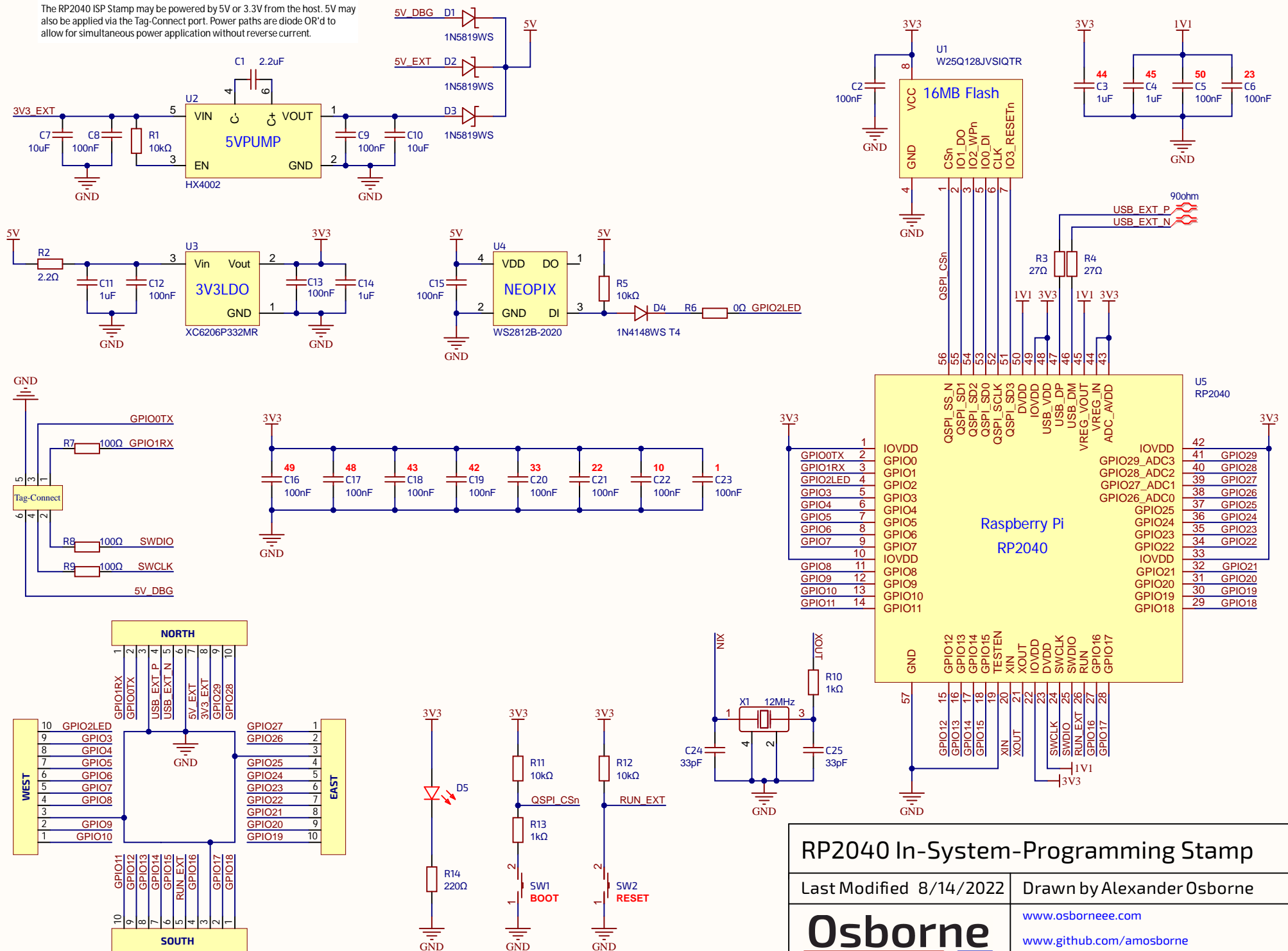


The RP2040 ISP Stamp may be powered by 5V or 3.3V from the host. 5V may also be applied via the Tag-Connect port. Power paths are diode OR'd to allow for simultaneous power application without reverse current.



