CORNIX

PRODUCT DATASHEET

CNX-DS-F06-003 · REV 1.0 · 06 OCTOBER 2026

FIBER OPTIC CABLE · OS2 SINGLE-MODE OUTDOOR FIBER CABLE

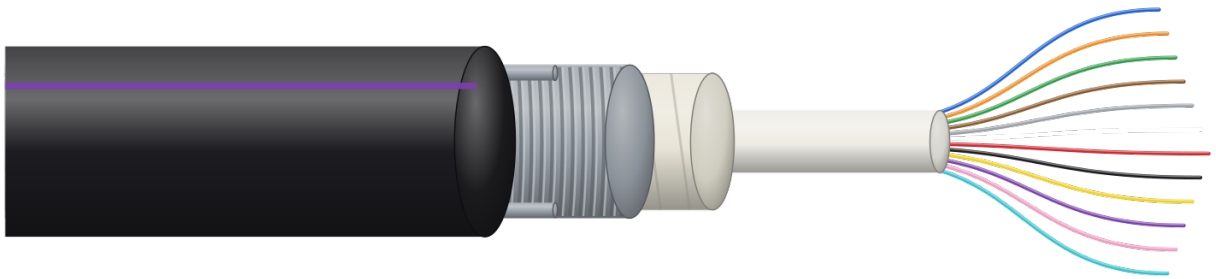
OS2 Single-Mode Outdoor Armored Fiber Cable, 12F (central loose tube, GYXTW type)

SINGLE-MODE · G.652.D · LOOSE TUBE · DUCT & ARMORED

PART NO. **CX-FB-OS2-12-OD-ARM**

Also marked on products / QR labels as: CX-FC-SM-OSP-12-ARM

PRODUCT ILLUSTRATION



12	0.35 dB/km	10.0 ± 0.3 mm	600 N / 1500 N
FIBER COUNT	ATTENUATION @ 1310 NM (CABLED)	CABLE OUTER DIAMETER	TENSILE LOAD LONG / SHORT TERM

OVERVIEW

Loose-tube single-mode cable developed for outside-plant routes between buildings, campus backbones and access networks. Non-armored PE versions are designed for duct installation; steel-tape armored versions add mechanical and rodent protection for direct-buried and demanding routes where applicable.

- ITU-T G.652.D single-mode fiber in gel-filled loose tubes
- Corrugated steel tape armor for crush and rodent protection (ARM)
- HDPE / PE outer sheath for outdoor duct and direct-buried routes
- Factory meter marking every 1 m
- OTDR test report supplied with every drum

APPLICATIONS

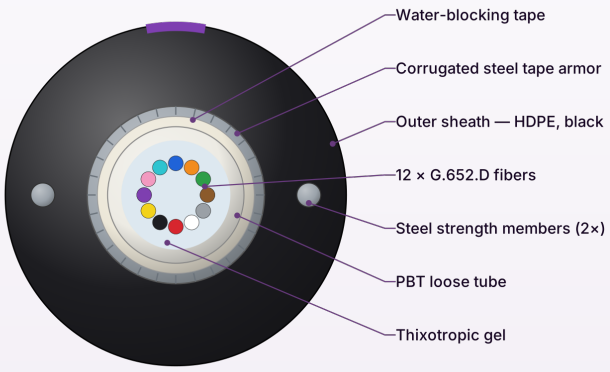
- Campus and inter-building backbones
- Duct and conduit installation
- Armored versions for direct-buried and rodent-exposed routes

STANDARDS & COMPLIANCE

ITU-T G.652.D · IEC 60793 · IEC 60794 · RoHS compliant

Technical Specifications

OS2 Single-Mode Outdoor Armored Fiber Cable, 12F (central loose tube, GYXTW type) · CX-FB-OS2-12-OD-ARM



CROSS-SECTION (ILLUSTRATIVE, NOT TO SCALE)

GENERAL

Fiber count	**12**

CONSTRUCTION

Cable type	**GYXTW-12B1.3 — central loose tube, armored**
Loose tube	**PBT, natural, Ø 2.4 ± 0.1 mm, filled with thixotropic gel**
Strength members	**2 × 1.0 mm phosphated steel wires**
Water blocking	**Water-blocking tape**
Armor	**Corrugated steel tape**
Outer sheath	**HDPE, black; thickness 3.0 ± 0.1 mm**
Identification stripe	**Violet**
Fiber color sequence	**Blue, Orange, Green, Brown, Gray, White, Red, Black, Yellow, Violet, Pink, Aqua**
Jacket color	**Black**

