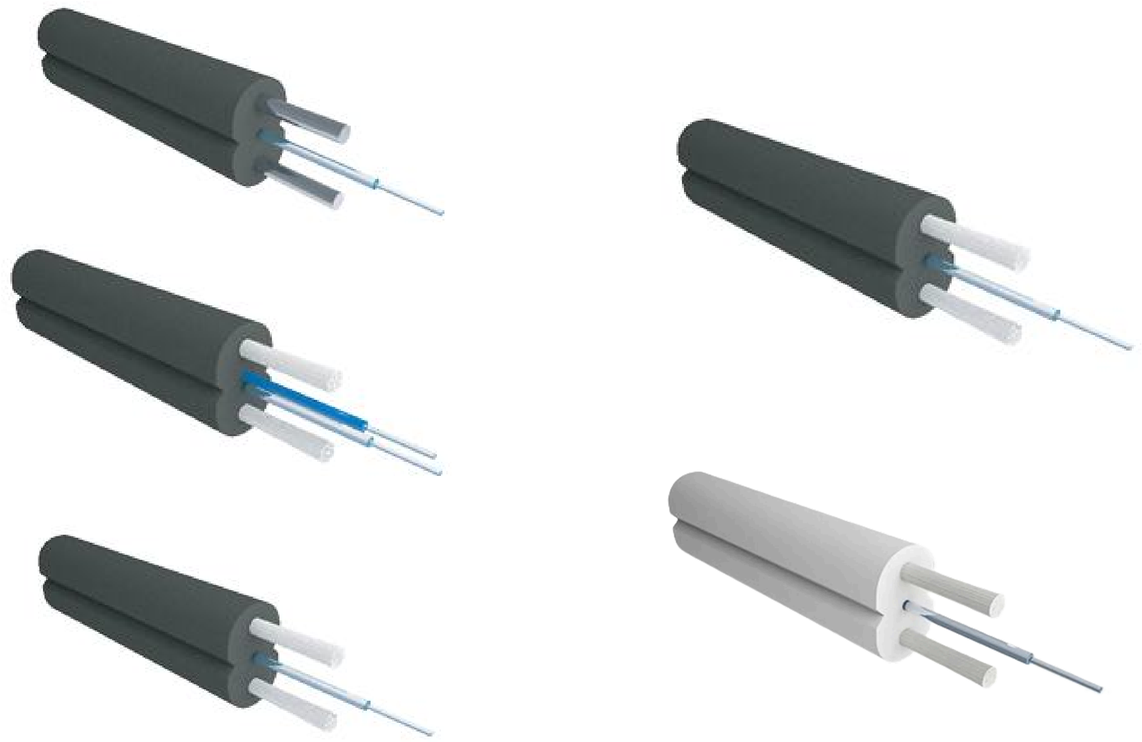
Fiber optic components

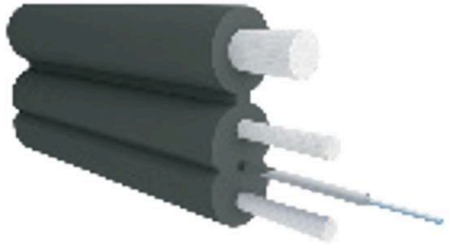


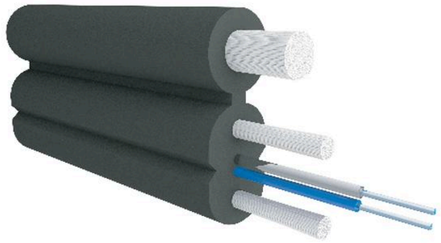
FTTH optical cable for indoor installation

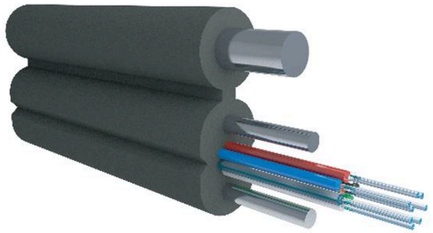
The SNR-PRO-FTTH / Alpha Mile Flex FTTx 604-01-XX / 604-02-XX / 604-11-XX, B-OptiX BO-FTTH subscriber optical cable is designed for installation in indoor environments, attic spaces, pipes, cable ducts, and trays. It is used in FTTx networks where minimal geometric dimensions of the jacket are required, while still providing reliable protection for the fiber against mechanical impacts. The special rounded shape of the cable ensures minimal friction during cable installation using the pulling method.

Technical specifications

Parameters	604-01-XX	604-02-XX BO-FTTH-F-X SNR-PRO-FTTH	604-11-XX BO-FTTH-S-X	604-02-01W BO-FTTH-FW-1 SNR-PRO-FTTH
Number of fibers	1 / 2 / 4 / 6 / 8		1-2	1
Cable dimensions, mm	3.0±0.1 x 2.0±0.1 (for FOC 1 / 2 / 4) 3.5±0.1 x 2.5±0.1 (for FOC 6 / 8)			
Fiber type	9/125 (G.652.D)	9/125 (G.657.A2)		
Outer sheath material	LSZH, complies with UL1581, ANSI/UL83 standards			
Color of outer sheath	Black (UV resistant)			White
Power element	Two steel wires	Two fiberglass rods (FRP)	Two steel wires	Two fiberglass rods (FRP)
Diameter of power element, mm	0.45	0.50	0.45	
Permissible tensile force, kN	0.4	0.25	0.4	0.25
Cable weight, kg/km	9 (for FOC 1 / 2 / 4) 14.5 (for FOC 6 / 8)	7.5 (for FOC 1 / 2 / 4) 13.5 (for FOC 6 / 8)	9 (for FOC 1 / 2)	9
Installation temperature	-10°C – +70°C			
Operating temperature	-40°C – +70°C			







FTTH optical cable for outdoor installation

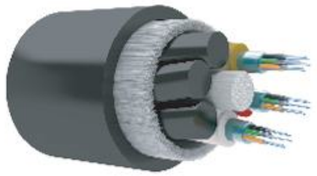
The Alpha Mile FTTx 604-03-XX / 604-04-XX / 604-05-XX / 604-06-XX / 604-13-XX / 604-24-XX, B-OptiX BO-FTTH optical cable is designed for installation in indoor environments, attic spaces, pipes, cable ducts, and trays. It is also suitable for installation between buildings and on supports.