RP2040 In-System-Programming Stamp

Last Modified 8/14/2022

Drawn by Alexander Osborne

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Designator	BOM_ILCPCB Part Class	BOM_Supplier Part	BOM_Manufacturer Part	Description	Quantity
C1	Basic Part	C23630	CL10A225K08NNNC	16V 2.2uF X5R ±10% 0603 Multilayer Ceramic Capacitors MLCC - SMD/SMT ROHS	1
C2, C5, C6, C8, C9, C12, C13, C15, C16, C17, C18, C19, C20, C21, C22, C23	Basic Part	C1525	CL05B104K05NNNC	16V 100nF X7R ±10% 0402 Multilayer Ceramic Capacitors MLCC - SMD/SMT ROHS	16
C3, C4, C11, C14	Basic Part	C52923	CL05A105KA5NQNC	25V 1uF X5R ±10% 0402 Multilayer Ceramic Capacitors MLCC - SMD/SMT ROHS	4
C7, C10	Basic Part	C96446	CL10A106MA8NRNC	X5R 25V ±20% 10uF 0603 Multilayer Ceramic Capacitors MLCC - SMD/SMT ROHS	2
C24, C25	Basic Part	C1562	0402CG330J500NT	50V 33pF C0G ±5% 0402 Multilayer Ceramic Capacitors MLCC - SMD/SMT ROHS	2
D1, D2, D3	Basic Part	C191023	1N5819WS	40V 600mV@1A 1A SOD-323 Schottky Barrier Diodes (SBD) ROHS	3
D4	Basic Part	C2128	1N4148WS T4	100V -150°C@(Tj) 200mW Single 1.25V@150mA 4ns 1µA@75V 150mA SOD-323 Switching Diode ROHS	1
D5	Basic Part	C72043	19-217/GHC-YR1S2/3T	20mA 285mcd 3.3V 518nm Colorless transparency - 40°C--85°C 520nm-535nm Emerald 120° 110mW 0603 Light Emitting Diodes (LED) ROHS	1
R1, R5, R11, R12	Basic Part	C25744	0402WGF1002TCE	1/16W Thick Film Resistors 50V ±1% ±100ppm/°C -55°C--155°C 10kΩ 0402 Chip Resistor - Surface Mount ROHS	4
R2	Basic Part	C22939	0603WAF220KT5E	1/10W Thick Film Resistors 75V ±1% ±400ppm/°C -55°C--155°C 2.2k 0603 Chip Resistor - Surface Mount ROHS	1
R3, R4	Basic Part	C25190	0603WAF270JT5E	1/10W Thick Film Resistors 75V ±1% ±200ppm/°C -55°C--155°C 27k 0603 Chip Resistor - Surface Mount ROHS	2
R6	Basic Part	C17477	0805W8F0000T5E	125mW Thick Film Resistors 150V ±1% ±800ppm/°C - 55°C--155°C 0mΩ 0805 Chip Resistor - Surface Mount ROHS	1
R7, R8, R9	Basic Part	C25076	0402WGF1000TCE	1/16W Thick Film Resistors 50V ±1% ±200ppm/°C -55°C--155°C 100k 0402 Chip Resistor - Surface Mount ROHS	3
R10, R13	Basic Part	C11702	0402WGF1001TCE	1/16W Thick Film Resistors 50V ±1% ±100ppm/°C -55°C--155°C 1kΩ 0402 Chip Resistor - Surface Mount ROHS	2
R14	Basic Part	C25091	0402WGF2200TCE	1/16W Thick Film Resistors 50V ±1% ±100ppm/°C -55°C--155°C 220k 0402 Chip Resistor - Surface Mount ROHS	1
U1	Basic Part	C97521	W25Q128JVSQTR	SOIC-8_208mil NOR FLASH ROHS	1
U3	Basic Part	C5446	XC6206P332MR	200mA 680mV@(100mA) Fixed 3.3V-3.3V Positive 1.6V SOT-23- 3L Linear Voltage Regulators (LDO) ROHS	1
X1	Basic Part	C9002	X322512MSB4SI	12MHz SMD Crystal Resonator 20pF ±10ppm ±30ppm - 40°C--85°C SMD3225-4P Crystals ROHS	1
SW1, SW2	Extended Part	C231329	B3U-1000P	2.5mm 1.6mm Round Button 50mA Brick nogging 3mm SPST 12V SMD, 3x2.5x1.6mm Tactile Switches ROHS	2
U2	Extended Part	C172354	HX4002	NO Charge pump 1.5V 2.7V-5.5V 250mA 1.2MHz SOT- 23-6 DC-DC Converters ROHS	1
U4	Extended Part	C965555	WS2812B-2020	5mA 5.3V -25°C--85°C RGB SMD, 2x2mm Light Emitting Diodes (LED) ROHS	1
U5	Extended Part	C2040	RP2040	ARM Cortex-M0 1@x4ch/12bit USB Host/Device 2.264KB 2 133MHz 30 2 QFN-56(7x7) Microcontroller Units (MCUs/MPUs/SOCs) ROHS	1