

Vi30152

48-Port 1G Copper, 4-port 1G/2.5G/10G Fiber L2+/L3 Managed Core Network Switch

Features

- 48 x 1G Copper Ports and 4 x 1G/2.5G/10G Fiber ports
- Layer2+/Layer 3 Lite
- Complies to IEEE 100MBbps to 10G bandwidth
- Dual AC or DC input power
- DC back up power with auto sense fall over
- Able to operate only on a DC power input
- Supports Redundant STP.RSTP.MSTP protocols
- Supports G.8032 V1/V2 Ring protocol
- Supports Jumbo frames to 10.4Kbytes
- Switch fabric 176Gbps, non-blocking
- High Operating temperature range -20C to +55C
- TimeZone feature for date/time system sync without the need for external equipment.



Applications

- Larger systems requiring a centralized core switch
- Interface to 10G recording and viewing systems
- Provides ability to scale and customize the network

Vigitrone's Vi30152 is next generation advanced enterprise level core designed for routing up to 48 networks to a single connection. 4 fiber uplink ports provide bandwidths at 1G/2.5G/and 10G. All individual UTP ports offer several levels of surge protection and temperature monitor preventing potential damage. Programming to Layer 2+ and Layer 3 Lite offering Layer 3 configuration without the potential of external hacking. A unique TimeZone feature synchronizes time and date for all ports to central computers or servers eliminating the need and cost for NTP servers or outside network connections.

The Vi30152 has two separate power inputs, one mains AC power and the other DC power input. They can be used to back up each other or the Vi30152 can operate solely on DC power.

In addition to providing a central core point, the Vi30152 can be used with various midspans providing customized power requirements for large systems requiring a single collection point.

The Vi30152 is designed to meet the growing requirements for higher bandwidth for IP security cameras by providing reliability and connectivity with the ability to locate and identify network system problems:

- Layer 3 lite operations for operations across different subnets while maintaining network security
- Programmable video/data packet transmission up to the Jumbo Frame limit of 10240 bytes for transmitting the highest megapixel cameras at 100Mbps, 1, 2.5G and 10G port speeds
- Wide 176 Gbps switch fabric assuring all required bandwidth, even with all ports at their maximum bandwidth assuring video and data quality
- Programmable G.8032 standard ring protocol
- Programmable multicasting for compatibility and performance with largest IP video network systems
- Programmable Rapid Spanning Tree for redundant network configuration assuring maintenance of network communication using multiple paths
- Ability to use ICMP, TCP, and UDP packet transmission to test network connectivity through multiple hops
- Automatic MAC address detection for connected devices for easy connection verification and security hops
- Complete SFP read out for units containing DDMI capacity
- TimeZone programming for complete system time/date sync tied to VMS servers and computers without the need of additional NTP equipment.

Technical Specifications*

Lorem ipsum

Electrical

Ethernet Interface	48 x 1G Base-T, 4 x 1G/2.5G/10G MSA Fiber uplink
Ring Protocol	G.8032 V1/V2
Throughput/ Forwarding	130.944Mpps
Switch Fabric	176Gbps
Power Input:	100-24-VAC, 50-60Hz at 2A 9-15VDC/ 1-4 amps DC
DC Power only	15VDC @ 4 amps
Jumbo Frame	up to 10.2K
MAC Table	32K per address
PoE Compatibility	IEEE 802.3af/at/bt up to 95 W Supports PoE configuration Supports auto restart Supports on/off
Connectors	Data: 24x RJ-45 Connectors Fiber: 4 x MSA Compliant SFP, 1Gb/ 10G Main Power: IEC-320-C14 Connector Redundent Power: Terminal Block Console: RJ45 Connector
Surge Protection	IEC61000-4-2(ESD) +/-8kV Contact Discharge +/-15Kv air discharge IEC61000-4-5 (lightning protection/Surge) Power: CM +/-4Kv/DM +/-2Kv Port: +/-4Kv

Regulatory

FCC	Part 15, Class B
Safety	CE/LVD EN60950 CE Mark
Environmental	RoHS Directive 2011/65/EU, WEEE

Environmental

Humidity	5 to 90%, RH
Temperature	Operating: -20 °C to +55 °C Storage: -40 °C to 80 °C

Mechanical

Dimensions	1.73" x 17.4" x 8.3", 44.5mm x 440mm x 221mm (HxWxL)
Weight	12.8 lb (5.8 Kg)
Housing	Sheet Metal

Accessories

- 1 x Molded IEC 7 ft. (200 cm) Power Cord
- Mounting Kit
- Console Cable
- USB Memory Stick: Operations Manual, Datasheet, SysCap™ Software

*Specifications subject to change without notice.

