Measure PDL / IL / RL simultaneously

Optical Component Test System

CT3000

OCTS

FIBERPRO's Optical Component Test System (CT3000) is designed to analyze loss characteristics of Multi-channel Optical Fiber Components.

Based on all state method with high speed polarization scrambler, it offers the world s best measurement accuracy and speed.

Another big advantage of CT3000 is that it measures PDL, IL and RL of optical components with single splicing so that total measurement time during their manufacturing process is remarkably reduced.

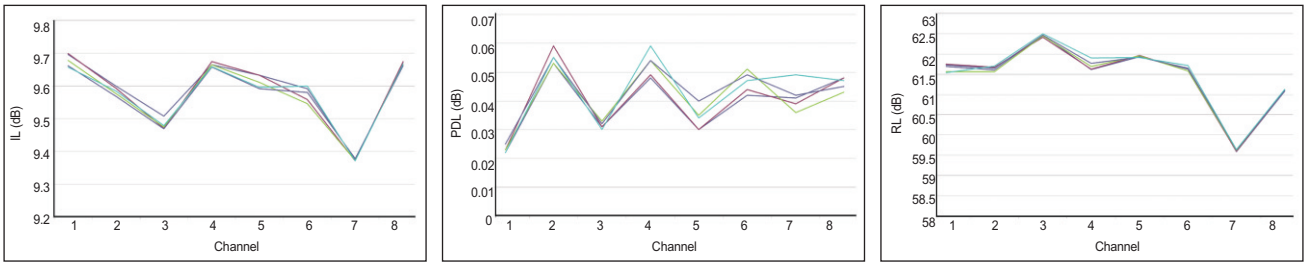
CT3000 also supplies max. 5 channels of stable internal sources as an option. Tunable Laser can be used as external source.

FIBERPRO

Optical Component Test System

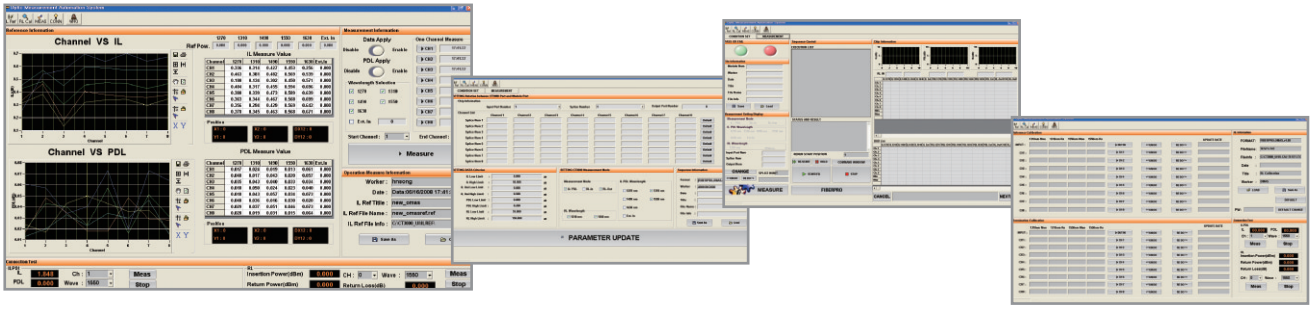
Key Features

- All state method (TIA/EIA-455-157 recommended)
  : High accuracy in PDL / IL / RL measurement. High repeatability

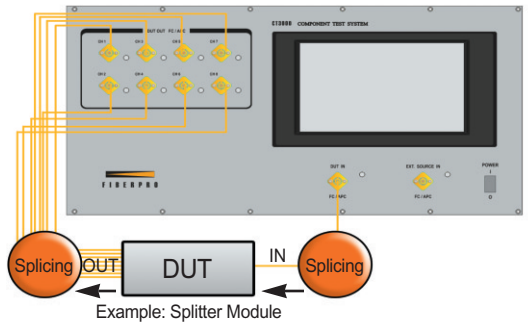


Example: 1×8 Splitter

- 8 independent receivers
- No frequent calibration process
- 1 x N, N x N component measurement
  (splitter, switch, AWG, VOA etc.)
- Fastest total measurement speed
  * Less than 2 sec : simultaneous PDL / IL / RL measurement
    ⇨ PDL / IL (5 wavelengths) + RL (2 wavelengths)
  * single splicing
- Integrated multi channel laser source
- Customized GUI



