

Pico Camera PCB v1.1.PrjPcb

Variant: Variant of PICO CAMERA PROJECT V1.1_Prototype

12/5/2023
1.0

DRAFT

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DESIGN CONSIDERATIONS

DESIGN NOTE:
Example text for informational
design notes .

DESIGN NOTE:
Example text for critical
design notes.

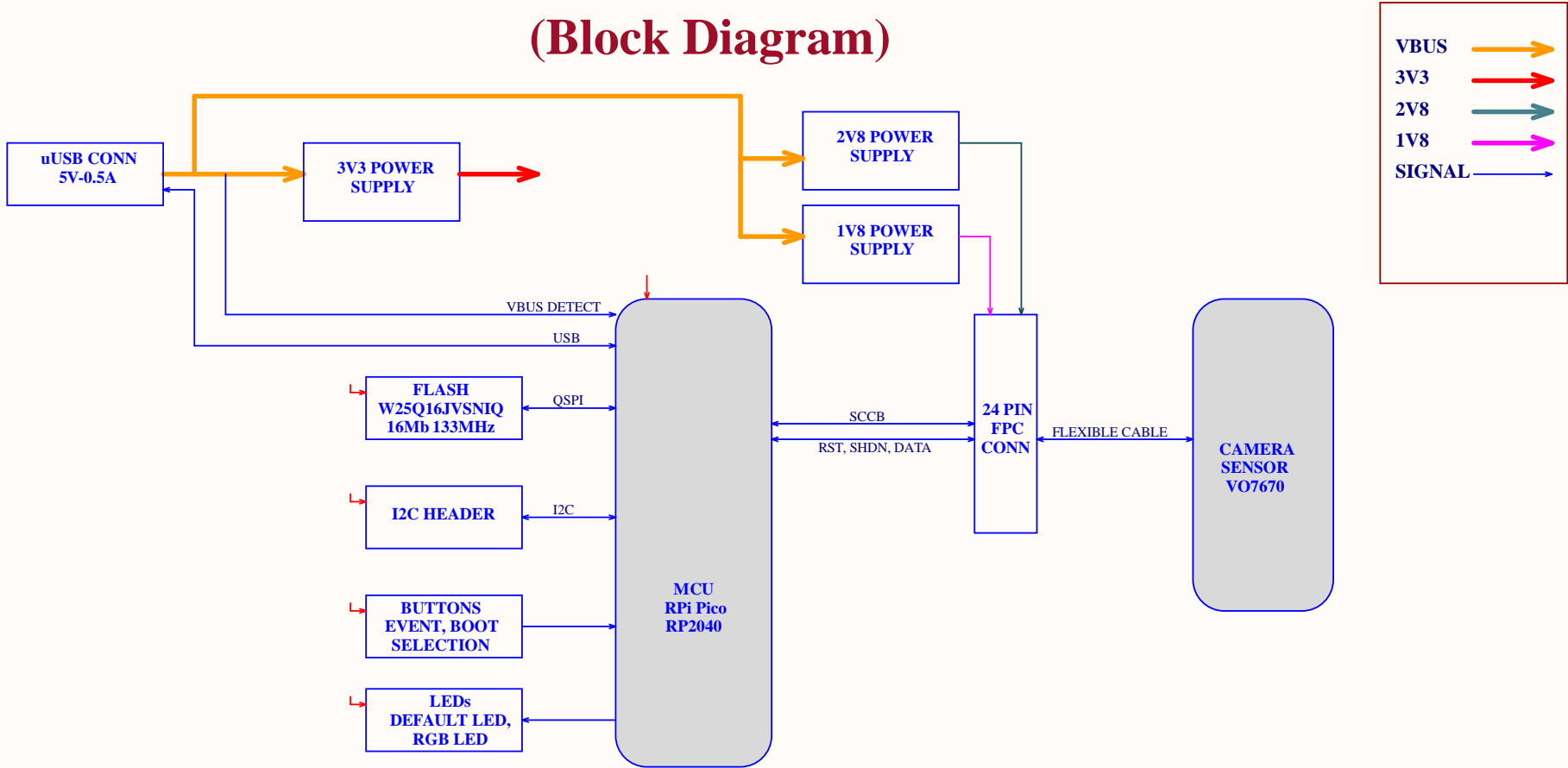
DESIGN NOTE:
Example text for cautionary
design notes.

LAYOUT NOTE:
Example text for critical
layout guidelines.

