

MC-10

MISSION COMPUTER

The Rugged Micro Mission Computer (MC-10) is a hardened stand-alone system that delivers powerful performance in a lightweight and miniature footprint. At less than 81in³ (6.7" x 4" x 3" including connectors) and weighing in at 2 pounds, this micro package is today's solution for the mobile environment. Low power consumption, configuration flexibility, and cost efficiency make it an ideal solution for demanding applications in the military, industrial and commercial markets. Utilizing reliable Intel CPUs, the MC-10 has a robust I/O including digital video, Gigabit Ethernet (2), USB 2.0 (4), RS-232/RS-485 (2), HD Audio, and GPIO. Designed with modularity in mind, the MC-10 can be customized with application specific expansion capabilities such as 1553, ARINC 429, CANBus, GPS, additional comm or GPIO ports, and video frame grabbers. The MIL-Spec design ensures operability in environmental conditions as defined per MIL-Standards 461, 704, 810, 1275, and DO-160.

STANDARD FEATURES

- Gigabit Ethernet Ports (2), 10/100/1000 Mbps
- 128GB Removable SSD[^] (Optional 256GB, 512GB or 1TB)
- I/O Expansion Slots
- Display Port/Video Output, HDMI or DVI-D
- USB 2.0 Ports (4), RS-232/RS-485 Ports (2)
- Analog Audio Input/Output
- IP67/NEMA 6 Enclosure / Fully Sealed Enclosure
- -40°C to +71°C Operating Temperature
- Windows 10/ Linux Support
- MIL-Standards 461, 810, 704, 1275, and DO-160

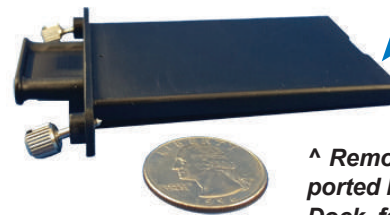
PROCESSOR* FEATURES

- Intel® Atom™ Quad Core*
- 1.91GHz
- 2MB Cache
- 4GB RAM (8GB available)
- 8GB EMMC Onboard Flash
- Real Time Clock

* Additional Processor features available upon request.

EXPANSION SLOT OPTIONS

- ARINC 429
- CANBus
- Dual Redundant 1553
- Gigabit Ethernet
- GPIO
- GPS
- HD-SDI Frame Grabber
- RS-170 Frame Grabber
- RS-232/485
- USB 2.0



[^] Removable SSD (RM-Drive) is supported by DSE's docking station, RM-Dock, for remote PC connectivity.



PROCESSOR*
Intel® Atom™ Quad Core 1.91GHz, 2MB Cache, 4GB RAM (8GB available), 8GB eMMC Flash
FEATURES
HD Graphics Gen 8
Windows®, Windows® Embedded or Linux OS

EXPANSION SLOT OPTIONS	
ARINC429	GPS
CANBus	HD-SDI Frame Grabber
Dual Redundant 1553	RS170 Frame Grabber
Gigabit Ethernet	RS-232/485
GPIO	USB 2.0

TECHNICAL SPECIFICATIONS	
System I/O	Gigabit Ethernet Ports (2); USB 2.0 Ports (4); RS-232/RS-485 Ports (2); Analog Audio Input/Output; Display Port/Video Output, HDMI or DVI-D
Storage[^]	128GB Removable SSD; <i>Optional 256GB, 512GB or 1TB</i>
Housing	Milled Aluminum, Black Hard Anodized
Mount Option	M4 Mount Holes
Wide Range DC Power Input†	28 VDC (18-33 VDC) (per MIL-STD-704 and 1275)
Power Conditioning	Protected against Internal Short Circuit, Load Dump, Over Voltage and Reverse Polarity
ENVIRONMENTAL SPECIFICATIONS	
IP Rating	IP67 (NEMA 6 Submersible)
Operating Temperature	-40°C to 71°C (-40°F to 160°F)
Storage Temperature	-54°C to 71°C (-65°F to 160°F)
Humidity	0-100%
Altitude	45,000 ft.

MILITARY SPECIFICATIONS (Tests are pending.)			
MIL-STD-461	EMI	MIL-STD-810	Method 510; Blowing Sand and Dust
MIL-STD-704	Aircraft Power Requirements	MIL-STD-810	Method 511; Explosive Atmosphere
MIL-STD-1275	Vehicle Power Requirements	MIL-STD-810	Method 513; Acceleration
MIL-STD-810	Method 500; Altitude	MIL-STD-810	Method 514; Procedure I, II, V, VI; General Vibration
MIL-STD-810	Method 501; I & II; High Temperature	MIL-STD-810	Method 516; Procedure I, Functional Shock
MIL-STD-810	Method 502; I & II; Low Temperature	MIL-STD-810	Method 520; Temp, Humidity, Vibe and Altitude
MIL-STD-810	Method 503; Temperature Shock	MIL-PRF-22750	Optional Painted Finish - Min. Qty Required
MIL-STD-810	Method 506; Rain	MIL-STD-1472	Thermal Contact Hazard
MIL-STD-810	Method 507; Humidity	MIL-A-8625	Standard Finish, Type III (Class 1 & 2)
MIL-STD-810	Method 508; Fungus	DO-160	Section 17 Voltage Spike; Section 22 Lightning Transient; Section 25, Electrostatic Discharge
MIL-STD-810	Method 509; Salt/Fog		

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* - Additional Processor selections and features are available upon request.

† - The power range specified covers momentary environmental fluctuations generally found in a mobile environment while display is operating. For power initialization and continual operation, nominal voltages are required.

ON-GOING PRODUCT DEVELOPMENT MAY NECESSITATE DESIGN AND SPECIFICATION CHANGES WITHOUT NOTICE.

