PLP | MICOS

FTTH **GPON**
Spliceless Solution

FTTH QUICKPUCH ARMOR PON GPON SPLITTER PLC G.657A SC/APC 1:8 PON 1:32 PATCHCORD FTTH GPON ARMOR G.657A SC/APC FTTH

PRODUCT TABLE

Mark	Order code	FTTH mini socket ORM 1 and accessories
1	85H4.00/0000F	ORM 1
1A	491797	Sealing ORM 1 (IP 54)
1B	491818	Box for placement of reserves 80×80×19 mm
1C	491819	Box for placement of reserves 80×80×28 mm
1D	491817	Box for placement of reserves 80×80×16 mm
1E	491820	Spacer frame 80×80×12 mm
1F	491870	Sticker Attention laser radiation
1G	491075	Dowel
1H	491692	Screw
1Ch	491802	White sticker for description
1I	491816	Rubber sealing for splice fixation when 4 pcs splices are applied
1J	492004	Opening tool for ORM 1

Mark	Order code	Indoor wall-mounted distribution box MTeH EASY and MINI
2	85AX.00/0000F	MTeH Easy – Slack box
2A	85GR.00/00JOF	MTeH MINI

Mark	Order code	Indoor wall-mounted distribution box MTeH UNI and accessories
3	85AV.00/0001F	MTeH Uni
3A	85SP.02/0000	Gradiated bushing 3–14 mm

For other variants, please, contact our sales department

Mark	Order code	Standard patchcords
4A	710031	Patchcord SM9/125, SC/APC to SC/APC, SX, 2.0 mm, 5 m, G.657A1, white
4B	710032	Patchcord SM9/125, SC/APC to SC/APC, SX, 2.0 mm, 10 m, G.657A1, white
4C	710033	Patchcord SM9/125, SC/APC to SC/APC, SX, 2.0 mm, 15 m, G.657A1, white
4D	710034	Patchcord SM9/125, SC/APC to SC/APC, SX, 2.0 mm, 20 m, G.657A1, white
4E	710035	Patchcord SM9/125, SC/APC to SC/APC, SX, 2.0 mm, 25 m, G.657A1, white
4F	710036	Patchcord SM9/125, SC/APC to SC/APC, SX, 2.0 mm, 30 m, G.657A1, white
4G	710037	Patchcord SM9/125, SC/APC to SC/APC, SX, 2.0 mm, 35 m, G.657A1, white
4H	710038	Patchcord SM9/125, SC/APC to SC/APC, SX, 2.0 mm, 40 m, G.657A1, white

Mark	Order code	Armored patchcords
5A	710023	Patchcord SM9/125, SC/APC to SC/APC, SX, 3.0 mm, 5 m, G.657A2, white, armored
5B	710024	Patchcord SM9/125, SC/APC to SC/APC, SX, 3.0 mm, 10 m, G.657A2, white, armored
5C	710025	Patchcord SM9/125, SC/APC to SC/APC, SX, 3.0 mm, 15 m, G.657A2, white, armored
5D	710026	Patchcord SM9/125, SC/APC to SC/APC, SX, 3.0 mm, 20 m, G.657A2, white, armored
5E	710027	Patchcord SM9/125, SC/APC to SC/APC, SX, 3.0 mm, 25 m, G.657A2, white, armored
5F	710028	Patchcord SM9/125, SC/APC to SC/APC, SX, 3.0 mm, 30 m, G.657A2, white, armored
5G	710029	Patchcord SM9/125, SC/APC to SC/APC, SX, 3.0 mm, 35 m, G.657A2, white, armored
5H	710030	Patchcord SM9/125, SC/APC to SC/APC, SX, 3.0 mm, 40 m, G.657A2, white, armored

Mark	Order code	Pigtails and heatshrink
6A	CN0008	Pigtail SM9/125, SC/APC, 0.9 mm, 2 m, G.657A1, tight buffer
6B	493520	Heatshrink, L=45 mm, D=2,4 mm

Mark	Order code	Adapters
7A	CN0002	Adapter SC/APC, SM, SX, green, metal clip, flange
7B	CN0004	Adapter SC/APC, SM, DX, green, metal clip, flange

