



RM65-7201E RM 65 DESIGN PROTOTYPING MODULE

RM 65 MICROCOMPUTER MODULES

The RM65-7201E Design Prototyping Module is one of the hardware options available for the RM 65 Microcomputer Module family.

RM 65 Microcomputer Module products are designed for OEM and end user microcomputer applications requiring state-of-the-art performance, compact size, modular design and low cost. Software for RM 65 systems can be developed in R6500 Assembly Language, PL/65, BASIC and FORTH. Both BASIC and FORTH are available in ROM and can be incorporated into the user's system.

RM 65 module products use a motherboard interconnect concept and accept any card in any slot. The 64-line RM 65 Bus offers memory addressing up to 128K bytes, high immunity to electrical noise and includes growth provisions for user functions. A selection of card cages provides packaging flexibility. RM 65 products may also be used with Rockwell AIM 65 and AIM 65/40. Microcomputers for product development and for a broad variety of portable or desktop microcomputer applications.

ORDERING INFORMATION

Part No.	Description
RM65-7201E	Design Prototyping Module

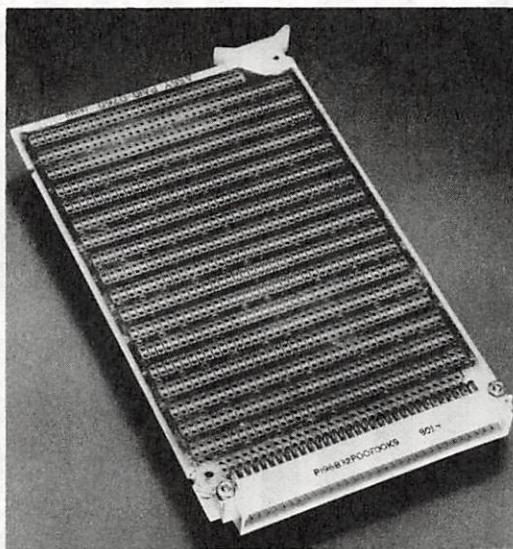
FEATURES

- Compact size—approximately 4" × 6¼" (100 mm × 160 mm)
- Provision for mounting mass-terminated cable connectors
- All wire-wrap holes pre-drilled on 0.100 in. centers
- Provision for installing decoupling capacitors
- Spacing for 0.300, 0.400 and 0.600 in. wide components
- +5V and ground extended throughout the module
- Isolated power strips allow connection to other supply voltages

