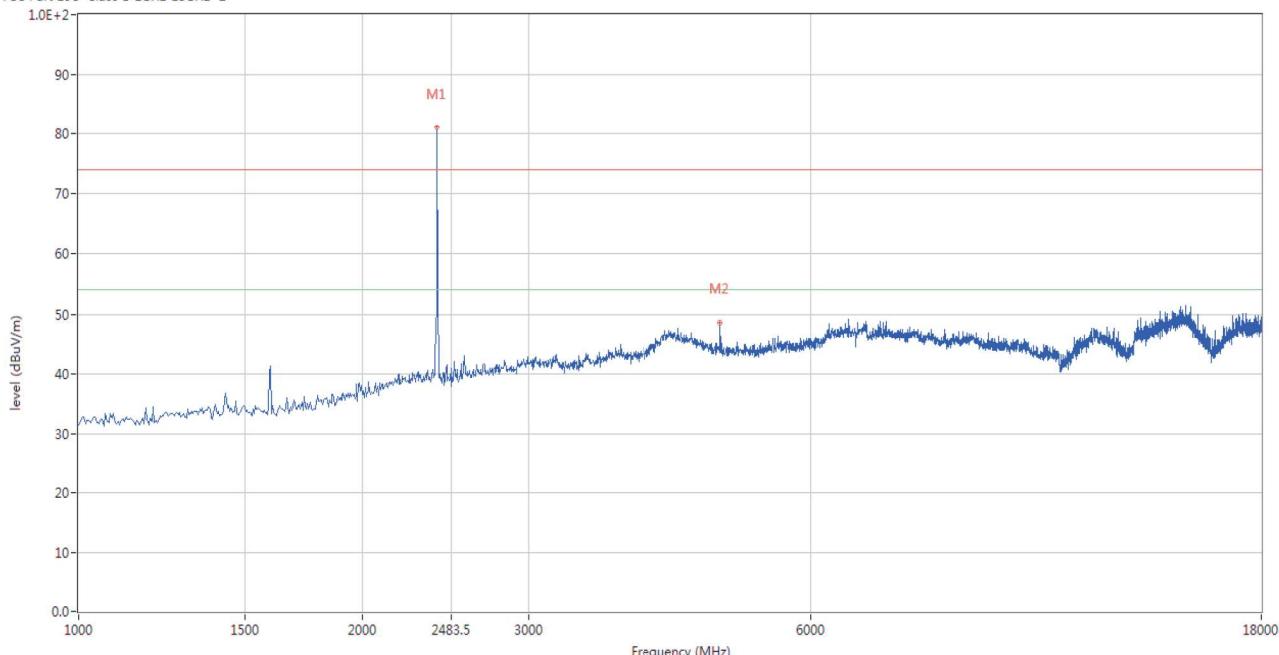




## Vertical

FCC Part 15C Class B 1GHz-18GHz -2



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2402.149	81.09	-3.57	114.0	-32.91	Peak	177.00	100	Vertical	Pass
2	4802.799	48.50	3.12	74.0	-25.50	Peak	158.00	100	Vertical	Pass

The report refers only to the sample tested and does not apply to the bulk.

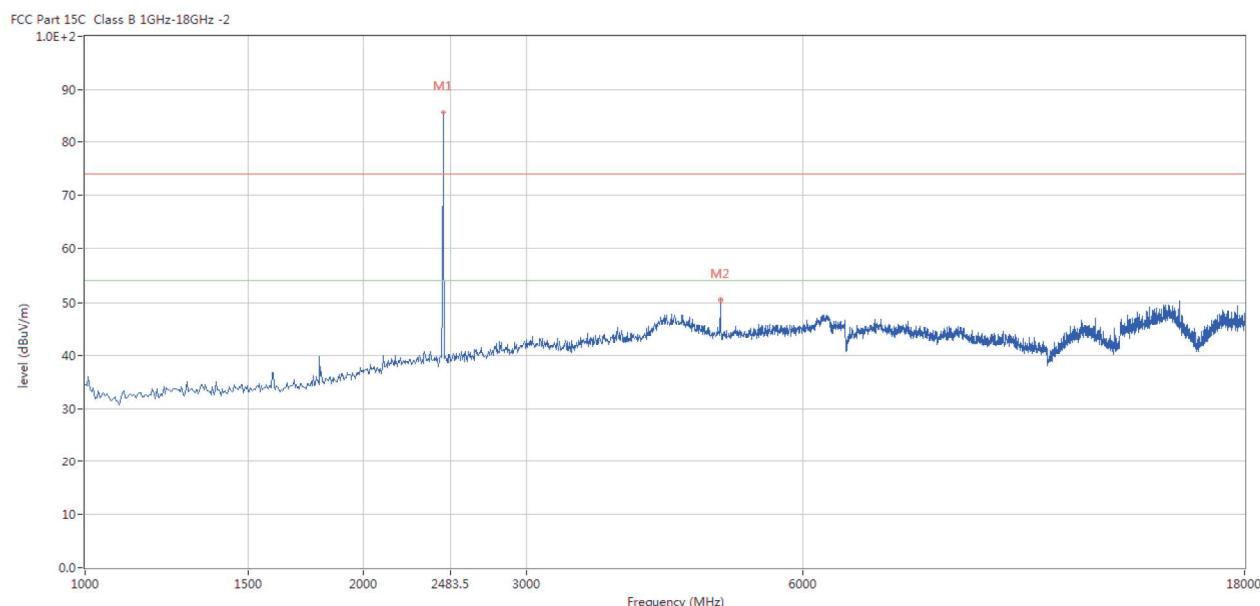
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Please refer to the following test plots for details: Middle Channel-2441MHz

