

4x4 20 GHz and 26.5 GHz Matrices

Overview

The SM7100 and SM7100-26 are part of the SMIP//™ family, offering the extensive control and interfacing features provided by SMIP//™. Microwave relay technology has been pioneered to offer density, modularity and cost benefits not available from other VXI suppliers.

Using the SMIP//™ family for microwave switching, the user obtains the following benefits over other similar VXI microwave switch solutions:

- Density:** Up to 8 (1x6) microwave relays are housed in a double VXIbus slot, saving a complete C-Size slot.
- Weight:** The miniature relay technology considerably reduces the overall weight. Ultra-light semi-rigid cabling is used maintaining total weight under 5 lbs.
- Cost:** These modules have been priced to help reduce the cost of microwave switching by at least 40% from existing solutions. The relay technology employed satisfies the majority of ATE applications at considerably lower costs.

The modules are configured as true 4 x 4 matrices, and also include relay driver lines for driving external components (25-pin front panel connector). All cable lengths per signal path are also matched to insure equal phase. The SM7100 has been tested by the Navy, and is currently used by Indra for their version of RT-CASS.

Specifications

Maximum Power per Channel:	20 W CW, 100 W p
Switching Time:	<15 ms
RF Impedance:	50 Ω
Insertion Loss Repeatability:	0.05 dB
Switch Life:	1,000,000 cycles per switch
MTBF:	236,520 hrs (100 cycles/day - 27 years)
Connectors:	SMA



Features

dc to 26.5 GHz Bandwidth
(20 GHz SM7100)

Full 4 x 4 Matrix

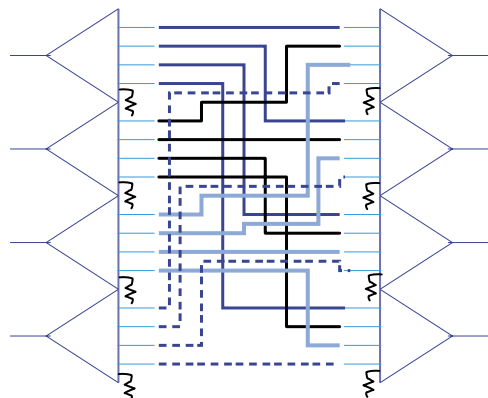
Only Two VXIbus Card Slots

Approximately 5 lbs

Uses miniature Microwave Relays

Other Matrix Configurations Available

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Specifications Cont'd.

Frequency (GHz) (SM7100)	dc-3	3-18	18-20
Isolation (dB min)	120	90	65
Insertion Loss (dB max)	1.0	2.8	3.0
VSWR min	1.2:1	1.6:1	2.0:1

Frequency (GHz) (SM7100-26)	dc-3	3-18	18-26.5
Isolation (dB min)	120	90	65
Insertion Loss (dB max)	0.9	2.7	3.8
VSWR min	1.1:1	1.6:1	2.3:1

Ordering Information

- SM7100 4 x4 20 GHz non-blocking Matrix
- SM7100-26 4 x4 26.5 GHz non-blocking Matrix

SM7100/7100-26