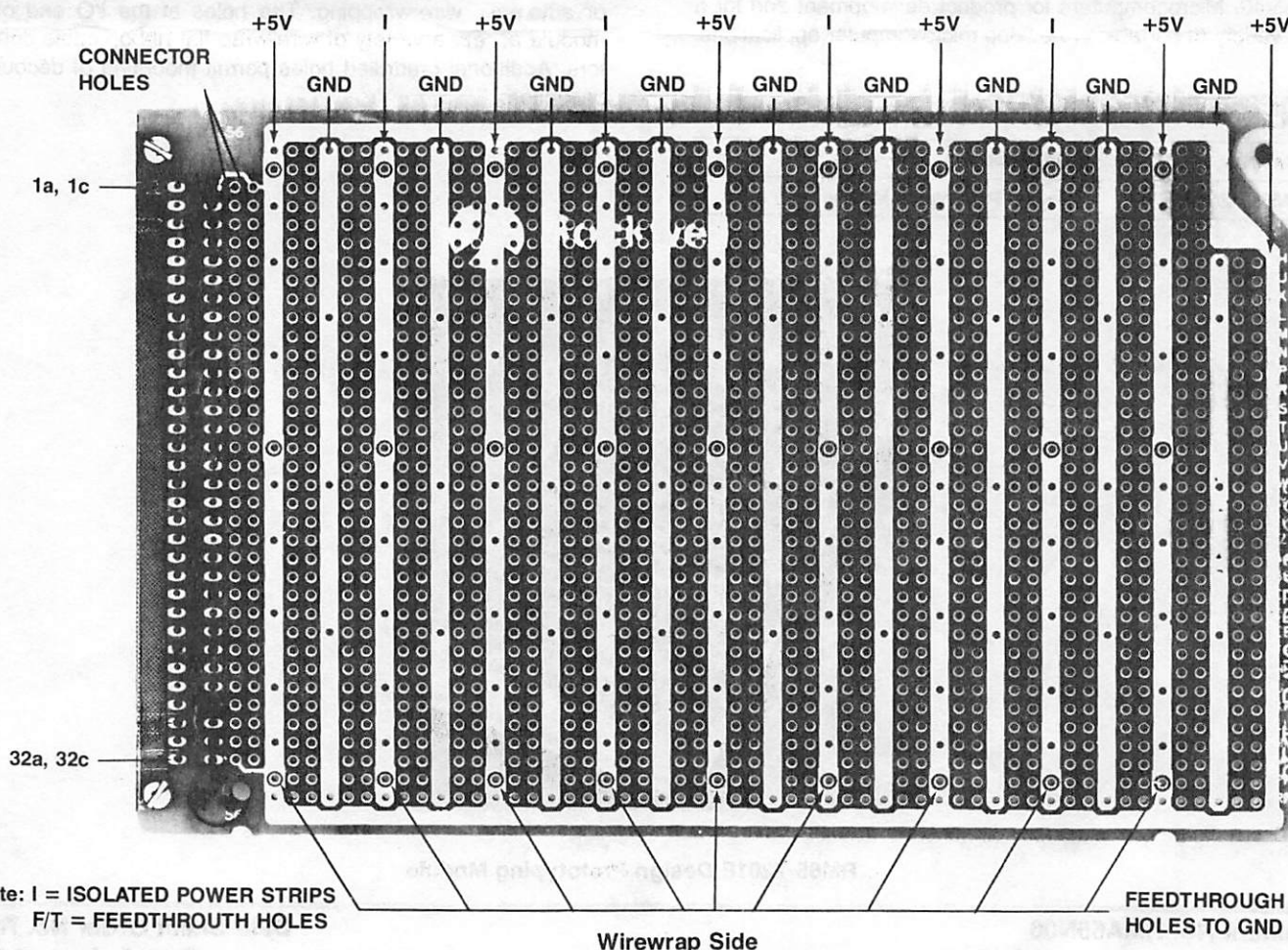
