

# 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	22.54	-1.40	21.14	<=30	Pass			
			1732.6	22.55	-1.40	21.15	<=30	Pass			
			1752.6	22.42	-1.40	21.02	<=30	Pass			
	HSDPA		Subtest 1	1712.4	20.24	-1.40	18.84	<=30	Pass		
			Subtest 2	1712.4	20.26	-1.40	18.86	<=30	Pass		
			Subtest 3	1712.4	20.26	-1.40	18.86	<=30	Pass		
			Subtest 4	1712.4	20.24	-1.40	18.84	<=30	Pass		
			Subtest 1	1732.6	20.26	-1.40	18.86	<=30	Pass		
			Subtest 2	1732.6	20.26	-1.40	18.86	<=30	Pass		
			Subtest 3	1732.6	20.25	-1.40	18.85	<=30	Pass		
			Subtest 4	1732.6	20.24	-1.40	18.84	<=30	Pass		
			Subtest 1	1752.6	20.13	-1.40	18.73	<=30	Pass		
			Subtest 2	1752.6	20.16	-1.40	18.76	<=30	Pass		
			Subtest 3	1752.6	20.14	-1.40	18.74	<=30	Pass		
			Subtest 4	1752.6	20.13	-1.40	18.73	<=30	Pass		
			HSUPA		Subtest 1	1712.4	17.98	-1.40	16.58	<=30	Pass
					Subtest 2	1712.4	18.01	-1.40	16.61	<=30	Pass
					Subtest 3	1712.4	18.03	-1.40	16.63	<=30	Pass
					Subtest 4	1712.4	18.20	-1.40	16.80	<=30	Pass
					Subtest 5	1712.4	17.69	-1.40	16.29	<=30	Pass
	Subtest 1	1732.6			18.26	-1.40	16.86	<=30	Pass		
	Subtest 2	1732.6			17.72	-1.40	16.32	<=30	Pass		
	Subtest 3	1732.6			18.27	-1.40	16.87	<=30	Pass		
	Subtest 4	1732.6			18.08	-1.40	16.68	<=30	Pass		
	Subtest 5	1732.6			17.79	-1.40	16.39	<=30	Pass		
	Subtest 1	1752.6			18.12	-1.40	16.72	<=30	Pass		
	Subtest 2	1752.6			18.14	-1.40	16.74	<=30	Pass		
	Subtest 3	1752.6			18.14	-1.40	16.74	<=30	Pass		
	Subtest 4	1752.6			18.12	-1.40	16.72	<=30	Pass		
	Subtest 5	1752.6			17.60	-1.40	16.20	<=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	3.068	0.0018	-2.5 to 2.5	Pass
			3.85	-6.924	-0.0040	-2.5 to 2.5	Pass
			4.43	-6.258	-0.0037	-2.5 to 2.5	Pass
		-30	3.85	-5.236	-0.0031	-2.5 to 2.5	Pass
		-20	3.85	-4.771	-0.0028	-2.5 to 2.5	Pass

	1732.6	-10	3.85	-10.657	-0.0062	-2.5 to 2.5	Pass		
		0	3.85	-6.151	-0.0036	-2.5 to 2.5	Pass		
		10	3.85	-4.964	-0.0029	-2.5 to 2.5	Pass		
		30	3.85	-4.957	-0.0029	-2.5 to 2.5	Pass		
		40	3.85	-0.966	-0.0006	-2.5 to 2.5	Pass		
		50	3.85	-1.738	-0.0010	-2.5 to 2.5	Pass		
		20	3.27	-5.507	-0.0032	-2.5 to 2.5	Pass		
			3.85	-8.390	-0.0048	-2.5 to 2.5	Pass		
			4.43	-6.938	-0.0040	-2.5 to 2.5	Pass		
			-30	3.85	-6.266	-0.0036	-2.5 to 2.5	Pass	
			-20	3.85	-6.094	-0.0035	-2.5 to 2.5	Pass	
			-10	3.85	-4.528	-0.0026	-2.5 to 2.5	Pass	
			0	3.85	-6.931	-0.0040	-2.5 to 2.5	Pass	
			10	3.85	-6.595	-0.0038	-2.5 to 2.5	Pass	
			30	3.85	-7.296	-0.0042	-2.5 to 2.5	Pass	
	40		3.85	-5.651	-0.0033	-2.5 to 2.5	Pass		
	50	3.85	-5.279	-0.0030	-2.5 to 2.5	Pass			
	1752.6	20	3.27	-7.625	-0.0044	-2.5 to 2.5	Pass		
			3.85	-9.041	-0.0052	-2.5 to 2.5	Pass		
			4.43	-4.320	-0.0025	-2.5 to 2.5	Pass		
		-30	3.85	-6.180	-0.0035	-2.5 to 2.5	Pass		
		-20	3.85	-3.941	-0.0022	-2.5 to 2.5	Pass		
		-10	3.85	-5.586	-0.0032	-2.5 to 2.5	Pass		
		0	3.85	-3.891	-0.0022	-2.5 to 2.5	Pass		
		10	3.85	-2.339	-0.0013	-2.5 to 2.5	Pass		
		30	3.85	-1.266	-0.0007	-2.5 to 2.5	Pass		
		40	3.85	-5.658	-0.0032	-2.5 to 2.5	Pass		
		50	3.85	-1.216	-0.0007	-2.5 to 2.5	Pass		
		HSDPA	1712.4	20	3.27	-0.365	-0.0002	-2.5 to 2.5	Pass
					3.85	-1.774	-0.0010	-2.5 to 2.5	Pass
4.43					-0.744	-0.0004	-2.5 to 2.5	Pass	
-30				3.85	-1.009	-0.0006	-2.5 to 2.5	Pass	
-20	3.85			-11.537	-0.0067	-2.5 to 2.5	Pass		
-10	3.85			-14.141	-0.0083	-2.5 to 2.5	Pass		
0	3.85			-19.090	-0.0111	-2.5 to 2.5	Pass		
10	3.85			-16.487	-0.0096	-2.5 to 2.5	Pass		
30	3.85			-15.278	-0.0089	-2.5 to 2.5	Pass		
40	3.85			-12.131	-0.0071	-2.5 to 2.5	Pass		
50	3.85			-17.745	-0.0104	-2.5 to 2.5	Pass		
1732.6	20			3.27	-12.281	-0.0071	-2.5 to 2.5	Pass	
				3.85	-13.654	-0.0079	-2.5 to 2.5	Pass	
				4.43	-6.430	-0.0037	-2.5 to 2.5	Pass	
	-30			3.85	-15.020	-0.0087	-2.5 to 2.5	Pass	
	-20	3.85	-12.889	-0.0074	-2.5 to 2.5	Pass			
	-10	3.85	-8.283	-0.0048	-2.5 to 2.5	Pass			
	0	3.85	-11.001	-0.0063	-2.5 to 2.5	Pass			
	10	3.85	-12.217	-0.0071	-2.5 to 2.5	Pass			
	30	3.85	-14.277	-0.0082	-2.5 to 2.5	Pass			
	40	3.85	-12.431	-0.0072	-2.5 to 2.5	Pass			
50	3.85	-15.357	-0.0089	-2.5 to 2.5	Pass				
1752.6	20	3.27	-9.978	-0.0057	-2.5 to 2.5	Pass			
		3.85	-14.491	-0.0083	-2.5 to 2.5	Pass			
		4.43	-12.009	-0.0069	-2.5 to 2.5	Pass			
	-30	3.85	-11.537	-0.0066	-2.5 to 2.5	Pass			
	-20	3.85	-15.128	-0.0086	-2.5 to 2.5	Pass			
	-10	3.85	-13.375	-0.0076	-2.5 to 2.5	Pass			
	0	3.85	-10.142	-0.0058	-2.5 to 2.5	Pass			
	10	3.85	-10.300	-0.0059	-2.5 to 2.5	Pass			
	30	3.85	-9.871	-0.0056	-2.5 to 2.5	Pass			

		40	3.85	-9.084	-0.0052	-2.5 to 2.5	Pass
		50	3.85	-10.600	-0.0060	-2.5 to 2.5	Pass
HSUPA	1712.4	20	3.27	-4.821	-0.0028	-2.5 to 2.5	Pass
			3.85	-4.492	-0.0026	-2.5 to 2.5	Pass
			4.43	-3.648	-0.0021	-2.5 to 2.5	Pass
		-30	3.85	-0.687	-0.0004	-2.5 to 2.5	Pass
		-20	3.85	-2.983	-0.0017	-2.5 to 2.5	Pass
		-10	3.85	-1.516	-0.0009	-2.5 to 2.5	Pass
		0	3.85	-0.737	-0.0004	-2.5 to 2.5	Pass
		10	3.85	-2.897	-0.0017	-2.5 to 2.5	Pass
		30	3.85	-5.636	-0.0033	-2.5 to 2.5	Pass
		40	3.85	-3.705	-0.0022	-2.5 to 2.5	Pass
	50	3.85	-6.530	-0.0038	-2.5 to 2.5	Pass	
	1732.6	20	3.27	-11.466	-0.0066	-2.5 to 2.5	Pass
			3.85	-12.932	-0.0075	-2.5 to 2.5	Pass
			4.43	-15.657	-0.0090	-2.5 to 2.5	Pass
		-30	3.85	-12.167	-0.0070	-2.5 to 2.5	Pass
		-20	3.85	-20.328	-0.0117	-2.5 to 2.5	Pass
		-10	3.85	-16.129	-0.0093	-2.5 to 2.5	Pass
		0	3.85	-13.161	-0.0076	-2.5 to 2.5	Pass
		10	3.85	-20.270	-0.0117	-2.5 to 2.5	Pass
		30	3.85	-16.737	-0.0097	-2.5 to 2.5	Pass
		40	3.85	-14.520	-0.0084	-2.5 to 2.5	Pass
	50	3.85	-14.598	-0.0084	-2.5 to 2.5	Pass	
	1752.6	20	3.27	-17.996	-0.0103	-2.5 to 2.5	Pass
			3.85	-19.298	-0.0110	-2.5 to 2.5	Pass
			4.43	-16.022	-0.0091	-2.5 to 2.5	Pass
		-30	3.85	-23.003	-0.0131	-2.5 to 2.5	Pass
		-20	3.85	-20.349	-0.0116	-2.5 to 2.5	Pass
		-10	3.85	-18.868	-0.0108	-2.5 to 2.5	Pass
		0	3.85	-18.675	-0.0107	-2.5 to 2.5	Pass
		10	3.85	-14.963	-0.0085	-2.5 to 2.5	Pass
30		3.85	-17.946	-0.0102	-2.5 to 2.5	Pass	
40		3.85	-19.791	-0.0113	-2.5 to 2.5	Pass	
50	3.85	-15.864	-0.0091	-2.5 to 2.5	Pass		

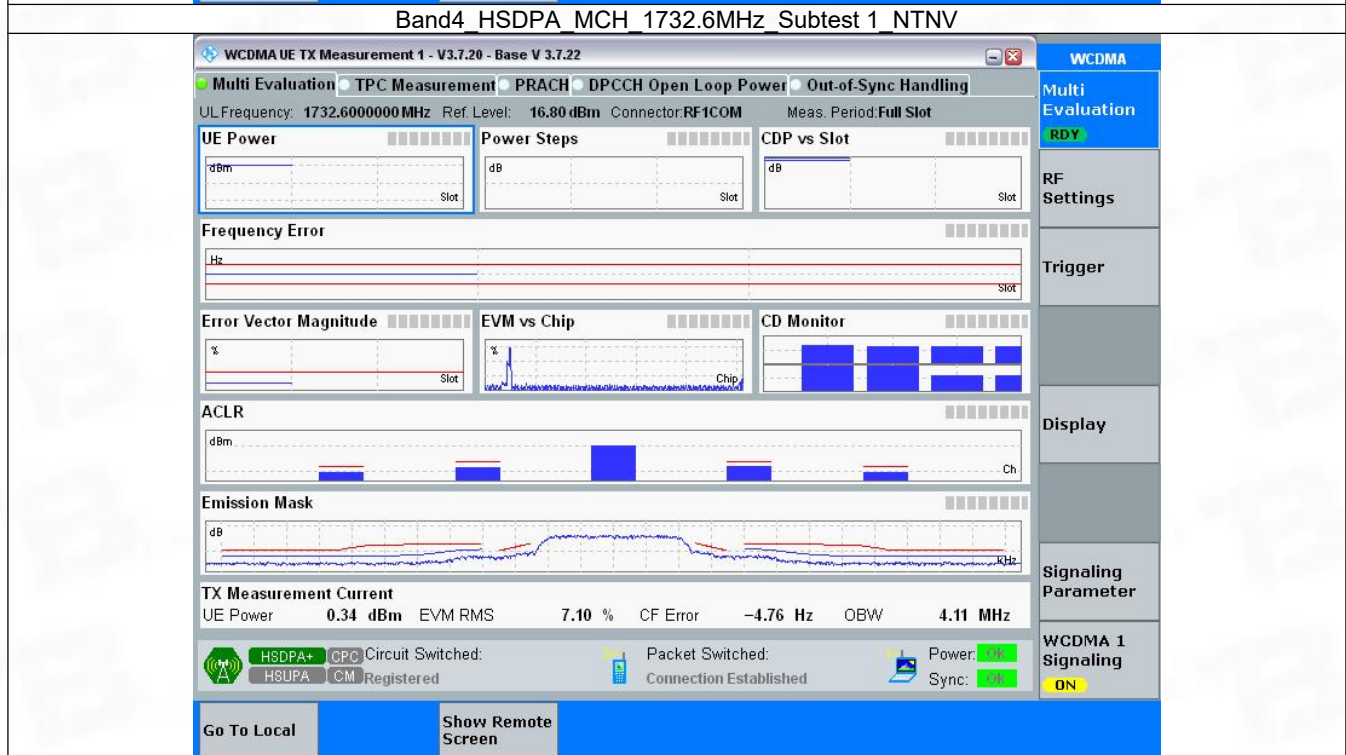
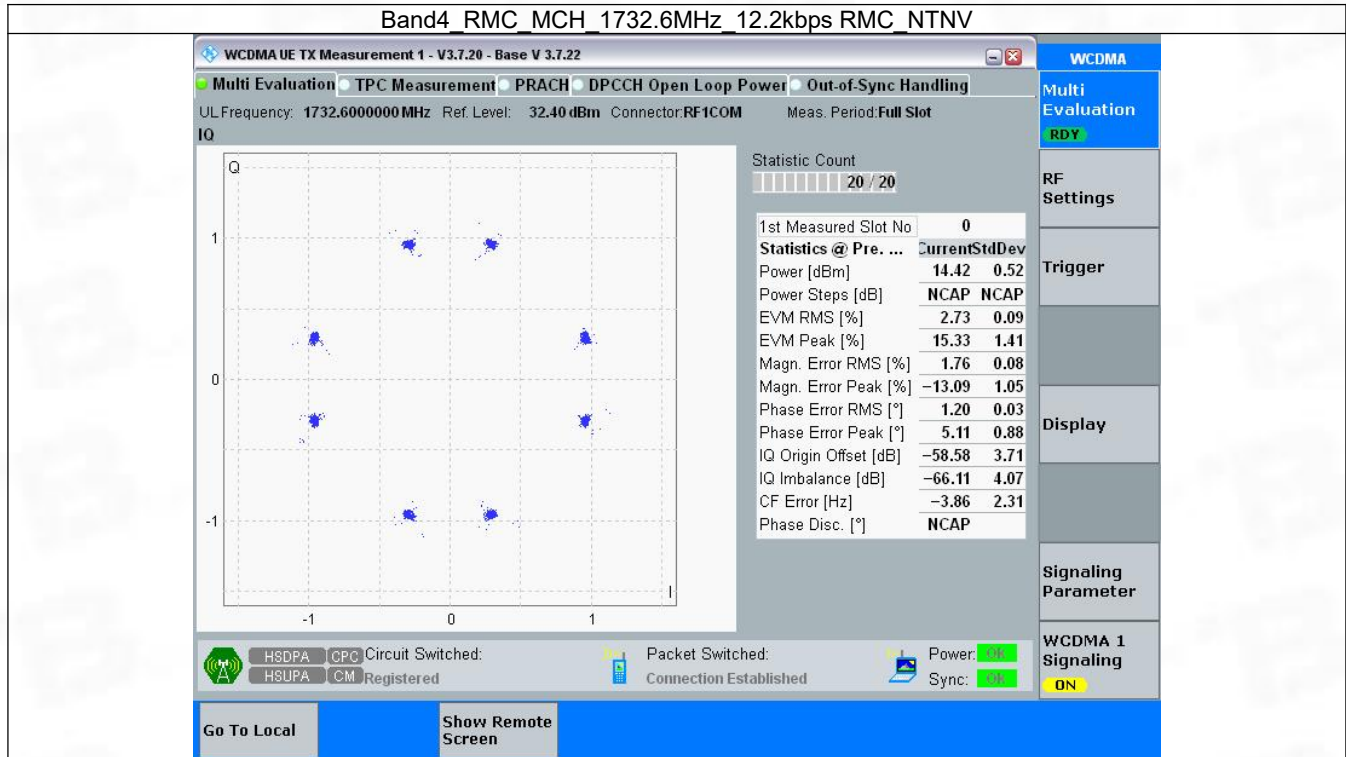
### 3. Modulation Characteristics

