

A flexible smart building network

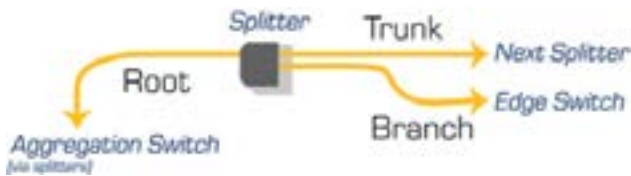
Optigo Connect Spectra™ provides a flexible and efficient fiber network using Passive Optical Splitters. These splitters allow you to run one line of single-mode fiber and split it at the optimal points to create a physical network topology that exactly matches the smart building's layout.

Optigo's splitters are completely passive components that require no power for operation and generate no heat. In addition, they are completely immune to radio-frequency interference and electromagnetic interference. With their lightweight and compact design, these splitters can be installed anywhere. The true power of Passive Optical Splitting comes from cost-savings, efficient use of space, reduced labour, increased reliability, and scalability.



ONS-YPS-8
Passive Optical Splitter

Terminology

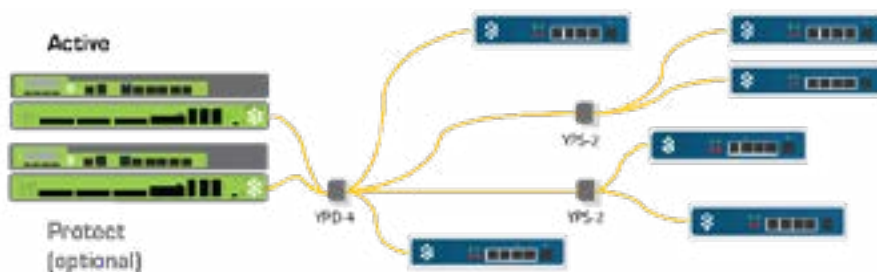


Topologies

Use Optigo Connect Spectra's passive splitters to create a customized topology to match your intelligent building's physical layout and your requirements for a high-availability network:

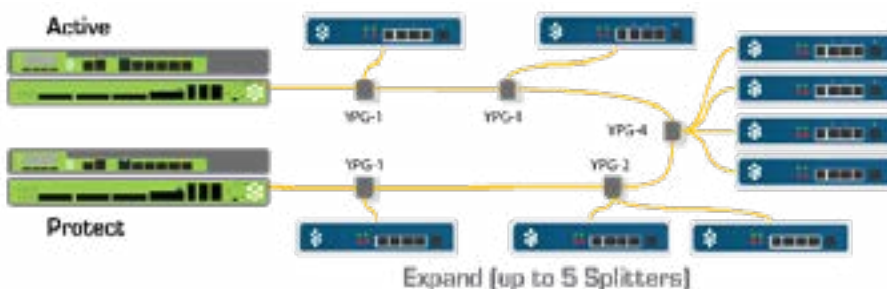
Star or Tree topologies

Excellent for horizontal applications such as airports, shopping malls, and campuses.



Ring topologies

Optimal for perimeter surveillance or when a high-availability network is required.

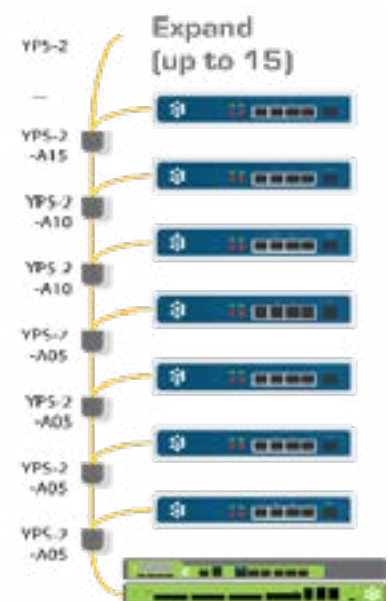


Product highlights

- Optimize cabling by running a single fiber and splitting it when necessary.
- Passive splitters require:
 - No power
 - No climate control
 - No maintenance whatsoever
- Flexible and expandable architectures, both with and without redundancy.
- Available in rack-mount or compact form factors for deployment in any environment.

Passive Daisy-Chain topologies

Ideal for vertical applications such as high-rise buildings.