**Horizontal**



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2440.390	85.70	-3.57	114.0	-28.30	Peak	251.00	100	Horizontal	Pass
2	4879.280	50.43	3.20	74.0	-23.57	Peak	255.00	100	Horizontal	Pass

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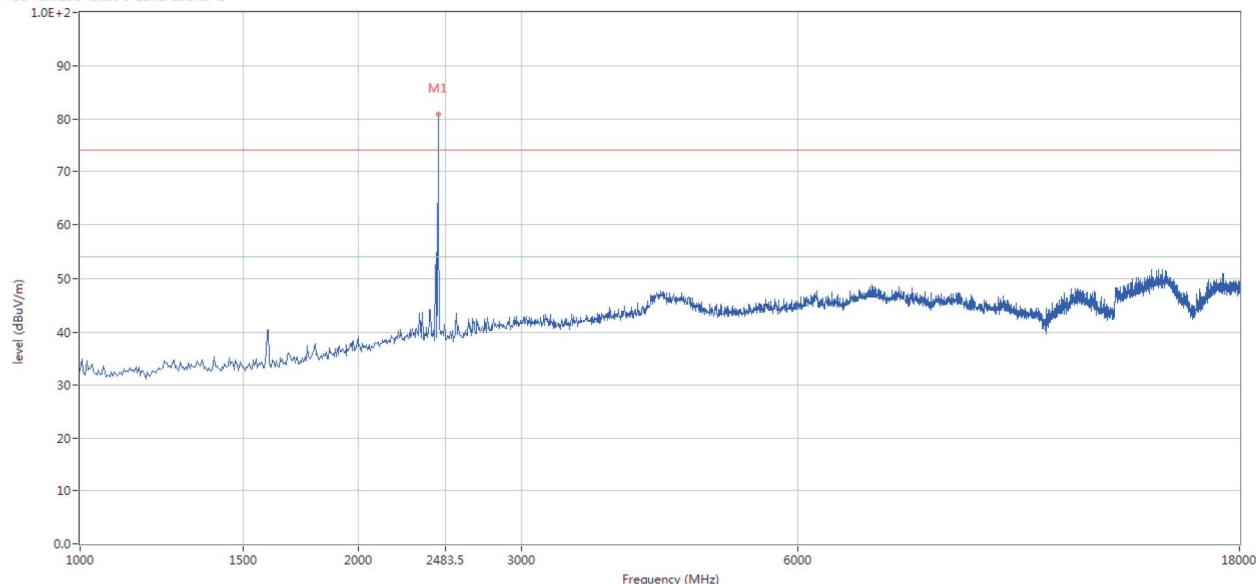
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## Vertical

FCC Part 15C Class B 1GHz-18GHz -2



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2440.390	80.92	-3.57	114.0	-33.08	Peak	170.00	100	Vertical	Pass

