Prisma II HDTx RF Input Power -6 dB Offset Technical Bulletin

Overview

Purpose

The purpose of this document is to inform Prisma II™ High Density Transmitter (HDTx) users of a possible issue in which the RF input power indicated on the LCI or ICIM is 6 dB below the actual power level.

Audience

This document is written for system engineers and managers responsible for operating or maintaining Prisma II equipment.

Situation

Cisco has received customer comments that some High Density Transmitters (HDTx) indicate RF input power of -5 to -7 dB when they should indicate 0 dB under nominal loading.

Analysis conducted by Cisco has shown that this problem is associated with the HDTx transmitter calibration database. Specifically, an offset value added to the RF input power measurement when the transmitter is in Continuous Wave (CW) OFF mode and the feed is a live video signal is in error by 6 dB.

HDTx transmitters are calibrated using the Matrix Generator by placing the transmitter in CW ON mode and adjusting the software so that transmitter RF input power indicates 0 dB on the LCI or ICIM under nominal loading. Normally, when the transmitter is switched from CW ON to CW OFF mode, an offset value is added in software to maintain the RF input power reading.

In cases affected by the calibration database problem, transmitters calibrated to indicate 0 dB RF input power under nominal loading in CW ON mode typically read 5 to 7 dB low when switched to CW OFF mode. In these cases, the transmitter itself is operating normally. The low power indication only reflects the offset value error in the HDTx database.

Customer Exposure

A few customers may experience this issue if they have high density transmitters manufactured before October 2005 (K05) with serial numbers beginning with MM. This power indication error does not affect actual transmitter operation, and the HDTx will continue to function normally without affecting service.

Solution

Customers can install a software update to correct any affected units. The update procedure takes only a few seconds per unit after setup, and it should not interrupt service. Even so, Cisco recommends that customers perform the update during the regular service window.

The software update may be obtained from Cisco Services. See the **For Information** section in this document for telephone numbers and other contact information.

See the next section, **Software Upgrade Procedure**, for complete instructions on performing the update.

Software Update Procedure

Identify Transmitters for Update

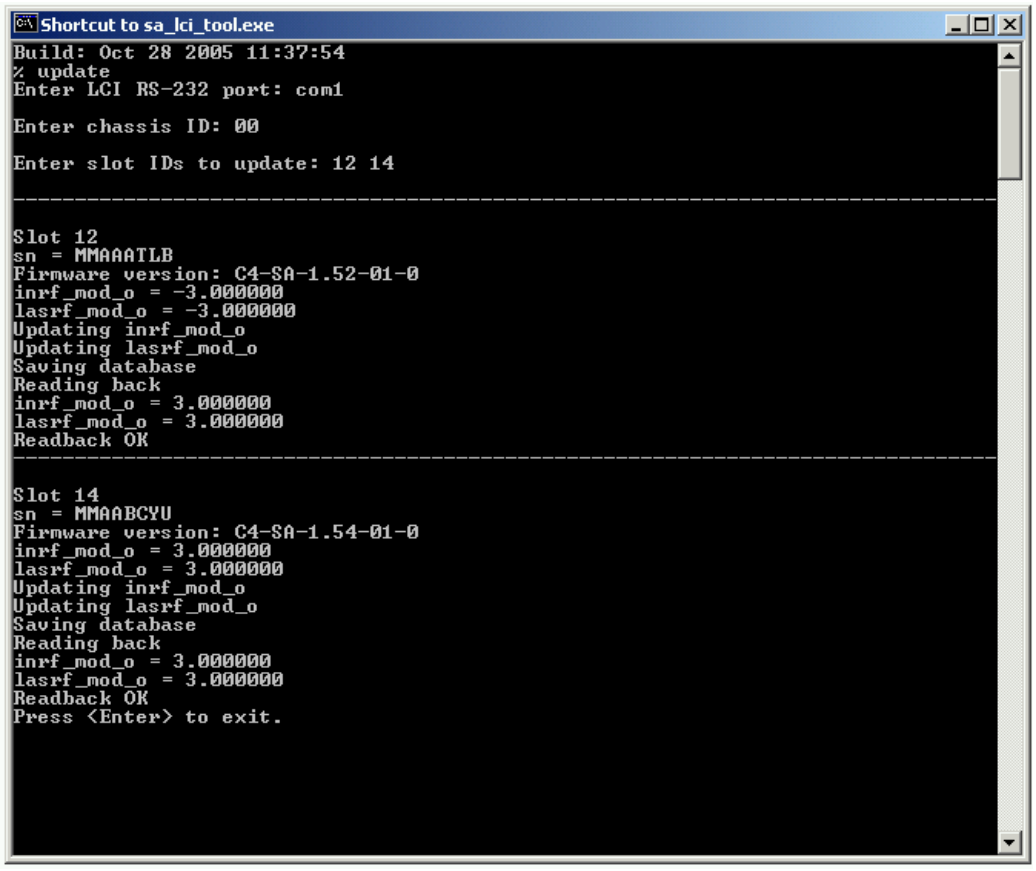
1. Use the instructions found in the *Prisma II 1310 nm High Density Transmitter and Host Module Installation and Operation Guide*, part number 4009700, to locate all transmitters with serial numbers starting with MM and having date codes earlier than K05 (October 2005). Serial numbers may be accessed via the ICIM or LCI.
2. Record the chassis ID and slot ID for each transmitter identified.

Update Transmitters

Note: A computer with a serial communication port is needed to update the transmitters.

1. Close LCI and any other communications programs that may be using the serial communications port on the computer used for this operation.
2. Connect the computer RS-232 serial port to the LCI port on the front panel of the Prisma II chassis. The required cable is a standard DB9 Female to DB9 Male serial communications cable (the same cable used for the LCI).
3. Unzip the update program file, named **sa_lci_tool.zip**.
4. Access the update program by opening the executable file, named **sa_lci_tool.exe**.
5. At the update program "%" prompt, type **update**, and then press **Enter**.
6. At the "Enter LCI RS-232 Port" prompt, type the number of the communications port (for example, when using Port 1, type **com1**), and then press **Enter**.
7. At the "Enter chassis ID" prompt, type the ID number of the chassis to which you are connected (for example, for chassis ID 00, type **00**), and then press **Enter**.
8. At the "Enter slot IDs to update" prompt, type one or more MM slot IDs separated by a space (for example, to update slots 12 and 14, type **12 14**), and then press **Enter**. The program now updates the selected transmitter CW mode database parameter(s).
9. After the last slot ID has been updated, press **Enter** to exit the program.
10. Repeat steps 4-9 above as needed to update additional transmitters.

An example of the update program in operation is shown below.



For Information

If You Have Questions

If you have technical questions, call Cisco Services for assistance. Follow the menu options to speak with a service engineer.

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