

MagiNode™ and Magipoint™ Specification Sheets

Project Name _____

Date _____ Type _____

Notes _____

EQUIPMENT SUMMARY



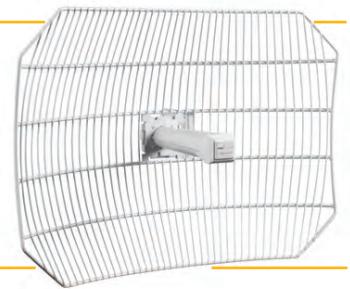
MN-WW60-G-AD: Building block of 1 Gbps Data Pipeline. Used for distances of 700m in conjunction with MagiLink™ Routers to provide backbone to MagiNet™.

MP052-4-4: The Magipoint™ provides a self-backhauling solution to provide WiFi access to smartphones, tablets and laptops. One antenna connects to MagiNet™ and the other provides WiFi Access.



MN05-4: The Omni MagiNode™ is used as an end-device on homes and businesses to provide internet access, or as relay to bridge difficult areas. It meshes seamlessly with MagiNet™.

MND5-G27: 5GHz Data Pipeline MagiNode™ with a 27 dBi Grid Antenna. It is used for 3-4 km hops.



MND5-M: 5GHz Data Pipeline MagiNode™ with a built in 13 dBi Antenna. It is used for 2-3 km hops. It uses MIMO for very high data rates.

MN-WW60-G-AD 60 GHz, 1 Gbps Point-to-Point Pair

Project Name _____

Date _____ Type _____

Notes _____

Details	
Product Code	RBLHGG-60adkit
Architecture	ARM 32bit
CPU	IPQ-4019
CPU Core Count	4
CPU Nominal Frequency	716.8 MHz
Dimensions	Ø 391 x 222 mm
Weight	1003 gram
License Level	3
Operating System Router	OS
Size of RAM	256 MB
Storage Size	16 MB
Storage Type	FLASH
Tested Ambient Temperature	-40°C to 55°C
POWERING	
Details	
PoE In	802.3af/at
PoE In Input Voltage 1	2-57 V
Number of DC Inputs	1 (PoE-IN)
Max Power Consumption	5 W
ETHERNET	
Details	
10/100/1000 Ethernet Ports	1



MND5-M Data Pipeline MagiNode™ 5GHz M

Project Name _____

Date _____ Type _____

Notes _____

Dimensions	294 x 31 x 80 mm (11.57 x 1.22 x 3.15")
Weight	400 g (14.11 oz)
Power Supply (PoE)	24V, 0.5A
Max. Power Consumption	8W
Power Method	Passive PoE (Pairs 4, 5+; 7, 8 Return)
Operating Frequency	Worldwide USA USA DFS
	5170-5875MHz 2725-5850MHz 5250-5850MHz
Gain	14.6-16.1 dBi
Networking Interface (2)	10/100 Ethernet Ports
Processor Specs	Atheros MIPS 74kc, 560 MHz
Memory	64 MB DDR2, 8 MB Flash
Frequency	5 GHz
Cross-pol Isolation	22 dB Minimum
Max. VSWR	1.6:1
Beamwidth	43° (H-pol) / 41° (V-pol) / 15° (Elevation)
Polarization	Dual Linear
Mounting	Pole-Mount (Kit Included)
Operating Temperature	-30 to 75°C (-22 to 167°F)
Operating Humidity	5 to 95% Noncondensing
Wireless Approvals	FCC Part 15.247, IC RS210, CE
RoHS Compliance	Yes
Shock & Vibration	ETSI300-019-1.4