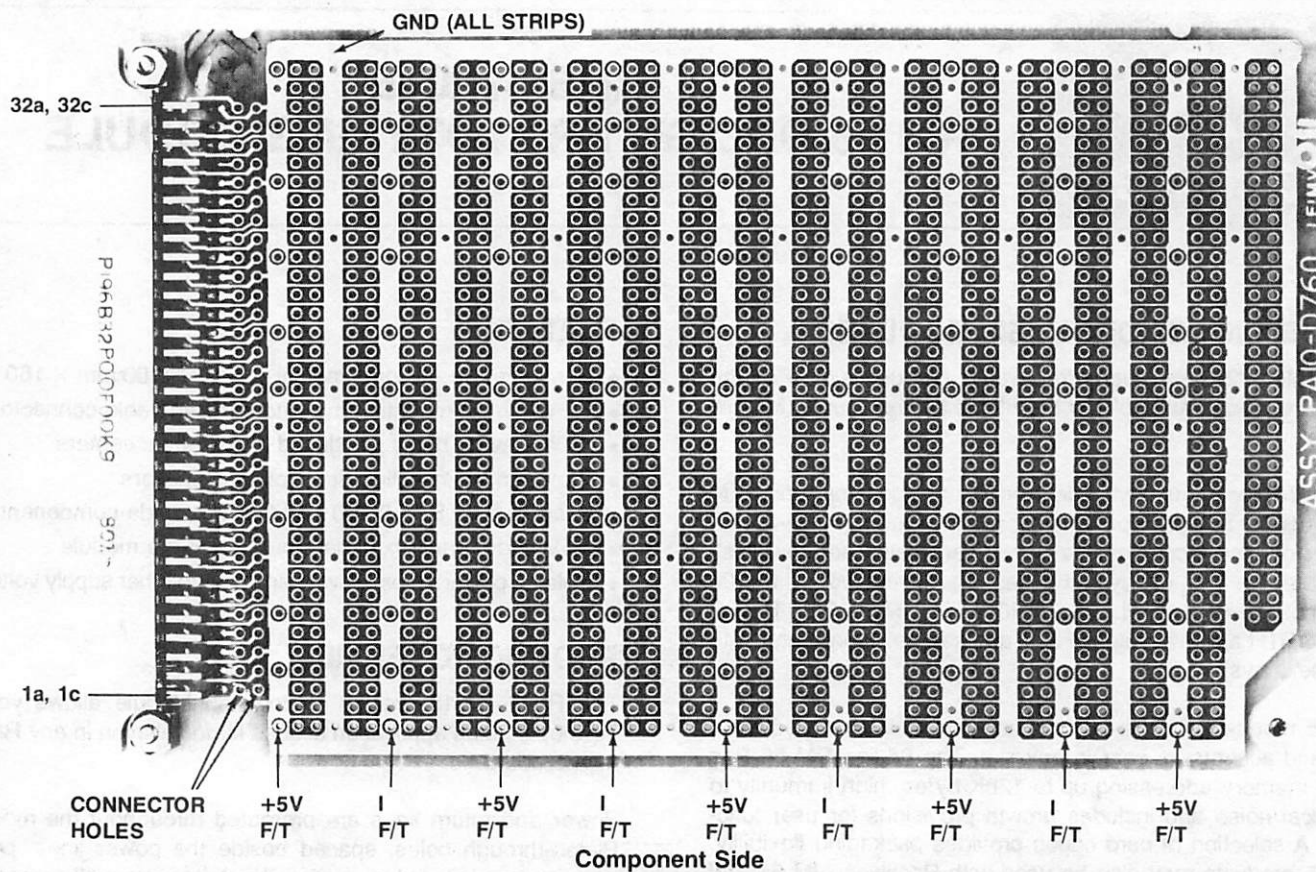
PRODUCT OVERVIEW

