

1

D-Link Antenna-kit Installation Guide

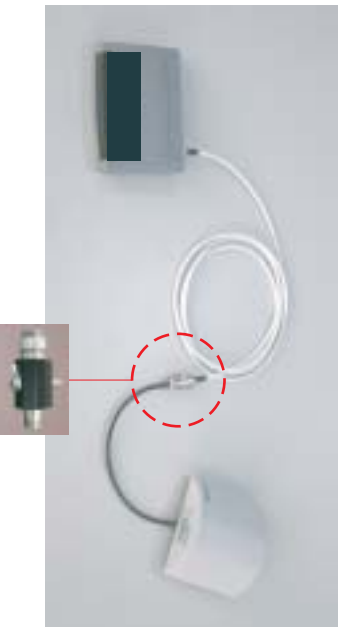
Step 1
Remove the default antenna.



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 5
Use water-proof tape to wrap around both connectors tightly, as the pictures showed below



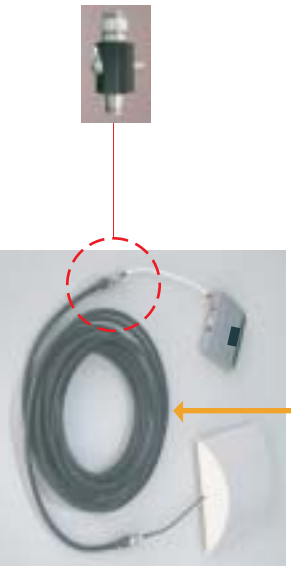
CAUTION!!
Please always put the surge protector indoors and near the device side, if you cannot keep it indoors, use the tapes to wrap all the connectors as pictures showed below.



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

Step 4

Option: Ultra low-loss cable LMR400
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 ...)



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 discharged 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.

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D-Link WLAN Antenna-kit

Extended range differentiation for FCC/ CE regulated regions
Indoor installation for OUTDOOR Inter-building link



CE ETSI EN 300 328 regulated regions (European countries)

Indoor antenna application for Outdoor inter-building transmission based on (ETSI EN 300 328), EIRP (Emitted Isotropic Radiated Power) limited within **20dB**. Therefore, the extended range might be shorter than FCC-regulated antennas.



Indoor application for outdoor inter-building linking:

Antenna-kits extended range based on ETSI EN 300 328: 750m



Indoor application for outdoor inter-building linking:

Antenna-kits extended range based on ETSI EN 300 328: 1000m




CE ETSI
EN 300 328
Regulated regions

FCC regulated regions (US, Canada...)

Using the same antenna-kit in FCC-regulated regions, the extended range might be **LONGER** than CE-regulated antennas due to **HIGHER output power allowance** !
(FCC Regulations: point-to-multipoint EIRP 36dB max. p-t-p EIRP allows 48dBm max.)



Indoor application for outdoor inter-building linking:

Antenna-kits extended range based on : 1800m




FCC
regulated regions

1

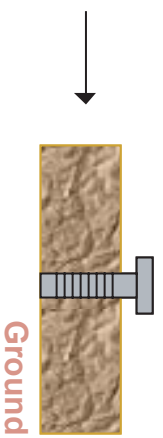
ANT24-SP Surge protector Installation guide for outdoor antenna-kit



Step 1
loosen the screw from the surge protector.



Step 2
get a normal conductive copper wire with 2 sides stripped long enough to be conductive, these wires can lead high voltage surges into the grounding.



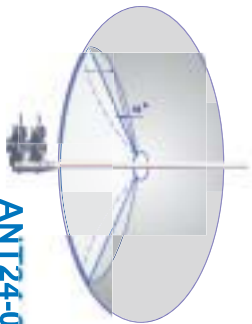
Step 3
find a conductive material nearby the antenna installation sites, connect another end of the wire into position, there are several options:
(1) Use a long screw to stick into the ground tightly, connect another wire onto.
(2) fix or solder another end of wire onto a steel material/ bar under steel construction, such as wall for buildings, railings or other conductive materials which set up from the ground.

