



Report No: B22X09018



中国认可  
国际互认  
检测  
TESTING  
CNAS L0570

# TEST REPORT

Product  
Name:

OTDR

Product  
Model:

980EXT

Applicant:

SHANGHAI FIRSTFIBER  
TECHNOLOGIES CO., LTD.

Manufacturer:

SHANGHAI FIRSTFIBER  
TECHNOLOGIES CO., LTD.

Type of Test:

Commission Test

China Telecommunication Technology Labs





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5. The test report is invalid if there is any evidence of erasure and/or falsification.
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Information Industry Beijing Mobile Communication Equipment Quality Supervision and Inspection Center

Information Industry Graphic Communication Equipment Quality Supervision and Inspection Center

Information Industry Beijing Telephone Switching Equipment Quality Supervision and Inspection Center

Information Industry Communication Electromagnetic Compatibility Quality Supervision and Inspection Center

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Address: No.52 Huayuanbei Road, Haidian District, Beijing, China

Postal Code: 100191

Tel: 01062301383

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Web-site: [www.caict.ac.cn](http://www.caict.ac.cn)

E-mail: [sunxiaoqiang@caict.ac.cn](mailto:sunxiaoqiang@caict.ac.cn)



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# China Telecommunication Technology Labs

## Test Report

|                    |  |                |            |
|--------------------|--|----------------|------------|
| Name               | OTDR   | Qty            | 1          |
| Type               | 980EXT   | Brand          | FirstFiber |
| Applicant          | SHANGHAI FIRSTFIBER TECHNOLOGIES CO., LTD.   |                |            |
| Manufacturer       | SHANGHAI FIRSTFIBER TECHNOLOGIES CO., LTD.   |                |            |
| Test Type          | Commission Test  | Receiving Date | 07/09/2022 |
| Client             | Mr. Yang   | Made in        | Shanghai   |
| Test Specification | 1. SJ 20548-1995 General specification for optical time domain reflectometers<br>2. TLC 015-2019 Certification Criteria for Optical Time Domain Reflectometer<br>3. Test specification of 980EXT reflectometer   |                |            |
| Serial No.         | MOT4YC2221   |                |            |
| Test Conclusion    | <p>China Telecommunication Technology Labs (CTTL) is entrusted with testing OTDR by SHANGHAI FIRSTFIBER TECHNOLOGIES CO., LTD..</p> <p>Number of commissioned test items: 3. Number of actual test items: 3.</p> <p>The test results are detailed in the report.</p> <div style="text-align: right;">Stamp</div> <div style="text-align: center;">  <p>Date of issue 2022 年 9 月 21 日</p> </div> |                |            |
| Note               |  |                |            |

Approver:

孙强

Checker:

刘丽

Tester:

周轩羽

## Sample Pictures

Product Name: OTDR

Sample Type: 980EXT

Shot Location: China Telecommunication Technology Labs

Date: 09/09/2022



Fig. 1 Front view



Fig. 2 Back view



## Test Summary

| No. | Test Items                 | Conclusion |
|-----|----------------------------|------------|
| 1   | Central optical wavelength | Pass       |
| 2   | Dynamic range              | Pass       |
| 3   | Testing accuracy           | Pass       |

Checker: FU Dongbo

Tester: ZHOU Xuanyu

## Test Results

| No.  | Test Items                 | Unit         | Criteria                               | Test Results   | Conclusion                                       |         |      |        |                        |                    |              |          |      |         |         |     |      |         |         |     |      |
|--|----------------------------|--------------|--|--|--|---------|------|--------|------------------------|--------------------|--------------|----------|------|---------|---------|-----|------|---------|---------|-----|------|
| 1.   | Central optical wavelength | nm           | 1310±20<br>1550±20                     | <table><tr><th>Nominal Wavelength</th><th>Results</th></tr><tr><td>1310</td><td>1306.5</td></tr><tr><td>1550</td><td>1555.3</td></tr></table>  | Nominal Wavelength                               | Results | 1310 | 1306.5 | 1550                   | 1555.3             | Pass         |          |      |         |         |     |      |         |         |     |      |
| Nominal Wavelength                               | Results                    |              |  |  |  |         |      |        |                        |                    |              |          |      |         |         |     |      |         |         |     |      |
| 1310   | 1306.5                     |              |  |  |  |         |      |        |                        |                    |              |          |      |         |         |     |      |         |         |     |      |
| 1550   | 1555.3                     |              |  |  |  |         |      |        |                        |                    |              |          |      |         |         |     |      |         |         |     |      |
| 2.   | Dynamic range              | dB           | 1310 nm:<br>≥26<br><br>1550 nm:<br>≥24 | Settings:<br>Range: 100 km<br>Pulse width: 10000 ns<br>Duration: 180 s<br><br>Results:<br>1310 nm: 27<br>1550 nm: 25   | Pass   |         |      |        |                        |                    |              |          |      |         |         |     |      |         |         |     |      |
| 3.   | Testing accuracy           | m            | 1±Test distance×0.03%                  | <table><tr><td colspan="4">Settings:<br/>Range: 20 km<br/>Pulse width: 100 ns</td></tr><tr><th>Nominal Wavelength /nm</th><th>Reference value /m</th><th>Test value/m</th><th>Error /m</th></tr><tr><td>1310</td><td>12478.6</td><td>12480.4</td><td>1.8</td></tr><tr><td>1550</td><td>12483.3</td><td>12484.5</td><td>1.2</td></tr></table> | Settings:<br>Range: 20 km<br>Pulse width: 100 ns |         |      |        | Nominal Wavelength /nm | Reference value /m | Test value/m | Error /m | 1310 | 12478.6 | 12480.4 | 1.8 | 1550 | 12483.3 | 12484.5 | 1.2 | Pass |
| Settings:<br>Range: 20 km<br>Pulse width: 100 ns |                            |              |  |  |  |         |      |        |                        |                    |              |          |      |         |         |     |      |         |         |     |      |
| Nominal Wavelength /nm                           | Reference value /m         | Test value/m | Error /m                               |  |  |         |      |        |                        |                    |              |          |      |         |         |     |      |         |         |     |      |
| 1310   | 12478.6                    | 12480.4      | 1.8                                    |  |  |         |      |        |                        |                    |              |          |      |         |         |     |      |         |         |     |      |
| 1550   | 12483.3                    | 12484.5      | 1.2                                    |  |  |         |      |        |                        |                    |              |          |      |         |         |     |      |         |         |     |      |



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## Test Instruments

| No. | Instrument name                             | Type   | Manufacture | Serial Number | Valid to   |
|-----|---|--------|-------------|---------------|------------|
| 1   | OTDR Verification Set For Telecommunication | _____  | _____       | _____         | 03/07/2023 |
| 2   | Spectral analyzer                           | 86146B | Agilent     | US41500195    | 05/12/2022 |



## Test Environment and Others

|                   |            |
|-------------------|------------|
| Temperature       | 24 °C      |
| Relative Humidity | 46 %       |
| Voltage           | 220V       |
| Test date         | 09/09/2022 |

Test location: China Telecommunication Technology Labs



## Test Personnel

| Test items                               | Tester      | Checker |
|--|-------------|---------|
| Central optical wavelength and deviation | ZHOU Xuanyu | LIU Li  |
| Dynamic range                            |             |         |
| Testing accuracy                         |             |         |

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