Intel Joule Module HTPC
Gumstix, Inc. shall have no liability of any kind, express or implied, arising out of the use of the Information in this document, including direct, indirect, special or consequential damages.

Gumstix, Inc. may have patents, patent applications, trademarks, copyrights, trade secrets or other intellectual property rights pertaining to Gumstix products described in this document (collectively “Gumstix Intellectual Property”).

Except as expressly provided in any written license or agreement from Gumstix, Inc., this document and the information contained therein does not create any license to Gumstix’s Intellectual Property.

The Information contained herein is subject to change without notice. Revisions may be issued regarding changes and/or additions.

Copyright © 2016, Gumstix, Inc. All rights reserved.
Board Description

Intel Joule Module Home Theatre PC

Board Dimensions

9.8cm x 3.5cm
1 Modules on Board

1.1 COM Connectors

1.1.1 Intel Joule Module Connector (v7) (1)

- VCC_5.0 from 5V/5A Regulator (3)
- VCC_36V from Barrel Connector (20V 3A) (4)

The Tesla connectors provide the following outputs:

- 3V3 to Green LED (7)
- SYS_EN to Green LED (7)
- VLOGIC to:
  - Native HDMI receptacle (2)
  - USB-UART (6)
- HDMI to Native HDMI receptacle (2)
- UART2_4W to USB-UART (6)

1.2 Monitors

1.2.1 Native HDMI receptacle (v8) (2)

The HDMI connector provides HDMI video and audio signals to an external display and speakers.

This displays high definition video for HDMI on Intel Joule Module Connector (1).
1.3 **Power**

1.3.1 **5V/5A Regulator (v3) (3)**

Takes 6 - 36V input from [Barrel Connector (20V 3A) (4)] and provides up to 5A at 5V to:

- Intel Joule Module Connector (1)
- Native HDMI receptacle (2)

1.4 **Power Connectors**

1.4.1 **Barrel Connector (20V 3A) (v2) (4)**

This power jack is compatible with Gumstix 20V/3A DC power adapter using a barrel connector.

This power jack provides 20V to the following modules:

- Intel Joule Module Connector (1)
- 5V/5A Regulator (3)

1.5 **USB**

1.5.1 **Micro-B Jack (v8) (5)**

A USB micro-B port allows your design to connect as a USB device to a USB host.

This module is connected to USB DEVICE on USB-UART (6).

1.6 **Connectivity**

1.6.1 **USB-UART (v14) (6)**

Also known as an FTDI, this USB to UART converter allows a USB connection to the board to behave as a virtual RS232 serial connection. It offers direct and complete access to the system from a development machine.

This USB to UART converter connects a host machine from Micro-B Jack (5) to UART2_4W on Intel Joule Module Connector (1).

1.7 **IO**

1.7.1 **Green LED (v13) (7)**

This 1608 standard size green LED provides an indicator for the signal SYS.EN on Intel Joule Module Connector (1).
1.8 Mechanical

1.8.1 Mounting Hole (2.2mm)
A #0 mounting hole for securing the board with mounting pins.

1.8.2 Mounting Hole (2.2mm)
A #0 mounting hole for securing the board with mounting pins.

1.8.3 Mounting Hole (2.2mm)
A #0 mounting hole for securing the board with mounting pins.

1.8.4 Mounting Hole (2.2mm)
A #0 mounting hole for securing the board with mounting pins.
2 Module Connections Graph

Figure 1: excludes power modules
3 Module Power Graph