

# AVL TECHNOLOGIES

## Model 1215 “Medium Class” Manual FlyAway (F/A) 1.2m Segmented Carbon Fiber 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 Screw Adjustment 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** Manual Rotation of Feed with Lock Down



### Mechanical

Reflector Construction	Carbon Fiber
Travel	
Azimuth	Coarse Fine
Elevation	Coarse Fine
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
Assembled Weight	<75 lbs. (with Ku Precision Feed)
<i>Note: BUC and LNB are CFE</i>	
Case Integration	
SKB Injection Molded Resin – 2-case pack-up	Reflector case: 33.7"x28.5"x16.3", 85 lbs. (packed); positioner case: 31.62"x20.5"x15.75, 62 lbs. (packed)
<i>Note: SKB cases are MIL-STD-810F and MIL-C-4150J compliant</i>	

### Environmental

Wind – Survival (anchored)	80 mph in stowed 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	-40° to 140° F (-40° to 60° C)
Survival	-40° to 140° F (-40° to 60° C)

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### RF/Electrical

Feed Type ►	Std. 2-Port Ku-Band		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	38.3
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		17.5 dB/° K with 55° LNB	
Antenna Noise Temperature @ 20° EI, 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	26 Std. Precision 25 Mode-Match		26 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
- Optional Soft Sided Ballistic Nylon Cases
- 2 Piece Carbon Fiber Reflector



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