# NetDCUA5 GPIO Reference Card V1.0 23.02.2014

**Pin Layout for Board Rev. 1.10**

**I/O-Connector J5**

| J5 | Function | Device | GPIO | Mode | /sys/class/gpio/gpio# | SKIT |
|---|---|---|---|---|---|---|
| 1 | EINT | GPIO | PTB18 | IO | 40 | J15_1 |
| 2 | ROW7 | KEYBD | PTA12 | IO | 5 | J15_2 |
| 3 | ROW6 | KEYBD | PTA11 | IO | 4 | J15_3 |
| 4 | ROW5 | KEYBD | PTA10 | IO | 3 | J15_4 |
| 5 | ROW4 | KEYBD | PTA9 | IO | 2 | J15_5 |
| 6 | ROW3 | KEYBD | PTA8 | IO | 1 | J15_6 |
| 7 | ROW2 | KEYBD | PTD26 | IO | 68 | J15_7 |
| 8 | ROW1 | KEYBD | PTD25 | IO | 69 | J15_8 |
| 9 | ROW0 | KEYBD | PTD24 | IO | 70 | J15_9 |
| 10 | SPI_MISO / COL8 / I2C_SDA | SPI / KEYBD / I2C | PTB20 / PTB20 / PTD27 | IO / IO / IO | 42 / 42 / 67 | J15_10 |
| 11 | SPI_MOSI / COL9 / I2C_SCL | SPI / KEYBD / I2C | PTB21 / PTB21 / PTD28 | IO / IO / IO | 43 / 43 / 66 | J15_11 |
| 12 | UART_B_RXD(2) | UART | PTD1 | I (IO) | 80 | J1F_B_2 |
| 13 | SPI_CS0 / COL10 | SPI / KEYBD | PTB19 | IO / IO | 41 | J15_13 |
| 14 | UART_B_TXD(1) | UART | PTD0 | O (IO) | 79 | J1F_B_3 |
| 15 | SPI_CLK / COL11 | SPI / KEYBD | PTB22 | IO / IO | 44 | J15_15 |
| 16 | GND | | | | | J15_16 |
| 17 | COL7 | KEYBD | PTD31 | IO | 63 | J15_17 |
| 18 | COL6 | KEYBD | PTD30 | IO | 64 | J15_18 |
| 19 | COL5 | KEYBD | PTD29 | IO | 65 | J15_19 |
| 20 | COL4 | KEYBD | PTD6 | IO | 85 | J15_20 |
| 21 | COL3 | KEYBD | PTD5 | IO | 84 | J15_21 |
| 22 | COL2 | KEYBD | PTD4 | IO | 83 | J15_22 |
| 23 | COL1 | KEYBD | PTD3 | IO | 82 | J15_23 |
| 24 | COL0 | KEYBD | PTD2 | IO | 81 | J15_24 |
| 25 | V5 | | | | | J15_25 |
| 26 | V3.3 | | | | | J15_26 |

(1) If the RS232 level shifter is mounted, this pin can theoretically be used as General Purpose Output only and carries RS232 level then; if the level shifter is not mounted, it can be Input and Output and uses 3.3V level

(2) If the RS232 level shifter is mounted, this pin can theoretically be used as General Purpose Input only and expects RS232 level then; if the level shifter is not mounted, it can be Input and Output and uses 3.3V level

**Power/Serial Connector**

| J1 | Function | Device | GPIO | Mode | /sys/class/gpio/gpio# | SKIT |
|---|---|---|---|---|---|---|
| 1 | ETH_A_RX+ | ETH | | | | J1B_3 |
| 2 | ETH_A_RX- | ETH | | | | J1B_5 |
| 3 | UART_A_RTS(1) | UART | PTB6 | O (IO) | 28 | J1F_A_7 |
| 4 | UART_A_RXD(2) | UART | PTB5 | I (IO) | 27 | J1F_A_2 |
| 5 | UART_A_CTS(2) | UART | PTB7 | I (IO) | 29 | J1F_A_8 |
| 6 | UART_A_TXD(1) | UART | PTB4 | O (IO) | 26 | J1F_A_3 |
| 7 | ETH_A_TX+ | ETH | | | | J1B_1 |
| 8 | ETH_A_TX- | ETH | | | | J1B_2 |
| 9 | V5 (output) | | | | | |
| 10 | GND | | | | | |
| 11 | CAN_A_TX(3) | CAN | PTB15 | IO | 37 | J1D_3/4 |
| 12 | CAN_A_RX(3) | CAN | PTB14 | IO | 36 | J1D_3/4 |
| 13 | CAN_B_TX(3) | CAN | PTB17 | IO | 39 | J1E_3/4 |
| 14 | CAN_B_RX(3) | CAN | PTB16 | IO | 38 | J1E_3/4 |
| 15 | ETH_B_RX+ | ETH | | | | J1C_3 |
| 16 | ETH_B_RX- | ETH | | | | J1C_5 |
| 17 | ETH_B_TX+ | ETH | | | | J1C_1 |
| 18 | ETH_B_TX- | ETH | | | | J1C_2 |
| 19 | VCFL (input) | | | | | J1A_1 |
| 20 | - | | | | | |
| 21 | V5 (input) | | | | | J1A_2 |
| 22 | V5 (input) | | | | | J1A_2 |
| 23 | VBAT (input) | | | | | J1A_3 |
| 24 | - | | | | | |
| 25 | GND | | | | | J1A_4 |
| 26 | GND | | | | | J1A_4 |

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(2) If the RS232 level shifter is mounted, this pin can theoretically be used as General Purpose Input only and expects RS232 level then; if the level shifter is not mounted, it can be Input and Output and uses 3.3V level

(3) Pin has internal level shifter and uses 5V level!