

# ARGUS FEATURES

# ARGUS®

testing the telecom network

**VoIP**  
Triple-Play-Tests

**All-IP**

Traffic-Generator

**ADSL2/2+**

**IP-Tests**

Netzwerkscan

**VDSL2 Profil 35b**

LAN-Verkabelungstests

**Cloud**

S2M/E1

**RFC2544**

Wiremap

**ISDN**

**PESQ**

**IPTV**

**G.fast**

Spektrumanalyse

**SHDSL TDR**

Profil 35b Bonding

Gigabit-Ethernet

**LTE**

**SFP**

All-in-one-Tester

Super Vectoring

**BNG**

**WLAN**



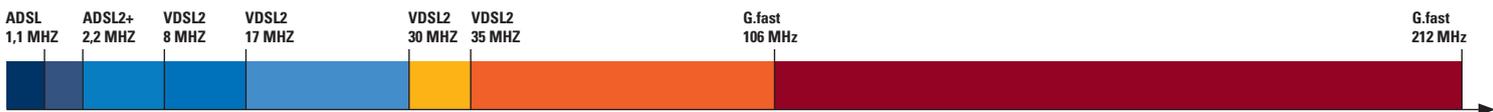
**intec**

GESELLSCHAFT FÜR  
INFORMATIONSTECHNIK mbH

Rahmedestraße 90 · D-58507 Lüdenscheid · phone +49 23 51 / 90 70-0 · www.argus.info

## DSL VARIANTS IN COMPARISON

	SHDSL.bis	ADSL2+	VDSL2	VDSL2 profile 35b	G.fast profile 106	G.fast profile 212
<b>Down- and upstream</b>	symmetric	asymmetric	symmetric/asymmetric			
<b>Standards</b>	ITU-T G.991.2	ITU-T G.992.5	ITU-T G.993.2/993.5	ITU-T G.993.2 Annex Q	ITU-T G.9700/9701	ITU-T G.9700/9701
<b>Transmission technology (TC sublayer)</b>	ATM, EFM, (TDM)	ATM	EFM	EFM	EFM	EFM
<b>Theoretical maximum data rate (bidirectional)</b>	22,78 Mbit/s (4x 5,696 Mbit/s)	25 Mbit/s (1 pair)	200 Mbit/s (1 pair)	400 Mbit/s (1 pair)	1000 Mbit/s (1 pair)	1800-2000 Mbit/s (1 pair)
<b>Typical data rate</b>	5,696 Mbit/s (2 pairs)	16/1 Mbit/s (1 pair)	50/10 Mbit/s (1 pair)	250/40 Mbit/s (1 pair)	Depends on provider product (1 pair) (1 pair)	
<b>Practical range for typical data rate</b>	approx. 3.5 km	approx. 3 km	approx. 1 km	up to 300 m	up to 100 m	up to 100 m
<b>max. range</b>	up to 10 km	4.5 km	1.5 km	1.5 km	250 m	250 m
<b>Bonding</b>	up to 4 pairs	no	up to 2 pairs	up to 2 pairs	no	no
<b>Bandwidth/Frequency</b>	up to 400 kHz	up to 2.2 MHz	up to 30 MHz	up to 35 MHz	up to 106 MHz	up to 212 MHz
<b>Type of modulation</b>	6-/32-TC-PAM	DMT-QAM	DMT-QAM	DMT-QAM	DMT-QAM	DMT-QAM
<b>Repeater use</b>	yes	no	no	no	no	no



## All-IP MEASUREMENT TECHNOLOGY

Internet protocol (IP) instead of classic line switching

Parallel tests of all Triple Play services (Data, VoIP, IPTV)

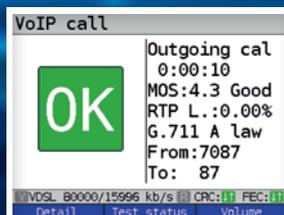
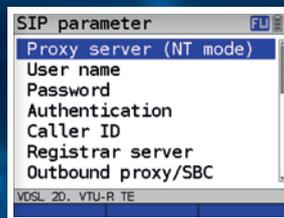
VoIP test with quality assessment according to MOS value scale

Simulation of a VoIP remote station or PBX with VoIP NT mode

Setup of 30 VoIP calls simultaneously (call generator), SIP trunk simulation

Wizards for quick and easy configuration of PPP and VoIP profiles

Data tests with graphical presentation of download rates over time



## ARGUS COPPER BOX

Extension for all ARGUS DSL and combi testers, allowing to detect dangerous voltages and currents early and assess the physical condition of the line

Measurement of loop and isolation resistance, capacitance, LCL, NEXT etc.

