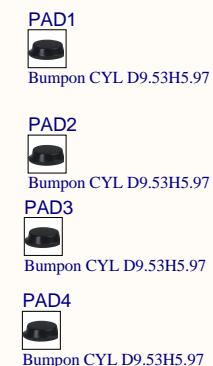
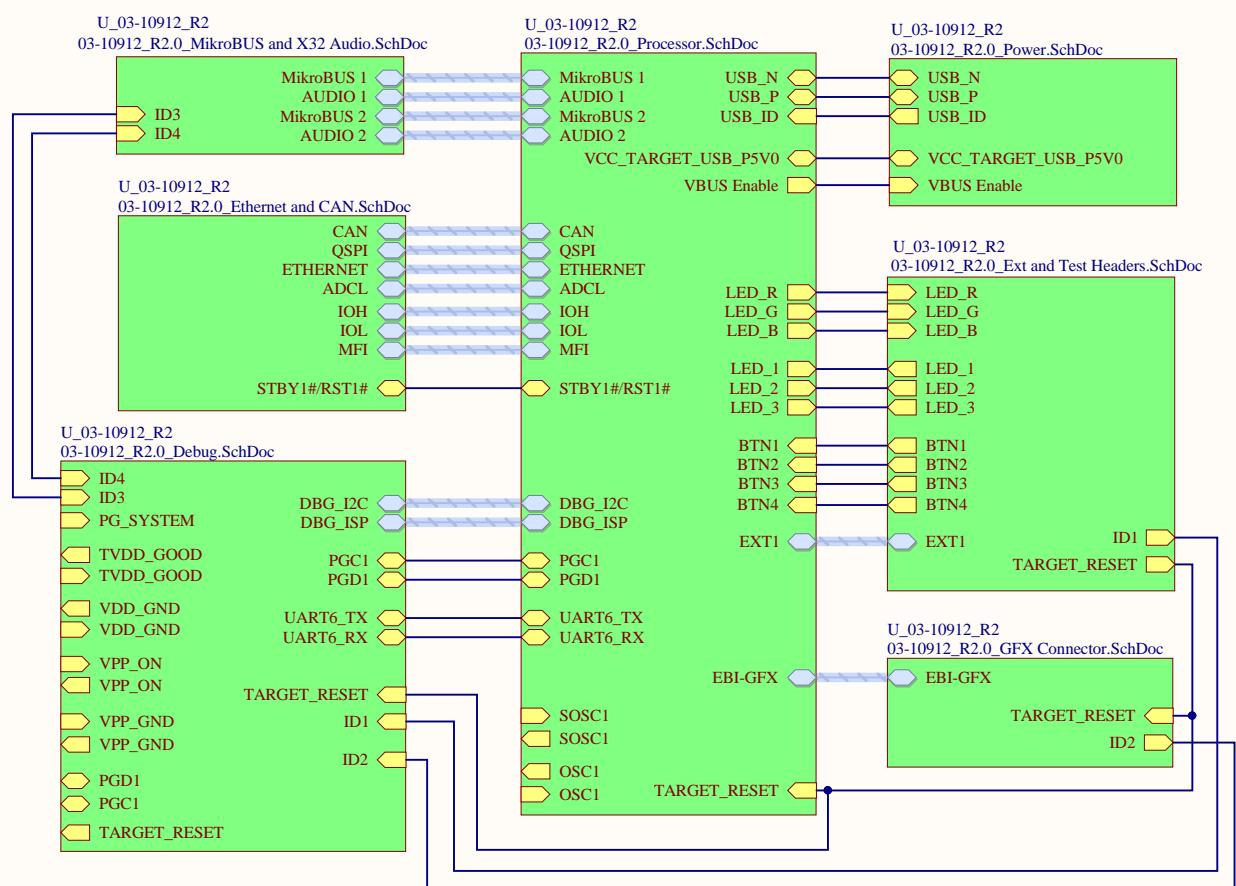
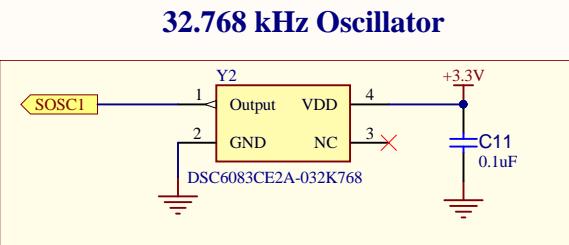
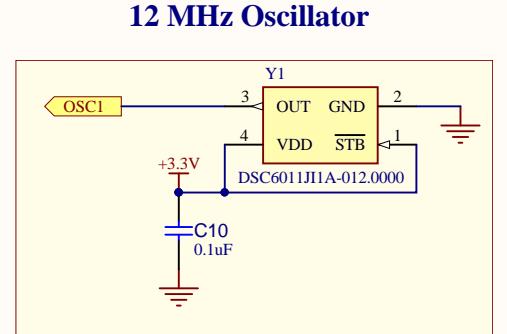


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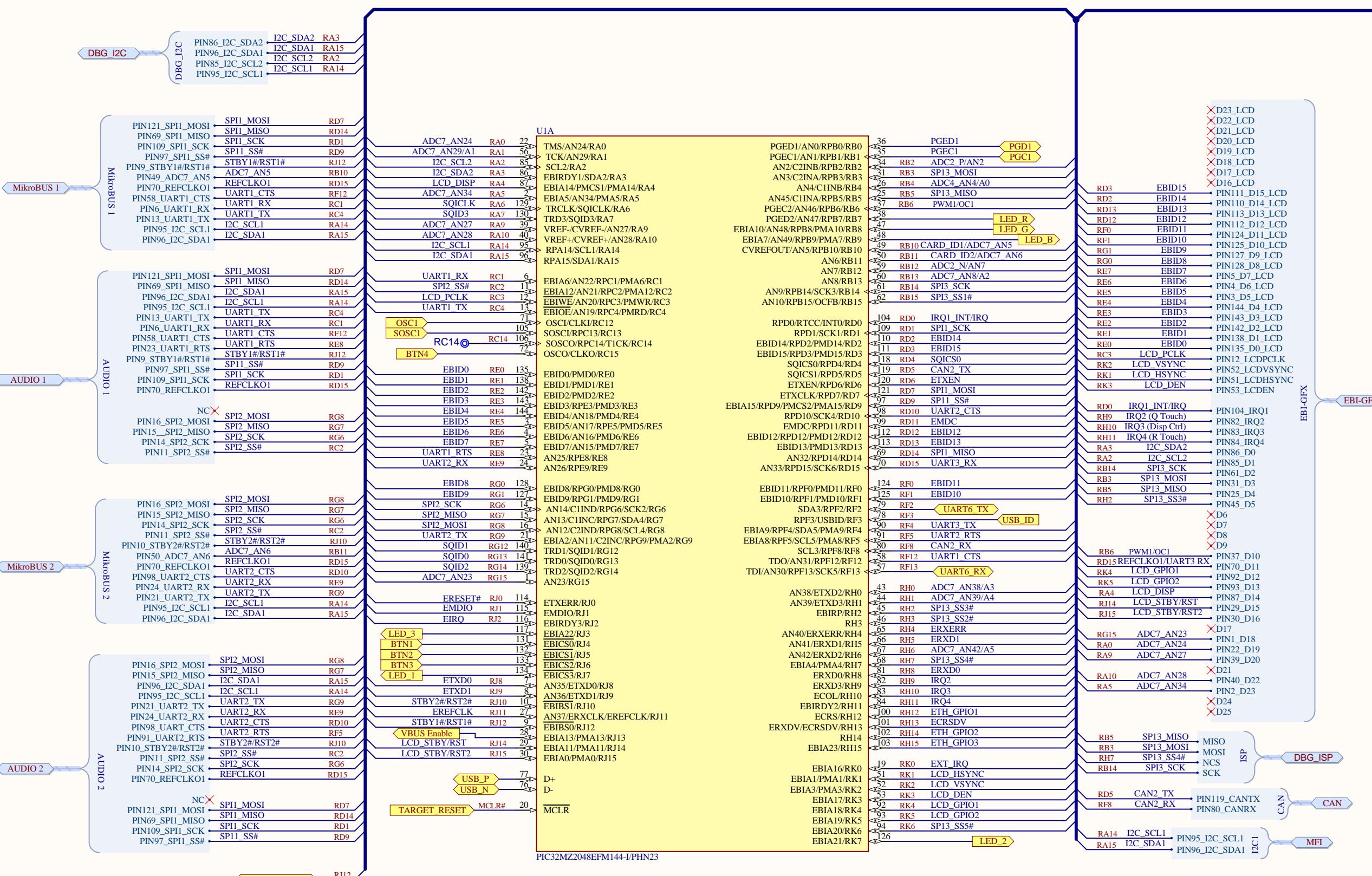
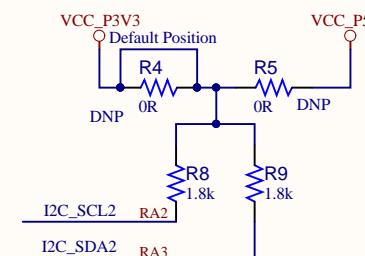
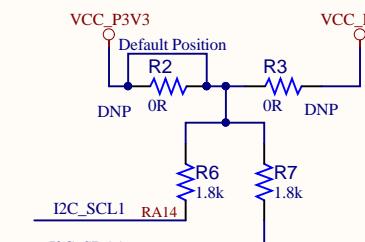
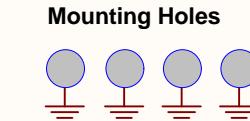
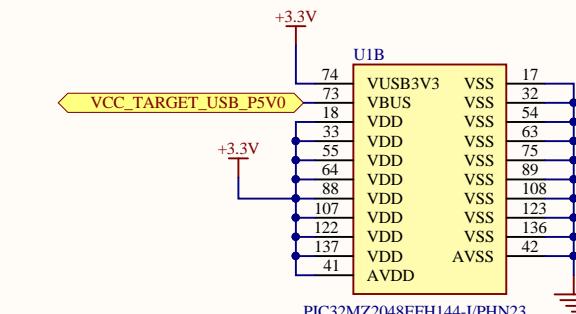
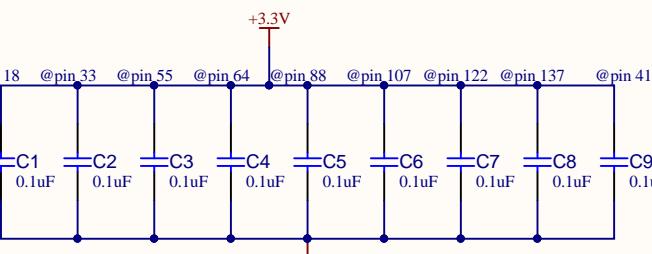
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Drawn By: Jesus Aviles	MICROCHIP	
Engineer: Keaton Stanley		
Part Number:	Project Title	PIC32MZ EF Curiosity 2
Sheet Title Top Sheet		Designed with Altium
Size: B Sch #: 03-10912 Revision: 2.0		Date: 12/18/2019 3:03:59 PM Sheet 1 of 8
File: 03-10912_R2.0_Top_Sheet.SchDoc		



CURRENT MEASUREMENT



 MICROCHIP

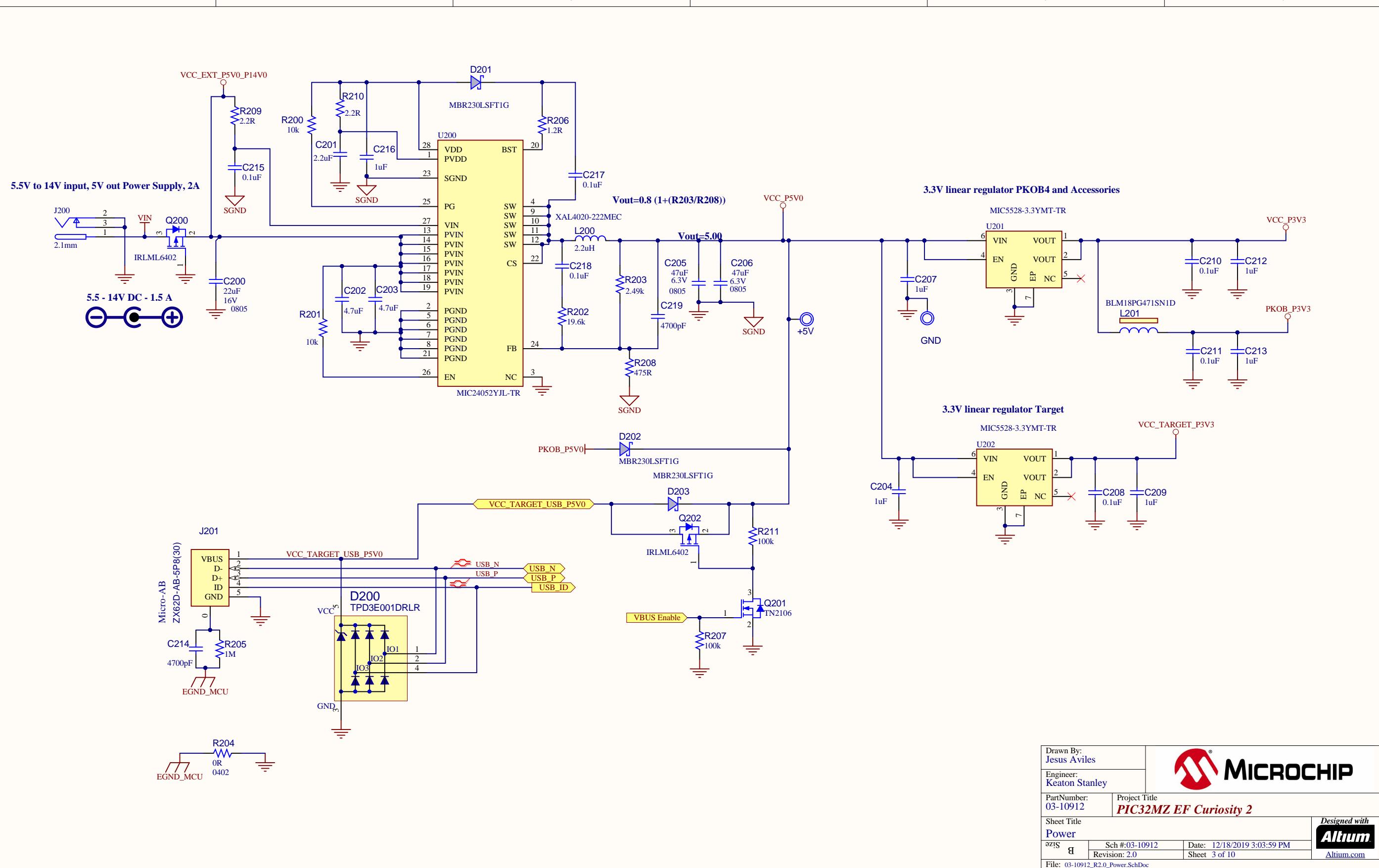
MICROCHIP

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EF Curiosity 2 | Designed

Altru

[Altium.com](#)