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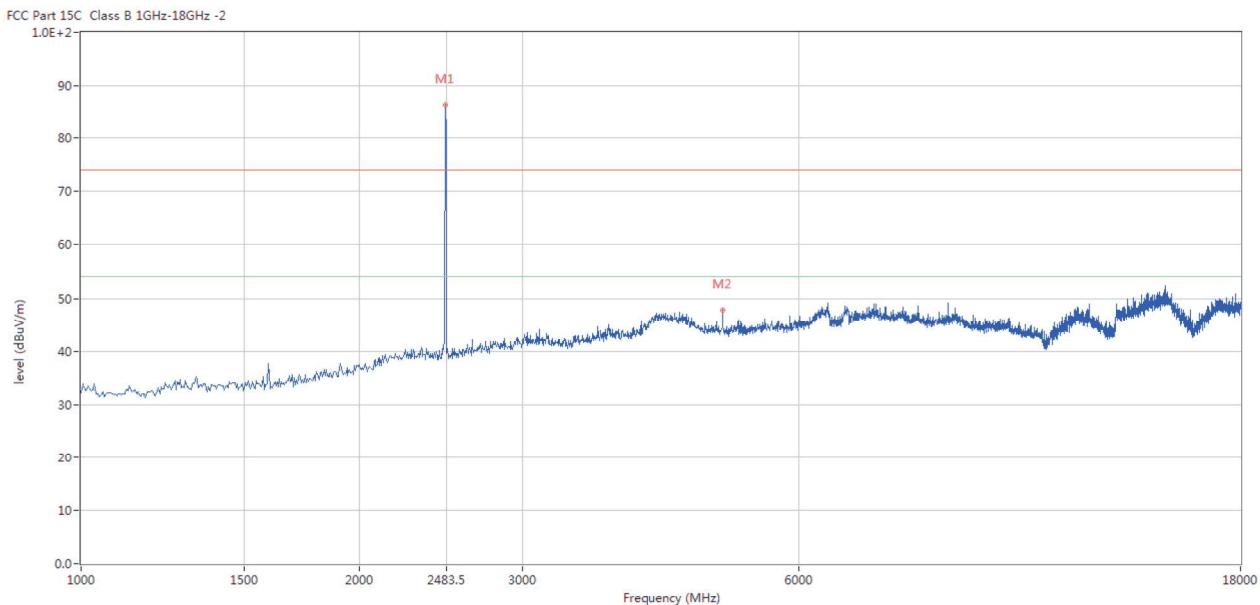
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Please refer to the following test plots for details: High Channel-2480MHz

### Horizontal



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2479.630	86.41	-3.57	114.0	-27.59	Peak	245.00	100	Horizontal	Pass
2	4960.010	47.82	3.36	74.0	-26.18	Peak	254.00	100	Horizontal	Pass

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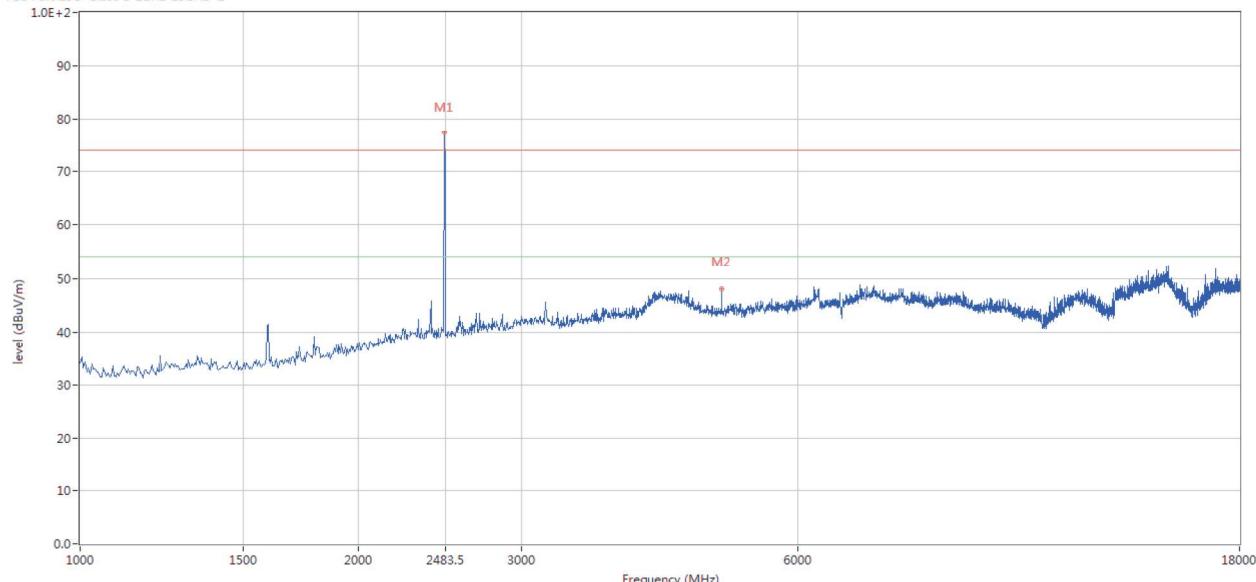
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## Vertical

FCC Part 15C Class B 1GHz-18GHz -2



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2479.630	77.36	-3.57	114.0	-36.64	Peak	144.00	100	Vertical	Pass
2	4960.010	48.07	3.36	74.0	-25.93	Peak	135.00	100	Vertical	Pass

Note: (2) Emission Level = Reading Level + Antenna Factor + Cable Loss-Amplifier  
(3) Margin=Emission-Limits  
(4) According to section 15.35(b), the peak limit is 20dB higher than the average limit  
(5) For test purpose, keep EUT continuous transmitting  
(5) For emission above 18GHz and Below 30MHz, It is only the floor noise. No necessary to take down.  
(6) the measured PK value less than the AV limit.

