

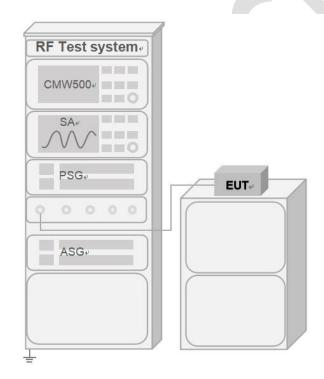
6.5 Power spectrum density

Test Standard	47 CFR Part 15, Subpart C 15.247(d)
Test Method	ANSI C63.10-2013 Cluase 11.10.2
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX

6.5.1 Limit

≤8dBm in any 3 kHz band during any time interval of continuous transmission

6.5.2 Test setup



6.5.3 Test data

Pass: Please refer to appendix A for details



6.6 Conducted Band Edges Measurement

Test Standard	47 CFR Part 15, Subpart C 15.247(d)
Test Method	ANSI C63.10-2013 Cluase 11.13
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX

6.6.1 Limit

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.

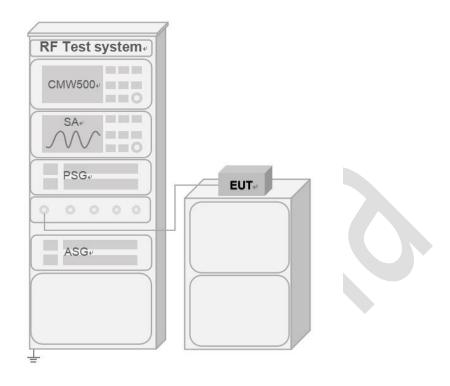
If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20dB.

Attenuation below the general limits specified in §15.209(a) is not required.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).



6.6.2 Test setup



6.6.3 Test data

Pass: Please refer to appendix A for details



6.7 Conducted spurious emissions

Test Standard	47 CFR Part 15, Subpart C 15.247(d)
Test Method	ANSI C63.10-2013 Cluase 11.11
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX

6.7.1 Limit

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.

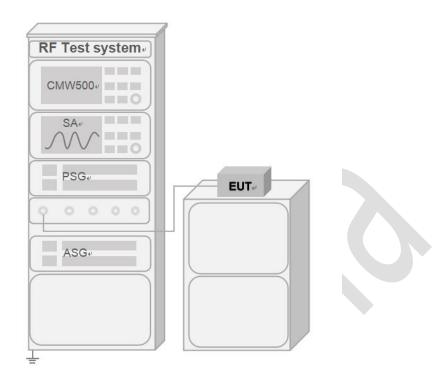
If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20dB.

Attenuation below the general limits specified in §15.209(a) is not required.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).



6.7.2 Test setup



6.7.3 Test data

Pass: Please refer to appendix A for details



6.8 Radiated spurious emissions

Test Standard	47 CFR Part 15, Subpart C 15.247(d)
Test Method	ANSI C63.10-2013 Cluase 6.4,6.5,6.6
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX

6.8.1 Limit

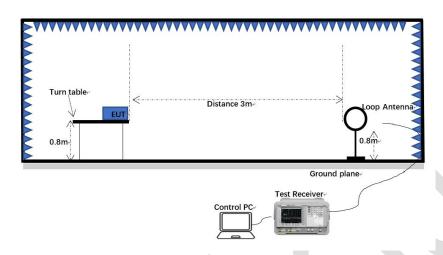
Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

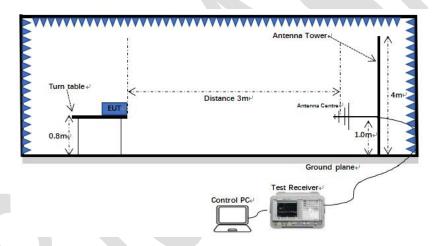


6.8.2 Test setup

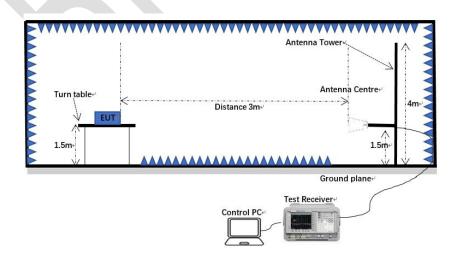
Below 1GHz:



30MHz-1GHz:



Above 1GHz:



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6.8.3 Procedure

- a) For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b) For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c) The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d) The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f) The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g) If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h) Test the EUT in the lowest channel, the middle channel, the highest channel.
- i) The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j) Repeat above procedures until all frequencies measured was complete.

