



# BMA-7100

## Heavy Duty Pan/Tilt Antenna Positioner



Shown with BMA-2/4 Reflector

### > Key Features

- Continuous 360° Pan Rotation
- 300 lb. Capacity
- Integral Controller and GPS Receiver
- Compliant with MIL-STD 810G
- Single Channel RF Rotary Joint

### > Applications

- Tripod/Portable
- Vehicle Mast Mount
- Fixed/Permanent Tower Mount
- Maritime Use Factory Upgrade

### > Options

- MCP+™ Control Application for Windows®
- Low Torque/High Speed Elevation
- Dual Channel RF Rotary Joint
- Electromechanical Stabilization
- Four Band Tracking Receiver

### > Description

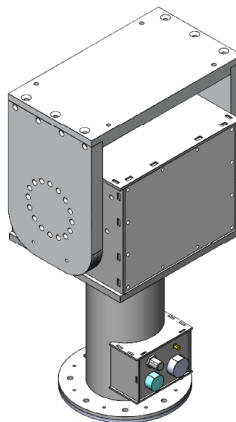
The BMA-7100 is a great choice for extremely heavy loads and precision pointing accuracy. Not affected by wind loads or other outside forces. This unit has amazing low velocity control and can be used for tracking very low speed targets like celestial objects.

Super Slow velocity control down to 0.004 degrees/second and a max velocity up to 85 degrees/second.

This pan and tilt pedestal is designed for heavy duty operation providing 360° pan rotation. Various control methods are included; RS-232, RS-485, CAN, Ethernet, Device Net. Ethernet with included Windows® application are standard.

With a max velocity of 85 degrees/second target acquisition is fast even with heavy loads. The strength (412 ft lbs torque) of this unit makes it perfect for large diameter microwave reflectors or antennas with high wind load.

The included GPS receiver allows auto-calibration, especially useful when used in portable/mobile operations



# > BMA-7100 Antenna Positioner

## > Technical Specifications

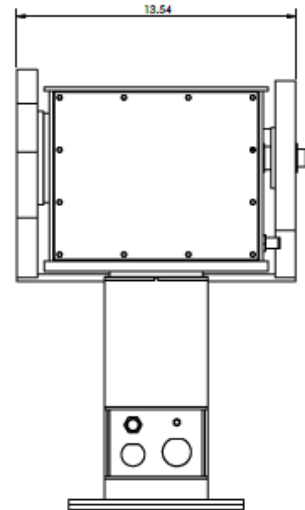
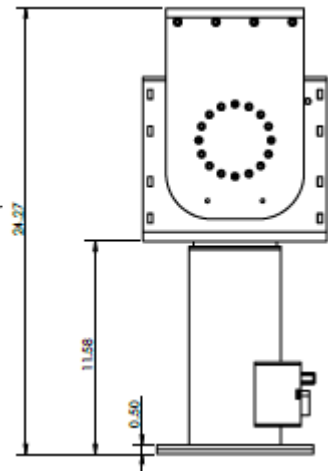
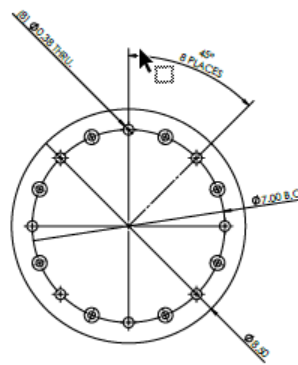
Motor Voltage	24-48 VDC
Load Capacity	300 lbs.
Duty Cycle	Intermittent
Duty Life	100,000 hours
Pan Range	360° degrees continuous
Pan Speed	1° to 85° per second (+/-0.1°)
Pan Torque	258 ft/lbs. continuous
Pan Motor Current	615 W, max. full load

Elevation Axis (high torque/low speed Reduction Standard)	
Tilt Range	180° (+/-90°)
Tilt Speed	1° to 60° per second (+/-0.1°)
Tilt Torque	412 ft/lbs. continuous
Tilt Motor Current	615 W, max. full load

Elevation Axis (low torque/high speed Reduction Optional)	
Tilt Range	180° (+/-90°)
Tilt Speed	1° to 85° per second (+/-0.1°)
Tilt Torque	258 ft/lbs. continuous
Tilt Motor Current	615 W, max. full load

Motor Type	Brushless Servo AZ and EL
Connector	PTB6E-14-18S (Power/Signal - Elevation Arm)
Dimensions	15.5"H X 11"W X 10"D (39.37 x 27.94 x 25.4 cm)
Weight	75 lbs. (34 kg)
Drive	Harmonic AZ/EL

Slip Rings	4@10 Amps and 14@2 Amps, Plus Ethernet
Backlash	Zero
Encoder Resolution	0.0001856° AZ and EL
Control	RS-232, RS-485, CAN, Ethernet, Device Net (Ethernet with control)
GUI standard)	
Material	Aluminum with stainless steel fasteners
Finish	White (contact factory for other color options)
Environmental	IP67, designed for compliance with MIL-STD 810G,



## > Rotary Joint

RF Rotary Joint	Sealed, DC to 40 GHz (see list below)
VSWR	DC to 10 GHz = 1.30 max., 10 to 20 GHz = 1.45 max.
Insertion Loss	0.1 dB from DC to 20 GHz
Power Handling	100W average, DC-20 GHz Additional derating at altitude, consult factory

8010800300	BMA-7100; Pan/Tilt Pedestal; Heavy Duty Positioner; Continuous Rotation, controller, GPS receiver
8013885400	BCIU-7100; Power supply and communications interface unit, 110/240 VAC 50/60 Hz, 2U x 19" rack mount
130099196	Multi-Control Point-Plus (MCP+) Control Application for Windows®
Control Cable	Cable between pan/tilt and BCIU-7100, specify length up to 150'
RF Coaxial Cable	Connects pan/tilt to microwave receiver, specify length
Antenna Reflector and Feed	Specifications vary by frequency and intended use, contact factory for details
Antenna Mounting Bracket	Varies according to size and type of antenna

## > Ordering Information

8014981400	Add BMRT-4B, Four Band Tracking Receiver
-A	Add dual channel rotary joint
-B	Add tactical stabilization for COTM
-C	Select optional low torque/high speed elevation control (specify at time of order)
-D	Upgrade for corrosive or marine/shipboard environment

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