

2.4 Meter Nomadic

The ASC Signal 2.4 m Nomadic is a highly flexible antenna system designed to operate on almost any satcom band and in many configurations. The entire reflector structure consists of lightweight carbon fiber panels, with multiple mounting scenarios, and can be ordered in motorized or non-motorized versions. With feeds available to address L-, C-, X-, Ku-, K-, Ka-, and Q-bands, as well as low PIM capable feeds, few applications are beyond its capabilities.

This antenna supports a variety of interchangeable feeds which are engineered for simple removal and replacement in the field. The reflector is constructed with a precision-formed honeycomb core and a carbon fiber skin which assures durability and high performance. The reflector is readily available in one-, three-, and nine-piece versions - all sharing common RF design components and performance capabilities.

The Nomadic is designed to be lightweight, with maximum stiffness, yet offers compact and highly robust components. The versatile architecture makes it ideal for launching highly divergent equipment applications using a single, flexible, modular and cost-effective equipment base.

Electronically engineered to operate at multiple frequencies, ASC Signal's 2.4 meter Nomadic is capable of transmitting and receiving signals under demanding wind loads and surviving winds up to 100 mph. Weighing less than 220 kg (480 lb), in fully motorized versions (including feeds), the tactical version can be deployed by two trained individuals within 30 minutes.

FEATURES

- Multiple Versions available
 - One-, three-, and nine-piece reflector panels
 - Motorized and non-motorized axes
 - Pedestal, Tactical and Mobile Mounts
- Six or Ten-case ISO shippable version
- Lightweight reflector, high accuracy tracking mount
- Interchangeable feed systems for quick field swaps
- Meets all applicable FCC, ITU and Mil-Spec standards
- Designed to comply with MIL-STD-810F
- Various trailer configurations are available
- Low PIM X-band available



The reflector is available in one-, three-, and nine-piece carbon fiber modular panels with latches for quick assembly



Vehicle mount version with desert tan finish

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The 2.4M Nomadic is designed around a base configuration to provide modular flexibility and configurability. In addition, it is designed to be rugged and to allow for maximum compactability to withstand the demands and rigors of transport in military and commercial aircraft. The feeds are also palletized to allow for easy transport and for band changes in minutes.

ELECTRICAL

	C-band	X-band	Ku-band	K-band	Ka-band	Q-band
Tx Gain (typ. Midband)	41.3	43.6	48.2	51.0	55.3	58.0
Rx Gain (typ. Midband)	37.6	43.3	47.3	47.4	52.0	52.1
G/T (typ. Midband) ¹	18.3	23.8	26.5	26.5	28.8	28.8
EIRP (Max Theoretical)	-	-	-	-	-	-
3dB Beamwidth Rx	2.09	1.23	0.79	0.76	0.44	0.40

¹G/T shown is typical for mid-band single thread, nominal temperature rated LNA connected directly to the feed flange and does not include post LNA contributions. See Feed sheets for more details

ENVIRONMENTAL

Operating Conditions (Typical)					
Pointing Accuracy (Degrees RMS)					
Typical (RMS)		4 GHz	7.75 GHz	12 GHz	20 GHz
	Calm	0.18	0.22	0.19	0.19
	Winds 30 gusting 45 mph	0.19	0.24	0.21	0.24
Typical (Peak)					
	Calm	0.27	0.30	0.26	0.29
	Winds 30 gusting 45 mph	0.29	0.35	0.43	0.80
	Survival	100 mph ballasted		125 mph stowed	
Temperatures		Operational		Survival	
Range		-40°C to 60°C (-40°F to 140°F)		-58°C to 71°C (-50°F to 160°F)	
Seismic	1G Vertical and Horizontal; 8.3 Richter, 11 Mercalli				
Solar Radiation	360 BTU/h/ft ² (1135 watts/m ²)				
Rain	Up to 10 cm/h (4 in/h)				
Relative Humidity	0% to 100%				
Shock & Vibration	As encountered by Air, Ship, Rail, and Truck				
Atmospheric	As encountered in moderately corrosive coastal and industrial environments				

