» FS-5985 «

FS-5985 Conduction Cooled Chassis

» Small form factor based rugged chassis
» Removable Front I/O and rear panels for chassis access
» Flexible design allows for easy customized I/O
» 200 Watt plug-in Power Supply Unit
» cPCI or VPX Backplane

The Kontron FS-5985 is a forced-air, conduction cooled chassis designed for use in military applications. Specifically, the FS-5985 chassis meets the environmental requirements of MIL-E-5400 for Class 1 equipment and will withstand extremes of temperature, vibration, shock, salt spray, sand and chemical exposure while maintaining a sealed environment.

Mounting & Cooling

The FS-5985 chassis is designed to adapt to existing ARINC style equipment mounting trays or it can be configured with a number of application driven mounting options, including hard mounted or shock mounted.

The FS-5985 chassis provides a secure enclosure for conduction cooled circuit cards. The heat from the chassis internal system components is conducted to side-wall heat exchangers, where it is dissipated to the ambient environment by forced-air cooling. The FS-5985 chassis is available with an integral AC or DC fan or with an air-plenum to use with an external force air supply.

Slot Configuration

Two backplane configurations are available: cPCI and VPX. For both configurations, the boards and PSU are loaded from the rear. The PSU blind mates into the backplane and is designed for quick replacement. For the cPCI backplane option, the FS-5985 supports one system slot and 4 spare cPCI slots for the I/O and peripherals.

Technical Information

Physical Dimensions	
Height	5.840"
Depth	13.930" (not including handle or connectors)
Width	4.880"
Weight	9.7lbs (typical—includes enclosure, backplane and power supply)
Environmental	
Storage Temperature	-57°C to +85°C
Operating	-55°C to +55°C at SL; -55°C to +20°C at 50kFT. (with mil-aero fan)
Vibration	Per MIL-STD-810E, 0.1g2/Hz, 15-2000Hz (without shock tray)
Shock	MIL-STD-810E, 20 g, 11 ms, half sine wave (without shock tray)
EMC	Per MIL-STD-461E, CE101,CE103, CS102, CS106, RE102, RS101, RS102, RS103
Electrical	
Input	18 to 36 VDC
Input transient protection	Meets or exceeds MIL-STD-704, MIL-STD-1275
Shutdown	Over-voltage shutdown with auto-recovery
Note	50msec power hold-up option available
Backplane Configuration - cPCI or VPX	
cPCI	5-slots to PICMG 2.0 R3.0 66 MHz operation Rear I/O through J2 Pluggable PSU slot through Positronic P47 connector 32 bit data width Configurable 3.3 VI/O or 5 VI/O CPCI slot keying
VPX	5-slots, system cards, 0.8 inch pitch 1 Slot Power Supply, blind mate type via Positronics connector Compliant with: » VPX baseline architecture: ANSI/VITA 46.0- 2007 » OpenVPX draft ANSI/VITA: 65-2010 » PCI Express® on VPX Fabric Connector: Draft 0.15 Vita46.4 July 21th 2010 » Rear Transition Module for VPX: ANSI/VITA 46.10 Dec. 2009
Integration Services	Environmental stress screening (ESS) including thermal and vibration cycling. System configuration: Installation of system I/O wiring, and connectors and peripherals as required. ATP: Functional testing of configured system using customer or AP Labs developed test procedures.
DC Output	+5V 34A, 3.3V 8A, +12V 0.5A, -12V 0.5A Current limiting, Over temperature protection
Chassis Customization	Can be customized to meet specifications, including: outline and mounting, I/O wiring, I/O panels, custom backplanes, environmental and thermal compliance, and power supplies.

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