



ROJONE[®]
PTY. LTD.



Wireless LAN - Product List

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What is Wireless?

Wireless enables better communication, enhances productivity and enables better customer service. A Wireless LAN allows users to access information beyond their desk, and conduct business anywhere within their offices.

Wireless networks are well suited to many environments. As an extension to a wired network, it allows access anywhere within your building and over vast distances outside.

For locations in which it is hard to lay cable like heritage buildings or sites where new wiring can't be laid for structural reasons, wireless technologies are ideal. The initial costs of implementing a wireless LAN are less than that of traditional networking methodologies.



Would the information be intercepted?

WLAN features two-fold protection in security. On the hardware side, as with Direct Sequence Spread Spectrum technology (DSSS), it has the inherent security feature of scrambling. On the software side, WLAN series offer the encryption function (WEP) to enhance security and Access Control. Users can set it up depending upon their needs.

Frequency Range: Frequency refers to the number of times a signal completes one cycle and is measured in Hertz. The range will determine the scope and boundary of the antennas transmission. The 2.4 GHz wireless LAN allows data rates of up to 11Mbps. The newer 5.8 GHz wireless LAN is much faster, allowing speeds of up to 54Mbps, which is 5 times faster, then a 10BASET network.

Attenuation: To reduce (the amplitude of an electrical signal) with little or no distortion. In the case of cabling the further the distance of the cable, the more the signal attenuates and weakens. To counter this, one must have better quality connectors, better quality and larger diameter cables.

Gain: An increase in signal power, voltage, or current. dBi refers to the decibels related to the Isotropic Radiator, which produces a useful electromagnetic field output in all directions with equal intensity and 100% efficiency in 3 dimensional space. In the case of wireless LANs, the higher the gain the more powerful the transmitter and stronger the signal.

VSWR: stands for Voltage Standing Wave Ratio. It is the ratio of the maximum/minimum values of standing wave pattern along a transmission line to which a load is connected. VSWR value ranges from 1 (matched load) to infinity for a short or an open load. For most wireless LAN antennas, the maximum acceptable value of VSWR is 2.0. VSWR of 1.5 or less is excellent. This is approximately the same as a Return Loss of 14.5 dB. What this means is that most of the signal from the transmitter to the wireless antenna is being radiated (96% radiated and 4% reflected). A VSWR of 2.0 (return loss of 9.5 dB), means that 90% is radiated and 10% is reflected.

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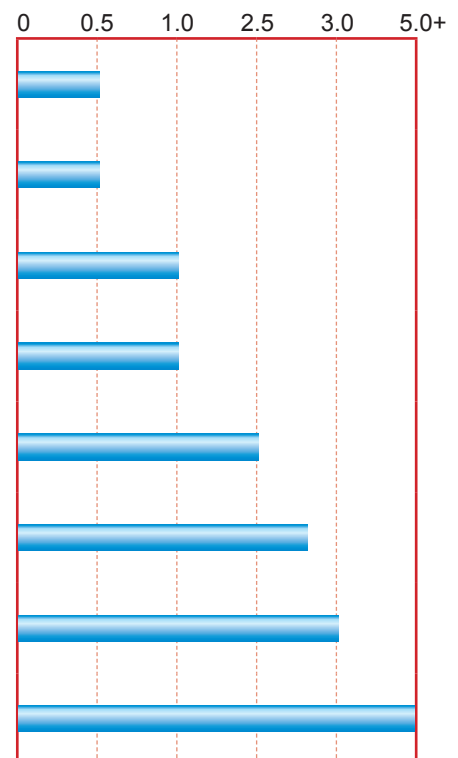
WLAN POINT-TO-POINT ANTENNA SELECTION GUIDE

WLAN IEEE802.11b 2.4 GHz

The following guide is provided to assist in the selection of the appropriate 2.4 GHz antenna in your application.

Antenna Code	Gain	Radiation Beamwidth		Conn.
		Horiz.	Vertical	
SA2-05008-07* Omni Desk Vertical	4.0 dBi	360°	40°	RPSMA P & MMCX
EMW24-03005-XXL* Omni Vertical Pole Mtg	5.0 dBi	360°	30°	N F
EMW24-01508-XXL* Omni Vertical Pole Mtg	8.0 dBi	360°	15°	N F
PCW24-07008-BFL-D* Directional Panel	8.5 dBi	70°	70°	N F
PCW24-08012-AFL* Directional Panel	12 dBi	80°	23°	SMA F
SA2-05003-03 Directional Yagi	12 dBi	50°	50°	SMA & BNC
A-908* Directional Panel	14 dBi	30°	30°	N F
FYW-01518-BFL* Directional Yagi	18 dBi	15°	15°	N F

Point-to-Point Transmission Range (km)**



** Point-to-Point Transmission range may vary according to the installation environment, line of sight and/or equipment performance specifications. The performance shown in this chart is based on a minimum RF power level of 0.25mW (14dBm) and a maximum 2dB cable loss specification.