Remark:

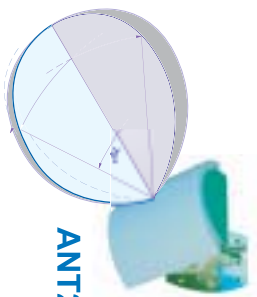
- (1) for the ground screw you use, we suggest the longer (deeper into ground) the better performance it has.
- (2) please use a copper wire with diameter at least from 2.0mm, the thicker the diameter, the higher voltage it can sustain.

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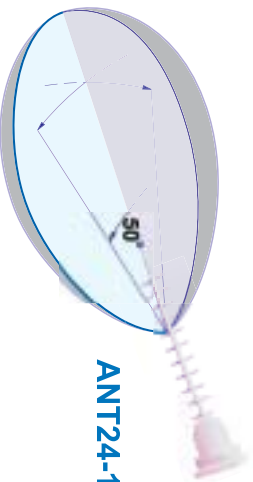
Optional ultra low attenuation cable for ANT24-Outdoor high gain series



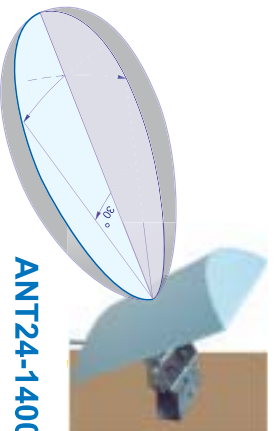
ANT24-0800



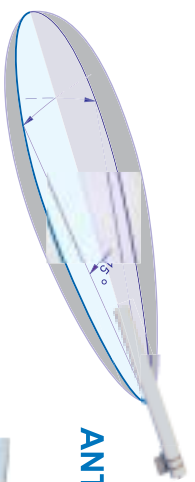
ANT24-0801



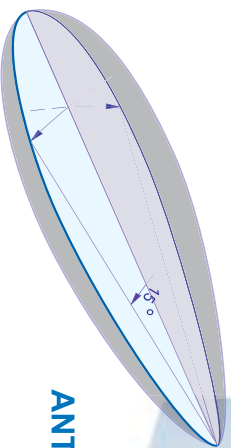
ANT24-1201



ANT24-1400

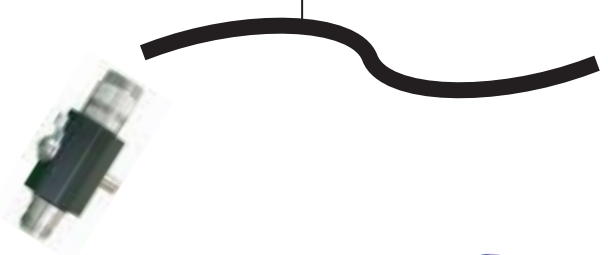


ANT24-1801

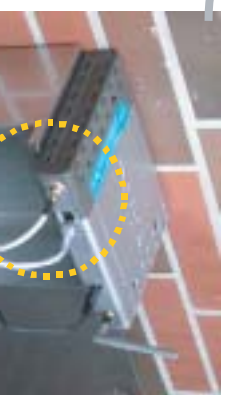


ANT24-1800

We have the following length options to create flexible antenna deployment:



Default extension cables



P/N: ANT24-CB03N: 3meter @ 0.78dB attenuation
P/N: ANT24-CB06N: 6meter @ 1.56dB attenuation
P/N: ANT24-CB09N: 9meter @ 2.34dB attenuation

NOTE:

The longer cable you use, the more attenuation it causes, therefore, the extended range might be shorter than a normal link with default extension cables.