A distinctive feature of the suspended FTTx cable is the presence of an additional strength member (glass fiber rod, wire, steel cable), which can be easily detached from the main cable jacket if necessary.

Technical specifications

Parameters	604-03-XX	604-04-XX BO-FTTH-FS-X	604-05-XX BO-FTTH-F5-X	604-06-XX BO-FTTH-FFR-X	604-13-XX BO-FTTH-S3-X	604-24-XX BO-FTTH-FT-X
Number of fibers	1 / 2 / 4 / 6 / 8			1 / 2 /4		
Cable dimensions, mm	5.2±0.2 x 2.0±0.2 (for FOC 1 / 2 / 4)			6.0±0.2 x 2.8±0.2 (for FOC 1 / 2 / 4)	5.2±0.2 x 2.8±0.2	5.2±0.2 x 2.0±0.2
Fiber type	9/125 (G.652.D)	9/125 (G.657.A1/A2)				
Outer sheath material	LSZH, complies with UL1581, ANSI/UL83 standards					
Color of outer sheath	Black (UV resistant)					
Power element	Two steel wires	Two fiberglass rods (FRP)			Two steel wires	Two fiberglass rods (FRP)
Diameter of power element, mm	0.45	0.50			0.45	
Additional power element	Steel wire		Glass fiber rod		Steel wire	Steel cable
Diameter of additional force element	1.0			1.8	1.0	1.2
Permissible tensile force, kN	0.9					
Cable weight, kg/km	18.5 (for FOC 1 / 2 / 4) 26.5 (for FOB 6 / 8)	17 (for FOC 1 / 2 / 4) 25 (for FOC 6 / 8)	14 (for FOC 1 / 2 / 4) 19 (for FOC 6 / 8)	21 (for FOC 1 / 2 / 4) 26 (for FOC 6 / 8)	18.5 (for FOC 1 / 2 / 4)	18 (for FOC 1 / 2 / 4)
Installation temperature	-10°C – +50°C					
Operating temperature	-40°C – +50°C					

Optical self-supporting cable



Alpha Mile 601-01-XX

Dielectric self-supporting cable with 2–48 single-mode fibers (ITU-T G.652.D). The core includes optical modules twisted (SZ) around a fiberglass element. Longitudinal sealing is provided by a hydrophobic filler. The sheath is made of HDPE. Allowable load: 3.5 kN (breaking load – 6.0 kN).

Alpha Mile 601-02-XX

Contains 1–12 single-mode optical fibers (ITU-T G.652.D, reduced "water peak"). The fibers are protected by a hydrophobic gel and a layer of fiberglass threads. For strength, the cable is reinforced with two KFRP rods (0.58 mm). The outer sheath is made of MDPE (medium-density polyethylene).

SNR-ADSS-UT-01-XX/X

Contains 1–8 single-mode optical fibers (ITU-T G.652.D, reduced "water peak"). The fibers are protected by a hydrophobic gel. For strength, the cable is reinforced with two FRP rods (0.8 mm). The outer sheath is made of MDPE (medium-density polyethylene).

Technical specifications

Parameters	601-01-XX	601-02-XX	SNR-ADSS-UT-01-XX/X
Number of fibers	2 / 4 / 6 / 8 / 12 / 16 / 20 / 24 / 23 / 36 / 48	1 / 2 / 4 / 6 / 8 / 12	1 / 2 / 4 / 8
Cable diameter, mm	9.4±0.2	5.0±0.2	
Power element	Fiberglass rod	Two FRP bars	
Diameter of power element, mm	1.9	0.58	0.8
Fiber type	9/125 (G.652.D)		
Outer sheath material	HDPE (high density polyethylene)	MDPE (medium density polyethylene)	
Color of outer sheath	Black		
Permissible tensile force, kN	3.5 (continuous) 6.0 (burst)	1.5	
Cable weight, kg/km	47	23	21
Installation temperature	-30°C – + 50°C	-10°C – + 50°C	
Operating temperature	-60°C – +70°C		

Optical cable FLAT DROP

Alpha Mile 605-01-XX

Alpha Mile 605-01-XX contains 2–12 ITU-T G.652.D optical fibers (single-mode with reduced "water peak"), arranged in an optical module. To protect against hydrogen, the module is filled with a hydrophobic gel. Longitudinal strength is provided by two FRP rods (2 mm). The outer sheath is made of HDPE (high-density polyethylene).

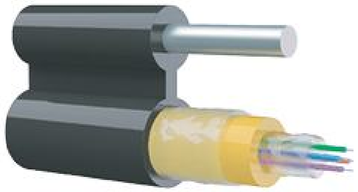
Alpha Mile 605-02-XX

Alpha Mile 605-02-XX contains 1–2 ITU-T G.652.D optical fibers (single-mode with reduced "water peak"), arranged in an optical module. To protect against hydrogen, the module is filled with a hydrophobic gel. Longitudinal strength is provided by two FRP rods (1.2 mm). The outer sheath is made of MDPE (medium-density polyethylene).

