

1. Effective (Isotropic) Radiated Power Output Data

1.1 Band4_EIRP

1.1.1 Test Result

Band: 4									
ENV	Mode		Frequency (MHz)	Conducted Power (dBm)	Gain (dBi)	EIRP (dBm)		Verdict	
	Network	Subset				Result	Limit		
NTNV	RMC	12.2kbps RMC	1712.4	20.95	0.85	21.80	<=30	Pass	
			1732.6	21.22	0.85	22.07	<=30	Pass	
			1752.6	21.17	0.85	22.02	<=30	Pass	
	HSDPA	Subtest 1	1712.4	18.56	0.85	19.41	<=30	Pass	
		Subtest 2	1712.4	18.57	0.85	19.42	<=30	Pass	
		Subtest 3	1712.4	18.60	0.85	19.45	<=30	Pass	
		Subtest 4	1712.4	18.58	0.85	19.43	<=30	Pass	
		Subtest 1	1732.6	18.73	0.85	19.58	<=30	Pass	
		Subtest 2	1732.6	18.74	0.85	19.59	<=30	Pass	
		Subtest 3	1732.6	18.84	0.85	19.69	<=30	Pass	
		Subtest 4	1732.6	18.74	0.85	19.59	<=30	Pass	
		Subtest 1	1752.6	18.89	0.85	19.74	<=30	Pass	
		Subtest 2	1752.6	19.03	0.85	19.88	<=30	Pass	
		Subtest 3	1752.6	19.02	0.85	19.87	<=30	Pass	
		Subtest 4	1752.6	18.90	0.85	19.75	<=30	Pass	
		HSUPA	Subtest 1	1712.4	16.87	0.85	17.72	<=30	Pass
			Subtest 2	1712.4	16.74	0.85	17.59	<=30	Pass
			Subtest 3	1712.4	16.80	0.85	17.65	<=30	Pass
			Subtest 4	1712.4	16.22	0.85	17.07	<=30	Pass
			Subtest 5	1712.4	16.66	0.85	17.51	<=30	Pass
	Subtest 1		1732.6	16.64	0.85	17.49	<=30	Pass	
	Subtest 2		1732.6	16.90	0.85	17.75	<=30	Pass	
	Subtest 3		1732.6	16.38	0.85	17.23	<=30	Pass	
	Subtest 4		1732.6	16.34	0.85	17.19	<=30	Pass	
	Subtest 5		1732.6	16.68	0.85	17.53	<=30	Pass	
	Subtest 1		1752.6	17.04	0.85	17.89	<=30	Pass	
	Subtest 2		1752.6	16.51	0.85	17.36	<=30	Pass	
	Subtest 3		1752.6	16.73	0.85	17.58	<=30	Pass	
	Subtest 4	1752.6	16.73	0.85	17.58	<=30	Pass		
	Subtest 5	1752.6	16.89	0.85	17.74	<=30	Pass		

Note1: EIRP=Conducted Power+Antenna Gain

2. Frequency Stability

2.1 Band4

2.1.1 Test Result

Band: 4							
Network	Frequency (MHz)	Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
					Result	Limit	
RMC	1712.4	20	3.27	-15.678	-0.0092	-2.5 to 2.5	Pass
			3.85	-14.856	-0.0087	-2.5 to 2.5	Pass

			4.43	-14.498	-0.0085	-2.5 to 2.5	Pass		
		-30	3.85	-12.882	-0.0075	-2.5 to 2.5	Pass		
		-20	3.85	-14.541	-0.0085	-2.5 to 2.5	Pass		
		-10	3.85	-13.518	-0.0079	-2.5 to 2.5	Pass		
		0	3.85	-14.577	-0.0085	-2.5 to 2.5	Pass		
		10	3.85	-9.899	-0.0058	-2.5 to 2.5	Pass		
		30	3.85	-14.255	-0.0083	-2.5 to 2.5	Pass		
		40	3.85	-14.112	-0.0082	-2.5 to 2.5	Pass		
		50	3.85	-10.192	-0.0060	-2.5 to 2.5	Pass		
		1732.6	20		3.27	-14.212	-0.0082	-2.5 to 2.5	Pass
					3.85	-14.033	-0.0081	-2.5 to 2.5	Pass
					4.43	-10.014	-0.0058	-2.5 to 2.5	Pass
			-30	3.85	-14.205	-0.0082	-2.5 to 2.5	Pass	
			-20	3.85	-13.511	-0.0078	-2.5 to 2.5	Pass	
	-10		3.85	-15.793	-0.0091	-2.5 to 2.5	Pass		
	0		3.85	-14.963	-0.0086	-2.5 to 2.5	Pass		
	10		3.85	-13.790	-0.0080	-2.5 to 2.5	Pass		
	30		3.85	-11.716	-0.0068	-2.5 to 2.5	Pass		
	40		3.85	-13.762	-0.0079	-2.5 to 2.5	Pass		
	50	3.85	-13.568	-0.0078	-2.5 to 2.5	Pass			
	1752.6	20		3.27	-6.788	-0.0039	-2.5 to 2.5	Pass	
				3.85	-8.998	-0.0051	-2.5 to 2.5	Pass	
				4.43	-13.196	-0.0075	-2.5 to 2.5	Pass	
		-30	3.85	-10.586	-0.0060	-2.5 to 2.5	Pass		
		-20	3.85	-12.510	-0.0071	-2.5 to 2.5	Pass		
		-10	3.85	-9.513	-0.0054	-2.5 to 2.5	Pass		
		0	3.85	-9.670	-0.0055	-2.5 to 2.5	Pass		
		10	3.85	-10.722	-0.0061	-2.5 to 2.5	Pass		
		30	3.85	-6.802	-0.0039	-2.5 to 2.5	Pass		
		40	3.85	-11.108	-0.0063	-2.5 to 2.5	Pass		
	50	3.85	-8.941	-0.0051	-2.5 to 2.5	Pass			
	HSDPA	1712.4	20		3.27	-8.597	-0.0050	-2.5 to 2.5	Pass
					3.85	-12.982	-0.0076	-2.5 to 2.5	Pass
				4.43	-11.394	-0.0067	-2.5 to 2.5	Pass	
-30			3.85	-9.613	-0.0056	-2.5 to 2.5	Pass		
-20			3.85	-11.795	-0.0069	-2.5 to 2.5	Pass		
-10			3.85	-9.191	-0.0054	-2.5 to 2.5	Pass		
0			3.85	-14.806	-0.0086	-2.5 to 2.5	Pass		
10			3.85	-10.693	-0.0062	-2.5 to 2.5	Pass		
30			3.85	-11.158	-0.0065	-2.5 to 2.5	Pass		
40			3.85	-11.036	-0.0064	-2.5 to 2.5	Pass		
50			3.85	-7.532	-0.0044	-2.5 to 2.5	Pass		
1732.6			20		3.27	-14.706	-0.0085	-2.5 to 2.5	Pass
					3.85	-7.260	-0.0042	-2.5 to 2.5	Pass
					4.43	-12.989	-0.0075	-2.5 to 2.5	Pass
		-30	3.85	-12.703	-0.0073	-2.5 to 2.5	Pass		
		-20	3.85	-12.274	-0.0071	-2.5 to 2.5	Pass		
		-10	3.85	-10.657	-0.0062	-2.5 to 2.5	Pass		
		0	3.85	-10.378	-0.0060	-2.5 to 2.5	Pass		
		10	3.85	-9.706	-0.0056	-2.5 to 2.5	Pass		
		30	3.85	-10.664	-0.0062	-2.5 to 2.5	Pass		
		40	3.85	-9.813	-0.0057	-2.5 to 2.5	Pass		
50		3.85	-9.098	-0.0053	-2.5 to 2.5	Pass			
1752.6		20		3.27	-8.097	-0.0046	-2.5 to 2.5	Pass	
				3.85	-7.718	-0.0044	-2.5 to 2.5	Pass	
				4.43	-6.423	-0.0037	-2.5 to 2.5	Pass	
		-30	3.85	-10.006	-0.0057	-2.5 to 2.5	Pass		

		-20	3.85	-10.386	-0.0059	-2.5 to 2.5	Pass
		-10	3.85	-11.601	-0.0066	-2.5 to 2.5	Pass
		0	3.85	-12.310	-0.0070	-2.5 to 2.5	Pass
		10	3.85	-12.546	-0.0072	-2.5 to 2.5	Pass
		30	3.85	-10.436	-0.0060	-2.5 to 2.5	Pass
		40	3.85	-11.759	-0.0067	-2.5 to 2.5	Pass
		50	3.85	-11.036	-0.0063	-2.5 to 2.5	Pass
HSUPA	1712.4	20	3.27	-8.197	-0.0048	-2.5 to 2.5	Pass
			3.85	-7.153	-0.0042	-2.5 to 2.5	Pass
			4.43	-6.251	-0.0037	-2.5 to 2.5	Pass
		-30	3.85	-6.723	-0.0039	-2.5 to 2.5	Pass
		-20	3.85	-7.660	-0.0045	-2.5 to 2.5	Pass
		-10	3.85	-8.283	-0.0048	-2.5 to 2.5	Pass
		0	3.85	-9.134	-0.0053	-2.5 to 2.5	Pass
		10	3.85	-8.647	-0.0050	-2.5 to 2.5	Pass
		30	3.85	-8.383	-0.0049	-2.5 to 2.5	Pass
		40	3.85	-9.670	-0.0056	-2.5 to 2.5	Pass
	50	3.85	-5.643	-0.0033	-2.5 to 2.5	Pass	
	1732.6	20	3.27	-8.175	-0.0047	-2.5 to 2.5	Pass
			3.85	-9.820	-0.0057	-2.5 to 2.5	Pass
			4.43	-9.513	-0.0055	-2.5 to 2.5	Pass
		-30	3.85	-8.783	-0.0051	-2.5 to 2.5	Pass
		-20	3.85	-6.852	-0.0040	-2.5 to 2.5	Pass
		-10	3.85	-13.576	-0.0078	-2.5 to 2.5	Pass
		0	3.85	-6.673	-0.0039	-2.5 to 2.5	Pass
		10	3.85	-7.517	-0.0043	-2.5 to 2.5	Pass
		30	3.85	-12.646	-0.0073	-2.5 to 2.5	Pass
		40	3.85	-14.355	-0.0083	-2.5 to 2.5	Pass
	50	3.85	-9.899	-0.0057	-2.5 to 2.5	Pass	
	1752.6	20	3.27	-4.084	-0.0023	-2.5 to 2.5	Pass
			3.85	-9.449	-0.0054	-2.5 to 2.5	Pass
			4.43	-6.695	-0.0038	-2.5 to 2.5	Pass
		-30	3.85	-8.376	-0.0048	-2.5 to 2.5	Pass
		-20	3.85	-9.420	-0.0054	-2.5 to 2.5	Pass
		-10	3.85	-8.397	-0.0048	-2.5 to 2.5	Pass
		0	3.85	-5.150	-0.0029	-2.5 to 2.5	Pass
		10	3.85	-10.006	-0.0057	-2.5 to 2.5	Pass
30		3.85	-10.571	-0.0060	-2.5 to 2.5	Pass	
40		3.85	-9.370	-0.0053	-2.5 to 2.5	Pass	
50	3.85	-10.293	-0.0059	-2.5 to 2.5	Pass		

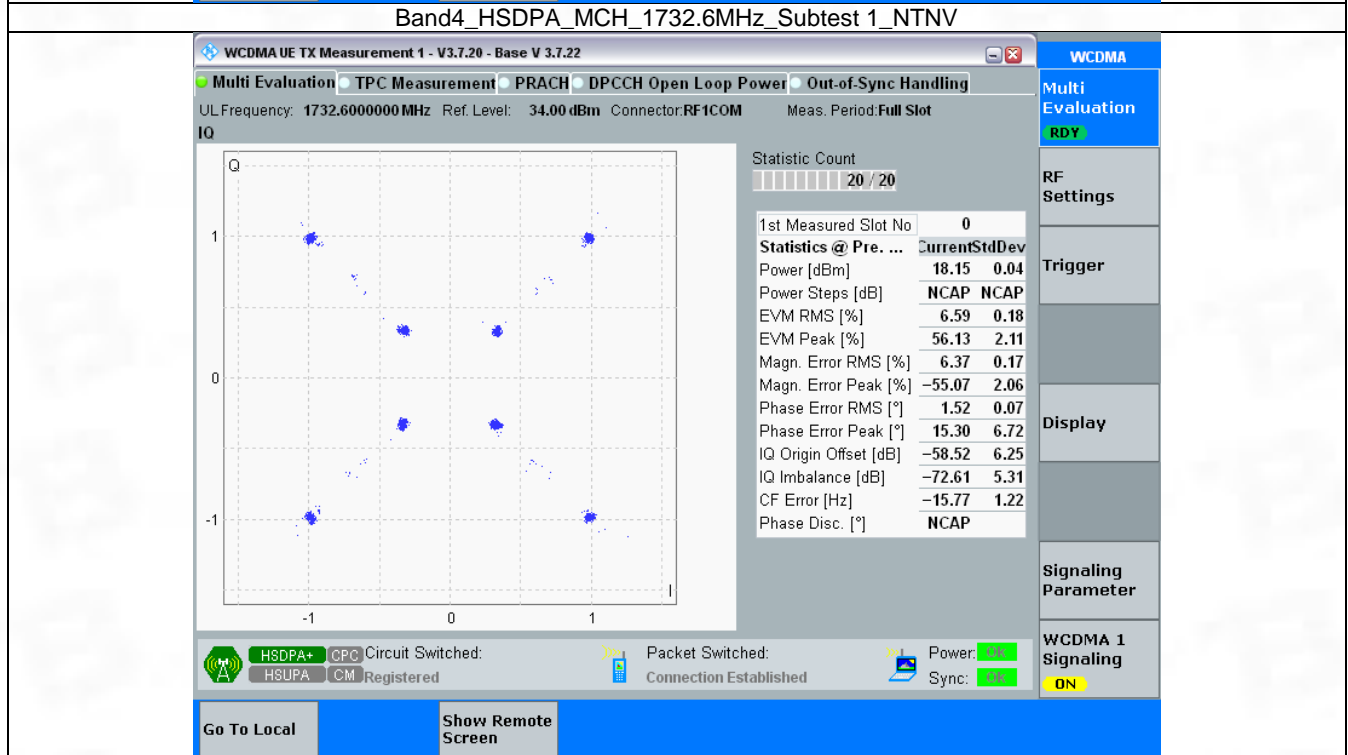
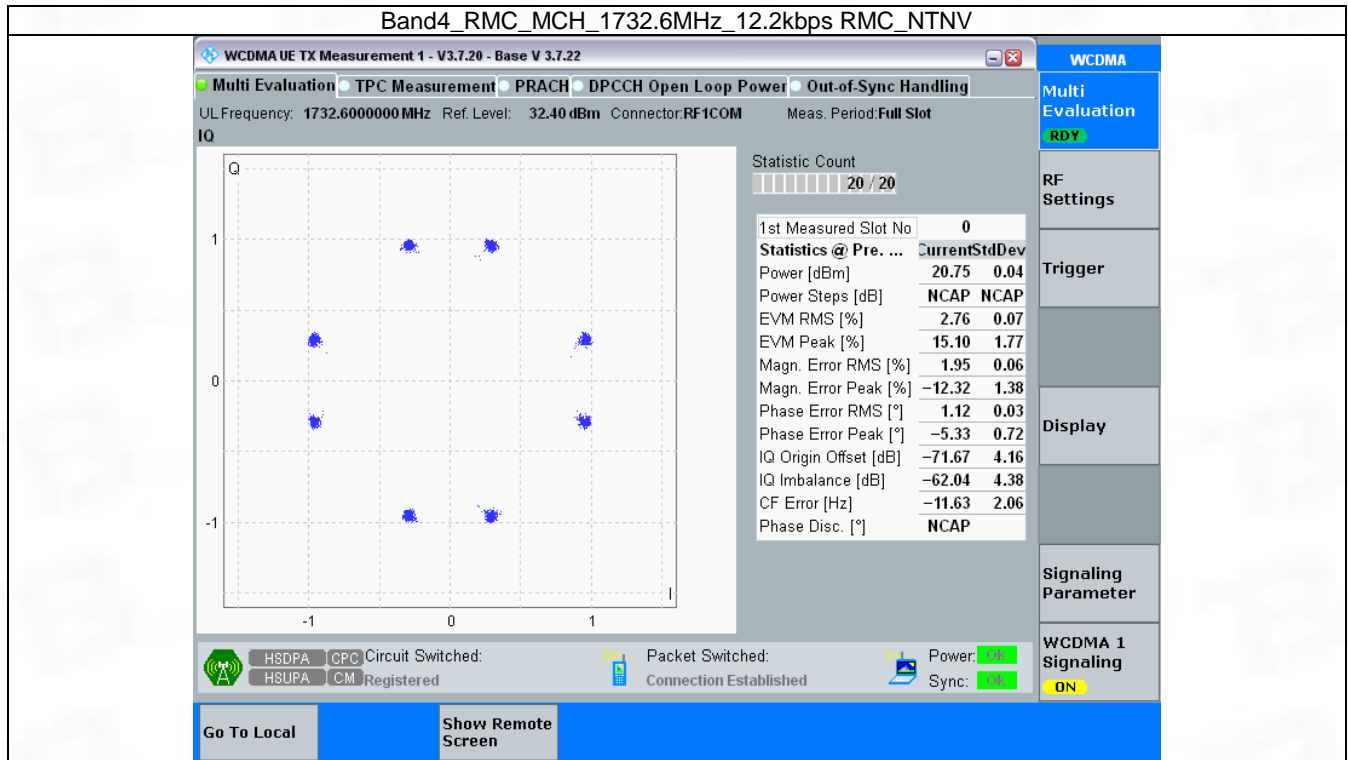
3. Modulation Characteristics

