

ANTENNAS

TELEMETRY, COMMAND & RANGING SUBSYSTEM PRODUCTS

FEATURES

- Available for different frequency bands
- Low return loss
- Waveguide/ coaxial RF connections
- Bracket design according to pointing and mounting requirements
- Structural mass optimization for optimum solutions
- Thermal design and analyses upon customer request
- Aluminium 6061-T6 or application specific material selection
- Fully space qualified

Horn Antenna



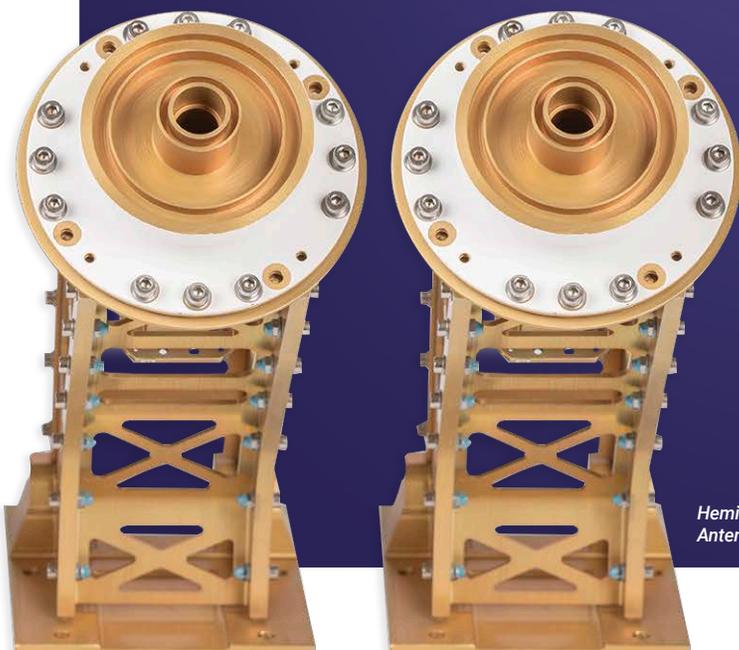
HORN ANTENNAS

- Receive and transmit high gain antennas for global or regional coverage
- One-piece manufactured corrugated horn antennas
- Linear polarization via in-house designed OMTs

HEMISPHERICAL ANTENNAS

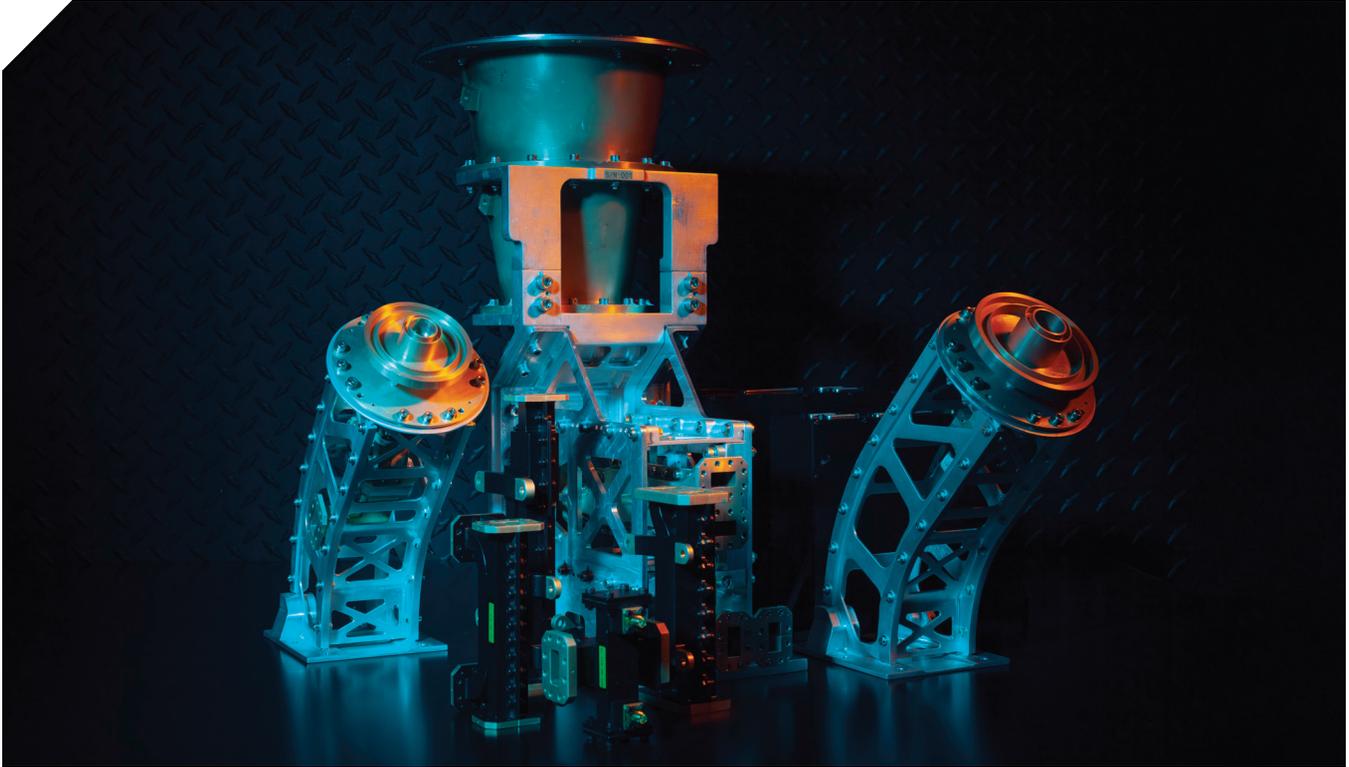
- Receive and transmit hemispherical antennas for 360° platform coverage
- Circular polarization via integrated septum polarizers

Hemispherical Antenna



OVERVIEW

The antennas, designed and qualified for geostationary satellites, are responsible for receiving RF signals sent from ground or transmitting RF signals generated on-board using the transmitters, to ground. Horn antennas and hemispherical antennas are designed, developed and tested by CTech for satellites using state-of-the-art design and manufacturing techniques.



SPECIFICATIONS

HORN ANTENNAS

HEMISPHERICAL ANTENNAS

Operating Frequency	Program Specific	
Gain	> 20dBi for telemetry links > 20dBi for telecommand links	> -2.5dBi (@65°)
VSWR	1.12:1 (with OMT)	1.1:1
Polarization	Linear (V and/or H) Circular polarization also available	Circular (RHCP/LHCP)
Isolation Between Input Ports	> 30 dB	-
Cross Polarization	> 30 dB	-
Axial Ratio	-	< 2dB



SPACE QUALIFIED

Fully space qualified equipment for geostationary satellites.



CUSTOMIZABLE

Designed and optimized according to customer needs.



HIGH RELIABILITY

Designed for more than 15 years of lifetime in geostationary orbit with lowest cost possible.



LOW MASS

Mechanical design is optimized for mass to meet mission specific requirements.