

Operation Guide

AQ2180

Optical Power Meter

YOKOGAWA ◆ 1st Edition: October 2012(YMI)
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Yokogawa Meters & Instruments Corporation

IM AQ2180-02EN
1st Edition

	Model	AQ2180	AQ2180H	
	Sensor Specifications	Wavelength Range (nm)	850/1300/1310/1490/1550/1625/1650 nm	1310/1490/1550/1625/1650 nm
Detector		InGaAs		
Applicable Fibers Type		Light emitted from SM (ITU-T G.652), GI (50/125 μm), GI (62.5/125 μm) optical fiber	Light emitted from SM (ITU-T G.652), optical fiber	
Optical Connector		FC, SC, LC, φ1.25 ferrule, φ2.5 ferrule		
Power Range(dBm)		-70~+10 dBm	-50~+26 dBm	
Noise Level		-60 dBm	-40 dBm	
Uncertainty under standard conditions ^①		±5%		±5%
General Specifications	Displayed Resolution	0.01dB, 0.01dBm, 0.0001uW		
	Displayed Unit	Absolute values: dBm, mW, μW Relative values: dB		
	Modulation Mode	CW, CHOP(270Hz, 1kHz, 2kHz)		
	Measurement Interval	Approximately 150 ms		
	Measurement mode	Absolute value measurement Relative value measurement: Relative value measurement relative to a set reference value Relative value measurement based on a displayed measurement		
	Memory function	999 records		
	Interface	USB-B(mini)		
	Power supply	Dry and Rechargeable Battery AA		
		Battery life ^②	Approximately 40 hours	
		Power saving	Power turns off automatically when there is no key input for approximately 10 minutes (this function can be disabled)	
Battery check		Battery indicator		
Environmental conditions	Operating temperature range: -10~50°C, Operating humidity range: 20~80% Storage temperature range: -20~+70°C (no condensation) Storage humidity range: 5~95% (no condensation)			
Dimensions and weight ^③	76(W)×153(H)×43(D) mm, Approximately 280 g			

① Power level: 100 μW(-10dBm); CW, Wavelength: 1310, Spectral width: 5 nm or less (1310 nm), ambient temperature: 23 ±2°C, Optical fiber: SM (ITU-T G.652), Optical connector: FC/PC, Polarization condition: Excluding Polarization dependence, Removing/Installing connector adapter : Including, 1 year aging

② Continuation Measurement, using alkaline dry cells, at 23°C ±2°C ③ A protector is removed.

Note : Specifications are at 23°C±2°C unless otherwise noted. Optical connector: FC/PC

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Introduction

The AQ2180 series are full featured palm sized and lightweight optical power meters designed for use with an optical Light source to perform optical loss measurements on optical fiber cables.

optical connections to the AQ2180 are made via the universal adapter interface on the top of the unit.

The instrument has 7 working wavelengths(The AQ2180H is 5 wavelengths) to totally satisfy your needs.

It can be extensively used in telecommunication projects and other situations where optical power of wavelengths close to infrared ray needs to be measured.

Features

- Hand-held, convenient to hold
- Small power consumption
- Various power unit display
- The range of the power meter can adjust automatically
- LCD display and back light function
- Low power automatically shut down
- 10min, no operation shut down automatically
- Replaceable Two AA batteries
(alkaline dry cells or nickel metal-hydride rechargeable batteries)

