

1.2m Quick-Deploy SMC Antenna System

Ku-Band

Features

- 2-Piece Glass Fiber Reinforced Polyester SMC
- Pre-Assembled Tripod Base Mount w/Pull Pins
- Adjustable Feet for Uneven Surfaces
- Fast Setup, No Tools Needed
- Cases Included, Made in the USA

Description

Cost effective SMC 1.2 meter Quick-Deploy Antenna System. Incorporates precision assembled sheet molding compound/composite reflector panels with the Challenger Communications lightweight aluminum tripod mount.

To ensure quality and performance, segmented panels are carefully hand-crafted and reassembled using proprietary methods.

SMC reflectors are a low cost, economic alternative to aluminum and carbon fiber dishes. Challenger Communications can custom segment most brands of SMC reflectors.

RF & Antenna Specifications	Ku Linear	
	Receive	Transmit
Frequency (GHz)	10.95 - 12.75	14.00 - 14.50
Midband Gain ($\pm .2$ dB)	41.50 dBi	43.00 dBi
Cross Polarization		
Within 1 dB contour	-30 dB Max.	
Any Angle off Axis	-25 dB Max.	
VSWR	1.3:1 Max.	
Sidelobe Envelope, Co-Pol	$100\lambda/D \leq \theta \leq 20^\circ$	$29 - 25 \text{ Log } \theta \text{ dBi}$
	$20^\circ < \theta \leq 26.3^\circ$	-3.5 dBi
	$26.3^\circ < \theta \leq 48^\circ$	$32 - 25 \text{ Log } \theta \text{ dBi}$
	$\theta > 48^\circ$	-10 dBi (averaged)
Antenna Noise Temp	46 K @ 20°EL	43 K @ 30°EL
Feed Interface	WR75	

Mechanical Specifications	
Antenna Optics	Offset
Mount Type	Elevation over Azimuth Tripod
Elevation Adjustment	0° to 90° Continuous Fine Adjustment
Azimuth Adjustment	360° Continuous Fine Adjustment

Standard Cases

Reflector Case (2-piece)	91 lbs./41.2 kg	56 x 16 x 33 in. 142 x 40.5 x 46 cm
Tripod Mount Case	86 lbs./39 kg	48.5 x 19.5 x 18 in. 122 x 49.5 x 46 cm

Thermodyne Cases - stackable, wheeled

Reflector Case (2-piece)	91 lbs./41.2 kg	62 x 24.5 x 35.2 in. 157.5 x 62.5 x 89.5 cm
Tripod Mount Case	86 lbs./39 kg	62 x 24.5 x 18.3 in. 157.5 x 62.5 x 46.5 cm

Environmental Performance	Standard	Metric
Wind Loading		
Operational (No Ballast/Anchors)	25 mph	40 km/h
Operational (w/Ballast/Anchors)	45 mph	72 km/h
Survival (w/Ballast/Anchors)	90 mph	145 km/h
Temperature	-40° to 140°F	-40° to 60°C
Rain	.5 in./h	1.3 cm/h
Solar Radiation	360 BTU/h/ft ²	1000 Kcal/h/m ²



2 piece reflector
CHA-12F-SMC2

Made in the USA

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