COMPEX
networks@work

Outdoor Solution

MIMO Station MMS

Wireless 300Mbps Outdoor Access Point
Built-in 14dBi@2.4GHz or 16dBi@5GHz
Dual Polarization Antenna

Features

- MIPS 24K-family 300MHz network processor
- Atheros XSPAN technology
- Support Compex WLM200 series miniPCI radio modules
- IEEE 802.11a/b/g/n compliant
- Built-in 14dBi@2.4GHz or 16dBi@5GHz dual-polarization antenna
- Supports Power-over-Ethernet (passive PoE)
- Supports IEEE802.11i , IEEE802.1x authentication
- Antenna alignment adjustment
- Ground Terminal included
- Weatherproof casing

SYSTEM INFORMATION	
Processor	Atheros AR7130 (300 MHz) Networking Processor
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 14dBi@2.4GHz or 16dBi@5GHz dual-polarization antenna
Power Consumption	4 Watts (stand alone)
Power method	Passive PoE
Humidity	Operating: 5% to 95% (non-condensing) Storage: Max.90% (non-condensing)
Temperature Range	Operating:-20ºC to 70ºC Storage: -40ºC to 90ºC
Outside Dimensions	257mm x 257mm x 86mm

WLM200N5-26dBm MIMO MINIPCI CARD RADIO

TX SPECIFICATIONS

	DataRate	TX Power	Tolerance
802.11a	6-24Mbps	26dBm	±2dB
	36Mbps	25dBm	±2dB
	48Mbps	24dBm	±2dB
	54Mbps	22dBm	±2dB

	DataRate	TX Power (per chain)	Tolerance		DataRate	TX Power (per chain)	Tolerance
5GHz 11n HT 20	MCS 0/8	24dBm	±2dB	**5GHz 11n HT 40**	MCS 0/8	24dBm	±2dB
	MCS 1/9	24dBm	±2dB		MCS 1/9	24dBm	±2dB
	MCS 2/10	24dBm	±2dB		MCS 2/10	24dBm	±2dB
	MCS 3/11	24dBm	±2dB		MCS 3/11	24dBm	±2dB
	MCS 4/12	22dBm	±2dB		MCS 4/12	22dBm	±2dB
	MCS 5/13	20.5dBm	±2dB		MCS 5/13	20.5dBm	±2dB
	MCS 6/14	20.5dBm	±2dB		MCS 6/14	20.5dBm	±2dB
	MCS 7/15	17.5dBm	±2dB		MCS 7/15	17.5dBm	±2dB

RX SPECIFICATIONS

	Data Rate	Sensitivity (2 chains)	Tolerance		Data Rate	Sensitivity (2 chains)	Tolerance
802.11a	6M	-94dBm	±2dB	**802.11a**	24M	-86dBm	±2dB
	9M	-93dBm	±2dB		36M	-82dBm	±2dB
	12M	-92dBm	±2dB		48M	-78dBm	±2dB
	18M	-90dBm	±2dB		54M	-76dBm	±2dB
5GHz 11n HT 20	MCS0	-93dBm	±2dB	**5GHz 11n HT 40**	MCS0	-89dBm	±2dB
	MCS1	-91dBm	±2dB		MCS1	-87dBm	±2dB
	MCS2	-89dBm	±2dB		MCS2	-85dBm	±2dB
	MCS3	-84dBm	±2dB		MCS3	-82dBm	±2dB
	MCS4	-80dBm	±2dB		MCS4	-78dBm	±2dB
	MCS5	-77dBm	±2dB		MCS5	-74dBm	±2dB
	MCS6	-76dBm	±2dB		MCS6	-72dBm	±2dB
	MCS7	-73dBm	±2dB		MCS7	-70dBm	±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

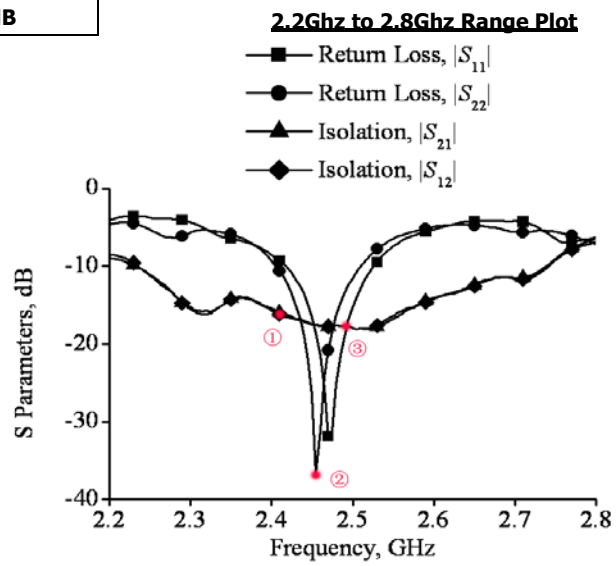
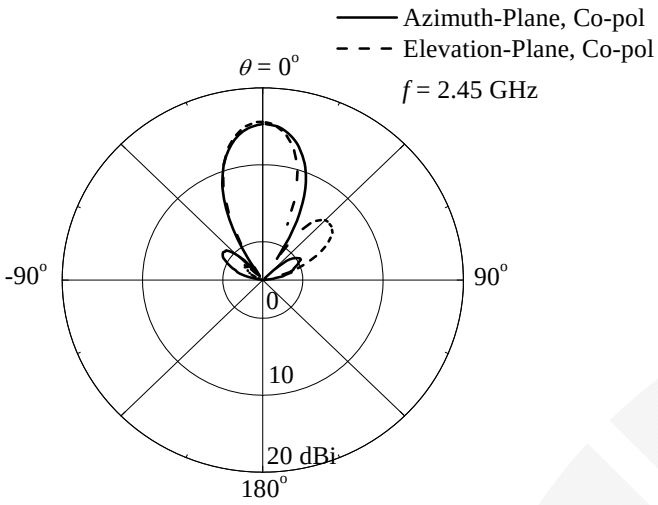
FIRMWARE INFORMATION	
Operating Modes	• Access Points • Station • Station WDS • Repeater WDS • Wireless Adapter • Station + Router • Access Point + Router
WAN Type	• Static IP • Dynamic IP • PPPoE
Device Management	• HTTP / HTTPs Web Server • SNMP V2c • Telnet / Secure Shell (SSH)
Data Capture & Notification	• Event Login (Syslog) • Detailed Statistics per Client
Virtual Access Point (VAP)	• Up to 4 SSIDs with unique MAC Addresses (BSSID)
Advanced Features	• 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

