MTTplus-520
AnyDSL Test Module

VeEX

MTTplus
Modular Test Platform

The MTTplus-520 AnyDSL module addresses key test requirements for IP based services deployed over a 'universal' DSL Access network.

The MTTplus-520 AnyDSL module features VDSL2 and ADSLx physical layer tests and IP Services testing, including true VeTest speed test, enabling providers to ensure their services are properly delivered to end users.

Module Highlights

- XTU-R CPE Emulation for 'Any' Access ADSLx and VDSL2 technologies
- Key DSL Metrics including Data Rate, SNR Margin, and line errors
- Supports the following optional configurations: Annex A only; Annex B only; Dual Annex A Bonding; Annex A + Annex B
- Latest DSL innovations including Vectoring and Retransmission
- IP Services Testing, including VeTest throughput
- Future support for G.fast and Vplus 35b
- Future support for LTE offload over DSL applications

Key Features

Line Status
Supports key DSL modem metrics including Current Data Rate, SNR Margin, and Capacity.

	Downstream	Upstream	ST: 15:15:18	ET: 00:01:16
Rate (kbps)	27017	1197	Line 1 Handshake State	
Max (kbps)	27016	1197	Showtime	
Capacity (%)	100	100	Mode	ADSL2+ Annex A
SNR Margin (dB)	8.7	6.0	VDSL2 Profile	N/A
Attenuation (dB)	6.9	4.7		
Delay (ms)	0.2	12.8		
INP (sym)	0.0	1.0		
Depth (frm)	1	8	Line 1 of 1	
Tx Power (dBm)	15.4	12.3		

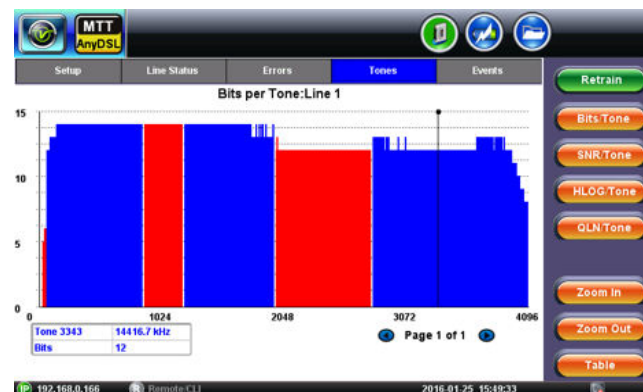192.168.0.145   Remote/CLI   2016-02-09 15:18:34

Key Features *cont'd*

Error Measurements

Continuous monitoring for CRC Errors and errored events for both the local and far end XTU.

HLOG and QLN Measurements

HLOG provides an attenuation vs carrier bin frequency graph. It is an insertion loss curve that can depict the presence of Bridge Taps, with its characteristic magnitude dip.

QLN provides a quiet line noise vs carrier bin spectrum graph, which can help detect the presence of RF interference on the copper pair under test.
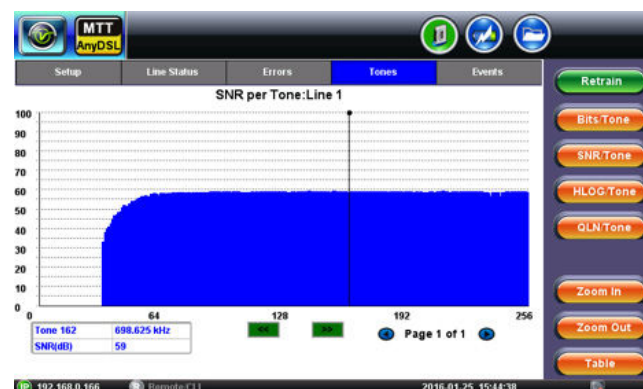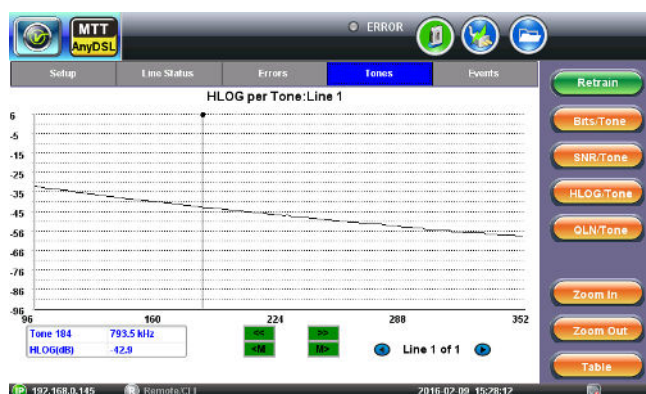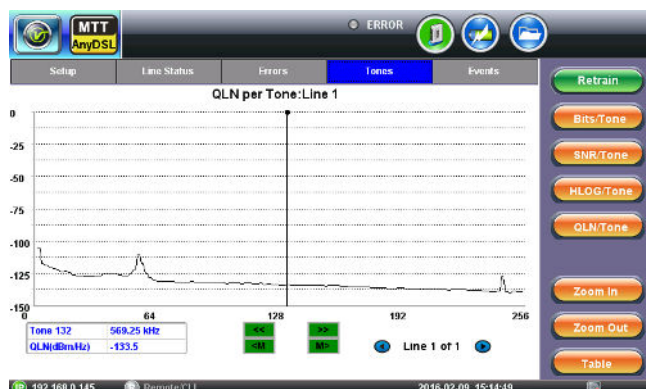

Bits per Tone and SNR per Tone

Bits loading and raw SNR per tone provide insightful characteristics of the line – how good is a particular carrier and the presence of line impacting external disturbers.

