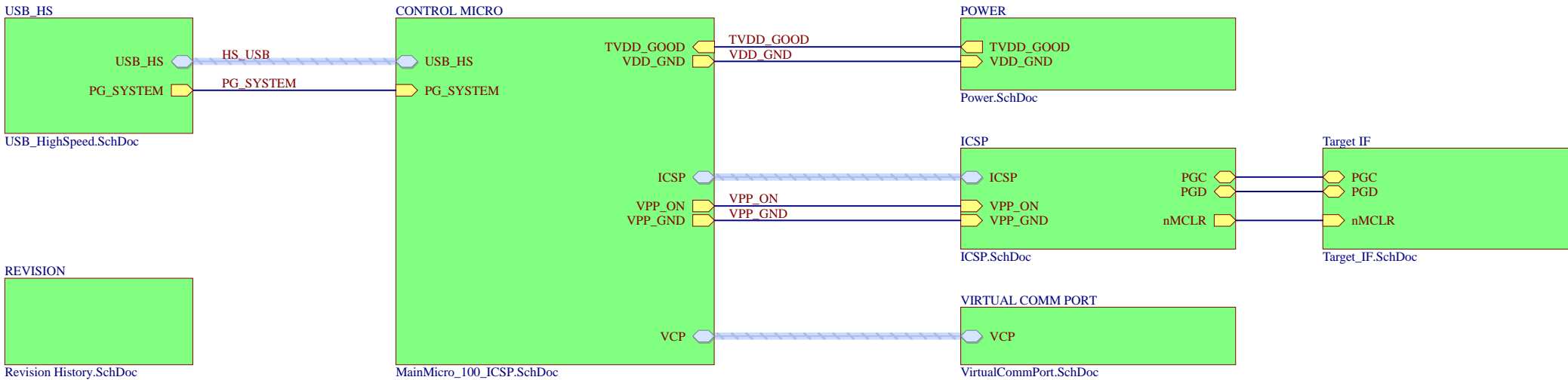


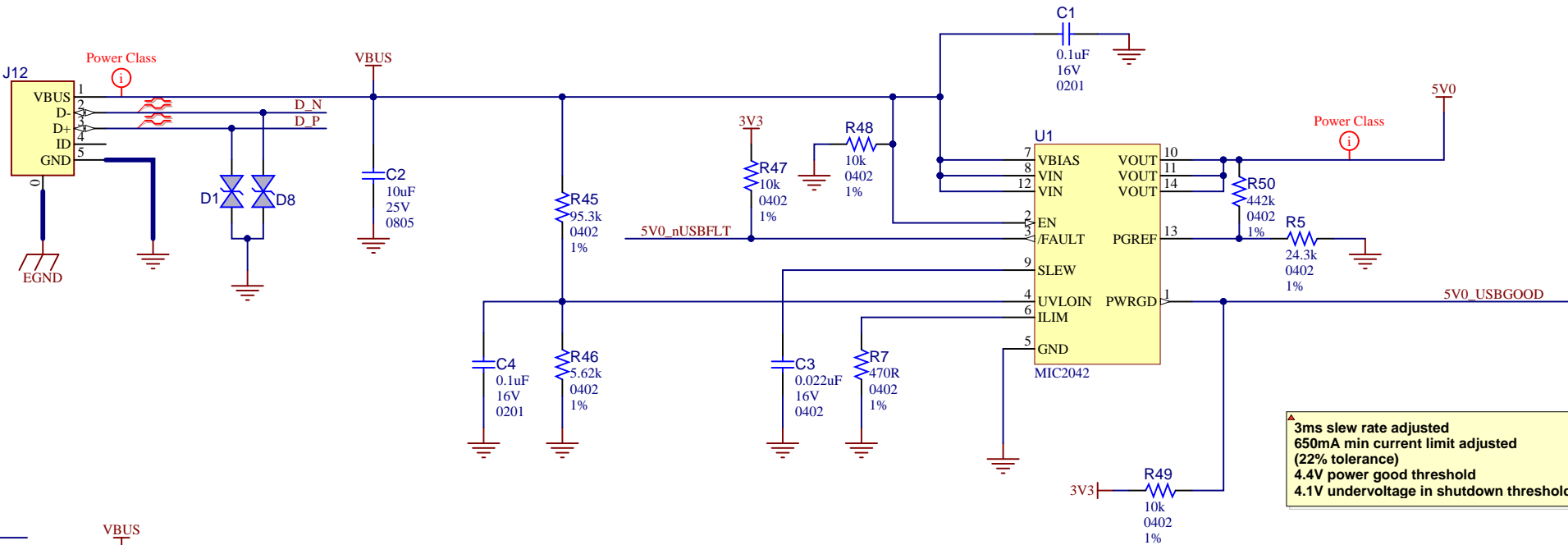
Main System Interconnect

PKoB4

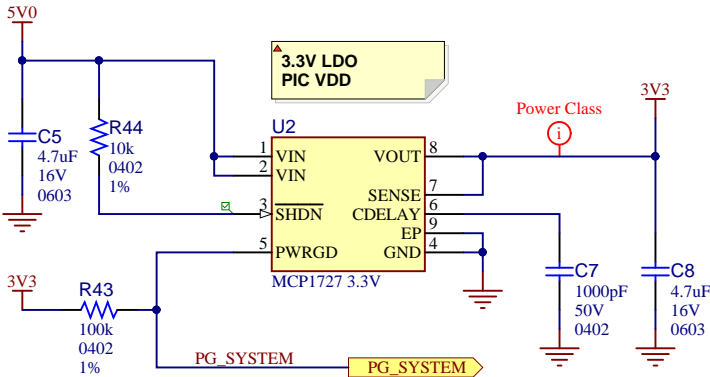
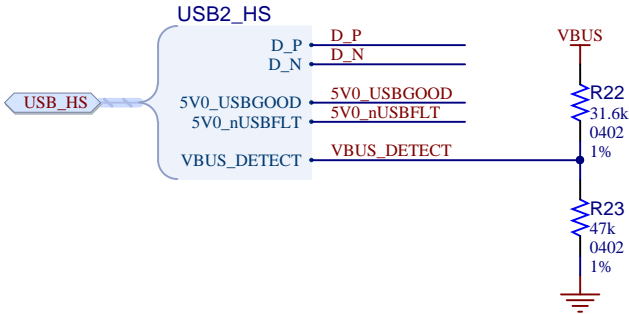


USB High Speed

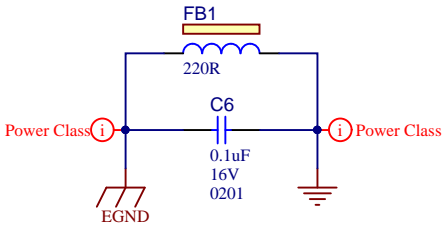
Micro B USB connector.
5V@0.5A max (2.5W)



3ms slew rate adjusted
650mA min current limit adjusted
(22% tolerance)
4.4V power good threshold
4.1V undervoltage in shutdown threshold



CDELAY
 $C = (140\text{na} / .42\text{v}) * t$ or
 $t = (C * .42) / 140\text{na} = 3\text{ms}$