Altitude	Operational	Survival
	Up to 12,000 ft	Up to 40,000 ft

MECHANICAL

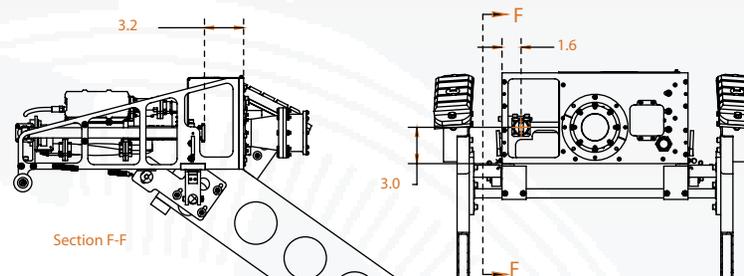
Reflector	Multi-Band Interchangeable		
Color	White (other colors available)		
Material	Carbon Fiber		
Segments	One, Three, and Nine Segment Versions		
Controller Type	Multi Axis Tracking Controller with Auto Acquisition		
Prime Power	Indoor 110-220 VAC 50/60 Hz (Universal) Outdoor 24 VDC, 120 VAC (Field Configurable)		
Power Consumption	20A or less @ 24VDC, 5A @ 120VAC (est.)		
Motor (Az, El, and Pol)	24 VDC		
Feed Type	Prime Focus, Offset		
Mount Type	El over Az Pedestal		
Angle Transducers	19 bit optical encoder		
Angle Resolution	0.0010		
Positioning Accuracy	0.0050 (est.)		
Limit Switch	optional		
Boom/Positioner Capacity			
Size Limit	38" x 14" x 12" (96cm x 36cm x 30cm) Boom		
Weight Limit	220 pounds; Boom	300 pounds; Positioner	
Overall Dimensions (stow)	131" L	86" W	24" H
Stow Height	<24 inches		

Azimuth	Elevation	Polarization
±150° Continuous	0° to 90° of Boresight	±100°

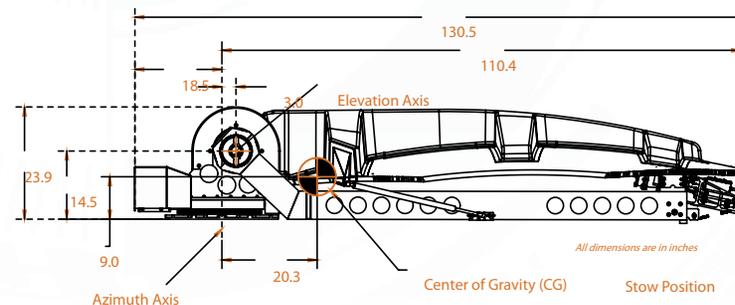
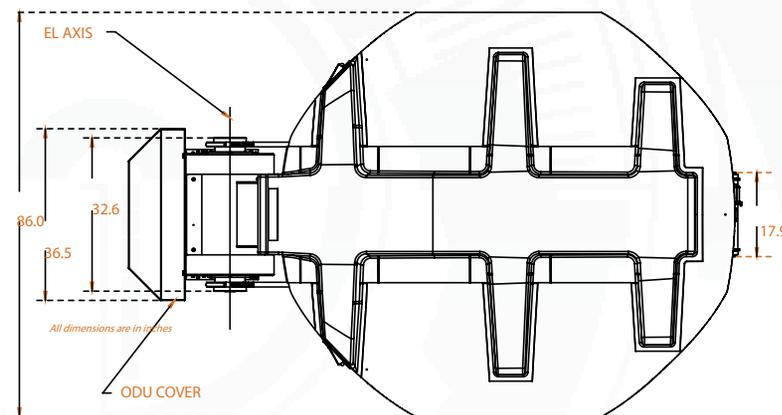
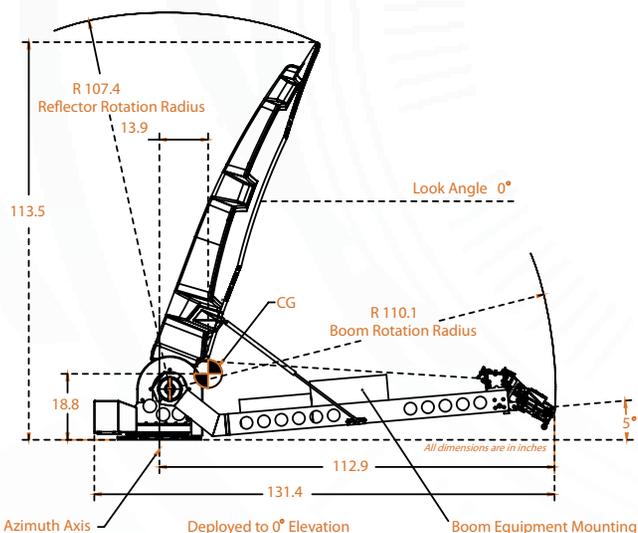
Maximum Travel Limits	User defineable within mechanical limits
Operate Limits	Hardware & Software Settable
Remote IDU Interconnect	Ethernet & RS232/422
Remote Interface	Remote Operation Software, SNMP V1 & V2c
IDU/ODU IFL	Single Mode Fiber Optic Cable
Optional Sensors	GPS, Compass, and Inclinometers
Controller Package	Single Box Outdoor Motor Controller 3RU 19" EIA Rack Mounted Indoor Controller