* Antennas the same as shown in D-Link Catalogue.



ANTENNAS & ACCESSORIES

WLAN IEEE802.11b 2.4 GHz

Antenna Code	Gain	Radiation Beamwidth		Connector	Transmission Range (metres) **
		Horiz.	Vertical		
SA2-05001 Laptop/Notebook Antenna	2.2 dBi	360°	80°	MCX RA & SMA	100 mtrs
A-460-NF Omni Directional Ceiling Mount Antenna	5.5 dBi	360°	75°	N F	600 mtrs

ANTENNAS

WLAN 5 GHz RANGE

Antenna Code	Gain	Radiation Beamwidth		Connector	Application
		Horiz.	Vertical		
R0220-112 5.25-5.35 GHz Frequency High Gain Directional Panel	12 dBi	40°	35°	MCX RA Male	Desk PC/Notebook Antenna
SA-SA2-2002 5.15-5.875 GHz Frequency	17 dBi	60°	6°	N Female	Sector Antenna
R0209-116 (R0209-020-old) 5.25-5.875 GHz Frequency High Gain Directional Panel	18 dBi	18°	18°	N Female	Wall Mount 10 Watt Power
R0209-149 5.725-5.875 GHz Frequency High Gain Directional Panel	23 dBi	9°	9°	N Female	Wall Mount Directional Antenna
SA2-20018 Omni	8 dBi	360°	6°	N Female	Omni Antenna 5.5-5.8 GHz
SA2-20028 Omni	10 dBi	360°	12°	N Female	Omni Antenna 5.5-5.8 GHz

** Point-to-Point Transmission range may vary according to the installation environment, line of sight and/or equipment performance specifications. The performance shown in this chart is based on a minimum RF power level of 0.25mW (14dBm) and a maximum 2dB cable loss specification.

* Antennas the same as shown in D-Link Catalogue.



ACCESSORIES AVAILABLE FOR 2.4 GHz WLAN

**2-Way Antenna Splitter, Adaptors, Amplifiers, Connectors,
Cables & Assemblies, Lightning Protectors**

SA2-05001

Electrical Specifications

Frequency Range	2400 - 2500 MHz
Gain	2.2 dBi
VSWR	2.0:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	360°
HPBW / Vertical	80°
Impedance	50 Ohms
Connector 05	MMCX Right Angle Plug & SMA Plug
Cable	RG174, 40cm
Overall Size Max	70 x 18 x 6.4mm 15g
Application	Notebook Computers



A-460 Series

Electrical Specifications

	A-460-NF	A-460D-NF
Frequency Range	800 - 3000 MHz	800 - 3000 MHz
Gain	3 to 6.5 dBi	6 to 9 dBi
VSWR	< 2.0:1	2.0:1 Max
Polarisation	Linear, Vertical	Directional
HPBW / Horizontal	360°	90°
HPBW / Vertical	75°	40°
Impedance	50 Ohms	50 Ohms
Connector 05	N Female	N Female
Cable	Optional, on request	Optional, on request
Overall Size Max	77.4 x 166mm, 300g	77.4 x 166mm, 300g
Application	Ceiling Mount	Ceiling Mount



SA2-05008-07

Electrical Specifications

Frequency Range	2400 - 2500 MHz
Gain	4.0 dBi
VSWR	2.0:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	360°
HPBW / Vertical	40°
Power Handling	2 Watts CW
Impedance	50 Ohms
Connector	RP SMA Plug
Cable	RG316, 100cm; SMA Male; MMCX
Overall Size Max	200mm x 48mm inc. bracket



EMW24-03005-XXL

Electrical Specifications

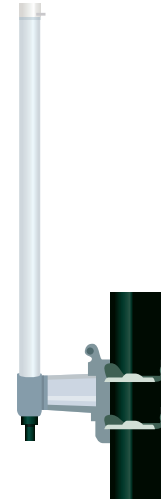
Frequency Range	2400 - 2500 MHz
Gain	5.0 dBi
VSWR	2.0:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	360°
HPBW / Vertical	32°
Downtilt	0°
Power Handling	20 Watts CW
Impedance	50 Ohms
Connector BFL	N Female & N Female Reverse
Cable	RG58/U, 25cm
Weight	800g
Overall Size Max	300mm x 19mm



EMW24-01508-BFL

Electrical Specifications

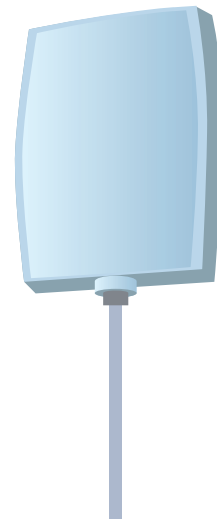
Frequency Range	2400 - 2500 MHz
Gain	8.0 dBi
VSWR	2.0:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	360°
HPBW / Vertical	15°
Downtilt	0°
Power Handling	20 Watts CW
Impedance	50 Ohms
Connector BFL	N Female
Cable	No Cable Tail
Weight	110g
Overall Size Max	118mm x 86mm



