

Appendix RF test data for LTE_band_2

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 Band2_EIRP

Band: 2								
ENV	Mode		Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)		Verdict
	Network	Subset				Result	Limit	
NTNV	RMC	12.2kbps RMC	1852.4	23.81	-2.00	21.81	<=33.01	Pass
			1880	23.64	-2.00	21.64	<=33.01	Pass
			1907.6	23.68	-2.00	21.68	<=33.01	Pass
	HSDPA	Subtest 1	1852.4	21.67	-2.00	19.67	<=33.01	Pass
		Subtest 2	1852.4	21.66	-2.00	19.66	<=33.01	Pass
		Subtest 3	1852.4	21.66	-2.00	19.66	<=33.01	Pass
		Subtest 4	1852.4	21.68	-2.00	19.68	<=33.01	Pass
		Subtest 1	1880	21.48	-2.00	19.48	<=33.01	Pass
		Subtest 2	1880	21.48	-2.00	19.48	<=33.01	Pass
		Subtest 3	1880	21.45	-2.00	19.45	<=33.01	Pass
		Subtest 4	1880	21.45	-2.00	19.45	<=33.01	Pass
		Subtest 1	1907.6	21.50	-2.00	19.50	<=33.01	Pass
		Subtest 2	1907.6	21.48	-2.00	19.48	<=33.01	Pass
		Subtest 3	1907.6	21.51	-2.00	19.51	<=33.01	Pass
		Subtest 4	1907.6	21.48	-2.00	19.48	<=33.01	Pass
	HSUPA	Subtest 1	1852.4	18.79	-2.00	16.79	<=33.01	Pass
		Subtest 2	1852.4	19.29	-2.00	17.29	<=33.01	Pass
		Subtest 3	1852.4	18.80	-2.00	16.80	<=33.01	Pass
		Subtest 4	1852.4	18.99	-2.00	16.99	<=33.01	Pass
		Subtest 5	1852.4	19.47	-2.00	17.47	<=33.01	Pass
		Subtest 1	1880	18.65	-2.00	16.65	<=33.01	Pass
		Subtest 2	1880	19.14	-2.00	17.14	<=33.01	Pass
		Subtest 3	1880	18.84	-2.00	16.84	<=33.01	Pass
		Subtest 4	1880	18.84	-2.00	16.84	<=33.01	Pass
		Subtest 5	1880	19.03	-2.00	17.03	<=33.01	Pass
		Subtest 1	1907.6	18.71	-2.00	16.71	<=33.01	Pass
		Subtest 2	1907.6	18.66	-2.00	16.66	<=33.01	Pass
		Subtest 3	1907.6	18.67	-2.00	16.67	<=33.01	Pass
		Subtest 4	1907.6	18.86	-2.00	16.86	<=33.01	Pass
		Subtest 5	1907.6	19.04	-2.00	17.04	<=33.01	Pass

Note1: EIRP=Conducted Power+Antenna Gain

2. Frequency Stability

2.1 Test Result

2.1.1 Band2

Band: 2							
Network	Frequency (MHz)	Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
					Result	Limit	
RMC	1852.4	20	3.27	-14.040	-0.0076	-2.5 to 2.5	Pass
			3.85	-17.095	-0.0092	-2.5 to 2.5	Pass
			4.43	-10.850	-0.0059	-2.5 to 2.5	Pass
		-30	3.85	-5.922	-0.0032	-2.5 to 2.5	Pass
		-20	3.85	-13.597	-0.0073	-2.5 to 2.5	Pass

		-10	3.85	-9.885	-0.0053	-2.5 to 2.5	Pass
		0	3.85	-13.504	-0.0073	-2.5 to 2.5	Pass
		10	3.85	-9.663	-0.0052	-2.5 to 2.5	Pass
		30	3.85	-13.855	-0.0075	-2.5 to 2.5	Pass
		40	3.85	-13.947	-0.0075	-2.5 to 2.5	Pass
		50	3.85	-15.235	-0.0082	-2.5 to 2.5	Pass
	1880	20	3.27	-12.925	-0.0069	-2.5 to 2.5	Pass
			3.85	-10.922	-0.0058	-2.5 to 2.5	Pass
			4.43	-16.494	-0.0088	-2.5 to 2.5	Pass
		-30	3.85	-11.537	-0.0061	-2.5 to 2.5	Pass
		-20	3.85	-15.042	-0.0080	-2.5 to 2.5	Pass
		-10	3.85	-14.198	-0.0076	-2.5 to 2.5	Pass
		0	3.85	-14.176	-0.0075	-2.5 to 2.5	Pass
		10	3.85	-10.071	-0.0054	-2.5 to 2.5	Pass
		30	3.85	-10.772	-0.0057	-2.5 to 2.5	Pass
		40	3.85	-15.578	-0.0083	-2.5 to 2.5	Pass
		50	3.85	-13.840	-0.0074	-2.5 to 2.5	Pass
	1907.6	20	3.27	-14.155	-0.0074	-2.5 to 2.5	Pass
			3.85	-10.457	-0.0055	-2.5 to 2.5	Pass
			4.43	-14.834	-0.0078	-2.5 to 2.5	Pass
		-30	3.85	-17.524	-0.0092	-2.5 to 2.5	Pass
		-20	3.85	-9.971	-0.0052	-2.5 to 2.5	Pass
		-10	3.85	-8.340	-0.0044	-2.5 to 2.5	Pass
		0	3.85	-10.178	-0.0053	-2.5 to 2.5	Pass
		10	3.85	-11.537	-0.0060	-2.5 to 2.5	Pass
		30	3.85	-15.728	-0.0082	-2.5 to 2.5	Pass
		40	3.85	-13.003	-0.0068	-2.5 to 2.5	Pass
		50	3.85	-10.958	-0.0057	-2.5 to 2.5	Pass
HSDPA	1852.4	20	3.27	-16.851	-0.0091	-2.5 to 2.5	Pass
			3.85	-17.002	-0.0092	-2.5 to 2.5	Pass
			4.43	-18.246	-0.0098	-2.5 to 2.5	Pass
		-30	3.85	-19.348	-0.0104	-2.5 to 2.5	Pass
		-20	3.85	-16.229	-0.0088	-2.5 to 2.5	Pass
		-10	3.85	-16.880	-0.0091	-2.5 to 2.5	Pass
		0	3.85	-14.563	-0.0079	-2.5 to 2.5	Pass
		10	3.85	-19.290	-0.0104	-2.5 to 2.5	Pass
		30	3.85	-15.078	-0.0081	-2.5 to 2.5	Pass
		40	3.85	-19.698	-0.0106	-2.5 to 2.5	Pass
		50	3.85	-15.585	-0.0084	-2.5 to 2.5	Pass
	1880	20	3.27	-15.771	-0.0084	-2.5 to 2.5	Pass
			3.85	-17.331	-0.0092	-2.5 to 2.5	Pass
			4.43	-14.420	-0.0077	-2.5 to 2.5	Pass
		-30	3.85	-15.342	-0.0082	-2.5 to 2.5	Pass
		-20	3.85	-13.933	-0.0074	-2.5 to 2.5	Pass
		-10	3.85	-12.696	-0.0068	-2.5 to 2.5	Pass
		0	3.85	-16.272	-0.0087	-2.5 to 2.5	Pass
		10	3.85	-15.714	-0.0084	-2.5 to 2.5	Pass
		30	3.85	-15.671	-0.0083	-2.5 to 2.5	Pass
		40	3.85	-14.305	-0.0076	-2.5 to 2.5	Pass
		50	3.85	-10.779	-0.0057	-2.5 to 2.5	Pass
	1907.6	20	3.27	-3.419	-0.0018	-2.5 to 2.5	Pass
			3.85	-4.327	-0.0023	-2.5 to 2.5	Pass
			4.43	-3.884	-0.0020	-2.5 to 2.5	Pass
		-30	3.85	-5.536	-0.0029	-2.5 to 2.5	Pass
		-20	3.85	-7.124	-0.0037	-2.5 to 2.5	Pass
		-10	3.85	-10.107	-0.0053	-2.5 to 2.5	Pass
		0	3.85	-8.390	-0.0044	-2.5 to 2.5	Pass
		10	3.85	-7.489	-0.0039	-2.5 to 2.5	Pass
		30	3.85	-3.784	-0.0020	-2.5 to 2.5	Pass

HSUPA		40	3.85	-8.876	-0.0047	-2.5 to 2.5	Pass
		50	3.85	-4.613	-0.0024	-2.5 to 2.5	Pass
	1852.4	20	3.27	-4.399	-0.0024	-2.5 to 2.5	Pass
			3.85	-7.403	-0.0040	-2.5 to 2.5	Pass
			4.43	-3.877	-0.0021	-2.5 to 2.5	Pass
		-30	3.85	-3.920	-0.0021	-2.5 to 2.5	Pass
		-20	3.85	-5.822	-0.0031	-2.5 to 2.5	Pass
		-10	3.85	-6.187	-0.0033	-2.5 to 2.5	Pass
		0	3.85	-9.727	-0.0053	-2.5 to 2.5	Pass
		10	3.85	-12.088	-0.0065	-2.5 to 2.5	Pass
		30	3.85	-3.526	-0.0019	-2.5 to 2.5	Pass
		40	3.85	-8.976	-0.0048	-2.5 to 2.5	Pass
		50	3.85	-11.222	-0.0061	-2.5 to 2.5	Pass
	1880	20	3.27	-11.809	-0.0063	-2.5 to 2.5	Pass
			3.85	-3.219	-0.0017	-2.5 to 2.5	Pass
			4.43	-8.805	-0.0047	-2.5 to 2.5	Pass
		-30	3.85	-6.273	-0.0033	-2.5 to 2.5	Pass
		-20	3.85	-7.932	-0.0042	-2.5 to 2.5	Pass
		-10	3.85	-7.353	-0.0039	-2.5 to 2.5	Pass
		0	3.85	-8.039	-0.0043	-2.5 to 2.5	Pass
		10	3.85	-2.847	-0.0015	-2.5 to 2.5	Pass
		30	3.85	-8.376	-0.0045	-2.5 to 2.5	Pass
		40	3.85	-5.851	-0.0031	-2.5 to 2.5	Pass
		50	3.85	-3.533	-0.0019	-2.5 to 2.5	Pass
	1907.6	20	3.27	-12.045	-0.0063	-2.5 to 2.5	Pass
			3.85	-6.981	-0.0037	-2.5 to 2.5	Pass
			4.43	-4.985	-0.0026	-2.5 to 2.5	Pass
		-30	3.85	-11.201	-0.0059	-2.5 to 2.5	Pass
		-20	3.85	-8.783	-0.0046	-2.5 to 2.5	Pass
		-10	3.85	-13.404	-0.0070	-2.5 to 2.5	Pass
		0	3.85	-6.509	-0.0034	-2.5 to 2.5	Pass
		10	3.85	-8.261	-0.0043	-2.5 to 2.5	Pass
		30	3.85	-5.579	-0.0029	-2.5 to 2.5	Pass
		40	3.85	-4.871	-0.0026	-2.5 to 2.5	Pass
		50	3.85	-6.874	-0.0036	-2.5 to 2.5	Pass

