



3 GHz 1x4 Coaxial Tree Switch Card

- ◆ **Can be Used on Both GPIB/RS-232/Ethernet and VXI Platforms**
- ◆ **Coaxial Interface**
- ◆ **Available With Self-Termination and 1.5 GHz or 3 GHz Bandwidth**
- ◆ **50 Ω Characteristic Impedance; 75 Ω Impedance Available**
- ◆ **Ideal for General Purpose RF Switching**
- ◆ **No Unterminated Stub Effects**
- ◆ **Excellent Isolation and Crosstalk Characteristics**

Racal Instruments 1260-155/A/T/AT is a high-frequency, coaxial 1x4 binary tree switch card for use in either the Adapt-a-Switch[®] 1260-100, VXI carrier, or the 1256, GPIB/RS-232/Ethernet Switching Mainframe. These switch cards are designed with an MCX interface connector, which is known for its high signal fidelity with connectors and cable assemblies available from many different vendors worldwide.

It is available in four different 50 Ω versions to meet a wide range of applications. The 1260-155A has two 1x4 binary trees with a 3 GHz bandwidth. The 1260-155AT has two 1x4 binary trees with a 3 GHz bandwidth and self-terminated channels. The 1260-155 has two 1x4 binary trees with a 1.5 GHz bandwidth. The 1260-155T has two 1x4 binary trees with a 1.5 GHz bandwidth and self-terminated channels. An interconnecting relay may be added to construct a single 1x8 tree. Reduced VSWR versions of the 1260-155 and 1260-155T are also available.

High signal fidelity is maintained through the use of high quality RF relays, direct connection of inputs immediately adjacent to the relays, lack of unterminated stub effects, and high quality MCX interface connectors used in the design. This high quality design enables the reduction of insertion loss while maintaining excellent isolation and crosstalk.

When used with the 1260-100 VXI carrier, the 1260-155 requires an Option 01T to communicate with the switch cards and to provide both message-based operation for ease of use and register-based operation for maximum speed. When used with the 1256 Switching Mainframe, no controller is required, and message-based operation is available.

The Adapt-a-Switch[™] line includes drivers for LabWindows/CVI and LabView for VXI applications. It also includes VXIplug&play compliant support for WIN95/98/NT/2000 platforms.

1260-155 PRODUCT SPECIFICATIONS

INPUT

Maximum Switching Voltage

1260-155/155A - AC/DC: 30 V

1260-155T/AT - AC/DC: 6 V

(assuming standard 1 W terminators)

Switching Current

AC/DC: 0.50 A

Switching Power

1260-155/155A: 10 W

1260-155T/155AT: 1 W (w/standard terminators)

DC PERFORMANCE

Initial Path Resistance

< .25 Ω

Insulation Resistance

> 10⁹ Ω at 500 V

AC PERFORMANCE

50 Ω Characteristic Impedance

(75 Ω versions available-contact factory for details)

Bandwidth (-3 dB)

1260-155A/155AT: >3.0 GHz

1260-155/155T: >1.5 GHz

Insertion Loss

1260-155A/155AT - 1 GHz: <0.75 dB

2 GHz: <1.25 dB

1260-155/155T - 500 MHz: <0.6 dB

1 GHz: <0.8 dB

VSWR

1260-155A - 1 GHz: <1.2:1

3 GHz: <1.5:1

1260-155AT - 1 GHz: <1.2:1

3 GHz: <1.5:1

1260-155/155T - 1 GHz: <1.7:1

100MHz: <1.2:1

Crosstalk

1 GHz: <-75 dB

Isolation

1260-155/155T - 1.56Hz: >50dB

1260-155A/155AT - 1 GHz: >70dB

3 GHz: >45dB

Capacitance

Channel-Ground: < 15 pF

Open-Channel: < 1 pF

Relay Settling Time

< 10 ms

ENVIRONMENTAL DATA

Cooling

See 1260-100 cooling data

Temperature

Operating: 0° C to + 55° C

Non-operating: -40° C to + 75° C

Relative Humidity

% \pm 5% non-condensing at < 35° C

Altitude

Operating: 10,000 ft.

Non-operating: 15,000 ft.

EMC

Emissions

EN61326, Class A, Table 3

Immunity

EN61326, Class A, Table 1

Safety

CE, EN61010-1

RELIABILITY

Shock

30 g, 11 ms, ½ sine wave

Vibration

0.013 in. (pk-pk), 5-55 Hz

MTBF (MIL-HDBK-217 E)

>300,000 hrs. excluding relays

Relay Life

Mechanical: 5 x 10⁶

Electrical: 1 x 10⁵ At full rated load

MECHANICAL

Bench Handling

4-inch drop at 45°

Weight

1260-155/155A: 5.5 oz. (0.17 kg)

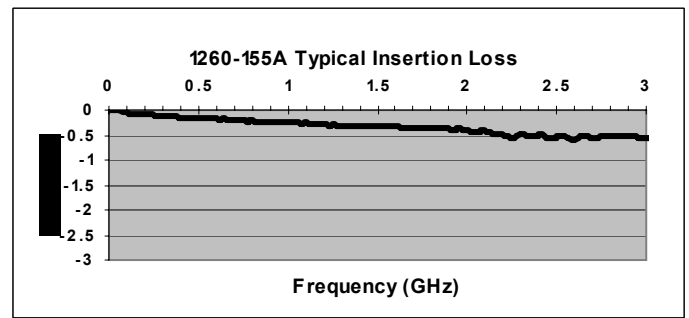
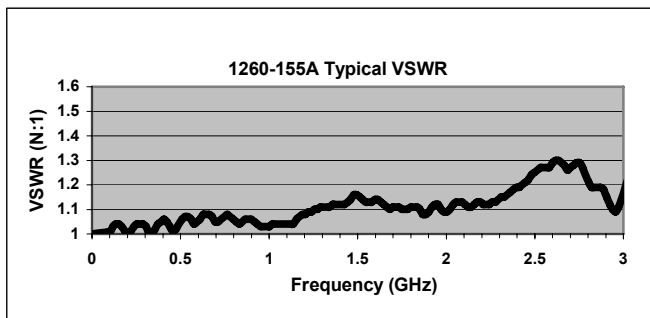
1260-155T/155AT: 8.5 oz. (0.26 kg)

Dimensions

4.5" H X 0.75" W X 9.5" D

Interface Connectors

Standard MCX, Right Angle Plugs



ORDERING INFORMATION

MODEL/DESCRIPTION

Racal Instruments 1260-155, Dual 1x4 RF Switch Card, 1.5 GHz

Racal Instruments 1260-155T Dual 1x4 RF Switch Card, 1.5 GHz with Self-terminating Channels

Racal Instruments 1260-155A, Dual 1x4 RF Switch Card, 3 GHz

Racal Instruments 1260-155AT, Dual 1x4 RF Switch Card, 3 GHz with Self-terminating Channels

2 ft 50 Ω Single Coax Cable w/2 MCX Connectors

6 ft 50 Ω Single Coax Cable w/2 MCX Connectors

12 ft 50 Ω Single Coax Cable w/2 MCX Connectors

Cable Ties & Manual

User Manual

PART NUMBER

407815-001

407815-002

407815-003

407815-004

407828-001

407828-003

407828-006

407653-155

407824-155

CE The CE Mark indicates that the product has completed and passed rigorous testing in the area of RF Emissions, Immunity to Electromagnetic Disturbances and complies with European electrical safety standards.

The EADS North America Defense Test and Services policy is one of continuous development, consequently the equipment may vary in detail from the description and specification in this publication.



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