

Appendix-WCDMA Band V

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	Subtest				Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	20.66	-1.74	16.77	<=38.45	Pass
			836.6	20.53	-1.74	16.64	<=38.45	Pass
			846.6	20.62	-1.74	16.73	<=38.45	Pass
	HSDPA	Subtest 1	826.4	18.32	-1.74	14.43	<=38.45	Pass
		Subtest 2	826.4	18.34	-1.74	14.45	<=38.45	Pass
		Subtest 3	826.4	18.32	-1.74	14.43	<=38.45	Pass
		Subtest 4	826.4	18.33	-1.74	14.44	<=38.45	Pass
		Subtest 1	836.6	18.23	-1.74	14.34	<=38.45	Pass
		Subtest 2	836.6	18.24	-1.74	14.35	<=38.45	Pass
		Subtest 3	836.6	18.22	-1.74	14.33	<=38.45	Pass
		Subtest 4	836.6	18.19	-1.74	14.30	<=38.45	Pass
		Subtest 1	846.6	18.34	-1.74	14.45	<=38.45	Pass
		Subtest 2	846.6	18.35	-1.74	14.46	<=38.45	Pass
		Subtest 3	846.6	18.35	-1.74	14.46	<=38.45	Pass
		Subtest 4	846.6	18.34	-1.74	14.45	<=38.45	Pass
	HSUPA	Subtest 1	826.4	16.09	-1.74	12.20	<=38.45	Pass
		Subtest 2	826.4	15.73	-1.74	11.84	<=38.45	Pass
		Subtest 3	826.4	16.32	-1.74	12.43	<=38.45	Pass
		Subtest 4	826.4	15.80	-1.74	11.91	<=38.45	Pass
		Subtest 5	826.4	17.00	-1.74	13.11	<=38.45	Pass
		Subtest 1	836.6	16.14	-1.74	12.25	<=38.45	Pass
		Subtest 2	836.6	15.61	-1.74	11.72	<=38.45	Pass
		Subtest 3	836.6	15.67	-1.74	11.78	<=38.45	Pass
		Subtest 4	836.6	16.13	-1.74	12.24	<=38.45	Pass
		Subtest 5	836.6	16.60	-1.74	12.71	<=38.45	Pass
		Subtest 1	846.6	15.76	-1.74	11.87	<=38.45	Pass
		Subtest 2	846.6	15.99	-1.74	12.10	<=38.45	Pass
		Subtest 3	846.6	16.22	-1.74	12.33	<=38.45	Pass
		Subtest 4	846.6	15.69	-1.74	11.80	<=38.45	Pass
		Subtest 5	846.6	16.90	-1.74	13.01	<=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	-6.688	-0.0081	-2.5 to 2.5	Pass
			3.85	-6.881	-0.0083	-2.5 to 2.5	Pass
			4.43	-10.364	-0.0125	-2.5 to 2.5	Pass
		-30	3.85	-7.803	-0.0094	-2.5 to 2.5	Pass

		-20	3.85	-11.616	-0.0141	-2.5 to 2.5	Pass
		-10	3.85	-13.425	-0.0162	-2.5 to 2.5	Pass
		0	3.85	-12.624	-0.0153	-2.5 to 2.5	Pass
		10	3.85	-8.147	-0.0099	-2.5 to 2.5	Pass
		30	3.85	-11.694	-0.0142	-2.5 to 2.5	Pass
		40	3.85	-14.827	-0.0179	-2.5 to 2.5	Pass
		50	3.85	-11.945	-0.0145	-2.5 to 2.5	Pass
	836.6	20	3.27	-11.215	-0.0134	-2.5 to 2.5	Pass
			3.85	-9.162	-0.0110	-2.5 to 2.5	Pass
			4.43	-11.759	-0.0141	-2.5 to 2.5	Pass
		-30	3.85	-13.003	-0.0155	-2.5 to 2.5	Pass
		-20	3.85	-8.562	-0.0102	-2.5 to 2.5	Pass
		-10	3.85	-8.576	-0.0103	-2.5 to 2.5	Pass
		0	3.85	-13.139	-0.0157	-2.5 to 2.5	Pass
		10	3.85	-4.363	-0.0052	-2.5 to 2.5	Pass
		30	3.85	-10.357	-0.0124	-2.5 to 2.5	Pass
		40	3.85	-12.925	-0.0154	-2.5 to 2.5	Pass
		50	3.85	-8.175	-0.0098	-2.5 to 2.5	Pass
	846.6	20	3.27	-12.703	-0.0150	-2.5 to 2.5	Pass
			3.85	-12.345	-0.0146	-2.5 to 2.5	Pass
			4.43	-11.301	-0.0133	-2.5 to 2.5	Pass
		-30	3.85	-7.060	-0.0083	-2.5 to 2.5	Pass
		-20	3.85	-8.168	-0.0096	-2.5 to 2.5	Pass
		-10	3.85	-6.852	-0.0081	-2.5 to 2.5	Pass
		0	3.85	-7.768	-0.0092	-2.5 to 2.5	Pass
		10	3.85	-11.451	-0.0135	-2.5 to 2.5	Pass
		30	3.85	-6.258	-0.0074	-2.5 to 2.5	Pass
		40	3.85	-10.479	-0.0124	-2.5 to 2.5	Pass
		50	3.85	-6.716	-0.0079	-2.5 to 2.5	Pass
HSDPA	826.4	20	3.27	-8.039	-0.0097	-2.5 to 2.5	Pass
			3.85	-5.736	-0.0069	-2.5 to 2.5	Pass
			4.43	-2.604	-0.0032	-2.5 to 2.5	Pass
		-30	3.85	-6.931	-0.0084	-2.5 to 2.5	Pass
		-20	3.85	-7.660	-0.0093	-2.5 to 2.5	Pass
		-10	3.85	-8.118	-0.0098	-2.5 to 2.5	Pass
		0	3.85	-11.609	-0.0140	-2.5 to 2.5	Pass
		10	3.85	-9.692	-0.0117	-2.5 to 2.5	Pass
		30	3.85	-12.023	-0.0145	-2.5 to 2.5	Pass
		40	3.85	-10.779	-0.0130	-2.5 to 2.5	Pass
		50	3.85	-5.794	-0.0070	-2.5 to 2.5	Pass
	836.6	20	3.27	-4.842	-0.0058	-2.5 to 2.5	Pass
			3.85	-7.360	-0.0088	-2.5 to 2.5	Pass
			4.43	-9.935	-0.0119	-2.5 to 2.5	Pass
		-30	3.85	-5.708	-0.0068	-2.5 to 2.5	Pass
		-20	3.85	-11.058	-0.0132	-2.5 to 2.5	Pass
		-10	3.85	-6.430	-0.0077	-2.5 to 2.5	Pass
		0	3.85	-9.763	-0.0117	-2.5 to 2.5	Pass
		10	3.85	-2.711	-0.0032	-2.5 to 2.5	Pass
		30	3.85	-10.164	-0.0121	-2.5 to 2.5	Pass
		40	3.85	-10.600	-0.0127	-2.5 to 2.5	Pass
		50	3.85	-12.267	-0.0147	-2.5 to 2.5	Pass
	846.6	20	3.27	-9.120	-0.0108	-2.5 to 2.5	Pass
			3.85	-7.789	-0.0092	-2.5 to 2.5	Pass
			4.43	-5.572	-0.0066	-2.5 to 2.5	Pass
		-30	3.85	-3.004	-0.0035	-2.5 to 2.5	Pass
		-20	3.85	-5.572	-0.0066	-2.5 to 2.5	Pass
		-10	3.85	-9.863	-0.0117	-2.5 to 2.5	Pass
		0	3.85	-8.733	-0.0103	-2.5 to 2.5	Pass
		10	3.85	-5.729	-0.0068	-2.5 to 2.5	Pass

		30	3.85	-5.035	-0.0059	-2.5 to 2.5	Pass
		40	3.85	-6.659	-0.0079	-2.5 to 2.5	Pass
		50	3.85	-5.558	-0.0066	-2.5 to 2.5	Pass
HSUPA	826.4	20	3.27	-10.571	-0.0128	-2.5 to 2.5	Pass
			3.85	-6.773	-0.0082	-2.5 to 2.5	Pass
			4.43	-1.237	-0.0015	-2.5 to 2.5	Pass
		-30	3.85	-10.829	-0.0131	-2.5 to 2.5	Pass
		-20	3.85	-8.426	-0.0102	-2.5 to 2.5	Pass
		-10	3.85	-12.596	-0.0152	-2.5 to 2.5	Pass
		0	3.85	-7.160	-0.0087	-2.5 to 2.5	Pass
		10	3.85	-5.443	-0.0066	-2.5 to 2.5	Pass
		30	3.85	-7.188	-0.0087	-2.5 to 2.5	Pass
		40	3.85	-6.938	-0.0084	-2.5 to 2.5	Pass
		50	3.85	-11.208	-0.0136	-2.5 to 2.5	Pass
	836.6	20	3.27	-6.058	-0.0072	-2.5 to 2.5	Pass
			3.85	-4.706	-0.0056	-2.5 to 2.5	Pass
			4.43	-0.193	-0.0002	-2.5 to 2.5	Pass
		-30	3.85	-8.934	-0.0107	-2.5 to 2.5	Pass
		-20	3.85	-5.851	-0.0070	-2.5 to 2.5	Pass
		-10	3.85	-8.647	-0.0103	-2.5 to 2.5	Pass
		0	3.85	-7.167	-0.0086	-2.5 to 2.5	Pass
		10	3.85	-7.467	-0.0089	-2.5 to 2.5	Pass
		30	3.85	-6.995	-0.0084	-2.5 to 2.5	Pass
		40	3.85	-7.682	-0.0092	-2.5 to 2.5	Pass
		50	3.85	-8.833	-0.0106	-2.5 to 2.5	Pass
	846.6	20	3.27	-8.354	-0.0099	-2.5 to 2.5	Pass
			3.85	-6.022	-0.0071	-2.5 to 2.5	Pass
			4.43	-6.967	-0.0082	-2.5 to 2.5	Pass
		-30	3.85	-3.362	-0.0040	-2.5 to 2.5	Pass
		-20	3.85	-6.058	-0.0072	-2.5 to 2.5	Pass
		-10	3.85	-2.747	-0.0032	-2.5 to 2.5	Pass
		0	3.85	-4.606	-0.0054	-2.5 to 2.5	Pass
		10	3.85	-11.644	-0.0138	-2.5 to 2.5	Pass
		30	3.85	-4.621	-0.0055	-2.5 to 2.5	Pass
		40	3.85	-7.095	-0.0084	-2.5 to 2.5	Pass
		50	3.85	-3.068	-0.0036	-2.5 to 2.5	Pass

