

Product Datasheet

HIPswitch 100 Series

The form factor, wireless options, and small footprint are built for commercial and industrial environments.



Eliminate Network Complexity, Cost, and Security Risks

Secured Network Overlays in Less Than 15 Minutes

The HIPswitch 100 series has the smallest footprint and form factor in the HIPswitch hardware line, and is purpose-built for commercial and industrial environments with optional cellular capabilities for AT&T, GCI Alaska, T-Mobile, Verizon in the US, and Rogers and Telus in Canada. These platforms are ideally suited to easily network and cloak endpoints, machines or hosts that can't have software directly installed or effectively protect themselves.

HIPswitch 100 series is a great option for protecting hospital medical devices, Point of Sale (PoS) terminals, SCADA and Industrial Control Systems (ICS), HVAC infrastructure, IoT devices, and robots. The HIPswitch 100 series seamlessly connects to any network with wired Ethernet, Serial-Over-IP, and cellular connections (supporting 2G, 3G, 4G LTE modems). Automatic failover is included and cellular enabled models can replace your existing cellular modems for significant CapEx and OpEx savings.

As with all HIP Services, all network connectivity is uniquely based on verifiable machine identities that authenticate and authorize communication before transport and data exchange. This makes IoT endpoints invisible and accessible only by other authorized devices preventing hacker recon and eliminating exploit command and control.

“We needed to segment our ATM networks spread across 7 states and tried several technologies, but found them too complex to manage and actually created more attack vectors. Fortunately, we discovered Tempered Networks’ IDN solution and their HIPswitch 100 appliance, which is ideal for our segmentation needs and easy to deploy and manage.”

- Network Architect at Regional US Bank

Features and Benefits

- Deploy and activate an instant overlay network in as little as 15 minutes with no changes to underlay network
- Eliminate the cost, complexity, and exposure of FWs/VPNs with 3-click LAN and WAN micro-segmentation
- Reduce attack vectors and methods like IP spoofing with cloaking and verifiable machine identity for access enforcement
- Prevent attacks like MiTM with end-to-end AES 256 encryption from the HIPswitch 250 to one or many HIP Service endpoints
- Buy only what you need, when you need it with flexible throughput-based software licensing and bursting at no charge

PHYSICAL AND POWER SPECIFICATIONS

Ethernet Ports	2 x 10/100 Mbps on RJ-45 ports, auto MDI/MDIX
Power Input Failover	Automatic failover between all inputs
DC Power Input	Dual 12-48 VDC on terminal block
Power Consumption	5W, typical
Storage Temp Range	-40° to 85° C (-40° to 185° F)
Operating Temp Range	-20° to 70° C (-4° to 158° F)
Operating Humidity	5% to 95%
Enclosure	IP-30
Dimensions	45mm W x 81mm D x 95mm H (1.77" W x 3.19" D x 3.74" H)
Mounting	DIN-rail or wall-mount
Weight	410g (0.9 lbs.)

POWER OVER ETHERNET (POE)

Operating Mode	IEEE 802.3at PoE PD
POE Input Failover	Automatic failover between all three inputs
Protection Features	Overload and short-circuit protection
Isolation Voltage	1000 VDC minimum
Isolation Resistance	100 MΩ minimum

CELLULAR MODULE (100G MODEL ONLY) - SUPPORTED BANDS

4g Cellular Modes	LTE: 1900(B2)/ 1700(B4)/ 850(B5)/ 700(B13)/ 700(B17)/ 1900(B25) MHz Data rates: Category 3 Downlink: 100 Mbps (20MHz bandwidth), 50 Mbps (10 MHz bandwidth) Uplink: 50 Mbps (20 MHz bandwidth), 25 Mbps (10 MHz bandwidth)
3g Cellular Modes	CDMA/EVDO rev. a/b: 800/1900 MHz Data rates: CDMA IS-856 (1xEV-DO Release A), Up to 3.1 Mbps forward channel, Up to 1.8 Mbps reverse channel CDMA IS-2000, Up to 153 kbps, simultaneous forward and reverse channel Circuit-switched data bearers up to 14.4 kbps
3.5g Cellular Modes	UMTS/HSDPA/HSUPA/HSPA+/DC-HSPA+: 2100(B1)/1900(B2)/1700(B4)/850(B5)/900(B8) MHz Data (HSPA+) rates: Downlink: Up to 42 Mbps (category 24) Uplink: Up to 5.76 Mbps (category 8)
2g Cellular Modes	GSM/GPRS/EDGE: GSM850/EGSM900/DCS1800/PCS1900 MHz Data rates: EDGE throughput up to 236 kbps
Cellular Antenna Connectors	Two SMA female connectors
SIM Card Slot	1 externally accessible 3FF micro SIM card slot (250g)

SERIAL INTERFACE (-S MODELS ONLY)

Protocols	RS-232, RS-422, RS-485
Connector	DE-9M
Isolation Voltage	2500 Volts minimum

REGULATORY APPROVALS

EMI	FCC Part 15, CISPR (EN55022) class A IC ICES-003
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27
Free Fall	IEC60068-2-31
Vibration	IEC60068-2-6
Safety	EN60950-1

