



IDRATEK

INTELLIGENT AUTOMATION

ITR-002 Infra-Red Transceiver



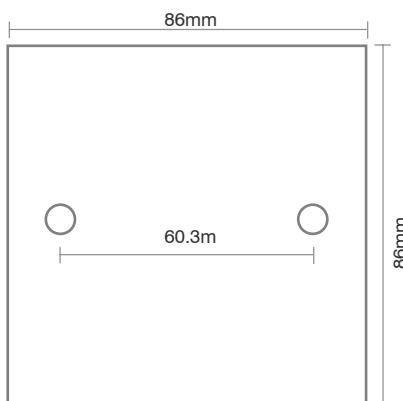
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The ITR-002 Infra-Red Remote Control transceiver is a dual function module. Lower cost single function RX only (IRM-002) and TX only (ITM-002) variants are available for locations where a full transceiver capability is not required.

The transmit (TX) function allows control of domestic appliances equipped with a standard IR based remote control facility, for example most audio and video equipment, fans, air conditioning units, electric curtains etc. The receive (RX) function on the other hand provides both: an IR remote control input to the network, using almost any standard hand held IR Remote Control unit, and, a means of encoding and relaying incoming IR frame data to the network and thence to other interested devices such as (but not limited to) other ITR or ITX modules (eg. for A/V remote control extender functions). Local recognition and transmission function codes are fully re-trainable and learnt codes are stored in onboard non-volatile memory.

As with other IDRATEK modules a range of Reflex functions is provided to allow control of other network devices based on recognised remote control codes.



Features – Receiver Section

- Can be trained to recognise (for Reflex action) up to 16 arbitrary frame codes from most standard handheld IR control units
- Incoming frame data can be interrogated via the network eg. for analysis or extended recognition purposes
- Incoming frame data can be relayed to networked IR TX capable modules to provide a 'remote control extender' function. Relay addressing is user definable.
- Recognition and relay functions can operate simultaneously (eg. only unrecognised frames relayed, whilst recognised frames causing Reflex actions)
- Multiple event triggers (detailed elsewhere)
- Extensive control over Reflex functionality
- Capable of auto-decoding Philips RC5 protocol frames into 2 byte format
- User control of 'Repmatic' rate (similar to typematic rate concept for a keyboard)
- External IR sensor connection (allows main module to be hidden eg. within ceiling cavity)

Features – Transmitter Section

- Can emit up to 140 different user trained codes from onboard non-volatile memory, allowing efficient single packet control of 140 domestic appliance functions per module
- Specific support for direct generation of Philips RC5 protocol frames
- Arbitrary code frames can be assembled and emitted using network transmitted data allowing, for example, extra frame storage on a central server.
- Assembly and emission of relayed IR code data from any other IR RX capable module on the network – provides domestic appliance 'remote control extender' functionality.
- External IR transmitter connection (allows guaranteed optical coupling to target device)

Features – General

- Fully IDRANet Compatible
- Status indicator LED
- Infra-Red Activity Indicator
- Module Initialise trigger
- In situ firmware upgradeable

Electrical

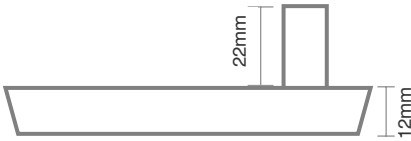
- Operating voltage 12-15V DC
- Current consumption 18mA (nom), 25mA (max)

Environmental

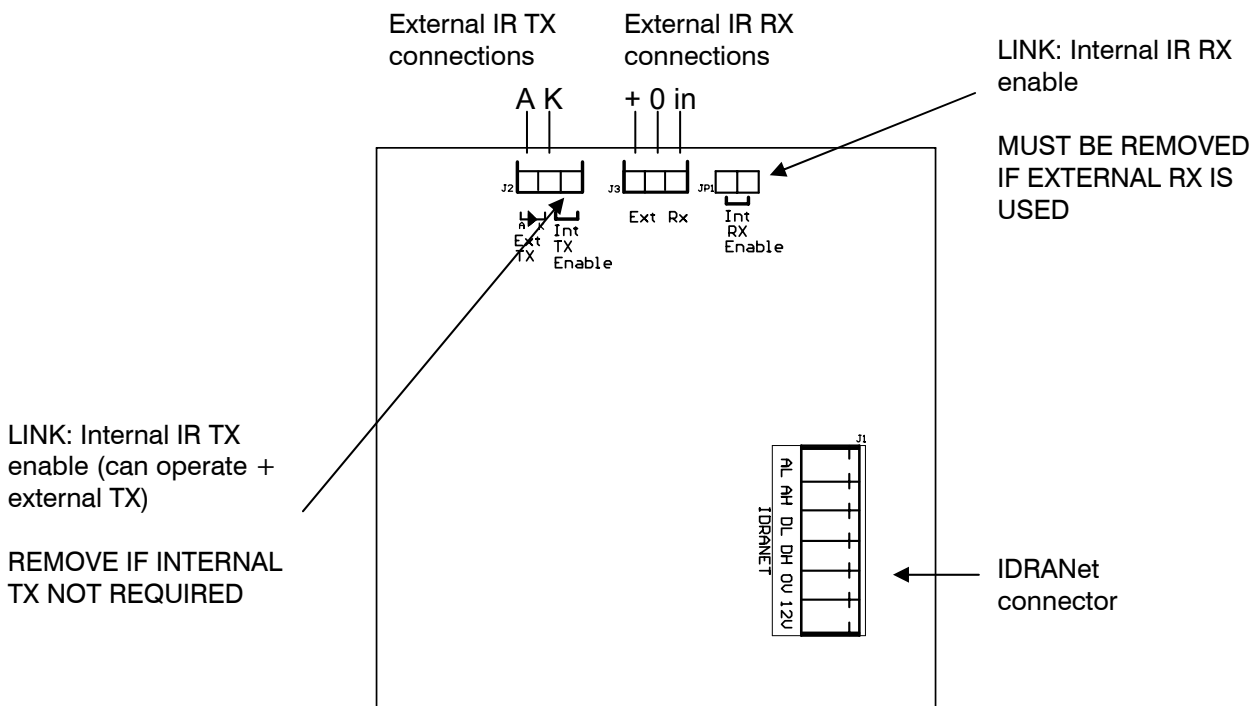
- Operating temperature -10°C to +45°C
- Operating humidity 5% to 95% (non-condensing)

Mechanical

- Designed to fit UK style standard 35mm deep electrical pattress
- 60.3mm fixing centres using standard M3.5 screws



Module Connections



Example Connection to external RX and TX devices

