Vi3003

MaxiiNet™ L2 Drop and Insert 1G 60W PoE++ 3-Port Switch

Features

- Provides for multiple camera connections on a single cable run
- Each unit extends IP video and PoE for an extra 328 ft. (100m)
- Can be cascaded to transmit IP video and PoE up to 3,000 ft (909m)
- Powered by single source PoE, no local power required
- Able to power IP PTZ domes
- Able to maintain up to 60W PoE at any point along cable run
- Automatically senses input data rate up to 1000Mbps (1Gbps)
- Provides third port for drop and insert along a single cable run
- Provides full IEEE network layer 2 switching to avoid transmission conflicts
- No network configuration required
- Provides access up to 9 IP addresses eliminating the need for network switches in small systems
- Eliminates the need for multiple cable runs for perimeter and parking lot applications
- Hardened with wide range operating temperature of -40°C to +75°C

The Vi3003 is a 3-port Layer 2 Ethernet and PoE switch providing drop and insert capability for connecting several IP devices along a single cable run. The Vi3003 provides a cost effective method for increasing distances beyond the standard Ethernet limit of 328 feet (100m). Multiple units can be cascaded to provide up to nine IP cameras to be connected to a single network switch port over distances of up to 2,952 feet (900m).

For small systems, the Vi3003's Layer 2 network capability can eliminate the need for network switches, saving costs and rack space. It also can significantly decrease network switch costs by increasing the capacity of a 24-port switch to handle up to 216 cameras and an 8-port switch up to 72 cameras. As a mini network switch, the Vi3003 avoids the potentials for transmission collisions by complying with IEEE standards. Its ability to automatically sense the datarate up to 1,000Mbps (1Gbps) also makes it the perfect solution for cost effectively extending network to network communications or between network switches requiring high speeds transmission.

The Vi3003 can be powered by PoE eliminating the need for external power or a local power supply. Additional power up to 90W can be added at any point along the cable run where power outlets are available to provide the ability to power PoE++ IP cameras.

Hardened wide range operating temperature of -40°C to +75°C makes the Vi3003 a perfect solution for harsh environments.

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Technical Specification*

Electrical

PoE Rating	Port 1 (PoE In): 60W Port 2 (PoE Out): 60W Port 3 (Tap): 802.3af (15.4W), 802.3at (30W)
Network Connection	(3) RJ-45 IEC 60603-7
Wiring Support	Cat 5/5e/6
Power Consumption	3W
Supported Distance	328ft (100m) per link
Status LEDs	Power: Green 30W PoE Output: Orange 60W PoE Output: Orange Port 1 (Uplink): 1G (Green), Link/Act. (Yellow) Port 2: 1G (Green), Link/Act. (Yellow) Port 3 (Tap): 1G (Green), Link/Act. (Yellow)
Data Rate	Auto Configuring Port 1: 10/100/1000Base-TX Port 2: 10/100/1000Base-TX Port 3 (Tap): 10/100/1000Base-TX
Data Interfaces and Compliances	RFC 768 UDP, RFC 2068 HTTP RFC 793 TCP, RFC 791 IP RFC 1783 TFTP, RFC 894 IP over Ethernet RFC 2544 TCP/IP Packet Transmission IEEE802.3af, 8IEEE02.3at
IEEE Compliances	802.3ab, 802.3z, 802.3af, 802.3at, 802.1p, 802.1Q, 802.1D, 802.1s, 802.3u, 802.3x, 802.3w
Service Compliance	IPv4 Type of Service (TOS) and Differentiated Services (Diff-Serv) IPv6 Traffic Class
VLAN Support	4,096 Addresses
Jumbo Frame	Up to 10,000 bytes

Mechanical

Dimensions	0.97x1.76x4.12 in., 2.5x4.5x10.5 cm (HxWxL)
Weight	0.26 lb, 117 g
Material	Extruded Aluminum

Environmental

Humidity	0 to 95%, non-condensing
Temperature	Operating: -40°C to +75°C per NEMA-TS2 testing Storage: -40°C to +85°C

Regulatory

Safety	CE
Environmental	RoHS, WEEE

Accessories (Optional)

Vi1120 Desktop power supply 56VDC @120W
for 60W PoE operation

Vi0017 Desktop power supply, 802.3at 40W
for 30W PoE operation

Vi0012 Wall-mount power supply 12VDC @12W
non-PoE operation
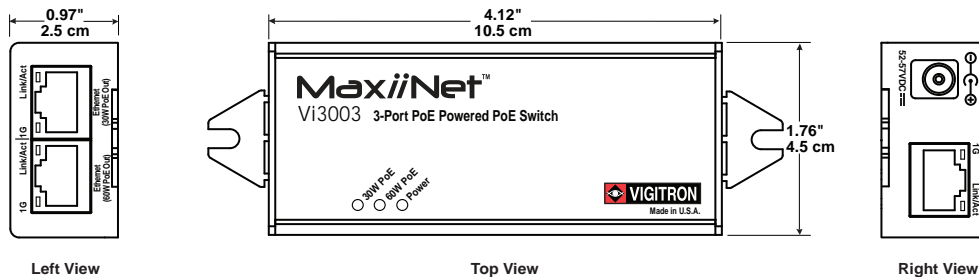
Vi0025 Connects non-PoE devices to the 60W PoE Out port

*Specifications subject to change without notice.

