

1. General Description

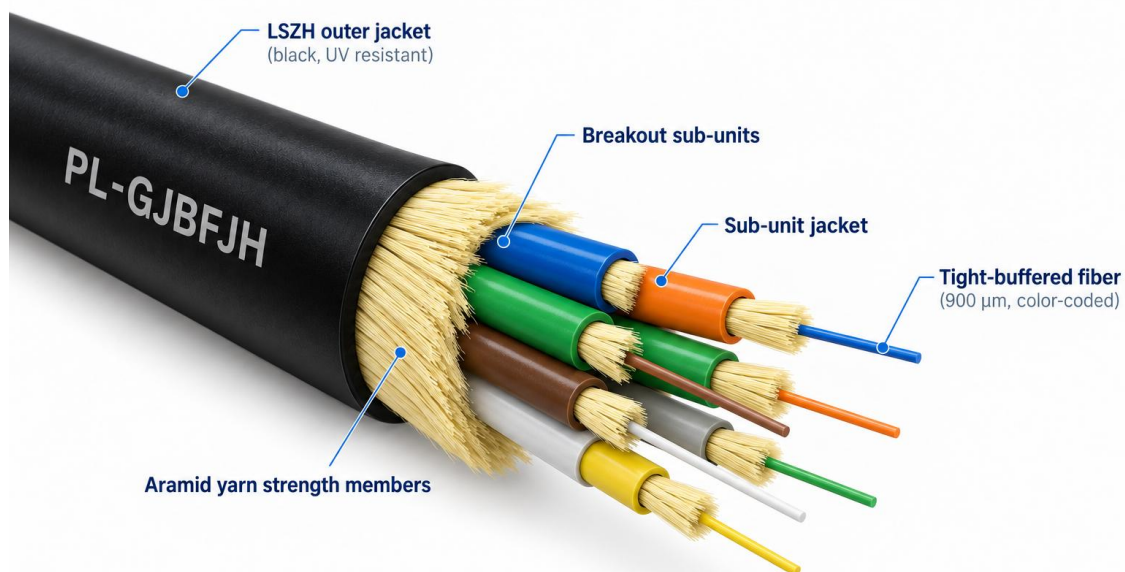
PLANET GJBFJH is an indoor/outdoor breakout fiber optic cable designed for direct termination and rugged distribution applications. The cable contains individual simplex breakout sub-units inside an overall jacket, allowing easy handling and direct connectorization without a separate fan-out kit in many applications.

Typical construction: multiple color-coded breakout sub-units, each containing a tight-buffered fiber and aramid reinforcement, grouped under an overall black UV-resistant LSZH jacket with additional aramid yarn support.

2. Construction

Parameter	Specification
Fiber Type	OS2 Single Mode G.657.A2 standard for superior bend performance. G.652.D available as an approved single-mode option. OM3 / OM4 / OM5 50/125 µm multimode fibers are available upon approved project request.
Fiber Count	Typical range 2F to 24F. Common counts: 2F, 4F, 6F, 8F, 12F and 24F.
Breakout Sub-Units	Individual simplex sub-units under the overall outer jacket.
Sub-Unit Structure	Each sub-unit includes 900 µm tight-buffered fiber, aramid yarn and colored sub-unit jacket.
Overall Strength Members	Aramid yarn strength members under the overall outer jacket.
Outer Jacket	Black UV-resistant LSZH outer jacket, halogen-free and flame-retardant. Virgin jacket material only.
Identification	Color-coded sub-units with sequential length marking and PLANET / cable-type printing according to approved production artwork.

OS2 / OM3 / OM4 / OM5 G.657.A2 Standard SM	INDOOR/OUTDOOR LSZH + UV	BREAKOUT Sub-Units	2F–24F Direct Termination
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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	≥ 800 N short term / ≥ 300 N long term
Crush Resistance	≥ 1000 N/100 mm short term / ≥ 300 N/100 mm long term
Handling Advantage	Breakout sub-units suitable for direct termination and field handling
UV Resistance	Suitable for protected outdoor exposure and indoor/outdoor transition

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 @ 953 nm	—	—	—	≤ 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	—	—	—
Attenuation @ 1625 nm	Project / fiber approval	—	—	—
Mode Field / Core Diameter	9.2 ± 0.4 μm @1310	50 ± 2.5 μm	50 ± 2.5 μm	50 ± 2.5 μm
Cladding Diameter	125.0 ± 0.7 μm	125 ± 1.0 μm	125 ± 1.0 μm	125 ± 1.0 μm
Coating Diameter	245 ± 10 μm	245 ± 10 μm	245 ± 10 μm	245 ± 10 μm
PMD	≤ 0.20 ps/√km	—	—	—
EMB @ 850 nm	—	≥ 2000 MHz·km	≥ 4700 MHz·km	≥ 4700 MHz·km
EMB @ 953 nm	—	—	—	≥ 2470 MHz·km

5. Recommended Applications

- Direct termination in telecom rooms and cabinets
- Equipment interconnection and campus distribution
- Indoor/outdoor transition where rugged sub-units are preferred
- Industrial or high-handling environments
- Building backbone and distribution with simplex breakout convenience

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
2F	Breakout cable	7.0 ± 0.4 mm	45 ± 10% kg/km	Direct equipment link
6F	Breakout cable	9.8 ± 0.5 mm	80 ± 10% kg/km	Indoor/outdoor direct termination
12F	Breakout cable	12.0 ± 0.6 mm	125 ± 10% kg/km	Backbone / cabinet interconnection
24F	Breakout cable	15.5 ± 0.8 mm	210 ± 12% kg/km	Higher-density breakout distribution

7. Standards Compliance

- IEC 60794 series – Optical fibre cables
- ITU-T G.657.A2 for bend-insensitive single mode fiber
- IEC 60793-2-10 for OM3 / OM4 / OM5 multimode fiber when supplied
- 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-GJBFJH

Typical ordering description: PLANET GJBFJH – 6F – OS2 G.657.A2 / OM3 / OM4 / OM5 – Indoor/Outdoor Breakout Fiber Optic Cable – Individual Breakout Sub-Units – UV-Resistant LSZH Jacket

Fiber Type Options: OS2 G.657.A2 standard; G.652.D, OM3, OM4 and OM5 available upon approved project request.

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.
Breakout Sub-Unit Control	Sub-unit jacket thickness, aramid coverage, tight-buffer strip force and color sequence shall be controlled to support direct field termination and mechanical robustness.

25-Year System Warranty

Subject to proper installation and certified components usage.

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

XX: Number of Core