3. Modulation Characteristics

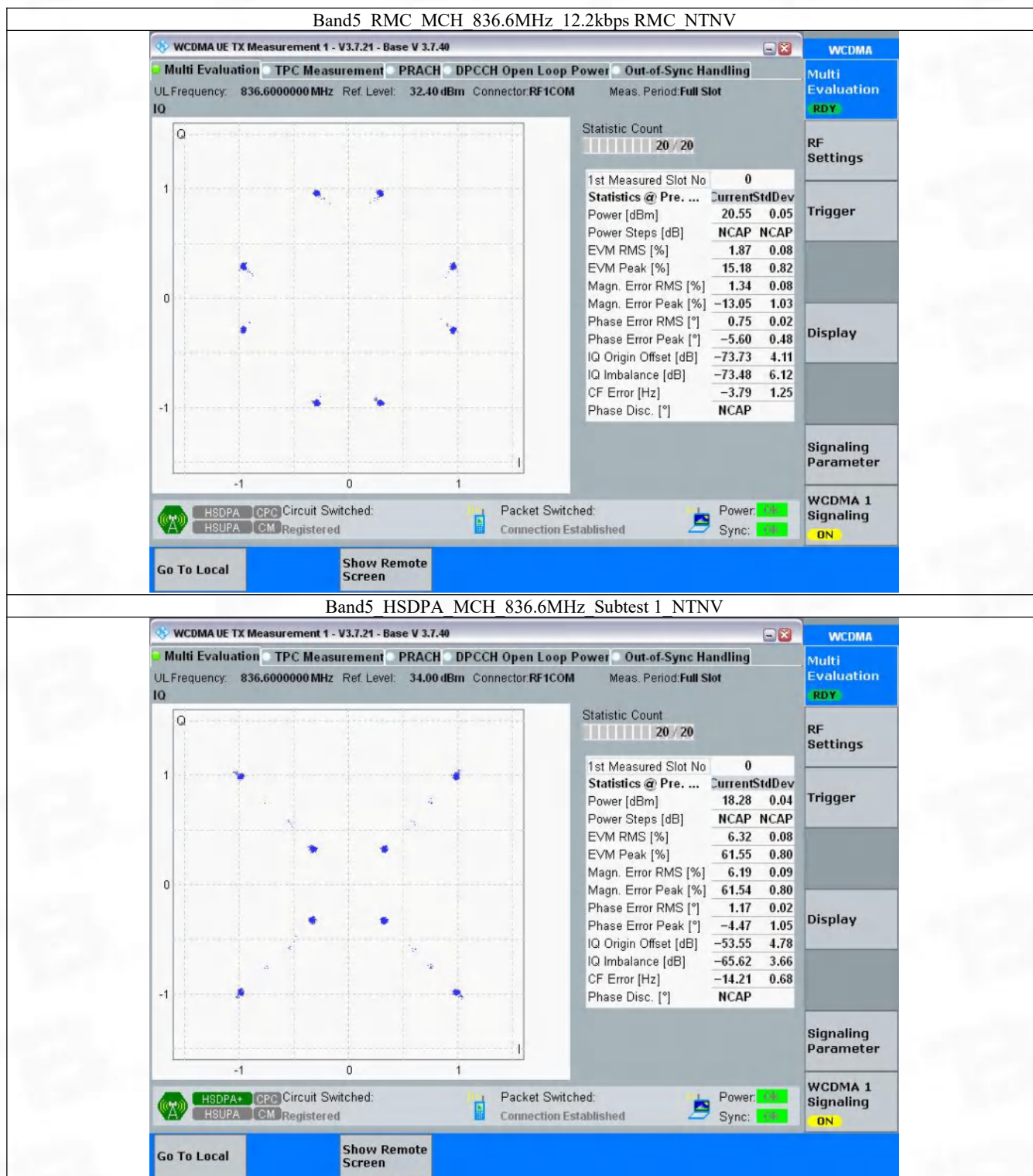
3.1 Test Result

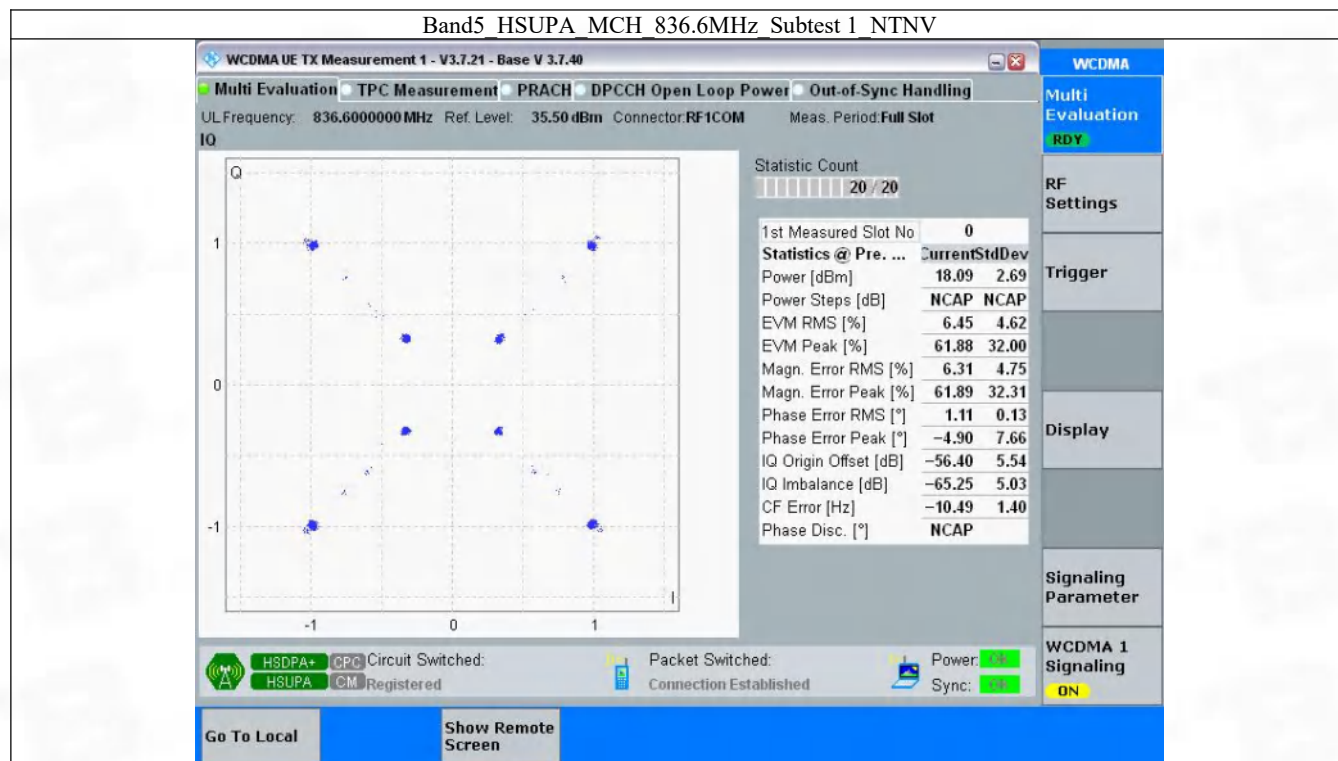
3.1.1 Band5

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





4. 99% & 26dB Bandwidth

4.1 Test Result

4.1.1 Band5_OBW

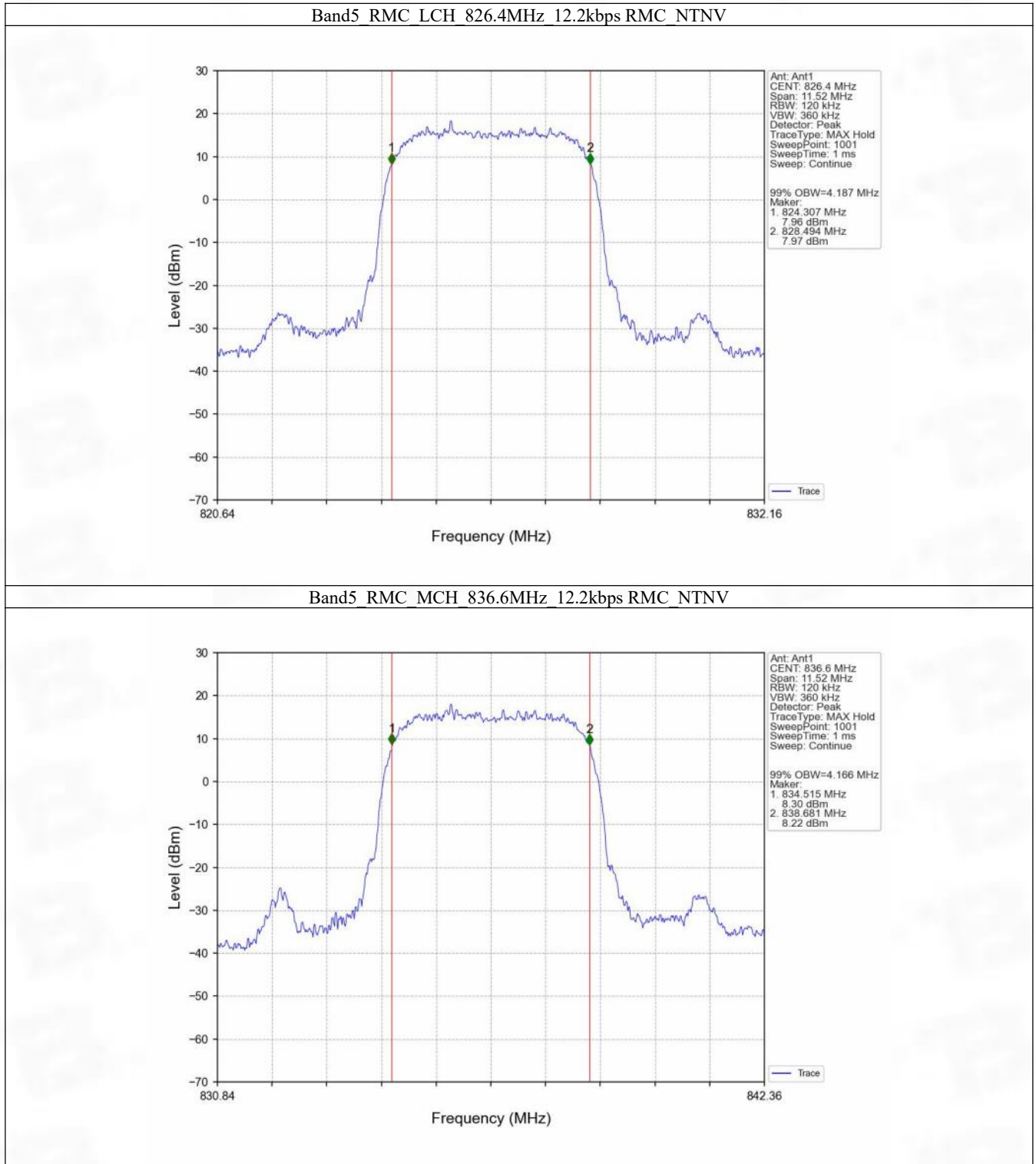
Band: 5						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	4.187	/	Pass
			836.6	4.166	/	Pass
			846.6	4.167	/	Pass
	HSDPA	Subtest 1	826.4	4.207	/	Pass
			836.6	4.221	/	Pass
			846.6	4.197	/	Pass
	HSUPA	Subtest 1	826.4	4.199	/	Pass
			836.6	4.193	/	Pass
			846.6	4.185	/	Pass

4.1.2 Band5_XDB

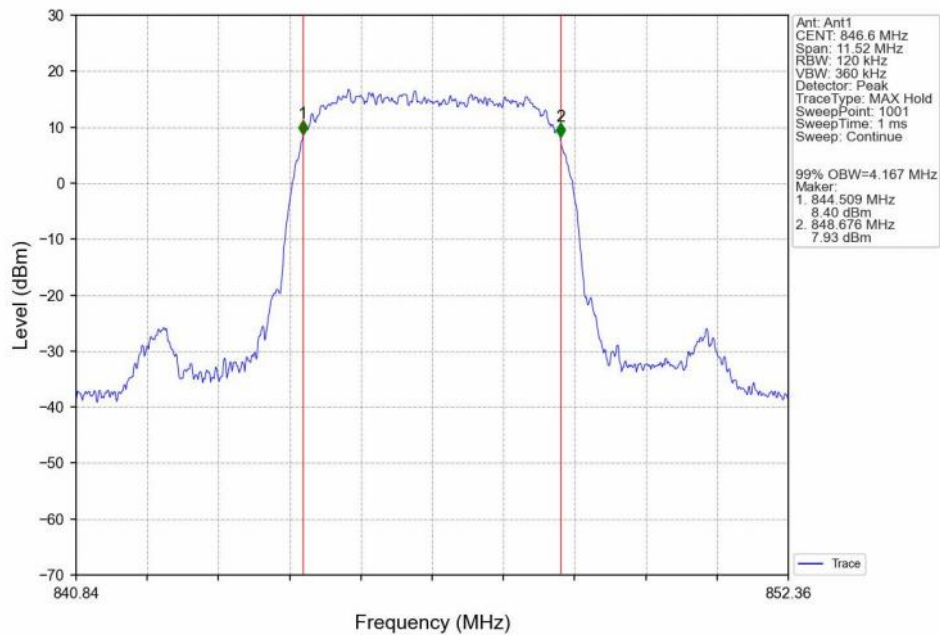
Band: 5						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	4.724	/	Pass
			836.6	4.732	/	Pass
			846.6	4.750	/	Pass
	HSDPA	Subtest 1	826.4	5.343	/	Pass
			836.6	5.183	/	Pass
			846.6	4.736	/	Pass
	HSUPA	Subtest 1	826.4	4.884	/	Pass
			836.6	4.733	/	Pass
			846.6	4.733	/	Pass

4.2 Test Graph

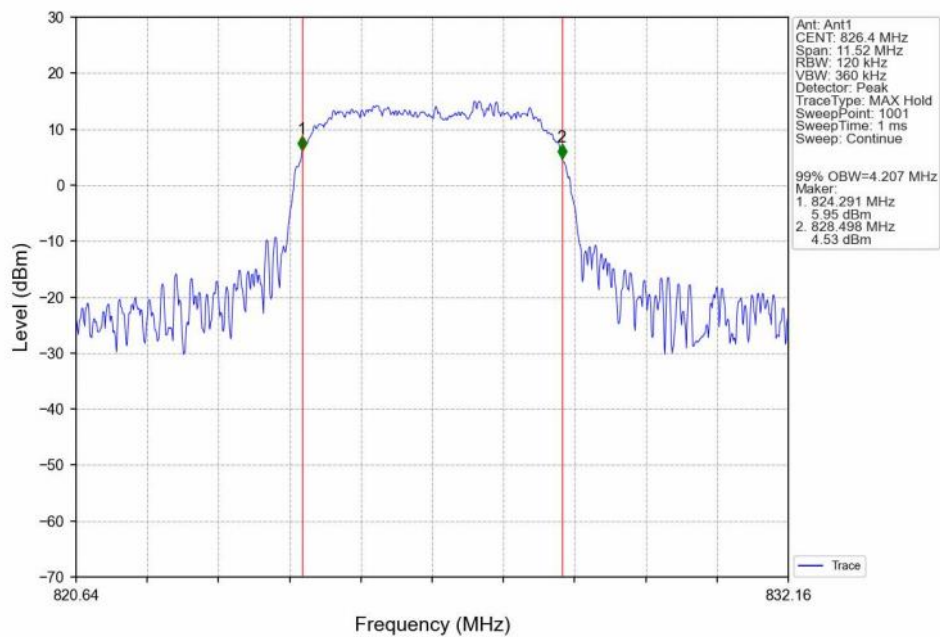
4.2.1 Band5_OBW



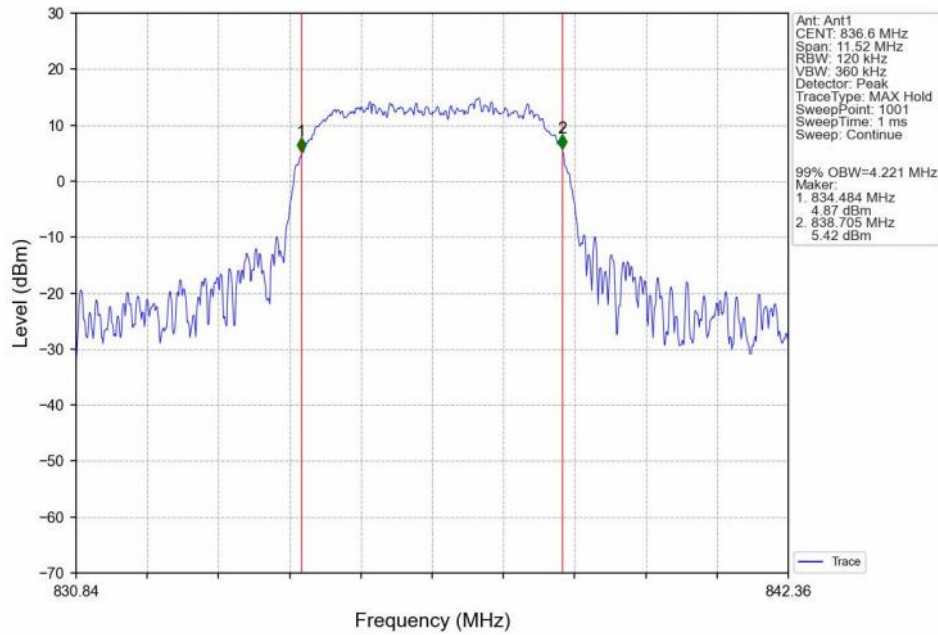
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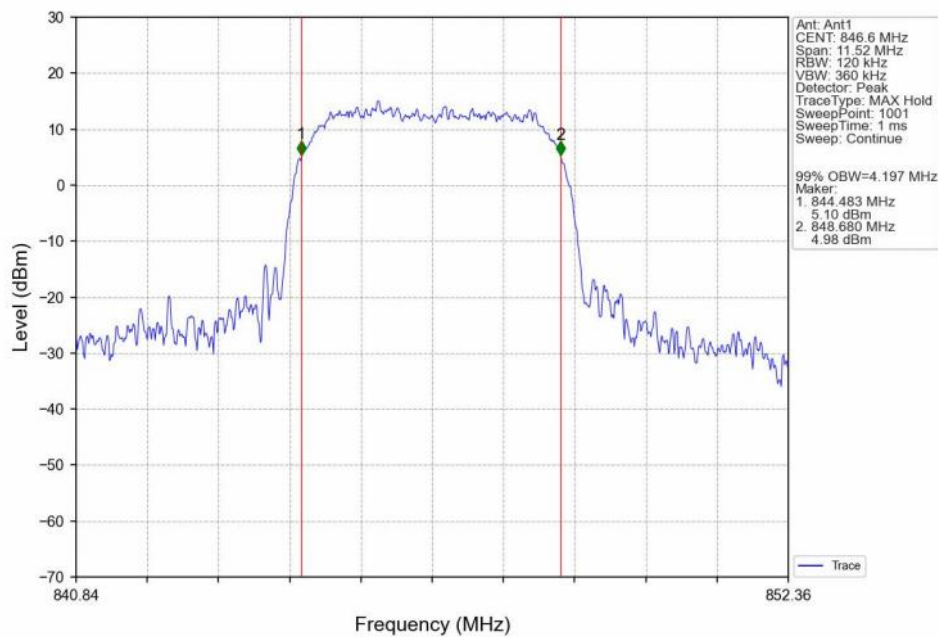
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



