

Job No.: FRANK2018 #180

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Wifi module

Mode: TX Channel 1(802.11N20)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

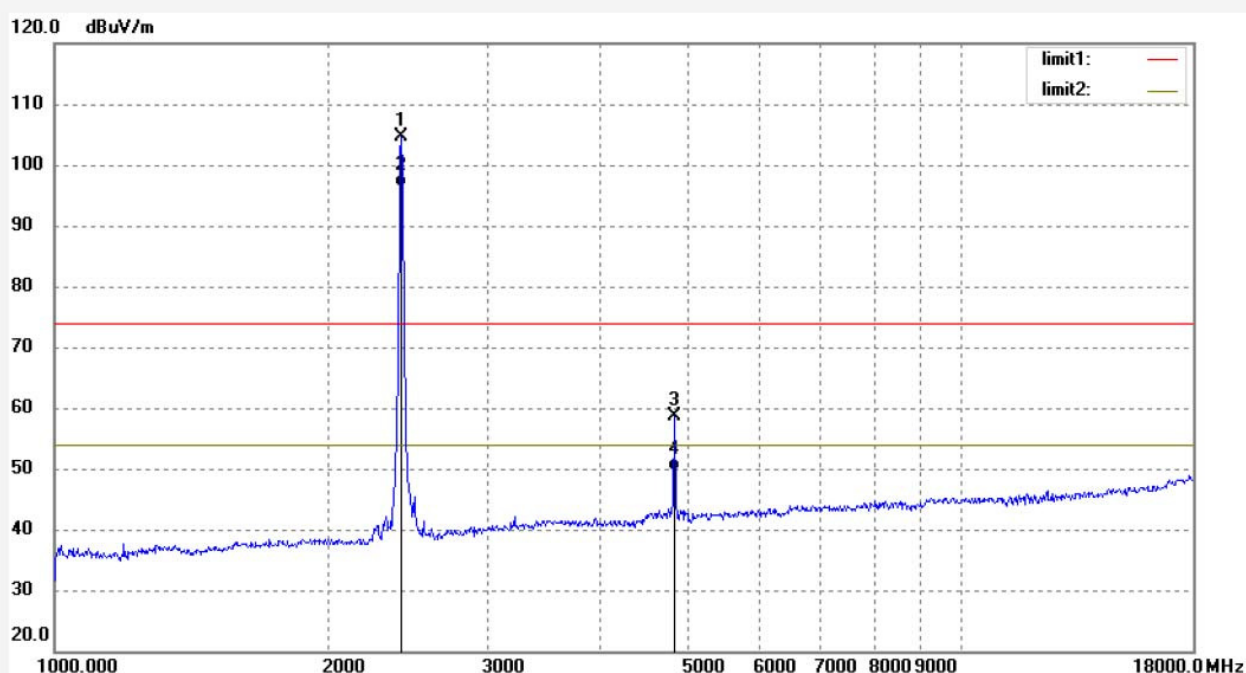
Date: 2018/01/26

Time: 17:47:22

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2412.003	103.65	0.91	104.56			peak	250	133	
2	2412.003	95.49	0.91	96.40			AVG	250	45	
3	4824.016	51.13	7.53	58.66	74.00	-15.34	peak	250	198	
4	4824.016	42.17	7.53	49.70	54.00	-4.30	AVG	250	121	

Job No.: FRANK2018 #181

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Wifi module

Mode: TX Channel 1(802.11N20)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

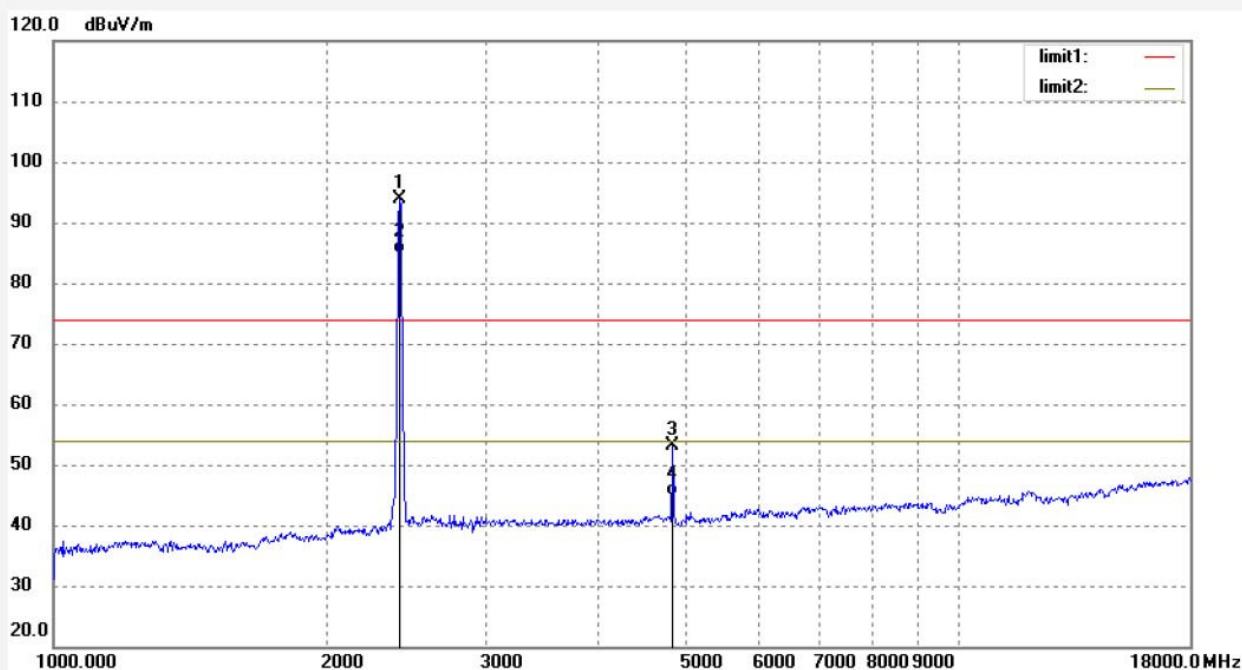
Date: 2018/01/26

Time: 17:49:33

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2412.172	92.90	0.94	93.84			peak	250	196	
2	2412.172	83.84	0.94	84.78			AVG	200	132	
3	4824.262	45.47	7.65	53.12	74.00	-20.88	peak	250	254	
4	4824.262	37.34	7.65	44.99	54.00	-9.01	AVG	200	64	

Job No.: FRANK2018 #183

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Wifi module

Mode: TX Channel 6(802.11N20)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

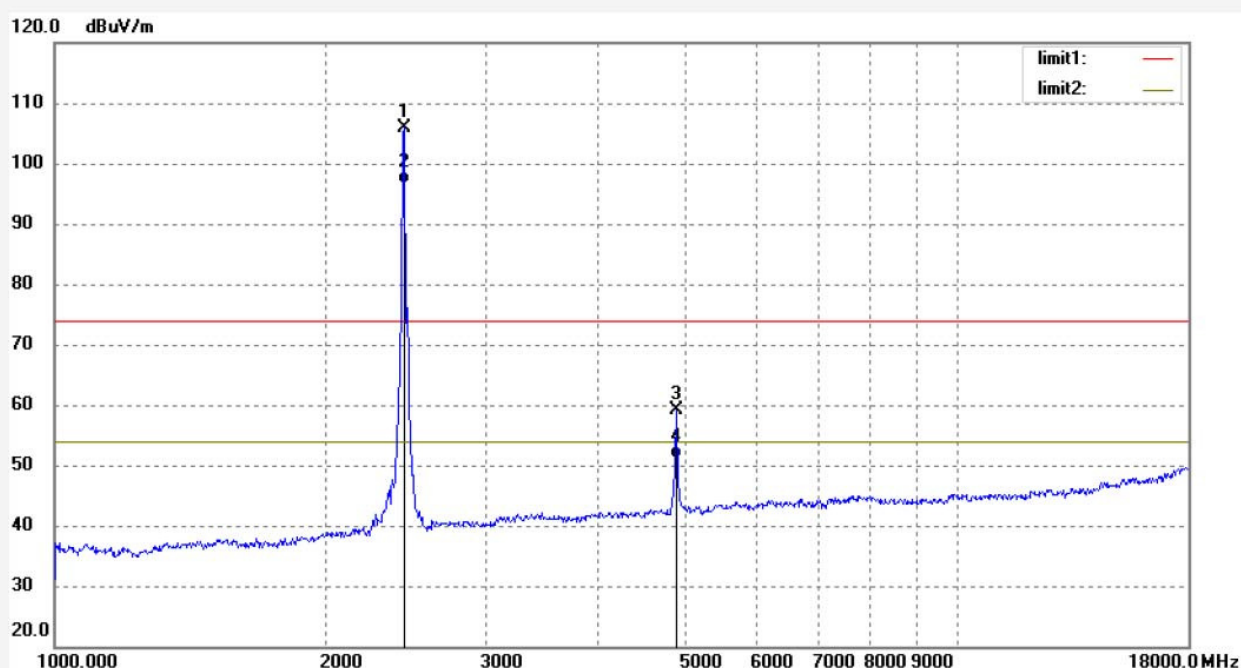
Date: 2018/01/26

Time: 17:54:02

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2437.001	104.97	1.03	106.00			peak	300	190	
2	2437.001	95.64	1.03	96.67			AVG	250	111	
3	4874.043	51.19	8.04	59.23	74.00	-14.77	peak	250	134	
4	4874.043	43.18	8.04	51.22	54.00	-2.78	AVG	250	38	

Job No.: FRANK2018 #182

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Wifi module

Mode: TX Channel 6(802.11N20)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

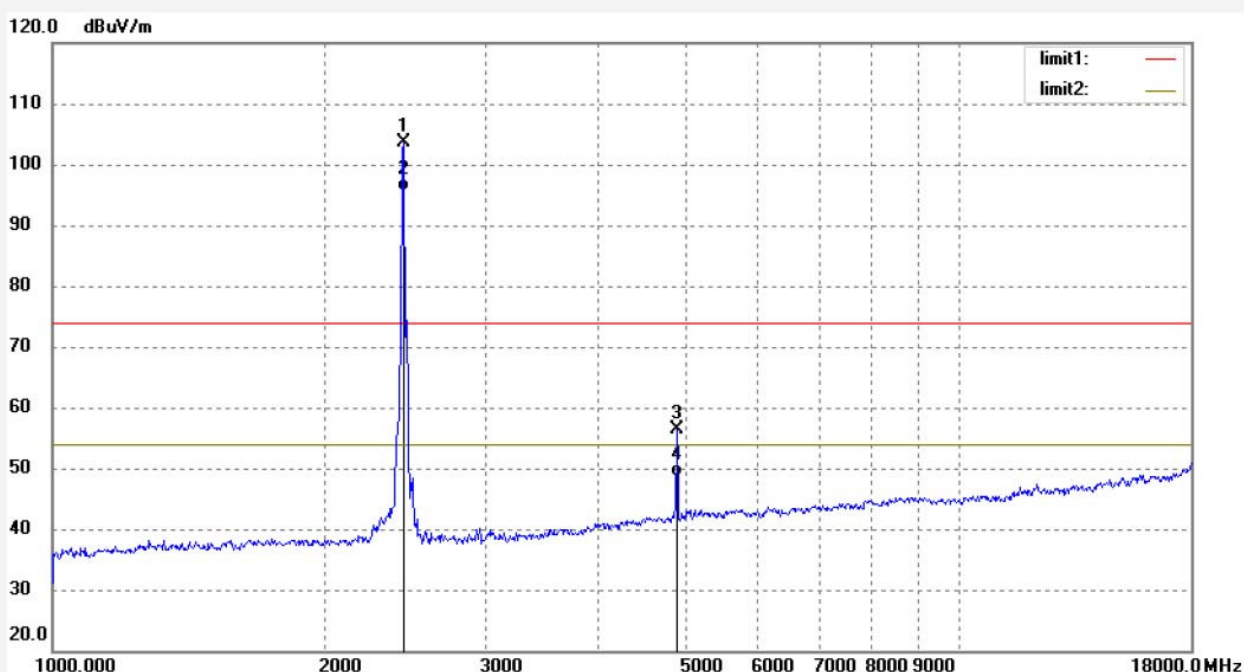
Date: 2018/01/26

Time: 17:53:03

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2437.001	102.58	1.03	103.61			peak	250	297	
2	2437.001	94.64	1.03	95.67			AVG	200	231	
3	4874.151	48.21	8.17	56.38	74.00	-17.62	peak	200	45	
4	4874.151	40.38	8.17	48.55	54.00	-5.45	AVG	200	61	

Job No.: FRANK2018 #184

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Wifi module

Mode: TX Channel 11(802.11N20)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