3.1 Band4

3.1.1 Test Result

Band: 4						
ENV	Mode		Frequency (MHz)	Modulation Characteristics		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1732.6	Refer To Test Graph		Pass
	HSDPA	Subtest 1	1732.6	Refer To Test Graph		Pass
	HSUPA	Subtest 1	1732.6	Refer To Test Graph		Pass

3.1.2 Test Graph



Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV

WCDMA UE TX Measurement 1 - V3.7.20 - Base V 3.7.22

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

UL Frequency: 1732.600000MHz Ref. Level: 34.00 dBm Connector:RF1COM Meas. Period:Full Slot

IQ

Statistic Count: 20 / 20

1st Measured Slot No	0
Statistics @ Pre. ...	CurrentStdDev
Power [dBm]	18.50 2.40
Power Steps [dB]	NCAP NCAP
EVM RMS [%]	2.06 3.42
EVM Peak [%]	6.93 35.06
Magn. Error RMS [%]	1.29 3.67
Magn. Error Peak [%]	3.79 36.10
Phase Error RMS [°]	1.46 0.22
Phase Error Peak [°]	-6.36 3.46
IQ Origin Offset [dB]	-72.99 5.20
IQ Imbalance [dB]	-78.74 5.71
CF Error [Hz]	-11.22 2.79
Phase Disc. [°]	NCAP

HSDPA+ CPO Circuit Switched: Packet Switched: Power: ON
HSUPA CM Registered Connection Established Sync: ON

Go To Local Show Remote Screen

WCDMA 1 Signaling ON

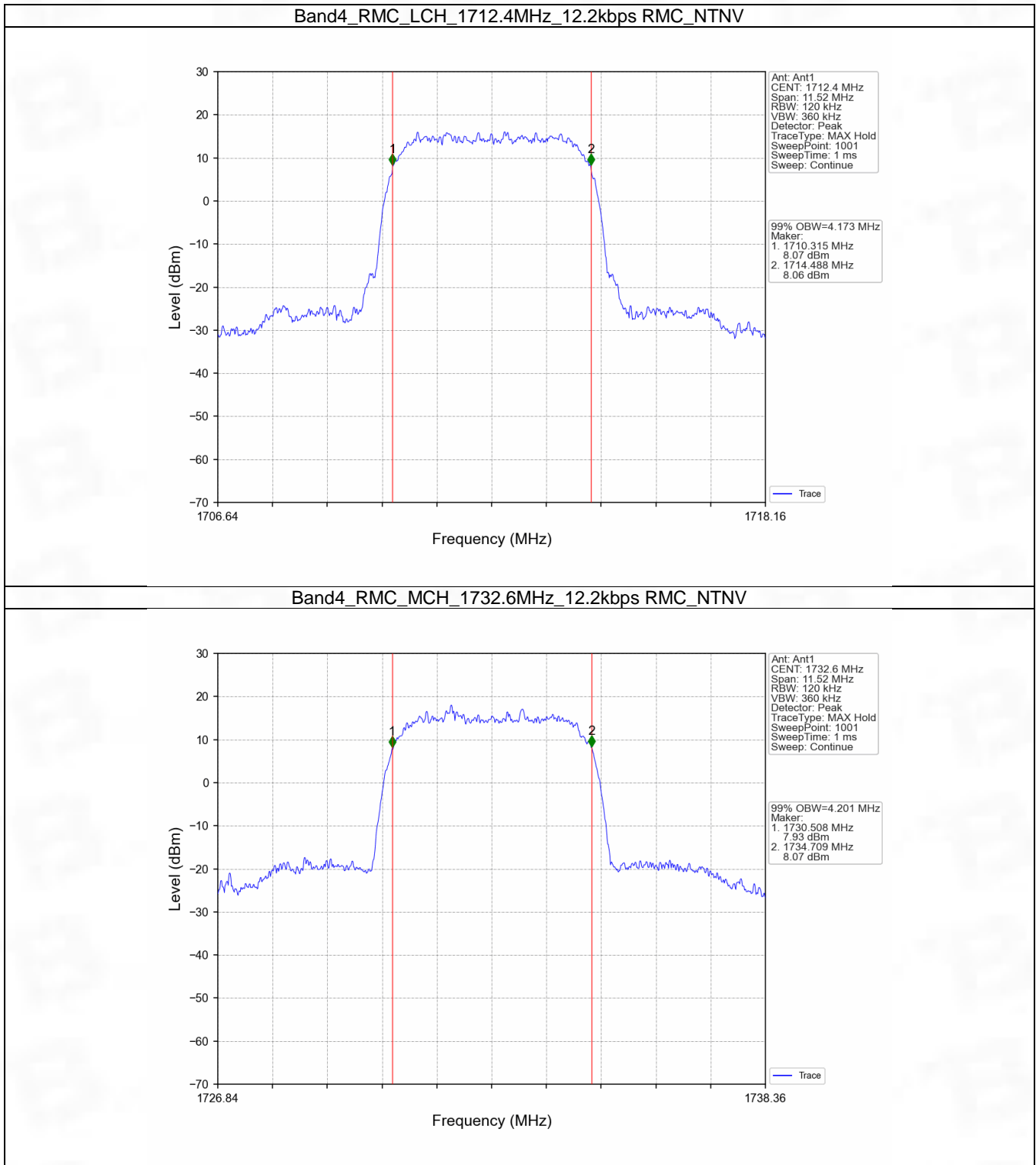
4. 99% & 26dB Bandwidth

4.1 Band4_OBW

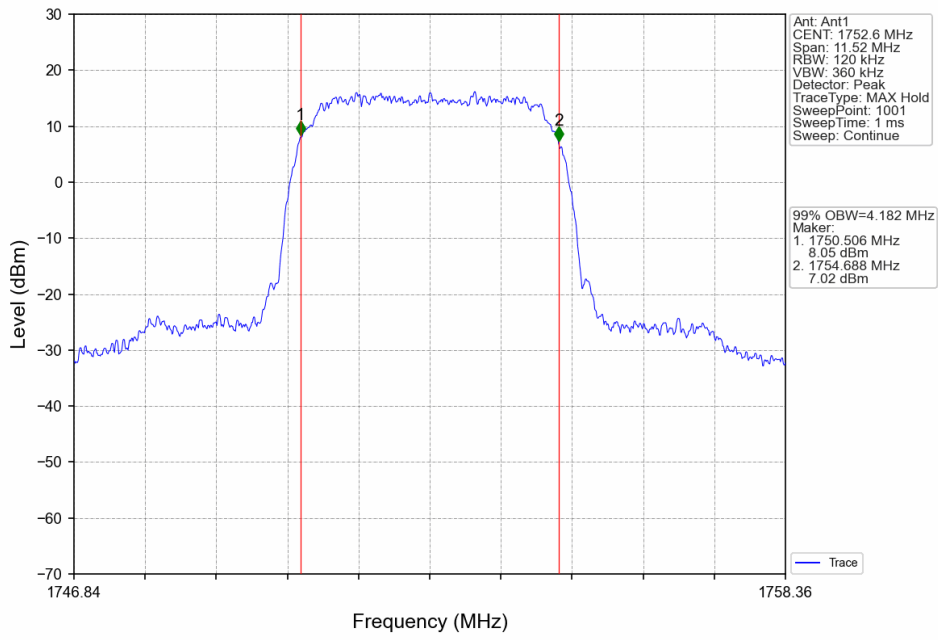
4.1.1 Test Result

Band: 4						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	4.173	/	Pass
			1732.6	4.201	/	Pass
			1752.6	4.182	/	Pass
	HSDPA	Subtest 1	1712.4	4.190	/	Pass
			1732.6	4.212	/	Pass
			1752.6	4.212	/	Pass
	HSUPA	Subtest 1	1712.4	4.215	/	Pass
			1732.6	4.214	/	Pass
			1752.6	4.225	/	Pass

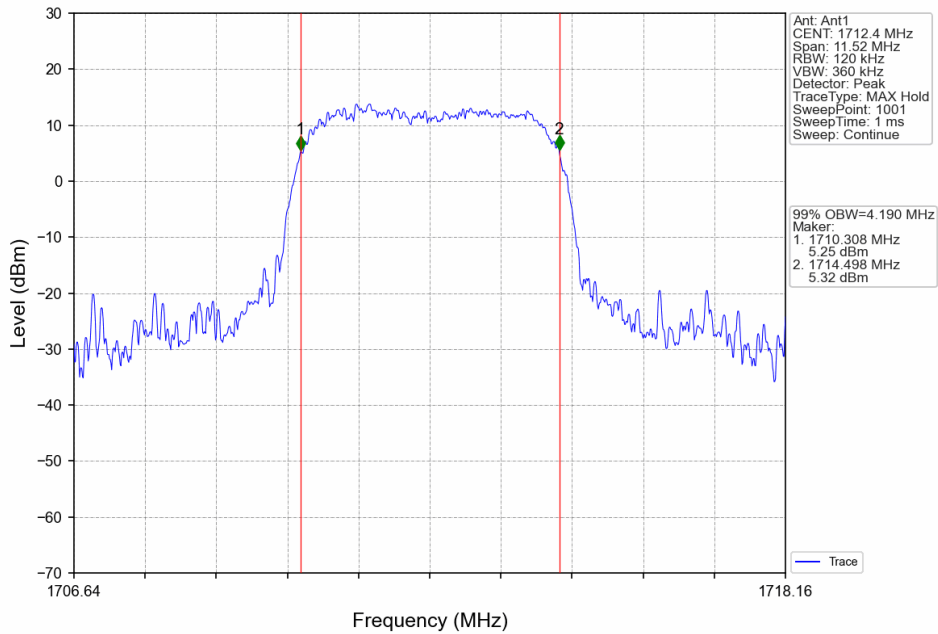
4.1.2 Test Graph



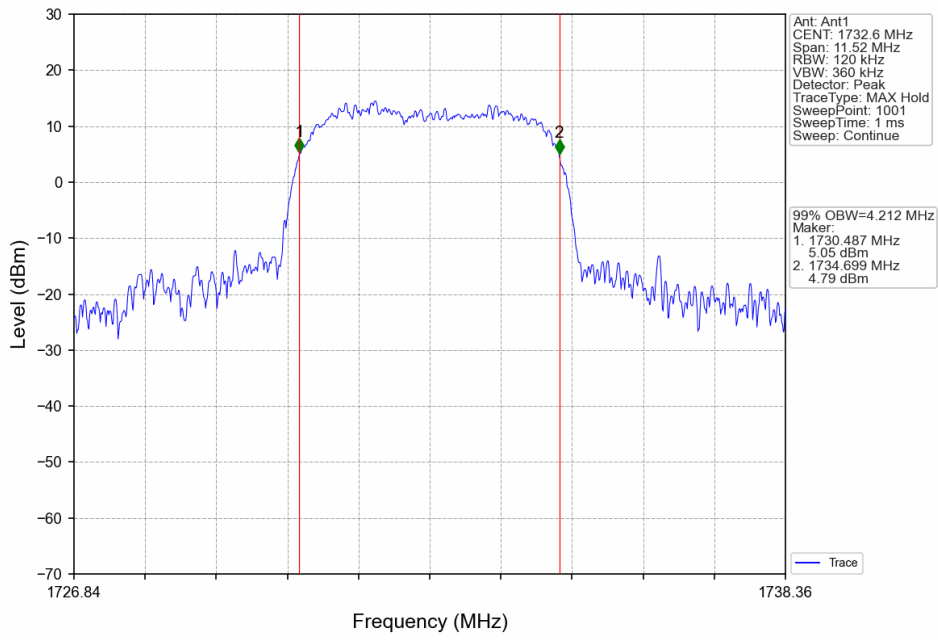
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



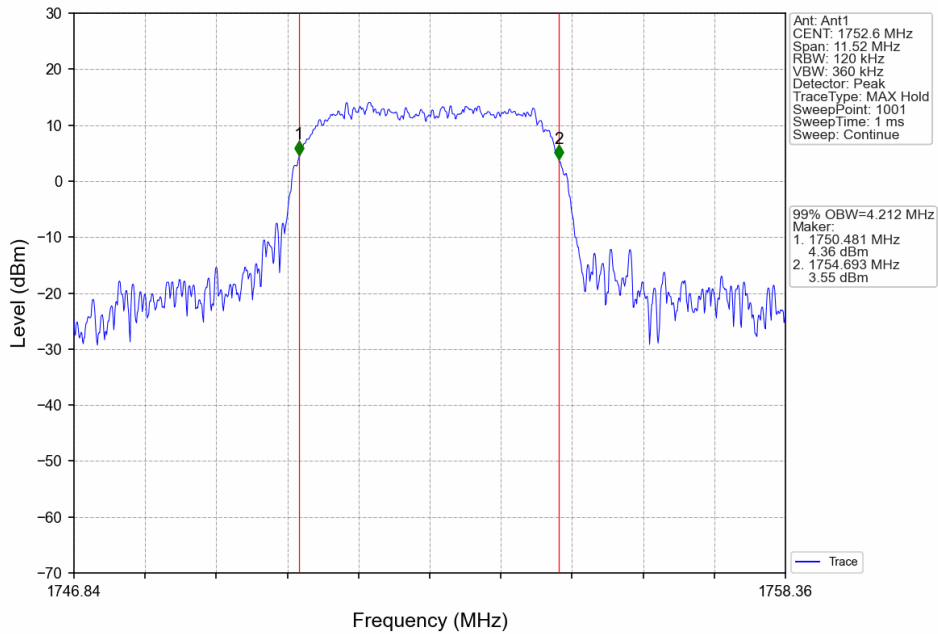
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



