

## 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 (C140FA)
- Ka, Ku & X-band
- Set up time less than 5 minutes
- ITAR free
- C140FA includes a clip-on auto pointing pack
- Interchangeable feed system for swapping frequency bands
- Range of integrated BUC/SSPB and LNB options available
- 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

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### Mechanical Performance

- Reflector  
8 piece segmented Carbon Fibre
- Surface Accuracy  
Better than 0.25mm rms error
- Antenna Weight  
115 lbs (52.5 kg) not including transit case
- Packaging  
C140FM  
Case 1: 43.0" x 27.5" x 20.0"; 105lbs (48kg)  
Case 2: 43.0" x 27.5" x 20.0"; 101lbs (46kg)  
Case 3: 37.5" x 27.5" x 12.75"; 91lbs (41.5kg)  
Case 4: 25.6" x 24.0" x 16.9"; 64lbs (29kg)  
C140FA  
Case 1: 43.0" x 27.5" x 20.0"; 105lbs (48kg)  
Case 2: 43.0" x 27.5" x 20.0"; 108lbs (49kg)  
Case 3: 37.5" x 27.5" x 12.75"; 106lbs (48.5kg)  
Case 4: 25.6" x 24.0" x 16.9"; 64lbs (29kg)

### C140FA User Interfaces

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

### Control C140FA

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

### Environmental Performance

- 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 g<sup>2</sup>/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/m<sup>3</sup>, 9m/s @ 49°C  
-Sand: 1.1g/m<sup>3</sup>, 18m/s @ 49°C (pending)
- Solar Radiation (Tested to MIL-STD-810G CHG-1 505.6 Proc I)  
-Operational: 1120W/m<sup>2</sup> @ 49°C (355BTU/ft<sup>2</sup>/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 Next Generation Flyaway Terminal: C140FM, C140 FA

## Alignment - C140FA

The optional auto pointing kit supplied with the C140FA 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



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	51.1 dBi	44.5 dBi	38.8 dBi
Rx Gain	48.5 dBi	42.8 dBi	38.1 dBi
G/T	G/T@20= 25.1 dBk	G/T@20= 21.8 dBk	G/T@20= 17.45 dBk

**Contact us at [CustomerCareSAT@cpii.com](mailto: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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