Ordering Information

Part No.	Description
Vi30152	52-port L2+/L3 Managed Core Network Switch

Vi30132 Compatible ANSI/IEEE Standards

IEEE/ANSI Standard	Description
IEEE 802.3	Ethernet 10baseT UTP
IEEE 802.3u	Fast Ethernet 1000baseTX UTP Ethernet
IEEE 802.3ab	1000baseTX UTP
IEEE 802.3z	Ethernet 1000baseX
IEEE 802.3x	Flow control Capability
IEEE 802.1q	VLAN
IEEE 802.1p	Class of Service
IEEE 802.1x	Access Control
IEEE 802.1d	Spanning Tree
IEEE 802.1w	Rapid Spanning Tree
IEEE 802.1s	Multiple Spanning Tree
IEEE 802.1ad	Link Aggregation Control Protocol (LACP)
IEEE 802.1AB	Link Layer Discovery Protocol (LLDP)
IEEE 802.3ad	Trunking
IEEE 802.1Q	Tag Based VLAN
ANSI/IEEE 802.3	Auto – negotiation

Minimum System Requirements

- Web Browser: Mozilla Firefox v2.5 or later, Microsoft Internet Explorer v6 or later
- Category 5 Ethernet cable Cat 5
- TCP/IP, network adapter, and network operating system (such as Microsoft Windows or Linux) installed on each computer in the network
- MSA Compliant SFPs



TEL (+1) 858-484-5209 • FAX (+1) 858-484-1205

7810 Trade Street, Suite 100, San Diego, CA 92121, USA • support@vigatron.com • www.vigatron.com

© Copyright 2023 Vigatron, Inc.

Technical Specifications*

Interface	48*10/100/1000Base-T/TX RJ45 ports (Data) 4*1/2.5/10G uplink SFP+ fiber slot ports (Data) 1*Console RS232 port (115200, N,8,1)
Managed Type	L2+/L3 Litr
Network Protocol	IEEE802.3 10BASE-T; IEEE802.3i 10Base-T; IEEE802.3u 100Base-TX; IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X IEEE802.3ae 10GBase-SR/LR IEEE802.3x
Ethernet Port Feature	Port 1-48 can support 10/100/1000BaseT (X) auto detect, full/half duplex MDI/MDI-X adaptive
Fiber Port Feature	1/2.5/10G SFP fiber interface (Fiber module is not included, need to order separately, module options include single/multi-mode, single/dual fiber, LC)
Forwarding Mode	Store and Forward
Switching Capacity	176Gbps (non-blocking)
Forwarding Rate	130.944Mpps
MAC	32K
Buffer Memory	32M
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meter); 100BASE-TX: Cat5 or later UTP (≤100 meter) 1000BASE-T: Cat5e or later UTP (≤100 meter)
Optical Fiber Cable	Multi-mode:850nm 0~300M(10G) ,850nm 0~500M (1.25G); Single-mode:1310nm 0~40KM,1550nm 0~120KM.
Power Supply	Built-in power supply, AC 100~220V 50-60Hz
LED Indicator	Power indicator: PWR (Green); Network indicator: 1-48 port 100M-(Link/Act)/ (Yellow),1G/2.5G/10G-(Link/Act)/ (Green); 49-52 Port(Link/Act)/(Green), SYS:(Green)
Reset Switch	Yes, One-button factory reset
Operation TEMP/Humidity	-20~+55°C;5%~90% RH Non condensing
Storage TEMP /Humidity	-40~+80°C;5%~95% RH Non condensing
Lightning protection / Protection Level	Lightning protection :4KV 8/20us; Protection Level: IP30
Installation	Desktop, 19-inch 1U cabinet
Protection	IEC61000-4-2(ESD): ±8kV contact discharge, ±15kV air discharge IEC61000-4-5(Lightning protection/Surge): Power:CM±4kV/DM±2kV; Port: ±4kV
Protection Level	IP30
Certification	CCC, CE mark, commercial; CE/LVD EN60950; FCC Part 15 Class B; RoHS
Warranty	Lifetime Plus 3 years

