CUSTOMER RELEASE NOTES

Alcatel-Lucent 7342 ISAM FTTU

ONT | R04.06.41

3FE 52124 BEAA DEZZA Edition 01

IMPORTANT NOTICE: This document contains confidential information that is proprietary to Alcatel-Lucent and Alcatel-Lucent Shanghai Bell. No part of its contents may be used, copied, disclosed or conveyed to any party in any manner whatsoever without prior written permission from Alcatel-Lucent or Alcatel-Lucent Shanghai Bell.

www.alcatel-lucent.com

Alcatel-Lucent, Alcatel, Lucent, Alcatel-Lucent Shanghai Bell, and the Alcatel-Lucent logo are registered trademarks of Alcatel-Lucent. All other trademarks are the property of their respective owners. Alcatel-Lucent assumes no responsibility for the accuracy of the information presented, which is subject to change without notice. © 2010 Alcatel-Lucent. All rights reserved.

THIS PRODUCT COMPLIES WITH D.H.H.S. RADIATION PERFORMANCE STANDARDS 21 CFR, 1040.10, FOR A CLASS 1 LASER PRODUCT.

DANGER

Invisible laser radiation is present when the optic connector is open. AVOID DIRECT EXPOSURE TO BEAM.

WARNING

This equipment has been tested and found to comply with the limits for Class A and B digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his or her own expense.

NOTICE

The product specification and/or performance levels contained in this document are for information purposes only and are subject to change without notice. They do not represent any obligation on the part of Alcatel. Such obligations will only be committed to in a written sales agreement signed by Alcatel-Lucent.

Technical Support Telephone Number

Alcatel-Lucent provides technical assistance telephone numbers. For technical assistance within North America, call +1 613-784-6100 or 1-888-252-2832. In Europe and the rest of the world, check for technical assistance telephone numbers at http://www.alcatel-lucent.com/support
All RMA items and procedures are bounded by the Alcatel-Lucent contract agreement with the customer.

Contents

List of tables

1 Introduction

1.1 About this document

This document provides an overview of the contents of the 7342 Intelligent Services Access Manager Fiber to the User (7342 ISAM FTTU) ONT software loads, ONT R04.06.41, including known restrictions.

This Customer Release Notes (CRN) document is prepared for system administrators, installers, and other operators of the 7342 ISAM FTTU.

R04.06.41 refers to the ONT R04.06.41 load as released by the engineering team on April 15, 2010.

1.2 How to read this document

Some ONTs included in this CRN are not of interest to all customers. Alcatel-Lucent recommends that each customer reads through the section that addresses the ONTs of interest.

Section 3.2 outlines the ONT part numbers and the ONTs' regional applicability (ETSI, ANSI, or both [ETSI and ANSI]). Common functional behaviors that apply to all the ONT types are documented in section 2.

ONTs not listed in section 3.2 cannot be upgraded or used in this release. This document should be read together with the accompanying customer documentation.

1.3 Release ONT R04.06.41

This section lists the features applicable to the ONTs supported in this release.

Purpose for R04.06.41 release

This ONT R04.06.41 release is to introduce the following ONTs:

- Introduction of the next generation I-120G-P, I-240G-P, and I-440G-P voice and data ONTs

1.4 Key features

Performance monitoring:

> Voice, PON, Ethernet

Debugging:

> Threshold Crossing Alarms

PON:

> FSAN standards compliant GEM mode transport support
> DBA support (Idle GEM DBA)
> T-CONT type 1, type 2, type 3, type 4, and type 5 support
> AES downstream support
> FEC upstream and downstream support
> 1490 received power measurement on ONTs
> Standard single multicast GEM port-id support

Voice service / call features (for voice-supporting ONTs):

> See section 1.5 for specific softswitches used to support the following call features.
> Megaco / H.248 call features supported include:
  - 3-Party calling, Call Forwarding, Call Transfer, Call Hold, Call Waiting, and Calling Line Identification Presentation (CLIP) - CLIP transmission with FSK signaling.

