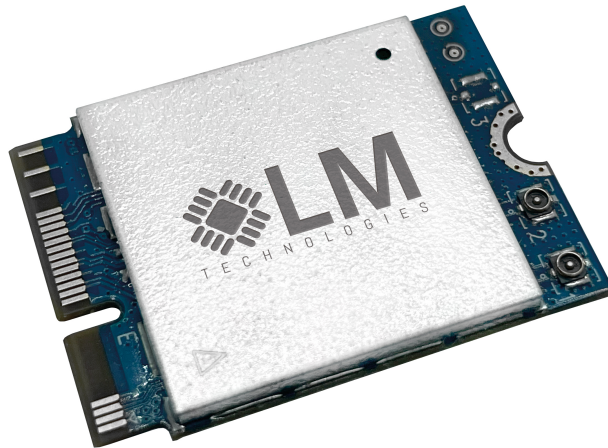


LM514 Wi-Fi 6 (802.11ax) and Bluetooth® 5.2 Industrial M.2 Card

PCIe + USB Interface, M.2 2230 (A-E Key) Form Factor

Revised
Product Brief Version

14/FEB/2025
1.3



Features

- Wi-Fi 6 (802.11 a/b/g/n/ac/ax)
- Bluetooth® 5.2
(Backwards compatible with all previous Bluetooth versions)
- WPA, WPA2, WPA3, 802.1x and WEP (64bit & 128bit) encryption schemes
- MU-MIMO and data rate up to 1201Mbps
- Dual Mode simultaneous LE and BR/EDR support
- PCIe Interface for Wi-Fi, USB Interface for Bluetooth
- Operating temperature: -30°C to +85°C
- Supports Bluetooth adaptive power management
- 2.4~2.484 GHz and 5.0~5.8 GHz
- M.2 2230 (A-E) Key form factor
- 2 x IPEX connector receptacle
- 30mm x 22mm x 2.25mm
- Linux and Windows 10 – 11 compatible
- See the website for this product's certifications. RoHS, REACH and WEEE compliant

Overview

The LM514 module is a high-performance and highly integrated Wi-Fi 6 solution that offers coexistence for Bluetooth® Dual Mode and Wi-Fi operations, allowing the host computer to wirelessly communicate with other Bluetooth and Wi-Fi enabled devices.

The LM514 is ideal for industrial applications, delivering both high throughput and low power consumption. The compact form factor saves valuable space within your product, making it ideal for laptops, desktops, medical devices and industrial PCs.

The LM514 supports IEEE 802.11a/b/g/n/ac/ax and Bluetooth 2.0, 2.1, 3.0, 4.0, 4.2 and 5.2 standards and is compatible with Linux (Kernel 5.4), Windows 10 – 11 platforms.

*Please contact our sales team for further information.

LM514 Wi-Fi 802.11ax and Bluetooth® 5.2 M.2 Card

PCIe + USB Interface, M.2 2330 (A-E Key) Form Factor

General Specification

Wireless Standard	<p>Wi-Fi:</p> <p>802.11 a/b/g/n/ac/ax</p> <p>Bluetooth:</p> <p>2.1+EDR/3.0/4.0/4.2/5.2 - BR/EDR and Low Energy</p>
Module Type	M.2 Card
OS Compatibility	Linux, Windows 10 – 11
Security	<p>Wi-Fi:</p> <p>WPA, WPA2, WPA3 , WEP (64bit & 128bit), TKIP, AES, 802.1x</p> <p>Bluetooth:</p> <p>Secure Simple Paring</p>
Chipset	Realtek
Antenna	2 x IPEX Connectors
Interfaces	Wi-Fi: PCIe, Bluetooth: USB 2.0
Tx Output Power	<p>Wi-Fi:</p> <p>24GHz</p> <p>17 dBm – 802.11b@11Mbps</p> <p>15 dBm – 802.11g@54Mbps</p> <p>14 dBm – 802.11n@MCS7_HT20</p> <p>14 dBm – 802.11n@MCS11_HT40</p> <p>5GHz</p> <p>14 dBm – 802.11a@54Mbps</p> <p>13 dBm – 802.11n@MCS7_HT20</p> <p>12 dBm – 802.11n@MCS7_HT40</p> <p>12 dBm – 802.11ac@MCS8_VHT20</p> <p>11 dBm – 802.11ac@MCS9_VHT40</p> <p>11 dBm – 802.11ac@MCS9_VHT80</p> <p>12 dBm – 802.11ax@MCS11_HE20</p> <p>11 dBm – 802.11ax@MCS11_HE40</p> <p>Bluetooth:</p> <p>Typical 6 dBm</p>
Frequency	24~2484 GHz , 5.0~5.8 GHz



LM514 Wi-Fi 802.11ax and Bluetooth® 5.2 M.2 Card

PCIe + USB Interface, M.2 2330 (A-E Key) Form Factor

General Specification (Continued)

Physical Characteristics

Operating Temperature	-30°C to +85°C ambient temperature 5 to 90 % (non-condensing)
Storage Temperature	-40°C to +90°C ambient temperature 5 to 90 % (non-condensing)
Dimensions (L x W x H)	25mm x 12mm x 2.25mm
Weight	TBA
Certifications	See the website for this product's certifications.
Compliance	RoHS, REACH and WEEE

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