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Appendix B.4

WCDMA Band IV



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1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

ANT1

Band	Channel	Power(dBm)	EIRP(dBm)	Limit(dBm)	Verdict
Band IV	1312	23.2	25.13	30	PASS
Band IV	1413	23.47	25.4	30	PASS
Band IV	1513	23.15	25.08	30	PASS



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2. Frequency Stability

2.1 Band IV

2.1.1 Test Result

Band IV							
Network	Frequency (MHz)	Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
					Result	Limit	
RMC	1712.4	20	3.8	4.685	0.0027	-2.5 to 2.5	Pass
			4.0	5.018	0.0029	-2.5 to 2.5	Pass
			4.2	5.245	0.0031	-2.5 to 2.5	Pass
		-30	4.0	4.713	0.0028	-2.5 to 2.5	Pass
		-20	4.0	4.300	0.0025	-2.5 to 2.5	Pass
		-10	4.0	4.050	0.0024	-2.5 to 2.5	Pass
		0	4.0	4.045	0.0024	-2.5 to 2.5	Pass
		10	4.0	4.141	0.0024	-2.5 to 2.5	Pass
		30	4.0	4.297	0.0025	-2.5 to 2.5	Pass
		40	4.0	4.075	0.0024	-2.5 to 2.5	Pass
		50	4.0	4.979	0.0029	-2.5 to 2.5	Pass
	1732.6	20	3.8	-3.312	-0.0019	-2.5 to 2.5	Pass
			4.0	-3.398	-0.0020	-2.5 to 2.5	Pass
			4.2	-3.446	-0.0020	-2.5 to 2.5	Pass
		-30	4.0	-3.928	-0.0023	-2.5 to 2.5	Pass
		-20	4.0	-3.229	-0.0019	-2.5 to 2.5	Pass
		-10	4.0	-3.942	-0.0023	-2.5 to 2.5	Pass
		0	4.0	-3.661	-0.0021	-2.5 to 2.5	Pass
		10	4.0	-3.871	-0.0022	-2.5 to 2.5	Pass
		30	4.0	-3.198	-0.0018	-2.5 to 2.5	Pass
		40	4.0	-3.519	-0.0020	-2.5 to 2.5	Pass
		50	4.0	-3.546	-0.0020	-2.5 to 2.5	Pass
	1752.6	20	3.8	-4.201	-0.0024	-2.5 to 2.5	Pass
			4.0	-4.707	-0.0027	-2.5 to 2.5	Pass
			4.2	-4.606	-0.0026	-2.5 to 2.5	Pass
		-30	4.0	-4.886	-0.0028	-2.5 to 2.5	Pass
		-20	4.0	-4.623	-0.0026	-2.5 to 2.5	Pass
		-10	4.0	-4.736	-0.0027	-2.5 to 2.5	Pass
		0	4.0	-5.155	-0.0029	-2.5 to 2.5	Pass
		10	4.0	-4.965	-0.0028	-2.5 to 2.5	Pass
		30	4.0	-4.914	-0.0028	-2.5 to 2.5	Pass
		40	4.0	-5.158	-0.0029	-2.5 to 2.5	Pass
		50	4.0	-5.267	-0.0030	-2.5 to 2.5	Pass



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3. 99% & 26dB Bandwidth

3.1 Band IV_OBW

3.1.1 Test Result

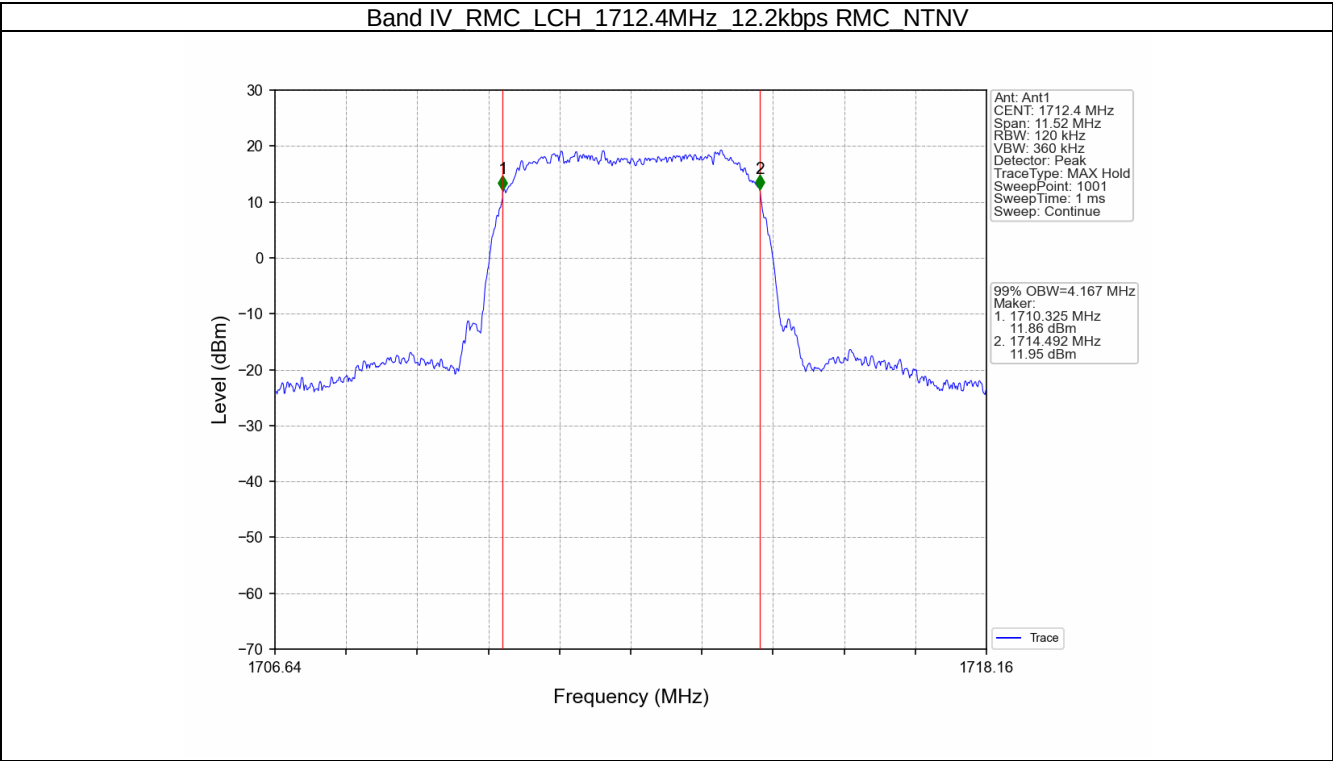
Band IV						
ENV	Mode		Frequency (MHz)	99% Occupied Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	4.167	/	Pass
			1732.6	4.177	/	Pass
			1752.6	4.166	/	Pass



