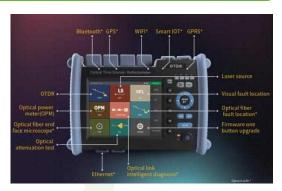# PRODUCT DATA SHEET

OTDR

NT-OTDR8302ET series Optical Time Domain Reflectometer (OTDR) is an intelligent meter of a new generation for the detection of fiber communications systems. With the popularization of optical network construction in cities and country sides, the measurement of optical network becomes short and disperse; NT-OTDR8302ET is specially designed for that kind of application. It's economic, having outstanding performance.

NT-OTDR8302ET is manufactured with patience and carefulness, following the national standards to combine the rich experience and modern technology, subject to stringent mechanical, electronic and optical testing and quality assurance; in the other way, the new design makes NT-OTDR8302ET more smart and compact and multi-purpose.

Whether you want to detect link layer in the construction and installation of optical network or proceed efficient maintenance and trouble shooting, NT-OTDR8302ET can be your best assistant.

Key Features:
- Integrated design, smart and rugged
- IP65 protection level, outdoor enhanced
- 5.8-inch anti-reflection LCD screen
- PON online test module (1625nm) is optional
- Support multi-language display and input

Applications
- FTTX test with PON networks
- CATV network testing
- Access network testing
- LAN network testing
- Metro network testing

Specifications:

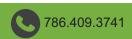|	
Dimension	253×168×73.6mm 1.5kg (battery included)
Display	5.8 inch TFT-LCD with LED backlight (touch screen function is optional)
Interface	1×RJ45 port, 3×USB port (USB 2.0, Type A USB×2, Type B USB×1)
Power Supply	10V(dc), 100V(ac) to 240V(ac), 50~60Hz
Battery	7.4V(dc)/4.4Ah lithium battery (with air traffic certification) Operating time: 12 hours, Telcordia GR-196-CORE Charging time: <4 hours (power off)
Power Saving	Backlight off: Disable/1 to 99 minutes Auto shutdown: Disable/1 to 99 minutes
Data Storage	Internal memory: 4GB (about 40,000 groups of curves)
Language	User selectable (English, Simplified Chinese, traditional Chinese, French, Korean, Russian, Spanish and Portuguese-contact us for availability of others)
Environmental Conditions	Operating temperature and humidity: -10ºC ~+50 ºC, =95% (non-condensation) Storage temperature and humidity: -20 ºC ~+75 ºC, =95% (non-condensation) Proof: IP65 (IEC60529)
Accessories	Standard: Main unit, power adapter, Lithium battery, FC adapter, USB cord, User guide, CD disk, carrying case Optional: SC/ST/LC adapter, Bare fiber adapter

TECHNICAL PARAMETER

Type	Testing Wavelength (MM: ±20nm, SM: ±10nm)	Dynamic Range (dB)	Event Dead-zone (m)	Attenuation Dead-zone (m)
NT-OTDR8302ET-M1	850/1300	26/30	1	8/8
NT-OTDR8302ET-SM1	850/1300/1310/1550	26/30/37/35	0.8	8/8/8

TEST PARAMETER

Pulse Width	Single mode: 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1μs, 2μs, 5μs, 10μs, 20μs
Testing Distance	Single mode: 100m, 500m, 2km, 5km, 10km, 20km, 40km, 80km, 120km, 160km, 240km
Sampling Resolution	Minimum 5cm
Sampling Point	Maximum 128,000 points
Linearity	=0.05dB/dB
scale Indication	X axis: 4m~70m/div, Y axis: Minimum 0.09dB/div
Distance Resolution	0.01m
Distance Accuracy	±(1m+measuring distance×3×10-5+sampling resolution) (excluding IOR uncertainty)
Reflectance Accuracy	Single mode: ±2dB, multi-mode: ±4dB
IOR Setting	1.4000~1.7000, 0.0001 step
Units	Km, miles, feet
OTDR Trace Format	Telcordia universal, SOR, issue 2 (SR-4731) OTDR: User selectable automatic or manual set-up
Testing Modes	Visual fault locator: Visible red light for fiber identification and troubleshooting Light source: Stabilized Light Source (CW, 270Hz, 1kHz, 2kHz output) Field microscope probe
Fiber Event Analysis	-Reflective and non-reflective events: 0.01 to 1.99dB (0.01 dB steps) -Reflective: 0.01 to 32dB (0.01dB steps) -Fiber end/break: 3 to 20dB (1dB steps)
Other Functions	Real time sweep: 1Hz Averaging modes: T imed (1 to 3600 sec.) Live Fiber detect: Verifies presence communication light in optical fiber Trace overlay and comparison

VFL MODULE

Wavelength (±20nm)	650nm
Power	10mw, CLASSIII B
Range	12km
Connector	FC/UPC
Launching Mode	CW/2Hz

OPM MODULE

Wavelength Range (±20nm)	800~1700nm
Calibrated Wavelength	850/1300/1310/1490/1550/1625/1650nm
Test Range	Type A: -65~+5dBm (standard); Type B: -40~+23dBm (optional)
Resolution	0.01dB
Accuracy	±0.35dB±1nW
Modulation Identification	270/1k/2kHz, Pinput=-40dBm
Connector	FC/UPC

OLS MODULE

Working Wavelength (±20nm)	1310/1550/1625nm
Output Power	Adjustable -25~0dBm
Accuracy	±0.5dB
Connector	FC/UPC

FIBER MICROSCOPE MODULE

Magnification	400X
Resolution	1.0µm
View of Field	0.40×0.31mm
Storage/working Condition	-18°C~35°C
Dimension	235×95×30mm
Sensor	1/3 inch 2 million of pixel
Weight	150g
USB	1.1/2.0
Adapter	SC-PC-F (For SC/PC adapter) FC-PC-F (For FC/PC adapter) LC-PC-F (For LC/PC adapter) 2.5PC-M (For 2.5mm connector, SC/PC, FC/PC, ST/PC)