

## Fiber Optic Test Adapters and Cables



### Key Features

- A complete range of adapters and cables suitable for all JDSU products with optical interfaces
- Ready for all common 2.5 and 1.25 mm connectors
- Suitable for both PC and APC
- Accurate power measurements with built-in reflection trap (2014 series)
- 2150 and 2060 adapters for physical contact ports (PC, APC)

JDSU offers a wide range of adapters and cables for connecting fiber optic test equipment to the various fiber optic connector systems used today. The universal adapters are very easy to use and ready for future standards. It is very easy to adapt existing instrument to new connector systems. The adapters allow simple access for cleaning or inspection. Adapters and cables are available for multimode and singlemode applications.

### 2060 universal test adapters

The 2060 test adapter system is designed for precise fiber to fiber coupling. The port of the instrument has a ferrule with a fiber inside. The test cable is connected to this fiber with physical contact and the 2060 adapter system guarantees a precise alignment of the fiber from the connector of the external test cable with the fiber in the instrument's port. 2060 universal test adapters work with physical contact (PC) and angled physical contact (APC).

### 2150 universal test adapters

Like the 2060 adapters the 2150 universal test adapters are designed for precise fiber to fiber coupling and also the 2150 system guarantees a perfect alignment of the fiber from the instrument's port with the fiber from the external connector. With its quick-lock technology, the 2150 adapter system speeds up the time for changing the adapters.

### 2014 universal test adapters

The 2014 adapters are designed for instruments with direct coupling of the test cable to a photo detector. They are also available for various connector standards. A built-in reflection trap in the adapters prevents multiple reflections between the connector's end face and the detector, which would cause incorrect results. This guarantees constant high measurement accuracy regardless of the reflectivity and quality of the surface of the connector. The 2014 universal push pull adapters (UPP) are available for 2.5 or 1.25 mm connectors.

One 2.5 mm UPP adapter fits to all 2.5 mm fiber optic connectors as well as the 1.25 mm UPP adapter fits to all 1.25 mm connectors. So the UPP adapters reduce the numbers of adapters needed for power meters.

All 2014 adapters are designed to be used with PC and with APC connectors.

**Specifications**

**Fixed attenuators/mating sleeves**

The S31XX series of fiber optic mating sleeves complement the test adapters and cables. They are used to connect two fiber optic connectors together, e.g. connect two jumper cables.

**K30XX, K31XX test and adapter cables**

Fiber optic jumper cables are used to connect the device under test (DUT) with the instrument or for connecting instruments together. The series of K20XX cables are comprised of multimode fiber and the K31XX are comprised of singlemode fiber. The cables are available with various connectors. If equipped with different connectors at both ends they could be used as an adapter from one connector standard to another.



Optical test adapters BN 2150



Optical test adapters BN 2014



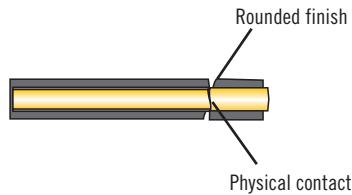
Optical test adapters BN 2060

**Singlemode fixed attenuators**

JDSU offers several optical fixed attenuators with different connectors and different attenuation values.

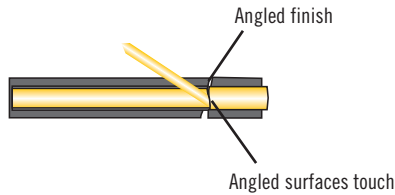
**PC (Physical Contact)**

Refers to an optical connector that allows the fiber ends to physically touch. Used to minimize back reflection and insertion loss.



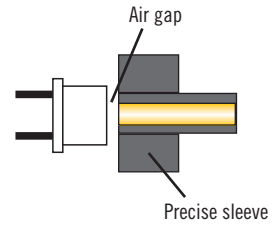
**APC (Angled Physical Contact)**

A style of fiber optic connector with a 5° to 15° angle on the connector tip for the minimum possible back reflection.



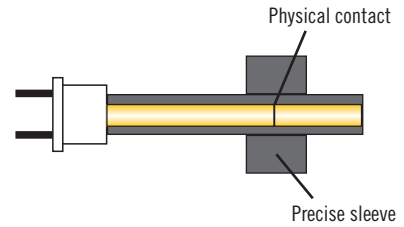
**Air gap coupling**

Principle of air gap coupling between fiber and photo diode used with 2014 adapters.



