

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 Band5_ERP

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	22.51	-0.68	19.68	<=38.45	Pass	
			836.6	22.33	-0.68	19.50	<=38.45	Pass	
			846.6	22.43	-0.68	19.60	<=38.45	Pass	
	HSDPA	Subtest 1	826.4	20.19	-0.68	17.36	<=38.45	Pass	
		Subtest 2	826.4	20.28	-0.68	17.45	<=38.45	Pass	
		Subtest 3	826.4	20.25	-0.68	17.42	<=38.45	Pass	
		Subtest 4	826.4	20.23	-0.68	17.40	<=38.45	Pass	
		Subtest 1	836.6	20.14	-0.68	17.31	<=38.45	Pass	
		Subtest 2	836.6	20.03	-0.68	17.20	<=38.45	Pass	
		Subtest 3	836.6	20.07	-0.68	17.24	<=38.45	Pass	
		Subtest 4	836.6	20.10	-0.68	17.27	<=38.45	Pass	
		Subtest 1	846.6	20.17	-0.68	17.34	<=38.45	Pass	
		Subtest 2	846.6	20.25	-0.68	17.42	<=38.45	Pass	
		Subtest 3	846.6	20.21	-0.68	17.38	<=38.45	Pass	
		Subtest 4	846.6	20.13	-0.68	17.30	<=38.45	Pass	
		HSUPA	Subtest 1	826.4	17.90	-0.68	15.07	<=38.45	Pass
			Subtest 2	826.4	17.70	-0.68	14.87	<=38.45	Pass
			Subtest 3	826.4	17.96	-0.68	15.13	<=38.45	Pass
			Subtest 4	826.4	18.00	-0.68	15.17	<=38.45	Pass
	Subtest 5		826.4	17.96	-0.68	15.13	<=38.45	Pass	
	Subtest 1		836.6	18.13	-0.68	15.30	<=38.45	Pass	
	Subtest 2		836.6	18.05	-0.68	15.22	<=38.45	Pass	
	Subtest 3		836.6	17.61	-0.68	14.78	<=38.45	Pass	
	Subtest 4		836.6	17.63	-0.68	14.80	<=38.45	Pass	
	Subtest 5		836.6	18.09	-0.68	15.26	<=38.45	Pass	
	Subtest 1		846.6	18.08	-0.68	15.25	<=38.45	Pass	
	Subtest 2		846.6	17.93	-0.68	15.10	<=38.45	Pass	
	Subtest 3		846.6	17.64	-0.68	14.81	<=38.45	Pass	
	Subtest 4		846.6	18.16	-0.68	15.33	<=38.45	Pass	
	Subtest 5		846.6	18.03	-0.68	15.20	<=38.45	Pass	

Note1: ERP=Conducted Power+Antenna Gain-2.15

2. Frequency Stability

2.1 Test Result

2.1.1 Band5

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	-8.497	-0.0103	-2.5 to 2.5	Pass
			3.85	-7.102	-0.0086	-2.5 to 2.5	Pass
			4.43	-13.661	-0.0165	-2.5 to 2.5	Pass
		-30	3.85	-6.952	-0.0084	-2.5 to 2.5	Pass
		-20	3.85	-13.525	-0.0164	-2.5 to 2.5	Pass

	836.6	-10	3.85	-12.016	-0.0145	-2.5 to 2.5	Pass		
		0	3.85	-14.391	-0.0174	-2.5 to 2.5	Pass		
		10	3.85	-12.939	-0.0157	-2.5 to 2.5	Pass		
		30	3.85	-14.355	-0.0174	-2.5 to 2.5	Pass		
		40	3.85	-9.234	-0.0112	-2.5 to 2.5	Pass		
		50	3.85	-7.610	-0.0092	-2.5 to 2.5	Pass		
		20	3.27	-8.783	-0.0105	-2.5 to 2.5	Pass		
			3.85	-7.567	-0.0090	-2.5 to 2.5	Pass		
			4.43	-6.788	-0.0081	-2.5 to 2.5	Pass		
		-30	3.85	-10.579	-0.0126	-2.5 to 2.5	Pass		
		-20	3.85	-7.052	-0.0084	-2.5 to 2.5	Pass		
		-10	3.85	-13.576	-0.0162	-2.5 to 2.5	Pass		
		0	3.85	-10.729	-0.0128	-2.5 to 2.5	Pass		
		10	3.85	-10.378	-0.0124	-2.5 to 2.5	Pass		
		30	3.85	-6.938	-0.0083	-2.5 to 2.5	Pass		
	40	3.85	-10.579	-0.0126	-2.5 to 2.5	Pass			
	50	3.85	-8.826	-0.0105	-2.5 to 2.5	Pass			
	846.6	20	3.27	-8.383	-0.0099	-2.5 to 2.5	Pass		
			3.85	-14.005	-0.0165	-2.5 to 2.5	Pass		
			4.43	-6.022	-0.0071	-2.5 to 2.5	Pass		
		-30	3.85	-7.346	-0.0087	-2.5 to 2.5	Pass		
		-20	3.85	-7.160	-0.0085	-2.5 to 2.5	Pass		
		-10	3.85	-12.982	-0.0153	-2.5 to 2.5	Pass		
		0	3.85	-8.705	-0.0103	-2.5 to 2.5	Pass		
		10	3.85	-11.151	-0.0132	-2.5 to 2.5	Pass		
		30	3.85	-6.688	-0.0079	-2.5 to 2.5	Pass		
		40	3.85	-12.667	-0.0150	-2.5 to 2.5	Pass		
		50	3.85	-8.740	-0.0103	-2.5 to 2.5	Pass		
		HSDPA	826.4	20	3.27	-3.834	-0.0046	-2.5 to 2.5	Pass
					3.85	-6.630	-0.0080	-2.5 to 2.5	Pass
4.43					-9.563	-0.0116	-2.5 to 2.5	Pass	
-30				3.85	-6.552	-0.0079	-2.5 to 2.5	Pass	
-20	3.85			-5.379	-0.0065	-2.5 to 2.5	Pass		
-10	3.85			-9.384	-0.0114	-2.5 to 2.5	Pass		
0	3.85			-6.580	-0.0080	-2.5 to 2.5	Pass		
10	3.85			-7.932	-0.0096	-2.5 to 2.5	Pass		
30	3.85			-3.362	-0.0041	-2.5 to 2.5	Pass		
40	3.85			-7.946	-0.0096	-2.5 to 2.5	Pass		
50	3.85			-3.576	-0.0043	-2.5 to 2.5	Pass		
836.6	20			3.27	-12.810	-0.0153	-2.5 to 2.5	Pass	
				3.85	-6.144	-0.0073	-2.5 to 2.5	Pass	
				4.43	-9.964	-0.0119	-2.5 to 2.5	Pass	
	-30			3.85	-9.413	-0.0113	-2.5 to 2.5	Pass	
	-20	3.85	-9.921	-0.0119	-2.5 to 2.5	Pass			
	-10	3.85	-10.679	-0.0128	-2.5 to 2.5	Pass			
	0	3.85	-7.153	-0.0086	-2.5 to 2.5	Pass			
	10	3.85	-6.266	-0.0075	-2.5 to 2.5	Pass			
	30	3.85	-5.286	-0.0063	-2.5 to 2.5	Pass			
	40	3.85	-7.145	-0.0085	-2.5 to 2.5	Pass			
	50	3.85	-5.050	-0.0060	-2.5 to 2.5	Pass			
	846.6	20	3.27	-9.956	-0.0118	-2.5 to 2.5	Pass		
			3.85	-8.411	-0.0099	-2.5 to 2.5	Pass		
			4.43	-7.153	-0.0084	-2.5 to 2.5	Pass		
		-30	3.85	-9.120	-0.0108	-2.5 to 2.5	Pass		
-20		3.85	-7.560	-0.0089	-2.5 to 2.5	Pass			
-10		3.85	-15.078	-0.0178	-2.5 to 2.5	Pass			
0		3.85	-11.365	-0.0134	-2.5 to 2.5	Pass			
10		3.85	-8.075	-0.0095	-2.5 to 2.5	Pass			
30		3.85	-11.752	-0.0139	-2.5 to 2.5	Pass			

		40	3.85	-10.414	-0.0123	-2.5 to 2.5	Pass
		50	3.85	-6.924	-0.0082	-2.5 to 2.5	Pass
HSUPA	826.4	20	3.27	-8.855	-0.0107	-2.5 to 2.5	Pass
			3.85	-8.905	-0.0108	-2.5 to 2.5	Pass
			4.43	-7.038	-0.0085	-2.5 to 2.5	Pass
		-30	3.85	-10.064	-0.0122	-2.5 to 2.5	Pass
		-20	3.85	-13.125	-0.0159	-2.5 to 2.5	Pass
		-10	3.85	-9.220	-0.0112	-2.5 to 2.5	Pass
		0	3.85	-13.061	-0.0158	-2.5 to 2.5	Pass
		10	3.85	-8.390	-0.0102	-2.5 to 2.5	Pass
		30	3.85	-7.088	-0.0086	-2.5 to 2.5	Pass
		40	3.85	-13.797	-0.0167	-2.5 to 2.5	Pass
		50	3.85	-10.271	-0.0124	-2.5 to 2.5	Pass
	836.6	20	3.27	-7.310	-0.0087	-2.5 to 2.5	Pass
			3.85	-9.820	-0.0117	-2.5 to 2.5	Pass
			4.43	-8.497	-0.0102	-2.5 to 2.5	Pass
		-30	3.85	-14.706	-0.0176	-2.5 to 2.5	Pass
		-20	3.85	-13.082	-0.0156	-2.5 to 2.5	Pass
		-10	3.85	-16.351	-0.0195	-2.5 to 2.5	Pass
		0	3.85	-13.125	-0.0157	-2.5 to 2.5	Pass
		10	3.85	-10.579	-0.0126	-2.5 to 2.5	Pass
		30	3.85	-13.518	-0.0162	-2.5 to 2.5	Pass
		40	3.85	-9.120	-0.0109	-2.5 to 2.5	Pass
		50	3.85	-12.896	-0.0154	-2.5 to 2.5	Pass
	846.6	20	3.27	-10.858	-0.0128	-2.5 to 2.5	Pass
			3.85	-13.604	-0.0161	-2.5 to 2.5	Pass
			4.43	-11.137	-0.0132	-2.5 to 2.5	Pass
		-30	3.85	-14.412	-0.0170	-2.5 to 2.5	Pass
		-20	3.85	-7.367	-0.0087	-2.5 to 2.5	Pass
		-10	3.85	-9.434	-0.0111	-2.5 to 2.5	Pass
		0	3.85	-16.179	-0.0191	-2.5 to 2.5	Pass
		10	3.85	-13.304	-0.0157	-2.5 to 2.5	Pass
		30	3.85	-13.504	-0.0160	-2.5 to 2.5	Pass
		40	3.85	-7.195	-0.0085	-2.5 to 2.5	Pass
		50	3.85	-11.902	-0.0141	-2.5 to 2.5	Pass

3. Modulation Characteristics

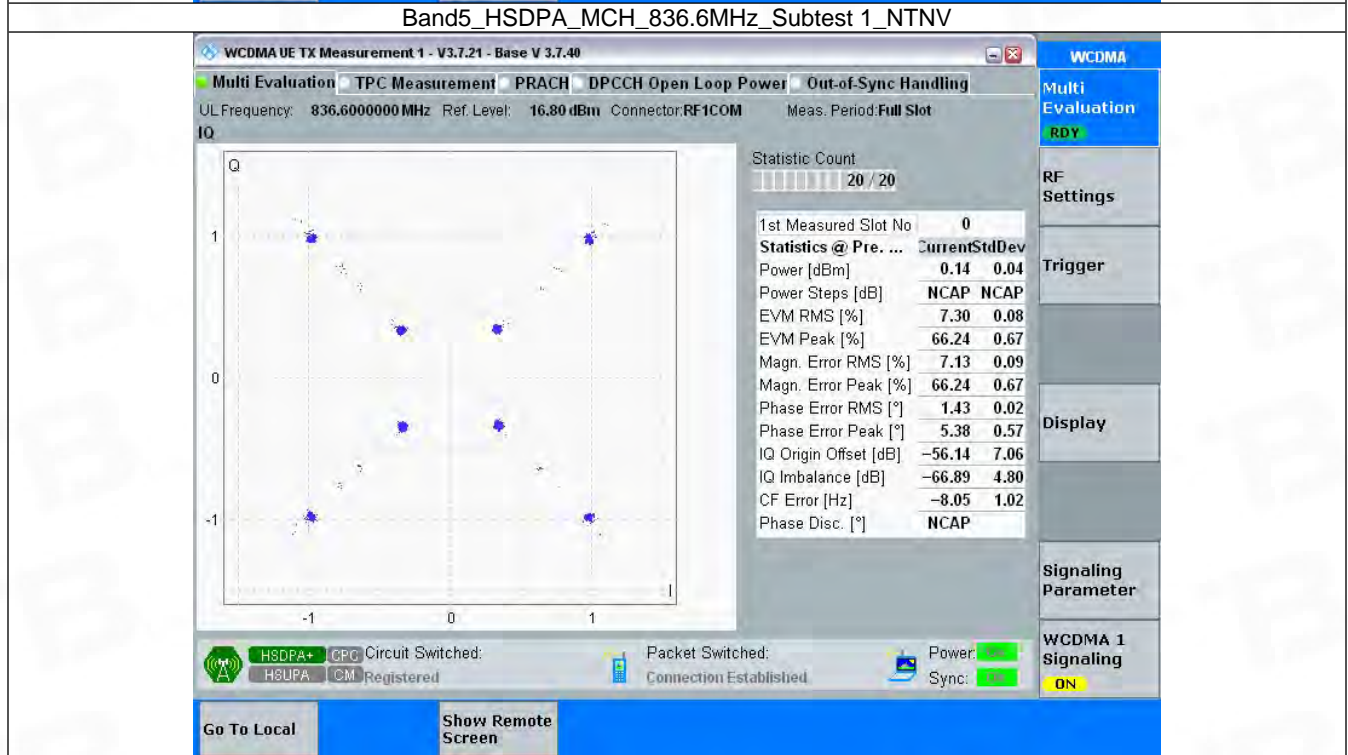
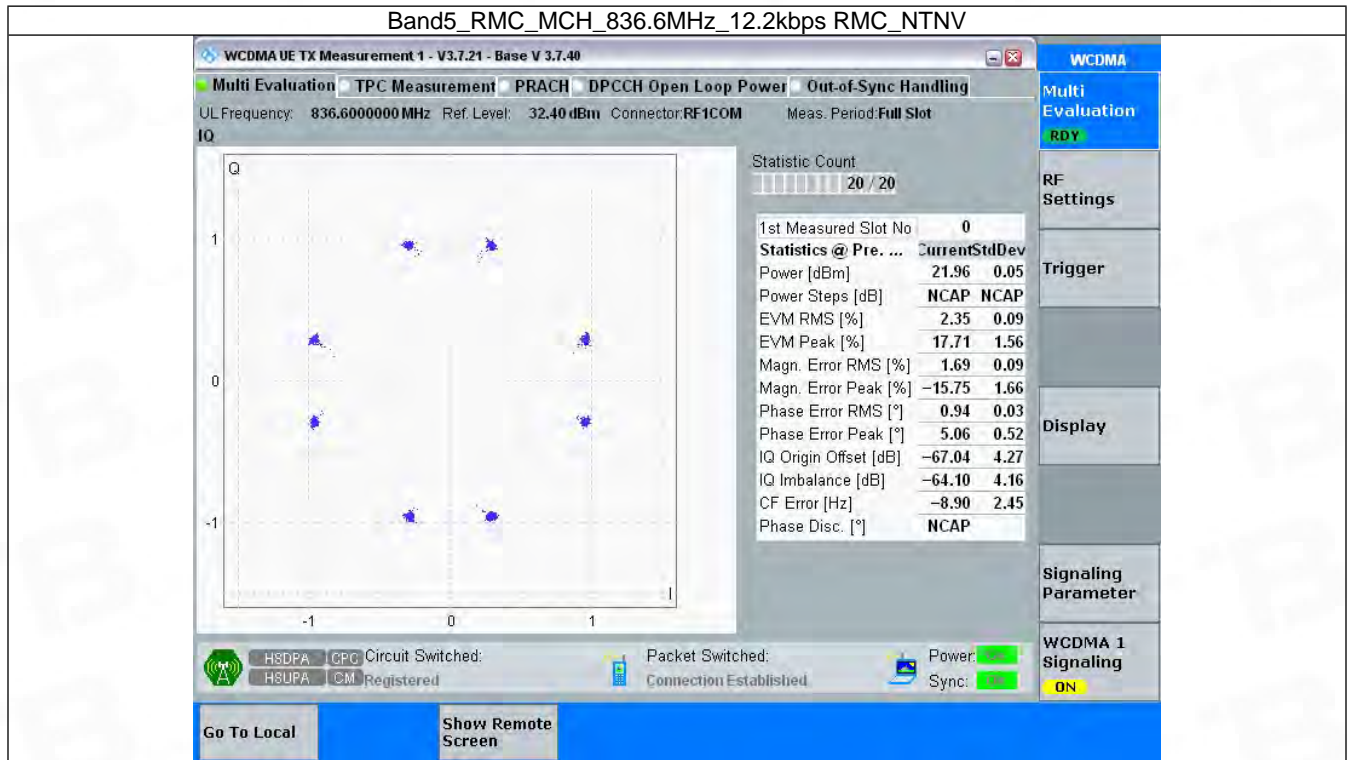
3.1 Test Result