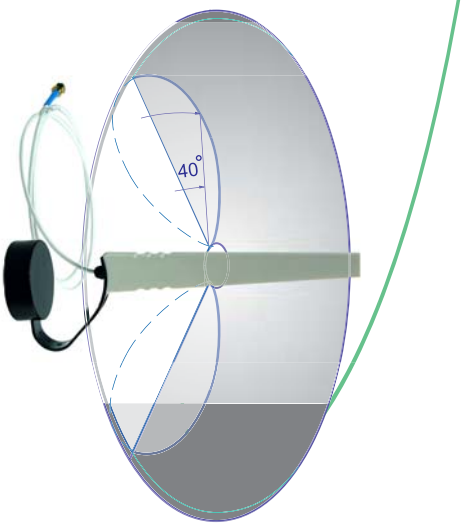
2

D-Link ANT24-0400 Indoor Omni-Directional Antenna

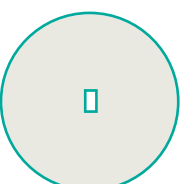


Remove one default antenna from the wireless device and start to assemble!

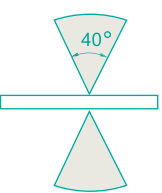
Using ANT24-JC jumper cable to switch to smaller connector which can be compliant with DWL-660 WLAN card.



Overlook



Horizontal coverage

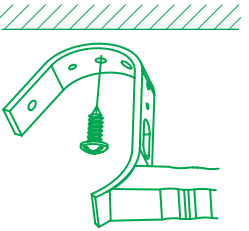


Vertical coverage

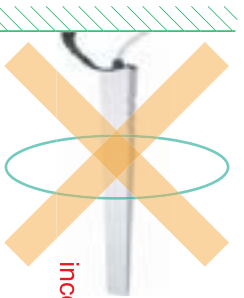
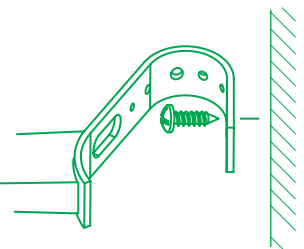


ANT24-JC jumper cable

Wall mount



Ceiling mount



Incorrect placement

⚠ CAUTION:

Please always place the antenna vertically to the desk/ceiling; not recommend to mount the antenna perpendicular to the wall.

Frequency band	2400-2500MHz
Antenna gain	4dBi
VSWR	2.0 max
Polarization	Linear vertical
HPBW / H-plane	360°
HPBW / E-plane	40°
Impedence	50 Ohms
Dimensions LxWxH	145x55x48 mm
Weight	180g without joint

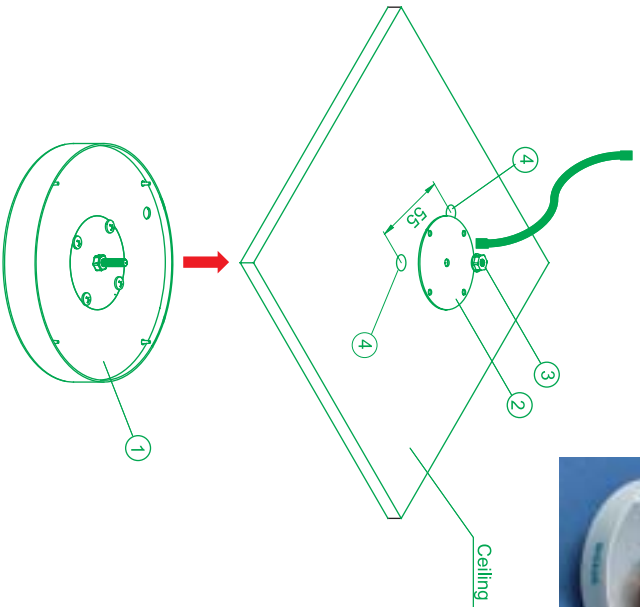
Package Contents:

- ANT24-0400 Antenna
- With 1.5m cable
- Mounting Kit
- Quick Installation Guide

3

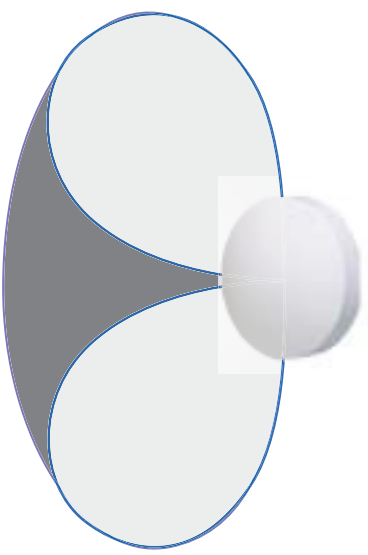
D-Link ANT24-0401 Ceiling Mount Antenna

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



- Installation Note:**
1. Carefully remove the antenna from the package.
 2. Take out the Washer (1 pcs) from the package
 3. Take out the Flange washer (1 pcs) as well.
 4. Drill 2 holes through the ceiling board, one to fix the antenna main body with washer, another for the antenna SMA connector linked onto extension cable which is included within the package.

