

Megaplex-2100/2104

MSL-8

8-Port SHDSL E1 Module



- Up to 2048 kbps of payload per port over 2-wire copper cables
- Range of up to 10.6 km (6.6 miles) over 26 AWG 2-wire cables
- Remote or central function programmable per channel
- Inband management using EOC according to G.991.2 and/or dedicated timeslot
- Compatible with other RAD SHDSL products

The Megaplex MSL-8 module provides a cost-effective solution for delivering digital data to customer premises over the existing copper cables of the distribution network while eliminating the need for repeaters. This module uses Single-pair High-speed Digital Subscriber Line (SHDSL) technology, as standardized by ITU-T Rec. G.991.2.

Each MSL port is a multirate SHDSL modem, operating at user-selectable data rates in multiples of 64 kbps, from 192 kbps up to 2048 kbps (32 timeslots). As the payload increases, range decreases. *Table 1* shows typical ranges versus payload data rates.

Extending multiple
services over existing
copper infrastructure



data communications

The Access Company

MSL-8

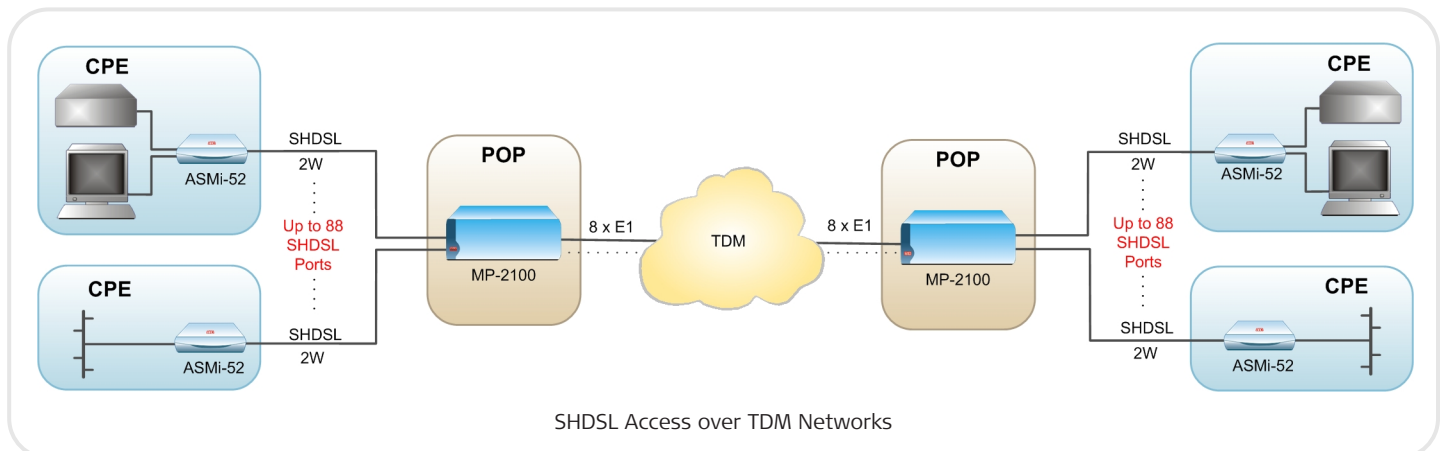
8-Port SHDSL E1 Module

The MSL-8 module is user-configurable for operation in accordance with the following standards:

- ITU-T Rec. G.991.2, Annex B (for compatibility with European or similar networks)
- Annex A (for compatibility with North American or similar networks)

The module can operate as a Central SHDSL Terminal Unit (STU-C) or as a Remote (STU-R) SHDSL Terminal Unit (programmable per module channel) together with RAD's ASMi-52, LRS-52, FCD-IP or FCD-IPM devices.

Diagnostic capabilities include local and remote loopbacks on each module port, and local and remote loopbacks per timeslot.



Specifications

SHDSL PORTS

Number of Ports per Module

8

Compliance

ITU-T G.991.2 Annex A/B
(SHDSL Standard)

Transmitting Line Power

Up to 16.8 dBm

Signal Format

TC-PAM

Transmission Line

Single unconditioned twisted pair

Impedance

135Ω

Connector

SCSI-40, convertible to 8 RJ-45 connectors
via adaptor cable

Typical Ranges

Depend on the data rate and the cable
diameter. For 26 AWG (0.4mm) cable with
13.5 dBm line power, see *Table 1*.

Table 1. Typical Ranges

Data Rate [kbps]	Range	
	[km]	[ft]
192	10.6	35.000
256	8.2	27.000
768	6.5	21.500
1544	4.9	16.200
2048	4.0	13.000

Dual-Color Status Indicator (per port)

Lights in green when the port is
connected and carrying traffic

Flashes in red during handshaking
between the MSL-8 port and the
remote unit

Lights in red during local loss of
synchronization or red alarm

Off when not connected

DIAGNOSTICS

Loopbacks

User-activated local and remote loopback
on each port

Local timeslot loopback

Remote timeslot loopback

Remote loopback on the remote unit

GENERAL

Power Consumption

12.9W

Environment

Operating temperature: -0°C to +45°C
(32°F to 113°F)

Storage temperature: -20°C to +70°C
(-4°F to +160°F)

Humidity: up to 95%, non-condensing

MSL-8

8-Port SHDSL E1 Module

Ordering

MP-2100M-MSL-8/E1

8-port E1 module with 2-wire SHDSL interface for Megaplex-2100 and Megaplex-2104 chassis







OPTIONAL ACCESSORIES**CBL-MSL8-SCS40/RJ45**

Cable for splitting the MSL-8 single 40-pin SCSI connector to 8 x RJ-45 connectors

CBL-MSL8-SCS40/OPEN/12M

Cable for splitting the MSL-8 single 40-pin SCSI connector, open-end, 12m long

Table 2. Megaplex Main Link Modules

	ML-E1/T1	MLF-E1/T1	ML-8E1/8T1	MSL-8	ML-IP	ML-20N
Feature						
Interface	E1/T1	E1/T1	E1/T1	SHDSL	ETH (TDMoIP)	n x 64 kbps
Number of Channels	1/2	1/2	8	8	2	1/2
Redundancy	Link	Link	None	None	Bundle	Link
Ring	E1/T1	E1/T1	None	None	RFER	None

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Order this publication by Catalog No. 803753



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