

## RADIATED Measurements (Fundamental & Harmonics)

Operating Frequency: 2412 MHz

Distance of Measurements: 3 meters

Channel: Low

FREQ. (MHz)	Level* (dBm)	AFCL (dB)	POL (H/V)	DET QP/AVG	F/S ( $\mu$ V/m)	F/S (dB $\mu$ V/m)	Margin (dB)
2412.0	- 23.2	32.7	V	Peak	670656.0	116.5	n/a
4824.0	- 96.5	40.4	V	Peak	350.3	50.9	3.1
7236.0	- 103.1	47.4	V	Peak	368.1	51.3	65.2
9648.0	- 117.8	50.3	V	Peak	94.4	39.5	11.4
12060.0	< - 132						

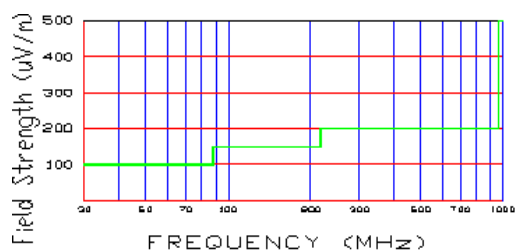


Figure 1. Restricted band harmonics and spurious limits.

Above 1 GHz limit is 500 uV/m (54dBu/m)

### NOTES:

1. All harmonics in the restricted bands specified in §15.205 are below the limit shown in table 2. (note: \* Restricted Band)
2. All harmonics/spurs are at least 20 dB below the highest emission in the authorized band using RBW = 810kHz
3. Average Measurements > 1GHz using RBW = 1 MHz VBW = 81 Hz
4. The peak emissions above 1 GHz are not more than 20 dB above the average limit.
5. The antenna is manipulated through typical positions, polarity and length during the tests.
6. The EUT is supplied with nominal AC voltage or/and a new/fully recharged battery.
7. The spectrum is measured from 9kHz to the 81<sup>th</sup> harmonic and the worst-case emissions are reported.
8. < - 132 are below the analyzer floor level.

## RADIATED Measurements (Fundamental & Harmonics) (Cont.)

Operating Frequency: 2437Hz  
 Distance of Measurements: 3 meters  
 Channel: Mid

FREQ. (MHz)	Level* (dBm)	AFCL (dB)	POL (H/V)	DET QP/AVG	F/S ( $\mu$ V/m)	F/S (dB $\mu$ V/m)	Margin (dB)
2437.0	- 23.3	32.8	V	Peak	670656.0	116.5	n/a
4874.0	- 96.0	40.5	V	Peak	375.8	51.5	2.5
7311.0	- 103.9	48.0	V	Peak	358.9	51.1	2.9
9748.0	- 118.0	50.3	V	Peak	92.3	39.3	14.7
12185.0	< - 132						

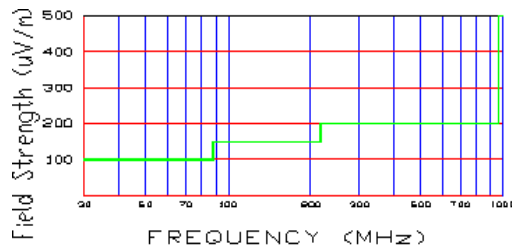


Figure 2. Restricted band harmonics and spurious limits.

Above 1 GHz limit is 500 uV/m (54dBu/m)

### NOTES:

1. All harmonics in the restricted bands specified in §15.205 are below the limit shown in table 2. (note: \* Restricted Band)
2. All harmonics/spurs are at least 20 dB below the highest emission in the authorized band using RBW = 810kHz
3. Average Measurements > 1GHz using RBW = 1 MHz VBW = 81 Hz
4. The peak emissions above 1 GHz are not more than 20 dB above the average limit.
5. The antenna is manipulated through typical positions, polarity and length during the tests.
6. The EUT is supplied with nominal AC voltage or/and a new/fully recharged battery.
7. The spectrum is measured from 9kHz to the 81<sup>th</sup> harmonic and the worst-case emissions are reported.
8. < - 132 are below the analyzer floor level.

