

Enhanced Optical and Microwave GPIB Switching System Model 1255A



- ◆ Maximizes Switch Density
- ◆ Reduces ATE Switching Cost
- ◆ Four VXIbus C-Sized Switch Card Capacity (1260-Series)
- ◆ Built-In IEEE-488 and RS232 Controllers
- ◆ VXI*plug&play* Compatible
- ◆ Ideal for Optical and Microwave Switching Systems

High-Performance Switch Systems
Racal Instruments' Model 1255A Switch System provides four slots for VXIbus C-Sized 1260-Series switch modules. It contains all the necessary interfaces for developing a comprehensive switch system, while significantly reducing cost with the elimination of mainframes and controllers.

GPIB and RS-232 Control
The 1255A comes complete with both an internal IEEE-488 and RS-232 interface. The included VXI*plug&play* compliant drivers make it an easy addition to any system. The 1255A additionally provides a message-based interface that controls multiple 1260-Series switch cards via the VXI local bus. For driver updates, please refer to www.racalstruments.com.

1260-Series Switch Family Compatibility
As with all 1260-Series switches, the local bus is used to transmit control signals from the internal controller to all 1260 cards in the chassis.

The 1255A will support the entire line of Racal Instruments switch modules with signals from DC to light. The system also provides an upgradeable path to a full VXIbus system, if ever a larger ATE system capability is needed.

Switch modules can be of mixed or dedicated signal type. An excellent selection of 1x2, 1x4, 1x8, and 2x2 switches are available. These optical switches are ideal for SONET test, fiber-optic component test, and fiber network monitoring.

Extensive Software Features
The 1255A includes powerful software features such as:

- **Self Test**- executed automatically at power-up; ensures that CPU, memory, and switching module handshaking are functioning correctly
- **Non-Volatile Memory**- stores relay configurations for fast, easy setup
- **Power-Up Recall**- automatically recalls a complete system configuration at power-up
- **Relay Monitoring**- provides confidence checking of all relays
- **Scan Mode**- provides synchronous scanning of multiple test points
- **External Trigger**- allows external device to trigger switching operations

Easy Maintenance Features

Users maintain the 1255A with ease. A pluggable power supply and easy-to-clean fan filter simplify maintenance.

ELECTRICAL SPECIFICATIONS

AC Input Voltage

100, 120, 220, or 240 VAC \pm 10%

AC Line Frequency

47 to 66 Hz

Max Input Power

150 VA max

Host Computer Interface

GPIB (IEEE-488)
and RS-232

ENVIRONMENTAL DATA

(Designed to meet MIL-T-28800 Type III, Class 5, Style F)

Temperature Range

Operating: 0°C to 50°C
Storage: -40°C to 70°C

Humidity

95% non-condensing

Vibration

0.013 in. double-amplitude,
5-55 Hz

Accessories and Options

Rack mount ears and blanking plates (3) are included with the chassis.

The unit can be rack mounted with either the annunciator panel or the switching modules facing the front.

1255A SPECIFICATIONS

Altitude

Operating: 10,000 ft.
Storage: 15,000 ft.

Shock

30 g, 11 ms, 1/2 sine wave

Bench Handling

4-inch drop at 45°

SOFTWARE (Rev J)

WIN Framework *VXIplug&play* compatible disk shipped with instrument contains: LabWindows/CVI driver Executable Soft Front Panel
Requires: VISA or VTL 3.0 LabView driver available

Front Panel Annunciators

ON: Power on
FAIL: Self-test failure
ADDR: 1255A addressed by host
SRQ: SRQ bit in status byte is set

The 1255A is part of Racal Instruments' extensive family of VXIbus switching systems, which offers modules in configurations ranging from matrices to multiplexers, and signal type from DC to Optical.

MECHANICAL

Dimensions (H x W x D)

5.25" x 16.75" x 15.63"
(133.4 mm x 425.5 mm x 397.0 mm)

Weight

17.2 lbs. (7.8 kg)

Rack Mounting

Standard 19" rack mount

Rear Panel Connectors

GPIB; RS-232 (9-pin D-sub);
Sync/Trigger (9-pin D-sub)

EMC (Council Directive 89/336/EEC)

EN55011, Group 1, Class A
EN50082-1, IEC 801-2,3,4

Safety (Low-Voltage Directive 73/23/EEC)

EN61010-1

Reliability

MTBF


40,428 hrs.

MTTR

<5 min.

ORDERING INFORMATION		
Model	Description	Part Number
1255A	GPIB/RS-232 High-Performance Switch System	407604
Opt. 65	Chassis Slides/Rack-Mount Kit	407404
Opt. 71	220/240 Volt Input Fuse	407406
Opt. 04	European Power Cord	Opt-404131
602248	RS-232 Cable, 10 ft. (3.05 m)	602248
500310-002	IEEE-488/GPIB Cable (2.0 m)	500310-002
WIN 95	PCI-GPIB Card	777158-01
WIN NT	PCI-GPIB Card	777073-01

For driver updates, please refer to www.racalstruments.com.

 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.