

1. General Description

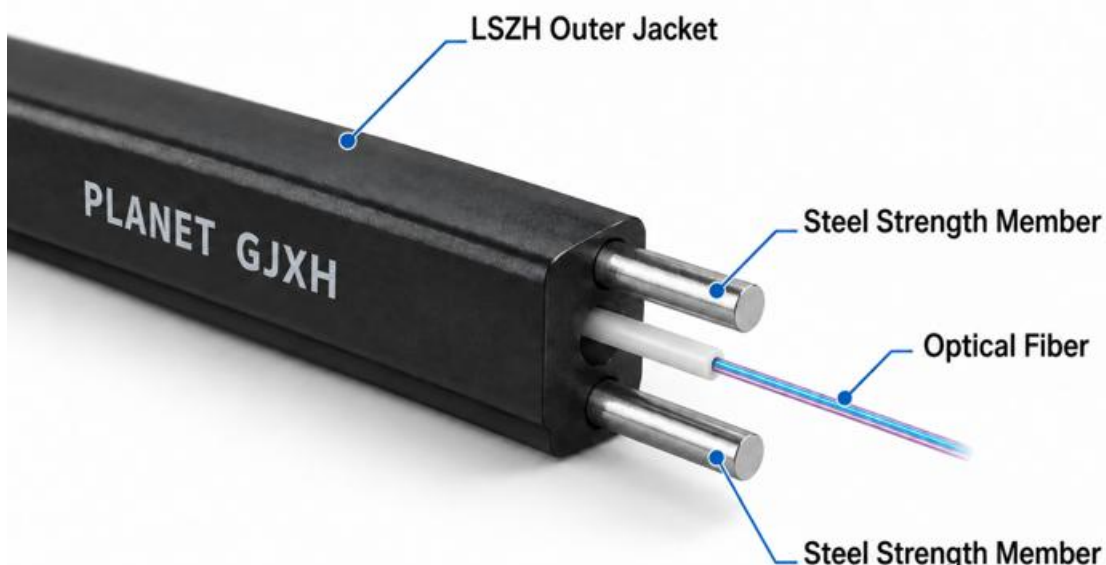
PLANET GJXH is a flat bow-type indoor FTTH drop cable designed for subscriber access and last-meter fiber connections inside residences, offices and buildings. The standard configuration uses bend-insensitive OS2 G.657.A2 fiber positioned between two parallel metallic steel strength members and protected by a flame-retardant LSZH outer jacket.

The steel-reinforced design provides increased mechanical support while retaining a compact, easy-strip drop profile for protected indoor routing from the FTB / fiber outlet toward the ONT or subscriber equipment. G.657.A1 and OM3 / OM4 / OM5 fiber versions may be supplied only as approved project options; OS2 G.657.A2 remains the recommended FTTH configuration.

2. Construction

Parameter	Specification
Fiber Type	OS2 G.657.A2 bend-insensitive fiber standard / recommended. G.657.A1 optional. OM3 / OM4 / OM5 50/125 µm available only upon approved project request.
Fiber Count	1F, 2F or 4F standard family configurations.
Cable Profile	Flat bow-type / butterfly indoor FTTH drop cable.
Strength Members	Two parallel phosphated or galvanized steel wires; metallic reinforcement, typically about 0.45 mm diameter subject to approved factory drawing.
Outer Jacket	Virgin LSZH, flame-retardant, low-smoke and halogen-free; black or white according to order.
Cable Marking	Sequential length marking and PLANET GJXH / fiber count / fiber type / production information according to approved artwork.

OS2 / OM3 / OM4 / OM5 G.657.A2 Standard	INDOOR FTTH Drop	METALLIC Steel Strength	LSZH Flame Retardant
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3. Mechanical & Environmental Characteristics

Parameter	Minimum Requirement
Operating / Storage Temperature	-20°C to +60°C
Installation Temperature	-10°C to +50°C
Minimum Bend Radius - Dynamic	30 mm
Minimum Bend Radius - Static	15 mm
Tensile Strength	≥ 200 N short term / ≥ 100 N long term
Crush Resistance	≥ 1000 N/100 mm short term / ≥ 500 N/100 mm long term
Metallic Elements	Two parallel steel strength members - metallic construction
Installation Environment	Protected indoor FTTH routes; not intended for direct burial or exposed outdoor installation.