Technical specifications

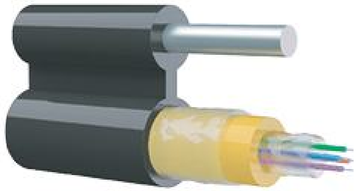
Parameters	605-01-XX	605-02-XX
Number of fibers	2 / 4 / 6 / 8 / 12	1 / 2
Overall dimensions, mm	9.4±0.2	5.0±0.2
Power element	Two FPR bars	
Diameter of power element, mm	2.0	1.2
Fiber type	9/125 (G.652.D)	
Outer sheath material	HDPE (high density polyethylene)	MDPE (medium density polyethylene)
Color of outer sheath	Black	
Permissible tensile force, kN	1.8	0.8
Cable weight, kg/km	35	9.9
Installation temperature	-30°C – +50°C	
Operating temperature	-60°C – +70°C	

Optical suspension cable, TYPE-8



SNR-FOCA-UT1-XX

SNR-FOCA-UT1-XX contains 2–12 ITU-T G.652.D optical fibers (single-mode with reduced "water peak"), arranged in a central optical module filled with hydrophobic gel. The design includes an external strength member — galvanized steel wire (1.6 mm). The outer sheath is made of MDPE (medium-density polyethylene). Maximum tensile strength is 2 kN.



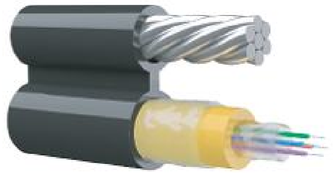
SNR-FOCA-UT1-XX-C

SNR-FOCA-UT1-XX-C contains 2–24 ITU-T G.652.D optical fibers, arranged in a central module with hydrophobic gel. The design includes an external galvanized steel wire (2.2 mm). The outer sheath is made of HDPE (high-density polyethylene). Maximum tensile strength is 4 kN.

Technical specifications

Parameters	SNR-FOCA-UT1-XX	SNR-FOCA-UT1-XX-C
Number of fibers	2 / 4 / 6 / 8 / 12	2 / 4 / 6 / 8 / 12 / 16 / 18 / 20 / 24
Overall dimensions, mm	5,1±0,2 x 10,2±0,2	10 x 5.3 (для BOK 2 / 4 / 8 / 12 / 16) 11.2 x 6.9 (для BOK 18 / 20 / 24)
Power element	Steel wire	
Diameter of power element, mm	1.6	2.2
Fiber type	9/125 (G.652.D)	
Outer sheath material	MDPE (medium density polyethylene)	HDPE (high density polyethylene)
Color of outer sheath	Black	
Center tube material	PBT (polybutylene terephthalate)	
Permissible tensile force, kN	2.0	4.0
Cable weight, kg/km	47	68.6 (for FOB 2 / 4 / 8 / 12 / 16) 79.4 (for FOC 18 / 20 / 24)
Installation temperature	-20°C – +60°C	
Operating temperature	-40°C – +70°C	-60°C – +70°C

Optical suspension cable, TYPE-8



SNR-FOCA-UT4-XX-C

SNR-FOCA-UT4-XX-C contains 2–32 ITU-T G.652.D optical fibers, arranged in a central module with hydrophobic gel. The design includes an external galvanized steel wire (2.2 mm). The outer sheath is made of HDPE (high-density polyethylene). Maximum tensile strength is 4 kN.

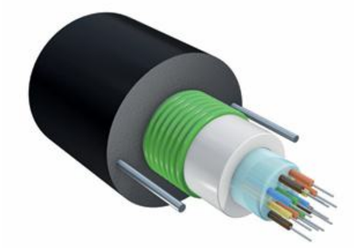
Alpha Mile 603-01-XX

Alpha Mile 603-01-XX is a proprietary development of LLC "NAG." With compact dimensions (6.7 × 4.0 mm), it retains the advantages of Type-8 cable: strength (4 kN), ease of installation, and low weight (39.5 kg/km). It contains 1–8 ITU-T G.652.D optical fibers in a central module with hydrophobic gel. The design includes an external galvanized steel wire (2.2 mm). The outer sheath is made of HDPE (high-density polyethylene).

Technical specifications

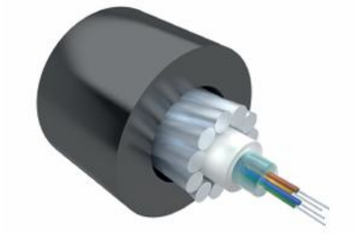
Parameters	SNR-FOCA-UT4-XX-C	603-01-XX
Number of fibers	2 / 4 / 6 / 8 / 12 / 16 / 18 / 20 / 24 / 26 / 32	1 / 2 / 4 / 6 / 8
Cable diameter, mm	10 x 5.3 (for WOC 2 / 4 / 8 / 12 / 16) 11.2 x 6.9 (for WOC 18 / 20 / 24) 14 x 8.9 (for WOC 26 / 32)	6,7±0,2 x 4,0±0,2
Power element	Steel cable	
Diameter of power element, mm	2.2	
Fiber type	9/125 (G.652.D)	
Outer sheath material	HDPE (high density polyethylene)	
Color of outer sheath	Black	
Center tube material	PBT (polybutylene terephthalate)	
Permissible tensile force, kN	4.0	
Cable weight, kg/km	60.6 (for FOC 2 / 4 / 8 / 12 / 16) 73.2 (for FOC 18 / 20 / 24) 99 (for FOC 26 / 32)	39.5
Installation temperature	-20°C – +60°C	-10°C – +60°C
Operating temperature	-40°C – +70°C	-60°C – +70°C

Optical cable into the sewage system



SNR-FOCB-UT-0-XX-C

SNR-FOCB-UT-0-XX-C contains from two to twenty-four optical fibers, complying with ITU-T G.652.D recommendations (standard single-mode fiber with reduced "water peak"). The cable features a design with a central optical module in which the fibers are arranged.



