PRODUCT SPECIFICATIONS

ACS3000 Antenna Tracking Controller System

The ACS3000 controller provides three-axis control for antenna azimuth, elevation and feed polarization.

The ASC Signal ACS3000 is the most innovative antenna controller on the market. This device utilizes a patented 3-Point-Peak algorithm to locate the targeted satellite.

The ACS3000 controller provides precision three-axis control for antenna azimuth, elevation and feed polarization. All parameters are fully programmable and displayed from any IP device on an Ethernet LAN, usually a PC running a Web browser or an existing M&C station monitor. A rack mounted Antenna Display Unit is available as an option. A Local Motor Controller, LMKVS-CPU, mounts to the antenna pedestal and provides electrical power distribution and local control of the gear motors.

The LMKVS-CPU is housed in a NEMA 4X environmental protected enclosure that mounts to the antenna pedestal. An Ethernet Switch mounts in a rack or sits on a desktop and provides a 10/100 Base-T Ethernet connection to the LMKVS and the customer's PC.

Fiberoptic cable and modems are provided for connection distances in excess of 200 meters, or when lightning protection is required. The Ethernet Switch connects via a 10/100 Base-T connection to the rack mounted Beacon Interface Unit for beacon signal data. Gear motors are specifically sized for each antenna to drive the antenna in winds of 45 mph gusting to 65 mph. The gear motors attach to the antenna jack screws and provide 0.05-degrees/second tracking-speed and up to 0.5-degrees/second-slew speed. Limit switches and resolvers provide travel limits and antenna position to the LMKVS-CPU.

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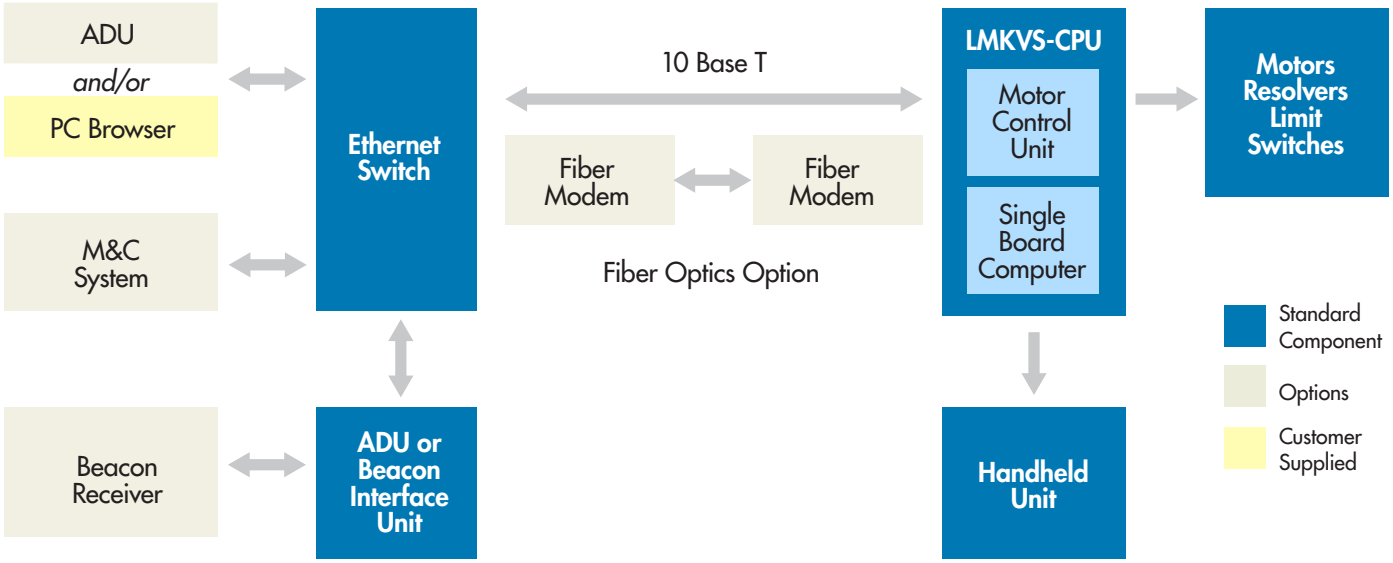
ACS3000 Antenna Controller System

Additional Information

Satellite tracking accuracy is typically better than 10% of the receive 3 dB beam width in winds up to 35 mph gusting to 45 mph. Antenna positioning may be done manually using the jog feature or from previously entered coordinates. The ACS3000 stores and retains up to 500 inclined satellite positions and provides selected individual positioning of azimuth, elevation and polarization axes. The ACS3000 step tracks from acquired satellite data in a modified step track mode utilizing three-point peaking. The controller learns the movements of the satellite and updates those positions as it continues to track. The controller's inclined orbit tracking capability enables access to economical satellites. Drive wear is minimized based on predicted positioning historical data. The controller accepts multiple signal inputs that can be either AGC or Beacon drive via DC control voltage. The ACS3000 has many powerful built-in features, such as remote software download, remote satellite table update, and local and remote fault reporting. The step track control unit is capable of performing multiple functions, such as steptrack, SmarTrack® and program tracking. Automatic and manual tracking is supported.

