Product summary

NORA-B2 series (u-connectXpress)

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Stand-alone Bluetooth® Low Energy modules

Standard

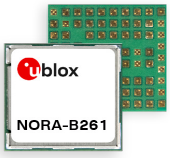
Professional

Automotive

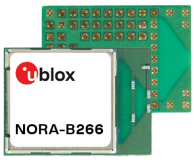
Bluetooth LE module for ultra-low power IoT applications

- Qualified against Bluetooth® Core 6.0
- u-connectXpress software for accelerated time to market
- Small footprint and multiple antenna options
- Affordable alternative for targeted use cases
- Global certification

10.4 × 11.2 × 1.9 mm



10.4 × 14.3 × 1.9 mm



Product description

The NORA-B2 u-connectXpress series, featuring NORA-B26 and NORA-B27, delivers compact, high-performance Bluetooth® Low Energy connectivity for ultra-low power IoT applications. Qualified against Bluetooth Core 6.0, these stand-alone modules come pre-loaded with u-connectXpress software, enabling rapid integration and configuration via AT commands over a UART interface.

Both NORA-B26 and NORA-B27 modules support the u-blox Bluetooth Low Energy Serial Port Service, GATT server, beacon functionality, Bluetooth long range, and secure connections. NORA-B26 additionally offers GATT client support and simultaneous central and peripheral roles, providing enhanced flexibility for complex IoT deployments.

Security is ensured through secure boot and 128-bit AES encryption, guaranteeing that only authenticated software runs on the device. Leveraging Bluetooth long range, NORA-B26 and NORA-B27 achieve extended communication distances with robust reliability.

Designed for seamless integration, NORA-B266 and NORA-B276 include an internal chip antenna while NORA-B261 features an antenna pin for external antenna options. Each variant is globally certified for use with internal or external antennas, minimizing time, cost, and effort for product certification and deployment.

Built to u-blox professional grade standards, the NORA-B2 modules are engineered for reliable operation in demanding environments.

Target markets include industrial automation, smart cities and buildings, medical and healthcare, and telematics. Typical applications are asset tracking, indoor location, sensor networks, and wireless-configurable equipment.

	NORA-B261	NORA-B266	NORA-B276
Grade			
Automotive			
Professional	•	•	•
Standard			
Radio			
Chip inside	nRF54L10	nRF54L10	nRF54L05
Qualified against Bluetooth Core	6.0	6.0	6.0
Bluetooth low energy	•	•	•
Bluetooth output power EIRP [dBm]	10	10	10
Max range [meters]	400/1400	400/1400	400/1400
Antenna type (see footnotes)	pin	pcb	pcb
Application software			
u-connectXpress	•	•	•
Interfaces			
UART	1	1	1
Features			
AT command interface	•	•	•
Low Energy Serial Port Service	•	•	•
Simultaneous GATT server and client	•	•	
Bluetooth secure connections	•	•	•
Power management	•	•	•
Maximum Bluetooth connections	8	8	1
Throughput [Mbit/s]	0.8	0.8	0.8
Secure boot and updates	•	•	•

pin = Antenna pin
pcb = Internal PCB antenna

NORA-B2 u-connectXpress series

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Features

Bluetooth	Qualified against Bluetooth Core 6.0
Range	Internal antenna: 400/1400 m External antenna (NORA-B26): 400/1400 m
Max. conducted output power	7 dBm
Max radiated output power (EIRP)	Internal antenna: 10 dBm External antenna (NORA-B26): 10 dBm
Conducted sensitivity	–94 dBm (1 Mbit/s) –102 dBm (125 Kbit/s)

u-connectXpress software

NORA-B26 and NORA-B27 modules are pre-flashed with u-connectXpress and bootloader software that interfaces through an AT command interpreter controlled by the customer application software running on the host MCU.

Bluetooth	u-blox Low Energy Serial Port Service (SPS) GATT server (and client for NORA-B26) using AT commands Beacons 1 or 2 Mbit/s modulation 125 Kbit/s modulation long range functionality Advertising extensions
Extended Data Mode™	For simultaneous AT commands and data, and multiple simultaneous data streams
Transparent Data Mode™	Supports to send untouched raw data directly to remote device over SPS
HW interfaces	1 x UART
Configuration	AT commands
Support tools	s-center
Operating modes	Central role (NORA-B26) Peripheral role Simultaneous central (NORA-B26) and peripheral roles LE 1M PHY LE 2M PHY LE CODED PHY Advertising extensions LE data length extension
Security	Secure boot Secure Simple Pairing 128-bit AES encryption Bluetooth Low Energy secure connections
Throughput over UART	1 Mbit/s

Electrical data

Power supply	1.7 V to 3.6 VDC
Power consumption (@ +7 dBm)	Active, advertising 31 bytes/s: 147 µA System Idle: 141 µA UART RX Off: 7 µA Deep sleep: 1 µA

Package

Dimensions	NORA-B261: 10.4 x 11.2 x 1.9 mm NORA-B266: 10.4 x 14.3 x 1.9 mm NORA-B276: 10.4 x 14.3 x 1.9 mm
Weight	< 0.1 g
Mounting	Machine mountable Solder pins

Environmental data, quality, and reliability

Operating temperature	–40 °C to +85 °C
Storage temperature	–40 °C to +85 °C
Humidity	RH 5-90% non-condensing

Certifications and approvals

Type approvals	Europe (RED), Great Britain (UKCA), US (FCC), Canada (ISED), Japan (MIC), South Korea (KCC), Taiwan (NCC), Australia (ACMA), New Zealand
Health and safety	EN 62479, EN 62368-1, IEC 62368-1
Bluetooth	Qualified against Bluetooth Core 6.0

Support products

EVK-NORA-B261	Full-featured evaluation kit for NORA-B261 with u-connectXpress software, using the antenna pin
EVK-NORA-B266	Full-featured evaluation kit with NORA-B266 module and internal antenna supporting both NORA-B26 and NORA-B27 u-connectXpress software variants

Product variants

NORA-B261	Professional grade Bluetooth low energy module based on nRF54L10 with u-connectXpress software and antenna pin for external antenna
NORA-B266	Professional grade Bluetooth low energy module based on nRF54L10 with u-connectXpress software and internal antenna
NORA-B276	Professional grade Bluetooth low energy module based on nRF54L05 with u-connectXpress software and internal antenna

Further information

For contact information, see **www.u-blox.com/contact-u-blox**.

For more product details and ordering information, see the product data sheet.

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