SNR-FOCG-UT-X,X-XX

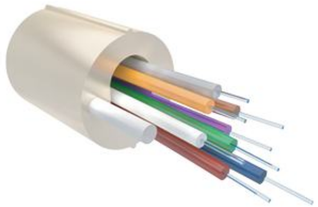
SNR-FOCG-UT-X,X-XX is designed for installation in cable ducts, pipes, collectors, tunnels, trays, and underground, providing protection against rodents and mechanical damage. It features a central optical module with fibers arranged and filled with hydrophobic gel.

The steel wire armor protects against mechanical impacts. The outer sheath is made of HDPE (high-density polyethylene).

Technical specifications

Parameters	SNR-FOCA-UT1-XX	SNR-FOCG-UT-X,X-XX
Number of fibers	4 / 8 / 12/ 16 / 24	4 / 8 / 12/ 16 / 24
Cable diameter, mm	8.5 (для BOK 2 / 4 / 8 / 12 / 16) 10.5 (для BOK 20 / 24)	6.8-8.4
Power element	Two steel wires	
Diameter of power element, mm	2.2	
Fiber type	9/125 (G.652.D)	
Outer sheath material	HDPE (high density polyethylene)	
Color of outer sheath	Black	
Center tube material	PBT (polybutylene terephthalate)	
Permissible tensile force, kN	1.5	2.7-4.2
Reinforcing element	Steel corrugated tape	Steel wires
Cable weight, kg/km	111 (for FOC 2 / 4 / 6 / 8 / 12) 139 (for FOC 16 / 24)	83-129
Installation temperature	-20°C – +60°C	-10°C – +60°C
Operating temperature	-40°C – +70°C	-60°C – +70°C

Optical distribution cable

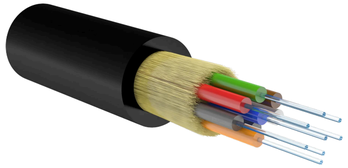


Alpha Mile Rise 606-02-XX-C

Alpha Mile RISER 606-02-XX-C is designed for vertical installation within buildings and is widely used in FTTH (PON) networks. It provides easy access to fibers. The fully dielectric construction contains 2 to 48 optical fibers (900 µm) with enhanced resistance to microbends. The outer sheath is made of fire-resistant, halogen-free polyethylene (ng(A)-HF). The strength is provided by two FRP rods.

Alpha Mile Distribution 608-03-XX / 608-04-XX

Alpha Mile Distribution is a dielectric trunk cable designed for indoor installation, including horizontal subsystems and general-purpose areas. It contains 1 to 48 OM3/OM4 optical fibers, placed in aramid yarns and covered with an LSZH (Low Smoke Zero Halogen) sheath. This compound does not release toxic halogens and minimizes smoke generation, which is crucial for safe installation in areas with a fire risk.



SNR-PRO-D-IN/OUT-SM-X-LSZH / Alpha Mile Distribution 608-02-XX

These models is a dielectric cables with 1 to 48 G.657.A1 fibers, placed in reinforcing aramid yarns and covered with an LSZH (Low Smoke Zero Halogen) sheath. This sheath does not release toxic halogens and ensures a low smoke level when burning, which is critical for installation in areas with a risk of poisoning from combustion products.

Technical specifications

Parameters	608-02-XX SNR-PRO-D-IN/OUT-SM-X-LSZH	606-02-XX-C	608-03-XX	608-04-XX
Number of fibers	1 / 2 / 4 / 6 / 8 / 10 / 14 / 16 / 20 / 24 / 32 / 36 / 48	2-48	1-48	2-48
Cable dimensions, mm	2.85-17.7	6.5-11	17.7	6.5-11
Fiber type	SM (G.657.A1)		MM (OM3)	MM (OM4)
Outer sheath material	LSZH, complies with UL1581, ANSI/UL83 standards		LSZH нг(A)-HFLTx	
Color of outer sheath	Black / Yellow	White	Turquoise	Magenta
Power element		Two fiberglass rods (FRP)	Две стальные проволоки	Two fiberglass rods (FRP)
Reinforcing yarn material	Aramid	Two fiberglass rods	Aramid	
Cable weight, kg/km	7-290	31,8-105	290	
Installation temperature	-10°C – +50°C		0°C – +70°C	
Operating temperature	-20°C – +70°C			

Anchor clamps

The main purpose of anchor clamps is to securely fasten the cable during tensioning and branching in aerial installations. The anchor clamp is easy and quick to install and can be used on special supports, structures, and poles.