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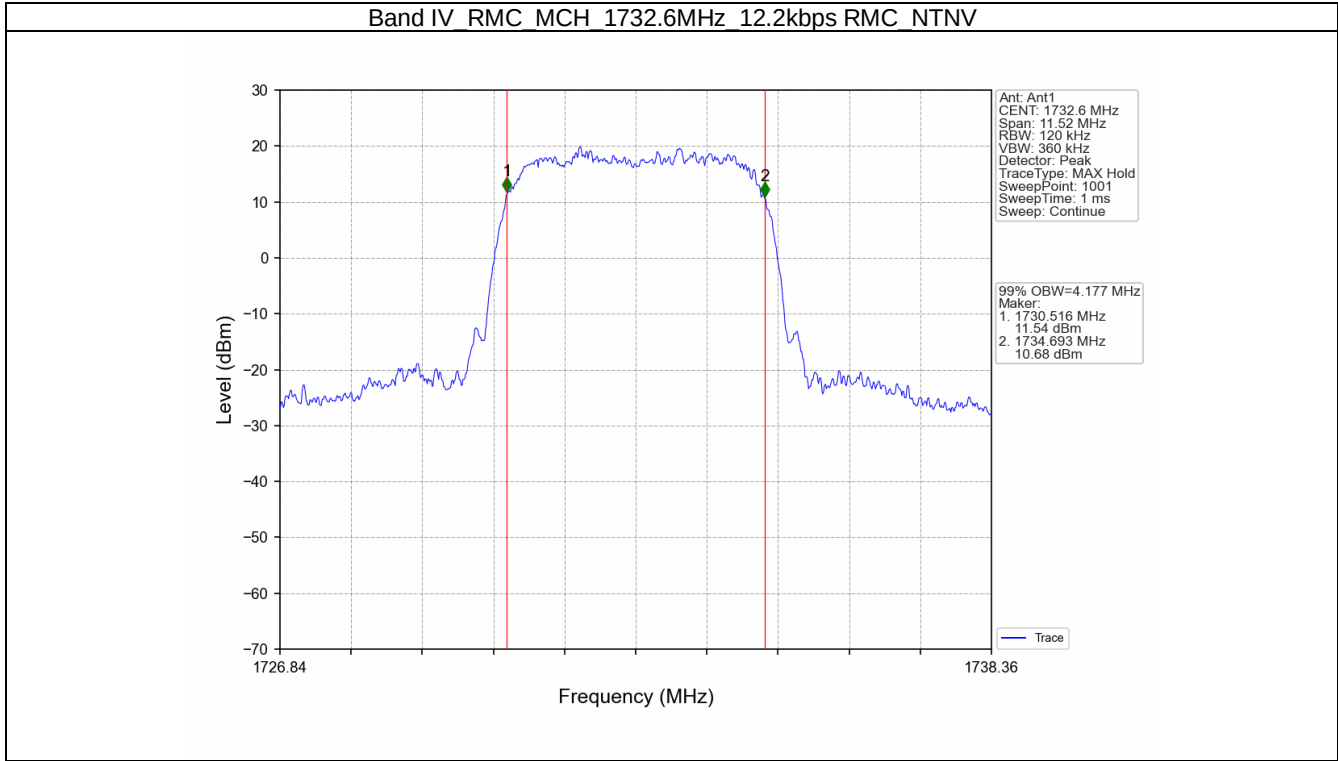
3.1.2 Test Graph





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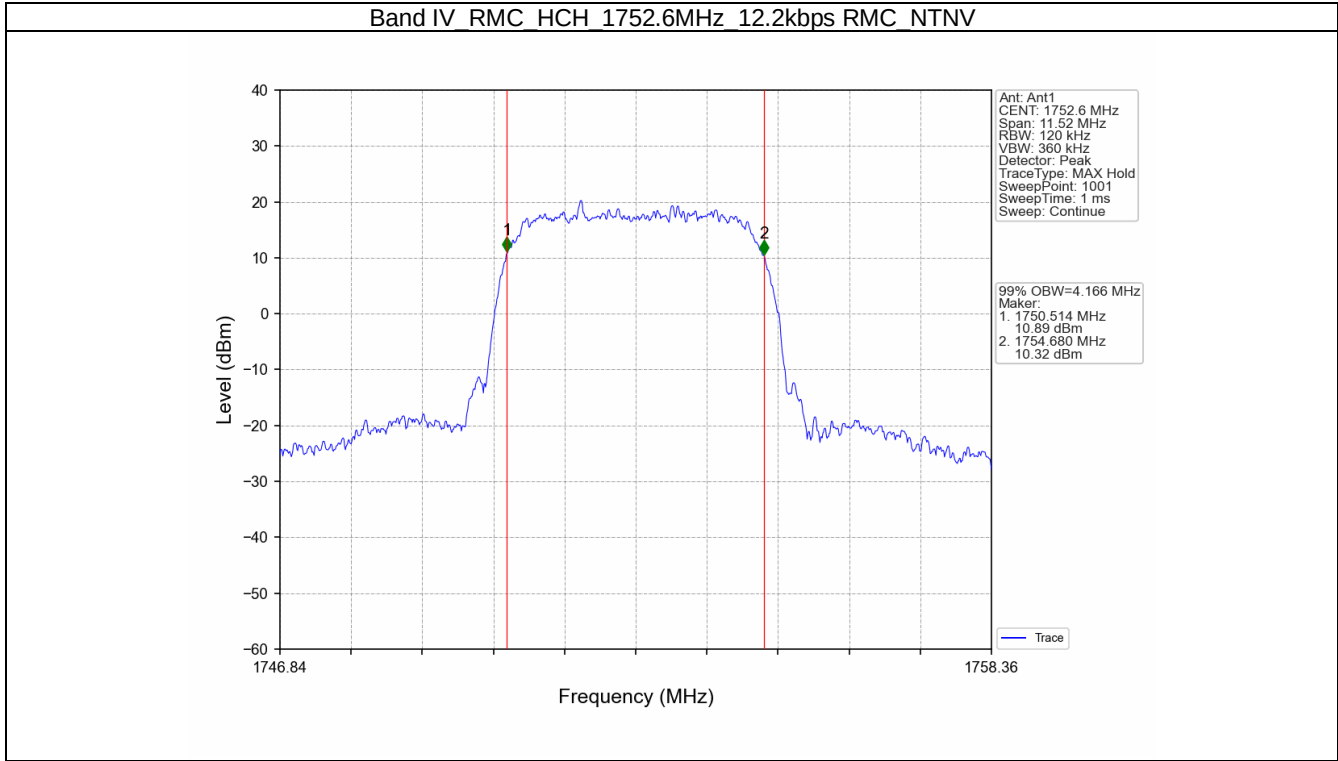
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3.2 Band IV_XDB

3.2.1 Test Result

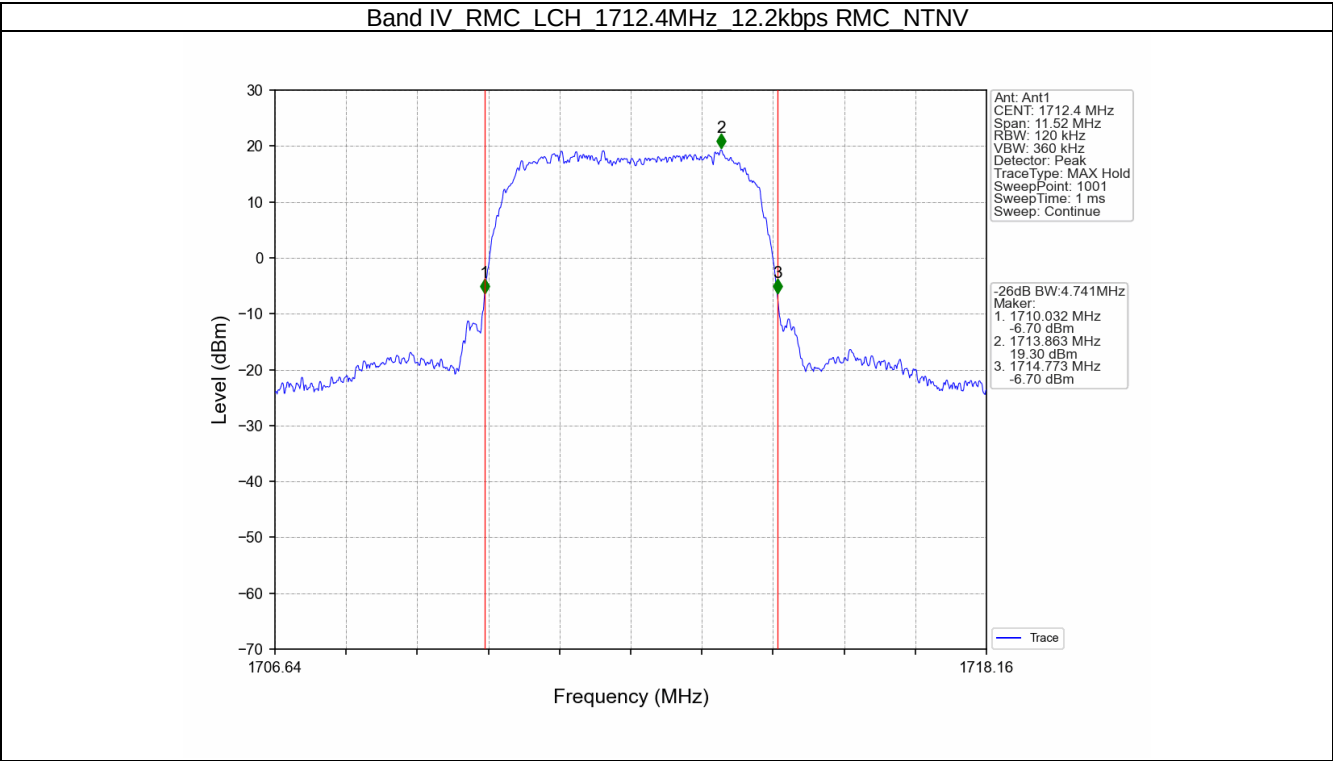
Band IV						
ENV	Mode		Frequency (MHz)	26dB Bandwidth (MHz)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	4.741	/	Pass
			1732.6	4.741	/	Pass
			1752.6	4.716	/	Pass



