

High-voltage Coaxial Switch

Overview

The SMP2300 and SMP2300-93 are designed to switch high-voltage signals for device under test control and measurement purposes. The SMP2300 is designed to switch high-voltage signals in a controlled 50 Ω impedance and the SMP2300-93 designed to switch signals in a controlled 93 Ω environment.

Up to 144 channels can be accommodated in a double-slot VXIbus card (SMP1200) for maximum density, or mixed and matched with other SMIP//™ cards for flexibility. Applications include Hipot or cable breakdown testing.

When switching high voltages, the need for signal shielding becomes critical. The SMP2300 has been designed to include large shield planes to reduce crosstalk and voltage spikes to adjacent channels.

For ATE applications, such as switching high-voltage source measure units or power supplies, a fail-safe interrupt line is provided on the front panel. This can open all relays automatically if a safety condition occurs. This approach instantly removes all high voltages to the UUT or interface.

Specifications

Maximum Switching Voltage:	500 V dc
Maximum Switching Current:	1 A
Maximum Carry Current:	2 A
Maximum Switching Power:	25 W dc
Path Resistance:	< 1 Ω
Insulation Resistance:	>1x10 ⁷ Ω
Bandwidth (-3 dB):	>25 MHz bandwidth
Rated Switch Operations:	
Mechanical:	100 x 10 ⁶
Electrical:	1 x 10 ⁶ at full load
Switching Time:	<3 ms



SMP2300 - 1 of 24 SPST

Features

SMP2300	24 SPST, 500 V Relays 50 Ω
SMP2300-93	24 SPST, 500 V Relays 93 Ω

500 V dc Operation in a Small Footprint with Controlled Impedance

Up to 144 Channels in Two VXI Card Slots

SPST Relays can be Paired to Configure 12 DPST Relays per SMP2300

Fail-safe Interrupt Input on Front Panels for Emergency Fault Conditions

Can be Mixed and Matched With Other SMIP// Modules to Create Application Specific Configurations

Switching