Drawn By:
M.Loper/M.Ragsdale
Engineer:
M.Pearce/A.Rodriguez



PartNumber: DM164136 Project Title Variant: Production

Sheet Title

PKoB4 USB High Speed

Size B Sch #03-10536

Revision:2

File: USB_HighSpeed.SchDoc

Date: 10/25/2019 7:08:43 AM

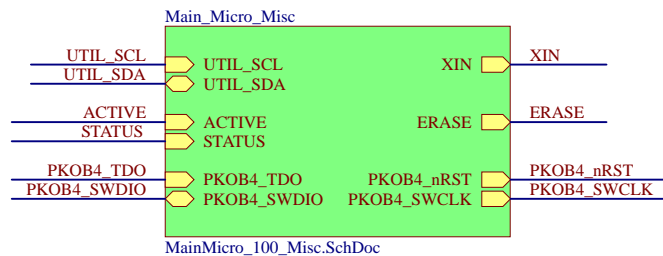
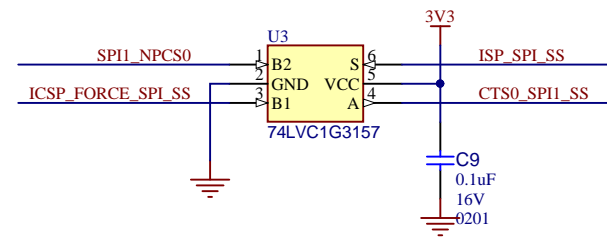
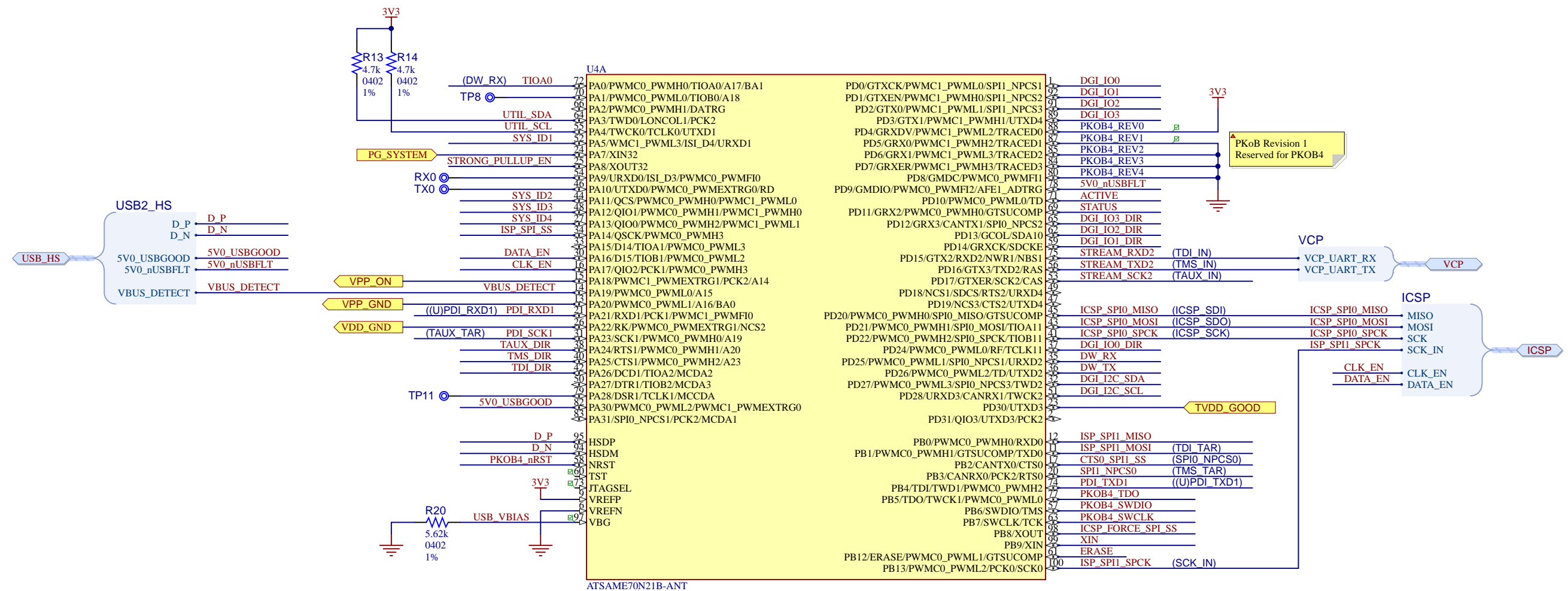
