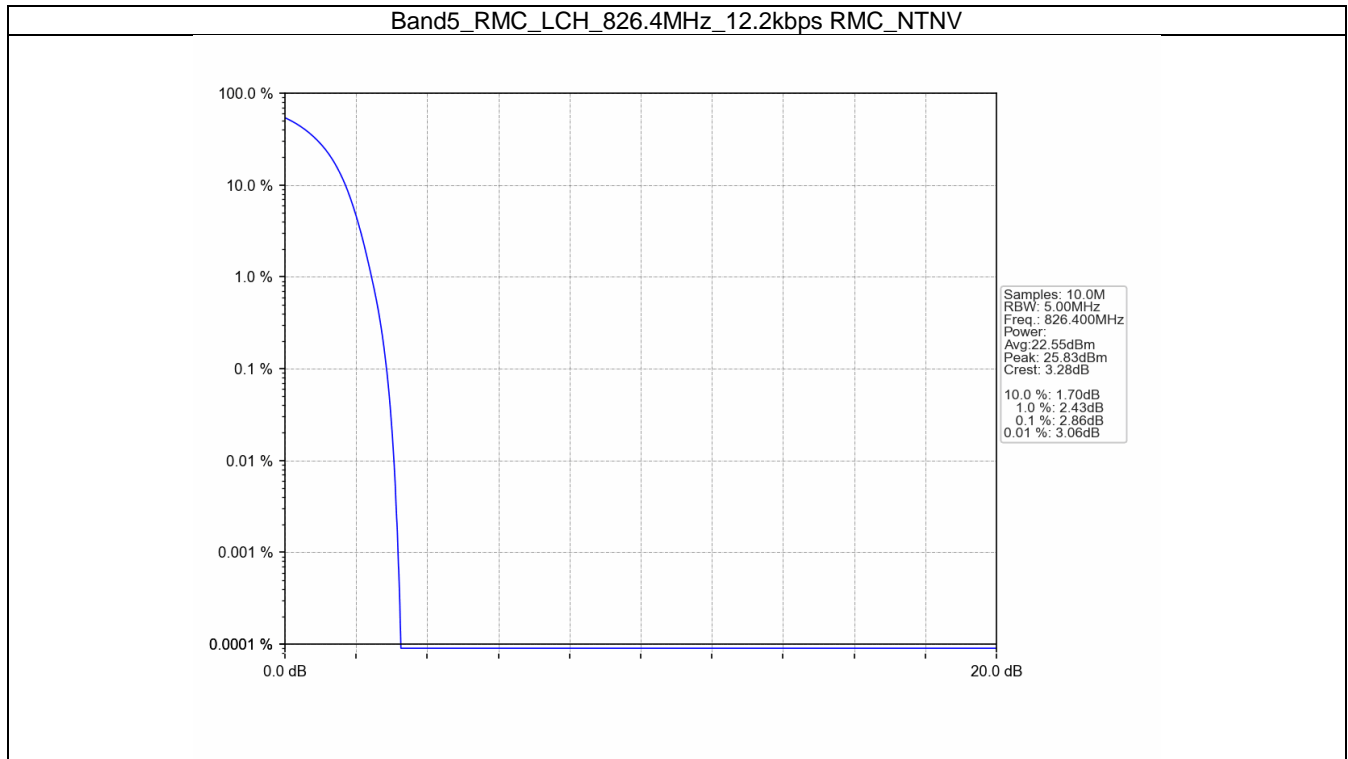
## 5. Peak-Average Ratio

### 5.1 Band5

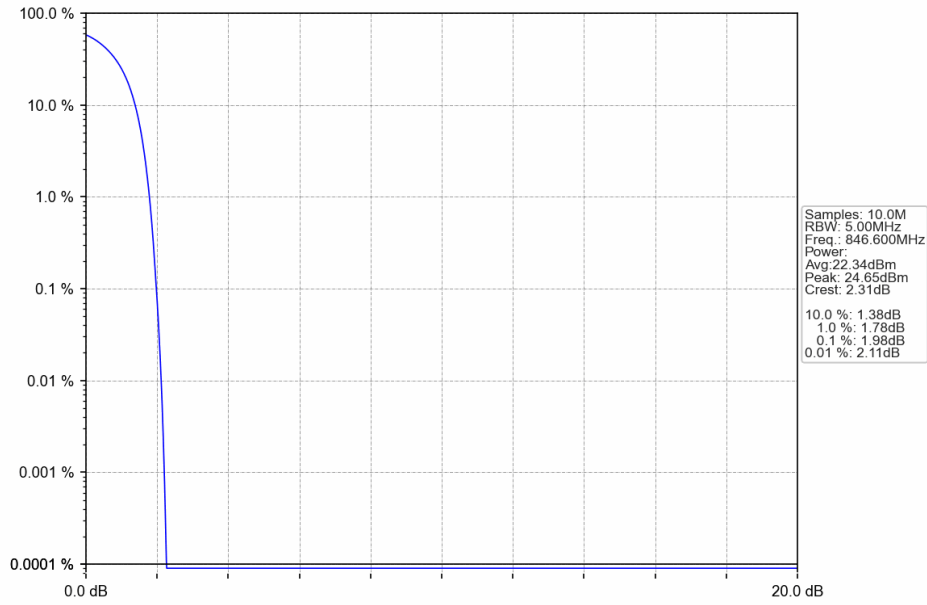
#### 5.1.1 Test Result

Band: 5						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	2.86	<=13	Pass
			836.6	2.67	<=13	Pass
			846.6	1.98	<=13	Pass
	HSDPA	Subtest 1	826.4	6.05	<=13	Pass
			836.6	6.10	<=13	Pass
			846.6	5.63	<=13	Pass
	HSUPA	Subtest 1	826.4	6.05	<=13	Pass
			836.6	6.12	<=13	Pass
			846.6	5.60	<=13	Pass