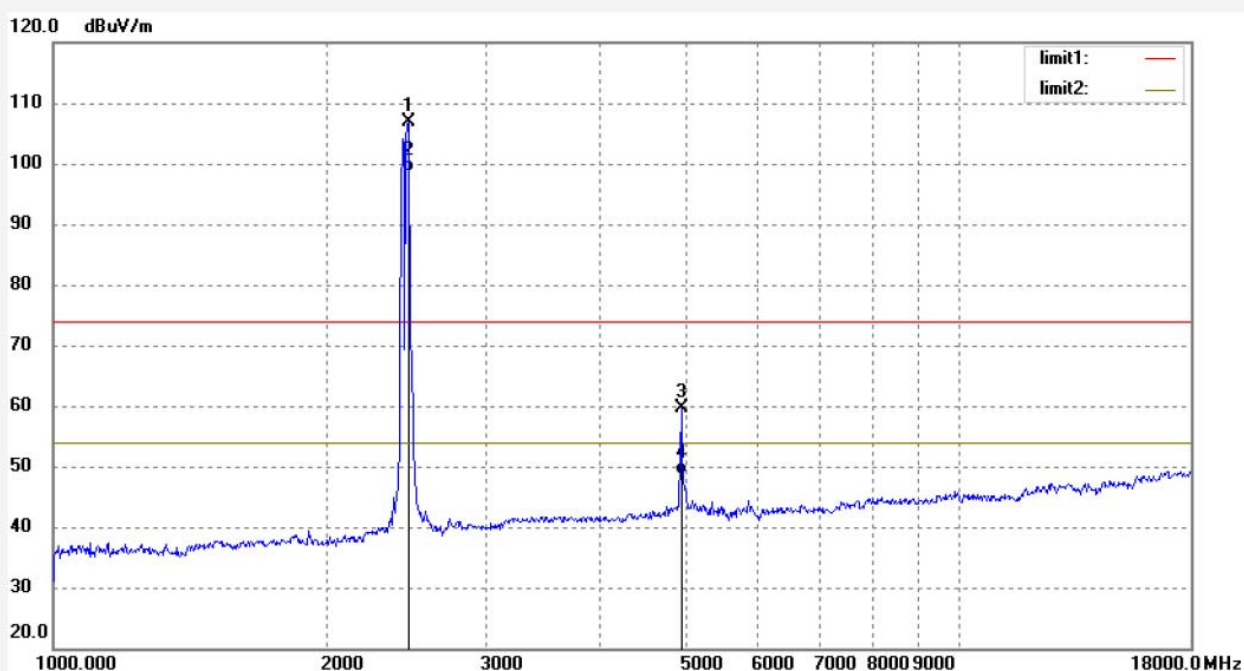
Date: 2018/01/26

Time: 17:55:40

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2462.024	105.75	1.09	106.84			peak	250	94	
2	2462.024	97.64	1.09	98.73			AVG	200	259	
3	4924.721	51.12	8.44	59.56	74.00	-14.44	peak	250	152	
4	4924.721	40.22	8.44	48.66	54.00	-5.34	AVG	250	130	

Job No.: FRANK2018 #185

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Wifi module

Mode: TX Channel 11(802.11N20)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

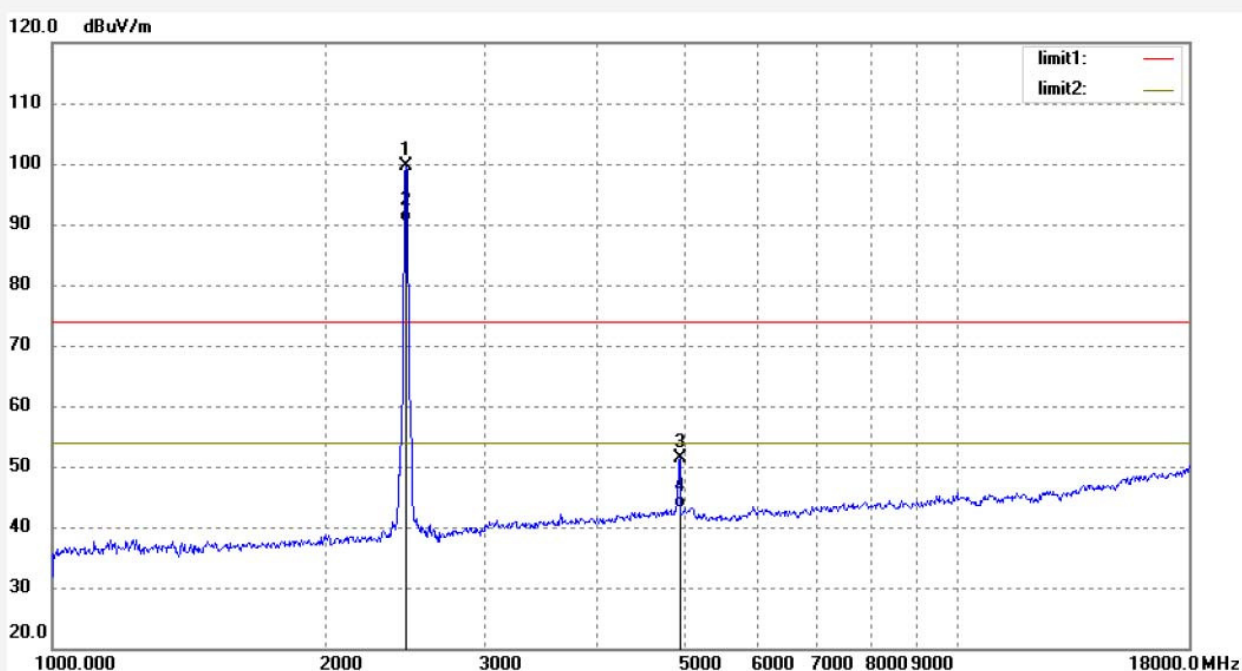
Date: 2018/01/26

Time: 17:56:49

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2462.313	98.56	1.09	99.65			peak	250	102	
2	2462.313	89.40	1.09	90.49			AVG	200	65	
3	4924.721	43.02	8.44	51.46	74.00	-22.54	peak	250	181	
4	4924.721	34.61	8.44	43.05	54.00	-10.95	AVG	200	130	

Job No.: FRANK2018 #186

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Wifi module

Mode: TX Channel 3(802.11N40)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

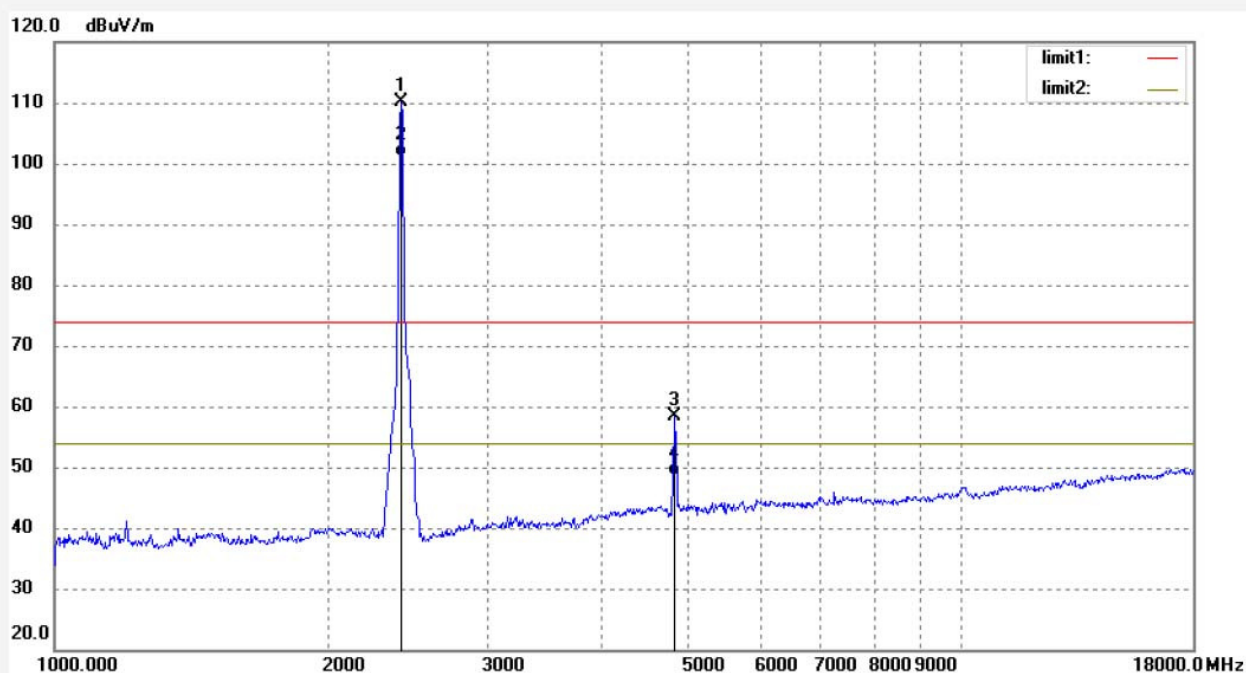
Date: 18/01/27/

Time: 9/26/27

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2422.072	109.29	0.94	110.23			peak	250	134	
2	2422.072	100.12	0.94	101.06			AVG	250	92	
3	4844.016	50.95	7.53	58.48	74.00	-15.52	peak	300	167	
4	4844.016	41.00	7.53	48.53	54.00	-5.47	AVG	250	51	

Job No.: FRANK2018 #187

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Wifi module

Mode: TX Channel 3(802.11N40)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

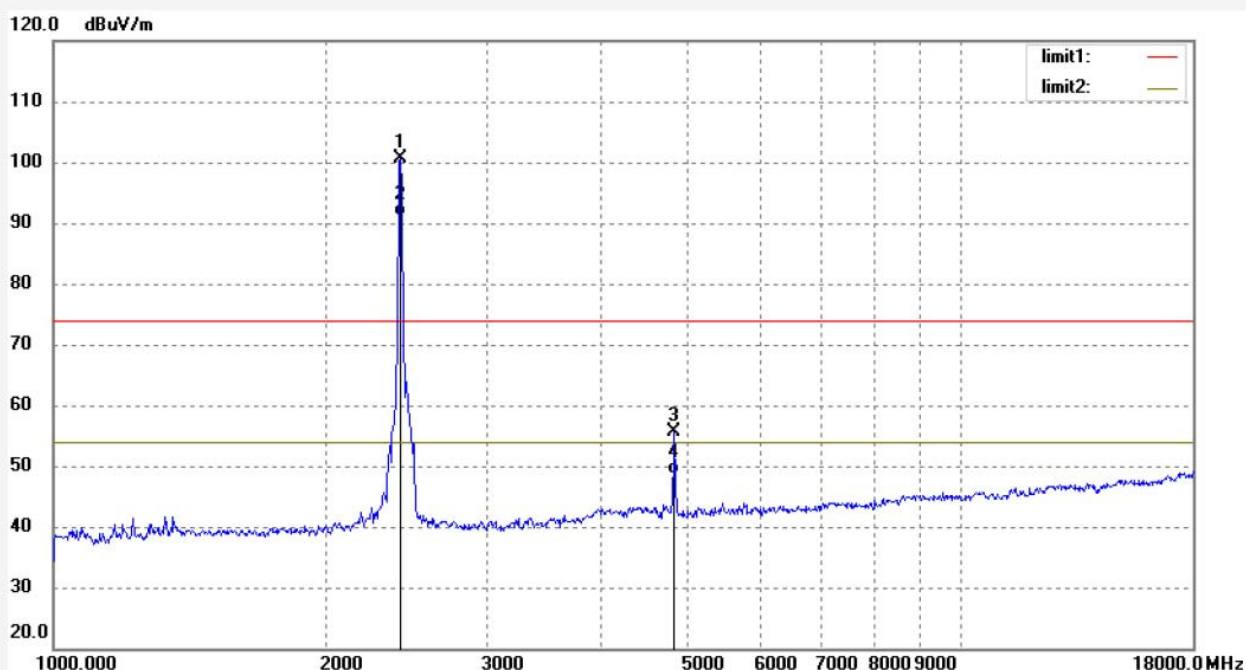
Date: 18/01/27/

Time: 9/27/26

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2422.072	99.77	0.91	100.68			peak	300	196	
2	2422.072	90.15	0.91	91.06			AVG	250	32	
3	4844.162	47.87	7.65	55.52	74.00	-18.48	peak	250	184	
4	4844.162	40.86	7.65	48.51	54.00	-5.49	AVG	250	301	

Job No.: FRANK2018 #189

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Wifi module

Mode: TX Channel 6(802.11N40)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

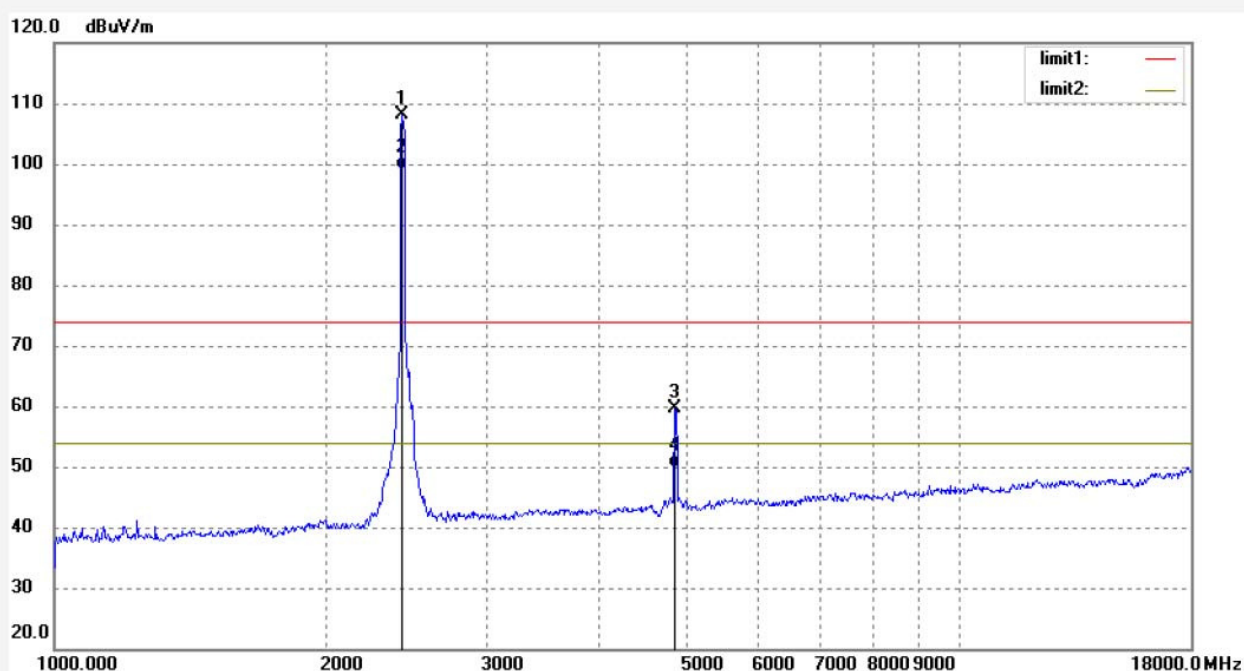
Date: 18/01/27/

Time: 9/29/49

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2437.161	107.07	0.97	108.04			peak	250	348	
2	2437.161	98.15	0.97	99.12			AVG	250	102	
3	4874.348	51.80	7.78	59.58	74.00	-14.42	peak	250	91	
4	4874.348	42.16	7.78	49.94	54.00	-4.06	AVG	300	123	

