

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 Band4_EIRP

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	20.21	-0.09	20.12	<=30	Pass
			1732.6	20.20	-0.09	20.11	<=30	Pass
			1752.6	20.18	-0.09	20.09	<=30	Pass
	HSDPA	Subtest 1	1712.4	19.99	-0.09	19.90	<=30	Pass
		Subtest 2	1712.4	20.04	-0.09	19.95	<=30	Pass
		Subtest 3	1712.4	20.07	-0.09	19.98	<=30	Pass
		Subtest 4	1712.4	20.00	-0.09	19.91	<=30	Pass
		Subtest 1	1732.6	19.86	-0.09	19.77	<=30	Pass
		Subtest 2	1732.6	19.89	-0.09	19.80	<=30	Pass
		Subtest 3	1732.6	19.91	-0.09	19.82	<=30	Pass
		Subtest 4	1732.6	19.85	-0.09	19.76	<=30	Pass
		Subtest 1	1752.6	19.88	-0.09	19.79	<=30	Pass
		Subtest 2	1752.6	19.93	-0.09	19.84	<=30	Pass
		Subtest 3	1752.6	19.95	-0.09	19.86	<=30	Pass
		Subtest 4	1752.6	19.88	-0.09	19.79	<=30	Pass
	HSUPA	Subtest 1	1712.4	17.98	-0.09	17.89	<=30	Pass
		Subtest 2	1712.4	17.39	-0.09	17.30	<=30	Pass
		Subtest 3	1712.4	17.71	-0.09	17.62	<=30	Pass
		Subtest 4	1712.4	17.89	-0.09	17.80	<=30	Pass
		Subtest 5	1712.4	17.37	-0.09	17.28	<=30	Pass
		Subtest 1	1732.6	17.87	-0.09	17.78	<=30	Pass
		Subtest 2	1732.6	17.86	-0.09	17.77	<=30	Pass
		Subtest 3	1732.6	17.94	-0.09	17.85	<=30	Pass
		Subtest 4	1732.6	17.94	-0.09	17.85	<=30	Pass
		Subtest 5	1732.6	17.48	-0.09	17.39	<=30	Pass
		Subtest 1	1752.6	17.84	-0.09	17.75	<=30	Pass
		Subtest 2	1752.6	17.68	-0.09	17.59	<=30	Pass
		Subtest 3	1752.6	17.91	-0.09	17.82	<=30	Pass
		Subtest 4	1752.6	17.91	-0.09	17.82	<=30	Pass
		Subtest 5	1752.6	17.90	-0.09	17.81	<=30	Pass

Note1: EIRP=Conducted Power+Antenna Gain

2. Frequency Stability

2.1 Test Result

2.1.1 Band4

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	4.263	0.0025	-2.5 to 2.5	Pass
			3.85	10.529	0.0061	-2.5 to 2.5	Pass
			4.43	-2.453	-0.0014	-2.5 to 2.5	Pass
		-30	3.85	-5.994	-0.0035	-2.5 to 2.5	Pass
		-20	3.85	-10.800	-0.0063	-2.5 to 2.5	Pass

	1732.6	-10	3.85	2.432	0.0014	-2.5 to 2.5	Pass		
		0	3.85	1.223	0.0007	-2.5 to 2.5	Pass		
		10	3.85	-7.160	-0.0042	-2.5 to 2.5	Pass		
		30	3.85	-1.638	-0.0010	-2.5 to 2.5	Pass		
		40	3.85	-8.461	-0.0049	-2.5 to 2.5	Pass		
		50	3.85	8.619	0.0050	-2.5 to 2.5	Pass		
		20	3.27	1.309	0.0008	-2.5 to 2.5	Pass		
			3.85	5.722	0.0033	-2.5 to 2.5	Pass		
			4.43	-2.110	-0.0012	-2.5 to 2.5	Pass		
			-30	3.85	-5.980	-0.0035	-2.5 to 2.5	Pass	
			-20	3.85	2.074	0.0012	-2.5 to 2.5	Pass	
			-10	3.85	-2.117	-0.0012	-2.5 to 2.5	Pass	
			0	3.85	-9.570	-0.0055	-2.5 to 2.5	Pass	
			10	3.85	-1.960	-0.0011	-2.5 to 2.5	Pass	
			30	3.85	4.427	0.0026	-2.5 to 2.5	Pass	
	40	3.85	7.324	0.0042	-2.5 to 2.5	Pass			
	50	3.85	4.635	0.0027	-2.5 to 2.5	Pass			
	1752.6	20	3.27	-4.485	-0.0026	-2.5 to 2.5	Pass		
			3.85	-2.110	-0.0012	-2.5 to 2.5	Pass		
			4.43	-9.313	-0.0053	-2.5 to 2.5	Pass		
		-30	3.85	-5.035	-0.0029	-2.5 to 2.5	Pass		
		-20	3.85	-1.581	-0.0009	-2.5 to 2.5	Pass		
		-10	3.85	-9.077	-0.0052	-2.5 to 2.5	Pass		
		0	3.85	-9.005	-0.0051	-2.5 to 2.5	Pass		
		10	3.85	-9.141	-0.0052	-2.5 to 2.5	Pass		
		30	3.85	-7.496	-0.0043	-2.5 to 2.5	Pass		
		40	3.85	7.210	0.0041	-2.5 to 2.5	Pass		
		50	3.85	8.476	0.0048	-2.5 to 2.5	Pass		
		HSDPA	1712.4	20	3.27	2.346	0.0014	-2.5 to 2.5	Pass
					3.85	5.794	0.0034	-2.5 to 2.5	Pass
4.43					5.665	0.0033	-2.5 to 2.5	Pass	
-30				3.85	1.588	0.0009	-2.5 to 2.5	Pass	
-20	3.85			3.161	0.0018	-2.5 to 2.5	Pass		
-10	3.85			5.500	0.0032	-2.5 to 2.5	Pass		
0	3.85			1.903	0.0011	-2.5 to 2.5	Pass		
10	3.85			8.855	0.0052	-2.5 to 2.5	Pass		
30	3.85			7.603	0.0044	-2.5 to 2.5	Pass		
40	3.85			2.832	0.0017	-2.5 to 2.5	Pass		
50	3.85			9.255	0.0054	-2.5 to 2.5	Pass		
1732.6	20			3.27	7.718	0.0045	-2.5 to 2.5	Pass	
				3.85	6.959	0.0040	-2.5 to 2.5	Pass	
				4.43	8.261	0.0048	-2.5 to 2.5	Pass	
	-30			3.85	8.597	0.0050	-2.5 to 2.5	Pass	
	-20	3.85	2.489	0.0014	-2.5 to 2.5	Pass			
	-10	3.85	3.269	0.0019	-2.5 to 2.5	Pass			
	0	3.85	3.812	0.0022	-2.5 to 2.5	Pass			
	10	3.85	5.665	0.0033	-2.5 to 2.5	Pass			
	30	3.85	3.054	0.0018	-2.5 to 2.5	Pass			
	40	3.85	10.872	0.0063	-2.5 to 2.5	Pass			
	50	3.85	8.211	0.0047	-2.5 to 2.5	Pass			
	1752.6	20	3.27	8.054	0.0046	-2.5 to 2.5	Pass		
			3.85	14.341	0.0082	-2.5 to 2.5	Pass		
			4.43	16.050	0.0092	-2.5 to 2.5	Pass		
		-30	3.85	16.279	0.0093	-2.5 to 2.5	Pass		
-20		3.85	16.029	0.0091	-2.5 to 2.5	Pass			
-10		3.85	15.464	0.0088	-2.5 to 2.5	Pass			
0		3.85	15.335	0.0087	-2.5 to 2.5	Pass			
10		3.85	14.992	0.0086	-2.5 to 2.5	Pass			
30		3.85	14.119	0.0081	-2.5 to 2.5	Pass			

		40	3.85	13.089	0.0075	-2.5 to 2.5	Pass
		50	3.85	9.091	0.0052	-2.5 to 2.5	Pass
HSUPA	1712.4	20	3.27	3.240	0.0019	-2.5 to 2.5	Pass
			3.85	3.719	0.0022	-2.5 to 2.5	Pass
			4.43	4.892	0.0029	-2.5 to 2.5	Pass
		-30	3.85	-2.553	-0.0015	-2.5 to 2.5	Pass
		-20	3.85	-8.798	-0.0051	-2.5 to 2.5	Pass
		-10	3.85	1.130	0.0007	-2.5 to 2.5	Pass
		0	3.85	-9.248	-0.0054	-2.5 to 2.5	Pass
		10	3.85	-6.287	-0.0037	-2.5 to 2.5	Pass
		30	3.85	-6.616	-0.0039	-2.5 to 2.5	Pass
		40	3.85	2.267	0.0013	-2.5 to 2.5	Pass
	50	3.85	-6.902	-0.0040	-2.5 to 2.5	Pass	
	1732.6	20	3.27	-3.626	-0.0021	-2.5 to 2.5	Pass
			3.85	-4.835	-0.0028	-2.5 to 2.5	Pass
			4.43	-4.764	-0.0027	-2.5 to 2.5	Pass
		-30	3.85	-6.752	-0.0039	-2.5 to 2.5	Pass
		-20	3.85	-2.761	-0.0016	-2.5 to 2.5	Pass
		-10	3.85	-1.845	-0.0011	-2.5 to 2.5	Pass
		0	3.85	0.572	0.0003	-2.5 to 2.5	Pass
		10	3.85	1.745	0.0010	-2.5 to 2.5	Pass
		30	3.85	-4.950	-0.0029	-2.5 to 2.5	Pass
		40	3.85	2.975	0.0017	-2.5 to 2.5	Pass
	50	3.85	-5.293	-0.0031	-2.5 to 2.5	Pass	
	1752.6	20	3.27	-1.438	-0.0008	-2.5 to 2.5	Pass
			3.85	-2.933	-0.0017	-2.5 to 2.5	Pass
			4.43	-18.196	-0.0104	-2.5 to 2.5	Pass
		-30	3.85	-10.564	-0.0060	-2.5 to 2.5	Pass
		-20	3.85	-10.293	-0.0059	-2.5 to 2.5	Pass
		-10	3.85	-14.741	-0.0084	-2.5 to 2.5	Pass
		0	3.85	-13.504	-0.0077	-2.5 to 2.5	Pass
		10	3.85	-13.511	-0.0077	-2.5 to 2.5	Pass
30		3.85	-7.510	-0.0043	-2.5 to 2.5	Pass	
40		3.85	-4.799	-0.0027	-2.5 to 2.5	Pass	
50	3.85	-13.826	-0.0079	-2.5 to 2.5	Pass		

3. Modulation Characteristics

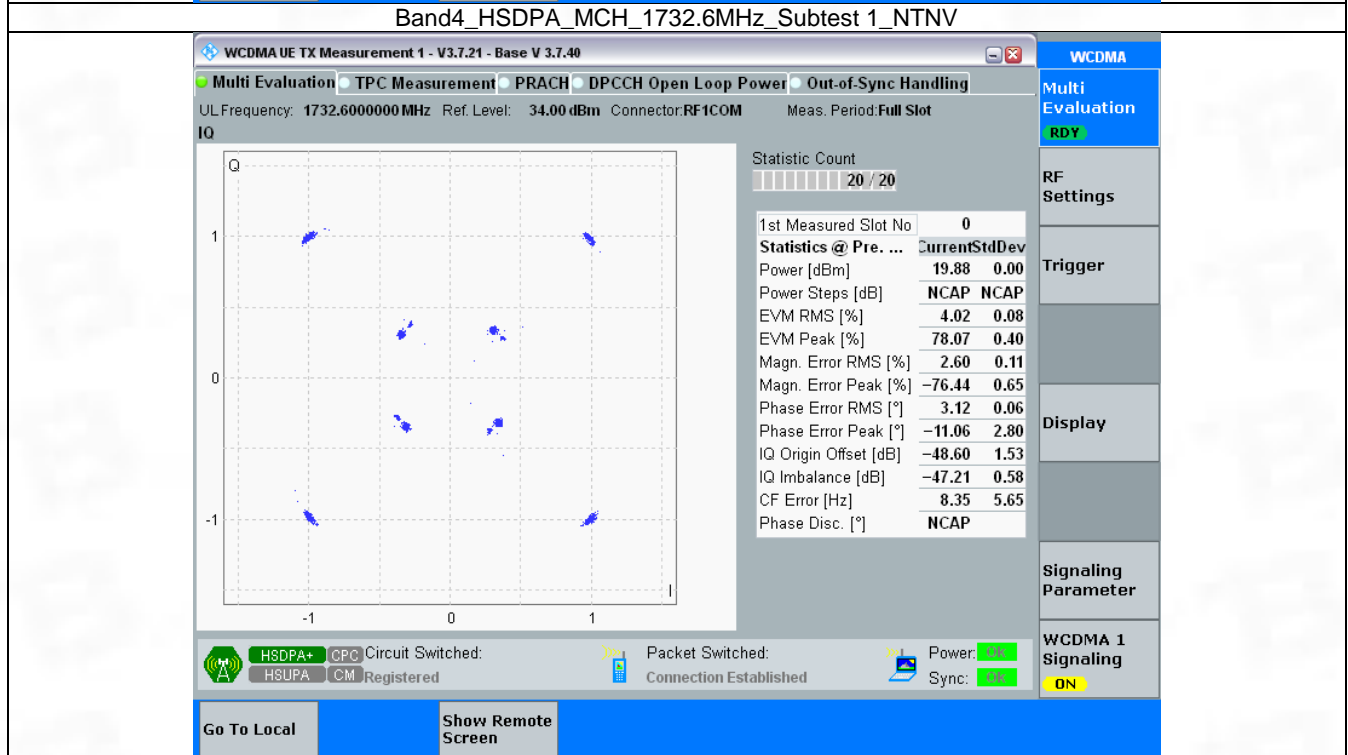
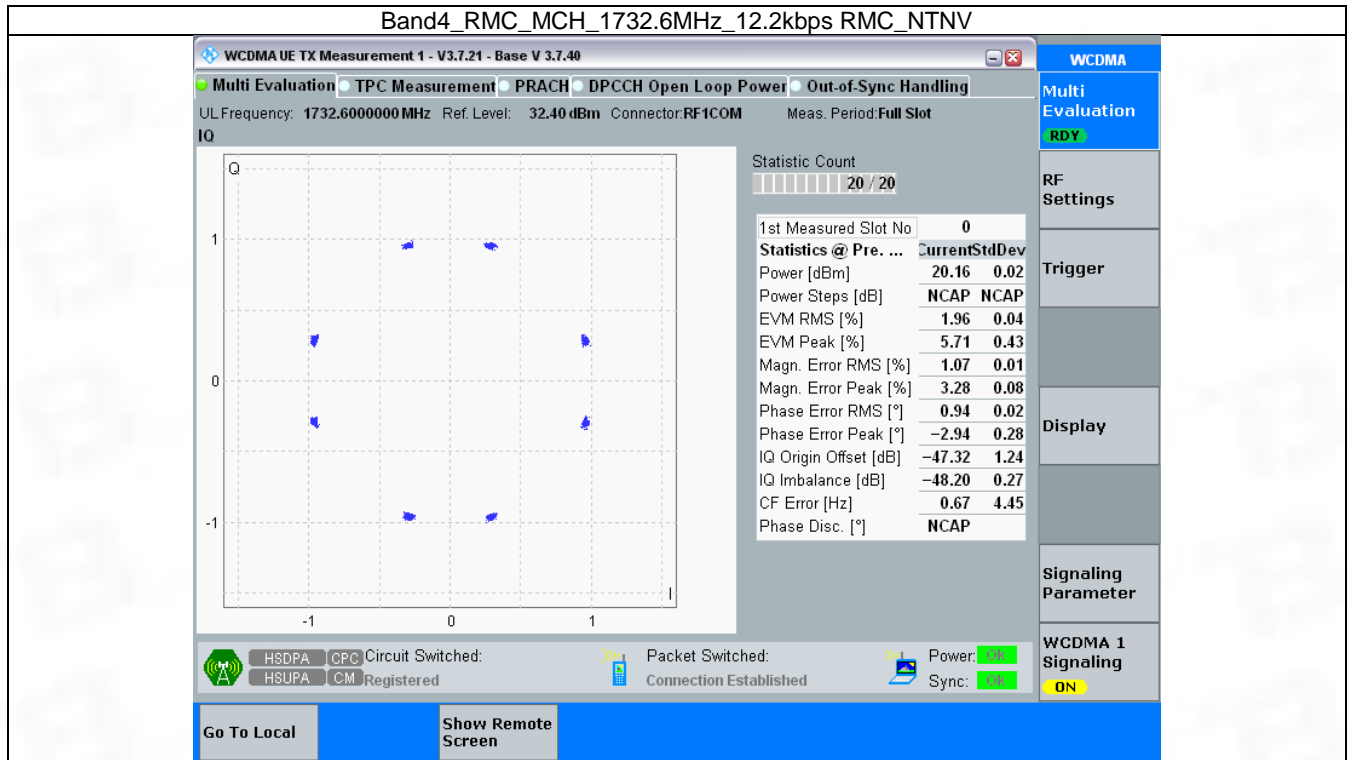
3.1 Test Result

