
Passive FTTx Portfolio

Engineered for Every Metre of Fiber.

Racks, frames, cabinets, splitters, boxes, closures and connectivity — from the central office to the subscriber's wall.



Your Fiberization Partner.

43 Products · 6 Product Groups · Built for Any FTTx Operator

October 2026

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43 products in six groups, ordered from the central office to the home.

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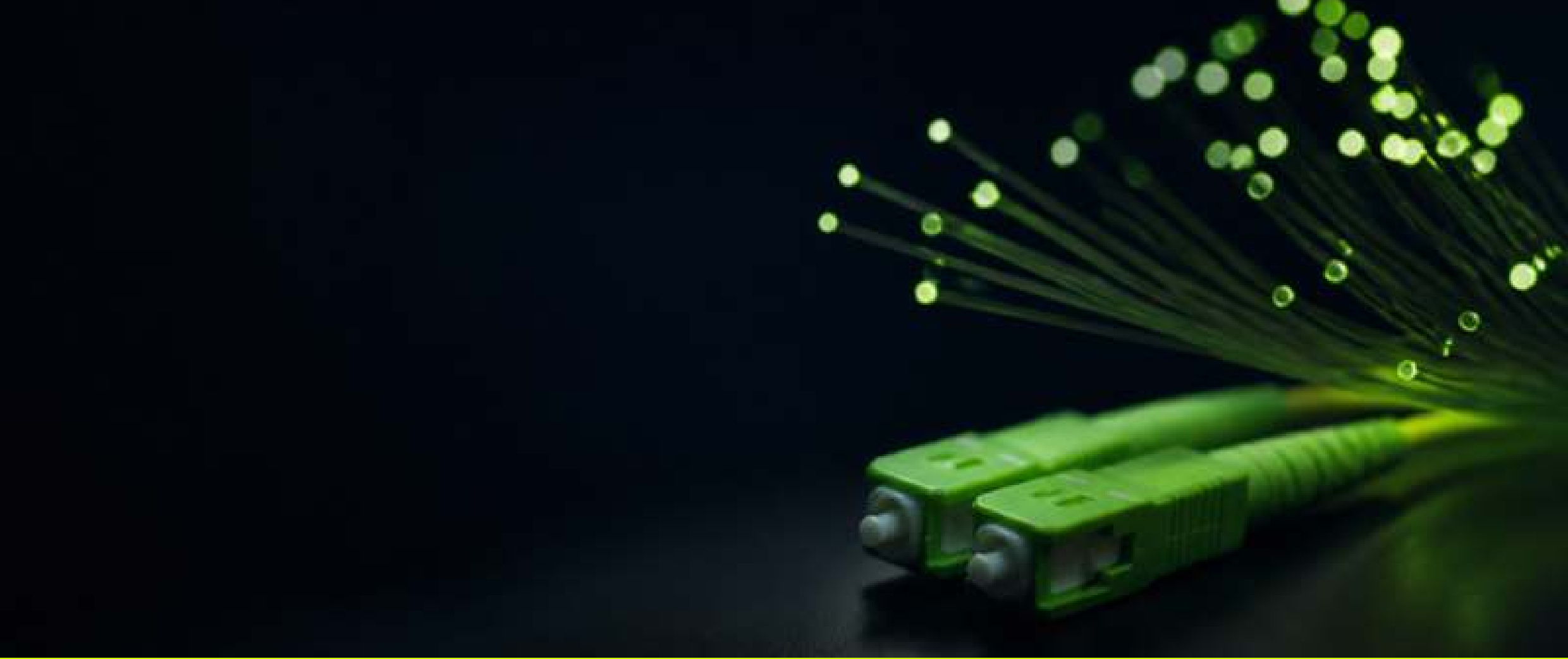
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Introduction

Passive Infrastructure for Every Metre of the FTTx Network.

spark. Passive FTTx Products is a portfolio of 43 passive components in six product groups, following the network from the central office to the home. Each product has a one-page datasheet of application, key features and technical specifications, ready to be matched to any operator's specification.

01 Central Office

Racks, distribution frames and LGX splitter modules for the exchange.

03 Distribution (ODN)

Hub, sub and distribution boxes, compact splitters and hardened drop cables.

05 Home

DIN-rail termination boxes, faceplates and outlets at the subscriber premises.

02 Feeder & Cabinet

Street and cross-connect cabinets, with dome and inline splice closures.

04 Drop & In-Building

MDU cabinets and boxes, drop cable, patch cords, pigtails, connectors and adapters.

06 Supporting Infrastructure

Server racks, data, active and power cabinets, climate enclosures, copper cabling and micro-duct.

Operator-Ready by Design

Design Targets

Every datasheet states the values the product is built to meet.

Compliance per Order

A degree-of-compliance sheet is issued against each operator's specification.

Verified, Not Assumed

Test reports and installation instructions (Arabic / English) are issued per order.



Product Group 01 of 06

Central Office

Racks, frames and splitter chassis that terminate and organise the network at the exchange. 8 products in this group.

2 products

Racks & Cabinets

ETSI Rack — p. 5

Open Frame Rack — p. 6

1 product

Splitters

LGX PLC Splitter Module — p. 12

5 products

Distribution Frames

Fibre Management Frame — p. 7

Optical Splitter Frame (OSF) — p. 8

ODF 1U Sliding Panel — p. 9

ODF Modular 4U — p. 10

Floor-Standing ODF — p. 11

Position in the Network

Central Office → Feeder & Cabinet → Distribution → Drop & In-Building → Home

Layer 01 of 05 — the exchange, where the network starts.

DS-01 · Central Office · Racks & Cabinets

ETSI Rack

Closed ETSI-format equipment rack for exchange rooms and customer sites, built to ETS 300 119 coordination dimensions.



Key Features

- ETS 300 119 coordination dimensions
- Front and rear doors with clear aisle access
- Top and bottom cable entry
- Height-adjustable levelling feet
- Line-up compatible with adjacent racks

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Standard	ETSI ETS 300 119
Height	2200 mm for telecom centres; up to 2200 mm at customer sites
Width	150 / 300 / 600 / 900 mm
Depth	300 / 600 mm
Levelling	Height-adjustable feet, ≥ 25 mm range
Cable access	Top and bottom entry; rack-to-rack cabling within rows
Floor loading	≤ 15 kN/m² typical, 20 kN/m² maximum (fully equipped)
Point loading	≤ 490 N/cm²
Dynamic load	+800 N during installation (≥ 600 × 600 mm)
Doors	Open doors protrude ≤ 150 mm; aisle reference ≥ 750 mm
Packaged size	≤ 2500 × 1200 × 900 mm
EMC	Per Directive 89/336/EEC

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-02 · Central Office · Racks & Cabinets

Open Frame Rack

Two-post open frame for patching and passive equipment, aligned to ETSI rack coordination dimensions.



