

Appendix Test Data for WCDMA_band_5

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	24.29	0.71	22.85	<=38.45	Pass
			836.6	24.22	0.71	22.78	<=38.45	Pass
			846.6	24.28	0.71	22.84	<=38.45	Pass
	HSDPA	Subtest 1	826.4	21.93	0.71	20.49	<=38.45	Pass
		Subtest 2	826.4	21.92	0.71	20.48	<=38.45	Pass
		Subtest 3	826.4	21.94	0.71	20.50	<=38.45	Pass
		Subtest 4	826.4	21.94	0.71	20.50	<=38.45	Pass
		Subtest 1	836.6	21.85	0.71	20.41	<=38.45	Pass
		Subtest 2	836.6	21.85	0.71	20.41	<=38.45	Pass
		Subtest 3	836.6	21.85	0.71	20.41	<=38.45	Pass
		Subtest 4	836.6	21.85	0.71	20.41	<=38.45	Pass
		Subtest 1	846.6	21.87	0.71	20.43	<=38.45	Pass
		Subtest 2	846.6	21.92	0.71	20.48	<=38.45	Pass
		Subtest 3	846.6	21.91	0.71	20.47	<=38.45	Pass
		Subtest 4	846.6	21.93	0.71	20.49	<=38.45	Pass
	HSUPA	Subtest 1	826.4	19.73	0.71	18.29	<=38.45	Pass
		Subtest 2	826.4	19.71	0.71	18.27	<=38.45	Pass
		Subtest 3	826.4	19.76	0.71	18.32	<=38.45	Pass
		Subtest 4	826.4	19.29	0.71	17.85	<=38.45	Pass
		Subtest 5	826.4	19.71	0.71	18.27	<=38.45	Pass
		Subtest 1	836.6	19.17	0.71	17.73	<=38.45	Pass
		Subtest 2	836.6	19.69	0.71	18.25	<=38.45	Pass
		Subtest 3	836.6	19.38	0.71	17.94	<=38.45	Pass
		Subtest 4	836.6	19.66	0.71	18.22	<=38.45	Pass
		Subtest 5	836.6	19.63	0.71	18.19	<=38.45	Pass
		Subtest 1	846.6	19.25	0.71	17.81	<=38.45	Pass
		Subtest 2	846.6	19.74	0.71	18.30	<=38.45	Pass
		Subtest 3	846.6	19.71	0.71	18.27	<=38.45	Pass
		Subtest 4	846.6	19.69	0.71	18.25	<=38.45	Pass
		Subtest 5	846.6	19.66	0.71	18.22	<=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	-10.757	-0.0130	-2.5 to 2.5	Pass
			3.85	-7.818	-0.0095	-2.5 to 2.5	Pass
			4.43	-6.659	-0.0081	-2.5 to 2.5	Pass
		-30	3.85	-8.297	-0.0100	-2.5 to 2.5	Pass
		-20	3.85	-7.946	-0.0096	-2.5 to 2.5	Pass
		-10	3.85	-9.413	-0.0114	-2.5 to 2.5	Pass
		0	3.85	-15.349	-0.0186	-2.5 to 2.5	Pass
		10	3.85	-7.181	-0.0087	-2.5 to 2.5	Pass
		30	3.85	-9.885	-0.0120	-2.5 to 2.5	Pass
		40	3.85	-12.138	-0.0147	-2.5 to 2.5	Pass
		50	3.85	-8.368	-0.0101	-2.5 to 2.5	Pass
	836.6	20	3.27	-9.084	-0.0109	-2.5 to 2.5	Pass
			3.85	-11.809	-0.0141	-2.5 to 2.5	Pass
			4.43	-15.035	-0.0180	-2.5 to 2.5	Pass
		-30	3.85	-8.783	-0.0105	-2.5 to 2.5	Pass
		-20	3.85	-9.463	-0.0113	-2.5 to 2.5	Pass
		-10	3.85	-10.099	-0.0121	-2.5 to 2.5	Pass
		0	3.85	-10.514	-0.0126	-2.5 to 2.5	Pass
		10	3.85	-9.077	-0.0108	-2.5 to 2.5	Pass
		30	3.85	-6.795	-0.0081	-2.5 to 2.5	Pass
		40	3.85	-14.713	-0.0176	-2.5 to 2.5	Pass
		50	3.85	-11.222	-0.0134	-2.5 to 2.5	Pass
	846.6	20	3.27	-11.258	-0.0133	-2.5 to 2.5	Pass
			3.85	-11.408	-0.0135	-2.5 to 2.5	Pass
			4.43	-13.132	-0.0155	-2.5 to 2.5	Pass
		-30	3.85	-12.496	-0.0148	-2.5 to 2.5	Pass
		-20	3.85	-11.766	-0.0139	-2.5 to 2.5	Pass
		-10	3.85	-9.470	-0.0112	-2.5 to 2.5	Pass
		0	3.85	-10.929	-0.0129	-2.5 to 2.5	Pass
		10	3.85	-7.095	-0.0084	-2.5 to 2.5	Pass
		30	3.85	-12.710	-0.0150	-2.5 to 2.5	Pass
		40	3.85	-9.234	-0.0109	-2.5 to 2.5	Pass
		50	3.85	-6.659	-0.0079	-2.5 to 2.5	Pass
HSDPA	826.4	20	3.27	-3.469	-0.0042	-2.5 to 2.5	Pass
			3.85	-3.140	-0.0038	-2.5 to 2.5	Pass
			4.43	-4.900	-0.0059	-2.5 to 2.5	Pass
		-30	3.85	-3.147	-0.0038	-2.5 to 2.5	Pass
		-20	3.85	-3.140	-0.0038	-2.5 to 2.5	Pass
		-10	3.85	-1.988	-0.0024	-2.5 to 2.5	Pass
		0	3.85	-2.010	-0.0024	-2.5 to 2.5	Pass
		10	3.85	-4.420	-0.0053	-2.5 to 2.5	Pass
		30	3.85	-8.748	-0.0106	-2.5 to 2.5	Pass
		40	3.85	-0.851	-0.0010	-2.5 to 2.5	Pass
		50	3.85	-7.832	-0.0095	-2.5 to 2.5	Pass
	836.6	20	3.27	-3.498	-0.0042	-2.5 to 2.5	Pass
			3.85	-3.612	-0.0043	-2.5 to 2.5	Pass
			4.43	-1.523	-0.0018	-2.5 to 2.5	Pass
		-30	3.85	-8.368	-0.0100	-2.5 to 2.5	Pass
		-20	3.85	-3.705	-0.0044	-2.5 to 2.5	Pass
		-10	3.85	-3.541	-0.0042	-2.5 to 2.5	Pass

		0	3.85	-5.786	-0.0069	-2.5 to 2.5	Pass
		10	3.85	-8.075	-0.0097	-2.5 to 2.5	Pass
		30	3.85	-9.928	-0.0119	-2.5 to 2.5	Pass
		40	3.85	-3.397	-0.0041	-2.5 to 2.5	Pass
		50	3.85	-7.803	-0.0093	-2.5 to 2.5	Pass
	846.6	20	3.27	-6.273	-0.0074	-2.5 to 2.5	Pass
			3.85	-10.164	-0.0120	-2.5 to 2.5	Pass
			4.43	-8.669	-0.0102	-2.5 to 2.5	Pass
		-30	3.85	-7.782	-0.0092	-2.5 to 2.5	Pass
		-20	3.85	-3.076	-0.0036	-2.5 to 2.5	Pass
		-10	3.85	-10.729	-0.0127	-2.5 to 2.5	Pass
		0	3.85	-3.319	-0.0039	-2.5 to 2.5	Pass
		10	3.85	-9.921	-0.0117	-2.5 to 2.5	Pass
		30	3.85	-6.115	-0.0072	-2.5 to 2.5	Pass
		40	3.85	-5.107	-0.0060	-2.5 to 2.5	Pass
		50	3.85	-2.046	-0.0024	-2.5 to 2.5	Pass
HSUPA	826.4	20	3.27	-7.975	-0.0097	-2.5 to 2.5	Pass
			3.85	-5.951	-0.0072	-2.5 to 2.5	Pass
			4.43	-6.902	-0.0084	-2.5 to 2.5	Pass
		-30	3.85	-8.461	-0.0102	-2.5 to 2.5	Pass
		-20	3.85	-8.304	-0.0100	-2.5 to 2.5	Pass
		-10	3.85	-9.828	-0.0119	-2.5 to 2.5	Pass
		0	3.85	-9.677	-0.0117	-2.5 to 2.5	Pass
		10	3.85	-3.583	-0.0043	-2.5 to 2.5	Pass
		30	3.85	-6.166	-0.0075	-2.5 to 2.5	Pass
		40	3.85	-5.128	-0.0062	-2.5 to 2.5	Pass
		50	3.85	-5.515	-0.0067	-2.5 to 2.5	Pass
	836.6	20	3.27	-12.624	-0.0151	-2.5 to 2.5	Pass
			3.85	-13.683	-0.0164	-2.5 to 2.5	Pass
			4.43	-8.512	-0.0102	-2.5 to 2.5	Pass
		-30	3.85	-10.521	-0.0126	-2.5 to 2.5	Pass
		-20	3.85	-15.771	-0.0189	-2.5 to 2.5	Pass
		-10	3.85	-10.042	-0.0120	-2.5 to 2.5	Pass
		0	3.85	-8.411	-0.0101	-2.5 to 2.5	Pass
		10	3.85	-9.413	-0.0113	-2.5 to 2.5	Pass
		30	3.85	-10.815	-0.0129	-2.5 to 2.5	Pass
		40	3.85	-13.905	-0.0166	-2.5 to 2.5	Pass
		50	3.85	-10.986	-0.0131	-2.5 to 2.5	Pass
	846.6	20	3.27	-9.871	-0.0117	-2.5 to 2.5	Pass
			3.85	-11.909	-0.0141	-2.5 to 2.5	Pass
			4.43	-12.724	-0.0150	-2.5 to 2.5	Pass
		-30	3.85	-12.581	-0.0149	-2.5 to 2.5	Pass
		-20	3.85	-15.650	-0.0185	-2.5 to 2.5	Pass
		-10	3.85	-13.161	-0.0155	-2.5 to 2.5	Pass
		0	3.85	-7.124	-0.0084	-2.5 to 2.5	Pass
		10	3.85	-9.992	-0.0118	-2.5 to 2.5	Pass
		30	3.85	-6.967	-0.0082	-2.5 to 2.5	Pass
		40	3.85	-11.673	-0.0138	-2.5 to 2.5	Pass
		50	3.85	-8.991	-0.0106	-2.5 to 2.5	Pass