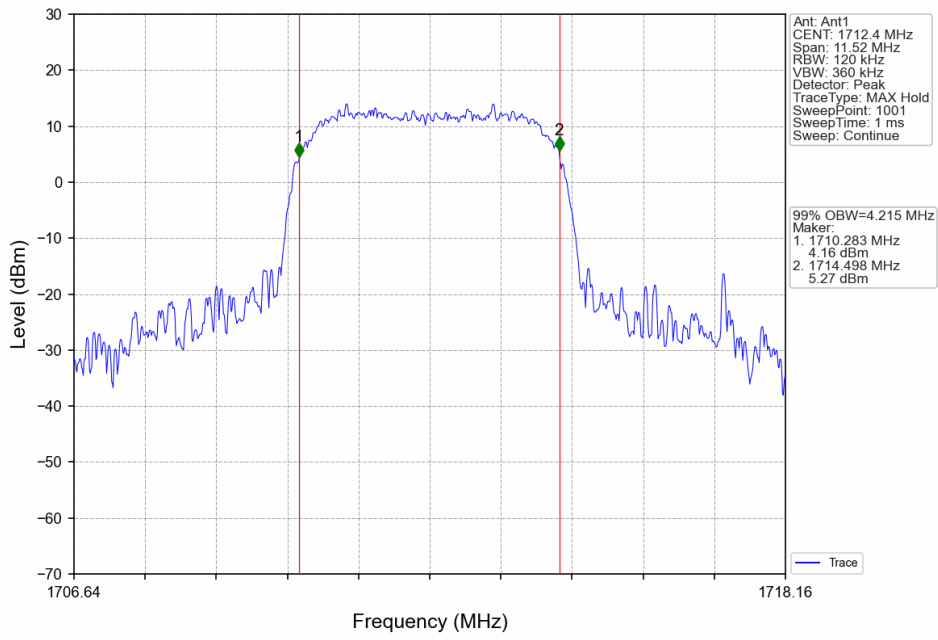
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



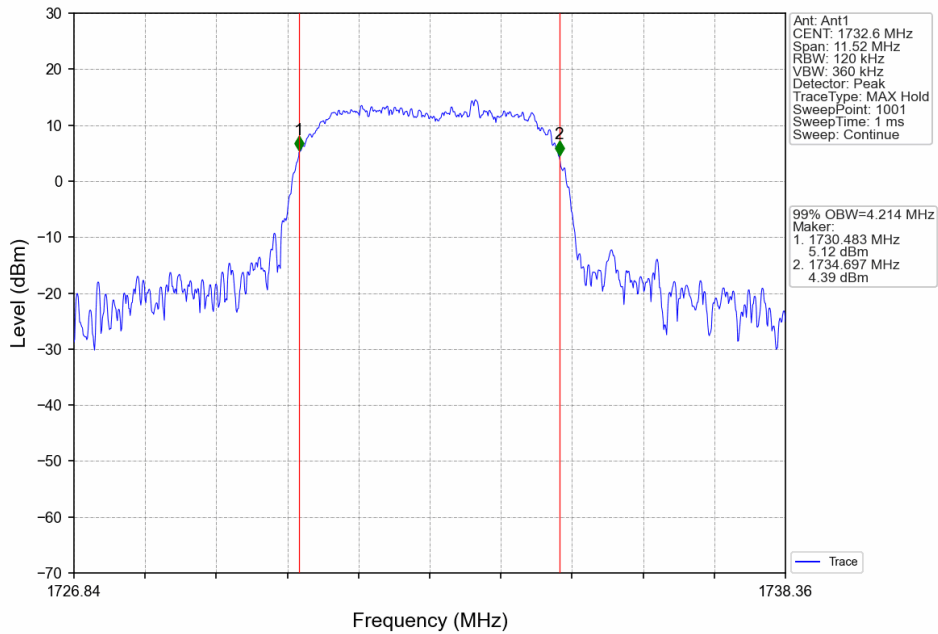
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



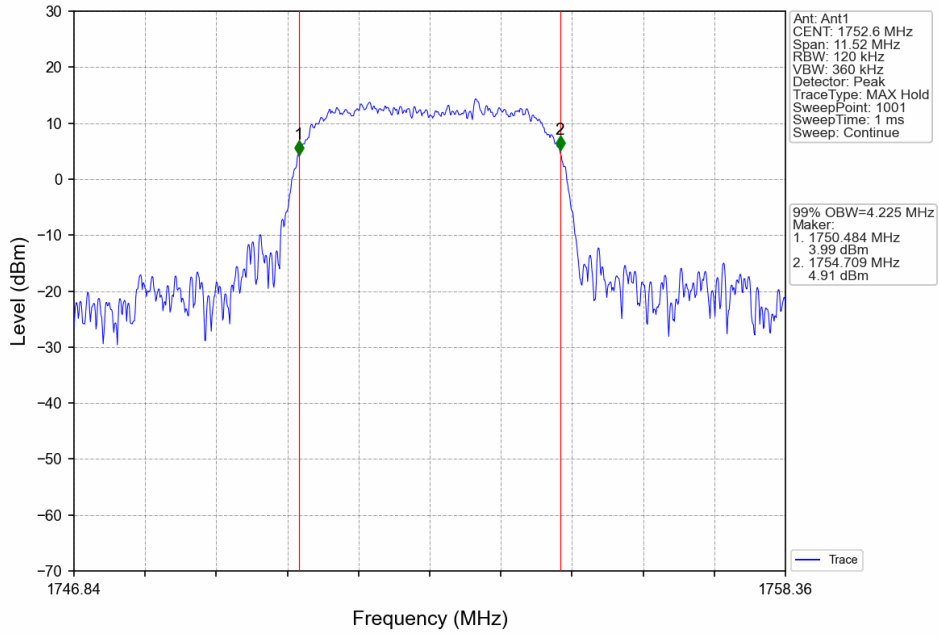
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV

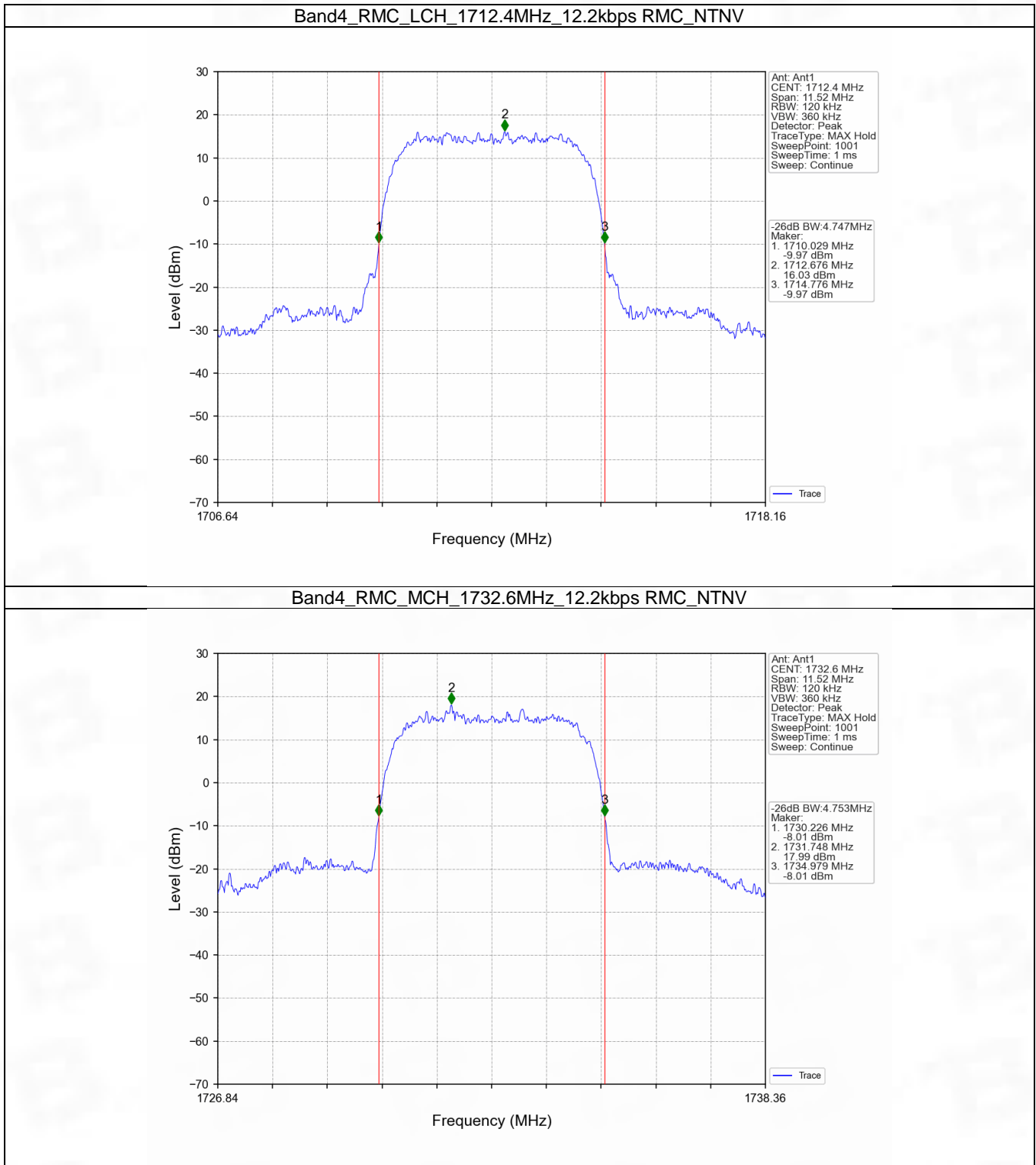


4.2 Band4_XDB

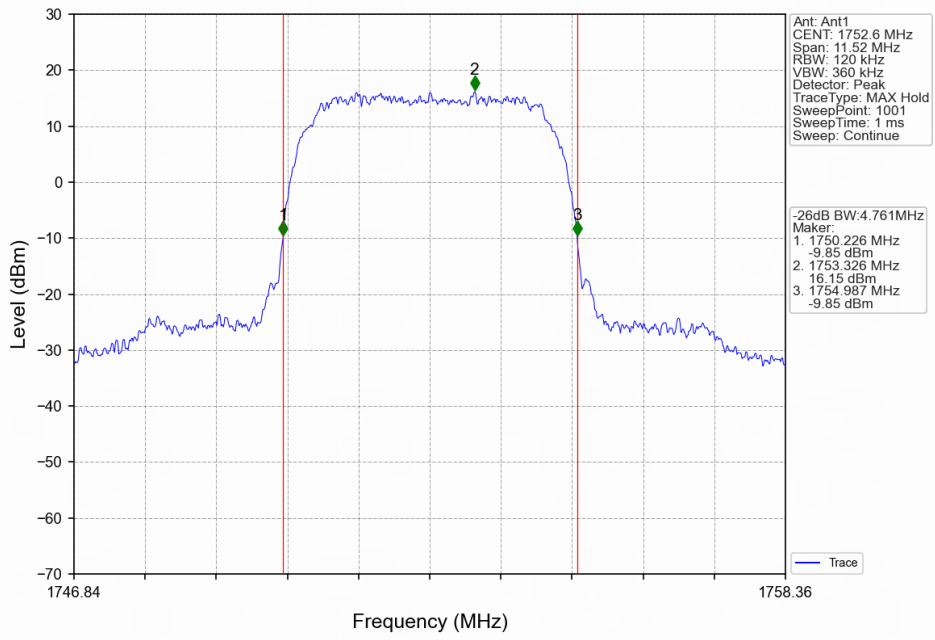
4.2.1 Test Result

Band: 4						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	4.747	/	Pass
			1732.6	4.753	/	Pass
			1752.6	4.761	/	Pass
	HSDPA	Subtest 1	1712.4	4.779	/	Pass
			1732.6	4.751	/	Pass
			1752.6	5.112	/	Pass
	HSUPA	Subtest 1	1712.4	4.753	/	Pass
			1732.6	4.908	/	Pass
			1752.6	5.259	/	Pass

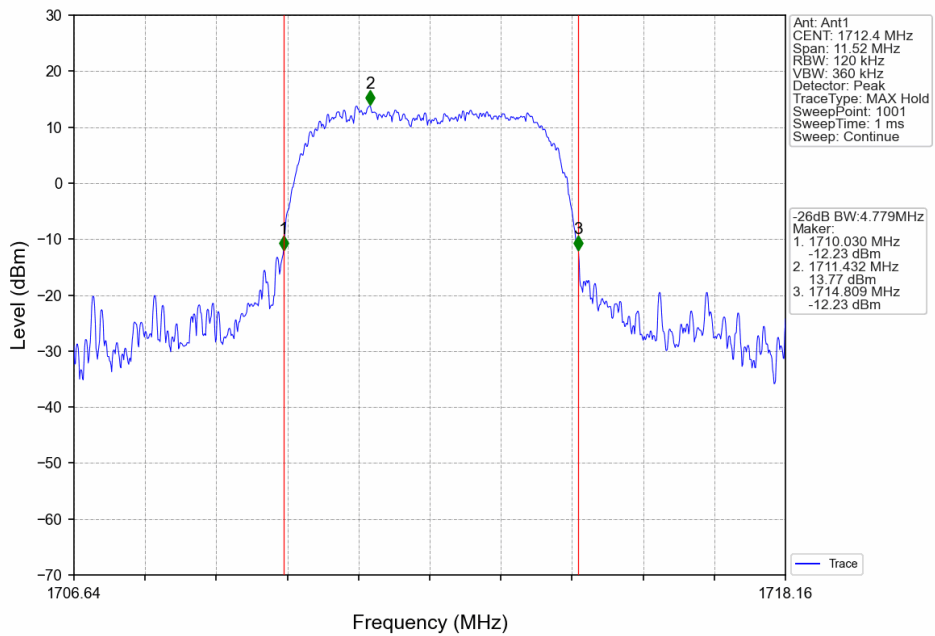
4.2.2 Test Graph



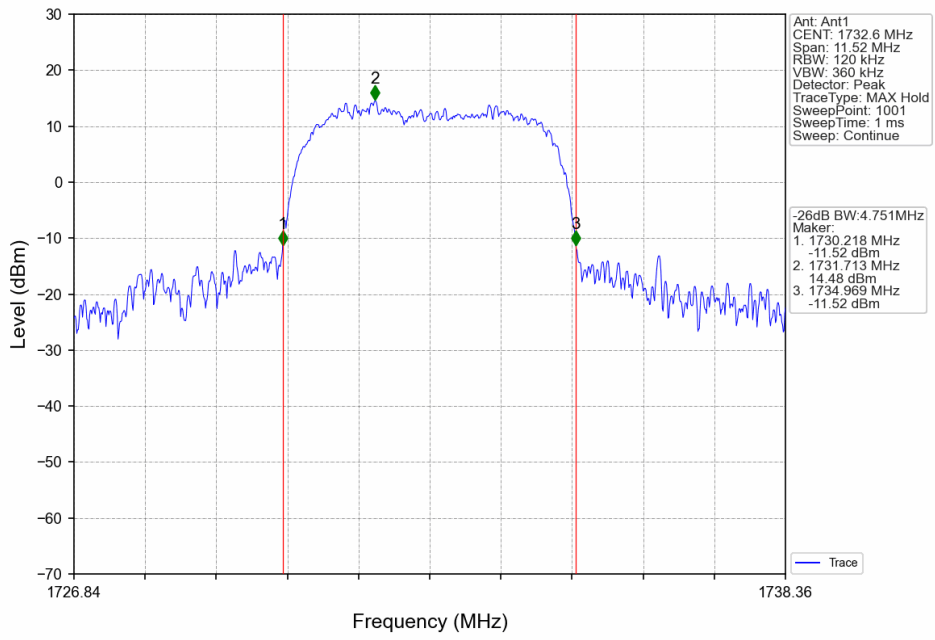
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