PCW24-07008-BFL

Electrical Specifications

Frequency Range	2400 - 2500 MHz
Gain	8.5 dBi
VSWR	1.5:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	50°
HPBW / Vertical	50°
Front to Back Ratio	15 dBi
Power Handling	10 Watts CW
Impedance	50 Ohms
Connector BFL	N Female
Cable	No Cable Tail
Weight	300g
Overall Size Max	120mm x 120mm x 43mm



PCW24-07008-AML-B

Electrical Specifications

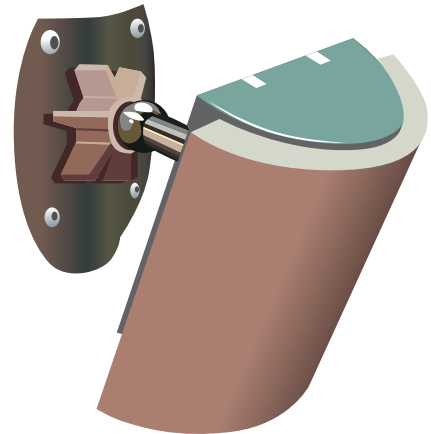
Frequency Range	2400 - 2500 MHz
Gain	8.5 dBi
VSWR	1.5:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	50°
HPBW / Vertical	50°
Front to Back Ratio	15 dBi
Power Handling	10 Watts CW
Impedance	50 Ohms
Connector AML	SMA Male
Cable	No Cable Tail
Weight	300g
Overall Size Max	120mm x 120mm x 43mm



PCW24-07008-AML-D

Electrical Specifications

Frequency Range	2400 - 2500 MHz
Gain	8.5 dBi
VSWR	1.5:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	50°
HPBW / Vertical	50°
Front to Back Ratio	15 dBi
Power Handling	10 Watts CW
Impedance	50 Ohms
Connector AML	N Female
Cable	No Cable Tail
Weight	300g
Overall Size Max	120mm x 120mm x 43mm



NOTE: PCW24-07008-AML-D does not come with mounting brackets

PCW24-08012-AFL

Electrical Specifications

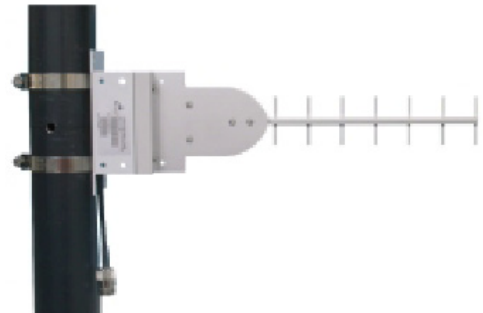
Frequency Range	2400 - 2500 MHz
Gain	11.5 dBi
VSWR	1.5:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	80°
HPBW / Vertical	23°
Front to Back Ratio	15 dB
Power Handling	10 Watts CW
Impedance	50 Ohms
Connector AFL	SMA Female
Cable	No Cable Tail
Weight	0.19 kg
Overall Size Max	330mm x 93mm x 20mm



SA2-05003-03

Electrical Specifications

Frequency Range	2400 - 2500 MHz
Gain	12.0 dBi
VSWR	1.5:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	50°
HPBW / Vertical	50°
Downtilt	0°
Power Handling	10 Watts CW
Impedance	50 Ohms
Connector 03	SMA Female & BNC Male Reverse
Cable	UL198, 32cm
Weight	300g
Overall Size Max	280mm x 87mm x 48mm



SA2-050090-NO

Electrical Specifications

Frequency Range	2400 - 2500 MHz
Gain	18.0 dBi
VSWR	1.5:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	15°
HPBW / Vertical	15°
Front to Back Ratio	26 dB
Downtilt	0°
Power Handling	50 Watts CW
Impedance	50 Ohms
Connector BFL	N Female
Cable	No Cable Tail
Weight	3.25kg
Overall Size Max	360mm x 360mm x 16mm



FYW24-01518-BFL

Electrical Specifications

Frequency Range	2400 - 2500 MHz
Gain	18.0 dBi
VSWR	1.5:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	15°
HPBW / Vertical	15°
Front to Back Ratio	25 dBi
Downtilt	0°
Power Handling	100 Watts CW
Impedance	50 Ohms
Connector BFL	N Female
Cable	No Cable Tail
Weight	3.5kg
Overall Size Max	1000mm x 89mm



Broadband Indoor Omni-Directional Antenna

Electrical Specifications

Frequency Range	1700 - 2700 MHz
Gain	2.5 - 3.7 dBi
VSWR	2.0:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	360°
HPBW / Vertical	58° - 75°
Electrical Downtilt	30° - 40°
Power Handling	20 Watts CW
Impedance	50 Ohms
Connector	RP SMA Plug
Cable	No Cable Tail
Spec	SA v1.0



2.4GHz Bi-Directional In-Line Booster Amplifier

The BDA is capable of both forward and return communications. It improves signal strength and quality of Cable Modem digital communications, Picture quality (analogue/digital), UHF/VHF/FM antenna reception, long cable runs, radio coverage in shadowed areas and inside buildings, GPS and CDMA systems.

