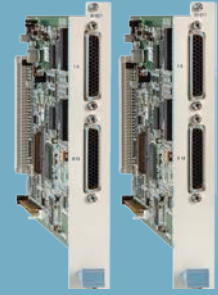


Megaplex-4

M16E1, M16T1

16-Port E1 and T1 Modules



- Up to 16 E1 or T1 interfaces
- E1 interface compliant with ITU-T Rec. G.703, G.704 and G.732
- T1 interface compatible with ANSI requirements
- Multiple clock source selection
- Up to 160 E1/T1 links in a single MP-4100 chassis
- IEEE-1613 compliant options

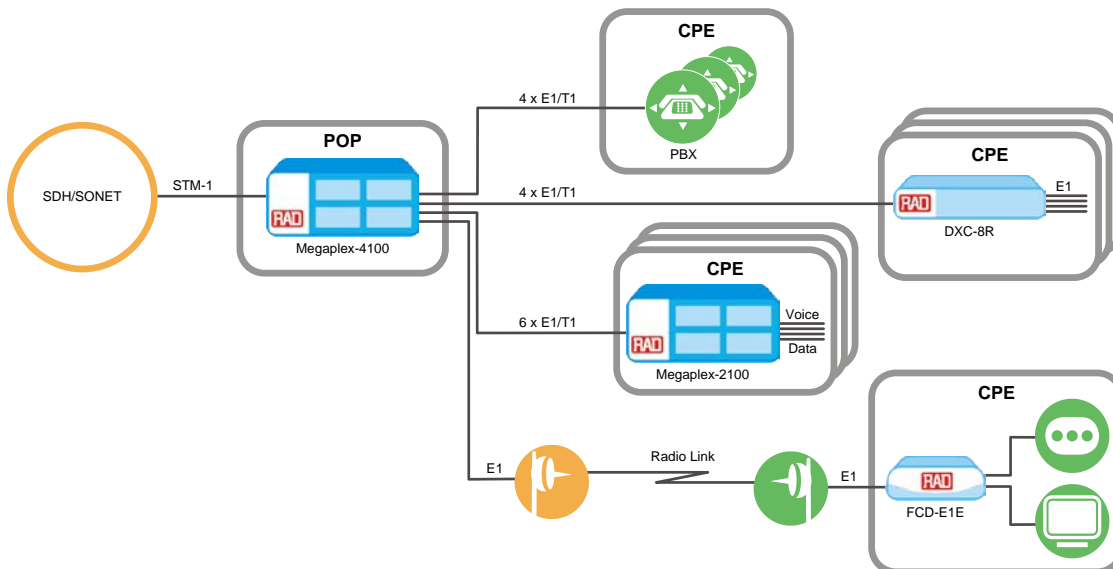
The M16E1 and M16T1 modules enable direct connection of Megaplex-4 to up to 16 E1 or T1 lines. Up to 10 modules can be installed in a single Megaplex-4100 chassis, providing it with up to 160 E1/T1 ports. The compact Megaplex-4104 chassis accommodates up to 4 modules, providing up to 64 E1/T1 ports.

The M16E1, M16T1 modules have 16 independently configurable E1/T1 external ports. The E1 interface is compatible with all carrier-provided E1 services, meeting the requirements of ITU-T Rec. G.703, G.704 and G.732.

It operates in both 2 (G732N) and 16 (G732S) frames per multiframe formats, as well as in unframed mode. CRC-4 and E-bit are also supported, complying with G.704 recommendations. Zero suppression over the line is HDB3.

The T1 interface is compatible with ANSI requirements. Both D4 and ESF framing formats are supported. Zero suppression is selectable for Transparent, B7, or B8ZS.

Diagnostic capabilities include local and remote loopbacks and BER test on the E1/T1 ports and inband code-activated loopbacks specified in ANSI T1E1.2/93-003 (T1 interface only). Performance statistics for the E1/T1 ports may be obtained and analyzed via the Megaplex management system.