Power Specifications

Project Name _____

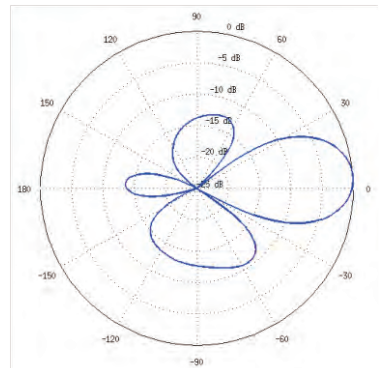
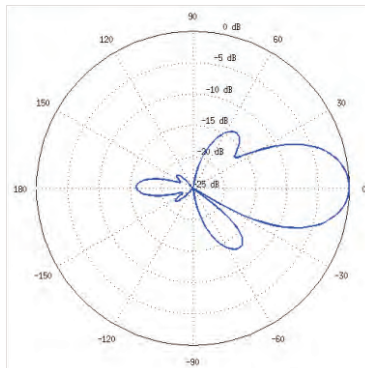
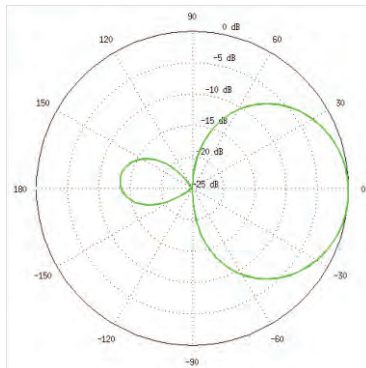
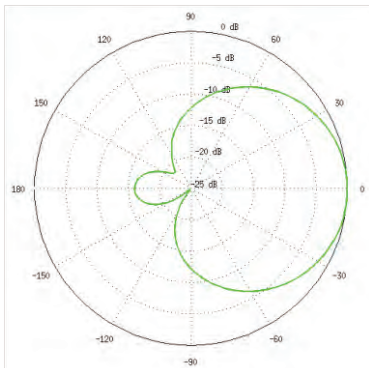
Date _____ Type _____

Notes _____

5 GHZ TX POWER SPECIFICATIONS

5 GHZ RX POWER SPECIFICATIONS

MCS	Avg. TX	Tolerance	MCS	Avg. TX	Tolerance
MCS0	27 dBm	±2 dB	MCS0	-96 dBm	±2 dB
MCS1	27 dBm	±2 dB	MCS1	-95 dBm	±2 dB
MCS2	27 dBm	±2 dB	MCS2	-92 dBm	±2 dB
MCS3	27 dBm	±2 dB	MCS3	-90 dBm	±2 dB
MCS4	26 dBm	±2 dB	MCS4	-86 dBm	±2 dB
MCS5	24 dBm	±2 dB	MCS5	-83 dBm	±2 dB
MCS6	22 dBm	±2 dB	MCS6	-77 dBm	±2 dB
MCS7	21 dBm	±2 dB	MCS7	-74 dBm	±2 dB
MCS8	27 dBm	±2 dB	MCS8	-95 dBm	±2 dB
MCS9	27 dBm	±2 dB	MCS9	-93 dBm	±2 dB
MCS10	27 dBm	±2 dB	MCS10	-90 dBm	±2 dB
MCS11	27 dBm	±2 dB	MCS11	-87 dBm	±2 dB
MCS12	26 dBm	±2 dB	MCS12	-84 dBm	±2 dB
MCS13	24 dBm	±2 dB	MCS13	-79 dBm	±2 dB
MCS14	22 dBm	±2 dB	MCS14	-78 dBm	±2 dB
MCS15	21 dBm	±2 dB	MCS15	-75 dBm	±2 dB



MND5-G27 Data Pipeline MagiNode™ 5GHz, 27dBi Grid

Project Name _____

Date _____ Type _____

Notes _____

MND5-G27

Dimensions (Mount Included)	620 x 460 x 360 mm (24.41 x 18.11 x 14.17")
Weight (Mount Included)	2585 g (5.699 lbs)
Power Supply (PoE)	24V, 0.5A PoE Adapter (Included)
Power Method	Passive PoE (Pairs 4, 5+; 7, 8 Return)
Operating Frequency	Worldwide USA
	5170-5875 MHz 5725-5850 MHz
Gain	27 dBi
Networking Interface	(1) 10/100 Ethernet Port
Processor Specs	Atheros MIPS 74Kc, 560 MHZ
Memory Information	64 MB DDR2, 8 MB Flash
Max. VSWR	1.5:1
Mounting	Pole-Mount Kit (Included)
Operating Temperature	-30 to 75°C (-22 to 167°F)
Operating Humidity	5 to 95% Noncondensing
Wireless Approvals	FCC Part 15.247, IC RS210, CE
RoHS Compliance	Yes
Shock & Vibration	ETSI300-019-1.4
Enclosure Characteristics	Outdoor UV Stabilized Plastic
Max. Power Consumption	3W
ETSI Specification	EN 302 326 DN2
Wind Survivability	200 km/h (125 mph)

