

# C, X, KU-BAND STUB ANTENNA

## MODEL 845CX-10



SUPPLYING HIGH PERFORMANCE FLIGHT INSTRUMENTATION, RF/MICROWAVE ASSEMBLIES, POWER AMPLIFIERS, IFF AND DATA ACQUISITION SYSTEMS FOR SEVERE ENVIRONMENTS.

### DESCRIPTION

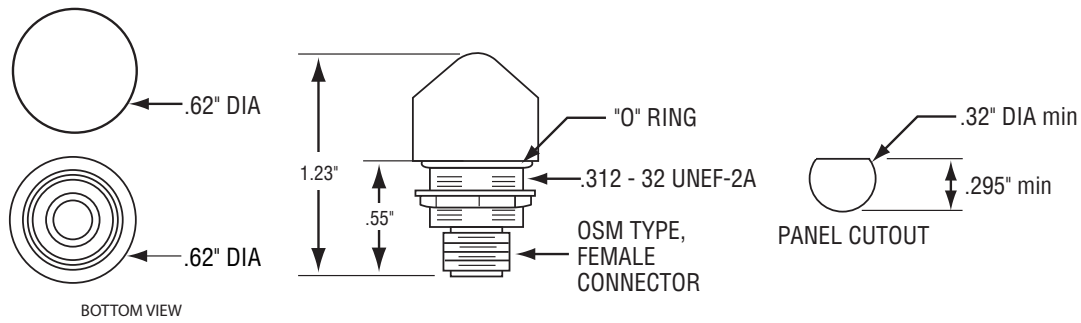
The Model 845CX-10 Stub Antenna was developed for airborne applications in association with either C-Band, X-Band, or Ku-Band transponders. The antenna is a vertical polarized omnidirectional antenna enclosed within a radome. The antenna is characterized by its compactness and is extremely lightweight while still maintaining the electrical and environmental characteristics required by this type of antenna.

The skin of the vehicle serves as the ground plane for the antenna due to the simplified mounting technique. Mounting of the antenna is accomplished via a "D" hole through the vehicle skin. It is then secured to the vehicle with a locking nut.

### FEATURES

- Developed for airborne applications in either C-band, X-band or Ku-band transponders
- Vertical polarized omnidirectional enclosed within a radome
- Compact and extremely lightweight while still maintaining the electrical and environmental characteristics
- Simplified mounting

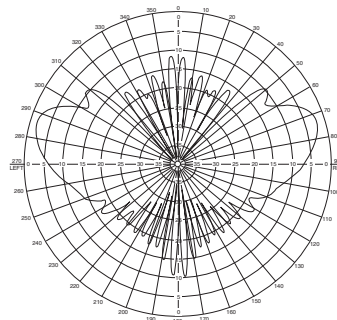




### ELECTRICAL

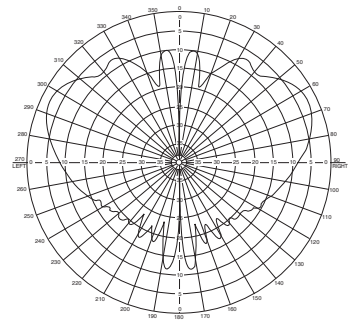
- Frequency Range: 4.0 to 18.0 GHz
- Impedance: 50 ohms
- VSWR:  $\leq 2.0:1$ , 4.0 to 12.4 GHz:  $\leq 3.0:1$ , 12.4 to 18.0 GHz
- Polarization: Vertical (linear)
- Power: 1.5 kW peak .002 duty cycle
- Azimuth Beamwidth: Omni-directional
- Elevation Beamwidth: That of 1/4 stub
- Connector: SMA (female)
- Sealing: O-Ring
- Altitude: 70,000 feet
- Temperature:  $-80^{\circ}\text{F}$  ( $-62.2^{\circ}\text{C}$ ) to  $+307^{\circ}\text{F}$  ( $152.8^{\circ}\text{C}$ )
- Random Vibration: Short term, 17.8 g's - 10 to 2000 Hz;  
Long term, 13.8 g's - 10 to 2000 Hz

12" DIA GROUND PLANE



FREQUENCY 5 GHz

12" DIA GROUND PLANE



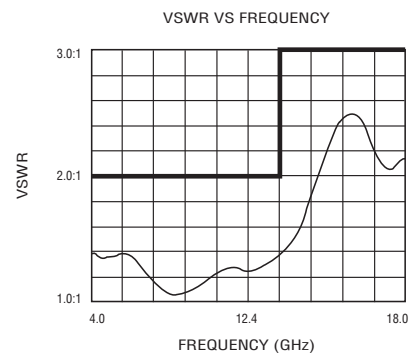
FREQUENCY 10 GHz

### PHYSICAL

- Size: 1.23" height (3.1 cm) 0.62" diameter (1.57 cm)
- Weight: Less than 1.0 oz. (28.3 gms)

### PRODUCT NUMBERS

- P/N 307260-1 - Standard unit



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