Job No.: FRANK2018 #188

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Wifi module

Mode: TX Channel 6(802.11N40)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

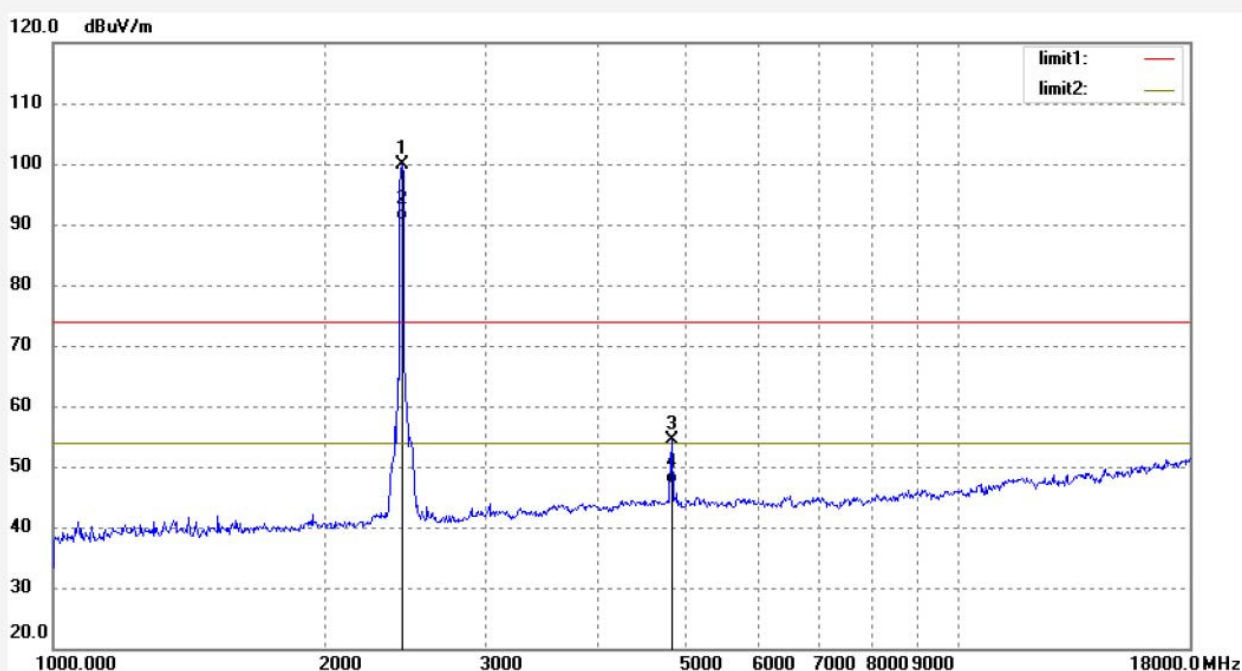
Date: 18/01/27/

Time: 9/29/05

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2437.171	98.99	1.00	99.99			peak	250	190	
2	2437.171	89.75	1.00	90.75			AVG	200	234	
3	4874.362	46.65	7.65	54.30	74.00	-19.70	peak	250	219	
4	4874.362	39.45	7.65	47.10	54.00	-6.90	AVG	200	102	

Job No.: FRANK2018 #190

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Wifi module

Mode: TX Channel 9(802.11N40)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

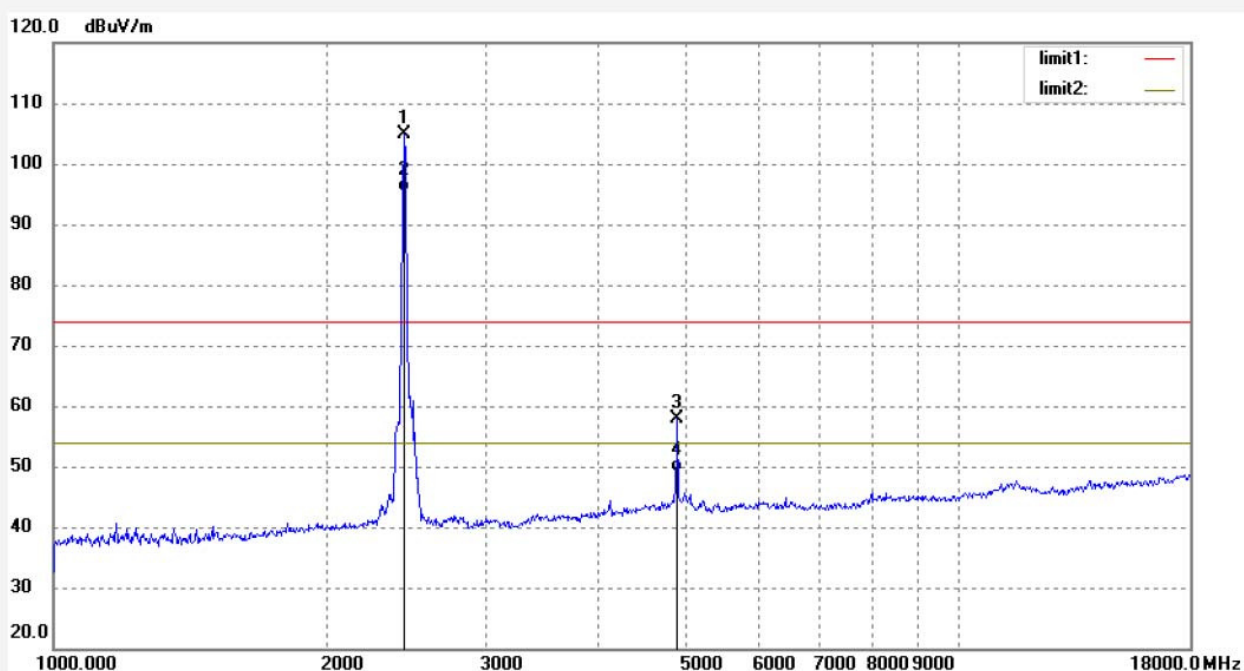
Date: 18/01/27/

Time: 9/30/59

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2452.351	103.82	1.06	104.88			peak	300	102	
2	2452.351	94.34	1.06	95.40			AVG	250	137	
3	4904.651	49.69	8.17	57.86	74.00	-16.14	peak	200	165	
4	4904.651	40.94	8.17	49.11	54.00	-4.89	AVG	250	30	

Job No.: FRANK2018 #191

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Wifi module

Mode: TX Channel 9(802.11N40)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

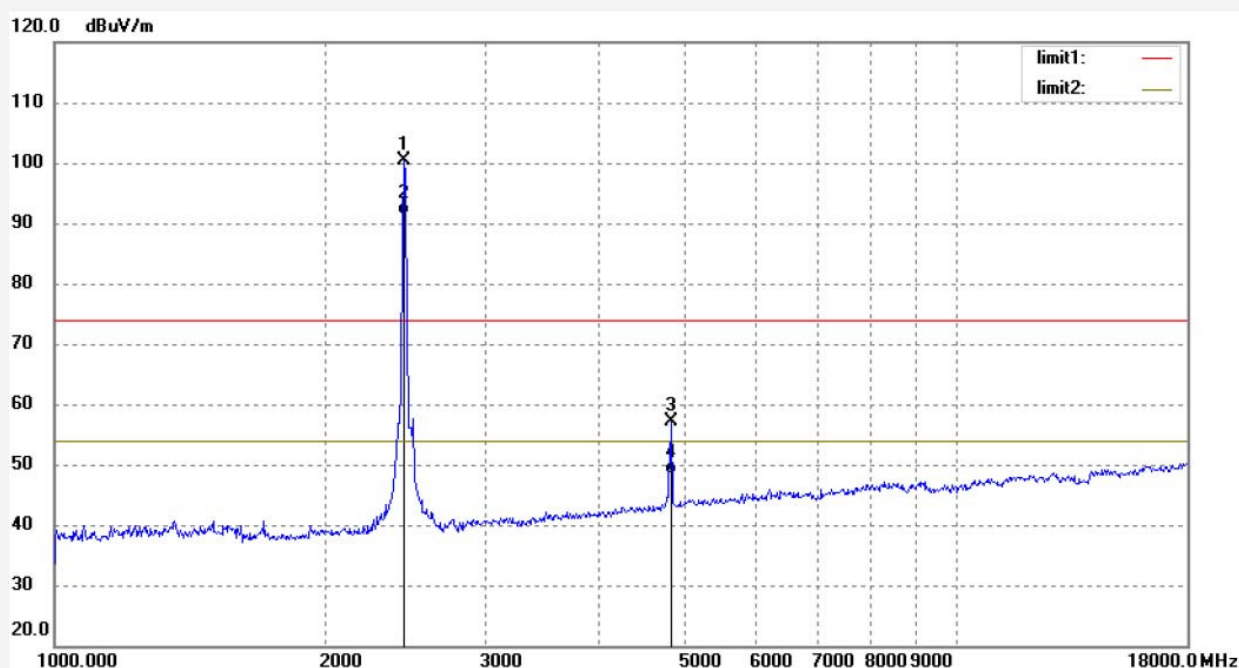
Date: 18/01/27/

Time: 9/31/46

Engineer Signature:

Distance: 3m

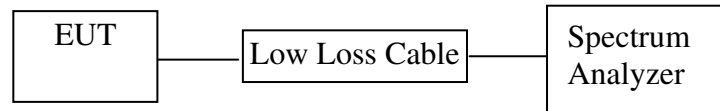
Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2452.351	99.30	1.06	100.36			peak	250	93	
2	2452.351	90.32	1.06	91.38			AVG	200	168	
3	4904.651	49.43	7.65	57.08	74.00	-16.92	peak	250	45	
4	4904.651	40.61	7.65	48.26	54.00	-5.74	AVG	200	143	

11.BAND EDGE COMPLIANCE TEST

11.1.Block Diagram of Test Setup



11.2.The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

11.3.EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

11.4.Operating Condition of EUT

11.4.1.Setup the EUT and simulator as shown as Section 11.1.

11.4.2.Turn on the power of all equipment.

11.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz MHz. We select 2412MHz, 2462MHz and 2422MHz, 2452MHz TX frequency to transmit.

11.5.Test Procedure

Conducted Band Edge:

11.5.1.The transmitter output was connected to the spectrum analyzer via a low loss cable.

11.5.2.Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz.

Radiate Band Edge:

11.5.3.The EUT is placed on a turntable, which is 1.5m above the ground plane and worked at highest radiated power.

11.5.4.The turntable was rotated for 360 degrees to determine the position of maximum emission level.

11.5.5.EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

11.5.6.Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

11.5.7.RBW=1MHz, VBW=1MHz

11.5.8.The band edges was measured and recorded.

11.6.Test Result

The test was performed with 802.11b

Frequency (MHz)	Result of Band Edge ANT 1(dBc)	Result of Band Edge ANT 2 (dBc)	Limit of Band Edge (dBc)
2400	37.92	36.48	> 20dBc
2483.5	43.79	43.23	> 20dBc

The test was performed with 802.11g

Frequency (MHz)	Result of Band Edge ANT 1(dBc)	Result of Band Edge ANT 2 (dBc)	Limit of Band Edge (dBc)
2400	36.07	35.05	> 20dBc
2483.5	40.18	37.45	> 20dBc

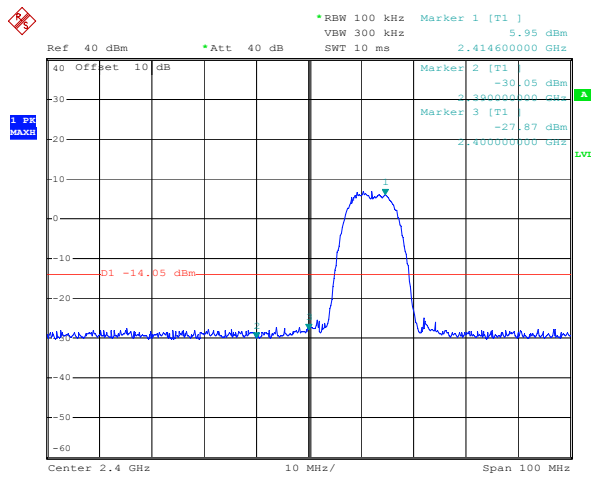
The test was performed with 802.11n (20MHz)

Frequency (MHz)	Result of Band Edge ANT 1(dBc)	Result of Band Edge ANT 2 (dBc)	Limit of Band Edge (dBc)
2400	35.10	36.65	> 20dBc
2483.5	40.59	38.14	> 20dBc

The test was performed with 802.11n (40MHz)