Product Specifications

	CASE	INPUT	OUTPUTS	CONNECTOR	LEAD LENGTH	DIMENSIONS	INSERTION LOSS	
GENERAL USE – STAR TOPOLOGY – ABS PLASTIC ENCLOSURE								
ONS-YPS-2	ABS Plastic	Single	2	SC/UPC Male	40 cm (16")	90 × 20 × 10 mm 3.6" × 0.8" × 0.4"	3.2 dB	
ONS-YPS-2-L	ABS Plastic	Single	2		2 m (6').			
ONS-YPS-4	ABS Plastic	Single	4		40 cm (16")	100 × 80 × 10 mm 4.0" × 3.2" × 0.4"	6.4 dB	
ONS-YP S-4-L	ABS Plastic	Single	4		2 m (6').			
ONS-YPS-8	ABS Plastic	Single	8		40 cm (16")	120 × 80 × 18 mm 4.8" × 3.2" × 0.8"	9.8 dB	
ONS-YPS-8-L	ABS Plastic	Single	8		2 m (6').			
ONS-YPS-16	ABS Plastic	Single	16		40 cm (16")	12.8 dB		
ONS-YPS-16-L	ABS Plastic	Single	32		2 m (6').			
GENERAL USE – STAR TOPOLOGY – RACK MOUNT ENCLOSURE								
ONS-YRS-8	Rack-mount	Single	8	SC/UPC Female	N/A	483 × 240 × 44 mm 19" × 9.5" × 1.7"	10.3 dB	
ONS-YRS-16	Rack-mount	Single	16				13.3 dB	
ONS-YRS-32	Rack-mount	Single	32				16.5 dB	
DUAL-INPUT – CONNECT TWO AGGREGATION SWITCHES FOR REDUNDANCY								
ONS-YPD-2	ABS Plastic	Dual	2	SC/UPC Male	40 cm 16"	100 × 80 × 10 mm 4.0" × 3.2" × 0.4"	3.2 dB	
ONS-YPD-4	ABS Plastic	Dual	4				6.4 dB	
ONS-YPD-8	ABS Plastic	Dual	8				9.8 dB	
ONS-YRD-8	Rack-mount	Dual	8	SC/UPC Female	N/A	483 × 240 × 44 mm 19" × 9.5" × 1.7"	10.3 dB	
ONS-YRD-16	Rack-mount	Dual	16				13.3 dB	
ONS-YRD-32	Rack-mount	Dual	32				16.5 dB	
RING SPLITTERS – CREATE REDUNDANT FIBER RING WITH TWO AGGREGATION SWITCHES							TRUNK	BRANCH
ONS-YPG-1	ABS Plastic	Ring	1	SC/UPC Male	40cm (16")	100 × 80 × 10 mm 4.0" × 3.2" × 0.4"	1.3 dB	14.5 dB
ONS-YPG-1-L	ABS Plastic	Ring	1		2 m (6').			
ONS-YPG-2	ABS Plastic	Ring	2		40cm (16")		1.6 dB	14.5 dB
ONS-YPG-2-L	ABS Plastic	Ring	2		2 m (6').			
ONS-YPG-4	ABS Plastic	Ring	4		40cm (16")		2.6 dB	13.6 dB
ONS-YPG-4-L	ABS Plastic	Ring	4		2 m (6').			
ONS-YPG-6	ABS Plastic	Ring	6		40cm (16")		3.5 dB	16.5 dB
ONS-YPG-6-L	ABS Plastic	Ring	6		2 m (6').			
ONS-YPG-8	ABS Plastic	Ring	8		40cm (16")		6.0 dB	15.5 dB
ONS-YPG-8-L	ABS Plastic	Ring	8		2 m (6').			
DAISY-CHAIN SPLITTERS – ASYMMETRICAL RATIO SPLITTERS FOR HIGH-RISE OR PERIMETER							TRUNK	BRANCH
ONS-YPS-2-A05	ABS Plastic	Single	2 (5/95%)	SC/UPC Male	40cm (16")	90 × 20 × 10 mm 3.6" × 0.8" × 0.4"	0.3 dB	13.1 dB
ONS-YPS-2-A05-L	ABS Plastic	Single			2 m (6').			
ONS-YPS-2-A05-LR	ABS Plastic	Single			Root: 25m, Branch: 3m, Trunk: 1m			
ONS-YPS-2-A10	ABS Plastic	Single	2 (10/90%)		40cm (16")		0.5 dB	10.0 dB
ONS-YPS-2-A10-L	ABS Plastic	Single			2 m (6').			
ONS-YPS-2-A10-LR	ABS Plastic	Single			Root: 25m, Branch: 3m, Trunk: 1m			
ONS-YPS-2-A15	ABS Plastic	Single	2 (15/85%)		40cm (16")		1.0 dB	8.3 dB
ONS-YPS-2-A15-L	ABS Plastic	Single			2 m (6').			
ONS-YPS-2-A15-LR	ABS Plastic	Single			Root: 25m, Branch: 3m, Trunk: 1m			
ONS-YPS-3-A10	ABS Plastic	Single	3 (10/10/80%)		40cm (16")	100 × 80 × 10 mm 4.0" × 3.2" × 0.4"	1.1 dB	10.0 dB
ONS-YPS-3-A10-L	ABS Plastic	Single			2 m (6').			
ONS-YPS-3-A10-LR	ABS Plastic	Single			Root: 25m, Branch: 3m, Trunk: 1m			