Cable diameter and tension
Selected depending on the load

Material of manufacture
Galvanized steel, plastic or aluminum alloy resistant to corrosion, UV radiation and temperature fluctuations

Application
Start and end points of lines, corners of the route, elevation differences

Support clamps
Prevent cable slack

Technical specifications

Parameters	806-01-35	806-01-69	806-01-73	SNR-PA-05	SNR-PA-06	SNR-PA-07	VS-ADSS	SNR-PA-10-500	SNR-PA-1500	SNR-SN-H3	N-15	806-02-04-10	ODWAC-22	ODWAC-HY
Maximum allowable load, kN	1.8			2.0		5.0	6.0	1.8	1.5		0.6	0.8	1.2	0.8
Clamping element diameter, mm	3-5	6-9	4x7 (HxW)	2-5	3-6	4-7	8-20	2-5	12-14	5-7	Round up to 5 Flat up to 4x7	Height up to 4 Width up to 11	5x12 (HxW)	Height up to 5 Width up to 13
Material	Plastic			Plastic / ZAM alloy	Aluminum alloy / plastic		UV-resistant thermoplastic	Aluminum alloy	Aluminum alloy / plastic	Plastic			Galvanized steel	Steel / plastic
Hinge type	Galvanized steel cable			Stainless steel cable		Galvanized steel cable	Stainless steel cable	Galvanized steel cable		Galvanized steel wire	Steel	Plastic	Chrome-plated steel	Plastic
Operating temperature	-40°C – +50°C			-50°C – +60°C		-60°C – +40°C				-40°C – +50°C			-60°C – +70°C	-40°C – +50°C
Overall dimensions, mm	120x58x34			80x55			228x82x41	80x55	165x65x30	210x70x33	212x23x18	244x27x27	220	220x25x20
Weight, kg	0.15			0.8	0.12	0.16	0.4	0.3	0.37	0.1	0.05		0.04	

Spiral clamps

Spiral clamps are designed for anchor mounting of self-supporting optical cables (ADSS) installed on urban electrical networks (street lighting, ground transportation), building elements, and structures, when the span length exceeds 100 meters.

Cable vibration damping
Due to the special design of the spiral clamp

Large cable contact area
The spiral clamp has a large contact area with the cable, which gives high reliability of the communication line

Load sharing
the entire length of the clamp eliminates cable pinching

Protects the cable
from bending and grinding

Technical specifications

Parameters	TSO-2-Dmin/Dmax	SSO-2-Dmin/Dmax	TSO-4-Dmin/Dmax	SSO-4-Dmin/Dmax	TSO-6-Dmin/Dmax T	SSO-6-Dmin/Dmax	TSO-8-Dmin/Dmax T	SSO-8-Dmin/Dmax	TSO-12-Dmin/Dmax P	SSO-12-Dmin/Dmax P	TSO-15-Dmin/Dmax P	SSO-15-Dmin/Dmax P	TSO-20-Dmin/Dmax P	SSO-20-Dmin/Dmax P	TSO-25-Dmin/Dmax P	SSO-25-Dmin/Dmax P	TSO-35-Dmin/Dmax P	SSO-35-Dmin/Dmax P	TSO-45-Dmin/Dmax P	SSO-45-Dmin/Dmax P	TSO-60-Dmin/Dmax P	SSO-60-Dmin/Dmax P
Cable tensile strength, kN	2		4		6		8		12		15		20		25		35		45		60	
Length of power spiral Lc, mm	450-550	400-500	450-550		600-650	550-650	600-650	750-850	Protector 1100-1150 Clamp 850-900	Protector 1100-1150 Clamp 750-850	Protector 1100-1200 Clamp 850-950	Protector 1100-1200 Clamp 900-1000	Stamped thimble Protector 1650-1750 Clamp 950-1050	Thimble eye Protector 1650-1750 Clamp 1200-1300	Stamped thimble Protector 1850-1950 Clamp 1050-1150	Thimble eye Protector 1850-1950 Clamp 1250-1350	Cast thimble K-70 Protector 2050-2150 Clamp 1300-1400	Thimble eye Protector 2050-2150 Clamp 1300-1400	Cast thimble K-120 Protector 2400-2600 Clamp 1400-1500	Thimble eye Protector 2400-2600 Clamp 1300-1400	Cast thimble K-120 Protector 3100-3200 Clamp 1600-1800	Thimble eye Protector 3100-3200 Clamp 1650-1750
Weight of clamp (set), kg	0.1	0.04	0.2	0.1	0.4	0.15	0.5	0.2	1.2	0.7	1.4	0.8	2.4	1.7	2.7	2.2	3.2	2.4	5.1	3.9	8	5.8
Diameter Dmin/Dmax, mm	3.0/14.2				7.3/16.7				8.6/16.7		8.6/16.8		11.0/20.0		12.4/20.0		12.4/21.0		12.4/20.5	12.4/19.5	14.4/19.5	

TSO/SSO-
Tension clamp/Support spiral clamp

-5-
For cables with a load of (kN)

-Dmin/Dmax
Minimum/Maximum diameter

T
Thimble (if included in the kit)

P
Protector (if included in the kit)

SNR-FTTH-FDB-04T

SNR-FTTH-FDB-04E

SNR-FTTH-FDB-08J

SNR-FTTH-FDB-08A

SNR-FTTH-FDB-08K

SNR-FTTH-FDB-12T

SNR-FTTH-FDB-16A

SNR-FTTH-FDB-24A

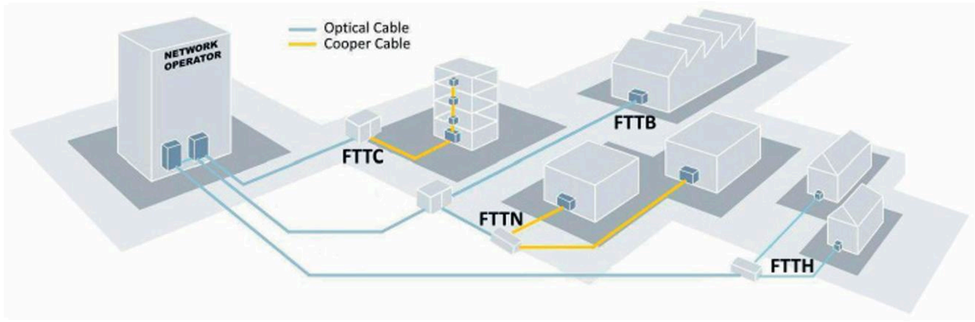
FTTH distribution boxes

FTTH (Fiber to the Home) is a technology where optical fiber is extended directly to the apartment. The FTTH system is cost-effective due to passive optical networks, which simplify testing, measurement, and monitoring. It operates on the same principles as conventional fiber optic networks (WOLS), allowing the use of standard equipment. A terminal is installed in the apartment, connected to a PC via a cable. FTTH is most commonly built on the basis of PON (Passive Optical Network).

