

WMIA-123AG 802.11 a/b/g Mini PCI Module



Product Specification

Product Name	54 Mbps/ 11Mbps Wireless LAN MINIPCI Card
Model Number	WMIA-123AG
Host Interface	MINIPCI
Dimensions	59.7x44.6x5 mm TYPE IIIB
Weight	20g
Frequency Band	<p>802.11a Unlicensed National Information Infrastructure (U-NII) frequency band, 5.15GHz to 5.85GHz (subject to local regulations)</p> <p>802.11b/g ISM band 2.400 ~ 2.4835GHz (subject to local regulations)</p>
Operating Voltage	3.3V \pm 5%
Modulation	802.11a/g: OFDM; 802.11b: CCK (11 Mbps, 5.5 Mbps), DQPSK (2 Mbps), DBPSK (1 Mbps)
Data Rate	<p>802.11a 54, 48, 36,24,18,12, 9, 6 Mbps per channel, auto fallback for extended range; (option : Enhanced proprietary Turbo Mode up to 108 Mbps)</p> <p>802.11b 11,5.5, 2, 1 Mbps per channel, auto fallback for extended range</p> <p>802.11g 54, 48, 36,24,18,12,11, 9, 6, 5.5 , 2 , 1 Mbps per channel, auto fallback for extended range</p>
Security	<p>802.11a 64/128/152-bit WEP Encryption, AES</p> <p>802.11b 64/128-bit WEP Encryption , TKIP , AES</p> <p>802.11g 64/128-bit WEP Encryption, TKIP , AES</p>

Antenna Interface	UFL-CON
Transmitted power	<p>802.11a please see the output power table for detail.</p> <p>802.11b please see the output power table for detail.</p> <p>802.11g please see the output power table for detail.</p>
Receive Sensitivity	<p>802.11a/g Nominal Temp Range:</p> <ul style="list-style-type: none"> - 6Mbps 10-5 BER @ -90dBm, typical - 9Mbps 10-5 BER @ -89dBm, typical - 12Mbps 10-5 BER @ -88dBm, typical - 18Mbps 10-5 BER @ -87dBm, typical - 24Mbps 10-5 BER @ -83dBm, typical - 36Mbps 10-5 BER @ -80dBm, typical - 48Mbps 10-5 BER @ -74dBm, typical - 54Mbps 10-5 BER @ -70dBm, typical <p>802.11b Typ. -87 dBm @ 11Mbps, typical Typ. -91 dBm @ 5.5Mbps, typical Typ. -92 dBm @ 2Mbps, typical Typ. -93 dBm @ 1Mbps, typical</p>
	<p>802.11° Continue Tx : 590 mA @ 3.3V Continue RX : 270 mA @3.3V</p> <p>802.11g Continue Tx : 580mA @3.3V Rx : 290mA @3.3V</p> <p>802.11b Continue Tx : 550mA @3.3V Continue RX : 260 mA @3.3V</p>
Supplied Driver	Windows 98SE/ME/NT4.0/2000/XP
Standards	IEEE 802.3, IEEE 802.3u, IEEE 802.11a, IEEE 802.11b, IEEE 802.11g draft standard, Wi-Fi compliant
Warranty	1 year
Temperature Range	0 ~ 50° (Operating); -20 ~ 85° (Storing)
	Operating Humidity 10% to 85% Non-Condensing Storage Humidity 5% to 90% Non-Condensing
Operating Range	Open Space: Up to 260 m; Indoor: 100 m The transmission speed varies in the surrounding environment
Network Protocol	TCP/IP, IPX, NDIS4, and NDIS5, NDIS 5.1
Management Utility	Monitor Internet Access Status via UI
EMC certification	TBD(FCC part 15C/15.247; ETS 300 328-2; UL; IEC60950; EN 301 489-1,17; prEN50371; CE Mark; TELEC)
System Requirements	Laptop PC containing → MINIPCI local bus slot → 64MB memory or greater → 300MHz processor or greater Microsoft Windows 98 Second Edition/Millennium Edition/2000/NT 4.0 with Service Pack 6, Windows XP

