

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

## IM-100



Wi-Fi 6



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.

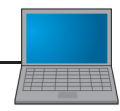
If you want to make your Windows laptop wireless:

Connect & instantly add Wireless



IM-100-EVB (Evaluation Board)

USB(RNDIS)



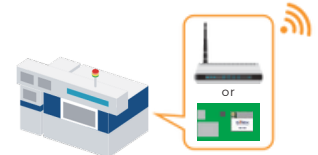
Windows PC

- **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 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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