3. Modulation Characteristics

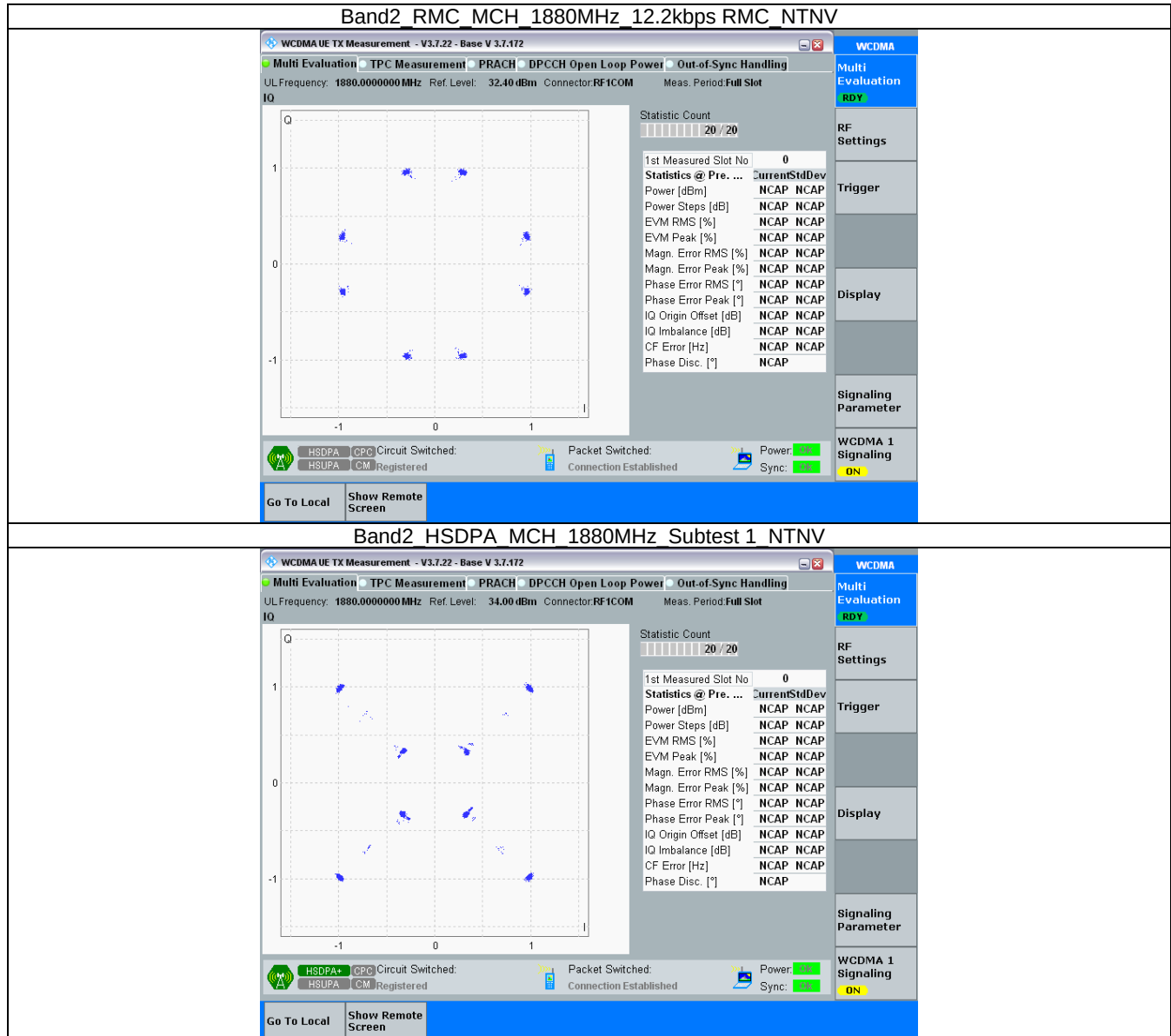
3.1 Test Result

3.1.1 Band2

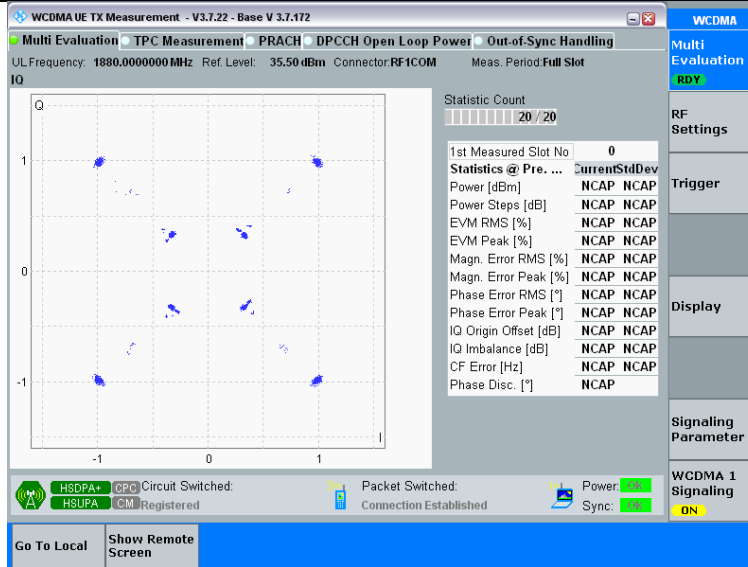
Band: 2						
ENV	Mode		Frequency (MHz)	Modulation Characteristics		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1880	Refer To Test Graph		Pass
	HSDPA	Subtest 1	1880	Refer To Test Graph		Pass
	HSUPA	Subtest 1	1880	Refer To Test Graph		Pass

3.2 Test Graph

3.2.1 Band2



Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



4. 99% & 26dB Bandwidth

4.1 Test Result

4.1.1 Band2_OBW

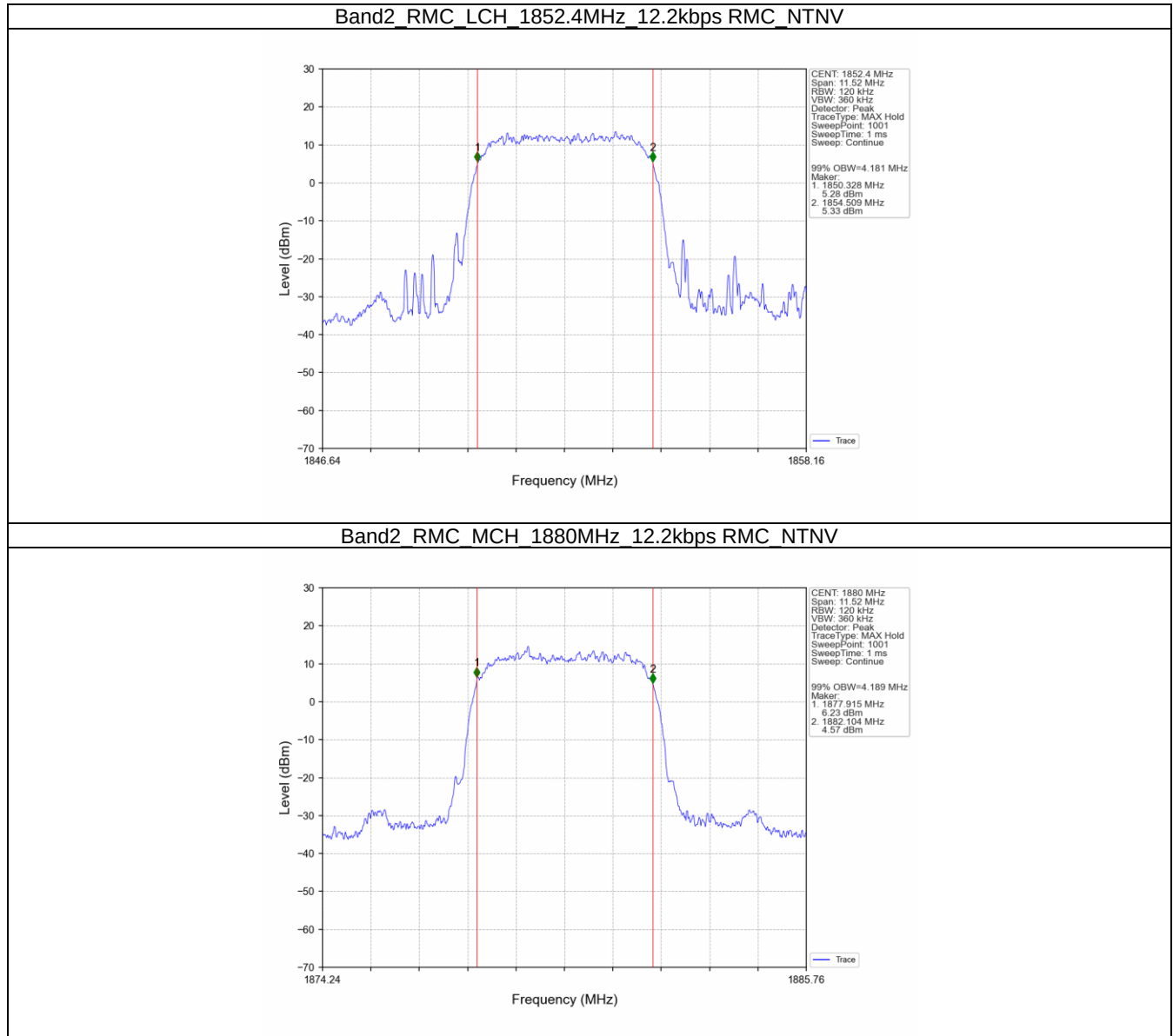
Band: 2						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1852.4	4.181	/	Pass
			1880	4.189	/	Pass
			1907.6	4.191	/	Pass
	HSDPA	Subtest 1	1852.4	4.205	/	Pass
			1880	4.203	/	Pass
			1907.6	4.229	/	Pass
	HSUPA	Subtest 1	1852.4	4.208	/	Pass
			1880	4.185	/	Pass
			1907.6	4.212	/	Pass

4.1.2 Band2_XDB

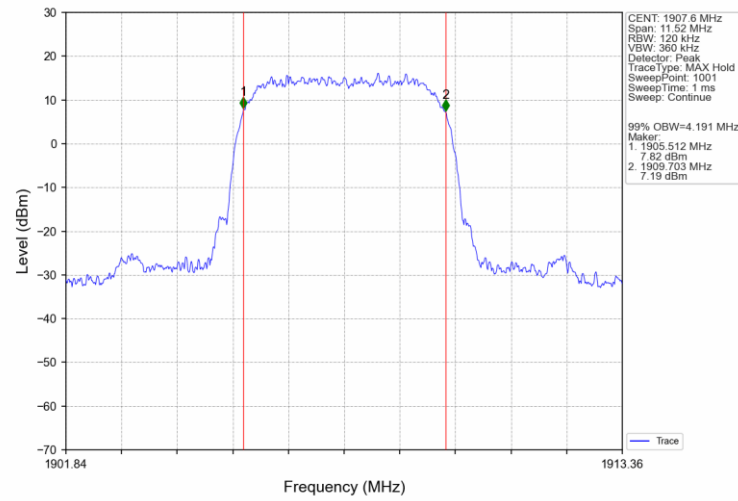
Band: 2						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1852.4	4.743	/	Pass
			1880	4.740	/	Pass
			1907.6	4.751	/	Pass
	HSDPA	Subtest 1	1852.4	4.868	/	Pass
			1880	4.783	/	Pass
			1907.6	6.224	/	Pass
	HSUPA	Subtest 1	1852.4	4.767	/	Pass
			1880	4.765	/	Pass
			1907.6	5.805	/	Pass

4.2 Test Graph

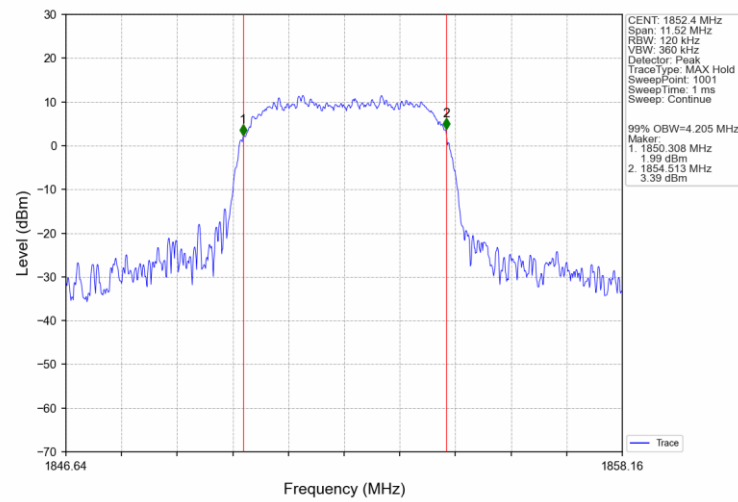
4.2.1 Band2_OBW



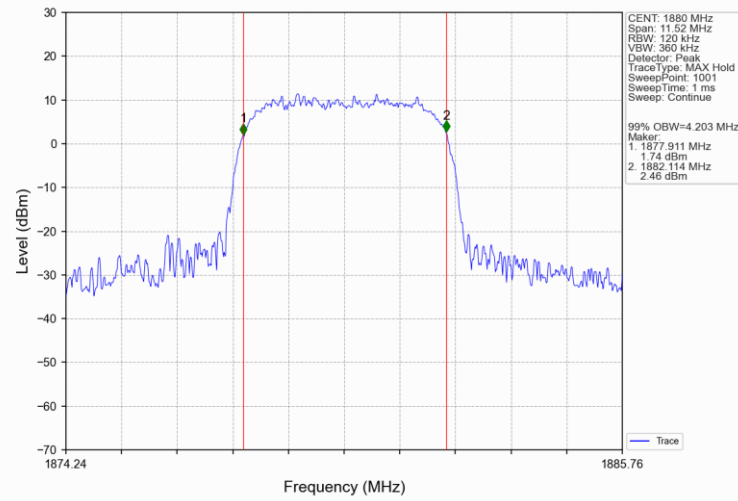
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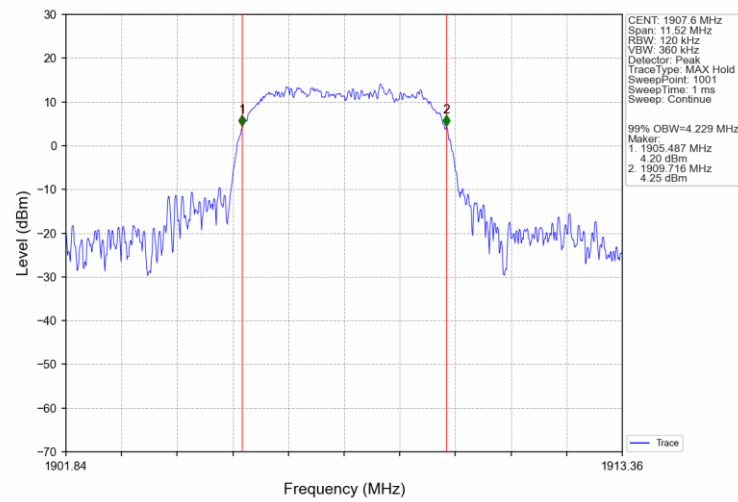
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



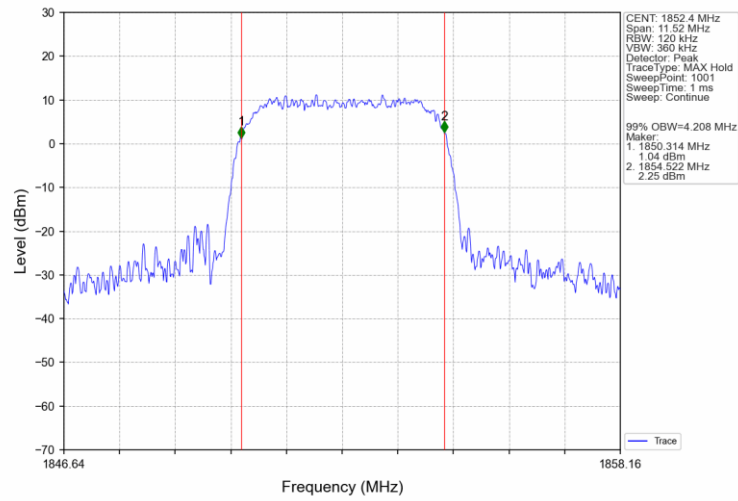
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



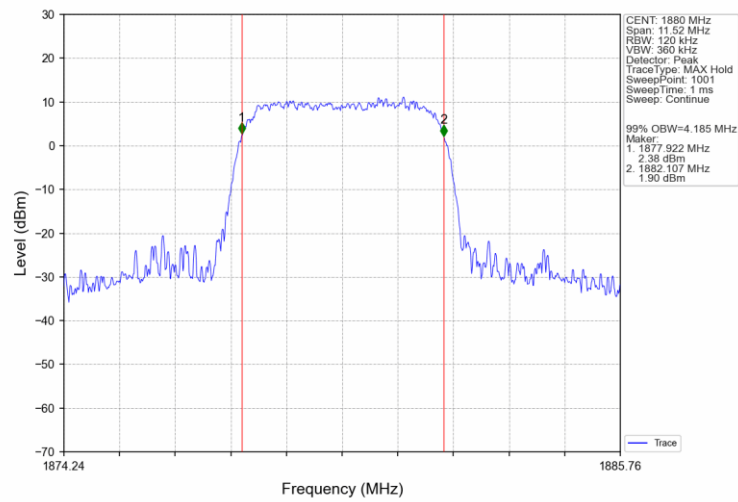
Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



