

IR-310-RM

IR Controlled 10-channel High Power Relay Module

Features

- 10 channels high power relays: 5A x 6, 10A x 4
- Supports IR remote control (custom:64 cmds, built-in: 32 cmds) for relay control
- NO & NC terminals for each channel
- Protection circuit for each channel
- Sequential relay control
- Supports maximum 5 interlocked relay pairs
- Power-on values and power failure memory
- Supports RS-232 / RS-485 serial interface
- Supports Modbus/RTU protocol (Slave)
- Modbus Network IDs: 1 ~ 15 (HW); 1 ~ 247 (SW)

Introduction

The IR-310-RM is a 10-channel high power relay module designed for the power control of various appliances. The relay module can switch up to 10A loads. There are NO/NC switches and protection circuit for each channel. The relays can be controlled independently or sequentially by serial communication with Modbus RTU protocol, as well as by wireless IR remote control. There are also maximum 5 interlocked relay pairs for interlocked switching. The application field can be manual/automatic power switch, light scenario control and energy conservation etc.

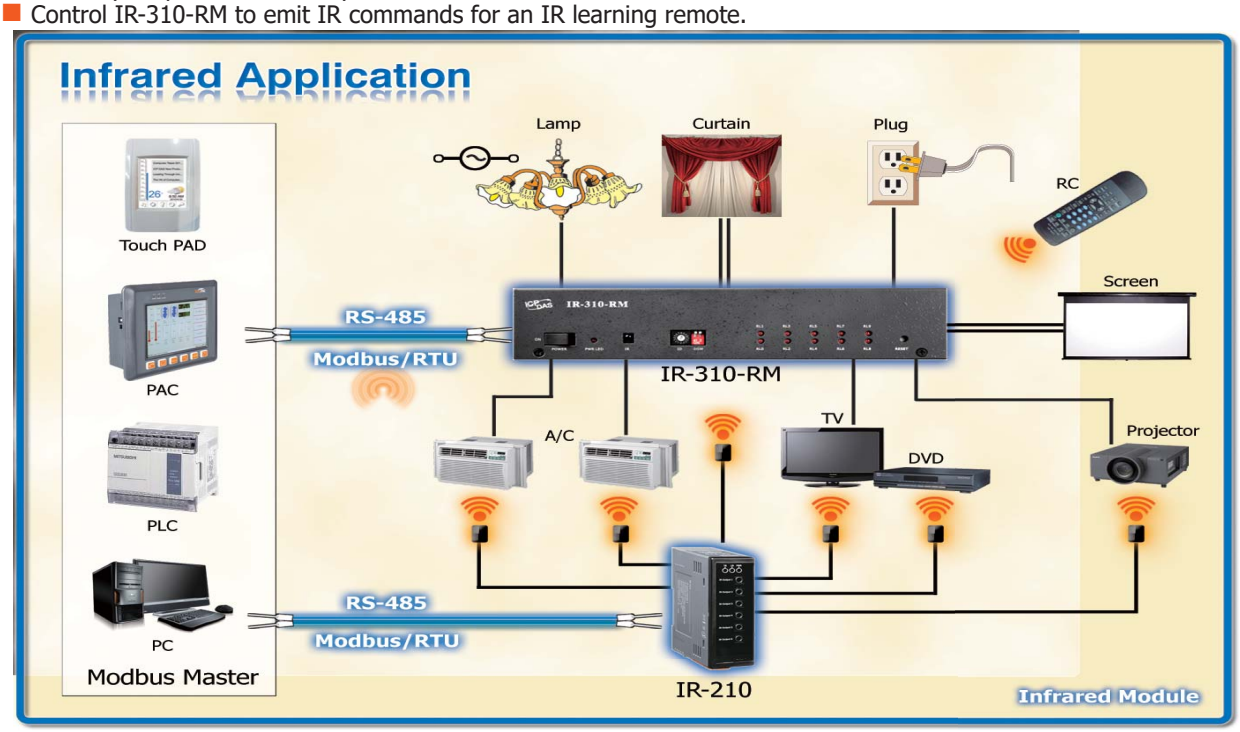
Specifications

Relay Outputs		
Number of Outputs	10	
Relay Types	Form C relay SPDT	
Contact Rating	5A@220VAC for RL0, RL1 & RL6~RL9 10A@220VAC for RL2 ~ RL5	(Operating Temperature : 25°C)
Operate Time (Max.)	10 ms for RL0, RL1 & RL6 ~ RL9, 15 ms for RL2 ~ RL5	
Release Time (Max.)	5 ms for RL0, RL1 & RL6 ~ RL9 10 ms for RL2 ~ RL5	
Insulation Resistance	100 M Ohm min. at 500 VDC for RL0, RL1 & RL6~RL9 1000M Ohm min. at 500VDC for RL2~RL5	
Life Time	Mechanical : 1 × 10^7 OPS Electrical : 1 × 10^5 OPS	
Serial Interface		
COM1	RS-232 (TxD, RxD, GND)	
COM2	RS-485 (DATA+, DATA-)	
Baud Rate	9600 ~ 115200 bps (6 baud rates)	
Protocol	Modbus/RTU (slave).	
