

## Shielded High-Density Scanner/Multiplexer

- ◆ **Sixteen 1x8 Two-wire Scanner/Multiplexer**
- ◆ **Link Muxes up to 1x128 Under Program Control**
- ◆ **30MHz Bandwidth**
- ◆ **Switches up to 2A and 220VDC/250VAC**
- ◆ **Two and Four-wire Switching Modes**
- ◆ **High Isolation/Low Crosstalk Design**

Racal Instruments 1260-38T with its combination of density, versatility, expandability, and high signal integrity, is ideal for construction of large switching systems. It is an excellent choice for continuity testing, audio and telecomm switching, and multi-purpose ATE systems.

This module is user-configurable using inter-connecting relays as sixteen 1x8 muxes to a 1x128 mux under program control. Four-wire switching is accomplished by switching adjacent channels simultaneously.

Special shielding, design, and added front panel "guard" grounds increase the isolation and lower the crosstalk.

All relays are bi-directional, enabling use as either a scanner or multiplexer. Each (1x8) multiplexer can be used to connect any combination of up to 8 two-wire signals to a two-wire common. These commons can be linked under program control to construct any combination of larger multiplexers.

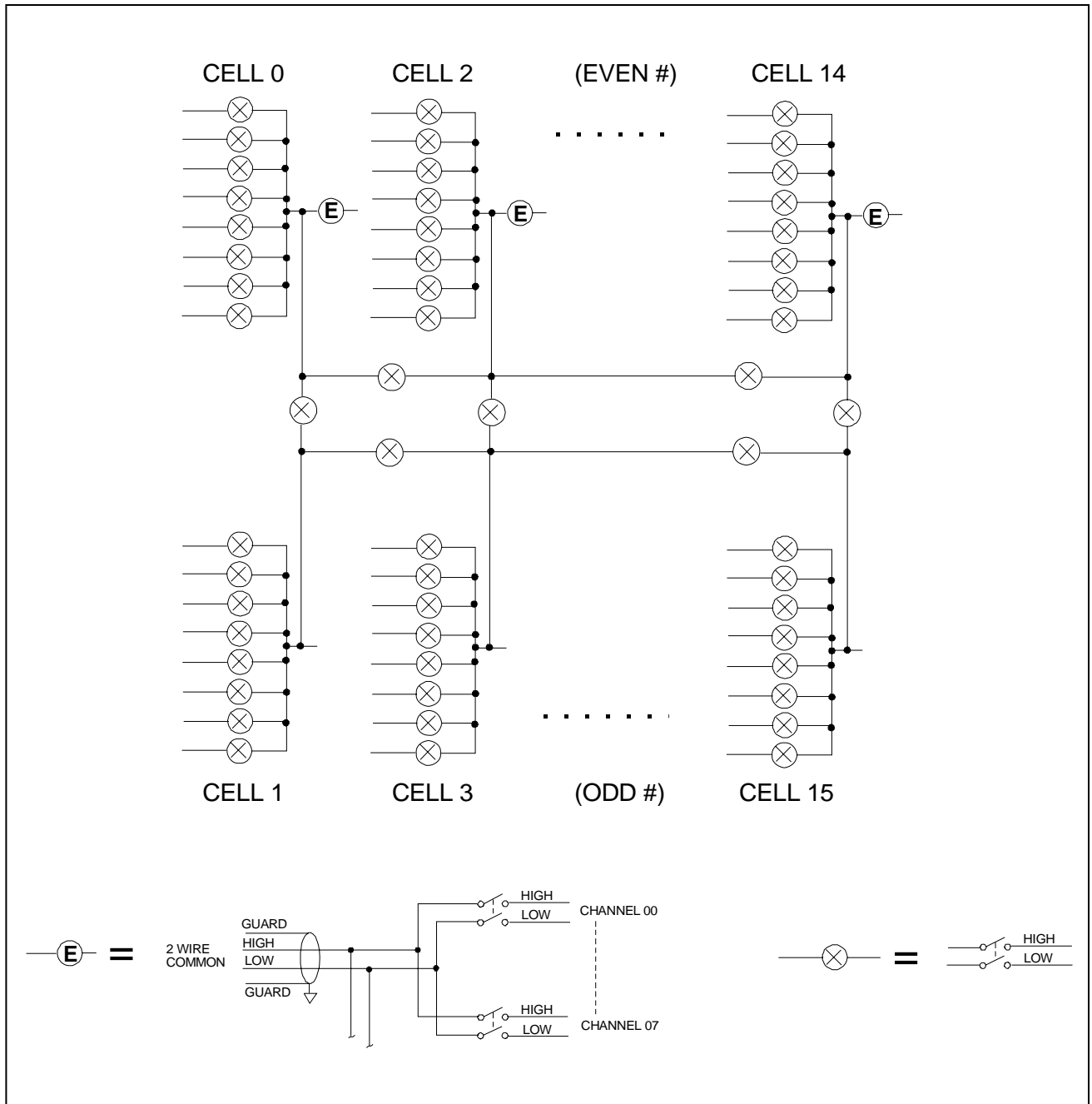
The Option 01 or 01T switch controller is required to communicate with the 1260-38T. The Option 01 should be used for applications with existing Option 01 software, but for all new applications the Option 01T should be used. The Option 01T provides message-based operation for ease of use and register-based operation for maximum speed.

