# Converters LTA41/LTA31M

**Fast Ethernet**



## Fiber Local Traffic Aggregators

The **LTA41** is a traffic aggregation device allowing four TP local users to share a single fiber link thus saving up to 75% on active and passive network infrastructure. Ideal applications are FTTD (Fiber to the Desk) where several users occupy an office and FTTH (Fiber to the Home) where several subscribers may be located in same multi-tenant building or even on the same floor. The device utilizes **BMD** (Buffered Media Domain) technology to allow connection of a variety of local users (PCs, hubs, switches, 10, 100Mbps etc) without the need to qualify the network or perform PDV calculations prior to the deployment of the F/O link. This is a real asset in FTTH projects as users are widely dispersed and have a large and unpredicted variety of equipment.

The BMD along with VLANs implemented in the device provide a basic level of security and separation between the users as they allow only traffic between each user and the F/O link, thereby blocking traffic between users.

The fiber link implements **FEF** (Far End Fault signaling) to provide a true 2-way link integrity indication and together with the TEST switch - a powerful diagnostic tool.

The LTA41 is available in a variety of multi-mode and single-mode fiber interfaces (distances up to 150km) as well as single-fiber-strand (with full bi-directional traffic) models.

The device is standard "half-rack" size for economical installation in both rack-mount and desk-top modes. It is equipped with a reliable internal switching power supply for extended MTBF. The optional DC power supply facilitates deployment in Telco environments.

The **LTA31M** is a SNMP managed in-band version providing connection for 3 users. In addition to common monitoring functions, the service provider can control remotely mode, allowed to subscribers. When ordered with the ETR option, the device will operate at a wide temperature range of $-10^0$C to $+70^0$C for many outdoor applications.

## Key Features

- 4:1 traffic aggregation for 75% savings (LTA31M: 3:1 traffic aggregation)
- VLANs for users separation
- Easy deployment - connects to any network equipment
- Extensive remote monitoring and control
- Distances up to 150km
- Single - Fiber - Strand option - Bi-Di traffic
- Extended Temperature Range option for industrial deployment

## Management Functions (LTA31M)

**The Device Main Menu** includes the following options:
1. Device Status 2. Device Control .3 Software version control

**The Device Status** includes Basic ports Status and Advanced status
**Basic port's status** provides the following information about each port:
Port number, Interface type (TP/FO), Link status (On/Off), Duplex mode (FDX/HDX), Auto negotiation mode, Data rate (10/100M) connection, VLAN mode (en/disabled)
Device's temperature (in centigrade)

**The device's advanced status** consists of: Test mode (FEF disable/enable), Priority ratio (always hi/10:1/5:1/2:1), Broadcast protection (25/12/6/3%), DSCP codes (64 bits), User priority classification (7 priority codes, set as high or low priority)

**The device control menu** enables the user to change the different setting and configuration of the LTA31M:TPx port control (x=1,2,3,4), Device reset, Basic device control, Advanced device control and Management control

## General Specifications

**Standard Compliance**
IEEE802.3u, 100Base-TX, 10Base-T, 100Base-FX
VLAN per port
**10/100Base-TX Ports 1÷4 (1÷3 in LTA31M)**
Shielded RJ-45, Auto-Cross, auto-polarity 100m over STP cat.5 or higher cable
HDX/FDX via auto-negotiation or forced (DIP)
10Base-T auto-negotiation or forced (DIP)
**Diagnostic LEDs per Port**
FX port: Link/Activity, FDX
TX ports (each): Link/Activity, FDX, 100M
**Diagnostics per System**
Power, Link Test
**Management (LTA31M):** RS232 (miniDIN) terminal connector.
LEDs: RCV, Ready

**Conversion Method**
BMD (Buffered Media Domain), Full wire speed, 1000 MAC addresses, FDX flow control, HDX back-pressure flow control
**100Base-FX Port**
Duplex SC connector (ST optional)
Far End Fault Signaling; HDX/FDX selection
1310nm multi-mode - -18dbm min. output power, -32dbm or better sensitivity
Optional single-mode for 7/15/25/40/70/100/150km
Single Fiber Strand (/SMRF1x) models
**Controls (DIP switches)**
FX port: FDX/HDX, Far End Fault enable/disable
TX port #4:10/100, FDX/HDX, A/N enable-disable
TX ports 1÷3: Auto-negotiation /forced FDX-10Mb
VLAN ports enable/disable
Reset device

