PIC32CZ CA70 Curiosity Ultra User's Guide

EV56T44A/EA60E74A

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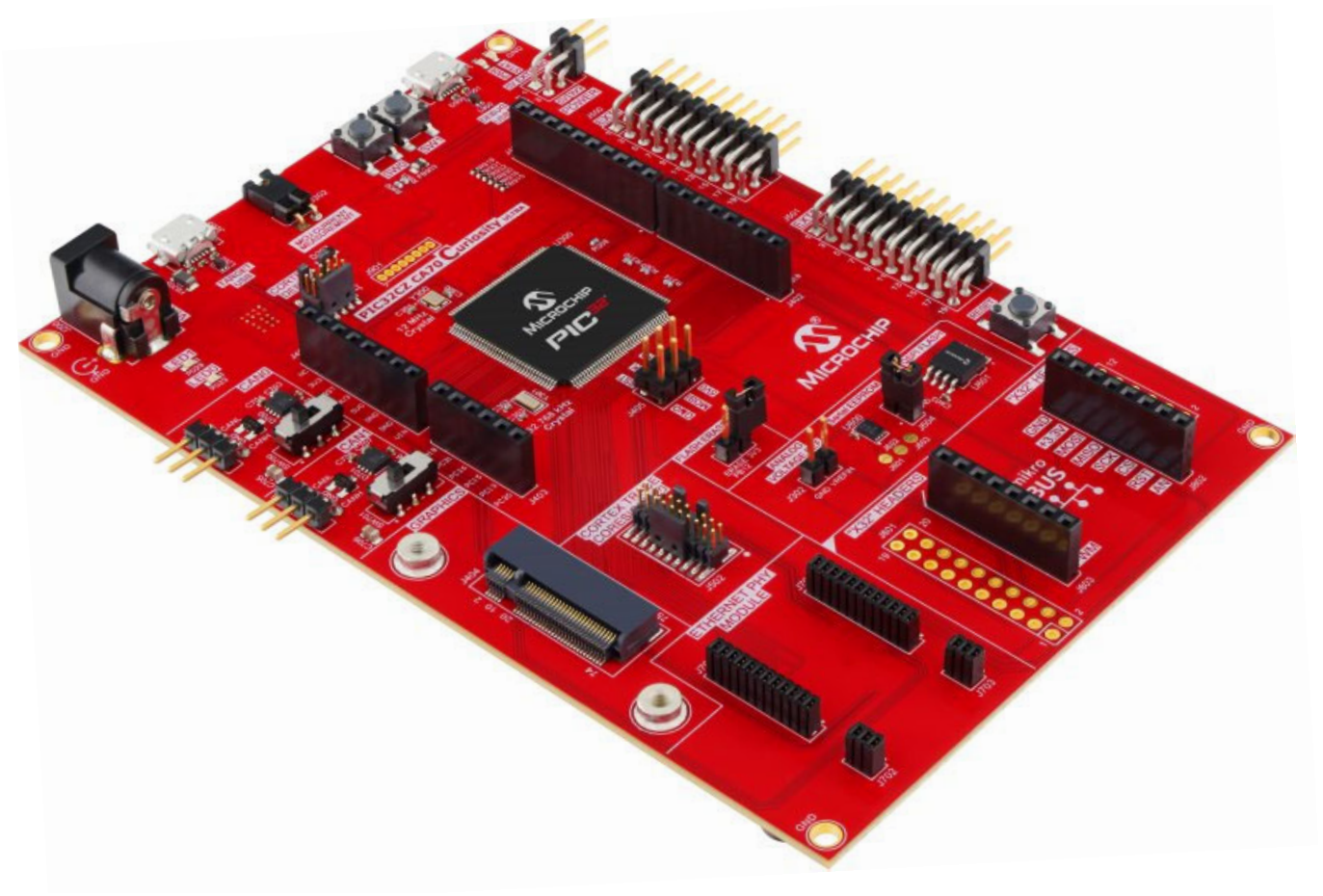


Table of Contents

EV56T44A/EA60E74A 1

1. Introduction 3
   - 1.1. PIC32CZ CA70 Curiosity Ultra Development Board Features 3
   - 1.2. Kit Contents 3

2. Development Board Functionality and Features 4
   - 2.1. Board Feature Location 4
   - 2.2. System Block Diagram 5
   - 2.3. Power Sources 6
   - 2.4. mikroBUS Socket 7
   - 2.5. Xplained Pro Standard Extension Header 7
   - 2.6. CAN Transceiver 9
   - 2.7. Graphics Connectors or GFX Card Interface 9
   - 2.8. X32 Audio Connectivity 10
   - 2.9. Arduino Uno Interface 11
   - 2.10. Ethernet 11
   - 2.11. Button and LED 12
   - 2.12. PICKit On-Board 4 12

3. Hardware 14
   - 3.1. Schematics 14
   - 3.2. Bill of Materials 24

4. Revision History 27

Microchip Information 28
- The Microchip Website 28
- Product Change Notification Service 28
- Customer Support 28
- Microchip Devices Code Protection Feature 28
- Legal Notice 28
- Trademarks 29
- Quality Management System 30
- Worldwide Sales and Service 31

1. Introduction

This document describes the Microchip PIC32CZ CA70 Curiosity Ultra Development Board features, functionality, and schematics. The PIC32CZ CA70 Curiosity Ultra Development Board includes an integrated programmer or debugger, and requires no additional hardware to get started. Users can expand functionality through Arduino Uno R3, MikroBus, or Xplained Pro compatible expansion boards.

With expansion boards, the PIC32CZ CA70 Curiosity Ultra Development Board provides the freedom to develop a variety of applications, including Bluetooth® audio, Internet of Things (IoT), robotics development, and proof of concept (POC) designs.

1.1 PIC32CZ CA70 Curiosity Ultra Development Board Features

The following are key features of the PIC32CZ CA70 Curiosity Ultra Development Board:

- PIC32CZCA70, 300 MHz, 2MB Flash, 512 kb SRAM
- Up to 114 I/O lines with external interrupt capability
- On-board debugger (PKoB4)
  - Real-time programming and debugging
  - Virtual COM port (VCOM)
  - Data Gateway Interface (DGI)
- Arduino Uno R3 compatible interface
- Xplained pro extension compatible interface
- MikroBus™ socket
- On-board temperature sensor
- User button
- User LED
- Graphics interface
- Ethernet MAC (GMAC)
- Up to two Host Controller Area Network (CAN)

1.2 Kit Contents

The kit contains one PIC32CZ CA70 Curiosity Ultra Development Board.

The kit offers a set of features that enables the user to get started with the PIC32CZ CA70 peripherals instantly and to develop an understanding of how to integrate the device in their own design.

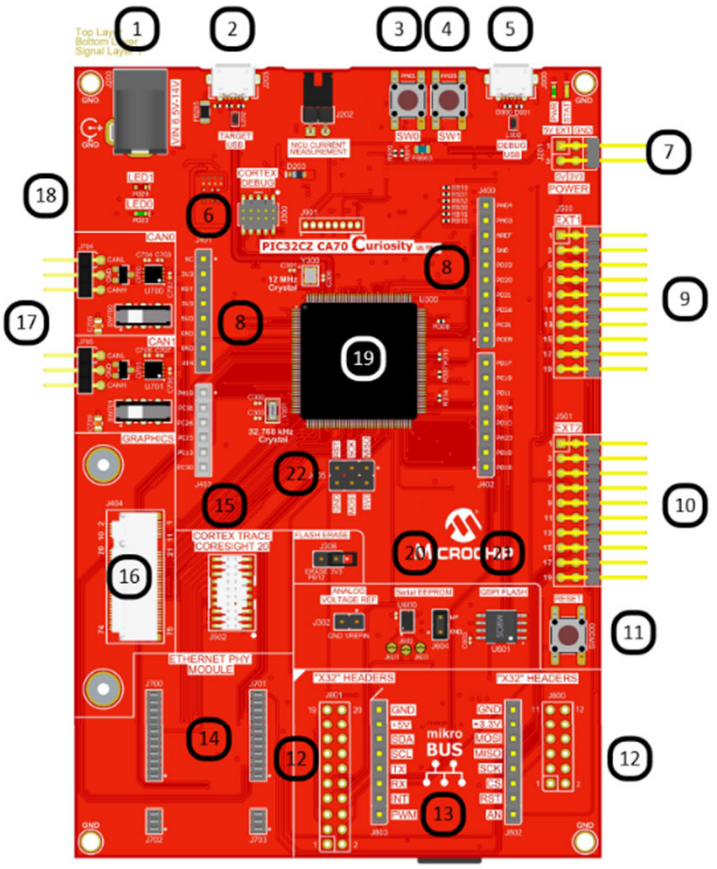
Note: If you are missing any part of a kit, contact a Microchip sales office for assistance. A list of Microchip offices for sales and service are provided on the last page of this document.

2. Development Board Functionality and Features

2.1 Board Feature Location

The development board layout is shown in the following figure.

Figure 2-1. PIC32CZ CA70 Curiosity Ultra Development Board Layout (Top View)



The following table provides the development board key feature details and descriptions.

Table 2-1. PIC32CZCA70 Curiosity Ultra Development Board Features and Location

Number	Description of item
1	2.5 mm Barrel 6.5V-14V Power Input
2	USB Micro A/B Host/Device DRD
3	User Switch 0
4	User Switch 1
5	PKoB USB
6	Arm® Cortex 10-pin Debug Interface
7	External Power Header
8	Arduino Shield Headers
9	EXT1 Header
10	EXT2 Header
11	Reset Switch
12	X32 Audio Headers

.....continued	
Number	**Description of item**
13	MikroBus Headers
14	Ethernet Interface
15	CoreSight™ 20-pin Debug Interface
16	Graphics Interface
17	CAN Interface Headers
18	User LED0/LED1
19	PIC32CZ
20	Serial EEPROM
21	QSPI Flash
22	UNOSPI Header

