



HN-208

Family of 802.11b Wireless Data Modems

Features:

- 2.4GHz frequency DSSS technology
- Up to 11Mbps data rate
- 11 channels USA/Canada
- FCC certified and CE marked
- NEMA 4X enclosure
- Integral 6dB patch antenna
- Ethernet, serial, and I/O interface

Benefits:

- Highly integrated 802.11b solution
- Supports high speed applications needing long range
- Quick time to market
- License-free application worldwide
- Can be deployed in industrial & outdoor locations
- Cost-effective, simple installation
- Connects to a variety of devices

The HN-208 is a versatile, low cost, multi-purpose 802.11b wireless data modem. Available in three different versions, the HN-208 series provides an Ethernet connection, an RS-232 serial connection, or a single I/O connection. The HN-208 communicates with existing 802.11b access points and supports peer-to-peer links as well.



HN-208

Specifications

	HN208x	HN-208xX
Frequency Band	2.4 ~ 2.4835 GHz (US/Can/Japan/Europe) 2.471 ~ 2.497 GHz (Japan)	
Technology	IEEE 802.11b DSSS, WiFi compliant	
Number of Channels	11 Ch. - USA/Canada, 13 Ch. - Europe, 14 Ch. - Japan, 4 Ch. - France	
MAC	CSMA/CA with ACK, RTS, CTS	
Data Rate	11Mbps, 5.5Mbps, 2Mbps and 1Mbps	
Security	WEP standard encryption, 64/128 bits	
Modulation Type	DQPSK, DBPSK, and CCK	
GPIO	2 digital I/O signals	
Serial	UART up to 230.4 Kbps	
Transmit Power	+20 dBm	+14dBm
Receive Sensitivity	-88dBm for 11Mbps	-82dBm for 11Mbps
	-92dBm for 5.5Mbps	-86dBm for 5.5Mbps
	-94dBm for 2Mbps	-88dBm for 2Mbps
	-96dBm for 1Mbps	-90dBm for 1Mbps
Integral Antenna	6dB Patch	none
Antenna Connector	None	Reverse TNC
Power Requirements	9 VDC	
Operating Temperature	-40°C to +85°C	

Mechanical Specifications

	HN208E/X	HN-208S/X	HN-208I/X
Case Materials	Polycarbonate, NEMA 4X		
Dimensions (mm)	130 x 79 x 35 (excl. flange)		
Weight excl. cable	235g		
Data Connector	RJ45	DB9	DB9
Power Connector	2 Terminal Connector		



Reliability

Built around an industrial 802.11b radio, the HN-208 has an integral 6dB patch antenna creating a "single piece" modem that is rated over the full -40°C to +85°C temperature range. Communication with the HN-208 is through a 10BaseT Ethernet connection (HN-208E) or a UART at up to 115.2 Kbps (HN-208S). The HN-208I allows monitoring or setting a logic level input signal. The HN-208 communicates over the air at up to 11Mbps and supports point-to-multipoint networks.

With a NEMA 4X weatherproof enclosure and aluminum mounting flange, the HN-208 is simple to install on the side of a building or attached to a mast. With no antenna to connect, the HN-208 is simply mounted where the antenna would ordinarily be mounted. This removes the need for long antenna cable runs, expensive both in terms of cost and performance.

The HN-208 comes with a 50-foot cable that connects to an indoor adapter box (included) that provides a standard 10BaseT or RS-232 serial connection. The adapter box provides power to the HN-208 through a universal 110/220 50/60 wall-mount power supply (also included).

The integral 6dB patch antenna provides a line-of-site range of several miles, making the HN-208 ideal for a variety of "last mile" applications. For applications requiring more antenna gain, the HN-208X replaces the built-in patch antenna with an external TNC connector.

Low Cost

When paired with an 802.11b access point, the HN-208 provides a cost-effective link from remote devices to Ethernet/IP-based applications. These applications include Intranet-based applications as well as Internet access. Transmit power is +15dBm which allows the HN-208 to be used worldwide even with the gain of the patch antenna.

The HN-208 has been designed specifically to provide wireless LAN and Internet connectivity in industrial, scientific, medical, automotive, and other applications. The HN-208 can be monitored and controlled by a handheld device, by a PC in a central location, or over the Internet. This eliminates cabling and allows the equipment to be moved. Additionally, email or text messages can be sent out advising appropriate personnel of alarm conditions or status of equipment. The module is an excellent solution for remote sensing and data collection.

The HN-208 is both FCC and CE marked. With its operation in the 2.4GHz ISM band, the HN-208 can be deployed around the world without a license.