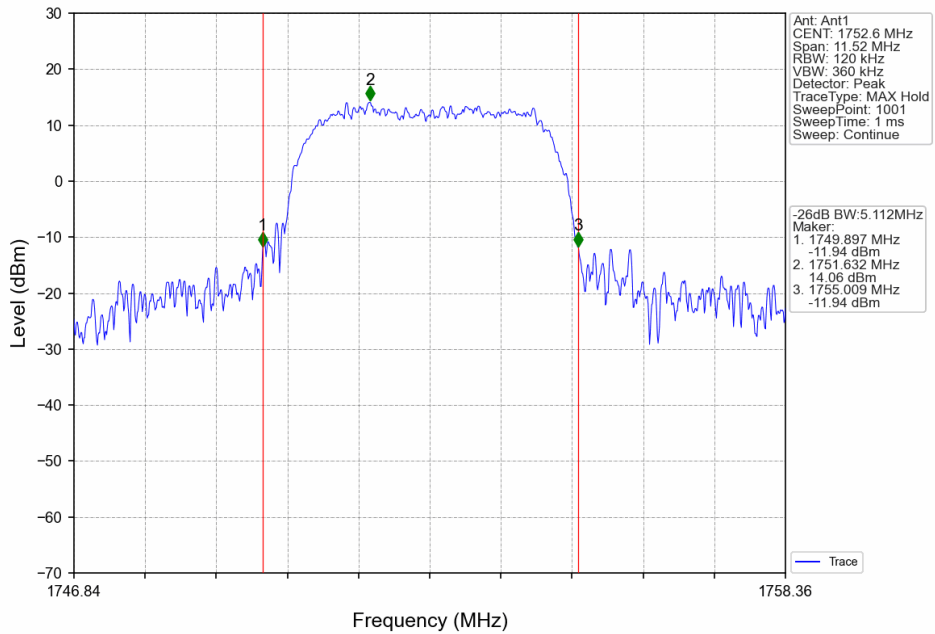
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



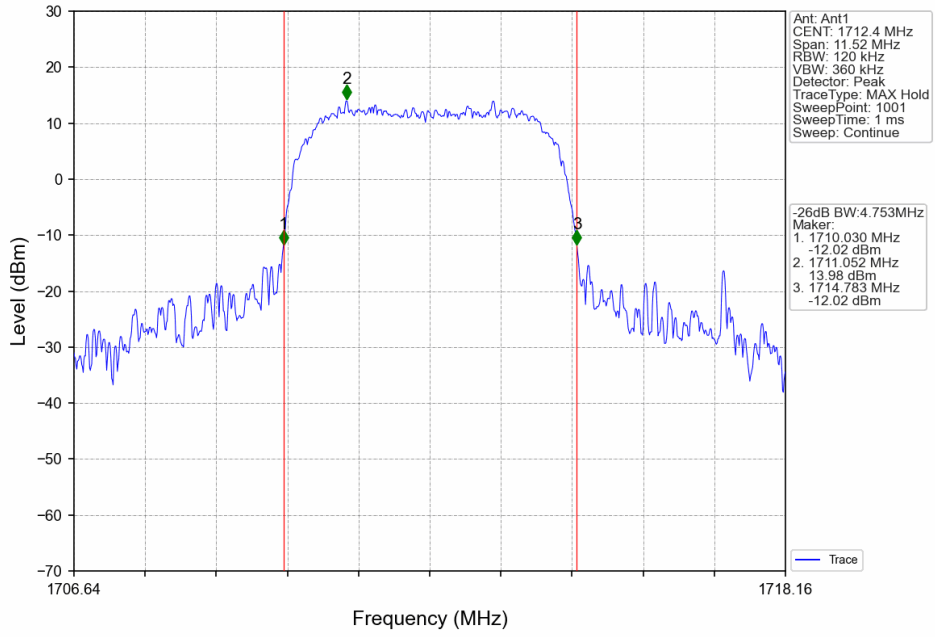
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



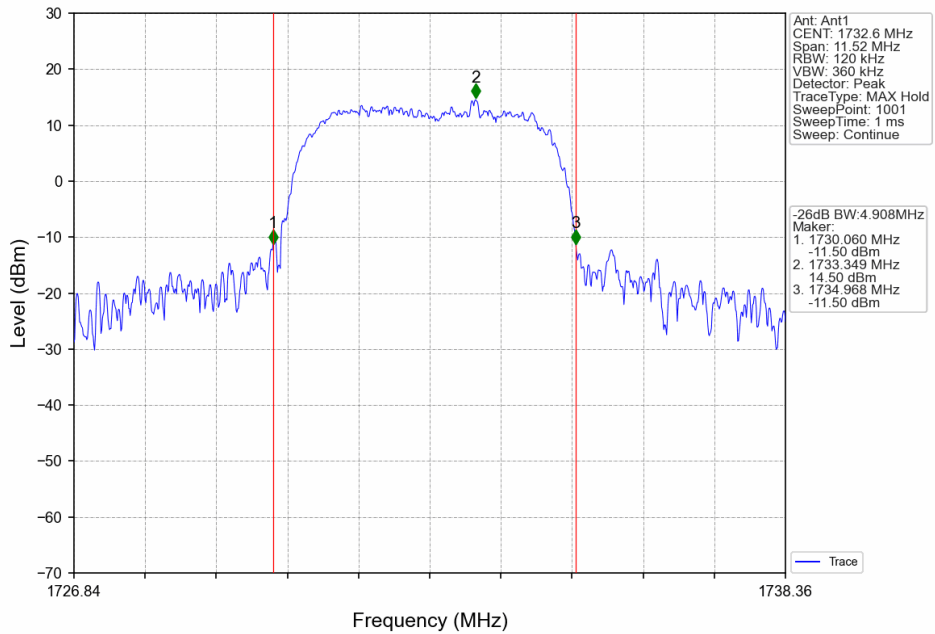
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



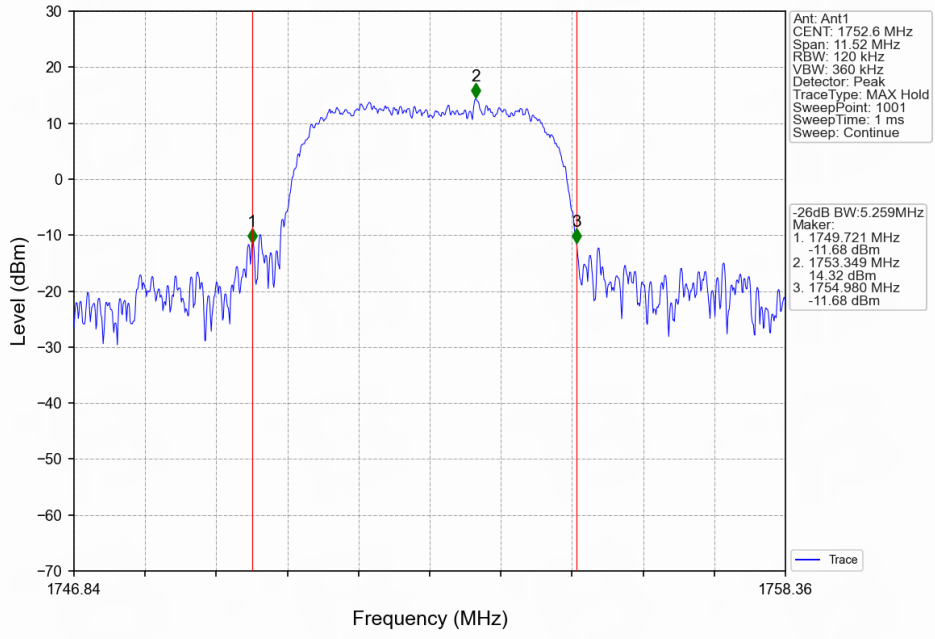
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



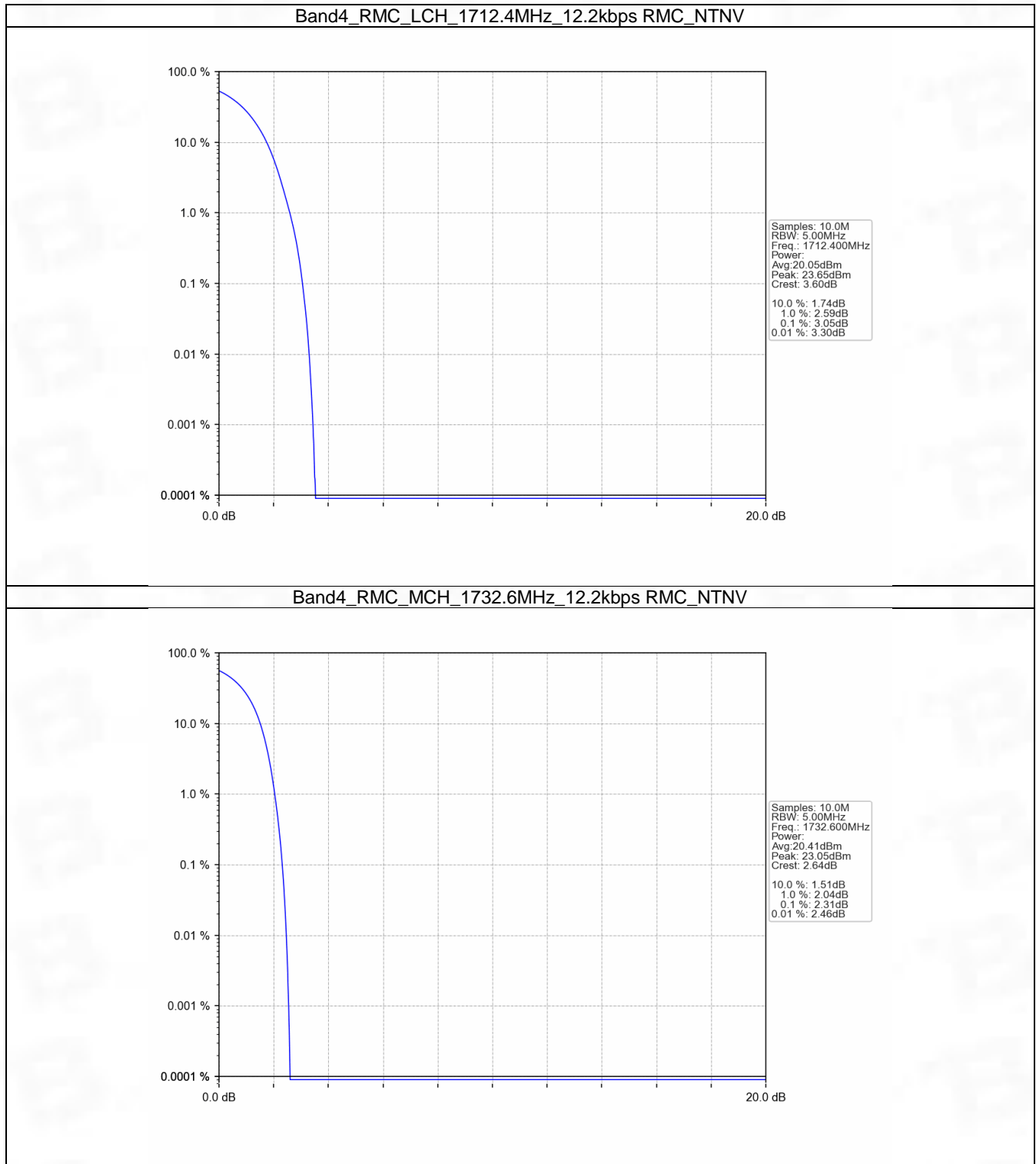
5. Peak-Average Ratio

5.1 Band4

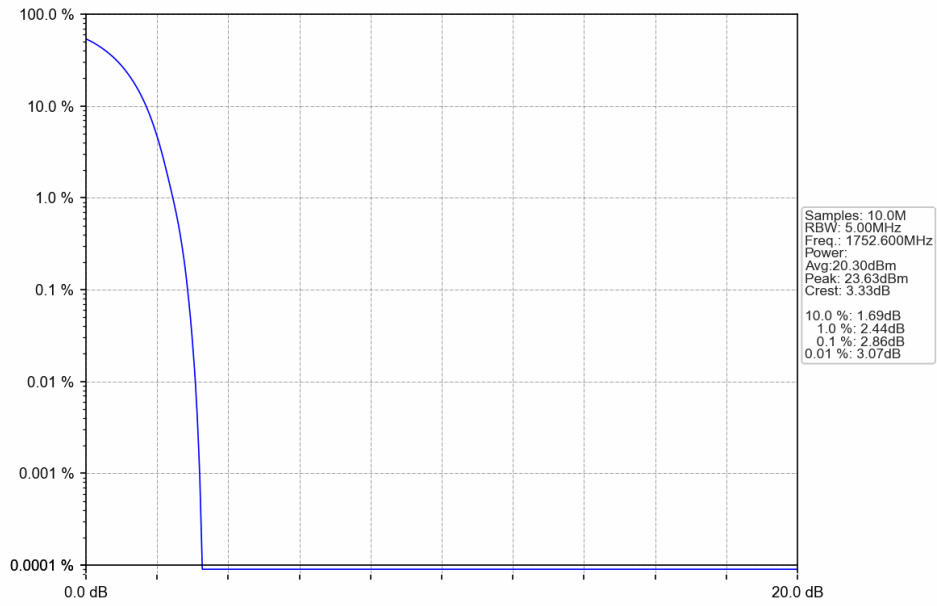
5.1.1 Test Result

Band: 4						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	3.05	<=13	Pass
			1732.6	2.31	<=13	Pass
			1752.6	2.86	<=13	Pass
	HSDPA	Subtest 1	1712.4	5.96	<=13	Pass
			1732.6	5.66	<=13	Pass
			1752.6	5.89	<=13	Pass
	HSUPA	Subtest 1	1712.4	5.90	<=13	Pass
			1732.6	5.66	<=13	Pass
			1752.6	5.96	<=13	Pass

