Installation guide for the 9 dBi Omni-directional antenna 1GP-2409

Omni Directional Antenna

for 2.4~2.5GHz Version 1

1GP-2409

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Electrical Specification:

Frequency	2.4~2.5GHz
Part Number	1GP-2409
Polarization	Linear
V.S.W.R.	1 : 1.3 Max
Impedance	50 OHMS ±5Ω
Gain	9 dBi
Power handling	15W Max
Front to back ratio	N/A
HPBW / horizontal	360°
HPBW / vertical	10°
Rated Wind	3.0 lbs. (1.4 kg)
Operating Temperature	-20°C~60°C

MECHANICAL SPECIFICATION

Connector Type	N Type Female
Length	φ 35 x 420mm
Weight	430g
Radome color	white
Radome material	glass fiber

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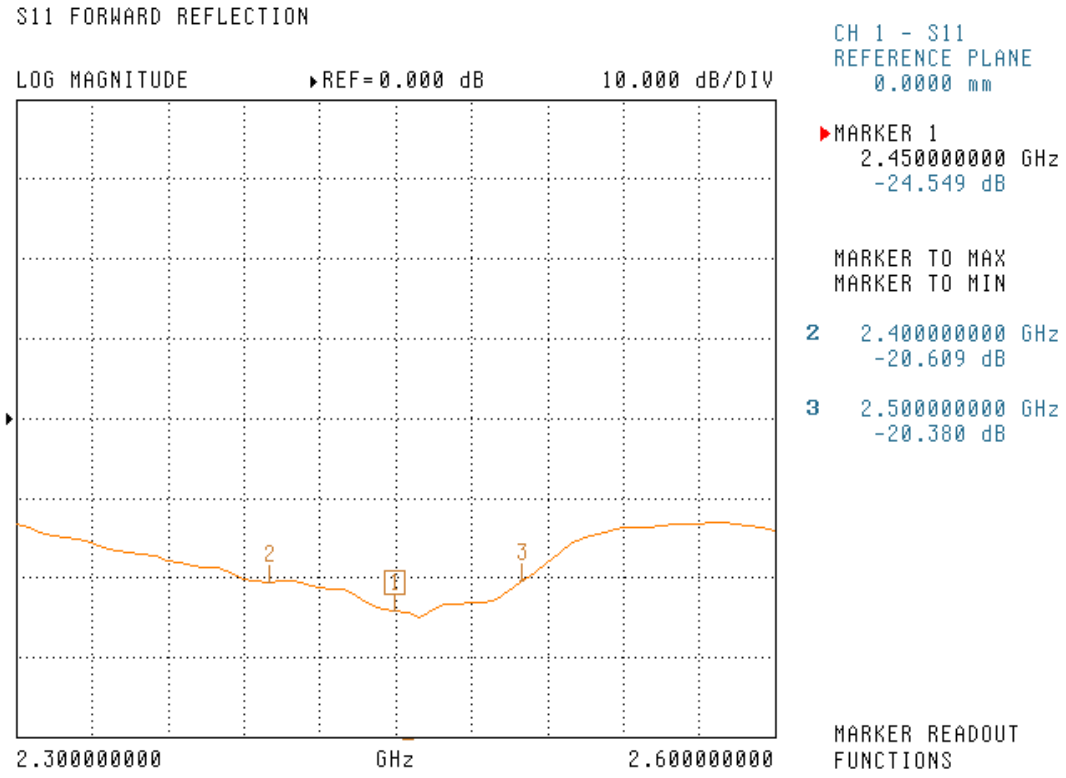

