

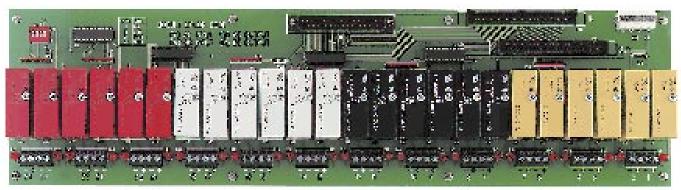
**Basic Unit** 

# SSR-RACK48, SSR-RACK24 and SSR-RACK08

Interface Racks for Solid State Input/Output Modules

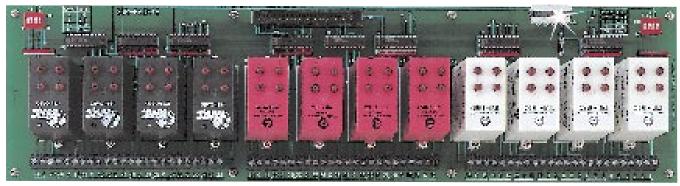






SSR-RACK24

Racks Shown with Optional Solid State I/O Modules



SSR-RACK48

- ✓ 48, 24 and 8 Channel Models
- ✓ Direct Connection to the CIO Family of Digital I/O Plug-in Boards
- On-Board Buffers
- ✓ Powered by 5 Vdc

Most digital I/O boards can not be directly interfaced to real world devices. Output voltages are usually limited to TTL levels (0/5 Vdc) with a few milliamps of drive current. Inputs are also typically limited to a maximum 5 volt level. When higher voltages or currents are needed, OMEGA's solid state I/O modules are the perfect solution. Models are available for input or output signals in AC and DC voltage versions. The SSR-RACK series is a family of backplanes that accept the solid state I/O modules and provide a

direct connection to OMEGA's CIO family of digital I/O PC plug-in boards. Three models are available; the SSR-RACK48, SSR-RACK24 and SSR-RACK08 which are 48, 24 and 8 channel models respectively.

#### SSR-RACK48

The SSR-RACK48 is a high density mounting and interface rack for the quad type solid state I/O modules (OMEGA's SSS-Q series). The rack can hold 12 quad modules for a total of 48 channels of I/O. The SSR-RACK48 provides screw terminals for field connections. The connection to the digital I/O board is made through a 50 pin connector. The SSR-RACK48 may be connected directly to the CIO-DIO192, CIO-DIO96 and CIO-DIO48 using a C50FF-2 cable.

#### SSR-RACK24

The SSR-RACK24 accepts 24 of

OMEGA's single channel SSS series solid state I/O modules. Screw terminals for each module provide field connection. The SSR-RACK24 contains both a 37 pin and a 50 pin connector. The 37 pin connector is designed to interface to 24 channel I/O boards. The 50 pin connector is used to connect to I/O boards with 48 channels or greater. A second 50 pin connector is provided so additional SSR-RACK24s may be connected to the same digital I/O board.

The SSR-RACK24 may be connected directly to the CIO-DIO24, CIO-DIO24H and CIO-DIO24/CTR3 digital I/O boards using the C37FF-2 cable.

The SSR-RACK24 may be directly connected to the CIO-DIO192, CIO-DIO96 and the CIO-DIO48 boards using the C50FF-2 cable.

SSR-RACK08 37PIN

# GND RELAY 17 RELAY 16 RELAY 21 RELAY 23 RELAY 9 RELAY 11 RELAY 13 RELAY 15 RELAY 14 49 N/C 47 RELAY 18 45 RELAY 20 43 RELAY 20 43 RELAY 24 41 RELAY 24 39 RELAY 10 35 RELAY 12 35 RELAY 14 33 RELAY 22 29 RELAY 2 29 RELAY 2 21 RELAY 6 25 RELAY 8 25 RELAY 46 17 RELAY 46 17 RELAY 46 17 RELAY 48 15 RELAY 48 RELAY 3 RELAY 5 RELAY 47 RELAY 41 RELAY 43 RELAY 47 RELAY 33 RELAY 35 RELAY 37 RELAY 39 RELAY 25 RELAY 27 RELAY 27 RELAY 29 RELAY 29 RELAY 21 26 11 RELAY 38 RELAY 40 RELAY 26 RELAY 28 RELAY 32

#### SSR-RACK08

If your application needs only a limited number of solid I/O modules, you can save money and cabinet space with the SSR-RACK08. It holds 8 single function solid state relays and is cabled to Port C of the digital I/O board so that you can split the 8 relays between input and output. The SSR-RACK08 uses a 37 pin connector and can connect directly to a CIO-DIO24, CIO-DIO24H or CIO-DIO24/CTR3 with a C37FF-2 cable.