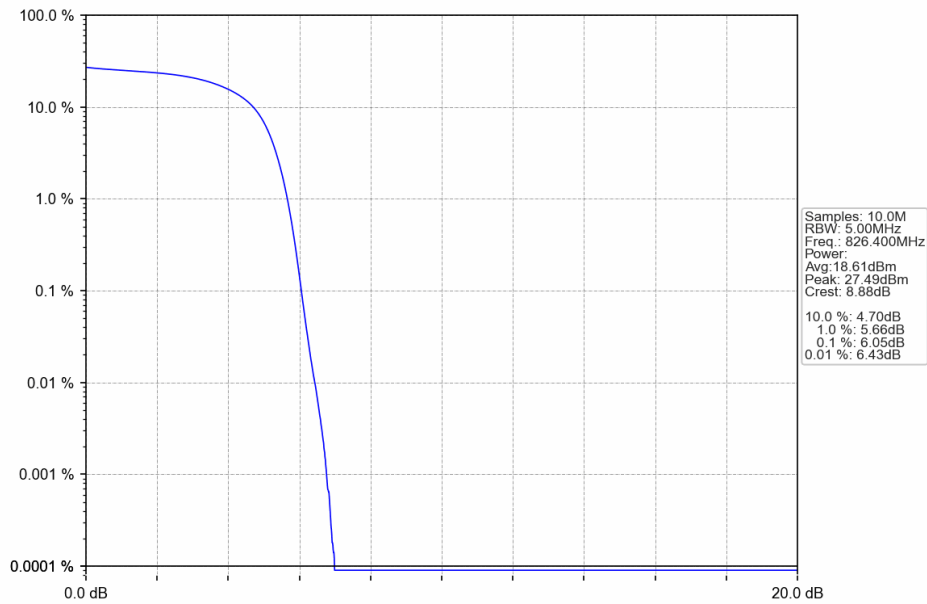
### 5.1.2 Test Graph



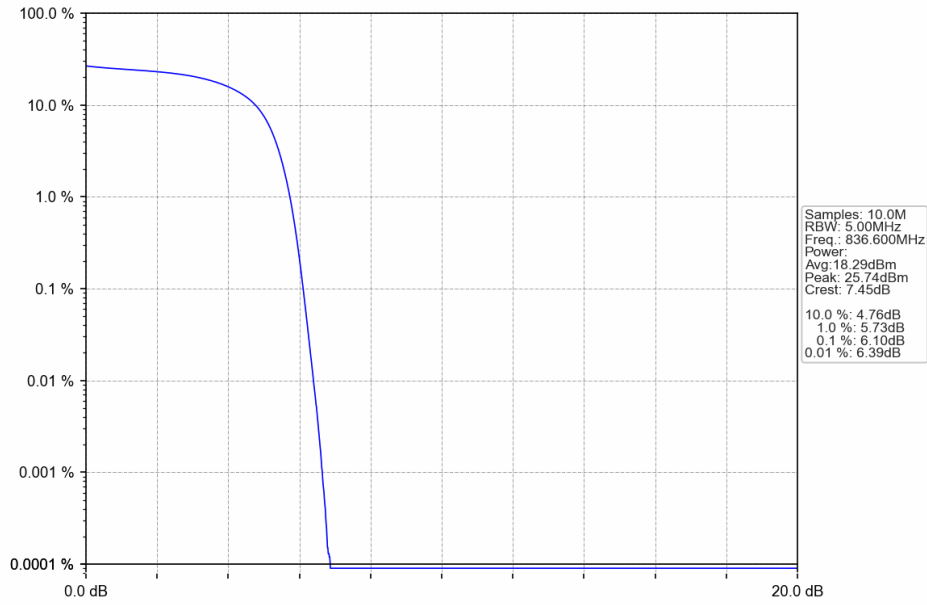
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



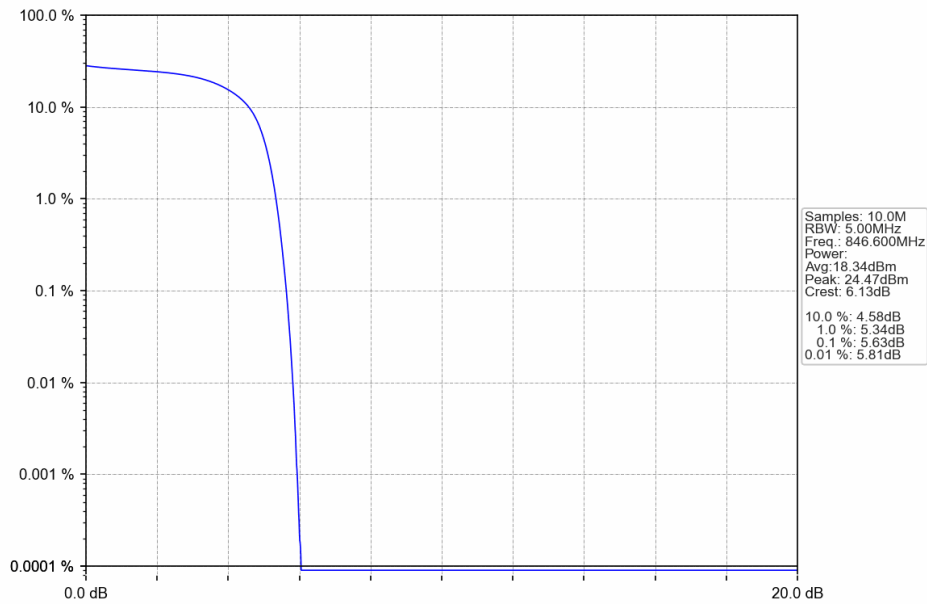
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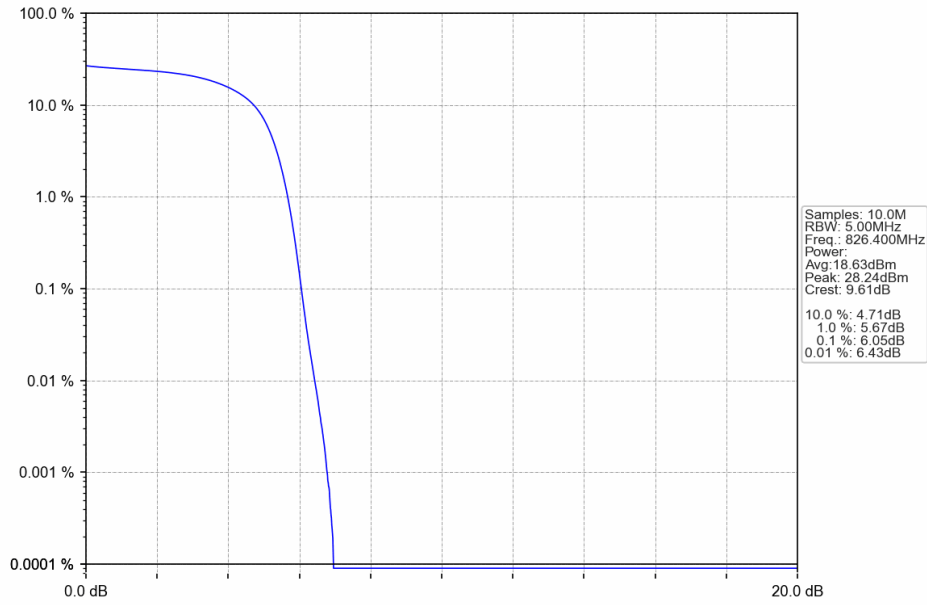
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