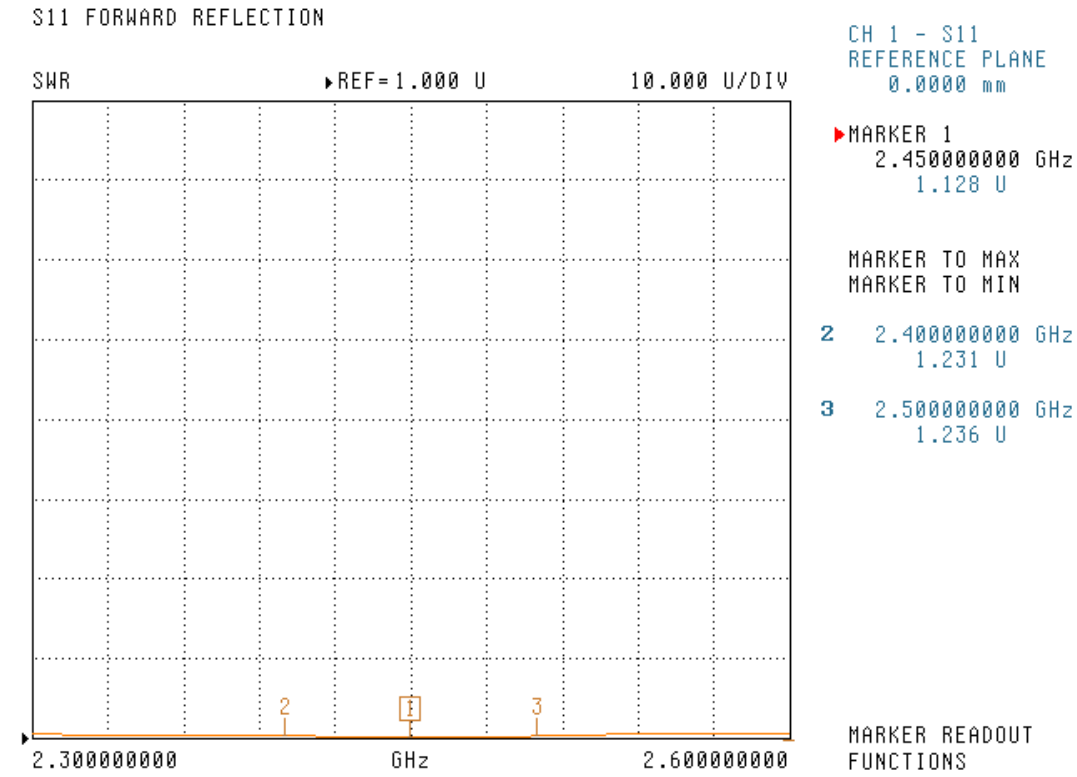

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