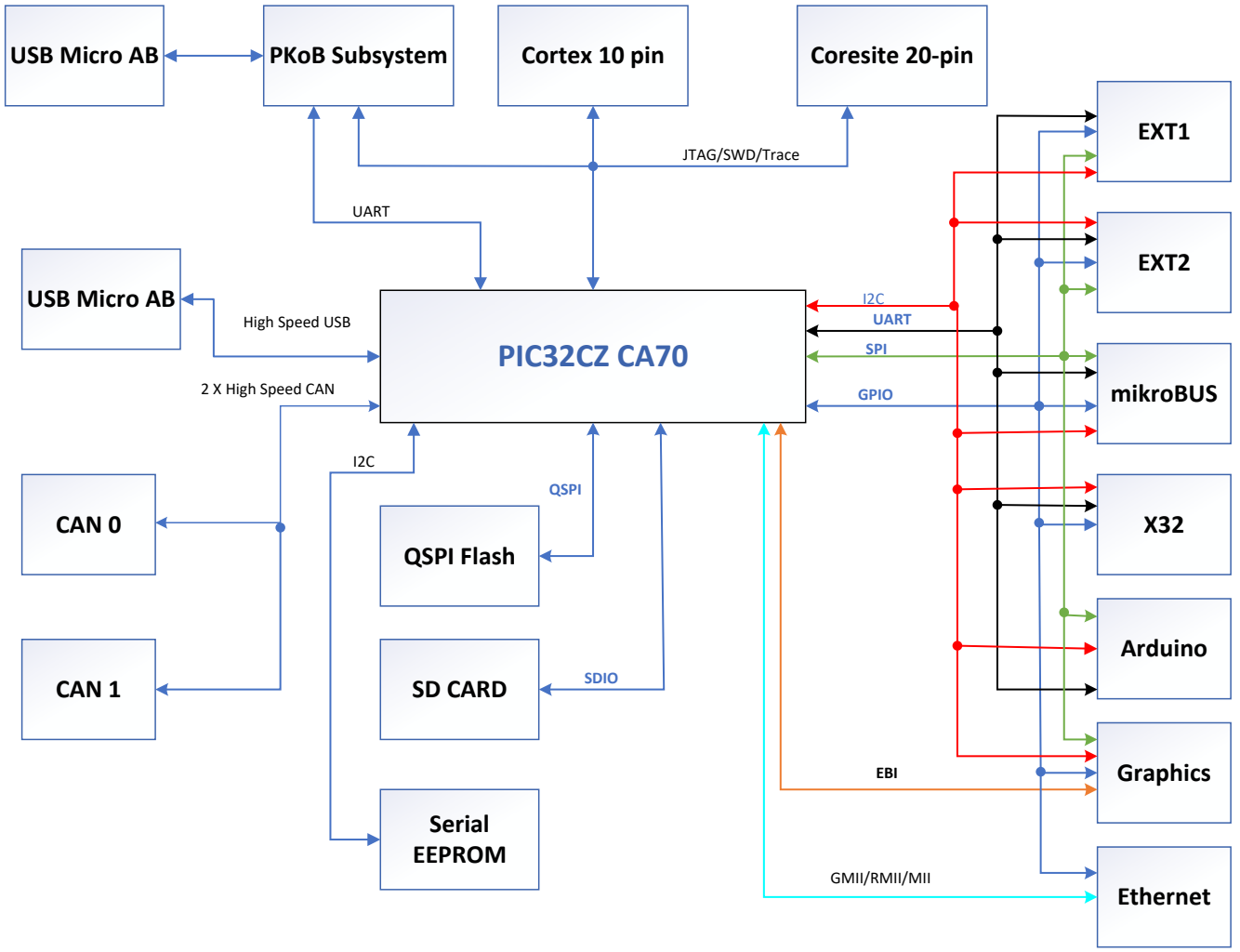
Table 2-2. PIC32CZ CA70 Total System Solutions (TSS)

TSS Component	Quantity (per board)	Function
TN2106K1-G	1	N-Channel MOSFET
MIC24052YJL-TR	1	SMPS Buck Regulator
MCP1727T-3302E/MF	1	3.3V LDO
MIC2005A-2YM5-TR	1	Power Switch
PIC32CZ2051CA70144-I/XFB	1	Target MCU
AT24MAC402-MAHM-T	1	Serial EEPROM
SST26VF032BAT-104I/SM	1	QSPI Flash
ATA6561-GBQW	2	Can Transreceiver
ATSAME70N21B-ANT	1	PKoB MCU
24LC256T-I/MS	1	Serial EEPROM
VXM8-9014-12M0000000	1	Crystal 12 MHz, 10 pF, 150 Ohms. SMD L2.5W2H0.55
VMK3-9005-32K7680000	1	Crystal 32.768 kHz
DSC1001CI2-050.0000T	1	Oscillator 50 MHz
DSC6011JI2B-012.0000	1	Clock Oscillator Single 12.00 MHz

2.2 System Block Diagram

The following figure illustrates a high-level block diagram of the PIC32CZ CA70 Curiosity Ultra Development Board.

Figure 2-2. PIC32CZ CA70 Curiosity Ultra System Block Diagram



2.3 Power Sources

The PIC32CZ CA70 Curiosity Ultra kit can be powered by several power sources, as listed in the following table:

Table 2-3. PIC32CZ CA70 Curiosity Ultra System Power Sources

Power Source	Voltage Requirements	Current Requirements	Connector Marking
External Power	5V ±2% (±100 mV) for USB Host operation. 4.3V to 5.5V if a USB Host operation is not required.	It is recommended that the kit be supplied with a minimum current of 1A and not to exceed a maximum current of 2A.	POWER
Embedded debugger USB	4.75V to 5.25V (According to USB spec.)	500 mA (According to USB spec.)	DEBUG USB
Target USB	4.75V to 5.25V (According to USB spec.)	500 mA (According to USB spec.)	TARGET USB
External jack input	6.5V TO 14V	It is recommended that the kit be supplied with a minimum current of 1A and not to exceed a maximum current of 2A.	VIN 6.5-14 V

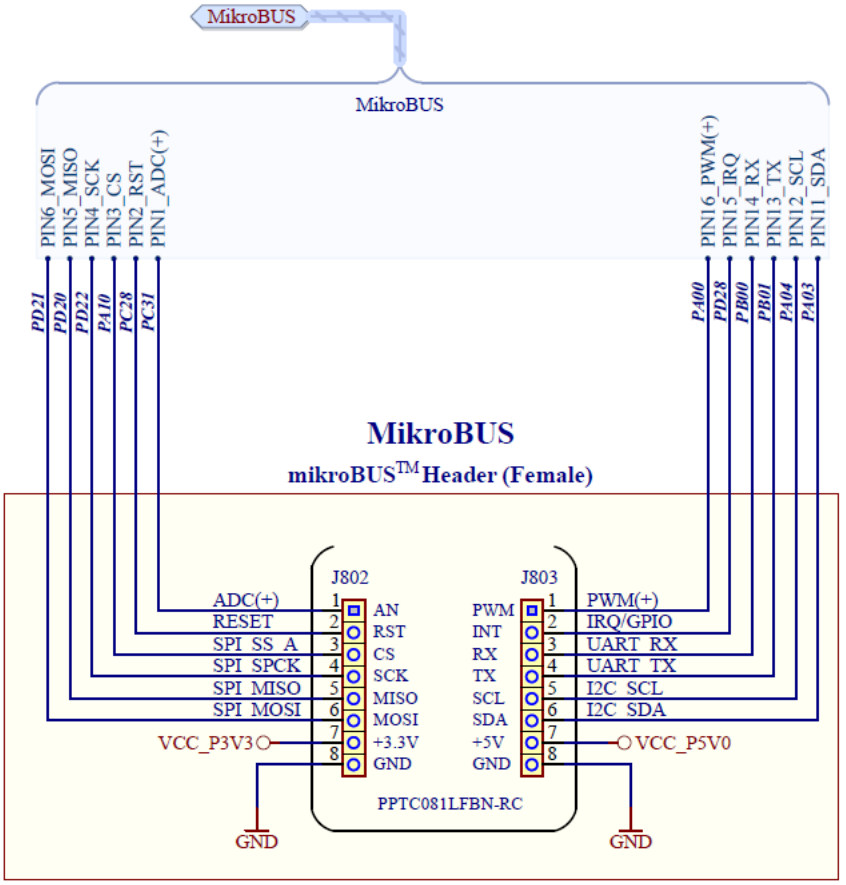
The kit automatically detects which power sources are available and chooses which one to use according to the following priority:

1. External jack input.
2. External power.
3. Embedded Debugger USB.
4. Target USB.

2.4 mikroBUS Socket

One mikroBUS socket, J802-J803, is available on the development board. This socket can be used to expand the functionality using the MikroElectronika Click adapter boards. The mikroBUS connector consists of two 1x8 female headers with SPI, I^{2}C, UART, RST, PWM, analog, and interrupt lines as well as 3.3V, 5V, and GND power lines.

Figure 2-3. MicroBUS Header



2.5 Xplained Pro Standard Extension Header

The PIC32CZ CA70 Curiosity Ultra Development Board has two Xplained Pro compatible Interfaces (J500 and J501) that enable the use of existing expansion boards. Each interface consists of a dual-row, 20-pin, 100 mil, 90 degree extension male header, while Xplained Pro extensions have their female counterparts. The extension headers can be used to connect a variety of Xplained Pro extension boards or to access the pins of the target MCU directly.

Figure 2-4. EXT1 Extension Header

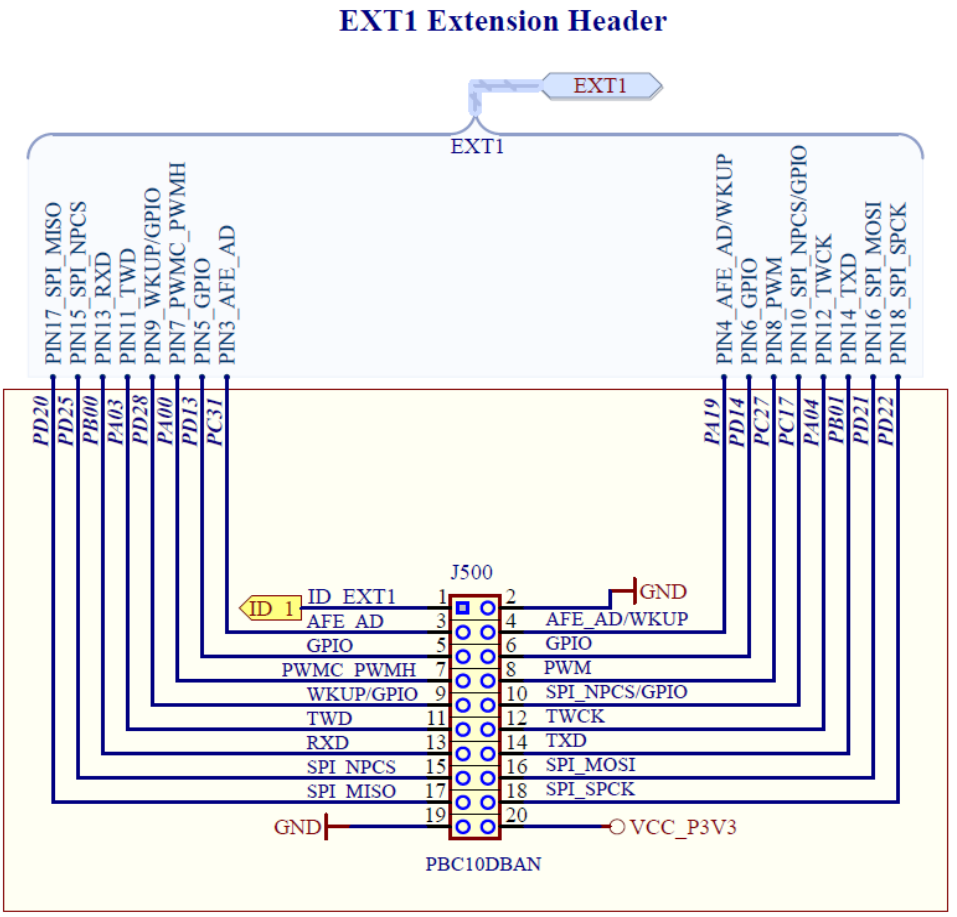
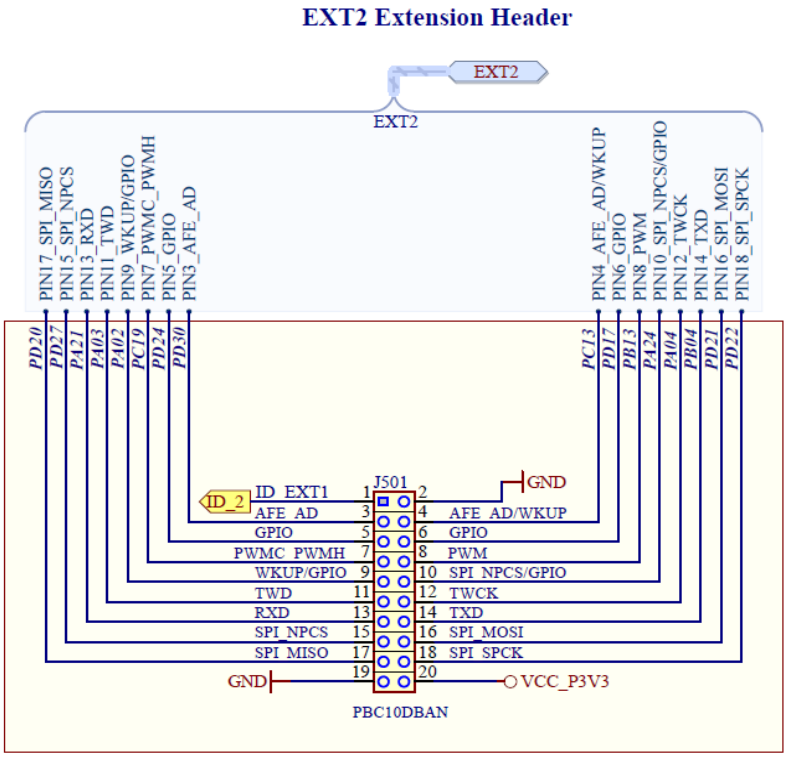