A

A

B

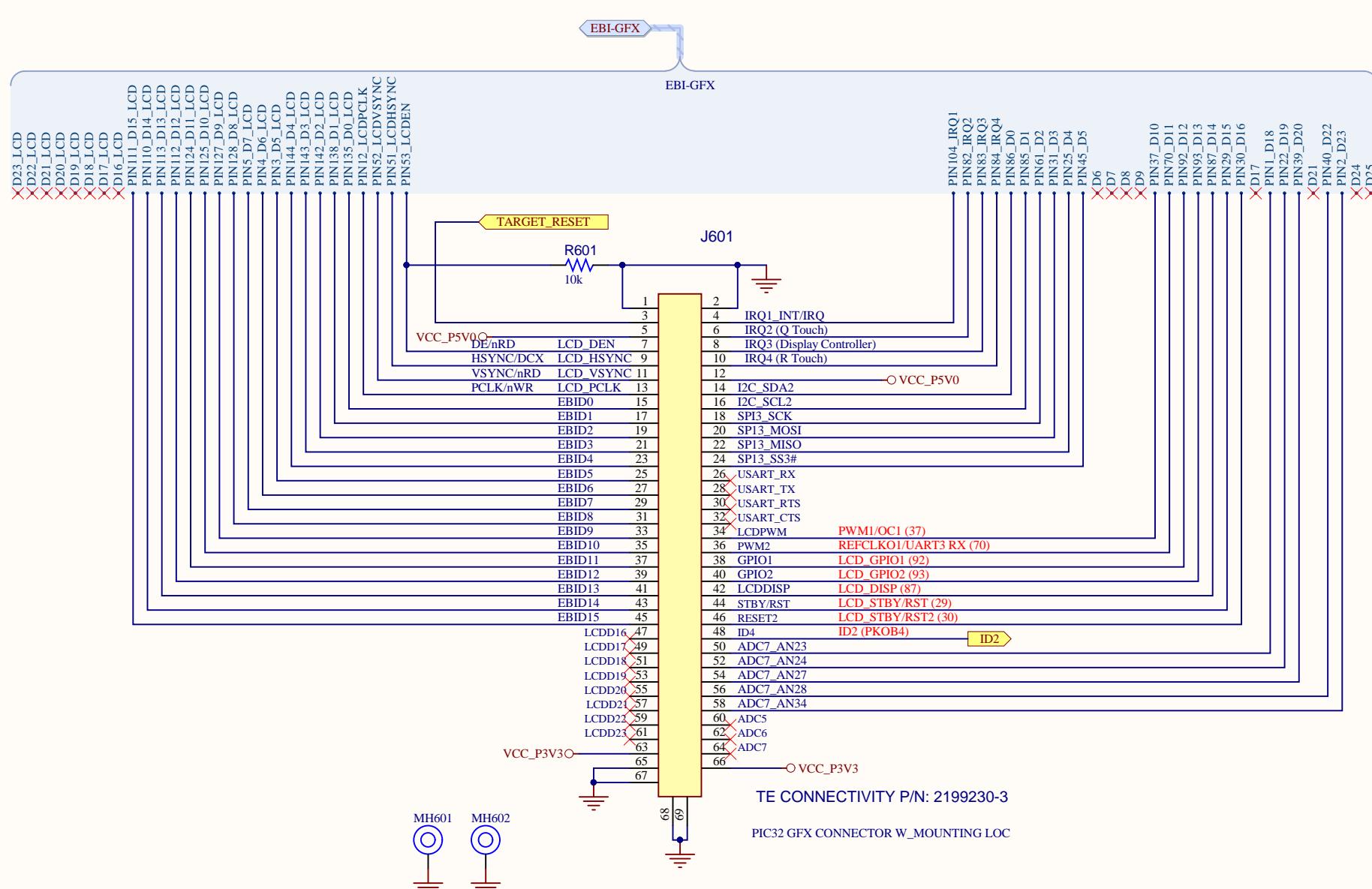
B

6

C

D

D



Drawn By:
Jesus Aviles



Engineer:
Keaton Stanley

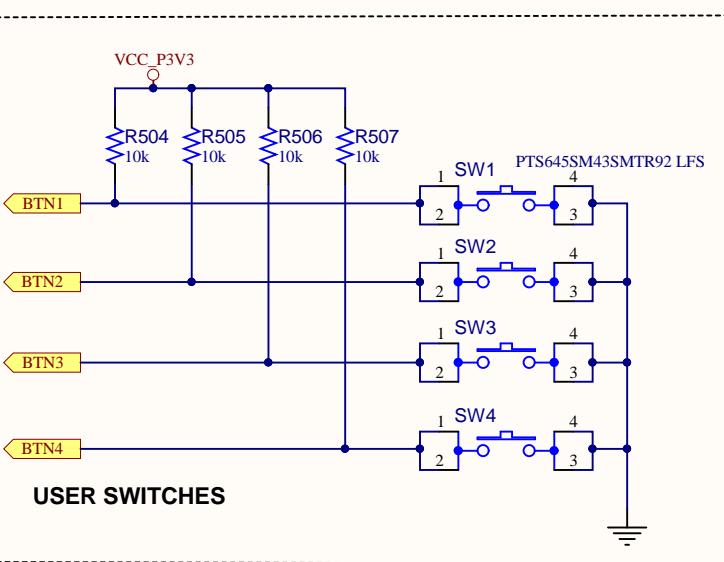
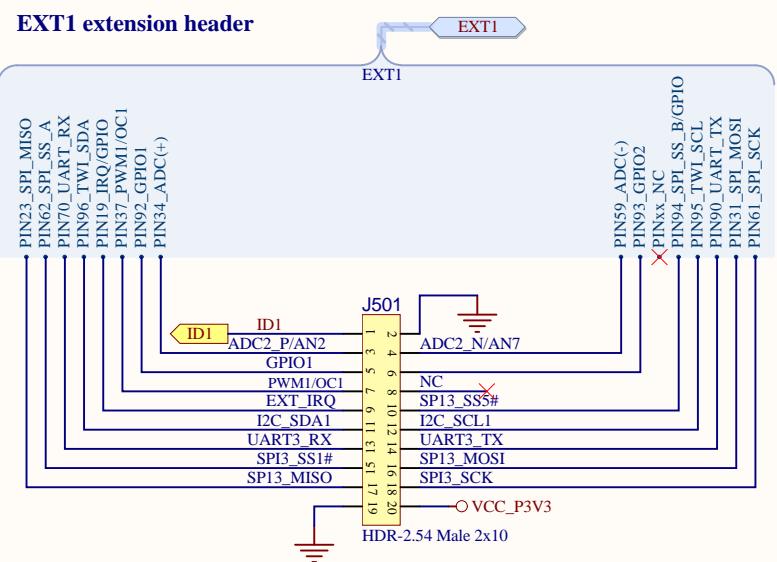
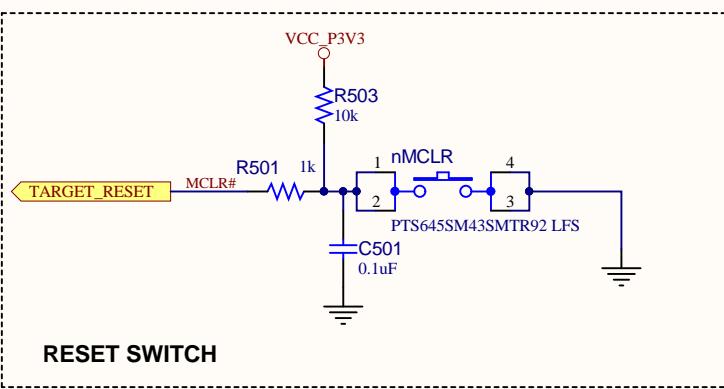
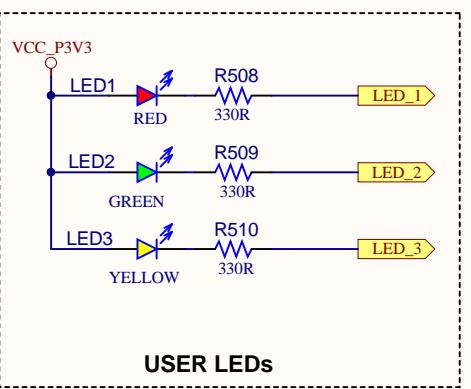
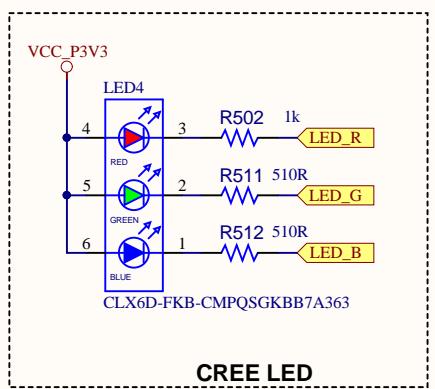
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03-10912 **PIC32 MZ EF Curiosity 2**