Sheet 2 of 9



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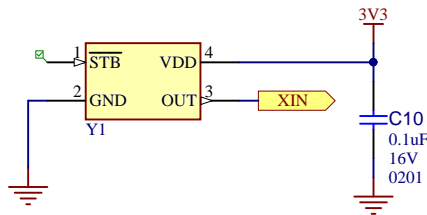
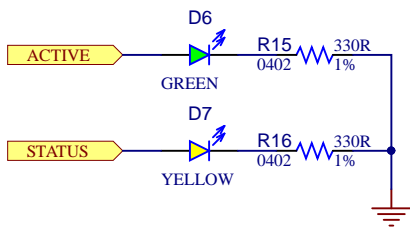
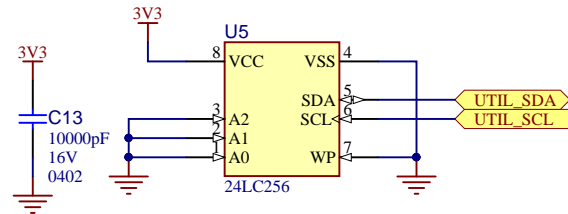
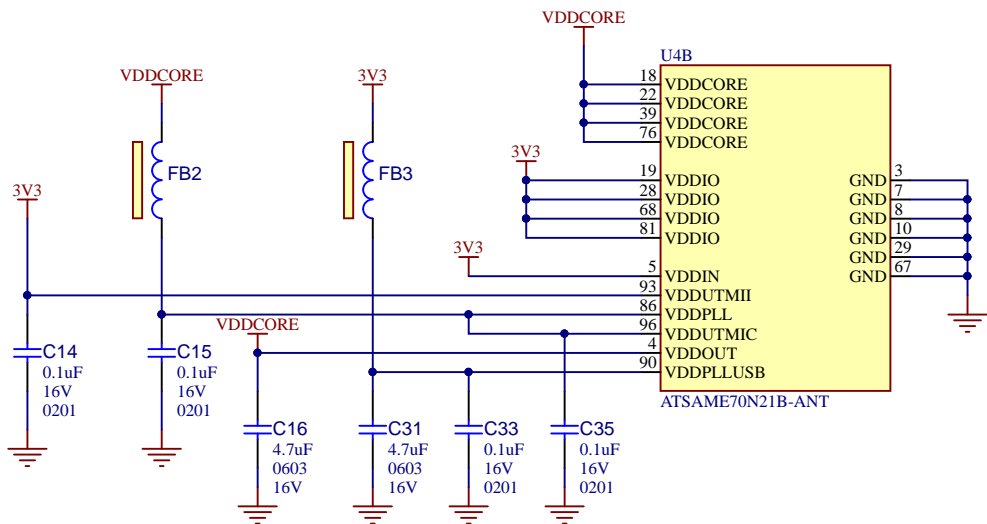
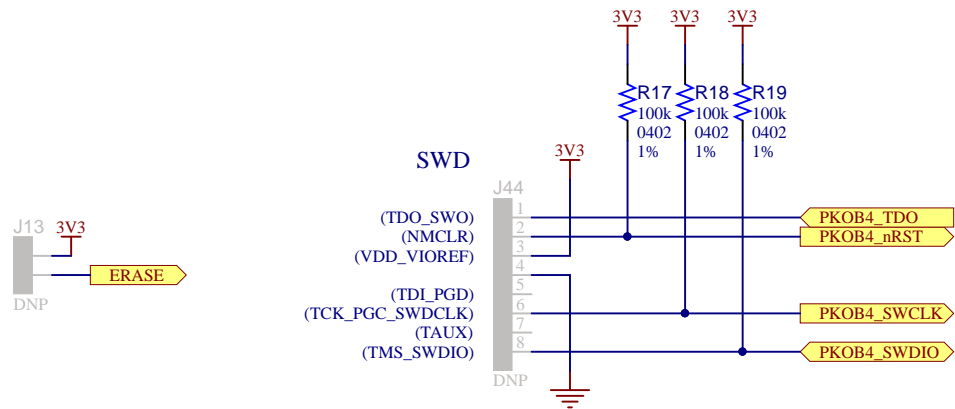
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Main Micro