3.1.1 Band4

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

3.2 Test Graph

3.2.1 Band4



Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTV

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

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

Multi Evaluation

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

Statistic Count
20 / 20

1st Measured Slot No		0	
Statistics @ Pre. ...		CurrentStdDev	
Power [dBm]	19.86	2.35	
Power Steps [dB]	NCAP	NCAP	
EVM RMS [%]	4.32	1.71	
EVM Peak [%]	76.91	38.53	
Magn. Error RMS [%]	2.87	1.22	
Magn. Error Peak [%]	-75.08	39.30	
Phase Error RMS [°]	3.27	0.98	
Phase Error Peak [°]	-16.85	5.58	
IQ Origin Offset [dB]	-47.46	0.97	
IQ Imbalance [dB]	-45.86	0.63	
CF Error [Hz]	5.01	16.80	
Phase Disc. [°]	NCAP		

HSDPA+ Circuit Switched
HSUPA CM Registered

Packet Switched:
Connection Established

Power:
Sync:

WCDMA 1 Signaling
ON

Go To Local
Show Remote Screen

4. 99% & 26dB Bandwidth

4.1 Test Result

4.1.1 Band4_OBW

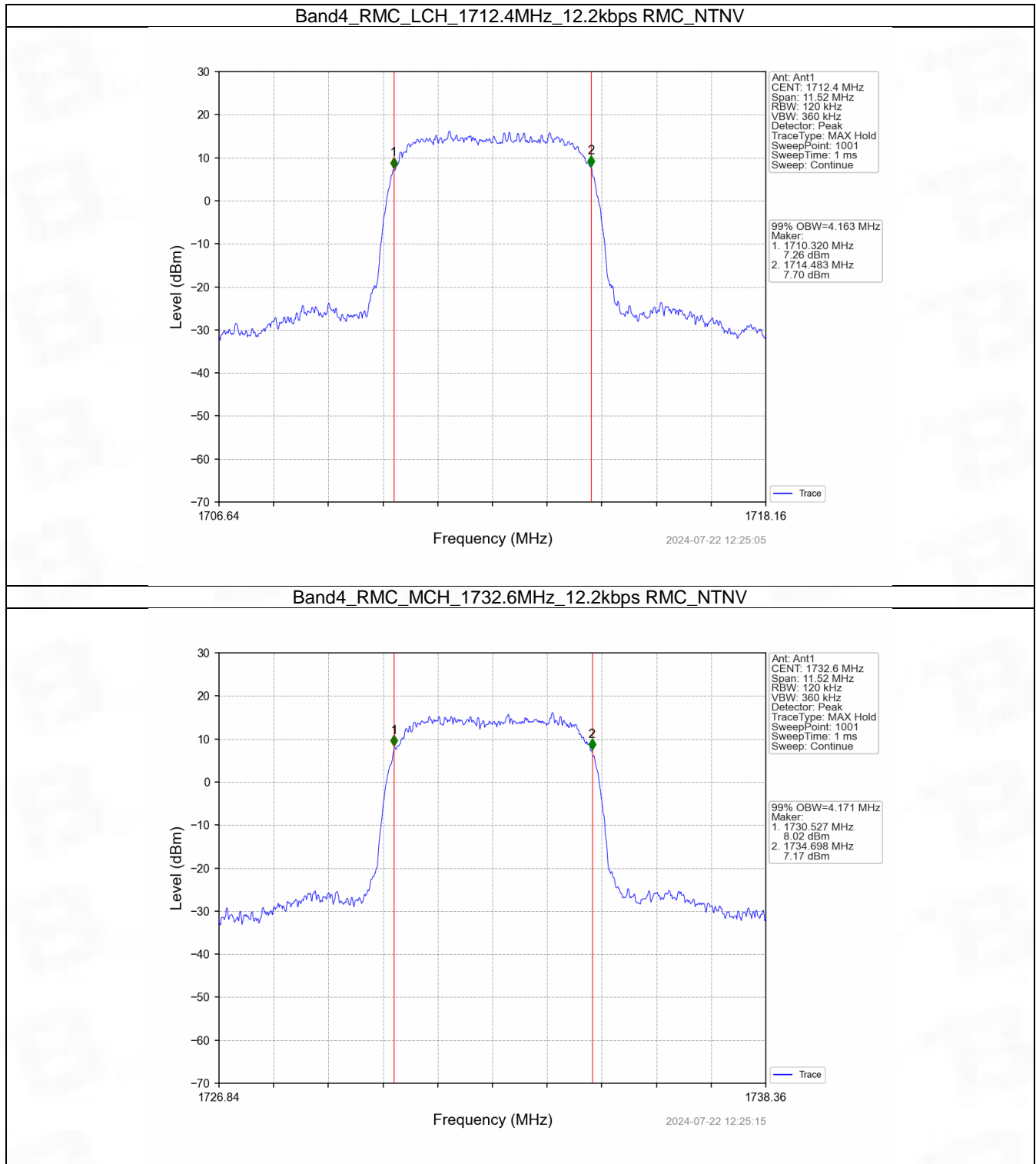
Band: 4						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	4.163	/	Pass
			1732.6	4.171	/	Pass
			1752.6	4.175	/	Pass
	HSDPA	Subtest 1	1712.4	4.176	/	Pass
			1732.6	4.164	/	Pass
			1752.6	4.176	/	Pass
	HSUPA	Subtest 1	1712.4	4.170	/	Pass
			1732.6	4.151	/	Pass
			1752.6	4.154	/	Pass

4.1.2 Band4_XDB

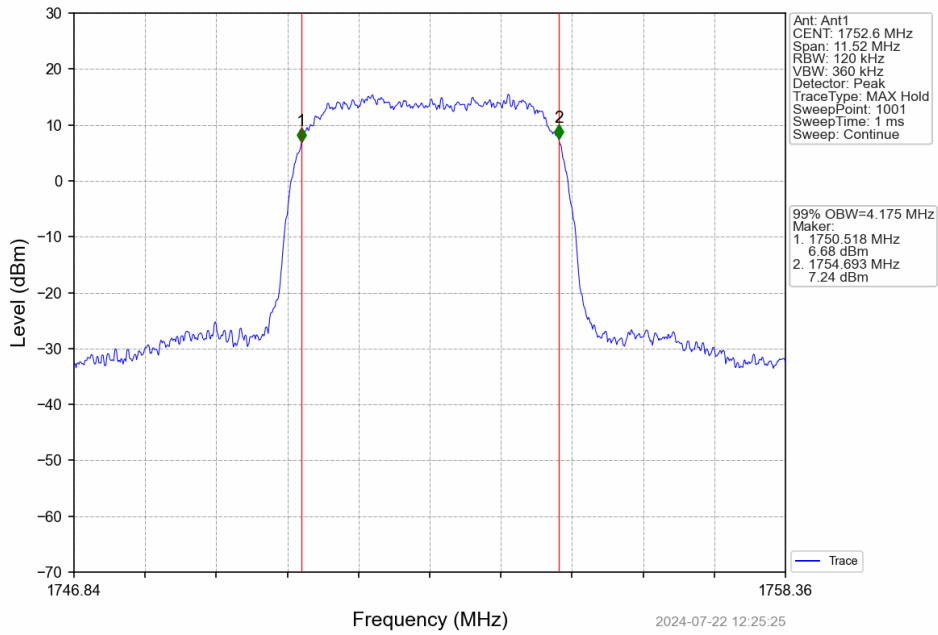
Band: 4						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	4.715	/	Pass
			1732.6	4.713	/	Pass
			1752.6	4.733	/	Pass
	HSDPA	Subtest 1	1712.4	4.731	/	Pass
			1732.6	4.717	/	Pass
			1752.6	4.711	/	Pass
	HSUPA	Subtest 1	1712.4	4.736	/	Pass
			1732.6	4.714	/	Pass
			1752.6	4.698	/	Pass

4.2 Test Graph

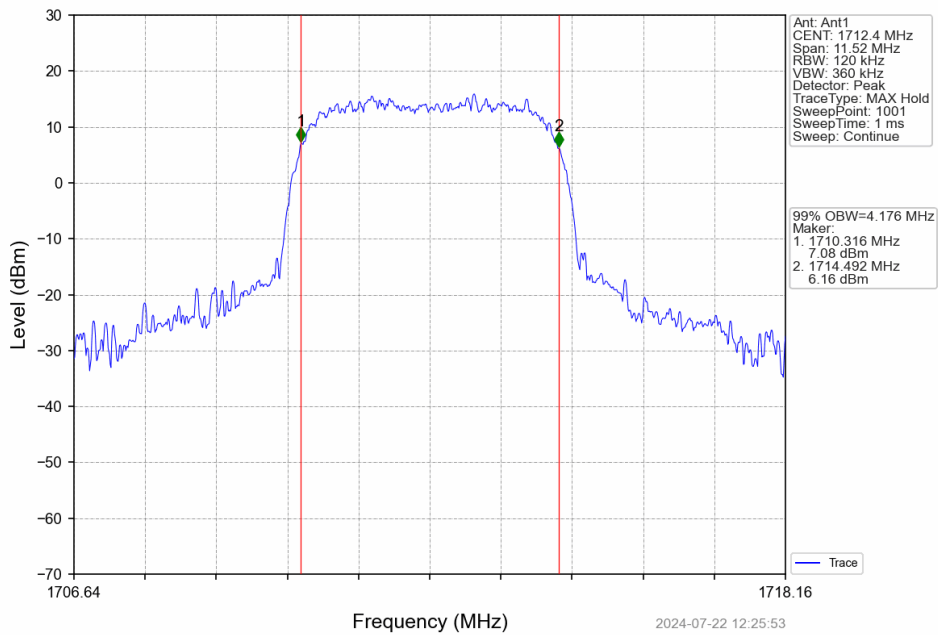
4.2.1 Band4_OBW



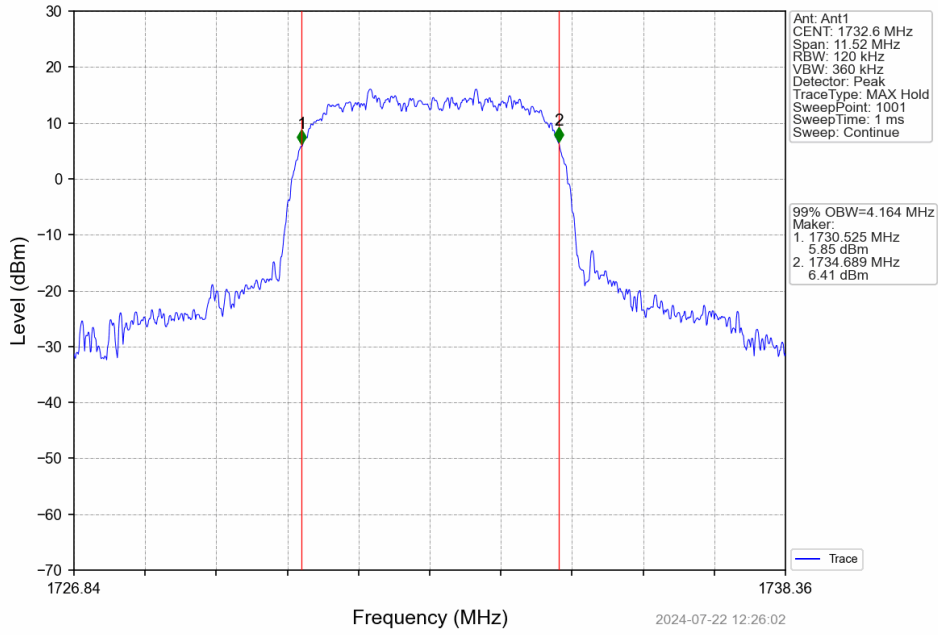
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



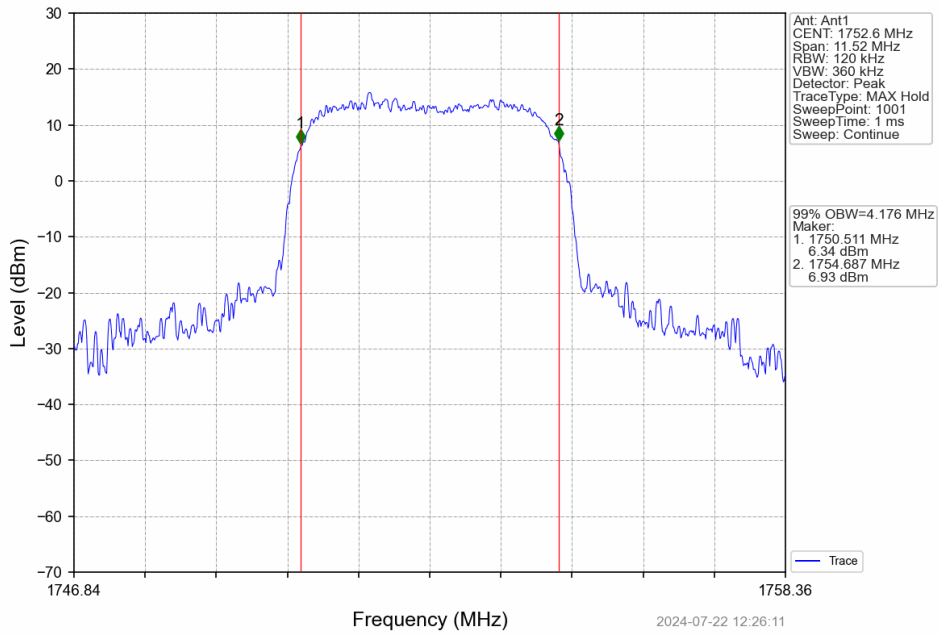
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



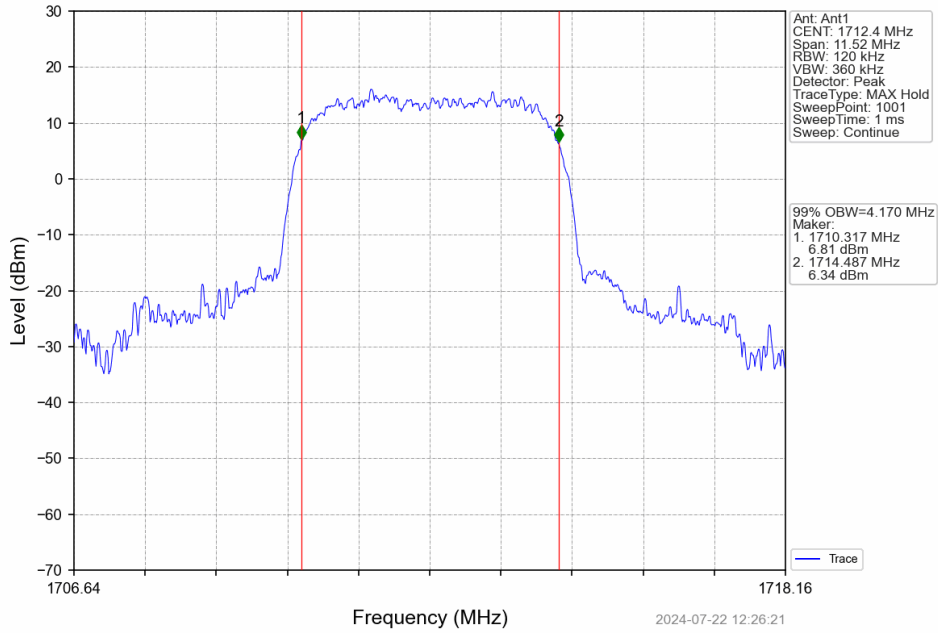
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



