

### ANTENNA FEATURES

- Motorized auto-acquisition antenna positioner with integral base and packable tripod
- High-efficiency triband RF optics
- Eight-panel carbon fiber reflector
- Manual azimuth, elevation, and polarity positioning
- Bayonet-style (quarter-turn) RF kit engagement
- Five-minute setup; seven-minute acquisition time (typical)
- Web-based GUI for acquisition accessible via Ethernet port right on antenna
- Standard feed:
  - Two-Port Ku-Band Precision
- Optional feeds:
  - Two-Port Ka-Band Commercial / Military (including GX)
  - Two-Port X-Band Military (WGS) – optional transmit/receive reject filter kit



### MECHANICAL SPECIFICATIONS

<b>Az/EI Drives</b>		Unique azimuth/elevation manual positioner
<b>Polarization Drive System</b>		Manual rotation
<b>Reflector Construction</b>		Nine-piece carbon fiber / aluminum
<b>Axis Travel</b>	<b>Azimuth</b>	±95°
	<b>Elevation</b>	5° to 90°
	<b>Polarization (Ku)</b>	±90° continuous
<b>RF Interface</b>	<b>BUC Mounting</b>	Rear of reflector (10 lbs. maximum, or 4.5 kg), or remote
	<b>Coax</b>	Two connectors at amplifiers
<b>Electrical Interface</b>		Connectors at lower panel; transmit, receive, power (28 VDC), M&C (Ethernet)
<b>Weight (approximate)</b>		Less than 50 lbs. (22.7 kg) – with Ku-Band Precision Feed, minus the BUC
<b>Cases</b>		Two SKB 3i-2918-10 travel cases – one for positioner, one for reflector; total weight less than 50 lbs. (22.7 kg) Exterior dimensions: 31.67 L x 20.55 W x 12.50 H in. (80.4 L x 52.2 W x 31.8 H cm)
<b>Setup Time</b>		Less than five minutes

### ENVIRONMENTAL SPECIFICATIONS

<b>Wind – Survival</b>	Anchored	45 mph (72 km/h)
<b>Wind – Operational</b>	With Anchoring	30 mph gusting to 45 mph (48 to 72 km/h)
	Without Anchoring	25 mph (40 km/h)
<b>Pointing Loss in Wind (Ku-Band Receive, Operational Winds)</b>		0.4 dB typical, 0.8 dB maximum
<b>Temperature</b>	Operational	-22° to 125° F (-30° to 52° C)
	Survival	-40° to 140° F (-40° to 60° C)

### RF PARAMETERS: KU-BAND (TWO-PORT)

		Receive	Transmit
<b>Frequency Range (GHz)</b>		10.95 – 12.75	13.75 – 14.50
<b>Polarization Configuration</b>		Linear orthogonal standard, optional co-polarization	
<b>Gain (dBi)</b>	Two-Port	39.8	41.4
	Four-Port	--	--
<b>Beamwidth (Degrees)</b>	-3 dB	1.8	1.5
	-10 dB	--	--
<b>Radiation Pattern Compliance</b>		FCC 25.209, ITU-R S.580-6, IESS 208	
<b>Antenna Noise Temperature (Midband, 20° EI)</b>	Two-Port	52° K	--
	Four-Port	--	--
<b>Power Handling Capability</b>		--	75W
<b>G/T Midband, Clear Horizon, Typical</b>		17.3 dB/° K with 50° LNB	--
<b>Axial Ratio</b>		--	--
<b>Feed Port Isolation (Tx to Rx, dB)</b>		35	80 (including filter)
<b>EIRP (40 W P1)</b>		--	57.4 dBW

### RF PARAMETERS: KA-BAND (TWO-PORT)

		Receive	Transmit
<b>Frequency Range (GHz)</b>		19.2 – 21.2	29.0 – 31.0
<b>Polarization Configuration</b>		Circular or Linear	
<b>Gain (dBi)</b>	Two-Port	44.1	47.3
	Four-Port	--	--
<b>Beamwidth (Degrees)</b>	-3 dB	1.0	0.75
	-10 dB	--	--
<b>Radiation Pattern Compliance</b>		FCC 25.209, MIL-STD-188-164C	
<b>Antenna Noise Temperature (Midband, 20° EI)</b>	Two-Port	115° K	--
	Four-Port	--	--
<b>Power Handling Capability</b>		--	50W
<b>G/T Midband, Clear Horizon, Typical</b>		20.7 dB/° K with 100° LNB	--
<b>Axial Ratio</b>		1.5	1.0
<b>Feed Port Isolation (Tx to Rx, dB)</b>		80	80 (including filter)
<b>EIRP (40 W P1)</b>		--	63.3 dBW

### RF PARAMETERS: X-BAND (TWO-PORT)

		Receive	Transmit
<b>Frequency Range (GHz)</b>		7.25 – 7.75	7.90 – 8.40
<b>Polarization Configuration</b>		RHCP or LHCP	
<b>Gain (dBi)</b>	Two-Port	35.9*	36.6*
	Four-Port	--	--
<b>Beamwidth (Degrees)</b>	-3 dB	2.9	2.6
	-10 dB	--	--
<b>Radiation Pattern Compliance</b>		MIL-STD-188-164C	
<b>Antenna Noise Temperature (Midband, 20° EI)</b>	Two-Port	48° K (including optional filter)	--
	Four-Port	--	--
<b>Power Handling Capability</b>		--	100W
<b>G/T Midband, Clear Horizon, Typical</b>		15.8 dB/° K with 55° LNB	--
<b>Axial Ratio</b>		1.21	2.0
<b>Feed Port Isolation (Tx to Rx, dB)</b>		115 (includes optional filter)	115 (includes optional filter)
<b>EIRP (40 W P1)</b>		--	52.6 dBW

\*Not including optional filters.

**OPTIONS – UPGRADES AND SERVICES**

- Connected power supply
  - Custom cabling
  - Beacon receiver
  - ARSTRAT-ready controls
  - Modem pack-up space
  - Customer-furnished ODU/modem integration
  - Customer-furnished BUC/LNB mounting
  - Waveguide interconnect options
  - Wind anchoring options: ground stakes and sandbags
  - Optional soft-sided ballistic nylon cases
  - Additional feed band cases
  - Add custom logo on reflector face (one- or two-color, as per the AvL Logo Policy)
  - Spare parts kit
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