

GNSS L1 & LTE External Active Antenna



NANEA50X48DJVCG3C102A0F is an External Active Antenna designed for GNSS L1 and LTE applications. It operates within the frequency ranges of 1575.42~1602 MHz, 824~960 MHz and 1710~2655 MHz making it perfect for Tracking, IoT, Gateways and Routers



- GNSS L1 Protocol
- LTE Protocol
- IP67 Waterproof Rating
- Customizable Connector Options and Cable Lengths
- RoHs Complaint

The diagram illustrates the part numbering system for the Cable Assembly Code, showing the hierarchy of the code from left to right:

- Series**: The first character, ranging from N to Z.
- Active Antenna**: The second character, ranging from A to Z.
- Size (in mm)**: The third character, ranging from 50 to 48.
- Antenna Type**: The fourth character, ranging from D to J. D = Dome.
- Internal Production Code**: The fifth character, ranging from V to G. V = Combo, C = Cellular, G = GNSS.
- Protocol Code**: The sixth character, ranging from 3 to C.
- Number of Frequency Bands**: The seventh character, ranging from 3 to C.
- Cabled Antenna**: The eighth character, ranging from xxx to C.
- Cable Length**: The ninth character, ranging from A0 to F. Length code in mm (100 = 100 mm). For lengths > 1000mm: First two digits are significant, and third digit is multiplier (102 = 1,000 mm).
- Cable Assembly Code**: The tenth character, ranging from A0 to F.
- RoHS Compliant**: The eleventh character, ranging from A0 to F.

NANEA50X48DJVCG3C102A0F

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Part Number Options

Part Number	Protocol	Connector	Cable Type	Cable Length
NANEA50X48DJVCG3C102A0F	GPS L1 & Glonass G1 LTE	SMA Male	RG174	1000 mm
NANEA50X48DJVCG3C302A0F	GPS L1 & Glonass G1 LTE	SMA Male	RG174	3000 mm

The table represents assembled part numbers available on www.niccomp.com. For options not listed above please contact NIC

Specifications

Electrical

Antenna	GNSS
Frequency Range	1575.42 MHz ~ 1602 MHz
Gain	2 dBic
VSWR	< 1.5
Axial Ratio	3 dB (max)
Polarization	RHCP
Impedance	50 Ω

LNA

Gain	28 $\pm$ 2dB
Noise Figure	< 1.5
Supply Voltage	2.2 ~ 5V DC
Current Consumption	< 15mA
V.S.W.R.	< 2.0

Antenna	LTE
Frequency Range	824~960 MHz 1710~2655 MHz
V.S.W.R	< 2.0
Gain	2 dBi
Polarization	Linear
Impedance	50 Ω

Environmental

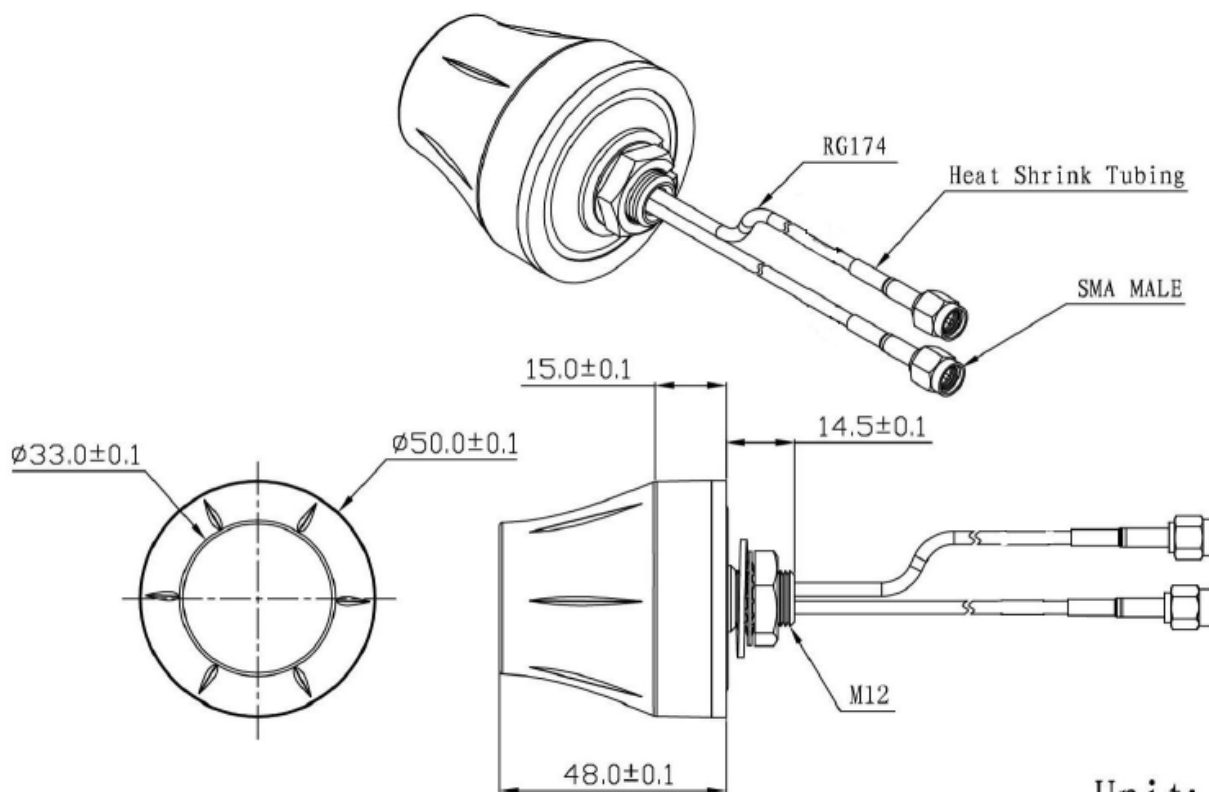
Operating Temperature	-40°C~+85°C
Relative Humidity	Up to 95%
Ingress Protection	IP67 (exclude cable outlet)
Vibration	10 to 55Hz with 1.5mm amplitude 2hours
Mounting Method	Screw
Material	ABS
ROHS Compliant	Yes