Modbus Net ID	Hardware: 1~15. Software: 1 ~ 247	
IR interface		
IR Input	Onboard IR receiver	
	3.5 mm audio jack for an IR receiver cable	
IR Remote Commands	64 IR commands (#0~#63) corresponding to self-defined relay states. 32 IR commands (#192~#223) corresponding to built-in relay states.	
LED Display		
1 LED as Power and IR indicator		
10 LEDs as Relay Output indicators		
Power		
Power supply	+12 V_{DC}	
Mechanism		
Dimensions	220 mm x 113 mm x 48 mm (W x L x H)	
Environment		
Operating Temp.	-25 ~ +75°C	
Storage Temp.	-30 ~ +80°C	
Humidity	10 ~ 90% RH, non-condensing	

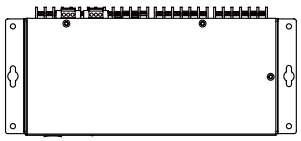
LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Applications

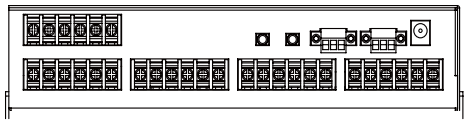
- IR utility (including IR-310-RM utility) is the confi- guration tool for IR-310-RM.
  - Can get/set separate or all settings from/to IR-310-RM.
  - For relay output test and relay states indication.
  - Control IR-310-RM to emit IR commands for an IR learning remote.



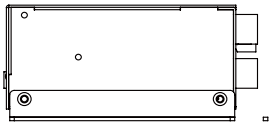
Dimensions (Units: mm)



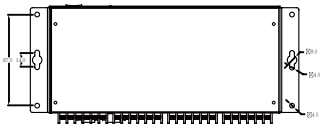
Top View



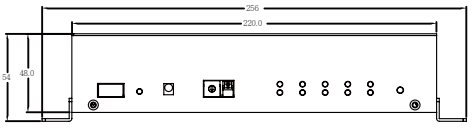
Rear View



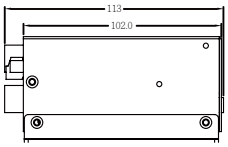
Left View



Bottom View



Front View



Right View

Ordering Information

IR-310-RM CR	IR Controlled 10-channel High Power Relay Module (RoHS)

Accessories

CA-IR-001 	IR receiver cable, 3 m
CA-IR-SH2251-5 	Single-headed IR emitter cable (with adhesive pad, Ø 5 mm IRED, 2.5 m)
CA-IR-SH1251-360 	Semi-sphere-headed IR receiver cable (with adhesive pad, 2.5 m, available soon)
UP0061D-12PA58G 	Wall mount power supply; Input range 90-240VAC; Output 12VDC/0.5A, 6 W; two pins USA plug
CA-002 	DC connector to 2-wire power cable, 0.3 M
L108E 	IR Learning Remote Control

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000