

**SILHOUETTE ANTENNA**

Frequency	Gain	AZ HPBW
2.0-2.5 GHz	20 dBi	8 degree
4.4-5.0 GHz	26 dBi	3.8 degree
6.4-7.0 GHz	30 dBi	2.5 degree

**SUPERQUAD ANTENNA**

Frequency	Gain	AZ HPBW
2.0-2.5 GHz	25 dBi	8 degree
4.4-5.0 GHz	31 dBi	3.8 degree
6.4-7.0 GHz	40 dBi	2.5 degree

\* Other frequencies available upon request

\*\* Gain referenced to a like-polarized isotrope, excluding switching options

**POLARITY**

Vertical, Horizontal, RHC, LHC (order single fixed polarity or 4-way selectable)

**LNA**

Gain 13-33 dB (Variable)

**POSITIONER**

Pan Range Continuous rotation (no limits)  
 Pan Speeds  
     Fast 30 degrees/second (adjustable)  
     Slow 2 degrees/second (adjustable)  
 Drive System Unitized assembly with worm gear direct drive and oil bath  
 RF Rotary Joint Included  
 Slip Ring Encased unit with precious metal tracks and brushes  
 Automatic Heater Included

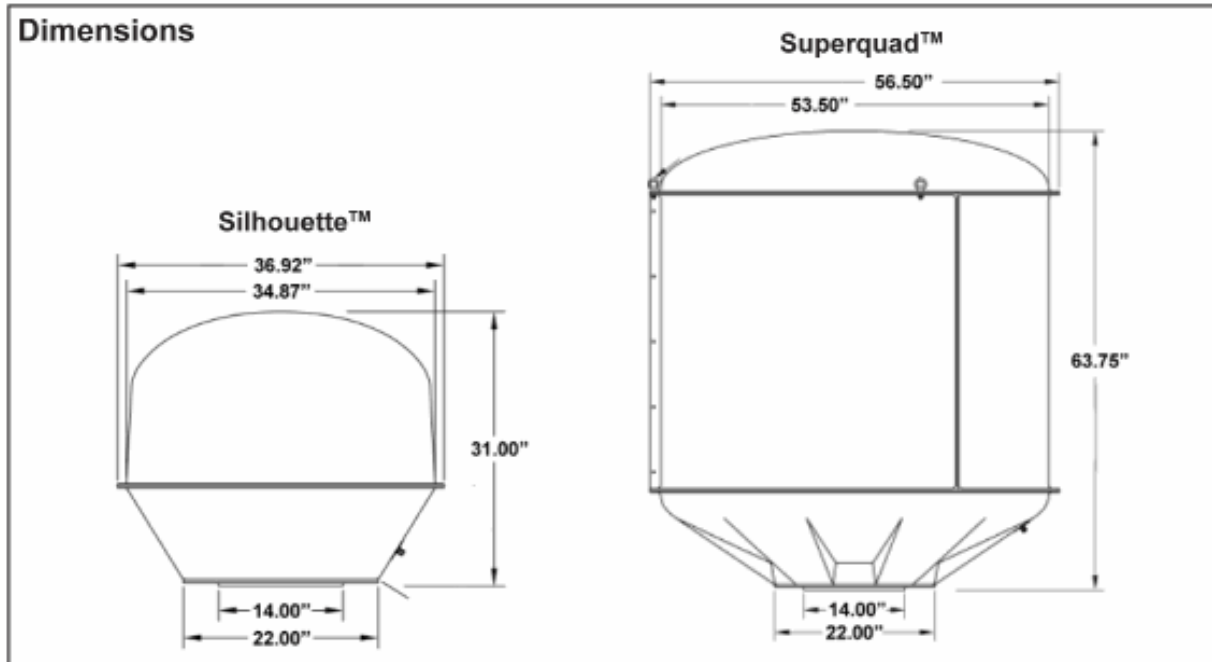
Specifications subject to change without notice

**Silhouette Wind Loading:**

- Projected Surface Area = 6.4 Sq. Ft
- Drag Coefficient = 2/3
- Effective Surface Area = 4.27 Sq. Ft

**Superquad Wind Loading:**

- Projected Surface Area = 21.95 Sq. Ft
- Drag Coefficient = 2/3
- Effective Surface Area = 14.63 Sq. Ft



