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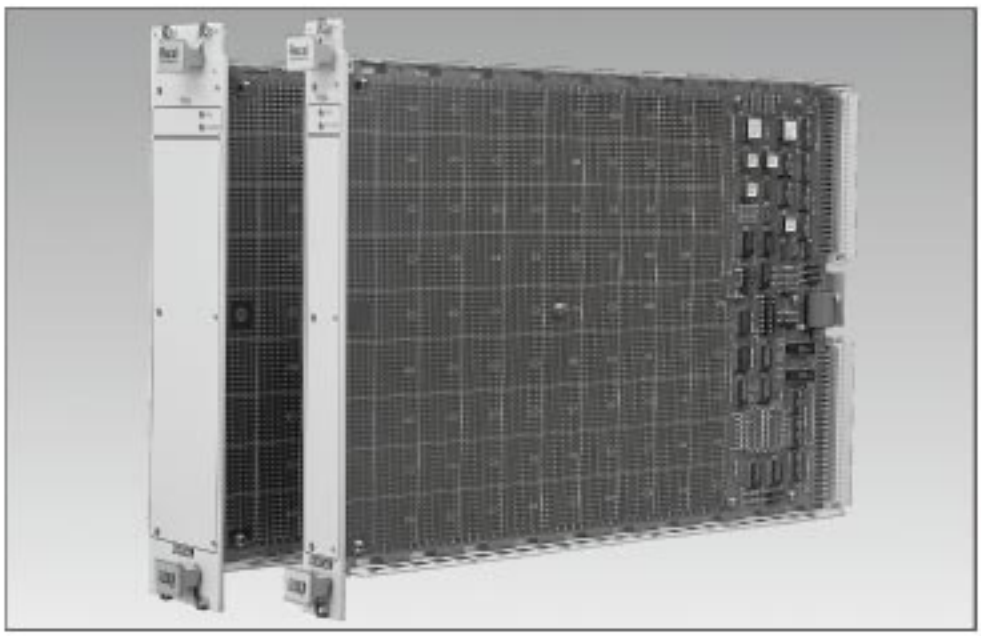
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PRODUCT INFORMATION

Register-Based Prototyping Modules Series 7064R



- **Register-Based Interface Supports High-Speed Data Transfer**
- **Supports 8, 16 and 32-bit Data Bus with A16, A24 or A32 Addressing**
- **80in^2 of Prototyping Space on 0.1in Grid**
- **77 Pairs of +5V/Gnd Pads Provided in the Development Area**
- **Fused and Filtered VXIbus Supply Voltages**
- **Available in Single, Double, and Triple Slot Widths**

Custom Register-Based Circuit Design Made Easy

The 7064R Series of C-sized, register-based prototyping modules simplify the engineer's task of developing custom VXIbus products. The built-in VXIbus interface and complete documentation package, including extensive application notes, reduces prototype design time. The 7064R supports 16-bit data transfer rates up to 4MB/sec and 32-bit data transfer rates up to 8MB/sec. All seven VXIbus power supply lines are available to the user and are fused, reducing the risk of damage to the backplane. The module also provides EMI power filtering which is required by the VXIbus specification. The module is offered in 3 different slot widths to accommodate various packaging requirements.

Functional Description

The Interface Section of the 7064R consists of VXIbus backplane interface circuitry, DIP switches to select the logical address and IRQ interrupt priority, and jumper pads for setting the ID and Device Type Registers. The VXIbus signals are accessed via P11, a 96 hole pattern that will accommodate a standard DIN connector, and via E-points located within the interface section. The Local Bus is accessed via P5/P6 and TTL Trigger lines are accessed via P7 as shown in Figure 1.

The Prototyping section makes available over 80 square inches of user defined development area. It consists of a universal grid on 0.1 inch centers. 77 pairs of +5VDC/GND pads are distributed evenly within the development area.

