

OneReach™

Take PoE, PoE+, and PoE++ simplicity and gigabit capability to new distances



The following two tables provide the supported distance between the head end (1-port sources, media modules, and/or chassis) and the Remote PoE Ports, using 12 AWG composite cables to connect the ends. The first table is for use with the 1-port remotes; the second table is for use with the 2-port and 4-port remotes.

When reviewing the tables, first determine the PoE Type and power Class wanted; the referenced wattage is for the power sourcing equipment (PSE) output value. Next, select the appropriate patch cord distance needed.

The first row of each table [328 ft (100 m)] addresses the standard implementation of PoE, as sourced from the 1-, 2-, or 4-port remote. This distance allows for the maximum flexibility in powered device (PD) placement from the remote's installed location.

The second row [32 ft (10 m)] is an engineered solution for those times when the PD are close to the remotes. This transfers some of the loss from the 328 ft category cable to the 12 AWG conductors in the composite cable. Since the composite cable has a larger gauge, it supports a further distance increase between the head end and Remote PoE Ports.

SINGLE-MODE DISTANCE CHART - 1-PORT REMOTES*

PATCH DISTANCE	POWER LEVEL			
	15 W TYPE 1, CLASSES 0-3	30 W TYPE 2, CLASS 4	60 W TYPE 3, CLASSES 5-6	100 W TYPE 4, CLASSES 7-8
328 ft (100 m)	5,000 ft (1,524 m)	1,800 ft (548 m)	900 ft (274 m)	500 ft (152 m)
32 ft (10 m)	10,000 ft (3,048 m)	5,000 ft (1,524 m)	2,000 ft (609 m)	1,500 ft (457 m)

SINGLE-MODE DISTANCE CHART - 2-PORT AND 4-PORT REMOTES*

PATCH DISTANCE	POWER LEVEL			
	15 W TYPE 1, CLASSES 0-3 (ALL PORTS)	30 W TYPE 2, CLASS 4 (ALL PORTS)	60 W TYPE 3, CLASSES 5-6†	100 W TYPE 4, CLASSES 7-8‡
328 ft (100 m)	1,800 ft (548 m)	900 ft (274 m)	500 ft (152 m)	500 ft (152 m)
32 ft (10 m)	5,000 ft (1,524 m)	2,000 ft (609 m)	1,500 ft (457 m)	1,500 ft (457 m)

* The distances shown in the table represent maximum reach with single-mode fiber. OM3 multimode supports a maximum distance of either 3,280 feet (1,000 m) or the distance listed in the table above, whichever is smaller

NOTES:

- Based on 802.3 for all power levels (Classes 0-8) and PoE Types 1-4 (PoE 15 W, PoE+ 30 W, PoE++ 60 W, and PoE++ 100 W)
 - 50 °C (122 °F) worst case environment for the OneReach Cable Assembly (OCA)
 - Typical applications with patch cords from the remote to the PD can support extended OCA
 - Power levels are calculated for “delivered power” to the PD to support long distance applications
 - Standard distances for horizontal cabling of 328 ft (100 m) are used to calculate max distance for full power at the PSE
 - Standard application distances of 32 ft (10 m) of 24 AWG stranded patch cordage are used to calculate max distances for full power at the PD
- † Ports 1 and 3 will support a 60 W device; ports 2 and 4 will support a 30 W device
- ‡ Ports 1 and 3 will support a 100 W device; ports 2 and 4 will support data only

See the full range of OneReach head end power injection devices, cable assemblies, and remote PoE ports at Leviton.com/OneReach.