



## Racal Instruments™

# 1257

## Configurable Microwave/Optical Switching Platform

The Racal Instruments™ 1257 switching system is a high-performance switching and control system available in 4U, 5U, or 6U rack-mountable packages.

The unit draws upon our four decades of experience as a major automated test equipment (ATE) switching supplier to set a new standard in switching systems.

### Key Features

- Intuitive front-panel allows text-based control of all signal paths
- Ideal platform for custom optical, RF, microwave, and hybrid systems
- Ethernet/GPIB/RS-232 remote interface with SCPI compliant command set
- Flexible rack-mount 4U, 5U, or 6U versions
- Detachable rear pull-out drawer for rapid bench serviceability
- Removable top and bottom covers for easy in-service troubleshooting and component replacements

## Product Information

### Wide Range of Configurations

The 1257 switching system provides significant control capabilities. Each system can control up to 240 TTL/CMOS and/or 2 A open-drain channels. This capability when paired with a spacious drawer size makes the 1257 ideal for housing and controlling the most demanding and space-intensive applications.

### Completely Assembled System

Using world class manufacturing techniques, we will design and build a complete turnkey system based on customer requirements and specifications.

### Intuitive Front Panel Controls

System start-up is simple and fast with the highly-intuitive, menu-driven interface consisting of a display, four soft-keys, and a knob. This powerful interface provides easy access to all switch states, system preferences, and non-volatile memory features of the 1257 switching system.



### Signal Path Control

The 1257 is the only switching system available that comes configured with all signal paths defined with meaningful path names assigned. This simplifies software and front panel control, eliminating the need to reference system drawings.

### Non-Volatile Memory

The non-volatile memory of the 1257 stores up to 100 complete system switch states and includes a separate automatic power-up state. This insures the system starts in a known state without user intervention. Non-volatile memory also stores user preferences like RS-232 baud rates, GPIB address, display settings and path names for automatic load at power-up.

### Advanced Triggering

The 1257 synchronizes with other equipment using the external trigger in/out signals. Coupled with the advanced scan list features, the triggering facilitates rapid, automated measurements with minimal intervention from the user or system controller.

### Ethernet/GPIB/RS-232 Interfaces

The 10/100 Ethernet, GPIB, and RS-232 remote interfaces facilitate easy access for automated test system development. The remote interfaces are IEEE 488.2 and SCPI compliant and can access all features including the advanced command set and more:

- **Path Level Switching** — Assign names to switch paths for ease of reference
- **Include Lists** — Automatically close multiple switches with a single command
- **Exclude Lists** — Build large scanners using mutually exclusive switch groups
- **Scan List** — Define sequentially-closed switch groups
- **Trigger Delays** — Time switch closures to coincide with external events
- **Switch Mode** — Select make-before-break, break-before-make, or immediate switch closures

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TEST SYSTEMS

## Product Information

continued

### Path Level Switching

The 1257 is the first switch box of its kind to offer full, alphanumeric path-level switching. This means that during manual or program control of the box, meaningful path names may be specified for control as opposed to a list of channels or numerically coded paths that competing products offer. This frees you to operate the instrument quickly and eliminates the possibility of switching mistakes, which might damage valuable items that might be connected, not to mention the safety hazard.

As an example, in Figure 1, closing path "GEN2\_A3\_J2" closes channel 1 of SW2 and SW5 automatically. Full text names are selectable and viewable using the instrument front panel.

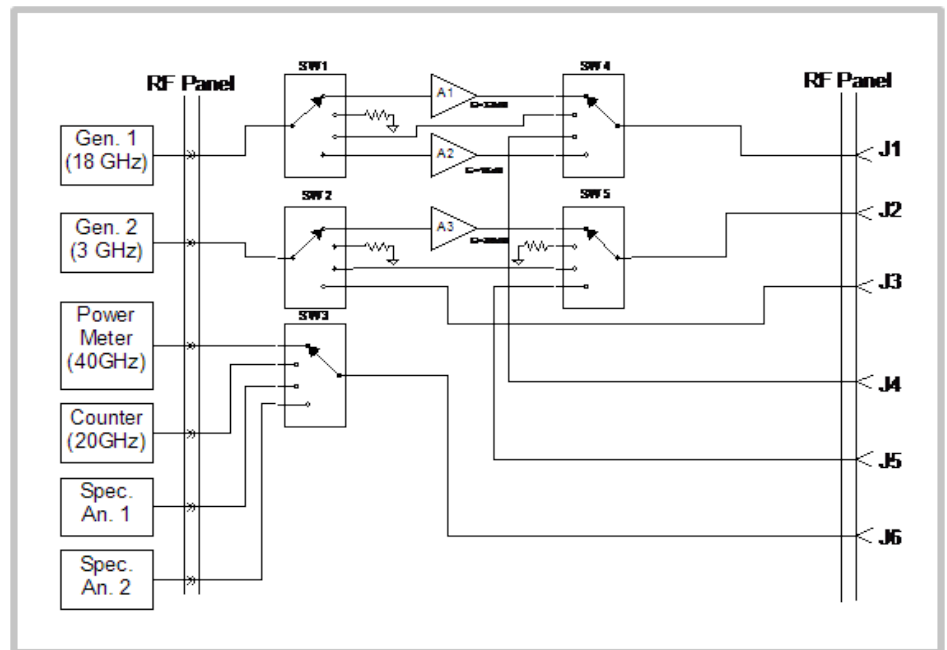


Figure 1: Example 1257 Configuration

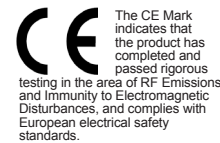
### Easy to Integrate

The 1257 switching system reduces test times with its high throughput and time saving advanced features. The SCPI-compliant command set and available LabVIEW™ and LabWindows™/CVI drivers, allow the experienced test engineer to rapidly interface the 1257 to any environment with minimal effort.

### Easy to Service

The 1257 design has the end-user in mind. It incorporates fully removable bottom and top covers that, when used in conjunction with rack-mount slides, allow in-service troubleshooting and component replacement. Providing additional flexibility, every 1257 switching configuration is built

on a removable drawer. This allows easy bench service and supports equipment sparing for critical applications.



## Ordering Information

### 1257 Chassis : Racal Instruments™ 1257

Switching System Chassis

### 1257 Remote : Racal Instruments™ 1257 Remote

Switching System Chassis with Remote Front Panel

### Accessories:

1257 10x10 : 18 GHz 10x10 4U Microwave Matrix Drawer

1257 6x6 : 18 GHz 6x6 4U Microwave Matrix Drawer

407813 : 1257 Rack Slide Kit

602248 : RS-232 Cable, 10 ft. (3.05 m)

500310-001 : IEEE-488/GPIB Cable (1 m)

500310-002 : IEEE-488/GPIB Cable (2 m)

500310-003 : IEEE-488/GPIB Cable (3 m)



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