

## 4.5M C&KU Vehicle Mounted Carbon Fiber Deployable Kit Earth Terminal (DKET) Antenna



### TECHNICAL SPECIFICATION

| ELECTRICAL SPECIFICATION        |                      |                         |
|---------------------------------|----------------------|-------------------------|
| Diameter                        | 4.5M                 |                         |
|                                 | C-Band               | Ku-Band                 |
| Operating Frequency, GHz        | Receive<br>3.4 ~ 4.2 | Receive<br>10.7 ~ 12.75 |
| Gain, Mid-band, dBi             | 42.5                 | 52.0                    |
| Polarization                    | Linear/Circular      | Linear                  |
| VSWR                            | 1.3                  | 1.3                     |
| Noise Temperature(K)            |                      |                         |
| 10°Elevation                    | ≤50                  | ≤80                     |
| 20°Elevation                    | ≤47                  | ≤65                     |
| 40°Elevation                    | ≤40                  | ≤55                     |
| Axial Ratio,dB                  | 0.75                 |                         |
| Cross Polarization Isolation,dB | 30                   | 30                      |

|                             |            |           |
|-----------------------------|------------|-----------|
| Port Isolation, Linear Pol. | $\geq 30$  |           |
| Circular Pol.               | $\geq 20$  | $\geq 30$ |
| Feed Insertion Loss         | 0.3        | 0.5       |
| Feed Interface              | CPR-229G   | WR-75     |
| First Sidelobe,dB           | $\leq -14$ |           |

### MECHANICAL SPECIFICATION

|                          |  |
|--------------------------|--|
| Antenna Optics           | Main and sub-reflector modified Cassegrain antenna |
| Mount Type               | Turning Head Antenna                               |
| Azimuth                  | $\pm 90^\circ$                                     |
| Elevation                | $5^\circ \sim 90^\circ$                            |
| Azimuth High Speed       | $0.5^\circ/S$                                      |
| Elevation High Speed     | $0.15^\circ/S$                                     |
| Az, El & Pol. Drive mode | Motorized  |

### SERVO CONTROL AND TRACKING SYSTEM

|                                 |                                       |
|---------------------------------|---------------------------------------|
| Tracking and Control Method     | Step Tracking, Manual Drive           |
| Tracking Accuracy               | 1/10 receiving 3dB beam width (R.M.S) |
| Antenna main reflector accuracy | $\leq 0.5\text{mm(R.M.S)}$            |

### ENVIRONMENTAL SPECIFICATION

|                    |  |
|--------------------|--|
| Operational Wind   | 72km/h Gusting to 97km/h                   |
| Survival Wind      | 200km/h                                    |
| Temperature        | $-40^\circ\text{C} \sim +55^\circ\text{C}$ |
| Relative Humidity  | 0% ~ 100%                                  |
| Solar Radiation    | 1135Kcal/ h/ m <sup>2</sup>                |
| Seismic (Survival) | 0.3g (H), 0.15g (V)                        |

## ● Project case & customer feedback

### 4.5M C&KU Deployable Kit Earth Terminal Antenna in Europe