PON ensures a reliable gigabit connection, particularly in areas with low subscriber density (such as private houses, cottages, etc.).

FTTH

Model	04T	04E	08J	08A	08K	12T	16A	24A
Number of cable entries	1	4	2					
Permissible diameter of inserted cables, mm	up to 9	up to 8	up to 12	up to 10	up to 9	up to 15	up to 13	up to 16
Number of terminals of subscriber cable	4		8			12	16	24
Number of adapter installation locations	4 SC/LC Duplex		8 SC/LC Duplex		10 SC/LC Duplex	12 SC/LC Duplex	16 SC/LC Duplex	24 SC/LC Duplex
Possibility of splitter placement	Available							
Degree of protection	IP 65				IP 67	IP 65		



FTTx architecture (Fiber to the Home - FTTH, Fiber to the Building - FTTB, Fiber to the Curb - FTTC) provides solutions for the development of modern broadband networks.

Optical couplings

An optical splice closure is a device designed for connecting any type of optical cables during their installation in the ground, cable ducts, tunnels, manholes, as well as on supports for aerial communication and power lines.

With mechanical sealing

Sealing in such splice closures is carried out using special seals with rubber gaskets. The installation process of this type of closure is much simpler, as it does not require heat shrinking.

For heat shrinkage

Sealing is performed using heat shrink tubes, which, when heated, contract around the optical inputs of the splice closure, providing reliable sealing.

Basic requirements for couplings

Waterproofing

The splice closure must protect the optical fiber from moisture, meeting the IP68 standard (able to withstand prolonged immersion at 1 meter depth). The sealing of the inputs is done using heat shrink tubes, sealant gaskets, or sealants. The cover is sealed with a rubber or silicone ring and is fixed with bolts, latches, or screwed on.

Strength

The housing made of durable plastic with ribbed reinforcements protects the splice closure from mechanical impacts and moisture.

Ease of installation

The splice closure must provide easy access to fibers, splice trays, and sealing elements, which speeds up the installation and repair of fiber optic networks.

Cable entries

It is ideal when each port accommodates a single cable without unnecessary openings. Universal splice closures support various input configurations.

Welded joints

The number of welded joints depends on the number of splice trays and KFPJ sleeves. Modern splice closures allow the installation of additional trays and the placement of sleeves in two layers.

Coupling designs

Push-through couplings

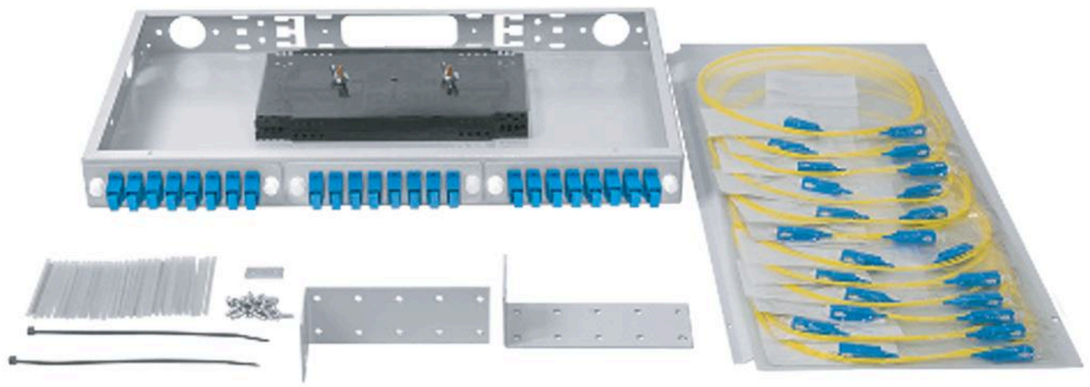
Equipped with input and output on opposite sides, they are most commonly used for splicing optical fibers in water bodies.

Universal splice closures

are used both as inline and terminating closures, as they have both plugs and cable entries on one side.

Terminating splice closure

are characterized by having both input and output on the same side.



Rack-mounted optical cross-connects

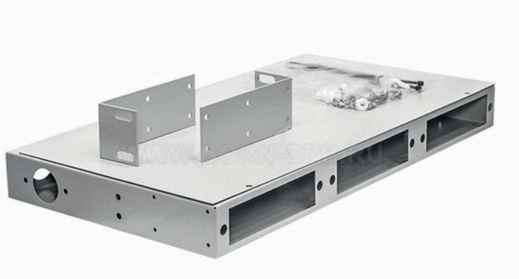
SNR optical cross-connects are suitable for both rack mounting and use in various rooms. Depending on the installation conditions, they are divided into wall-mounted and rack-mounted types. A wide range of designs allows for quick and convenient installation, ensuring reliability and compliance with the requirements of various tasks.