Key Features

- Open two-post frame for full front access
- Top and bottom cable routing
- Height-adjustable levelling feet
- Line-up compatible with ETSI racks
- Compact footprint for patching zones

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Standard	ETSI ETS 300 119
Height	2200 mm for telecom centres; up to 2200 mm at customer sites
Width	150 / 300 / 600 / 900 mm
Depth	300 / 600 mm
Levelling	Height-adjustable feet, ≥ 25 mm range
Cable access	Top and bottom entry; rack-to-rack cabling within rows
Floor loading	≤ 15 kN/m² typical, 20 kN/m² maximum (fully equipped)
Point loading	≤ 490 N/cm²
Dynamic load	+800 N during installation (≥ 600 × 600 mm)
Doors	Open doors protrude ≤ 150 mm; aisle reference ≥ 750 mm
Packaged size	≤ 2500 × 1200 × 900 mm
EMC	Per Directive 89/336/EEC

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-03 · Central Office · Distribution Frames

Fibre Management Frame

High-density frame for organised fiber termination, routing and slack storage in central offices.



- Key Features
- Pre-terminated with couplers and pigtails
 - Modular 12-core splice / patch modules
 - Front and back access, lockable panels
 - Heat-shrink splice tray management
 - Cable glands with strain relief

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Strong sheet metal (steel or aluminium)
Finish	Fully protected against corrosion and weathering
Protection class	IP54 or higher
Mounting	19" / 21" rack mount, adjustable brackets
Configuration	Modular, one 12-core module per 12 connections (72 / 144 cores)
Pre-loading	Pre-terminated with couplers, pigtails and all accessories
Access	Front and back access; lockable front and rear panels
Cable entries	Side and back plate entries, cable glands with strain relief
Splice trays	Heat-shrink splice protection; tray capacity per order
Labelling	Identification and labelling to industry standard
Operating temperature	−20 °C to +60 °C
Storage temperature	−20 °C to +70 °C

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-04 · Central Office · Distribution Frames

Optical Splitter Frame (OSF)

Rack-mount frame housing modular PLC splitter cassettes for central-office and cabinet splitting.



Key Features

- Rack-mount frame for PLC splitter cassettes
- Modular, front-accessible cassette slots
- Splitters 1×2 to 1×64 (PLC)
- Managed patch routing and labelling
- Sheet-metal body, corrosion-protected

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Strong sheet metal (steel or aluminium)
Protection class	IP54 or higher
Mounting	19" / 21" rack mount, adjustable brackets
Splitter technology	PLC, fully passive, 1×2 to 1×64
Operating wavelength	1260 – 1650 nm
Insertion loss 1×32	≤ 16.8 dB (without connector)
Access	Front and back access; lockable panels
Labelling	Identification and labelling to industry standard
Frame temperature	–20 °C to +60 °C operating
Splitter temperature	–40 °C to +80 °C
Qualification	Telcordia GR-1209-CORE / GR-1221-CORE

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-07 · Central Office · Distribution Frames

ODF 1U Sliding Panel

1U rack-mount sliding fiber distribution panel with front adapter field for compact installations.



Key Features

- Sliding drawer for space-saving access
- Pre-terminated with couplers and pigtails
- 19" / 21" adjustable mounting brackets
- Heat-shrink splice tray inside
- Lockable, clear front panel preferred

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Strong sheet metal (steel or aluminium)
Finish	Fully protected against corrosion and weathering
Protection class	IP54 or higher
Mounting	19" / 21" rack mount, adjustable brackets
Configuration	Sliding drawer design, up to 48 cores
Pre-loading	Pre-terminated with couplers, pigtails and all accessories
Access	Front and back access; lockable front and rear panels
Cable entries	Side and back plate entries, cable glands with strain relief
Splice trays	Heat-shrink splice protection; tray capacity per order
Labelling	Identification and labelling to industry standard
Operating temperature	−20 °C to +60 °C
Storage temperature	−20 °C to +70 °C

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-08 · Central Office · Distribution Frames

ODF Modular 4U

4U modular fiber distribution frame with separate splice and patch modules.



Key Features

- Modular: one module per 12 connections
- 72 / 144-core configurations
- Pre-terminated with couplers and pigtails
- Front and back sliding access
- Cable glands with strain relief

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Strong sheet metal (steel or aluminium)
Finish	Fully protected against corrosion and weathering
Protection class	IP54 or higher
Mounting	19" / 21" rack mount, adjustable brackets
Configuration	Modular, one 12-core module per 12 connections (72 / 144 cores)
Pre-loading	Pre-terminated with couplers, pigtails and all accessories
Access	Front and back access; lockable front and rear panels
Cable entries	Side and back plate entries, cable glands with strain relief
Splice trays	Heat-shrink splice protection; tray capacity per order
Labelling	Identification and labelling to industry standard
Operating temperature	-20 °C to +60 °C
Storage temperature	-20 °C to +70 °C

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-38 · Central Office · Distribution Frames

Floor-Standing ODF

Floor-standing optical distribution frame for high-count fiber termination in exchange buildings.



Key Features

- Floor-standing frame, 360 – 864 cores
- Pull-out 12-core integrated splice / patch trays
- Fully enclosed, single-side operation
- Cold-rolled steel, electrostatic powder coat
- Modular, configurable per site

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Cold-rolled steel plate, fully welded frame
Finish	Electrostatic powder coating, corrosion-resistant
Structure	Fully enclosed, single-side (front) operation
Dimensions (H×W×D)	2000 / 2200 / 2600 × 600 or 840 × 300 mm
Distribution capacity	360 – 864 cores, per frame size
Splice / patch modules	12-core integrated trays, individually pull-out
Alternative modules	72-core ODF modules, up to 10 per frame
Storage units	2 – 4 fiber storage units, per model
Access	Front access; lockable doors
Labelling	Identification and labelling to industry standard
Operating temperature	–20 °C to +60 °C

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-09 · Central Office · Splitters

LGX PLC Splitter Module

LGX-format PLC splitter cassette for frames and cabinets, in adapter-port or pigtailed versions.



Key Features

- LGX cassette format for frames and cabinets
- Fully passive PLC technology
- Low insertion loss, high uniformity
- Adapter-port or pigtailed versions
- Compact, high-reliability package

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Technology	Planar Lightwave Circuit (PLC), fully passive
Configurations	1×2 to 1×64; 2×2 to 2×32
Operating wavelength	1260 – 1650 nm
Insertion loss 1×8 / 1×16	≤ 10.7 dB / ≤ 13.7 dB (without connector)
Insertion loss 1×32 / 1×64	≤ 16.8 dB / ≤ 20 dB (without connector)
PDL (1×32)	≤ 0.3 dB
Return loss / directivity	55 / 50 dB · 55 dB
Temperature	–40 °C to +80 °C operating and storage
Qualification	Telcordia GR-1209-CORE / GR-1221-CORE
Format	LGX cassette; adapter-port or pigtailed versions

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.