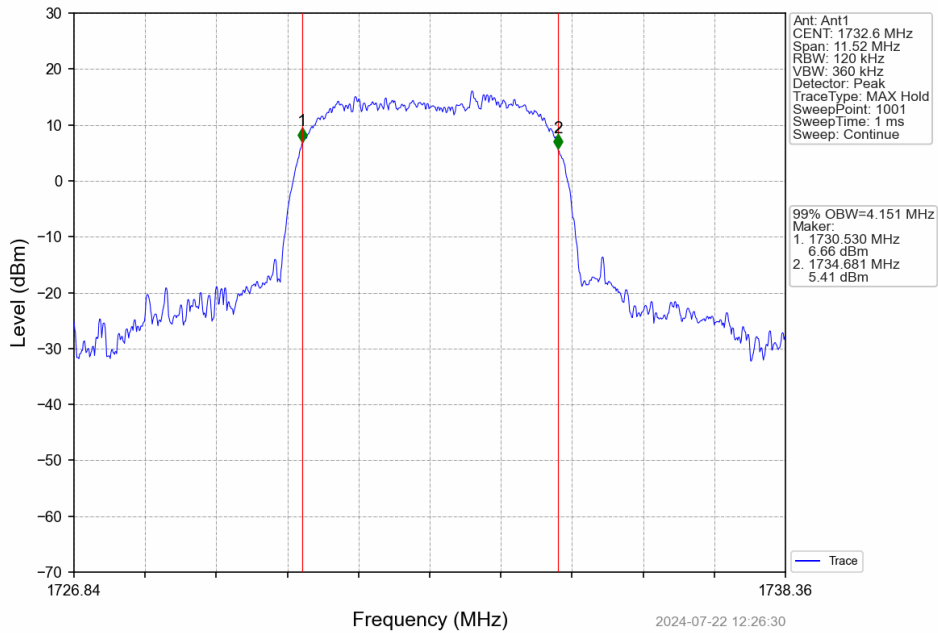
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



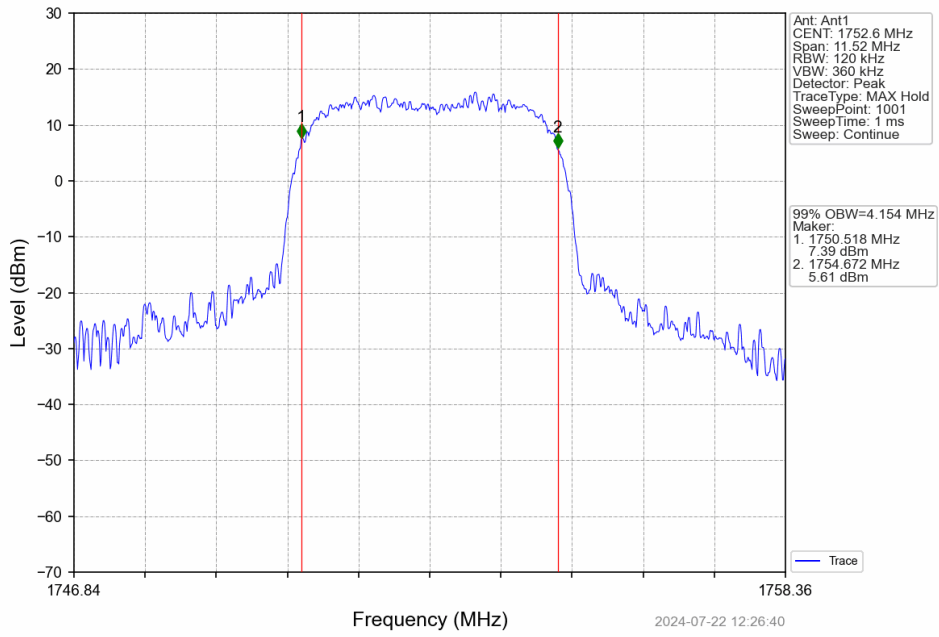
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



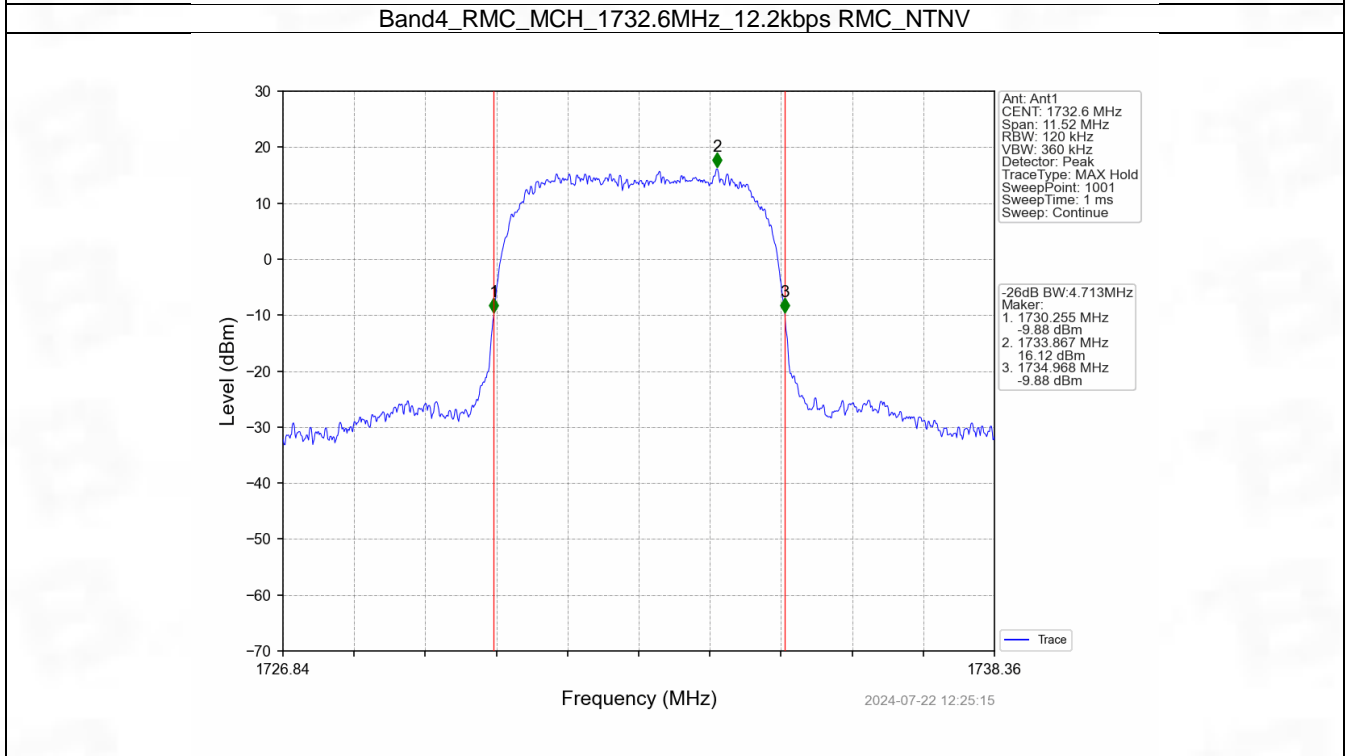
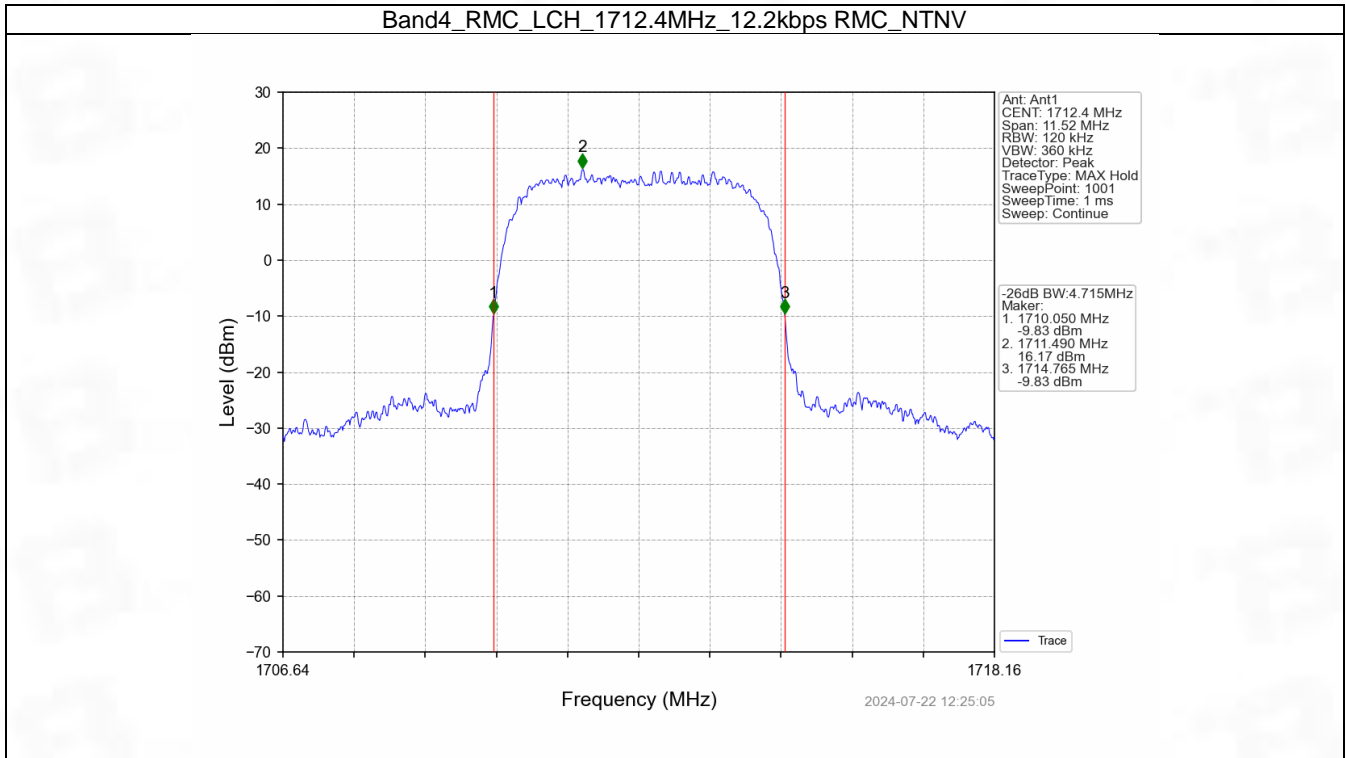
Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



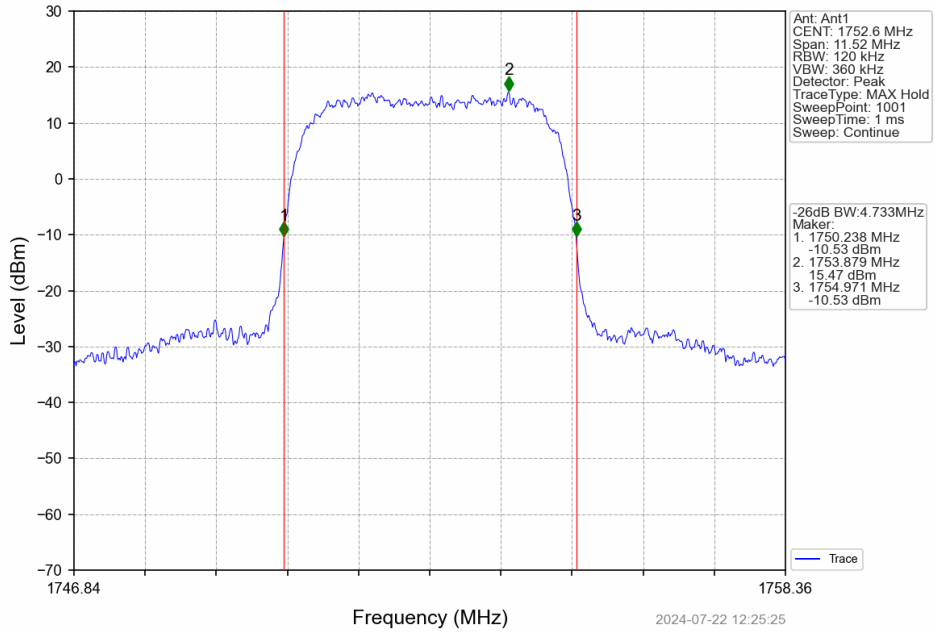
Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



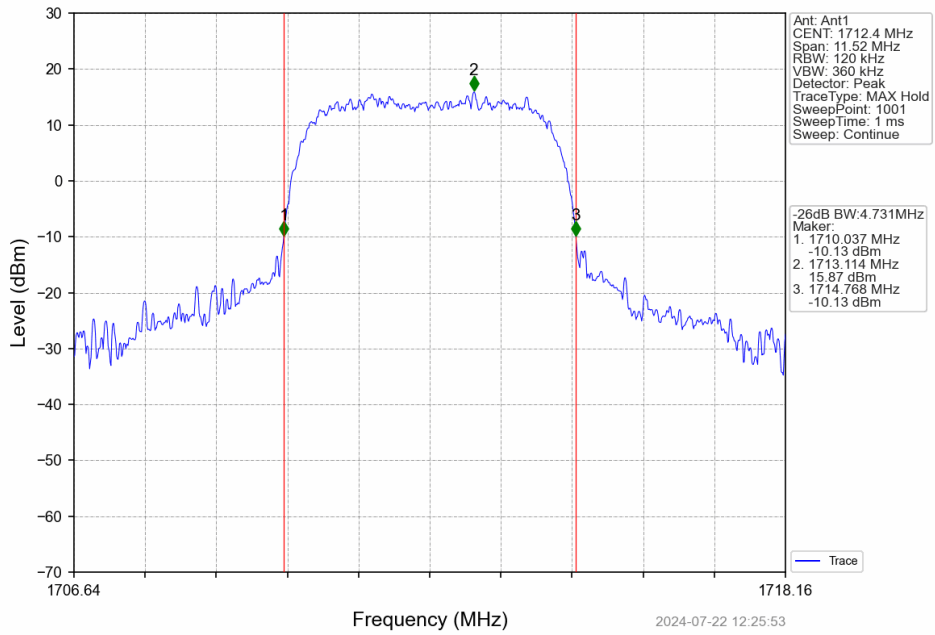
4.2.2 Band4_XDB



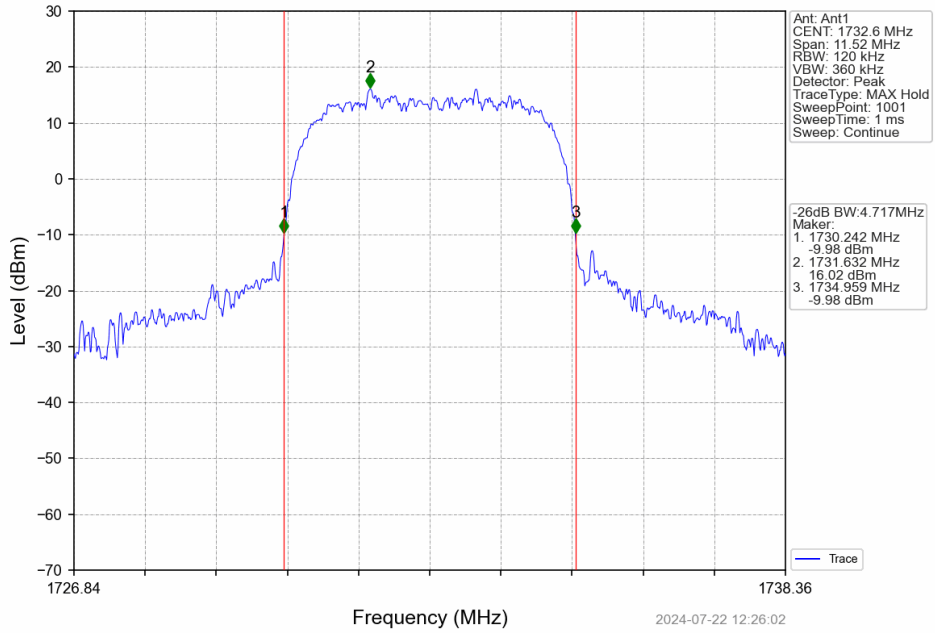
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



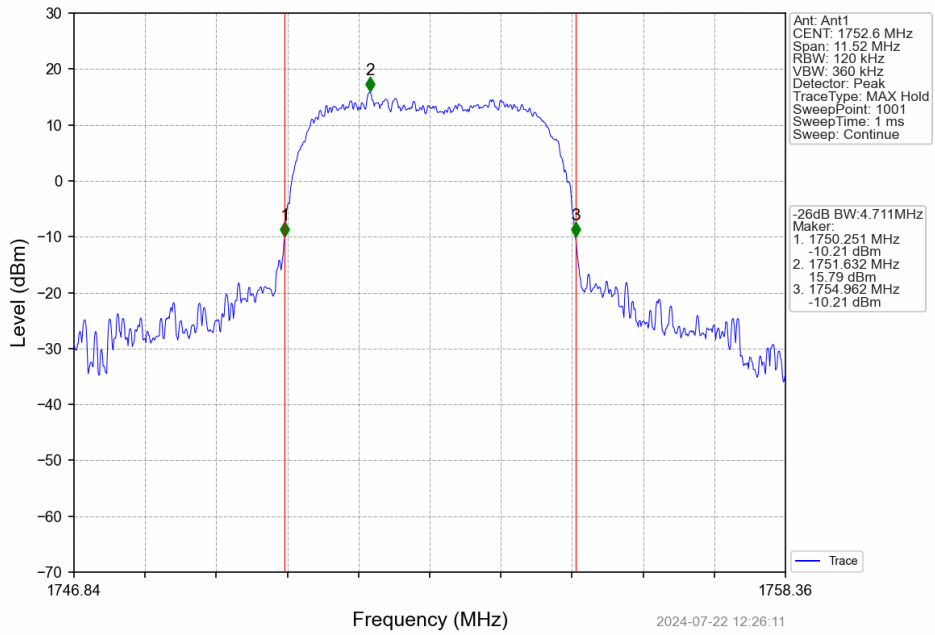
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



