Racal Instruments
http://www.racalinstruments.com

PRODUCT INFORMATION

PXI/cPCI High-Density, High-Current, 20-Channel SPST Power Switch Module Model 1260-1120

- **Adapt-a-Switch® High-Density SPST Power Switch Module on a Racal Instruments PXI Carrier**
- **Extended 12.1 inch Depth for High-Density, Market-Leading Performance**
- **High Switch Current**
- **Excellent Signal Integrity, Low Crosstalk, Isolation, and Insertion Loss**
- **Unmatched 8 MHz Data Transfer Speed**

Model 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 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.

Each channel can switch up to 13 A AC, almost double typical 5-7 A ratings for power switch modules. Model 1260-1120’s 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, Model 1260-1120’s SPST architecture allow the user to interconnect the relays externally to create custom multiplexers and matrices.

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

Model 1260-1120’s low crosstalk, isolation, and insertion loss make it ideal for use with signal generators and oscilloscopes.

The module has an 8 MHz data transfer speed, incomparably faster than typical power switch modules, for fast data transfer required in timely, uninterrupted data acquisition and processing.

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.

Model 1260-1120 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
10^9 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 H_2O
Power Requirements
+5 VDC at 150 mA plus 40 mA per energized relay (1 A max.)

ENVIRONMENTAL DATA

Temperature
Operating: 0º C to 55º C
Storage: -4º C to 75º C
Relative Humidity
85% ±5% non-condensing at 30º C
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 45º

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

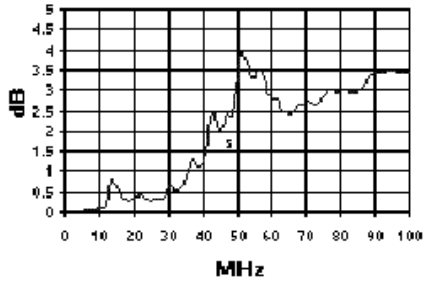
MECHANICAL

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

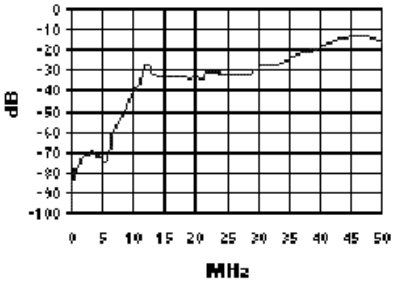
Note: the 1260-1120 is supplied with one set of mating connectors and pins. Additional connectors and pins can be ordered using the part numbers shown below.

TYPICAL CHANNEL

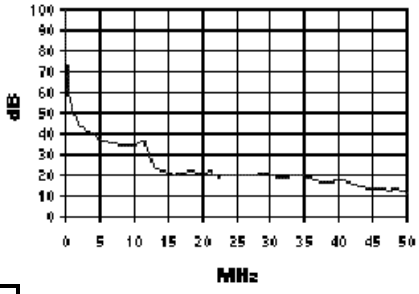
Insertion Loss



Crosstalk



Isolation



ORDERING INFORMATION		
Model	**Description**	**Part Number**
1260-1120-3	PXI, AaS, High-Power 20 Channel SPST, 10A, 3.3V Bus Voltage	1260-1120-001
1260-1120-5	PXI, AaS, High-Power 20 Channel SPST, 10A, 5V Bus Voltage	1260-1120-002
408000-001	PXI to AaS Carrier/Enclosure 3.3V Kit	408000-001
408000-002	PXI to AaS Carrier/Enclosure 5V Kit	408000-002
407660	20-pin Mating Connector w/Pins	407660
407657	20-pin Cable Assembly, 6ft., 14 AWG	407657

CE 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.

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