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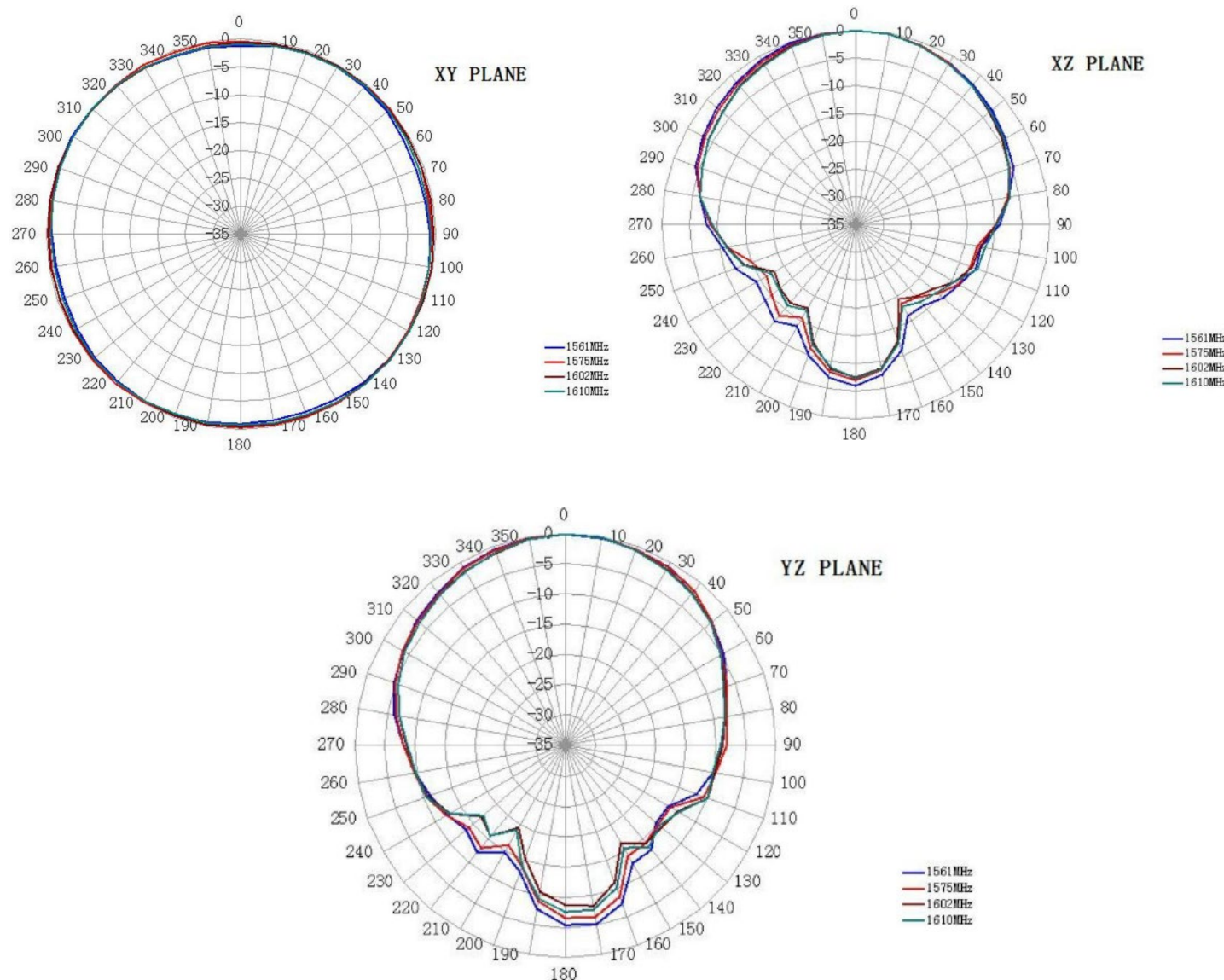
Dimension Drawing



Unit: mm

Radiation Patterns

GNSS Antenna



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LTE Antenna