3. Modulation Characteristics

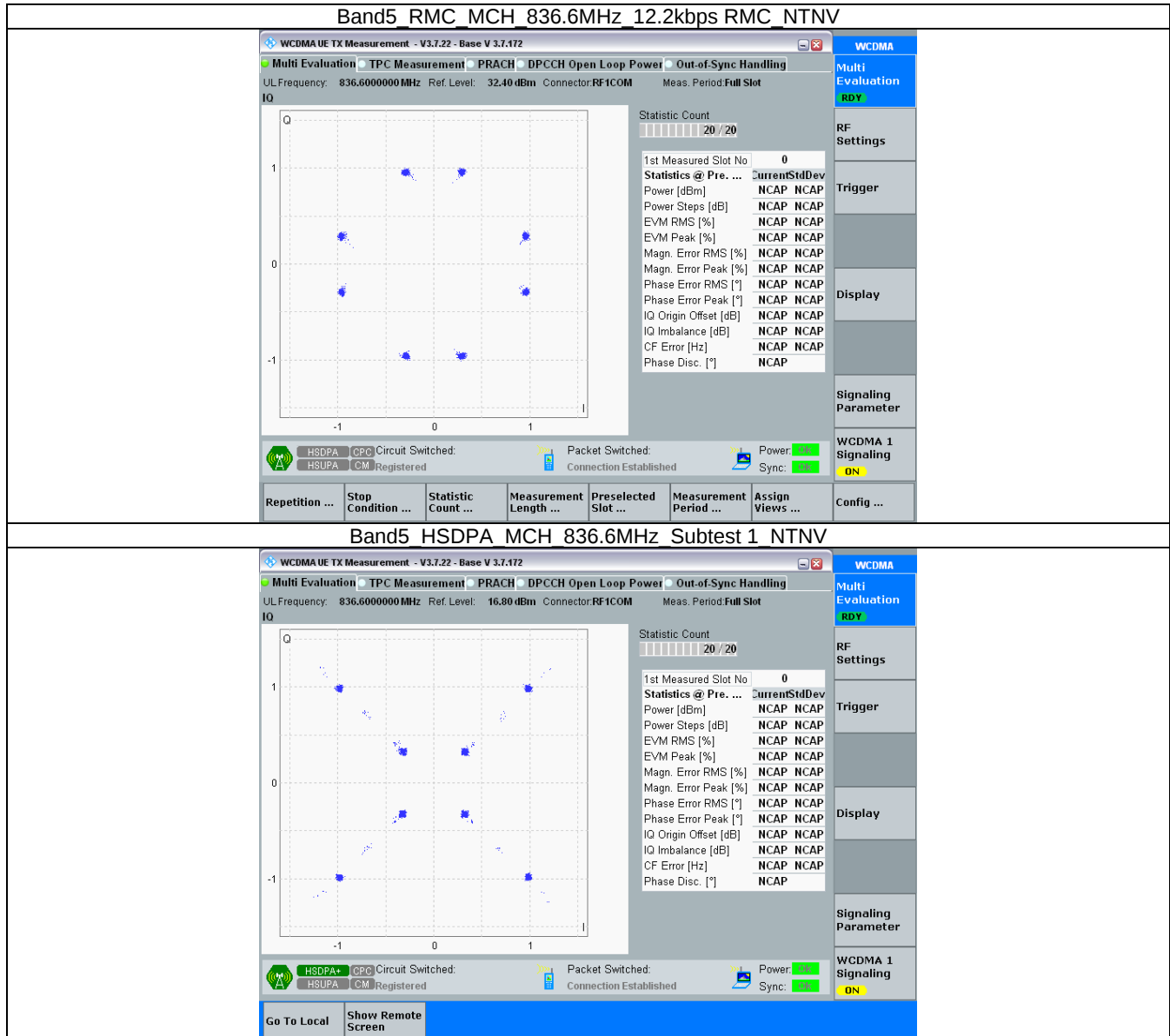
3.1 Test Result

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 - V3.7.22 - Base V 3.7.172

Multi Evaluation

TPC Measurement

PRACH

DPCCH Open Loop Power

Out-of-Sync Handling

UL Frequency: 836.6000000 MHz

Ref. Level: 35.10 dBm

Connector RF1COM

Meas. Period: Full Slot

TX Measurement

1st Measured Slot No 0

Statistic Count 20 / 20

Statistics @ Pre. Slot 0	Current	Average	Maximum	StdDev.
Power [dBm]	10.33	10.76	11.42	0.48
Power Steps [dB]	NCAP	NCAP	NCAP	NCAP
EVM RMS [%]	NCAP	NCAP	NCAP	NCAP
EVM Peak [%]	NCAP	NCAP	NCAP	NCAP
Magnitude Error RMS [%]	NCAP	NCAP	NCAP	NCAP
Magnitude Error Peak [%]	NCAP	NCAP	NCAP	NCAP
Phase Error RMS [°]	NCAP	NCAP	NCAP	NCAP
Phase Error Peak [°]	NCAP	NCAP	NCAP	NCAP
IQ Origin Offset [dB]	NCAP	NCAP	NCAP	NCAP
IQ Imbalance [dB]	NCAP	NCAP	NCAP	NCAP
CF Error [Hz]	NCAP	NCAP	NCAP	NCAP
Trans. Time Error [Chip]	NCAP	NCAP	NCAP	NCAP
Phase Disc. [°]	NCAP	NCAP	NCAP	NCAP
OBW [MHz]	NCAP	NCAP	NCAP	NCAP

HSDPA+ CPO

HSUPA CM

Circuit Switched:

Registered

Packet Switched:

Connection Established

Power: ON

Sync: ON

Go To Local

Show Remote Screen

WCDMA

Multi Evaluation

RDY

RF Settings

Trigger

Display

Signaling Parameter

WCDMA 1 Signaling

ON

4. 99% & 26dB Bandwidth

4.1 Test Result

4.1.1 Band5_OBW

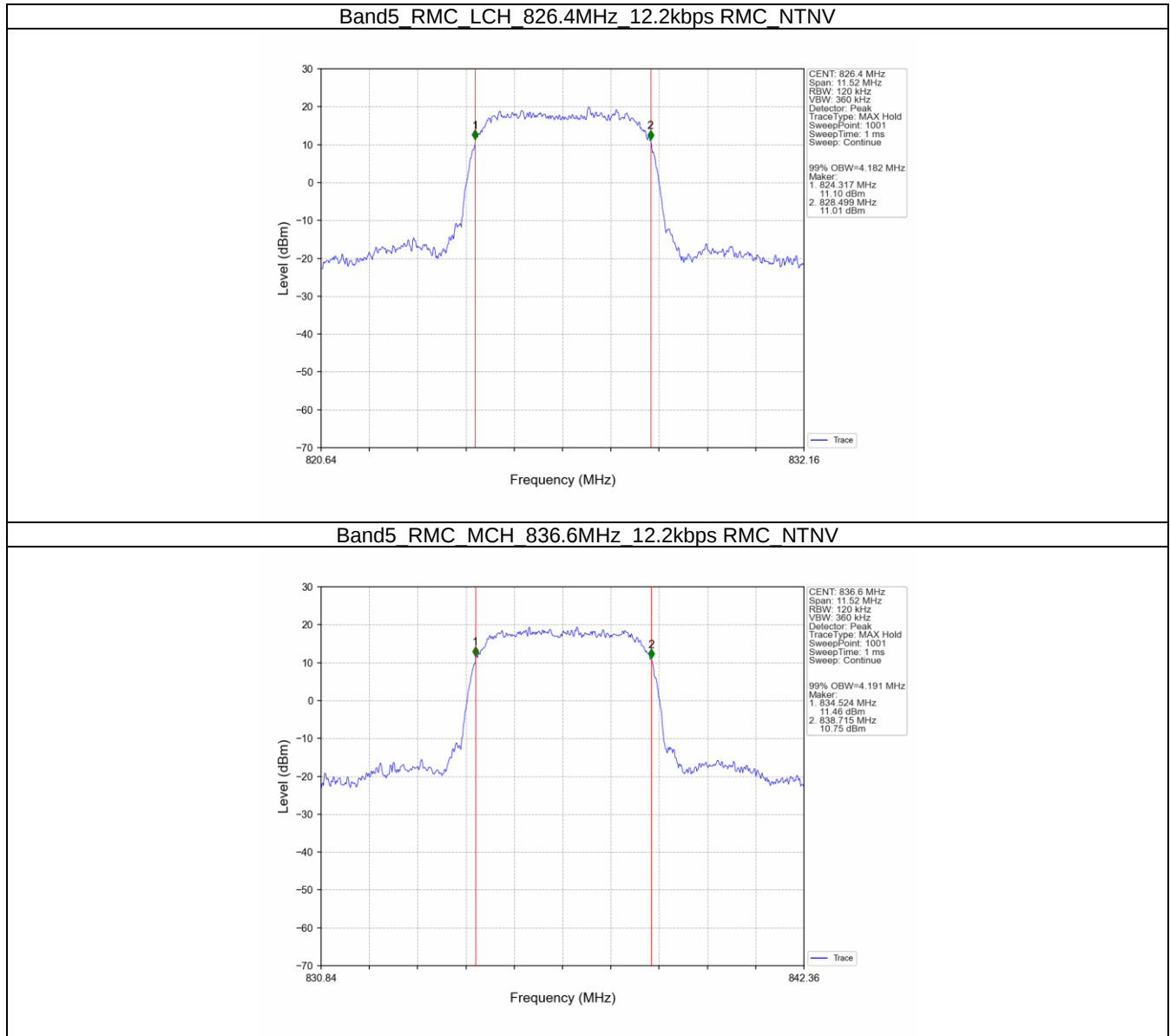
Band: 5						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	4.182	/	Pass
			836.6	4.191	/	Pass
			846.6	4.184	/	Pass
	HSDPA	Subtest 1	826.4	4.241	/	Pass
			836.6	4.223	/	Pass
			846.6	4.226	/	Pass
	HSUPA	Subtest 1	826.4	4.246	/	Pass
			836.6	4.236	/	Pass
			846.6	4.236	/	Pass

4.1.2 Band5_XDB

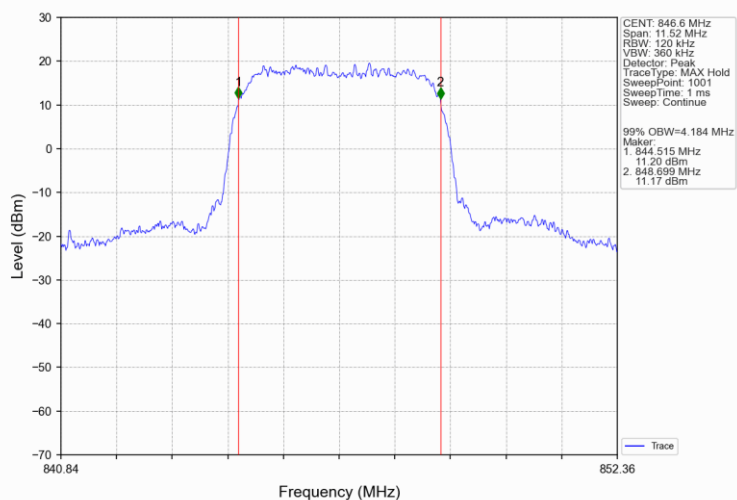
Band: 5						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	4.744	/	Pass
			836.6	4.748	/	Pass
			846.6	4.752	/	Pass
	HSDPA	Subtest 1	826.4	5.772	/	Pass
			836.6	5.493	/	Pass
			846.6	5.919	/	Pass
	HSUPA	Subtest 1	826.4	6.065	/	Pass
			836.6	5.607	/	Pass
			846.6	5.002	/	Pass

4.2 Test Graph

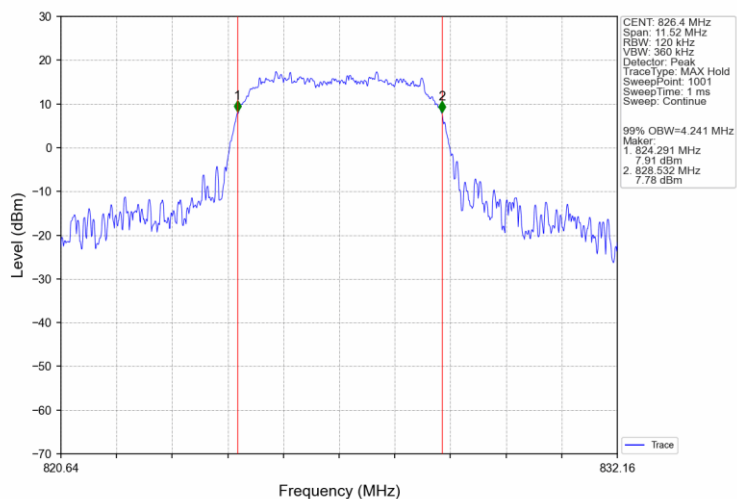
4.2.1 Band5_OBW



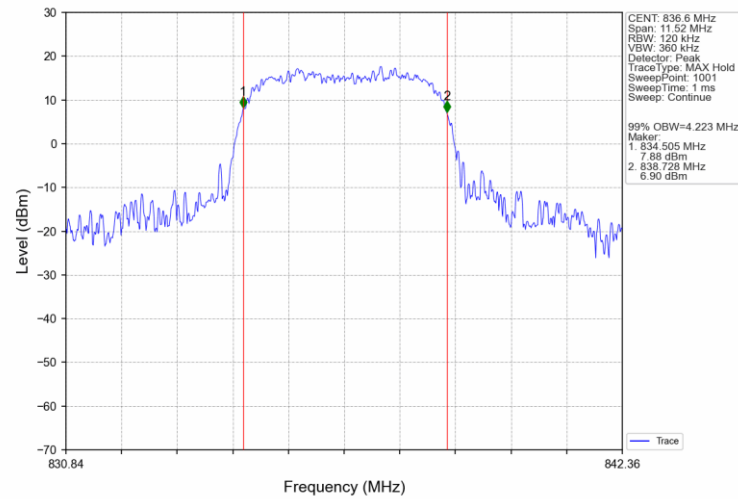
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



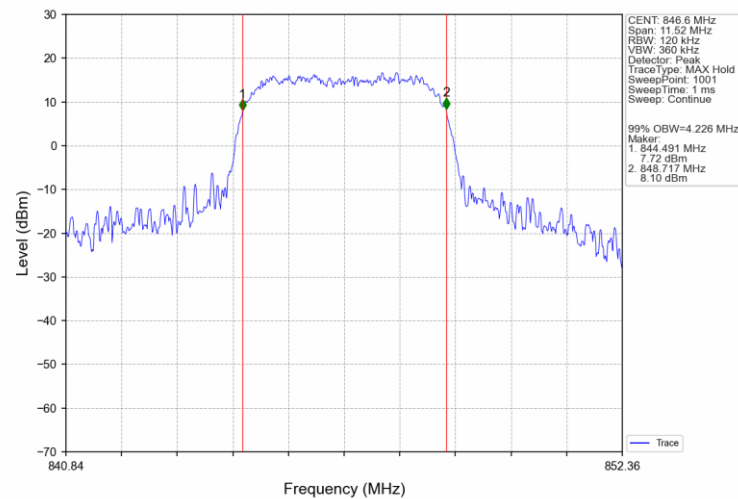
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