Sheet Title

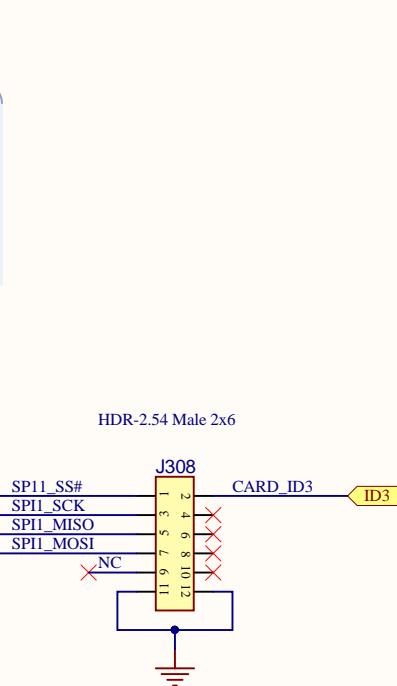
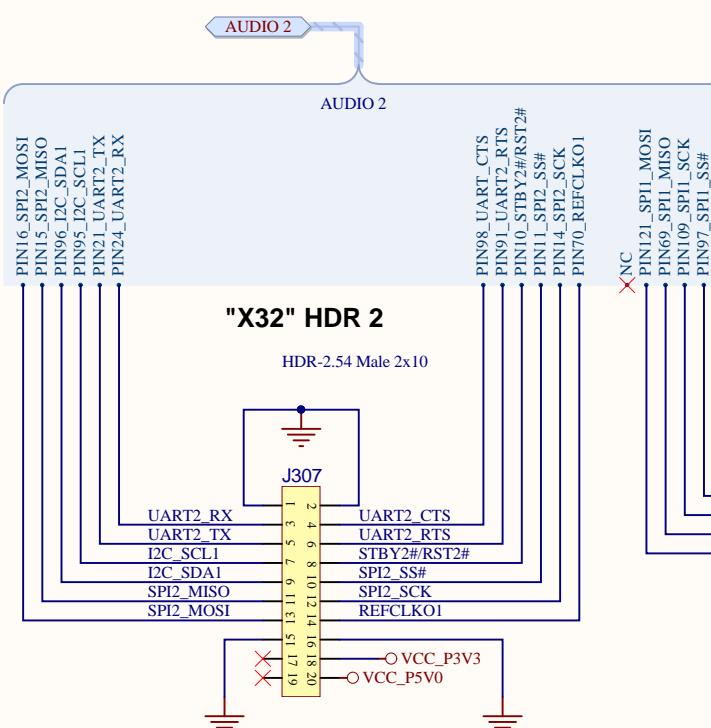
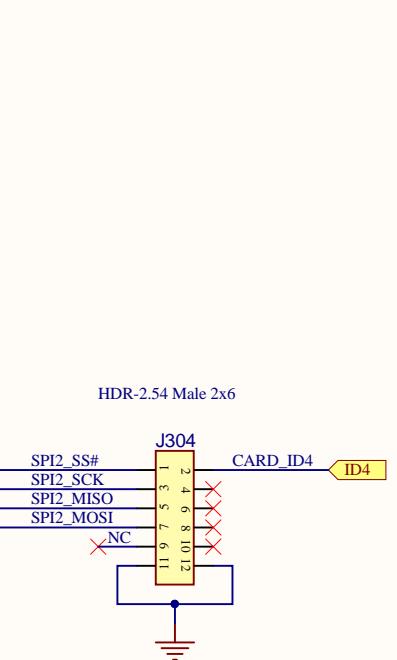
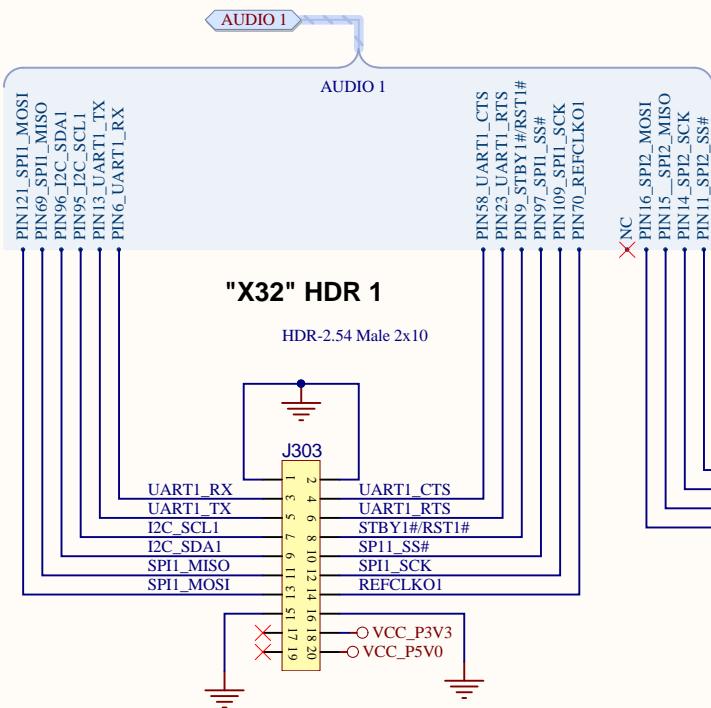
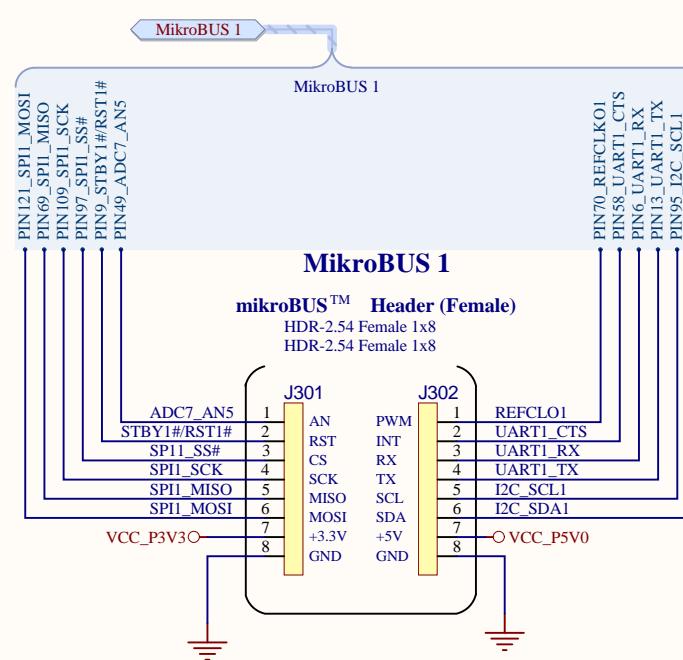
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Sch #:	03-10912	Date: 12/18/2019 3:03:59 PM
Revision:	2.0	Sheet: 4 of 8

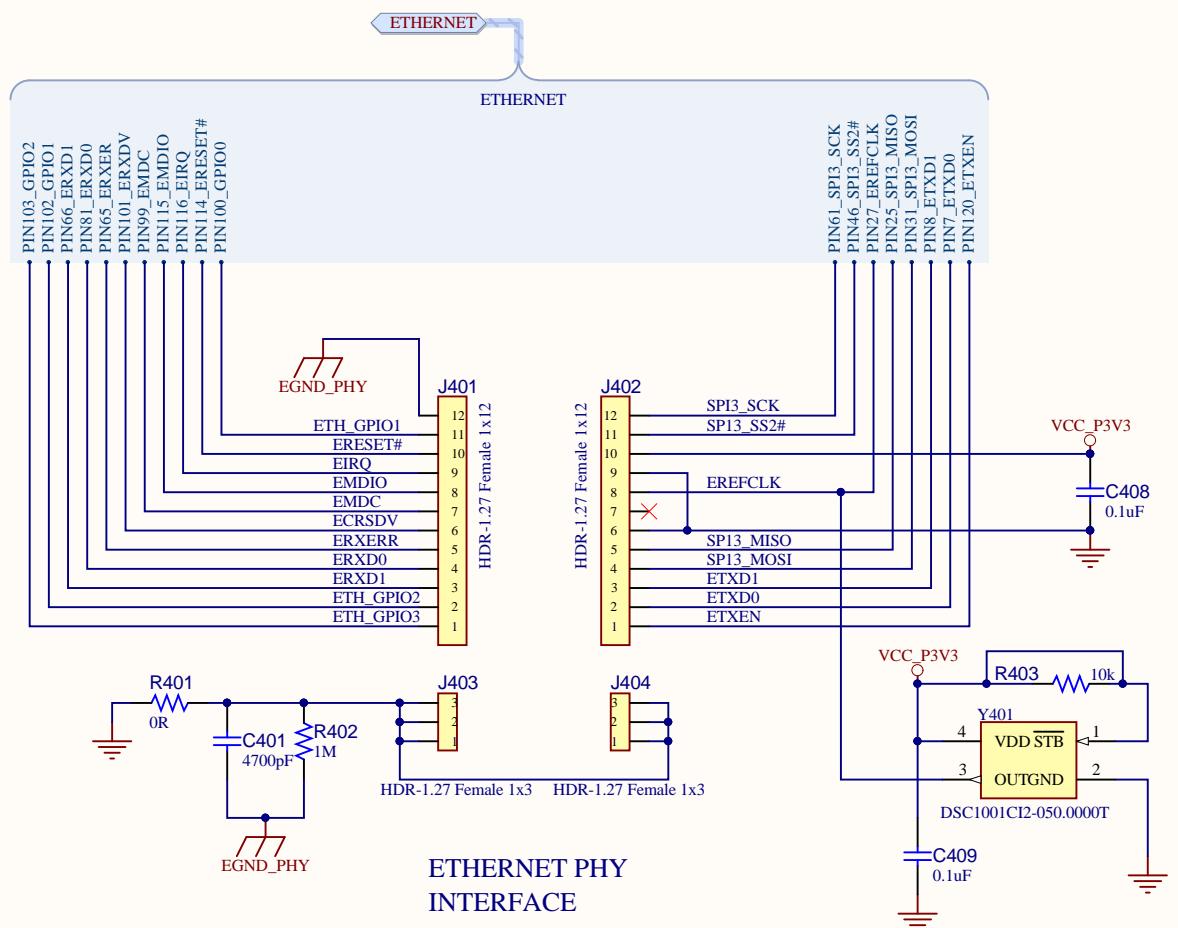
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Designed with
Altium
Altium.com

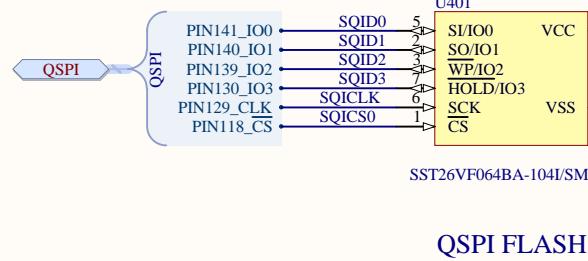


Drawn By: Jesus Aviles	Project Title PIC32MZ EF Curiosity 2
Engineer: Keaton Stanley	
PartNumber: 03-10912	
Sheet Title Ext & I/O	Designed with Altium
azIS Sch #:03-10912 Revision: 2.0	Altium.com
Date: 12/18/2019 3:03:59 PM Sheet 5 of 8	
File: 03-10912_R2.0_Ext and Test Headers.SchDoc	

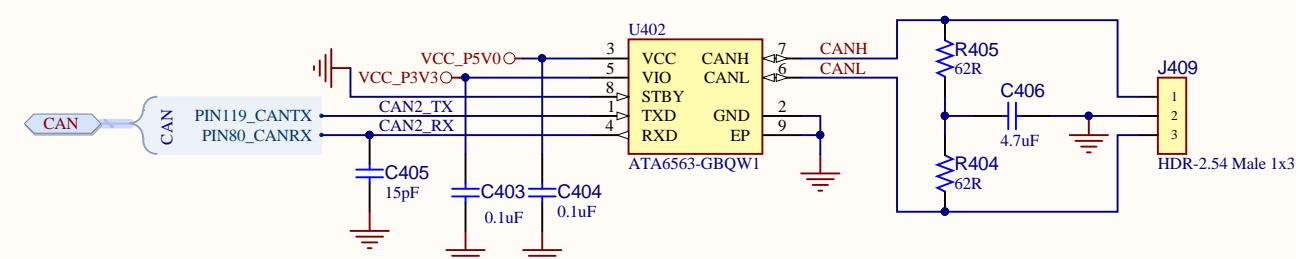




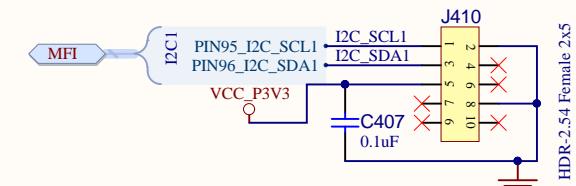
ETHERNET PHY
INTERFACE



QSPI FLASH

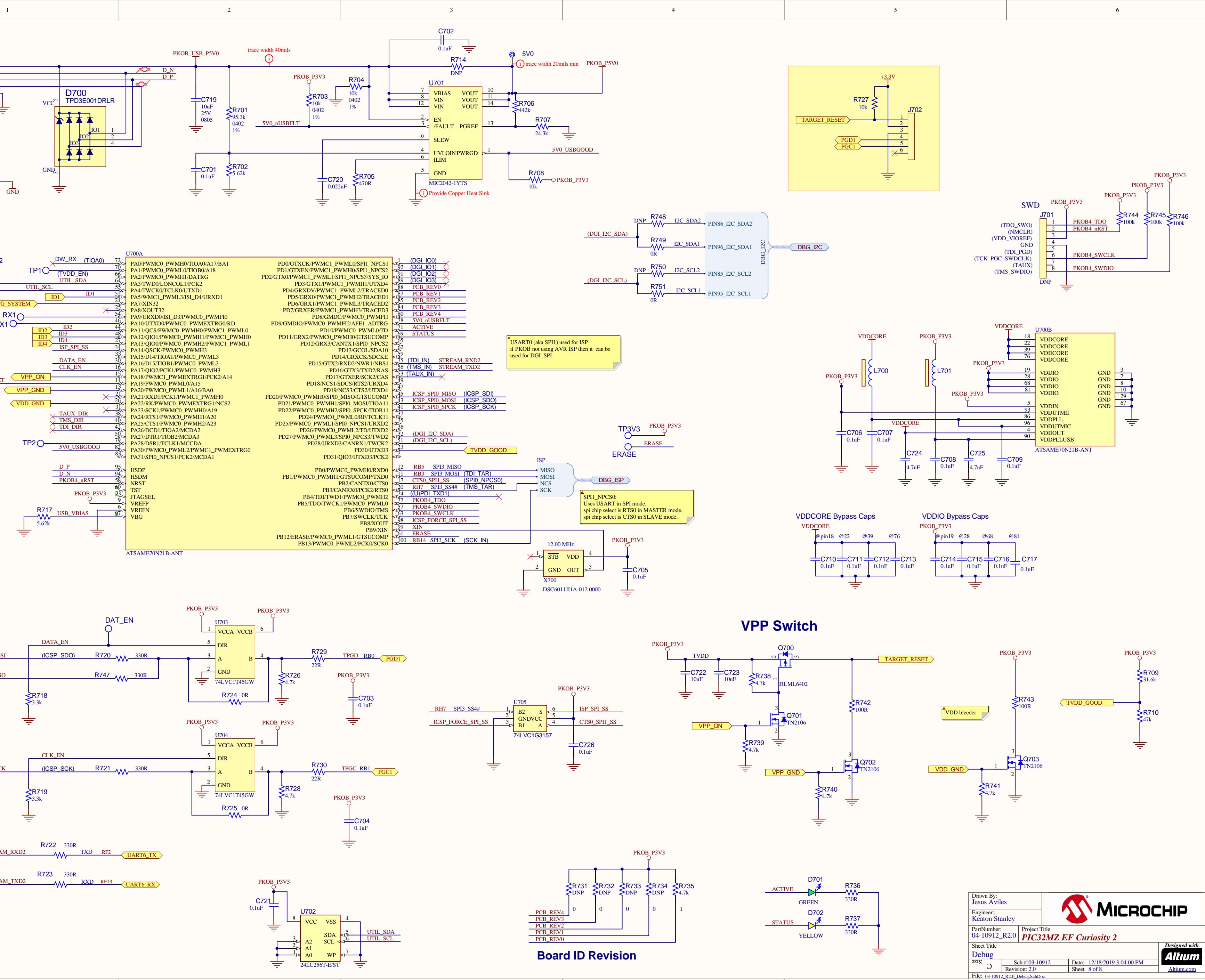


CAN INTERFACE



MEI INTERFACE

Drawn By: Jesus Aviles		 MICROCHIP	
Engineer: Keaton Stanley			
PartNumber: 03-10912	Project Title PIC32MZ EF Curiosity 2		
Sheet Title Ethernet & CAN		<i>Designed with</i> Altium Altium.com	
Size B	Sch #: 03-10912	Date: 12/18/2019 3:03:59 PM	Sheet 7 of 8
Revision: 2.0			
File: 03-10912_R2.0_Ethernet and CAN.SchDoc			

