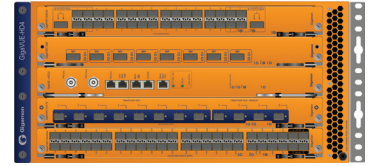## Product Description

As enterprises, data centers and service providers respond to the ever-increasing volume of network traffic and the need to effectively and efficiently manage their environment, they look to Gigamon for a scalable, pervasive, and intelligent monitoring infrastructure platform.
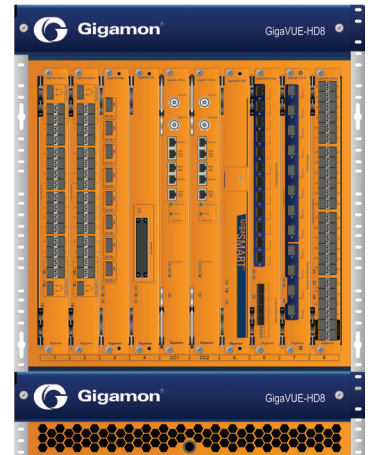
First in its category to break the terabit backplane barrier and support 100Gb blades, the GigaVUE® HD Series is purpose built for today's faster speed networks with the capability to handle speeds of 1Gb, 10Gb, 40Gb, and 100Gb. It can accommodate thousands of map rules and features some of the industry's highest density line cards. The modular design and clustering capabilities allows the GigaVUE HD Series to easily scale as network needs evolve.

The 14RU high, rack-mountable GigaVUE-HD8 fabric node with a 2.4Tb backplane is designed for high-performance, high-density networks such as Telco 4G LTE, Banking and large Data Centers. The 5RU, rack-mountable GigaVUE-HD4 chassis has a smaller form factor for environments where space is a consideration.

The GigaVUE fabric nodes are designed to work together to create an intelligent and pervasive Visibility Fabric™ architecture with the ability to aggregate, replicate, filter and transform traffic from across broad networks to the appropriate, centralized management, monitoring and security systems.

GigaVUE-HD4 FRONT

GigaVUE-HD8 FRONT

Table 1: Features & Benefits

Features	Benefits
Powerful Flow Mapping® to Manage Traffic	Flow Mapping technology enables complex traffic-forwarding decision making. • Purpose-built hardware for wire-speed performance • Optimize tool performance by only sending each tool the traffic of interest • Share network ports among multiple user groups, each with their own maps • Selectively map traffic from 10Gb, 40Gb, and 100Gb network ports to lower speed 1Gb or 10Gb tools to better leverage existing tools • Distribute traffic from single higher speed ports to multiple tool ports with GigaStream™ technology • Aggregate multiple 1Gb or 10Gb network ports to 10Gb and 40Gb tool ports to maximize tool utilization • Multicast a single traffic source to multiple tool ports enabling a range of tools to access the same traffic • Detailed filtering down to the bit pattern using user-defined attributes (UDA)
GigaSMART® Packet Modification (Optional)	The GigaVUE HD Series with a GigaSMART line card installed can take advantage of GigaSMART packet modification and tool optimization features including: GTP Correlation, FlowVUE, Adaptive Packet Filtering, de-duplication, header stripping, masking, packet slicing, source port labeling, advanced tunneling with ERSPAN termination
Create Multi-Chassis Clusters	Using native features of the GigaVUE HD Series, combine up to eight GigaVUE-HD4 and GigaVUE-HD8 fabric nodes into a cluster delivering "manage-as-one" capability and full "primary-secondary" management redundancy
Supports 1Gb, 10Gb, 40Gb, & 100Gb Network and Tool Connections	Compatible with all GigaVUE HD Series line cards that can offer: • High-density 10Gb connections – up to 32 per slot with 128 in a GigaVUE-HD4 chassis and 256 in a GigaVUE-HD8 chassis • Up to 32 x 40Gb in a GigaVUE-HD4 fabric node and up to 64 x 40Gb in a GigaVUE-HD8 fabric node • Packet time stamping at ingress with nanosecond-scale accuracy and resolution • A flexible range of SFP+ and QSFP+ transceivers including direct attach copper and active fiber cables, SR, LR, ER, and LRM
Powerful Manageability	Provides a versatile range of management options and capabilities including an integrated command-line interface (CLI), an integrated graphical user interface (GUI), and SNMP and email alerting capability

Table 1: Features & Benefits (continued)

Features	Benefits
Data Center Ready Platform	With a modularized design, front-to-back cooling delivered by hot-swappable fan trays, redundant and multi-source hot-swappable power trays offering AC and DC variants, the GigaVUE HD Series is ready to be deployed at the end of row in demanding data center environments
Modularized Design	Hot-swappable line cards, power supplies and fan trays that allow for flexibility and investment protection

