answer: Rockwell Collins Inc, FCC ID: AJK8222210, Assessment NO.: AN06T6326, Notice#1 Inbox



Hi Tim,

Pls see answer below.

- 1. Block Diagram, Schematic, Theory of Operation, and Cisco manuals describe a 5 GHZ transmitter, but the application and test report include only 2.4 GHz information. Please provide an additional explanatory document or letter to explain absence of 5 Ghz testing and that the product as marketed will not be capable of operation at 5 GHz. Include explanation as to the presence of internal wiring between the board and the unused TNC connectors and measures to be taken to prevent erroneous connection to the unused connectors.

 <a href="mailto:square: graph: square: graph: square: graph: graph: square: graph: graph: square: graph: graph: square: graph: square: graph: square: graph: square: graph: graph:
- 2. Equipment label and user manual contain IC information, but no corresponding IC application was found. Please provide confirming statement that this is correct.

 sapplication has been submitted.
- 3. Is the alternate test setup according to DO-160 acceptable to FCC? Was there any communication with FCC? If so, please include it in the application. I was not able to locate any previous use of this setup from research in FCC authorization database, but if it exists, please include it. The test setup on page 10 of the report describes only the copper table setup. Photos at the end of the report indicate that some testing was performed without the copper plane. Please provide a statement that this setup was used only for radiated spurious emissions < 1Ghz and that measurements of the intentional radiator at the operation frequency was performed with ANSI C.63.4 setup. Please provide additional documentation (may be the same document as for item 1) explaining the rationale for testing over a metal plane (e.g. state that it is to simulate the intended installation as specified in the instructions with the product).

There was no communication with the FCC regarding the DO-160 setup.

ANSI C63.4-2003, Section 6.1.6 Grounding, states, "The EUT shall be grounded in accordance with the individual equipment requirements and conditions of intended use."

ANSI C63.4-2003, Section 6.2 Arrangement of EUT, states, "The EUT shall be carefully installed, arranged, and operated in a manner that is most representative of the equipment as typically used (i.e., as specified in the EUT instruction manual) or as specified herein."

The RTCA/DO-160D setup with the metal plane is representative of both the grounding and the typical installation and arrangement of this device. This setup was used for all radiated spurious emissions testing < 1 GHz.

Measurements of the EUT at the operating frequency of the intentional radiator were made without the metal plane.

Please refer to the Rockwell Collins statement of December 1 for further documentation that the system as tested is representative of the system as it will be installed.

- 5. The antenna documentation specifies Type N connector and EUT photos show TNC connectors. Unless professional installation is specified, these do not meet the requirement of 15.203. The instructions do not include statement that professional installation is required. Please provide additional or revised installation/user instructions with professional installation requirement.

<answer>attached pls see Rockwell statement to address this question.

6. The block diagram in the operational description indicates that both antennas are connected simultaneously by way of a 2 x 2 switch. Testing appears to have been limited to single antenna configurations. Please provide some additional explanation.

<answer>The 2x2 switch is an antenna diversity switch mounted on the radio module itself, thus it was in the system during all testing. Please refer to the Rockwell Collins statement of December 1 for further details.

Thanks,

Claire

----Original Message-----From: Timothy M. Dwyer

Sent: Tuesday, November 28, 2006 6:01 PM

To: Michael Heckrotte

Cc: Tim Dwyer - TCB; Mike Kuo

Subject: Rockwell Collins Inc, FCC ID: AJK8222210, Assessment NO.:

AN06T6326, Notice#1

Hello Michael,

Here are the items from the review.

- 1. Block Diagram, Schematic, Theory of Operation, and Cisco manuals describe a 5 GHZ transmitter, but the application and test report include only 2.4 GHz information. Please provide an additional explanatory document or letter to explain absence of 5 Ghz testing and that the product as marketed will not be capable of operation at 5 GHz. Include explanation as to the presence of internal wiring between the board and the unused TNC connectors and measures to be taken to prevent erroneous connection to the unused connectors.
- 2. Equipment label and user manual contain IC information, but no corresponding IC application was found. Please provide confirming statement that this is correct.
- 3. Is the alternate test setup according to DO-160 acceptable to FCC? Was there any communication with FCC? If so, please include it in the application. I was not able to locate any previous use of this setup from research in FCC authorization database, but if it exists, please include it. The test setup on page 10 of the report describes only the copper table setup. Photos at the end of the report indicate that some testing was performed without the copper plane. Please provide a statement that this setup was used only for radiated spurious emissions < 1Ghz and that measurements of the intentional radiator at the operation frequency was performed with ANSI C.63.4 setup. Please provide additional documentation (may be the same document as for item 1) explaining the rationale for testing over a metal plane (e.g. state that it is to simulate the intended installation as specified in the instructions with the product).
- 4. With the assumption that installation on or in proximity to a metal surface is required, please provide additional information in the installation instructions specifying how it should be mounted.
- 5. The antenna documentation specifies Type N connector and EUT photos show TNC connectors. Unless professional installation is specified, these do not meet the requirement of 15.203. The instructions do not include

statement that professional installation is required. Please provide additional or revised installation/user instructions with professional installation requirement.

6. The block diagram in the operational description indicates that both antennas are connected simultaneously by way of a 2 x 2 switch. Testing appears to have been limited to single antenna configurations. Please provide some additional explanation.

Please email if you have questions.

Best regards,

Tim Dwyer

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of the original e-mail date may result in application dismissal and forfeiture of the filing fee. Also, please note that partial responses increase processing time and should not be submitted. Any questions about the content of this correspondence should be directed to the e-mail address listed below the name of the sender.

Rockwell statement.pdf
75K View as HTML Download