

## General

The relay-based G2R15 normally-open coaxial switching module provides a high performance, low cost solution for many applications. It is available in eight versions and additional special configurations can be made per spec by contacting the factory. When a port is not selected, it is normally open and without an internal load termination.

Ultra-high reliability relay elements (>3,000,000 operations per port) are coupled with control and status circuitry. The module also features hot-swap control technology for easy maintenance.

The suffix of the model number can specify whether the module has BNC or SMA connectors, and the characteristic impedance of the module. The BNC version is only rated to 2GHz.

For control and DC power, the module must be installed into any G2 type mainframe controller. The mainframe must have either the -200 or D200 power supply configuration.

## Applications

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

## Features

- High reliability passive relay elements
- DC to 3GHz bandpass (SMA type)
- Choice of BNC or SMA signal connectors
- Hot-Swap module technology
- Rugged aluminum shielded enclosure
- Built-in control and status circuitry
- Normally open input ports

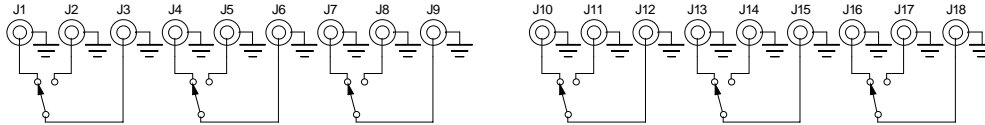
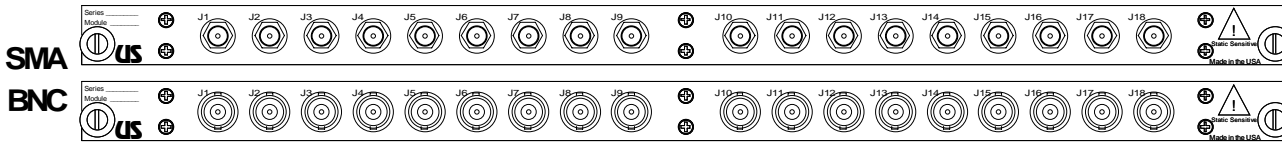
**NOTE:** For a terminating version, please see the G2R15T specification sheet.

## Configurations

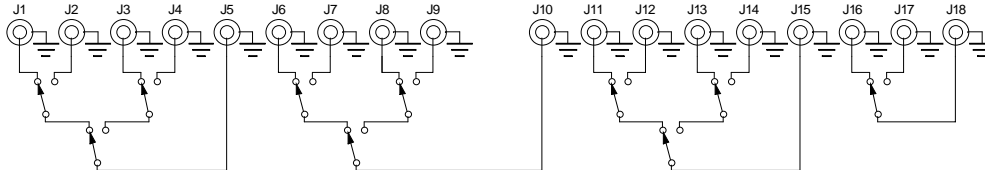
Model Number	Configuration	Conn	Impedance
G2R15-11X16-25	One 1x16 w/EXP	SMA	50
G2R15-21X8-25	Two 1x8	SMA	50
G2R15-4442-25	Three 1x4, one 1x2	SMA	50
G2R15-61X2-25	Six 1x2	SMA	50
G2R15-11X16-25C	One 1x16 w/EXP	BNC	50
G2R15-21X8-25C	Two 1x8	BNC	50
G2R15-4442-25C	Three 1x4, one 1x2	BNC	50
G2R15-61X2-25C	Six 1x2	BNC	50

**NOTE:** The BNC version is only rated to 2GHz max.

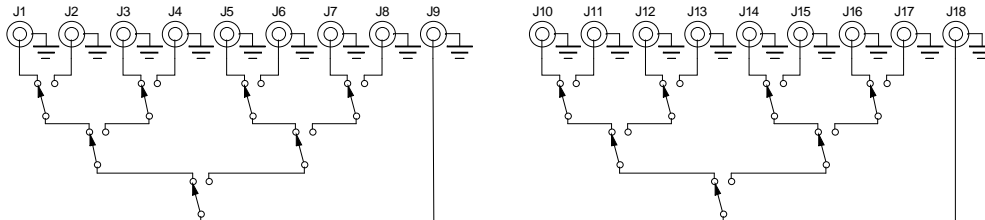




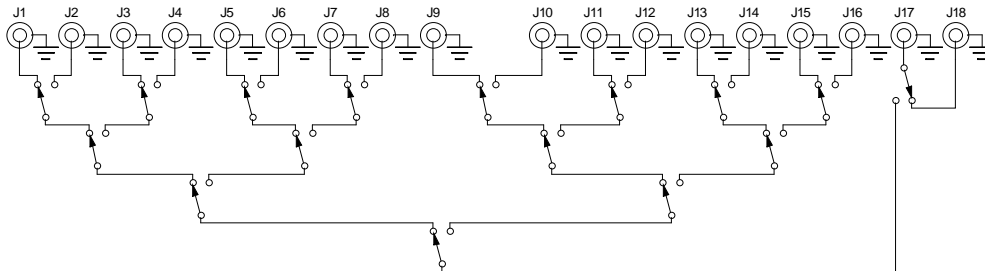
**G2R15-61X2-25**



**G2R15-4442-25**



**G2R15-21X8-25**



**G2R15-11X16-25**

### Signal Specifications

Switching elements . . . . .Relay-based  
 Operating mode . . . . .Normally Open (non-terminating)  
 Ports per relay section . . . .See configuration list  
 Signal type . . . . .Analog or digital, bi-directional  
 Signal connector . . . . .BNC or SMA  
 Frequency range . . . . .DC - 3GHz (min), BNC is 2GHz max  
 Impedance . . . . .50 ohm  
 Insertion loss . . . . .<4.5dB @ 3GHz  
 Port matching (loss) . . . . .<0.25dB typical  
 Repeatability . . . . .<0.10dB max  
 Crosstalk isolation (min) . . . .>80dB @ 10MHz  
    >70dB @ 300MHz  
    >60dB @ 1GHz  
 Contact rating . . . . .30VDC, 1/2 amp, 10 watts (2.5GHz)  
 Switching speed . . . . .<5mS (plus control time)

### General Specifications

Module size . . . . .1 slot height  
 Control type . . . . .G2 compatible  
 Sparring . . . . .Hot-Swappable  
 Construction . . . . .Shielded aluminum case  
 Mating SMA torque . . . . .8 inch pounds MAX  
 DC power . . . . .-200 or D200 configuration  
    +5V (digital), +5V (analog)  
 Weight . . . . .<1.5lbs  
 Operating temp . . . . .0 to +70C  
 Non-operating temp . . . . .-20 to +85C  
 Humidity . . . . .0 to 95% (NC @ +25C)  
 Contact life . . . . .>3,000,000 operations (@.01A)  
 MTBF (estimated) . . . . .>85,000 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.