

1.2m Tactical Flyaway Terminal

Antenna Technologies



Overview

CPI's new 1.2m Tactical Flyaway Terminal is designed for worldwide transmit and receive operation in X-, Ku- and Ka-band. This portable antenna consists of a rugged segmented composite reflector and motorized positioner mount. This configuration results in an extremely lightweight and packable antenna with superior stiffness and high performance under wind loading conditions.

The unique optical shape and accurate reflector surface provide good sidelobe and excellent cross-polarization performance. Repeatability is maintained with precision registration of the nine-piece reflector segments and RF components.

The antenna can be quickly assembled by one person in less than ten minutes. The auto-acquire controller can find the correct satellite and optimize co-pol and cross-pol performance with the push of a button.

The 1.2-meter flyaway terminal, including the feed, BUC and LNB are packaged in three portable cases, each weighing less than 70lbs.

FEATURES:

- Carbon fiber reinforced polymer (CFRP) reflector
- Toolless assembly and deployment
- Superior cross-pol performance
- Extremely low loss RF component mounting
- DVB receiver and modems
- Intelsat, FCC, ITU and Eutelsat sidelobe compliant

OPTIONS:

- Transport case configurations

BENEFITS:

- Airline checkable
- Quick deployable
- Lightweight
- High antenna efficiency

APPLICATIONS:

- Communications, data transfer, broadcast

CERTIFICATIONS:

- XTAR

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Specifications

ELECTRICAL ⁽¹⁾	Ku-band 2-Port Linear Polarized		Ka-band 2-Port Circular Polarized		X-band 2-Port Circular Polarized	
	Receive	Transmit	Receive	Transmit	Receive	Transmit
Antenna size	1.2 m (47.24 in)					
Frequency (GHz)	10.70 - 12.75	13.75 - 14.50	20.20 - 21.20	30.00 - 31.00	7.25 - 7.75	7.90 - 8.40
Antenna gain, midband (dBi)	14.60	43.60	45.30	48.40	36.70	37.60
Sidelobe compliant	FCC requirements*		ITU-RS-580		ITU-RS-580	
Antenna noise temperature (K) 5° Elevation	82 K		182 K		83 K	
Cross polarization isolation on axis (dB)	35.0	35.0	30.0	30.0	30.0	30.0
Pattern beamwidth (in degrees) -3 dB, at midband -15 dB, at midband	1.36 2.86	1.13 2.37	0.85 1.79	0.60 1.26	2.37 4.98	2.10 4.41
G/T (dB/K)	20.5		22.0		17.5	
EIRP specification (dBW)	58.7		61.0		54.2	
MECHANICAL⁽¹⁾						
Reflector material	Nine-piece carbon fiber composite					
Azimuth travel / Elevation travel	±200° / -1° to 91° (5° to 85° operational)					
Polarization Travel	±90°					
Shipping Specifications Case 1: Reflector Panels Case 2: Feed, Tripod, ACU, Cable Harness Case 3: Mount, Motorization, RF Package	Case size 25 x 24 x 13 in (63.5 x 60.96 x 33.02 cm) 25 x 24 x 13 in (63.5 x 60.96 x 33.02 cm) 31 x 17 x 13.5 in (78.7 x 43.2 x 34.3 cm)			Weight (component and case) <70 lbs (32 kg) packed <70 lbs (32 kg) <70 lbs (32 kg)		
AUTO ACQUISITION CONTROL SYSTEM⁽¹⁾						
System interface	Controller with ethernet port for web user interface access					
Power	115/230 VAC, 50/60 Hz					
ENVIRONMENTAL⁽¹⁾						
Wind loading Operational (anchored) Survival (with tie-downs)	30 mph (48 km/h) gusting to 45 mph (72 km/h) 50 mph (80 km/h) any position, 80 mph (129 km/h) in stow position with reflector removed					
Temperature-Antenna and Control System Operational (anchored) Survival (packed)	22° to +140° F (-30° to +60° C) -40° to +160° F (-40° to +71° C)					
Shock and vibration tolerant to conditions encountered during shipment by airplane, ship or truck. Atmospheric tolerant to conditions encountered in coastal regions and/or heavily industrialized areas						

* Per 25.220 (c)(1) with maximum input power density of -15.3 dBW / 4 kHz

⁽¹⁾ Some specifications may vary based on the combination of equipment, options and/or upgrades ordered.

Contact CPI at CustomerCareSAT@cpil.com or at +1 770-689-2040

This data should be used for basic information only.

Formal, controlled specifications may be obtained from CPI for use in equipment design.



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For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.

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