> SIP call features supported include:
  - Thin client mode: Basic call, Distinctive ringing, Caller ID (CLID), Direct connect (Hot Line), Direct connect (Warm Line), Caller Name, CLIR, CLIP, Call waiting, Call transfer, Call hold, Network based 3 way call, Message waiting indicator, E911 support, FAX (G.711 and T.38), RFC2833.
  - Thick client mode: Basic call, Distinctive ringing, Caller ID (CLID), Caller Name, CLIR, CLIP, Call waiting, Call transfer, Call hold, Client based 3 way call, Message waiting indicator, E911 support, FAX (G.711 and T.38), RFC2833, Direct connect (Hot Line), Direct connect (Warm Line), Line registration, per POTS line configuration, Call park, Home Intercom,

Bridged lines, Call pick-up with barge-in, 6-way conference calling, Suppressed ringing.

- Voice testing and statistics:
  - Up to 32 call statistics support
- DHCP options for voice service:
  - DHCP option 83 (remote ID) support
  - DHCP option 61 (Client ID) support
  - DHCP option 90 (authentication header) support

IP video service:

- In Band IP Video support
- IGMP snoop support

QoS support:

- Fine-grain packet-based QoS mechanisms
- 802.1p QoS and packet classification
- Up to 8 QoS level (priority queues) per Ethernet interface
- VLAN translation support

General:

- Autonomous Dying Gasp alarm to indicate a loss of power to the ONT

1.5 Softswitch interoperability

In the following section, the term "*Completed in ONT x.y.z*" means completion of lab evaluation in Alcatel-Lucent Interoperability Lab in ONT release *x.y.z* and the term "*Completed and certified in ONT x.y.z*" means completion of lab evaluation in Alcatel-Lucent IOT lab and a certificate is obtained from the softswitch vendor in ONT release *x.y.z*.

Table 1 lists softswitch interoperability testing for Megaco ONTs supported in this release.

Softswitch	Interoperability testing with next generation ONTs
Alcatel-Lucent 5020 S-12 MGC	Completed in ONT 04.06.41

Softswitch	Interoperability testing with next generation ONTs
Huawei Soft EX 3000 NGN softswitch	Completed in ONT 04.06.41

Table 1 Megaco softswitch interoperability testing

Table 2 lists softswitch interoperability testing for SIP ONTs supported in this release.

Softswitch	Interoperability testing with next generation ONTs
Alcatel-Lucent 5020 MGC	Completed in ONT 04.06.41

Table 2 SIP softswitch interoperability testing

1.6 Documentation references

Finding documentation on OLCS

The OnLine Customer Support (OLCS) site gives you access to the latest Alcatel-Lucent customer documentation. To download documentation:

1. Go to www.alcatel-lucent.com and click on MyAccess.
2. Log in to the Alcatel-Lucent Customer and Business Partner Portals with the user name and password for your OLCS account. A customized Customer Center page opens. If you do not have an account, contact your Alcatel-Lucent representative.
3. Choose Documentation from the Customer support tab.
4. From the alphabetical listing of products, click on the 7000-7999 link.
5. Click on the 7342 ISAM FTTU (Fiber to the User) link.
6. In the Documentation and downloads section, choose one of the following:
   a. Click on the Manuals and Guides link for a list of user documents.
   b. Click on the Release Information link for a list of release notices.
   c. Click on the Product Alerts link to view Product Discontinuation Bulletins and Technical Bulletins
   d. Click on the Technical Notes link to view Product Information Bulletins.
   e. Click on the Alerts link to view Technical Alerts. Choose 7342 ISAM FTTU (Fiber to the User) from the Browse Alerts by Product: drop-down menu and click on the Go button.
7. Use the Release and Model/Subgroup drop-down menus to filter the listed documents. Alternately, use your browser to search for the document release and title.
8. Click on the PDF link for the document you want.

Table 3 lists the documents relevant to the 7342 ISAM FTTU ONT R04.06.41 release.

