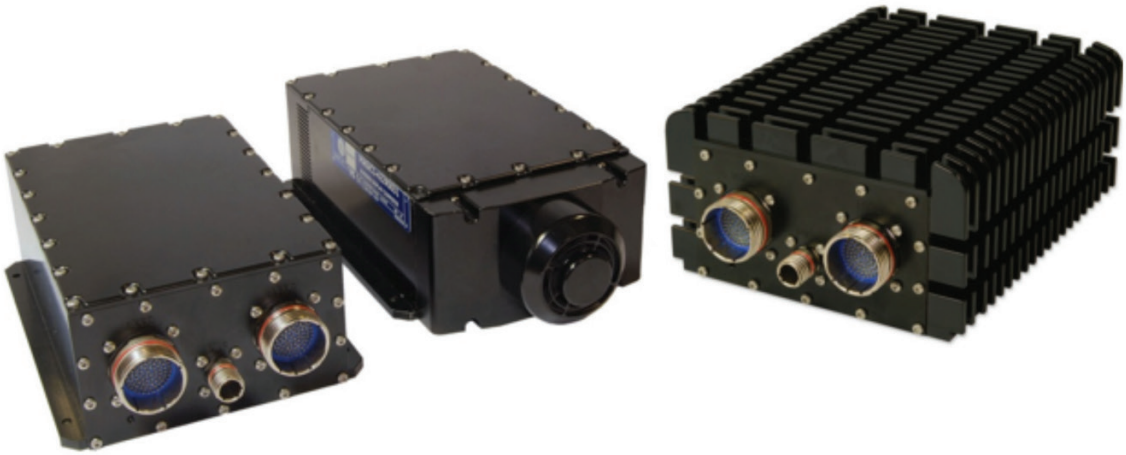


MAGIC1

Rugged, High Performance, Display and Multicore Payload Processor

The small form factor MAGIC1 combines state of the art CPU technology with the latest Graphics Processing Units (GPUs) in order to deliver unprecedented levels of performance to the rugged marketplace.

When deployed as a Display Computer this enables the MAGIC1 to support the industry's most demanding visual applications, such as embedded training, 360° situational awareness, or advanced digital maps.

Additionally, the MAGIC1 provides General Purpose computing on Graphics Processing Units (GPGPU) for data-intensive application, opening up a huge range of Intelligence, Surveillance and Reconnaissance applications. Example ISR applications on the GPU include wide-area persistent surveillance, hyperspectral sensor fusion, IED detection, synthetic aperture radar processing, and many more.

The MAGIC1 benefits from form, fit and function technology upgrades, and has evolved to the fourth generation of Intel CPU, the Core i7. System memory is made up of two banks of dual data rate SDRAM, with capacity of 16 GBytes DDR3.

The dual channel GPU with 2 GB of GDDR5 memory can output both channels as either DVI and RGB. The GPU connects to the CPU through a dedicated 16-lane Gen 2 PCI Express™ link.

To enable rapid application development and deployment, the MAGIC1 is code compatible with desktop environments such as CUDA, OpenCL and MATLAB, allowing easy porting of applications and algorithms onto the deployable platform.

Storage is provided by a hardware-encrypted solid state disk drive, which boasts a capacity of up to 256 GBytes, a sustained read/write performance of greater than 250 Mbytes/second, and a purge facility to allow data on the drive to be securely deleted in an emergency. A software development kit allows selection of the desired purge algorithm.

The MAGIC1 Rugged Display Processor is available in three chassis configurations:

- Base-plate cooling for when a suitable coldplate is available
- C onvection-assisted cooling by means of integral fins
- Forced air cooling through hollow sidewall heat exchangers suitable for rugged airborne applications.

FEATURES:

- High performance display computer
- CUDA enabled compute node
- Leading edge graphics performance
- CPU: Intel 4th Gen
- GPU: NVIDIA®; Intel® HD Graphics
- Multiple video standards
- Dual channel output
- Up to 256 GB solid state disk
- Baseplate, convection or forced air cooled

abaco SYSTEMS

MAGIC1 *Rugged, High Performance, Display and Multicore Payload Processor*

Specifications

CPU
- Intel Core i7-4700EQ Quad-Core @ 2.4 GHz

Main memory
- Up to 16 GBs DDR3 SDRAM

Local Flash memory
- 32 GB SSD

GPU
- NVIDIA GPU

Internal mass storage
- 64, 256 GB SSD

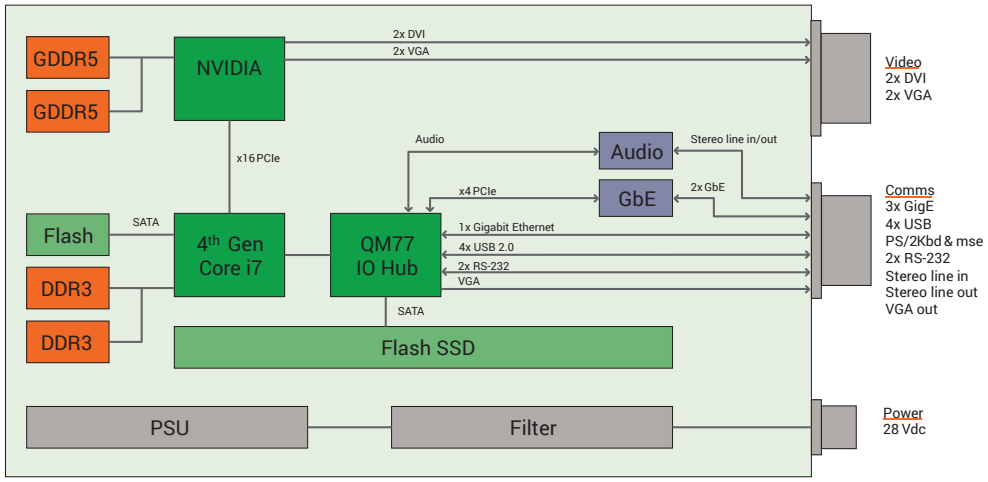
Front panel Interfaces
- 2x Gigabit Ethernet
- 2 USB
- PS/2 keyboard and mouse
- 2 x RS232
- 1 or 2 VGA out
- 2 DVI out
- Audio Stereo line out, Audio in

Software support
- BIOS to support Microsoft® Windows® XP, Linux®, VxWorks®, OpenGL, DirectX, NVIDIA® PhysX™, NVIDIA® 3D Vision™

Dimensions

Baseplate cooled
- Length 230 mm (9.05") x Width 167 mm (6.57") x Height 83 mm (3.25")

Block diagram



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