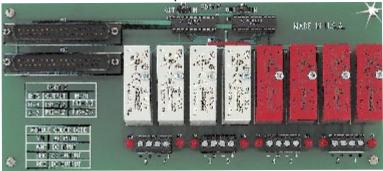
#### SSR-RACKs Have Buffers on **Board**

Most 8255 based digital I/O boards do not provide enough output current to directly turn on a solid state I/O module. The SSR-RACKs are designed with buffers on board. That means you can plug directly into the SSR-RACK from your CIO-DIO24, 48, 96 or 192 or any other 82C55 based digital I/O board.

# **SSR-RACK Inverting Logic**

The SSR-RACK follows the industry standard convention of inverted logic used by virtually all manufacturers of solid state backplanes. When a high voltage is applied to an input module, the output of the SSR-RACK will go low (ground). When a low voltage is applied to an input module, the output of the SSR-RACK will be a high signal (5V). Output modules also use inverted logic. This means that a 0 output from the digital I/O board will cause an output module to activate (complete the circuit) while a 1 (TTL high) will cause the relay to deactivate. The chips that invert the logic are socketed and may easily be substituted with chips that do not invert the logic.

SSR-RACK08 Rack Shown with Optional Solid State I/O Modules



Digital I/O Board Compatibility Guide

| Rack       | Digital I/O Boards                    | Cable   |
|------------|---------------------------------------|---------|
| SSR-RACK48 | CIO-DIO192, CIO-DIO96, CIO-DIO48      | C50FF-2 |
| SSR-RACK24 | CIO-DIO192, CIO-DIO96, CIO-DIO48      | C50FF-2 |
| SSR-RACK24 | CIO-DIO24, CIO-DIO24H, CIO-DIO24/CTR3 | C37FF-2 |
| SSR-RACK08 | CIO-DIO24, CIO-DIO24H, CIO-DIO24/CTR3 | C37FF-2 |

GND 50
RELAY 17 48
RELAY 16 46
RELAY 21 44
RELAY 23 42
RELAY 34 40
RELAY 13 36
RELAY 13 36
RELAY 13 36
RELAY 13 30
RELAY 3 30
RELAY 3 20
RELAY 3 20
RELAY 3 20
RELAY 3 20
RELAY 5 28
RELAY 5 28
GO TO 24d 18
50 PIN 16
CONNECTOR 14
LABELED 12
'OUT, AND 10
MAY BE 8
CABLED 6
CASCOND 4
SSR24 2 ••••••••••••••• 49
47 RELAY 18
45 RELAY 20
43 RELAY 20
41 RELAY 24
439 RELAY 10
35 RELAY 12
35 RELAY 16
31 RELAY 24
27 RELAY 2
29 RELAY 4
27 RELAY 6
25 RELAY 8
23
11
19
17
15 CIO- SSR2
13 50 PIN
11 CONNECT
7 'IN SERVICE SERVIC 医斯斯氏层 医阴道性的 RELAY RELAY RELAY THE PERMIT CIO- SSR 24 50 PIN CONNECTOR LABELED SSR-RACK24 50PIN SSR-RACK24 37PIN

**Dimensions:** 

SSR-RACK48 50PIN

SSR-RACK48 and RACK24: 17"L X 4.5"W X 1.5"H (with relays) SSR-RACK08:

9"L X 4"W X 1.5"H (with relays)

Power: +5 Vdc externally supplied or from PC with CMOLEX-10 cable

| To Order (Specify Model Number) |  |  |
|---------------------------------|--|--|
| Price                           | Description  |  |
| \$199                           | 48 channel solid state I/O module rack, accommodates 12 quad I/O modules           |  |
| 149                             | 24 channel solid state I/O module rack, accommodates 24 single channel I/O modules |  |
| 99                              | 8 channel solid state I/O module rack, accommodates 8 single channel I/O modules   |  |
|                                 | <b>Price</b><br>\$199<br>149   |  |

Note: The SSR-RACK24 and SSR-RACK48 include a 10' power cable.

Ordering Example: SSR-RACK48, 48 channel solid state I/O module rack, OMEGACARESM 1 year extended warranty (adds 1 year to standard 3 year warranty) = accommodates 12 quad I/O modules, \$199 + 20 = 219

#### Accessories

| Model Number            | Price | Description   |
|-------------------------|-------|---|
| C37FF-2                 | \$25  | 2 ft. 37 pin cable  |
| C50FF-2                 | 25    | 2 ft. 50 pin cable  |
| BP-POWER                | 25    | 3 connectors on a ISA card with backplate   |
| PC-POWER-10             | 15    | 10' power cable, not required for the SSR-RACK08, included with the SSR-RACK24 and RACK48 |
| Solid State I/O Modules |       | See I/O module data sheets for ordering information                                       |
| Tona orang your moduloo |       | 200 % 2 data data data da                             |

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