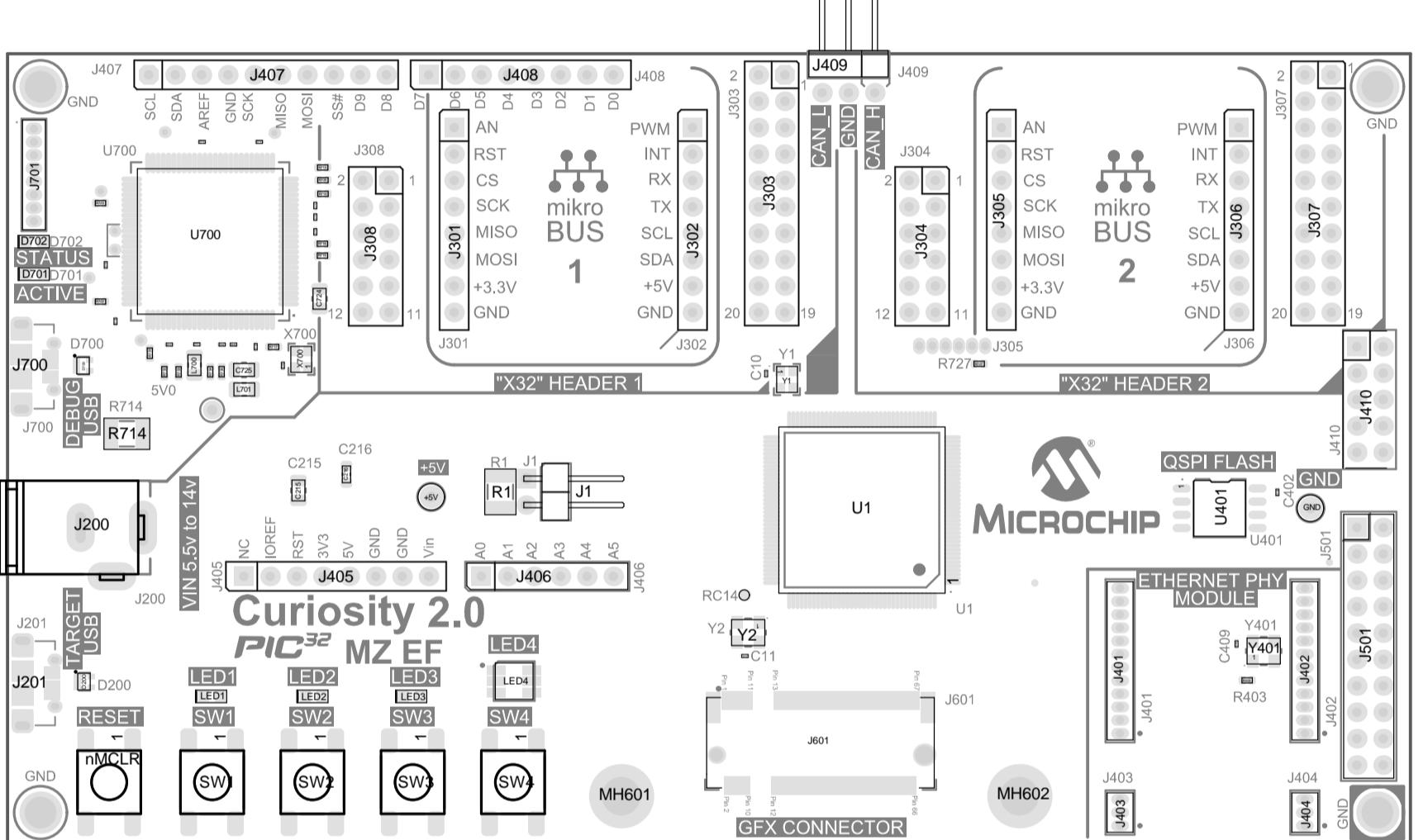


REV	ECO	Comments	Date

ASSEMBLY NOTES:

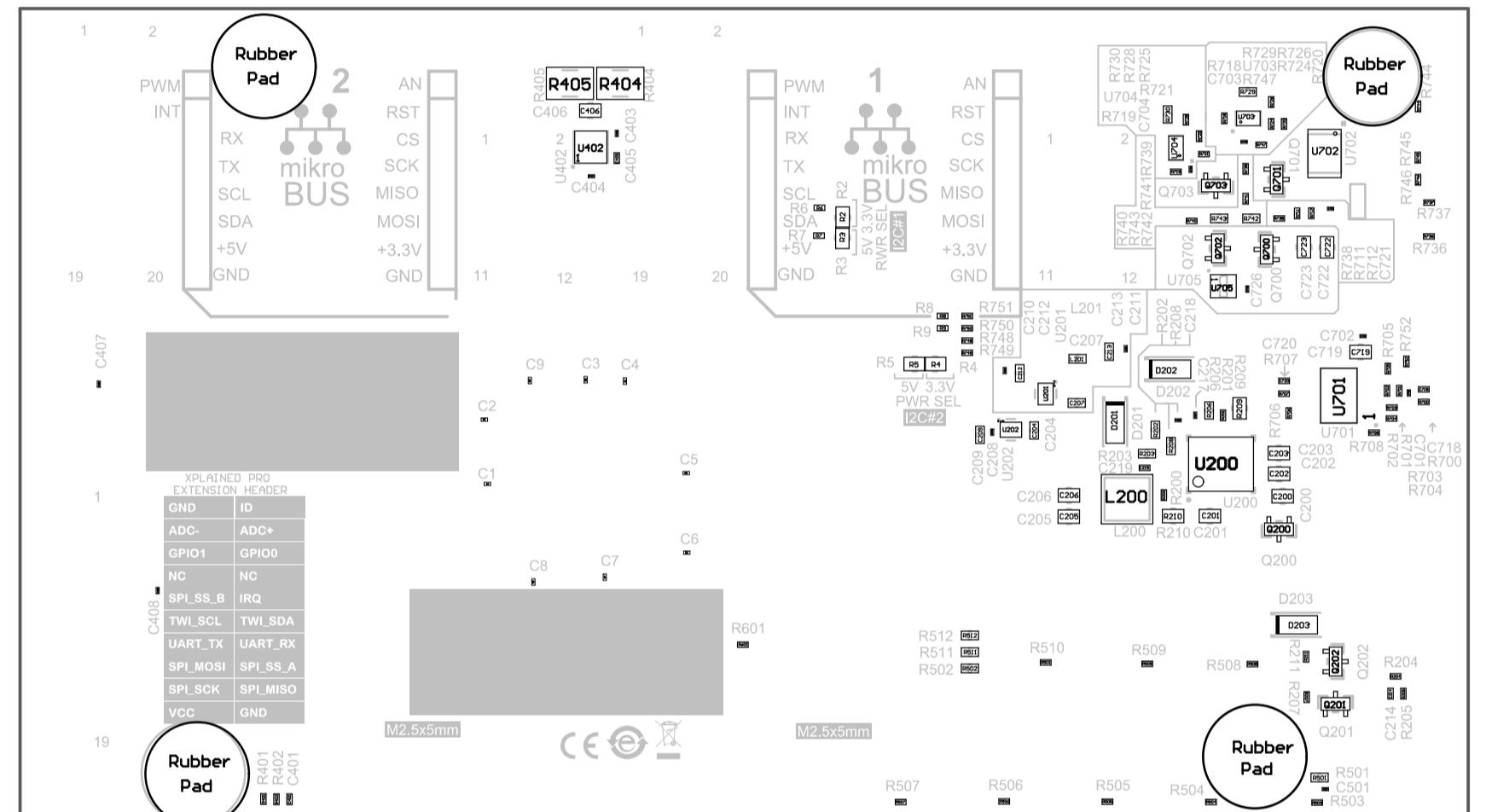
1. ALL COMPONENTS SHALL BE RoHS COMPLIANT.
2. ALL UNUSED THROUGH HOLE COMPONENT LOCATIONS SHALL BE FREE OF SOLDER.
3. ALL COMPONENTS SHALL BE MOUNTED FLUSH TO THE BOARD, EXCEPT AS NOTED.
4. FINISHED BOARD SHALL BE FREE OF ALL RESIDUES.
5. ALL LEADS SHALL BE TRIMMED TO A MAXIMUM HEIGHT OF 2mm
6. PLACE LABEL (.ProjectBoardName) ON THE LOCATION INDICATED.
- 7.

Top Overlay



 MICROCHIP Microchip Technology Inc. 2355 W. Chandler Blvd. Chandler, AZ 85224	TITLE: PIC32MZ EF Curiosity 2		
	PCB DESIGNER: Jesus Aviles	GERBER FILE: Top Assembly Drawing	
ENGINEER: Keaton Stanley	BOARD NUMBER: 04- 10912	DOCUMENT NUMBER: 02- 10912-D	DATE: 12/18/2019
PCB FILE NAME: 05-10912_R2.0.PcbDoc	LAYER NAME: Assy TOP (M11)	REV: 2.0	400mil

Botttom Overlay



</

REV	ECO	Comments	Date

A

A

B

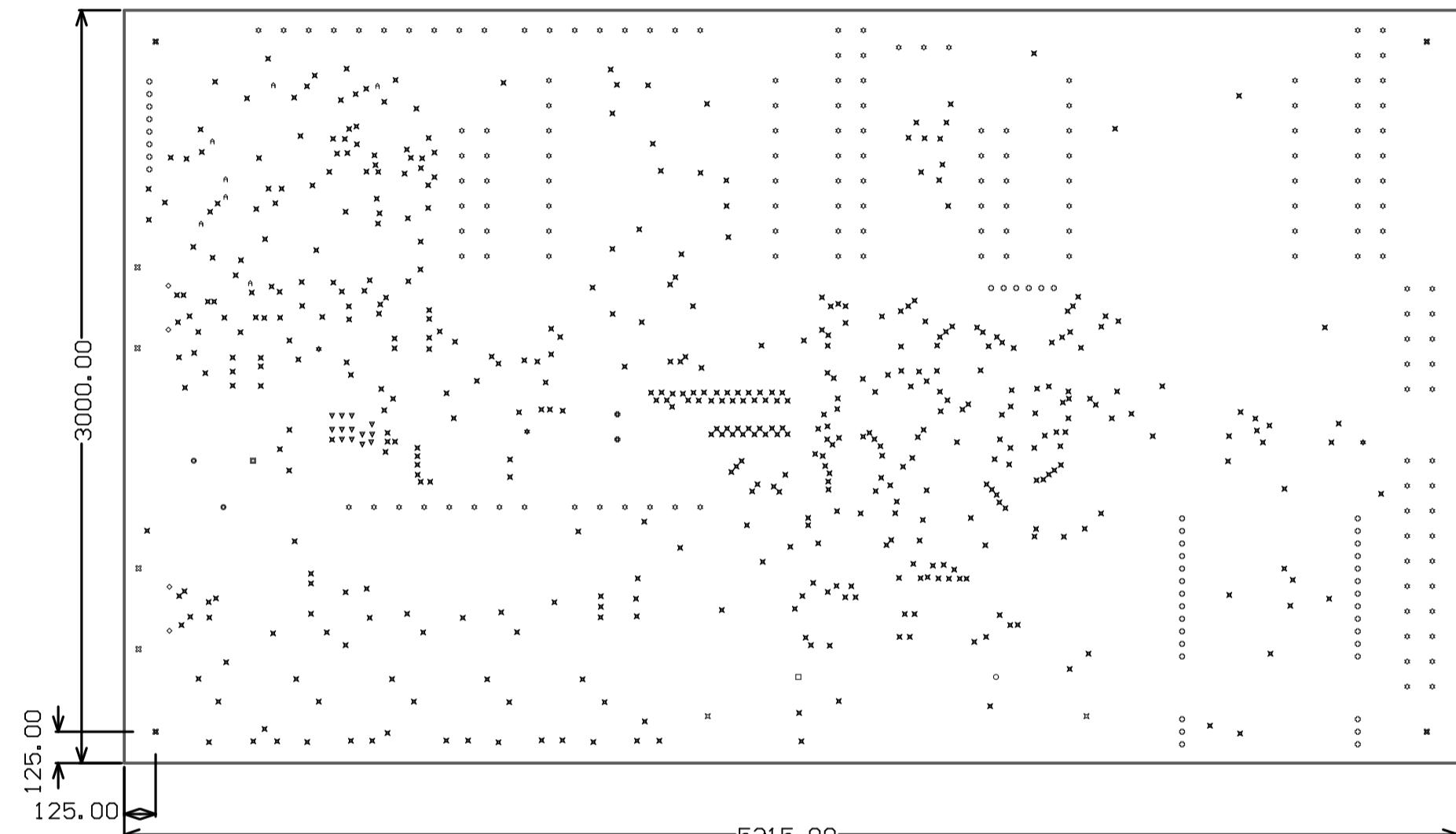
B

C

C

D

D



90ohms +/-10%
Impedance
Matched

Layer	Name	Material	Count	Board Layer Stack
1	Top Overlay			
2	Top Solder	Solder Resist		
3	Top Layer	Copper		
4	Dielectric1	FR-4		
5	GND	Copper		
6	Dielectric 3			
7	PWR Plane	Copper		
8	Dielectric 4			
9	Bottom Layer	Copper		
10	Bottom Solder	Solder Resist		
11	Bottom Overlay			

