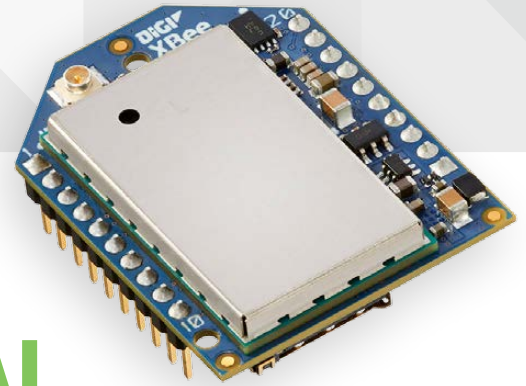




GLOBAL 3G CELLULAR  
EMBEDDED MODEM



# DIGI XBEE® CELLULAR 3G GLOBAL

Digi XBee Cellular 3G Global embedded modems provide OEMs with a simple way to integrate HSPA/GSM cellular connectivity into their devices.

Digi XBee Cellular 3G Global embedded modems provide a simple path to 3G (HSPA/GSM) with 2G fallback connectivity for OEMs with worldwide deployments. This modem is FCC/ IC, PTCRB and AT&T certified which completely eliminates the cost, complexity, and risk involved in the certification process.

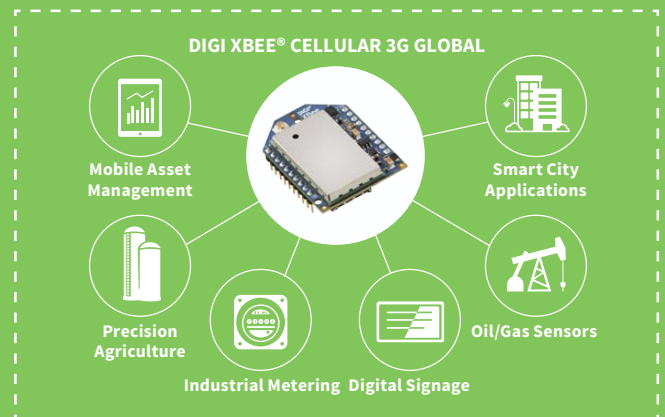
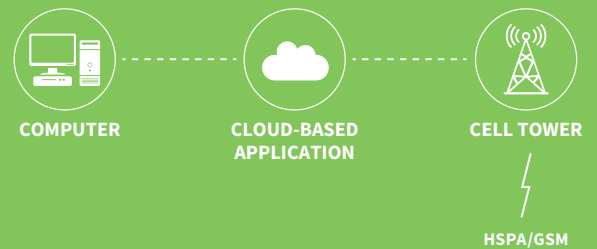
The modem is programmable, with support for custom MicroPython applications running directly onboard, allowing developers to add their own unique features to their devices

and eliminating the need for an external microcontroller in certain use-cases. It includes the full suite of standard Digi XBee API frames and AT commands, so existing customers can simply drop this modem into their existing designs to instantly achieve 3G cellular integration, without the pain and hassle of doing a complete re-design.

## BENEFITS

- FCC/IC, PTCRB, and AT&T certified – eliminates certification costs and risks
- Transparent and API modes simplify software integration
- Low-power modes for battery powered applications
- Integrated MicroPython programmability enables custom scripting directly on the modem
- Enhanced with Digi TrustFence™ security framework
- Manage and configure with XCTU and Digi Remote Manager®
- Available with Digi provided SIM cards and data plans

## APPLICATION EXAMPLE



## RELATED PRODUCTS



## SPECIFICATIONS

## Digi XBee® Cellular 3G Global

## INTERFACES AND HARDWARE

|                       |  |
|-----------------------|--|
| CHIPSET REFERENCE     | u-blox U201  |
| SERIAL DATA INTERFACE | UART, SPI coming soon                                    |
| CONFIGURATION METHODS | AT Commands, API Frames, local or OTA                    |
| OPERATING MODES       | Transparent, API, Bypass                                 |
| PROGRAMMABILITY       | MicroPython with 8 KB Flash / 24 KB RAM                  |
| ANALOG I/O            | 4 ADC lines (10-bit)                                     |
| DIGITAL I/O           | 13 DIO lines   |
| FORM FACTOR           | Digi XBee 20-pin through-hole                            |
| ANTENNA OPTIONS       | 1 U.FL   |
| DIMENSIONS            | 24.38 mm x 32.94 mm                                      |
| OPERATING TEMPERATURE | -40° C to +85° C (-30 to +70C if 2G fallback is enabled) |
| SIM CARD              | 4FF (Nano size)  |

## RF CHARACTERISTICS

|                     |                              |
|---------------------|------------------------------|
| TRANSMIT POWER      | Up to 24 dBm (Power Class 3) |
| RECEIVE SENSITIVITY | -111 dBm                     |

## NETWORKING AND CARRIER

|                        |   |
|------------------------|---|
| CARRIER AND TECHNOLOGY | 3G HSPA/GSM with 2G fall-back (see User Guide for more details on this feature)             |
| SUPPORTED BANDS        | Band 19 (800 MHz), Band 5 (850 Mhz), Band 8 (900 MHz), Band 2 (1900 MHz), Band 1 (2100 MHz) |
| SECURITY               | Digi Trustfence™ security with Secure Boot, Encrypted Storage, Protected JTAG, SSL/TLS 1.2  |
| RF THROUGHPUT          | Up to 921 Kbps  |
| DOWNLINK/UPLINK SPEEDS | 7.2 Mbps / 5.76 Mbps  |

## POWER REQUIREMENTS

|                           |                                |
|---------------------------|--------------------------------|
| SUPPLY VOLTAGE            | 2.7 to 5.5 V                   |
| TRANSMIT CURRENT (24 DBM) | 702 mA @ 3.3 V<br>425 mA @ 5 V |
| RECEIVE CURRENT           | 224 mA @ 3.3 V<br>160 mA @ 5 V |
| IDLE CURRENT (LISTENING)  | 87 mA @ 3.3 V<br>72 mA @ 5 V   |
| DEEP SLEEP CURRENT        | 10 uA @ 3.3 V                  |

## REGULATORY AND CARRIER APPROVALS

|                           |                              |
|---------------------------|------------------------------|
| UNITED STATES             | Contains FCC ID: XPYICGM5NNN |
| CANADA                    | Contains IC: 8595A-ICGM5NNN  |
| EUROPE (CE)               | Pending                      |
| ROHS                      | Lead-free and RoHS compliant |
| PTCRB CERTIFICATION       | Yes                          |
| AT&T END DEVICE CERTIFIED | Yes                          |

## PART NUMBERS

## DESCRIPTION

|               |  |
|---------------|--|
| XBC-M5-UT-001 | Digi XBee Cellular 3G Global, U.FL, TH, US/Canada/LATAM/EU                 |
| XKC-M5T-W     | Digi XBee Cellular 3G Global Development Kit, U.FL, TH, US/Canada/LATAM/EU |

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