Note 1: Scan from 9 kHz to 25GHz, the disturbance above 12.75GHz and below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported. Fundamental frequency is blocked by filter, and only spurious emission is shown.

Note 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

Note 3: The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Level (dBuV) = Reading (dBuV) + Factor (dB/m)

Temperature:

Humidity:

(C)

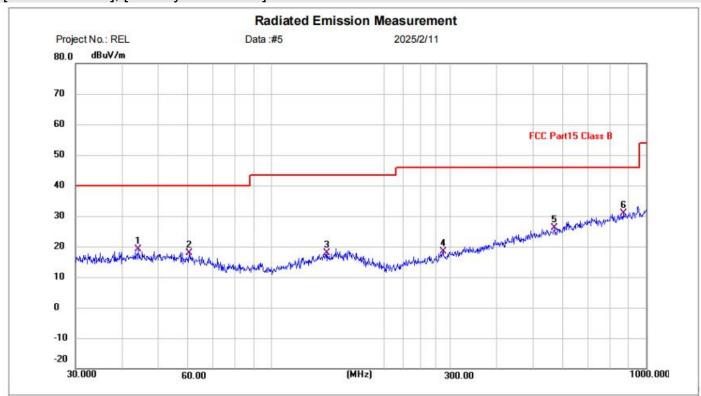
%RH



6.8.4 Test data

Below 1GHz

[Test mode: TX]; [Polarity: Horizontal]



Site Limit: FCC Part15 Class B

EUT: KUMI Smart Watch

M/N: KUMI M2 Mode: BLE-TX

Note:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	44.1202	-0.61	19.77	19.16	40.00	-20.84	QP	Р	
2	60.2801	-0.59	18.53	17.94	40.00	-22.06	QP	Р	
3	140.8351	-1.98	19.94	17.96	43.50	-25.54	QP	Р	
4	286.9823	-1.23	19.57	18.34	46.00	-27.66	QP	Р	
5	568.6127	0.33	25.72	26.05	46.00	-19.95	QP	Р	
6 *	869.1302	0.09	30.68	30.77	46.00	-15.23	QP	Р	

Power:

Polarization: Horizontal

Test Result: Pass

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Tel: +86-755-23059481

Email: marketing@cblueasia.com www.cblueasia.com

Temperature:

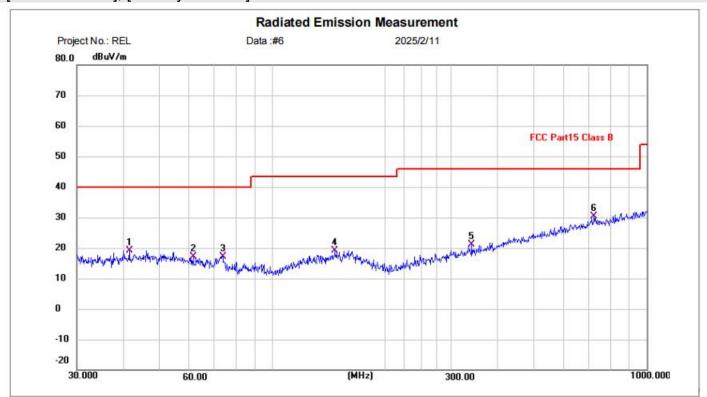
Humidity:

(C)

%RH



[Test mode: TX]; [Polarity: Vertical]



Polarization: Vertical

Site

Limit: FCC Part15 Class B

EUT: KUMI Smart Watch

M/N: KUMI M2 Mode: BLE-TX

Note:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	41.4215	-0.44	19.65	19.21	40.00	-20.79	QP	Р	
2	61.3463	-1.18	18.31	17.13	40.00	-22.87	QP	Р	
3	73.6170	1.08	16.09	17.17	40.00	-22.83	QP	Р	
4	146.8877	-1.47	20.52	19.05	43.50	-24.45	QP	Р	
5	340.7817	-0.15	21.20	21.05	46.00	-24.95	QP	Р	
6 *	721.7259	1.49	28.90	30.39	46.00	-15.61	QP	Р	