Mark	Order code	PLC Splitters
8A	710039	Splitter PLC 1:2, SC/APC to SC/APC, 0.9 mm, 1 m, G.657A1, small format
8B	710040	Splitter PLC 1:4, SC/APC to SC/APC, 0.9 mm, 1 m, G.657A1, small format
8C	710041	Splitter PLC 1:8, SC/APC to SC/APC, 0.9 mm, 1 m, G.657A1, small format
8D	710042	Splitter PLC 1:16, SC/APC to SC/APC, 0.9 mm, 1 m, G.657A1, small format
8E	710043	Splitter PLC 1:32, SC/APC to SC/APC, 0.9 mm, 1 m, G.657A1, small format

Mark	Order code	Protection for indoor installations
9A	145100	Protective tube 750N 32/24
9B	On request	Plastic Channel 40x40

Mark	Order code	Microducts
10A	On request	MT Micro, 8/4, HDPE
10B	On request	MT Micro, 10/6, HDPE
10C	On request	MT Micro, 12/8, HDPE

Mark	Order code	Optical cables
11A	On request	Cable optical, Microduct, 4F, G.657A1, Z044 ; Ø 2,0 mm
11B	On request	Cable optical, Microduct, 12F, G.657A1, Z008 ; Ø 2,5 mm
11C	On request	Cable optical, Microduct, 24F, G.657A1, Z238 ; Ø 3,2 mm

Attention!
Follow the marking of the products for a better understanding of the solution on the other side.

MTeH Easy – installation video

MTeH UNI – installation video1

Solutions on the website

TECHNICAL DESCRIPTION

FTTH indoor solution for GPON offers a way to quickly and easily build an optical infrastructure in buildings of varying sizes. The primary cable is spliced into the main MTeH UNI distribution box, where it is terminated or passes through. One fibre of the incoming cable is terminated per each 8 apartments by splicing to the SC/APC pigtail. These are the only splices made in the building. One patchcord is conducted from the main distribution box to connect the floor distribution box, in which a pre-connectorized splitter with a split ratio of 1:8 is installed. If there are multiple floor distribution boxes, each of them is connected by its own patchcord. An ORM 1 socket is always installed at the client's end, connected by its own patchcord to the floor distribution box. The indoor infrastructure is therefore completely free of optical splicing. For MDUs with less than eight apartments, the splitter is installed as far as the distribution point of the network. That is the design of the indoor end of the solution; the split ratios in the network may be modified according to the customer's needs.

1... The ORM 1 end user socket can be fitted with two SC/APC adapters and can used for direct termination of fibres in family houses with two apartments, without the need for additional distribution boxes. Up to 4 splices can be made inside the box. The sockets can be equipped with extension frames, allowing for the sockets to be fitted directly onto the hole drilled in the outer wall of the building. In apartments, the socket is used to terminate the incoming patchcord.

2... MTeH MINI with a maximum capacity of 10 SC/APC adapters is used as the floor distribution box. Splitters of up to 1:8 per SC/APC can fitted in the box. An empty MTeH EASY can be used for placing patchcord reserves anywhere in the building.

3... MTeH UNI with a maximum capacity of 24SC/APC adapters and 48 splices is used as the main distribution box. Excess patchcord reserves can be placed in the distribution box. The distribution box can be used as a floor distribution box with a maximum splitter size of 1:16.

If LC adapters are used, the capacity of all distribution boxes doubles, including the split ratios.