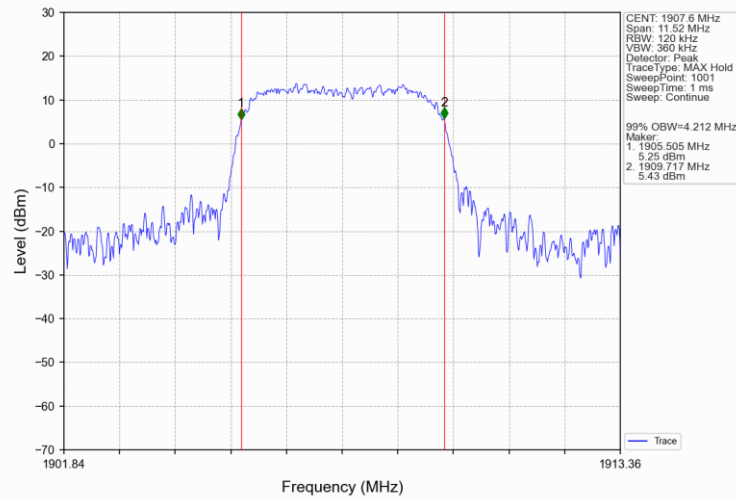
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Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV

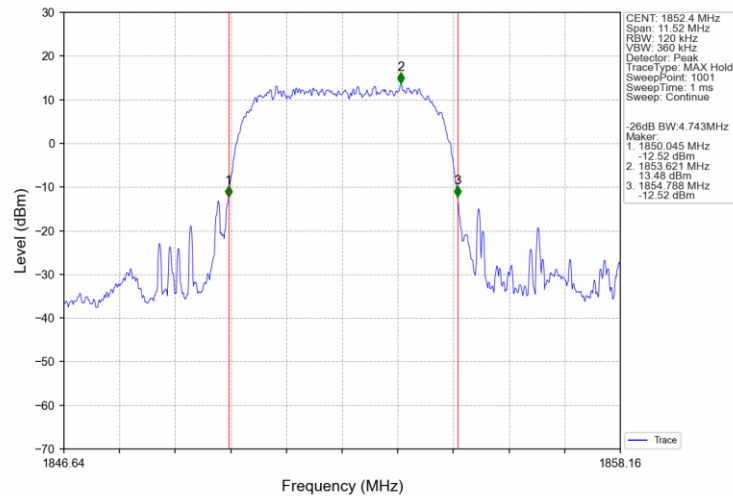


Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV

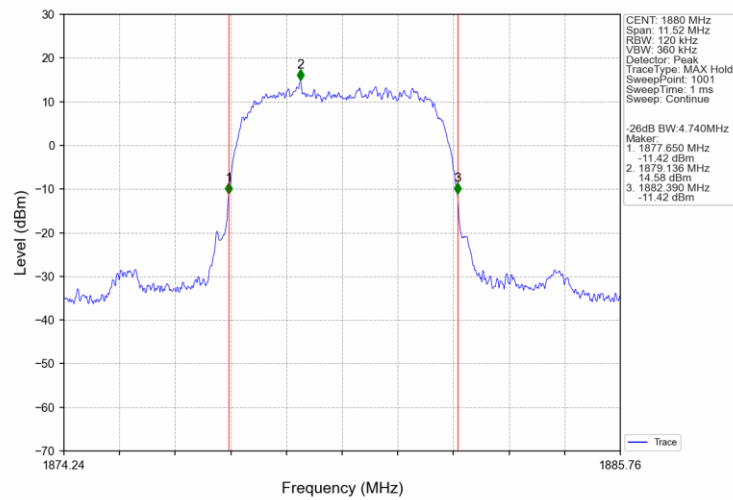


4.2.2 Band2_XDB

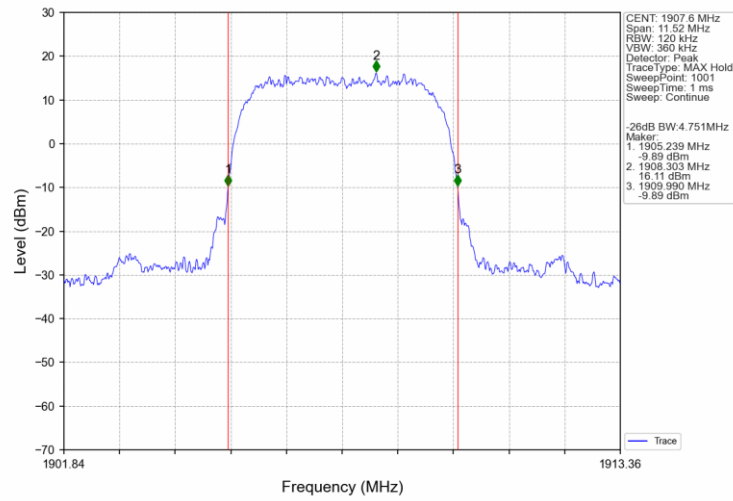
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



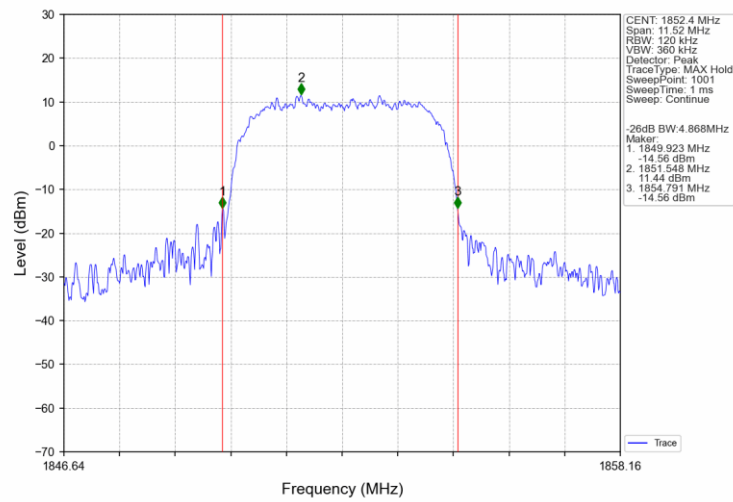
Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



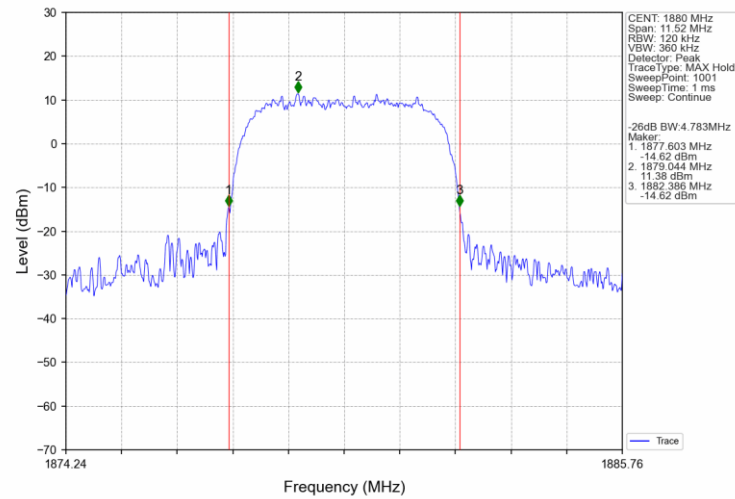
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



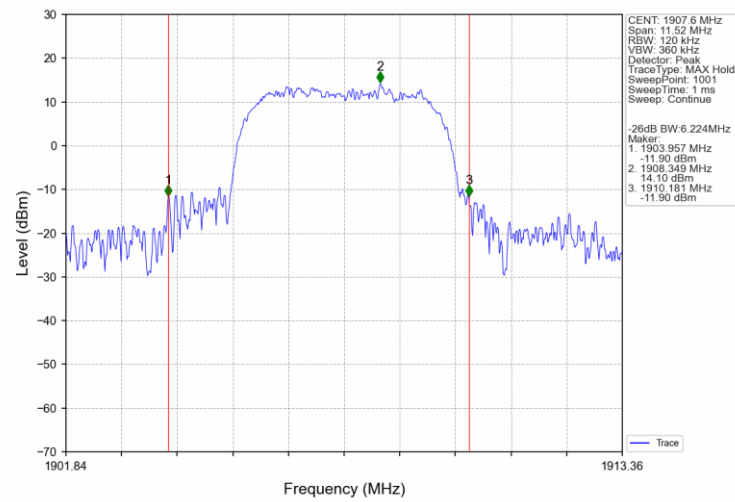
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



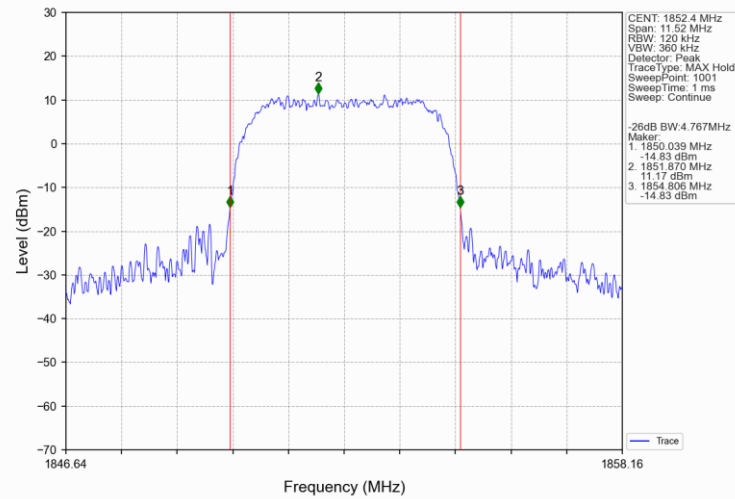
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



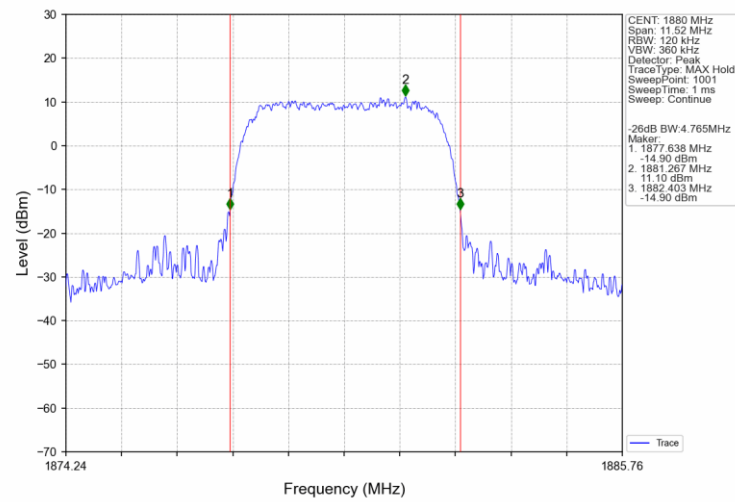
Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



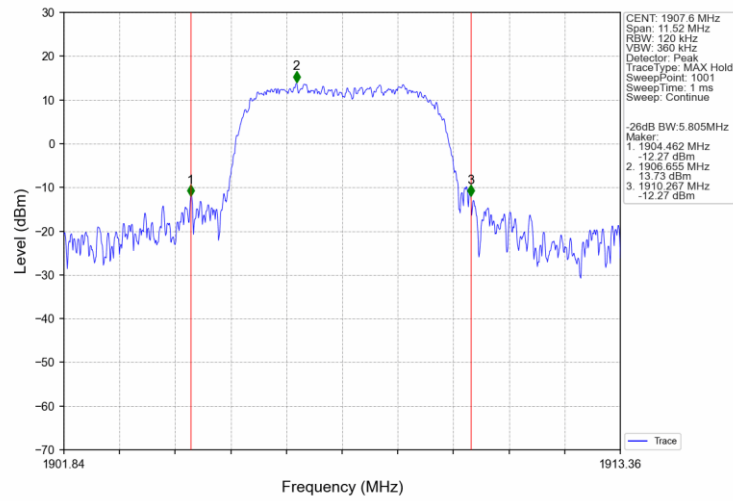
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV



Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



5. Peak-Average Ratio

5.1 Test Result

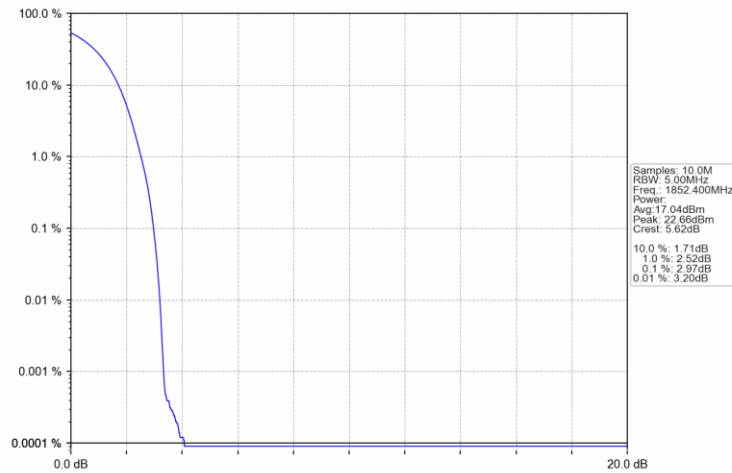
5.1.1 Band2

Band: 2						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1852.4	2.97	<=13	Pass
			1880	3.06	<=13	Pass
			1907.6	3.09	<=13	Pass
	HSDPA	Subtest 1	1852.4	5.91	<=13	Pass
			1880	6.00	<=13	Pass
			1907.6	6.00	<=13	Pass
	HSUPA	Subtest 1	1852.4	6.86	<=13	Pass
			1880	6.99	<=13	Pass
			1907.6	7.16	<=13	Pass

