

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	22.57	-0.71	19.71	<=38.45	Pass			
			836.6	22.53	-0.71	19.67	<=38.45	Pass			
			846.6	22.53	-0.71	19.67	<=38.45	Pass			
	HSDPA		Subtest 1	826.4	20.22	-0.71	17.36	<=38.45	Pass		
			Subtest 2	826.4	20.21	-0.71	17.35	<=38.45	Pass		
			Subtest 3	826.4	20.26	-0.71	17.40	<=38.45	Pass		
			Subtest 4	826.4	20.25	-0.71	17.39	<=38.45	Pass		
			Subtest 1	836.6	20.26	-0.71	17.40	<=38.45	Pass		
			Subtest 2	836.6	20.26	-0.71	17.40	<=38.45	Pass		
			Subtest 3	836.6	20.24	-0.71	17.38	<=38.45	Pass		
			Subtest 4	836.6	20.27	-0.71	17.41	<=38.45	Pass		
			Subtest 1	846.6	20.24	-0.71	17.38	<=38.45	Pass		
			Subtest 2	846.6	20.21	-0.71	17.35	<=38.45	Pass		
			Subtest 3	846.6	20.24	-0.71	17.38	<=38.45	Pass		
			Subtest 4	846.6	20.22	-0.71	17.36	<=38.45	Pass		
			HSUPA		Subtest 1	826.4	18.27	-0.71	15.41	<=38.45	Pass
					Subtest 2	826.4	18.05	-0.71	15.19	<=38.45	Pass
					Subtest 3	826.4	18.10	-0.71	15.24	<=38.45	Pass
	Subtest 4	826.4			18.06	-0.71	15.20	<=38.45	Pass		
	Subtest 5	826.4			17.81	-0.71	14.95	<=38.45	Pass		
	Subtest 1	836.6			17.72	-0.71	14.86	<=38.45	Pass		
	Subtest 2	836.6			17.76	-0.71	14.90	<=38.45	Pass		
	Subtest 3	836.6			17.72	-0.71	14.86	<=38.45	Pass		
	Subtest 4	836.6			17.74	-0.71	14.88	<=38.45	Pass		
	Subtest 5	836.6			17.75	-0.71	14.89	<=38.45	Pass		
	Subtest 1	846.6			18.23	-0.71	15.37	<=38.45	Pass		
	Subtest 2	846.6			17.73	-0.71	14.87	<=38.45	Pass		
	Subtest 3	846.6			18.04	-0.71	15.18	<=38.45	Pass		
	Subtest 4	846.6			18.01	-0.71	15.15	<=38.45	Pass		
	Subtest 5	846.6			18.21	-0.71	15.35	<=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	-12.875	-0.0156	-2.5 to 2.5	Pass
			3.85	-7.031	-0.0085	-2.5 to 2.5	Pass
			4.43	-9.606	-0.0116	-2.5 to 2.5	Pass
		-30	3.85	-11.902	-0.0144	-2.5 to 2.5	Pass
		-20	3.85	-13.804	-0.0167	-2.5 to 2.5	Pass
		-10	3.85	-5.608	-0.0068	-2.5 to 2.5	Pass
		0	3.85	-8.991	-0.0109	-2.5 to 2.5	Pass
		10	3.85	-9.413	-0.0114	-2.5 to 2.5	Pass
		30	3.85	-10.235	-0.0124	-2.5 to 2.5	Pass
		40	3.85	-11.873	-0.0144	-2.5 to 2.5	Pass
	50	3.85	-12.681	-0.0153	-2.5 to 2.5	Pass	
	836.6	20	3.27	-3.877	-0.0046	-2.5 to 2.5	Pass
			3.85	-4.921	-0.0059	-2.5 to 2.5	Pass
			4.43	-5.958	-0.0071	-2.5 to 2.5	Pass
		-30	3.85	-6.909	-0.0083	-2.5 to 2.5	Pass
		-20	3.85	-7.775	-0.0093	-2.5 to 2.5	Pass
		-10	3.85	-9.012	-0.0108	-2.5 to 2.5	Pass
		0	3.85	-9.663	-0.0116	-2.5 to 2.5	Pass
		10	3.85	-9.491	-0.0113	-2.5 to 2.5	Pass
		30	3.85	-11.151	-0.0133	-2.5 to 2.5	Pass
		40	3.85	-11.716	-0.0140	-2.5 to 2.5	Pass
	50	3.85	-12.116	-0.0145	-2.5 to 2.5	Pass	
	846.6	20	3.27	-10.207	-0.0121	-2.5 to 2.5	Pass
			3.85	-11.151	-0.0132	-2.5 to 2.5	Pass
			4.43	-12.023	-0.0142	-2.5 to 2.5	Pass
		-30	3.85	-12.774	-0.0151	-2.5 to 2.5	Pass
		-20	3.85	-5.579	-0.0066	-2.5 to 2.5	Pass
		-10	3.85	-5.536	-0.0065	-2.5 to 2.5	Pass
		0	3.85	-6.402	-0.0076	-2.5 to 2.5	Pass
		10	3.85	-6.373	-0.0075	-2.5 to 2.5	Pass
30		3.85	-7.253	-0.0086	-2.5 to 2.5	Pass	
40		3.85	-11.995	-0.0142	-2.5 to 2.5	Pass	
50	3.85	-7.675	-0.0091	-2.5 to 2.5	Pass		
HSDPA	826.4	20	3.27	-10.586	-0.0128	-2.5 to 2.5	Pass
			3.85	-6.144	-0.0074	-2.5 to 2.5	Pass
			4.43	-7.696	-0.0093	-2.5 to 2.5	Pass
		-30	3.85	-2.754	-0.0033	-2.5 to 2.5	Pass
		-20	3.85	-8.919	-0.0108	-2.5 to 2.5	Pass
		-10	3.85	-3.970	-0.0048	-2.5 to 2.5	Pass
		0	3.85	-9.320	-0.0113	-2.5 to 2.5	Pass
		10	3.85	-4.492	-0.0054	-2.5 to 2.5	Pass
		30	3.85	-7.424	-0.0090	-2.5 to 2.5	Pass
		40	3.85	-5.357	-0.0065	-2.5 to 2.5	Pass
	50	3.85	-2.861	-0.0035	-2.5 to 2.5	Pass	
	836.6	20	3.27	-5.836	-0.0070	-2.5 to 2.5	Pass
			3.85	-10.200	-0.0122	-2.5 to 2.5	Pass
			4.43	-4.199	-0.0050	-2.5 to 2.5	Pass
		-30	3.85	-5.794	-0.0069	-2.5 to 2.5	Pass
		-20	3.85	-3.498	-0.0042	-2.5 to 2.5	Pass
		-10	3.85	-4.914	-0.0059	-2.5 to 2.5	Pass
		0	3.85	-9.313	-0.0111	-2.5 to 2.5	Pass
		10	3.85	-4.735	-0.0057	-2.5 to 2.5	Pass
		30	3.85	-7.374	-0.0088	-2.5 to 2.5	Pass
40		3.85	-6.201	-0.0074	-2.5 to 2.5	Pass	
50	3.85	-2.139	-0.0026	-2.5 to 2.5	Pass		

	846.6	20	3.27	-4.771	-0.0056	-2.5 to 2.5	Pass
			3.85	-13.025	-0.0154	-2.5 to 2.5	Pass
			4.43	-11.051	-0.0131	-2.5 to 2.5	Pass
		-30	3.85	-11.430	-0.0135	-2.5 to 2.5	Pass
		-20	3.85	-7.896	-0.0093	-2.5 to 2.5	Pass
		-10	3.85	-7.288	-0.0086	-2.5 to 2.5	Pass
		0	3.85	-7.246	-0.0086	-2.5 to 2.5	Pass
		10	3.85	-16.336	-0.0193	-2.5 to 2.5	Pass
		30	3.85	-13.618	-0.0161	-2.5 to 2.5	Pass
		40	3.85	-15.249	-0.0180	-2.5 to 2.5	Pass
50	3.85	-8.740	-0.0103	-2.5 to 2.5	Pass		
HSUPA	826.4	20	3.27	-9.484	-0.0115	-2.5 to 2.5	Pass
			3.85	-8.698	-0.0105	-2.5 to 2.5	Pass
			4.43	-7.546	-0.0091	-2.5 to 2.5	Pass
		-30	3.85	-10.636	-0.0129	-2.5 to 2.5	Pass
		-20	3.85	-8.526	-0.0103	-2.5 to 2.5	Pass
		-10	3.85	-9.756	-0.0118	-2.5 to 2.5	Pass
		0	3.85	-11.623	-0.0141	-2.5 to 2.5	Pass
		10	3.85	-10.929	-0.0132	-2.5 to 2.5	Pass
		30	3.85	-10.936	-0.0132	-2.5 to 2.5	Pass
		40	3.85	-10.407	-0.0126	-2.5 to 2.5	Pass
	50	3.85	-10.507	-0.0127	-2.5 to 2.5	Pass	
	836.6	20	3.27	-14.098	-0.0169	-2.5 to 2.5	Pass
			3.85	-8.869	-0.0106	-2.5 to 2.5	Pass
			4.43	-11.508	-0.0138	-2.5 to 2.5	Pass
		-30	3.85	-12.667	-0.0151	-2.5 to 2.5	Pass
		-20	3.85	-11.952	-0.0143	-2.5 to 2.5	Pass
		-10	3.85	-12.202	-0.0146	-2.5 to 2.5	Pass
		0	3.85	-10.378	-0.0124	-2.5 to 2.5	Pass
		10	3.85	-15.585	-0.0186	-2.5 to 2.5	Pass
		30	3.85	-11.172	-0.0134	-2.5 to 2.5	Pass
		40	3.85	-10.178	-0.0122	-2.5 to 2.5	Pass
	50	3.85	-10.536	-0.0126	-2.5 to 2.5	Pass	
	846.6	20	3.27	-10.643	-0.0126	-2.5 to 2.5	Pass
			3.85	-13.096	-0.0155	-2.5 to 2.5	Pass
			4.43	-8.261	-0.0098	-2.5 to 2.5	Pass
		-30	3.85	-16.429	-0.0194	-2.5 to 2.5	Pass
		-20	3.85	-11.652	-0.0138	-2.5 to 2.5	Pass
		-10	3.85	-8.762	-0.0103	-2.5 to 2.5	Pass
		0	3.85	-13.769	-0.0163	-2.5 to 2.5	Pass
		10	3.85	-9.398	-0.0111	-2.5 to 2.5	Pass
30		3.85	-15.306	-0.0181	-2.5 to 2.5	Pass	
40		3.85	-8.984	-0.0106	-2.5 to 2.5	Pass	
50	3.85	-14.119	-0.0167	-2.5 to 2.5	Pass		

