AvL TECHNOLOGIES

Model 1215 "Medium Class" Manual FlyAway (F/A)
1.2m Segmented CF MIL/SNG Antenna
Band Configurable

Unique Features
- Ultra Lightweight Manual Antenna with Integral Base and Extending Stabilizer Legs
- 1.2m, 4 piece Carbon Fiber Reflector
- Unique Azimuth Mechanism and Elevation ACME Screw Manual Actuators Allow Full Range of Motion for Both Coarse and Fine Adjustment
- 5-Minute Setup

Standard Rx/Tx Feed
- 2-Port Ku Precision (standard Cross-Pol comp.)

Optional Rx/Tx Feeds
- 2-Port Mode-Match (enhanced Cross-Pol comp.)
- 2-Port Ka Commercial
- 2-Port Ka MIL (WGS)
- 2-Port X MIL (WGS) – Opt. Rx/Tx Reject Filter Kit

Polarization Adjustment
- Rotation of Feed

Mechanical

Reflector Construction		Carbon Fiber
Travel		
Azimuth	Coarse	360° Continuous
	Fine	± 10°
Elevation	Coarse	+5 - 95°
	Fine	+5 - 95°
Polarization (Ku)		± 95°
RF Interface		
BUC Mounting		Feed Boom (10 lbs max), or Remote
Coax		Two connectors at Amplifiers
Electrical Interface		Connectors at Amplifiers
Set-up Time		Less than 5 minutes
Stowed Configuration & Weights		
Reflector		36" x 25" x 5", weighs 18 lbs
El Positioner		25" x 16" x 9", weighs 13.7 lbs.
Az Positioner/Base		8.5" x 8.5" x 8", weighs 14.3 lbs
Legs (3x)		9" x 5" x 20" (each), weights 2.7 lbs
Ku Feed/Feed Boom/Struts		34" x 4" x 8", weighs 8lbs
Case Integration		Antenna fits into 2 ballistic nylon case, less than 50lb per case
Total Weight		62 lbs. (with KU Precision Feed)
Note: BUC and LNB are CFE		

Environmental

Wind – Survival (anchored)	80 mph instowed position
Wind - Operational	
Without anchoring	20 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)

15 North Merrimon Avenue • Asheville, NC 28804 • 828.250.9950 • FAX 828.250.9938 • www.avltech.com

Rev. 2014-08-22

AvL TECHNOLOGIES

Model 1215 “Medium Class” Manual F/A MIL/SNG Band Configurable Antenna

RF/Electrical

Feed Type ►	Std. 2-Port Ku-Band *DBS bands avail. upon request*		2-Port Ka		2-Port X	
RF Parameter ▼	**Receive**	**Transmit**	**Receive**	**Transmit**	**Receive**	**Transmit**
Frequency Range (GHz)	10.95 - 12.75	13.75 - 14.50	Mil: 20.2 - 21.2 Comm: 17.7 - 20.2	Mil: 30.0 - 31.0 Comm: 27.5 - 30.0	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)	41.6	43.1	46.2 Mil	49.5 Mil	37.6	38.1
Beamwidth (-3 dB)	1.5°	1.2°	0.8°	0.6°	2.3°	2.1°
G/T, midband, clear horizon	21.3 dB/° K with 50° LNB		23.0 dB/° K with 100° LNB		17.3 dB/° K with 55° LNB	
Antenna Noise Temperature @ 20° El, midband	54° K		107° K		46° K (including optional filter)	
Radiation Pattern Compliance	FCC 25.209, ITU-R S.580-6, IESS 208		FCC 25.209, MIL-STD-188-164A		MIL-STD-188-164A	
Power Handling Capability		500W per port		250W per port		1 KW
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	28 Std. Precision 25 Mode-Match	30 Std. Precision 35 Mode-Match				
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 computer-assisted pointing & acquisition
- Beacon receiver
- Customer-furnished ODU/modem integration
- Customer-furnished BUC/LNB mounting
- Waveguide interconnect options
- Wind anchoring options: ground stakes, sand bags
- Optional Aluminum Transit case
- 2 Piece Carbon Fiber Reflector

15 North Merrimon Avenue • Asheville, NC 28804 • 828.250.9950 • FAX 828.250.9938 • www.avltech.com

Rev. 2014-08-22