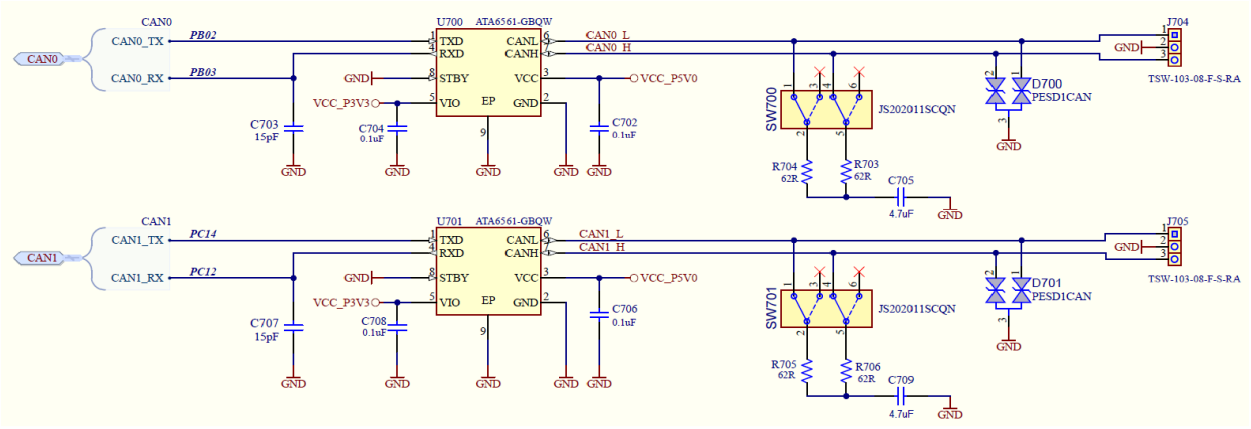
Figure 2-5. EXT2 Extension Header



2.6 CAN Transceiver

The PIC32CZ CA70 Curiosity Ultra Development Board offers access to two of the CAN interfaces on the J741 and J705 connectors.

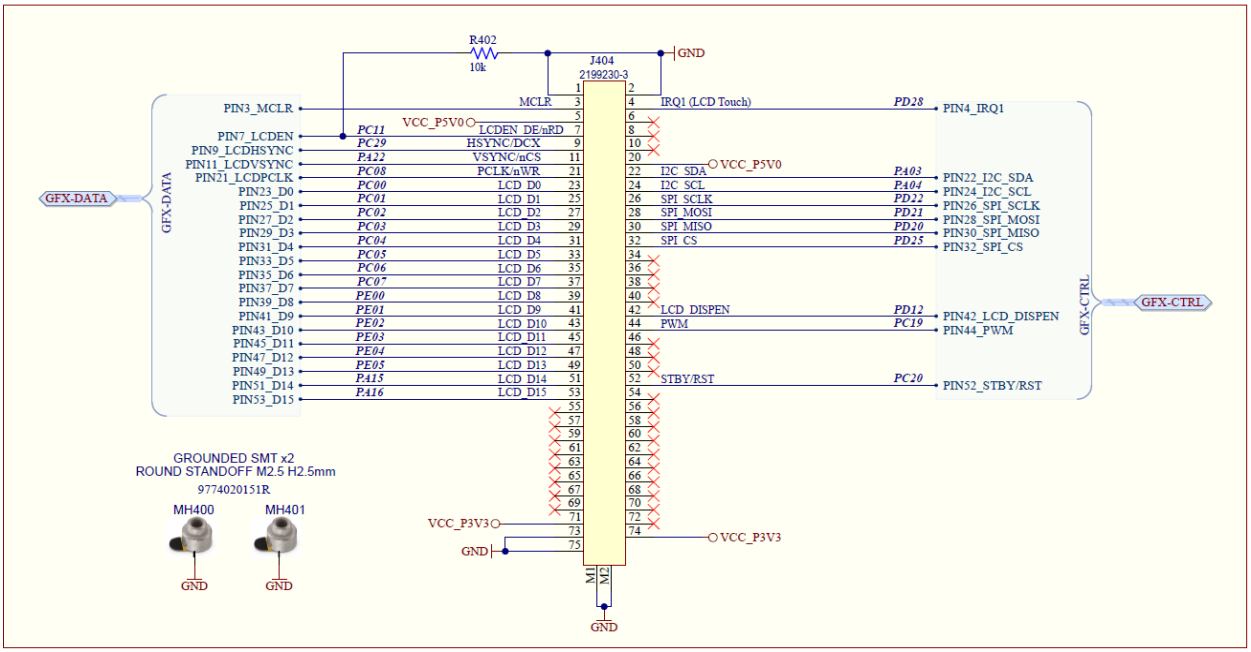
Figure 2-6. CAN Transceiver



2.7 Graphics Connectors or GFX Card Interface

The PIC32CZ CA70 Curiosity Ultra Development Board is designed with a modular graphics interface. This interface enables using several graphics cards, which allow for expandability and different use cases. A 565 adapter card can be purchased separately, which takes 16-bit parallel LCD data and converts it to 24-bit data. This card also provides access to ADC for resistive touch-screens, therefore an external controller is not needed.

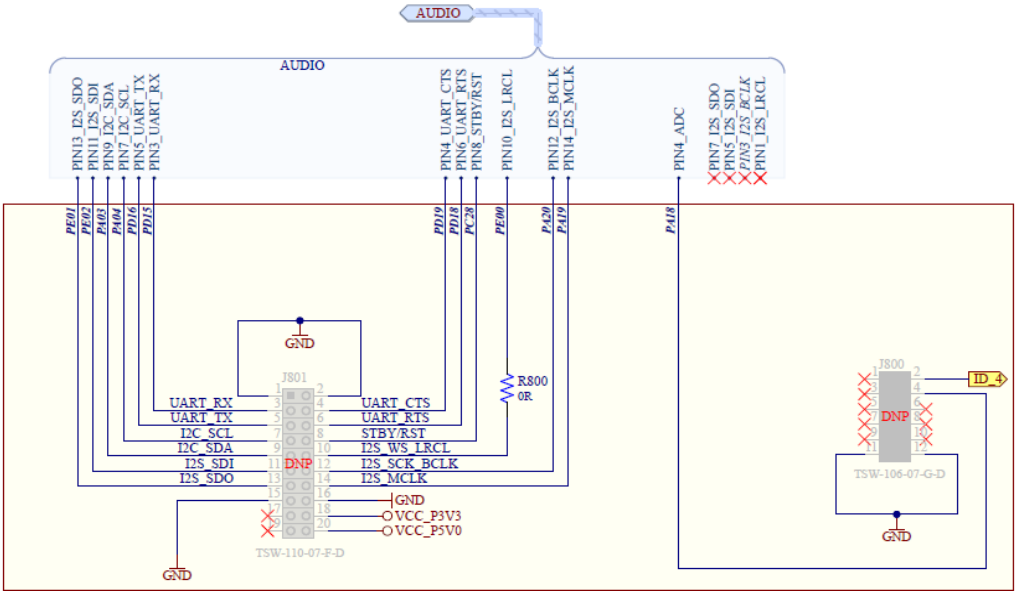
Figure 2-7. Graphics Connector



2.8 X32 Audio Connectivity

The PIC32CZ CA70 Curiosity Ultra Development Board provides an audio connection through the X32 interface to the two main audio modules in the chip, such as the SSC and the I²S. On this board the SSC interface is considered the main audio interface as shown in the following figure. There is a 32-pin interface to the board to support the audio codec, DACs, and Bluetooth radios. This interface has two audio supply interfaces: SSC and I²S.

