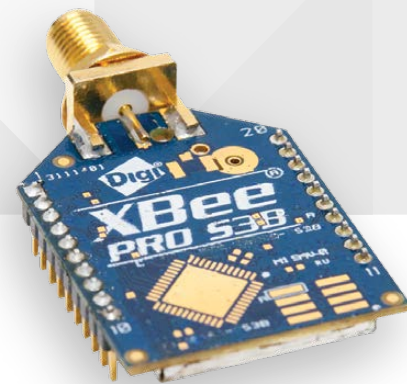




LONG-RANGE 900 MHZ
OEM RF MODULE



XBEE-PRO® 900HP

Best-in-class range RF module features software-complete mesh or multipoint topologies with advanced sleep modes

XBee-PRO 900HP embedded modules provide best-in-class range wireless connectivity to devices. They take advantage of the DigiMesh® networking protocol, featuring dense network operation and support for sleeping routers, and are also available in a point-to-multipoint configuration. Supporting RF line-of-sight ranges up to 28 miles (with high-gain antennas), and data rates of up to 200 Kbps, these modules are ideal for extended-range applications requiring increased data throughput.

The XBee-PRO 900HP requires no programming and can be configured easily using Digi's free XCTU software or via a

simplified AT command set. XBee® modules are pre-certified for use in multiple countries, further reducing development costs and time to market.

The programmable version of the XBee-PRO 900HP module makes customizing long-range wireless applications easy. Programming directly on the module eliminates the need for a separate host processor. Because the wireless software is isolated, applications can be developed with no risk to RF performance, security or additional certifications.

BENEFITS

- Superior outdoor LOS range of up to 28 miles with high-gain antenna
- Over-the-air firmware updates via other XBee-PRO 900HP modules or Digi Device CloudSM
- Software-selectable channel mask for interference immunity
- Programmable versions of the XBee-PRO 900HP enable custom application development
 - 8-bit Freescale™ S08 microprocessor brings custom intelligence to the module
 - XBee-specific CodeWarrior® development tools for easy programming
- RF data rate up to 200 Kbps
- Patented channel selectivity algorithm allows for more dense networks

RELATED PRODUCTS



Gateways



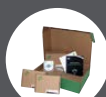
Modules



Digi XLR PRO™

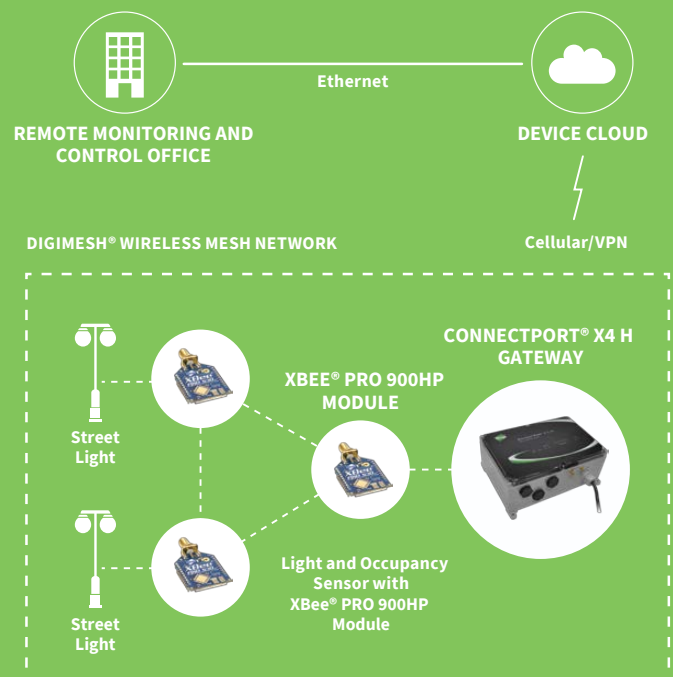


XCTU

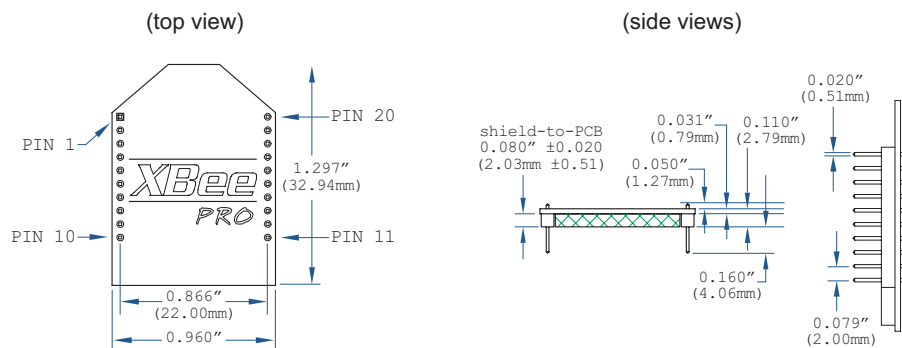


Development Kits

APPLICATION EXAMPLE



SPECIFICATIONS		XBee-PRO® 900HP		Programmable 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			



