



Package Solution

MIMOfunior MMJ2-543

Wireless 300Mbps Outdoor Access Point
Built-in 17dBi@5GHz Dual Polarization Antenna

- MIPS 24K-family 300MHz network processor
- Atheros xSPAN technology
- Supports CompeX WLM200 series miniPCI radio modules
- IEEE 802.11a/b/g/n compliant
- Built-in 17dBi@5GHz dual-polarization antenna
- 2 x RP-SMA Male Connector for External Antenna (Optional)^①
- Supports Power-over-Ethernet (passive PoE)
- Supports IEEE802.11i , IEEE802.1x authentication
- Ground Terminal included
- Weatherproof casing

TECHNICAL SPECIFICATIONS

SYSTEM INFORMATION	
Processor	Atheros AR7130/300MHz
Memory Size	32MB (max 64MB optional) DDR SDRAM
NOR Flash	4MB (max 16MB optional)
LAN Interface	1 x 10/100 BASE-T Ethernet Port
Antenna	Integrated 5GHz 17dBi directional dual-polarization antenna
Power Consumption	4 Watts (stand alone) 3.5Watts (WLM200N5-23dBm radio card)
Power method	Passive PoE
External Connector	2 x RP-SMA male socket(Optional) ^①
RoHS Compliant	Yes
Weight	420 grams
Humidity	Operating: 5% to 95% (non-condensing) Storage: Max.90% (non-condensing)
Temperature Range	Operating: -20°C to 70°C Storage: -40°C to 90°C
Dimension	278.5 x 122.2 x 94.5 (mm)

WLM200N5-23 ESD MIMO MINIPCI CARD RADIO									
TX SPECIFICATIONS									
		DataRate	TX Power		Tolerance				
802.11a		6-24Mbps	23dBm		±2dB				
		36Mbps	22dBm		±2dB				
		48Mbps	21dBm		±2dB				
		54Mbps	20dBm		±2dB				
RX SPECIFICATIONS									
		DataRate	Tolerance			DataRate	Tolerance		
5GHz 11n HT 20		MCS 0/8	±2dB	5GHz 11n HT 40		MCS 0/8	±2dB		
		MCS 1/9	±2dB			MCS 1/9	±2dB		
		MCS 2/10	±2dB			MCS 2/10	±2dB		
		MCS 3/11	±2dB			MCS 3/11	±2dB		
		MCS 4/12	±2dB			MCS 4/12	±2dB		
		MCS 5/13	±2dB			MCS 5/13	±2dB		
		MCS 6/14	±2dB			MCS 6/14	±2dB		
		MCS 7/15	±2dB			MCS 7/15	±2dB		
RX SPECIFICATIONS									
		Data Rate	Sensitivity (2 chains)	Tolerance			Data Rate	Sensitivity (2 chains)	Tolerance
802.11a		6M	-97dBm	±2dB	802.11a		24M	-90dBm	±2dB
		9M	-97dBm	±2dB			36M	-87dBm	±2dB
		12M	-96dBm	±2dB			48M	-83dBm	±2dB
		18M	-94dBm	±2dB			54M	-80dBm	±2dB
5GHz 11n HT 20		MCS0	-97dBm	±2dB	5GHz 11n HT 40		MCS0	-92dBm	±2dB
		MCS1	-94dBm	±2dB			MCS1	-90dBm	±2dB
		MCS2	-92dBm	±2dB			MCS2	-87dBm	±2dB
		MCS3	-87dBm	±2dB			MCS3	-84dBm	±2dB
		MCS4	-84dBm	±2dB			MCS4	-82dBm	±2dB
		MCS5	-80dBm	±2dB			MCS5	-78dBm	±2dB
		MCS6	-79dBm	±2dB			MCS6	-76dBm	±2dB
		MCS7	-77dBm	±2dB			MCS7	-74dBm	±2dB

FIRMWARE SPECIFICATIONS

Multiple SSID

- Supports up to 4 virtual access points (VAP) per radio, with unique BSSID. Each VAP can configure their own security

Long Range Support

- Suitable for long range wireless deployment with Proprietary Long Distance Algorithm of ACK and CTS timeout adjustment support.
- Provides recommended values for the parameters as well as allow for manual fine-tuning for optimal performance.