#### 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\_NTV

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: 16.80 dBm Connector:RF1COM Meas. Period:Full Slot

WCDMA

Multi Evaluation

RDY

---

RF Settings

---

Trigger

---

Display

---

Signaling Parameter

---

WCDMA 1 Signaling

ON

IQ

Statistic Count

██████████ 20 / 20

1st Measured Slot No	0
<b>Statistics @ Pre. ...</b>	<b>CurrentStdDev</b>
Power [dBm]	-0.46 3.05
Power Steps [dB]	NCAP NCAP
EVM RMS [%]	3.15 3.19
EVM Peak [%]	8.41 34.46
Magn. Error RMS [%]	1.83 3.46
Magn. Error Peak [%]	-5.65 35.83
Phase Error RMS [°]	2.39 0.47
Phase Error Peak [°]	8.35 1.84
IQ Origin Offset [dB]	-60.80 6.93
IQ Imbalance [dB]	-59.93 3.60
CF Error [Hz]	-5.92 6.28
Phase Disc. [°]	NCAP

HSDPA+

CPC

Circuit Switched:

HSUPA

CM

Registered

Packet Switched:

Connection Established

Power: 3.6

Sync: 3.3

Go To Local

Show Remote Screen

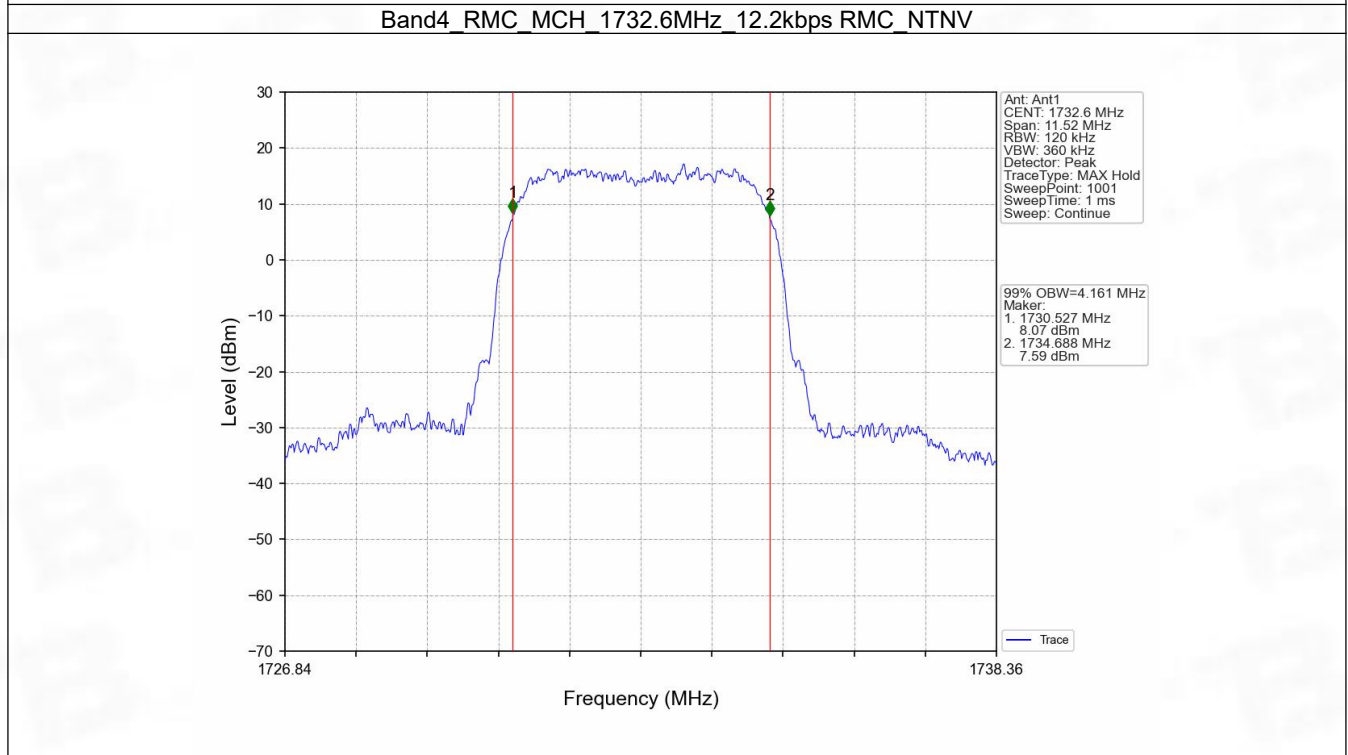
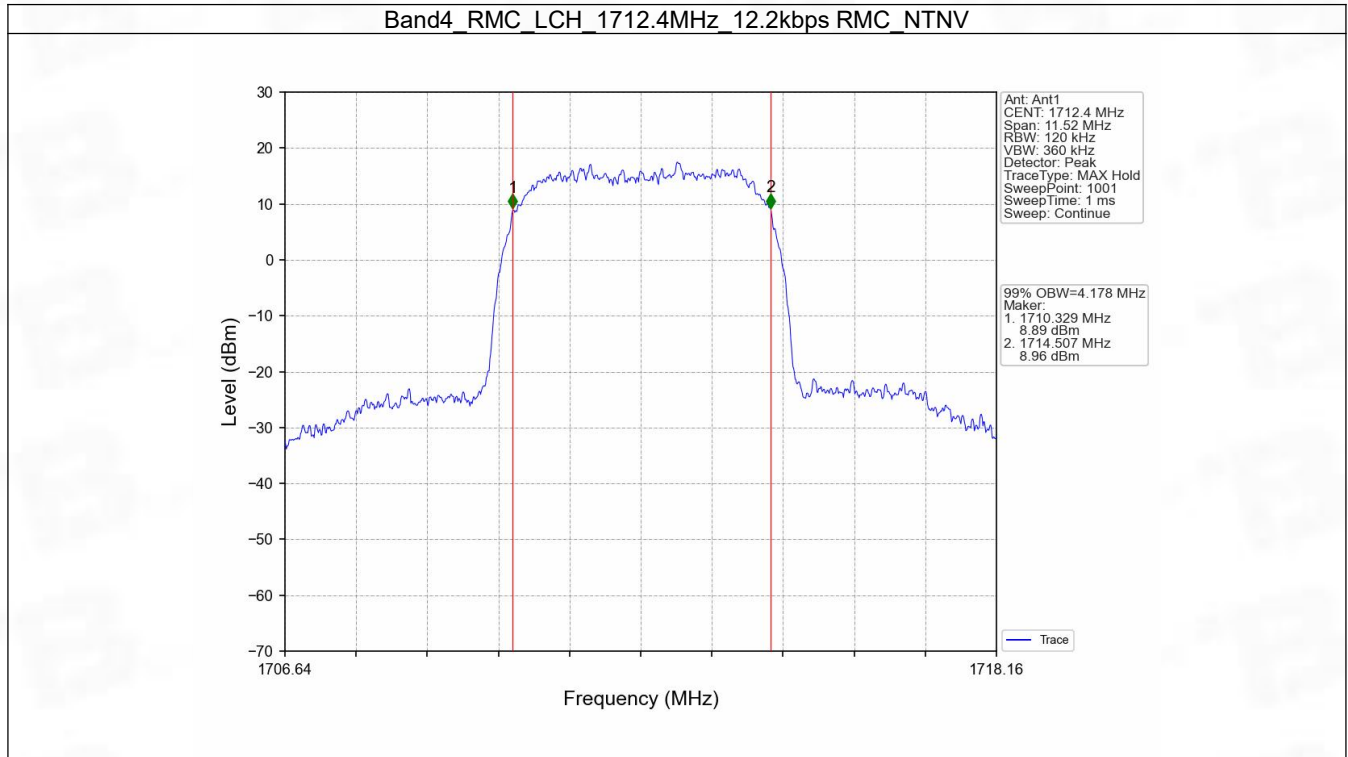
## 4. 99% & 26dB Bandwidth

### 4.1 Band4\_OBW

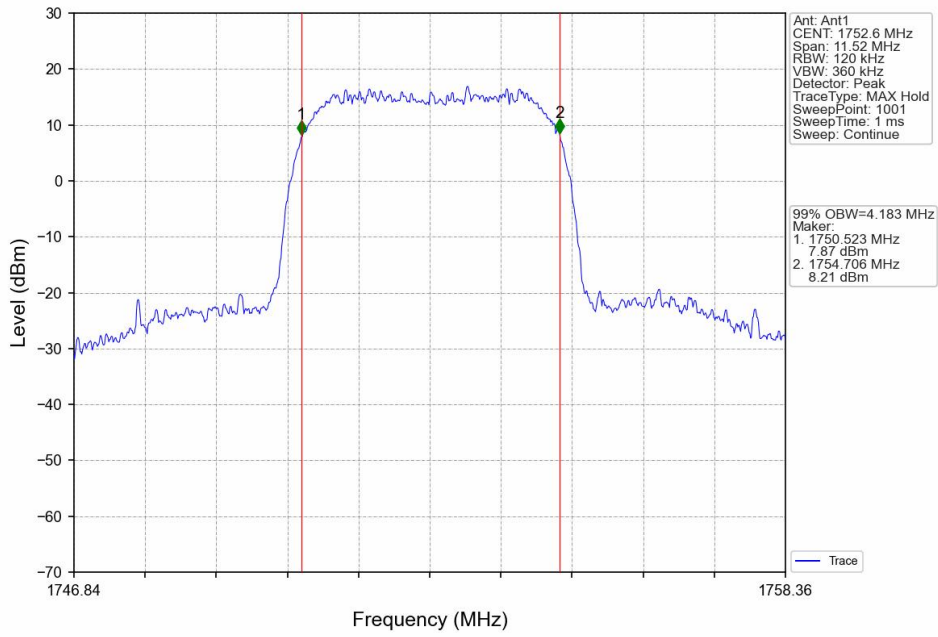
#### 4.1.1 Test Result

Band: 4						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	4.178	/	Pass
			1732.6	4.161	/	Pass
			1752.6	4.183	/	Pass
	HSDPA	Subtest 1	1712.4	4.183	/	Pass
			1732.6	4.187	/	Pass
			1752.6	4.184	/	Pass
	HSUPA	Subtest 1	1712.4	4.180	/	Pass
			1732.6	4.194	/	Pass
			1752.6	4.206	/	Pass

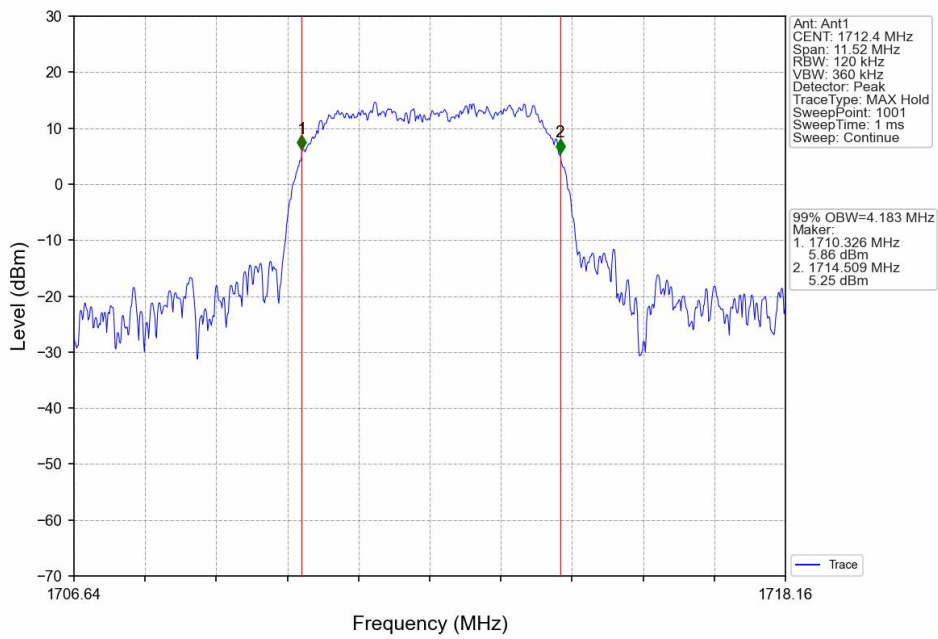
### 4.1.2 Test Graph



Band4\_RMC\_HCH\_1752.6MHz\_12.2kbps\_RMC\_NTNV

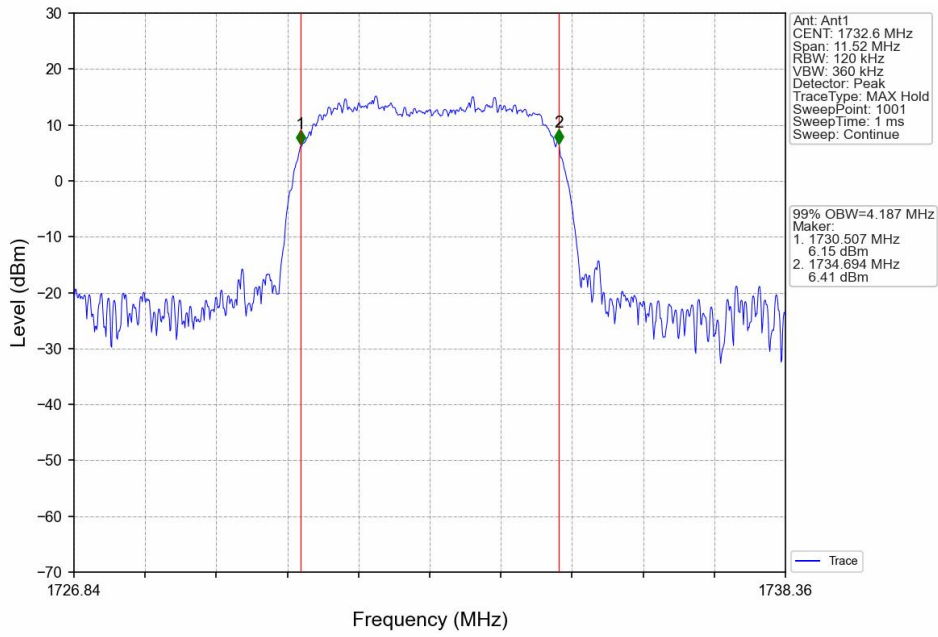


Band4\_HSDPA\_LCH\_1712.4MHz\_Subtest 1\_NTNV

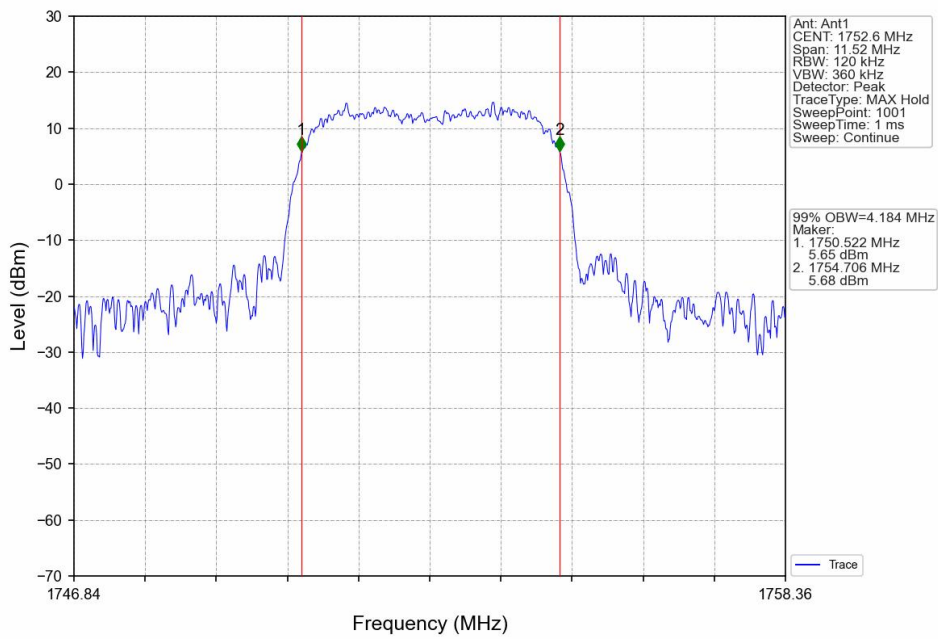




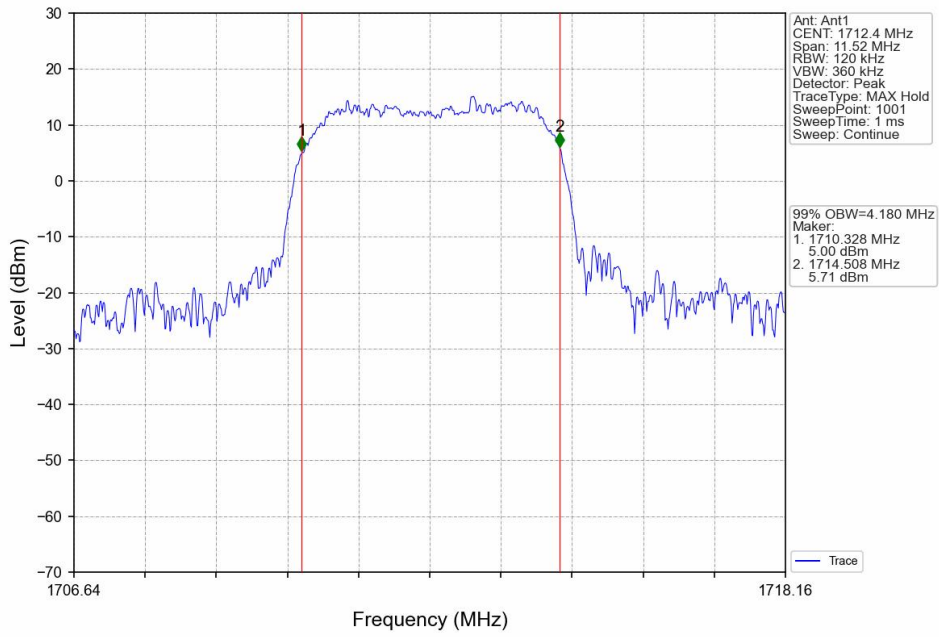
Band4\_HSDPA\_MCH\_1732.6MHz\_Subtest 1\_NTNV