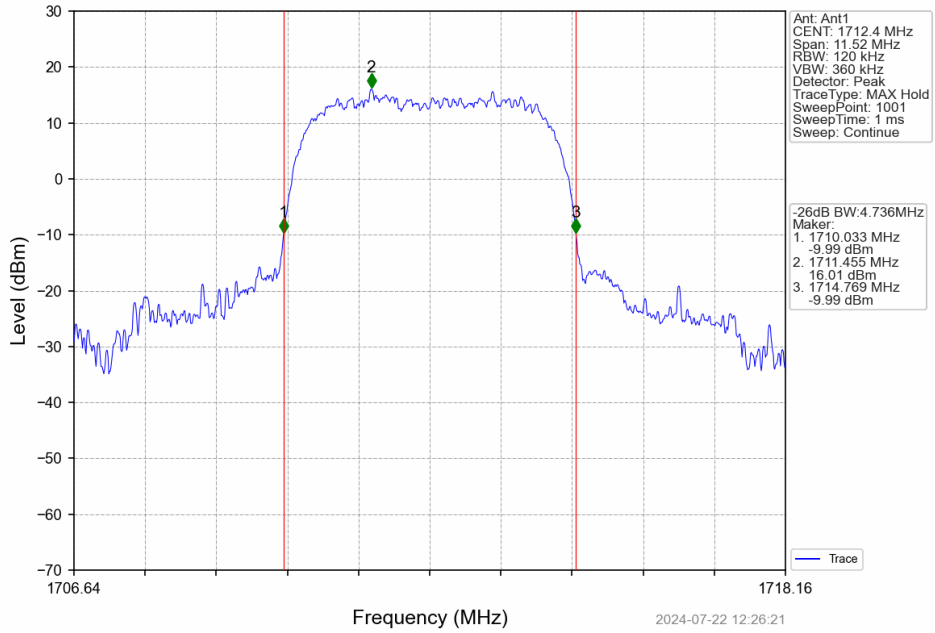
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



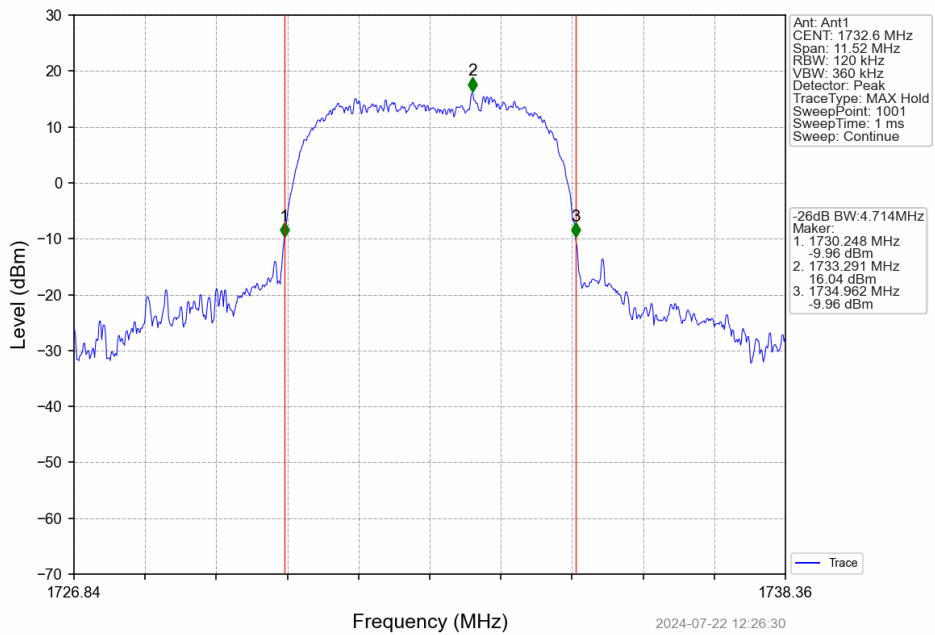
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



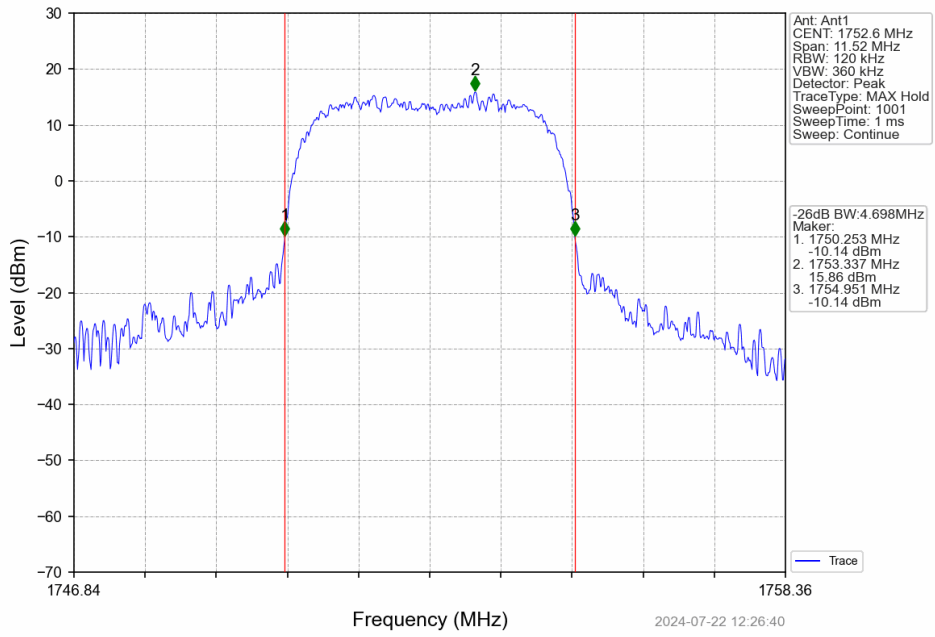
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



5. Peak-Average Ratio

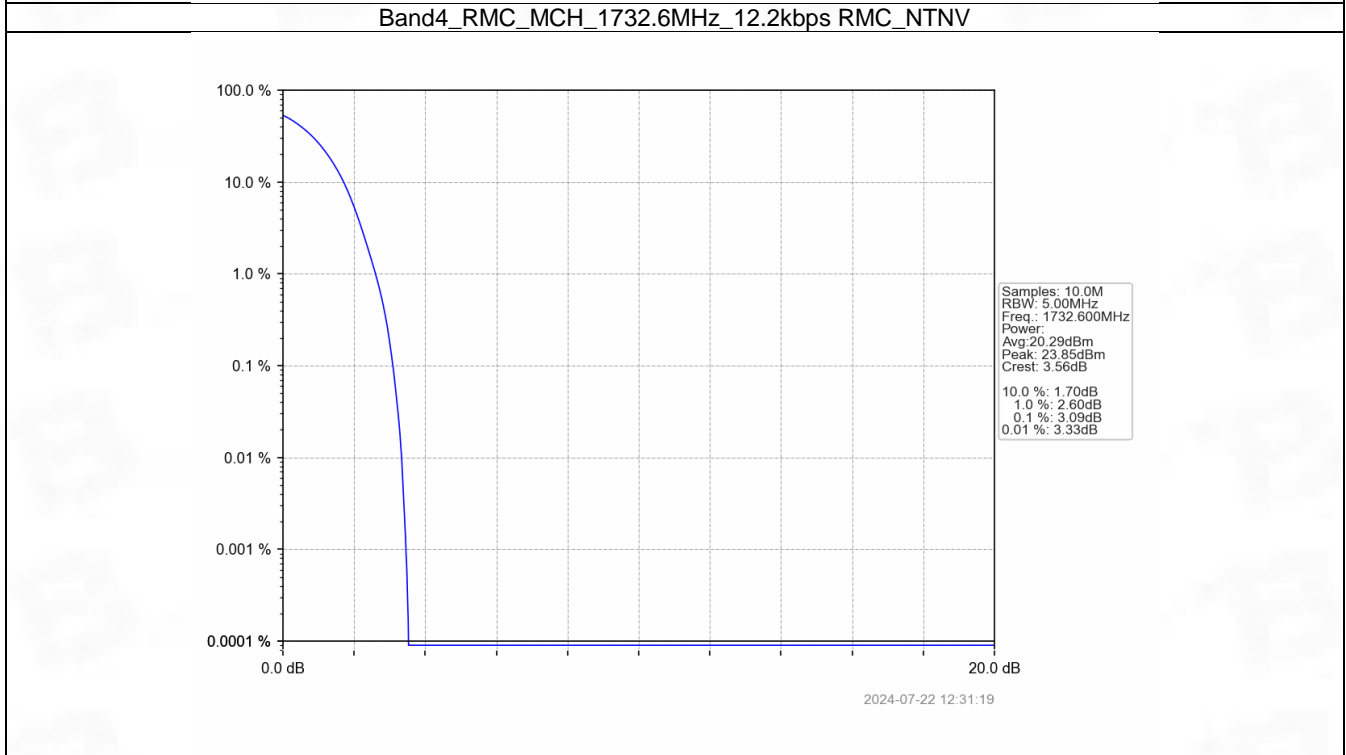
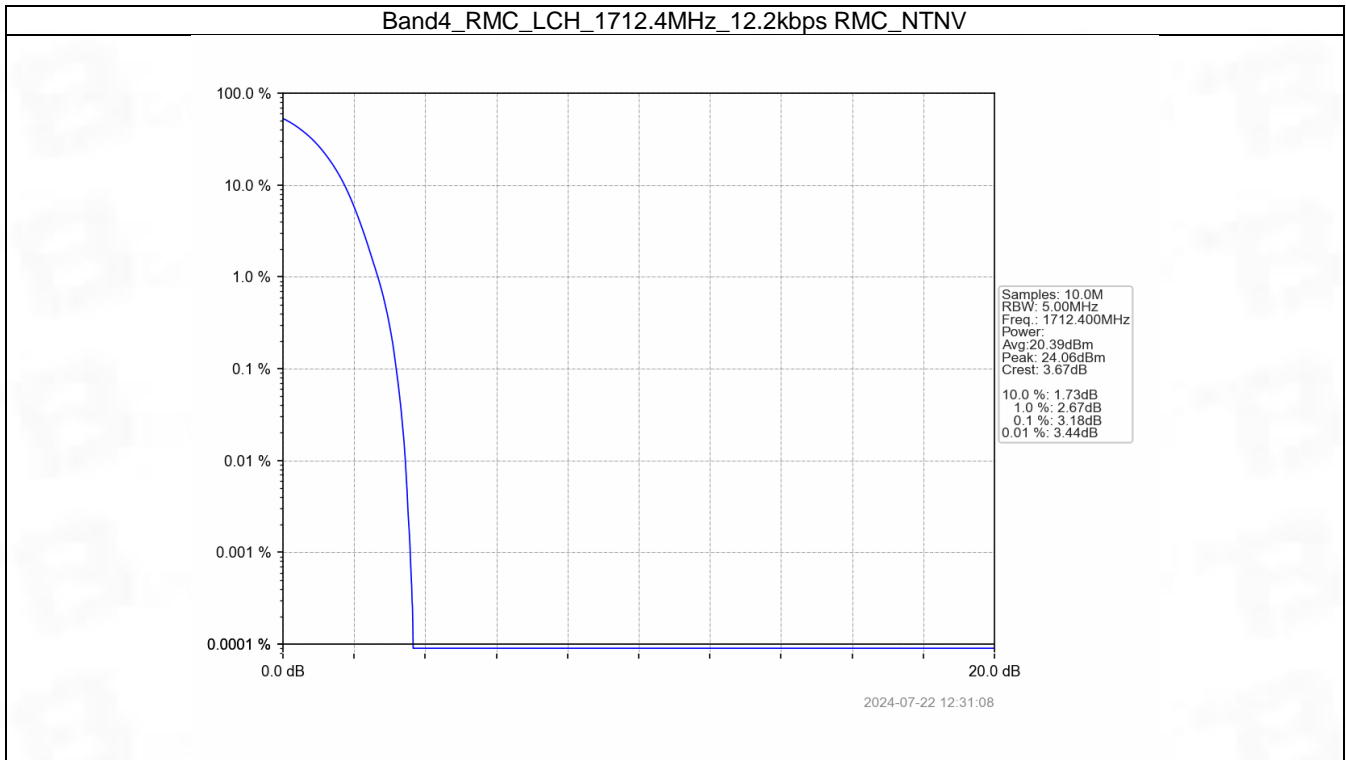
5.1 Test Result

5.1.1 Band4

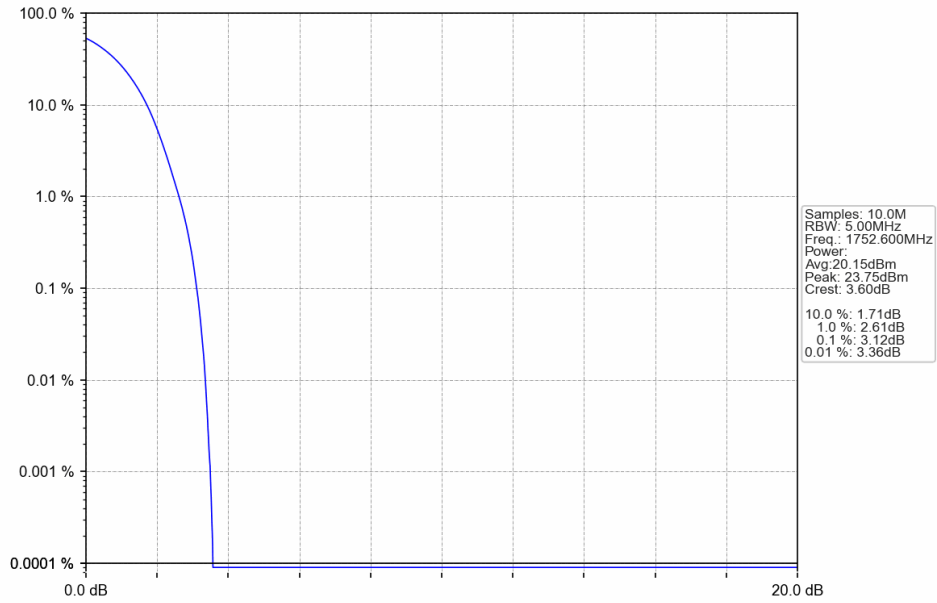
Band: 4						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	3.18	<=13	Pass
			1732.6	3.09	<=13	Pass
			1752.6	3.12	<=13	Pass
	HSDPA	Subtest 1	1712.4	5.89	<=13	Pass
			1732.6	5.80	<=13	Pass
			1752.6	5.90	<=13	Pass
	HSUPA	Subtest 1	1712.4	5.98	<=13	Pass
			1732.6	5.84	<=13	Pass
			1752.6	5.83	<=13	Pass