3. Modulation Characteristics

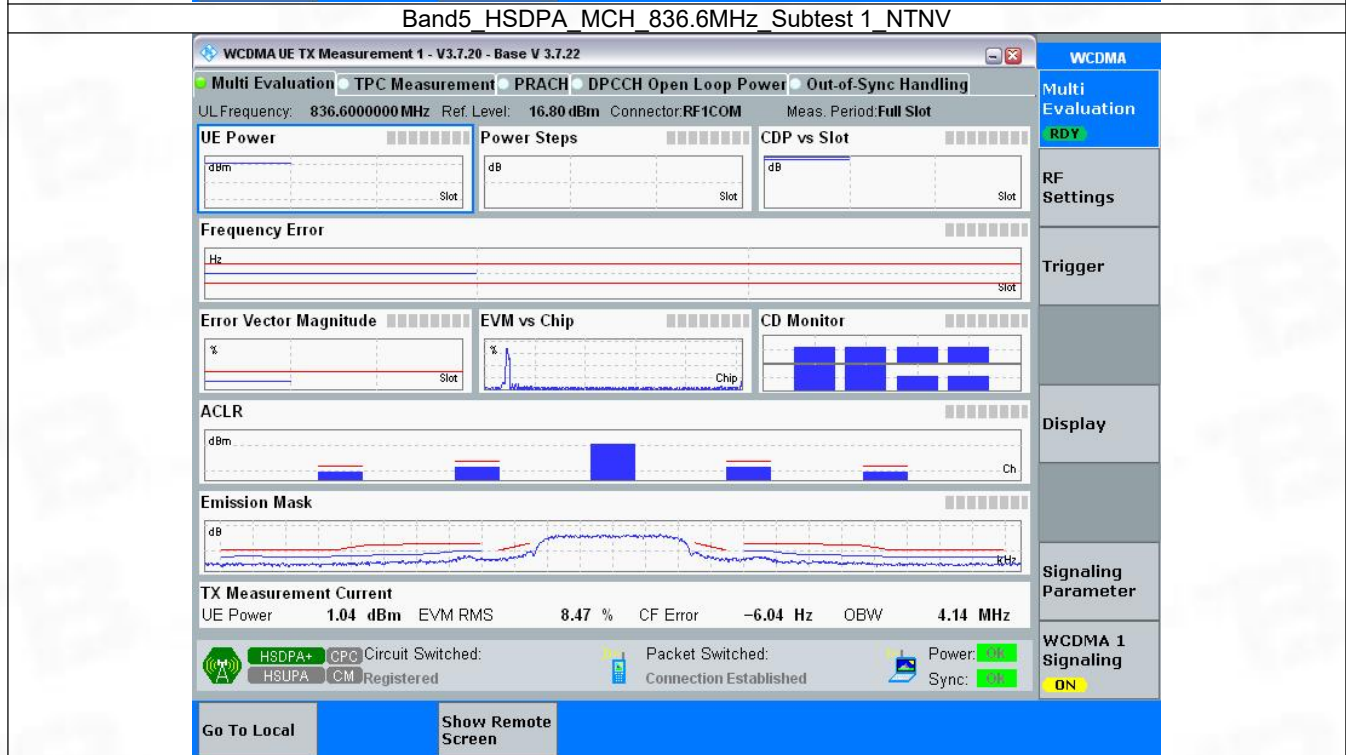
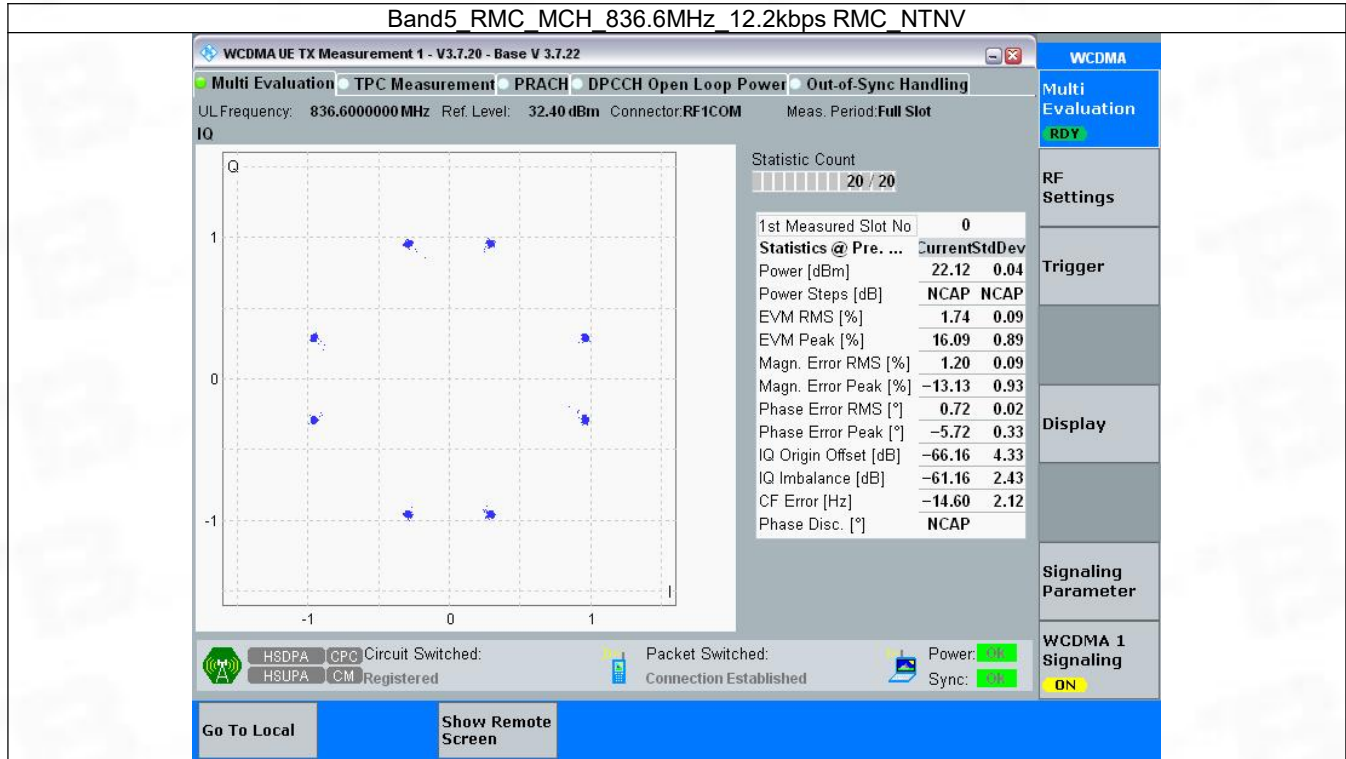
3.1 Band5

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

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

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

WCDMA

Statistic Count: 20 / 20

1st Measured Slot No	0
Statistics @ Pre. ...	CurrentStdDev
Power [dBm]	2.21 3.27
Power Steps [dB]	NCAP NCAP
EVM RMS [%]	1.73 4.06
EVM Peak [%]	4.44 40.27
Magn. Error RMS [%]	1.12 4.28
Magn. Error Peak [%]	-3.54 40.68
Phase Error RMS [°]	1.14 0.16
Phase Error Peak [°]	4.25 1.91
IQ Origin Offset [dB]	-61.86 6.52
IQ Imbalance [dB]	-74.34 4.10
CF Error [Hz]	-3.90 3.48
Phase Disc. [°]	NCAP

Multi Evaluation

RDY

RF Settings

Trigger

Display

Signaling Parameter

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

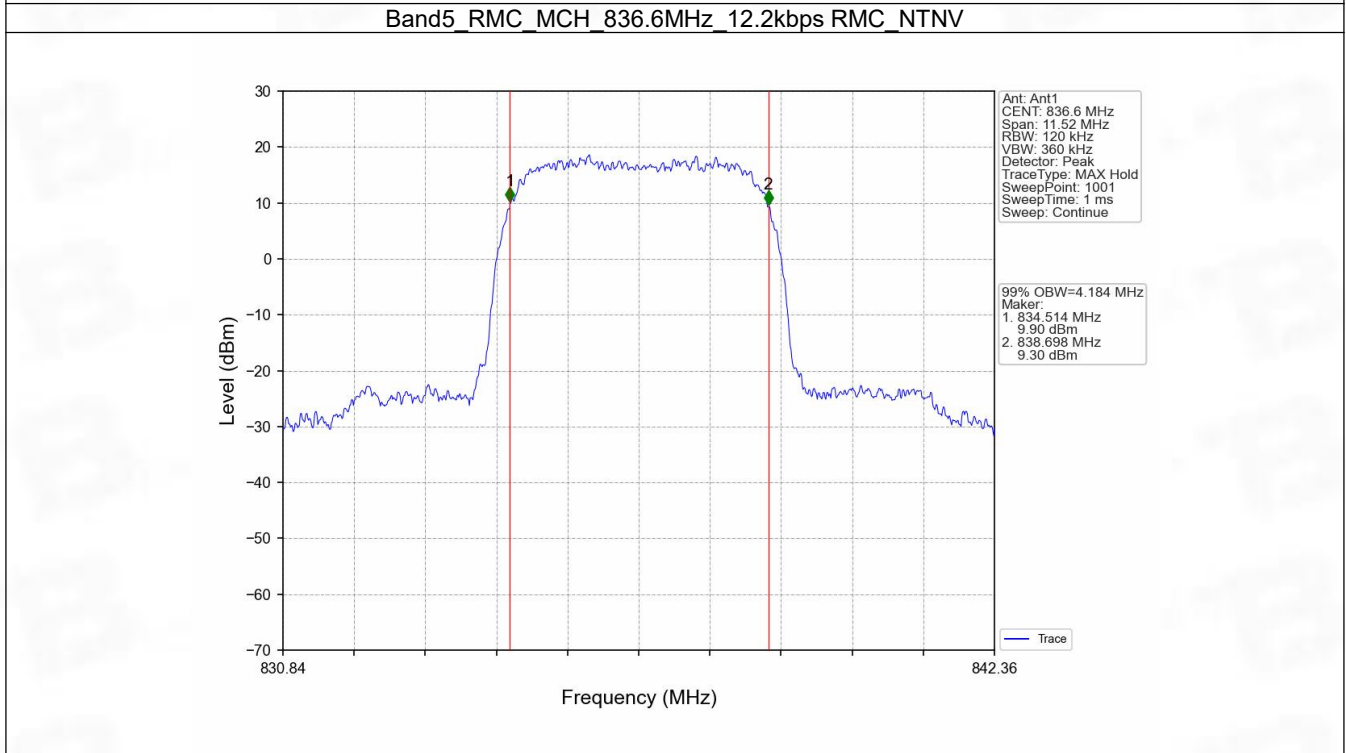
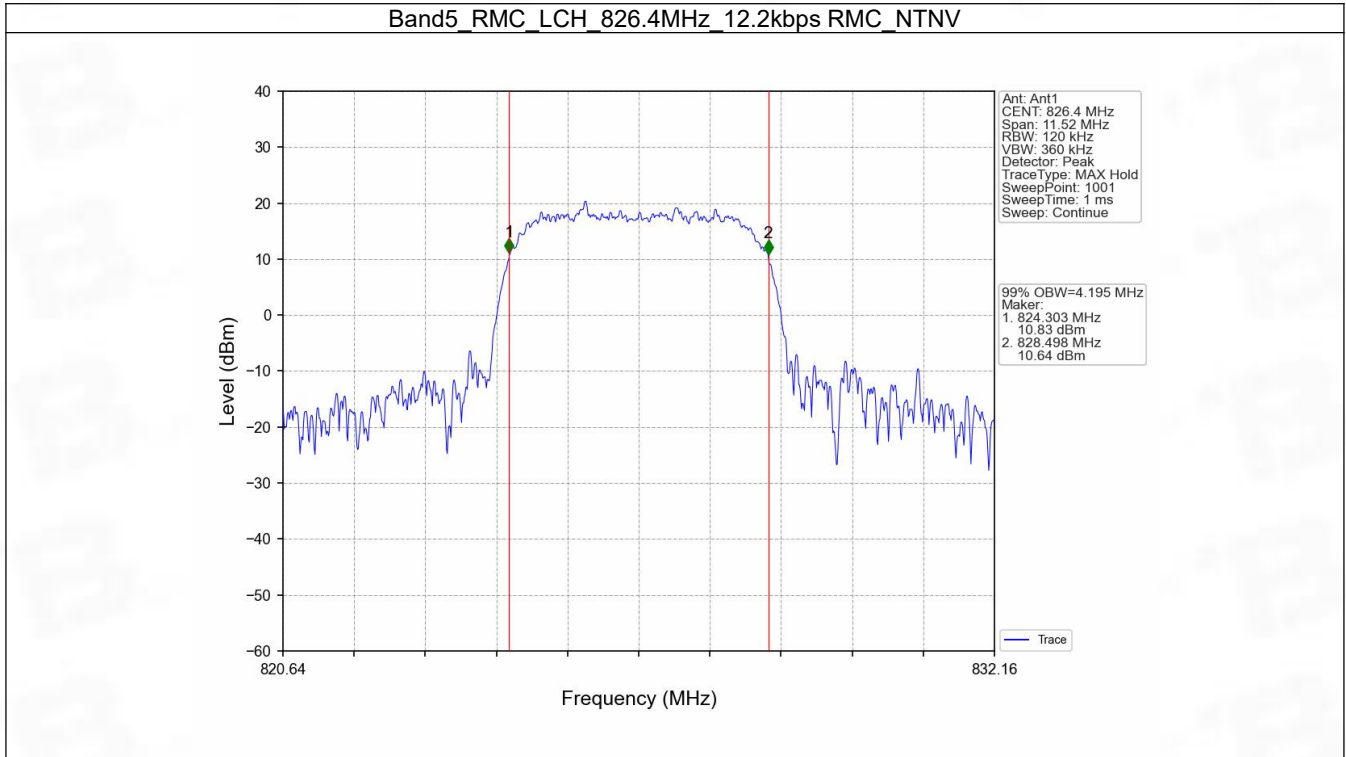
4. 99% & 26dB Bandwidth

4.1 Band5_OBW

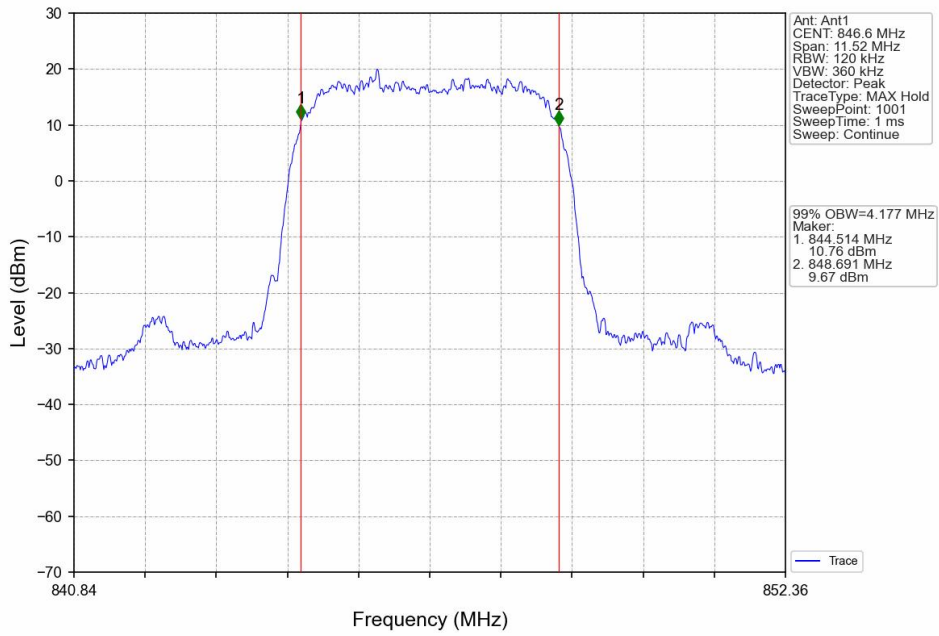
4.1.1 Test Result

Band: 5					
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	RMC	12.2kbps RMC	826.4	4.195	Pass
			836.6	4.184	Pass
			846.6	4.177	Pass
	HSDPA	Subtest 1	826.4	4.242	Pass
			836.6	4.204	Pass
			846.6	4.225	Pass
	HSUPA	Subtest 1	826.4	4.230	Pass
			836.6	4.214	Pass
			846.6	4.235	Pass