**CONTROL CABLE INSTALLATION**

Install Control Cable as you would 7/8" Heliax., 0.46 Lb/Ft, 0.868" Avg O.D.  
 Use CommScope (Andrew) Hangar Kit 42396-A5  
 Use CommScope (Andrew) 19256B Grip or equal

**RECOMMENDED ACCESSORY**

- SAB-100 Surge Arrestor Box
- SABB-100 By-Pass Fixture

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REAL-TIME MISSION CRITICAL VIDEO | DATA SOLUTIONS

# Superquad™ & Silhouette™ Central Receive Antenna Systems



> Applications

- Border Security
- Law Enforcement
- ENG (Electronic News Gathering)

> Benefits

- Advanced Antenna Designs**
- High gain for maximum range
  - Low side lobes and narrow azimuth beamwidth provide isolation from off-axis interference and multipath reflections
  - Elevation beam shaping eliminates need for tilt, simplifying alignment
  - Single and multi-band versions
- LNA /Block Downconverter**
- High dynamic range
  - Continuously variable level control
  - Automatic Gain Control function optimizes the signal level to maximize the RSL without overloading the receiver
- Heavy Duty Positioner**
- Rugged worm gear direct drive
  - Built-in RF rotary joint standard
  - Continuous rotation without limits standard
  - Encased slip ring assembly with corrosion-resistant, precious metal tracks and brushes
  - Pan rate twice that of other systems
  - Automatic heater standard

**Integral Radome**

- Encapsulates antenna and positioner for long term reliability
- Rugged fiberglass construction ensures long term structural integrity

**User Friendly Operation**

- MC5™ provides complete control of the central receive system
- Straight forward control buttons and meters are easy to understand and operate
- Logic Track™ function provides automatic tracking of airborne downlinks
- Advanced automatic functions simplify and enhance daily operations

> Features

Field Proven Performance, Reliability and User Friendly Operation

Field proven with hundreds of systems in operation worldwide, the Superquad™ and Silhouette™ represent the state-of-the-art in central receive antenna systems.

The Superquad™ and Silhouette™ incorporate superior features that are not available in the generic counterparts. They provide critical performance advantages required to maximize the area of coverage and to ensure robust live shots. In addition, they are built to ensure years of reliable operation with minimum maintenance.



The central receive systems can be configured with a traditional single-input receiver as well as in a hybrid diversity configuration that employs a Superquad™ or Silhouette™ in combination with multiple sector antennas and a diversity receiver. The hybrid diversity systems are the ideal complement for airborne downlinks, providing long range operation, multipath immunity and hands-free automatic tracking. The performance of the Superquad™ and Silhouette™ is enhanced by the user-friendly MC5™ remote control, which includes many advanced features to simplify and enhance daily operations.

**Advanced Antenna Design**

The Superquad™ and Silhouette™ incorporate important characteristics that are essential for superior performance - high gain, directivity and selectable polarization - to isolate the microwave link from interference and to provide the maximum area of coverage.