Title: [01] - COVER PAGE.SchDoc				ITR VN Corp. Room 904, Saigon Paragon Building, Tan Phu Ward, District 7, Ho Chi Minh City, 700000, Vietnam	
Size: A4	Number: 1	Revision: v1.0	Designer:	Name	
Date:12/5/2023	Time: 5:29:59 PM	Sheet 1 of 7	Reviewer:	Name	
File: [01] - COVER PAGE.SchDoc			Approved:	Name	

Pico Camera PCB v1.1.PrjPcb

(Block Diagram)



Title: [02] - BLOCK DIAGRAM.SchDoc				ITR VN Corp. Room 904, Saigon Paragon Building, Tan Phu Ward, District 7, Ho Chi Minh City, 700000, Vietnam	
Size: A4	Number: 2	Revision: v1.0	Designer:	Name	
Date:12/5/2023	Time: 5:29:59 PM	Sheet 2 of 7	Reviewer:	Name	
File: [02] - BLOCK DIAGRAM.SchDoc			Approved:	Name	

MCU-RP2040

DEBUG

Add MCU Reset Button

ADC current = 150uA

For best performance use external 3.0V shunt ref (e.g. LM4040)

Disable Flash boot

BOOTSEL

Change FLASH to 32Mbits
IS25LP032D-JNLE

GPIO26: CAM-XCLK to N.C
GPIO24: VBUS-DETECT to CAM-XCLK
GPIO22: N.C to CAM-PCLK
GPIO21

GPIO0: I2C-DATA to CAM-SIO-D
GPIO1: I2C-CLK to CAM-SIO-C
GPIO2: CAM-SIO-D to I2C-DATA
GPIO3: CAM-SIO-C to I2C-CLK
GPIO4: RGB-RED to RGB-BLUE
GPIO6: RGB-BLUE to RGB-RED
GPIO10: CAM-VSYNC to CAM-D0
GPIO11: CAM-HREF to CAM-D1
GPIO12: EVENT-BTN to CAM-D2
GPIO13: CAM-PCLK to CAM-D3
GPIO14: CAM-D0 to CAM-D4
GPIO15: CAM-D1 to CAM-D5