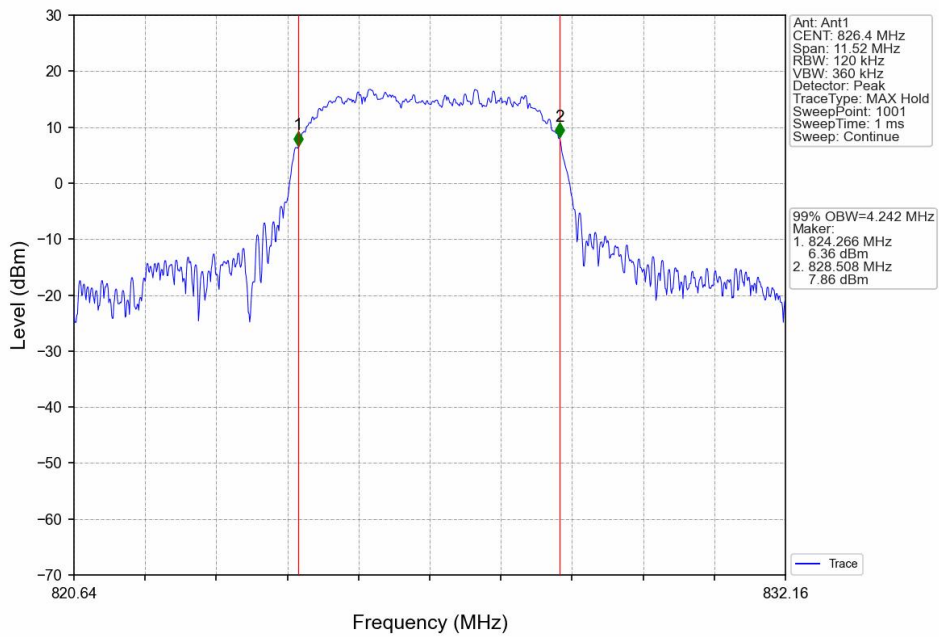
4.1.2 Test Graph



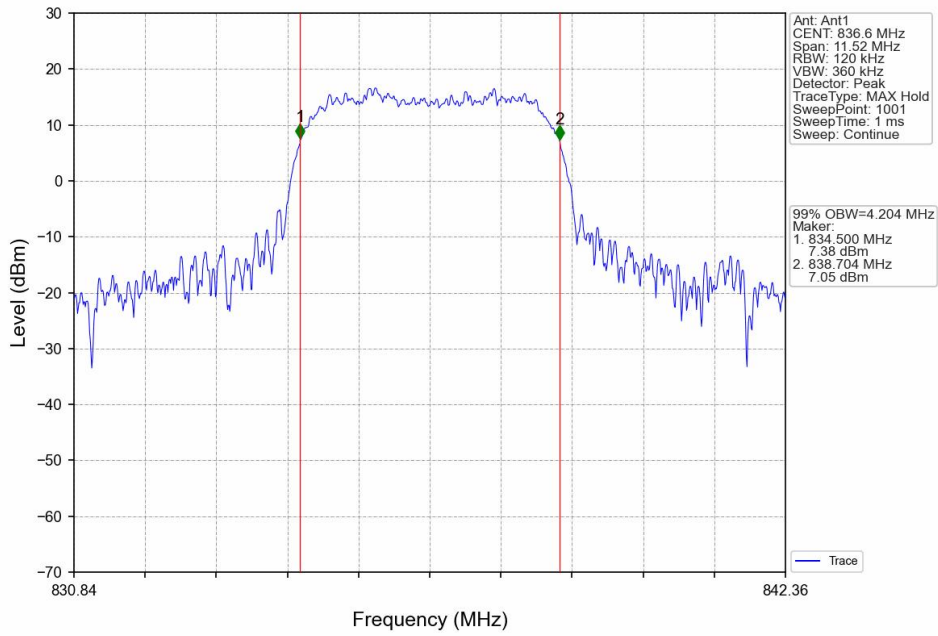
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



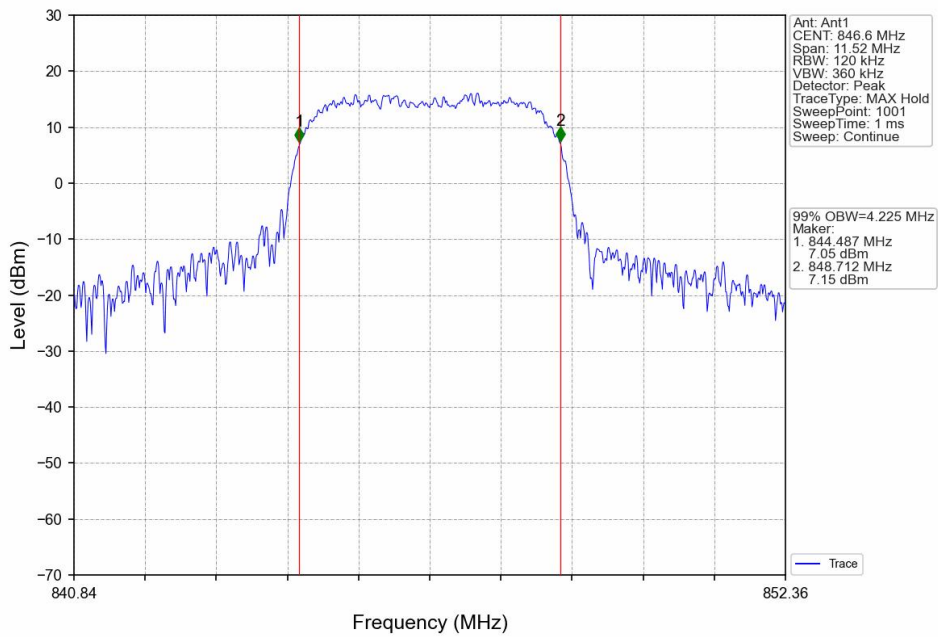
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



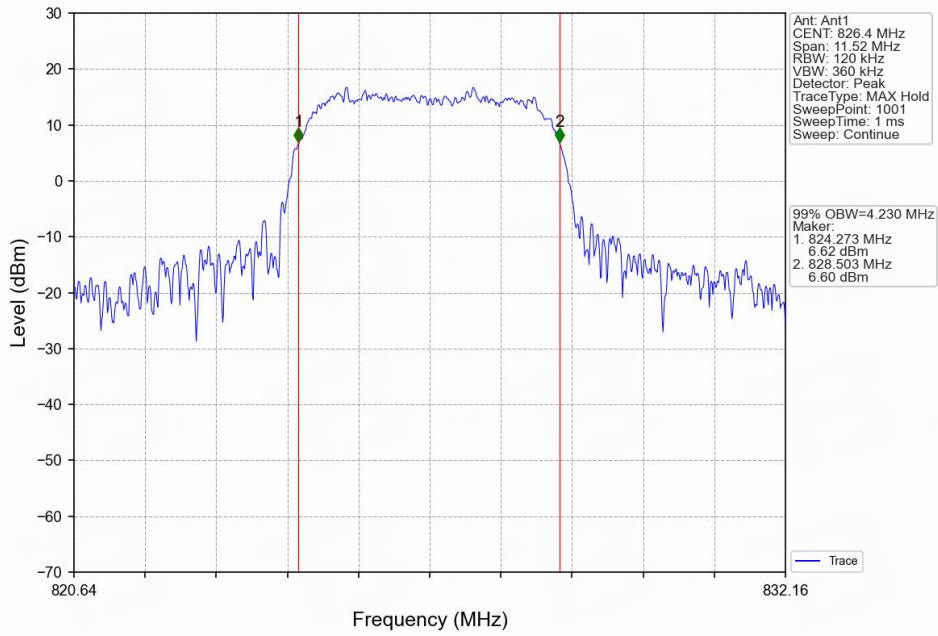
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



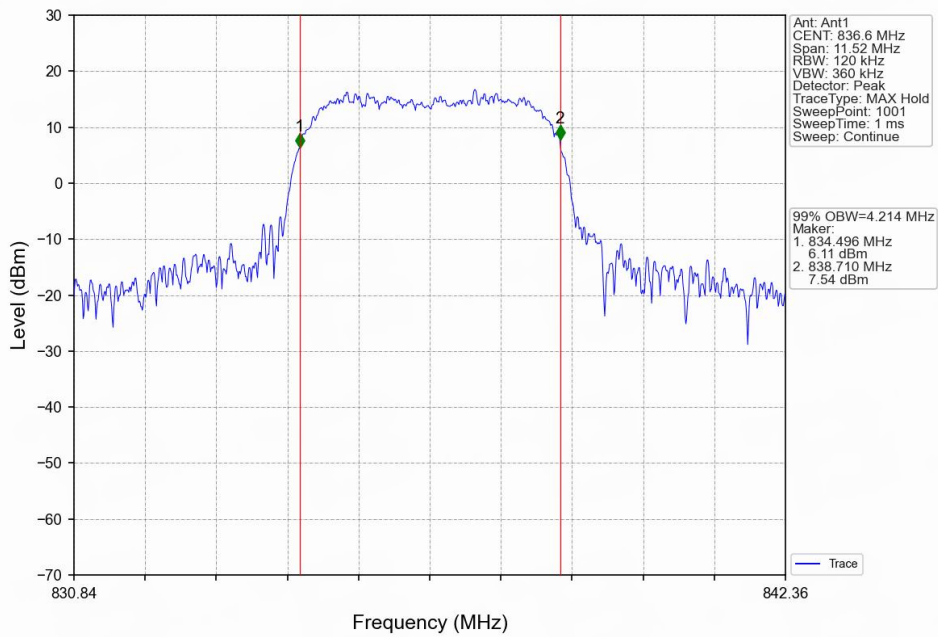
Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



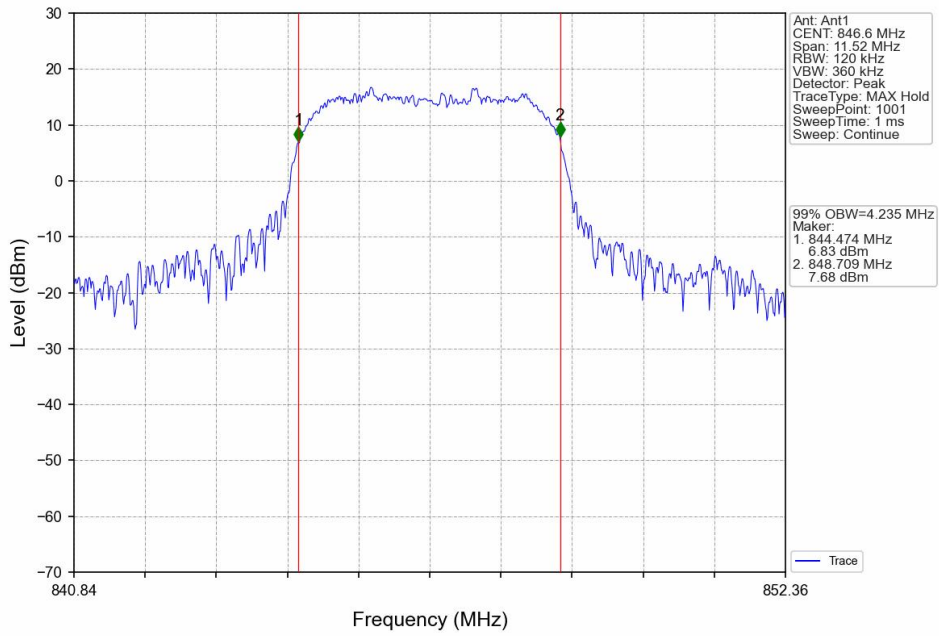
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV



Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV

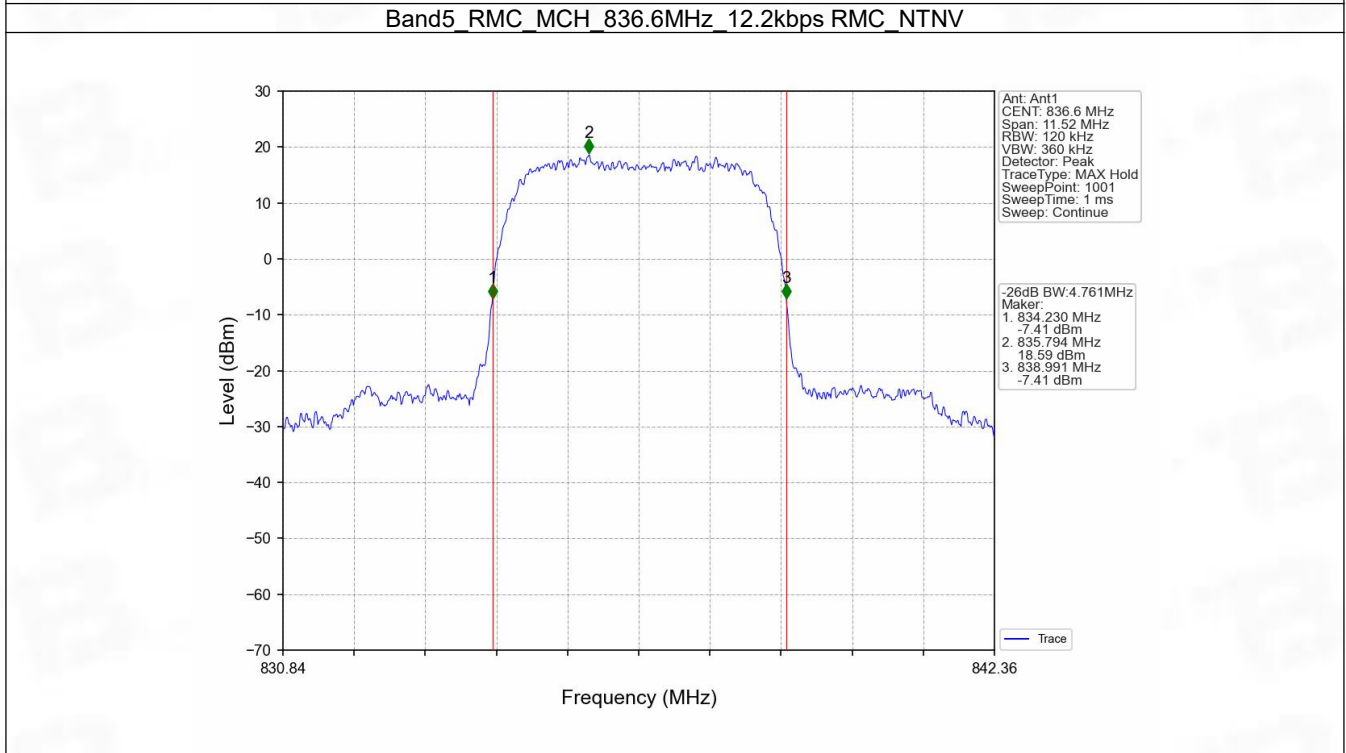
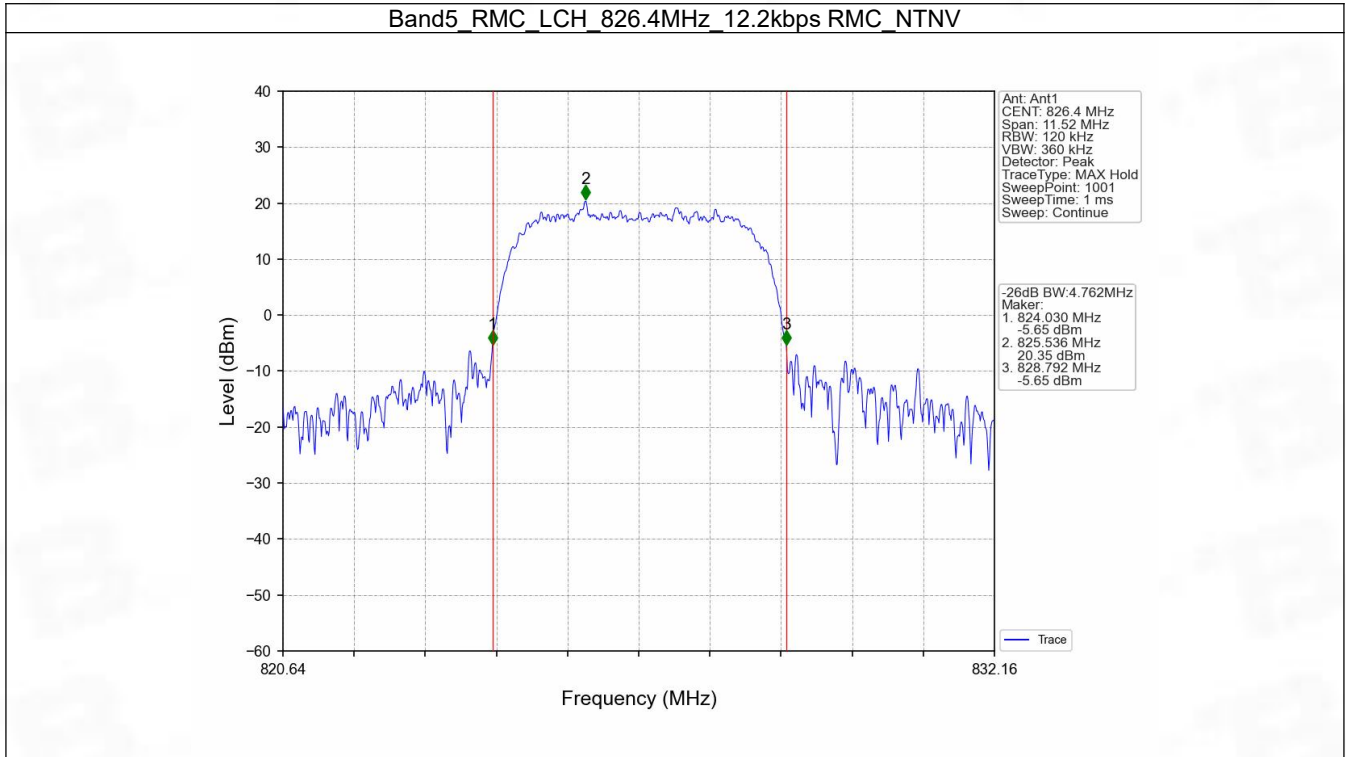


4.2 Band5_XDB

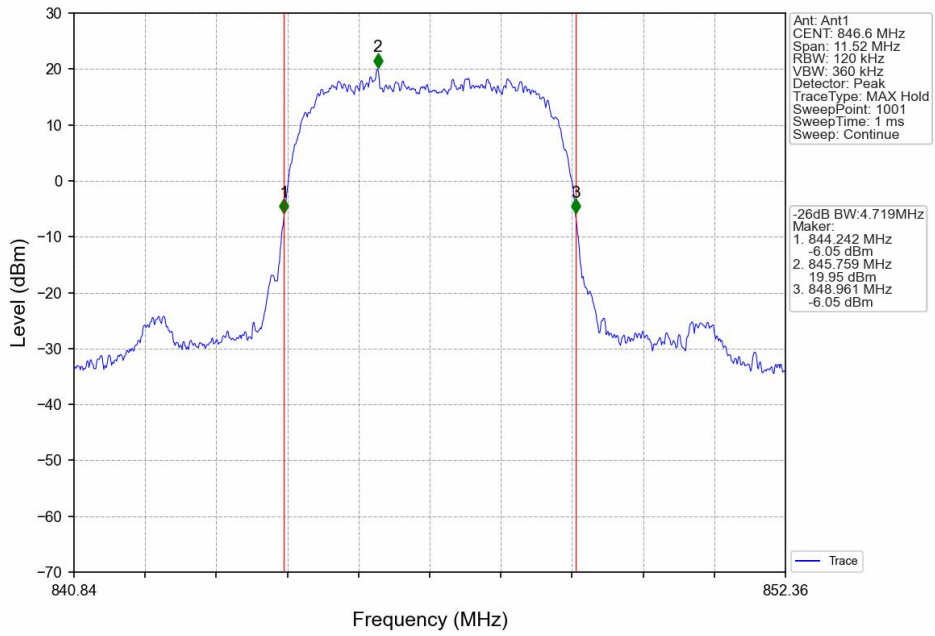
4.2.1 Test Result

Band: 5					
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)	Verdict
	Network	Subset		Result	
NTNV	RMC	12.2kbps RMC	826.4	4.762	Pass
			836.6	4.761	Pass
			846.6	4.719	Pass
	HSDPA	Subtest 1	826.4	5.485	Pass
			836.6	5.547	Pass
			846.6	5.327	Pass
	HSUPA	Subtest 1	826.4	5.361	Pass
			836.6	5.387	Pass
			846.6	5.555	Pass

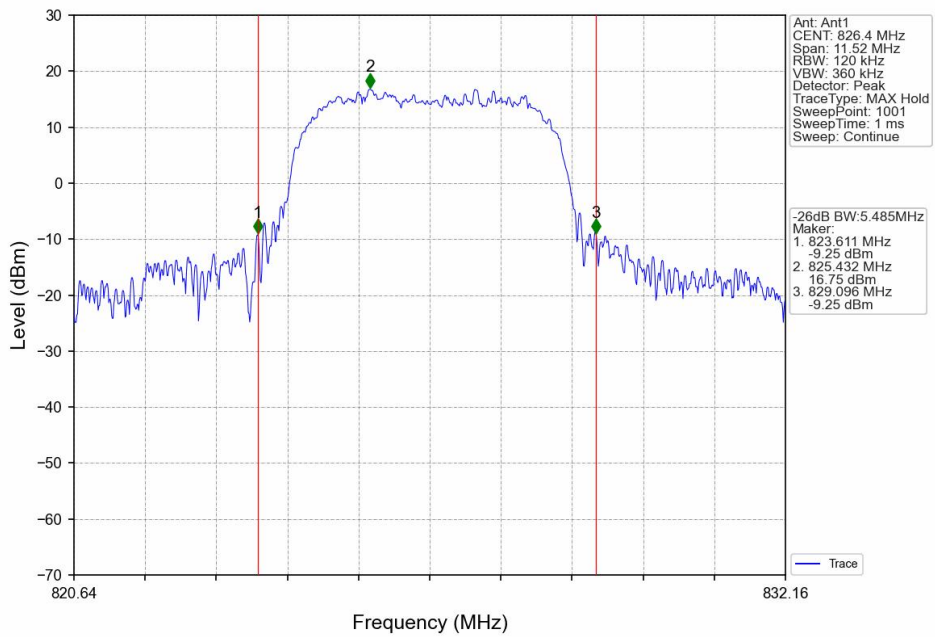
4.2.2 Test Graph



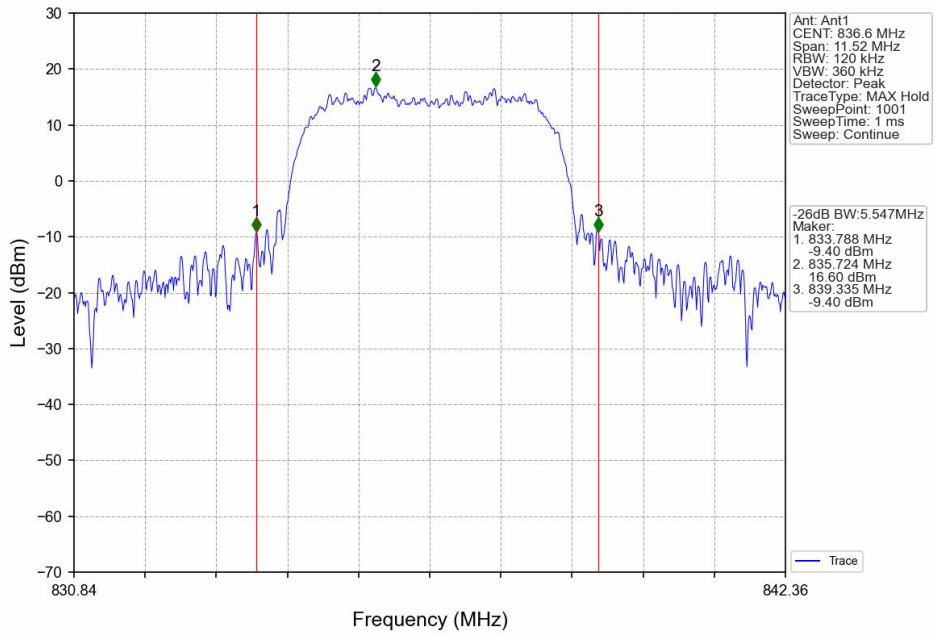
Band5_RMC_HCH_846.6MHz_12.2kbps_RMC_NTNV



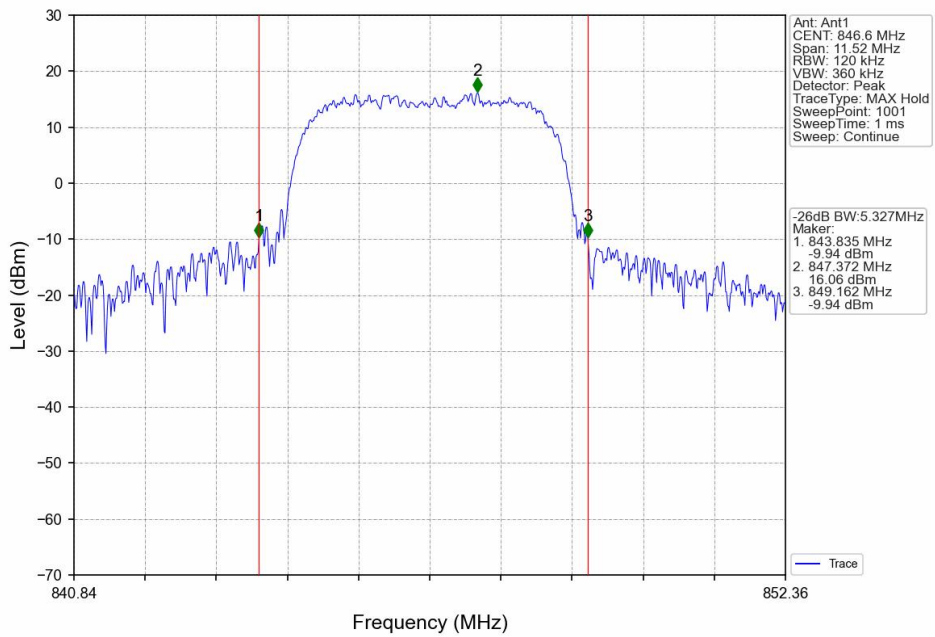
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



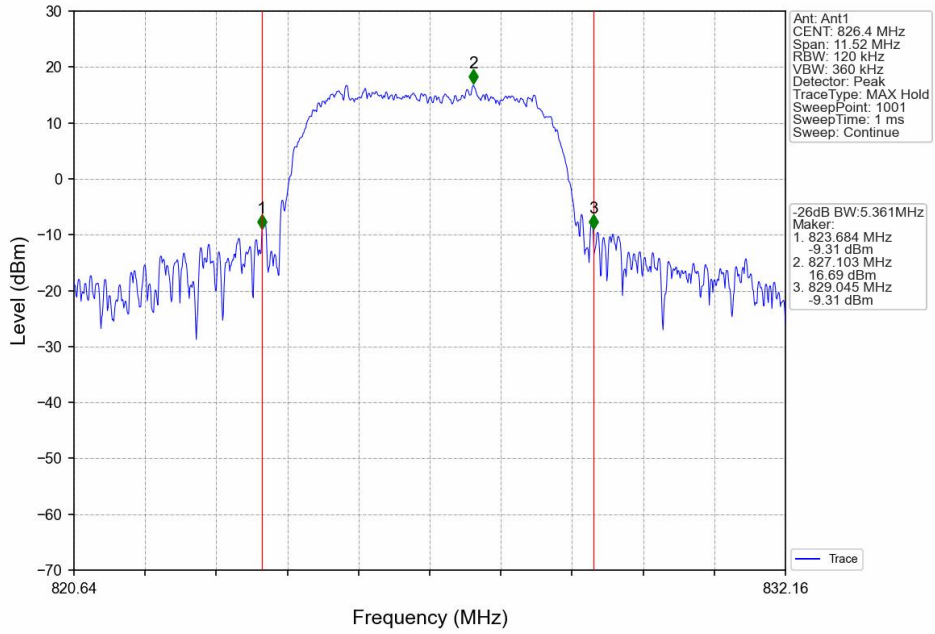
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



