RFM®

SNAP910

900MHz High-Speed Frequency Hopping Network Access Point

SNAP910

Features:
- *900 MHz frequency hopping spread spectrum technology*
- *Serial-to-Ethernet conversion*
- *Seamless roaming capability*
- *172.8Kbps data rate throughput*
- *20+ mile range with omni anntenna*
- *FCC certified*

Benefits:
- *License-free operation*
- *Immunity to jamming and multipath fading*
- *Allows non-Ethernet devices to connect to Ethernet network*
- *Supports far-ranging mobile applications*
- *Shortens time to market*
- *Simple installation*

Designed for use as a base station for WIT910-based products, the SNAP910 provides seamless Ethernet connectivity for remote serial devices. The SNAP910 connects up to 15 WIT910 wireless remotes to a 10/100Base-T Ethernet network. The SNAP910 also is ideal for use as access points for a network of RFM HN-91 Series modems. Multiple SNAPs can be co-located to support larger numbers of remote devices. Certified by the FCC, the SNAP910 can be used license-free in the US.

Specifications

RF Frequency	902MHz to 927MHz
Radio Certification	Certified under FCC Part 15.247, license free
Operating Range	Indoor: 1000' outdoor: >20 miles with omni-directional antenna
Radio Network Topology	Star network
Radio Network Protocol	Dynamically assigned TDMA with ARQ
Configuration Interface	Asynchronous (RS-232) up to 115.2 Kbps
I/O Data Rate	10 Mbps Ethernet to the SNAP, 115.2Kbps to each radio
RF Data Rate	172.8Kbps
# of Frequency Channels	54
RF Bandwidth	460 KHz
Transmit Power Output	10 mW, 100 mW or 500mW, software selectable
Receiver Sensitivity	-103 dBm for 10-5 BER
Supply voltage	9vdc
Power consumption	4.5W
Size (mm)	201 x 144 x 53
Weight	727g
Case Material	Ruggedized aluminum
Operating Temperature	-300C to 700C
Humidity	20% to 90% (non-condensing)

Connectors

Power	2-Pin Terminal
Ethernet	RJ-45
Configuration Port	RJ-11
Alternate Sync IN	RJ-11
Alternate Sync OUT	RJ-11
Antenna	Reverse TNC

Connectors

Power
Ethernet Transmit Data
Ethernet Receive Data
Collision
Ethernet Link

Ethernet Connectivity

The SNAP910 allows limited intelligence or legacy serial devices to transmit unformatted serial data to an application residing on an Ethernet network. Each remote device can be treated as an Ethernet device by the application even though the remote device sends and receives unformatted serial data. The SNAP910 handles all IP or port assignments as well as encapsulating and un-encapsulating unformatted data into and out of Ethernet datagrams.

Scalable

SNAP family members have an integral WIT910 radio module providing 172.8Kbps throughput for up to 15 remotes. Multiple SNAPs can be deployed to provide communication for more remote devices.

Versatile

Configuration of the SNAP family is through a standard RS-232 serial port using the RFM WinSNAP Windows™-based software. Alternatively, the SNAP may be configured through a Telnet session. The system designer is given the freedom to choose the wireless communication parameters that provide the optimum performance for each application. Point-to-point and point-to-multipoint modes are supported using a dynamically assigned TDMA mode.

Long Range

The RFM 900MHz spread spectrum, frequency hopping radios have a demonstrated 20+ mile range using omni-directional antennas, making the SNAP910 ideal for a variety of long range applications. For applications requiring more antenna gain, the SNAP910X replaces the omni-directional antenna with an external reverse TNC connector.

Reliable

The SNAP910 family provides both reliable communication and reliable operation. With frequency hopping spread spectrum technology, the SNAP provides immunity to jamming as well as immunity to multipath fading. Using automatic retransmit request (ARQ), transparent error-free communication is automatic. The built-in data scrambling adds a measure of security. And reliable operation is assured through our stringent QA processes.