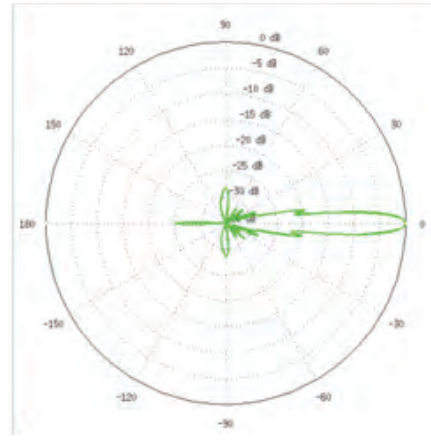
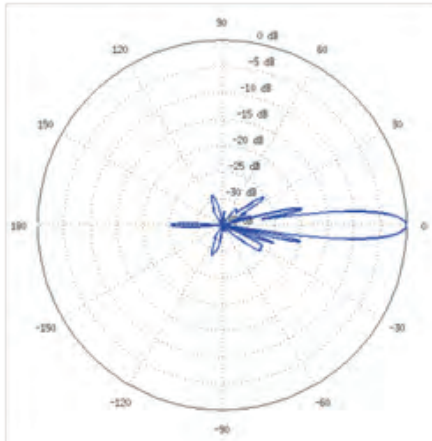


Project Name _____

Date _____ Type _____

Notes _____

Power Specifications



5 GHZ TX POWER SPECIFICATIONS

MCS	Avg. TX	Tolerance
MCS0	25 dBm	±2 dB
MCS1	25 dBm	±2 dB
MCS2	25 dBm	±2 dB
MCS3	24 dBm	±2 dB
MCS4	23 dBm	±2 dB
MCS5	22 dBm	±2 dB
MCS6	21 dBm	±2 dB
MCS7	19 dBm	±2 dB

5 GHZ RX POWER SPECIFICATIONS

MCS	Avg. TX	Tolerance
MCS0	-97 dBm	±2 dB
MCS1	-96 dBm	±2 dB
MCS2	-93 dBm	±2 dB
MCS3	-91 dBm	±2 dB
MCS4	-87 dBm	±2 dB
MCS5	-84 dBm	±2 dB
MCS6	-78dBm	±2 dB
MCS7	-75 dBm	±2 dB

MN05-Omni MagiNode™ 5GHz, 4dBi Omni Antenna



Project Name _____

Date _____ Type _____

Notes _____

MN05-4

Dimensions	49 x ø4.2 cm (length, diameter)
Weight	0.44 kg
Power Method	Passive PoE (Pairs 4, 5+; 7, 8 Return)
Power Rating	Up To 24V
Networking Interface	(1) 10/100 BASE-TX (Cat. 5, RJ-45) Ethernet
Processor Specs	Atheros MIPS 74Kc, 400 MHZ
Memory Information	32 MB SDRAM, 8MB Flash
Operating Temperature	-40 to 80°C
Operating Humidity	5 to 95% Noncondensing
Wireless Approvals	FCC Part 15.247, IC RS210, CE
RoHS Compliance	Yes
Shock & Vibration	ETSI300-019-1.4
Enclosure Characteristics	Waterproof Aluminum Cylinder
Max. Power Consumption	7W
Antenna	4 dBi Omni