Ordering Information

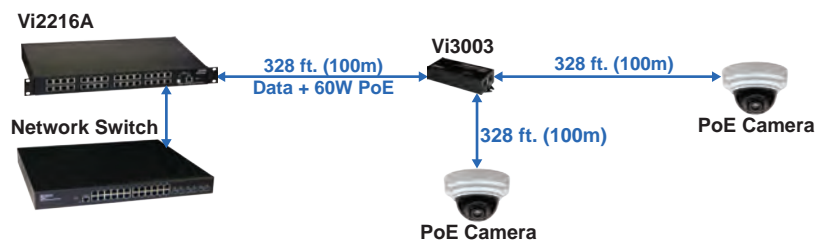| PART No.	Description
Vi3003	Drop and Insert 10/100/1000Mbps 60W PoE++ 3-Port Switch
Vi1120	Desktop power supply 56VDC @120W
Vi0017	Desktop power supply 48VDC @40W
Vi0012	Wall-mount power supply 12VDC @12W
Vi0025	PoE blocker for non-PoE devices

PoE vs. Distance

PoE	Distance	# of Vi3003
60W	428 ft. (130m)	1
30W	800 ft. (242m)	2
15.96W	1,200 ft. (364m)	3
12.95W	1,900 ft. (580m)	5

Left View

Top View

Right View

Application Diagrams

Network Switch — 328 ft. (100m) Data — Vi3003 — 328 ft. (100m) Data + 60W PoE — 60W PTZ Dome

Vi1120 — 328 ft. (100m) Data + 30W — PoE Camera

Vi3003 allows for the transmission of two cameras over a single camera run or adding a new camera close to an existing camera.

Vi2216A — Network Switch — 328 ft. (100m) Data + 60W PoE — Vi3003 — 328 ft. (100m) — PoE Camera

328 ft. (100m) — PoE Camera
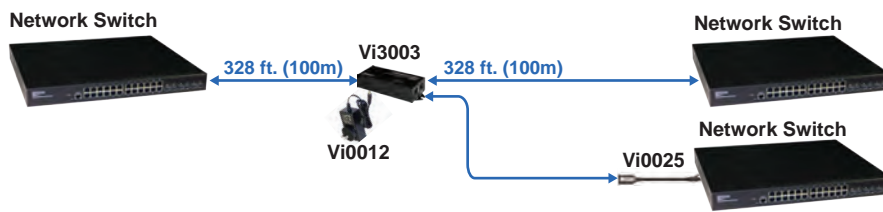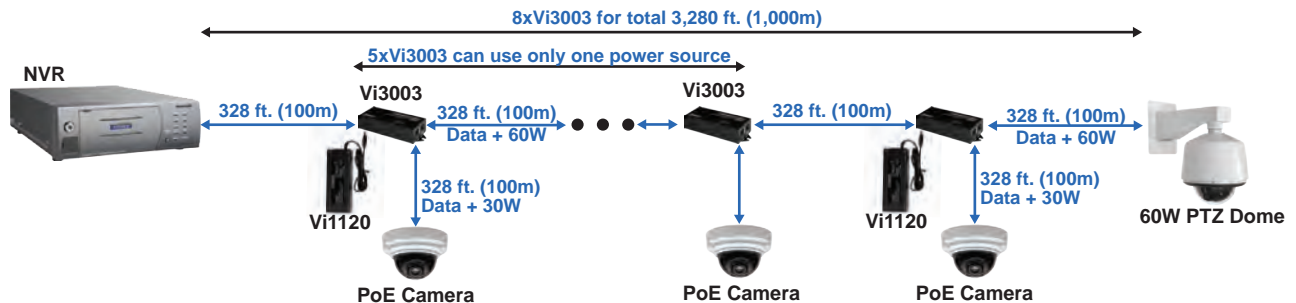
Vi3003 allows for the transmission of two cameras over a single camera run or adding a new camera close to an existing camera. The PoE Midspan provides power to the Vi3003 and both cameras.

Network Switch — 328 ft. (100m) — Vi3003 — 328 ft. (100m) — Network Switch

Vi0012 — Vi0025 — Network Switch

Vi3003 enables extension of 1G connection between networks.

8xVi3003 for total 3,280 ft. (1,000m)

5xVi3003 can use only one power source

NVR — 328 ft. (100m) — Vi3003 — 328 ft. (100m) Data + 60W — Vi3003 — 328 ft. (100m) — 328 ft. (100m) Data + 60W — 60W PTZ Dome

Vi1120 — 328 ft. (100m) Data + 30W — PoE Camera — PoE Camera — Vi1120 — 328 ft. (100m) Data + 30W — PoE Camera

A total of 9 IP addresses can be accessed on a single cable run, eliminating the need for network switches.

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