

Jennifer Sanchez

From: Jennifer Sanchez
Sent: Tuesday, February 09, 2010 12:26 PM
To: 'Chris Harvey'
Cc: Jenn Warnell; Shawn McMillen; Jennifer Sanchez
Subject: RE: Technical Review Request: 82103 Ubiquiti Networks - FCC/IC TCB (B2L Model)
Importance: High
Attachments: EMCS82103-FCC247_Rev1.pdf

Hi Chris,

Please see response below and revised report attached.

1. Page 35 of 113 should be updated to state current FCC Rule requirements regarding power and antenna gain requirements of 15.247 b and c (specifically clarify the 15.247c requirements for point to point operation and 3dB reduction). Since the antenna being used is a 24dBi Grid Point-to-point antenna, the peak power limit should be calculated and stated in this section.

The test requirements and test procedure sections of the reports have been updated to the following:

Test Requirements:

Systems operating in the 2400 – 2483.5 MHz band and using a point to point application may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

Test Procedure:

The transmitter was connected to a calibrated spectrum analyzer. The EUT was measured at the low, mid and high channels of each band at the maximum power level. Since the EUT is deploying a point to point system with a 24dBi Grid Antenna the peak output power limit was reduced in accordance to §15.247(c) to 24 dBm.

2. Page 106 of 113 of the test report shows a PPSD limit of 2dBm without explanation (previous page states 8dBm in any 3kHz). Please explain or update.

The test requirements and test procedure sections of the reports have been updated to the following:

Test Requirements:

§15.247(e): For digitally modulated systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of §15.247(b).

Test Procedure:

The transmitter was connected directly to a Spectrum Analyzer through an attenuator. The power level was set to the maximum level. A RBW of 1 MHz and VBW of 3 MHz were used to determine the peak emissions within the band. The Spectrum analyzer was then set to a RBW of 3 kHz and VBW was set to 10 kHz. The SPAN of the analyzer was set to 1 MHz with a 333.3 second sweep. Measurements were carried out at the low, mid and high channels. Since the EUT is deploying a point to point system with a 24dBi Grid Antenna the power spectral density limit was reduced in accordance to §15.247(b) to 2 dBm.