

# FCL Components Wireless Modules

## Bluetooth® Version 5.0

### Central/Peripheral with Blank Firmware

#### FWM7BLZ20B-109077

#### Overview

Compact Bluetooth Version 5.0 (low energy single mode) module includes SoftDevice (Bluetooth stack) only, works as Central/Peripheral with customer's own firmware.



RoHS compliant

#### Features

- User can construct firmware which embeds "X2 speed" and "LE Advertising Extensions" freely with the tool provided by Nordic Semiconductor.
- Out-of-Band pairing by use of NFC-A Tag Interface (external antenna is necessary).
- It corresponds maximum 255 bytes long packet.
- Good for IoT-related devices or its maintenance.



FWM7BLZ20B-109077

#### ■ Evaluation board

Part number	Details
FWM7BLZ20B-EVB-EB1	Evaluation board (FWM7BLZ20B-109077 x 1 is mounted)

#### ■ SoftDevice version

Part number	SoftDevice version
FWM7BLZ20B-109077	S132Ver.6.1.1

#### ■ Upper protocol/application development tool

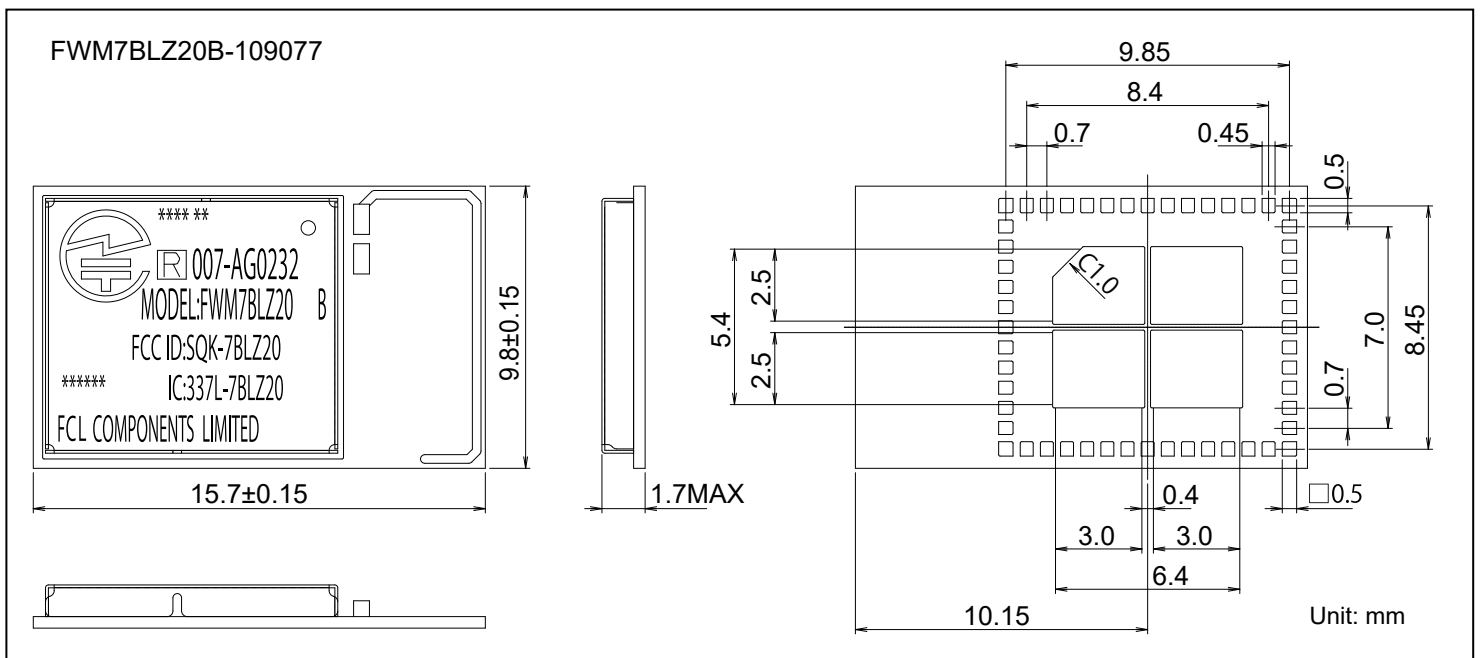
Software Development Kit (SDK):  
Please download from Nordic Semiconductor ASA website: [www.nordicsemi.com](http://www.nordicsemi.com)

- Specifications

Item	Specifications	
Part number	FWM7BLZ20B-109077	
Antenna	Embedded (Pattern antenna)	
Bluetooth technology	Conforms to Bluetooth Core Specification Version 5.0 technology (Low energy singel mode)	
Other communication	NFC (requires external antenna)	
RAM	64Kbytes	
ROM	512Kbytes	
Transmit power	+4 dBm max.	
Receiver sensitivity	-94 dBm typical	
Interface	NFC (via external antenna), UART, GPIO, SWDCLK, SWDIO, nRESET, SPI, TWI, ADC	
Crystal oscillator	Embedded	
Operating voltage	1.7V to 3.6VDC	
Symbol rate	1Mbps / 2Mbps (depends on communication partner)	
Data rate	1Mbps / 2Mbps (depends on communication partner)	
Advertising size	225 bytes	
IC tip	nRF52832 (Nordic Semiconductor)	
Power consumption	Tx mode	LDO mode: 11.6mA typical (at 0dBm), DC/DC mode: 5.3mA typical (at 0dBm)
	Rx mode	LDO mode: 11.7mA typical (at data rate 1Mbps), 12.9mA typical (at data rate 2Mbps) DC/DC mode: 5.4mA typical (at data rate 1Mbps), 5.8mA typical (at data rate 2Mbps)
Operating temperature	-40°C to +85°C	
Dimensions	15.7 x 9.8 x 1.7mm	
Mounting method	Surface mount (SMT)	
Certifications	Bluetooth qualification (QDID)*1, Radio Act (Japan), FCC, IC, CE	

Note: \*1: Bluetooth SIG registration is required to use modules QDID

- Dimensions



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