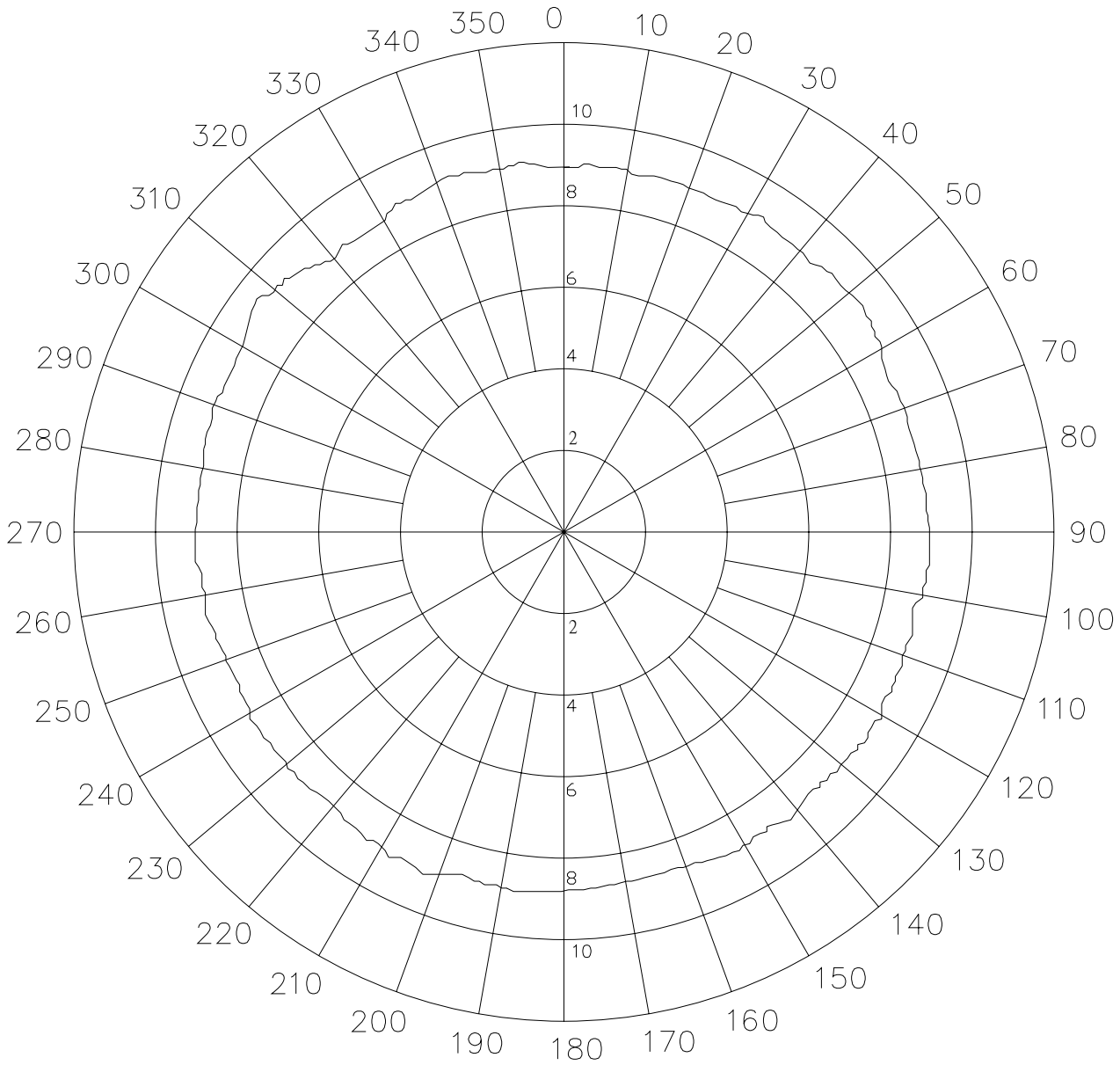
H-PLANE FIELD PATTERNS



