



Series 3000
Model R-165A
Audio/Video – IF/RF Relay Panel

Instruction Manual

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Specifications subject to change without notice
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Specifications

RF Isolation

> 60 dB @ 950 MHz.

Attenuation

+/- 1 dB 0 to 950 MHz

See Attached Graphs.

Power Requirement

100-240VAC +/- 2%, 50/60Hz

supplies +12V DC @ <300mA

(UL approved wall supply included.)

Control Inputs

Contact Closure to GND or logic input

Absolute Maximum Input Voltage +12 VDC

Logical High Input Voltage +7 VDC

Logical Low Input Voltage +2 VDC

Max Sink Capability

<2.4 mA

Aux Relays Contact Rating:

30 VDC max; 1A max

Physical

1.75" H X 19" W X 7" D, 1 RU

Weight 5 lbs.

Optional Redundant Power Supply

Accessories Included with Instrument

Power Supply

Mating connectors

Mounting Kit

Manual/Data Sheet on CD

Design and specifications are subject to change without notice.

General Instructions

Mounting:

The 3000R-165 requires a minimum of 1.75 vertical inches of space in a standard 19" wide EIA equipment rack. Slide the unit into the rack frame and secure it, using the 3000R/22M mounting hardware supplied with the unit.

Connections:

1. The Video (or IF/RF) switches are mechanical relays, and connections to them are made through 75 Ω F connectors on the rear of the unit. Connect your cable for the default signal to the NC (normally closed) connector. Connect your cable for your alternate signal - which you will substitute for the default signal - to the NO (normally open) connector. Connect the cable to your modulator or other destination to the COM (common or output) connector.

These connectors will switch either video signals, or may alternately be used to switch high frequency signals, such as IF or RF. The frequencies useable are shown on the frequency response charts included.

Of course, both inputs must be the same type of signal.

It is also permissible to use some relay sets for baseband video and some for high frequency, since all switch modules are isolated.

2. If the signals being switched are baseband video, with audio following, connect the audio signals to screw terminals of the same switch group, ensuring that the left and right channels for the default audio are connected to the L NC 1 and 2, and the R NC 1 and 2, and the signals for the alternate signal are attached to the L NO 1 and 2 and the R NO 1 and 2 connectors. The L OUT 1 and 2 and the R OUT 1 and 2 are routed to the modulator or other destination of the audio signals.
3. If you are using the unit with a contact closure switcher, connect the switch for each Relay Unit to the connector for Contact Closure as appropriate. Refer to the rear panel connections.
4. Connect the +12 VDC lead (white) from the power supply to the +12v terminal on the rear panel, and the black lead to the GND terminal. Plug the power supply into a 90 - 264VAC power outlet, and the unit is ready to function.

Operation

When the contact closure for the appropriate Relay Unit is closed, the output (Com) connection is switched from the default input (NC) to the alternate input (NO).



