

# OTDR pro FTTx/PON

Je v tom ještě něco nového?

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Pavel Kosour

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## Evoluce OTDR

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[www.profiber.eu](http://www.profiber.eu)



AXS-100  
model

**Velmi populární AXS-100/110**  
nedávno ukončena výroba

- Ideální přístroj pro ISP
- Vynikající optické parametry
- Spolehlivý a efektivní
- Kopírován mnoha různými výrobci

**MARKET-DRIVEN PRODUCT**  
**LET'S LISTEN TO WHAT CUSTOMERS HAVE TO SAY**



What would be your ideal handheld OTDR?



Hmotnost  
– 1.29kg

Display  
– 7"

Baterie  
– 12 hod

Rozměry  
– 200mm x 155mm x 68mm

**BEST SCREEN**

**Outdoor Enhanced Touchscreen**

**BEST USER EXPERIENCE**

**Tablet-Inspired Design**

**BEST SPECS**

**EXFO**  
Quality

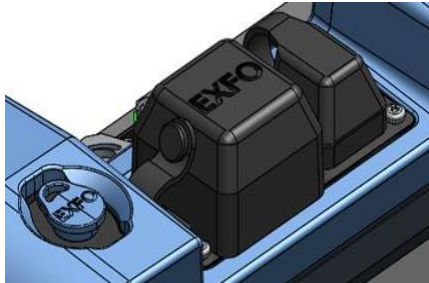
**MaxTester 700B Series**

**BEST FIBER TESTER**

**iOLM**  
**READY**

**Intelligent Optical Link Mapper**

## Možnost doplnění měřidla výkonu i červeného laseru dodatečně



- Power meter (PM) or PM/Visual fault locator (VFL) combo
- PM GeX, +27 dBm
- Interchangeable connectors
- VFL 650 nm, class 2
- Field upgradeable

## MaxTester

## FTB Ecosystem

Dedicated unit for OTDR measurement

OTDR modules for universal platform

Entry-level pricing (low CAPEX)

PERFORMANCE ↑

AXS-110 MM/QUAD LAN/WAN



MAX-700B SERIES

Last Mile/Access Metro/FTTH-PON




FTB-700 SERIES



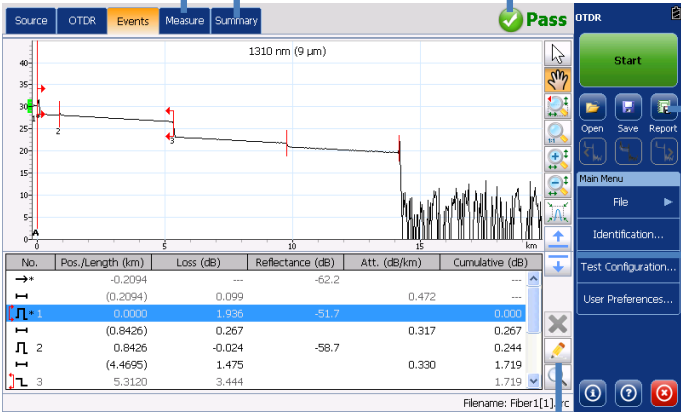
FTB-7000 SERIES

TECHNICIAN EXPERTISE →


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## MAX-700B OTDR Series

Markers    Summary    Pass/Fail Status



No.	Pos./Length (km)	Loss (dB)	Reflectance (dB)	Att. (dB/km)	Cumulative (dB)
→	-0.2094 (0.2094)	---	-62.2	---	---
↘	0.0000	1.936	-51.7	0.472	0.000
↘	(0.8426)	0.267	---	0.317	0.267
↘	0.8426	-0.024	-58.7	---	0.244
↘	(4.4695)	1.475	---	0.330	1.719
↘	5.3120	3.444	---	---	1.719

Filename: Fiber1[1].c


**PDF/XML Reports**

**Minimize/Maximize Trace**

**Comments**


**EXFO**  
EXPERTISE REACHING OUT

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## MAX-700B OTDR Series

Markers    Summary    Pass/Fail Status



A: 8.7980 km    18.053 dB

B: 8.9330 km    17.301 dB

A-B: 0.1350 km    0.752 dB

A-B avg. loss: 5.568 dB/km

4-Point Event Loss: 0.701 dB

Max. Reflectance: --- dB

**Markers**

**Add Event**

**EXFO**  
EXPERTISE REACHING OUT

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1310/1550nm, 30/28dB, iOLM



SPSB-B-150m

⊞ KIT-MAX-715B-BASIC

Cena



100 tis Kč

# EXFO Loopback

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## EXFO Loopback mode

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Technician-2

Loop Fiber

28 m LOOP

Tx

Rx

Technician-1

FTB 1  
w/ 100 OL.M

### STEP -1- ONE Unidir test

TX+RX.iolm

16 m

0.0 36.2 79.3 120.5 155.1

Launch Tx Loop Rx Receive

Results	
Link Length	152.2 m
Acquisition Status	Completed
Analysis version	2.4.2.13263
Link Loss (1550 nm)	0.511 dB
Link ORL (1550 nm)	45.95 dB
Prop. Delay (1550 nm)	---