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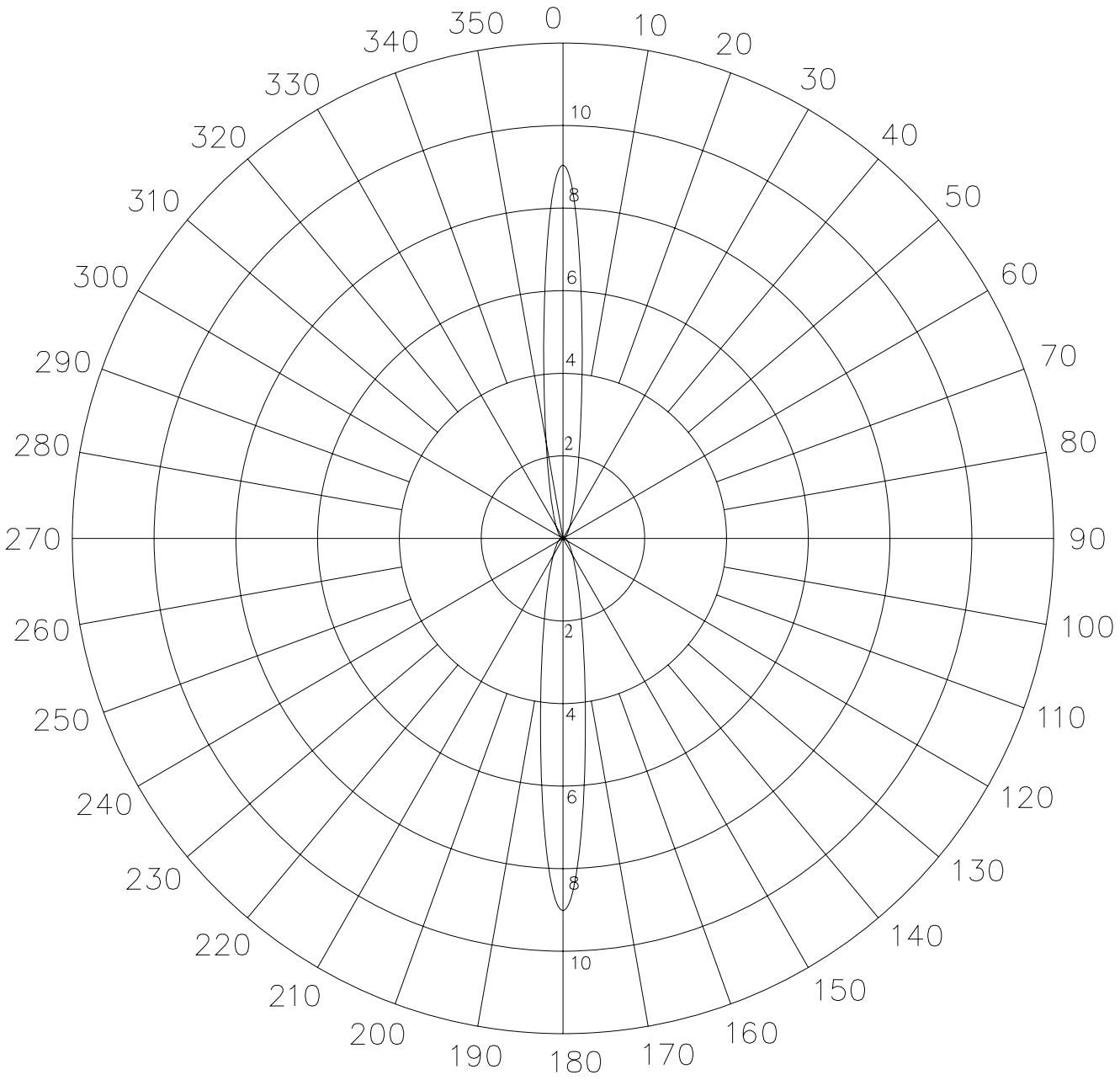
E-PLANE FIELD PATTERNS