3.1.1 Band5

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

3.2 Test Graph

3.2.1 Band5



Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV

WCDMA UE TX Measurement 1 - V3.7.21 - Base V 3.7.40

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

Multi Evaluation

RDY

RF Settings

Trigger

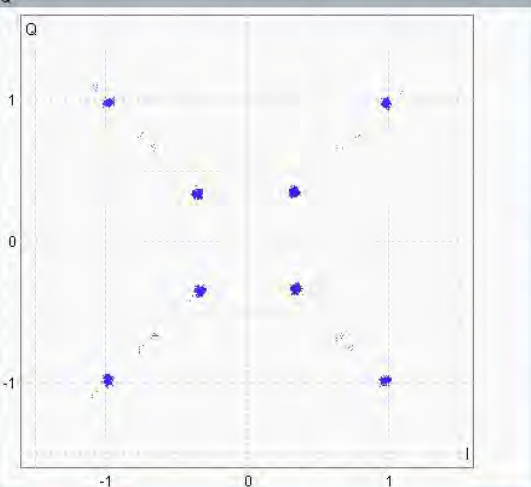
Display

Signaling Parameter

WCDMA 1 Signaling

ON

IQ



Statistic Count

██████████ 20 / 20

Statistics @ Pre. ...		Current	StdDev
Power [dBm]	4.77	3.39	
Power Steps [dB]	NCAP	NCAP	
EVM RMS [%]	7.50	3.75	
EVM Peak [%]	63.20	36.38	
Magn. Error RMS [%]	7.30	4.01	
Magn. Error Peak [%]	63.19	36.70	
Phase Error RMS [°]	1.71	0.41	
Phase Error Peak [°]	6.33	4.04	
IQ Origin Offset [dB]	-53.77	6.16	
IQ Imbalance [dB]	-70.89	6.44	
CF Error [Hz]	-5.34	2.12	
Phase Disc. [°]	NCAP		

HSDPA+ CPC Circuit Switched:

HSPA CM Registered

Packet Switched: Connection Established

Power: ON

Sync: ON

Go To Local

Show Remote Screen

4. 99% & 26dB Bandwidth

4.1 Test Result

4.1.1 Band5_OBW

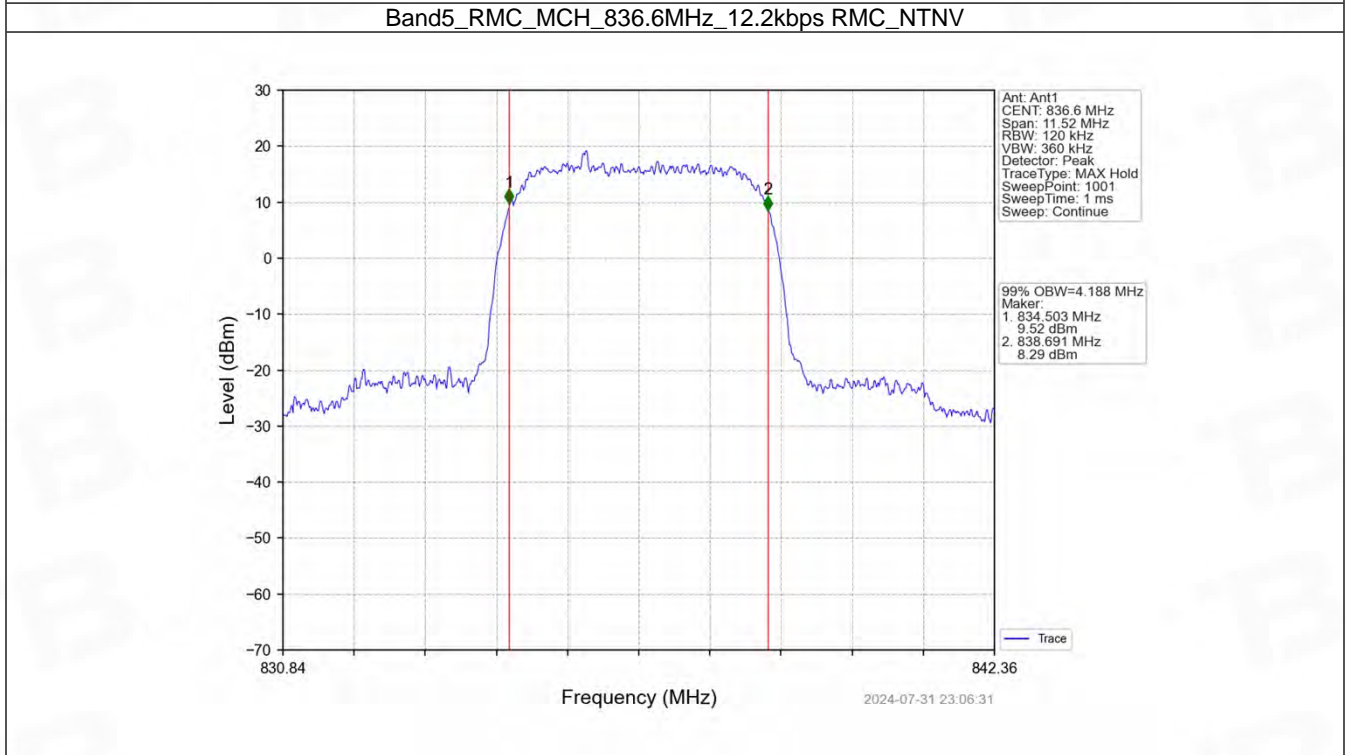
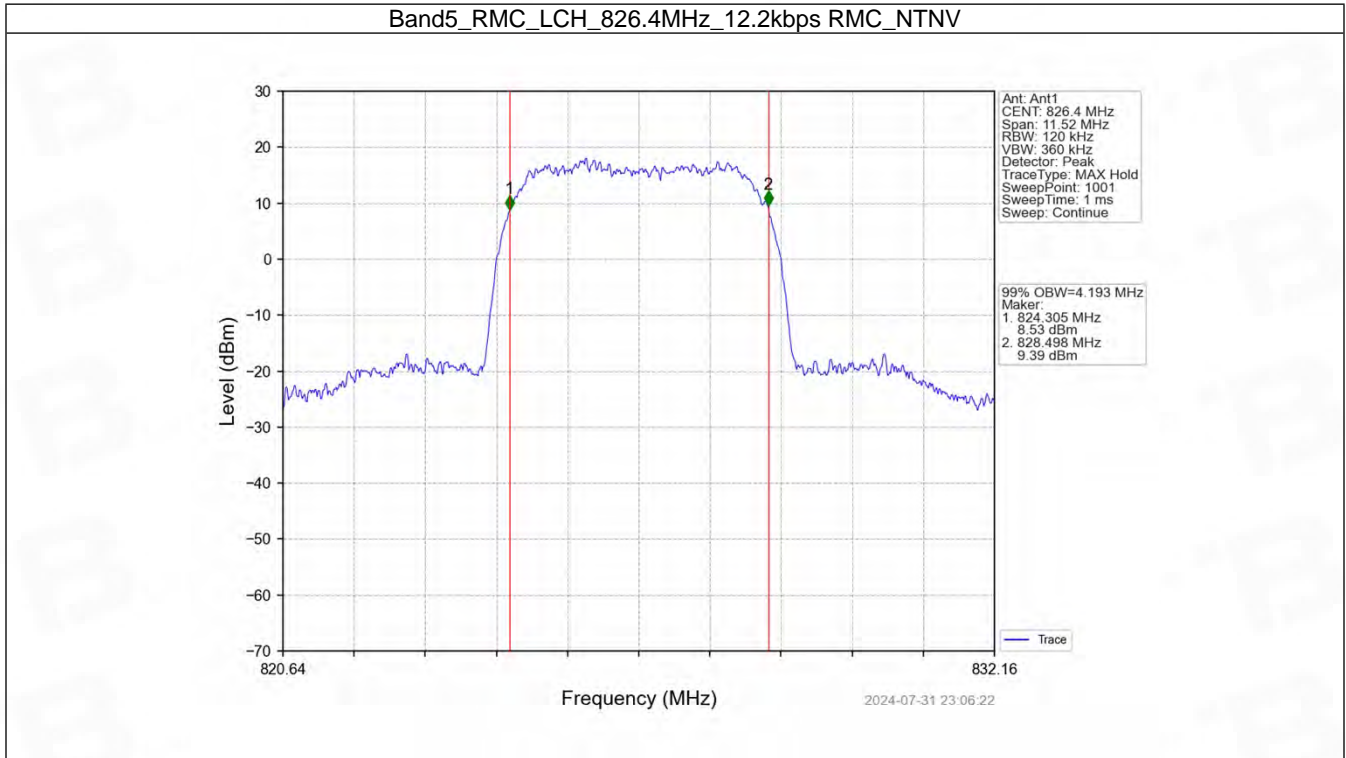
Band: 5						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	4.193	/	Pass
			836.6	4.188	/	Pass
			846.6	4.179	/	Pass
	HSDPA	Subtest 1	826.4	4.245	/	Pass
			836.6	4.229	/	Pass
			846.6	4.211	/	Pass
	HSUPA	Subtest 1	826.4	4.220	/	Pass
			836.6	4.221	/	Pass
			846.6	4.188	/	Pass

4.1.2 Band5_XDB

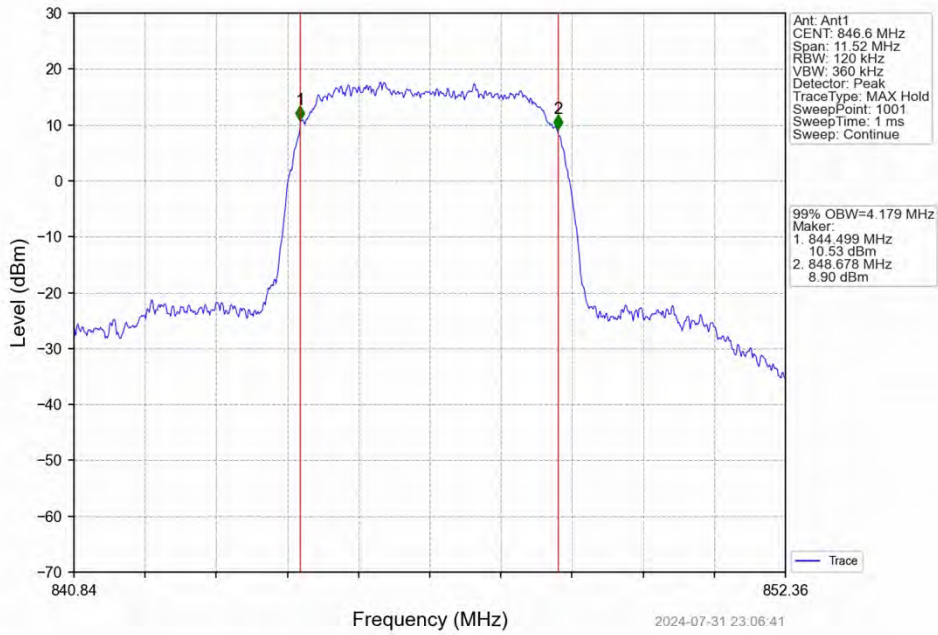
Band: 5						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	4.776	/	Pass
			836.6	4.719	/	Pass
			846.6	4.748	/	Pass
	HSDPA	Subtest 1	826.4	6.072	/	Pass
			836.6	5.396	/	Pass
			846.6	5.280	/	Pass
	HSUPA	Subtest 1	826.4	6.085	/	Pass
			836.6	5.424	/	Pass
			846.6	5.369	/	Pass