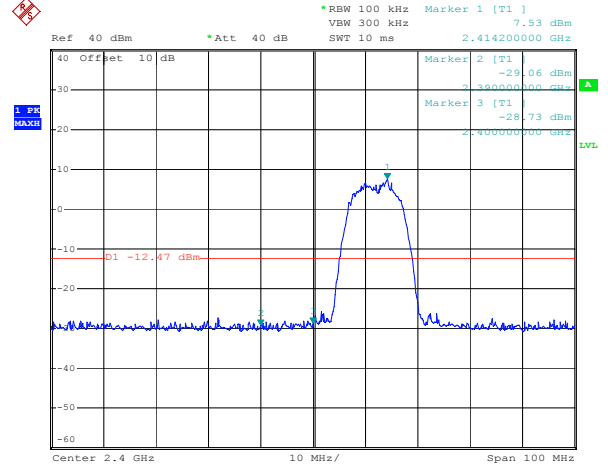
Frequency (MHz)	Result of Band Edge ANT 1(dBc)	Result of Band Edge ANT 2 (dBc)	Limit of Band Edge (dBc)
2400	36.10	32.87	> 20dBc
2483.5	32.23	36.93	> 20dBc

ANT 1(802.11b)

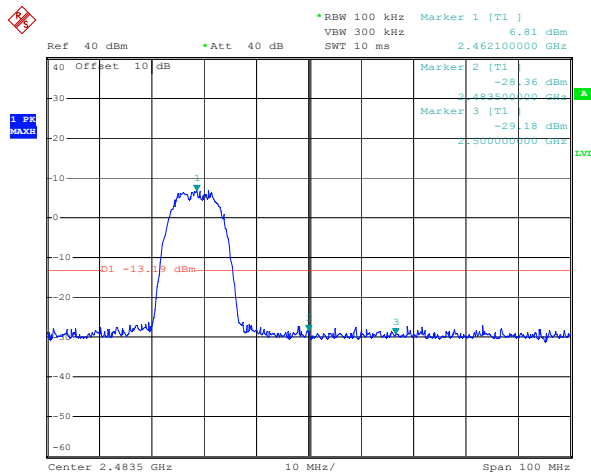


Comment A:
 Date: 19.JAN.2018 16:45:40

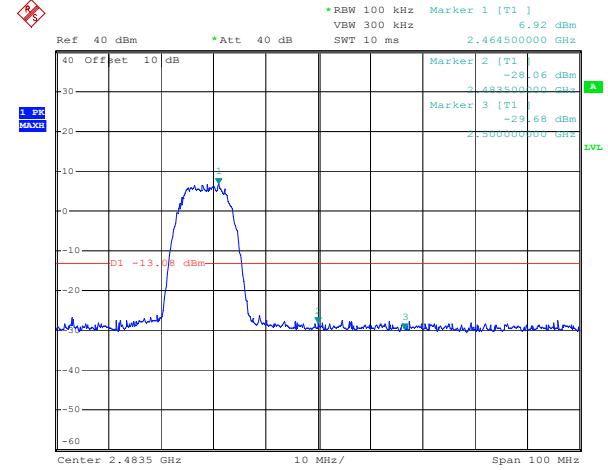
ANT 2(802.11b)



Comment A:
 Date: 19.JAN.2018 16:46:27

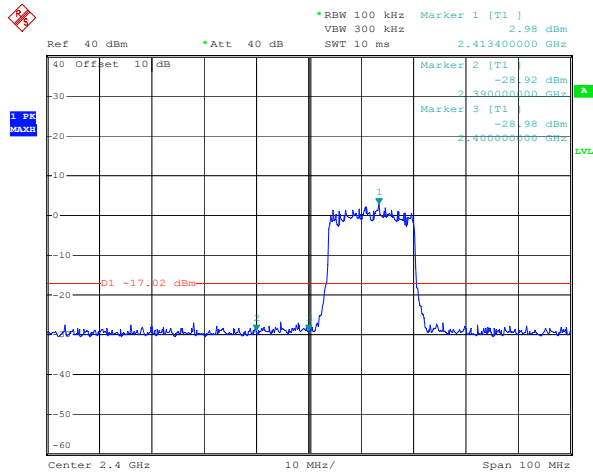


Comment A:
 Date: 19.JAN.2018 16:47:25



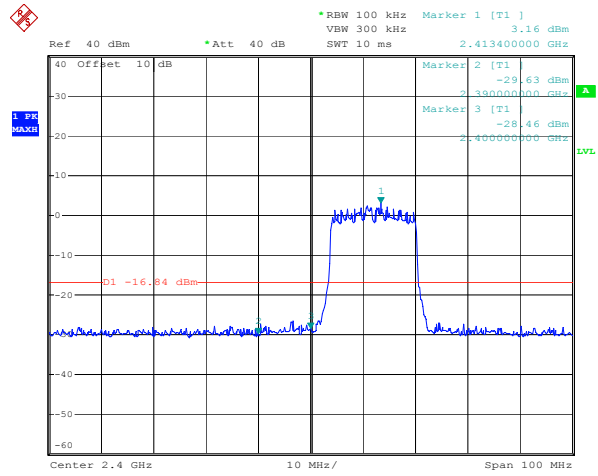
Comment A:
 Date: 19.JAN.2018 16:48:46

ANT 1(802.11g)

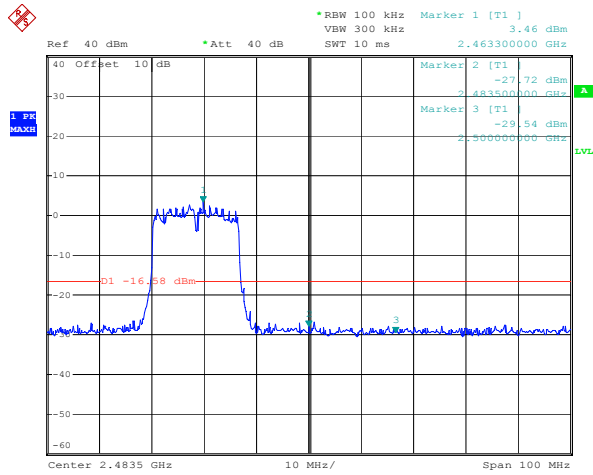


Comment A:
Date: 19.JAN.2018 16:53:41

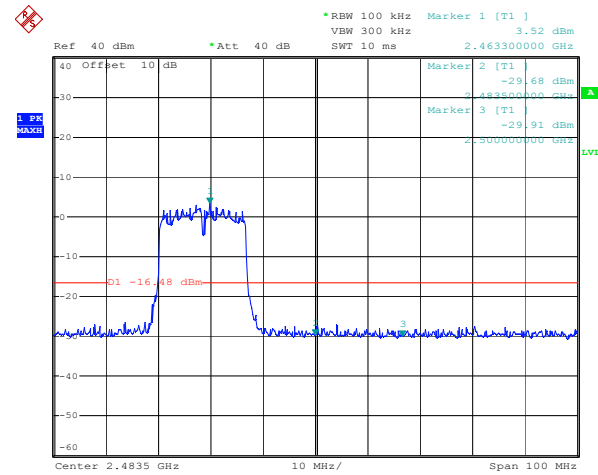
ANT 2(802.11g)



Comment A:
Date: 19.JAN.2018 16:52:45

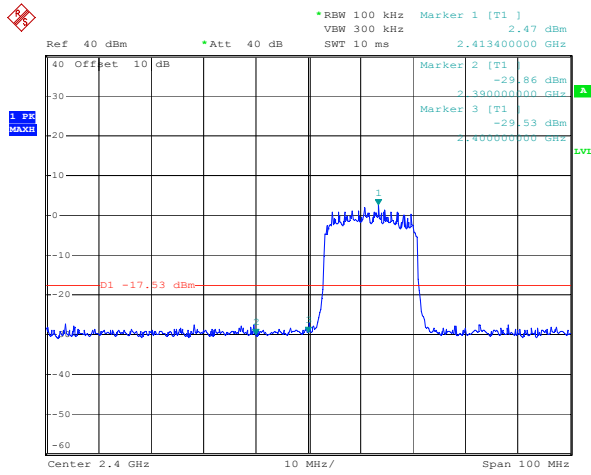


Comment A:
Date: 19.JAN.2018 16:51:30



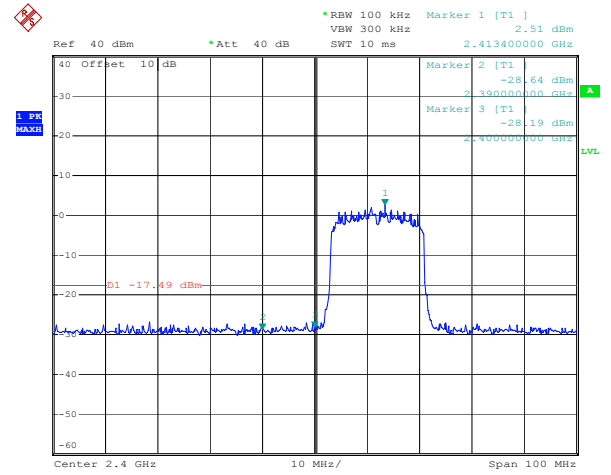
Comment A:
Date: 19.JAN.2018 16:50:04

ANT 1(802.11n20)

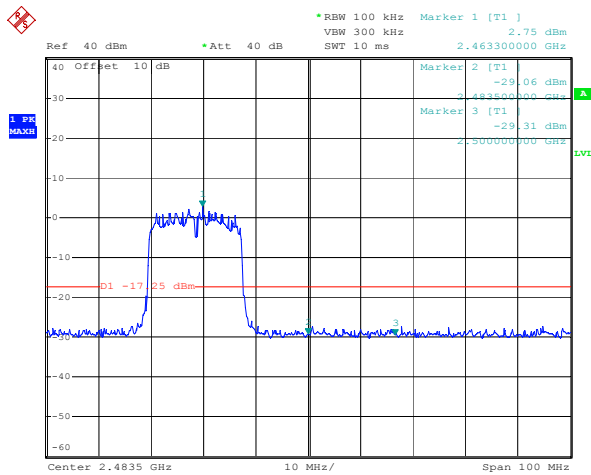


Comment A:
Date: 19.JAN.2018 16:54:52

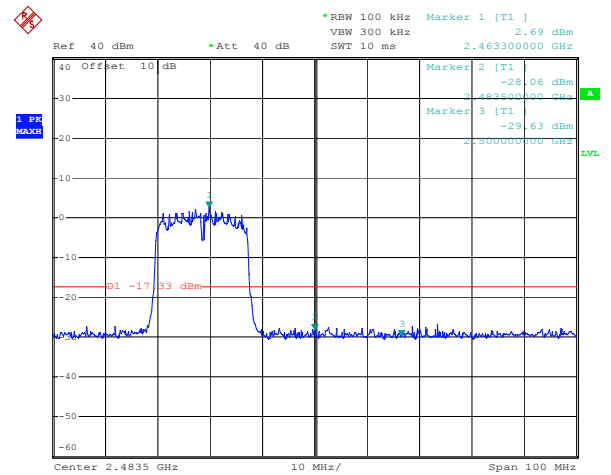
ANT 2(802.11 n20)



Comment A:
Date: 19.JAN.2018 16:56:41

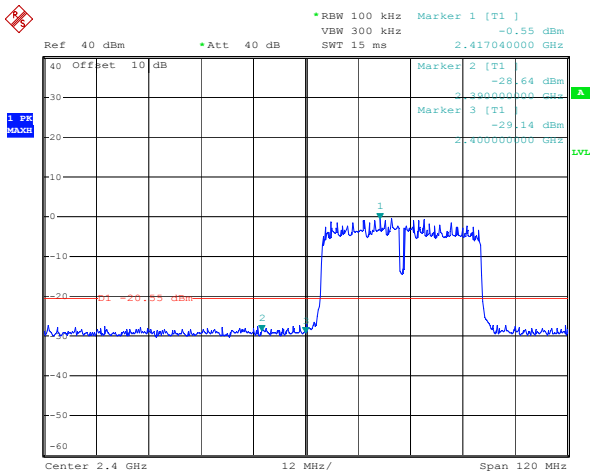


Comment A:
Date: 19.JAN.2018 16:59:01



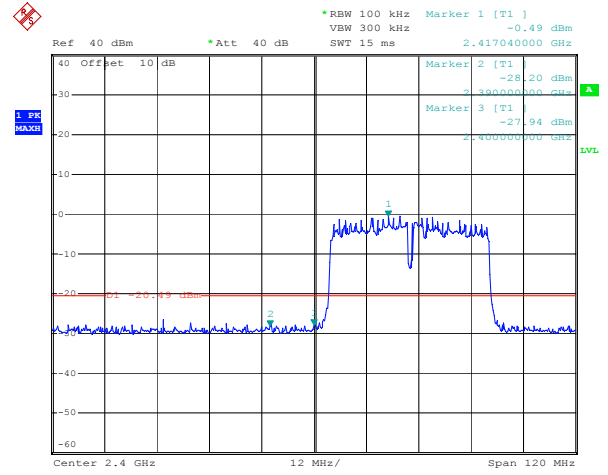
Comment A:
Date: 19.JAN.2018 17:00:11

ANT 1(802.11n40)

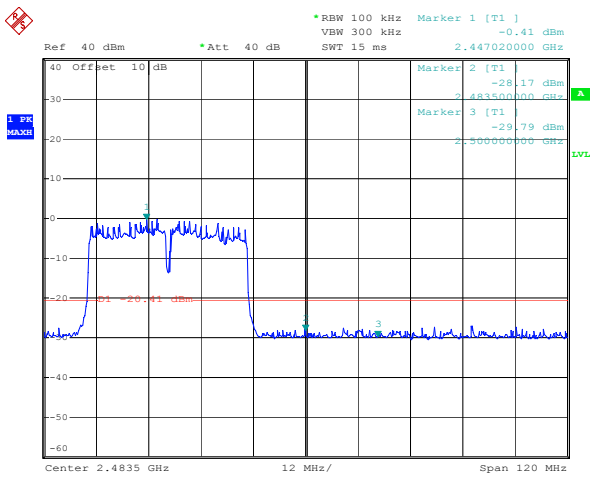


Comment A:
Date: 19.JAN.2018 17:03:25

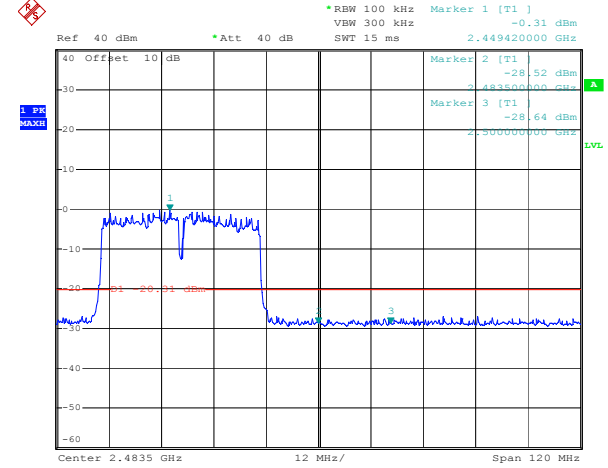
ANT 2(802.11n40)



Comment A:
Date: 19.JAN.2018 17:07:32



Comment A:
Date: 19.JAN.2018 17:08:31



Comment A:
Date: 19.JAN.2018 17:12:44

Radiated Band Edge Result

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:
$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$
3. Display the measurement of peak values.
4. The EUT is tested radiation emission at each test mode (802.11b/g/n) in three axes. Besides, We have tested the single antenna transmit mode and the dual antenna emission mode. The worst emissions(the dual antenna emission mode) are reflected in the following plots.
5. The average measurement was not performed when peak measured data under the limit of average detection.