Symbol	Count	Hole Size	Plated	Hole Type
✖	492	10.00mil (0.254mm)	PTH	Round
▼	13	11.81mil (0.300mm)	PTH	Round
▲	7	23.62mil (0.600mm)	PTH	Round
◆	4	25.59mil (0.650mm)	PTH	Slot
○	44	31.00mil (0.787mm)	PTH	Round
✖	4	32.48mil (0.825mm)	PTH	Slot
✖	161	35.43mil (0.900mm)	PTH	Round
*	3	39.37mil (1.000mm)	PTH	Round
●	2	39.37mil (1.000mm)	PTH	Slot
■	1	39.37mil (1.000mm)	PTH	Slot
✖	2	42.00mil (1.067mm)	PTH	Round
□	1	51.18mil (1.300mm)	NPTH	Round
○	1	70.87mil (1.800mm)	NPTH	Round
✖	4	120.00mil (3.048mm)	PTH	Round
✖	2	145.67mil (3.700mm)	NPTH	Round
741 Total				

Slot definitions : Routed Path Length = Calculated from tool start centre position to tool end centre position.
Hole Length = Routed Path Length + Tool Size = Slot length as defined in the PCB layout

THIS PCB TO BE MANUFACTURED TO MEET ALL ACCEPTANCE LEVELS
OF A CLASS 2 PCB PER ANSI/IPC-A-600G.

MATERIAL: FR-4 or Equivalent
 MULTILAYER 4 LAYERS
 Cu WEIGHT EXTERNAL LAYERS
 Cu WEIGHT INTERNAL LAYERS
 FINISHED OVERALL THICKNESS
 COPPER THIEVING ALLOWED
 LEAD-FREE HOT AIR LEVELING
 IMMERSION GOLD
 IMMERSION TIN
 SMOBC WITH SELECTIVE GOLD PLATING ON LANDS
 INDICATED. 1um GOLD OVER 5-10 um NICKEL

FINISH:
 DYNACHEM EPIC 200 LPI OR EQUIVALENT
 RED HIGH GLOSS
 SILKSCREEN COLOR

90ohms +/-10%
 CONTROLLED IMPEDANCE
 1 oz. FINISHED
 1 oz. FINISHED
 0.064 in. ± 10 %
 YES NO

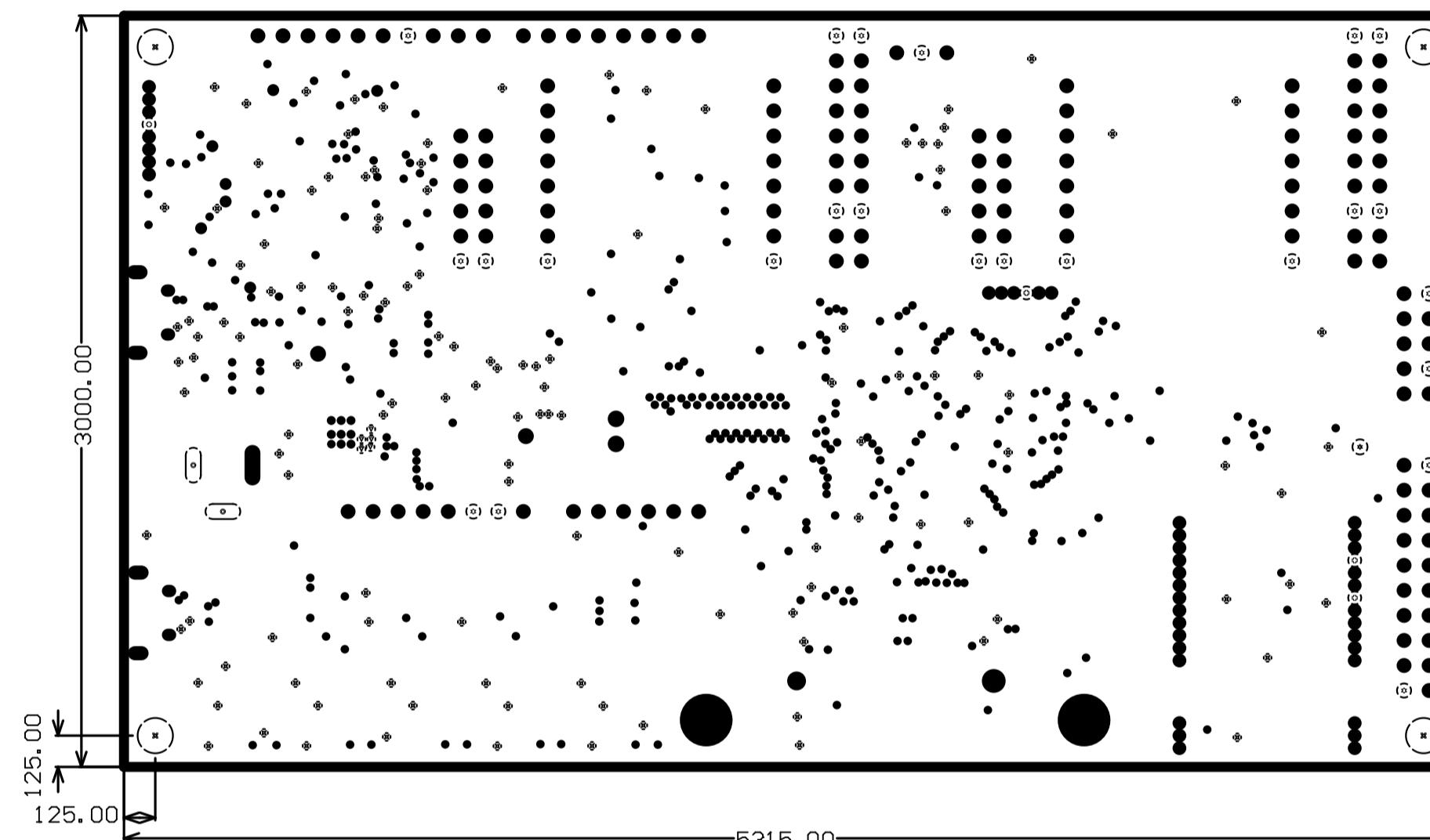
ALL HOLES TO BE LOCATED BY THE COORDINATES FROM THE NC DRILL DATA PROVIDED.
 USE ARTWORK SET NO. 05-10912 PCB REV 2.0

ALL UL LOGO, MANUFACTURER'S ID, AND DATE CODES SHALL BE PLACED
ON THE BOTTOM SIDE UNLESS OTHERWISE INDICATED.

ANY ALTERNATIVES TO THE ABOVE SPECIFICATIONS MUST FIRST BE APPROVED.

 PIC32MZ EF Curiosity 2		PART NUMBER: 03-10912		
PCB DESIGNER: Jesus Aviles	GERBER FILE: Drill Drawing For (Bottom Layer,Top Layer)			
ENGINEER: Keaton Stanley	BOARD NUMBER: 04-10912	DOCUMENT NUMBER: 04-10912-D	DATE: 12/18/2019	
PCB FILE NAME: 05-10912_R2.0.PcbDoc	LAYER NAME: BOARD(M2)	REV: 2.0	10mm ----- 400mil -----	

REV	ECO	Comments	Date

GND Plane

90ohms +/-10%
Impedance
Matched

Layer	Name	Material	Count	Board Layer Stack
1	Top Overlay			
2	Top Solder	Solder Resist		
3	Top Layer	Copper		
4	Dielectric1	FR-4		
5	GND	Copper		
6	Dielectric 3			
7	PWR Plane	Copper		
8	Dielectric 4			
9	Bottom Layer	Copper		
10	Bottom Solder	Solder Resist		
11	Bottom Overlay			

Symbol	Count	Hole Size	Plated	Hole Type
✖	492	10.00mil (0.254mm)	PTH	Round
▼	13	11.81mil (0.300mm)	PTH	Round
▲	7	23.62mil (0.600mm)	PTH	Round
◆	4	25.59mil (0.650mm)	PTH	Slot
○	44	31.00mil (0.787mm)	PTH	Round
✖	4	32.48mil (0.825mm)	PTH	Slot
✖	161	35.43mil (0.900mm)	PTH	Round
*	3	39.37mil (1.000mm)	PTH	Round
●	2	39.37mil (1.000mm)	PTH	Slot
■	1	39.37mil (1.000mm)	PTH	Slot
✖	2	42.00mil (1.067mm)	PTH	Round
□	1	51.18mil (1.300mm)	NPTH	Round
○	1	70.87mil (1.800mm)	NPTH	Round
✖	4	120.00mil (3.048mm)	PTH	Round
✖	2	145.67mil (3.700mm)	NPTH	Round
741 Total				

Slot definitions : Routed Path Length = Calculated from tool start centre position to tool end centre position.
Hole Length = Routed Path Length + Tool Size = Slot length as defined in the PCB layout

THIS PCB TO BE MANUFACTURED TO MEET ALL ACCEPTANCE LEVELS OF A CLASS 2 PCB PER ANSI/IPC-A-600G.

MATERIAL: FR-4 or Equivalent
 MULTILAYER 4 LAYERS
 Cu WEIGHT EXTERNAL LAYERS
 Cu WEIGHT INTERNAL LAYERS
 FINISHED OVERALL THICKNESS
 COPPER THIEVING ALLOWED
90ohms +/-10%

FINISH:
 LEAD-FREE HOT AIR LEVELING
 IMMERSION GOLD
 IMMERSION TIN
 SMOBC WITH SELECTIVE GOLD PLATING ON LANDS
 INDICATED. 1um GOLD OVER 5-10 um NICKEL

SOLDERMASK DYNACHEM EPIC 200 LPI OR EQUIVALENT
 SOLDERMASK COLOR RED HIGH GLOSS
 SILKSCREEN COLOR WHITE

ALL HOLES TO BE LOCATED BY THE COORDINATES FROM THE NC DRILL DATA PROVIDED.

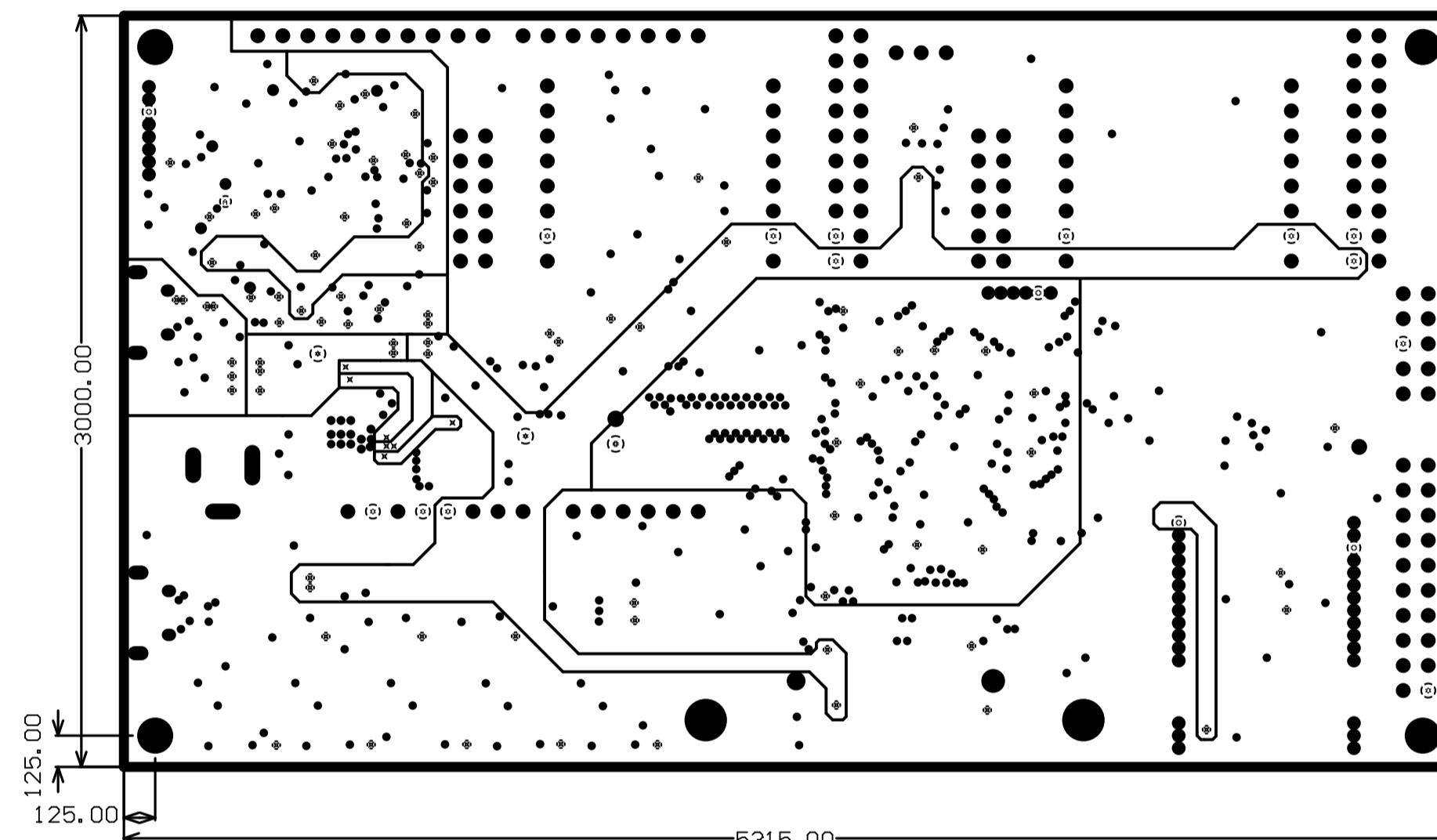
USE ARTWORK SET NO. 05-10912 PCB REV 2.0

ALL UL LOGO, MANUFACTURER'S ID, AND DATE CODES SHALL BE PLACED ON THE BOTTOM SIDE UNLESS OTHERWISE INDICATED.