4.2 Test Graph

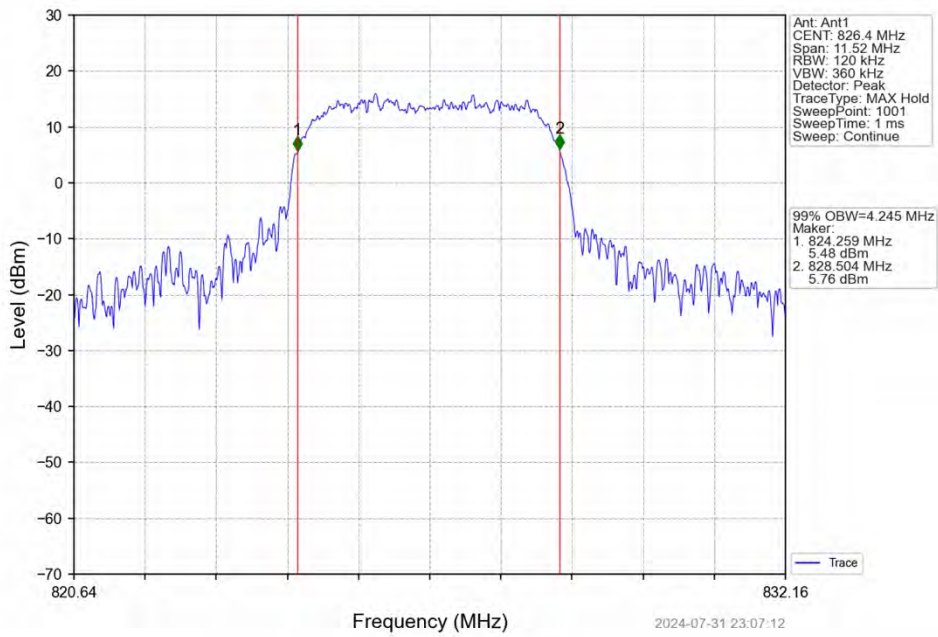
4.2.1 Band5_OBW



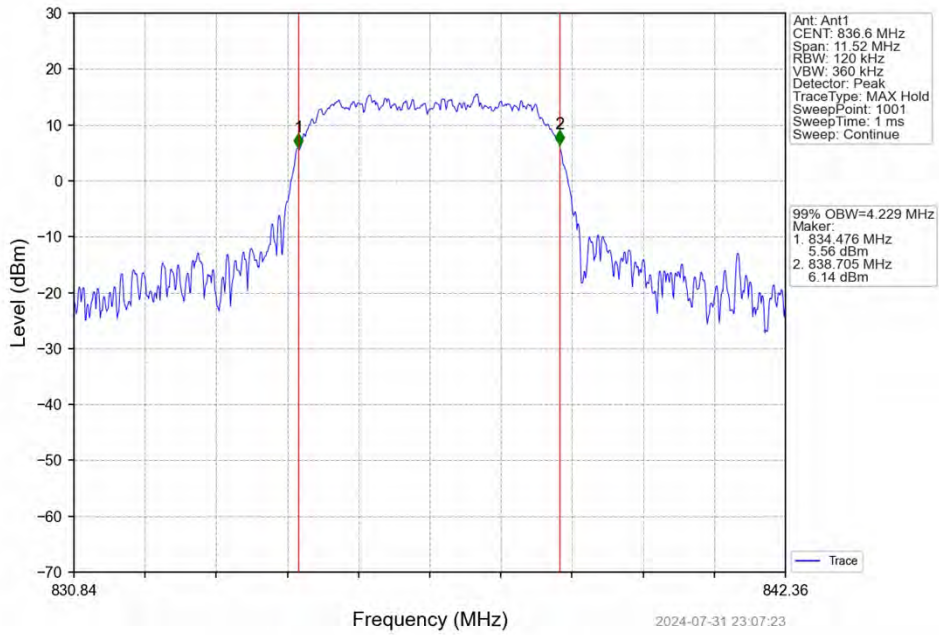
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



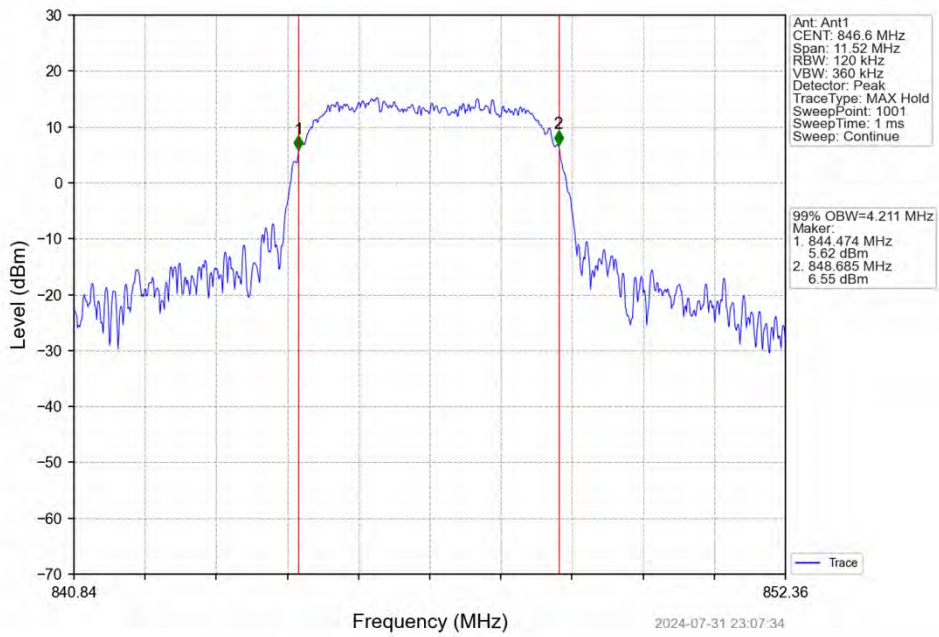
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



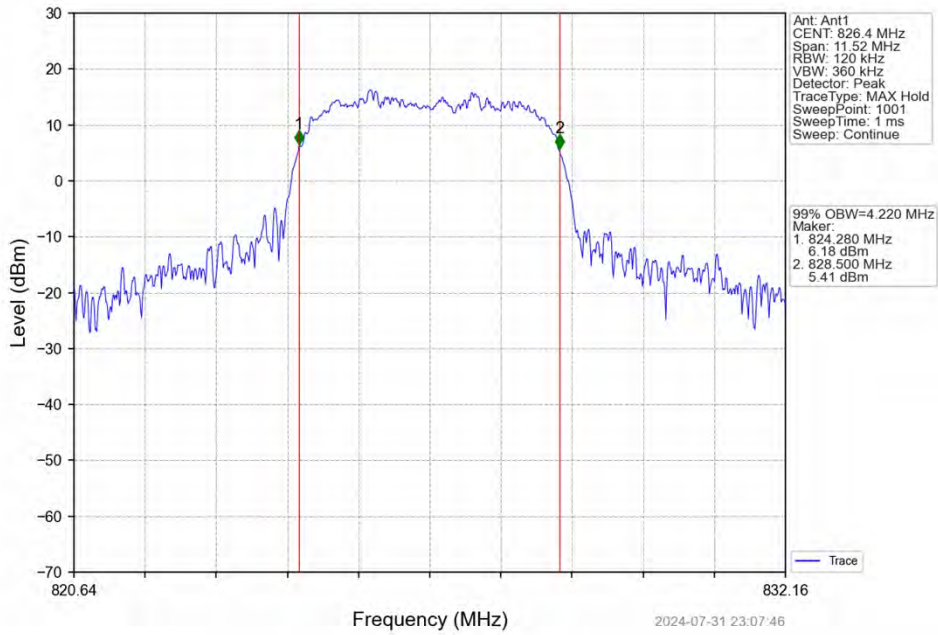
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



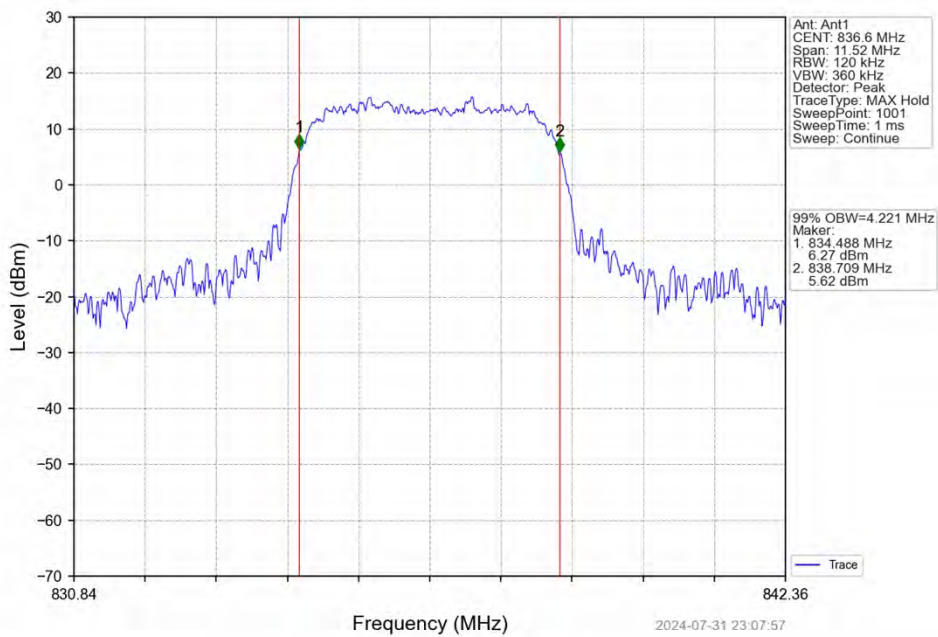
Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



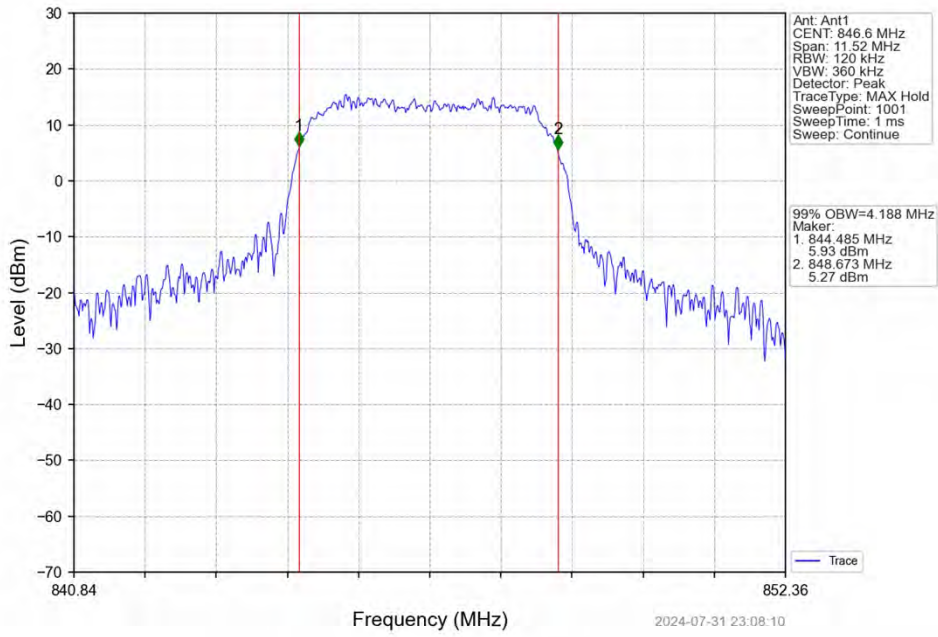
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV



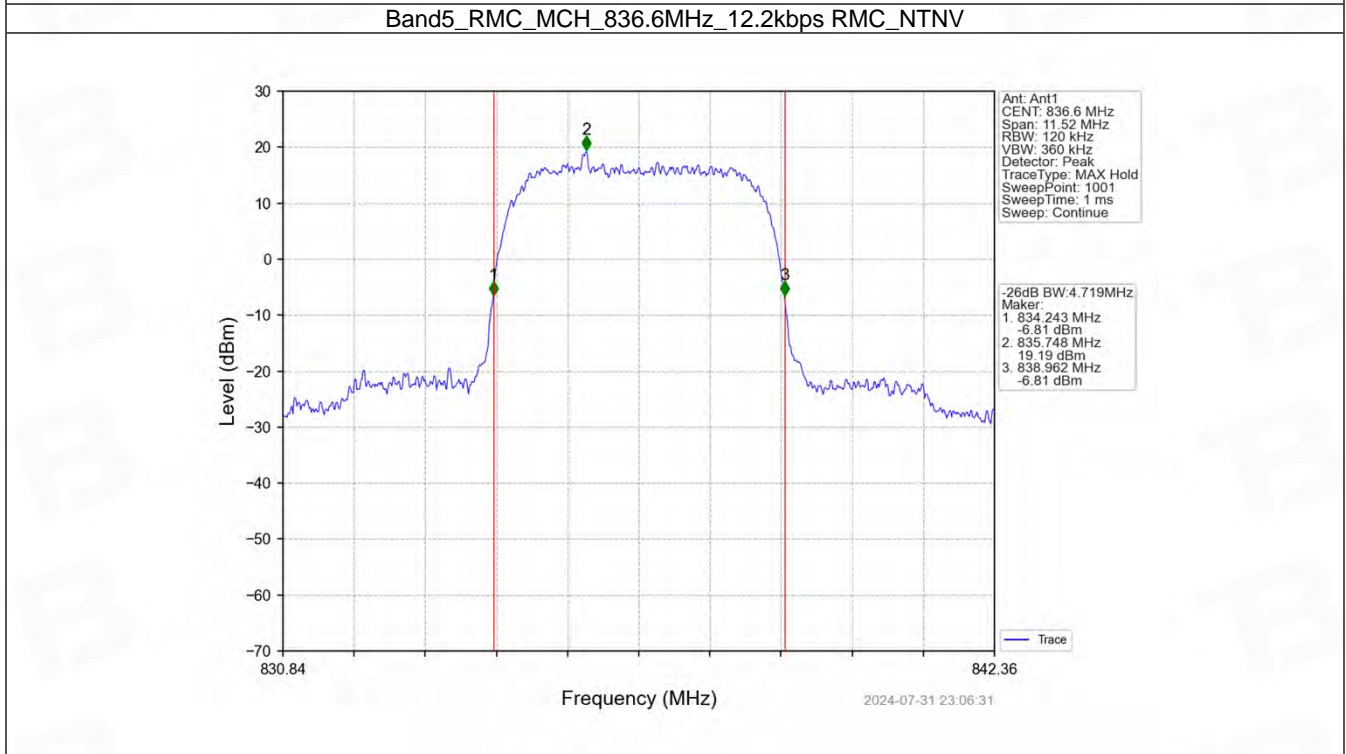
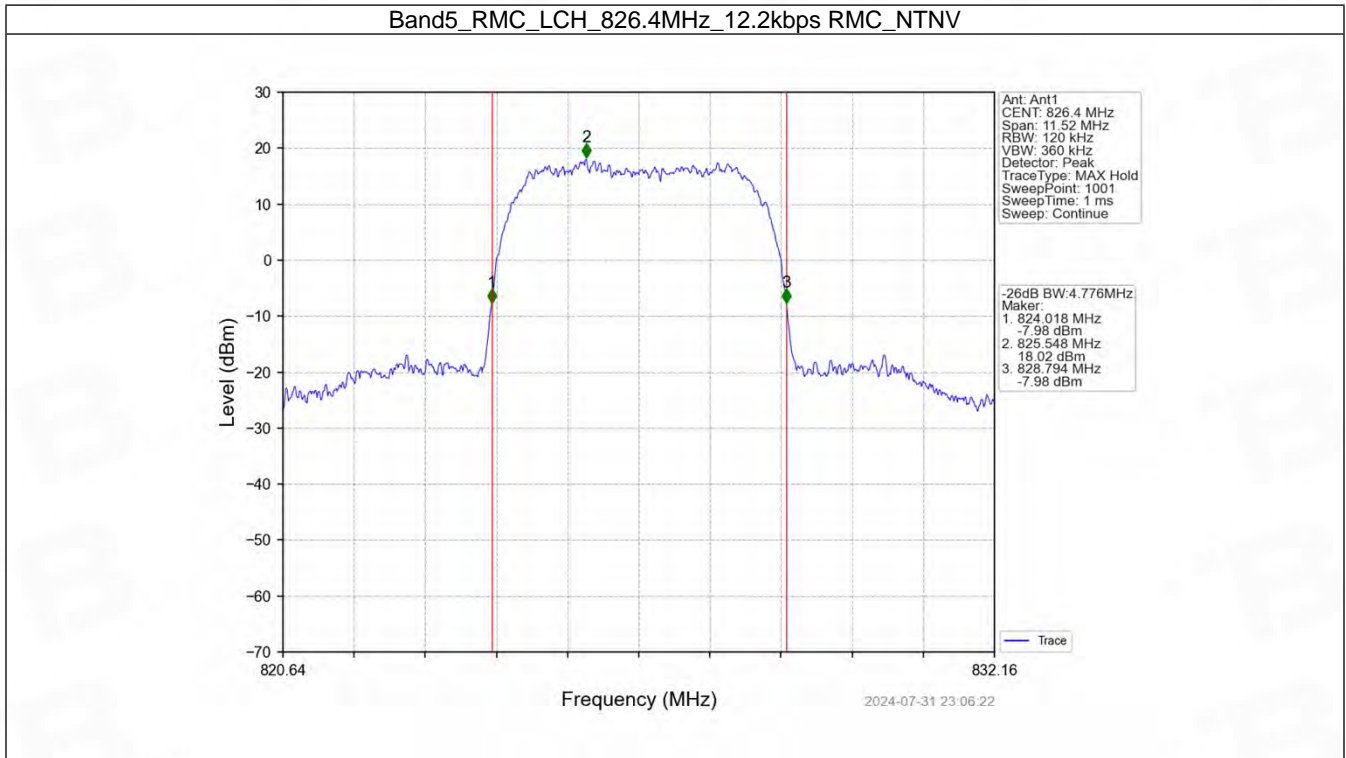
Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



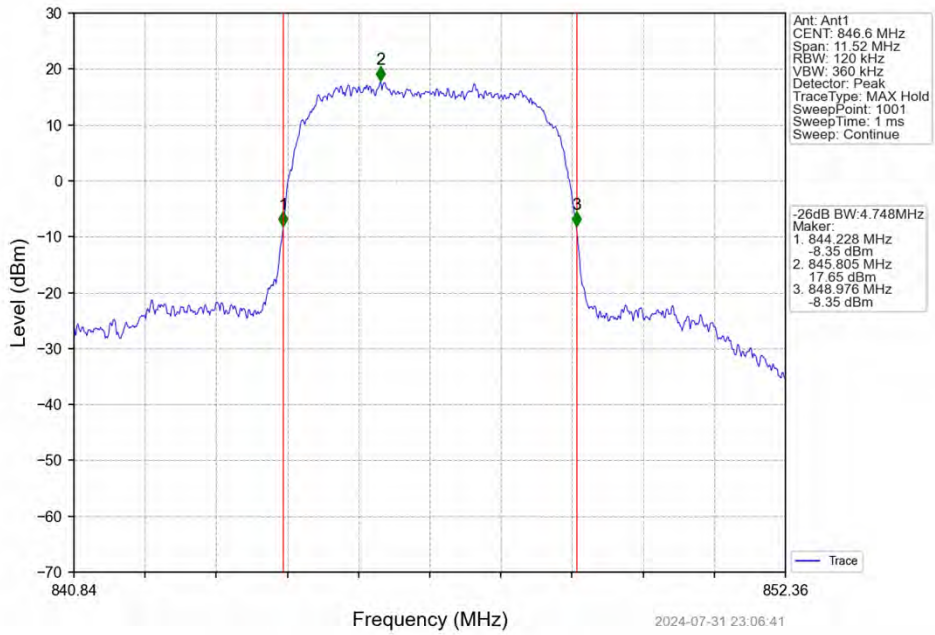
Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



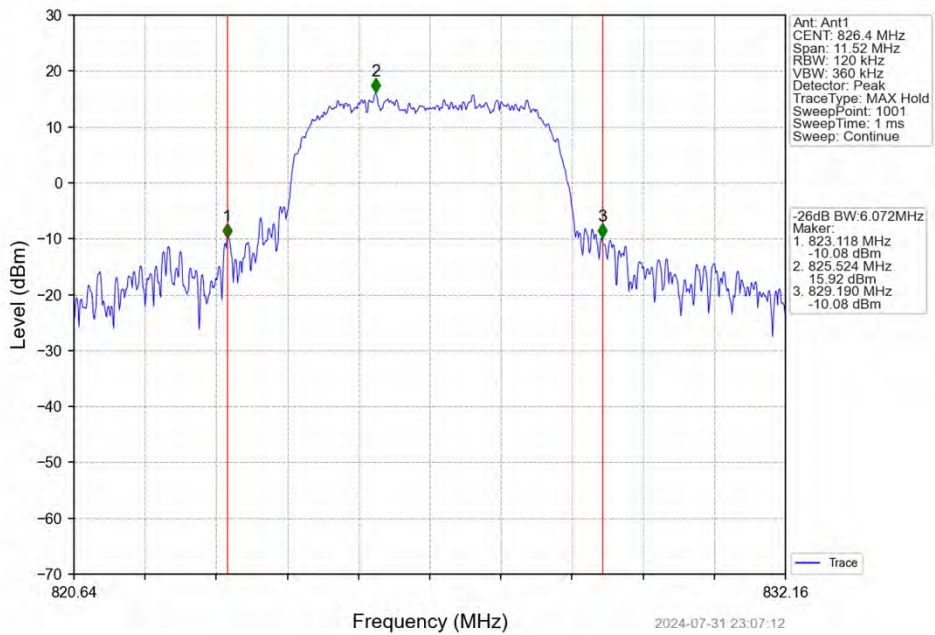
4.2.2 Band5_XDB



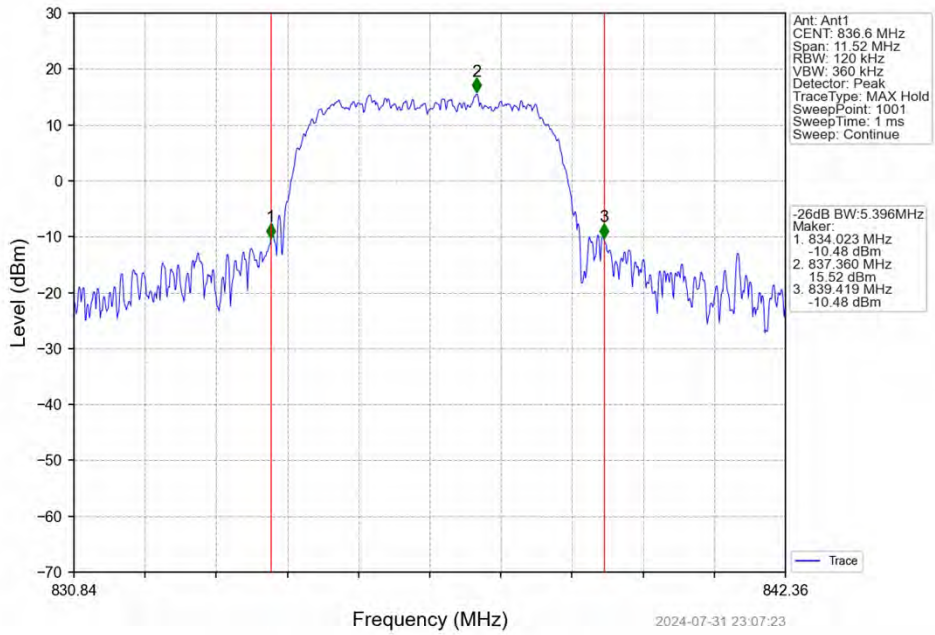
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



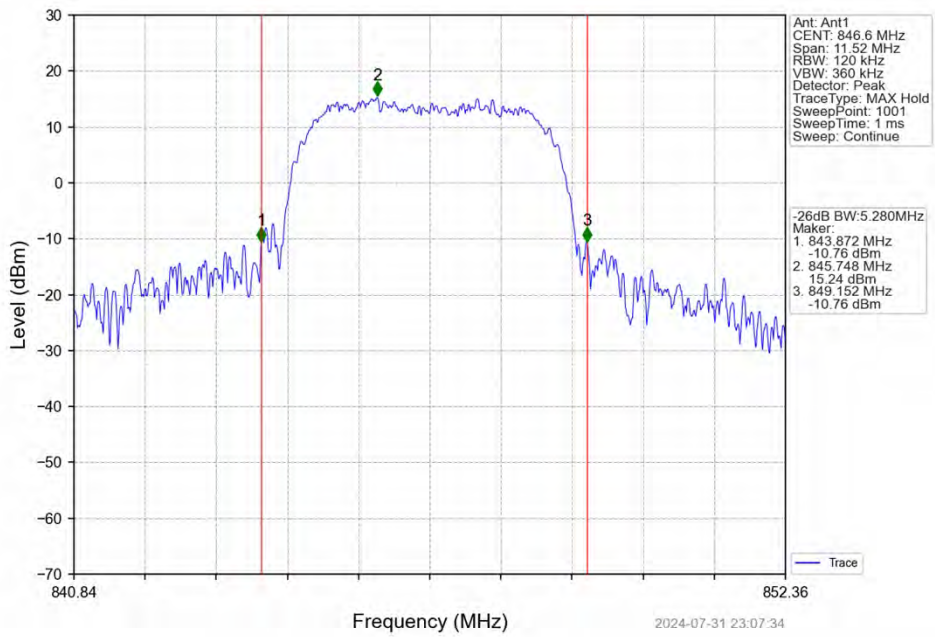
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



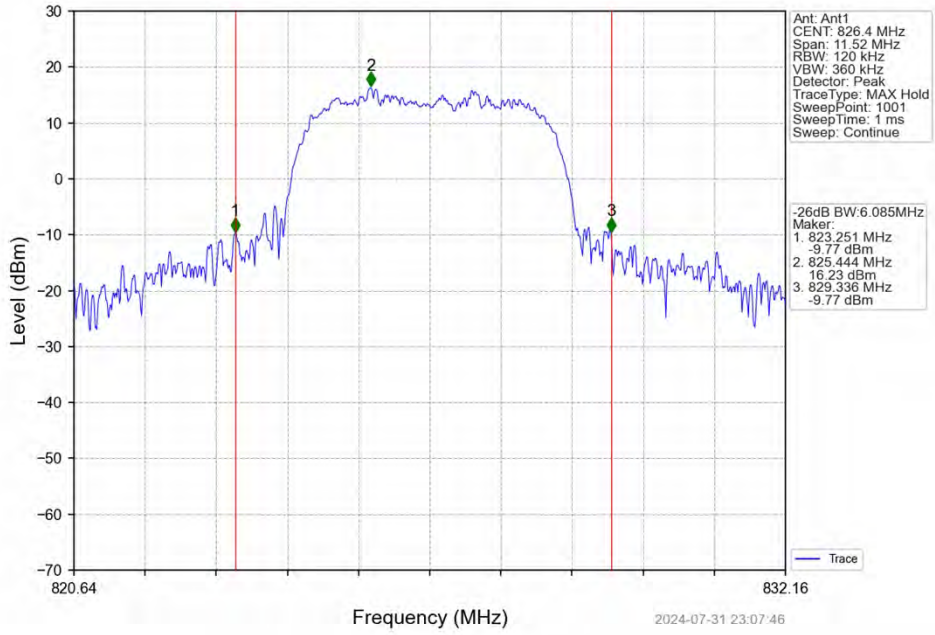
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



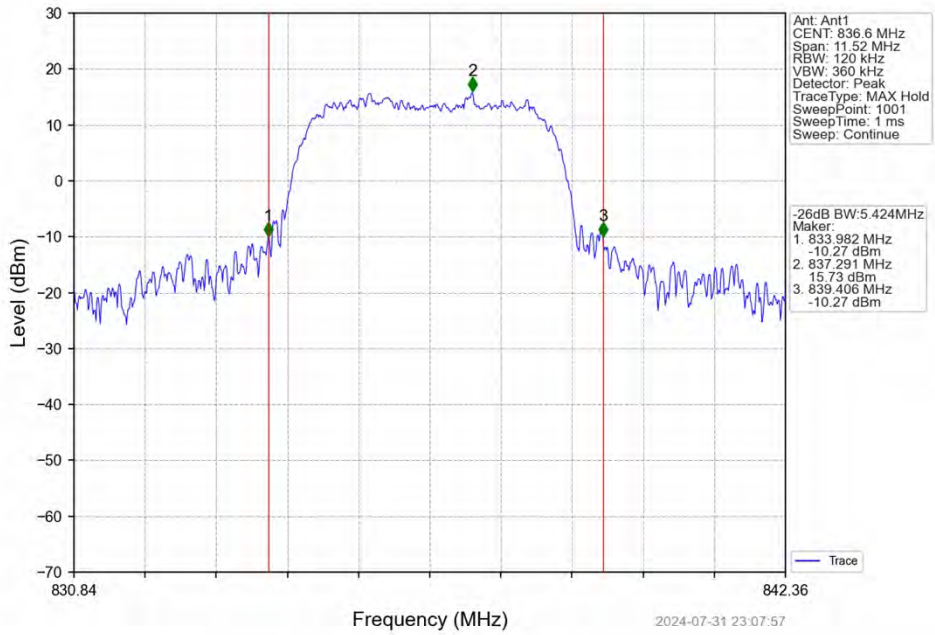
Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



