Planet
Structure Cabling Systems

Indoor FTTH Bow-Type Drop | 1F–4F G.657.A2 Standard | Two Parallel FRP Strength Members | LSZH Outer Jacket

1. General Description

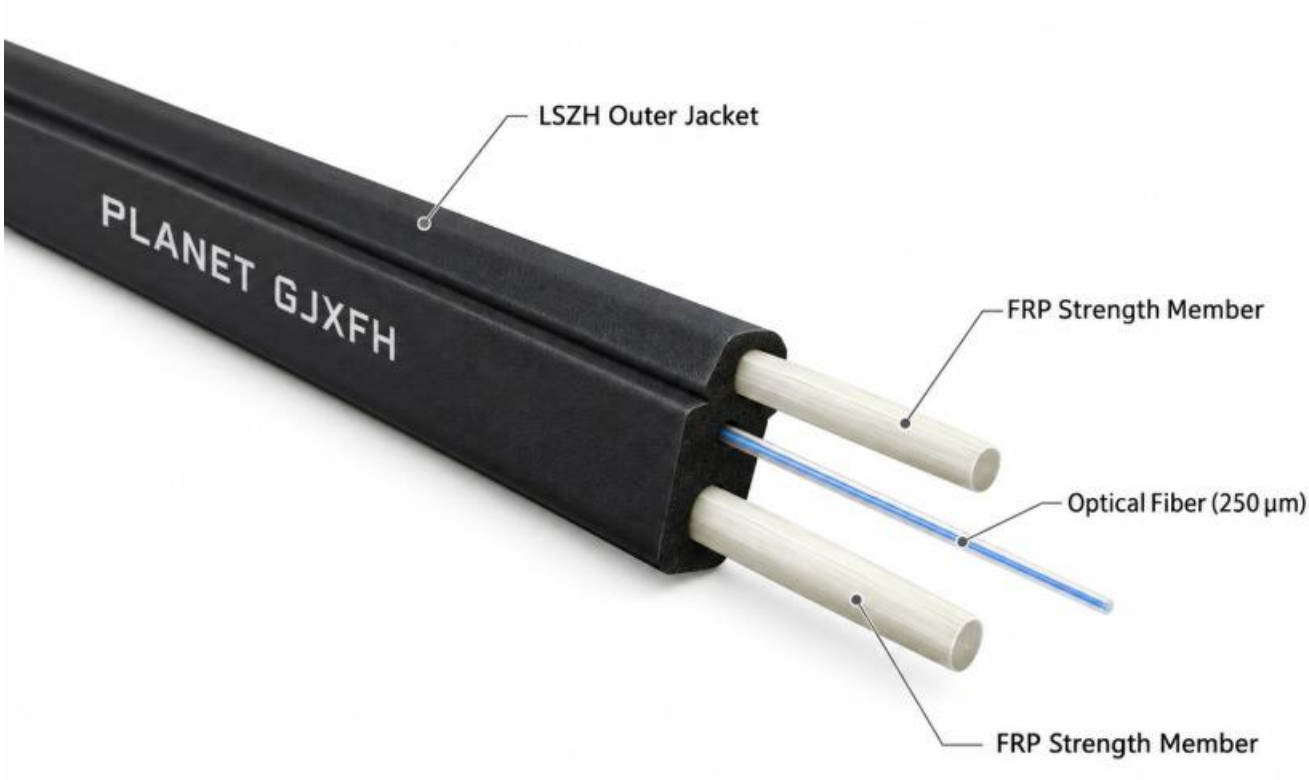
PLANET GJXFH is a flat bow-type indoor FTTH drop cable designed for last-meter fiber connections inside residences, offices and buildings. The standard configuration uses bend-insensitive OS2 G.657.A2 fiber positioned between two parallel FRP dielectric strength members and protected by a flame-retardant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

The all-dielectric design eliminates metallic elements and supports easy stripping and 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 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 FRP dielectric strength members; symmetrical and fully non-metallic.
Outer Jacket	Virgin LSZH, flame-retardant, low-smoke and halogen-free; black or white. UV-resistant LSZH grade available where specified.

OS2 / OM3 / OM4 / OM5	INDOOR	ALL-DIELECTRIC	LSZH
G.657.A2 Standard	FTTH Drop	FRP Strength	Flame Retardant



3. Mechanical & Environmental Characteristics

Parameter	Minimum Requirement
Operating Temperature	-20°C to +70°C
Installation Temperature	-10°C to +50°C
Storage Temperature	-20°C to +70°C
Minimum Bend Radius - Installation	20 × cable thickness
Minimum Bend Radius - Static	10 × cable thickness
Tensile Strength	≥ 200 N short term / ≥ 80 N long term
Crush Resistance	≥ 1000 N/100 mm short term
Metallic Elements	None - all-dielectric construction

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 last-meter connection
- FTB / fiber outlet to ONT connection
- Residential and office internal fiber routing
- Wall, ceiling, conduit and protected indoor routes
- All-dielectric drop applications requiring compact bend-insensitive fiber

6. Typical Fiber Count and Dimensional Guide

Typical dimensions are design guidance only. Final O.D. and weight shall be confirmed by 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	8.5 ± 10% kg/km	Single subscriber
2F	Bow-type drop	2.0 × 3.0 ± 0.2 mm	9.0 ± 10% kg/km	Standard FTTH drop
4F	Bow-type drop	2.0 × 3.5 ± 0.2 mm	10.5 ± 10% kg/km	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
- 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-GJXFH

Typical ordering description: PLANET GJXFH - 2F - OS2 G.657.A2 - Indoor Bow-Type FTTH Drop Cable - Two Parallel FRP 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, 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 FRP dielectric rods 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, FRP 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, FRP material, jacket compound, dimensions, performance or labeling is permitted without prior written approval from PLANET.
FRP Control	Two FRP members shall be symmetrical, continuous and free from metallic substitution unless explicitly approved in writing by PLANET.

25-Year System Warranty	Subject to proper installation and certified components usage.

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

XX: Number of Core