

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	22.87	3.50	26.37	<=30	Pass	
			1732.6	22.56	3.50	26.06	<=30	Pass	
			1752.6	22.73	3.50	26.23	<=30	Pass	
	HSDPA	Subtest 1	1712.4	21.02	3.50	24.52	<=30	Pass	
		Subtest 2	1712.4	21.03	3.50	24.53	<=30	Pass	
		Subtest 3	1712.4	21.03	3.50	24.53	<=30	Pass	
		Subtest 4	1712.4	21.03	3.50	24.53	<=30	Pass	
		Subtest 1	1732.6	20.79	3.50	24.29	<=30	Pass	
		Subtest 2	1732.6	20.79	3.50	24.29	<=30	Pass	
		Subtest 3	1732.6	20.79	3.50	24.29	<=30	Pass	
		Subtest 4	1732.6	20.79	3.50	24.29	<=30	Pass	
		Subtest 1	1752.6	21.12	3.50	24.62	<=30	Pass	
		Subtest 2	1752.6	20.93	3.50	24.43	<=30	Pass	
		Subtest 3	1752.6	20.95	3.50	24.45	<=30	Pass	
		Subtest 4	1752.6	20.93	3.50	24.43	<=30	Pass	
		HSUPA	Subtest 1	1712.4	18.59	3.50	22.09	<=30	Pass
			Subtest 2	1712.4	18.64	3.50	22.14	<=30	Pass
			Subtest 3	1712.4	18.64	3.50	22.14	<=30	Pass
			Subtest 4	1712.4	18.87	3.50	22.37	<=30	Pass
			Subtest 5	1712.4	18.86	3.50	22.36	<=30	Pass
			Subtest 1	1732.6	18.67	3.50	22.17	<=30	Pass
			Subtest 2	1732.6	18.68	3.50	22.18	<=30	Pass
			Subtest 3	1732.6	18.34	3.50	21.84	<=30	Pass
	Subtest 4		1732.6	18.62	3.50	22.12	<=30	Pass	
	Subtest 5		1732.6	18.40	3.50	21.90	<=30	Pass	
	Subtest 1		1752.6	18.52	3.50	22.02	<=30	Pass	
	Subtest 2		1752.6	18.76	3.50	22.26	<=30	Pass	
	Subtest 3		1752.6	18.81	3.50	22.31	<=30	Pass	
	Subtest 4		1752.6	18.53	3.50	22.03	<=30	Pass	
	Subtest 5		1752.6	18.80	3.50	22.30	<=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	-5.064	-0.0030	-2.5 to 2.5	Pass
			3.85	-3.748	-0.0022	-2.5 to 2.5	Pass
			4.43	-3.626	-0.0021	-2.5 to 2.5	Pass
		-30	3.85	-4.492	-0.0026	-2.5 to 2.5	Pass
		-20	3.85	-3.533	-0.0021	-2.5 to 2.5	Pass
		-10	3.85	-5.007	-0.0029	-2.5 to 2.5	Pass
		0	3.85	-4.642	-0.0027	-2.5 to 2.5	Pass
		10	3.85	-2.940	-0.0017	-2.5 to 2.5	Pass
		30	3.85	-4.456	-0.0026	-2.5 to 2.5	Pass
		40	3.85	-4.048	-0.0024	-2.5 to 2.5	Pass
		50	3.85	-5.071	-0.0030	-2.5 to 2.5	Pass
	1732.6	20	3.27	-5.622	-0.0032	-2.5 to 2.5	Pass
			3.85	-7.639	-0.0044	-2.5 to 2.5	Pass
			4.43	-7.768	-0.0045	-2.5 to 2.5	Pass
		-30	3.85	-6.244	-0.0036	-2.5 to 2.5	Pass
		-20	3.85	-7.260	-0.0042	-2.5 to 2.5	Pass
		-10	3.85	-6.201	-0.0036	-2.5 to 2.5	Pass
		0	3.85	-6.859	-0.0040	-2.5 to 2.5	Pass
		10	3.85	-7.582	-0.0044	-2.5 to 2.5	Pass
		30	3.85	-7.131	-0.0041	-2.5 to 2.5	Pass
		40	3.85	-7.374	-0.0043	-2.5 to 2.5	Pass
		50	3.85	-6.509	-0.0038	-2.5 to 2.5	Pass
	1752.6	20	3.27	-6.037	-0.0034	-2.5 to 2.5	Pass
			3.85	-6.967	-0.0040	-2.5 to 2.5	Pass
			4.43	-6.316	-0.0036	-2.5 to 2.5	Pass
		-30	3.85	-6.638	-0.0038	-2.5 to 2.5	Pass
		-20	3.85	-7.281	-0.0042	-2.5 to 2.5	Pass
		-10	3.85	-6.459	-0.0037	-2.5 to 2.5	Pass
		0	3.85	-7.110	-0.0041	-2.5 to 2.5	Pass
		10	3.85	-6.909	-0.0039	-2.5 to 2.5	Pass
		30	3.85	-7.296	-0.0042	-2.5 to 2.5	Pass
		40	3.85	-7.296	-0.0042	-2.5 to 2.5	Pass
		50	3.85	-7.153	-0.0041	-2.5 to 2.5	Pass
HSDPA	1712.4	20	3.27	0.093	0.0001	-2.5 to 2.5	Pass
			3.85	-0.443	-0.0003	-2.5 to 2.5	Pass
			4.43	0.372	0.0002	-2.5 to 2.5	Pass
		-30	3.85	0.544	0.0003	-2.5 to 2.5	Pass
		-20	3.85	0.257	0.0002	-2.5 to 2.5	Pass
		-10	3.85	0.186	0.0001	-2.5 to 2.5	Pass
		0	3.85	0.207	0.0001	-2.5 to 2.5	Pass
		10	3.85	0.601	0.0004	-2.5 to 2.5	Pass
		30	3.85	0.765	0.0004	-2.5 to 2.5	Pass
		40	3.85	-0.072	0.0000	-2.5 to 2.5	Pass
		50	3.85	0.000	0.0000	-2.5 to 2.5	Pass
	1732.6	20	3.27	-2.668	-0.0015	-2.5 to 2.5	Pass
			3.85	-3.154	-0.0018	-2.5 to 2.5	Pass
			4.43	-2.232	-0.0013	-2.5 to 2.5	Pass
		-30	3.85	-2.396	-0.0014	-2.5 to 2.5	Pass
		-20	3.85	-2.668	-0.0015	-2.5 to 2.5	Pass
		-10	3.85	-2.375	-0.0014	-2.5 to 2.5	Pass

		0	3.85	-2.074	-0.0012	-2.5 to 2.5	Pass
		10	3.85	-1.395	-0.0008	-2.5 to 2.5	Pass
		30	3.85	-2.389	-0.0014	-2.5 to 2.5	Pass
		40	3.85	-3.498	-0.0020	-2.5 to 2.5	Pass
		50	3.85	-0.973	-0.0006	-2.5 to 2.5	Pass
	1752.6	20	3.27	-3.204	-0.0018	-2.5 to 2.5	Pass
			3.85	-3.004	-0.0017	-2.5 to 2.5	Pass
			4.43	-2.875	-0.0016	-2.5 to 2.5	Pass
		-30	3.85	-2.289	-0.0013	-2.5 to 2.5	Pass
		-20	3.85	-1.996	-0.0011	-2.5 to 2.5	Pass
		-10	3.85	-2.210	-0.0013	-2.5 to 2.5	Pass
		0	3.85	-1.931	-0.0011	-2.5 to 2.5	Pass
		10	3.85	-2.475	-0.0014	-2.5 to 2.5	Pass
		30	3.85	-1.953	-0.0011	-2.5 to 2.5	Pass
		40	3.85	-2.632	-0.0015	-2.5 to 2.5	Pass
		50	3.85	-2.861	-0.0016	-2.5 to 2.5	Pass
HSUPA	1712.4	20	3.27	-6.387	-0.0037	-2.5 to 2.5	Pass
			3.85	-6.273	-0.0037	-2.5 to 2.5	Pass
			4.43	-6.058	-0.0035	-2.5 to 2.5	Pass
		-30	3.85	-6.824	-0.0040	-2.5 to 2.5	Pass
		-20	3.85	-7.288	-0.0043	-2.5 to 2.5	Pass
		-10	3.85	-6.473	-0.0038	-2.5 to 2.5	Pass
		0	3.85	-8.025	-0.0047	-2.5 to 2.5	Pass
		10	3.85	-7.110	-0.0042	-2.5 to 2.5	Pass
		30	3.85	-7.010	-0.0041	-2.5 to 2.5	Pass
		40	3.85	-6.888	-0.0040	-2.5 to 2.5	Pass
	1732.6	20	3.27	-8.419	-0.0049	-2.5 to 2.5	Pass
			3.85	-8.962	-0.0052	-2.5 to 2.5	Pass
			4.43	-8.583	-0.0050	-2.5 to 2.5	Pass
		-30	3.85	-8.855	-0.0051	-2.5 to 2.5	Pass
		-20	3.85	-8.962	-0.0052	-2.5 to 2.5	Pass
		-10	3.85	-7.761	-0.0045	-2.5 to 2.5	Pass
		0	3.85	-8.168	-0.0047	-2.5 to 2.5	Pass
		10	3.85	-8.562	-0.0049	-2.5 to 2.5	Pass
		30	3.85	-9.091	-0.0052	-2.5 to 2.5	Pass
		40	3.85	-8.190	-0.0047	-2.5 to 2.5	Pass
	1752.6	20	3.27	-8.590	-0.0050	-2.5 to 2.5	Pass
			3.27	-8.461	-0.0048	-2.5 to 2.5	Pass
			3.85	-8.547	-0.0049	-2.5 to 2.5	Pass
			4.43	-9.835	-0.0056	-2.5 to 2.5	Pass
		-30	3.85	-8.447	-0.0048	-2.5 to 2.5	Pass
		-20	3.85	-8.383	-0.0048	-2.5 to 2.5	Pass
		-10	3.85	-7.839	-0.0045	-2.5 to 2.5	Pass
		0	3.85	-8.082	-0.0046	-2.5 to 2.5	Pass
		10	3.85	-10.021	-0.0057	-2.5 to 2.5	Pass
		30	3.85	-9.027	-0.0052	-2.5 to 2.5	Pass
		40	3.85	-8.383	-0.0048	-2.5 to 2.5	Pass
		50	3.85	-8.533	-0.0049	-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 RMC MCH 1732.6MHz 12.2kbps RMC NTN

WCDMA UE TX Measurement - V3.7.22 - Base V 3.7.172

Multi Evaluation

TPC Measurement

PRACH

DPCCH Open Loop Power

Out-of-Sync Handling

UL Frequency: 1732.6000000 MHz Ref. Level: 16.80 dBm Connector: RF1COM Meas. Period: Full Slot

TX Measurement

1st Measured Slot No 0

Statistic Count 20 / 20

Statistics @ Pre. Slot 0	Current	Average	Maximum	StdDev.
Power [dBm]	22.48	22.48	22.49	0.00
Power Steps [dB]	NCAP	NCAP	NCAP	NCAP
EVM RMS [%]	NCAP	NCAP	NCAP	NCAP
EVM Peak [%]	NCAP	NCAP	NCAP	NCAP
Magnitude Error RMS [%]	NCAP	NCAP	NCAP	NCAP
Magnitude Error Peak [%]	NCAP	NCAP	NCAP	NCAP
Phase Error RMS [°]	NCAP	NCAP	NCAP	NCAP
Phase Error Peak [°]	NCAP	NCAP	NCAP	NCAP
IQ Origin Offset [dB]	NCAP	NCAP	NCAP	NCAP
IQ Imbalance [dB]	NCAP	NCAP	NCAP	NCAP
CF Error [Hz]	NCAP	NCAP	NCAP	NCAP
Trans. Time Error [Chip]	NCAP	NCAP	NCAP	NCAP
Phase Disc. [°]	NCAP	NCAP	NCAP	NCAP
OBW [MHz]	NCAP	NCAP	NCAP	NCAP

HSDPA

CPC

Circuit Switched:

HSUPA

CM

ON

Packet Switched:

ON

Power: ---

Sync: ---

Go To Local

Show Remote Screen

WCDMA

Multi Evaluation

RDY

RF Settings

Trigger

Display

Signaling Parameter

WCDMA 1 Signaling

ON

Band4_HSDPA_MCH 1732.6MHz Subtest 1 NTN

WCDMA UE TX Measurement - V3.7.22 - Base V 3.7.172

Multi Evaluation

TPC Measurement

PRACH

DPCCH Open Loop Power

Out-of-Sync Handling

UL Frequency: 1732.6000000 MHz Ref. Level: 34.00 dBm Connector: RF1COM Meas. Period: Full Slot

TX Measurement

1st Measured Slot No 0

Statistic Count 20 / 20

Statistics @ Pre. Slot 0	Current	Average	Maximum	StdDev.
Power [dBm]	20.70	20.70	20.71	0.00
Power Steps [dB]	NCAP	NCAP	NCAP	NCAP
EVM RMS [%]	NCAP	NCAP	NCAP	NCAP
EVM Peak [%]	NCAP	NCAP	NCAP	NCAP
Magnitude Error RMS [%]	NCAP	NCAP	NCAP	NCAP
Magnitude Error Peak [%]	NCAP	NCAP	NCAP	NCAP
Phase Error RMS [°]	NCAP	NCAP	NCAP	NCAP
Phase Error Peak [°]	NCAP	NCAP	NCAP	NCAP
IQ Origin Offset [dB]	NCAP	NCAP	NCAP	NCAP
IQ Imbalance [dB]	NCAP	NCAP	NCAP	NCAP
CF Error [Hz]	NCAP	NCAP	NCAP	NCAP
Trans. Time Error [Chip]	NCAP	NCAP	NCAP	NCAP
Phase Disc. [°]	NCAP	NCAP	NCAP	NCAP
OBW [MHz]	NCAP	NCAP	NCAP	NCAP

HSDPA+

CPC

Circuit Switched:

HSUPA

CM

Registered

Packet Switched:

Connection Established

Power: 20.7

Sync: 20.7

Go To Local

Show Remote Screen

WCDMA

Multi Evaluation

RDY

RF Settings

Trigger

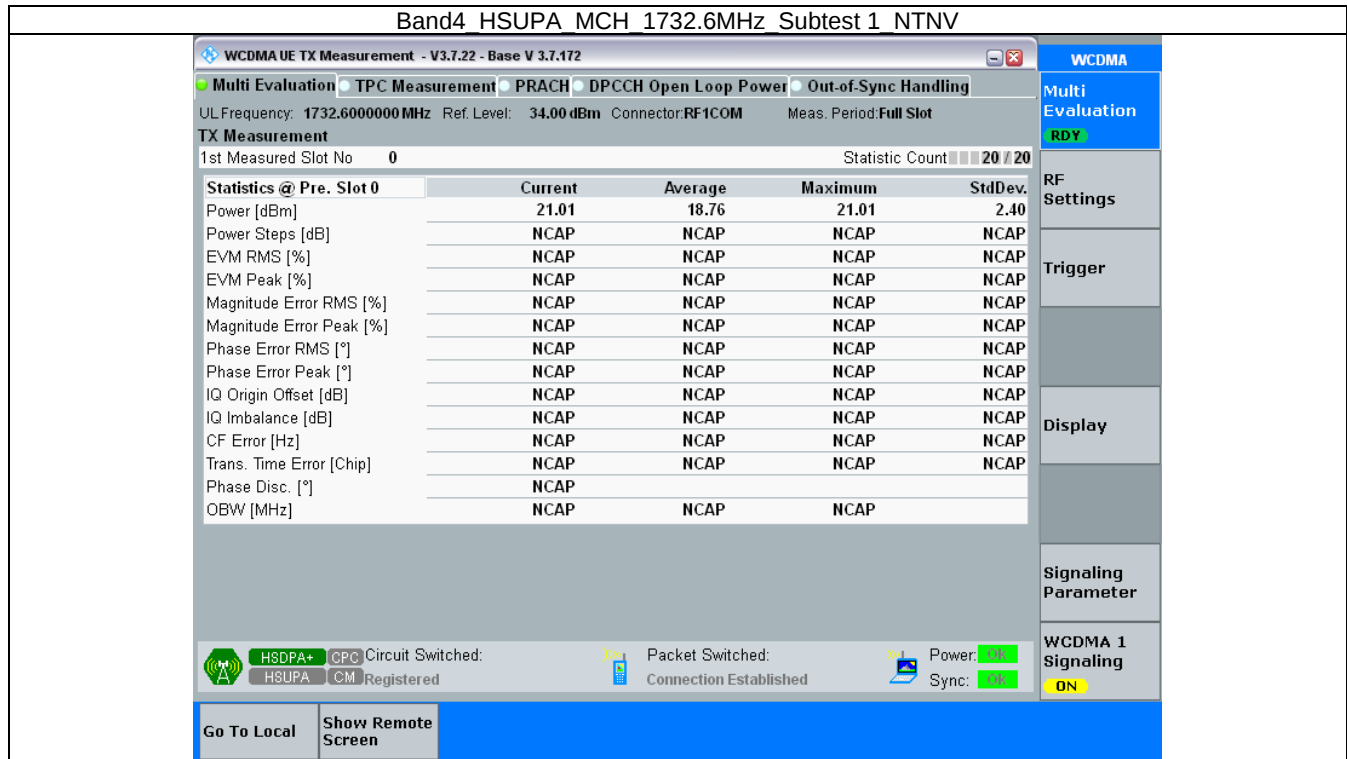
Display

Signaling Parameter

WCDMA 1 Signaling

ON

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4. 99% & 26dB Bandwidth

4.1 Test Result

4.1.1 Band4_OBW

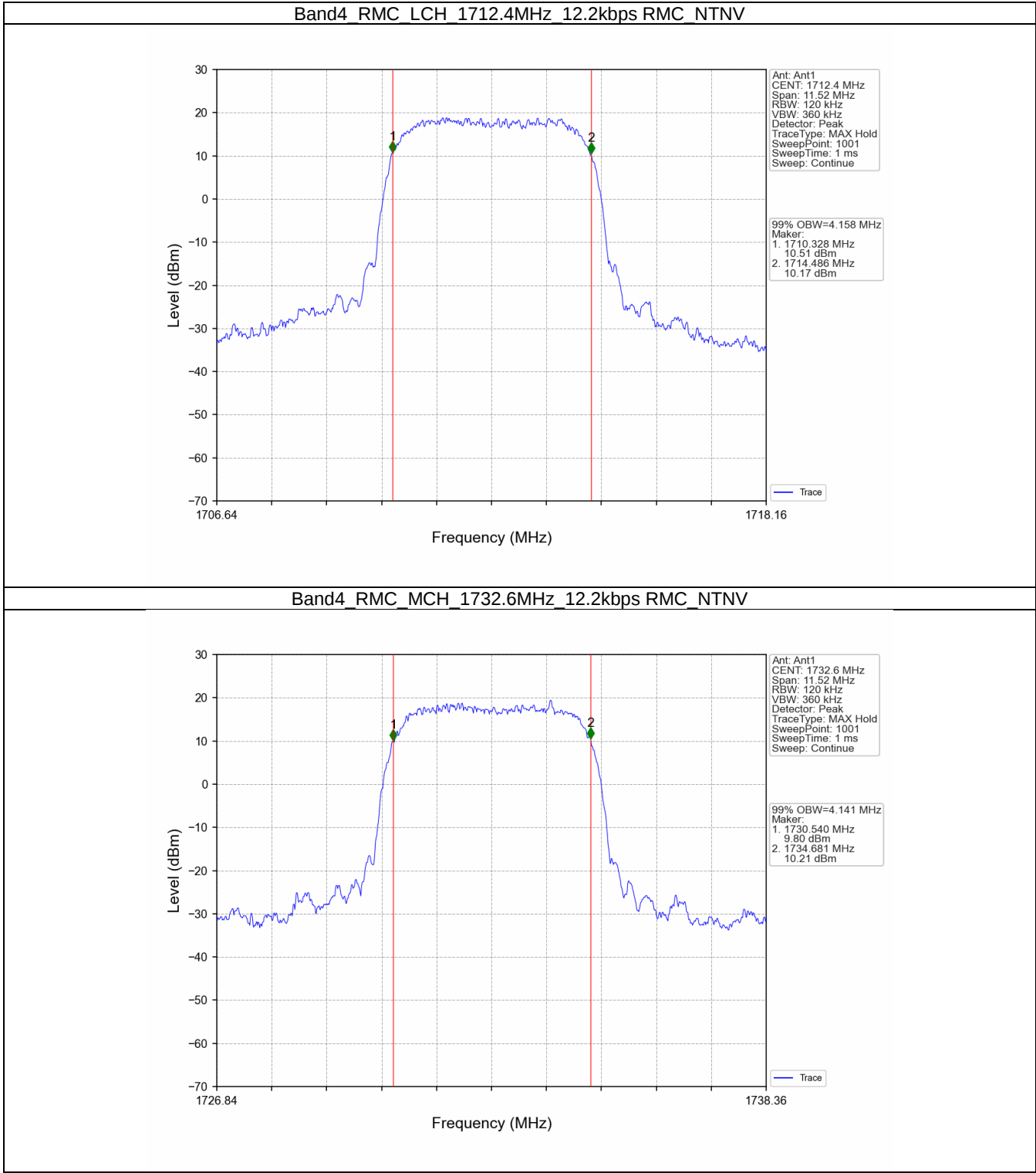
Band: 4						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	4.158	/	Pass
			1732.6	4.141	/	Pass
			1752.6	4.136	/	Pass
	HSDPA	Subtest 1	1712.4	4.147	/	Pass
			1732.6	4.194	/	Pass
			1752.6	4.197	/	Pass
	HSUPA	Subtest 1	1712.4	4.126	/	Pass
			1732.6	4.172	/	Pass
			1752.6	4.187	/	Pass

4.1.2 Band4_XDB

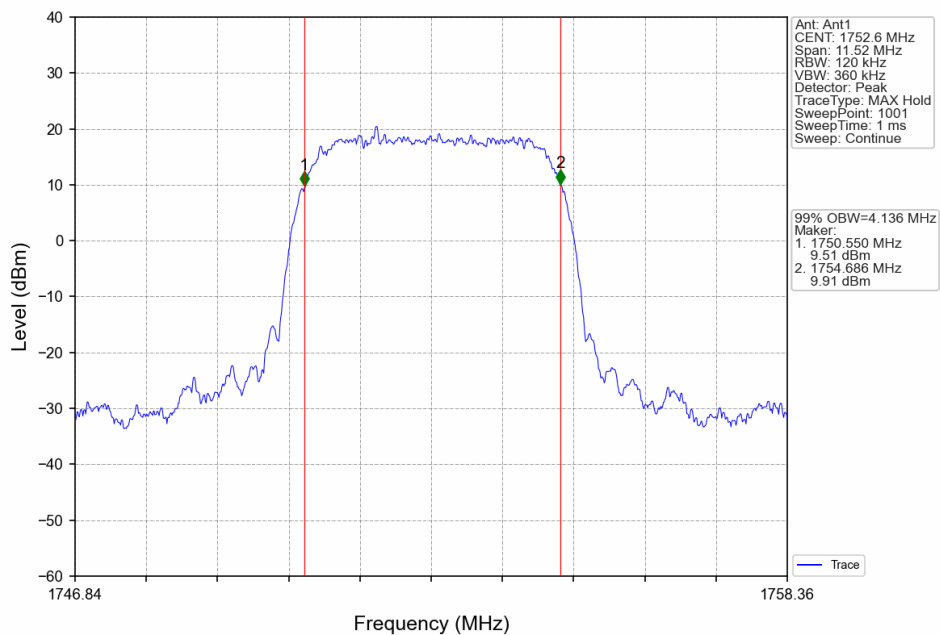
Band: 4						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	4.753	/	Pass
			1732.6	4.742	/	Pass
			1752.6	4.729	/	Pass
	HSDPA	Subtest 1	1712.4	4.750	/	Pass
			1732.6	6.281	/	Pass
			1752.6	6.135	/	Pass
	HSUPA	Subtest 1	1712.4	4.739	/	Pass
			1732.6	5.894	/	Pass
			1752.6	5.978	/	Pass

4.2 Test Graph

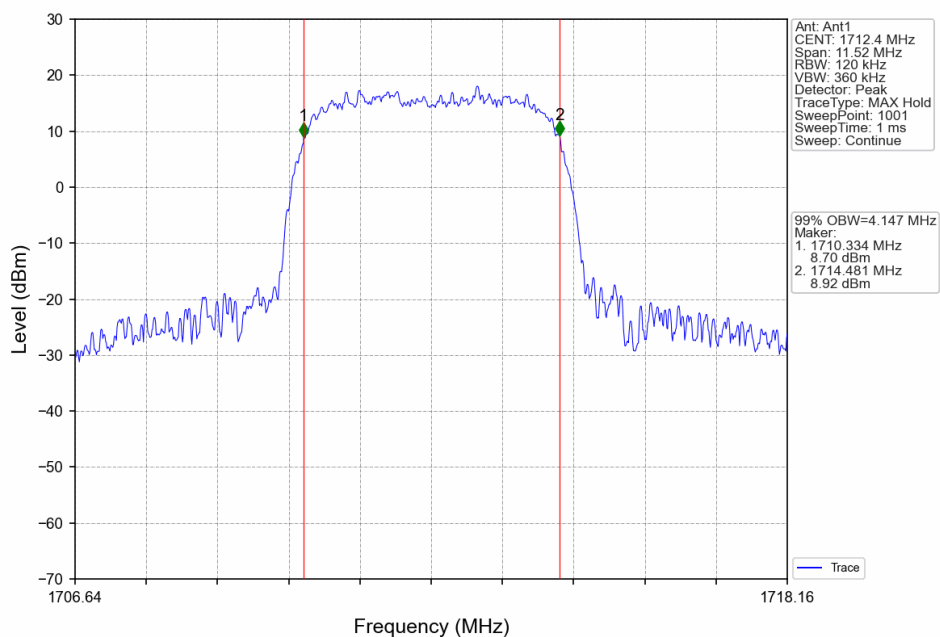
4.2.1 Band4_OBW



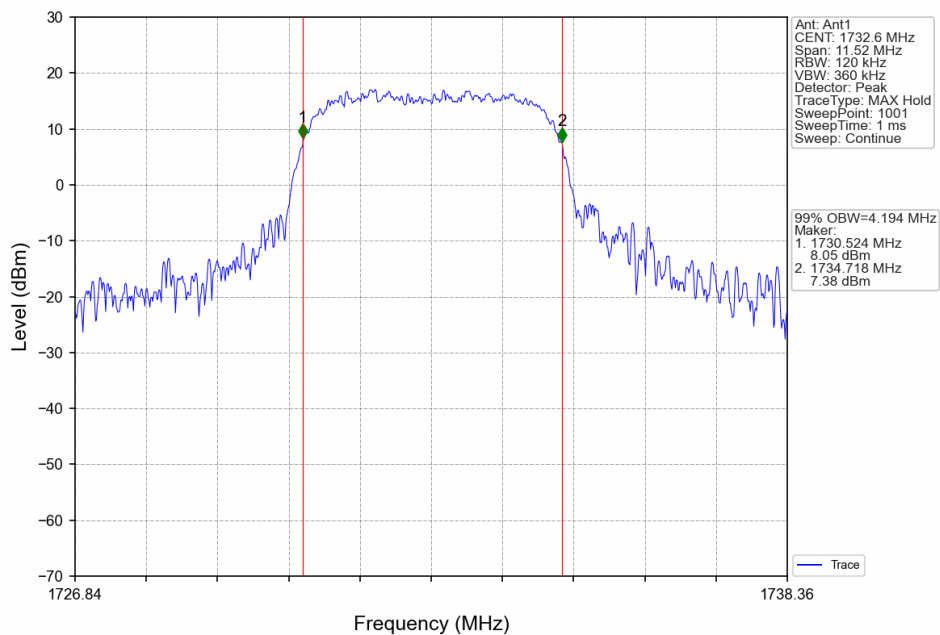
Band4 RMC HCH 1752.6MHz 12.2kbps RMC NTN



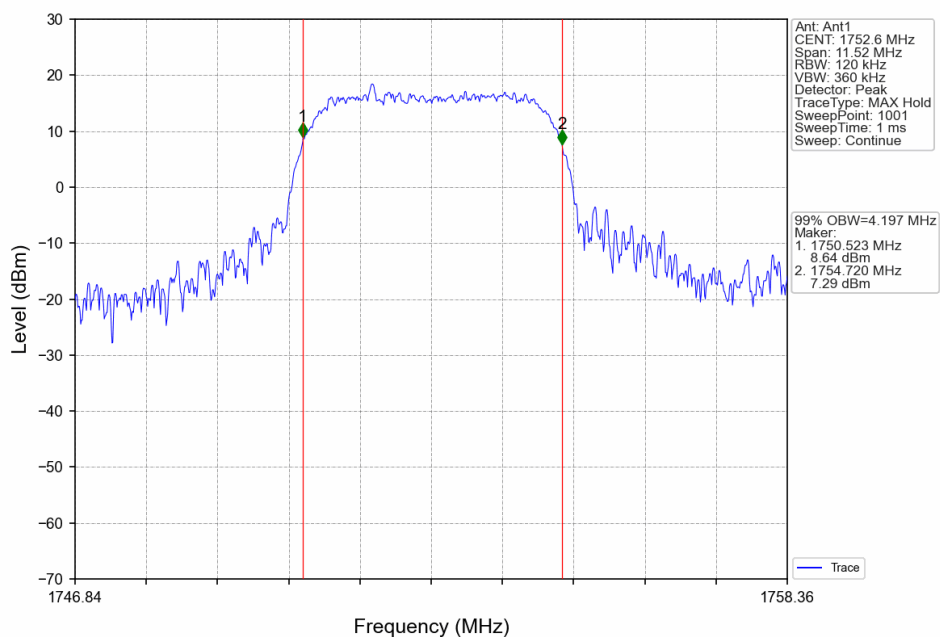
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



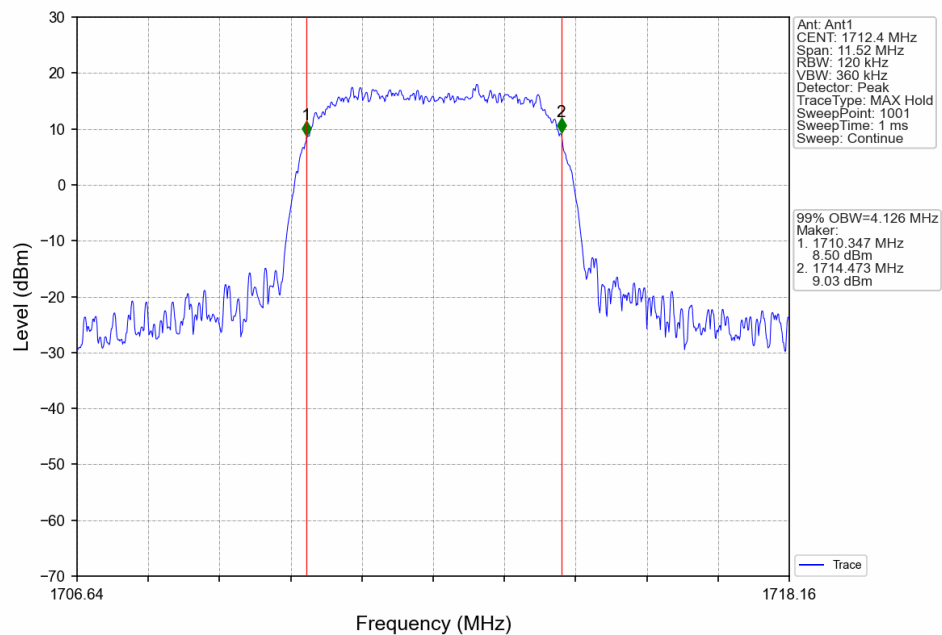
Band4 HSDPA MCH 1732.6MHz Subtest 1 NTNV



