L3’s compact 9.5” Directional Antenna provides 26 dBi of gain in the Ku-Band and is packaged in a lightweight two-axis pedestal. This antenna is ideal for use in UAVs or manned platforms requiring maximum gain for high-throughput, long-range applications.

**Key Features**
- Reliable, low-cost, two-axis gimble
- High-efficiency parabolic reflector
- Compact, high-gain design

**Benefits**
- Rapid pointing capabilities maintain link through flight dynamics
- Highest gain in class, maximizing throughput and range
9.5" Directional Antenna

Product Description

L3’s 9.5" Directional Antenna is a low-profile, low-drag solution to implementing CDL and STANAG 7085 systems where long-range and high-availability requirements necessitate the use of airborne directional antennas. The 9.5" Directional Antenna offers 26 dBi of gain and is right-hand circularly polarized.

Product Customization

The 9.5" Directional Antenna is a member of the L3 data link product family, but it can be used for any application requiring a Ku-Band, high-gain, two-axis antenna. The antenna interfaces with 28 VDC standard power, a standard RF coaxial connector and an RS-485 antenna control port. The antenna consists of the following major components:

- A directional radiating RF element
- RF interconnecting components
- A two-degrees-of-freedom antenna pedestal for pointing
- Motors and angular position feedback sensors
- An electronic module for motor drive, position-sensing interface, data interfaces and power conversion

The antenna pedestal operates as a pointing antenna, receiving its pointing commands over the RS-485 bus at up to 20 times per second, ensuring proper pointing even during dynamic airborne maneuvers. The two-degrees-of-freedom pedestal ensures proper pointing at long and short ranges and during aircraft maneuvers.

The antenna assembly uses nonvolatile memory to store user-defined boresight offsets as necessary. The antenna assembly contains built-in test capability to detect 95 percent of possible faults and report the results of the test on the RS-485 status bus.