Job No.: FRANK2018 #192

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 1(802.11B)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

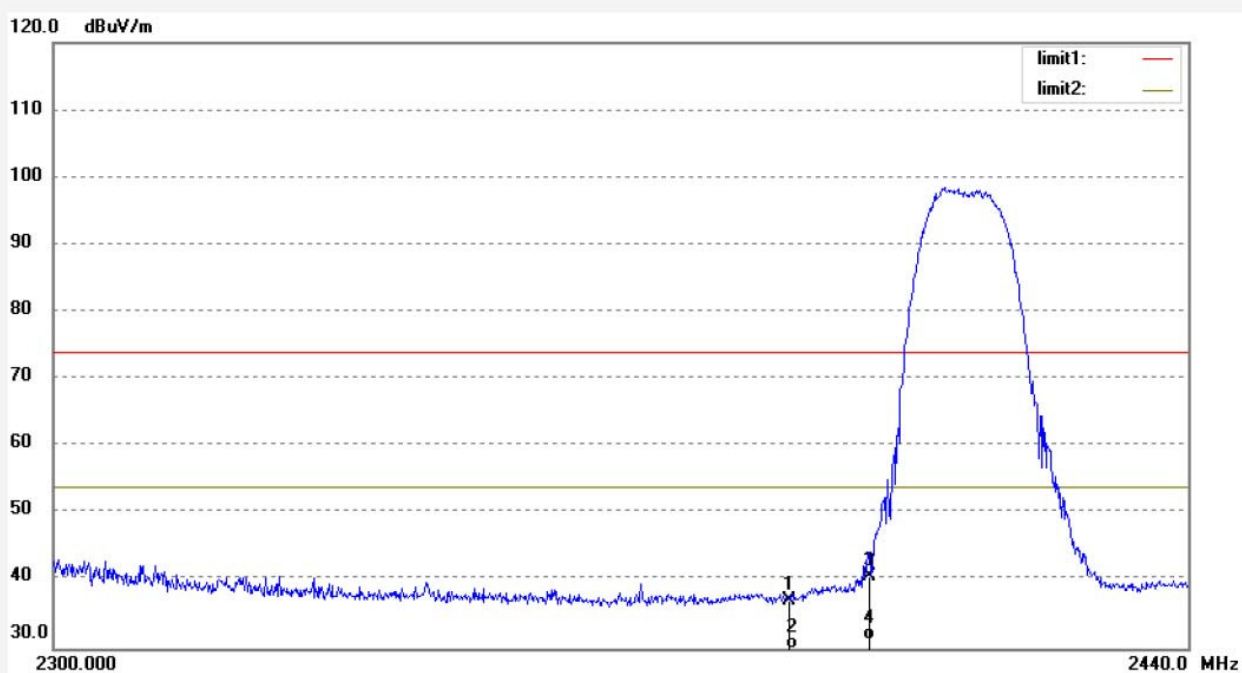
Date: 18/01/27/

Time: 15/57/44

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	41.50	-4.32	37.18	74.00	-36.82	peak	250	128	
2	2390.000	32.35	-4.32	28.03	54.00	-25.97	AVG	250	132	
3	2400.000	44.93	-4.27	40.66	74.00	-33.34	peak	250	109	
4	2400.000	35.46	-4.27	31.19	54.00	-22.81	AVG	250	84	

Job No.: FRANK2018 #193

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 1(802.11B)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

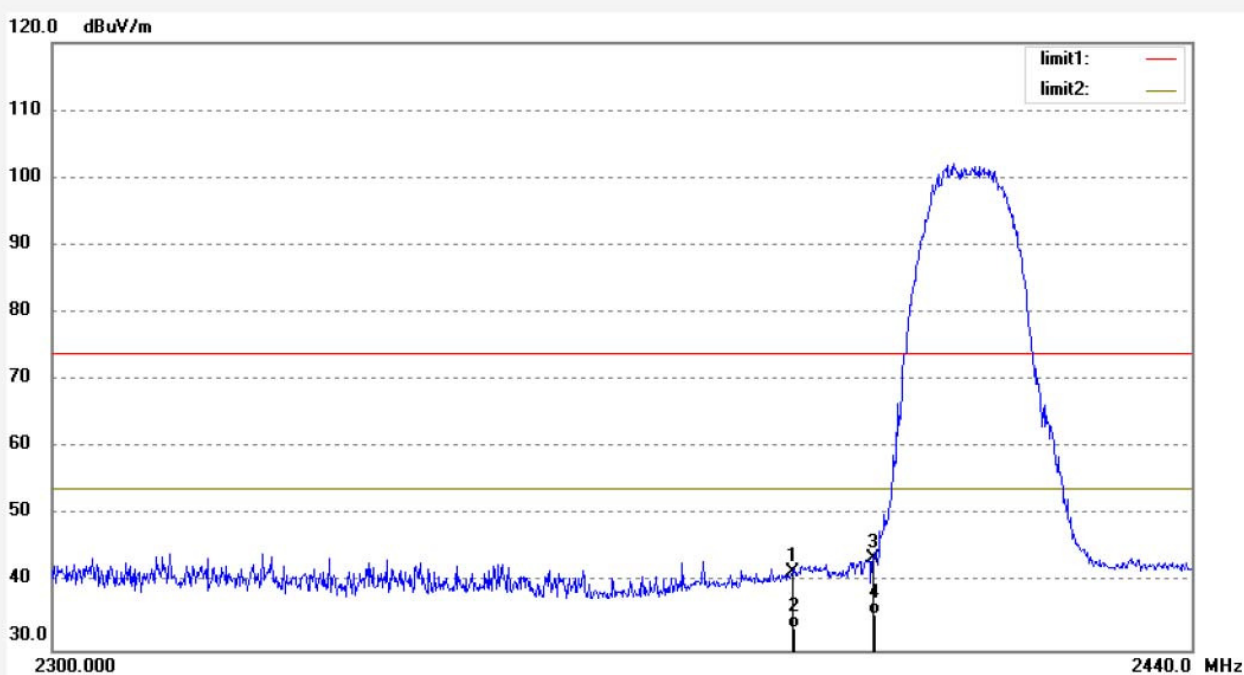
Date: 18/01/27/

Time: 15/58/35

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	45.87	-4.32	41.55	74.00	-32.45	peak	250	195	
2	2390.000	37.64	-4.32	33.32	54.00	-20.68	AVG	200	121	
3	2400.000	47.90	-4.27	43.63	74.00	-30.37	peak	200	230	
4	2400.000	39.45	-4.27	35.18	54.00	-18.82	AVG	200	187	

Job No.: FRANK2018 #207

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 11(802.11B)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

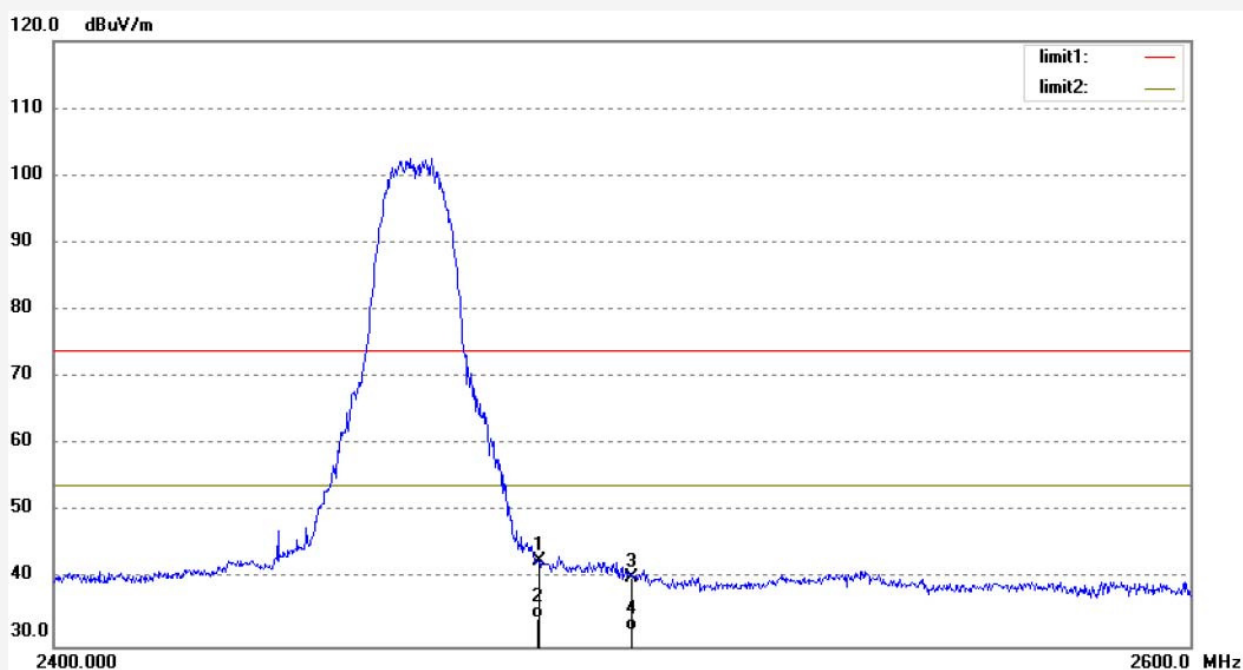
Date: 18/01/27/

Time: 16/18/49

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	46.52	-3.89	42.63	74.00	-31.37	peak	300	199	
2	2483.500	38.16	-3.89	34.27	54.00	-19.73	AVG	250	264	
3	2500.000	44.07	-3.81	40.26	74.00	-33.74	peak	250	162	
4	2500.000	36.20	-3.81	32.39	54.00	-21.61	AVG	250	102	

Job No.: FRANK2018 #206

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 11(802.11B)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

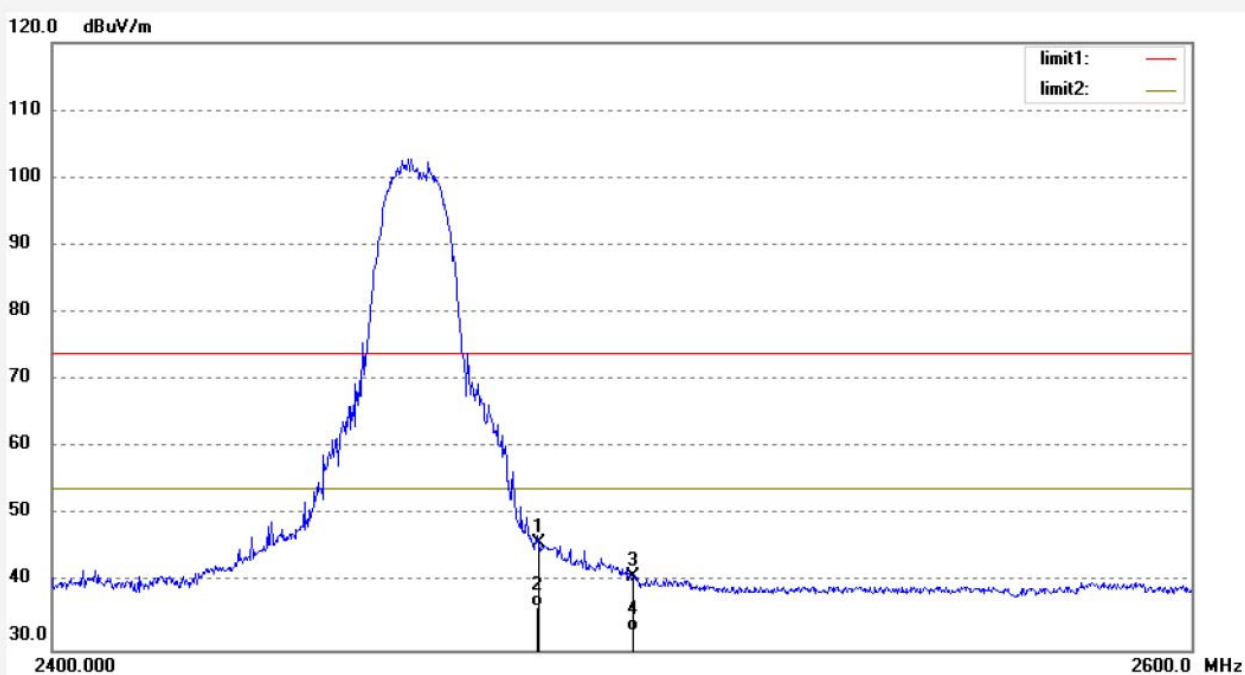
Date: 18/01/27/

Time: 16/18/07

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	49.71	-3.89	45.82	74.00	-28.18	peak	250	163	
2	2483.500	40.26	-3.89	36.37	54.00	-17.63	AVG	150	25	
3	2500.000	44.68	-3.81	40.87	74.00	-33.13	peak	250	232	
4	2500.000	36.69	-3.81	32.88	54.00	-21.12	AVG	150	196	

