

Industrial Version 7

CAM1 Connector
Sch-QWA17_CAM0_1.SchDoc



USB
Sch-QWA17_USB Hub.SchDoc



LAN
Sch-QWA17_LAN.SchDoc



Image Sensor
Sch-QWA17_V7_ImageSensor.SchDoc



DIO
Sch-QWA17_DIO.SchDoc



USB Boot and Switch
Sch-QWA17_USB-SW-Boot.SchDoc



Power
Sch-QWA17_Power.SchDoc



GPIO
Sch-QWA17_GPIO.SchDoc



MCU
Sch-QWA17_MCU.SchDoc




RTC
Sch-QWA17_RTC.SchDoc



HDMI
Sch-QWA17_HDMI.SchDoc

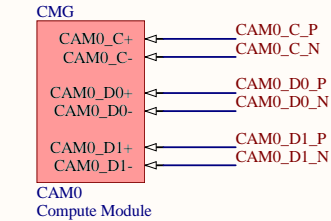


| | | | | |
|---|-------------------------|-----------------------------|---|---|
| Title <i>QWA17-SmartCam -Top Level</i> | | | <i>Q-Wave Systems Co.,Ltd</i> <i>65/2 Moo 1 Beung</i> <i>Sriracha Chonburi</i> <i>Thailand</i> | Q-WAVE SYSTEMS  |
| Size: A4 | Number:1 | Revision:7 | | |
| Date: 10/2/2019 | Time: 2:18:36 PM | Sheet 1 of 12 | | |
| File: Top_Level_QWA17.SchDoc | | | | |

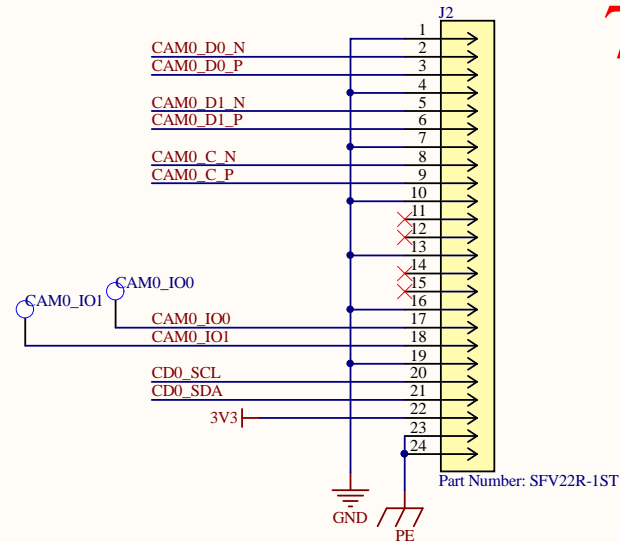
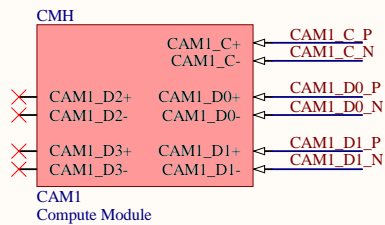
*Q-Wave Systems Co.,Ltd
65/2 Moo 1 Beung
Sriracha Chonburi
Thailand*

Industrial Version 7

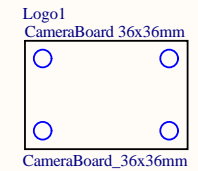
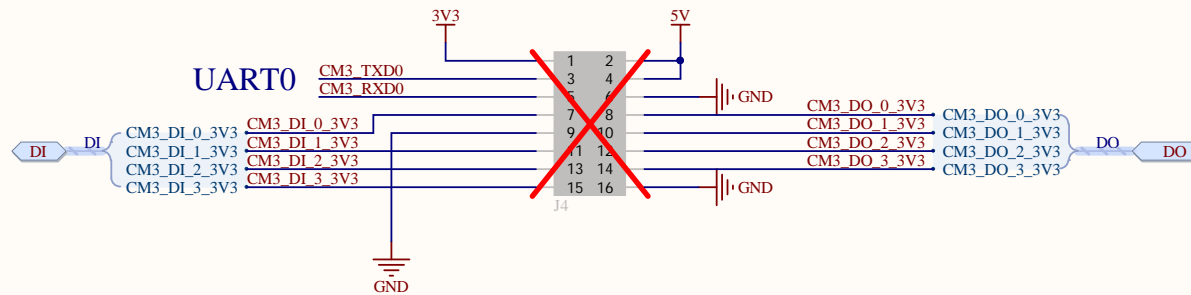
Main CPU - Camera1




