# TECHNICAL DATA

**OTS main unit**
- TMN interface: RS232/V.24, 10/100 BaseTX, Q2 (RS485), Q2et (10/100 BaseTX), 2 Mbit/s / G.703
- EOW telephone interface: Z (2-wire)
- DCC (F1 or E2) interface: 64 kbit/s, V11
- Performance management: G.826, G.783
- 21 x 2 Mbit/s interface: G.703 (120/75 Q2)
- 3 x 34 Mbit/s interface: G.703 (75 Q2)

**OTS-G main unit**
- Same as OTS except:
  - Ethernet interface: 1x100 BaseT/BaseX (IEEE 802.3)

**STI2-63 tributary unit**
- 63 x E1 interface: G.703 (120/75 Q2)
- Jitter and wander: G.823
- Power consumption: max 25 W

**OTS622s-21E1**
- compact 1U system
- same functionalities as OTS unit, but without interfaces for 34 Mbit/s and Ethernet

**OTS622s-21E1/E3**
- compact 1U system
- same functionalities as OTS unit, but without interfaces for Ethernet

**FE-S**
- Fast Ethernet interfaces module
  - for OTS622s systems
- Ethernet interface: 4 x 10/100 BaseTx (IEEE 802.3)
  - 1 x 100 BaseFx (IEEE 802.3)

**GbE-2**
- Gigabit Ethernet interface module
  - for OTS622s systems
- Ethernet interface: 1x100 BaseT/BaseX (IEEE 802.3)

**Traffic protection**
- Line protection: 1+1 MSP
- Path protection: VC12, VC3, VC4
- Subnetwork protection: SNCP

**Plug-in SFP transceivers**
- STM-4:
  - OI.S1A: LC/FPLD 1310 nm/15 km
  - OI.S1A: LC/FPLD 1310 nm/40 km
  - OI.S1B: LC/DFBLD 1550 nm/93 km
  - OI.S1 electrical: CMI/12.7 dB at 78 MHz
- STM-1:
  - OI.S1A: LC/FPLD 1310 nm/15 km
  - OI.S1A: LC/FPLD 1310 nm/40 km
  - OI.S1B: LC/DFBLD 1550 nm/93 km

**OT6: IEEE 802.3**
- OI.S1A: LC/FPLD 1310 nm/15 km
  - OI.S1A: LC/FPLD 1310 nm/40 km

**GbE: IEEE 802.3**
- OI.GbE-AS: LC/MQW FPLD 1310 nm/10 km
  - OI.GbE-A: LC/DFBLD 1310 nm/40 km
  - OI.GbE-ZX: LC/DFBLD 1550 nm/40 km

**GbE: RJ45**
- RJ45/CAT5/CATe/CAT6/100 m

## OTS622 SDH/SONET Multiservice Optical Transport Systems

- Next generation SDH Optical Transport Systems for STM-4/1, E1, E3, 10/100BaseTx, 100BaseFx, 1000BaseX, 10000BaseT services
- Add/drop, terminal multiplexer and cross-connect
- Ethernet over SDH, GFP/VCAT/LCAS technologies
- Compact, flexible and cost-effective SDH equipment for metro and access network applications
- Network management system SUNCE-M or SNMP-based management
Static and dynamic Ethernet traffic capacity adjustment, Ethernet over SDH via GFP/VCAT/LCAS technologies

PDH tributary interfaces for 2 Mbit/s and 34 Mbit/s

Full non blocking cross-connect matrix, capacity 16x16 VC4

CWDM option - wavelength division multiplexing (1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 nm) +1310 nm

Passive optical filter

Data transmission at STM-1 (155 Mbit/s) and STM-4 (622 Mbit/s)

Connecting to the same or higher order SDH networks

Add-drop fibre ring at STM-1 or STM-4 level

Linear fibre optic networks, providing add-and-drop capability

Appointments to the same or higher order SDH networks

Local cross-connect at VC12, VC3 and VC4 levels

Main features

Multiservice SDH optical transport system for voice and data transmission at STM-1 (155 Mbit/s) and STM-4 (622 Mbit/s) level