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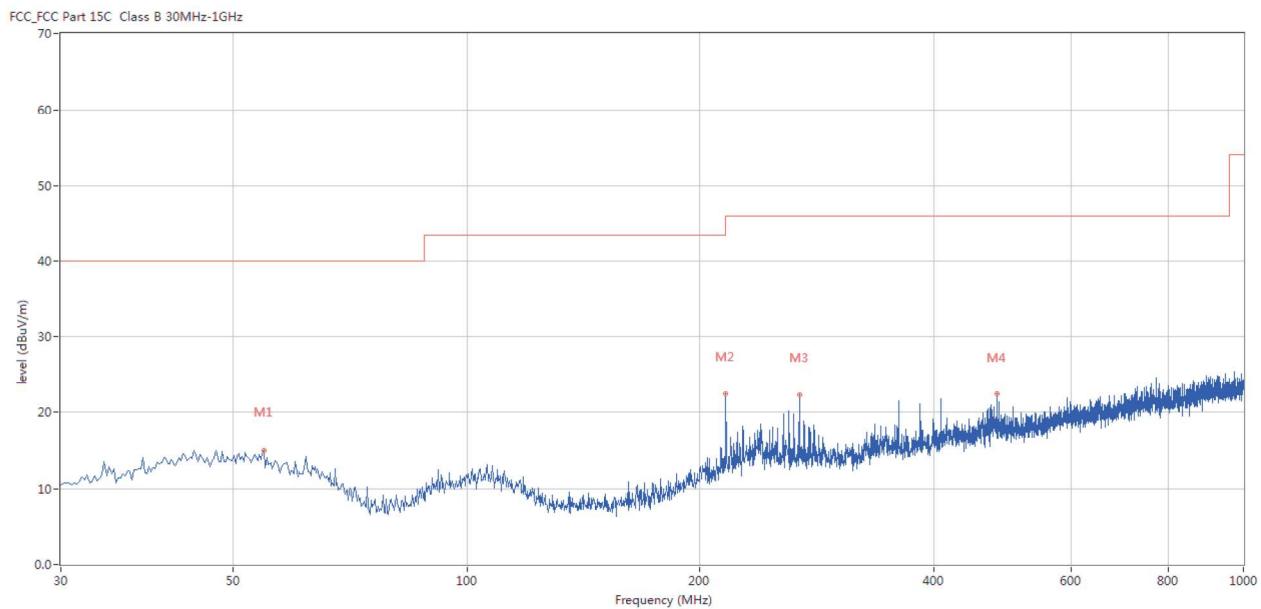
## B. General Radiated Emission Data

### Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

**Results: Pass**

Please refer to following diagram for individual



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	54.729	15.09	-11.72	40.0	-24.91	Peak	97.00	100	Horizontal	Pass
2	215.951	22.39	-13.60	43.5	-21.11	Peak	80.00	100	Horizontal	Pass
3	268.318	22.33	-11.71	46.0	-23.67	Peak	67.00	100	Horizontal	Pass
4	482.392	22.35	-7.36	46.0	-23.65	Peak	107.00	100	Horizontal	Pass

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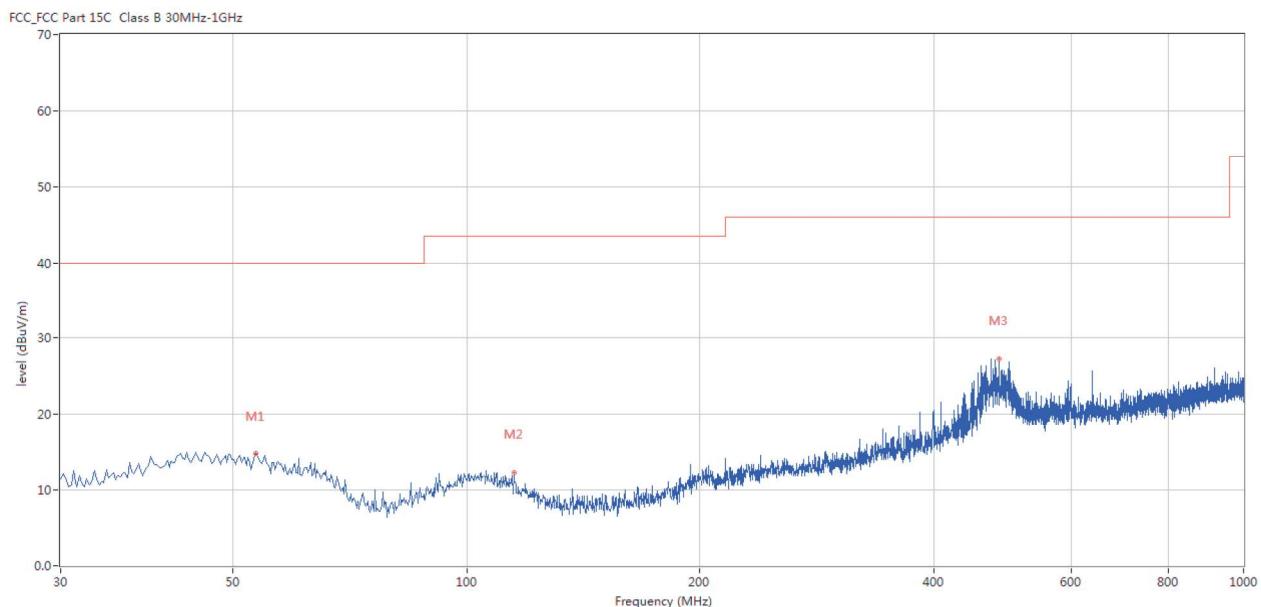


### Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

#### Results: Pass

Please refer to following diagram for individual



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	53.517	14.75	-11.52	40.0	-25.25	Peak	0.00	100	Vertical	Pass
2	114.854	12.32	-14.40	43.5	-31.18	Peak	1.00	100	Vertical	Pass
3	484.574	27.30	-7.31	46.0	-18.70	Peak	176.00	100	Vertical	Pass

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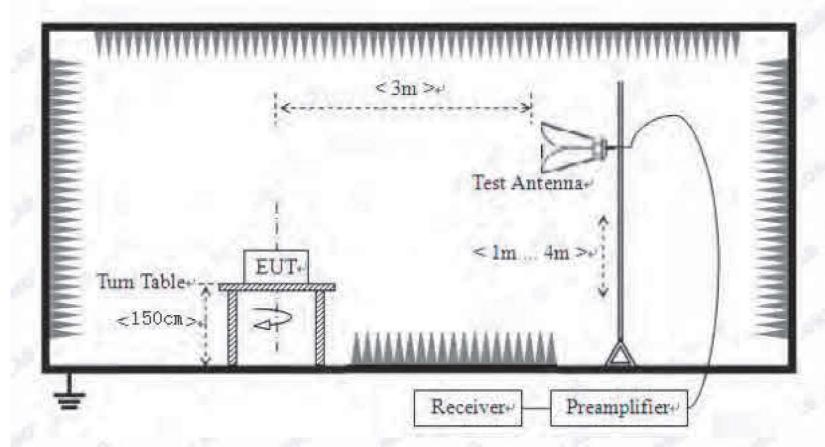


## 7. Band Edge

### 7.1 Test Method and test Procedure:

- (1) The EUT was tested according to ANSI C63.10–2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) Set Spectrum as RBW=1MHz, VBW=3MHz and Peak detector used for PK value. RBW=1MHz, VBW=10Hz and Peak detector used for AV value.
- (3) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (4) The antenna polarization: Vertical polarization and Horizontal polarization.

### 7.2 Radiated Test Setup



For the actual test configuration , please refer to the related items – Photos of Testing

### 7.3 Configuration of The EUT

Same as section 5.3 of this report

### 7.4 EUT Operating Condition

Same as section 5.4 of this report.

### 7.5 Band Edge Limit

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

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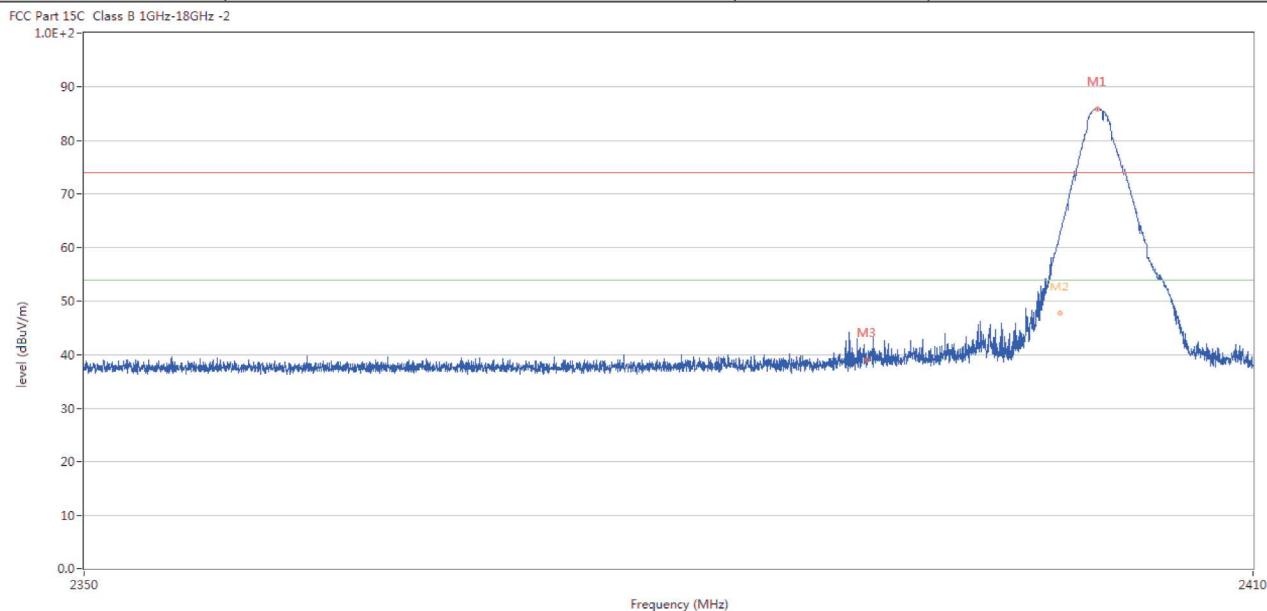
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## 7.6 Test Result

