

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	23.91	-0.31	23.60	<=30	Pass	
			1732.6	25.27	-0.31	24.96	<=30	Pass	
			1752.6	25.07	-0.31	24.76	<=30	Pass	
	HSDPA	Subtest 1	1712.4	21.80	-0.31	21.49	<=30	Pass	
		Subtest 2	1712.4	21.73	-0.31	21.42	<=30	Pass	
		Subtest 3	1712.4	21.80	-0.31	21.49	<=30	Pass	
		Subtest 4	1712.4	21.78	-0.31	21.47	<=30	Pass	
		Subtest 1	1732.6	23.08	-0.31	22.77	<=30	Pass	
		Subtest 2	1732.6	23.06	-0.31	22.75	<=30	Pass	
		Subtest 3	1732.6	23.10	-0.31	22.79	<=30	Pass	
		Subtest 4	1732.6	23.07	-0.31	22.76	<=30	Pass	
		Subtest 1	1752.6	22.81	-0.31	22.50	<=30	Pass	
		Subtest 2	1752.6	22.81	-0.31	22.50	<=30	Pass	
		Subtest 3	1752.6	22.79	-0.31	22.48	<=30	Pass	
		Subtest 4	1752.6	22.78	-0.31	22.47	<=30	Pass	
		HSUPA	Subtest 1	1712.4	19.84	-0.31	19.53	<=30	Pass
			Subtest 2	1712.4	19.65	-0.31	19.34	<=30	Pass
	Subtest 3		1712.4	19.31	-0.31	19.00	<=30	Pass	
	Subtest 4		1712.4	19.62	-0.31	19.31	<=30	Pass	
	Subtest 5		1712.4	19.32	-0.31	19.01	<=30	Pass	
	Subtest 1		1732.6	20.96	-0.31	20.65	<=30	Pass	
	Subtest 2		1732.6	20.95	-0.31	20.64	<=30	Pass	
	Subtest 3		1732.6	20.43	-0.31	20.12	<=30	Pass	
	Subtest 4		1732.6	20.96	-0.31	20.65	<=30	Pass	
	Subtest 5		1732.6	20.49	-0.31	20.18	<=30	Pass	
	Subtest 1		1752.6	20.76	-0.31	20.45	<=30	Pass	
	Subtest 2		1752.6	20.24	-0.31	19.93	<=30	Pass	
	Subtest 3		1752.6	20.23	-0.31	19.92	<=30	Pass	
	Subtest 4	1752.6	20.76	-0.31	20.45	<=30	Pass		
	Subtest 5	1752.6	20.24	-0.31	19.93	<=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	-15.621	-0.0091	-2.5 to 2.5	Pass
			3.85	-14.069	-0.0082	-2.5 to 2.5	Pass
			4.43	-13.583	-0.0079	-2.5 to 2.5	Pass
		-30	3.85	-8.183	-0.0048	-2.5 to 2.5	Pass
		-20	3.85	-14.133	-0.0083	-2.5 to 2.5	Pass

		-10	3.85	-12.774	-0.0075	-2.5 to 2.5	Pass	
		0	3.85	-14.298	-0.0083	-2.5 to 2.5	Pass	
		10	3.85	-9.413	-0.0055	-2.5 to 2.5	Pass	
		30	3.85	-12.202	-0.0071	-2.5 to 2.5	Pass	
		40	3.85	-13.969	-0.0082	-2.5 to 2.5	Pass	
	50	3.85	-11.258	-0.0066	-2.5 to 2.5	Pass		
	1732.6	20	3.27	-9.742	-0.0056	-2.5 to 2.5	Pass	
			3.85	-9.992	-0.0058	-2.5 to 2.5	Pass	
			4.43	-9.620	-0.0056	-2.5 to 2.5	Pass	
		-30	3.85	-8.097	-0.0047	-2.5 to 2.5	Pass	
		-20	3.85	-6.959	-0.0040	-2.5 to 2.5	Pass	
		-10	3.85	-6.895	-0.0040	-2.5 to 2.5	Pass	
		0	3.85	-7.961	-0.0046	-2.5 to 2.5	Pass	
		10	3.85	-11.444	-0.0066	-2.5 to 2.5	Pass	
		30	3.85	-9.999	-0.0058	-2.5 to 2.5	Pass	
		40	3.85	-11.880	-0.0069	-2.5 to 2.5	Pass	
	50	3.85	-10.707	-0.0062	-2.5 to 2.5	Pass		
	1752.6	20	3.27	-6.702	-0.0038	-2.5 to 2.5	Pass	
			3.85	-9.177	-0.0052	-2.5 to 2.5	Pass	
			4.43	-8.633	-0.0049	-2.5 to 2.5	Pass	
		-30	3.85	-4.821	-0.0028	-2.5 to 2.5	Pass	
		-20	3.85	-9.742	-0.0056	-2.5 to 2.5	Pass	
		-10	3.85	-4.942	-0.0028	-2.5 to 2.5	Pass	
		0	3.85	-9.677	-0.0055	-2.5 to 2.5	Pass	
		10	3.85	-9.184	-0.0052	-2.5 to 2.5	Pass	
		30	3.85	-5.357	-0.0031	-2.5 to 2.5	Pass	
		40	3.85	-8.526	-0.0049	-2.5 to 2.5	Pass	
	50	3.85	-7.253	-0.0041	-2.5 to 2.5	Pass		
	HSDPA	1712.4	20	3.27	-11.945	-0.0070	-2.5 to 2.5	Pass
				3.85	-5.229	-0.0031	-2.5 to 2.5	Pass
4.43				-6.201	-0.0036	-2.5 to 2.5	Pass	
-30			3.85	-6.580	-0.0038	-2.5 to 2.5	Pass	
-20			3.85	-9.985	-0.0058	-2.5 to 2.5	Pass	
-10			3.85	-6.716	-0.0039	-2.5 to 2.5	Pass	
0			3.85	-7.410	-0.0043	-2.5 to 2.5	Pass	
10			3.85	-4.921	-0.0029	-2.5 to 2.5	Pass	
30			3.85	-6.037	-0.0035	-2.5 to 2.5	Pass	
40			3.85	-10.521	-0.0061	-2.5 to 2.5	Pass	
50		3.85	-9.878	-0.0058	-2.5 to 2.5	Pass		
1732.6		20	3.27	-8.104	-0.0047	-2.5 to 2.5	Pass	
			3.85	-6.809	-0.0039	-2.5 to 2.5	Pass	
			4.43	-11.351	-0.0066	-2.5 to 2.5	Pass	
		-30	3.85	-13.440	-0.0078	-2.5 to 2.5	Pass	
		-20	3.85	-10.314	-0.0060	-2.5 to 2.5	Pass	
		-10	3.85	-6.924	-0.0040	-2.5 to 2.5	Pass	
		0	3.85	-7.868	-0.0045	-2.5 to 2.5	Pass	
		10	3.85	-9.835	-0.0057	-2.5 to 2.5	Pass	
		30	3.85	-15.485	-0.0089	-2.5 to 2.5	Pass	
		40	3.85	-10.750	-0.0062	-2.5 to 2.5	Pass	
50		3.85	-8.204	-0.0047	-2.5 to 2.5	Pass		
1752.6		20	3.27	-11.072	-0.0063	-2.5 to 2.5	Pass	
			3.85	-7.410	-0.0042	-2.5 to 2.5	Pass	
			4.43	-8.190	-0.0047	-2.5 to 2.5	Pass	
		-30	3.85	-9.556	-0.0055	-2.5 to 2.5	Pass	
		-20	3.85	-7.024	-0.0040	-2.5 to 2.5	Pass	
		-10	3.85	-6.266	-0.0036	-2.5 to 2.5	Pass	
		0	3.85	-10.285	-0.0059	-2.5 to 2.5	Pass	
		10	3.85	-5.000	-0.0029	-2.5 to 2.5	Pass	
30	3.85	-10.035	-0.0057	-2.5 to 2.5	Pass			

		40	3.85	-10.629	-0.0061	-2.5 to 2.5	Pass
		50	3.85	-7.818	-0.0045	-2.5 to 2.5	Pass
HSUPA	1712.4	20	3.27	-12.703	-0.0074	-2.5 to 2.5	Pass
			3.85	-13.125	-0.0077	-2.5 to 2.5	Pass
			4.43	-12.045	-0.0070	-2.5 to 2.5	Pass
		-30	3.85	-9.227	-0.0054	-2.5 to 2.5	Pass
		-20	3.85	-11.487	-0.0067	-2.5 to 2.5	Pass
		-10	3.85	-13.583	-0.0079	-2.5 to 2.5	Pass
		0	3.85	-12.546	-0.0073	-2.5 to 2.5	Pass
		10	3.85	-9.699	-0.0057	-2.5 to 2.5	Pass
		30	3.85	-13.003	-0.0076	-2.5 to 2.5	Pass
		40	3.85	-11.916	-0.0070	-2.5 to 2.5	Pass
	50	3.85	-10.972	-0.0064	-2.5 to 2.5	Pass	
	1732.6	20	3.27	-11.802	-0.0068	-2.5 to 2.5	Pass
			3.85	-14.956	-0.0086	-2.5 to 2.5	Pass
			4.43	-10.951	-0.0063	-2.5 to 2.5	Pass
		-30	3.85	-13.812	-0.0080	-2.5 to 2.5	Pass
		-20	3.85	-16.265	-0.0094	-2.5 to 2.5	Pass
		-10	3.85	-17.703	-0.0102	-2.5 to 2.5	Pass
		0	3.85	-13.955	-0.0081	-2.5 to 2.5	Pass
		10	3.85	-15.342	-0.0089	-2.5 to 2.5	Pass
		30	3.85	-16.322	-0.0094	-2.5 to 2.5	Pass
		40	3.85	-14.198	-0.0082	-2.5 to 2.5	Pass
	50	3.85	-15.686	-0.0091	-2.5 to 2.5	Pass	
	1752.6	20	3.27	-10.557	-0.0060	-2.5 to 2.5	Pass
			3.85	-11.408	-0.0065	-2.5 to 2.5	Pass
			4.43	-7.989	-0.0046	-2.5 to 2.5	Pass
		-30	3.85	-10.049	-0.0057	-2.5 to 2.5	Pass
		-20	3.85	-8.283	-0.0047	-2.5 to 2.5	Pass
		-10	3.85	-6.373	-0.0036	-2.5 to 2.5	Pass
		0	3.85	-12.467	-0.0071	-2.5 to 2.5	Pass
		10	3.85	-9.613	-0.0055	-2.5 to 2.5	Pass
30		3.85	-12.395	-0.0071	-2.5 to 2.5	Pass	
40		3.85	-11.616	-0.0066	-2.5 to 2.5	Pass	
50	3.85	-9.105	-0.0052	-2.5 to 2.5	Pass		

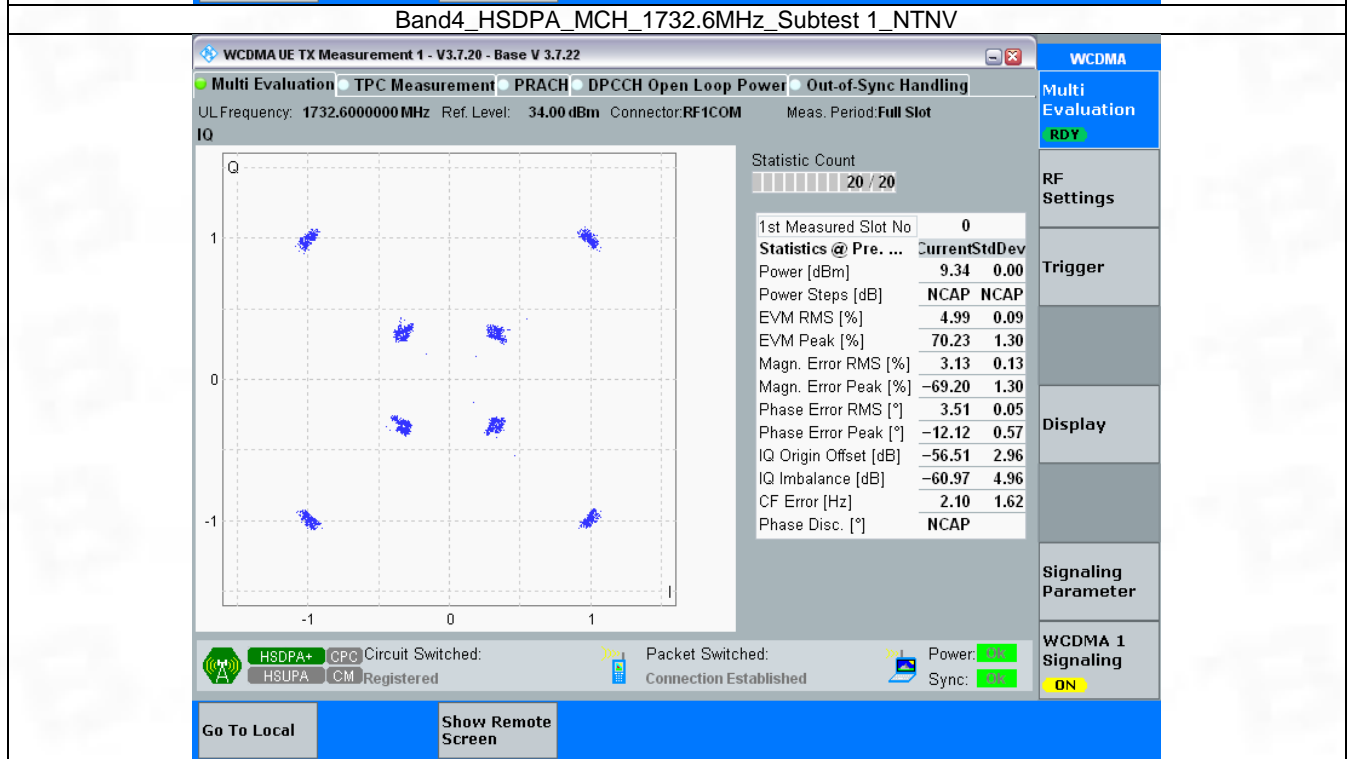
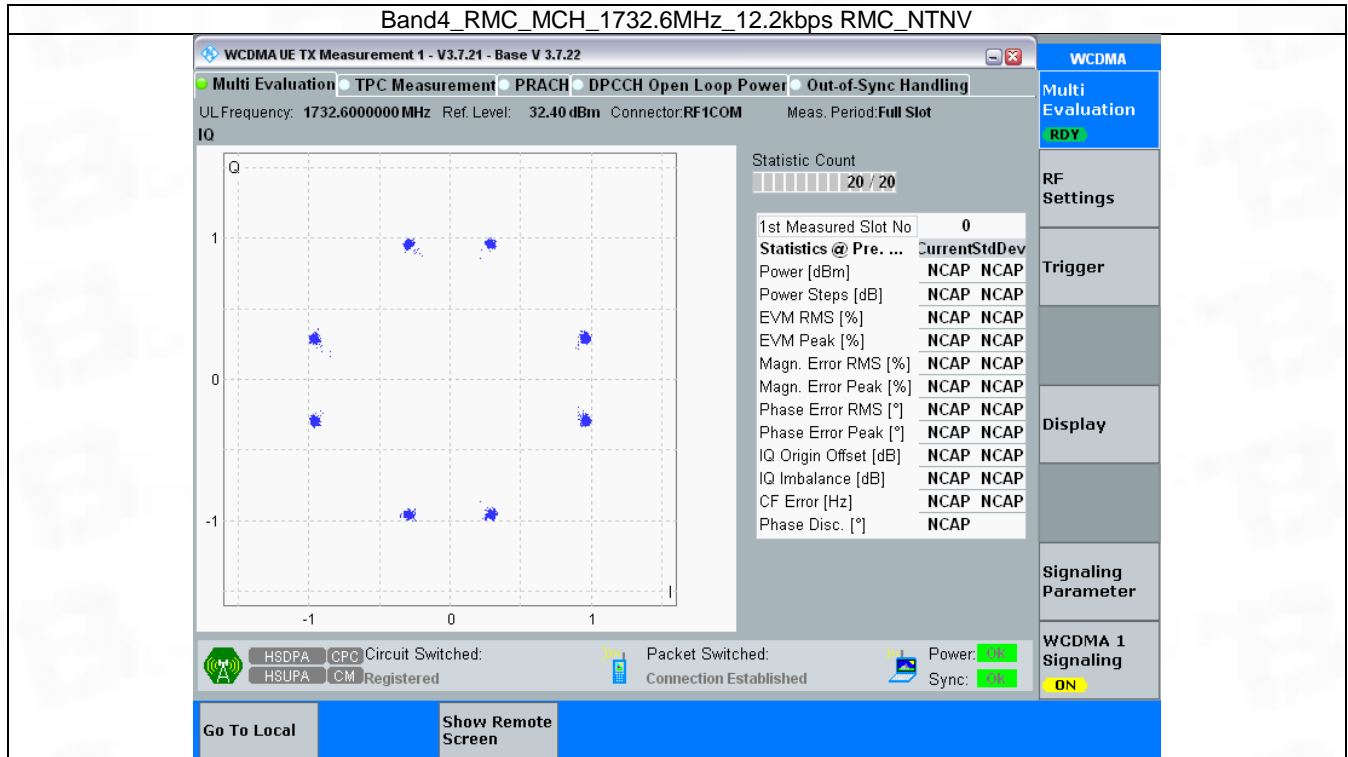
3. Modulation Characteristics