Optical line interfaces 622 Mbit/s and 155 Mbit/s provide transmission over single-mode optical fibre at 1310 nm for section length of up to 50 km, or at 1550 nm for section length of up to 120 km

Plug-in SFP optical or electrical tranceivers, provide STM-1 or STM-4 interface configurations on the same unit

WDM-option single fibre transmission (1310 and 1550 nm), passive optical filter

CWDM option - wavelength division multiplexing (1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 nm +1310 nm), passive optical filters

Full non blocking cross-connect matrix, capacity 16x16 VC4 (2.5 Gb/s) up to VC12 level

PDH tributary interfaces for 2 Mbit/s and 34 Mbit/s

Ethernet over SDH via GFP/VCAT/LCAS technologies

Static and dynamic Ethernet traffic capacity adjustment, LCAS procedure

Line protection at multiplex section, 1+1 MSP; higher order path or lower order path protection (VC12, VC3, VC4), subnetwork protection SNCP

Basic configurations

OTS622s compact 1U system, options:

OTS622-21E1: 2 x STM-4/1, 21 x 2 Mbit/s

OTS622-21E1/E3: 2 x STM-4/1, 21 x 2 Mbit/s, 3 x 34 Mbit/s

FE-5 module for OTS622s-21E1 or OTS622s-21E1/E3: 4 x 10/100BaseTx, 1 x 100BaseFx

GbE-2 module for OTS622s-21E1 or OTS622s-21E1/E3: 1 x 1000BaseX/BaseT

OTS622-21E1 “two slots - two OTS/OTSG units”:

2 x (2 x STM-4/1), 2 x (21 x 2 Mbit/s), 2 x (3 x 34 Mbit/s),

2 x [(4 x 10/100BaseTx, 1 x 100BaseFx) or (1 x 1000BaseX/T)]

OTS622-84E1 “two slots system”:

2 x STM-4/1, 84 x 2 Mbit/s / OTS/OTSG unit 21 x 2 Mbit/s and one tributary unit 63 x 2 Mbit/s, 3 x 34 Mbit/s,

(4 x 10/100BaseTx, 1 x 100BaseFx) or (1 x 1000BaseX/T)

Applications

Point-to-point fibre optic transmission

Linear fibre optic networks, providing add-and-drop capability

Add-drop fibre ring at STM-1 or STM-4 level

Connecting to the same or higher order SDH networks

Local cross-connect at VC12, VC3 and VC4 levels

Control and monitoring

Integrated network management system SUNCE-M provides continuous management of OTS622 and all other IRITEL’s SDH and PDH equipment (ODS2G5, ODS155, FM-MSAN ...).

The computer (PC) in management operations centre is connected to one network element (OTS622) using Ethernet 10/100BaseTx or RS232 interface (F interface).

NMS interconnections of collocated IRITEL’s devices using Q2 (RS485) or Q2et (10/100BaseTx) interfaces

NMS interconnection of remote IRITEL’s SDH equipment using DCC channels (192 kbit/s, 576 kbit/s)

Additional G.703 2 Mbit/s interfaces used for connections of independent subnetworks to one centralized management system SUNCE-M

SNMP northbound and southbound interfaces

SNMP MIB

Control and monitoring using standard SNMP viewer

Power supply

DC power supply –48 V DC or –60 V DC

Optional 230 V AC internal power supply for OTS622s systems

Mechanical design

Unit: 20 x 277 x 175 mm (H x W x D)

Mechanical modules

OTS622s: 44.5 x 436.6 x 238 mm

OTS622-84E1: 150 x 436.6 x 238 mm

OTS622-21E1: 150 x 436.6 x 238 mm

OTS622-84E1: 150 x 436.6 x 238 mm

ETS or 19” cabinet: 2200 x 600 x 300 mm

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