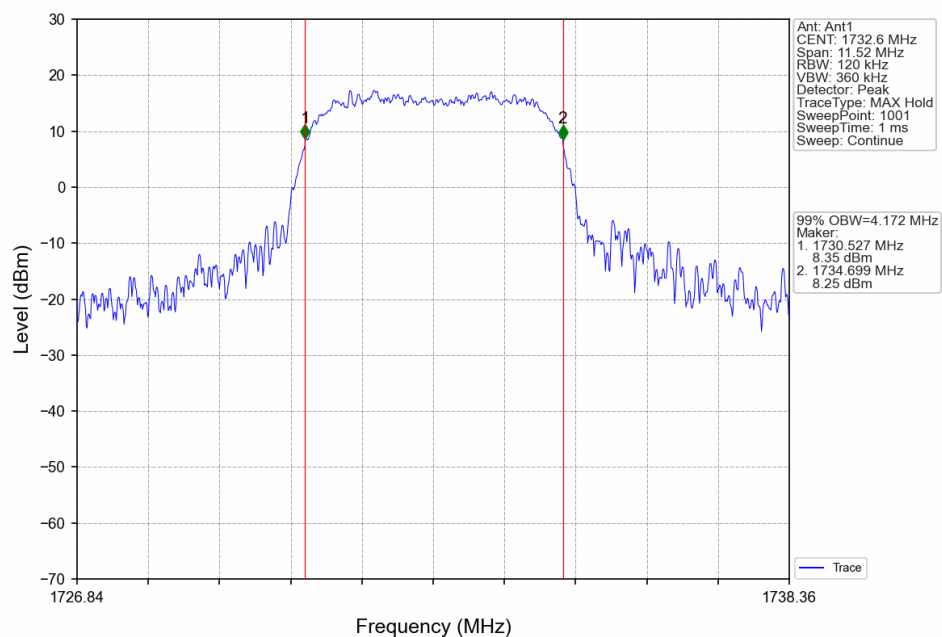
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV

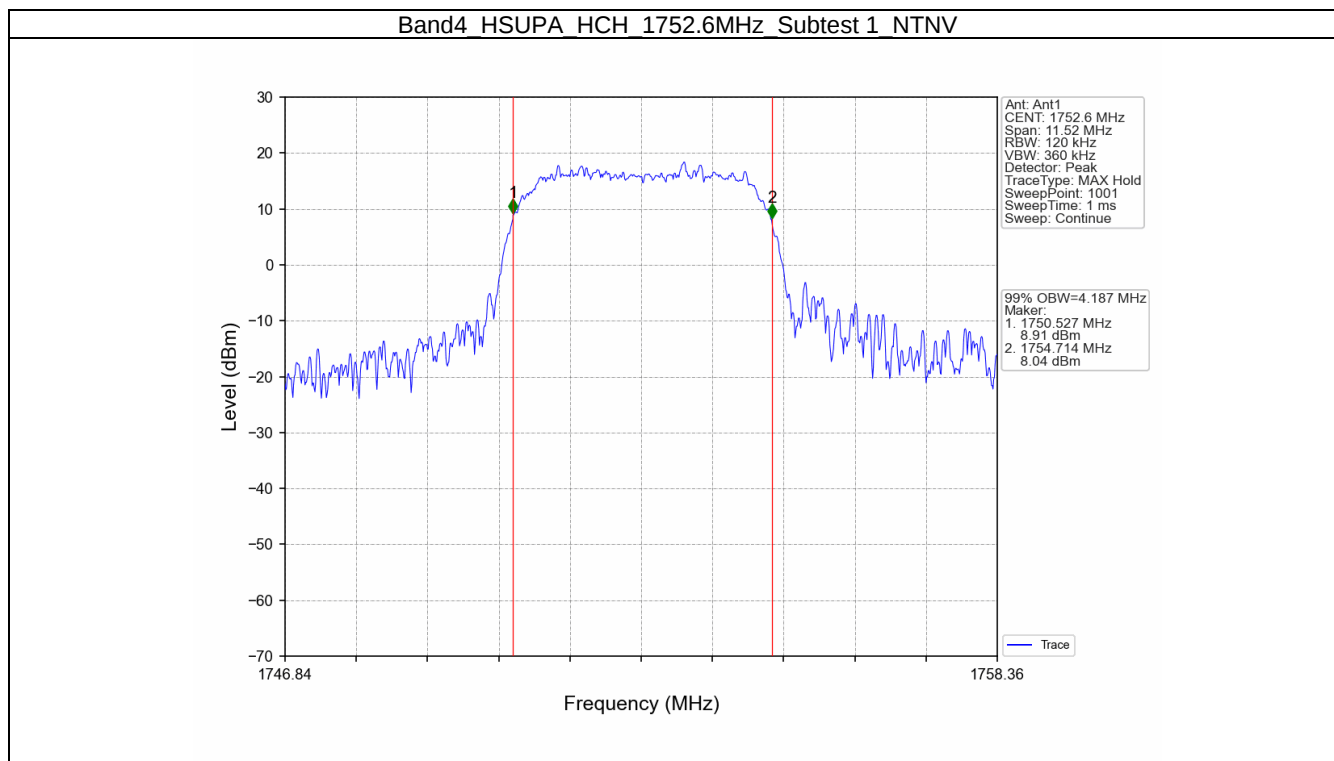


Band4 HSUPA LCH 1712.4MHz Subtest 1 NTN

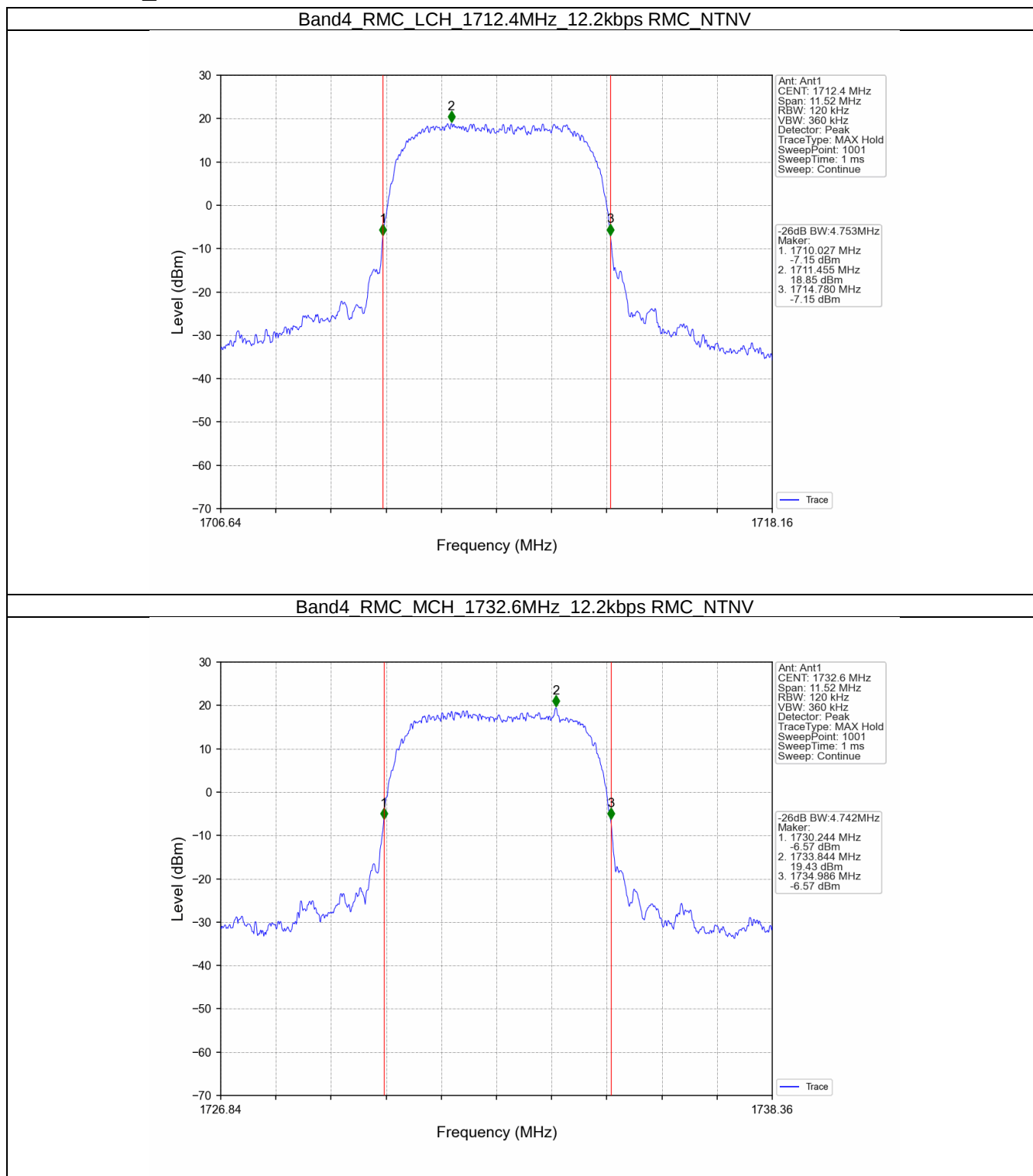


Band4 HSUPA MCH 1732.6MHz Subtest 1 NTN

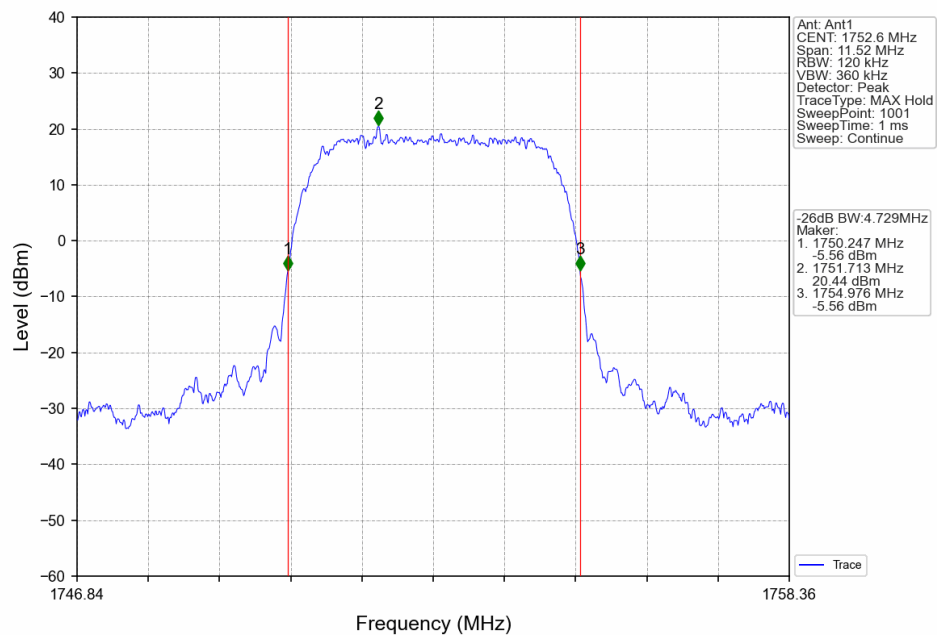




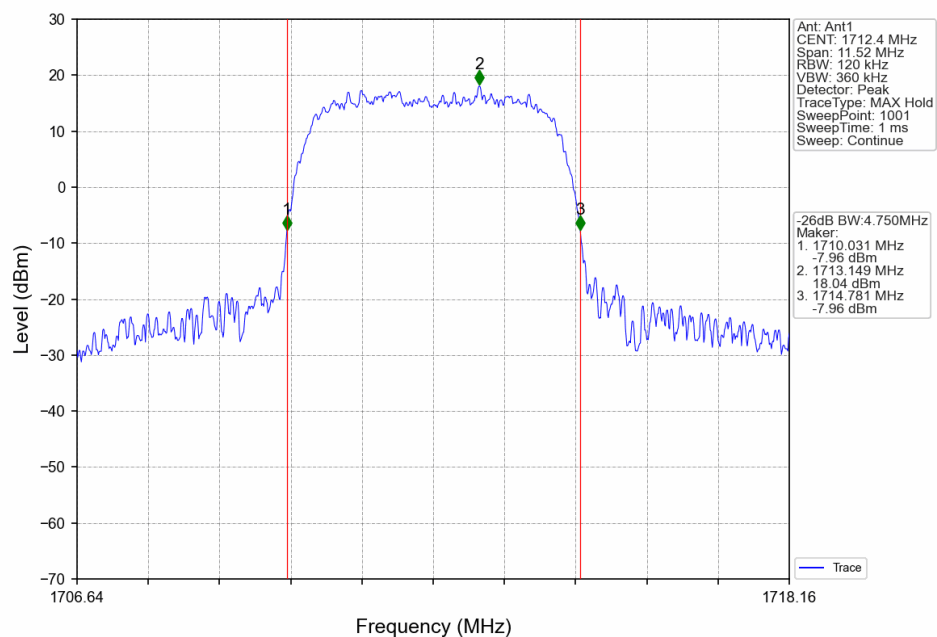
4.2.2 Band4_XDB



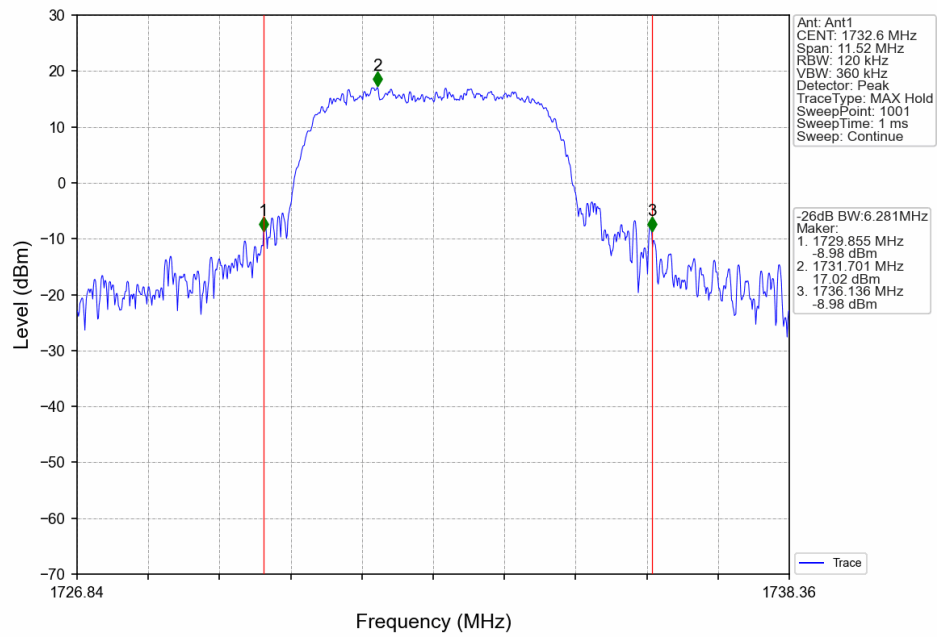
Band4 RMC HCH 1752.6MHz 12.2kbps RMC NTN