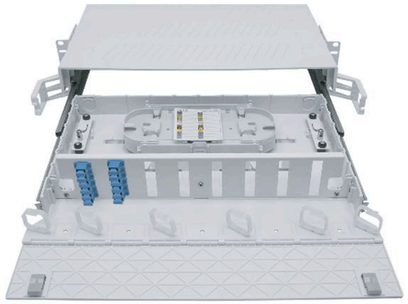
- Depth adjustment
- Replaceable strip replacement capability
- Color options - gray or black

19" rack-mounted optical cross-connects

Model	SNR-ODF-24R-LE	SNR-ODF-32RE-SC	SNR-ODF-32RE-FC	SNR-ODF-48R-LE
Name	Optical crossover 19", up to 24 ports (without strips)	Optical crossover 19" up to 32 SC ports	Optical crossover 19", up to 32 FC ports	Optical crossover 19" up to 48 ports
Type	Fixed			
Height, U	1			2
Number of ports	24			48
Port type	Depending on the installed strips	SC / LC Duplex	FC / ST	Depending on the installed strips

Model	SNR-ODF-96R-LE	SNR-ODF-144R-LE	SNR-ODF-24RPD-SC	SNR-ODF-48RPD-SC
Name	Optical crossover 19" up to 96 ports	Optical crossover 19" up to 144 ports	Optical crossover 19" for 24 SC ports, plastic retractable, 1U	Optical crossover 19" for 48 SC ports, plastic retractable, 2U
Type	Fixed		Retractable	
Height, U	3	4	1	2
Number of ports	96	144	24	48
Port type	Depending on the installed strips	Depending on the installed strips	SC / LC Duplex	SC / LC Duplex





Sliding optical cross-connects

Sliding optical cross-connects have an advantage over fixed ones in terms of ease of operation and installation. They are made from high-quality plastic with metal guides. To protect the patch cords connected to the cross-connect sockets, the housing is equipped with a shelf-organizer. Gaskets help securely fix the cable and prevent friction against the cross-connect housing.

Wall-mounted optical cross-connects

Wall-mounted optical cross-connects are installed indoors and provide reliable protection for incoming cables. These cross-connects come in various sizes and designs, in contrast to rack-mounted cross-connects.

Two cable glands for OF diameters up to 13 mm	Compact size	Removable cover

SNR-ODF-16WL

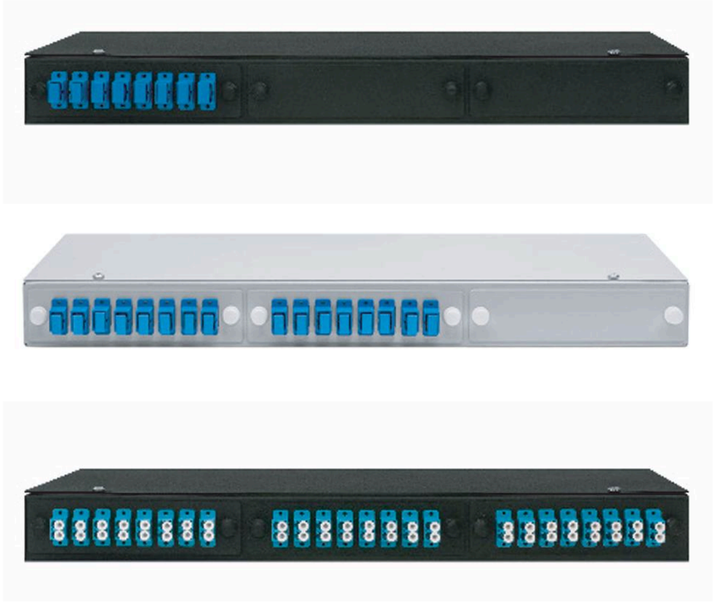
This cross-connect is structurally divided into two parts (a termination part and a cable part), with 4 cable entries, making it easy to install the cable and perform optical line connections. Additionally, it allows the installation of optical fibers without the need to cut the modules.

- Transit cable installation possible
- Replaceable optical adapter mounting panels
- Four cable entries
- Lock with key, providing protection against unauthorized access

SNR-ODF-8WP

SNR plastic wall-mounted cross-connects have 6, 8, and 12 SC ports for adapter installation. Their lightweight and simple design make installation easy and convenient.

- Light weight and compact dimensions
- Splice tray, KFPJ sleeves, and dowels included



Fully equipped optical cross-connects

Optical cross-connects can be configured independently or ordered as a complete solution. We offer fully equipped cross-connects in both rack-mounted and wall-mounted types. In these cross-connects, all necessary components will be included in the delivery within the housing.

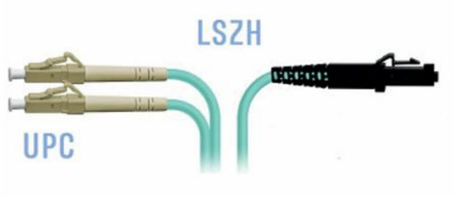
- Ease of installation
- Metal thickness: 1 mm
- Possibility of custom configurations
- The cross-connect capacity allows the installation of 1-2 splice trays
- Adjustable installation depth in the rack or cabinet

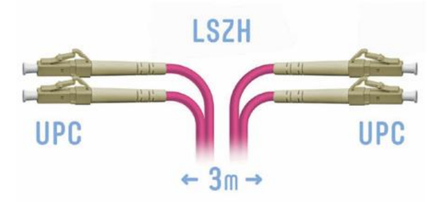
Fully equipped 19" optical cross-connects

Model	SNR-ODF-24R-8SC-P	SNR-ODF-24R-8SC	SNR-ODF-24R-8SC/APC-P	SNR-ODF-24R-8LC-P	SNR-ODF-24R-8FC-P
Name	19" optical cross-connect (OCC), 8 SC port kit (with sockets and pigtails)	19" optical cross-connect (OCC), 8 SC port kit (with sockets)	19" optical cross-connect (OCC), 8 SC/APC port kit (with sockets and pigtails)	19" optical cross-connect (OCC), 8 LC port kit (with sockets and pigtails)	19" optical cross-connect (OCC), 8 FC port kit (with sockets and pigtails)
Height, U	1				
Number and type of ports	8SC		8SC / APC	4LC Duplex	8FC
Availability of pigtails	Yes	No	Yes		

