

Optical Fiber Identifier FID-30R / FID-31R



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FID-30R and FID-31R are optical fiber identifiers for fiber optic data communications cables. The FID-30R has a built-in optical power meter.

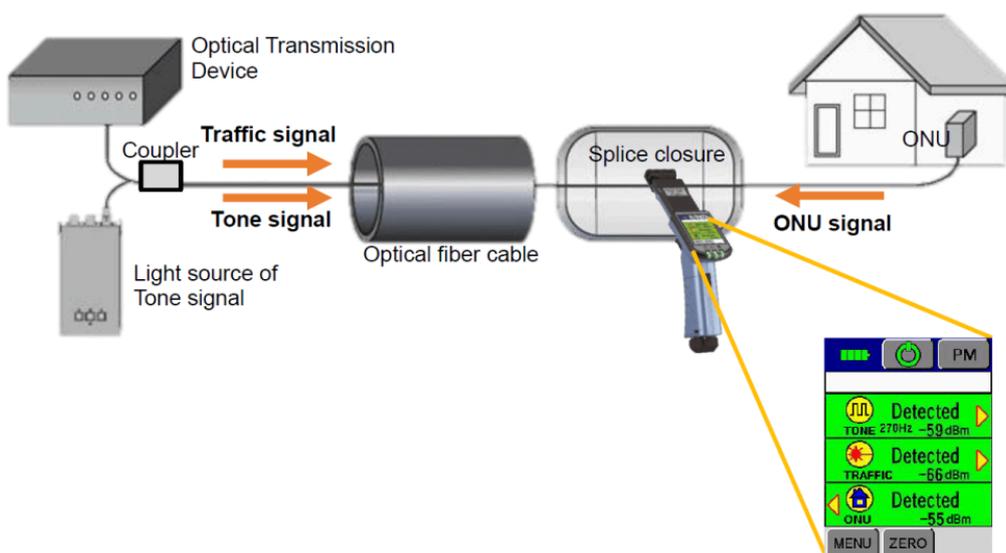


Product Variation

	FID-30R	FID-31R
Appearance		
Power Meter	✓	—
ONU Detection	✓	✓

Features

Advanced Features



1. Various measurement functions

FID-30R is a device that easily and quickly detects the presence or absence of "Tone signal", "Traffic signal", and "ONU signal" without interrupting the light by bending the optical coated fiber*. It supports single-mode and multimode optical fibers. The measurement mode (Normal, Fast, Fine) can be changed depending on the purpose of use and the line conditions.

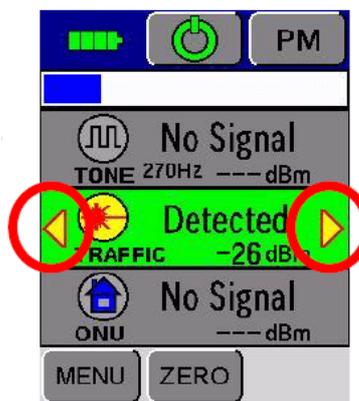
*It does not mean that all ONUs can be detected. If there is an ONU that is not detected, there is a possibility of analyzing and optimizing the waveform of ONU to detect.

2. No need to change clamp heads

The clamp head can accommodate 250µm single fiber up to 3000µm Jacketed cord, and up to 12-fiber ribbon. No need to change the clamp head depending on the type of optical fiber.

3. External Light Detection

Strong external light such as direct sunlight can cause false detection of "Traffic signal". When FID-30R detects external light, triangles indicating the light propagation direction are lit on both sides of the LCD screen at the same time. False detection can be prevented by covering the clamp head with your hand to block the external light source.



4. Power Meter for FID-30R

FID-30R is equipped with a power meter. It can measure "Traffic signal" with the wavelengths of 1310/1490/1550nm, as well as the intensity 270Hz/330Hz/1kHz/2kHz "Tone signal". It is possible to connect various optical connectors by selecting the optical connector head according to the connector type.