5.2 Test Graph

5.2.1 Band4

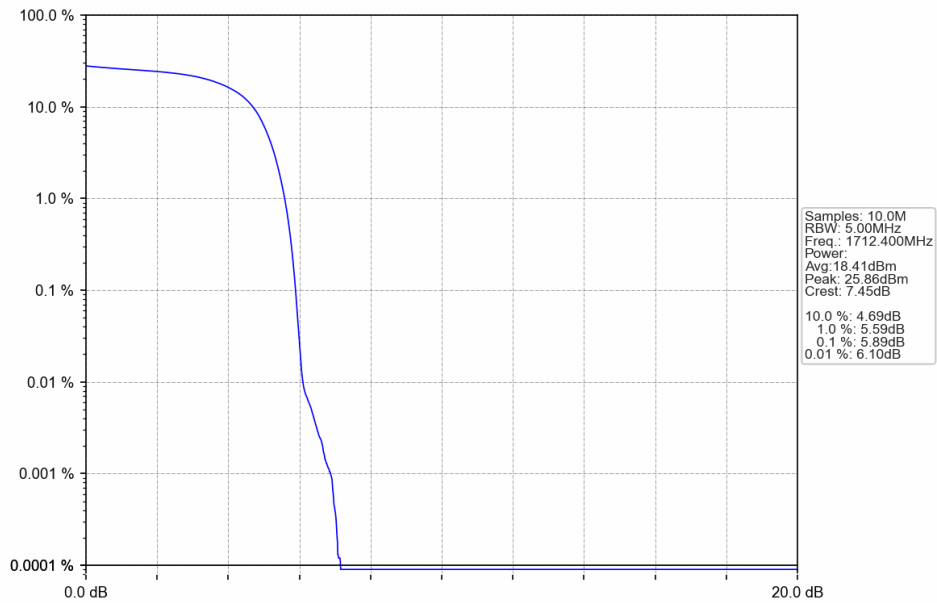


Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



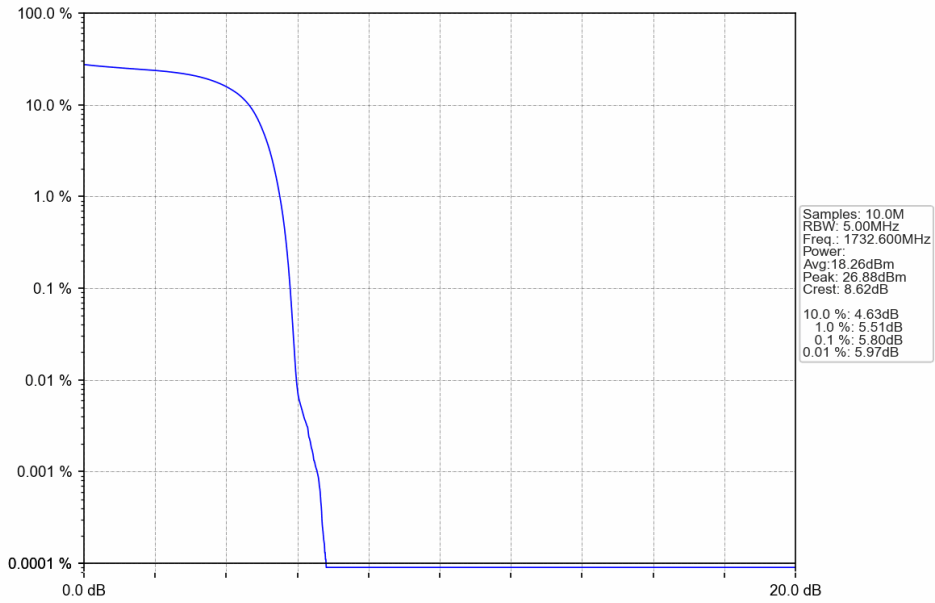
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Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



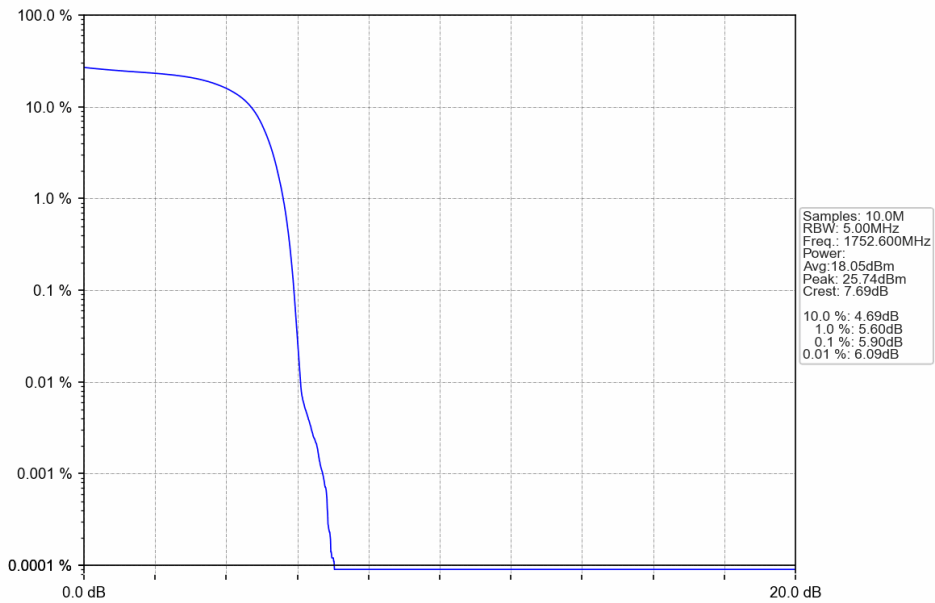
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Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



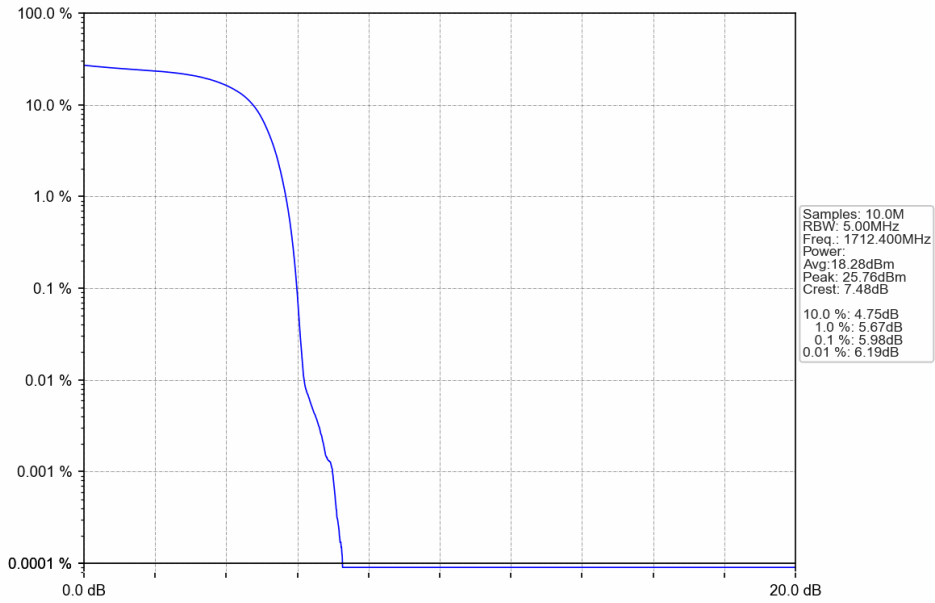
Samples: 10.0M
RBW: 5.00MHz
Freq.: 1732.600MHz
Power:
Avg: 18.26dBm
Peak: 26.35dBm
Crest: 8.62dB
10.0 %: 4.63dB
1.0 %: 5.51dB
0.1 %: 5.60dB
0.01 %: 5.97dB

Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



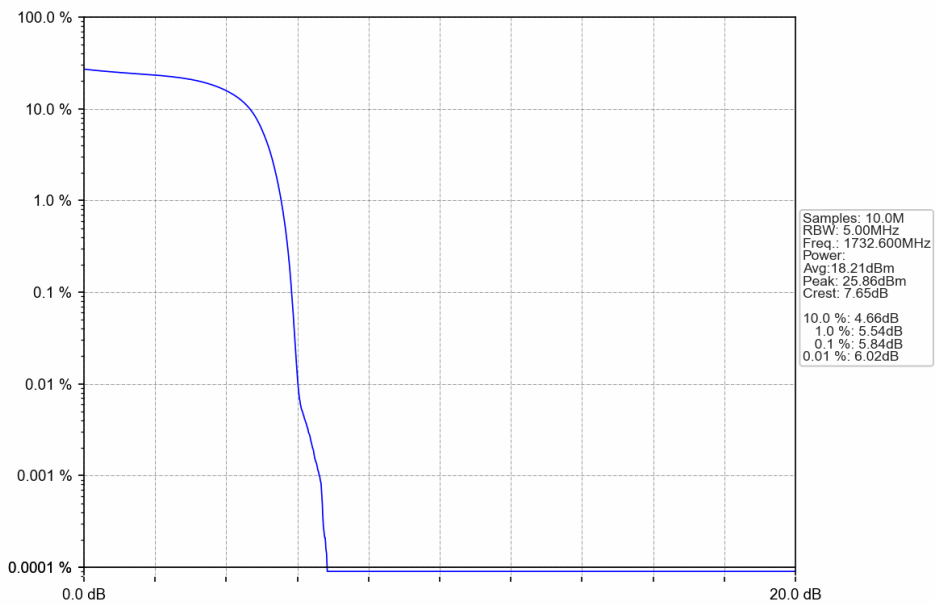
Samples: 10.0M
RBW: 5.00MHz
Freq.: 1752.600MHz
Power:
Avg: 18.05dBm
Peak: 25.74dBm
Crest: 7.69dB
10.0 %: 4.69dB
1.0 %: 5.60dB
0.1 %: 5.90dB
0.01 %: 6.09dB

Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



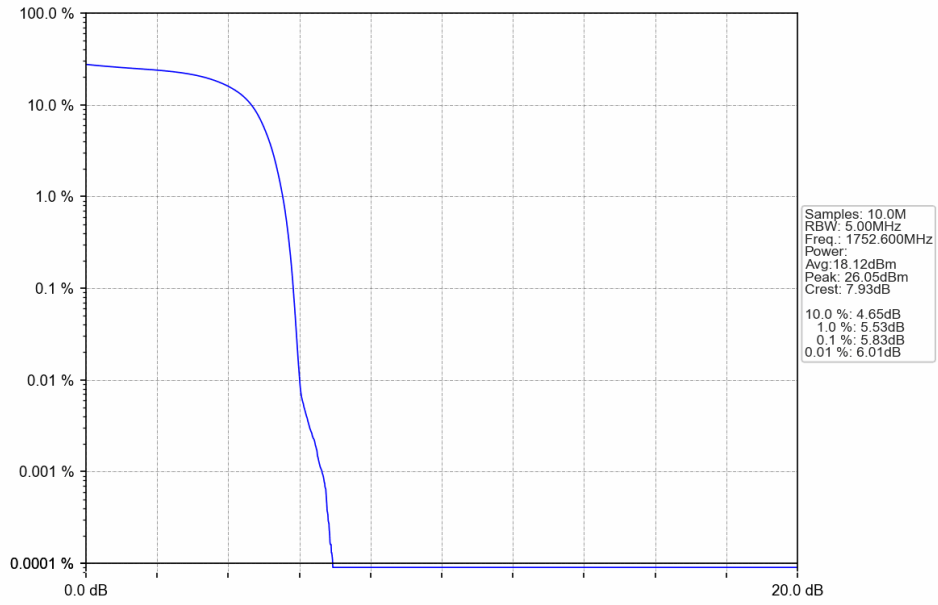
2024-07-22 12:32:31

Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



2024-07-22 12:32:43

Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



2024-07-22 12:32:56

6. Spurious Emission

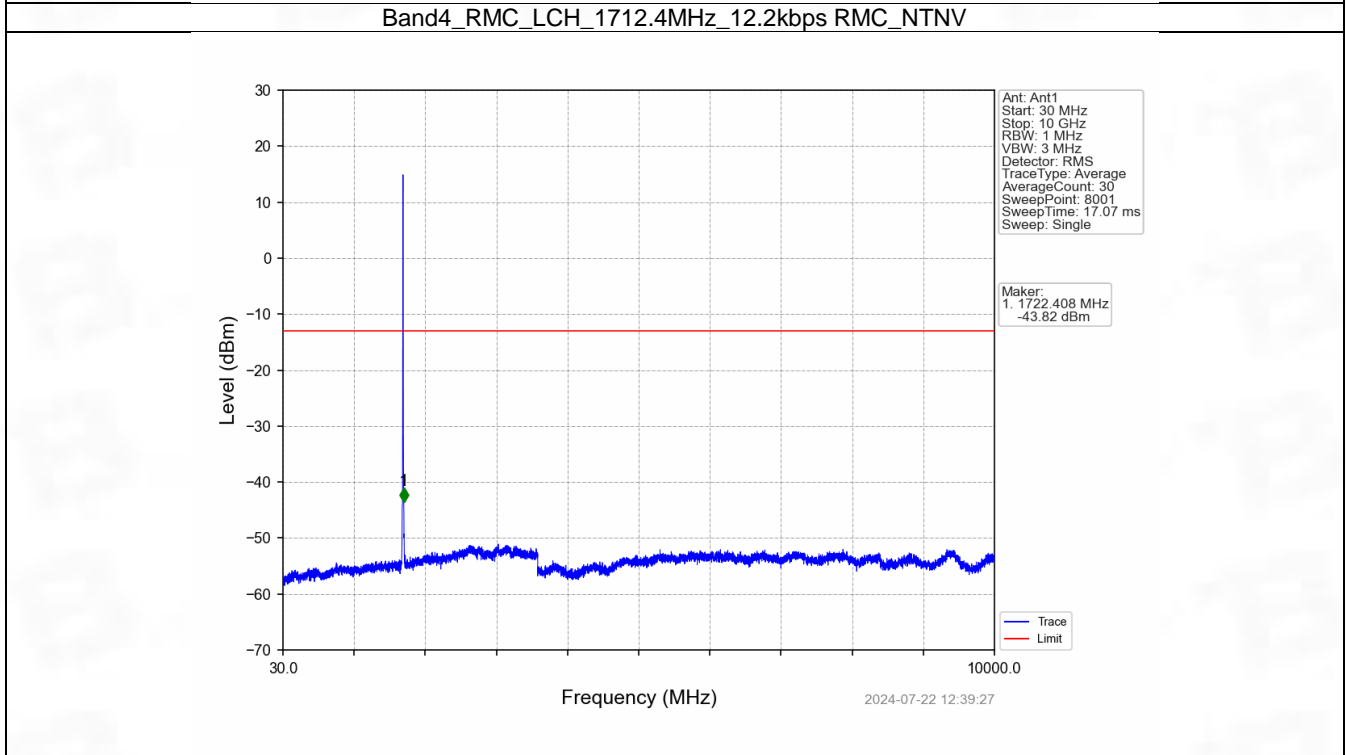
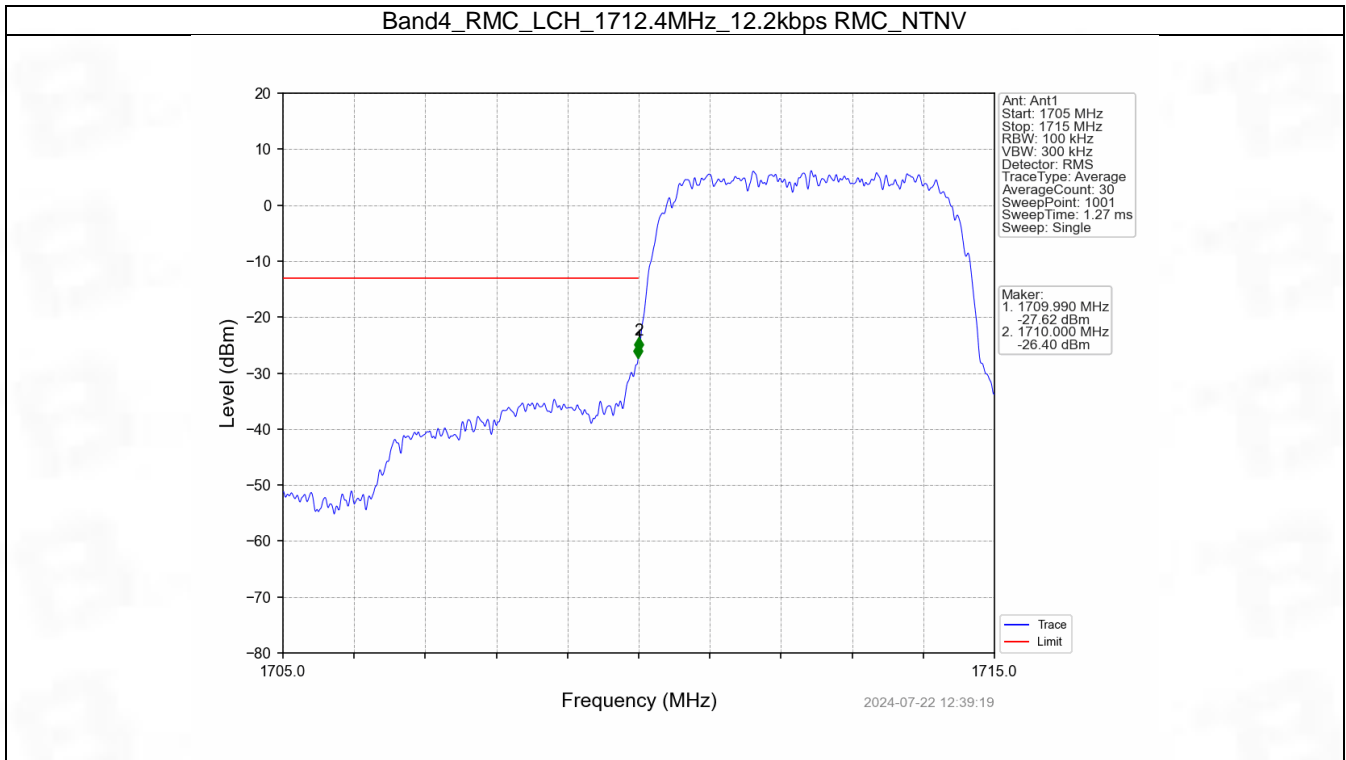
6.1 Test Result