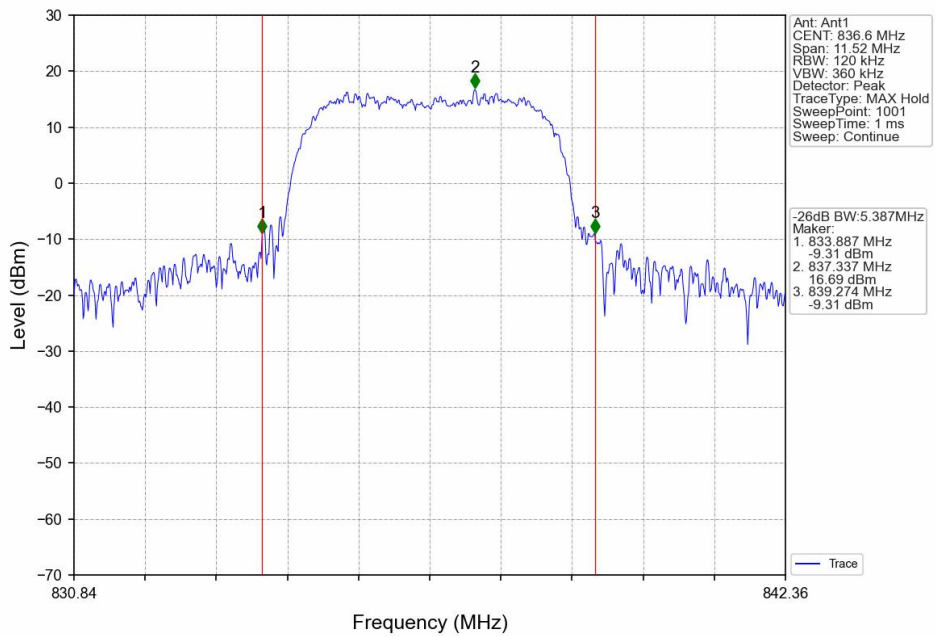
Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



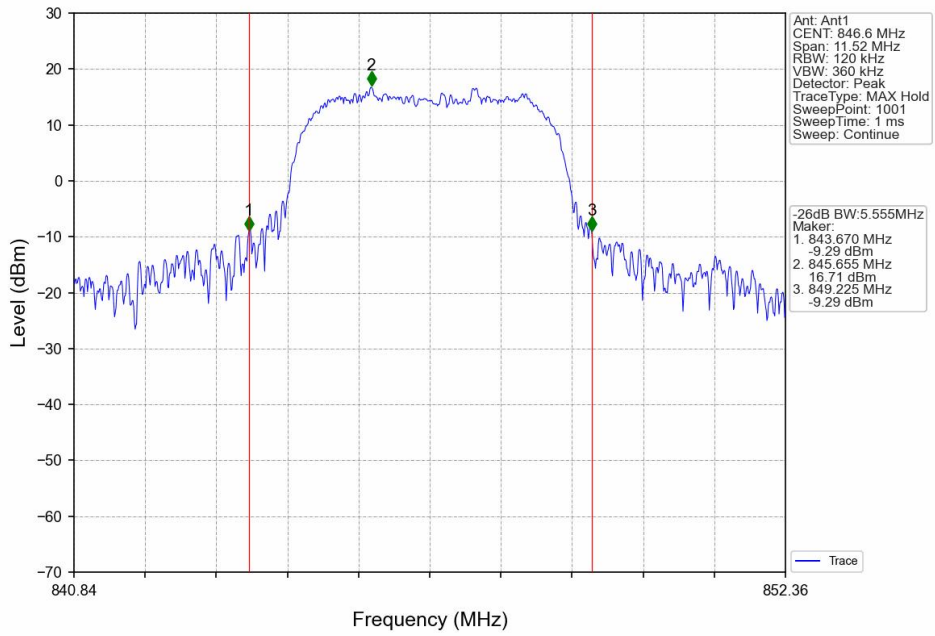
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV



Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



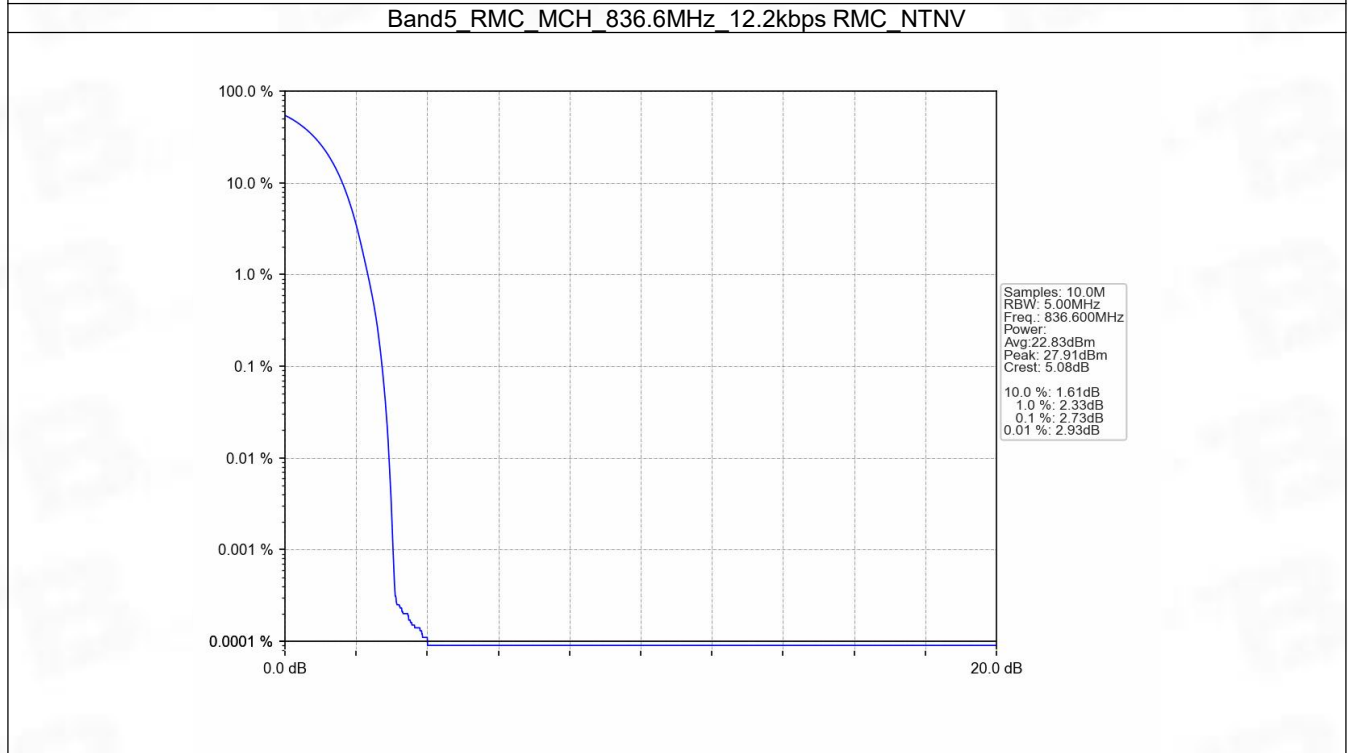
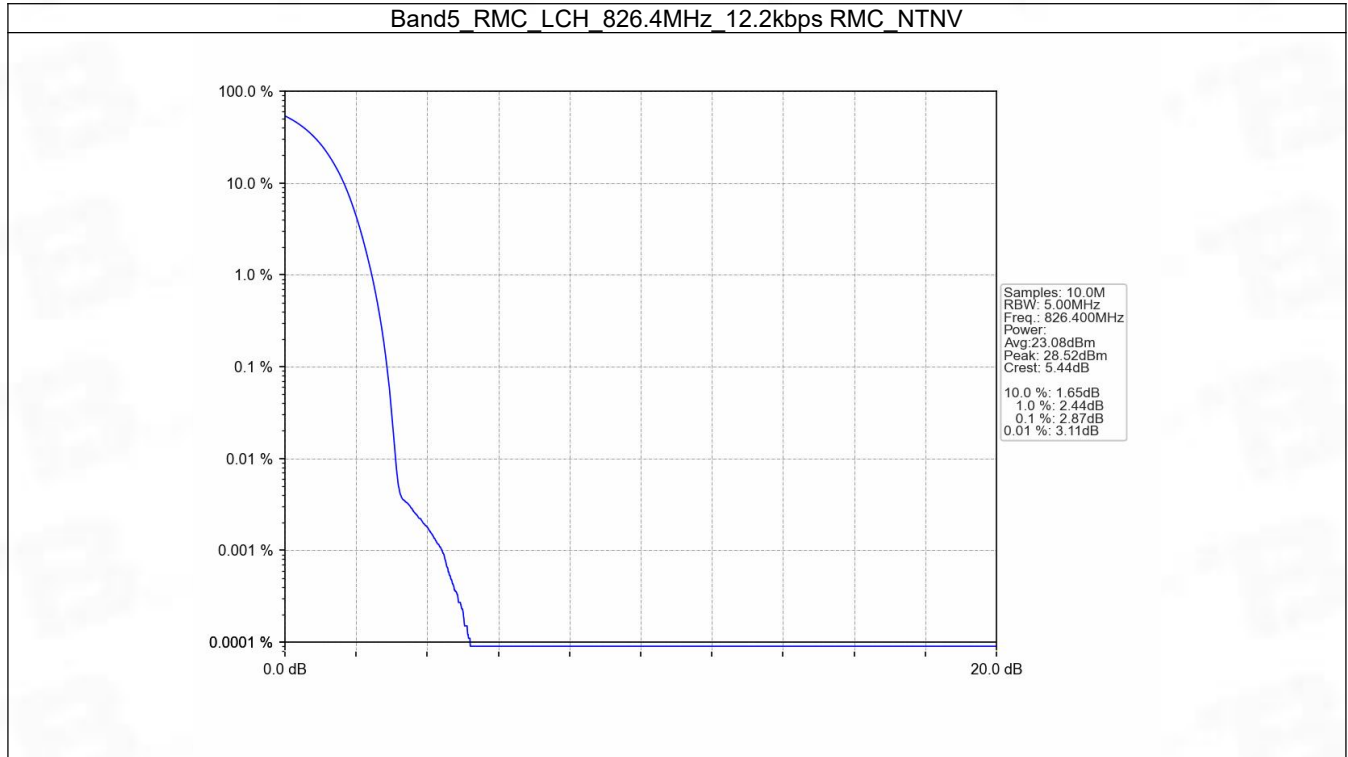
5. Peak-Average Ratio

5.1 Band5

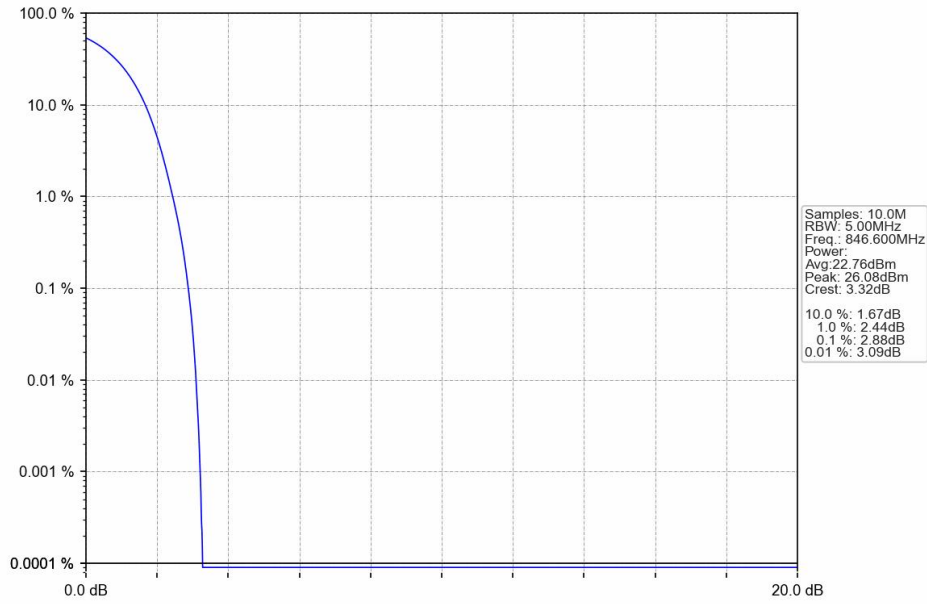
5.1.1 Test Result

Band: 5						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	2.87	<=13	Pass
			836.6	2.73	<=13	Pass
			846.6	2.88	<=13	Pass
	HSDPA	Subtest 1	826.4	5.78	<=13	Pass
			836.6	5.69	<=13	Pass
			846.6	5.76	<=13	Pass
	HSUPA	Subtest 1	826.4	5.80	<=13	Pass
			836.6	5.79	<=13	Pass
			846.6	5.89	<=13	Pass