Job No.: FRANK2018 #195

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 1(802.11G)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

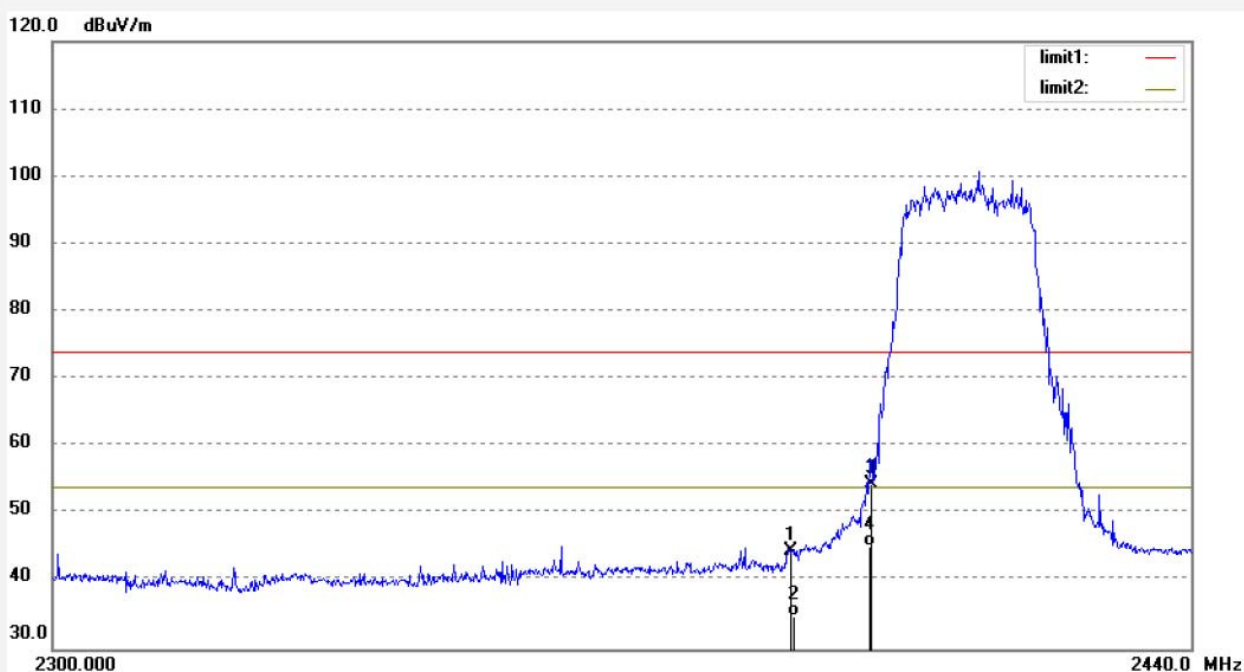
Date: 18/01/27/

Time: 16/00/42

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	48.81	-4.32	44.49	74.00	-29.51	peak	250	130	
2	2390.000	39.16	-4.32	34.84	54.00	-19.16	AVG	250	210	
3	2400.000	58.70	-4.27	54.43	74.00	-19.57	peak	250	95	
4	2400.000	49.56	-4.27	45.29	54.00	-8.71	AVG	250	64	

Job No.: FRANK2018 #194

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 1(802.11G)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

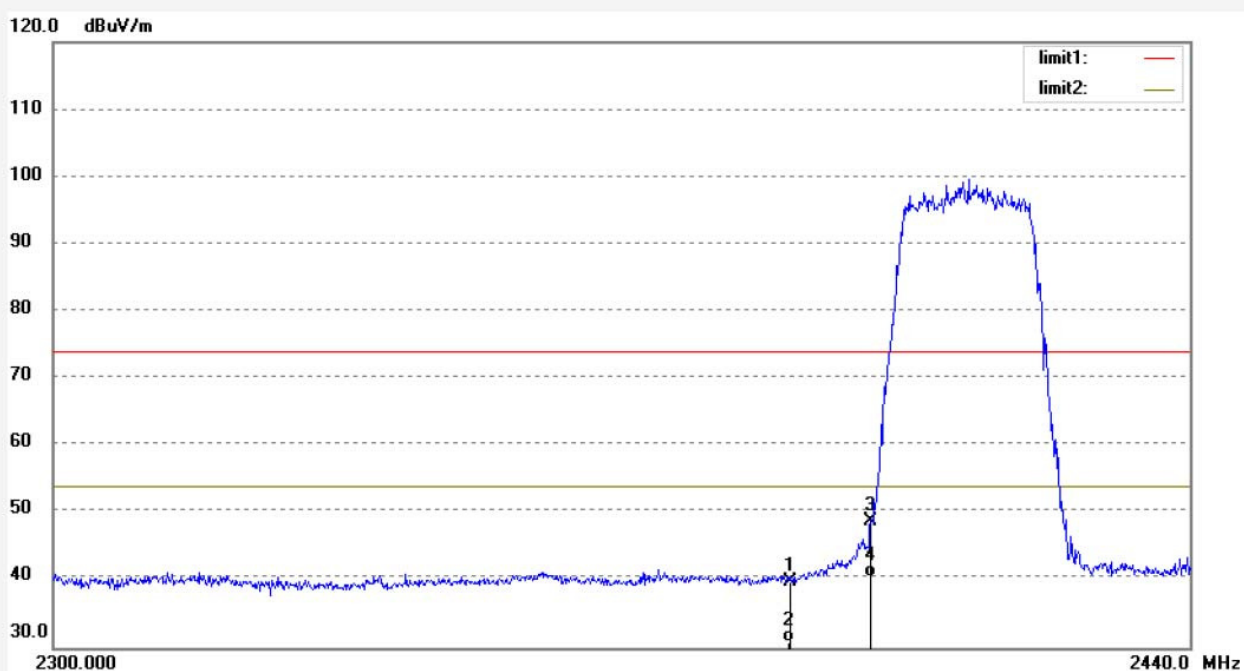
Date: 18/01/27/

Time: 15/59/57

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	44.12	-4.32	39.80	74.00	-34.20	peak	250	149	
2	2390.000	35.15	-4.32	30.83	54.00	-23.17	AVG	200	126	
3	2400.000	53.11	-4.27	48.84	74.00	-25.16	peak	250	94	
4	2400.000	44.64	-4.27	40.37	54.00	-13.63	AVG	250	50	

Job No.: FRANK2018 #204

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 11(802.11G)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

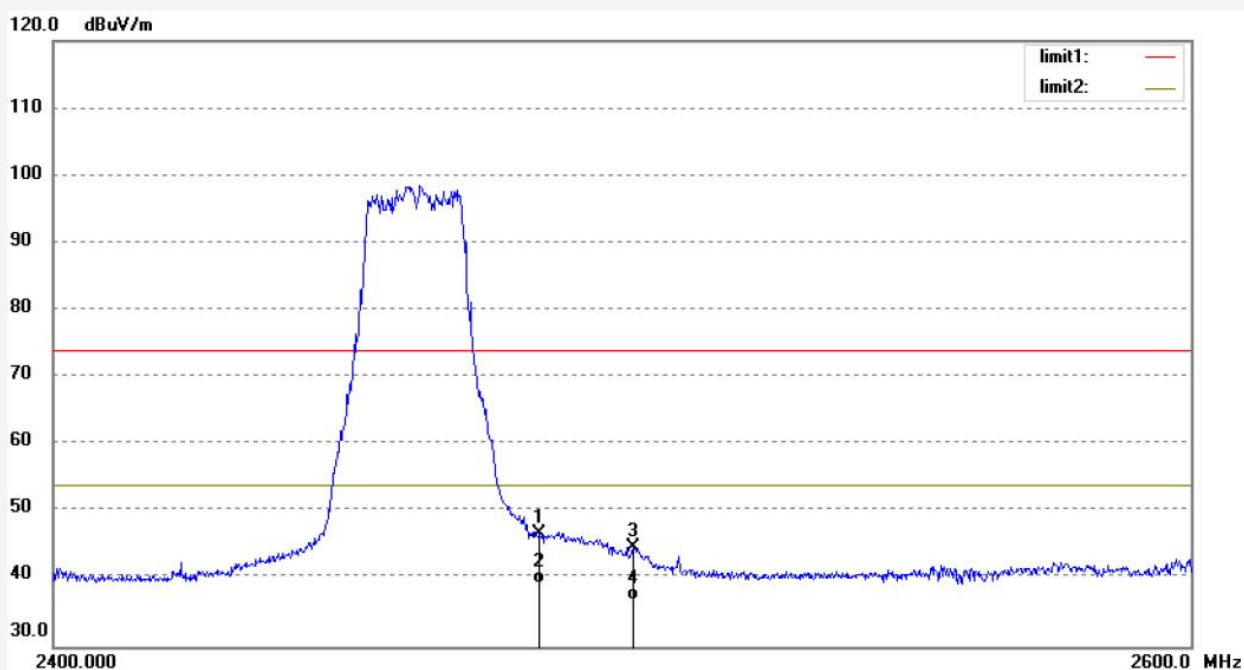
Date: 18/01/27/

Time: 16/16/16

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	50.73	-3.89	46.84	74.00	-27.16	peak	250	199	
2	2483.500	43.19	-3.89	39.30	54.00	-14.70	AVG	250	114	
3	2500.000	48.44	-3.81	44.63	74.00	-29.37	peak	250	62	
4	2500.000	40.69	-3.81	36.88	54.00	-17.12	AVG	250	160	

Job No.: FRANK2018 #205

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 11(802.11G)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

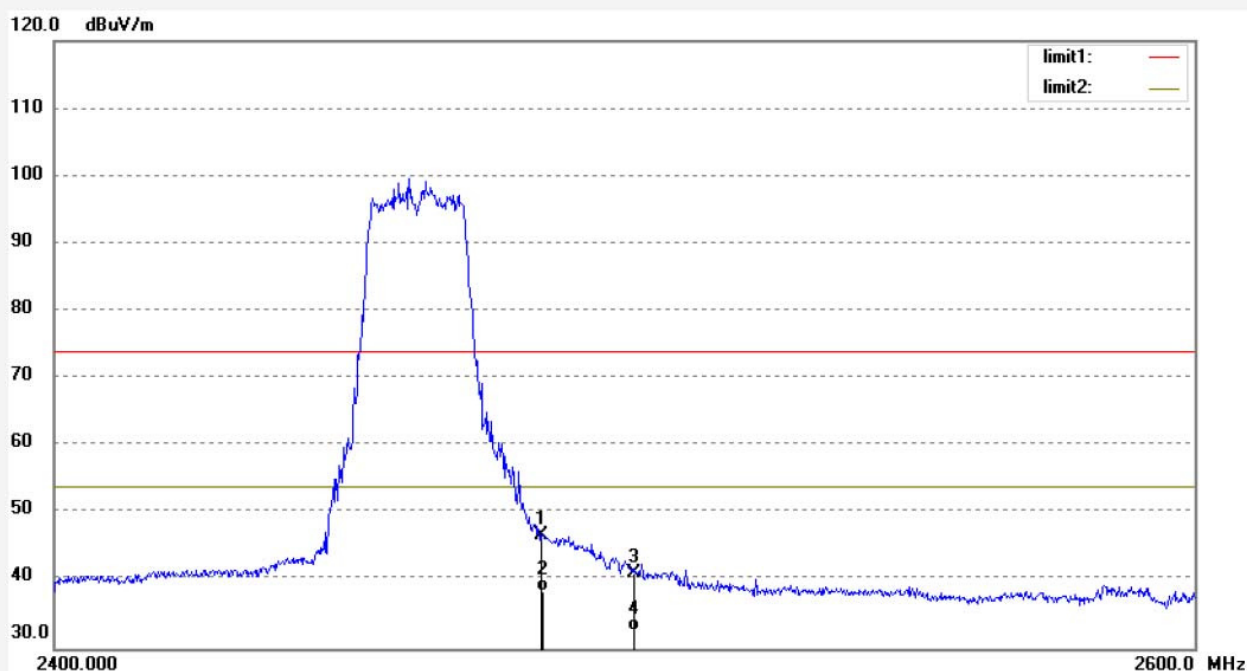
Date: 18/01/27/

Time: 16/17/05

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	50.61	-3.89	46.72	74.00	-27.28	peak	200	123	
2	2483.500	42.44	-3.89	38.55	54.00	-15.45	AVG	150	29	
3	2500.000	44.95	-3.81	41.14	74.00	-32.86	peak	250	61	
4	2500.000	36.49	-3.81	32.68	54.00	-21.32	AVG	150	160	

Job No.: FRANK2018 #196

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 1(802.11N20)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