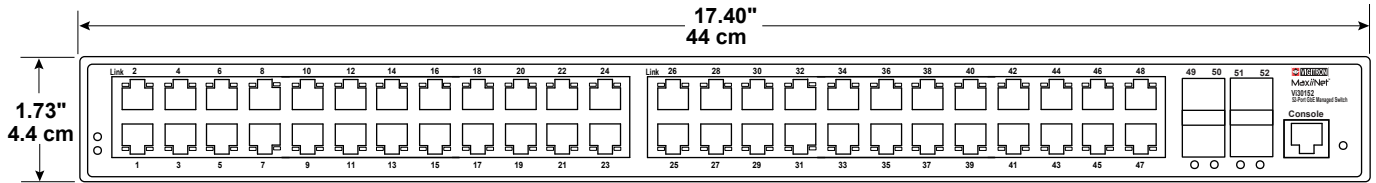
Technical Specifications*

Interface	<p>IEEE802.3x flow control (full duplex)</p> <p>Broadcast storm suppression for port rate</p> <p>support speed limit for incoming and offline message traffic, with a minimum particle size of 64Kbps.</p> <p>Temperature protection setting</p> <p>Energy saving configuration of port IEEE Ethernet</p>
Layer3 Function	<p>Support L3 managed function</p> <p>Support IPV4/IPV6 management</p> <p>Support layer 3 of software line speed forwarding. Support different network segments, communication between different VLAN</p> <p>Static routing/default routing, 128 maximum entries</p> <p>ARP protocol, 1024 maximum entries</p>
VLAN	<p>Support port based VLAN (4K), IEEE802.1q</p> <p>Support protocol based VLAN</p> <p>Support Access, Trunk, Hybrid three types of port configuration</p> <p>Support QinQ configuration</p>
Port Aggregation	<p>Support LACP</p> <p>Support static polymerization</p> <p>Support the largest 8 aggregation groups, each aggregation group supports 8 ports.</p>
Spanning Tree	<p>STP (IEEE802.1d)</p> <p>RSTP (IEEE802.1w)</p> <p>MSTP (IEEE802.1s)</p>
Industrial Ring Network	
Protocol	
Multicast	<p>Support IGMP Snooping V1/V2 and support 1024 multicast groups at most.</p> <p>Support the user's quick departure mechanism</p> <p>Support MLD Snooping V1/V2</p> <p>Support multicast VLAN</p>
Mirroring	Bi-directional traffic mirroring supporting the basic port
QoS	<p>Diff-Serv QoS</p> <p>Each port supports 8 output queues</p> <p>Support 802.1p/DSCP priority mapping</p> <p>Support queue scheduling mechanism (SP, WRR, SP+WRR)</p> <p>priority tag Mark/Remark</p> <p>stream based packet filtering</p> <p>Support for stream-based redirection</p> <p>Support flow-based speed limit</p>
ACL	Support L2 to L4 packet filtering function, can match the first 80 bytes of the message, provide based on the source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port, TCP/UDP port range, VLAN and other definition ACL.