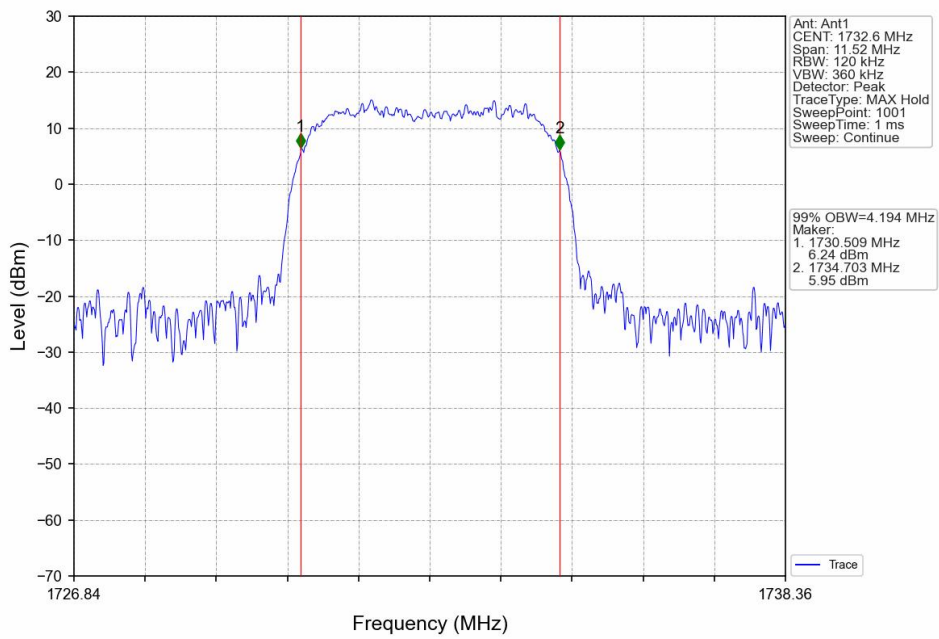
Band4\_HSDPA\_HCH\_1752.6MHz\_Subtest 1\_NTNV



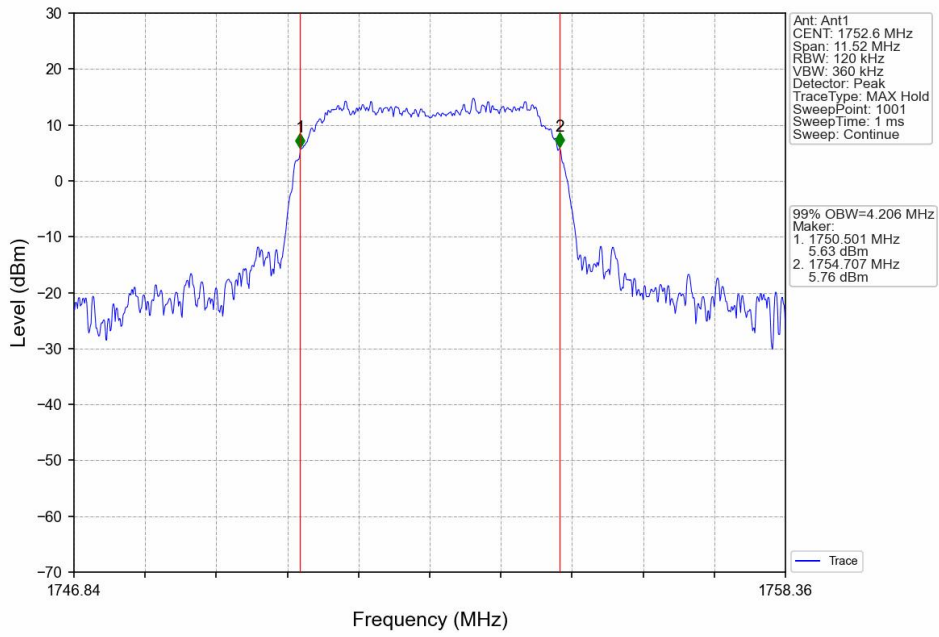
Band4\_HSUPA\_LCH\_1712.4MHz\_Subtest 1\_NTNV



Band4\_HSUPA\_MCH\_1732.6MHz\_Subtest 1\_NTNV



Band4 HSUPA HCH 1752.6MHz\_Subtest 1\_NTNV

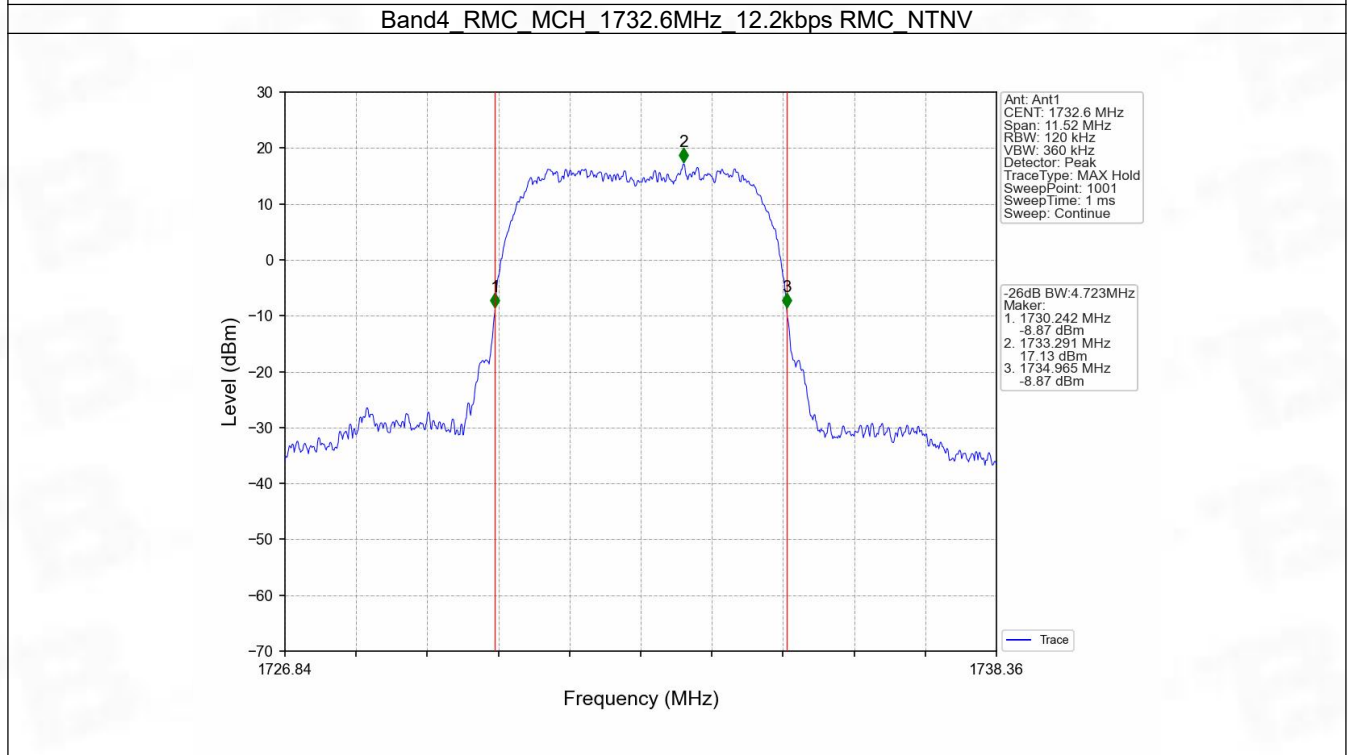
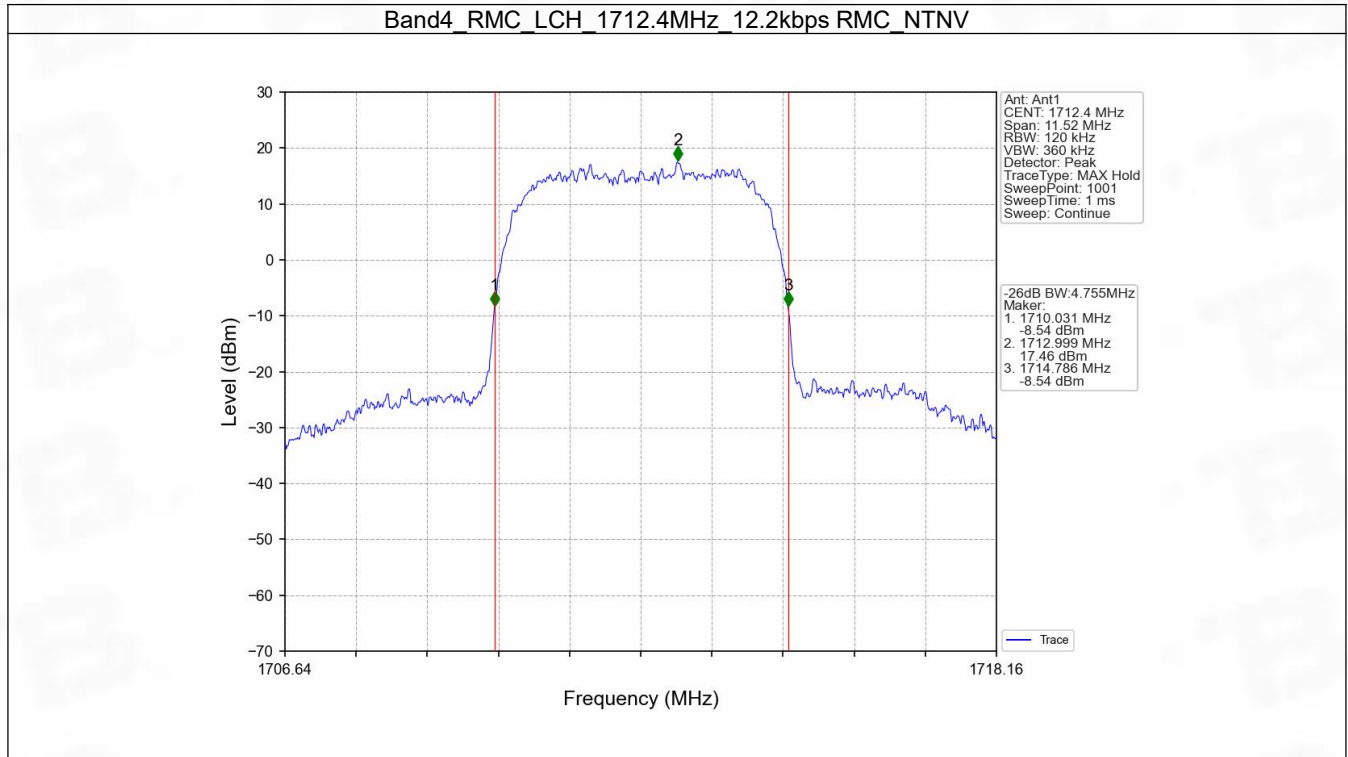


## 4.2 Band4\_XDB

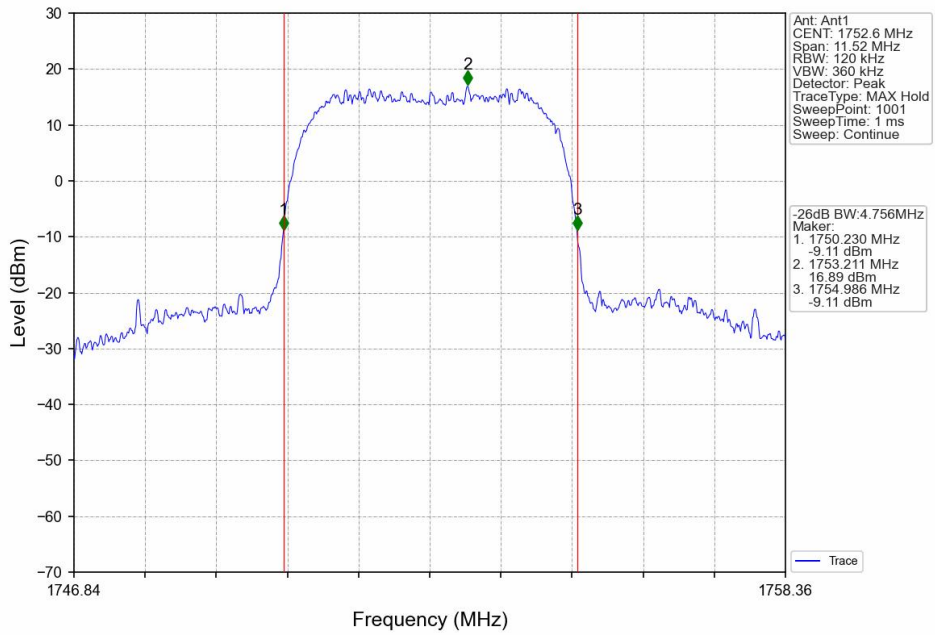
### 4.2.1 Test Result

Band: 4						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	4.755	/	Pass
			1732.6	4.723	/	Pass
			1752.6	4.756	/	Pass
	HSDPA	Subtest 1	1712.4	4.735	/	Pass
			1732.6	4.729	/	Pass
			1752.6	4.726	/	Pass
	HSUPA	Subtest 1	1712.4	4.734	/	Pass
			1732.6	4.737	/	Pass
			1752.6	4.735	/	Pass

