

# FUJITSU Component Wireless Modules

# Bluetooth® Ver.4.1 Modules (Software Embedded) MBH7BLZ01, MBH7BLZ02

Bluetooth Core Specification Version 4.1 (Bluetooth low energy)

#### **Overview**

*Bluetooth* Core Specification Version 4.1 (*Bluetooth* low energy) 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 wearble applications.

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

Item		Specifications		
Part number		MBH7BLZ01	MBH7BLZ02	
Antenna		None	Patterned antenna	
Bluetooth technology		Conforms to <i>Bluetooth</i> 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.





MBH7BLZ02



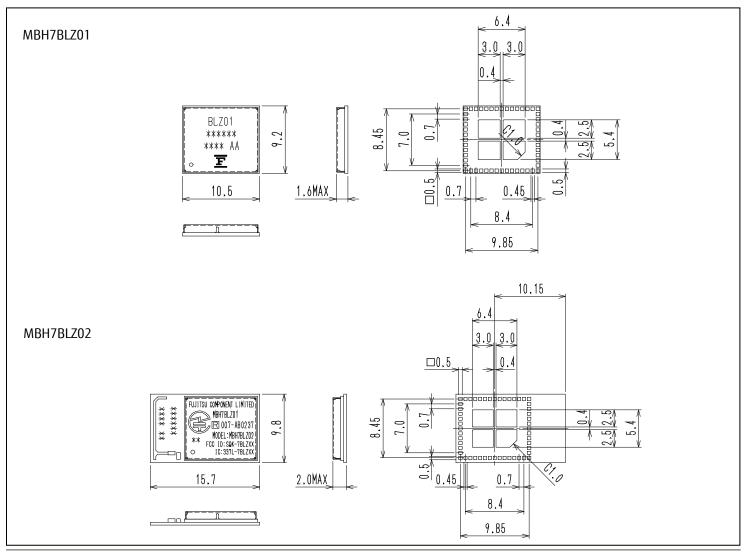
MBH7BLZ01

Evaluation tools				
Part number	Details	MOQ		
MBH7BLZ02-EF-KIT-2	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 owened 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 oweners.

#### 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/

# 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/

#### 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/

#### 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/

#### 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/

# 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/

#### Когеа

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/

#### 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