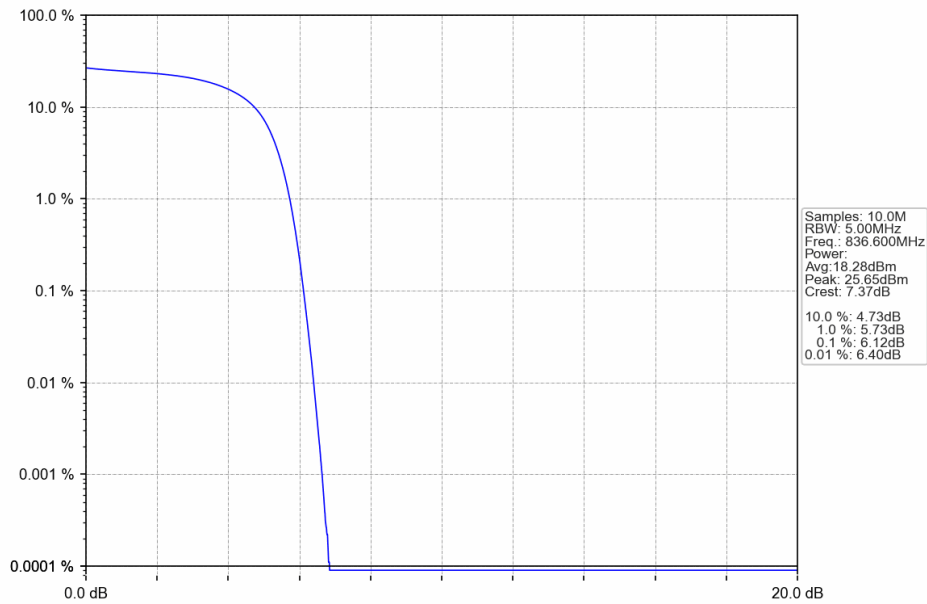
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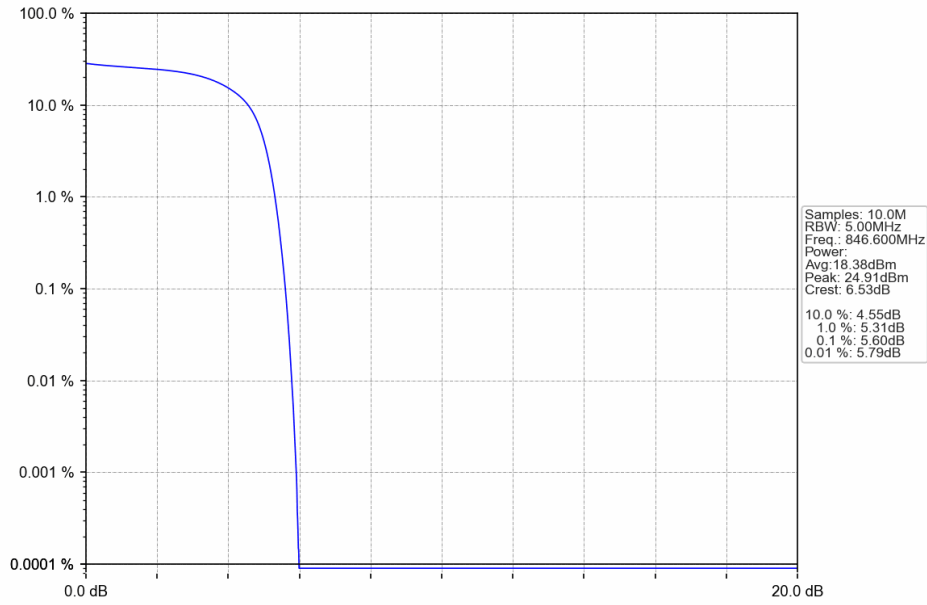
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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



