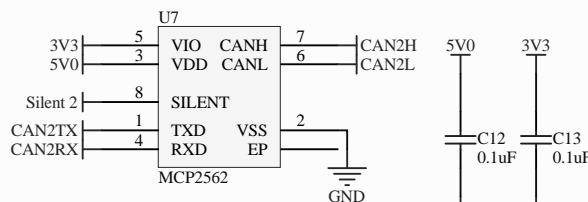


Silent is the same as Standby



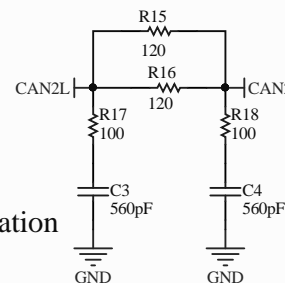
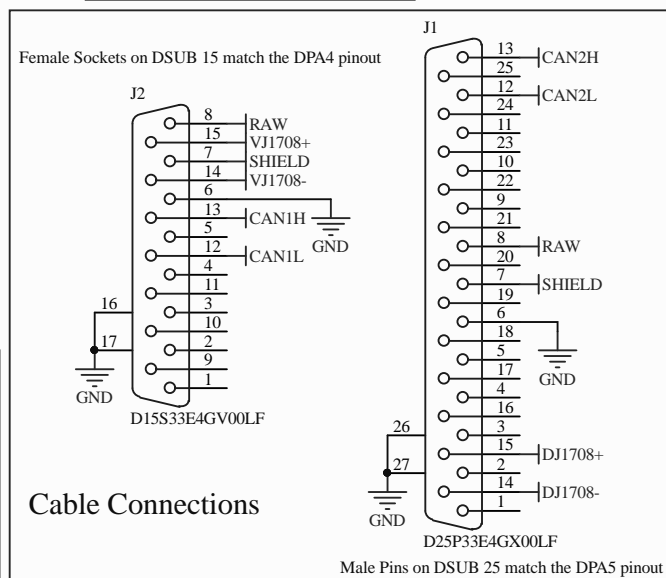
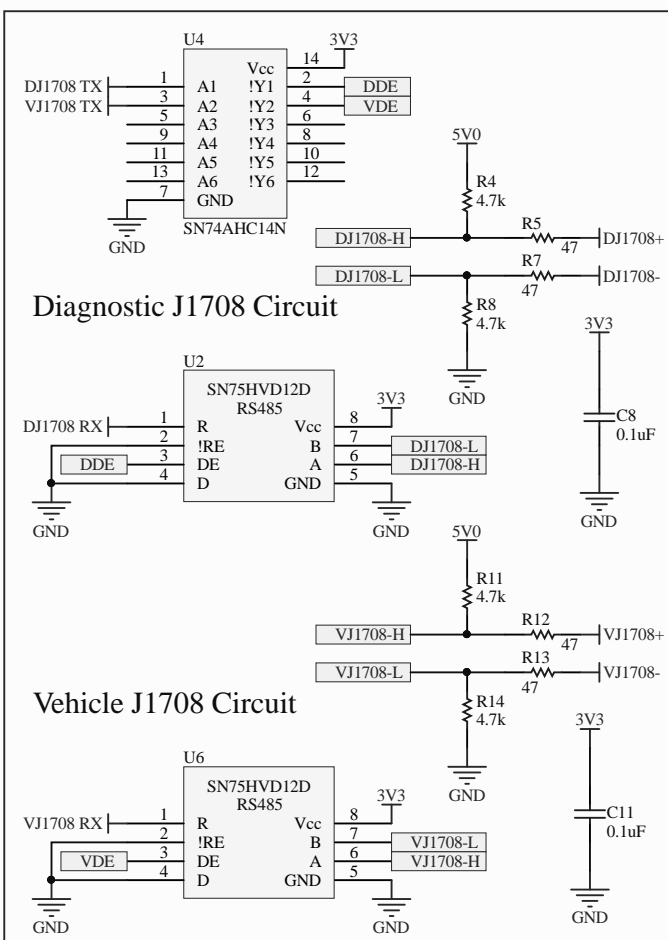
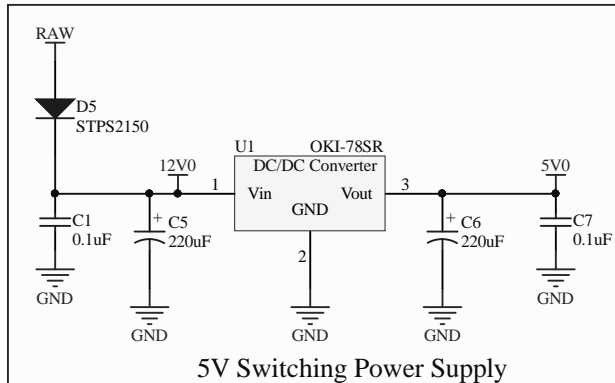
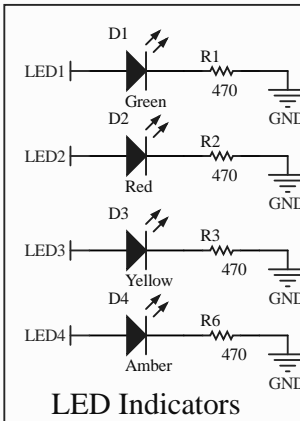
| | |
|---|--|
| 2 | |
| This project is released under an MIT Open Source License | |