ANY ALTERNATIVES TO THE ABOVE SPECIFICATIONS MUST FIRST BE APPROVED.

 MICROCHIP Microchip Technology Inc. 2355 W. Chandler Blvd. Chandler, AZ 85224		TITLE: PIC32MZ EF Curiosity 2 PART NUMBER: 03-10912 PCB DESIGNER: Jesus Aviles GERBER FILE: CND Plane ENGINEER: Keaton Stanley BOARD NUMBER: 04-10912 DOCUMENT NUMBER: 04-10912-D DATE: 12/18/2019 PCB FILE NAME: 05-10912_R2.0.PcbDoc LAYER NAME: FAB (M4) REV: 2.0	
--	--	--	--

REV	ECO	Comments	Date

PWR Plane

Layer	Name	Material	Count	Board Layer Stack
1	Top Overlay			
2	Top Solder	Solder Resist		
3	Top Layer	Copper		
4	Dielectric1	FR-4		
5	GND	Copper		
6	Dielectric 3			
7	PWR Plane	Copper		
8	Dielectric 4			
9	Bottom Layer	Copper		
10	Bottom Solder	Solder Resist		
11	Bottom Overlay			

90ohms +/-10%
Impedance
Matched

Symbol	Count	Hole Size	Plated	Hole Type
▲	492	10.00mil (0.254mm)	PTH	Round
▼	13	11.81mil (0.300mm)	PTH	Round
△	7	23.62mil (0.600mm)	PTH	Round
◆	4	25.59mil (0.650mm)	PTH	Slot
○	44	31.00mil (0.787mm)	PTH	Round
✖	4	32.48mil (0.825mm)	PTH	Slot
❖	161	35.43mil (0.900mm)	PTH	Round
*	3	39.37mil (1.000mm)	PTH	Round
●	2	39.37mil (1.000mm)	PTH	Slot
■	1	39.37mil (1.000mm)	PTH	Slot
▣	2	42.00mil (1.067mm)	PTH	Round
□	1	51.18mil (1.300mm)	NPTH	Round
○	1	70.87mil (1.800mm)	NPTH	Round
✖	4	120.00mil (3.048mm)	PTH	Round
✖	2	145.67mil (3.700mm)	NPTH	Round
741 Total				

Slot definitions : Routed Path Length = Calculated from tool start centre position to tool end centre position.
Hole Length = Routed Path Length + Tool Size = Slot length as defined in the PCB layout

THIS PCB TO BE MANUFACTURED TO MEET ALL ACCEPTANCE LEVELS OF A CLASS 2 PCB PER ANSI/IPC-A-600G.

MATERIAL: FR-4 or Equivalent
 MULTILAYER 4 LAYERS
Cu WEIGHT EXTERNAL LAYERS
Cu WEIGHT INTERNAL LAYERS
FINISHED OVERALL THICKNESS
COPPER THIEVING ALLOWED
FINISH:
 LEAD-FREE HOT AIR LEVELING
 IMMERSION GOLD
 IMMERSION TIN
 SMOBC WITH SELECTIVE GOLD PLATING ON LANDS
INDICATED. 1um GOLD OVER 5-10 um NICKEL
SOLDERMASK DYNACHEM EPIC 200 LPI OR EQUIVALENT
SOLDERMASK COLOR RED HIGH GLOSS
SILKSCREEN COLOR WHITE

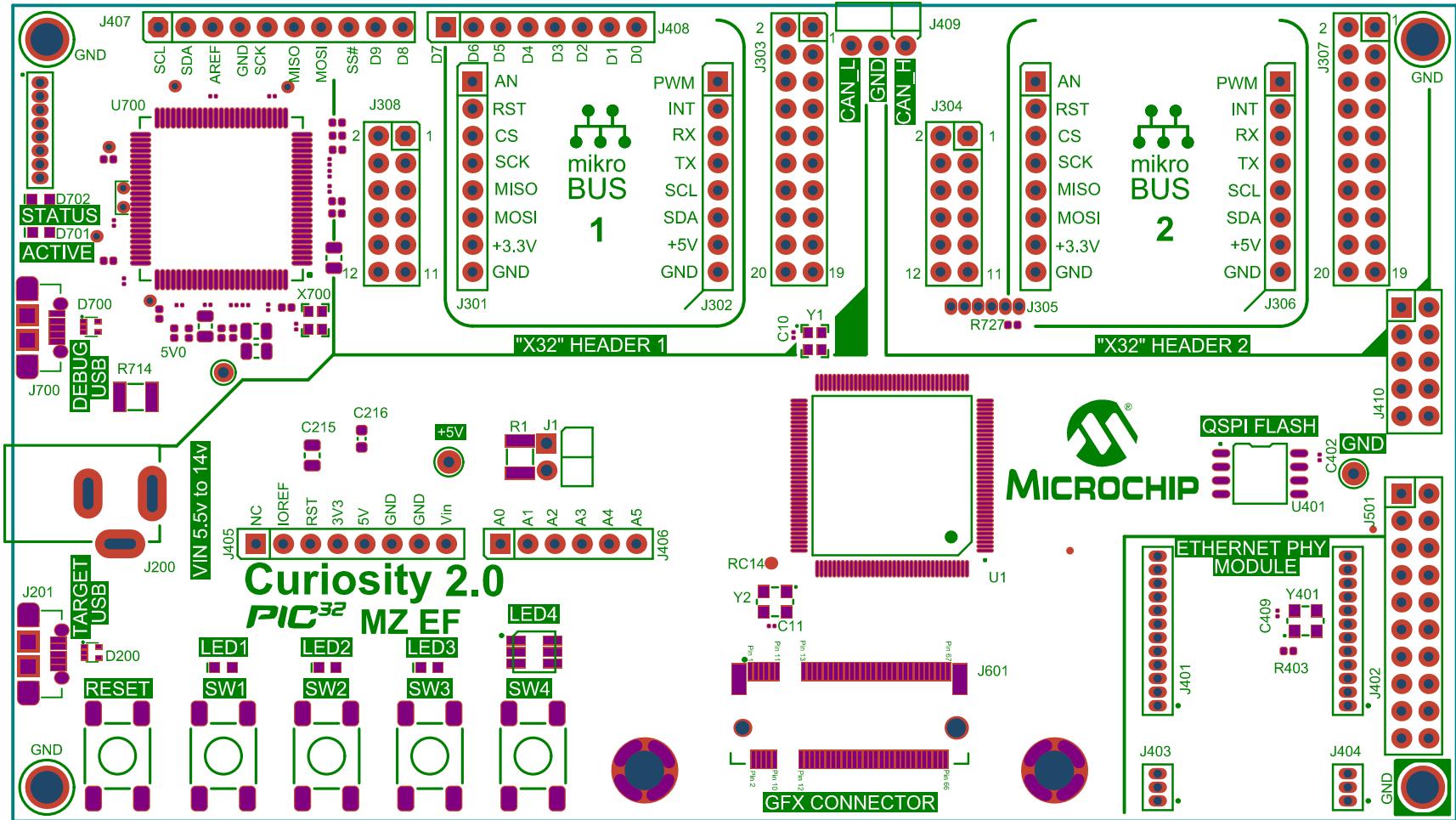
ALL HOLES TO BE LOCATED BY THE COORDINATES FROM THE NC DRILL DATA PROVIDED.

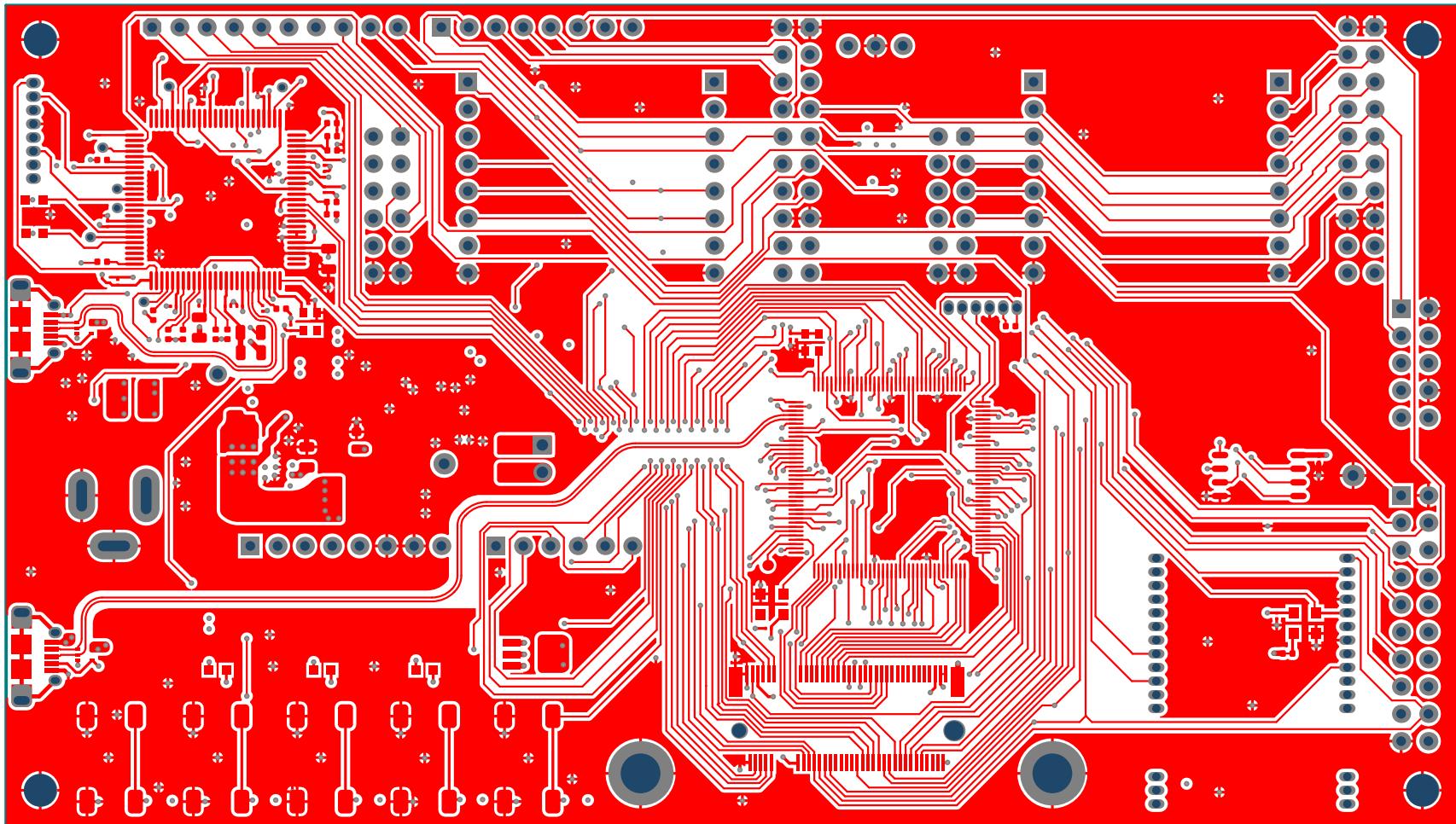
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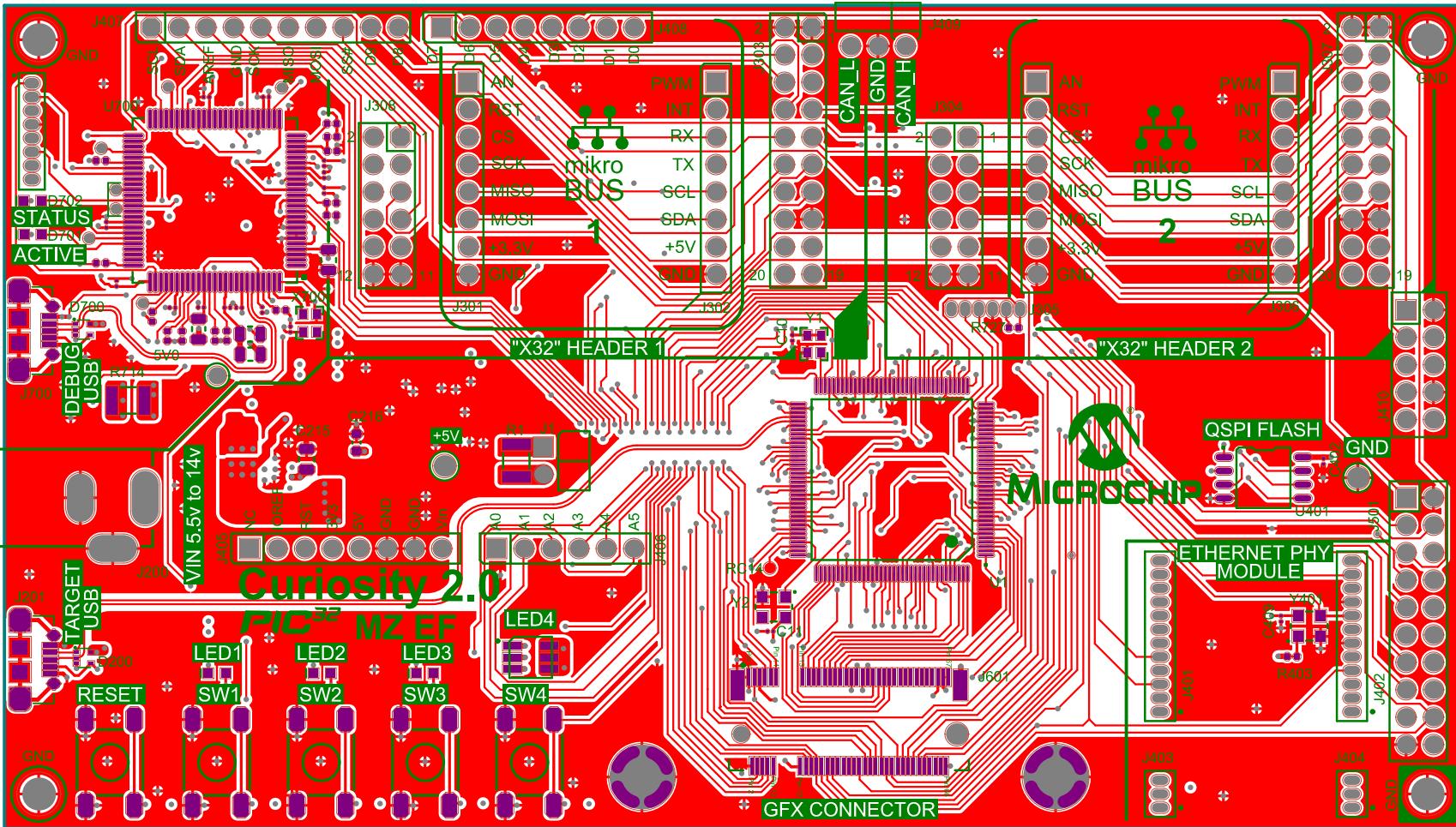
ALL UL LOGO, MANUFACTURER'S ID, AND DATE CODES SHALL BE PLACED ON THE BOTTOM SIDE UNLESS OTHERWISE INDICATED.