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





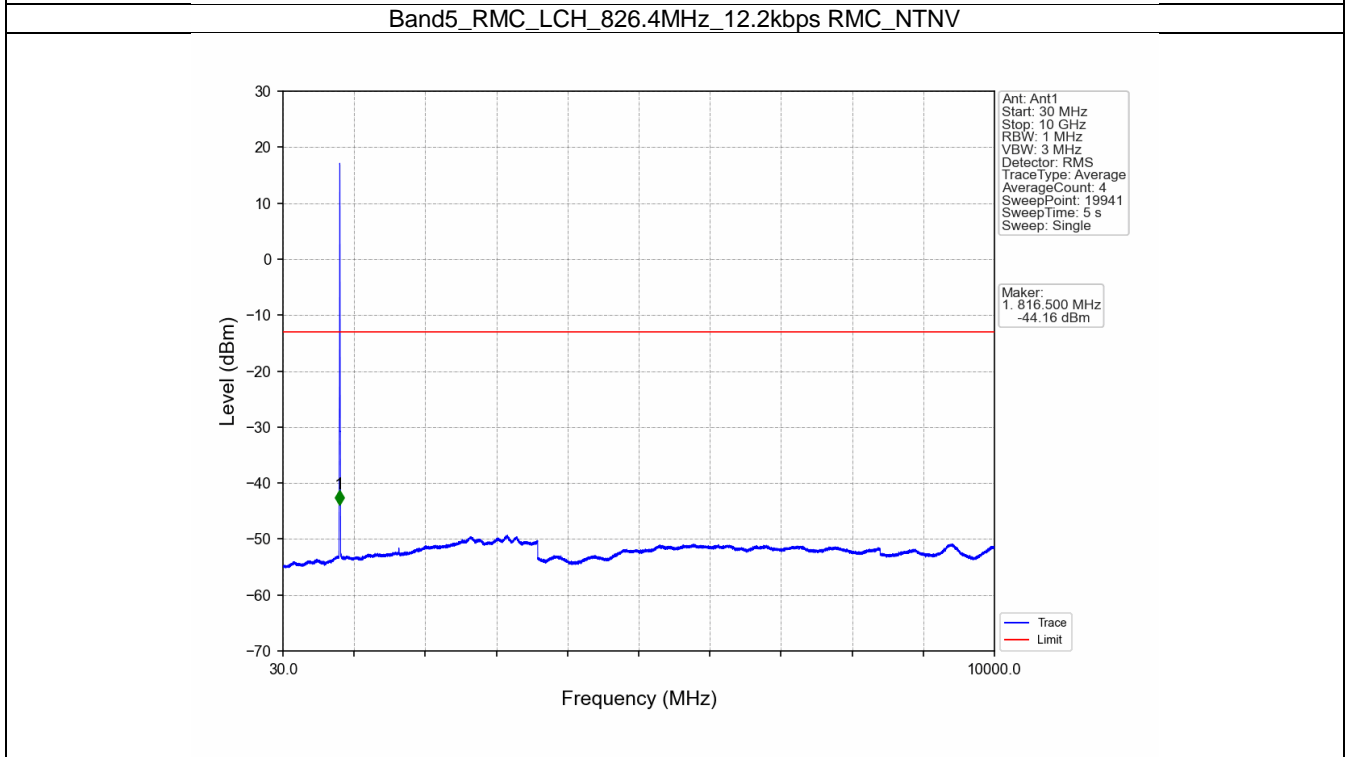
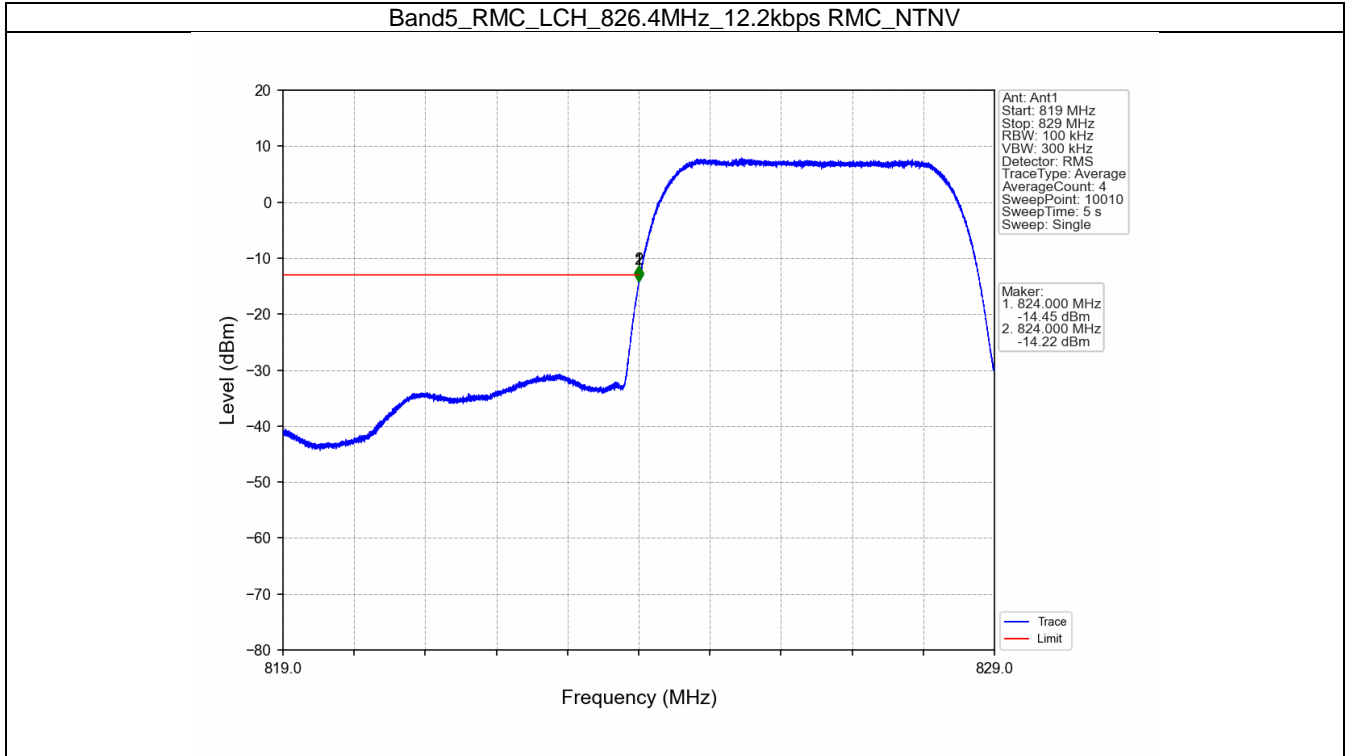
## 6. Spurious Emission

