imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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NB-IOT CELLULAR EMBEDDED MODEM FOR EUROPE

DIGI XBEE® CELLULAR NB-IoT

Digi XBee Cellular NB-IoT embedded modems provide OEMs with a simple way to integrate low-power narrow-band cellular connectivity into their devices.

Digi XBee Cellular Narrowband IoT (NB-IoT) is a low-cost, low power wide area (LPWA) embedded cellular modem designed specifically to handle small amounts of data over existing cellular networks, provide improved range, and optimized for maximum battery life.

The modem is programmable, with support for custom MicroPython applications running directly onboard, allowing users to more efficiently manage 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 cellular integration, without the pain and hassle of doing a complete re-design. It is also CE/RED certified, making it ideal for use in LPWA applications in Europe.

BENEFITS

- Extremely low power consumption for battery life of 10+ years
- Excellent coverage and building penetration
- Reduced hardware complexity with only 1 antenna required
- Transparent and API modes simplify software integration
- Integrated MicroPython programmability
- Enhanced with Digi TrustFence™ security framework
- CE/RED certified and network tested
- Manage and configure with XCTU and Digi Remote Manager[®]
- Available with Digi provided SIM cards and data plans

RELATED PRODUCTS















Kits

t ConnectCore 6UL SBC Pro

хсти

ote Digi r® TrustFence[™]

SPECIFICATIONS

Digi XBee[®] Cellular NB-IoT

INTERFACES AND HARDWARE		
CHIPSET REFERENCE	u-blox N210	
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	15 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 +80° C	
RF CHARACTERISTICS		
MODULATION	BPSK/QPSK	
TRANSMIT POWER	Up to 23 dBm	
RECEIVE SENSITIVITY	TBD	
NETWORKING AND CARRIER		
CARRIER AND TECHNOLOGY	NB-IoT	
SUPPORTED BANDS	Band 20	
SECURITY	Digi Trustfence™ security with Secure Boot, Encrypted Storage, Protected JTAG	
RF THROUGHPUT	TBD	
DOWNLINK/UPLINK SPEEDS	Up to ~100 Kbps	
DUPLEX MODE	Half-Duplex	
POWER REQUIREMENTS		
SUPPLY VOLTAGE	2.5 to 4.2 V	
TRANSMIT CURRENT	TBD	
RECEIVE CURRENT	TBD	
IDLE CURRENT (LISTENING)	TBD	
DEEP SLEEP	TBD	
REGULATORY AND CARRIER APPROVALS		
CE / RED	TBD	

PART NUMBERS	DESCRIPTION
XBC-N1-UT-001	Digi XBee Cellular NB-IoT, Band 20, U.FL, TH, Europe
XKC-N1T-E	Digi XBee Cellular NB-IoT Development Kit, Band 20, Europe

The information provided in this document is preliminary and may be subject to change without notice.

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