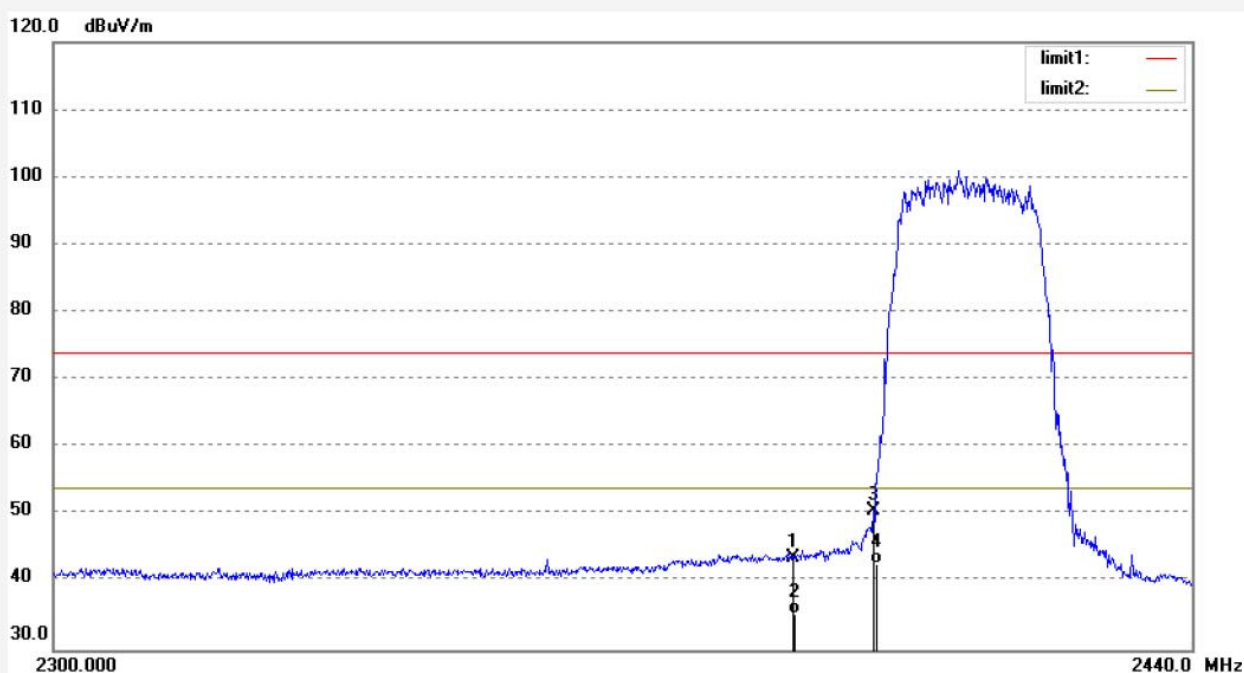
Date: 18/01/27/

Time: 16/02/35

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	47.94	-4.32	43.62	74.00	-30.38	peak	250	193	
2	2390.000	39.50	-4.32	35.18	54.00	-18.82	AVG	250	97	
3	2400.000	54.86	-4.27	50.59	74.00	-23.41	peak	250	13	
4	2400.000	46.98	-4.27	42.71	54.00	-11.29	AVG	250	125	

Job No.: FRANK2018 #197

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 1(802.11N20)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

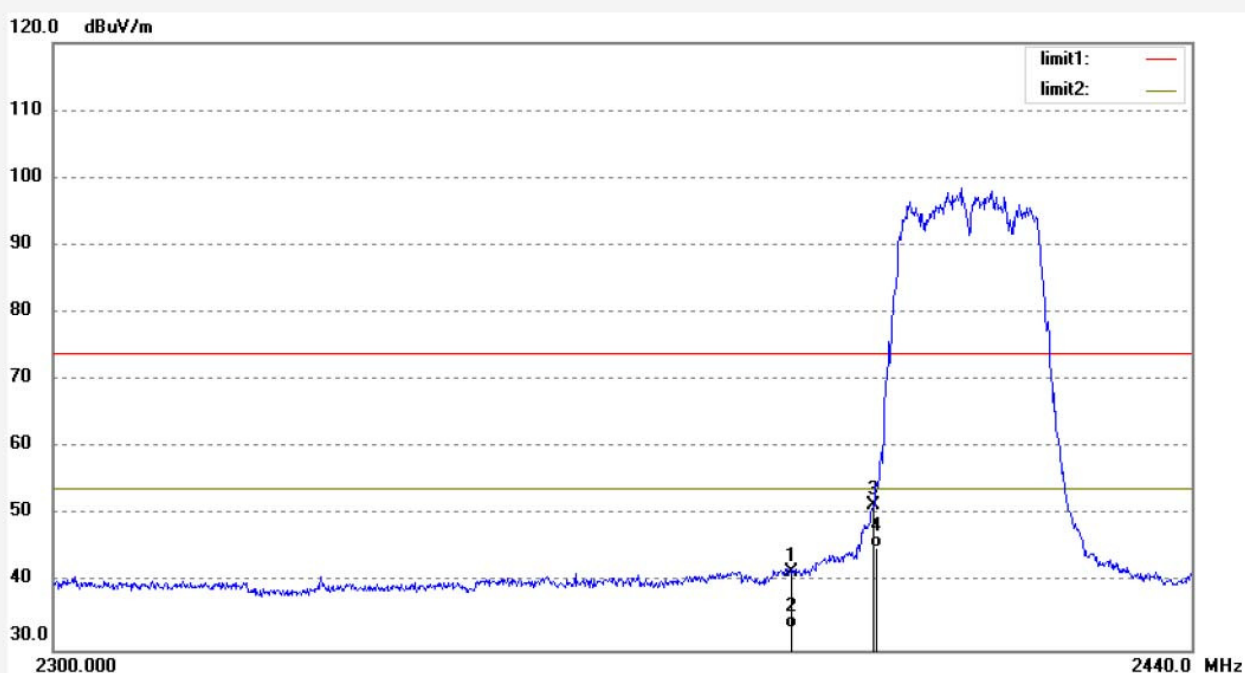
Date: 18/01/27/

Time: 16/03/57

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	45.91	-4.32	41.59	74.00	-32.41	peak	250	89	
2	2390.000	37.61	-4.32	33.29	54.00	-20.71	AVG	150	215	
3	2400.000	55.79	-4.27	51.52	74.00	-22.48	peak	300	197	
4	2400.000	49.46	-4.27	45.19	54.00	-8.81	AVG	150	51	

Job No.: FRANK2018 #203

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 11(802.11N20)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

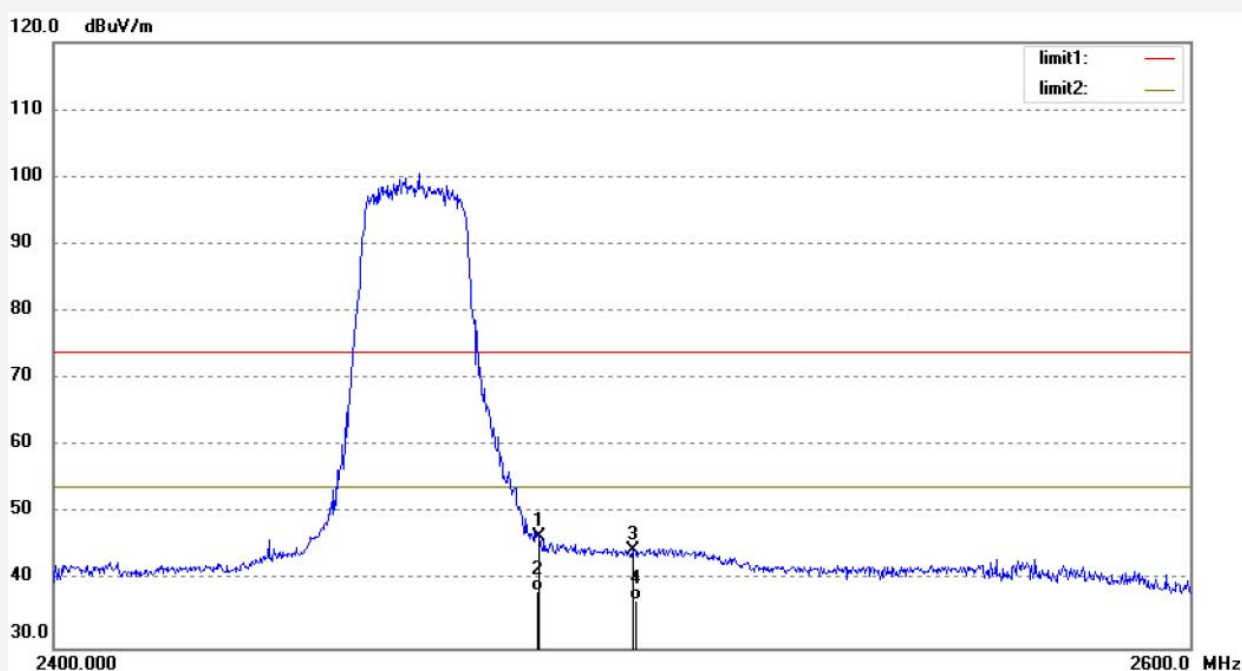
Date: 18/01/27/

Time: 16/15/20

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	50.53	-3.89	46.64	74.00	-27.36	peak	250	169	
2	2483.500	42.35	-3.89	38.46	54.00	-15.54	AVG	250	154	
3	2500.000	48.26	-3.81	44.45	74.00	-29.55	peak	250	45	
4	2500.000	40.91	-3.81	37.10	54.00	-16.90	AVG	250	135	

Job No.: FRANK2018 #202

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 11(802.11N20)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

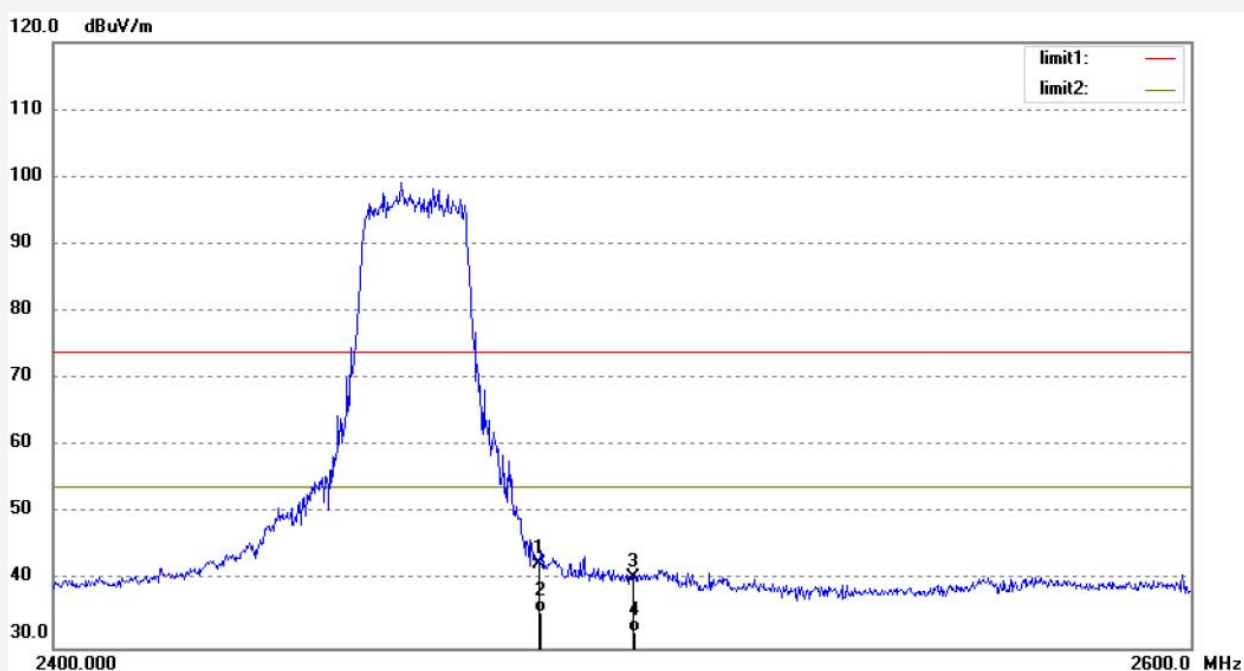
Date: 18/01/27/

Time: 16/13/27

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	46.47	-3.89	42.58	74.00	-31.42	peak	250	193	
2	2483.500	39.16	-3.89	35.27	54.00	-18.73	AVG	150	102	
3	2500.000	44.37	-3.81	40.56	74.00	-33.44	peak	200	79	
4	2500.000	36.20	-3.81	32.39	54.00	-21.61	AVG	150	260	

Job No.: FRANK2018 #199

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 3(802.11N40)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

