

GoWide E1 ATM

SHDSL E1 ATM Network Termination Unit

KEY FEATURES

- Transparent transport of ATM
- E1 ATM UNI v3.1 customer interface
- Single or dual pair SHDSL ATM network interface
- Compatible with major SHDSL ATM DSLAM vendors

MAJOR APPLICATIONS

- 3G node B cellular traffic transport
- E1 packet data service

INTRODUCTION

Symmetricom's GoWide™ SHDSL E1 ATM is a Network Termination Unit (NTU) enabling carriers to terminate SHDSL ATM service as an E1 for connection to wireless base station equipment, internal transport equipment or end user data equipment.

Given the current installed base of DSLAMs and the need to migrate services onto a unified platform and network, it is evident that ATM SHDSL termination in a DSLAM and Customer Located Equipment (CLE) yields the most economical solution to offer E1 service.

GOWIDE E1 ATM TECHNOLOGY

Based on the worldwide G.shdsl (ITU-T G.991.2) standard and E1 (G.703). GoWide E1 ATM provides advantages such as unrivaled reach (over 4.5 Km), excellent tolerance to noise and efficient spectrum management. All of these advantages will enable carriers to provide reliable legacy services over copper using SHDSL increasing end user satisfaction with lower system cost.

GoWide E1 ATM has been designed to interoperate with 3G base station equipment or existing ATM capable routers and network equipment.

GoWide E1 ATM, with its integrated G.shdsl single pair or dual pair (4-wire) technology, enables E1 delivery beyond the coverage area serviced by traditional HDSL. GoWide E1 ATM can be configured to use a single pair delivering a full rate E1 ATM 2.048 service for 3.5 Km, dual pair (4-wire) mode delivering full rate for 4.5 Km and fractional E1 ATM service as far as 6 Km.

Integrated with robust and reliable SHDSL Embedded Operation Channels (EOC) messaging and ATM Operations, Administration, and Maintenance (OAM) management features, GoWide E1 ATM reduces maintenance and deployment costs while delivering reliable E1 service.

GoWide E1 ATM design, manufacturing, and support are performed entirely by Symmetricom, a recognized leader in Network Synchronization and Timing. Symmetricom's manufacturing facilities are fully ISO 9001 certified and meet Telcordia GR-2981 CORE requirements. In addition, GoWide E1 ATM is backed by Symmetricom's world-class Customer Technical Assistance Center (CTAC) in the United States and the United Kingdom. The CTAC is capable of delivering 24/7/365 technical support coverage in over 80 countries throughout North America, South America, Europe, Asia and Africa.



FIG.1 GoWide E1 ATM network termination unit.

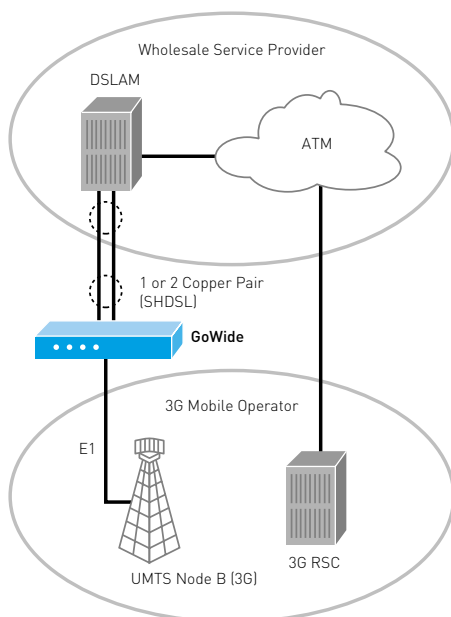


FIG.2 UMTS Node B (3G) Solution

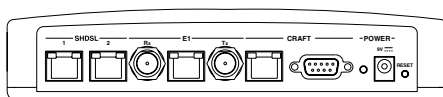


FIG.3 GoWide E1 ATM I/O panel

Feature Specifications

SHDSL FEATURES

- ITU-T G.shdsl (G.991.2)
- Configurable: 2-wire or 4-wire mode
- Signal format: TC-PAM
- Data rate:
 - 192Kbps ~ 2.312 Mbps for 2-wire mode (GoWide 2.3 E1 ATM)
 - 364Kbps ~ 4.608 Mbps for 4-wire mode (GoWide 4.6 E1 ATM)
- Connector: RJ-45
- Impedance: 135 Ohms

