



Fast Ethernet



4:1 Fiber Local Traffic Aggregator

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, 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.

It 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 compact yet robust enclosure allows installation as desk-top, shelf-mounted, wall-mounted or directly in a half 19" rack. 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 and also disconnect a "non-paying" user. When ordered with the ETR option, the device will operate at a wide temperature range of -10°C to +70°C for many outdoor applications.

Key Features

- 4:1 traffic aggregation for 75% savings
- VLANs for users separation
- Trouble-free deployment - connects to any network equipment
- FEF and TEST mode for enhanced diagnostics
- Extensive remote monitoring and Control
- Distances up to 150km
- Single - Fiber - Strand option Bi-Di traffic
- Extended Temperature Range option for outdoor deployment

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 UTP/STP cat.5 or higher cable
HDX/FDX via auto-negotiation or forced (DIP)
10Base-T auto-negotiation or forced (DIP)

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 - see separate table
Single Fiber Strand (/SMF1x) models

Conversion Method

BMD™ (Buffered Media Domain), Full wire speed,
1000 MAC addresses, FDX flow control, HDX back-
pressure flow control

Diagnostics**per port:**

FX port: Link/Activity, FDX
TX ports (each): Link/Activity, FDX, 100

per system:

Power, Link Test

Controls

FX port: FDX/HDX, Test
TX port #4:10/100, FDX/HDX, A/N enable-disable
TX ports 1÷3: Auto-negotiation /FDX-10

Management Section

RS232 (miniDIN) terminal connector
LEDs: RCV, Ready
See data sheet of LTA31M (DSB105)

Environmental and Physical

Power-Supply

Internal, 100÷240VAC, 50÷60Hz
-36÷72VDC optional

Power Consumption

15W max.

Operating Temperature

0°÷45°C, ETR = -10°÷+70°C optional

Storage Temperature

-20°÷+80°C

Humidity

10%÷90% non-condensing

Weight

600gram

Safety

UL 1950:1955, EN 60950

Dimensions

223x44x150mm (WxHxD)

EMC

FCC part 15, subpart A, Class A, VCCI Class A
ICES 003:1997, Class A, EMC Directive 89/336/EEC

Ordering Information

LTA41	4:1 Local traffic aggregator, m/m 2km 1310nm, dual SC
LTA41/SMR7	4:1 Local traffic aggregator, s/m 7km 1310nm, dual SC
LTA41/SMR	4:1 Local traffic aggregator, s/m 15km 1310nm, dual SC
LTA41/SM	4:1 Local traffic aggregator, s/m 25km 1310nm, dual SC
LTA41/SM/L	4:1 Local traffic aggregator, s/m 40km 1310nm, dual SC
LTA41/SM/L2	4:1 Local traffic aggregator, s/m 70km 1310nm, dual SC
LTA41/SMRF13	4:1 Local traffic aggregator, s/m 15km 1310nm Transmit/ 1550nm Receive, single SC
LTA31M	3:1 Managed Local traffic aggregator, m/m 2km 1310nm, dual SC
LTA31M/SMR7	3:1 Managed Local traffic aggregator, s/m 7km 1310nm, dual SC
LTA31M/SMR	3:1 Managed Local traffic aggregator, s/m 15km 1310nm, dual SC
LTA31M/SM	3:1 Managed Local traffic aggregator, s/m 25km 1310nm, dual SC
LTA31M/SM/L	3:1 Managed Local traffic aggregator, s/m 40km 1310nm, dual SC
LTA31M/SM/L2	3:1 Managed Local traffic aggregator, s/m 70km 1310nm, dual SC
LTA31M/SMRF13	3:1 Managed Local traffic aggregator, s/m 15km 1310nm Transmit / 1550nm Receive, single SC
PS48	-36÷72VDC power supply for LTAxxx (instead of the 100÷240VAC, 50÷60Hz PS)
ETR	Extended Temperature Range option for LTAxxx

Specifications subject to change without prior notice

International:

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