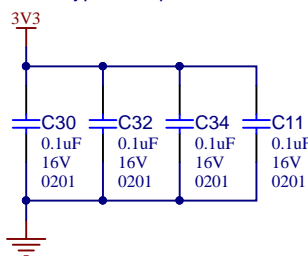


Drawn By: M.Loper/M.Ragsdale		 MICROCHIP	
Engineer: M.Pearce/A.Rodriguez			
PartNumber: DM164136	Project Title Curiosity HPC	Variant: Production	
Sheet Title PKoB4 Main Micro			<i>Designed with</i>  Altium.com
Size B	Sch # 03-10536	Date: 10/25/2019 7:08:43 AM	
	Revision: 2	Sheet 3 of 9	
File: MainMicro_100_ICSP.SchDoc			

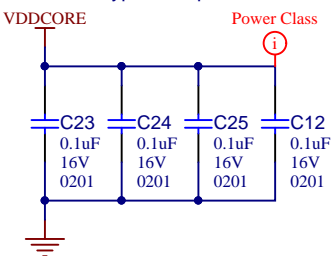
Main Micro Misc.



VDDIO Bypass Caps



VDDCORE Bypass Caps



Drawn By:
M.Loper/M.Ragsdale

Engineer:
M.Pearce/A.Rodriguez



PartNumber: DM164136

Project Title: Curiosity HPC

Variant: Production

Sheet Title
PKoB4 Main Micro Misc.

Size B

Sch #03-10536

Date: 10/25/2019 7:08:44 AM

Revision:2

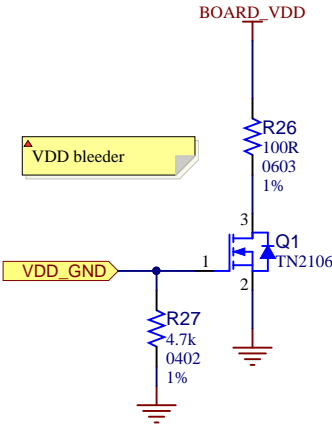
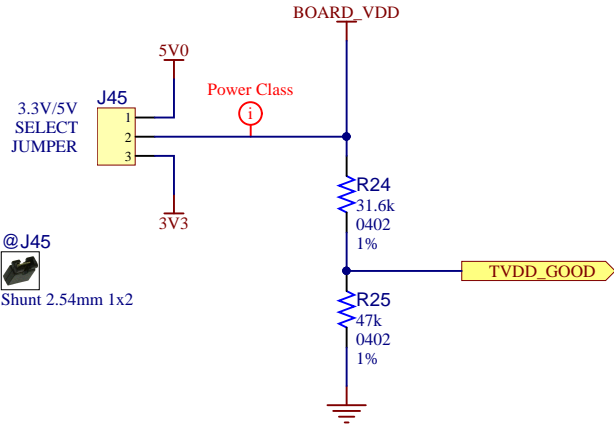
Sheet 4 of 9

