

# FCL Components Wireless Modules

## Bluetooth® Ver.4.1 Modules (Software Embedded)

### (Central/Peripheral)

# MBH7BLZ01A, MBH7BLZ02A

Bluetooth Core Specification Version 4.1 (Bluetooth low energy)

#### Overview

Bluetooth Core Specification Version 4.1 (Bluetooth low energy) conforming software embedded modules with Central/Peripheral function available.

#### Modules embedded with FCL Components' Data Communication (FDC) profile

It can communicate with up to 8 peripherals at the same time by "GATT Direct Access Function". The function also makes it possible to communicate with other manufacturers Bluetooth modules.

FDC is a unique data transmission profile developed by FCL Components. FDC allows data to transmit with host system by simple text command (via UART). With more than 60 commands and continuous additions, FDC allows for quick product to market and reduction of development resources. For easy connectivity, the FDC embedded central module is designed to pair with the FDC peripheral module. FDC is a SPP-like profile ideally suited for sensing, monitoring, and wearable applications.

#### Based on Nordic Semiconductor nRF51822 SoC Rev.3

Item		Specifications
Part number	MBH7BLZ01A	MBH7BLZ02A
Antenna	None	Patterned antenna
Bluetooth technology	Conforms to Bluetooth Core Specification Version 4.1 (single mode low energy radio)	
RAM	32KB	
Transmit power	+4 dBm max.	
Receiver sensitivity	-88 dBm typical	
Host interface	UART	
Crystal oscillator	Embedded	
Power supply	1.9 V to 3.6 V (LDO)	
Power consumption (current)	Sleep mode	5µA typical
	Tx mode	12mA typical (at 0dBm)
	Rx mode	16.5mA typical
Operating temperature	-25°C to +85°C (no condensation)	
Dimensions	10.5 x 9.2 x 1.6 mm	15.7 x 9.8 x 2.0 mm
Mounting method	SMD	
Certifications	Radio Act (Japan)/ QDID	FCC / IC / CE / Radio Act (Japan)/ QDID



RoHS compliant

Software embedded module



MBH7BLZ02A



MBH7BLZ01A

#### Evaluation kit

Part number	Details	MOQ
MBH7BLZ02A-EF1-KIT-2	Evaluation kit	1 set

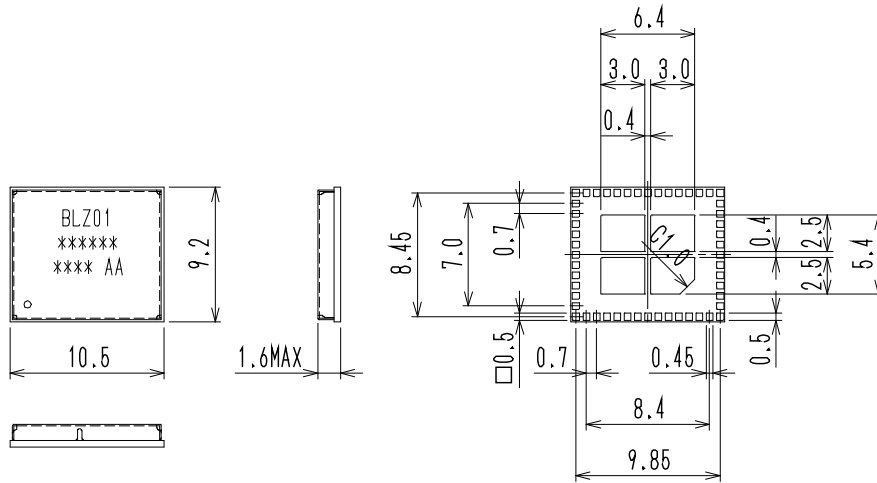
#### Embedded software & application development tool

Please request firmware specs and sample programs from one of FCL Components' sales offices.

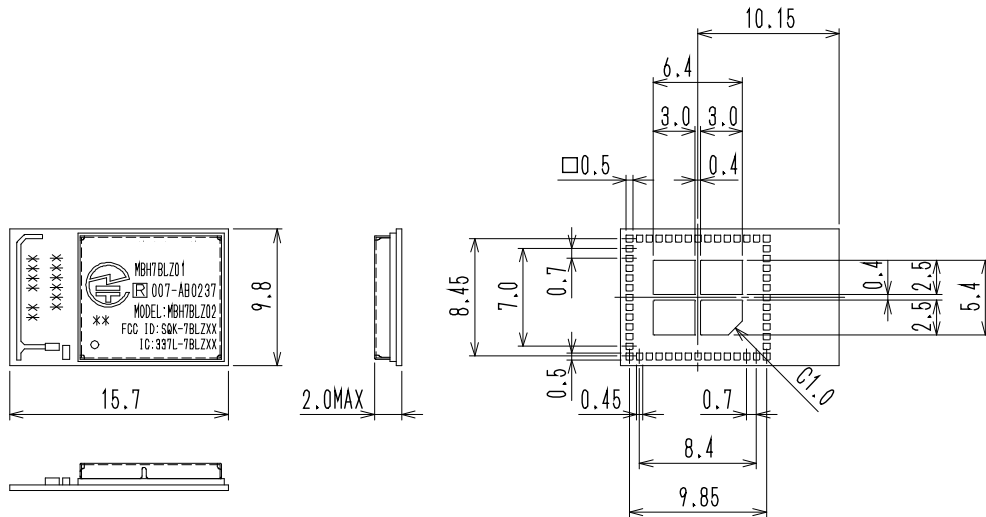
Note: Bluetooth SIG registration is required to use this module's QDID.

## ■ Dimensions

### MBH7BLZ01A



### MBH7BLZ02A



Unit: mm

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