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



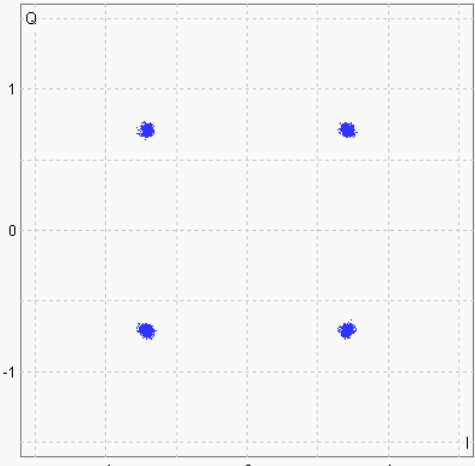
Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV

WCDMA UE TX Measurement 1 - V3.7.21 - Base V 3.7.22
WCDMA

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

UL Frequency: 1732.600000 MHz
Ref. Level: 34.20 dBm
Connector: RF1COM
Meas. Period: Full Slot

IQ



Statistic Count
20 / 20

1st Measured Slot No	0
Statistics @ Pre. ...	CurrentStdDev
Power [dBm]	NCAP NCAP
Power Steps [dB]	NCAP NCAP
EVM RMS [%]	NCAP NCAP
EVM Peak [%]	NCAP NCAP
Magn. Error RMS [%]	NCAP NCAP
Magn. Error Peak [%]	NCAP NCAP
Phase Error RMS [°]	NCAP NCAP
Phase Error Peak [°]	NCAP NCAP
IQ Origin Offset [dB]	NCAP NCAP
IQ Imbalance [dB]	NCAP NCAP
CF Error [Hz]	NCAP NCAP
Phase Disc. [°]	NCAP

HSDPA+ CPC Circuit Switched
HSUPA CM Registered

Packet Switched:
Connection Established

Power: ON
Sync: ON

Go To Local
Show Remote Screen

WCDMA
Multi Evaluation
RDY
RF Settings
Trigger
Display
Signaling Parameter
WCDMA 1 Signaling
ON

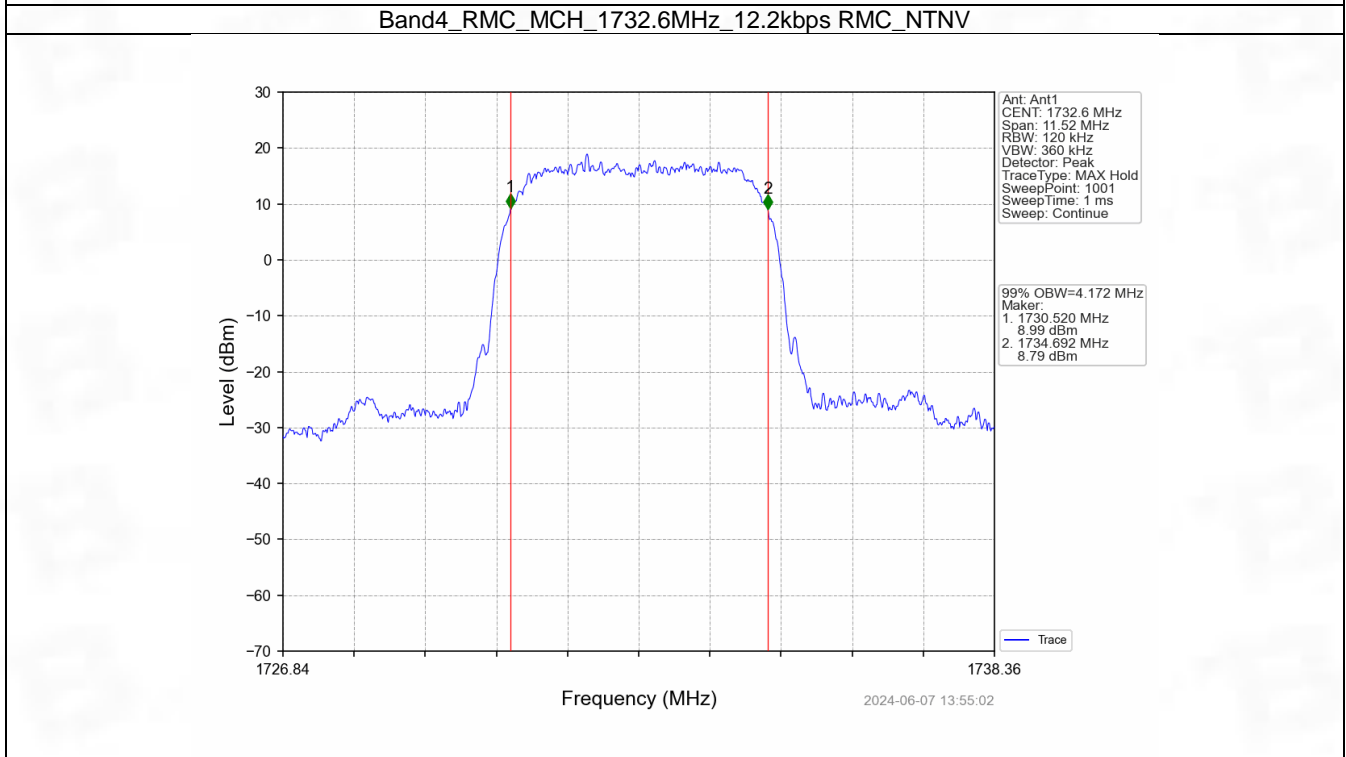
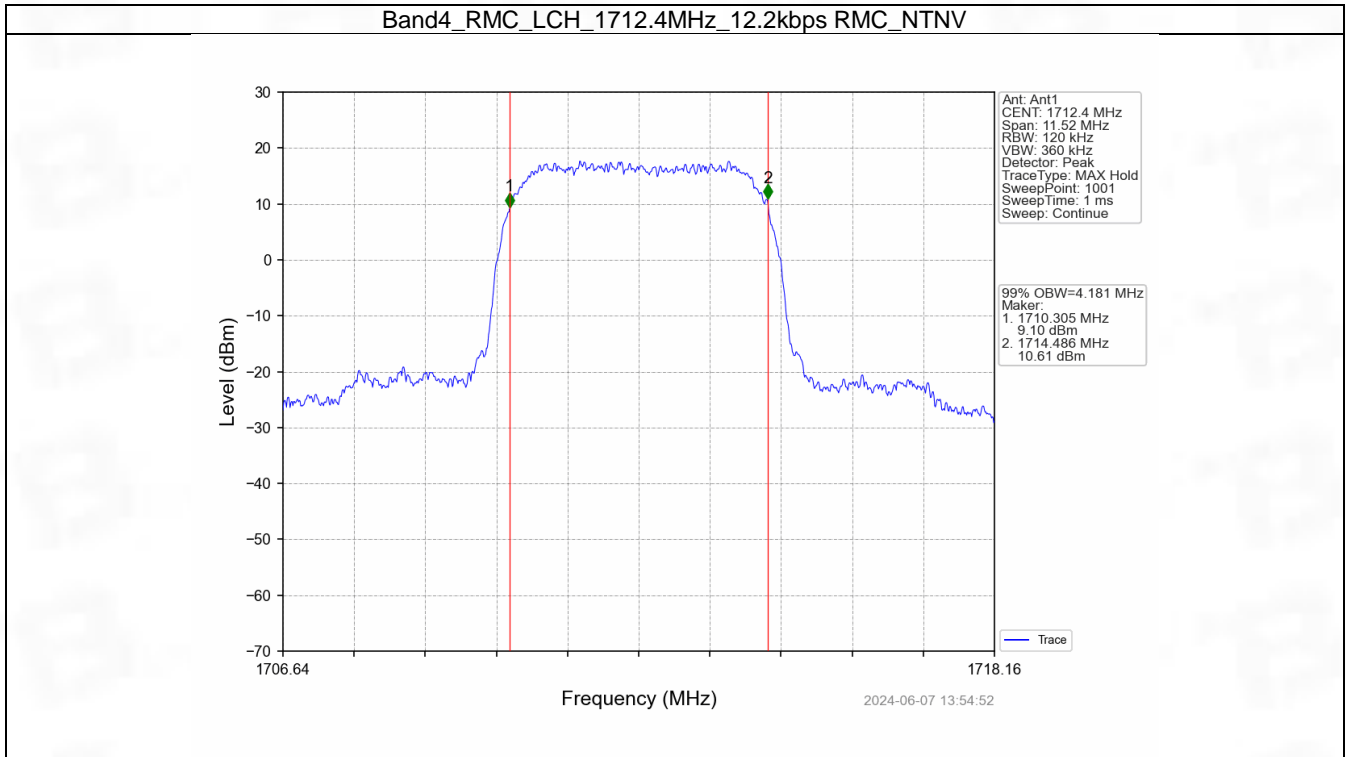
4. 99% & 26dB Bandwidth

4.1 Band4_OBW

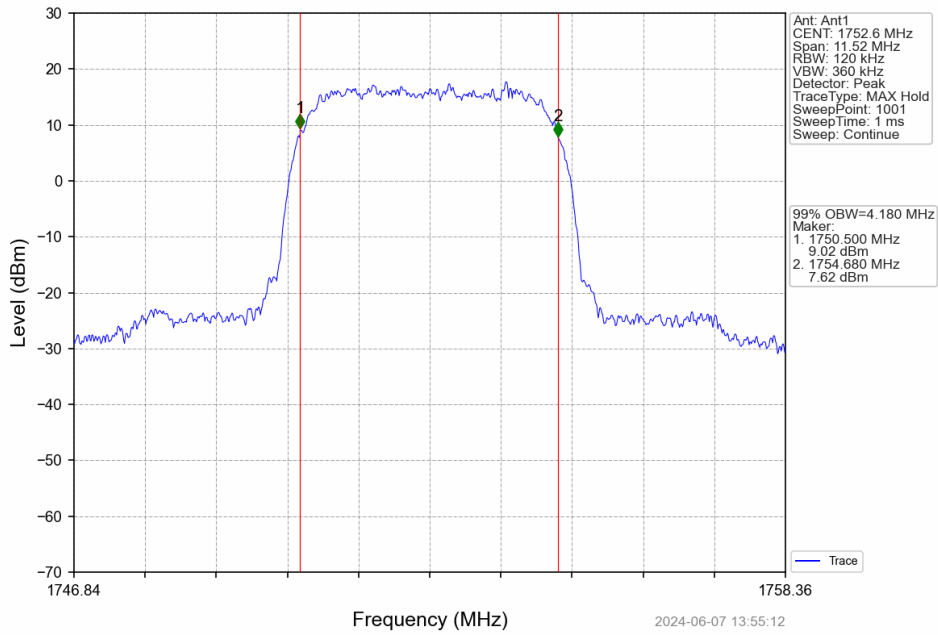
4.1.1 Test Result

Band: 4						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	4.181	/	Pass
			1732.6	4.172	/	Pass
			1752.6	4.180	/	Pass
	HSDPA	Subtest 1	1712.4	4.244	/	Pass
			1732.6	4.229	/	Pass
			1752.6	4.235	/	Pass
	HSUPA	Subtest 1	1712.4	4.213	/	Pass
			1732.6	4.230	/	Pass
			1752.6	4.223	/	Pass

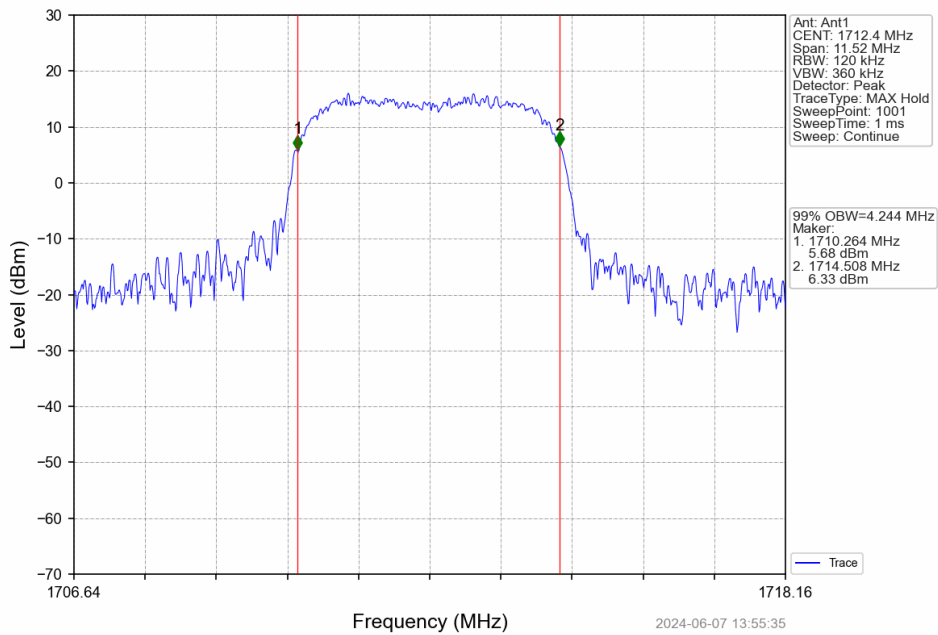
4.1.2 Test Graph



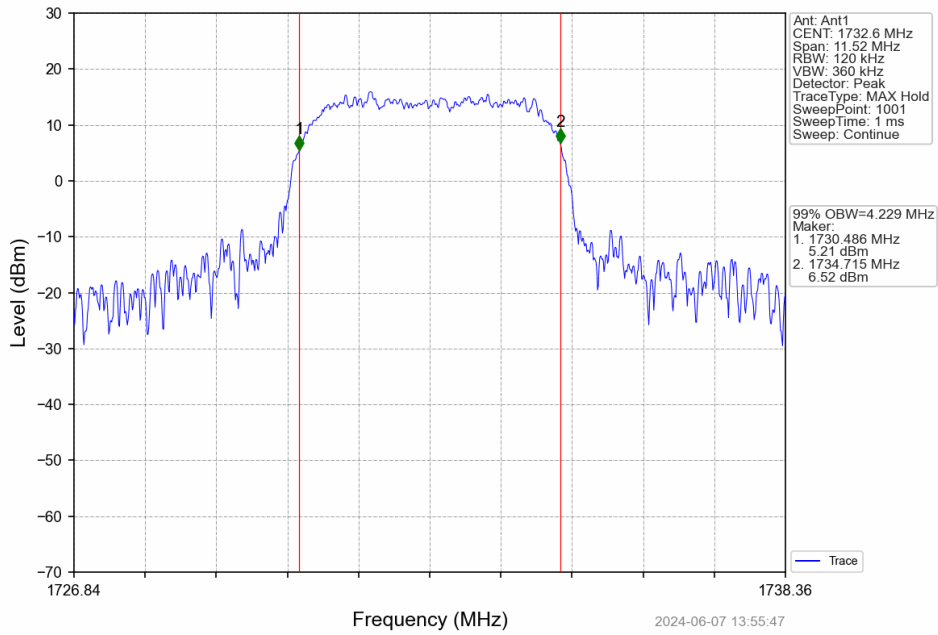
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



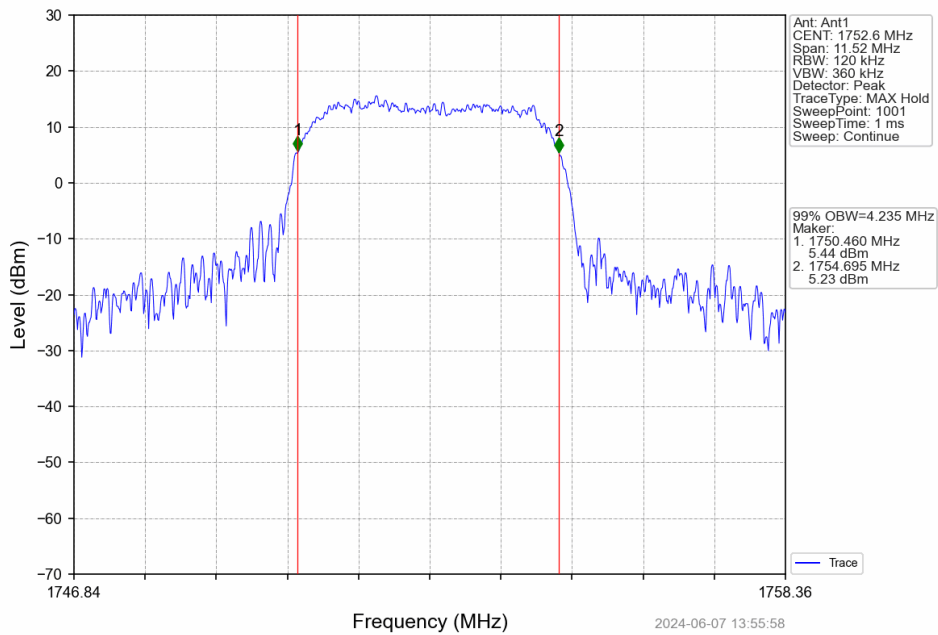
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