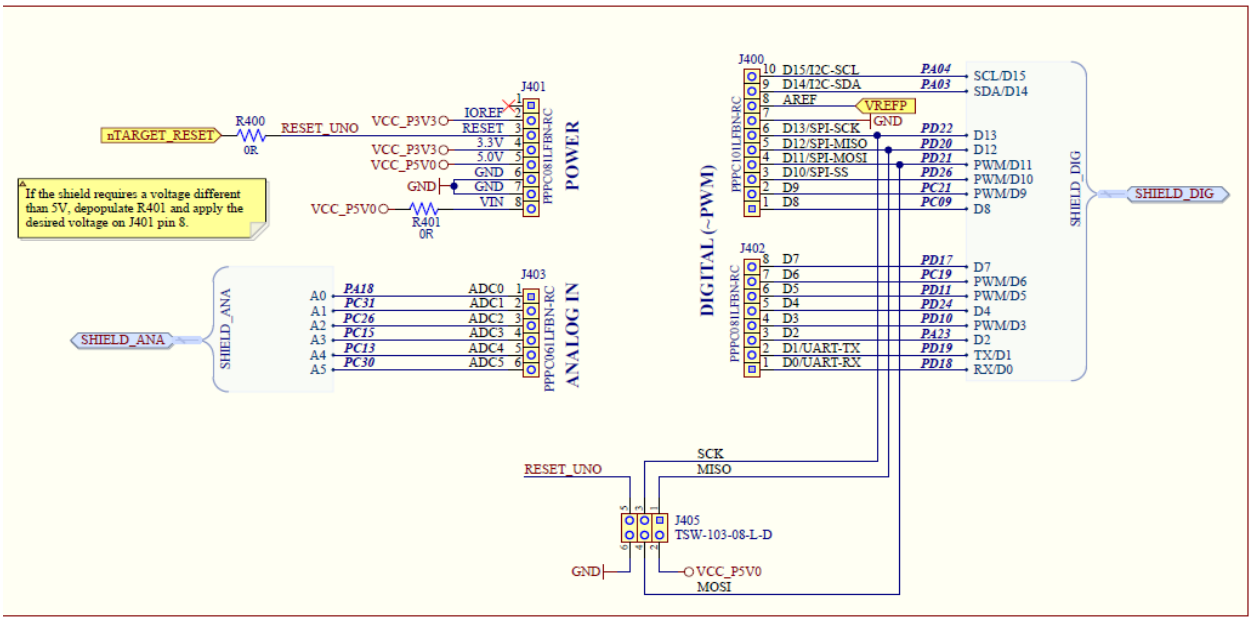
Figure 2-8. X32 Audio Connectivity



2.9 Arduino Uno Interface

The PIC32CZ CA70 Curiosity Ultra Development Board has an Arduino Uno R3 compatible header which enables the use of Arduino shields. Peripherals, such as ADC, SPI, I²C, UART, and PWM of the PIC32CZ MCU can be interfaced with the Arduino shields using the Arduino Uno R3 interface.

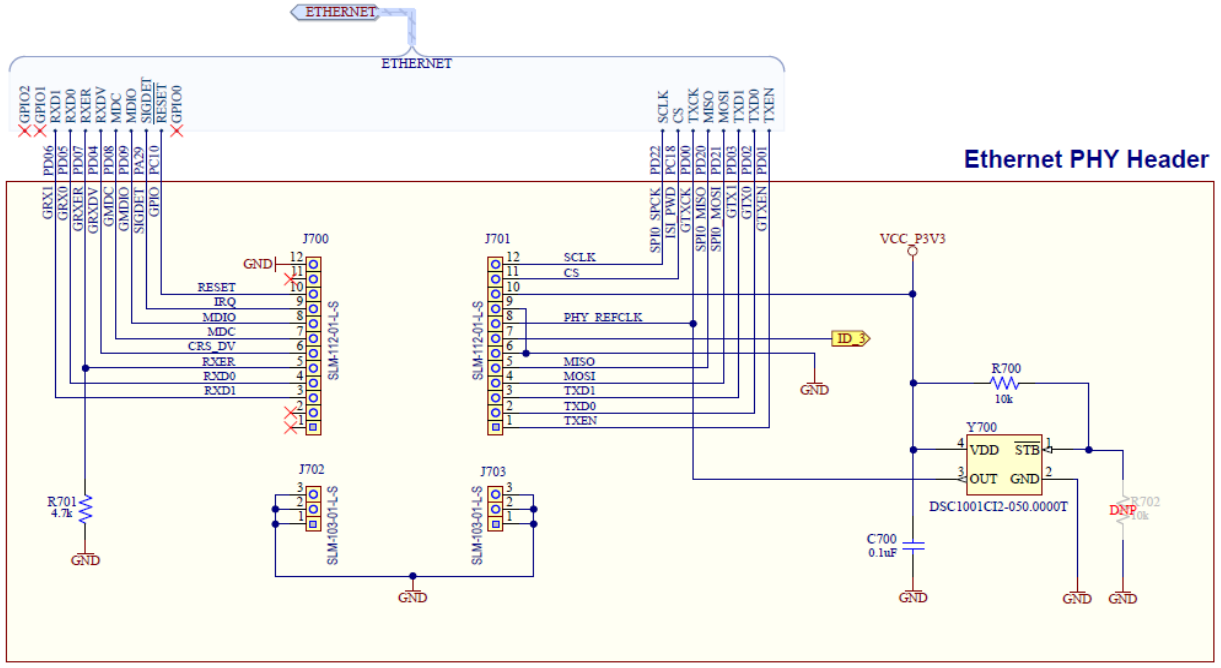
Figure 2-9. Arduino Uno Compatible Headers



2.10 Ethernet

The PIC32CZ CA70 Curiosity Ultra Development Board supports 1000/100/10 BASE-T Ethernet with an on-board PHY and modular Ethernet jack.

Figure 2-10. Ethernet Header



2.11 Button and LED

The PIC32CZ CA70 Curiosity Ultra kit offers user buttons and LEDs. The following figure shows the function, description, and the port on the MCU.

Figure 2-11. Buttons and LED

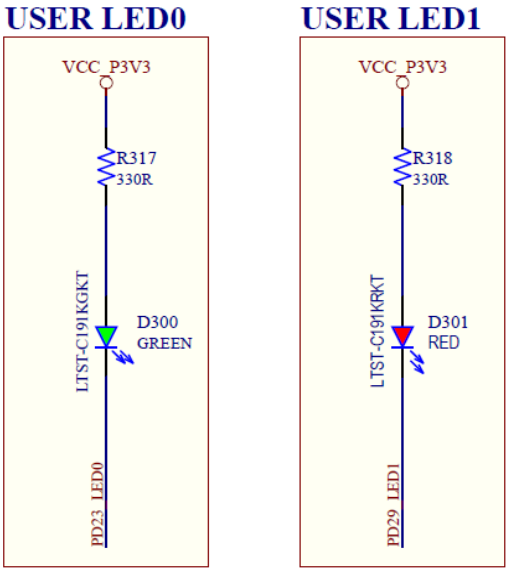
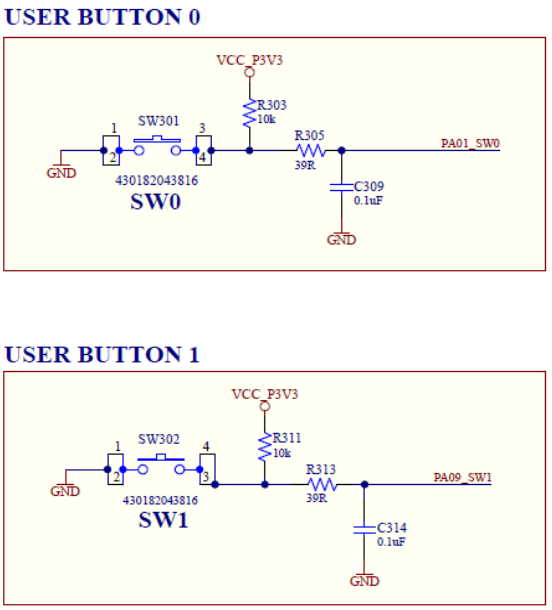


Figure 2-12. Buttons and LED



2.12 PICKit On-Board 4

The MPLAB® PICkit On-Board 4 (PKoB4) is a new generation In-Circuit Debugger. The MPLAB PKoB4 programs faster than its predecessor and is designed to use a high-speed 2.0 USB interface, which provides a feature rich debugging experience through one USB cable. The PKoB4 is intended to support programming, debugging, and a Data Gateway interface.

The MPLAB PKoB4 In-Circuit Debugger is compatible with these platforms:

- Microsoft Windows®7 or later
- Linux®
- macOS™

The MPLAB PKoB4 In-Circuit Debugger system provides the following advantages:

Features/Capabilities:

- Connects to computer through high-speed USB 2.0 (480 Mbits/s) cable
- Programs devices using MPLAB X IDE or MPLAB IPE
- Supports multiple hardware and software breakpoints, stopwatch, and source code file debugging
- Debugs the application in real time
- Sets break points based on internal events
- Monitors internal file registers
- Debugs at full speed
- Configures pin drivers
- Virtual COM Support which can establish UART communication between the Host PC and the target device using the following UART Configuration:
  - Baud rate: 115,200 bps
  - Only 8-bit character format
  - No hardware flow control
  - One stop-bit
- Field-upgradeable through an MPLAB X IDE firmware download
- Adds new device support and features by installing the latest version of MPLAB X IDE (available as a free download at https://www.microchip.com/mplabx/)
- Indicates debugger status through on-board LEDs

Performance/Speed:

- More and faster memory
- A Real-Time Operating System (RTOS)
- No firmware download delays incurred when switching devices
- A 32-bit MCU running at 300 MHz

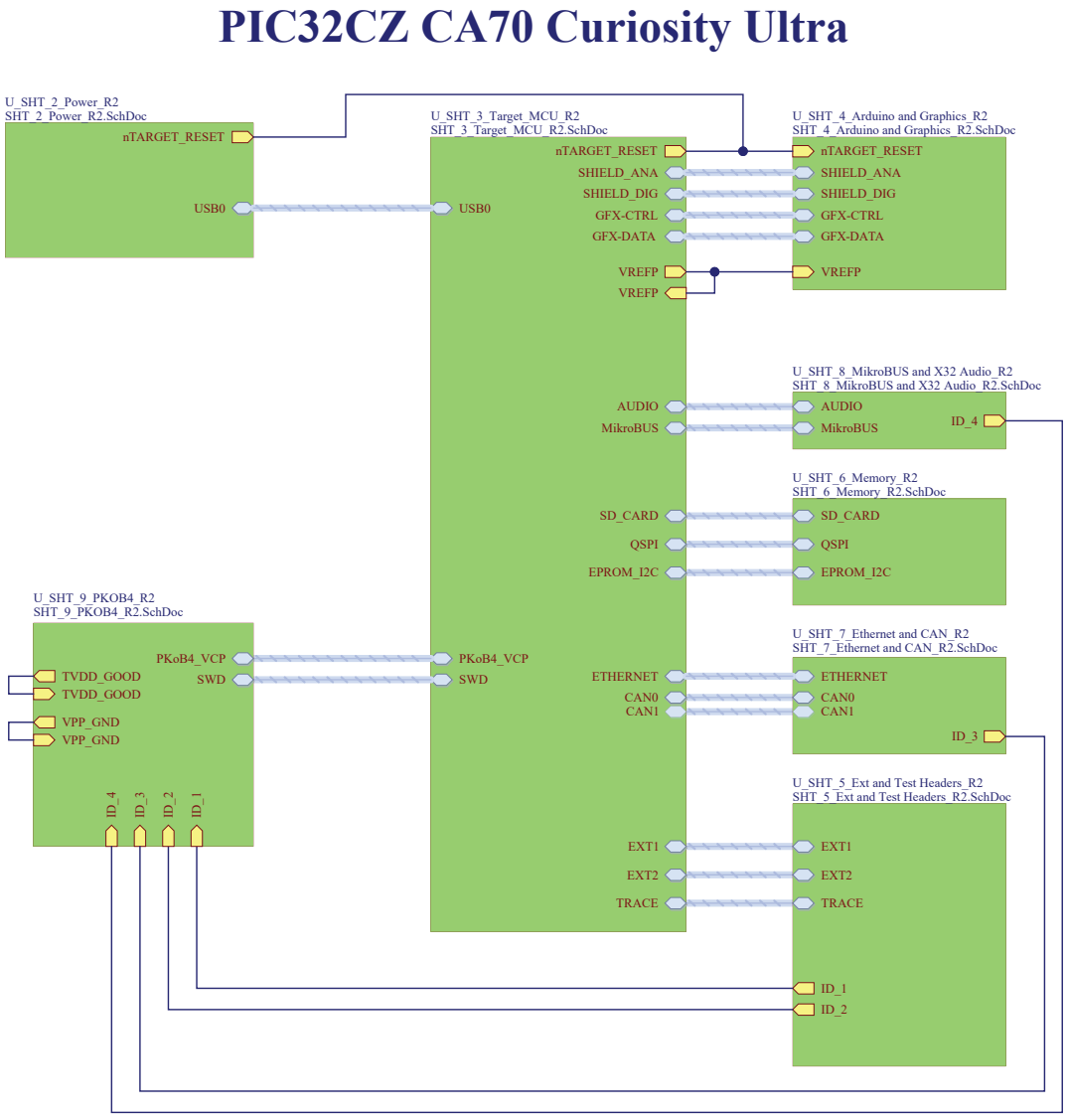
3. Hardware

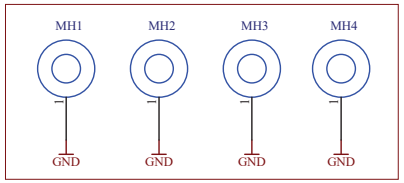
The following sections provide the PIC32CZ CA70 Curiosity Ultra development board schematics.

