



# CMA-2082M

## Flight Management System

### Selected for U.S. Army UH-60M

- Large 3" x 5" (76 mm x 127 mm) flat-panel TFEL display
- Sunlight readable and NVIS compatible
- Large screen with fixed header, reduces paging and pilot workload
- Graphics co-processor provides a drawing and animation capability
- Spare capacity for direct interfacing to subsystems, which in many cases, eliminates the need for additional hardware
- Single-box system requiring only eight inches (203 mm) behind the instrument panel
- Standard dual-redundant MIL-STD-1553B interface, operating as either a Bus Controller or Remote Terminal
- ARINC 429 interfaces or other customer-specified interfaces are available
- Comprehensive BIT and reporting
- Ethernet communications available

The CMA-2082M Flight Management System is a self-contained, intelligent multifunction control and display unit. The CMA-2082M integrates navigation sensors and radios, communications radios, displays and other mission avionics and aircraft systems.

The CMA-2082 is currently used by military forces around the world on board fixed-wing aircraft and helicopters.



3" x 5 " screen

# CMA-2082M FLIGHT MANAGEMENT SYSTEM – CHARACTERISTICS

## GENERAL

Size	5.75" x 10.9"h x 7.8"d (146 mm x 277 mm x 198 mm), plus mating connector
Weight	12 lb (5.44 kg)
Power Requirements	28 Vdc 45W nominal 60W maximum (operational)
Cooling	Convection/radiation. No external cooling required
External Connectors	Three MIL-C-38999 series IV, providing up to 158 pins, one dedicated to Ethernet

## DISPLAY

Type	Flat Panel Thin Film Electroluminescent (TFEL)
Resolution	64 lines/inch
Active Display Size	3" x 5" (76 mm x 127 mm), 192 x 320 pixels
Display Capacity	20 lines of 21 characters
Color	NVIS yellow, peak at 575nm
Viewing Angle	±150° in any axis (>45° on edges by the bezel)
Sunlight Readability	Readable in 10,000 fC incident light
NVG Compatibility	MIL-STD-3009 Type 1 Class A NVIS
MTBF	>5,000 operating hours (MIL-HDBK-217E)

## KEYBOARD/SWITCH PANEL

Keys	10 soft, 65 independent alphanumeric/mode, 2 rocker
Annunciators	3 incandescent, NVG compatible
Integral Lighting	5 VAC/DC, LED, NVG compatible, externally supplied
NVG Compatibility	MIL-STD-3009 Type 1 Class A NVIS

## INTERFACE CAPABILITY

Standard	Dual MIL-STD-1553B, as either Bus Controller, Backup Bus Controller or Remote Terminal RS-422 (used principally for BIT)
Spare Card Slots	4, each providing 24 sq. in. (154.8 cm <sup>2</sup> ) ARINC 429 I/O
Interface Options	ARINC429 and MIL-STD-1553B bussed equipment Discrete, analog, non-standard digital Digital/synchro or synchro/digital, custom interfacing Ethernet

## PROCESSOR/SOFTWARE

Processor	64 bit MPC 8260
Graphics	Intel 82786 Graphic Co-Processor
Memory (on CPU Card)	Static RAM 6 Mbyte UV RAM 2 Mbyte (programmable via MIL-STD-1553B or RS-422 interface) Flash EPROM 32 Mbyte Additional memory: available in option card slots
Program Language	Ada, C, and Assembler
Core Software	Controls all hardware functions Navigation control (MAR compliant) Mission management ASE/navaids/flight instruments
Application Software	Capable of downloading application software via MIL-STD-1553B or RS-422 interface Other software can be developed to specification by the user or CMC Electronics

ENVIRONMENT	MIL-STD-5400T Class 1A
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EMI-EMC	MIL-STD-461 and MIL-STD-462
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