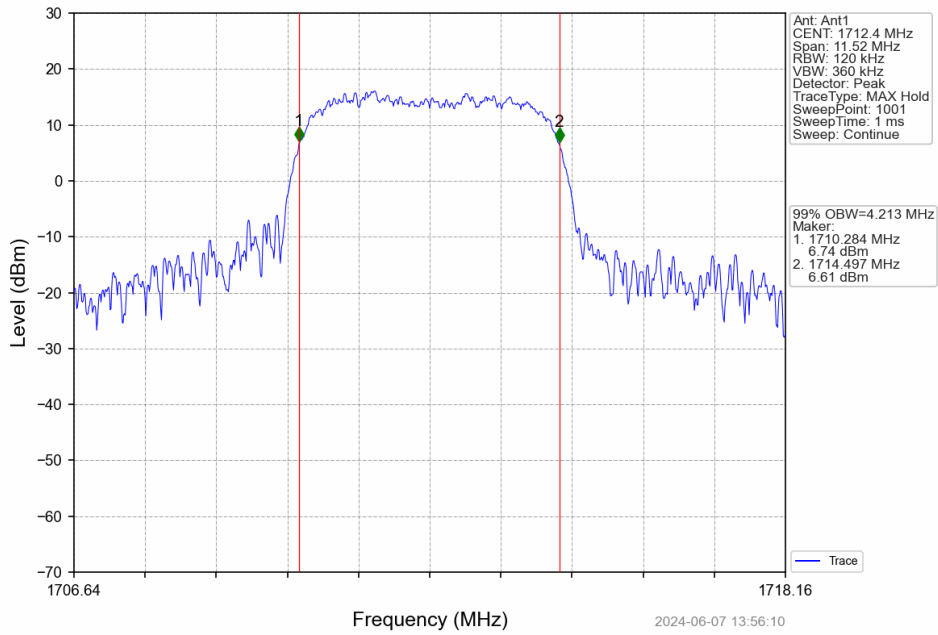
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



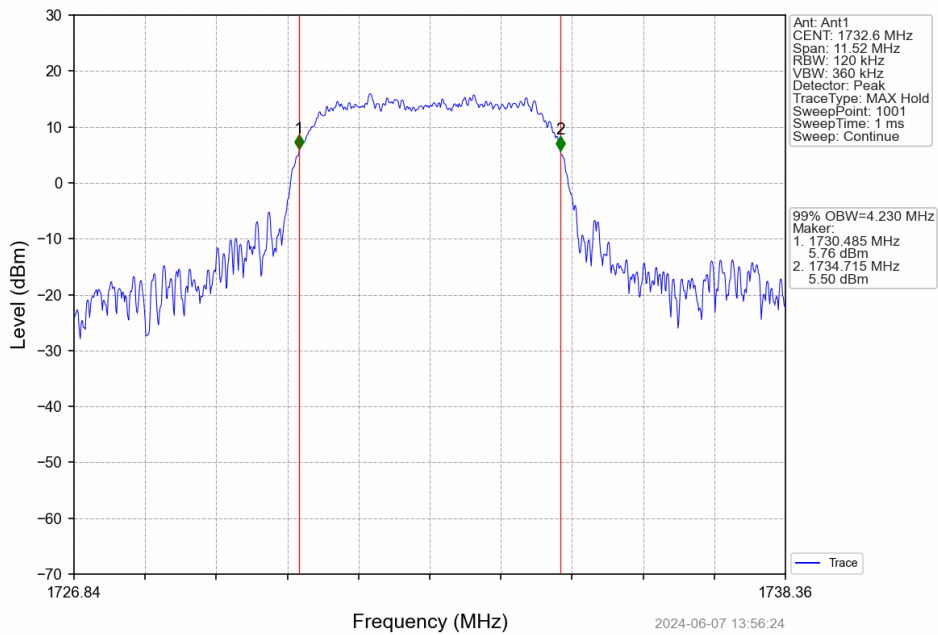
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



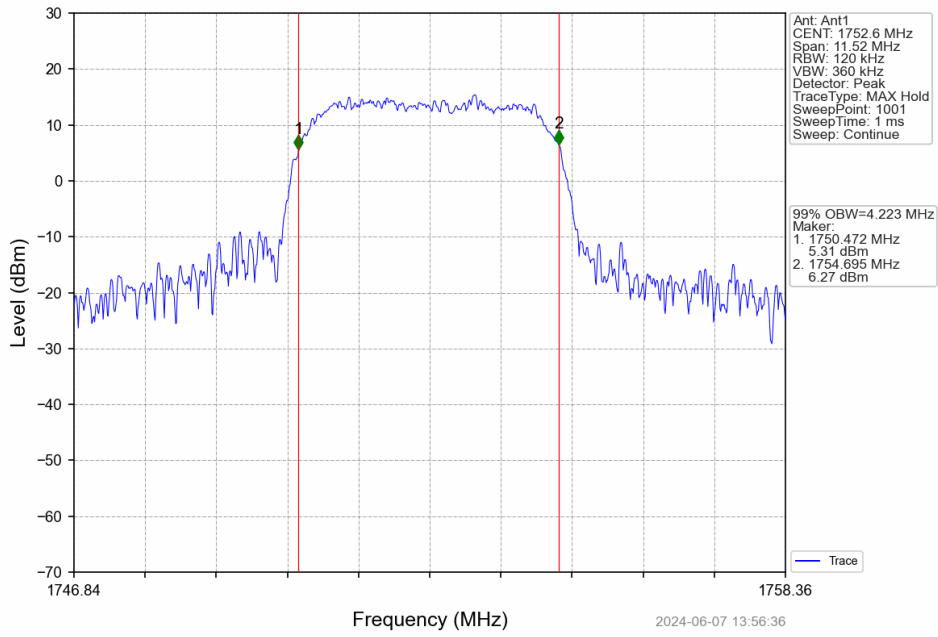
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV

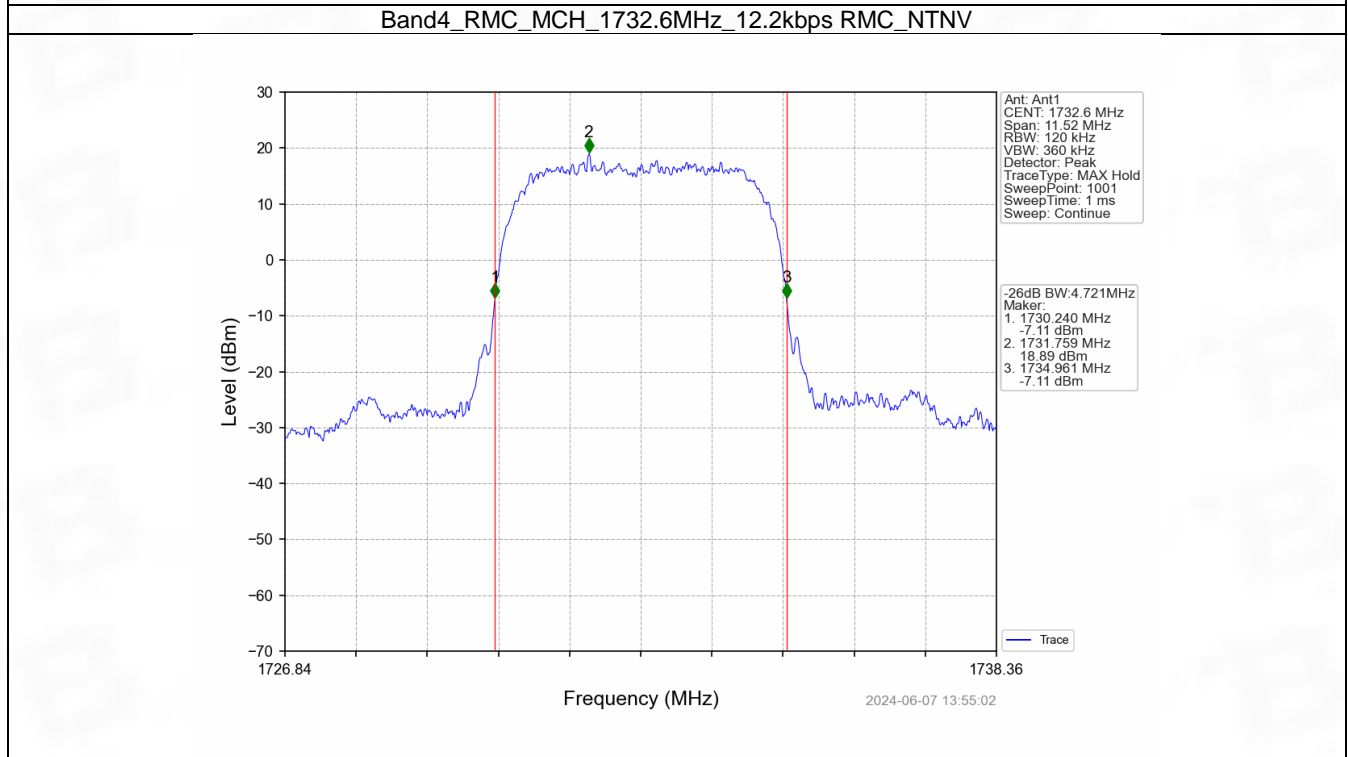
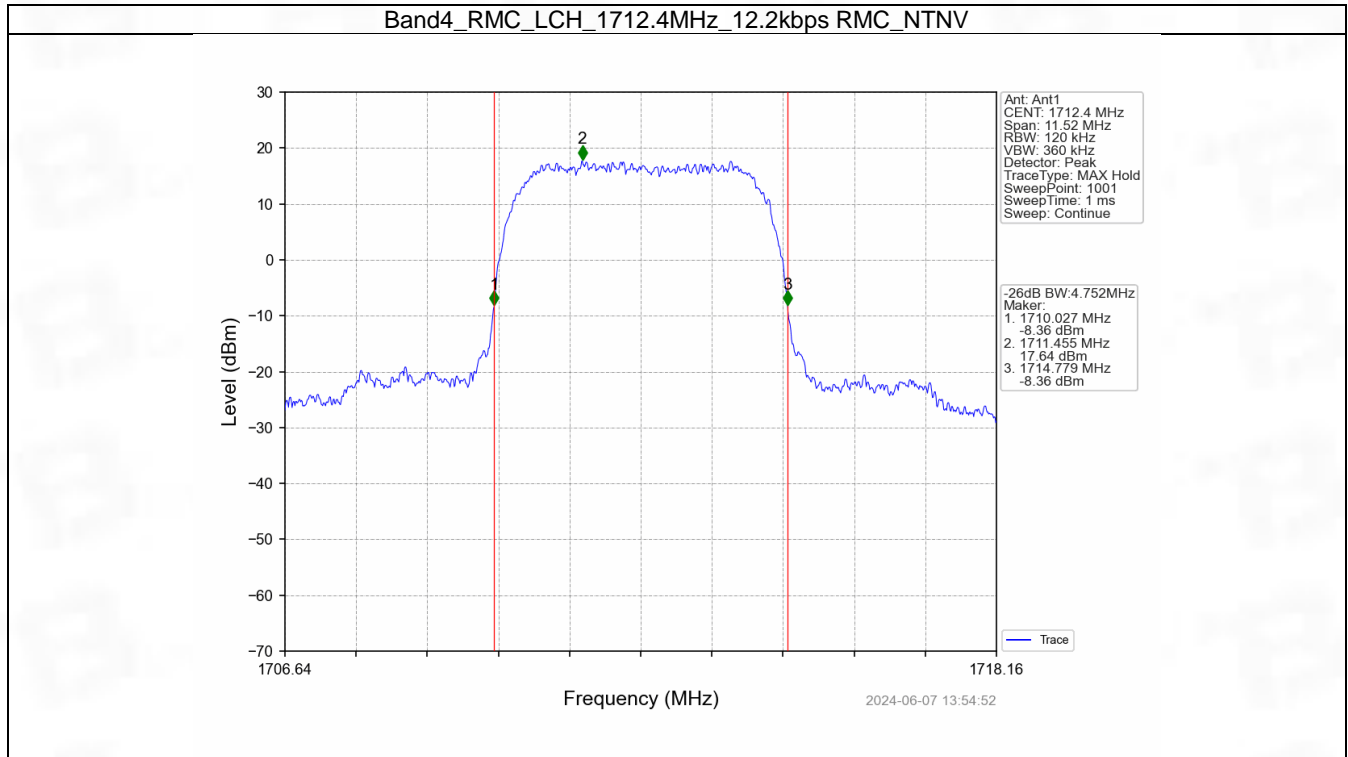


4.2 Band4_XDB

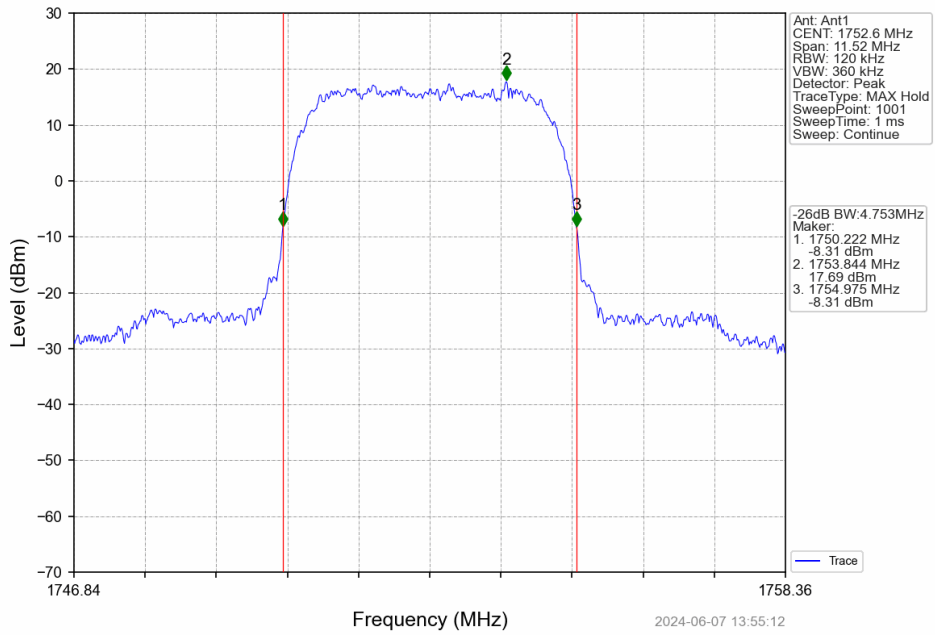
4.2.1 Test Result

Band: 4						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	4.752	/	Pass
			1732.6	4.721	/	Pass
			1752.6	4.753	/	Pass
	HSDPA	Subtest 1	1712.4	5.444	/	Pass
			1732.6	6.162	/	Pass
			1752.6	5.666	/	Pass
	HSUPA	Subtest 1	1712.4	5.509	/	Pass
			1732.6	5.898	/	Pass
			1752.6	5.587	/	Pass

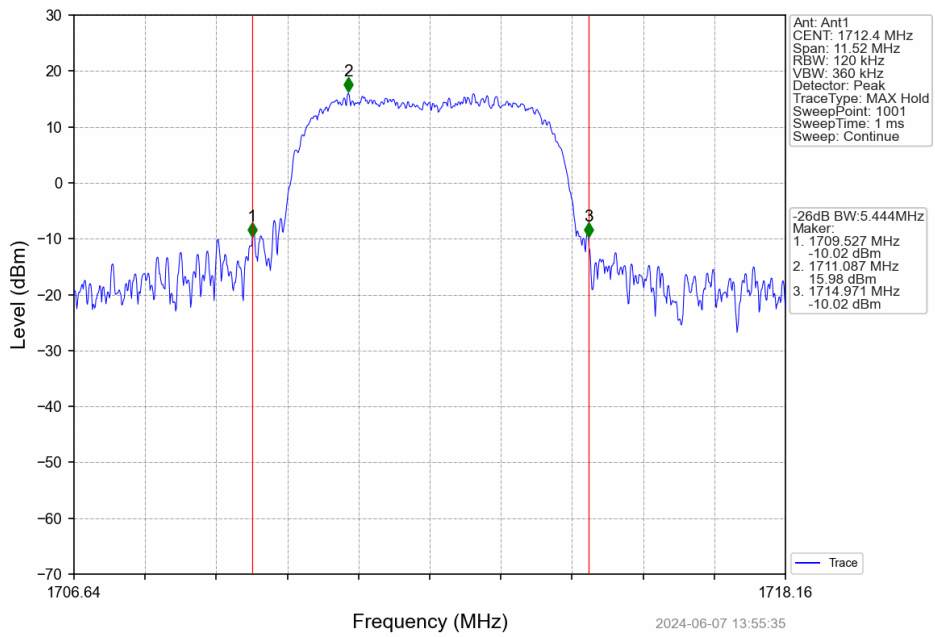
4.2.2 Test Graph



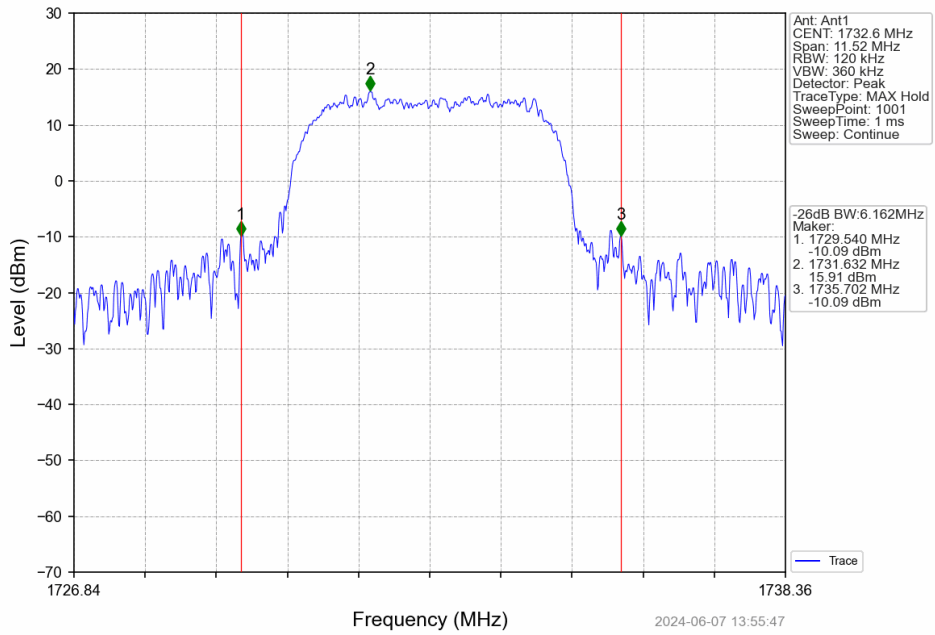
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



