

Operation Guide

AQ2170

Optical Power Meter

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

IM AQ2170-02EN
1st Edition

Model	AQ2170	AQ2170H
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(dBm)	-60 dBm	-40 dBm
Uncertainty under standard conditions [Ⓞ]	±5%	±5%
Displayed Resolution	0.01dB(>-60dBm),0.1dBm(≤-60dBm)	0.01dB(>-40dBm),0.1dBm(≤-40dBm)
Displayed Unit	Absolute values:dBm, mW, μW Relative values: dB	
Modulation Mode	CW,CHOP(270Hz,1kHz,2kHz)	
Measurement Interval	Approximately150 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	
Power supply	Dry and Rechargeable Battery AAA	
Battery life [Ⓞ]	Approximately 40 hours	
Power saving	Power turns off automatically when there is no key inputfor approximately 10 minutes (this function can bedisable)	
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 [Ⓞ]	63(W)×116(H)×35(D) mm, Approximately 160 g	

Ⓞ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

Ⓞ Continuation Measurement, using alkaline dry cells, at 23°C ±2°C Ⓞ 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 AQ2170 series are full featured mini 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 AQ2170 are made via the universal adapter interface on the top of the unit.

The instrument has 7 working wavelengths(The AQ2170H 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

- Small size with light weight, saving power and easy to carry
- Unit-shifting automatically, auto-off, power capacity display on the LCD
- Supply with linear and logarithmic optical power display



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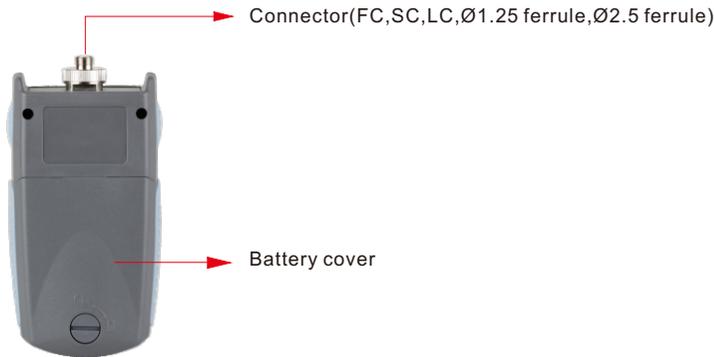
Operation



NO.	Key	Function
1		Switches instrument on/off. Long keypress over 2 seconds while powering on is to activate the instrument without Auto-off function.
2		Selects measurement wavelength in sequence of 850/1300/1310/1490/1550/1625/1650nm(AQ2170H:1310/1490/1550/1625/1650
3		Switches measurement units among dBm, dB and mW.
4		Short keypress to display reference level of present test wavelength. Long Key press over 2seconds to set a new reference level of present test wavelength.
5		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 AQ2170 and store it in a dry place.

Notes

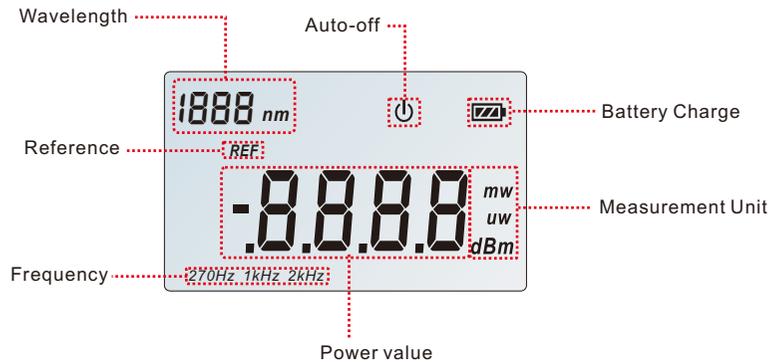
1. The contents of this manual are subject to change without prior notice as a result of continuing improvements to the instrument's performance and functionality. The figures given in this manual may differ from those that actually appear on your screen.
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LCD



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This operation guide focuses on the handling precautions, basic operations, and specifications of the AQ2170.

In addition to this operation guide, the following additional user's manuals for the AQ2170 are provided on the included CD-ROM:

the User's Manual, IM AQ2170-01EN, that explains all the AQ2170 features.

Product Registration

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