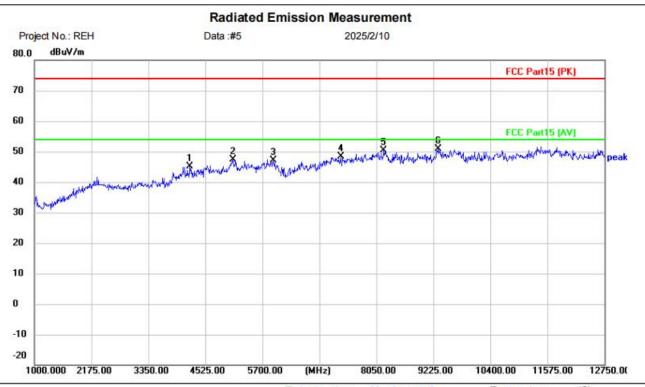
Power:

Test Result: Pass



Above 1GHz:

[Test mode: TX low channel]; [Polarity: Horizontal]



Site Polarization: Horizontal Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH

EUT: KUMI Smart Watch

M/N: KUMI M2 Mode: BLE-TX-2402

Note:

Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	4207.750	38.13	6.90	45.03	74.00	-28.97	peak	
	5089.000	38.92	8.36	47.28	74.00	-26.72	peak	
3	5923.250	38.07	9.06	47.13	74.00	-26.87	peak	
3	7321.500	38.22	10.14	48.36	74.00	-25.64	peak	
3	8202.750	38.82	11.48	50.30	74.00	-23.70	peak	
*	9319.000	37.78	13.21	50.99	74.00	-23.01	peak	
		MHz 4207.750 5089.000 5923.250 7321.500 8202.750	Mk. Freq. Level MHz dBuV 4207.750 38.13 5089.000 38.92 5923.250 38.07 7321.500 38.22 8202.750 38.82	Mk. Freq. Level Factor MHz dBuV dB 4207.750 38.13 6.90 5089.000 38.92 8.36 5923.250 38.07 9.06 7321.500 38.22 10.14 8202.750 38.82 11.48	Mk. Freq. Level Factor ment MHz dBuV dB dBuV/m 4207.750 38.13 6.90 45.03 5089.000 38.92 8.36 47.28 5923.250 38.07 9.06 47.13 7321.500 38.22 10.14 48.36 8202.750 38.82 11.48 50.30	Mk. Freq. Level Factor ment Limit MHz dBuV dB dBuV/m dBuV/m dBuV/m dBuV/m dBuV/m dBuV/m dBuV/m dBuV/m 4207.750 38.13 6.90 45.03 74.00 74.00 5089.000 38.92 8.36 47.28 74.00 74.00 5923.250 38.07 9.06 47.13 74.00 7321.500 38.22 10.14 48.36 74.00 8202.750 38.82 11.48 50.30 74.00	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dB dBuV/m dB 4207.750 38.13 6.90 45.03 74.00 -28.97 5089.000 38.92 8.36 47.28 74.00 -26.72 5923.250 38.07 9.06 47.13 74.00 -26.87 7321.500 38.22 10.14 48.36 74.00 -25.64 8202.750 38.82 11.48 50.30 74.00 -23.70	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dB Detector 4207.750 38.13 6.90 45.03 74.00 -28.97 peak 5089.000 38.92 8.36 47.28 74.00 -26.72 peak 5923.250 38.07 9.06 47.13 74.00 -26.87 peak 7321.500 38.22 10.14 48.36 74.00 -25.64 peak 8202.750 38.82 11.48 50.30 74.00 -23.70 peak

Test Result: Pass



[Test mode: TX low channel]; [Polarity: Vertical]

Radiated Emission Measurement Project No.: REH Data:#6 2025/2/10 dBuV/m 80.0 FCC Part15 (PK) 70 60 FCC Part15 (AV) 50 40 30 20 10 0 -10

Site Polarization: Vertical Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH

(MHz)

8050.00

9225.00

10400.00

11575.00

5700.00

EUT: KUMI Smart Watch

1000.000 2175.00

3350.00

4525.00

M/N: KUMI M2 Mode: BLE-TX-2402

-20

Note:

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4219.500	38.03	6.76	44.79	74.00	-29.21	peak	
2		5641.250	39.30	7.83	47.13	74.00	-26.87	peak	
3		7121.750	38.63	10.50	49.13	74.00	-24.87	peak	
4	*	8461.250	39.25	11.47	50.72	74.00	-23.28	peak	
5		9342.500	37.11	13.35	50.46	74.00	-23.54	peak	
6		10576.25	36.66	13.63	50.29	74.00	-23.71	peak	