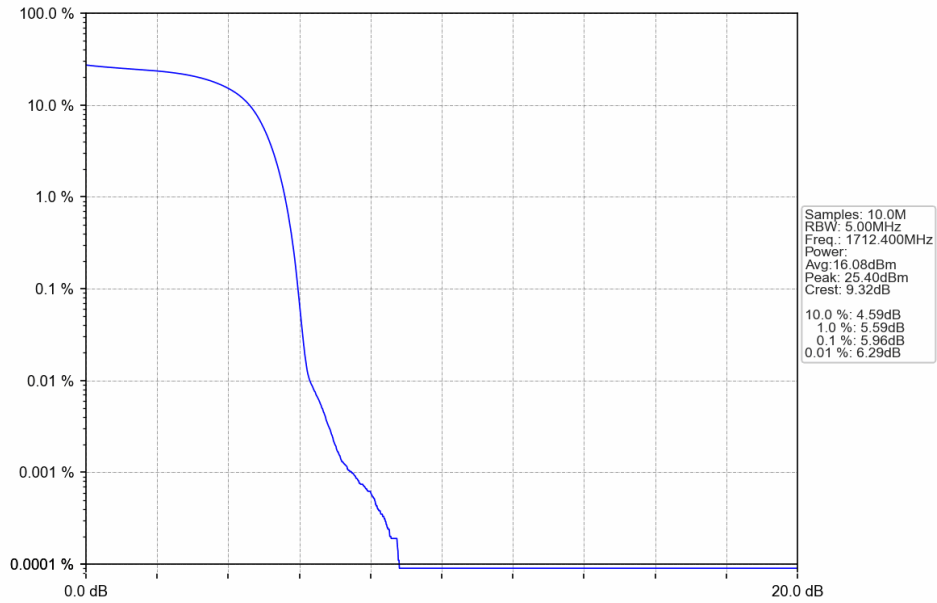
5.1.2 Test Graph



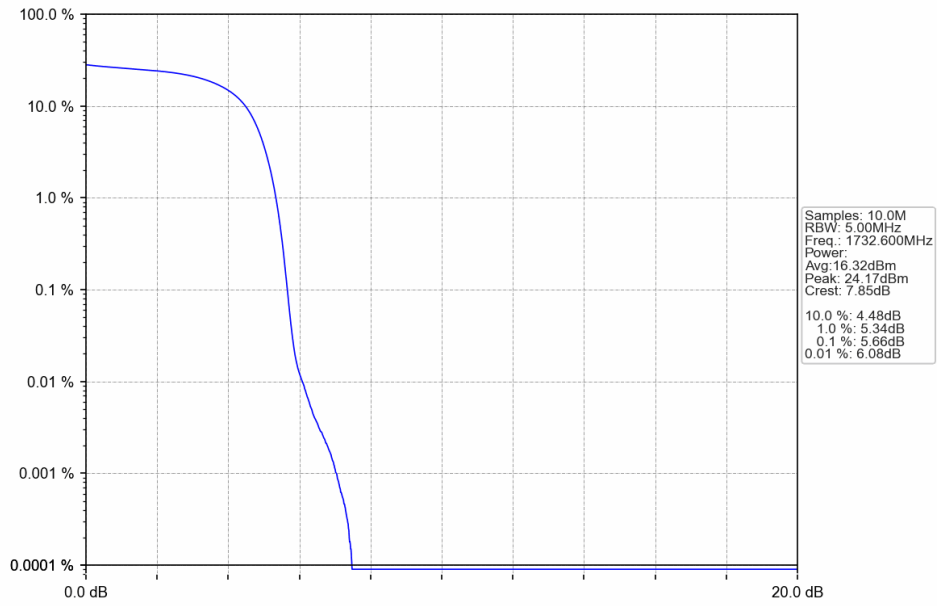
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



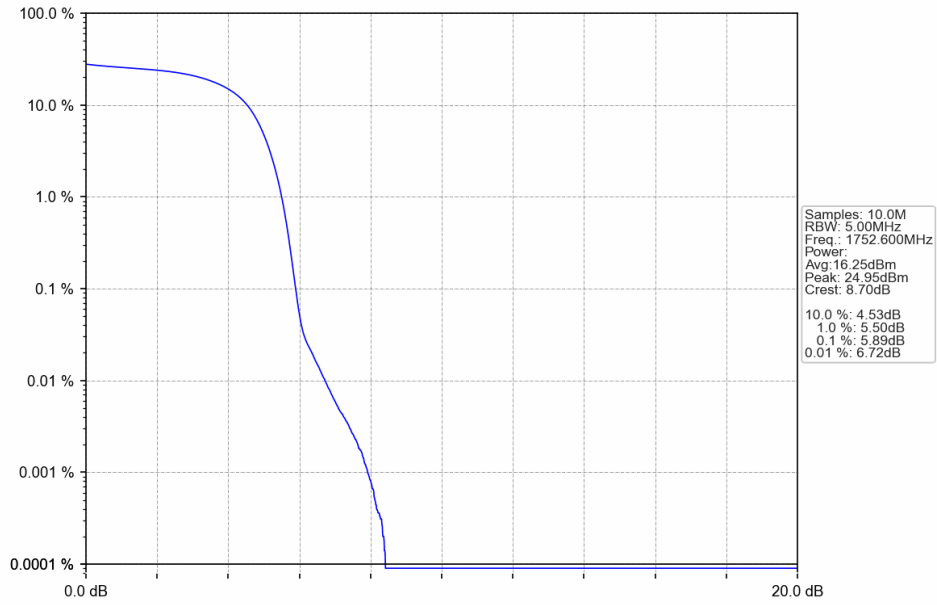
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



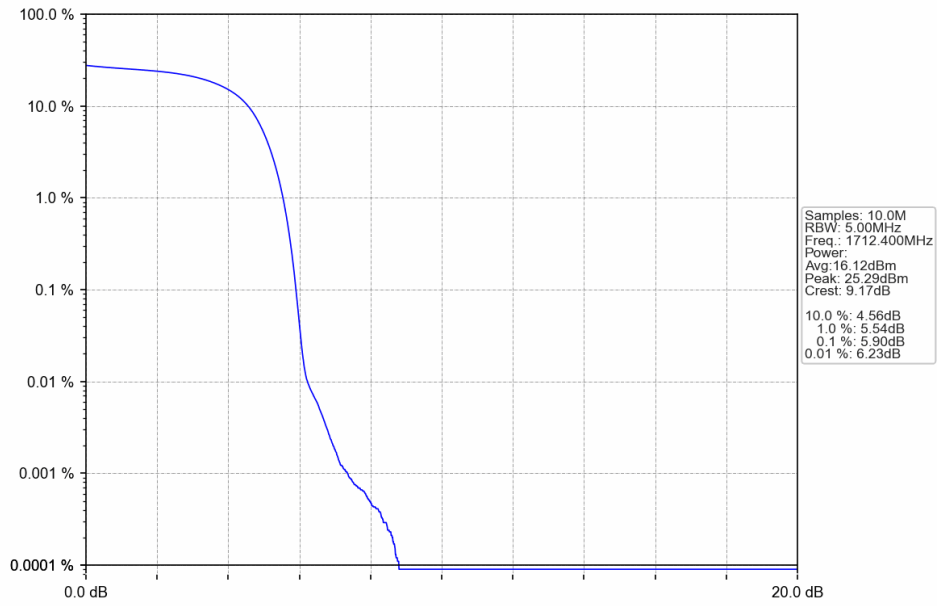
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



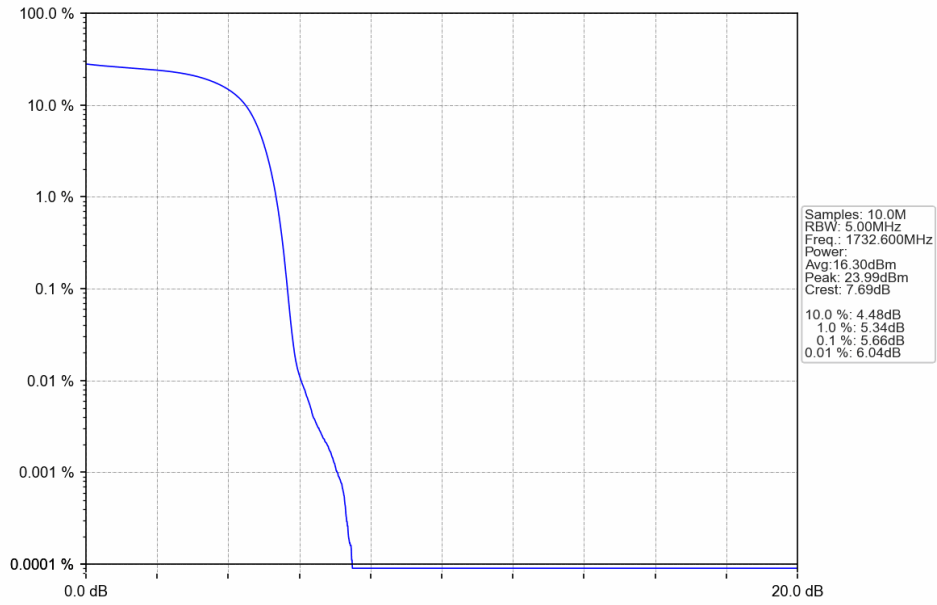
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



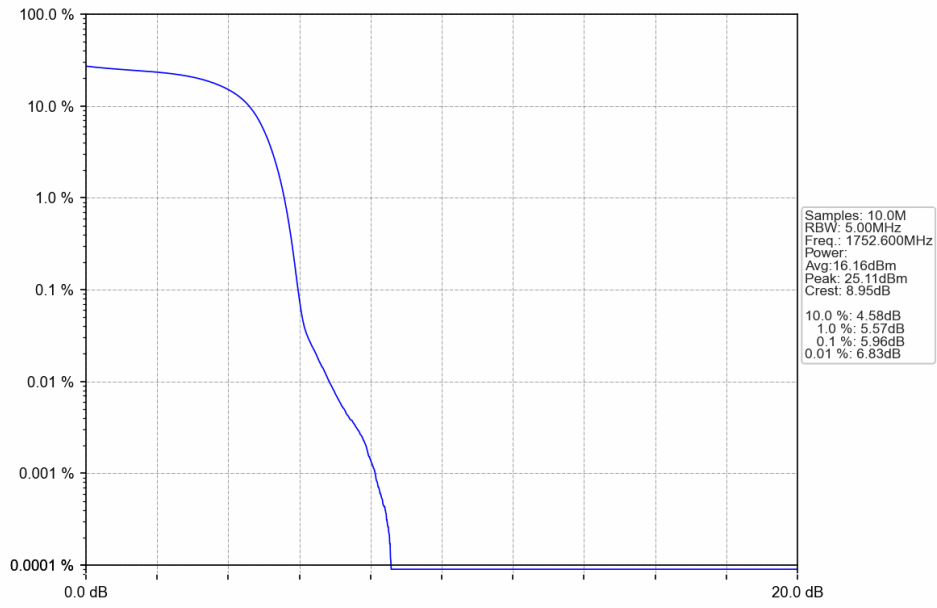
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



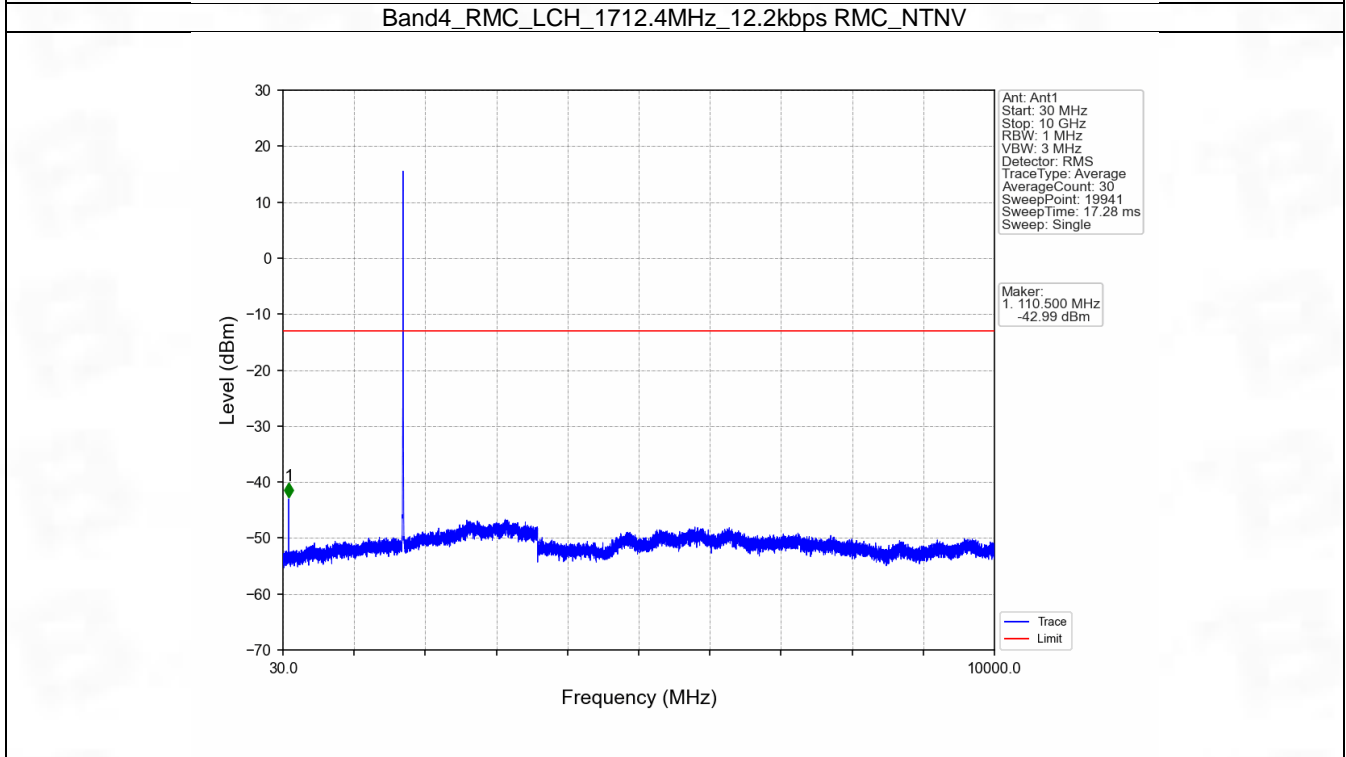
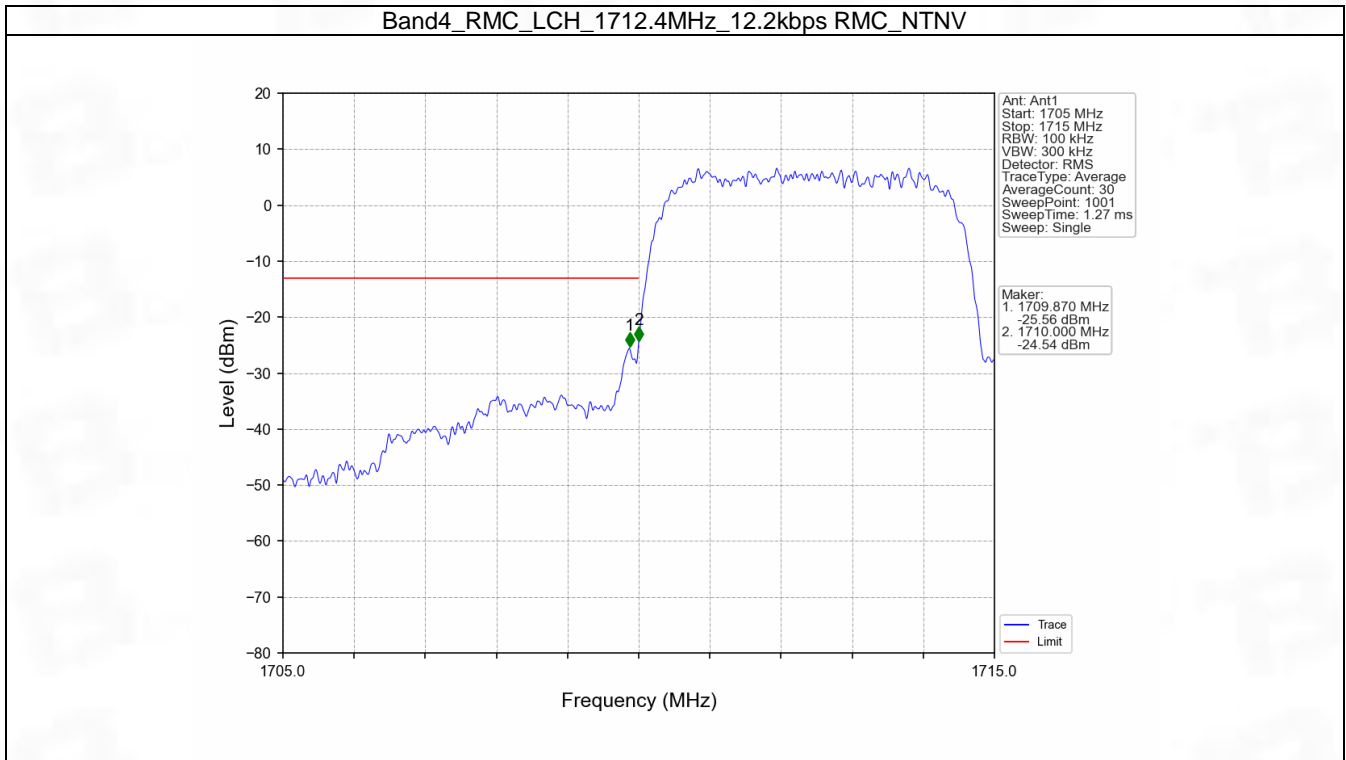
6. Spurious Emission