Loss results for TX + RX

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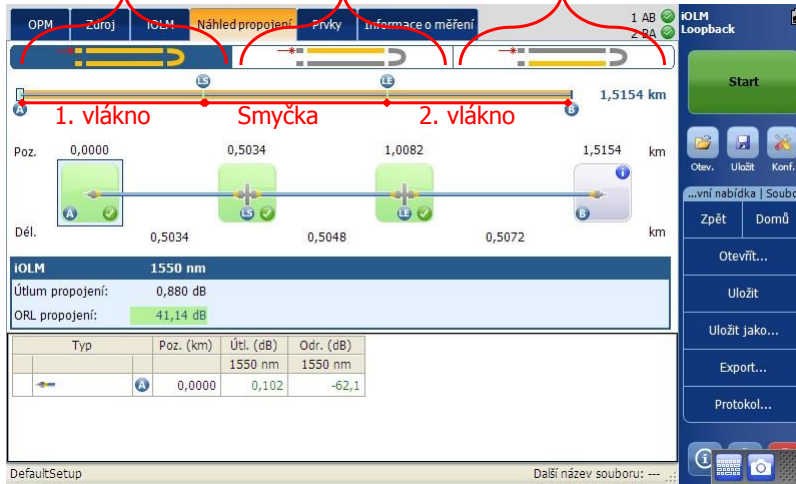
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7

Celá trasa A-B

Trasa A-LS

Trasa LE-B





# EXFO iCERT

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## EXFO iCERT

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### Certified configurations

#### Preset test configs

- ISO\_IEC 11801-2002 Fiber Link
- ISO\_IEC 11801-2002 OF-2000 CH
- ISO\_IEC 11801-2002 OF-300 CH
- ISO\_IEC 11801-2002 OF-500 CH
- ISO\_IEC 11801-2010\_ISP
- ISO\_IEC 11801-2010\_OS1\_OMx
- ISO\_IEC 11801-2010\_OS2\_OMx
- ISO\_IEC 11801-2010\_OSP**
- ISO\_IEC 14763-3\_2011\_OS1\_OMx
- ISO\_IEC 14763-3\_2011\_OS2\_OMx

#### Complete report with selected standard

##### iOLM Report

✔ Pass

##### Element Table

Type	No. Pos./Len. (km)	Loss (dB)		Ref. (dB)		Att. (dB/km)		Diagnostic
		1310 nm	1550 nm	1310 nm	1550 nm	1310 nm	1550 nm	
Connector	0.5061	0.548	0.952	---	---	---	---	
Section	0.5981	0.198	0.193	---	---	0.375	0.203	
Connector (A)	1	0.0000	0.333	0.342	-65.2	-65.8	---	
Section	---	0.1972	0.049	0.003	---	---	0.311	0.020
Connector (B)	2	0.1972	---	---	-66.2	-67.8	---	* To characterize loss and include the element in link loss and OSL, a receive fiber is required.

##### iOLM Pass/Fail Thresholds

ISO\_IEC 11801-2010\_OSP

##### iOLM Parameters and Settings

Test configuration:	<b>ANSI_TIA-568-C3_ISP</b>	Fiber core size:	9 µm
Launch fiber:	0.5099 km	IOR (1550 nm):	1.473000
Receive fiber:	0.0000 km	Backscatter (1550 nm):	-81.87 dB



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1

Launch fiber length: 0.1500 km

Receive fiber length: 0.1500 km

Measure...



2

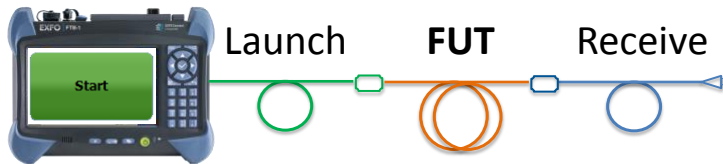
Launch fiber length: 0.1500 km

Receive fiber length: 0.1500 km

Measure...



**3** Connect Launch and Receive cables to FUT and Press START



**4** In less than 1 minute

- 1- Continuity
- 2- Get IL and ORL with Pass/Fail
- 3- Get Fiber Length
- 4- Locate all faults
- 5- Provide diagnostics to fix



iOLM	850 nm	1300 nm	Global pass/fail status
Link loss:	2.442 dB	2.030 dB	Fail
Link ORL:	32.92 dB	30.43 dB	

iOLM	Element	Measurement Info			
Type	Pos. (km)	Loss (dB)		Reflectance (dB)	
		850 nm	1300 nm	850 nm	1300 nm
+	0.0148	1.855	1.629	-37.0	-41.5

• The connector or bulkhead is damaged, dirty or not well connected.  
Inspect and clean as needed.

# FastReporter - ZDOTDR

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## Děkujeme

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