Project Name _____

Date _____ Type _____

Notes _____

Operating Frequency 5170-5825 MHz

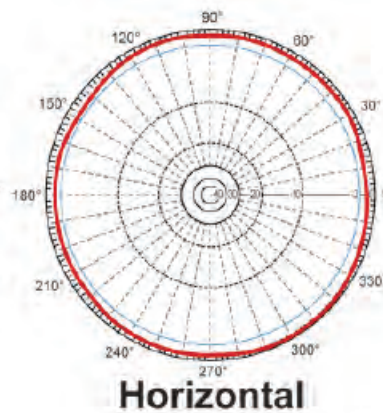
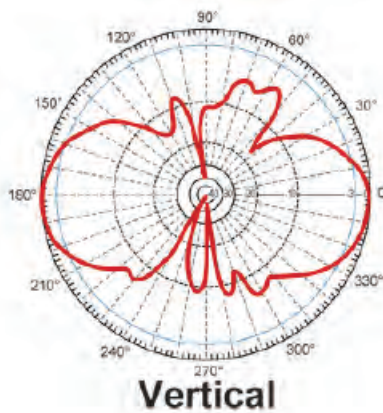
Output Power 25 dBm

5 GHZ TX POWER SPECIFICATIONS

MCS	Avg. TX	Tolerance
MCS0	25 dBm	±2 dB
MCS1	25 dBm	±2 dB
MCS2	25 dBm	±2 dB
MCS3	25 dBm	±2 dB
MCS4	24 dBm	±2 dB
MCS5	22 dBm	±2 dB
MCS6	20 dBm	±2 dB
MCS7	19 dBm	±2 dB

5 GHZ RX POWER SPECIFICATIONS

MCS	Avg. TX	Tolerance
MCS0	-96 dBm	±2 dB
MCS1	-95 dBm	±2 dB
MCS2	-92 dBm	±2 dB
MCS3	-90 dBm	±2 dB
MCS4	-86 dBm	±2 dB
MCS5	-83 dBm	±2 dB
MCS6	-77dBm	±2 dB
MCS7	-74 dBm	±2 dB



MP052-4-4 Omni MagiNet™

5 GHz, 4dBi, 2.4 GHz, 4 dBi

Integrated Omni 5 GHZ MagiNode™ with
2.4 GHz Wi-Fi Access Point



Project Name _____

Date _____ Type _____

Notes _____

MP052-4-4

Dimensions	79 x ø4.2 cm (length, diameter)
Weight	0.75 kg
Power Method	DC Supply 12-24V
Power Rating	Up To 24V
Networking Interface	(1) 10/100 BASE-TX (Cat. 5, RJ-45) Ethernet
Processor Specs	Atheros MIPS 24Kc, 400 MHZ
Memory Information	32 MB SDRAM, 8MB Flash
Operating Temperature	-40 to 80°C
Operating Humidity	5 to 95% Noncondensing
Wireless Approvals	FCC Part 15.247, IC RS210, CE
RoHS Compliance	Yes
Shock & Vibration	ETSI300-019-1.4
Enclosure Characteristics	Waterproof Aluminum Cylinder
Max. Power Consumption	13W
Antenna	5 GHz, 4dBi Omni, 2.4 GHz, 4dBi Omni



Power Specifications

Project Name _____

Date _____ Type _____

Notes _____

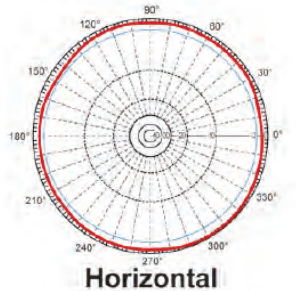
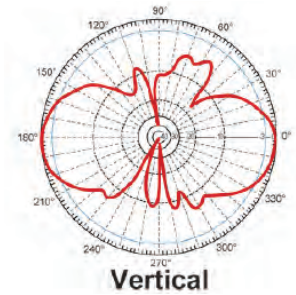
Operating Frequency 5170-5825 MHz

Output Power 25 dBm

5 GHZ TX POWER SPECIFICATIONS

5 GHZ RX POWER SPECIFICATIONS

Data Rate	Avg. TX	Tolerance	Data Rate	Sensitivity	Tolerance
MCS0	25 dBm	±2 dB	MCS0	-96 dBm	±2 dB
MCS1	25 dBm	±2 dB	MCS1	-95 dBm	±2 dB
MCS2	25 dBm	±2 dB	MCS2	-92 dBm	±2 dB
MCS3	25 dBm	±2 dB	MCS3	-90 dBm	±2 dB
MCS4	24 dBm	±2 dB	MCS4	-86 dBm	±2 dB
MCS5	22 dBm	±2 dB	MCS5	-83 dBm	±2 dB
MCS6	20 dBm	±2 dB	MCS6	-77dBm	±2 dB
MCS7	19 dBm	±2 dB	MCS7	-74 dBm	±2 dB