File: MainMicro_100_Misc.SchDoc

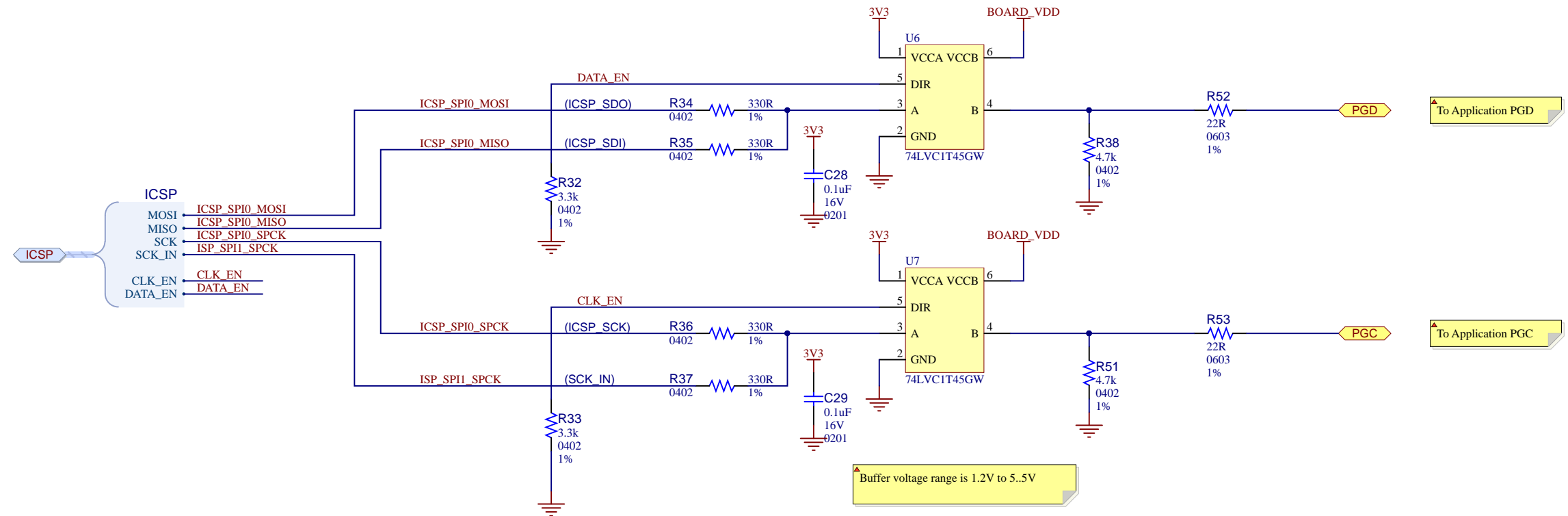
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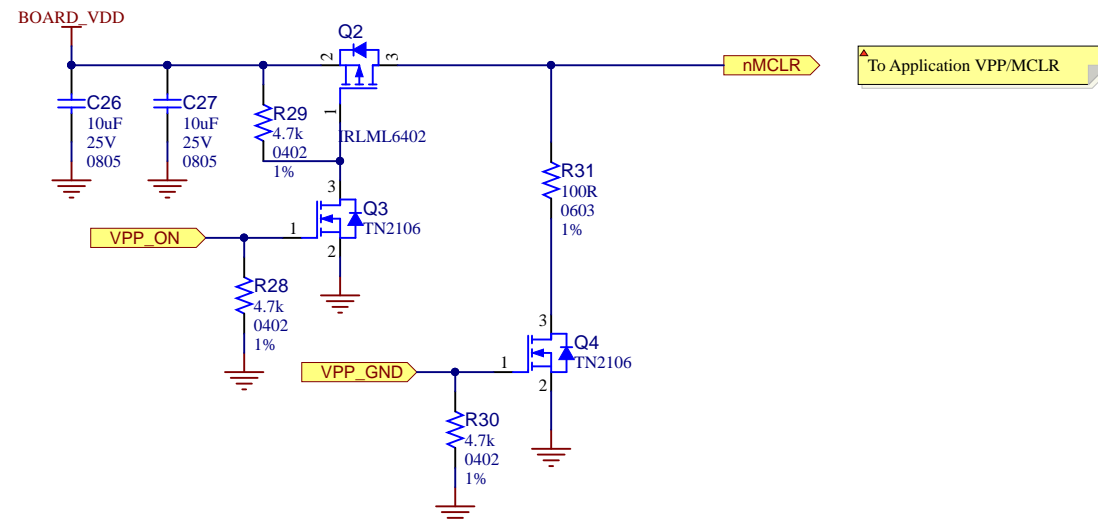
Power