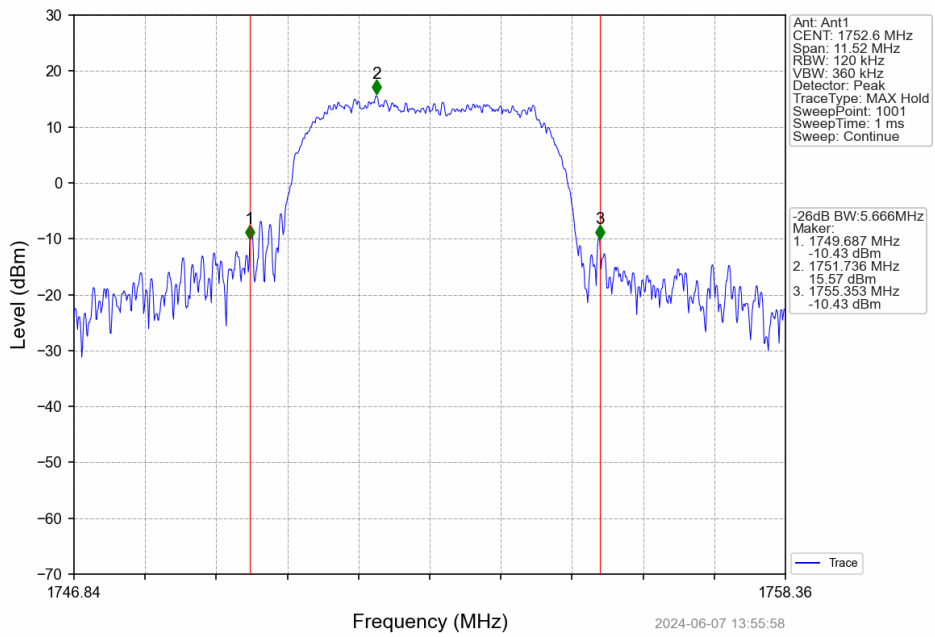
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



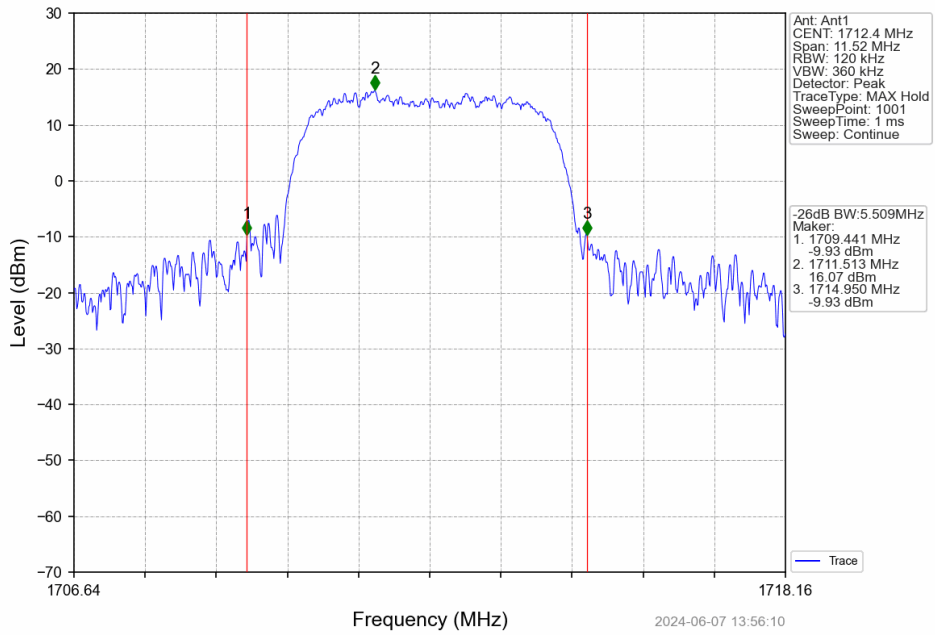
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



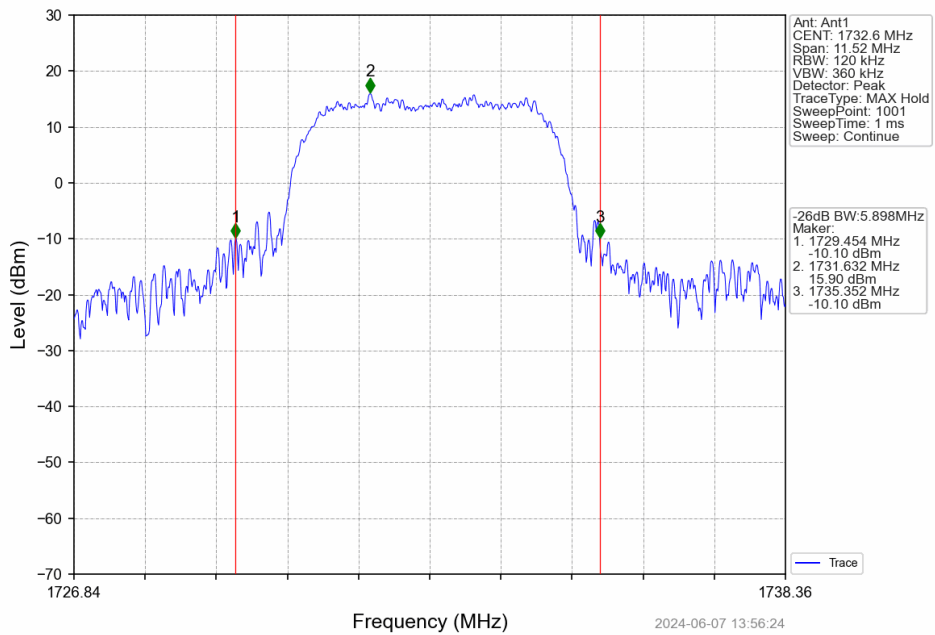
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



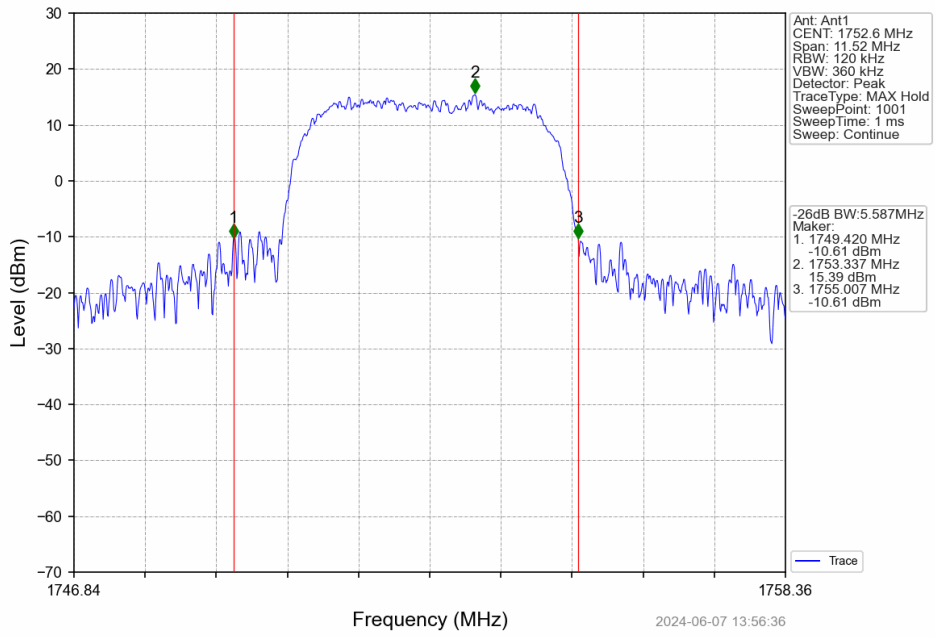
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



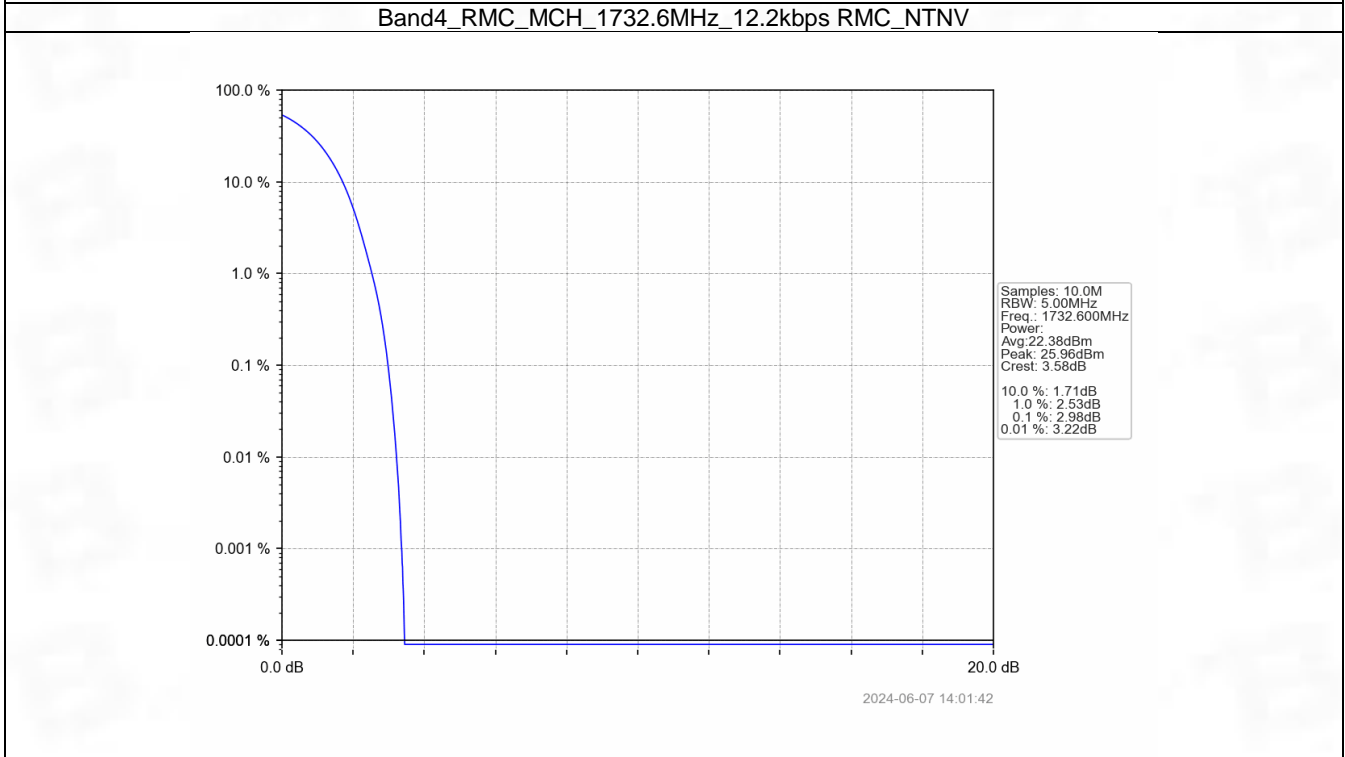
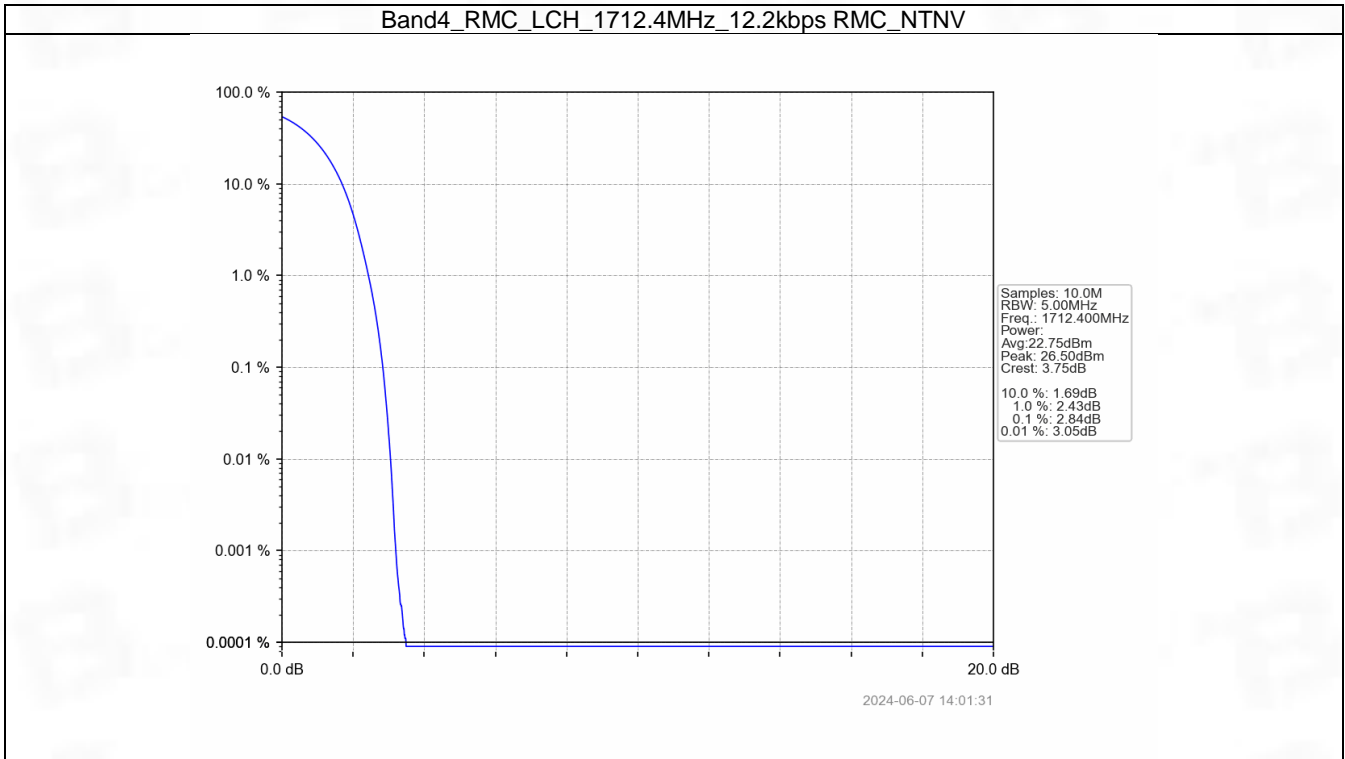
5. Peak-Average Ratio

