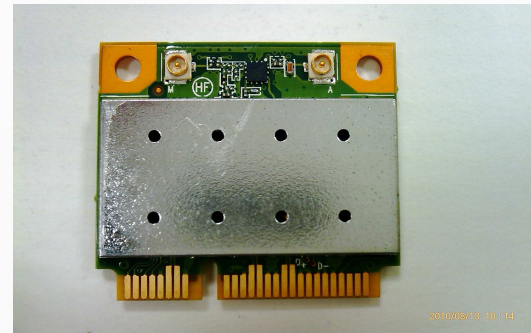
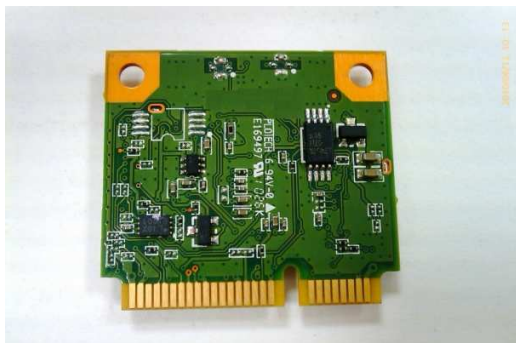
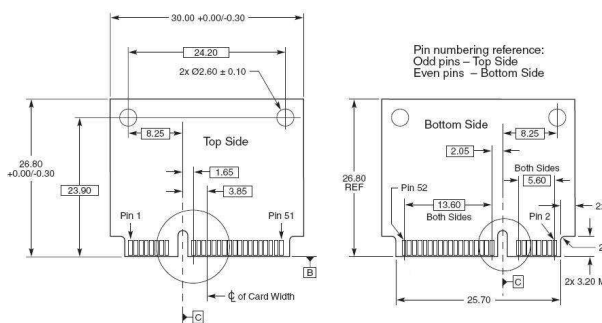


MaxR-911-BT

IEEE 802.11n, Bluetooth Wi-Fi Half-Mini PCI Express Card

Industry's first 1-stream 11n & Bluetooth design on Half-Mini Card. With the growing demand for both WLAN and Bluetooth in portable PCs, Arada has developed the industry's first 1-stream 11n plus Bluetooth combo solution on a Half-Mini Card MaxR-911-BT.



Product Highlights:

- Atheros, 9th Generation AR9285 and AR3011 Chipsets
- Bluetooth & Wi-Fi Co-existence
- USB 2.0 for Bluetooth and PCI Express 1.1 for Wi-Fi
- Tiny Form Factor (Half-Mini Card)
- Extreme Temperature Range (-10°C to +75°C)
- Low Halogen compliant
- BT V3.0+HS, V2.1+EDR, backward compatible with BT 2.0, 1.2 and 1.1
- BT Simple Pairing(SP) and Enhanced Inquiry Response(EIR) support
- BT Scatternet and Piconet support
- BT integrates 32-bits CPU, 32KB Data RAM, 256KB code RAM
- Wi-Fi 150 Mbps Data Rate Support
- Wi-Fi IEEE 802.11 b/g/n/e/i compliant
- Wi-Fi HT40, Half Guard Interval in HT40, Rx STBC Support
- Wi-Fi Hardware Encryption (AES-CCMP, TKIP, WEP)
- Windows XP/Vista/Win7 & Linux Support
- RoHS Compliant

Technical Specifications

Product Information	
BLUETOOTH	
BT Chipset	Atheros, <i>ROCm</i> AR3011 Bluetooth Chipset, with WLAN Co-existence
BT Radio Operation	Bluetooth V3.0, V2.1+EDR
BT Frequency Range	2.400 GHz – 2.4835 GHz
BT Modulation Scheme	GFSK, $\pi/4$ -DQPSK, and 8-DPSK
BT Interface	HCI USB 2.0
BT Peripheral Interface	GPIOs
BT Aux. Memory Interface	Serial Flash
BT Transmit Output Power	$6 \leq \text{Output Power} \leq +4$; Class 2 Device
BT Receiver Sensitivity	$< 0.1\%$ BER at -70dBm
BT Data Rates	1 Mbps, 2 Mbps and Up to 3 Mbps
Wi-Fi	
Wi-Fi Chipset	Atheros, 9 th Generation, AR9285 Chipset
Wi-Fi Radio Operation	IEEE 802.11 b/g/n (1x1 , 1 Stream)
Wi-Fi Frequency Range	2.400 GHz to 2.500 GHz
Wi-Fi Modulation Scheme	OFDM with BPSK, QPSK, 16 QAM, 64 QAM; DBPSK, DQPSK, CCK
Wi-Fi Channel Bandwidth	20MHz / 40MHz
Wi-Fi Bus Interface	PCI Express
Wi-Fi Peripheral Interface	GPIOs, LEDs
Wi-Fi Security	WPA, WPA2, AES-CCM & TKIP Encryption, 802.1x, 64/128/152 bit WEP
Wi-Fi Data Rates	1 Mbps, 2 Mbps, 5.5 Mbps, 11 Mbps (11b) 6Mbps, 9Mbps, 12Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps (11g) MCS0 – MCS7 (11n)

Common			
Dimension (in mm)	26.8 x 30.0 x 4.3		
Operating Voltage	3.3 V \pm 9% I/O supply voltage		
Antenna Interface	Dual Antenna Connector		
Operating Temperature	-10 to 75 °C (14 to 167 °F) Relative Humidity: 5-90% (non-condensing)		
Storage Temperature	-40 to 85 °C (-40 to 185 °F) Relative Humidity: 5-95% (non-condensing)		
OS Support	Microsoft Windows XP/Vista/Win7 and Linux		
Power Consumption			
TX Mode	380 mA		
RX Mode	320 mA		
Standby Mode (Wi-Fi + BT)	280 mA		
Standby Mode (Wi-Fi only)	260 mA		
Standby Mode (BT only)	30 mA		
Radio Off	130 mA		
Wi-Fi Output Power & Sensitivity			
	Data Rate	Tx Power	Rx Sensitivity
802.11b	1 Mbps	17 \pm 1.5 dBm	-89 dBm
	11 Mbps	17 \pm 1.5 dBm	-82 dBm
802.11g	6 Mbps	17 \pm 1.5 dBm	-84 dBm
	54Mbps	15 \pm 1.5 dBm	-69 dBm
802.11n(HT20)	MCS0	17 \pm 1.5 dBm	-82 dBm
	MCS7	13 \pm 1.5 dBm	-65 dBm
802.11n(HT40)	MCS0	16 \pm 1.5 dBm	-79 dBm
	MCS7	11 \pm 1.5 dBm	-62 dBm