E1 FEATURES

- ITU-T E1 G.703
- Signal format: HDB3
- Data rate: 2.048 Mbps
- Connectors: RJ-45 and BNC
- Impedance: 120 Ohms and 75 Ohms

ATM FEATURES

- ITU-T I.432.3
- ATM UNI v3.1
- ITU-T I.610 including OAM F4/F5
- ATM VP Connection
- ATM VP Segment Endpoint

MANAGEMENT FEATURES

- Local and in-band management
- Console port for local management
- Telnet configuration
- Command line interface
- Firmware upload/download via TFTP or BOOTP
- Alarm status and power indicators
- Event logging
- Interfaces: DB9 EIA-232 & RJ45 Ethernet

PHYSICAL INTERFACES

- Two G.shdsl port (RJ-45)
- One E1 port (RJ-45 & BNC)
- LED indicators: Power, SHDSL, E1
- DB9 & RJ 45 craft ports

PHYSICAL SPECIFICATIONS

- Height: 28.1 mm (1.5 in.)
- Width: 203.2 mm (8 in.)
- Depth: 152.4 mm (6 in.)
- Weight: 0.7 kg (1.5 lbs.)

POWER REQUIREMENTS

- External power supply: 220-240 VAC, 50Hz, 1A
- Power consumption: 6W
- Battery backup optional
- 48V DC optional

OPERATING ENVIRONMENT

- Temperature: -5° to 45° C (23° to 113° F)
- Humidity: 5% to 90% RH non-condensing

REGULATORY APPROVALS

- CE Mark
- ETS 300019 1.3, classe 3.1E
- EN 60950 Amendment 4 and EN 41003. NT is class II
- EN 300 386-2, EMC directive 89/336/EEC
- EN 55022 class B (1998)
- EN 55024 (1998)
- ETS 300 019-2-2 class T2.3 (ordinary transport)
- CEI 38
- ITU K.45 (enhanced level)
- ETS 300 046-3 for customer interface

GWOWIDE PRODUCT FAMILY

PRODUCT NAME	PART NUMBER
GoWide 2.3	990-91021-XY
GoWide 4.6	990-91022-XY
GoWide 9.2	990-91023-XY
GoWide 2.3 E1 ATM	990-91051-XY
GoWide 4.6 E1 ATM	990-91052-XY
GoWide 2.3 E1 AAL1	990-91061-XY
GoWide 4.6 E1 AAL1	990-91062-XY
	X = 0 for US
	X = 1 for Continental Europe
	X = 2 for United Kingdom
	Y = Release Number



SYMMETRICOM, INC.
2300 Orchard Parkway
San Jose, California
95131-1017
tel : 408.433.0910
fax : 408.428.7896
info@symmetricom.com
www.symmetricom.com

SYMMETRICOM EMEA
150 Wharfedale Road
Winners Triangle, Nr. Wokingham
Berkshire
RG41 5RB, United Kingdom
tel : 44 (0) 1189 699 799
fax : 44 (0) 1189 277 520
info@symmetricom.com

SYMMETRICOM LATIN AMERICA
1560 Sawgrass Corporate Parkway
4th Floor
Sunrise, Florida
33323
tel : 954.331.4592
fax : 954.331.4601
info@symmetricom.com

SYMMETRICOM ASIA PACIFIC
Unit 1005, Jubilee Centre
42-46 Gloucester Road
Wan Chai
Hong Kong
tel : 852.2529.7180
fax : 852.2529.7190
info@symmetricom.com