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3.2.2 Test Graph



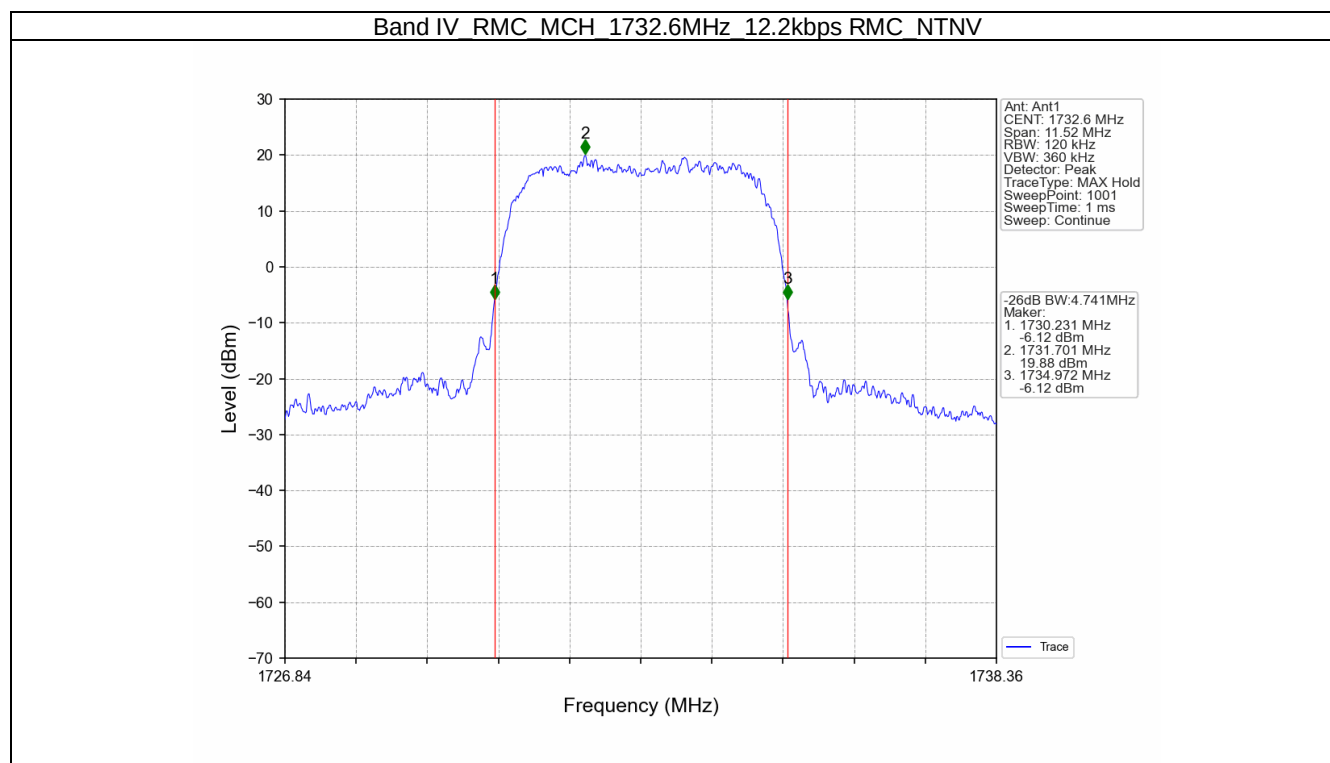


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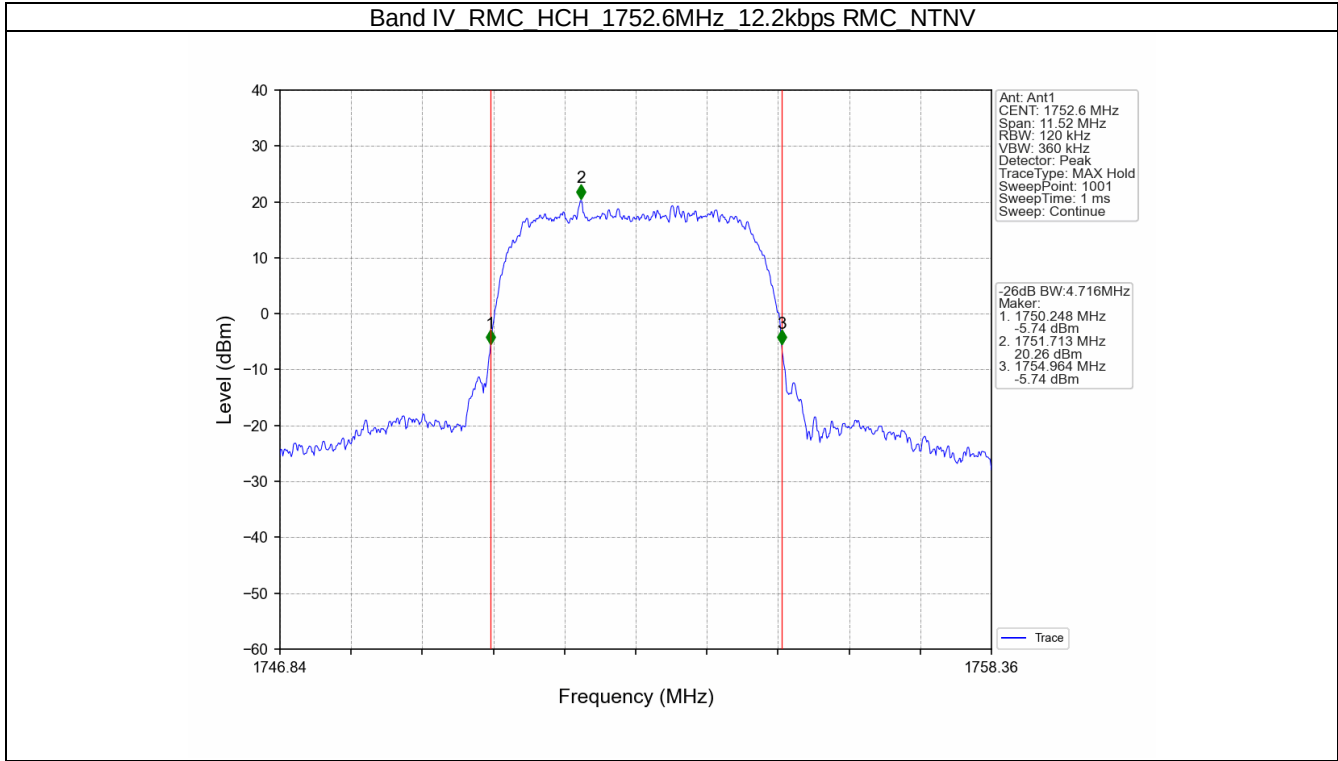
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4. Peak-Average Ratio

