



# Release Notes for Cisco ONS 15530 Transponder Dcard Functional Image Release 1.A3

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**Release Date:** September 29, 2003

**Cisco ONS 15530 transponder line card (product number 15530-TSP1-xxxx) functional image release 1.A3**

**Text Part Number:** OL-4810-03

This document describes the features and caveats for the functional image, release 1.A3, for the transponder Dcard used with the Cisco ONS 15530 DWDM multiservice aggregation platform.

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## Introduction

The Cisco ONS 15530 supports two types of transponder line cards: SM (single-mode) and MM (multimode). In the transponder line card, the client signal is regenerated, retimed, and retransmitted on an ITU-compliant wavelength. The ITU laser on each transponder line card can



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Corporate Headquarters:  
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

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generate one of two wavelengths on the trunk side. Thus, there are 16 different transponder line cards (for channels 1–2, 3–4,..., 31–32) to support the 32 channels; each module is available in SM and MM versions. The wavelength generated is configurable from the CLI (command-line interface).

## Determining the Release of Your Transponder Dcard Functional Image

This section describes the process you use to determine the existing functional image version installed on your transponder Dcard.

To display the functional image version in a transponder line card, use the following command in privileged EXEC mode:

Command	Purpose
<code>show hardware linecard slot</code>	Displays the functional image information.

### Example

The following example shows the functional image information for the transponder line card in slot 4:

```
Switch# show hardware linecard 4
-----
Slot Number           : 4/*
Controller Type       : 0x1109
On-Board Description  : Single-Mode Transponder with Splitter Protection
Orderable Product Number: 15530-TSP1-0112
Board Part Number     : 73-7675-05
Board Revision        : 02
Serial Number         : CAB0604MDMB
Manufacturing Date    : 12/21/2001
Hardware Version      : 5.1
RMA Number            :
RMA Failure Code      :
Functional Image Version: 3.12
Function-ID           : 0
→ Dcard Func Image Version: 1.A3
```

## Updating to a New Release

For detailed functional image upgrade instructions, refer to the [Cisco ONS 15530 Software Upgrade Guide](#). To download the ESCON aggregation card functional image, go to the following URL:

<http://www.cisco.com/cgi-bin/tablebuild.pl/ons15530-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 the download. A failure during reprogramming can result in the card being unusable.

# New Features in Functional Image 1.A3

The following new features are available for functional image 1.A3:

- Performance monitoring for 2-Gbps Fibre Channel and FICON

Parameters monitored:

- 8b10b line coding errors
- Loss-Of-Sync

## Caveats

This section lists the caveats for the transponder line card 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 closed or fixed caveat, and “O” indicates an open caveat.



Note

Not all transponder module hardware types are affected by each caveat in Table 1. Check the specific caveat description for affected hardware types.

*Table 1 Transponder Line Card Functional Image Release Caveat Reference*

DDTS Number	Release		
	1.A3	1.A1	1.A0
<a href="#">CSCdy05132</a>	C	O	
<a href="#">CSCeb61078</a>	C	O	O
<a href="#">CSCec31146</a>	O		

## Caveat Symptoms and Workarounds

This section describes the resolved caveat for this release of the transponder line card functional image.

- [CSCdy05132](#)

**Symptom:** Propagation of Loss-of-Light is faulty for IBM Sysplex ETR (external timer reference). Although the ETR link might come up and appear to work normally, protection switching operations of the ETR might be affected. This only affects multimode and extended range transponder modules.

**Workaround:** Upgrade the transponder line card functional image to version 1.A3 or later.

- [CSCeb61078](#)

**Symptom:** An 8b10b encoded data stream at a 2.125-Gbps encoded rate (2-Gbps Fibre Channel, 2-Gbps FICON, 2-Gbps ISC or similar protocol) exhibits intermittent or dribbling bit errors on the transponder line card. The bit errors are data-traffic-dependent; that is, the rate at which they occur decreases with increasing link utilization, usually disappearing completely at high utilization. Other

higher and lower rates such as OC-48/STM-16 and Gigabit Ethernet do not exhibit this problem on the same transponder link. This only affects single-mode transponder line cards, up to and including hardware version 5.10.

**Workaround:** Upgrade the transponder line card functional image to version 1.A3 or later. The functional image must be upgraded on all transponder line cards in the failing 2-Gbps FC/FICON/ISC link.

- [CSCec31146](#)

**Symptom:** If a local transparent interface is encapsulated for 2-Gbps Fibre Channel or FICON and monitoring is disabled, a Loss of Light condition results in the far-end wave interface remaining up with a Loss of Sync condition.

**Workaround:** Enable monitoring on the transparent interface.

## Limitations and Restrictions

This section provides limitations and restrictions for Cisco ONS 15530 hardware and software.

### 2.5-Gbps Transponder Line Card

The 2.125-Gbps rate protocols (2-Gbps Fibre Channel, 2-Gbps FICON, and 2-Gbps ISC) on 2.5-Gbps transponder line cards with a functional image version of 1.A2 or later at one end of the DWDM have incompatible data formats with lower functional image versions at the other end. This only affects single-mode transponder line cards.

## Related Documentation

Refer to the following documents for more information about the Cisco ONS 15530:

- [Regulatory Compliance and Safety Information for the Cisco ONS 15500 Series](#)
- [Cisco ONS 15530 Planning Guide](#)
- [Cisco ONS 15530 Hardware Installation Guide](#)
- [Cisco ONS 15530 Optical Transport Turn-Up and Test Guide](#)
- [Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections](#)
- [Cisco ONS 15530 Configuration Guide](#)
- [Cisco ONS 15530 Command Reference](#)
- [Cisco ONS 15530 System Alarms and Error Messages](#)
- [Cisco ONS 15530 Troubleshooting Guide](#)
- [Network Management for the Cisco ONS 15530](#)
- [Cisco ONS 15530 CLI Commands](#)
- [MIB Quick Reference for the Cisco ONS 15500 Series](#)
- [Cisco ONS 15530 Software Upgrade Guide](#)

# 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](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](http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm)

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## Documentation Feedback

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Cisco Systems  
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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>

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