

Datasheet

MSP 800

Manageable G.703 Converter Module



General

The constantly increasing demand for bandwidth and the growing physical expansion of existing data networks is leading to a rapid spread of fiber optic cables at all application levels.

Modern network infrastructures require open, fiber-optic-based systems that can be easily installed and flexibly adapted to changing requirements. With its MSP800 platform, MICROSENS offers a wide range of function modules both for the LAN and WAN area as well as for the implementation of telecommunications and industrial interfaces.

The core of the MSP800 consists of a slide-in chassis for mounting in 19" cabinets. A central power supply unit supplies all slide-in modules with power via a backplane. A redundant power supply unit can be installed for special requirements regarding fail-safe operation. A large number of function modules ensure the passive and active implementation of all common interfaces. All plug-in units can be combined with each other in any order.

The product range includes

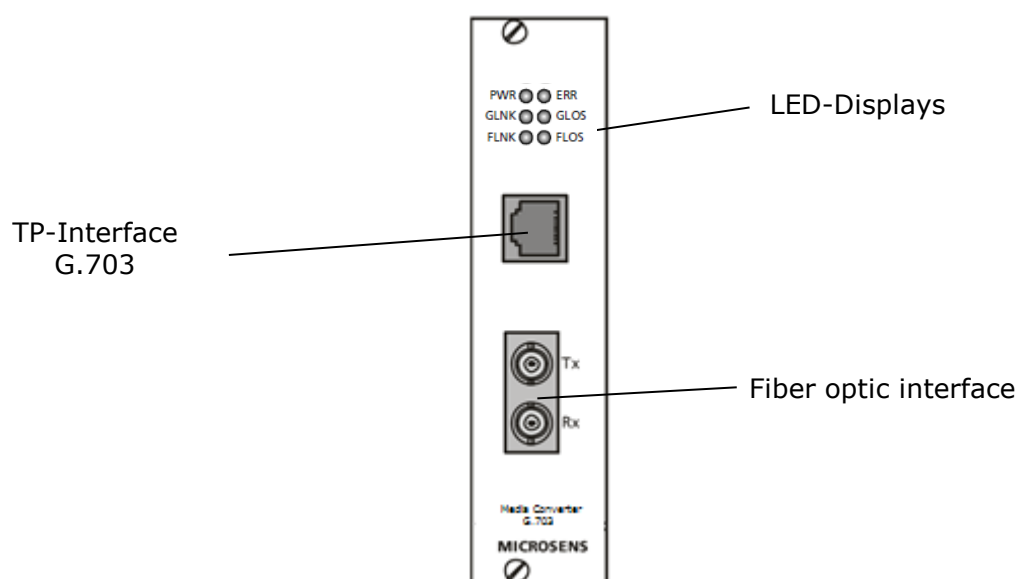
- Multimode / Single Mode Converter
- Wavelength converter,
- Converters and bridges for short and long haul applications
- Gigabit Extender
- G.703 Converter

The manageable G.703 converter module for the MSP800 is used for remotely administering an electrical G.703 conversion to a fiber optic link. Since the G.703 signal is not standardized for fiber optics, the module is always used in pairs.

Technical Details

Type	Manageable G.703 Converter Module MSP800	
Connections	1x Fiber (depending on model) 1x TP (RJ-45)	
Cable Type	STP-Cable, 120 Ohm, RJ-45	
Fiber Type	Multimode 50 or 62,5/125µm Singlemode 9/125µm duplex	
Data rates	2,048 MBit/s	
LED-Displays	<i>PWR</i>	Ready for operation
	<i>GLNK</i>	Data receiving G.703 interface
	<i>GLOS</i>	No signal G.703 interface
	<i>FLNK</i>	<i>Fiber optic link intact</i>
	<i>FLOS</i>	No signal Optical fiber link
	<i>ERR</i>	Transfer error
Power Supply	via MSP800 backplane with own fuse	
Operating temp.	0..55 °C	
Storage temp.	-20..80 °C	
Humidity	5% up to 80 % non-condensing	
Dimensions	1-Slot in MSP800 Chassis	
Management	via Managementmodule MS416020-B	

Layout

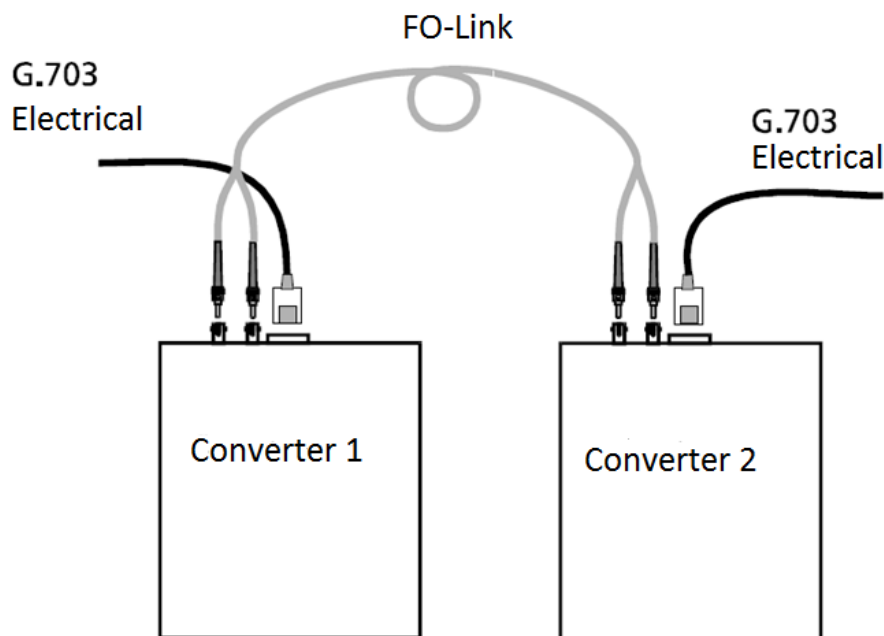


Installation

The converter is designed for installation in a MICROSENS module housing. It is always used in pairs (see diagram below).