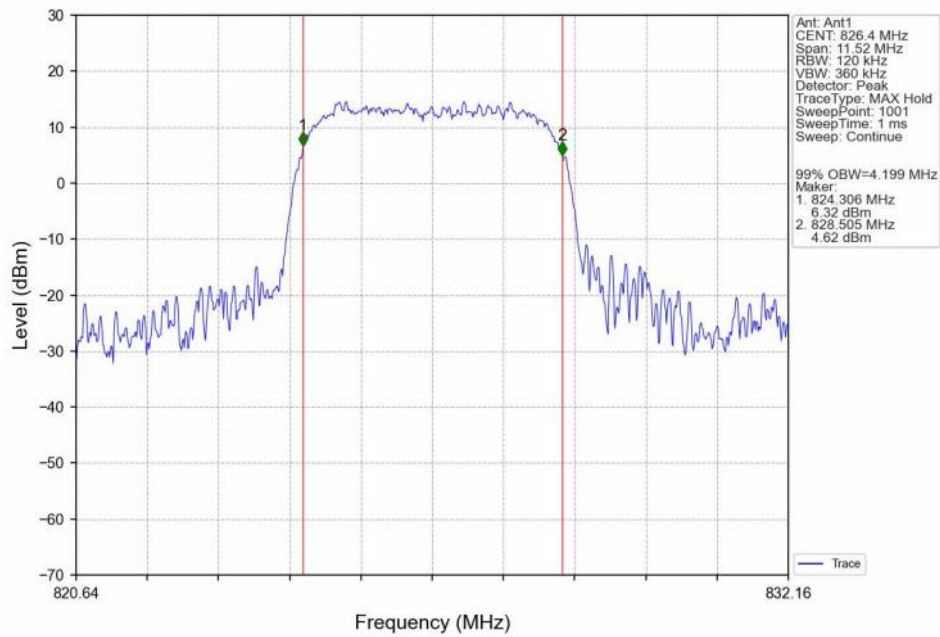
Band5 HSDPA MCH 836.6MHz Subtest 1 NTN



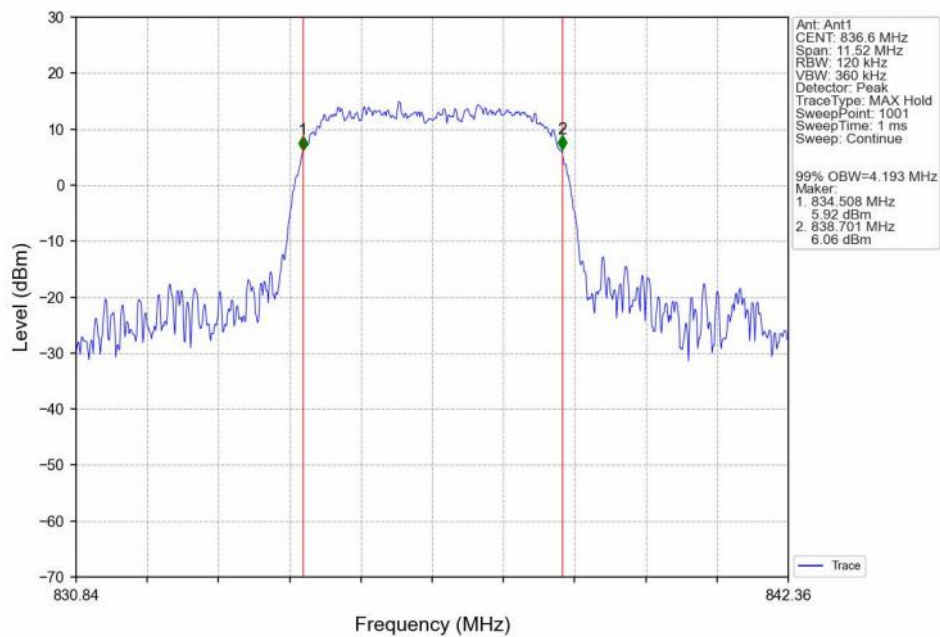
Band5 HSDPA HCH 846.6MHz Subtest 1 NTN



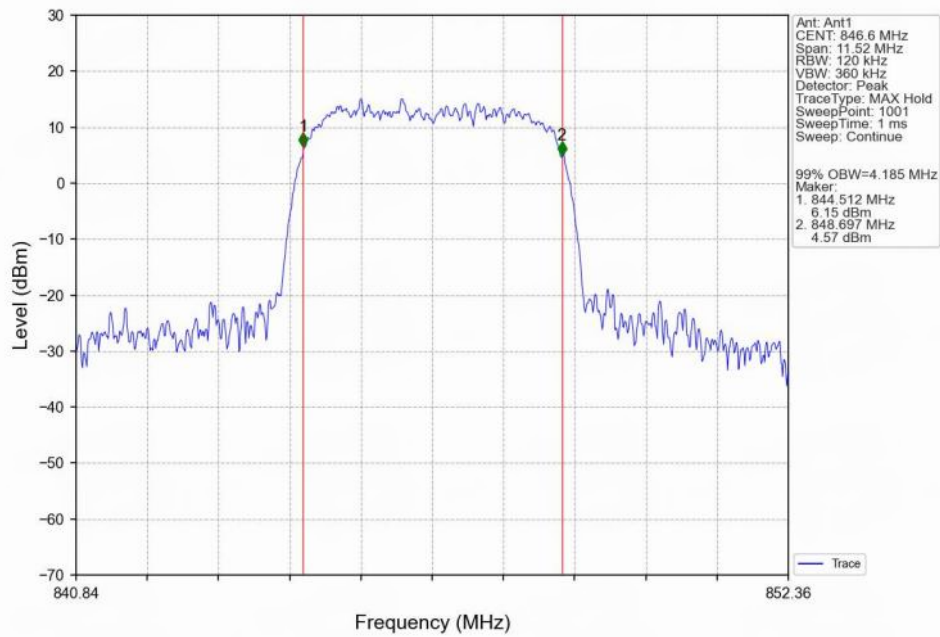
Band5 HSUPA LCH 826.4MHz Subtest 1 NTN



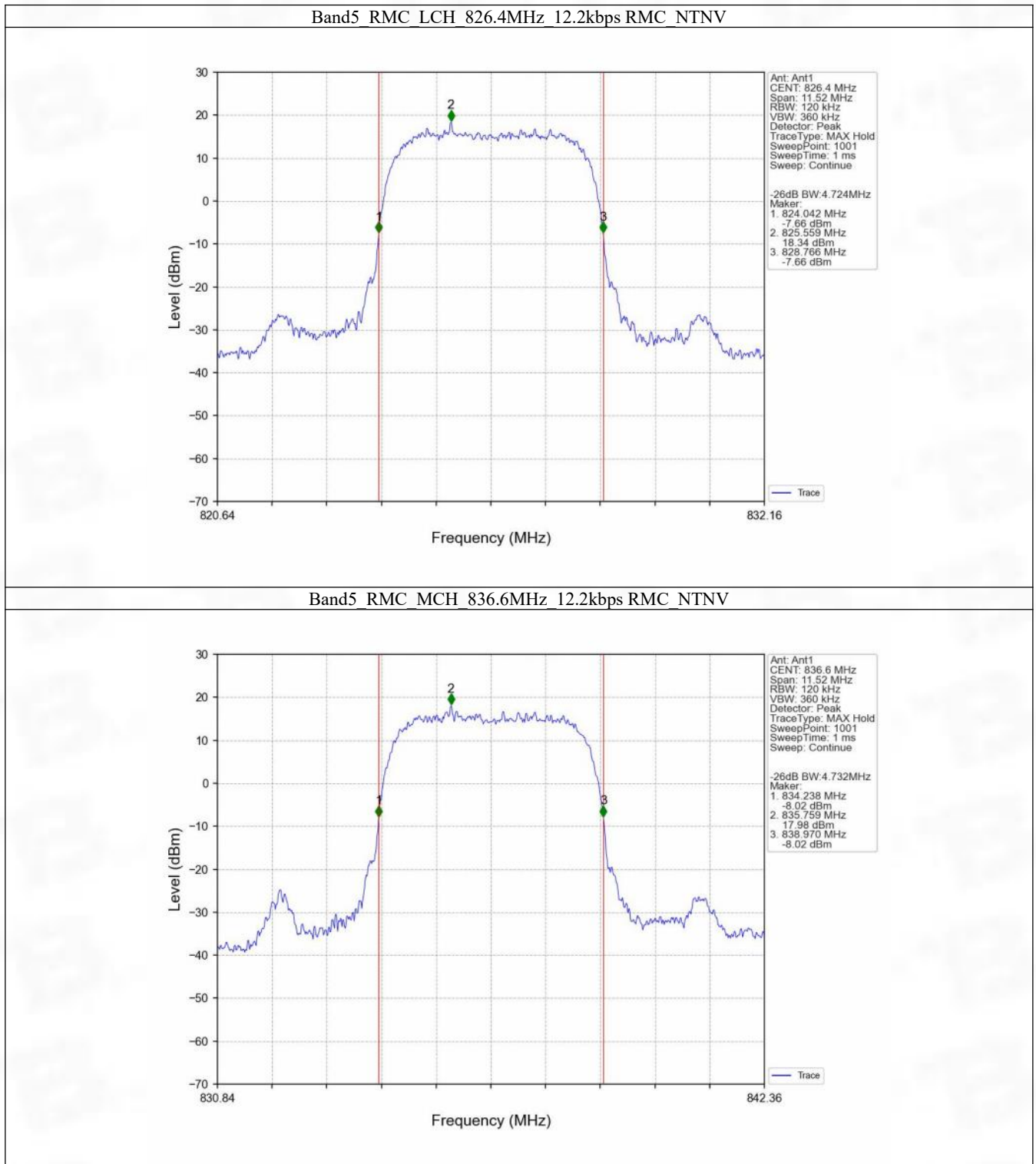
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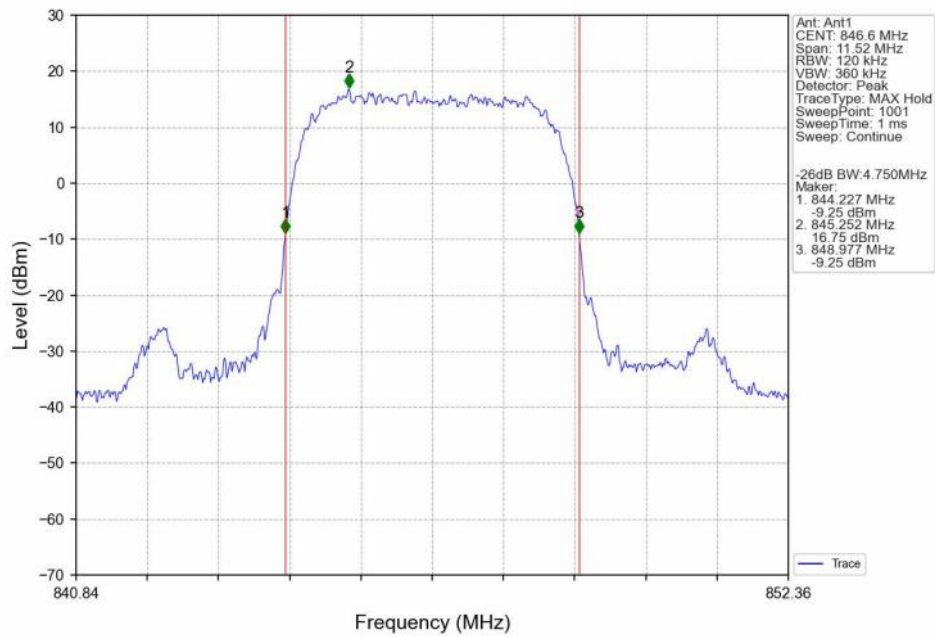
Band5 HSUPA HCH 846.6MHz Subtest 1 NTN



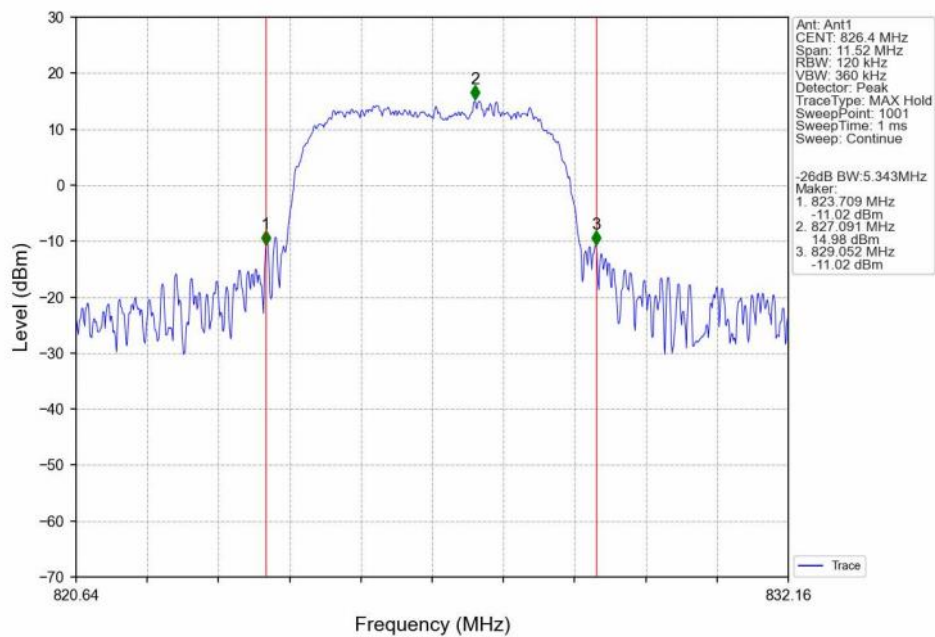
4.2.2 Band5_XDB



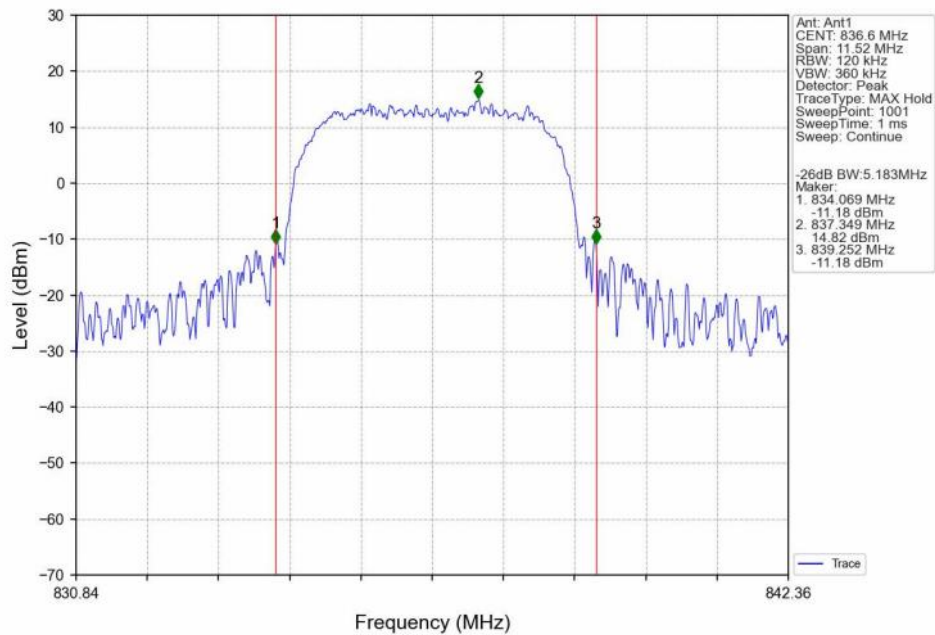
Band5_RMC_HCH_846.6MHz_12.2kbps_RMC_NTNV



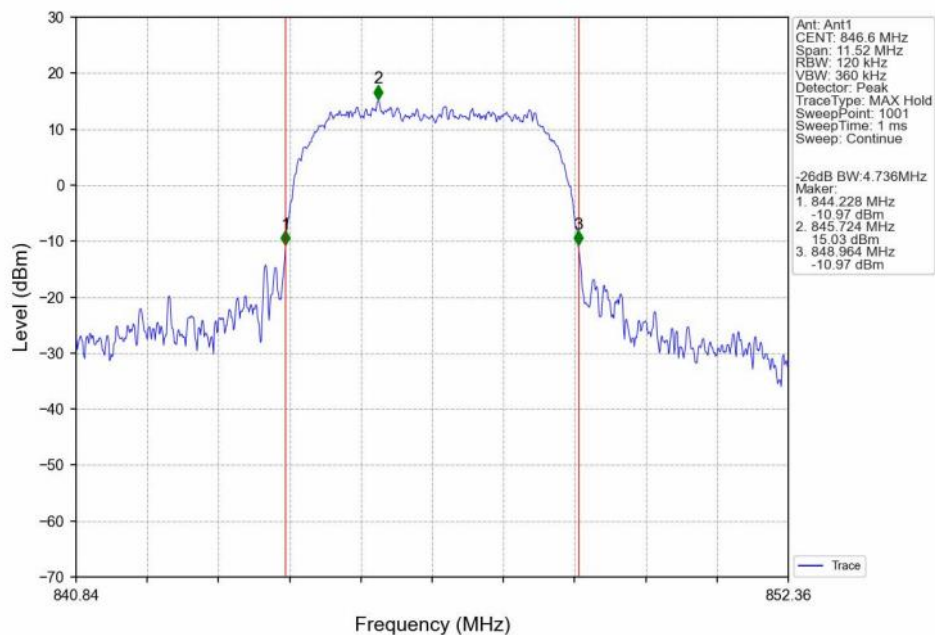
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



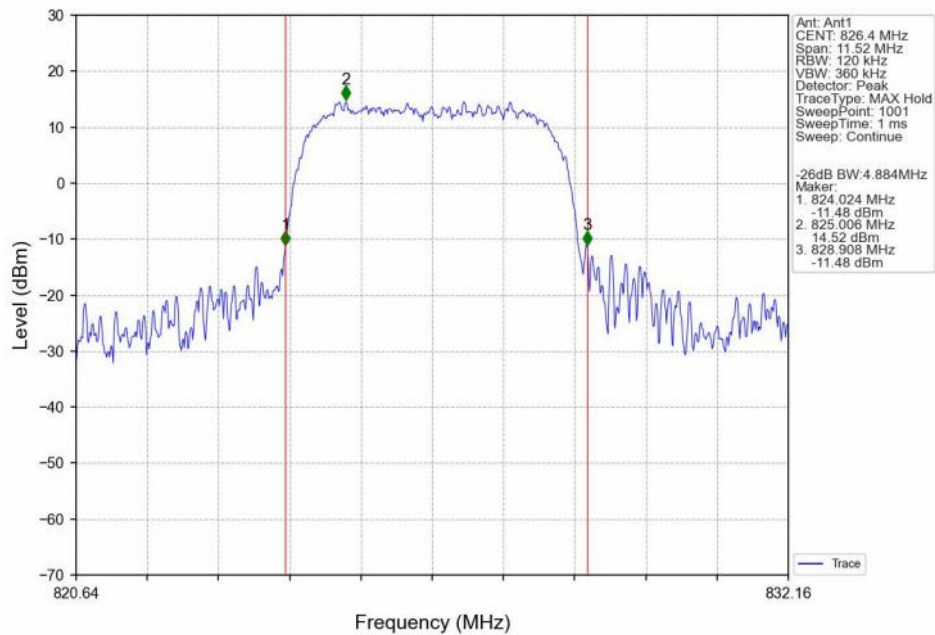
Band5 HSDPA MCH 836.6MHz Subtest 1 NTN



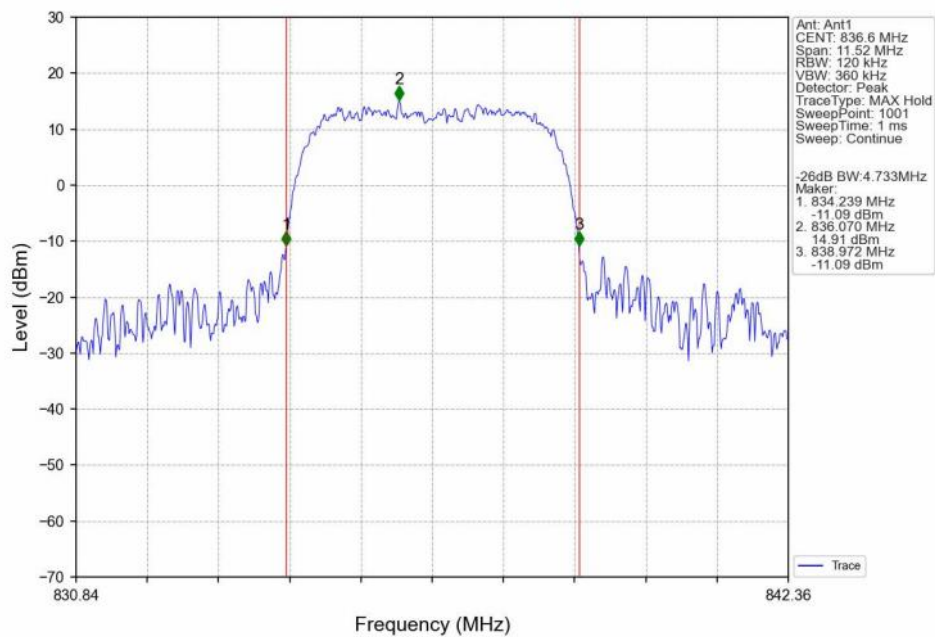
Band5 HSDPA HCH 846.6MHz Subtest 1 NTN



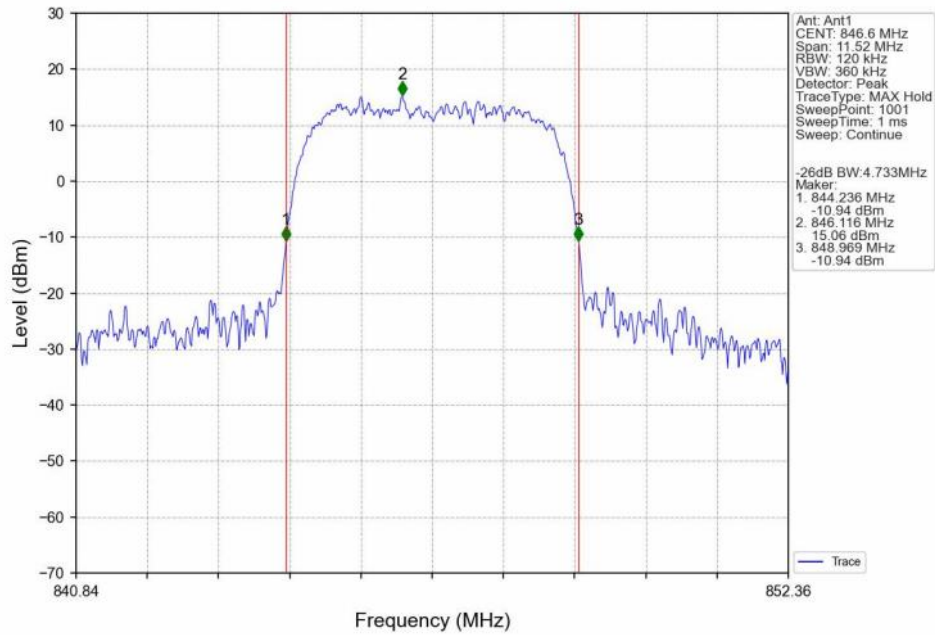
Band5 HSUPA LCH 826.4MHz Subtest 1 NTN



Band5 HSUPA MCH 836.6MHz Subtest 1 NTN



Band5 HSUPA HCH 846.6MHz Subtest 1 NTN



5. Peak-Average Ratio

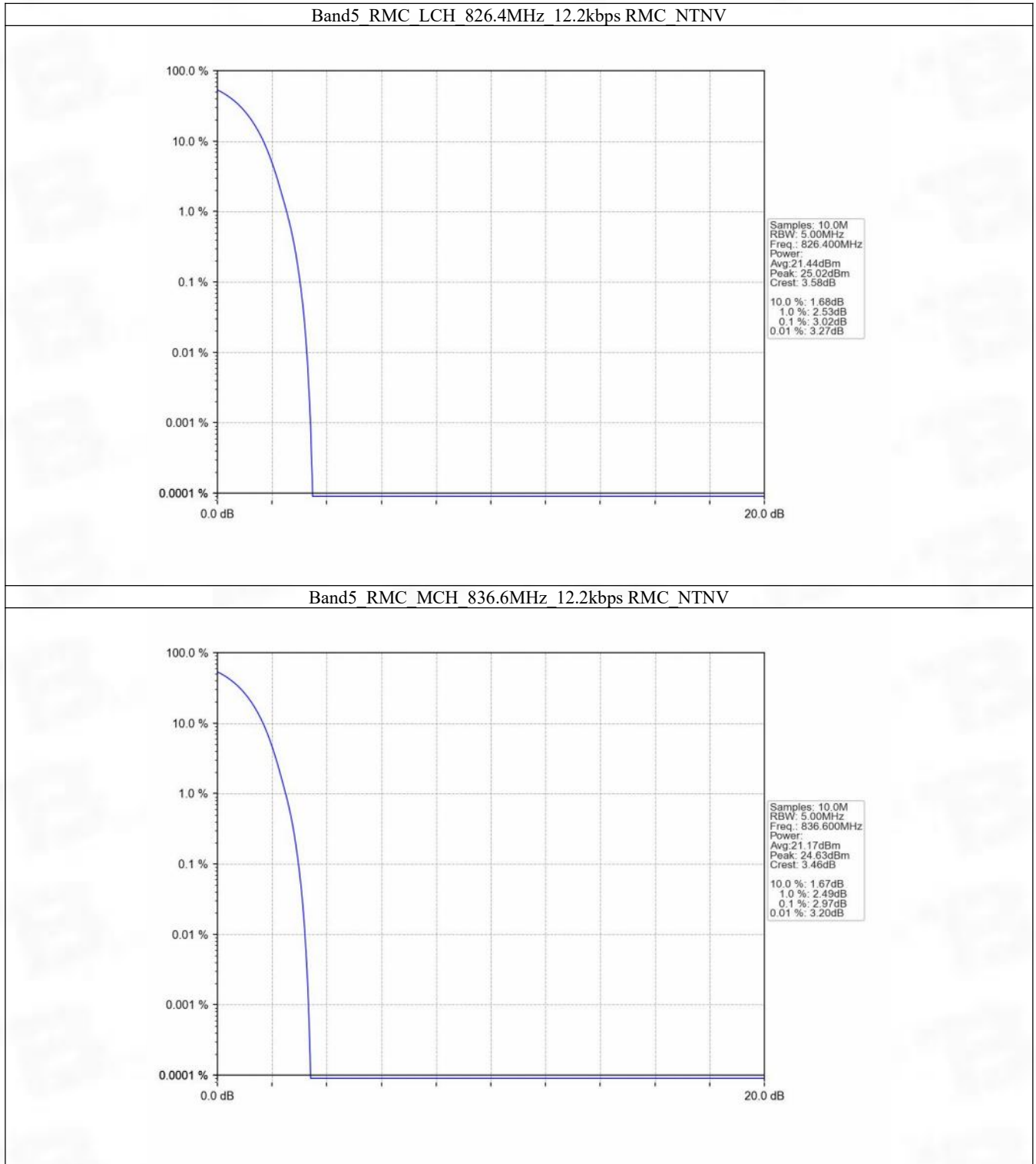
5.1 Test Result

5.1.1 Band5

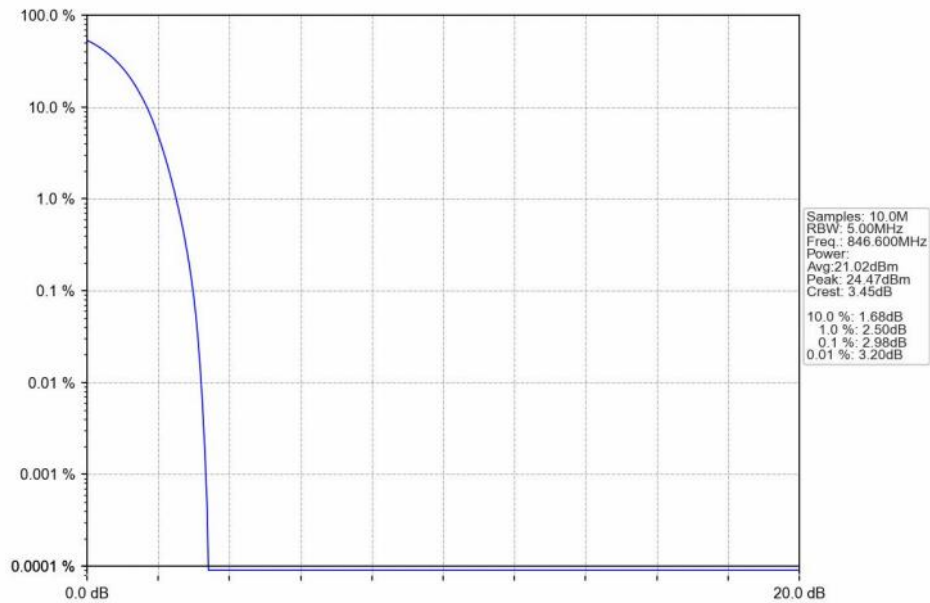
Band: 5						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	3.02	<=13	Pass
			836.6	2.97	<=13	Pass
			846.6	2.98	<=13	Pass
	HSDPA	Subtest 1	826.4	5.90	<=13	Pass
			836.6	5.83	<=13	Pass
			846.6	5.97	<=13	Pass
	HSUPA	Subtest 1	826.4	6.78	<=13	Pass
			836.6	6.80	<=13	Pass
			846.6	6.80	<=13	Pass

