Betz & Limbach Projektkabel GmbH, Ringstraße 43, 74626 Bretzfeld,
Tel. 0049-7946/9476-57, Fax -58
betz@bl-projektkabel.de
www.bl-projektkabel.de

OLC – M/P
Mini OTDR Launch Cable

Description:

If you are installing an outside plant network such as a long distance network or a long campus LAN with splices between cables, you will want an OTDR to check if the fibers and splices are good. The OTDR can see the splice after it is made and confirm its performance. It can also find stress problems in the cables caused by improper handling during installation. If you are doing restoration after a cable cut, the OTDR will help find the location of cut and help confirm the quality of temporary and permanent splices to restore operation. On singlemode fibers where connector reflections are a concern, the OTDR will pinpoint bad connectors easily.

OLC-P-UPC/UPC-S7A1-1000

Since so little of the light comes back to the OTDR for analysis, the OTDR receiver circuit must be very sensitive. That means that big reflections, which may be one percent of the outgoing signal, will saturate the receiver, or overload it. Once saturated, the receiver requires some time to recover, and until it does, the trace is unreliable for measurement.

The most common place you see this as a problem is caused by the connector on the OTDR itself. The reflection causes an overload which can take the equivalent of 50 meters to one kilometer to recover fully, depending on the OTDR design, wavelength and magnitude of the reflection. It is usually called the "Dead Zone". For this reason, most OTDR manuals suggest using a "pulse suppresser" cable, which doesn't suppress pulses, but simply gives the OTDR time to recuperate before you start looking at the fiber in the cable plant you want to test. They should be called **"launch" cables**.

Do not ever use an OTDR without this launch cable! You always want to see the beginning of the cable plant and you cannot do it without a launch cable. It allows the OTDR to settle down properly and gives you a chance to see the condition of the initial connector on the cable plant. It should be long, at least 500 to 1000 meters to be safe, and the connectors on it should be the best possible to reduce reflections. They must also match the **connectors** being tested, if they use any special **polish techniques**.

The OLC-M, compact pocket size OTDR launch cable is designed for easy handling and carrying. Its robust design ensures reliability and endurance. Protective caps helps keeping connectors clean. This launch cable is fully compatible with almost all OTDRs.
Specially with OPTOKON MOT-700 Mini OTDR series the OLC-M introduces an useful and powerful set for OTDR measuring in optical networks.

General Features:

- Portable packaging – small, lightweight design
- The instrument's ergonomic design fits comfortably in hand for extended periods.
- The length of launch cable defined by the customer.
- Various types of optical connectors offer increased versatility and convenience.
- Optical connectors are dust and drop protected by a Snap-on cover.

Application:

- OTDR measurements
- Insertion loss testing
- Return loss testing
- Fault locations and fault clearance

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Technical parameters:

Parameter	unit	Note
Fiber length	m	L ± 50 m
Connectors Insertion loss	dB	following OPTOKON technical specification according connector type
Connectors Return loss	dB	following OPTOKON technical specification according connector type
Operating Temperature	°C	-20 to + 70
Loss accuracy – SM (1310/1550 nm), MM (850/1300 nm)		
Backscatter measurements 1 dB steps	dB	± 0.05 dB
Reflectance measurements	dB	± 2.0 dB
Dimensions (W x H x D):	mm	190 x 102 x 37 MM, S7X fiber 190 x 122 x 47 S2D, S5X fiber

Ordering code:

OLC-M / OLC-P - AAA / AAA - XX - XXXX

IN/OUT[1] interface:
OLC-M adapter
OLC-P connectorized cable

Fiber:

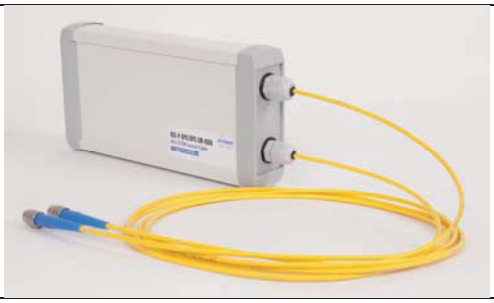
OM1	MM 62.5/125 µm
OM2	MM 50/125 µm
OM3	MM 50/125 µm
S7X[3]	SM 9/125 µm (G.657X)
S2D	SM 9/125 µm (G.652D)
S5X[3]	SM 9/125 µm (G.655X)

Length[2] [m]

Note:
1) Connector type according relevant datasheet: CON_13-01_EN - ORD_CODE
2) MM fiber – at least 200 m, SM fiber – at least 1000 m
3) X – according fiber subtype (e.g. G.657A1)

