MTTplus-260
SHDSL Test Module

VeEX

MTTplus
Modular Test Platform

The MTTplus-260 SHDSL Test Module provides CPE installation, CO emulation pre-qualification, and IP/ATM services testing capabilities for SHDSL

SHDSL is ideal for business class services, enterprise networks, and industrial communications that must rely on legacy copper based networks where fiber remains cost prohibitive. Utilizing SHDSL's multiple pair bonding application enables robust data transmission over long copper lines.

MTT Plus SHDSL Test Module provides CPE installation, CO emulation pre-qualification, and IP/ATM services testing capabilities for service installation and verification. The module is based on the industry leading Lantiq SOCRATES chipset, offering best-in-class SHDSL performance and interoperability.

Module Highlights

- CPE Emulation for standard SHDSL and SHDSL.bis
- Standards SHDSL.bis line rates: Symmetrical 5.7 Mbps per pair
- Key DSL metrics including Data Rate, SNR Margin, and line errors
- EFM and ATM support
- SHDSL/EFM mode for Ethernet based services, offering higher data rates and superior reach for Enterprise and Industrial applications
- Legacy 4-Wire SHDSL/ATM Standard and Enhanced Modes
- EFM Bonding and ATM Bonding up to Four Pairs
- CO Emulation for line prequalification using real SHDSL signals
- Based on the industry leading Lantiq SOCRATES 4e SHDSL Chipset

Key Features

Comprehensive SHDSL support

A wide range of SHDSL based applications, from single pair ATM SHDSL to 4-Pair EFM bonding, are supported. Test Setup is streamlined and simplified within one Setup screen.

Key Features *cont'd*

Summary Status

Test results are presented upon achieving synchronization (Data Mode) with the far end SHDSL equipment.

Line Status, Per Active Pair

Key line status metrics including achieved Rate, Current SNR Margin, and Attenuation for each active Pair.

Errors and Alarms

Lines are monitored for Errors and Alarms, including CRC Errors and low SNR Alarms for the Near End and Far End (where available).

ATM Functions

For legacy SHDSL/ATM networks: OAM loopback cells can be used to verify end-to-end connectivity while a segmented OAM ping test can quickly isolate problem locations.

Events

Events mode not only logs and displays a time stamped sequence of the DSL modem to DSLAM connection process, but also records modem retrains due to link failures, micro-interruptions and other aberrations. At a mere glance, the technician can quickly identify whether the modem is training successfully and whether or not Data Mode was achieved in a timely manner.

Specifications

Test Modes

STU-R CPE
STU-C CO
1, 2, 3, and 4-Pair Operation

Standards

ITU-T G.991.2 SHDSL and SHDSL.bis
Annex B/G, Annex A/F
ITU-T G.994.1 G.hs
EFM and ATM
ETSI SDSL and SDSL.bis

Key Metrics

Line Rate
Data Rate
SNR Margin: Current, Max, Min
Attenuation
Raw SNR
Transmit Power
TC-PAM Status
CRC Errors
Error Seconds
Event Log

Test Ports

DSL Interface: RJ-45
Ethernet Interface: RJ-45

Data IP Test

IP Statistics: lost packets, packet delay, PING, and Trace Route

ATM

ATM OAM Analysis and Generation

The Verification Experts