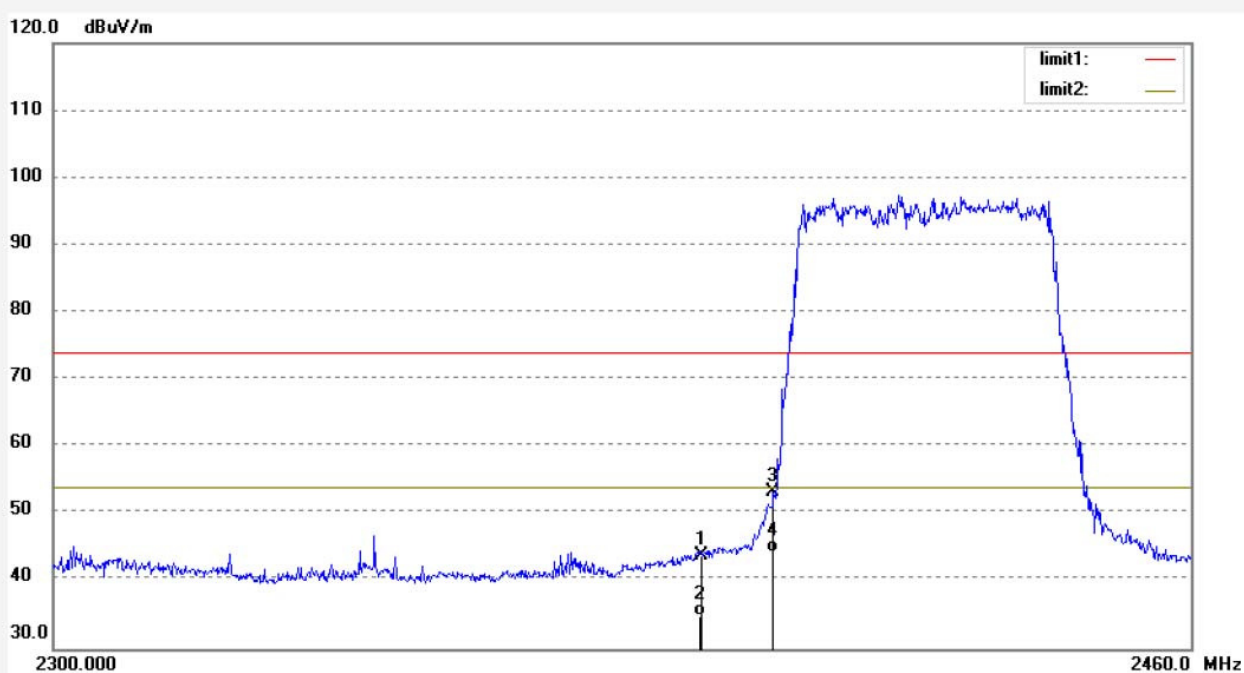
Date: 18/01/27/

Time: 16/09/06

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	48.05	-4.32	43.73	74.00	-30.27	peak	300		
2	2390.000	39.16	-4.32	34.84	54.00	-19.16	AVG	250		
3	2400.000	57.67	-4.27	53.40	74.00	-20.60	peak	250		
4	2400.000	48.64	-4.27	44.37	54.00	-9.63	AVG	250		

Job No.: FRANK2018 #198

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 3(802.11N40)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

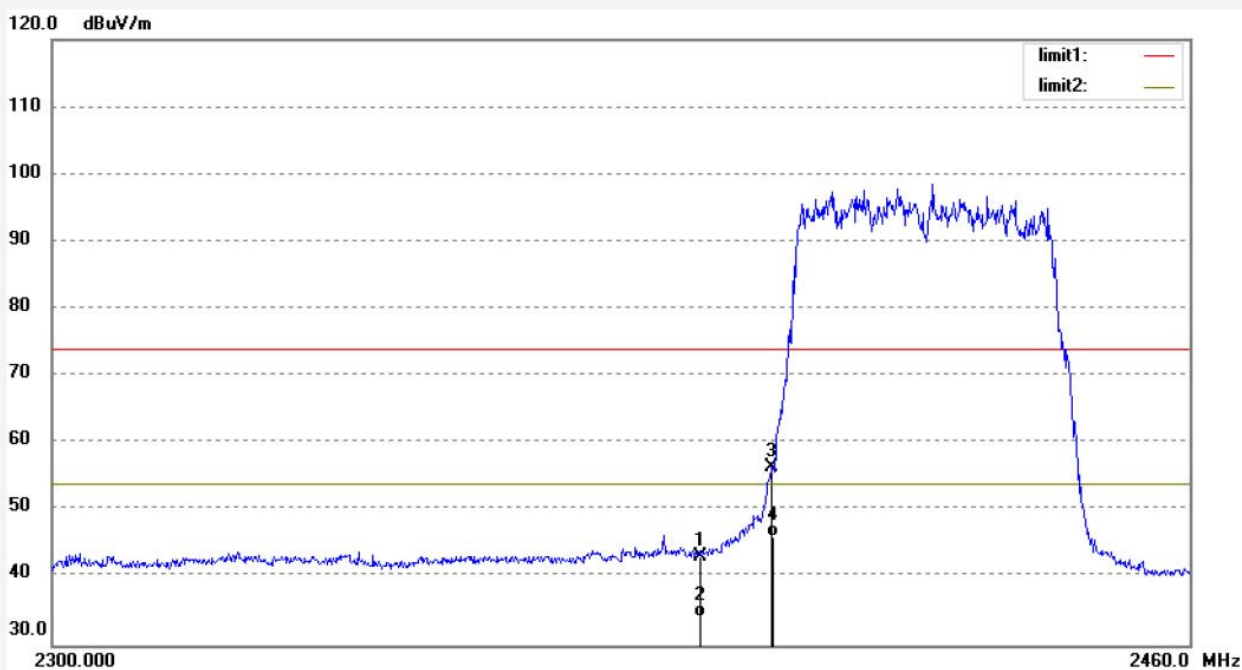
Date: 18/01/27/

Time: 16/08/58

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	47.55	-4.32	43.23	74.00	-30.77	peak	250	135	
2	2390.000	38.56	-4.32	34.24	54.00	-19.76	AVG	150	213	
3	2400.000	60.67	-4.27	56.40	74.00	-17.60	peak	250	63	
4	2400.000	50.46	-4.27	46.19	54.00	-7.81	AVG	150	94	

Job No.: FRANK2018 #200

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 9(802.11N40)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Horizontal

Power Source: DC 3.3V

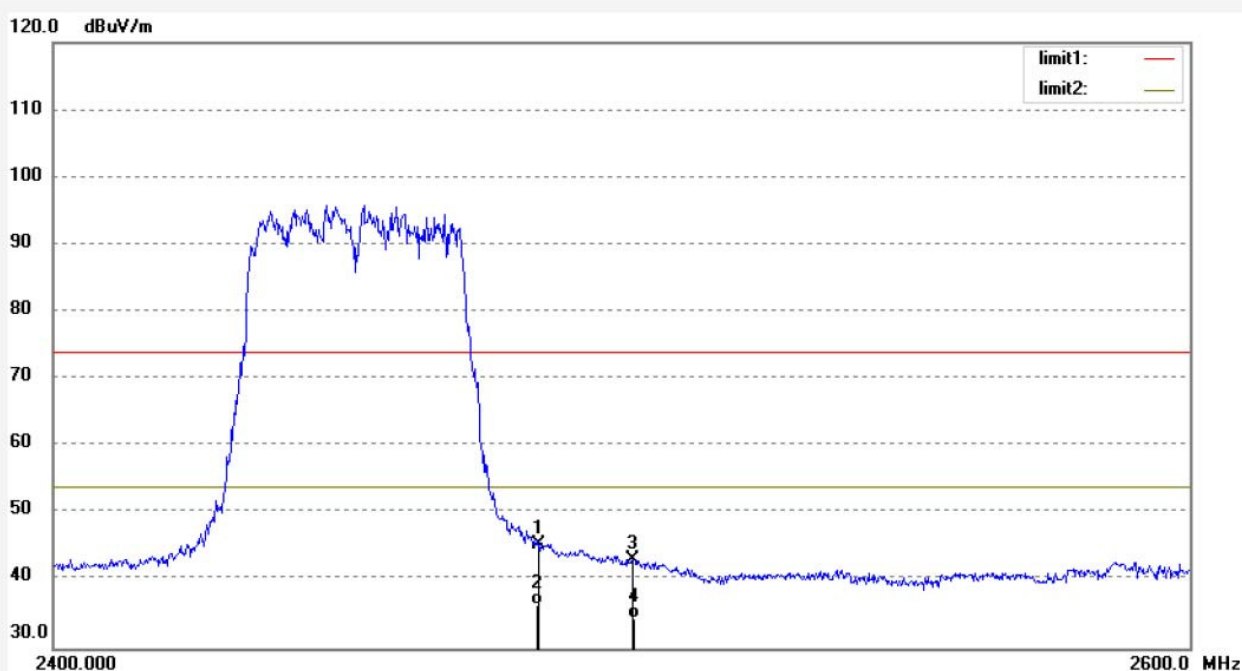
Date: 18/01/27/

Time: 16/10/59

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	49.39	-3.89	45.50	74.00	-28.50	peak	300	139	
2	2483.500	40.32	-3.89	36.43	54.00	-17.57	AVG	250	49	
3	2500.000	46.97	-3.81	43.16	74.00	-30.84	peak	250	194	
4	2500.000	38.16	-3.81	34.35	54.00	-19.65	AVG	250	36	

Job No.: FRANK2018 #201

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: Wifi module

Mode: TX Channel 9(802.11N40)

Model: M632USA1

Manufacturer: Xiamen Prima Technology Inc.

Polarization: Vertical

Power Source: DC 3.3V

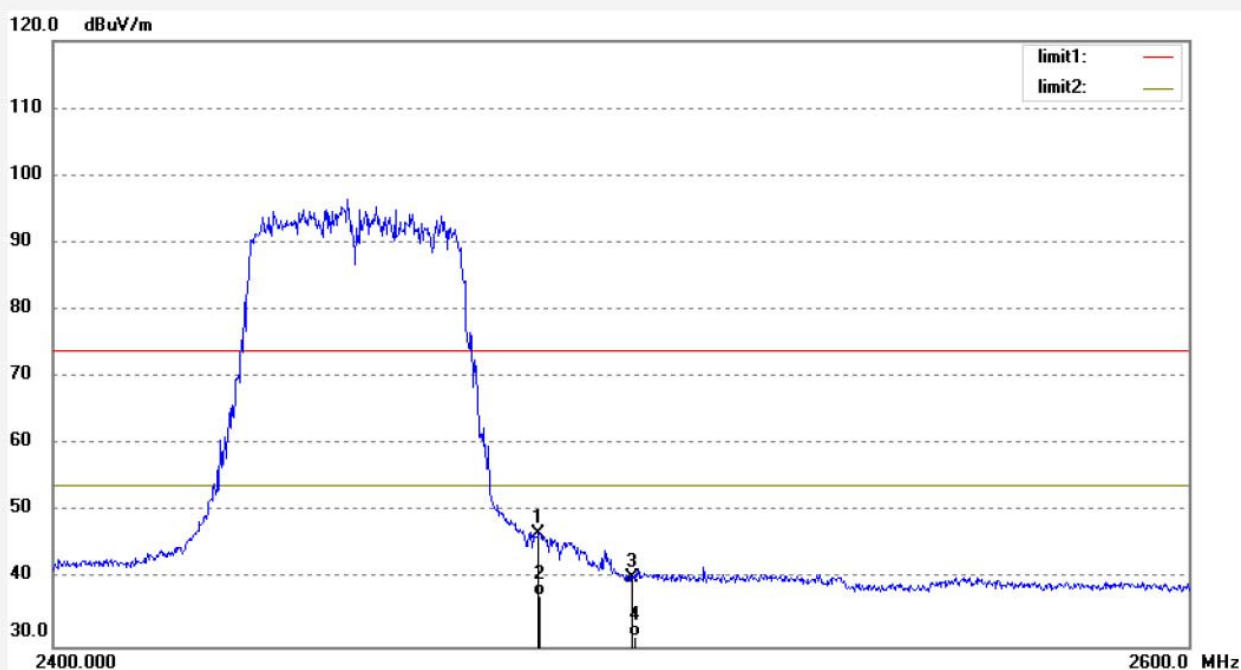
Date: 18/01/27/

Time: 16/11/52

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20182553



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	50.58	-3.89	46.69	74.00	-27.31	peak	250	61	
2	2483.500	41.38	-3.89	37.49	54.00	-16.51	AVG	150	279	
3	2500.000	44.00	-3.81	40.19	74.00	-33.81	peak	250	321	
4	2500.000	35.16	-3.81	31.35	54.00	-22.65	AVG	150	232	

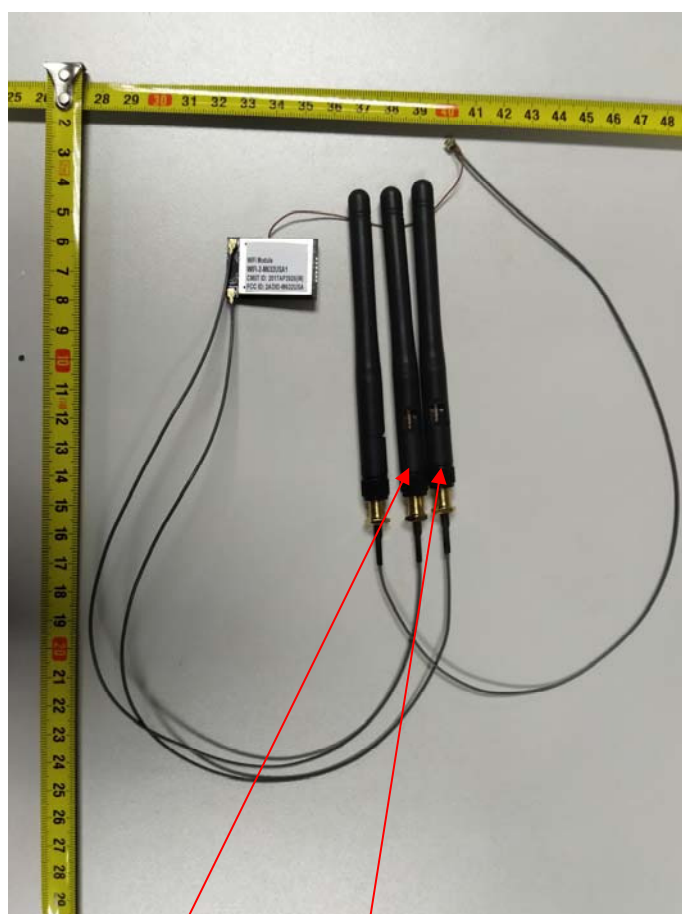
12.ANTENNA REQUIREMENT

12.1.The Requirement

According to Section 15.203, 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.

12.2.Antenna Construction

The module must contain a permanently attached antenna, or contain a unique antenna connector, and be marketed and operated only with specific antenna(s), per Sections 15.203, 15.204(b), 15.204(c), 15.212(a), 2.929(b); The Antenna gain of EUT is 5dBi. Therefore, the equipment complies with the antenna requirement.



Antenna 1

Antenna 2