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Operation

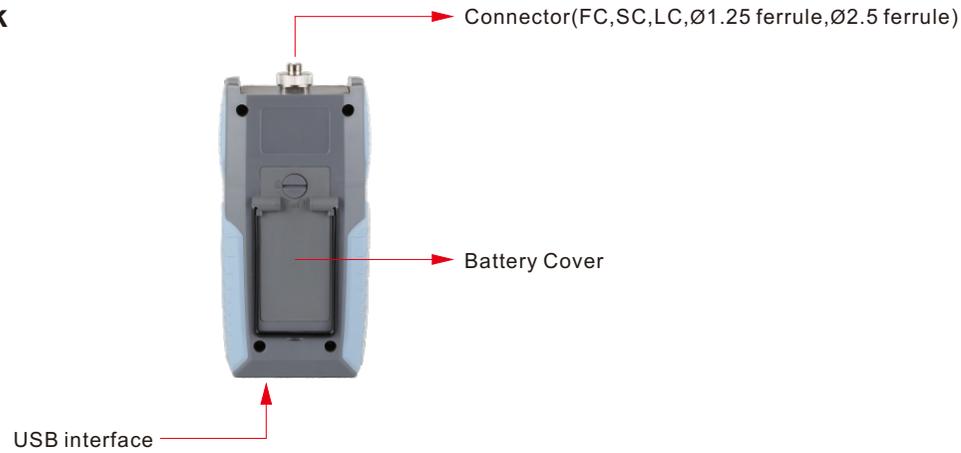


AQ2180/AQ2180H

NO.	Key	Function
1	ON/OFF	Switches instrument on / off. Long key press over 2seconds while powering on to activate the instrument without Auto-off function.
2	λ	Selects measurement wavelength in sequence of 850/1300/1310/1490/1550/1625/1650nm (AQ2180H: 1310/1490/1550/1625/1650) and to Long key press over 2 seconds activate auto-wavelength recognition(TWIN). In memory, browse the forward records and Long key press over 2seconds browse the forward 20 record.
3	dBm/mW	Switches measurement unit among dBm, dB and mW. In memory, delete current record and Long key press over 2seconds delete all record.
4	SAVE/LOAD	Long key press over 2seconds to store the current test value; short keypress to display the record.
5	REF	Short key press to display reference value of present test wavelength. Long key press over 2seconds to set a new reference value of present test wavelength. In memory, browse the afterward records and Long key press over 2seconds browse the afterward 20 record.
6	Backlight	Switches backlighting on / off.

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Consumables

We recommend that you replace the Universal and connector adapters when used 1000 times. The recommended replacement interval can vary greatly depending on the operating environment and the frequency of use. The times are estimated. The accessories are out of warranty.

Maintenance

- Please cover the protective dust cap once you finish using.
- It is a good idea to clean the connector and the instrument when they get dirty through use. Optical cleaning pads and anhydrous alcohol is recommended. And please be careful not to get the detergent inside the instrument.
- Periodic calibration is an effective means of keeping the instrument performing correctly for a long time and of detecting malfunctions at an early stage.
- We recommend that you have the AQ2170 calibrated once a year.
- Prohibitions against Actions that Cause Leaking, Ignition and Explosion.
- Do not leave it in a location that is exposed to direct sunlight.
- Do not throw the battery into fire or heat it.
- When you put the battery in the battery case, make sure that the battery is facing the right direction.
- If you will not use the battery for an extended period of time, remove it from the AQ2180 and store it in a dry place.

Notes

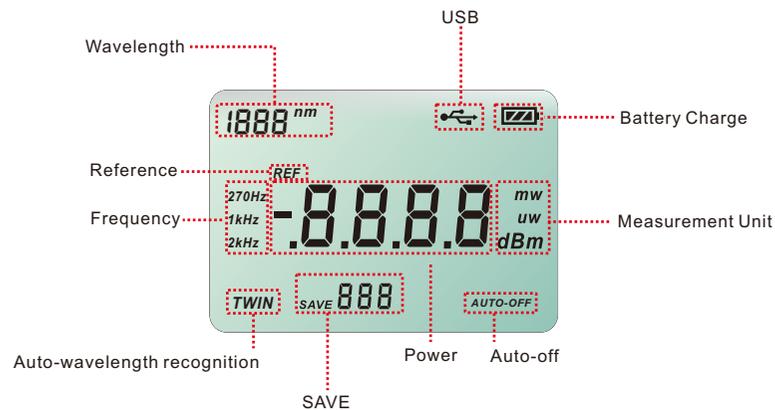
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LCD



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This operation guide focuses on the handling precautions, basic operations, and specifications of the AQ2180.

In addition to this operation guide, the following additional user's manuals for the AQ2180 are provided on the included CD-ROM:

the User's Manual, IM AQ2180-01EN, that explains all the AQ2180 features.

Product Registration

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