



MS-AC3-1D1-A
Timing Antenna
GNSS

Electrical Specifications

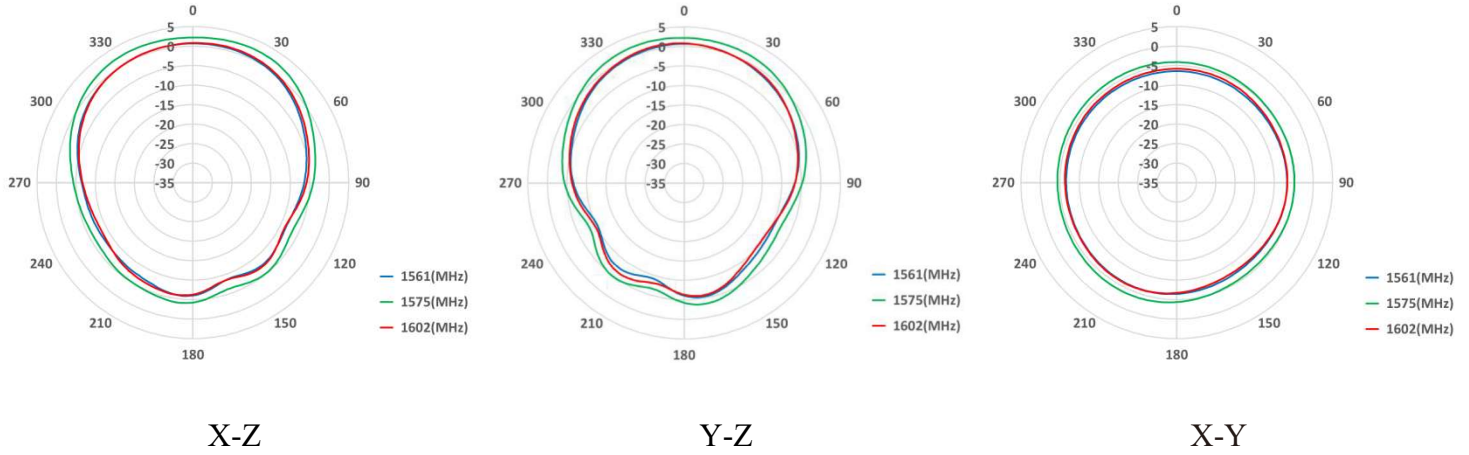
Antenna Characteristics

Center Frequency, MHz	1561±2	1575.42±3	1602±4
VSWR	3.0 Max.		
Gain@ Zenith, dBic	0.5 Typ.	2.5 Typ.	1.0 Typ.
Efficiency, %	58	59	63
Axial Ratio, dB	3.0 Max.		
Impedance	50Ω		
Polarization	RHCP		

Antenna LNA Properties

Frequency Range, MHz	1559-1608
Impedance	50Ω
Output Return Loss(S ₁₁), dB	10 Min.
Gain@ 5V, dB	38±4
Noise Figure@ 5V, dB	3 Typ.
DC Power Input, V	3-5
Power Consumption@ 5V, mA	13±2.5
ESD Withstand Voltage, KV	±8 contact; ±15 air