6.1.1 Band4

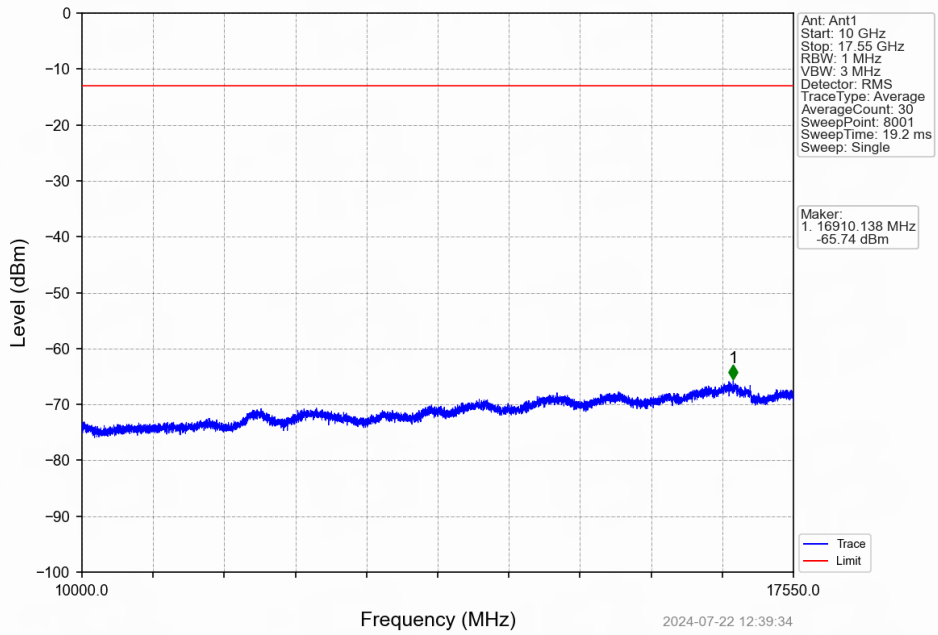
Band: 4						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	Refer To Test Graph	Pass	
			1732.6	Refer To Test Graph	Pass	
			1752.6	Refer To Test Graph	Pass	
	HSDPA	Subtest 1	1712.4	Refer To Test Graph	Pass	
			1732.6	Refer To Test Graph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

6.2 Test Graph

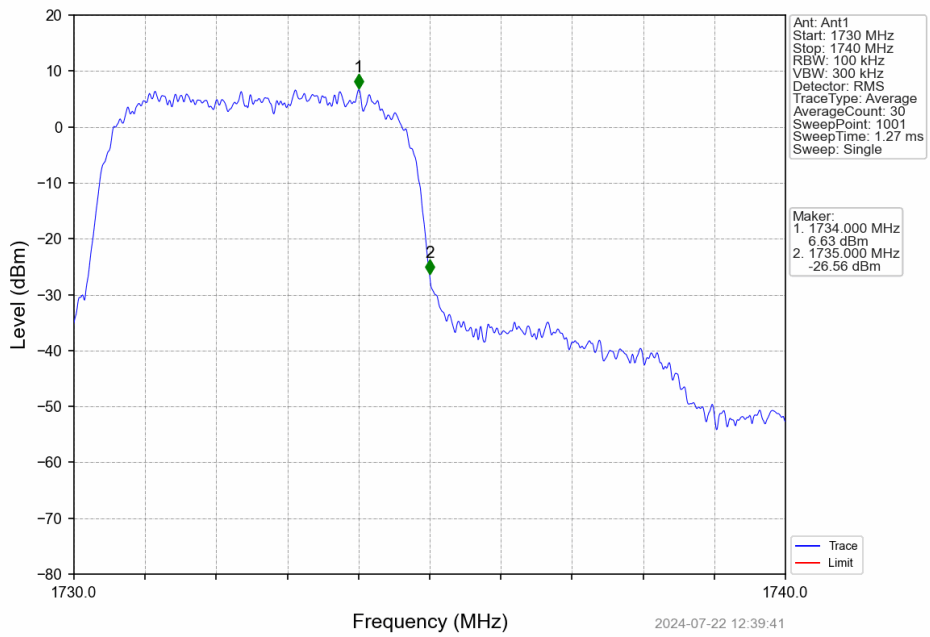
6.2.1 Band4



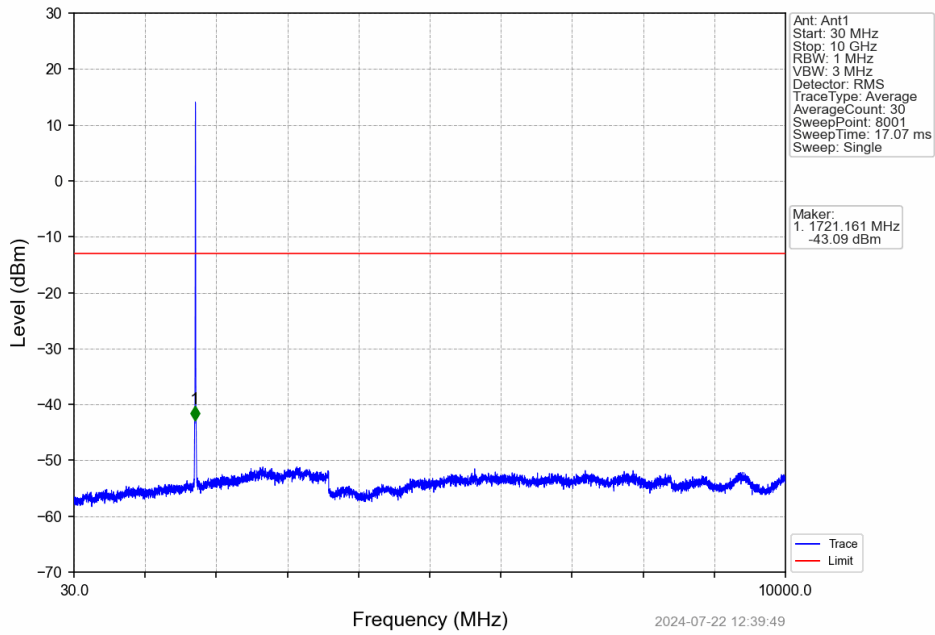
Band4_RMC_LCH_1712.4MHz_12.2kbps RMC_NTNV



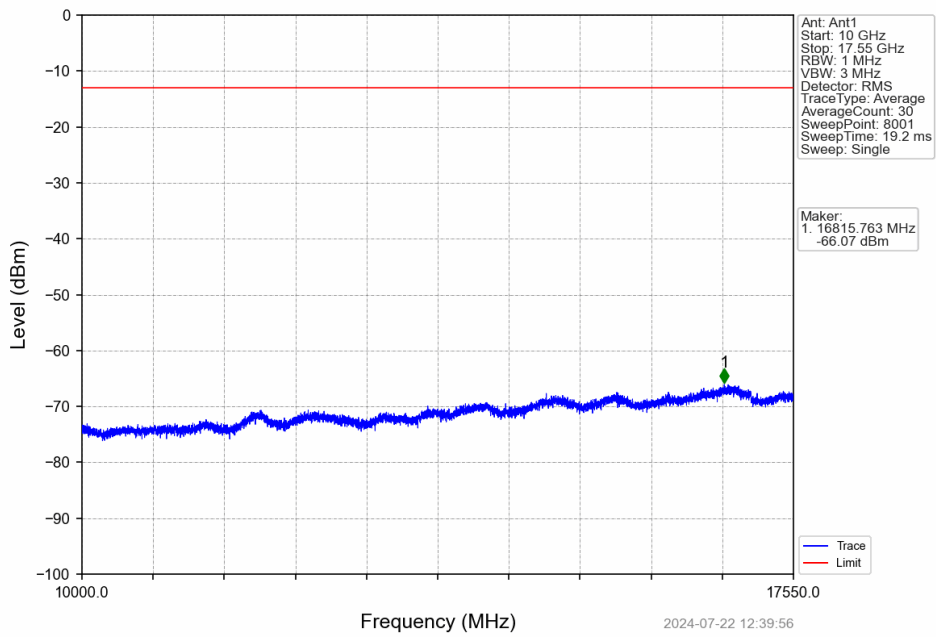
Band4_RMC_MCH_1732.6MHz_12.2kbps RMC_NTNV



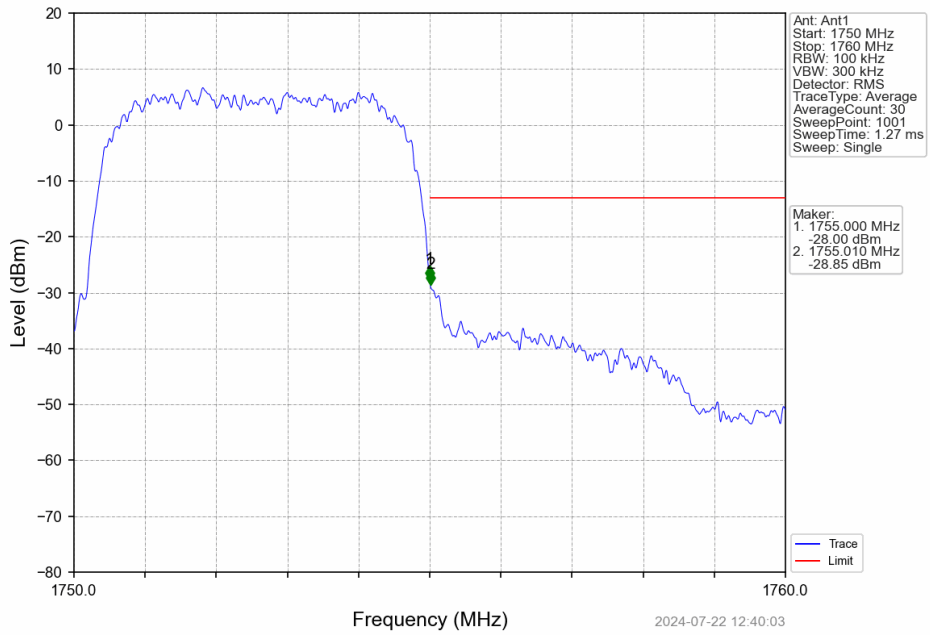
Band4_RMC_MCH_1732.6MHz_12.2kbps RMC_NTNV



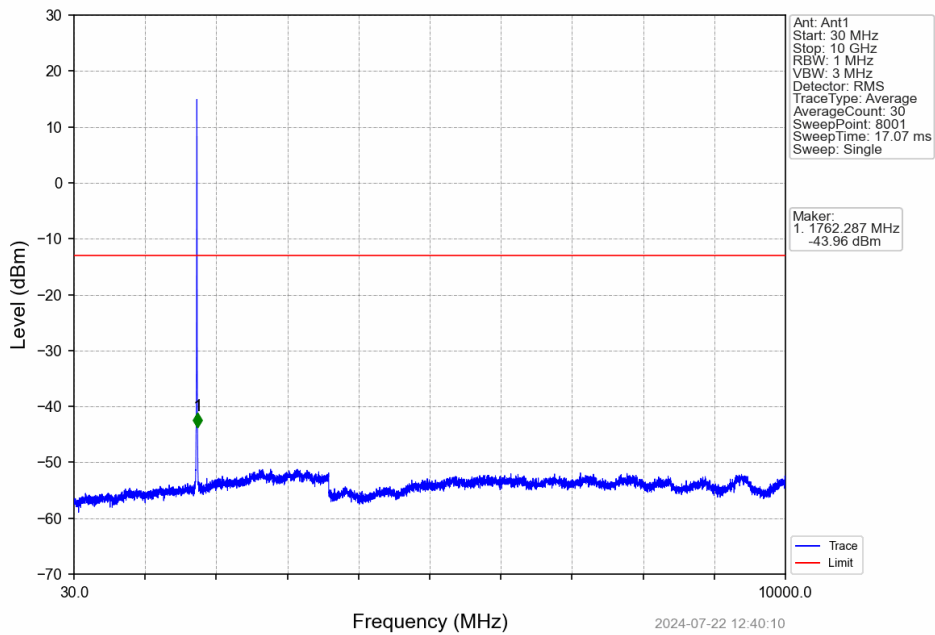
Band4_RMC_MCH_1732.6MHz_12.2kbps RMC_NTNV



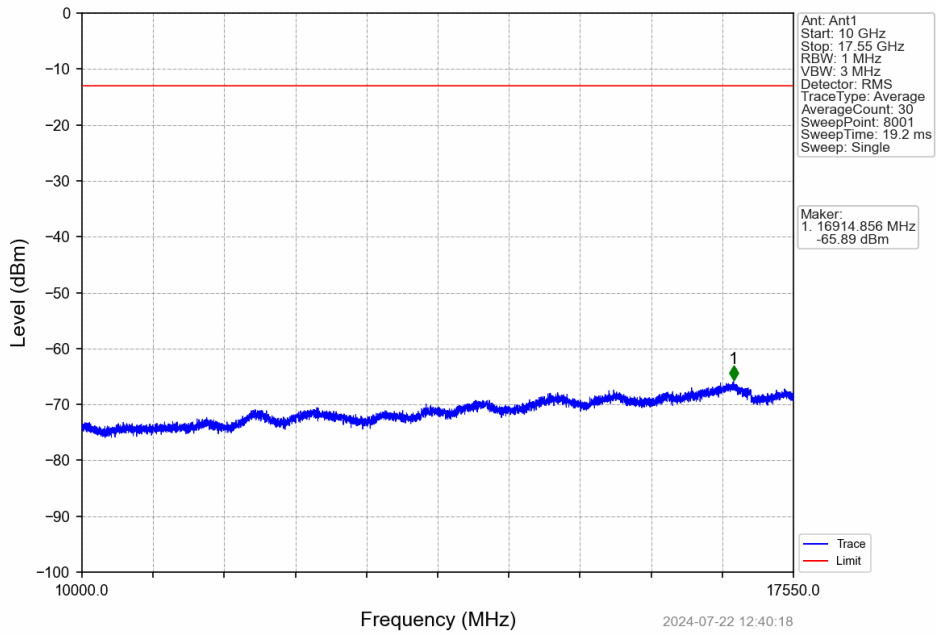
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



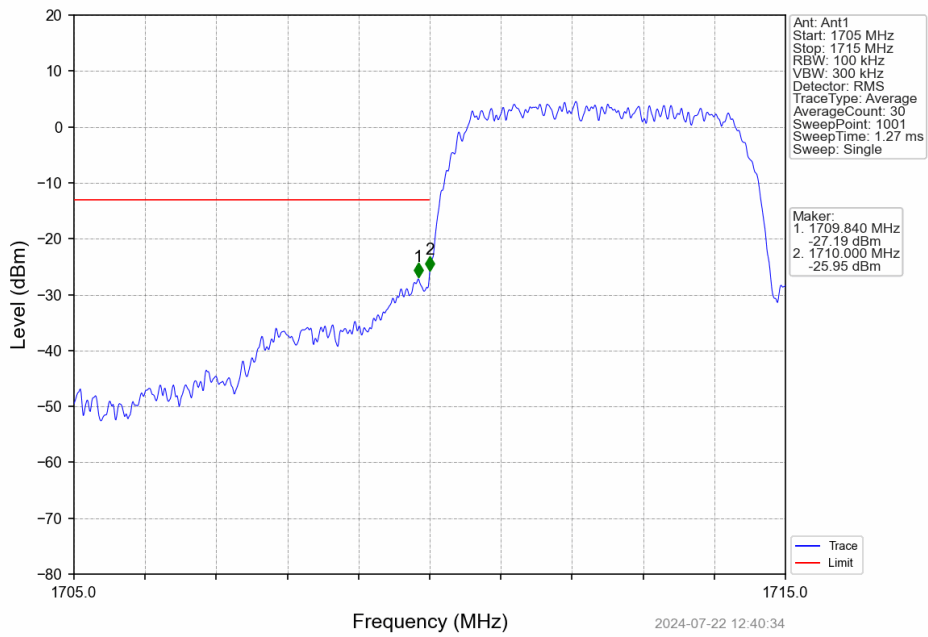
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