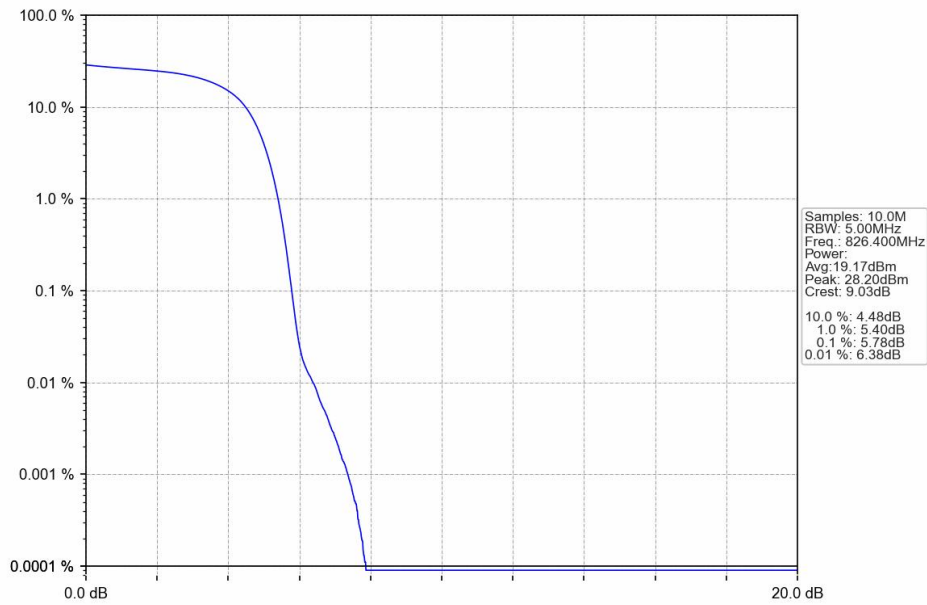
5.1.2 Test Graph



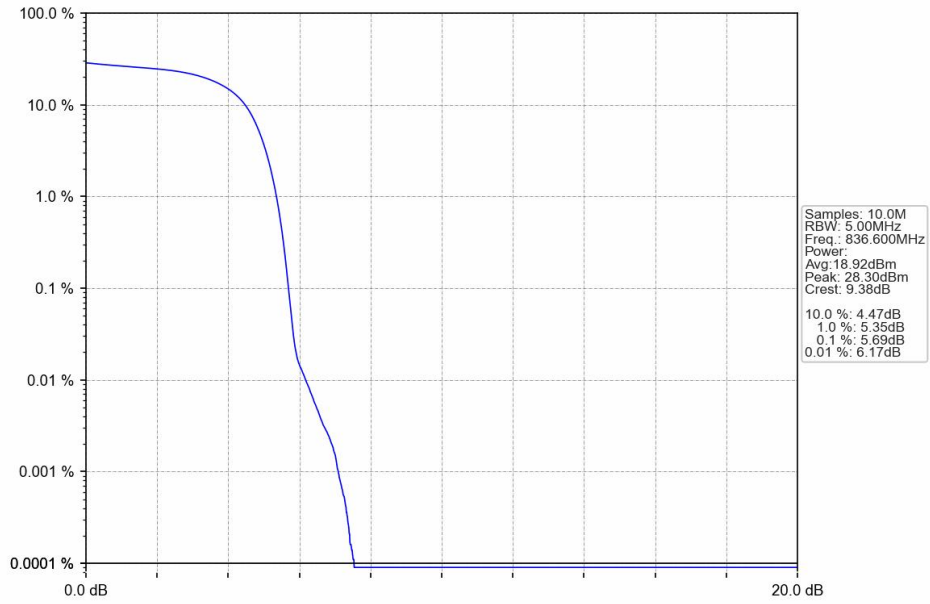
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



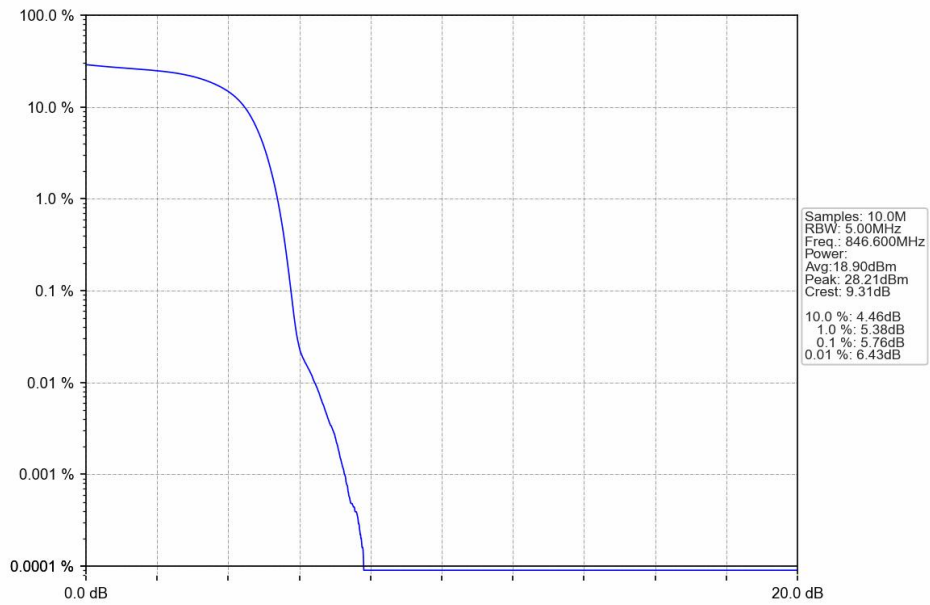
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



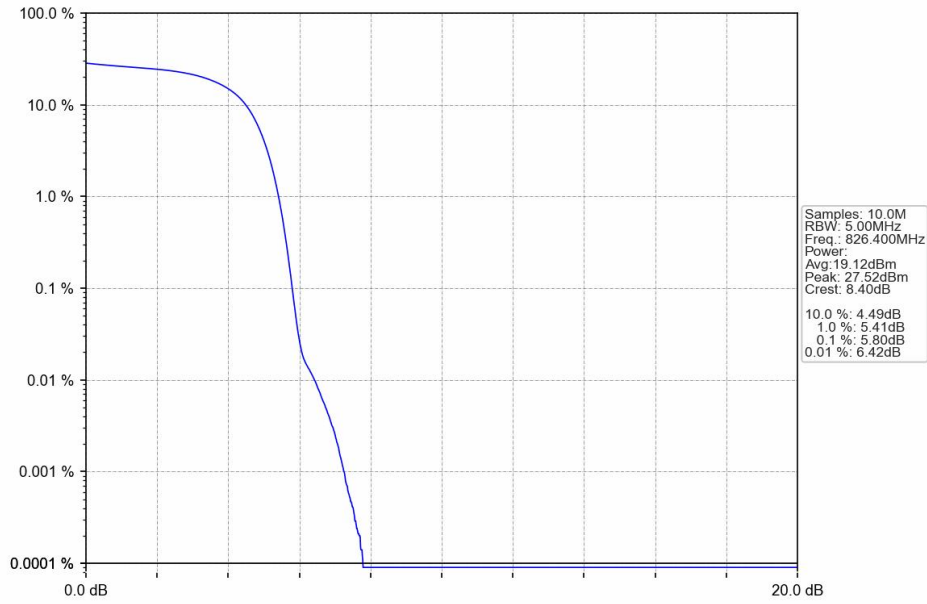
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



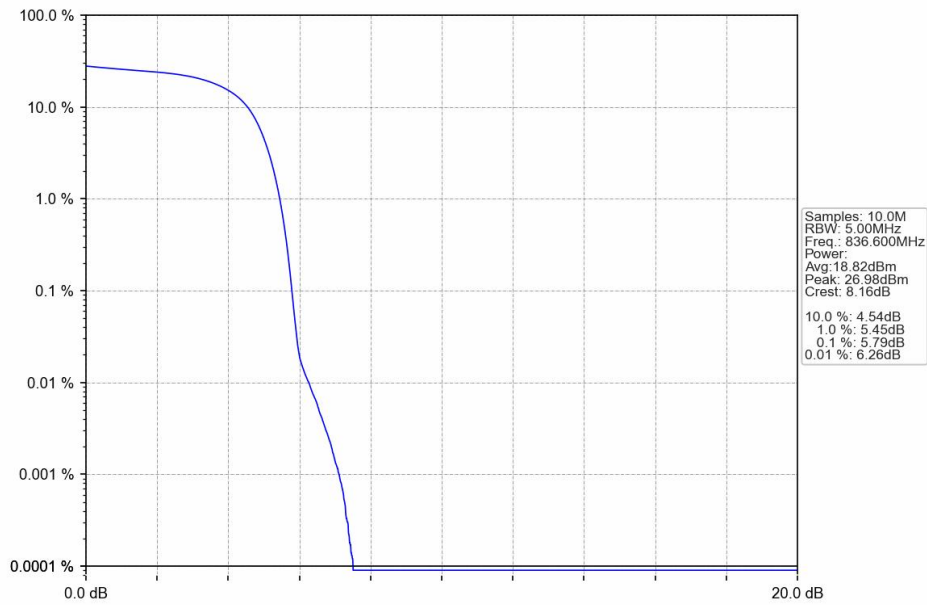
Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



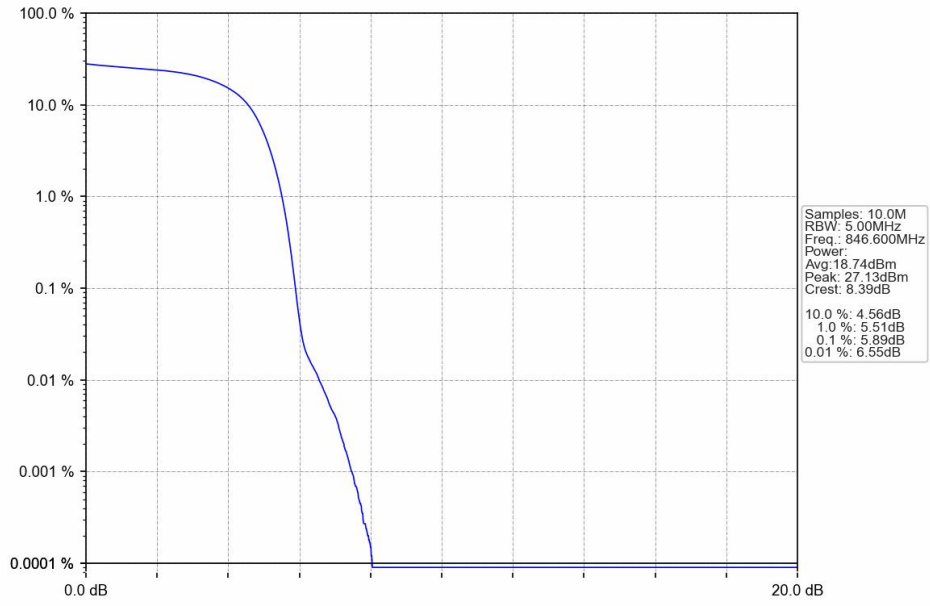
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV



Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



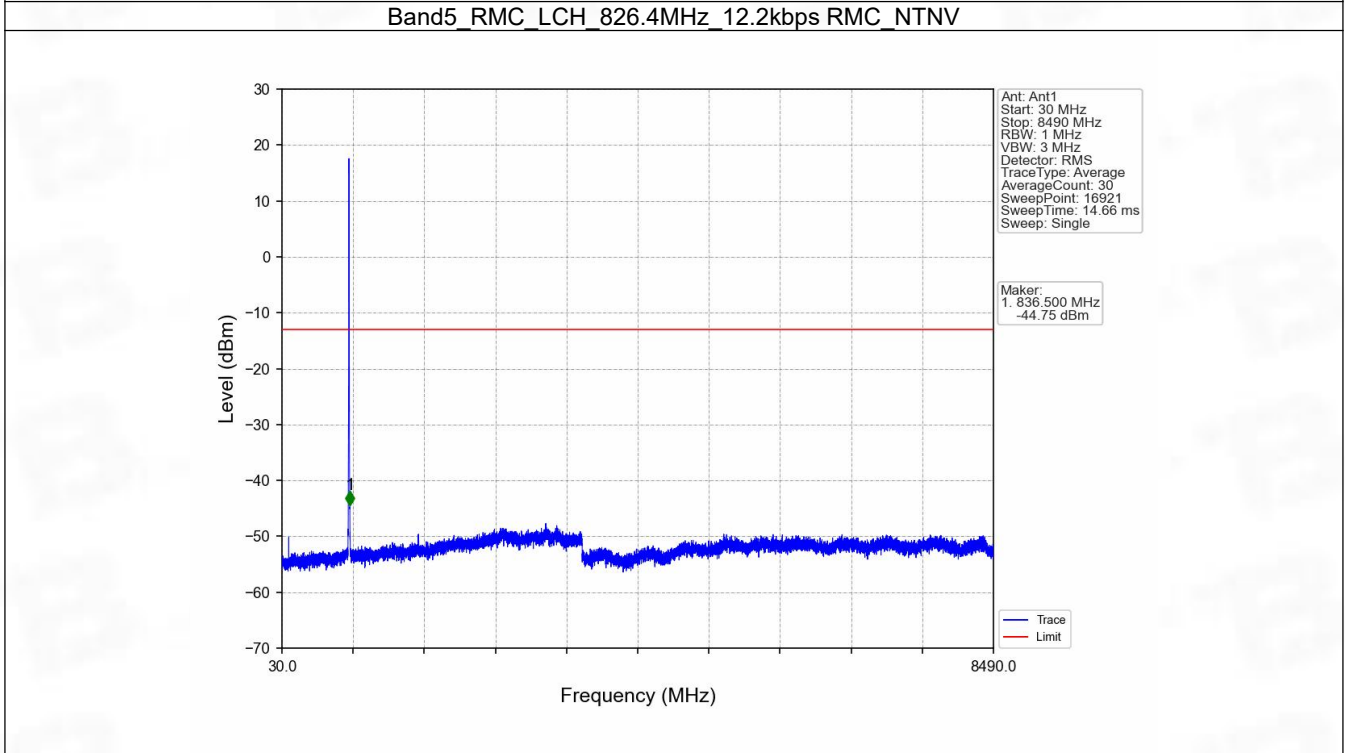
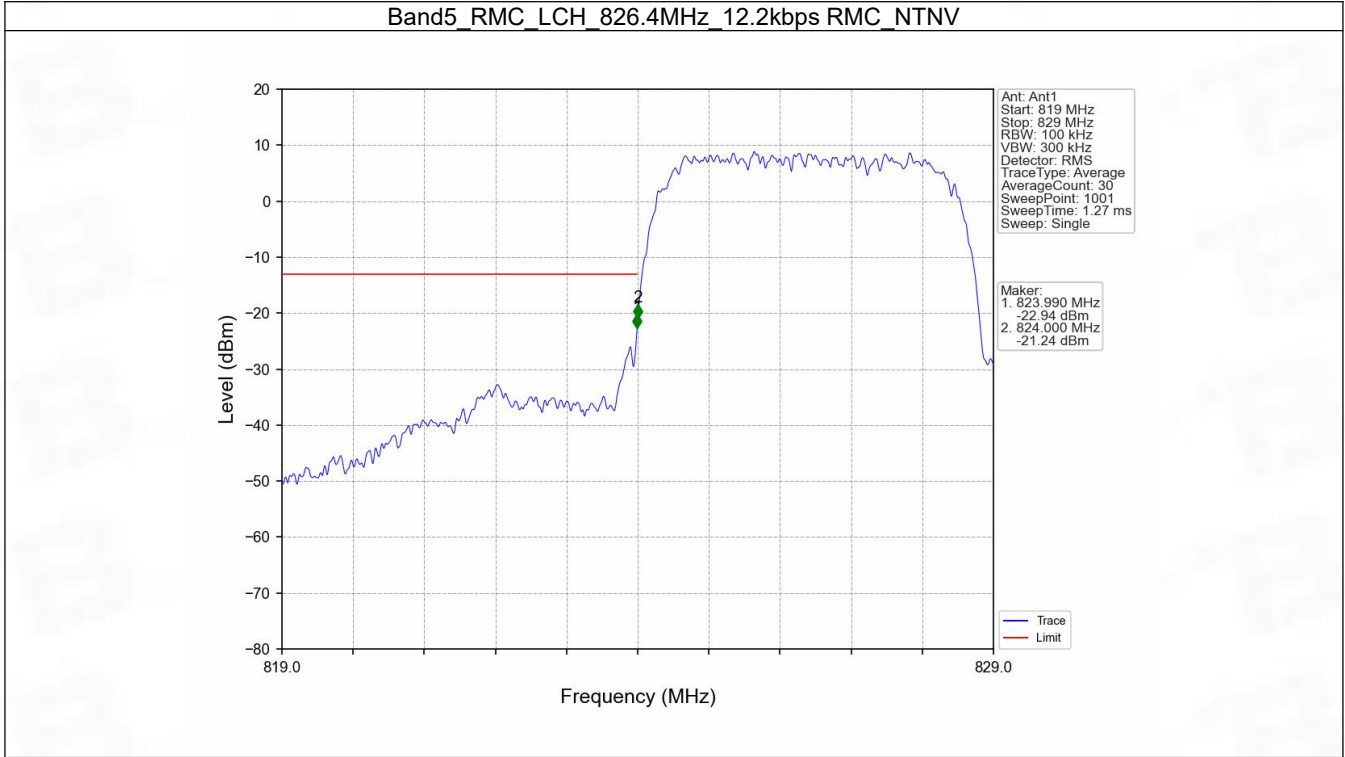
6. Spurious Emission