Table 2: GigaVUE HD Series Cards

Product	Description
GigaVUE-HCCv1 Control Card	• Up to 512Gb of performance when installed in the GigaVUE-HD4 chassis • Up to 1.0Tb of performance when two are installed in the GigaVUE-HD8 chassis • Clusters up to four nodes • Cross-blade switching and CPU resources for the entire chassis • Management and console ports for network and local administration One control card slot is available on the GigaVUE-HD4 fabric node, two slots are available on the GigaVUE-HD8 fabric node
GigaVUE-HCCv2 Control Card	• Up to 1.2Tb of performance when installed in the GigaVUE-HD4 chassis • Up to 2.4Tb of performance when two are installed in the GigaVUE-HD8 chassis • Clusters up to eight nodes • Required for 100Gb operation • Cross-blade switching and CPU resources for the entire chassis • Management and console ports for network and local administration One control card slot is available on the GigaVUE-HD4 fabric node, two slots are available on the GigaVUE-HD8 fabric node
GigaPORT-X12G04	• Twelve (12) 10Gb/1Gb (SFP+/SFP) ports • Four (4) 10/100/1000 (SFP) ports A GigaVUE-HD4 fabric node fully populated with GigaPORT-X12G04 cards provides 48 x 10Gb ports and 16 x 1Gb ports A GigaVUE-HD8 fabric node fully populated with GigaPORT-X12G04 cards provides 96 x 10Gb ports and 32 x 1Gb ports
GigaPORT-X04G44	• Four (4) 10Gb/1Gb (SFP+/SFP) ports • Forty-four (44) 10/100/1000 (SFP) ports A GigaVUE-HD4 fabric node fully populated with GigaPORT-X04G44 cards provides 16 x 10Gb ports and 176 x 1Gb ports. A GigaVUE-HD8 fabric node fully populated with GigaPORT-X04G44 cards provides 32 x 10Gb ports and 352 x 1Gb ports
GigaPORT-Q02X32*	• Two (2) 40Gb (QSFP+) ports • Thirty-two (32) 10Gb/1Gb (SFP+/SFP) ports • 300Gb total throughput A GigaVUE-HD4 fabric node fully populated with GigaPORT-Q02X32 cards provides 8 x 40Gb ports and 96 x 10Gb, or 128 x 10Gb ports A GigaVUE-HD8 fabric node fully populated with GigaPORT-Q02X32 cards provides 16 x 40Gb ports and 192 x 10Gb, or 256 x 10Gb ports
GigaPORT-Q08*	• Eight (8) 40Gb (QSFP+) ports A GigaVUE-HD4 fabric node populated with GigaPORT-Q08 cards provides 32 x 40Gb ports A GigaVUE-HD8 fabric node populated with GigaPORT-Q08 cards provides 64 x 40Gb ports

GigaVUE-HCCv2 control card is required to achieve maximum throughput across blades.

Table 2: GigaVUE HD Series Cards (continued)

Product	Description
GigaPORT-C01*	• One (1) 100Gb (CFP) port A GigaVUE-HD4 fabric node populated with GigaPORT-C01 cards can support up to 3 x 100Gb ports A GigaVUE-HD8 fabric node populated with GigaPORT-C01 cards can support up to 6 x 100Gb ports
GigaPORT-X12-TS	• Twelve (12) 10Gb (SFP+) ports for time stamping • Optional hardware-based ingress nanosecond time stamping for financial and telco applications A GigaVUE-HD4 fabric node fully populated with GigaPORT-X12-TS cards provides 48 x 10Gb ports A GigaVUE-HD8 fabric node fully populated with GigaPORT-X12-TS cards provides 96 x 10Gb ports
GigaSMART-HD0	GigaSMART applications: • Packet slicing, masking, source port labeling, IP tunneling (de-encapsulation) • Optional header stripping, VLAN tag insertion • Optional advanced tunneling with ERSPAN termination • Optional de-duplication GigaSMART-HD0 performs its packet modification features on traffic from any or all ports and line cards on the GigaVUE HD Series Each GigaVUE-HD4 fabric node can be populated with 2 GigaSMART cards Each GigaVUE-HD8 fabric node can be populated with 4 GigaSMART cards