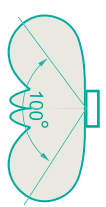
To have correct connection of the attached extension cable (Based on connector color management)



Overlook



Horizontal coverage

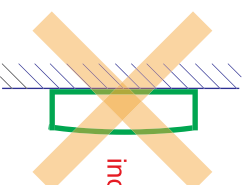


Vertical coverage

Frequency band	2400-2500MHz
Antenna gain	2.5 ~ 3.7 dBi
VSWR	2.0 max
Polarization	Linear vertical
HPBW / H-plane	360°
HPBW / E-plane	50 ~ 75 °
Impedance	50 Ohms
Dimensions	Ø132x42 mm
Weight	110g without joint

Package Contents:

- ANT24-0401 Antenna
- Extension Cable (2M)
- Mounting Kit
- Quick Installation Guide



incorrect placement

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D-Link ANT24-0500 Indoor/Outdoor Omni-Directional Antenna

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



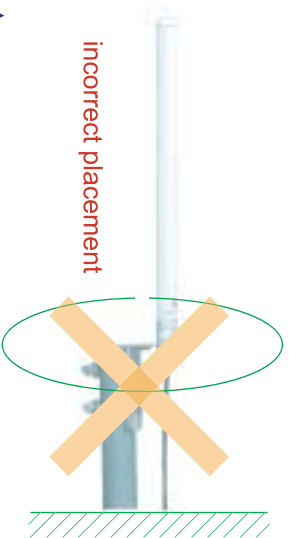
Wall Mount



Pole Mount

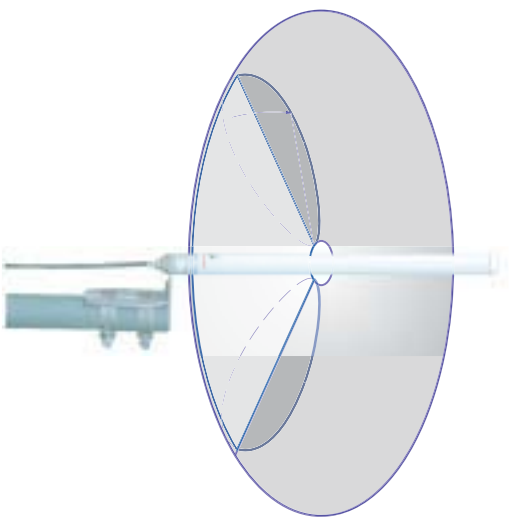
Installation Note:

1. use L- type mounting to fix with antenna
2. use 4 plastic anchor with (4) screws to install the antenna onto the wall.
3. use band clamp (2pcs) to fix the antenna on the pole.



▲ CAUTION:

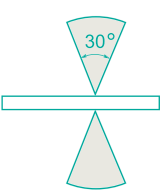
Please always place the antenna vertically to the horizontal surface; not recommend to mount the antenna perpendicular to walls.



