NOVA INTEGRATION SOLUTIONS

5100 CLASS

Rugged Ethernet Switch

MODEL 5110-24

Military Grade 24-Port Cisco Switch SMB / Unmanaged

The 5000 Series consists of a family of COTS IT equipment (such as switches, routers, firewalls and servers) which are then ruggedized and housed in standard and custom "reference design" enclosures. They support highly rugged and MIL-spec applications utilized by the defense/aerospace markets as well as high reliability industrial such as railway and oil/gas.

The 5100 Class is a family of conduction cooled switches ideally suited for applications requiring a sealed chassis without the use of forced air convection. This class of products includes 8 to 24 port switches which are managed or unmanaged. The COTS devices used are Small-Medium Business or Enterprise class Netgear® and Cisco® products.

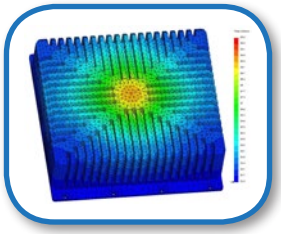
The Model 5110-24 is a full military grade, IP66 rated, conduction cooled chassis which houses a ruggedized Cisco® SG112-24 gigabit ethernet switch. This 24 port device is an easy to use unmanaged switch suited for small-medium business sized networks.

10/100/1000 Ethernet ports are accessed via 16ea RJField connectors or 8ea D38999 connectors with 3 ethernet lines installed per connector. Mini GBIC ports are available upon request.

Optional features include rackmounting kit, heater for -20°C operation, D38999 connectors to replace RJField connectors, and power input options of 18-32VDC, 110-220VAC 50/60Hz or 115VAC 47-440Hz.

For more information please visit: www.novaintegration.com

- **24 Port Gigabit Ethernet Switch**
- **Unmanaged / Small-Medium Business**
- **Ruggedized Cisco® SG112-24 Switch**
- **NOVA's proprietary, overlapping machined panel design results in zero torsional flex and superior sealing for FOD and EMI**
- **Conduction cooled IP66 rated housing**
- **MIL-STD-810G and RTCA/DO-160E temperature, altitude, humidity, shock, vibration, explosive atmosphere, salt spray and sand / dust**
- **MIL-STD-461E EMI/EMC**
- **Customer definable I/O panel**
- **18-32VDC, 110-220VAC or 115VAC / 47-440Hz power input available**
- **Very low power consumption <20W**
- **Tabletop or 2U Rackmount**
- **Optional heater for -20°C operation**



AS 9100
BUREAU VERITAS
Certification
Certificate No: US008267-1

Environmental Characteristics

Temperature, operating	0°C to +55°C -20°C to +55°C w/ heater
Temperature, non-operating	-40°C to +85°C
Humidity	0% to 100%, non-condensing MIL-STD-810D, Method 507.2, Fig 507.2-3
Altitude, operating	-1,000 to 15,000 ft (minimum) RTCA/DO-160E, Paragraph 4.6.1, Category A
Altitude, non-operating	-1,000 ft. to 60,000 ft. RTCA/DO-160E, Paragraph 4.6.1
Decompression	65,000 ft. tested per RTCA/DO-160E, Paragraph 4.6.2
Vibration	MIL-STD-810F, Method 514.6, Procedure I
Acceleration	40G, any axis per MIL-STD-810D method 513.3
Shock	MIL-STD-810F, Method 516.6, Procedures I
Shock, non-operating (Bench Handling)	MIL-STD-810F, Method 516.6, Procedures V & VI
EMI/EMC	MIL-STD-461F CE102, CE106, CS101, CS114, CS115, CS116, RE102, RS103
Electrical Bonding	MIL-HDBK-1857
ESD	MIL-STD-1686A
Explosive Atmosphere	RTCA/DO-160E, Paragraph 9.7.2, Category E
Salt Spray	RTCA/DO-160E, Paragraph 14.2, Category S
Sand and Dust	RTCA/DO-160E, Paragraph 12.3, Category D
Fungus Resistance	MIL-STD-454N, Requirement 4
Fluid Contamination	Jet fuel DERD 2494, hydrolic fluid MIL-H-5606E, lube oil mixtures to DERD 2497/ MIL-L-7808 & soap water

