

REPEATIR Advanced Infrared Repeater Module

Features

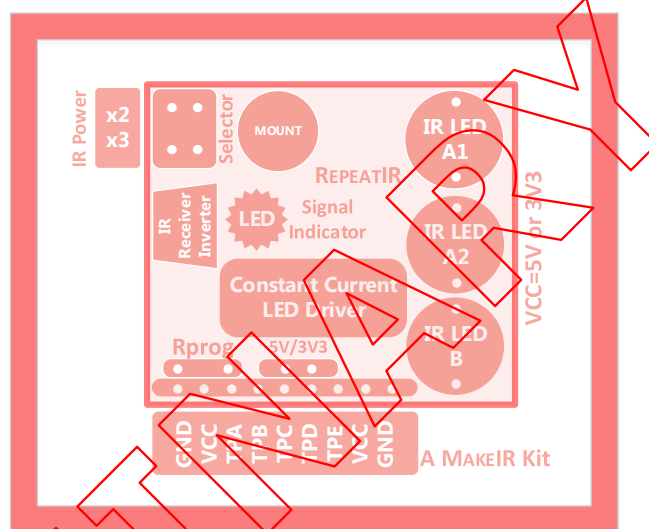
REPEATIR, the Advanced Infrared repeater device includes:

- Constant current IR transmission design
- Selectable x1, x2, x3 Power for Emitter(s) via jumpers
- Customisable range via programmable TH resistor
- 5V or 3V3 levels selectable via on-board jumper
- High quality IR emitter(s)
- Range: 10-40m+(tx)
- Range: <20m(rx)
- Single or Dual IR emitter design
- Visual LED indicator for repeated signals
- Bonus Features:
 - 5 Test points provided for better understanding of circuit operation and troubleshooting
 - Use narrow & wide angle IR emitters for optimum far & near coverage
 - Emitter power selector
- Wide 30kHz to 60kHz modulation frequency range
- PCB Mounting hole
- PCB Size: 25x25x11mm(LxWxH)

Applications

REPEATIR, the Advanced Infrared emitter device can be used in the following:

- Remote control extending
- Multiple location coverage
- Signal bending (around corners)
- Hidden equipment
- Range extender
- Infrared signal repeater



REPEATIR Overview

REPEATIR is an advanced module for repeating modulated Infrared signals without the need for a dedicated microcontroller.

REPEATIR allows makers, hobbyists and professionals to incorporate infrared repeater functionality into their projects using quality IR components and excellent design features. REPEATIR can operate standalone or integrated into existing projects and provides excellent extended range and signal quality for both 3V3 and 5V systems. It can be powered directly from a microcontroller, USB ports, batteries or via stand-alone power supplies connected to the PCB header.

What is REPEATIR

REPEATIR is made up of 3 components:

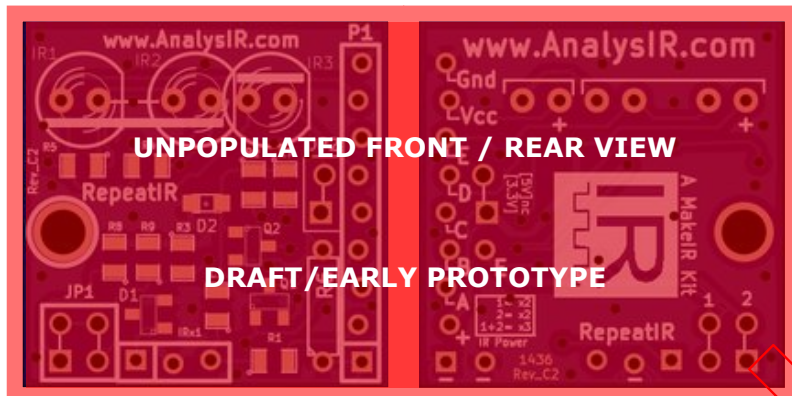
- The REPEATIR board module with integrated or remote emitters.
- A power supply provided via the microcontroller or via an independent DC power source. *(Not Included.)*
- The included dual or single emitters can be mounted on-board or located remotely via cabling *(Not Included.)*.

REPEATIR is an excellent companion device for any 5V or 3V3 project and can operate from 3V3 to 5.5V supplies (Max 6V). It can be configured with single or dual emitters for more demanding projects. Single emitter mode is recommended for 3V3 supply or below, unless dual aspect coverage is the primary requirement.

REPEATIR can be used to extend IR signals into enclosures, other rooms or into any obscured location and delivers faithful signal reproduction from 30kHz to 60kHz modulation at 940nm peak wavelength.

What's Included

Each REPEATIR module is configured with single or dual emitters plus a set of header pins and power selection jumpers.



You can opt to have the emitters and header pins soldered or not. Test points and spare positions are not populated.

IR range can be increased further by installing a programming resistor on the PCB. This is a feature of all of our constant current IR emitter designs in the MAKEIR Kit series.

Customisation

REPEATIR comes in single or dual emitter configurations as standard. Customisation of the programmable resistor and IR emitter angles is available on request.

Licensing Model & Purchase

REPEATIR, is supplied under a single licence which covers both non-commercial and commercial use. You can purchase your own REPEATIR module via: <http://www.ANALYSIR.com/> and other outlets. The REPEATIR design & hardware is also available for integration into 3rd party systems. Custom designs are possible with bulk orders.

Service and Support

Support is provided for REPEATIR via email or our on-line IRforum. Contact details for support are provided at time of purchase. Support is available only using your registered email address.

A MAKEIR Kit

REPEATIR is part of the MAKEIR series which comprises a range of innovative infrared remote control kits for makers, hobbyists and professionals.

(For launch in Q4 2014 – visit www.ANALYSIR.com for details)

Additional Information

For more information visit <http://www.ANALYSIR.com/> or contact us directly using the contact information below.

Minimum Requirements

- A remote control to generate the repeated Infrared signal.
- Power Supply providing 5v or 3V3 (6V maximum).
- Power can be supplied directly by a microcontroller, battery or an independent DC source.

Infrared Innovations

REPEATIR features a number of attractive design elements:

- Selectable IR power jumpers are provided on board for x1, x2 and x3 power settings.
- A programmable TH resistor can be easily added to provide for custom power/range settings.
- The constant current circuit design delivers quality signals every time.
- Can be configured with single or dual IR emitters

Modulation Frequencies

REPEATIR supports all of the common IR modulation frequencies: 30kHz, 33kHz, 36kHz, 38kHz, 40kHz, 56kHz and any other custom frequency between 30kHz and 60kHz at the Infrared 940nm wavelength.

IR formats

REPEATIR is compatible with all common modulated remote control signals and formats.

Dual emitters

The dual emitter option allows coverage in 2 directions, flood fill, increased range or use of IR LEDs with wide (near) and narrow (far) coverage. Using dual emitters can provide double the IR power for the same current (*approximation*).

About ANALYSIR

ANALYSIR is committed to providing leading edge Infrared solutions & technology to our Maker, hobbyist, EDU and Professional users globally.

