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ARGUS[®] 42

ADSL, ADSL2/2+, ISDN*, POTS* and copper tester
(Version: 01 / 2007)

One tester for all requirements

- ADSL modem (ATU-R) emulation towards the DSLAM
- ISDN BRI TE simulation*
- Tests ISDN BRI leased line*
- Operates at ISDN BRI U interface (internal U-module)*
- Powerful POTS tester with CLIP display*
- 2-wire high-Z monitor with DTMF and CLIP decode*
- Non-intrusive, passive DSL / high frequency traffic detection*
- Basic copper cable testing
- 10/100 Base-T Ethernet interface* (for bridge mode)
- IP based testing functions* (e.g. IP-Ping)
- Easy-to-operate, user defined and predefined test scenarios
- Lightweight, internally charged AA rechargeable batteries or mains powered
- Fully automated access tests and test reports for documentation
- Free software updates by download from www.argus.info
- Rugged and ergonomic handheld design
- Compatible with WINplus / Remote PC software*
- CE marked



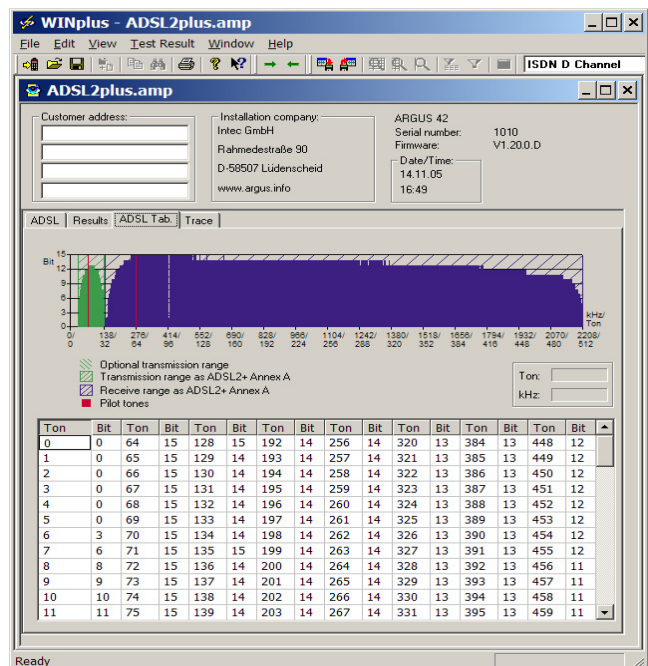
ARGUS[®]42 allows the installer to confirm that the promised ADSL service is being properly delivered to the subscriber. Determine the ADSL Quality-of-Service automatically within seconds by receiving the connection rates and noise margins from the DSLAM at the customer.

Check through the network if the wiring does allow DSL service by connecting the rechargeable battery powered ARGUS at various points at the end point, at the junction box, at the cross box - and optimise the local loop.

See the ADSL transmission spectrum on the graphics screen and find degraded spectral regions by interfering noise sources.

In addition to the widespread function of verifying the subscribers ADSL supply, the ARGUS[®]42 checks further services; it allows ISDN testing* at BRI S/T* and U* interfaces in a TE or leased line operation mode, also POTS tests* are possible.

All other impairments of the local loop will be detected by the copper cable testing function.



(ADSL access test report viewed by WINplus*)

ARGUS[®]42 - ADSL interface functions

- ATU-R simulation for ADSL, ADSL2, ADSL2+
- Standards supported: ANSI T1.413.2, ITU-T G.992.1 (G.DMT) Annex A / B, ITU-T G.992.2 (G.Lite), ITU-T G.992.3 Annex A / B / L (Reach Extended) / Appendix 1, ITU-T G.992.4 Annex A / B / Appendix 1, ITU-T G.992.5
- ADSL over POTS (Annex A) or ADSL over ISDN (Annex B) or both in the same tester
- Automatically measures and displays the following upstream and downstream parameters of the line:
 - ATM maximum bit rates
 - ATM fast or interleaved bit rates
 - on-screen bits/tonne histogram of the carrier load
 - noise margin
 - output power
 - line attenuation



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- ATM cell and bit error statistics (upstream/downstream):
 - CRC (Cyclic Redundancy Check)
 - FEC (Forward Error Correction)
 - HEC (Header Error Checksum)
 - Fast / interleaved bit error
 - Fast / interleaved errored seconds
 - Interleave depth in bytes
- ARGUS[®]42 also displays the manufacturer of the ATU-C

ARGUS[®]42 - The ATM / IP functions*

- Tests the internet connectivity to the ISP over PPP
- IP-Ping, test of response time analysis: display of sent, received and lost packets - min / max / average / error
- VPI/VCI scan returns list of available VPI/VCI
- ATM PING (end-to-end or segmented)
- ATM statistics

ARGUS[®]42 - The ADSL-Ethernet bridge mode*

- 10/100 Base-T Ethernet interface
- ADSL modem through mode (bridge mode)

