

## Four Self-terminated (1x4) Coaxial Trees > 1.8 GHz

### Overview

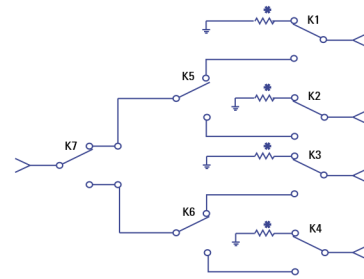
The SMP6301 is designed with SMB male connectors for applications that require RF signal switching greater than 1.8 GHz. Excellent crosstalk and isolation is maintained by using RF relays with bandwidths in excess of 2.0 GHz, along with short low-loss coaxial runs from the connector directly to the relays. All modules are also configured to avoid any unterminated stub effects, improving overall signal integrity and allowing for larger high-frequency multiplexer configurations while maintaining bandwidth and VSWR.

For applications that require self-termination of unused channels, a kit of four 50 Ω terminations is provided as an option. A total of four of these kits (option 79) would be required to self-terminate the complete card.

The SMP6301 is part of the SMIP//™ family and can be mixed and matched with other SMIP//™ modules to configure high-density switching systems. For example, approximately 96 50 Ω coaxial switch points can be switched within a double slot VXI card (SMP1200), providing exceptional density without degrading signal integrity.

### Specifications

<b>Maximum Switching Voltage:</b>	100 V
<b>Maximum Switching Current:</b>	0.5 A
<b>Maximum Switching Power:</b>	10 W
<b>Bandwidth (-3 dB):</b>	>1.8 GHz
<b>Insertion Loss:</b>	
100 MHz:	<0.5 dB
500 MHz:	<1.0 dB
<b>Crosstalk:</b>	
10 MHz:	<-100 dB
100 MHz:	<-90 dB
500 MHz:	<-65 dB
<b>Isolation:</b>	
10 MHz:	<-80 dB
100 MHz:	<-70 dB
500 MHz:	<-65 dB
<b>VSWR:</b>	
100 MHz:	<1.15:1
500 MHz:	<1.5:1
750 MHz:	<2.0:1
<b>Rated Switch Operations:</b>	
Mechanical:	$5 \times 10^6$
Electrical:	$1 \times 10^5$ at full load
<b>Switching Time:</b>	<5 ms



## Features

**SMP6301**      4 1x4 Self-Terminated Coaxial Trees >1.8 GHz  
**Option 79**      50 Ω Terminations (factory installed)

50 Ω On-board Self-termination Option

SMB Male Connectors for High Performance

Greater than 1.8 GHz Bandwidths with Excellent Crosstalk and Isolation

10 W Maximum Switching Power

Can be Mixed and Matched to Create Application-specific Configurations

Ideal for General Purpose RF Switching with High Signal Fidelity

No Unterminated Stub Effects

# Switching