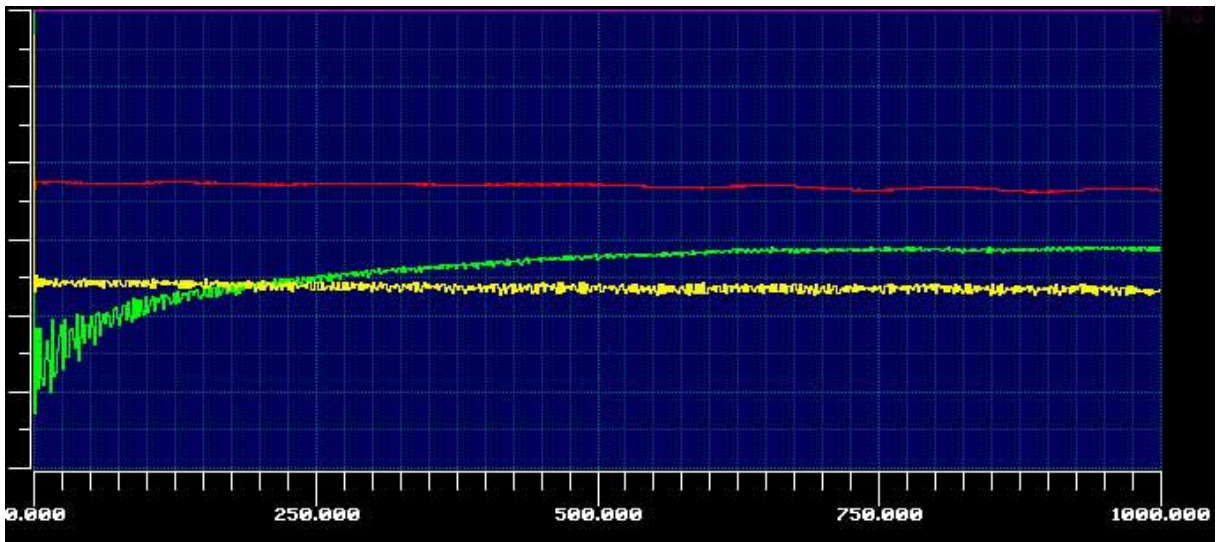
Front Panel View



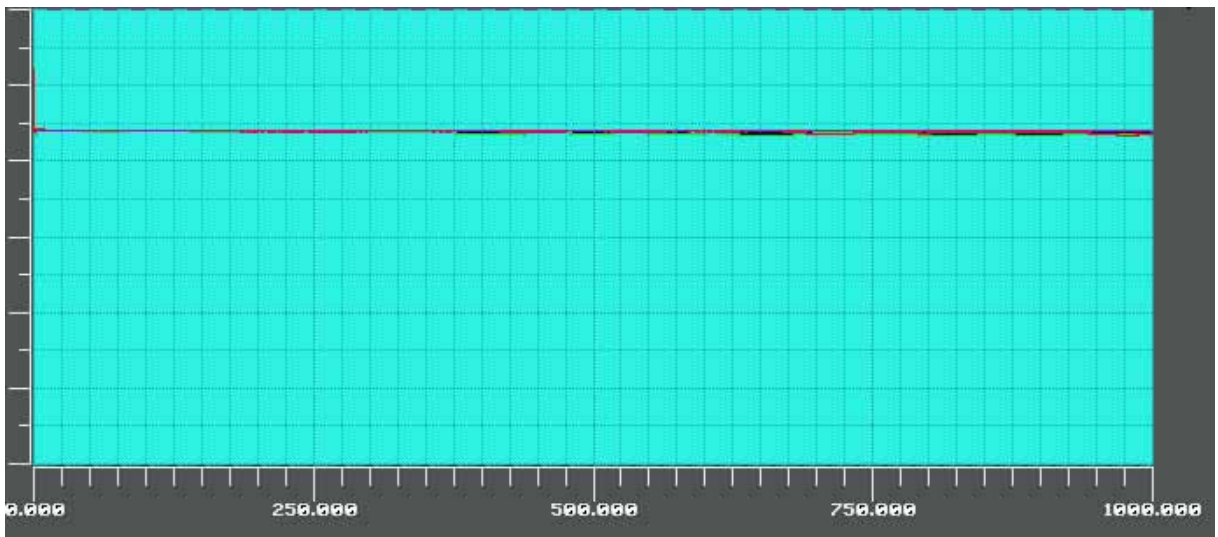
Rear Panel View



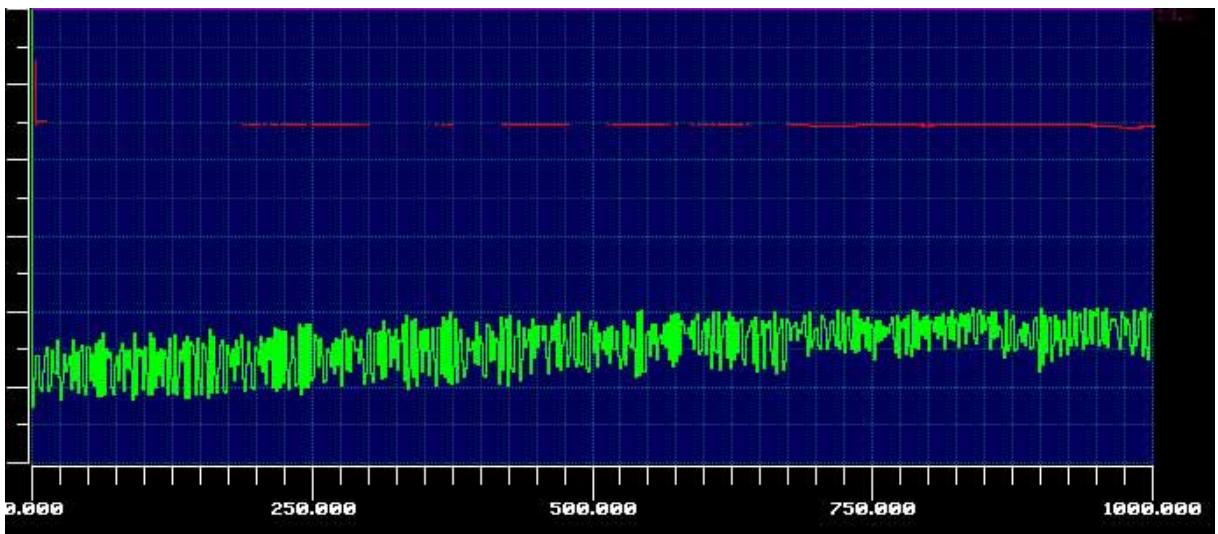
Section View



Return Loss: Red-Open Port; Yellow—26 db calibrated; Green-Closed switch to output terminal port



Loss through closed switch, 10 db per division, 0 to 1000 MHz



Isolation through open switch, 10 db per division, 0 to 1000 MHz