

OPTICAL SPLITTERS IN FTTX APPLICATIONS

SITUATION

You are deploying a new Passive Optical Networking (PON) system in your Optical Distribution Network (ODN) and want to utilize a low cost-to-deploy architecture that does not require large fiber cables. PLC style optical splitters have been the default deployment option allowing 64+ subscribers to be fed from a single feeder fiber leaving the central office (CO), Headend (MSO) or remote fiber node where the Optical Line Terminal (OLT) resides.

SOLUTION

PLC optical splitters work by splitting the incoming signal, of a single fiber, into 2, 4, 8 or more equal streams. Moreover, PLC splitters are bidirectional, so they are well suited for use with PON. PON uses different wavelengths for upstream and downstream traffic, along with TDM, to coordinate communication between the Optical Line Terminal (OLT) located at the CO/MSO and the subscriber based Optical Network Terminals (ONT). Optical Splitters for FTTX applications are typically deployed in either centralized split or distributed split models. In centralized split models a single fiber is connected to the OLT port at the CO/MSO and the signal travels along that single fiber until it reaches a central point, like a splitter hub, where it is then split and cross connected to dedicated subscriber fibers. In a distributed split, the output of one splitter is connect to the input of a downstream splitter and there are two or more locations along a route where the splitters would be located to allow the connection to customer drops.

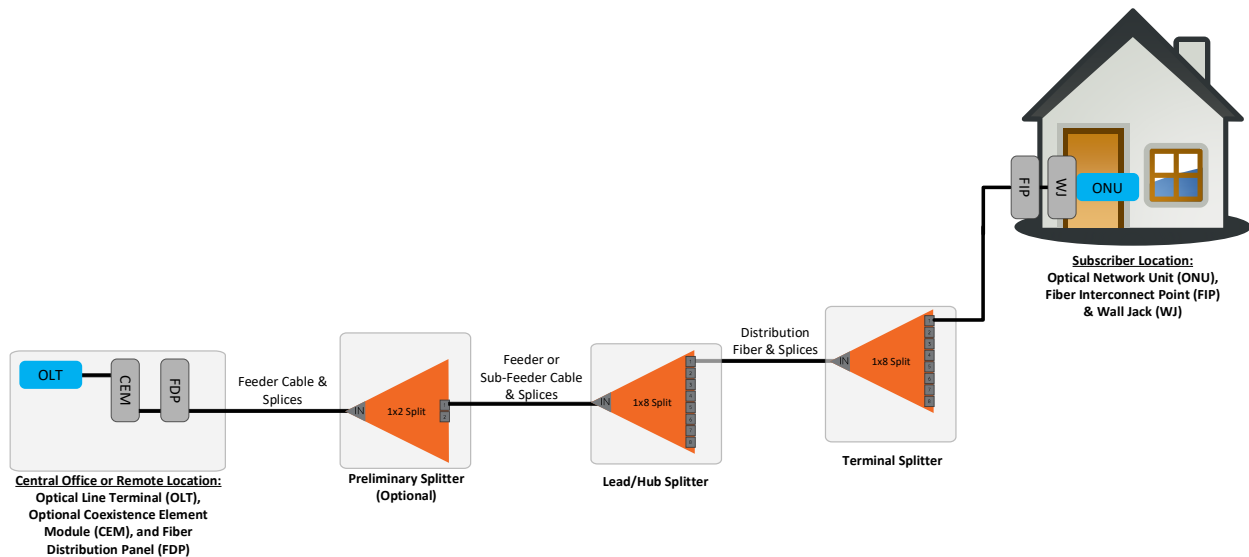


FIGURE 1: TYPICAL ODN NETWORK USING PON

FEATURES

- Low-Cost PLC Design
- 1x2 to 1x32 Split Ratios
- 3 Form Factors Available
- Factory or Field Connectors
- Temp Range: I-Temp

ENVIRONMENT

- Central Office
- Headend
- Remote Site
- Cabinet
- Pedestal

CONFIGURATIONS

- Fiber-To-The-Home
- Fiber-To-The-Tower
- Centralized Split
- Distributed Split

The USBM series of PLC splitters are an ideal solution for deploy “anywhere” applications where factory connectorized splitters are desired. Featuring a small form factor and universal mounting brackets, the USBM modules can be handle most applications.



USBM 1x2 Splitter



USBM 1x4 Splitter

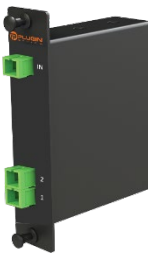


USBM 1x8 Splitter

ORDERING INFORMATION- USBM

PART NUMBER	DESCRIPTION
PLO-U-102-SCA-SCA	PLC, 1X2, UNIVERSAL SPLITTER BULKHEAD MODULE, SC/APC
PLO-U-104-SCA-SCA	PLC, 1X4, UNIVERSAL SPLITTER BULKHEAD MODULE, SC/APC
PLO-U-108-SCA-SCA	PLC, 1X8, UNIVERSAL SPLITTER BULKHEAD MODULE, SC/APC
<i>NOTE: MODULES WITH RATIO TAPS, AND SPLITTER-TAP COMBOS ARE ALSO AVAILABLE.</i>	

The Plugin Optics LGX series of PLC splitters are ideal for indoor or outdoor applications where there are established LGX mounting panels. Featuring factory connectorized SC/APC splitters and industry standard LGX compatible form factor these modules allow you to maximize the LGX slots available in many telecom offices and pedestals.



LGX 1x2 Splitter



LGX 1x4 Splitter



LGX 1x8 Splitter

ORDERING INFORMATION- LGX

PART NUMBER	DESCRIPTION
PLO-L-102-SCA-SCA	PLC, 1X2, LGX, 1-WIDE, PLC SPLITTER MODULE, SC/APC
PLO-L-104-SCA-SCA	PLC, 1X4, LGX, 1-WIDE, PLC SPLITTER MODULE, SC/APC
PLO-L-108-SCA-SCA	PLC, 1X8, LGX, 1-WIDE, PLC SPLITTER MODULE, SC/APC
<i>NOTE: MODULES WITH RATIO TAPS, AND SPLITTER-TAP COMBOS ARE ALSO AVAILABLE.</i>	

Plugin Optics offers a complete line of PLC pigtail splitters that are ideal for “splice-in” or field connectorized applications. These carrier grade splitters offer the best balance between cost and flexibility for any network operator who needs to reduce insertion loss in the ODN network.



ORDERING INFORMATION

PART NUMBER	DESCRIPTION
PLO-PLC-102-25-0	1X2, PLC SPLITTER, SINGLE MODE FIBER, 2.5M PIGTAILS, NO CONNECTOR
PLO-PLC-104-25-0	1X4, PLC SPLITTER, SINGLE MODE FIBER, 2.5M PIGTAILS, NO CONNECTOR
PLO-PLC-108-25-0	1X8, PLC SPLITTER, SINGLE MODE FIBER, 2.5M PIGTAILS, NO CONNECTOR
PLO-PLC-116-25-0	1X16, PLC SPLITTER, SINGLE MODE FIBER, 2.5M PIGTAILS, NO CONNECTOR
PLO-PLC-132-25-0	1X32, PLC SPLITTER, SINGLE MODE FIBER, 2.5M PIGTAILS, NO CONNECTOR
NOTE: 1xN PLC SPLITTERS CAN BE ORDERED IN MULTIPLE CONFIGURATIONS. PLEASE CONTACT US FOR CONNECTOR OR SPLICE TRAY APPLICATIONS.	