It can be installed at the premises to mitigate signal degradation attributed to excessive drop length and the use of multiple Internet, data and telephony services.

Rojone has a series of high quality BDAs, which covers VHF, UHF to 2.4 GHz. Please consult us for your application.

The Bi-Directional Booster Amplifier is ideal to increase the range of 2.4 GHz Wireless LAN devices or radio modems and ideal for preserving the spectral purity of Direct Sequence (DSSS) radios and WLAN devices. These items are NOT weatherproof.

The Kit - part number **ROJ-BDA421-240VAC-K** consists of (detailed specifications shown below):

- ❖ 1 x **AMA-3421-BDA-N-1** Bi-Directional Amplifier Module
- ❖ 1 x **AMA-061-2400-5V** DC Feed Module
- ❖ 1 x **JAY-MP-3230** Plug Pack 5V, 2 amp, 240 VAC, Australian plug
- ❖ 1 x **R05-PB3F** 3 Pin power connector

Electrical Specifications		
Order Code	BDA	DC Feed
Frequency Range	2400 – 2500 MHz	2400 – 2500 MHz
Max. Output RF Power	30 +/- 2dBm (1W)	N/A
Tx Gain	17 dB +/- 2dB	N/A
Rx Gain	20 dB +/- 2dB	N/A
Noise figure of Rx LNA	< 1.8 dB	N/A
IP3	>33 dBm for Rx > 45 dBm for Tx	N/A
Max. Input RF	20 dBm for Tx 10 dBm for Rx	N/A
Switching over time	< 0.5 uS	N/A
Op. Temp	-40° to +60°C	-40° to +85°C
Humidity	Humidity 100%	Humidity 100%
DC Power Supply	2A average and 2.5A peak @ 5V	5V @ 2A max
RF Connectors	N-Female	N Female connectors for RF
Power Connection	3 Pin bayonet coupling	3 Pin bayonet coupling
MTBF	>100,000 hours	>100,000 hours
Impedance	50 Ohms	50 Ohms
DC thru Resistance	N/A	< 0.02 Ohms
I/O VSWR	N/A	< 2:1

These items are NOT weatherproof.

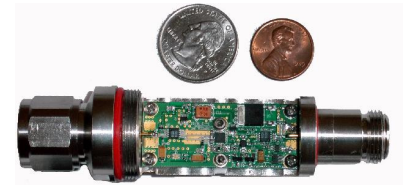
For environmental outdoor applications, use part number **AMA-3421-BDA-N-1W-EN**

5.8GHz Bi-Directional 1 Watt Amplifier

New innovation in amplifier technology – low-cost, high-performance 5.8GHz in line coax amplifiers.

The unit's outdoor design features;

- ❖ Smallest housing that does not require any mounting
- ❖ Its unique design allows for superb heat dissipation
- ❖ Field diagnostics and serviceability without tools
- ❖ Male/Female gender for ease of insertion
- ❖ Aerodynamic design, allows for minium wind resistance



Part Number WLAN-58AMP-K

Electrical Specifications

	802.11a 250mw	1W non OFDM
Operating Range	5725 – 5875 MHz (5.15 ~ 5.25 GHz version available upon request)	
Operating Mode	TDD – Time, Division, duplex	
Transmit Power	250mW	1 watt
Transmit Gain	10 dB	20 dB
Transmit Input Power	-3dB min	-3dB min
Receive Gain	17dB max	15dB max
Noise Figure	3.5 dB	3.5 dB
LED indicators (inside the cover)	Red for Receive, Green for Transmit	
Power Consumption	Rx: 110mA Tx: 850mA @ 6V DC	Rx: 110mA Tx: 1A @ 6V DC
Operating Temp	-40 °C to + 70 °C	-40 °C to + 70 °C

Mechanical Specifications

	Amplifier	DC Injector
Dimension	4.1" long, 1.1" diameter	3.5" x 2.2"
Enclosure	Watertight, machined housing	Indoor, machine AL housing
Connectors	Type N male/female	Type N Females
Weight	10 oz (283.5 g)	6 oz (170 g)

Lightning Surge Arrestor Gas Tube Protector

Lightning can generate high power surges to electronic equipment and extensively damage communications networks. Lightning protectors are therefore used to protect equipment from these harmful impulses. Protection devices should be physically located close to the equipment; the closer the better. Common locations in wireless infrastructure are at the top of the mast where transmission lines exits the antenna & at the entrance or right next to the equipment. Tower mounted equipment require additional lightning protection.



