



General

The multi-function relay-based VXI-RMR107 coaxial microwave switching module provides a flexible configuration for many applications. It contains multiple 18GHz relay sections for use in ATE stations, communication sites or other demanding applications requiring compact high performance microwave switching.

It provides different sized relay sections to meet a variety of switching requirements. In the standard configuration, it delivers two 1x10 and two 1x6 self-terminating relays, plus four transfer relay sections within a single C5 sized VXI module. Each relay element is individually shielded from each other and the internal control/status circuitry. A unique control driver method reduces the amount of power the module requires from the host VXI mainframe, reducing cooling requirements and increasing reliability.

Ultra-high reliability relay elements (>1,000,000 operations) are coupled with control and status circuitry. Sections can be field replaced without special tools since each section is connectorized.

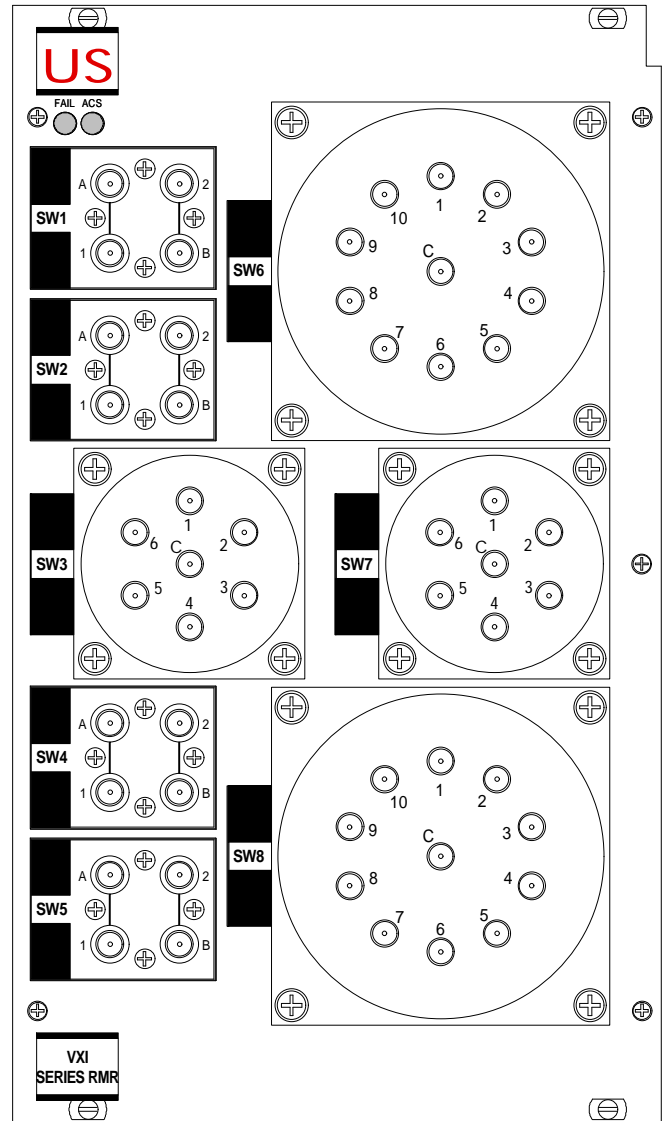
The type of sections included is determined by the model number. A reduced configuration can be further populated while in the field. The module is also available in the same configuration except the four transfer relays are rated for 40GHz and have K-Type signal connectors. Additional configurations are available on special order.

Applications

- ATE systems
- Communication installations
- Antenna routing
- Switching high speed ECL/PECL data
- Satellite control centers
- Ground station IF signal routing