Title	Part number	Description
ONT Software Installation Procedures	3FE 52124 BEAA RJZZA	Provides the instructions for installing the 7342 ISAM FTTU ONT software. **Note:** This document is located on the ONT Software CD.
ONT Customer Release Notes (this document)	3FE 52124 BEAA DEZZA	Provides application notes, open and closed issues, and software load names for the 7342 ISAM FTTU ONT. **Note:** This document is located on the ONT Software CD.
7342 ISAM FTTU P-OLT 04.06.08 Customer Documentation CD (ETSI)	3FE 52887 AAAA PMZZA	Provides user manuals for the 7342 ISAM FTTU ETSI market, except for the P-OLT Software Installation Procedures and the OLT Customer Release Notes.
7342 ISAM FTTU P-OLT R04.06.08 Customer Documentation CD ISO image (ETSI)	3FE 52887 AAAB PMZZA	
7342 ISAM FTTU P-OLT R04.06.08 Customer Documentation compressed archive file (ETSI)	3FE 52887 AAAC PMZZA	
7342 ISAM FTTU P-OLT 04.06.08 Customer Documentation CD (ANSI)	3FE 52886 AAAA PMZZA	Provides user manuals for the 7342 ISAM FTTU ETSI market, except for the P-OLT Software Installation Procedures and the OLT Customer Release Notes.
7342 ISAM FTTU P-OLT R04.06.08 Customer Documentation CD ISO image (ANSI)	3FE 52886 AAAB PMZZA	
7342 ISAM FTTU P-OLT R04.06.08 Customer Documentation compressed archive file (ANSI)	3FE 52886 AAAC PMZZA	
7342 ISAM FTTU ONT R04.06.41 Customer Documentation CD	3FE 53115 AAAA PMZZA	Provides ONT manuals for all current ONT releases, except for *the ONT Software Installation Procedures* and the *ONT Customer Release Notes*.
7342 ISAM FTTU ONT R04.06.41 Customer Documentation CD ISO image	3FE 53115 AAAB PMZZA	

Title	Part number	Description
7342 ISAM FTTU ONT R04.06.41 Customer Documentation compressed archive file	3FE 53115 AAAC PMZZA	

Table 3 Customer documentation

Documentation corrections

The following documentation corrections apply to the customer documentation for 7342 ISAM FTTU ONT R04.06.41:

> Some unit data sheets in the ONT *Product Information manual* incorrectly claim support for the following hardware and ONT management and security features:

- SLID entry via craft, POTS, or Ethernet interface
- MAC and IP anti-spoofing
- Rogue ONT defense
- HTTP ONT management (this feature is supported on I-240W-P and I-241W-P ONTs)

> The ONT unit data sheets in question are for the following ONTs

- I-010G-P, I-020G-P, and I-040G-P
- I-111G-A and I-110G-A
- I-120G-P
- I-240G-P, I-241G-P, and I-241G-R
- I-240W-P, I-241W-P, and I-241W-R
- I-440G-P

> Unit data sheets for the I-010G-P, I-020G-P, I-110G-A, and I-120G-P ONTs incorrectly state support for a UPS.

> The ONT equipment layout chapter and two unit data sheets incorrectly state that the RF video connector on I-241G-R and I-241W-R ONTs is plugged and not used. The unit data sheets in question are for the following ONTs:

- I-240G-P, I-241G-P, and I-241G-R
- I-240W-P, I-241W-P, and I-241W-R

All of the incorrect information listed above will be corrected and published in a future release of the ONT *Production Information Manual*.

1.7 Release notation

This software package includes the operational software and release notes for the 7342 ISAM FTTU ONT R04.06.41 release as described in Table 4.

Product	Package part number/name	Part number (media only)	Related 5528 WAM package
ONT R04.06.41 software kit (physical CD-ROM) ONT R04.06.41 software kit (download ISO) ONT R04.06.41 software kit (download TAR)	3FE 52124 BEAA 3FE 52124 BEAB 3FE 52124 BEAC	–	–
The master CD contains:	–	3FE 52124 BEAA PMZZA	–
Files:			
ONT flat file that provides details of the release mapping for network management: ONT_Release_Mapping.txt			
Software:			
MEGACO-based ONTs			
I-120G-P	–	FE53214AOCA21	N/A
I-240G-P	–	FE53216AOCA21	N/A
I-440G-P	–	FE53216AOCA21	N/A
SIP-based ONTs			
I-120G-P	–	FE53215AOCA15	N/A
I-240G-P	–	FE53217AOCA13	N/A
I-440G-P	–	FE53217AOCA13	N/A
SoC-based data only ONTs			
I-020G-P	–	FE53214AOCA21	N/A
I-040G-P	–	FE53216AOCA21	N/A
Documentation:			
ONT Software Installation Procedures	–	3FE 52124 BEAA RJZZA	–
ONT Customer Release Notes	–	3FE 52124 BEAA DEZZA	–

Table 4 7342 ISAM FTTU ONT software kit

Table 5 lists the ONT RTU software license and part number.