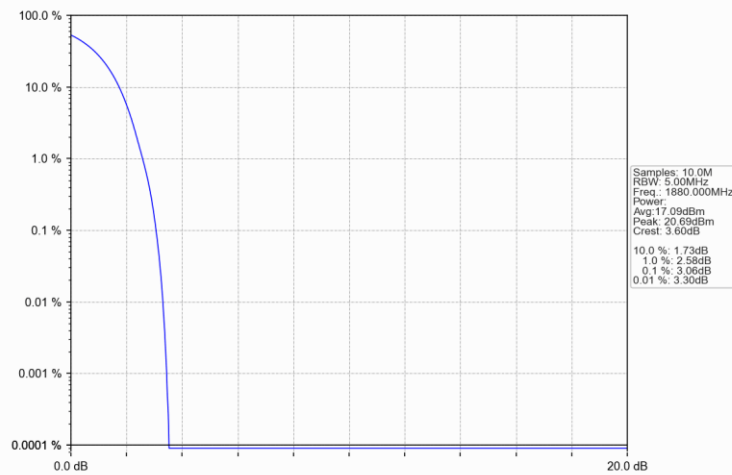
5.2 Test Graph

5.2.1 Band2

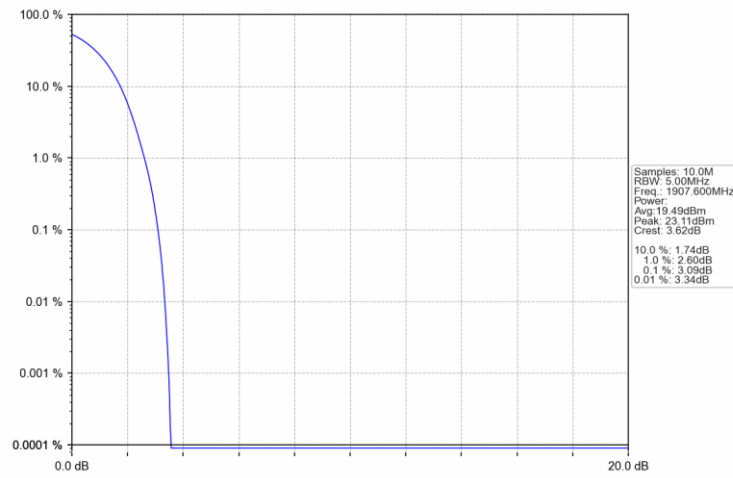
Band2_RMC_LCH_1852.4MHz_12.2kbps_RMC_NTNV



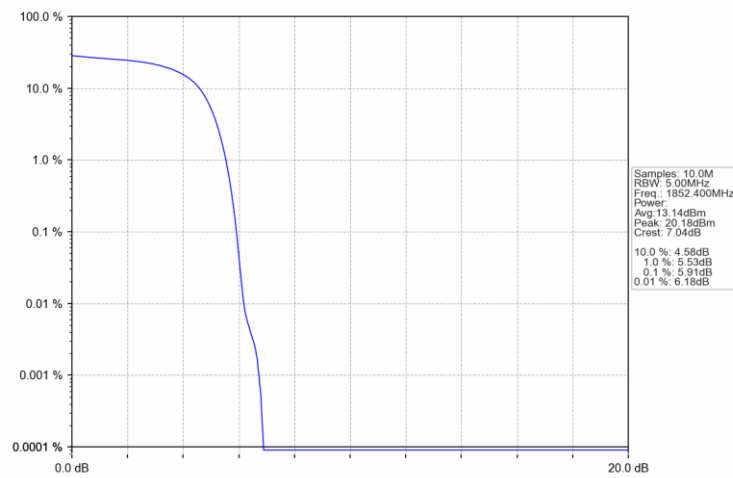
Band2_RMC_MCH_1880MHz_12.2kbps_RMC_NTNV



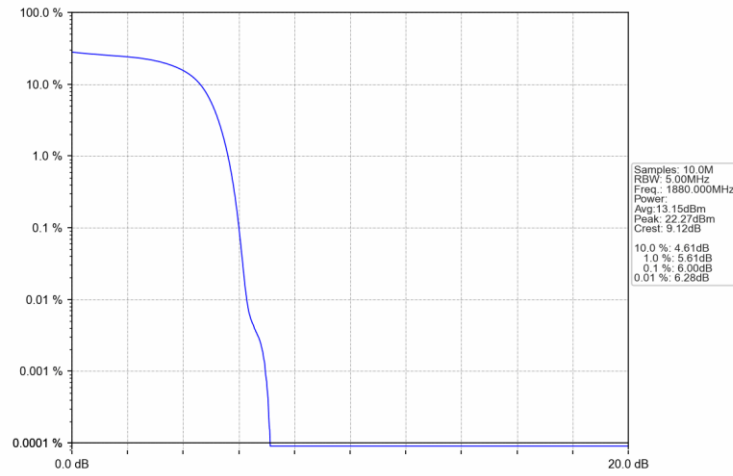
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



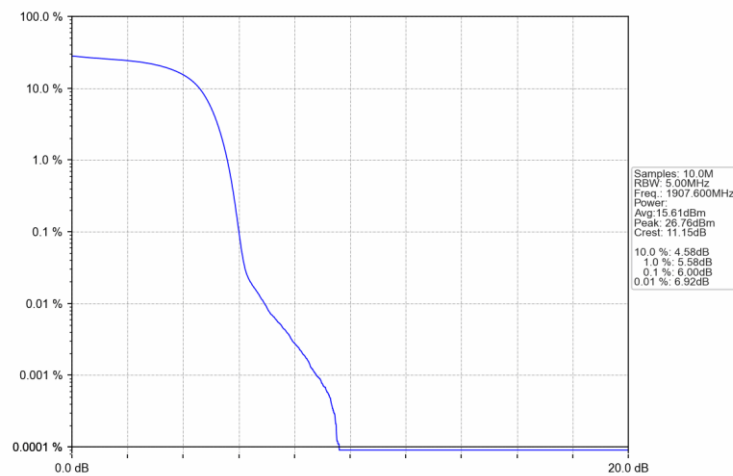
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



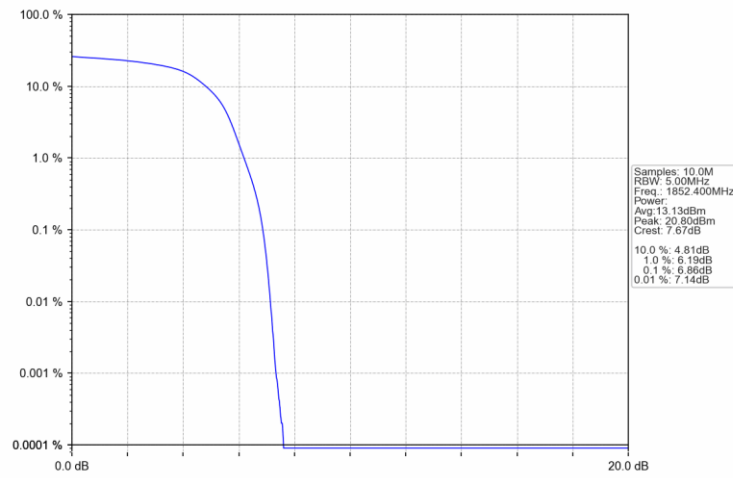
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



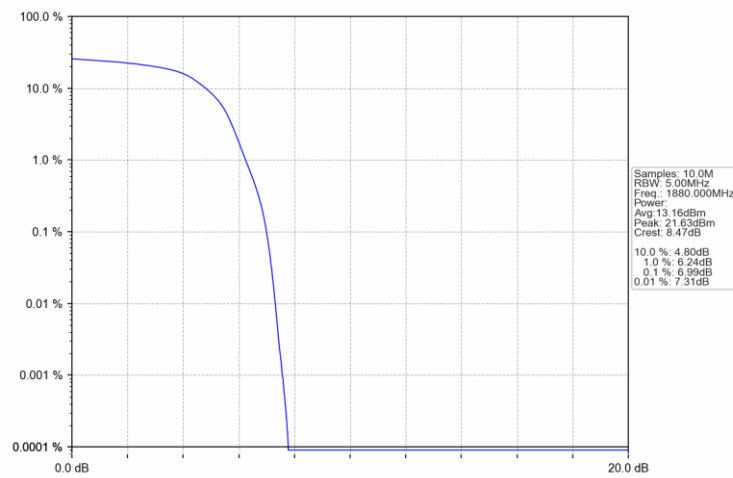
Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



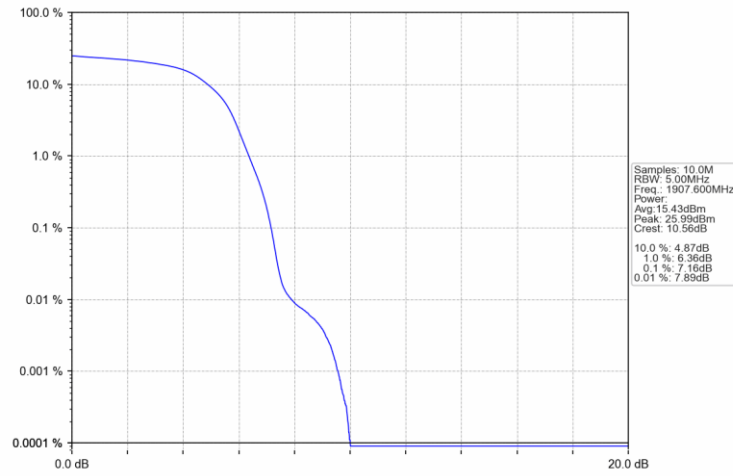
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV



Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



6. Spurious Emission

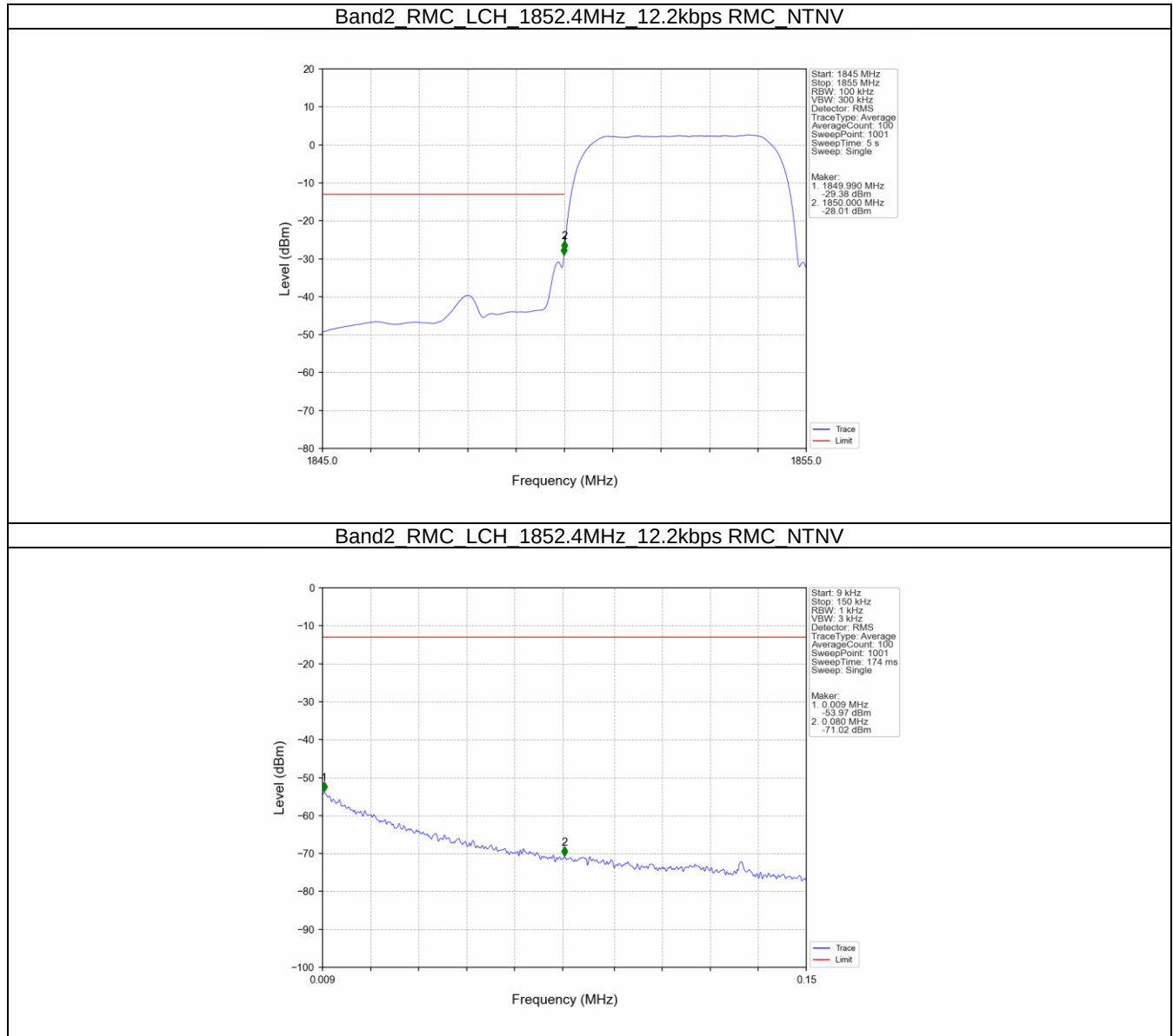
6.1 Test Result

6.1.1 Band2

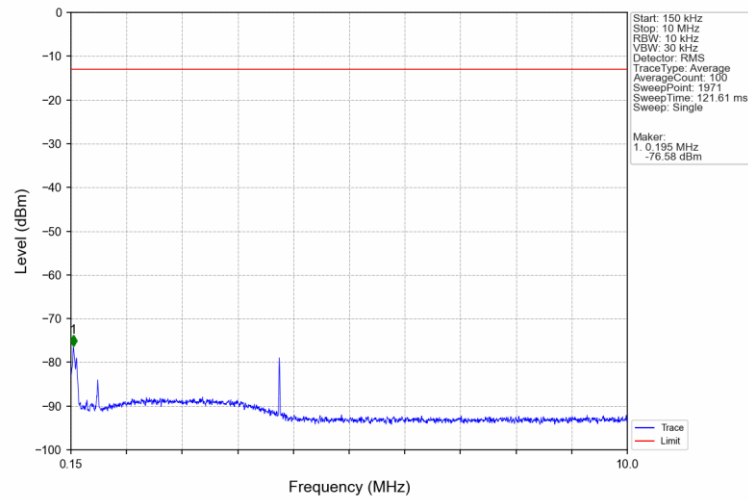
Band: 2						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1852.4	Refer To Test Graph	Pass	
			1880	Refer To Test Graph	Pass	
			1907.6	Refer To Test Graph	Pass	
	HSDPA	Subtest 1	1852.4	Refer To Test Graph	Pass	
			1880	Refer To Test Graph	Pass	
			1907.6	Refer To Test Graph	Pass	
	HSUPA	Subtest 1	1852.4	Refer To Test Graph	Pass	
			1880	Refer To Test Graph	Pass	
			1907.6	Refer To Test Graph	Pass	