Gas Discharge Tube Protectors contain a gas capsule placed between the inner and outer conductors. Unlike quarter wave protectors, Gas tube surge arresters are broadband devices.

Gas discharge protectors work as a voltage filter. During normal operation, the gas inside the tube is & remains inert. Signals can pass through the surge arrester to the equipment. When lightning strikes, the antenna current will flow through the cable to the surge protector.

The voltage appearing across the capsule increases, when it reaches the DC spark over voltage, the gas ionises and becomes conductive. Current is then diverted through the gas capsule to ground.

RJN-ST-N1N0

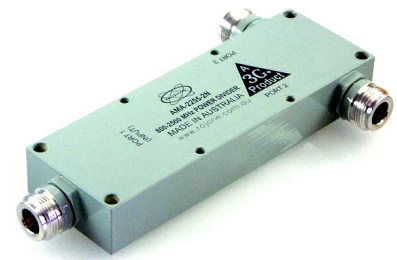
Electrical Specifications

Frequency Range	DC - 5.875 GHz
VSWR	1.25:1 Max @ DC - 4GHz
VSWR	1.45:1 Max @ 4-5.875GHz
Insertion Loss	0.5dB Min @ DC - 5.875GHz
Impedance	50 Ohms
DC Breakdown Voltage	90V \pm 15%
Impulse Breakdown Volt	1000V
Insulation Resistance	10,000 Ohms
RJN-ST-N1N0 Connector	N Male to N Female
RJN-ST-N0N0 Connector	N Female to N Female
Weight	105 grams
Overall Size Max.	61 x 27.5 x 23mm

Supplied with Waterproof Tape and 50cm Grounding Cable

Splitter – 2 Way

Rojone's AMA-2255-2N is our broadband 2 way splitter covering the 2.4 GHz WLAN frequency. Typically, this type of splitter is used to connect 2 antennas to one transceiver device. 3 and 4 way splitters are also available; please contact us for details.



AMA-2255-2N

Electrical Specifications

Frequency Range	800 - 2500 MHz
Number of Ports	2
Isolation	20dB min.
Dissipative / Insertion Loss	<0.3dB @ VSWR <1.2:1
Amplitude Balance	< ± 0.2 dB
Phase Balance	< $\pm 3^\circ$
VSWR / Return Loss	1.22:1 or 20dB min.
Average Power	100W @ 25°C
Impedance	50 Ohms
Connector Type	N Female
Weight	260g
Size	123 x 42 x 19 mm

Attenuators

Electrical Specifications

Part Number	Attenuation	Frequency Range	Connector Type	Power
R-413801	1dB	DC-18 GHz	SMA	2W
R-413803	3dB	DC-18 GHz	SMA	2W
R-413806	6dB	DC-18 GHz	SMA	2W
R-413810	10dB	DC-18 GHz	SMA	2W
R-413820	20dB	DC-18 GHz	SMA	2W

In-Line DC Feed Module

Features

- ❖ Feeds DC Voltage up standard Coax @ 2.4GHz
- ❖ Unregulated DC input up to 30 Volts DC @ 1Amp

Our AMA-5060-DCF-N is a compact in-line DC Feed module facilitating the injection of up to 30 Volts DC into a coaxial line to provide power to tower top Amplifier and active antennas.

AMA-5060-DCF-N

Electrical Specifications

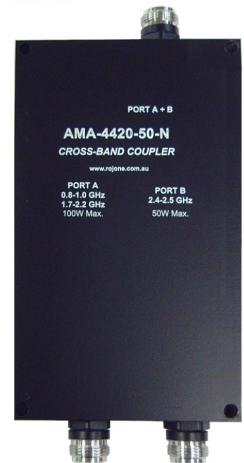
Frequency	100 to 3000 MHz full range
RF Thru Loss	< 0.2 dB
Isolation DC to RF	> 60 dB
DC Thru Resistance	0.01 Ohms
DC Voltage Input	30 Volts DC @ 1 amp max.
I/O VSWR	< 1.2:1
Impedance	50 Ohms
Connector Type	N Female Standard
Package Size	60 x 60 x 17mm, plus connector
Weight	110g
Operating Temperature	-40°C to +85°C @ 100% Humidity

X Band Coupler – 800-2200 & 2400-2500 MHz

Features

- ❖ High Isolation, Low Loss Crossband Coupler/Diplexer/Combiner
- ❖ Ideal for Cellular & WLAN Applications

The AMA-4420-50-N compact, stripline, crossband coupler typically used to diplex 800-2200 MHz AMPS / USDC, GSM, PCS / DCS 1800, PCS & 3G with Wireless LAN Applications, providing an effective solution to coupling the above bands to one feedline.



