

# FUJITSU Component Wireless Modules

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

### MBH7BLZ07

#### Overview

Ultra small, low power consumption Bluetooth low energy module 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.

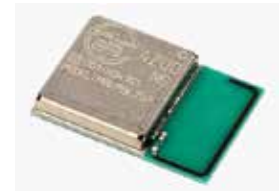
#### Based on Nordic Semiconductor nRF51822 SoC Rev.3

Item	Specifications	
Part number	MBH7BLZ07	
Antenna	Pattern antenna	
Bluetooth technology	Conforms to Bluetooth Core Specification Version 4.1 (single mode low energy radio)	
RAM	16KB	
Transmit power	+4 dBm max. (switchable by command)	
Receiver sensitivity	-88 dBm typical	
Interface	UART	
Crystal oscillator	Embedded	
Operating temperature & power supply	LDO mode	-40°C to +85°C, 1.9 VDC to 3.6 VDC -25°C to +75°C, 1.8 VDC to 3.6 VDC
	Low voltage mode	-25°C to +75°C, 1.75 VDC to 1.95 VDC
Power consumption	Sleep mode	5µ A typical
	Tx mode	12mA typical (at 0dBm)
	Rx mode	16.5mA typical
Dimensions	11.5 x 7.9 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.



RoHS compliant

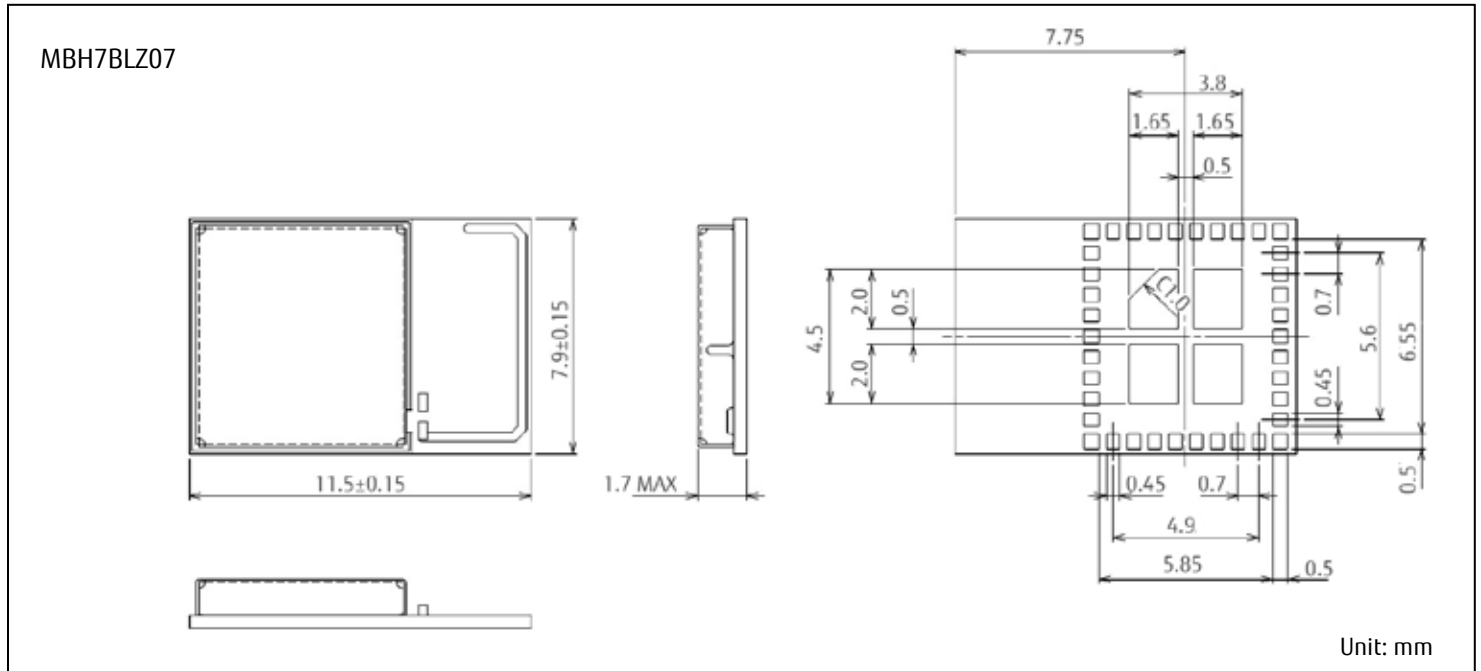


MBH7BLZ07

#### Evaluation kit

Part number	Details
MBH7BLZ07-EF1-KIT-2	Evaluation kit
Contains:	
- MBH-FUJ12-E1	Evaluation board
- MBH7BLZ07-DAU-EF1	Module mounted on daughter board
- USB cable	

■ 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. Other trademarks and trade names are those of their respective owners.

**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/group/fcl/en/

**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: emea.fujitsu.com/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@sg.fujitsu.com  
 www.fujitsu.com/sg/products/devices/  
 components/

**Korea**  
 FUJITSU COMPONENTS KOREA, LTD.  
 Alpha Tower #403,  
 645 Sampyeong-dong,  
 Bundang-gu, Seongnam-si,  
 Gyeonggi-do, 13524 Korea  
 Tel: (82 31) 708-7108  
 Fax: (82 31) 709-7108  
 Email: fcal@sg.fujitsu.com  
 www.fujitsu.com/sg/products/  
 devices/components/

**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.  
 Room 06, 28/F, Greenfield Tower, Concordia  
 Plaza, No.1 Science Museum Road,  
 Tsim Sha Tsui East, Kowloon, Hong Kong  
 Tel: (852) 2881 8495 Fax: (852) 2894 9512  
 Email: fcal@sg.fujitsu.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 ©2017 Fujitsu Components America, Inc. All rights reserved. Revised September 8, 2017