ICSP

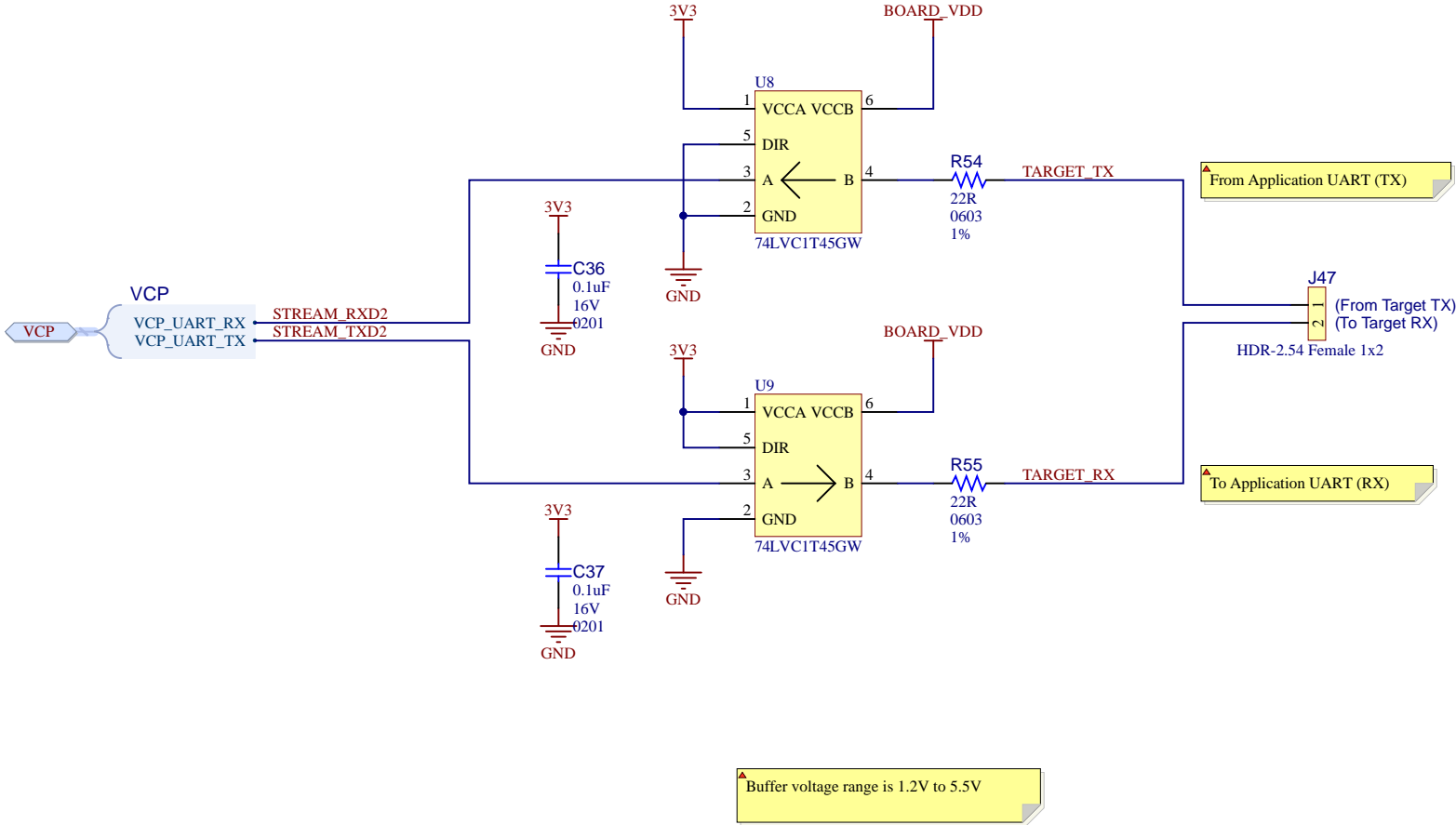




VPP Switch



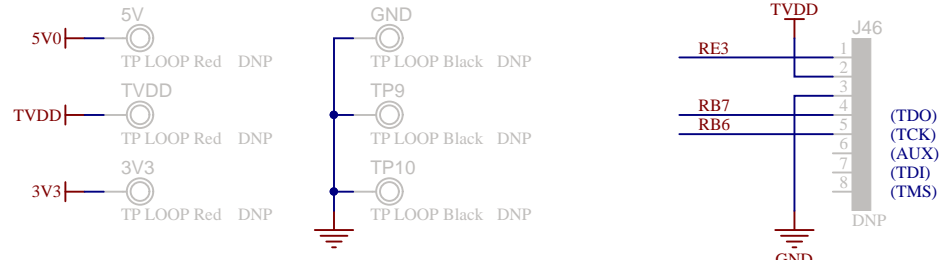
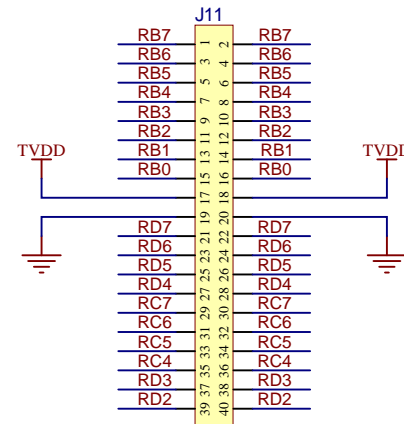
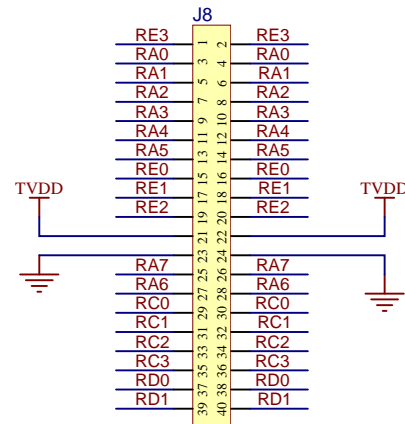
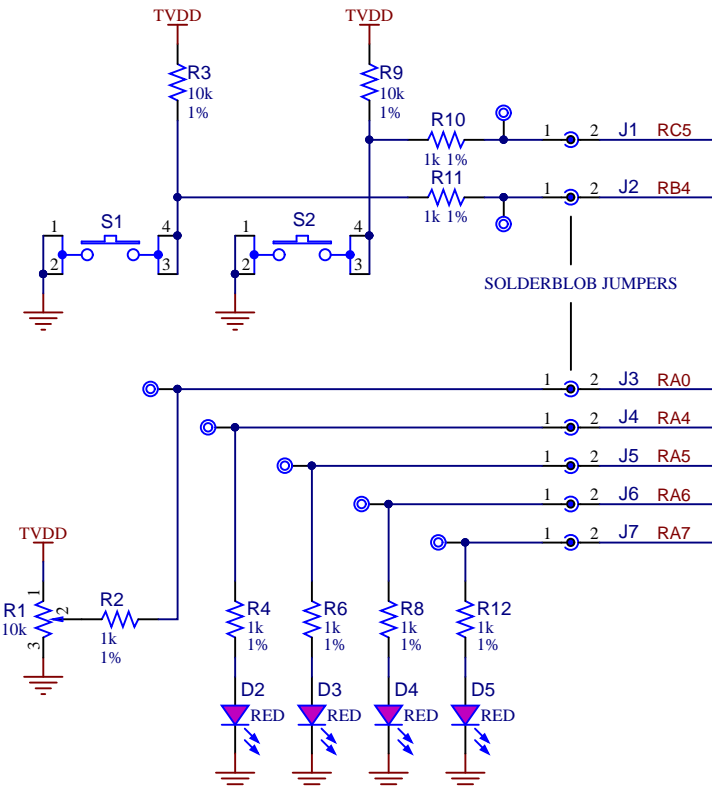
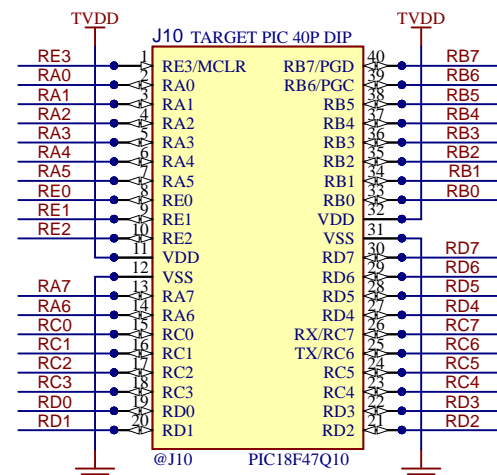
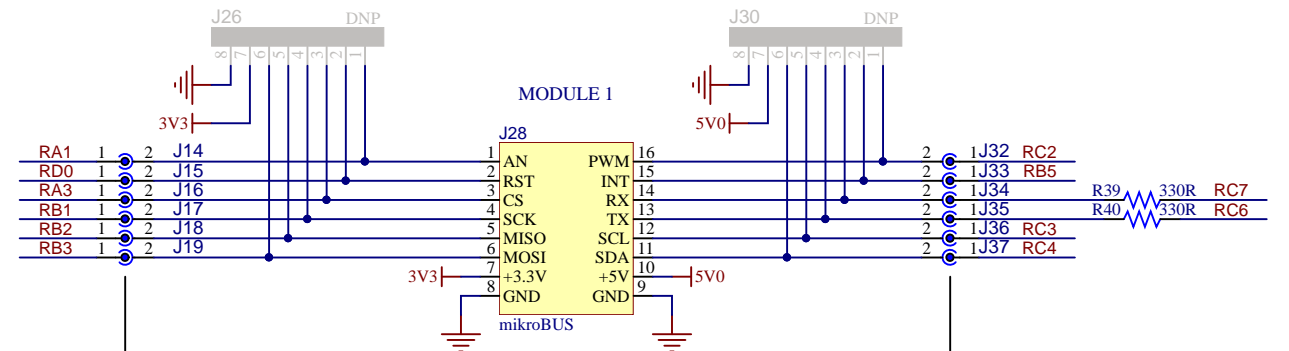
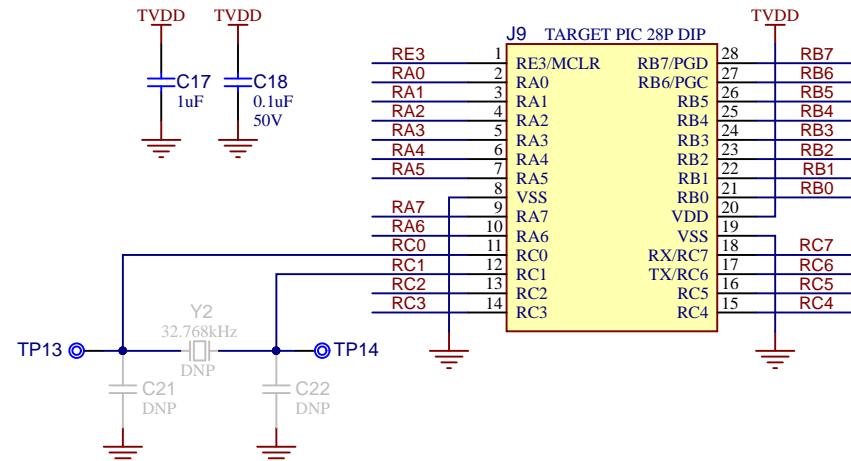
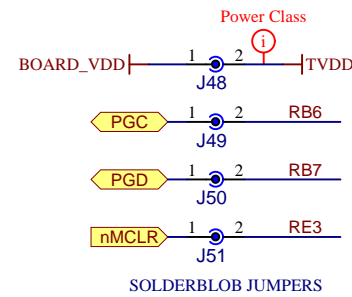
Drawn By: M.Loper/M.Ragsdale		 MICROCHIP	
Engineer: M.Pearce/A.Rodriguez			
PartNumber: DM164136	Project Title <i>Curiosity HPC</i>	Variant: <u>Production</u>	
Sheet Title ICSP		Designed with 	
Size B	Sch #03-10536	Date: 10/25/2019 7:08:44 AM	
	Revision:2	Sheet 6 of 9	<u>Altium.com</u>
File: ICSP.SchDoc			

