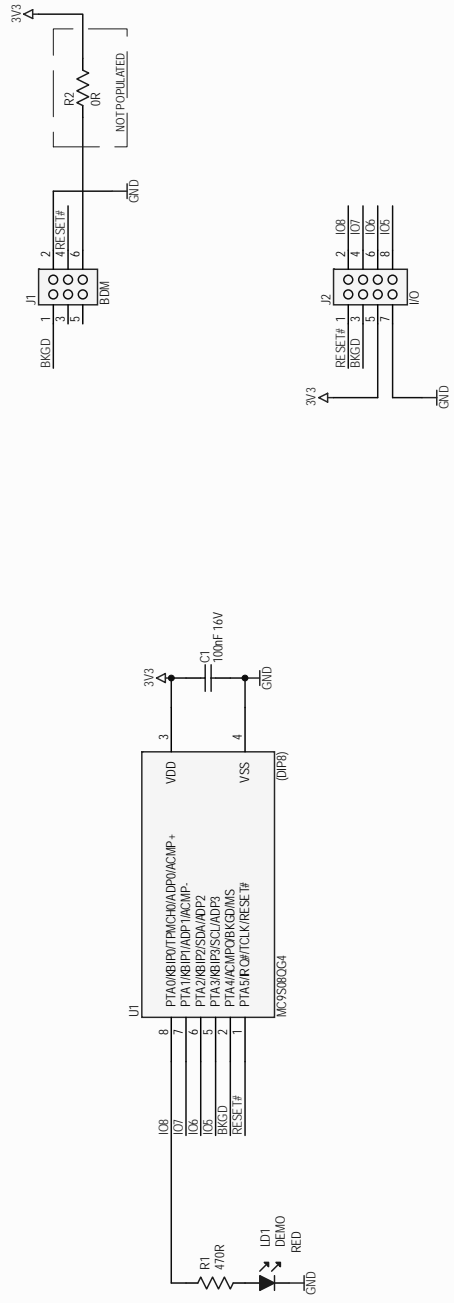
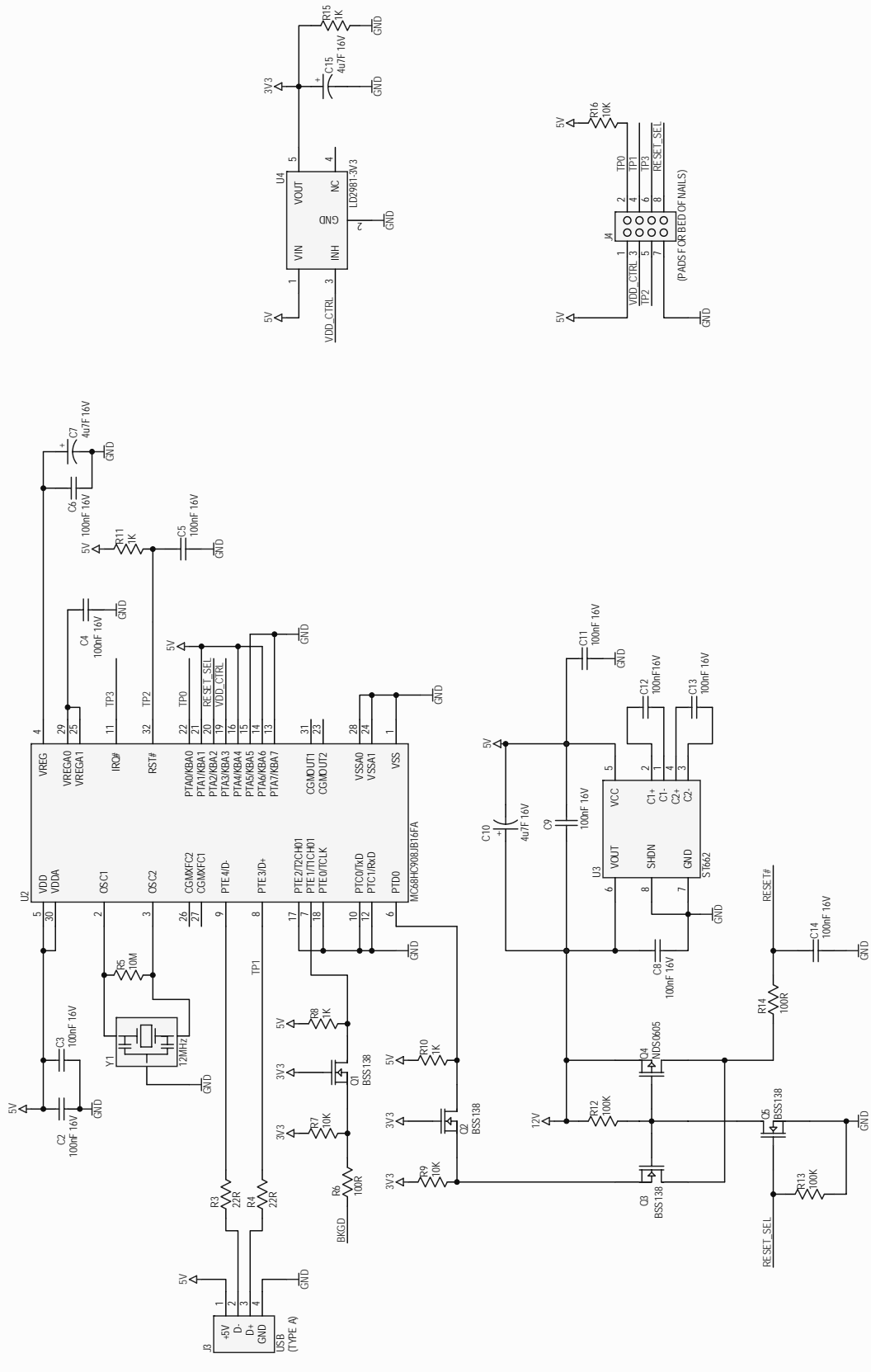