Antenna 2D Patterns



Mechanical Specifications

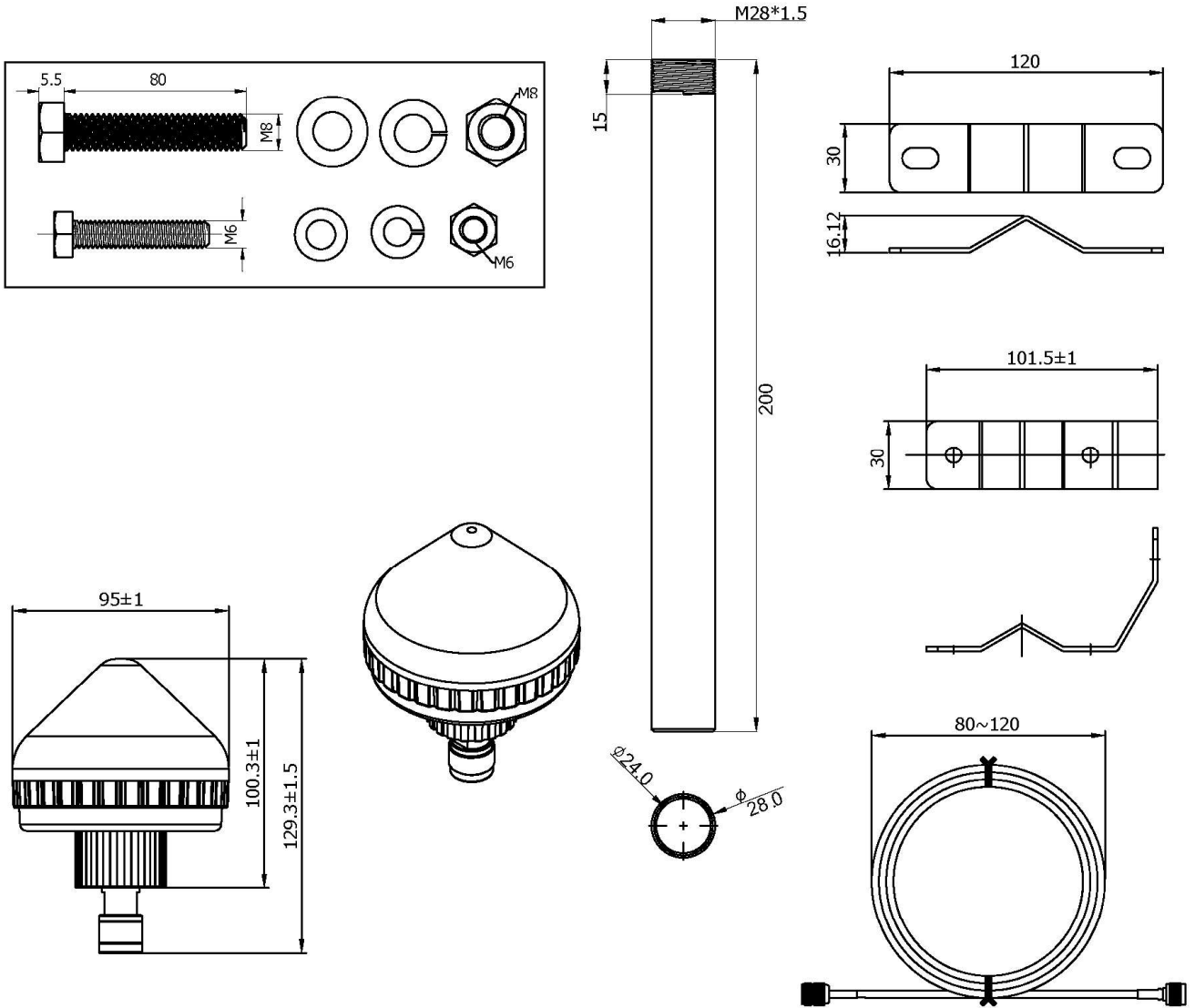
Environmental

Antenna Dimensions	$\Phi 95 \times (H) 129.3 \text{ mm}^3$
Weight	218g
Mounting Function	Refer to page 4 and 5
Operating Temperature	-30~ + 70°C
Housing Material & Color	ASA / White
Cable	N/A
Connector	N Type(M)
Waterproof	IPX7

Reliability Test

Cold Temperature	-30°C, 24Hr
High Temperature	+70°C, 48Hr
Composite Temperature/Humidity Cycling	-30~+70°C, 60%RH, 1 Cycle(8Hr), 96Hr
Thermal Shock	-40°C /30min → 5 min → +85°C /30min, 96Hr

Mechanical Drawing



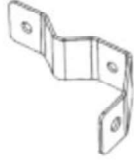
Unit : mm

Installation

Installation Package Content



V-bar x1



L-bar x2



M8 Blot x2



M8 Spring Washer x2



M8 Nut x2



M8 Washerx2



Round tube Bracket x1



M6 Blot x2



M6 Spring Washer x2



M6Nut x2



M6 Washer x2



Adapter cable

Installation

1.) Adapter cable through the round tube bracket and N Type(F) secure it to the N Type(M).

※ Recommended Installation Torque 19~21 Kgf-cm.