4.1 Band IV

4.1.1 Test Result

Band IV						
ENV	Mode		Frequency (MHz)	Peak-Average Ratio (dB)		Verdict
	Network	Subset		Result	Limit	
NTNV	RMC	12.2kbps RMC	1712.4	3.32	<=13	Pass
			1732.6	3.04	<=13	Pass
			1752.6	3.27	<=13	Pass

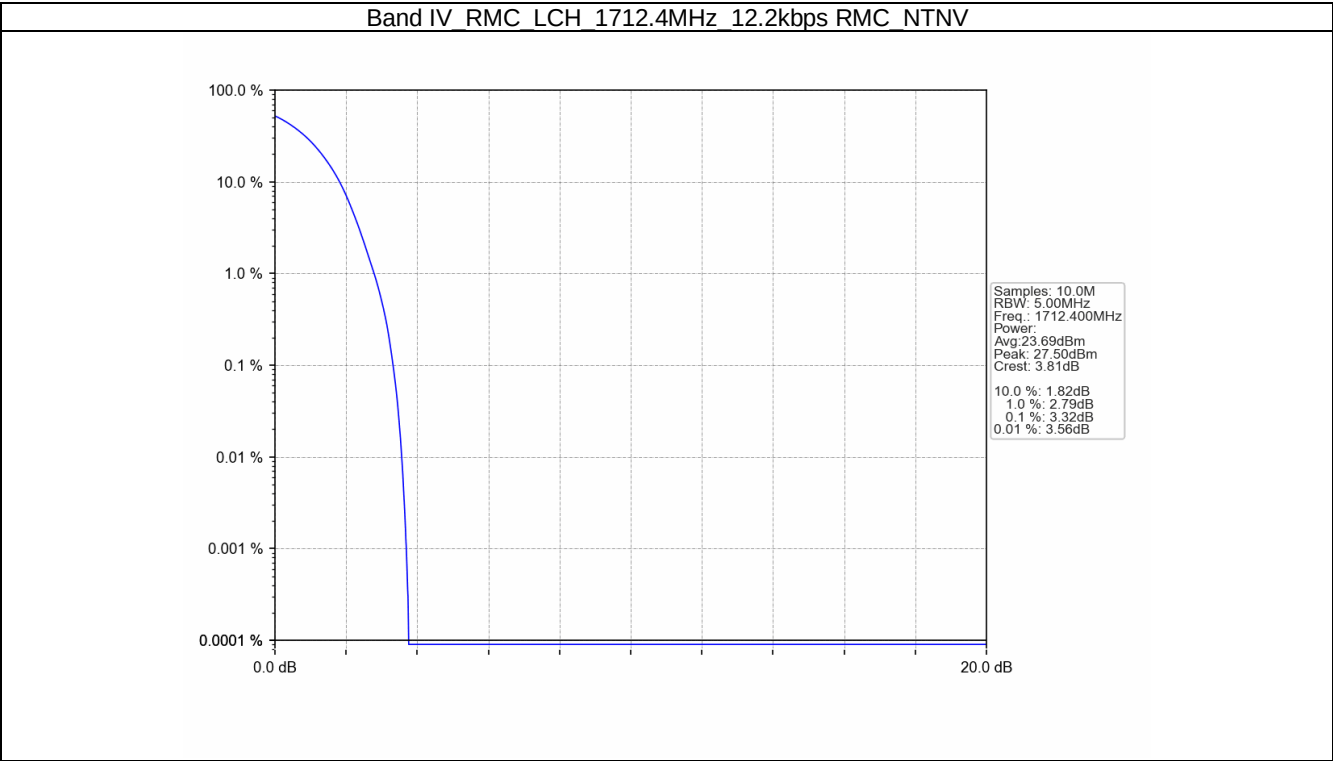


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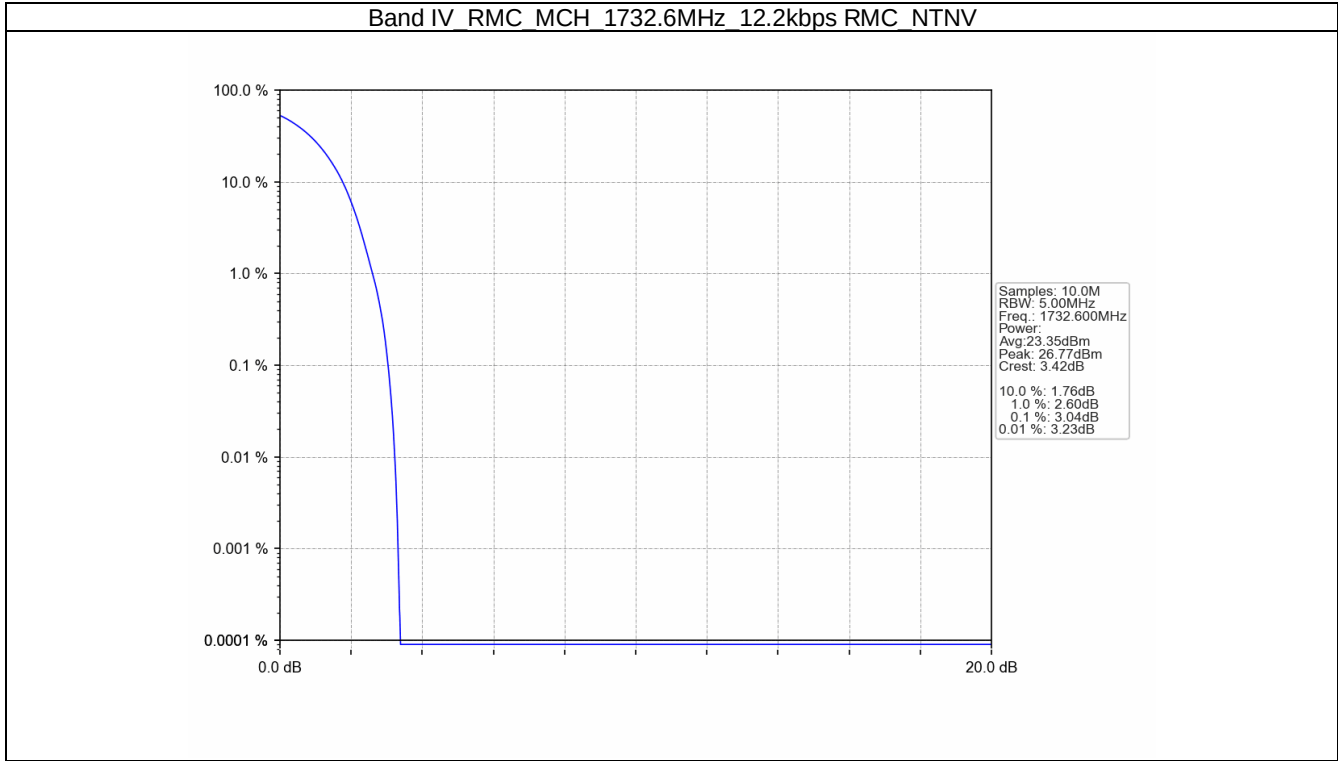
4.1.2 Test Graph





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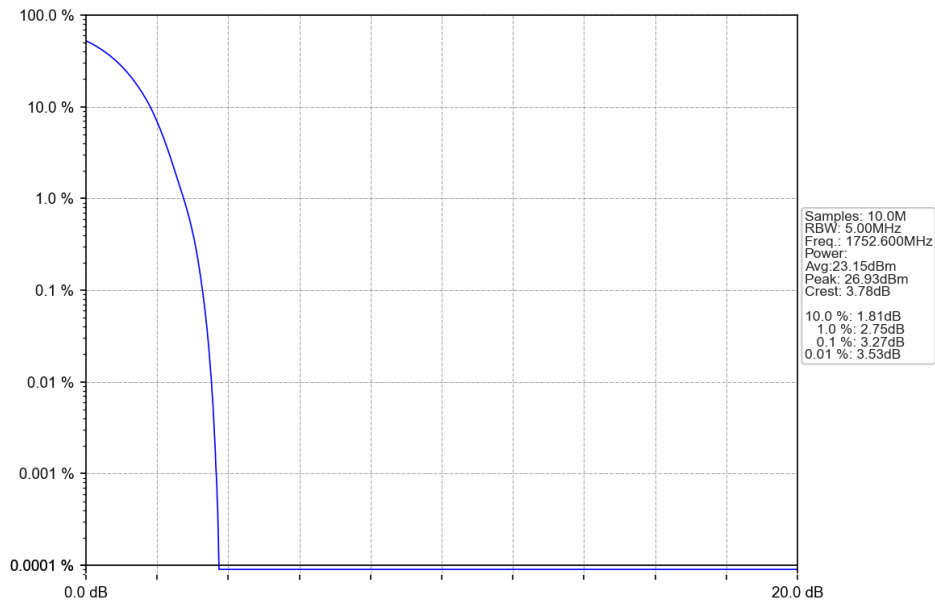