5.2 Test Graph

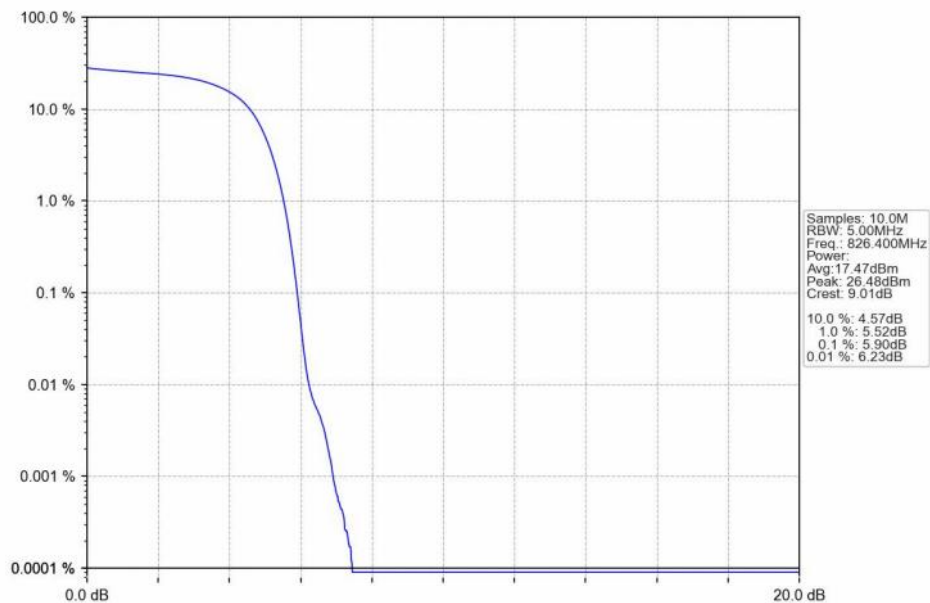
5.2.1 Band5



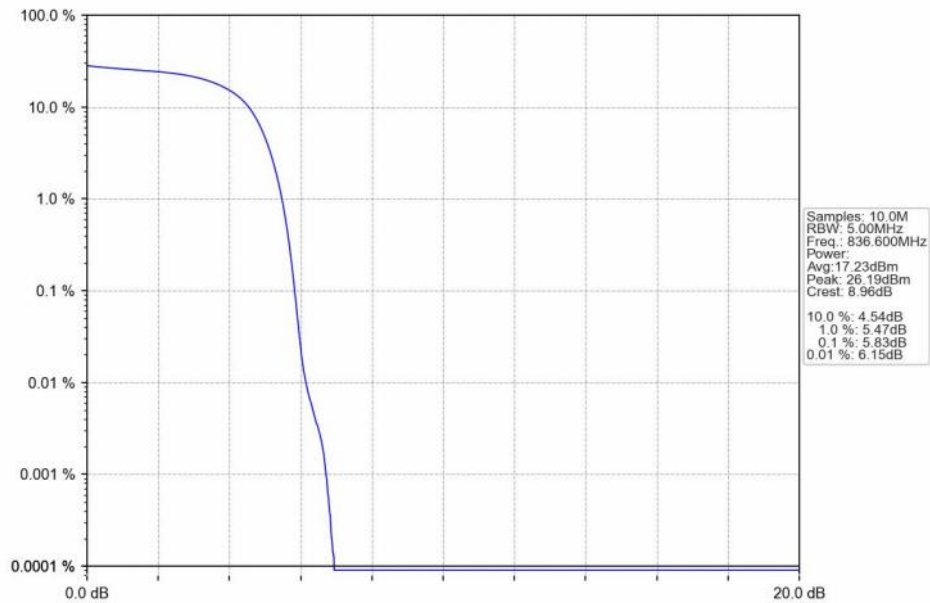
Band5_RMC_HCH_846.6MHz_12.2kbps_RMC_NTNV



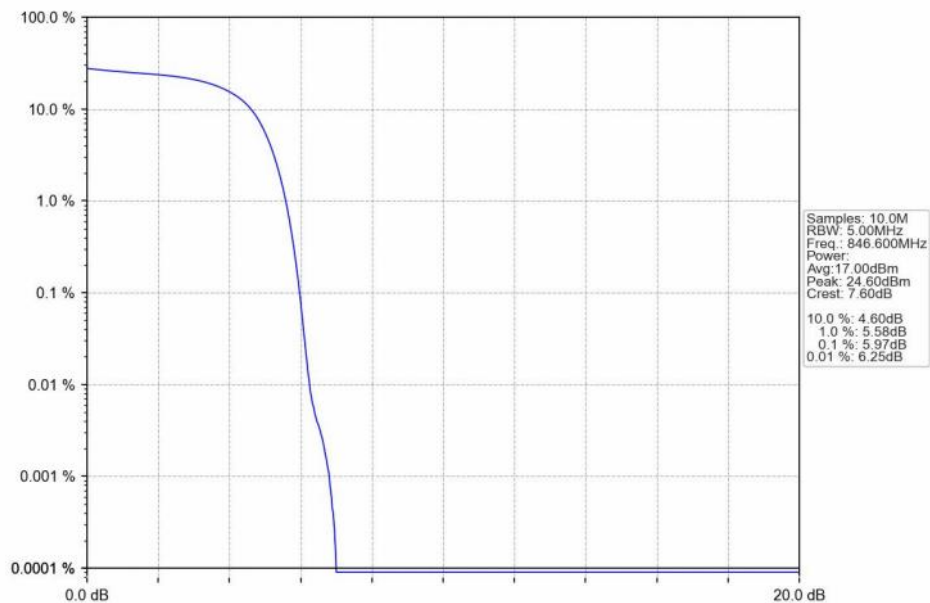
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



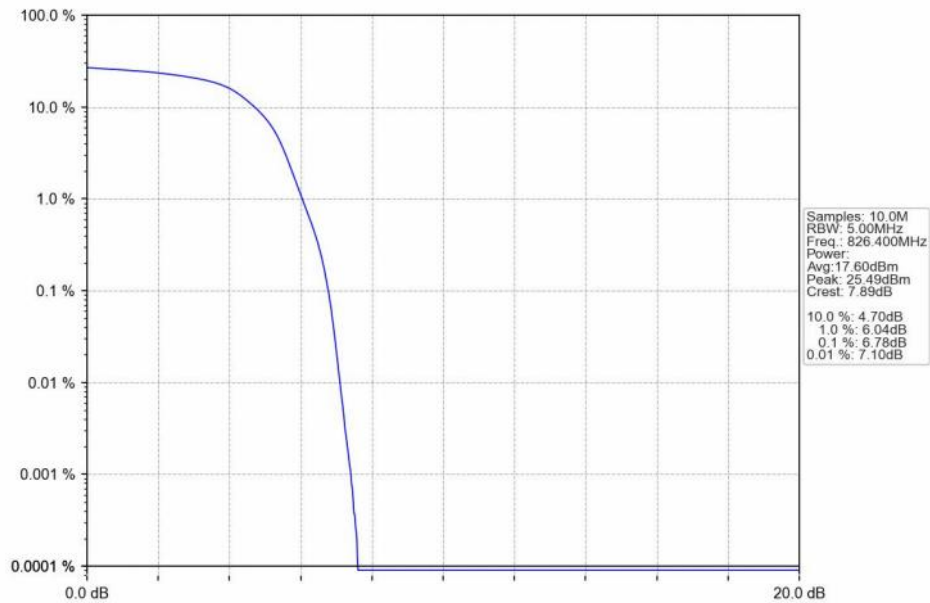
Band5 HSDPA MCH 836.6MHz Subtest 1 NTN



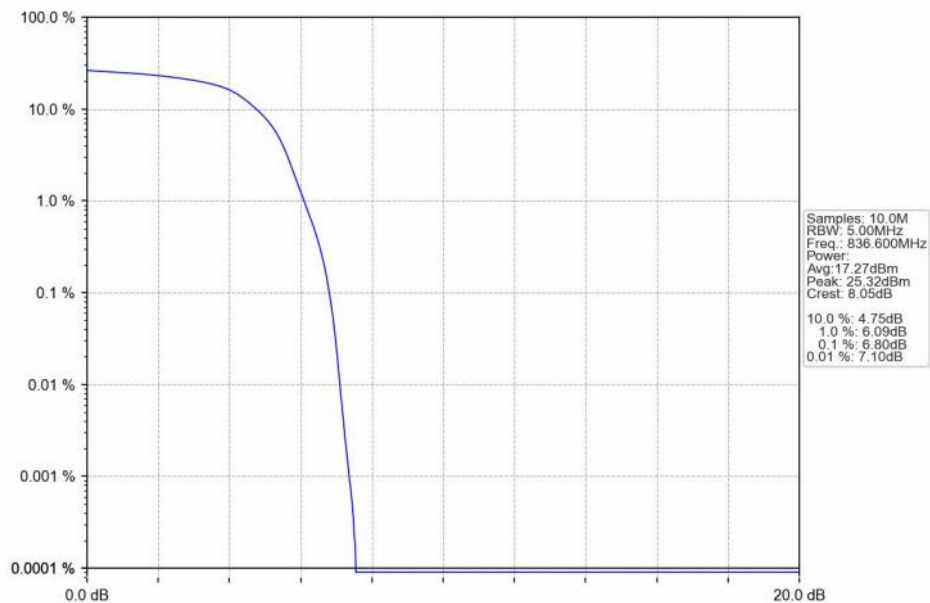
Band5 HSDPA HCH 846.6MHz Subtest 1 NTN



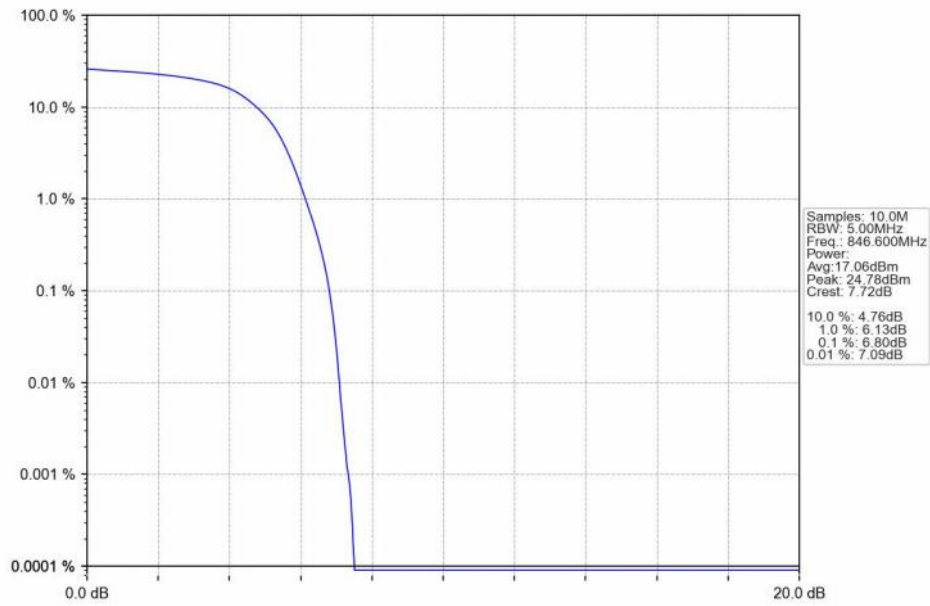
Band5 HSUPA LCH 826.4MHz Subtest 1 NTN



Band5 HSUPA MCH 836.6MHz Subtest 1 NTN



Band5 HSUPA HCH 846.6MHz Subtest 1 NTN



6. Spurious Emission

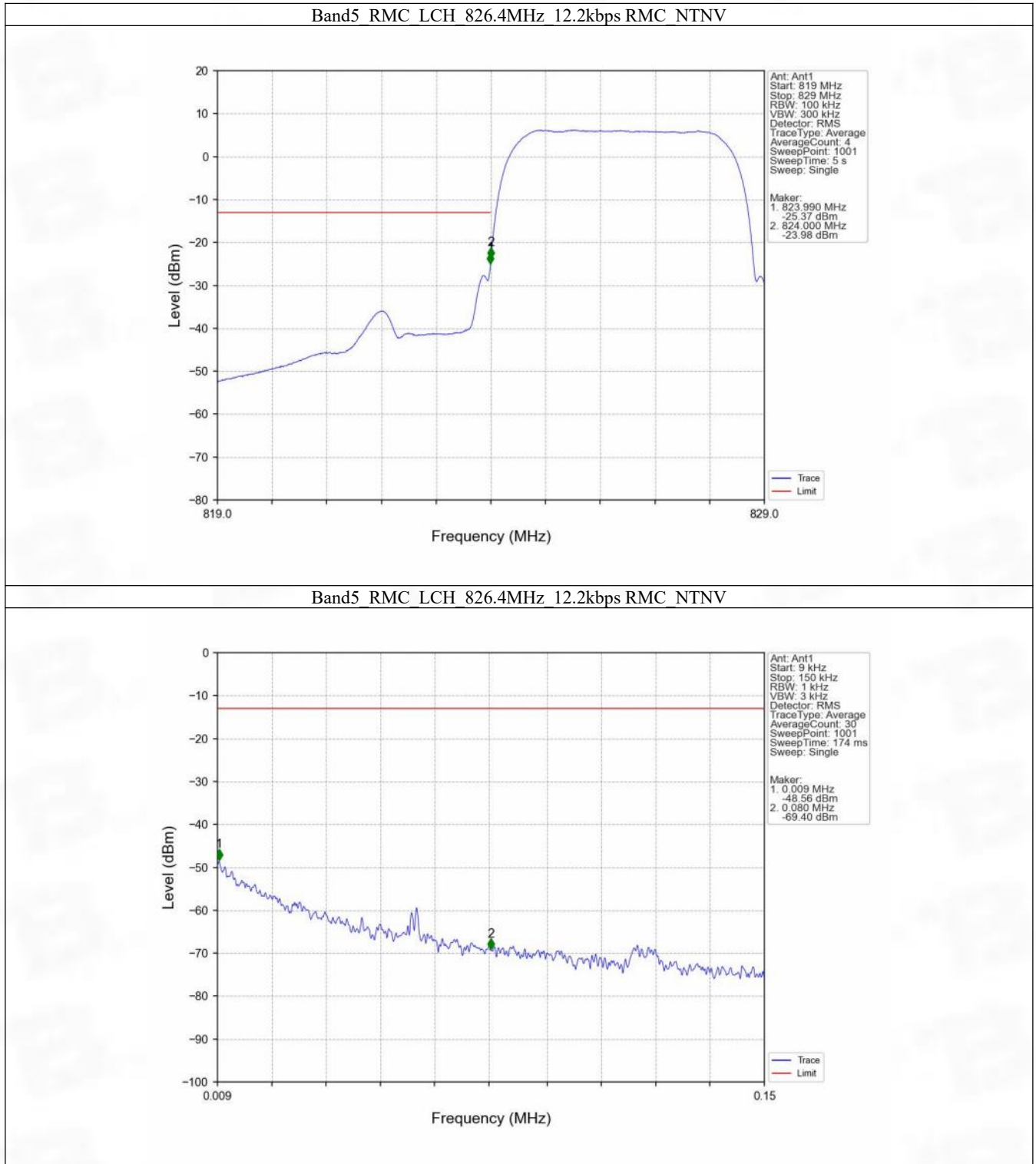
6.1 Test Result

6.1.1 Band5

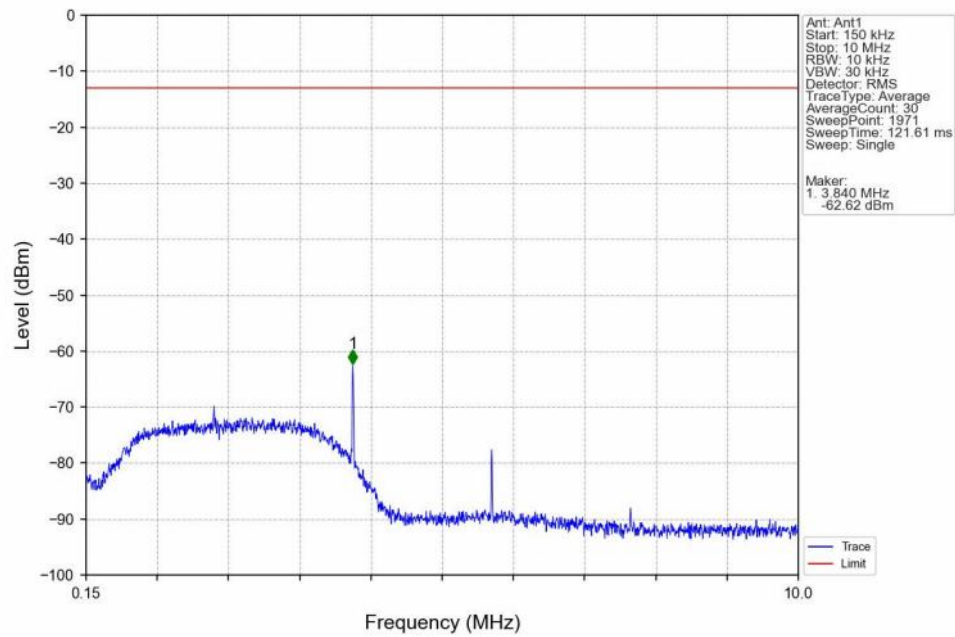
Band: 5						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	826.4	Refer To Test Graph		Pass
			836.6	Refer To Test Graph		Pass
			846.6	Refer To Test Graph		Pass
	HSDPA	Subtest 1	826.4	Refer To Test Graph		Pass
			836.6	Refer To Test Graph	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

