

# » Ethernet over TDM Inverse Multiplexer GTU4 «

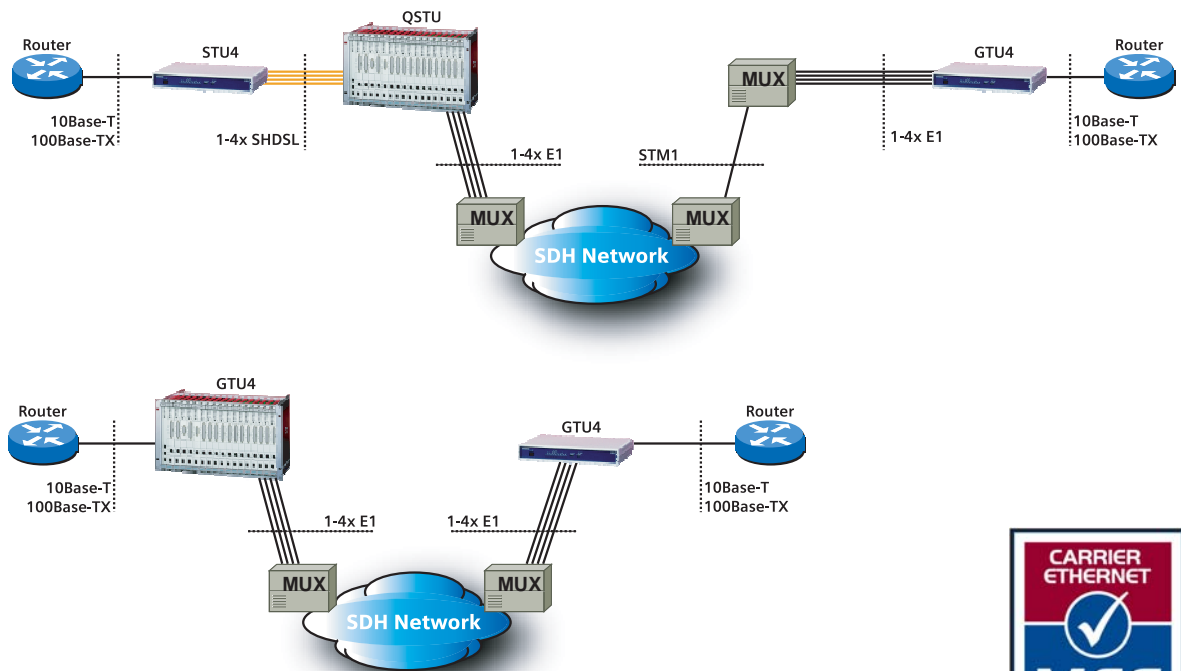
## Product Overview

The GTU4 is an Ethernet over TDM Inverse Multiplexer unit of the ULAF+ product family. It is designed to transmit up to 8 Mbit/s Ethernet traffic over multiple E1 channels, thus enabling carriers to offer broadband Ethernet leased lines to their business customers.

The GTU4 helps network operators leverage existing SDH infrastructure with services such as interconnections of customer LAN's or by upgrading SDH multiplexers with Ethernet interfaces.



## Typical applications - 8 Mbit/s Ethernet leased lines



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## Leverage existing SDH infrastructure

As access networks steadily move towards broadband Ethernet transmission, carriers wish to leverage their installed SDH base by offering Ethernet Leased Lines over existing TDM equipment.

The ULAF+ GTU4 invers-multiplexes Ethernet traffic from its 10Base-T / 100Base-TX ports over up to four E1 channels. With another GTU4 or with an ULAF+ QSTU-STU4 link at the far end of the SDH network, 2/4/6 or 8Mbit/s Ethernet Leased Lines across SDH networks can be offered to business customers in need of broadband Ethernet transmission.

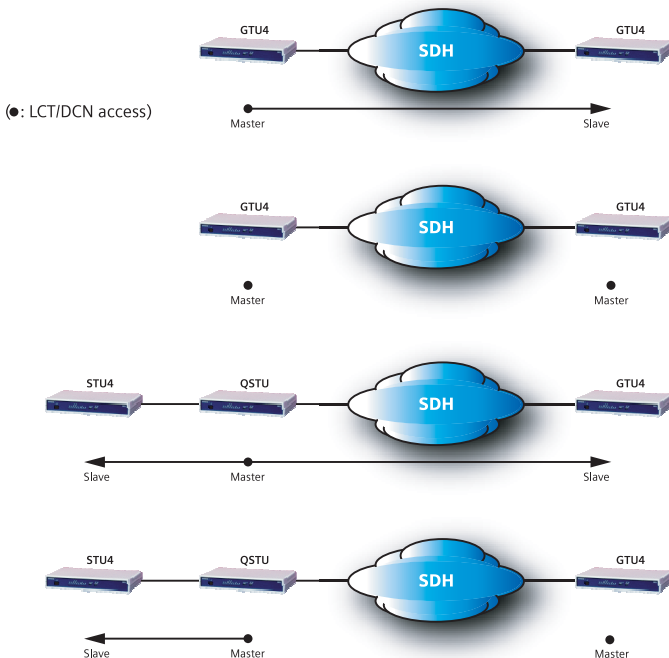
The patent-pending channel bundling algorithm implemented both in GTU4 and STU4 combines bandwidth efficiency and link resiliency: bitrates are dynamically adjusted in case of channel failures. Even with three channels down, the link itself doesn't fail.

## Fast Ethernet Managed Switch

The GTU4 incorporates a 4-port, self-learning and VLAN transparent Layer-2 switch.

## Network Management integration

The GTU4 is fully integrated into ULAF+, hence it is configured and managed just like any other ULAF+ product with the LCT (Local Craft Terminal) software or ULAF+'s network management software. The following configuration setups are possible:



## Carrier Ethernet Certification

The GTU4 has been certified by the Metro Ethernet Forum (MEF). It meets the standards MEF 9 and MEF 14 for EPL Ethernet private line services.

## Technical data

### Power supply

Input voltage	
Plug-in version	...40 V <sub>DC</sub> to 72 V <sub>DC</sub>
Desktop version	...40 V <sub>DC</sub> to 72 V <sub>DC</sub>
	...95 V <sub>AC</sub> to 260 V <sub>AC</sub>

Power consumption (typical) ... < 6 W

### Interfaces

10Base-T/100Base-TX ports	
.....	Full / Half Duplex, Flow Control, Auto negotiation,
.....	Auto crossover
Switch	..... self learning (1024 MAC addresses)
.....	VLAN transparent
Connector	..... 4x RJ45

### G.703

Connector	..... 4x RJ45 (75 Ω/ 120 Ω)
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### Local Craft Terminal (LCT)

Serial V.24 interface	..... 1x RJ45
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### Physical and environment

Plug-in version	..... Double Eurocard size
Desktop version (W x H x D)	..... 272 x 47,5 175 mm
.....	(wall-mounting possible)

Temperature (in operation)	..... -5° – +55°
.....	at 5 – 95% rel. humidity

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