



FeatherLight™ Integrated SATCOM Terminal (FL-IST) Quick Deploy Antenna

The FeatherLight™ IST Tri-Band capable Antenna is the lightest, fully integrated, auto-acquiring terminal available. Its modular design, plug-n-play assembly and rapid acquisition enables operators to setup and be on-the-air in five (5) minutes or less. The terminal features an AvL Mesh antenna reflector:

- Base unit with modular BUC, antenna controller, modem and space for optional battery/UPS
- Ultra-light mesh reflector, with push-pull open and closure (no assembly required)
- Antenna mast designed with Quick Disconnect RF and electrical connections to the FL-IST base unit
- Ergonomic design allows for easy setup in near darkness
- Also provides Baseband connections for Users existing modems.



The FL-IST features the CAP-III™ Handheld Controller. (Computer Assisted Pointing). The CAP III™ locates the satellite in site survey mode and then physically interfaces with the FL-IST for a one button push to acquire and peak on the selected satellite. The standard integrated 20W linear Ku BUC provides sufficient power to support 2-way HD Full Motion Video, VoIP, data and Internet access on standard or New HTS spacecraft providing up to 30+ Mbps uplink. Furthermore, with the presence of the motor-drives, the FL-IST provides a pathway to tracking LEO/MEO and inclined orbiting satellites.

Mechanical

El/Az Drive	Motorized
Polarization Drive System	Manual Rotation of Feed
Reflector Construction	Deployable mesh (optional carbon-fiber)
Axis Travel	
Azimuth	+/- 180 degrees
Elevation (reflector bore sight)	0 - 90 degrees
Polarization	+/- 91 degrees
Standard Integration Interfaces	
Tx Input @ Feed	Waveguide Adapter (cover)
Rx Input @ Feed	Coax flange (cover)
Weight	Fully Integrated Auto-Acquire Terminal 33 lbs. (Standard Configuration)

Environmental

Wind – Survival	Deployed: 40 mph (64 kph)
Wind – Operational	20 mph (32 kph) gusting to 35 mph (48 kph)
Pointing Loss in Wind (Ku RX):	
20 mph (48 kph)	0.1 dB
35 mph (72 kph)	0.4 dB
Temperature:	
Operational	-40°F to 140°F (-40°C to 60°C)
Survival	-50°F to 180°F (-46°C to 82°C)
Environmental construction	MIL-STD-810G (w/optional reflector)

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RF/Electrical

Feed Type ►	Std. 2-Port Precision Ku-Band	
	Receive	Transmit
RF Parameter ▼		
Frequency Range (GHz)	10.95 - 12.75	13.75-14.50
Polarization Configuration	Linear orthogonal standard, optional co-pol	
Gain (mid-band)	36.9 dBi	38.4 dBi
-3dB Beam width (mid-band)	2.38°	2.195°
Radiation Pattern Compliance	FCC 25.209*, ITU-R S.580-6	
G/T with LNB, midband, clear horizon	16.4 dB/° K (50° LNB)	
EIRP (w/16W Linear BUC)		51.5 dBW
Antenna Noise Temp. (mid-band, 20° EI)	60° K	
VSWR	<1.50:1	<1.50:1
Cross-Polarization Isolation (Ku only)	>30dB	>30dB
Feed Port Isolation (Tx to Rx)	>40 dB	>40 dB
Power	AC input: 90-256 VAC, 8A peak, 3A Continuous DC input: 15A @ 28 VDC	
Modem (Standard)	iDirect e850	

Available Options/Upgrades/Services

- X- & Ka-Band Interchangeable Feed Kits
- External "low-power" Ku BUC for further weight reduction
- Modem Options – Provides direct interface to external modems (FL-IST is modem agnostic) External baseband connections
- Internal BB2590 Battery provides 60+ minutes operation and allows for "hot-swapping" of external batteries
- Segmented carbon-fiber reflector for longer term deployments in multiple sizes: 65cm, 1.0M and 1.2M
- Multiple Band feed system for Carbon Fiber units eliminates changing feed, BUC and LNB's to change frequencies, with auto switching
- Hard Wall Transit Case or soft wall roller-board or Back-Pack transit cases available

* Outside main beam on 65 and 79cm versions only



Model 0790 FeatherLight™ IST with Reflector Stowed and Deployed