AMA-4420-50-N

Electrical Specifications

Port A	
Port A Frequency	800-960 MHz; 1.7 - 2.2GHz
Isolation to Port B	50 - 70dB
Power	100W max.
Return Loss	< -14dB
Thru Loss	< 0.5dB (0.3dB typical) @ 800-960MHz < 1dB (0.5dB typical) @ 1.7 - 2.2GHz

Port B	
Port B Frequency	2.4 - 2.5GHz
Isolation to Port A	50 - 90dB
Power	50W max.
Return Loss	< -14dB
Thru Loss	< 0.5dB (0.3dB typical) @ 800-960MHz < 1dB (0.5dB typical) @ 1.7 - 2.2GHz

Port A & B	
Return Loss	< -14dB
Vibration Test Method	MIL-STD-810E
Operating Temp	-40°C to +85°C
Storage Temp	-40°C to +100°C
Humidity	100% (connectors must be sealed after installation)
Size	151 x 86 x 19mm
RF Connectors	N Female, 50 Ohms

Note: Environmental version is available (P/N: **AMA-4420-50N-EN**)

CABLE ASSEMBLIES FOR WIRELESS/ WLAN APPLICATIONS

Cable Assembly Part Number Construction

CA 020 13 A 13 B 100 08

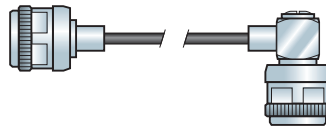


TABLE 1 COAXIAL CABLES						Attenuation dB/100m @ 25°C	
Code No.	Cable Type	Impedance	Shield	Max O/D	Dielectric	2.4GHz	5.8GHz
010	RG142B	50 Ohms	2SPC	0.195"	PTFE	74.544	124.028
018	RG213	50 Ohms	BC	0.405"	PE	40.622	71.703
020	RG214	50 Ohms	2SPC	0.425"	PE	40.461	71.453
021	RG223	50 Ohms	2SPC	0.216"	PE	71.644	119.928
023	RG316	50 Ohms	SPC	0.102"	PTFE	135.948	219.476
						Attenuation dB/100m @ 25°C	
						2.4GHz	5.8GHz
047	LMR100	50 Ohms	TCAL	0.110"	PEF	127.679	210.297
049	LMR195	50 Ohms	TCAL	0.195"	PEF	58.262	92.947
051	LMR240	50 Ohms	TCAL	0.240"	PEF	41.509	66.766
052	LMR400	50 Ohms	TCAL	0.405"	PEF	21.703	35.503
054	LMR600	50 Ohms	TCAL	0.590"	PEF	14.190	23.825
055	LMR900	50 Ohms	TCAL	0.870"	PEF	9.800	16.000
058	LMR240-ULTRA	50 Ohms	TCAL	0.240"	PEF	49.873	79.771
059	LMR400-ULTRA	50 Ohms	TCAL	0.405"	PEF	25.929	42.073
060	LMR600-ULTRA	50 Ohms	TCAL	0.590"	PEF	16.801	27.883
070	LMR400-DB	50 Ohms	TCAL	0.405"	PEF	21.703	35.504
072	LMR600-DB	50 Ohms	TCAL	0.590"	PEF	14.190	23.825

TABLE 2	
Code	Connector Type/Series
02	BNC
53	Lucent WLAN MC Card
10	MCX
31	MMCX
13	N
17	SMA
24	TNC

TABLE 3	
Code	Termination Style & Method
A	Crimp Straight Male Plug
B	Crimp Right Angle Male Plug
C	Crimp Straight Female Jack
D	Crimp Right Angle Female Jack
E	Crimp Bulkhead Male Plug
F	Crimp Bulkhead Female Jack
G	Crimp Square Flange Jack
H	Crimp Straight Reverse Pin Plug
I	Crimp Straight Reverse Pin Receptacle
M	Solder Straight Male Plug
N	Solder Right Angle Male Plug
O	Solder Straight Female Jack
P	Solder Right Angle Female Jack
Q	Solder Bulkhead Male Plug
R	Solder Bulkhead Female Jack
S	Solder Square Flange Jack
Z	Straight PCB Cable Terminator

TABLE 4	
Code	Accessory Table
Blank	No Accessories
04	Labelling - Custom Requirement
08	Glue Heatshrink Strain Relief

Connectors For Wireless LAN



Reverse Polarity BNC
Straight Plug Bayonet
Coupling (Code #03H)



Reverse Polarity TNC
Straight Plug Screw
Coupling (Code #25H)



Reverse Polarity SMA
Straight Plug Screw
Coupling (Code #18H)



Reverse Thread SMA
Straight Plug Reverse Screw
Thread (Code #18T)



Lucent MC Card Connector
Right Angle Plug Push
Coupling (Code #53B)
R-229792



Standard SMA (Silver or
Gold) Straight Plug (Code
#17A)



Reverse Polarity N Straight
Plug Screw Coupling (Code
#14H)



Reverse Polarity MMCX
Straight Push-On Plug
(Code #31H)