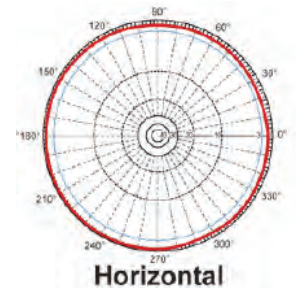
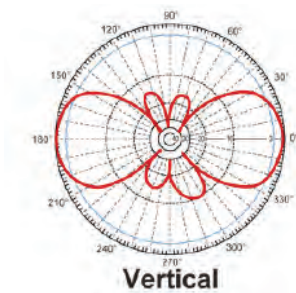
Operating Frequency 2412-2462 MHz

Output Power 28 dBm

2.4 GHZ TX POWER SPECIFICATIONS

2.4 GHZ RX POWER SPECIFICATIONS

Data Rate	Avg. TX	Tolerance	Data Rate	Sensitivity	Tolerance
6-24 Mbps	28 dBm	±2dB	24 Mbps	-83 dBm	±2dB
36 Mbps	25 dBm	±2dB	36 Mbps	-80 dBm	±2dB
48 Mbps	24 dBm	±2dB	48 Mbps	-77 dBm	±2dB
54 Mbps	23 dBm	±2dB	54 Mbps	-75 dBm	±2dB
MCS0	28 dBm	±2 dB	MCS0	-96 dBm	±2 dB
MCS1	28 dBm	±2 dB	MCS1	-95 dBm	±2 dB
MCS2	28 dBm	±2 dB	MCS2	-92 dBm	±2 dB
MCS3	28 dBm	±2 dB	MCS3	-90 dBm	±2 dB
MCS4	27 dBm	±2 dB	MCS4	-86 dBm	±2 dB
MCS5	25 dBm	±2 dB	MCS5	-83 dBm	±2 dB
MCS6	23 dBm	±2 dB	MCS6	-77dBm	±2 dB
MCS7	22 dBm	±2 dB	MCS7	-74 dBm	±2 dB



MN-W2-04 Outdoor Wi-Fi AP, 2.4 GHz, 4 Omni Antenna

Project Name _____

Date _____ Type _____

Notes _____

MN-W2-04

Dimensions	51 x ø4.2 cm (length, diameter)
Weight	0.8 kg
Power Method	Passive PoE (Pairs 4, 5+; 7, 8 return)*
Power Rating	Up To 24V
Networking Interface	(1) 10/100 BASE-TX (Cat. 5, RJ-45) Ethernet
Processor Specs	Atheros MIPS 24Kc, 400 MHZ
Memory Information	32 MB SDRAM, 8MB Flash
Operating Temperature	-40 to 80°C
Operating Humidity	5 to 95% Condensing
Wireless Approvals	FCC Part 15.247, IC RS210, CE
RoHS Compliance	Yes
Shock & Vibration	ETSI300-019-1.4
Enclosure Characteristics	Waterproof Aluminum Cylinder
Max. Power Consumption	7W
Antenna	4dBi Omni



