



Features:

- **2.4GHz Frequency Hopping Spread Spectrum Technology**
- **100Kbps through put**
- **79 Hopping channels**
- **FCC Certified and CE marked**
- **Integral 6dB patch antenna**
- **RS-232 asynchronous serial interface**

Benefits:

- **Exceptional immunity to multipath fading and jamming**
- **Co-location of multiple networks without interference**
- **License-free application worldwide**
- **Cost-effective, simple installation**
- **Connects to PC Serial ports**

HN-110

**2.4GHz
Frequency
Hopping
Wireless Data
Modems**

The HN-110 is a versatile, low cost, short range, multi-purpose 2.4 GHz frequency-hopping wireless data modem. The HN-110 has an integral 6dB patch antenna creating a "single piece" modem. Communication with the HN-110 is through a 115.2Kbps asynchronous serial port supporting a standard RS-232 interface. The HN-110 provides 100Kbps throughput in point-to-point applications.



Specifications

| | HN-110 — HN-115 |
|-----------------------|--|
| Frequency Band | 2400MHz - 2483.5MHz |
| Licensing | Unlicensed under FCC Part 15, ETSI 300.328 |
| Number of Channels | 79 |
| I/O Data Rates | Up to 115.2 Kbps Asynchronous |
| Throughput | 100 Kbps |
| Line of Site Range | 100 Meters |
| Modulation Type | GFSK |
| Output Impedance | 50 ohms |
| Network Protocol | Point to Point |
| Transmit Power | +20dBm |
| Receive Sensitivity | -86dBm |
| Power Requirements | 9 Vdc 160mA typ. 750mA surge |
| Serial Data Interface | Async. RS-232 |

Mechanical Specifications

| | HN-110 — HN-115 |
|--------------------|-------------------------------|
| Antenna | Integrated 6dB Patch |
| Case Materials | Polycarbonate, NEMA 4X |
| Dimensions (mm) | 130 x 79 x 35 (excl. flange) |
| Weight excl. cable | 235g |
| Cable Length | 6 feet (1.8m) — 50 feet (15m) |
| Data Connector | 9-Pin D |
| Power Connector | 2 Pin DIN |

Environmental Specifications

| | |
|-------------------|----------------------------------|
| Temperature Range | -20°C to +70°C (radio enclosure) |
| Humidity | 95% at +40°C, Non-condensing |



Simplicity

With a NEMA 4X weatherproof enclosure and aluminum mounting flange, the HN-110 is simple to install on the side of a building or attached to a mast. With no antenna to connect, the HN-110 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.

Easy to Use

The HN-110 comes with a 5-foot cable that connects to an indoor Serial Adapter Box (included) that provides a standard RS-232 serial 9-pin D connection. A 50-foot cable version (HN-115) is available where longer cable runs are required. The Serial Adapter Box provides power to the HN-110 through a universal 110/220 50/60 wall-mount power supply (also included).

The integral 6dB patch antenna provides a 100 meter range, making the HN-110 ideal for a variety of short range indoor and outdoor applications such as digital signs, remote controls and telemetry applications.

A pair of HN-110s provides a truly "plug and play" wireless connection with no setup or antenna connection required. HN-110s can be specifically paired together, allowing multiple pairs of HN-110s to be used in the same area. Standard baud rates are supported from 2400 baud up to 115.2 Kbaud. A simple-to-use configuration utility is included.

Reliability

Based on spread spectrum frequency-hopping radio, the HN-110 has exceptional multipath fade rejection as well as immunity to jamming. The HN-110 is both FCC and CE marked. Combined with its operation in the 2.4GHz ISM band, the HN-110 can be deployed around the world without a license.