Virtual Comm Port

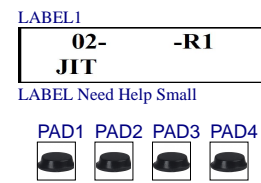


Drawn By: M.Loper/M.Ragsdale		 MICROCHIP	
Engineer: M.Pearce/A.Rodriguez			
PartNumber: DM164136	Project Title Curiosity HPC	Variant: <u>Production</u>	
Sheet Title Virtual Comm Port		 Altium Altium.com	
Size B	Sch #03-10536		Date: 10/25/2019 7:08:44 AM
	Revision:2		Sheet 7 of 9
File: <u>VirtualCommPort.SchDoc</u>			

BOARD_VDD:
Board Supplied Target Power



Note: pins are reversed.
Connector is rotated and
mounted on bottom side.



Drawn By:
M.Loper/M.Ragsdale

Engineer:
M.Pearce/A.Rodriguez

PartNumber:
DM164136

Project Title
Curiosity HPC

Variant: Production

Sheet Title
mikroBUS and Target PIC Interface

Size B Sch #03-10536 Date: 10/25/2019 7:08:44 AM

Revision:2 Sheet 8 of 9

File: Target_IF.SchDoc

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Revision History

Rev. A: **2016-02-17**

▲ Initial Design

Rev. 1: **2016-03-31**



▲

Rev. 1.1: **2016-06-23**

▲

Rev. 2: **2019-10-25**

▲ Updated to use PkoB 4 debugger design.
All components updated to MCL standards.

Drawn By: M.Loper/M.Ragsdale		 MICROCHIP
Engineer: M.Pearce/A.Rodriguez		
PartNumber: DM164136	Project Title <i>Curiosity HPC</i>	Variant: <u>Production</u>
Sheet Title Revision History		 Altium Altium.com
Size B	Sch #03-10536	
	Revision:2	Sheet 9 of 9
File: Revision History.SchDoc		