6.2 Test Graph

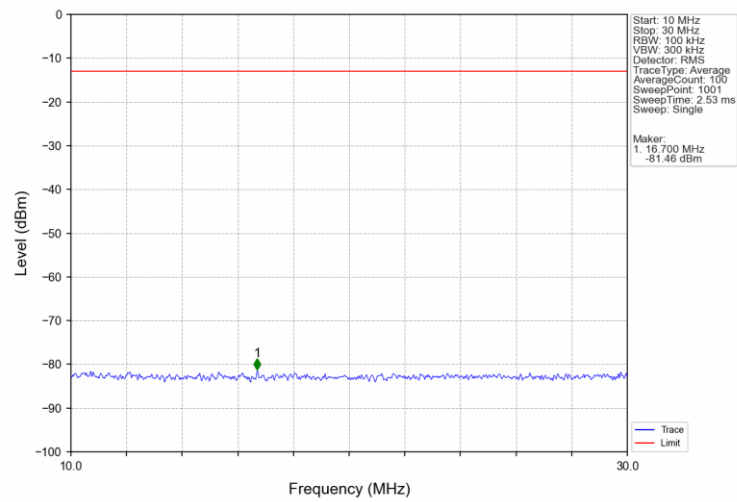
6.2.1 Band2



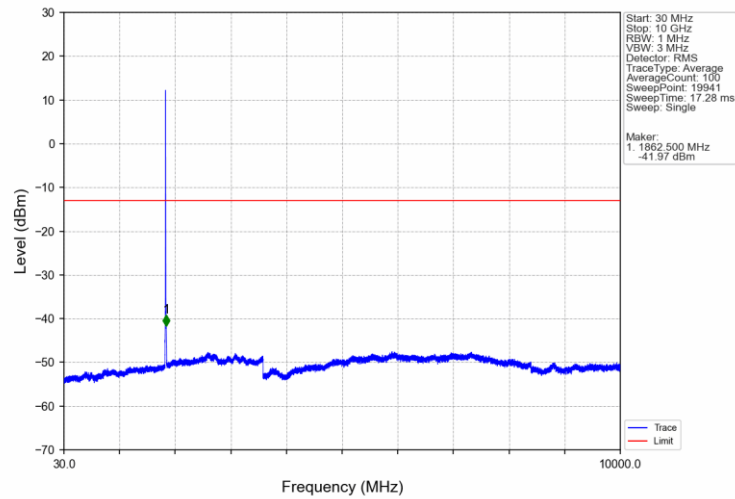
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



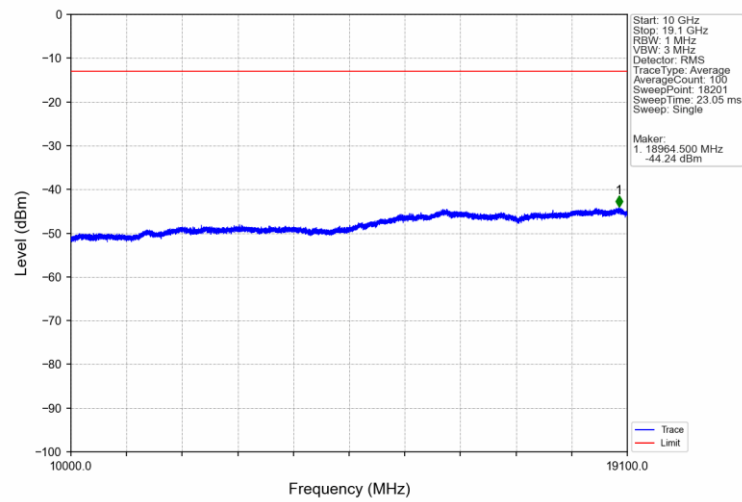
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



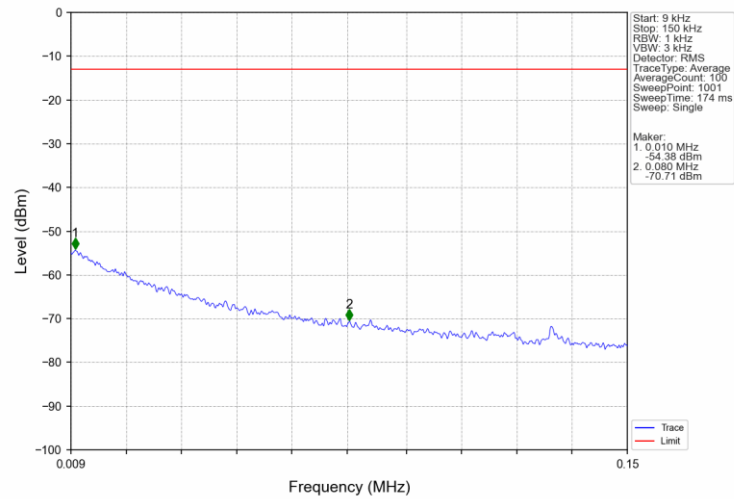
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



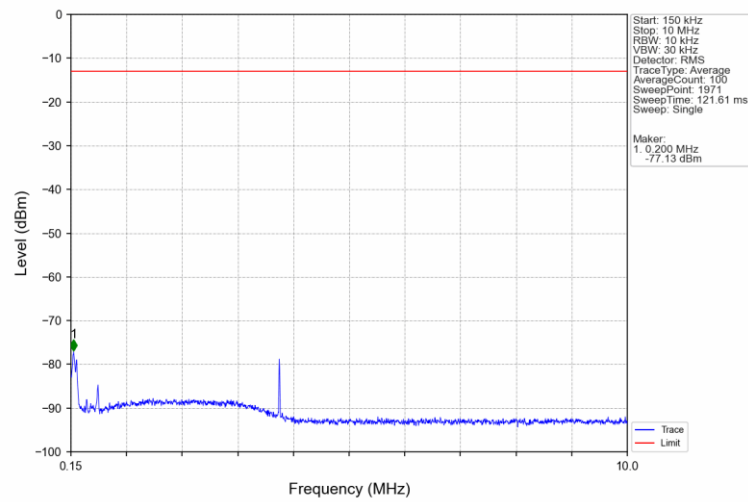
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



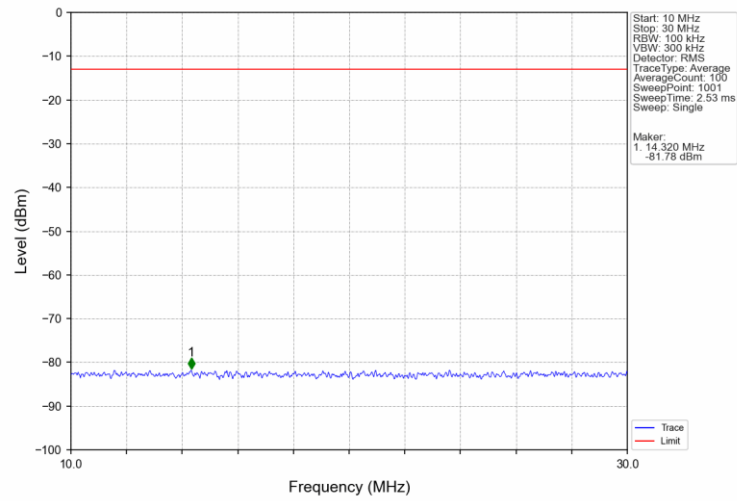
Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



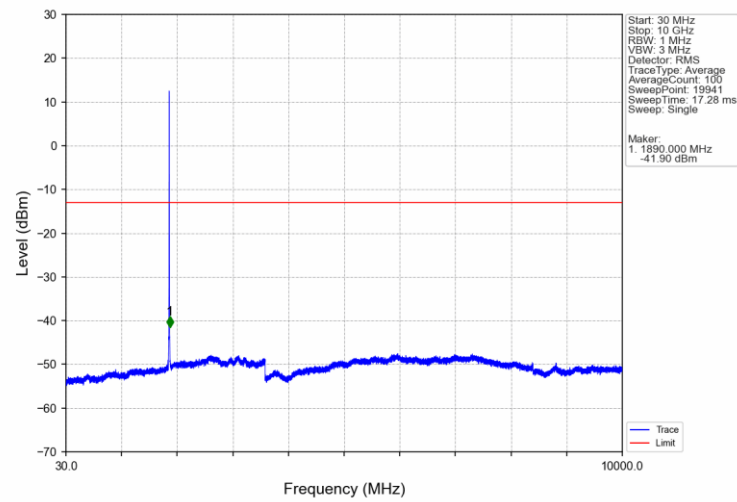
Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



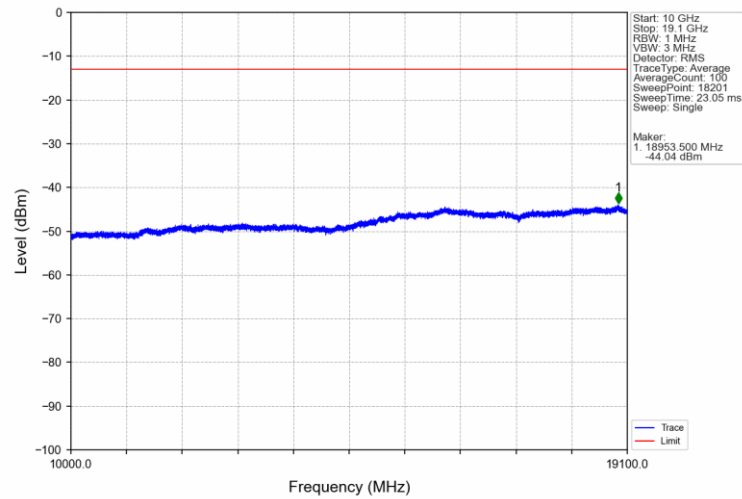
Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



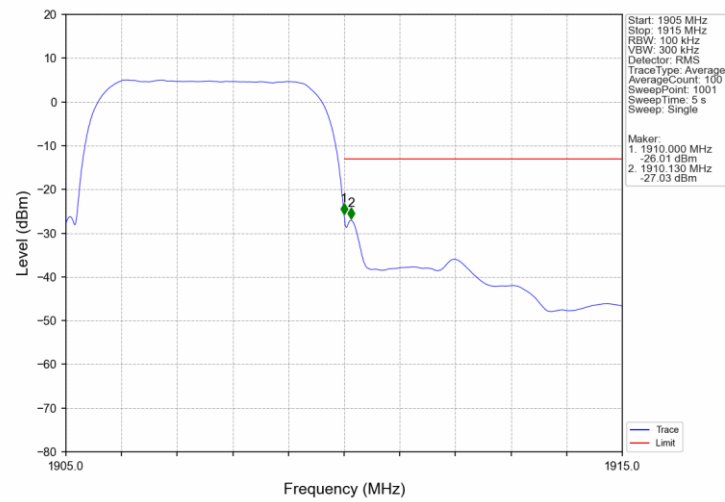
Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



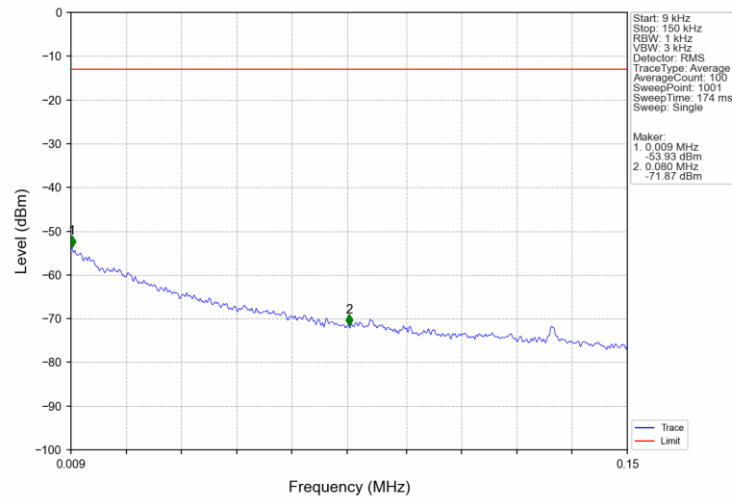
Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



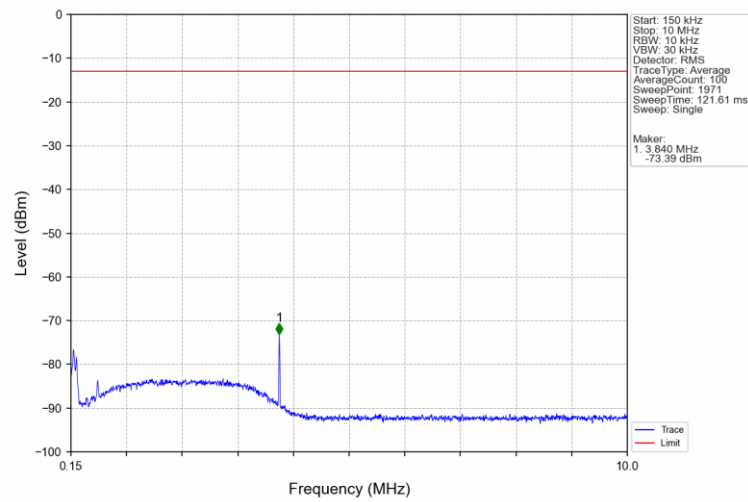
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



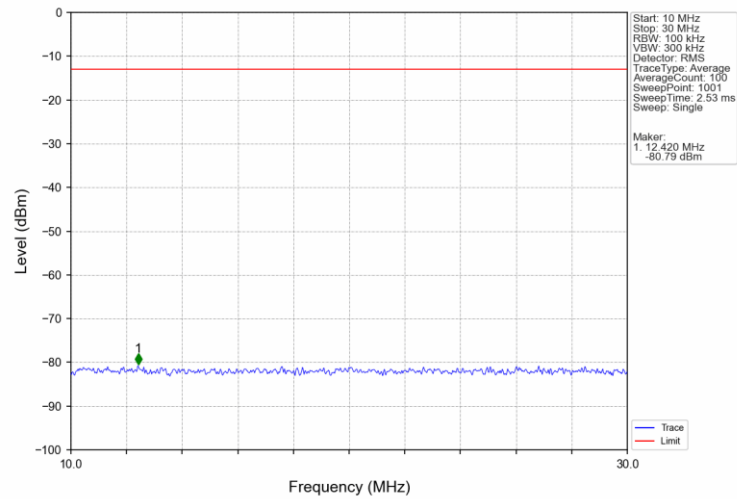
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



