2 and 4 Wire SHDSL

Up to 4.6Mbps

Ethernet Bridge

FlexDSL
Telecommunications AG

FlexDSL Discovery
TDM Based SHDSL Ethernet Bridge

Features

- 2 and 4 Wire SHDSL (TC-PAM16)
- Up to 4.6Mbps
- Ethernet Bridge (10/100BaseT)
- Transparent Bridging Functionality
- Optional 2x Analog Voice Ports (FXS/FXO)
- Point-to-Point and Point-to-Multipoint
- 1+1 Protection Option
- VLAN (IEEE 802.1q) Support
- Console Port, Telnet, SNMP Management
- Repeater/Regenerator Support

The TDM based FlexDSL Discovery series, which utilizes the latest SHDSL technologies, offers symmetrical transmission services at speeds up to 2.3Mbps and 4.6Mbps over 1 and 2 copper pairs respectively. Unlike many other Ethernet DSL modems, FlexDSL's Discovery modems transmit Ethernet directly over SHDSL. This secures highest possible file transfer rates due to the absence of bandwidth eroding layer 2 protocols such as Frame Relay and ATM. Because of its easy configuration the TDM Discovery can also be installed by non-professional individuals.

Furthermore, the Discovery product family contains voice modems capable of transporting two voice channels in addition to data. Voice is digitally transmitted using "clear channel" 64kbps PCM coding. Protected (1+1) operation over two copper pairs with a maximum speed of 4.6Mbps is another Discovery attribute providing highest possible reliability and maximum flexibility for mission critical services and trunk communications. The support of SHDSL repeaters/regenerators makes Discovery modems an inexpensive, copper based long reach transmission system for campus, industrial, and residential applications.

Various management options such as Telnet and SNMP support allow real time monitoring and statistics for maintenance and billing purposes.

FlexDSL Discovery modems are available in table top or rack mount form factors. The capacity of the CO shelf can be incrementally extended with one or two DSL ports in order to grow as you go!
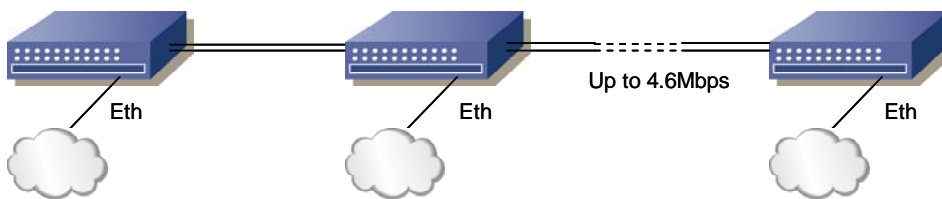
FlexDSL Discovery SHDSL Applications

Up to 4.6Mbps

Eth   Eth   Eth

Industrial Ethernet for SCADA Applications (i.e. Railway, Pipeline, and Motorway)

Eth

Eth   NTU

Eth

NTU   Eth

NTU
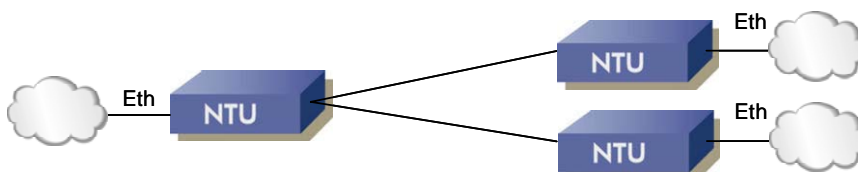
Point-to-Multipoint Ethernet Application

Eth   Eth

LTU   NTU

FXO   2x FXS
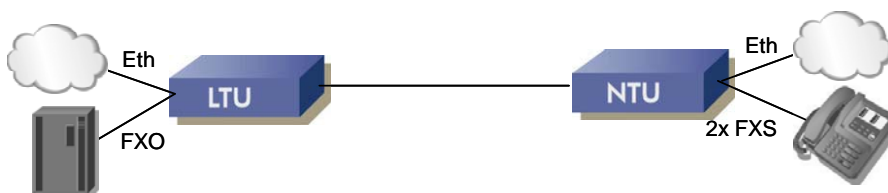
Point-to-Point Application with Analog Voice Support

Specifications are subject to change without notice

FlexDSL ®
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FlexDSL Discovery SHDSL Standalone Modem

Model:	FG-PAM-SAN-Eth
DSL Version:	SHDSL (TDM)
Modulation:	TC-PAM16
Data Rate:	64kbps - 2.3Mbps
Copper Pairs:	1
Modes:	Master / Slave
Interface:	Ethernet Bridge (10/100BaseT)
Power:	12VDC < 3.4W
Physical Interfaces:	RJ45 (Ethernet), RJ48 (SHDSL), Power Jack 2.1/5.3mm (Power), DB9 (Management)
Management:	Console Port, Telnet, and SNMP
Power Supply:	Included (220VAC/12VDC)

Model:	FG-PAM-SAN-Eth, 4W
DSL Version:	SHDSL (TDM)
Modulation:	TC-PAM16
Data Rate:	64kbps - 4.6Mbps
Copper Pairs:	2
Modes:	Master / Slave
Interface:	Ethernet Bridge (10/100BaseT)
Power:	12VDC < 5.4W
Physical Interfaces:	RJ45 (Ethernet), RJ48 (SHDSL), Power Jack 2.1/5.3mm (Power), DB9 (Management)
Management:	Console Port, Telnet, and SNMP
Power Supply:	Included (220VAC/12VDC)
Remarks:	1+1 Protection and Point-to-Multipoint Features Supported