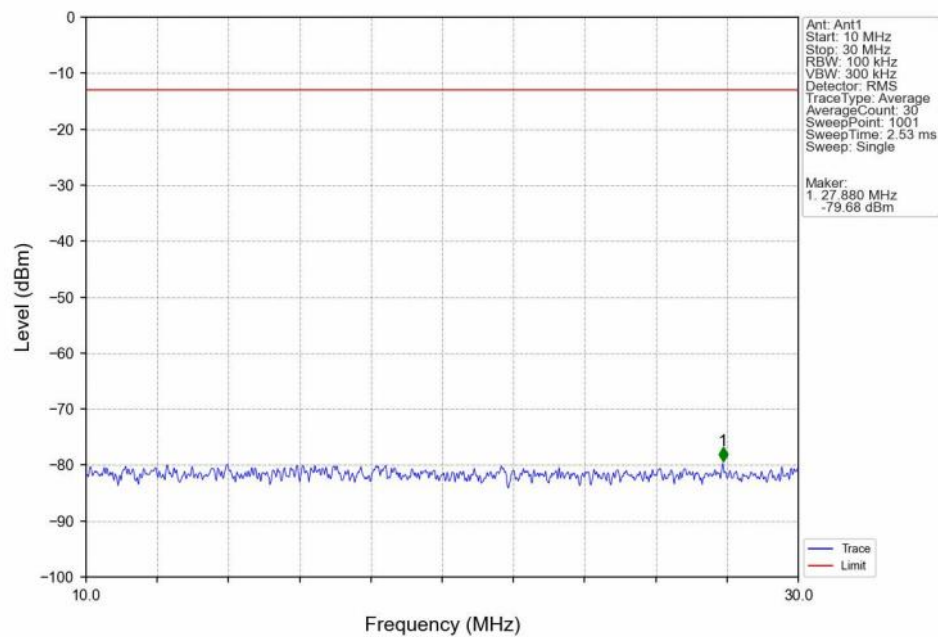
6.2.1 Band5



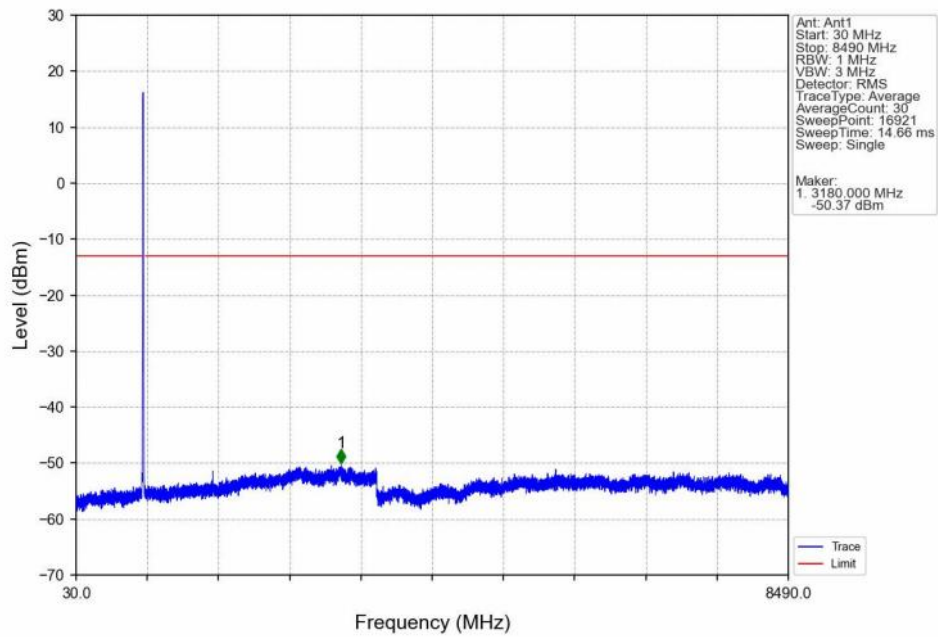
Band5_RMC_LCH_826.4MHz_12.2kbps_RMC_NTNV



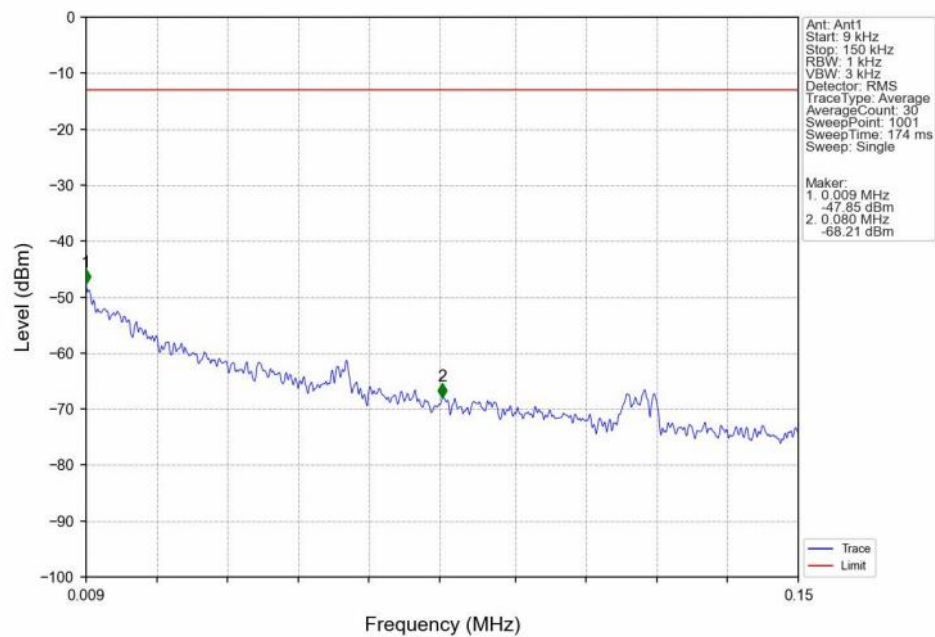
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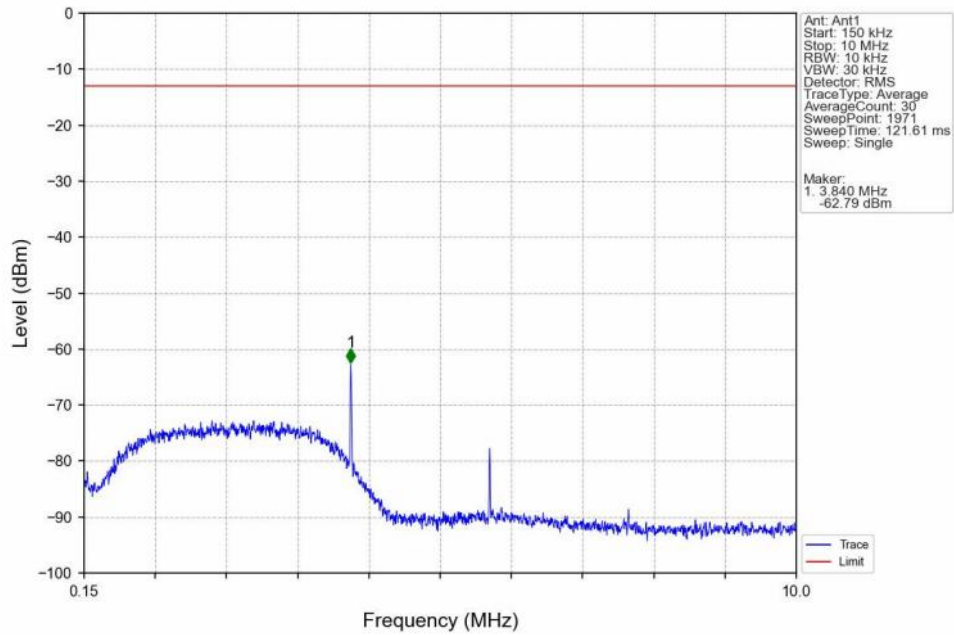
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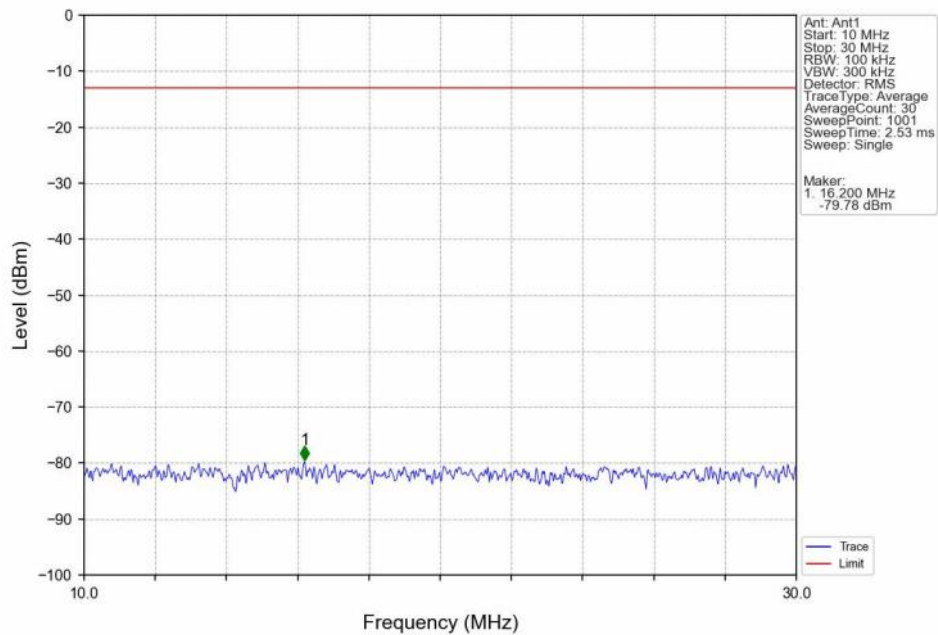
Band5_RMC_MCH_836.6MHz_12.2kbps_RMC_NTNV



