

WE310F5

Wi-Fi 802.11 b/g/n Bluetooth® Low Energy 5.0

Product Description

The WE310F5 is a fully integrated, single-band Wi-Fi (802.11 b/g/n) and Bluetooth® Low Energy (BLE5) combination module that provides a low-cost and highspeed wireless connection to an embedded microcontroller over UART, SPI and SDIO interfaces.

The comprehensive software features exposed through AT commands enable faster time to market, even with limited wireless expertise. IoT devices integrating WE310F5 are secured with WPA3 protocol, the nextgeneration, cutting-edge Wi-Fi security specification. Out-of-the-box support for Firmware Over-the-Air (FOTA) upgrades significantly reduces integration time. WE310F5 also offers multiple provisioning schemes, helping configure the device securely from a smartphone or a laptop.

Key Features

• Fully integrated, single-band Wi-Fi (11n) and Bluetooth® Low Energy 5.0 combination IoT module

13.1 mm

14.3 mm

2.6 mm

- Low-cost, high-speed, serial-to-wireless connection to an MCU over UART, SPI and SDIO interface
- Comprehensive software features
- Low power consumption
- Advanced security features (including WPA3)
- Industrial-grade temperature range (-40 °C to +85 °C)
- Variants with (WE310F5-I) and without (WE310F5-P) antennas

Target Applications

Industrial/Commercial IoT

- Industrial automation
- Sensor gateways
- Condition-based monitoring
- Security panel
- Energy management
- Inspection camera
- Data logger
- Building automation

Smart Home

- Thermostat
- Air purifier
- Air conditioner
- Security/monitoring camera
- Pet food dispenser

15 mm 2.6mm

AVAILABLE FOR

18 mm

North Ar	neric	а	
EMEA			
Japan			
Australia	3		
Taiwan			
China*			
Korea*			
Brazil*			

Complete, Ready-to-Use Access to the Internet of Things





WE310F5

Module Wireless Specification	Wi-Fi: 802.11 b/g/n (2.4GHz) Bluetooth® Low Energy 5.0		
Solution Architecture	Hosted (AT commands) Standalone (host-less)		
Host Interface	UART, SPI & SDIO		
Wi-Fi Modes	AP (access point) 14 STA (clients) Concurrent Mode (AP + STA) Wi-Fi Direct (P2P)*		
BLE Modes	Central Peripheral Concurrent		
Security Features	WPA/WPA2 (personal) WPA3 (personal) WPA3 (enterprise)* HTTPS server & client TLS-1.2/TLS-1.3*		
Coexistence	Inbuilt Wi-Fi Bluetooth® Low Energy		
Provisioning (Through web-apps and native apps)	Bluetooth® Low Energyenabled Wi-Fi HTTPS enabled Wi-Fi		
Cloud Agent	Amazon AWS loT≛ Microsoft Azure≛		
Wi-Fi Throughput	25 Mbps		
Firmware Upgrade	FOTA		
Dimension	Integrated antenna (WE310F5-I): 18 x 15 mm (LGA package) External antenna (WE310F5-P): 14.3 x 13.1 mm (LGA package)		
Wi-Fi Tx output power	18 dBm		
BLE Tx output power	8 dBm		
Operating Temperature	-40 °C to +85 °C (industrial grade)		
Operating Voltage	3.3 V Тур		
Compliance	FCC/IC/RED/RCM/JATE-JBL/TELEC-JRL/NCC/ANATEL/SRRC/WPC-ETA/KCC/UKCA Wi-Fi Alliance Bluetooth® Low Energy-SIG *Not available in first release		

* Not available in first release

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