

MINIPCIIE-WLAN-161H WiFi/BT module



Features:

- * High speed WiFi up to 433.3Mbps transmit/receive PHY rat using 80MHz bandwidth
- * 2 antennas support WiFi and BT
- * WCS (Wireless Coexistence System)
- * BT v 4.0/3.0+ high speed support
- * EDR compliant both 2Mbps & 3Mbps support
- * Fully-speed Piconet & Scatternet support
- * Electrical compliant to USB 1.1 & 2.0

Specifications



Model Name	MINIPCIIE-WLAN-161H
Product Description	IEEE 802.11 a/b/g/n/ac, WiFi with BT 4.0 + 3.0 HS class I Combo half mini card Module
BlueTooth Standard	IEEE 802.11 a/b/g/n/ac, WiFi compliant/BT 4.0 + 3.0 HS Standard
Host Interface	WiFi: PCIe / Bluetooth: USB
Major Chipset	Realtek RTL8821AE
WiFi SSV/PID	1A3B/216A
BT V/PID	13D3/3458
Dimension	29.85mm x 26.65mm x 1.5mm (+/- 0.2mm)
Weight	3.28g
Antenna	Standard U.FL connector
	1. Connector of Ant M (Main): WiFi Tx/Rx + BT
	2. Connector of Ant A (Aux): WiFi Tx/Rx + BT

Electrical Specifications	
Frequency Range	WiFi: 2.4GHz ISM Bands 2.412~2.472GHz
	5.15~5.25GHz (FCC UNII-low band) for US/Canda, Japan and Europe
	5.25~5.35GHz (FCC UNII-middle band) for US/Canda and Europe
	5.47~5.725GHz for Europe
	5.725~5.825GHz (FCC UNII-high band) for US/Canda
	BT: 2,402MHz~2,483MHz
Modulation	WiFi: 802.11a/g/n/ac: OFDM
	802.11b: CCK (11, 5.5Mbps), DQPSK (2Mbps), BPSK (1Mbps)
	BT: Header GFSK
	Payload 2M: 4-DQPSK
	Payload 3M: 8DPSK

Output Power	WiFi: 802.11a: 13dBm +/- 2dBm (54Mbps)
	802.11b: 16dBm +/- 2dBm (11Mbps)
	802.11g: 14dBm +/- 2dBm (54Mbps)
Output Power	WiFi: 802.11n@2.4GHz: 13dBm +/- 2dBm (HT20 MCS7)
	802.11n@2.4GHz: 13dBm +/- 2dBm (HT40 MCS7)
	802.11n@5GHz: 12dBm +/- 2dBm (HT20 MCS7)
	802.11n@5GHz: 12dBm +/- 2dBm (HT40 MCS7)
	802.11ac@5GHz: 12dBm +/- 2dBm (HT80 MCS7)
	802.11ac@5GHz: 10dBm +/- 2dBm (HT80 MCS9)
	BT: $0 \leq \text{Output Power} \leq 8\text{dBm}$ (Conductive)
Receive Sensitivity	WiFi: 802.11a: Less than -65dBm (54M)
	802.11b: Less than -76dBm (11M)
	802.11g: Less than -65dBm (54M)
	802.11n@2.4GHz: Less than -64dBm (HT20 MCS7)
	802.11n@2.4GHz: Less than -61dBm (HT40 MCS7)
	802.11n@5GHz: Less than -64dBm (HT20 MCS7)
	802.11n@5GHz: Less than -61dBm (HT40 MCS7)
	802.11ac@5GHz: Less than -51dBm (VHT80 MCS9)
	BT: BER < 0.1% (Anritsu 8852B Tx -70dBm)
Operating Range	WiFi: Open Space: 300M/Indoor: 100M
	(The transmission speed may vary according to the environment)
	BT: 10m~20m (depending on environment and NB model)
Regulatory	Follow Realtek RTL8821AE regulatory list
Operating Conditions	
Voltage	3.3V +/- 9%
Temperature	0~70°C
Storage Temperature	-40~+85°C