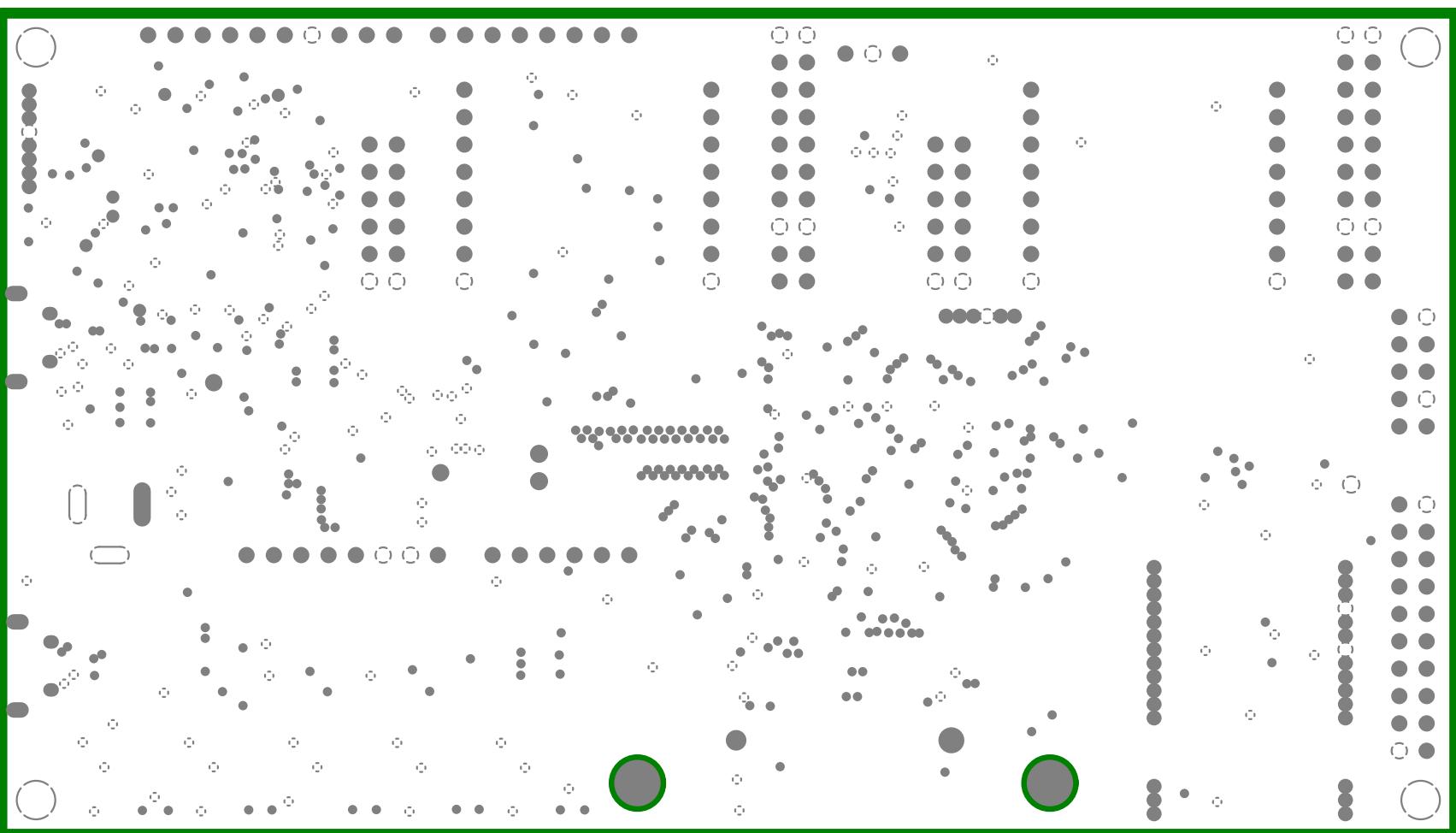
ANY ALTERNATIVES TO THE ABOVE SPECIFICATIONS MUST FIRST BE APPROVED.

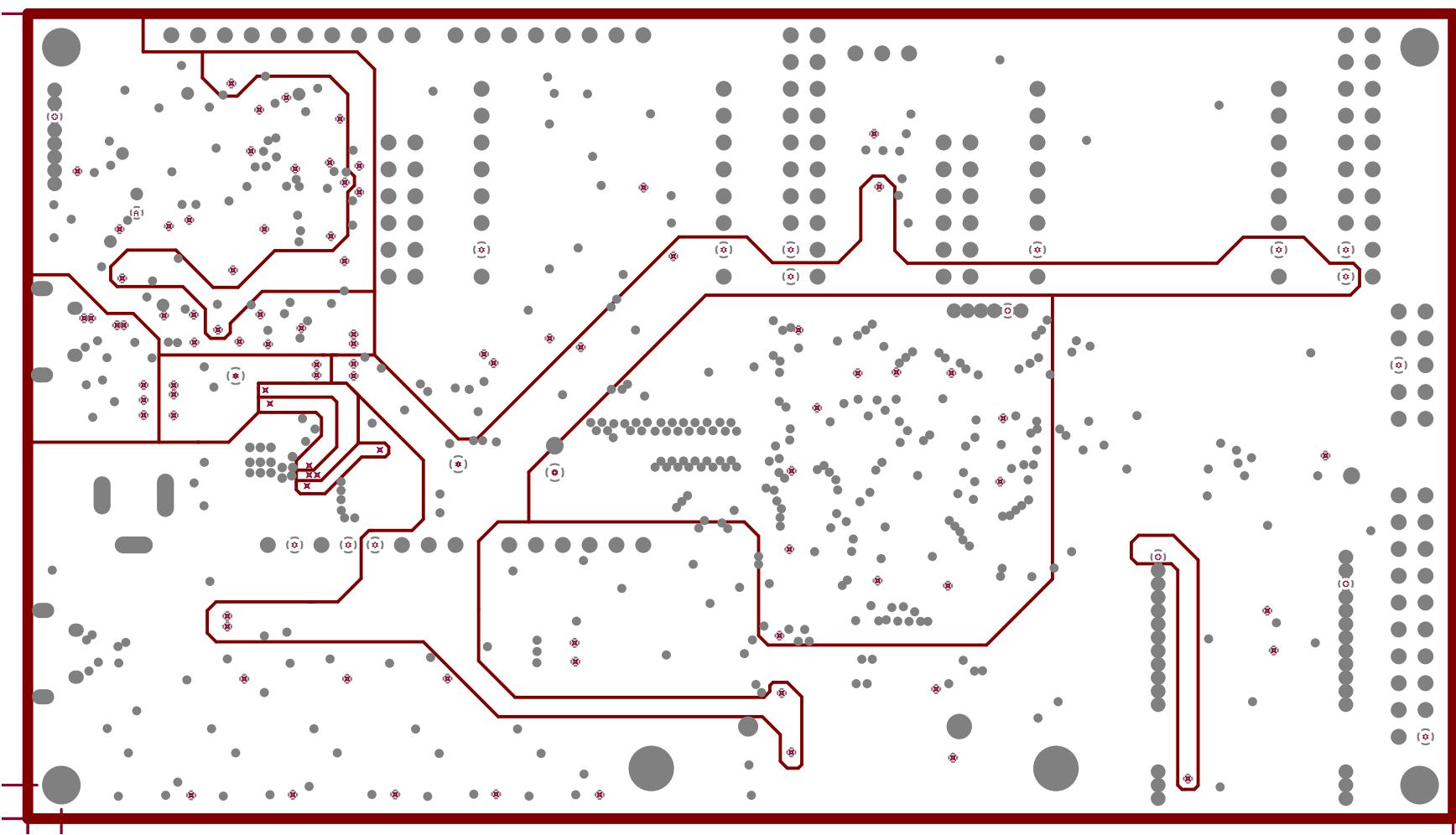
 MICROCHIP Microchip Technology Inc. 2355 W. Chandler Blvd. Chandler, AZ 85224	TITLE: PIC32MZ EF Curiosity 2		PART NUMBER: 03-10912	
	PCB DESIGNER: Jesus Aviles	GERBER FILE: PWR Plane	BOARD NUMBER: 04-10912	DOCUMENT NUMBER: 04-10912-D DATE: 12/18/2019
ENGINEER: Keaton Stanley	LAYER NAME: FAB (M4)	PCB FILE NAME: 05-10912_R2.0.PcbDoc	REV: 2.0	10mm ----- 400mil -----

