Price of optical splitter ports in corridors

Article Overview

The cost of optical splitter ports in corridor deployments varies widely, typically ranging from $10 to $50 per port depending on splitter type, split ratio, and enclosure.

Factors Affecting Price

1. Splitter Type:

o PLC (Planar Lightwave Circuit) Splitters are more precise and reliable, especially for high split counts (1x16, 1x32, 1x64), but they are more expensive due to complex manufacturing and integrated waveguide technology .
o FBT (Fused Biconical Taper) Splitters are cost-effective for small split counts (1x2, 1x4) and are cheaper than PLC splitters . 2. Split Ratio and Port Count:
o Higher split ratios (e.g., 1x32, 1x64) increase the cost per splitter but reduce the number of fibers needed in the network .
o Lower split ratios (1x2, 1x4) are cheaper per unit but may require more splitters to serve the same number of users. 3. Enclosure Type:
o ABS or LGX cassette boxes for corridor installations protect splitters and manage fiber routing .
o Rack-mount or wall-mount enclosures add to the cost but simplify installation and maintenance.
o Bare fiber splitters are cheaper but require splicing and additional protective enclosures. 4. Installation and Maintenance:
o Centralized splitting in a corridor may reduce fiber usage but requires larger enclosures and careful planning .
o Distributed splitting in multiple corridor points may increase the number of enclosures but allows easier access for maintenance.

Typical Price Ranges

o 1x2 or 1x4 FBT splitters: $10-$15 per port
o 1x8 or 1x16 PLC splitters: $15-$30 per port
o 1x32 or 1x64 PLC splitters: $25-$50 per port
o Enclosures (ABS/LGX/Wall-mount): $50-$200 per box depending on port density and environmental protection These prices are indicative and can vary based on supplier, quantity, and regional market conditions. For corridor deployments, the total cost per port includes both the splitter and the enclosure, as well as any splicing or connectorization required.

Recommendations

o For high-density corridor deployments, PLC splitters in LGX or ABS enclosures are preferred for reliability and uniform signal distribution.
o For small-scale or low-cost installations, FBT splitters with minimal enclosures may be sufficient.
o Always consider future scalability, as upgrading splitters or enclosures later can be more expensive than initial investment. By evaluating splitter type, split ratio, and enclosure requirements, network planners can optimize both performance and cost for corridor-based optical networks.

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FS PLC Fiber Optic Splitters, Bare/Blockless/ABS/LGX Splitter/Rack Mount Types, support 1xN light distribution, with low IL and PDL

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The optical splitter is an optical power distribution device that splits one optical signal into multiple optical fiber signals

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