Product Specifications

Table 3: Physical Dimensions & Weight

Product	Height	Width	Depth	Weight
GigaVUE-HD4 Base Unit	5RU 8.7in (22.09cm)	19in (48.26cm)	15.35in (39cm) without cable management 18.11in (46cm) with cable management	37lbs (Fully populated) (16.78kg)
GigaVUE-HD8 Base Unit	14RU 24.5in (62.23cm)	19in (48.26cm)	16in (40.64cm) without cable management trays 19.5in (49.53cm) with cable management trays	164lbs (Fully populated) (74.38kg)
GigaVUE-HCCv1 Control Card	1.61in (4.09cm)	15.75in (40.01cm)	11.55in (29.34cm)	5.41lbs (2.45kg)
GigaVUE-HCCv2 Control Card	1.61in (4.09cm)	15.75in (40.01cm)	11.55in (29.34cm)	9.25lbs (4.20kg)
GigaPORT-X04G44 Line Card	1.61in (4.09cm)	15.75in (40.01cm)	11.55in (29.34cm)	4.69lbs (2.13kg)
GigaPORT-X12G04 Line Card	1.61in (4.09cm)	15.75in (40.01cm)	11.55in (29.34cm)	5.72lbs (2.59kg)
GigaPORT-Q02X32 Line Card	1.61in (4.09cm)	15.75in (40.01cm)	11.55in (29.34cm)	8.51lbs (3.86kg)
GigaPORT-Q08 Line Card	1.61in (4.09cm)	15.75in (40.01cm)	11.55in (29.34cm)	7.88lbs (3.57kg)
GigaPORT-C01 Line Card	1.61in (4.09cm)	15.75in (40.01cm)	11.55in (29.34cm)	8.15lbs (3.70kg)
GigaPORT-X12-TS Line Card	1.61in (4.09cm)	15.75in (40.01cm)	11.55in (29.34cm)	5.05lbs (2.29kg)
GigaSMART-HD0 Line Card	1.61in (4.09cm)	15.75in (40.01cm)	11.55in (29.34cm)	9.06lbs (4.11kg)

Table 4: Control Card Specifications

Control Card	Performance	Cluster Support	Timing Support
GigaVUE-HCCv1	• GigaVUE-HD4: 512Gb • GigaVUE-HD8: 1.0Tb	Up to 4	PTPv2 (IEEE 1588) NTP
GigaVUE-HCCv2	• GigaVUE-HD4: 1.2Tb • GigaVUE-HD8: 2.4Tb	Up to 8*	Pulse per Second (PPS) Input

All nodes must use GigaVUE-HCCv2 control card.

The GigaVUE HD Series chassis are powered by two separate power canisters, providing redundant, load sharing power. Both AC and DC power supplies are available. The table below summarizes the electrical characteristics of the GigaVUE HD Series.

Table 5: Power Requirements

Specification	GigaVUE-HD4	GigaVUE-HD8
Power Configuration	1 + 1 Power: 2 Power Canisters x 1 Power Supply (each)	2 + 2 Power: 2 Power Canisters x 2 Power Supplies (each)
Total Power Consumption/Heat Output	Fully populated system with all ports at 100% traffic load: CCv2: 635 Watts / 2167 BTU/hr CCv1: 530 Watts / 1808 BTU/hr	Fully populated system with all ports at 100% traffic load across all 4 power supplies: CCv2: 1290 Watts / 4401 BTU/hr CCv1: 895 Watts / 3054 BTU/hr
AC Power Supply	(x2) 100-240V AC, 15-7.5A, 47-63Hz	(x4) 100-240V AC, 15-7.5A, 47-63Hz
DC Power Supply	(x2) -42 to -72 VDC, 30A slow-blow, 30-17A	(x4) -42 to -72 VDC, 30A slow-blow, 30-17A

Table 6: Environmental Specifications

Specification	GigaVUE HD Series
Operating Temperature	32ºF to 104ºF (0ºC to 40ºC)
Operating Relative Humidity	20% to 80%, non-condensing
Recommended Storage Temperature	-4ºF to 158ºF (-20ºC to 70ºC)
Recommended Storage Relative Humidity	15% to 85%, non-condensing
Altitude	Up to 15,000ft (4.6km)

Table 7: Standards & Protocols

Specification	GigaVUE HD Series
Standards and Protocols	IEEE 802.3-2012, IEEE 802.1Q VLAN, IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T, IEEE 802.3z 1000BASE-X, IEEE 802.3ae 10000BASE-X, IEEE 802.3ba, RFC 783 TFTP, RFC 791 IP, RFC 793 TCP, RFC 826 ARP, RFC 854 Telnet, RFC 768 UDP, RFC 792 ICMP, SNMP v1/v2c, RFC 2131 DHCP client, RFC 1492 TACACS+, and support for IPv4 and IPv6

Table 8: Regulatory Compliance & Safety

Specification	GigaVUE HD Series
Compliance and Safety	UL 60950-1; CSA C22.2 EN 60950-1; IEC-60950-1, China Compulsory Certification (CCC) Mark (for GigaVUE-HD4 only)
RoHS Compliance	RoHS 6, EU directive 2002/95/EC
Emissions	FCC Part 15, Class A; VCCI Class A; EN55022/CISPR-22 Class A; Australia/New Zealand AS/NZS CISPR-22 Class A; CE Mark EN 55022 Class A
Immunity	ETSI EN300 386 V1,32, EN61000-4-2, EN 61000-4-3, 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-3-2