6.1 Band5

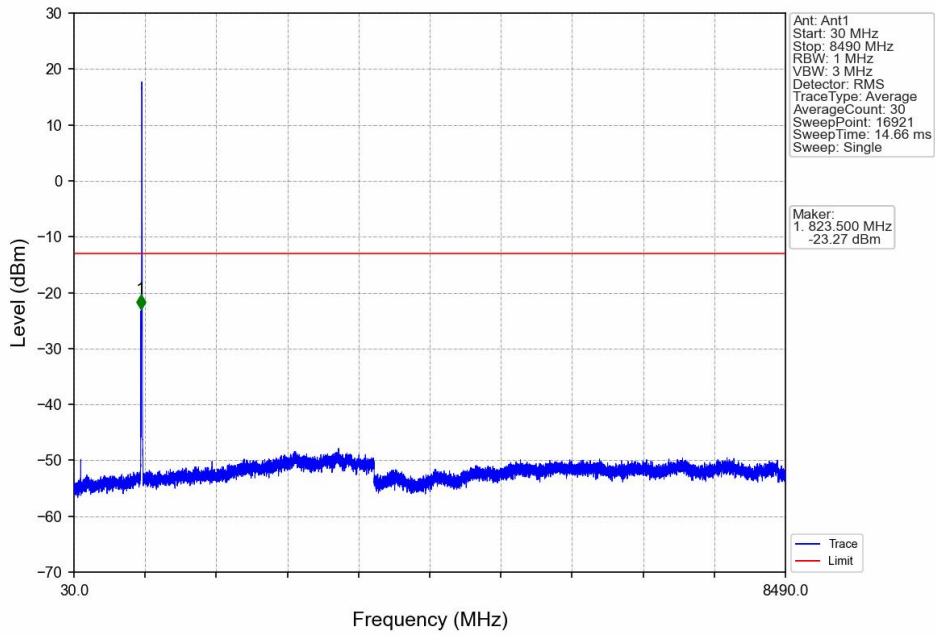
6.1.1 Test Result

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

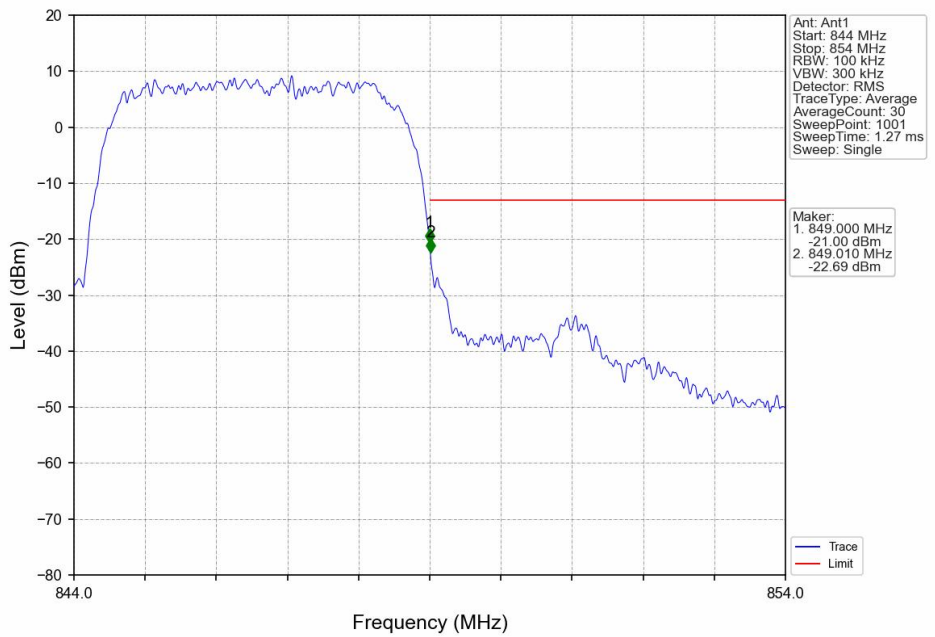
6.1.2 Test Graph



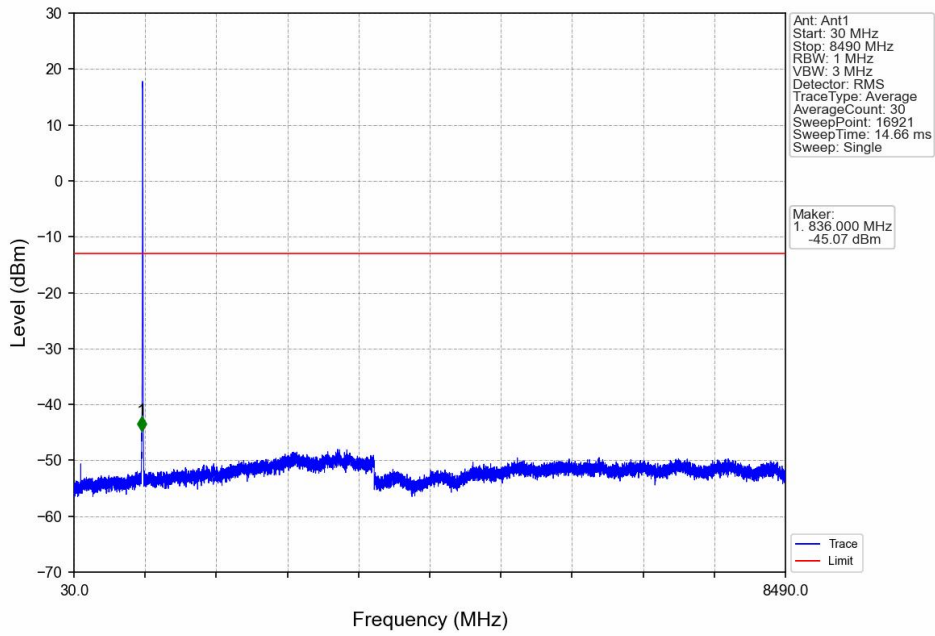
Band5_RMC_MCH_836.6MHz_12.2kbps_RMC_NTNV



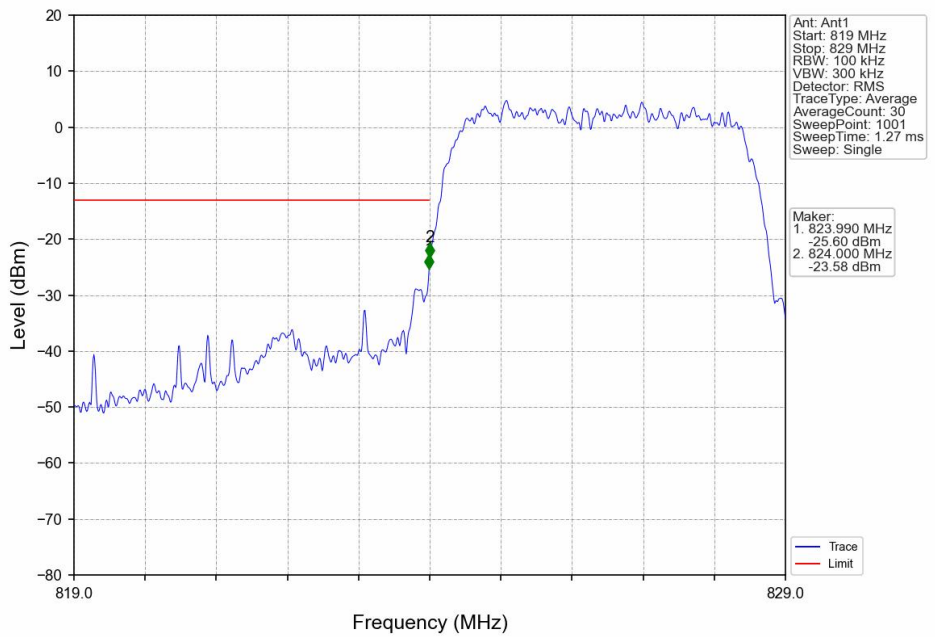
Band5_RMC_HCH_846.6MHz_12.2kbps_RMC_NTNV



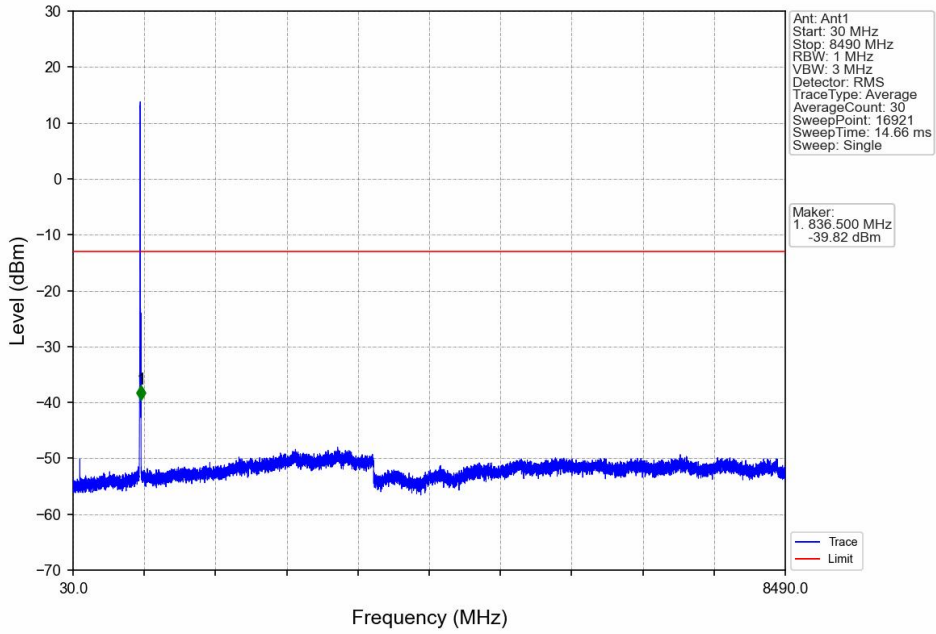
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



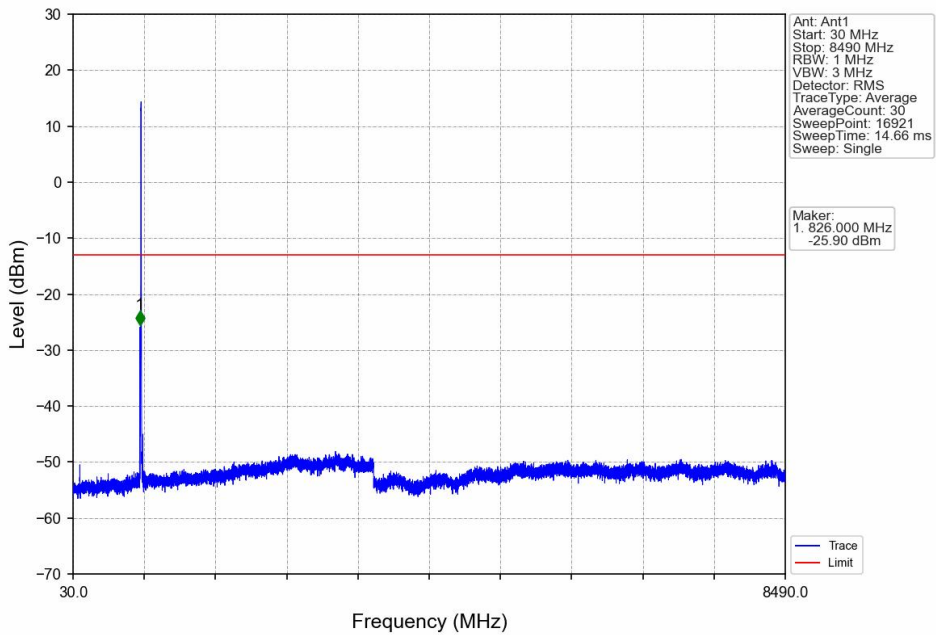
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



