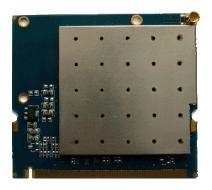
# Product datasheet





# WIRELESS-A 26dBm NETWORK MINI PCI ADAPTER WITH ESD

# WLM54A26ESD

### **Features**

- Compliant with IEEE 802.11a standard
- Up to 26dBm output power with Built-in ESD Protection
- RF ESD/EMP Immunity Threshold: 15KeV  $^{(1)}$
- Supports Atheros Proprietary "Super Mode" delivering up to 108 Mbps data link rate
- High efficiency dual-PA design
- High Performance combined with Low Power Consumption
- Multi-Country Roaming Supported (IEEE802.11d Global Harmonization Standard)
- Single MMCX/U.FL Antenna Connector; External Antenna with Model name:C0053-ANG0003 /Gain:max.2dBi
- Suitable for Embeded System or OEM Project
- Affordable and Ideal for a Variety of Applications



	Technical Specifications											
Chipset	Atheros AR5414											
Host Interface	32-bit mini-PCI	32-bit mini-PCI Type IIIA+ (1.85mm longer than IIIA type)										
Operating Voltage	3.3 VDC	3.3 VDC										
Power	11a Cont. Tx @	6M	3.5W									
Consumption	11a Cont. Rx		1.9W									
•	Standby		1.4W									
Antenna Connector	1 x MMCX	1 x MMCX										
Standards	IEEE 802.11a:	54Mbps		36Mbps		18Mbps			6Mbps			
Conformance	Super-A: 108Mbps 96Mbps 72Mbps 54Mbps 48Mbps 36Mbps 24Mbps 18Mbps 12Mbps 6Mb						6Mbps					
Fraguanay	IEEE 802.11a	5.150 ~ 5.350 GHz,5.470 ~ 5.725GHz, 5.725 ~ 5.850 GHz (US & Canada)										
Frequency Range		5.150 ~ 5.350 GHz,5.470 ~ 5.725GHz, 5.725 ~ 5.875 GHz (Europe)										
		5.150 ~ 5.250 GHz,5.250 ~ 5.350GHz, 5.470 ~ 5.725GHz(Japan)										
Modulation Techniques	OFMD: BPSK, QPSK, 16-QAM, 64-QAM											
Certification	FCC, CE											
ROHS Compliance	Yes											
Temperature Range	Operating: -20°C to 70°C Storage: -40°C to 90°											
Humidity	Operating: 5% to 95% (non-condensing) Storage: Max.90% (non-condensing)											
Dimension	59.6 x52.8x 5.5 mm											
Weight	20 grams											

	WLM54A-26-ESD MINIPCI CARD RADIO												
5GHz		TX SPECIFICATIONS							RX SPECIFICATIONS				
SGHZ	5180MHz	5320MHz	5600MHz	5700MHz	5785MHz	5825MHz	Tolerance			DataRate	Sensitivity	Tolerance	
6Mbps	26dBm	26dBm	26dBm	26dBm	26dBm	26dBm	+1.0/-1.5 dB			6Mbps	-96dBm	±2dB	
9Mbps	26dBm	26dBm	26dBm	26dBm	26dBm	26dBm	+1.0/-1.5 dB			9Mbps	-96dBm	±2dB	
12Mbps	26dBm	26dBm	26dBm	26dBm	26dBm	26dBm	+1.0/-1.5 dB			12Mbps	-95dBm	±2dB	
18Mbps	26dBm	26dBm	26dBm	26dBm	26dBm	26dBm	+1.0/-1.5 dB	Ę	5GHz	18Mbps	-88dBm	±2dB	
24Mbps	26dBm	26dBm	26dBm	26dBm	26dBm	26dBm	+1.0/-1.5 dB			24Mbps	-86dBm	±2dB	
36Mbps	24dBm	24dBm	24dBm	24dBm	24dBm	24dBm	+1.0/-1.5 dB			36Mbps	-83dBm	±2dB	
48Mbps	23dBm	23dBm	23dBm	23dBm	23dBm	23dBm	+1.0/-1.5 dB			48Mbps	-79dBm	±2dB	
54Mbps	22dBm	22dBm	22dBm	22dBm	22dBm	22dBm	+1.0/-1.5 dB			54Mbps	-76dBm	±2dB	

ADJUSTABLE CHANNEL SIZE SUPPORT						
5MHz	10MHz	20MHz	40MHz			

ESD CABLE SPECIFICATIONS					
Cable Dimensions	26cm length				
Terminal Material	Copper				
Attachment Procedure	End of ESD Cable tied to Earth Ground				

## ORDERING INFORMATION<sup>2</sup>

CODES	Version	CARTON DIMENSIONS			
WLM54A26ESD 8BS	ESD	For 50 pcs / carton, 0.45m*0.45m*0.24m/0.006=8.1KG			

Module grounding cable included
Configurations are subjected to change without notice Please contact Compex sales representatives for other available configurations

## **Compliance Information**

## FCC Compliance Statement:

This device complies with Part 15 of the FCC Rules . Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and

2. This device must accept any interference received, including

interference that may cause undesired operation. This device must accept any interference received, including interference that may cause

undesired operation. Product that is a radio transmitter is labeled with FCC ID. **FCC Caution:** 

(1) Exposure to Radio Frequency Radiation. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation

instructions and transmitter operating conditions for satisfying RF exposure compliance.

(2) Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.(3) This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

(4) Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

**IMPORTANT NOTE**: In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.
**WARNING:** This Wireless Mini PCI Adapter does not support ad-hoc mode Function

FCC ID: TK4-WLM54A26ESD

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

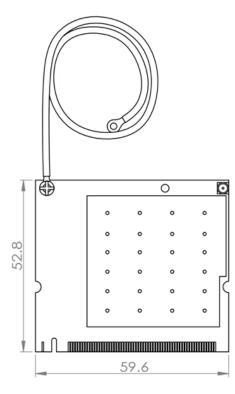
-- Connect the equipment into an outlet on a circuit different

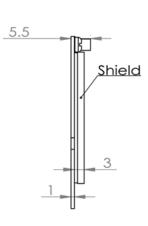
from that to which the receiver is connected.

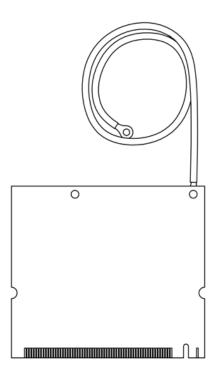
-- Consult the dealer or an experienced radio/TV technician for help.

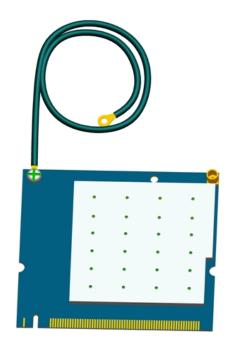


DIMENSIONS DRAWING











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