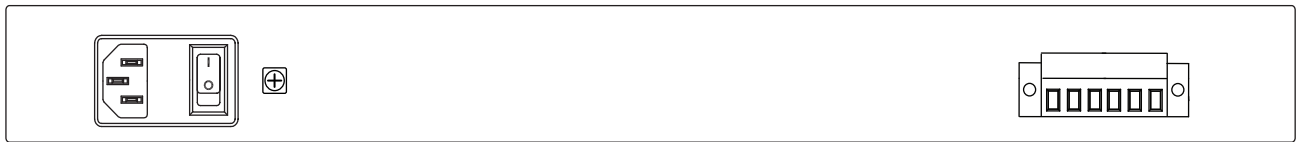
Technical Specifications*

Safety Characteristics	<ul style="list-style-type: none"> Support user grading management and password protection Support IEEE802.1X authentication / centralized MAC address authentication Support AAA&RADIUS authentication Support the number of MAC address learning restrictions Support MAC address black hole Support SSH 2 to provide secure passwords for user login. Support SSL to ensure data transmission security Support port isolation Support the speed limit function of ARP message Support IP source address protection Support ARP intrusion detection function Support against DoS attacks Support port broadcast message suppression Support host data backup mechanism Binding capabilities of IP+MAC+VLAN+ ports
DHCP	<ul style="list-style-type: none"> Support DHCP Client Support DHCP Snooping Support DHCP Serve Support DHCP Relay
Management And Maintenance	<ul style="list-style-type: none"> Support Console/AUX Modem/Telnet/SSH2.0 CLI command line configuration Support WEB network management (HTTPS) Support FTP, TFTP, Xmodem, SFTP file download management Support SNMP V1/V2C/V3 Support one bond reduction Support NTP clock Support system work log Support Ping detection Support cable state detection Support CPU instant utilization status view Support link layer discovery protocol LLDP
System Requirements	<p>Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later; Cat5e or later Ethernet cable; TCP/IP, network adapter and network operating system (Microsoft Windows, Linux or Mac OS X) installed on every computer in the network.</p>