Product Group 02 of 06

Feeder & Cabinet

Street cabinets and closures that connect feeder cables to the distribution network. 6 products in this group.

4 products

Racks & Cabinets

- Outdoor Fiber Optic Distribution Cabinet — p. 14
- Plug & Play Distribution Cabinet — p. 15
- SMC Cross-Connect Cabinet (OCC) — p. 16
- Street Cabinet — p. 17

2 products

Closures

- Dome Splice Closure — p. 18
- Inline Splice Closure — p. 19

Position in the Network

Central Office → Feeder & Cabinet → Distribution → Drop & In-Building → Home

Layer 02 of 05 — the street, where feeder meets distribution.

DS-00 · Feeder & Cabinet · Racks & Cabinets

Outdoor Fiber Optic Distribution Cabinet

Street-level cabinet joining feeder and distribution fiber cables on a 19" frame, built for harsh outdoor field conditions.



Key Features

- Double-wall St.44 steel body, glass-fibre insulated
- IP67 protection, corrosion- and weather-resistant finish
- Front and rear doors, anti-theft lock on each
- 19" internal frame, 22U / 28U
- Detachable from base; document holder on each door

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Painted steel St.44 (S275JR) to BS EN 10025, 2 mm, double-layer sandwich
Insulation / fire	Glass-fibre core; 1-hour fire resistance to JIS S 1037
Corrosion resistance	≥ 240 h to ASTM B117
Weathering	≥ 100 h to ASTM G153
Protection class	IP67
Paint finish	Electrostatic oven paint, RAL 7016 / RAL 7035
Internal frame	19" rack, not less than 22U / 28U
Frame galvanising	19" columns galvanised ≥ 85 µm to ASTM A153
Cable entries	≥ 4 feeder + ≥ 36 distribution mini-duct / cable glands, strain relief
Access	Front and rear doors, anti-theft lock on each
Dimensions (H×W×D)	≈ 1000 × 1000 × 600 mm
Marking	Customer logo printed both sides, per contract

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-11 · Feeder & Cabinet · Racks & Cabinets

Plug & Play Distribution Cabinet

Pre-connectorised outdoor cabinet enabling splice-free network build-out and fast subscriber turn-up.



- Key Features
- Pre-connectorised for splice-free build-out
 - IP67 outdoor-rated enclosure
 - Front and rear doors, anti-theft locks
 - 19" internal frame
 - Corrosion- and weather-resistant finish

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Painted steel St.44 (S275JR) to BS EN 10025, 2 mm, double-layer sandwich
Insulation / fire	Glass-fibre core; 1-hour fire resistance to JIS S 1037
Corrosion resistance	≥ 240 h to ASTM B117
Weathering	≥ 100 h to ASTM G153
Protection class	IP67
Paint finish	Electrostatic oven paint, RAL 7016 / RAL 7035
Internal frame	19" rack, not less than 22U / 28U
Frame galvanising	19" columns galvanised ≥ 85 µm to ASTM A153
Cable entries	≥ 4 feeder + ≥ 36 distribution mini-duct / cable glands, strain relief
Access	Front and rear doors, anti-theft lock on each
Dimensions (H×W×D)	≈ 1000 × 1000 × 600 mm
Marking	Customer logo printed both sides, per contract

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-37 · Feeder & Cabinet · Racks & Cabinets

SMC Cross-Connect Cabinet (OCC)

SMC-body outdoor optical cross-connect cabinet with non-corroding composite housing.



Key Features

- SMC composite body, non-corroding
- Dielectric housing
- IP67 outdoor-rated enclosure
- Front and rear doors, anti-theft locks
- 19" internal frame

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	SMC (glass-fibre reinforced polyester)
Density	≥ 1750 kg/m ³ to ASTM D792
Tensile strength	≥ 96.5 MPa to ASTM D638
Compressive strength	≥ 207 MPa to ASTM D695
Flexural strength / modulus	≥ 179 MPa / ≥ 12,410.5 MPa to ASTM D790
Dielectric strength	≥ 14.2 kV/mm short-time to ASTM D149
Water absorption	0.11 % to ISO 62
Burning behaviour	To IEC 60695-11-10
Protection class	IP67
Corrosion / weathering	≥ 240 h ASTM B117 · ≥ 100 h ASTM G153
Internal frame	19" rack, not less than 22U / 28U
Access	Front and rear doors, anti-theft lock on each

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-46 · Feeder & Cabinet · Racks & Cabinets

Street Cabinet

Steel street cabinet from 15U to 36U for large feeder and distribution nodes.



Key Features

- Painted 2 mm steel body
- IP55 to IP67 protection options
- Sizes from 15U to 36U
- Up to 6 feeder and 36 – 40 distribution entries
- Corrosion- and weather-tested finish

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	2 mm painted steel
Protection class	IP55 to IP67 options
Corrosion resistance	≥ 240 h to ASTM B117
Weathering	To ASTM G153
Sizes	15U – 36U
Cable entries	Up to 6 feeder · 36 – 40 distribution
Operating temperature	–10 °C to +60 °C

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-21 · Feeder & Cabinet · Closures

Dome Splice Closure

Dome-type splice closure for aerial, duct and buried fiber joints.



Key Features

- Dome-type sealed splice closure
- Aerial, duct and buried installation
- Stacked splice trays
- Multiple cable ports
- Re-enterable for maintenance

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Reinforced plastic, PP or PC
Sealing method	Heat-shrink or mechanical pressure seals
Opening method	Screw locking, re-enterable
Protection class	IP68
Splice trays	4 – 8 trays
Tray capacity	12 – 48F bunched or 72 / 144F ribbon per tray
Cable ports	5 – 7 main ports; cable Ø8 – Ø22 mm
Dimensions	Ø194 × 499 mm to Ø253 × 550 mm (±5 mm)
Weight	≈ 2.5 – 3.6 kg
Earthing	Grounding of cable metal parts; strength-member continuity
Operating temperature	–40 °C to +60 °C; humidity ≤ 95 %
Applicable standard	YD/T 814; service life ≥ 25 years

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-22 · Feeder & Cabinet · Closures

Inline Splice Closure

Horizontal inline closure for straight-through and branch fiber splicing.



Key Features

- Inline straight-through and branch splicing
- Sealed horizontal housing
- Hinged splice trays
- Aerial, duct and buried installation
- Re-enterable for maintenance

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Reinforced plastic, PP or PC
Sealing method	Heat-shrink or mechanical pressure seals
Opening method	Screw locking, re-enterable
Protection class	IP68
Splice trays	2 – 4 trays, 24F bunched per tray (up to 96F)
Cable ports	4 main ports; cable Ø8 – Ø22 mm
Dimensions	452 × 191 × 118 mm to 488 × 200 × 120 mm (±5 mm)
Weight	≈ 2.6 – 2.9 kg
Earthing	Grounding of cable metal parts; strength-member continuity
Installation	Aerial, duct and direct-buried
Operating temperature	–40 °C to +60 °C; humidity ≤ 95 %
Applicable standard	YD/T 814; tensile ≥ 1000 N; service life ≥ 25 years

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.