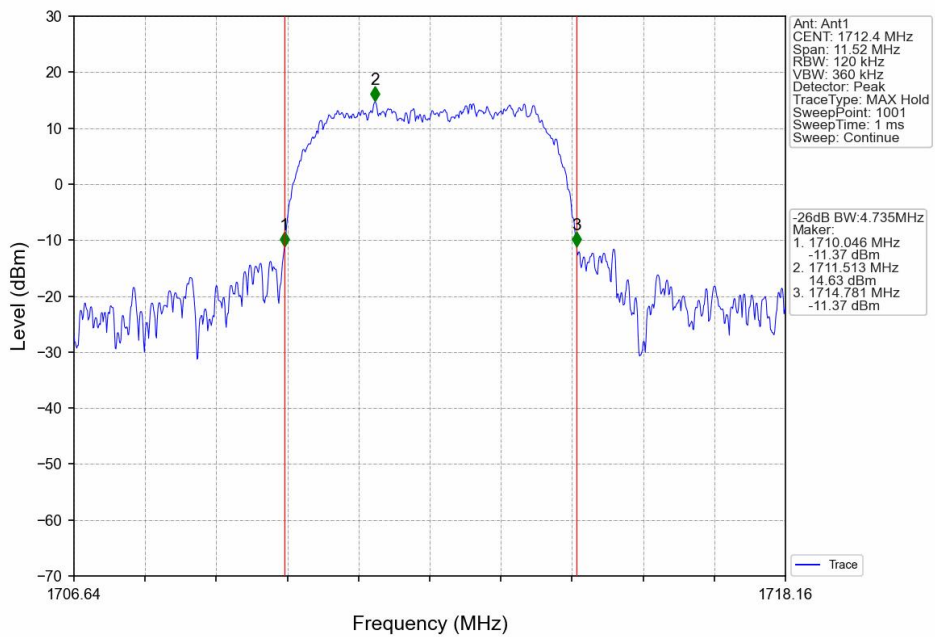
## 4.2.2 Test Graph



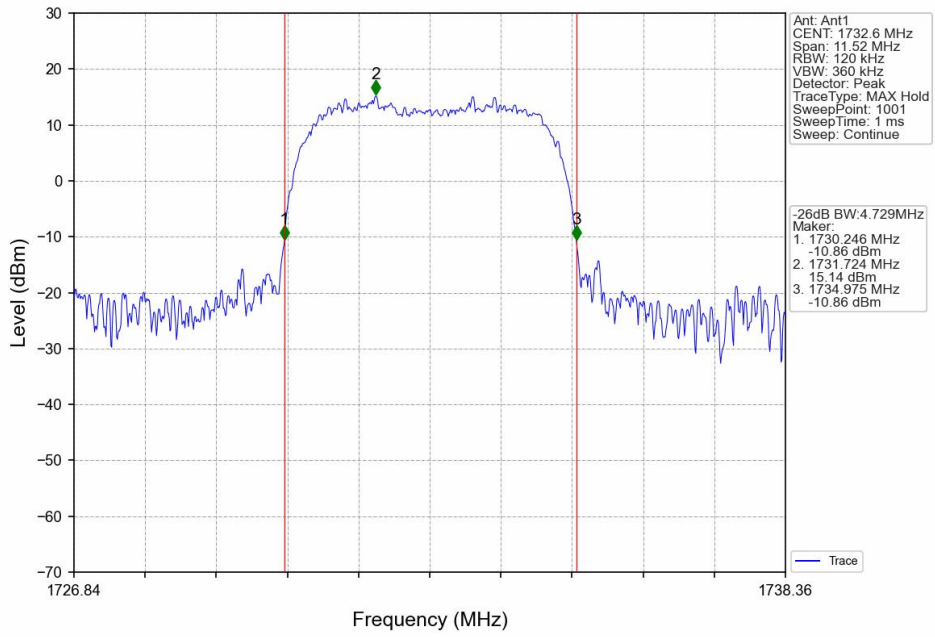
Band4\_RMC\_HCH\_1752.6MHz\_12.2kbps\_RMC\_NTNV



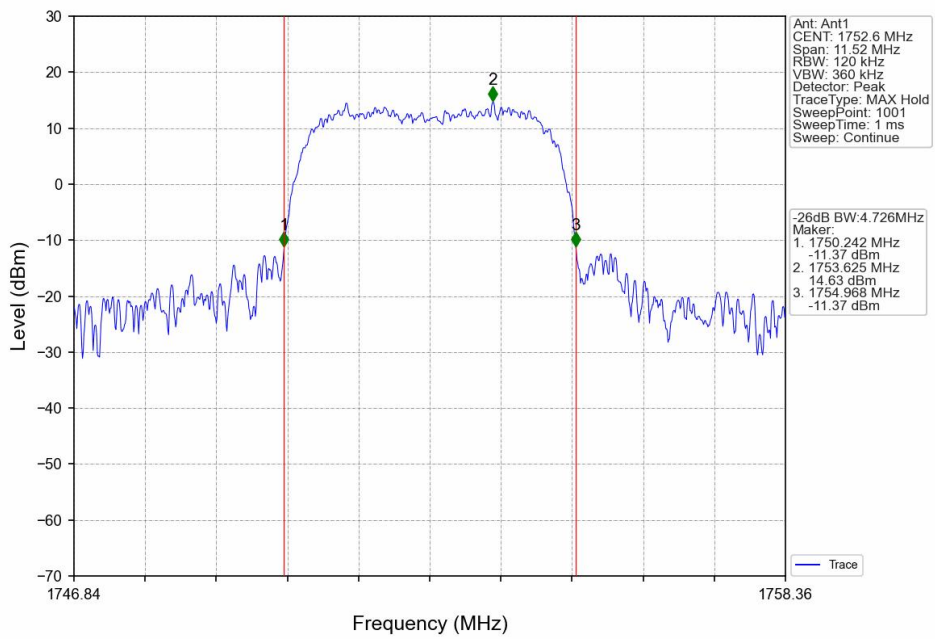
Band4\_HSDPA\_LCH\_1712.4MHz\_Subtest 1\_NTNV



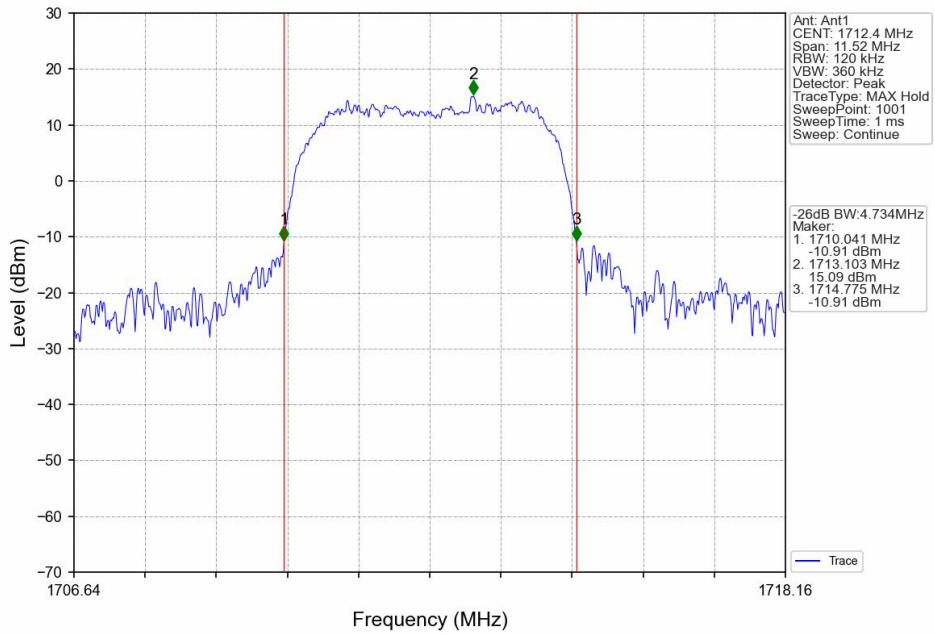
Band4\_HSDPA\_MCH\_1732.6MHz\_Subtest 1\_NTNV



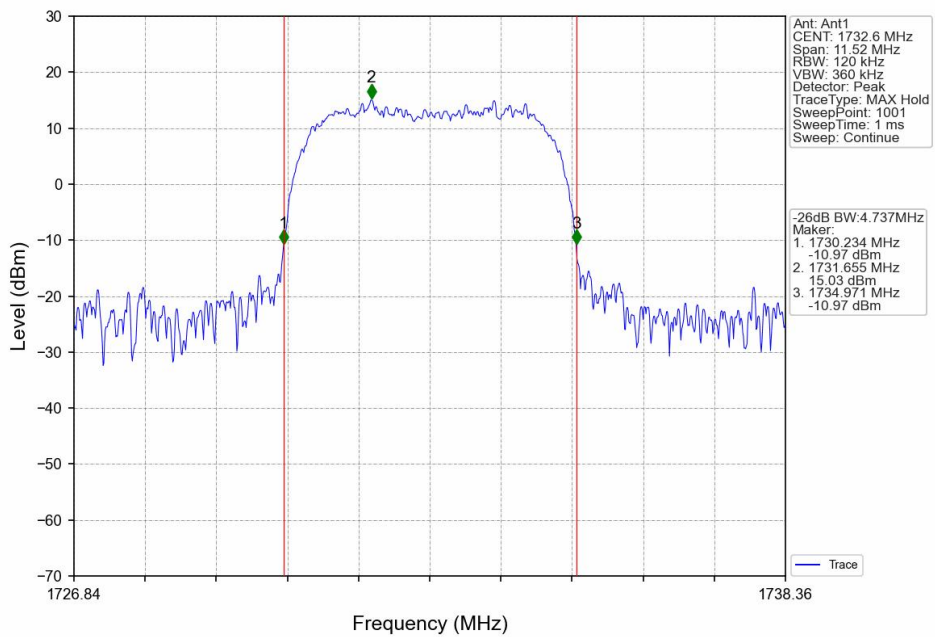
Band4\_HSDPA\_HCH\_1752.6MHz\_Subtest 1\_NTNV



Band4\_HSUPA\_LCH\_1712.4MHz\_Subtest 1\_NTNV

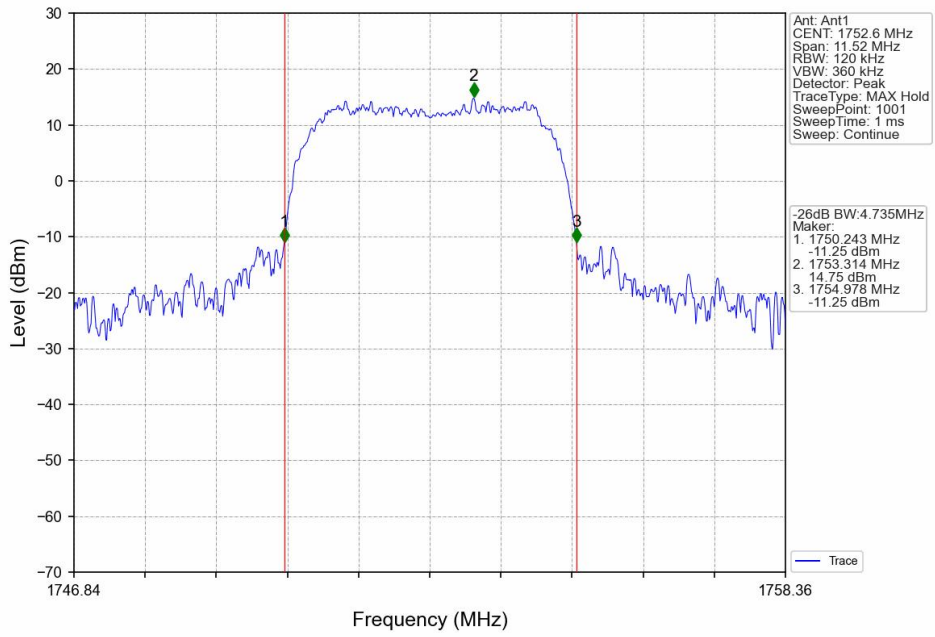


Band4\_HSUPA\_MCH\_1732.6MHz\_Subtest 1\_NTNV





Band4 HSUPA HCH 1752.6MHz Subtest 1\_NTNV



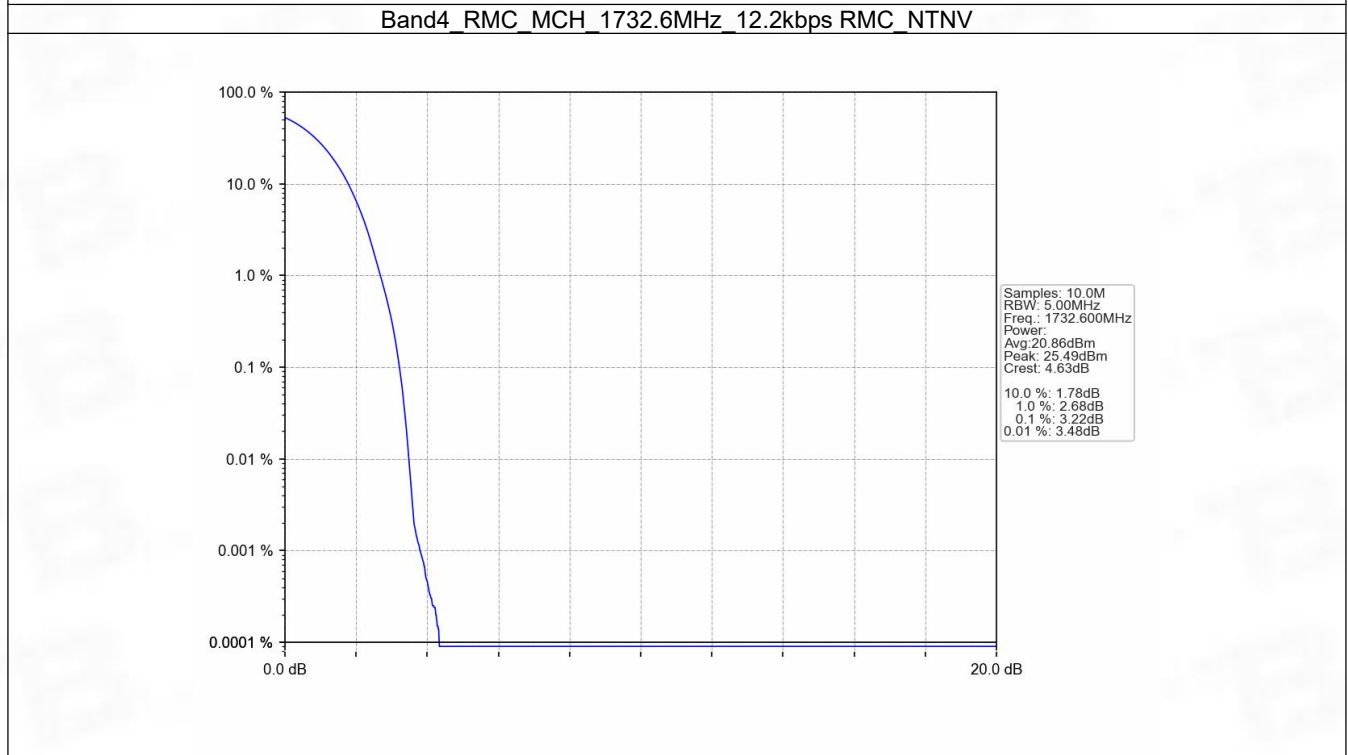
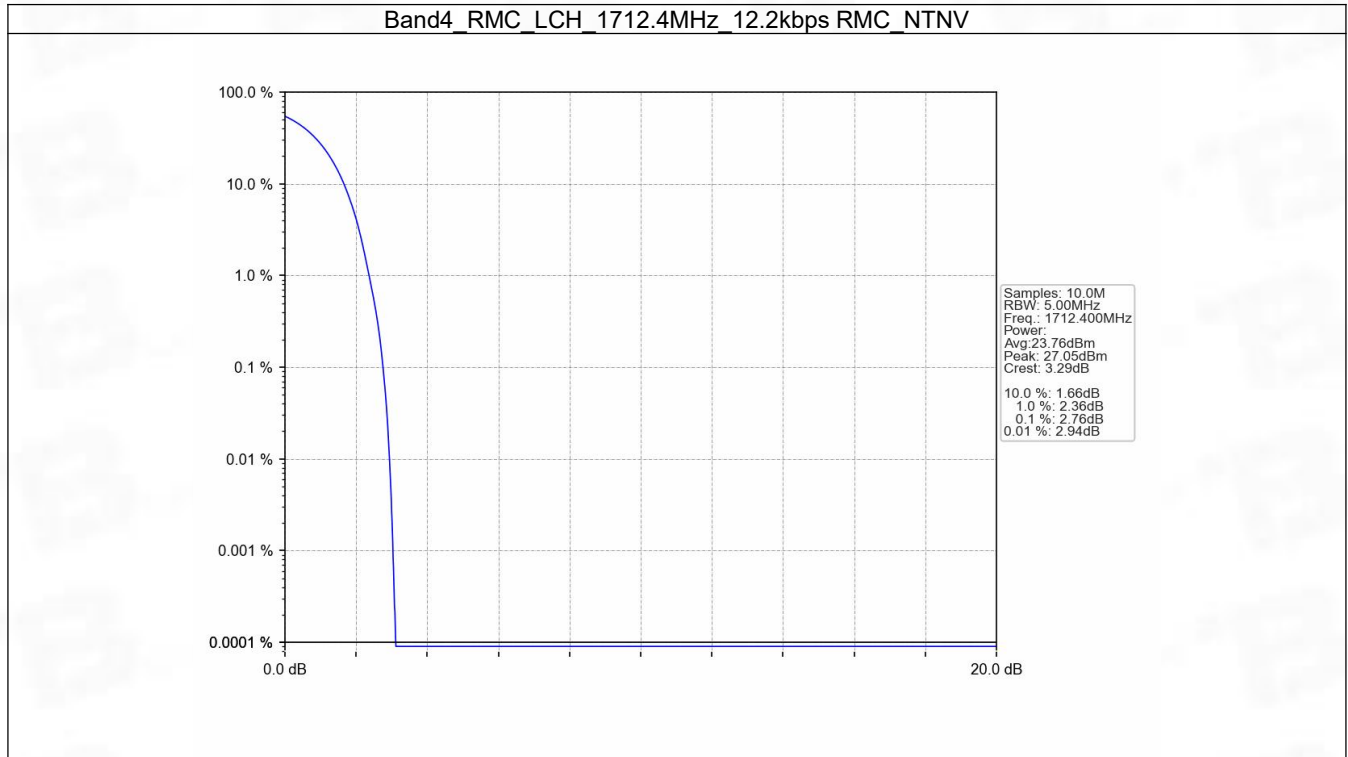
## 5. Peak-Average Ratio

