

AvL TECHNOLOGIES

Model 1315 Medium Class Manual FlyAway 1.35m Segmented Carbon Fiber Antenna Tri-Band Configurable

- Unique Features**
- Lightweight manual antenna with integral base and folding tripod
 - 1.35m, 12 piece carbon fiber reflector
 - AvL Cable Drive azimuth and elevation positioner
 - 5-minute setup
 - High wind struts included
 - Auto-acquire upgrade available
- Standard Rx/Tx Feed** 2-Port Ku-Band Precision
- Optional Rx/Tx Feeds**
- 2-Port Ka-Band commercial / MIL (WGS) including GX
 - 2-Port X-Band MIL (WGS) – Opt. Rx/Tx reject filter kit
- Polarization Adjustment** Manual rotation



Mechanical

Reflector Construction	Carbon fiber / aluminum
Travel	
Azimuth	+/-95°
Elevation	+5° to 95°
Polarization (Ku)	+/-95°
RF Interface	
BUC Mounting	Rear of reflector (10 lbs. typ), or remote
Coax	Two connectors at amplifiers
Electrical Interface	Connectors at amplifiers
Set-up Time	Less than 5 minutes
Assembled Weight	<41 lbs. (with Ku-Band Precision feed, less BUC)
Case Integration	Two checkable travel cases, one for positioner, one for reflector, <70 lbs. each Exterior dimensions: 31.52" x 20.83" x 12.50" (80.06 x 52.91 x 31.75 cm)

Environmental

Wind – Survival (anchored)	45 mph
Wind - Operational	
Without anchoring	25 mph
With anchoring	30 mph gusting to 45 mph
Pointing Loss in Wind	
Ku-band Receive, Operational winds	0.4 dB typical, 0.8 dB max
Temperature:	
Operational	-22° to 125° F (-30° to 52° C)
Survival	-40° to 140° F (-40° to 60° C)

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RF/Electrical

Feed Type ►	Std. 2-Port Ku-Band <i>DBS bands avail. upon request</i>		2-Port Ka-Band		2-Port X-Band	
RF Parameter ▼	Receive	Transmit	Receive	Transmit	Receive	Transmit
Frequency Range (GHz)	10.95 - 12.75	13.75 - 14.50	19.2 - 21.2	29.0 - 31.0	7.25 - 7.75	7.90 - 8.40
Polarization Configuration	Linear Orthogonal Standard, Optional Co-Pol		Circular or Linear		RHCP or LHCP	
Gain (mid-band) (dBi)	42.3	43.8	46.7	50.0	38.3*	39.0*
Beamwidth (-3 dB)	1.4°	1.1°	0.8°	0.5°	2.2°	2.0°
G/T, Midband, Clear Horizon	22.2 dB/° K with 50° LNB		23.2 dB/° K with 100° LNB		18.0 dB/° K with 55° LNB 46° K (including optional filter)	
Antenna Noise Temperature @ 20° El, midband	50° K		112° K			
Radiation Pattern Compliance	FCC 25.209, ITU-R S.580-6, IESS 208		FCC 25.209, MIL-STD-188- 164A		MIL-STD-188-164A	
EIRP (40 W P1)		59.8 dBw		66.0 dBw		55 dBw
Power Handling Capability		75W		50W		100W
VSWR	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1
Axial Ratio, CP only, within Pointing Cone (dB)			1.5	1.0	1.21	2.0
Cross-Polarization Isolation (dB)						
On Axis (minimum)	35	35				
Within Pointing Cone	35	35				
Feed Port Isolation – Tx to Rx (dB)	35	80 (incl.filter)	80	80 (incl.filter)	115 (includes optional filter)	115 (includes optional filter)

Available Options, Upgrades & Services

- AvL AAQ motorized computer-assisted pointing & acquisition upgrade
- Beacon receiver
- Customer-furnished ODU/modem integration
- Customer-furnished BUC/LNB mounting
- Waveguide interconnect options
- Wind anchoring options: ground stakes, sand bags
- Optional soft sided ballistic nylon cases
- Additional feed band cases
- Add custom logo on reflector face (1- or 2-color; per AvL logo policy)
- Spare parts kit

*Not including optional filters