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- Mobile, Vehicle Mount



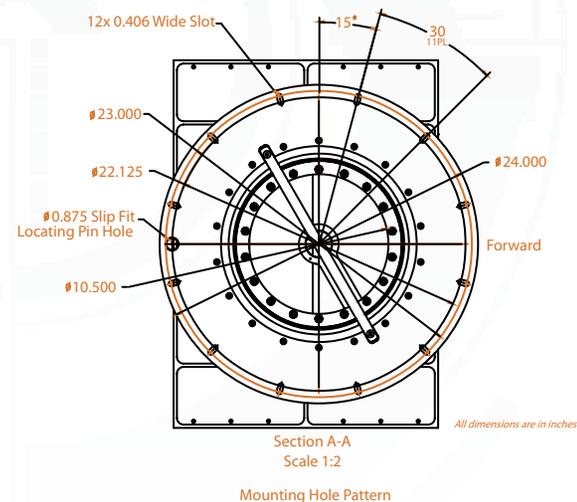
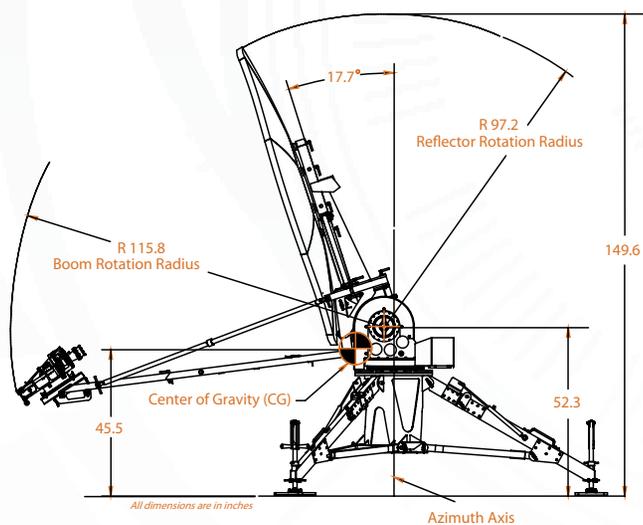
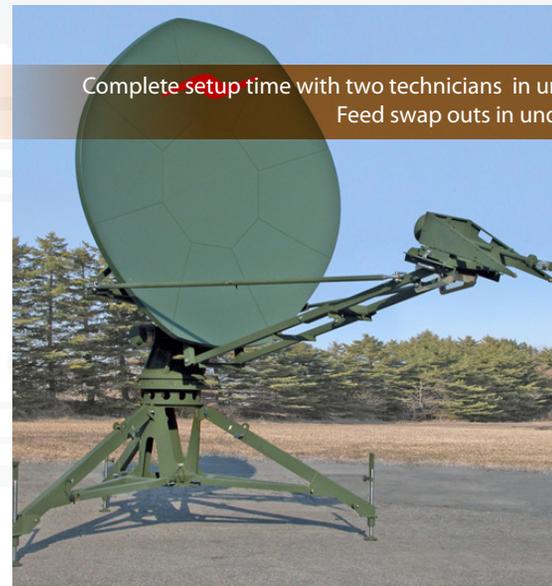
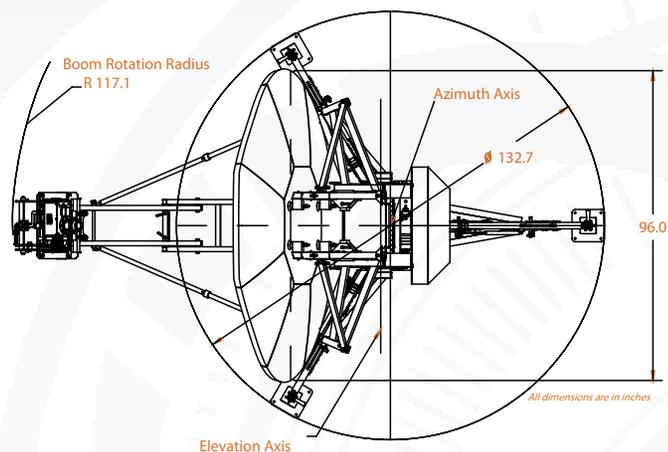
ASC offers a wide variety of carriage based feeds from for drop-in, on-the-fly mission changes.



