

## + 2 10/100/1000T SFP COMBO W/ X-RING MANAGED INDUSTRIAL SWITCH VDI INS6R2LCA



### BENEFITS

#### SYSTEM INTERFACE/PERFORMANCE

- RJ-45 port support Auto MDI/MDI-X Function
- SFP(Mini-GBIC) supports 100/1000 Dual Mode
- Store-and-Forward Switching Architecture
- Back-plane (Switching Fabric): 16Gbps
- 1Mbits Packet Buffer
- 8K MAC Address Table

#### POWER SUPPLY

- Wide-range Redundant Power Design

#### VLAN

- Port Based VLAN
- Support 802.1 Q Tag VLAN
- GVRP

#### PORT TRUNK WITH LACP

#### QOS (QUALITY OF SERVICE)

- Support IEEE 802.1p Class of Service,
- Per port provides 4 priority queues
- Port Base, Tag Base and Type of Service Priority

#### PORT MIRROR : MONITOR TRAFFIC IN SWITCHED NETWORKS

- TX Packet only
- RX Packet only
- Both of TX and RX Packet

#### SECURITY

- Port Security : MAC address entries/filter
- IP Security : IP address security management to prevent unauthorized intruder.
- Login Security: IEEE802.1X/RADIUS

#### IGMP

- Query mode for Multi Media Application
- Support multicast filter

#### CASE/INSTALLATION

- IP-30 Protection
- DIN Rail and Wall Mount Design

#### SPANNING TREE

- Support IEEE802.1d Spanning Tree
- Support IEEE802.1w Rapid Spanning Tree

#### X-RING

- X-Ring, Dual Homing, Couple Ring and dual Ring Topology
- Provide redundant backup feature and the recovery time below 20ms

#### SUPPORT 802.1AB LLDP

#### BANDWIDTH CONTROL

- Ingress Packet Filter and Egress Rate Limit
- Broadcast/Multicast Packet Filter Control

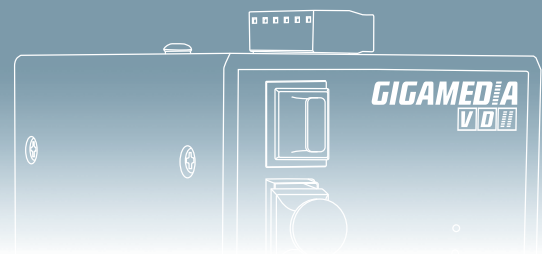
#### SYSTEM EVENT LOG

- System Log Server/Client
- SMTP e-mail Alert
- Relay Alarm Output System Events

#### SNMP TRAP

- Device cold start
- Power status
- Authentication failure
- X-Ring topology changed
- Port Link up/Link down

#### TFTP FIRMWARE UPDATE AND SYSTEM CONFIGURE RESTORE AND BACKUP

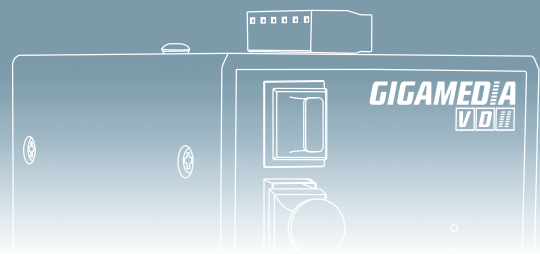


## HARDWARE SPECIFICATION

<b>Switch Architecture</b>	Back-plane (Switching Fabric): 16Gbps Packet throughput ability (Full-Duplex): 23.8Mpps @64bytes
<b>Transfer Rate</b>	1,488,000pps for Gigabit Fiber Ethernet port
<b>Packet Buffer</b>	1Mbits
<b>Mac Address</b>	8K MAC address table
<b>Flash ROM</b>	4Mbytes
<b>DRAM</b>	32Mbytes
<b>Connector</b>	10/100/1000T : 6 x RJ-45 10/100/1000T/ Mini-GBIC Combo : 2 x RJ-45 + 2 x 100/1000 SFP sockets RS-232 connector : RJ-45 type
<b>Network Cable</b>	10Base-T : 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX : 2-pair UTP/STP Cat. 5 / 5E cable EIA/TIA-568 100-ohm (100m)
<b>Optical Cable</b>	Multi-mode : 50/125µm~62.5/125µm Single mode : 9/125µm Available distance : 2km (Multi-mode)/30km (Single-mode) Wavelength : 1310nm (Multi-mode/Single-mode)
<b>Protocol</b>	CSMA/CD
<b>LED</b>	Per unit : Power (Green), Power 1 (Green), Power 2 (Green), Fault (Yellow), Master (Green) Per port : Link/Activity (Green), Speed (1000Mbps Green) SFP : Link/Activity (Green)
<b>Power Supply</b>	DC 12~48V, Redundant power and removable terminal block
<b>Power Consumption</b>	18Watts
<b>Operating Humidity</b>	5% to 95% (Non-condensing)
<b>Operating Temperature</b>	Standard : -10°C~60°C
<b>Storage Temperature</b>	-40°C to 85°C
<b>Case Dimension</b>	Metal case. IP-30, 72mm (W) x 105mm (D) x 152mm (H)
<b>Fan Number</b>	0
<b>Installation</b>	DIN Rail and Wall Mount Design
<b>EMI</b>	FCC Class A, CE EN61000-4-2 (ESD), CE EN61000-4-3 (RS), CE EN-61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-6 (CS), CE EN61000-4-8, CE EN61000-4-11, CE EN61000-4-12, CE EN61000-6-2, CE EN61000-6-4
<b>Safety</b>	UL, cUL, CE/EN60950-1
<b>Stability</b>	Testing IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)
<b>IEEE Standard</b>	IEEE 802.3 10Base-T Ethernet, IEEE 802.3u 100Base-TX, IEEE802.3ab 1000Base-T, IEEE802.3z Gigabit fiber IEEE802.3x Flow Control and Back Pressure, IEEE802.3ad Port trunk with LACP, IEEE802.1d Spanning Tree IEEE802.1w Rapid Spanning Tree, IEEE802.1p Class of Service, IEEE802.1Q VLAN Tag, IEEE 802.1x User Authentication (Radius), IEEE802.1ab LLDP

