

# FlexiNT-GS

## Next generation multipurpose network terminal

**FlexiNT-GS** provides different ways of deploying Ethernet, TDM and low speed serial data services over SHDSL.bis local loops or TDM networks.

It delivers services over local loop using SHDSL.bis line code with speeds of up to 5.7 Mbit/s over a single copper pair. With bonded SHDSL.bis, it is possible to deliver 22.8 Mbit/s split over four copper pairs.

FlexiNT-GS can be used as a TDM multiplexer or interface converter where serial, Ethernet and E1 interfaces can be converted or multiplexed to an E1 interface.

FlexiNT-GS can also work in a box-to-box configuration acting as a network terminal (Customer Premises, CP mode) and a line terminal (Central Office, CO mode).

In addition, FlexiNT-GS can function as a network terminal for DSL Access Multiplexer (DSLAM) and carry Ethernet over local loop using EFM or ATM mode.

### Interfaces

- Two serial interfaces; SSC connector; can be configured for V.11, X.21, V.35 and V.28
- One RS485 interface; RJ-45
- Two E1 TDM interfaces; RJ-45; one E1 can be used for trunk in TDM mux application
- Two Fast Ethernet interfaces; one FE interface can be configured for Ethernet over TDM encapsulation
- One local management interface; RJ-45; serial V.11 or V.28
- One line interface; RJ-45; SHDSL/SHDSL.bis; 1, 2, 3 or 4 pair operation
  - Support for EFM and ATM encapsulation for Ethernet applications.
  - EFM and ATM dual bearer modes for simultaneous transport of TDM and Ethernet.
  - TDM mode for legacy TDM based SHDSL equipment; interoperating with Nokia Siemens Networks and Nokia legacy equipment, for example, ACL2i and DNT2Mi.



### Management

FlexiNT-GS uses open SNMP MIB for fault management (SNMP V2c). The MIB can be easily compiled to any third party SNMP management system. The FlexiNT-GS Private MIB can be made available on request.

Q1 protocol for fault and performance management is supported in order to be compatible with legacy TDM management systems.

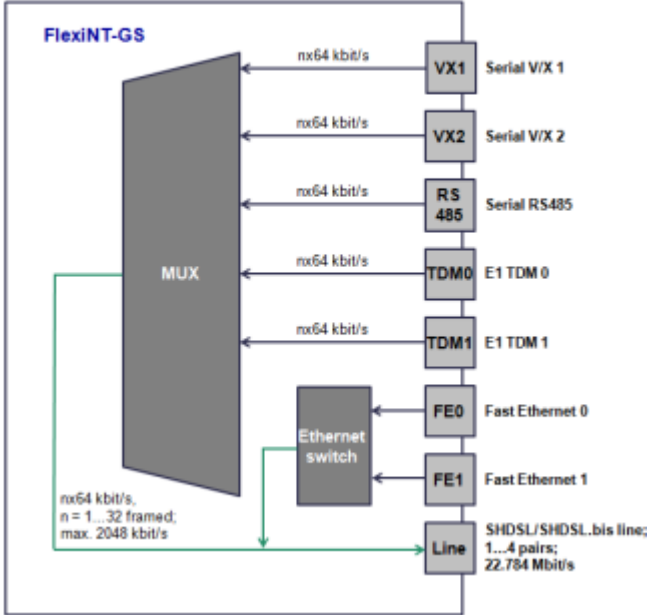
Configuration and performance management is handled using Command Line Interface (CLI). The CLI can be accessed locally by using serial interface (called LMI) or by using Telnet via an Ethernet port of the FlexiNT-GS. With Telnet you can also access remote FlexiNT-GS's using IP protocol.

Dedicated VLAN can be configured to the device in order to isolate management traffic from payload.

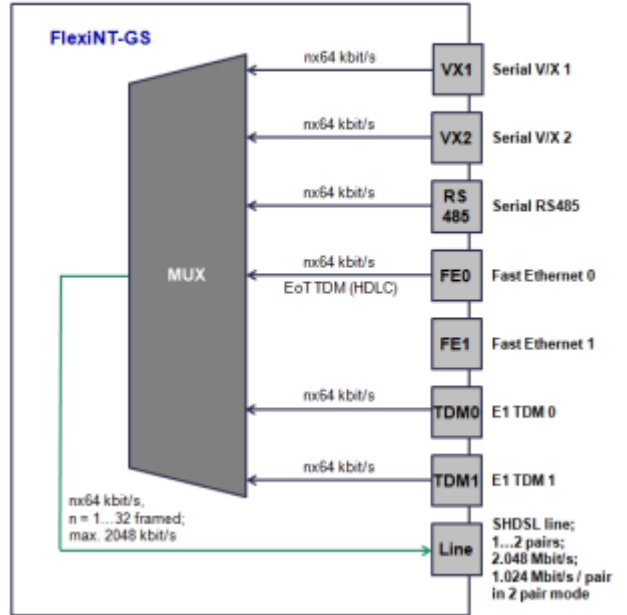
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## Application examples

