CENTRO 8M

Product Specification

Processing	Broadcom BCM2837B0, Cortex-A53 64-bit SoC @ 1.4GHz
Memory	1GB LPDDR2 SDRAM
Clock	Real Time Clock, astronomically aware
Networks	2.4GHz and 5GHz IEEE 802.11.b/g/n/ac Wireless LAN, Ethernet RJ45 Port 300 Mbps
Ports	Full-size HDMI, 4 USB 2.0 ports, stereo output, 3 x Infra Red Emitter 1 x Infra Red Receiver
System	Micro SD Card LINUX OS
Power	5v/2.5A DC plug top
Option extra cost	RS232 Port for bidirectional data

Product Information

Dimensions	Width x 61mm Height x 29mm Depth x 92mm
Weight	193gm
Packed Weight	510gm
Contents	Centro 8M, 3 x IR Emitter, 1 x IR Receiver, Power supply This leaflet

Safety Precautions

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons. If in doubt do not attempt to install this equipment yourself. Contact a trained professional to ensure safe use of this product.
Never spill liquid of any kind on or into this product. Do not expose to liquid or submerge in liquid or outdoors.
Never push an object of any kind into this product through any openings or empty slots in the unit as you may damage parts inside the unit or cause electrical problems.
To protect from overheating do not block any ventilation or openings in the housing of the unit that provide and allow for air circulation sufficient to keep it cool while in operation.

Use only the correct rated power supply as supplied.

Product Overview

IR Ports from Left = Out 1,2,3 IR In (Green)
The Centro-8M is a powerful processor for automation. It is designed to be used in conjunction with the Demopad software tools available for download at Demopad.com. There is a free to use Designer software and an upgrade to Pro version and CLOUD account.
The Centro-8M is capable of standalone applications such as control of equipment by IP network commands, Infra Red and (optional extra) RS232 port. Either directly from applications or by automated scheduled events.
It can also be a component in a wider network of complimentary equipment such as other Centro products and third party products such as Global Cache controllers.

The Centro-8M has an IR receiver port and this enables it receive any IR from any remote and respond by various means you configure. So any IR remote can be used as a universal remote.

FCC Statement
The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment in use generates and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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This product is a versatile computer with custom software to create a single unified App to control a Smarthome directly from the App and custom scheduled events.

CENTRO 8M

Initial Setup

Initial Setup
1. Connect the Centro-8M to Router or Network Switch via Ethernet cable (not supplied)
2. Power on the Centro by inserting the Power Supply
3. Browse to the Web Interface: https://centro8m.local :or use a network Discovery tool such as |FING to find its IP address and browse to it.
4. Login using the default Username: admin and Password: password

Above image shows connected RS232 port cable optional extra cost item.

Settings Menu
5. Change the password of the Centro by going to Settings > Change Password
6. Configure the Network Settings (Settings > Network) Set a static IP address and/or wireless network settings
7. Optional: Change the Device Name so that it's distinguishable if deploying multiple Centro-8M devices (Settings > Change Device Name)
More detailed instructions available here http://centro8m.docs.demopad.com/centro8m/initial-setup/

Use the web server settings menu to configure Network, Date and Time, Location, Automation (MACROS) enter a unique device Name, add audio and video files for playback, manage HDMI output, The optional accessory cable for RS232 to USB settings are configured here. The USB ports are 1 (top left) 2 (top right) 3 (bottom left) 4 (bottom right).

Modes of Operation

The Centro-8M is a powerful central processor to handle communication between smartphones and tablets running apps (app controllers). It can be configured to have all commands directed via the Centro-8M so that it can provide feedback. So if one app controller initiates an action, all other connected controllers are updated. Automated tasks are handled with MACROS. These contain a single or many actions, they can be processed almost simultaneously or with timed delays. So for example send a command to turn a TV on, wait several seconds for the TV to power on then change the channel or HDMI input etc.

The Centro-8M can be a gateway device in many IP control networks (wired and wireless) using its on board settings menu but its also capable of much more versatile uses when used in conjunction with the DemoDesigner software available for download from DemoPad.com.

Using the Centro-8M with other devices

The Centro-8M can be used as a component in a system. For example dumb gateway devices for passing IR commands can utilise the automatic schedules and timers to transform a simple control project into a fully automated system. It can link to a TEXECOM intruder alarm and for example action MACROS when the alarm is set, to turn off TV's, lighting control, climate control etc. (this requires a project being constructed in DemoDesigner software or other control software. It can be used with other Centro products such as a Centro-CM or Centro-C IP gateways to add additional IR emitters, RS232 ports and relays and digital trigger inputs etc.

The Centro-8M as a Universal Remote

With three IR emitter ports and a receiving IR port, commands from any IR remote control.can be intercepted and trigger actions. A typical use case is using a standard IR remote (e.g. SKY, Virgin TiVo etc) to send commands to the Centro-8M receiver bug connected to the green socket (one IR receiver cable supplied). In response to the received IR the Centro-8M can be configured to emit the same or different IR commands (this feature requires the DemoPad Designer software – register at DemoPad.com to download). To map what happens when certain buttons are pressed.