

Cisco ONS 15454 Timing, Communication, and Control Plus Card

THE CISCO ONS 15454 TIMING, COMMUNICATION, AND CONTROL PLUS (TCC+) CARD IS THE MEMORY-ENHANCED VERSION OF THE FIRST-GENERATION TCC CARD PROVIDING THE CISCO ONS 15454 SOLUTION WITH OVERALL CONTROL OF THE SYSTEM. A TCC+ CARD PERFORMS SYSTEM INITIALIZATION, PROVISIONING, ALARM REPORTING, MAINTENANCE, DIAGNOSTICS, IP ADDRESS DETECTION/RESOLUTION, SONET DCC TERMINATION, AND SYSTEM FAULT DETECTION. THE TCC+ CARD RESIDES IN SLOTS 7 AND 11 ON THE SHELF ASSEMBLY, PROVIDING 1:1 EQUIPMENT PROTECTION.

The TCC+ card incorporates system timing source selection and a highly stable, stratum 3, internal timing reference.

Nonvolatile database storage for communication, provisioning, and system control is provided on the TCC+ card, allowing complete removal of system power with full database recovery and survivability.

The TCC+ has two built-in interface ports for accessing the system: an RJ-45 connector and an RS-232 connector. The RJ-45 craft interface browser LAN connection allows users to access the system using a standard Web browser. While using the browser interface, local and remote operations, administration, maintenance, and provisioning (OAM&P) functions may be performed. In addition, a VT100 emulation window may be opened via the browser, allowing users to enter TL1 commands. If a browser is not available, users can access the system using the nine-pin, RS-232 port. The RS-232 port supports VT100 emulation, such that TL1 commands may be entered directly without the use of a browser.

The front panel of the TCC+ card incorporates nine LEDs, including:

- Three operational LEDs:
 - Red "FAIL" LED—Indicates the TCC+ card hardware is not functioning properly

- Combination green/yellow "ACT/STBY" LED—Indicates the TCC+ card operational status, whether in active or standby state

- Six system level LEDs:
 - Two red "CRIT and MAJ" LEDs—Indicate the presence of critical and major alarms in the system, either at the local or remote terminal
 - Yellow "MIN" LED—Indicates the presence of minor alarms in the system, either at the local or remote terminal
 - Red "REM" LED—Indicates when critical, major, or minor alarms are present in remote terminals
 - Green "SYNC" LED—Indicates when the active TCC+ qualifies an external reference for system timing.
 - Yellow "ACO" LED—Indicates when the alarm cutoff (ACO) function is activated

The TCC+ card includes an ACO button, allowing the user to extinguish audible alarms on the system that have been wired to the audible alarm contact-closure pins located on the rear panel of the Cisco ONS 15454 shelf assembly.

The TCC+ card is supported under system software release series 2.x and future series 3.x.



Table 1: TCC+ Technical Specifications

Parameter	Specification
Dimensions	Single Width 12.65 x .716 x 9 in.
Power Consumption	12W
Temperature	
Operating	-40 to 149°F (-40 to 65°C)
Storage	-40 to 185°F (-40 to 85°C)
Humidity	
Operating	5 to 95%, Non-condensing
Storage	5 to 95%, Non-condensing

Ordering Information

Product Code	Description
15454-TCC+	Timing, Communications and Control Plus Card



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