

Description

The MICROSENS ITU G.703 converter offers the transmission of a 2.048 Mbit/s interface according to ITU G.703 over a fiber line.

- Transparent optical transmission of the electrical G.703 signal, control information are transmitted too (e.g. frame synchronization)
- Easy and direct connection of telecommunication equipment over long distance fiber lines
- 5 km distance with multimode fiber, using single mode fiber up to 100 km
- Converter module for the mounting into 19"- or desktop- chassis
- Power supply via a central power supply, which can be redundant if required
- For system diagnostics and failure location it is possible to generate test loop backs (activated by the optional management)
- Malfunctions are signaled visually by LED displays
- In combination with the management module this converter can be integrated into SNMP/web based management platforms.

Interface G.703

The ITU G.703 interface corresponds to the European standard M1-CEPT (CEPT : Conference Europeenne des Postes et des Telecommunications). With this interface are telecommunication connections with up to 2 Mbit/s possible.

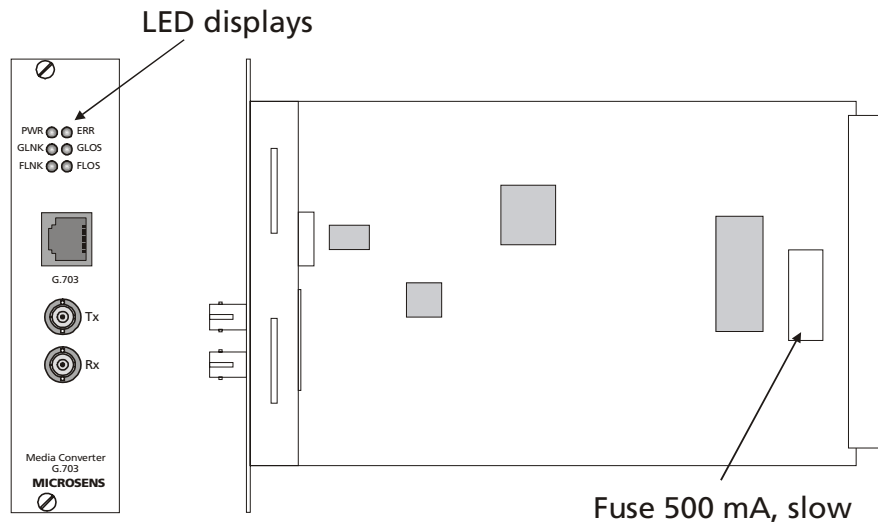
The line interface G.703 is an ITU recommendation and is used for the transmission speed of 2.048 Mbit/s. This interface is bit oriented for the transmission of synchronous bit streams where no structures are transmitted.

CEPT is an European conference of the posts and telecoms, in which post specific work for standardization of services and networks is done. The CEPT is split into two commissions, the P-commission for post relevant issues and the T-commission for the telecommunication.

Technical Specifications

Type	Fiber optic Converter for G.703 interface for the mounting into MICROSENS modular chassis		
Connections	RJ-45 connector, 2xST/2xSC connector, power jack		
Fiber types	Multimode fiber 62,5/125 µm or 50/125 µm duplex, optional single mode fiber 9/125µm duplex		
Data rate	2.048 Mbit/s		
Max. fiber length	Multimode: 2 km at 850 nm or 5 km at 1300 nm Single mode: depending on version up to 100 km		
Opt. parameter	<p>MS416300/320, 850 nm multimode, 2 km Power: -19 dBm (min.) Sensitivity: - 26 dBm</p> <p>MS416301, 1300 nm multimode, 5 km Power: -19 dBm (min.) Sensitivity: -31 dBm</p> <p>MS416303/304, 1300 nm single mode, 15 km Power: -15 dBm Sensitivity: -31 dBm</p> <p>MS416305, 1300 nm single mode, 40 km Power: -5 dBm Sensitivity: -34 dBm</p> <p>other versions up to 100 km distance on request</p>		
LED displays	<i>PWR</i> <i>GLNK</i> <i>FLNK</i> <i>GLOS</i> <i>FLOS</i> <i>ERR</i>	Power G.703 Link FO Link G.703 LOS FO LOS Error	ready for operation data signal on RJ-45 port fiber connection O.K. no signal at RJ-45 port no signal at fiber port failure during transmission
Power supply	12 V DC / 3,6 VA		
Operating temperature	0°C to 55°C		
Storage temperature	-20°C to 80°C		
Rel. humidity	5% to 80% non condensing		
Dimensions	3 HU x 6 DU		
Management	optional SNMP/web based management with the management module MS416020 (converter module must support the management module, the art. no. has the extension "M", e.g. MS416300M).		

