Band Edge Radiated Emissions
Section 15.247 (d)
hField Technologies
FCC ID: UILHFWFG10

Spurious Radiated Emissions Limit:
The spurious radiated emissions limit for the device are derived from CFR Title 47, Part 15, Section 15.209 (as specified by 15.205 (b)). In addition, the provisions in Section 15.35 (b) also apply.

Frequency	Average Field Strength Limit	Peak Field Strength Limit	Measurement Distance
MHz	uV/M	uV/M	Meters
2390	500	5000	3
2483.5	500	5000	3

Frequencies Investigated:
Band Edge Radiated emissions measurements were performed at 2390 and 2483.5 MHz. Other spurious restricted band emissions measurements are contained in a separate report of measurements.

Measurement System:
1) All measurements were performed on the FCC listed open area test site located at Retlif Testing Laboratories in Ronkonkoma, NY.
2) Measurements were performed with an HP 8566B spectrum analyzer with a RBW of 1MHz.
3) For peak measurements a video BW of 1 MHz was utilized. For average measurements a video BW of 10 Hz was utilized in accordance with FCC OET Knowledge Data Base Publication Number 558074.
4) An HP 8449B preamplifier was utilized to increase system sensitivity.

Test Results:
The EUT was found to be in compliance with the specified band edge emissions requirements.
1) No duty cycle correction factor was applied.
2) Measurements were performed at numerous EUT data rates to ensure maximum observed emissions levels. (1, 2, 5.5 and 11 MBPS)

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Measurements Results, 2390 MHz Restricted Band Edge:

Channel 1 – Vertical Antenna Polarization – Peak Readings – 1 MHz RBW, 1 MHz VBW								
Data Rate	Meter Reading	*Pre-amp Factor	Antenna Factor	Cable Loss	Correction Factor (Preamp + Antenna + Cable Loss)	Corrected Reading	Converted Reading	Limit @ 3M
MBPS	dBuV	dB	dB	dB	dB	dBuV/M	uV/M	uV/M
1	47.3	-15.3	30.4	3.1	18.2	65.5	1883.6	5000
2	47.2	-15.3	30.4	3.1	18.2	65.4	1862.1	5000
5.5	47.6	-15.3	30.4	3.1	18.2	65.8	1949.8	5000
11	47.1	-15.3	30.4	3.1	18.2	65.3	1840.7	5000

Channel 1 – Horizontal Antenna Polarization – Peak Readings – 1 MHz RBW, 1 MHz VBW

Data Rate	Meter Reading	Pre-amp Factor	Antenna Factor	Cable Loss	Correction Factor (Preamp + Antenna + Cable Loss)	Corrected Reading	Converted Reading	Limit @ 3M
MBPS	dBuV	dB	dB	dB	dB	dBuV/M	uV/M	uV/M
1	54.8	-35.3	30.4	3.1	-1.8	53.0	446.7	5000
2	54.2	-35.3	30.4	3.1	-1.8	52.4	416.9	5000
5.5	53.4	-35.3	30.4	3.1	-1.8	51.6	380.2	5000
11	53.0	-35.3	30.4	3.1	-1.8	51.2	363.1	5000

Channel 1 – Vertical Antenna Polarization – Average Readings – 1 MHz RBW, 10 Hz VBW								
Data Rate	Meter Reading	*Pre-amp Factor	Antenna Factor	Cable Loss	Correction Factor (Preamp + Antenna + Cable Loss)	Corrected Reading	Converted Reading	Limit @ 3M
MBPS	dBuV	dB	dB	dB	dB	dBuV/M	uV/M	uV/M
1	35.3	-15.3	30.4	3.1	18.2	53.5	473.2	500
2	33.8	-15.3	30.4	3.1	18.2	52.0	398.1	500
5.5	33.1	-15.3	30.4	3.1	18.2	51.3	367.3	500
11	33.2	-15.3	30.4	3.1	18.2	51.4	371.5	500

Channel 1 – Horizontal Antenna Polarization – Average Readings – 1 MHz RBW, 10 Hz VBW