Product:	Rechargeable Bluetooth 35-Key Numeric Keypad	Polarity	Horizontal
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	--	--



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
2	2399.983	62.49	-3.57	74.0	-11.51	Peak	191.00	100	Horizontal	Pass
2**	2399.983	47.30	-3.57	54.0	-6.70	AV	191.00	100	Horizontal	Pass
3	2390.040	38.91	-3.53	74.0	-35.09	Peak	149.00	100	Horizontal	Pass

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Product:	Rechargeable Bluetooth 35-Key Numeric Keypad		Detector	Vertical						
Mode	Keeping Transmitting		Test Voltage	DC3.7V						
Temperature	24 deg. C,		Humidity	56% RH						
Test Result:	Pass		--	--						
FCC Part 15C Class B 1GHz-18GHz -2 										
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
2	2400.057	58.09	-3.57	74.0	-15.91	Peak	179.00	100	Vertical	Pass
2**	2400.057	47.09	-3.57	54.0	-6.91	AV	179.00	100	Vertical	Pass
3	2389.995	44.14	-3.53	74.0	-29.86	Peak	103.00	100	Vertical	Pass

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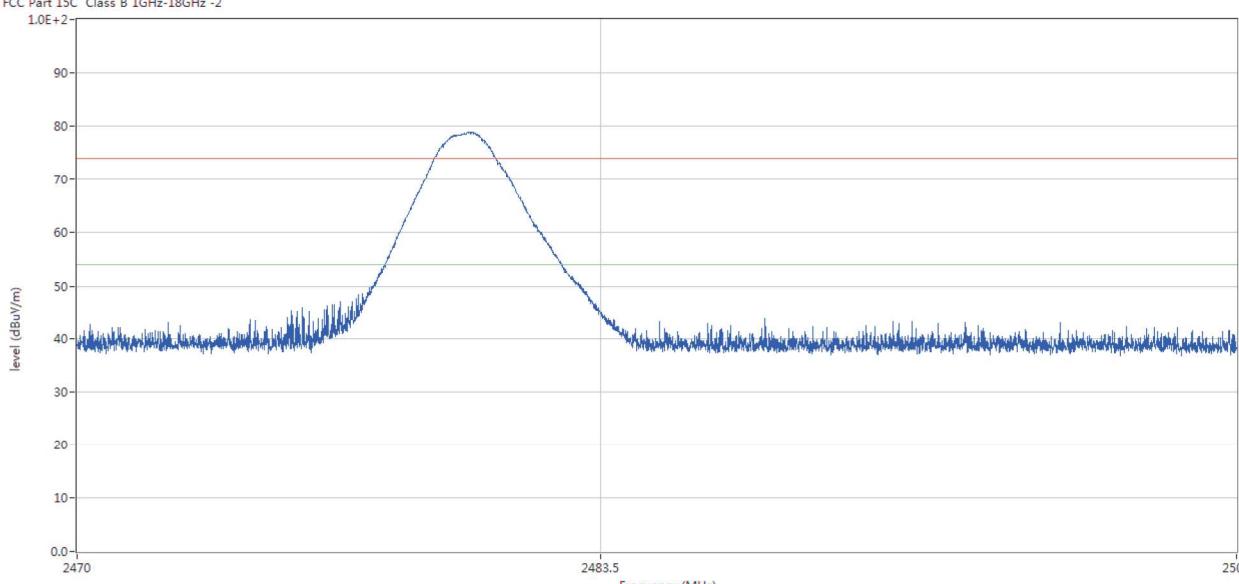
Product:	Rechargeable Bluetooth 35-Key Numeric Keypad		Polarity	Horizontal						
Mode	Keeping Transmitting		Test Voltage	DC3.7V						
Temperature	24 deg. C,		Humidity	56% RH						
Test Result:	Pass		--	--						
FCC Part 15C Class B 1GHz-18GHz -2										
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	2480.107	86.80	-3.57	74.0	12.80	Peak	197.00	100	Horizontal	N/A
2	2483.459	53.49	-3.57	74.0	-20.51	Peak	197.00	100	Horizontal	Pass
2**	2483.459	46.09	-3.57	54.0	-7.91	AV	197.00	100	Horizontal	Pass

