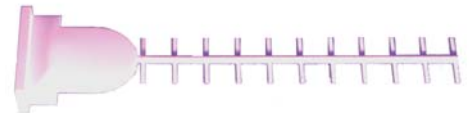
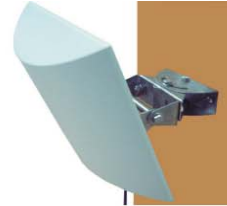


D-Link Quick Installation Guide

These products can be compliant with D-Link Air, Air Plus products to make your wireless LAN have better linking quality.

ANT24 Series

D-Link Fast Antenna Kits



1

D-Link Antenna-kit Installation Guide

Step 1

Remove the default antenna.

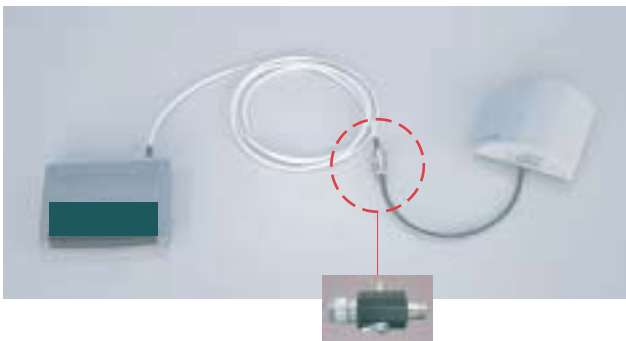


Step 2

Connect the extension cable onto the external connector on device.



Step 3



Install the surge protector as recommended position when you do not purchase the low loss cables (ANT24-CB03N, ANT24-CB06N and ANT24-09N...)

Step 4

Option: Ultra low-loss cable HDF-400
Length options: 3M/6M/9M



Install the surge protector as recommended position ,near the device side, when you have the low loss cables (ANT24-CB03N, ANT24-CB06N and ANT24-CB09N ...)

Step 5

Use water-proof tape to wrap around both connectors tightly, as the pictures showed below

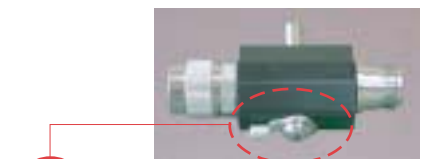


CAUTION!!

Please always put the surge protector indoors and near the device side, if you cannot keep it indoors, use the tapes to wrap all the connectors as pictures showed below.



When install the surge protector between cables, wrap the connectors as well. The lightning protection adaptor for grounding the antenna.



Option: Surge protector
Connectors: N-plug to N-jack

With Surge protector (ANT24-SP) adaptor on an outdoor serial is attached to the lightning protection system (ground) of the building. All devices downstream are then protected by the ground from lightning strikes. It can protect your sensitive WLAN equipments from high voltage surges caused by discharge and transients at the antennas. It will be integrated in the cabling system between the antenna and the coax-cable and must have direct ground contact.