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Band IV RMC HCH 1752.6MHz 12.2kbps RMC NTN





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5. Spurious Emission & Band Edges

5.1 Band IV

5.1.1 Test Result

Band IV						
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

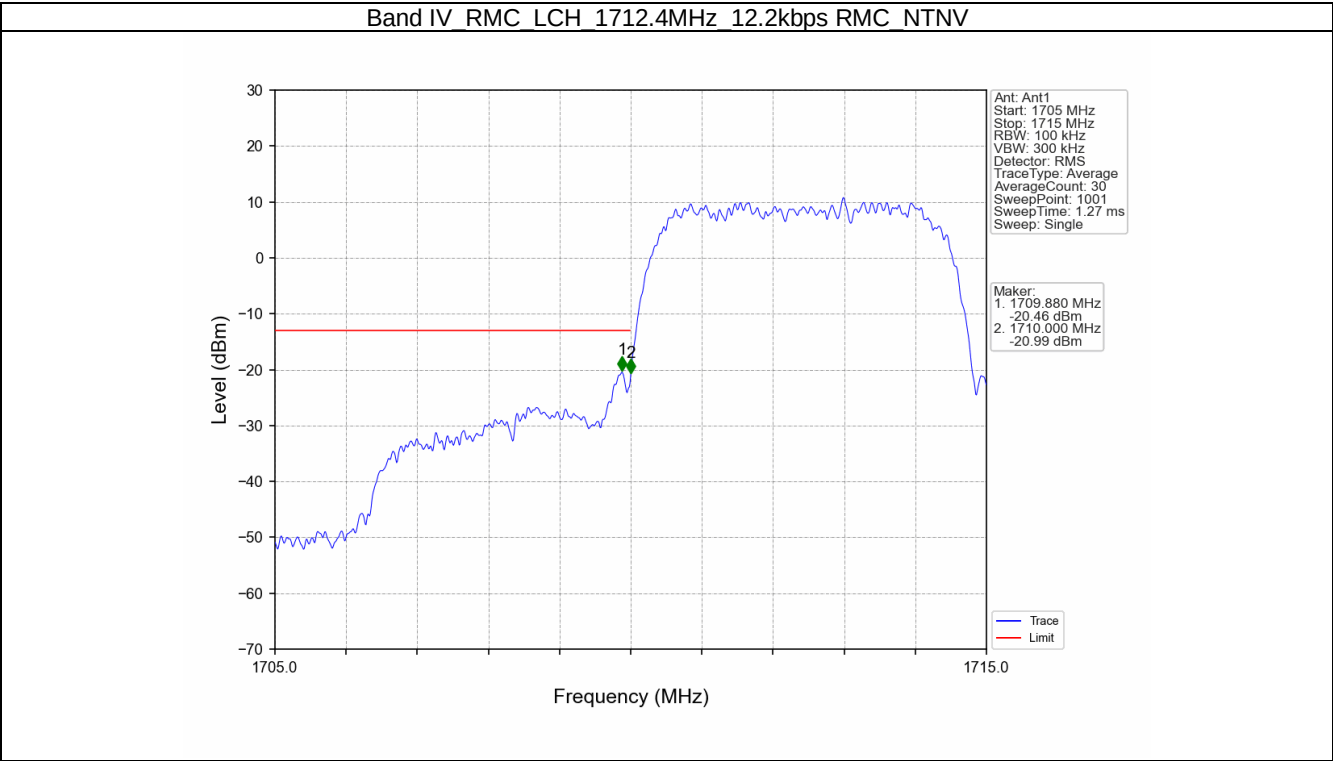


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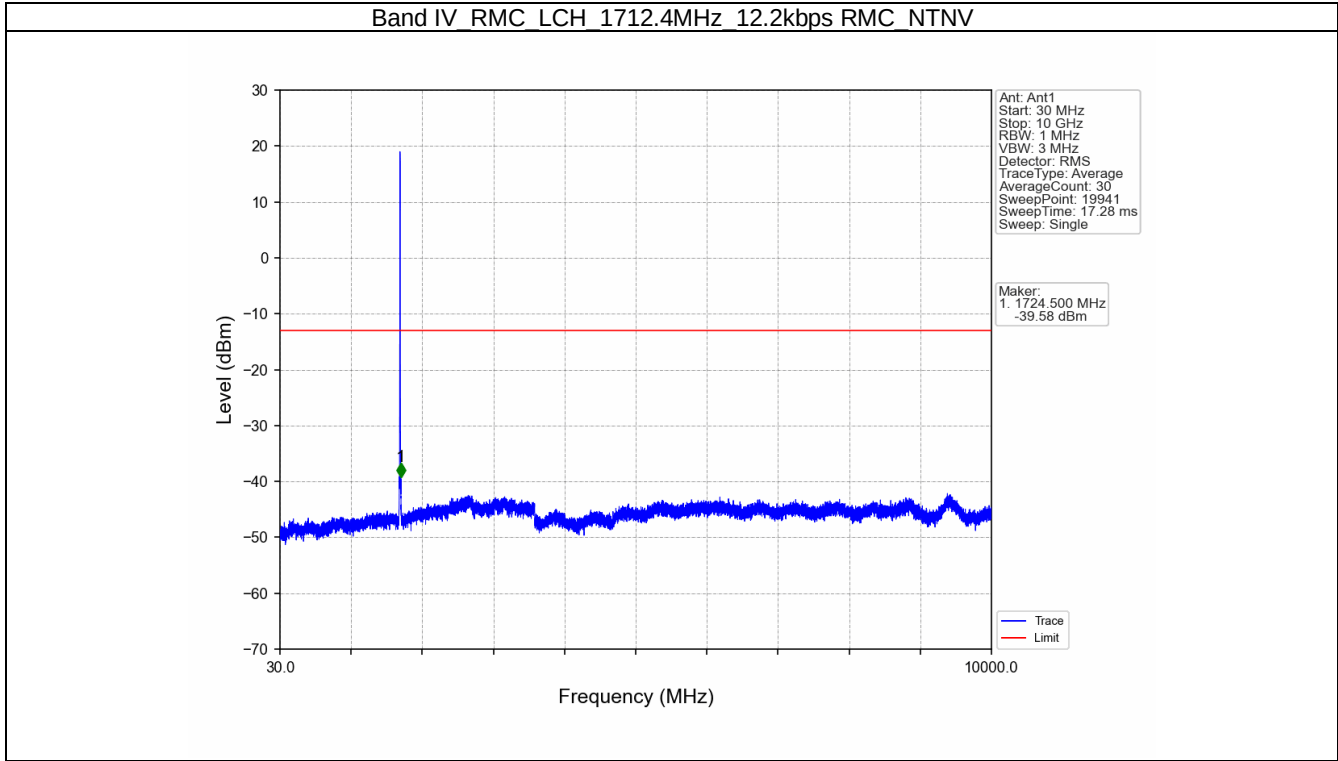
5.1.2 Test Graph





