OPTiGO N E T W O R K S

Create the perfect backbone for your Smart Building's OT network

Optigo Connect™ saves space, cost and energy in your Smart building's Operational Technology (OT) network and the passive splitters are a key to a flexible and efficient network. Only Optigo Connect and the passive optical splitters can create a physical network topology that exactly matches the layout of your smart building.

Optigo's splitters are completely Solid State Optics, and require no power, cooling, or maintenance. In addition, they are completely immune to electromagnetic interference and high voltage. With their sleek and compact design, Optigo's splitters can be installed anywhere.

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

- The star or tree topology is excellent for horizontal applications such as airports or shopping malls.
- Passive Daisy-Chain topologies are ideal for vertical applications such as high-rise buildings. Simply run a single fiber from the basement and split it on each floor.
- Rings topologies are especially well-suited for perimeter surveillance or when a high-availability network is required.
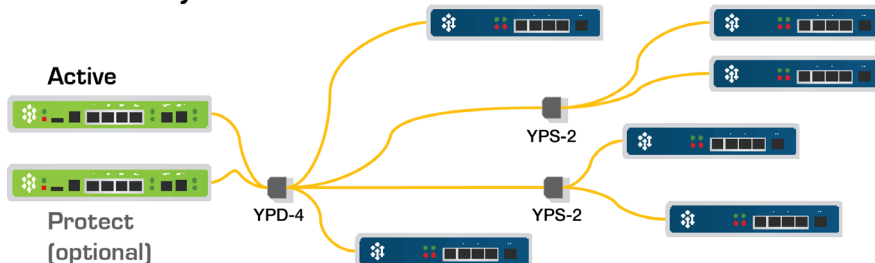

ONS-YPS-8
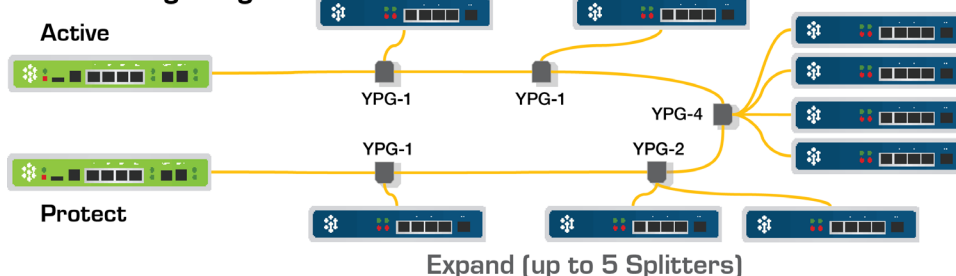**Passive Optical Splitter**

Product Highlights

- **Optimize cabling** throughout your smart building by running a single fiber — just split it when you need to.
- 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.

Star-Tree Hybrid

Active

Protect (optional)

YPD-4

YPS-2

YPS-2

Self-Healing Ring

Active

YPG-1   YPG-1   YPG-4

YPG-1   YPG-2

Protect

Expand (up to 5 Splitters)

Passive Daisy-Chain

Expand (up to 15)

