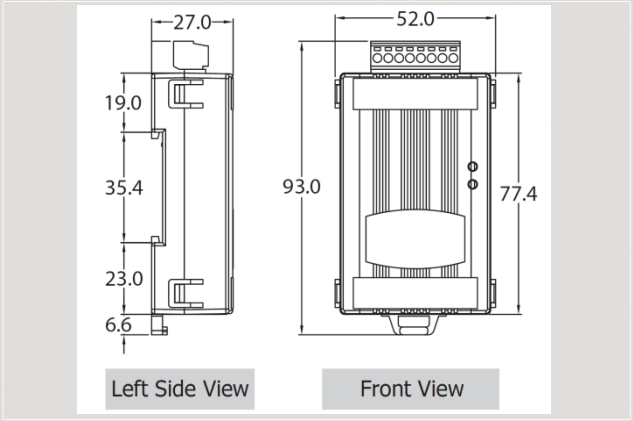
M2M Series Products

Universal IR Learning Remote Module

IR-712

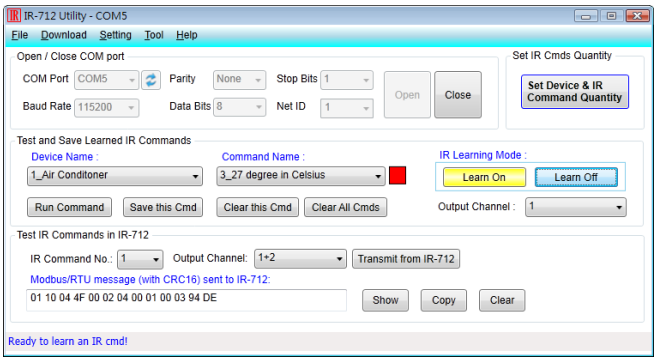


Dimensions

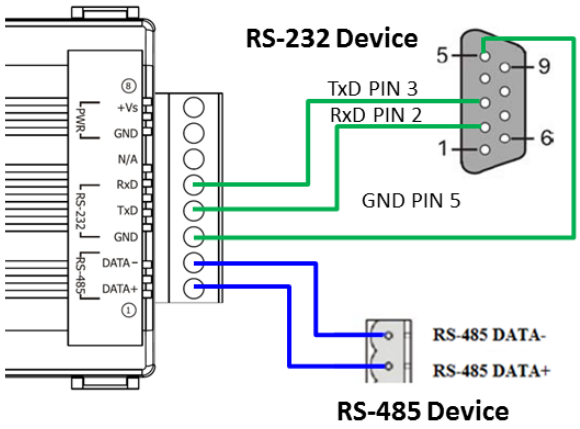
IR-712 is a universal IR learning remote module which can learn IR remote commands of diverse electronic devices. The learning commands can be stored in the module or saved to a file. IR-712 supplies 2 IR output channels for individual and simultaneous control on multiple devices. The accompanied RS-232 and RS-485 interfaces with Modbus/RTU protocol 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-712 is well-suited for smart home and building automation.

Features

- 2 IR output channels.
- 1 IR learning input.
- Quantity of IR command storage: 36
- Supports learning IR carrier frequencies: 32.768、36、37.037、38、40 and 56 kHz.
- Supports RS-232 and RS-485 serial interface.
- Supports Modbus/RTU protocol.
- Assignable Modbus Network IDs: 1 ~ 247
- Baud rate settings: 9600, 19200, 38400, 57600 and 115200 bps.
- Configurable NONE / ODD / EVEN parity and 1 or 2 stop bits.
- Provides transmitting / learning and power indication LEDs.
- Built-in Watchdog.
- RoHS Compliance.



Wire Assignments



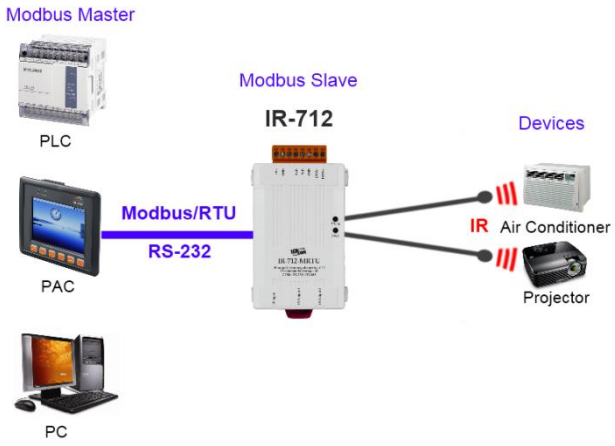
Utility Features

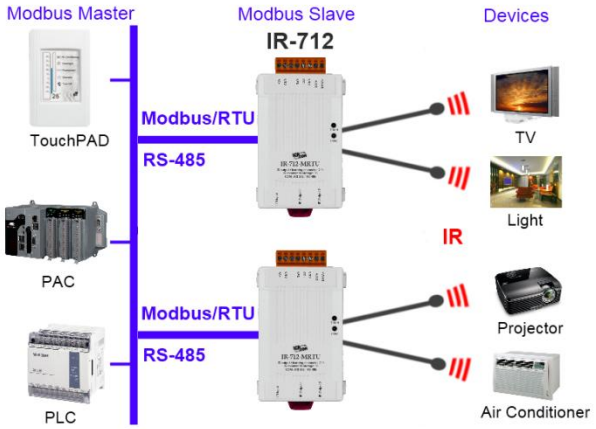
- IR commands learning and testing.
- Save IR learning commands to files.
- Get/Set IR learning commands from/to IR-712.
- Reference to Modbus commands.
- Set / Reset basic settings of IR-712.

Hardware Specifications

IR Interface	
IR Output Channels	2 channels with 3.5 mm audio jack
IR Learning Input	1 channel. Supports 6 IR carrier frequencies: 32.768, 36, 37.037, 38, 40, 56 kHz.
IR Command Storage	36 IR Commands
Serial Communication Interface	
Connector	8-pin (RS-485, RS-232, and Power) screw terminal connecter
COM1 / COM2	RS-232 (TxD, RxD, GND) / RS-485 (DATA+, DATA-)
Baud Rate	9600, 19200, 38400, 57600, 115200 bps
Protocol	Modbus/RTU (slave)
LED Indicator	
LED	2 LEDs: TR/LN (IR Transmitting/Learning) and PWR (Power)
Power	
Power Supply	+10 ~ +30 V_{DC}
Power Consumption	1.8 W Max (OP mode)
Dip Switch	FW (Firmware update mode) / OP (Firmware operation mode)
Mechanism	
Installation	DIN-Rail Mounting
Dimensions	52 mm x 93 mm x 27 mm (W x H x D)
Environment	
Operating Temp.	-25 ~ +75℃
Storage Temp.	-30 ~ +80℃
Humidity	10 ~ 90% RH, non-condensing

Application





Ordering Information

IR-712 CR	Universal IR Learning Remote Module (2 IR outputs, 36 IR Cmds), with 2 CA-IR-SH2251 & 1 CA-0910 (RoHS)
IR-712-5 CR	Universal IR Learning Remote Module (2 IR outputs, 36 IR Cmds), with 2 CA-IR-SH2251-5 & 1 CA-0910 (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-0910	9-pin Female D-sub & 3-wire RS-232 cable, 1 m

Note: The remote control distance of CA-IR-SH2251-5 is 30% longer than that of CA-IR-SH2251.