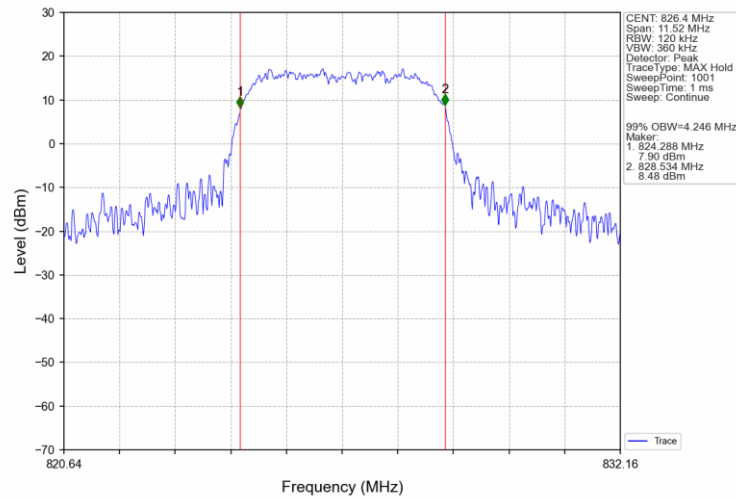
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



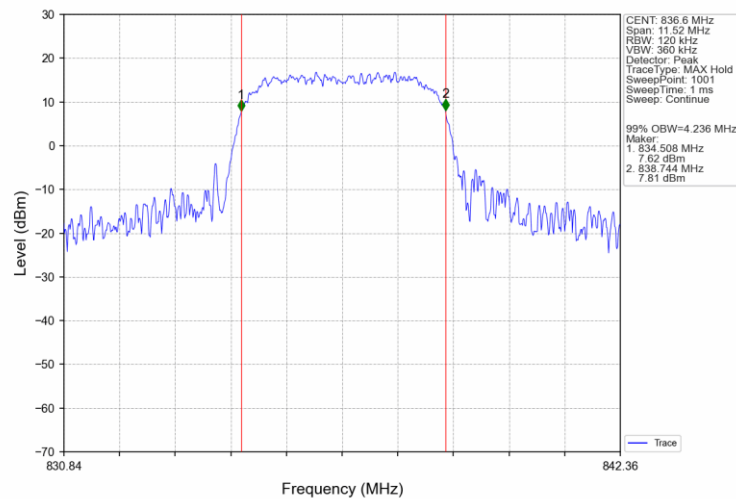
Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



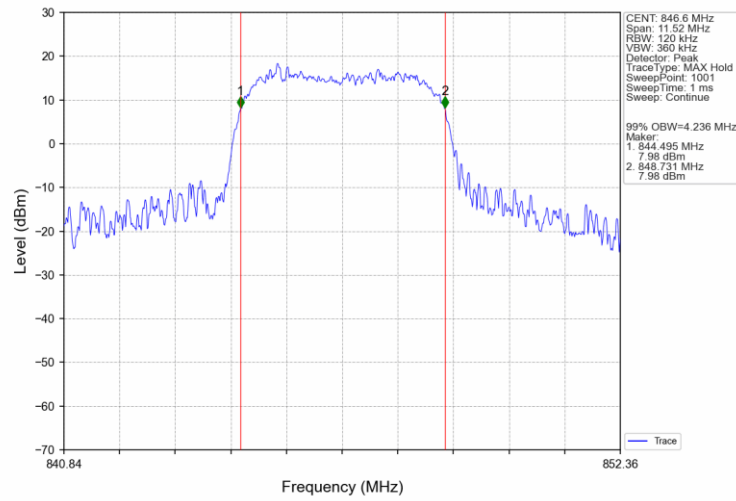
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Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV

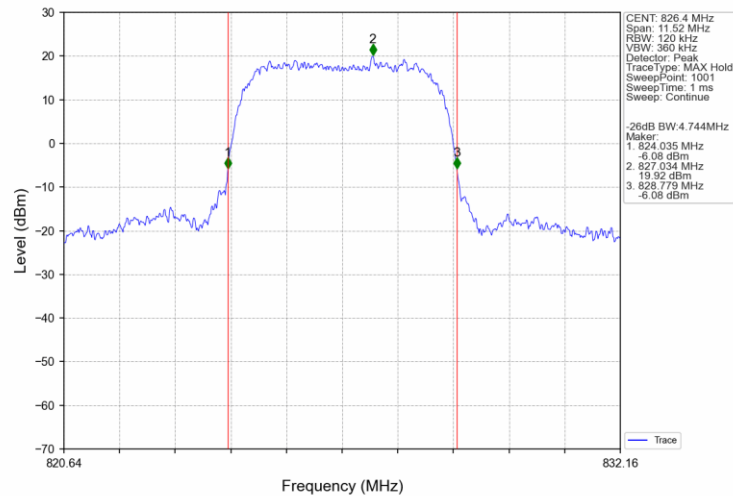


Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV

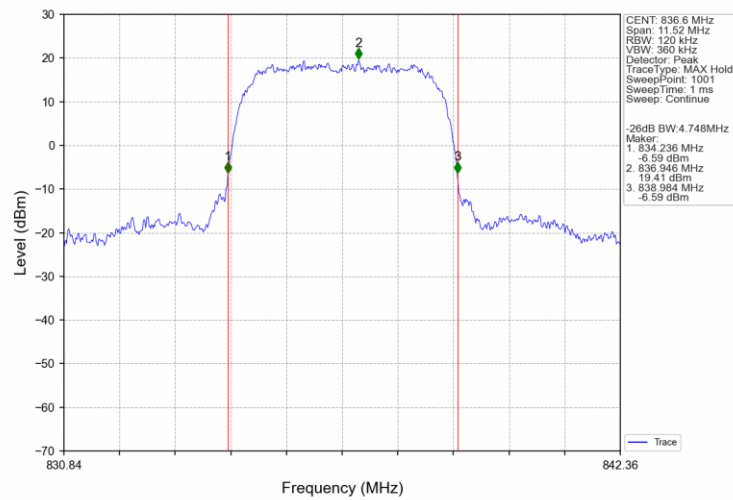


4.2.2 Band5_XDB

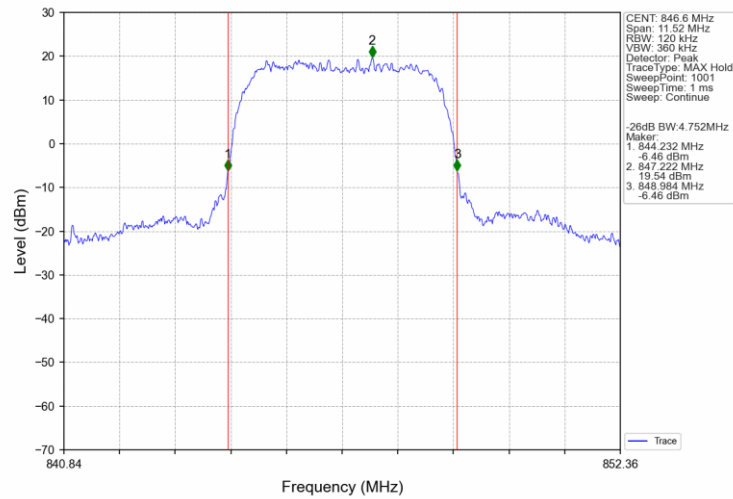
Band5_RMC_LCH_826.4MHz_12.2kbps RMC_NTNV



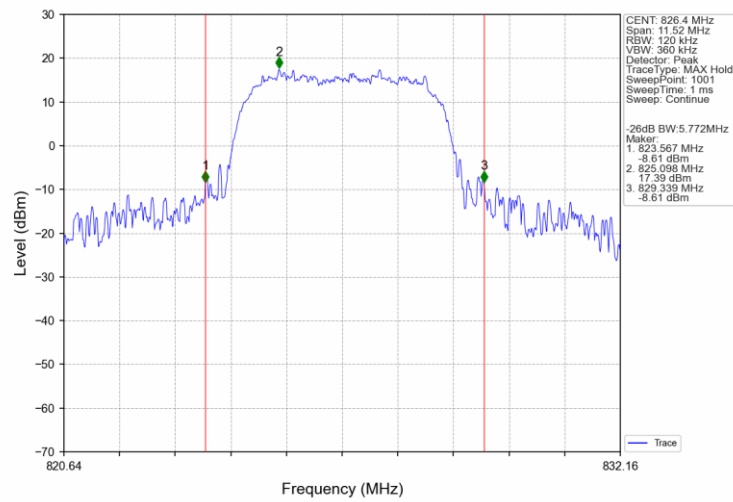
Band5_RMC_MCH_836.6MHz_12.2kbps RMC_NTNV



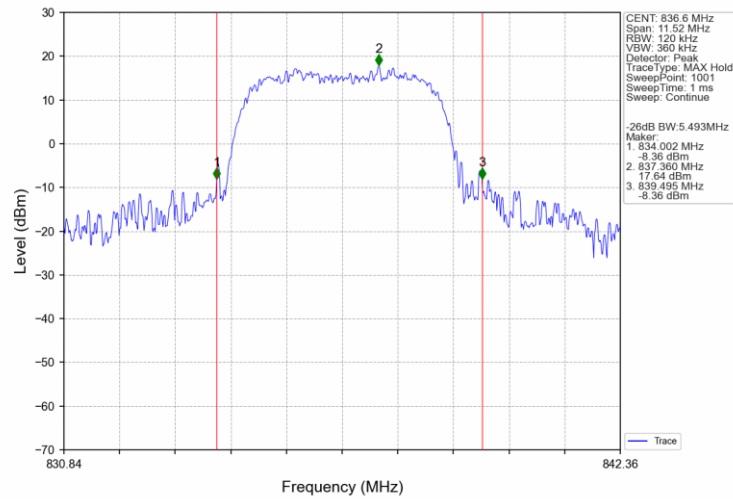
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



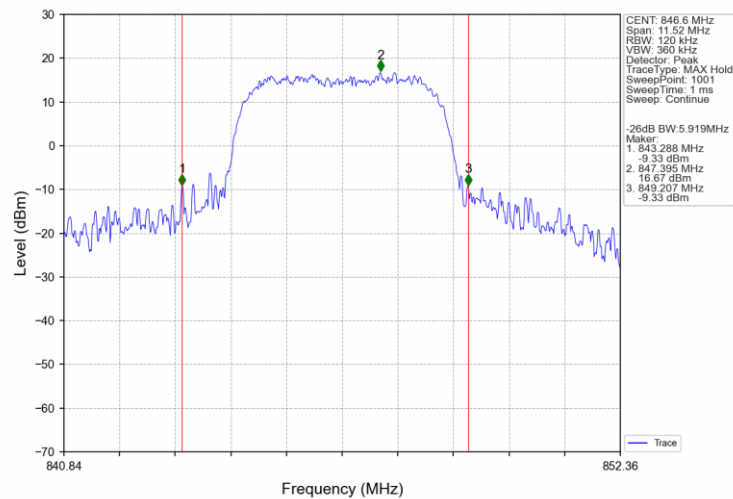
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



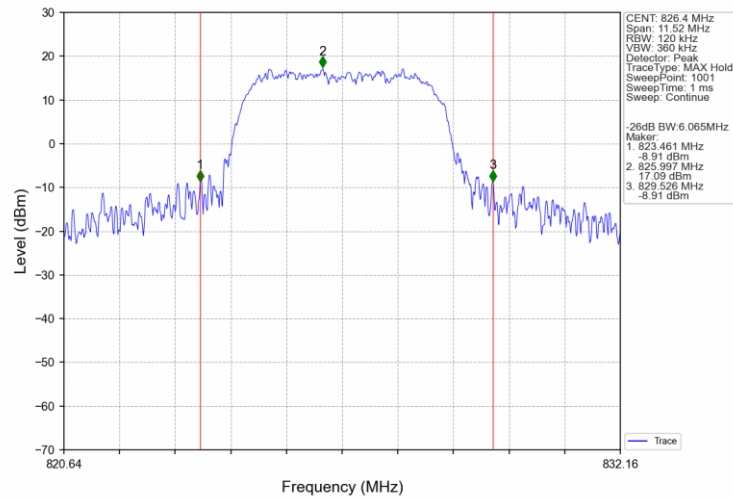
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