The RM65-7201E Design Prototyping Module allows you to develop custom application circuits for installation in any RM 65 motherboard.

Power and return lines are prerouted throughout the module. Plated-through holes, spaced beside the power lines, permit wire-wrap sockets to be installed. The hole pattern allows manual or automatic wire-wrapping. The holes at the I/O end of the module accept a variety of wire-wrap flat ribbon cable connectors. Additional predrilled holes permit mounting of decoupling capacitors.



RM65-7201E Design Prototyping Module



Note: I = ISOLATED POWER STRIPS
F/T = FEEDTHROUGH HOLES

FEEDTHROUGH
HOLES TO GND

Wirewrap Side

RM 65 Bus Pin Assignments

Bottom (Solder Side)			Top (Component Side)		
Pin	Signal Mnemonic	Signal Name	Pin	Signal Mnemonic	Signal Name
1a	GND	Ground	1c	+5V	+5 Vdc
2a	BADR/	Buffered Bank Address	2c	BA15/	Buffered Address Bit 15
3a	GND	Ground	3c	BA14/	Buffered Address Bit 14
4a	BA13/	Buffered Address Bit 13	4c	BA12/	Buffered Address Bit 12
5a	BA11/	Buffered Address Bit 11	5c	GND	Ground
6a	BA10/	Buffered Address Bit 10	6c	BA9/	Buffered Address Bit 9
7a	BA8/	Buffered Address Bit 8	7c	BA7/	Buffered Address Bit 7
8a	GND	Ground	8c	BA6/	Buffered Address Bit 6
9a	BA5/	Buffered Address Bit 5	9c	BA4/	Buffered Address Bit 4
10a	BA3/	Buffered Address Bit 3	10c	GND	Ground
11a	BA2/	Buffered Address Bit 2	11c	BA1/	Buffered Address Bit 1
12a	BA0/	Buffered Address Bit 0	12c	B ϕ 1	Buffered Phase 1 Clock
13a	GND	Ground	13c	BSYNC	Buffered Sync
14a	BSO	Buffered Set Overflow	14c	BDRQ1/	Buffered DMA Request 1
15a	BRDY	Buffered Ready	15c	GND	Ground
16a		User Spare 1	16c	-12V/-V	-12 Vdc/-V
17a	+12V/+V	+12 Vdc/+V	17c		User Spare 2
18a	GND	Ground Line	18c	BFLT/	Buffered Bus Float
19a	BDMT/	Buffered DMA Terminate	19c	B ϕ 0	Buffered External Phase 0 Clock
20a		User Spare 3	20c	GND	Ground
21a	BR $\overline{W}$ /	Buffered Read/Write "Not"	21c	BDRQ2/	Buffered DMA Request 2
22a		System Spare	22c	BR $\overline{W}$	Buffered Read/Write
23a	GND	Ground	23c	BACT/	Buffered Bus Active
24a	BIRQ/	Buffered Interrupt Request	24c	BNMI/	Buffered Non-Maskable Interrupt
25a	B ϕ 2/	Buffered Phase 2 "Not" Clock	25c	GND	Ground
26a	B ϕ 2	Buffered Phase 2 Clock	26c	BRES/	Buffered Reset
27a	BD7/	Buffered Data Bit 7	27c	BD6/	Buffered Data Bit 6
28a	GND	Ground	28c	BD5/	Buffered Data Bit 5
29a	BD4/	Buffered Data Bit 4	29c	BD3/	Buffered Data Bit 3
30a	BD2/	Buffered Data Bit 2	30c	GND	Ground
31a	BD1/	Buffered Data Bit 1	31c	BD0/	Buffered Data Bit 0
32a	+5V	+5 Vdc	32c	GND	Ground