Project Name _____

Date _____ Type _____

Notes _____

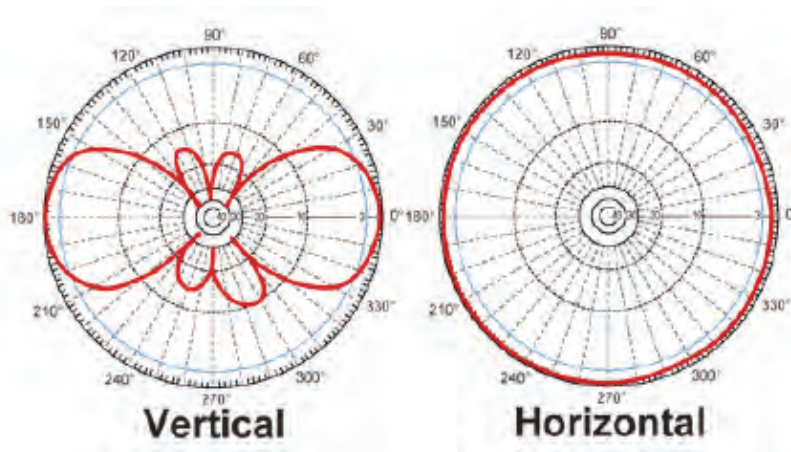
Operating Frequency 2412-2462 MHz

Output Power 28 dBm

2.4 GHZ TX POWER SPECIFICATIONS

2.4 GHZ RX POWER SPECIFICATIONS

Data Rate	Avg. TX	Tolerance	Data Rate	Sensitivity	Tolerance
6-24 Mbps	28 dBm	±2dB	24 Mbps	-83 dBm	±2dB
36 Mbps	25 dBm	±2dB	36 Mbps	-80 dBm	±2dB
48 Mbps	24 dBm	±2dB	48 Mbps	-77 dBm	±2dB
54 Mbps	23 dBm	±2dB	54 Mbps	-75 dBm	±2dB
MCS0	28 dBm	±2 dB	MCS0	-96 dBm	±2 dB
MCS1	28 dBm	±2 dB	MCS1	-95 dBm	±2 dB
MCS2	28 dBm	±2 dB	MCS2	-92 dBm	±2 dB
MCS3	28 dBm	±2 dB	MCS3	-90 dBm	±2 dB
MCS4	27 dBm	±2 dB	MCS4	-86 dBm	±2 dB
MCS5	25 dBm	±2 dB	MCS5	-83 dBm	±2 dB
MCS6	23 dBm	±2 dB	MCS6	-77dBm	±2 dB
MCS7	22 dBm	±2 dB	MCS7	-74 dBm	±2 dB



MNR-EP-R6

Project Name _____

Date _____ Type _____

Notes _____

MNR-EP-R6

Dimensions	188.6 x 177.1 x 49.8 mm (7.43 x 6.97 x 1.96")
Weight	605 g (1.33 lbs)
Power Input	(1) DC Terminal Block or (1) RJ45 (eth0) (Self correcting Polarity on DC Terminal Block Only, Diode, ORed Protection on All Power Inputs)
Power Supply	Min 24V / 0.3A (Excludes PoE Output Power)
Processor Specs	Dual-Core 880 MHz, MIPS1004Kc
Operating Temperature	-40 to 65°C (-40 to 149°F)
Operating Humidity	10 to 90% Noncondensing
Enclosure Characteristics	Polycarbonate with UV Resistance
Max. Power Consumption	7W (Excludes PoE Output)
VDC Input	24V, 3A
Passive PoE Input	(1) 24V / 1.4A, 4-Pair (+1, 2, 4, 5; -3, 6, 7, 8) Passive PoE, eth0 (DO NOT Configure eth0 in PoE Output Mode if You Are Not Using a PoE Input Power Source)
Power Monitoring	(1) DC Terminal Block, Input Power (1) RJ45, eth0, Input Power
Supported Voltage Range	26 to 16VDC
Button	Reset
LEDs	
System	Power
eth0 to eth4	Speed/Link/Activity, PoE
eth5/SFP	Speed/Link/Activity
Ports	
Data Ports	(5) 10/100/1000 RJ (1) 1 Gbps SFP Port
System Memory	256 MB DDR3-1600 RAM
Code Storage	256 MB NAND
Certifications	CE, FCC, IC
Pole Mount	Yes
Wind Loading	46 N @ 200 km/h (10.34 lbf @ 1.5 mph)
Wind Survivability	200 km/h (125 mph)