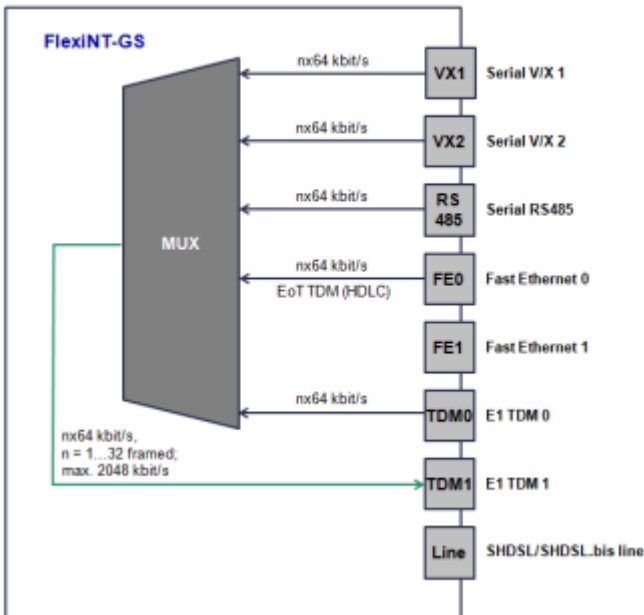
Ethernet and TDM over SHDSL/SHDSL.bis line;  
EFM or ATM dual bearer mode



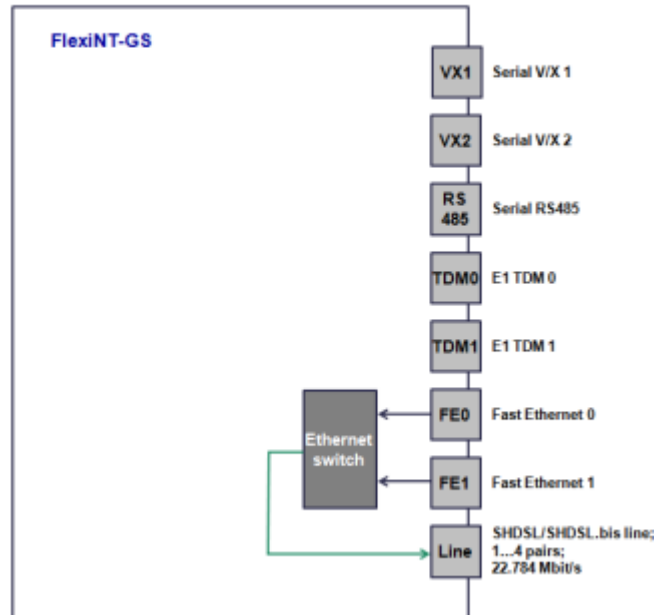
TDM over SHDSL line; legacy mode;  
1 Mbit/s / 2 Mbit/s line rates; compatible with ACL2i and DNT2MI



TDM MUX application



Ethernet over SHDSL/SHDSL.bis line;  
EFM or ATM mode



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## Technical data

FlexiNT-GS – Technical data	
Serial V/X interfaces	2 x SSC; V.11/X.21/V.35/V.28; sync/async; V.110 and nx64 kbit/s
Serial RS485 interface	1 x RJ-45; async; V.110; sampling nx64 kbit/s
E1 TDM interfaces	2 x RJ-45; symmetrical 120 ohm; G.703/G.704
Fast Ethernet interfaces	2 x RJ-45;10/100Base-T; full/half duplex/auto negotiation; EoT
Line interface	1 x RJ-45; 1...4 pairs; SHDSL/SHDSL.bis
Local management interface	1 x RJ-45; V.11 or V.28
Mechanical construction	Standalone box
Width x height x depth	280 x 32 x 160 mm
Weight	1.3 kg
Mounting	Wall and rail mounting
Operating power	40.5...57 VDC; AC with AC/DC converter
Power consumption	9 W
MTBF	54 years
<b>Environmental and safety</b>	
Indoor application	IP21 (Ingress Protection 21)
Transport	ETSI ETS300019-1-2 class 2.3
Storage	ETSI ETS300019-1-1 class 1.2
Operation	ETSI ETS300019-1-3 class 3.3
Operating temperature range	-25...+55 °C
EMC	EN 300 386 V.1.6.1 (2012-09)
Safety	IEC 60950-1 (2 <sup>nd</sup> ed., 2012)
AC power supply	Surge protection: 2kV according to ITU-T Rec. K.45
DC power supply	Surge protection: 1.0kV according to EN61000-4-5
Line interface	Surge protection: 1.5kV according to ITU-T Rec. K.45 50 Hz common mode test according to ITU-T Rec. K.45 600V RMS common mode according to ITU-T Rec. K.45

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