TÜV SÜD America Inc.
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12 March 2013

AmericanTCB
6731 Whittier Avenue
McLean VA 22101
Attn: Director of Certification

RE: Declaration of Compliance to RF Exposure Limits for Humans

Measurement Specialties FCC ID: Q9H-TRMNSA

RF Exposure Statement

1.   Standard Applicable

According to FCC 1.1307 (b)(1) and IC RSS-102, systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

The 2412-2462 MHz transmitter module:

4.5.5.2 Output Power into Antenna & RF Exposure value at distance 20cm:

Calculations for this report are based on highest power measurement and the highest gain of the antenna.

Limit for MPE (from FCC part 1.1310 table1) is 1.0 mW/cm2

The highest measured output power is +16.74dBm or 47.2063mw

Using the equation $E=(\sqrt{30}*Pt)/D$, highest Pout is 47.2063mW, antenna gain (in linear scale) is 10, and R is 20cm.

Pd = (47.2063*10) / (1600 π) = **0.093961 mW/cm2**, which is 0.90603mW/cm2 below to the limit.

As originally tested, the EUT was found to be compliant to the requirements of the test standard(s).

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The 902.9-927.1 MHz transmitter module:

Part number: 51-43-8227

Type: Disc patch

Connector: MMCX

Gain: 0dBi

2.   Measurement Result:

MPE calculations

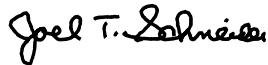$$S = PG / 4\pi r^2$$

S = power density = .198 mw/cm^2

P = transmitter conducted power in milliwatts = 1000

G = antenna numeric gain = 1

R = distance to radiation center in centimeters = 20

This is less than general population/uncontrolled exposure guideline of 1 mW/cm^2.

Adding both power densities is still below 1 mW/ cm^2

Joel T. Schneider

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