YPS-2 -A15

YPS-2 -A10

YPS-2 -A10

YPS-2 -A05

YPS-2 -A05

YPS-2 -A05

YPS-2 -A05
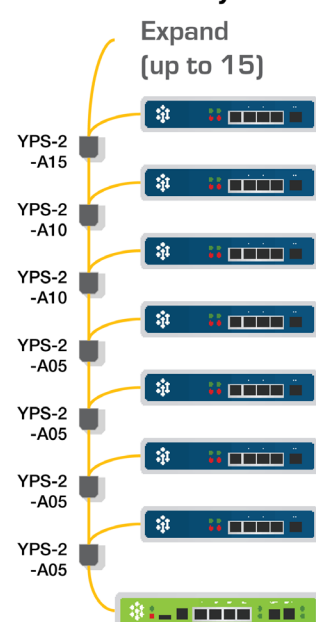
Product Specifications

	CASE	INPUT	OUTPUTS	LEAD/CONNECTOR	DIMENSIONS	INSERTION LOSS		OPTIONS
GENERAL USE – STAR TOPOLOGY – ABS PLASTIC ENCLOSURE								
ONS-YPS-2	ABS Plastic	Single	2	40 cm (16") 3 mm Corning Fiber SC/UPC Male	90 × 20 × 10 mm (3.6" × 0.8" × 0.4")	–3.8 dB		-L
ONS-YPS-4	ABS Plastic	Single	4		100 × 80 × 10 mm (4.0" × 3.2" × 0.4")	–7.1 dB		
ONS-YPS-8	ABS Plastic	Single	8			–10.4 dB		-LC
ONS-YPS-16	ABS Plastic	Single	16		4.8" × 3.2" × 0.8" (120 × 80 × 18 mm)	–13.4 dB		
GENERAL USE – STAR TOPOLOGY – RACK MOUNT ENCLOSURE								
ONS-YRS-8	Rack-mount	Single	8	SC/UPC Female	483 × 240 × 44 mm (19" × 9.5" × 1RU)	–9.1 dB		-APC
ONS-YRS-16	Rack-mount	Single	16			–12.1 dB		
ONS-YRS-32	Rack-mount	Single	32			–15.1 dB		
DUAL-INPUT – CONNECT TWO AGGREGATION SWITCHES FOR REDUNDANCY								
ONS-YPD-2	ABS Plastic	Dual	2	40 cm (16") 3 mm Corning Fiber SC/UPC Male	100 × 80 × 10 mm (4.0" × 3.2" × 0.4")	–5.2 dB		-LC
ONS-YPD-4	ABS Plastic	Dual	4			–8.2 dB		
ONS-YPD-8	ABS Plastic	Dual	8			–11.2 dB		
ONS-YRD-8	ABS Plastic	Dual	8	SC/UPC Female	483 × 240 × 44 mm (19" × 9.5" × 1RU)	–11.2 dB		-APC
ONS-YRD-16	ABS Plastic	Dual	16			–14.2 dB		
ONS-YRD-32	ABS Plastic	Dual	32			–17.2 dB		
RING SPLITTERS – CREATE REDUNDANT FIBER RING WITH TWO AGGREGATION SWITCHES						**RING**	**BRANCH**	
ONS-YPG-1	ABS Plastic	Ring	1	40 cm (16") 3 mm Corning Fiber SC/UPC Male	100 × 80 × 10 mm (4.0" × 3.2" × 0.4")	–1.5 dB	–11.4 dB	-L
ONS-YPG-2	ABS Plastic	Ring	2			–1.5 dB	–14.4 dB	
ONS-YPG-4	ABS Plastic	Ring	4			–2.6 dB	–14.2 dB	-LC
ONS-YPG-6	ABS Plastic	Ring	6			–4.0 dB	–14.5 dB	
ONS-YPG-8	ABS Plastic	Ring	8			–5.1 dB	–14.7 dB	
DAISY-CHAIN SPLITTERS – ASYMMETRICAL RATIO SPLITTERS FOR HIGH-RISE OR PERIMETER						**TRUNK**	**BRANCH**	
ONS-YPS-2-A05	ABS Plastic	Single	2 (5/95%)	40 cm (16") 3 mm Corning Fiber SC/UPC Male	90 × 20 × 10 mm (3.6" × 0.8" × 0.4")	–0.3 dB	–13.1 dB	-L
ONS-YPS-2-A10	ABS Plastic	Single	2 (10/90%)			–0.5 dB	–10.0 dB	
ONS-YPS-2-A15	ABS Plastic	Single	2 (15/85%)			–0.8 dB	–8.3 dB	-LR
ONS-YPS-3-A10	ABS Plastic	Single	3 (10/10/80%)		100 × 80 × 10 mm (4.0" × 3.2" × 0.4")	–1.1 dB	–10.0 dB	-LC

Product Code Key: **P** – Plastic, **R** – Rack Mount, **S** – Single Input, **D** – Dual Redundant Inputs, **G** – Ring Redundant Inputs, **A** – Asymmetrical

LEAD OPTIONS	-L	Long Lead		All leads lengthened to 2 m (6')
	-LR	Long Lead Riser Optimized Connect splitters directly together.		**Root** lead 25 m (80') – with pulling sock and pull-eye. **Branch** lead 3 m (10') **Trunk** lead 1 m (3')
	-LC	Long Lead Customized		Custom specified lengths for Root, Branch, Trunk, or Ring leads. Up to 50 m (165') max length for each lead. Pull-eye available.
CONNECTOR OPTIONS	-APC	SC/APC Connectors		Replaces blue SC/UPC connectors with green SC/APC. Provided for compatibility with existing Fiber terminations. Not recommended.
ENVIRONMENTAL	Operating Temperature: –40°C ~ 85°C (–40°F ~ 185°F) • Immune to corrosion, EM radiation, and high voltage. • Plenum Rated.			
WARRANTY	**Lifetime Warranty** on all Optigo Splitters			

- The following terminology is used for splitter connectors, leads and Insertion Loss:
    - **Root** – Input lead, leading back towards an Aggregation Switch.
    - **Trunk** – Output of an asymmetric splitter with the larger percentage of light power (smaller Insertion Loss). Typically this continues towards the next splitter in a Daisy-Chain. Insertion Loss measured from Root to Trunk.
    - **Branch** – Output of a splitter with smaller amount of light power. Typically connects to an Edge Switch. Insertion Loss measured from Root to Branch.
    - **Ring** – Special case for Ring Splitters. Bidirectional Input/Outputs that continue through other Ring Splitters to an Aggregation Switch. Insertion Loss measured across the 2 Ring Leads.
- Maximum Optical Budget is 30 dB for any path from Aggregation Switch to Edge Switch. Optigo recommends designing for 26 dB.
- Contact your local provider for a Passive Optical Networking design guide and budget calculation tool.
- All rack-mount splitters come with appropriate brackets for a 19" rack.
- ABS Plastic splitters may be mounted with Velcro adhesive pads (included) or using the predrilled holes for M3 screws (not included).