ARGUS® *151*

x D S L   T E S T E R

VDSL VECTORING

ARGUS-State

OK

VTU-R
VDSL2 100
Profile 17a
      0:01:06
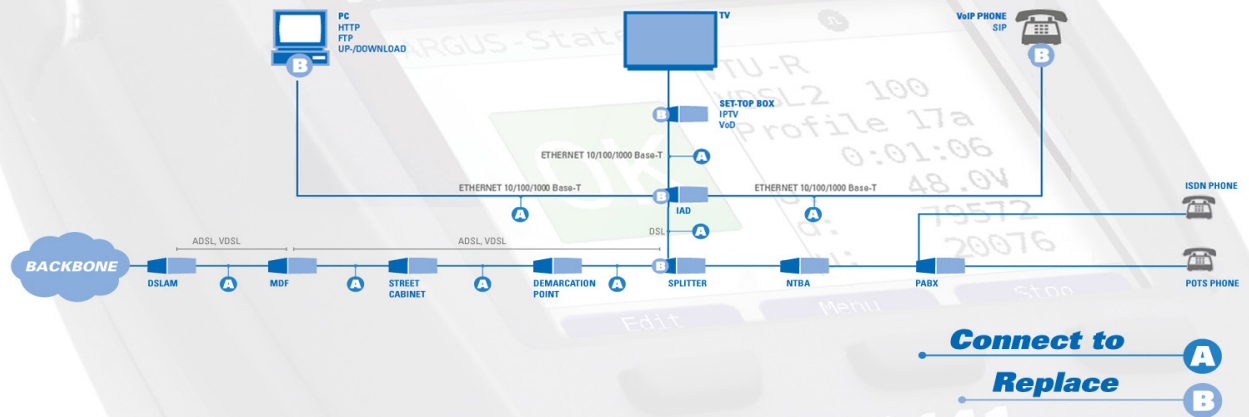U: 48.0V
d: 79572
u: 20076

Edit   Menu   Stop

ARGUS® 151

ADSL
VDSL
GigE
Cu
TDR
Copper Box
Data 101101011011
IP TV
Vo IP
MOS
PC
USB

intec
GESELLSCHAFT FÜR
INFORMATIONSTECHNIK mbH

Where to use the ARGUS?

Connect to — A
Replace — B

ARGUS 151: compact, versatile and easy to use

Handy Tester with multiple functions: The new ARGUS 151 combines state-of-the-art VDSL Vectoring measurement technology and many features, that makes work easier in a compact, easy-to-use device - and all that at a very competitive price. The VDSL+ADSL tester (Annex A + B + J + L + M), which is ready for operation within a few seconds, supports VDSL Vectoring and comes with a Gigabit Ethernet interface (10/100/1000 Base-T) for downloads with multiple 100 Mbit/s. Resistance, Capacitance and voltage measurement are integrated into this all-rounder.

TDR (Time Domain Reflectometer (for Ethernet and the local loop

Even more functionality is provided by the Ethernet TDR for check-up the LAN cabling as well as by an optional TDR function for the detection of damages or interferences on long lines (up to 6 km).

Paralell Triple play tests

On request for quick and simple testing, parallel triple play tests like VoIP (Voice over IP), IPTV and other data tests are available, which are increasingly being provided via the more powerful IPv6 protocol and are in need of testing. The ARGUS 151 cannot just simulate the terminal equipment such as telephone, PC or set-top box (STB) but can also determine all the relevant quality parameters.

Additional copper tests

Equipped with the optional ARGUS Copper-Box , the ARGUS 151 also manages copper tests for measuring all important electrical values of a local loop.

Easy operation

The large 320 x 240 pixel colour display and an intuitive menu structure, among other things, guarantee user-friendly operation. A high-performance Li-Ion battery pack ensures long operating times in the field.

intec Gesellschaft für Informationstechnik

For more than 25 years intec Gesellschaft für Informationstechnik mbH has successfully been developing products for the international telecommunications market, the latest additions targeting the optical broadband sector. We now specialize in high-quality, value telecom handheld testers and have established ourselves as one of the leading providers of xDSL, ISDN, IP and fibre measurement technology in Europe and abroad.

Our ARGUS testers simplify the day-to-day work e.g. when it comes to physical line qualification and troubleshooting on the last mile, on xDSL and ISDN as well as on Ethernet and the triple play services based thereon.