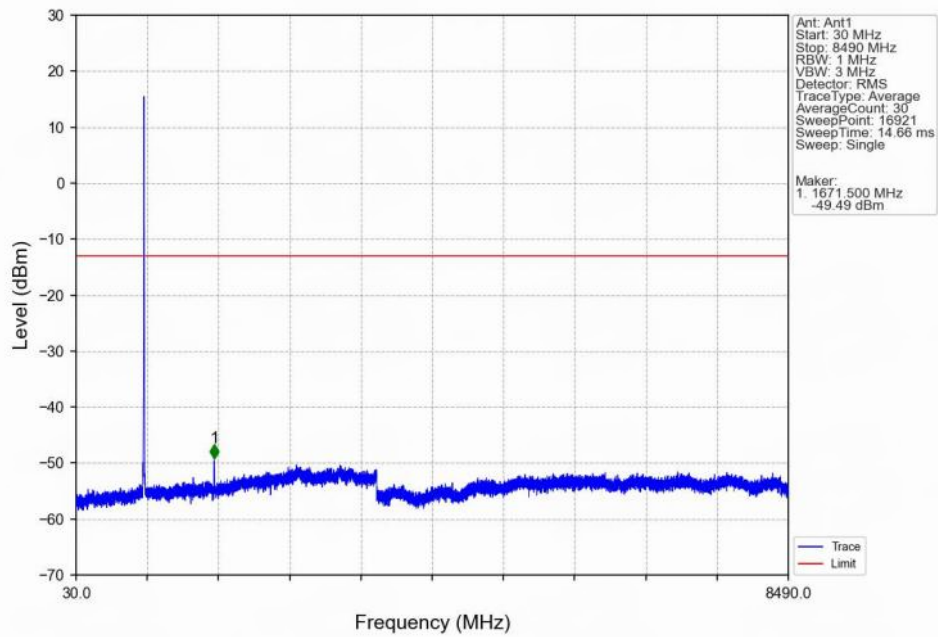
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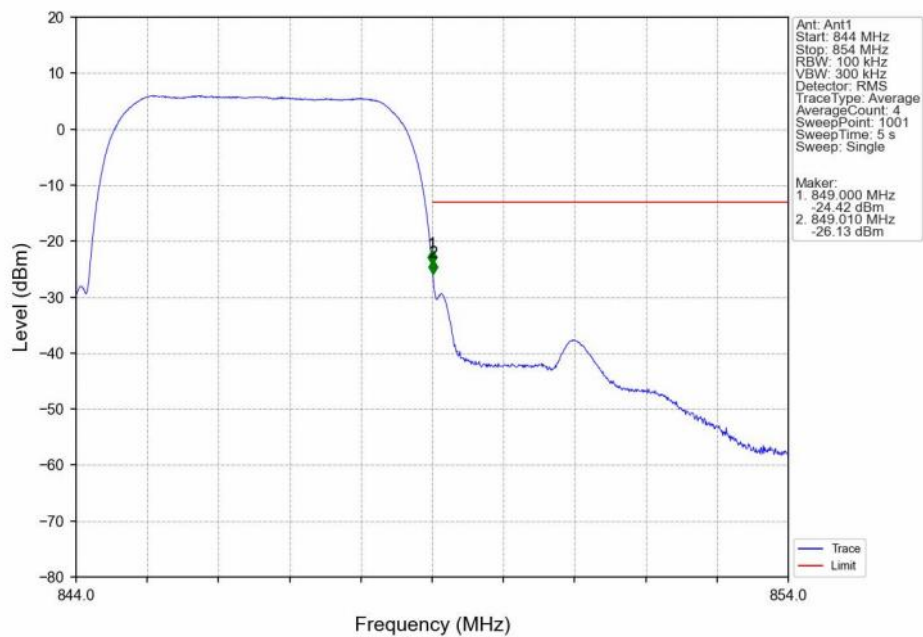
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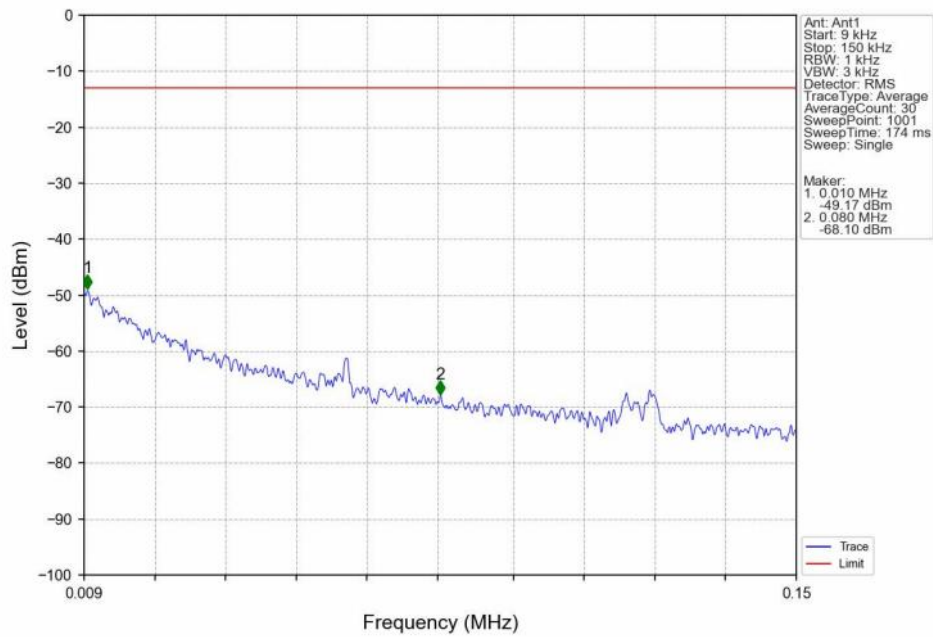
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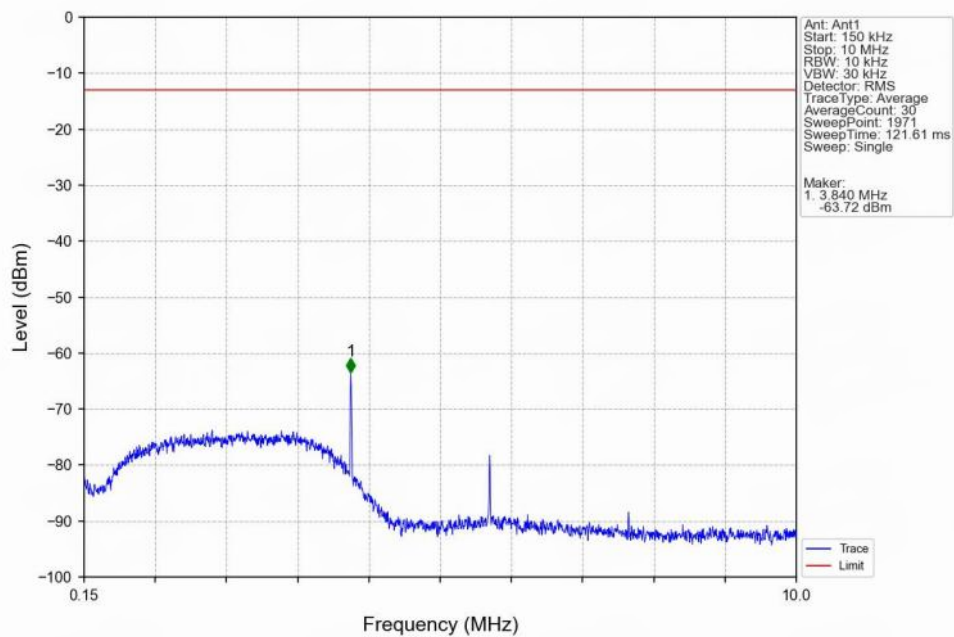
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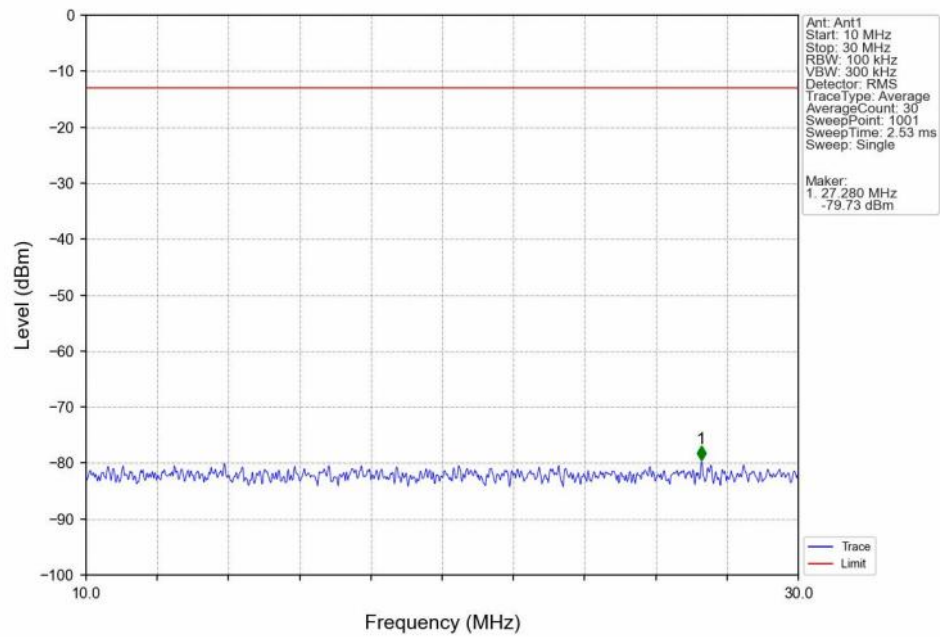
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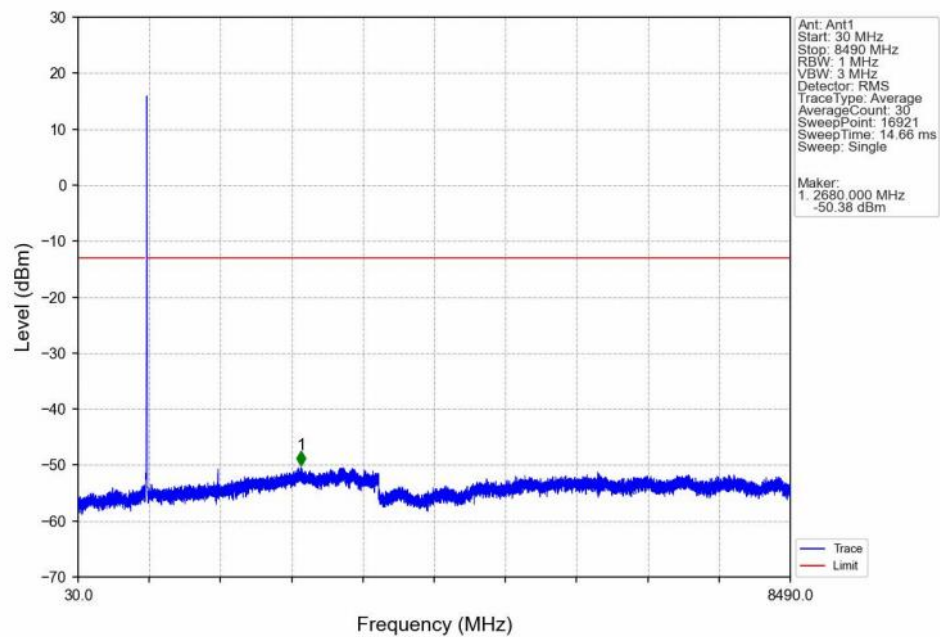
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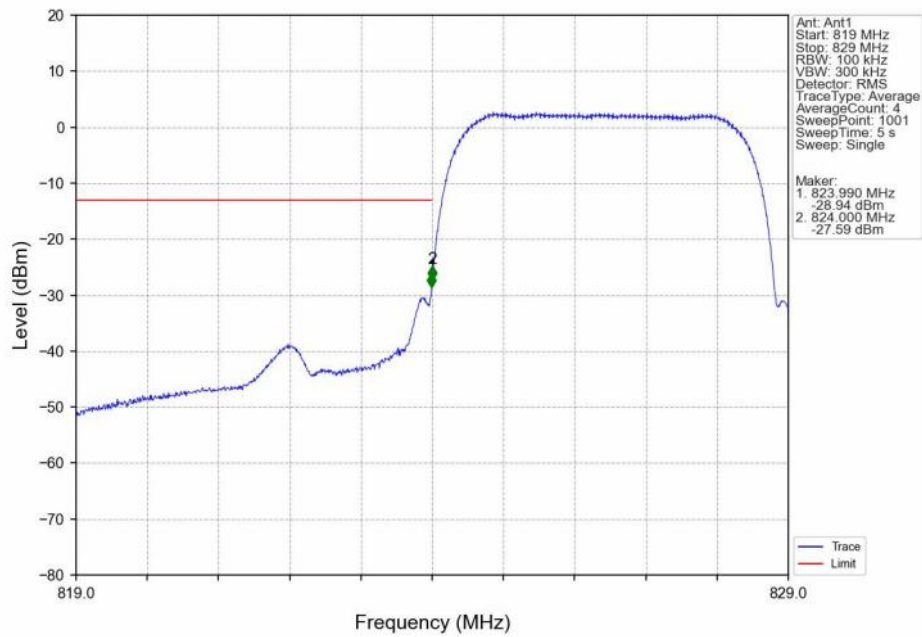
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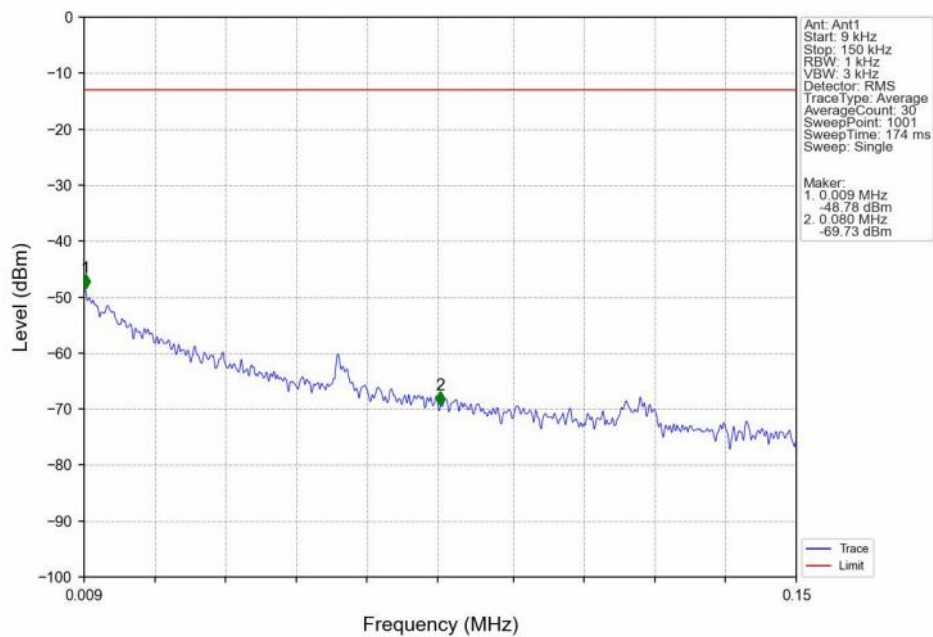
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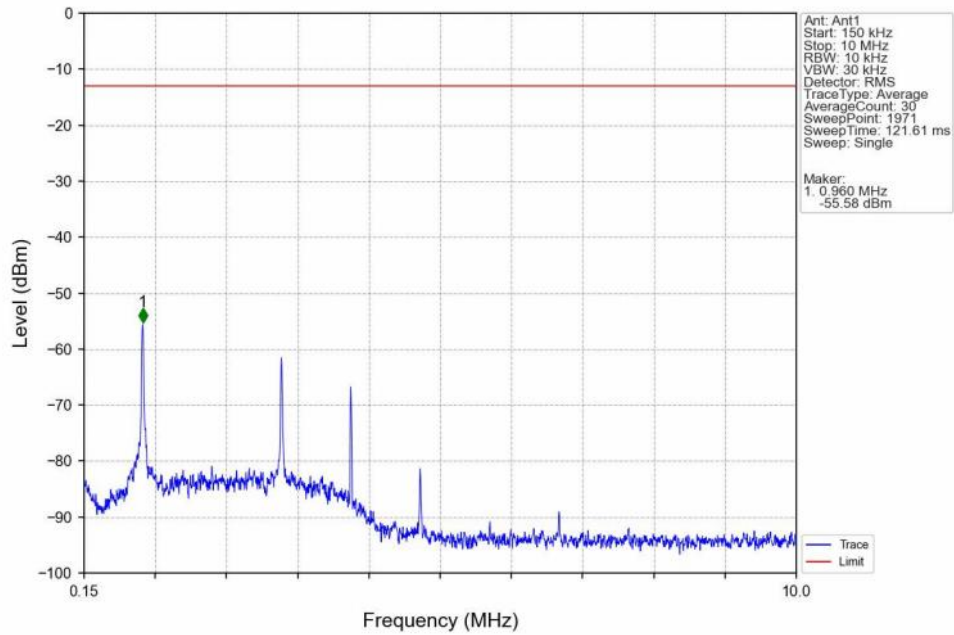
Band5 HSDPA LCH 826.4MHz Subtest 1 NTN



