



ARGUS® FIBER FEATURES

ENGLISH VERSION

2xOPM / 3xOPM / 4xOPM / 5xOPM

ARGUS® 300 F300 260 F240 F200

2xOPM + broadband measurement: 1577 & 1490 nm (filtered): from -40 to +6 dBm; 1270 to 1625 nm (broadband): from -50 to +13 dBm

3xOPM filtered (F200 and F240 only, only when used with the Optical Fault Locator): 1577 & 1490 nm: from -40 to +6 dBm; 1550 nm: from -40 to +16 dBm

4xOPM/5xOPM filtered: Downstream (OLT): 1577 & 1490 nm: -40 to +9 dBm; 5xOPM only: 1550 nm: -40 to +16 dBm (max. power +18 dBm)

4xOPM/5xOPM filtered: Upstream (ONT): 1310 & 1270 nm: -35 to +10 dBm

Filtered accuracy: 2xOPM: ±0.5 dB; 3xOPM: ±0.5 dB; 4xOPM/5xOPM: ±0.5 dB
Broadband OPM (only in combination with 2xOPM): ±0.5 dB

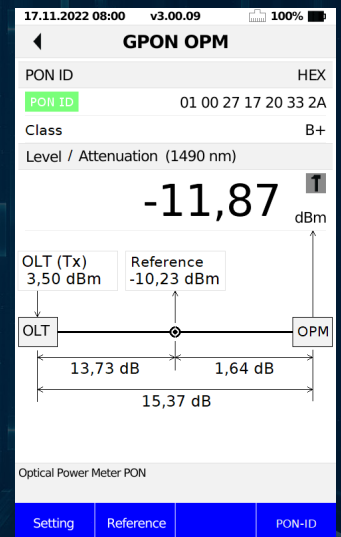
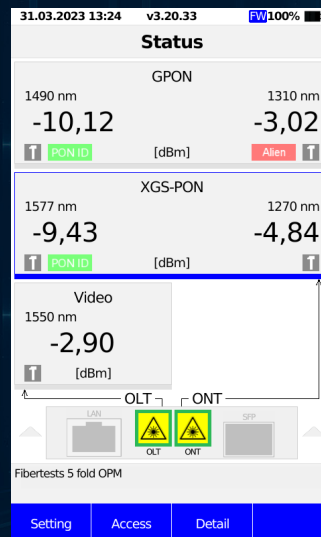
4xOPM/5xOPM: Insertion loss: approx. 1.5 dB

4xOPM/5xOPM: Alien OLT Detection (Burst + Permanent)

Calibration conditions: -20 dBm, 23 °C ±5 K

Connectors: SC/APC; ARGUS 300/260/F300/F240 only: add. SFP+, 10 GBase-T LAN

Readout of PON ID and XGS-PON ID via SC/APC, detection up to ≥ -29 dBm (GPON) or ≥ -30 dBm (XGS-PON)



OTDR

ARGUS® 300 F300

For troubleshooting on optical lines

Acceptance measurement and line analysis

Automatic, Expert or Real Time Mode (up to 4 Hz)

Wavelengths: 1310 and 1650 nm (± 20nm) or 1310 and 1550 nm (± 20nm)

Dynamic range: 20 dB at 100 ns; 37 dB at 1310 nm, 20 µs; 36 dB at 1550 nm, 20 µs; 35 dB at 1650 nm, 20 µs

Event dead zone: 0.9 m; attenuation dead zone: 3.5 m;
PON dead zone: ≤ 25 m; typical 20 m

Pulse width: 3, 5, 10, 20, 30, 50, 100, 200, 300, 500 ns; 1, 2, 3, 5, 10, 20 µs

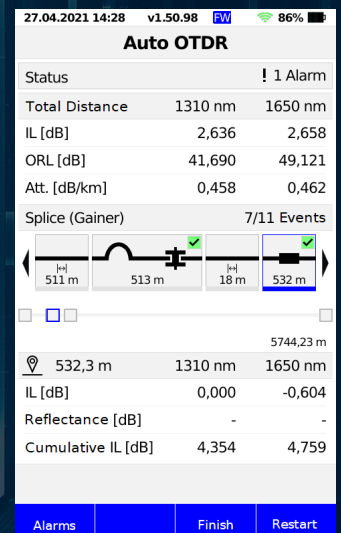
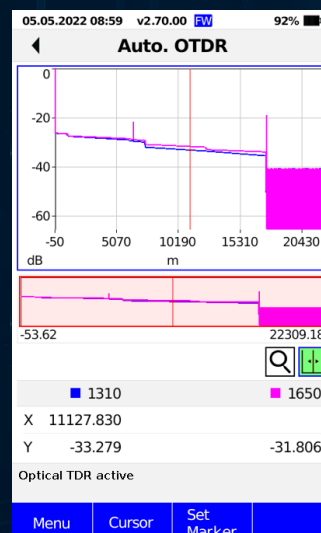
Display range: 250, 500 m; 1, 2, 5, 10, 15, 20, 40, 80, 160, 240 km
(Max. range depends on fiber type (attenuation/km))

