

# Radomes



## Overview/Situation

Comtech's tuned sandwich, spaceframe and geodesic radomes provide exceptional RF performance, ease of installation and are a cost-effective alternative to higher priced systems. Our radome design and manufacturing technology allows quick delivery of both standard and custom systems engineered to meet a customer's specifications even in the harshest environments. These systems can be mounted directly to a flat concrete pad or on to an existing ring wall. System configuration flexibility throughout the product line is unparalleled.

### Solution Features

- Low Electrical Loss
  - Tuned panels and joints
- Hydrophobic Surfaces
  - Standard gel coat
  - Tedlar
  - PTFE (standard on spaceframe radomes)
- Design Life: 20+ years
- Integrated Ring Wall
- Full Engineering Support
- Installation Services
- Maintenance Programs

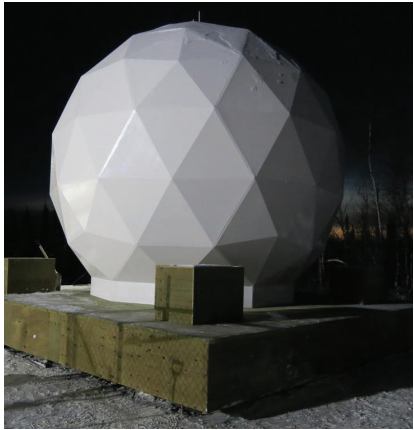
### Available Options

- Lightning Protection
  - » Aircraft Warning Lights
- Passage Doors
- Air Conditioners
- Dehumidifiers
- Blower Ventilation Systems
- Snow Ropes
- Internal Lighting
- Heating
- Tedlar Coatings
- High Wind models
- Tropical package

### Customer Benefits

- Preservation of hardware by elimination of weather effects; thus extending the operational life of the antenna and pedestal
- Provides operational improvements such as pointing and tracking accuracy
- Provides operational maintenance cost reductions by reducing system wear due to wind effects
- Conceals antenna and sensitive electronics equipment

Mechanical	
Radome Diameters	1.5 meters – 20 meters (larger on request)
Sandwich	'A' sandwich consisting of three layers (i.e. two skins with a foam core)
	'C' sandwich consisting of five layers (i.e., two externally facing skins, two foam cores, and a central layer)
Spaceframe	'S,' a space frame design using a fiberglass framing with a reinforced PTFE-impregnated glass fiber (Teflon) fabric panel (ideal for wideband applications)
Geodesic Design	Stellated 6/5 hexagon/pentagon
Tuned for the Frequency or Frequencies of Interest	
RF	
Frequency Range	L, S, X, C, Ku, Ka, Q, V, W Band
Typical Insertion Loss (all losses depend on frequencies and bandwidth)	<0.1-0.15 dB @ S-band
	0.20-0.35 dB @ X-band
	0.2-0.45 dB @ Ku-band
	0.1 dB @ Ka/ Q /V/W-band (PTFE material) exact losses vary with frequency
Environmental	
Wind Speed	Sandwich – (A or C): 240 km/hr (150 mph)
	Sandwich – (A or C) : 300 km/hr (190 mph) (enhanced)
	Spaceframe – 200 km/hr (125 mph)
Temperature Range	-50 C to +60 C (-58 F to +140 F)
Humidity	100% Relative Humidity



**About Comtech**

Comtech Telecommunications Corp. is a leading global technology company providing terrestrial and wireless network solutions, next-generation 9-1-1 emergency services, satellite and space communications technologies, and cloud native solutions to commercial and government customers around the world. Our unique culture of innovation and employee empowerment unleashes a relentless passion for customer success. With multiple facilities located in technology corridors throughout the United States and the world, Comtech leverages its global presence, technology leadership and decades of experience to create the world's most innovative communications solutions.

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