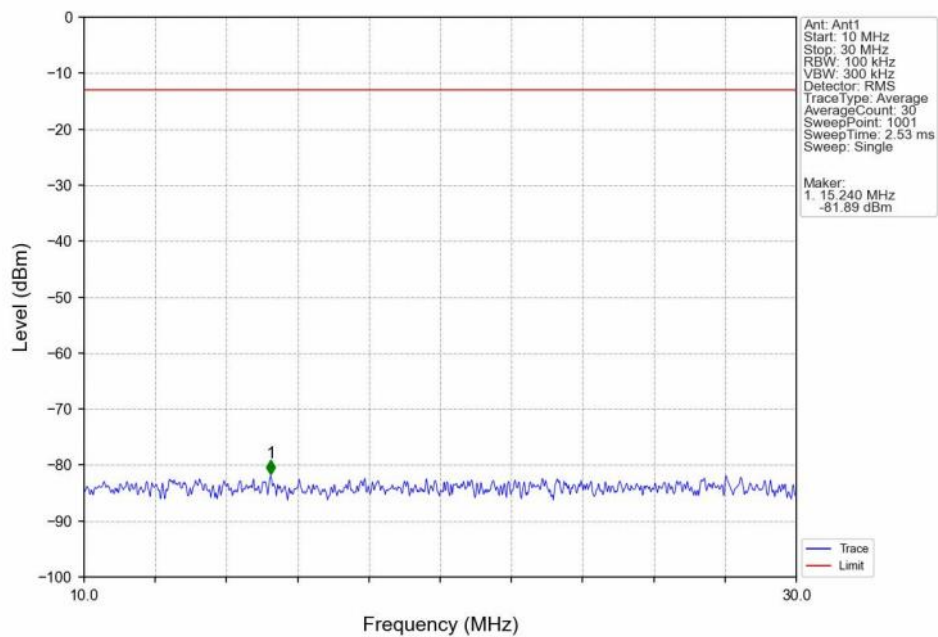
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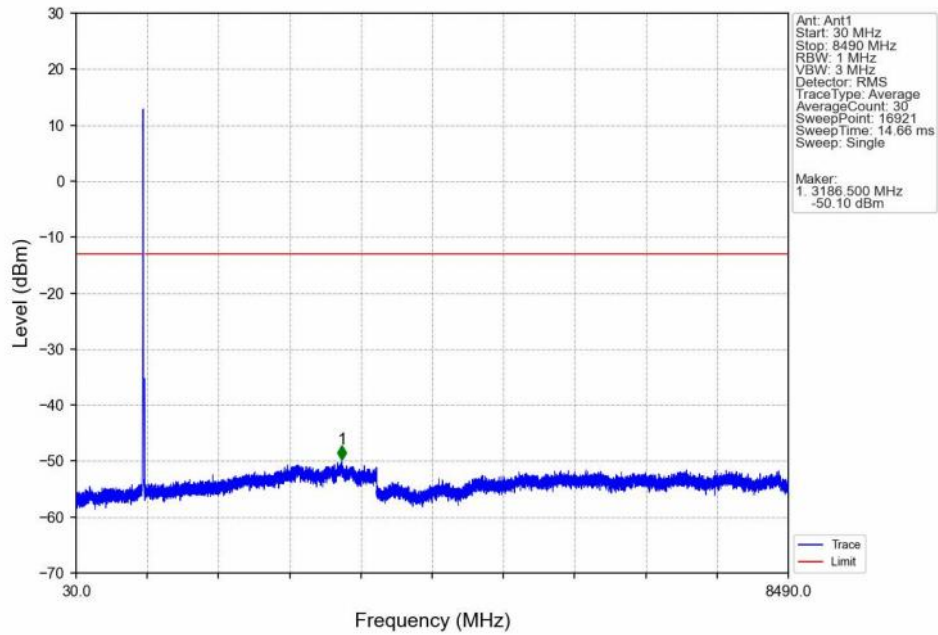
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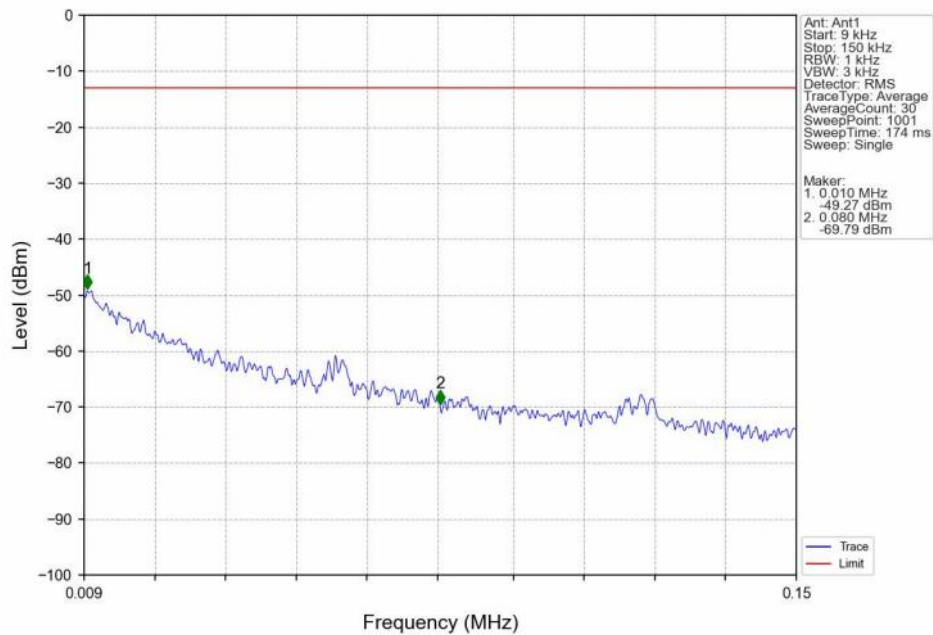
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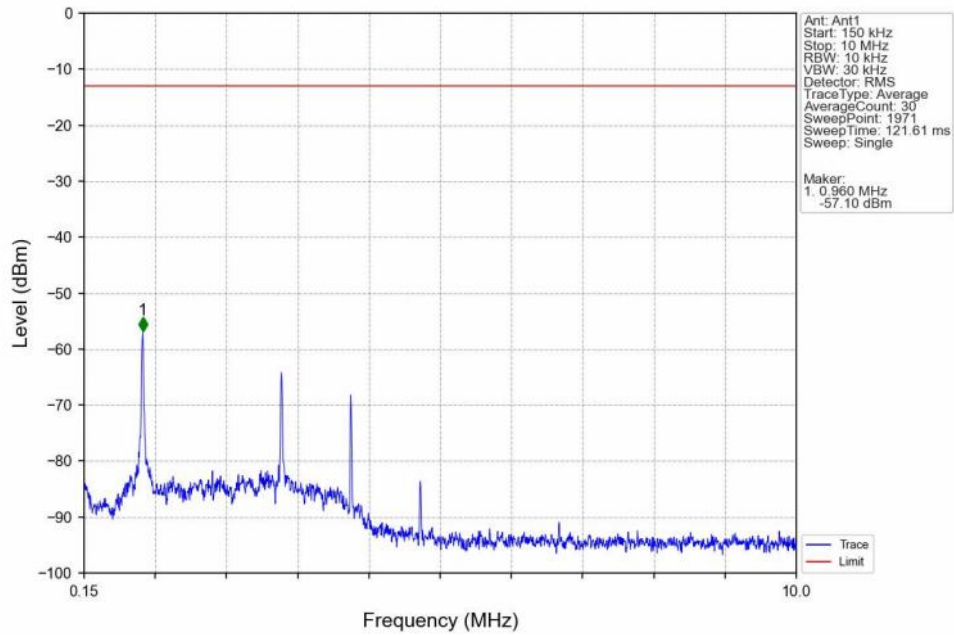
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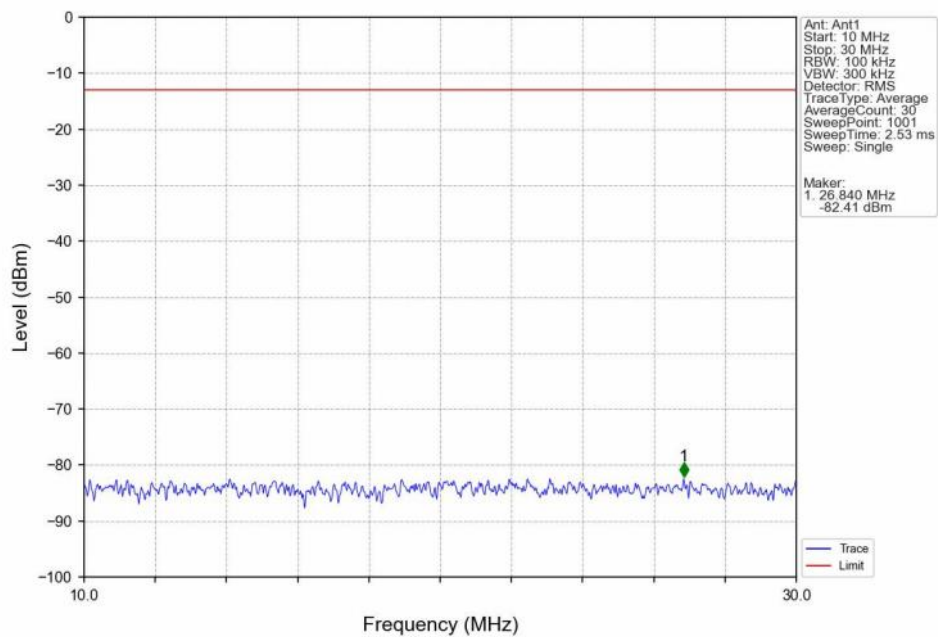
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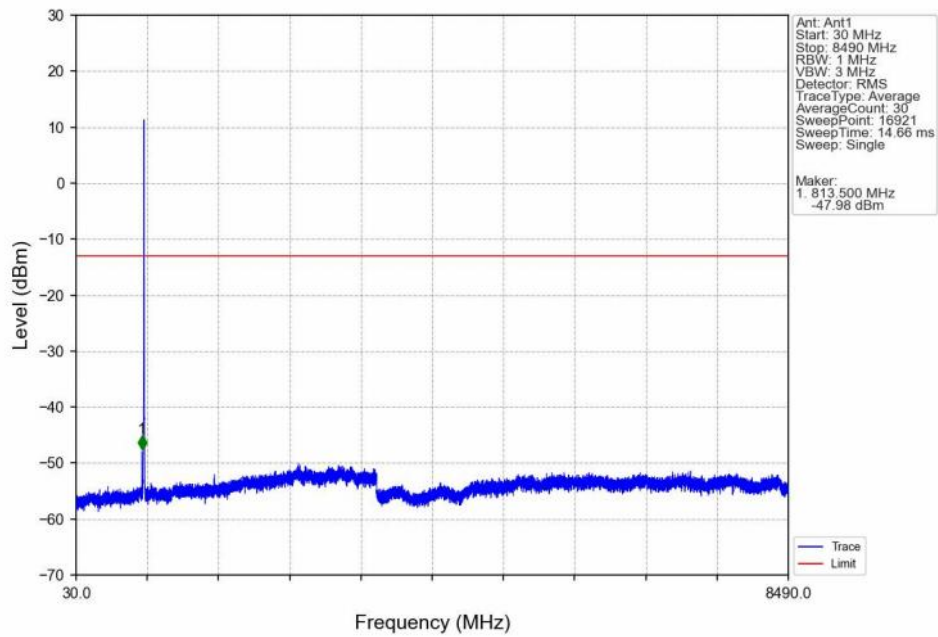
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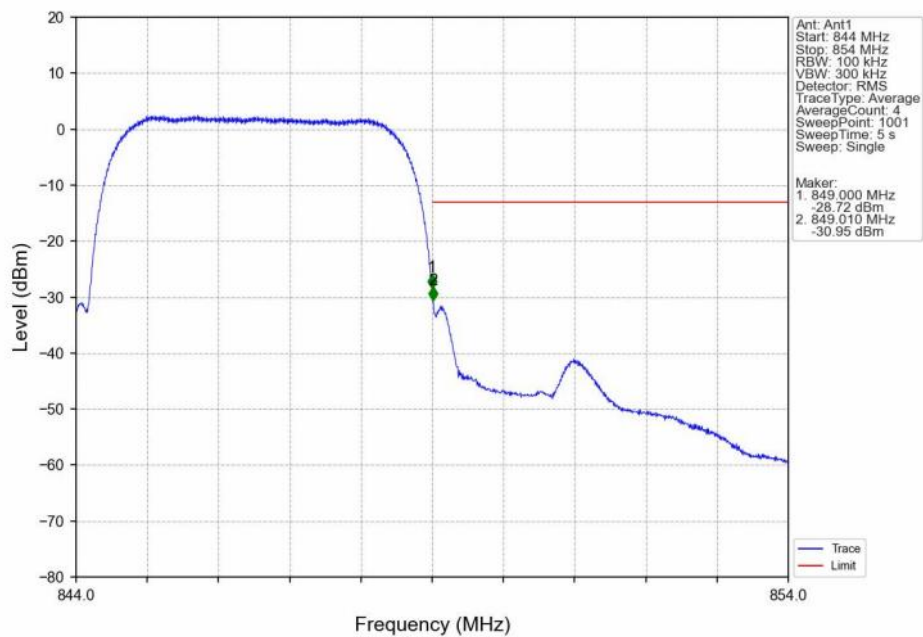
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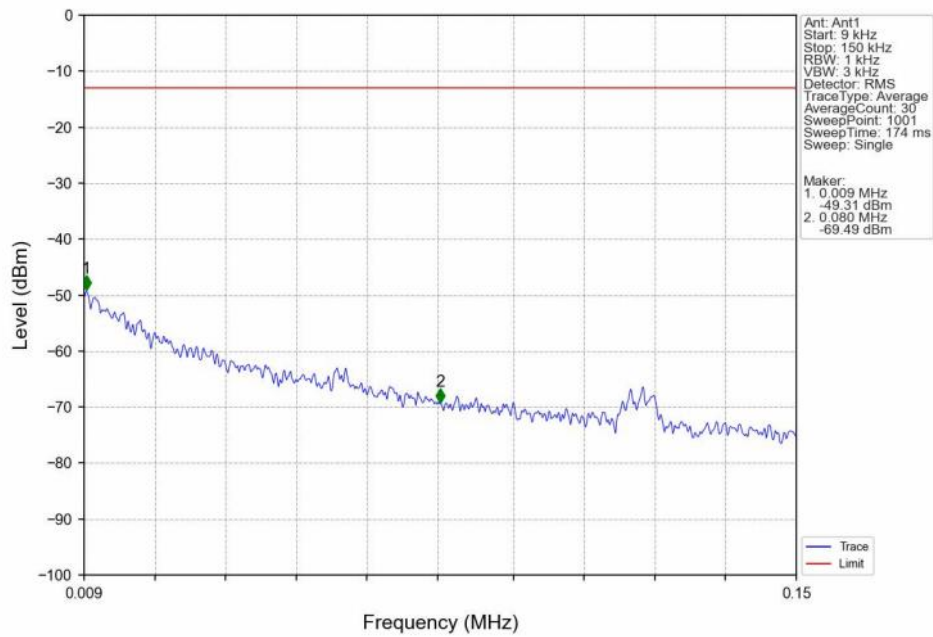
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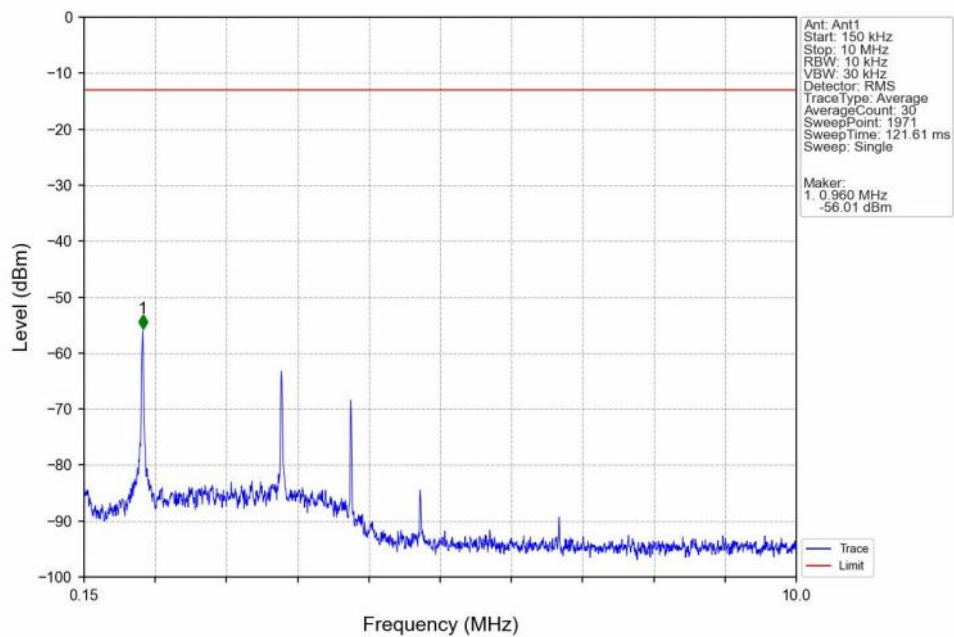
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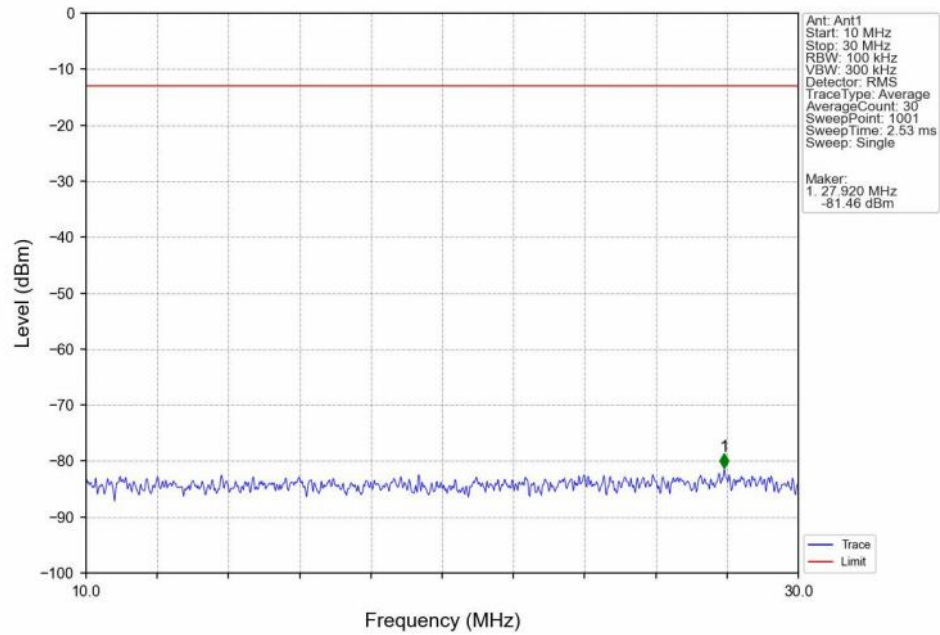
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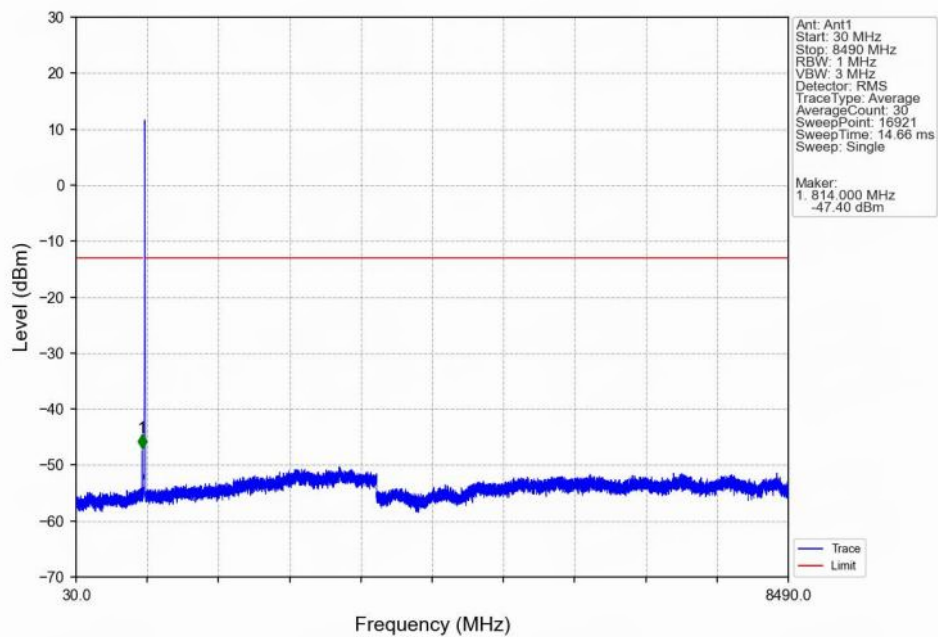
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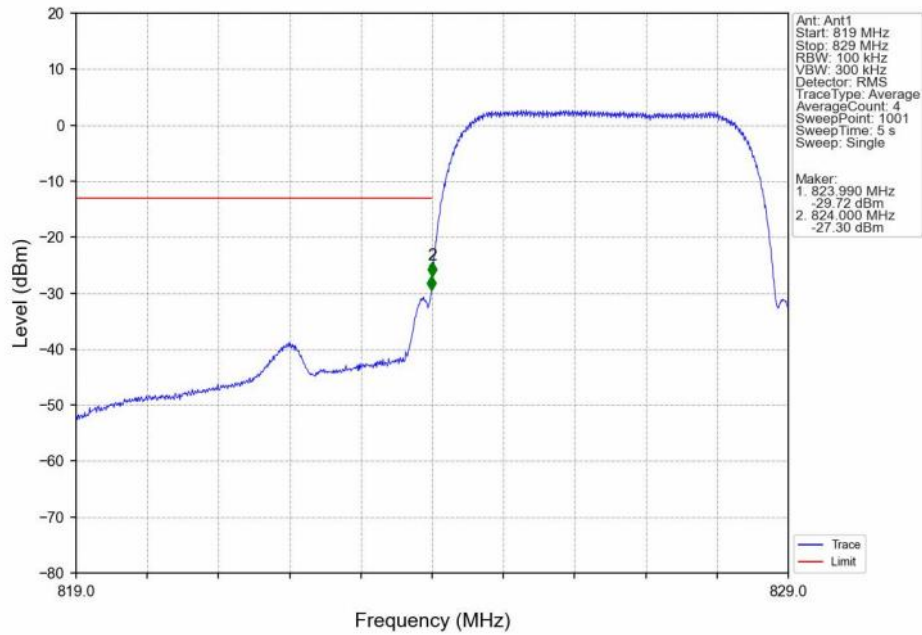
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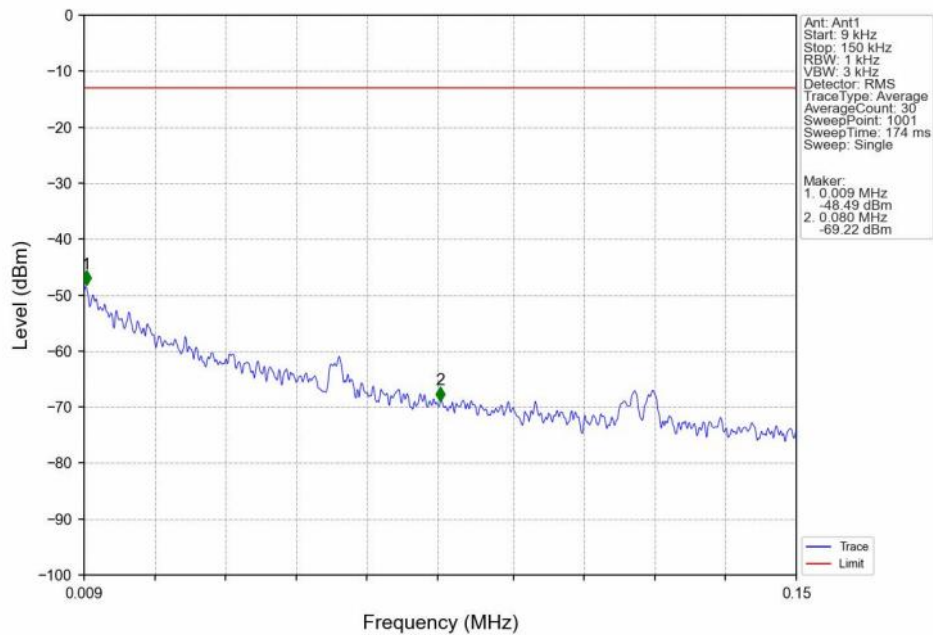
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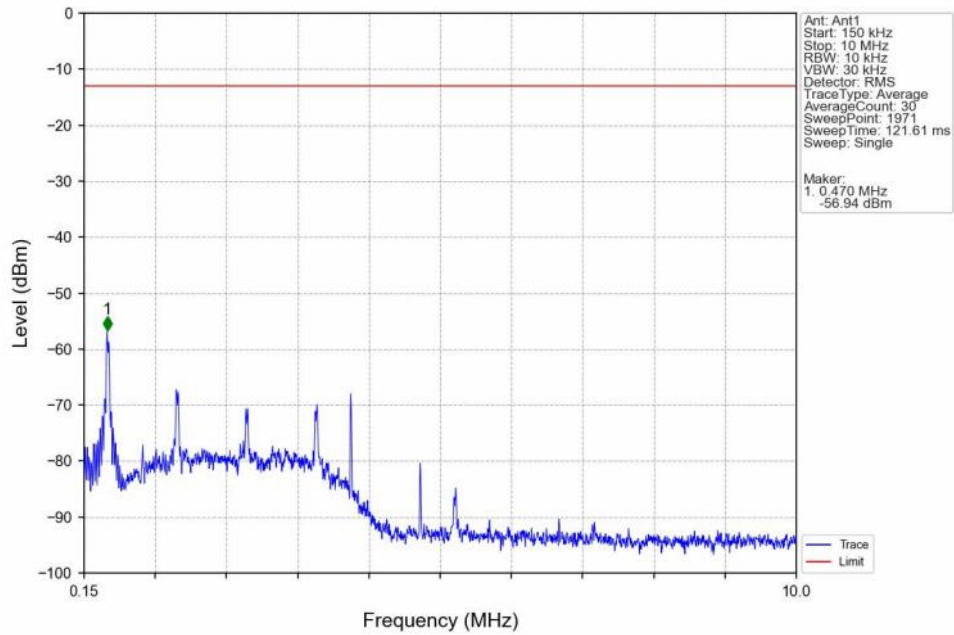