Example:
OLC-P-UPC/UPC-S7A1-1000
G.657A1 SM launch cable, cable connectors interface, 1000 m length:
UPC – ultra polished FC connector IL = 0.15 dB, RL > 50 dB

Types:

		
OLC-M-USC/USC-S7A1-1000	OLC-P-UPC/UPC-S7A1-1000	TE-HC-02

Options:

Hard plastic case: TE-HC-02

Herausgeber:
Betz & Limbach Projektkabel GmbH

Stand 2013 Änderungen vorbehalten

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LWL Vorlauffaserbox VFB 500/1000
Faserlängen für bis 1000 m
Für ODTR - Messungen

Beschreibung

Die Vorlauffaser dient dazu, das OTDR-Messgerät mit der zu messenden Faser zu verbinden. Die Erstreflektion überschneidet sich in diesem Fall nicht mit dem Anfang der zu messenden Faser. Dadurch lässt sich die erste Steckverbindung optimal analysieren.
Es wird jeder Vorlauffaserbox eine Interferometerauswertung mit Messwerten beigefügt. Die Faser mit einer Länge bis zu 500 m bei Multimode bzw. 1000 m bei Singlemode, wird an beiden Enden mit Steckverbinder konfektioniert.
Zudem gibt es eine Hybridbox „ *Two-In-One*“ mit 1000m SM- UND 100m MM-Faser.
Der Koffer aus stabilem und leichtem Kunststoff ist ein optimaler Schutz für die Faser und die Steckverbinder. Im Deckel ist ein Dokumentenfach für die Messprotokolle.

Technische Daten
Leistungsmerkmale

· LWL Vorlauffaserbox aus Kunststoff

· Bestückung mit

- Singlemode Fasern bis 1000 m oder

- Multimode Fasern bis 500 m oder

· Hybridbox „ *Two-In-One*“: SM 1000 m und MM 100 m

· Steckverbinder:
ST, FC/PC, E-2000 PC, SC, DIN, LC,
SC APC 8°, E-2000 APC 8°, FC APC 8° oder LC APC 8°

· jeweils ca. 2,0 m Einzelfaser Management.

Herausgeber:
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Lieferumfang

· Stabiler Kunststoffkoffer bestückt mit Vorlauffaser
· Faser komplett konfektioniert

Koffer

· Material: Kunststoff, schwarz
· Abmessungen: Höhe = ca. 75 mm
(alles Außenmaße) Breite = ca. 255 mm
Tiefe = ca. 210 mm

Herausgeber:
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Vorlauffaser-Box

Herausgeber:
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OLC - 01
OTDR Launch Cable

Description:

If you are installing an outside plant network such as a long distance network or a long campus LAN with splices between cables, you will want an OTDR to check if the fibers and splices are good. The OTDR can see the splice after it is made and confirm it's performance. It can also find stress problems in the cables caused by improper handling during installation. If you are doing restoration after a cable cut, the OTDR will help find the location of cut and help confirm the quality of temporary and permanent splices to restore operation. On singlemode fibers where connector reflections are a concern, the OTDR will pinpoint bad connectors easily.
Since so little of the light comes back to the OTDR for analysis, the OTDR receiver circuit must be very sensitive. That means that big reflections, which may be one percent of the outgoing signal, will saturate the receiver, or overload it. Once saturated, the receiver requires some time to recover, and until it does, the trace is unreliable for measurement.
The most common place you see this as a problem is caused by the connector on the OTDR itself. The reflection causes an overload which can take the equivalent of 50 meters to one kilometer to recover fully, depending on the OTDR design, wavelength and magnitude of the reflection. It is usually called the "Dead Zone". For this reason, most OTDR manuals suggest using a "pulse suppresser" cable, which doesn't suppress pulses, but simply gives the OTDR time to recuperate before you start looking at the fiber in the cable plant you want to test. They should be called "launch" cables .

Do not ever use an OTDR without this launch cable! You always want to see the beginning of the cable plant and you cannot do it without a launch cable. It allows the OTDR to settle down properly and gives you a chance to see the condition of the initial connector on the cable plant. It should be long, at least 500 to 1000 meters to be safe, and the connectors on it should be the best possible to reduce reflections. They must also match the connectors being tested, if they use any special polish techniques .

General Features:

- Hard carry case
- The instrument's ergonomic design fits comfortably in hand for extended periods.
- The length of launch cable defined by the customer.
- Various types of optical connectors offer increased versatility and convenience.
- Optical connectors are dust and drop protected by a snap-on cover.

