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# TEKCN TC-350 OTDR


## Overview:

TEKCN TC-350 OTDR (Optical Time Domain Reflectometer) adopts a 4.3-inch color capacitive touch screen, which is easy to operate. It has simple parameter settings and intelligent measurement make the operation simpler and more efficient.

The model is compact, lightweight, and easy to carry. The large capacity battery ensures 12-hour ultra long measurement time, providing guarantee for field testing operations.

TEKCN TC-350 OTDR is mainly used to measure the length, splicing loss, optical connector loss, optical line breakpoint, average loss, return loss, connection quality, etc. of optical fiber cables. It has automatic optical protection function to prevent damage to optical modules.

It can be widely used in the fields of engineering construction, fault repair, fiber optic line maintenance, engineering acceptance, research and production of fiber optic cables in fiber optic communication systems.

## Functions:

- OTDR
- Power Meter
- VFL
- Light Source
- Event Map
- Network cable sequence testing
- Cable finding
- LED light
- SD card for storage
- USB port for data transfer and software upgrading
- Support SOR test report

## Configuration:

- OTDR
- Connector cleaning pen*1
- Adapter to convert to FC, LC, SC *1
- Carry bag*1
- Charger*1

- Battery (Build-in OTDR)*1

## Specification

| Model | **MINI OTDR** |
|---|---|
| Wavelength | 1310/1550±20nm |
| Dynamic range | 27 dB |
| Testing method | Automatic, real-time, and expert |
| Event dead zone | 2.5m |
| Atten. dead zone | 8m |
| Testing Range | Allow to set the testing range from 100m/ 500m/ 1km/ 2km/ 5km/ 10km/ 20km/ 40km/ 60km/ 100km |
| Pulse width | 5ns/10ns/20ns/50ns/100ns/200ns/500ns/1us/2us/5us/10us |
| Measurement accuracy | ± ( 1m + sampling resolution +0.005% x test distance ) |
| Sampling Points | Max.128 000 |
| Sampling resolution | ≤5cm |
| Loss resolution | 0.001dB |
| Display resolution | ≤1cm |
| Distance resolution | 0.001m |
| Refractive index | 1.0000 ~ 2.0000 in steps of 0.0001 |
| Reflection accuracy | ± 3dB |
| **OTDR measurements:** | |
| Test method | Auto or Manual, |
| Distance measurements method | Automatic or by cursor |
| Sampling resolution | ≤5cm |
| Display resolution | ≤1cm |
| Distance error (m): | ±(1 + 3 x measurement distance ×10^-5 + cursor resolution), (excluding IOR error) |
| **Attenuation measurement:** | |
| Test method | Auto or Manual |
| Display Range | 1.25dB to 40dB |
| Display resolution | ± 0.1dB |
| Sampling resolution | ± 0.1dB |
| Linearity | ± 0.05dB/dB |
| Reflection and reflection loss measurements: | |
| Test method | Auto or Manual |
| Display resolution | ± 0.1dB |
| Threshold level | -11dB to -99dB in 1dB steps |
| File layout | SOR, stored in Bellcore or .trc format |
| Laser safety level | Class 2(CFR Standard) |

| | |
|---|---|
| Test method | Distance measurement method: Automatic or by cursor |
| Display | 4.3-inch color capacitive touch screen, resolution 480x272 dpi |
| Distance display unit | km, m |
| Even Map | Display the optical path characteristics with separate symbols and text annotations to represent welds, connectors, with information about location, attenuation, reflection, distance between events |
| Environmental temperature/humidity | Working temperature: -10℃~+50℃<br>Storage temperature: -40℃~+70℃; Humidity: 0~95% non condensing |
| Protection | Shockproof, IP5X, IPX2 |
| Size/Weight | 175*105*45 (L*H*W) / 480g (including battery) |
| Storage | ≥1000 test result, Hard drive capacity (inside the machine) ≥1Gb |
| Power supply | 100-240VAC, 50/60Hz, Rechargeable Battery. |
| Battery | 5200 mAh/3.7V, Minimum working hours 12h |
| Battery display | The battery level is displayed on the instrument panel |
| Measurement result information | Cable route name, start point, end point, fiber order. |
| Threshold | The device capable of providing pass/fail assessments and serious error warnings for measurement results based on comparison with user-defined parameter threshold levels or according to ITU-G.671 standard. |
| Language | English and Vietnamese |

| Other function for testing |
|---|
| a, The device is capable of detecting whether the connector connected to the meter is clean or dirty. |
| b, The device is capable of detecting a signal on the optical line (helping the technician recognize that the optical line has a signal). |
| c, The device can allow full screen display of measurement results. |
| d, Startup time ≤10s, ready to test |
| e, The meter has a built-in compensation coil to detect the first event of the cable route, saving the meterer from having to carry a compensation coil. |
| f, Provides parameters for dynamic range and pulse width when selecting measurement mode corresponding to event dead zone |
| g, Automatic measurements are performed quickly with the push of a button. Measurement results simulate events on the optical path using symbols for welds, connectors, start points, and end points. |
| h, Expert measurement for setting parameters such as: initial offset coil length, final offset coil length, cable length, pulse width, average measurement time. |
| I, Measurement results can be backed up to a computer. Software for reading and printing measurement results on a computer is provided. |

| **Power meter** | | **Light source** | | **Others** | |
|---|---|---|---|---|---|
| Calibration wavelength | 1310/1550nm | Wavelength | 1310/1550nm | VFL | ≥10mW |
| Testing Range | A:-70~+10dBm<br>B:-50~+26dBm | Laser type | FP-LD | Cable test | Cable sequence testing and Cable finding |
| Frequency recognition | 270Hz/1kHz/2kHz | output power | -5dBm±2dB (Adjustable) | battery | 5200nAh/3.7V |

| | | | | | |
|---|---|---|---|---|---|
| Uncertainty | ±5% | Uncertainty | ±5% | Charge | USB |
| Connector | FC/SC/ST | Connector | FC/SC/ST | Storage | ≥1000 |

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