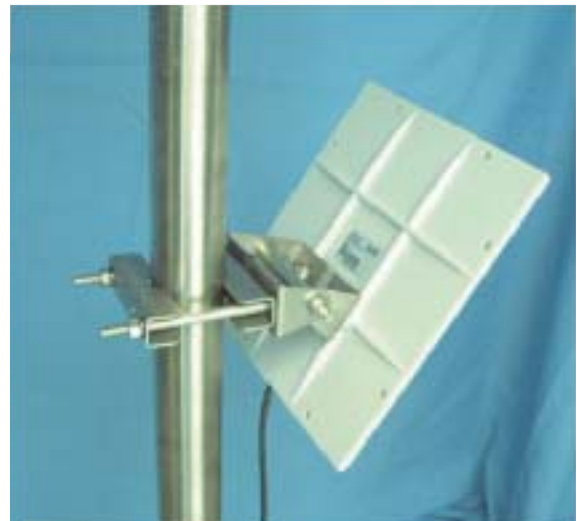
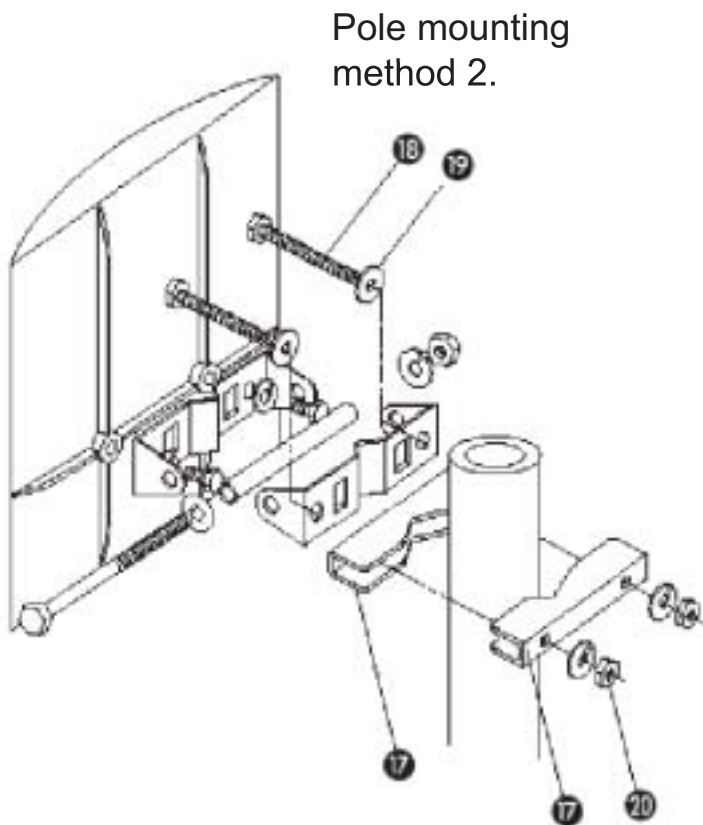
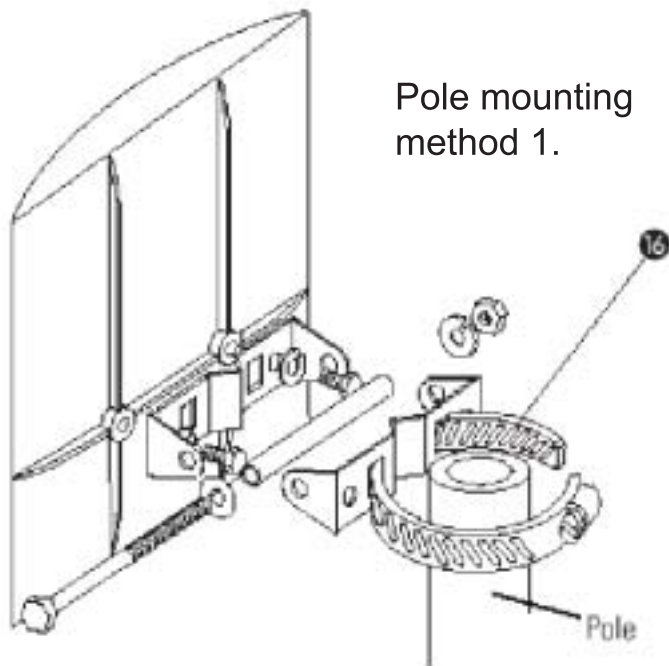
D-Link ANT24-1400 Outdoor Directional Panel Antenna

Pole mounting
method 1.

Pole mounting
method 2.