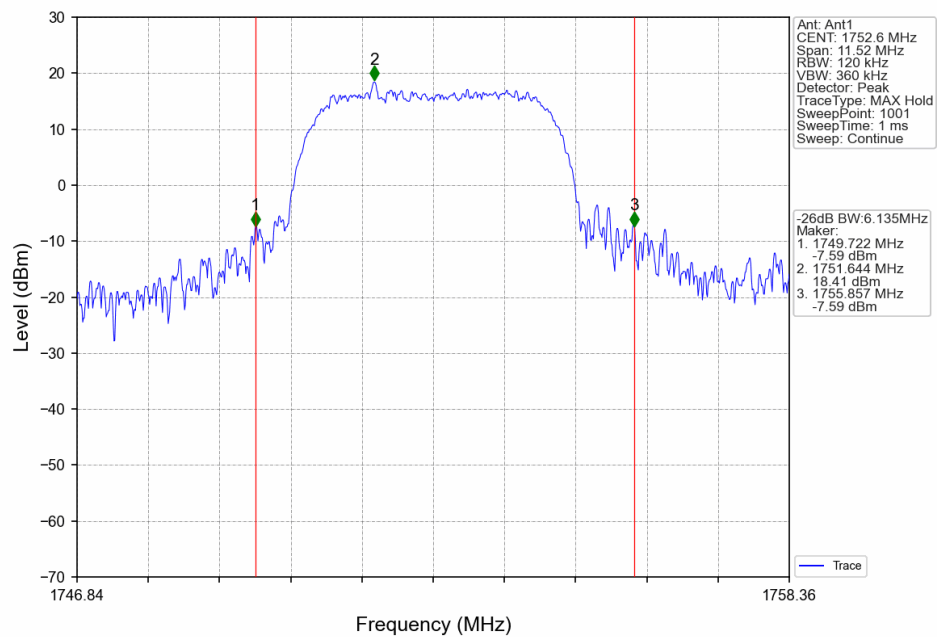
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTN



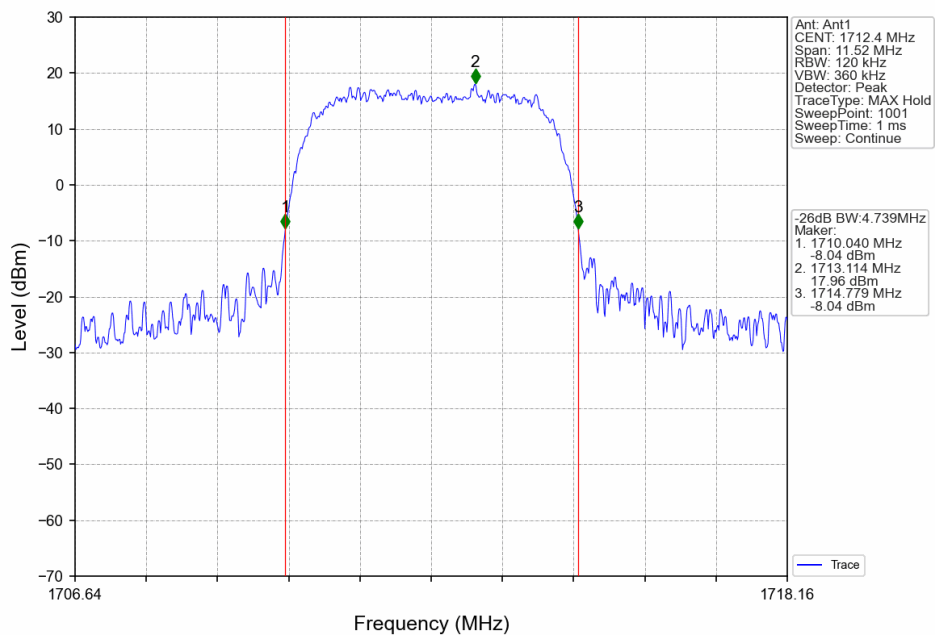
Band4 HSDPA MCH 1732.6MHz Subtest 1 NTNV



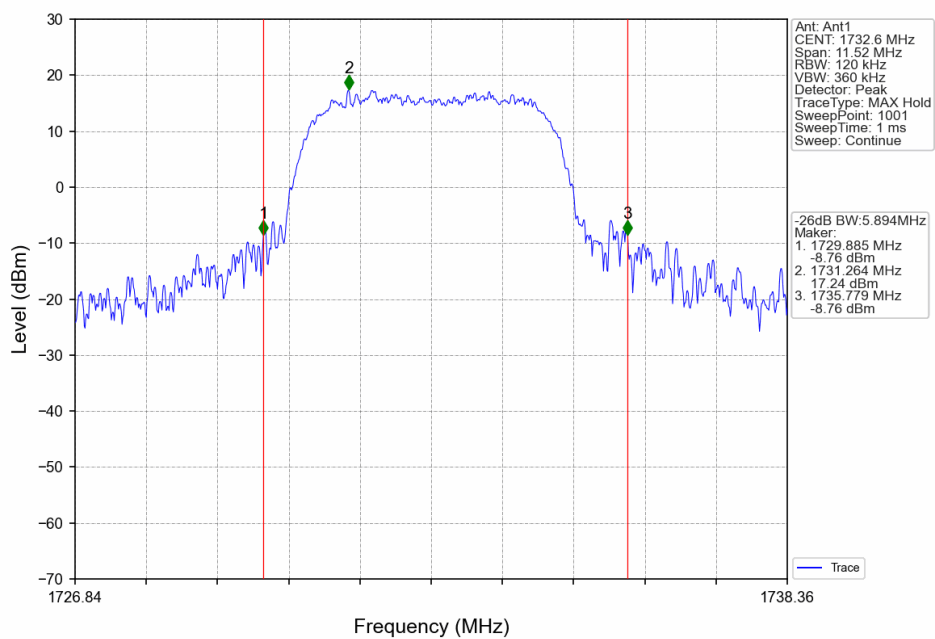
Band4 HSDPA HCH 1752.6MHz Subtest 1 NTNV

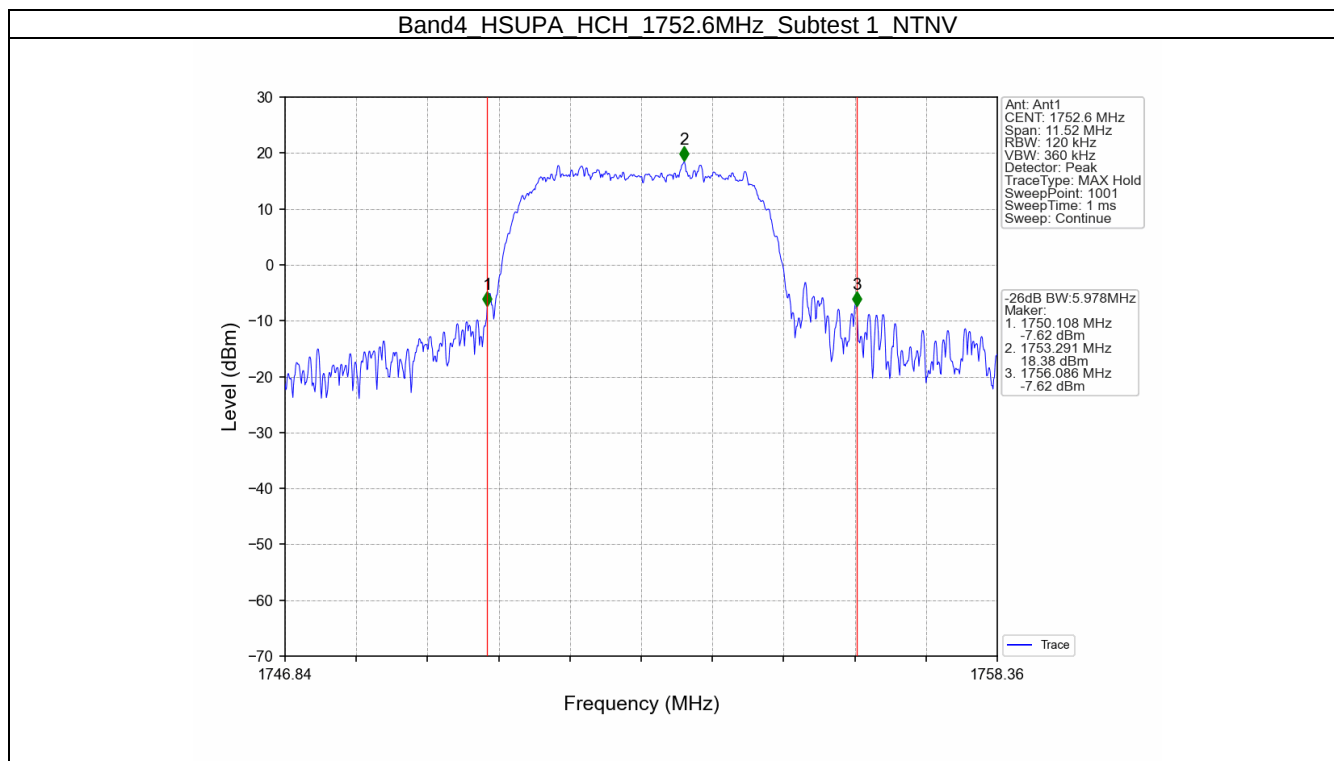


Band4 HSUPA LCH 1712.4MHz Subtest 1 NTN



Band4 HSUPA MCH 1732.6MHz Subtest 1 NTN





5. Peak-Average Ratio

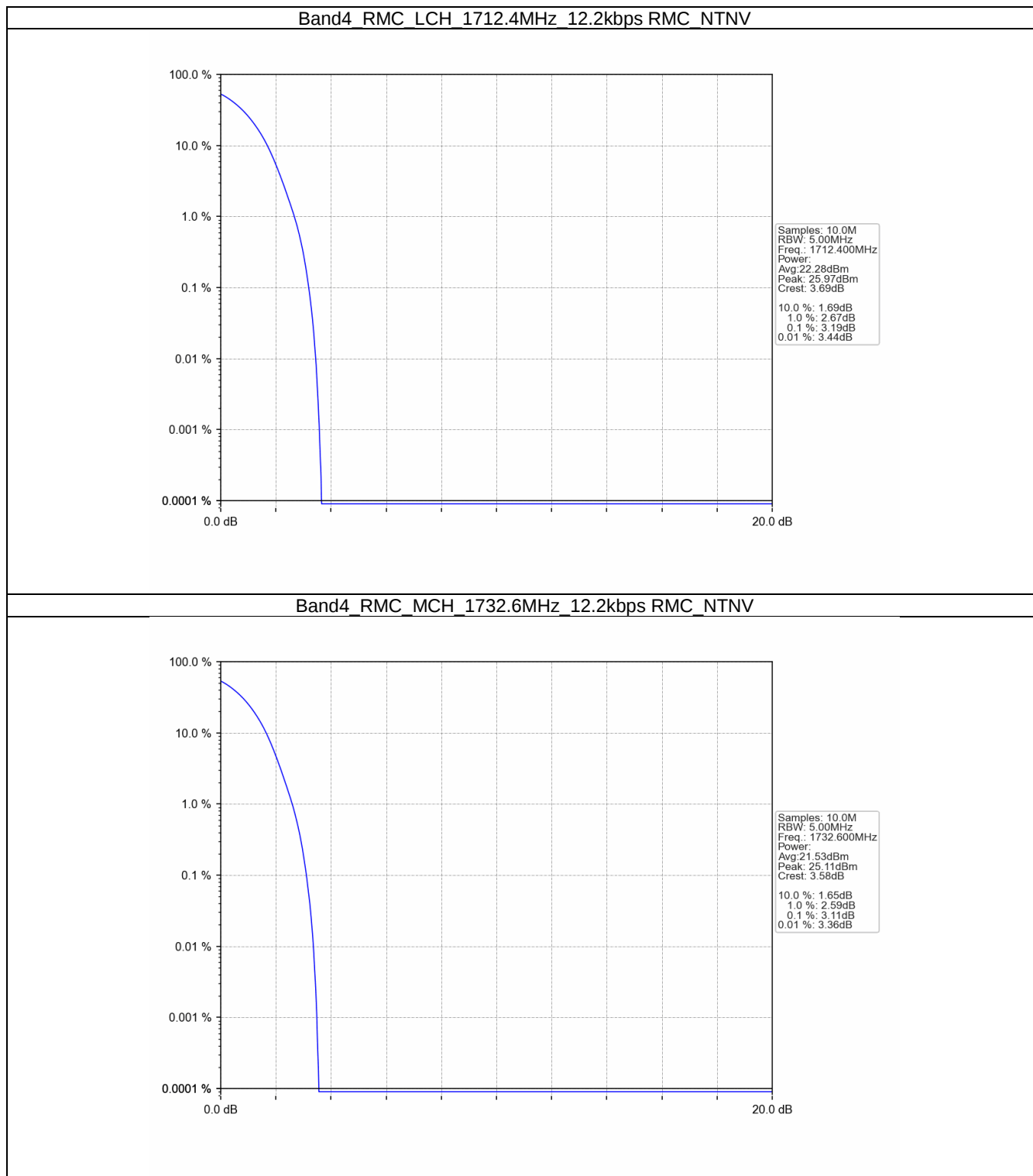
5.1 Test Result

5.1.1 Band4

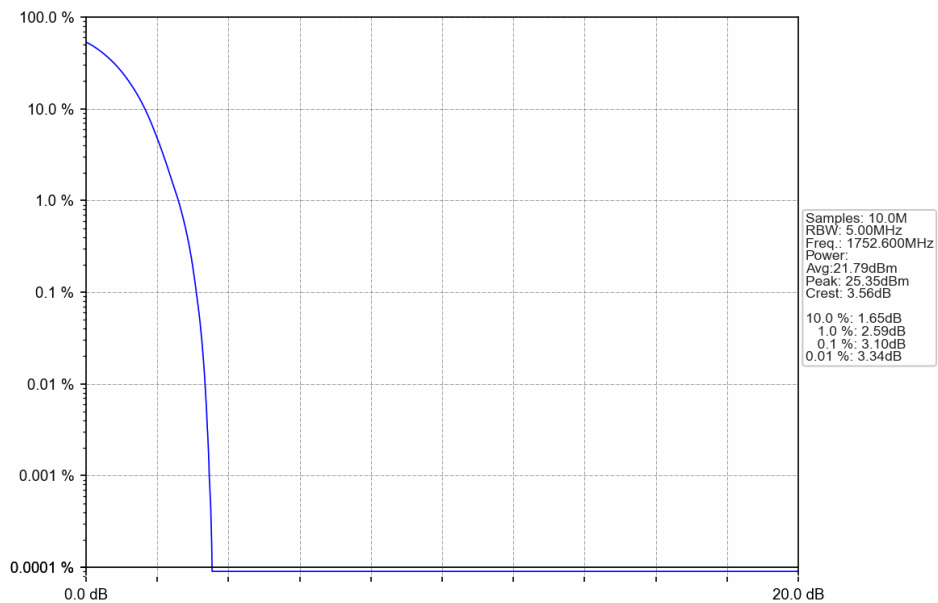
Band: 4						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	3.19	<=13	Pass
			1732.6	3.11	<=13	Pass
			1752.6	3.10	<=13	Pass
	HSDPA	Subtest 1	1712.4	5.71	<=13	Pass
			1732.6	5.54	<=13	Pass
			1752.6	5.59	<=13	Pass
	HSUPA	Subtest 1	1712.4	5.68	<=13	Pass
			1732.6	5.52	<=13	Pass
			1752.6	5.56	<=13	Pass

