Low/Medium Earth Orbit
Satellite Tracking
Antenna Systems

Cost-Effective | Precision Tracking | Unlimited Configuration Flexibility

X/Y Antenna Pedestal Technology

Fixed and Deployable Systems and Radomes
Comtech Introduction

Comtech Space & Component Technology provides the customer a complete satellite and tracking solution for your ground stations in frequencies ranging from UHF, L, S, C, and Ku to Ka, Q, and V.

We offer a range of X/Y tracking antennas from 30 centimeters to 11 meters coupled with our installation expertise and worldwide support in extreme environments such as the Arctic, Middle East and Tropics. Comtech Space & Component Technology provides the customer a complete satellite and tracking solution for your ground stations.

Features:
- 30 centimeters to 11 meters antenna size
- X/Y axis configuration (Series A through Type 6 for increasingly larger dishes)
- Transmit/receive feed technologies through V-band
- Designed for tracking LEO, MEO, HEO and GEO spacecraft
- Applications include Earth Observation, Remote Sensing, Communications and TT&C functions
- Lights-out operation, including ethernet (TCP/IP) and M&C software is provided with Linux-based M&C system, includes SNMP and XML support
- Program and Auto Track Performance
  - Effective program track capabilities that utilize ephemeris data in the form of Two Line Element (TLE) data and other formats
  - Autotrack Capabilities:
    » Low loss mode coupler tracking system for high frequencies and larger aperture antennas that does not affect G/T performance
    » Software assisted autotrack - the low velocity tracking dynamic of the X/Y allows the implementation of real time signal level peaking throughout the track by utilizing unique tracking algorithms to control the servo control system

Radome Options:
The Comtech X/Y Antenna Systems do not require a radome for operation, but for extreme locations Comtech can provide a cost-effective radome solution. A radome offers many advantages like protection from extreme weather conditions, extension of component life and provides antenna position concealment.

- Radome Diameter Sizes: 1.5 meters to 20 meters (larger on request) tuned for the frequency or frequencies of interest
- Foam Core Sandwich Composition – three types of construction
  - ‘A’ sandwich consisting of three layers
  - ‘C’ sandwich consisting of five layers
  - ‘S’ space frame design using a fiberglass framing with a reinforced PTFE-impregnated glass fiber (Teflon) fabric (ideal for wideband applications)
- Wind Speed: Radomes capable of surviving in winds up to 200 km/hr – 300 km/hr (depending on specific model)