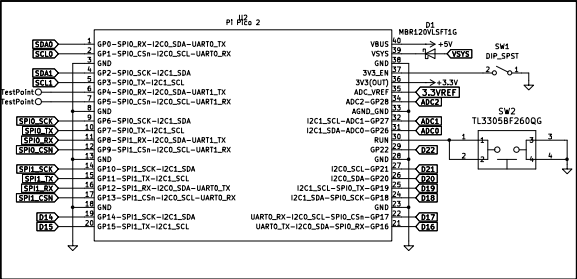# PI PICO

Operation = power Pico through 3V3 pin directly Resistor_SMD:R_0805_2012Metric_Pad1.20x1.40mm_HandSolder
disables buck/boost). Under USB debugging open SW1 to allow USB to power the 3.3V peripherals.

Mount Holes

MTH1 MountingHole
MTH2 MountingHole
MTH3 MountingHole
MTH4 MountingHole

PI Pico 2

J2

SDA0 1 GP0-SPI0_RX-I2C0_SDA-UART0_TX
SCL0 2 GP1-SPI0_CSn-I2C0_SCL-UART0_RX
      3 GND
SDA1 4 GP2-SPI0_SCK-I2C1_SDA
SCL1 5 GP3-SPI0_TX-I2C1_SCL
TP1 TestPoint 6 GP4-SPI0_RX-I2C0_SDA-UART1_TX
TP2 TestPoint 7 GP5-SPI0_CSn-I2C0_SCL-UART1_RX
      8 GND
SPI0_SCK 9 GP6-SPI0_SCK-I2C1_SDA
SPI0_TX 10 GP7-SPI0_TX-I2C1_SCL
SPI0_RX 11 GP8-SPI1_RX-I2C0_SDA-UART1_TX
SPI0_CSN 12 GP9-SPI1_CSn-I2C0_SCL-UART1_RX
      13 GND
SPI1_SCK 14 GP10-SPI1_SCK-I2C1_SDA
SPI1_TX 15 GP11-SPI1_TX-I2C1_SCL
SPI1_RX 16 GP12-SPI1_RX-I2C0_SDA-UART0_TX
SPI1_CSN 17 GP13-SPI1_CSn-I2C0_SCL-UART0_RX
      18 GND
D14 19 GP14-SPI1_SCK-I2C1_SDA
D15 20 GP15-SPI1_TX-I2C1_SCL

VBUS 40
VSYS 39
GND 38
3V3_EN 37
3V3(OUT) 36
ADC_VREF 35
ADC2-GP28 34
AGND_GND 33
I2C0_SCL-ADC1-GP27 32
I2C1_SDA-ADC0-GP26 31
RUN 30
GP22 29
I2C0_SCL-GP21 28
I2C0_SDA-GP20 27
I2C1_SCL-SPI0_TX-GP19 26
I2C1_SDA-SPI0_SCK-GP18 25
GND 24
UART0_RX-I2C0_SCL-SPI0_CSn-GP17 23
UART0_TX-I2C0_SDA-SPI0_RX-GP16 22

D1 MBR120VLSFT1G
+5V VSYS
+3.3V 3.3VREF
ADC2 ADC1 ADC0
D22 D21 D20 D19 D18 D17 D16

SW1 DIP_SPST

SW2 TL3305BF260QG

I2C/SPI Circuitry

+3.3V R4 4.7k SCL0
+3.3V R3 4.7k SDA0
+3.3V R2 4.7k SCL1
+3.3V R1 4.7k SDA1

+5V R5 1.8k 3.3VREF
C3 1uF U1 LM4040D33

+3.3V C1 1uF C5 10uF

I/O, Test Points

J13 Header 14 pin

D14 14
D15 13 J1 5012
D16 12 J2 5012
D17 11 J3 5012
D18 10 J4 5012
D19 9 J5 5012
D20 8 J6 5012
D21 7 J7 5012
D22 6 J8 5012
      5 J9 5012
ADC0 4 J10 5127
ADC1 3 J11 5127
ADC2 2 J12 5127
      1

+3.3V J22 5010   +5V J24 5010   VSYS J26 5010
J23 5011   J25 5011   J27 5011

J14 Conn_I2C_2x2_2.54mm
SCL0 1 SCL GND 2
SDA0 3 SDA GND 4

J15 Conn_I2C_2x2_2.54mm
SCL0 1 SCL GND 2
SDA0 3 SDA GND 4

J16 Conn_I2C_2x2_2.54mm
SCL1 1 SCL GND 2
SDA1 3 SDA GND 4

J17 Conn_I2C_2x2_2.54mm
SCL1 1 SCL GND 2
SDA1 3 SDA GND 4

J18 Conn_SPI_2x4_2.54mm
SPI0_CSN 1 CS GND 2
SPI0_TX 3 MOSI GND 4
SPI0_RX 5 MISO GND 6
SPI0_SCK 7 SCLK GND 8

J19 Conn_SPI_2x4_2.54mm
SPI0_CSN 1 CS GND 2
SPI0_TX 3 MOSI GND 4
SPI0_RX 5 MISO GND 6
SPI0_SCK 7 SCLK GND 8

J20 Conn_SPI_2x4_2.54mm
SPI1_CSN 1 CS GND 2
SPI1_TX 3 MOSI GND 4
SPI1_RX 5 MISO GND 6
SPI1_SCK 7 SCLK GND 8

J21 Conn_SPI_2x4_2.54mm
SPI1_CSN 1 CS GND 2
SPI1_TX 3 MOSI GND 4
SPI1_RX 5 MISO GND 6
SPI1_SCK 7 SCLK GND 8

+3.3V C4 1uF

J32 Header 1x2 J28 5127 J29 5011
J33 Header 1x2 J30 5127 J31 5011

U4 MCP48FVBXX

3.3VREF C2 1uF
3 VREF Vdd
2 CS LATCH 6
9 SCK
SPI1_CSN
SPI1_SCK
SPI1_TX
SPI1_RX
10 SDI
SDO
VOUT1 3
VOUT2 5
Vss 7