Overlook



Horizontal coverage



Vertical coverage

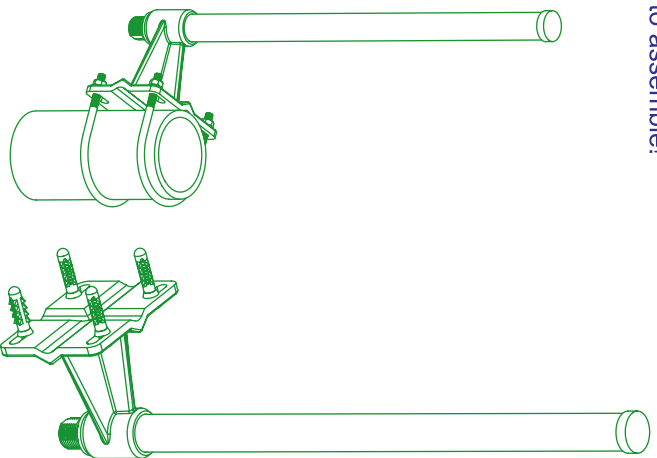
Frequency band	2400-2500MHz
Antenna gain	5.0 dBi
VSWR	2.0 max
Polarization	Linear vertical
HPBW / H-plane	360°
HPBW / E-plane	32°
Impedance	50 Ohms
Dimensions LxWxH	ø19x330 mm
Weight	180g without joint

Package Contents:

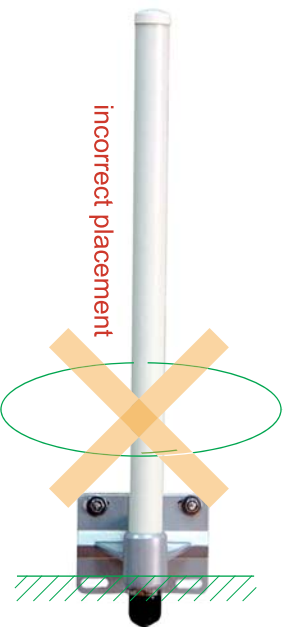
- ANT24-0500 Antenna
- Extension Cable (3m)
- Mounting Kit
- Quick Installation Guide

D-Link ANT24-0800 Indoor/Outdoor Omni-Directional Antenna

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

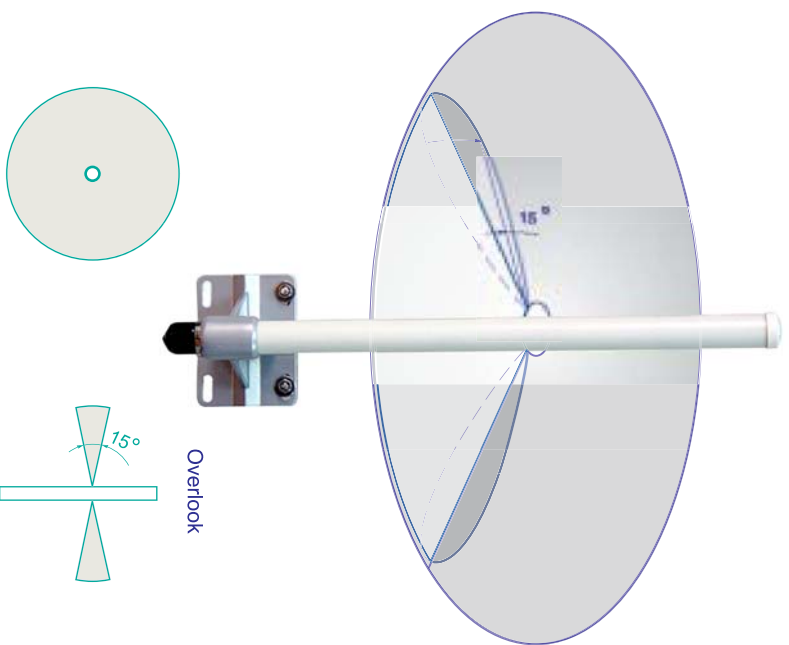


Mast diameter = 20 ~ 60 mm



CAUTION:

Please always place the antenna vertically to the horizontal surface, not recommend to mount the antenna perpendicular to the wall.