GPIO16: CAM-D2 to CAM-D6
GPIO17: CAM-D3 to CAM-D7

Title: [03] - MCU - RP2040.SchDoc

Size: A4 Number: 3 Revision: v1.0

Date: 12/5/2023 Time: 5:29:59 PM Sheet 3 of 7

File: [03] - MCU - RP2040.SchDoc

Designer: Name

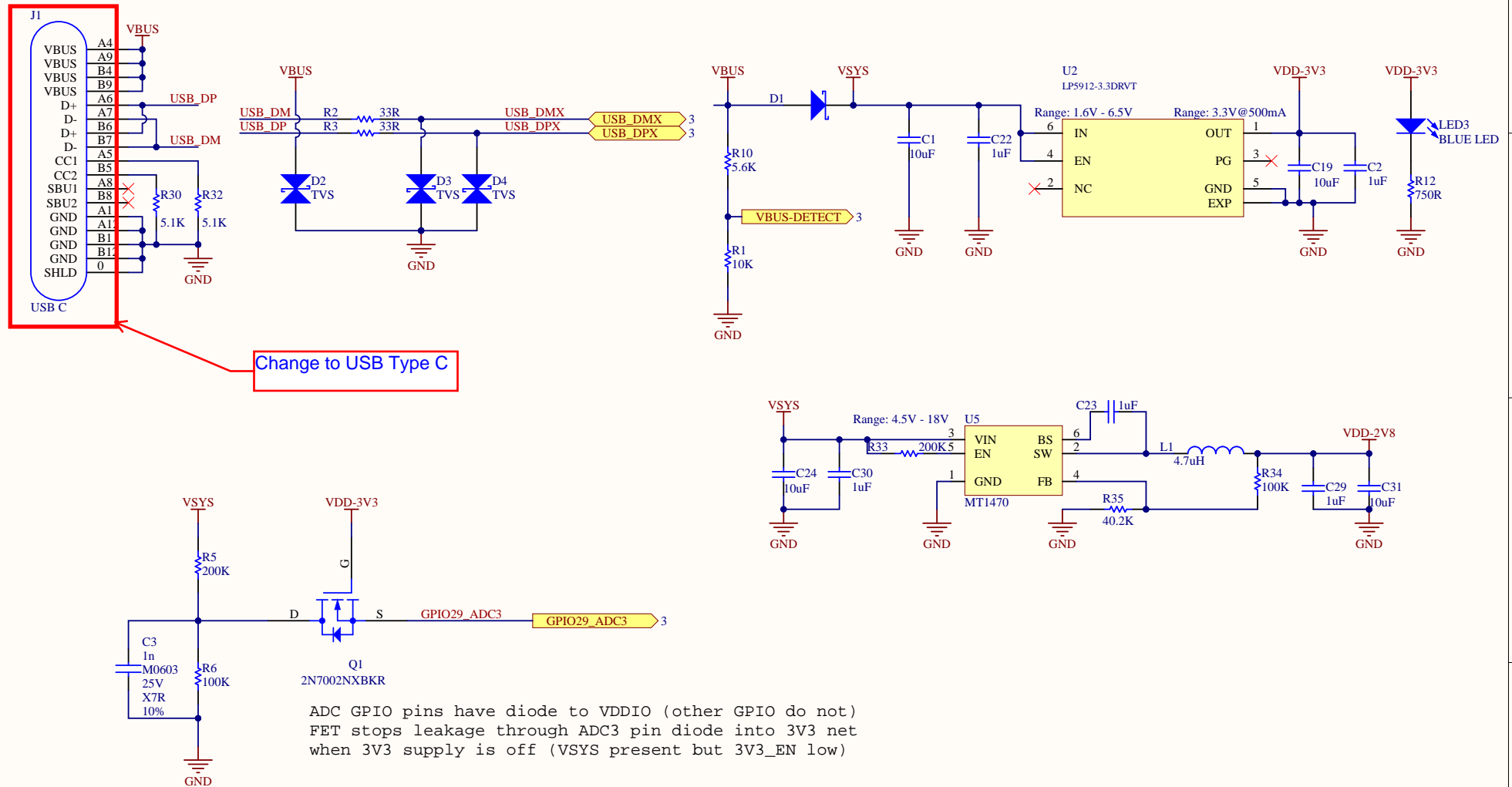
Reviewer: Name

Approved: Name

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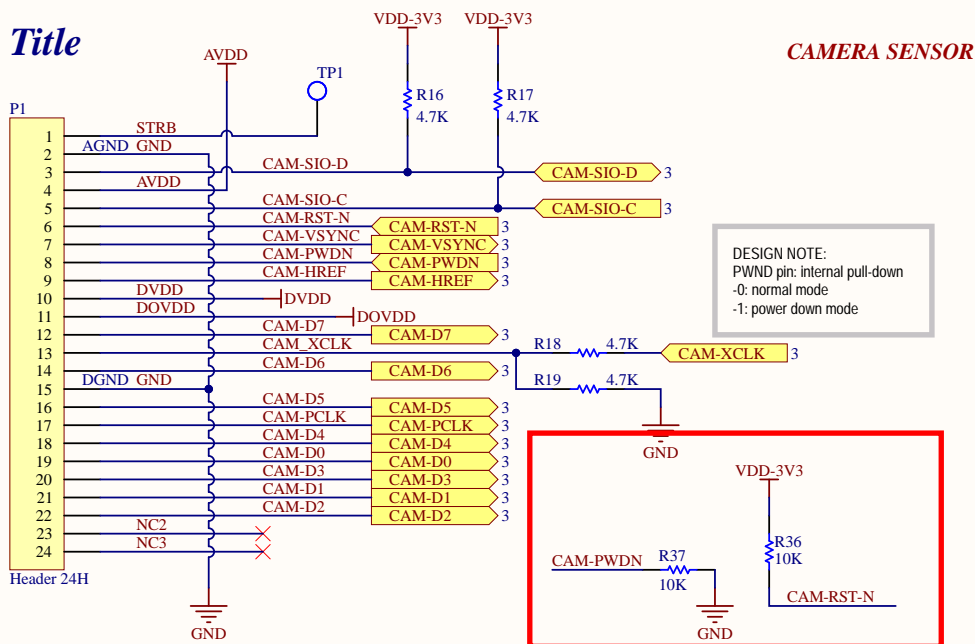
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Ho Chi Minh City, 700000,
Vietnam

POWER SUPPLY

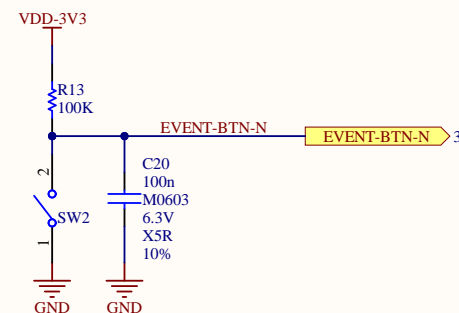


Title: [04] - POWER SUPPLY.SchDoc				ITR VN Corp. Room 904, Saigon Paragon Building, Tan Phu Ward, District 7, Ho Chi Minh City, 700000, Vietnam	
Size: A4	Number: 4	Revision: v1.0	Designer:		
Date: 12/5/2023	Time: 5:29:59 PM	Sheet 4 of 7	Reviewer:		
File: [04] - POWER SUPPLY.SchDoc			Approved:		