Our customers have appreciated the quality of our products and services for many years. This trust in our products has enabled us to supply more than 80,000 ARGUS testers throughout the world during the last 15 years - a large majority of which have been delivered to international companies such as Deutsche Telekom, KPN, Austria Telecom or OTE.

ARGUS® MADE IN GERMANY

ARGUS® 151

Triple Play tester for
ADSL2+ VDSL and Gigabit Ethernet

ARGUS®151 is a compact ADSL and VDSL tester for testing ADSL, ADSL2/2+, VDSL (incl. Vectoring) and Gigabit Ethernet accesses, as well as VoIP, IPTV and data services.
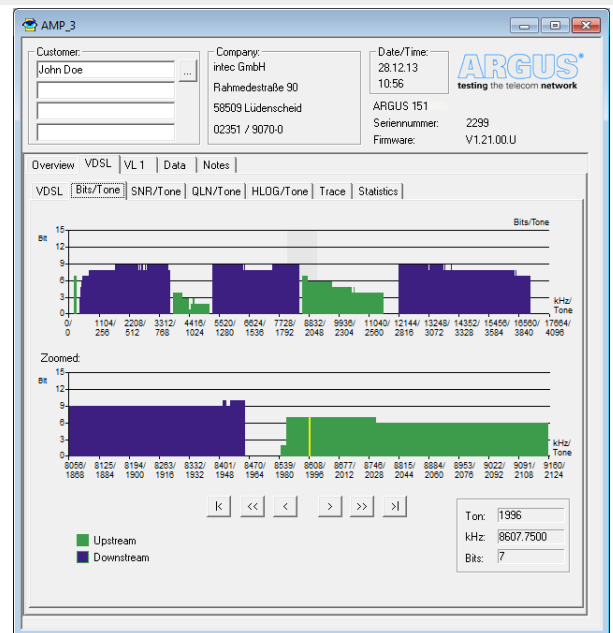

Broadband interfaces:
   - Synchronisation with DSLAM (xTU-C) and evaluation of all relevant line parameters and error counters
   - Including bridge, router and PC replacement modes
- **ADSL2/2+** modem simulation, ADSL tester, ATU-R
   - Supports ITU-T G.992.5 et alii; Annex A+B+J,+L+M; INP, SRA
   - Automatic measurement and display of all available up- and downstream parameters and error counters, like bit rate, attenuation, SNR margin, output power, INP, CRC, FEC, etc.
   - Display of Bits, SNR, QLN and Hlog/tone graphs
- **VDSL2** modem simulation, VDSL tester, VTU-R
   - Supports ITU-T G.993.2 (8, 12, 17, 30 MHz + var. bandplans)
   - Supports ITU-T G.998.4, G.INP (Retransmission)
   - Supports ITU-T G.993.5, G.vector (Vectoring)
   - Automatic measurement and display of all available up- and downstream parameters and error counters like bit rate, attenuation per stream, SNR margin per stream, Output power, INP, interleave delay, electrical length, CRC, FEC etc.
   - Display of Bits, SNR, QLN and Hlog/tone and stream graphs
- **Ethernet** interface for Triple Play and Ethernet testing
   - 1 Gigabit Ethernet test interface (10/100/1000 BT), RJ-45
   - Supports Ethernet terminal mode (PC replacement)

Parallel Triple Play testing via xDSLand Ethernet:
- **ATM layer** tests when using ADSL2/2+
   - ATM OAM ping and ATM OAM cell loop, VPI/VCI scan
- **Data:** testing the data throughput (IPv4 and IPv6)
   - IP ping and trace route tests (BRAS info, PPP trace, VLAN)
   - HTTP- and FTP download tests with multiple 100 Mbit/s
   - FTP server test, up-/download from ARGUS to ARGUS
- **Voice:** testing of VoIP connections based on SIP standard
   - VoIP terminal simulation, incl. acoustics (various codecs)
   - OK/FAIL evaluation and display of quality parameters
   - Evaluation of the VoIP speech quality (QoS) according to:
      - MOS_{CQE} (ITU-T P.800) based on E model (ITU-T G.107)
- **Video:** testing IPTV and VoD services (STB mode)
   - Stream request (set-top box mode), IPTV channel scan
   - OK/FAIL evaluation and display of quality parameters (QoS)

