



Module-can-0.1 V1 V5 M3002 CANL S1 S2 Module:mega-mcu100/0.3 V2 V6 CAN\_VIO CAN\_RX | W1U | IGN1\_(PC13) | SPI2\_SCK\_/\_CAN2\_TX\_(PB13) | E7 | E8 | IGN2\_(PE5) | USD card and accelerometer SPI2\_MISO\_(PB14) | E9 | IGN3\_(PE4) | On SPI1 bus | SPI2\_MOSL\_(PB15) | E9 | IGN3\_(PE4) | CR | SPI2\_MOSL\_(PB15) | E9 | IGN3\_(PE4) | IGN3\_(PE4 00UT1 IN1< GND E1 V5 CAN\_TX W7 IGN4\_(PE3) SPI2\_CS\_/\_CAN2\_RX\_(PB12) E6 W6 IGN5\_(PE2)

× W5 IGN6\_(PB8)

W4 IGN7\_(PB9)

IGN8\_(PE6) M3004 IGN\_OUT[1..4] < File: IGN.kicad sch CANL W3
CANL Power GND LSU\_H
CANH W4
CANH Heater negative LSU\_H+
LSU\_Rtrim
W7
SWCLK Internal TC2030 LSU\_Vm
W6
SWDIO connector LSU\_Un G
W7
SWEET LSU\_IN
E1 LSU\_IN
E2 LSU.Nm
E1 LSU\_IN
E1 LSU.Un
E3 LSU.Un
E1 LSU.Un SPI3\_SCK\_(PC10)
SPI3\_MISO\_(PC11)
SPI3\_MOSL\_(PC12)
SPI3\_CS\_(PA15)

N10

N10

N11

N12

PG\_5VP

N9 INJ\_OUT1 OUT1 IN1< E17 OUT\_INJ1\_(PD3)
E16 OUT\_INJ2\_(PA9)
E15 OUT\_INJ3\_(PD11) INJ\_OUT2 OUT2 IN2<INJ\_OUT3 OUT3 IN3< E14 OUT\_INJ3\_(PD11)
E14 OUT\_INJ4\_(PD10)

E13 OUT\_INJ5\_(PD2)

E12 OUT\_INJ6\_(PA8)
E11 OUT\_INJ7\_(PD15) CANH W11 CANH OUT4 IN4C × W5 nReset Analog/digital GND G CANL W12 CANL PULL\_UP1
SEL1
PULL\_DOWN1
L VCC1 INJ\_OUT[1..4]< File: INJ.kicad\_sch {CANH CANL} W9 VDDA Barometer 12C\_SDA\_(PB11) E4 E3 E3 E10 OUT\_INJ8\_(PD12) PULL\_UP2 J\_VCC2 SEL2 J2 PULL\_DOWN2 J\_GND2 E18 OUT\_PWM1\_(PD13)
E19 OUT\_PWM2\_(PC6) F40x does not have UART8\_RX\_(PE0) UART8\_TX\_(PE1) N19 E20 OUT\_PWM2\_(PC6) |
E21 OUT\_PWM4\_(PC8) |
E22 OUT\_PWM5\_(PC9) |
OUT\_PWM6\_(PD14) | Module-lin-0.1 LIN V4 LIN UART2\_RX\_(PD6) N14 UART2\_TX\_(PD5) N13 V1 12V USBP\_(PA12) N3 USB.DP USBM\_(PA11) N2 USB.DM USBID\_(PA10) N4 USB.VBUS VBUS N1 USB.VBUS S14 S16 S17 IN\_CRANK\_(PB1) IN\_CAM\_(PA6) IN\_VSS\_(PE11) GND S1 E1 V2 UART\_RX V5 UART\_TX AIN.TPS S18 IN\_TPS\_(PA4) IN\_PPS\_(PA3) USB{DP DM VBUS} AIN.IAT S20 AIN.CLT S21 IN\_IAT\_(PC3) IN\_CLT\_(PC2) J3001 AIN{TPS IAT CLT MAP OILTEMP1 OILTEMP2} USB\_B USB.VBUS S11 IN\_02S\_/\_CAN\_WAKEUP\_(PA0) S10 IN\_02S2\_(PA1) Internal nReset buttons BOOTO N16 AIN.MAP S13 IN\_MAP1\_(PC0) IN\_MAP2\_(PC1) KnockAmps LED\_GREEN N14a N14b VREF KNOCK\_HP1 KNOCK\_HP2[ KNOCK\_OUT2 S15 IN\_KNOCK\_(PA2) KNOCK[1..2] OKNOCK[1..2] KNOCK\_OUT1D S1 IN\_D1\_(PE12)
S2 IN\_D2\_(PE13)
IN\_D3\_(PE14)
IN\_D4\_(PE15) File: knockamps.kicad\_sch V33\_SWITCHABLE

Connected V33 N21 + 3.3VA
N21 + 3.3V
N23 + 3.3V
N23 + 3.3V
V5A\_SWITCHABLE
V5A\_SW S22 VREF1 S5 VREF2 W13 V33\_REF PWR\_EN N20 OUT\_PWR\_EN\_(PE10) M3001 E5 IN\_VIGN\_(PA5) Module-power\_12and5V-0.2 N17 VBAT +12V\_RAW < V3 V12\_RAW +12V\_PERM < V1 V12\_PERM V12 E2 × VBAT E3 +5V < N22 VCC GND GND +12V\_FROM\_KEY < V2 IN\_VIGN → +5V  $\xrightarrow{\rightarrow} +5VP \\ PG_5VP$ 5VP V4 E6 PWR\_EN E5 EN\_5VP D3001 1N4148WS SolderJumper\_2\_Bridged + BT3001 Battery\_Cell GND Sheet: /rusefi/ File: rusefi.kicad\_sch Title: KiCad E.D.A. 8.0.8





