

Satcom & Antenna Technologies Division



Overview

The CPI Satcom & Antenna Technologies Inc. (CPI SAT) innovative flyaway line leads the way in the next generation of flyaway terminals. Available in 60cm to 1.4m reflector sizes, this tripod antenna line features simple manual or automated satellite acquisition; an intuitive GUI; and a range of optional extra features.

The flyaway line is lightweight allowing for ease of transportation. The completely waterproof and rugged design allows for operation in even the most challenging of conditions, be that in a war zone for military communications; capturing breaking news stories from the front line; or distributing CCTV from remote locations on international borders.

FEATURES

- Simple manual or automated satellite acquisition
- Waterproof and rugged design for harsh environments
- Intuitive GUI and setup time of less than 5 minutes
- High performance carbon fiber segmented antenna
- Assisted, fast acquisition via intuitive GUI (C125FA)
- Ka, Ku & X-band
- Set up time less than 5 minutes
- ITAR free
- C125FA includes a clip-on auto pointing pack
- Interchangeable feed system for swapping frequency bands
- Range of integrated BUC/SSPB and LNB options available on common mount for C125 and C140
- Optional auto-pointing kit can be easily retro fitted or swapped between antennas and sizes

BENEFITS:

- Lightweight
- Ease of operation

APPLICATIONS:

- Designed for operation in the most challenging of conditions

C125FA User Interfaces

- AC Power Input – 85 to 264 VAC, 47-63 Hz • DC Power Input – 11 to 36 VDC nEthernet (Weather-proof RJ45)
- RF Monitor (N-Type)
- USB (Weatherproof Type A)

C125FA User Interfaces

- Single Button Control
- Web Browser Monitor & Control
- Simple highly intuitive interactive Web User interface

Mechanical/Physical

- **Reflector**
8 piece segmented Carbon Fibre
- **Surface Accuracy**
Better than 0.25mm rms error
- **Antenna Weight**
110 lbs. (50 kg) not including transit case
- **Packaging**
C125FM
Case 1: 43.0" x 27.5" x 20.0"; 105lbs (48kg)
Case 2: 43.0" x 27.5" x 20.0"; 100lbs (45.5kg)
Case 3: 37.5" x 27.5" x 12.75"; 86lbs (39kg)
Case 4: 25.6" x 24.0" x 16.9"; 64lbs (29kg)
C125FA
Case 1: 43.0" x 27.5" x 20.0"; 105lbs (48kg)
Case 2: 43.0" x 27.5" x 20.0"; 107lbs (49kg)
Case 3: 37.5" x 27.5" x 12.75"; 102lbs (46.5kg)
Case 4: 25.6" x 24.0" x 16.9"; 64lbs (29kg)

Alignment - C125FA

The optional auto pointing kit supplied with the C125FA simply clips onto the antenna and provides an upgrade to fully automatic pointing capabilities. The powerful on board controller allows for highly intuitive, single button control or a graphical user interface experience via a Web UI to deskill the operation of locating and acquiring the desired satellite. The system utilizes the built in GPS, compass and inclinometer sensors in combination with information obtained from the optional beacon receiver and DVB receiver or attached MODEM, to provide data to the controller to enable automatic satellite pointing and peaking.

Environmental

- **Temperature (Tested to MIL-STD-810G CHG-1 501.6 & 502.6 Proc I & II)**
Operational: -20°C to 49°C (-5°F to 120°F)
Storage: -45°C to 70°C (-50°F to 160°F)
- **Humidity (Tested to MIL-STD-810G CHG-1 507.6 Proc II)**
Operational: 95% Relative Humidity
- **Altitude (Tested to MIL-STD-810G CHG-1 500.6 Proc I & II)**
Operational: 3,000m @ -10°C (9,842ft @ 14°F)
Storage: 5,000m @ -30°C (1,6404ft @ -22°F)
- **Vibration (storage/transit) (Tested to MIL-STD-810G CHG-1 514.7 Proc I)**
Cat. 24 MIT: 0.04 g²/Hz, 20 Hz to 2,000 Hz, 1hr/axis, rms=7.7g's
- **Sand & Dust Ingress (Tested to MIL-STD-810G CHG-1 510.6 Proc I)**
Dust: 10.6g/m³, 9m/s @ 49°C
Sand: 1.1g/m³, 18m/s @ 49°C (pending)
- **Solar Radiation (Tested to MIL-STD-810G CHG-1 505.6 Proc I)**
Operational: 1120W/m² @ 49°C
(355BTU/ft²/hr @ 120°F)
- **Ice/Freezing Rain (Tested to MIL-STD-810G CHG-1 521.4 Proc I)**
25.4mm (1") Ice buildup, de-ice before use
Corrosion / Salt Fog (Tested to MIL-STD-810G CHG-1 509.6)
- **Wind Loading (Pending for Ka-Band)**
Operational: 30mph with gust to 45mph (with ballast)
- **Blowing Rain (Tested to MIL-STD-810G CHG-1 506.6 Proc I)**
4 inches/hour, 40mph (18m/s) wind speed



CPI C125FA C125FM

Electrical	Ka-Band	Ku-Band	X-Band
Frequency (GHz)	Transmit: 29.5 to 31 Receive: 19.7 to 21.2	Transmit: 13.75 to 14.5 Receive: 10.95 to 12.75	Transmit: 7.9 to 8.4 Receive: 7.25 to 7.75
Polarization	Circular	Linear	Circular
Tx Gain	49.5 dBi	43 dBi	37.8 dBi
Rx Gain	46.8 dBi	41.5 dBi	37.2 dBi
G/T	G/T@20= 23.1 dBk	G/T@20= 21.6 dBk	G/T@20= 16.45 dBk

**Contact us at CustomerCareSAT@cpii.com or
call us at +1 770-689-2040.**

The 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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