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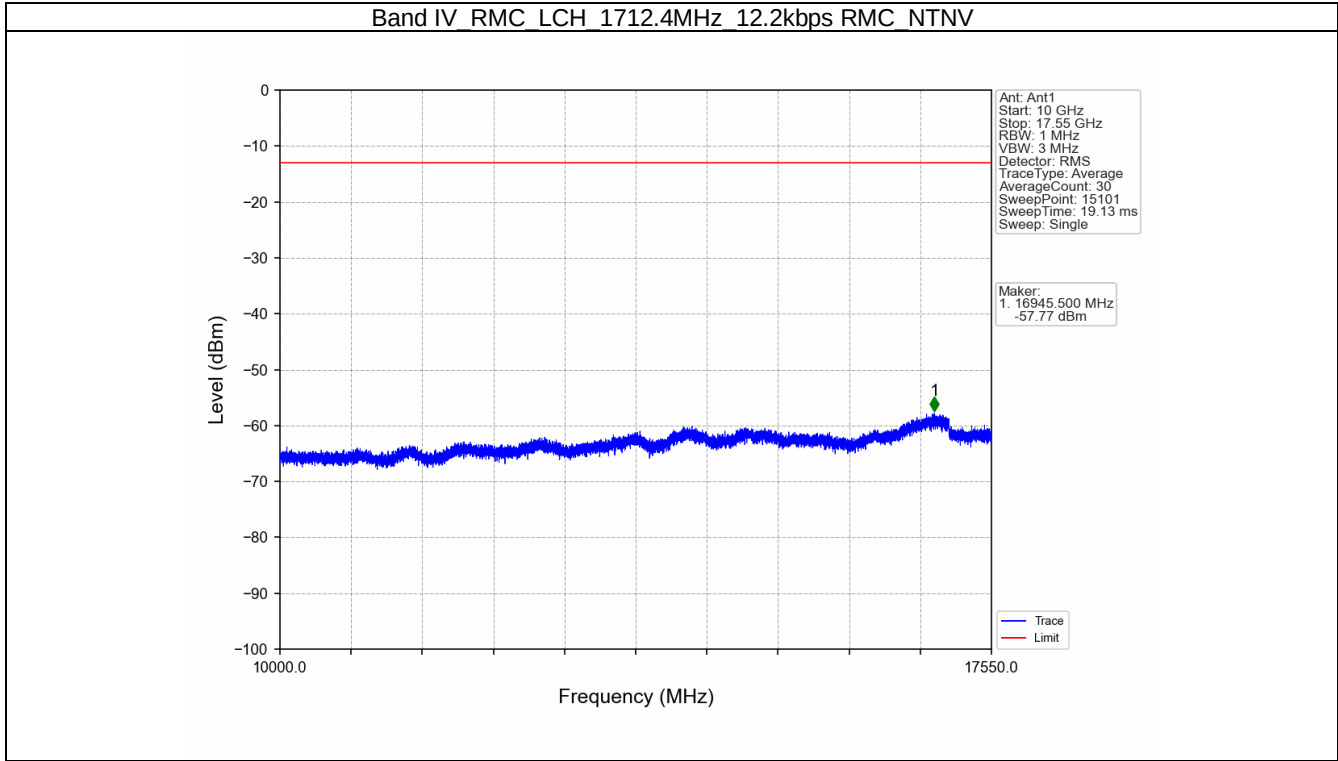
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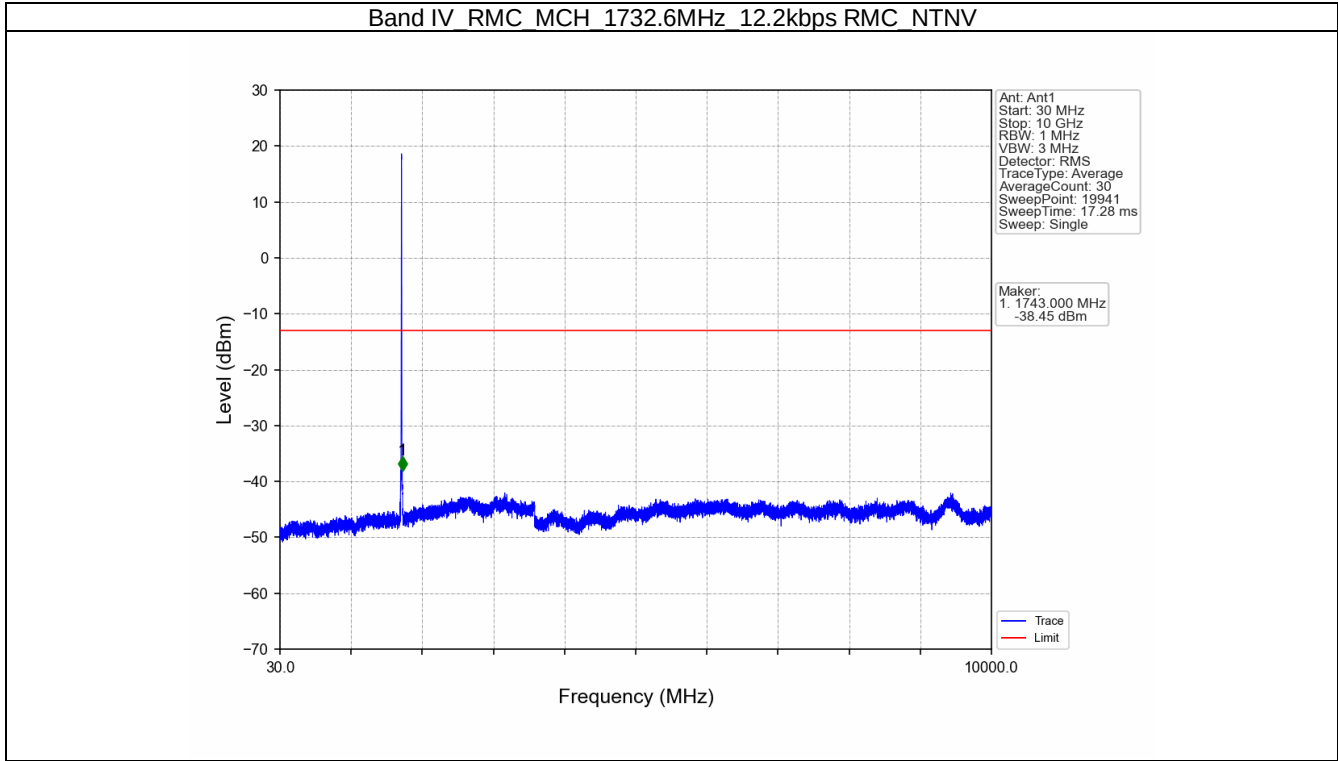
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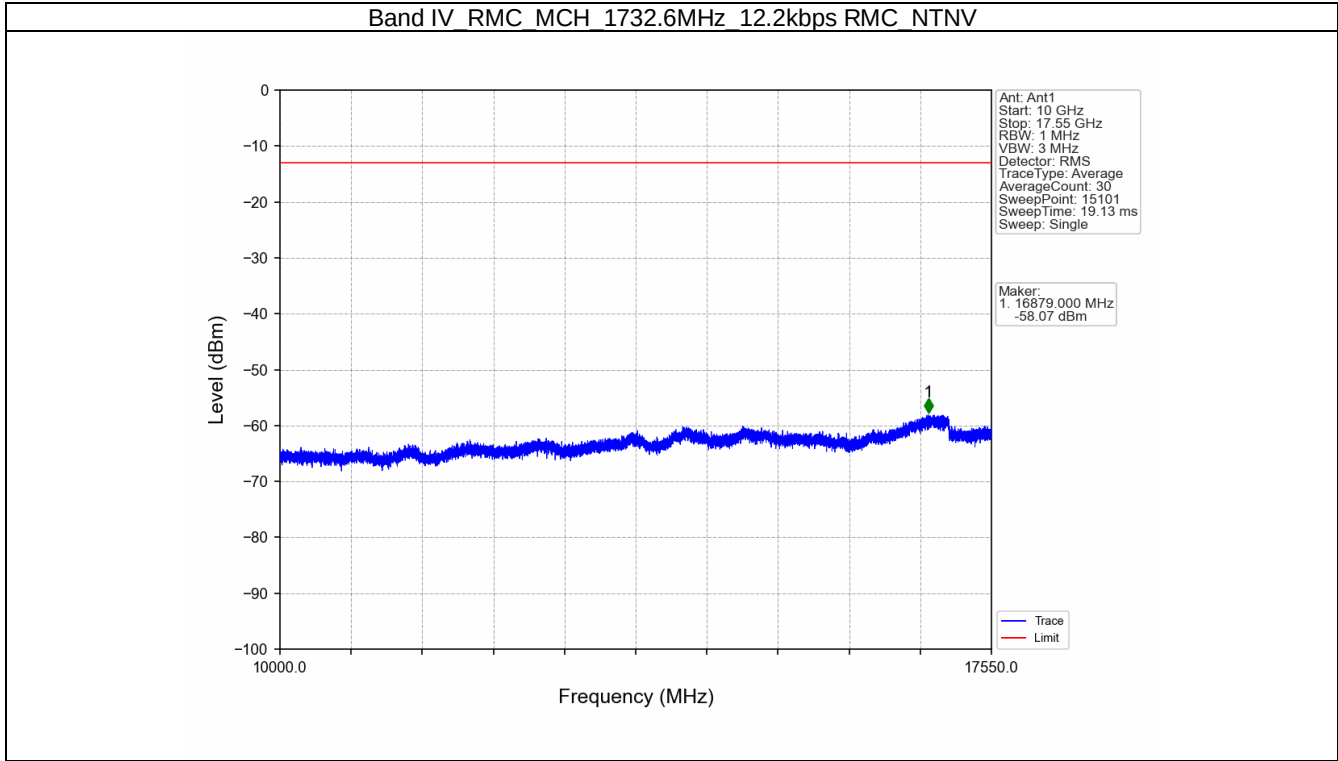
