

| Arduino Due |          |         |              | EEZ Arduino shield+BP r3B4 |             |  |
|-------------|----------|---------|--------------|----------------------------|-------------|--|
| #           | Pin name | Pin no. | IDE pin name | Pin name                   | Type        | Description  |
| 1           | PE0      | 2       | 0            | –                          | –           | –  |
| 2           | PE1      | 3       | 1            | –                          | –           | –  |
| 3           | PE4      | 6       | 2            | TOUCH_IRQ                  | Digital in  | Touch screen interrupt request   |
| 4           | PE5      | 7       | 3            | TOUCH_DOUT                 | Digital in  | Touch screen data out  |
| 5           | PG5      | 1       | 4            | WIFI_CE                    | Digital out | WIFI module Rx/Tx select (optional)                                    |
| 6           | PE3      | 5       | 5            | WATCHDOG                   | PWM 8-bit   | <a href="#">TPS3705-33</a> reset supervisor watch-dog input (optional) |
| 7           | PH3      | 15      | 6            | FAN_PWM                    | PWM 8-bit   | FAN speed control  |
| 8           | PH4      | 16      | 7            | LCD_BRIGHTNESS             | PWM 8-bit   | LCD background control (0=max. brightness)                             |
| 9           | PH5      | 17      | 8            | RTC_SELECT                 | Digital out | <a href="#">PCA21125</a> RTC chip select                               |
| 10          | PH6      | 18      | 9            | BP_SELECT                  | Digital out | TLC5925 16-output driver select  |
| 11          | PB4      | 23      | 10           | BP_OE                      | Digital out | <a href="#">TLC5925</a> 16-output driver output enable                 |
| 12          | PB5      | 24      | 11           | ETH_SELECT                 | Digital out | <a href="#">W5500</a> Ethernet chip select                             |
| 13          | PB6      | 25      | 12           | BUZZER                     | PWM 8-bit   | Buzzer   |
| 14          | PB7      | 26      | 13           | FAN_SENSE                  | Digital in  | Fan tachometric signal for 3-wire fan                                  |
| 15          | PJ1      | 64      | 14           | ISOLATOR1_EN               | Digital out | Ch#1 Data out (MISO) enable  |
| 16          | PJ0      | 63      | 15           | ADC1_SELECT                | Digital out | Ch#1 <a href="#">ADS1120</a> ADC chip select                           |
| 17          | PH1      | 13      | 16           | DAC1_SELECT                | Digital out | Ch#1 <a href="#">DAC8552</a> DAC chip select                           |
| 18          | PH0      | 12      | 17           | IO_EXPANDER1               | Digital out | Ch#1 <a href="#">MCP23S08</a> 8-bit expander chip select               |
| 19          | PD3      | 46      | 18           | ETH_IRQ                    | Digital in  | W5500 Ethernet interrupt request                                       |
| 20          | PD2      | 45      | 19           | RTC_IRQ                    | Digital in  | PCA21125 RTC interrupt request   |
| 21          | PD1      | 44      | 20           | CONVEND2                   | Digital in  | Ch#2 DRDY/Interrupt  |
| 22          | PD0      | 43      | 21           | CONVEND1                   | Digital in  | Ch#1 DRDY/Interrupt  |
| 23          | PA0      | 78      | 22           | LCD_DB8                    | Digital out | LCD Data I/O 8   |
| 24          | PA1      | 77      | 23           | LCD_DB9                    | Digital out | LCD Data I/O 9   |
| 25          | PA2      | 76      | 24           | LCD_DB10                   | Digital out | LCD Data I/O 10  |
| 26          | PA3      | 75      | 25           | LCD_DB11                   | Digital out | LCD Data I/O 11  |
| 27          | PA4      | 74      | 26           | LCD_DB12                   | Digital out | LCD Data I/O 12  |
| 28          | PA5      | 73      | 27           | LCD_DB13                   | Digital out | LCD Data I/O 13  |
| 29          | PA6      | 72      | 28           | LCD_DB14                   | Digital out | LCD Data I/O 14  |
| 30          | PA7      | 71      | 29           | LCD_DB15                   | Digital out | LCD Data I/O 15  |
