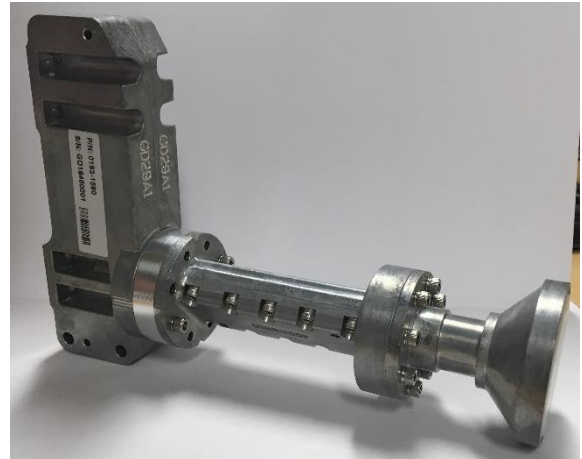


2.4 m Ka Band Antenna - Transmit Receive

Series 3244 w/Ka Band Circular Polarity Feed

Satcom & Antenna Technologies Division



Key Features

- Transmit Quality Precision SMC Reflector
- Fine Elevation and Azimuth Adjustments
- Transmit Frequency 29.25-30.0 GHz
- Receive Frequency 18.1-20.2 GHz
- Circular Polarity
- Durable and Rugged Construction for Ease of Shipping and Handling

Description

CPI Satcom & Antenna Technologies Inc. (CPI SAT) 2.4m Ka-Band VSAT Antenna Series 3244 is ideally suited for demanding commercial applications. The four-piece compression molded reflector is precision manufactured for high-efficiency Ka-Band operation. The heavy-duty back structure provides precision support to the reflector as needed for Ka band performance, and the az/el mount is designed for easy installation on standard 6-5/8" (168mm) OD mounts. A Ka CP feed is matched to the antenna.

Technical Specifications

Electrical		
Operating Frequency (GHz)	Receive Transmit	18.10-20.20 GHz 29.25-30.00 GHz
Antenna Gain, Midband (± 0.5 dB)	Receive Transmit	51.5 dBi 54.2 dBi
Sidelobe Envelope, Co-Pol (dBi) 100 λ / D < Θ \leq 20° 20° < Θ \leq 26.3° 26.3° < Θ \leq 48° 48° < Θ < 180°		29 – 25 Log Θ dBi -3.5 dBi 32 – 25 Log Θ dBi -10 dBi (Typical)
Antenna Noise Temp*	10° 20° 30°	145 K 120 K 108 K
Cross-Pol Isolation		> 30 dB (On Axis)
VSWR	Receive Transmit	1.5:1 MAX 1.2:1 MAX
Feed Interface	Receive Transmit	WR-42 Flat WR-42 Flat

*Noise Temperatures Estimated

Mechanical	
Reflector Material	Glass Fiber Reinforced Polyester SMC
Antenna Optics	Prime Focus, Offset Fed, 4-piece (.8 F/D)
Mount Type	Elevation over Azimuth
Elevation Adjustment Range	5° to 90°, Continuous Fine Adjustment
Azimuth Adjustment Range	$\pm 45^\circ$ Fine Adjustment, 360° Continuous
Mast Pipe Interface	6" Sch 80 Pipe (6.63 inch OD) 168mm

Environmental		
Wind Loading	Operational Survival	50 mph (80 km/h) (<0.5 dB Loss @ 22 GHz) 125 mph (200 km/h)
Temperature (Operational)		- 40° F to 140° F (- 40° C to 60° C)
Rain (Operational)		½ inch/h
Ice (Survival)		½ inch Radial
Atmospheric Conditions		Salt, Pollutants, and Contaminants as Encountered in Coastal and Industrial Areas
Solar Radiation		360 BTU/h/ft ²