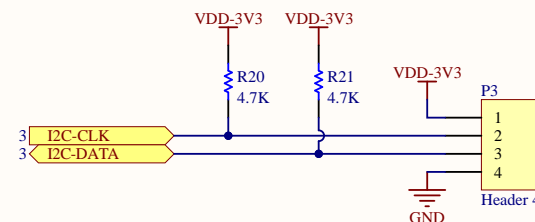
Title



EVENT BUTTON

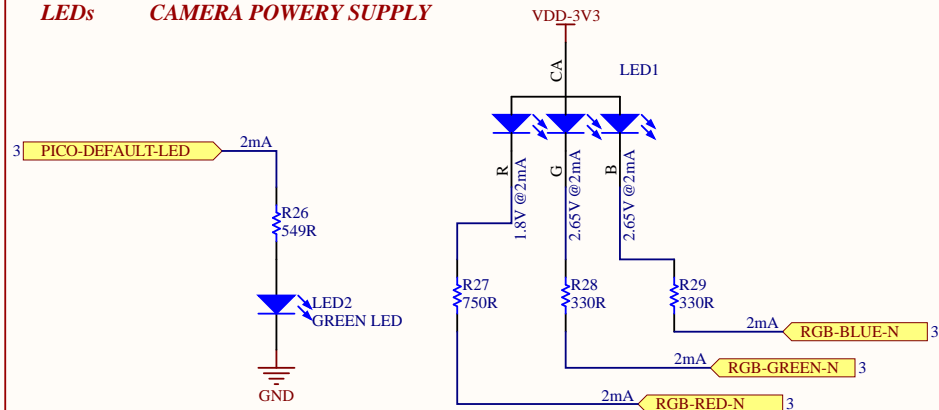


I2C HEADER



CAM PWDN: Default pull low
CAM RST: Default pull high

LEDs CAMERA POWERY SUPPLY



Title: [05] - PERIPHERAL.SchDoc

Size: A4 Number: 5 Revision: v1.0

Date: 12/5/2023 Time: 5:29:59 PM Sheet 5 of 7

File: [05] - PERIPHERAL.SchDoc

Designer: Name

Reviewer: Name

Approved: Name

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Vietnam

DOC: REVISION HISTORY

Title: [06] - DOC REVISION HISTORY.SchDoc				ITR VN Corp. Room 904, Saigon Paragon Building, Tan Phu Ward, District 7, Ho Chi Minh City, 700000, Vietnam	
Size: A4	Number: 6	Revision: v1.0	Designer:	Name	
Date:12/5/2023	Time: 5:29:59 PM	Sheet 6 of 7	Reviewer:	Name	
File: [06] - DOC REVISION HISTORY.SchDoc			Approved:	Name	

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A	<div>Designator [01] - COVER PAGE.SchDoc</div> <div></div>	<div>Designator [02] - BLOCK DIAGRAM.SchDoc</div> <div></div>	<div>Designator [03] - MCU - RP2040.SchDoc</div> <div></div>	<div>Designator [04] - POWER SUPPLY.SchDoc</div> <div></div>	<div>Designator [05] - PERIPHERAL.SchDoc</div> <div></div>	A					
B					<div>Designator [06] - DOC REVISION HISTORY.SchDoc</div> <div></div>	B					
C						C					
D	<div>Schematic Status Explanation</div> <div>DRAFT - Very early stage of schematic, ignore details.</div> <div>PRELIMINARY - Close to final schematic.</div> <div>CHECKED - There should not be any mistakes. Tell the engineer if you find one.</div> <div>RELEASED - A board with this schematic has been sent to production.</div>				<table><tr><td>Title: <i>Pico Camera PCB v1.1 Project.SchDoc</i></td><td rowspan="4"><i>ITR VN Corp.</i> <i>Room 904, Saigon Paragon Building, Tan Phu Ward, District 7, Ho Chi Minh City, 700000, Vietnam</i></td></tr><tr><td>Size: <u>A4</u> Number: <u>7</u> Revision: <u>v1.0</u></td></tr><tr><td>Date: <u>12/5/2023</u> Time: <u>5:29:59 PM</u> Sheet <u>7</u> of <u>7</u></td></tr><tr><td>File: <u>Pico Camera PCB v1.1 Project.SchDoc</u></td></tr></table>	Title: <i>Pico Camera PCB v1.1 Project.SchDoc</i>	<i>ITR VN Corp.</i> <i>Room 904, Saigon Paragon Building, Tan Phu Ward, District 7, Ho Chi Minh City, 700000, Vietnam</i>	Size: <u>A4</u> Number: <u>7</u> Revision: <u>v1.0</u>	Date: <u>12/5/2023</u> Time: <u>5:29:59 PM</u> Sheet <u>7</u> of <u>7</u>	File: <u>Pico Camera PCB v1.1 Project.SchDoc</u>	D
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