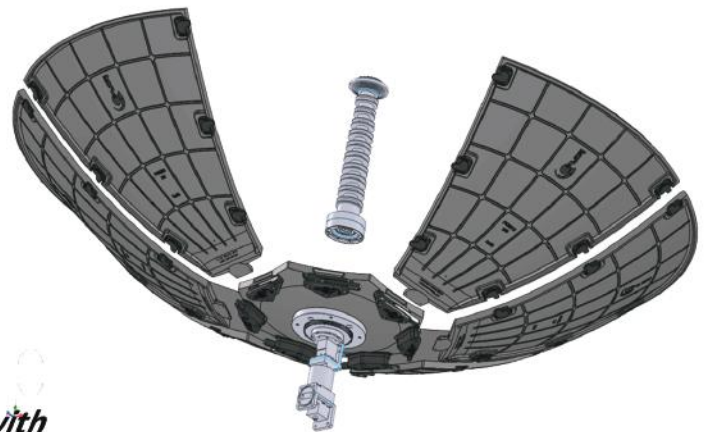
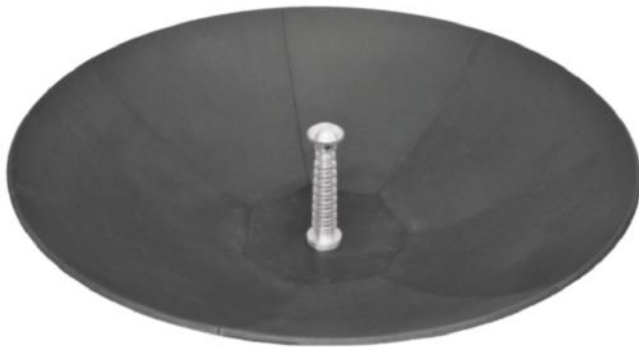




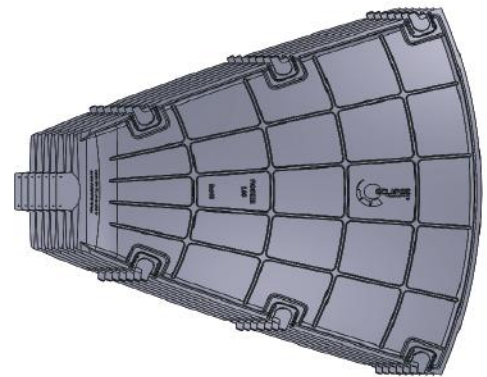
Segmented Carbon Fiber Manpack Antennas



Compact, Light-weight Design

Eclipse Composites Engineering has teamed with Optim Microwave to produce an affordable 'off-the-shelf' antenna system. Designed for use in military, emergency, exploratory and SNG applications requiring easy transport and rapid deployment.

- 50% lighter than aluminum
- Less than 2 minute reflector assembly time
- Multiband reflector (X, Ku, Ka-band)
- Removeable Feed
- Identical, Interchangeable petals
- No particular order of assembly
- Mil-Std 810G Environmental Compliance
- 45 Km/h Wind Load
- Painted / Cerakote Options available
- Patented Design



