

12 (1 x 5) 2-wire Multiplexer

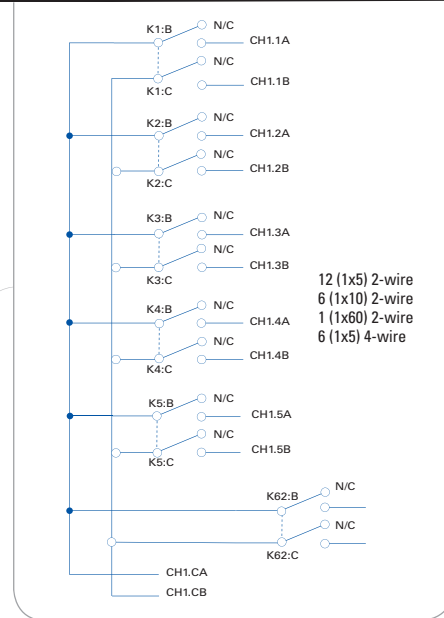
Overview

The SMP3005 is designed for scanning of multiple points to a common bus either synchronously with an instrument (i.e., using triggers), or asynchronously with individual relay control. Up to 300 2-wire channels can be accommodated in a double-slot VXIbus card (SMP1200) for maximum density, or mixed and matched with other SMIP/IT™ cards for flexibility. Applications include cable harness testing, semiconductor and PCB testing, or applications where multiple points need to be switched to a common resource. All relays also have individual relay control, and each path allows for 2 A switching.

The SMP3005 consists of 12 individual (1x5) 2-wire Multiplexers that can be interconnected under program control (via the bussing relays) to configure larger multiplexers as required. This eliminates external wiring and helps reduce unterminated stubs.

Specifications

Maximum Switching Voltage:	300 V ac, 300 V dc
Maximum Switching Current:	2 A
Maximum Switching Power:	60 W dc, 62.5 VA
Path Resistance:	< 500 mΩ
Insulation Resistance:	>1x10 ⁹ Ω
Maximum Thermal Offset Per Channel (HI-LO):	<7 μV
Capacitance:	
Open Channel:	<50 pF
Channel-Mainframe:	<20 pF
High-Low:	<50 pF
Bandwidth (-3 dB):	>100 MHz
Insertion Loss:	
100 kHz:	<0.1 dB
1 MHz:	<0.2 dB
10 MHz:	<0.5 dB
Crosstalk:	
100 kHz:	<-90 dB
1 MHz:	<-70 dB
10 MHz:	<-50 dB
Isolation:	
100 kHz:	<-90 dB
1 MHz:	<-70 dB
10 MHz:	<-60 dB
Rated Switch Operations:	
Mechanical:	1 x 10 ⁷
Electrical:	5 x 10 ⁵ at full load
Switching Time:	<3 ms



Features

SMP3005 12 (1x5) 2-wire Multiplexer

High-density Multiplexing/Scanning

Built-in Configuration Relays Expand the 1x5 Multiplexer Building Blocks

Extensive Signal Shielding Employed on PCBs for Excellent Signal Fidelity

Break-Before-Make (BBM) and Make-Before-Break (MBB) Accomplished in Hardware, Considerably Improving Scanning Time

Switching