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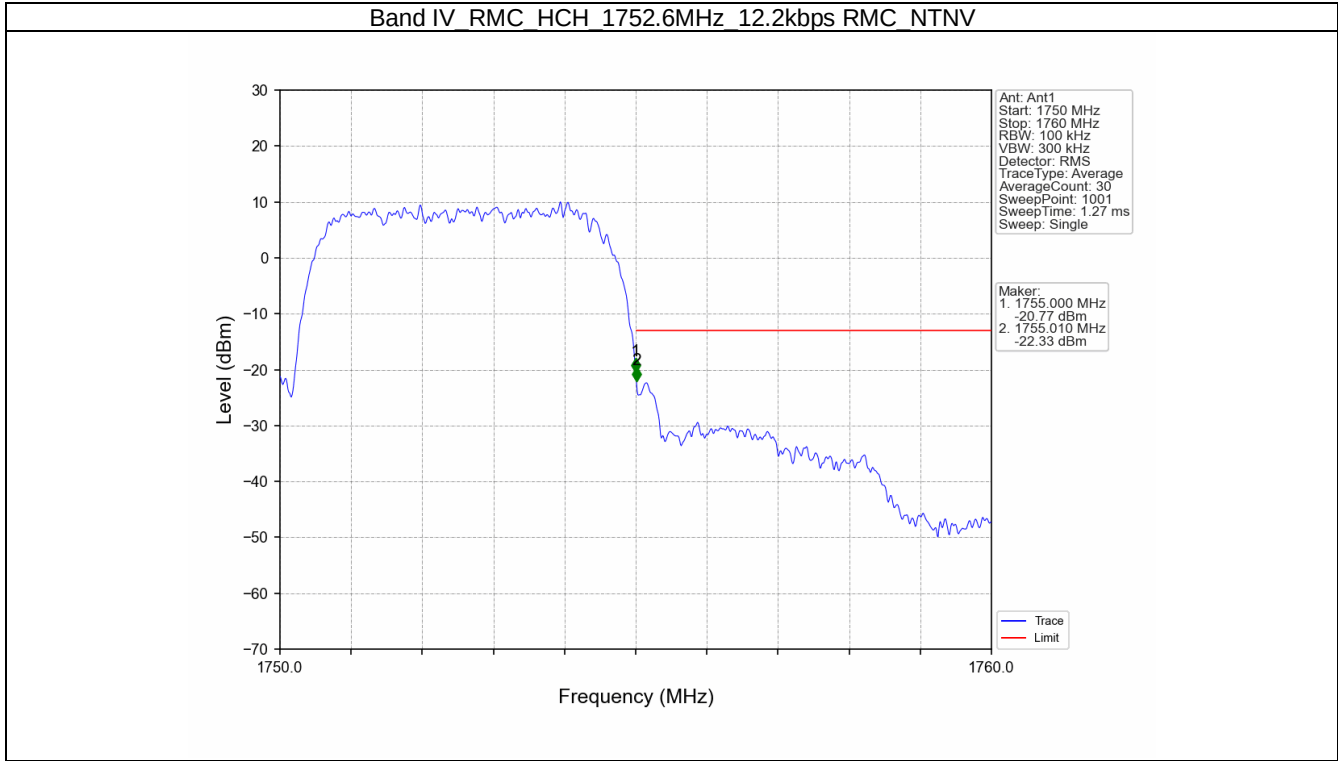
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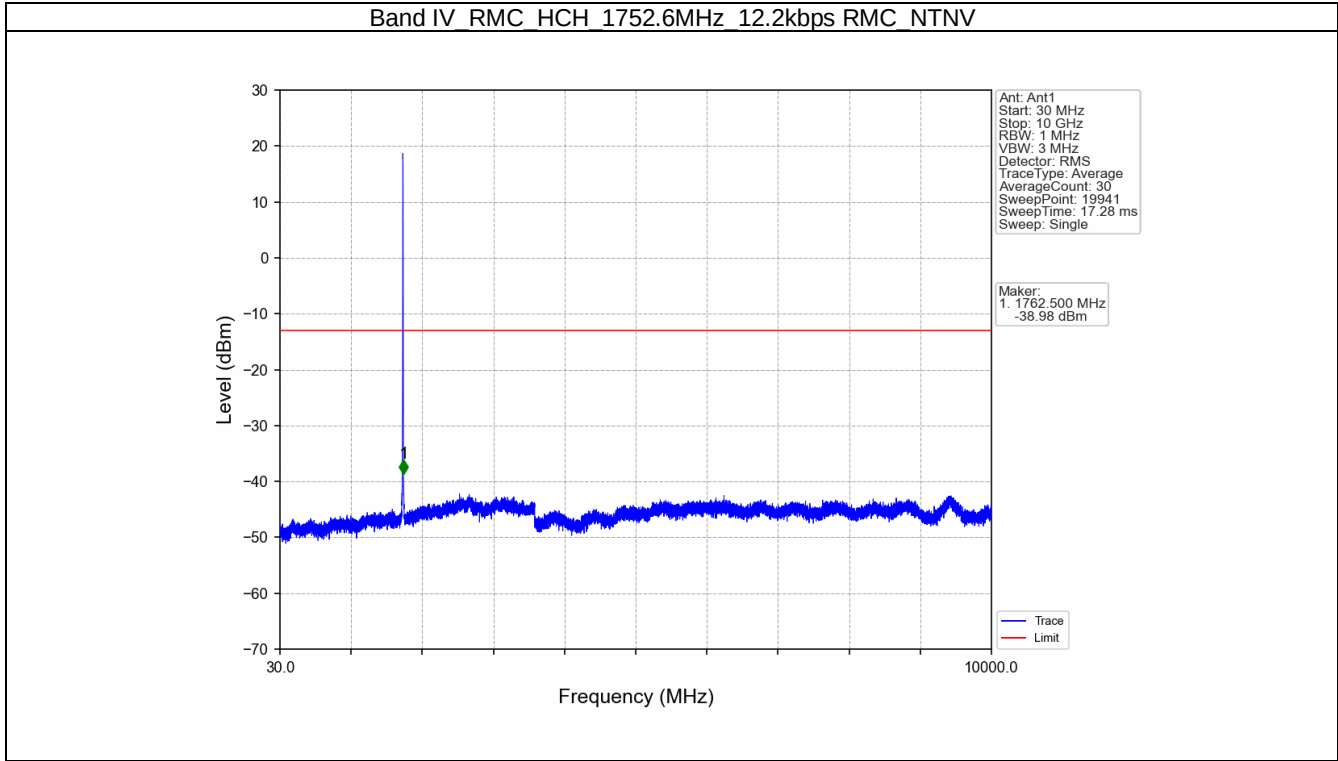
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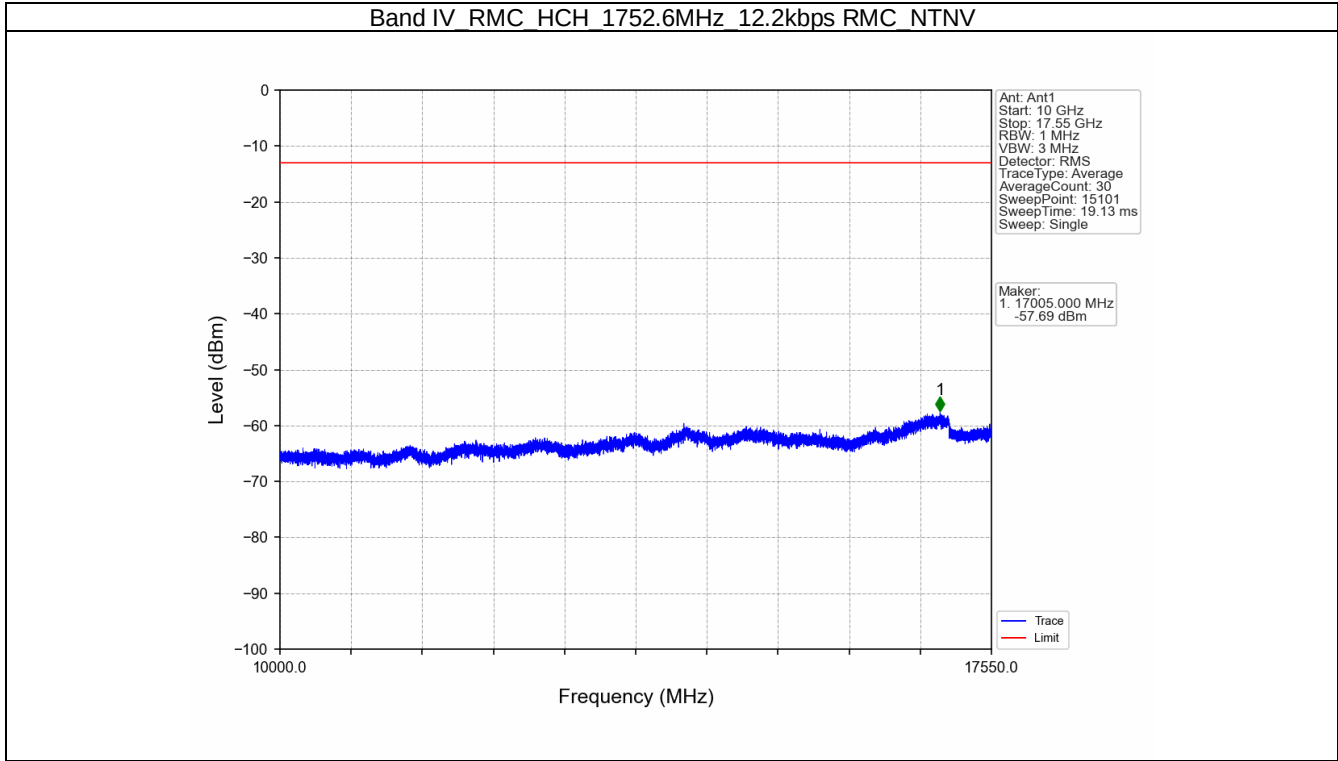
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6. Field Strength of Spurious Radiation