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CAN Termination

Title: *Secure J1939 Gateway*

Subtitle: CAN, J1708, and ECC

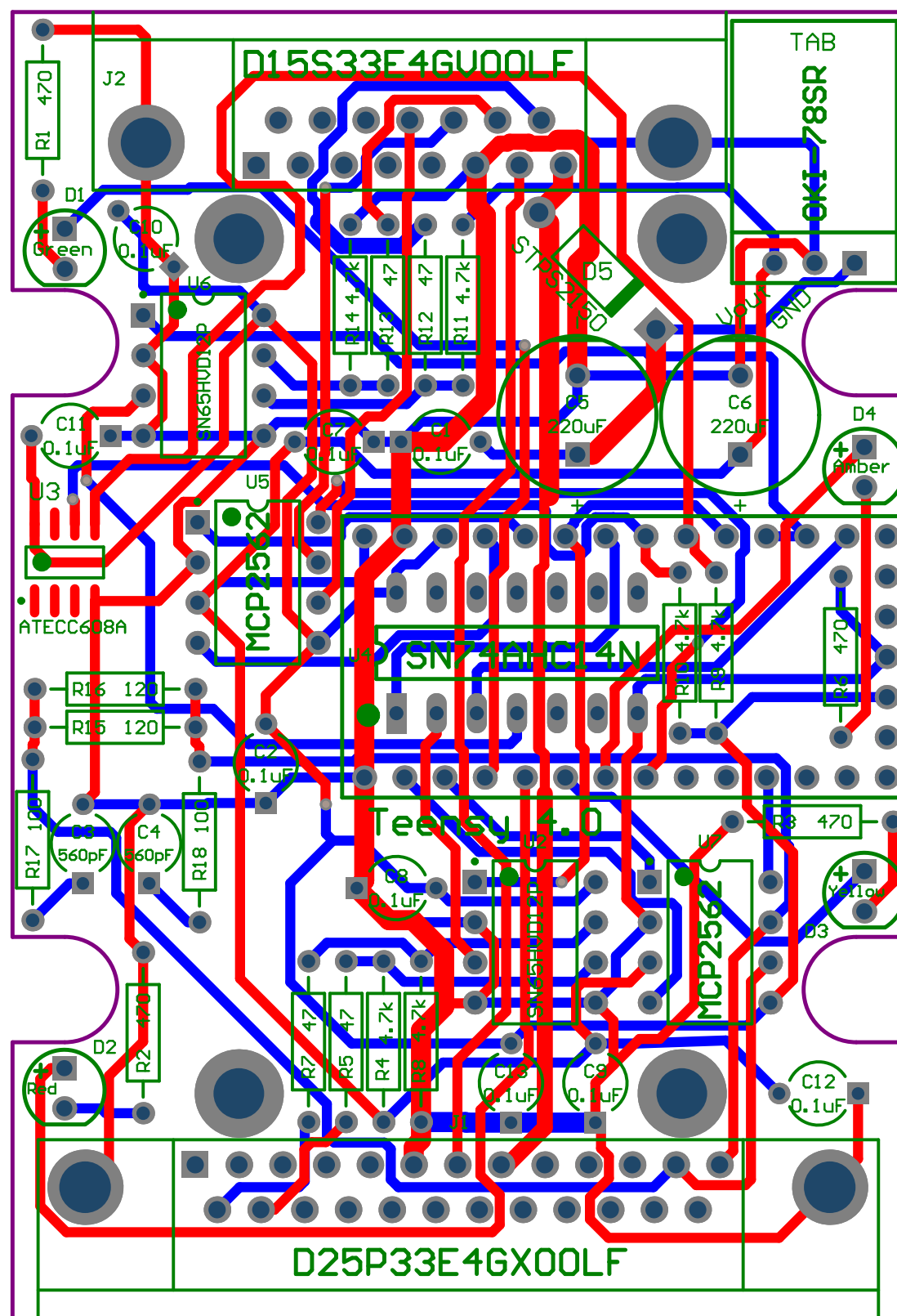
Revision: 1

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| Date: 12/2/2019 | Time: 11:12:58 AM | SI |
| File: | Secure Gateway Teensy 4 Prototype.SchDoc | |