PART NUMBERS	DESCRIPTION
XBP9B-DMWT-002	XBee-PRO 900HP (S3B) DigiMesh, 900 MHz, 250 mW, Wire Antenna, 200 Kbps
XBP9B-DMST-002	XBee-PRO 900HP (S3B) DigiMesh, 900 MHz, 250 mW, RPSMA, 200 Kbps
XBP9B-DMUT-002	XBee-PRO 900HP (S3B) DigiMesh, 900 MHz, 250 mW, U.FL, 200 Kbps
XBP9B-DPWT-001	XBee-PRO 900HP (S3B) Point2Multipoint, 900 MHz, 250 mW, Wire Antenna, 10 Kbps
XBP9B-DPST-001	XBee-PRO 900HP (S3B) Point2Multipoint, 900 MHz, 250 mW, RPSMA, 10 Kbps
XBP9B-DPUT-001	XBee-PRO 900HP (S3B) Point2Multipoint, 900 MHz, 250 mW, U.FL, 10 Kbps
XBP9B-DMWTB002	XBee-PRO 900HP (S3B) DigiMesh, 900 MHz, 250 mW, Wire Antenna, 200 Kbps, 32 K Programmable
XBP9B-DMSTB002	XBee-PRO 900HP (S3B) DigiMesh, 900 MHz, 250 mW, RPSMA, 200 Kbps, 32 K Programmable
XBP9B-DMUTB002	XBee-PRO 900HP (S3B) DigiMesh, 900 MHz, 250 mW, U.FL, 200 Kbps, 32 K Programmable
XBP9B-DMWT-022	XBee-PRO 900HP (S3B) DigiMesh, 920 MHz (Australia), 250 mW, Wire Antenna, 200 Kbps
XBP9B-DMST-022	XBee-PRO 900HP (S3B) DigiMesh, 920 MHz (Australia), 250 mW, RPSMA, 200 Kbps
XBP9B-DMUT-022	XBee-PRO 900HP (S3B) DigiMesh, 920 MHz (Australia), 250 mW, U.FL, 200 Kbps
XBP9B-DPWT-021	XBee-PRO 900HP (S3B) Point2Multipoint, 920 MHz (Australia), 250 mW, Wire Antenna, 10 Kbps
XBP9B-DPST-021	XBee-PRO 900HP (S3B) Point2Multipoint, 920 MHz (Australia), 250 mW, RPSMA, 10 Kbps
XBP9B-DPUT-021	XBee-PRO 900HP (S3B) DigiMesh, 920 MHz (Australia), 250 mW, Wire Antenna, 200 Kbps, 32K Programmable
XBP9B-DMSTB022	XBee-PRO 900HP (S3B) DigiMesh, 920 MHz (Australia), 250 mW, RPSMA, 200 Kbps, 32K Programmable
XBP9B-DMUTB022	XBee-PRO 900HP (S3B) DigiMesh, 920 MHz (Australia), 250 mW, U.FL, 200 Kbps, 32K Programmable
XBP9B-DMWT-012	XBee-PRO 900HP (S3B) DigiMesh, 905/920 MHz, 250 mW, Wire Antenna, 200 Kbps (Brazil)
XBP9B-DMST-012	XBee-PRO 900HP (S3B) DigiMesh, 905/920 MHz, 250 mW, RPSMA Antenna, 200 Kbps (Brazil)
XBP9B-DMUT-012	XBee-PRO 900HP (S3B) DigiMesh, 905/920 MHz, 250 mW, U.FL Antenna, 200 Kbps (Brazil)
XBP9B-DPWT-011	XBee-PRO 900HP (S3B) Point2Multipoint, 905/920 MHz, 250 mW, Wire Antenna, 10 Kbps (Brazil)
XBP9B-DPST-011	XBee-PRO 900HP (S3B) Point2Multipoint, 905/920 MHz, 250 mW, RPSMA Antenna, 10 Kbps (Brazil)
XBP9B-DPUT-011	XBee-PRO 900HP (S3B) Point2Multipoint, 905/920 MHz, 250 mW, U.FL Antenna, 10 Kbps (Brazil)
XBP9B-DMSTB012	XBee-PRO 900HP (S3B) DigiMesh, 905/920 MHz, 250 mW, RPSMA, 200 Kbps, 32K Programmable (Brazil)
XBP9B-DMUTB012	XBee-PRO 900HP (S3B) DigiMesh, 905/920 MHz, 250 mW, Wire Antenna, 200 Kbps, 32K Programmable (Brazil)
XBP9B-DMWT-042	XBee-PRO 900HP (S3B) DigiMesh, 920 MHz (Singapore), 250 mW, Wire Antenna, 200 Kbps
XBP9B-DMST-042	XBee-PRO 900HP (S3B) DigiMesh, 920 MHz (Singapore), 250 mW, RPSMA, 200 Kbps
XBP9B-DMUT-042	XBee-PRO 900HP (S3B) DigiMesh, 920 MHz (Singapore), 250 mW, U.FL, 200 Kbps
XBP9B-DPWT-041	XBee-PRO 900HP (S3B) Point2Multipoint, 920 MHz (Singapore), 250 mW, Wire Antenna, 10 Kbps
XBP9B-DPST-041	XBee-PRO 900HP (S3B) Point2Multipoint, 920 MHz (Singapore), 250 mW, RPSMA, 10 Kbps
XBP9B-DPUT-041	XBee-PRO 900HP (S3B) Point2Multipoint, 920 MHz (Singapore), 250 mW, U.FL, 10 Kbps
XKP9-DM-0	XBee-PRO 900HP S3B Dev Kit (Domestic)
XKP9-DMB0	XBee-Pro 900HP (S3B) Development Kit 32K Programmable
XKP9-DM-2	XBee-PRO 900HP S3B 920 MHz Dev Kit (Australia)
XKP9-DM-1	XBee-PRO 900HP S3B 920 MHz Dev Kit (Brazil)
XKP9-DM-4	XBee-PRO 900HP S3B 920 MHz Dev Kit (Singapore)

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