

3.8m Deployable Trailer Mount

Offset Tx/Rx Antenna System

3.8m Deployable Trailer Mount Antenna System

The Challenger Communications trailer mount system provides a cost effective solution with link margins that a 3.8 meter antenna can easily provide - for hub stations, a video uplink, or even an SCPC central station. We provide the affordable, flexible choice. The fold-down mount and removable panels are easily stowed or deployed in less than 45 minutes.

Our newest offset antenna is a solid performer. The stretch formed 3.8 meter reflector kerf panels provide superior surface accuracy. This antenna allows for easy installation without the need for a crane or lifting device.



Unique Features:

- Extra Support Ribs for Added Rigidity in Wind
- Long Focal Length for Excellent Sidelobe Rejection
- RCI 3000 Controller
- Various Band/Feed Options
- Easy to Transport and Deploy

Made in the USA

Reflector

Reflector Type	3.8m Stretch Formed Dual Skin Aluminum
Reflector Coating	Powder Coat
Optics	Single Offset
Feed	Standard Precision Horn
Az/El Drive System	Motorized
Mount	Az-El King Post Mount, Hot Dip Galvanized
Polarization	Motorized Rotation of Feed

Travel

Azimuth	+75° / -85° +65° / -75° with chain cover
El - Operational	5° - 90°
Polarization	±270° from 0°

Weights & Measures

Shipping Specifications	
Weight	5,150 lbs. (2,336 kg)
Container	2 Systems per High Cube 40 ft. Container

Environmental

Wind	
Operational	45 mph (72.4 km/h)
Survival, Stowed	100 mph (161 km/h)
Temperature	
Operational	-20° to 125°F (-28.9° to 51.7°C)

Antenna Characteristics	Ku Band - 2 Port	
	Receive	Transmit
Frequency (GHz)	10.70 - 12.75	13.75 - 14.50
Antenna Gain (dBi ± 0.2) (dB@GHz)	51.2 @ 11.725	53.2 @ 14.125
Antenna Noise Temperature (°K)		
10° Elevation	62°	
20° Elevation	52°	
30° Elevation	48°	
Cross Pol Isolation (dB)		
On-Axis	>30.0	>30.0
within 1 dB Beamwidth	>22	>26
Sidelobe Performance	ITU-R S.580	
VSWR	1.5:1	1.2:1
Port to Port Isolation (dB)	>45.0	>80.0
Polarization	Linear Cross Pol	

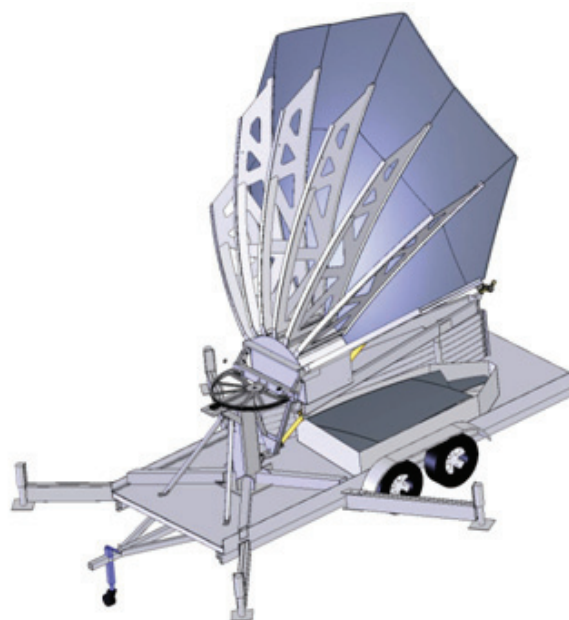
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3.8m Deployable Trailer Mount

Antenna Characteristics	C Band Linear - 2 Port	
	Receive	Transmit
Frequency (GHz)	3.625 - 4.2	5.85 - 6.425
Antenna Gain (dBi ± 0.2) (dB@GHz)	42.0 @ 3.9125	46.1 @ 6.1375
Antenna Noise Temperature (°K)		
10° Elevation	54°	
20° Elevation	46°	
30° Elevation	42°	
Cross Pol Isolation (dB)	ITU-R S.580	
(dB) On-Axis	>30.0	>30.0
within 1 dB Beamwidth	>22	>26
Sidelobe Performance	ITU-R S.580	
VSWR	1.5:1	1.3:1
Port to Port Isolation (dB)	>60.0	>85.0
Polarization	Linear Cross Pol	

Antenna Characteristics	X Band Circular - 2 Port	
	Receive	Transmit
Frequency (GHz)	7.25 - 7.75	7.9 - 8.4
Antenna Gain (dBi ± 0.2) (dB@GHz)	47.7 @ 7.5	48.5 @ 8.15
Antenna Noise Temperature (°K)		
10° Elevation	39°	
20° Elevation	32°	
30° Elevation	27°	
Axial Ratio (dB)	<1.8	<1.6
Cross Pol Isolation (dB)	ITU-R S.580	
(dB) On-Axis	>20	>20.8
within 1 dB Beamwidth	>20	>20.8
Sidelobe Performance	ITU-R S.580	
VSWR	1.2:1	1.2:1
Port to Port Isolation (dB)	>20.0	>20.0
Polarization	Circular Cross Pol	

Antenna Characteristics	C Band Circular - 2 Port	
	Receive	Transmit
Frequency (GHz)	3.625 - 4.2	5.85 - 6.425
Antenna Gain (dBi ± 0.2) (dB@GHz)	42.0 @ 3.9125	46.1 @ 6.1375
Antenna Noise Temperature (°K)		
10° Elevation	54°	
20° Elevation	46°	
30° Elevation	42°	
Axial Ratio (dB)	<3.0	<2.3
Cross Pol Isolation (dB)	ITU-R S.580	
(dB) On-Axis	>15	>18
within 1 dB Beamwidth	>15	>18
Sidelobe Performance	ITU-R S.580	
VSWR	1.5:1	1.3:1
Port to Port Isolation (dB)	>60.0	>85.0
Polarization	Circular Cross Pol	



Trailer Specifications	
Length - towed	22 ft. 8 in. (690.88 cm)
Length - shipped	19 ft. 3 in. (586.78 cm)
Width	88 in. (223.52 cm)
Trailer Height	98 in. (248.92 cm)
Suspension	Torflex Rubber Torsion Suspension Axle
Coupler	Adjustable 2-5/16" Coupler and Pintle Eye Lunette

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