### 6.1 Band5

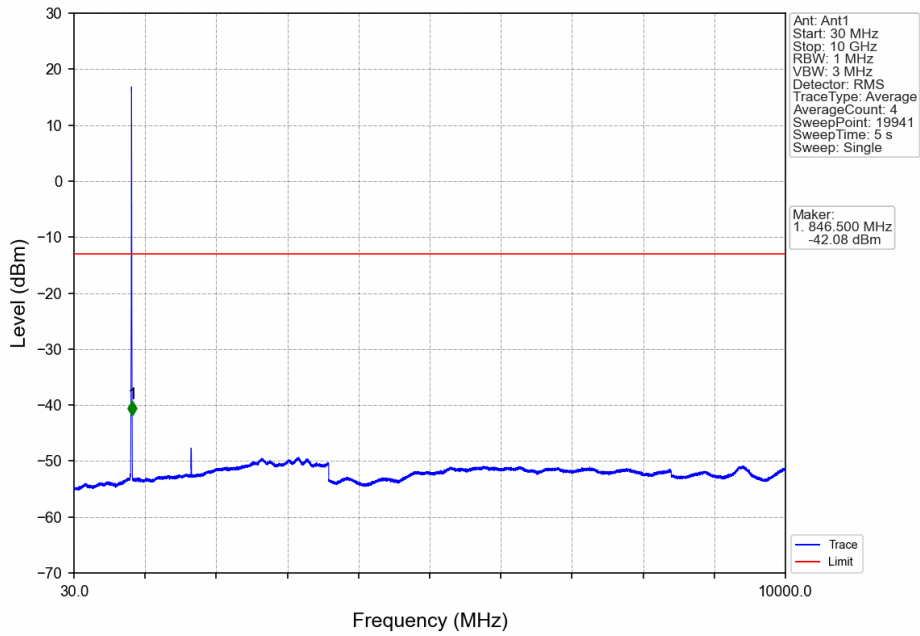
#### 6.1.1 Test Result

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

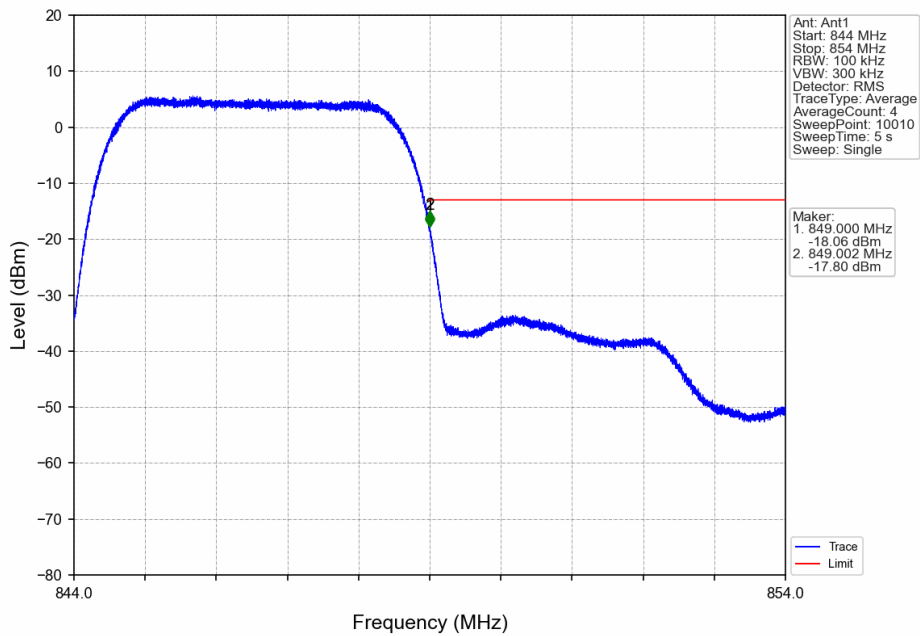
### 6.1.2 Test Graph



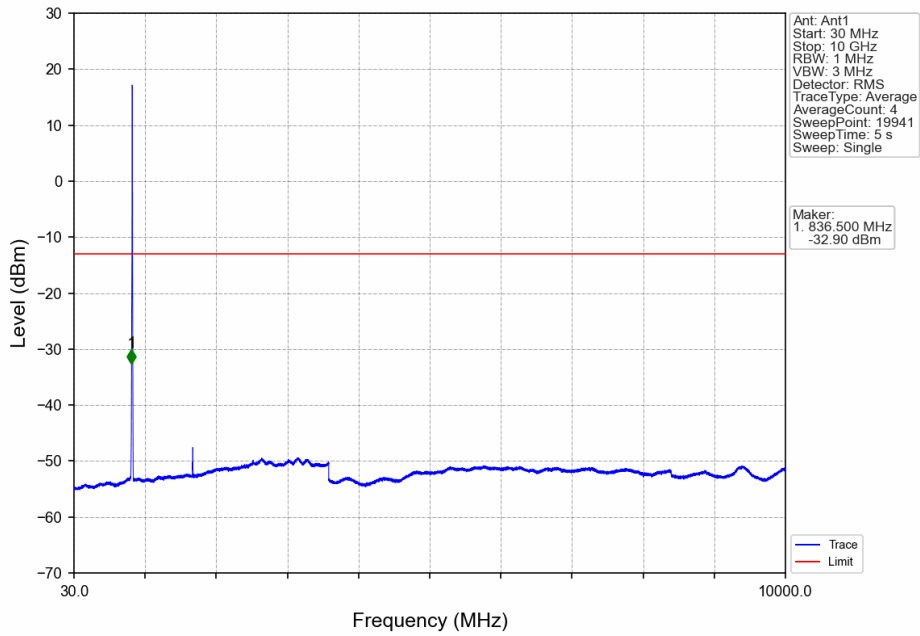
Band5\_RMC\_MCH\_836.6MHz\_12.2kbps RMC\_NTNV



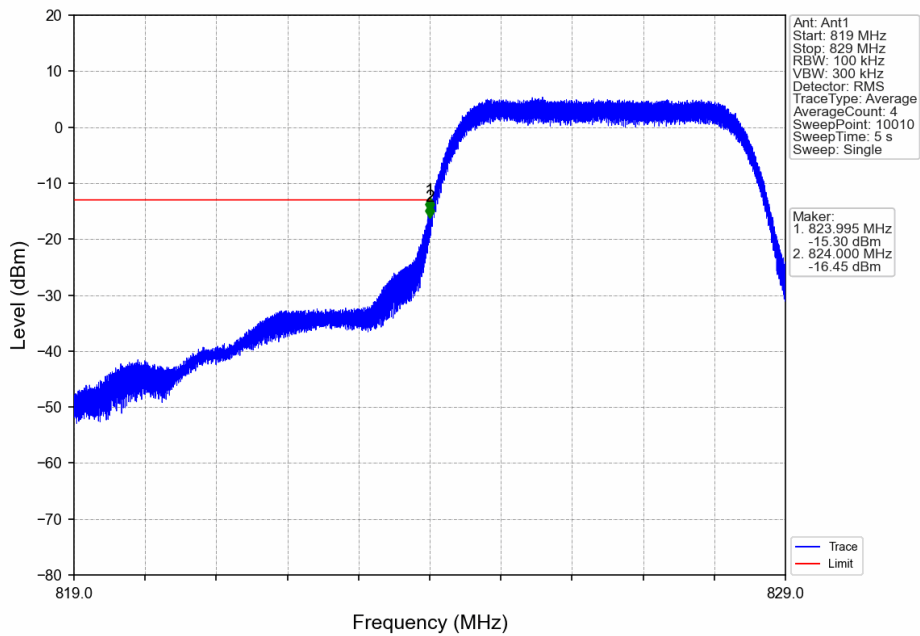
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



