Specifications are subject to change without notice.

1.2 Meter Motorized Flyaway Engage™ Class
High Performance Satcom Terminal Solution

- X, Ku or Ka-Band Terminal
- Intelligent Antenna Controller
- Bandwidth efficient digital modem access technology
- Second Generation GaN based SSPB
- XTAR Certified

**Overview**

The Engage Class High Performance, 1.2m Flyaway Satcom Terminal Solution from Advantech Wireless Technologies is based on a high efficiency, ruggedized tri-band ready 1.2 Meter Motorized Flyaway Antenna, which can cover X-Band, Ku-Band or Ka-Band, by replacing the feed only. The antenna is fully motorized and has integrated satellite finding controller.

The terminal has been built in either:
- A multi waveform-access mode satellite modem, efficient bandwidth utilization or,
- Mil 165A Grade Technology Modem

The digital multi waveform-access technology allows the terminal to operate different access wave forms, and achieve efficient bandwidth utilization:
- STAR Mode MF-TDMA for low data rate, high bandwidth efficient traffic
- MESH mode MF-TDMA with multichannel demod built-in
- HUBLESS TDMA
- SCPC for high data rate traffic, with dedicated bandwidth and maximum QoS

The RF section includes the award winning Second Generation GaN based technology SSPA/SSPBs.
- X-Band from 10W to 100 W
- Ku-Band from 16W to 125W
- Ka-Band from 10W to 40W

The entire terminal is fully compliant with:
- MIL-STD-188-164a
- MIL-STD-810F
- NATO STANAG 4484
- IP65

**Features**

- Flexible and Mobile Solution
- Fully integrated system for easy deployment and use
- High Performance Motorization Package
- Integrated Control System for 1 Button Auto Acquire
- Quick one-person installation
- Modem with multi access mode
- DVB-S/S2X compliant
- Multi Band Frequency X, Ku or Ka-Band operation
- Compact ruggedized packaging, IP65 compliant
- State-of-the-art Second Generation GaN based Solid State Power Amplifier
- Excellent Reliability
- Minimal Maintenance

**Options**

- Modem Agnostic
- Router
- Location finding tool set (Compass, GPS, Clinometer)
- Hand held spectrum analyser
- UPS with Battery set
- IP Phone
- Ruggedized C4I hardware platform
- Anti GPS Jamming
## Product Features & Specifications

### Technical Specifications

#### Modem Specifications
- **Network Architecture**: Point-to-Point, Star, Mesh
- **Security**: Optional AES 256 and Transec

#### RF Performance

<table>
<thead>
<tr>
<th>Frequency (GHz)</th>
<th>10W to 100W X-Band</th>
<th>16W to 125 Ku Band</th>
<th>10W to 40W Ka Band</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gain (Midband, dBi)</strong></td>
<td>45 dBW to 55 dBW</td>
<td>50 dBW to 59 dBW</td>
<td>58 dBW to 64 dBW</td>
</tr>
<tr>
<td><strong>Frequency (GHz)</strong></td>
<td>7.900 – 8.400</td>
<td>13.75-14.5</td>
<td>30.0 – 31.0</td>
</tr>
<tr>
<td><strong>EIRP</strong></td>
<td>7.250</td>
<td>10.70</td>
<td>30.2</td>
</tr>
</tbody>
</table>

#### Antenna Electrical Specifications

<table>
<thead>
<tr>
<th>Frequency (GHz)</th>
<th>2 Port X-Band Circular Polarization</th>
<th>2 Port Cross Pol Ku Band Linear Mode Matched Feed Polarization</th>
<th>2 Port Cross Pol Ka Band Circular Polarization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RX</strong> 7.250 - 7.750</td>
<td>35.0 RX 7.900 - 8.400 TX 36.0</td>
<td>41.7 RX 10.70-12.75 TX 43.2</td>
<td>20.1 RX 13.75-14.5 TX 46.1</td>
</tr>
<tr>
<td><strong>TX</strong> 7.900 - 8.400</td>
<td>35.0</td>
<td>43.2</td>
<td>49.3</td>
</tr>
</tbody>
</table>

#### Antenna Mechanical / Environmental Specifications
- **Reflector**: 1.2 meters (47.2 in) Glass Fiber Reinforced Polyester
- **Azimuth**: +/- 90°
- **Elevation**: 10° - 90°
- **Weight**: 255 Kg (562.2 lb) – 5 ruggedized cases (with extra cases for feeds)
- **Temperature**: Operational: -30 to 60°C (-22°F to 140°F) Survival: -40 to 70°C (-40°F to 158°F)
- **Winds**: Operational: 20mph (72Km/h) with ballast or anchors
- **Rain**: Operational: 4 in/h (10 cm/h) Survival: 6 in/h (15 cm/h)
- **Relative Humidity**: Operational humidity up to 100% condensing
- **Solar Radiation**: 360 btu/h/ft² (1000 Kcal/h/m²)
- **Radial Ice (survival)**: 1 in (25.4 mm)

#### Portable Cases
- **Sealing Class**: IP65 (IEC 60529)
- **Weight & Dimensions**

<table>
<thead>
<tr>
<th>Case</th>
<th>Description</th>
<th>Weight (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1</td>
<td>Antenna Reflector 36.2cm x 77 cm x 77 cm (14.25in x 30.25in x 30.25in)</td>
<td>30Kg (66.1lb)</td>
</tr>
<tr>
<td>Case 2</td>
<td>Tripod, azimuth base, elevation base, dish support-40.7cm x 66.85cm x 95.25cm (18.7in x 27.5 in x 37.5 in)</td>
<td>51Kg (115.4lb)</td>
</tr>
<tr>
<td>Case 3</td>
<td>Boom with Feeder &amp; Polarizer, Filter TX/RX, Ku-band BUC and LNB 47.5 cm x 69.85cm x 95.25cm (18.7in x 27.5 in x 37.5in)</td>
<td>43Kg (94.8lb)</td>
</tr>
<tr>
<td>Case 4</td>
<td>Accessories 25.4cm x 48.9cm x 102.2 cm (10in x 19.25in x 40.25 in)</td>
<td>56Kg (123.4 lb)</td>
</tr>
<tr>
<td>Case 5</td>
<td>Portable Racks</td>
<td>75Kg (165.3 lb)</td>
</tr>
</tbody>
</table>

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Ref: PB-1.2m-FlyAway-Terminal-20007