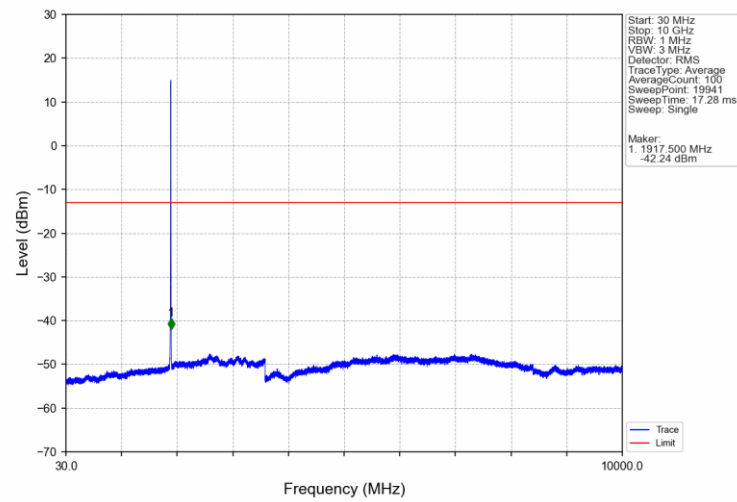
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



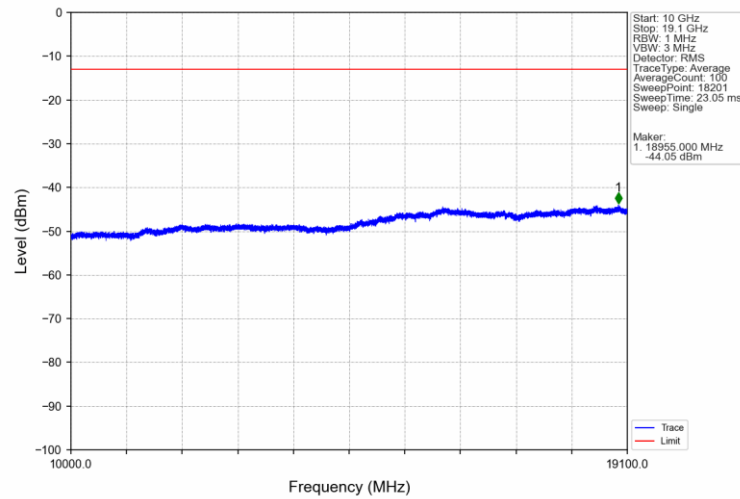
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



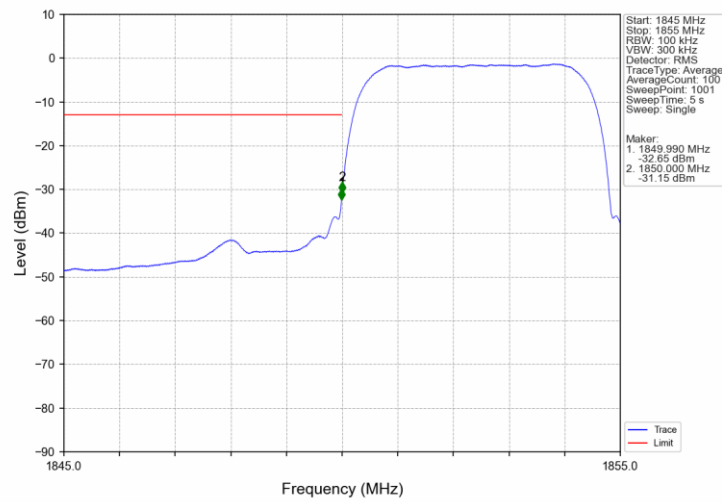
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



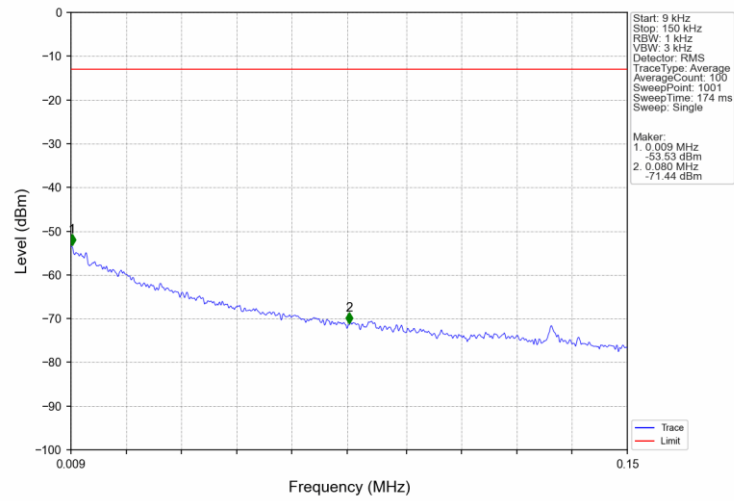
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



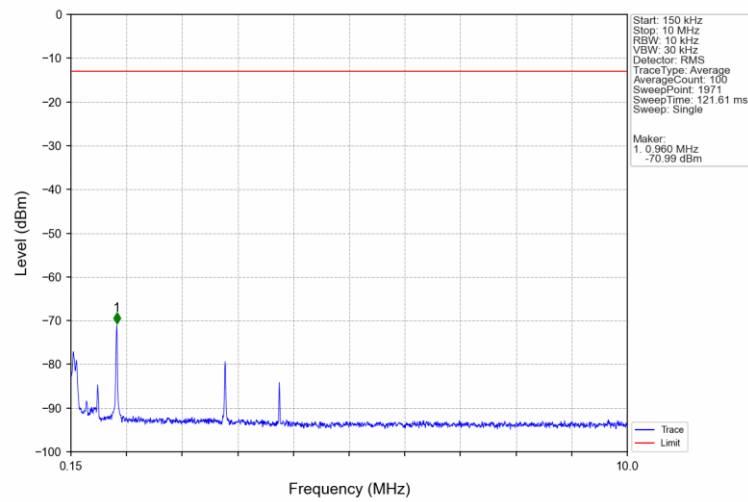
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



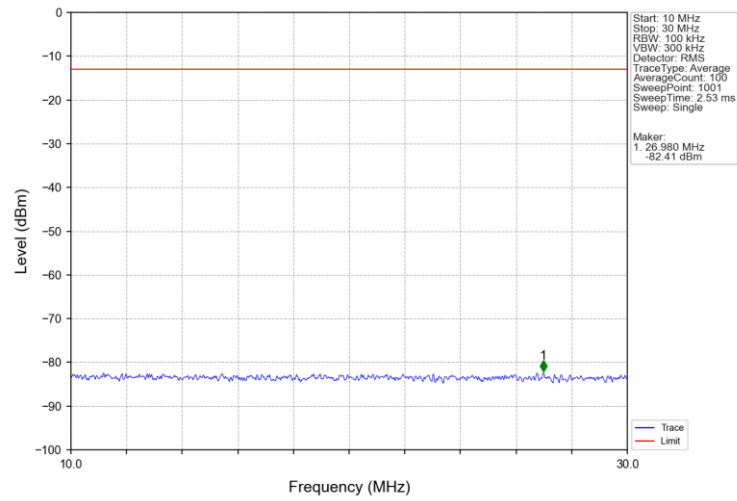
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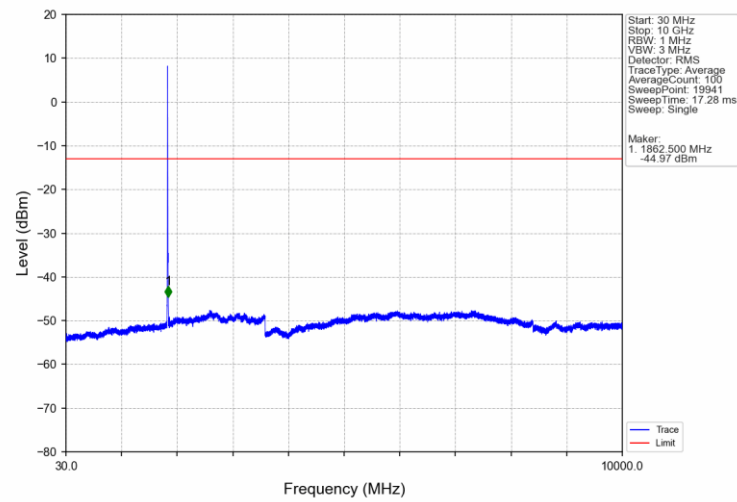
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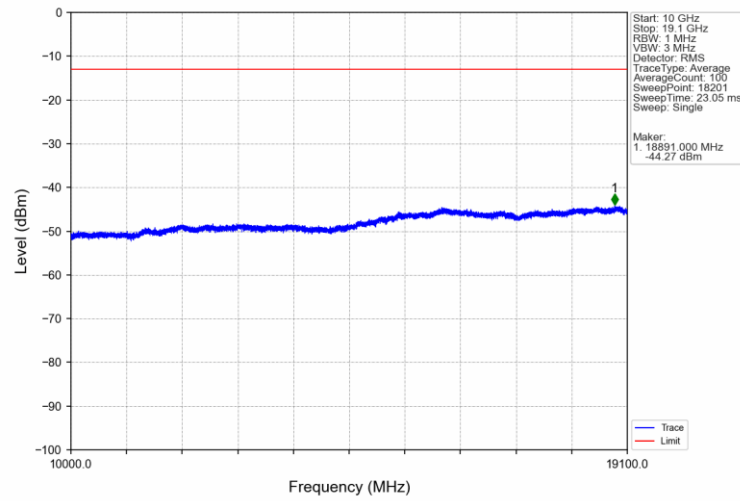
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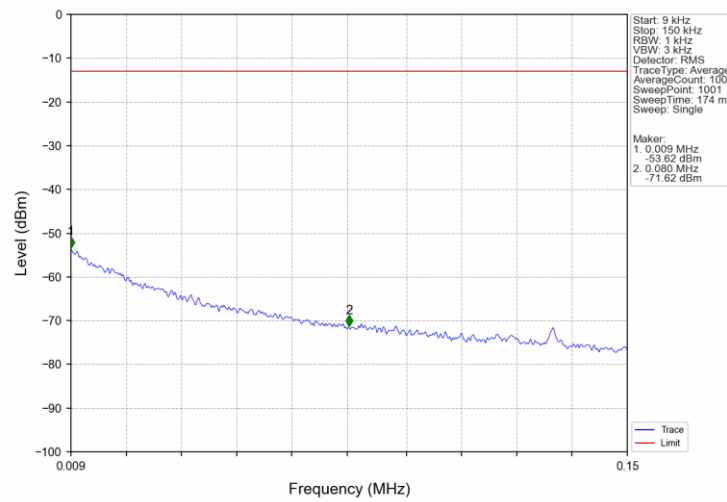
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



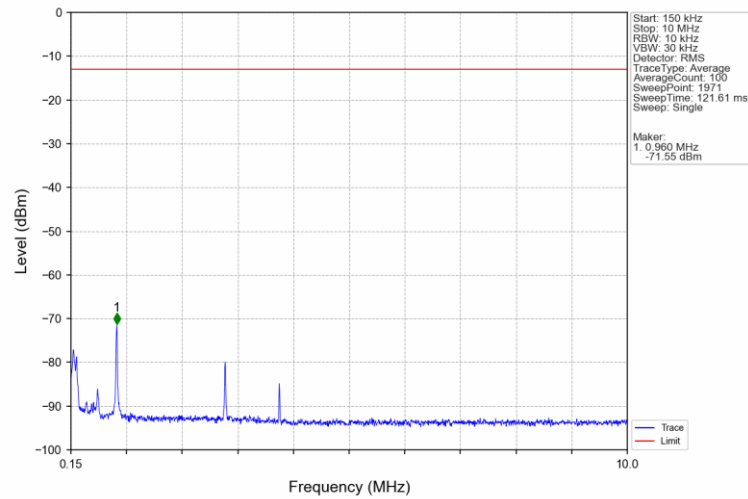
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



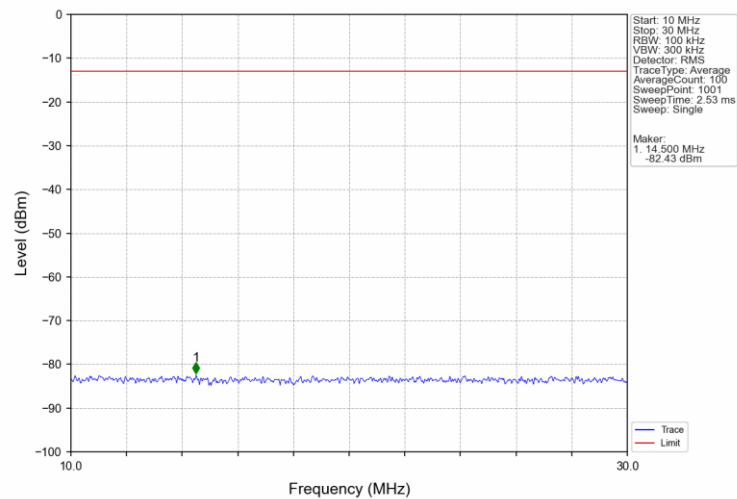
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