6.1 Band4

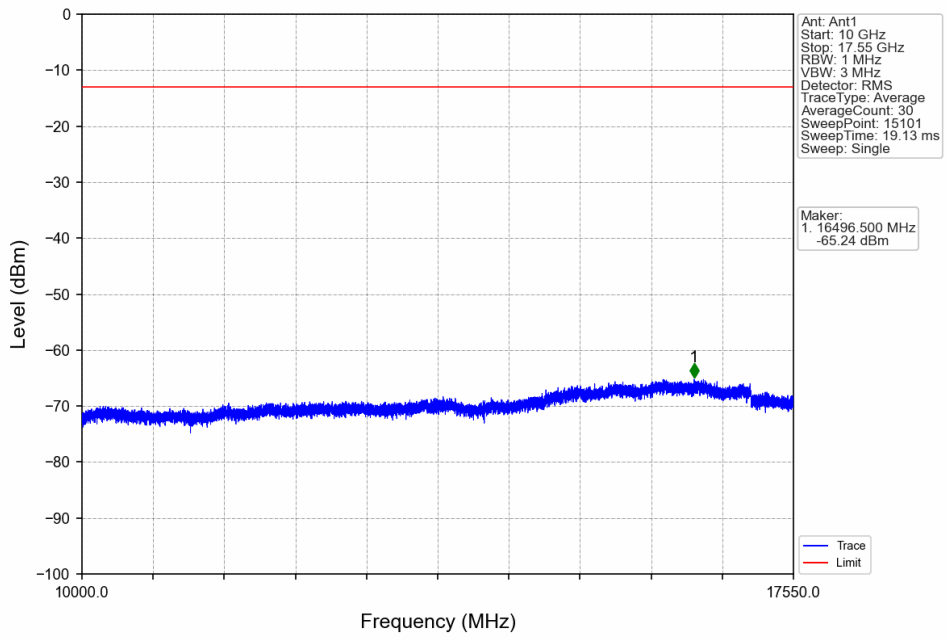
6.1.1 Test Result

Band: 4						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	Refer To Test Graph		Pass
			1732.6	Refer To Test Graph		Pass
			1752.6	Refer To Test Graph		Pass
	HSDPA	Subtest 1	1712.4	Refer To Test Graph		Pass
			1732.6	Refer To Test Graph		Pass
			1752.6	Refer To Test Graph		Pass
	HSUPA	Subtest 1	1712.4	Refer To Test Graph		Pass
			1732.6	Refer To Test Graph		Pass
			1752.6	Refer To Test Graph		Pass

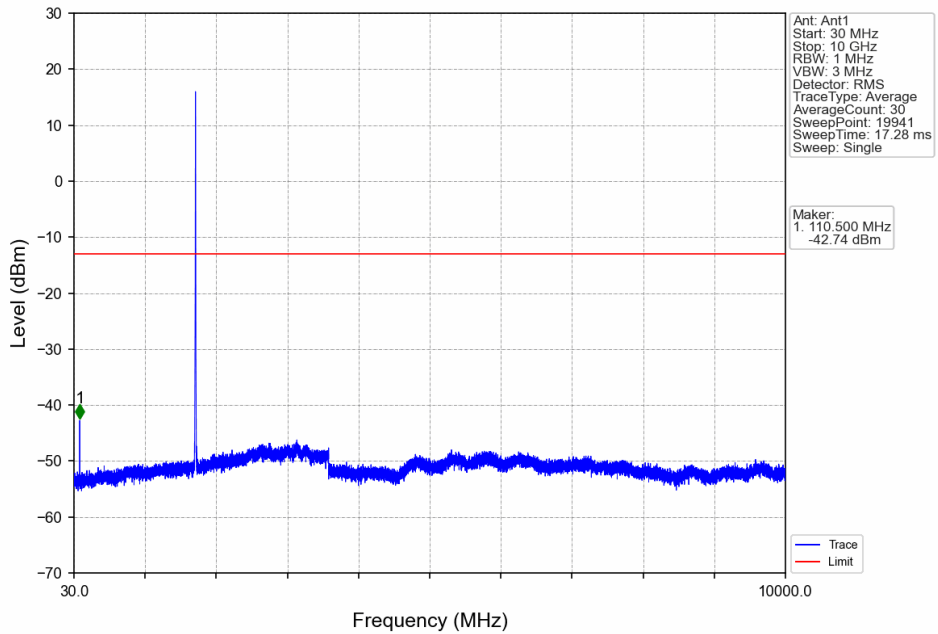
6.1.2 Test Graph



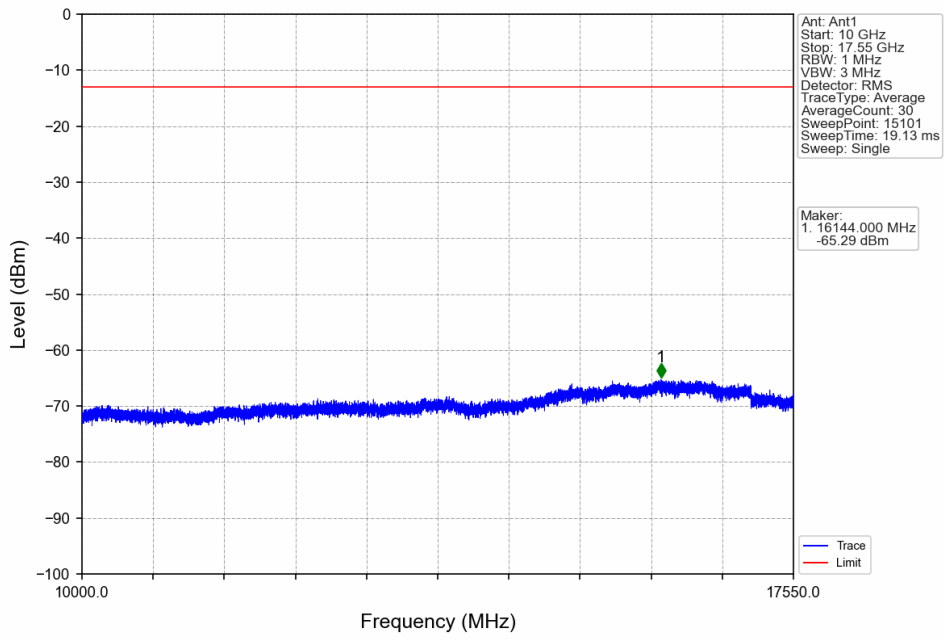
Band4_RMC_LCH_1712.4MHz_12.2kbps RMC_NTNV



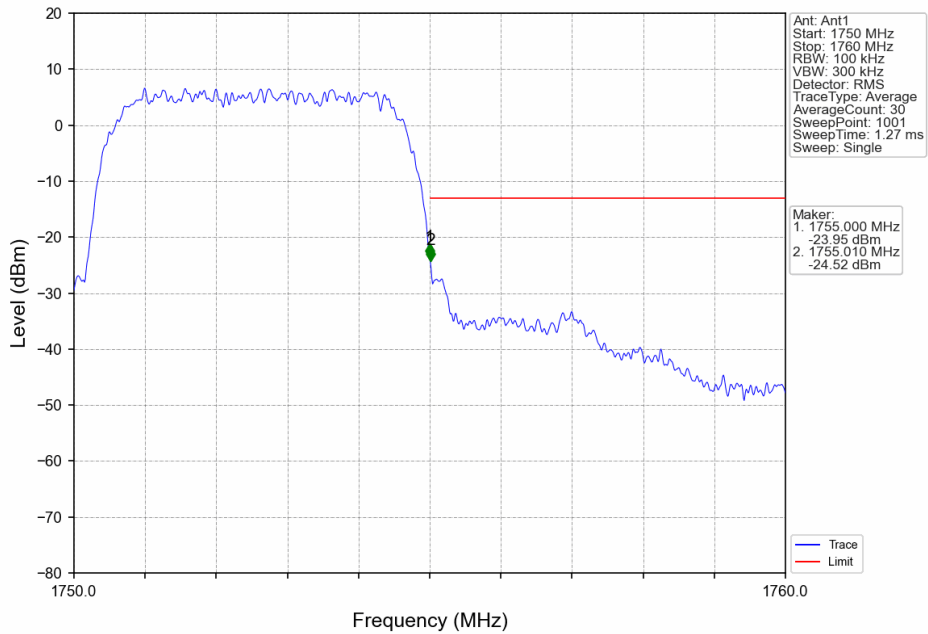
Band4_RMC_MCH_1732.6MHz_12.2kbps RMC_NTNV



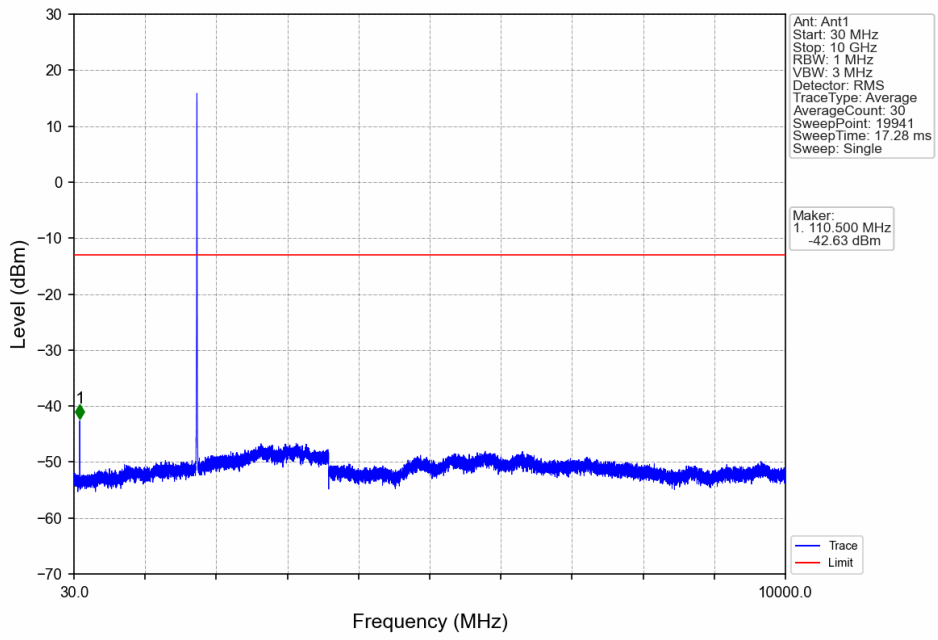
Band4_RMC_MCH_1732.6MHz_12.2kbps RMC_NTNV



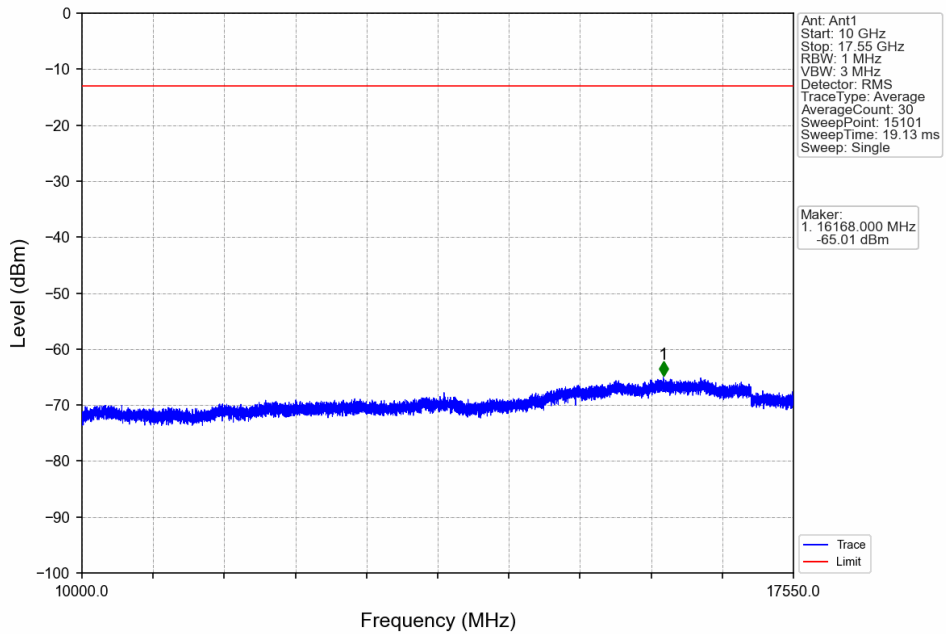
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



