

N7004A 33 GHz Optical to Electrical Converter

Quick Start and Accessories Guide

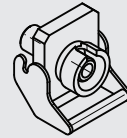
Kit Contents

Extra plastic cap to cover
the FC/PC Input Connector



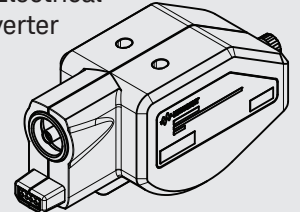
N7740-44101

Extra FC/PC Fiber
Optic Receptacle



1005-0998

Optical to Electrical
Converter



- 1** Clean the fiber ends of the N7004A fiber-optic connector and the mating fiber-optic cable or patch cable.

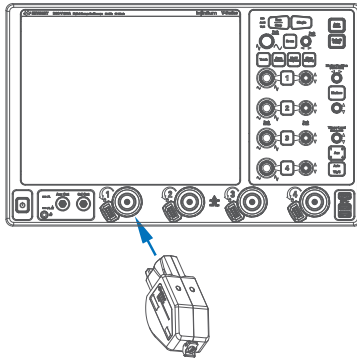
CAUTION

Improper connector care, lack of cleaning, or improper cleaning procedures can damage the N7004A's fiber-optic connector. Therefore, it is critical to clean the N7004A's fiber-end as well as the end of the mating fiber before each and every time contact is made. Repair of the connector damaged due to lack of cleaning or improper use is NOT covered under warranty.



For details on the cleaning procedure, refer to the N7004A User Guide on www.keysight.com.

- 2** Connect the N7004A output to a Keysight Infiniium Realtime Oscilloscope channel input.



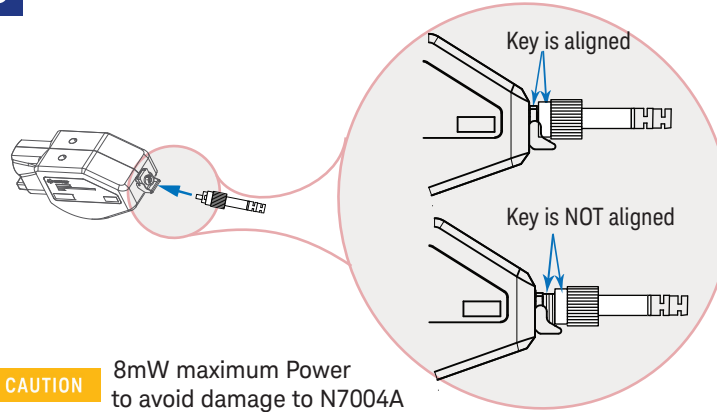
Compatible with:
- V-Series
- Z-Series
- 90000 Q-Series
- 90000 X-Series

Setup is complete to start making the optical measurements.



Detailed information on N7004A is available at <http://www.keysight.com/find/N7004A>. On this webpage, click the *Document Library* link and download the *N7004A 33 GHz Optical-to-Electrical Converter User Guide*.

- 3** Connect the N7004A FC/PC Input Connector to an FC/PC fiber-optic cable or an FC/PC patch cable.



CAUTION

8mW maximum Power to avoid damage to N7004A

NOTE

Ensure that you use a fiber patch cord with ceramic fiber-optic ferrule.

NOTE

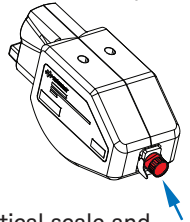
To ensure proper optical signal transmission, the keying features for the input connector and cable must be aligned and finger-tightened.

- 4** Configure the optical measurements setup on the Infiniium software.

- Configure the following values for N7004A.
 - > Wavelength
 - > Bandwidth Limit
 - > Type of Filter
- Adjust the vertical scale and offset settings of the oscilloscope.
- Select the optical measurement(s).
- Set up the scope channel input for:
 - > Eye diagram and mask testing
 - > Extinction ratio
 - > Optical power of 1 or 0

- 5** Perform Dark Calibration (Optional).

- After configuring the measurement setup, cover the N7004A FC/PC input connector with the cap that accompanies the N7004A.
- When the dark calibration is complete, remove the cap and reconnect the fiber-optic cable to the N7004A's optical input.



NOTE

Dark calibration is only valid at a given vertical scale and offset settings of the oscilloscope. A change in these settings require you to perform the dark calibration again.

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