| 31          | PC7      | 60      | 30           | LCD_DB7                    | Digital out | LCD Data I/O 7   |
| 32          | PC6      | 59      | 31           | LCD_DB6                    | Digital out | LCD Data I/O 6   |
| 33          | PC5      | 58      | 32           | LCD_DB5                    | Digital out | LCD Data I/O 5   |
| 34          | PC4      | 57      | 33           | LCD_DB4                    | Digital out | LCD Data I/O 4   |
| 35          | PC3      | 56      | 34           | LCD_DB3                    | Digital out | LCD Data I/O 3   |
| 36          | PC2      | 55      | 35           | LCD_DB2                    | Digital out | LCD Data I/O 2   |
| 37          | PC1      | 54      | 36           | LCD_DB1                    | Digital out | LCD Data I/O 1   |

|    |     |    |            |               |             |   |
|----|-----|----|------------|---------------|-------------|---|
| 38 | PC0 | 53 | 37         | LCD_DB0       | Digital out | LCD Data I/O 0                              |
| 39 | PD7 | 50 | 38         | LCD_RESET     | Digital out | LCD register select                         |
| 40 | PG2 | 70 | 39         | LCD_CS        | Digital out | LCD write                                   |
| 41 | PG1 | 52 | 40         | LCD_WR        | Digital out | LCD select                                  |
| 42 | PG0 | 51 | 41         | LCD_RS        | Digital out | LCD reset                                   |
| 43 | PL7 | 42 | 42         | TOUCH_DIN     | Digital in  | Touch screen data in (not used with HW SPI) |
| 44 | PL6 | 41 | 43         | TOUCH_CS      | Digital out | Touch screen select (not used with HW SPI)  |
| 45 | PL5 | 40 | 44         | TOUCH_SCLK    | Digital out | Touch screen clock (not used with HW SPI)   |
| 46 | PL4 | 39 | 45         | ISOLATOR2_EN  | Digital out | Ch#2 Data out (MISO) enable                 |
| 47 | PL3 | 38 | 46         | IO_EXPANDER2  | Digital out | Ch#2 MCP23S08 8-bit expander chip select    |
| 48 | PL2 | 37 | 47         | DAC2_SELECT   | Digital out | Ch#2 DAC8552 DAC chip select                |
| 49 | PL1 | 36 | 48         | ADC2_SELECT   | Digital out | Ch#2 ADS1120 ADC chip select                |
| 50 | PL0 | 35 | 49         | EEPROM_SELECT | Digital out | External <a href="#">EEPROM</a> chip select |
| 51 | PB3 | 22 | 50         | MISO          | Digital in  | SPI MISO signal                             |
| 52 | PB2 | 21 | 51         | MOSI          | Digital out | SPI MOSI signal                             |
| 53 | PB1 | 20 | 52         | SCLK          | Digital out | SPI SCLK signal                             |
| 54 | PB0 | 19 | 53         | LCSDS_CS      | Digital out | LCD SD-card select                          |
| 55 | PF0 | 97 | 54 (A0)    | TEMP_ANALOG   | Analog in   | Main transformer NTC temperature sensor     |
| 56 | PF1 | 96 | 55 (A1)    | PWR_DIRECT    | Digital out | AC power direct triac control               |
| 57 | PF2 | 95 | 56 (A2)    | PWR_SSTART    | Digital out | AC power soft-start triac control           |
| 58 | PF3 | 94 | 57 (A3)    | –             | –           | –   |
| 59 | PF4 | 93 | 58 (A4)    | BATT_NTC      | Digital in  | Opto-isolated V/F converter for Battery NTC |
| 60 | PF5 | 92 | 59 (A5)    | NTC1          | Analog in   | Ch#1 NTC temperature sensor                 |
| 61 | PF6 | 91 | 60 (A6)    | NTC2          | Analog in   | Ch#2 NTC temperature sensor                 |
| 62 | PF7 | 90 | 61 (A7)    | EXT_TRIG      | Digital in  | External digital trigger input (3.3 or 5 V) |
| 63 | PK0 | 89 | 62 (A8)    | ENC_A         | Digital in  | Rotary encoder channel A (optional)         |
| 64 | PK1 | 88 | 63 (A9)    | ENC_B         | Digital in  | Rotary encoder channel B (optional)         |
| 65 | PK2 | 87 | 64 (A10)   | –             | –           | –   |
| 66 | PK3 | 86 | 65 (A11)   | –             | –           | –   |
| 67 | PK4 | 85 | 66 (DAC0)  | –             | –           | –   |
| 68 | PK5 | 84 | 67 (DAC1)  | PWD_RST       | Digital in  | Secure code reset                           |
| 69 | PK6 | 83 | 68 (CANRX) | –             | –           | –   |
| 70 | PK7 | 82 | 69 (CANTX) | –             | –           | –   |
| 71 | PD0 | 43 | –          | –             | –           | –   |
| 72 | PD1 | 44 | –          | –             | –           | –   |