Signal Strength Indicators

- LEDs are adjustable to display 4 different level signal strength

Variable Spectrum Bandwidth Support

- Options to select operation over 5MHz,20MHz and 40MHz spectrum bandwidth

FIRMWARE INFORMATION	
Operating Modes	<ul style="list-style-type: none"> • Access Points • Station • Station WDS • Repeater WDS • Wireless Adapter • Station + Router • Access Point + Router
WAN Type	<ul style="list-style-type: none"> • Static IP • Dynamic IP • PPPoE
Device Management	<ul style="list-style-type: none"> • HTTP / HTTPs Web Server • SNMP V2c • Telnet / Secure Shell (SSH)
Data Capture & Notification	<ul style="list-style-type: none"> • Event Login (Syslog) • Detailed Statistics per Client
Virtual Access Point (VAP)	<ul style="list-style-type: none"> • Up to 4 SSIDs with unique MAC Addresses (BSSID)
Advanced Features	<ul style="list-style-type: none"> • Built-in DHCP server • Transmission Power Control (One dB per step) • Closed System (Suppress SSID) • Transmission Rate Control • Spanning Tree Protocol

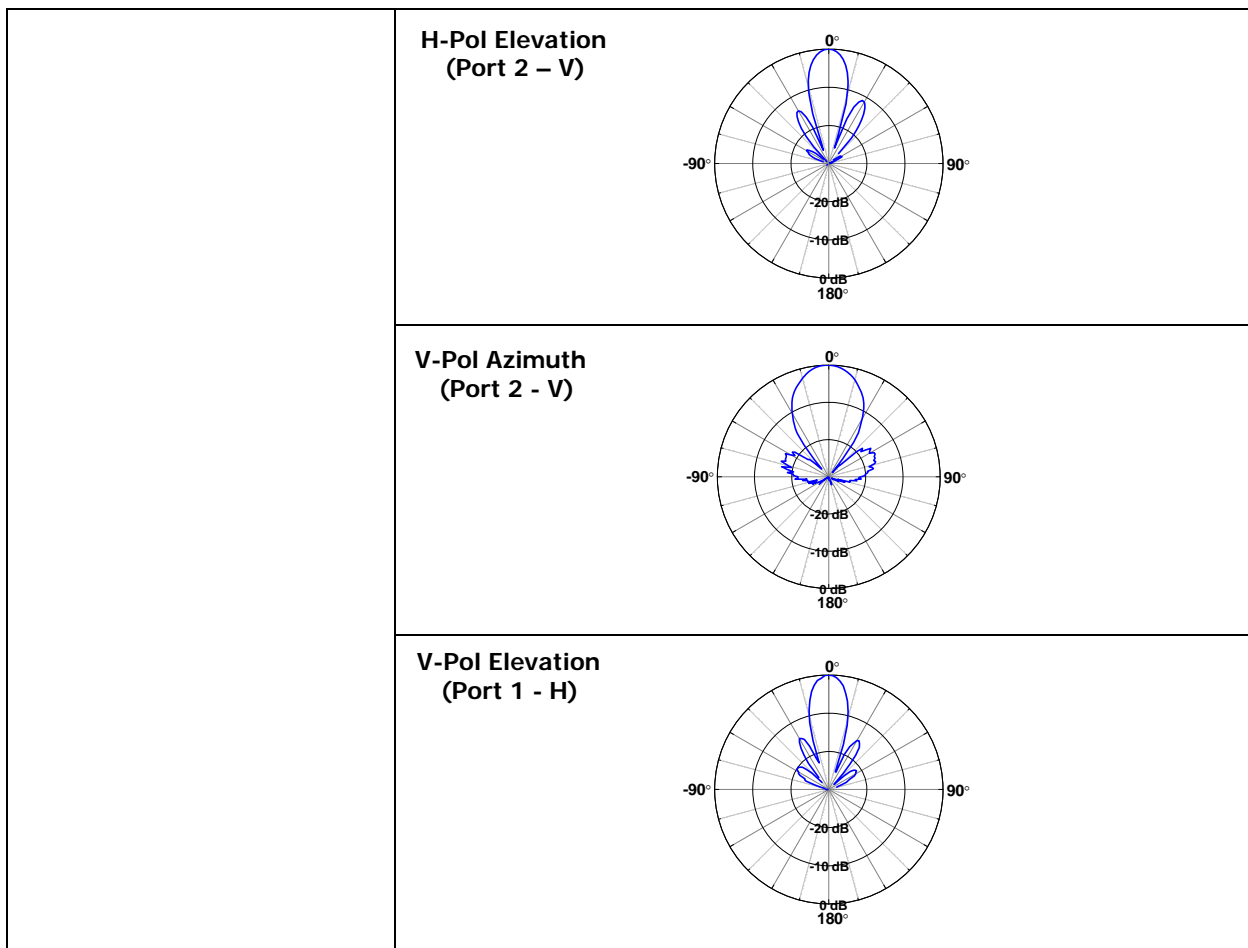
OTHER PROMINENT FEATURES	DESCRIPTION
Long Range Parameter Settings	Suitable for Long Range wireless deployment with high receiver sensitivity.
CPE Point-to-Point (PtP)	Ideal as CPE device connecting PtP with a central AP
Power with PoE	Device power from PoE through ethernet cable provides flexible installation.
IEEE 802.11h (DFS & TPC)	Enables worldwide operation through support for standards-based Dynamic Frequency Selection (DFS) and Transmission Power Control (TPC)
SNMP Trap	SNMP Traps enable an agent to notify the management station of significant events by way of an unsolicited event.
Signal Strength LEDs Indicators	LEDs are adjustable to display 4 different level signal strength
DHCP Relay (Only in Gateway or Wireless Routing Client Mode)	Allows DHCP Clients on different subnets to get IP address from central DHCP server.
Remote Upgrade of Firmware	Allows user to upgrade their firmware through Telnet/SSH
RIP 1 / 2 (Only in Gateway or Wireless Routing Client Mode)	Routing Information Protocol Version 1 / 2
Tag and Untag VLAN/VLAN Pass-through	a. Tag VLAN Pass-through mode in AP/Transparent Client link b. Wireless untag Vlan to Ethernet Tag Vlan mode c. Wireless tag Vlan to Ethernet Tag Vlan mode