Product Group 03 of 06

Distribution (Pre-Connectorised ODN)

Hub, sub and distribution boxes, splitters and pre-connected cables that bring fiber to every building without field splicing. 10 products in this group.

1 product

Splitters

Compact PLC Splitter — p. 27

2 products

Cords & Connectivity

Hardened Pre-Connectorised Drop Cable — p. 28

Pre-connected Distribution Cable — p. 30

7 products

Boxes & Terminals

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END Box — p. 29

Position in the Network

Central Office → Feeder & Cabinet → Distribution → Drop & In-Building → Home

Layer 03 of 05 — the plug-and-play distribution network.

DS-17 · Distribution (ODN) · Boxes & Terminals

Hub Box

Outdoor hub box aggregating subscriber drop connections from a distribution point.



- Key Features
- Hardened pre-connectorised drop ports
 - Splice-free drop connection
 - Micro PLC splitter per tray
 - Mid-span splicing of feeder cable
 - Wall, pole, aerial or manhole mounting

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Application	FTTH hub between OCC and drops; urban, suburban, rural
Function	Feeder spliced to pre-connectorised ports; mid-span splicing
Body material	PC/ABS 70/30, UV-resistant, flame-retardant
Protection class	IP65 or higher, sealed lid and cable glands
Drop ports	Hardened pre-connectorised adapter ports, with dust caps
Connectors	Grade B SC/APC, G.657.A2 pigtails
Splitters	1 × 1:2, 1:4 or 1:8 micro PLC splitter per tray
Installation	Wall, pole, aerial strand or manhole
Cable entries	Sealed feeder glands, strain relief, earthing
Locking	Replaceable anti-theft lock; 2 stainless-steel keys
Temperature	–20 °C to +60 °C operating; –25 °C to +70 °C storage
Marking	Customer logo on top cover, per contract

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-18 · Distribution (ODN) · Boxes & Terminals

Sub Box

Compact sub-distribution box for last-mile drop connectivity.



Key Features

- Compact last-mile distribution
- Sealed outdoor enclosure
- Pre-terminated grade B SC/APC adapters
- Wall or pole mounting
- Soft cable glands for drop cables

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Application	FTTH, subscriber loop, LAN / WAN; wall or pole mount
Capacity	4 – 72 fibers, with or without splitters
Body material	PC/ABS 70/30, UV-resistant, flame-retardant
Mechanical (PC/ABS)	Tensile 45–50 MPa (D638) · flexural 70 MPa (D790)
Protection class	IP65, rubber seal between lid and base
Colour	RAL 7016 / RAL 7035 textured grey
Connectors	Grade B SC/APC pigtails, 0.9 mm, 1 m, G.657.A2
Splitters	Compact PLC 1:X splitter (DS-10)
Cable entries	Cable clamp, knockout entries, PVC / rubber glands, earthing
Locking	Replaceable anti-theft lock; 2 stainless-steel keys
Temperature	–20 °C to +60 °C operating; –25 °C to +70 °C storage
Marking	Customer logo on top cover, per contract

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-42 · Distribution (ODN) · Boxes & Terminals

Domed Sub Box

Sub-distribution box with domed weather cover for exposed last-mile locations.



Key Features

- Domed weather cover
- Compact last-mile distribution
- Pre-terminated grade B SC/APC adapters
- Wall or pole mounting
- Soft cable glands for drop cables

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Application	FTTH, subscriber loop, LAN / WAN; wall or pole mount
Capacity	4 – 72 fibers, with or without splitters
Body material	PC/ABS 70/30, UV-resistant, flame-retardant
Mechanical (PC/ABS)	Tensile 45–50 MPa (D638) · flexural 70 MPa (D790)
Protection class	IP65, rubber seal between lid and base
Colour	RAL 7016 / RAL 7035 textured grey
Connectors	Grade B SC/APC pigtails, 0.9 mm, 1 m, G.657.A2
Splitters	Compact PLC 1:X splitter (DS-10)
Cable entries	Cable clamp, knockout entries, PVC / rubber glands, earthing
Locking	Replaceable anti-theft lock; 2 stainless-steel keys
Temperature	–20 °C to +60 °C operating; –25 °C to +70 °C storage
Marking	Customer logo on top cover, per contract

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-15 · Distribution (ODN) · Boxes & Terminals

Wall-Mount Termination Box

Outdoor wall-mount box for fiber splicing, splitting and termination at building entry.



Key Features

- Splicing, splitting and distribution in one unit
- IP65 sealed, UV-resistant PC/ABS body
- Pre-terminated grade B SC/APC pigtails
- Wall or pole mounting
- Replaceable anti-theft lock

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Application	FTTH, subscriber loop, LAN / WAN; wall or pole mount
Capacity	4 – 72 fibers, with or without splitters
Body material	PC/ABS 70/30, UV-resistant, flame-retardant
Mechanical (PC/ABS)	Tensile 45–50 MPa (D638) · flexural 70 MPa (D790)
Protection class	IP65, rubber seal between lid and base
Colour	RAL 7016 / RAL 7035 textured grey
Connectors	Grade B SC/APC pigtails, 0.9 mm, 1 m, G.657.A2
Splitters	Compact PLC 1:X splitter (DS-10)
Cable entries	Cable clamp, knockout entries, PVC / rubber glands, earthing
Locking	Replaceable anti-theft lock; 2 stainless-steel keys
Temperature	–20 °C to +60 °C operating; –25 °C to +70 °C storage
Marking	Customer logo on top cover, per contract

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-16 · Distribution (ODN) · Boxes & Terminals

Metal Optical Distribution Box (ODB)

Metal distribution box for indoor and sheltered fiber distribution points.



Key Features

- Metal body for sheltered locations
- Splicing and distribution in one unit
- Pre-terminated grade B SC/APC pigtails
- Lockable cover
- Wall mounting

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Application	FTTH, subscriber loop, LAN / WAN; wall mount
Capacity	4 – 72 fibers, with or without splitters
Body material	Metal body
Protection class	IP65, rubber seal between lid and base
Colour	RAL 7016 / RAL 7035 textured grey
Connectors	Grade B SC/APC pigtails, 0.9 mm, 1 m, G.657.A2
Splitters	Compact PLC 1:X splitter (DS-10)
Cable entries	Cable clamp, knockout entries, PVC / rubber glands, earthing
Locking	Replaceable anti-theft lock; 2 stainless-steel keys
Temperature	–20 °C to +60 °C operating; –25 °C to +70 °C storage
Marking	Customer logo on top cover, per contract

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-45 · Distribution (ODN) · Boxes & Terminals

Optical Cable Distribution Box

Wall or pole-mount box distributing feeder fibers to subscriber drop cables.