9

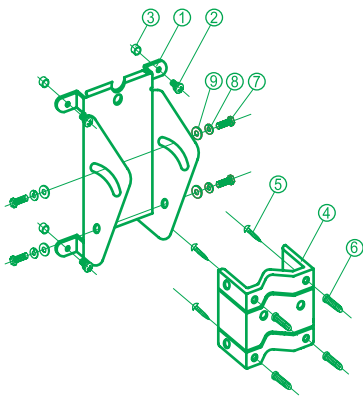
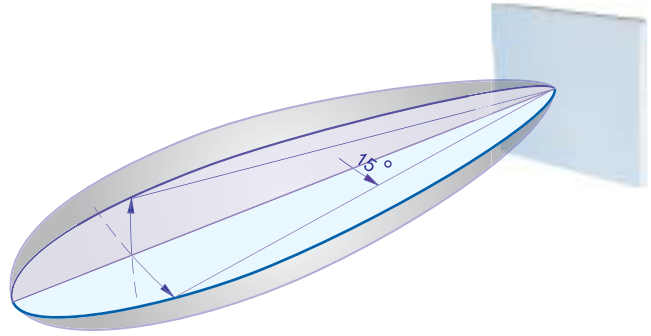
D-Link ANT24-1400 Outdoor Directional Panel Antenna



10

D-Link ANT24-1800 Outdoor Directional Panel Antenna

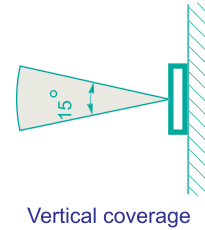
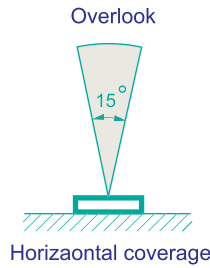
Remove one default antenna from the wireless device and start to assemble!



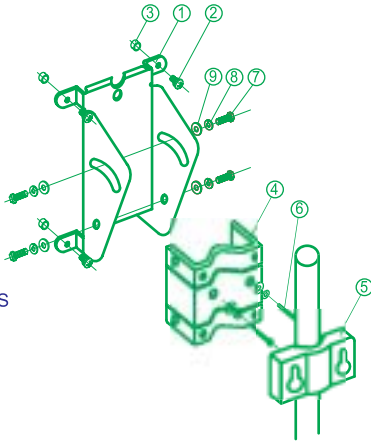
Wall mounting



- ① Mounting base - 1 PC
- ② M4*8 screw+W+S/W - 4 PCS
- ③ Space keeper - 4 pcs
- ④ M-shape mounting - 1 pc
- ⑤ 3/4" screw - 4 pcs
- ⑥ Plastic wallplug - 4 pcs
- ⑦ M6*16 screw - 4 pcs
- ⑧ M6 S/W - 4 pcs
- ⑨ M6 W - 4 pcs



Pole mounting



- ① Mounting base - 1 PC
- ② M4*8 screw+W+S/W - 4 PCS
- ③ Space keeper - 4 pcs
- ④ M-shape mounting - 1 pc
- ⑤ Pole mount clip - 1 pc
- ⑥ M6*60 screw - 2 pcs
- ⑦ M6*16 screw - 4 pcs
- ⑧ M6 S/W - 4 pcs
- ⑨ M6 W - 4 pcs

Frequency band	2400-2500 MHz
Antenna gain	18 dBi
VSWR	1.5 max
Polarization	Linear vertical
HPBW / H-plane	15°
HPBW / E-plane	15°
Impedence	50 Ohms
Dimensions LxWxH	360x360x16 mm
Weight	1600g without joint

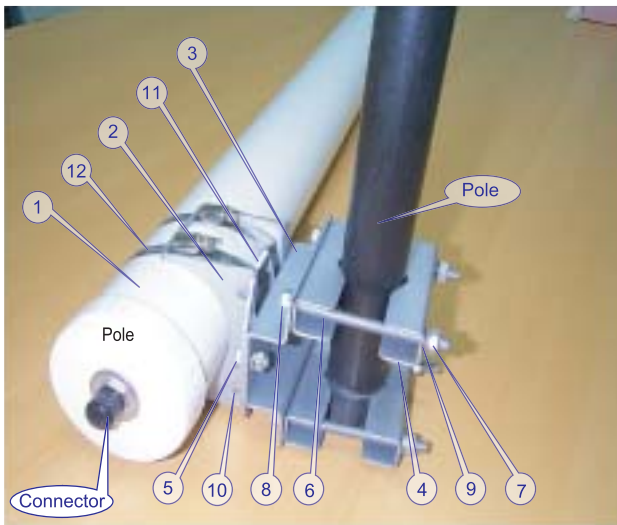
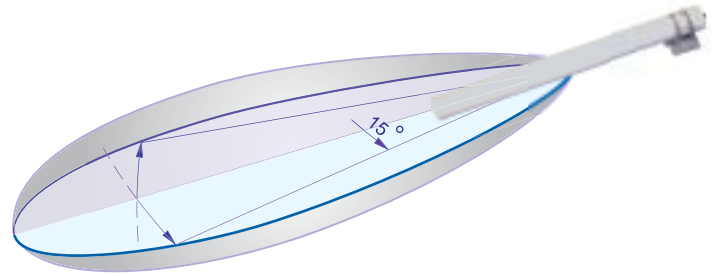
Package Contents:

- ANT24-1800 Antenna
- Extension Cable (50cm)
- Mounting Kit
- Surge protector
- Water-proof tape
- Quick Installation Guide

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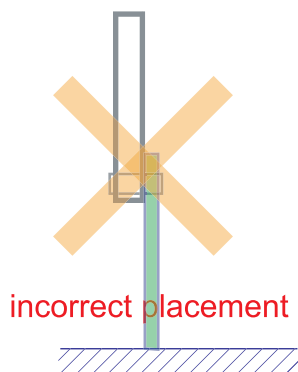
D-Link ANT24-1801 Outdoor Directional Yagi Antenna

Remove one default antenna from the wireless device and start to assemble!



Installation Note:

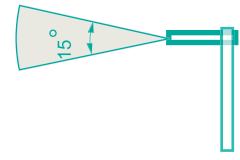
1. Main body
2. Angle mounting
3. Mounting bracket
4. 2" pole clamp
5. M8x 20 bolt
6. M8x 110 bolt
7. M8 nut
8. M8 washer
9. M8 spring washer
10. M6-95 screw
11. M6 nut
12. Band clamp



Overlook



Horizontal coverage



Vertical coverage

Frequency band	2400-2500 MHz
Antenna gain	18 dBi
VSWR	1.5 max
Polarization	Linear vertical
HPBW / H-plane	15°
HPBW / E-plane	15°
Impedence	50 Ohms
Dimensions LxWxH	ø89x1000 mm
Weight	3500g without joint

Package Contents:

- ANT24-1801 Antenna
- Extension Cable (50cm)
- Mounting Kit
- Surge protector
- Water-proof tape
- Quick Installation Guide

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D-Link DWL- 50AT Indoor Omni Antenna



Remove one default antenna from the wireless device and start to assemble!



D-Link's Omni Directional Antenna offers the most cost effective solution for extending the wireless LAN coverage area. The antenna is fully compatible with all products and can be used with any 2.40 to 2.4835 GHz products.

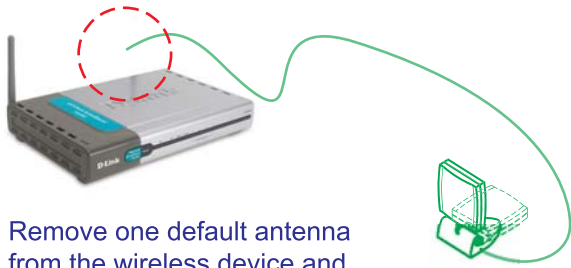
Frequency band	2400-2500MHz
Antenna gain	5.0dBi Typical
VSWR	2.0:1 Max.
Polarization	Linear
HPBW / H-plane	Toroidal
HPBW / E-plane	60 degree
Impedence	50 Ohms nominal
Dimensions HxWxD	197 mm(length)
Weight	29.5gw

Installation:

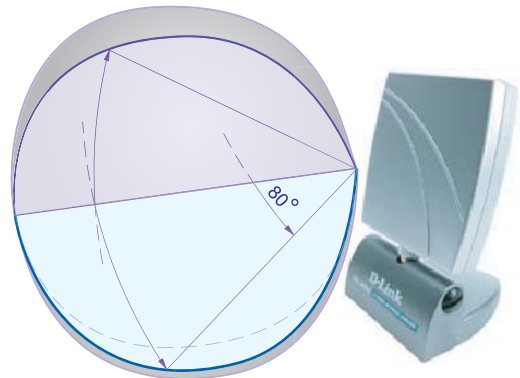
1. Remove the original antenna from your wireless device.
2. Screw the DWL-50AT RP- SMA connector into your wireless device.
3. Adjust the antenna to the suitable direction for extending the wireless coverage area.

