Earth Station Antenna

ASL 1.2M X-Band
Man-Pack (FAW) Motorized Antenna

Engineering + Craftsmanship + Service

We welcome you to the world of Alpha Satcom, Inc. The oldest, new antenna company on the planet. ASI is dedicated to bringing to you, the discerning customer, world-class products and services a the right price and at the right time.

Comprised of a team of Engineers and Satellite Professionals, ASI is uniquely qualified to bring to the market new and state-of-the-art antennas that will provide years of exceptional service. Coupled with a network of select customer focused companies, ASI can address the various requirements your particular business plan requires.

Antenna Features

- High strength, light weight, Carbon Fiber reflector with a surface accuracy of <0.3mm RMS.
- Easy assembly and operation, without training or tools.
- Azimuth and Elevation angle adjustment. Fast and fine tuning functions, it rapidly decreases the satellite acquisition period.
- Supports C, X, Ku and Ka-Band operation.
- Supports various requirements such as, Broadcast & Media, Emergency & Public Safety, Oil & Gas, etc.

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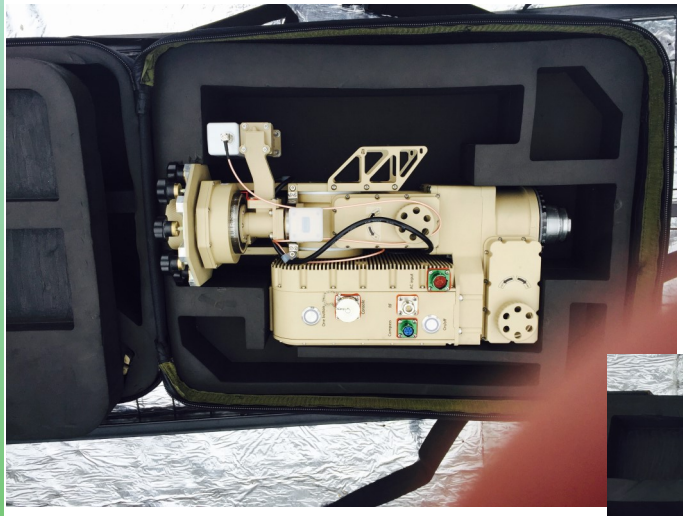
Mechanical & Environmental Specification

Reflector Type	Dual Reflector, Ring Focus
Size	700 x 600 x 400 mm
Weight	23 Kg
Azimuth Slew Area	± 90°
Elevation Slew Area	10° ~ 90°
Polarization Slew Area	± 95°
Operational Wind	65km/h (40mph) with ballast
Temperature	-40° C to +60°
Protection Grade	IP 65 (Dust and Water Re-
Humidity	0-98%



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Preliminary Antenna Performance Estimate 1.2Mtr X-Band 2 Port CP Ring Focus Antenna Frequency: 7.25-7.75 RX & 7.9-8.4TX		Band - 1 Receive CP			Band - 2 Transmit CP		
Frequency Range	**GHz**	**7.25**	**7.5**	**7.75**	**7.9**	**8.15**	**8.4**
Ambient Temperature	**Centigrade**	23	23	23	23	23	23
Diameter	**Meters**	1.2	1.2	1.2	1.2	1.2	1.2
Theoretical Gain Go	**dbi**	39.20	39.49	39.77	39.94	40.21	40.47
Antenna Gain Gs	**dbi**	37.07	37.36	37.64	37.50	37.77	38.03
Antenna Noise Temperature	**Kelvin**	55	55	55			
LNA Noise Temperature	**Kelvin**	60	60	60			
Effective LNA Noise Temperature	**Kelvin**	61	61	61			
System Temperature Ts	**Kelvin**	116	116	116			
	dbK	20.64	20.64	20.65			
Antenna System G/T	**dbK**	16.43	16.71	16.99			
Elevation Angle	**40 degrees**	16.43	16.71	16.99			
Antenna Noise Temperature at :							
7.5°	**Elevation**	65	65	65			
10°	**Elevation**	61	61	61			
20°	**Elevation**	56	56	56			
40°	**Elevation**	55	55	55			
Maximum Transmit Power	**Watts**				20	20	20
Transmit eirp	**dbW**				51	51	51
Antenna Pattern Features:							
3db beamwidth	**deg**		2.18			2.07	
10db beamwidth	**deg**		3.74			3.55	
Sidelobe envelope	**dbi**		29-25log(t)	1 > 20		29-25log(t)	1 > 20
% peak sidelobes over envelope				3db / 10%			3db / 10%
Antenna Terminal Characteristics							
Cross-pol	**db**		20			20	
Tx > Rx Rejection	**db**		85			0	
Rx > Tx Rejection	**db**		0			85	
Insertion Loss	**db**		0.60			0.70	
Rx - Rx Isolation	**db**		120				
Tx - Tx Isolation	**db**					85	
Return Loss (VSWR)	**db**		17	(1.25:1)		17	(1.25:1)
Waveguide Size	**dBi**		WR-112			WR-112	