

# The irNetBox-III Pro Product Specification



Developed in response to increased speed and performance in audio-visual devices, the third generation of the irNetBox is a significant improvement over previous generations.

## New Developments at a Glance

- Supports generation and output of 16 different IR signals simultaneously
- Throughput of in excess of 80 IR signals per second
- 100 output power levels
- Built in self-test functionality



## Overview

The irNetBox is a network based infrared (IR) controller that allows independent control of up to 16 different audio-visual devices, such as set-top boxes (STBs). IR emitters are connected via sockets on the rear panel and are typically placed over the remote control detectors on the front of the AV equipment under control.

The irNetBox-III has built on the success of previous generations, which is widely used for STB testing (hardware, firmware and digital services), broadcast monitoring, and in show and theatre control. It maintains backwards compatibility with previous versions, while supporting a new set of features for concurrent, high-throughput IR output.

## Control and Software Options

The irNetBox-III is connected via either your LAN or USB.

### LAN Control

Designed primarily as a network device, it can be configured to use DHCP or given a static IP address. IR output functionality is controlled via TCP/IP, the details of which are open so can be supported on any platform. Only one computer can control the irNetBox at a time, preventing any potential interference when in use.

### USB Control

Drivers and an SDK are provided for Microsoft Windows, XP, Vista and Windows 7, both 32-bit (x86) and 64-bit (x64).

### RedRat Software

For Microsoft Windows, the .NET RedRat SDK is available, making the development of applications to control AV equipment straightforward.

RedRat Ltd have developed a number of free utility applications that support configuration and installation of the irNetBox, management of IR signal datasets and simple automated output of IR signal commands.

For more advanced script based delivery of IR signals, RedRat's TestManager application provides a very competitively priced, scalable test system.

### Third Party Software

For use in advanced testing environments, third party software is available from Mirifice Ltd ([www.mirifice.com](http://www.mirifice.com)) and S3 Group ([www.s3group.com](http://www.s3group.com)).

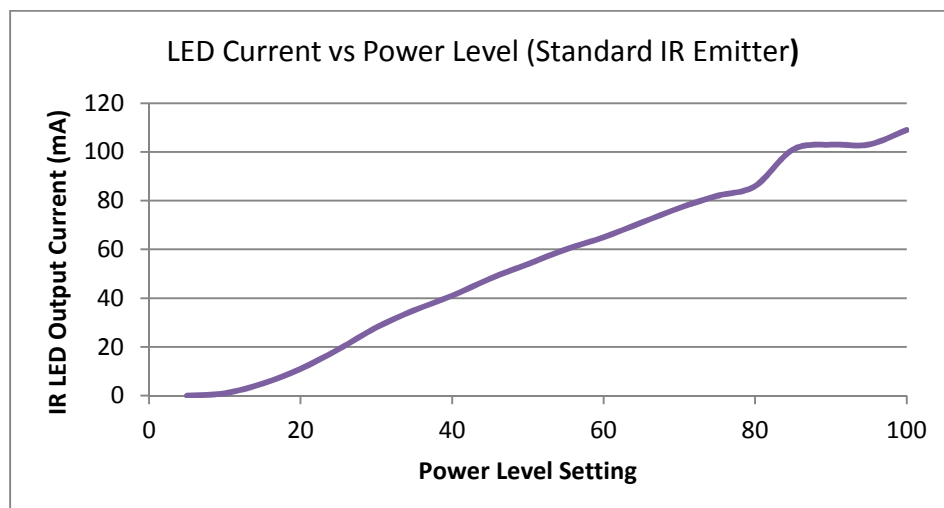
## Technical Specifications

### Physical Specifications

- 19 inch 1U rack mountable case – depth of 94mm
- 7.5V, 1.7A power supply included with unit
- Typical power requirements when in operation 500mA to 900mA (dependant on IR output power and signal type)
- Indicator LEDs on front: Blue for power, 16 red showing IR port activity and box status
- Connections on rear: RJ45 Ethernet socket, USB socket, 16 3.5mm jack IR output ports or 25-pin D-type connector for IR outputs

### IR Output Specifications

- Able to generate 16 typical different IR signals simultaneously
- Maximum IR throughput in excess of 80 IR signals per second (tested using a representative set of standard IR signals)
- Carrier frequency ranges:
  - 5KHz to 600KHz – up to eight non-adjacent ports simultaneously (above 300KHz only certain frequencies available)
  - 5KHz to 300KHz – up to 16 ports simultaneously
- Each IR output has an output power level setting of 0 (off) to 100
- Maximum IR LED current: 110mA for the standard IR emitter as supplied by RedRat Ltd



### **Self-Test Functionality**

- Can read voltage level on IR output power control DACs for all outputs
- Can read voltage level at IR LED cathode for all outputs

### **Approvals**

- RoHS compliant
- CE electromagnetic compliance to the following standards:
  - EN 55022: 2006, A1 Class B
  - EN 55024: 1998, A1, A2
    - EN 61000-4-2: 1995, A1, A2
    - EN 61000-4-3: 2006, A1
    - EN 61000-4-4: 2004
    - EN 61000-4-5: 2006
    - EN 61000-4-6: 2007
    - EN 61000-4-11: 2004
  - EN 61000-3-2:2006
- FCC compliant to the standard 47CFR Part 15B class B.