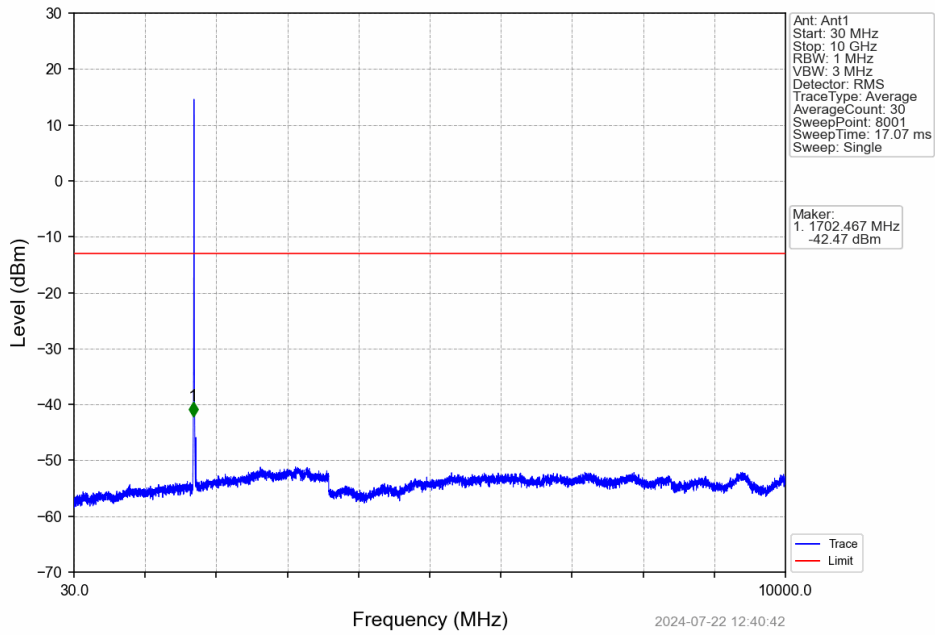
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



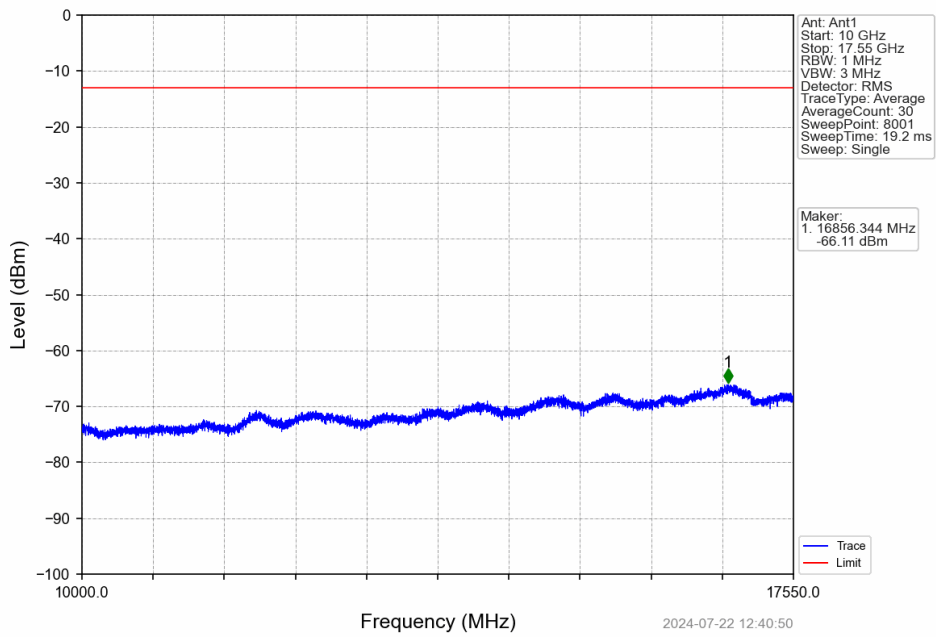
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



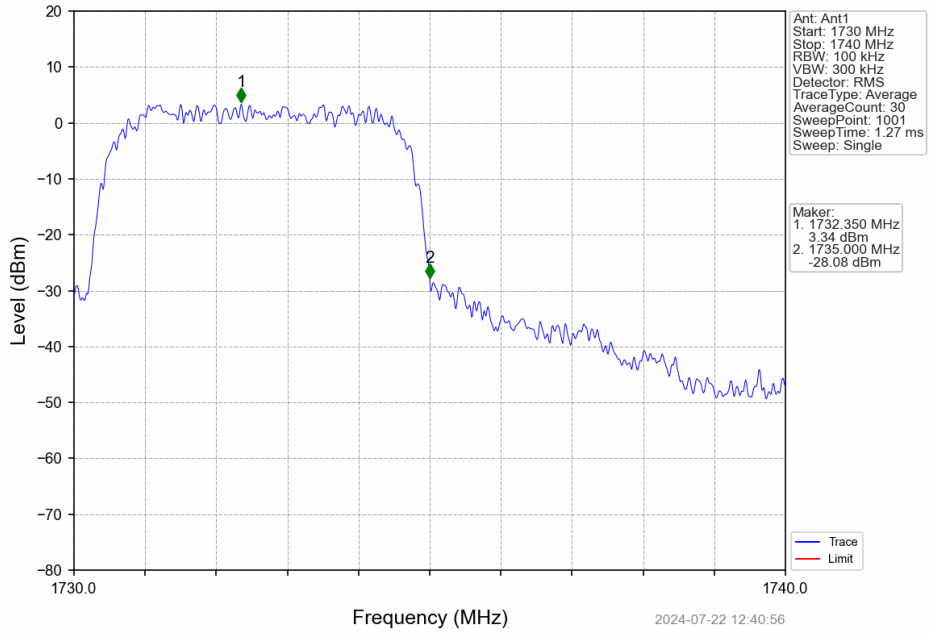
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



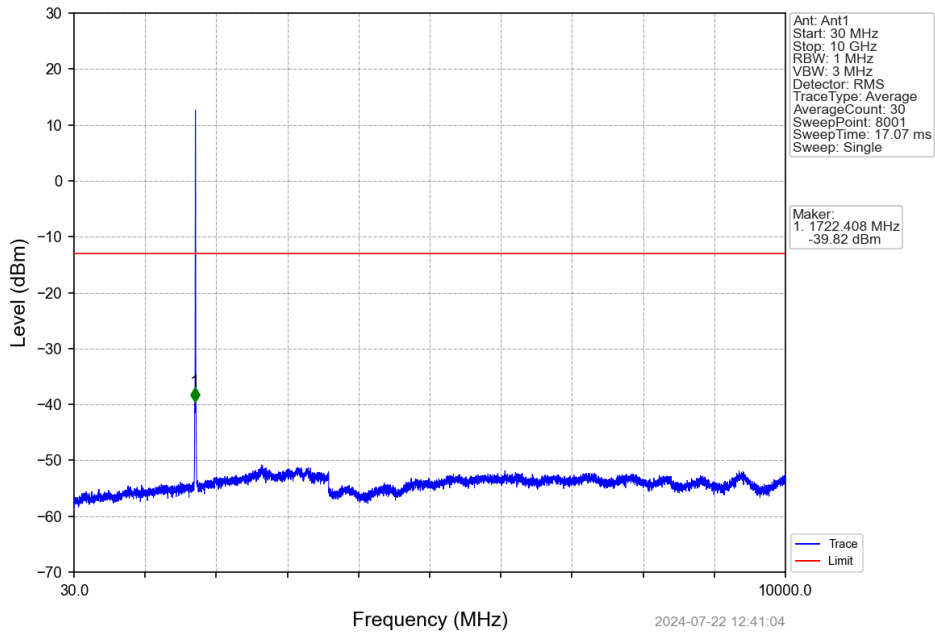
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



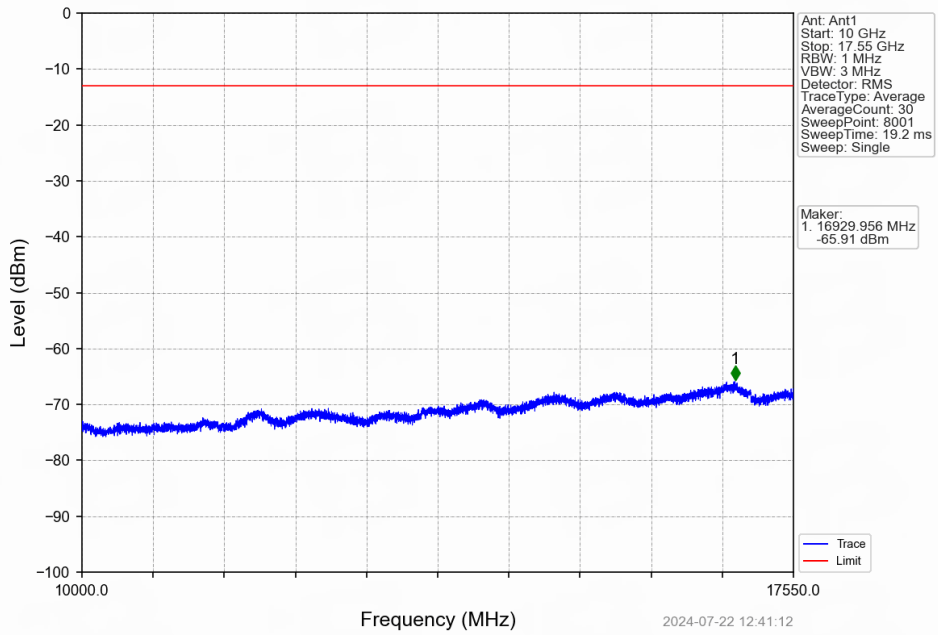
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



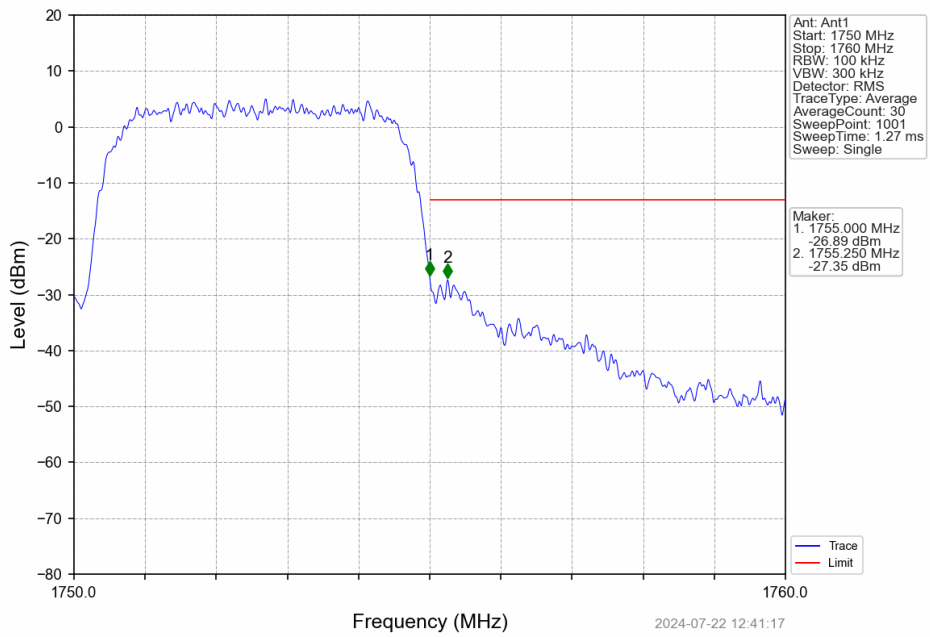
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



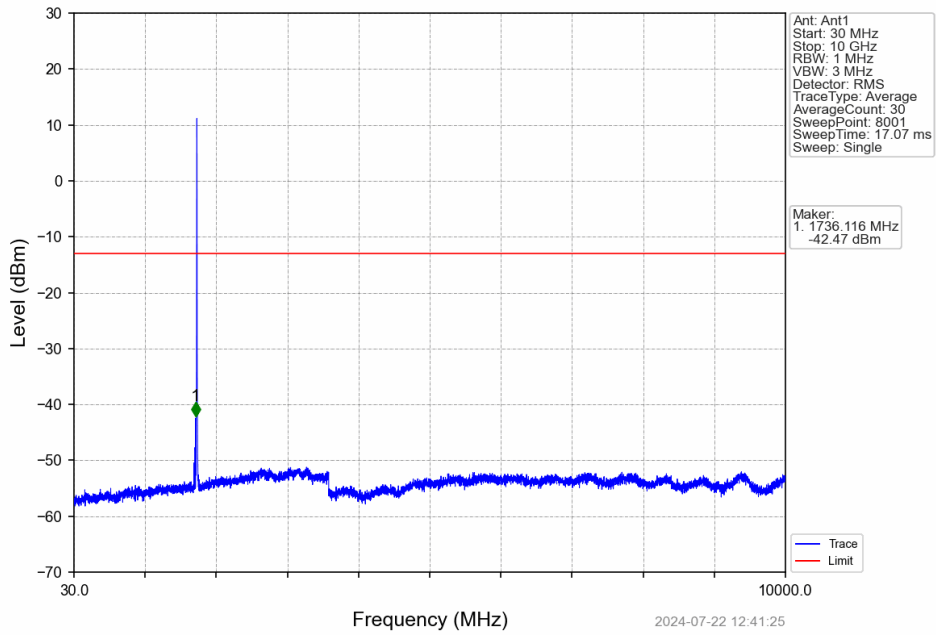
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



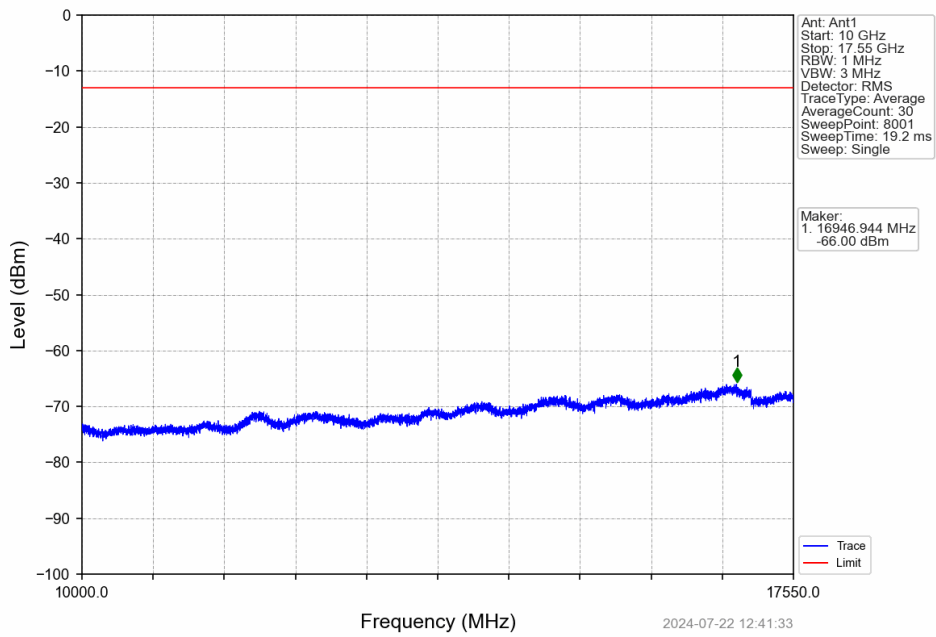
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