*valid operating channel numbers by **FCC**

Regulatory domain	Band(GHz)	Operating Channel Numbers	Channel center frequencies(MHz)
United States	U-NII I band (5.15GHz~5.25GHz)	36	5180
		40	5200
		44	5220
		48	5240
United States	U-NII II band (5.25GHz~5.35GHz)	52	5260
		56	5280
		60	5300
		64	5300
United States	U-NII III band (5.725GHz~5.825GHz)	149	5745
		153	5765
		157	5785
		161	5805

*valid operating channel numbers by **ETSI,HYPERLAN/2**

Regulatory domain	Band(GHz)	Operating Channel Numbers	Channel center frequencies(MHz)
ETSI	5.15GHz~5.25GHz	36	5180
		40	5200
		44	5220
		48	5240
ETSI	5.25GHz~5.35GHz	52	5260
		56	5280
		60	5300
		64	5300
ETSI	5.500GHz~5.700GHz	100	5500
		104	5520
		108	5540
		112	5560
		116	5580
		120	5600
		124	5620
		128	5640
		132	5660
		136	5680
		140	5700

*valid operating channel numbers by **TELEC**

Regulatory domain	Band(GHz)	Operating Channel Numbers	Channel center frequencies(MHz)
TELEC	5.15GHz~5.25GHz	34	5170
		38	5190
		42	5210
		46	5230

Output power table [dBm],base mode for 802.11a ,**FCC**

CH	5180 MHz	5200 MHz	5220 MHz	5240 MHz	5260 MHz	5280 MHz	5300 MHz	5320 MHz	5745 MHz	5765 MHz	5785 MHz	5805 MHz	remark
6~24 Mbps	17	17	17	17	17	17	17	17	17	17	17	17	+/-1.5dB
36 Mbps	16	16	16	16	16	16	16	16	16	16	16	16	+/-1.5dB
48 Mbps	14	14	14	14	14	14	14	14	14	14	14	14	+/-1.5dB
54 Mbps	12	12	12	12	12	12	12	12	12	12	12	12	+/-1.5dB

Output power table [dBm], turbo mode for 802.11a,**FCC**

CH	5210 MHz	5250MHz	5290 MHz	Remark
12~48 Mbps	17	17	17	+/-1.5dB
72 Mbps	16	16	16	+/-1.5dB
96 Mbps	14	14	14	+/-1.5dB
108Mbps	12	12	12	+/-1.5dB

Output power table [dBm],base mode for 802.11a ,**ETSI**

CH	5180 MHz	5200 MHz	5220 MHz	5240 MHz	5260 MHz	5280 MHz	5300 MHz	5320 MHz	5500~5700 MHz	remark
6~24 Mbps	17	17	17	17	17	17	17	17	17	+/-1.5dB
36 Mbps	16	16	16	16	16	16	16	16	16	+/-1.5dB
48 Mbps	14	14	14	14	14	14	14	14	14	+/-1.5dB
54 Mbps	12	12	12	12	12	12	12	12	12	+/-1.5dB

Output power table [dBm] in 802.11g, **FCC**

CH	2412 MHz	2447MHz	2472 MHz	remark
6~24 Mbps	16.5	19	16.5	+/-1.5dB
36 Mbps	16.5	18	16.5	+/-1.5dB
48 Mbps	16	16	16	+/-1.5dB
54Mbps	15	15	15	+/-1.5dB

Output power table [dBm] in 802.11g, **ETSI**

CH	2412 MHz	2447MHz	2472 MHz	remark
6~24 Mbps	14.5	14.5	14.5	+/-1.5dB

36 Mbps	14.5	14.5	14.5	+/-1.5dB
48 Mbps	14.5	14.5	14.5	+/-1.5dB
54Mbps	14.5	14.5	14.5	+/-1.5dB

Output power table [dBm] in 802.11b,**FCC**

CH	2412 MHz	2447MHz	2472 MHz	remark
1 Mbps	19	19	19	+/-1.5dB
2Mbps	19	19	19	+/-1.5dB
5.5Mbps	19	19	19	+/-1.5dB
11Mbps	19	19	19	+/-1.5dB

Output power table [dBm] in 802.11b,**ETSI**

CH	2412 MHz	2447MHz	2472 MHz	remark
1 Mbps	16	16	16	+/-1.5dB
2Mbps	16	16	16	+/-1.5dB
5.5Mbps	16	16	16	+/-1.5dB
11Mbps	16	16	16	+/-1.5dB