Datasheet

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ALBEDO AT.xDSL

This is a modular tester that includes ADSL, ADSL2, ADLS2+, VDSL and VDSL2 technologies to facilitate the task of verifying and certifying access by copper local loop. The brings new functionalities to test IPTV and VoIP in addition to xDSL testing.

1. Testing Features

1.1 Standards
- ITUT G.dmt (G.9221), Annex A (ADSL over POTS)
- ANSI T1.413 Issue 2 (On AUTO mode)
- G.dmt.bis (G.992.3) (ADSL2 - Annex A - ADSL over POTS)
- G.dmt.plus (G.992.5) (ADSL2+ - Annex A)
- ITU (G.993.1) (VDSL)
- ITU (G.993.2) (VDSL2)

1.2 Lines
- ADSL (G.DMT) - G.992.1
- ADSL (G.LITE) - G.992.2
- ADSL (Ansi T1.413)
- ADSL2 - G.992.3 Annex A
- READSL2 - G.992.3 Annex L
- ADSL2 - G.992.3 Annex M
- ADSL2+ - G.992.5 Annex A
- ADSL2+ - G.992.5 Annex M
- VDSL2 - G.993.2

1.3 Protocols
- PPPoE
- RFC 2684 (Metro Ethernet)
- RFC 2684 (IPoA)
- BRIDGE 3.3.Modem

1.4 Operation Modes
- Terminal
- Through
- Modem emulation

2. xDSL Measurements

2.1 Tests
- RATE: Current connection rate
- MAX RATE: Estimate of the maximum rate possible on the line
- ATTENUAT: Attenuation
- SNR MARG: Signal to Noise Ratio margin
- TX POWER: Transmit Power
- Channel per bin histograms

2.2 Bit rates
- Downstream up to 200 Mbps
- Upstream up to 100 Mbps

2.3 Showtime
- Set speed in the negotiation of downstream / upstream data transfer
- Max. connection speed downstream
- Max. speed of the upstream Margin of signal / noise ratio (SNR)
- Mitigation, Capacity and Power
- Histograms bits per channel for downstream / upstream

3. Ethernet Measurements

3.1 Router
- Protocols: DHCP, DNS
- Indicative Link UP / DOWN
- Statistics: number of TX and RX packets, error packets TX and RX

3.2 Configuration
- Manual
- Automatic: IP Address, Subnet Mask, Gateway IP, DNS, IP, MAC

3.3 Modems full sopported
- COLETEK M1120 BK
- COMTREND CT-5072S
- DATACOM DM2270
- DSLINK 200E
- DSLINK 260E
- D-LINK DSL 2500E
- D-LINK 500B
- D-LINK 500G II
- HUAWEI MT880
- OPTICOM DSLINK 279
- OPTICOM DSLINK 485
- SAGEMCOM FAST 2704N
- TECBAN
- TECHNICOLOR TD5130
- TECHNICOLOR TD5130v2
- TECHNICOLOR TD5336
- TECHNICOLOR TG581n
- TELSEC TS129i
- TELSEC TS-9000
- THOMSON 510v4-v6
- THOMSON 585v6
- THOMSON TG508
- VIVO SPEEDY BAYTEC
- ZTE ZXDSL 831II V1
- ZTE ZXDSL 831II V2
- ZTE ZXDSL 831II V3
- ZTE ZXDSL 931WII
- ZTE ZXV10 W300S

4. Counters
- RSC
- HEC
- OCD

- LCD
- INP
- FEC
- CRC
- ES
- SES
- UAS
- LOS
- LOF
- LOM

4.1 Ethernet Modem configuration
- PING test over xDSL
- Internet browsing over ADSL
- Modem Emulation (Through Mode)

5. VoIP

5.1 Protocol
- SIP

5.2 QoS Measurements
- Sent packets
- Received packets
- Lost packets
- Out of sequence packets
- Jitter
- Delay

5.3 Call Mode
- Via Proxy server
- Local ethernet

6. IPTV Measurements

6.1 Video QoS (Quality of Service)
- PCR Jitter
- Lantency
- Continuity Errors
- Error Indicator

6.2 Video QoE (Quality of Experience)
- DF Jitter
- Buffer Size
- MLR

6.3 Errors
- Continuity Errors
- Transport Stream Lost
- Error Indicator
- Synchronization Errors
- RTP packet Loss
- Out of sequence RTP packets
- RTP packet Discontinuity

6.4 Jitter Measurements
- PCR Jitter
- Network Jitter
- Histogram of packet Jitter and PCR of the last 5 minutes

6.5 Stream Statistics (ST)
- Total of Video packets
- Total of Audio packets
- Total of Data packets
- Total of Unknown packets

6.6 Stream Rates
- Video stream rate
- Audio stream rate
- Data stream rate
- Unknown stream rate

6.7 Channels number (PIDS of PAT)
- Each channel Band Usage Percentage

6.8 IGMP Measurements
- IGMP latency

7. Navigation tests
- Ping

- Internet Browser
- Throughput
- Tool: Upload

8. Platform

8.1 Ergonomics
- Size: 24.33 x 9.69 x 5.2 inches
- Weight: 2.9lb

8.2 Graphical User Interface
- GUI controlled by Touch-screen
- Display: 320 x 240 pixels
- Alphanumeric keyboard

8.3 Results
- Local storage up to 100 files
- AdslResults
- EthernetResults
- IptvResults
- Results Upload (via Internet)

8.4 Board
- RJ-45 @ 100 Ohm for xDSL line connection
- RJ-45 10BASE-T Ethernet for network testing
- RJ-45 100BASE-T Ethernet for the Modem Emulation (Through Mode)
- Mini USB

8.5 Batteries
- NiMH battery
- 5 hours operation
- 3:15 to fully charge

8.6 Battery Charger
- IN: AC/DC 90-240VAC, 50-60Hz
- OUT: 10VDC/1A

8.7 Operational Ranges
- Operating temperature: 32 to 122º F
- Storage temperature: -4 to 158 ºF
- Humidity: 5% to 95% non-condensed