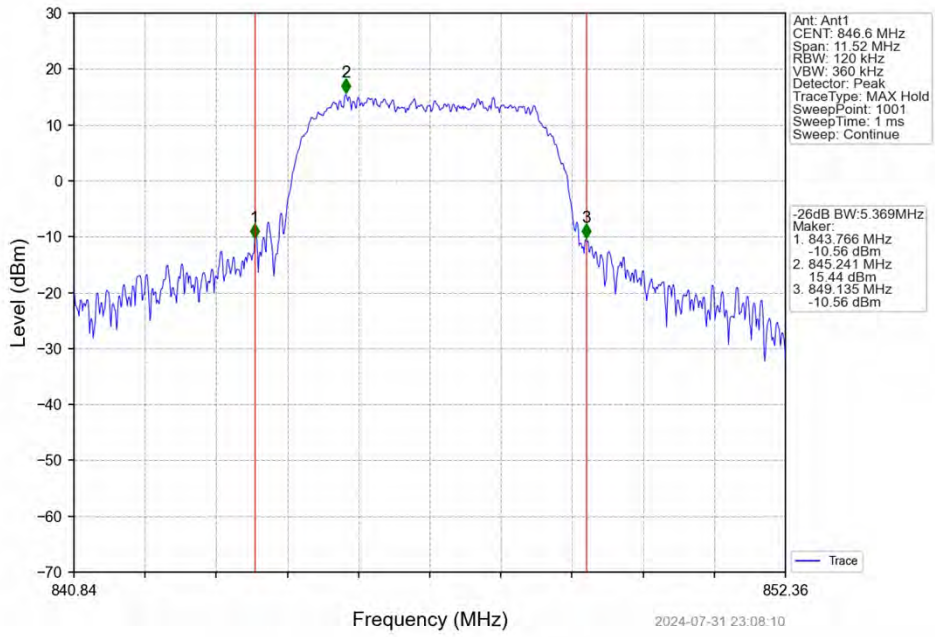
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV



Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



5. Peak-Average Ratio

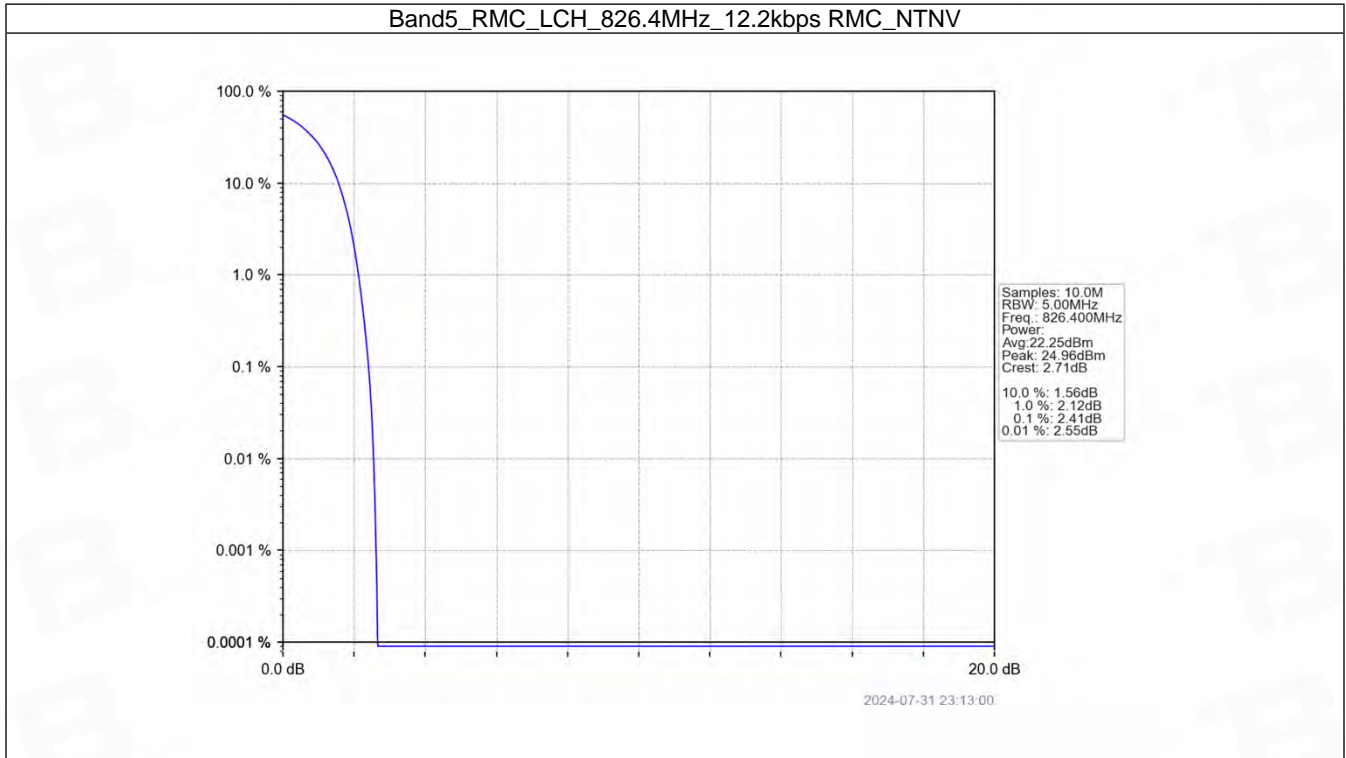
5.1 Test Result

5.1.1 Band5

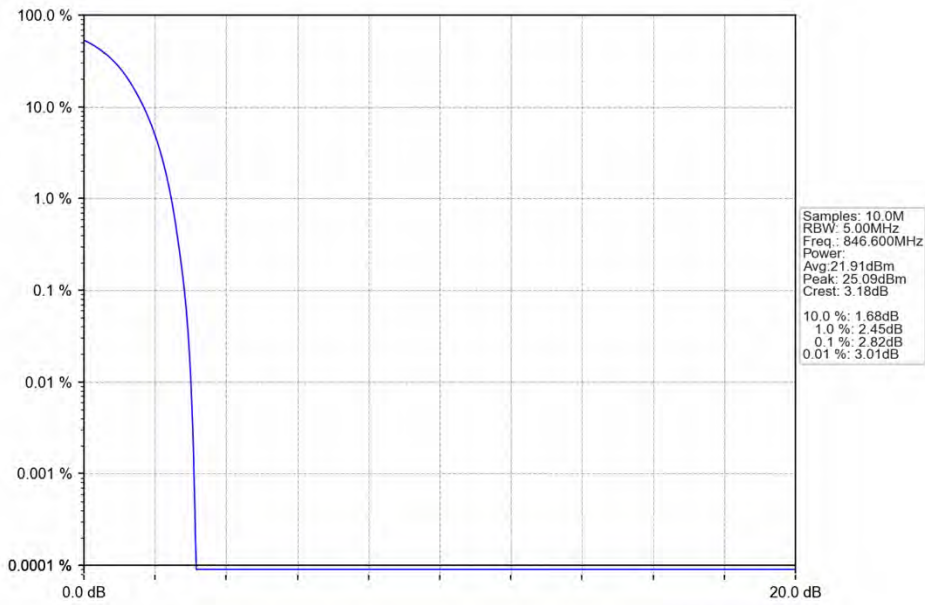
Band: 5						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	2.41	<=13	Pass
			836.6	2.75	<=13	Pass
			846.6	2.82	<=13	Pass
	HSDPA	Subtest 1	826.4	5.61	<=13	Pass
			836.6	5.77	<=13	Pass
			846.6	5.88	<=13	Pass
	HSUPA	Subtest 1	826.4	5.68	<=13	Pass
			836.6	5.84	<=13	Pass
			846.6	6.01	<=13	Pass

5.2 Test Graph

5.2.1 Band5

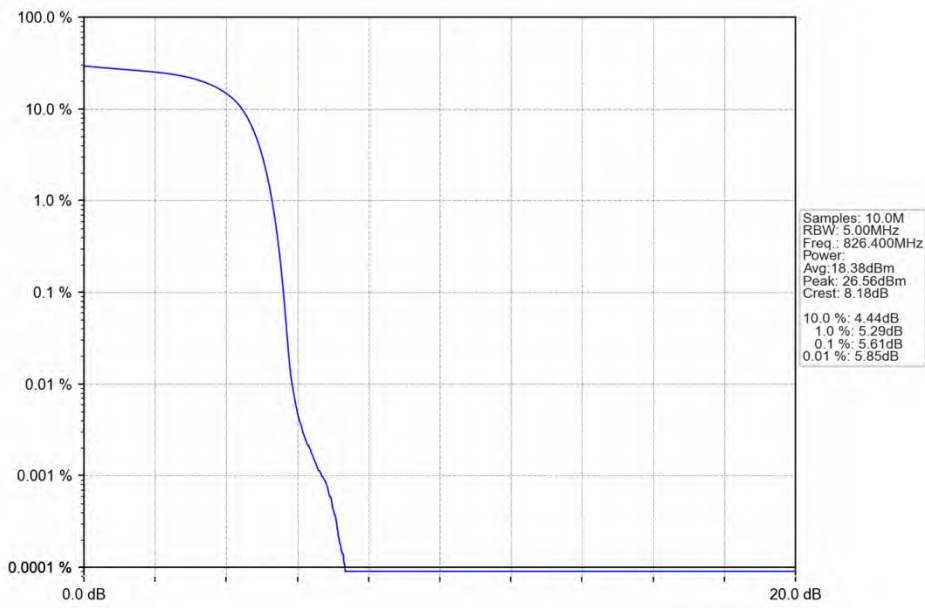


Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



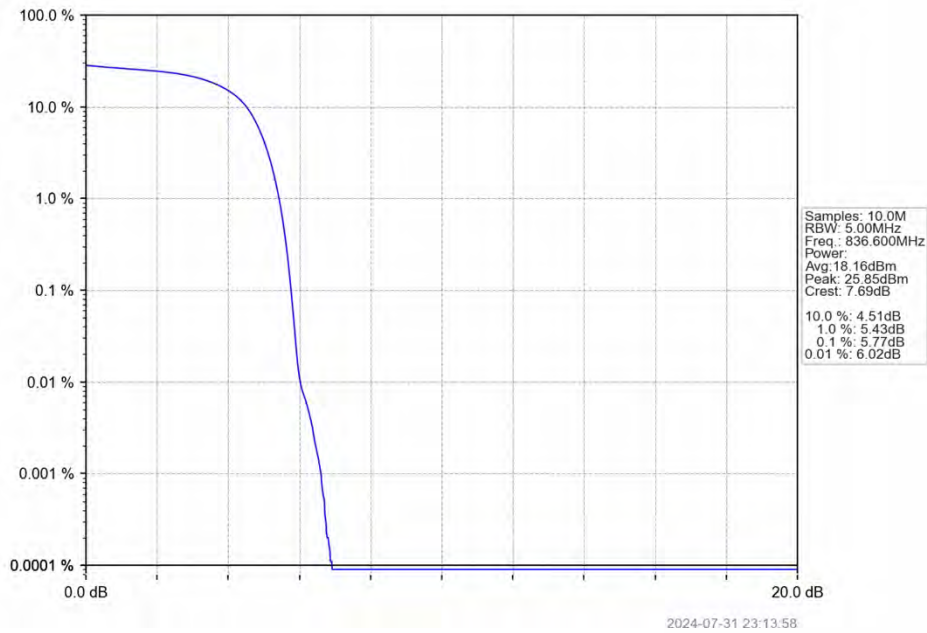
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Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV

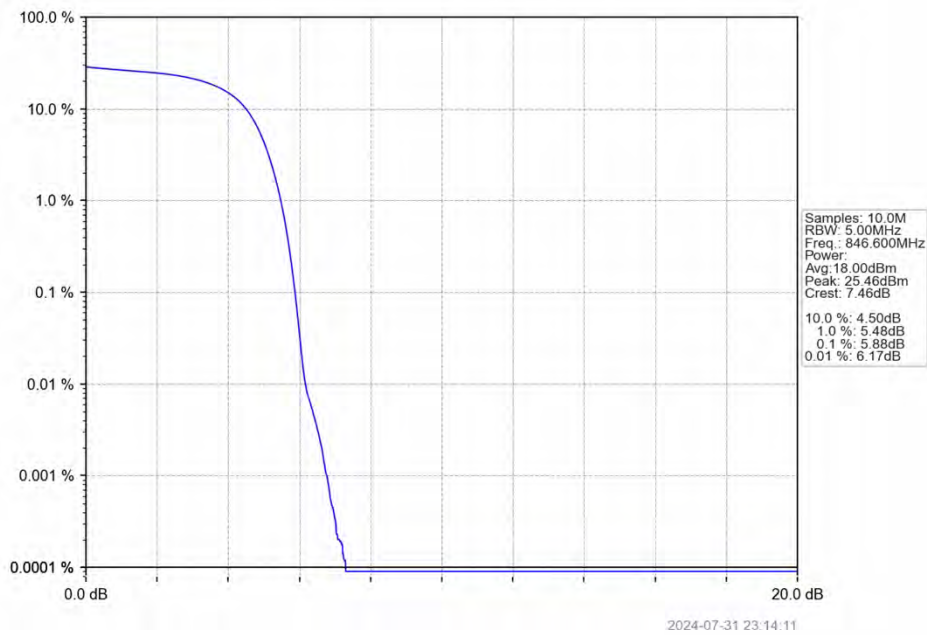


2024-07-31 23:13:45

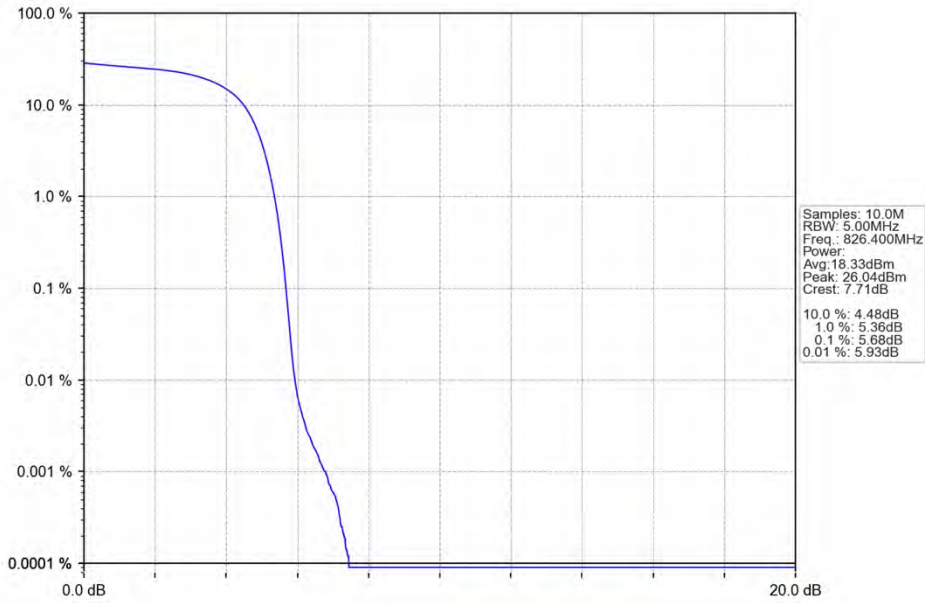
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV

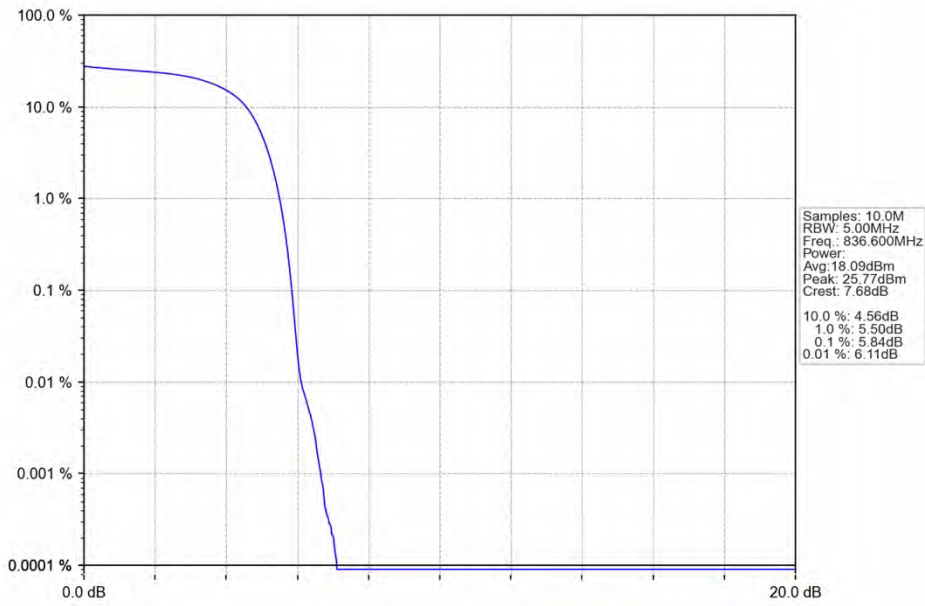


Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV



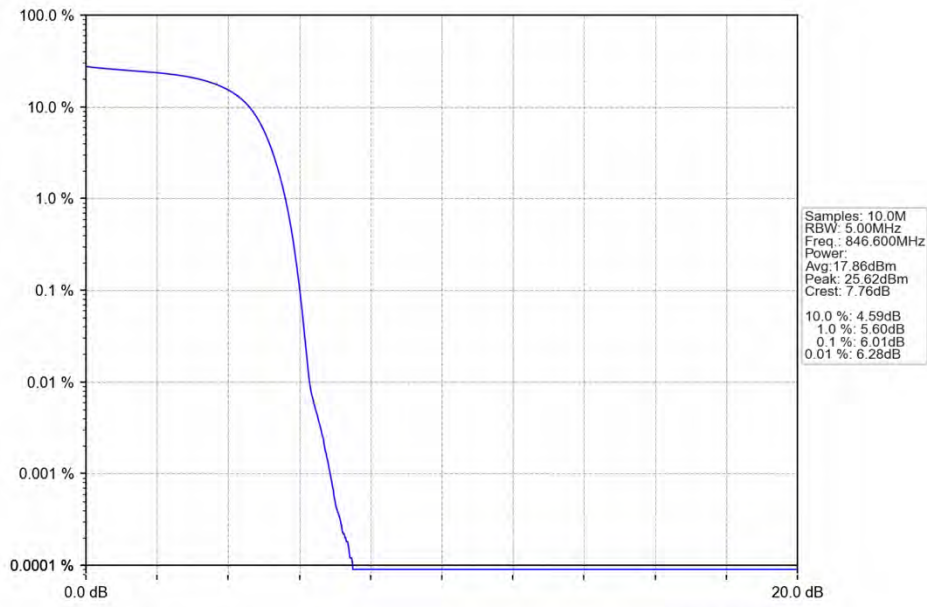
2024-07-31 23:14:24

Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



2024-07-31 23:14:37

Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



2024-07-31 23:14:51

6. Spurious Emission

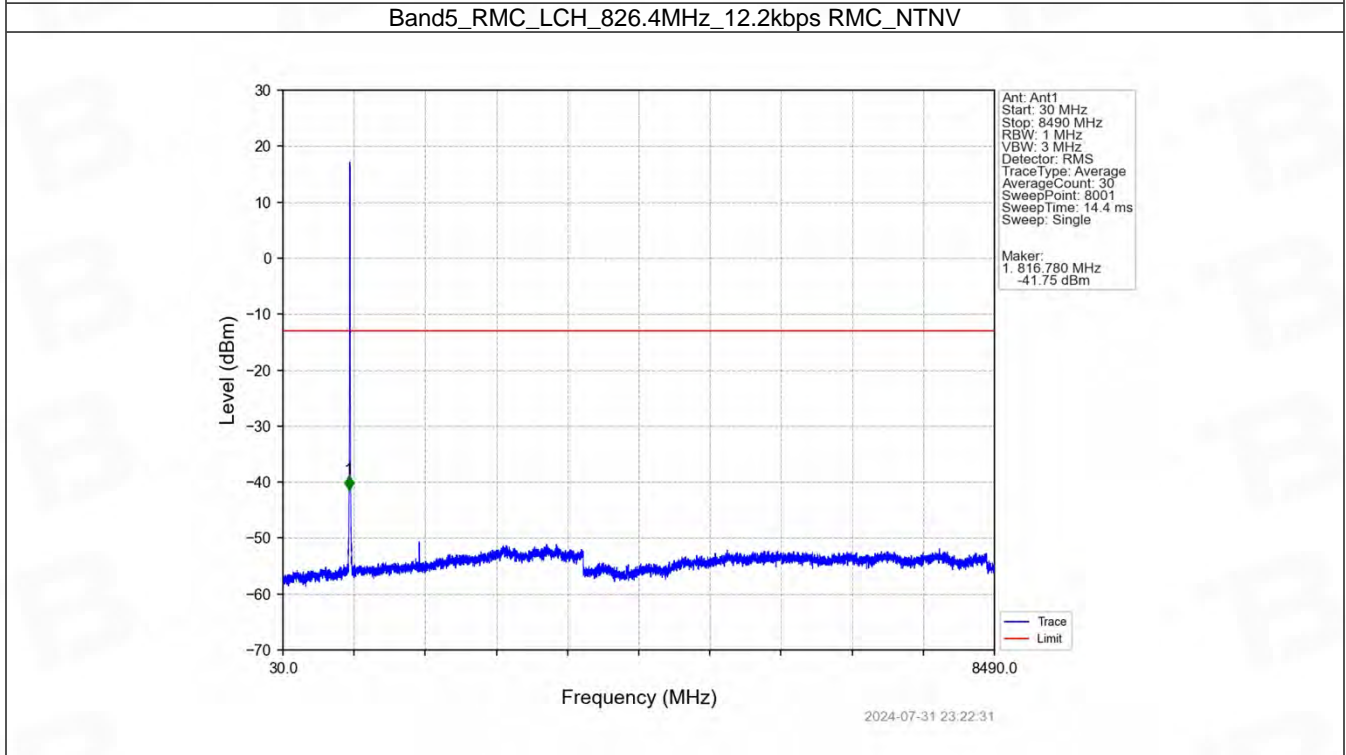
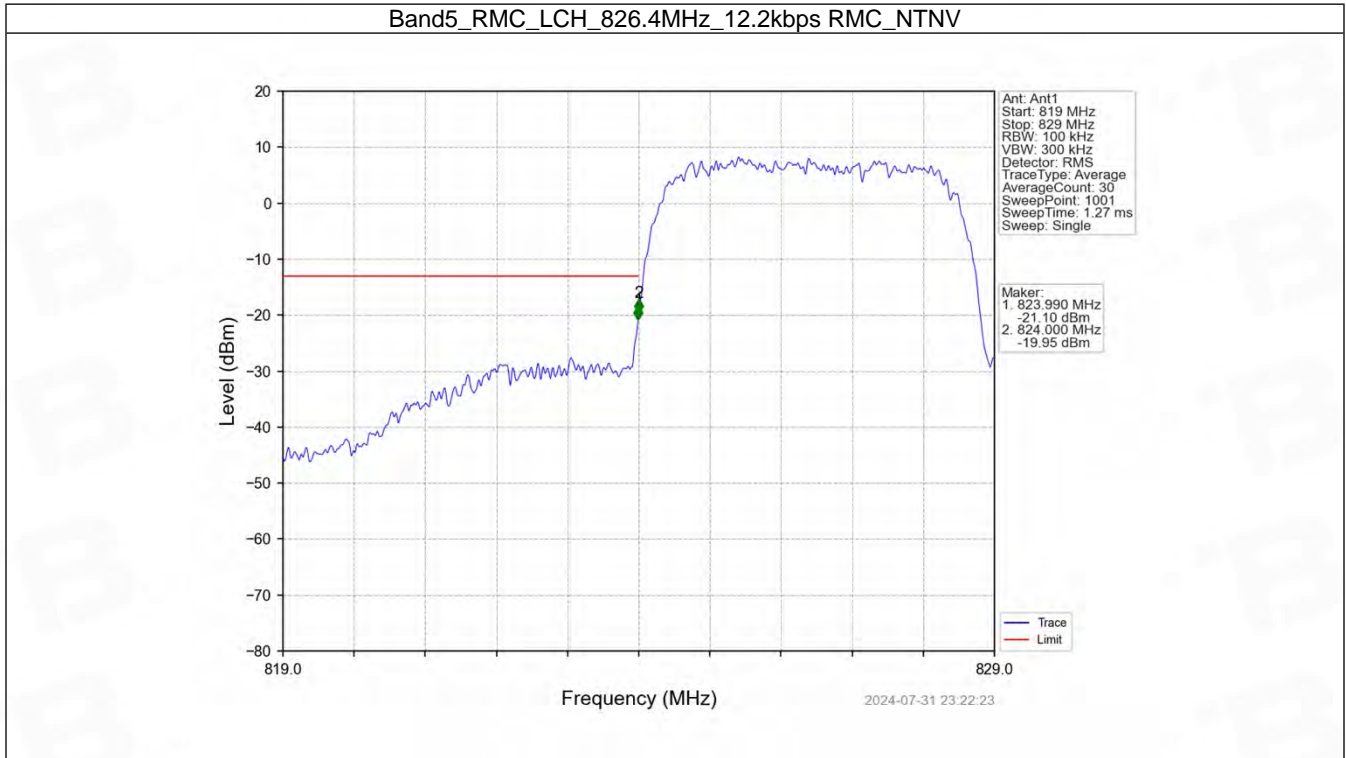
6.1 Test Result

6.1.1 Band5

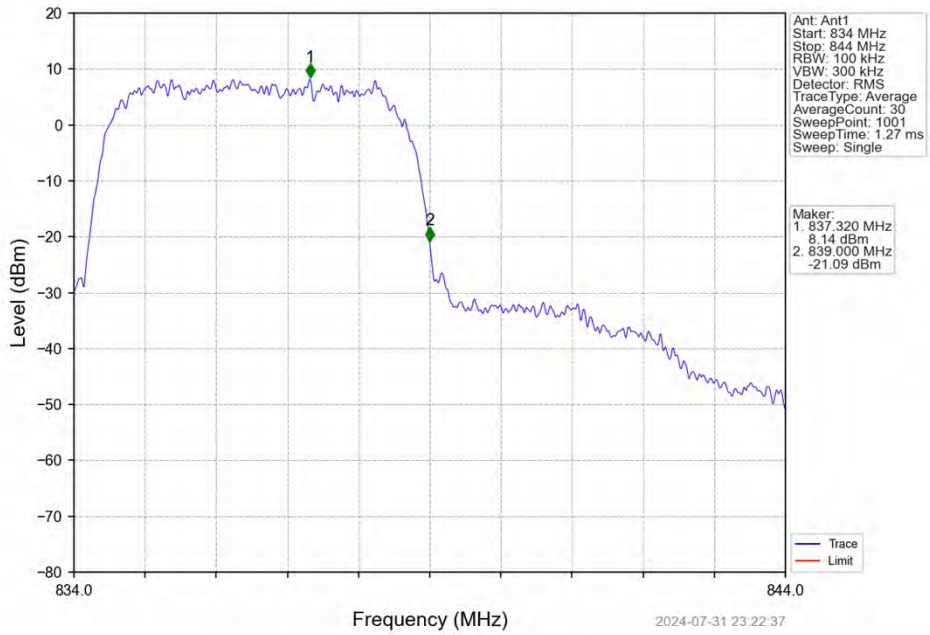
Band: 5						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass
			846.6	Refer To Test Graph		Pass
	HSDPA	Subtest 1	826.4	Refer To Test Graph		Pass
			836.6	Refer To Test Graph	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