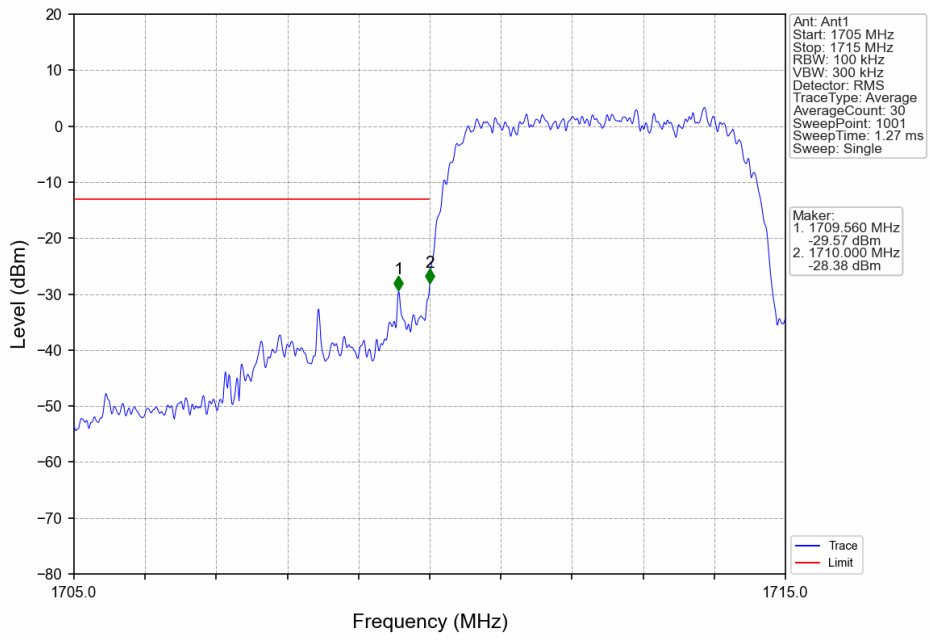
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



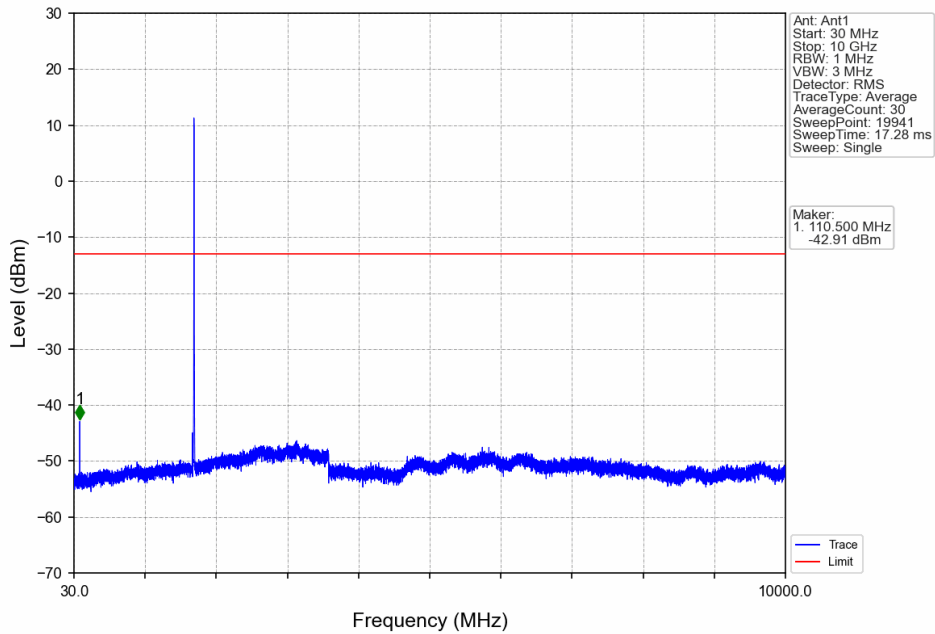
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



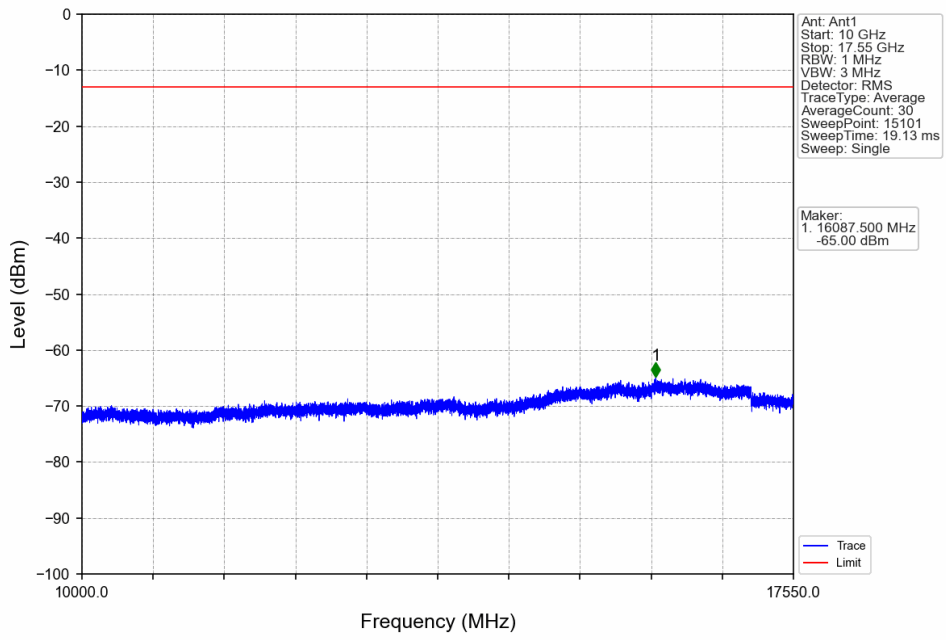
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



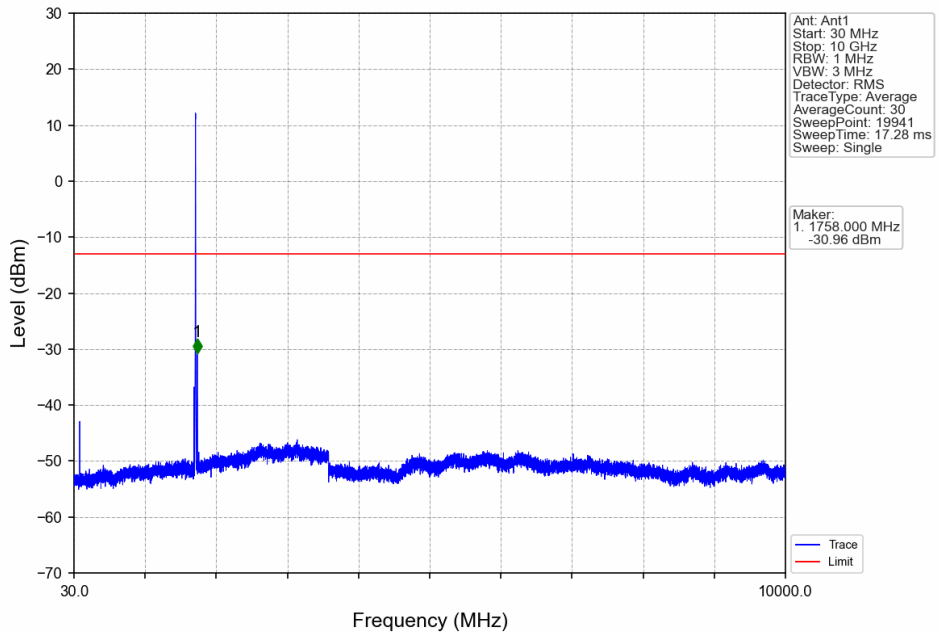
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



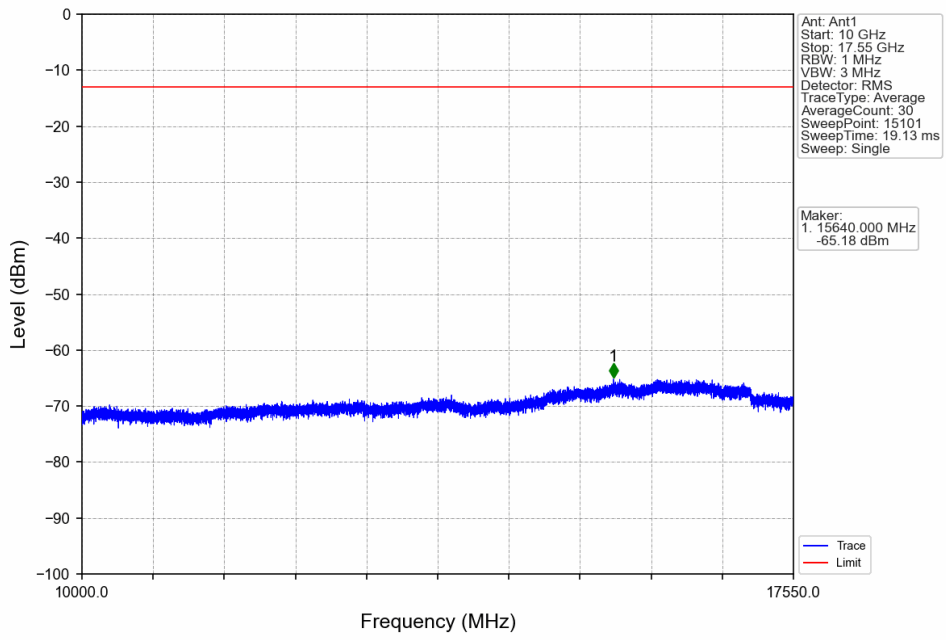
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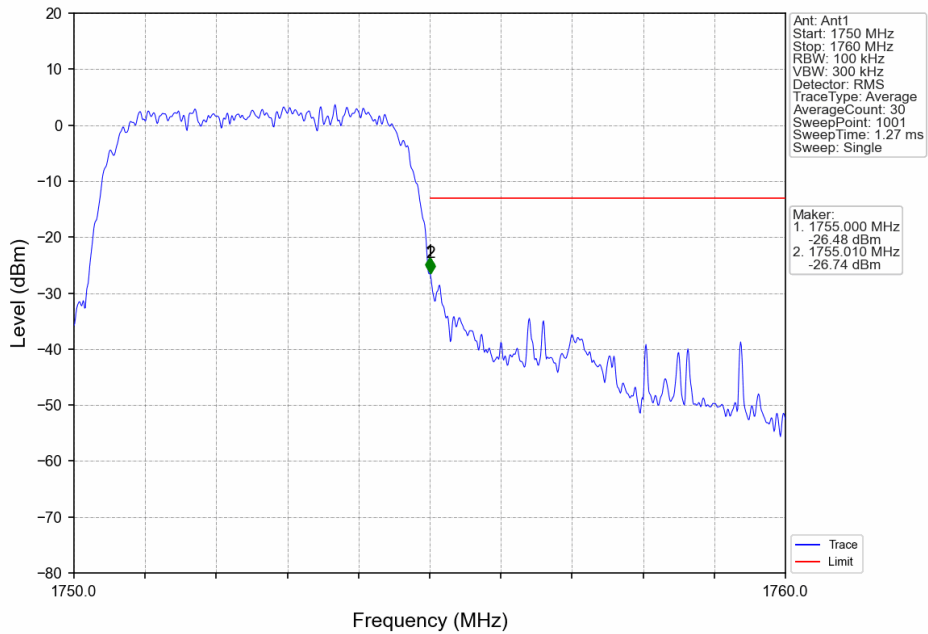
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



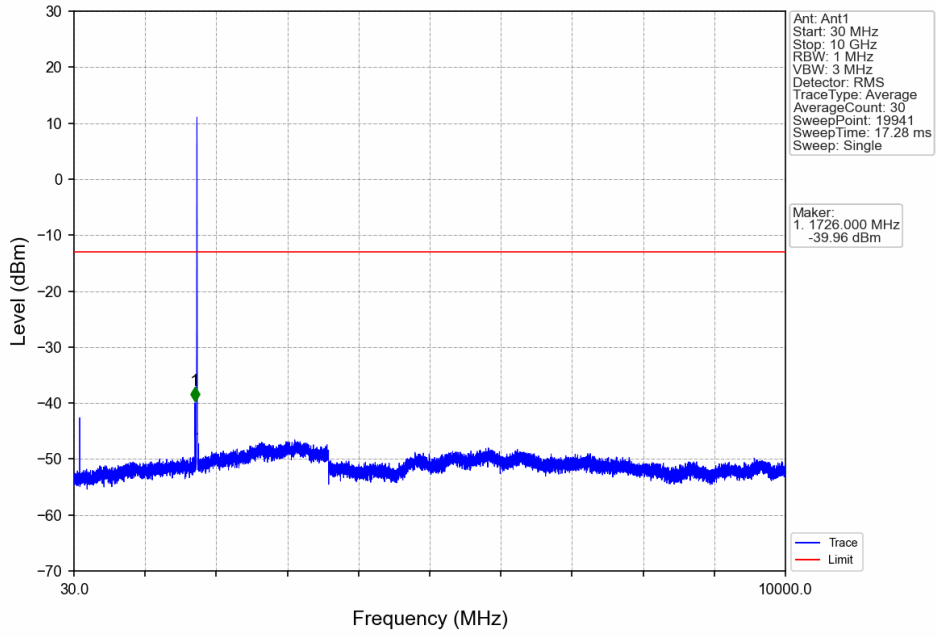
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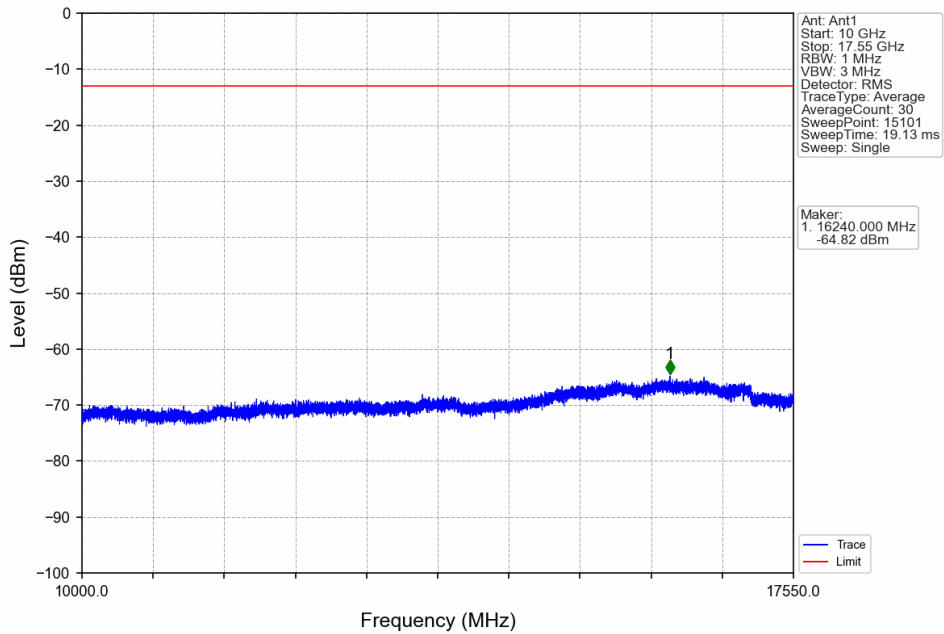
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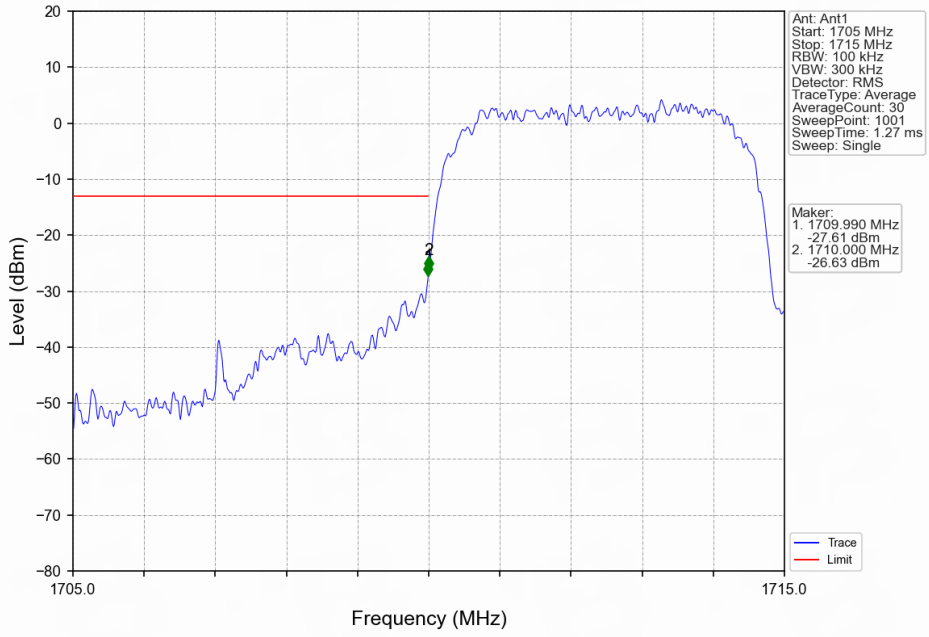
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