Measuring points: up to 300,000 points

Resolution: 5 cm to 32 m

Distance accuracy: ± (1 m + 0.003 % * distance + resolution)

Linearity: ± 0.05 dB/dB



Fiber Inspection Tool

ARGUS® 300 F300 260 F240 F200

USB video microscope for the ARGUS® for optical fiber inspection that detects scratches and defects on optical fibers

Manual focusing with sep. button

Optional: autofocus

digital zoom

Pass/fail evaluation according to IEC 61300-3-35

Min. particle size 0.5 µm

Various tips/adapters included

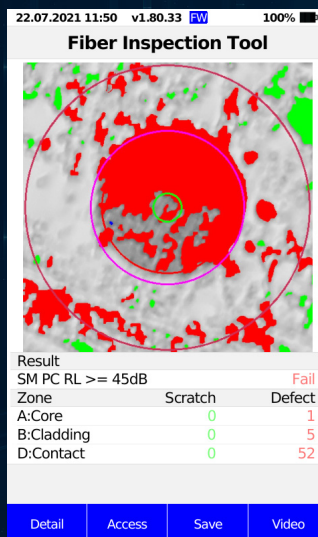
PC, UPC, APC, others on request

Single mode / Multi mode

Maximum resolution of the camera: 1600 px x 1200 px (approx. 2 MP)

Field of view: 680 µm x 510 µm

LED to illuminate the fiber end face



Fiber Inspection Tool	
A: Core Defect 0 µm - 25 µm	0
Not allowed	0
B: Cladding Defect 25 µm - 115 µm	2
No limit < 2 µm	0
5 between 2 µm and 5 µm	2
Not allowed > 5 µm	0
C: Adhesive Defect 115 µm - 135 µm	0
No limit	0
D: Contact Defect 135 µm - 250 µm	64
Not allowed > 10 µm	6
A: Core Scratch 0 µm - 25 µm	0
Not allowed	0
B: Cladding Scratch 25 µm - 115 µm	0
No limit <= 2 µm	0
Not allowed > 3 µm	0

Image

ONT Simulation (GPON/XGS-PON)

ARGUS® 300 F300 260 F240 F200

GPON/XGS-PON modem simulation, ONT, CPE via GPON/XGS-PON transceiver; ITU-T G.984 (GPON), ITU-T G.9807.1 (XGS-PON)

GigaBit Passive Optical Network (GPON); 10 GigaBit Symmetric Passive Optical Network (XGS-PON)

DDM (Digital Diagnostic Mode) according to SFF-8472

Link Status

ONT Status / OLT Tx Power

Optical Network Unit ID (ONU ID)

Passive Optical Network ID (PON ID, Vendor + Equipment ID / Version)

GPON-/XGS-PON-Bridge/Router; GPON-/XGS-PON-Status-Trace

Serial number / password configurable

Scan PLOAM message (ONU ID, S/N)

Opt. level (Rx), ± 3 dB; opt. path attenuation in dB

XGS-PON OPM	
PON ID	HEX
PON ID	12 34 56 7A
Class	N1
Level (1577 nm)	
ONT (Rx)	-11,07 dBm
Reference (Rx)	-10,00 dBm
OLT (Tx)	3,10 dBm
Attenuation	
OLT - ONT	14,17 dB
OLT - Ref.	13,10 dB
Ref. - ONT	1,07 dB
Optical Power Meter PON	
Level	Level → Ref. Level
Reference Level	

Performance Tests

ARGUS® 300 F300 260 F240 F200

ARGUS® 300/F300/260/F240 only: PON protocol setup (PPP) with speed and triple-play tests, OLT port identification, and separate GPON trace

ARGUS® 300/F300/260/F240 only: Support for various SFP modules for fiber (FTTx) and Ethernet (Active Ethernet) testing, optionally with SFP+

ARGUS® 300/F300/260/F240 only: 2.5 Gigabit Ethernet interface for even faster in-service speed tests via IPv4 and IPv6

