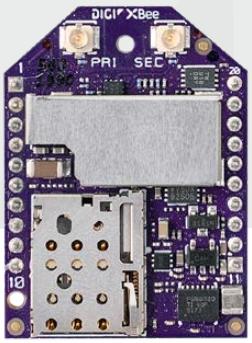
4G LTE CAT 1 CELLULAR
SMART MODEM



DIGI XBEE 3 CELLULAR LTE CAT 1

Digi XBee 3 smart modems offer the easiest way to integrate cellular connectivity into an OEM device or IoT gateway

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.

Ideal for moderate bandwidth (typically < 25 MB per month) and low-cost IoT applications, Digi XBee 3 Cellular LTE Cat 1 modules are cost-competitive with modules based on older standards.

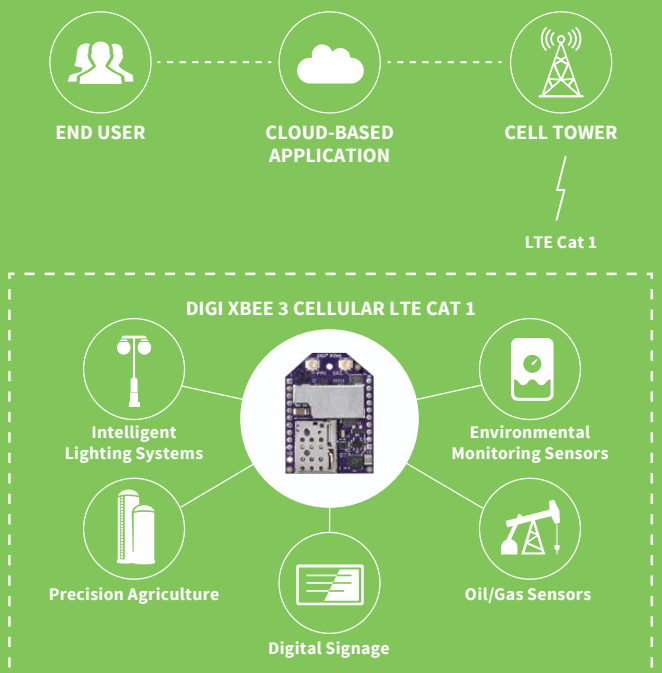
With Digi Remote Manager®, Digi XBee 3 modules can be easily configured and controlled from a central platform. Built-in Digi TrustFence® security, identity and data privacy features use multiple layers of control to protect against new and evolving cyber threats. Standard Digi XBee API frames and AT commands, MicroPython and Digi XCTU® simplify setup, configuration, testing and adding or changing functionality.

Digi XBee 3 modules are the latest addition to the Digi XBee Ecosystem of wireless modules, adapters and software – all engineered to accelerate development and deployment.

BENEFITS

- Integrated MicroPython programmability enables custom scripting directly on the modem
- Transparent and API modes simplify software design
- MQTT support for Microsoft Azure and Amazon AWS
- FCC certified and carrier end-device certified for Verizon, AT&T, Telus and Bell
- Smallest end-device certified cellular modem
- Direct USB provides easy PPP integration option
- OTA firmware updates
- Enhanced with Digi TrustFence® security framework
- Manage/configure with Digi XCTU and Digi Remote Manager®
- Dual-mode radio for local configuration over Bluetooth® Low Energy using the Digi XBee Mobile app

APPLICATION EXAMPLE



RELATED PRODUCTS

Digi XBee 3 Cellular LTE Cat 1 Development kit

Digi ConnectCore 6UL SBC Pro

XCTU

Digi Remote Manager®

Digi Wirless Design Services

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SPECIFICATIONS

Digi XBee® 3 Cellular LTE Cat 1 Smart Modem

HARDWARE	
CELLULAR CHIPSET	Telit LE866A1-NA (AT&T), LE866-SV1 (Verizon)
FORM FACTOR	Digi XBee® 20-pin through-hole
ANTENNA OPTIONS	1 U.FL: Cellular Primary, 1 U.FL: Cellular Diversity Embedded Bluetooth® Antenna
DIMENSIONS	24.38 mm x 32.94 mm (0.96 in x 1.3 in)
OPERATING TEMPERATURE	-40° C to 80° C (-40° F to 176° F)
SIM SIZE	4FF Nano
INTERFACE AND I/O	
DATA INTERFACE	UART, SPI, USB
OPERATING MODES	Transparent and API over serial, PPP over USB
SECURITY	Digi Trustfence® security with Secure Boot and Protected JTAG
CONFIGURATION TOOLS	Digi XCTU® (Local), Digi Remote Manager® (OTA)
EMBEDDED PROGRAMMABILITY	MicroPython with 512K flash / 64K RAM
I/O	4 ADC lines (10-bit), 13 Digital I/O, I2C
BLUETOOTH	BLE
CELLULAR CHARACTERISTICS	
TRANSMIT POWER	Up to 23 dBm
RECEIVE SENSITIVITY	-102 dBm
SUPPORTED BANDS	Bands 2, 4, 12 Bands 4, 13 (Verizon module)
DOWNLINK/UPLINK SPEEDS	10 Mbit/s Downlink, 5 Mbit/s Uplink (USB) 921 Kbit/s Downlink and Uplink (UART)
DUPLEX MODE	Full-duplex
POWER REQUIREMENTS (AT 3.3 VDC INPUT POWER)	
SUPPLY VOLTAGE	3.0 to 5.5 V
PEAK TRANSMIT CURRENT	1000 mA Bluetooth disabled 1060 mA Bluetooth enabled
AVG TRANSMIT CURRENT	850 mA
AVG RECEIVE CURRENT	320 mA
REGULATORY AND CARRIER APPROVALS	
FCC (USA)	MCQ-XB3C1 and RI7XE866A1NA, MCQ-XB3C1 and RI7LE866SV1A (for Verizon module)
IC (CANADA)	1846A-XB3C1 and 5131A-XE866A1-NA, 1846A-XB3C1 and 5131A-LE866-SV1A (for Verizon module)
AT&T END-DEVICE CERTIFIED	Complete (XB3-C-A1-UT-001 only)
VERIZON END-DEVICE CERTIFIED	Complete (XB3-C-V1-UT-001 only)
TELUS END-DEVICE CERTIFIED	Complete (XB3-C-A1-UT-001 only)
BELL END-DEVICE CERTIFIED	Complete (XB3-C-A1-UT-001 only)
PTCRB	Complete (XB3-C-A1-UT-001 only)
WARRANTY	
PRODUCT WARRANTY	1-year

PART NUMBERS	DESCRIPTION
XB3-C-A1-UT-001	Digi XBee 3 Cellular Smart Modem, LTE Cat 1, North America
XK3-C-A1-UT-U	Digi XBee 3 Cellular Smart Modem, LTE Cat 1, Development Kit, AT&T
XB3-C-V1-UT-001	Digi XBee 3 Cellular Smart Modem, LTE Cat 1, Verizon
XK3-C-V1-T-UB	Digi XBee 3 Cellular Smart Modem, LTE Cat 1, Development Kit, Verizon

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