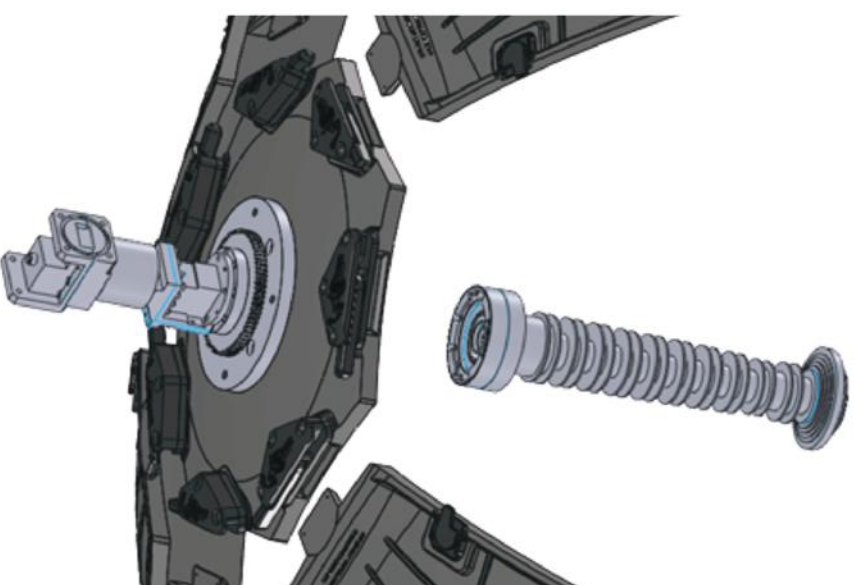
Ku-BAND Carbon Fiber Segmented Antennas

Mechanical Specifications	Pioneer 60	Pioneer 80	Pioneer 100	Pioneer 120 (avail 5/2017)
Antenna Size	60cm	80cm	1m	1.2m
Number of Petals	6	5	7	7
Petal Dimensions	34cm x 27cm	47.7cm x 36.7cm	44cm x 45.7cm	52.5cm x 54.5cm
Petal Stack Height	7.5cm	9.5cm	11.7cm	13.9cm
Hub dia	23.5cm	27.9cm	31.75cm	34cm
F/D	0.25	0.25	0.25	0.25
Petal Set Weight	1.2 kg	1.8 kg	3.7 kg	TBD
Feed/Hub/PRD-OMT Weight	2.3 kg	2.3 kg	2.7 kg	TBD
Feed Removable	yes	yes	yes	yes
Temp	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Environmental	Mil Std 810G	Mil Std 810G	Mil Std 810G	Mil Std 810G
Wind Load	45 Km/h	45 Km/h	45 Km/h	45 Km/h
RF Specifications				
Frequency TX	13.75-14.5 GHz	13.75-14.5 GHz	13.75-14.5 GHz	13.75-14.5 GHz
Frequency RX	10.7-12.75 GHz	10.7-12.75 GHz	10.7-12.75 GHz	10.7-12.75 GHz
Gain TX (+/-0.2dB)	37.2dBi *	39.6dBi *	41.4 dBi *	TBD
Gain RX (+/-0.2dB)	35.7dBi *	38.3 dBi *	40.1 dBi *	TBD
Losses (Antenna + PRD)	~0.33dB TX/0.35dB RX	~0.3dB TX+T66/0.4dB RX	~0.4dB	TBD
Polarization (2-Port Feed)	Linear	Linear	Linear	Linear
Std Configuration	Orthogonal	Orthogonal	Orthogonal	Orthogonal
With Diplexer/PRD	Co-Polarized	Co-Polarized	Co-Polarized	Co-Polarized
Polarization Travel	360° Continuous Travel Manual or Motorized**	360° Continuous Travel Manual or Motorized**	360° Continuous Travel Manual or Motorized**	360° Continuous Travel Manual or Motorized**
Polarization Method	Manual or Motorized**	Manual or Motorized**	Manual or Motorized**	Manual or Motorized**
Cross-Polarization Isolation	30 dB minimum >35 dB	30 dB minimum >35 dB	30 dB minimum >35 dB	30 dB minimum >35 dB
Waveguide Interfaces	WR-75	WR-75	WR-75	WR-75
TX / RX Port VSWR	<1.5:1	<1.5:1	<1.5:1	<1.5:1
Warranty				
Reflector	1 year manufacturer's defects thru Eclipse Composites			
Feed & OMT	1 year manufacturer's defects thru Optim Microwave			

* Gain measured midband at Rotating Polarization Device (PRD) ports

** Potentiometer and Motor not included with Hub

*** Rx and Tx polarizations are orthogonal in the standard configuration, co-polarized with addition of a diplexer



14663 Heritagecrest Way
Bluffdale, UT 84096 USA
+1 801.601.8559



CARBON FIBER ANTENNAS

www.eclipsecomposites.com
info@eclipsecomposites.com