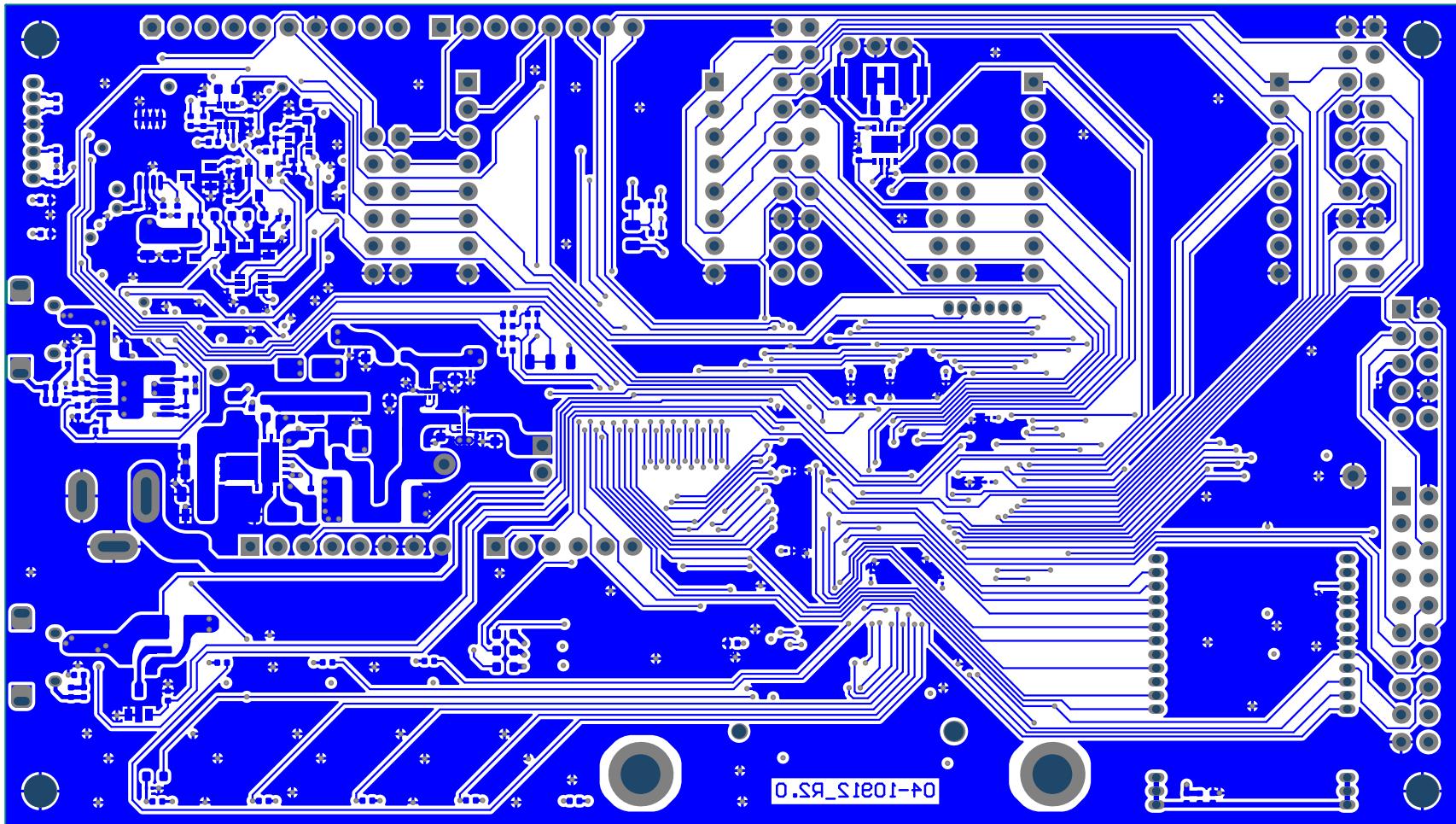


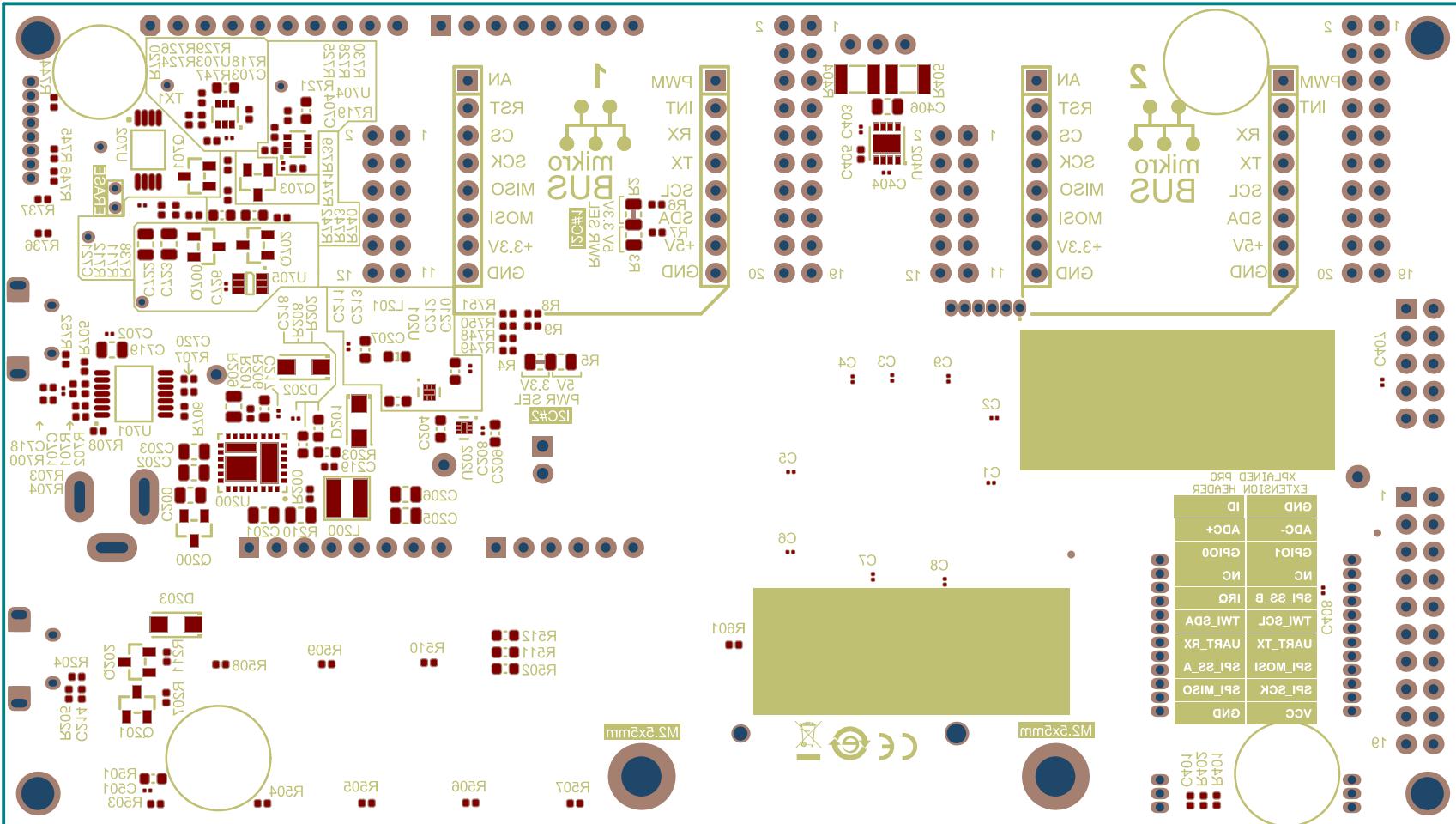


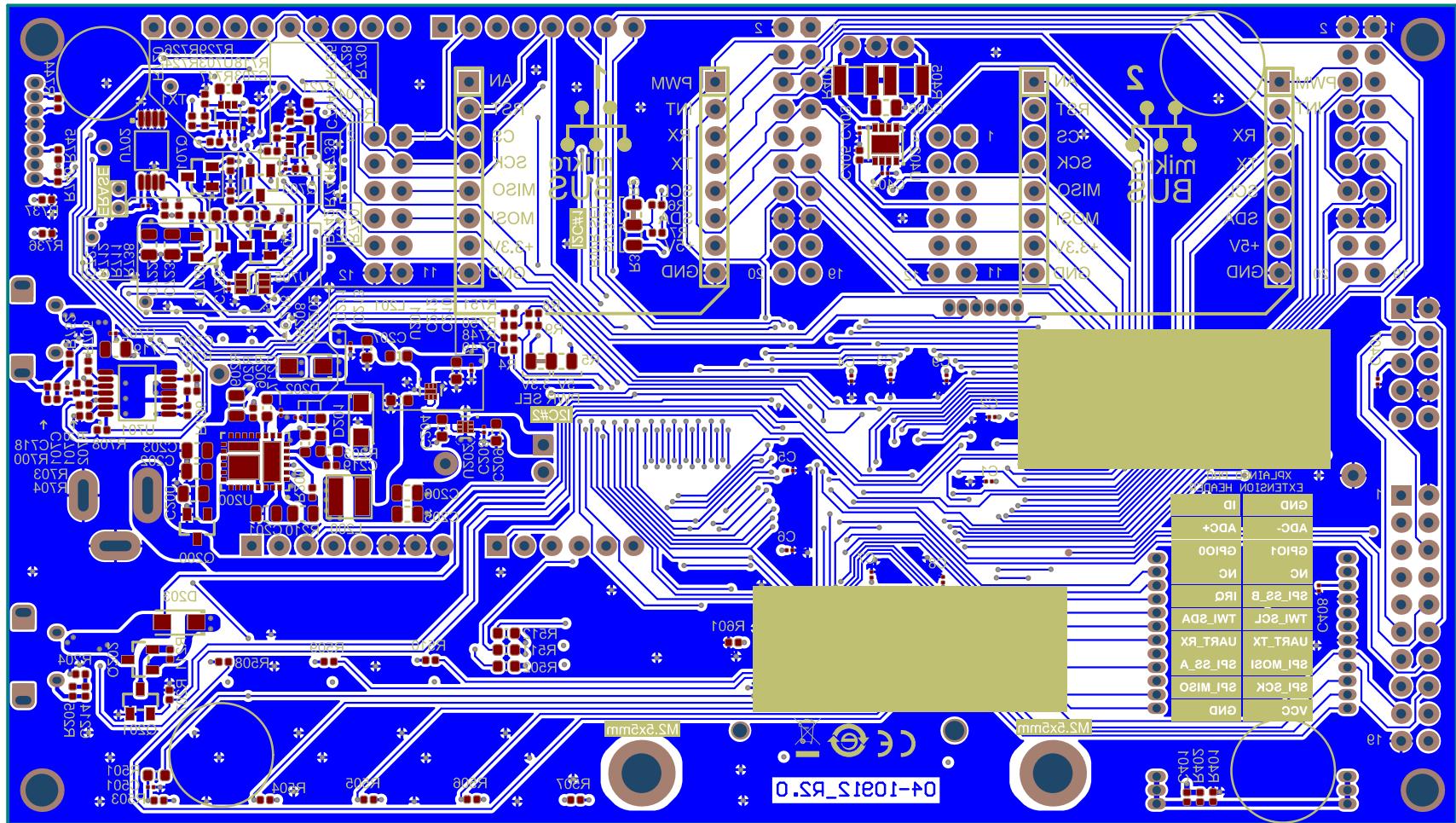


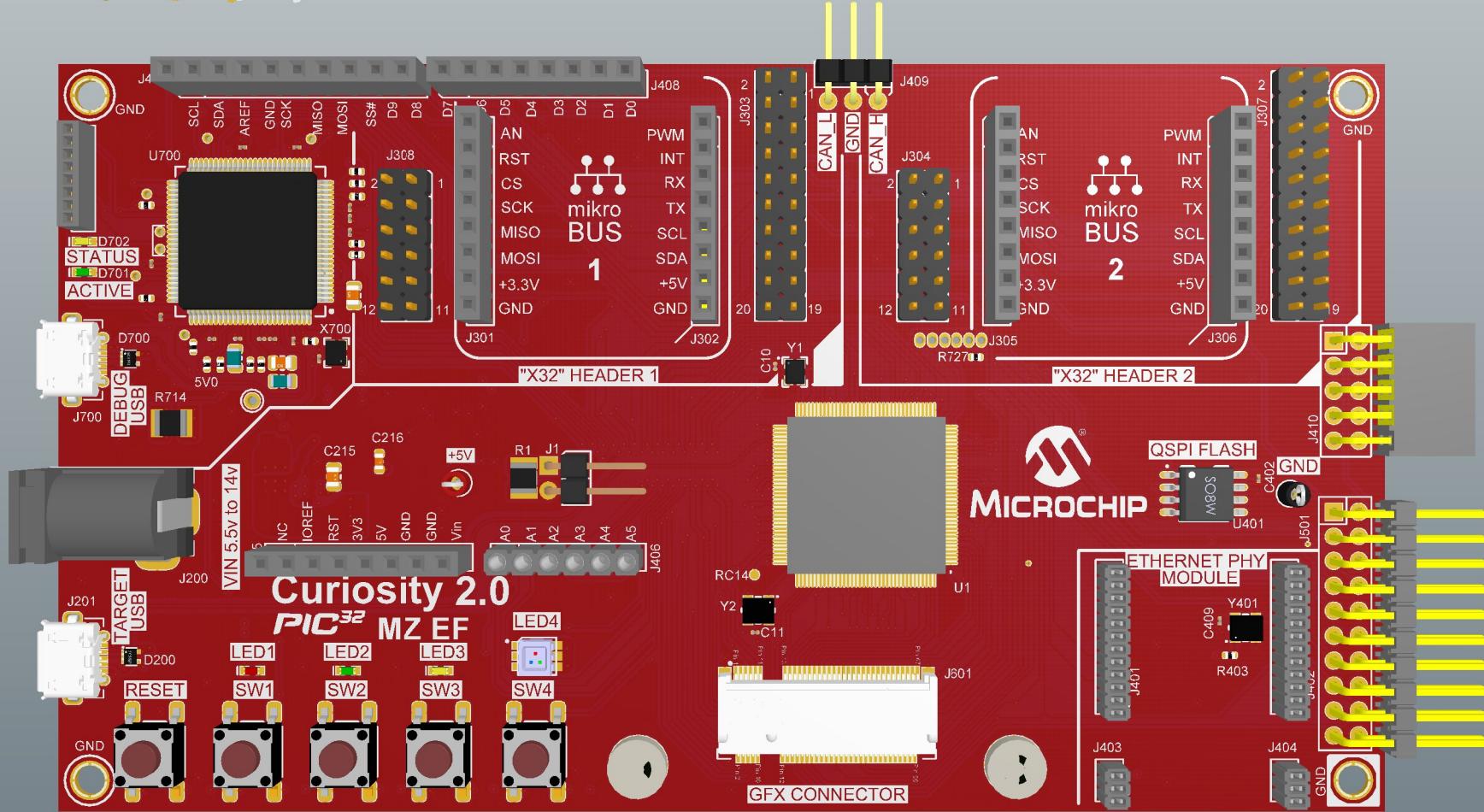












Bottom Layout

