

# » FS-5977 «



### FS-5977 <sup>1</sup>/<sub>2</sub> 5-slot ATR Conduction Cooled Chassis

- » Military ¹/2 ATR chassis
- » Houses 5 conduction cooled circuit cards per IEEE 1101.2, 0.8" pitch
- » Conduction-cooled via a cold-plate mounting
- » 200 W, 28 VDC input, plug-in power supply

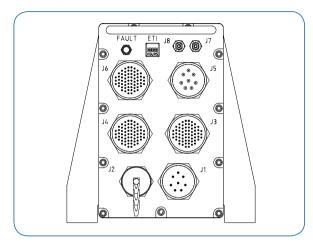
## FS-5977 1/2 5-slot ATR

The Kontron FS-5977 is a 5-slot conduction cooled chassis for military applications. It is capable of maintaining a sealed, dry air environment, while subject to typical Vetronic immersion and exposure to fluids environments. The FS- 5977 meets the environmental requirements of MIL-E-4158, MIL-E-5400, and MIL-STD-2036. This allows for use in environments with extreme temperatures, shock, and EMI requirements where reliability is important.

#### **Mounting & Cooling**

The FS-5977 is designed to be hard-mounted to a coldplate. The base structure of the chassis matches the physical outline limits defined in the ARINC 404A™ specification for a ¹/₂ ATR, short box. The enclosure side walls are strengthened with gussets, extending beyond the ¹/₂ ATR dimensions, supporting the hard-mounting cold-plate cooling approach. This eliminates both the conventional shock tray and any required integral air cooling. The FS-5977 provides a secure enclosure for conduction-cooled cards over a wide mounting surface temperature range.

The combined dissipation of PSU losses and 5 cards can be up to 200 W, which must be absorbed by the cold plate. The environmental specifications defined on the reverse indicate the upper temperature limits for a given thermal load.



Physical Dimensions	¹/₂ -short ATR ARINC 404A™ Specifications
Height	7.840"
Depth	13.750"
Width	4.880"
Weight	22lbs (typical—includes enclosure, backplane and power supply)
Environmental Specs	
Operating Temperature	cold plate temperature: -55°C to 70°C (at 120 W) -55°C to 55°C (at 220 W)
Storage Temperature	-57°C to +85°C
EMC	CE101,CE103, CS102, CS106, RE102, RS103, MIL-STD-461E
Enclosure	MIL-STD-108E, Watertight for 3 feet for 1 hour
Vibration	MIL-STD-810E, Random 0.1g2/Hz, peak 15-2000 HZ
Shock	MIL-STD-810E, 30 g, 11 ms, half sine wave
Input Voltage	22 to 29 VDC MIL-STD-1275A (except input above) MIL-STD-704 A to F
DC Output	+5V 30 A (max) 3.3V 1 A (max) +12V .5 A (max) -12V 10 A (max)

#### **CORPORATE OFFICES**

#### Europe, Middle East & Africa

Oskar-von-Miller-Str. 1 85386 Eching/Munich Germany

Tel.: +49 (0)8165/ 77 777
Fax: +49 (0)8165/ 77 279
info@kontron.com

#### North America

14118 Stowe Drive Poway, CA 92064-7147 USA

Tel.: +1 888 294 4558 Fax: +1 858 677 0898 info@us.kontron.com

#### Asia Pacific

17 Building, Block #1, ABP. 188 Southern West 4th Ring Road Beijing 100070, P.R.China

Tel.: + 86 10 63751188 Fax: + 86 10 83682438 info@kontron.cn