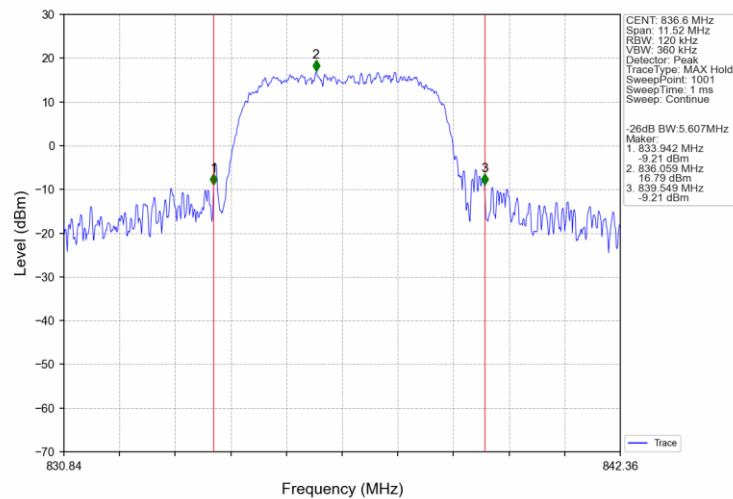
Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



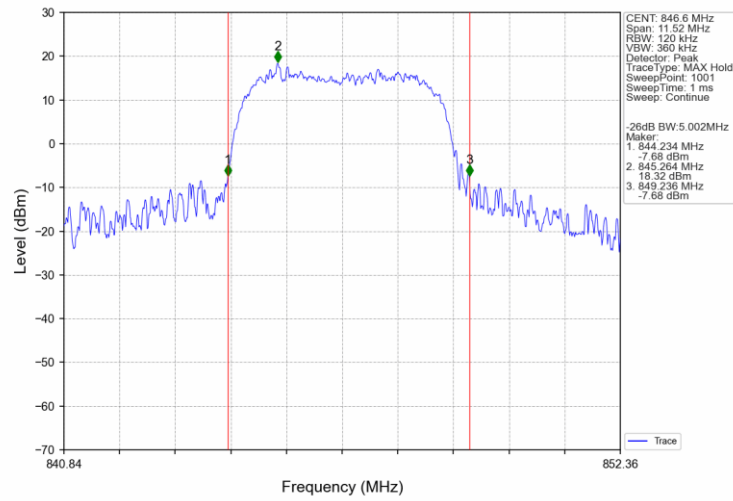
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV



Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



5. Peak-Average Ratio

5.1 Test Result

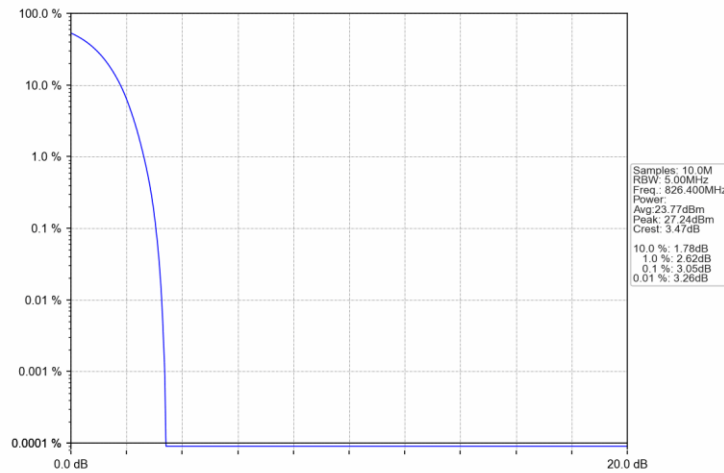
5.1.1 Band5

Band: 5						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	3.05	≤ 13	Pass
			836.6	3.07	≤ 13	Pass
			846.6	2.97	≤ 13	Pass
	HSDPA	Subtest 1	826.4	6.15	≤ 13	Pass
			836.6	6.05	≤ 13	Pass
			846.6	6.12	≤ 13	Pass
	HSUPA	Subtest 1	826.4	7.03	≤ 13	Pass
			836.6	7.04	≤ 13	Pass
			846.6	6.91	≤ 13	Pass

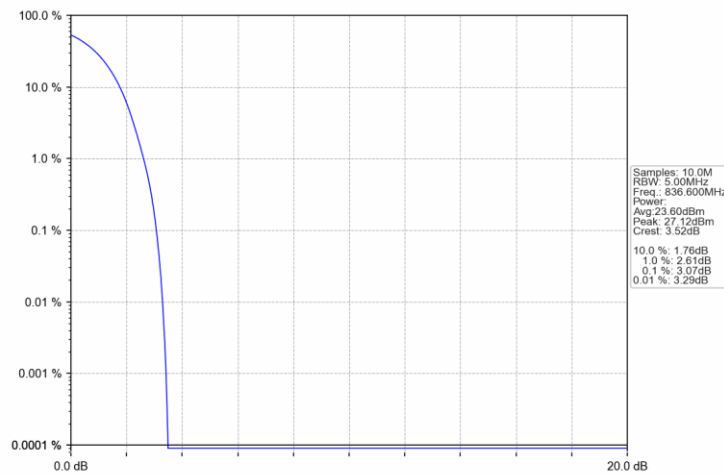
5.2 Test Graph

5.2.1 Band5

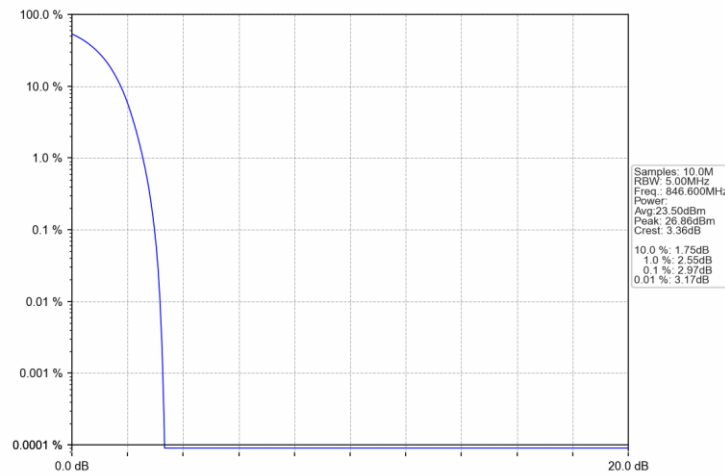
Band5_RMC_LCH_826.4MHz_12.2kbps RMC NTNv



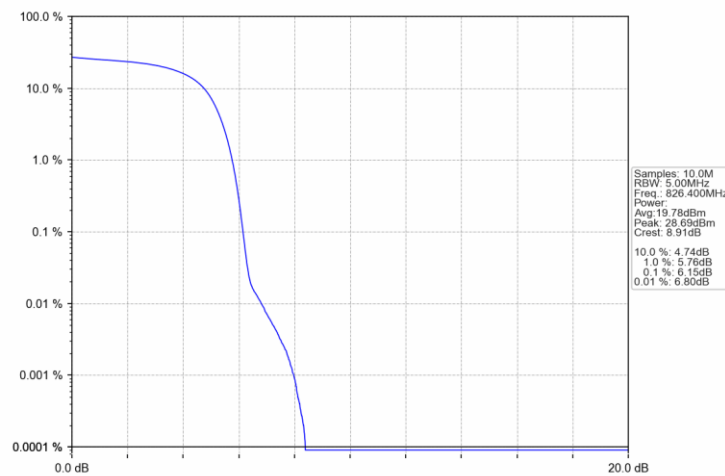
Band5_RMC_MCH_836.6MHz_12.2kbps RMC NTNv



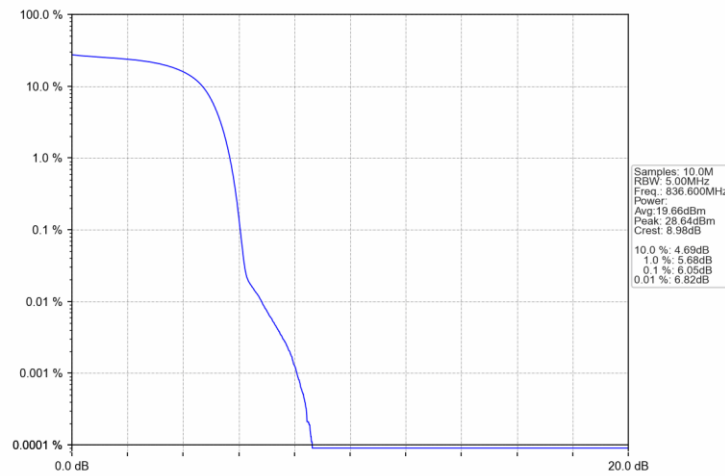
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



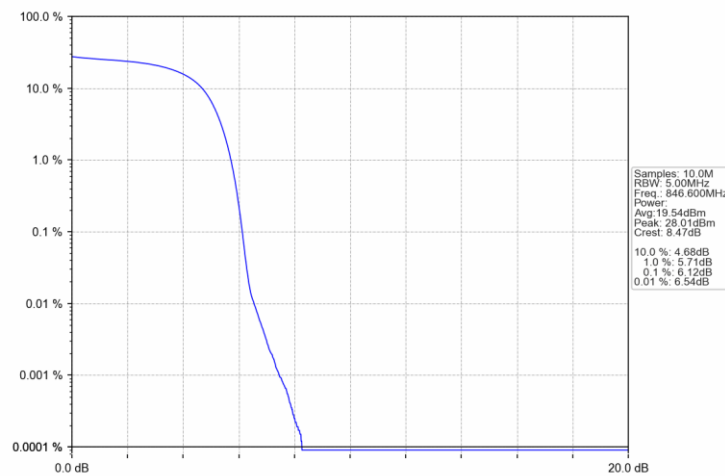
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



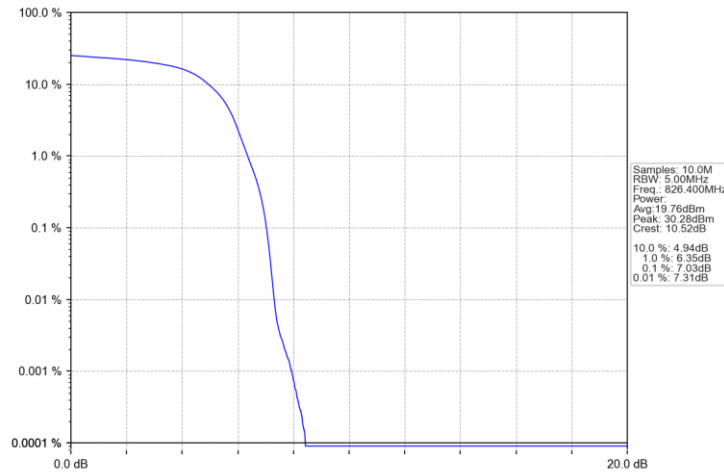
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



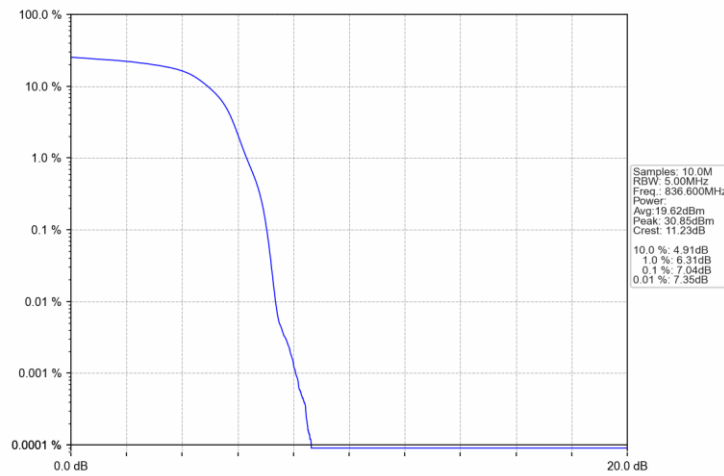
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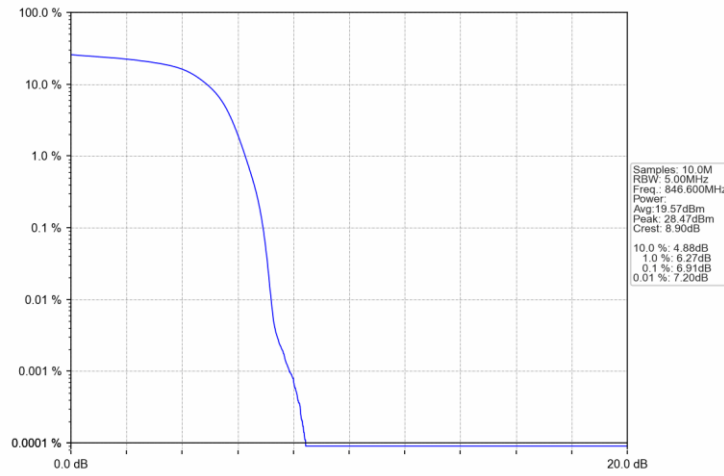
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Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