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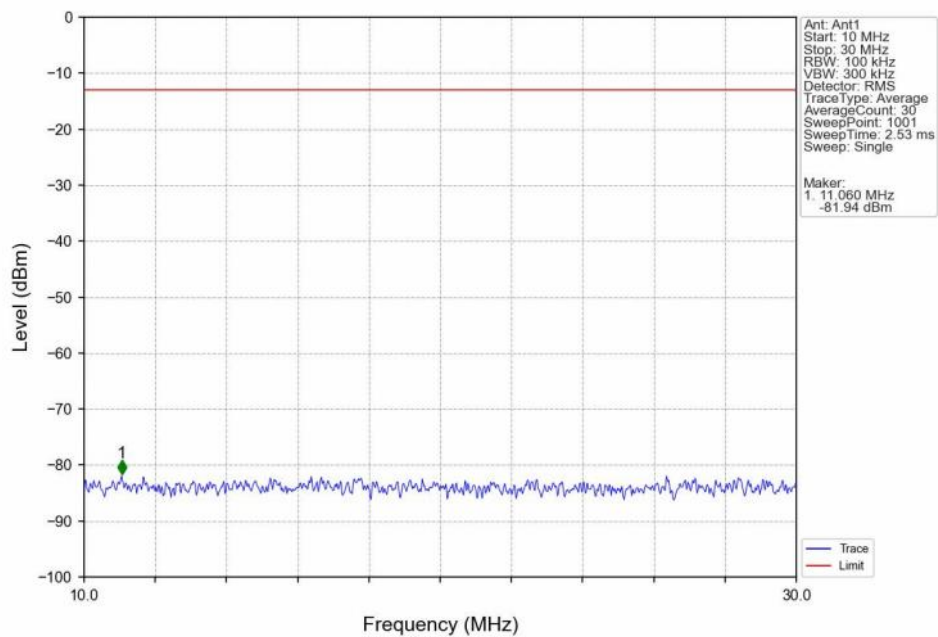
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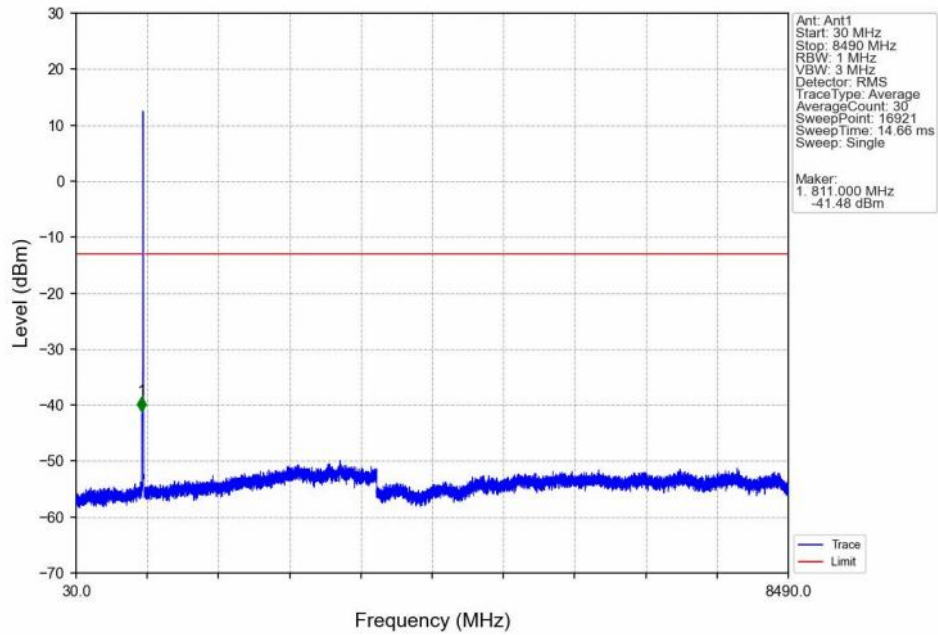
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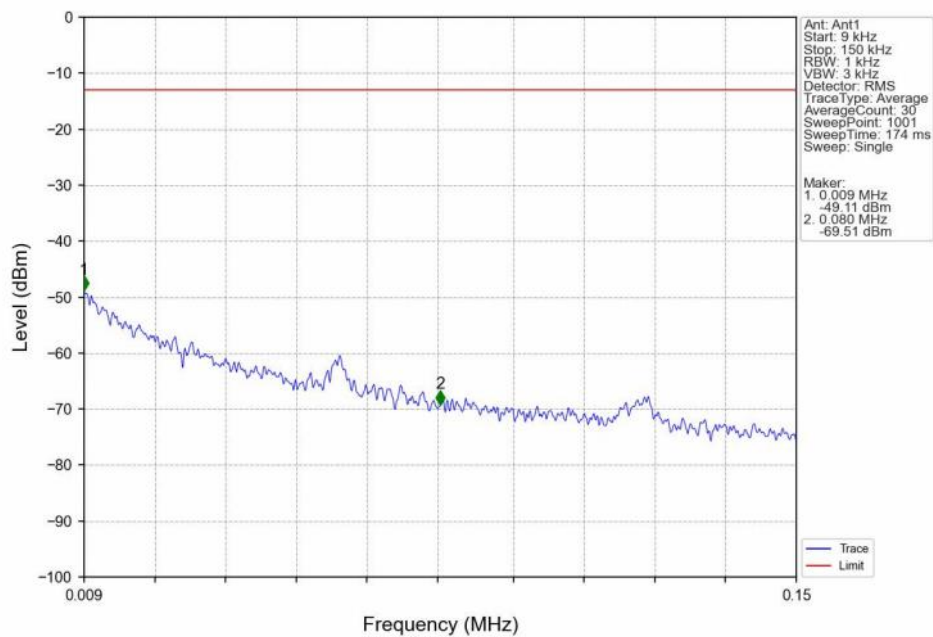
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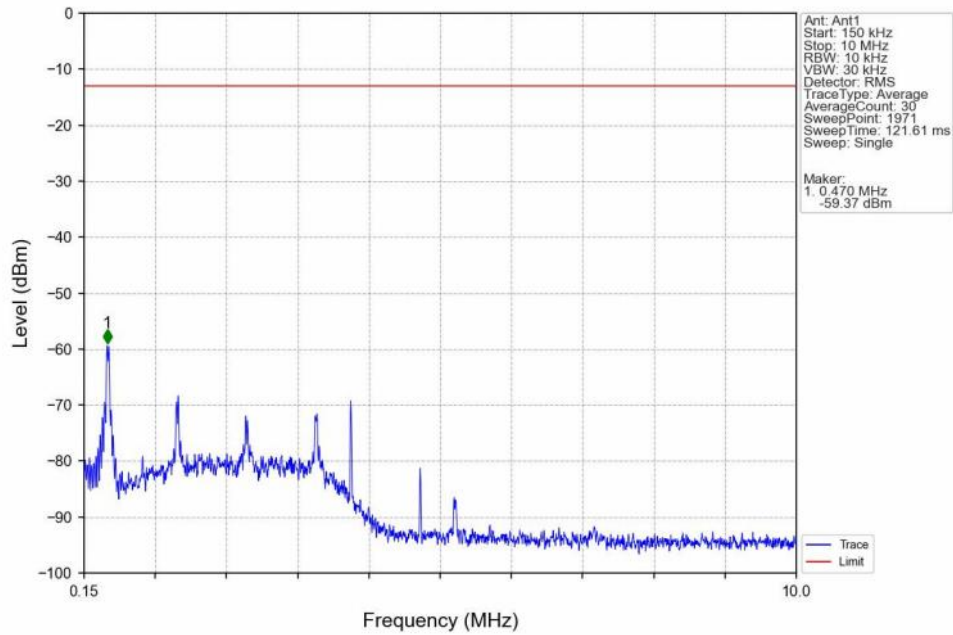
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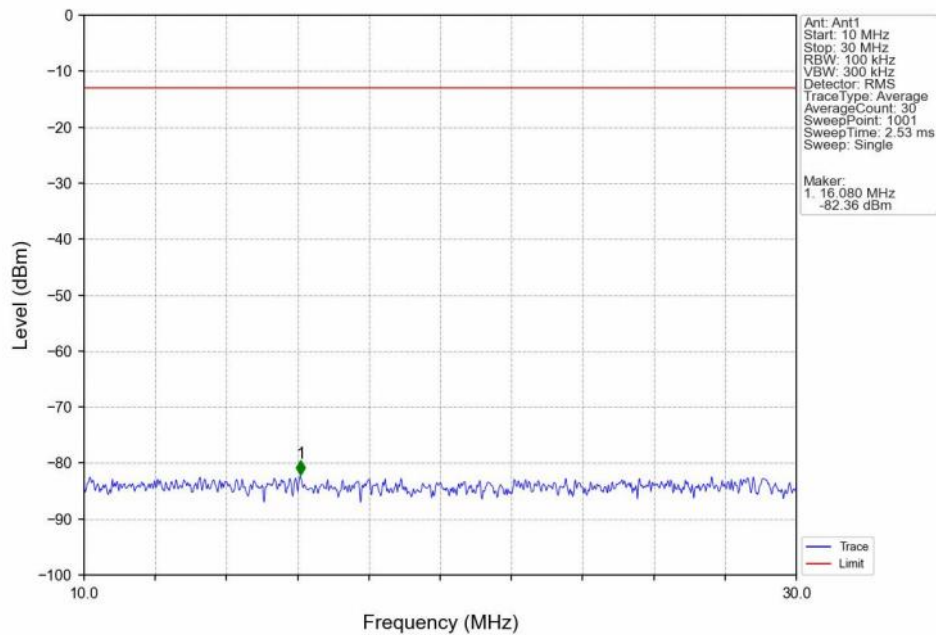
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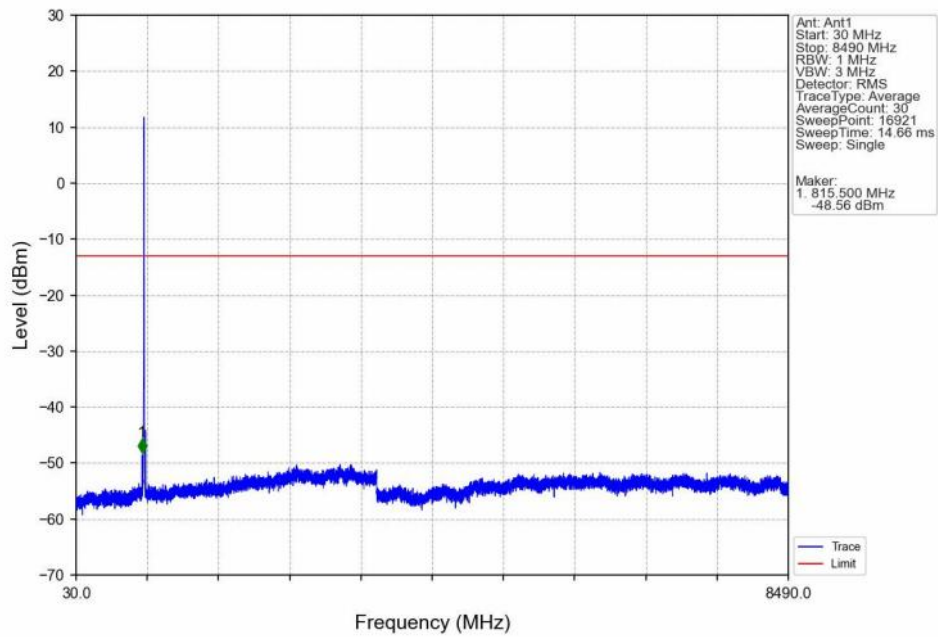
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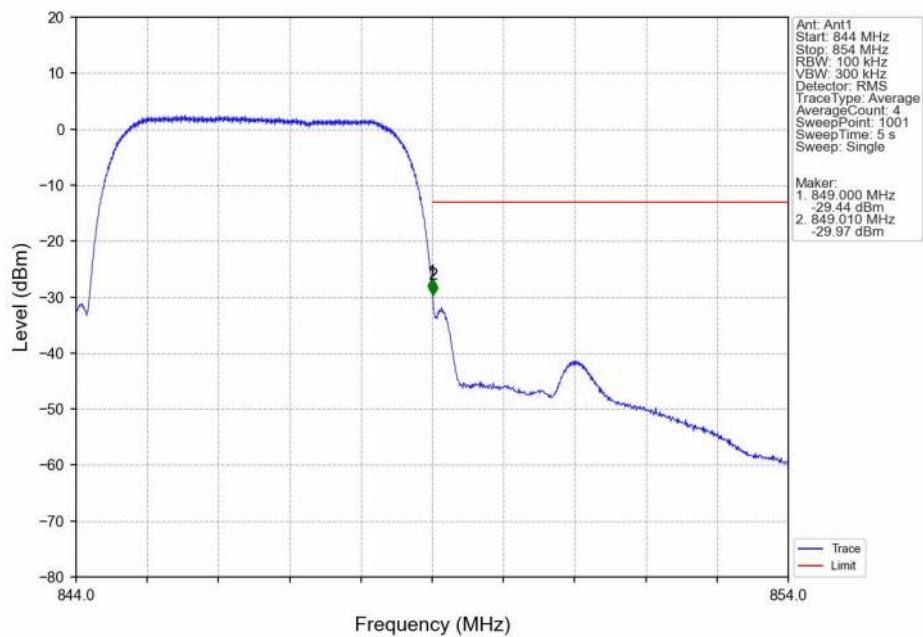
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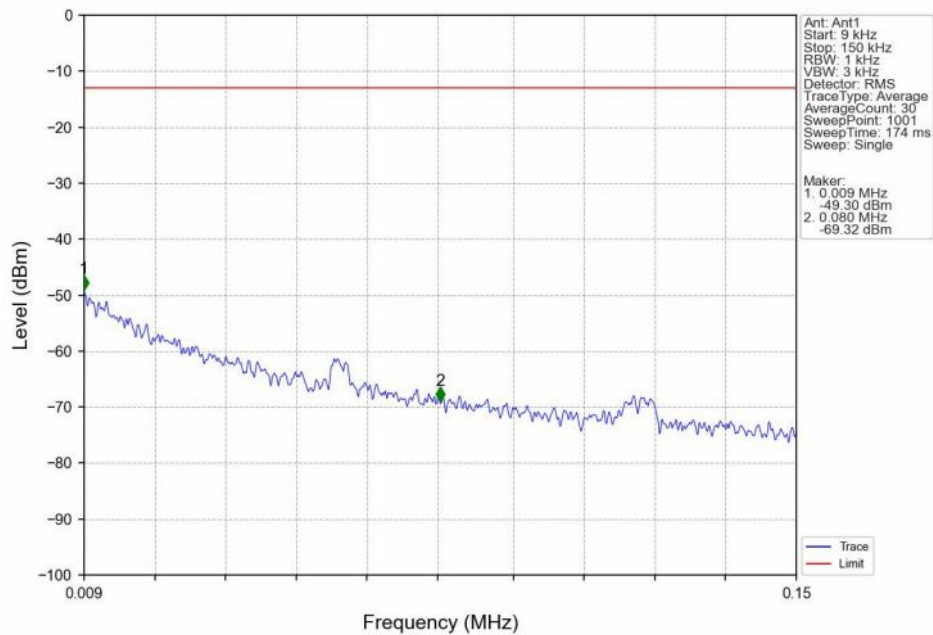
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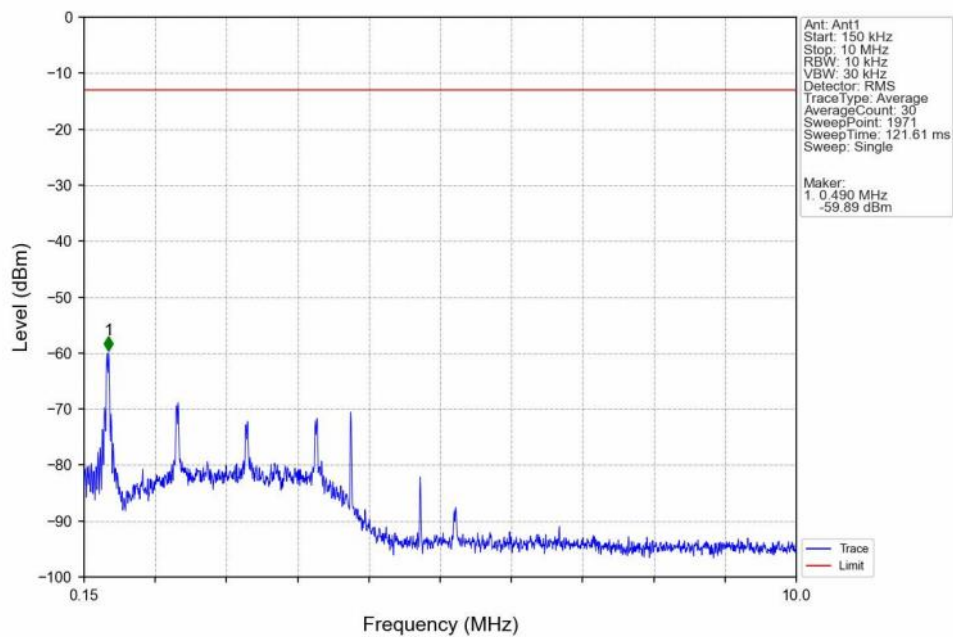
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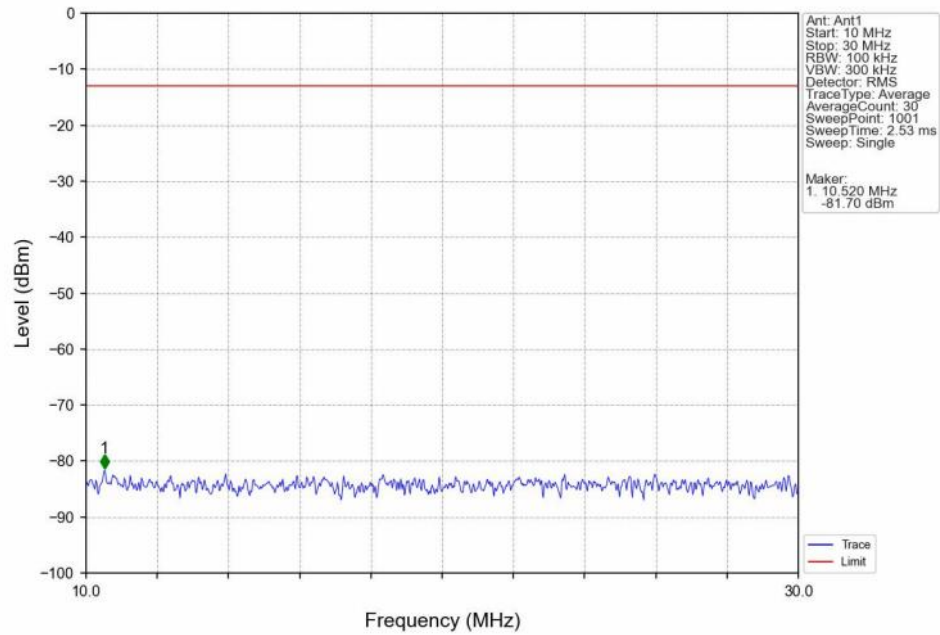
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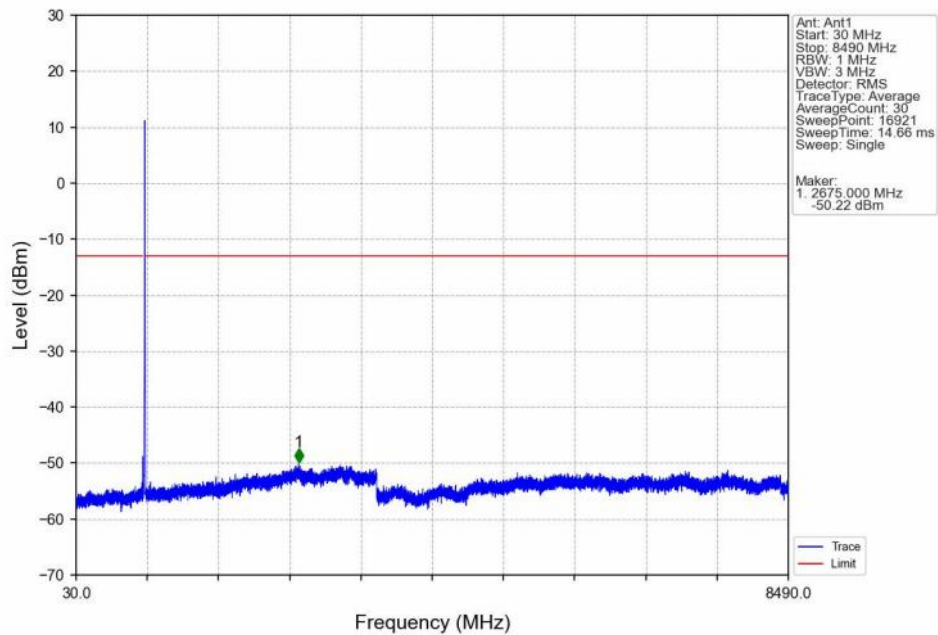
Band5 HSUPA HCH 846.6MHz Subtest 1 NTN



Band5 HSUPA HCH 846.6MHz Subtest 1 NTN



Band5 HSUPA HCH 846.6MHz Subtest 1 NTN



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	0.1164	0.0179	ppm	4M22F9W	22H	20.66

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	0.0475	0.0179	ppm	4M22F9W	22H	16.77