5.2 Test Graph

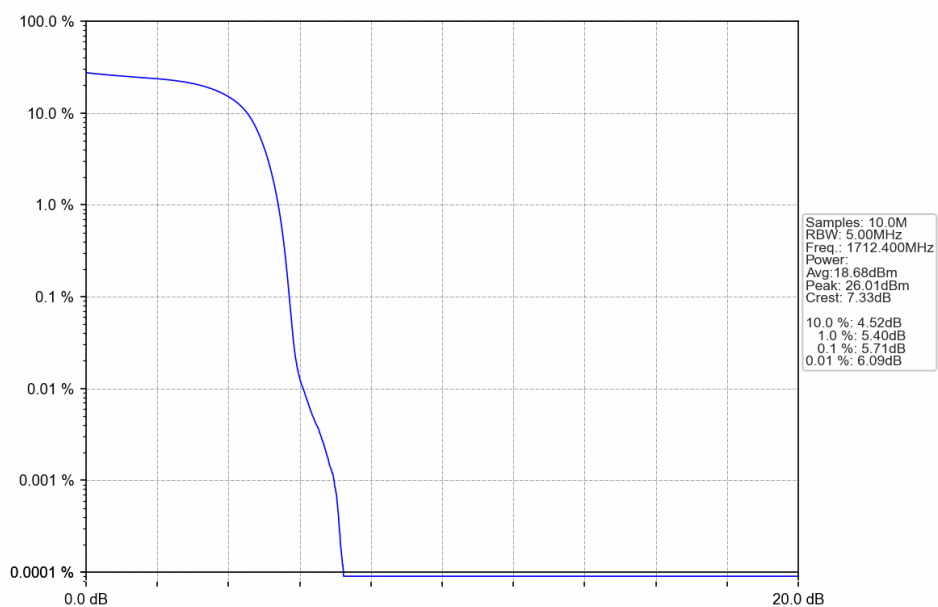
5.2.1 Band4



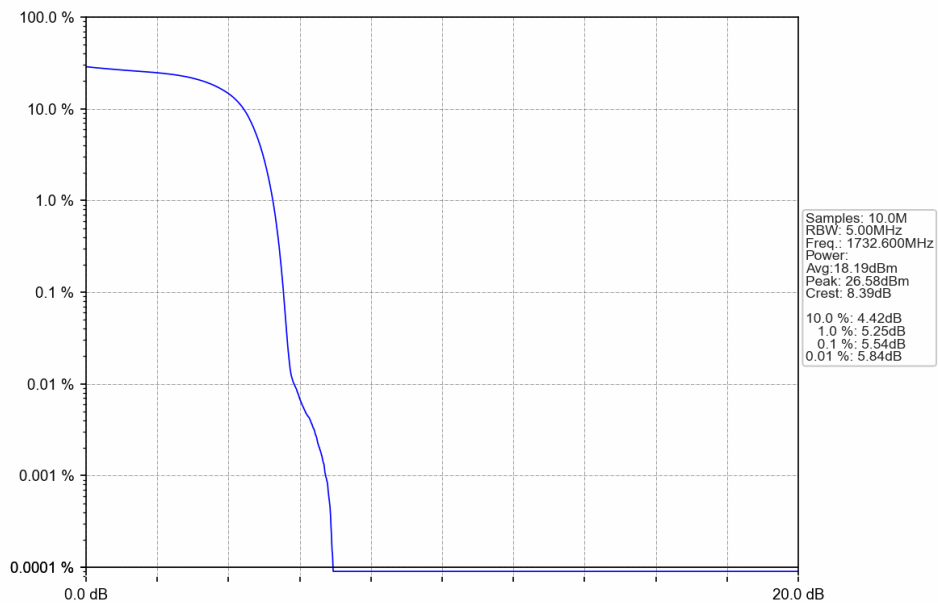
Band4 RMC HCH 1752.6MHz 12.2kbps RMC NTN



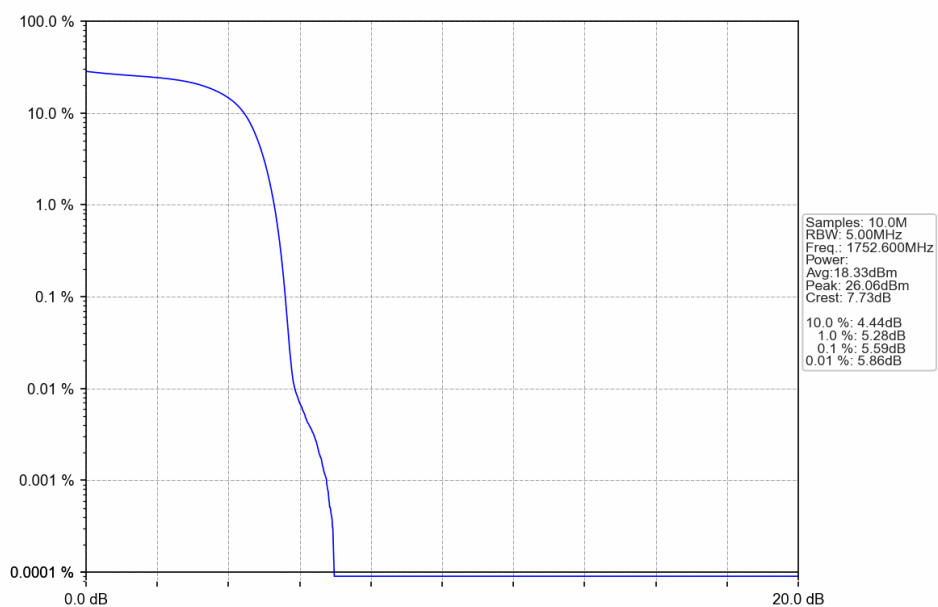
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



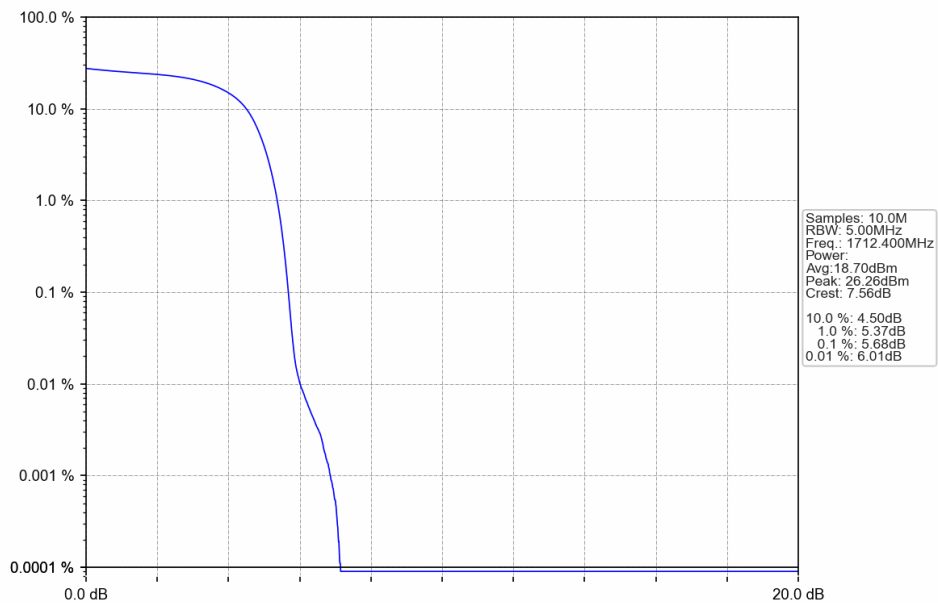
Band4 HSDPA MCH 1732.6MHz Subtest 1 NTNV



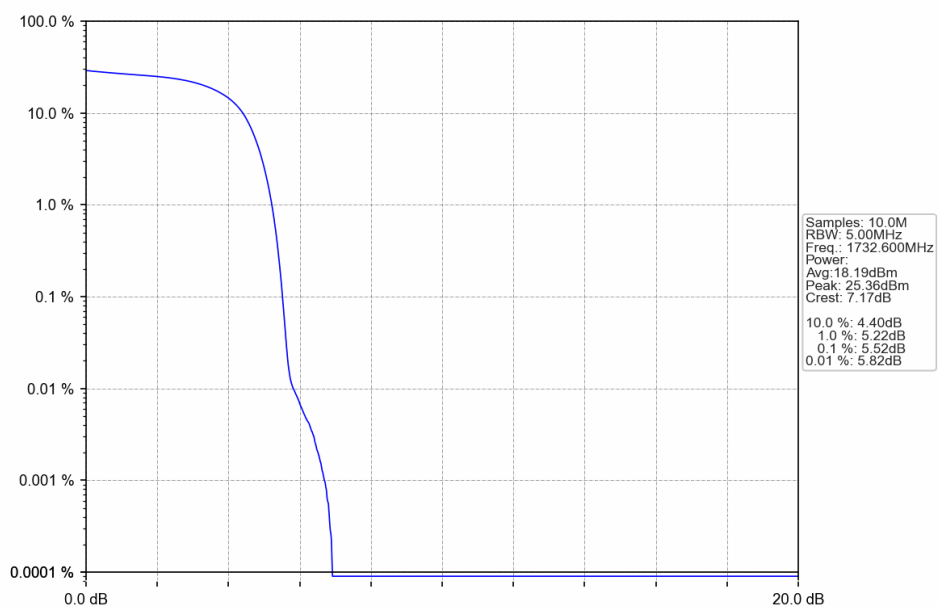
Band4 HSDPA HCH 1752.6MHz Subtest 1 NTNV