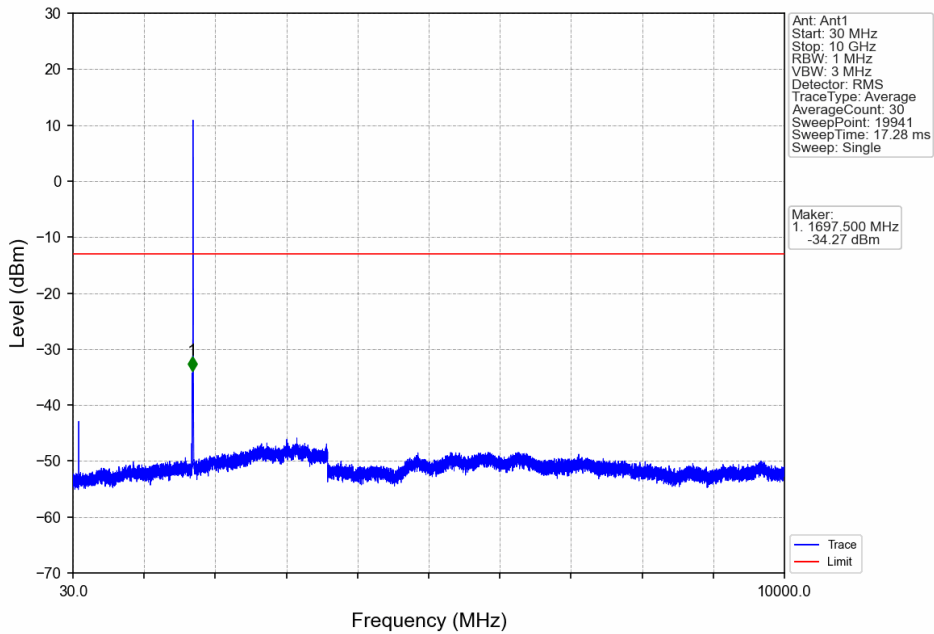
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



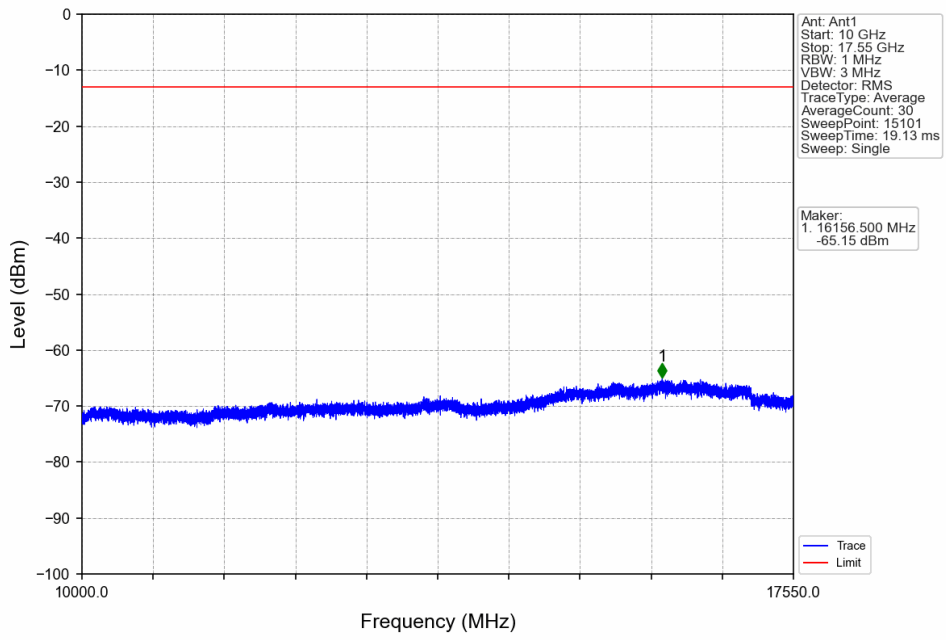
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



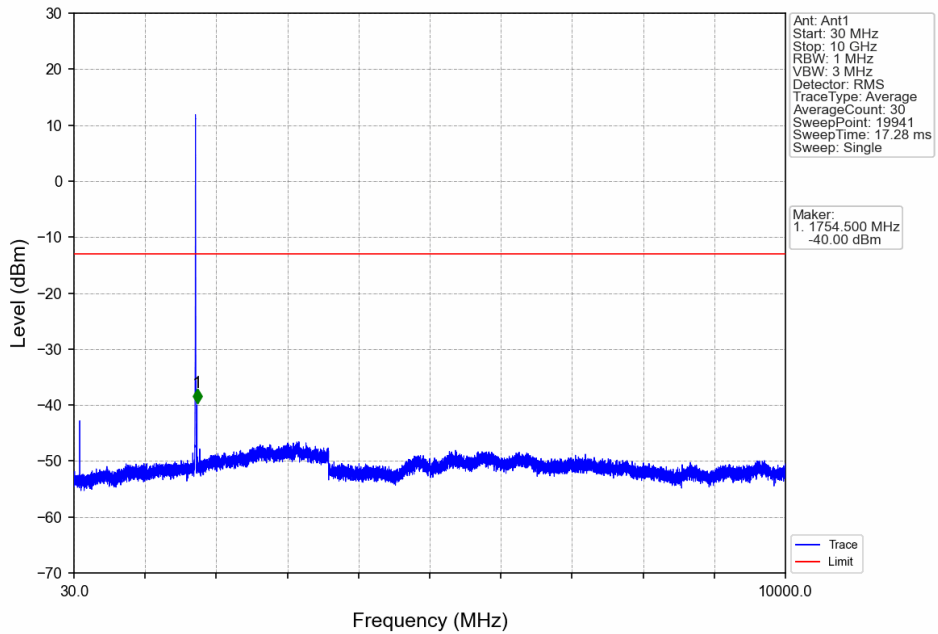
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



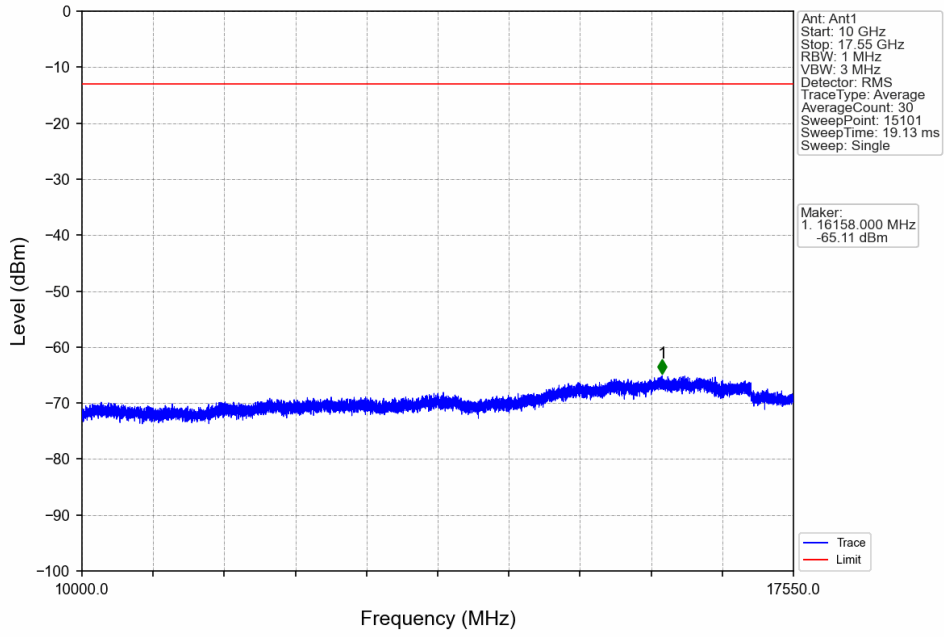
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



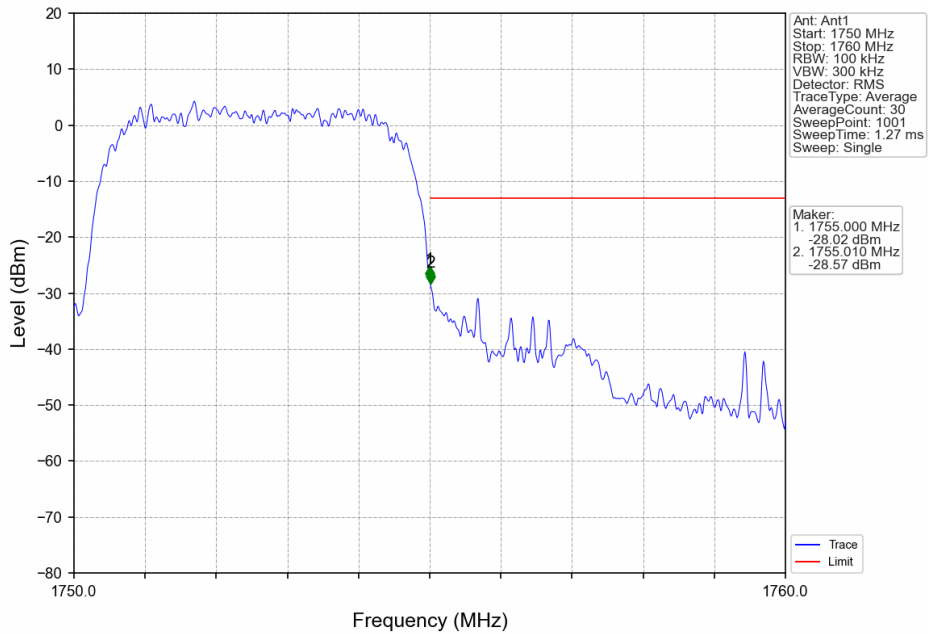
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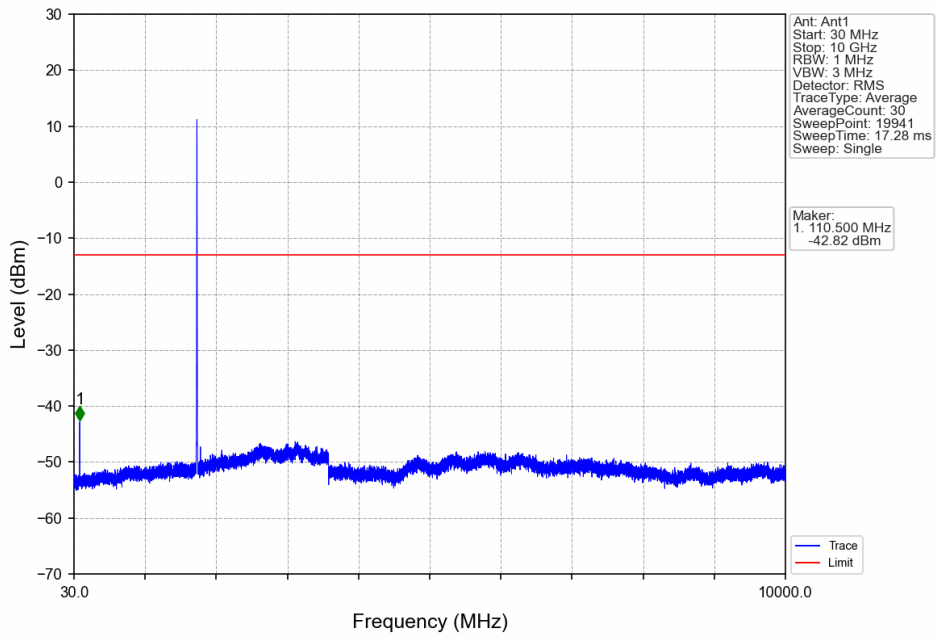
Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



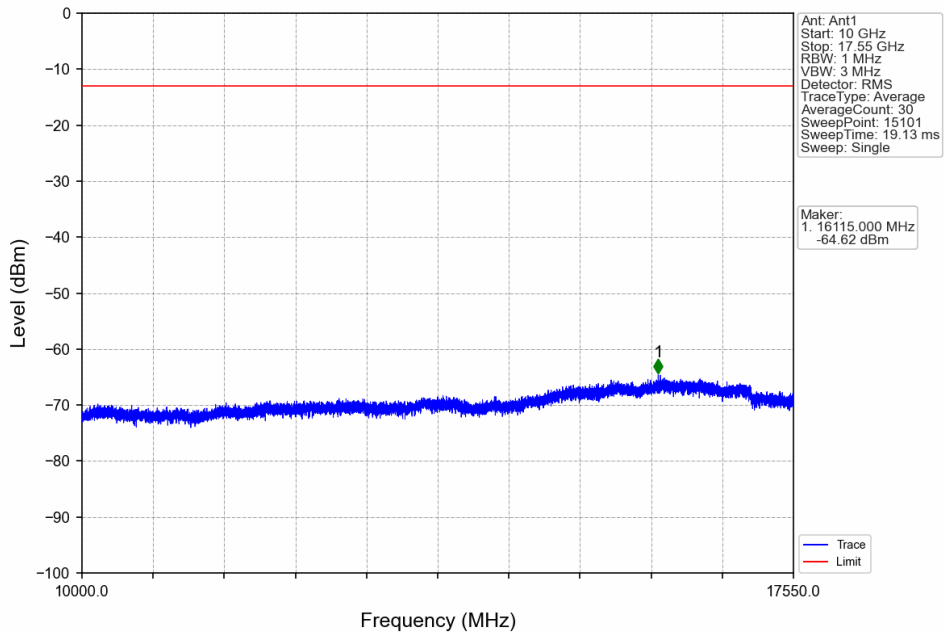
Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



7. Form731

7.1 Form731_Power

7.1.1 Test Result

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
4	3.84	1712.4	1752.6	0.1324	0.0092	ppm	4M22F9W	27L	21.22

7.2 Form731_EIRP

7.2.1 Test Result

Band	BW	Lower Freq	High Freq	MAX Power (W)	Value	Hz/ppm	Emission Designator	Rule Parts	MAX Power (dBm)
4	3.84	1712.4	1752.6	0.1611	0.0092	ppm	4M22F9W	27L	22.07