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Product:	Rechargeable Bluetooth 35-Key Numeric Keypad		Detector	Vertical						
Mode	Keeping Transmitting		Test Voltage	DC3.7V						
Temperature	24 deg. C,		Humidity	56% RH						
Test Result:	Pass		--	--						
FCC Part 15C Class B 1GHz-18GHz -2  <p>The graph plots Level (dBuV/m) on the y-axis (0.0 to 100) against Frequency (MHz) on the x-axis (2470 to 2500). A single, sharp peak is visible at 2483.5 MHz, reaching a level of approximately 78 dBuV/m. The background noise level is around 40 dBuV/m.</p>										
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
2	2483.167	48.28	-3.57	74.0	-25.72	Peak	168.00	100	Vertical	Pass

Note: 1. The PK emission level less than the AV limit. No necessary to record the AV emission level.  
 2. This is a handheld device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand). After pre-test. It was found that the worse radiated emission was get at the lying position.  
 3. The three modulation modes of GFSK, Pi/4D-QPSK and 8DPSK were tested. And only the worst case was recorded in the test report. GFSK was the worst case.

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## 8.0 Antenna Requirement

### Applicable Standard

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

This product has a PCB antenna with gain -1.90dBi max. It fulfills the requirement of this section.

Test Result: Pass

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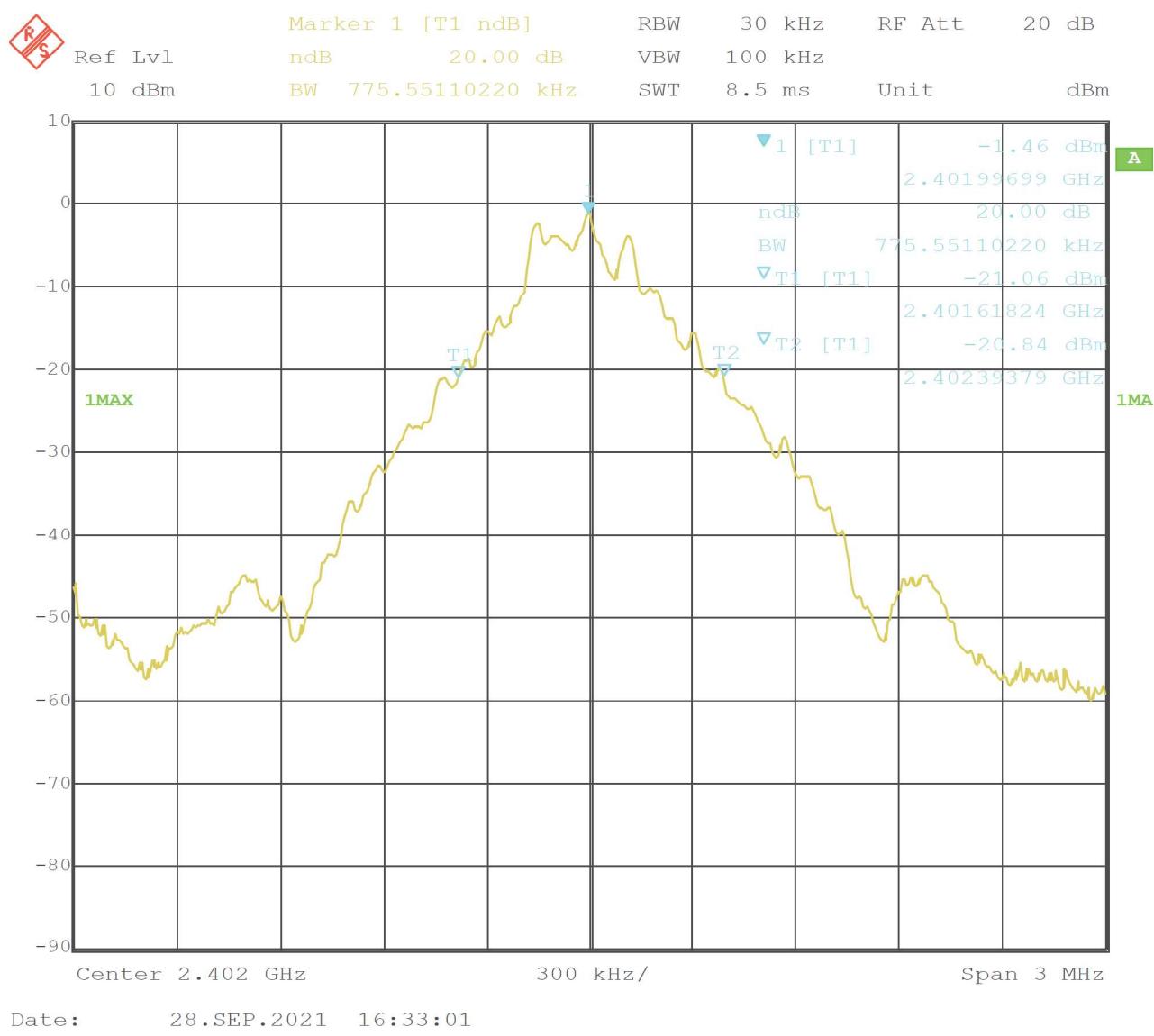
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## 9.0 20dB Bandwidth Measurement