E1/T1 Cross-Connect and Access to SDH/SONET Networks



M16E1, M16T1

16-Port E1 and T1 Modules

Specifications

E1 INTERFACE

Compliance

ITU-T G.703, G.704, G.732 (Including CRC-4 and E bit)

Connectors

Dual DB-44, female for channels 1-8 and 9-16 (see *Ordering* for cables available from RAD)

Framing

2 frames (G732N), or 16 frames (G732S) per multiframe, with or without CRC-4

Unframed

Data Rate (per link)

2.048 Mbps

Line Code

HDB3

Jitter Performance

As per ITU-T G.823

Impedance

Balanced 4-wire: 120 Ω

Unbalanced coax: 75 Ω

Signal Level

Receive: 0 to -12 dBm

Transmit:

Balanced: $\pm 3V$ ($\pm 10\%$)

Unbalanced: $\pm 2.37V$ ($\pm 10\%$)

T1 INTERFACE

Compliance

ANSI T1.107 and T1.403

Connectors

Dual DB-44, female for channels 1-8 and 9-16 (see *Ordering* for cables available from RAD)

Framing

D4, ESF

Data Rate (per link)

1.544 Mbps

Line Code

Bipolar AMI

Zero Suppression

Transparent, B7, B8ZS

Signal Level

Receive: 0 to -12 dBm

Transmit: 0.6, 1.2, 1.8, 2.4, 3.0 dBm user-adjustable, measured at 0 to 655 ft

Jitter Performance

As per AT&T TR-62411

Impedance

Balanced 4-wire: 100 Ω

RESILIENCY

Dual-cable protection with parallel transmission, for E1/T1 ports both on the same module and on different modules

TDM ring protection for ports participating in a ring

I/O group protection on the module level

DIAGNOSTICS

Loopbacks

User-activated local and remote loopback on each port

BER test on each port

Local and remote loopbacks per timeslot

T1 interface only:

Network line loopback

Network payload loopback

Statistics

Full statistical diagnostics capability according to ANSI T1.403

M16E1, M16T1

16-Port E1 and T1 Modules

GENERAL

Environment

Operating temperature:

- Regular: -10°C to 55°C (14°F to 131°F)
- IEEE-1613 certified options: -20°C to 55°C (-4°F to 131°F)

Storage temperature: -20°C to +70°C (-4°F to +160°F)

Humidity: up to 95%, non-condensing

Power Consumption

10.5W

Ordering

RECOMMENDED CONFIGURATIONS

MP-4100M-16E1

16-port E1 module

MP-4100M-16T1

16-port T1 module

SPECIAL CONFIGURATIONS

Please contact your local RAD partner for additional configuration options.

OPTIONAL ACCESSORIES

CBL-G703-8/RJ45/ST

Splitter cable for splitting each 44-pin module connector to 8 E1 or 8 T1 balanced RJ-45 connectors

CBL-G703-8/RJ45/X

Splitter cross-cable for splitting each 44-pin module connector to 8 E1 or 8 T1 balanced RJ-45 connectors

CBL-G703-8/COAX

Splitter cable for splitting each 44-pin M16E1 module connector to 8 pairs of unbalanced BNC connectors

CBL-G703-8/OPEN/2M

Open-ended cable with DB-44 connector on the Megaplex side for balanced E1 or T1 applications

CBL-G703-8/RJ45/Y

Splitter cable for splitting the 44-pin module connector to 8 E1 or 8 T1 balanced RJ-45 connectors, for providing I/O group protection

All cables are 2m (6.6 ft) long.

International Headquarters

24 Raoul Wallenberg St., Tel Aviv 6971923, Israel
Tel 972-3-6458181 | Fax 972-3-7604732
Email market@rad.com

North American Headquarters

900 Corporate Drive, Mahwah, NJ 07430, USA
Tel 201-529-1100 | Toll Free: 800-444-7234 | Fax: 201-529-5777
Email market@radusa.com



Your Network's Edge®

www.rad.com

464-142-10/22 Specifications are subject to change without prior notice. © 1988–2022 RAD Data Communications Ltd. RAD products/technologies are protected by registered patents. To review specifically which product is covered by which patent, please see ipr.rad.com. The RAD name, logo, logotype, and the product names MiNID, Optimux, Airmux, IPmux, and MiCLK are registered trademarks of RAD Data Communications Ltd. All other trademarks are the property of their respective holders.