# User's Manual

# Model 735384 **NA Conversion Fiber**

Thank you for purchasing this NA conversion fiber, which is an optical spectrum analyzer accessory. To ensure correct use, please read this manual thoroughly before beginning operation. After you have finished reading this manual, keep it in a safe place.

Contact information of Yokogawa offices worldwide is provided on the following sheet.

• PIM113-01Z2 List of worldwide contacts





IM735384-01EN 1st Edition

#### **Notes**

- The contents of this manual are subject to change without prior notice as a result of improvements to the instrument's performance and functionality. Refer to our website to view our latest manuals.
- The contents of this manual are subject to change without prior notice as a result of continuing improvements to the software's performance and functions. The figures given in this manual may differ from those that actually appear on your screen.
- Copying or reproducing all or any part of the contents of this manual without the permission of YOKOGAWA is strictly prohibited.

CAUTION	
- OAGTION	

Calls attention to actions or conditions that could cause light injury to the user or damage to the instrument or user's data, and precautions that can be taken to prevent such occurrences.

#### **French**

ATTENTION Attire l'attention sur des gestes ou des conditions susceptibles de provoquer des blessures égères ou d'endommager l'instrument ou les données de l'utilisateur, et sur les précautions de sécurité susceptibles de prévenir de tels accidents.

Note

Calls attention to information that is important for the proper operation of the instrument.

### **Safety Precautions**

This product is designed to be used by a person with specialized knowledge.

Make sure to comply with the safety precautions mentioned hereafter when handling the NA conversion fiber. YOKOGAWA assumes no responsibility for any consequences resulting from failure to comply with these safety precautions. Also, read the User's Manual of the measuring instrument thoroughly so that you are fully aware of its specifications and handling, before starting to use the NA conversion fiber. This manual is part of the product and contains important information. Store this manualin a safe place close to the instrument so that you can refer to it immediately. Keep this manual until you dispose of the instrument.

Be sure to follow the safety precautions listed below. Failing to do so may lead to damage to the conversion adapter.

### **CAUTION**

There are optical lenses installed in this product. Be careful when handling this product, because impacts, such as those that occur when the product is dropped, may damage the product's internal parts.

### French

### **ATTENTION**

Des lentilles optiques sont installées dans ce produit. Faites attention lorsque vous manipulez ce produit car des chocs, tels que ceux qui se produisent si le produit chute, peuvent endommager les pièces internes du produit.

## **■** Product Overview

This NA conversion fiber converts the NA of the connected optical fiber to a value that is approximately 1/3 of the fiber's NA and then transmits the converted light.

Connect this fiber to the optical input section of the AQ6360 and the AQ6370 series optical spectrum analyzer. This enables you to efficiently apply light that travels through an optical fiber with a large NA to an optical spectrum analyzer.

For example, by connecting a GI 50 optical fiber—which has a comparatively large NA—to the NA conversion fiber and connecting the fiber to an optical spectrum analyzer, you can reduce the loss that occurs at input and improve the stability of optical level measurements.

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Model	Suffix Code	Name	
735384		NA conversion fiber	
Suffix -A001		NA conversion fiber (for GI 50 optical fibers)	
	-A002	NA conversion fiber (for GI 62.5 optical fibers)	
Optional	/FC	FC to FC adapter	

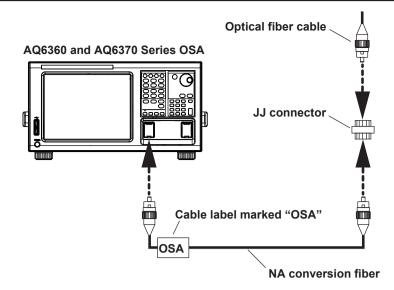
### **■** Basic Construction

There are lenses installed in the fiber. The image magnification of the lenses has been adjusted so that the transmitted NA is approximately 1/3 of the NA that is received. Therefore the size of the image at the end face of the NA conversion fiber's optical output is approximately twice the core diameter of the connected optical fiber.

### How to Use

Connect this adapter to the optical input section of an optical spectrum analyzer.

- Connect the fiber end with the cable label marked "OSA" to the optical spectrum analyzer
- Connect the other end to the optical fiber cable using a JJ connector (FC to FC adapter)



#### ■ Compatible Optical Fibers

- GI 62.5 multi-mode optical fibers (-A002)
- GI 50 multi-mode optical fibers (-A001, -A002)

#### Note

- You must use a polished PC optical fiber connector (FC type) or equivalent.
- Before you connect the optical fiber connector to the NA conversion adapter, be sure to clean the ferrule and the ferrule tip.

#### ■ Compatible Spectrum Analyzers

The adapter can be used with the A6360 and the following AQ6370 series optical spectrum analyzers

AQ6370, AQ6370B, AQ6370C, AQ6370D, AQ6373, AQ6373B, AQ6374, AQ6375, AQ6375B, AQ6375E, AQ6376 and AQ6376E (only up to 1700 nm)

This product is a dedicated accessory for the AQ6360 and the AQ6370 series optical spectrum analyzers. Only use it for its intended purpose.

### Recommended Resolution Settings for Optical Fibers

If you have connected a GI 50 multi-mode optical fiber or a GI 62.5 multi-mode optical fiber to an optical spectrum analyzer through the NA conversion adapter, we recommend that you set the resolution of the optical spectrum analyzer to 0.2 nm or higher.

### Guaranteed Optical Spectrum Analyzer Measurement Accuracy

When you have connected the NA conversion adapter to an optical spectrum analyzer, we cannot guarantee that the optical spectrum analyzer will behave according to its product specifications. In particular, note that the absolute value of the optical level is incorrect (the measured level will be higher than the actual level).

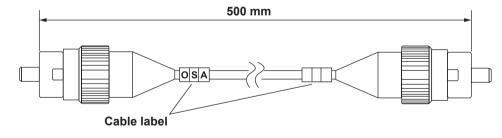
### ■ Cleaning Method

Where to clean	How to clean
End face that connects to the optical fiber	Use a normal optical fiber cleaner.
End face on the side marked "OSA" (end face	Use a stick-type cleaner. (Recommended
that connects to the optical spectrum analyzer)	cleaner: NEOCLEAN-S125)

### Specifications

Model	735384-A0001	735384-A0002
Optical fiber type	MMF-GI50/125	MMF-GI62.5/125
Fiber length	Approx. 500 mm	
Optical connector	FC-UPC	
Mass	Approx. 14 g	
Operating temperature range	0°C to 40°C	
Storage temperature range	–40°C to 85°C	
Ambient humidity	85% RH or less (no condensation)	
Recommended calibration period	Calibration not applicable	

### **■ External Dimensions**



### ■ Disposing of the Instrument

When disposing of YOKOGWA products, follow the laws and ordinances of the country or region where the product will be disposed of.