

Chassis

TS-Series chassis

The TS-series system platform contains plug-in units (PIU) based on DWDM, CWDM and SDH/SONET technology. All plug-in units are completely ESD protected within metal housings which means that PIU's can be easily handled without fear of damage to the unit. These plug-in units can be mounted in any of the two chassis TS-1100 and TS-100.

TS-1100: This chassis is intended for the larger CO installations.

TS-100: This chassis is intended for customers that need a compact installation, for CO or CPE applications.

It is fully possible to equip the chassis with any mix of DWDM, CWDM or SDH/SONET plug-in units.



TS-series PIU's

TS-Series is a versatile platform with modularity both in channel count and transmission reach. It is scalable up to 16 CWDM channels and 38 C/DWDM channels by adding one or several channels at a time without any service downtime or impact on existing traffic.

The protocol transparent nature of TS-Series provides support for a wide range of services including Gigabit Ethernet, Fast Ethernet, SDH/SONET, Fibre Channel, FICON, ESCON, ETR etc.

The protocols can be mixed between C/DWDM and even between TDM channels.

TS-1100

The TS-1100 (9013) chassis is a 6 RU high 19" standard based chassis with room for up to 12 Transmode plug-in units, one Node Management Board and two Power Supply Units. It consists of a body with an electrical backplane and two mounting brackets. The mounting brackets are adjustable to a preferred position, giving the chassis the desired mounting depth. The two power supplies are mounted below the main

The two power supplies are mounted below the main compartment of the chassis. TS-1100 is available in both AC and DC versions. It is also possible to mix one AC and one DC power supply in the same chassis.

The power supply unit contains fans. If one power supply is not working properly, its fans are powered from the other power supply to ensure that the active units are adequately cooled. Slots 1-12 in the compartment are used for plug-in Units and Slot 13 is dedicated for the Node Management Board.



TS-1100 12 slot Chassis



TS-1100 9013 Chassis



TS-100 9002 Chassis

TS-100

The TS-100 (9002) chassis is a 1 RU high 19" standard based chassis with room for 2 Transmode plug-in units. One of the two slots can be used for the Node Management Board. A management unit is required to enable management of the node.

It is possible to stack up to three TS-100 chassis, enabling one Node Management Board to manage up to five slots. The TS-100 has built in redundant fans and the chassis is available in both DC and AC versions. TS-100 supports all TS-Series plug-in units.

The combined front cover / fibre management tray helps the user to organize fibres and power cables.



TS-100 2 slot Chassis with front cover



MultiRate Transponder 7700



4G FC Transponder 7400

Passive plug-in unit holder

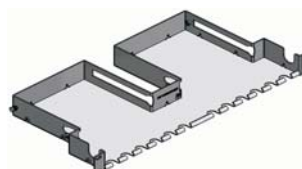
The 1 RU high passive plug-in unit holder (9320) can hold two TS-Series passive plug-in units and has built in fibre management. It is intended for use with passive optical PIU's such as the CWDM and/or DWDM Mux/Demuxes.

Fibre Management Unit

The fibre management unit (9310) improves the fibre management possibilities for the TS-Series chassis.



Fibre Management Unit



Passive PIU holder



Node Management Board

The NMB 6001 is a plug-in unit for either the TS-1100 or the TS-100. This plug-in unit contains the Element Node Management software used to manage Transmode network elements. Used in small to medium sized networks or in element manager mode, the NMB 6001 presents the node information with graphical elements and easy data overview in a standard web browser. In large fibre optical installations, the NMB 6001 is used as node manager and a transfer agent to higher level network management systems, like Transmode TNM, using industry-standard SNMP as a network management protocol.

For advanced fault tracing or configuration, data is presented in data logs with proper date and time stamps. The NMB 6001 handles all plug-in units in the TS-Series. All active units have support for "hot-swap" and the NMB 6001 automatically discovers new units and saves all configuration changes in an event log. Plug-in units may be replaced anytime without the need for manual configuration thanks to the Inheritance Feature of the system.



Node Management Board

The TS-Series Transponders provide a completely integrated solution to convert client signals to run over C/DWDM channels. There are several modules available covering a wide range of protocols from 100Mb/s to 10Gb/s. The TS-Series Transponders are bit rate transparent requiring no pre-configuration or on-site provisioning.

Transmode Network Manager

More complex networks can be managed using the network management solution Transmode TNM. The Transmode Management Platform is a modular and scalable management solution for the TS-Series and TM-Series platforms. This is a client-server based solution that can be installed on computers using Windows, Linux or Solaris operating systems (i.e. PC's and Unix work stations).

Transmode TNM gives a total control of the network with fault management, performance management, configuration management, security management, software upgrade, graphical interface etc. Alarm notification can as an option be provided via SMS or email. Transmode TNM also has a CORBA interface according to 3GPP standard (FM, PM).

Some key features of the TNM are listed below:

- Platform independent solution for Network Management of Transmode TM-Series and TS-Series.
- CLI or GUI access to embedded Node Manager ENM
- Standardized management protocols SNMP supporting v2c & v3 for easy northbound integration
- End-to-end optical circuit fault management
- Physical & logical subnetwork topology presentation
- Circuit Availability Calculations for validation of SLA agreements
- Scheduled PM data collection with graphical presentation
- Software upgrade and configuration up/download



Main web page of TS-Series ENM



Muxponder 5400/03



10G Transponder 7900



Mux/DeMux & AD-filters

Technical Data

	Dimensions (Height x width x depth)	Power consumption
TS-1100 (9013)	265 x 483 x 242 mm / 10.4 x 19.0 x 9.5"	Maximum 240 W
TS-100 (9002)	44 x 483 x 240mm / 1.75 x 19.0 x 9.44"	Maximum 50 W
Passive PIU holder (9320)	44 x 483 x 228 mm / 1.75 x 19.0 x 9"	NA
Fibre Management tray (9310)	22 x 483 x 104 mm / 0.9 x 19.0 x 4.1"	NA

The specifications and information within this document are subject to change without further notice.
All statements, information and recommendations are believed to be accurate but are presented without warranty of any kind.



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