5.1 Band4

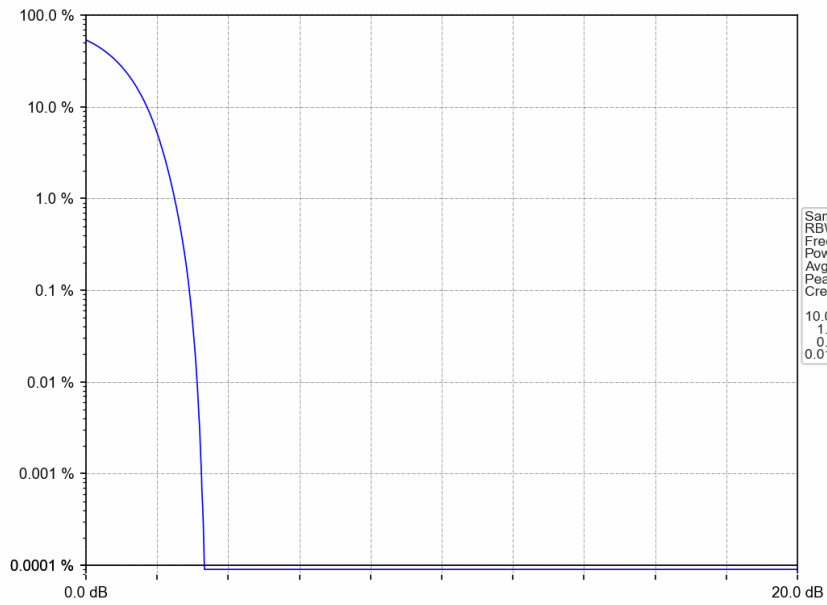
5.1.1 Test Result

Band: 4						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	2.84	<=13	Pass
			1732.6	2.98	<=13	Pass
			1752.6	2.91	<=13	Pass
	HSDPA	Subtest 1	1712.4	5.79	<=13	Pass
			1732.6	5.91	<=13	Pass
			1752.6	5.95	<=13	Pass
	HSUPA	Subtest 1	1712.4	6.04	<=13	Pass
			1732.6	5.93	<=13	Pass
			1752.6	6.02	<=13	Pass

5.1.2 Test Graph



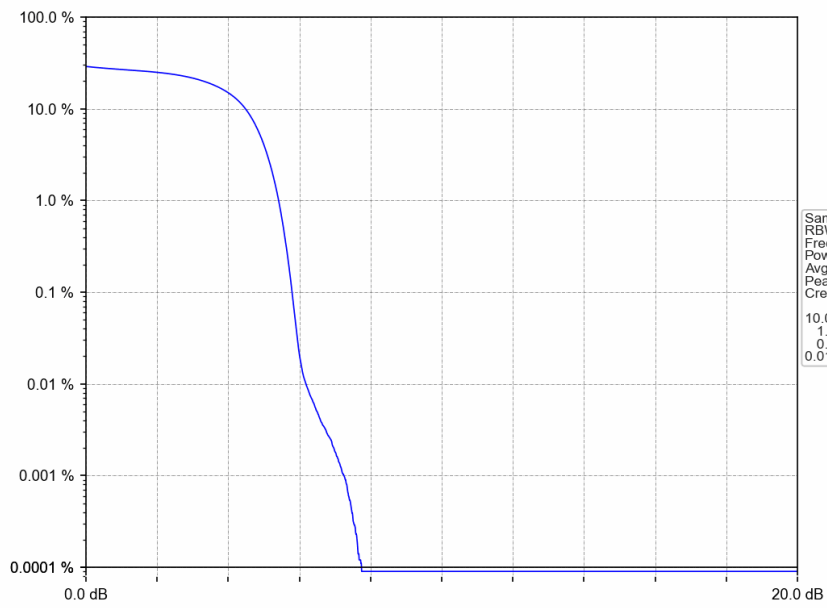
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



Samples: 10.0M
RBW: 5.00MHz
Freq.: 1752.600MHz
Power:
Avg: 21.98dBm
Peak: 26.12dBm
Crest: 4.14dB
10.0 %: 1.71dB
1.0 %: 2.49dB
0.1 %: 2.91dB
0.01 %: 3.12dB

2024-06-07 14:01:53

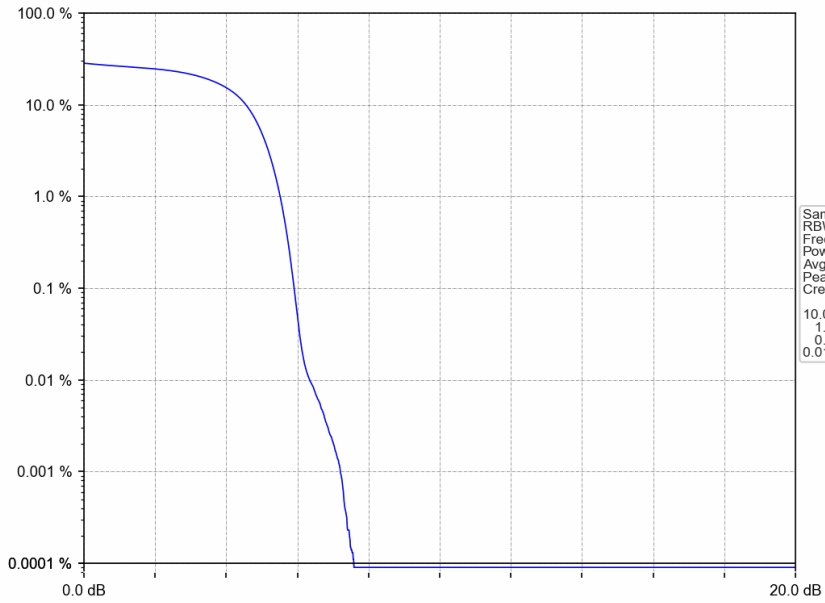
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



Samples: 10.0M
RBW: 5.00MHz
Freq.: 1712.400MHz
Power:
Avg: 18.98dBm
Peak: 27.69dBm
Crest: 8.71dB
10.0 %: 4.48dB
1.0 %: 5.42dB
0.1 %: 5.79dB
0.01 %: 6.18dB

2024-06-07 14:02:19

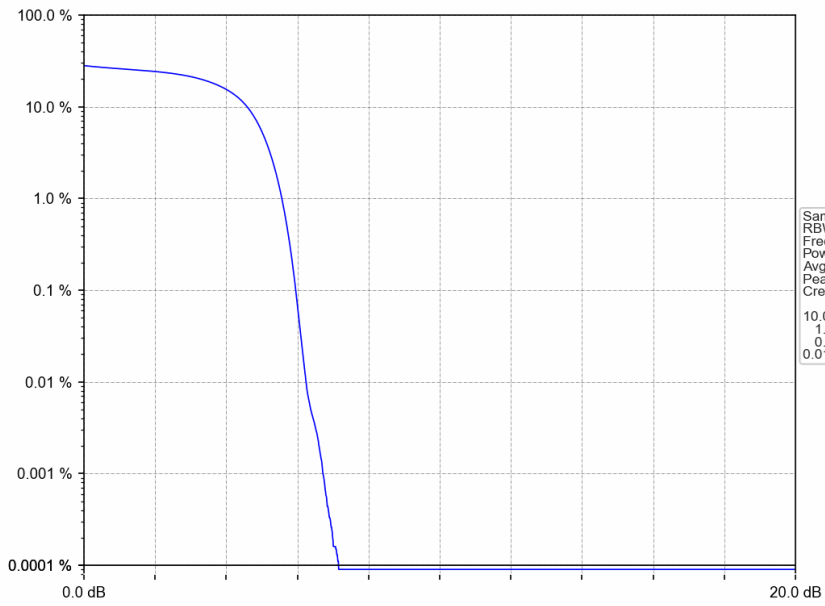
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



Samples: 10.0M
RBW: 5.00MHz
Freq.: 1732.600MHz
Power:
Avg: 18.52dBm
Peak: 28.73dBm
Crest: 10.21dB

2024-06-07 14:02:33

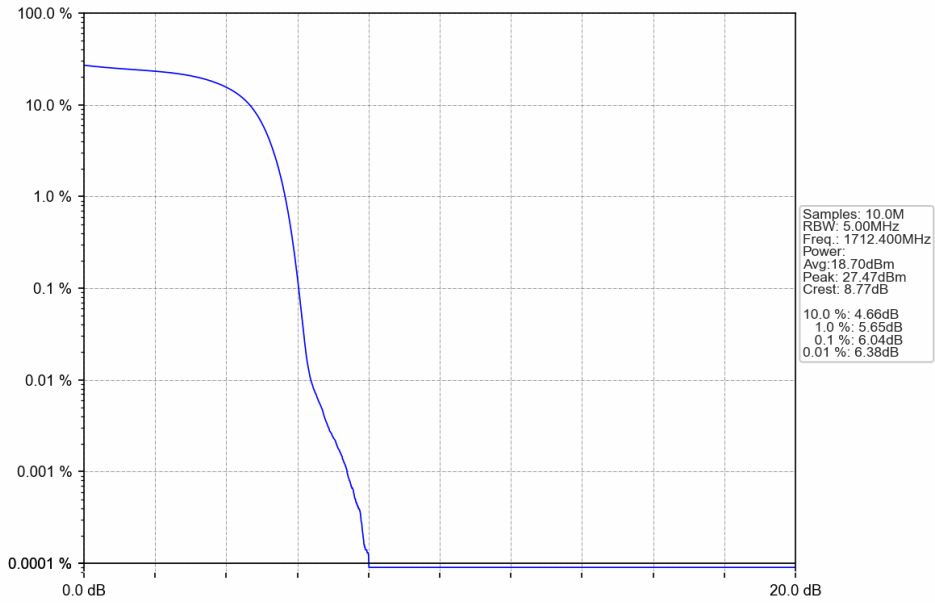
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



Samples: 10.0M
RBW: 5.00MHz
Freq.: 1752.600MHz
Power:
Avg: 18.07dBm
Peak: 26.38dBm
Crest: 8.31dB

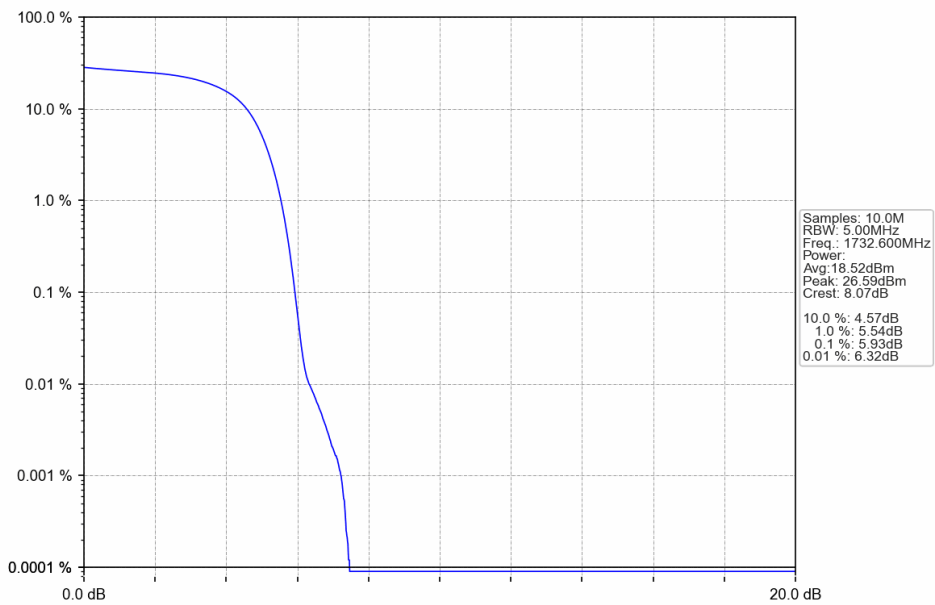
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Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



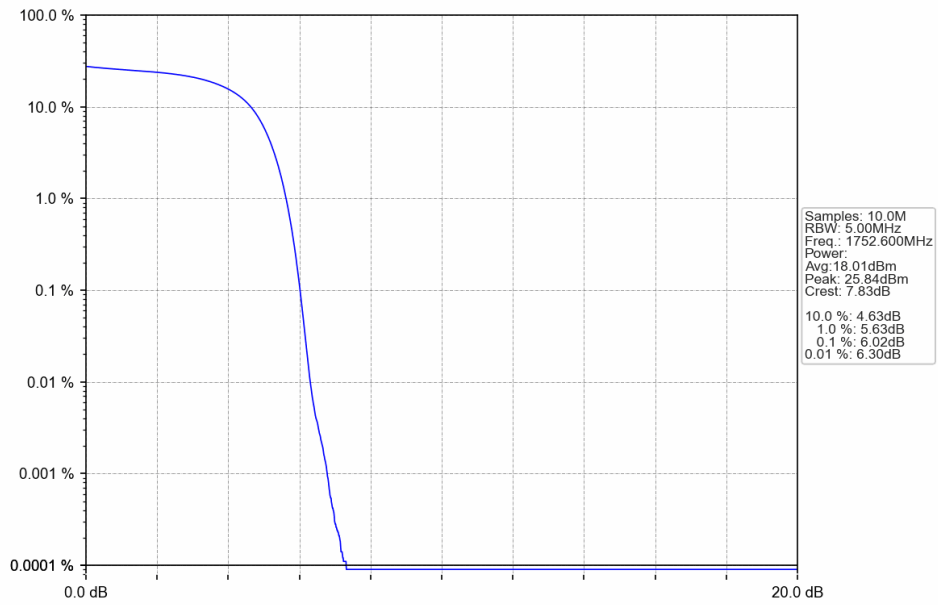
2024-06-07 14:03:01

Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



2024-06-07 14:03:15

Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



2024-06-07 14:03:29

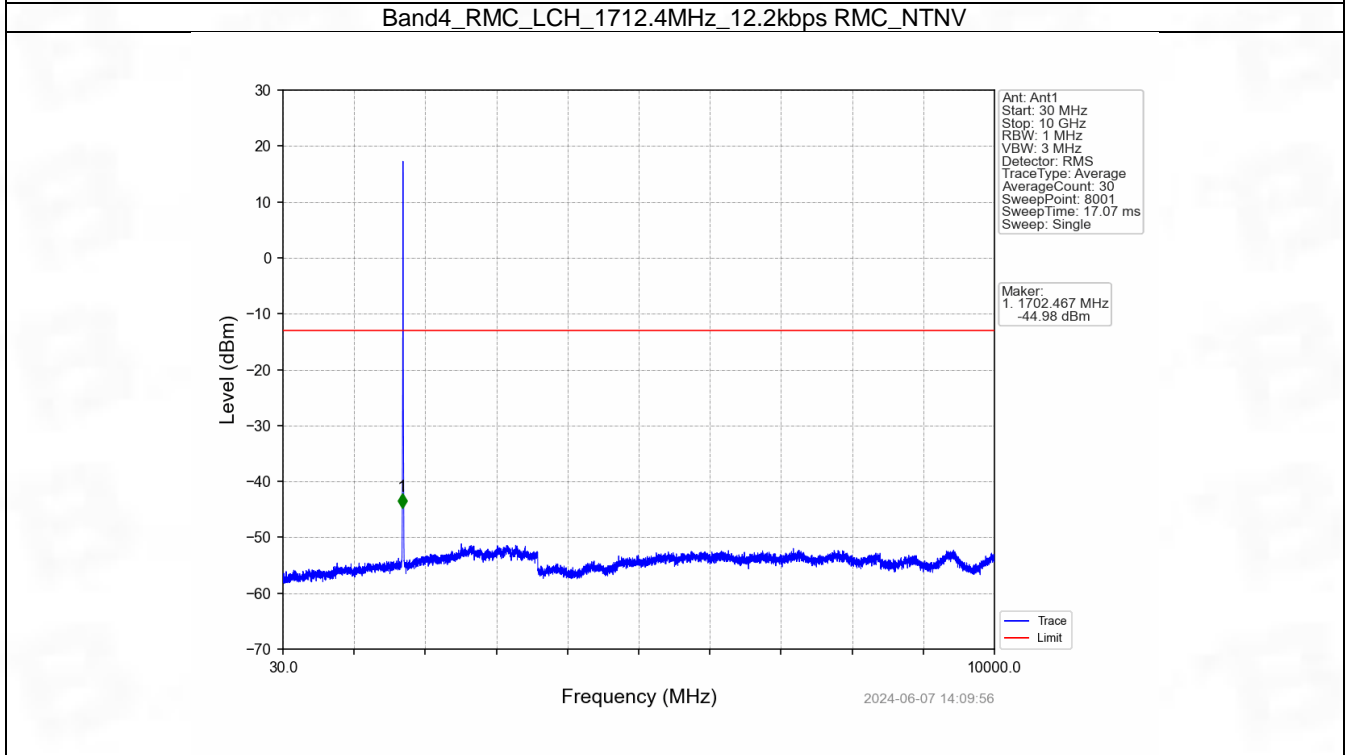
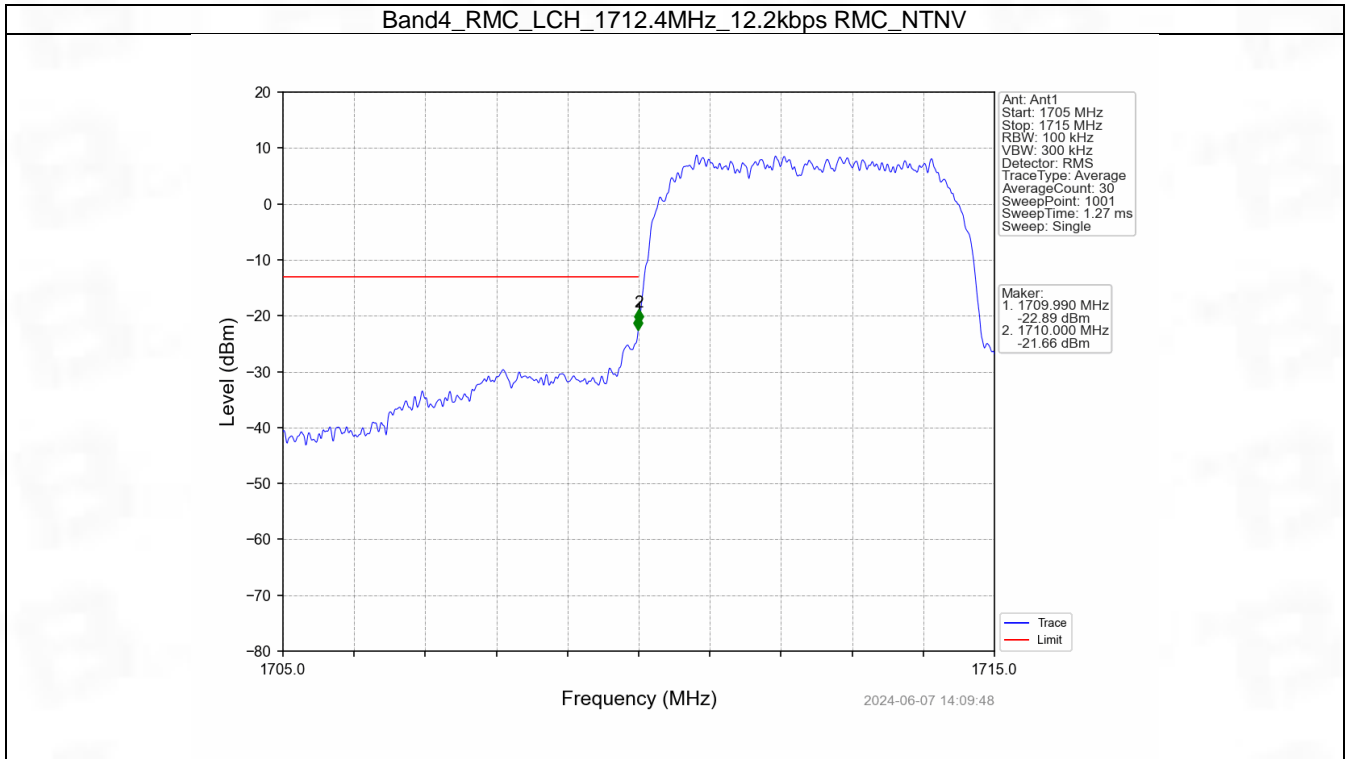
6. Spurious Emission

