

Model 1.2m Quick Deploy Motorized Auto-Acquire Antenna

Technical Specifications

| Electrical | Ku-Band 2-Port Linear Polarized | | Ka-Band 2-Port Circular Polarized | | X-Band 2-Port Circular Polarized | |
|-------------------------------------------|---------------------------------|-----------------|-----------------------------------|-----------------|----------------------------------|---------------|
| | Receive | Transmit | Receive | Transmit | Receive | Transmit |
| Frequency (GHz) | 10.700 - 12.750 | 13.750 - 14.500 | 20.200 - 21.200 | 30.000 - 31.000 | 7.250 - 7.750 | 7.900 - 8.400 |
| Antenna Gain at Midband, dBi | 41.60 | 43.60 | 45.30 | 48.40 | 36.70 | 37.60 |
| Sidelobe Compliant with | FCC requirements* | | ITU-RS-580 | | ITU-RS-580 | |
| Return Loss | 16.0 dB | 16.0 dB | 18 dB | 18 dB | 18 dB | 18 dB |
| Antenna Noise Temperature | | | | | | |
| 5° Elevation | 82 K | | 182 K | | 83 K | |
| 10° Elevation | 69 K | | 144 K | | 70 K | |
| 20° Elevation | 61 K | | 116 K | | 65 K | |
| 40° Elevation | 56 K | | 95 K | | 63 K | |
| Cross Polarization Isolation | | | | | | |
| On Axis | 35.0 dB | 35.0 dB | 24.8 dB | 24.8 dB | 23.2 dB | 18.8 dB |
| Within 1.0 dB Beamwidth | 35.0 dB | 35.0 dB | 24.8 dB | 24.8 dB | 23.2 dB | 18.8 dB |
| Pattern Beamwidth (in degrees at midband) | | | | | | |
| -3 dB | 1.36 | 1.13 | 0.85 | 0.60 | 2.37 | 2.10 |
| -15 dB | 2.86 | 2.37 | 1.79 | 1.26 | 4.98 | 4.41 |
| Power Handling | 100 W CW | | 50 W CW | | 500 W CW | |
| Output Waveguide Flange Interface | WR-75 Flat | WR-75 Flat | WR-42 Flat | WR-28 Flat | WR-112 Flat | WR-112 Flat |
| RF Specification | 975-1622 | | 975-3521 | | 975-3753 | |

| Mechanical | |
|------------------------|----------------------------------------------------------------------------|
| Reflector Material | Nine-piece carbon fiber composite |
| Antenna Optics | Axis-symmetric stepped ring focus |
| Azimuth Travel | ±150° (±200° option available) |
| Elevation Travel | -1° to 91° (5° to 85° operational) |
| Polarization Travel | ±90° |
| Pedestal Structure | Cable-driven elevation-over-azimuth aluminum construction |
| Shipping Configuration | Cases can be configured to meet 90 in (229 cm) rule (depending on options) |
| Shipping Weight | Less than 150 lbs. packaged (depending on options) |

| Auto Acquisition Control System | |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System Interface | Independent embedded outdoor controller supporting one button acquisition. Optional laptop user interface via Ethernet for advanced antenna control. Multiple controller configuration options available. |
| Power | 115/230 VAC, 50/60 Hz |

| Environmental | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Wind Loading | |
| Operational (anchored) | 30 mph (48 km/h) gusting to 45 mph (72 km/h) |
| Survival (with tie-downs) | 50 mph (80 km/h) any position, 80 mph (129 km/h) in stow position with reflector removed |
| Pointing Loss (operational winds) | 2 dB peak Rx loss at Ku-band |
| Temperature - Antenna and Control System | |
| Operational | -22° to +140° F (-30° to +60° C) |
| Survival (packed) | -40° to +160° F (-40° to +71° C) |
| Solar Radiation | 360 BTU/h/ft² (1000 Kcal/h/m²) |
| Relative Humidity - Antenna and Control System | 100% (outdoor duty) |
| Shock and vibration tolerant to conditions encountered during shipment by airplane, ship or truck. Atmospheric tolerant to conditions encountered in coastal regions and/or heavily industrialized areas. | |

* Per 25.220 (c)(1) with maximum input power density of -15.3 dBW / 4 kHz

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The Strength to Perform

Controller with one button worldwide automatic satellite acquisition

No tools required for assembly or deployment

Ku, Ka or X-band feed

Motorized positioner mount

Intelsat, FCC, ITU and Eutelsat sidelobe compliant

Buy Now!



