DM16E1 and DM4E1.
A versatile and compact PDH solution for fiber and E1 connections.

DM16E1/DM4E1 is a compact multiplexer based on Plesiochronous Digital Hierarchy (PDH).

The solution's wide variety of settings and interfaces provides support for different applications in PDH networks based on both fiber and Ethernet. It offers flexible mapping, usage capability as an Inverse Multiplexer, optical modem and interface regenerator/converter.

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DM16E1/DM4E1

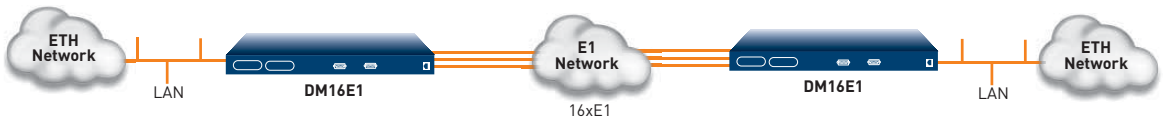
Characteristics

- 1.5U high chassis for 19” racks.
- 16 E1 tributaries (4 tributaries in the DM4E1) at 75ohms or 120ohms according to G.703.
- 2 electrical or optical (G.704) E3 aggregates.
- Optional Remote Bridge Ethernet (10/100BaseT) interface.
- Optional internal electrical E3 tributary interface in conformity with G.703/G.704.
- 1 V.11 interface (V.35 compatible), capable of operating at Nx 64kbit/s rates.
- Mixed-ring operations with DM16E1 and DM4E1, as well as flexible mapping of tributaries.
- Inverse Multiplexer point-to-point topology operating at Nx 2Mbit/s rates.
- Bridge 100M point-to-point topology to transfer Ethernet data from the Bridge interface, at up to a 100Mbit/s rate, maintaining more than 16 channels available for mapping TDM interfaces (G.703, V.11 or Router).
- Configurable operation topology, which allows the use as point-to-point, ring, line, optical modem or interface regenerator/converter.
- Optional aggregate link and energy backup, allowing hot swap.
- Service channel through a regular telephone (optional).
- SNMP remote or VT100 terminal management.
- Full interoperability between DM16E1 and DM4E1, resulting in reduced costs in smaller applications.
- Supports 93-250VAC or 36-72VDC inputs, with automatic selection (full range).

Applications

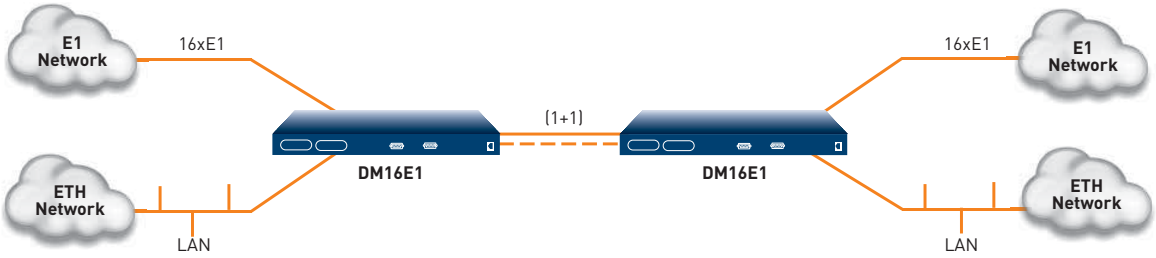
Inverse Multiplexer Topology

In this mode, the Bridge port is capable of dividing data received in E1 channels allowing remote LAN connections. Automatic protection is performed as per E1 link outage.



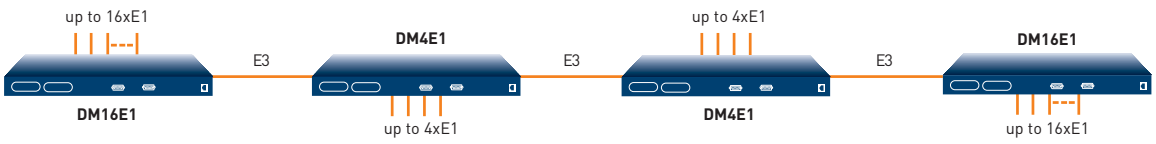
Bridge 100M Point-to-Point Topology

The equipment works as an optical multiplexer that operates at a 155Mbit/s rate (proprietary protocol). With this topology, the aggregate broadcast at 100Mbit/s of the Bridge interface together with 16 channels of the TDM interface (G.703, V.11 or Router for dedicated management). In this mode, the aggregate also work with redundancy (Main and Backup operation).



