CAN

J1
MICROMOD-2222

+3.3V	3.3V	SPI_SCK1/SDIO_CLK
RESET	RESET	SPI_SDO1/SDIO_CMD
BOOT	BOOT	SPI_SDI1/SDIO_DATA0
	3.3V_EN	SDIO_DATA1
RTC_3V	RTC_3V	SDIO_DATA2
		SPI_CS1/SDIO_DATA3
USB-D-	USB_VIN	
USB-D-	USB_D-	SPI_SCK
USB-D+	USB_D+	SPI_SDO
		SPI_SDI
USBHOST_D-	USBHOST_D-	SPI_CS
USBHOST_D+	USBHOST_D+	
	CAN-TX	A0
	CAN-RX	A1
SWD_DIO	SWDIO	PWM0
SWD_CLK	SWDCK	PWM1
	AUD_MCLK	D0
	AUD_OUT/CAM_MCLK	D1/CAM_TRIG
	AUD_IN/CAM_PCLK	TX1
	AUD_LRCLK	RX1
	AUD_BCLK	RTS1
		CTS1
	I2C_SCL	TX2
	I2C_SDA	RX2
	I2C_INT	G0/BUS0
	I2C_SCL1	G1/BUS1
	I2C_SDA1	G2/BUS2
		G3/BUS3
	BATT_VIN/3	G4/BUS4
		G5/BUS5
		G6/BUS6
		G7/BUS7
		G8
		G9/ADC_D-/CAM_HSYNC
		G10/ADC_D+/CAM_VSYNC
GND	GND	G11

PTD0 – PTD7

SPI
UART (2x)
8bit BUS
ADC (2x differential)
I2C (2x)

U1
MK20DX256VLH7

D0/RX1/TOUCH	VREGIN
D1/TX1/TOUCH	VOUT3V3
D2	VCC
D3/CAN-TX/PWM	
D4/CAN-RX/PWM	VCCA
D5/PWM	VREF-H
D6/PWM	
D7/RX3	VREF_OUT
D8/TX3	
D9/RX2/PWM	VREF-L
D10/TX2/PWM	VSSA
D11/MOSI	
D12/MISO	VSS
D13/SCK/LED	
D14/A0	VBAT
D15/A1/TOUCH	
D16/A2/TOUCH	XTAL32
D17/A3/TOUCH	EXTAL32
D18/A4/SDA0/TOUCH	
D19/A5/SCL0/TOUCH	RESET
D20/A6/PWM	PTA0
D21/A7/PWM	PTA1
D22/A8/PWM/TOUCH	PTA2
D23/A9/PWM/TOUCH	PTA3
D24	
D25/PWM/TOUCH	OSC1
D26/A15	
D27/A16	
D28/A17	OSC2
D29/A18/SCL1	
D30/A19/SDA1	USB-P
D31/A20	USB-M
D32/PWM/TOUCH	
D33/PWM/TOUCH	
A10/ADC0_DM0	
A11/ADC0_DP0	
A12/ADC0_DP3	
A13/ADC0_DM3	
A14/DAC	

+3.3V
GND
RTC not yet implemented

Very simplistic analog referencing, but should work somehow. Might improve later if the board works at all.

R1
1k
D1
GND

+3.3V VCC
+3.3V VBAT

Y2
16MHz
GND GND

USB-D+ USB-P
USB-D- USB-M

+3.3V
100n 100n 100n 100n
C4 C1 C2 C3
GND

SWD_CLK SWD_DIO RESET
+3.3V
R2 R3
10k 10k

Close JP1 for JTAG use (deactivates MKL02)
GND EN JP1

BOOT

U2
MKL02Z32VFG4

VDD/VREFH	
PTA0/IRQ_0	
PTA1/IRQ_1/LPTMR0_ALT1	
PTA2	
PTA3	PTA6
PTA4	PTB1
PTA5	PTA7
PTA6	
PTA7/IRQ_4	
PTB0/IRQ_5	
PTB1/IRQ_6	
PTB2/IRQ_7	
PTB3/IRQ_10	
PTB4/IRQ_11	
PTB5/IRQ_12	
EPAD	
VSS/VREFL	

GND
PJRC Bootloader

Similar to T3.2
(uses Sparkfun recommend connector pin assignment)