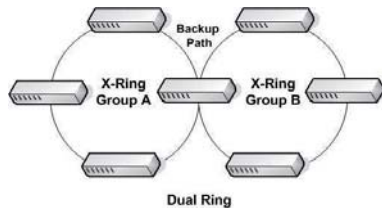
## SOFTWARE FEATURE

<b>Management</b>	SNMP v1 v2c, v3/ Web/Telnet/CLI/NS-View Management
<b>SNMP MIB</b>	RFC 1215 Trap, RFC1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643 , RFC 1757, RSTP MIB, Private MIB, LLDP MIB*
<b>VLAN</b>	Port Based VLAN IEEE 802.1Q Tag VLAN (256 entries)/ VLAN ID (Up to 4K, VLAN ID can be assigned from 1 to 4096) GVRP (256 Groups)



## SOFTWARE FEATURE

<b>Port Trunk with LACP</b>	LACP Port Trunk: 4 Trunk groups/Maximum 4 trunk members
<b>LLDP</b>	Support LLDP to allow switch to advise its identification and capability on the LAN
<b>Spanning Tree</b>	Support IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree
<b>X-Ring</b>	Support X-Ring, Dual Homing, Couple Ring and Dual Ring Topology Provide redundant backup feature and the recovery time below 20ms. Dual Ring can connect two rings without couple ring and supports as following topology.



<b>Quality of Service</b>	The quality of service determined by port, Tag and IPv4 Type of service, IPv4/ IPv6 Different Service
<b>Class of Service</b>	Support IEEE802.1p class of service, per port provides 4 priority queues
<b>Port Security</b>	Support 100 entries of MAC address for static MAC and another 100 for MAC filter
<b>Port Mirror</b>	Support 3 mirroring types: "RX, TX and Both packet"
<b>IGMP</b>	Support IGMP snooping v1,v2 256 multicast groups and IGMP query Support multicast filter
<b>IP Security</b>	Support 10 IP addresses that have permission to access the switch management and to prevent unauthorized intruder
<b>Login Security</b>	Support IEEE802.1X Authentication/RADIUS
<b>Bandwidth Control</b>	Support ingress packet filter and egress packet limit The egress rate control supports all of packet type and the limit rates are 100K~250Mbps Ingress filter packet type combination rules are Broadcast/Multicast/Unknown Unicast packet, Broadcast/Multicast packet, Broadcast packet only and all of packet. The packet filter rate can be set from 100k to 250Mbps
<b>Flow Control</b>	Support Flow Control for Full-duplex and Back Pressure for Half-duplex
<b>System Log</b>	Support System log record and remote system log server
<b>SMTP Support</b>	SMTP Server and 6 e-mail accounts for receiving event alert
<b>Relay Alarm</b>	Provides one relay output for port breakdown, power fail and alarm Alarm Relay current carry ability: 1A @ DC24V
<b>SNMP Trap</b>	Up to 3 Trap stations Cold start, Port link up, Port link down, Authentication Failure, Private Trap for power status, Port Alarm configuration, Fault alarm, X-Ring topology change
<b>DHCP</b>	Provide DHCP Client/ DHCP Server/ IP Relay functions
<b>DNS</b>	Provide DNS client feature and support Primary and Secondary DNS server.
<b>SNTP</b>	Support SNTP to synchronize system clock in Internet
<b>Firmware Update</b>	Support TFTP firmware update, TFTP backup and restore.
<b>Configuration upload and download</b>	Support binary configuration file for system quick installation
<b>if Alias</b>	Each port allows importing 128bit of alphabetic string of word on SNMP and CLI interface.

\* Optional

## PART NUMBER

P/N	DESCRIPTION
<b>VDI INS6R2LCA</b>	Switch 6 ports 10/100/1000 RJ45 Put on Din's Rail Plus 2 x 10/100/1000T / SFP Combo
<b>GGM MSFPSX</b>	Module SFP 1000Base-SX LC Multimode 500m
<b>GGM MSFPLX</b>	Module SFP 1000Base-LX LC Singlemode 10Km
<b>GGM MSFPFX2</b>	Module SFP 100Base-FX LC Multimode 2Km
<b>GGM MSFPFXSM</b>	Module SFP 100Base-FX LC Singlemode 40Km

YOUR POINT OF CONTACT