Description	Part number

ONT R4.x ONT RTU, PFO	3FE 50976 BAAA

Table 5 7342 ISAM FTTU ONT RTU PFO software licence

For ordering information, contact your sales representative. For technical assistance with the software within North America, call +1 613-784-6100 or 1-888-252-2832. In Europe and the rest of the world, check for technical assistance telephone numbers at http://www.alcatel-lucent.com/support.

1.8 Software downloads

The OnLine Customer Support (OLCS) site gives you access to the product software packages. If you are a new user and require access to this service, please contact your Alcatel-Lucent sales representative.

To download software packages from the OLCS site, perform the following procedure:

1. Go to http://www.alcatel-lucent.com, and click on Sign In/Register (MyAccess).
1. Log in to the Alcatel-Lucent Customer and Business Partner Portals with the user name and password for your OLCS account. A customized Customer Center page opens.
2. Choose the product name from the Technical Content for drop-down menu.
3. Click on the Downloads: Electronic Delivery hyperlink.
4. Choose a software release from the drop-down menu, and click on the Next button. The page displays a drop-down menu that contains entries for all the software items associated with the selected software release.
5. Choose a software item from the drop-down menu, and click on the Next button. A software download page opens. This page contains detailed information about your software download, and gives you two download options.
6. Choose one of the following software download options:

a. Enter a Download Directory and choose a Log Detail Level (the options are Low, Medium, High), then click on the Download button to start the file transfer.

b. Click on the Download Plus button to start the file transfer with the GetPlus(R) download agent, and follow the instructions on the screen.

Note: The Download Plus button may not be available on the software download page. The system prompts you to install a browser plug-in to activate this download option, and provides you with installation instructions. Some browser versions do not support the Download Plus plug-in.

2 Application notes

This section lists important considerations and assumptions for operational behavior associated with Alcatel-Lucent 7342 ISAM FTTU ONT R04.06.41. Please also note that section 4 should be referred to for a list of known issues.

2.1 ONT hardware considerations and limitations

> The I-241W-P, I-240W-P, I-16160E-P, and I-24240E-P are documented in the 7342 ISAM FTTU ONT user documentation, but are not yet supported.

> The I-010G-P ONT is documented, but not supported in this release.

2.2 ONT services considerations and limitations

> ONTs delivered prior to the general availability have a pre-release SW. When upgrading to the general availability SW load, the ONTs may need to be reset.

> When VLAN translation feature is activated at the ONT and a service that uses the VLAN translation feature is associated with multiple pbits, the following is observed:

- The pbits are maintained in the upstream direction.
- In the downstream direction, the pbits are maintained from OLT to ONT. However, the pbit sent to the user from the ONT is always the highest pbit associated with that service.

2.3 I-120G-P, I-240G-P, I-440G-P, I-010G-P, I-020G-P, I-040G-P considerations and limitations

> ONTs cannot drop priority-tagged frames received on a UNI port in the upstream direction.

> The ONU UNI port cannot be configured with a default service where traffic is classified based on a wildcard UNI VLAN ID. This means that the UNI port cannot be configured with a default service. An example of a default service: UNI VLAN ID = wildcard and the network VLAN ID = 100. Based on this example, all traffic received which does not match an exact service should be forwarded based on the default service criteria. Instead, all traffic forwarded based on the default service would translate to the received VLAN ID of 100.

> The system-wide USERCVLANDEF value in PONIGMPSYS should override the channel-specific USERCVLAN value set in ENT-PONIGMPCHN. Currently, the

ENT-PONIGMPCHN value is used. See the PONIGMPCHN value in the *7342 ISAM FTTU TL1 Commands and Message* guide for more information.

> The pause MAC control operation as specified in Annex 31b of 802.3 is not supported.

> Priority tagged frames are treated as untagged frames.

> Remote debugging access to the ONT via SSH is not supported.

> Anti-spoofing support (MAC + IP) is not available.