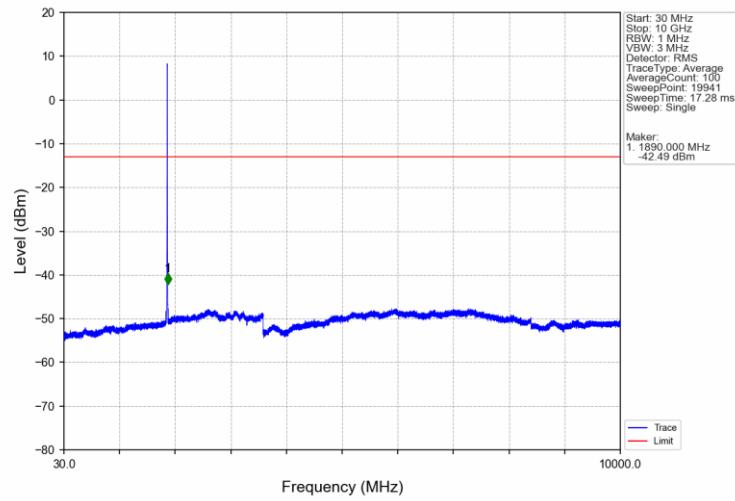
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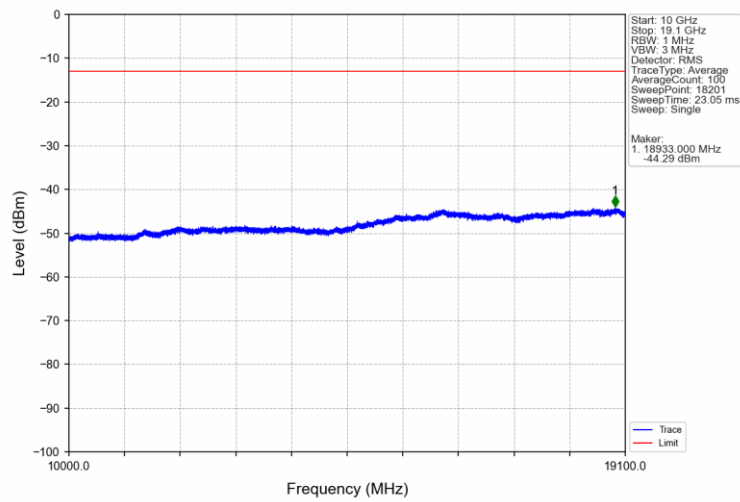
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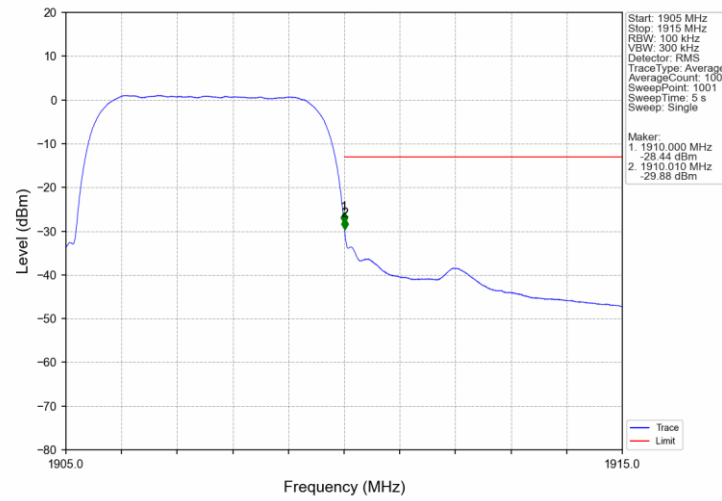
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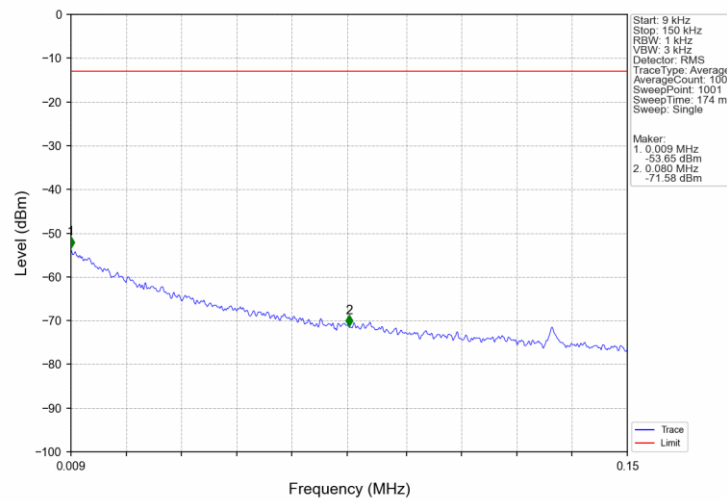
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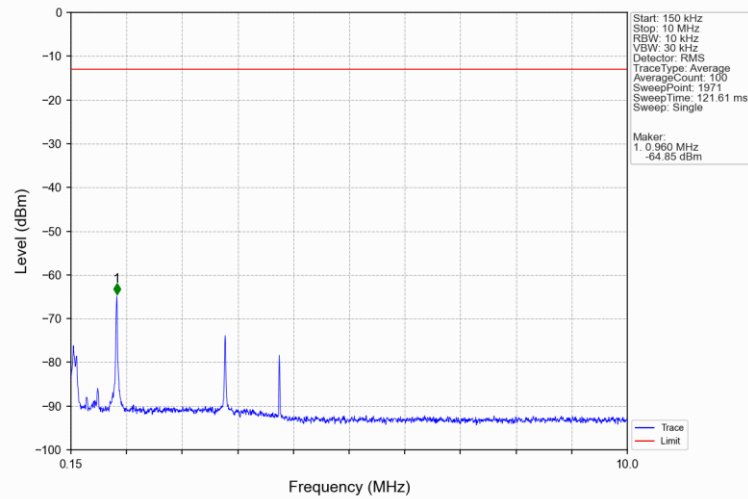
Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



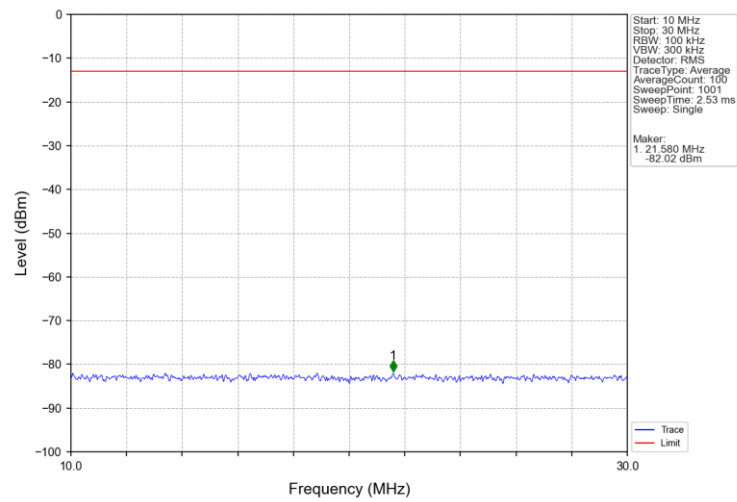
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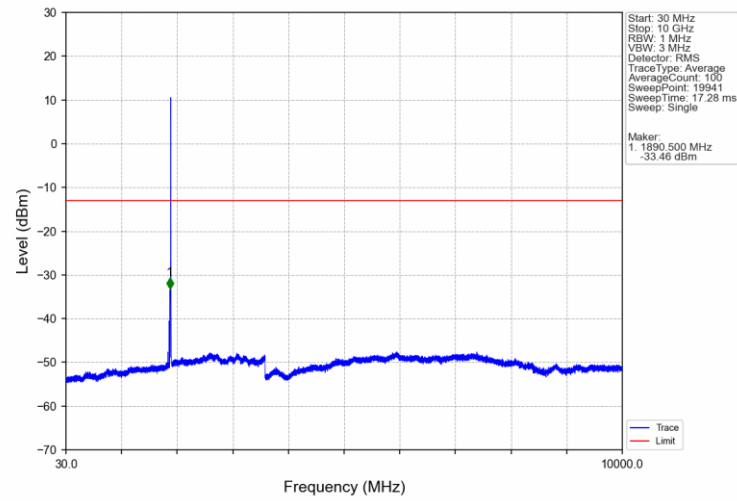
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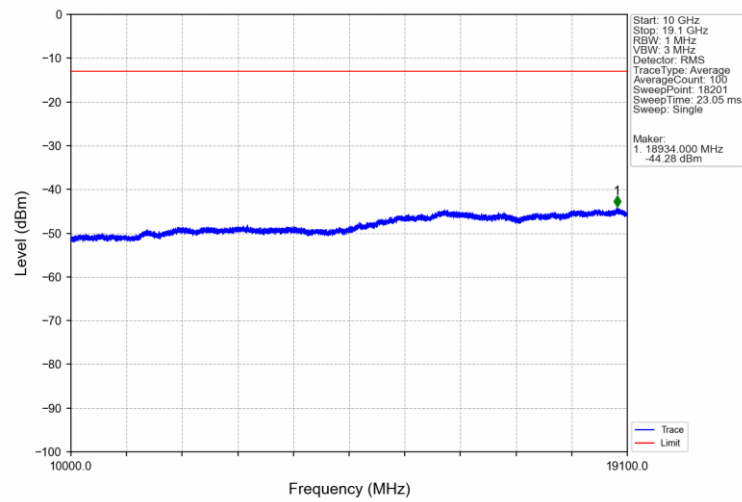
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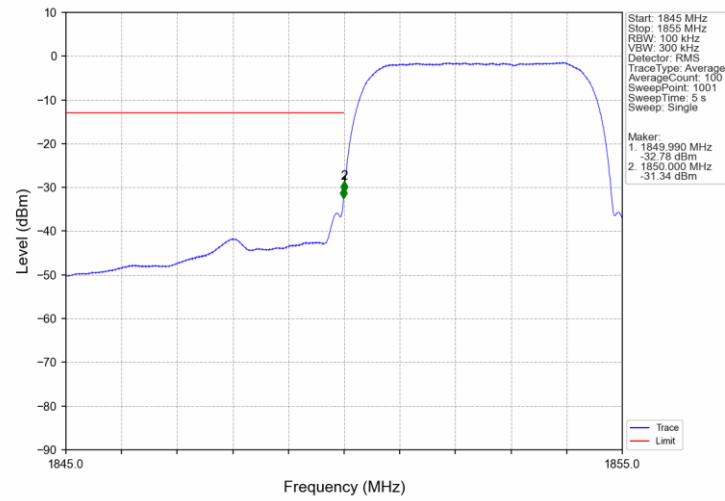
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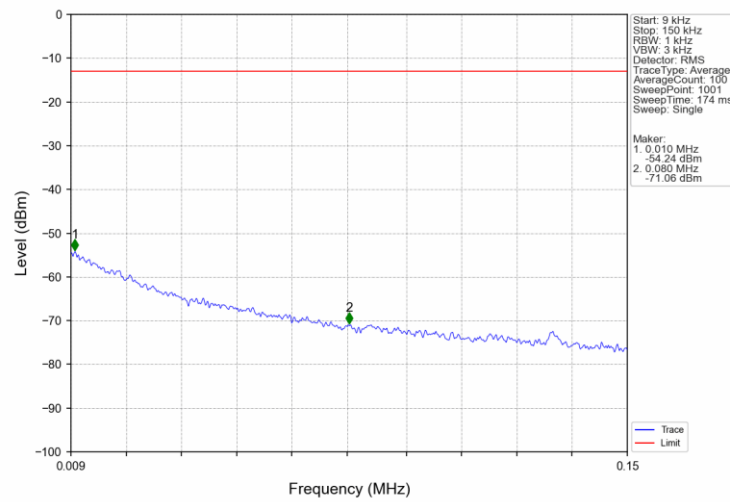
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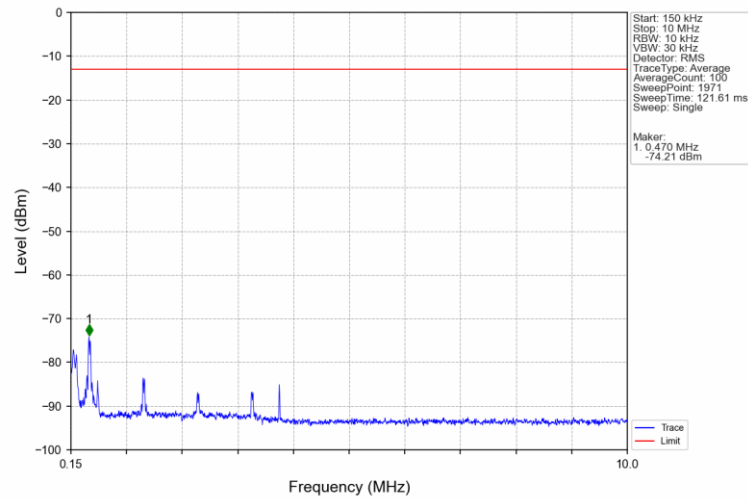
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV