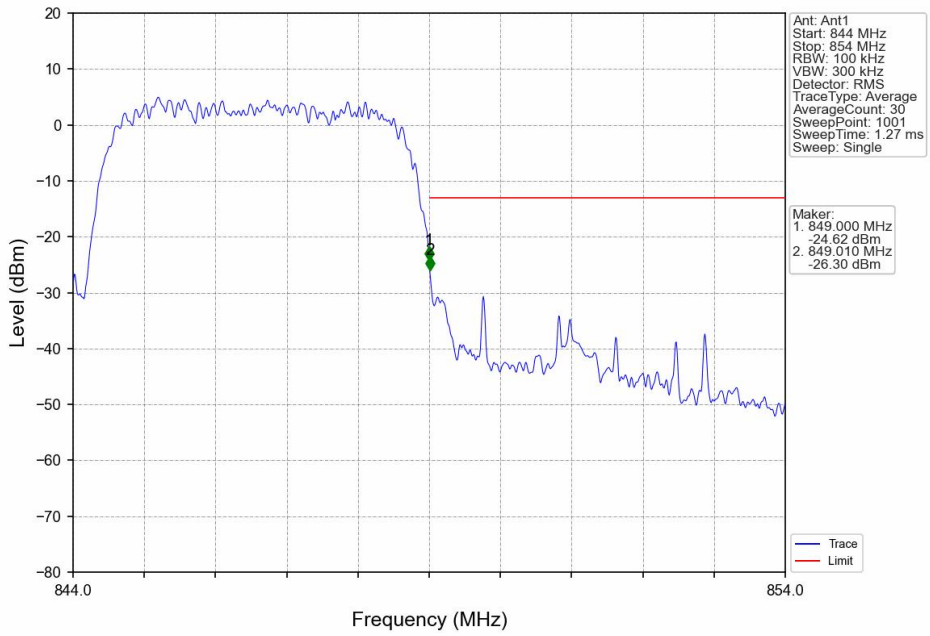
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



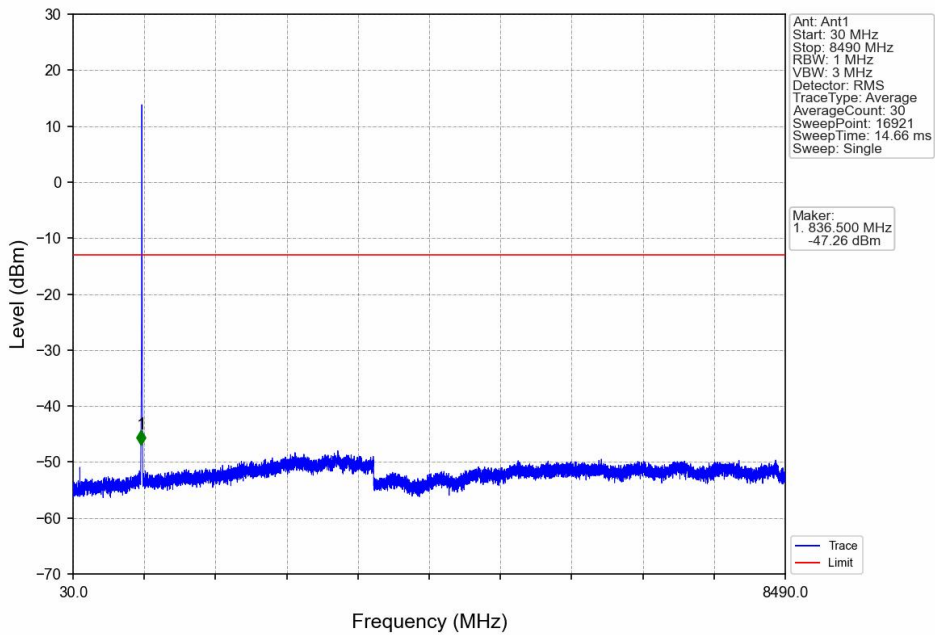
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



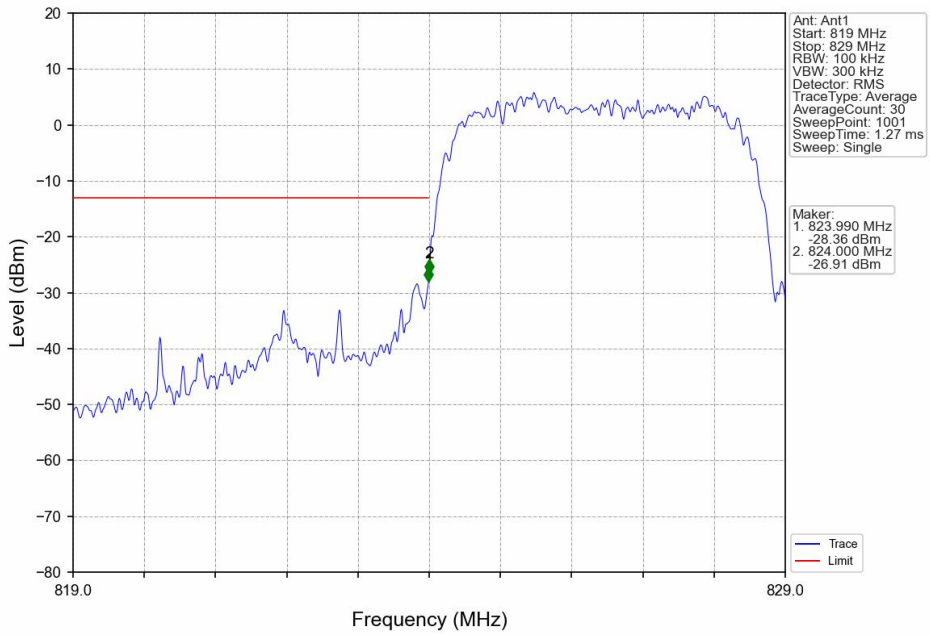
Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



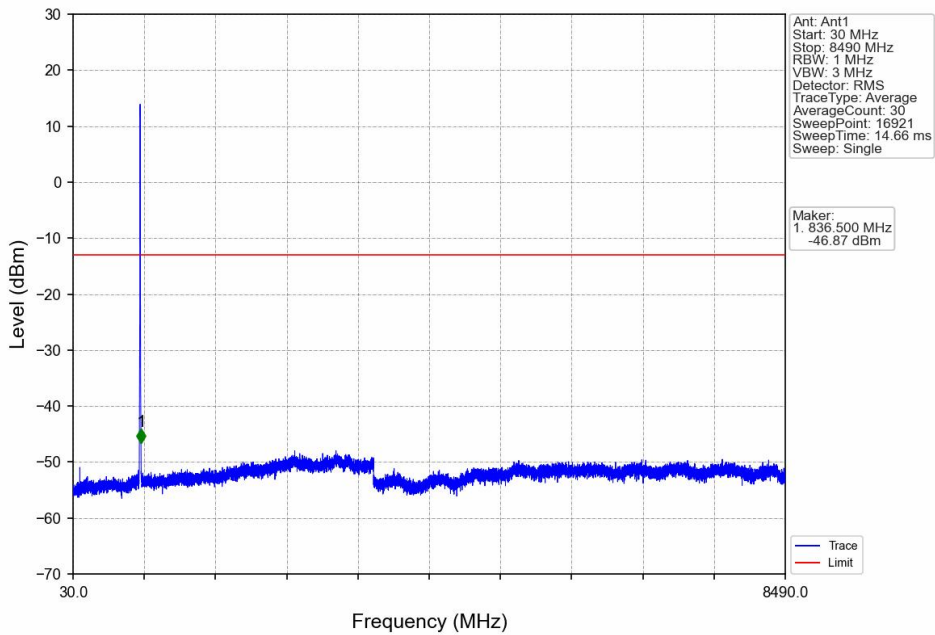
Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



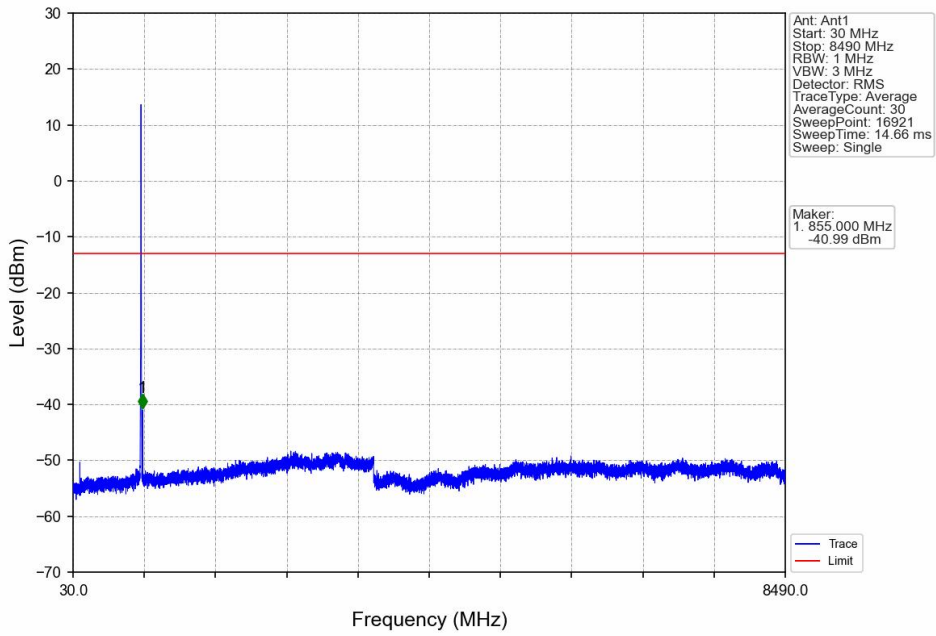
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV



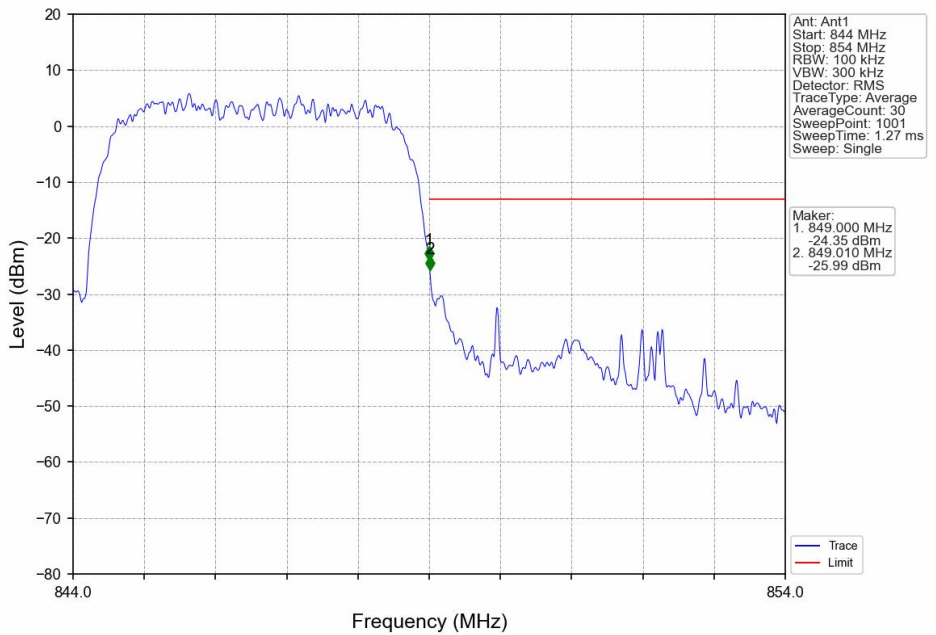
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV



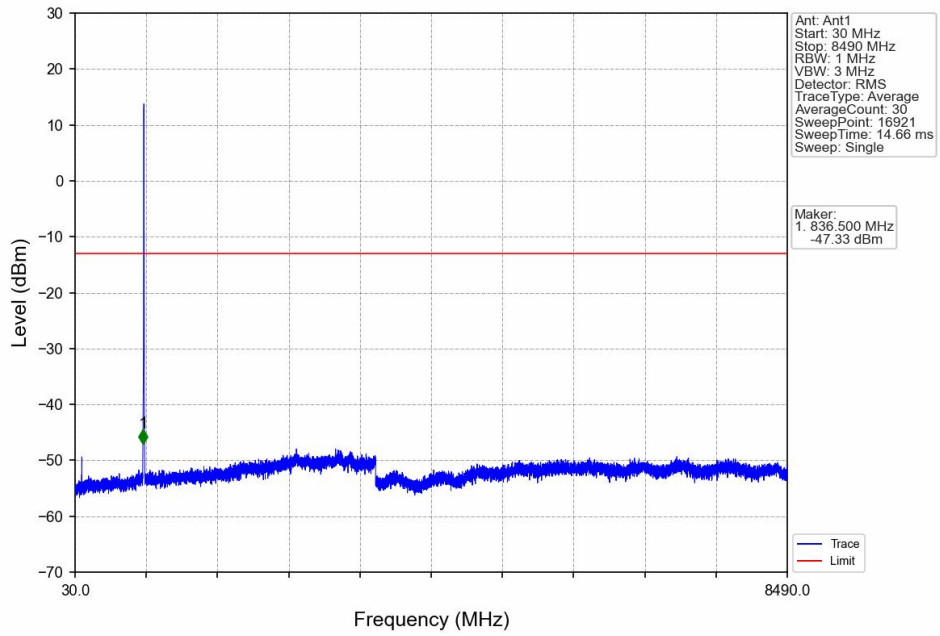
Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



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	0.1807	0.0194	ppm	4M24F9W	24E	22.57

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	0.0935	0.0194	ppm	4M24F9W	24E	19.71