



Managed 4:1 Fiber Local Traffic Aggregator

The **LTA41/MA** is an In-Band managed 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 networks 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 physical 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 **SLE** (Subscriber

Link Emulation), Loop-Back and Last Gasp - a set of powerful diagnostic tools is provided. The **LTA41/MA** 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 **LTA41/MA** 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 **LTA41/MA** is an **MA™** enabled device: when connected over fiber to another **MA™** enabled device (**MetroStar** or F.CON16/MA or F.CON12/MA/TL) it may be remotely in-band managed without the need of an expensive SNMP agent and IP address. In addition, this management architecture ensures full security as the management signals are physically confined into the fiber-link, not allowing the subscriber access of any kind. **Rate Limiting**, **Loop-Back** and **Last Gasp**, are unique features making the **LTA41/MA** the absolute choice for quality FTTH networks.

Key Features

- 4:1 traffic aggregation for 75% savings
- VLANs (per port and tagging) for users separation
- Trouble-free deployment - connects to any network equipment
- FEF and SLE for enhanced diagnostics
- Extensive remote Monitoring and Control via **MA™**
- Distances up to 150km
- Single - Fiber - Strand versions
- Rate Limiting for comprehensive SLA implementation

General Specifications

Standard Compliance

IEEE802.3u, 100Base-TX, 10Base-T, 100Base-FX
VLAN per port, VLAN Tagging/Routing, IEEE802.1p&q,
Frame Size: 1916 bytes max., 1K MAC Addresses

10/100Base-TX ports 1+4

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)

Diagnostics per Port

FX Port: Link/Activity
TX Ports (each): Link/Activity, FDX, 100

Diagnostics per System

Power, MA Active

Conversion Method

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

100Base-FX port

Duplex SC connector (ST optional)
Far End Fault Signaling
1310nm multi-mode - -18dbm min. output power,
-32dbm or better sensitivity
For s/m and SFS versions see DS-SM

Controls (DIP Switches)

FX port: FEF enable/disable
TX port #4:10/100, FDX/HDX, A/N enable-disable
TX ports #1: 3: Auto-negotiation /FDX-10
System: Aggregator/Switch selection, Reset device

Remote Management Functions:

Monitor all ports status, force speed and duplex modes, rate limiting up-and downstream per port, Loop-Back, Last Gasp, Port connect - disconnect, set VID, set VLAN per port, Set FEF mode, Fiber-Link Integrity, Reset Device, set SLE mode, Extensive MIB counters, Broadcast/multicast storm limiting, hi-error rate alerts, MAC address table operations, Auto-cross enable/disable.

Environmental and Physical

Power-Supply

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

Operating Temperature

0° ÷ +45°C, ETR = -10° ÷ +70°C (optional)

Humidity:

10% ÷ 90% non-condensing

Safety

Complies with UL 1950:1995, EN 60950

EMC

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

Power Consumption

12 Watts max.

Storage Temperature

-20° ÷ +80°C

Weight

600 gram max.

Dimensions

223x44x150mm (WxHxD)

Installation Modes

Desk-Top, Wall-Mount, Half Rack, 19" shelf

Ordering Information

Part #	Model	Description
3201	LTA41/MA	4:1 Local traffic aggregator, m/m 2km 1310nm, dual SC, MA™ managed
3202	LTA41/MA/SMR7	4:1 Local traffic aggregator, s/m 7km 1310nm, dual SC, MA™ managed
3203	LTA41/MA/SMR	4:1 Local traffic aggregator, s/m 15km 1310nm, dual SC, MA™ managed
3204	LTA41/MA/SM	4:1 Local traffic aggregator, s/m 25km 1310nm, dual SC, MA™ managed
3205	LTA41/MA/SM/L	4:1 Local traffic aggregator, s/m 40km 1310nm, dual SC, MA™ managed
3206	LTA41/MA/SM/L2	4:1 Local traffic aggregator, s/m 70km 1310nm, dual SC, MA™ managed
3207	LTA41/MA/SMRF13	4:1 Local traffic aggregator, s/m 15km 1310nm Transmit/1550nm Receive, single SC, MA™ managed
B097	PS48	-36 ÷ -72VDC power supply for LTA41/MA (instead of the 100 ÷ 240VAC, 50 ÷ 60Hz PS)
B098	ETR	Extended Temperature Range option for LTA41/MA

Specifications subject to change without prior notice

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