

Expansion Connectors

The Odroid-c1 provides one 40-pin dual row expansion header “J2”. The location and pinout of these connectors is illustrated below.

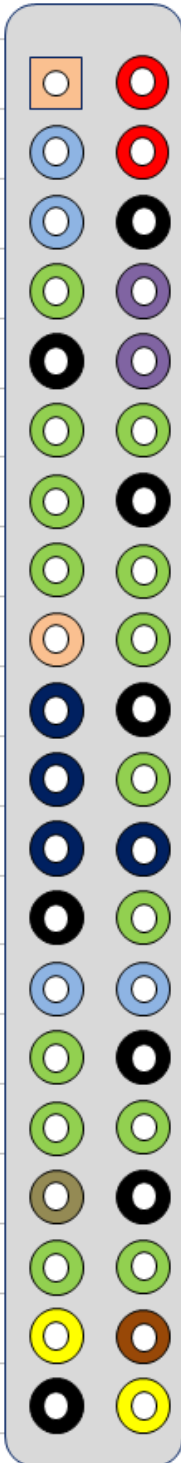
All signals on expansion headers are 3.3V except Analog input signal(1.8V).

Built-in pull-up/down resistor value is 60Kohm in the GPIOs.

J2 - 2x20 PINS

| GPIO | wPi | Name | Alternative/ Driving Capability | Mode | V | PU/PD | PIN | PIN | PU/PD | V | Mode | Alternative/ Driving Capability | Name | wPi | GPIO |
|------|-----|----------|---------------------------------------|------|---|-------|-----|-----|-------|---|------|---------------------------------------|----------|-----|------|
| - | - | 3.3V | - | - | - | - | 1 | 2 | - | - | - | - | 5.0V | - | - |
| 74 | - | I2CA_SDA | - | IN | 1 | - | 3 | 4 | - | - | - | - | 5.0V | - | - |
| 75 | - | I2CA_SCL | - | IN | 1 | - | 5 | 6 | - | - | - | - | GND | - | - |
| 83 | 7 | GPIOY.3 | -/2mA | IN | 0 | P/U | 7 | 8 | P/U | 1 | ALT1 | - | GPIOX.16 | - | 113 |
| - | - | GND | - | - | - | - | 9 | 10 | P/U | 1 | ALT1 | - | GPIOX.17 | - | 114 |
| 88 | 0 | GPIOY.8 | -/3mA | IN | 1 | P/U | 11 | 12 | P/U | 0 | IN | -/2mA | GPIOY.7 | 1 | 87 |
| 116 | 2 | GPIOX.19 | -/2mA | IN | 1 | P/U | 13 | 14 | - | - | - | - | GND | - | - |
| 115 | 3 | GPIOX.18 | -/2mA | IN | 0 | P/D | 15 | 16 | P/U | 1 | IN | -/3mA | GPIOX.7 | 4 | 104 |
| - | - | 3.3V | - | - | - | - | 17 | 18 | P/U | 1 | IN | -/3mA | GPIOX.5 | 5 | 102 |
| 107 | 12 | GPIOX.10 | PWM1/2mA | IN | 1 | P/U | 19 | 20 | - | - | - | - | GND | - | - |
| 106 | 13 | GPIOX.9 | -/3mA | IN | 1 | P/U | 21 | 22 | P/U | 1 | IN | -/3mA | GPIOX.6 | 6 | 103 |
| 105 | 14 | GPIOX.8 | -/4mA | IN | 1 | P/U | 23 | 24 | P/D | 0 | IN | -/2mA | GPIOX.20 | 10 | 117 |
| - | - | GND | - | - | - | - | 25 | 26 | P/U | 1 | IN | - | GPIOX.21 | 11 | 118 |
| 76 | - | I2CB_SDA | - | IN | 1 | - | 27 | 28 | - | 1 | IN | - | I2CB_SCL | - | 77 |
| 101 | 21 | GPIOX.4 | -/3mA | IN | 1 | P/U | 29 | 30 | - | - | - | - | GND | - | - |
| 100 | 22 | GPIOX.3 | -/3mA | IN | 1 | P/U | 31 | 32 | P/U | 1 | IN | -/3mA | GPIOX.2 | 26 | 99 |
| 108 | 23 | GPIOX.11 | PWM0/3mA | IN | 0 | P/D | 33 | 34 | - | - | - | - | GND | - | - |
| 97 | 24 | GPIOX.0 | -/3mA | IN | 1 | P/U | 35 | 36 | P/U | 1 | IN | -/3mA | GPIOX.1 | 27 | 98 |
| - | - | ADC.AIN0 | 10bit ADC#1(0~1.8V) | - | - | - | 37 | 38 | - | - | - | Output! | 1.8V REF | - | - |
| - | - | GND | - | - | - | - | 39 | 40 | - | - | - | 10bit ADC#0 (0~1.8V) | ADC.AIN1 | - | - |

