|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Header** | **KL46 pin** | **Arduino compatibility** | **Pin #** | **Pin #** | **KL46 pin** | **Arduino compatibility** |
|  | PTA1 | D0/RX/int | 2 | 1 | PTB18 | I2S\_TX\_BCLK |
|  | PTA2 | D1/TX/int | 4 | 3 | PTB19 | I2S\_TX\_FS |
|  | PTD3 | D2/int | 6 | 5 | PTC0 | I2S\_TXD |
|  | PTA12 | D3/PWM/int | 8 | 7 | PTC4 | I2S\_MCLK |
| **J1** | PTA4 | D4/int | 10 | 9 | PTC6 | I2S\_RX\_BCLK |
|  | PTA5 | D5/PWM/int | 12 | 11 | PTC7 | SOF\_OUT |
|  | PTC8 | D6/PWM/CMP/int | 14 | 13 | PTC10 | I2S\_RX\_FS |
|  | PTC9 | D7/CMP/int | 16 | 15 | PTC11 | I2S\_RXD |
|  | PTA13 | D8/InputCapture/int | 2 | 1 | PTC13 |  |
|  | PTD2 | D9/PWM/int | 4 | 3 | PTC16 |  |
|  | PTD4 | D10/SPI\_SS/PWM/int | 6 | 5 | PTA7 |  |
|  | PTD6 | D11/MOSI/int | 8 | 7 | PTA6 |  |
| **J2** | PTD7 | D12/MISO/int | 10 | 9 | PTA14 |  |
|  | PTD5 | D13/SCK/LED/int | 12 | 11 | PTA15 |  |
|  | ------------ | GND | 14 | 13 | PTA16 |  |
|  | ------------ | AREF | 16 | 15 | PTA17 |  |
|  | PTE0 | D14/SDA/Ana | 18 | 17 | PTB9 |  |
|  | PTE1 | D15/SCL/Ana | 20 | 19 |  |  |
|  | P5-9V | P5-9V | 16 | 15 | PTE2 |  |
|  | GND | GND | 14 | 13 | PTE3 |  |
| **J3** | GND | GND | 12 | 11 | PTE6 |  |
|  | P5V\_USB | P5V\_USB | 10 | 9 | PTE16 |  |
|  | P3V3 | P3V3 | 8 | 7 | PTE17 |  |
|  | RST | RESET\_TGTMCU | 6 | 5 | PTE18 |  |
|  | P3V3 | P3V3 | 4 | 3 | PTE19 |  |
|  | SDA-PTD5 | SDA-PTD5 | 2 | 1 | PTE31 |  |
|  | PTC1 | A5/SCL/int | 12 | 11 | PTE30 | DAC\_OUT |
|  | PTC2 | A4/SDA/int | 10 | 9 | PTB20 | CMP\_OUT |
| **J4** | PTB3 | A3 | 8 | 7 | PTE23 | DIFF\_ADC1\_DM |
|  | PTB2 | A2 | 6 | 5 | PTE22 | DIFF\_ADC1\_DP |
|  | PTB1 | A1 | 4 | 3 | PTE21 | DIFF\_ADC0\_DM |
|  | PTB0 | A0 | 2 | 1 | PTE20 | DIFF\_ADC0\_DP |

FRDM-KL46 PIN Laid out of

General information about FRDM-KL46z’s Ports

|  |  |  |  |
| --- | --- | --- | --- |
| Number of Pin | Name of PIN | Number of Pin |  |
| 2 | USB | 6 | PWM *Pulse Width Modulation* |
| 2 | SPI *Serial Peripheral Interface* | 6 | ADC *Analog-to-Digital* |
| 2 | I2C *Inter-Integrated Circuit* | 1 | DAC 6-Bit *Digital to Analog* |
| 1 | I2S *Inter-IC Sound* | 1 | DAC 12Bit *Digital to Analog* |
| 3 | UART *Universal Asynchronous receiver-transmitter* | 84 | GPIO *General Purpose Input/Output* |

Click Mikro BUS’PIN laid out

|  |  |  |  |
| --- | --- | --- | --- |
| **PIN function** | **PIN iD** | **PIN iD** | **PIN Function** |
| Analog | AN | PWM | PWN output |
| Reset | EST | INT | Hardware Interrupt |
| SPI chip Select | CS | RX | UART Receive |
| SPI Clock | SCK | TX | UART Transmit |
| SPI  Master input  Slave output | MISO | SCL | I2C clock |
| SPI  Master output  Slave input | MOSI | SDA | I2c data |
| VCC – 3.3V Power | +3.3V | +5V | VCC – 5V Power |
| Reference Ground | GND | GND | Reference Ground |

General information about Click Mikro Bus Ports

|  |  |
| --- | --- |
| **Pin Groups** | **PIN names** |
| Communication Pins | SPI, UART, I2C |
| Additional Pins | PWM, Interrupt, Analog input, Reset, Chip Select |
| Power Pins | +3.3V, +5V |