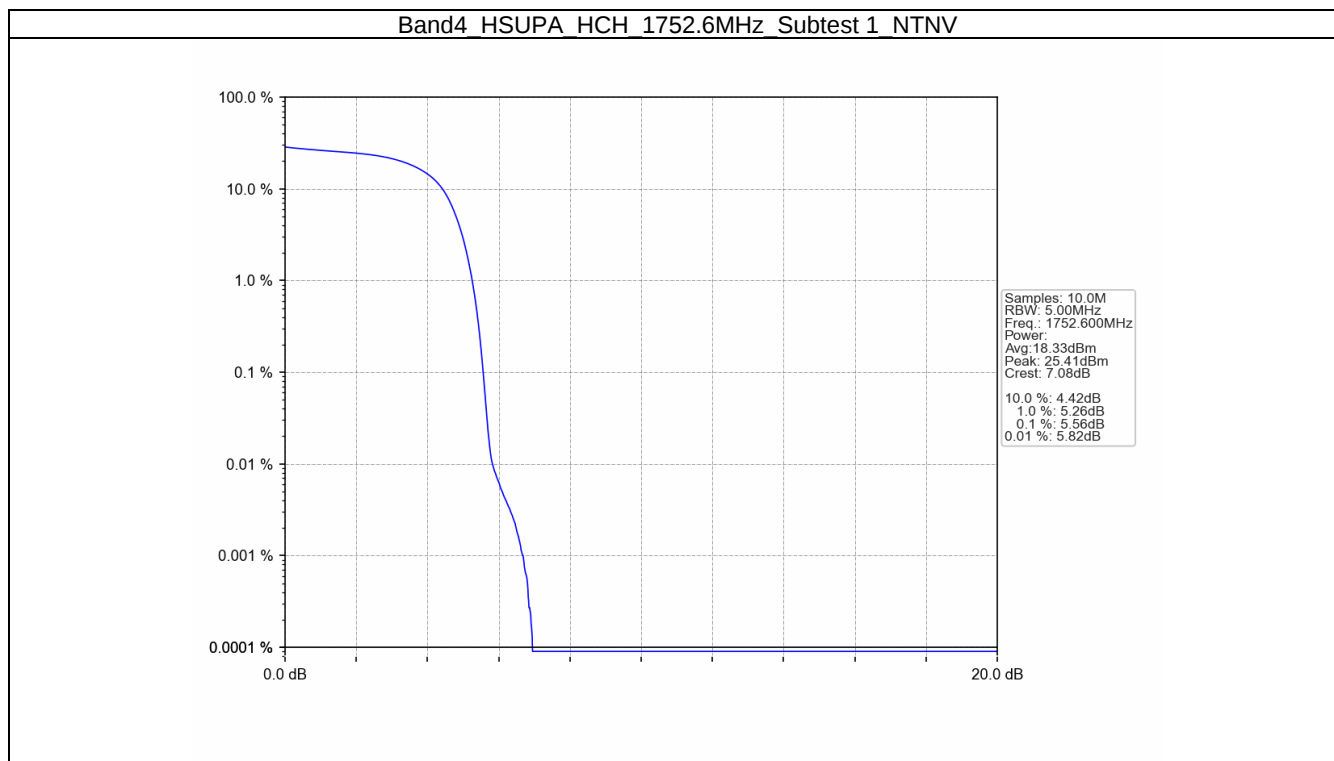


Band4 HSUPA LCH 1712.4MHz Subtest 1 NTNV



Band4 HSUPA MCH 1732.6MHz Subtest 1 NTNV





6. Spurious Emission

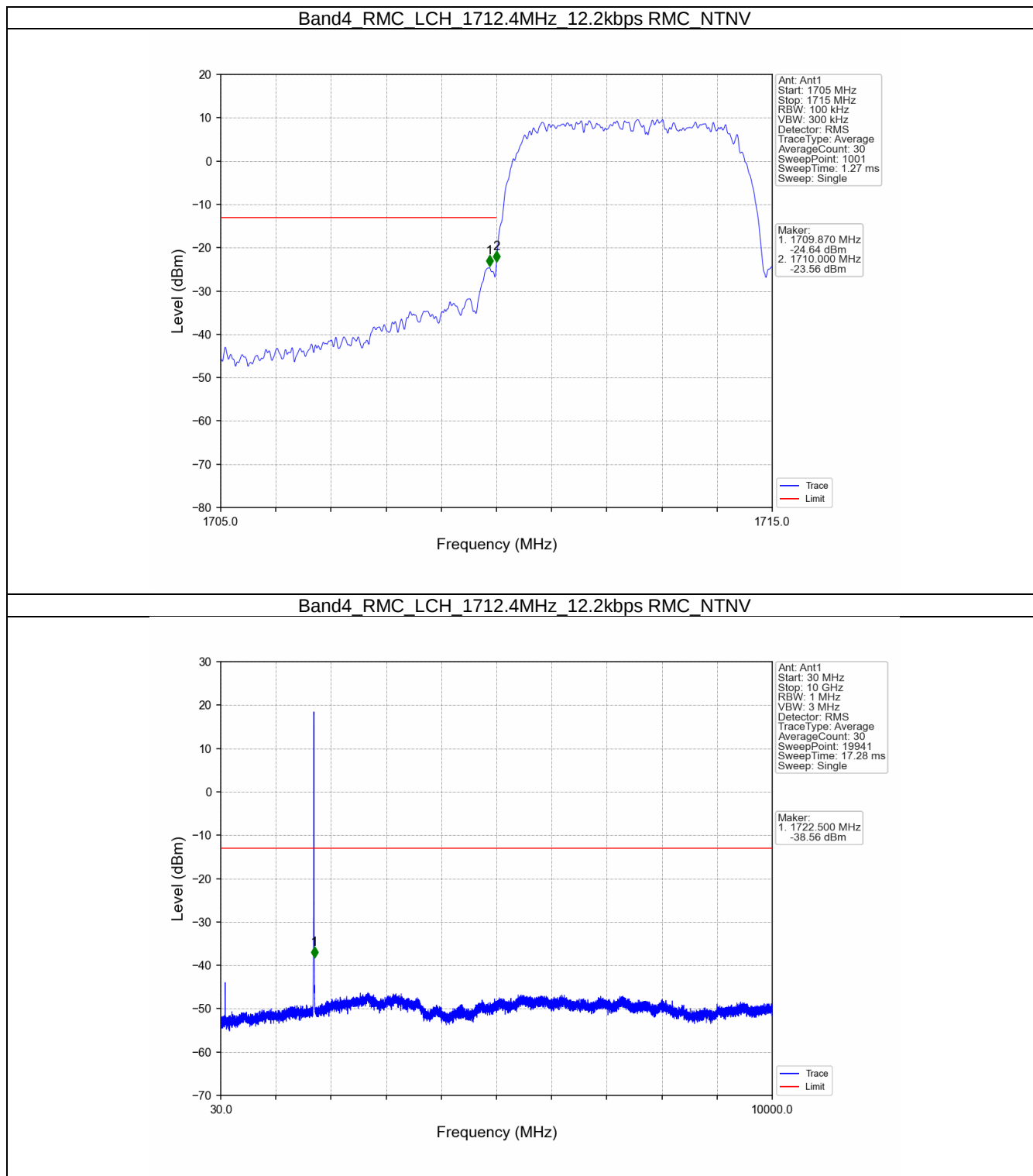
6.1 Test Result

6.1.1 Band4

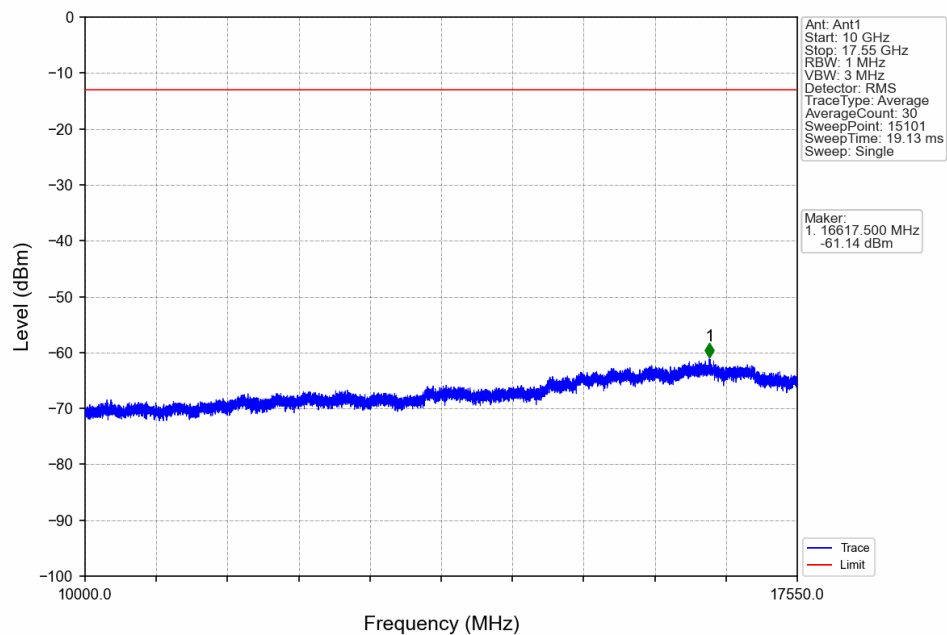
Band: 4						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	Refer To Test Graph		Pass
			1732.6	Refer To Test Graph		Pass
			1752.6	Refer To Test Graph		Pass
	HSDPA	Subtest 1	1712.4	Refer To Test Graph		Pass
			1732.6	Refer To Test Graph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

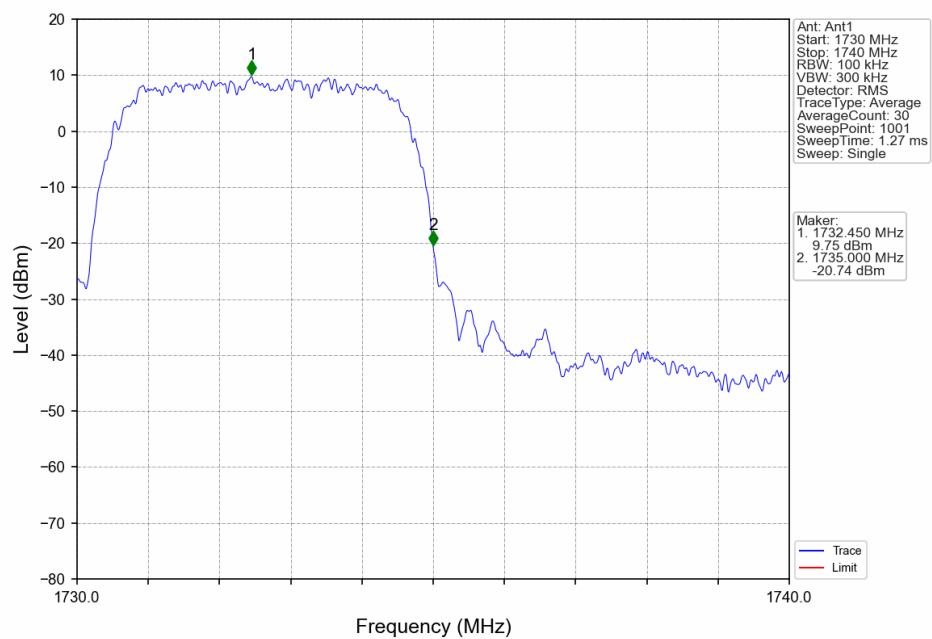
6.2.1 Band4



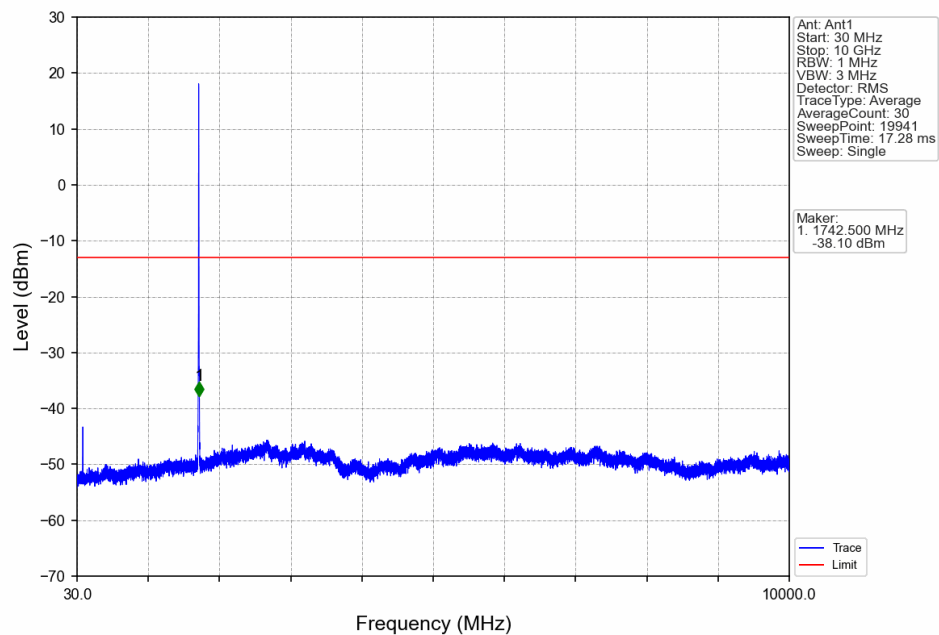
Band4_RMC_LCH_1712.4MHz_12.2kbps_RMC_NTNV



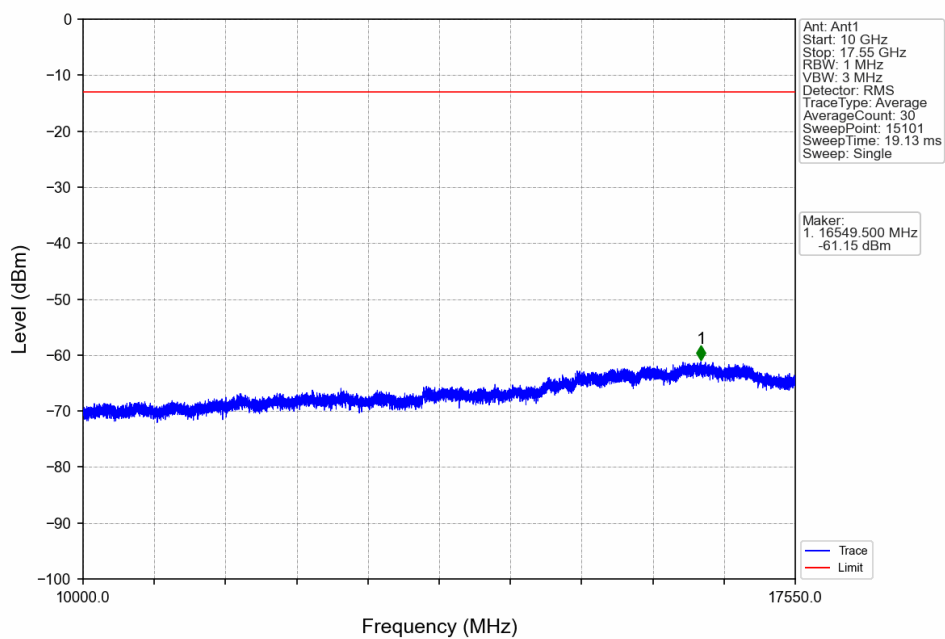
Band4_RMC_MCH_1732.6MHz_12.2kbps_RMC_NTNV



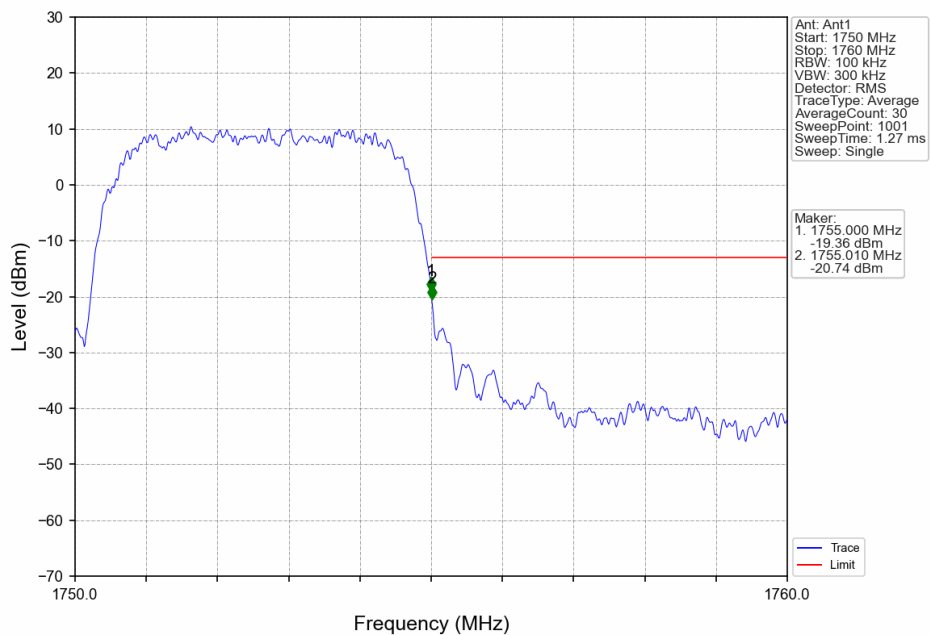
Band4_RMC_MCH_1732.6MHz_12.2kbps_RMC_NTNV



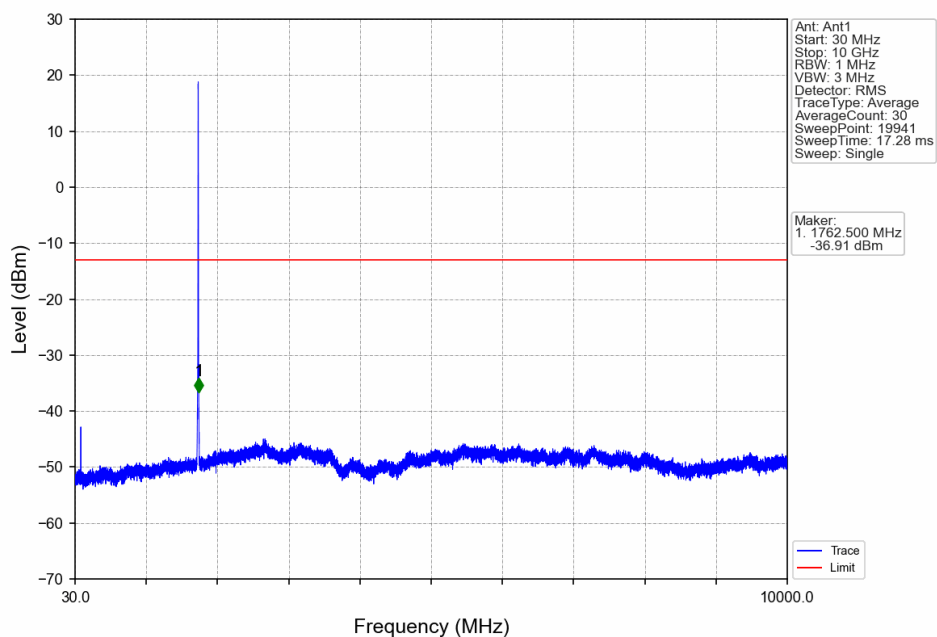
Band4_RMC_MCH_1732.6MHz_12.2kbps_RMC_NTNV



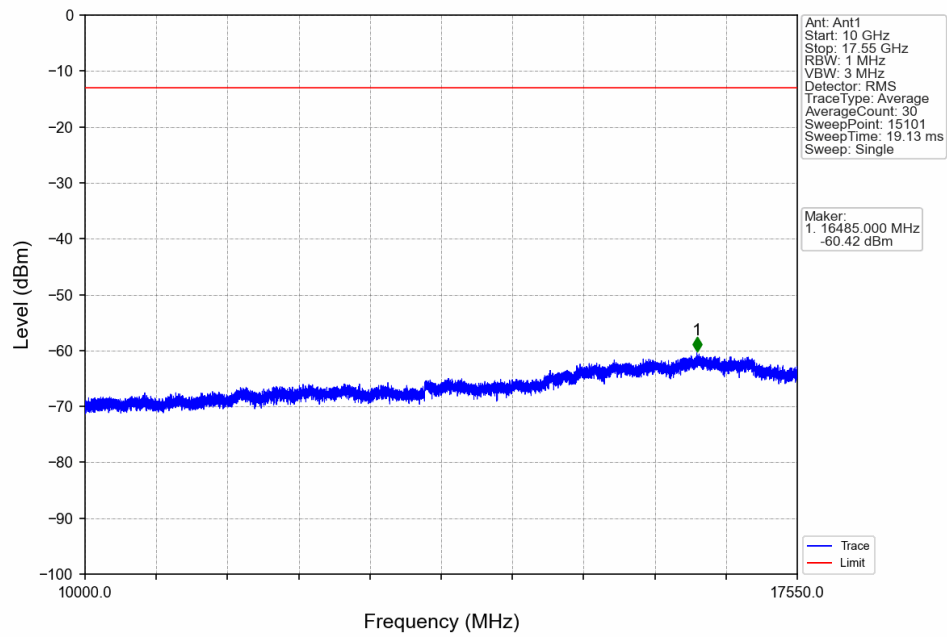
Band4_RMC_HCH_1752.6MHz_12.2kbps_RMC_NTNV