Data Rate	Meter Reading	Pre-amp Factor	Antenna Factor	Cable Loss	Correction Factor (Preamp + Antenna + Cable Loss)	Corrected Reading	Converted Reading	Limit @ 3M
MBPS	dBuV	dB	dB	dB	dB	dBuV/M	uV/M	uV/M
1	42.8	-35.3	30.4	3.1	-1.8	41.0	112.2	500
2	41.8	-35.3	30.4	3.1	-1.8	40.0	100.0	500
5.5	41.1	-35.3	30.4	3.1	-1.8	39.3	92.3	500
11	39.9	-35.3	30.4	3.1	-1.8	38.1	80.4	500

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Measurements Results, 2483.5 MHz Restricted Band Edge:

Channel 11 – Vertical Antenna Polarization – Peak Readings – 1 MHz RBW, 1 MHz VBW								
Data Rate	Meter Reading	*Pre-amp Factor	Antenna Factor	Cable Loss	Correction Factor (Preamp + Antenna + Cable Loss)	Corrected Reading	Converted Reading	Limit @ 3M
MBPS	dBuV	dB	dB	dB	dB	dBuV/M	uV/M	uV/M
1	46.9	-15.3	30.4	3.1	18.2	65.1	1798.9	5000
2	46.8	-15.3	30.4	3.1	18.2	65.0	1778.3	5000
5.5	47.3	-15.3	30.4	3.1	18.2	65.5	1883.6	5000
11	49.2	-15.3	30.4	3.1	18.2	67.4	2344.2	5000

Channel 11 – Horizontal Antenna Polarization – Peak Readings – 1 MHz RBW, 1 MHz VBW

Data Rate	Meter Reading	Pre-amp Factor	Antenna Factor	Cable Loss	Correction Factor (Preamp + Antenna + Cable Loss)	Corrected Reading	Converted Reading	Limit @ 3M
MBPS	dBuV	dB	dB	dB	dB	dBuV/M	uV/M	uV/M
1	49.4	-35.3	30.4	3.1	-1.8	47.6	239.9	5000
2	49.2	-35.3	30.4	3.1	-1.8	47.4	234.4	5000
5.5	49.4	-35.3	30.4	3.1	-1.8	47.6	239.9	5000
11	49.6	-35.3	30.4	3.1	-1.8	47.8	245.5	5000

Channel 11 – Vertical Antenna Polarization – Average Readings – 1 MHz RBW, 10 Hz VBW								
Data Rate	Meter Reading	*Pre-amp Factor	Antenna Factor	Cable Loss	Correction Factor (Preamp + Antenna + Cable Loss)	Corrected Reading	Converted Reading	Limit @ 3M
MBPS	dBuV	dB	dB	dB	dB	dBuV/M	uV/M	uV/M
1	34.8	-15.3	30.4	3.1	18.2	53.0	446.7	500
2	34.4	-15.3	30.4	3.1	18.2	52.6	426.6	500
5.5	34.7	-15.3	30.4	3.1	18.2	52.9	441.6	500
11	35.3	-15.3	30.4	3.1	18.2	53.5	473.2	500

Channel 11 – Horizontal Antenna Polarization – Average Readings – 1 MHz RBW, 10 Hz VBW

Data Rate	Meter Reading	Pre-amp Factor	Antenna Factor	Cable Loss	Correction Factor (Preamp + Antenna + Cable Loss)	Corrected Reading	Converted Reading	Limit @ 3M
MBPS	dBuV	dB	dB	dB	dB	dBuV/M	uV/M	uV/M
1	36.2	-35.3	30.4	3.1	-1.8	34.4	52.5	500
2	36.5	-35.3	30.4	3.1	-1.8	34.7	54.3	500
5.5	35.6	-35.3	30.4	3.1	-1.8	33.8	49.0	500
11	41.5	-35.3	30.4	3.1	-1.8	39.7	96.6	500

* Note: In the vertical antenna polarization, a 20 dB attenuator was installed on the input of the preamplifier in order to prevent overload.