In addition to the 3U slide-in chassis for a maximum of 12 slide-in modules, a 1U chassis for 3 modules (installed crosswise) is available. Optionally both chassis versions can be equipped with redundant power supply units. Unused slots must be equipped with blank covers (MS416100) for reasons of electromagnetic compatibility (EMC) (not included in the scope of delivery of the chassis). In addition to the 19" versions, a desktop housing for the insertion of a module (MS417001) is also available.

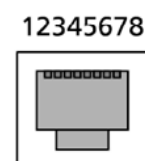
For installation, two transformers are connected via optical fiber. If the link is correct, the FLNK LED on both devices will light up. If the link is faulty, the FLNK indicator lights up. The G.703 side is connected via a twisted pair cable (symmetrical, 120 Ohm) with an 8-pin RJ-45 plug. When the end device is active, the GLNK indicator lights up. If the connection is faulty, the GLOS indicator lights up.



Pin layout of the electrical interface

The RJ-45 socket of the converter is assigned as follows

Pin	Direction	Signal
1,2	-	Not used
3	on	RX+
4	Off	TX+
5	Off	TX-
6	On	RX-
7,8	-	Not used



Optical Parameter

	opt. Output (dBm)	Sensitivity (dBm)	Wavelength (nm)
Multimode	-19	-31	1310
Singlemode 15km	-11	-31	1310
Singlemode 40 km	0	-35	1310
Singlemode 100 km	+5	-35	1550

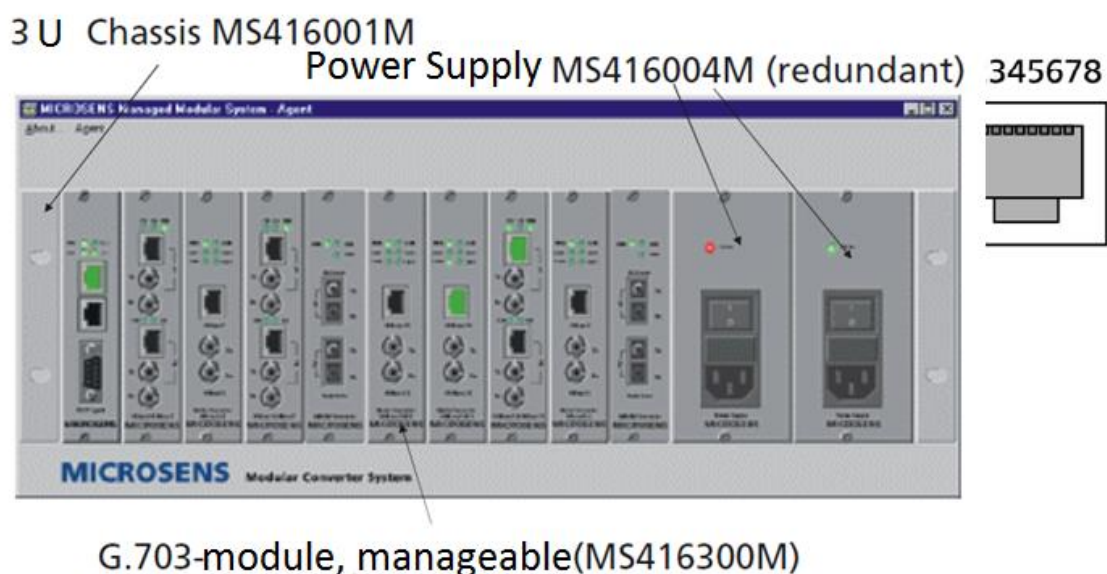
Management

The SNMP or web-based management capability of a system is provided by the management module (MS416020-B).

In order to access the data of the modules via SNMP, the integration of the data structure of the MIB into the existing network management is required. The structure of the MICROSENS-MIB can be downloaded from the management module via http-download. The MIB file is available in ASCII format.

The integration of the management into a network is done via the Ethernet connection (10/100Base-TX) of the management module. The management data are not transferred via the function module (here G.703) (outband management).

Visualization and configuration example using an SNMP management platform:



Order Information

Description	Art.-No.
Managed Fast Ethernet Bridgemodule	
MSP800 ITU G.703/FO- Converter module managed 1x E1/G.703, 1x FO 1310nm Multimode, ST duplex	MS416301M
MSP800 ITU G.703/FO- Converter module managed 1x E1/G.703, 1x FO 1310nm Multimode, SC duplex	MS416308M
MSP800 ITU G.703/FO- Converter module managed 1x E1/G.703, 1x FO 1310nm SingleMode, ST duplex 15km	MS416303M
MSP800 ITU G.703/FO- Converter module managed 1x E1/G.703, 1x FO 1310nm SingleMode, SC duplex 15km	MS416304M
MSP800 WDM ITU G.703/FO- Converter module managed 1x E1/G.703, 1x FO TX1310nm RX1550nm, SingleMode SC simplex	MS416304MA
MSP800 WDM ITU G.703/FO- Converter module managed 1x E1/G.703, 1x FO TX1550nm RX1310nm, SingleMode SC simplex	MS416304MB
MSP800 ITU G.703/FO- Converter module managed 1x E1/G.703, 1x FO 1310nm SingleMode, SC duplex 40km	MS416305M
MSP800 ITU G.703/FO- Converter module managed 1x E1/G.703, 1x FO 1550nm SingleMode, SC duplex 100km	MS416307M

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