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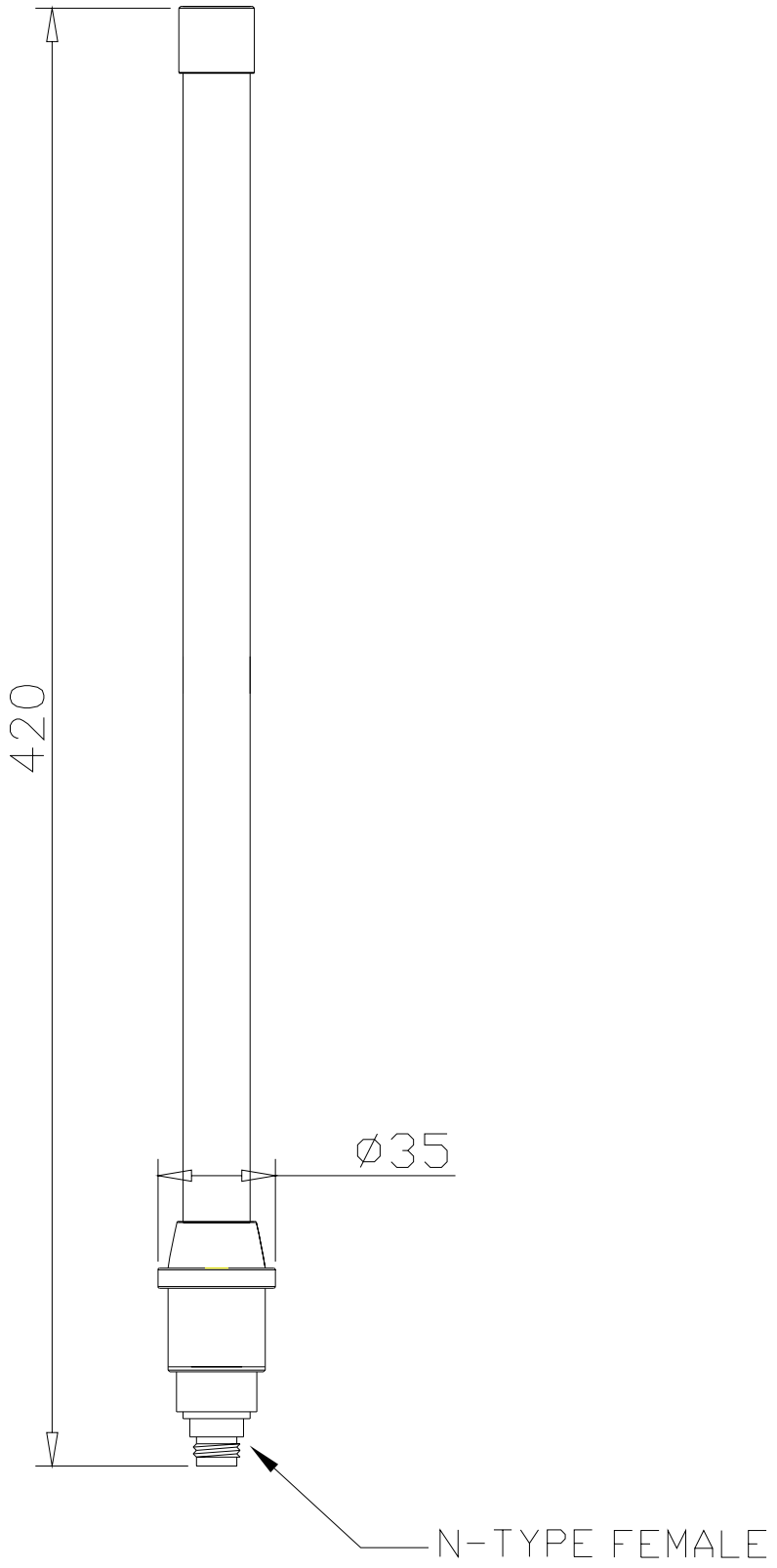