ODROID C1/C1+ (J2 Header)

| <i>WiringPi GPIO#</i> | <i>NAME(GPIO#)</i> | |  | | <i>NAME(GPIO#)</i> | <i>WiringPi GPIO#</i> |
|---------------------------|--------------------|----|--|----|--------------------|---------------------------|
| | 3.3 V Power | 1 | | 2 | 5.0 V Power | |
| | I2CA_SDA (#74) | 3 | | 4 | 5,0 V Power | |
| | I2CA_SCL (#75) | 5 | | 6 | Ground | |
| 7 | GPIO (#83) | 7 | | 8 | TXD1 (#113) | |
| | Ground | 9 | | 10 | RXD1 (#114) | |
| 0 | GPIO (#88) | 11 | | 12 | GPIO (#87) | 1 |
| 2 | GPIO (#116) | 13 | | 14 | Ground | |
| 3 | GPIO (#115) | 15 | | 16 | GPIO (#104) | 4 |
| | 3.3V Power | 17 | | 18 | GPIO (#102) | 5 |
| 12 | MOSI_PWM1 (#107) | 19 | | 20 | Ground | |
| 13 | MISO (#106) | 21 | | 22 | GPIO (#103) | 6 |
| 14 | SPI_SCLK (#105) | 23 | | 24 | GPIO (#117) | 10 |
| | Ground | 25 | | 26 | GPIO (#118) | 11 |
| | I2CB_SDA (#76) | 27 | | 28 | I2CB_SCL (#77) | |
| 21 | GPIO (#101) | 29 | | 30 | Ground | |
| 22 | GPIO (#100) | 31 | | 32 | GPIO (#99) | 26 |
| 23 | PWM0 (#108) | 33 | | 34 | Ground | |
| 24 | GPIO (#97) | 35 | | 36 | GPIO (#98) | 27 |
| AIN1 | ADC.AIN1 (ADC#1) | 37 | | 38 | 1.8 V Power | |
| | Ground | 39 | | 40 | ADC.AIN0 (ADC#0) | AIN0 |

Attention! The WiringPi GPIO pin numbering used in this diagram is intended for use with WiringPi. The raw chipset GPIO pin numbering is "(#number)"

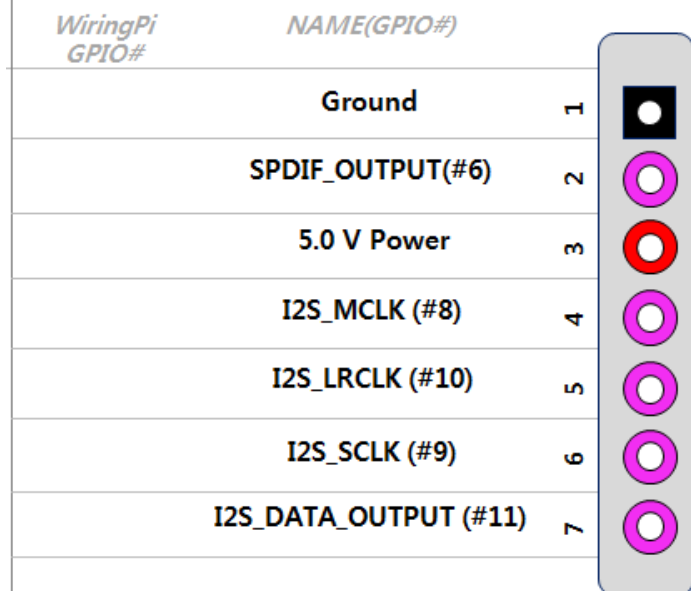
[Http://www.hardkernel.com](http://www.hardkernel.com)

J7 - 1x7 PINS

This I2S expansion connector exists only on the C1+

| GPIO | Name | Alternative/ Driving Capability | Mode | V | PU/PD | PIN |
|------|-----------|------------------------------------|------|---|-------|-----|
| - | GND | - | - | - | - | 1 |
| 6 | GPIOAO.6 | I2S Data Input/2mA | IN | 0 | - | 2 |
| - | 5.0V | - | - | - | - | 3 |
| 8 | GPIOAO.8 | I2S MCLK/2mA | ALT2 | 0 | P/U | 4 |
| 10 | GPIOAO.10 | I2S LRCLK/2mA | ALT2 | 0 | P/U | 5 |
| 9 | GPIOAO.9 | I2S SCLK/2mA | ALT2 | 0 | P/U | 6 |
| 11 | GPIOAO.11 | I2S Data output/2mA | ALT2 | 0 | P/U | 7 |

ODROID C1+ (J7 Header)



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[Http://www.hardkernel.com](http://www.hardkernel.com)

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