

1. General Description

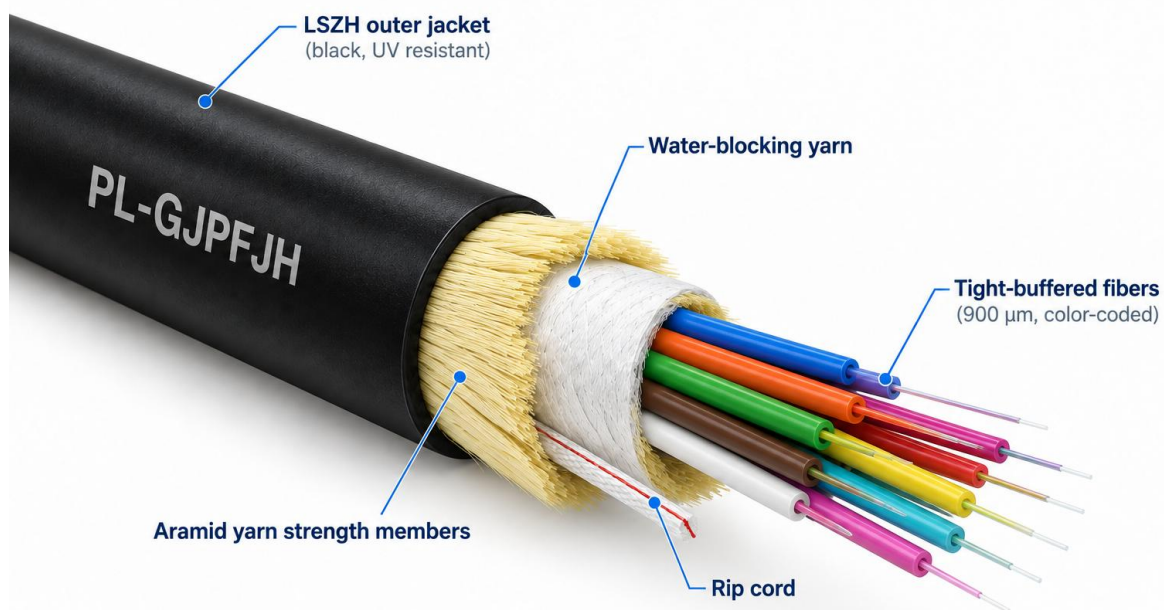
PLANET GJPFJH is an indoor/outdoor tight-buffered distribution cable intended for flexible routing, direct connectorization and building-distribution applications. The cable combines color-coded 900 µm tight-buffered fibers with aramid yarn reinforcement and a UV-resistant LSZH jacket suitable for indoor/outdoor transition.

Typical construction: multiple color-coded 900 µm tight-buffered fibers grouped within water-blocking yarn, protected by aramid yarn strength members and rip cord, all enclosed within a black UV-resistant LSZH outer jacket.

2. Construction

Parameter	Specification
Fiber Type	Single Mode G.657.A2 standard for superior bend performance. G.652.D, OM3 and OM4 versions may be supplied upon approved project request.
Fiber Count	Typical range 4F to 24F. Common counts: 4F, 6F, 8F, 12F and 24F.
Fiber Unit	900 µm tight-buffered, color-coded optical fibers.
Strength Members	Aramid yarn strength members for tensile support and flexibility.
Water Blocking	Water-blocking yarn / dry-core elements for indoor/outdoor transition use.
Rip Cord	Integrated rip cord for controlled sheath opening.
Outer Jacket	Black UV-resistant LSZH outer jacket, halogen-free and flame-retardant. Virgin jacket material only.
Cable Identification	Sequential length marking and PLANET / cable-type printing according to approved production artwork.