FIBER TYPE	3 mm Corning Fiber
WARRANTY	Lifetime Warranty on all Optigo Splitters
ENVIRONMENTAL	- Operating Temperature: -40°C ~ 85°C (-40°F ~ 185°F) - Immune to corrosion, EM radiation, and high voltage. - Plenum Rated.



For more information and to order:
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 Burnaby, BC V5C 6P3

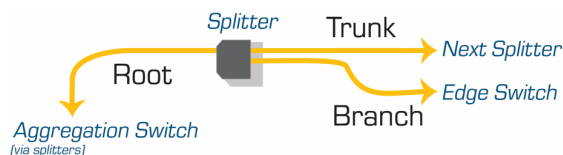
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 ONS-YX-DS | Rev C

Optigo Connect's Passive Optical Splitters

Understanding the Passive Optical Splitters' names, and how to use them

This is a brief guide to understanding the various Optigo Connect Passive Optical Splitters.

A Passive Optical Splitter divides light, like a water splitter. For example, in a 1:2 splitter, in one direction, the light is divided and sent down two different branches, and light is combined in the other direction. Passive Splitters have no moving parts, require no power, and are immune to electromagnetic interference.



It is helpful to know the difference between roots, trunks, and branches. The root is the input lead coming from the Smart Aggregation Switch. The trunk is the output with the largest percentage of light power, typically heading to the next splitter. The branch is the output with less light power, typically connecting to the Edge Switch. A splitter can have many branches, but only one root, or two for redundancy.

The splitters' product number contains important information on the type of splitter, material, and its purpose. The product numbering convention follows a general format of ONS-Yab-##-d: a minimum of four sections, with some variations and additional sections on specific splitter types. Refer to the below list for the exact code meanings.

Prefix	Rack/Plastic	Number of inputs	Number of outputs	Options
ONS-Y	R	S	##	A05/A10/A15
	P	G		L
		D		LR

ONS-YPG-8-L

- ONS-Y: this prefix refers to any splitter in the Optigo Connect product line.

ONS-YPG-8-L

- R: refers to rack-mounted splitters.
- P: refers to the range of ABS plastic splitters.

ONS-YPG-8-L

- S: refers to splitters with a single input.
- G: refers to splitters designed for a Ring topology. These splitters have dual trunk inputs, meaning two trunk lines and one (or more) branches go out. If one trunk gets cut off, the other trunk can drive the network from the other direction.
- D: refers to splitters with dual root inputs. These splitters are perfect for Smart Aggregation Switch redundancy, with two roots connecting two Aggregation Switches to the rest of the network.

ONS-YPG-8-L

- -##-: the number after the dash refers to the number of splits into trunks and branches.

ONS-YPG-8-L (optional – does not apply to all splitters)

- -A05/-A10/-A15: refers to an asymmetrical splitter. In these splitters, branches send 5%, 10%, or 15% of the laser to an Edge Switch, while the rest continues along the trunk. These splitters are specific to Passive Daisy-Chain topologies.
 - For example, if the root has 100% of the light entering the splitter, an -A05 splitter will direct 5% of the light to the Edge Switch via the branch, and 95% of the light up to the next splitter via the trunk.
- -L: refers to a long-lead splitter. This means all fiber leads are 2m in length, compared to 40cm on a regular splitter.
- -LR: refers to a long-root splitter. These splitters are meant to go between floors, so customers can run less fiber: the splitters will simply connect to one another. In this case, the root is 25m, the branch is 3m, and the trunk is 1m. Note that if you are connecting splitters directly together, you always need a coupler.