ARGUS[®]42 - The BRI S/T interface functions*

- BRI interface in accordance with ITU-T I.430
- Operation modes:
 - TE (terminal simulation)
 - leased line (slave mode)
- Automatic detection of access configuration and protocol:
 - Point-to-point (P-P) or point-to-multipoint (P-MP)
 - DSS1 or no protocol
 - further protocols: Cornet-T / N / NQ, QSIG, VN4
 - Display of layers 1-2-3 and the B-channel status
- Automated test scenarios for access verification and saving the data in device to create an access test report*
- Automatic ISDN service test: determines which ISDN services are available on the send and receive sides of the access
- Automatic test of the supplementary services
 - for DSS1: autom. tests of CLIP, CLIR, COLP, COLR, HOLD, TP, CFU, CFB, CFNR, AOC-D/E, CCBS, CCNR, CW, MCID, ECT, 3PTY, DDI, SUB, UUS, support of keypad protocol
- Bus status test with interrogation, display and clearing of the active call diversions CFU, CFB, CFNR for all services
- Telephone functions with a call-hot-button:
 - calling and called number by incoming calls,
 - B-channel, ISDN service, SUB address and UUS-1 data
 - during call: AOC-D in currency or charging units, displays info elements,
 - at end of call: AOC-E in currency or charging units, clearing cause by number/text incl. location

- Call number memory for 10 numbers or keypad protocol commands
- Selectable B-channel, en-bloc or overlap signalling
- Bit error test (BERT) with evaluation in accordance to G.821
 - extended self call or end-to-end BERT
 - displays the bit error count and remaining measuring time
 - G.821 analysis: ES, EFS, SES, US, DM and OK evaluation
 - selectable service for BERT connection
 - manual injection of bit errors
 - adjustable OK/not OK bit error rate threshold and evaluation
 - test pattern in acc. to O.150: 2E11-1, 2E15-1, user defined
 - measuring time: 1 minute till infinite
 - loopbox function for B-channel and all services
 - audible alarms for bit errors, LOS and LOS counter
 - receiving calls parallel to BERT possible
- Terminal simulation for different ISDN bearer and tele services
- Displays the clearing cause by number/text incl. location in plaintext
- Tests of ISDN leased lines:
 - Telephone function and BERT, selectable B-channel, loopbox function for B-channels, BERT in D-channel
- Layer 1 tests: measurement and evaluation of the phantom feed (OK, NORMAL or Restricted power) and the L1 receive- and send- signal level of NTBA or PBX
- Display of layer 1 infos (info 0 - info 4)
- Selectable call parameters for outgoing calls
 - type of number and numbering plan
 - screening and presentation indicator

ARGUS[®]42 - The U interface functions*

- internal U interface in accordance with ETR 80 / ANSI T1.601
- Line coding: 4B3T or 2B1Q, RJ-45 with 150 Ohm
- Test in TE mode at U interface same as S/T
- Test in leased line mode at U interface same as S/T
- Measurement of U interface voltage incl. OK evaluation
- endurance testing (up to 1200 mW incl. U/I measurement)
- High-Z monitor with non-intrusive listen-to on U interface (quod vide POTS interface)

ARGUS[®]42 - Basic copper cable testing function

- Loop resistance measurement - accuracy 1%
- Open capacity - accuracy 5 %
- Non-intrusive, passive DSL / high frequency traffic detection*



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ARGUS® 42 - The POTS interface functions*

- POTS telephone function with DTMF and pulse dial mode
- Flash function (40-1000 ms)
- Loop resistance: appr. 600 Ohm
- POTS voltage measurement incl. polarity (hook-on and hook-off)
- CLIP and other caller ID services in acc. with ETS 300 659/778
- Supports display FSK and DTMF caller ID (date, time, name,...)
- adjustable DTMF signal level, signal and interval length
- High-Z monitor with non-intrusive listen-to on POTS
 - measurement of voltage incl. polarity (up to 200 V)
 - online display of CLIP, date, time,... caller ID services
 - online display of DTMF dialing tones incl. A, B, C, D, *, #
 - works as receiver for tone generators

ARGUS® 42 - Acoustics:

- automatic headset access detection
- headset connection over jack plug
- Switchable from normal to open listening
- handset operation mode

Technical features:

- Power supply: alternatively supplied by standard rechargeable AA batteries or mains adaptor
- Keypad: 16-keys, 2 cursor keys, 3 context-specific softkeys
- LC display: 4 lines with 16 characters, backlit
- 5 LEDs to indicate status (ISDN layer 1-2-3 or ADSL sync, PC trace)
- Interfaces:
 - RJ-45 line input for POTS, ADSL, ISDN
 - RJ-11 serial interface to PC
 - jack plug socket for headset connection
- Environmental conditions:
 - operating temperature: 0° - +50 ° C
 - storing temperature: -15° - +70°
 - relative humidity: up to 95%, non-condensing
- CE marking: complies with CE directives
- User safety: EN 61010-1, EN 60950
- Standard package: tester incl. rechargeable batteries, plug-in power supply, carrying strap, carrying case, shock absorbing rubber jacket, WINplus-SW, RJ-45 cable for ADSL, POTS, ISDN and manual
- Real time clock (RTC)

*Options:

- ISDN interface
- POTS interface
- ISDN and POTS interface
- Remote-Kit: convenient control of the tester using a PC
- Serial interface cable and USB serial adaptor
- U interface (2B1Q or 4B3T)
- ARGUS car charger
- Calibration certificate
- Module for high frequency traffic detection
- Module with U interface (internal) and high frequency traffic detection
- ADSL-Ethernet bridge mode
- ATM / IP package
- Ethernet Tests
- Headset

Contact: intec Gesellschaft für Informationstechnik mbH
Rahmedestraße 90
58507 Luedenscheid - Germany
Tel +49 (0) 2351/9070-0
Fax+49 (0) 2351/9070-70
E-Mail: sales@argus.info
Internet: www.argus.info