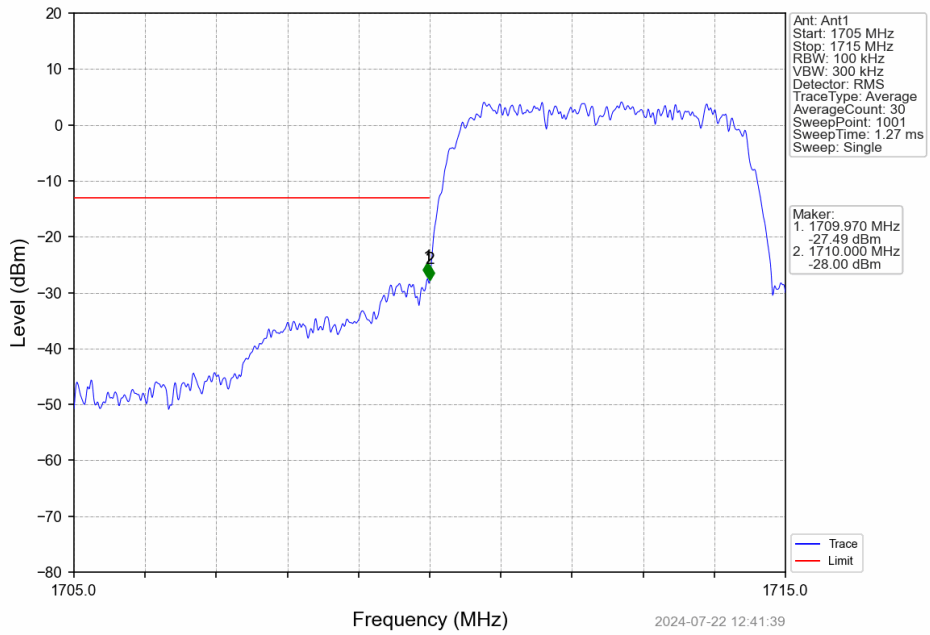
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



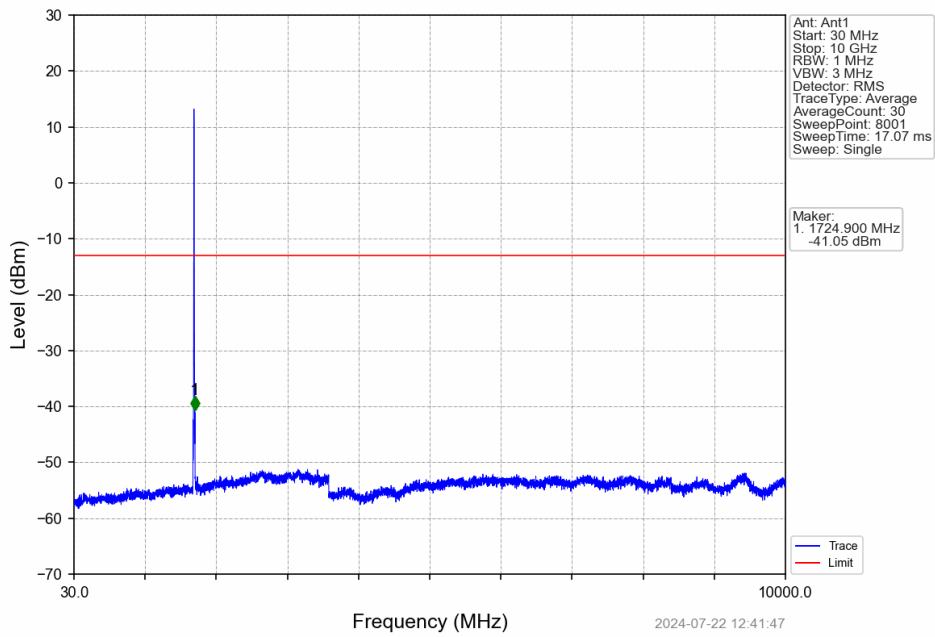
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



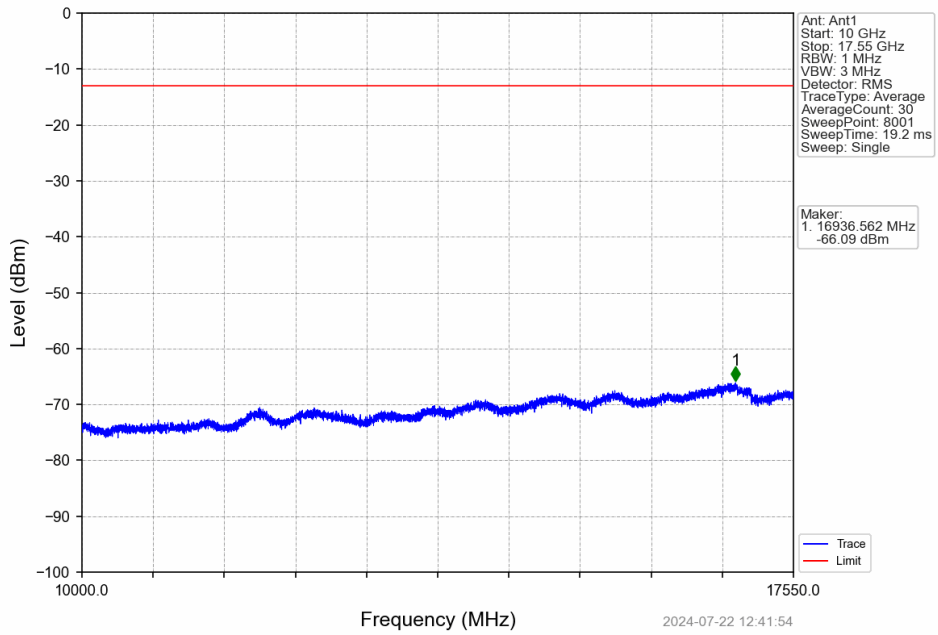
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



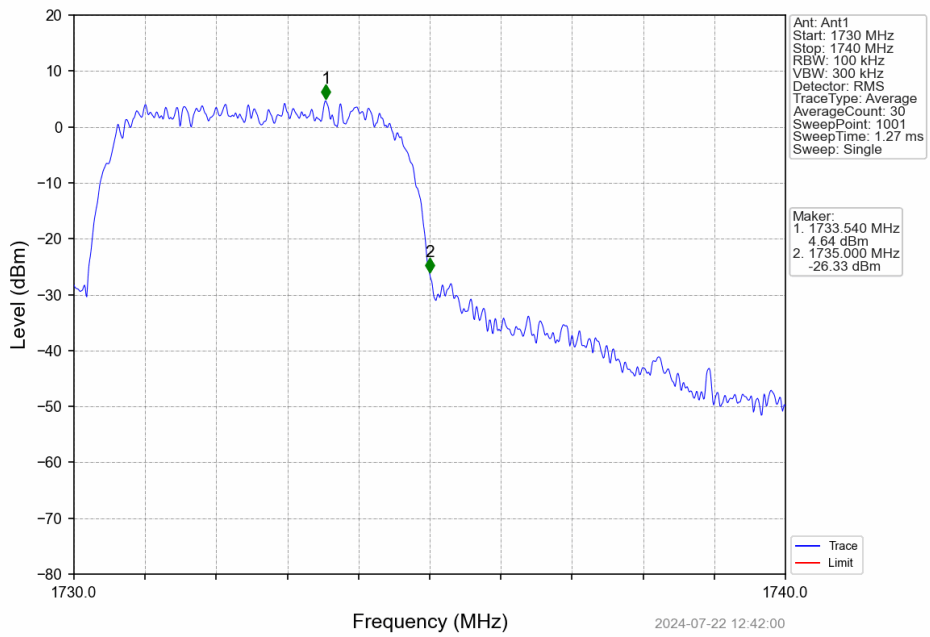
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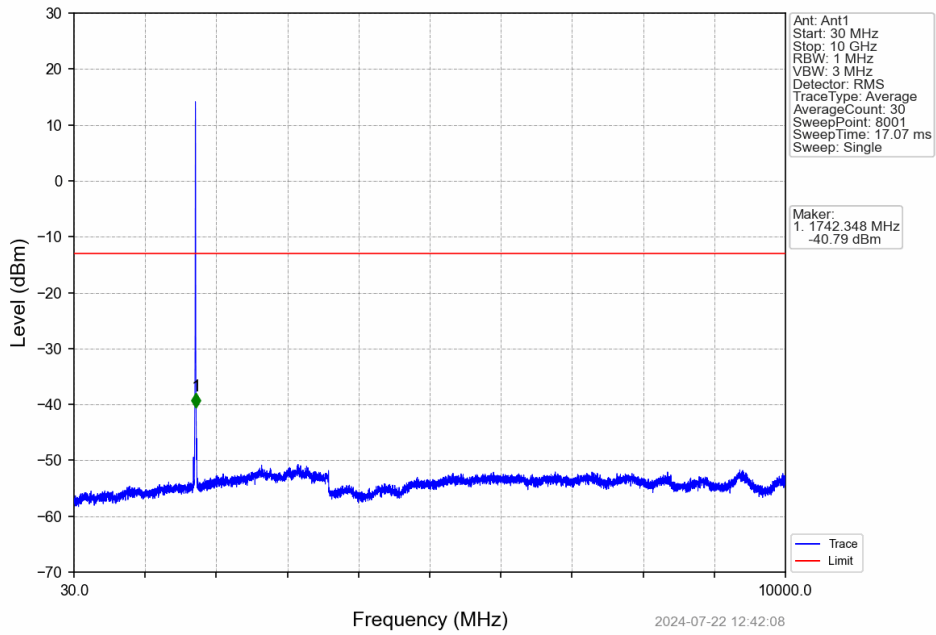
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



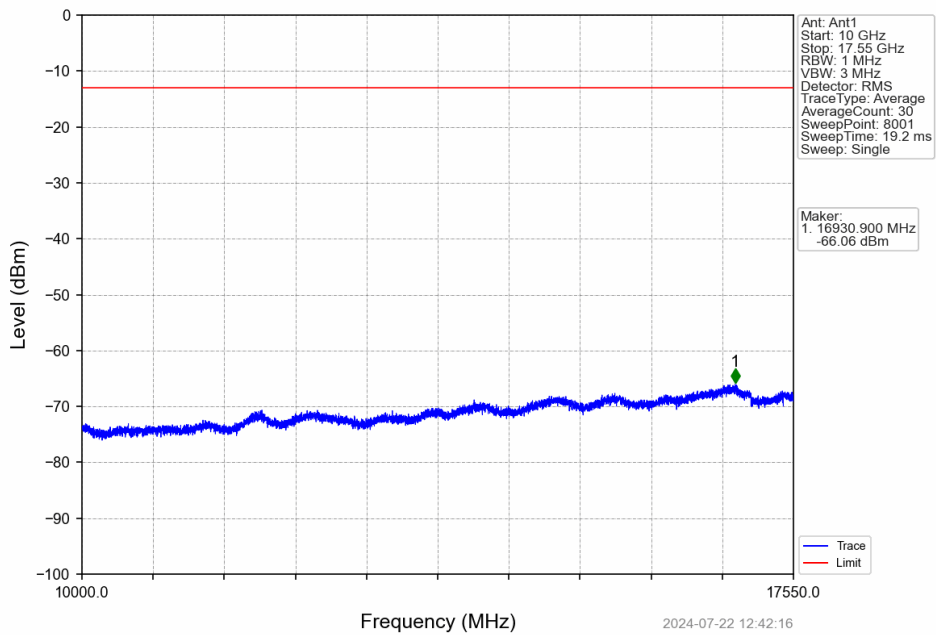
Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



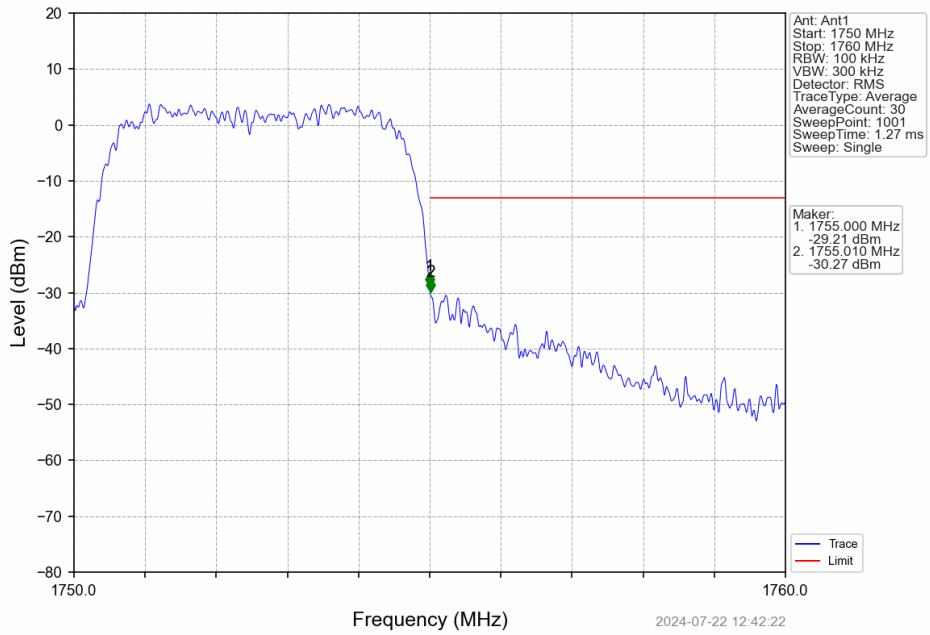
Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



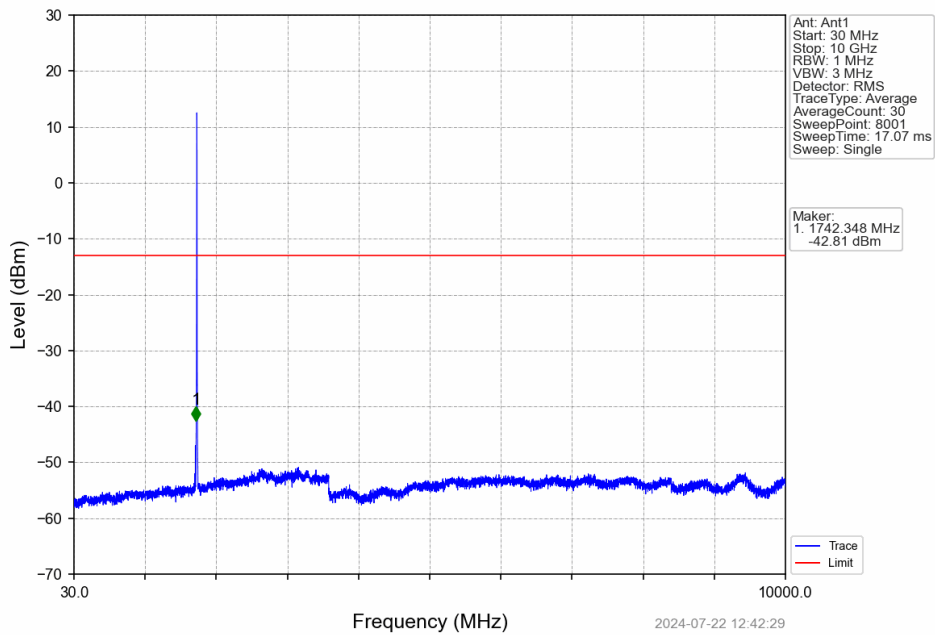
Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



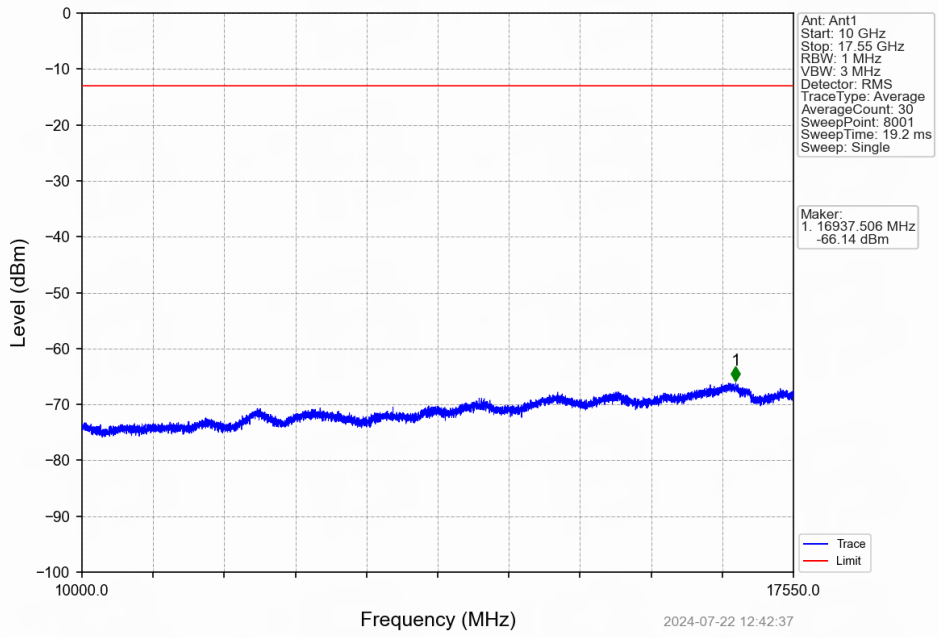
Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



7. Form731

7.1 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)
4	3.84	1712.4	1752.6	0.1050	0.0104	ppm	4M18F9W	27L	20.21

7.1.2 Form731_EIRP

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	0.1028	0.0104	ppm	4M18F9W	27L	20.12