6.2 Test Graph

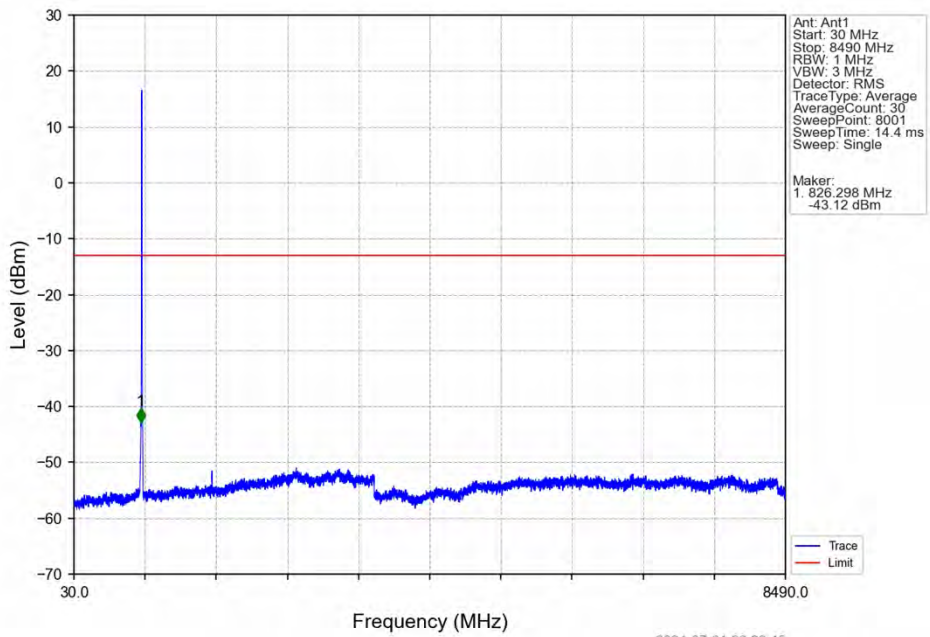
6.2.1 Band5



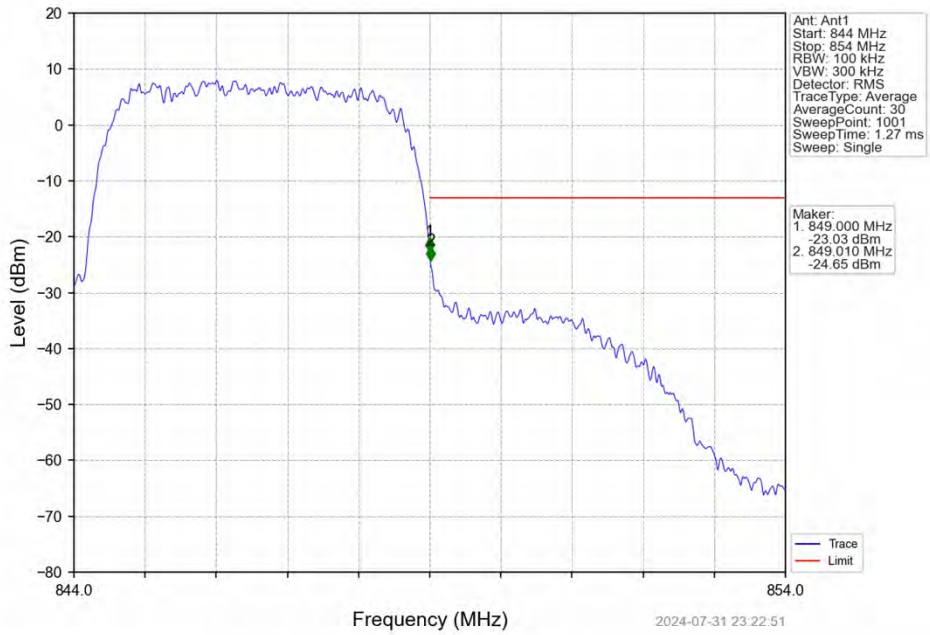
Band5_RMC_MCH_836.6MHz_12.2kbps RMC_NTNV



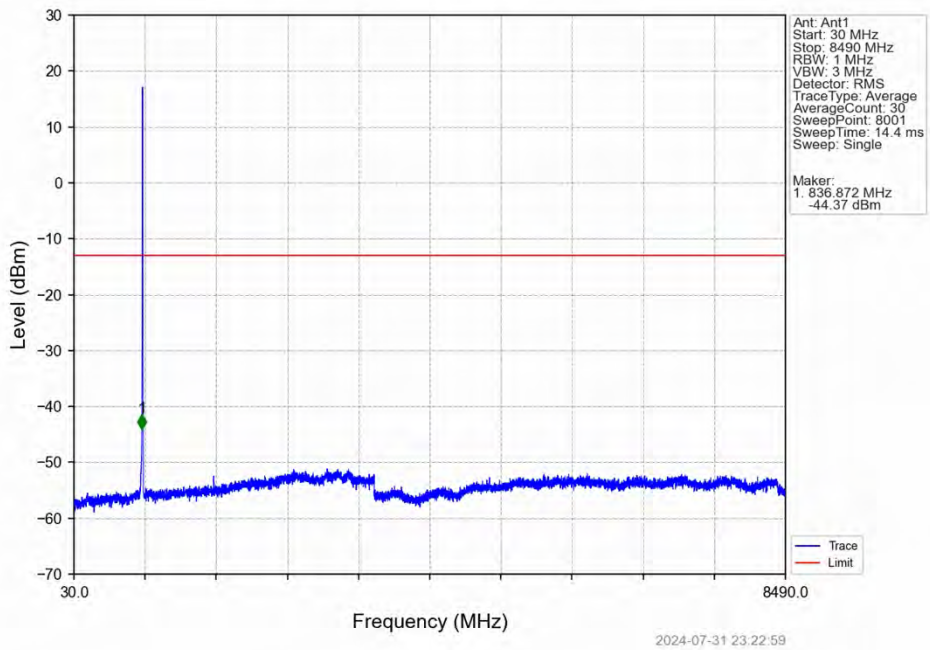
Band5_RMC_MCH_836.6MHz_12.2kbps RMC_NTNV



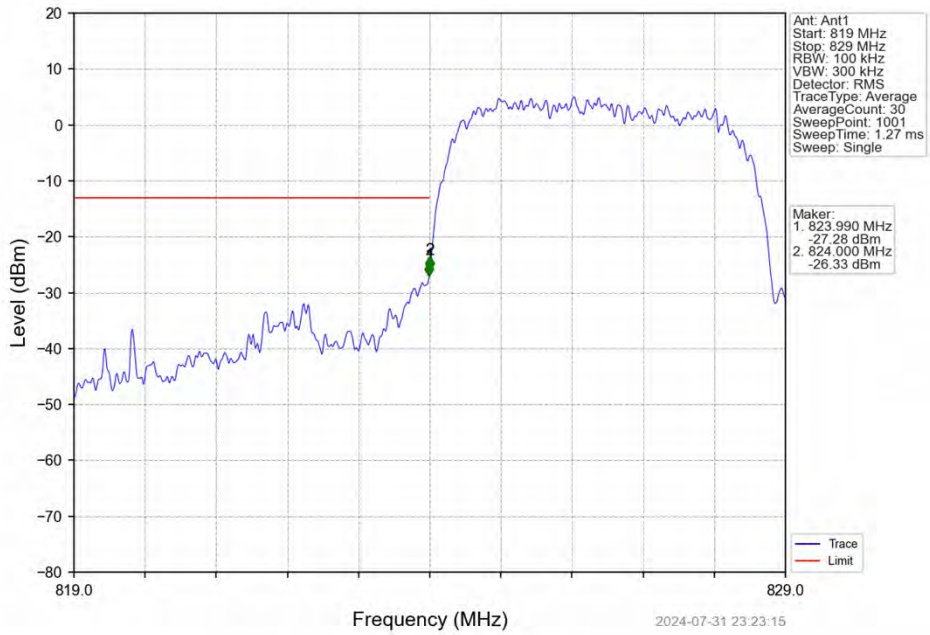
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



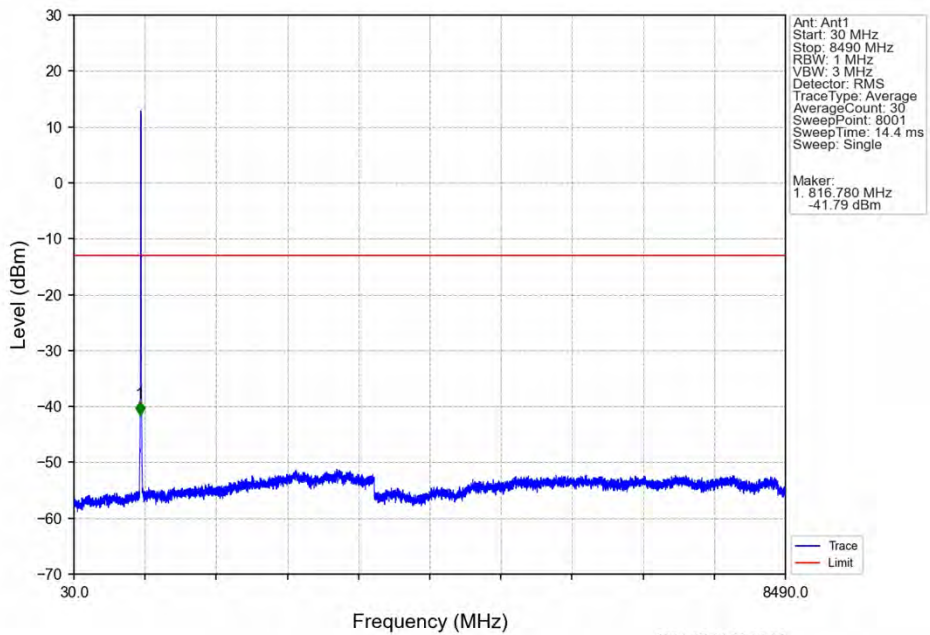
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



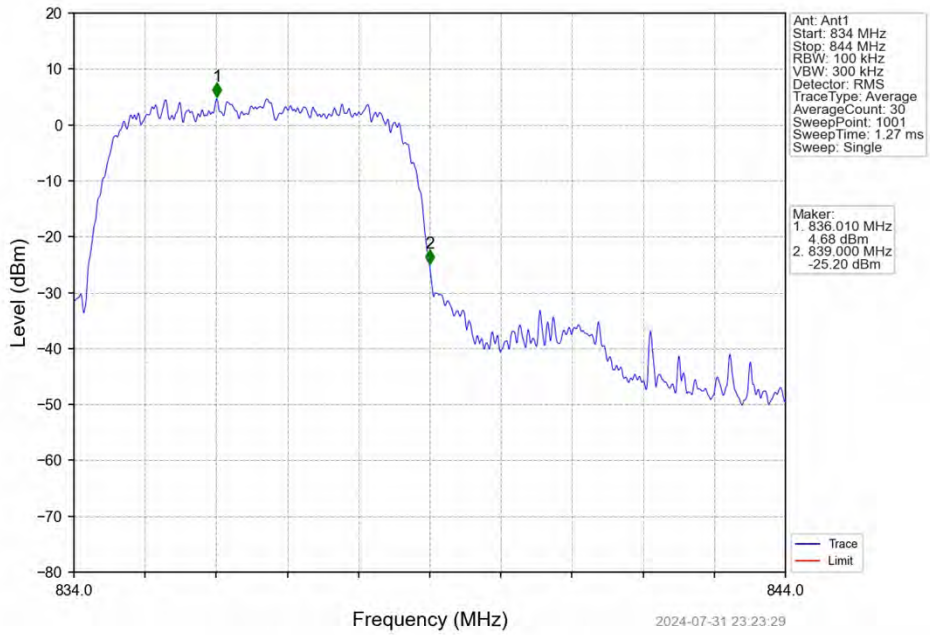
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



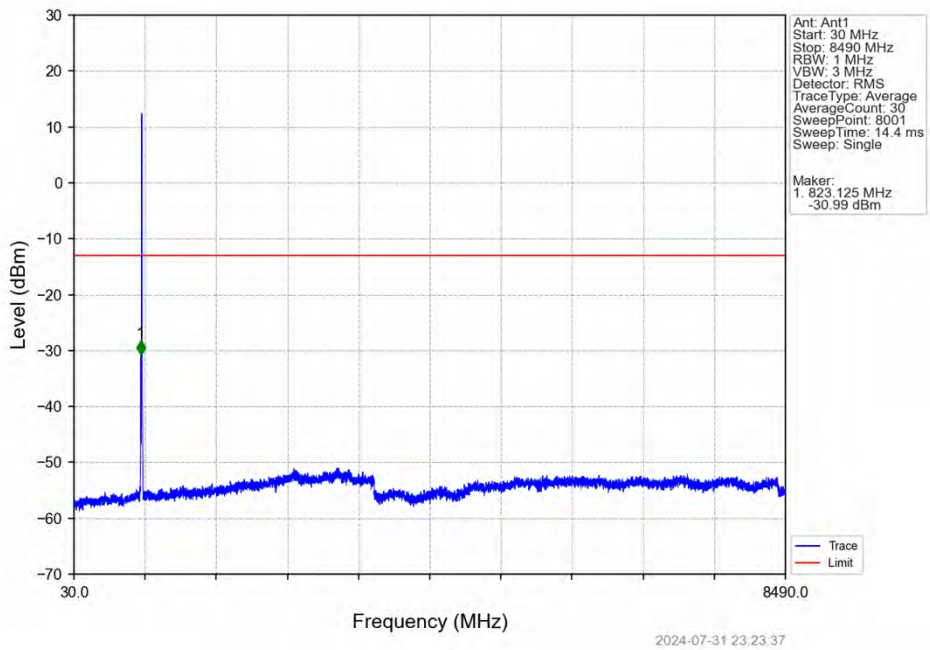
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



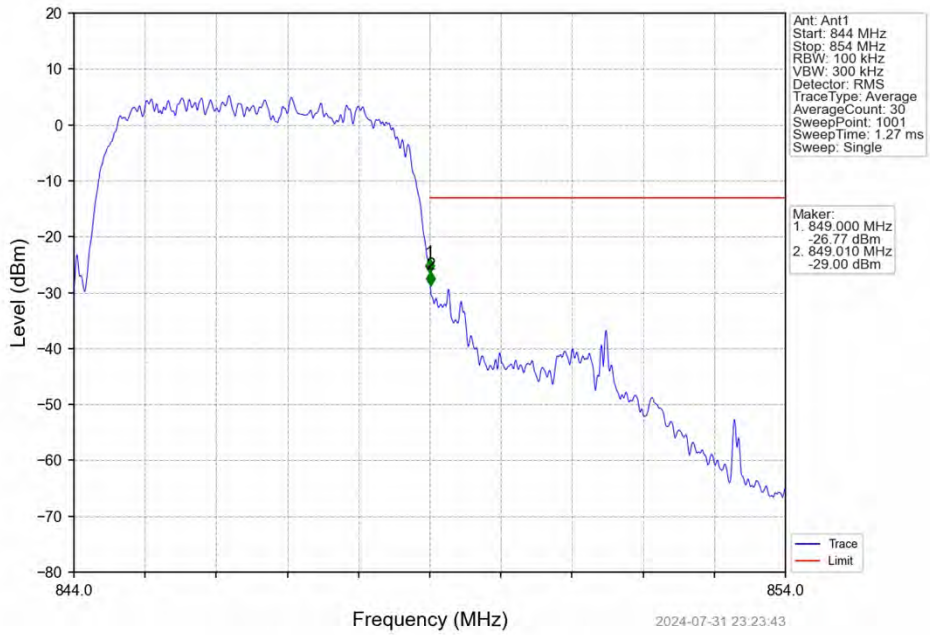
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



