

**Product Introduction & Benefits**

Easily boost your networking throughput; **NSH-9020** equips 16 Gigabit ports that lead you to a real Gigabit connection. Users are now able to transfer large and high bandwidth-needed files faster and hence get a real efficiency improvement. In addition to the copper ports, 4 of those ports support fiber connection with the equipped Mini-GBIC ports for obtaining long-distance communication.

The Switch offers users with fast and reliable network. The store-and-forward architecture filters errors and forwards packets in a non-blocking environment. Flow control ensures the correctness of data transmitting. The 802.3x and backpressure flow control mechanisms work respectively for full and half duplex modes.

The Switch features with easy installation and maintenance. It supports Nway auto-negotiation protocol that detects the networking speed (10/100/1000 Mbps) and the duplex modes (Full/Half) automatically. Auto-MDI/MDI-X function alleviates the effort to use crossover cables. Also, rich diagnostic LEDs are provided for users to get real-time information of the connection status.

**Main Features:**

- Complies with 10BASE-T specifications of the IEEE802.3 standard
- Complies with 100BASE-TX specifications of the IEEE802.3u standard
- Complies with 1000BASE-T specifications of the IEEE802.3ab standard
- 16 \* 10/100/1000Mbps RJ-45 Nway ports
- Equips four SFP slots for optional fiber connection
- Supports NWay protocol for speed (10/100/1000Mbps) and duplex mode (Half/Full) auto-detection
- Supports MDI/MDI-X auto crossover
- Supports full and half duplex operation on all ports
- Supports back-pressure (half duplex) and flow control (IEEE 802.3x)
- Wire-speed packet filtering and forwarding rate
- Store-and-forward architecture filters fragment & CRC error packets
- Supports 8K MAC address entries in whole system
- 340KBytes buffer memory
- Support 9K bytes jumbo Frames
- Supports extensive LED indicators for network diagnostics
- Internal power adapter
- FCC,VCCI,CE Class A



**Specifications:**

- **Standards:**  
IEEE802.3, IEEE802.3u, IEEE802.3ab and IEEE802.3x standards
- **Interface:**  
16\* 10/100/1000Mbps RJ-45 switching ports  
4\* SFP( mini-GBIC) slots
- **NWay Auto-Negotiation:**  
Network speed: 10 / 100 / 1000Mbps
- **Protocol Support:**  
10Mbps: Full/Half duplex  
100Mbps: Full/Half duplex  
1000Mbps: Full duplex
- **MAC Address Table:**  
8K entries
- **Packet Buffer:**  
340KB
- **Rich LED indicators:**  
1\* Power (green)  
16\*10/100M LINK/ACT (solid green/blinking green)  
16\* 1000M Link/ACT (solid green/green blinking)
- **Operating Temperature:**  
0~40°C (32~104°F)
- **Operating Humidity:**  
10% ~ 90% (non-condensing)
- **Dimension / Net weight:**  
441 x 130 x 44 mm / 1.86 kg
- **Power Supply:**  
Internal Power Supply  
100~240VAC/50~60Hz universal input
- **Emissions:**  
FCC Class A, CE, VCCI Class A

**Ordering Information:****NSH-9020:**

16-Port 10/100/1000Base-T + 4-port mini-GBIC Ethernet Switch

**GBM-104:**

Mini GBIC, 1.25G SFP-type Multi-mode, 3.3V - 500m

**GBM-104-10:**

Mini GBIC, 1.25G SFP-type Single-mode, 3.3V – 10km

**GBM-104-30\*:**

Mini GBIC, 1.25G SFP-type Single-mode, 3.3V – 30km

\* Longer distances available by request, call for details.

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Specifications subject to change without prior notice.