### 5.1 Band4

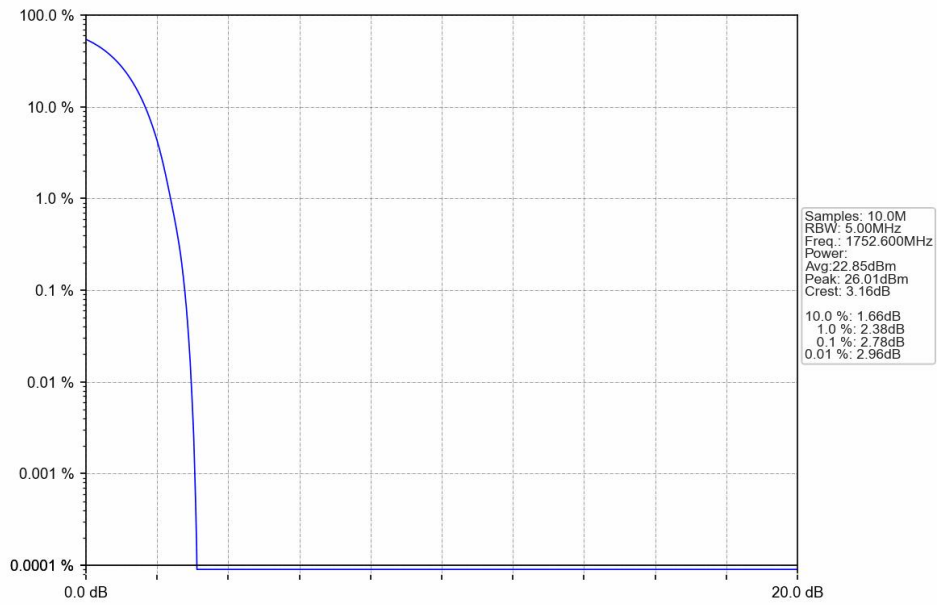
#### 5.1.1 Test Result

Band: 4						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	2.76	<=13	Pass
			1732.6	3.22	<=13	Pass
			1752.6	2.78	<=13	Pass
	HSDPA	Subtest 1	1712.4	5.87	<=13	Pass
			1732.6	5.96	<=13	Pass
			1752.6	5.74	<=13	Pass
	HSUPA	Subtest 1	1712.4	5.80	<=13	Pass
			1732.6	6.09	<=13	Pass
			1752.6	5.88	<=13	Pass

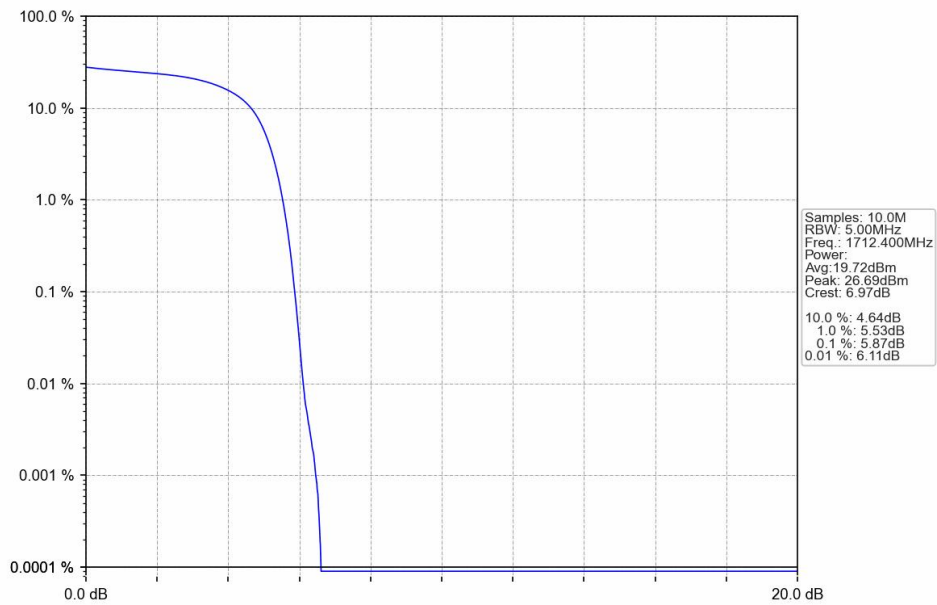
## 5.1.2 Test Graph



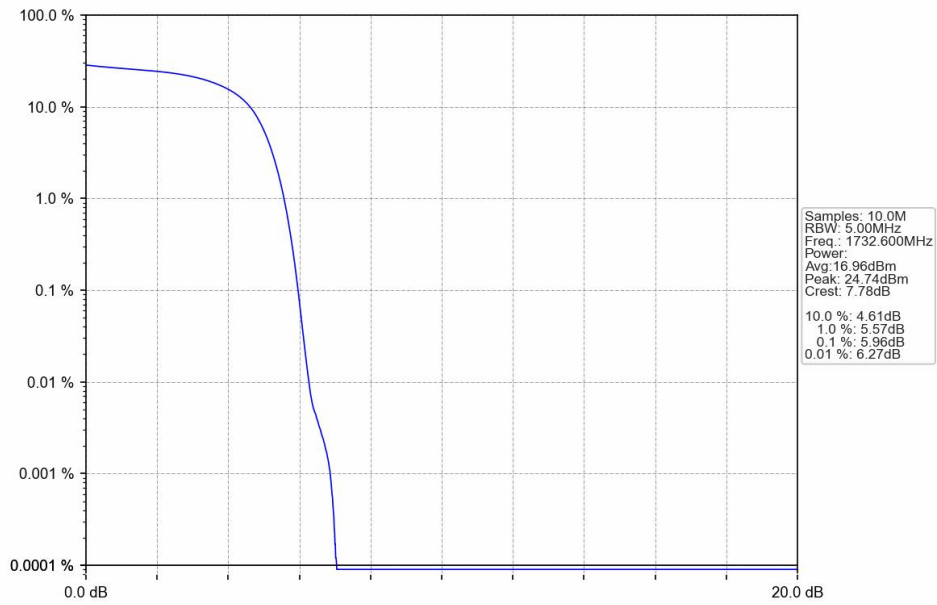
Band4\_RMC\_HCH\_1752.6MHz\_12.2kbps\_RMC\_NTNV



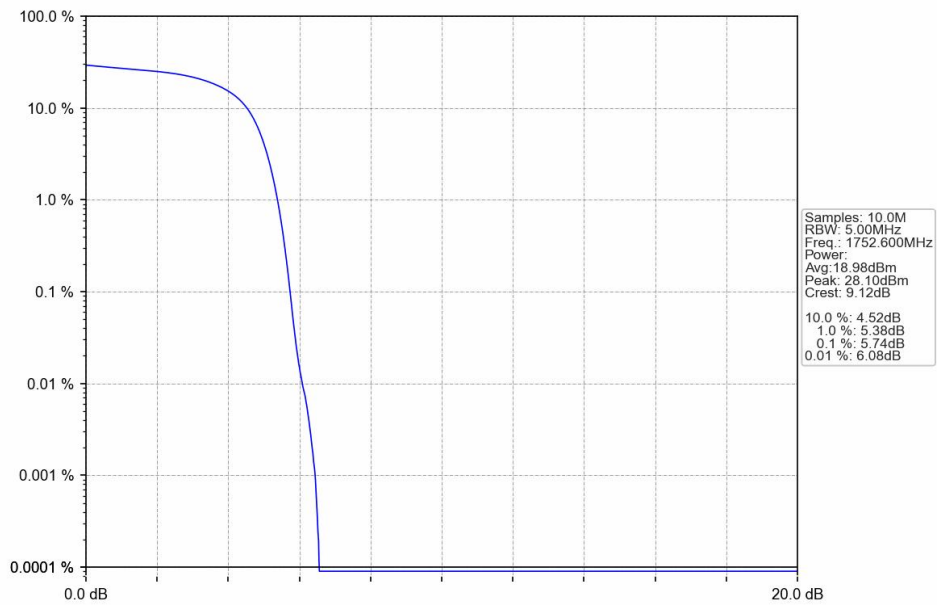
Band4\_HSDPA\_LCH\_1712.4MHz\_Subtest 1\_NTNV



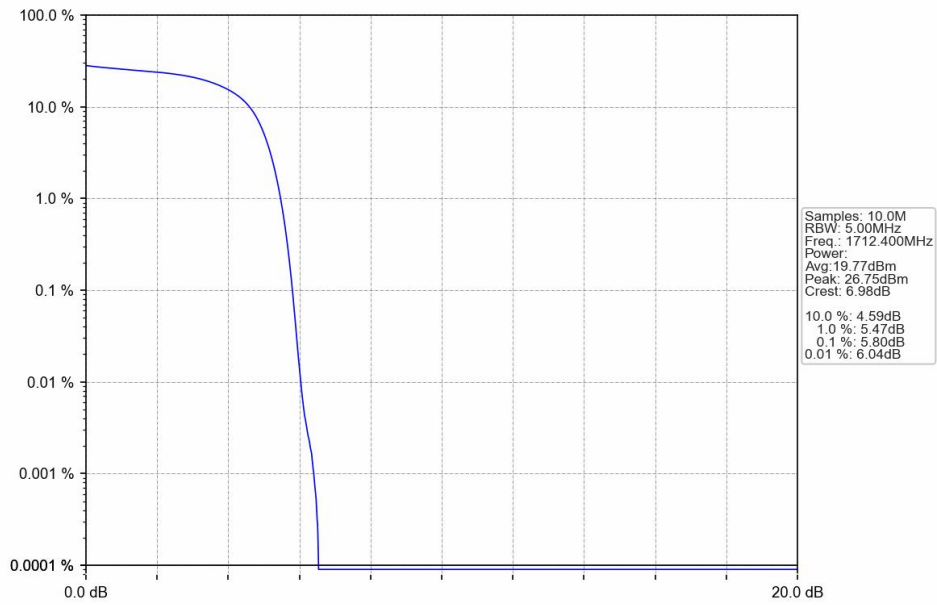
Band4\_HSDPA\_MCH\_1732.6MHz\_Subtest 1\_NTNV



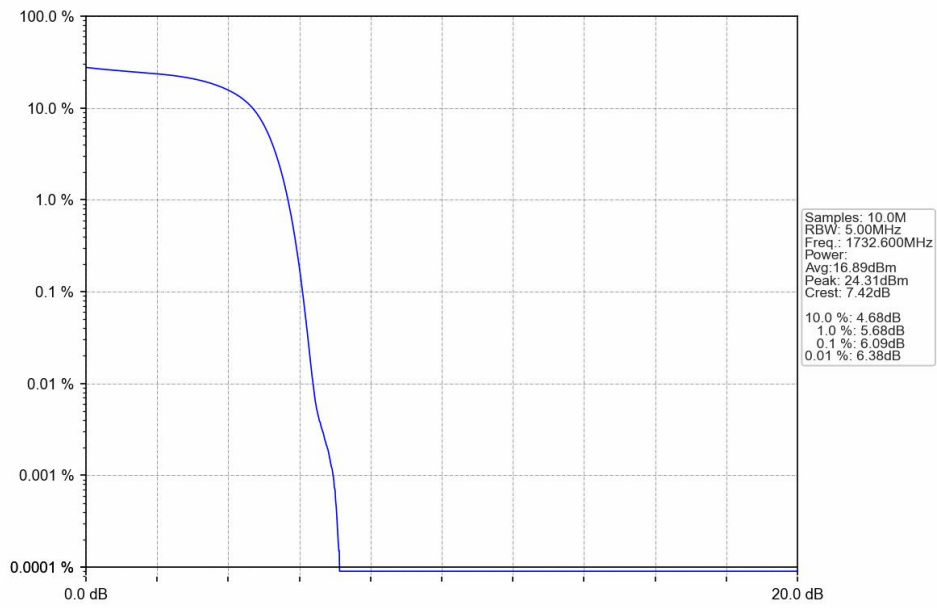
Band4\_HSDPA\_HCH\_1752.6MHz\_Subtest 1\_NTNV



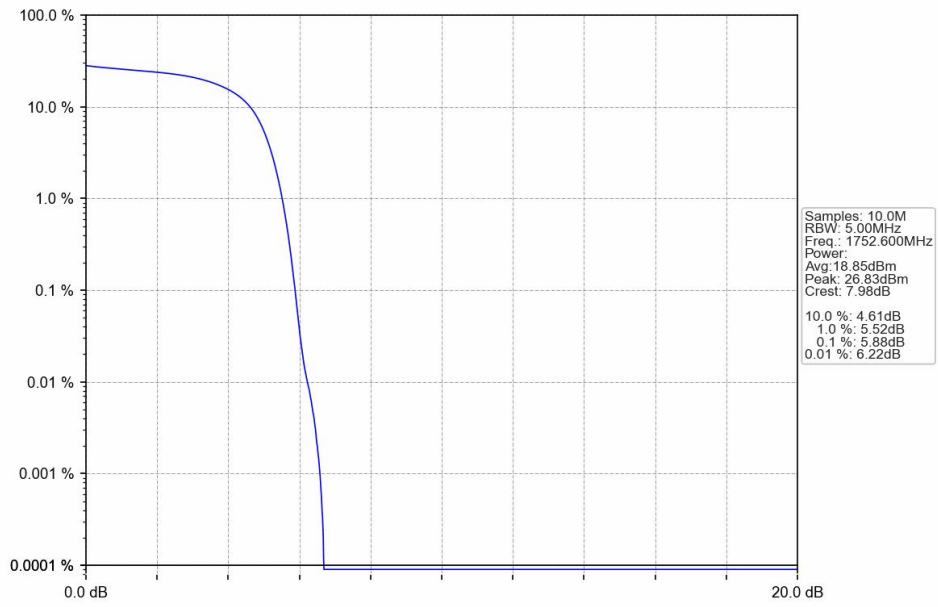
Band4\_HSUPA\_LCH\_1712.4MHz\_Subtest 1\_NTNV