**Variable Gain LNA/BDC with Automatic Gain Control**

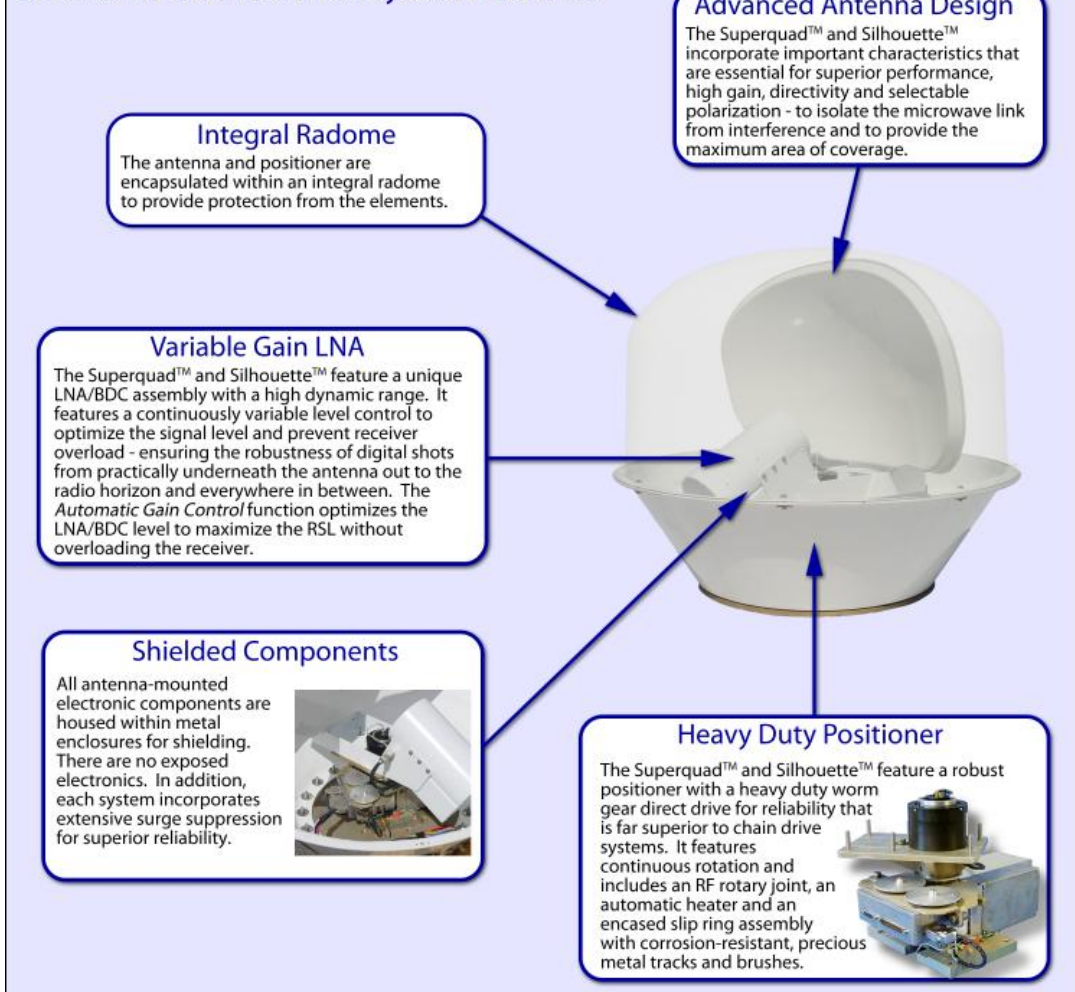
Superquad™ and Silhouette™ central receive antennas feature a unique LNA/BDC assembly with a high dynamic range to prevent signal compression. Each includes a continuously variable level control to optimize the signal level- ensuring the robustness of digital shots from practically underneath the antenna out to the radio horizon and everywhere in between. The Automatic Gain Control function of the MC5™ remote control automatically optimizes the LNA/BDC level to maximize the RSL without overloading the receiver. It is an essential feature for the reception of signals from airborne downlinks.

**Heavy Duty Positioner**

The Superquad™ and Silhouette™ have the most robust positioner in the industry. It features a heavy duty worm gear direct drive with an oil bath and automatic heater for reliability that is far superior to chain-drive positioners. It also includes an RF rotary joint and an encased slip ring assembly with precious metal tracks and brushes. The positioner features continuous rotation without limits and a pan rate twice that of other systems.

- Map aligns the central receive antenna with a position selected from an on-screen map