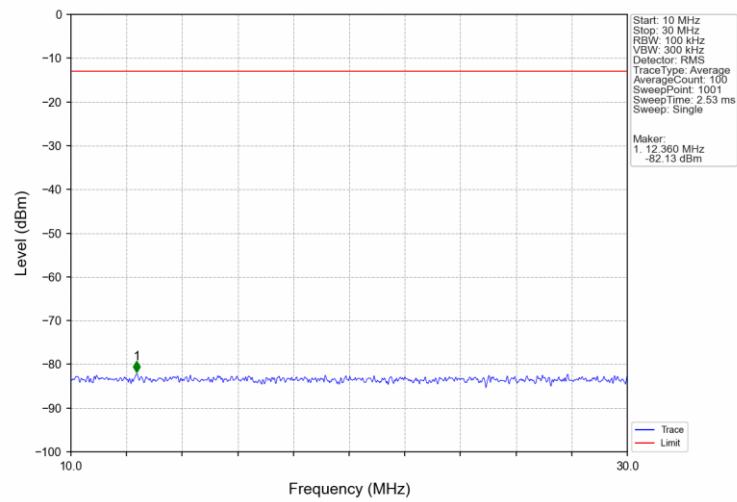
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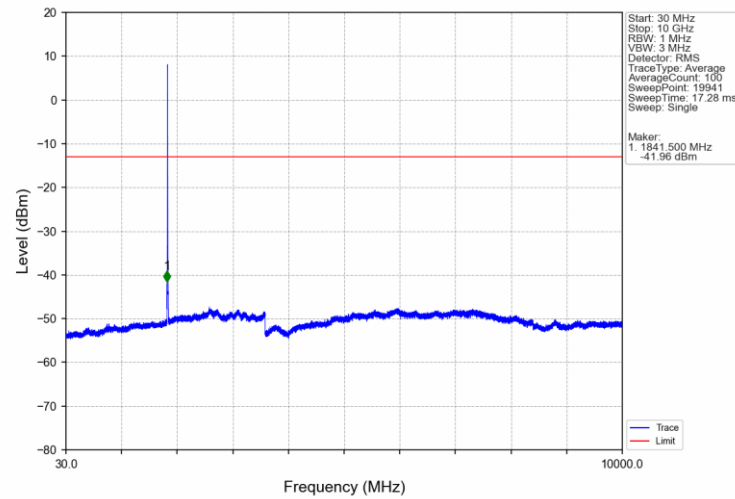
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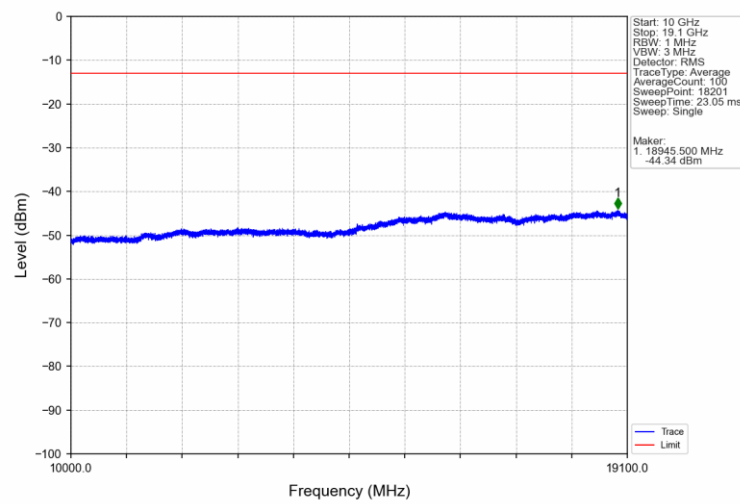
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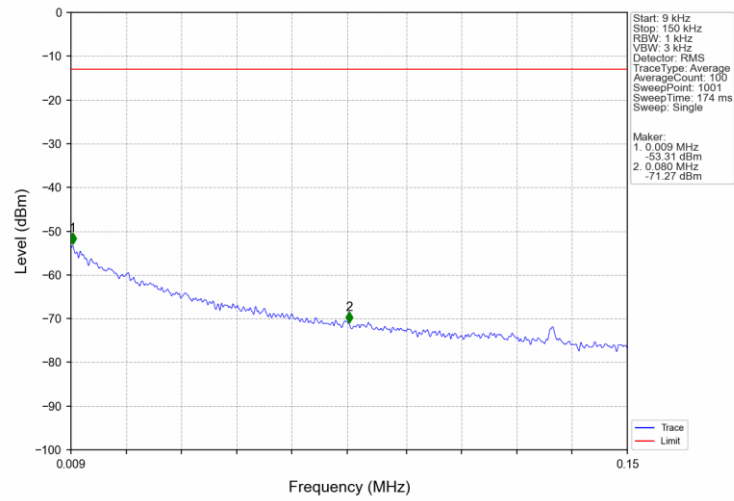
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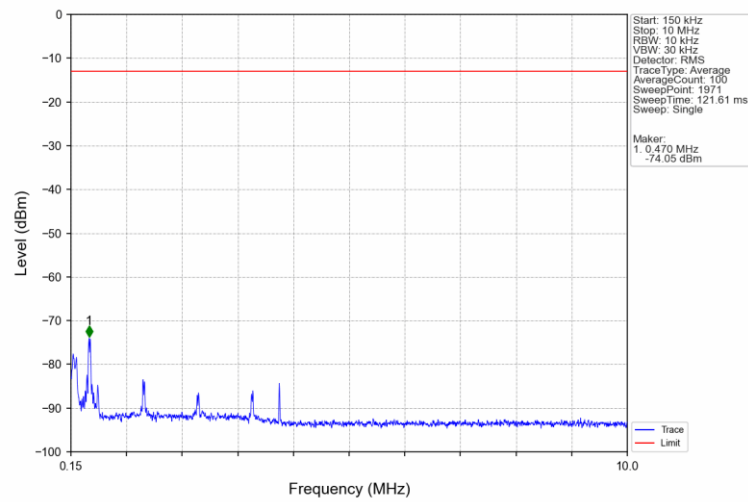
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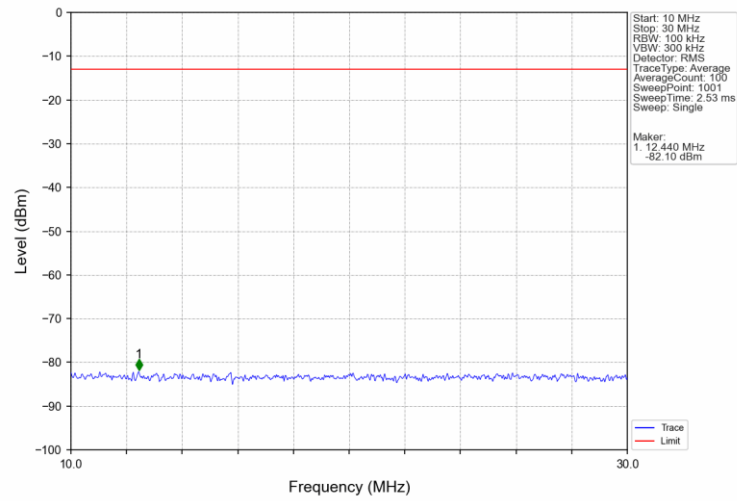
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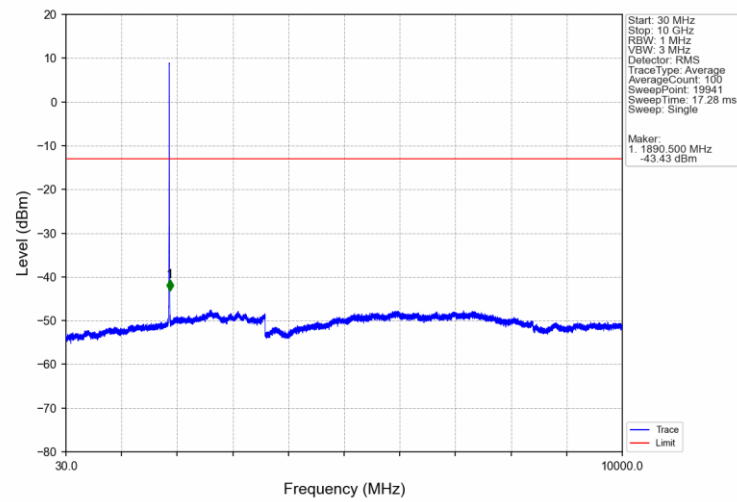
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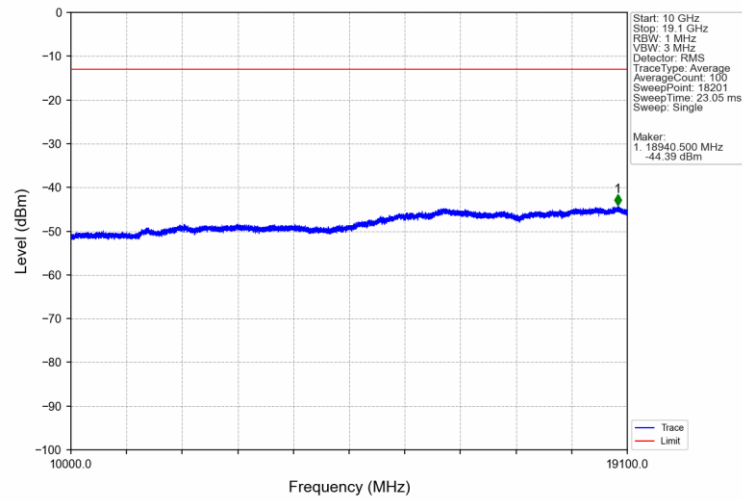
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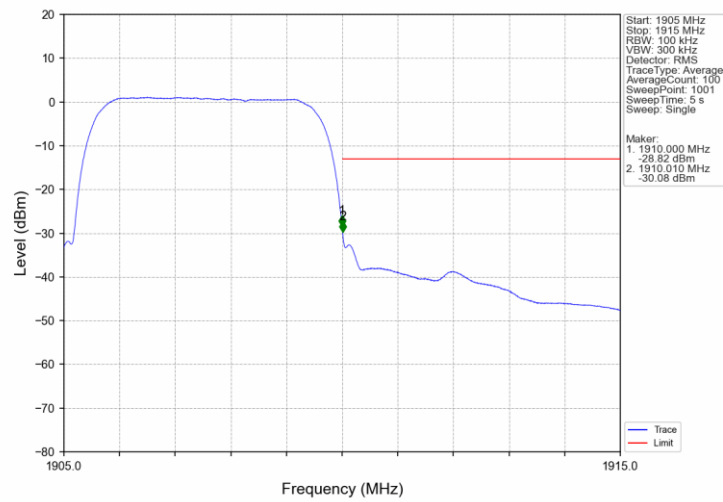
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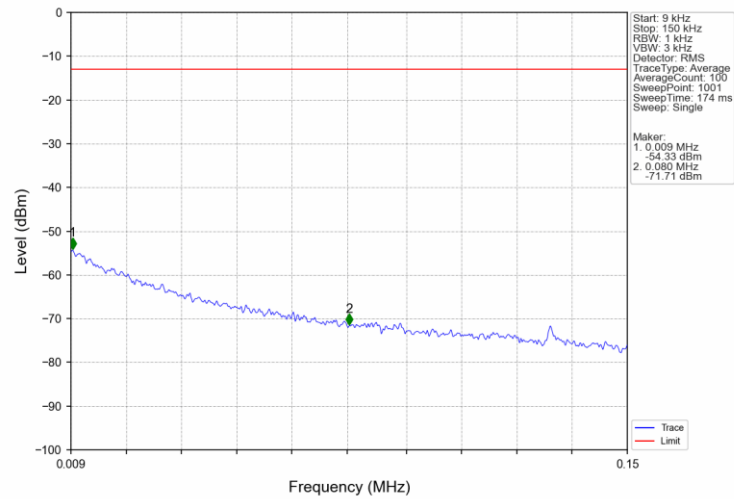
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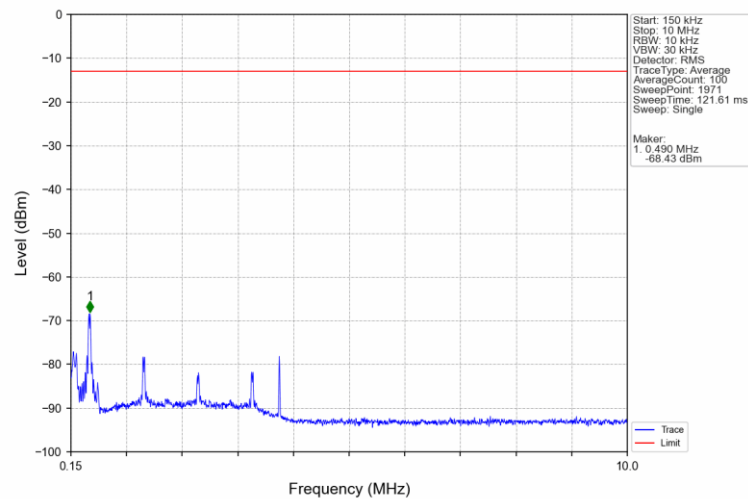
Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



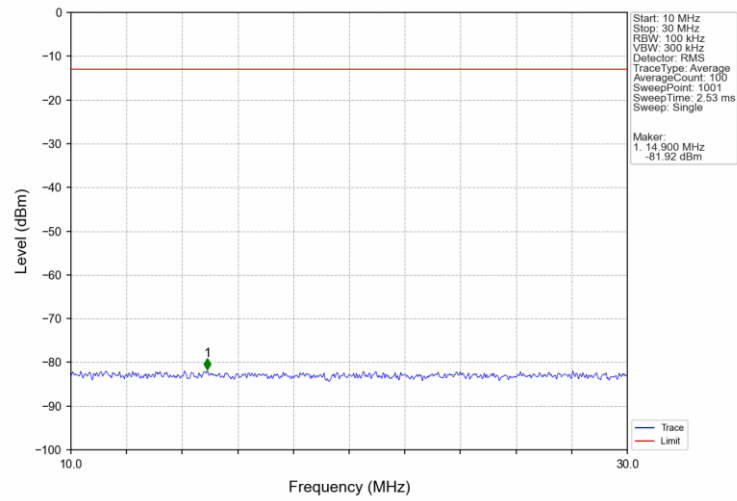
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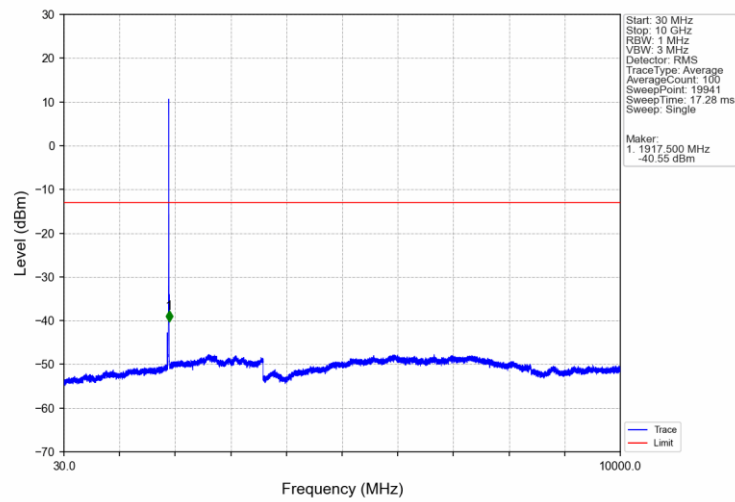
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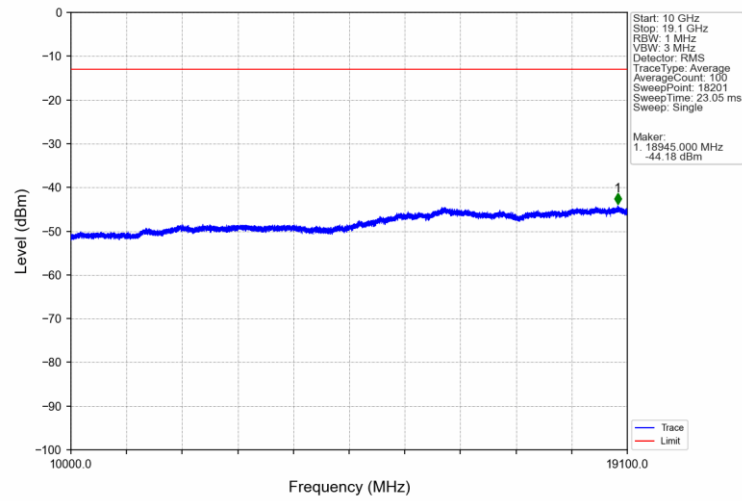
Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_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)
2	3.84	1852.4	1907.6	0.2404	0.0106	ppm	4M23F9W	24E	23.81

7.1.2 Form731_EIRP

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
2	3.84	1852.4	1907.6	0.1517	0.0106	ppm	4M23F9W	24E	21.81