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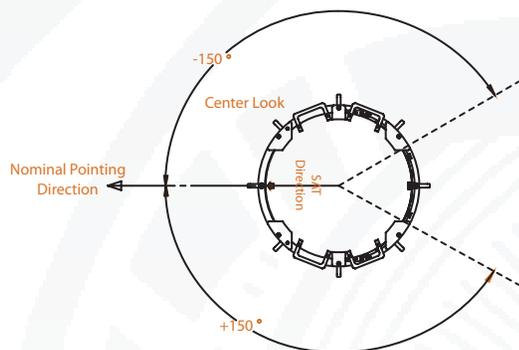
- Rugged Quick Deploy

Complete **setup** time with two technicians in under an hour.
Feed swap outs in under 10 minutes



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- Ground Mount Pedestal



Available in galvanized, powder coat, and CARC finishes in FS-595B Color Standards.

RUGGED QUICK DEPLOY

Case Weights & Dimensions*

Equipment	Case	Equip Weight	Total Weight	Case Dims (inches nominal)
Pedestal Column	1	81	141	37.6 x 33.4 x 28.25
Positioner Elevation	2	194	254	37.6 x 33.4 x 28.25
Pedestal; Lower Legs	3	36	101	67.0 x 29.2 x 17.25
Feed Boom/Feed Adapter/ Struts	4	64	129	67.0 x 29.2 x 17.25
Back Frame; L & R	5	66	131	67.0 x 29.2 x 17.25
Pedestal; Upper Legs	6	138	204	67.0 x 29.2 x 19.50
RF Equipment (Feeds)	7	Var	66	67.0 x 29.2 x 19.50
Arms; L&R/ Positioner Azimuth	8	143	205	67.0 x 29.2 x 15.25
Reflector; 4 Petals	9	56	118	41.8 x 25.0 x 37.0
Reflector; 5 Petals	10	55	117	41.8 x 25.0 x 37.0
Totals	10	833	1466	

* - Approximate

Nomadic Products

Part Numbering	Nine Piece	Three Piece	One Piece
Reflector	NMD-24-9	NMD-24-3	NMD-24-1

Mount	Motorized Vehicle	Motorized RQD	NonMotorized RQD
	NMD-VEH-M	NMD-TAC-M	NMD-TAC-NM

Outdoor Controller	NGC-ODU-24	-
Indoor Controller	NGC-IDU	-
Handheld Control	NGC-ODU-HH	-
IDU/ODU IFL	NGC-IFL-5M	NGC-IFL-10M
NGC Options	All NGC Options are available for this Package	

Feed Systems	See Feed Specification Sheets
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Accessories	
Hi Accuracy Sensor Kit	NGC-SEN-24-HA
Galvanized Pedestal	PEDMT-24
Anchor Bolt Kit	302689
Sandstone Paint	NMD-33510
Olive Drab Paint	NMD-34096
Custom Paint Color	NMD-NPN-LG

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*ES24 2.4M Nomadic Antenna
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