

LTN-92/CMA-900 Inertial FMS**An ideal solution for commercial and military aircraft avionics upgrades**

Northrop Grumman and CMC Electronics offer commercial and military aircraft operators a solution to upgrade their navigation and communications capabilities. Northrop Grumman and CMC Electronics can show you how to:

- Keep pace with the rapidly changing CNS/ATM/GATM environment
- Minimize cost of upgrades of existing aircraft to operate in civil airspace environment
- Replace aging and out-of-production inertial navigation systems
- Reduce the cost of incorporating GPS
- Create cockpit space through use of an ARINC 739 Multi-Function Control Display Unit (MCDU)
- Improve crew/aircraft interoperability
- Maintain mission capabilities with use of commercial-off-the-shelf (COTS) equipment
- Protect aircraft from GPS jamming

The LTN-92/CMA-900 combination is a no-compromise solution to these issues.

The LTN-92/CMA-900 provides a means of meeting current operational requirements and a growth path to meeting future requirements. The LTN-92/CMA-900 combination is designed to:

- Meet operator's current and future CNS/ATM/GATM requirements
- Allow incremental installation, providing a flexible path for new and retrofit installations
- Enable operators to tailor their operations for maximum economic benefit
- Add the industry's most advanced FMS to meet the changing requirements of the world's airspace
- Reduce maintenance and logistic costs associated with use of obsolete inertial navigation systems
- Maintain existing aircraft wiring integrity and interfaces with minimal changes
- Simplify and reduce installation costs on this FAA-certified equipment

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System Components

- LTN-92 Inertial Navigation Unit (INU)
- CMA-900 Flight Management Unit (FMU) with embedded GPS receiver
- Multi-Function Control Display Unit (MCDU) ARINC 739

PHYSICAL	INU	MSU	MCDU	FMU
Weight (lb)	57.0 (25.8 kg)	0.9 (0.5 kg)	6.0 (2.7 kg)	8.2 (3.7 kg)
Size (in.)				
• Width	10.12 (25.7 cm)	5.75 (14.6 cm)	5.75 (14.6 cm)	2.25 (5.7 cm)
• Height	8.62 (21.9cm)	1.50 (3.8 cm)	6.75 (17.1 cm)	7.86 (19.9 cm)
• Length	19.98 (50.7 cm)	3.56 (9.0 cm)	5.64 (13.3 cm)	15.0 (3.8 cm)
Input Power	115V/400 Hz Single phase & 28 Vdc backup	5V edge lighting	28 Vdc & 5V edge lighting	28 Vdc
Power Consumption (W)	120-240	Negligible	35	38
Mounting	1 ATR	Panel	Panel	2 MCU

Features and Benefits

- High reliability, improved accuracy, inertial system replacement
- Lower maintenance costs compared to obsolete inertial navigation systems
- Full multi-sensor navigation including GPS, inertial, and optional VOR/DME – DME/DME with auto-tune
- Extended standalone Inertial for RNP-10 for 12.5 hours and RNP-5 for 2.5 hours
- Accurate navigation not limited by terrain, atmospheric disturbances, or jamming
- The capability for RNP-based approaches with the benefits of:
 - Lower approach minimums
 - Interface for flight plan/wind uplink
 - Direct Routing
 - Fly-by and fly-over waypoints
 - Full EFIS interface capability
 - Optional military mission-oriented software (Search, Rescue, Tanker Orbit, and CARP)

Growth Options

The LTN-92/CMA-900 Inertial and FMS offer a flight management upgrade, guaranteed to keep pace with the CNS/ATM capabilities of modern aircraft. These features and options include:

- FANS 1/FANS A data link compatibility
- Shorter FMS approaches
- CPDLC
- GPS nonprecision approach
- Adaptable AOC data link
- Parallel or converging approaches
- Airborne printer output
- Noise abatement procedures
- Required time-of-arrival
- Planned performance

For more information, please contact:

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