

# FUJITSU Component Wireless Modules

## Bluetooth® Smart Modules (Software Embedded)

### MBH7BLZ01, MBH7BLZ02

Bluetooth Core Specification Version 4.1 (Bluetooth Smart)

#### Overview

Bluetooth Core Specification Version 4.1 (Bluetooth Smart) conforming peripheral modules with embedded software.

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

FDC is a unique data transmission profile developed by Fujitsu 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.

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	MBH7BLZ01	MBH7BLZ02
Antenna	None	Patterned antenna
Bluetooth technology	Conforms to Bluetooth Core Specification Version 4.1 (single mode low energy radio)	
RAM	16KB	
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	-40°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

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

Bluetooth Smart Module

RoHS compliant

Software embedded module



MBH7BLZ02



MBH7BLZ01

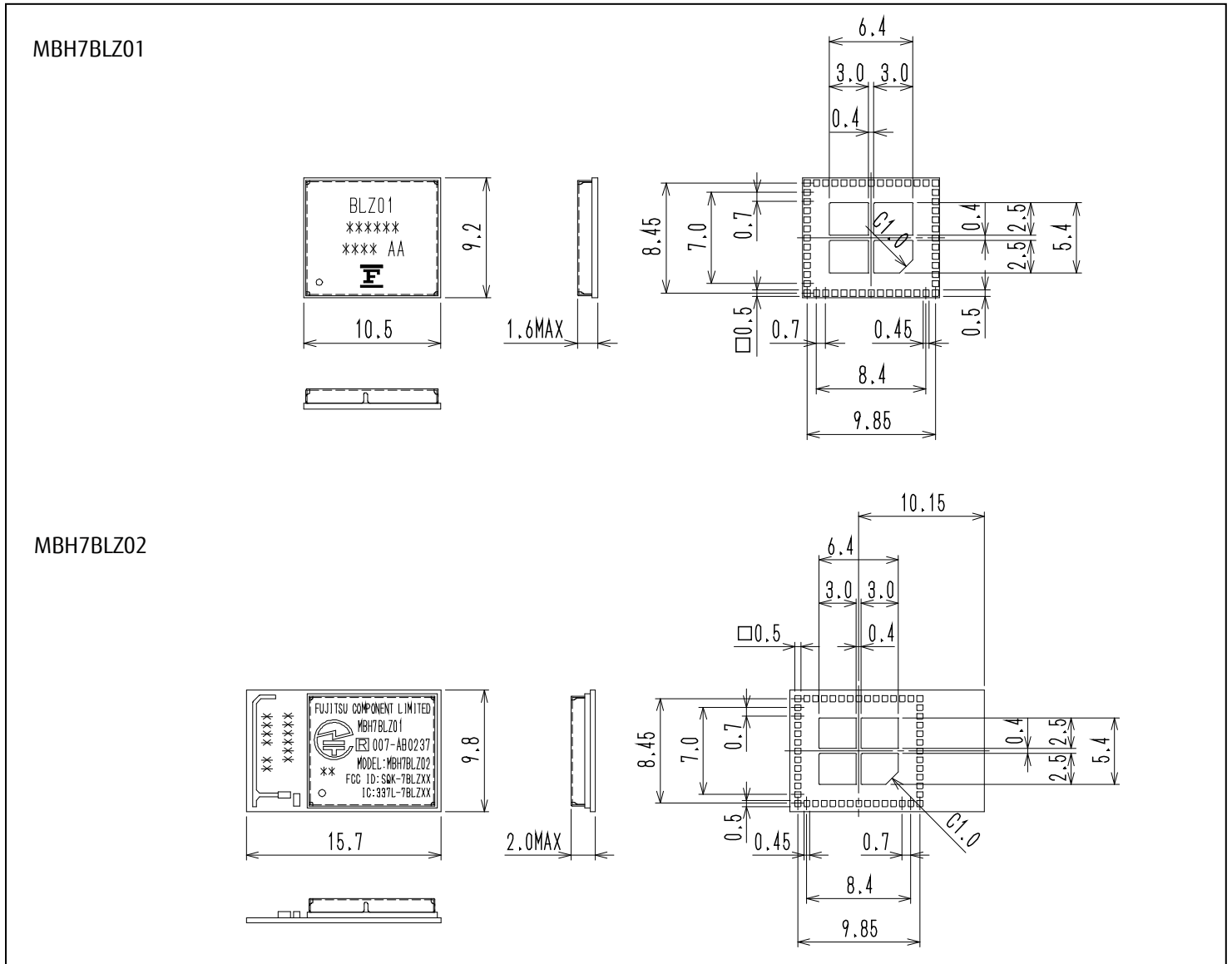
#### Evaluation tools

Part number	Details	MOQ
MBH7BLZ02-EF-KIT2	Evaluation kit	1 set

#### Embedded software & application development tool

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

■ Dimensions



Note: The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Fujitsu Component is under license.

Contact

**Japan**  
 FUJITSU COMPONENT LIMITED  
 Shinagawa Seaside Park Tower  
 12-4, Higashi-shinagawa 4-chome,  
 Tokyo 140 0002, Japan  
 Tel: (81-3) 3450-1682  
 Fax: (81-3) 3474-2385  
 Email: fcl-contact@cs.jp.fujitsu.com  
 Web: www.fujitsu.com/jp/fcl/

**Europe**  
 FUJITSU COMPONENTS EUROPE B.V.  
 Diamantlaan 25  
 2132 WV Hoofddorp  
 Netherlands  
 Tel: (31-23) 5560910  
 Fax: (31-23) 5560950  
 Email: info@fceu.fujitsu.com  
 Web: www.fujitsu.com/uk/components/

**China**  
 FUJITSU ELECTRONIC COMPONENTS  
 (SHANGHAI) CO., LTD.  
 Unit 4306, InterContinental Center  
 100 Yu Tong Road, Shanghai 200070, China  
 Tel: (86 21) 3253 0998  
 Fax: (86 21) 3253 0997  
 Email: fcal@sgfujitsu.com  
 www.fujitsu.com/sg/products/devices/components/

**Copyright**  
 All trademarks or registered trademarks are the property of their respective owners.  
 Fujitsu Components America or its affiliates do not warrant that the content of datasheet is error free. In a continuing effort to improve our products Fujitsu Components America, Inc. or its affiliates reserve the right to change specifications/ datasheets without prior notice. Copyright ©2015 Fujitsu Components America, Inc.  
 All rights reserved.  
 Revised October 14, 2015.

**North and South America**  
 FUJITSU COMPONENTS AMERICA, INC.  
 2290 North First Street, Suite 212  
 San Jose, CA 95131 U.S.A.  
 Tel: (1-408) 745-4900  
 Fax: (1-408) 745-4970  
 Email: components@us.fujitsu.com  
 Web: http://us.fujitsu.com/components/

**Asia Pacific**  
 FUJITSU COMPONENTS ASIA, Ltd.  
 102E Pasir Panjang Road  
 #01-01 Citilink Warehouse Complex,  
 Singapore 118529  
 Tel: (65) 6375-8560 / Fax: (65) 6273-3021  
 Email: fcal@sg.fujitsu.com  
 www.fujitsu.com/sg/products/devices/components/

**Hong Kong**  
 FUJITSU COMPONENTS HONG KONG Co., Ltd.  
 Unit 503, Inter-Continental Plaza,  
 No.94 Granville Road,  
 Tsim Sha Tsui Kowloon, Hong Kong 118529  
 Tel: (852) 2881 8495 Fax: (852) 2894 9512  
 Email: fcal@sg.fujitsu.com  
 www.fujitsu.com/sg/products/devices/components/