# Single Board Computer

***Peripherals***

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**Wireless LAN Module**

# *Features*

**EMB-WIFI-KIT**

## *PCIe Mini card wireless LAN module kit*

***Specifications***

* Half size PCIe Mini card form factor
* High speed wireless connection up to 433.3Mbps transmit/receive PHY rate using 80MHz bandwidth
* Low power consumption and high performance
* Fully qualified Bluetooth 4.0
* Solid design with external antenna diversity

# *Ordering Information*

|  |  |
| --- | --- |
| Part No. | Description |
| EMB-WIFI-KIT01-R20 | 1T1R wifi module kit for embedded system, IEEE802.11a/b/g/n/ ac WiFi with Bluetooth 4.0/3.0+HS, 1 x wifi module, 2 x 250mm RF cable, 2 x Antenna, RoHS |
| EMB-WIFI-KIT11-R20 | 1T1R wifi module kit for embedded system, IEEE802.11a/b/g/n/ ac WiFi with Bluetooth 4.0/3.0+HS, 1 x wifi module, 2 x 400mm RF cable, 2 x Antenna, RoHS |

***Specifications***

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| --- | --- |
| **Model Name** | **EMB-WIFI-KIT** |
| **Standard** | IEEE 802.11a/b/g/n/ac, Wi-Fi compliant / Bluetooth4.0 Standard |
| **Major chipset** | Realtek RTL8821AE |
| **Antenna** | 2x standard U.FL Connector |
| **Frequency range** | Wi-Fi: 2.4 GHz, BT: 2402MHz~2483MHz |
| **Modulation** | Wi-Fi:  802.11a/g/n/ac: OFDM  802.11b: CCK(11, 5.5Mbps), DQPSK(2Mbps), BPSK(1Mbps) |
| **Receive Sensitivity** | Wi-Fi:  802.11a: less than -65 dBm (54M) 802.11b: less than -76 dBm (11M) 802.11g: less than -65 dBm (54M)  802.11n @2.4GHz: less than -64 dBm (HT20 MCS7) 802.11n @2.4GHz: less than -61 dBm (HT40 MCS7) 802.11n @5GHz: less than -64 dBm (HT20 MCS7) 802.11n @5GHz: less than -61 dBm (HT40 MCS7) 802.11ac @5GHz: less than -51 dBm (VHT80 MCS9) BT: BER < 0.1% (Anritsu 8852B Tx -70 dBm) |
| **Driver support** | Windows 7/8, Linux kernel 3.18 |
| **Temperature** | 0O~70OC |
| **Dimensions** | 29.85mm x 26.65mm x 1.5 mm |
| **Weight** | NW: 3.28g |

***Features***

**WMPCIE-V02-R10**

## *PCIe Mini card wireless LAN module*

|  |  |
| --- | --- |
| **Model Name** | **WMPCIE-V02-R10** |
| **Standards** | IEEE 802.11a/b/g/n/ac Wi-Fi with Bluetooth 4.0/3.0 + HS (Wi-Fi:PCI-E, BT:USB) |
| **Inferface** | PCIe Mini card |
| **Connectors** | 2XU.FL(I-PEX) antenna connectors |
| **Controller Chip** | Realtek RTL8821AE |
| **Frequency Range** | Wi-Fi: 2.4/5GHz, BT: 2402 MHz~2483 MHz |
| **Modulation Type** | Wi-Fi:  802.11a/g/n/ac: OFDM  802.11b: CCK, DQPSK, BPSK BT:  Header GFSK  Payload 2M: 4-DQPSK Payload 3M: 8DPSK |
| **Supported OS** | Windows 7/8/10 |
| **Receiver Sensitivity** | Wi-Fi:  802.11a: less than -65 dBm (54M) 802.11b: less than -76 dBm (11M) 802.11g: less than -65 dBm (54M)  [802.11n@2.4GHz:](mailto:802.11n@2.4GHz) less than -64 dBm (HT20 MCS7) 802.11n@5GHz: less than -64 dBm (HT20 MCS7) 802.11ac@5GHz: less than -51 dBm (VHT80 MCS9) BT: BER < 0.1% (Anritsu 8852B Tx -70 dBm) |
| **Temperature** | Operating: 0°C ~ 70°C Storage: -40°C ~ 85°C |
| **Humidity** | 5% ~ 95%, non-condensing |
| **Dimensions** | 29.85mm x 26.65mm |
| **Weight** | NW: 3.28g |
| **Compliance Certifications** | FCC, CE |

* PCIe Mini card form factor



Wireless LAN Module-2019-V10

* High speed wireless connection up to 433.3Mbps transmit/receive PHY rate using 80 MHz bandwidth
* Solid design with external antenna diversity
* Low power consumption and high performance
* Enhanced wireless security
* Fully qualified Bluetooth 4.0 and 3.0 + High speed system

# *Ordering Information*

|  |  |
| --- | --- |
| Part No. | Description |
| WMPCIE-V02-R10 | IEEE802.11a/b/g/n/ac wireless with Bluetooth 4.0/3.0 + HS PCIe Mini module with Realtek RTL8821AE, RoHS |
| 32501-001000-200-RS | RF cable; 300MM; 28AWG; (A) SMA connector (B) MHF20278-11R-13; RoHS |
| 32505-000100-100-RS | 2 dBi 109mm antenna |