

DIGI XBEE³ ZIGBEE 3.0

Easy-to-add connectivity in a compact, low-power, low-profile footprint.

Digi XBee3™ modules accelerate time to market for designers, OEMs and solution providers by quickly enabling wireless connectivity and easy-to-add functionality. Building on industry-leading technology, pre-certified Digi XBee3 modules offer the flexibility to switch between multiple frequencies and wireless protocols as needed.

Digi XBee3 ZigBee 3.0 offers a fully interoperable ecosystem covering all vertical markets including building automation, smart energy, digital health, intelligent lighting, and others.

With Digi Remote Manager®, Digi XBee3 modules can be easily configured and controlled from a simple, central platform. Built-in Digi TrustFence® security, identity and data privacy

features use more than 175 controls to protect against new and evolving cyber threats. MicroPython and XCTU software tools simplify adding functionality, configuration and testing.

From edge computing to future migration, Digi XBee modules offer size, weight, power and performance advantages ideal for scalable device connectivity. A versatile addition to the expanding Digi XBee Ecosystem of wireless modules, adapters and software, the Digi XBee3 Series is engineered to accelerate development and deployment.

SIZE AND FLEXIBILITY

- At 13 mm x 19 mm, the new Digi XBee3 micro form factor allows for more compact and portable applications
- Digi XBee3 is one module for all protocols including: ZigBee, 802.15.4, DigiMesh and BLE, all configurable via Digi XCTU

PROGRAMMABILITY

- Eliminate the need for an external microcontroller and create smart end nodes and low-end gateways using MicroPython

SECURITY

- Intrinsic IoT security with Digi TrustFence®, a layered approach securing the edge device, through the gateway, into and out of the IoT

RELATED PRODUCTS AND SERVICES



Development Kits



Digi XCTU



Digi TrustFence®

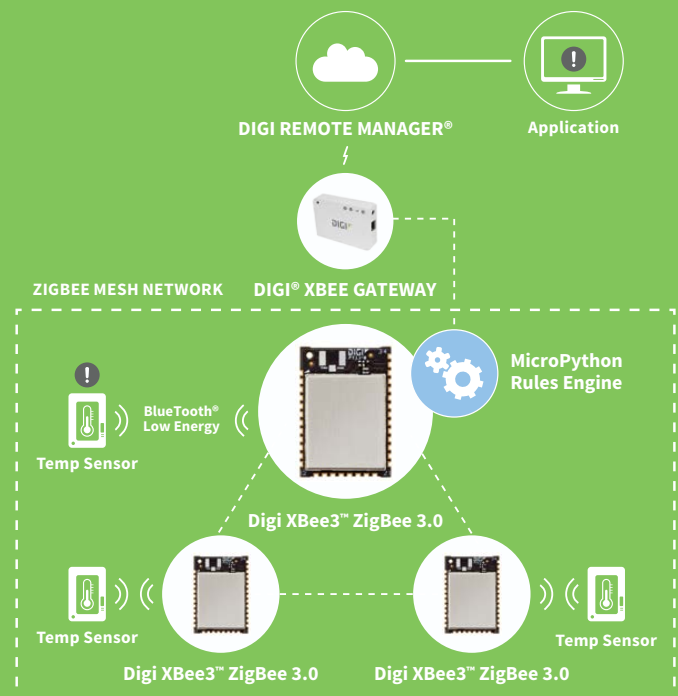


Digi Remote Manager®



Digi Design Services

APPLICATION EXAMPLE



SPECIFICATIONS		Digi XBee3™ ZigBee 3.0		Digi XBee3™ PRO ZigBee 3.0	
PERFORMANCE					
TRANSCIVER CHIPSET		Silicon Labs EFR32MG SoC			
DATA RATE		RF 250 Kbps, Serial up to 1 Mbps			
INDOOR/URBAN RANGE		200 ft (60 m)		300 ft (90 m)	
OUTDOOR/RF LINE-OF-SIGHT RANGE		4000 ft (1200 m)		2 miles (3200 m)	
TRANSMIT POWER		+8 dBm		+19 dBm	
RECEIVER SENSITIVITY (1% PER)		-103 dBm Normal Mode			
FEATURES					
SERIAL DATA INTERFACE		UART, SPI, I²C			
CONFIGURATION METHOD		API or AT commands, local or over-the-air (OTA)			
FREQUENCY BAND		ISM 2.4 GHz			
FORM FACTOR		Micro, Through-Hole, Surface Mount			
INTERFERENCE IMMUNITY		DSSS (Direct Sequence Spread Spectrum)			
ADC INPUTS		(4) 10-bit ADC inputs			
DIGITAL I/O		15			
ANTENNA OPTIONS		Through-Hole: PCB Antenna, U.FL Connector, RPSMA Connector SMT: RF Pad, PCB Antenna, or U.FL Connector Micro: U.FL Antenna, RF Pad, Chip Antenna			
OPERATING TEMPERATURE		-40° C to +85° C			
DIMENSIONS (L X W X H)		Through-Hole: 0.960 x 1.087 in (2.438 x 2.761 cm) SMT: 0.866 x 1.33 x 0.120 in (2.199 x 3.4 x 0.305 cm) Micro: 0.533 x 0.76 x 0.087 in (13 x 19 x 2 mm)			
PROGRAMMABILITY					
MEMORY		1 MB / 128 KB RAM			
CPU/CLOCK SPEED		HCS08 / up to 50.33 MHz			
NETWORKING AND SECURITY					
PROTOCOL		ZigBee® 3.0			
ENCRYPTION		128/256 bit AES			
RELIABLE PACKET DELIVERY		Retries/Acknowledgements			
IDS		PAN ID and addresses, cluster IDs and endpoints (optional)			
CHANNELS		16 channels			
POWER REQUIREMENTS					
SUPPLY VOLTAGE		2.1 to 3.6V			
TRANSMIT CURRENT		40 mA @ 8 dBm		135 mA @ 19 dBm	
RECEIVE CURRENT		15 mA			
POWER-DOWN CURRENT		1.7 micro Amp @ 25 degrees C			
REGULATORY APPROVALS					
FCC, IC (NORTH AMERICA)		Yes		Yes	
ETSI (EUROPE)		Yes		No	