Frequency band	2400-2500MHz
Antenna gain	8.0 dBi
VSWR	2.0 max
Polarization	Linear vertical
HPBW / H-plane	360°
HPBW / E-plane	15°
Impedence	50 Ohms
Dimensions LxWxH	∅19x520 mm
Weight	337g without joint

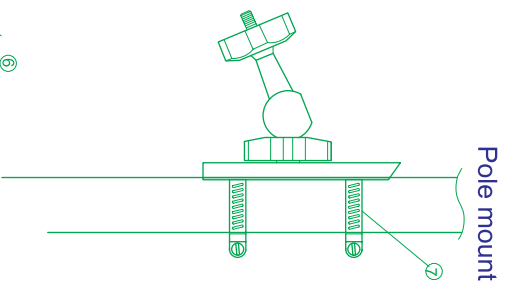
Package Contents:

- ANT24-0800 Antenna
- Extension Cable (50cm)
- Mounting Kit
- Surge Protector
- Water-proof tape
- Quick Installation Guide

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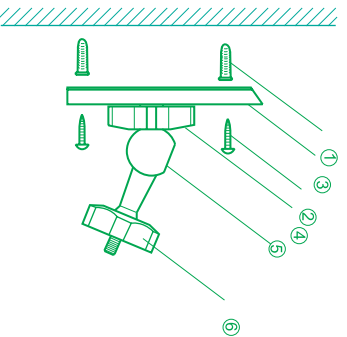
D-Link ANT24-0801 Indoor Directional Panel Antenna

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



Pole mount

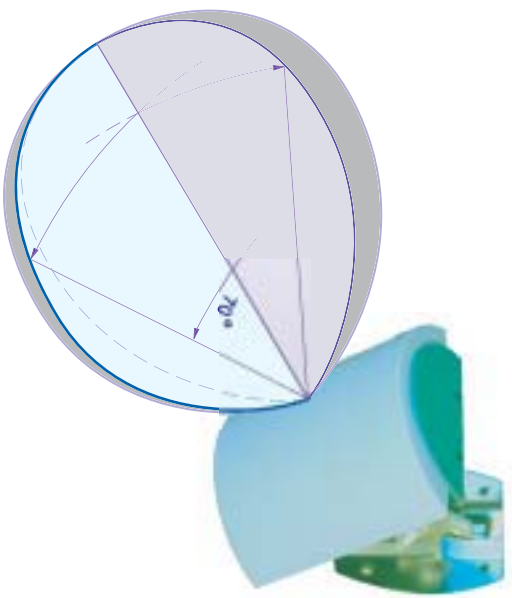
Wall mount



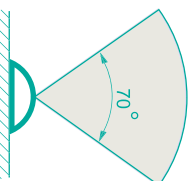
Installation Note:

The following parts are needed for wall mounting:

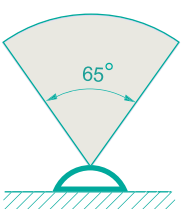
1. plastic wall anchors (4) screws
2. wall screws
3. mounting base
4. locking wheel on the mounting base
5. adjustable pivot arm
6. locking wheel for pivot arm



Overlook



Horizontal coverage



Vertical coverage

Frequency band	2400-2500MHz
Antenna gain	8.5 dBi
VSWR	1.5 max
Polarization	Linear vertical
HPBW / H-plane	70°
HPBW / E-plane	65°
Impedence	50 Ohms
Dimensions LxWxH	120x120x43mm
Weight	300g without joint

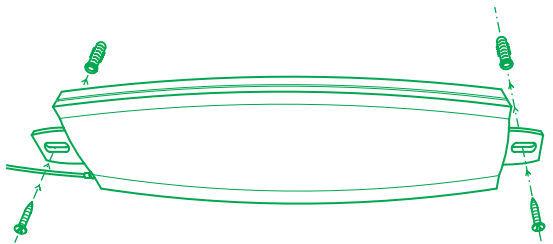
Package Contents:

- ANT24-0801 Antenna
- Extension Cable (3m)
- Mounting Kit
- Surge Protector
- Water-proof tape
- Quick Installation Guide

7

D-Link ANT24-1200 Indoor Directional Panel Antenna

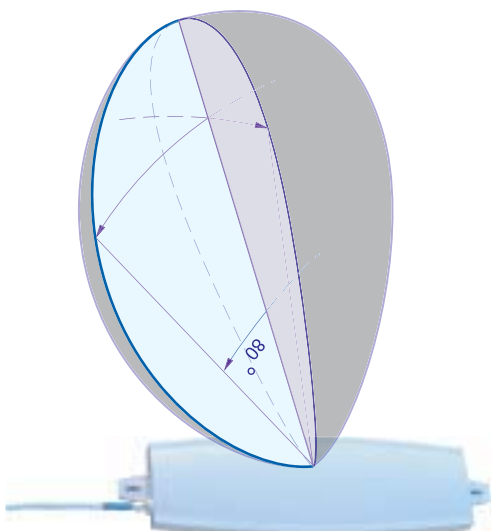
Remove one default antenna from the wireless device and start to assemble!



