# RADAR ALTIMETER ANTENNA MODEL 8203-1



#### DESCRIPTION

SUPPLYING HIGH PERFORMANCE FLIGHT INSTRUMENTATION, RF/MICROWAVE ASSEMBLIES, POWER AMPLIFIERS, IFF AND DATA ACQUISITION SYSTEMS FOR SEVERE ENVIRONMENTS. The Ultra Electronics Herley Lancaster 8203-1 Radar Altimeter Antennas are designed to be used in conjunction with the Ultra Electronics Herley 4500, 4501, 4502, and 4503 series Radar Altimeters.

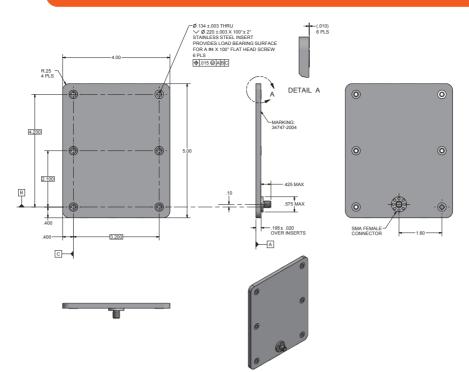
#### FEATURES

- 4.2 4.4 GHz
- Linear Polarization
- Directional Beam Pattern
- Small size and light weight
- Ease of installation









#### ELECTRICAL

- Operating Frequency Range (ofr): 4200-4400 MHz
- VSWR: 1.8:1 maximum, over the OFR
- Beamwidth (h-plane): 35 degrees minimum, 40 degrees maximum
- Beamwidth (e-plane): 35 degrees minimum, 40 degrees maximum
- Squint (either plane): 3 degrees maximum
- Polarization: Linear
- Cross Polarization: -20 dBc minimum
- Sidelobe Level: -25 dBc minimum
- Gain (boresight): 9.0 dBi minimum
- Gain (60 degrees off boresight, e-plane): -25 dBc minimum
- Second Harmonic Gain: -15 dBc minimum, 8400-8800 MHz
- Power Handling: 10 watts minimum
- Isolation: 85 dB minimum at 18 inch centerline-to-centerline over the OFR



#### **Ultra Electronics**

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### MECHANICAL

- Connector: SMA Female
- Weight: 6 oz. maximum

#### **ENVIRONMENTAL**

- Altitude: Mean sea level (MSL) to 50,000 feet above MSL.
- Salt Fog: MIL-STD-810F, Method 509.4, with an exposure temperature of 35° C and fallout rate of 1 to 3 mil per hour.
- Shock: Half-sine, 20g, 1ms
- Vibration Operating: Per MIL-STD-810F
- Operating Temperature: -40° C to  $+71^{\circ}$  C (-40° F to +160° F)

## making a difference

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