Application:

- OTDR measurements
- Insertion loss testing
- Return loss testing
- Fault locations and fault clearence

Herausgeber:
Betz & Limbach Projektkabel GmbH

Stand 2013 Änderungen vorbehalten

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Technical parameters:

Parameter	unit	Note
Fiber length	m	L ± 50 m
Connectors Insertion loss	dB	following OPTOKON technical specification according connector type
Connectors Return loss	dB	following OPTOKON technical specification according connector type
Operating Temperature	°C	-20 to + 70
Loss accuracy – SM (1310/1550 nm), MM (850/1300 nm)		
Backscatter measurements 1 dB steps	dB	± 0.05 dB
Reflectance measurements	dB	± 2.0 dB

Ordering code:

OLC - AAA / AAA - XX - XXXX

- AAA / AAA: IN/OUT connector types*
- XX: fiber:
  - OM1 62.5/125
  - OM2 50/125
  - SM 9/125 (G.652)
  - TW TrueWave
  - XX please specify
- XXXX: length** (m)

Note
*) Define connector type according relevant datasheet:
CON_13-01_EN - ORD_CODE
**) MM fiber – at least 200 m
SM fiber – at least 1000 m

Example:
OLC – NPC/NE2P – SM – 1000

standard SM launch cable:
NPC – angled polished FC connector
(IL = 0.15 dB, RL > 50 dB)
NE2P – angled E2000 connector
(IL = 0.10 dB, RL > 60 dB)
SM (G.652) fiber, 1000 m length

Herausgeber:
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OLC - D
OTDR Launch Cable

Description:

If you are installing an outside plant network such as a long distance network or a long campus LAN with splices between cables, you will want an OTDR to check if the fibers and splices are good. The OTDR can see the splice after it is made and confirm its performance. It can also find stress problems in the cables caused by improper handling during installation. If you are doing restoration after a cable cut, the OTDR will help find the location of cut and help confirm the quality of temporary and permanent splices to restore operation. On singlemode fibers where connector reflections are a concern, the OTDR will pinpoint bad connectors easily.
Since so little of the light comes back to the OTDR for analysis, the OTDR receiver circuit must be very sensitive. That means that big reflections, which may be one percent of the outgoing signal, will saturate the receiver, or overload it. Once saturated, the receiver requires some time to recover, and until it does, the trace is unreliable for measurement.
The most common place you see this as a problem is caused by the connector on the OTDR itself. The reflection causes an overload which can take the equivalent of 50 meters to one kilometer to recover fully, depending on the OTDR design, wavelength and magnitude of the reflection. It is usually called the "Dead Zone". For this reason, most OTDR manuals suggest using a "pulse suppresser" cable, which doesn't suppress pulses, but simply gives the OTDR time to recuperate before you start looking at the fiber in the cable plant you want to test. They should be called "launch" cables .

Do not ever use an OTDR without this launch cable! You always want to see the beginning of the cable plant and you cannot do it without a launch cable. It allows the OTDR to settle down properly and gives you a chance to see the condition of the initial connector on the cable plant. It should be long, at least 500 to 6000 meters to be safe, and the connectors on it should be the best possible to reduce reflections. They must also match the connectors being tested, if they use any special polish techniques .

General Features:

- Plastic drum with handle
- The length of launch cable defined by the customer.
- Various types of optical connectors offer increased versatility and convenience.
- Optical connectors are dust and drop protected by a snap-on cover.

Application:

- OTDR measurements
- Insertion loss testing
- Return loss testing
- Fault locations and fault clearance

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Technical parameters:

Parameter	unit	Note
Fiber length	m	from 2500 m up to 6 km (250 µm bare fiber)
Connectors Insertion loss	dB	following OPTOKON technical specification according connector type
Connectors Return loss	dB	following OPTOKON technical specification according connector type
Operating Temperature	°C	-20 to + 70
Loss accuracy – SM (1310/1550 nm)		
Backscatter measurements 1 dB steps	dB	± 0.05 dB
Reflectance measurements	dB	± 2.0 dB

Ordering code:

OLC - D - AAA / AAA - XX - XXXX

- AAA / AAA: IN/OUT connector types*
- XX: fiber:
  - OM1 62.5/125
  - OM2 50/125
  - S2D 9/125 (G.652D)
  - XXX please specify
- XXXX: length** (m)

Note
*) Define connector type according relevant datasheet:
CON_13-01_EN - ORD_CODE
**) SM fiber – min. 2500 m, max 6000 m

Example:
OLC - D – NPC/NE2P – SM – 1000

standard SM launch cable:
NPC – angled polished FC connector
(IL = 0.15 dB, RL > 50 dB)
NE2P – angled E2000 connector
(IL = 0.10 dB, RL > 60 dB)
SM (G.652) fiber, 1000 m length