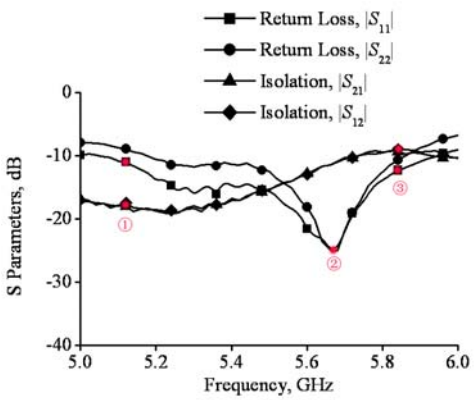
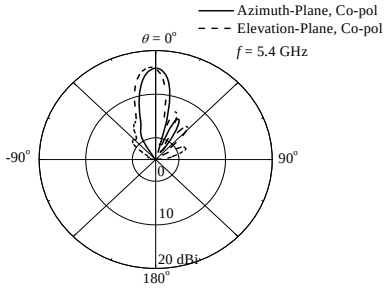
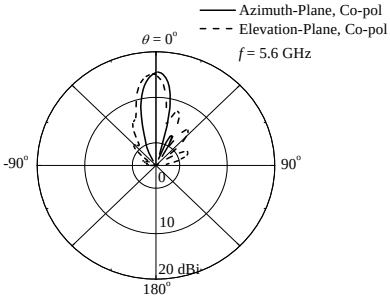
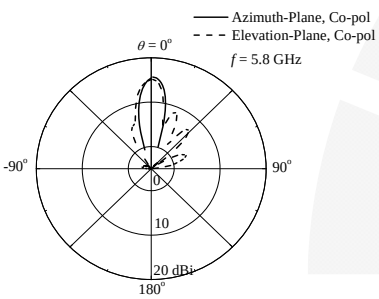
Customizable Features②

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

Specifications of 2.4GHz 14dBi Antenna

Gain	**14dBi**
Radiation	**Directional**
Frequency Range	**2.4-2.5 GHz**
Polarization	**Dual Polarization**
Horizontal -3dB Beamwidth	**30 degrees**
Vertical -3dB Beamwidth	**30 degrees**
Front-to-Back Ratio	**>25 dB**
VSWR	**≤1.22:1**
Return Loss	**≤10dB**
Port to Port Isolation	**≥17dB**
Return Loss & Isolation Plot	
Radiation Pattern	

Specifications of 16dBi 5GHz Antenna

Gain	**16dBi**
Radiation	**Directional**
Frequency Range	**5.45-5.85 GHz**
Polarization	**Dual Polarization**
Horizontal -3dB Beamwidth	**18 degrees**
Vertical -3dB Beamwidth	**18 degrees**
Front-to-Back Ratio	**>25 dB**
VSWR	**≤1.2:1**
Return Loss	**≤11dB**
Port to Port Isolation	**≥18dB**
Return Loss & Isolation Plot	**5GHz to 6GHz Range Plot** 
Radiation Patterns	
	
	

Ordering Information②

Code	Integrated Antenna	MME Enclosure	Board	Radio card	Radio Output	Carton Dimensions
MMS N2-20	14dBi@2.4GHz	MME-2.4G14	PCBA-WP543	WLM200N2	20dBm	For 5 pcs/carton, 0.72m*0.36m*0.36m/0.006=16KG
MMS N2-26	14dBi@2.4GHz	MME-2.4G14	PCBA-WP543	WLM200N2-26	26dBm	
MMS NX-18	16dBi@5GHz	MME-5G16	PCBA-WP543	WLM200NX	18dBm	
MMS N5-26	16dBi@5GHz	MME-5G16	PCBA-WP543	WLM200N5-26	26dBm	

① Features are not available on the Firmware. Please contact salesperson for customization.
② Configurations are subject to change without notice

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