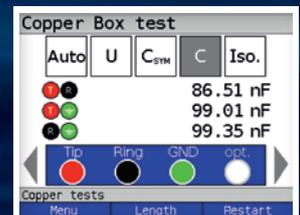
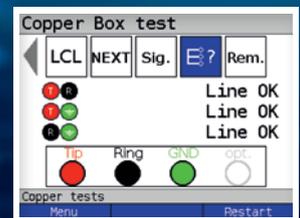
Automatic execution of all individual measurements in preconfigured measuring profiles possible

Upgrade of your existing equipment with the ARGUS Copper Box

Detection of passive test terminations (PPA), Annex J signature cables, etc. via signature detection

Fast cable check: Checking 3-pole connections (a/b/ground) against a loop

Remote control of common electronic loop assistants



## LAN CABLING TESTS

LAN cabling tests for detecting cabling faults, short circuits, interruptions, length violations and mix-ups

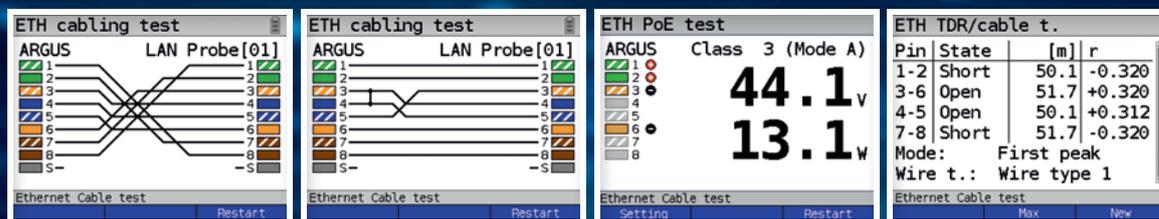
Up to 100 active ARGUS LAN Probes with programmable ID

Checking the performance of PoE switches ("Power over Ethernet")

PoE tests check for PoE class 0 to 4 or automatically

Load the PSE (Power Sourcing Equipment) with up to 25.5 W and check whether the PD (Powered Device) is sufficiently powered

Ethernet TDR function incl. Port LED flash for measuring line lengths and states (open, short circuit, closed) and detecting mismatches



## NETWORK TESTS

Network scan: Display of all clients (incl. IP and MAC address), ports and services in the connected network

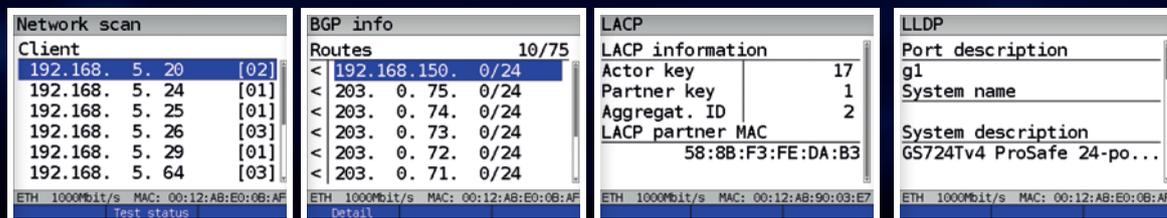
Border Gateway Protocol (BGP): Clear display of up to 20 active routes

Link Aggregation Control Protocol (LACP): Simulation of a LACP-enabled device, execution of data tests directly at the LACP port, display of all important information of the LACP partner

Link Layer Discovery Protocol (LLDP): Transmission of important information from adjacent devices (manufacturer/system name, type [bridge/router], port, management IP of the web interface etc.)

Execution of all IP tests (including download, upload, ping, traceroute, VoIP, IPTV, network scan) also possible via Ethernet and optical fiber

Determination of optical power at fiber-based Ethernet interfaces in Digital Diagnostic Mode (DDM) according to SFF-8472



## WLAN TEST AND MANAGEMENT INTERFACE

WLAN scan for finding WLAN networks and to detect typical WLAN problems

WLAN client: Performs all IP tests also via WLAN (including download, upload, ping, traceroute, VoIP, IPTV, network scan)

Display of all access points and important parameters such as network name, signal strength, signal quality, used channel, data rate and much more

Scan 2.4 GHz and 5 GHz WLAN networks

Use the ARGUS as a WLAN access point (AP mode) and run all applications such as data, VoIP and video via the ARGUS

Transmission of measurement results via WLAN or QR code to systems for electronic order processing

Search for WLAN interferers with graphical spectrum analysis of the open 2.4 GHz frequency range using ARGUS 2G4 Scope

