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

## verview

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 $50 \Omega$ 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/ITM family and can be mixed and matched with other SMIPII ${ }^{\text {TM }}$ modules to configure highdensity switching systems. For example, approximately 9650 $\Omega$ coaxial switch points can be switched within a double slot VXI card (SMP1200), providing exceptional density without degrading signal integrity.

## Specifications

Maximum Switching Voltage: 100 V
Maximum Switching Current: 0.5 A
Maximum Switching Power: 10 W
Bandwidth (-3 dB): $\quad>18 \mathrm{GHz}$
Insertion Loss:

| $100 \mathrm{MHz}:$ | $<0.5 \mathrm{~dB}$ |
| :--- | :--- |
| 500 MHz | $<1.0 \mathrm{~dB}$ |

Crosstalk:
10 MHz :
$<-100 \mathrm{~dB}$
100 MHz :
500 MHz
$<-90 \mathrm{~dB}$
$<-65 \mathrm{~dB}$
Isolation:

| $10 \mathrm{MHz}:$ | $<-80 \mathrm{~dB}$ |
| :--- | :--- |
| $100 \mathrm{MHz}:$ | $<-70 \mathrm{~dB}$ |
| 500 MHz | $<-65 \mathrm{~dB}$ |

$500 \mathrm{MHz}: \quad<-65 \mathrm{~dB}$
VSWR:

| $100 \mathrm{MHz}:$ | $<1.15: 1$ |
| :--- | :--- |
| $500 \mathrm{MHz}:$ | $<1.5: 1$ |
| $750 \mathrm{MHz}:$ | $<2.0: 1$ |

## Rated Switch Operations:

Mechanical:
Electrical:
$5 \times 10^{6}$
$1 \times 10^{5}$ at full load

Switching Time: <5 ms