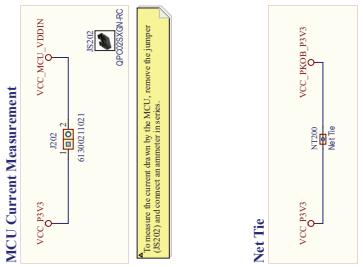
Note: This Curiosity Ultra development board is designed to provide a demonstration platform for as many of the capabilities of the MCU as possible. Some of the signal multiplexing implemented to accomplish this end is not recommended for use in customer designs. Specifically in this design, the signals for the graphics interface and the Ethernet PHY overlap out of necessity. This is highly discouraged in an end user application.

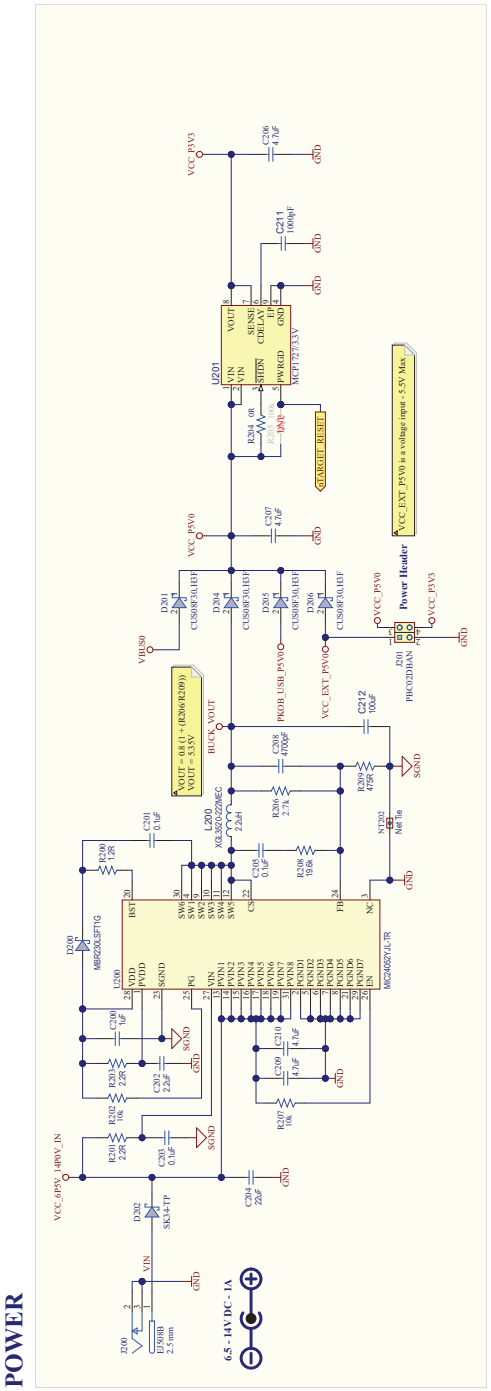
3.1 Schematics

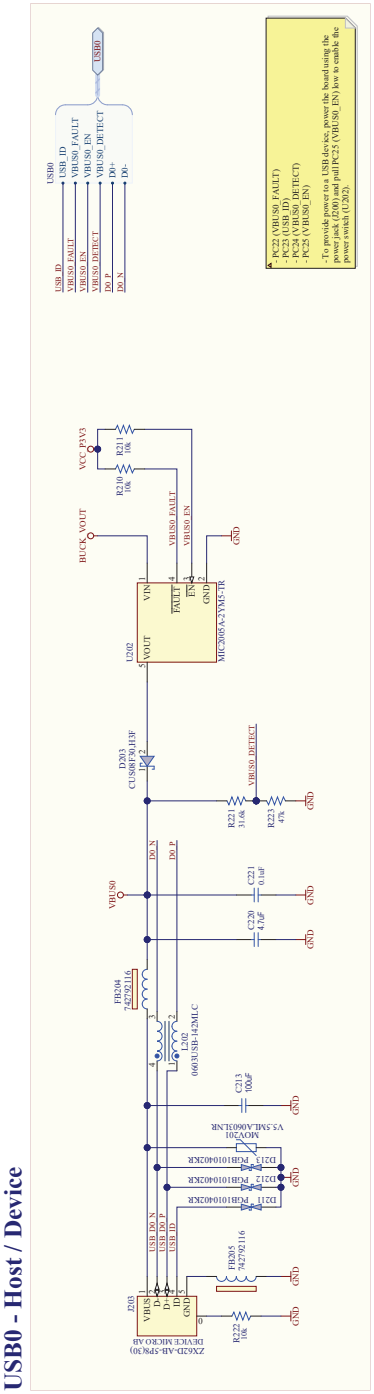
3.1 Schematics

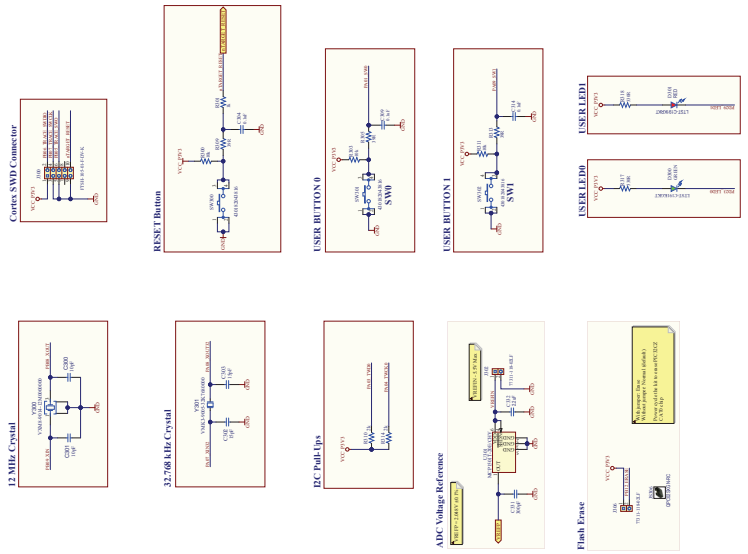


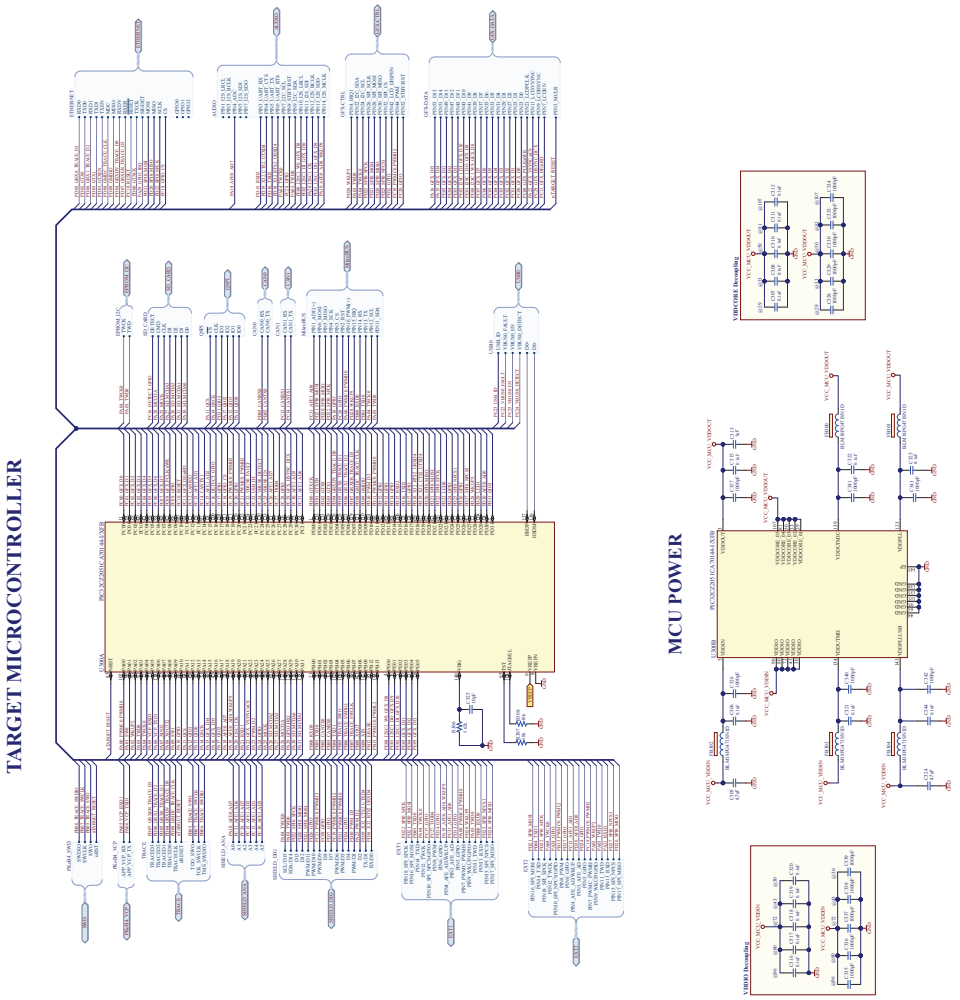




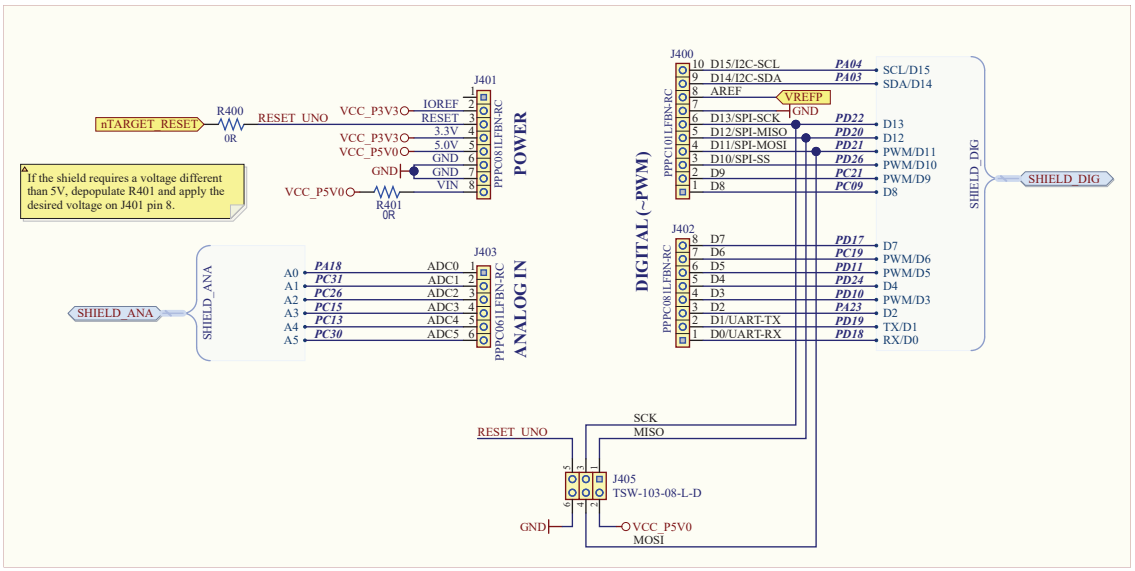




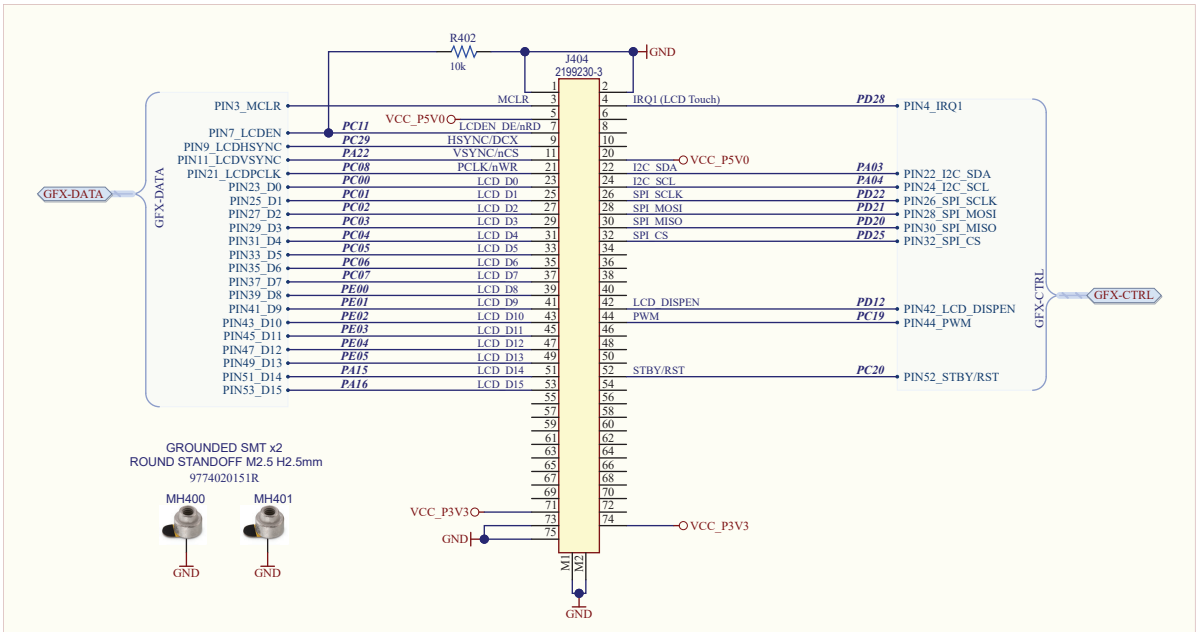


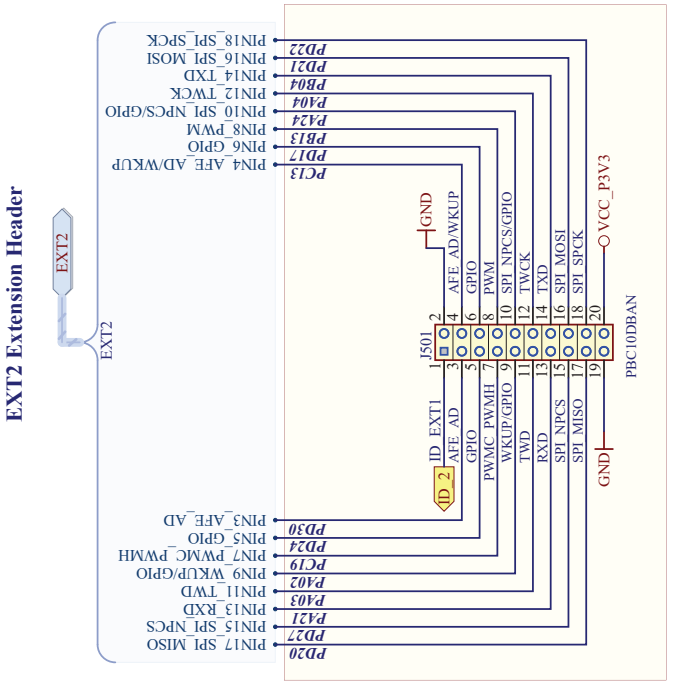


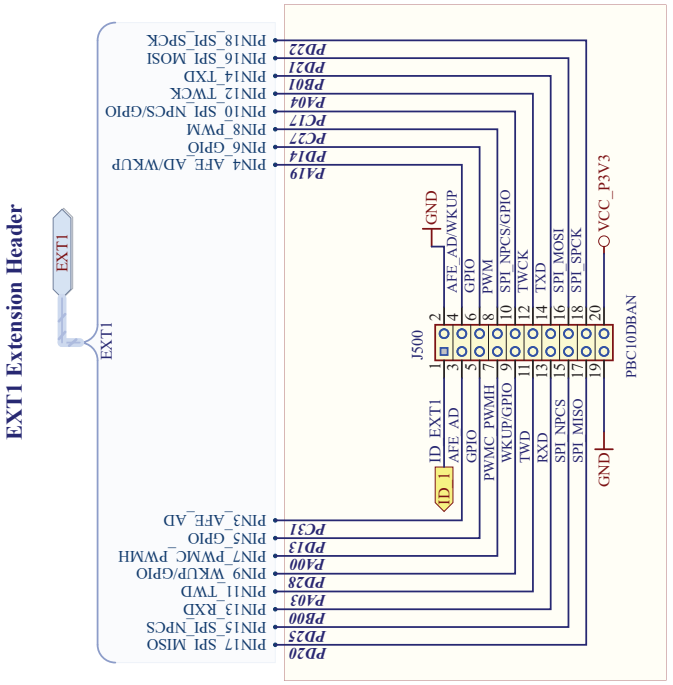
ARDUINO UNO COMPATIBLE HEADERS

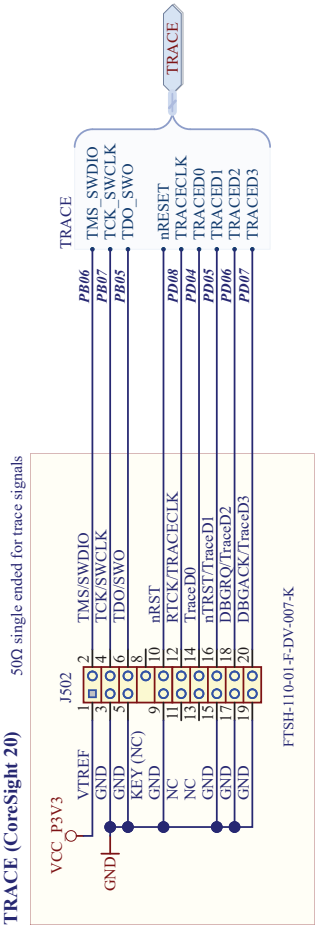


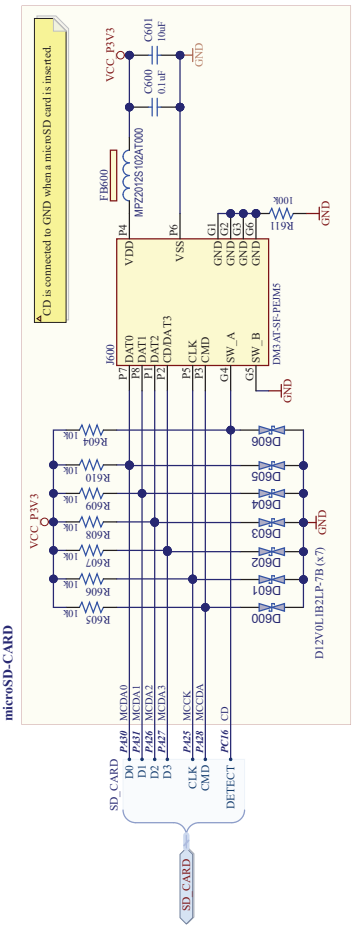
GRAPHICS CONNECTOR

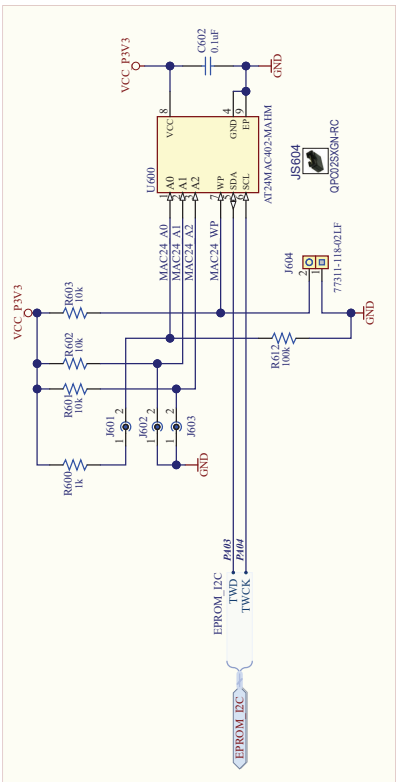


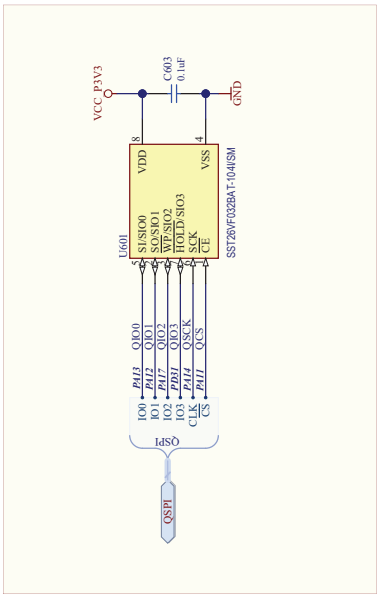




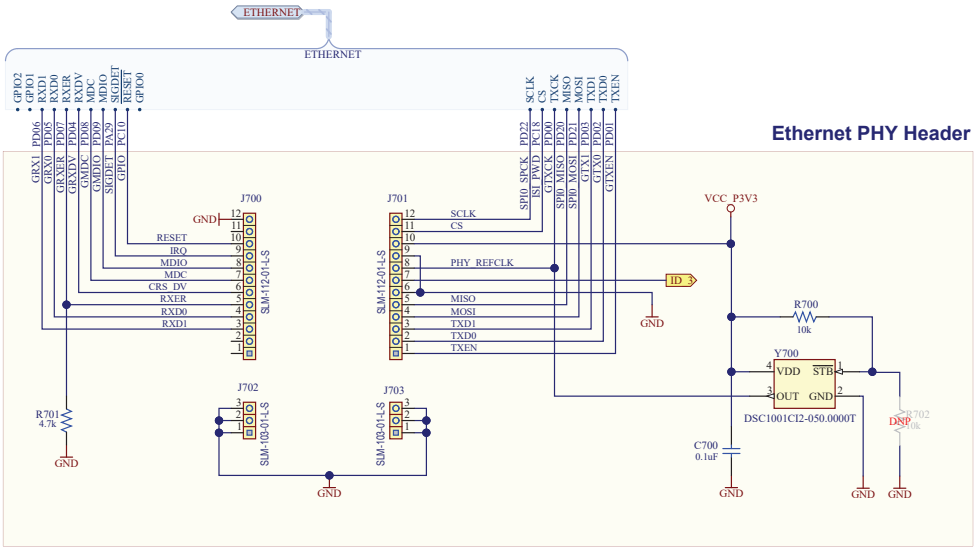




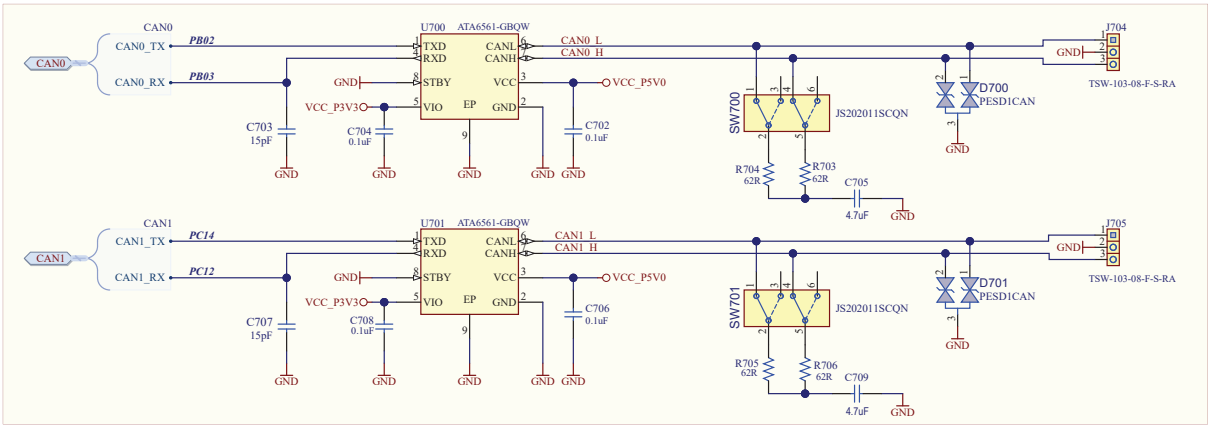


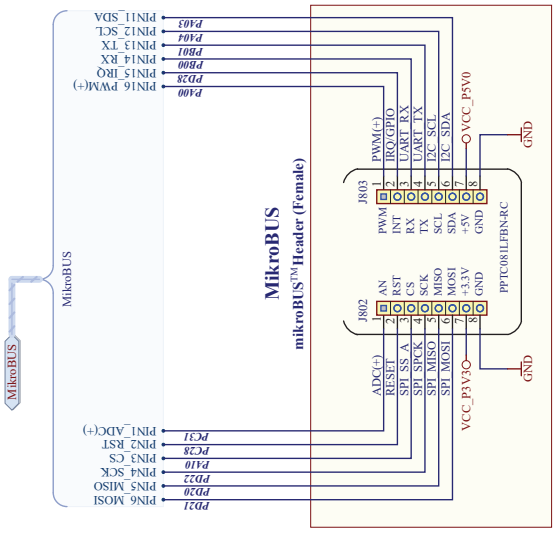


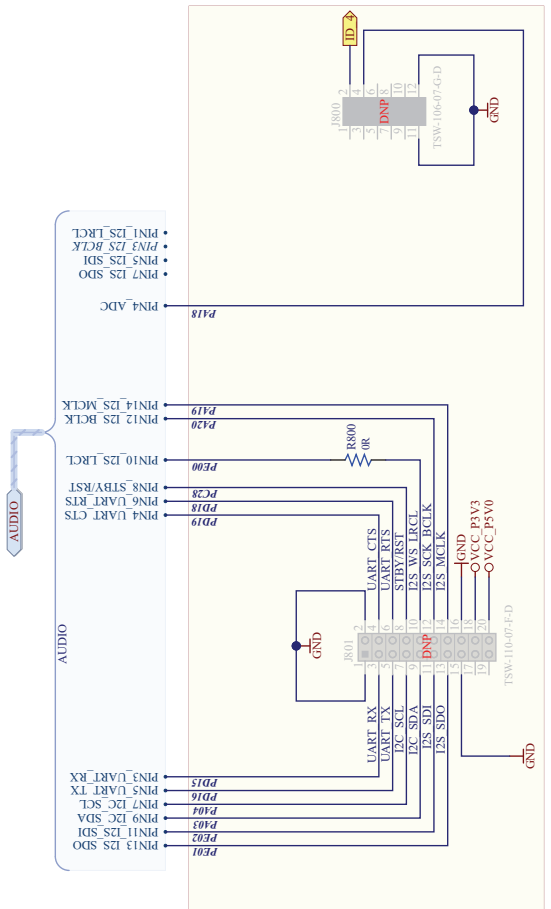
Ethernet PHY Header



CAN Transceivers







"X32" HEADER SIGNAL CONFIGURATION

PICKit on Board 4

3.2 Bill of Materials

Quantity	Designator	Description	Manufacturer	Manufacturer Part Number