6. Spurious Emission

6.1 Test Result

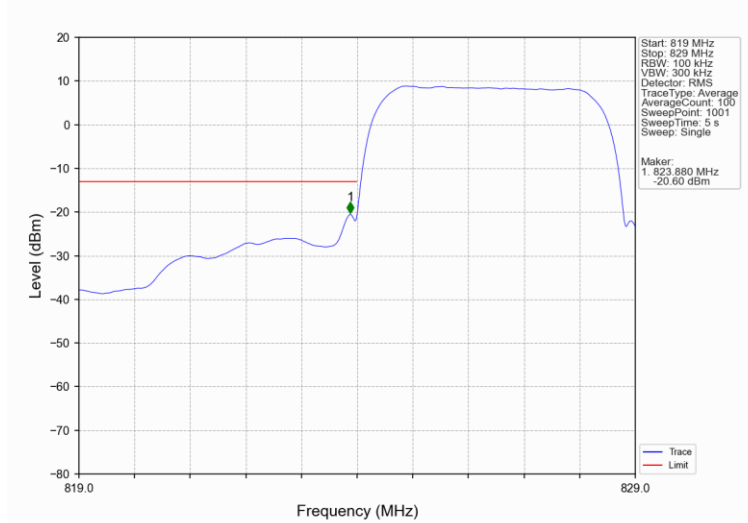
6.1.1 Band5

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	

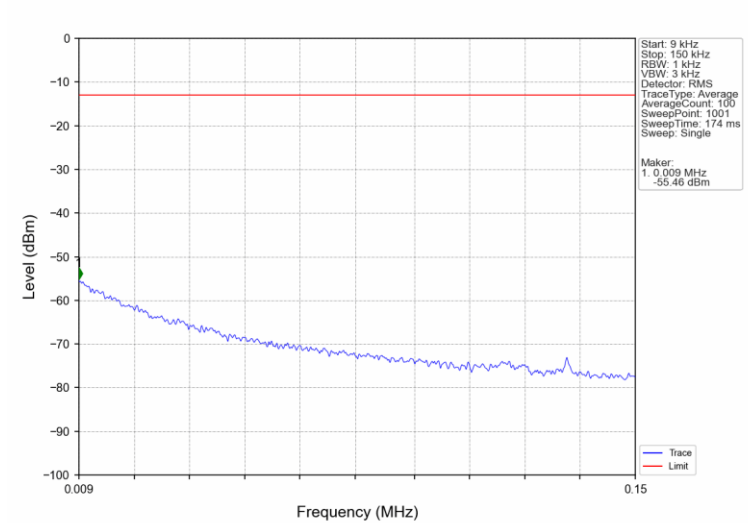
6.2 Test Graph

6.2.1 Band5

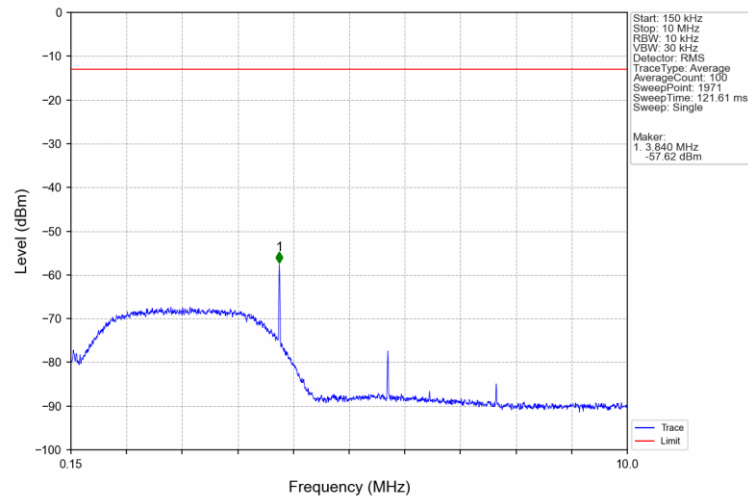
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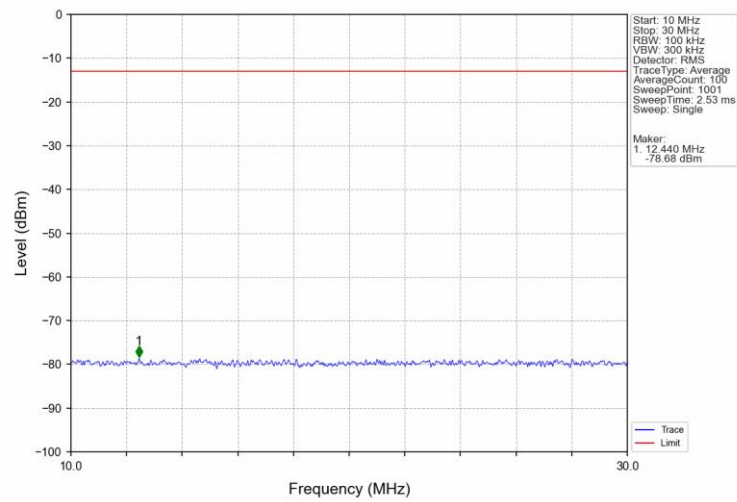
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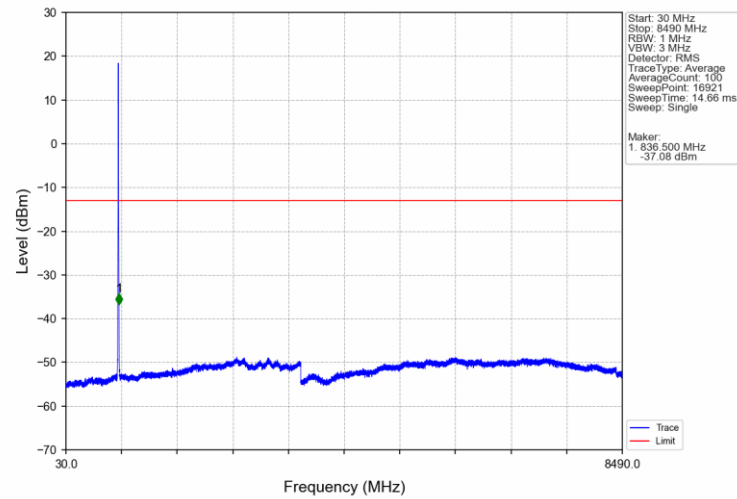
Band5_RMC_LCH_826.4MHz_12.2kbps RMC_NTNV



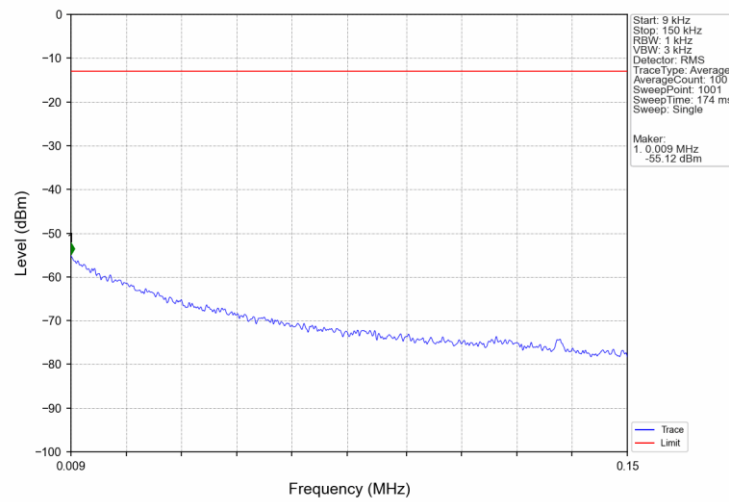
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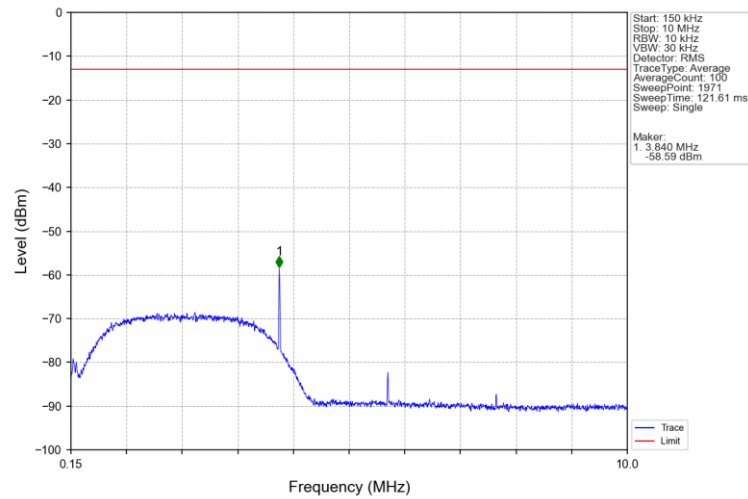
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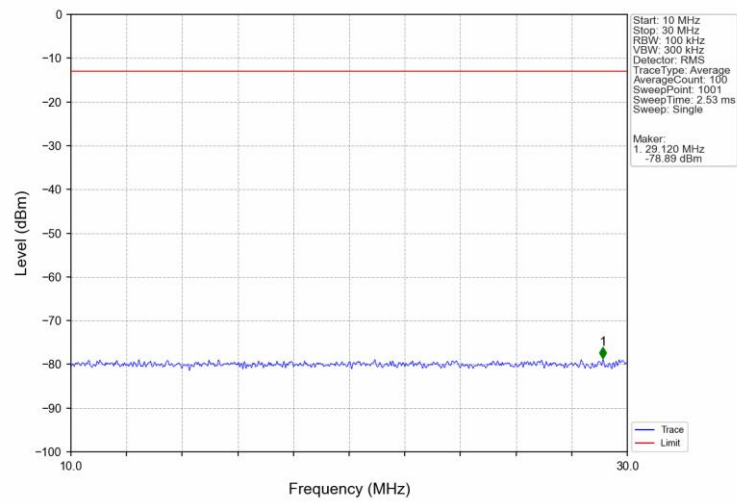
Band5_RMC_MCH_836.6MHz_12.2kbps RMC_NTNV



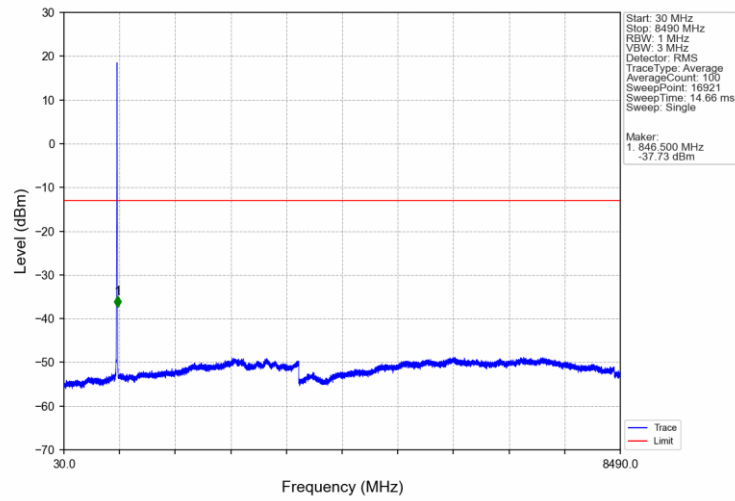
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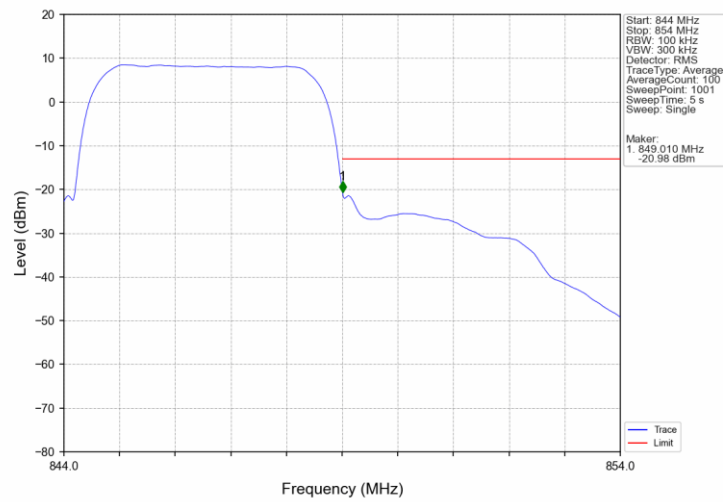
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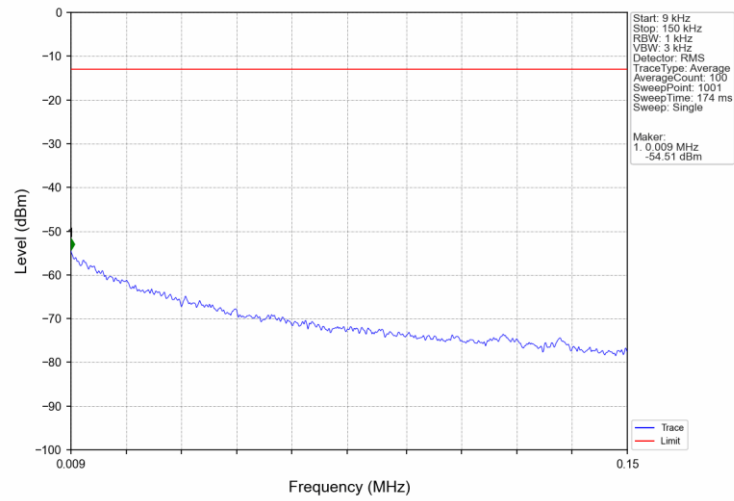
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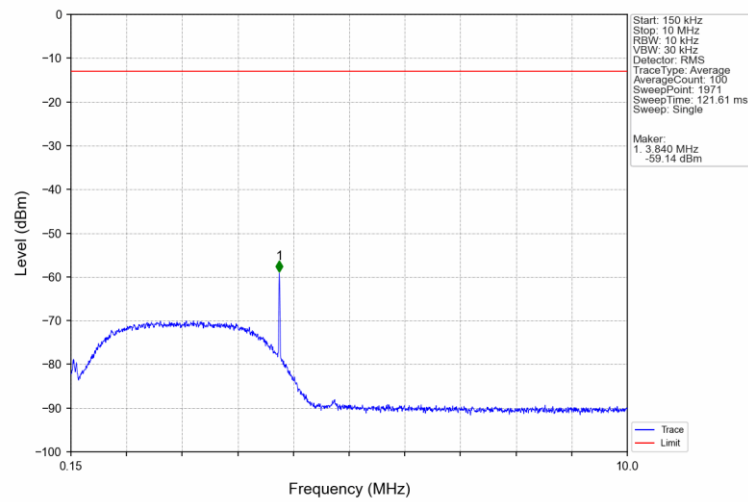
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