Customizable Features^②

CUSTOMIZABLE FEATURES	DESCRIPTION
Web Page Customization	Customize webpage for OEM customers.

Specifications of 17dBi 5GHz Antenna

Gain	17dBi
Radiation	Directional
Frequency Range	5.1-5.9 GHz
Polarization	Dual Polarization
Azimuth -3dB Beamwidth	Horizontal(Port 1): 30 degrees Vertical(Port 2): 33degrees
Elevation -3dB Beamwidth	Horizontal(Port 1): 17 degrees Vertical(Port 2): 17degrees
Isolation	-40dB (Max)
Front-to-Back Ratio	-30dB (Max)
VSWR	Horizontal (Port 1) : < 1: 1.87 Vertical (Port 2) : < 1: 1.55
Cross Polarisation Isolation	-28dB (Max)
Side Lobe	-12dB
Gain Plot	
Return Loss & Isolation Plot	
Polar Plots (At 5.6GHz)	<p>H-Pol Azimuth (Port 1 – H)</p>



Ordering Information ^③

Codes	Integrated Antenna	Power Supply Version	Radio card	Radio Output	Carton Dimensions
MMJ2543LV 7A04AFOEN523ESD (Default)	17dBi@5GHz	EU version	WLM200N5-23ESD	23dBm	For 10 pcs/carton, 0.78m*0.38m*0.25 m/0.006=12.35KG
MMJ2543LV 7A04AFOENX	17dBi@5GHz	EU version	WLM200NX	20dBm	
MMJ2543LV 7A04AFOUN523ESD (Default)	17dBi@5GHz	US version	WLM200N5-23ESD	23dBm	
MMJ2543LV 7A04AFOUNX	17dBi@5GHz	US version	WLM200NX	20dBm	

- ① Depends on Order Configuration
- ② Features are not available on the Firmware. Please contact salesperson for customization.
- ③ Configurations are subject to change without notice. Please contact Compex sales representatives for other available configurations.

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