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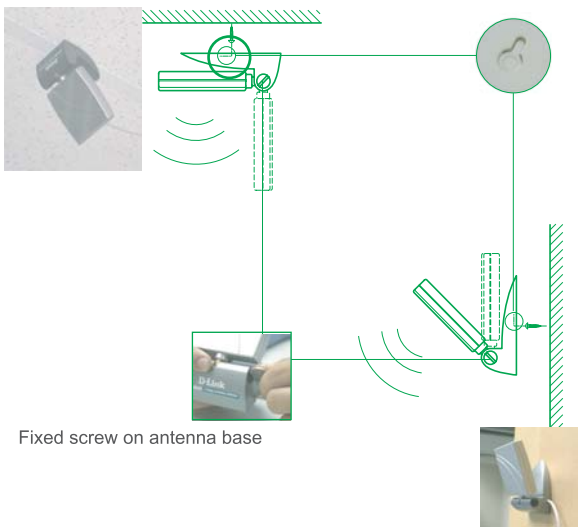
D-Link DWL-M60AT Indoor Directional Antenna



Remove one default antenna from the wireless device and start to assemble!

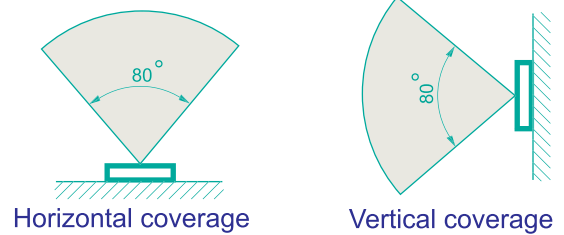


Ceiling mount



Wall Mount

Overlook



Frequency band	2400-2500MHz
Antenna gain	6dBi
VSWR	1.5 max
Polarization	Linear vertical
HPBW / H-plane	80°
HPBW / E-plane	80°
Impedence	50 Ohms
Dimensions HxWxD	115x76x33mm
Weight	110g without joint

⚠ CAUTION:

1. Always place the antenna on a flat or secure surface.
2. Concealing the antenna behind books, cabinets or other office equipment may affect the performance of the wireless networks.
3. The antenna transmission range may vary according to different environments or applications.

Package Contents:

- DWL-M60AT Antenna
- Fixed cable (1.5m)
- Mounting Kit
- Quick Installation Guide

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D-Link DWL-R60AT Indoor Directional Antenna



Remove one default antenna from the wireless device and start to assemble!



D-Link's Single Patch Flat Antenna offers the most cost effective solution for extending the wireless LAN coverage area. The antenna is fully compatible with all products and can be used with any 2.40 to 2.4835 GHz products.

Frequency band	2400-2500MHz
Antenna gain	6.0dBi Typical
VSWR	2.0:1 Max.
Polarization	Linear
HPBW / H-plane	90°
HPBW / E-plane	75°
Impedence	50 Ohms nominal
Dimensions HxWxD	80x85x12.8 mm
Weight	75gw

Installation:

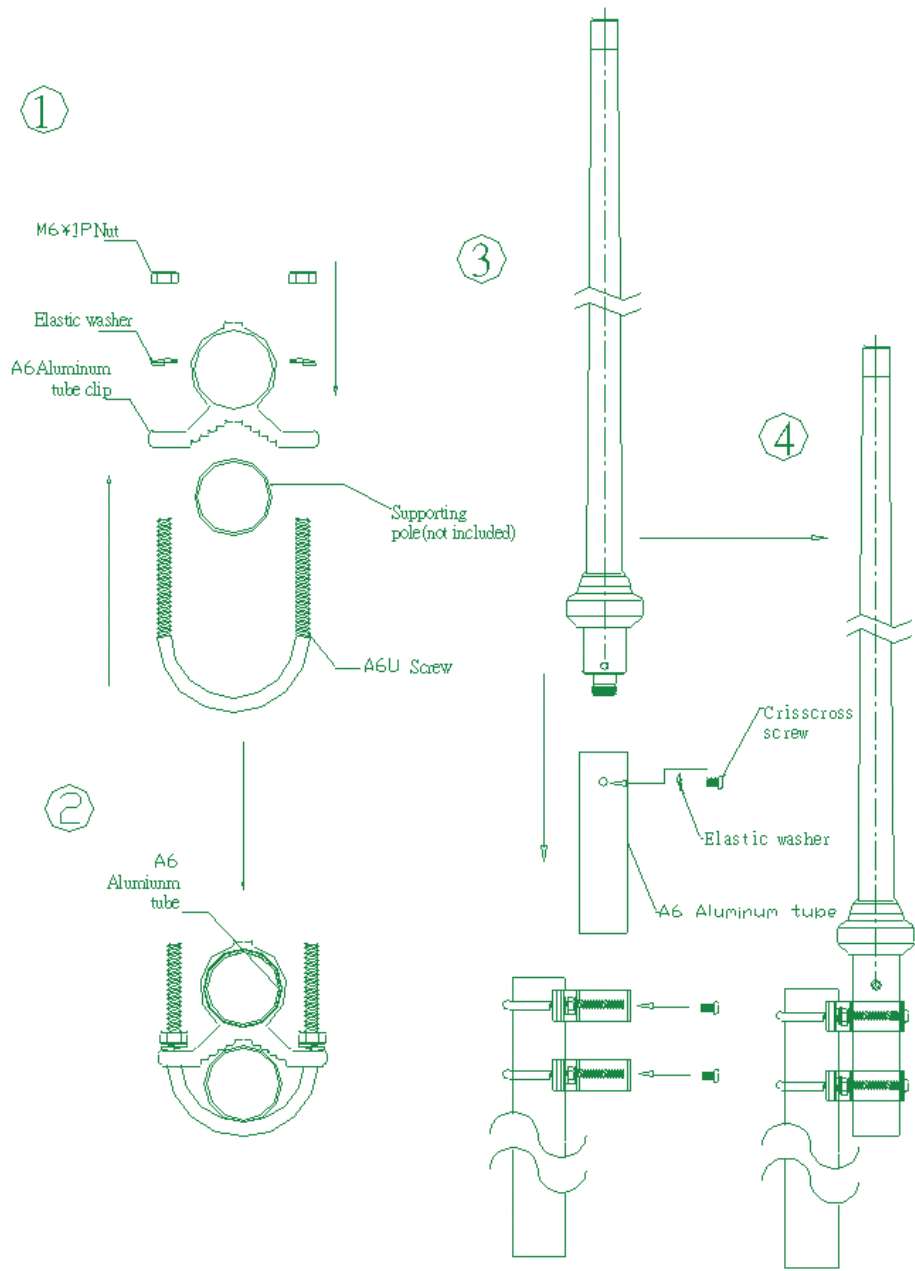
1. Remove the original antenna from your wireless device.
2. Screw the DWL-R60AT RP- SMA connector into your wireless device.
3. Adjust the antenna to the suitable direction for extending the wireless coverage area.