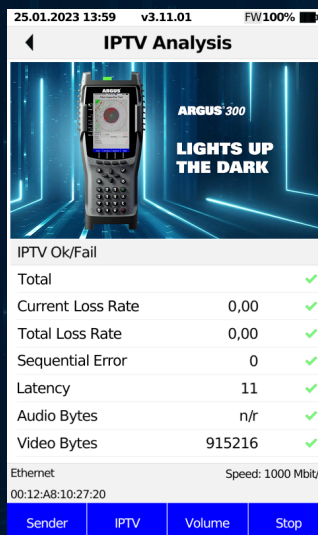
HTTP/FTP upload/download tests, IP ping, traceroute

ARGUS® 300/F300/260/F240 only: Bridge, PC, and Router mode

iperf: Client/server mode, TCP throughput, download/upload, ARGUS® vs. ARGUS®

ARGUS® Real Speed Test with TCP throughput measurement according to RFC 6349 at speeds of up to 10 Gbit/s

ARGUS® 300 only: Out-of-service tests such as Loop, Traffic Generator, RFC2544, and Y.1564 (ARGUS® Real Speed)



RFC2544	
Status: Active	B P F
Tests	
Throughput	8 / 8
Latency	0 / 8
Frame Loss	0 / 8
Details	
Test Duration	0:05:13
Profile	RFC2544-Profile 1
Current Data	
Frame Size	64 Byte
Tx Rate	0,000 kBit/s
Pause Frames	0
Port Information [LAN2] Layer 2	
MAC	00:12:A8:10:05:2D
Speed	1000 Mbit/s
Ethernet	Speed: 1000 Mbit/s
00:12:A8:10:05:2D	

Stop

ARGUS® OVERVIEW

	300	F300	260	F240	F200
Fiber	GPON	✓	✓	✓	✓
	XGS-PON	✓	✓	✓	✓
	ONT Simulation	✓	✓	✓	✓
	xPON-ID	✓	✓	✓	✓
	PON-FMT (ZTV43)	✓	✓	✓	✓
	Sel. 3xOPM / Optical Power Meter	✓ / ✓	✓ / -	✓ / -	✓ / -
	Sel. 4xOPM with Through Mode	✓	✓	✓	✓
	Sel. 5xOPM with Through Mode	✓	✓	✓	✓
	PLOAM Monitor	✓	✓	✓	✓
	OTDR (1310 & 1650 nm or 1310 & 1550 nm)	✓	✓		
	Optical Fault Locator (OTDR-based)			✓	✓
	Fiber Inspection Tool	✓	✓	✓	✓
	Optical Light Source	✓	✓	✓	✓
	Optical Loss Test Set	✓	✓	✓	✓
	Visual Fault Locator	✓	✓	✓	✓
ETH	1 GigE	✓	✓		
	2,5 GigE	✓	✓		
	10 GigE Link	✓	✓	✓	
Wireless	WLAN Test	✓	✓	✓	
	WLAN Spectrum Analysis/2G4 Scope	✓	✓	✓	
	WLAN Management	✓	✓	✓	✓
	ARGUS® WLAN Analyzer	✓	✓	✓	
	Wi-Fi 7 Module	✓	✓	✓	
Tests	IP Tests (Ping/Traceroute)	✓	✓	✓	✓
	Down-/Upload (HTTP/FTP)	✓	✓	✓	✓
	ARGUS® Real Speed Formal (RFC6349)	✓	✓	✓	✓
	ARGUS® Real Speed Direct (iperf)	✓	✓	✓	✓
	Speedtests up to 2.5 Gbit/s	✓	✓	✓	
	Speedtests up to 10 Gbit/s	✓	✓	✓	
	Network Scan	✓	✓	✓	
	Web Browser	✓	✓	✓	
	VoIP + MOS	✓	✓	✓	
	IPTV	✓	✓	✓	
	OTT (Adaptive Streaming)	✓	✓	✓	
	Parallel Tests / Autotests	✓			
	Loop/Traffic-Generator	✓			
	RFC2544	✓			
	ARGUS® SAM (Y.1564)	✓			
Admin	FW Update, Configuration Import & Test Result Upload via Cloud/FTP	✓	✓	✓	✓
	Remote Access (VNC)	✓	✓	✓	✓
	PC Software	✓	✓	✓	✓
	ARGUS® Mobile App	✓	✓	✓	✓

✓ inclusive

✓ optional

✓ one xPON-OPM included in the basic package

✓ one OTDR included in the package



Optical Fault Locator (OFL)

ARGUS® F240 F200

Attenuation measurement of the PON branch during commissioning

Quick check: Is the section from ONT to the splitter okay?

