DIGI XBEE-PRO® 900HP DIGIMESH® KIT

Provides a hands-on way to learn how to use Digi XBee-PRO 900HP modules for device connectivity and sensor networking using the innovative DigiMesh protocol

Digi XBee-PRO 900HP DigiMesh Kit is a great way to learn how to use Digi XBee RF modules for device connectivity and true peer-to-peer mesh device networking with our DigiMesh protocol. DigiMesh is a proprietary networking topology that supports advanced networking features including sleeping routers and dense mesh networks.

Mesh networking is a powerful way to route data. Range is extended by allowing data to hop from node to node, and reliability is increased by "self-healing," the ability to create alternate paths when one node fails or a connection is lost. DigiMesh is a peer-to-peer mesh network which allows all devices on the network to sleep, ideal for low-power applications.

This kit is designed for anyone interested in getting started in the world of Digi XBee. Hardware and software engineers, corporate technologists, or educators and students can quickly learn more about DigiMesh technology through hands-on examples in the kit, utilizing Digi XBee-PRO DigiMesh modules.

Digi XBee-PRO 900HP Modules Included in the Kit

Digi XBee-PRO 900HP RF modules provide embedded wireless connectivity to low-power devices that require best-in-class range in the 900 MHz band. They take advantage of the DigiMesh networking protocol, featuring dense network operation and support for sleeping routers, and are also available in a proprietary point-to-multipoint configuration.

The Kit Includes:

- ✓ 3 Digi XBee Grove Development Boards
- ✓ 3 Digi XBee-PRO 900HP Modules
- ✓ 3 Micro-USB Cables
- ✓ 2 Digi XBee Stickers

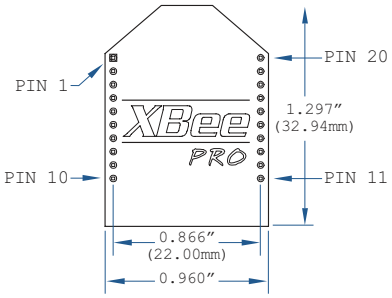
NUMBER	DESCRIPTION
XKB9-DMT-UHP	Digi XBee-PRO 900HP DigiMesh Kit (US/Canada)
XKB9-DMT-AHP	Digi XBee-PRO 900HP DigiMesh Kit (Australia)

The modules support RF line-of-sight ranges up to 9 miles (with high-gain antennas), and data rates of up to 200 Kbps.

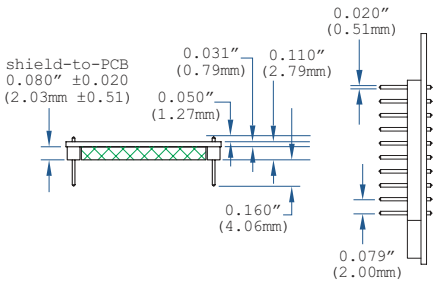
The Digi XBee-PRO 900HP requires no programming and can be configured easily using Digi's free XCTU software or via our simplified AT command set. Digi XBee modules are pre-certified for use in multiple countries, further reducing development costs and time to market.

SPECIFICATIONS	Digi XBee-PRO® 900HP	Programmable Digi XBee-PRO® 900HP
HARDWARE		
PROCESSOR	ADF7023 transceiver, Cortex-M3 EFM32G230 @ 28 MHz; Programmable includes: Freescale MC9S08QE32	
FREQUENCY BAND	902 to 928 MHz, software selectable channel mask for interference immunity	
ANTENNA OPTIONS	Wire, U.FL and RPSMSA	
PERFORMANCE		
RF DATA RATE	10 Kbps or 200 Kbps	
INDOOR/URBAN RANGE	10 Kbps: up to 2000 ft (610 m); 200 Kbps: up to 1000 ft (305 m)	
OUTDOOR/ LINE-OF-SIGHT RANGE	10 Kbps: up to 9 miles (15.5 km); 200 Kbps: up to 4 miles (6.5 km) (with 2.1dB dipole antennas)	
TRANSMIT POWER	Up to 24 dBm (250 mW) software selectable	
RECEIVER SENSITIVITY	-101 dBm @ 200 Kbps, -110 dBm @ 10 Kbps	
FEATURES		
DATA INTERFACE	UART (3V), SPI	
GPIO	Up to 15 Digital I/O, 4 10-bit ADC inputs, 2 PWM outputs	
NETWORKING TOPOLOGIES	DigiMesh, Repeater, Point-to-Point, Point-to-Multipoint, Peer-to-Peer	
SPREAD SPECTRUM	FHSS (Software Selectable Channels)	
PROGRAMMABILITY		
MEMORY	N/A	32 KB Flash / 2 KB RAM
CPU/CLOCK SPEED	N/A	HCS08 / Up to 50.33 MHz
POWER		
SUPPLY VOLTAGE	2.1 to 3.6 VDC	2.4 to 3.6 VDC
TRANSMIT CURRENT	215 mA	229 mA
RECEIVE CURRENT	29 mA	44 mA
SLEEP CURRENT	2.5 uA	3 uA
REGULATORY APPROVALS		
FCC (USA)	MCQ-XB900HP	
IC (CANADA)	1846A-XB900HP	
C-TICK (AUSTRALIA)	Yes	
ANATEL (BRAZIL)	Yes	
IDA (SINGAPORE)	Yes	

(top view)



(side views)



It's the easy and fast way to build a hardware prototype and integrate it into an Internet application. To learn more visit www.digi.com.

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