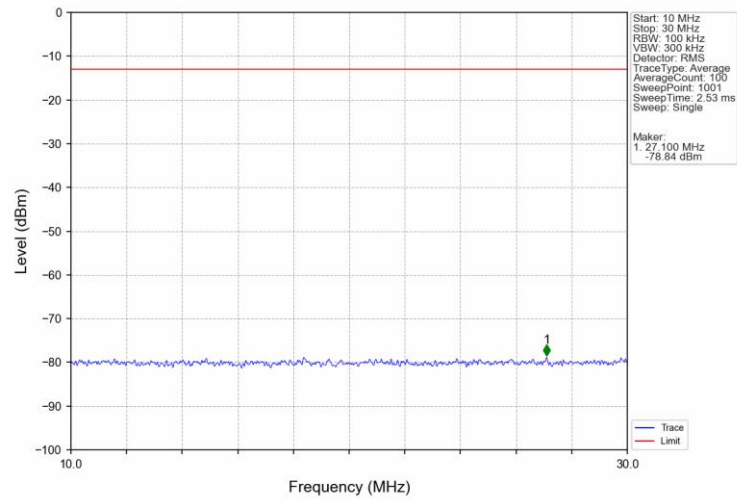
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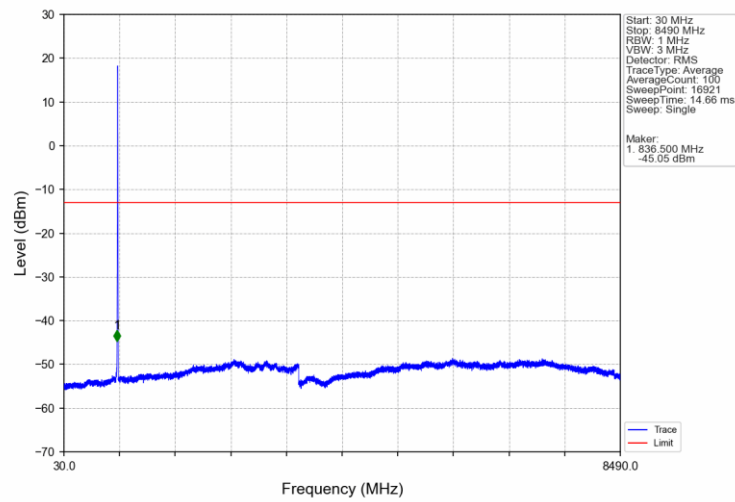
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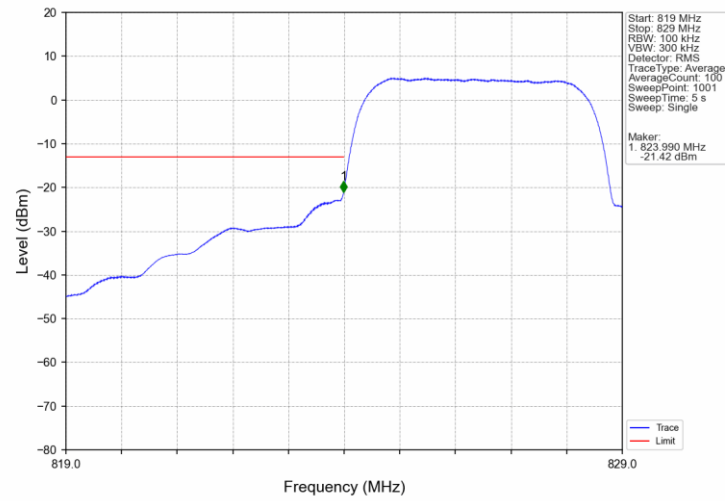
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



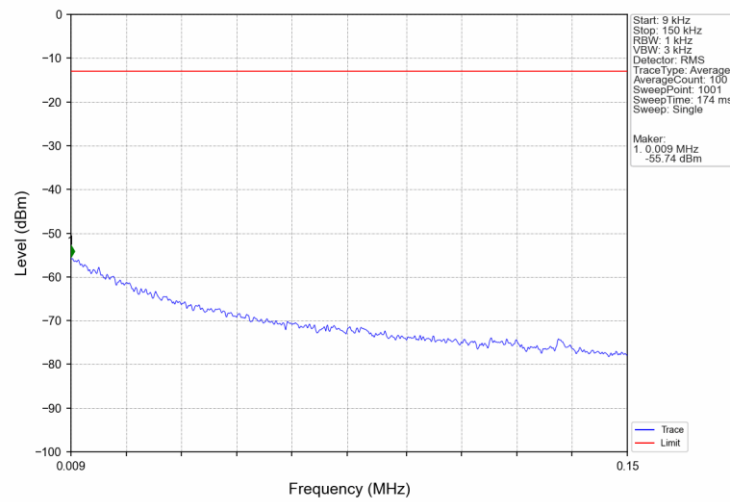
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



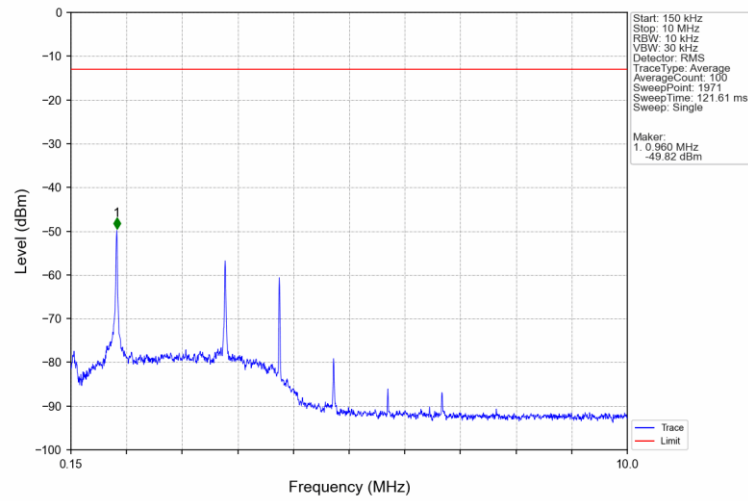
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