Specifications

Item		Specification			
Identification	Applicable fiber	Fiber type	Single mode optical fiber/Multi mode optical fiber		
		Cladding dia.	Approx.125μm		
	Applicable Cable	250 to 900um coated fiber			
		Up to 12 fiber ribbon			
	Wavelength	1100 to 3000μm Jacketed cord			
		850 to 1650nm			
	Display range of optical power	Fast mode	23 to -62dBm		
		Normal Mode	23 to -67dBm		
		Fine Mode	23 to -73dBm		
	Detectable light signals *1	270Hz, 330Hz, 1kHz, 2kHz			
	Direction detection	Display the direction of tone *2			
	ITU-T G.651 Insertion loss & Required Core power for Identification *3	Wavelength	850nm	1300nm	—
		250μm *4	Insertion loss : 0.2dB or less Normal mode : Avg. -43dBm or more	Insertion loss : 0.5dB or less Normal mode : Avg. -53dBm or more	—
	ITU-T G.652 Insertion loss & Required Core power for Identification *3	Fiber ribbon *4	Insertion loss : 0.2dB or less Normal mode : Avg. -40dBm or more	Insertion loss : 0.5dB or less Normal mode : Avg. -50dBm or more	—
		Wavelength	1310nm	1550nm	1650nm
		250μm *4	Insertion loss : 0.5dB or less Normal mode : Avg. -53dBm or more	Insertion loss : 2.0dB or less Normal mode : Avg. -53dBm or more	Insertion loss : 3.0dB or less Normal mode : Avg. -64dBm or more
		900μm *4	Insertion loss : 0.5dB or less Normal mode : Avg. -17dBm or more	Insertion loss : 2.5dB or less Normal mode : Avg. -27dBm or more	Insertion loss : 3.5dB or less Normal mode : Avg. -27dBm or more
		1.1mm *4	Insertion loss : 0.3dB or less Normal mode : Avg. -42dBm or more	Insertion loss : 2.0dB or less Normal mode : Avg. -52dBm or more	Insertion loss : 2.0dB or less Normal mode : Avg. -52dBm or more
		1.5mm *4	Insertion loss : 0.3dB or less Normal mode : Avg. -43dBm or more	Insertion loss : 1.5dB or less Normal mode : Avg. -55dBm or more	Insertion loss : 2.0dB or less Normal mode : Avg. -55dBm or more
		1.7mm *4	Insertion loss : 0.5dB or less Normal mode : Avg. -11dBm or more	Insertion loss : 2.0dB or less Normal mode : Avg. -21dBm or more	Insertion loss : 3.0dB or less Normal mode : Avg. -21dBm or more
2mm *4		Insertion loss : 0.5dB or less Normal mode : Avg. -17dBm or more	Insertion loss : 2.0dB or less Normal mode : Avg. -27dBm or more	Insertion loss : 3.0dB or less Normal mode : Avg. -27dBm or more	
3mm *4		Insertion loss : 1.0dB or less Normal mode : Avg. -13dBm or more	Insertion loss : 3.0dB or less Normal mode : Avg. -23dBm or more	Insertion loss : 4.0dB or less Normal mode : Avg. -23dBm or more	
Fiber ribbon *4		Insertion loss : 0.5dB or less Normal mode : Avg. -50dBm or more	Insertion loss : 2.5dB or less Normal mode : Avg. -60dBm or more	Insertion loss : 3.5dB or less Normal mode : Avg. -60dBm or more	
ITU-T G.657.A1 Insertion loss & Required Core power for Identification *3	Wavelength	1310nm	1550nm	1650nm	
	250μm *4	Insertion loss : 0.2dB or less Normal mode : Avg. -41dBm or more	Insertion loss : 1.0dB or less Normal mode : Avg. -55dBm or more	Insertion loss : 1.5dB or less Normal mode : Avg. -55dBm or more	
Live Fiber Detection	Display range of optical power	23 to -59dBm			
	Detectable light signals *1	CW, Traffic			
Power Meter FID-30R	Wavelength	1310nm, 1490nm, 1550nm			
	Measurement Range	10 to -60dBm at modulated tone			
	Accuracy *5	10 to -40dBm at CW or Traffic *1			
ONU Detection FID-30R/31R	Detectable light signals *1	±/ -0.3dB			
	Applicable Cable	CW, Traffic or 270Hz, 330Hz, 1kHz, 2kHz tone			
Physical description	Required Core Power *6	G(E)-PON	250 to 500um coated fiber 900um Loose tube Upper stream signal at 1310nm : -7.5 to 9.0dBm Down stream signal at 1490nm : -25.5 to -6.7dBm Down stream signal at 1550nm : -12.0 to 2.8dBm		
		B-PON	Upper stream signal at 1310nm : -5.5 to 4.0dBm Down stream signal at 1490nm : -21.6 to -12.7dBm		
	Dimensions	Without projection Approx. W50mm × D210mm × H113mm			
	Weight	FID-31R Approx. 220g including battery FID-30R Approx. 235g including battery			
Environmental condition	Temperature	Operate : -10 to 50 degreeC, Storage : -20 to 60 degreeC			
	Humidity	Operate : 0 to 95%RH non-condensing, Storage : 0 to 95%RH non-condensing			
Interface	PC	USB2.0 Mini B type for Firmware update			
Power Source	Battery type	2 pieces of LR6/AA dry battery			
	Battery life *7	Approx. 8 hours			
Display	LCD monitor	TFT 2.4 inches with touch screen			
Other features	Trigger	Trigger hold function			
	Software for PC	Firmware update via internet			

