

RV-700

7m Gateway and TT&C antenna system (S/X dual or S/X/Ka tri-band)



RV-700 is a 7m antenna system engineered for multi-orbit satellite missions, supporting LEO, MEO, and GEO satellites. Its TLE-based auto-tracking system and advanced satellite tracking algorithm enable precise tracking of LEO satellites travelling at 7.5 km/s, effectively eliminating keyhole effects.

RV-700's robust pedestal ensures durability in harsh conditions, withstanding winds up to 60m/s without a radome.

Its modular design features detachable Az, El, and Tilt axes for easy maintenance. The system's RF feed supports S and X frequency bands (Dual-band system) or S, X, and Ka bands (Tri-band system) with a single antenna, providing versatile performance.

The included ACU (Antenna Control Unit) ensures precise control of the antenna's direction, orientation, and movement, complemented by a user-friendly web-based ACS (Antenna Control System). An optional, patented AI-based anomaly detection feature offers real-time monitoring and failure detection for antenna components.

RV-700 integrates these advanced capabilities into a single, cost-effective solution, making it the most price-competitive choice for Ground Station as a Service (GSaaS), scientific and communication missions, and ground stations in polar regions.

**TLE-based
auto-tracking system**

**Support for
multi-band missions**

**Custom
structure and function**

**3-axis pedestal
with modular design
(No key hole)**

**100% in-house technology
& 4-month leadtime**

**Connecting
Ground
And
Space**

Specification

Item	Description
Frequency(GHz)	S-band Rx : 2.2 ~ 2.3, Tx : 2.025 ~ 2.120 X-band Rx : 7.9 ~ 8.5 Ka-band Rx : 25.5 ~ 27.0
G/T @ 10° EL	S-band : 19.5dB/K X-band : 31.5dB/K Ka-band : 37.5dB/K
RX Polarization	LHCP and RHCP (Simultaneous)
TX Polarization	LHCP and RHCP (Selectable)
Axial Ratio	≤ 2dB
Reflector diameter	7.5m
Antenna Type	Gregorian(ADE)
Travel Range	Azimuth ±270°
	Tilt ±270°
	Elevation 0~180°
Velocity	Azimuth 15°/s
	Tilt 5°/s
	Elevation 10°/s
Acceleration	Azimuth 5°/s ²
	Tilt 5°/s ²
	Elevation 5°/s ²
Pointing Accuracy	0.045° rms
Operating	25m/s
Survival Wind	60m/s

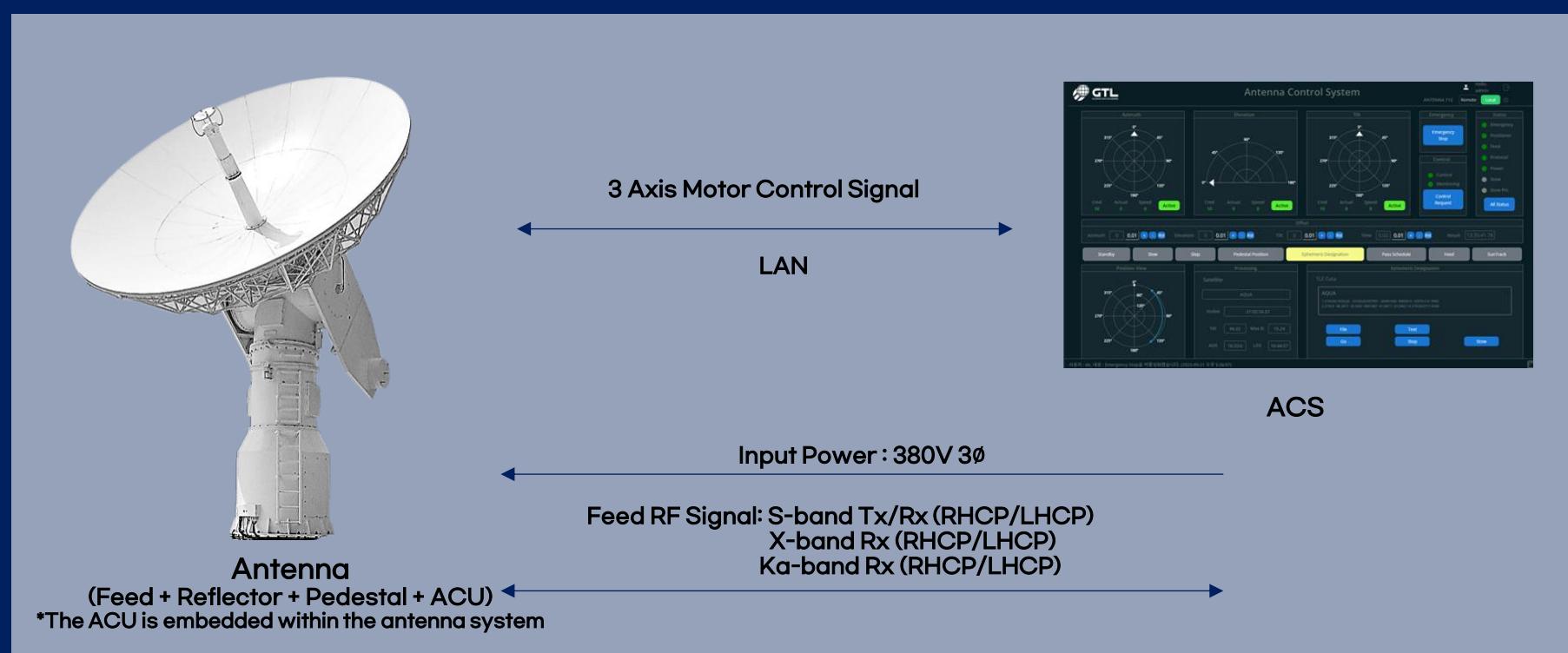
3-Axis Precision Pedestal

- 3 axis Az/El + Tilt
- ≤0.060° rms pointing accuracy
- **No keyhole**

Available Options

- AI-based anomaly detection
 - Real-time antenna components monitoring and failure detection
- Loop-Back Tests
- SSPA
- Up/Down Converter

Product Package



Global sales

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