USBSPYDER08

Schematic and Bill of Material





USBSPYDER08 Bill of Material

| Qty | Description | Ref. Designators | Vendor Part# |
|----------------------------|--|--|-------------------------------------|
| Capacitors | | | |
| 12 | Ceramic Capacitor 100nF +-20% Y5V 16V 0402 | C01, C02, C03, C04, C05, C06, C08, C09, C11, C12, C13, C14 | Walsin, 0402F104M160CT |
| 3 | Tantalum Capacitor 4,7uF/16V Size A | C07, C10, C15 | NIC Components, NTC-T475M16TRAF |
| Connectors | | | |
| 1 | Box Header Connector 6 way male 90° solder pitch 2,54mm | J1 | Coxoc, 302A-06PGAR003 |
| 1 | Header Connector 4x2 pin male gold straight 6mm pitch 2,54mm | J2 | Coxoc, 307A-080GBSAA3 |
| 1 | USB Connector Male Type A 90° 4-pin | J3 | Coxoc, 317A-04MSA2001 |
| Crystals | | | |
| 1 | SMD Crystal 12Mhz - SMD 3-pin | Y1 | Murata, CSTCE12M0G52-R0 |
| Integrated Circuits | | | |
| 1 | IC DC-DC Converter ST662 SOIC8 | U3 | STMicroelectronics, ST662ACD |
| 1 | IC Microcontroller MC68HC908JB16FA LQFP32 | U2 | Freescale, MC68HC908JB16FA |
| 1 | IC Microcontroller MC9S08QG4CPA DIP8 | | Freescale, MC9S08QG4CPAE |
| 1 | IC Voltage Regulator 3V3 100mA SOT23-5 | U4 | STMicroelectronics, LD2981ABM33TR |
| LEDs | | | |
| 1 | SMD LED Red low current 0603 | LD1 | Agilent Technologies, HSMH-C190 |
| Resistors | | | |
| 2 | SMD Resistor 100K 1% 0402 | R12, R13 | Kamaya, RMC1/16SK104FTH |
| 2 | SMD Resistor 100R 1% 0402 | R06, R14 | Kamaya, RMC1/16SK101FTH |
| 3 | SMD Resistor 10K 1% 0402 | R07, R09, R16 | Kamaya, RMC1/16SK103FTH |
| 1 | SMD Resistor 10M 5% 0402 | R05 | Kamaya, RMC1/16SK106JTH |
| 4 | SMD Resistor 1K 1% 0402 | R08, R10, R11, R15 | Kamaya, RMC1/16SK102FTH |
| 2 | SMD Resistor 22R 1% 0402 | R03, R04 | Kamaya, RMC1/16SK220FTH |
| 1 | SMD Resistor 470R 1% 0402 | R01 | Kamaya, RMC1/16SK471FTH |
| Sockets | | | |
| 1 | IC Socket Tulip DIP8 | U1 | Preci-dip, 110-87-308-41-001101 |
| Transistors | | | |
| 4 | NMOS Transistor BSS138 SOT23 | Q1, Q2, Q3, Q5 | On Semiconductor, BSS138LT1G |
| 1 | PMOS Transistor NDS0605 SOT23 | Q4 | Fairchild Semiconductor, NDS0605_NL |