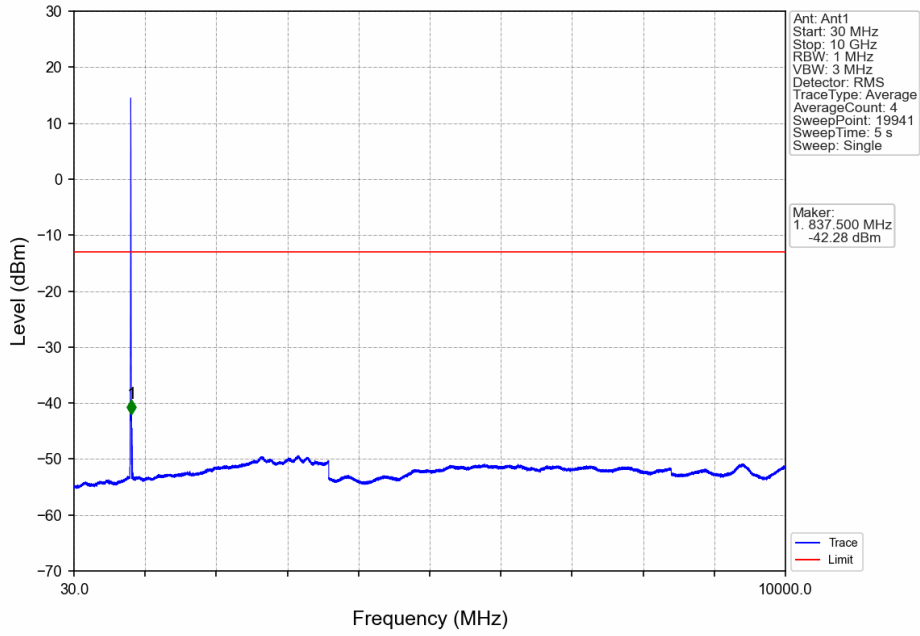
Band5\_RMC\_HCH\_846.6MHz\_12.2kbps RMC\_NTNV



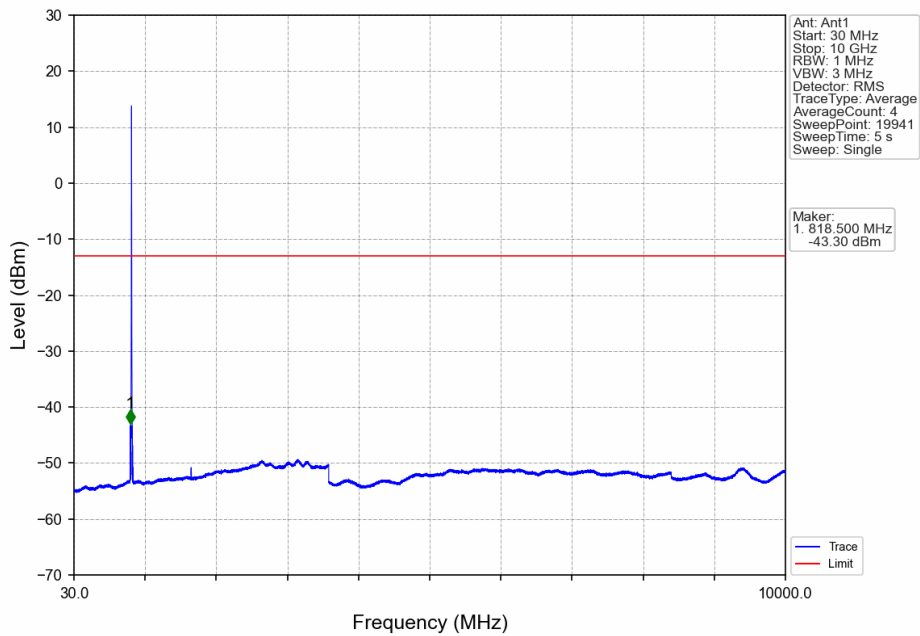
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



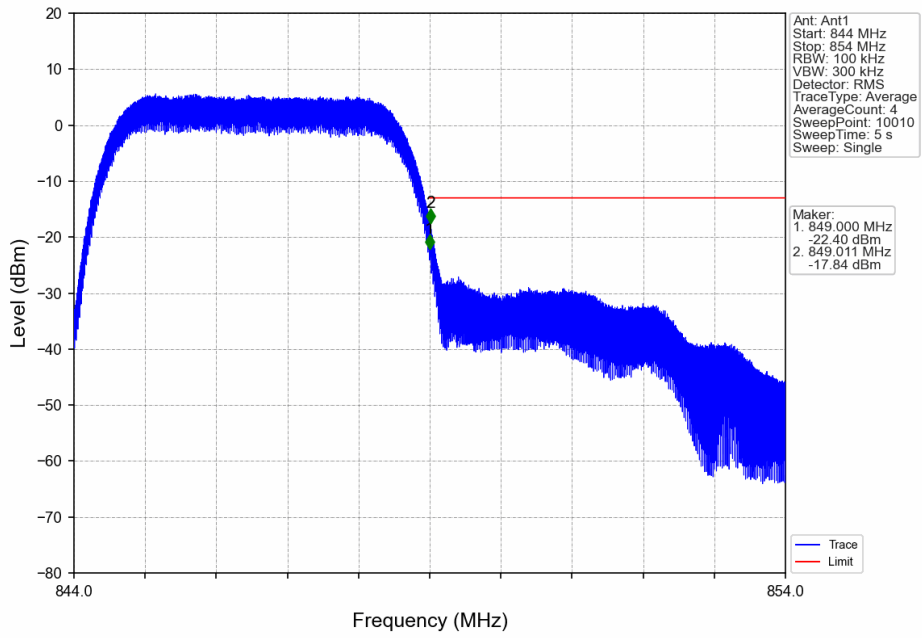
Band5\_HSDPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