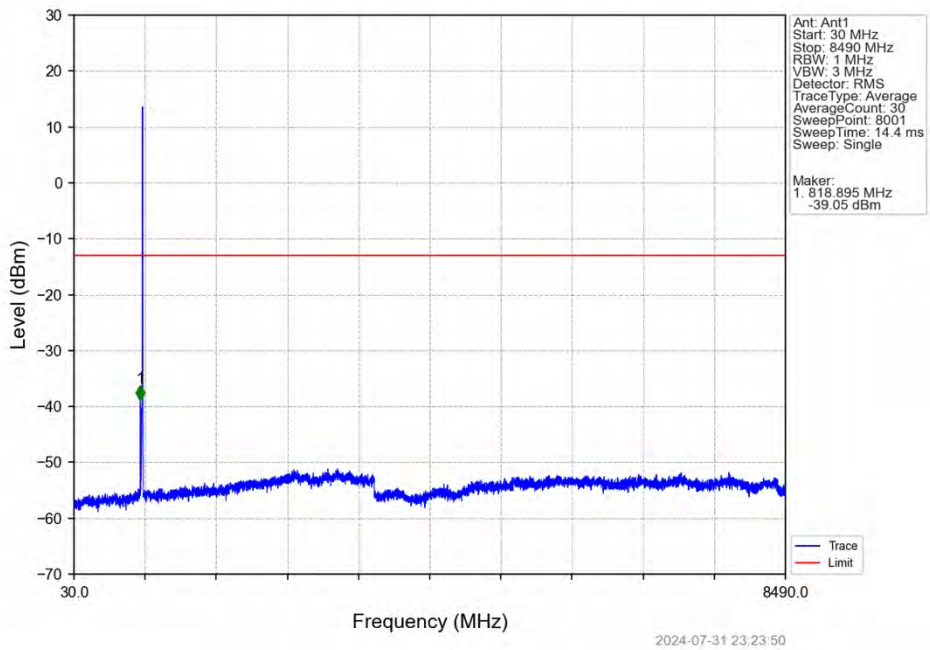
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



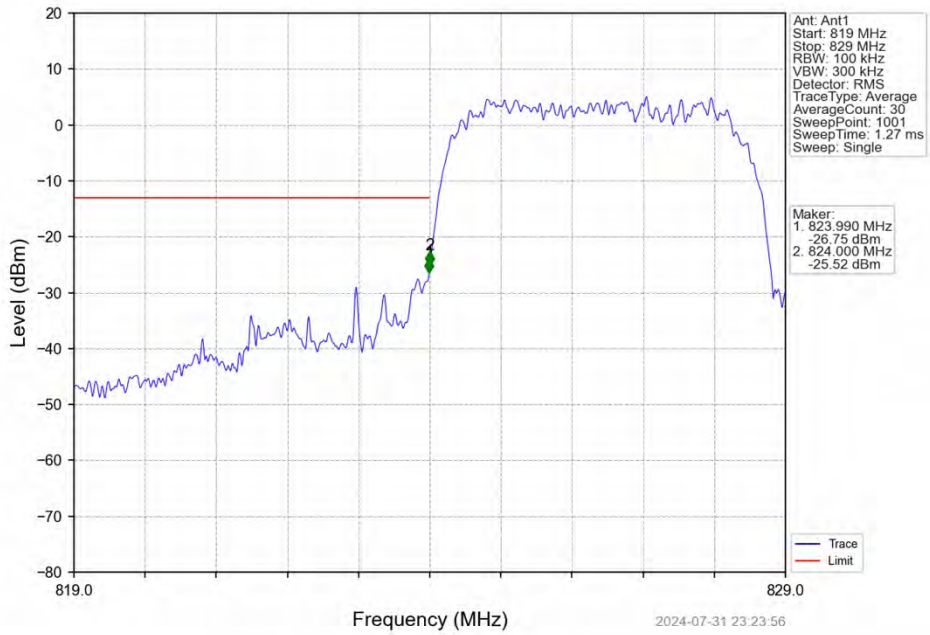
Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



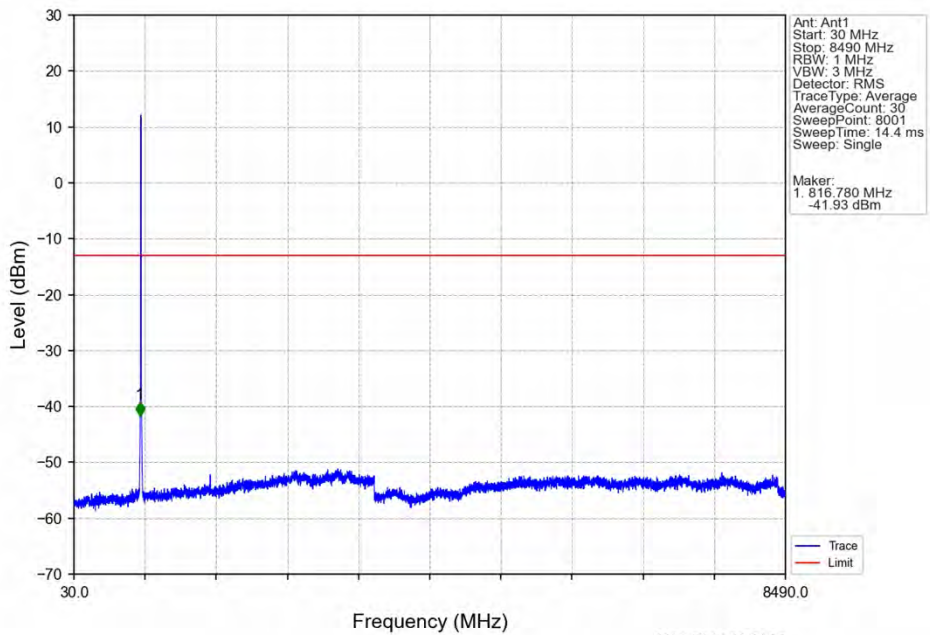
Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



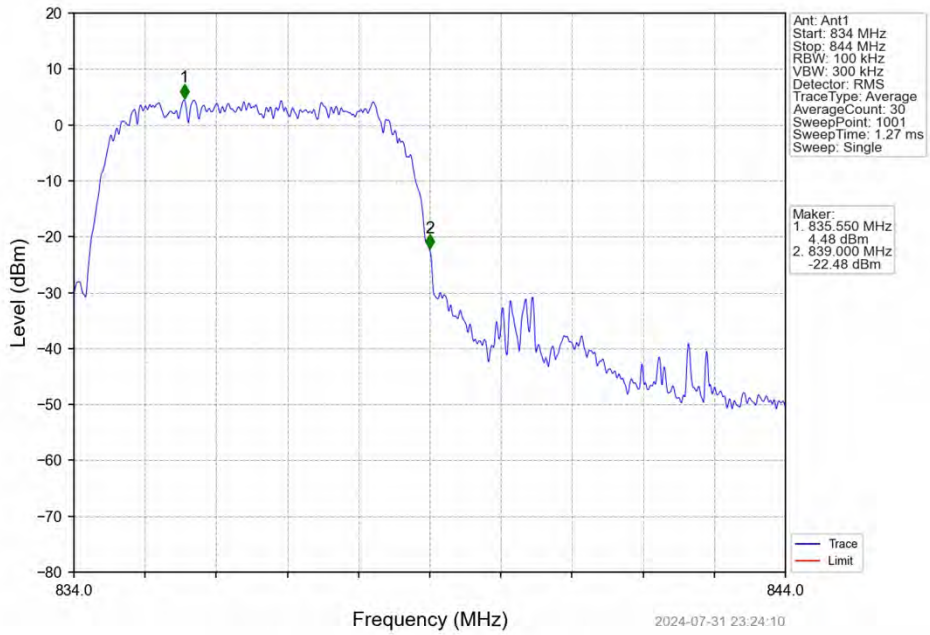
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV



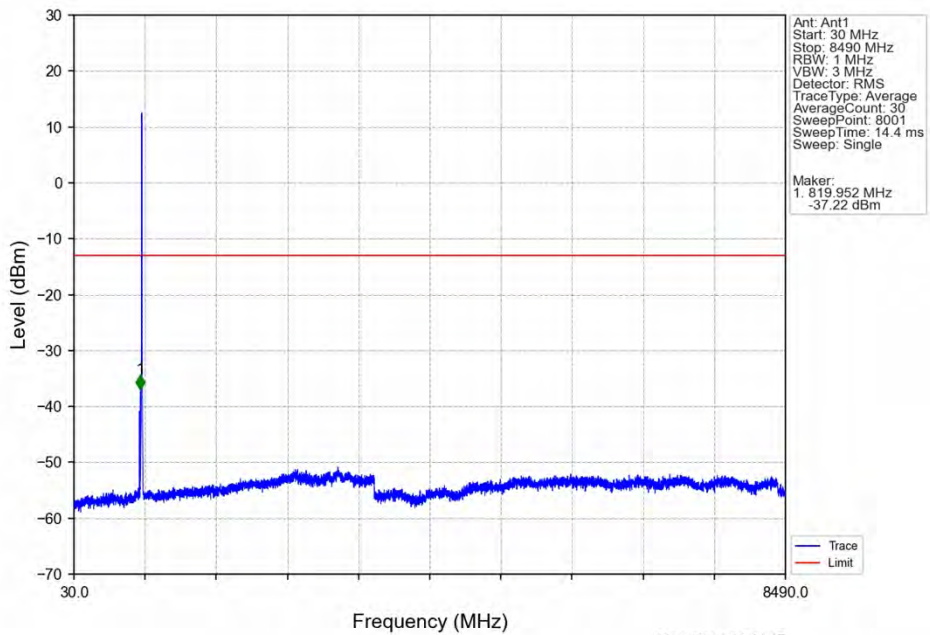
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV



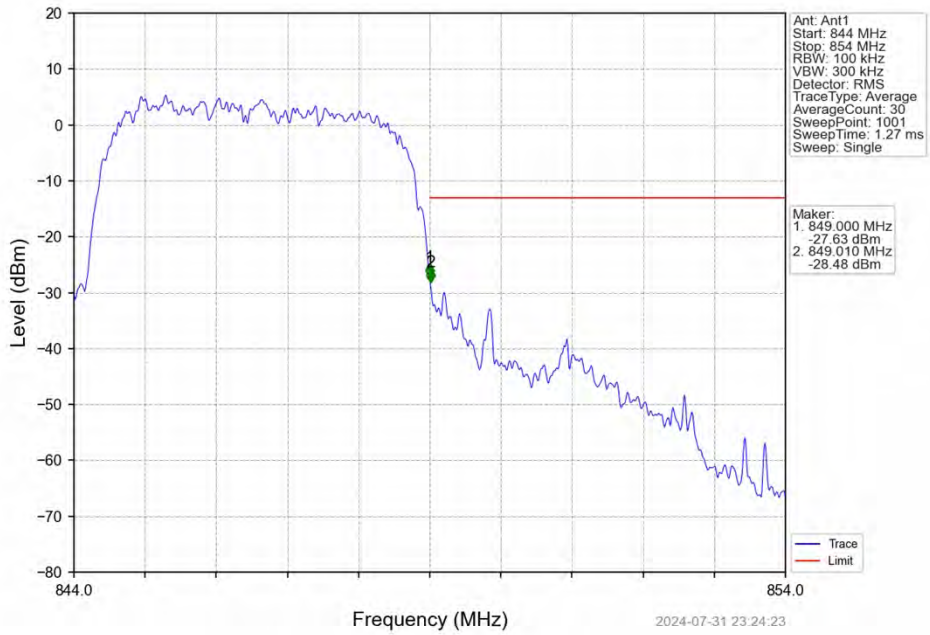
Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



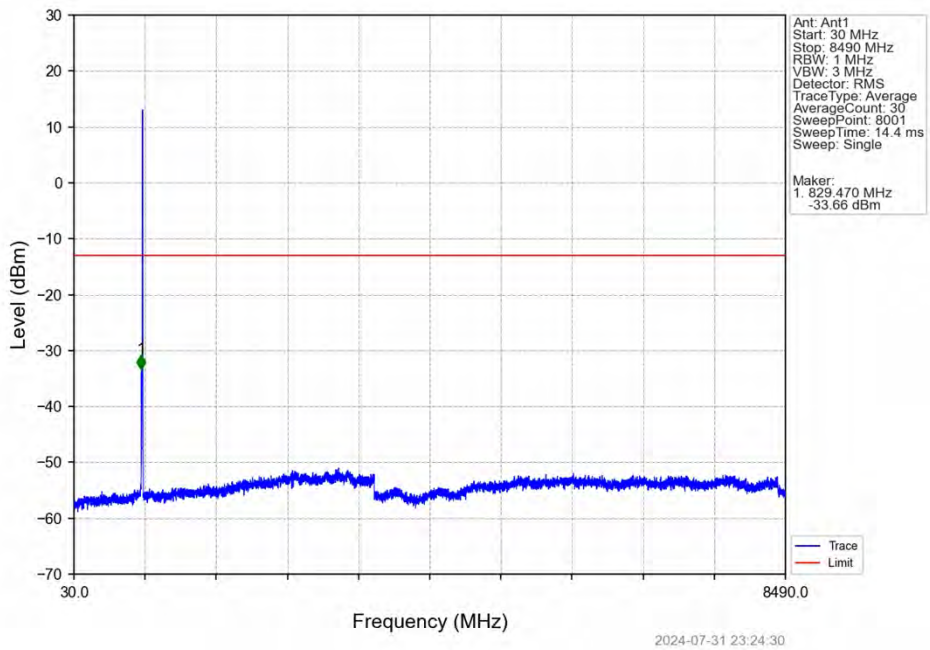
Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



7. Form731

7.1 Test Result

7.1.1 Form731_Power

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	0.1782	0.0195	ppm	4M25F9W	22H	22.51

7.1.2 Form731_ERP

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	0.0929	0.0195	ppm	4M25F9W	22H	19.68