ARGUS® 42 PLUS

ADSL COMBI TESTER

ADSL

ETH

ISDN

POTS

Data
101101011011

MDI

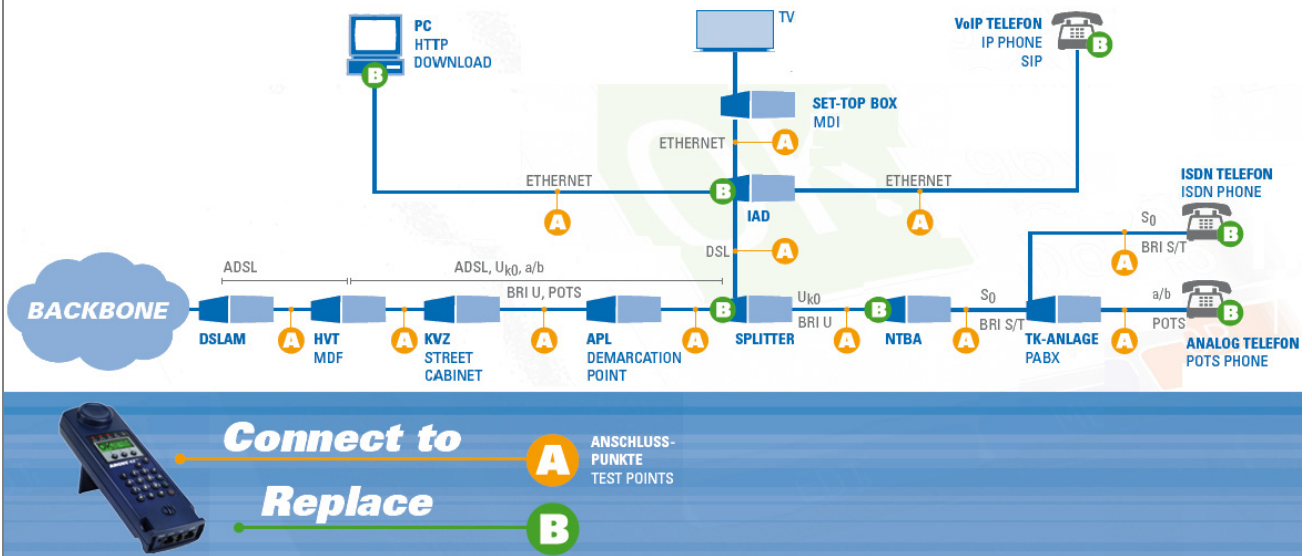Vo IP

MOS

PC

intec

GESELLSCHAFT FÜR
INFORMATIONSTECHNIK mbH

ARGUS® 42 PLUS

Connect to — A — ANSCHLUSS-PUNKTE TEST POINTS

Replace — B

The best entry into the world of combi testers:

The ARGUS®42 PLUS ADSL Combi Tester verifies ADSL and ISDN, and offers VoIP tests on top.

ADSL combi tester at a fair price: the ARGUS®42 PLUS tests ADSL, as well as optionally ISDN and POTS. In addition to the various access types and protocols, the tester also determines e.g. the attainable transmission speed or noise floor of the line.

Upgrade to a full voice tester

Basic Triple Play tests are also supported: the ARGUS®42 PLUS can be upgraded to a fully featured voice tester if desired. The combination tester can then be used to set up voice calls to test and evaluate not only POTS and ISDN connections, but also calls placed via VoIP. The ARGUS®42 PLUS evaluates the voice quality, delivers a MOS value (using E model) and determines the Media Delivery Index (MDI) of IPTV streams.

Determine the line quality

The testing set also checks the resistance and capacitance and performs voltage measurements on top. Optionally, HF signals can be detected or data services can be tested, e.g. by enabling the passive bridge or router modes. This allows determining the transmission quality of the line.

Easy operation

The handheld tester, which weighs just 450 g, is remarkably user-friendly thanks to its intuitive menu structure.

intec Gesellschaft für Informationstechnik

The intec Gesellschaft für Informationstechnik mbH is developing high-quality products for the international telecommunications market for more than 20 years and is one of the leading vendors of xDSL, ISDN and IP measurement technology in Europe today.

The successful ARGUS measurement equipment enables its users to conveniently and safely commission and troubleshoot xDSL and ISDN accesses as well as services like VoIP and IPTV based on these interfaces. ARGUS testers are designed to meet the day-to-day needs of field technicians; consequently intec engineers focus on ensuring high-quality measurement in a compact device that is exceptionally easy to use.

