

Racal Instruments™ Option 01T

Register-based and Message-based Switch Controller

The Racal Instruments™ Option 01T is a daughter board designed to install into any of the Racal Instruments™ 1260 series of switch modules, including the, Racal Instruments™ 1260-100 Adapt-A-Switch™ carrier. The Adapt-A-Switch™ carrier is a revolutionary, modular switch platform that delivers unprecedented density and flexibility in a two-slot, C-size, VXIbus module. Refer to the 1260-100 data sheet for product specifications and features.

Key Features

- Register-based and message-based modes
- High-speed operation
- Routing commands
- IEEE-488.2/SCPI compliant
- Single point of control for up to twelve modules

Product Information

The Option 01T controls any combination of up to twelve 1260-Series switch modules and/or Adapt-A-Switch™ switch plug-ins. If only the 1260-100 Adapt-A-Switch™ carrier module is being used in a test system, one Option 01T is necessary for every two 1260-100 carrier modules, as each carrier module can accommodate six switch cards.

The Option 01T controls and receives all eight TTL trigger lines available on the VXIbus. It offers both message-based and register-based control in one module, combining ease-of-use with high-speed capability. The message-based interface accepts SCPI and IEEE-488.2 commands to communicate with all Racal Instruments VXIbus switch modules. This forms a comprehensive VXIbus switching system with features such as:

- **Routing Commands:** Assigns signal path names such as Oscilloscope, DMM, or Timer/Counter to relay paths to simplify programming.
- **Power-up Recall:** Ensures the system always powers up in a pre-determined state.
- **Scan:** Synchronizes relay selection, which reduces software development time for multiple channel selections.
- **Delays:** Inserts user-selectable timing intervals when switching channels to compensate for the response time of other system resources.

- **Include:** Controls two or more relays within a module or switch system.
- **Exclude:** Prevents unwanted channel closures by pre-programming fail-safe conditions to prevent switching matrix contentions.
- **Delays:** Inserts user-selectable timing intervals when switching channels to compensate for the response time of other system resources.
- **Confidence Mode:** Verifies correct relay operation after each switching command.

The Option 01T register-based interface writes directly to the control registers of 1260-Series modules and Adapt-A-Switch™ plug-in switch cards. This provides high-speed relay switching and/or digital I/O operation at less than 9 μ s per transition.

The Option 01T includes *VXIplug&play* support for frameworks based on Microsoft Win32® application programming interface, including drivers for LabWindows™/CVI and LabVIEW™.

Specifications

Note: The Astronics Test Systems policy is one of continuous development and improvement. Consequently, the equipment may vary in detail from the description and specifications in this publication.

Interface

Peak and Dynamic Current

- +5 VDC 900 mA I_{PM}
- +5 VDC 1 mA I_{DM}

Environmental

MTBF (MIL-HDBK-217E)

- 286,784 hrs

MTTR

- <30 minutes

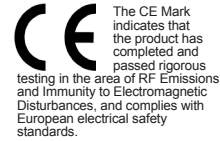
Mechanical

Weight

- 5 oz (142 g)

Dimensions

- 8.6" H x 0.75" W x 3.1" D



Ordering Information

OPT-405108-001 : Racal Instruments™ Option 01T

Message-based and Register-based Switch Controller (installed)

407531-001 : Racal Instruments™ Option 01T

Message-based and Register-based Switch Controller (not installed)

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