DAQMAG2A

Rugged Display Computer

The DAQMAG2A is a high performance rugged display computer, designed for use in applications with multiple video inputs and outputs.

At the heart of the unit is the Intel® Core™ i7 processor, with 8 GB of DDR3 and 8 GB of Flash memory. I/O from the Intel node is brought out to the front panel, and comprises: three Gigabit Ethernet ports; four USB; two serial COM (RS232/RS422/ RS485); stereo audio line out, audio in.

Depending on configuration, the DAQMAG2A may be fitted with either a 2nd or 3rd generation Core i7, (SBC324 or SBC325 respectively).

The computer has a rich video I/O set enabling it to be connected to a variety of video inputs and outputs. These video connections support standard definition, high definition, and computer resolutions up to 1600X1200. The hardware can connect to most industry standard analog and digital formats including: HD/SD SDI, NTSC, PAL as well as RGB including sync-on-green standards.

VGA output from the CPU is available at the front panel, and is buffered to drive two identical sets of video signals.

The video capture board is connected to the SBC via PCI Express™, allowing the video inputs to be transferred into system memory for manipulation and/or display using the Intel internal graphics engine.

The DAQMAG2A rugged display computer has a 64 GB solid state disk (expandable to 256 GB) for operating system, application, and operational storage needs. The SSD is designed and manufactured to meet the rigors of the environment, providing AE-128 hardware encryption for the data and the ability to purge the data, if necessary.

The DAQMAG2A employs conduction-cooled cards inside a sealed chassis, using baseplate cooling to remove heat.

Qualified to DO-160G, the unit is particularly suitable for airborne applications, providing electro-optic sensor processing.

FEATURES:

- High performance CPU
  - Intel® 3rd Generation Core™ i7
  - Intel® 2nd Generation Core™ i7
  - 8 GB DDR3 SDRAM
  - 8 GB Flash
- 64 GB SLC Flash disk, with secure erase
- Four video outputs
  - Multiple video formats
- Video ingest capability
  - Multiple video formats
- Baseplate-cooled product
- Qualified to DO-160G
- MIL-STD-704 / -1275 power supply

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DAQMAG2A *Rugged Display Computer*

Specifications

CPU
- Intel Core i7-2655LE @ 2.2 GHz
- Intel Core i7-3612QE QC @ 2.1 GHz
- 8 GB DDR3 SDRAM
- 8 GB Flash
- Intel 4500MHD Integrated Graphics

Internal mass storage
- 64 GB SSD (SLC) (Growth 256 GB SLC)
- AE-128 encryption
- Hardware purge

Video inputs
- 1x analog RGsB input (1600 x 1200 @ 60 Hz, progressive scan, sync-on-green)
- 1x analog RGsB input (1280 x 1024 @ 60 Hz, progressive scan, sync-on-green)
- 2x PAL/NTSC, Composite input (576i @ 50 Hz / 480i @ 60 Hz)
- 1x HD-SDI input (1080i @ 60 Hz, 1080p @ 30 Hz)
- 1x Video over Ethernet

Video outputs
- SBC324/SBC325 - VESA resolutions to 1920 x 1200 @ 60 Hz (progressive scan, separate H & V syncs)
- SBC VESA buffered to drive two VGA out
- ICS8580 - 1x VESA resolutions to 1600 x 1200 @ 60 Hz (progressive scan, separate H & V syncs, or sync-on-green
- 1 x HD-SDI output (1080i @ 60 Hz, 1080p @ 30 Hz)
- 1x PAL/NTSC, Composite output (576i @ 50 Hz / 480i @ 60 Hz)

Front panel Interfaces
- 3 Gigabit Ethernet
- 2 USB (dedicated)
- 2x USB or PS/2 keyboard and mouse
- 2x RS232/RS422/RS485
- Audio Stereo line out, audio in

Software support
- BIOS to support Microsoft® Windows® 7
- RGsB capture drivers for Microsoft® Windows® 7
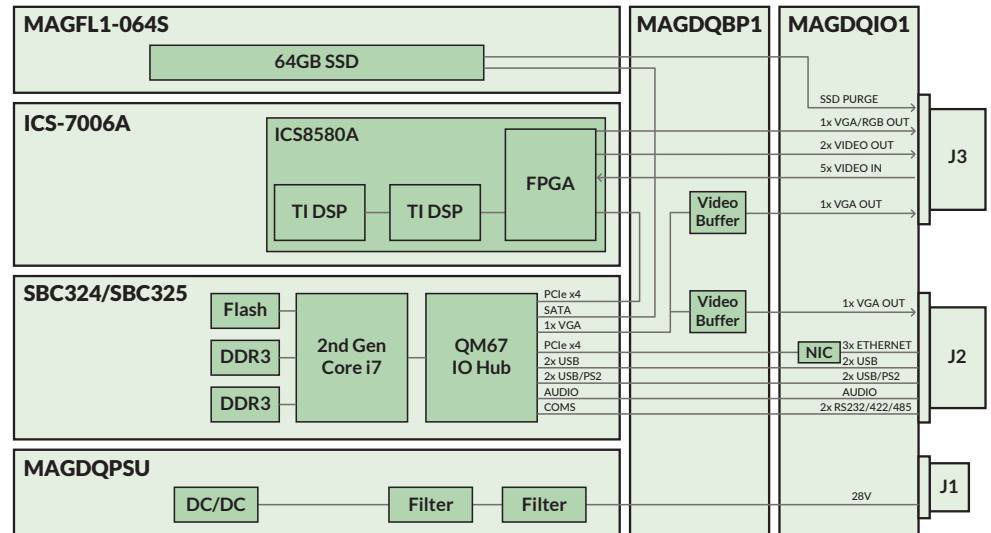
Power
- +18 to 36 VDC input

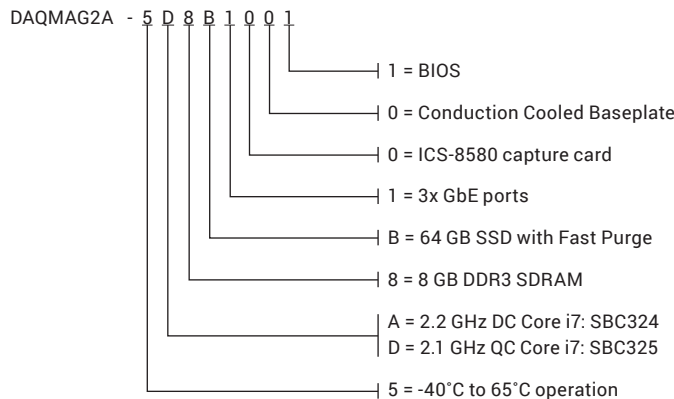### Mechanical
- Dimensions: 230mm x 167mm x 83mm
- Baseplate cooled

Qualification
- DO-160G

Block diagram

Ordering information

DAQMAG2A - 5 D 8 B 1 0 0 1

- 1 = BIOS
- 0 = Conduction Cooled Baseplate
- 0 = ICS-8580 capture card
- 1 = 3x GbE ports
- B = 64 GB SSD with Fast Purge
- 8 = 8 GB DDR3 SDRAM
- A = 2.2 GHz DC Core i7: SBC324
- D = 2.1 GHz QC Core i7: SBC325
- 5 = -40˚C to 65˚C operation

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