2	C200, C313	CAP CER 1uF 16V 10% X7R SMD 0603	Wurth Electronics Inc	885012206052
2	C202, C332	CAP CER 2.2uF 16V 10% X7R SMD 0805	Murata	GRM21BR71C225KA12L
1	C203	CAP CER 0.1uF 50V 10% X7R SMD 0805	AVX Corporation	08055C104KAT2A
1	C204	CAP CER 22uF 25V 10% X5R SMD 1206	Murata Electronics North America Murata Electronics North America	GRM31CR61E226KE15L
11	C206, C207, C209, C210, C220, C305, C324, C705, C709, C904, C905	CAP CER 4.7uF 25V 10% X7R SMD 0805	TDK Corporation	C2012X7R1E475K125AB
1	C208	CAP CER 4700pF 50V 10% X7R SMD 0402	Murata Electronics North America	GRM155R71H472KA01J
1	C211	CAP CER 1000pF 50V 10% X7R SMD 0402	Samsung Electro-Mechanics	CL05B102KB5NFNC
2	C212, C213	CAP CER 100uF 10V 20% X5R SMD 1210	Samsung Electro-Mechanics	CL32A107MPVNNNE
29	C221, C304, C306, C307, C308, C309, C310, C311, C312, C314, C315, C316, C317, C318, C319, C320, C321, C322, C323, C344, C600, C602, C603, C700, C702, C704, C706, C708, C900	CAP CER 0.1uF 50V 10% X7R SMD 0402	Taiyo Yuden	UMK105B7104KV-FR
3	C300, C301, C325	CAP CER 10pF 50V 1% NP0 SMD 0402	Walsin	0402N100F500CT
4	C302, C303, C703, C707	CAP CER 15pF 50V 5% C0G SMD 0402	Samsung Electro-Mechanics	CL05C150JB5NNNC
16	C326, C327, C328, C329, C330, C333, C334, C335, C336, C337, C338, C339, C340, C341, C342, C343	CAP 1000pF 16V 10% X7R SMD 0201	Murata	GRM033R71C102KA01D
1	C331	CAP CER 330pF 25V 5% NPO SMD 0402	KEMET	C0402C301J3GAC7867