Package Contents:

- DWL-R60AT Antenna
- Quick Installation Guide

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D-Link DWL-1500 Outdoor Omni Antenna



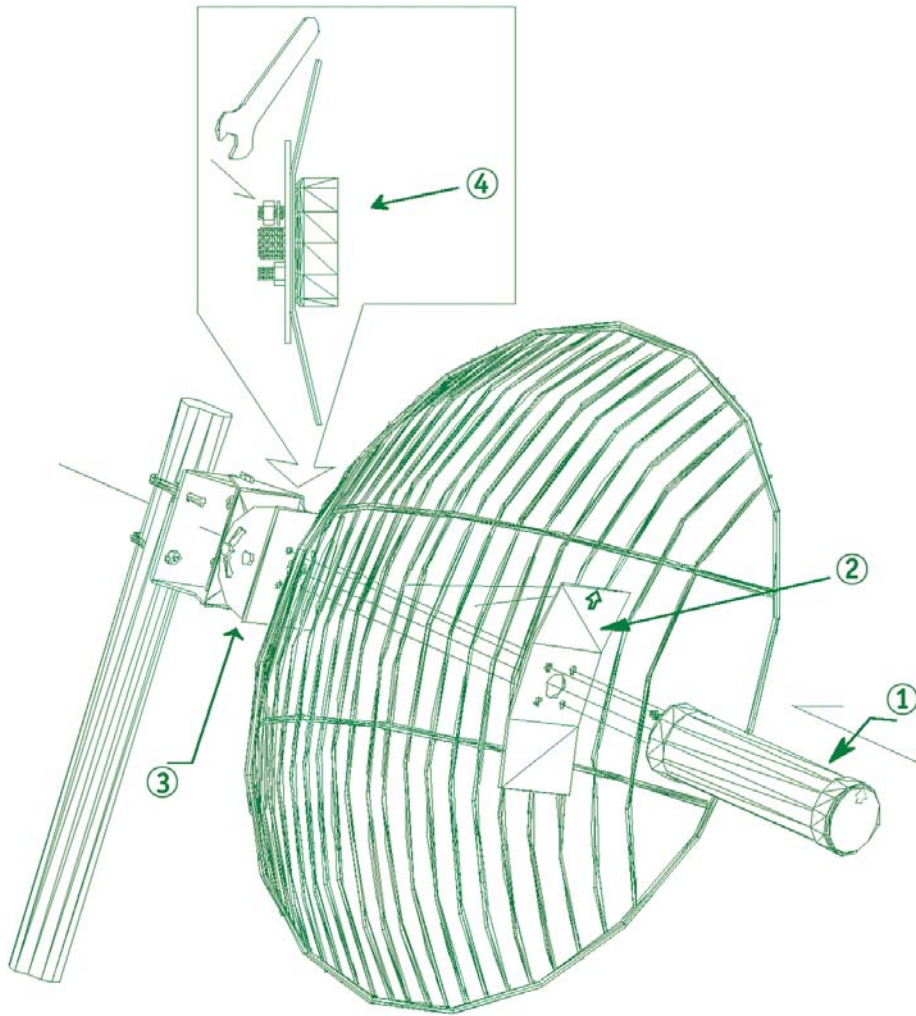
Frequency band	2400-2500MHz
Antenna gain	15dBi
VSWR	1.5 max
Polarization	Vertical
HPBW / H-plane	360°
HPBW / E-plane	60°
Impedence	50 ± Ohms
Dimensions	165cm (length)
Weight	750g ± 20g

Package Contents:

- DWL-1500 Antenna
- DHF extension cable(3m, N male-RPSMA)
- Mounting kit
- Waterproof tape
- Quick Installation Guide

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D-Link ANT24-2100 Outdoor Grid Antenna


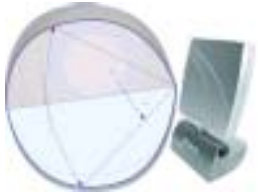





Frequency band	2400-2500MHz
Antenna gain	21dBi
VSWR	1.5 max
Polarization	Vertical
HPBW / H-plane	8°
HPBW / E-plane	5°
Impedence	50 ± Ohms
Dimensions	15cm x 61cm Diam.
Weight	2700g ± 10g

Package Contents:

- ANT24-2100 Antenna
- DHF extension cable(3m, N male/RP-SMA)
- Mounting kit
- Waterproof tape
- Quick Installation Guide

Indoor/ Outdoor Antenna Table:

					
Model Name	DWL-R60AT	DWL-M60AT	ANT24-0400	ANT24-0401	ANT24-0500
Signal directivity	Directional Antenna	Directional Antenna	Omni-directional	Omni-directional	Omni-directional
Application range	Indoor only	Indoor only	Indoor only	Indoor ceiling only	Indoor/ Outdoor
Gain (Without cable loss)	6dBi	6dBi	4dBi	3.5dBi	5dBi
Approximate Range at 1 Mbps *	60M	60M	40M	40M	40M
Approximate Range at 11 Mbps *	25M	25M	15M	15M	15M
Half power beam width **	H60 V90	H80 V80	H360 V40	H360 V120	H360 V30
Pigtail cable length	NA	150cm	150cm	NA	30cm
Antenna fixed connector	RP-SMA plug	RP-SMA plug	RP-SMA plug	SMA jack	N-jack
Surge protector for outdoors	---	---	---	---	Optional
Default extension cable length	NA	NA	NA	2M	3M
Default mounting configuration	NA	Wall/ desktop	Wall/ desktop	Ceiling	Pole
Antenna-kit weight (Kg)	300g	330g	320g	310g	540g
Optional accessories	ANT24-JC For DWL-660 links	ANT24-JC For DWL-660 links	ANT24-JC For DWL-660 links	ANT24-JC For DWL-660 links	ANT24-JC ANT24-SP ANT24-CB series




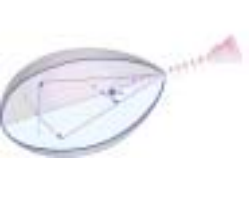

*1.Extended range reference based on RF-Output Power 14dbm with default cable loss

*2.The transmission distance range might depend on the two same spec antennas with default cable loss

**HPBW: Half Power Beam Width. H : horizontal plane pattern, V : vertical plane pattern

The actual Indoor range will be effected by users' physical environment. The above figures are reference.

Indoor/ Outdoor Antenna Table:

					
Model Name	ANT24-0800	ANT24-0801	ANT24-1200	ANT24-1201	ANT24-1400
Signal directivity	Omni-directional	Directional	Directional	Directional	Directional
Application range	Outdoor	Outdoor	Indoor only	Outdoor	Outdoor
Gain (Without cable loss)	8dBi	8.5dBi	12dBi	12dBi	14dBi
Approximate Range at 1 Mbps *	1Km under FCC 800M under ETSI	1.2Km under FCC 800M under ETSI	2Km under FCC 1Km under ETSI	2.5Km under FCC 1Km under ETSI	3Km under FCC 1.5Km under ETSI
Approximate Range at 11 Mbps *	300M under FCC 200M under ETSI	350M under FCC 200M under ETSI	600M under FCC 300M under ETSI	750M under FCC 300M under ETSI	900M under FCC 300M under ETSI
Half power Beam width **	H360 V15	H70 V70	H80 V23	H50 V50	H30 V30
Pigtail cable length	NA	30cm	NA	30cm	30cm
Antenna fixed connector	N-jack	N-jack	SMA jack	N-jack	N-jack
Surge protector for outdoors	Included	Included	---	Included	Included
Default Extension Cable Length	50cm	3M	3M	50cm	50cm
Default mounting configuration	Pole	Wall/ pole	Window/ wall	Wall/ pole	Wall/ pole
Antenna-kit weight (kg)	1.4Kg	1.04Kg	530g	380g	2.35Kg
Optional accessories	Ultra low loss cable For ANT24-CB series	Ultra low loss cable For ANT24-CB series	Ultra low loss cable For ANT24-CB series	Ultra low loss cable For ANT24-CB series	Ultra low loss cable For ANT24-CB series

*1.Extended range reference based on RF-Output Power 14dbm with default cable loss

*2.The transmission distance range might depend on the two same spec antennas with default cable loss

**HPBW: Half Power Beam Width. H : horizontal plane pattern, V : vertical plane pattern

The actual Indoor range will be effected by users' physical environment. The above figures are reference.