Description

The ultra-lightweight General Dynamics SATCOM Technologies 1.2-meter Quick Deploy Motorized Auto-Acquire (QDMA) Antenna is designed for worldwide transmit and receive operation in Ku, Ka and X-band. This portable antenna consists of a segmented composite reflector and motorized positioner mount. This configuration results in an extremely low-weight and packable antenna product with superior stiffness and high performance under wind loading conditions.

The unique optical shape and accurate reflector surface provide good sidelobe and excellent cross-polarization performance. Repeatability is maintained with precision registration of the nine-piece reflector segments and RF components. The antenna can be quickly assembled by one person in less than ten minutes. The auto-acquire controller can find the correct satellite and optimize co-pol and cross-pol performance with the push of a button. The antenna controller can be configured as a multi-functional device combining several options such as external GUI, monitor and control, spectrum analyzer and tracking.

The 1.2m QDMA antenna system, including a Stepped Ring Focus (SRF) feed, is packaged in one or two transit cases (depending on options ordered). The transit cases, designed to be shipped via commercial air cargo, feature wheels and suitcase handles to ease relocation by one person.

Features

- Carbon fiber reinforced polymer (CFRP) reflector
- Captive hardware/fasteners
- No tools required for assembly or deployment
- Superior cross-pol performance
- Extremely low loss RF component mounting
- Auto deploy, auto calibrate, auto stow controller with DVB-aided acquisition
- Internal GPS receiver

Options

- Multiple colors (black, white, green, tan or other)
- Transport case configurations
- Beacon receiver and tracking
- Spectrum analyzer
- Ruggedized touch screen remote computer

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- Single button auto-acquire control system



- Antenna control system offers optional GUI, built-in spectrum analyzer, monitor and control (including modem) and tracking



- Standard cases meet weight and dimension requirements for shipment by overnight delivery service (FedEx, UPS, DHL)

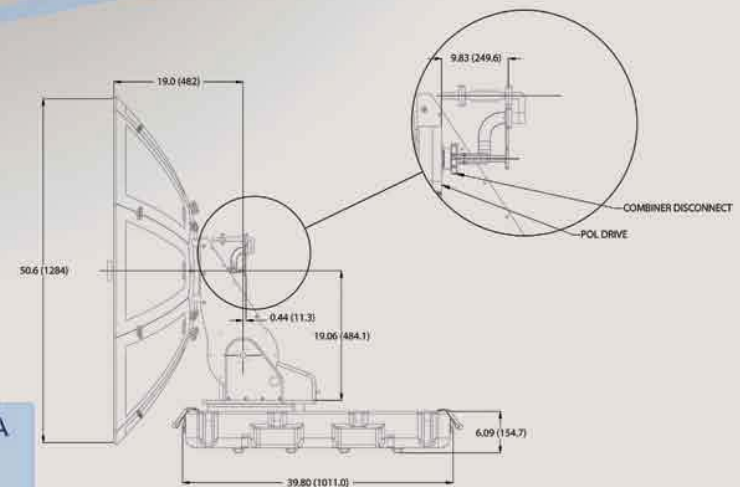
- Stepped-Ring Focus (SRF) feed available in Ku, X or Ka-band

- 9-piece carbon fiber reflector with captive hardware/fasteners allows for assembly in less than 10 minutes by one person

- Motorized positioner mount



- Rear feed-mounted SSPA up to 25 watts



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