DIGI XBEE® CELLULAR 3G DEVELOPMENT KIT

XBee Cellular 3G development kit provides OEMs with a simple, quick way to integrate cellular connectivity into their devices.

Digi XBee Cellular 3G 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 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.

Starting with simple examples, we provide step-by-step guidance as you assemble the kit components to create reliable, low-power cellular communications for OEM devices like sensors and control/monitoring systems. The kit will include 6 months of free cellular data service, pre-activated and ready to go right out of the box, allowing developers to immediately focus on their primary goal; developing great products without the hassle of setting up data plan, ordering and provisioning a SIM from the carrier.

The Kit Includes:

✓ 1 Digi XBee Cellular 3G embedded modem

✓ 1 Digi XBee Development Board

✓ 1 SIM

✓ 6 months of free cellular service – 5MB/month

✓ Antennas and power supply

NUMBER	DESCRIPTION
XKC-M5T-W	Digi XBee Cellular 3G Development Kit, U.FL, TH, US/Canada/LATAM/EU

When OEMs add the XBee Cellular to their design, they create a future-proof design with flexibility to switch between wireless protocols or upgrade to LTE-M or NB-IoT as those networks are deployed—ideal for any OEM business with an agile roadmap.

SPECIFICATIONS — Digi XBee® Cellular 3G

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	-40º C to +85º 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 425 mA @ 5 V
RECEIVE CURRENT	224 mA @ 3.3 V 160 mA @ 5 V
IDLE CURRENT (LISTENING)	87 mA @ 3.3 V 72 mA @ 5 V
DEEP SLEEP CURRENT	10 uA @ 3.3 V

REGULATORY AND CARRIER APPROVALS

UNITED STATES	Contains FCC ID: XPY1CGM5NNN
CANADA	Contains IC: 8595A-1CGM5NNN
EUROPE (CE)	Pending
ROHS	Lead-free and RoHS compliant
PTCRB CERTIFICATION	Yes
AT&T END DEVICE CERTIFIED	Yes

It's the easy and fast way to build a wireless cellular device using Digi's XBee modules. To learn more visit www.digi.com/xbeecellular.

DIGI

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