Key Features

- Feeder-to-drop fiber distribution
- IP65 sealed, UV-resistant PC/ABS body
- Pre-terminated grade B SC/APC pigtails
- Optional compact PLC splitter
- Wall or pole mounting

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Application	FTTH, subscriber loop, LAN / WAN; wall or pole mount
Capacity	4 – 72 fibers, with or without splitters
Body material	PC/ABS 70/30, UV-resistant, flame-retardant
Mechanical (PC/ABS)	Tensile 45–50 MPa (D638) · flexural 70 MPa (D790)
Protection class	IP65, rubber seal between lid and base
Colour	RAL 7016 / RAL 7035 textured grey
Connectors	Grade B SC/APC pigtails, 0.9 mm, 1 m, G.657.A2
Splitters	Compact PLC 1:X splitter (DS-10)
Cable entries	Cable clamp, knockout entries, PVC / rubber glands, earthing
Locking	Replaceable anti-theft lock; 2 stainless-steel keys
Temperature	–20 °C to +60 °C operating; –25 °C to +70 °C storage
Marking	Customer logo on top cover, per contract

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-10 · Distribution (ODN) · Splitters

Compact PLC Splitter

Compact steel-tube PLC splitter with colour-coded fiber leads for in-box installation.



Key Features

- Compact steel-tube PLC package
- Grade B SC/APC connectors
- Colour-coded input / output leads
- Manufacturer name and serial on body
- Individually packed with inspection report

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Technology	Planar Lightwave Circuit (PLC), fully passive
Configurations	1×2 to 1×64; 2×2 to 2×32
Operating wavelength	1260 – 1650 nm
Insertion loss 1×32 / 1×64	≤ 16.8 dB / ≤ 20 dB (without connector)
Temperature	–40 °C to +80 °C operating and storage
Connector	Grade B SC/APC to IEC 61300
Leads	0.9 mm, 1 m, G.657.A2; input black, outputs colour-coded
Marking	Manufacturer name and serial number on splitter surface
Packing	Individual carton, protective wrap, inspection report
Qualification	Telcordia GR-1209-CORE / GR-1221-CORE

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-43 · Distribution (ODN) · Cords & Connectivity

Hardened Pre-Connectorised Drop Cable

Outdoor drop cable with hardened connectors for plug-and-play network builds.



Key Features

- Hardened, sealed outdoor connectors
- Plug-and-play, splice-free installation
- Outdoor-rated cable jacket
- Factory-terminated and tested
- Lengths per order

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Construction	Pre-connectorised single-fiber drop jumper
Configuration	Single port or N-in-1 configurations
Protection class	Up to IP68, hardened sealed connector
Tensile strength	600 N
Interface	Mainstream hardened-adapter systems; list per order
Application	Outdoor FTTH: buildings, campuses, aerial links
Fiber type / count	G.652D or G.657A, single fiber
Connector type	Hardened SC/APC-type; interface per order
Insertion / return loss	≤ 0.2 dB / APC > 60 dB
Sheath material	UV-resistant LSZH or PE outdoor jacket (typical)
Operating temperature	−40 °C to +70 °C (typical)
Applicable standard	IEC 61753-1 / IEC 61754 (typical)

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-47 · Distribution (ODN) · Boxes & Terminals

END Box

Last box in the pre-connectorised chain, splitting fiber to 8 or 16 subscribers.



Key Features

- Final box in the pre-connectorised chain
- 1 input, 8 hardened drop ports
- 1:8 or 1:16 PLC splitting
- IP68 sealed, IK10 impact rated
- Compact 200 × 175 × 80 mm body

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Configuration	1 in · 8 drop
Splitter — low density	1:8 PLC
Splitter — high density	1:16 even PLC
Protection class	IP68 / IK10
Dimensions	200 × 175 × 80 mm

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-48 · Distribution (ODN) · Cords & Connectivity

Pre-connected Distribution Cable

Factory-terminated round distribution cable with waterproof connectors at both ends.



Key Features

- Factory-terminated, splice-free installation
- Waterproof connectors at both ends
- 5 mm round outdoor cable
- G.657 bend-insensitive fiber
- Lengths per order

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Cable	5 mm round
Connectors	Waterproof hardened, both ends
Fiber type	G.657
Protection class	IP68
Insertion loss	≤ 0.30 dB

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.



Product Group 04 of 06

Drop & In-Building

Drop and patch cabling, connectors and MDU cabinets that take fiber from the street into the building. 8 products in this group.

1 product

Racks & Cabinets

Multi-Dwelling Unit Cabinet — p. 32

1 product

Boxes & Terminals

MDU Distribution Box IP68 — p. 33

6 products

Cords & Connectivity

- FTTH Drop Cable — p. 34
- Fiber Optic Patch Cord — p. 35
- Fiber Pigtails — p. 36
- Field Assembly Connector — p. 37
- SC/APC Adapter — p. 38
- Branch / Riser Cable — p. 39

Position in the Network

Central Office → Feeder & Cabinet → Distribution → Drop & In-Building → Home

Layer 04 of 05 — from the street into the building.

DS-12 · Drop & In-Building · Racks & Cabinets

Multi-Dwelling Unit Cabinet

Distribution cabinet for fiber termination and splitting inside multi-dwelling buildings.



- Key Features
- Serves multi-dwelling buildings
 - Feeder-to-riser fiber distribution
 - Lockable doors with anti-theft locks
 - 19" internal frame
 - Managed cable entries with strain relief

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Painted steel St.44 (S275JR) to BS EN 10025, 2 mm, double-layer sandwich
Insulation / fire	Glass-fibre core; 1-hour fire resistance to JIS S 1037
Corrosion resistance	≥ 240 h to ASTM B117
Weathering	≥ 100 h to ASTM G153
Protection class	IP67
Paint finish	Electrostatic oven paint, RAL 7016 / RAL 7035
Internal frame	19" rack, not less than 22U / 28U
Frame galvanising	19" columns galvanised ≥ 85 µm to ASTM A153
Cable entries	≥ 4 feeder + ≥ 36 distribution mini-duct / cable glands, strain relief
Access	Front and rear doors, anti-theft lock on each
Dimensions (H×W×D)	≈ 1000 × 1000 × 600 mm
Marking	Customer logo printed both sides, per contract

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-20 · Drop & In-Building · Boxes & Terminals

MDU Distribution Box IP68

Sealed floor distribution box for MDU pre-loaded duct solutions.