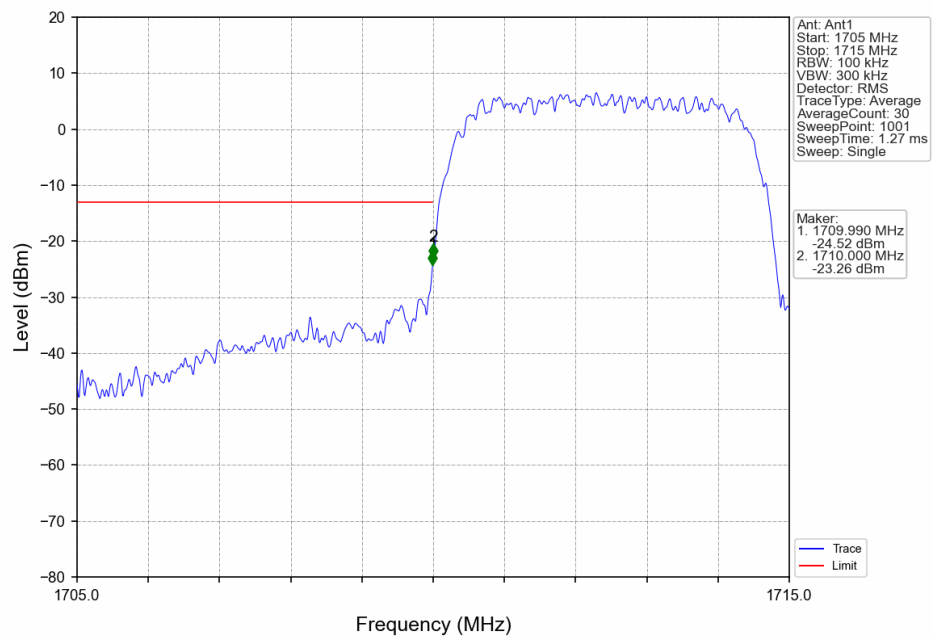
Band4_RMC_HCH_1752.6MHz_12.2kbps_RMC_NTNV



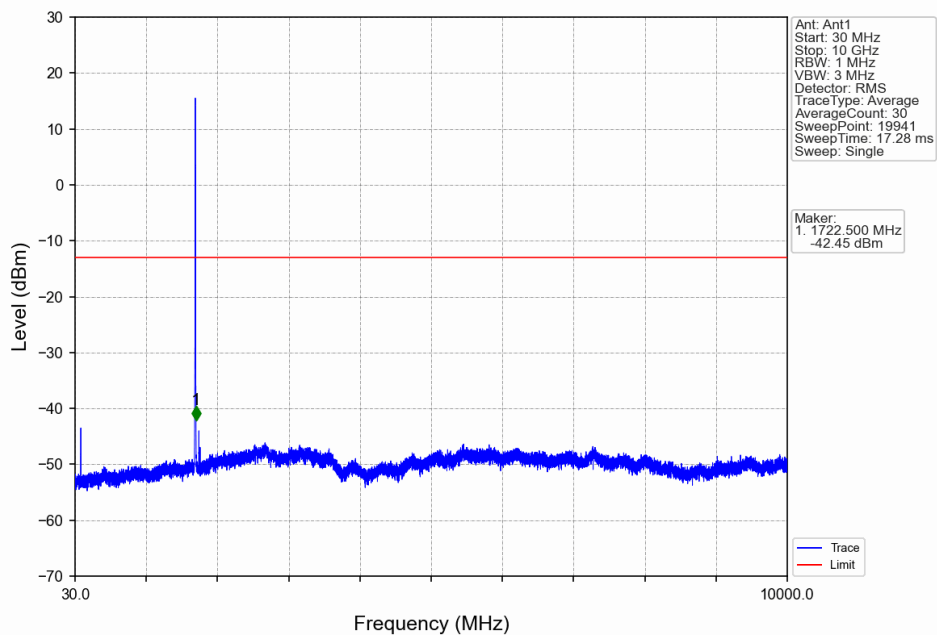
Band4_RMC_HCH_1752.6MHz_12.2kbps_RMC_NTNV



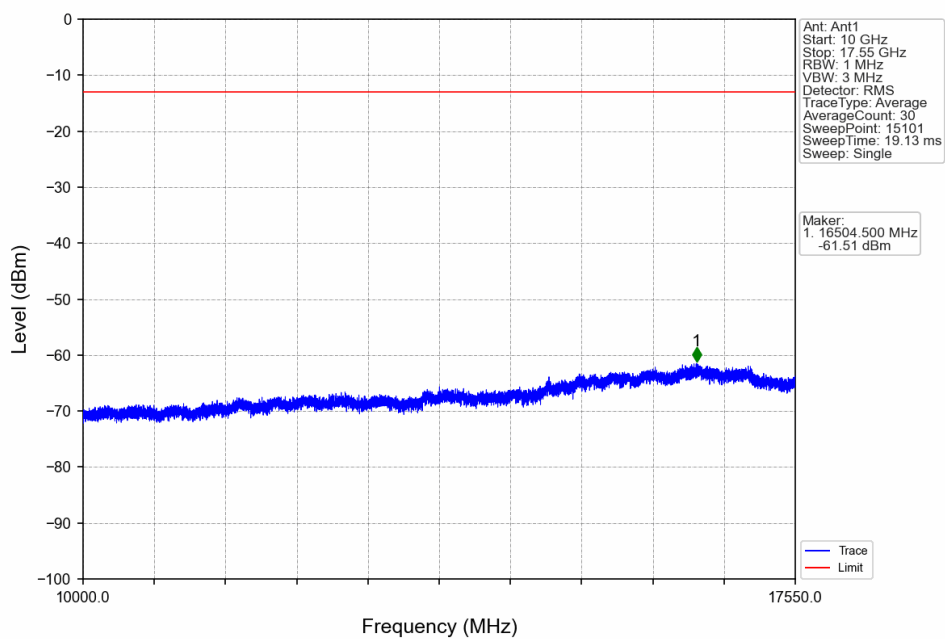
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



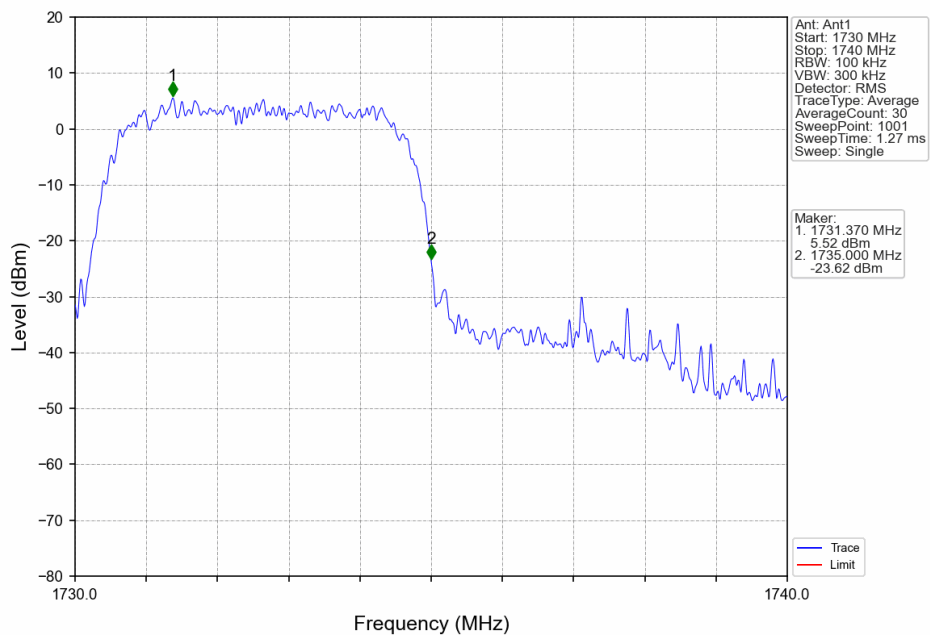
Band4 HSDPA LCH 1712.4MHz Subtest 1 NTNV



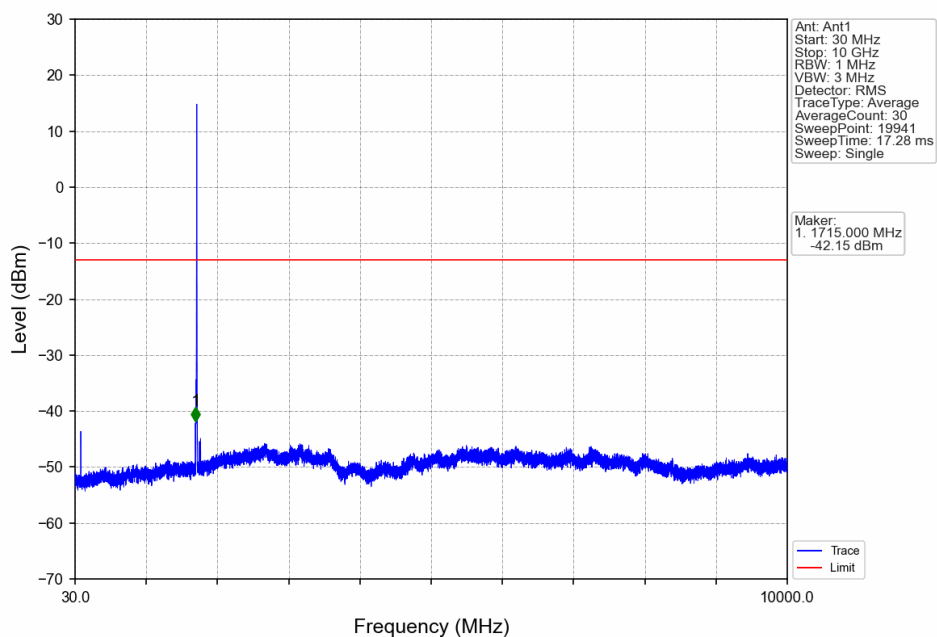
Band4_HSDPA_LCH_1712.4MHz_Subtest 1_NTNV



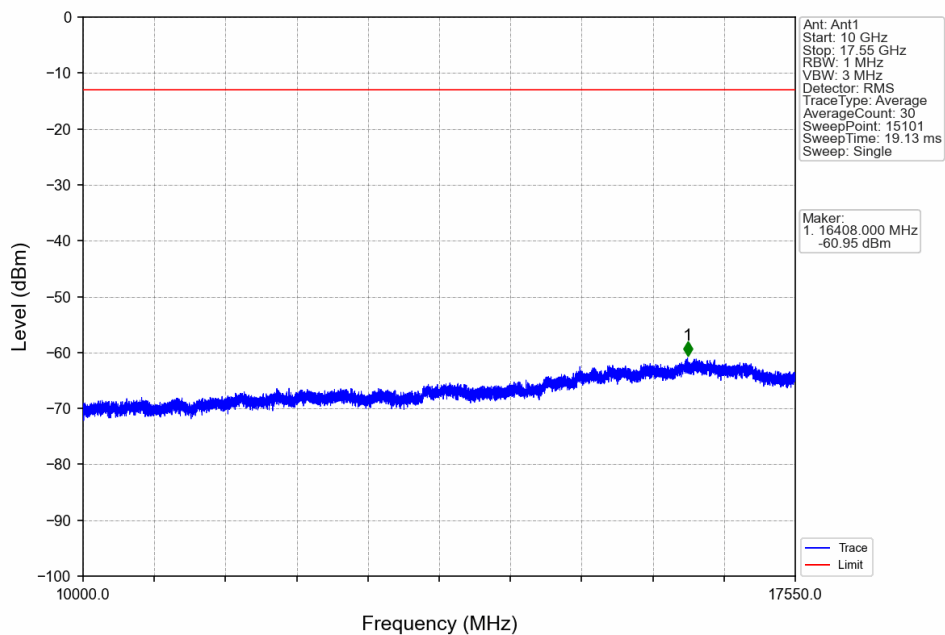
Band4 HSDPA MCH 1732.6MHz Subtest 1 NTNV



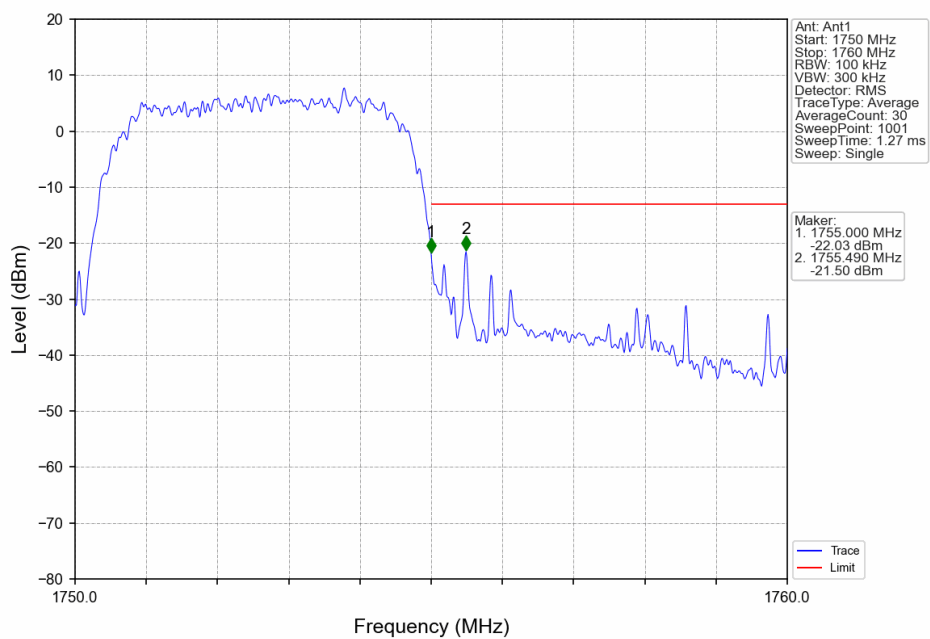
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



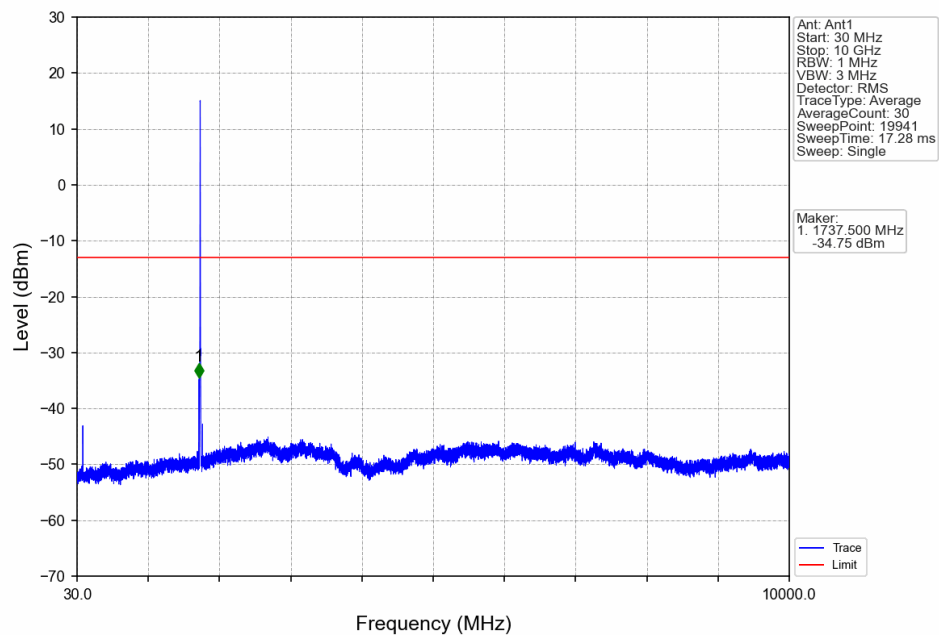
Band4_HSDPA_MCH_1732.6MHz_Subtest 1_NTNV



