

PRODUCT DATASHEET

Atheros 4th G Mini-PCI Adapter

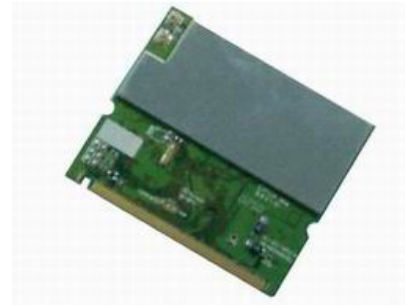
5354MP PLUS ARIES2(F)

2.4/5.0 GHz

802.11 a/b/g

108 Mbps (Super A/G)

This IEEE 802.11a/b/g wireless mini-PCI adapter is a standard Type III A mini-PCI card that can be integrated for embedded systems or OEM projects. The high-speed wireless mini-PCI card operates seamlessly in 5GHz frequency spectrum supporting the 802.11a (54Mbps) wireless standards. To protect your wireless connectivity, the high-speed wireless mini-PCI card can encrypt all wireless transmissions through 64/128/152-bit WEP data encryption. Dynamic Frequency Selection (DFS) puts your network on the cleanest channel in your location. The small form factor and light weight make it an ideal solution for embedded systems or OEM projects.



Features	Benefits
Flexible Design for Embedded Systems	Can be designed for OEM projects or embedded systems
2.4GHz IEEE802.11b/g standard and 5GHz IEEE802.11a standard compliant	Fully interoperable with IEEE802.11a/b/g compliant devices
Up to 54Mbps and 108Mbps (Super A/G mode) high-speed data rates	Capable of handling heavy data payloads such as MPEG video streaming
Wi-Fi Protected Access(WPA) Client Support Up to 152-bit WEP data encryption	Powerful data security
802.11i Security and Advanced Encryption Standard (AES) IEEE802.1x Client support	Enhances authentication and security
Dynamic Frequency Selection (DFS) support	Provides flexible selection of the best frequency to allow mobility among all existing IEEE802.11a/b/g networks
Transmission Power Control (TPC) support	Offers flexibility to adjust RF output power
Multi-country Roaming (802.11d) support	Automatically adjusts regulatory domain to operate in different countries

* Theoretical wireless signal rate based on IEEE standard of 802.11a, b, g chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate.

** All specifications are subject to change without notice.

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Technical Specifications		
Data Rates	802.11b: DSSS (DBPSK, DQPSK, CCK)	50.9mm x 59.6mm x 4.8mm (2.3in x 2in x 0.2in)
802.11a: 6, 9, 12, 18, 24, 36, 48, 54, 72, 96 & 108 (Super a) Mbps	Operating Channels	Weight
802.11g: 6, 9, 12, 18, 24, 36, 48, 54, 72, 96 & 108 (Super g) Mbps	11 for North America, 14 for Japan, 13 for Europe, 2 for Spain, 4 for France	15g (0.53 oz)
802.11b: 1, 2, 5.5, 11Mbps	Receive Sensitivity (Typical)	Environmental
Standards / Compliance	802.11a: -89dBm @ 6Mbps, -73dBm @ 48Mbps, -70dBm @ 54Mbps	Temperature Range
WECA (Wi-Fi & Wi-Fi5 compliance), IEEE802.11, IEEE802.11a, IEEE802.11g, IEEE802.11b, draft IEEE 802.11e, f, h, and i standards, IEEE802.1x	802.11g: -89dBm @ 6Mbps, -73dBm @ 48Mbps, -70dBm @ 54Mbps	Operating: -0°C to 55°C Storage: -40°C to 70°C
Regulation Certifications	802.11b: -93dBm @ 1Mbps -88dBm @ 11Mbps	Humidity (non-condensing)
FCC Part 15/UL, ETSI 300/328/CE	Available transmit power	5% ~ 95% typical
Operating Voltage	802.11a: 17dBm +/-2 @6-24Mbps, 14dBm +/-2 @54Mbps, 16dBm +/-2 @36Mbps, 15dBm +/-2 @48Mbps	Related Product(s)
3.3V	802.11g: 18dBm +/-2dBm @ 6~24Mbps, 17dBm +/-2dBm @ 48 Mbps, 16dBm +/-2dBm @ 36 Mbps, 15dBm +/-2dBm @ 54 Mbps	11a/b/g Wireless Mini-PCI Adapter
Drivers	802.11b: 18dBm +/-2dBm for all rates	NMP-8602 (802.11a/b/g) (26dBm)
Windows 98SE/ ME/2000/XP	Antenna	3054MP PLUS ARIES2(F) (802.11b/g)
Current consumption	Two antenna connectors (U.FL)	NMP-352 (802.11b/g)
11G :	Networking	NL-2511MP+ (802.11b)
Tx Current ≤ 800mA	Topology	
Rx Current ≤ 500mA	Ad-Hoc, Infrastructure	
Link Current ≤ 600mA	Security	
11A :	IEEE802.1x support for LEAP/PEAP	
Tx Current ≤ 700mA	WPA – Wi-Fi Protected Access (AES, 64,128,152-WEP with shared-key authentication)	
Rx Current ≤ 400mA	Physical	
Link Current ≤ 500mA	Form Factor	
RF Information	Mini-PCI type III A	
Frequency Band	Dimensions (LxWxH)	
802.11a: 5.15~5.25GHz, 5.25~5.35GHz, 5.725~5.825GHz		
802.11b/g: U.S., Europe and Japan product covering 2.4 to 2.484 GHz, programmable for different country regulations		
Media Access Protocol		
Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA)		
Modulation Technology		
802.11a/g: OFDM (64-QAM, 16-QAM, QPSK, BPSK)		

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