



MIL-H1120 4-Port 10BASE-T Unmanaged Hub

MIL-H1130 8-Port 10BASE-T Unmanaged Hub



- **Four or Eight 10BASE-T Ports**
- **Portable palm size for desktop use**
- **Slide switch for cascading on first port**
- **Packet regeneration, automatic polarity detection/correction and link test capabilities**
- **Segment partitioning and jabber lock-up protection**
- **Port and system status LEDs**
- **External linear power adapter**
- **Complies with IEEE802.3 10BASE-T standards**
- **Plug & Play installation**

MiLAN Technology's compact four-port MIL-H1120 Ethernet unmanaged hub is the ideal solution to low density desktop connectivity, while the eight-port MIL-H1130 is the ideal solution to medium density desktop or workgroup connectivity environments where performance and flexibility have to be balanced with simplicity and affordability. These mini hubs are twisted-pair hubs intended to connect as many as four or eight IEEE802.3 10BASE-T network segments through one unit.

Each hub has one twisted pair port specifically designed with an up-link (cascading) capability supporting a Normal mode or Up-link mode switch. As many as four hubs can be cascaded together to form an independent workgroup.

The MIL-H1120 and MIL-H1130 utilize the latest IC and Surface Mount Technology (SMT), which increases functionality and reliability.

Additionally, these hubs are very small in size yet they provide the complete functionality of large hubs including packet regeneration and network partitioning.

The packet regeneration results in a higher performance network by regenerating preamble, re-timing the data packets and extending collision fragments to ensure collision enforcement by all nodes. Each segment automatically detects the polarity of the receive pair and reverses should the pair be incorrectly installed. The IEEE defined link integrity test function continually monitors the receive pair to ensure link continuity. It also includes a partitioning capability where each segment automatically disconnects itself after repeated collisions are detected.

A full complement of LEDs, including link, activity and collision indications give the user complete port status information, greatly simplifying installation and troubleshooting.

These mini hubs support jabber lock-up protection on all ports, preventing transceiver lock-up resulting from packets that exceed the maximum pack length.



Ethernet Unmanaged Hubs

MIL-H1120 / MIL-H1130

LED Indicators

System LED:

Power:	Green	The system detects the power signal
	OFF	No power

Per Port LED:

Collision:	Amber	If the collision is detected on the segment
Link/Act:	Green	When the 10 Mbps link pulse is detected
Link/Act:	Flashing	
	Green	If the data is traveling on the segment

10BASE-T Interface

Transmitter:	Typical	Range
Peak Differential Signal Amp	2.5V	2.2 to 2.8V
Transmitter Jitter	+/-3.5 ns	
Harmonics Content		>27dB below
fundamental		
Common Mode Output Voltage		<50 mV
Silence Voltage	0	+/-5 mV
Link Test Pulse	10 ns	60 to 130 ns
Output Impedance	100 ohm	85 to 115 ohm
UTP Length		100 m (328 ft)
Receiver:		
Receiver Threshold	-400 mV	-300 to -520 mV
Differential Noise Rejection	300 mV	

Packet Transmission Characteristics

Delay Times: (Any segment in to all other segments out)

UTP to UTP

Start of Packet 700 ns Maximum

Collision to Jam 700 ns Maximum

Preamble:

Input 32 bits minimum including SFD

Output 64 bits including SFD (last 2 bits are 1,1)

Jam Output: A pattern of 1,0 is sent to all segments (except receive port) when collision is detected

Packet Fragment

Extension: 96 bits including preamble. Packet fragments are extended using 1,0 pattern.

Auto Partitioning/Reconnection:

Port Partitioning occurs after 32 consecutive collisions or if collision has a duration of more than ms. Reconnection occurs after 512 bits are received or transmitted on the partitioned port without collision or after data is transmitted without collision for 512 bits (alternate algorithm).

Jabber Lock-up Protection:

For packets that exceed 64k bit, packet output is interrupted for 96 bit times.

Hubs Ports:

MIL-H1120	4 RJ-45 10 BASE-T ports
MIL-H1130	8 RJ-45 10 BASE-T ports

Physical Characteristics

MIL-H1120	
Dimensions	100.5 mm x 78 mm x 27 mm (3.95" W x 3.07" D x 1.06" H)
Weight	0.1554 Kg (.34 Lbs)
MIL-H1130	
Dimensions	153 mm x 78 mm x 27 mm (6.02" W x 3.07" D x 1.06" H)
Weight	0.1996 Kg (.44 Lbs)

Environmental

MIL-H1120 and MIL-H1130

Operating Temp. 0 °C to 40°C (32°F to 104°F)

Storage Temperature: -20°C to 70°C (-4°F to 158°F)

Operating Humidity: 10% to 90% (non-condensing)

Power Characteristics

MIL-H1120 and MIL-H1130

Input voltage 120VAC @ 60 Hz

240VAC @ 50 Hz

Output voltage 7.5VDC @ 500 mA (MIL-H1120)

7.5VDC @ 700 mA (MIL-H1130)

External power adapter:

North American, Continental, Europe & United Kingdom versions

Standards Compliance

Functional Standards: IEEE802.3 & IEEE802.3u

Emissions/Safety: UL 1950, CSA 22.2 No. 950, EN60950 (TUV), VCCI, FCC Class A, EN55022 Class A, EN50082-1, CE

Ordering Information

4-Port 10 BASE-T Unmanaged Hub

MIL-H1120US w/ North American power adapter

MIL-H1120EU w/ Continental Europe power adapter

MIL-H1120UK w/ United Kingdom power adapter

8-Port 10 BASE-T Unmanaged Hub

MIL-H1130US w/ North American power adapter

MIL-H1130EU w/ Continental Europe power adapter

MIL-H1130UK w/ United Kingdom power adapter

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