Band4\_HSUPA\_MCH\_1732.6MHz\_Subtest 1\_NTNV



Band4 HSUPA HCH 1752.6MHz Subtest 1\_NTNV



## 6. Spurious Emission

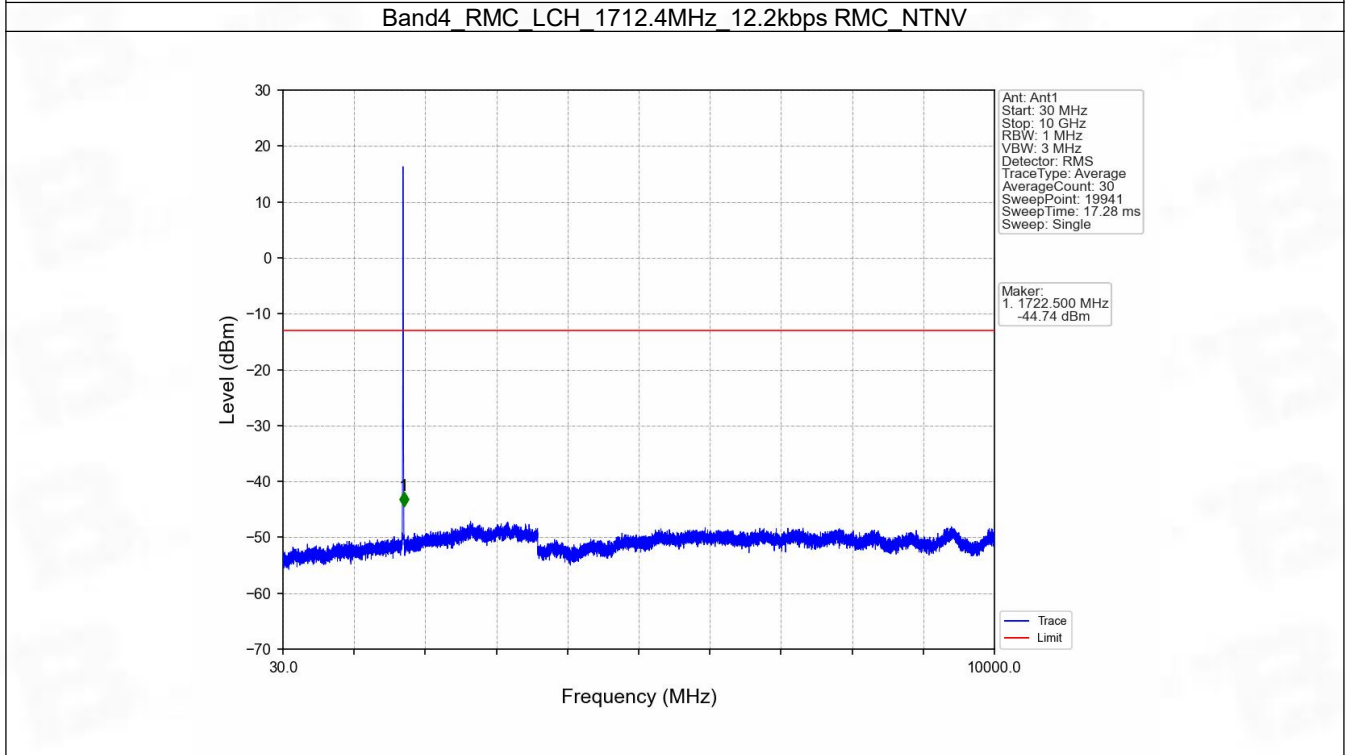
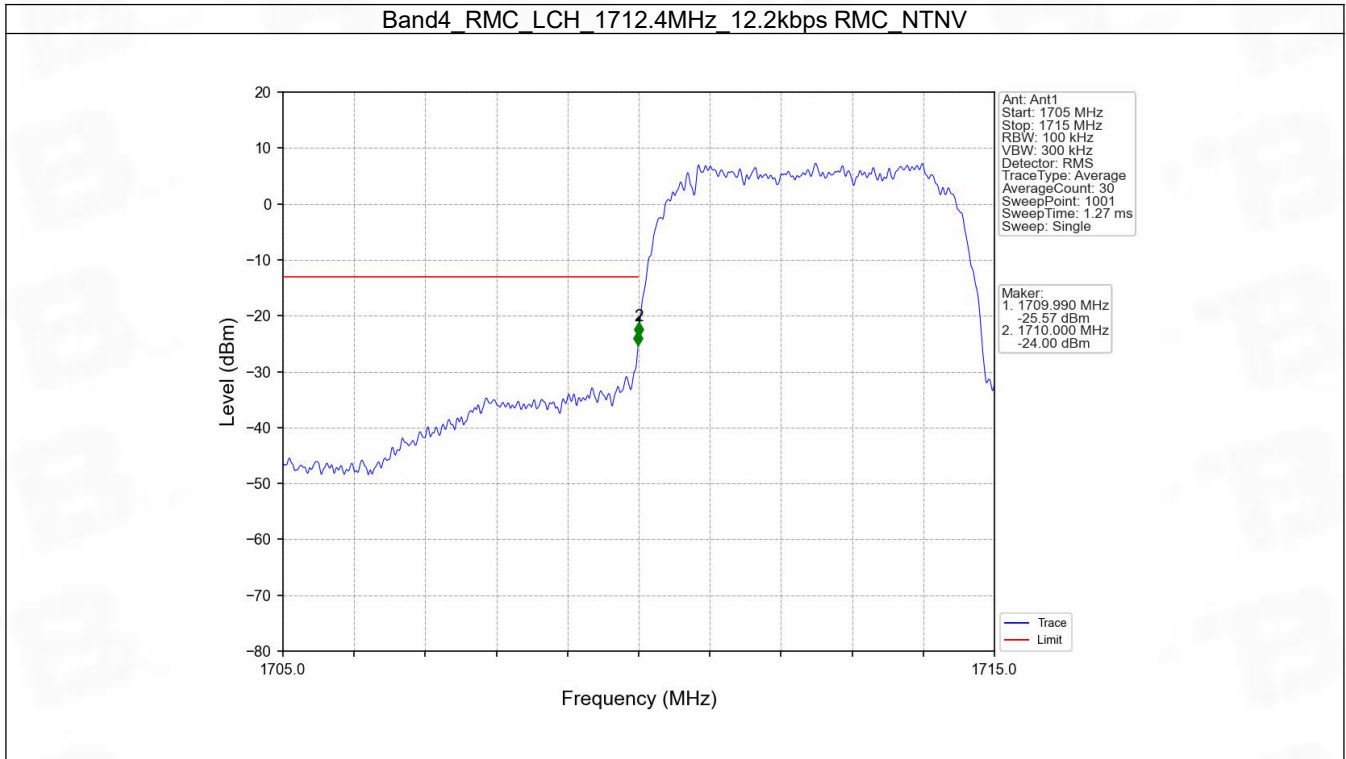
### 6.1 Band4

#### 6.1.1 Test Result

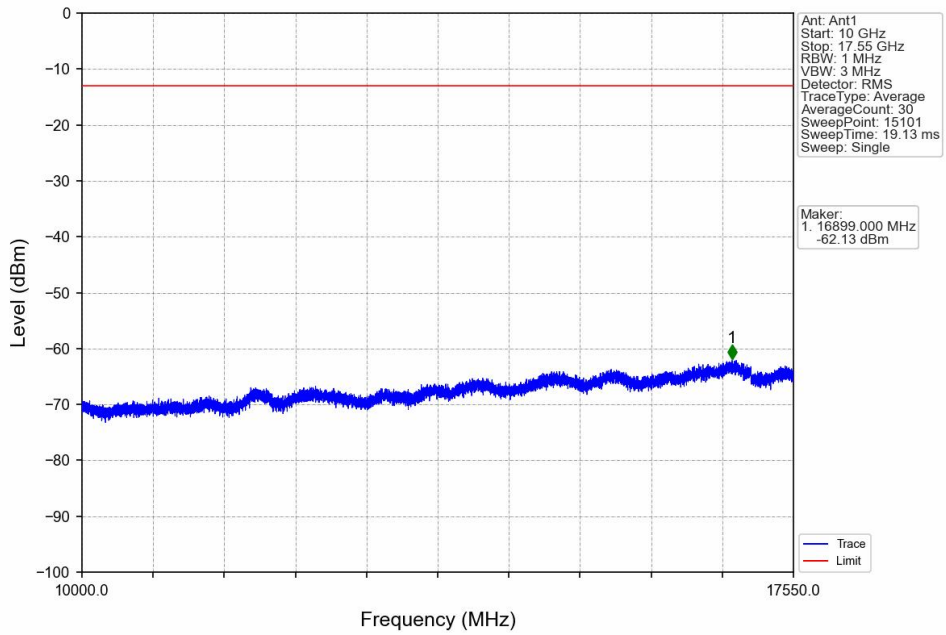
Band: 4						
ENV	Mode		Frequency (MHz)	Spurious Emission		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	Refer To Test Graph	Pass	
			1732.6	Refer To Test Graph	Pass	
			1752.6	Refer To Test Graph	Pass	
	HSDPA	Subtest 1	1712.4	Refer To Test Graph	Pass	
			1732.6	Refer To Test Graph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



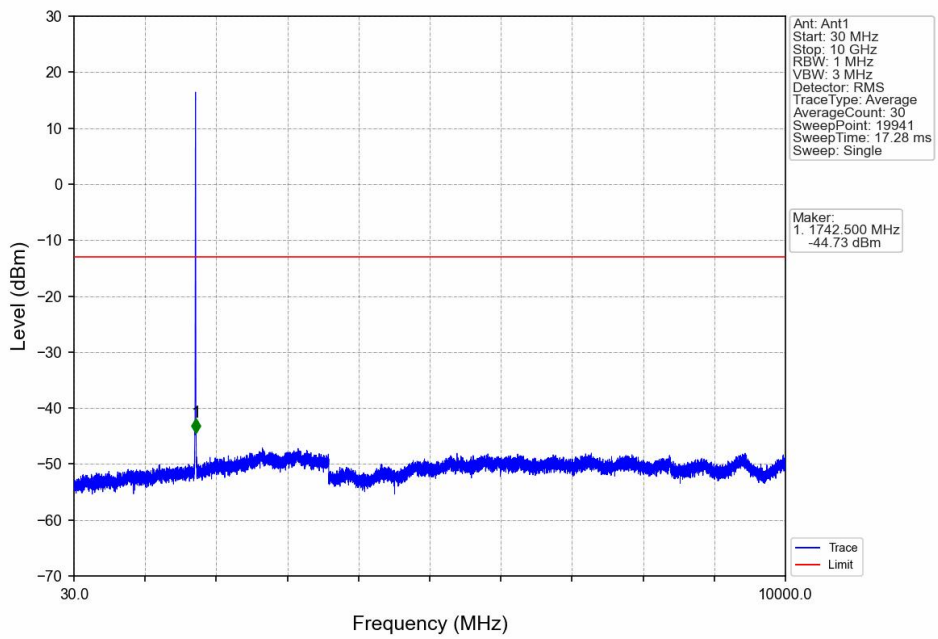
### 6.1.2 Test Graph



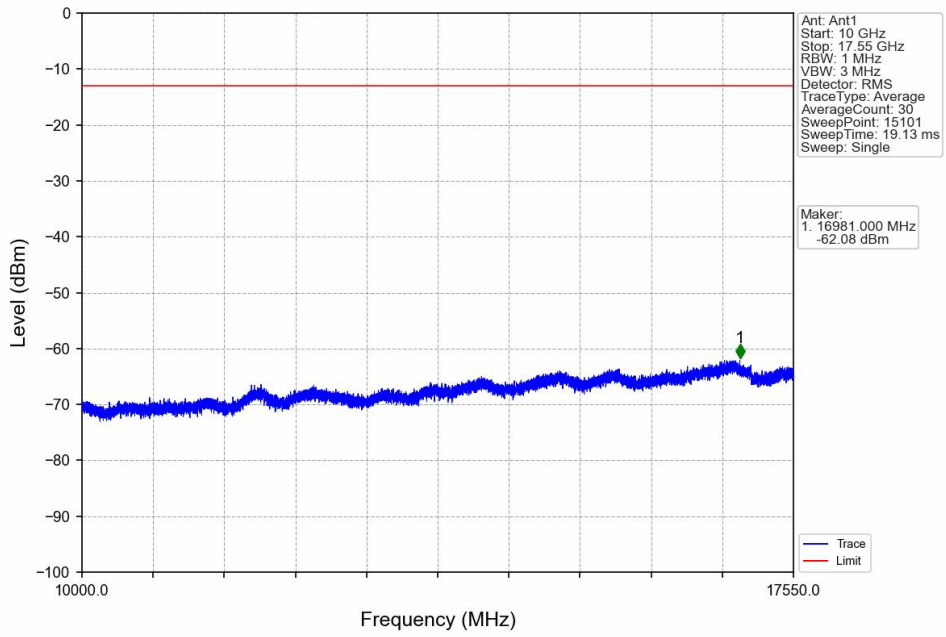
Band4\_RMC\_LCH\_1712.4MHz\_12.2kbps\_RMC\_NTNV



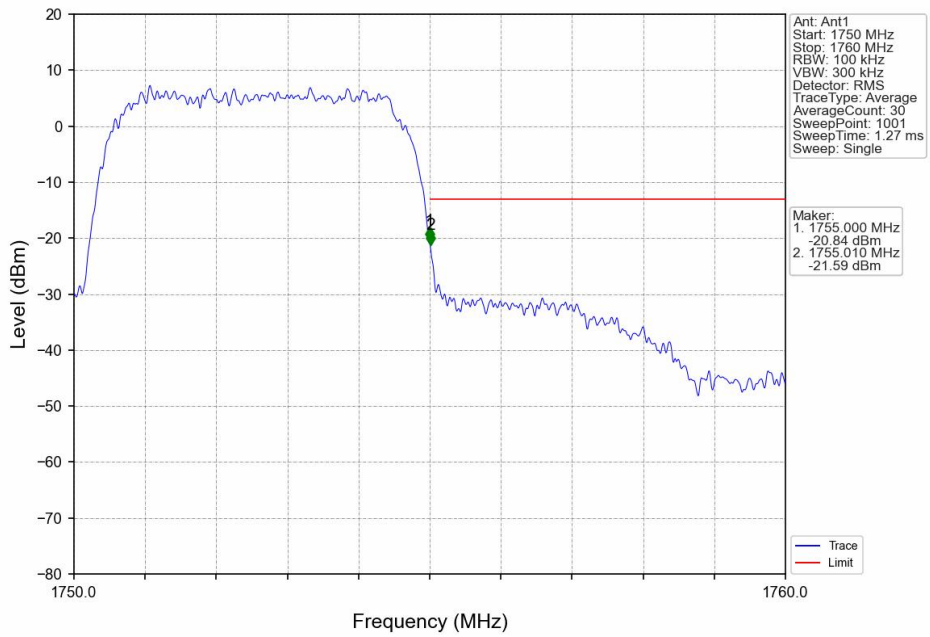
Band4\_RMC\_MCH\_1732.6MHz\_12.2kbps\_RMC\_NTNV



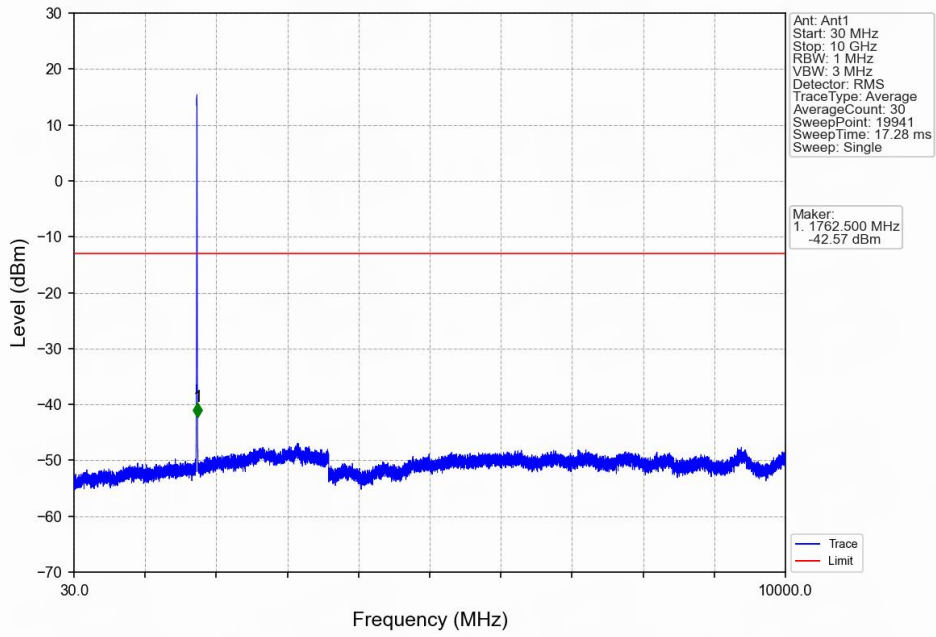
Band4\_RMC\_MCH\_1732.6MHz\_12.2kbps\_RMC\_NTNV



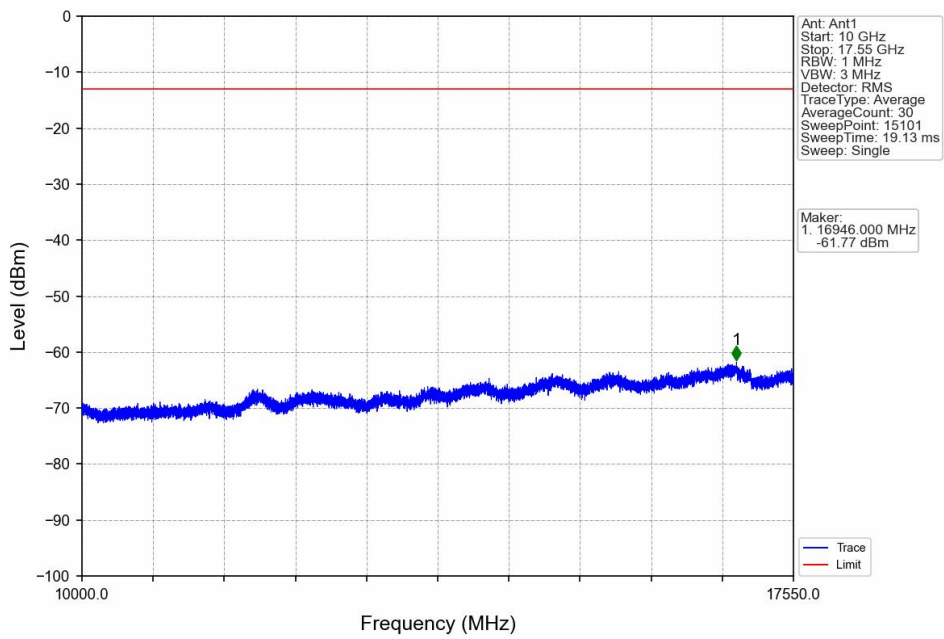
Band4\_RMC\_HCH\_1752.6MHz\_12.2kbps\_RMC\_NTNV



