

## Chris Harvey

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**From:** Sung-kyu Cho [skcho@ktl.re.kr]  
**Sent:** Monday, December 20, 2010 6:20 AM  
**To:** charvey-tcb@ccsemc.com  
**Cc:** CHARVEY@ieee.org; lucy.tsai@ccsemc.com  
**Subject:** RE: Trinus Systems Inc, FCC ID: ROYCCR24RMOT, Assessment NO.: AN10T1249, Notice#1  
**Attachments:** Test setup photo\_CCR24RMOT.pdf; Internal photo\_CCR24RMOT.pdf; Circuit diagram\_CCR24RMOT.pdf; Circuit description\_CCR24RMOT.pdf; Antenna Spec\_CCR24RMOT.pdf; Test\_Report\_CCR24RMOT\_FCC15.247.pdf; Test\_Report\_CCR24TMOT\_FCC15.247.pdf; MPE REPORT-CCR24RMOT.pdf

Dear Chris,

My answers are embeded below.  
This project is urgent so your fast review will be appreciated.

-----Original Message-----

From: charvey-tcb@ccsemc.com [<mailto:charvey-tcb@ccsemc.com>]  
Sent: Friday, December 17, 2010 12:32 AM  
To: skcho@ktl.re.kr  
Cc: CHARVEY@IEEE.ORG; lucy.tsai@ccsemc.com  
Subject: Trinus Systems Inc, FCC ID: ROYCCR24RMOT, Assessment NO.: AN10T1249, Notice#1

Receiver  
Dear SK Cho,

You are listed as the Technical Contact for the above referenced TCB application. The following item(s) need(s) to be resolved before the review can be continued:

1. The Internal Photos do not seem to show the RF Circuitry and RF connection to the antenna connector. Please provide additional Internal Photos to show these RF areas.

Ans) I've attached revised internal photo.

2. The Test Setup photo exhibit submitted is actually the setup of the Transmitter device. Please submit a Test Setup Photo exhibit for the Receiver unit (you can extract this from the RF Test report).

Ans) I've attached test setup photo again.

3. The Schematic exhibit submitted in the Receiver application documents only the Transmitter. Please provide the Schematic exhibit for the Receiver.

Ans) I've attached receiver schematic.

4. The Operational Description shows Channels 0-90, ending at 2478.816 MHz, but the test report goes to Channel 94, ending at 2482.272 MHz. Please confirm which is correct and update the exhibit(s) as needed.

Ans) I've attached operatinoal description including revised frequency table.

5. FCC 15.203 requires that antennas that have an removable connector utilize a unique antenna connector (non-standard). Please provide the Antenna Specification exhibit for the antenna used with the Receiver device.

Ans) The antenna connector type is reverse sma type. I've attached antenna spec.

6. The RF Exposure MPE exhibit states an antenna gain of 1.32dBi, but the RF Test report indicates 2.51 dBi antenna gain. Please confirm which antenna

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gain is correct and update the exhibit(s) as necessary.

Ans) I've attached revised MPE exhibit.

7. The Upper Side Band Edge Plot (page 14 of 35 of Transmitter RF Report) seems to show a center frequency of the fundamental located at approximately 2481.5MHz which seems to be lower than the band edge channel stated as 2482.272MHz.

Ans) The center frequency was set to 2483.5 MHz. There's digit limitation so center frequency is displayed at 2483 MHz but actual center frequency was set to 2483.5 MHz.

8. The MPE Calculation states that the IC Limit is 10mW/cm<sup>2</sup>, but the limit should be 10W/m<sup>2</sup>, which is equivalent to 1mW/cm<sup>2</sup>, which is equivalent to the FCC MPE limit. Also, for a Mobile RF Exposure device the minimum separation distance is 20cm, so indicating or calculating a closer safe separation is inappropriate. Please correct this exhibit.

Ans) I've attached revised MPE exhibit.

9. The RF Report Section 1.2 lists the Antenna Gain as Ver 1.0 and the Function Type as Ver 1.0. Please correct these items.

Ans) I corrected it. I've attached test report.

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. Revised documentation should not be emailed, but instead should be submitted through "Add Attachment" function at the UL-CCS website. Please have your Assessment Number and FCC ID/IC Certification number handy. You may use the following link: <https://cert.ccsemc.com/filing/>

Best regards,

Chris Harvey  
Charvey-tcb@ccsemc.com

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No virus found in this message.

Checked by AVG - [www.avg.com](http://www.avg.com)

Version: 10.0.1170 / Virus Database: 426/3326 - Release Date: 12/19/10