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 and errors. At a mere glance, the technician can quickly identify whether the modem is training successfully and whether or not Showtime was achieved in a timely manner.
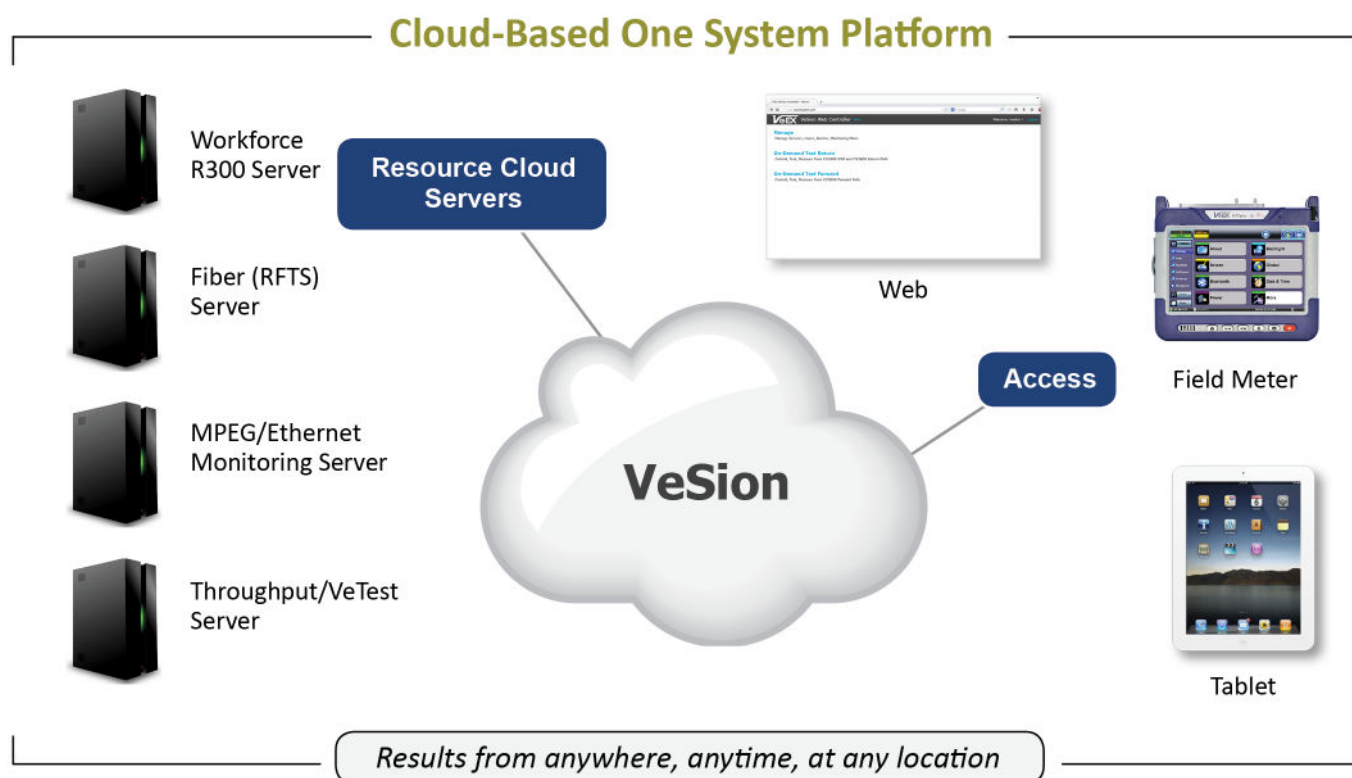
Key Features *cont'd*

VDSL2 Vectoring

Vectoring is a noise cancelling method that reduces self crosstalk for multiple VDSL2 pairs, enabling greater data rates. The AnyDSL module supports Vectoring and is compliant to the G.993.5 G.vector standard.

Impulse Noise Protection and Retransmission

There are two primary methods to mitigate the impact of unpredictable impulse noise bursts that are present on many copper plants. These methods are traditional FEC (Forward Error Correction) with Interleaving and the latest innovation: G.998.4 (G.inp) physical layer retransmission. Both impulse noise protection methods are supported by the AnyDSL module.

VeSion R300 Productivity Server

Centralized asset and test result management is a standard feature for the MTTplus platform with seamless transactions with the VeSion R300 Productivity Server.

Cloud-Based One System Platform

Workforce R300 Server · Resource Cloud Servers · Web · Field Meter · Fiber (RFTS) Server · MPEG/Ethernet Monitoring Server · VeSion · Access · Tablet · Throughput/VeTest Server

Results from anywhere, anytime, at any location

Specifications

DSL Standards

ITU-T G.993.2 VDSL2, Profiles 8a/8b/8c/8d, 12a/12b, 17a, 30a
ITU-T G.992.5 ADSL2+ Annex A, B, J, M
ITU-T G.992.3 ADSL2 Annex A, B, J, L, M
ITU-T G.992.1 ADSL1 Annex A, B
ANSI T1.413 ADSL1
G.993.5 Vectoring
G.998.4 Retransmission
G.998.2 Bonding

Measurements

Actual Data Rate
Max Attainable Rate
SNR Margin
Capacity
Attenuation
Latency Path
INP
Interleaved Delay and Depth
Transmit (Output) Power
CRC, FEC, HEC counters
Errored Seconds
Number of Retrains
Bits per Tone
SNR per Tone
HLOG per Tone
QLN per Tone
Event Tracer

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