INSTALLATION

Before installing the module, inspect for damage and grease, dirt, liquid or other foreign materials that will affect performance.

- Solder jumpers between the isolated power strips and the power (+5V, +12/+V, or -12V/-V) traces as required.

CAUTION

Before proceeding, ensure that the power strips are not shorted to GND.

- Solder power filter capacitors as required between the power strips and GND.
- Install and wire components on the Design Prototype Module:
 - Insert wire-wrap sockets into the desired holes. Solder two pins (on opposite ends of the socket) to the associated feedthrough to hold the socket in place.
 - Insert the solder stakes for mounting of discrete components, power connection and test points into the desired holes and solder to the associated feedthroughs.
 - Insert and solder individual or strip stakes into connector holes for all RM 65 bus signals used on the module.

- Wire wrap wires between the protruding pins and other pins or power/GND traces as required.

- Double check the hookup to ensure proper connection.

CAUTION

Ensure that no power lines are shorted to GND before installation into the RM 65 bus. Shorting power to ground may damage your circuitry, module, power supply and/or interfacing modules unless proper current limiting protection is provided.

- Install components into sockets as required.
- Remove power from the RM 65 bus.

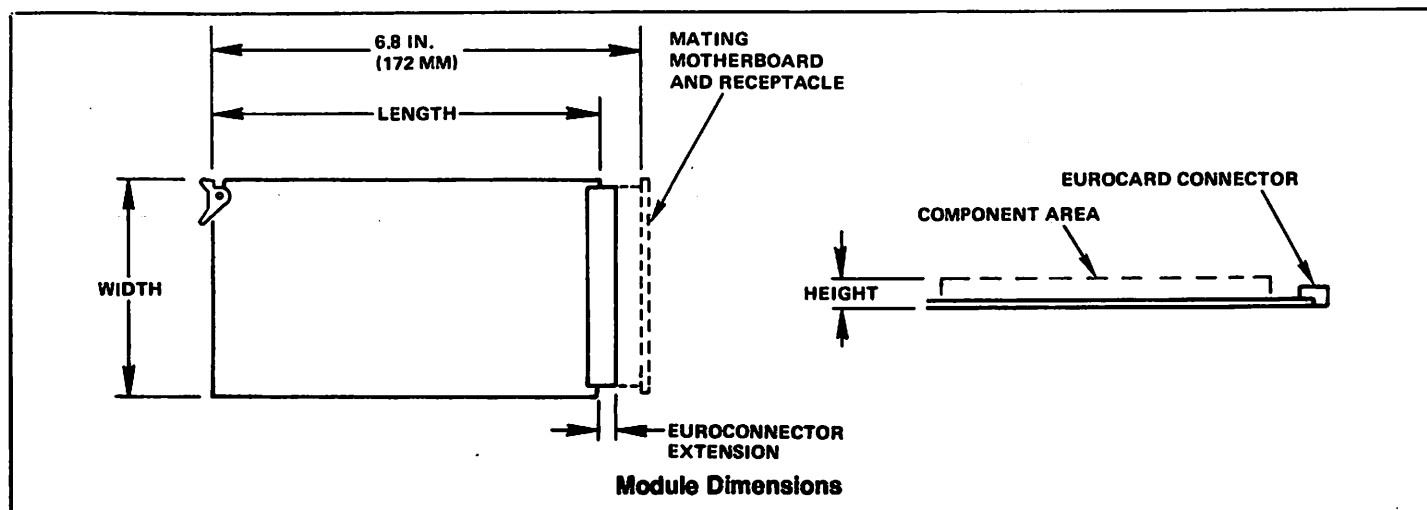
CAUTION

Never install or remove modules with power on—it may cause damage to your module and/or host system.

- Insert the module in the RM 65 Bus motherboard or single card adapter receptacle.
- Apply power to the RM 65 bus.

SPECIFICATIONS

Parameter	Value
Dimensions (1, 2, 3)	
Width	3.9 in. (100 mm)
Length	6.3 in. (160 mm)
Height	0.56 in. (14 mm)
Weight	2.5 oz. (65 g)
RM 65 Bus Interface	64-pin plug (0.100 in. centers) per DIN 41612 (Row b is not installed)
Component Mounting Area:	
Number of Component Hole Columns:	36
Number of Component Hole Rows:	36
Number of +5V power strips:	6
Number of isolated power strips:	4
Number of ground strips:	9
Vertical hole spacing:	0.100 in.
Horizontal hole spacing:	0.100 in.
Notes: 1. Height includes the maximum values for component height above the board surface (0.4 in. for populated modules), printed circuit board thickness (0.062 in.), and pin extension through the bottom of the module (0.1 in.). 2. Length does not include the added extensions due to the module ejector. 3. Dimensions conform to DIN 41612.	



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SEMICONDUCTOR PRODUCTS DIVISION REGIONAL ROCKWELL SALES OFFICES

HOME OFFICE
Semiconductor Products Division
Rockwell International
4311 Jamboree Road
Newport Beach, California 92660
(714) 833-4700
TWX: 910 581-1808

Mailing Address:
P.O. Box C, MS 501-300
Newport Beach, California 92660

UNITED STATES
Semiconductor Products Division
Rockwell International
1842 Reynolds
Irvine, California 92714
(714) 833-4855
TWX: 910 585-2518

Semiconductor Products Division
Rockwell International
921 Bowser Road
Richardson, Texas 75080
(214) 898-6500
TLX: 73-307

Semiconductor Products Division
Rockwell International
10700 West Higgins Rd., Suite 102
Rosemont, Illinois 60018
(312) 297-6862
TWX: 910 233-0179 (R) MED ROSM

Semiconductor Products Division
Rockwell International
50019 Greentree
Executive Campus, Rt. 73
Maple, New Jersey 08053
(609) 586-0090
TWX: 710 940-1377

FAR EAST
Semiconductor Products Division
Rockwell International Overseas Corp.
hohpwa Hirakawa-cho Bldg.
7-6, 2-chome, Hirakawa-cho
Chiyoda-ku, Tokyo 102, Japan
(03) 265-8808
TLX: J22198

Rockwell Collins International
Tai Sang Commercial Bldg., 11th Floor
24-34 Hennessy Rd.
Hong Kong
(85) 274-321
TLX: 74071 HK

EUROPE
Semiconductor Products Division
Rockwell International GmbH
Fraunhoferstrasse 11
D-8033 München-Martinsried
West Germany
(089) 857-6016
TLX: 0521/2850 rind d

Semiconductor Products Division
Rockwell International
Heathrow House, Bath Rd.
Cranford, Hounslow,
Middlesex, England
(01) 759-2396
TLX: 851-25483

Semiconductor Products
Rockwell Collins Italiana S.p.A.
Via Boccaccio, 23
20123 Milano, Italy
(02) 498 74 79
TLX: 316562

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