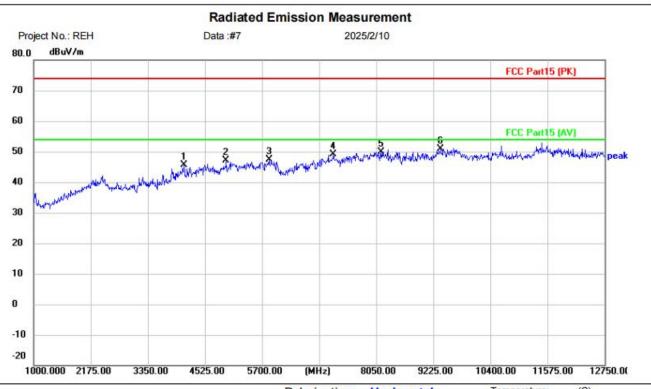
Test Result: Pass

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12750.00



[Test mode: TX middle channel]; [Polarity: Horizontal]



Site Polarization: Horizontal Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH

EUT: KUMI Smart Watch

M/N: KUMI M2 Mode: BLE-TX-2442

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	ě	4090.250	41.72	3.95	45.67	74.00	-28.33	peak		
2	- 1	4959.750	39.64	7.41	47.05	74.00	-26.95	peak		
3		5841.000	38.53	8.89	47.42	74.00	-26.58	peak		
4	1	7168.750	38.46	10.57	49.03	74.00	-24.97	peak		
5	3	8155.750	38.51	11.49	50.00	74.00	-24.00	peak		
6	*	9377.750	37.95	13.01	50.96	74.00	-23.04	peak		

Test Result: Pass

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Email: marketing@cblueasia.com www.cblueasia.com

9225.00

8050.00

11575.00

12750.00



[Test mode: TX middle channel]; [Polarity: Vertical]

Radiated Emission Measurement Data:#8 2025/2/10 Project No.: REH dBuV/m 80.0 FCC Part15 (PK) 70 60 FCC Part15 (AV) water brigger by the water of t 50 40 30 20 10 0 -10 -20

(MHz)

Site Polarization: Vertical Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH

5700.00

EUT: KUMI Smart Watch

1000.000 2175.00

3350.00

4525.00

M/N: KUMI M2 Mode: BLE-TX-2442

Note:

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		4207.750	37.05	6.90	43.95	74.00	-30.05	peak		
2		5488.500	38.90	8.42	47.32	74.00	-26.68	peak		
3	į	6522.500	38.47	8.45	46.92	74.00	-27.08	peak		
4		7427.250	39.02	10.80	49.82	74.00	-24.18	peak		
5		8249.750	38.79	11.20	49.99	74.00	-24.01	peak		
6	*	9342.500	37.56	13.35	50.91	74.00	-23.09	peak		

Test Result: Pass



[Test mode: TX High channel]; [Polarity: Horizontal]

Radiated Emission Measurement 2025/2/10 Project No.: REH Data:#9 dBuV/m 80.0 FCC Part15 (PK) 70 60 Warnen James Market Mar FCC Part15 (AV) 50 40 30 20 10 0 -10

Site Polarization: Horizontal Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH

(MHz)

8050.00

9225.00

10400.00

11575.00

12750.00

5700.00

EUT: KUMI Smart Watch

1000.000 2175.00

3350.00

4525.00

M/N: KUMI M2 Mode: BLE-TX-2480

-20

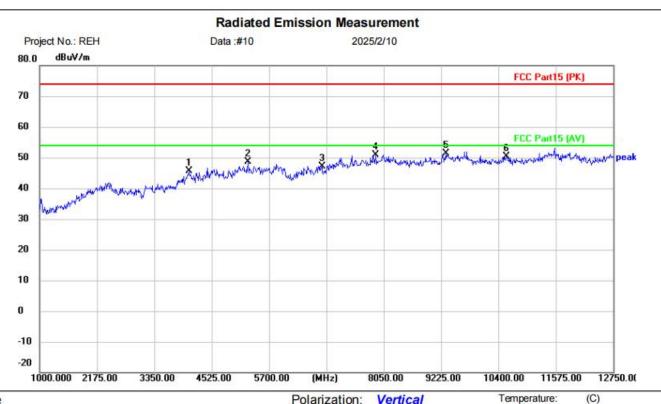
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	S	4043.250	40.80	3.83	44.63	74.00	-29.37	peak		
2	Š	5253.500	40.11	7.41	47.52	74.00	-26.48	peak		
3		6757.500	38.54	9.01	47.55	74.00	-26.45	peak		
4	1	7568.250	39.23	10.70	49.93	74.00	-24.07	peak		
5	4	8473.000	37.84	11.45	49.29	74.00	-24.71	peak		
6	*	9307.250	37.97	13.14	51.11	74.00	-22.89	peak		