Key Features

- IP68 air- and water-tight
- Hi-UV-resistant glass-fibre reinforced PP
- Room for 2 fusion splices
- Up to 4 drop tubes
- Supplied as a complete kit

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Hi-UV-resistant PP, glass-fibre reinforced; LFH for indoor use
Protection class	IP68, air / water tight
Splices	Room for 2 × fusion splices
Drop tubes	Up to 4 × drop tubes, 7 / 3.5 mm
Use	External / internal interception, cable in / out
Dimensions	≈ 100 W × 200 L × 30 D mm
Kit	Seals, cable ties and fixing hardware included
Duct system	Pre-loaded ducts 15 / 9 mm (≤ 48 f) and 12 / 8 mm (≤ 24 f)
Fiber	Single-mode OS2, ITU-T G.657.A2
Marking	Customer logo printed on box, per contract

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-28 · Drop & In-Building · Cords & Connectivity

FTTH Drop Cable

Flat FTTH drop cable for indoor and outdoor subscriber connections.



Key Features

- Flat drop profile for FTTH
- Indoor and outdoor routing
- Strength members for installation load
- Easy-strip sheath
- Lengths per order

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Fibre count	1–4
Profile	2.0 × 3.0 mm
Sheath	LSZH
Aerial version	With messenger wire
Long-term tensile	40–300 N (by version)

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-24 · Drop & In-Building · Cords & Connectivity

Fiber Optic Patch Cord

Pre-terminated single-mode patch cord for equipment and frame interconnection.



Key Features

- Single-mode, low bend-sensitivity fiber
- Aramid strength member
- Flame-retardant PVC / FRNC sheath
- FTTH variant: G.657.A2, grade B SC/APC
- Lengths and terminations per BOQ

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

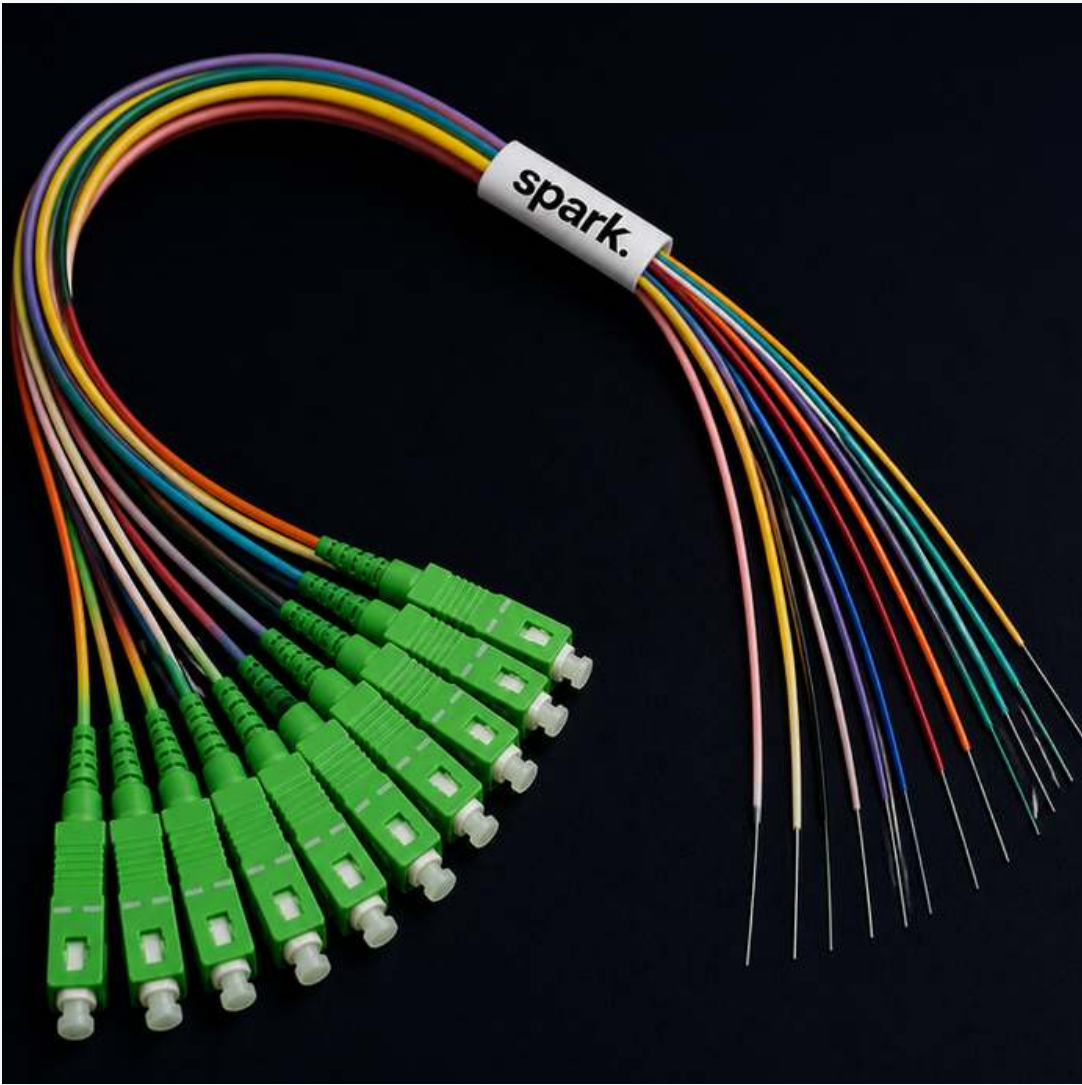
Fiber type	Single-mode, ITU-T G.657.A1
Wavelengths	1300 / 1550 / 1625 nm
Fiber attenuation	≤ 0.35 dB/km @ 1310 nm · ≤ 0.22 dB/km @ 1550 nm
Strength member	Aramid yarn (Kevlar)
Sheath	Flame-retardant PVC or FRNC (IEC 60332-3 / IEC 60754-2)
Cord diameter	≈ 3.0 mm
Connectors	FC, LC, SC, MU, E2000, DIN; PC / UPC / APC polish
Insertion loss	< 0.3 dB
Return loss	> 50 dB (PC) · > 60 dB (APC)
Repeatability	ΔIL ≤ 0.2 dB over 1000 mating cycles
Ferrule	High-precision zirconia / metal insert
Operating temperature	−10 °C to +70 °C

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-25 · Drop & In-Building · Cords & Connectivity

Fiber Pigtails

Single-ended connectorised fibers for splicing into trays, frames and boxes.



Key Features

- Single-mode, low bend-sensitivity fiber
- Small 0.9–1 mm buffer
- Flame-retardant PVC / FRNC sheath
- FTTH variant: G.657.A2, grade B SC/APC
- Colour-coded, lengths per BOQ

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Fiber type	Single-mode, ITU-T G.657.A1
Wavelengths	1300 / 1550 / 1625 nm
Fiber attenuation	≤ 0.35 dB/km @ 1310 nm · ≤ 0.22 dB/km @ 1550 nm
Sheath	Flame-retardant PVC or FRNC (IEC 60332-3 / IEC 60754-2)
Diameter	≈ 1 mm
Connectors	FC, LC, SC, E2000, DIN, MU; PC / UPC / APC polish
Insertion loss	< 0.3 dB
Return loss	> 50 dB (PC) · > 60 dB (APC)
Mating durability	≥ 500 cycles, ΔIL < 0.2 dB (IEC 61300-2-2)
Ferrule	High-precision zirconia / metal insert
Operating temperature	–10 °C to +70 °C

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-26 · Drop & In-Building · Cords & Connectivity

Field Assembly Connector

Field-installable SC/APC connector for on-site fiber termination without fusion splicing.



