Hamlet

Fast Ethernet Switch
5/8-Port 10/100Mbps

User Manual
HN05S/HN08S

Dear Customer,
thanks for choosing a Hamlet product. Please carefully follow the instructions for its use and maintenance and, once this item has run its life span, we kindly ask You to dispose of it in an environmentally friendly way, by putting it in the separate bins for electrical/electronic waste, or to bring it back to your retailer who will collect it for free.

We inform You this product is manufactured with materials and components in compliance with RoHS Directive 2002/95/CE, WEEE Directive 2002/96/CE, 2003/108/CE Italian Legislative Decree 2005/151 and EMC Directive 2004/108/EC for the following standards:
EN 55022: 2006, Class B
EN 61000-3-2: 2000 + A2: 2005, Class A (for HN05S)
EN 61000-3-2: 2006, Class A (for HN08S)
EN 61000-3-3: 1995 + A1: 2001 + A2: 2005
AS/NZS CISPR 22: 2006, Class B
EN 55024: 1998 + A1: 2001 + A2: 2003
IEC 61000-4-2: 2001 Ed. 1.2, IEC 61000-4-3: 2006 Ed. 3.0,
IEC 61000-4-4: 2004 Ed. 2.0, IEC 61000-4-5: 2005 Ed. 2.0,
IEC 61000-4-6: 2006 Ed. 2.2, IEC 61000-4-8: 2001 Ed. 1.1,
IEC 61000-4-11: 2004 Ed. 2.0.

CE

The complete CE declaration of conformity of the product can be obtained by contacting Hamlet at e-mail address info@hamletcom.com.
The information on the importer for your country are available in the "About us" section of the Hamlet website at www.hamletcom.com.

Trademarks and changes

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Introduction

Hamlet HN05S/HN08S is a high-performance Fast Ethernet switch with all ports capable of 10 or 100 Mbps auto-negotiation (NWay) operation, which means the switch could automatically negotiate with the connected partners on the network speed and duplex mode.

It is ideal for micro-segmenting large networks into smaller, connected subnets for improved performance, enabling the bandwidth demanding multimedia and imaging applications. Compared to the shared 10Mbps or 100Mbps networks, the switch delivers a dedicated 10/100Mbps connection to every attached client without bandwidth congestion issue.

This switch also supports auto MDI/ MDI-X function. Each port could be used to connect to another switch or hub without crossover RJ-45 cable.

Store-and-forward switching mode promises the low latency plus eliminates all the network errors, including runt and CRC error packets. To work under full-duplex mode, transmission and reception of the frames can occur simultaneously without causing collisions as well as double the network bandwidth. Moreover, Green Ethernet and Pre-IEEE 802.3az Energy Efficient Ethernet (HN05S only) is supported to save power consumption.

The switch is plug and play without any software to configure and also fully compliant with all kinds of network protocols. The diagnostic LEDs on the front-panel can provide the operating status of individual port and whole system.

Package contents

Before you start to install the switch, check the following contents in this package.

- One 5/8-Port Fast Ethernet switch
- One external power adapter
- User's Manual

Features

- Complies with 10BASE-T specifications of the IEEE 802.3 standard
- Complies with 100BASE-TX specifications of the IEEE 802.3u standard
- 5/8 × 10/100Mbps RJ-45 NWay ports
- Supports MDI/MDI-X auto crossover
- Supports full and half duplex operation on all ports
- Supports back-pressure (half duplex) and full duplex flow control (IEEE 802.3x)
- Wire-speed packet filtering and forwarding rate
- Store-and-forward architecture filters fragment & CRC error packets
- Supports extensive LED indicators for network diagnostics
- Supports Green Ethernet function and pre-IEEE 802.3az standard (HN05S only) for power saving

LEDs definition

Please refer to the following table for LEDs definition.

5-port switch

8-port switch

LED	Status	Operation
Power	Steady Green	The switch is powered on
	Off	The switch is powered off
Link/Act	Steady Green	Valid port connection
	Blinking Green	The port transmitting or receiving data.
	Off	Port disconnected

Station connection

Connect each station to the switch by twisted-pair cable. Plug one RJ-45 connector into a port of the switch and plug the other RJ-45 connector into the station's network adapter.

Connect the power adapter supplied with the product to the power input on the back of the switch and then to a wall electrical outlet.

The switch is powered immediately and automatically detects connected devices.

Switches connection

In making a switch interconnection, you could use any port to connect another switch with straight or crossover cable. As all the ports support auto MDI/MDI-X function, using a straight cable to make a switch-to-switch connection is allowed.

For cable selection, refer to the following table.

Network Speed	Cable Type	Max. Length
10Mbps	Cat. 3, 4, 5 UTP/STP	100 meters
100Mbps	Cat. 5 UTP/STP	100 meters

Note

To make this switch perform well, we strongly recommend below installation environment:

1. The switch is placed with appropriate ventilation environment. A minimum 25 mm space around the unit is recommended.

2. The switch and the relevant components are away from sources of electrical noise such as radios, transmitters and broadband amplifiers.

3. The switch is away from environments beyond recommend moisture.

Specifications

Standard	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3x full duplex flow control IEEE802.3az draft (HN05S only)
Interface	5x 10/100 Mbps RJ-45 ports (HN05S) 8x 10/100 Mbps RJ-45 ports (HN08S)
Network Data Rate	10/100 Mbps Auto-negotiation
Transmission Mode	10/100Mbps: Full-duplex, Half-duplex
Buffer Memory	384K bits (5-port) 768K bits (8-port)
MAC Address Table	2K MAC address entries (5-port) 1K MAC address entries (8-port)
Temperature	Operating: 0 ~ 40 °C (32 ~ 104 °F) Storage: -40 ~ 70 °C (-40 ~ 158 °F)
Humidity	Operating: 10% ~ 90% RH Storage: 5% ~ 90% RH (non-condensing)
LED Indications	System: Power Ports: Link/Act
Power Supply	External power adapter 5V/0.6A
Dimensions	120 × 75 × 25 mm (5-port) 159 × 85 × 25 mm (8-port)
EMI	CE, FCC and VCCI Class B

FC

FCC Certifications

This Equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received; including interference that may cause undesired operation.

CE

CE Mark Warning

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 class B for ITE, the essential protection requirement of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

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