

FCL Components Wireless Modules

Bluetooth® Version 4.2 (low energy) (Blank Version & Central/Peripheral)

FWM7BLZ20-109062 - ACTIVE

FWM7BLZ20-109049 - To be Discontinued March 2025

Overview

Compact *Bluetooth* Low energy module with high performance processor, half the power consumption than its predecessor and double the transmission distance.

Features

- *Bluetooth* specification Version 4.2 (LE single mode) compliant
- Based on Nordic Semiconductor nRF52832 (ARM Cortex-M4F, 512KB flash, and 64KB RAM embedded)
- Complete *Bluetooth* protocol stack provided by Nordic Semiconductor
- External interface: 30 GPIO pins for NFC, SPI, TWI, UART, and ADC
- Out-of-Band pairing by use of NFC-A Tag interface



RoHS compliant



FWM7BLZ20-109049

Item	Specifications
Part number	FWM7BLZ20-1090xx
Antenna	Pattern antenna
Softdevice	S132 (ver. 3.0.0 or later)
<i>Bluetooth</i> technology	Conforms to <i>Bluetooth</i> Core Specification Version 4.2 (single mode low energy radio)
RAM	64KB
Transmit power	+4 dBm max.
Receiver sensitivity	-94 dBm typical
Interface	NFC (via external antenna), UART, SPI, GPIO, SWDCLK, SWIDO, nRESET, TWI, ADC
Crystal oscillator	Embedded
Operating temperature	-40°C to +85°C
Operating voltage	1.7 ~ 3.6VDC
Power consumption	Tx mode LDO mode: 11.6 mA typical (at 0dBm), DC/DC mode: 5.3mA typical (at 0dBm)
	Rx mode LDO mode: 11.7 mA typical DC/DC mode: 5.4mA typical
Number of GPIO	30
Dimensions	15.7 x 9.3 x 1.7 mm
Mounting method	Surface mount (SMD)
Certifications	Bluetooth qualification (QDID) / Radio Act (Japan) / FCC / IC / CE

Note: *Bluetooth* SIG registration is required to use this module's QDID.

Evaluation kit

Part number	Details
FWM7BLZ20-EB2-KIT-2	Evaluation kit
Contains:	
- MBH-FUJ12-E1 (USB cable is included)	Evaluation board
- FWM7BLZ20-DAU2-EB2	Module mounted on daughter board

Part number	Softdevice version
FWM7BLZ20-109049	S132 ver. 3.0.0
FWM7BLZ20-109062	S132 ver. 3.1.0