Key Features

- On-site termination, no fusion splicer
- SC/APC interface
- Grade B connector class
- For G.657.A2 drop and indoor fiber
- Compact body for boxes and outlets

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Interface	SC/APC
Connector grade	Grade B to IEC 61300
Fiber	G.657.A2
Insertion loss	< 0.3 dB (connector)
Return loss	> 60 dB APC (connector)

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-27 · Drop & In-Building · Cords & Connectivity

SC/APC Adapter

SC/APC simplex adapter for connector mating in panels, frames and boxes.



Key Features

- SC/APC simplex coupling
- Grade B connector class
- Panel, frame and box mounting
- Compact footprint for dense panels
- Pairs with SC/APC cords and pigtails

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Interface	SC/APC simplex
Connector grade	Grade B to IEC 61300
Application	Pre-loaded in wall-mount termination boxes

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-49 · Drop & In-Building · Cords & Connectivity

Branch / Riser Cable

Tight-buffered branch cable for vertical risers in multi-dwelling buildings.



- Key Features
- Vertical riser cable for MDU buildings
 - 4 to 48 fibers
 - 900 µm tight-buffered sub-units
 - PVC or LSZH sheath
 - Lengths per order

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Fiber count	4 – 48
Sub-units	900 µm tight-buffered
Sheath material	PVC or LSZH
Operating temperature	–20 °C to +60 °C

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.



Product Group 05 of 06

Home

Outlets and termination boxes that complete the connection inside the subscriber's premises. 3 products in this group.

3 products

Boxes & Terminals

- DIN-Rail Termination Box — p. 41
- Fiber Faceplate — p. 42
- Fiber Outlet — p. 43

Position in the Network

Central Office → Feeder & Cabinet → Distribution → Drop & In-Building → Home

Layer 05 of 05 — the subscriber's premises.

DS-19 · Home · Boxes & Terminals

DIN-Rail Termination Box

DIN-rail mountable fiber termination box for electrical panels and cabinets.



Key Features

- DIN-rail mounting
- Compact termination for panels and cabinets
- Grade B SC/APC adapters
- Splice tray inside
- Labelled ports

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Application	FTTH, LAN / WAN; DIN-rail mount in panels and cabinets
Body material	PC/ABS 70/30, UV-resistant, flame-retardant
Mechanical (PC/ABS)	Tensile 45–50 MPa (D638) · flexural 70 MPa (D790)
Protection class	IP65, rubber seal between lid and base
Colour	RAL 7016 / RAL 7035 textured grey
Connectors	Grade B SC/APC pigtails, 0.9 mm, 1 m, G.657.A2
Splitters	Compact PLC 1:X splitter (DS-10)
Cable entries	Cable clamp, knockout entries, PVC / rubber glands, earthing
Locking	Replaceable anti-theft lock; 2 stainless-steel keys
Temperature	–20 °C to +60 °C operating; –25 °C to +70 °C storage
Marking	Customer logo on top cover, per contract

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-23 · Home · Boxes & Terminals

Fiber Faceplate

Wall faceplate presenting fiber adapters inside the subscriber premises.



Key Features

- Presents fiber adapters at the wall
- Flush or surface mounting
- Neat in-home finish
- Fiber slack management behind plate
- Pairs with drop cable and patch cord

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Adapters	2 × SC/APC
Pigtail fibre	ITU-T G.657A
Material	ABS
Operating temperature	−40 to +75 °C
Colours	Ivory / white

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-44 · Home · Boxes & Terminals

Fiber Outlet

Compact in-home fiber outlet terminating the drop cable at the subscriber.



Key Features

- Terminates the drop at the subscriber
- Compact in-home enclosure
- Front adapter for patch cord to ONT
- Internal slack storage
- Wall mounting

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

2-port size	86 × 86 × 24 mm
4-port size	100.5 × 80.5 × 28.8 mm
Adapters	SC or duplex LC
Mounting	Indoor wall

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.



Product Group 06 of 06

Supporting Infrastructure

Racks, data and power cabinets, climate-controlled enclosures, copper cabling and duct accessories that support the fiber network. 8 products in this group.

3 products

Racks & Cabinets

- Perforated Door Server Rack — p. 45
- Glass Door Data Cabinet — p. 46
- Outdoor Active Equipment Cabinet — p. 47

2 products

Copper Cabling

- UTP Cat6 Patch Cord — p. 50
- UTP Patch Panel — p. 51

2 products

Power & Climate

- Outdoor Enclosure with Air Conditioner — p. 48
- Power / Battery Cabinet — p. 49

1 product

Duct & Tools

- Micro-Duct Push-Fit Connector & End Cap — p. 52

Position in the Network

Central Office · Feeder & Cabinet · Distribution · Drop & In-Building · Home

Supports every layer, from the exchange to the home.

DS-05 · Supporting Infrastructure · Racks & Cabinets

Perforated Door Server Rack

Floor-standing rack with perforated doors for ventilated active and network equipment.



Key Features

- Perforated front and rear doors for airflow
- Top and bottom cable entry
- Castors for positioning
- Lockable doors
- Line-up compatible with ETSI racks

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Standard	ETSI ETS 300 119
Height	2200 mm for telecom centres; up to 2200 mm at customer sites
Width	150 / 300 / 600 / 900 mm
Depth	300 / 600 mm
Levelling	Height-adjustable feet, ≥ 25 mm range
Cable access	Top and bottom entry; rack-to-rack cabling within rows
Floor loading	≤ 15 kN/m ² typical, 20 kN/m ² maximum (fully equipped)
Point loading	≤ 490 N/cm ²
Dynamic load	+800 N during installation (≥ 600 × 600 mm)
Doors	Open doors protrude ≤ 150 mm; aisle reference ≥ 750 mm
Packaged size	≤ 2500 × 1200 × 900 mm
EMC	Per Directive 89/336/EEC

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-06 · Supporting Infrastructure · Racks & Cabinets

Glass Door Data Cabinet

Data cabinet with glass front door for network, patching and small active equipment.