Adaptors For Wireless LAN

Part Number	From	To
PA-PE9530	RP BNC Female	BNC Male
PA-PE9529	RP BNC Male	BNC Female
PA-PE9581	RP MCX Male	SMA Male
PA-PE9606	RP SMA Female	RP TNC Female
PA-PE9607	RP SMA Female	RP TNC Male
PA-PE9534	RP SMA Female	SMA Female
PA-PE9599	RP SMA Female	TNC Female
PA-PE9598	RP SMA Female	TNC Male
PA-PE9604	RP SMA Male	RP TNC Female
PA-PE9605	RP SMA Male	RP TNC Male
PA-PE9533	RP SMA Male	SMA Female
PA-PE9596	RP SMA Male	TNC Female
PA-PE9567	RP SMA Male	TNC Male
PA-PE9603	RP TNC Female	SMA Female
PA-PE9600	RP TNC Female	SMA Male
PA-PE9532	RP TNC Female	TNC Male
PA-PE9602	RP TNC Male	SMA Female
PA-PE9601	RP TNC Male	SMA Male
PA-PE9531	RP TNC Male	TNC Female
PA-PE9682	R. Thread SMA Female	SMA Male
PA-PE9683	R. Thread SMA Male	SMA Female

WLAN Connector List

Order Code	Series	Style	Termination	Cable Type
TCC-195-BNRP	BNC Reverse	Straight Plug	Crimp	RG58, RG142, LMR195
PA-PE4737	BNC Reverse	Inline Jack	Crimp	RG142, RG223
PA-PE4738	BNC Reverse	Inline Jack	Crimp	RG58
PA-PE4726	BNC Reverse	Straight Plug	Solder/Clamp	LMR400, BELDEN 9913
TC-400-BNRP	BNC Reverse	Straight Plug	Crimp	LMR400
R-299792	Lucent MC Card	Right Angle Plug	Crimp	LMR100, RG174, RG316
TCC-195-TNCMRP	TNC Reverse	Straight Plug	Crimp	RG58, RG142, LMR195
TCC-195-TF-RP-BH	TNC Reverse	Straight Bulkhead Jack	Solder/Clamp	RG58, RG142, LMR195
TC-400-TM-RP	TNC Reverse	Straight Plug	Crimp	LMR400
TC-400-TF-RP	TNC Reverse	Straight Jack	Crimp	LMR400
PA-PE4678	TNC Reverse	Right Angle Plug	Crimp	RG58
PA-PE4683	TNC Reverse	Inline Jack	Solder/Clamp	RG8, RG213, RG214
PA-PE4685	TNC Reverse	Inline Jack	Crimp	RG142, RG223, RG400
PA-PE4686	TNC Reverse	Inline Jack	Crimp	RG58
R110170-100	MMCX	Right Angle Plug	Crimp	RG178
TCC-100-MMCXM-RA	MMCX	Right Angle Plug	Crimp	LMR100, RG174, RG316
SA-0604-1002B	MMCX Reverse	Straight Plug	Crimp	LMR100, RG174, RG316
PA-PE44183	SMA Reverse Thread	Straight Plug	Crimp	RG58, LMR195
PA-PE44184	SMA Reverse Thread	Straight Plug	Crimp	LMR100, RG174, RG316
PA-PE44187	SMA Reverse Thread	Right Angle Plug	Crimp	RG58
PA-PE4767	SMA Reverse Pin	Straight Plug	Crimp	RG142, RG223
TCC-195-SM-RP	SMA Reverse Pin	Straight Plug	Crimp	LMR195, RG58
PA-PE4771	SMA Reverse Pin	Straight Plug	Crimp	LMR100, RG174, RG316
TC-240-SMRP	SMA Reverse Pin	Straight Plug	Crimp	LMR240
PA-PE4783	SMA Reverse Pin	Right Angle Plug	Crimp	RG58
PA-PE785	SMA Reverse Pin	Right Angle Plug	Crimp	LMR100, RG174, RG316
TC-240-SM-RA	SMA Reverse Pin	Right Angle Plug	Crimp	LMR240
PA-PE4795	SMA Reverse Pin	Inline Jack	Crimp	RG58
PA-PE4797	SMA Reverse Pin	Inline Jack	Crimp	LMR100, RG174, RG316
TC-400-NM-RP	N Reverse Pin	Straight Plug	Crimp	LMR400
TCC-400-NM	N Standard	Straight Male Plug	Crimp	LMR400
TCC-400-TM	TNC Standard	Straight Male Plug	Crimp	LMR400

