



Excalibur's **Dragon** is a ruggedized modular COTS PC104-Plus system with the option of a customer specified configuration. The system is capable of supporting up to six P104 / P104-Plus cards in addition to the processor and power supply. The modular, stack-through design allows you to build a tailor-made configuration based on Excalibur's extensive range of boards as well as other compliant third party's cards.

The Dragon is delivered fully integrated with the OS of choice; including installation of all hardware with appropriate drivers, test software, and cables, cutting integration time and letting you get on with the real project.

Special Features

- ◆ Conduction cooled
- ◆ No moving parts – fanless
- ◆ Modular design for easy configuration and upgrade
- ◆ Fully tested to MIL-STD-810F, 461E, 1275B and 704E
- ◆ Removable SSD memory option for security and backup
- ◆ Remote ON/OFF
- ◆ Soft shut down

CPU

- ◆ Fully Conduction cooled Pentium M, up to 1.8 GHz
- ◆ L2-Cache 2048KB
- ◆ Front Side Bus: 100 (400) MHz

Memory – RAM

- ◆ DDR-RAM, up to 1024 MB

Memory – HD

- ◆ Solid State Drive (SSD), up to 128 GB, specifically suited for applications requiring high rates of data streaming without interruption
- ◆ Removable SSD drawer option ensures confidential data can be kept safe. An IDE adapter is also included for easy connection to desktop PC.
- ◆ Other memory options: removable PCMCIA card, Compact Flash (4 to 16 GB)

USB

- ◆ Four USB 2.0 Ports



Keyboard

- ◆ USB or PS2

Mouse

- ◆ USB or PS2

Serial Ports

- ◆ 2 Serial com ports

Ethernet

- ◆ 10/100 MB

Operating System

- ◆ The Dragon System supports the following OS's: Windows XP, Windows XPe, Linux (for other operating systems, please contact Excalibur Systems).
- ◆ The Dragon is provided fully configured and integrated with the OS of choice. This includes installation of drivers for all installed hardware.



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Power Supply

- ◆ Wide input voltage range 9-40Vdc
- ◆ Power consumption: under 25 Watts for base model
- ◆ Galvanic isolation 1500Vdc
- ◆ Under Voltage, Over Voltage, Over Current protection
- ◆ Reverse Voltage protection
- ◆ Complies with MIL-STD-704E Electric power compatibility for military airborne equipment
- ◆ Complies with MIL-STD-1275B Electric power compatibility for 28Vdc electrical systems in military vehicles
- ◆ Multi Color LED (ON/OFF/Standby)
- ◆ Remote ON/OFF

Connectors

- ◆ All connectors are round MIL-STD-38999 type. Connectors are specially sealed to prevent water ingress as well as provide optimum EMI/RFI compatibility.

Casing

- ◆ Modular design allows for easy configuration and upgrade
- ◆ Conduction Cooled – specially designed to efficiently cool internal electronics
- ◆ Highly durable hardened aluminum casing
- ◆ Hard coat Anodized per MIL A 8625F TYPE III CLS 2
- ◆ Pressure release valve
- ◆ Power switch guard

Dimensions

- ◆ 130mm (L) x 181mm (W) x 140mm (H) – minimum configuration

Weight

- ◆ 3.45 Kg – minimum configuration

MIL-STD-810F

The Dragon system has been tested and fully complies with the following MIL-STD-810F tests:

- ◆ Hi Altitude, 70,000 feet operating, per method 500.4
- ◆ Hi Temperature, operating +71°C (+85°C at the thermal interface), non-operating +100°C, per method 501.4
- ◆ Low Temperature, operating -40°C, non-operating -50°C, per method 502.4
- ◆ Humidity – 95% Humidity at 60 °C
- ◆ Acceleration – 7G in all three axis
- ◆ Sinusoidal Vibration – 15 to 2000 Hz freq. range (Hz) at 10G acceleration

- ◆ Random Vibration – 15 to 2000 Hz freq. range (Hz) at 0.1g²/Hz
- ◆ Explosive Atmosphere, per method 511.5
- ◆ Shock – 40G, ½ sine 11ms, 3 hits in each axis, both directions

MIL-STD-461E

The Dragon system has been tested and fully complies with the following MIL-STD-461E tests:

- ◆ CE101 – Conducted Emissions, Power Leads, 30 Hz to 10 kHz
- ◆ CE102 – Conducted Emissions, Power Leads, 10 kHz to 10 MHz
- ◆ CS101 – Conducted Susceptibility, Power Leads, 30 Hz to 150 KHz
- ◆ CS114 – Conducted Susceptibility, Bulk Cable Injection, 10 kHz to 200 MHz
- ◆ CS115 – Conducted Susceptibility, Bulk Cable Injection, Impulse Excitation
- ◆ CS116 – Conducted Susceptibility, Damped Sinusoidal Transients, Cables and Power Leads, 10 kHz to 100 MHz
- ◆ RE102 – Radiated Emissions, Electric Field, 10 kHz to 18 GHz
- ◆ RS101 – Radiated Susceptibility, Magnetic Field, 30 Hz to 100 kHz
- ◆ RS103 – Radiated Susceptibility, Electric Field, 2 MHz to 18 GHz

Configuration Options

- ◆ MIL-STD-1553 multifunction interface module
- ◆ MIL-STD-1553 single function interface module qualified for airborne applications
- ◆ MIL-STD-1760 multifunction interface module
- ◆ ARINC 429 multi-channel interface module
- ◆ Discrete I/O interface module
- ◆ Serial communications interface module
- ◆ CAN protocol interface module
- ◆ ARINC 708 interface module
- ◆ MMSI interface module
- ◆ H009 interface module
- ◆ Video Server
- ◆ GPS
- ◆ 16-Bit Analog I/O
- ◆ Other boards complying with PC/104 and PC/104plus form factor can be added

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These specifications are subject to change without notification

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