

#### Antesky Science Technology Inc.

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# 3.0M Fiber Glass Antenna

### I General

SMC reflector of 3.0m antenna adopts compression molding with the characteristics of high precision, good consistency, and non-deformation. And it also has the features of low density and it is hyperbaric, which is stronger than steel and lighter than aluminum. And its compressive capability is 12 times higher than aluminum. Reflector with more pieces combination has the features of good exchanging capacity, anti-corrosion resistance, anti aging and long lifetime up to 15 to 20 years. Specially designed feed is matched perfectly with reflector, which makes transmit-receive reach maximum efficiency. Motorized polar tracking structure can satisfy full orbit satellite cover. And the assembly and adjustment is simple and practicable. The reflector adopts orange peel design which can have the function of waterproof and reduce damage to high-frequency tuner.







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### **II Technical Specification**

#### **2.1 Electrical specification**

Operational frequency:

C-Band: 3.7-4.2GHZ

Ku-Band: 10.75-12.95GHZ

Center frequency gain:

C-Band: 39.7dB

Ku-Band: 48.8 dB

3dB beam width:

C-Band:  $1.7^{\circ}$ 

Ku-Band: 0.6°

First side lobe: -20dB

Cross-Polarization: >30dB on Axis

Voltage standing wave ratio(VSWR): <1.3:1

Noise temperature  $(30^{\circ} \text{ elevation})$ :

C-Band: 30 °K

Ku-Band: 26 °K

Feed interface:

C-Band: CPR229

Ku-Band: WR75

#### 2.2 Mechanical specification

Reflector material:

8 Segment Glass Fiber Reinforced Polyester SMC

Antenna Optics:

Prime Focus

Feed installation type:

Single arm supporting/three pole supporting

Elevation adjustment range:

0°-90° continuous fine adjustment



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Azimuth adjustment range:

0°-360° continuous adjustment

Transportation specification:

220kg

# 2.3 Environmental adaptability

Wind load:

Normal operation: 22mps

Survival: 40mps

Adaptive temperature:

Normal operation:  $-40^{\circ}$ C ~  $60^{\circ}$ C

Maintenance:  $-45^{\circ}$ C ~  $70^{\circ}$ C

Atmospheric conditions:

It is applied to damp, saltier and polluted climatic environment.