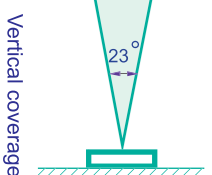
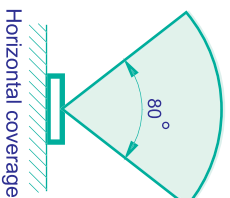
Wall mount with plastic wall plug



Window suction mount with widow suction cup



Overlook



Frequency band	2400-2500MHz
Antenna gain	11.5 dBi
VSWR	1.5 max
Polarization	Linear vertical
HPBW / H-plane	80°
HPBW / E-plane	23°
Impedance	50 Ohms
Dimensions LxWxH	330x93x20 mm
Weight	190g without joint

To have correct connection of the attached extension cable (Based on connector color management)



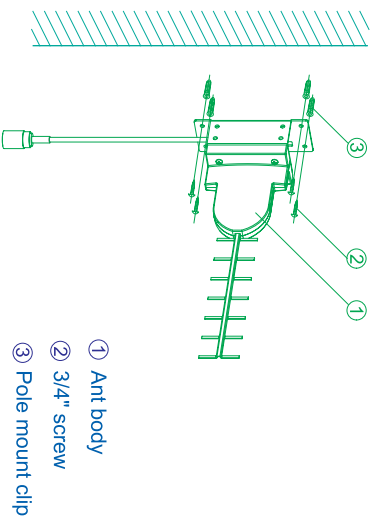
Package Contents:

- ANT24-1200 Antenna
- Extension Cable (3m)
- Mounting Kit
- Quick Installation Guide

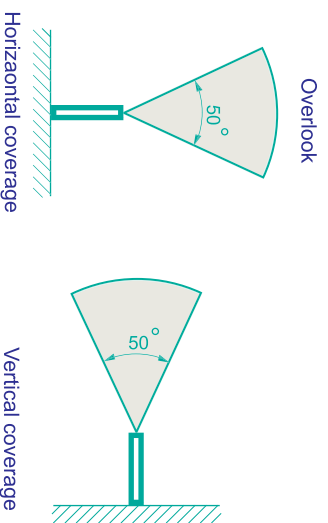
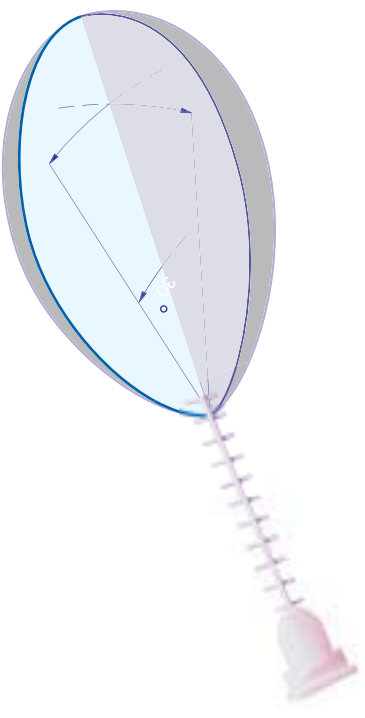
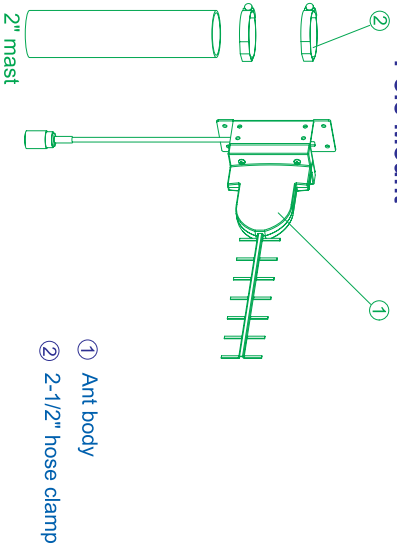
D-Link ANT24-1201 Outdoor Directional Yagi Antenna