6.1 Band4

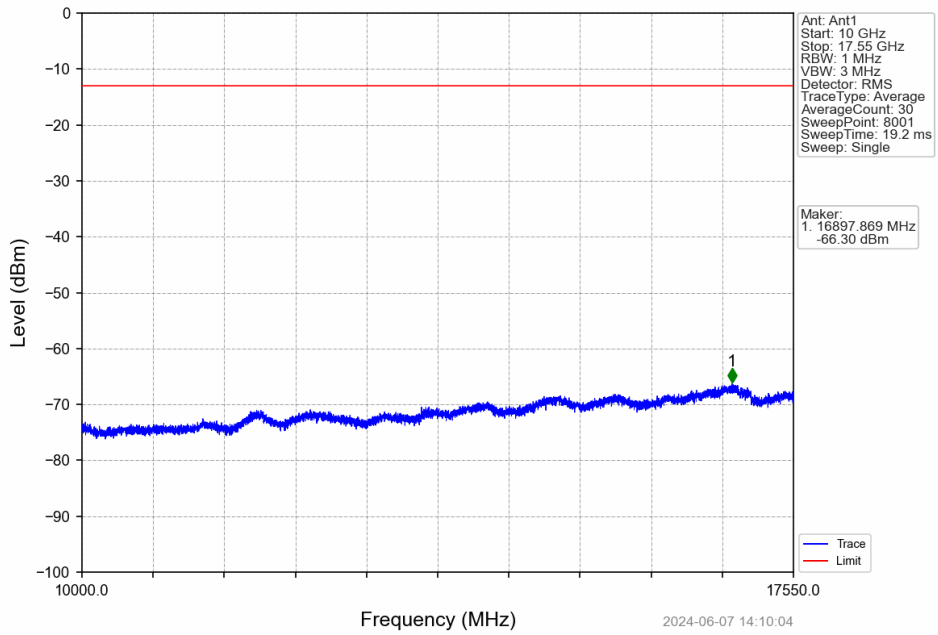
6.1.1 Test Result

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	

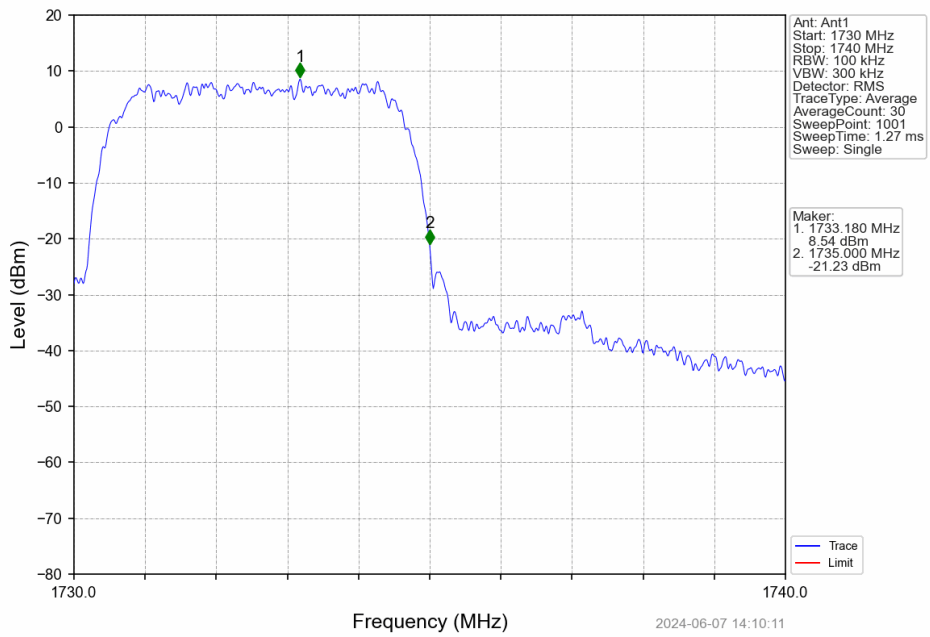
6.1.2 Test Graph



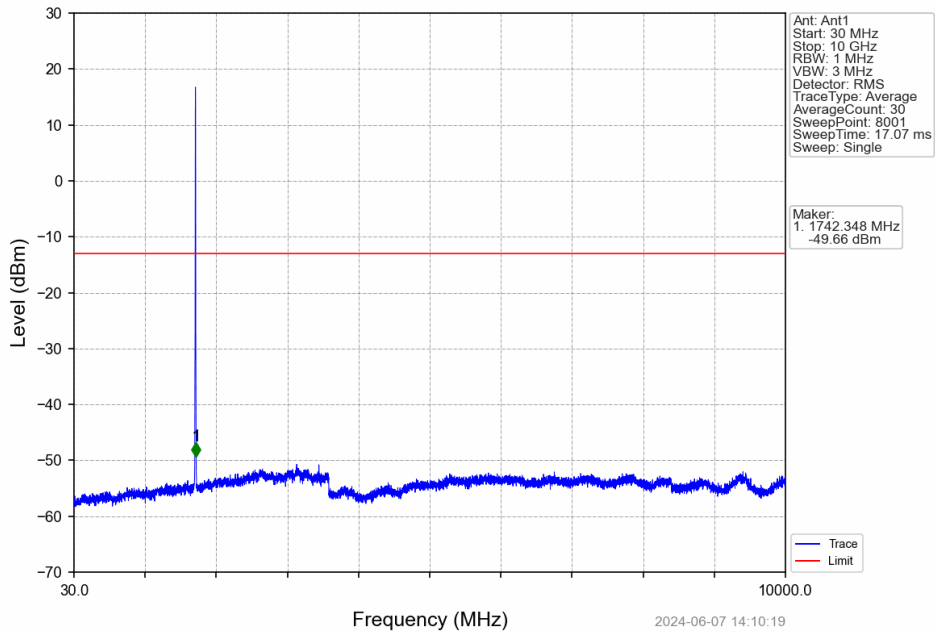
Band4_RMC_LCH_1712.4MHz_12.2kbps RMC_NTNV



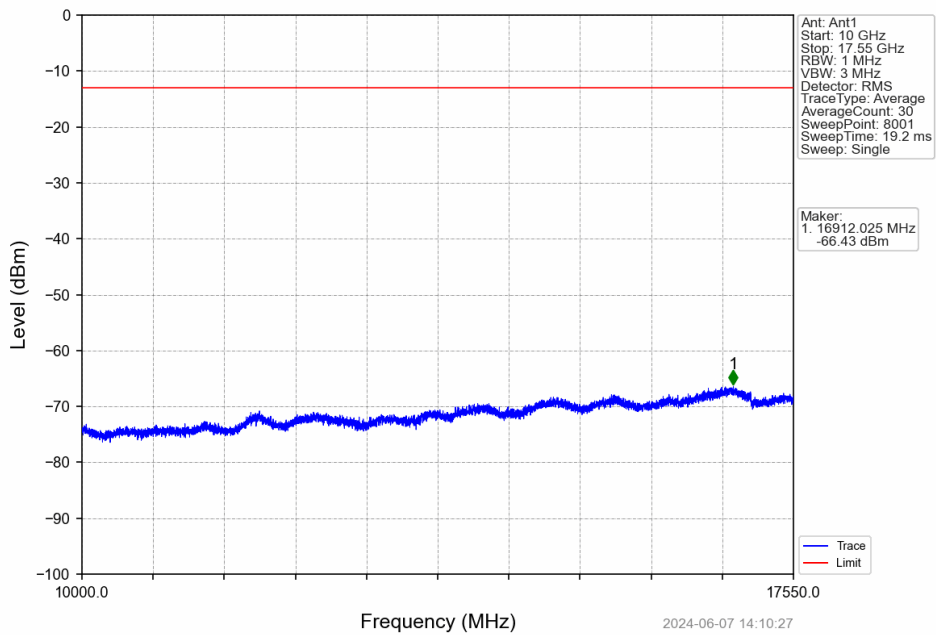
Band4_RMC_MCH_1732.6MHz_12.2kbps RMC_NTNV



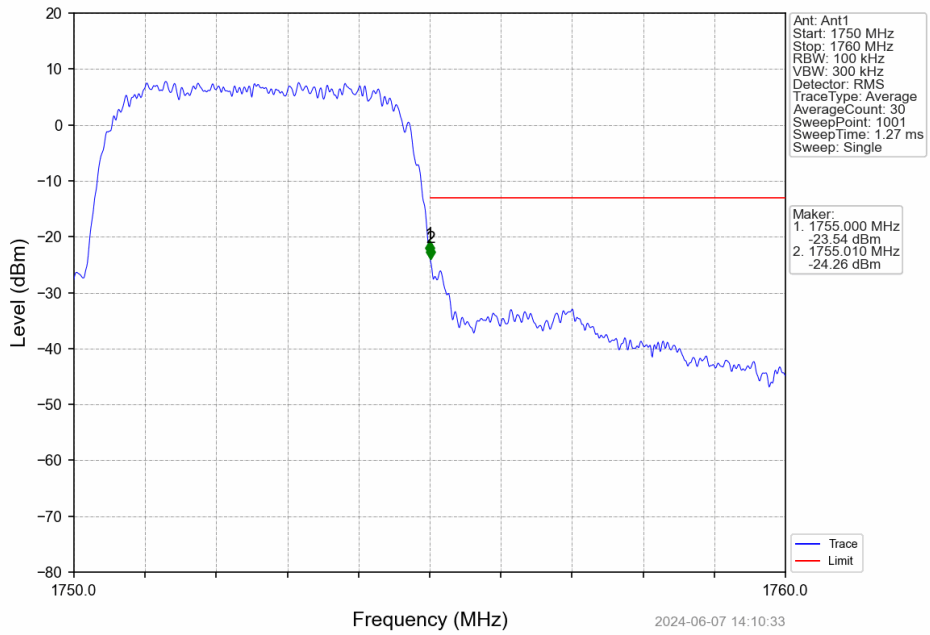
Band4_RMC_MCH_1732.6MHz_12.2kbps RMC_NTNV



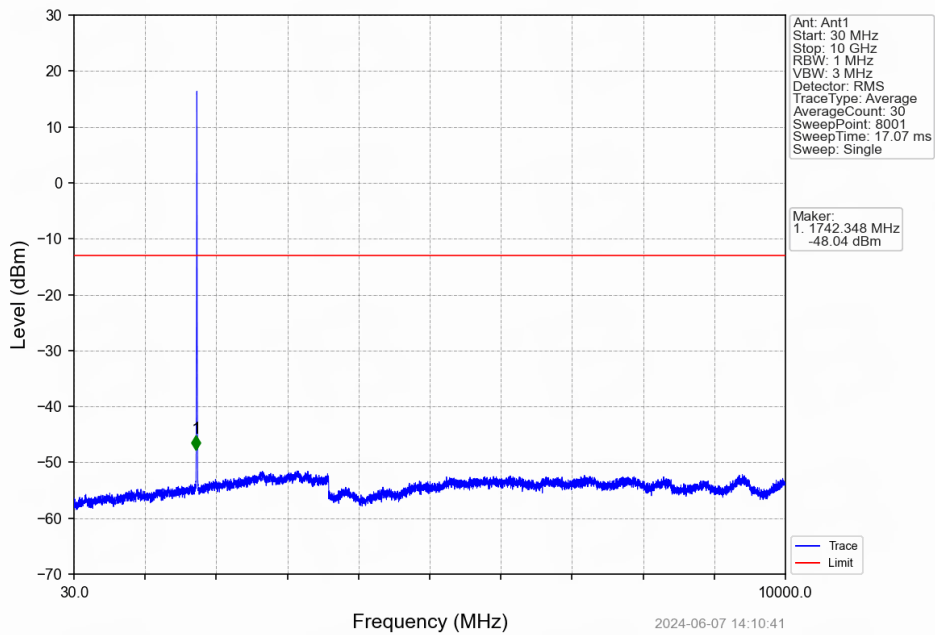
Band4_RMC_MCH_1732.6MHz_12.2kbps RMC_NTNV



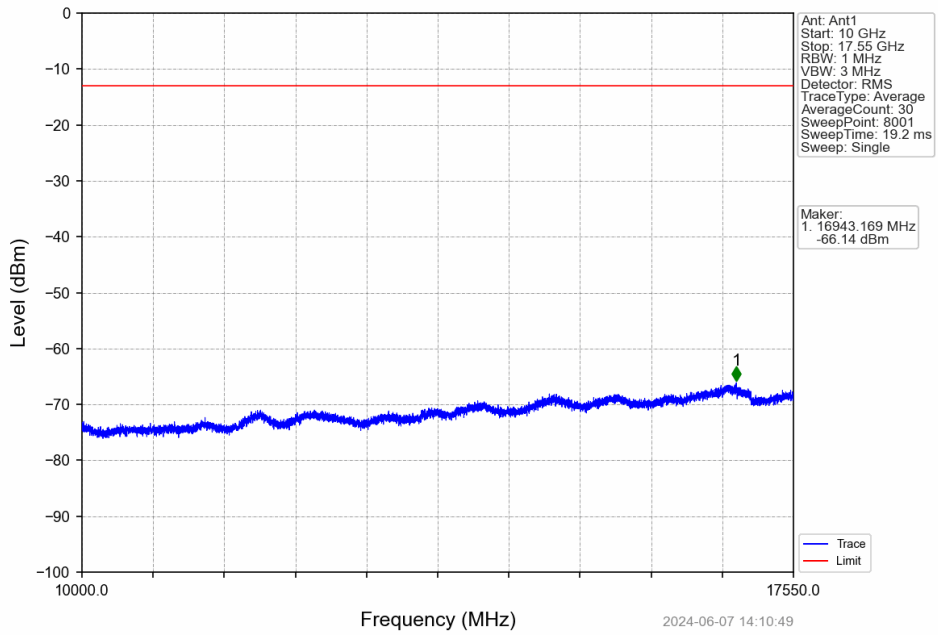
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



