

Wi-Fi 6 plus Bluetooth System On Module for Enterprise IoT Applications

IM-100



Self contained wireless module with on board Processor and Memory ideal for a wide range of applications

IM-100, based on NXP's RW610, is a highly integrated, low-power wireless MCU with an integrated MCU and Wi-Fi® 6 + Bluetooth® Low Energy (LE) 5.4 radios designed for a broad array of applications. IM-100 is a full-featured 1x1 dual-band (2.4 GHz/5 GHz) 20 MHz Wi-Fi 6 (802.11ax) module bringing higher throughput, better network efficiency, lower latency, and improved range over previous generation Wi-Fi standards.

Features

Low Development Costs and Fast Time to Market

Offload Main CPU

Free up the Main CPU running wireless drivers, network stack & applications on IM-100's on board Processor.



Customer Product

No Driver Development

No wireless driver development saves significant engineering costs and reduces development time!

Small Form Factor & Industrial Temperature Support for a Broad Array of Applications

- Size: 17mm x 18mm
- Operating Temperature: -45°C ~ +85°C



Enterprise-Grade Operation Modes in Firmware

With Ethernet/Serial/USB(RNDIS) to Wi-Fi bridging and Access Point mode functionality supported in the firmware, the IM-100 virtually becomes platform and OS agnostic. It makes adding wireless connectivity to a customer's product extremely easy with no development.

If you want to make your Windows laptop wireless:

Connect & instantly add Wireless



IM-100-EVB (Evaluation Board)

USB(RNDIS)



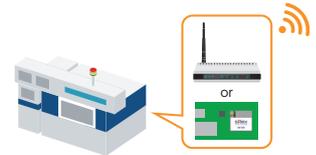
Windows PC

Big Value with Firmware and Hardware Customization
Customers can customize the radio functionality and even build custom applications for their products by using NXP MCUXpresso's SDK, IDE, and configuration tools. Silex also offers a full range of hardware customization services, including baseboards and chassis.

IM-100 Use Case :



Embedded Wi-Fi



External Bridge/Access Point product

Specifications

Model	IM-100-MHF / IM-100-PAD
Chipset	NXP RW610 (Arm® Cortex®-M33 260MHz)
Memory	ROM : 2MB (Add-on option) RAM : 1.2MB (built-in) + Add-on option
WLAN Spec	IEEE 802.11a/b/g/n/ac/ax (1x1) 2.4/5GHz
Bluetooth Spec	Bluetooth® LE v5.4
Antenna Connector	IM-100-MHF : MHF x 1 IM-100-PAD : None (Antenna Trace)
Interfaces	Standard:LAN(100Base), USB2.0, (RNDIS), UARTx2 Optional : SPI, SDIO, I2C, I2S
Security	WPA™ / WPA2™ / WPA3™ IEEE 802.1X(EAP-TLS/EAP-TTLS/PEAP/EAP-FAST)
Operating Voltage	3.3V
Operating Temp.	-40 ~ +85°C
Storage Temp.	-40 ~ +90°C
Size	17.0 × 18.0 × 2.65 mm
Package Type	108 Pins (Surface Mount)
Certifications	USA, Canada, Europe, UK, Japan

※ Specifications can be changed without notice.

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