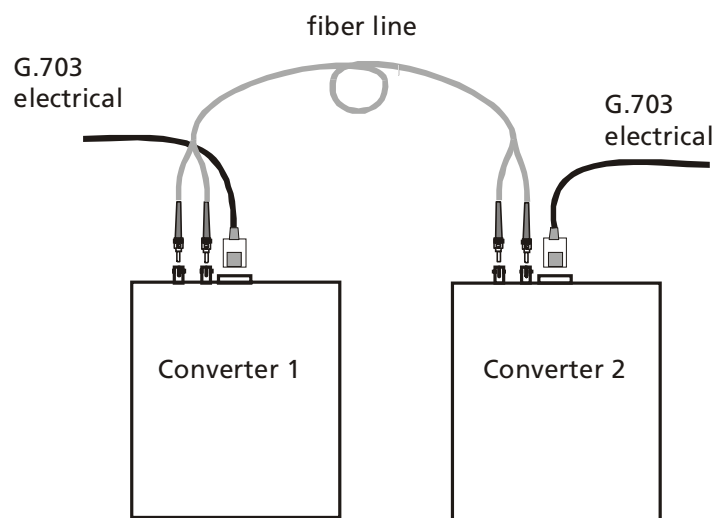
Construction



Installation

For the installation two converter are connected with a multimode / single mode duplex fiber. Fiber transmitter must be connected always with the fiber receiver and vice versa (crossing). When the connection is correct the FLNK LED on both converters must be on. If the connection is not correct the FLOS LED is on.

The G.703 side is connected with a twisted pair cable (120 Ohm) and a 8 pin RJ-45 connector. When the end device is active, the GLINK LED is on. If the connection is not correct the GLOS LED is on.

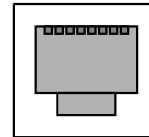


Pinout

The RJ-45 port of the converter has the following pinout:

Pin	Direction	Signal
1,2	-	Unused
3	In	RX+
4	Out	TX+
5	Out	TX-
6	In	RX-
7,8	-	Unused

12345678



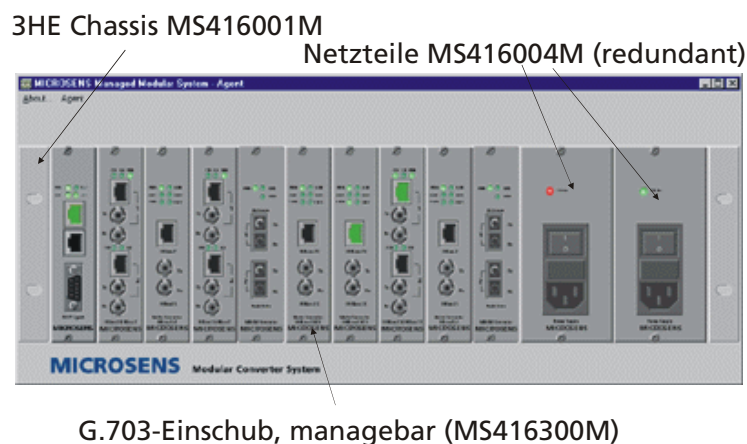
Management (optional)

The SNMP and web based management features are provided by the management module (MS416020). When selecting the components, it is important to take care that the chassis (e.g. MS416001M) and power supply (e.g. MS416004M) support the management too.

To access to the information of the module it is necessary to integrate the data structure of the MIB (Management Information Base) into the existing network management. The structure of the MICROSENS-MIB can be downloaded from the management module. The MIB file is in ASCII format.

The integration of the Management into the network occurs over the Ethernet-port (10/100Base-TX) of the Management-module. The Management information is not transmitted over the converter module (here G.703) but over the Management-Module (Outband-Management).

Visualization and configuration example under a SNMP-Management platform:



Designation

Art-no.	Description	Connectors
MS416300*	ITU G.703 converter, 850 nm Multimode ST, 2 km	1 x RJ45, 2 x ST
MS416320*	ITU G.703 converter, 850 nm Multimode SC, 2 km	1 x RJ45, 2 x SC
MS416301*	ITU G.703 converter, 1300 nm Multimode ST, 5 km	1 x RJ45, 2 x ST
MS416303*	ITU G.703 converter, 1300 nm Single mode ST, 15 km	1 x RJ45, 2 x ST
MS416304*	ITU G.703 converter, 1300 nm Single mode SC, 15 km	1 x RJ45, 2 x SC
MS416305*	ITU G.703 converter, 1300 nm Single mode SC, 40 km	1 x RJ45, 2 x SC
MS416306*	ITU G.703 converter, 1300 nm Single mode SC, 60 km	1 x RJ45, 2 x SC

*) Option „M“ for manageable Media converter-module (for e.g. MS416300M)

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