1	C601	CAP CER 10uF 10V 10% X5R SMD 0603	Samsung Electro-Mechanics	CL10A106KP8NNNC
16	C201, C205, C901, C902, C903, C906, C907, C908, C909, C910, C911, C912, C913, C914, C915, C916	CAP CER 0.1µF 16V 10% X5R SMD 0201	Murata Electronics North America	GRM033R61C104KE84D
1	D200	DIO SCTKY MBR230LSFT1G 430mV 2A 30V SMD SOD-123FL	ON Semiconductor	MBR230LSFT1G
5	D201, D203, D204, D205, D206	DIO SCTKY CUS08F30,H3F 30V 800mA SOD-323	Toshiba Semiconductor and Storage	CUS08F30,H3F
1	D202	DIO SCTKY SK34-TP 500mV 3A 40V DO-214AB	Micro Commercial Co	SK34-TP
5	D211, D212, D213, D900, D901	DIO TVS BIDIR PGB101 SMD 0402	Littlefuse	PGB1010402KR
2	D300, D902	DIO LED GREEN 2V 30mA 35mcd Clear SMD 0603	Lite-On Inc	LTST-C191KGKT
1	D301	DIO RED 2V 20mA 54mcd CLEAR SMD 0603	Lite-On Inc.	LTST-C191KRKT
7	D600, D601, D602, D603, D604, D605, D606	DIO TVS D12V0L1B2LP-7B 12VWM 25VC SMD 0402	Diodes Incorporated	D12V0L1B2LP-7B
2	D700, D701	TVS DIODE 24VWM 70VC SOT23	NXP Semiconductors	PESD1CAN,215
1	D903	DIO LED YELLOW 2.1V 20mA 6mcd Clear SMD 0603	Lite-On	LTST-C190YKT
4	FB204, FB205, FB900, FB901	FERRITE 500R@100MHz 2.5A SMD 1206	Wurth Electronics	742792116
5	FB300, FB301, FB302, FB303, FB304	FERRITE 470R@100MHz 1A SMD 0603	Murata	BLM18PG471SN1D
1	FB600	FERRITE 1K@100MHz 1.5A SMD 0805	TDK Corporation	MPZ2012S102AT000
2	FB902, FB903	FERRITE 2A 600R SMD 0805	TDK Corporation	MPZ2012S601AT000
1	J200	CON POWER 2.5mm 5.5mm Switch Slotted TH R/A	MPD (Memory Protection Devices)	EJ508B