> 802.1x is not supported.

> The ONTENET CVLANDEF value must be provisioned with an ID that does not match the UNISIDEVLAN value of any provisioned flow on the port. See the CVLANDEF and UNISIDEVLAN values in the *7342 ISAM FTTU TL1 Commands and Message* guide for more information.

> The OLT UNSTACKED mode is not supported.

> (I-040G-P and I-240G-P only) The MTU size for the I-040G-P and the I-240G-P is 1996 bytes.

> The ONTs support 12 GEM ports per Ethernet UNI.

> The ONTs support 7 T-CONTs, includes the OMCI T-CONT.

> For service provisioning, only flex mode HSI is supported by the ONTs. The legacy HSI mode is not supported.

> TPID: only a value of 0x8100 is supported.

> TPID overwrite is not supported (QoS marker profile).

> Ethernet OAM (802.1ag) is not supported.

> The ONTs depend on UNI port, VLAN-ID, and VLAN priority to classify the upstream flows. Ethertype and Ethertype + VLAN classification modes are not used. Therefore, after all VLAN operations are performed, packets may be mapped to different GEM ports if it at least one of the following conditions are true:

- they are from different UNIs
- the resulting VLAN IDs are different
- the resulting VLAN priorities are different

> IGMPv3 snooping without SSM is supported. IGMPv3 snooping with SSM is not supported.

- VLAN translation for multicast replication is not supported. The ONTs support the same VLAN operation for all Ethernet UNIs on the downstream multicast flow.
- Ethernet UNI is enabled by default the first time the ONTs are connected. The active Ethernet UNI can be disabled via the OLT.
- When UNTAGDS = XMITNOTAG for the TL1 command ENT-SERVICE-FLOW, if the OLT sends untagged packets downstream to the ONTs, the packets will be dropped by the ONTs. See the ENT-SERVICE-FLOW command in the *7342 ISAM FTTU TL1 Commands and Message* guide for more information.
- The ONTs depend on MAC learning for packet forwarding. Frames with an unknown destination address are still forwarded, but with a limited throughput of ~500 frames per second. In throughput tests, bi-directional traffic must be used or MAC addresses must be learned.
- Only four service flows (VLANs) can be enabled with pbit translation in an ONT.
- The ONTs do not support translation of the same UNISIDEVLAN, the same port, different pbit values into different NETWORKSIDEVLANs. For example, the following configuration is not supported:
  - UNI VLAN ID =100, pbit=1 -> ANI VLAN ID=200, pbit=1
  - UNI VLAN ID=100, pbit=2 -> ANI VLAN ID=300, pbit=2
- The ONTs do not support rate limiting of DHCP, ARP, and IGMP packets.
- The ONTs support eight extended VLAN operation rules per Ethernet UNI.

2.4 Voice (SIP and Megaco/H.248) considerations and limitations

The following apply to the voice ONTs I-120G-P, I-240G-P and I-440G-P:

- These ONTs do not support an Alcatel-Lucent XML file format download

The following voice features are not supported:

- Call history
- POTS metallic loop testing and pull-break dialtone test diagnostics
- Six-way calling
- Suppress ringing, dialtone timeout to zero, and direct connect URI
- SIP privacy header
- Message Waiting Indicator

- Configurable SIP local port number (fixed value is used)
- Far_end_symmetry, in the rfc2833_symmetric SIP provisioning parameter
- Enable_info_based_dmtf provisioning parameter

The following voice features limitations apply:

- Flash-hook signalling to the softswitch during active calls is terminated at the ONT instead of at the softswitch
- Caller ID data that is supposed to be available from the INVITE message during call waiting and ringing is not available.
- When an ONT is configured for Megaco service, and new SIP software is downloaded accidentally to the ONT and then the ONT is restarted, no configuration request failure alarm is raised, and vice versa.

2.5 Provisioning recommendations

POTS voice support for Megaco:

To ensure high quality delivery of Megaco-based VoIP services, Alcatel-Lucent recommends the following values for the bandwidth profile for each POTS line:

- Committed Information Rate (CIR) = 150 Kb/s
- Excess Information Rate (EIR) = 150 Kb/s
- Delay Tolerance (DT) = 8.

