



CMA-2102LW

Light Weight Version of the CMA-2102 Satcom High Gain Antenna System

A high gain, electronically steerable, phased-array antenna providing hemispherical coverage in a single, low-profile installation.

- Supports Inmarsat Swift 64, Aero-H and Aero-H+
- Exceeds Inmarsat performance specifications
- Field-proven reliability: MTBFs in excess of 100,000 hours
- Market leader with over 80% market share
- Top-mounted antenna with single Beam Steering Unit and Diplexer/LNA
- No coverage blind spots (keyholes)
- True top-mount design virtually eliminates multipath interference
- Conforms to ARINC 741 and Inmarsat SDM
- Only one RF interconnection, for easy installation
- Comprehensive Built-In Test (BIT) with easy to access, front diagnostic BSU port available to maintenance personnel
- Weight saving of 16 lb (7.3 kg) compared to standard CMA-2102



Esterline

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CMA-2102LW SATCOM HIGH GAIN ANTENNA SYSTEM - SPECIFICATIONS

FREQUENCY

Receive 1525.0 MHz to 1559.0 MHz
 Transmit 1626.5 MHz to 1660.5 MHz

SERVICE COVERAGE

Seamless coverage, independent of aircraft direction over more than 90% of the specified Inmarsat hemisphere. No keyholes. Conforms to ARINC 741.

GAIN

Between 12 dBiC and 17 dBiC over 90% of the Inmarsat hemisphere. Minimum 9 dBiC over 100% of the Inmarsat hemisphere.

POLARIZATION PERFORMANCE

Right hand circular. Axial ratio is less than 6.0 dB for all steering angles and all frequencies of operation within coverage region.

MULTIPATH REJECTION

Exceeds 12.9 dB rejection at 5 degrees elevation.

BEAM SWITCHING

50 microseconds maximum.

SATELLITE DISCRIMINATION (SIDELOBE SUPPRESSION)

Exceeds 13 dB over coverage region.

AERODYNAMICS

The radome shape has been chosen to optimize aerodynamic performance. Equivalent fuel burn penalty: 0.04%.

INSTALLATION

Single top-mounted antenna requires only one 1" (25 mm) diameter access hole for RF and power/control cables. Easy connector access via removable panel. Single Beam Steering Unit can be located up to 100 ft. (30 m) remote.

OPTIONS

Adapter plates, connector kits and mounting racks available on request.

UNIT CHARACTERISTICS

	High Gain Antenna	Beam Steering Unit	Diplexer / LNA
Length	67" (170.2 cm)	2 MCU	11.05" (28.1 cm)
Width	18.5" (47 cm)		7.76" (19.7 cm)
Height	4.75" (12.1 cm)		1.97" (5 cm)
Weight	49.4 lb (22.4 kg)	6.0 lb (2.7 kg)	6.5 lb (3.0 kg)
Form Factor	ARINC 741 compliant		
Power Consumption	45 Watts maximum	12 Watts maximum	12 Watts maximum



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For information purposes only. To accommodate product improvements, specifications are subject to change without notice.
 2102LW-5 11/09 PRINTED IN CANADA