The portfolio of ARGUS testers, software and analysers benefits from progressive development and is kept up-to-date with support for the latest standards for all the common access types and protocols as well as for the newest features of the Next Generation Networks (NGN) and Triple Play services. Throughout the world, numerous telecommunication companies have come to appreciate and rely on the advantages offered by intec equipment; to name just a few Deutsche Telekom, Saudi Telecom, Telefonica, KPN, British Telecom and Telekom Austria.

ARGUS® MADE IN GERMANY

ADSL, Ethernet, ISDN (BRI S/T/U) and POTS combi tester, tests data services and VoIP and does an MDI analysis

The ADSL Combi Tester ARGUS®42 ^{PLUS} can assess the quality of ADSL, VoIP and ISDN services.
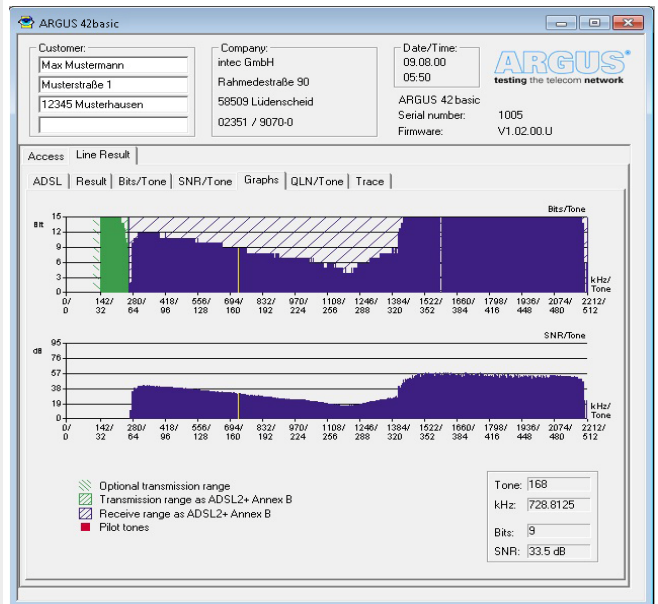
Broadband interfaces:
- Synchronisation with DSLAM (ATU-C) and evaluation of all relevant connection parameters and error counters
- Bridge, router and PC replacement modes available
- Up to date ADSL chipset guarantees optimum performance
• **ADSL2/2 +** and ADSL modem simulation, ATU-R
  - Shows Bits, SNR and QLN/tone graphs
  - Standards supported:
    ANSI T1.413.2
    ITU-T G.992.1 (G.DMT) Annex B (Annex A)
    ITU-T G.992.2 (G-Lite)
    ITU-T G.992.3 Annex B (Annex A/M)
    ITU-T G.992.5 Annex B (Annex A/M)
    ITU-T G.992.3, Annex J (ADSL2)
    ITU-T G.992.5, Annex J (ADSL2+)
    ITU-T G.992.3, Annex L
  - Automatically measures and displays the upstream and downstream parameters on the line
• **Ethernet** interface
  - Ethernet interface (10/100 Base-T), Autonegotiation
  - Supports Ethernet terminal mode (PC replacement)

Data and VoIP testing plus MDI analysis via ADSL and Ethernet:
• **ATM layer** tests when using ADSL, ADSL2/2+
  - ATM OAM ping and ATM OAM cell loop, VPI/VCI scan
  - ATM cell and bit error statistics (upstream/downstream)
• **Data:** testing the data throughput, establishing a PPP login
  - Ping test, incl. PPP login (BRAS infos, PPP trace, VLAN)
  - Test the internet connectivity to the ISP by establishing a PPP, EoA or IPoA connection
  - HTTP download via ADSL and Ethernet interface determines the data throughput
• **Voice:** testing of VoIP (Voice over IP) connections (SIP)
  - VoIP terminal simulation, including acoustics (misc. codecs)
  - OK/FAIL evaluation and display of quality parameters (QoS)
  - Evaluation of the VoIP speech quality directly on ADSL:
    - MOS_{CQE} (ITU-T P.800) based on E model (ITU-T G.107)
• **Video:** testing of video services
  - Determination of MDI (Media Delivery Index), RFC 4445
  - OK/FAIL evaluation and display of quality parameters (QoE)
  - Supports activ and passiv analyse mode

Documentation and Analysis:
• **Update Tool** for free firmware updates
• **Documentation** of all parameters recorded to test reports (in device and on PC) via automatic access tests
• **Data transfer** to PC via serial interface
• **WINplus** PC software for generating, saving, archiving and printing test reports and for configuring the ARGUS
• **WINanalyse** PC software for analysis (including WINplus) graphical online long-term trace for ADSL

