

PXI/cPCI High-Density, High Current, 20-Channel SPST Power Switch Module

- ◆ **Highest Channel Count Available of any High-Current PXI Switch Card**
- ◆ **Double the Current Rating of other PXI Power Switch Modules (13A AC)**
- ◆ **Adapt-a-Switch® High-Density SPST Power Switch Module on a Racal Instruments PXI Carrier**
- ◆ **Excellent Signal Integrity, Low Crosstalk, Isolation, and Insertion Loss**

Each channel of the Racal Instruments 1260-1120 can switch up to 13 A AC, almost double typical 5-7 A ratings for power switch modules. Its high-current capability makes the module an ideal solution for applications requiring high-current switching such as AC power, DC power supplies, and AC or DC current sources. Additionally, 1260-1120's SPST architecture allows the user to interconnect the relays externally to create custom multiplexers and matrices.

The 12.1" module length has market-leading performance that utilizes the available service area between the front of the chassis and a cable/connector receiver. Model 1260-1120 has 85% greater component density than a typical PXI switch module, providing higher switch performance.

Racal Instruments 1260-1120, a PXI SPST switch is an innovative, seamless integration of an off-the-shelf Adapt-a-Switch® power switch module on a Racal Instruments PXI carrier. The module installs easily in any PXI/cPCI chassis without the need for user supplied software or hardware to install or operate.

The electromechanical relays are interchangeable input/outputs, able to meet the most demanding of test requirements.

Interface connectors are available and can be ordered separately. Additionally, a six-foot unterminated cable assembly is available as a standard option.

In keeping with cPCI requirements, the module can be ordered either as a 5 V or 3.3 V PXI bus voltage module.

The module includes drivers for LabWindows/CVI 5.1 and LabVIEW 7.0.

1260-1120 PRODUCT SPECIFICATIONS

INPUT

Maximum Switching Voltage
125 VDC or 250 VAC

Maximum Switching Current
10 ADC or 13 AAC

Maximum Switching Power
300 W, 2000 VA

DC PERFORMANCE

Path Resistance
< 200 mΩ

Insulation Resistance
10⁹ Ω

Thermal EMF
< 50 μΩ

AC PERFORMANCE (into 50 Ω)

Bandwidth (-3 dB)
Sm. Sig: 50 MHz
Power: 400 Hz

Insertion Loss
1 kHz: -3 dB

Isolation (50 Ω)
1 kHz: > 100 dB

Crosstalk (50 Ω)
1 kHz: < -100 dB

Capacitance
Channel – Chassis: < 10 pF
Open Channel: < 200 pF

INTERFACE DATA

Cooling
Airflow: 3.0 l/s
Back Pressure: 0.7 mm H₂O

Power Requirements
+5 VDC at 150 mA plus 40 mA per energized relay (1 A max.)

ENVIRONMENTAL DATA

Temperature
Operating: 0° C to 55° C
Storage: -40° C to 75° C

Relative Humidity
85% ±5% non-condensing at 30° C

MODEL/DESCRIPTION

Racal Instruments 1260-1120-3. PXI, AaS, High-Power 20 Channel SPST, 10A, 3.3V Bus Voltage
Racal Instruments 1260-1120-5, PXI, AaS, High-Power 20 Channel SPST, 10A, 5V Bus Voltage
PXI to AaS Carrier/Enclosure 3.3V Ki
PXI to AaS Carrier/Enclosure 5V Kit
20-pin Mating Connector w/Pins
20-pin Cable Assembly, 6ft., 14 AWG

Altitude

Operating: 10,000 ft.
Non-Operating: 15,000 ft.

Shock

30 g, 11 ms, ½ sine wave

Vibration

0.013 inch: p-p, 5-55 Hz

Bench Handling

4-inch drop at 45°

EMC

Emissions

EN55011A with limits in accordance with EN50081-1

Immunity

IEC801-2, 3, 4 with limits in accordance with EN50082-1

Safety

EN61010-1

RELIABILITY

Rated Switch Operations

Mechanical: 10,000,000 operations
Electrical: 100,000 at full rated load

Switching Time

< 10 ms (includes settling time)

MTBF

979,058 hours (MIL-HDBK-217E) without relays

MTTR

< 5 minutes

MECHANICAL

Weight
13 oz (0.45 kg)

Dimensions
4.5" H x 0.85" W x 12.1" D

Front Panel I/O Interface Connector

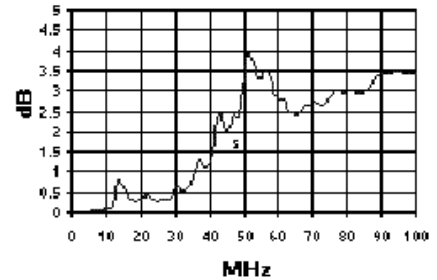
20-pin rack & panel

Note: the 1260-1120 is supplied with one set of mating connectors and pins. Additional connectors and pins can be ordered using the part numbers shown below.

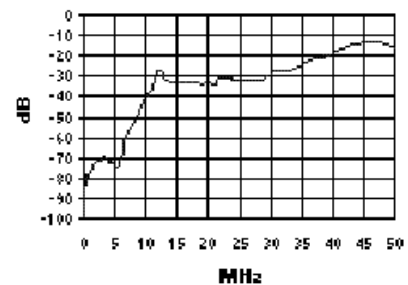
ORDERING INFORMATION

TYPICAL CHANNEL

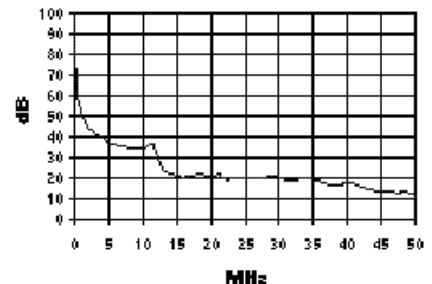
Insertion Loss




Crosstalk



Isolation



 The CE Mark indicates that the product has completed and passed rigorous testing in the area of RF Emissions, Immunity to Electromagnetic Disturbances and complies with European electrical safety standards.

PART NUMBER

1260-1120-001
1260-1120-002
408000-001
408000-002
407660
407657

The EADS North America Defense Test and Services policy is one of continuous development, consequently the equipment may vary in detail from the description and specification in this publication.



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