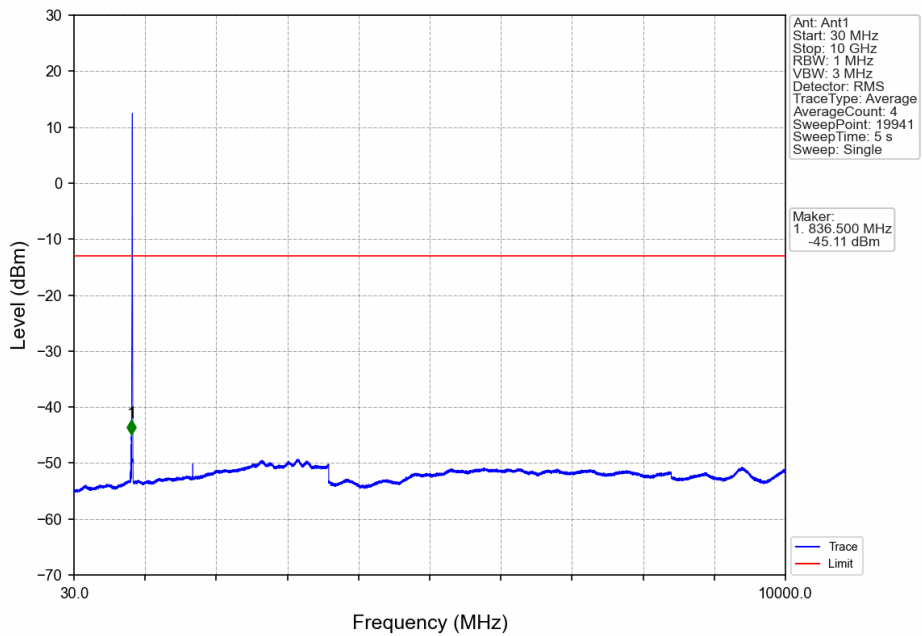
Band5\_HSDPA\_MCH\_836.6MHz\_Subtest 1\_NTNV



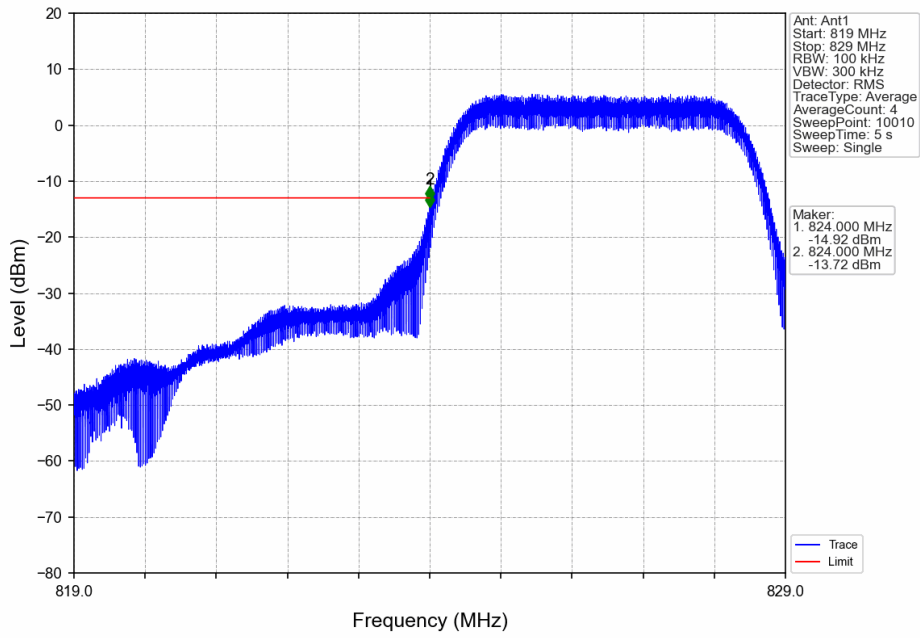
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



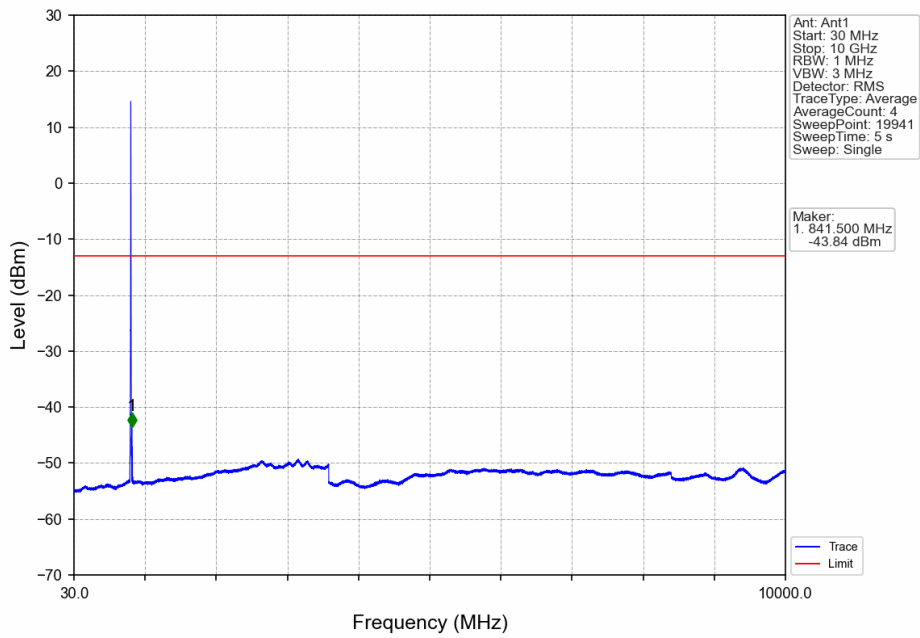
Band5\_HSDPA\_HCH\_846.6MHz\_Subtest 1\_NTNV