Test Band = WCDMA Band IV_ TM1

Test Channel = Low

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3424.8000	40.80	-46.27	28.56	-72.18	-13.00	59.18	Horizontal
2	5137.2000	39.63	-45.34	31.73	-69.24	-13.00	56.24	Horizontal
3	6849.6000	38.13	-44.14	34.93	-66.34	-13.00	53.34	Horizontal
4	8562.0000	35.58	-41.44	36.52	-64.60	-13.00	51.60	Horizontal
5	10274.4000	31.72	-39.19	38.34	-64.40	-13.00	51.40	Horizontal
6	13776	30.88	-36.34	40.50	-60.23	-13.00	47.23	Horizontal

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3424.8000	41.46	-46.27	28.56	-71.52	-13.00	58.52	Vertical
2	5137.2000	38.88	-45.34	31.73	-69.99	-13.00	56.99	Vertical
3	6849.6000	39.07	-44.14	34.93	-65.40	-13.00	52.40	Vertical
4	8562.0000	35.32	-41.44	36.52	-64.86	-13.00	51.86	Vertical
5	10274.4000	31.88	-39.19	38.34	-64.24	-13.00	51.24	Vertical
6	13370.25	29.93	-36.48	39.77	-62.04	-13.00	49.04	Vertical



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Test Band = WCDMA Band IV_ TM1

Test Channel = Mid

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3465.2000	41.18	-46.27	28.58	-71.77	-13.00	58.77	Horizontal
2	5197.8000	39.41	-45.28	31.88	-69.26	-13.00	56.26	Horizontal
3	6930.4000	38.77	-43.93	35.08	-65.35	-13.00	52.35	Horizontal
4	8663.0000	35.54	-41.56	36.47	-64.81	-13.00	51.81	Horizontal
5	10395.6000	31.77	-39.01	38.40	-64.11	-13.00	51.11	Horizontal
6	14285.25	29.50	-36.03	41.01	-60.78	-13.00	47.78	Horizontal

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3465.2000	41.27	-46.27	28.58	-71.68	-13.00	58.68	Vertical
2	5197.8000	39.35	-45.28	31.88	-69.32	-13.00	56.32	Vertical
3	6930.4000	38.33	-43.93	35.08	-65.79	-13.00	52.79	Vertical
4	8663.0000	35.60	-41.56	36.47	-64.75	-13.00	51.75	Vertical
5	10395.6000	31.62	-39.01	38.40	-64.26	-13.00	51.26	Vertical
6	13849.5	29.66	-35.93	40.63	-60.90	-13.00	47.90	Vertical



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Test Band = WCDMA Band IV_ TM1

Test Channel = High

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3505.2000	41.49	-46.25	28.61	-71.42	-13.00	58.42	Horizontal
2	5257.8000	39.05	-45.17	32.02	-69.36	-13.00	56.36	Horizontal
3	7010.4000	38.09	-43.62	35.23	-65.56	-13.00	52.56	Horizontal
4	8763.0000	36.21	-41.41	36.42	-64.04	-13.00	51.04	Horizontal
5	10515.6000	31.59	-38.75	38.46	-63.96	-13.00	50.96	Horizontal
6	12938.25	29.66	-37.19	39.08	-63.71	-13.00	50.71	Horizontal

Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	3505.2000	41.48	-46.25	28.61	-71.43	-13.00	58.43	Vertical
2	5257.8000	39.18	-45.17	32.02	-69.23	-13.00	56.23	Vertical
3	7010.4000	38.05	-43.62	35.23	-65.60	-13.00	52.60	Vertical
4	8763.0000	36.26	-41.41	36.42	-63.99	-13.00	50.99	Vertical
5	10515.6000	31.63	-38.75	38.46	-63.92	-13.00	50.92	Vertical
6	13664.25	30.49	-36.13	40.30	-60.61	-13.00	47.61	Vertical

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & AMP. The basic equation with a sample calculation is as follows:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Preamplifier (dB)

Level = Reading Level + AF + Factor -95.26

Margin = Limit – Level

---End of Attachment---