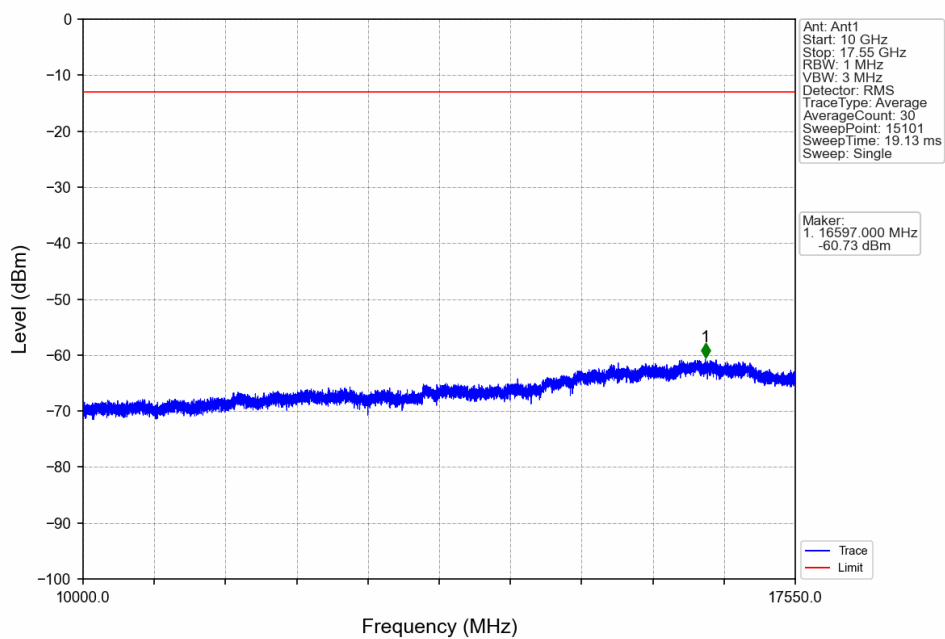
Band4_HSDPA_HCH_1752.6MHz_Subtest 1_NTNV



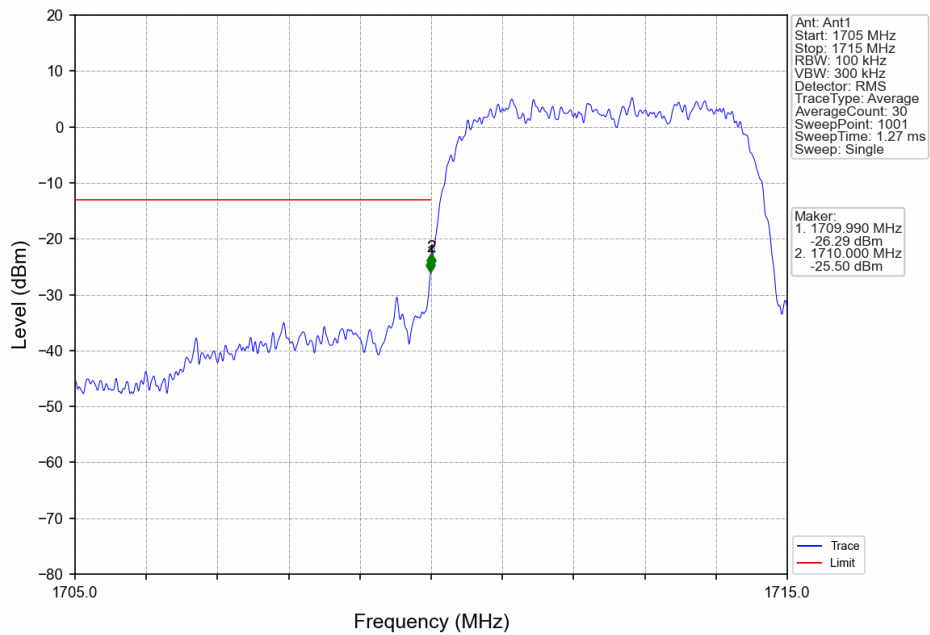
Band4 HSDPA HCH 1752.6MHz Subtest 1 NTN



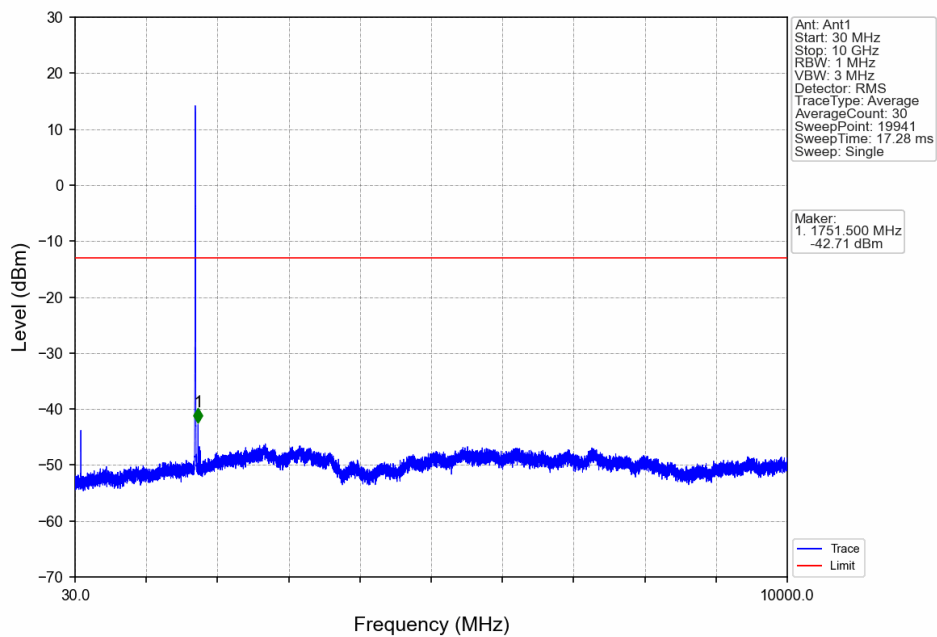
Band4_HSDPA_HCH_1752.6MHz_Subtest 1 NTN



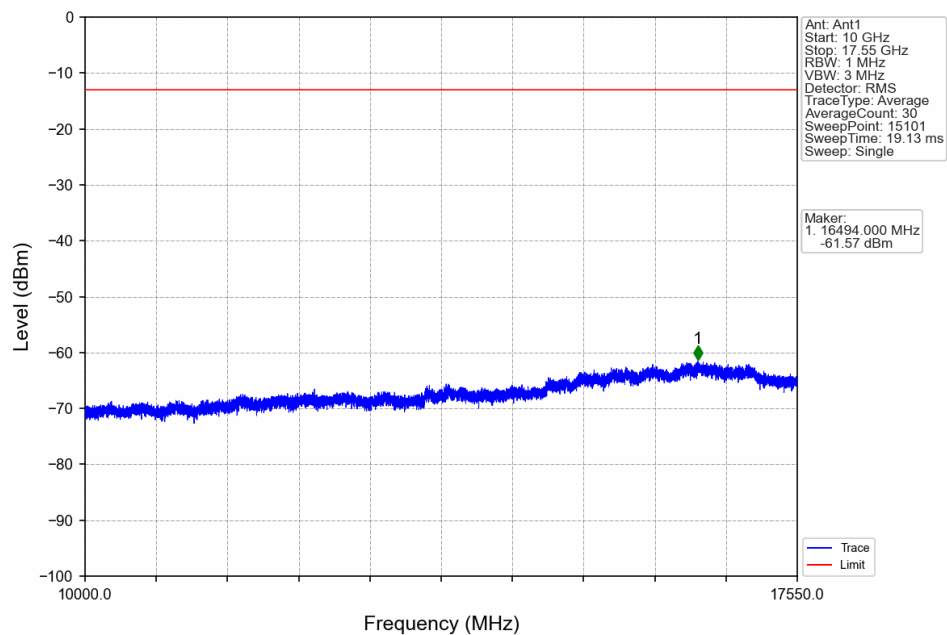
Band4 HSUPA LCH 1712.4MHz Subtest 1 NTNV



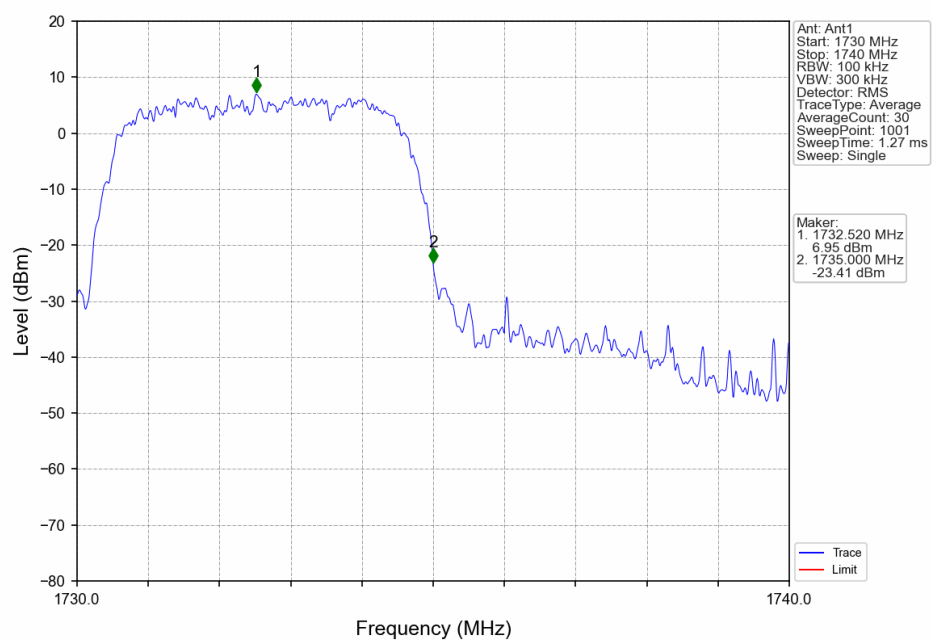
Band4_HSUPA_LCH_1712.4MHz_Subtest 1_NTNV



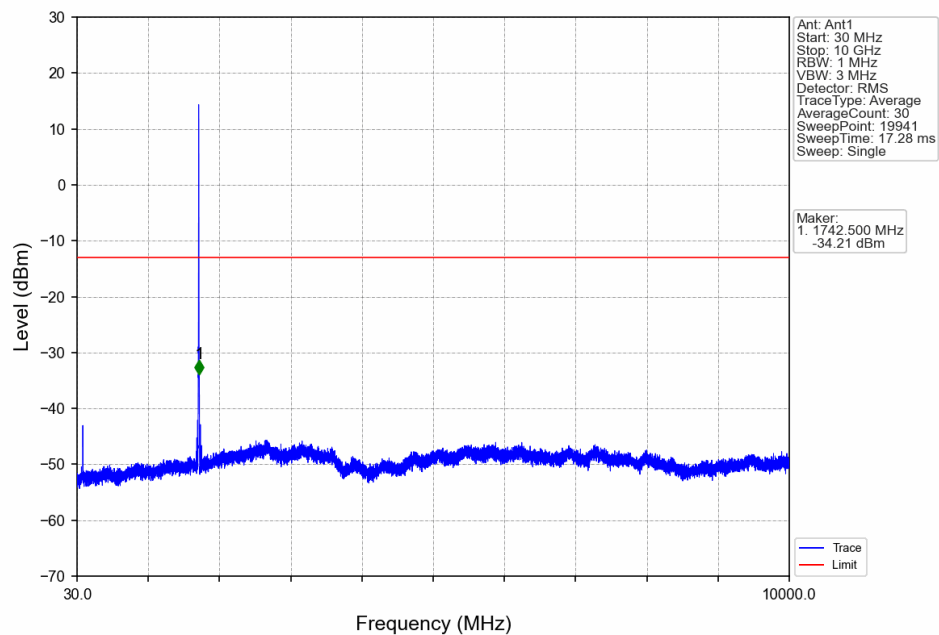
Band4 HSUPA LCH 1712.4MHz Subtest 1 NTNV



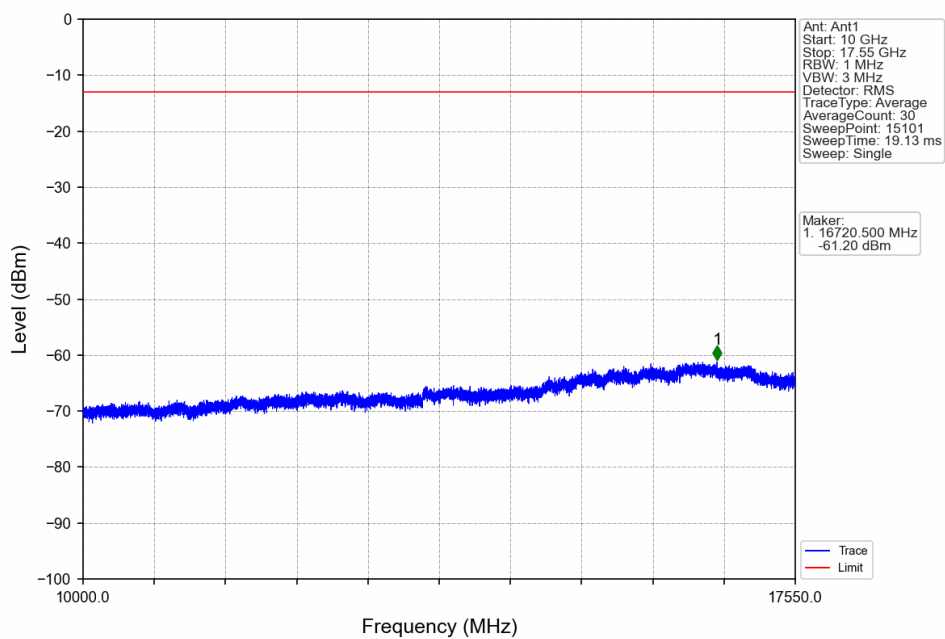
Band4 HSUPA MCH 1732.6MHz Subtest 1 NTNV



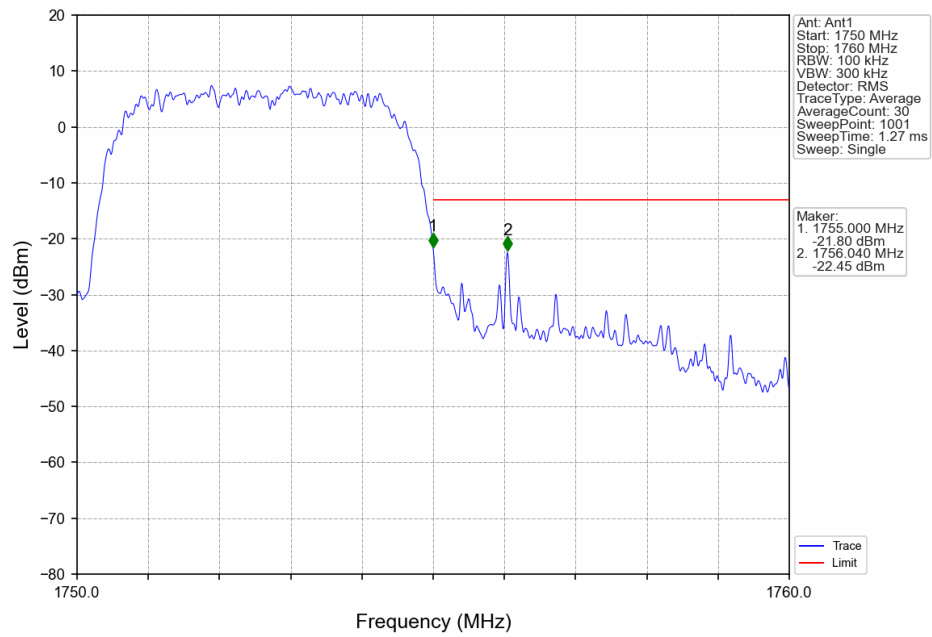
Band4 HSUPA MCH 1732.6MHz Subtest 1 NTNV



Band4 HSUPA MCH 1732.6MHz Subtest 1 NTNV



Band4 HSUPA HCH 1752.6MHz Subtest 1 NTNV



Band4 HSUPA HCH 1752.6MHz Subtest 1 NTNV