Guided fiber diagnosis in PON networks (OTDR principle)

Single-sided measurement without a counter unit or power interruption

Optimized for access and service lines

Guided event display instead of OTDR curve interpretation

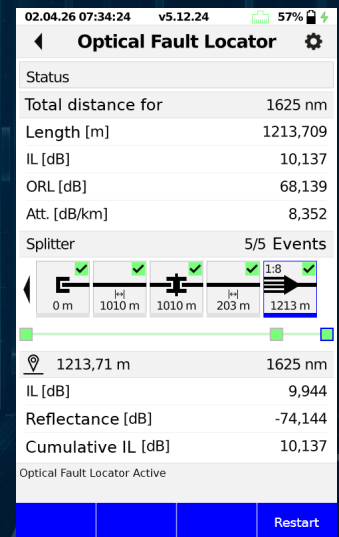
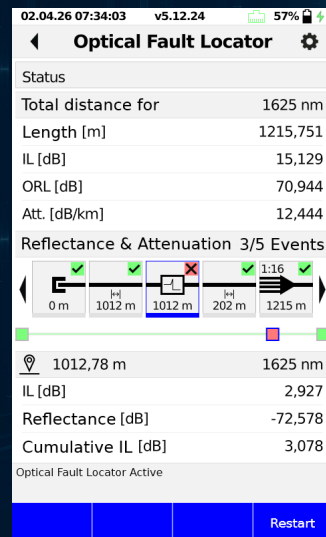
Automatic event detection (connectors, poor splices, reflections, first splitter)

Measurement wavelength: 1625 nm (live measurement possible on a live network)

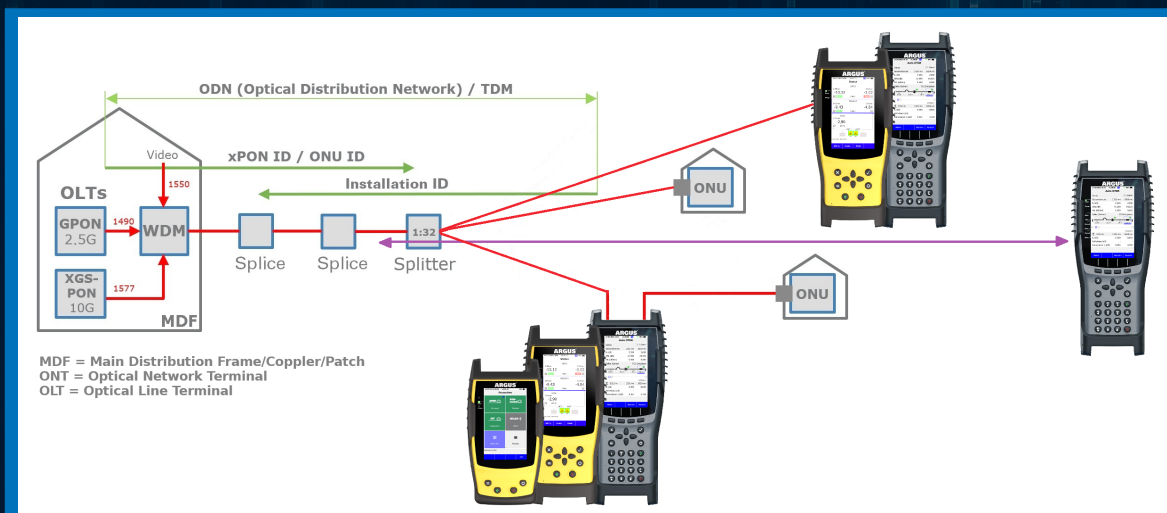
Maximum fiber length: Measurement range up to 20 km (point-to-point)

Distance uncertainty: typically ± 1.5 m (max. ± 2 m)

Attenuation rating up to the first splitter (typically ≤ 2.5 dB / 5 km)



Construction of a hybrid PON network with GPON and XGS-PON



Construction of a hybrid PON network with GPON (1 Gbit/s) and XGS-PON (10 Gbit/s) with typical measuring points, as is often the case in Europe.

Contact

intec

GESELLSCHAFT FÜR
INFORMATIONSTECHNIK mbH

Rahmedestraße 90
D-58507 Lüdenscheid
Tel. +49 23 51 / 90 70-0
E-Mail: sales@argus.info
www.argus.info/en
www.fibertester.de/en

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ARGUS testing the telecom network



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