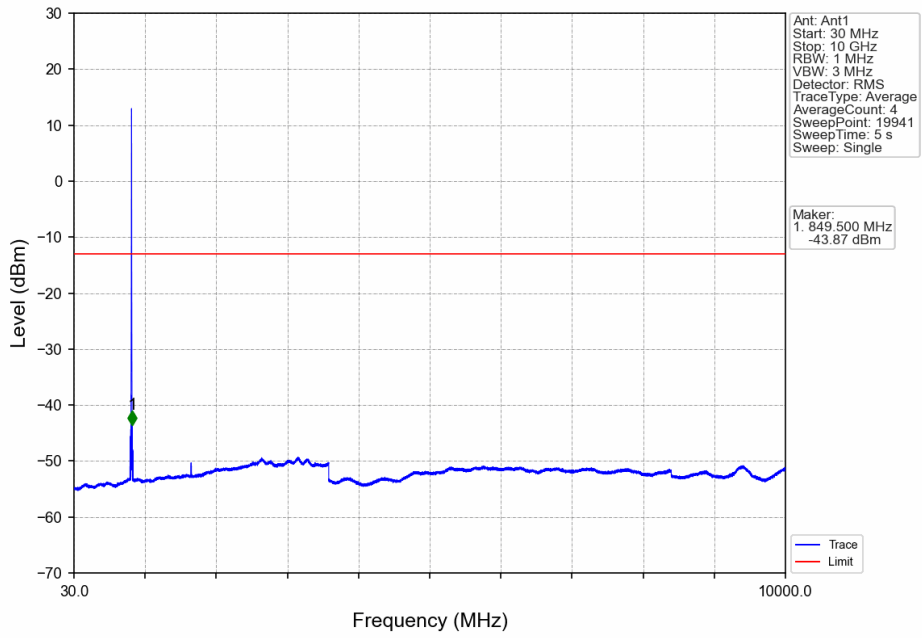
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



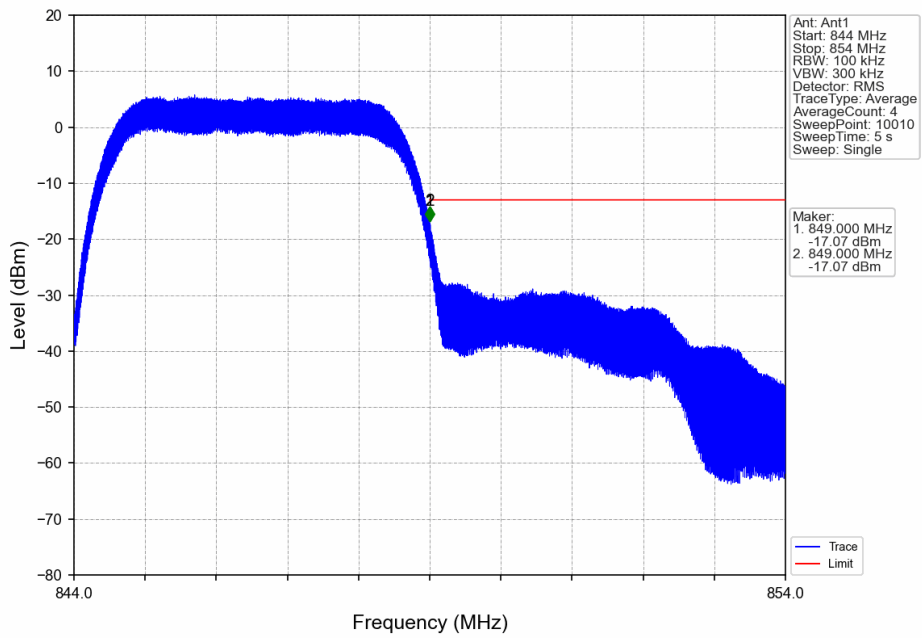
Band5\_HSUPA\_LCH\_826.4MHz\_Subtest 1\_NTNV



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

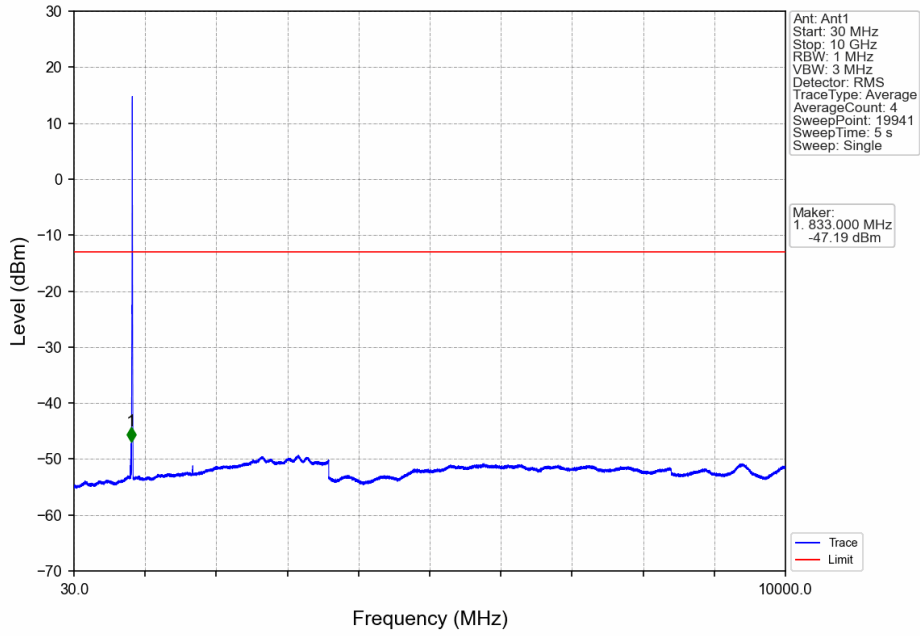


Band5\_HSUPA\_HCH\_846.6MHz\_Subtest 1\_NTNV





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	0.1600	0.0060	ppm	4M28F9W	24E	22.04

### 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	0.1078	0.0060	ppm	4M28F9W	24E	20.33