Product Drawings



Front View

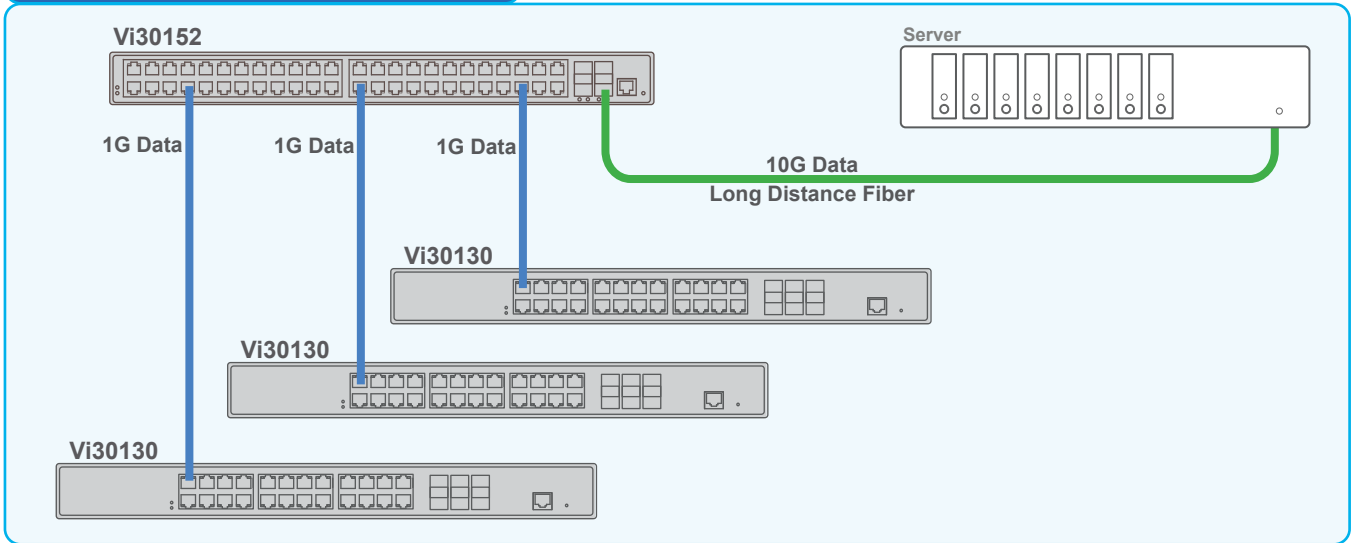


Rear View

Application Drawings

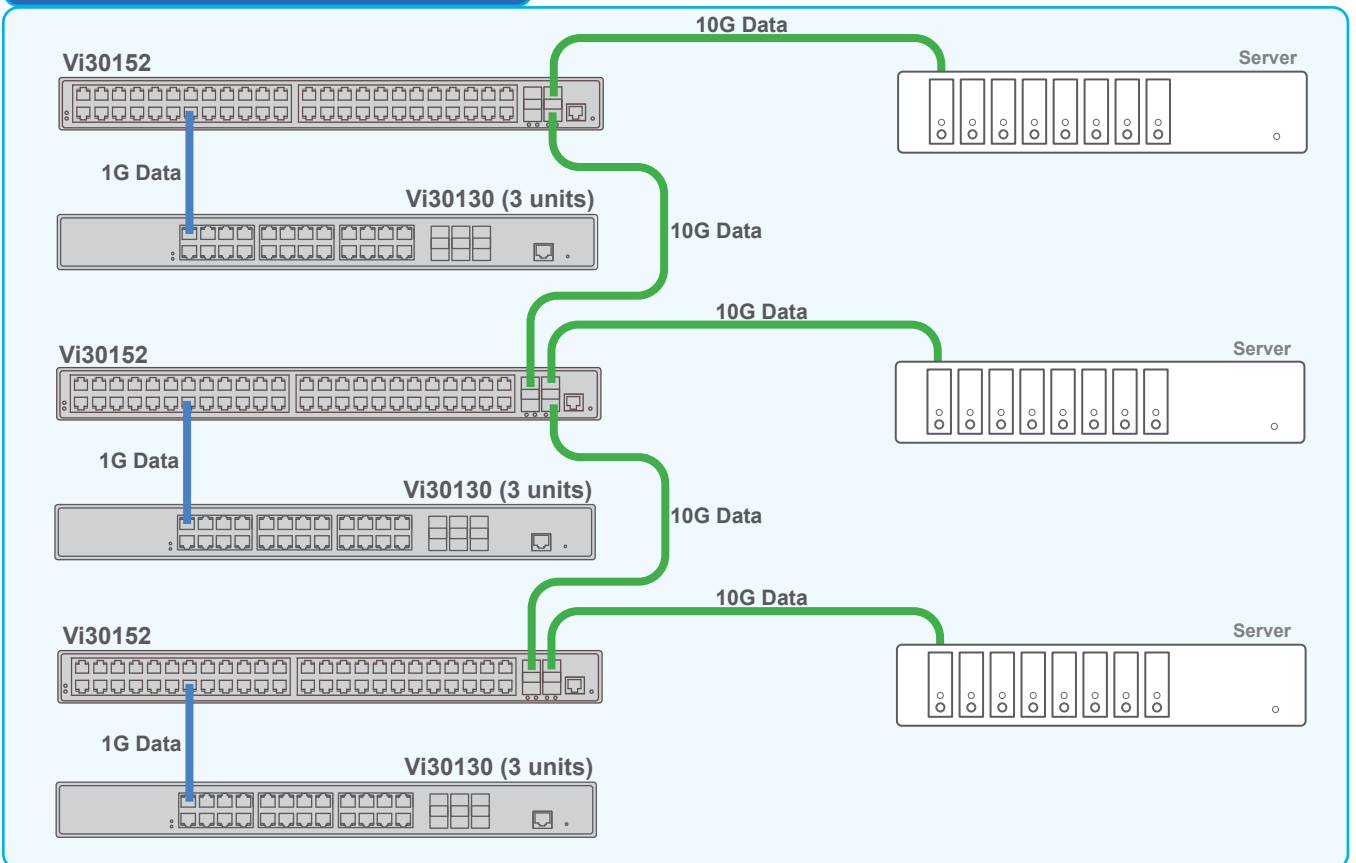
— Cat 5/6
— Fiber Optics

Single Core Switch Application



The Vi30152 core switch can connect multiple network switches to a server.

