

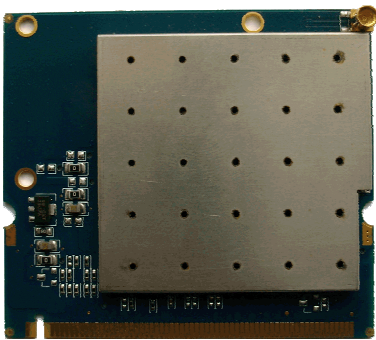


## High Power MiniPCI 5.8GHz

XA58-26

### Features

- Compliant with IEEE 802.11a standard
- Up to 26dBm output power with Built-in ESD Protection
- RF ESD/EMP Immunity Threshold: 15KeV<sup>①</sup>
- 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
- Suitable for Embedded System or OEM Project
- Affordable and Ideal for a Variety of Applications



Technical Specifications											
Chipset	Atheros AR54xx series (AR5414)										
Host Interface	32-bit mini-PCI Type IIIA+ (1.85mm longer than IIIA type)										
Operating Voltage	3.3 VDC										
Power Consumption	11a Cont. Tx @6M	3.5W									
	11a Cont. Rx	1.9W									
	Standby	1.4W									
Antenna Connector	1 x MMCX										
Standards Conformance	IEEE 802.11a:	54Mbps	48Mbps	36Mbps	24Mbps	18Mbps	12Mbps	9Mbps	6Mbps		
	Super-A:	108Mbps	96Mbps	72Mbps	54Mbps	48Mbps	36Mbps	24Mbps	18Mbps	12Mbps	6Mbps
Frequency Range	IEEE 802.11a	5.725 ~ 5.850 GHz (US & Canada)									
Modulation Techniques	OFDM: 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 MINI PCI CARD RADIO											
5GHz	TX SPECIFICATIONS					5GHz	RX SPECIFICATIONS				
	5600MHz	5700MHz	5785MHz	5825MHz	Tolerance		DataRate	Sensitivity	Tolerance		
6Mbps	26dBm	26dBm	26dBm	26dBm	+1.0/-1.5 dB	6Mbps	-96dBm	±2dB			
9Mbps	26dBm	26dBm	26dBm	26dBm	+1.0/-1.5 dB	9Mbps	-96dBm	±2dB			
12Mbps	26dBm	26dBm	26dBm	26dBm	+1.0/-1.5 dB	12Mbps	-95dBm	±2dB			
18Mbps	26dBm	26dBm	26dBm	26dBm	+1.0/-1.5 dB	18Mbps	-88dBm	±2dB			
24Mbps	26dBm	26dBm	26dBm	26dBm	+1.0/-1.5 dB	24Mbps	-86dBm	±2dB			
36Mbps	24dBm	24dBm	24dBm	24dBm	+1.0/-1.5 dB	36Mbps	-83dBm	±2dB			
48Mbps	23dBm	23dBm	23dBm	23dBm	+1.0/-1.5 dB	48Mbps	-79dBm	±2dB			
54Mbps	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

- ① Module grounding cable included
- ② 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.

(5) Outdoor Operations in the 5.15~5.25GHz band is prohibited.

**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

The Host system using XA58-26, should have label indicated "Contains FCC ID: NS912XA58-26"

## **IC warning**

### **- English:**

*This device complies with Industry Canada licence-exempt RSS standard(s).*

*Operation is subject to the following two conditions:*

- (1) this device may not cause interference, and*
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.*

*2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

### **- French:**

*Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :*

- (1) l'appareil ne doit pas produire de brouillage, et*
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."*

## **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.*

## **Transmitter Antenna**

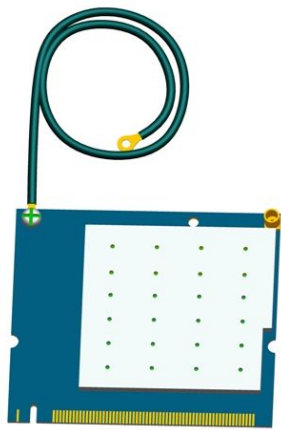
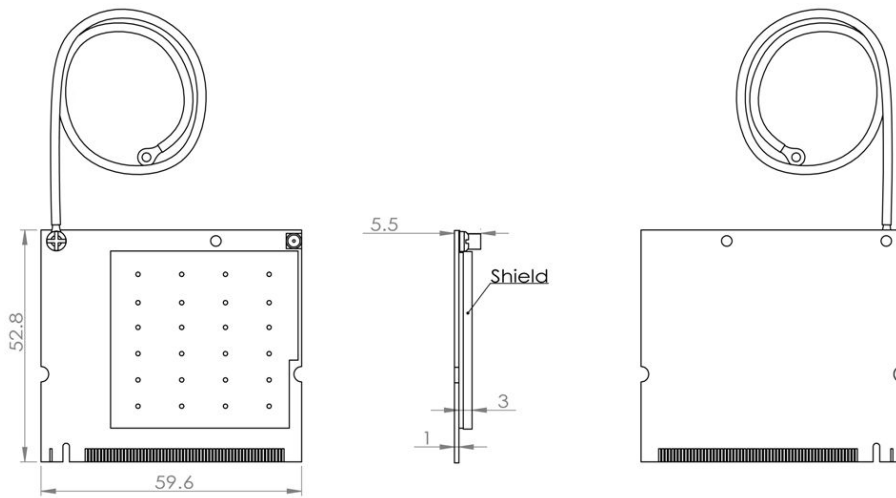
*Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.*

*This radio transmitter (Model XA58-26, IC: 3143A-12XA5826) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.*

The max antenna gain is 2.00 dBi for test

The Host system using XA58-26, should have label indicated "Contains IC: 3143A-12XA5826"

## DIMENSIONS DRAWING



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