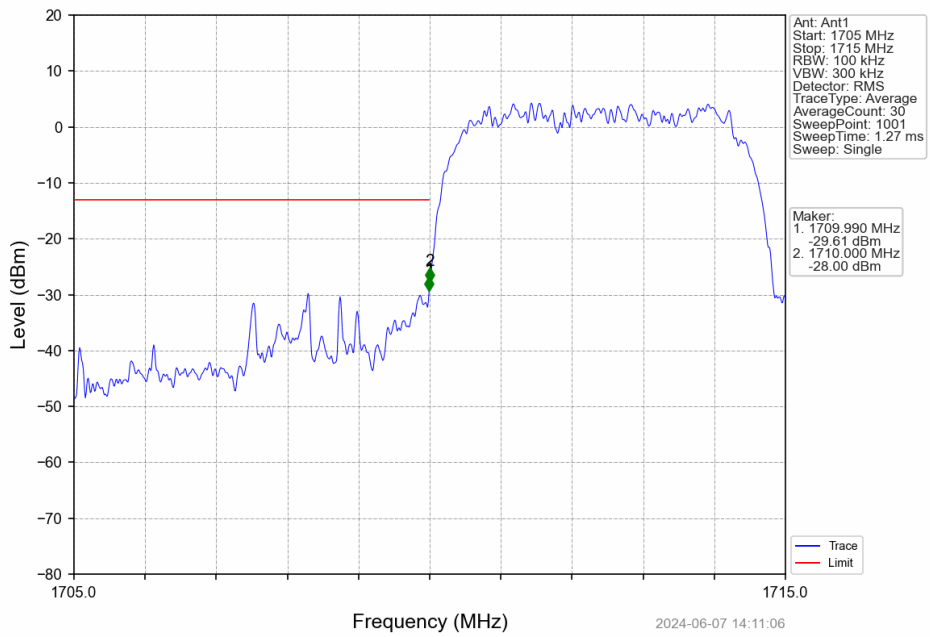
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



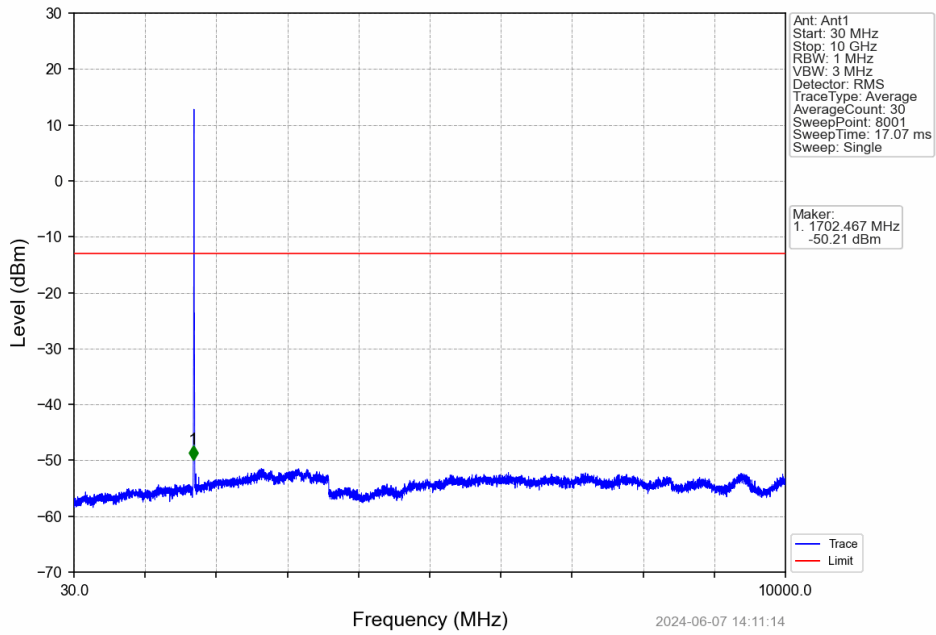
Band4_RMC_HCH_1752.6MHz_12.2kbps RMC_NTNV



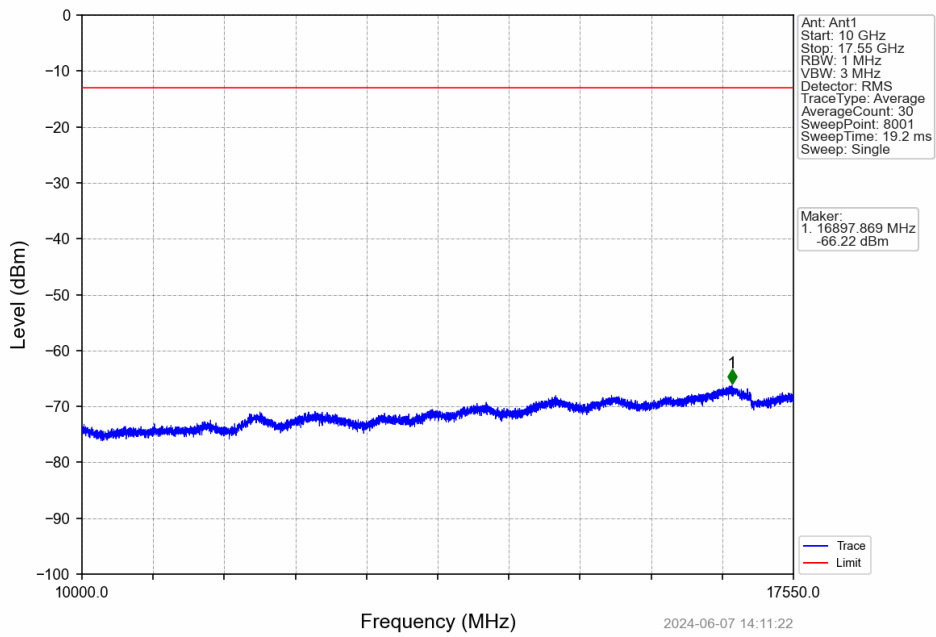
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



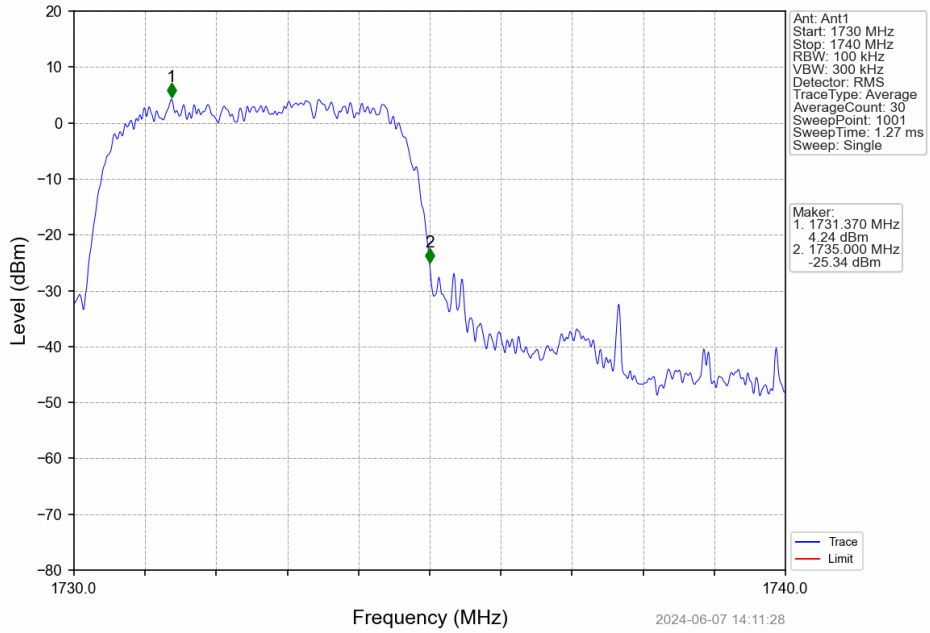
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



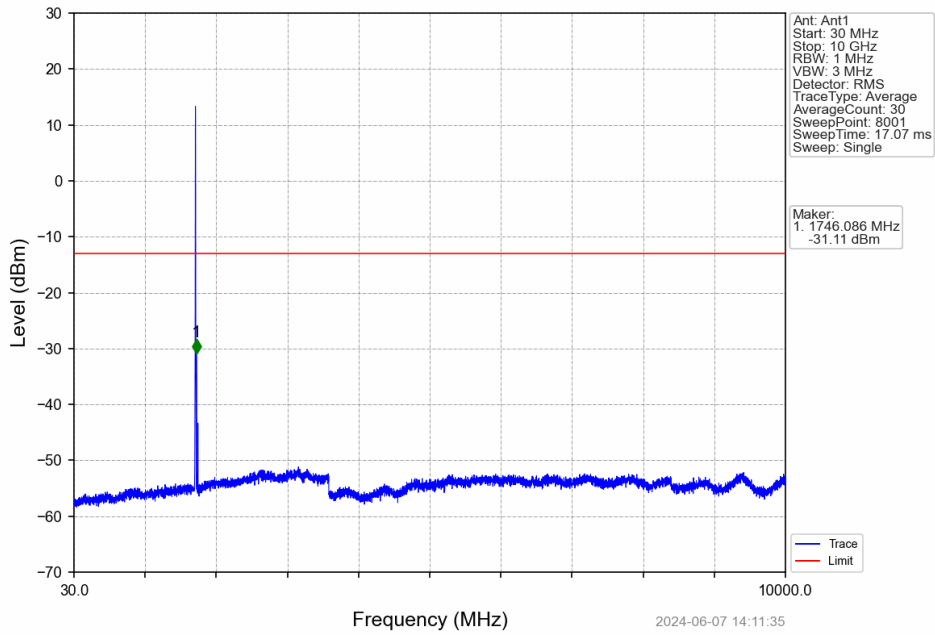
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



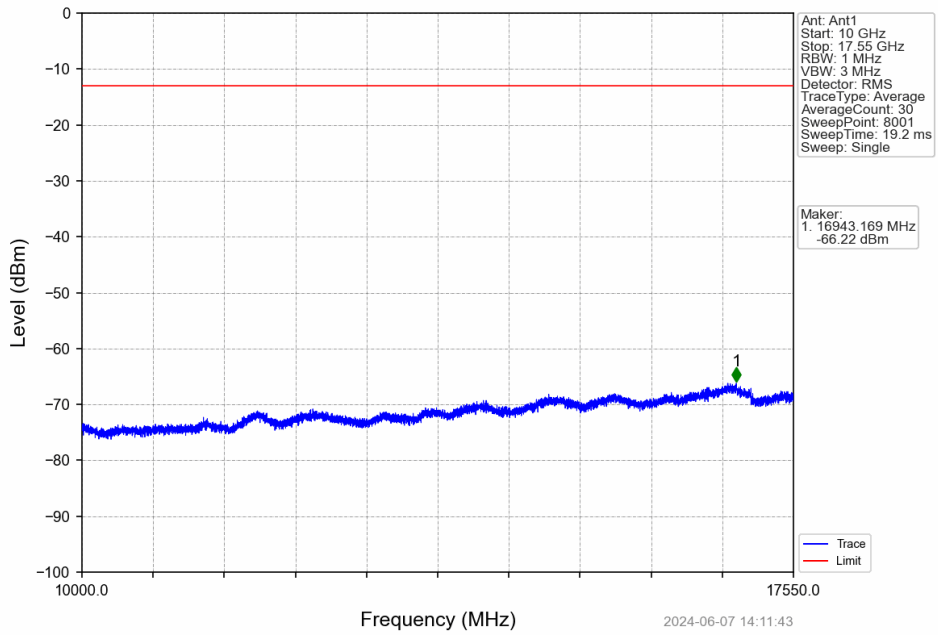
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



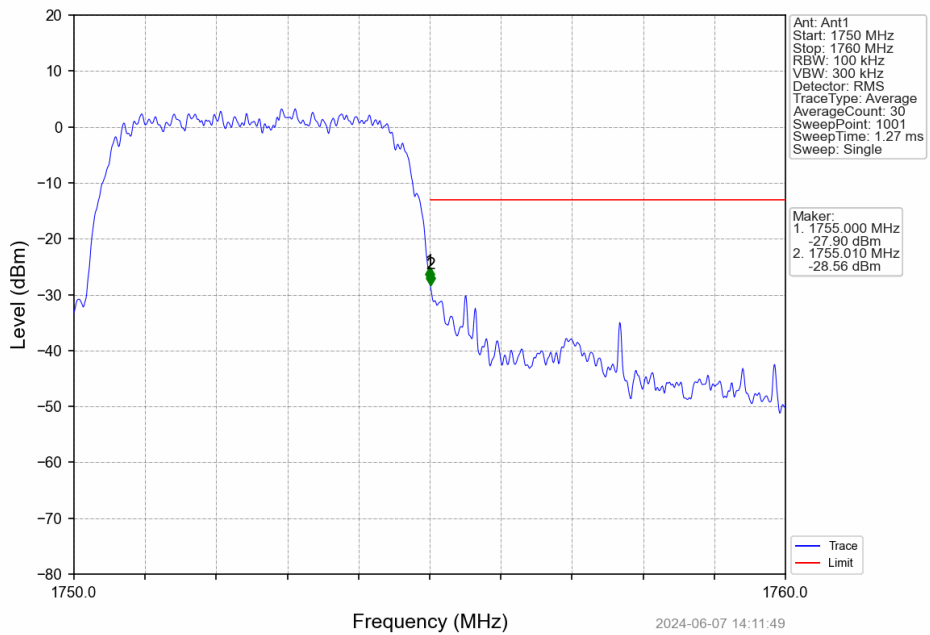
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



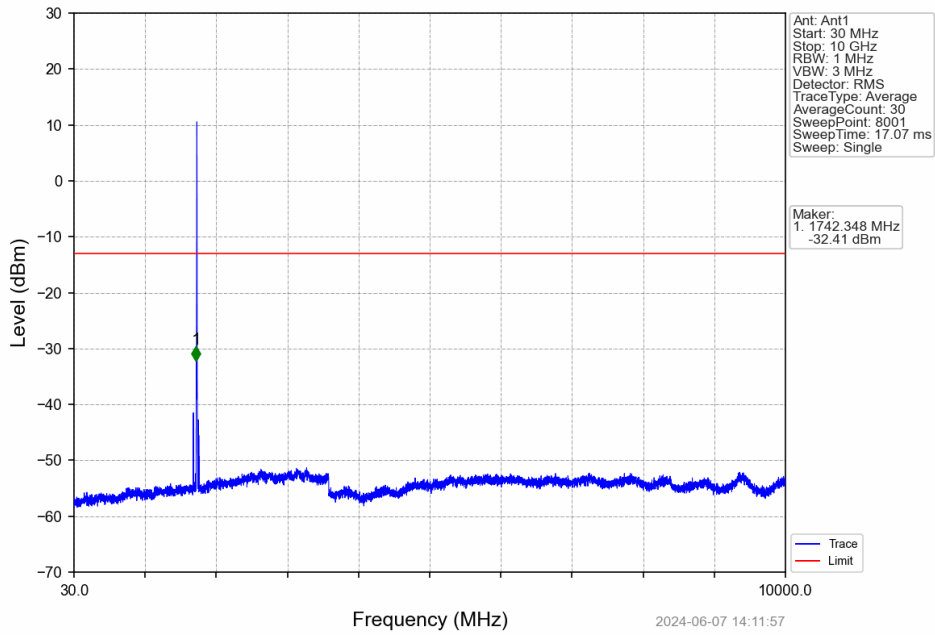
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



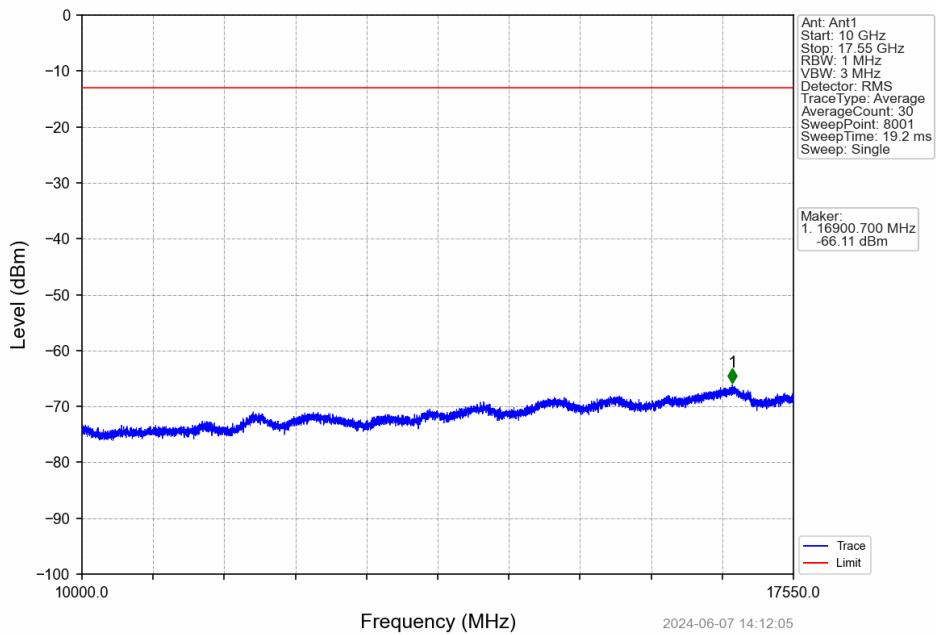
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



