Features
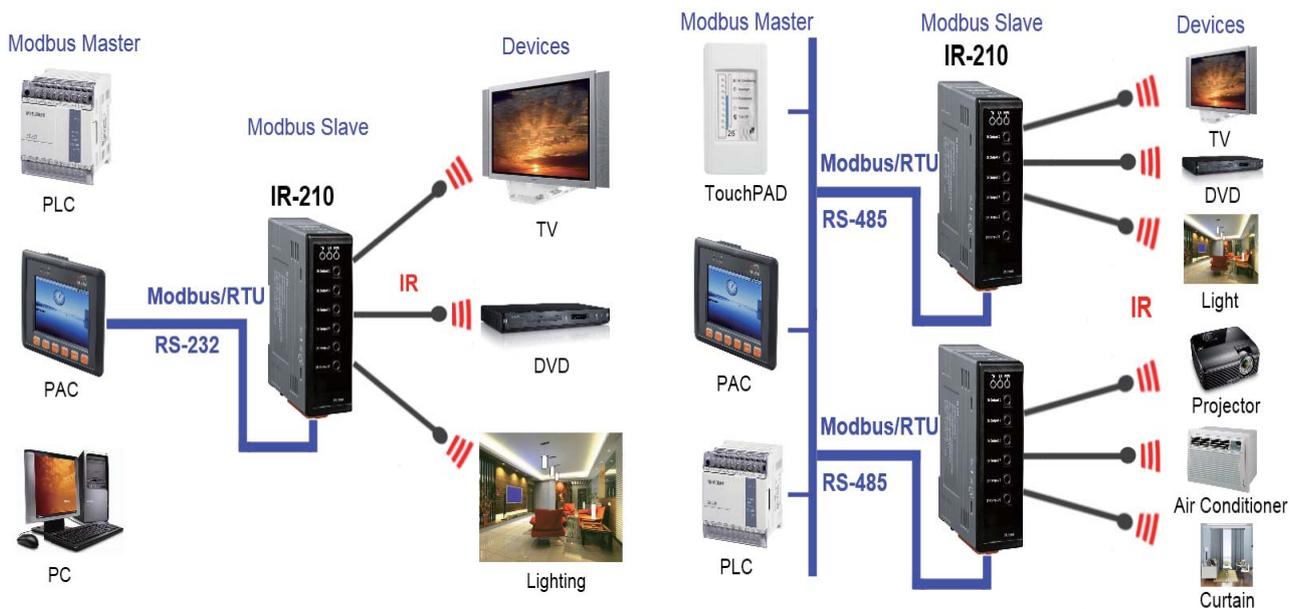
- 6 IR output channels.
- 1 IR learning input.
- Supports 6 IR carrier frequencies: 33, 36, 37, 38, 40and 56 kHz.
- IR command capacity: 224
- Supports RS-232 and RS-485 serial interface.
- Supports Modbus RTU protocol to emit IR commands.
- Provides ASCII String Command (DCON protocol) to emit IR commands.
- Provides API library for users' program development easily.
- Built-in Watchdog.
- RoHS Compliance.

IR-210/IR-210-5
Universal IR Learning Module
(6 x IR outputs, 224 x IR cmds)

