



Release Notes for Cisco ONS 15540 ESP and Cisco ONS 15540 ESPx Mux/Demux Motherboard With OSC Functional Image Release 2.67

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Cisco ONS 15540 mux/demux motherboard with OSC (product numbers 15540-MMMB-0100 and 15540-MMMB-1100) functional image release 2.67

Text Part Number OL-4338-02

This document describes the features and caveats for the functional image, release 2.67, for the mux/demux motherboards with OSC used with the Cisco ONS 15540 ESP and Cisco ONS 15540 ESPx.

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Introduction

The mux/demux motherboards hold the optical mux/demux modules. Either slot 0 or slot 1 can be populated with a single mux/demux motherboard for unprotected operation, or both slots can be populated for protected operation.

The mux/demux motherboards can accept up to four mux/demux modules:

- Up to four 4-channel add/drop mux/demux modules
- Up to four 8-channel add/drop mux/demux modules
- One 32-channel terminal mux/demux module

The OSC is implemented with a dedicated laser and detector for a 33rd wavelength (channel 0) on the mux/demux motherboard. The OSC is a per-fiber duplex management channel for communicating between Cisco ONS 15540 systems. It allows control and management traffic to be carried without the necessity of a separate Ethernet connection to each Cisco ONS 15540 ESPx, Cisco ONS 15540 ESP, and Cisco ONS 15530 in the network.

The OSC is established over a point-to-point connection and is always terminated on a neighboring node. By contrast, data channels may or may not be terminated on a given node, depending on whether the channels are express (pass-through) or add/drop.



Note

A Cisco ONS 15540 system on which the OSC is not present is not known to other systems in the network and cannot be managed by any NMS. Without the OSC, a Cisco ONS 15540 ESPx system must be managed individually by separate Ethernet or serial connections. Thus, it is important when adding a node to an existing network of Cisco ONS 15540 systems that the added node have OSC support.

Determining the Release of Your Mux/Demux Motherboard Functional Image

This section describes the process you use to determine the existing functional image version installed on your mux/demux motherboard.

To display the functional image version in a mux/demux motherboard, use the following command in privileged EXEC mode:

Command	Purpose
show hardware detail	Displays the functional image information.

Example

The following example shows the functional image information for the mux/demux motherboard with OSC in slot 0:

```
Switch# show hardware detail
-----
15540 Date:2:02:49 EST Mon Feb 2 2004
-----
Slot Number           :0/*
Controller Type       :0x101A
On-Board Description  :CN_TOWER_MUX/DEMUX_OSC
Orderable Product Number:15540-LCMB-UNKNOWN
Board Part Number     :73-7793-02
Board Revision        :11
Serial Number         :CAB0604MD7C
Manufacturing Date    :01/29/2002
Hardware Version      :1.0
RMA Number            :0x00
RMA Failure Code      :0x00
→ Functional Image Version:2.67
Function-ID           :0
-----
Slot Number           :0/0
Controller Type       :0x101C
On-Board Description  :Filter_4+1Channel
Orderable Product Number:15540-MDXD-04A0=
Board Part Number     :74-2833-01
Board Revision        :01
Serial Number         :ANX0614000V
Manufacturing Date    :03/15/2002
Hardware Version      :1.0
RMA Number            :
RMA Failure Code      :
<Information deleted>
```

Updating to a New Release

For information on updating functional images, refer to the [Cisco ONS 15540 ESPx Software Upgrade Guide](#) or the [Cisco ONS 15540 ESP Software Upgrade Guide](#). To download the processor card functional image, go to the following URL:

<http://www.cisco.com/cgi-bin/tablebuild.pl/ons15540-fpga>.



Caution

A functional image download cannot revert once the download is started. Do not interrupt the download procedure. Wait until it has finished before attempting any commands on the switch. Confirm that the download is done in binary mode and check file sizes before and after download. A failure during reprogramming can result in the card being unusable.

Caveats

This section lists the caveats for the mux/demux motherboard functional image.

Use [Table 1](#) to determine the status of a particular caveat and its relevancy to your functional image release. In the table, “C” indicates a fixed caveat, and “O” indicates an open caveat.

Table 1 Mux/Demux Motherboard Functional Image Release Caveat Reference

DDTS Number	Release 2.67	Release 2.65
CSCdv38108	C	C
CSCeb18103	C	

Caveat Symptoms and Workarounds

This section describes the resolved caveat for this release of the mux/demux motherboard functional image.

- [CSCdv38108](#)

Symptom: The CDL HEC error count is not updated when CDL HEC errors occur on the OSC.

Workaround: Upgrade the functional image to version 2.65 or later.

- [CSCeb18103](#)

Symptom: When a trunk fiber break occurs, the OSC wave interface may not come back up after the trunk fiber break is restored if laser safety control had been configured on the OSC wave interface while the trunk fiber was broken.

Workaround: Upgrade the functional image to version 2.67 or later.

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco websites can be accessed from this URL:

http://www.cisco.com/public/countries_languages.shtml

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Ordering tool:

<http://www.cisco.com/en/US/partner/ordering/index.shtml>

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can submit e-mail comments about technical documentation to bug-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour-a-day, award-winning technical support services, online and over the phone. Cisco.com features the Cisco TAC website as an online starting point for technical assistance. If you do not hold a valid Cisco service contract, please contact your reseller.

Cisco TAC Website

The Cisco TAC website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco TAC website is available 24 hours a day, 365 days a year. The Cisco TAC website is located at this URL:

<http://www.cisco.com/tac>

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

Opening a TAC Case

Using the online TAC Case Open Tool is the fastest way to open P3 and P4 cases. (P3 and P4 cases are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using the recommended resources, your case will be assigned to a Cisco TAC engineer. The online TAC Case Open Tool is located at this URL:

<http://www.cisco.com/tac/caseopen>

For P1 or P2 cases (P1 and P2 cases are those in which your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

Priority 1 (P1)—Your network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Priority 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Priority 3 (P3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Priority 4 (P4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Go to this URL to visit the company store:

<http://www.cisco.com/go/marketplace/>

- The *Cisco Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:

<http://cisco.com/univercd/cc/td/doc/pcat/>

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press online at this URL:
<http://www.ciscopress.com>
- *Packet* magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access Packet magazine at this URL:
<http://www.cisco.com/packet>
- *iQ Magazine* is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:
<http://www.cisco.com/go/iqmagazine>
- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:
<http://www.cisco.com/ipj>
- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:
<http://www.cisco.com/en/US/learning/index.html>

This document is to be used in conjunction with the documents listed in the “[Obtaining Documentation](#)” section.

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