OS2 G.657.A2	INDOOR/OUTDOOR LSZH + UV	TIGHT-BUFFERED 900 µm	4F-24F Distribution
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3. Mechanical & Environmental Characteristics

Parameter	Minimum Requirement
Operating Temperature	-20°C to +70°C
Installation Temperature	-10°C to +50°C
Storage / Transport Temperature	-20°C to +70°C
Minimum Bend Radius (Installation)	20 × cable O.D.
Minimum Bend Radius (Static)	10 × cable O.D.
Tensile Strength	≥ 600 N short term / ≥ 200 N long term
Crush Resistance	≥ 1000 N/100 mm short term / ≥ 300 N/100 mm long term
Flame Performance	Suitable for LSZH/flame-retardant project requirement
UV Resistance	Suitable for protected outdoor exposure and indoor/outdoor transition

4. Optical Characteristics

Parameter	1310 nm	1550 nm
Maximum Attenuation	≤ 0.35 dB/km	≤ 0.21 dB/km
Chromatic Dispersion	≤ 3.5 ps/(nm·km)	≤ 18 ps/(nm·km)
Zero Dispersion Wavelength	1300 – 1324 nm	According to G.657.A2
Mode Field Diameter	9.2 ± 0.4 µm	10.4 ± 0.8 µm
PMD (M = 20, Q = 0.01%)	≤ 0.20 ps/√km	According to G.657.A2
Cut-off Wavelength	≤ 1260 nm	According to G.657.A2

5. Recommended Applications

- Indoor backbone and telecom room distribution
- Outdoor-to-indoor transition routes
- Direct connectorization and pigtail termination
- Campus building interconnection in protected routes
- Applications requiring flexible tight-buffered cable design

6. Typical Structure and Dimensional Guide

The following table is a design guide. Final outer diameter and weight depend on the confirmed fiber count and approved production design.

Fiber Count	Construction Type	Typical O.D. / Size	Typical Weight	Typical Use
4F	Tight-buffered distribution	5.5 ± 0.3 mm	25 ± 10% kg/km	Indoor/outdoor distribution
12F	Tight-buffered distribution	7.0 ± 0.4 mm	42 ± 10% kg/km	Telecom room / riser
24F	Tight-buffered distribution	8.8 ± 0.5 mm	68 ± 10% kg/km	Higher-count distribution

7. Standards Compliance

- IEC 60794 series – Optical fibre cables
- ITU-T G.657.A2 for bend-insensitive single mode fiber
- IEC 60332-1-2, IEC 60754-1/2 and IEC 61034 for LSZH jacket version when required
- RoHS compliance according to project requirement

8. Ordering Information

Part Number: PL-GJPFJH

Typical ordering description: PLANET GJPFJH – 12F – G.657.A2 – Indoor/Outdoor Tight-Buffered Distribution Cable – Aramid Yarn Strength Members – UV-Resistant LSZH Jacket

Fiber count, sheath marking, drum length and approved options shall be identified in the quotation, proforma invoice and final production release.

9. Enhanced Factory Requirements (Binding to Manufacturer)

Control Item	Binding Requirement
Raw Materials	Use only approved optical fiber, qualified buffer or loose-tube materials, qualified water-blocking materials, qualified aramid or glass yarn reinforcement, and virgin LSZH jacket compound. Recycled or reprocessed jacket material is not allowed.
Construction Control	Core geometry, yarn coverage, sheath thickness, dimensional tolerance and print quality shall be controlled to consistently meet this datasheet.
Performance Tests	Each approved design shall meet attenuation, tensile, crush, bending, water penetration, and visual inspection requirements.
Documentation	Provide Certificate of Conformance, drum-wise test results, OTDR traces upon request, raw material certificates, and packing list by drum number.
Traceability	Each drum shall be fully traceable by production date, lot number, fiber batch and final inspection record for minimum 15 years.
Quality Assurance	Factory shall maintain in-process inspection and final inspection. PLANET reserves the right to audit the factory and verify the records.
Change Control	No change in design, materials, dimensions or performance is permitted without prior written approval from PLANET.
Tight-Buffer Control	Tight-buffer concentricity, strip force and color identification shall be controlled to support direct connectorization and field termination.

25-Year System Warranty

Subject to proper installation and certified components usage.

Part Number	Description
PL- GJPFJH-xxS2	Indoor/Outdoor Fiber Optic Cable Single Mode OS2
PL- GJPFJH-xxM3	Indoor/Outdoor Fiber Optic Cable Multi Mode OM3
PL- GJPFJH-xxM4	Indoor/Outdoor Fiber Optic Cable Multi Mode OM4
PL- GJPFJH-xxM5	Indoor/Outdoor Fiber Optic Cable Multi Mode OM5

XX: Number of Core