**Central Receive Antenna System Features**



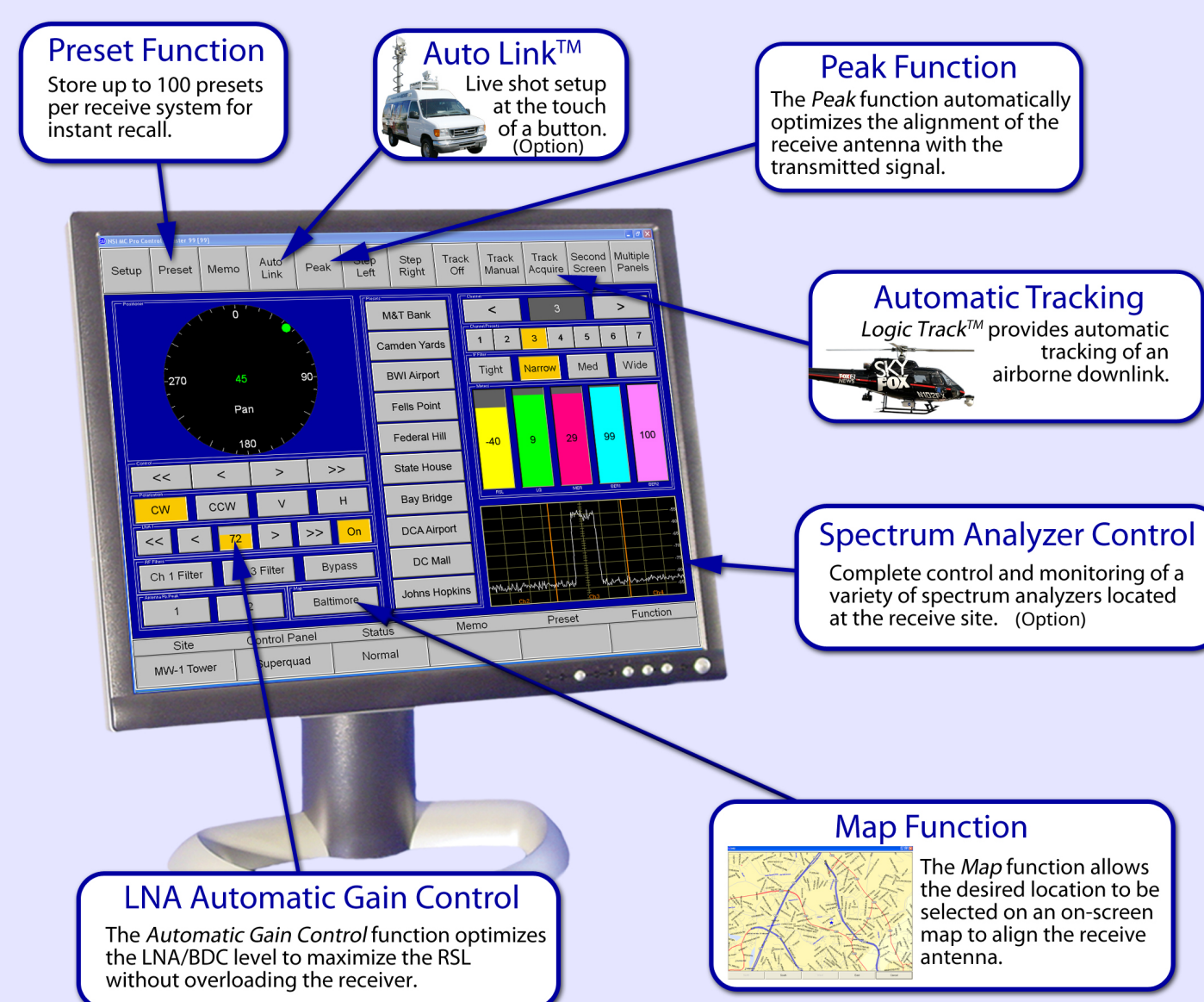
- Auto Link™ automatically sets up the live shot at the touch of a button. (Auto Link optional)
- Control buttons and meters provide intuitively easy operation and a short learning curve. The MC5™ also includes several advanced functions to simplify and enhance daily operations, such as:

- Peak automatically optimizes the alignment of the central receive antenna with the transmit signal
- Preset allows up to 100 preset settings per central receive system to be stored in the MC5 master unit for instant recall
- Spectrum Analyzer Control enables the operator to monitor a spectrum analyzer at the receive site (Spectrum Analyzer optional)

**Automatic Tracking of Airborne Downlinks**

The Logic Track™ function provides automatic tracking capability for the Superquad™ and Silhouette™ central receive antenna systems. Logic Track™ uses telemetry from the airborne downlink to automatically steer the central receive antenna. It also includes an automatic acquisition feature to further simplify the operation of the system.

**MC5 Remote Control System**



The Logic Track™ function provides automatic tracking capability for the Superquad™ and Silhouette™ central receive antenna systems. Logic Track™ uses telemetry from the airborne downlink to automatically steer the central receive antenna. It also includes an automatic acquisition feature to further simplify the operation of the system.



- **SYSTEM CONTROL UNIT**
- The SCU-422 system control unit provides complete on-site control of the Superquad or Silhouette, and provides the interface to the remote control (power and control)
- 19" rack mount, 2RU (3.5") x 15" deep
- Weight 15 lbs.