Cable Assemblies

Order Code	Pigtails all 30cm (300mm) Long	Cable Type
CA-04713A53B30-08	N Plug to Lucent MC Card Right Angle Plug	LMR100
CA-04713C53B30-08	N Jack Straight to Lucent MC Card Right Angle Plug	LMR100
CA-04713F53B30-08	N Jack Bulkhead to Lucent MC Card Right Angle Plug	LMR100
CA-04717A53B30-08	SMA Plug to Lucent MC Card Right Angle Plug	LMR100
CA-04913A17H30-08	N Plug to SMA Reverse Pin Plug	LMR195
CA-04913F17H30-08	N Jack Bulkhead to SMA Reverse Pin Plug	LMR195
CA-04913A17HT30-08	N Plug to SMA Reverse Thread Plug	LMR195
CA-04913F17HT30-08	N Jack Bulkhead to SMA Reverse Thread Plug	LMR195
CA-04913A24H30-08	N Plug to TNC Reverse Pin Plug	LMR195
CA-04913F24H30-08	N Jack Bulkhead to TNC Reverse Pin Plug	LMR195

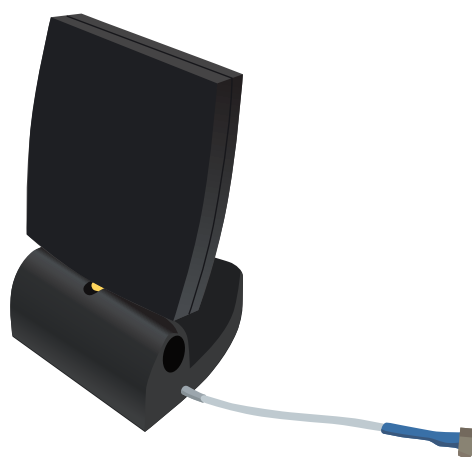


5 GHz WIRELESS LAN ANTENNAS

R0220-112

Electrical Specifications

Frequency Range	5.25 - 5.35 GHz
Gain	12 dBi
VSWR	1.5:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	40°
HPBW / Vertical	35°
Front to Back Ratio	15 dB
Power Handling	10 Watts CW
Impedance	50 Ohms
Connector	MCX Right Angle Plug
Weight	112g
Overall Size Max	118 x 86 x 76mm



R0209-116

Electrical Specifications

Frequency Range	5.25 - 5.875 GHz
Gain	17-18 dBi
VSWR	2.0:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	18°
HPBW / Vertical	18°
Front to Back Ratio	15 dB
Power Handling	5 Watts CW
Impedance	50 Ohms
Connector	N Female
Weight	825g
Overall Size Max	215 x 200 x 48.5mm



R0209-149

Electrical Specifications

Frequency Range	5750 - 5875 MHz
Gain	23 dBi
VSWR	2.0:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	9°
HPBW / Vertical	9°
Front to Back Ratio	30 dB
Cross Polarisation	25 dB
Power Handling	20 Watts CW
Impedance	50 Ohms
Connector	N Female
Weight	1.6 kg
Overall Size Max	360 x 360 x 16mm



SA-SAA04-200010

Electrical Specifications

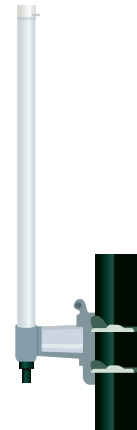
Frequency Range	5.15 - 5.875 GHz
Gain	14 dBi
VSWR	1.5:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	120°
HPBW / Vertical	6°
Front to Back Ratio	30 dB
Power Handling	10 Watts CW
Impedance	50 Ohms
Connector	N Female
Overall Size Max	Sector Antenna



SA2-20028

Electrical Specifications

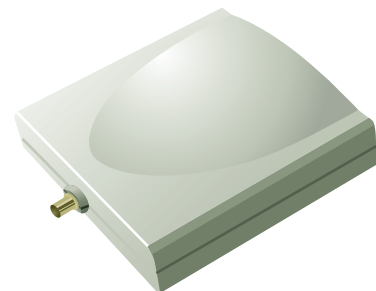
Frequency Range	5.5 - 5.8 GHz
Gain	10 dBi
VSWR	2.0:1 Max
Polarisation	Linear, Vertical
HPBW / Horizontal	360°
HPBW / Vertical	7°
Front to Back Ratio	30 dB
Power Handling	20 Watts CW
Impedance	50 Ohms
Connector	N Female
Overall Size Max	80 x 78 x 511mm



SAA04-222070

Electrical Specifications

Frequency Range	2.4 - 2.5 GHz	4.9 - 5.875 GHz
Gain	8.5 dBi	10.5 dBi
VSWR	2.0:1 Max	2.0:1 Max
Polarisation	Linear, Vertical	Linear, Vertical
HPBW / Horizontal	55°	45°
HPBW / Vertical	58°	45°
Front to Back Ratio	15 dB	
Downtilt	0°	
Power Handling	10W (cw)	
Impedance	50 Ohms	
Connector	SMA Female	



Environmental & Mechanical Characteristics

Temperature	-40°C to +80°C
Humidity	95% @ 25°C
Radome Colour	Grey
Radome Material	ABS, UV Resistant
Weight	120gw
Dimensions	114 x 124 x 40mm



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