FUJITSU Component Wireless Modules
Wirepas Mesh 2.4GHz Module
FWM7BLZ022W/P/T

Overview
Surface mount module with incorporated WIrepas Mesh 2.4GHz network.

RoHS compliant

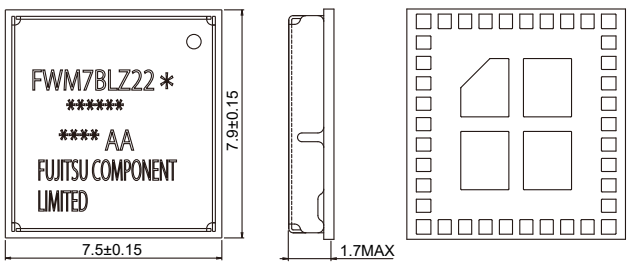
Features
- Surface mount module with small footprint (7.5 x 7.9 x 1.7 mm) with Wirepas Massive function
- Output power is enhanced to +8dBm, which may enable to extend transmit range.
- Host interface: USB (for FWM7BLZ22W) and UART
- Low power consumption (1.7 to 3.6V, main power at normal voltage mode)
- Sink, anchor, tag are available:
  - FWM7BLZ22W: Sink (routing tree root node) for gateway. Controlled by host CPU using Dual-MCU API via USB or UART
  -FWM7BLZ22P: Anchor for positioning application. Manageable by host CPU via UART or works as standalone.
  -FWM7BLZ22T: Tag for positioning application. Manageable by host CPU via UART or works as standalone.
- Communicate in an Industrial Scientific Medical (ISM) band.
- GPIO pins (20 pins) of nRF52833 are assigned to this module

FWM7BLZ22 series

Applications
Asset management, sensor network, smart buildings, smart factory, smart city, etc.

■ Dimensions

FWM7BLZ22



Unit: mm

■ Specifications

Item		Specification		
Type		Mesh unit (Sink)	Mesh unit (Anchor)	Mesh unit (Tag)
Part number		FWM7BLZ22W	FWM7BLZ22P	FWM7BLZ22T
Mesh technology		Wirepas Massive		
Transmit power		+8dBm max.		
RX sensitivity		-96 dBm		
Host interface		USB, UART	UART*1	
Antenna		Not embedded		
IC		Nordic Semiconductor nRF52833		
Carrier frequency		2,400 MHz to 2,483.5 MHz		
Modulation		GFSK		
Symbol rate		1Mbps		
Modulation index				
Number of channels		40 channels		
Channel spacing		2 MHz		
Chrystal oscillators		Embedded		
Power supply	Main	1.7 to 3.6V (Normal voltage mode) / 2.5 to 5.5V (High voltage mode)*2		
	USB VBUS	4.35 to 5.5V		
Operating temperature		-40°C to +85°C		
Dimensions / weight		7.5 x 7.9 x 1.7 mm / Approx. 0.17g		
Mounting method		Surface mount (SMT)		
Certifications		Radio Act Japan (with Fujitsu designate anenna)		

Notes: *1: USB is planned
*2: Depending on circuit configuration

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