Introduction

IR-210 is a universal IR learning remote module which can learn IR remote commands of diverse electronic devices. The learning commands can be stored in the module or saved to a file. IR-210 supplies 6 IR output channels for individual and simultaneous control on multiple devices. The accompanied RS-232 and RS-485 interfaces with Modbus RTU and DCON protocols provide more flexible expansion and control on the module. As a replacement of IR remote controls and a module that can be easily integrated with Modbus master devices (e.g. PAC, PLC, PC… etc.), IR-210 is well-suited for smart home and building automation.
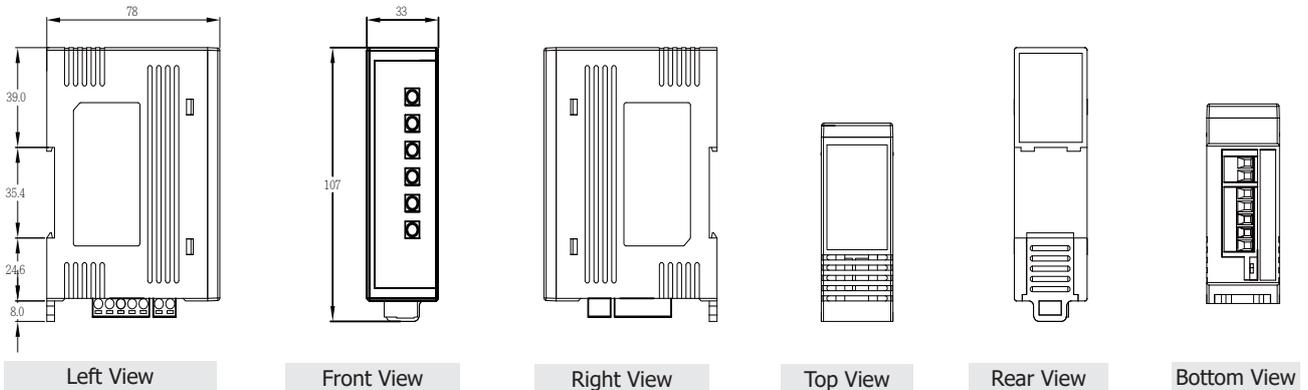
Applications

■ Specifications

Hardware	
IR Interface	
IR Output Channels	6 channels with 3.5 mm audio jack
IR Learning Input	1 channel. Supports 6 IR carrier frequencies: 33, 36, 37, 38, 40, 56 kHz.
Serial Communication Interface	
Connector	2-pin (RS-485) / 5-pin (RS-232, Power) screw terminal connecter
COM1	RS-232 (TxD, RxD, GND)
COM2	RS-485 (DATA+, DATA-)
Baud Rate	9600, 19200, 38400, 57600, 115200 bps
Protocol	Modbus RTU / DCON (slave)
LED Indicatoг	
Round LED	TR (IR Transmitting) / LN (IR Learning) / PWR (Power)
Power	
Power supply	+10 ~ +30 V_{DC}
Power Consumption	Stand by: 0.65 W 1 IR output used: 2.5 W 6 IR outputs used: 12 W (Max.)
Mechanism	
Installation	DIN-Rail Mounting
Dimensions	33 mm x 78 mm x 107 mm (W x L x H)
Dip Switch	FW (Firmware update mode) / OP (Firmware operation mode)
Environment	
Operating Temp.	-25 ~ +75°C
Storage Temp.	-30 ~ +80°C
Humidity	10 ~ 90% RH, non-condensing

■ Dimensions (Units: mm)

| Left View | Front View | Right View | Top View | Rear View | Bottom View |

■ Ordering Information

IR-210 CR	Universal IR Learning Module (6 x IR outputs, 224 x IR cmds) (RS-232, RS-485), with 2 x CA-IR-SH2251 emitter cables (RoHS)
IR-210-5 CR	Universal IR Learning Module (6 x IR outputs, 224 x IR cmds) (RS-232, RS-485), with 2 x CA-IR-SH2251-5 emitter cables (RoHS)

■ Accessories

CA-IR-SH2251	Single-headed IR emitter (with adhesive pad, Ø 3 mm IRED, 2.5 m)
CA-IR-SH2252	Dual-headed IR emitter (with adhesive pad, Ø 3 mm IRED, 2.5 m)
CA-IR-SH2251-5	Single-headed IR emitter (with adhesive pad, Ø 5 mm IRED, 2.5 m)
CA-IR-SH2252-5	Dual-headed IR emitter (with adhesive pad, Ø 5 mm IRED, 2.5 m)
CA-IR-SH2251-360	Semi-sphere-headed IR blaster cable (with adhesive pad, 2.5 m)