MN05-U-AC AND MND5-U-AC

Project Name _____

Date _____ Type _____

Notes _____

MN05-U-AC AND MND5-U-AC

Dimensions	355 x 46 x 34.4 mm (13.9 x 1.81 x 1.35")
Weight	152 g (5.36 oz) With Antennas
Power Method	24V Passive PoE (Pairs 4, 5+; 7, 8 Return); 802.3af Alternative A (Pairs 1, 2+; 3, 6 Return) Supported Voltage Range: 44 to 57VDC)
Power Supply	24V, 0.5A Gigabit PoE Adapter*
Power Save	Supported
Operating Temperature	-30 to 70°C (-22 to 158°F)
Operating Humidity	5 to 95% Noncondensing
Max. Power Consumption	8.5W
Maximum TX Power 5 GHz	20 dBm
Button	Reset
Certifications	CE, FCC, IC
Networking Interface	(1) 10/100/1000 Ethernet Port
Antennas	
MN05-U-AC 5 GHz	(2) External Dual-Band Omni Antennas 4 dBi
MND5-U-AC 5 GHz	(1) External Dual Band Directional Antenna 15 dBi
Wi-Fi Standard	802.11 a/b/g/n/r/k/v/ac
Wireless Security	WEP, WAP-PSK, WPA-Enterprise (WAP/WPA2, TKIP/AES)
BSSID	Up to 8 per radio
Mounting	Wall/Pole/Fast-Mount (Kits Included)

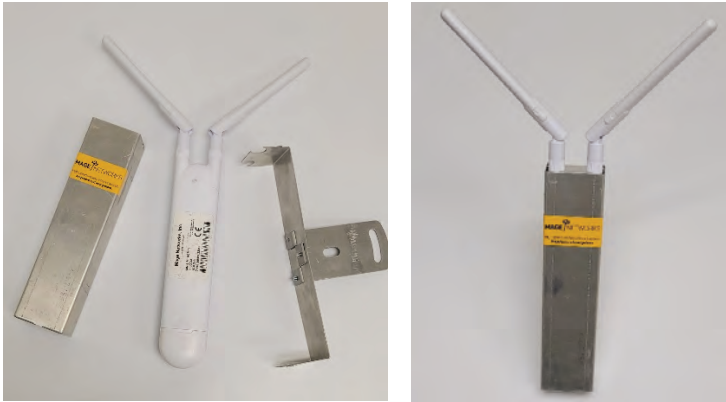
MN05-U-AC AND MND5-U-AC

Project Name _____

Date _____ Type _____

Notes _____

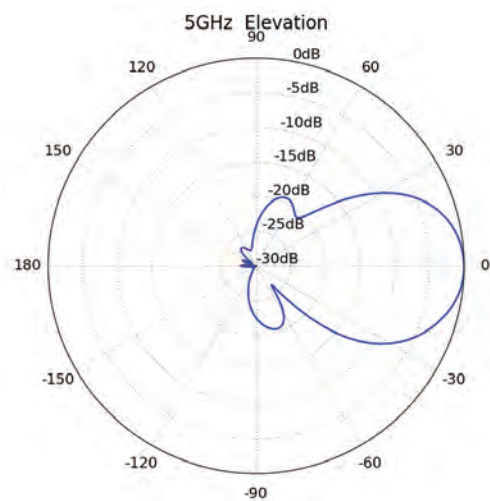
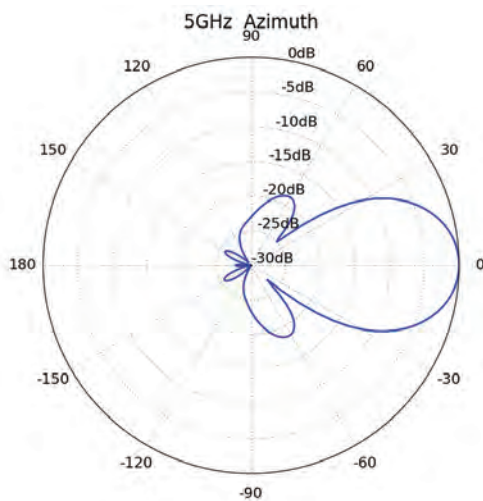
MN05-U-AC WITHOUT AND WITH SHIELD



MND5-U-AC ADDDIRECTIONAL ANTENNA TO MN05-U-AC



DIRECTIONAL ANTENNA PATTERN



MN05-U-AC AND MND5-U-AC

Project Name _____

Date _____ Type _____

Notes _____

