

Features

DIYIR, the Advanced Infrared transceiver module includes:

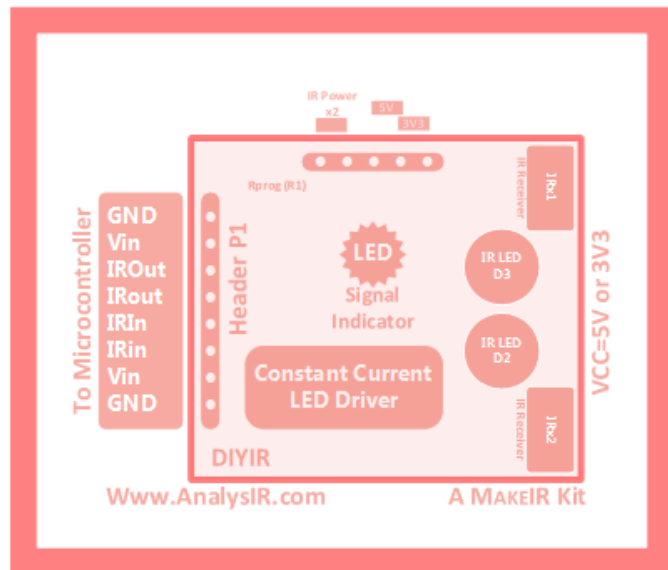
- Constant current IR transmission design
- Selectable x1, x2 Power for IR Emitter via jumper
- Customisable range via programmable TH resistor
- 5V or 3V3 levels (VCC/Vin)
- High quality dual IR emitters from Vishay.
- Range: 10-40m+(tx)
- Single or Dual IR emitter design (via Jumper)
- Visual LED indicator for transmitted signals
- High quality standard 38kHz IR receiver from Vishay.
- Noise reduction circuit for IR Rx
- Includes TSAL6100 & TSAL6200 emitters
- Advanced circuit design
- PCB Size: 25x25x11mm(LxWxH)

Applications

DIYIR, the Advanced Infrared transceiver & soldering kit can be used in the following:

- Remote control
- Air Conditioner control
- Laser Tag
- Beacons / Jamming
- Time Lapse photography
- Photo Interrupter
- Light Barrier / Proximity
- Data Transmission
- IRremote
- IRLIB
- AnalysIR (Source)

DIYIR Advanced Infrared Soldering Kit



DIYIR Overview

DIYIR is an advanced soldering Kit which support both sending and receiving of IR signals.

DIYIR allows makers, hobbyists and professionals to send infrared signals from their microcontroller projects using quality IR components and excellent design features. DIYIR is a drop in replacement for any IR emitter and provides excellent range and signal quality for both 3V3 and 5V systems. It can be powered directly from the microcontroller supply, batteries or via an independent DC power supply.

Similarly, DIYIR also features a high quality IR receiver from Vishay to allow receiving of IR signals by an attached MCU (not included)

What is DIYIR

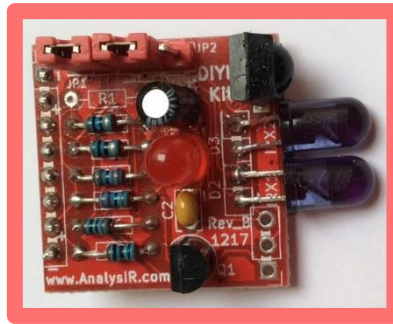
DIYIR is made up of many discrete components:

- The DIYIR PCB.
- All of the components required to populate the module.
- A power supply provided via the microcontroller supply or via an independent DC power source. *(Not Included.)*
- You will need to provide tools for soldering and testing along with your own MCU platform

DIYIR is an excellent companion device for any 5V or 3V3 project and can operate from 3V to 5V supplies. It is configured with dual IR emitters for more demanding projects. Single emitter mode is recommended for 3V3 supply or below, unless dual aspect coverage is the primary requirement. . DIYIR works with all MCUs and in particular IRremote, IRLIB & AnalysIR, once built. As a bonus, if you post a photo of your complete module, we will provide a free copy of our A.IR Shield Nano firmware. (T&Cs apply).

What's Included

Each DIYIR module is configured with dual emitters plus a set of header pins and power selection jumpers along with a standard IR receiver. The main feature of this unit is that you get to solder all of the components yourself, without compromising quality of design.

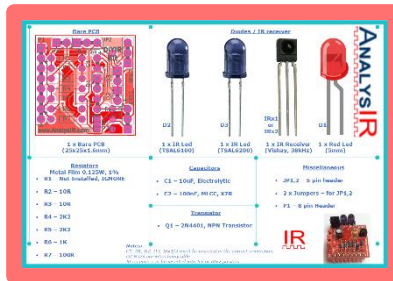


IR range can be increased further by installing a programming resistor on the PCB. (*not included*) This is a feature of all of our constant current IR emitter designs in the MAKEIR Kit series.

A dedicated set of WiKi pages is provided to assist in building the kit, including step by step instructions with all the details provided. Soldering skills & tools are required. In addition to the supporting firmware available, bonus firmware is provided to users who post their completed projects (*T&Cs apply*)

Soldering Classes

DIYIR can be used by individuals and is also suited for larger groups in soldering classes or training. Contact us for bulk rates. A set of WiKi pages are provided explaining the kit and includes detailed instructions for assembly. This material can be utilised as part of or the basis for any associated class. An IR kit is ideal for introduction to soldering as the follow on step is to control devices such as TVs & STBs or AC units which are readily accessible to most people.



Licensing Model & Purchase

DIYIR, is supplied under a single licence which covers both non-commercial and commercial use. You can purchase your own DIYIR soldering kit via: <http://www.ANALYSIR.com/> and other outlets. The DIYIR 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 DIYIR 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

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



Additional Information

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

Minimum Requirements

- A microcontroller providing the modulated Infrared signal and/or a GPIO pin to record received signals.
- Power Supply providing 5v or 3V3 (2V5 to 5V possible).
- Power can be supplied directly by the microcontroller supply or an independent source.

Infrared Innovations

- DIYIR features a number of attractive design elements:
- Selectable IR power jumpers are provided on board for x1 and x2 power settings.
 - The constant current circuit design delivers quality signals every time.
 - IR Signal Conditioning
 - Comes with dual IR emitters for greater coverage and performance

Modulation Frequencies

DIYIR supports all of the common IR modulation frequencies for Tx: 30kHz, 33kHz, 36kHz, 38kHz, 40kHz, 56kHz 455kHz and any other custom frequency at the Infrared 940nm wavelength.

IR formats

DIYIR is compatible with all modulated remote control signals and formats.

Dual emitters

The dual emitters option provide coverage in 2 directions, flood fill, increased range or use of IR LEDs with wide (near) and narrow (far) coverage. Using dual emitters provides 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.

20-Sep-18