Model	SNR-ODF-24R-16SC-P	SNR-ODF-24R-16LC-P	SNR-ODF-24R-16FC-P	SNR-ODF-24R-24SC-P	SNR-ODF-24R-24LC-P
Name	19" optical cross-connect (OCC), 16 SC port kit (with sockets and pigtails)	19" optical cross-connect (OCC), 16 LC port kit (with sockets and pigtails)	19" optical cross-connect (OCC), 16 FC port kit (with sockets and pigtails)	19" optical cross-connect (OCC), 24 SC port kit (with sockets and pigtails)	19" optical cross-connect (OCC), 24 LC port kit (with sockets and pigtails)
Height, U	1				
Number and type of ports	16SC	8LC Duplex	16FC	24SC	12LC Duplex
Availability of pigtails	Yes				

Model	SNR-ODF-24R-24FC-P	SNR-ODF-48R-SC-P	SNR-ODF-96R-SC-P
Name	19" optical cross-connect (OCC), 24 FC port kit (with sockets and pigtails)	19" optical cross-connect (OCC), 48 SC port kit (with sockets and pigtails)	19" optical cross-connect (OCC), 96 SC port kit (with sockets and pigtails)
Height, U	1	2	
Number and type of ports	24FC	48SC	96SC
Availability of pigtails	Yes		



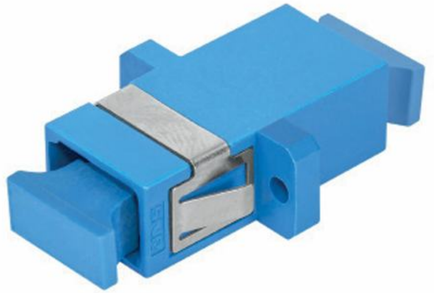


Optical patch cords

Passive optical components include optical connectors, sockets, cords, distribution panels, cross-connect cabinets, splice closures, optical splitters, attenuators, wavelength division multiplexing (WDM) systems, and so on. In other words, these are all the components necessary to ensure the transmission of optical signals through optical fiber cables from the transmitter to the receiver.

Optical patch cords

Connector	End Face	Mode	Fiber Type	Diameter	Core QTY	Jacket
		SM	9/125	0.9	Simplex	PVC
SC		OM1	62.5/125	2.0	Duplex	LSZH
LC	PU	OM2	50/125	3.0	4-24 core bundie	Aromored
FC	UPC	OM3				
ST	APC	OM4				
MTRJ		OM5				
E 2000						



Optical passive components

An optical adapter (socket) is a device used for detachable connections of optical cords with different types of connectors in network equipment, switching devices, and measurement instruments. It ensures a reliable contact and stable connection.

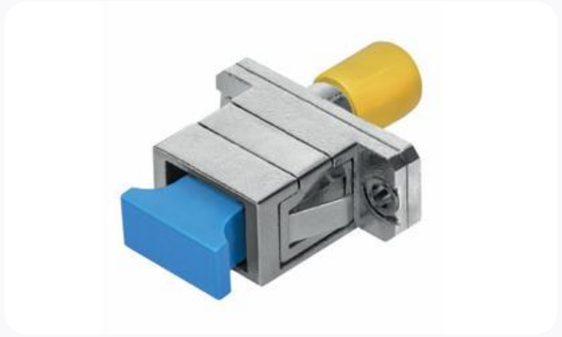
The SC adapter is one of the most common due to its high-quality connection, making it popular in backbone networks. It is made of durable plastic, resistant to damage. It is compatible with various equipment but not suitable for smaller connectors, such as LC. The SC connector has a square shape, is secured with a latch (without the need for twisting), and is marked with color coding.

Through optical components

They are designed to provide detachable connections of optical cords with connectors of the same type in switching and distribution devices, active network equipment, and measurement instruments.

The designation of the connecting adapters corresponds to the type of connectors being connected (FC, SC, LC, ST, etc.).





Transition components

Optical adapters connect cords with different types of connectors (e.g., FC/SC) when connecting active equipment to an existing network. They have a metal or plastic housing, standard fixators for secure attachment, and keyways to prevent axial displacement of the ferrules.

Adapters ensure precise connection and centering of SC, LC, FC, and ST connectors, including their combinations. Centering sleeves made of bronze are used for multimode adapters (MM, Multi-Mode), and ceramic sleeves are used for single-mode adapters (SM, Single-Mode). In adapters for connectors with different ferrule diameters (SC-LC, LC-FC), two sleeves and a housing with high geometric precision are used.

Attenuators

They are passive components used to reduce the optical power falling on the photodetector to avoid receiver saturation and to equalize optical power levels in passive fiber optic networks.

This need arises both in digital and analog signal transmission. High signal levels in digital systems can lead to saturation of the receiving optoelectronic module, while in analog systems, they can cause nonlinear distortions.

About the company

Since its establishment in 2006, the company has become one of the leading global suppliers of networking and switching equipment, with its own research and development (R&D) and manufacturing facilities.

We offer a wide range of our own products and turnkey solutions to meet the needs of our clients.

- Data transmission networks and corporate IT infrastructure
- Solutions for mobile operators
- Optical transport networks (DWDM)
- Data center solutions
- Cloud solutions and network security
- Voice and unified communication solutions

Our commitment to continuous development and innovation enables us to provide our clients with the most modern and efficient solutions.

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