For multiple POTS lines providing Megaco-based VoIP service, use a multiple of the recommended per-line EIR and CIR values. For example, with 4 POTS lines, use CIR=600 Kb/s, EIR=600 Kb/s, and DT=8.

POTS voice support for SIP

To ensure high quality delivery of SIP-based VoIP services in SIP Mode 1 (thin client), Alcatel-Lucent recommends the following values for the bandwidth profile for each POTS line:

- Committed Information Rate (CIR) = 150 Kb/s
- Excess Information Rate (EIR) = 150 Kb/s
- Delay Tolerance (DT) = 8.

For multiple POTS lines providing SIP-based VoIP service in SIP Mode 1, use a multiple of the recommended per-line EIR and CIR values. For example, with 4 POTS lines, use CIR=600 Kb/s, EIR=600 Kb/s, and DT=8.

For SIP Mode 2 (thick client), Alcatel-Lucent recommends the following higher values for the bandwidth profile for each POTS line:

- Committed Information Rate (CIR) = 250 Kb/s
- Excess Information Rate (EIR) = 250 Kb/s
- Delay Tolerance (DT) = 8.

For multiple POTS lines providing SIP-based VoIP service in SIP Mode 2, use a multiple of the recommended per-line EIR and CIR values. For example, with 4 POTS lines, use CIR=1000 Kb/s, EIR=1000 Kb/s, and DT=8.

HSI:

Alcatel-Lucent recommends using DT = 8 for all HSI service configurations for optimal QoS performance.

Multicast support:

> The ONTs only supports customer-configured multicast streams. IGMP reports sent for unconfigured multicast streams increment the counter that indicates the maximum number of multicast streams allowed in the ONT. IGMP reports for unconfigured streams must be quiescent for the default 260 seconds before the counter is decremented.

2.6 ONT issue notes and common functionalities for this release

> **WARNING:** If software that is not intended for use on the ONT is downloaded and activated, the ONT will not operate normally. Functionality of this device may be terminated, requiring unit replacement.

> Due to a file naming restriction in the NT file system, only 13-character file names can be accommodated, even though 14-character software version names are supported by the ONTs as per G.983.2. All valid ONT software version names are 14 characters, beginning with the character “3”. When provisioning a software version for an ONT using TL1, it is necessary to add the character “3” to the beginning of the ONT software file name.

> The REPT-OPSTAT-ONTANI Tl1 command, used to determine the received optical power of the ONT, only works for RSSI-enabled ONTs. See the OPSTAT-

ONTANI value in the *7342 ISAM FTTU TL1 Commands and Messages* guide for more information.

> Before doing a rollback of the 7342 ISAM FTTU P-OLT, you must plan the ONT software version to its base release software version. Performing a roll back on the P-OLT will then activate the base release ONT software and when the system comes up with the rolled-back P-OLT base release, the ONT will be in an IS state.

> The INACT alarm is reported against the ONT for many conditions such LOS, LOA, LCD, PEE, SUF, SD, ONTDISABLED, MEM, INACT, LOF, SF, DF, LOAM, DOW, RDI, and LOKS. All these conditions trigger the same INACT alarm. The TL1 command REPT-OPSTAT-ONT can help the operator figure out exactly the particular alarm that triggered the INACT alarm. Refer to the *TL1 Commands and Messages Manual* for syntax of the REPT-OPSTAT-ONT command.

> For H.248 /GR303 service, the dial tone is absent if one of the following occurs:

1. An ONT is locked.
2. A POTS card is locked.
3. A POTS port is locked.
4. The VoIP client is locked.

For SIP VoIP service, the dial tone is present for 10 minutes longer if the VoIP client is locked, but no calls can be originated and terminated during this time.

3 Hardware and software compatibility

3.1 Software compatibility

Table 6 lists the software that is compatible with ONT 04.06.41.

P-OLT software	R04.06.08 and R04.06.09
ONT software	R04.06.41

Table 6 Software compatibility

3.2 Hardware ONT mnemonics, part numbers, and regional applicability

Table 7 lists the ONT hardware that is compatible with the current system. The regional applicability is ANSI (for ANSI applicable HW), ETSI (for ETSI applicable HW), and both (for HW applicable to both ANSI and ETSI).