## RADIATED Measurements (Fundamental & Harmonics) (Cont.)

Operating Frequency: 2462 MHz  
 Distance of Measurements: 3 meters  
 Channel: High

FREQ. (MHz)	Level* (dBm)	AFCL (dB)	POL (H/V)	DET QP/AVG	F/S ( $\mu$ V/m)	F/S (dB $\mu$ V/m)	Margin (dB)
2462.0	- 23.4	32.9	V	Peak	670656.0	116.5	N/a
4924.0	- 96.9	40.7	V	Peak	346.7	50.8	3.2
7386.0	- 104.0	48.2	V	Peak	363.1	51.2	2.8
9848.0	- 118.2	50.4	V	Peak	91.2	39.2	14.8
12310.0	< - 132						

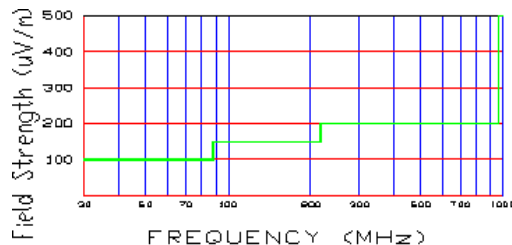


Figure 3. Restricted band harmonics and spurious limits.

Above 1 GHz limit is 500 uV/m (54dBu/m)

### NOTES:

1. All harmonics in the restricted bands specified in §15.205 are below the limit shown in table 2. (note: \* Restricted Band)
2. All harmonics/spurs are at least 20 dB below the highest emission in the authorized band using RBW = 810kHz
3. Average Measurements > 1GHz using RBW = 1 MHz VBW = 81 Hz
4. The peak emissions above 1 GHz are not more than 20 dB above the average limit.
5. The antenna is manipulated through typical positions, polarity and length during the tests.
6. The EUT is supplied with nominal AC voltage or/and a new/fully recharged battery.
7. The spectrum is measured from 9kHz to the 81<sup>th</sup> harmonic and the worst-case emissions are reported.
8. < - 132 are below the analyzer floor level.

## RADIATED Measurements (Spurious)

Operating Frequency: 2412 – 2462 MHz

Distance of Measurements: 3 meters

FREQ. (MHz)	Level* (dBm)	AFCL** (dB)	POL (H/V)	Height (m)	Azimuth (° angle)	F/S ( $\mu$ V/m)	Margin*** (dB)
33.3	- 78.6	- 0.4	V	3.6	170	25.2	- 12.0
66.4	- 80.8	5.8	V	2.1	30	39.9	- 8.0
99.6	- 84.1	9.6	H	1.4	10	42.2	- 11.0
180.0	- 86.4	13.7	H	2.4	210	51.9	- 9.2
165.9	- 87.7	14.7	V	2.3	180	50.2	- 9.5
818.0	- 104.6	31.6	V	1.2	200	50.2	- 12.0

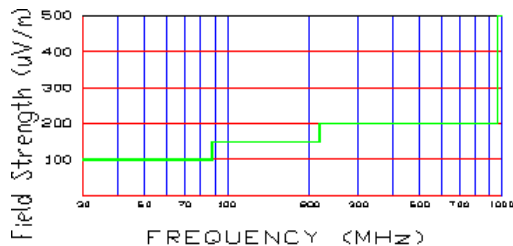


Figure 4. Restricted band harmonics and spurious limits.

### NOTES:

1. All emissions were investigated and the worst case emissions are reported
2. For hand-held devices, the EUT is rotated through three orthogonal axis to determine which configuration produces the maximum emissions.
3. The EUT is supplied with the minimal AC voltage or/and a new/fully recharged battery.
4. The EUT was tested up to the 81<sup>th</sup> harmonic (24 GHz) and no significant emission was found.

Above 1 GHz limit is 500 uV/m (54dBu/m)

## Test Data

### Equivalent Isotropic Radiated Power (E.I.R.P.)

#### Radiated measurements at 3 meters

Supply Voltage: 3.6 VDC

Modulation: DSSS

FREQ . (MHz)	LEVEL (dBm )	POL (H/V)	Azimuth (o angle)	EIRP (dBm )	EIRP (W )
2412.00	-23.170	V	60	21.301	0.135
2437.00	-23.270	V	60	21.301	0.135
2462.00	-23.370	V	60	21.301	0.135

#### NOTES:

Equivalent Isotropic Radiated Power Measurements by Substitution Method according to ANSI/TIA/EIA-603 (rev.1998):

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A Horn antenna was substituted in place of the EUT. This Horn antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. The conducted power at the terminals of the Horn antenna is measured. The difference between the gain of the horn and an isotropic antenna is taken into consideration and the EIRP is recorded.