



02/13/01

Andy Leimer
FCC
Reference 18087

Dear Mr. Leimer,

Here is the response per your requests.

- 1) The test report indicates that the Class II application is for professional installation. The Original Grant indicated was for a module. Modules are not allowed to be professionally installed. Please clarify this.

The high gain antennas are used specifically for use when the radio is installed in our Access Points and Bridges or by our 3rd. The Access Points and Bridges are shipped with the standard 2.2 dBi dipole. The higher gain antennas are not (specifically the dish and high gain patches) are after market products used by our 3rd party vendors (most who are considered Professional installers). Though not required, Cisco Systems **recommends** that our customers have the systems installed by these qualified people and **recommends** that the higher gain antennas be installed by professional installers to assure optimization of the system and help ensure compliance to FCC Part 15.247 (b)(4).

- 2) Verify that the antenna connectors are non-standard as required by Section 15.203 of the Rules.

Please see description of radio in original filing. No change in connector from the original filing has occurred. This class II Change is just adding additional antennas. The connectors used are unique RTNC connectors on the antenna and a non standard MMCX connector designed specifically for our products.

- 3) The Test report indicates that the application is for 4 Watts EIRP for the Parabolic antenna. This does not agree with the MPE exhibit which was calculated at 34 dBm (2.51 Watts EIRP). In addition the measured conducted power of 0.774 Watts (28.8 dBm) does not correspond to any of the MPE conducted powers (13 dBm and 20 dBm). Please correct these discrepancies.

The radio is specified at 100mW Conducted output (+1 -2dB over temperature). I have attached data from our ATE test fixture stating the power output of the radio device.

Freq	TX Power
2412 MHz	0.085mW
2442 MHz	0.101mW
2462 MHz	0.094mW

Allowing for the +1 - 2dB) over temperature and production variations the power output could be above the +13dBm as high as a little over 14dBm. Hence we do the RF exposure at the projected worst case. With the manual warning of a minimum of 20cm separation, the lower power of 1 or even 2dB should not make a difference for installation purposes if Cisco sets a minimum distance required.

4) Please submit a User's Manual. This should include installation instructions for the various antennas. The MPE exhibit indicates that there is a conducted power reduction for the parabolic antenna. Demonstrate how this is done and verify that there is not any way that the user can vary the power.

Electronic version of the User manual is on file with the original submittal which you are amending. The power is preset via the factory as follows

100mW Conducted for US \ Canada
50mW Conducted for Europe
10mW/MHz for Japan and Korea.

The LM versions are sold pre configured in our PCI Cards, Access Points, or Bridges configured to operate with our 2.2 dBi dipole antennas we ship them . The Access Points and Bridges can be configured in the field by profession installers adding their high gain antennas since they who access to hidden menus password protected. However the power can only be rolled back from the configuration and not increased.

The OEM have utilities run through an ATE fixture to configure the radios to the various country requirements.

Regards

David A. Case NCE
Sr Radio Compliance Engineer

Cisco Corporate Compliance
3875 Embassy Parkway
Akron OH 44720
T 330-664-7396