Planet
Structure Cabling Systems

Fiber Optic Patch Panel, Fixed Type

Fiber Optic Systems

Part Number: PL-FOPPFS48

Product Description:
Premium 19-inch 1U modular fiber patch panel designed for very high-density LC connectivity in data centers, MDF/IDF rooms and enterprise backbone systems. A six-module front-access architecture supports up to 144 fibers while maintaining organized routing, serviceability and controlled fiber bend radius.

Premium Features:
• 1U high-density 19-inch rack-mount chassis with six individually serviceable module positions.
• 96-fiber configuration: 4 × 24F LC modules; 144-fiber configuration: 6 × 24F LC modules.
• LC Duplex front interface with premium zirconia ceramic alignment sleeves; LC/UPC or LC/APC as selected.
• Front-removable modular cassettes/adapter modules for fast moves, adds, changes and maintenance.
• Supports splice-loaded modules or pre-terminated trunk cassettes; MPO/MTP rear interface available as a project option.
• Compatible with OS2, OM3, OM4 and OM5 systems; bend-insensitive fiber components available where required.
• Integrated rear/side cable entry, strain relief, tie-down points, grounding point, dust protection and clear port labeling.
• Protected internal routing designed to maintain ≥40 mm fiber-management radius unless the cable manufacturer requires more.

Applications: Data centers • MDF/IDF rooms • Enterprise backbone • Telecom rooms • Campus networks • High-density equipment rooms • FTTx/PON distribution

Technical Specifications:

Form Factor	19-inch rack mount, 1U, high-density modular chassis
Maximum Capacity	144 fibers / 72 × LC Duplex front connections
96F Configuration	4 × 24F LC modules = 96 fibers / 48 × LC Duplex
144F Configuration	6 × 24F LC modules = 144 fibers / 72 × LC Duplex
Module Density	24 fibers per module; front-removable / individually serviceable
Front Interface	LC Duplex; LC/UPC or LC/APC; premium zirconia ceramic sleeve
Rear Architecture	Splice/pigtail module or pre-terminated trunk cassette; MPO/MTP rear option by project configuration
Fiber Compatibility	OS2 (G.652.D / G.657.A1), OM3, OM4 and OM5
Chassis Material	Cold-rolled steel, nominal ≥1.2 mm, precision formed
Finish	Black powder coating, RAL 9005 or equivalent
Loaded Insertion Loss	≤0.20 dB typical, ≤0.30 dB max per mated LC connection, subject to approved loaded BOM
Return Loss - Loaded	SM UPC ≥50 dB; SM APC ≥60 dB; MM ≥35 dB, when supplied with qualified pigtails/connectors
Mating Durability	≥500 mating cycles for LC interface
Operating Temperature	-40°C to +75°C for passive chassis; loaded optical components per approved BOM
Relative Humidity	5-95% RH, non-condensing
Fiber Bend Management	Internal routing target ≥40 mm radius and never below cable/fiber manufacturer requirement
Cable Management	Rear/side entry, strain relief, tie-down points, routing rings and dedicated grounding point
Nominal Dimensions	Approx. 482.6 mm W × 300 mm D × 44.45 mm H; final production drawing governs

Design & Ordering Details:

Modular Chassis Architecture • Six front module positions in a 1U footprint. • 24-fiber LC module/cassette building block. • Modules can be removed individually without disturbing adjacent circuits. • Numbered ports and writable labeling field simplify administration.	**Available Factory Configurations** • PL-FOPHD96: 96-fiber loaded or unloaded configuration. • PL-FOPHD144: 144-fiber loaded or unloaded configuration. • OS2/OM3/OM4/OM5; LC/UPC or LC/APC as applicable. • Adapters, pigtails, splice sleeves and mounting hardware available as a complete kit.

Standards & Design References: ANSI/TIA-568.3-E • ISO/IEC 11801-1 • EN 50173-1 • IEC 61754-20 (LC interface) • IEC 61300 series (applicable optical/mechanical tests) • IEC 60794 practices for fiber cable handling • 19-inch rack dimensional practice

Compliance Options: RoHS / REACH documentation available subject to approved factory configuration and project requirement.