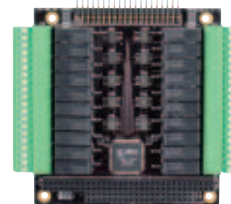
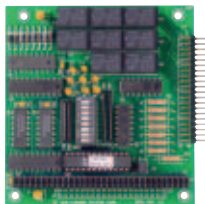
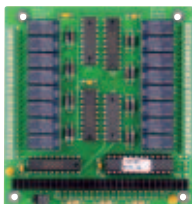


PEARL-MM / OPAL-MM / IR104

RELAYS WITH OPTOISOLATED INPUTS



Pearl-MM

- 16 SPDT (form C) relays
- Extra long life, 100M operations
- DC switching capacity 30V/2A
- AC switching capacity 125V / 0.5A
- 500VAC/DC isolation between board and signals
- Screw terminal or pin header inputs

Opal-MM

- 8 SPDT (form C) relays
- Long life 1M operations
- DC switching capacity 30V/1A
- AC switching capacity 125V / 0.1A
- 8 non-polarized optoisolated inputs
- 500VAC/DC isolation between board and signals
- 40 pin header for all I/O

IR104

- 20 SPST (form A) relays
- Long life, 20M operations
- DC switching capacity 30V/5A
- AC switching capacity 125V / 5A
- 20 non-polarized optoisolated inputs
- Twin, detachable screw terminal output and 40-pin input header

The Pearl-MM / Opal-MM / IR104 series of PC/104 modules provide relay outputs with optional optoisolated digital inputs. Pearl-MM and Opal-MM provide 16 and 8 SPDT (form C) relays respectively that can switch both AC and DC voltages. IR104 provides 20 SPST (form A) relays and also can switch both AC and DC voltages.

Opal-MM and IR104 also provide 8 and 20 optoisolated inputs respectively.

Pearl and Opal boards operate from -40°C to +85°C and only require a +5V power input. The IR104 board operates from -20°C to +70°C. All three boards are supported by Diamond Systems' Universal Driver programming software for Linux, Windows 98 / 2000 / XP / CE, DOS, QNX, and VxWorks.

SPECIFICATIONS

Feature	Pearl-MM	Opal-MM	IR104
# Relays	16	8	20
Relay Type	SPDT (form C)	SPDT (form C)	SPST (form A)
Max DC Power	30V / 2A	30VDC / 1A	30VDC / 5A
Max AC Power	125VAC / 0.5A resistive	125VAC / 0.1 resistive 125VAC / 0.2 inductive	125VAC / 5A
Max Load	60W / 60VA	30W / 50VA	150W / 1250VA
Max Op Voltage	220VDC, 250VAC	220VDC, 250VAC	150VDC, 250VAC
Contact Resistance	100mΩ max	50mΩ max	30mΩ initially
Relay Lifetime	100,000,000 operations	1,000,000 operations	20,000,000 operations
Actuation Time	4ms max, operate / release	5ms max, operate / release	6ms operate, 3ms release
Opto Inputs	0	8	20
Opto Input Voltage	N/A	3V-28VDC	3V-24V DC or AC
Input Impedance	N/A	1.8KΩ min	2.8KΩ
Dimensions	3.55" x 3.775" (90mm x 96mm)		
Input Voltage	+5VDC±10%	+5VDC±10%	+5VDC±10%
Operating Temp	-40°C to +85°C	-40°C to +85°C	-20°C to +70°C
Weight	3.4oz / 96g 3.6oz / 102g w/screw terminals	3.0oz / 85g	3.2oz / 90g

ORDERING INFORMATION

Part No.	Description
PMM-S	16 relays, screw terminals
PMM-P	16 relays, pin headers
OPMM-XT	8 relays, 8 opto inputs
IR104	20 relays, 20 opto inputs