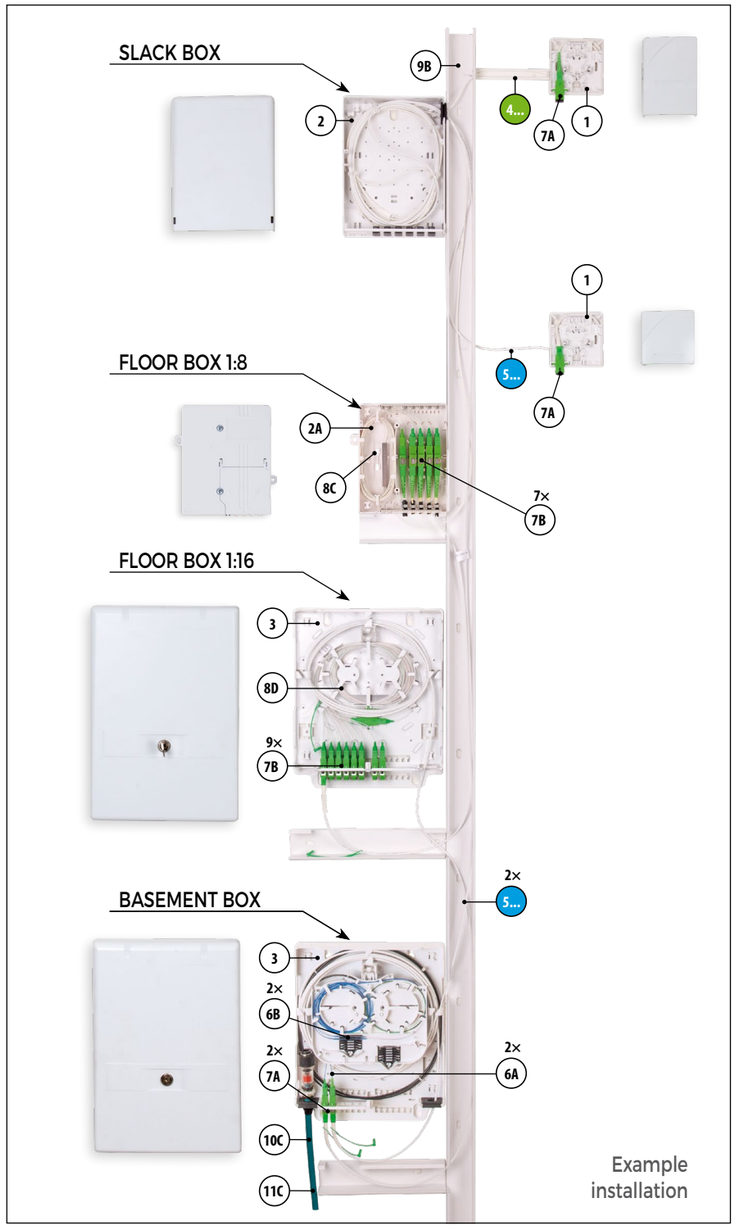
Two types of patchcords are used in our solution: armored, which are installed as a vertical distribution line for connecting the floor distribution boxes, and standard, which are used for connecting end users. These two options are at the operator's discretion.

4... Standard patchcords are more cost effective and require a smaller initial investment. However, they have no protective features and may be easily damaged. It is therefore convenient to provide them with additional protection, such as cable trunks.

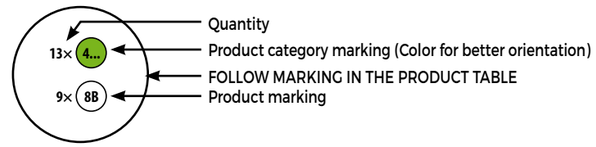
5... Armored patchcords, on the other hand, feature a very efficient metal protection of the cables. These patchcords may also be anchored by stapling to a variety of surfaces.

9... The patchcords in the vertical distribution line can be conducted through a reinforced 32/24 protective tube installed in the riser pipe. In the case of wall-mounted installation, 40x40 cable trunks are installed.

A second splitting level in the distribution part of the network must be considered in the proposed solution for an efficient utilisation of the ports of the OLT device.



Example installation



FTTH **GPON** Spliceless Solution

1... **ORM 1**

FTTH OPTICAL OUTLET

2... **MTEH MINI FLOOR BOX**

- DISTRIBUTION BOX WITH SEPARATED SECTION FOR INDIVIDUAL ACCESS
- SPLITTING RATIO UP TO 1:8 FOR SC/APC

3... **MTEH UNI BASEMENT BOX**

- DISTRIBUTION BOX
- SPLITTING RATIO UP TO 1:16 FOR SC/APC
- LOCKABLE
- POSSIBILITY TO STORE RESERVES OF PATCHCORDS
- UP TO 48 SPLICES
- UP TO 24 SC/APC ADAPTORS

4... **STANDARD PATCHCORDS**

PATCHCORDS IN VARIOUS LENGTHS

5... **ARMORED PATCHCORDS**

ARMORED PATCHCORDS WITH ROBUST FIBER PROTECTION IN VARIOUS LENGTHS

6... **PIGTAILS**

SC/APC

7... **ADAPTERS**

SC/APC

8... **PLC SPLITTERS**

- SMALL FORMAT 0.9MM COATING
- SC/APC CONNECTORS
- SPLITTING RATIO FROM 1:2 UP TO 1:64

MDU
UP TO 64–128 APARTMENTS

MDU
UP TO 32 APARTMENTS

MDU
UP TO 16 APARTMENTS

MDU
UP TO 8 APARTMENTS

MDU
UP TO 2 APARTMENTS

Description:

- Quantity
- Product category marking (Color for better orientation)
- FOLLOW MARKING IN THE PRODUCT TABLE
- Product marking

