



Company:  
Model Tested:  
Certification Exhibit:

RF Technologies  
0800-0551  
RF Exposure

166 South Carter, Genoa City, WI 53128

## FCC Code of Federal Regulations 47 Part 1.1307(b) (1)

### RF Exposure Statement of Compliance

THE FOLLOWING **MEETS** THE ABOVE TEST SPECIFICATION

Formal Name: Quick Response Premiere Router/Gateway Zigbee Transceiver

Kind of Equipment: 802.15.4 Wireless Module

Frequency Range: 2405-2475 MHz

Test Configuration: 9-15V AC or DC powered transceiver module

Model Number(s): 0800-0550 Internal Antenna  
0800-0551 External High Gain Antenna

Model(s) Tested: 0800-0551 External High Gain Antenna

Serial Number(s): DUT 6

Date of Tests: August 13, 2015 through August 27, 2015

Test Conducted For: RF Technologies  
3125 N 126<sup>th</sup> St.  
Brookfield, WI. 53005



Company:  
Model Tested:  
Certification Exhibit:

RF Technologies  
0800-0551  
RF Exposure

166 South Carter, Genoa City, WI 53128

### Transmitter Information:

|  |                    |
|--|--------------------|
| Maximum Conducted Output Power:            | 9.45 dBm (8.81mW)  |
| Maximum Effective Isotropic Radiated Power | 11.65 dBm          |
| Frequency:                                 | 2405 MHz           |
| Antenna Type:                              | External High Gain |
| Antenna Gain:                              | 2.2 dBi            |

### Exposure Limit:

Maximum Permissible Exposure (MPE) limit for General Population / Uncontrolled Exposure in the frequency range 1500 – 100,000 MHz (ref: 47 CFR Part 1.1310 Table 1(b))

Limit: (S) (mW/cm<sup>2</sup>) = 1.0 mW/cm<sup>2</sup>

### MPE Calculation:

Power Density (mW/cm<sup>2</sup>):

$$S = \frac{PG}{4\pi R^2}$$

S = Power Density (mW/cm<sup>2</sup>)

P = Power Input to the antenna (mW)

G = Numeric Power Gain of the antenna

R = Distance to the center of the radiation of the antenna (cm)



Company:  
 Model Tested:  
 Certification Exhibit:

RF Technologies  
 0800-0551  
 RF Exposure

166 South Carter, Genoa City, WI 53128

**Results:**

| RF Exposure Calculation  |                    |                   |                    |              |               |                                     |   |        |
|--------------------------|--------------------|-------------------|--------------------|--------------|---------------|-------------------------------------|---|--------|
|                          | Input              |                   |                    |              |               |                                     |   |        |
| Frequency =              | 2405               | MHz               |                    |              |               |                                     |   |        |
| P =                      | 9.45               | dBm               |                    |              |               |                                     |   |        |
| G =                      | 2.2                | dBi               |                    |              |               |                                     |   |        |
| R =                      | 20                 | cm                |                    |              |               |                                     |   |        |
| $\pi$                    | 3.14159            |                   |                    |              |               |                                     |   |        |
| Transmit Frequency (MHz) | Output Power (dBm) | Output Power (mW) | Antenna Gain (dBi) | Antenna Gain | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | Power Density Limit (mW/cm <sup>2</sup> ) | Margin |
| 2405                     | 9.45               | 8.81049           | 2.2                | 1.65959      | 20            | 0.0029                              | 1.0                                       | 0.997  |

**Summary of Results:**

With a minimum separation distance of 20 centimeters as defined by FCC 2.1091(b), for a mobile device, the RF Technologies Quick Response Router/Gateway Zigbee Module **meets** the RF exposure evaluation requirements for maximum permissible exposure to any radiating structure and the general population / uncontrolled exposure.

**Conclusion:**

The RF Technologies Quick Response Router/Gateway Zigbee Module operating under FCC part 15.247 complies with the requirements of FCC Part 1.1307(b)(1) for RF Exposure Evaluation.

Supporting data to follow...