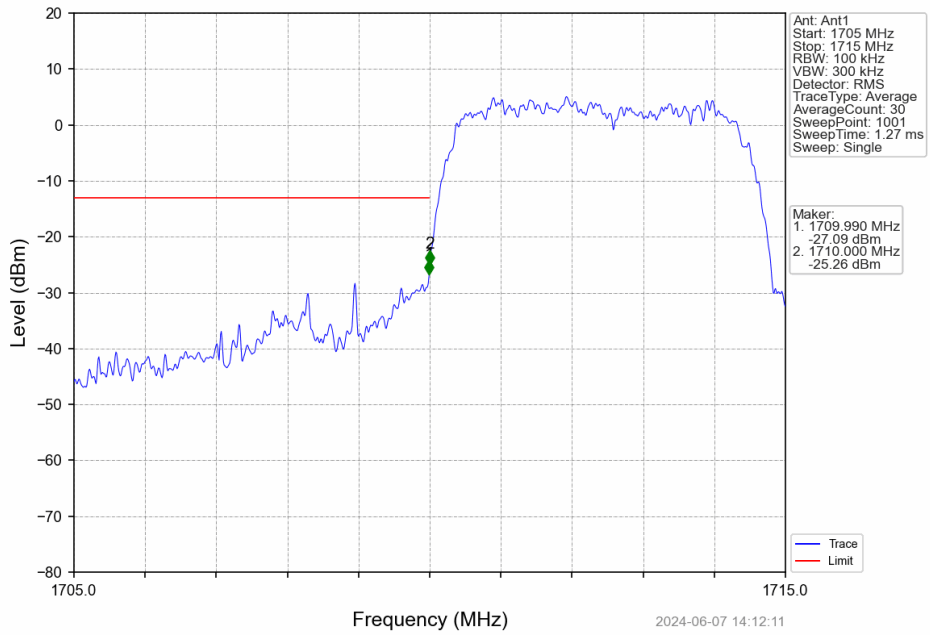
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



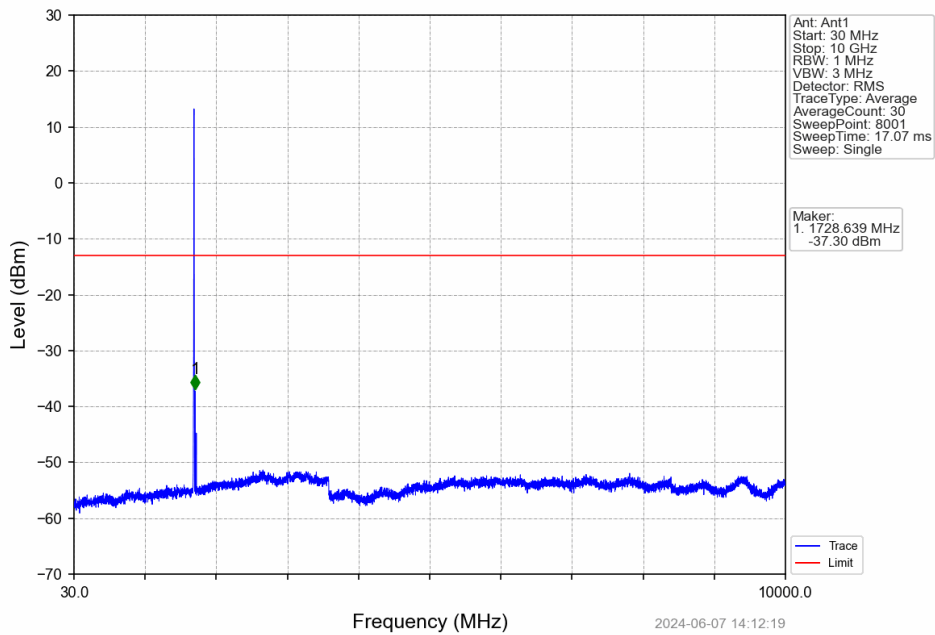
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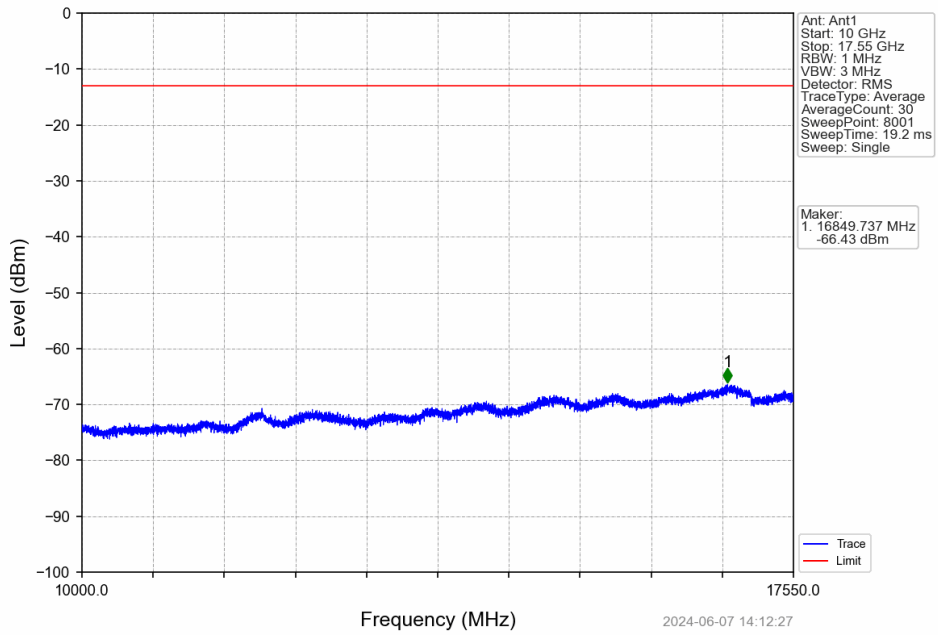
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



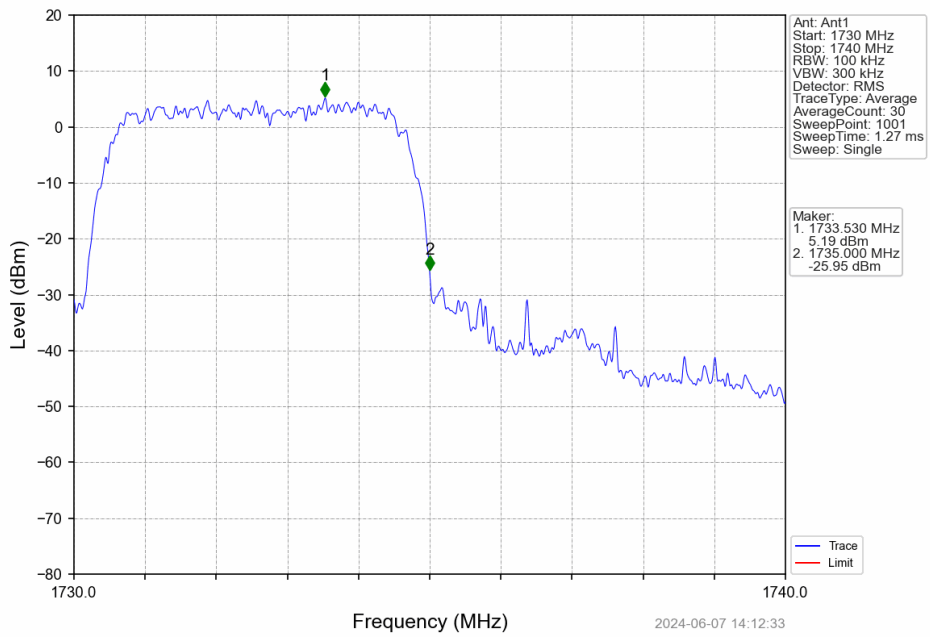
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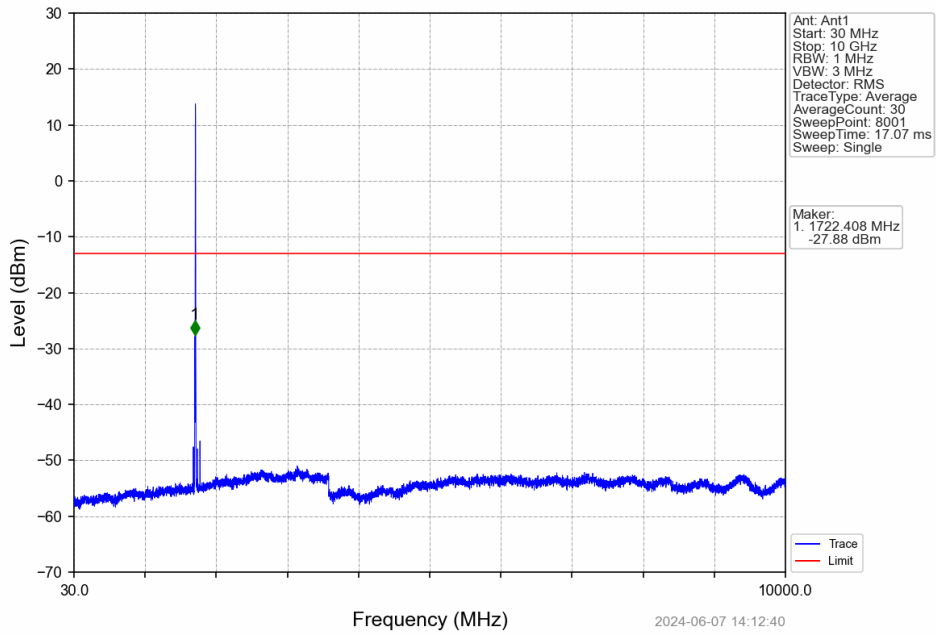
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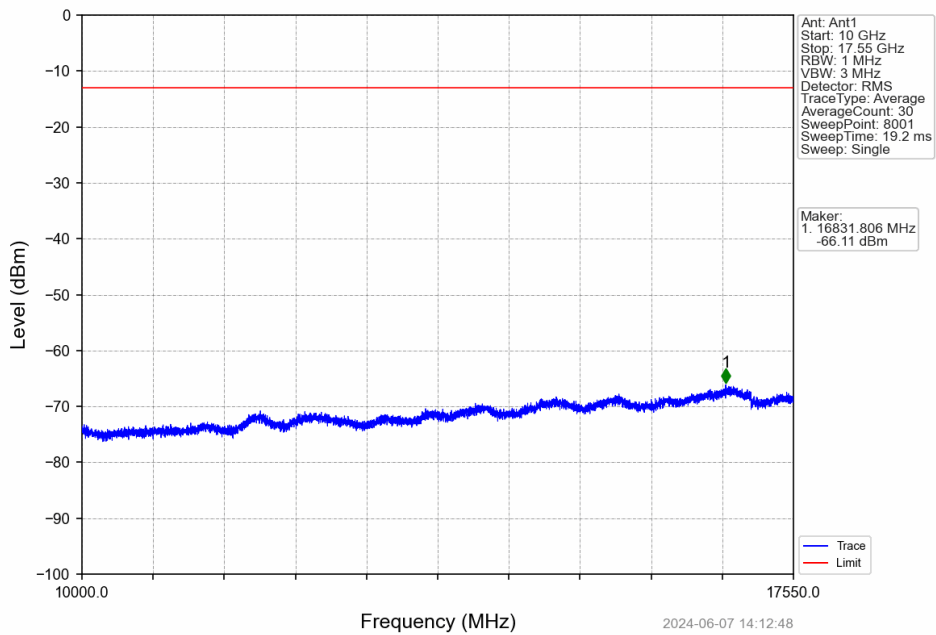
Band4_HSUPA_MCH_1732.6MHz_Subtest 1_NTNV



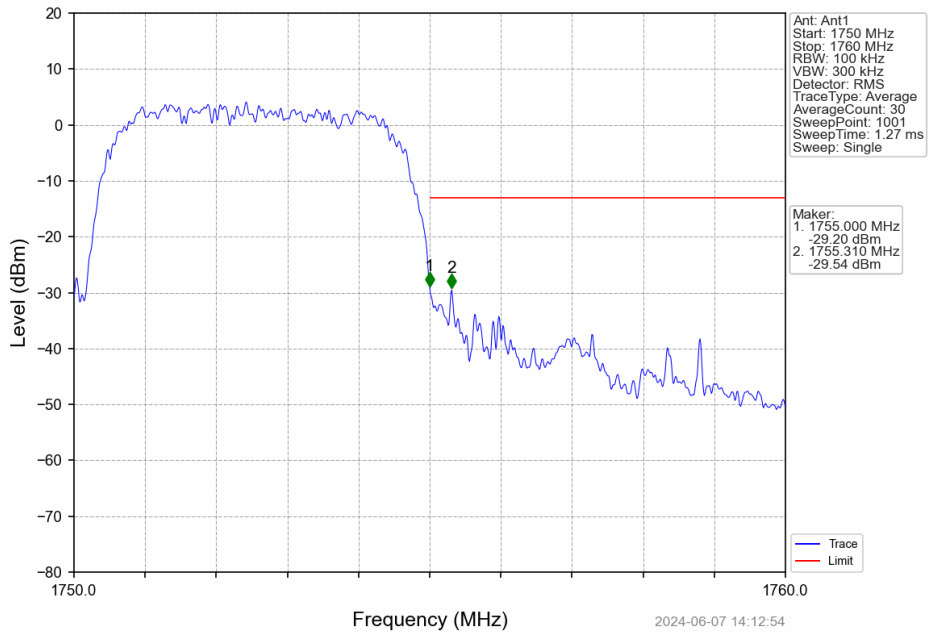
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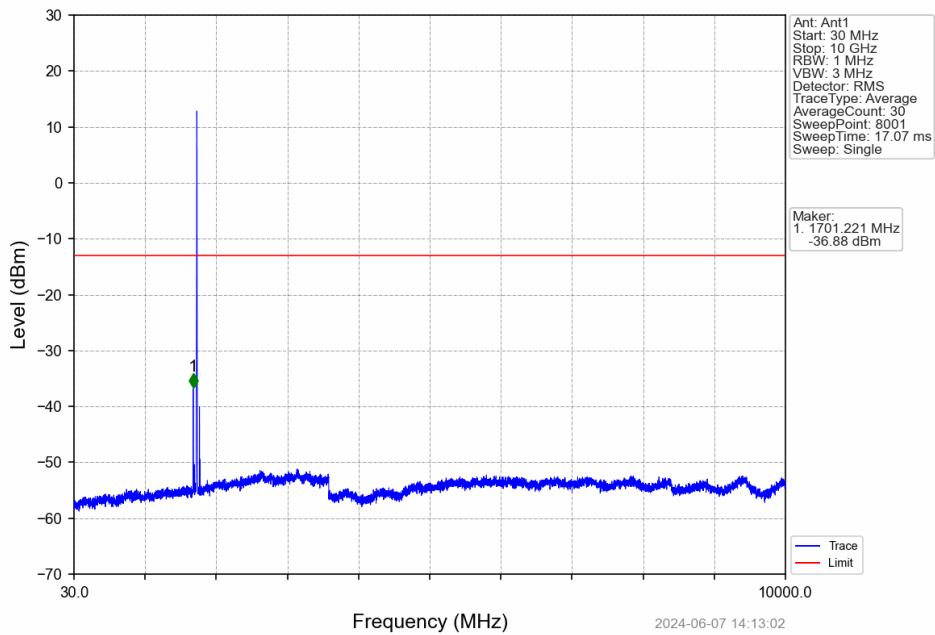
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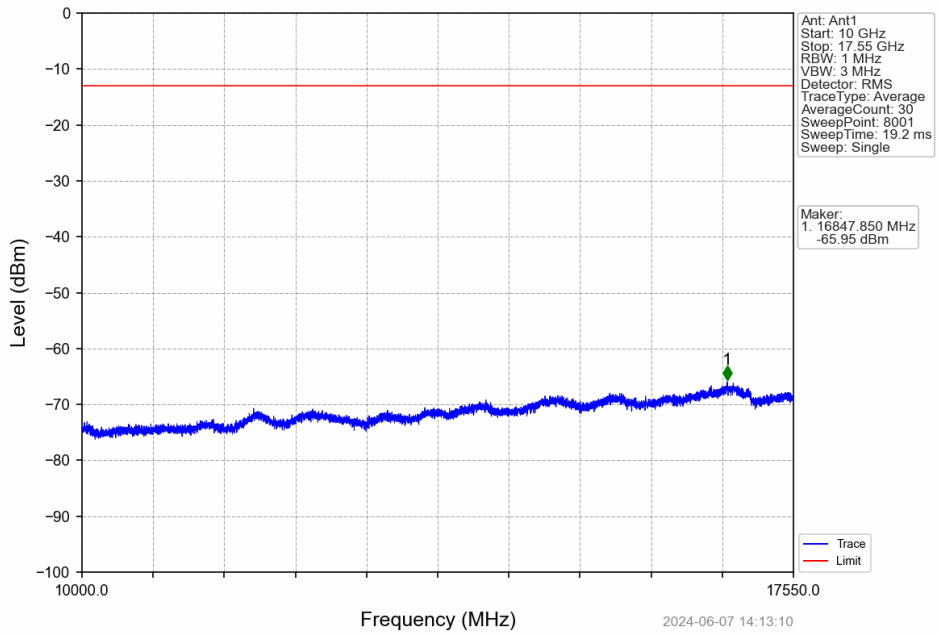
Band4_HSUPA_HCH_1752.6MHz_Subtest 1_NTNV



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	0.3365	0.0102	ppm	4M24F9W	27L	25.27

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	0.3133	0.0102	ppm	4M24F9W	27L	24.96