Key Features

- Glass front door for visual inspection
- Lockable front door
- Top and bottom cable entry
- Height-adjustable levelling feet
- Suitable for exchange and customer sites

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Standard	ETSI ETS 300 119
Height	2200 mm for telecom centres; up to 2200 mm at customer sites
Width	150 / 300 / 600 / 900 mm
Depth	300 / 600 mm
Levelling	Height-adjustable feet, ≥ 25 mm range
Cable access	Top and bottom entry; rack-to-rack cabling within rows
Floor loading	≤ 15 kN/m ² typical, 20 kN/m ² maximum (fully equipped)
Point loading	≤ 490 N/cm ²
Dynamic load	+800 N during installation (≥ 600 × 600 mm)
Doors	Open doors protrude ≤ 150 mm; aisle reference ≥ 750 mm
Packaged size	≤ 2500 × 1200 × 900 mm
EMC	Per Directive 89/336/EEC

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-39 · Supporting Infrastructure · Racks & Cabinets

Outdoor Active Equipment Cabinet

Outdoor cabinet housing active network equipment alongside passive fiber distribution.



Key Features

- Houses active and passive equipment
- IP67 outdoor-rated enclosure
- Front and rear doors, anti-theft locks
- 19" internal frame
- Corrosion- and weather-resistant finish

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Painted steel St.44 (S275JR) to BS EN 10025, 2 mm, double-layer sandwich
Insulation / fire	Glass-fibre core; 1-hour fire resistance to JIS S 1037
Corrosion resistance	≥ 240 h to ASTM B117
Weathering	≥ 100 h to ASTM G153
Protection class	IP67
Paint finish	Electrostatic oven paint, RAL 7016 / RAL 7035
Internal frame	19" rack, not less than 22U / 28U
Frame galvanising	19" columns galvanised ≥ 85 µm to ASTM A153
Cable entries	≥ 4 feeder + ≥ 36 distribution mini-duct / cable glands, strain relief
Access	Front and rear doors, anti-theft lock on each
Dimensions (H×W×D)	≈ 1000 × 1000 × 600 mm
Marking	Customer logo printed both sides, per contract

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-13 · Supporting Infrastructure · Power & Climate

Outdoor Enclosure with Air Conditioner

Climate-controlled outdoor enclosure for active telecom equipment in roadside and rooftop sites.



Key Features

- Integrated air-conditioning unit
- Outdoor-rated, lockable enclosure
- Internal 19" mounting
- Managed cable entries
- Suited to roadside and rooftop sites

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Steel frame, composite sandwich wall panels
Base	Non-metallic base
Thermal design	Insulated, heat-preserving cabin; zoned temperature control
Cooling	1500 W AC air conditioner, single or dual
Cooling option	1500 W AC compressor air conditioner
Heating option	500 W or 1000 W heater
Expansion	Side or rear two-way expansion
Equipment housed	Communication, power, batteries, temperature control
Protection class	IP55 (typical)
Dimensions (H×W×D)	≈ 1800 × 750 × 750 mm (typical)
Operating temperature	−40 °C to +55 °C ambient (typical)
Applicable standard	IEC 60529 / ETSI EN 300 019 (typical)

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-14 · Supporting Infrastructure · Power & Climate

Power / Battery Cabinet

Outdoor cabinet for power systems and backup batteries supporting active network sites.



Key Features

- Houses rectifiers and backup batteries
- Outdoor-rated, lockable enclosure
- Ventilated battery compartment
- Managed cable entries
- Pairs with active equipment cabinets

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Body material	Steel frame, composite sandwich wall panels
Base	Non-metallic base
Thermal design	Insulated, heat-preserving cabin; zoned temperature control
Climate control	300 W DC air conditioner or direct ventilation
Heating option	500 W or 1000 W heater
Expansion	Side or rear two-way expansion
Structure	Modular, assembled construction for harsh sites
Battery capacity	48 V VRLA or Li-ion, up to 4 × 200 Ah strings (typical)
Protection class	IP55 (typical)
Dimensions (H×W×D)	≈ 1400 × 750 × 750 mm (typical)
Operating temperature	–40 °C to +55 °C ambient (typical)
Applicable standard	IEC 60529 / ETSI EN 300 019 (typical)

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-29 · Supporting Infrastructure · Copper Cabling

UTP Cat6 Patch Cord

Copper Cat6 patch cord for in-home and rack Ethernet connections.



Key Features

- Category 6 copper patch cord
- RJ45 plugs both ends
- Snag-less boots
- For ONT, router and rack patching
- Lengths per order

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Category	Cat6 (EIA/TIA)
Bandwidth	250 MHz
Speed	10 Gbps up to 55 m · 1 Gbps up to 100 m
Use	In-home and rack Ethernet

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-30 · Supporting Infrastructure · Copper Cabling

UTP Patch Panel

Rack-mount copper patch panel for structured Ethernet cabling.



Key Features

- 19" rack-mount patch panel
- RJ45 front ports, numbered
- Rear cable management
- Pairs with Cat6 patch cords
- Labelling strip

Specification Basis

Operator-grade
FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Ports	12 / 24 (1U) / 48 (2U)
Rack fit	19" EIA racks
Category	Cat5e (Cat6 channel-link tested)
Cable gauge	22–26 AWG solid and stranded
Material	SPCC steel 1.5 mm, black RAL 9005
Operating temperature	–10 to +70 °C

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

DS-32 · Supporting Infrastructure · Duct & Tools

Micro-Duct Push-Fit Connector & End Cap

Push-fit straight connector and end cap for joining and sealing micro-ducts.



Key Features

- Tool-free push-fit jointing
- Internal O-ring seal
- Grip tightens under pull
- Collet release for removal
- End cap blocks water and dust

Specification Basis

Operator-grade FTTx specification

Compliance sheet per operator specification, on order

Technical Specifications

Function	Push-fit straight connector joining two micro-ducts
Sealing	Internal O-rings seal on a clean-cut duct end
Retention	Internal teeth and tapered body grip under pull
Release	Collet pressed inward to remove the duct
End cap	Seals unused tubes against water and dust
Sizes	Matched to micro-duct diameters
Installation	Tool-free, a few seconds per joint
Duct operating temp.	–30 °C to +70 °C (duct spec)
Duct fire / weathering	B2 to DIN 4102-2 · 100 h to ASTM G153 (duct spec)
Data sheet	Test standards and production catalogue per order

A degree-of-compliance sheet against the operator's specification, test reports and installation instructions (Arabic / English) are issued per order.

Your Fiberization Partner, End to End.

spark. Passive Products is a complete FTTx passive portfolio — 43 products across six product groups, each documented with a datasheet of design targets, ready for any operator's specification.

Complete Passive Chain

Central-office racks and distribution frames, outdoor cabinets, PLC splitters, termination boxes, closures, cords and duct accessories — one portfolio, one source.

Specification-Led

Every datasheet states its design targets. Degree-of-compliance sheets, test reports and Arabic / English installation instructions are issued per order.

Built for the Access Network

From the street cabinet to the subscriber outlet, the range spans feeder, distribution and drop — the full path a fiber travels to the home.

Portfolio

Central Office	8	Home	3
Feeder & Cabinet	6	Supporting Infrastructure	8
Distribution (ODN)	10	Total	43
Drop & In-Building	8		