Line Topology

A topology through which pieces of equipment are connected in series. Mediating equipment (Line Network) must be equipped with two aggregate cards while ones in the points (Line Terminator) must feature one only. It is a simple architecture to optimize the fiber use.

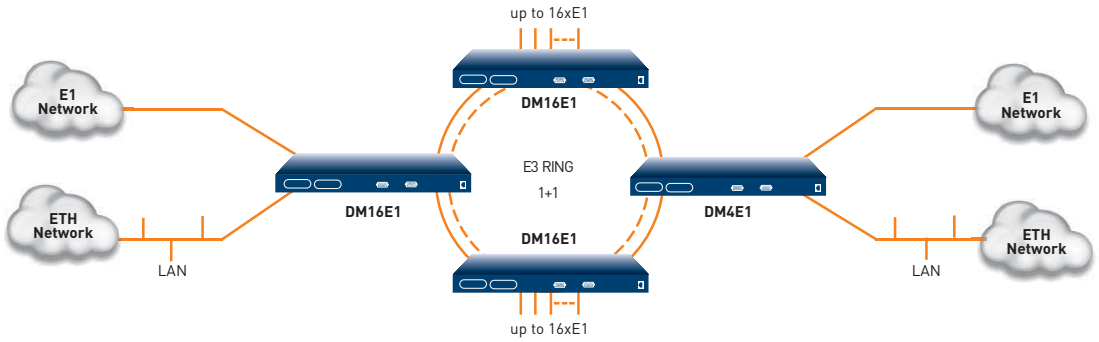


Ring Topology

Ring topologies are similar to the SDH systems: one of the rings is used by the main link while the other is reserved for failure situations. Electrical or optical connections with 2 or single fibers can be used.

The Cross Ring configuration is used in bidirectional rings with a single or two fibers. This topology always features a backup ring.

The Regular Ring configuration is used with unidirectional rings (without backup to reduce costs) or bidirectional with two fibers (with backup).



Regenerator Topology

Topology used to regenerate signals directly in the optical interface. Data received by an aggregate are directly passed to the other and vice versa. Tributary data are not used in this topology.

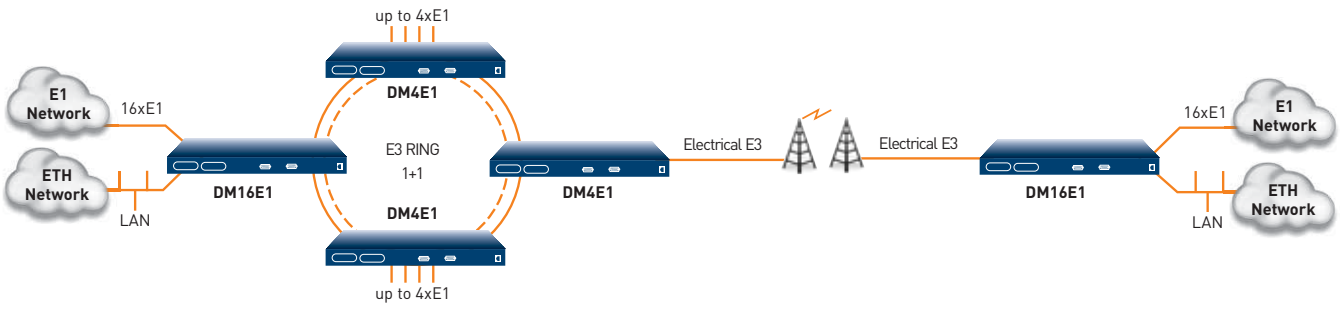
Optical Modem and Converter Topology

Transparent optical modem, regenerator and transparent interface converter topologies allow interoperability with electrical E3 interfaces manufactured by other vendors, with or without a frame structure, through an optical E3 link. 1+1 protection operation can be performed using two optical aggregate cards and one internal electrical E3 tributary card.

Interface conversion topology is used to convert electrical E3 interfaces into optical E3.

Ring Optical Modem Topology

The ring optical modem topology is used to receive an E3 tributary from outside the ring and insert its E1s in the ring, allowing for equipment manufactured by other vendors to share that ring.



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