

IWAVEPORT WLM54GP23ESD

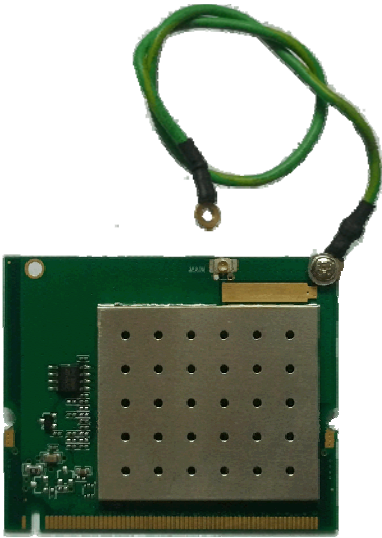
WIRELESS-G 23DBM NETWORK MINIPCI ADAPTER WITH ESD

WLM54G -23dBm ESD

WLM54G(Super-G)-23dBm ESD

Features

- 2.4GHz IEEE 802.11 b/g standard
- Output Power of up to 23dBm @ b/g Band Built in ESD Protection
- RF ESD/EMP Immunity Threshold: 15KeV^①
- Extended Distances and High Speeds Due to Better Output Signal Power^②
- High Performance with Low Power Consumption
- Multi-Country Roaming Support (IEEE802.11d)
- 1 x U.FL /MMCX Antenna Connector
- Suitable for Embedded System or OEM Project
- Affordable and Ideal for a Variety of Applications
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Technical Specifications										
Chipset	WLM54G-23d ESD Atheros AR2413a					WLM54G (Super-G) – 23 ESD Atheros AR2414				
	Host Interface: PCI Interface v2.3 (Type III-B Mini PCI form factor)									
Operating Voltage	3.3 VDC									
Power Consumption	2.5W									
Antenna Connector	1 x U.FL/MMCX Antenna Connector									
Standards	IEEE 802.11b:	11Mbps	5.5Mbps	2Mbps	1Mbps					
	IEEE 802.11g:	54Mbps	48Mbps	36Mbps	24Mbps	18Mbps	12Mbps	9Mbps	6Mbps	
	Super-G:	Automatically fallback to 5.5Mbps, 2Mbps, 1Mbps								
Frequency Range	IEEE 802.11b/g:	2.412GHz ~ 2.462GHz (US & Canada)								
		2.412GHz ~ 2.472GHz (Europe)								
		2.412GHz ~ 2.484GHz (Japan)								
Modulation Techniques	OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK M									
Certificate	FCC,CE									
ROHS Compliance	Yes									
Environment Specifications	Operating: -20°C to 70°C Storage: -40°C to 90°C									
Humidity	5% to 95% (non-condensing)									
Dimension	59.6 x 46 x 3.8 (mm)									
Weight	15 grams									

WLM54G 23 MINIPCI CARD RADIO OPERATING FREQUENCY 2.412~2.484GHz							
TX SPECIFICATIONS				RX SPECIFICATIONS			
	DataRate	TX Power	Tolerance		DataRate	Sensitivity	Tolerance
802.11b	1Mbps	23dBm	+1.0/-1.5 dB	802.11b	1Mbps	-93dBm	±2dB
	2Mbps	23dBm	+1.0/-1.5 dB		11Mbps	-90dBm	±2dB
	5.5Mbps	23dBm	+1.0/-1.5 dB				
	11Mbps	23dBm	+1.0/-1.5 dB				
802.11g	6Mbps	23dBm	+1.0/-1.5 dB	802.11g	6Mbps	-93dBm	±2dB
	9Mbps	23dBm	+1.0/-1.5 dB				
	12Mbps	23dBm	+1.0/-1.5 dB				
	18Mbps	23dBm	+1.0/-1.5 dB		54Mbps	<-72dBm	±2dB
	24Mbps	23dBm	+1.0/-1.5 dB				
	36Mbps	22dBm	+1.0/-1.5 dB				
	48Mbps	19dBm	+1.0/-1.5 dB				
54Mbps	17dBm	+1.0/-1.5 dB					

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

ORDERING CONFIGURATIONS^①

CODES	SPEED	CARTON DIMENSIONS
WLM54G 6A1300P23ESD	Up to 54 Mbps	For 50 pcs / carton, 0.45m*0.45m*0.24m/0.006=8.1KG
WLM54G 6B1300P23ESD	Up to 54 Mbps	For 50 pcs / carton, 0.45m*0.45m*0.24m/0.006=8.1KG

- ① Must use included grounding cable
- ② Depends on Order Configuration
- ③ Configurations are subjected to change without notice

COMPLIANCE INFORMATION

FCC NOTE:

This module is intended for OEM integrator. The OEM integrator is still responsible for the FCC compliance requirement of the end product which integrates this module.