Company:  
Model Tested:  
Certification Exhibit:

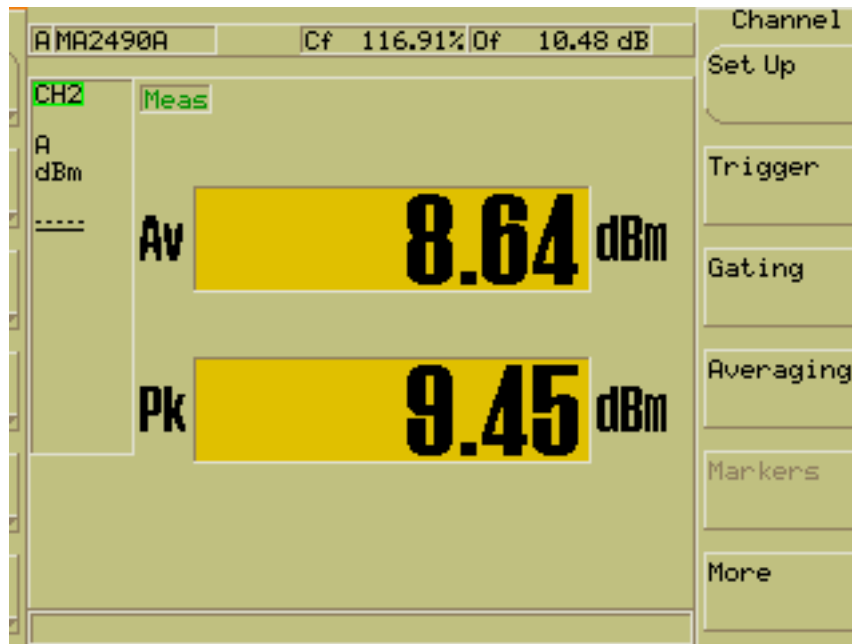
RF Technologies  
0800-0551  
RF Exposure

166 South Carter, Genoa City, WI 53128

Test Date: 08-19-2015  
Company: RFT Technologies  
EUT: Quick Response Premier Router/Gateway  
Test: Peak Power Output - Conducted – 15.247 (b)(3)  
Operator: Paul L

Comment: Low Channel – Ch.11 2.405 GHz

**Peak Output Power = 9.45 dBm = 8.81mW**





Company:  
Model Tested:  
Certification Exhibit:

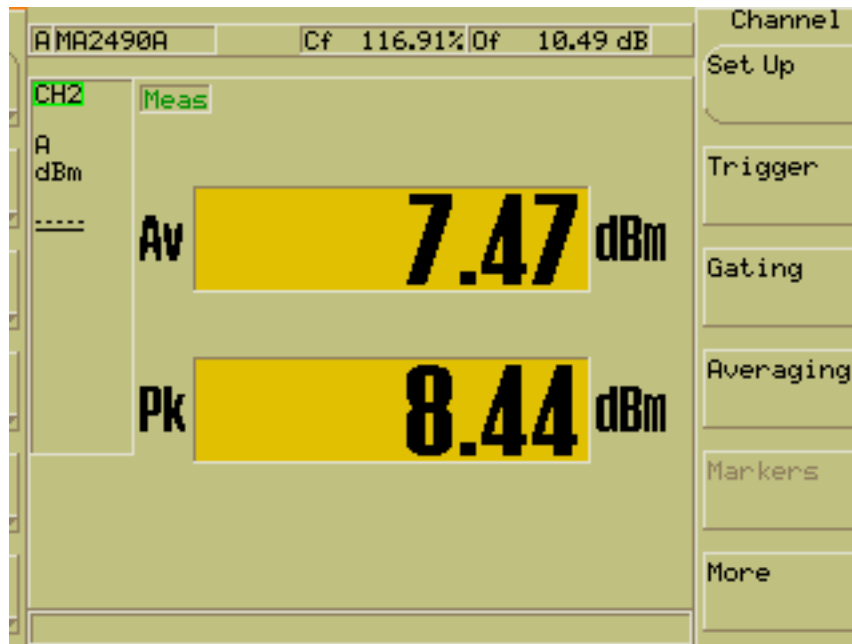
RF Technologies  
0800-0551  
RF Exposure

166 South Carter, Genoa City, WI 53128

Test Date: 08-19-2015  
Company: RFT Technologies  
EUT: Quick Response Premier Router/Gateway  
Test: Peak Power Output - Conducted – 15.247 (b)(3)  
Operator: Paul L

Comment: Mid Channel – Ch.18 2.440 GHz

**Peak Output Power = 8.44dBm = 6.982mW**





Company:  
Model Tested:  
Certification Exhibit:

RF Technologies  
0800-0551  
RF Exposure

166 South Carter, Genoa City, WI 53128

Test Date: 08-19-2015  
Company: RFT Technologies  
EUT: Quick Response Premier Router/Gateway  
Test: Peak Power Output - Conducted – 15.247 (b)(3)  
Operator: Paul L

Comment: High Channel – Ch. 25 2.475 GHz

**Peak Output Power = 7.44 dBm = 5.546mW**