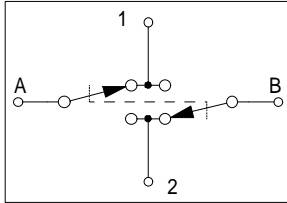
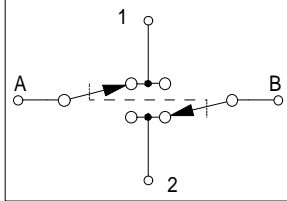
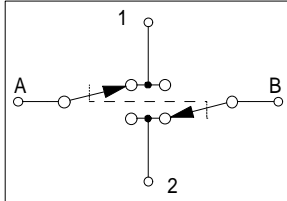
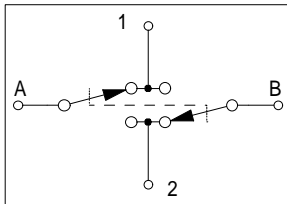
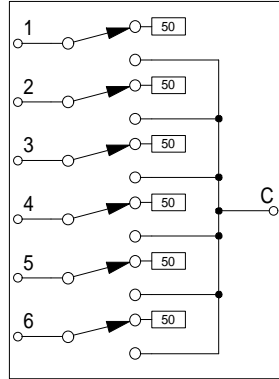
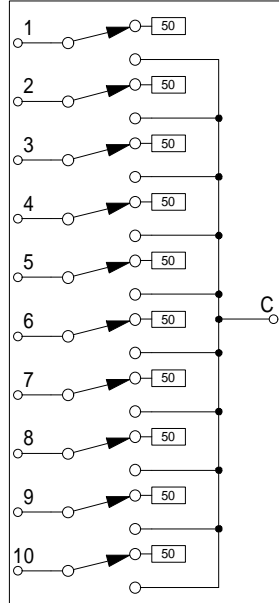
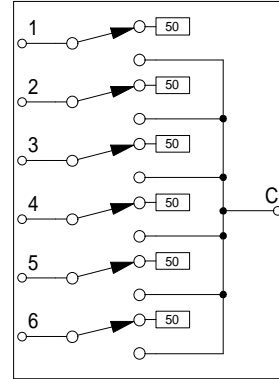
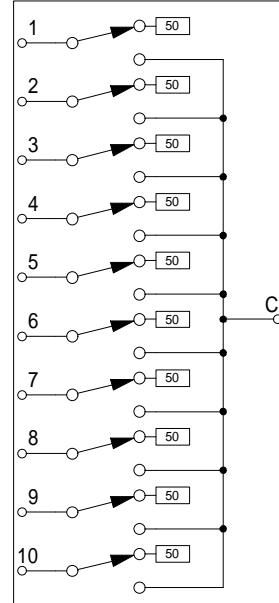
Features

- Fast register-based control
- High reliability relay elements
- DC to 18GHz bandpass, 40GHz optional
- High performance stainless steel SMA signal connectors
- Self-terminating 1xN relays (1x10 and 1x6)
- Field replaceable plug-in relay elements
- Rugged aluminum shielded C5 sized enclosure
- Built-in control and status circuitry
- Individually shielded sections
- LabVIEW drivers included



Configurations

- VXI-RMR107Two 1x10, two 1x6 and four transfer, all 18GHz rated
- VXI-RMR107-140Same as above but SW5 is 40GHz
- VXI-RMR107-240Same as above but SW4 and SW5 is 40GHz
- VXI-RMR107-340Same as above but SW2, SW4 & SW5 is 40GHz
- VXI-RMR107-440Same as above except all transfer relays are 40GHz

SW1**SW2****SW4****SW5****SW3****SW6****SW7****SW8****Signal Specifications**

Switching elements	.Relay-based
Operating mode	.Normally Open, Self-Terminating
Configuration	.Two (1x6), two (1x10) & four transfer
Signal type	.Analog, bi-directional
Signal connector	.Stainless steel female SMA (standard)
Frequency range	.DC - 18GHz (40GHz optional on Xfer's)
Impedance	.50 ohm
Insertion loss (max)	<.30dB @ 4GHz <.35dB @ 8GHz <.40dB @ 12GHz <.50dB @ 18GHz
Repeatability	<.10dB max
Crosstalk isolation (min)	>.75dB @ 4GHz >.70dB @ 8GHz >.65dB @ 12GHz >.60dB @ 18GHz
VSWR (max)	<.1.2 : 1 @ 4GHz <.1.3 : 1 @ 8GHz <.1.4 : 1 @ 12GHz <.1.5 : 1 @ 18GHz
Maximum power	.100 watts @ 2.5GHz 40 watts @ 18GHz
Switching speed	<.50mS (plus control time)

General Specifications

Module size	.Penta (C5)
Control type	.Register based (V1.4)
Sparing	.Field replaceable elements
Construction	.Shielded aluminum case
Mating SMA torque	.7 inch pounds MAX
DC power	.+5V @ 1A plus 125mA/closure .+12V @ 310mA (50mS duration)
Weight	<.5lbs
Operating temp	.0 to +70C
Non-operating temp	.-20 to +85C
Humidity	.0 to 95% (NC @ +25C)
Contact life	.>1,000,000 operations (per port)
MTBF	.>75,000 hours (per MIL-HDBK-217F, N1 ground benign @ +25C)

Universal Switching's policy is one of continuous development, and consequently the company reserves the right to vary from the descriptions and specifications shown in this publication.