

Specification Sheet G2R15-002

1xN Relay Module DC-3GHz (1GHz) N-Type Switching Module Series G2R15

September 2006

General

The relay-based G2R15 normally-open coaxial switching module provides a high performance, low cost solution for many applications. It is available in four different configurations, and additional special configurations can be made per spec by contacting the factory.

When a port is not selected, it is normally open and not internally terminated. As you can see in the signal diagram, one port is always connected. The dual 1x4 sections are controlled independently.

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.

This specification sheet covers only the G2R15 module with N-Type connectors (50 and 75 ohm). For other connector types, see the #G2R15-001 specification sheet.

For control and DC power, the module must be installed into any G2 type mainframe controller like the G2S400CE, G2S600CE, G2S1200CE or G2S1600CE types. The mainframe must have either the -200 or D200 power supply configuration.

Applications

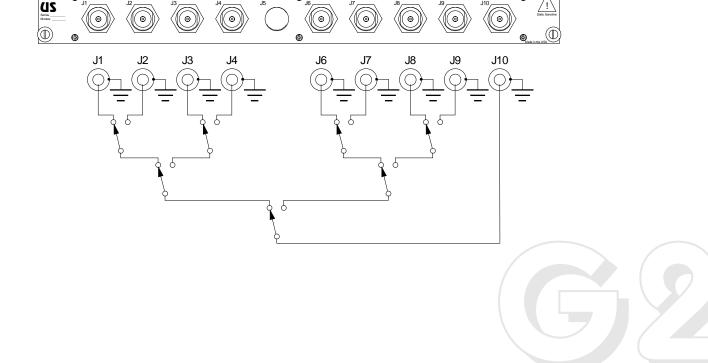
- ATE systems
- Communication installations
- Antenna routing
- Switching high speed ECL/PECL data
- Satellite control centers
- Ground station IF signal routing

Features

- High reliability passive relay elements
- DC to 3GHz bandpass (min)
- High Performance N-Type connectors
- Hot-Swap module technology
- Rugged aluminum shielded enclosure
- Built-in control and status circuitry

Configurations

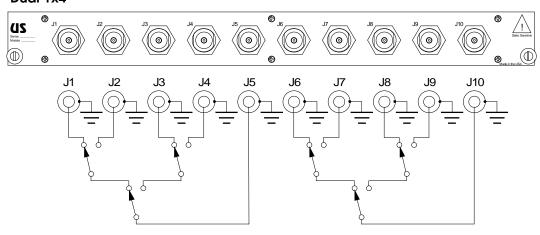
Model Number	Configuration	Conn	Impedance
G2R15-11X8-25N	Single 1x8	N-Type	50
G2R15-21X4-25N	Dual 1x4	N-Type	50
G2R15-11X8-27N	Single 1x8	N-Type (75) 75
G2R15-21X4-27N	Dual 1x4	N-Type (75) 75



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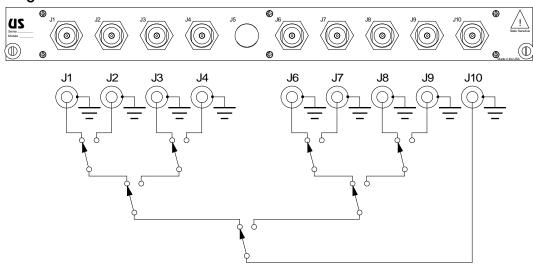
Model G2R15-21X4-2xN

Dual 1x4



Model G2R15-21X4-2xN

Single 1x8



Signal Specifications

Switching elementsRelay-based

Operating modeNormally open with failsafe Ports per relay sectionSee configuration list

Signal connectorN-Type Female

Frequency rangeDC - 3GHz (50 ohm) or 1GHz (75 ohm)

VSWR<2.5:1

Impedance 50 or 75 ohm versions

Port matching (loss)<.25dB typical Repeatability<0.15dB max
Crosstalk isolation (min) ...>80dB @ 10MHz

>70dB @ 300MHz >50dB @ 1GHz

Contact rating30VDC, 0.3amp, 1watt Switching speed<5mS (plus control time)

General Specifications

+5V (digital), +5V (analog)

MTBF (estimated)>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.