- Built in ASC Signal SmarTrack® tracks inclined satellites with optional beacon receiver
- Utilizes 3-point tracking for 25% less wear on jacks
- Storage capacity for up to 500 satellite positions
- Digital conversion resolvers provide the antenna position
- Selectable power supplies enable worldwide operation
- Handheld controller provides local maintenance operator control
- VFD based variable speed motor control
- NORAD and Intelsat program track algorithms
- Completes satellite long-term orbit model in only 6 hours

ACS3000 Antenna Control System



SPECIFICATIONS

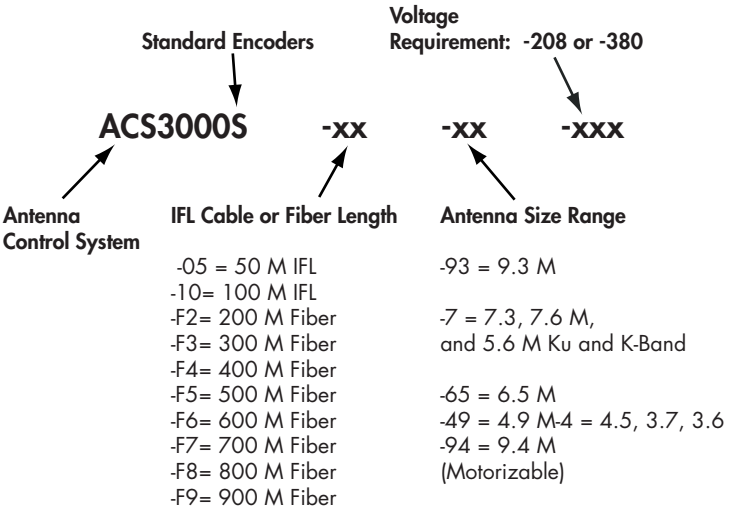
ACS3000 Antenna Controller System

Mechanical Performance

Position Encoding		Absolute, Single Speed Resolver to Digital Conversion
Displayed Resolution		0.01° (16 bit (.0055°) R/D Converter Resolution)
Antenna Slew Rate		0.05 to 0.5 degrees/second (Nominal)
Dimensions	Indoor Unit (Beacon Interface)	482.6 x 44.45 x 101.6 mm (19 x 1.75 x 4 in)
	Indoor Unit (Ethernet Switch)	248.9 x 115 x 36 mm (9.8 x 4.53 x 1.42 in)
	Outdoor Unit (LMKVS - CPU)	812.8 x 673.1 x 264.2 mm (32 x 26.5 x 10.4 in)
Weight	Indoor Unit (Beacon Interface)	2.27 kg (5 lb)
	Indoor Unit (Ethernet Switch)	1.59 kg (3.5 lb)
	Outdoor Unit (LMKVS - CPU)	47.2 kg (104 lb)
Power	Indoor Unit (Beacon Interface)	5 - 250 VAC, 50/60 Hz, 1 Phase, 0.035 Amps*
	Indoor Unit (Ethernet Switch)	100 - 240 VAC, 50/60 Hz, 1 Phase, 0.50 Amps*
	Outdoor Unit (LMKVS - CPU)	208 or 380 VAC ±10, 50/60 Hz, 3 Phase, 60 Amps Maximum**
Agency Approval	Indoor Unit (Beacon Interface)	CE/ETL/FCC Class A
	Indoor Unit (Ethernet Hub)	CE/CSA/NRTL/TUV/GS
	Outdoor Unit (LMKVS - CPU)	CE/ETL/FCC Class A

** Neutral Required, Safety Ground Required*
*** No Neutral Required, Safety Ground Required*

Part Number Configuration Matrix



Environmental Performance

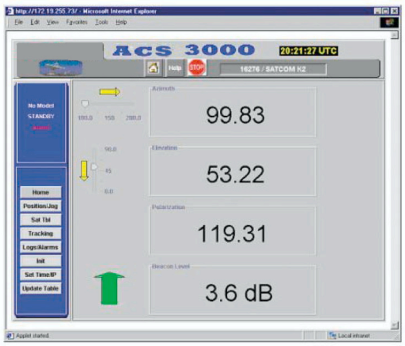
Operating Temperature	Indoor Unit (Beacon Interface)	0°C to 50°C (32°F to 122°F)
	Indoor Unit (Ethernet Switch)	0°C to 65°C (32°F to 122°F)
	Outdoor Unit (LMKVS - CPU)	-40°C to 50°C (-40°F to 122°F)
Humidity	Indoor Unit (Beacon Interface)	93% to 100% (Non-Condensing)
	Indoor Unit (Ethernet Switch)	5% to 95% (Non-Condensing)
	Outdoor Unit (LMKVS - CPU)	100% (Condensing)
Storage Temperature	Indoor Unit (Beacon Interface)	-40°C to 60°C (-40°F to 140°F)
	Indoor Unit (Ethernet Switch)	-40°C to 70°C (-40°F to 158°F)
	Outdoor Unit (LMKVS - CPU)	-40°C to 60°C (-40°F to 140°F)*

** with Internal Heater Operational*

Representative ACS3000 Screens

Initialize Site Location Screen

Visible Satellites Computed Screen



Ordering Information

1) Specify the length of cable required to connect the Ethernet Hub Unit to the LMKVS-CPU local antenna controller. Specify if fiber optic is required for lightning protection. Hub Interface to LMKVS-CPU: 50 or 100-meter 10/100 Base-T Ethernet cables are provided as standard. Fiber optic cable and modems are provided for distances over 200 meters. Customer to specify length when ordering. 2) Specify the voltage for the LMKVS-CPU outdoor unit (example: 208 VAC or 380 VAC). 3) Specify the antenna diameter (example: 7.6 meter).

ascSignal™
Connecting The World

ASC Signal Corporation
620 North Greenfield Parkway
Garner, NC 27529 USA

Telephone: +1-919-329-8700
Fax: +1-919-329-8701

Internet: www.ascsignal.com

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