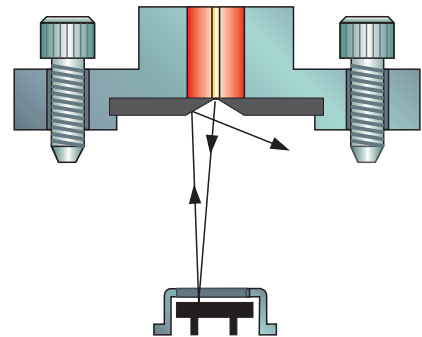
**Fiber to fiber coupling**

Principle of fiber to fiber coupling for laser, LED or photo diodes used with 2060 or 2150 adapters.



**Reflection trap**

The reflection trap in 2014 adapters avoids multiple reflections to provide highest accuracy.



## Specifications

## Test adapters

Connector type	Ferrule diameter	Order number 2014 adapter	Order number 2060 adapter	Order number 2150 adapter
FC-PC, FC-APC	2.5 mm	2014/00.09	2060/00.51	2150/00.51
SC-PC, SC-APC	2.5 mm	2014/00.24	2060/00.58	2150/00.58
LC, F-3000	1.25 mm	2014/00.29	2060/00.59	2150/00.59
ST	2.5 mm	2014/00.21	2060/00.32	2150/00.32
F-SMA	3.175 mm	2014/00.02	2060/00.36	n.a.
DIN 47256	2.5 mm	2014/00.17	2060/00.50	2150/00.50
E-2000	2.5 mm	2014/00.26	2060/00.53	n.a.
UPP for FC, SC, ST, DIN	2.5 mm	2014/00.27	n.a.	n.a.
UPP for FC, SC, ST, DIN and Optifit MST	2.5 mm	2014/00.31	n.a.	n.a.
UPP for LC, MU, F-3000	1.25 mm	2014/00.28	n.a.	n.a.

Other connector types and bare fiber adapters are available on request.

## K30xx, K31xx test and adapter cables

50/125  $\mu$ m multimode, 2 m length

Type	Order number
ST-ST	K3027
ST-FC-PC	K3023
ST-SC-PC	K3026
ST-DIN 47256	K3025
ST-F-SMA (3.175 mm)	K3029

62.5/125  $\mu$ m multimode, 2 m length

Type	Order number
ST-ST	K3028
ST-FC-PC	K3024
ST-SC-PC	K3031
ST-F-SMA (3.175 mm)	K3030

9/125  $\mu$ m singlemode, 2 m length

Type	Order number
FC-PC-FC-PC	K3112
FC-PC-FC-APC	K3129
FC-APC-FC-APC	K3130
FC-PC-SC-PC	K3139
FC-PC-SC-APC	K3141
FC-PC-DIN 47256	K3101
FC-PC-E2000	K3132
FC-PC-E2000-APC	K3135
FC-PC-ST-PC	K3133
FC-PC-LC	K3140
FC-APC-DIN 47256	K3121

9/125  $\mu$ m singlemode, 2 m length

Type	Order number
E2000-PC-E2000-PC	K3137
E2000-PC-E2000-APC	K3138
E2000-PC-DIN 47256	K3134
DIN45256-DIN 47256	K3100
DIN 47256-HRL-10	K3113
HRL-10-HRL-10	K3118
SC-PC-SC-PC	K3110
SC-PC-SC-APC	K3125
SC-APC-SC-APC	K3127
ST-PC-ST-PC	K3122

9/125  $\mu$ m singlemode, 0.35 m length<sup>(1)</sup>

Type	Order number
DIN 47256-DIN 47256	K3120
FC-PC-FC-PC	K3123
SC-PC-SC-PC	K3131

(1) e.g. for connection between different ONT modules

Other cable types are available on request.

## Fixed attenuators/mating sleeves

## Singlemode fixed attenuators

Type	Attenuation (at 1310/1550 nm)	Order number
FC-PC	3 dB	2239/90.35
FC-PC	6 dB	2239/90.37
FC-PC	10 dB $\pm$ 1 dB	2239/90.30
FC-PC	15 dB $\pm$ 2 dB	2239/90.33
FC-PC	20 dB $\pm$ 2 dB	2239/90.32
SC-PC	3 dB	2239/90.34
SC-PC	6 dB	2239/90.36
SC-PC	10 dB	2239/90.38
SC-PC	15 dB + 2 dB	2260/00.61

## Singlemode mating sleeves

Type	Ferrule diameter	Order number
DIN 47256,	2.5 mm	S3100
FC-PC, FC-APC	2.5 mm	S3101
F-SMA	3.175 mm	S3102
ST	2.5 mm	S3109
SC-PC, SC-APC	2.5 mm	S3111
E2000-PC	2.5 mm	S3118
E2000-APC	2.5 mm	S3119
LC	1.25 mm	S3120