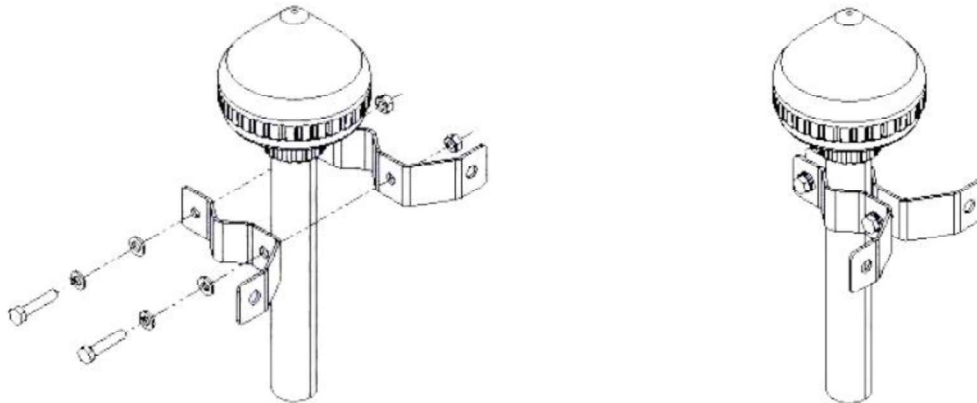


2.) Lock the round tube bracket into the antenna base.

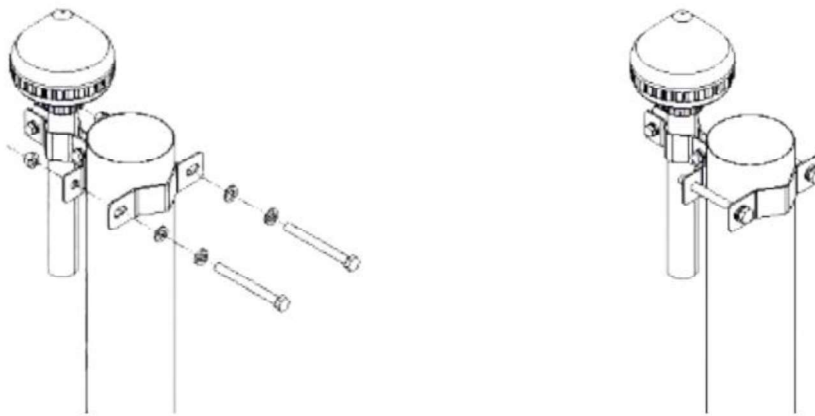
※ Recommended Installation Torque 8~10 Kgf-cm.



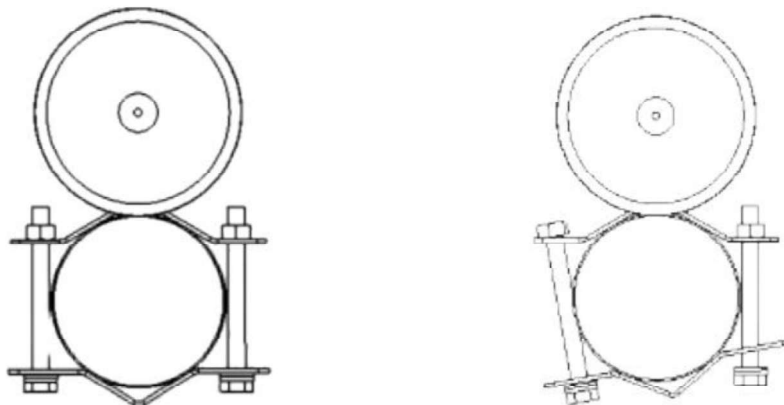
3.) Attach Two L-bar to round tube bracket as shown using M6 bolts and washer.
✘ Recommended Installation Torque 20~25 Kgf-cm.



4.) Attach Two L-bar and V-bar to pole as shown using M8 bolts and washer.
✘ Mounting for pole larger than 50 mm and less than 80 mm.



5.) The installation guidelines must be followed carefully to ensure proper setup.



M8 Screw Locking force should be evenly distributed.
(Proper Installation) Recommended Installation Torque 25~30 Kgf-cm.

**M8 Screw Uneven Locking Force.
(Improper Installation)**