

Sentinel™ Model 2985 and Model 2125, Auto Acquire Antenna Terminals



Applications

Remote Satellite Communications

Oil and Gas Exploration

Satellite News Gathering

Homeland Security and Disaster Recovery

Mobile Office and Business Continuity

Description

General Dynamics Sentinel™ Model 2985 and 2125, (98cm and 1.2M), Auto Acquire Antenna Terminals are ideally suited for economical mobile satellite communication applications. The stow-mobile VSAT terminals provide immediate Internet and Broadband video access on multiple Ku-band satellite platforms worldwide. Featuring powder-coated aluminum pedestals, stainless steel hardware and brass bushings, Sentinel terminals are built with quality materials to provide reliable satellite communications in the harshest conditions. The Sentinel's simple design allows for true "one-button" operation for the end-user and quick field service for technicians, making the Sentinel both "user" and "service" friendly.

Key Features

- High strength molded Fiber Reinforced Polymer (FRP) reflector
- Rapid deployment
- Single push-button automatic satellite acquisition
- Automatic polarization alignment (HNS Modem)
- No special test equipment required
- Terminals can be vehicle roof mounted or transit case configured
- Model 7000 Control unit can be rack mounted
- System is easily installed using common cable materials
- Ethernet port allows full system access via a web page interface for initialization
- Self diagnosis with user-viewable fault light and blink code
- Safety 'Drive-Off' Stow Function automatically initiates stow mode if vehicle is moved



GENERAL DYNAMICS
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Sentinel™ Model 2985 and Model 2125, Auto Acquire Antenna Terminals

General Specifications

Construction	.98M	1.2M
Mount	Az over EI	Az over EI
Reflector	Compression Molded FRP	Compression Molded FRP
Optics	Single Offset Prime Focus	Single Offset Prime Focus
Polarization	Feed Rotation	Feed Rotation
Physical Characteristics		
Antenna Weight	107 Pounds	138 Pounds
Stowed Dimensions	67.5" long x 39" side x 15" high (171 cm L x 99 cm W x 38 cm H)	84" long x 48.5" wide x 16.5" high (213 cm L x 123 cm W x 42 cm H)
Deployed Height	62" Max (157 cm)	75" Max (191 cm)
Az Travel	430° (± 215°)	430° (± 215°)
EI Drive System	Actuator	Actuator
Poi Drive System	Motor Drive	Motor Drive
Offset Correction	Yes	Yes
Deployment Compass	Yes	Yes
Sensor Tilt	Yes	Yes
Model 7000 Indoor Controller Dimensions	7" wide x 1.75" high x 7.25" deep (17.8 cm W x 4.4 cm H x 18.4 cm D)	7" wide x 1.75" high x 7.25" deep (17.8 cm W x 4.4 cm H x 18.4 cm D)
RF Specifications		
TX Frequency	13.75 - 14.5 GHz	13.75 - 14.5 GHz
RX Frequency	10.95 - 12.75 GHz	10.95 - 12.75 GHz
TX Gain	41.3 dBi	43.2 dBi
RX Gain	39.8 dBi	41.7 dBi
Polarization	Horiz. Or Vert.	Horiz. Or Vert.
Cross Pol Isolation within BPE (Optional Mode Match Feed)	-30/0 dB Max -35.0 dB Max	-30.0 dB Max -35.0 dB Max
Any Angle off axis	-25.0 dB Max	-25.0 dB Max
Sidelobe Envelope, Co-Pol (dBi)		
1° ≤ θ ≤ 20°	29-25 Log θ dBi	29-25 Log θ dBi
20° < θ < 26.3°	-3.5 dBi	-3.5 dBi
26.3° < θ ≤ 48°	32-25 Log θ dBi	32-25 Log θ dBi
48° < θ	-10 dBi (averaged)	-10 dBi (averaged)
RX Port Interface	WR-75	WR-75
TX Port Interface	WR-75	WR-75
RX L-Band Interface	RG-6	RG-6
TX L-Band Interface	RG-6	RG-6
Approvals	TBD	TBD
Model 7000 Controller		
Front Panel User Interface	Push Button Operation	Push Button Operation
GUI Interface	Via User Laptop	Via User Laptop
Connections	Ethernet	Ethernet
Electrical Characteristics		
Input Voltage	12 VDC (120VAC optional)	12 VDC (120VAC optional)
Power Consumption (Max)	250W max.	250W max.
Power Supply	110/220 VAC	110/220 VAC
Cabling		
TX	RG-6	RG-6
RX	RG-6	RG-6
Communication	RG-6	RG-6
Max Cable Length, Indoor - Outdoor	100 ft. (30.48 m)	100 ft (30.48 m)
Environmental		
Operational Wind Speed	40 mph w/0.25 dB max. loss @Ku-band (67 km/h)	35 mph w/0.25 dB max. loss @Ku-band (67 km/h)
Operational Wind Speed to Stow	50 mph (83 km/h)	50 mph (83 km/h)
Operational Temperature	-40° F to 140° F (-40° C to 60° C)	-40° F to 140° F (-40° C to 60° C)
Storage Temperature	-50° F to 160° F (-46° C to 71° C)	-50° F to 160° F (-46° C to 71° C)
Operational Elevation	70° Max. Look Angle	70° Max. Look Angle
Modem Interface	Via Ethernet	Via Ethernet
Mount Options	Vehicle, Trailer or Ground Mount	Vehicle, Trailer or Ground Mount
Transit Cases	Optional	Optional

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