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

Wall Mount



Pole Mount



Frequency band	2400-2500 MHz
Antenna gain	12 dBi
VSWR	1.5 max
Polarization	Linear vertical
HPBW / H-plane	50°
HPBW / E-plane	50°
Impedance	50 Ohms
Dimensions LxWxH	280x87x48 mm
Weight	300g without joint

Package Contents:

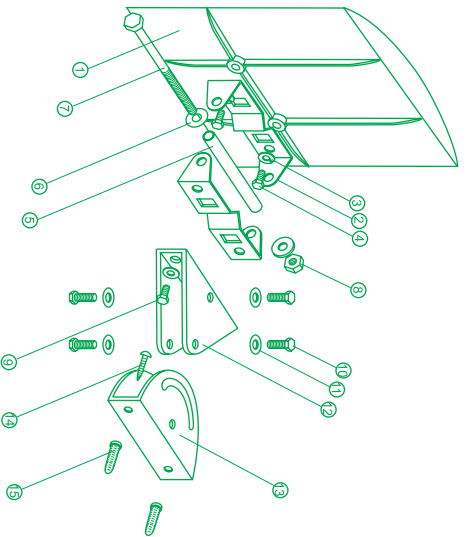
- ANT24-1201 antenna
- Extension cable (50cm)
- Mounting kit
- Surge protector
- Water-proof tape
- Quick installation guide

9

D-Link ANT24-1400 Outdoor Directional Panel Antenna

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

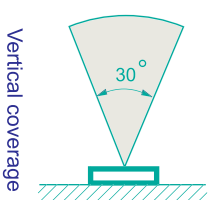
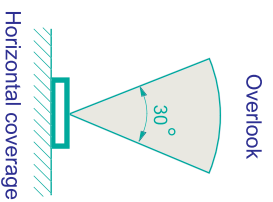
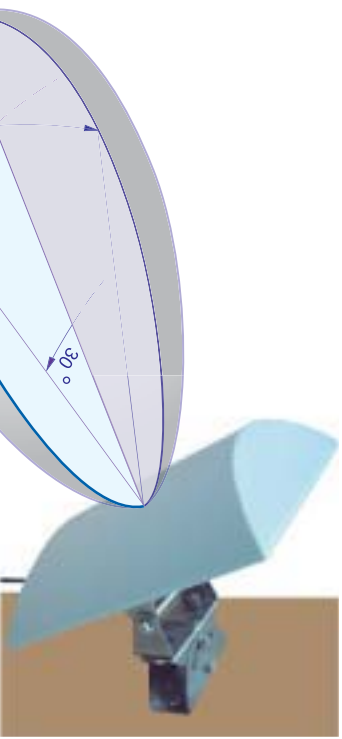
Wall mount



Installation Note:

Required parts for wall mounting:

1. ANT-1400 antenna body with 2 screw holes
2. M-shaped metal fixing
3. spring washers 8mm
4. bolts M8 x 12
5. steel tubes
6. 8mm washer
7. bolt M8 x 110
8. nut M8 with lock washer
9. bolts M8 x16 with lock washer, washers and nuts
10. bolts M6 x10 with washers
11. 6mm washers
12. triangular stand
13. half-round metal stand
14. wall screws
15. plastic wall anchor



Frequency band	2400-2500 MHz
Antenna gain	14 dBi
VSWR	1.5 max
Polarization	Linear vertical
HPBW / H-plane	30°
HPBW / E-plane	30°
Impedence	50 Ohms
Dimensions LxWxH	240x240x69 mm
Weight	825g without joint

Package Contents:

- ANT24-1400 Antenna
- Extension Cable (50cm)
- Mounting Kit
- Surge protector
- Water-proof tape
- Quick Installation Guide