

## Why Utel?

For over three decades, UTEL has provided highly innovative test solutions to the global telecoms market. Based in the UK, we have expanded to serve international customers in partnership with some of the sector's leading operators.

We established our reputation in the days of copper networks, providing advanced centralised network test heads, switches and controllers servicing over 20 million lines for Europe's biggest telecoms operators. We now focus on developing products and services to support increasingly sophisticated full fibre networks.

Our fibre product portfolio includes UTEST – an innovative, centralised testing system developed to support ambitious, forward-looking operators keen to build right first time and provide high levels of customer service in the increasingly competitive FTTX market.

UTEL's 903 OTDR is part of the UTEST system.



## Applications

UTEST 903 OTDR is at the heart of our UTEST centralised testing system. It can be used to test passive optical networks (PONs), point-to-point, dark and lit fibre using a single test head.

The UTEL 903 OTDR works with UTEL's cloud based FastLight software. The OTDR's sophisticated event analysis capabilities combined with the comprehensive management and reporting functions available in FastLight allow you to:

- Test and loss measurement of backhaul, feeder & distribution fibres
- Use scheduled tests to constantly monitor VIP services, trunk fibre or backhaul links
- Test the service path up to the customer's optical network terminal (ONT)/optical network unit (ONU)
- Monitor the network build so you can see new fibre, distribution points and customers as it is built
- Identify the location of faults and display them on a GIS interface
- Monitor in-service degradation enabling preventative maintenance

## Benefits

- Choice of simple smartphone or expert workstation interface
- Unlimited on-demand and scheduled testing keeps costs down
- ITU standard out-of-band test wavelength means no service interruption. System can be used during build-out and in service
- Acts as a real-time link between planning and testing
- Can test unlimited number of fibres using UTEL optical switches
- Identify fibres using test tones
- Fully remote access and test management
- Standard 19" or 21" rack mount
- Part of UTEST, UTEL's comprehensive network testing solution

## Technical specification

Wavelength	1650nm +/- 5nm
Measurement range (km)	≤ 500 (max)
Pulse width	3ns (min), 20us (max)
Sampling resolution (m)	0.1 (min) to 2 (max)
Dynamic range	43dB (typical)
Event dead zone	0.7m (typical)
Attenuation dead zone	<5m (typical)
Distance measurement accuracy	1m + 0.0025% x distance + sampling resolution
Maximum number of sampling points	250,000
Test time	20-30 seconds (typical)
Tones	270Hz, 300Hz, 1KHz, 2KHz
Control interface	Ethernet auto-negotiating 10/100 Mb/sec, RJ45
Control software	UTEL FastLight or via published APIs
Power requirements	-48V DC 24Watts
Output connector	SC/APC
Temperature range	Operating: -25°C to +55°C (standard calibration)
Volatile memory	None
MTBF	≥20 years (70,000 hours for fan)
Installation	19" or 21" rack mount
Dimensions	Width: 437mm
	Height: 75mm
	Depth: 250mm
Weight	4Kg

## Related products

UTEST management software, UTEL optical switches, UTEL ROSC, UTEL WDM Trays.

If you'd like to learn more about how the UTEST 903 OTDR can help you to optimise your network's reliability and performance, please contact us by emailing [info@utel.co.uk](mailto:info@utel.co.uk) or call +44 (0) 1473 828909.



**FTTX** DESIGNED PERFORMANCE...  
DELIVERED IN THE REAL WORLD

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