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UNIVERSITY



| Item # | Designator | Description | Comment | Quantity | Manufacturer | PartNumber | Footprint |
|--------|-----------------------|--|----------------|----------|-----------------------------|----------------------|---------------|
| 1 | C7, C8, C9, C10, C11 | 0.1µF ±10% 50V Ceramic Capacitor | 0.1uF | 9 | TDK Corporation | FA28X7R1H104KNU00 | CAPR5-4X5 |
| 2 | C3, C4 | 560pF ±5% 100V Ceramic Capacitor | 560pF | 2 | TDK Corporation | FA28C0G2A561JNU00 | CAPR5-4X5 |
| 3 | C5, C6 | 220µF 50V Aluminum Electrolytic | 220uF | 2 | EPCOS (TDK) | B41858C6227M000 | Elec. Cap 5 x |
| 4 | D1 | Green 569nm LED Indication - Discrete | Green | 1 | Lite-On Inc. | LTL-4233 | 5mm Rad LED |
| 5 | D2 | Red 623nm LED Indication - Discrete | Red | 1 | Lite-On Inc. | LTL-4223 | 5mm Rad LED |
| 6 | D3 | Yellow 588nm LED Indication - Discrete | Yellow | 1 | Lite-On Inc. | LTL-4253 | 5mm Rad LED |
| 7 | D4 | Amber 588nm LED Indication - Discrete | Amber | 1 | Lite-On Inc. | LTL-4273 | 5mm Rad LED |
| 8 | D5 | Diode Schottky 150V 2A Through Hole | STPS2150 | 1 | STMicroelectronics | STPS2150 | DO-204AL |
| 9 | J1 | Receptacle Assembly, 25 Position, 1.27mm Pitch | D25P33E4GX00LF | 1 | Amphenol ICC (FCI) | D25P33E4GX00LF | DSUB1.385-2 |
| 10 | J2 | Receptacle Assembly, 15 Position, 1.27mm Pitch | D15S33E4GV00LF | 1 | Amphenol ICC (FCI) | D15S33E4GV00LF | DSUB1.385-2 |
| 11 | J3, J4 | 14 Position Header Connector Through Hole | Teensy Socket | 2 | Sullins Connector Solutions | PPTC141LFBNRC | |
| 12 | P3, P4 | Connector Header Through Hole 1.27mm Pitch | Teensy Pins | 2 | Sullins Connector Solutions | PREC014SAANRC | |
| 13 | R1, R2, R3, R6 | 330 Ohms ±1% 0.1W, 1/10W Chip | 470 | 4 | Stackpole Electronics Inc | CF14JT470R | AXIAL-0.4 |
| 14 | R8, R9, R10, R11, R12 | 4.7 kOhms ±5% 0.25W, 1/4W Through Hole | 4.7k | 6 | Stackpole Electronics Inc | CF14JT4K70 | AXIAL-0.4 |
| 15 | R5, R7, R12, R13 | 47 Ohms ±5% 0.25W, 1/4W Through Hole | 47 | 4 | Stackpole Electronics Inc | CF14JT47R0 | AXIAL-0.4 |
| 16 | R15, R16 | 120 Ohms ±5% 0.25W, 1/4W Through Hole | 120 | 2 | Stackpole Electronics Inc | CF14JT120RCTND | AXIAL-0.4 |
| 17 | R17, R18 | 100 Ohms ±5% 0.25W, 1/4W Through Hole | 100 | 2 | Stackpole Electronics Inc | CF14JT100R | AXIAL-0.4 |
| 18 | Teensy 1 | 32 Bit Arduino-Compatible iMX Microcontroller | Teensy 4.0 | 1 | PRJC | Teensy 4.0 | Teensy 4.0 |
| 19 | U1 | 5V DC/DC Converter (7805 replacement) | OKI-78SR | 1 | Murata Power Solutions Inc. | OKI-78SR-5/1.5-W36HC | OKI-78SR |
| 20 | U2, U6 | 1/1 Transceiver Half RS422, RS485 | SN65HVD12P | 2 | Texas Instruments | SN65HVD12P | DIP-8 |
| 21 | U3 | Authentication Chip IC Networking | AT ECCC608A | 1 | Microchip Technology | ATECCC608A-SSHDA-T | SOIC-8 |
| 22 | U4 | Inverter IC 6 Channel Schmitt Trigger | SN74AHC14N | 1 | Texas Instruments | SN74AHC14N | DIP14 |
| 23 | U5, U7 | Microchip CAN FD Transceiver with 3.3V I/O | MCP2562 | 2 | Microchip | MCP2562-E/P | DIP-8 |