GOMA
RUGGED SOLUTIONS



MAG2C EVO

GRAPHIC & VIDEO CAPTURE
AIR-COOLED MISSION COMPUTER

www.gomarugged.com

MAG2C EVO

Graphic & Video Capture Air-Cooled Mission Computer

MAG is a family of Rugged OpenVPX-based Mission Computers designed for applications in critical environments.
The **MAG2C EVO** is a high-performance Mission Computer with 3G-SDI graphics & video capture capabilities, tailored for GPGPU computing, AI processing, deep learning and H.265/H.264 encoding & decoding applications; its forced air cooling ensures efficient heat dissipation, enabling optimal computing performance across diverse environments.
At its core the **MAG2C EVO** features a Quad Core Intel® Xeon® E3-1505M v6 processor, complemented by 16GB DDR4 and a 64GB Flash memory. The unit runs on a dedicated NVIDIA Pascal Quadro P2000 video processor with 4GB of GDDR5 memory and it boasts a comprehensive video I/O selection including 2x 3G-SDI outputs, 2x 3G-SDI inputs, 2x independent VGA outputs, RGB sync-on-green input. Further a VGA output channel is buffered to support two identical video signals sets, while a DVI-D single link connection to the front panel facilitates maintenance activities.
The graphics processor board connects to the SBC via PCI Express™ enabling seamless transfer of video inputs into system memory for manipulation or local Solid State Disk recording.

The **MAG2C EVO** extends its functionality with a generous array of I/O options, featuring 3x Gigabit Ethernet ports, 4x USB 2.0 ports, 1x USB 3.0 port, 4x serial COM (RS232/RS422/RS485) ports, and stereo audio line in and out. Additionally, it supports an internal 2.5" Serial-ATA III SSD with hardware Secure Erase or Destroy capability, according to selected configuration; furthermore, it is equipped with a 28 VDC power input, making it suitable for both aircraft and ground vehicles, and features a 50 ms power hold-up capability for enhanced reliability.

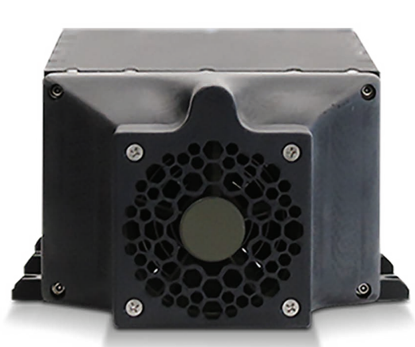
The **MAG2C EVO** Mission Computer is qualified according to RTCA/DO-160G standards, ensuring robust performance in the most extreme conditions.

- **SWaP-C optimized**
- **Forced air cooling dissipation**
- **7th Gen Intel® Xeon® Processor**
- **2 slots 3U VPX architecture**
- **Multiple Input / Output Video Format**
- **RTCA/DO-160G certified**

Member of CISQ Federation — RINA — CERTIFIED MANAGEMENT SYSTEM — EN 9120

Member of CISQ Federation — RINA — CERTIFIED MANAGEMENT SYSTEM — EN 9100





www.gomarugged.com

Technical Specifications

System	
Processor Module	Quad Core Intel® Xeon® E3-1505M v6 (4C @ 3.0 GHz)
Memory	16GB DDR4 ECC DRAM
Video Processing Module	Based on NVIDIA Pascal Quadro P2000 GP107 GPU with 768 CUDA cores and 4GB of DDR5 graphics memory with 128-bit memory width, providing a memory bandwidth of 96GB/s.
Video Ports	2x 3G-SDI inputs & 2x 3G-SDI outputs 1x RGB input 2x VGA (1920x1200) independent outputs 1x VGA split output (replica of a VGA channel) 1x service DVI output (from CPU board)
I/O Ports	3x Gigabit LAN (copper) 4x USB 2.0 ports 1x USB 3.0 port 4x serial ports (RS232/RS422/RS485) Audio stereo input/output 2x isolated discrete IN + 2x isolated discrete OUT
Internal Storage Devices	64GB SATA III On-Board SSD Chip Internal 2.5" SATA SSD w/ Secure ERASE or Destroy option (hardware trigger)
Management Features	Power BIT, continuous BIT Internal temperature monitoring Internal voltage monitoring Fan monitoring and control
Software	Windows 11, Windows 10, Linux

Power Section	
Power Input	+28Vdc standard (+20V to +36V) Extreme operating range: +16V to +50V Compliant to RTCA/DO-160G S16 CAT. Z and MIL-STD-704F 50 msec power hold-up
Power Consumption	Power consumption (average) 150W Power peak up to 190W
Voltage Spike	600V (RTCA/DO-160G S17 CAT. A)

Mechanical Features	
Dimensions (W x D x H)	183.0 mm x 322.0 mm x 106.0 mm
Weight	5.7 Kg
Cooling	Forced air cooling via removable fan module
Interfaces	3x MIL-DTL-38999 military circular connectors 1x USB 3.0 type A circular connector

Environmental Features	
Operating Temperature	-40°C to +70°C (RTCA/DO-160G S4 CAT. B2)
Storage Temperature	-50°C to +85°C (RTCA/DO-160G S4 CAT. B2)
Altitude	Operative: Max 25.000 feet (RTCA/DO-160G S4 CAT. B2)
Humidity	Up to 95% (RTCA/DO-160G S6 CAT. B)
Shock	6g shock, 11ms (RTCA/DO-160G S7 CAT. B)
Crash Safety	20g shock, 11ms and 20g sustained acceleration (RTCA/DO-160G S7 CAT. B)
Vibrations	According to RTCA/DO-160G S8 CAT. U Curve G
Environmental Protection	IP65 rated according to EN 60529
Fungus Protection	According to RTCA/DO-160G S13 CAT. F
Salt Spray	5% NaCl 48 hours (RTCA/DO-160G S14 CAT. S)
Magnetic Effect	Deviation at 0.3m (RTCA/DO-160G S15 CAT. Z)
EMC	Audio frequency conducted susceptibility: RTCA/DO-160G S18 CAT. Z Induced signal susceptibility: RTCA/DO-160G S19 CAT. ZC Radio frequency susceptibility: RTCA/DO-160G S20 CAT. T Emission of radio frequency energy: RTCA/DO-160G S21CAT. M Electrostatic discharge: RTCA/DO-160G S25 CAT. A

GOMA
RUGGED SOLUTIONS

Strada Antica di Collegno, 225
10146 Torino - Italia
Tel. +39 011.7725024

www.gomarugged.com

KEEP IN TOUCH

All trademarks are the property of their respective owners
GOMA ELETTRONICA SpA • MAG2CEVO0325
Designed by GOMA ELETTRONICA SpA