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Quantity	Designator	Description	Manufacturer	Manufacturer Part Number
1	J201	CON HDR-2.54 Male 2x2 Gold 5.84MH TH R/A	Sullins Connector Solutions	PBC02DBAN
1	J202	CON HDR-2.54 Male 1X2 Gold 6mm MH TH R/A	Würth Elektronik	61300211021
2	J203, J900	CON USB2.0 Micro-AB Female ZX62D-AB-5P8(30) TOP MOUNT TH R/A	Hirose Connector	ZX62D-AB-5P8(30)
1	J300	CON HDR-1.27 Male 2x5 Gold 3.05MH SMD VERT	Samtec	FTSH-105-01-F-DV-K
3	J302, J306, J604	CON HDR-2.54 Male 1x2 Gold 5.84MH TH VERT	FCI	77311-118-02LF
1	J400	CON HDR-2.54 Female 1x10 Gold TH VERT	Sullins Connector Solutions	PPPC101LFBN-RC
2	J401, J402	CON HDR-2.54 Female 1x8 Gold TH	Sullins Connector Solutions	PPPC081LFBN-RC
1	J403	CON HDR-2.54 Female 1x6 Gold TH VERT	Aceconn Technology (Shenzhen)	CSHA101-0602A041B1AB
1	J404	CON EDGE MINI 0.5mm 67P Female SMD R/A	TE Connectivity AMP Connectors	2199230-3
1	J405	CON HDR-2.54 Male 2x3 Gold 5.84MH TH VERT	Samtec	TSW-103-08-L-D
2	J500, J501	CON HDR-2.54 Male 2x10 Rotated 180Degrees Gold TH RT ANGLE	Sullins Connector Solutions	PBC10DBAN
1	J502	CON HDR-1.27 MALE 2x20 Missing Pin 7 Polarized SMD VERT	Samtec Inc.	FTSH-110-01-F-DV-007-K
1	J600	CON FLASH microSD 8+2P Push-Push SMD	Hirose Electric Co Ltd	DM3AT-SF-PEJM5
2	J700, J701	CON STRIP-1.27 Female 1x12 Gold TH VERT	Samtec	SLM-112-01-L-S
2	J702, J703	CON STRIP-1.27 Female 1x3 Gold TH VERT	Samtec	SLM-103-01-L-S
2	J704, J705	CON HDR-2.54 Male 1x3 Gold 5.84MH TH R/A	Samtec	TSW-103-08-F-S-RA
2	J802, J803	CON HDR-2.54 Female 1x8 Tin TH VERT	Sullins	PPTC081LFBN-RC
1	L200	INDUCTOR 2.2uH 5.5A 20% SMD XGL3520 AEC-Q200 L3.2W3.5H2	Coilcraft	XGL3520-222MEC
2	L202, L900	INDUCTOR CHOKE COMMON MODE USB3.0 0.42K@1.9GHz OHM SMD L1.52W0.76H1.07	Coilcraft	0603USB-142MLC
1	LABEL1			
2	MH400, MH401	MECH HW STAND-OFF M2.5x2mm 5.1mm Steel TH Solderable	Würth Elektronik	9774020151R
2	MOV201, MOV900	RES VARISTOR 8.2V 30A V5.5MLA0603LNR SMD 0603	Littlefuse	V5.5MLA0603LNR
1	R200	RES TKF 1.2R 1% 1/10W SMD 0603	Panasonic	CRCW06031R20FNEA
2	R201, R203	RES TKF 2.2R 1% 1/8W SMD 0805 AEC-Q200	Vishay Dale	CRCW08052R20FKEA
25	R202, R207, R210, R211, R222, R300, R303, R307, R308, R311, R402, R601, R602, R603, R604, R605, R606, R607, R608, R609, R610, R700, R900, R901, R902	RES TF 10k 1% 1/10W SMD 0402 AEC-Q200	Vishay Beyschlag	MCS0402MC1002FE000
4	R204, R400, R800, R910	RES TKF 0R 1/10W SMD 0402	Panasonic Electronic Components	ERJ-2GE0R00X
1	R206	RES TKF 2.7k 1% 1/10W SMD 0402	Panasonic	ERJ-2RKF2701X
1	R208	RES TKF 19.6k 1% 1/10W SMD 0603	Yageo	RC0603FR-0719K6L
1	R209	RES TKF 475R 1% 1/10W SMD 0603	Panasonic Electronic Components	ERJ-3EKF4750V
3	R221, R912, R915	RES TKF 31.6k 1% 1/10W SMD 0402	Panasonic	ERJ-2RKF3162X
3	R223, R914, R916	RES TKF 47k 5% 1/10W SMD 0402	Panasonic	ERJ-2GEJ473X
2	R301, R600	RES TKF 1k 1% 1/10W SMD 0402	Panasonic	ERJ-2RKF1001X
3	R305, R309, R313	RES TKF 39R 1% 1/16W SMD 0402	Yageo	RC0402FR-0739RL
2	R306, R917	RES TKF 5.62k 1% 1/16W SMD 0402	Vishay Dale	CRCW04025K62FKED
2	R310, R314	RES TKF 2k 1% 1/10W SMD 0402	Panasonic Electronic Components	ERJ-2RKF2001X

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Quantity	Designator	Description	Manufacturer	Manufacturer Part Number
11	R317, R318, R903, R907, R923, R924, R926, R928, R929, R931, R932	RES TKF 330R 1% 1/16W SMD 0402	Yageo	RC0402FR-07330RL
1	R401	RES TKF 0R 1/10W AEC-Q200 SMD 0603	Panasonic Electronic Components	ERJ-3GEY0R00V
2	R611, R612	RES TKF 100k 1% 1/16W SMD 0402	KOA Speer	RK73H1ETTP1003F
4	R703, R704, R705, R706	RES TKF 62R 1% 1/2W SMD 1210 AEC-Q200	Panasonic	ERJ-14NF62R0U
3	R904, R905, R906	RES TKF 100k 1% 1/10W SMD 0402	Panasonic	ERJ-2RKF1003X
4	R701, R908, R909, R913	RES TKF 4.7k 1% 1/16W SMD 0402	Yageo	RC0402FR-074K7L
1	R911	RES TKF 100R 5% 1/10W SMD 0603	Vishay	CRCW0603100RJNEA
3	R918, R919, R920	RES TKF 3.3k 5% 1/10W SMD 0402	Panasonic - ECG	ERJ-2GEJ332X
2	R927, R930	RES TKF 15k 1% 1/10W SMD 0402	Panasonic Electronic Components	ERJ-2RKF1502X
3	SW300, SW301, SW302	SWITCH TACT SPST 12V 50mA PTS645SM43SMTR92 LFS SMD	C&K Components, Wurth Electronics Inc	PTS645SM43SMTR92 LFS, 430182043816
2	SW700, SW701	SWITCH SLIDE DPDT 6V 300MA JS202011CQN TH	C&K Components	JS202011CQN
1	U301			
1	Q900	MCHP ANALOG MOSFET N-CH TN2106 60V 280mA 360mW 2.5R SOT23-3	Microchip Technology	TN2106K1-G
1	U200	MCHP ANALOG SWITCHER Buck 12V 6A MIC24052YJL-TR QFN-28	Microchip Technology	MIC24052YJL-TR
1	U201	MCHP ANALOG LDO 3.3V MCP1727T-3302E/MF DFN-8	Microchip Technology	MCP1727T-3302E/MF
1	U202	MCHP ANALOG POWER SWITCH 2.7V to 5.5V 0.5A ACTIVE LO MIC2005A-2YM5-TR SOT23-5	Microchip Technology	MIC2005A-2YM5-TR
1	U300	MCHP MCU 32-BIT PIC32CZ2051CA70144-I_XFB TQFP-144	Microchip Technology	PIC32CZ2051CA70144-I/XFB
1	U600	MCHP MEMORY SERIAL EEPROM 2kB I2C EUI-64 AT24MAC402-MAHM DFN-8	Microchip Technolog/ Atmel	AT24MAC402-MAHM-T
1	U601	IC FLASH 32MBIT SST26VF032BAT-104I/SM	Microchip Technology	SST26VF032BAT-104I/SM
2	U700, U701	MCHP INTERFACE CAN ATA6561-GBQW VDFN-8	Microchip Technology	ATA6561-GBQW
1	U900	MCHP MCU 32-BIT 300MHz 2MB 384kB ATSAME70N21B-ANT LQFP-100	Microchip Technology	ATSAME70N21B-ANT
1	U901	MCHP MEMORY SERIAL EEPROM 256k I2C 24LC256T-I/MS MSOP-8	Microchip Technology	24LC256T-I/MS
1	Y300	CRYSTAL 12MHz 10pF 150ohms SMD L2.5W2H0.55	Microchip Technology	VXM8-9014-12M0000000
1	Y301	MCHP CRYSTAL 32.768kHz 12.5pF VMK3-9005-32K7680000 SMD L3.2W1.5H0.9	Microchip Technology	VMK3-9005-32K7680000
1	Y700	MCHP CLOCK OSCILLATOR 50MHz DSC1001CI2-050.0000T DFN-4	Microchip Technology	DSC1001CI2-050.0000T
1	Y900	MCHP CLOCK OSCILLATOR SINGLE 12.00MHZ DSC6011JI2B-012.0000 SMD VLGA	Microchip Technology	DSC6011JI2B-012.0000
3	JS202, JS306, JS604	MECH HW JUMPER 2.54mm 1x2 GOLD	Sullins Connector Solutions	QPC02SXGN-RC
4	PAD1, PAD2, PAD3, PAD4	MECH HW RUBBER PAD CYLINDRICAL D7.9 H5.3 BLACK	3M	SJ61A11, SJ61A11 (x4)
1	PCB1	Printed Circuit Board	—	04-11763-R2
0	J800	CON HDR-2.54 Male 2x6 Gold 5.84MH TH VERT	Samtec	TSW-106-07-G-D
0	J801	CON HDR 2.54 MALE 2x10 3u" GOLD IN CONTACT AREA MATTE TIN ON TAIL 5.84MH TH VERT	Samtec	TSW-110-07-F-D
0	J901	CON HDR-1.27 Female 1x8 TH VERT	Greenconn	FSEA120-0802A002B1AB
0	R205	RES TKF 100k 1% 1/16W SMD 0402	KOA Speer	RK73H1ETTP1003F
0	R702	RES TF 10k 1% 1/10W SMD 0402 AEC-Q200	Vishay Beyschlag	MCS0402MC1002FE000
0	R921, R925	RES TKF 10k 1% 1/10W SMD 0402	Panasonic	ERJ-2RKF1002X
0	R922	RES TKF 15k 1% 1/10W SMD 0402	Panasonic Electronic Components	ERJ-2RKF1502X

4. Revision History

Revision B - 08/2024

The following updates was performed for this revision:

- Removed the NDA Confidential Marking
- Updated image files: Figure 2-3 to Figure 2.11

Revision A - 06/2024

This is the initial release of the document.

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