

FUJITSU Component Wireless Modules

Bluetooth® Version 4.2 (low energy)

(Firmware Embedded & Central/Peripheral)

FWM7BLZ20

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 SPI, TWI, UART, and ADC
- Capable to communicate with up to 8 peripherals simultaneously through the "GATT Direct Access Function". This function allows communication with other manufacturers' *Bluetooth* modules.



FWM7BLZ20

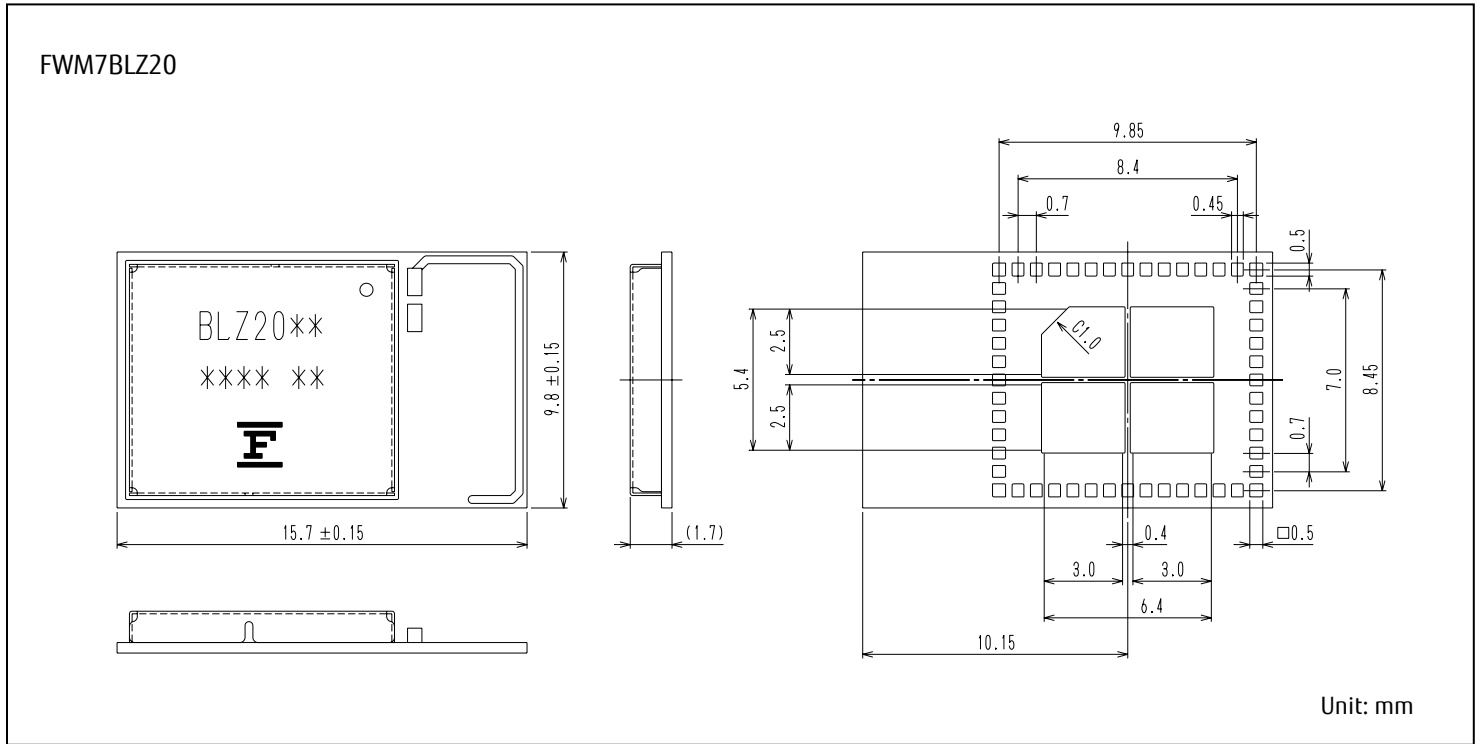
Item	Specifications
Part number	FWM7BLZ20
Antenna	Pattern antenna
<i>Bluetooth</i> technology	Conforms to <i>Bluetooth</i> Core Specification Version 4.2 (single mode low energy radio)
RAM	64KB
Transmit power	+4 dBm max.
Receiver sensitivity	-94 dBm typical
Interface	UART, SPI, GPIO, SWDCLK, SWIDO, nRESET, 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-EF2-KIT-2	Evaluation kit
Contains:	
- MBH-FUJ12-E1 (USB cable is included)	Evaluation board
- FWM7BLZ20-DAU2-EF2	Module mounted on daughter board

■ 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@fcal.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@fcal.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@fcal.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@fcal.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 February 28, 2017