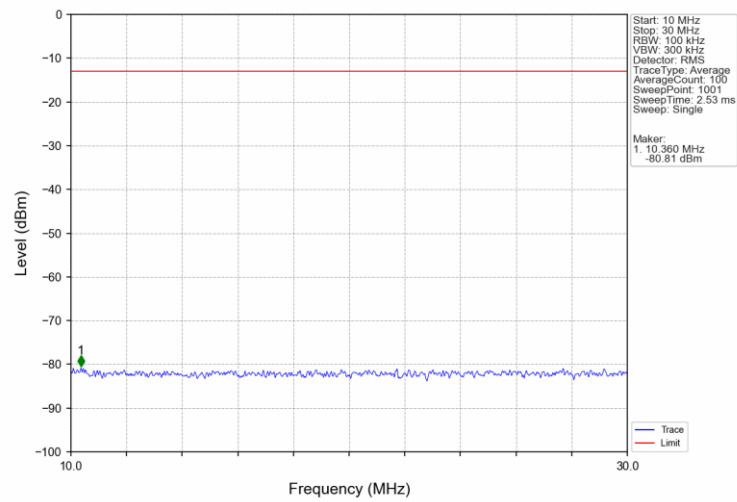
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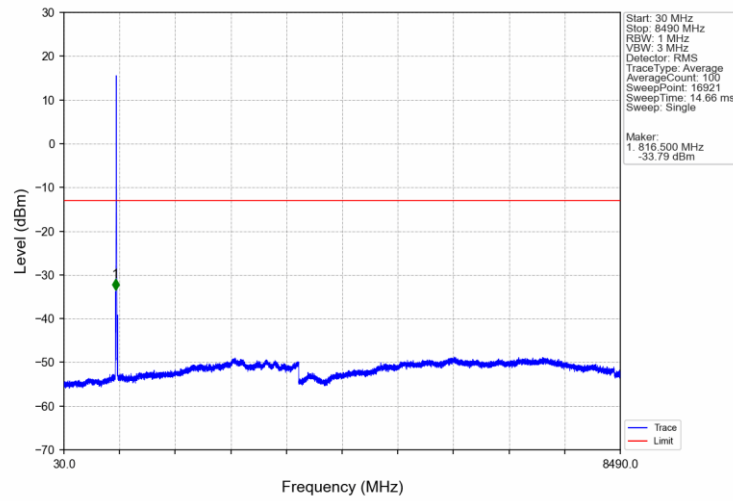
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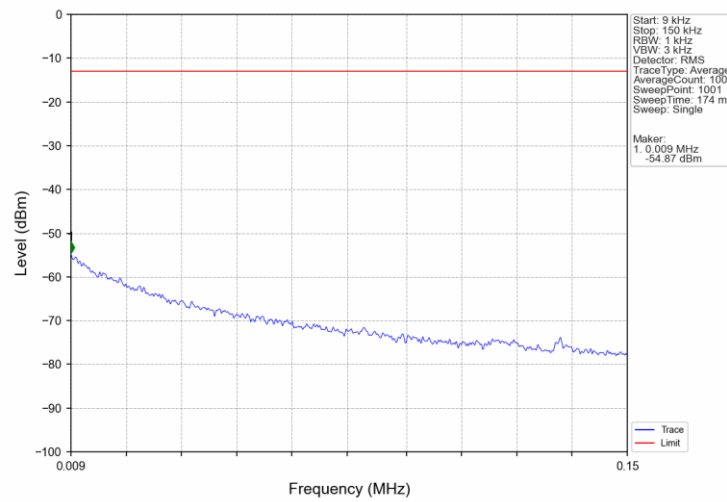
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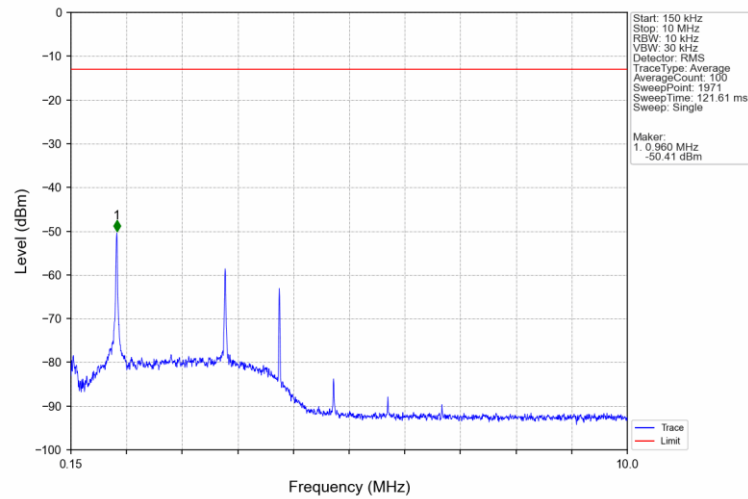
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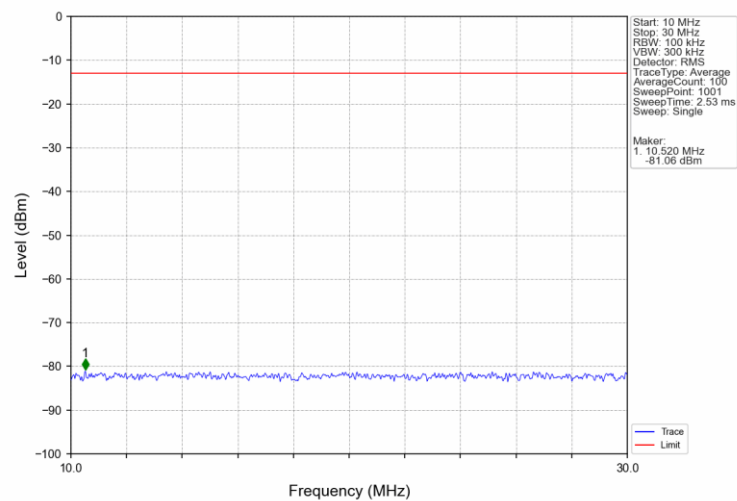
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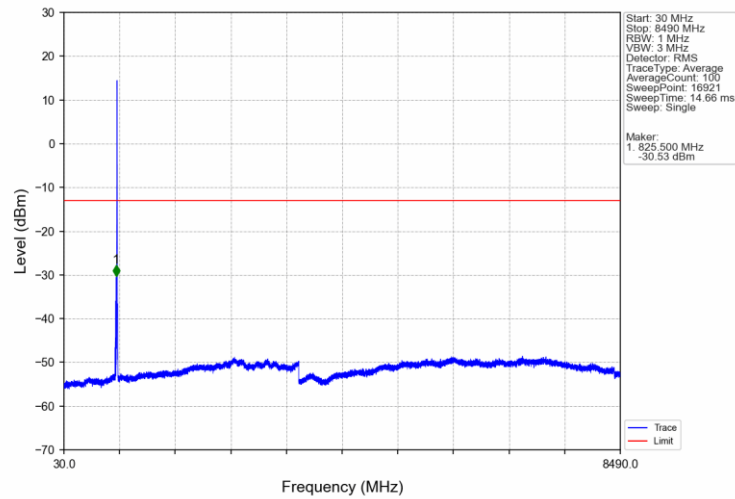
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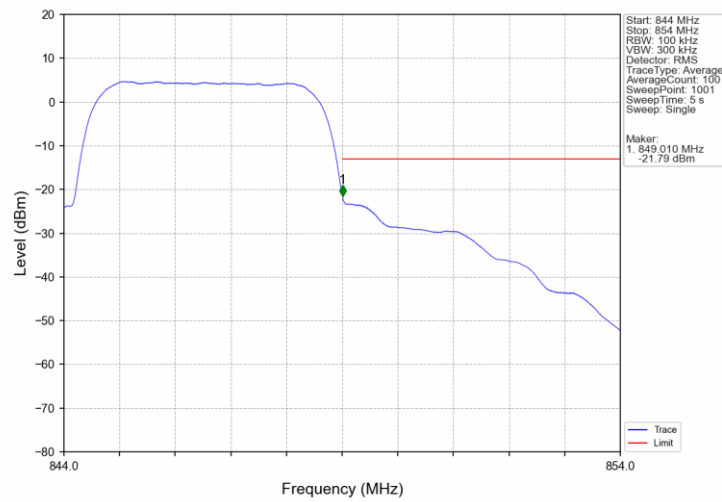
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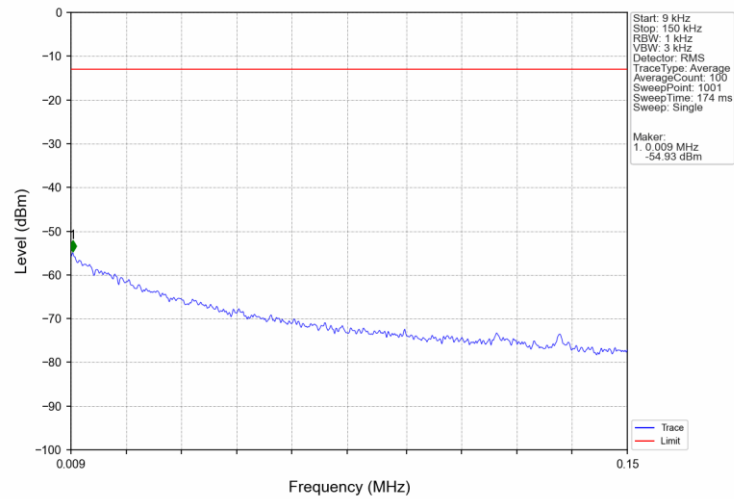
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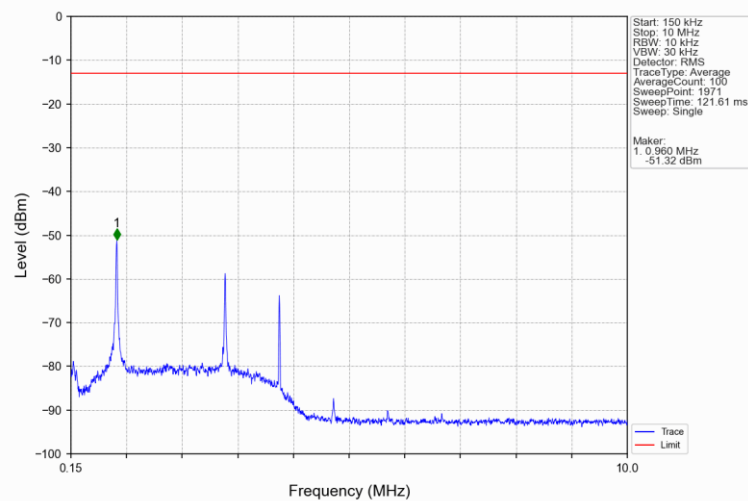
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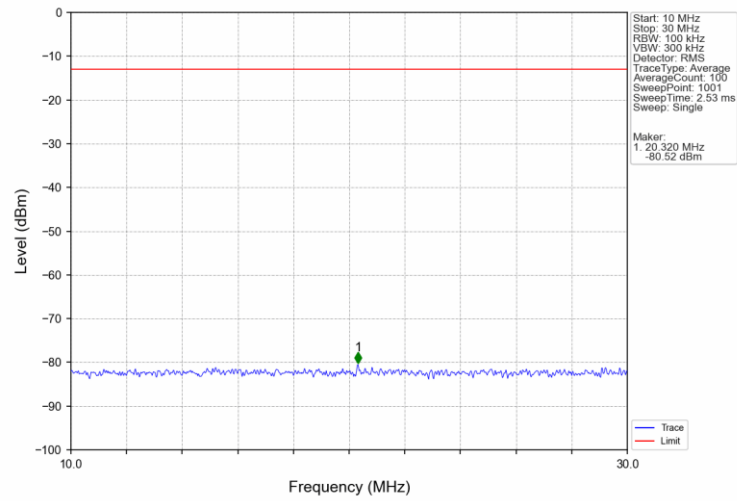
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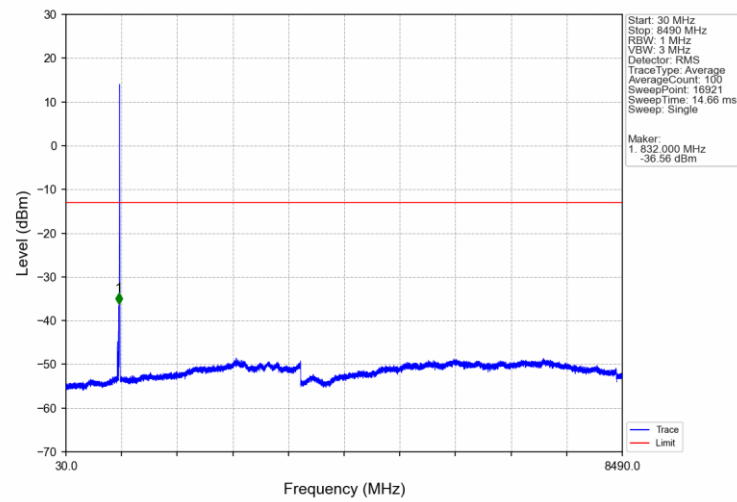
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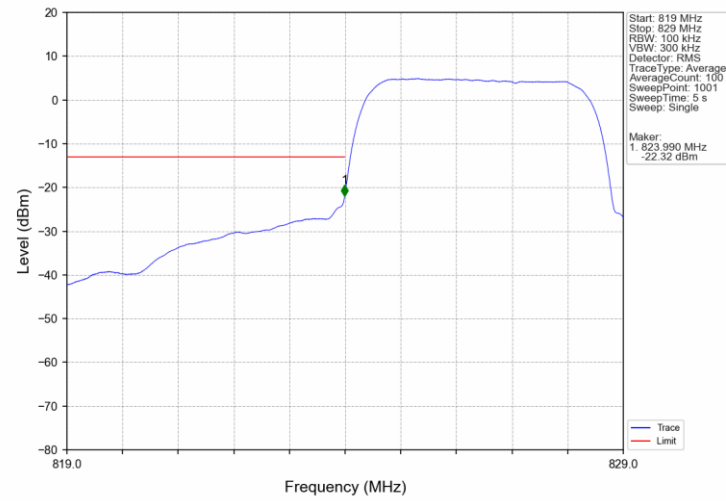
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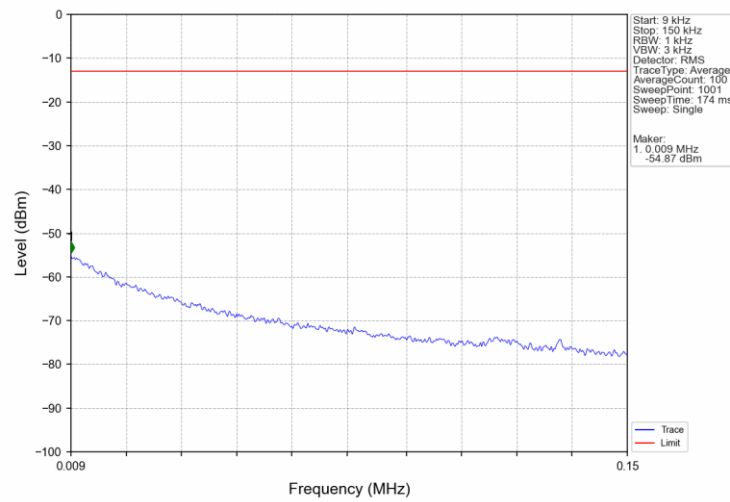
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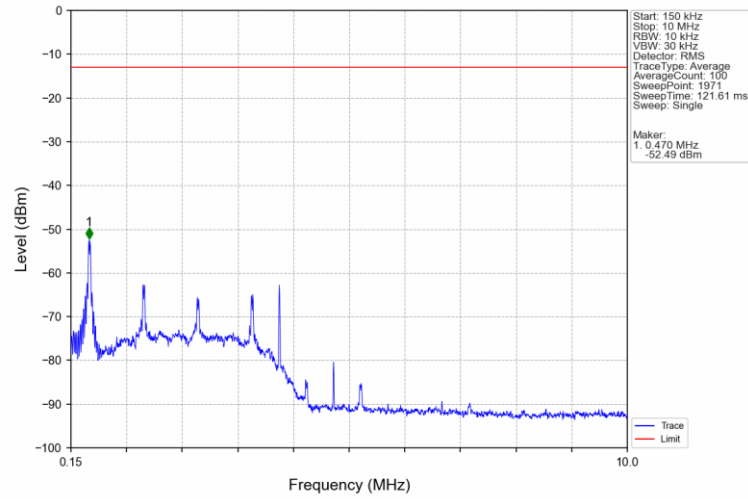
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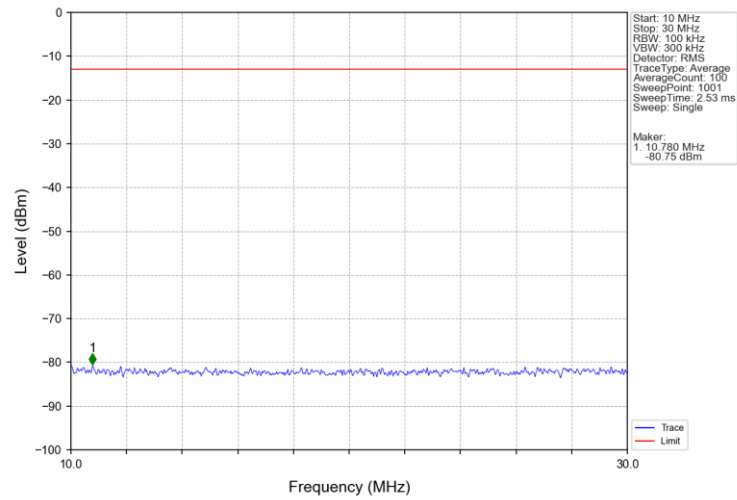
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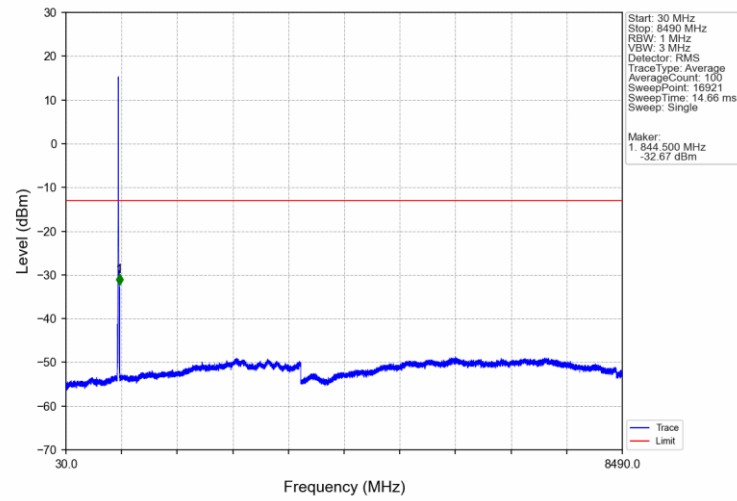
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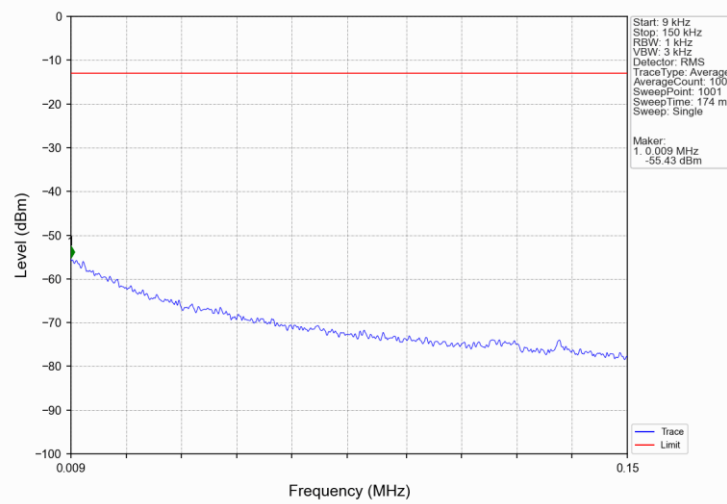
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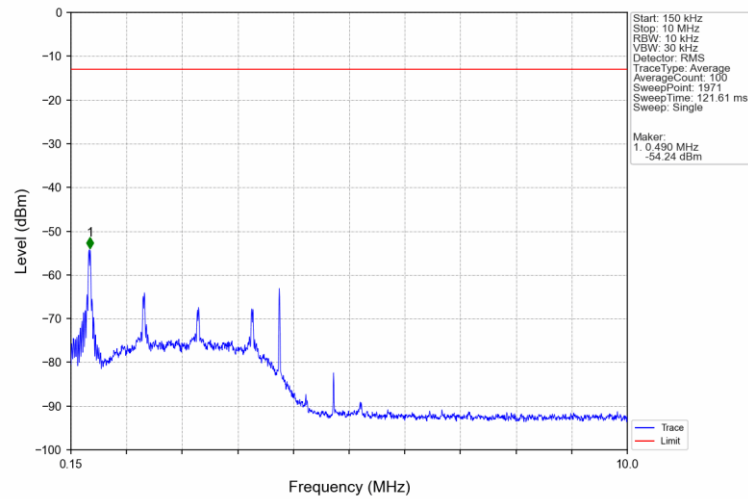
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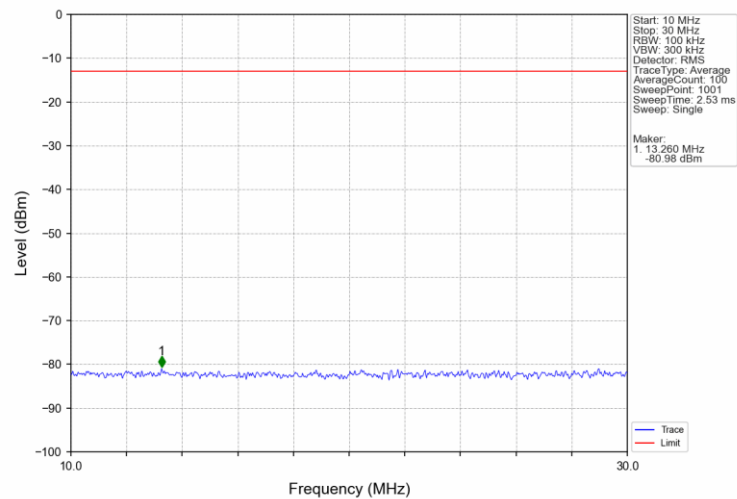
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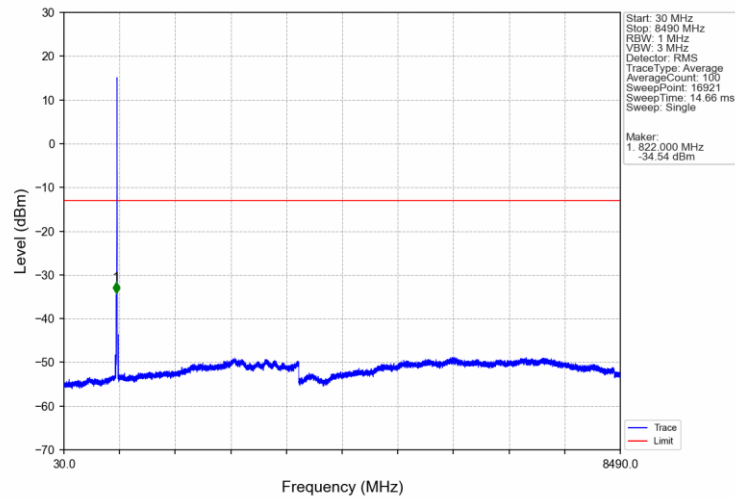
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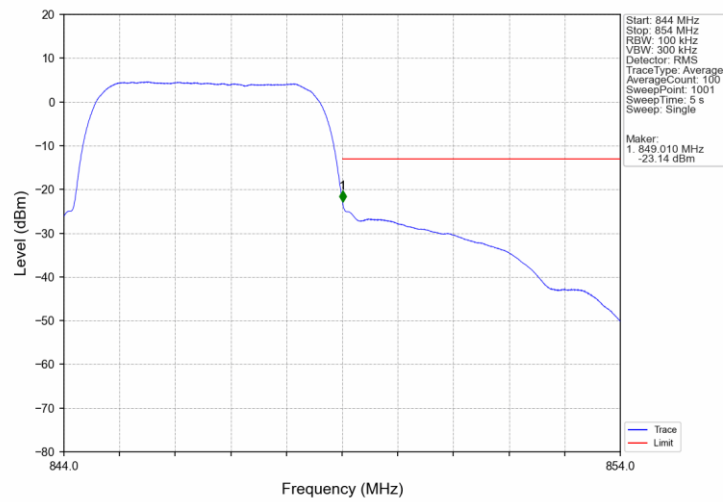
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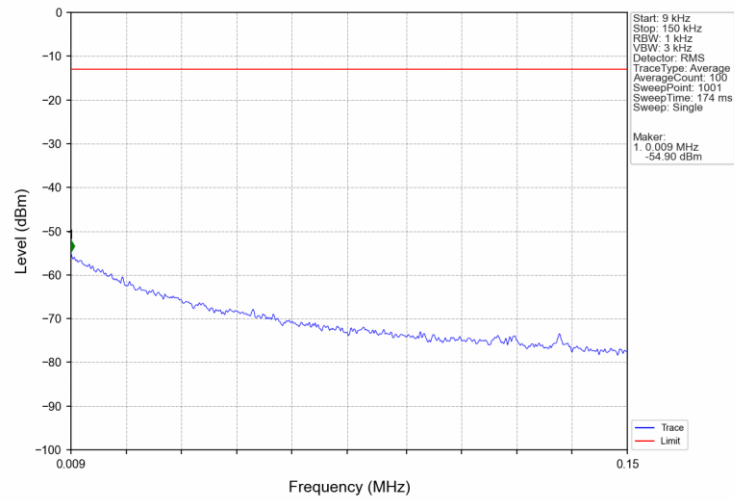
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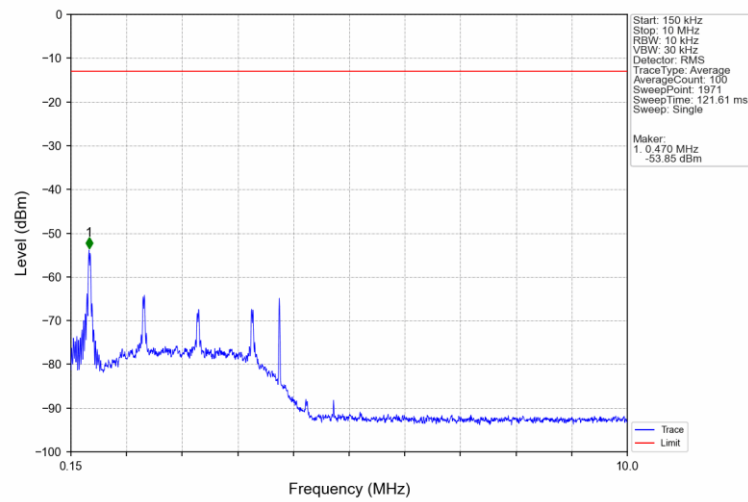
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Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV

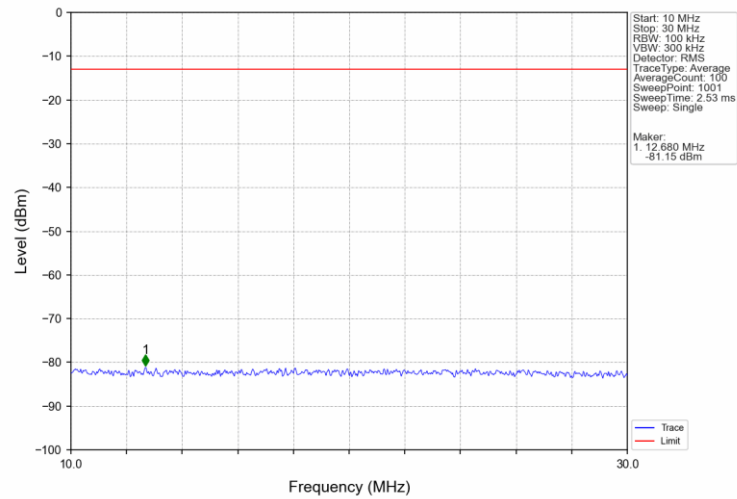


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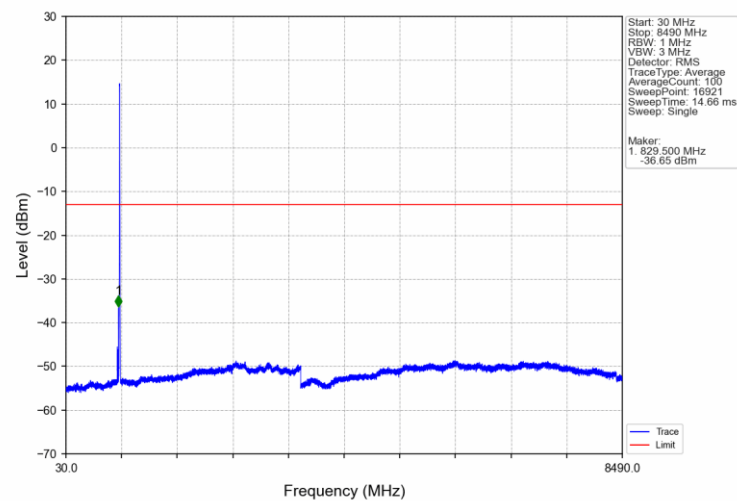




Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



***** End of Report *****