The Option 01T mounts on the leftmost 1260 Series module or Adapt-a-Switch™ and does not consume any VXI or Plug-in slots. It provides a single point of software control for the switching system with advanced features such as include, exclude, scan, relay monitoring, user defined path names, and reset states.

The scan feature is particularly useful with the 1260-38T; it permits scanning through a pre-defined list of closures across the entire switching system using the VXI TTL triggers. This can be used to construct a scanning DMM, counter, or other instrument. A block of measurements can be stored in the instrument's memory for a single read-back, reducing test time.

The 1260 series includes VXIplug&play support for WIN95/NT frameworks, including drivers for LabWindows/CVI and LabView.

# 1260-38T BLOCK DIAGRAM



1260-38T Block Diagram



# 1260-38T PRODUCT SPECIFICATIONS

## INPUT

### Maximum Switching Voltage

220VDC or 220VAC

### Maximum Switching Current

2ADC or 2AAC

### Maximum Switching Power

60W, 125VA

## DC PERFORMANCE

### Path Resistance

1x8 (2-wire): <750M $\Omega$

1x128 (2-wire): <1 $\Omega$

### Insulation Resistance

10<sup>9</sup> $\Omega$

### Thermal EMF

1x8 (2-wire): <15 $\mu$ V

1x64 (2-wire): <20 $\mu$ V

## AC PERFORMANCE

### Bandwidth (-3 dB)

1x8: >30MHz

1x128: >2MHz

### Insertion Loss (1X8)

100kHz: <0.1dB

1MHz: <0.2dB

10MHz: <0.25dB

### Isolation (1x8)

10MHz: >45dB

30MHz: >30dB

### Crosstalk (1X8)

10MHz: <-50dB

30MHz: <-34dB

### Capacitance

1x8 (Channel to Chassis): <5pF

1x8 (Hi to Lo): <120pF

1x64 (Hi to Lo): <600pF

## INTERFACE DATA

### Cooling Requirements

Without Option 01 or 01T installed:

Airflow: 0 liters/sec

Backpressure: 0.05mm H<sub>2</sub>O

With Option 01 or 01T installed:

Airflow: 3.0 liters/sec

Backpressure: 0.2mm H<sub>2</sub>O

### Power Requirements

Without Option 01 or 01T installed:

+5V Static Current, I<sub>pm</sub>: 0.4A

+5V Dynamic Current, I<sub>dm</sub>: 0.075A

With Option 01 or 01T installed:

+5V Static Current, I<sub>pm</sub>: 2.5A

+5V Dynamic Current, I<sub>dm</sub>: 0.225A

+24V Static Current, I<sub>pm</sub>: 6mA per energized relay

+24V Dynamic Current, I<sub>dm</sub>: 0A

## MECHANICAL

### Weight

Without Option 01 or 01T installed:

3.2lb (1.45kg)

With Option 01 or 01T installed:

3.5lb (1.60kg)

### Dimensions

C-size, Single-slot VXIbus Module

### Front Panel I/O Interface Connector

Two 160 pin DIN Connector

## ENVIRONMENTAL DATA

### Temperature

Operating: 0°C to 55°C

Storage: -40°C to 75°C

### Relative Humidity

85%  $\pm$ 5%, non-condensing at <30°C

### Altitude

Operating: 10,000 ft.

Non-Operating: 15,000 ft.

### Shock

30g, 11 ms, ½ sine wave

### Vibration

0.013inch P-P, 5-55Hz

### Bench Handling

4 in. drop at 45°

## RELIABILITY

### Switching Time

<5ms max. (includes settling time)

### Rated Switch Operations

Mechanical: 100,000,000 operations

Electrical: 100,000 operation at full rated load

### MTBF

MIL-HDBK-217E 16,570 hrs.

## EMC

### Emissions


EN55011A with limits in accordance with EN50081-1

### Immunity

IEC801-2,3,4 with limits in accordance with EN50082-1

### Safety

EN61010-1

 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.

## ORDERING INFORMATION

### MODEL/DESCRIPTION

Racal Instruments 1260-38T, Shielded High Density Multiplexer  
Racal Instruments Option 01, Smart Control Module (installed)  
Racal Instruments Option 01T, Smart Control Module (installed)  
160-pin Mating Connector Kit, w/ Backshell and Pins(1260-38T uses two)  
Insertion Tool  
Extraction Tool  
160-pin Cable Assembly, 24Ga., 6 Feet (1260-38T uses two)  
160-pin Cable Assembly, 24Ga., 12 Feet (1260-38T uses two)

### PART NUMBER

407410-001  
OPT-401901-005  
OPT-407531-00  
407407  
990898  
990899  
407408  
407409

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.



**EADS North America Defense Test and Services**  
1.800.722.2528/1.949.859.8999      sales@eads-nadefense.com