Multiple Core Switch Application



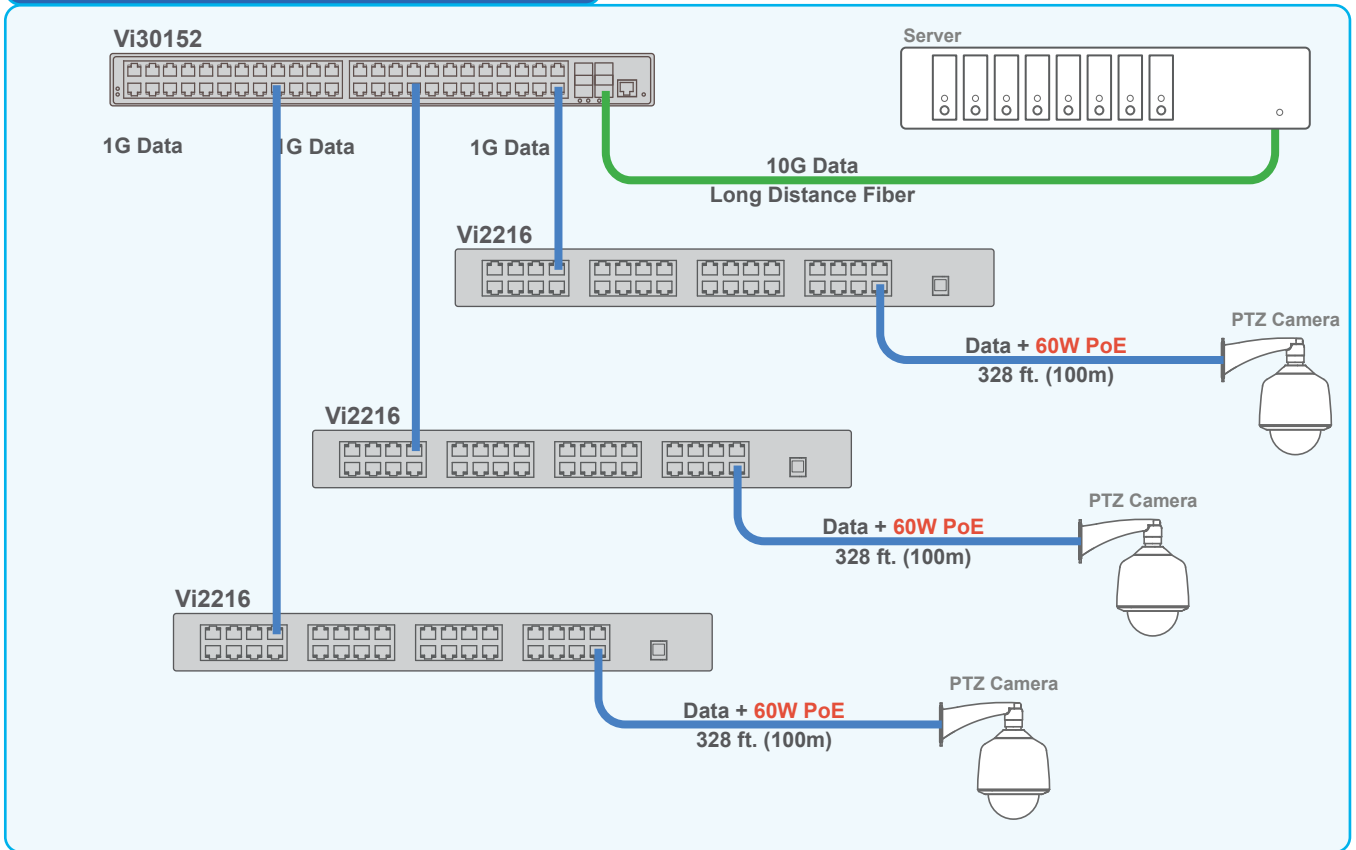
Multiple Vi30152 core switches can connect up to one thousand cameras to the servers.



TEL (+1) 858-484-5209 • FAX (+1) 858-484-1205
7810 Trade Street, Suite 100, San Diego, CA 92121, USA • support@vigatron.com • www.vigatron.com

Application Drawings

Core Switch with Midsan Application



The Vi30152 can be used along with Vi2216 high power Midspans to power high-PoE devices.