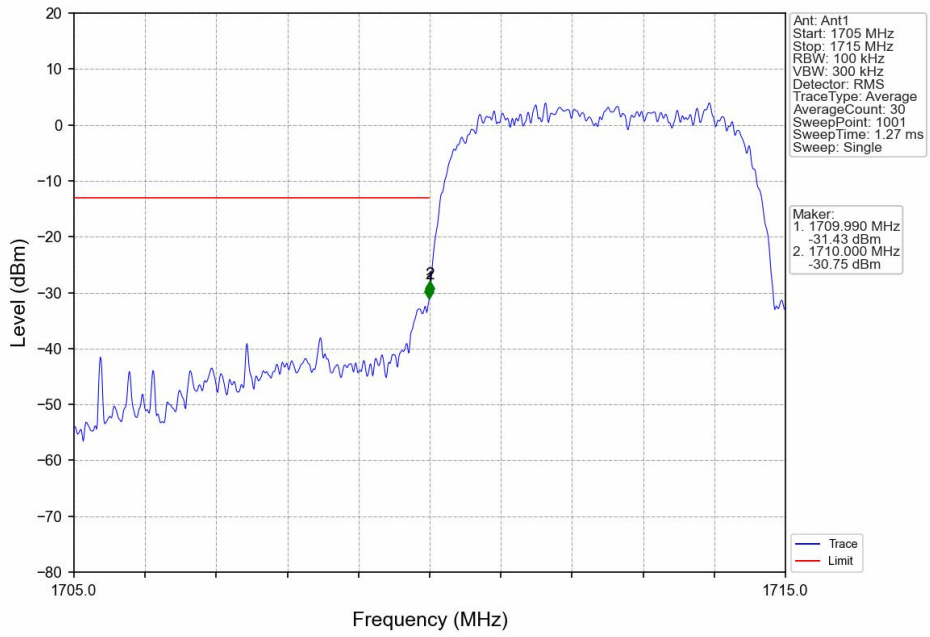
Band4\_RMC\_HCH\_1752.6MHz\_12.2kbps\_RMC\_NTNV



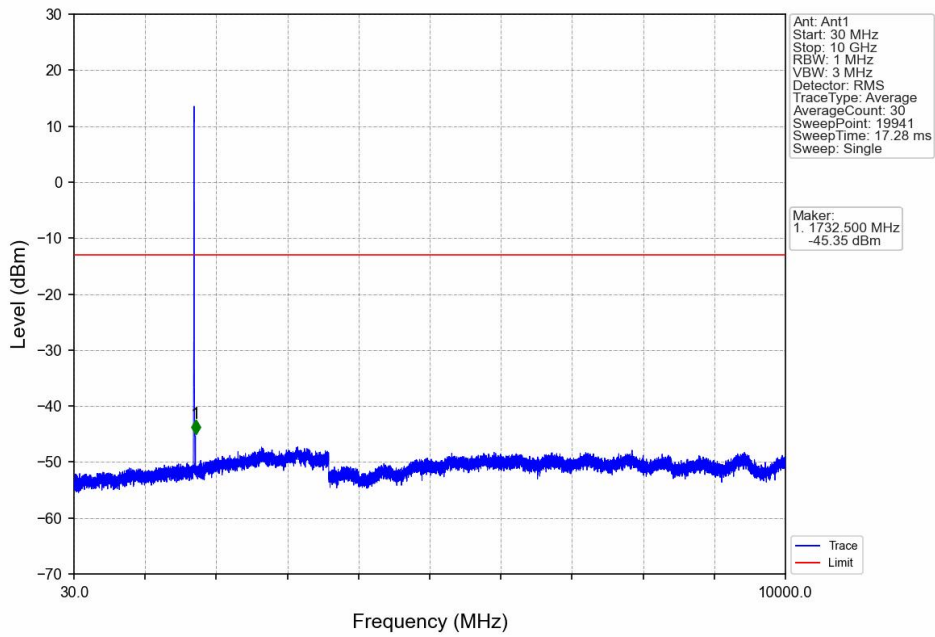
Band4\_RMC\_HCH\_1752.6MHz\_12.2kbps\_RMC\_NTNV



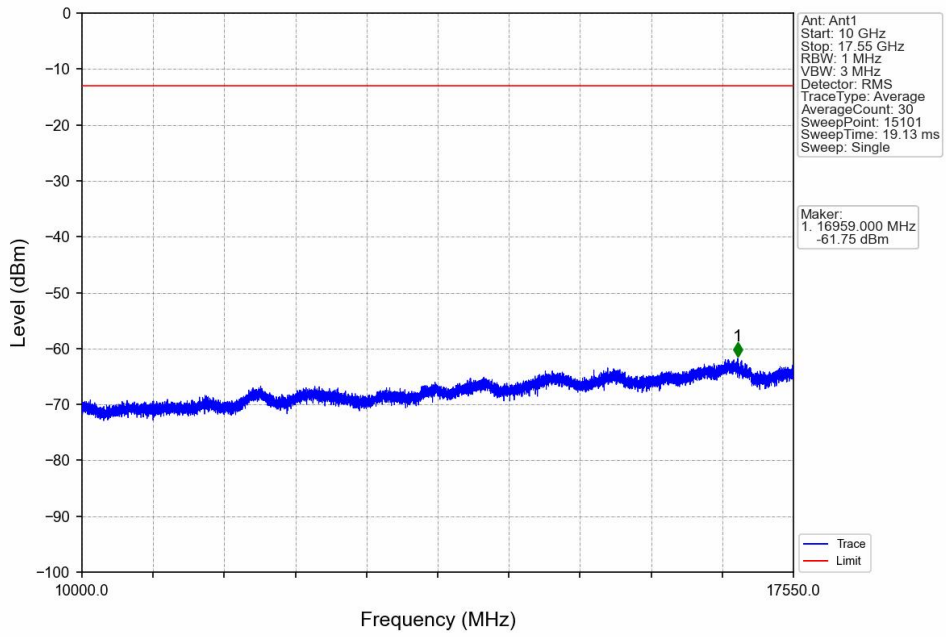
Band4\_HSDPA\_LCH\_1712.4MHz\_Subtest 1\_NTNV



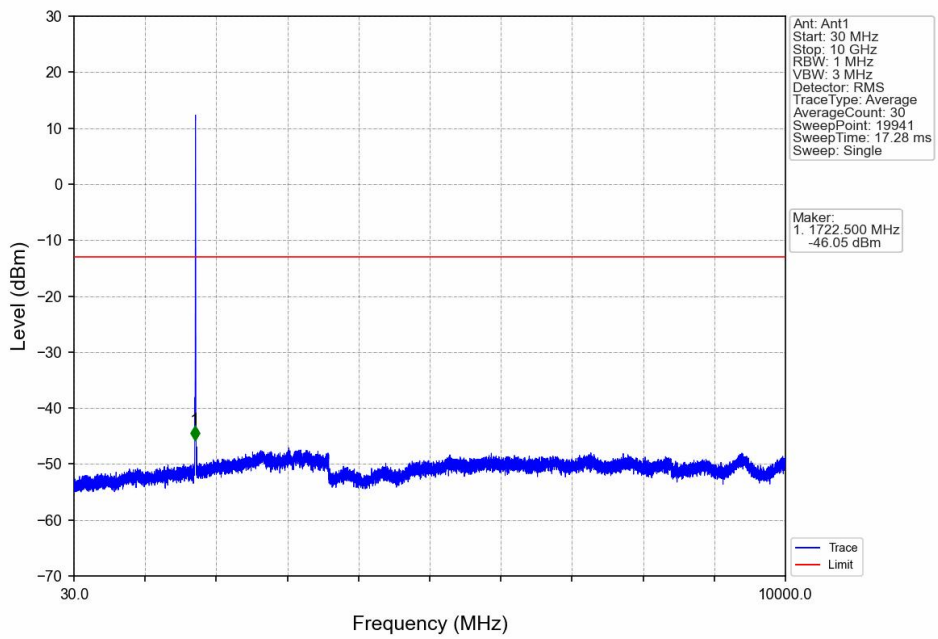
Band4\_HSDPA\_LCH\_1712.4MHz\_Subtest 1\_NTNV



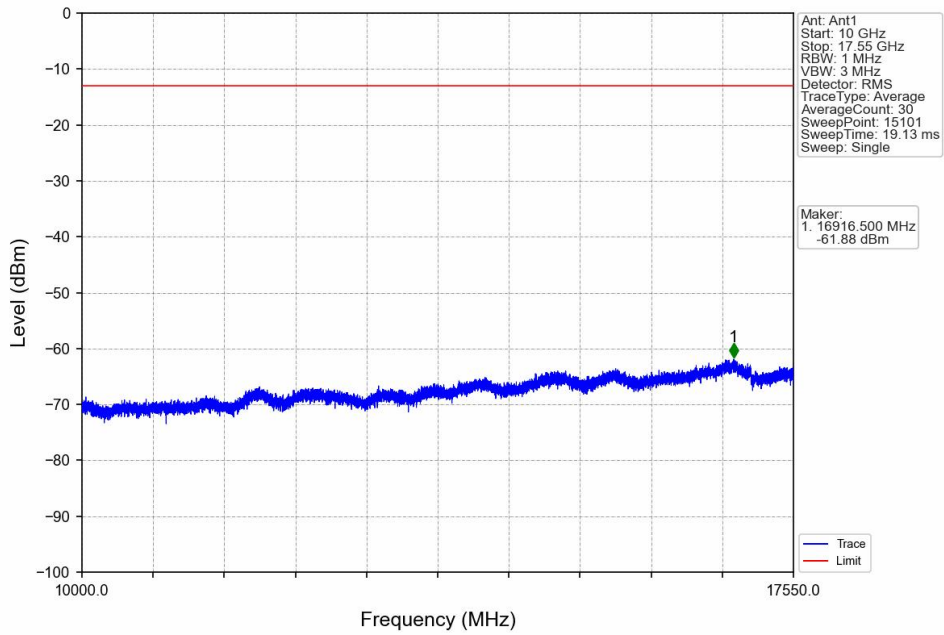
Band4\_HSDPA\_LCH\_1712.4MHz\_Subtest 1\_NTNV



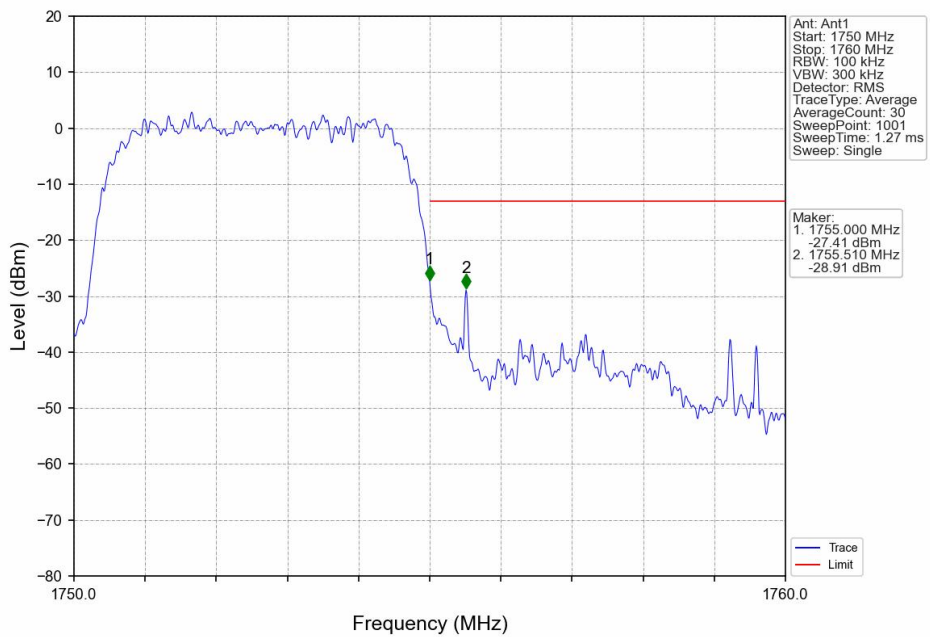
Band4\_HSDPA\_MCH\_1732.6MHz\_Subtest 1\_NTNV



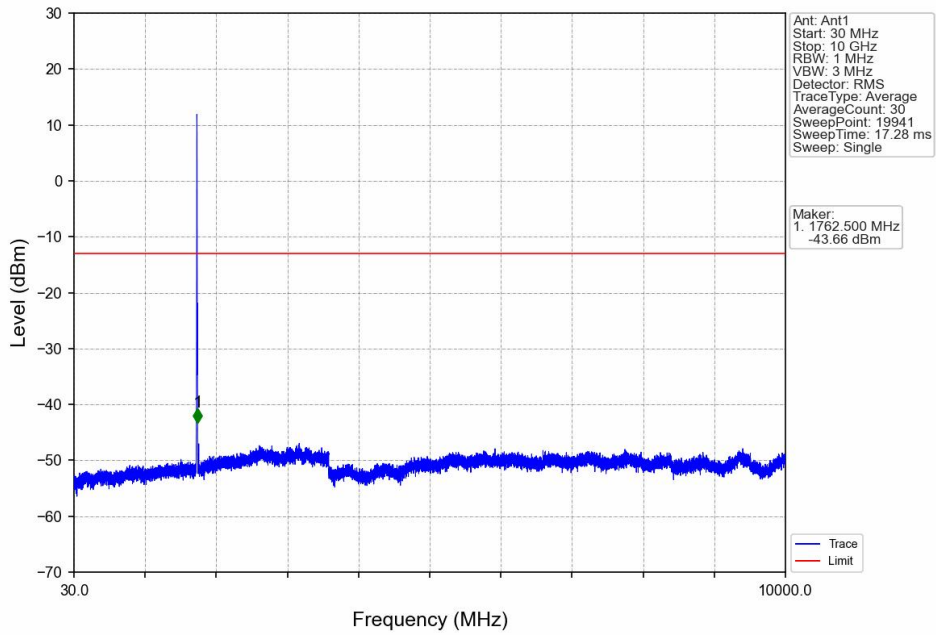
Band4\_HSDPA\_MCH\_1732.6MHz\_Subtest 1\_NTNV



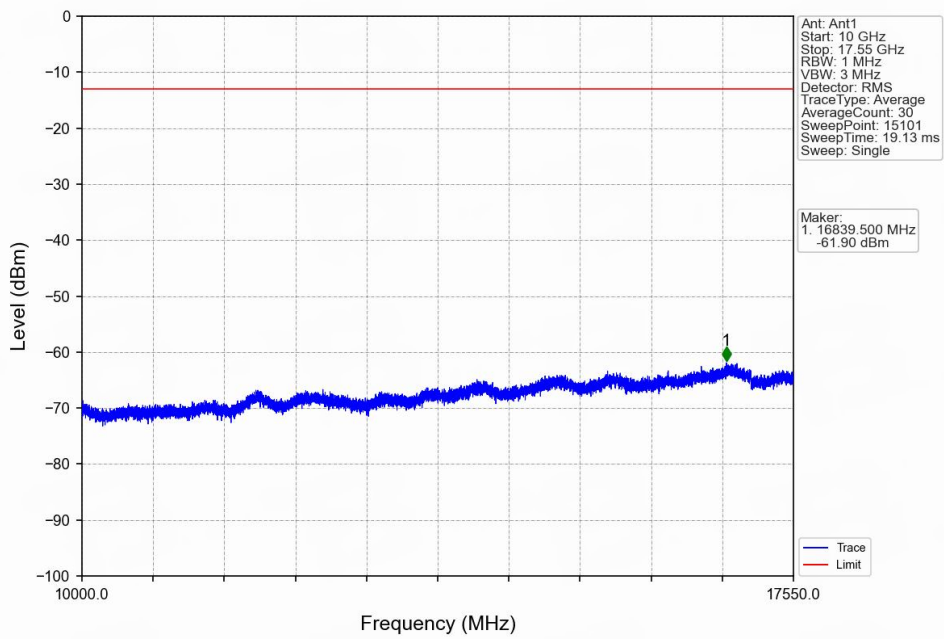
Band4\_HSDPA\_HCH\_1752.6MHz\_Subtest 1\_NTNV