20cm minimum distance has to be able to be maintained between the antenna and the users for the host this module is integrated into. Under such configuration, the FCC radiation exposure limits set forth for an population/uncontrolled environment can be satisfied.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

USERS MANUAL OF THE END PRODUCT:

In the users manual of the end product, the end user has to be informed to keep at least 20cm separation with the antenna while this end product is installed and operated. The end user has to be informed that the FCC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. If the size of the end product is smaller than 8x10cm, then additional

LABEL OF THE END PRODUCT:

The final end product must be labeled in a visible area with the following " Contains TX FCC ID: **TK4-WLM54GP23ESD** ". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of 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.

FCC15.19

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Caution: Exposure to Radio Frequency Radiation.

To comply with the FCC RF exposure compliance requirements, the following antenna installation and device operating configurations must be satisfied:

For configurations using an approved external antenna, the separation distance between the antenna and any person's body (including hands, wrists, feet and ankles) must be at least 20cm (8 inch).

The transmitter shall not be collocated with other transmitters or antennas.

The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment.

IEEE 802.11b or 802.11g operation of this product in the U.S.A. is firmware-limited to channels 1 through 11.

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 of the following measures:

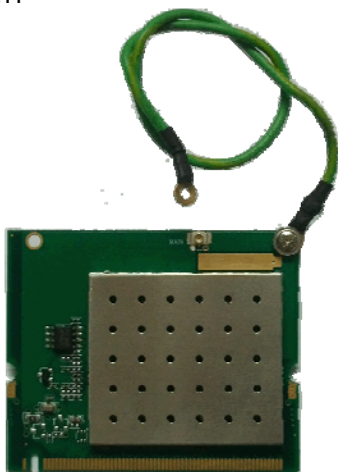
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

IMPORTANT NOTE REGARDING ANTENNA USE

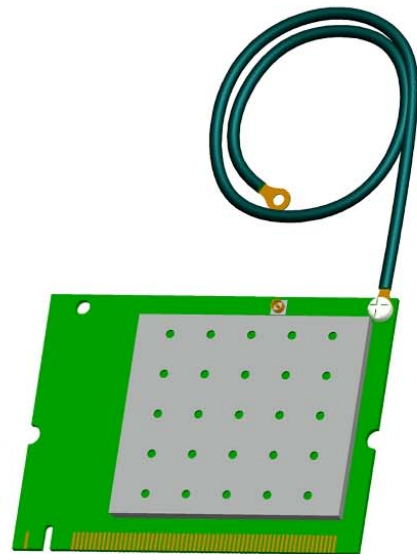
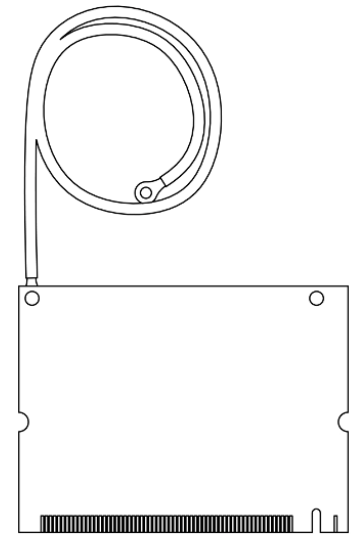
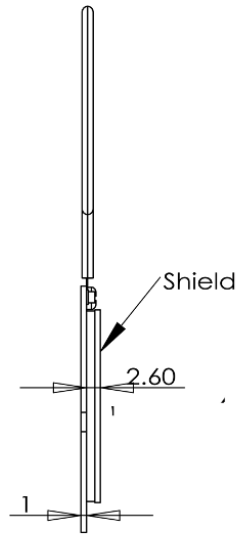
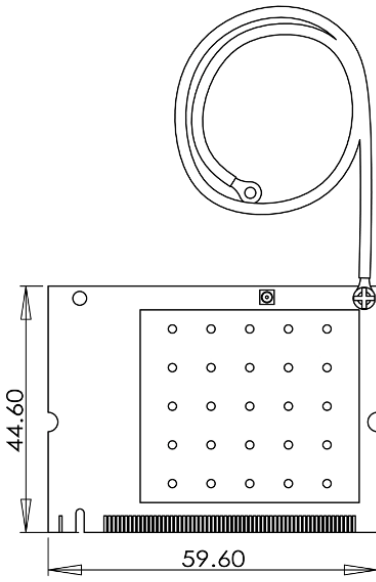
Antenna Use (Point to Multipoint)

1x1 Operation

Chain1



DIMENSIONS DRAWING



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