



Helix Antenna

The compact-sized Helix antenna is designed with high stability and repeatability at phase center, and its high gain ensures a superior performance even at low elevation angle. Available from single frequency to triple frequencies, AT-series Helix antennas are optimal for Unmanned Aerial Vehicle, GIS, RTK and related mobile devices where need high accuracy GNSS positioning.

AT150 HELIX ANTENNA

- GPS L1, GLONASS L1, BeiDou B1 tracking
- Lightweight and low noise figure design
- Ground Plane independent
- High stability and repeatability at phase center
- IP65-level waterproof design

AT180 HELIX ANTENNA

- GPS L1, L2 and BeiDou B1, B2 / GLONASS L1, L2 tracking
- Compact size and low consumption design
- Multi-feed, wide beam design
- Ground Plane independent
- High stability and repeatability at phase center
- High gain with superior tracking performance

AT190 HELIX ANTENNA

- GPS L1, L2, GLONASS L1, L2, BeiDou B1, B2, B3 and Galileo E1, E5a, E5b tracking
- High gain (3.5dBi) with superior tracking performance at low elevation angle
- Compact size and low noise figure
- Ground Plane independent
- High stability and repeatability at phase center
- IP67-level waterproof design

AT-series Helix Antenna

| Characteristics | AT150 | AT180/AT180G | AT190 |
|-----------------------|--------------------------------------|---|---|
| Antenna | | | |
| Antenna Type | Helix Antenna | Helix Antenna | Helix Antenna |
| Frequency Range | GPS: L1 GLONASS: L1 BeiDou: B1 | GPS: L1, L2 BeiDou: B1, B2 (AT180) GLONASS: L1, L2 (AT180G) | GPS: L1, L2 GLONASS: L1, L2 BeiDou: B1, B2, B3 Galileo: E1, E5a, E5b |
| Impedance | 50 Ohm | 50 Ohm | 50 Ohm |
| Polarization | RHCP | RHCP | RHCP |
| Axial Ratio | ≤3dB | ≤3dB | ≤3dB |
| Azimuth Coverage | 360° | 360° | 360° |
| Noise Figure | ≤2.0 | ≤2.0 | ≤2.0 |
| Gain at Zenith | 2dBi | 2dBi | 3.5dBi |
| LNA | | | |
| LNA Gain | 33±2dB | 33±2dB | 33±2dB |
| Noise Figure | ≤2dB | ≤2dB | ≤2dB |
| VSWR Output | ≤2.0 | ≤2.0 | ≤2.0 |
| Operation Voltage | 3.3 - 12VDC | 3.3 -12VDC | 3.3 -12VDC |
| Operation Current | ≤45mA | ≤55mA | ≤45mA |
| Ripple | ±2dB | ±2dB | ±2dB |
| Physical | | | |
| Dimension | Φ27.5x59mm | Φ27.5x59mm | Φ27.5x59mm |
| Connector | SMA male connector | SMA male connector | SMA male connector |
| Weight | 19g | 19g | 25g |
| Environmental | | | |
| Operating Temperature | -40 C to +85 C | -40 C to +85 C | -40 C to +85 C |
| Storage Temperature | -55 C to +85 C | -55 C to +85 C | -55 C to +85 C |
| Humidity | 95% No-condensing | 95% No-condensing | 95% No-condensing |

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