[Measurement set up]



Specifications

Optical Specifications

IL, PDL Wavelength Range[1]	1510~1640nm ,1270nm, 1310nm, 1490nm
RL Wavelength Range	1310nm , 1550nm
PDL Absolute Accuracy[2), 3)]	±(0.04 + 5 % of PDL) dB maximum
PDL Repeatability	±0.01dB
PDL Range	0 to 5 dB
IL Absolute Accuracy	±(0.1+2% of IL) dB Max. over whole range
IL Repeatability[4]	±0.02dB
IL Range	55 dB
RL Relative Uncertainty[5]	
RL ≦ 55 dB	< ±0.25 dB
RL ≦ 60 dB	< ±0.3 dB
RL ≦ 65 dB	< ±0.65 dB
Power Absolute Accuracy of Detector Port	±0.3 dB @ -10 dBm
	±0.65 dB @ -65 dBm
Input Power Range of Detector Port	+1 dB to -60 dBm
Maximum Input Power of Control Module	0 dBm
Whole Measurement Time (PDL / IL / RL)	Max. 2 seconds (8 channel) * PDL / IL (5 wavelengths) + RL (2 wavelengths)
Number of Detector Ports	Max. 16 (2,4,8,16)
Detector Adaptors	FC/APC

1) CT3000 can be calibrated at other wavelength user specified.
2) The guaranteed wavelength range is 1520~1620nm.
3) The average optical power after DUT must be greater than -32 dBm.
4) Does not include influence of connector.
5) With Broadband source.

Laser Source Specifications

- Source 1 (PDL / IL measurement)

Laser Source Type	DFB
Number of Internal Source	5
Wavelength(nm)	1270nm,1310nm,1490nm,1550nm,1630nm
Laser Power Setting Range	0 dBm ± 0.3 dB
Power Stability	Short Term, 1 hour : ± 0.02 dB
	Long Term, 24 hours : ± 0.05dB
Spectral width(-20dB)	Max. 1nm
Wavelength Accuracy	Max. ± 3nm
Optical Isolation	Min. 30dB

- Source 2 (RL measurement)

Laser Source Type	SLED
Number of Internal Source	1
Wavelength(nm)	1310nm
Laser Power Setting Range	13 dBm ±1 dB
Power Stability	Short Term, 1 hour : ± 0.005 dB
	Long Term, 24 hours : ± 0.01dB
Spectral width(3dB)	>38nm
Optical Isolation	Min. 30dB

- Source 3 (RL measurement)

Laser Source Type	ASE
Number of Internal Source	1
Wavelength(nm)	1550nm
Laser Power Setting Range	13 dBm ± 1 dB
Power Stability	Short Term, 1 hour : ± 0.03 dB
	Long Term, 24 hours : ± 0.1dB
Spectral width(3dB)	>38nm
Optical Isolation	Min. 30dB

Electrical / Physical / Environmental Specifications

AC Power Input	90~240V, 50 / 60 Hz
Power Consumption	< 120 VA maximum
External Control	GPIB interface (IEEE 488.2 compatible)
	RS-232 (9-pin DB) interface
External Trigger in	TTL level
Analog Output	
- Output Range	0~2.5 Volt
- Bandwidth	10 kHz
Dimensions	222(H) ×450(W) ×436(D) mm^3 (5U full rack size)
Weight	Approx. 20kg
Operating Temperature	10 to 40 ℃
Storage Temperature	0 to 60 ℃

Ordering Code

CT3000- (1) - (2)

1) Multi Channel Source : S (Included), X (Not Included)
2) Connector Type : F/A (FC/APC), P (Fiber Pigtail)

Other test & measurement instruments

1. PDL meter : PL2000

The most accurate and fastest Polarization Dependent Loss meter in the market

2. Passive Component Analyzer : CA3000

The best measurement system for 1xN passive components characterization

3. SFT1000

Perfect AWG test system

4. PER meter : ER2100

High accuracy Polarization Extinction Ratio meter

LEA-CT3000-00

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