CSC RX Test

System Name: Critical Systems Computer Comms, Tray 1 Interconnect

# Aim:

Test DTMF functionality on the Critical Systems Computer and robustness of audio amplifier on Tray 1 interconnect

# Authors

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# Relevant Drawings and Documents:

\Electrical Design Files\Tray 2\CSC\CSC.prjpcb

Github Repository: https://github.com/bluesat/csc-software

Drawing3.pcbdoc

# Equipment:

* Soldered CSC PCB
* Digital Oscilloscope
* Laptop with Terminal
* USB-TTL232 Cable
* BLUEsat DTMF-YAESU Dialpad
* YAESU Groundstation Transmitter Radio
* Soldered Tray 5 (RX) interconnect PCB
* RX Radios
* DTMF dialtone source (phone, computer or keypad)

# Procedure:

1. Burn the test image onto PCB using USB-TTL232 cable
2. Establish a terminal via a COM port on the laptop through the USB-TTL232 cable
3. Observe output on terminal and ensure that all UART debug messages are successfully being printed. Note results
4. Connect Radio RX input of CSC to a DTMF dialtone source.
5. Dial numbers into the DTMF source and observe output of UART terminal for a number echo. Note results
6. Connect BLUEsat DTMF-YAESU Dialpad to Groundstation TX radio.
7. Connect Receiver Radio to Tray 5 interonnect to the CSC to complete the setup shown in the diagram below
8. Repeat step 3 and note results.
9. Probe audio RX line on the CSC board with an oscilloscope and record output, taking note of peak-to-peak voltage value

CSC

Satellite TX Radios

Groundstation TX Radios

DTMF-YAESU Dialpad

Tray 5 interconnect

Laptop

# Results:

Add a diagram of results and results table here

# Analysis:

Click here to enter text.

# Conclusion:

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