Circuit-switched interfaces:
• **ISDN:** ARGUS®42 ^{PLUS} is a effective ISDN tester
  - BRI U interface (2B1Q or 4B3T), acc. to ANSI T1.601
  - BRI S/T interface acc. to ITU-T I.430
  - Operates as TE (terminal simulation) and in leased line operation mode (slave mode)
  - Point-to-Point (P-P) or Point-to-Multipoint (P-MP)
  - Automatic test of services and supplementary services
  - Layer 1 tests and bus feeding:
    measurement and evaluation of the phantom feed (OK, NORMAL or Restricted power) and the L1 receive and send signal level of NTBA or PBAX
• **POTS:** integrated comprehensive POTS butt set (analog)
  - With DTMF and CLIP display, including pulse dial mode
  - CLIP and other caller ID services (ETS 300 659/778)
  - Supports FSK and DTMF caller ID display (date, time, name)
  - adjustable DTMF signal level, signal and interval length
  - High-Z monitor with non-instrusive listen-to on POTS

• **RC measurement**: resistance and capacitance
  - Loop resistance measurement - accuracy 2%
    Range: 100 Ω ... 100 kΩ
    Resolution: < 1 kΩ: ±10 Ω, > 1 kΩ: ±100 Ω
  - Open capacitance measurement accuracy 5 %
    Range: 1 nF ... 1 µF
    Resolution: 1 nF ... 1 µF ±1/10 nF
  - Including loop length calculation
  - DC voltage measurement: up to +200 V; res.: 0.1 V; acc.: ±2 %
• **TRG measuring**: Tip, Ring and Ground, special TRG measuring cable is required
• **HF detection**, detects frequencies on the line

Further highlights:
• Lightweight, compact and easy to use, all functions integrated
• Intuitive menu navigation and instant readiness for operation
• Free firm- and software updates via www.argus.info/en

ARGUS® 42 PLUS

Technichal Features:

- **Power supply:** supplied by standard rechargeable batteries (type AA), NiMH battery pack or mains adaptor
- **Hotkeys** for quick start of various testes
- **Power Management**, user configurable
- **Keypad:** 16-keys, 2 cursor keys, 3 context-specific softkeys
- **LC display** with switchable background lighting
- **5 LED**s to indicate status
- **Handset** with integrated speaker and microphone
- **CE marked**: complies with CE directives
- **User safety**: fulfills EN 60950-1:2006-11
- **RoHS** conformance accoring to WEEE directive

Interfaces:

- **RJ-45** line input for POTS, ADSL, ISDN
- **RJ-11** serial interface to PC
- **Ethernet** (10/100 Base-T)
- **Headset** jack (TRS 2.5mm, approx. 3/32")

Environmental conditions:

- **Operating temperature:** 0 °C (32 °F) up to +50 °C (122 °F)
- **Storing temperature:** -20 °C (-4 °F) up to +60 °C (140 °F)
- **Relative humidity:** up to 95%, non-condensing

Dimensions:

- **Size:** H x B x T: 229 x 72 x 35 mm (9.02 x 2,84 x 1,38 in)
- **Weight:** approx. 425 g (0.94 lbs)

Standard package:

ARGUS®42 *PLUS* with standard rechargeable batteries, mains adaptor, ADSL interface (Annex A+M or Annex B), RC measurement, xDSL test lead and adaptor, WINplus PC software, printed English manual, carrying case and rubber holster

Basic packages:

ARGUS 42 plus ADSL Annex A + M
Order number: 105202

ARGUS 42 plus ADSL Annex B + J
Order number: 105032

ARGUS 42 plus ADSL Annex A + B + J + M
Order number: 105262

* We would be glad to provide further details and information about additional accessories on request.

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*Options:

Additional interfaces: (options include additional test leads)
ADSL Annex A + M interface
Order number: 004200 (already included in 105202)

ADSL Annex B + J interface
Order number: 004202 (already included in 105032)

POTS TE interface
Order number: 014519 (included in 014517)

ISDN BRI S/T (TE) and POTS interfaces
Order number: 014517 (includes 014519)

ISDN BRI U interface
Order number: 014550 (4B3T) or 014551 (2B1Q)

Additional features: (depends on existing interfaces)
Bridge mode
Order number: 004210

Router mode
Ordner number: 004204

IP Ping test (PPP login / IP Ping via ADSL & Ethernet)
Order number: 004206

ATM test (VPI/VCI scan / OAM ping / statistics)
Order number: 004207

HTTP Download test (via ADSL & Ethernet)
Order number: 004208

VoIP test (via ADSL & Ethernet)
Order number: 000432 (incl. MOS / R factor, Qos parameters)

IPTV tests using MDI analysis (via ADSL & Ethernet)
Order number: 000435 (incl. MDI analysis)

HF detection
Order number: 004217

NiMH battery pack I (incl. special rubber holster)
Order number: 002041

Additional PC software:
WINanalyse
Order number: 010057 (for Windows operating systems)