PiIoT for Raspberry Pi

Add a wireless WAN connection to the Raspberry Pi

The PiIoT is a WAN communications board which provides an HSPA wireless interface for the Raspberry Pi 2. Conforming to the HAT specification, the PiIoT also provides location information using an on-board GNSS solution.

Highly versatile design

The PiIoT is able to communicate with the Raspberry Pi using serial or USB communications, with separate channels for control, data and location data. It can be powered by the Raspberry Pi, or a separate power supply can be used.

When used in CDC-ECM mode over USB, the PiIoT presents as an Ethernet-like WAN device, simplifying control of data sessions. In this mode, PPP is not required; a simple command initiates the session.

Fast and accurate time and location tracking

The GNSS engine is based on SiRF V technology. GNSS data can be transferred over serial or USB interfaces, providing accurate location information for your application. It can also be used to provide accurate time.

Compatible with IoT Acceleration Platform

The PiIoT can also be used to transfer MQTT data from a Raspberry Pi to the Sierra Wireless AirVantage® service, offering a rapidly deployable device-to-cloud architecture.

The PiIoT uses a number of I/Os; the remainder are passed through on the 40-pin headers for use by other applications.

Technical specification

EMBEDDED WIRELESS MODULE	Sierra Wireless HL8548-G
FREQUENCY BANDS	**HSPA** — B1 (2100MHz) / B2 (1900MHz) / B5 (850MHz) / B6 (850MHz) / B8 (900MHz) / B19 (800MHz) **EDGE/GPRS** — 850/900/1800/1900MHz
3G PROTOCOLS	WCDMA (UMTS), HSDPA, HSUPA, HSPA+
GNSS SUPPORT	SiRF V GPS + GLONASS
INTERFACES	Serial, USB (CDC-ACM, CDC-ECM)
SIM	3V Micro-SIM
POWER	From Raspberry Pi or direct (can also power Raspberry Pi)
AT COMMAND INTERFACE	3GPP 27.007 standard, plus proprietary extended commands
IP STACK	On-board or Raspberry Pi