Model:	FG-PAM-SAN-Eth/FXS
DSL Version:	SHDSL (TDM)
Modulation:	TC-PAM16
Data Rate:	64kbps - 2.3Mbps
Copper Pairs:	1
Modes:	Master / Slave
Interface:	Ethernet Bridge (10/100BaseT)
Power:	12VDC < 6.3W
Physical Interfaces:	RJ45 (Ethernet), 2x RJ11 (Voice), RJ48 (SHDSL), Power Jack 2.1/5.3mm (Power), DB9 (Management)
Management:	Console Port, Telnet, and SNMP
Power Supply:	Included (220VAC/12VDC)
Remarks:	Offers 2x FXS Interfaces (occupies 2x 64k TS, no configuration required)

Model:	FG-PAM-SAN-Eth/FXO
DSL Version:	SHDSL (TDM)
Modulation:	TC-PAM16
Data Rate:	64kbps - 2.3Mbps
Copper Pairs:	1
Modes:	Master / Slave
Interface:	Ethernet Bridge (10/100BaseT)
Power:	12VDC < 5W
Physical Interfaces:	RJ45 (Ethernet), 2x RJ11 (Voice), RJ48 (SHDSL), Power Jack 2.1/5.3mm (Power), DB9 (Management)
Management:	Console Port, Telnet, and SNMP
Power Supply:	Included (220VAC/12VDC)
Remarks:	Offers 2x FXO Interfaces (occupies 2x 64k TS, no configuration required)

Specifications are subject to change without notice

FlexDSL Discovery SHDSL Sub Rack Module

Model:	**FG-PAM-SRL-Eth**
DSL Version:	SHDSL (TDM)
Modulation:	TC-PAM16
Data Rate:	64kbps - 2.3Mbps
Copper Pairs:	1
Modes:	Master / Slave
Interface:	Ethernet Bridge (10/100BaseT)
Power:	48VDC < 5W
Physical Interfaces:	RJ45 (Ethernet), RJ48 (SHDSL), DB9 (Management)
Management:	Console Port, Telnet, and SNMP

Model:	**FG-PAM-SRL-Eth, 4W**
DSL Version:	SHDSL (TDM)
Modulation:	TC-PAM16
Data Rate:	64kbps - 4.6Mbps
Copper Pairs:	2
Modes:	Master / Slave
Interface:	Ethernet Bridge (10/100BaseT)
Power:	48VDC < 7.5W
Physical Interfaces:	RJ45 (Ethernet), RJ48 (SHDSL), DB9 (Management)
Management:	Console Port, Telnet, and SNMP
Remarks:	1+1 Protection and Point-to-Multipoint Features Supported

Model:	**FG-PAM-SRL-Eth/FXS**
DSL Version:	SHDSL (TDM)
Modulation:	TC-PAM16
Data Rate:	64kbps - 2.3Mbps
Copper Pairs:	1
Modes:	Master / Slave
Interface:	Ethernet Bridge (10/100BaseT)
Power:	48VDC
Physical Interfaces:	RJ45 (Ethernet), 2x RJ11 (Voice), RJ48 (SHDSL), DB9 (Management)
Management:	Console Port, Telnet, and SNMP
Remarks:	Offers 2x FXS Interfaces (occupies 2x 64k TS, no configuration required)

Model:	**FG-PAM-SRL-Eth/FXO**
DSL Version:	SHDSL (TDM)
Modulation:	TC-PAM16
Data Rate:	64kbps - 2.3Mbps
Copper Pairs:	1
Modes:	Master / Slave
Interface:	Ethernet Bridge (10/100BaseT)
Power:	48VDC < 5.8W
Physical Interfaces:	RJ45 (Ethernet), 2x RJ11 (Voice), RJ48 (SHDSL), DB9 (Management)
Management:	Console Port, Telnet, and SNMP
Remarks:	Offers 2x FXO Interfaces (occupies 2x 64k TS, no configuration required)

Specifications are subject to change without notice

DS_200608_TDMDisco

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FlexDSL Discovery SHDSL Overview

FlexDSL Discovery \ Functionality	Standalone	Subrack Module	TDM	Bridge	Single Pair SHDSL	Dual Pair SHDSL	Multi-Point Operation	1+1 SHDSL Protection	Single Ethernet Port	VLAN Support	2x FXS	2x FXO	Console Port Management	Telnet Management	Optional SNMP Management
FG-PAM-SAN-Eth	■		■	■	■				■	■			■	■	■
FG-PAM-SAN-Eth, 4W	■		■	■	■	■			■	■			■	■	■
FG-PAM-SAN-Eth/FXS	■		■	■	■				■	■	■		■	■	■
FG-PAM-SAN-Eth/FXO	■		■	■	■				■	■		■	■	■	■
FG-PAM-SRL-Eth		■	■	■	■				■	■			■	■	■
FG-PAM-SRL-Eth, 4W		■	■	■	■	■			■	■			■	■	■
FG-PAM-SRL-Eth/FXS		■	■	■	■				■	■	■		■	■	■
FG-PAM-SRL-Eth/FXO		■	■	■	■				■	■		■	■	■	■

2 and 4 Wire SHDSL

Up to 4.6Mbps

Ethernet Bridge

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