Table 9: Warranty and Support

Warranty	Description
Hardware	Gigamon 5-Year Hardware Limited Warranty included with purchase
Software	1-Year Software Limited Warranty included with purchase
Support	1-Year Standard Support included with purchase

Gigamon offers a range of premium support and extended services. For details regarding warranty and support, visit:
http://www.gigamon.com/gigamon-technical-support

Ordering Information

Table 10: Ordering Information

Part Number	Description
GVS-HD401	GigaVUE-HD4 base chassis, Control Card, Fans, CLI, AC power
GVS-HD402	GigaVUE-HD4 base chassis, Control Card, Fans, CLI, DC power
GVS-HD4A1	GigaVUE-HD4 base chassis, Version 2 Control Card, Fans, CLI, AC power
GVS-HD4A2	GigaVUE-HD4 base chassis, Version 2 Control Card, Fans, CLI, DC power
GVS-HD801	GigaVUE-HD8 base unit w/ chassis, 2 Control Cards, Fans, CLI, AC power
GVS HD802	GigaVUE-HD8 base unit w/ chassis, 2 Control Cards, Fan, CLI, DC power
GVS-HD8A1	GigaVUE-HD8 base unit w/ chassis, Version 2 Control Card, Fans, CLI, AC power
GVS-HD8A2	GigaVUE-HD8 base unit w/ chassis, Version 2 Control Card, Fans, CLI, DC power
PRT-H00-X12G04	Port Blade, 12 x 10Gb and 4 x 1Gb
PRT-H00-X12TS	Port Blade, H Series, 12 x 10Gb Time Stamping
PRT-H00-X04G44	Port Blade, 4 x 10Gb and 44 x 1Gb
PRT-H00-Q02X32	Port Blade, H Series, 2 x 40Gb and 32 x 10Gb
PRT-HD0-Q08	Port Blade, H Series 8 x 40Gb
PRT-HD0-C01	Port Blade, H Series 1 x 100Gb
CTL-H00-001	Control Card H Series, each
CTL-HD0-002	Control Card Version 2, H Series, each
SMT-HD0	GigaSMART, H Series blade (includes Packet Slicing, Masking, Source Port Labeling, IP Tunneling [de-encapsulation])
SMT-HD0-DD1	GigaSMART, H Series, De-Duplication feature license per GigaSMART blade
SMT-HD0-HS1	GigaSMART, H Series, Header Stripping feature license per GigaSMART blade
SMT-HD0-AT1	GigaSMART, H Series, Advanced Tunneling feature license per GigaSMART blade

Table 10: Ordering Information (continued)

Part Number	Description
SMT-HD0-APF	GigaSMART, HD Series Adaptive Packet Filtering license per GigaSMART blade
SMT-HD0-FVU	GigaSMART, HD Series, FlowVUE per GigaSMART blade
SMT-HD0-GTP250	GigaSMART, HD Series, GTP Filtering & Correlation license for 250K simultaneous subscribers per GigaSMART blade
SMT-HD0-GTP500	GigaSMART, HD Series, GTP Filtering & Correlation license for 500K simultaneous subscribers per GigaSMART blade
SMT-HD0-GPTMAX	GigaSMART, HD Series, GTP Correlation license for maximum supported subscribers per GigaSMART blade
SFP-501	1Gb SFP, Copper, UTP with RJ-45 interface
SFP-502	1Gb SFP, Multimode 850nm
SFP-503	1Gb SFP, Singlemode 1310nm
SFP-504	1Gb SFP, Singlemode 1550nm (special order)
SFP-532	10Gb SFP+, Multimode 850nm SR
SFP-533	10Gb SFP+, Singlemode 1310nm LR
SFP-534	10Gb SFP+, Singlemode 1550nm ER (special order)
SFP-535	10Gb SFP+, Multimode 1310nm LRM (special order)
QSF-502	40Gb QSFP+, Multimode 850nm SR4
QSF-503	40Gb QSFP+, Singlemode LR4
CBL-205	SFP+ to SFP+ direct attached copper cable, 5m
CBL-310	SFP+ Active Fiber cable, 10m
CBL-405	Active Fiber cable, 5m (QSFP+ approved)
CBL-410	Active Fiber cable, 10m (QSFP+ approved)
CBL-450	Active Fiber cable, 50m (QSFP+ approved)
CFP-502	100Gb CFP, Multimode SR10
CFP-503	100Gb CFP, Singlemode LR4
SVC-000	12 months Standard support and software maintenance
SVC-001	1st Year Premium 24x7 upgrade
SVC-002	12 months Premium 24x7 support and software maintenance

For More Information

For more information about the Gigamon Visibility Fabric architecture or to contact your local representative, please visit:

www.gigamon.com