SPEC SHEET

PSB/SPSB

LAUNCH CABLE / PULSE SUPPRESSOR BOXES

- Used in conjunction with an OTDR, the PSB/SPSB covers the OTDR's dead zone, enabling loss measurement on the first and last connections of a fiber under test.

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KEY FEATURES

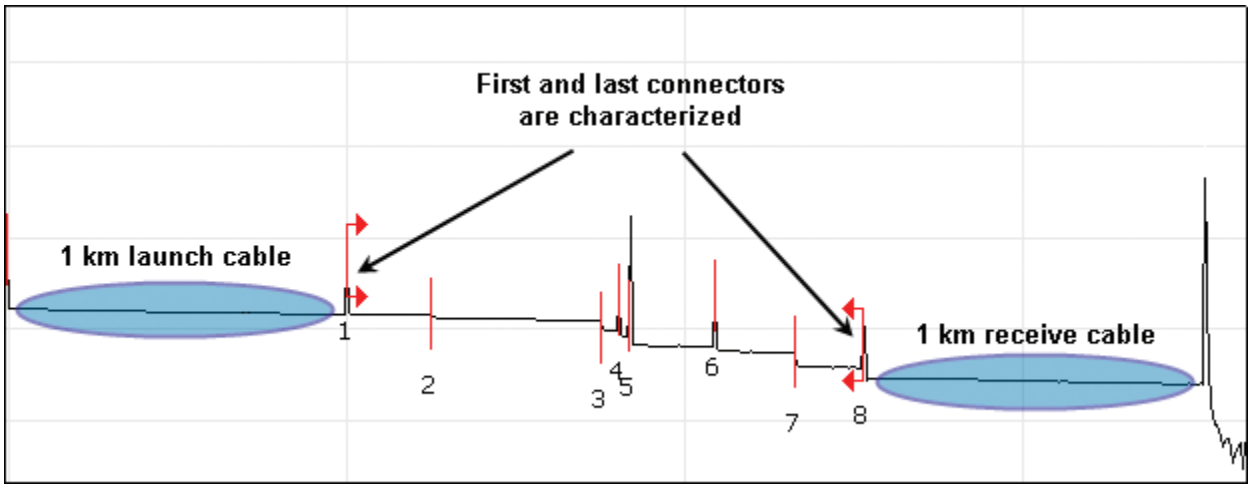
- Installation/troubleshooting/OTDR testing essential
- Increase the life of the OTDR connector by reducing the number of matings on the OTDR connector
- Wide selection of connectors for quick connection to most OTDR and patch panel ports
- Singlemode and multimode fiber models
- Portable SPSB and stand-alone PSB: available in lengths of 15, 150, 300, 500, 1000 and 2200 m
- Contiguous fiber design for the most accurate connector loss

CHOICE OF CONFIGURATIONS

Typically, the length of an OTDR's dead zone is equivalent to that of the optical pulse plus a few meters. The chosen launch test cable should therefore be longer than the pulse dead zone used for the tests. For instance, a 1 µs pulse is approximately 100 m long; selecting a 150 m SPSB or a 300 m PSB would therefore be appropriate.

EXFO offers three types of launch cables:

- The stand-alone PSB comes in a rugged, compact carrying case
- The portable SPSB comes in a soft, easy-to-carry-everywhere pouch



OTDR trace with launch and receive cables, characterizing the first and last connectors of the link.

How it works

Link characterization is often performed using an OTDR. But even though an OTDR has the shortest dead zones, because of the way loss is measured in a link, it does not allow the characterization of the first and last connectors without using a launch test cable, also called a pulse suppressor box. Here's why.

The loss value associated with an event is the difference between the backscattering levels measured before and after the event. To account for the OTDR's dead zone, obtaining a backscattering level before the first connector requires inserting a certain length of fiber between the OTDR port and the first connector of the fiber under test. At the other end of the link, the same length of fiber is added after the last connector of the "receive" cable.

In order to obtain an accurate, complete picture of the system's loss—which is a critical aspect of fiber commissioning—a launch test cable should always be used at both ends of the fiber link.

SPECIFICATIONS

Connector insertion loss (dB) [a]	< 0.5	
Connector reflectance (dB) [b]	UPC: < −50 APC: < −60	
Fiber type	**Wavelength**	**Typical attenuation**
Multimode fiber 50/125 µm (OM2)	850 nm 1300 nm	3.0 dB/km 1.2 dB/km
Multimode fiber 62.5/125 µm (OM1)	850 nm 1300 nm	3.2 dB/km 1.0 dB/km
Singlemode fiber 9/125 µm (G.652D)	1310 nm 1550 nm	0.37 dB/km 0.25 dB/km

GENERAL SPECIFICATIONS

	PSB	SPSB
Size (H × W × D)	114 mm × 235 mm × 197 mm (4 ½ in × 9 ¼ in × 7 ¾ in)	25 mm × 269 mm × 146 mm (1 in × 10 ⅝ in × 5 ¾ in)
Weight	2.72 kg (6 lb)	1.36 kg (3 lb)
External patchcord length	2 × 2 m (2 × 6.6 ft)	2 × 2 m (2 × 6.6 ft)

a. Bidirectional OTDR, singlemode 1310 nm and 1550 nm, multimode 850 nm and 1300 nm.

b. Singlemode bidirectional OTDR 1310 nm and 1550 nm.

ORDERING INFORMATION

PSB-XX-XX

Model
PSB-B-2200 = Stand-alone pulse suppressor box, singlemode fiber 9/125, 2200 m

Connectors
For singlemode models -B, the following connectors are available:
58 = FC/APC narrow key
88 = SC/APC narrow key
89 = FC/UPC
90 = ST/UPC
91 = SC/UPC
95 = E2000/UPC
96 = E2000/APC
101 = LC/UPC
104 = LC/APC

For multimode models -C/-D, the following connectors are available:
50 = FC/PC
54 = SC/PC
74 = ST/PC
98 = LC/PC

Example: PSB-B-2200-58-91

SPSB-XX-XX

Model
SPSB-B-15 = Soft pulse suppressor bag, singlemode 9/125, 15 m
SPSB-B-150 = Soft pulse suppressor bag, singlemode fiber 9/125, 150 m
SPSB-B-500 = Soft pulse suppressor bag, singlemode fiber 9/125, 500 m
SPSB-B-1000 = Soft pulse suppressor bag, singlemode fiber 9/125, 1000 m
SPSB-C-300 = Soft pulse suppressor bag, multimode fiber 50/125, 300 m
SPSB-D-300 = Soft pulse suppressor bag, multimode fiber 62.5/125, 300 m

Connectors
For singlemode models -B, the following connectors are available:
58 = FC/APC narrow key
88 = SC/APC narrow key
89 = FC/UPC
90 = ST/UPC
91 = SC/UPC
95 = E2000/UPC [a]
96 = E2000/APC [a]
101 = LC/UPC
104 = LC/APC

For multimode models -C/-D, the following connectors are available:
50 = FC/PC
54 = SC/PC
74 = ST/PC
98 = LC/PC

Example: SPSB-B-500-58-101

a. E2000 connector not available for SPSB-B-15 model.

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