Note

*1 CW is a light signal that is not modulated. Traffic is a light signal modulated by a random data sequence. Tone is a light signal modulated into a nominal 50% duty cycle square wave.

*2 The direction may not be displayed for fiber type, coating material, color, environmental condition, etc.

*3 Using 270Hz modulated light at 25 degreeC. Insertion loss and minimum detect level varies due to coating material, color, environmental condition, etc.

*4 ITU-T G.651 250 μm : ITU-T G.651 with 250 μm coated fiber
 ITU-T G.651 Fiber ribbon : ITU-T G.651 with 2 to 12 fiber ribbon
 ITU-T G.652 250 μm : ITU-T G.652 with 250 μm coated fiber
 ITU-T G.652 900 μm : ITU-T G.652 with 900 μm coated fiber
 ITU-T G.652 1.1 to 3mm : ITU-T G.652 with 1.1 to 3mm Jacketed cord
 ITU-T G.652 Fiber ribbon : ITU-T G.652 with 2 to 12 fiber ribbon
 ITU-T G.657.A1 250 μm : ITU-T G.657.A1 with 250 μm coated fiber
 ITU-T G.657.A1 500 μm : ITU-T G.657.A1 with 500 μm coated fiber
 Fiber in the loose tube
 ITU-T G.652 0.25mm : ITU-T G.652 with 250 μm coated fiber
 ITU-T G.657.A1 0.25mm : ITU-T G.657 with 250 μm coated fiber

*5 Under the condition of temperature 25 degreeC with input power at -20dBm.

*6 It does not mean that all ONUs can be detected. If there is an ONU that is not detected, there is a possibility of analyzing and optimizing the waveform of ONU to detect.

*7 Test condition

(1) Operation cycle : measuring operation for 5 seconds, and waiting for 5 seconds.

(2) At room temperature

(3) Using a not degraded alkaline batteries

The battery life changes when testing with a different conditions from the above.

Standard Package

Item		Model	Qty
Optical Fiber Identifier		FID-30R / FID-31R	1pc
1	Soft Case	FID-CASE-02	1 pc
2	Instruction Manual	M-FID30R	1 pc
3	Quick Reference Guide	QRG-07-E or J	1 pc
4	Strap	ST-01	1 pc



Options

Item	Model	Remark
Optical Connector Head	OCH-02-FC	Optical connector head for FC type
	OCH-02-UC	Optical connector head for UC type
	OCH-02-LC	Optical connector head for LC type
	OCH-02-SC	Optical connector head for SC type
USB Cable	USB-01	USB(A)-USB(miniB)



Contact us

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