MICRO FORM FACTOR
DIGI TRUSTFENCE<sup>®</sup> SECURED
MICROPYTHON PROGRAMMABLE



## DIGI XBEE 3 802.15.4

## Low-cost, easy-to-deploy modules for critical end-point device and sensor connectivity

Digi XBee® 3 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 XBee 3 modules offer the flexibility to switch between multiple frequencies and wireless protocols as needed.

Digi XBee 3 802.15.4 modules are ideal for applications requiring low latency and predictable communication timing. Providing quick, robust communication in point-to-point, peer-to-peer, and multipoint/star configurations, Digi XBee 3 enables robust end-point connectivity with ease. With Digi Remote Manager<sup>®</sup>, Digi XBee 3 modules can be easily configured and controlled from a simple, central platform. Built-in Digi TrustFence<sup>®</sup> security, identity and data privacy features use more than 175 controls to protect against new and evolving cyber threats. MicroPython and Digi XCTU<sup>®</sup> 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 XBee 3 Series is engineered to accelerate development and deployment.

#### **SIZE AND FLEXIBILITY**

DIG

- At 13 mm x 19 mm, the new Digi XBee<sup>®</sup> 3 micro form factor allows for more compact and portable applications
- Digi XBee 3 is one module for all protocols including: Zigbee, 802.15.4, DigiMesh<sup>®</sup>, and BLE, all configurable via Digi XCTU<sup>®</sup>

#### PROGRAMMABILITY

- Eliminate the need for an external microcontroller and create smart end nodes using MicroPython
- Bluetooth<sup>®</sup> Low Energy for beaconing, connecting to Bluetooth sensors and local configuration using the Digi XBee Mobile app

#### SECURITY

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

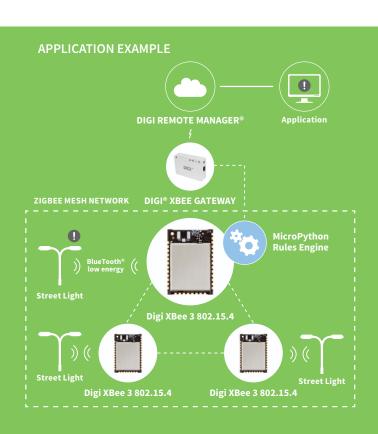
#### RELATED PRODUCTS AND SERVICES













Downloaded from Arrow.com.

Digi XCTU®

Digi TrustFence® Digi Remote

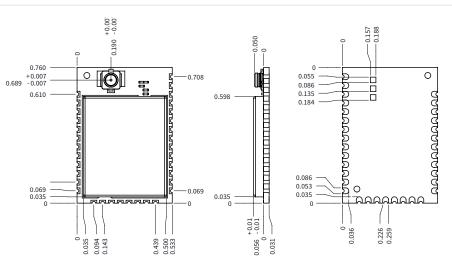
SPECIFICATIONS	Digi XBee <sup>®</sup> 3 802.15.4	Digi XBee® 3 PRO 802.15.4	
PERFORMANCE			
DATA RATE RF 250 Kbps, Serial up to 1 Mbps			
INDOOR/URBAN RANGE*	Up to 60 m (200 ft)	Up to 90 m (300 ft)	
OUTDOOR/RF LINE-OF-SIGHT RANGE*	Up to 1200 m (4000 ft)	Up to 3200 m (2 miles)	
TRANSMIT POWER	+8 dBm	+19 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		
INTERFERENCE IMMUNITY	DSSS (Direct Sequence Spread Spectrum)		
ADC INPUTS	(4) 10-bit ADC inputs		
DIGITAL I/O	15		
ANTENNA OPTIONS	Micro: U.FL Antenna, RF Pad, Chip Antenna		
OPERATING TEMPERATURE	-40° C to 85° C (-40° F to 185° F)		
DIMENSIONS (L X W X H)	Micro: 13 x 19 x 2 mm (0.533 x 0.76 x 0.087 in)		
PROGRAMMABILITY			
MEMORY	1 MB / 128 KB RAM		
CPU/CLOCK SPEED	HCS08 / up to 50.33 MHz		
NETWORKING AND SECURITY			
PROTOCOL	802.15.4		
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 3.6 V		
TRANSMIT CURRENT	135 mA @ 19 dBm		
RECEIVE CURRENT	17 mA		
POWER-DOWN CURRENT	2 micro Amp @ 25° C (77° F)		
REGULATORY APPROVALS			
FCC, IC (NORTH AMERICA)	Yes	Yes	
ETSI (EUROPE)	Yes	No	
RCM (AUSTRALIA)	Yes	Yes	
ANATEL (BRAZIL)	Yes	Yes	
TELECK MIC (JAPAN)	Yes	No	
KCC (SOUTH KOREA)	Yes	Yes	
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\*Range figure estimates are based on free-air terrain with limited sources of interference. Actual range will vary based on transmitting power, orientation of transmitter and receiver, height of transmitting antenna, height of receiving antenna, weather conditions, interference sources in the area, and terrain between receiver and transmitter, including indoor and outdoor structures such as walls, trees, buildings, hills, and mountains.

PART NUMBERS	DESCRIPTION
XB3-24ARM-J	Digi XBee 3, 2.4 Ghz, 802.15.4, Micro, RF Pad Ant, MMT
XB3-24AUM-J	Digi XBee 3, 2.4 Ghz, 802.15.4, Micro, U.FL Ant, MMT
XB3-24ACM-J	Digi XBee 3, 2.4 Ghz, 802.15.4, Micro, Chip Ant, MMT
XB3-24ARM	Digi XBee 3 PRO, 2.4 Ghz, 802.15.4, Micro, RF Pad Ant, MMT
XB3-24AUM	Digi XBee 3 PRO, 2.4 Ghz, 802.15.4, Micro, U.FL Ant, MMT
XB3-24ACM	Digi XBee 3 PRO, 2.4 Ghz, 802.15.4, Micro, Chip Ant, MMT
A24-HABUF-P5I	Antenna - 2.4 GHz, half wave dipole, 2.1 dBi, U.FL female, articulating
A24-HASM-450	Antenna - 2.4 GHz, half wave dipole, 2.1 dBi, RPSMA male, articulating
A24-HASM-525	Antenna - 2.4 GHz, half wave dipole, 2.1 dBi, RPSMA male, articulating
DC-ANT-24DT	Antenna - Wi-Fi, table-top mount, 2450 Mhz, 0.5 m cable

### **PRODUCT DIMENSIONS**





# FOR MORE INFORMATION PLEASE VISIT DIGI.COM



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