Band4\_HSDPA\_HCH\_1752.6MHz\_Subtest 1\_NTNV

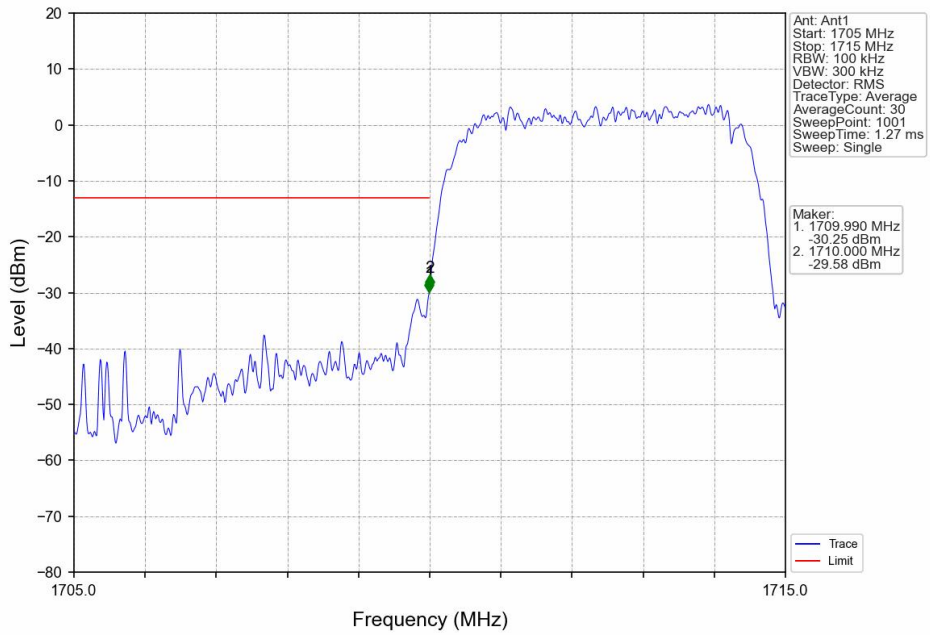


Band4\_HSDPA\_HCH\_1752.6MHz\_Subtest 1\_NTNV

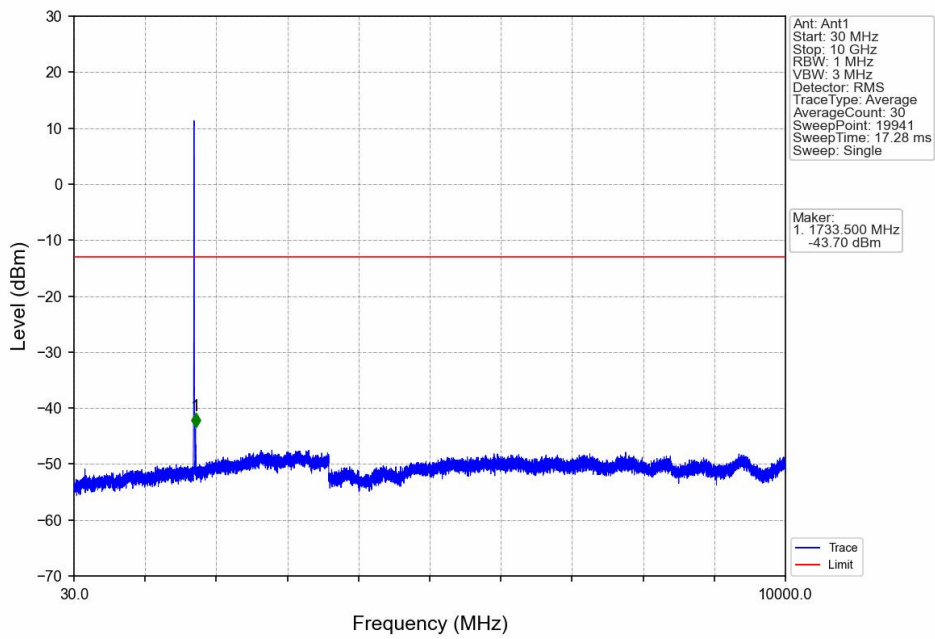




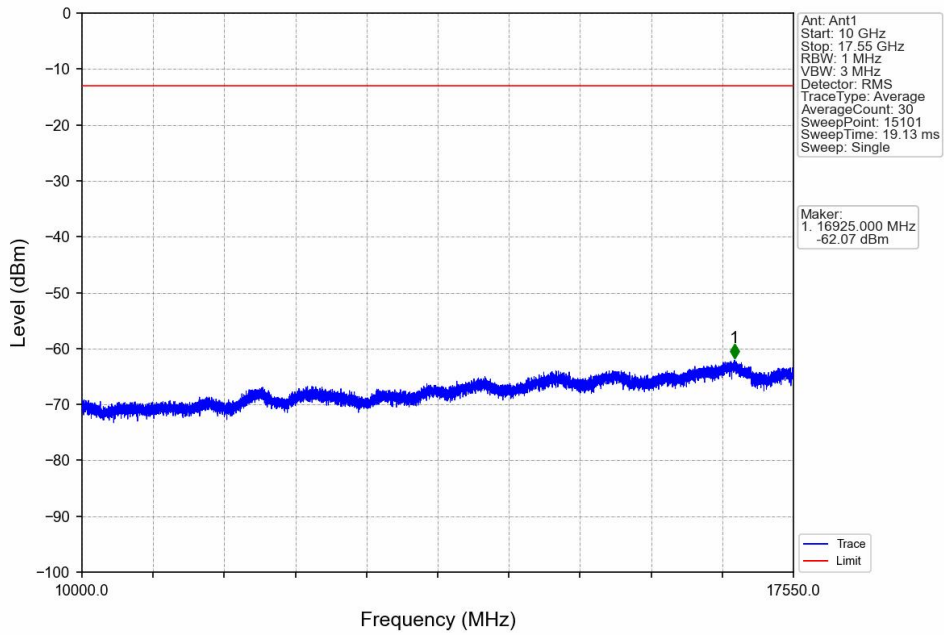
Band4\_HSUPA\_LCH\_1712.4MHz\_Subtest 1\_NTNV



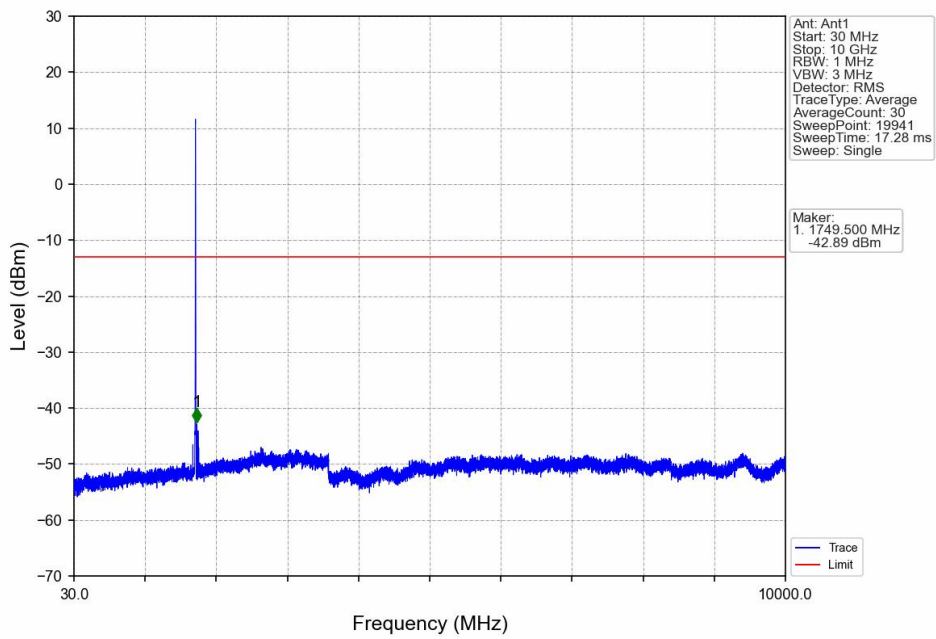
Band4\_HSUPA\_LCH\_1712.4MHz\_Subtest 1\_NTNV



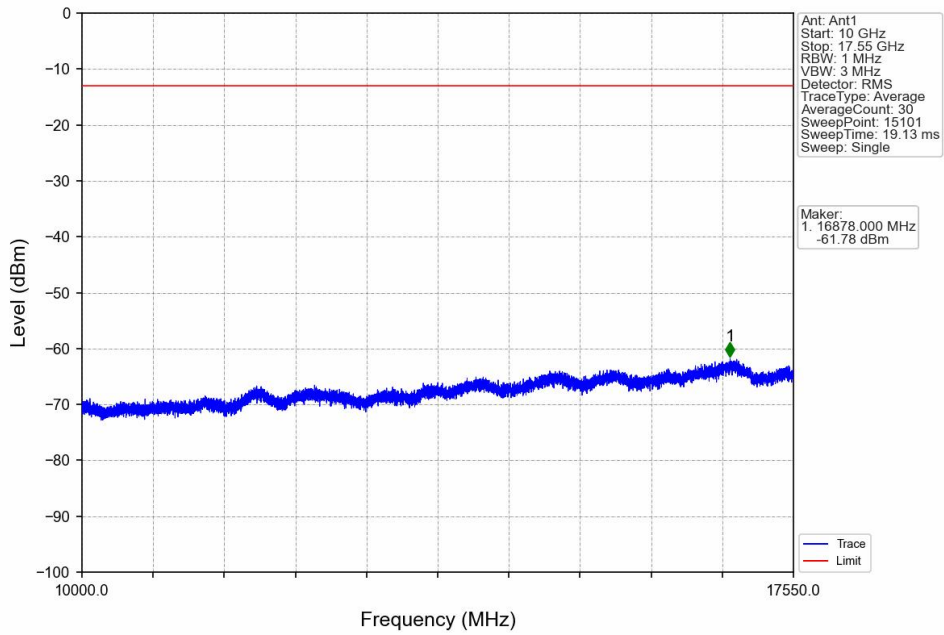
Band4\_HSUPA\_LCH\_1712.4MHz\_Subtest 1\_NTNV



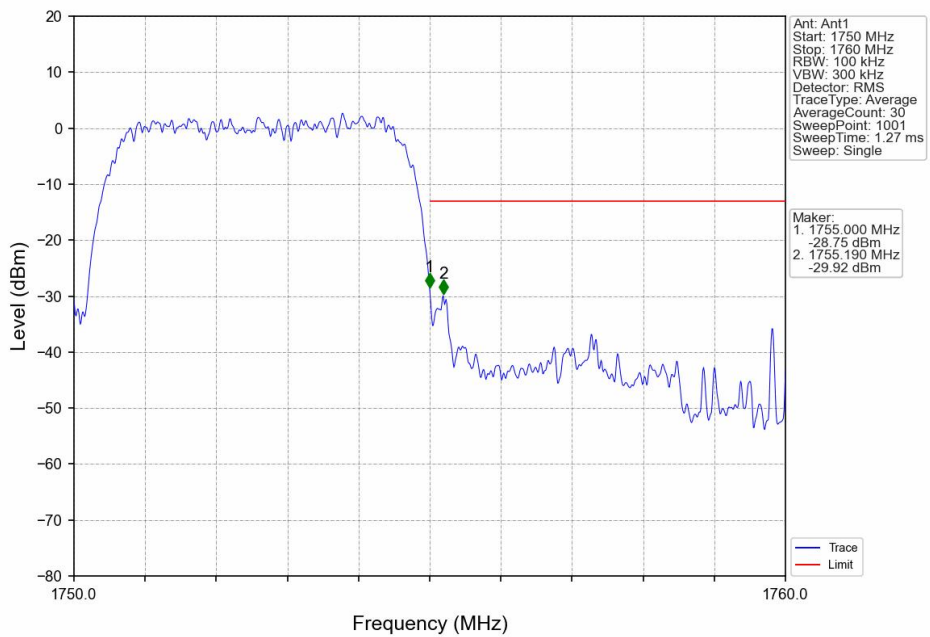
Band4\_HSUPA\_MCH\_1732.6MHz\_Subtest 1\_NTNV



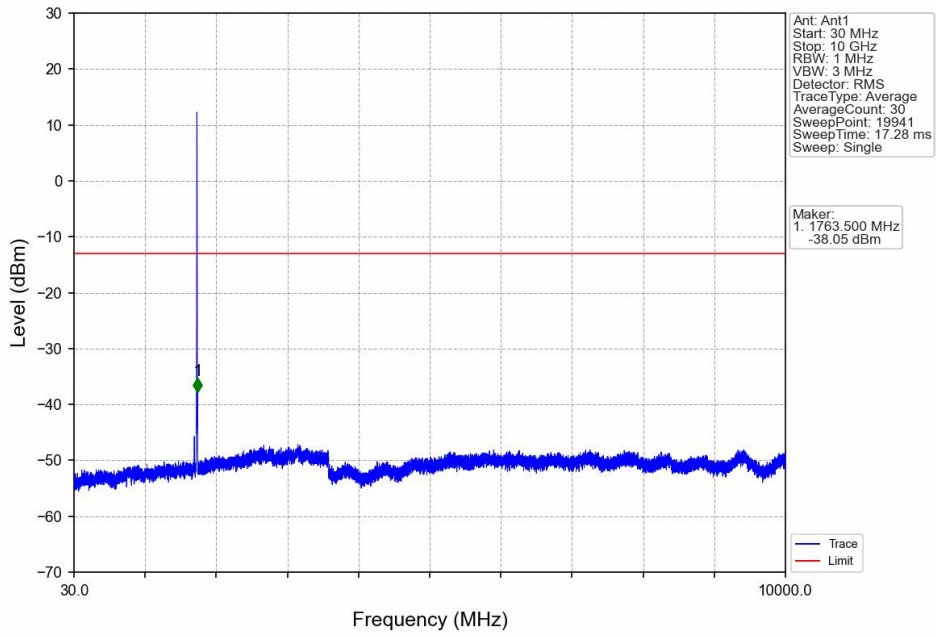
Band4\_HSUPA\_MCH\_1732.6MHz\_Subtest 1\_NTNV



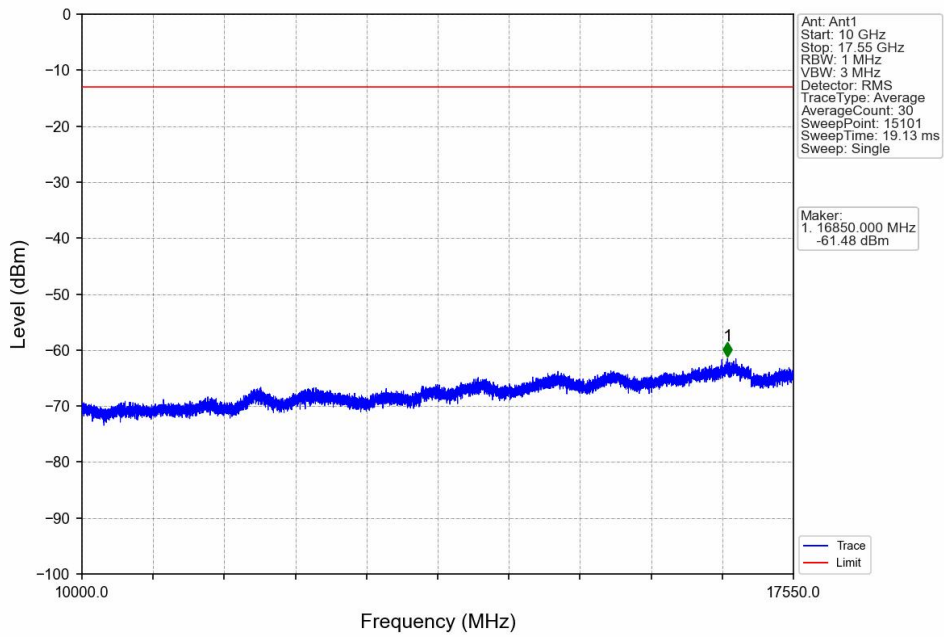
Band4\_HSUPA\_HCH\_1752.6MHz\_Subtest 1\_NTNV



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	0.1799	0.0131	ppm	4M21F9W	27L	22.55

### 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	0.1303	0.0131	ppm	4M21F9W	27L	21.15