Placement and most Other Importantly Considerations

Before installing your wireless antennas, please observe the placement considerations. Antennas placement significantly affects potential coverage. The following guidelines to maximize coverage.

- Place the 1GP-2409 in a vertical position. Either right side up or up side down is OK.
- Minimize obstructions around the antenna. Ideally there shall be a visual line of sight between the 1GP-2409 and client's antennas.
- Place the antenna in the middle of the coverage zone and at 1.5m or higher above the floor.
- High ceiling: place the 1GP-2409 in the center of the room installed up side down on the pole or on the ceiling with the L shape bracket.

Outdoor: place the 1GP-2409 on a roof fixed on a pole 2m above the roof level or fixed directly on the roof near the edge, or against a wall, or on top of a telephone box. In most of the cases one 1GP-2409 is sufficient due to the multipath fading is low or acceptable. Plus, in case where the building density is high, or narrow streets, or direct echo from another building, etc. Therefore, two 1GP-2409 antennas can enhance the wireless performance. This latter is applicable only if he wireless devices has two RF ports.

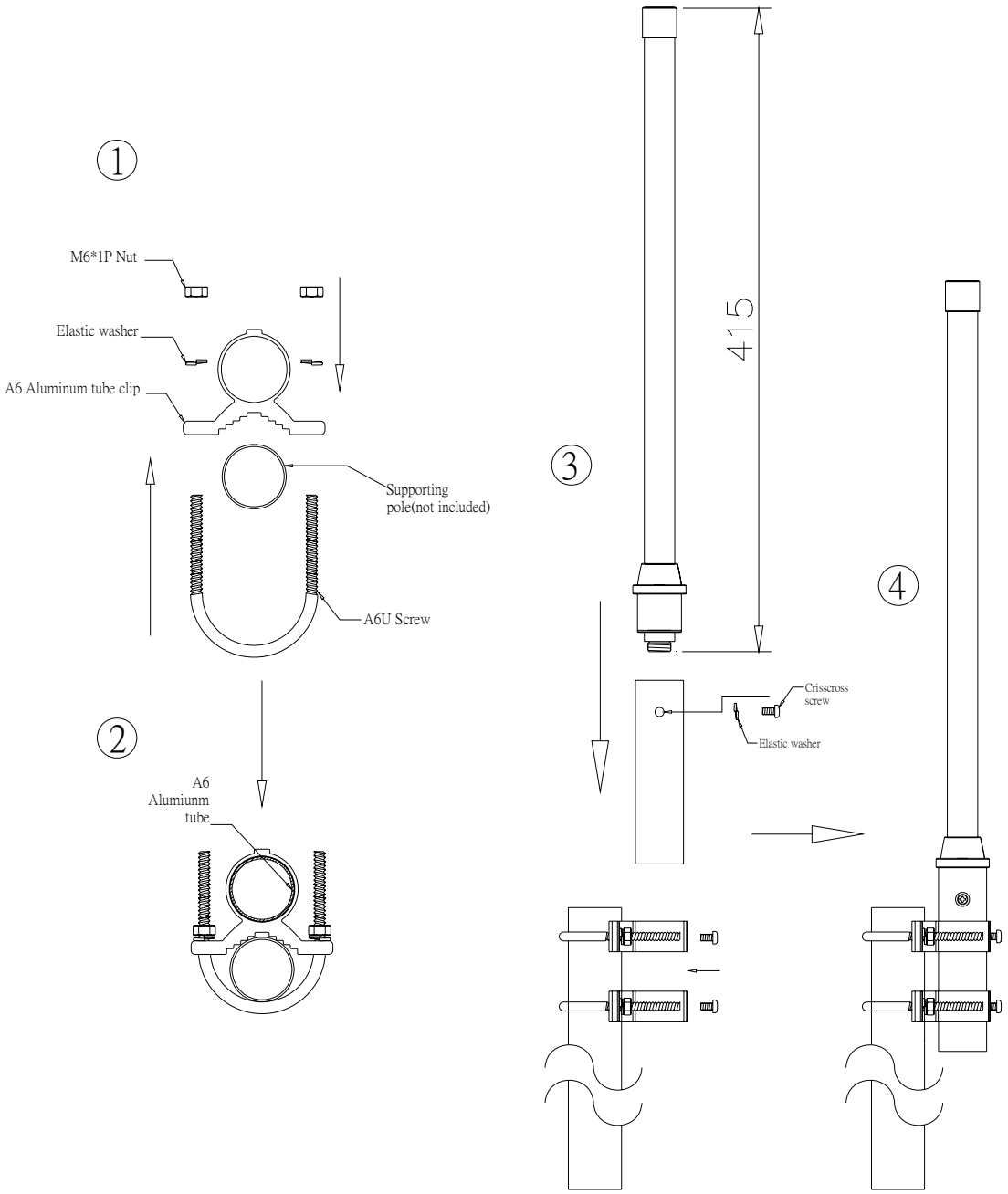
Indoor: place the 1GP-2409 above cubicle level at the center if large room are preferred attached to the ceiling, a pole, or a column, ideally, it should be located outside an IT data center or outside a room with multiple metal partitions. Use antenna cable of up to 10 m length to connect the antenna to the wireless access point/router. In some situations one 1GP-2409 is sufficient due to the multipath fading is low or acceptable and the clients adapter wireless node provide spatial diversity. In fact, other cases where the multipath fading effect in medium to high two 1GP-2409 spaced by a few meter can improve the wireless performance. This latter is applicable only if the wireless device has two RF ports.

Indoor wireless propagation loss increases as follows:

- Metal floor or reinforced concrete with a lot of metal pipes, metal air conditioning channel, etc.---most loss
- Reinforced concrete---more loss
- Floor in concrete---some loss
- Wood building---relatively little loss

2.4GHz RF HI-GAIN ANTENNA

ITEM NO : 1GP-2409



※ SPECIFICATION

- Frequency: 2400~2500 MHz
- Max gain: 9dBi
- Connector: N female
- Max input power: 50W
- Wave impedance: 50 ohm
- Dimensions: 420mm
- Weight: 430 g
- For Image/Data/Voice communications and Wireless LAN system