Test Result: Pass



[Test mode: TX High channel]; [Polarity: Vertical]



Site Polarization: Vertical Temperature: (C)
Limit: FCC Part15 (PK) Power: Humidity: %RH

EUT: KUMI Smart Watch

M/N: KUMI M2 Mode: BLE-TX-2480

Note:

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4055.000	41.68	3.91	45.59	74.00	-28.41	peak	
2		5265.250	41.09	7.46	48.55	74.00	-25.45	peak	
3		6781.000	38.54	8.71	47.25	74.00	-26.75	peak	
4		7885.500	39.85	11.08	50.93	74.00	-23.07	peak	
5	*	9319.000	38.19	13.21	51.40	74.00	-22.60	peak	
6		10564.50	36.64	13.66	50.30	74.00	-23.70	peak	

Test Result: Pass

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Email: marketing@cblueasia.com www.cblueasia.com



6.9 Radiated emissions which fall in the restricted bands

Test Standard	47 CFR Part 15, Subpart C 15.247(d)
Test Method	ANSI C63.10-2013 Cluase 6.12
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX

6.9.1 Limit

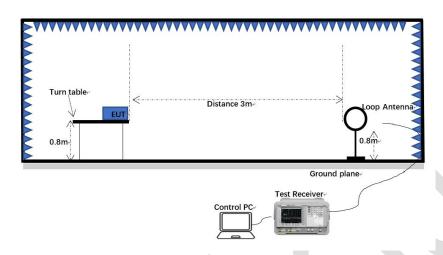
Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)		
0.009-0.490	2400/F(kHz)	300		
0.490-1.705	24000/F(kHz)	30		
1.705-30.0	30	30		
30-88	100	3		
88-216	150	3		
216-960	200	3		
Above 960	500	3		

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

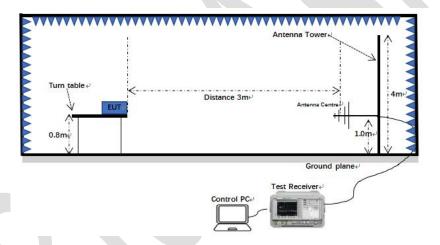


6.9.2 Test setup

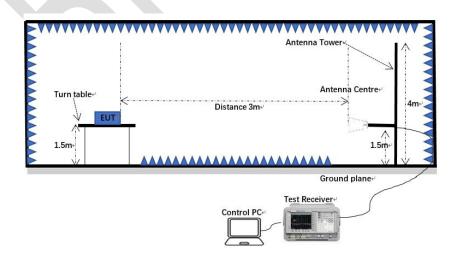
Below 1GHz:



30MHz-1GHz:



Above 1GHz:



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Tel: +86-755-23059481





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6.9.3 Procedure

- a) For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b) For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c) The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d) The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f) The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g) If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h) Test the EUT in the lowest channel, the middle channel, the highest channel.
- i) The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j) Repeat above procedures until all frequencies measured was complete.

Note 1: Level (dBuV) = Reading (dBuV) + Factor (dB/m)

Note 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

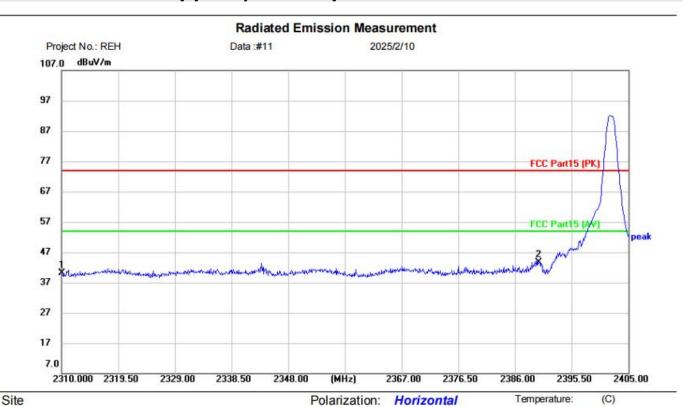
Humidity:

%RH



6.9.4 Test data

[Test mode: TX low channel]; [Polarity: Horizontal]



Limit: FCC Part15 (PK)

EUT: KUMI Smart Watch

M/N: KUMI M2 Mode: BLE-2402

Note:

No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2310.000	43.09	-2.87	40.22	74.00	-33.78	peak		
2	*	2390.000	45.98	-2.44	43.54	74.00	-30.46	peak		

Power:

Test Result: Pass