Underground solutions

DISTRIBUTION POINT

from 8 up to 16 fibers (one fiber per eight apartments), splitting ratio 1:8

4 fibers, splitting ratio 1:8

2 fibers, splitting ratio 1:8

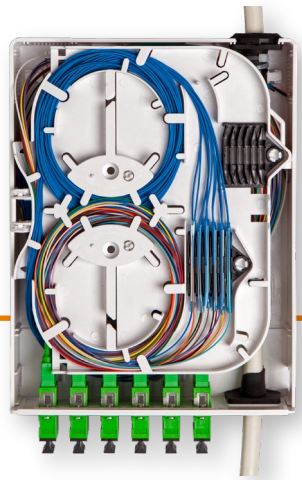
1 fiber, splitting ratio 1:8

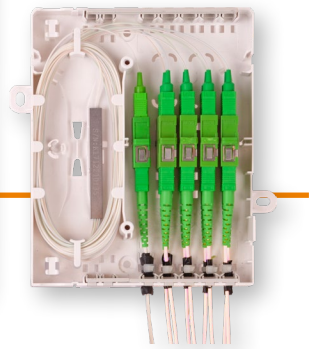
1 fiber (one fiber per apartment), without splitting

FTTH **GPON** Spliceless Solution

ORM 1

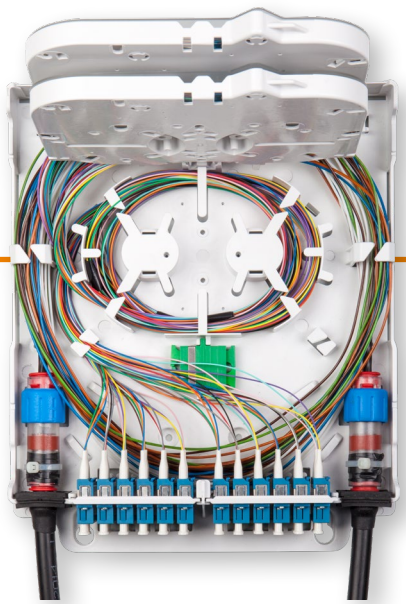
MINI SOCKET FTTH





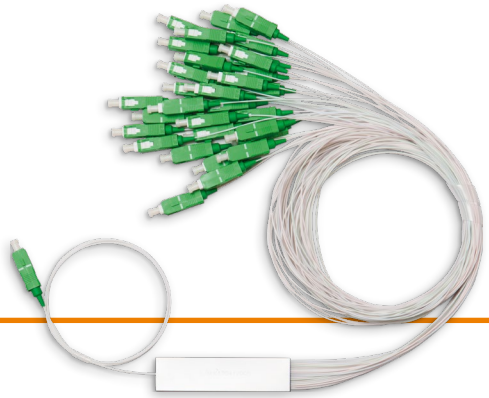
MTeH EASY
MTeH MINI

INDOOR WALL-MOUNTED DISTRIBUTION BOX

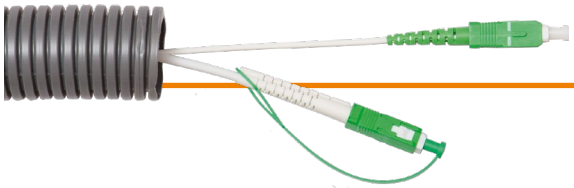


MTeH UNI

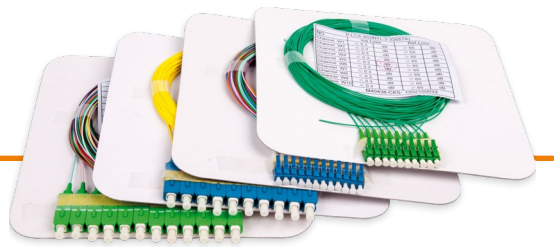
INDOOR WALL-MOUNTED DISTRIBUTION BOX



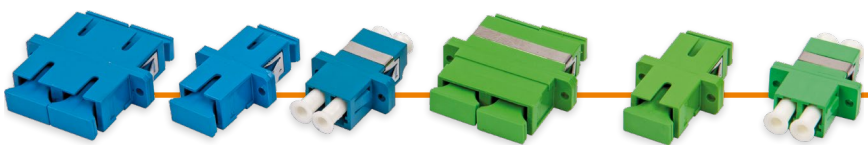
PLC SPLITTERS



PATCHCORDS



PIGTAILS



ADAPTERS

2022-12-07 ver. 2.0 EN

MICOS
TELCOM s.r.o.

+420 582 307 511
+420 582 307 688

telcom@micostelcom.cz
www.micostelcom.com