

# AMC

## *Armament Mission Computer*



### Robust Next Generation Mission Computing

The Armament Mission Computer (AMC) hosts fire control and gun/sight stabilization software for armament systems.

Tailored for both the new era of modern combat vehicles as well as existing platforms, the AMC is applicable to both electric or electro-hydraulic gun and turret drives.

Regardless of terrain, advanced control algorithms enable time-on-target, time-in-coincidence, and first-time-hit-probability for enhanced lethality overmatch.

### Features

- Accepts sensor data from sources such as gyros and encoders.
- Available with optional provisions for gun trigger safety interlocks, dedicated serial communications, and discrete signals for interfacing with the gun control equipment.
- Minimal delay in concurrent execution of gun and sight digital control with high speed, multi-channel, simultaneous data transfer.
- Extremely high rate of control loop closure (>10kHz) enables the unit to support line of fire (LOF) and line of sight (LOS) pointing servomechanisms with mechanical bandwidths of up to 250Hz.
- Ability to acquire and process wide dynamic-range signals with advanced control algorithms.
- Optional add-on proven firing circuitry modules available.
- Software development kits available.
- GUIs available for user configurability.

# Technical Information

## Hardware Specifications

Dimensions	42 cm x 21 cm x 23 cm (16.5" x 8.25" x 9")
Mass	14.5 kg (32 lbs)
User Application CPU:	Dual-Core ARM Cortex-A9 Up to 1.05 GHz
Onboard SDRAM	1GB DDR3 (Processor) 2GB DDR3 (FPGA)
<b>Network</b>	2x 10/100/1000 Ethernet 2x 10/100 Ethernet
Serial	14x RS-422 (Full Duplex) 6x RS-422 (Half Duplex RX Only - Gyro Interfaces) 4x SSI (Encoders) 3x CANBus
Analog	3x +/-15V Filtered Power Outputs 6x +/-10V DAC Outputs 7x +/-10V ADC Inputs 4x +/-15V ADC Inputs 2x RTD Inputs

## Dedicated Real Time Control Processor:

Texas Instruments C2000 DSC (up to 150 MHz)

## Dedicated I/O MCU:

ARM Cortex-M4F 32-Bit (Up to 120MHz)

## Discretes

- 15x Low Side Drivers
- 24x 28V High Side Drivers
- 32x 28V Inputs
- 3x Safety Relay Outputs
- 2x Digital TTL I/O

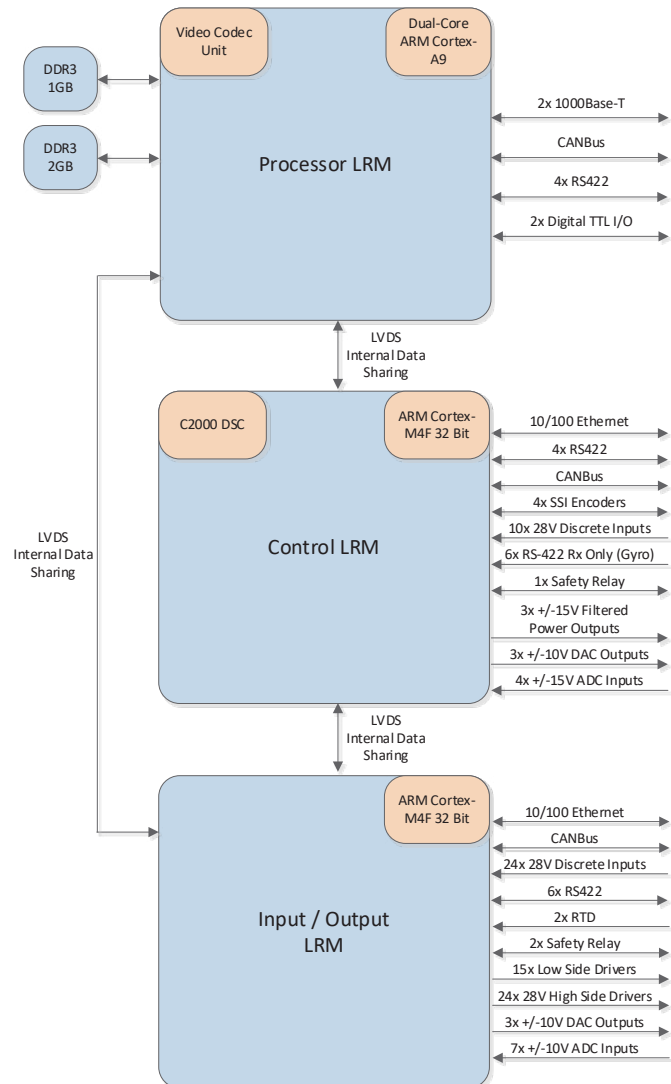
## Environmental Specifications

- Operating Temperature: -32°C to +60°C (-26°F to +140°F)
- Storage Temperature: -46°C to +71°C (-51°F to +160°F)
- Vibration: MIL-STD-810G Method 514.7

## Features

- Power Input +18-32V DC
- Power Consumption 50W (typical)
- Operating Systems Linux
- Chassis Form Factor 3U VPX, 6 slot
- Power supply characteristics in accordance with MIL-STD-1275D
- EMI characteristics in accordance with MIL-STD-461F
- Built-In-Test (BIT)
- Two level maintenance support
- Multiple Line Replaceable Modules (LRMs) for quick field servicing

The product described here represents a general configuration of this family of products. Specifications are configurable for specific customer requirements. For pricing and availability please contact your General Dynamics representative.



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