### GFSK Modulation

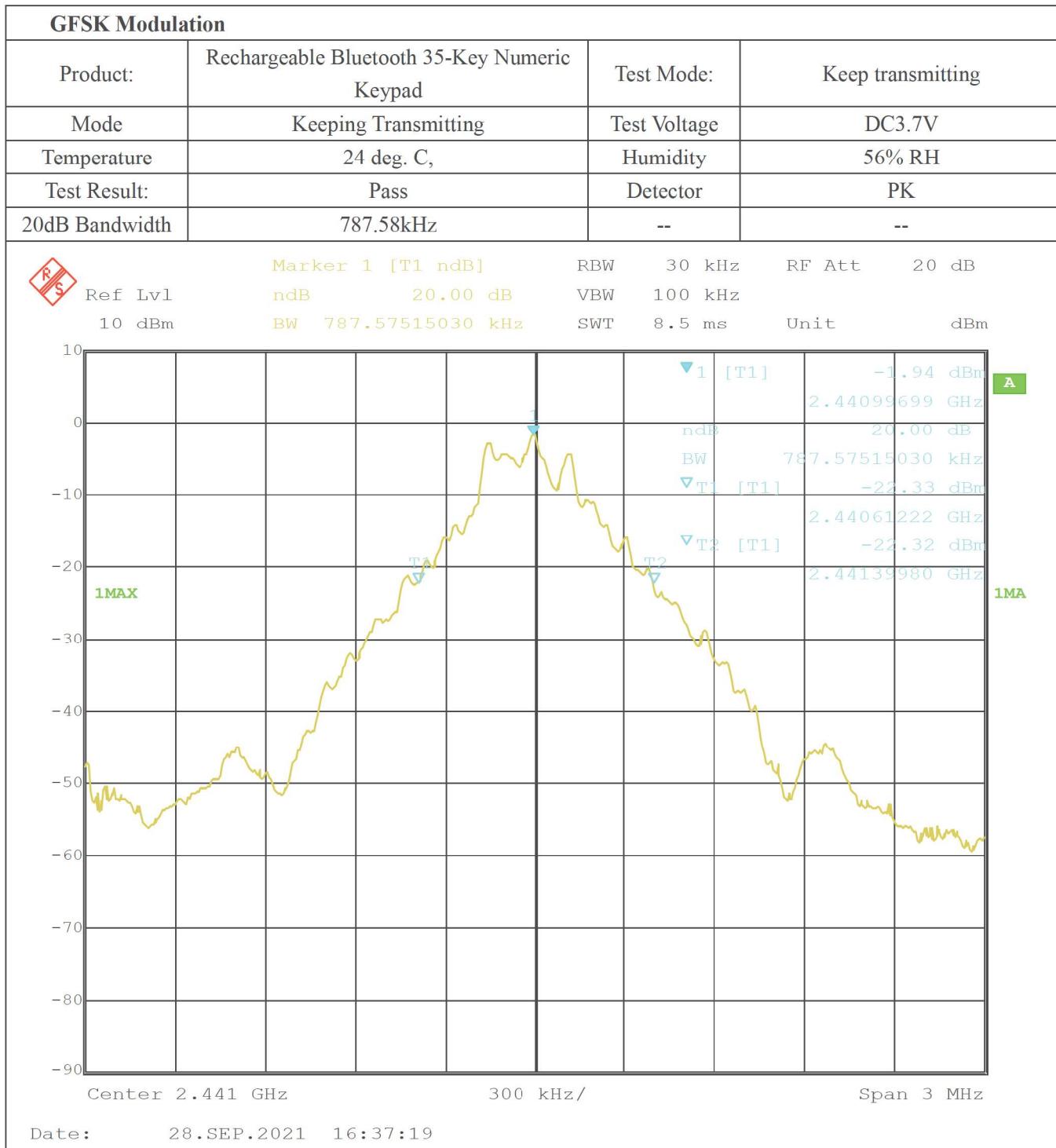
Product:	Rechargeable Bluetooth 35-Key Numeric Keypad	Test Mode:	Keep transmitting
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK
20dB Bandwidth	775.55kHz	--	--



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