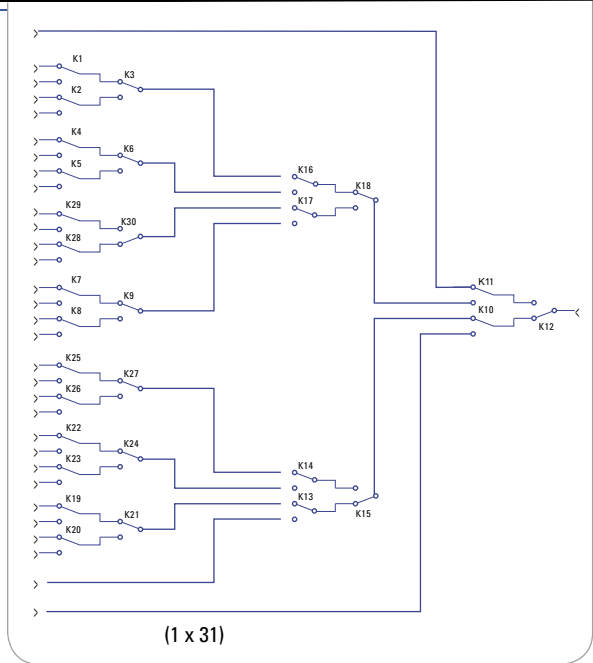## 1x31 Coaxial Tree >750 MHz

Overview

The SMP6103 is a very high-density coaxial tree, and is designed for high-fidelity RF switching applications up to 750 MHz. 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. The front panel contains two high-density, 26-pin coaxial connectors designed for high reliability and superior signal integrity.

The SMP6103 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 180 50 Ω 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):	>750 MHz

Insertion Loss:
100 MHz:	<0.7 dB
500 MHz:	<2.0 dB

Crosstalk:
10 MHz:	<-70 dB
100 MHz:	<-65 dB
500 MHz:	<-60 dB

Isolation:
10 MHz:	<-90 dB
100 MHz:	<-70 dB
500 MHz:	<-50 dB

VSWR:
100 MHz :	<1.1:1
500 MHz:	<1.8:1
750 MHz:	<2.0:1

Rated Switch Operations:
Mechanical:	5×10^6
Electrical:	1×10^5 at full load

Switching Time:	<5 ms

(1 x 31)

Features

SMP6103   1x31 Coaxial Tree >750 MHz

High-density RF Tree (1x31)

10 W Maximum Switching Power

Can be Mixed and Matched with Combiners/Splitters and other SMIP//™ Modules to Create Application specific Configurations

No Unterminated Stub Effects

Excellent Crosstalk and Isolation Specifications