## Environmental and Physical

**Power-Supply**
Internal, 100÷240VAC, 50÷60Hz
Optional DC PS (-36÷-72VDC)
**Operating Temperature**
$0^0 \div 45^0$C; ETR = $-10^0 \div +70^0$C optional
**Humidity**
10%÷90% non-condensing
**Safety**
UL 60950, EN 60950
**EMC**
FCC part 15, subpart A, Class B, VCCI Class A
ICES 003:1997, Class A, EMC Directive 89/336/EEC

**Power Consumption**
15W max.
**Storage Temperature**
$-20^0 \div +80^0$ C
**Weight**
600gram
**Dimensions**
223x44x150mm (WxHxD)
**Management (LTA31M only)**
Management (LTA31M only)
Out-of band (RS232 Port, terminal emulation)
In band SNMP management and Telnet

## Ordering Information

| | | |
|---|---|---|
| B104 | LTA41 | 4x10/100Base-TX to 100Base-FX, MM, 2km 1310nm, 4x RJ45 ports (switched, VLAN) and Duplex SC |
| B174 | LTA41/T | 4x10/100Base-TX to 100Base-FX, MM, 2km 1310nm, 4x RJ45 ports (switched, VLAN) and Duplex ST |
| B108 | LTA41/SMR7 | 4x10/100Base-TX to 100Base-FX, SM, 7km 1310nm, 4x RJ45 ports (switched, VLAN) and Duplex SC |
| B109 | LTA41/SMR | 4x10/100Base-TX to 100Base-FX, SM, 15km 1310nm, 4x RJ45 ports (switched, VLAN) and Duplex SC |
| B110 | LTA41/SM | 4x10/100Base-TX to 100Base-FX, SM, 25km 1310nm, 4x RJ45 ports (switched, VLAN) and Duplex SC |
| B111 | LTA41/SM/L | 4x10/100Base-TX to 100Base-FX,SM, 40km 1310nm, 4x RJ45 ports(switched, VLAN) and Duplex SC |
| B112 | LTA41/SM/L2 | 4x10/100Base-TX to 100Base-FX, SM, 70km 1310nm, 4x RJ45 ports (switched, VLAN) and Duplex SC |
| B113 | LTA41/SMRF13 | 4x10/100Base-TX to 100Base-FX, SM, SFS, 15km 1310nm Tx/ 1550nm Rx, 4x RJ45 ports (switched, VLAN) and single SC connector |
| B105 | LTA31M | 3x10/100Base-TX to 100Base-FX, MM, 2km 1310nm, 3x RJ45 ports (switched, VLAN), Duplex SC, SNMP Managed |
| B175 | LTA31M/T | 3x10/100Base-TX to 100Base-FX, MM, 2km 1310nm, 3x RJ45 (switched, VLAN) , Duplex ST, SNMP Managed |
| B114 | LTA31M/SMR7 | 3x10/100Base-TX to 100Base-FX, SM, 7km 1310nm, 3x RJ45 (switched, VLAN) , Duplex SC, SNMP Managed |
| B115 | LTA31M/SMR | 3x10/100Base-TX to 100Base-FX, SM, 15km 1310nm, 3x RJ45 (switched, VLAN), Duplex SC, SNMP Managed |
| B116 | LTA31M/SM | 3x10/100Base-TX to 100Base-FX,, SM, 25km 1310nm, 3x RJ45 (switched, VLAN), Duplex SC, SNMP Managed |
| B117 | LTA31M/SM/L | 3x10/100Base-TX to 100Base-FX,, SM, 25km 1310nm, 3x RJ45 (switched, VLAN), Duplex SC SM, 40km 1310nm, 3x RJ45 (switched, VLAN), Duplex SC, SNMP Managed |
| B118 | LTA31M/SM/L2 | 3x10/100Base-TX to 100Base-FX,, SM, 25km 1310nm, 3x RJ45 (switched, VLAN), Duplex SC SM, 70km 1310nm, 3x RJ45 (switched, VLAN), Duplex SC, SNMP Managed |
| B119 | LTA31M/SMRF13 | 3x10/100Base-TX to 100Base-FX,, SM, 25km 1310nm, 3x RJ45 (switched, VLAN), Duplex SC SM, SFS, 15km 1310nm Tx/ 1550nm Rx, 3x RJ45 ports (switched, VLAN) and single SC connector, SNMP Managed |
| B097 | PS48 | -36÷72VDC power supply for LTAxx (instead of the 100÷240VAC, 50÷60Hz PS) |
| B098 | ETR | Extended Temperature Range option for LTAxx devices |
| B160 | RM2 | 19" Rack shelf, for installation of up to 2 LTAxx devices |

*Specifications are subject to change w/without prior notice*