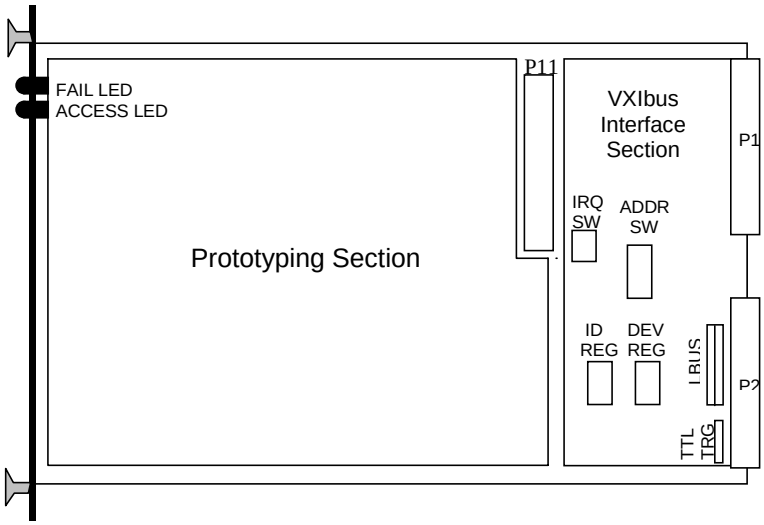


Figure 1. Board Layout

Packaging

The module is available in one, two, and three slot packages. The multiple slot widths are offered to provide additional space on both sides of the prototyping board to accommodate wire-wrap pins or for mounting parts requiring more headroom than is available in a single slot package. Refer to the specification section for clearance dimensions. The front panel is removable to facilitate through-hole machining if external connections to the module are needed. The front panel also provides ACCESS and FAIL LED indicators for convenient monitoring.

A "bare board" version of the prototyping module is also available. It comes standard with P1/P2 connectors, all seven fused and filtered VXI supply voltages, and 80in^2 of breadboard area. The user has access to a limited number of VXI backplane signals via E-points. The board and enclosure must be ordered separately. Refer to the Ordering Information table.

When to Use the Register-Based 7064R

The register-based 7064R should be considered when maximum throughput across the VXIbus interface is desired. Typical applications may involve real-time processing or high-speed data acquisition. If throughput is not a concern and a simple user interface is desirable, consider the 7064M Message-based Prototyping Module, also from Racal Instruments.

7064R Specifications

FUNCTIONAL PERFORMANCE

Enclosure Style
VXI C-size Prototyping Enclosure

Modes of Operation
VXI Register-Based Servant
Interrupter

Manufacturer ID Number
4091, Jumper Programmable

Model Number
4093, Jumper Programmable

Address Space
A16, Expandable to A16/A24 or A16/A32

Data Transfer Bus
D32, D16, D08 (EO) Support

Data Transfer Rates
Up to 4 Mbytes/sec (16-bit transfers)
Up to 8 Mbytes/sec (32-bit transfers)

Device Class
Register-Based Slave Device

Interrupt Levels
Programmable 1-7, Switch Selectable

PROTOTYPING FEATURES

Maximum User Current

	+24V	+12V	+5V	-2V	-5.2V	-12V	-24V
I_{user}(A)	1.0	1.0	5.0	2.0	5.0	1.0	1.0

Breadboarding Space
80 sq. inches
+5V/Gnd Plane to 77 pads each

Prototyping Area Clearances

Type	Circuit Side	Component Side
1-slot	0.13" (3.3mm)	0.75" (19mm)
2-slot	1.30" (33mm)	0.75" (19mm)
3-slot	1.30" (33mm)	1.95" (49.5mm)

VXIbus INTERFACE DATA

(Register-based, VXIbus Rev. 1.4 Compliant)

Status Lights
Green: Access
Red: User Defined Fail Indicator

Backplane Signal Support
TTLTRG0-7, ECLTRG (buffered), LBUS, ACFAIL, SERCLK, SERDAT, CLK10, SUMBUS, BERR, +5VSTDBY, SYSRESET (buffered), SYSCLK (buffered)

Cooling (Not including user prototype circuitry)
0.35l/s @ 0.04mm H_2O for a 10°C Rise

Cooling (typical 20Watt user application)
1.6l/s @ 0.13mm H_2O for a 10°C Rise

Peak Current & Power Consumption
(Not including user prototype circuitry)

	+5V	-5.2V	-2V
I_{Pm}(mA)	750	100	10
I_{Dm}(mA)	10	1	1

Total Power: 4.2 Watts

ENVIRONMENTAL DATA

Temperature
Operating: 0°C to +55°C
Storage: -40°C to +71°C

Humidity (non-condensing)
11°C-30°C: 95% ± 5%
31°C-40°C: 75% ± 5%
41°C-55°C: 45% ± 5%

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

Vibration (non-operating)
0.013" double amplitude, 5-55Hz

Weight
7064R-110 1.8lbs. (0.82kg)
7064R-210 2.1lbs. (0.95kg)
7064R-310 2.4lbs. (1.09kg)

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)
EN6010-1, IEC1010-1

CE 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	Part Number
7064R-110	Single Slot, Register-Based Prototyping Module	407620-110
7064R-210	Double Slot, Register-Based Prototyping Module	407620-210
7064R-310	Triple Slot, Register-Based Prototyping Module	407620-310
7064R-119	Bare Prototyping Board (no enclosure)	407620-119
7064R-001	Single Slot Enclosure Only	407620-001
7064R-002	Dual Slot Enclosure Only	407620-002
7064R-003	Triple Slot Enclosure Only	407620-003

The Racal policy is one of continuous development and consequently the equipment may vary in detail from the description and specification in this publication.

RACAL INSTRUMENTS

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