4. Optical Characteristics

Parameter	OS2 / G.657.A2	OM3 / 50/125	OM4 / 50/125	OM5 / 50/125
Attenuation @ 850 nm	—	≤ 3.0 dB/km	≤ 3.0 dB/km	≤ 3.0 dB/km
Attenuation @ 1300 / 1310 nm	≤ 0.35 dB/km @1310	≤ 1.0 dB/km @1300	≤ 1.0 dB/km @1300	≤ 1.0 dB/km @1300
Attenuation @ 1550 nm	≤ 0.21 dB/km	—	—	—
Effective Modal Bandwidth @ 850 nm	—	≥ 2000 MHz·km	≥ 4700 MHz·km	≥ 4700 MHz·km
Effective Modal Bandwidth @ 953 nm	—	—	—	≥ 2470 MHz·km
Fiber Standard	ITU-T G.657.A2 / IEC 60793-2-50	IEC 60793-2-10 A1a.2	IEC 60793-2-10 A1a.3	IEC 60793-2-10 A1a.4

5. Recommended Applications

- Indoor FTTH subscriber drop connection
- FTB / fiber outlet to ONT connection
- Residential and commercial internal fiber routing
- Protected wall, ceiling, raceway and conduit installation
- Indoor drop applications where metallic steel reinforcement is acceptable

6. Typical Fiber Count and Dimensional Guide

The following values are design references for standard production. Final dimensions, cable weight and steel-wire size shall be confirmed on the approved factory drawing before mass production.

Fiber Count	Construction	Typical O.D. / Size	Typical Weight	Typical Use
1F	Bow-type drop	2.0 × 3.0 ± 0.2 mm	≈ 10.5 kg/km	Standard FTTH drop
2F	Bow-type drop	2.0 × 3.0 ± 0.2 mm	≈ 10.5 kg/km	Dual-fiber FTTH
4F	Bow-type drop	Project-specific	Project-specific	Small multi-fiber indoor drop

7. Standards Compliance

- IEC 60794-2 series and IEC 60794-2-20 as applicable to indoor optical drop cables
- ITU-T G.657.A2 standard / G.657.A1 optional for bend-insensitive OS2 single-mode fiber
- IEC 60793-2-10 for OM3 / OM4 / OM5 multimode fiber when supplied as a project-specific option
- IEC 60332-1-2 flame propagation; IEC 60754-1/2 and IEC 61034-2 for approved LSZH construction
- RoHS / REACH compliance according to approved production declaration; CPR / EN 50575 only when separately certified

8. Ordering Information

Part Number: PL-GJXH

Typical ordering description: PLANET GJXH - 2F - OS2 G.657.A2 - Indoor Bow-Type FTTH Drop Cable - Two Parallel Steel Strength Members - LSZH Jacket

Fiber type options: OS2 G.657.A2 standard; G.657.A1, OM3, OM4 and OM5 available upon approved project request. Fiber count, steel-wire specification, jacket color, reel length and approved options shall be identified in the quotation and final production release.

9. Enhanced Factory Requirements (Binding to Manufacturer)

Control Item	Binding Requirement
Raw Materials	Use only approved optical fiber, qualified phosphated / galvanized steel strength wires and virgin LSZH jacket compound. Recycled or reprocessed jacket material is not allowed.
Fire / LSZH Evidence	LSZH and flame-retardant claims shall be supported by valid IEC 60332-1-2, IEC 60754-1/2 and IEC 61034-2 evidence for the supplied construction when required.
Optical Testing	100% fiber continuity and attenuation verification before shipment; OTDR traces shall be available upon request for production lots.
Dimensional Control	Fiber placement, steel-wire symmetry, cable dimensions, jacket thickness / concentricity and cable geometry shall be controlled within the approved production drawing.
Traceability	Each production lot / reel shall be traceable by production date, lot number, fiber batch and final inspection record for minimum 15 years.
Quality Assurance	Factory shall maintain in-process and final inspection. PLANET reserves the right to audit production and verify records.
Change Control	No change in fiber brand/type, steel-wire material, jacket compound, dimensions, performance or labeling is permitted without prior written approval from PLANET.
Steel Strength-Member Control	The approved GJXH design shall use two parallel metallic steel strength members. FRP-only construction shall be identified as GJXH, not GJXH.

25-Year System Warranty

Subject to proper installation and certified components usage.

Part Number	Description
PL- GJXH-xxS2	FTTH Drop Fiber Optic Cable Single Mode OS2
PL- GJXH-xxM3	FTTH Drop Fiber Optic Cable Multi Mode OM3
PL- GJXH-xxM4	FTTH Drop Fiber Optic Cable Multi Mode OM4
PL- GJXH-xxM5	FTTH Drop Fiber Optic Cable Multi Mode OM5

XX: Number of Core