Hardware mnemonic	ANSI, ETSI, or both	Regional variant	Hardware part number	Raman reduction support?
I-010G-P	ETSI	EU	3FE52957AA	N/A
I-010G-P	ETSI	AU	3FE52957AD	N/A
I-010G-P	ETSI	UK	3FE52957AE	N/A
I-020G-P	ETSI	EU	3FE52957AB	N/A
I-020G-P	ETSI	AU	3FE52957AF	N/A
I-020G-P	ETSI	UK	3FE52957AG	N/A
I-040G-P	ETSI	EU	3FE52957AC	N/A
I-040G-P	ETSI	AU	3FE52957AH	N/A
I-040G-P	ETSI	UK	3FE52957AJ	N/A
I-120G-P	ETSI	EU	3FE52959AB	N/A
I-120G-P	ETSI	AU	3FE52959AL	N/A
I-120G-P	ETSI	UK	3FE52959AM	N/A
I-240G-P	ETSI	EU	3FE52959AC	N/A
I-240G-P	ETSI	AU	3FE52959AN	N/A
I-240G-P	ETSI	UK	3FE52859AP	N/A
I-440G-P	ETSI	EU *	3FE52959AG	N/A
I-440G-P	ETSI	AU *	3FE52959AQ	N/A
I-440G-P	ETSI	UK *	3FE52959AR	N/A
I-440G-P (customer specific variant)	ETSI	UK	3FE52959AT	N/A

Table 7 Hardware compatibility

NOTE: * ONT availability is subject to interoperability test scheduling. Please contact your Alcatel-Lucent 7342 ISAM FTTU product management support representative.

Additional information can be found in *ONT Product Information Manual.*

4 Open issues

Items identified in this section are known open issues at the time of release of this document. Each open issue is tracked by one or more problem tracking numbers. Problems are tracked by CTR number, if applicable, or by Alcatel-Lucent internal problem report numbers.

4.1 Critical issues

There are no critical open issues.

4.2 Major issues

There are no major open issues.

4.3 Minor issues

The minor open issues for ONT R04.06.41 are listed in the Table 8.

Problem #	Description	ONT applicability	HW note	SW note
BDFam57793	ONTCARD always appears in service.	I-120G-P I-240G-P I-440G-P I-010G-P I-020G-P I-040G-P		
BDFam58062	Two 15 minute intervals required before retrieving performance monitoring history counters.	I-120G-P I-240G-P I-440G-P I-010G-P I-020G-P I-040G-P		
BDFam57751	When NUMTAGS = SINGLE parameter is configured in "ENT-SERVICE-FLOW", double and triple tagged packets are not dropped.	I-120G-P I-240G-P I-440G-P I-010G-P I-020G-P I-040G-P		
BDFam57777	IGMP is not supported when the VLAN is configured in cross-connect mode.	I-120G-P I-240G-P I-440G-P I-010G-P I-020G-P I-040G-P		
BDFam57593	Multicast over PPPoE is not supported in either half-proxy or full PPPoE mode.	I-120G-P I-240G-P I-440G-P I-010G-P I-020G-P I-040G-P		

Problem #	Description	ONT applicability	HW note	SW note
BDFam57568	Static multicast is not supported.	I-120G-P I-240G-P I-440G-P I-010G-P I-020G-P I-040G-P		
BDFam57694	An additional tag is added to packets sent upstream when the VLAN is not configured on the OLT.	I-120G-P I-240G-P I-440G-P I-010G-P I-020G-P I-040G-P		
BDFam57904	The following auto-negotiation modes are not supported: • 10_100_1000BASETAUTO • 1000BASETHD • AUTOFD • AUTOHD • 100BASETAUTO • 1000BASETAUTO ONTENET does not come into service when the AUTODETECT mode is changed from an unsupported mode to a supported mode. **Workaround**: Delete the ONTENET configuration and reprovision	I-120G-P I-240G-P I-440G-P I-010G-P I-020G-P I-040G-P		
BDFam58235	LEVELHI and LEVELLO alarms indicating optical signal strength are not supported.	I-120G-P I-240G-P I-440G-P I-010G-P I-020G-P I-040G-P		
BDFam58151	VoIP DSCP and CoS are statically configured on these ONTs.	I-120G-P I-240G-P I-440G-P I-010G-P I-020G-P I-040G-P		

Table 8 Minor open issues

5 Closed issues

Table 9 addresses issues that have been identified through customer CTRs or Alcatel-Lucent DDTSs and resolved in this release and those that were resolved in past releases.