OPTICAL CHARACTERISTICS

Fiber type	**Single-mode 9/125 µm, ITU-T G. 652.D (OS2)**
Max. attenuation @ 1310 nm (cabled)	**0.35 dB/km**
Max. attenuation @ 1550 nm (cabled)	**0.21 dB/km**
Mode field diameter @ 1310 / 1550 nm	**9.2 ± 0.4 µm / 10.4 ± 0.5 µm**
Cable cut-off wavelength	**≤ 1260 nm**
Chromatic dispersion @ 1550 / 1625 nm	**≤ 18 / ≤ 22 ps/(nm·km)**
PMD — max. individual / link design value	**≤ 0.1 / ≤ 0.06 ps/√km**
Cladding diameter	**125 ± 0.7 µm**
Coating diameter	**235 – 250 µm**

MECHANICAL

Tensile load — long / short term	**600 N / 1500 N**
Crush resistance — long / short term	**300 N/100 mm / 1000 N/100 mm**
Min. bend radius — static / dynamic	**10 × OD / 20 × OD**

PHYSICAL

Cable outer diameter	**10.0 ± 0.3 mm**
Cable weight	**approx. 91.0 kg/km**

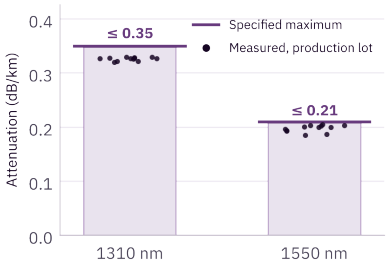
ENVIRONMENTAL

Installation temperature	**-20 °C to +60 °C**
Operating temperature	**-40 °C to +70 °C**

Performance, Quality & Ordering

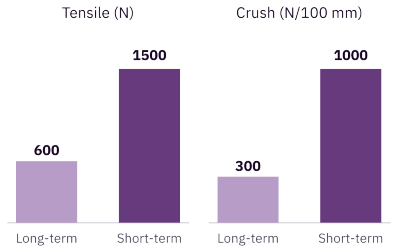
CX-FB-OS2-12-OD-ARM

ATTENUATION PERFORMANCE

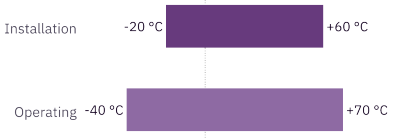


Measured values: production lot May 2026, every fiber tested (GYXTW-12B1.3).

MECHANICAL PERFORMANCE



TEMPERATURE RANGE



PRODUCTION TEST REPORT — GYXTW-12B1.3, DRUM LENGTH 4,000 M, 12 FIBERS TESTED (MAY 2026)

OTDR TESTED 100%

Test item	Requirement	Min	Avg	Max	Result
Attenuation @ 1310 nm (dB/km)	≤ 0.35	0.320	0.326	0.330	PASS
Attenuation @ 1550 nm (dB/km)	≤ 0.21	0.185	0.197	0.205	PASS
Sheath, ID marking, appearance, packing	Visual	Inspected			PASS

Every drum ships with its own OTDR test report sealed in a weatherproof pouch, with sequential meter marking every 1 m.

ORDERING INFORMATION

CX	FB	OS2	12	OD	ARM
CORNIX	Fiber cable	Single-mode G.652.D	12 fibers	Outdoor	Steel armored

Part number	Description
CX-FB-OS2-04-OD-ARM	OS2 Single-Mode Outdoor Armored Fiber Cable, 4F (central loose tube, GYXTW type)
CX-FB-OS2-08-OD-ARM	OS2 Single-Mode Outdoor Armored Fiber Cable, 8F (central loose tube, GYXTW type)
CX-FB-OS2-12-OD-ARM	**OS2 Single-Mode Outdoor Armored Fiber Cable, 12F (central loose tube, GYXTW type)**
CX-FB-OS2-24-OD-ARM	OS2 Single-Mode Outdoor Armored Fiber Cable, 24F (central loose tube, GYXTW type)
CX-FB-OS2-48-OD-ARM	OS2 Single-Mode Outdoor Armored Fiber Cable, 48F (stranded loose tube, GYTS type)
CX-FB-OS2-96-OD-ARM	OS2 Single-Mode Outdoor Armored Fiber Cable, 96F (stranded loose tube, GYTS type)
CX-FB-OS2-04-OD-PE	OS2 Single-Mode Outdoor Duct Fiber Cable (GYFTY), 4F, PE

13 part numbers in this family — full list in the family datasheet.

Request a quote or technical support

Datasheets, test reports and samples available on request

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cornixglobal.com

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