Physical Characteristics

Dimensions	9" D x 17.32" W x 3.47" H
Weight	8 lbs.
Mounting	Tabletop or Rackmount
Sealing	IP66
Chassis Body	Machined aluminum alloy #6061-T6
Cooling	Conduction

Electrical Characteristics

Input Power	18-32 VDC 110-220VAC (nominal) 115VAC, 47-440Hz
Power Consumption	20W max 45W with optional heater
Voltage Hold Up	MIL-STD-704A (optional)

Performance Characteristics

Gigabit ports	24
Switching Capacity	4.8 Gbps
Forwarding Capacity	35.7 mpps
Jumbo frame support	9216 bytes
Quality of service (QoS)	802.1p priority based 4 hardware queues Priority queuing and weighted round-robin (WRR)
Loop detection	Helps discover loops in the network to avoid broadcast storms
System memory	128 MB RAM 128 MB Flash
Standards	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T IEEE 802.3z Gigabit Ethernet IEEE 802.3x Flow Control 802.1p priority
Mini GBIC ports	2ea available (optional)
Customization	Front I/O panel Heater Power Input Mounting

Note: For additional performance characteristics see manual for the Cisco® SG110-24.

Ordering Table

95-5110-24HMP-00X

HEATER	
1	None
4	Installed

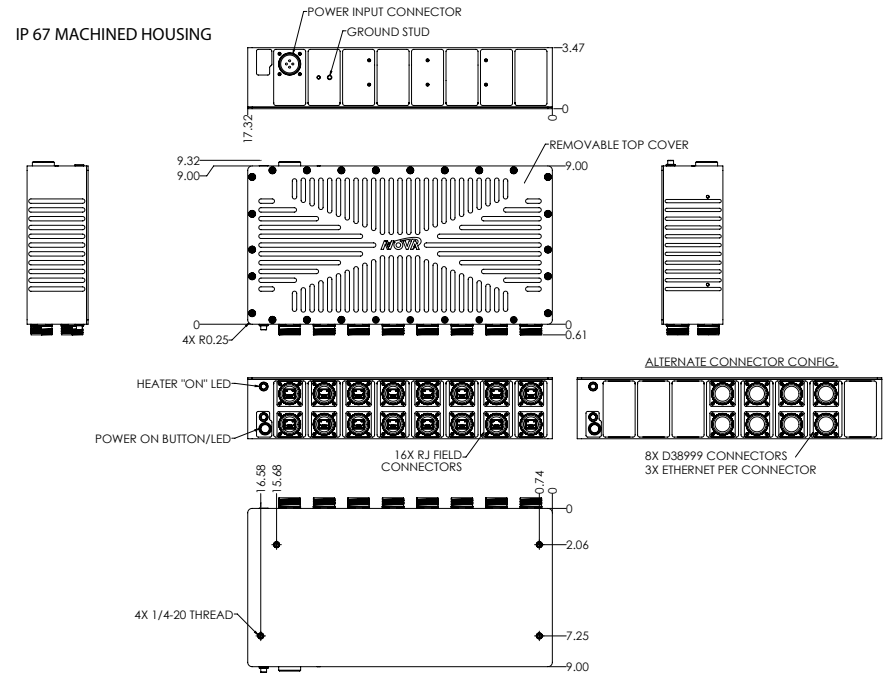
MOUNT	
0	Tabletop
2	Rackmount

POWER	
2	18-32VDC
5	110-220VAC
6	115VAC 47-440Hz

CONFIG	
1	Standard
x	Customer Specific

Contact Nova Integration Solutions for custom configurations

Outline Drawing



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