Problem #	Sev	Description	ONT applicability	HW note	SW note	Country applicability
ONT R04.06.41						
None; this release introduces the I-120G-P, I-240G-P, and the I-440G-P						

Table 9 Closed issues

6 TL1 and CLI command changes

For a list of new, deleted, or changed TL1 commands, see "Table 38 New, modified, or removed TL1 commands for FGU 4.6" section of the Alcatel-Lucent 7342 ISAM FTTU TL1 Commands and Messages document. For a list of applicable CLI commands, see the "History" section of the Alcatel-Lucent 7342 ISAM FTTU CLI Commands document.

7 Terms and abbreviations

Table 10 lists the terms and abbreviations used in this Customer Release Notice.

Acronym or term	Expansion or definition
AES	Advanced Encryption Standard
AIS	Alarm Indicator Signal
AMS	Access Management System
ANI	Access Node Interface
ANSI	American National Standards Institute
ARP	Address Resolution Protocol
AU	Australia/China
BITS	Building Integrated Timing Source
CFR	Code of Federal Regulations
CLI	Command Line Interface
CoS	Class of Service
CR or Critical issues	Critical problems that severely affect service, capacity/traffic, billing, and maintenance capabilities.

Acronym or term	Expansion or definition
CRN	Customer Release Notes
CTR	Customer Ticket Reference
D.H.H.S.	Department of Health and Human Services
DHCP	Dynamic Host Control Protocol
DSCP	Differentiated Services Code Point
ETSI	European Telecommunications Standards Institute
EU	European Union
FCC	Federal Communications Commission
FEC	Forward Error Correction
FTTU	Fiber to the User
GE	Gigabit Ethernet
GEM	Generic Encapsulation Method
GLT2	GPON Line Termination card with 2 PONs
HIS	High Speed Internet
IBV	In-band Video
IGMP	Internet Group Management Protocol
IP	Internet Protocol
IPTV	Internet Protocol Television
IS	In Service
ISAM	Intelligent Services Access Manager
LAG	Link Aggregation Group
LT	Line Termination
MAC	Media Access Control
MJ or Major issues	Major problems that cause conditions that seriously affect system operation, maintenance, and administration, etc. The urgency is less than in level 1/critical situations because of a lesser immediate or impending effect in system performance, customers, and the customer's operation and revenue.
MN or Minor issues	Minor problems do not significantly impair the functioning of the system and do not significantly affect service to customers.
MTU	Maximum Transmission Unit
NE	Network element
NEBS	Network Equipment Building System
NG	Next Generation ONTs
NSIT	Network Systems Integration Testing
NT	Network Termination
OAM	Operations, Administration, and Maintenance
ODN	Optical Data Network
OLT	Optical Line Termination (also referred to as P-OLT)
OMCI	ONT Management Control Interface
ONT	Optical Network Terminal

Acronym or term	Expansion or definition
ORL	Optical Return Loss
OSWP	Overall Software Package
P-OLT	Packet-Optical Line Termination (also referred to as OLT)
Pbit	Priority bit
PON	Passive Optical Network
PPPoE	Point-to-point Protocol over Ethernet
PQ	Priority queue
PFO	Premium Feature Option
QoS	Quality of Service
RSTP	Rapid Spanning Tree Protocol
RADIUS	Remote Authentication Dial-In User Service
RMA	Return Material Authorization
RSSI	Received Signal Strength Indicator
RTU	Right to use
SFTP	Secure File Transfer Protocol
SHub	Service Hub (also known as LANX)
SNMP	Simple Network Management Protocol
SoC	System on Chip
SSH	Secure Shell
STP	Spanning Tree Protocol
SWCAP	Loss of switch over capability
TFTP	Trivial File Transfer Protocol
TL1	Transaction Language 1
TPID	Tag protocol identifier
UK	United Kingdom
UL	Underwriters Laboratories, Inc.
UNI	User-Network Interface
VLAN	Virtual bridged Local Area Network

Table 10 Terms and abbreviations