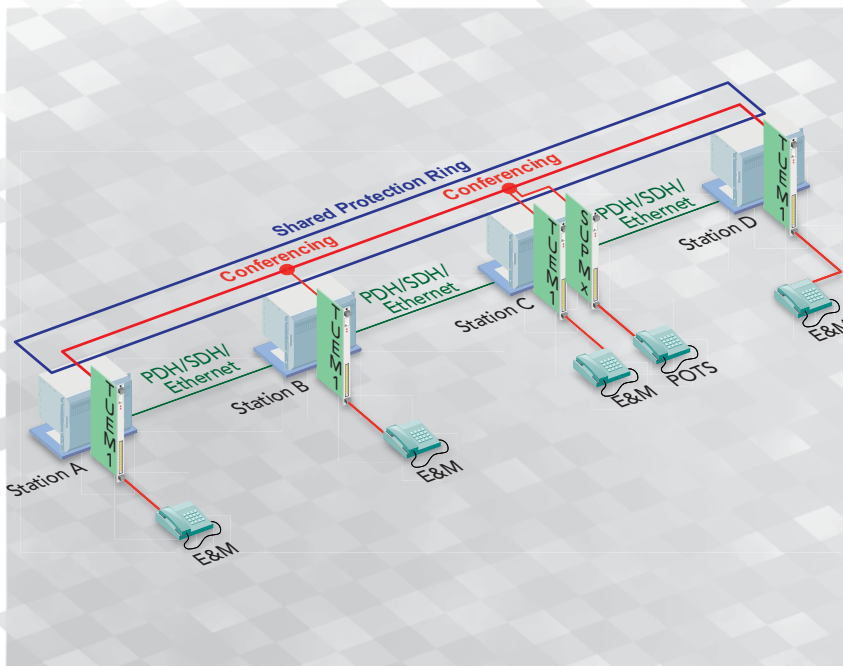


# MileGate TUEM1

TUEM1 offers E&M VF interfaces with onboard conferencing function for dedicated networks



- 8 x 2- or 4-wire E&M VF interfaces
- Compatible and interoperable with UMUX cards NEMCA, NEMSG and MAGI8
- Scalable conferencing on board for 32 participants per unit and 10 parties
- Enables different topologies
- Various protection functions
- Built-in maintenance functions for network debugging
- All functions from one network management system

Analogue telephone network with conferencing and shared protection ring

TUEM1 integrates traditional services in the MileGate platform. Important functions for dedicated networks such as E&M voice telephony and conferencing can be offered with TUEM1 in only one unit.

Thanks to the access to MileGate's hybrid Ethernet-TDM backplane, services offered with TUEM1 can be transmitted via all transport network technologies. For that MileGate offers interfaces towards PDH, SDH and Ethernet/IP networks.

## ■ E&M VF Interface – TUEM1

TUEM1 is equipped with eight voice interfaces with a telephony bandwidth of 300 Hz to 3.4 kHz with separate E&M signaling interfaces. Each voice channel is configurable in 2-wire or 4-wire mode and offers two E&M signaling channels.

## ■ Conferencing Engine

The onboard conferencing engine enables various applications and network topologies so that legacy telephony services can be combined and integrated in a modern telecommunication network.

Distributed and centralized voice conferences with a maximum of 32 participants per unit and up to 10 parties with maximal 17 participants each can be set up.

## ■ Protection Functions

TUEM1 supports different protection mechanisms, ensuring that the delivered service persists in case of a failure in subnetworks:

- Network protection: 1+1 path protection and 1+1 subnetwork connection protection (SNCP/I)

- Unit protection: 1:1 equipment protection

### Flexible Topologie

With the TUEM1, operators of dedicated networks can build a variety of applications in different network topologies.

Applications which can be addressed by TUEM1 in a Point-to-Point network topology:

- Analogue telephony networks with E&M
- Connection of analogue train radio
- Interexchange trunking connection

Applications which can be addressed by TUEM1 in a Point-to-Multipoint network topology:

- Analogue telephony networks with conferencing
- Analogue telephony networks with conferencing and Shared Protection Ring

An application which can be addressed by TUEM1 in a Multipoint-to-Multipoint (Omni-bus) network topology is analogue telephony conferencing with and without Shared Protection Ring

### One Management

The management of the TUEM1 is integrated in the MCST/UNEM management system. By having one element manager for all types of services, operators will accelerate the provisioning process. The element manager ensures efficient OAM&P (Operation, Administration, Maintenance and Provisioning) and lower operational costs.

## Technical Data

E&M Interface	
Analogue voice interface	2-wire, 4-wire
Number of analogue voice interfaces	8
Signalling interfaces	E&M 8 x 2
Signalling interface types	Type I to Type V
Conference Engine	
Conferences	Linear addition of the voice signals, wired-AND addition of the CAS signalling signals
Conference type	Multipoint-to-multipoint, point-to-multipoint
Number of conferences	Up to 10
Number of participants per conference	Up to 17
Number of participants per unit	Up to 32
Analogue Voice Interface	
Coding	A-Law according to ITU-T G.711
Performance characteristics	According to ITU-T G.712
Impedance in the voice band	600 ohms balanced and floating (2-wire input/output, 4-wire input, 4-wire output)
Bandwidth	300 ... 3400 Hz
Protection	
Supported protection mechanism	1+1 path protection
	1+1 SNCP/I protection
	1:1 equipment protection
Management	
MCST	For local management
UNEM	For central management
Power Supply	
Input voltage nominal (min/max)	-48/-60VDC (-40.5VDC ... -72VDC)
Operation Environment	
Temperature range and humidity	According to MileGate environmental specifications



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