Ethernet tests:
- **Ethernet TDR (8 wire)** for checking the wiring
   - Detecting shorts, opens and mismatches and lots more

Copper tests:
- **RC measurement:** resist., capacitance, continuity check
   - Including loop length calculation (distance to open / short)
   - DC voltage measurement: up to +200 V; res.: 0.1 V; acc.: ±2 %
- **TDR:** measuring line lenghts and locating the faults
   - Measuring range: 3.5 up to 6000 m; res.: 0.15 %/range; ±2 %
   - Pulse width (adjustable): 15 ns to 8 µs, amplitude: 5 or 20 V
   - Velocity of propagation (VoP): 30 % up to 99.9 %
- **Copper Box:** Field upgradeable box for expanding the copper tests (see ARGUS Copper Box data sheet
   - Determines all important electric variables:
      e.g. U_{DC}, U_{AC}, I_{DC}, loop and isolation resistance, capacitance, balance and NEXT at 1 MHz
   - Remote control of loop-a-line assistants
   - Automatic TRG measurements (Tip, Ring, Ground)

Further highlights:
- Brilliant QVGA colour display (LCD), 320 x 240 pixels
- Lightweight, compact and easy to use
- Intuitive menu navigation and instant readiness for operation
- Free firm- and software updates via www.argus.info/en

Documentation and Analysis:
- **Documentation** of all parameters recorded to test reports (in device and on PC) via automatic access tests
- **Data transfer** to PC via USB client interface using Mini-USB
- **Update Tool** to carry out FW updates for free
- **WINplus** PC software for generating, saving, archiving and printing test reports and for configuring the ARGUS®

ARGUS® 151

Technical Features:

- **Power supply** by a Li-ion battery pack or mains adaptor
- **Hotkeys** for quick start of various tests
- **Power management**, user configurable
- **Keypad:** 18 keys, 4 cursor keys, 3 context-sensitive softkeys
- **LCD colour display** (QVGA - 320 x 240 pixels), backlit
- **6 LEDs** indicating the status + Ethernet port LEDs
- **Handset** with integrated earpiece and microphone
- **CE marking:** complies with CE directives
- **User safety:** fulfils EN 60950-1:2006-11
- **RoHS** conformance according to WEEE directive

Interfaces:

- **1 x RJ-45** as line in/output
- **1 x Ethernet** (10/100 Base-T) , RJ-45 management port
- **1 x Ethernet** (10/100/1000 Base-T), RJ-45 test port
- **USB client** interface (type mini B)
- **USB host** interface (type A)
- **Headset** jack (TRS 2.5 mm, 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 W x D: 235 x 97 x 65 mm (9.25 x 3.8 x 2.56 in)
- **Weight:** approx. 810 g (1.79 lbs) - incl. battery pack

Standard package:

xDSL basic package with ARGUS®151, battery pack, mains adaptor, tailored test leads for chosen interfaces and options, Mini-USB cable, WINplus PC software (only key), English manual, ribbon hook and carrying case

Basic packages:

ARGUS 151 ADSL Annex A + L + M
Order number: 115312

ARGUS 151 ADSL Annex B + J
Order number: 115332

ARGUS 151 ADSL Annex A + B + J + L + M
Order number: 115352

ARGUS 151 VDSL2
Order number: 115302

*Options:

Additional interfaces:
(Additional test leads included, if required)
ADSL Annex A + L + M interface
Order number: 015305 (interface*) or 015345 (add. SW option*)
ADSL Annex B + J interface
Order number: 015306 (interface*) or 015346 (add. SW option*)
VDSL2 interface (incl. Vectoring)
Order number: 015308

Additional test features: (Depends on existing interfaces)
Ethernet loop (10/100 Base-T)
Order number: 015328
ATM tests
Order number: 015322
Download package (via ADSL, VDSL, Ethernet)
Order number: 015329
VoIP test (ADSL, VDSL, Ethernet)
Order number: 015330
IPTV / IPTV ext. (ADSL, VDSL, Ethernet)
Order number: 015337 / 015339
VoIP + IPTV package
Order number: 015333
TDR (Time Domain Reflectometer)
Order number: 015052
ARGUS Copper Box (incl. protective cover)
Order number: 015095

Additional PC software:
(for Windows operating systems)
WINplus (incl. CD and manual)
Order number: 010012

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