CAM1 - 2 Lane CSI-2



GPIO Header for Uno Version



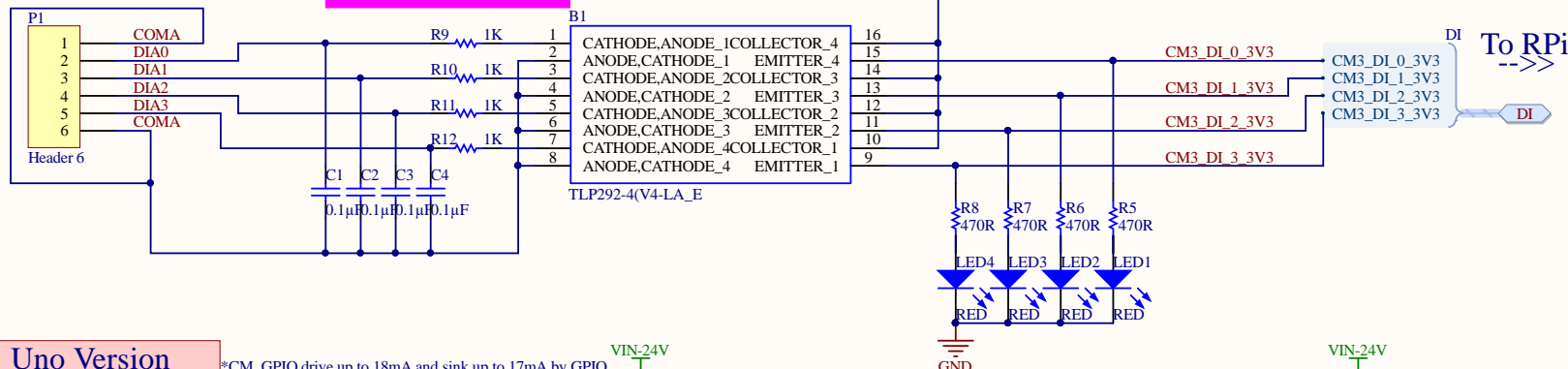
| | | | | |
|---|-------------------------|-----------------------------|---|---|
| Title <i>QWA17-SmartCam Camera1+Uno GPIO</i> | | | Q-Wave Systems Co.,Ltd 65/2 Moo 1 Beung Sriracha Chonburi Thailand |  |
| Size: A4 | Number: 2 | Revision: 7 | | |
| Date: 10/2/2019 | Time: 2:18:36 PM | Sheet 2 of 12 | | |
| File: Sch-QWA17_CAM0_1.SchDoc | | | | |

Q-WAVE
SYSTEMS

Industrial Version 7

(Digital In 24V)

Spec IF Max +/-50mA, VF=1.4
Calc = IF = (24V-1.4)/1k = 20mA



Uno Version

*CM_GPIO drive up to 18mA and sink up to 17mA by GPIO.

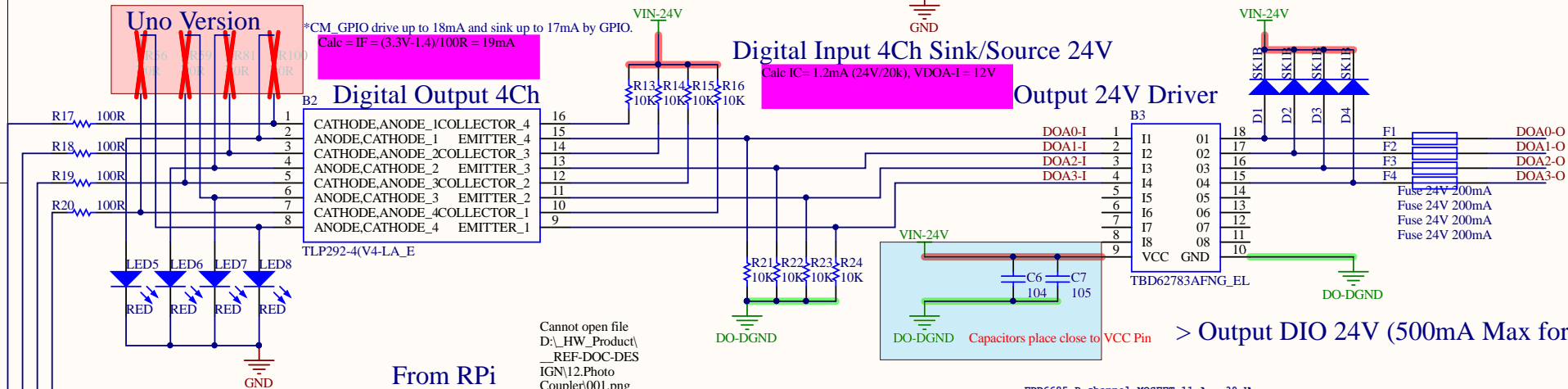
Calc = IF = (3.3V-1.4)/100R = 19mA

Digital Output 4Ch

Digital Input 4Ch Sink/Source 24V

Calc IC = 1.2mA (24V/20k), VDOA-I = 12V

Output 24V Driver

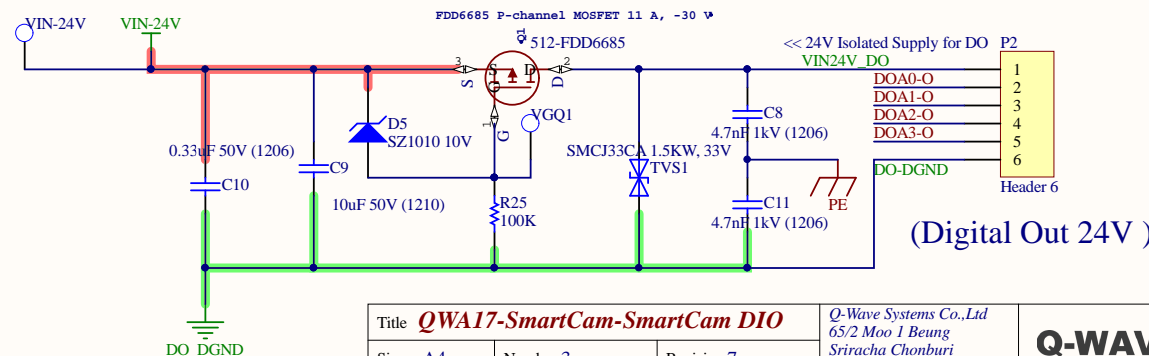



From RPi

<<--

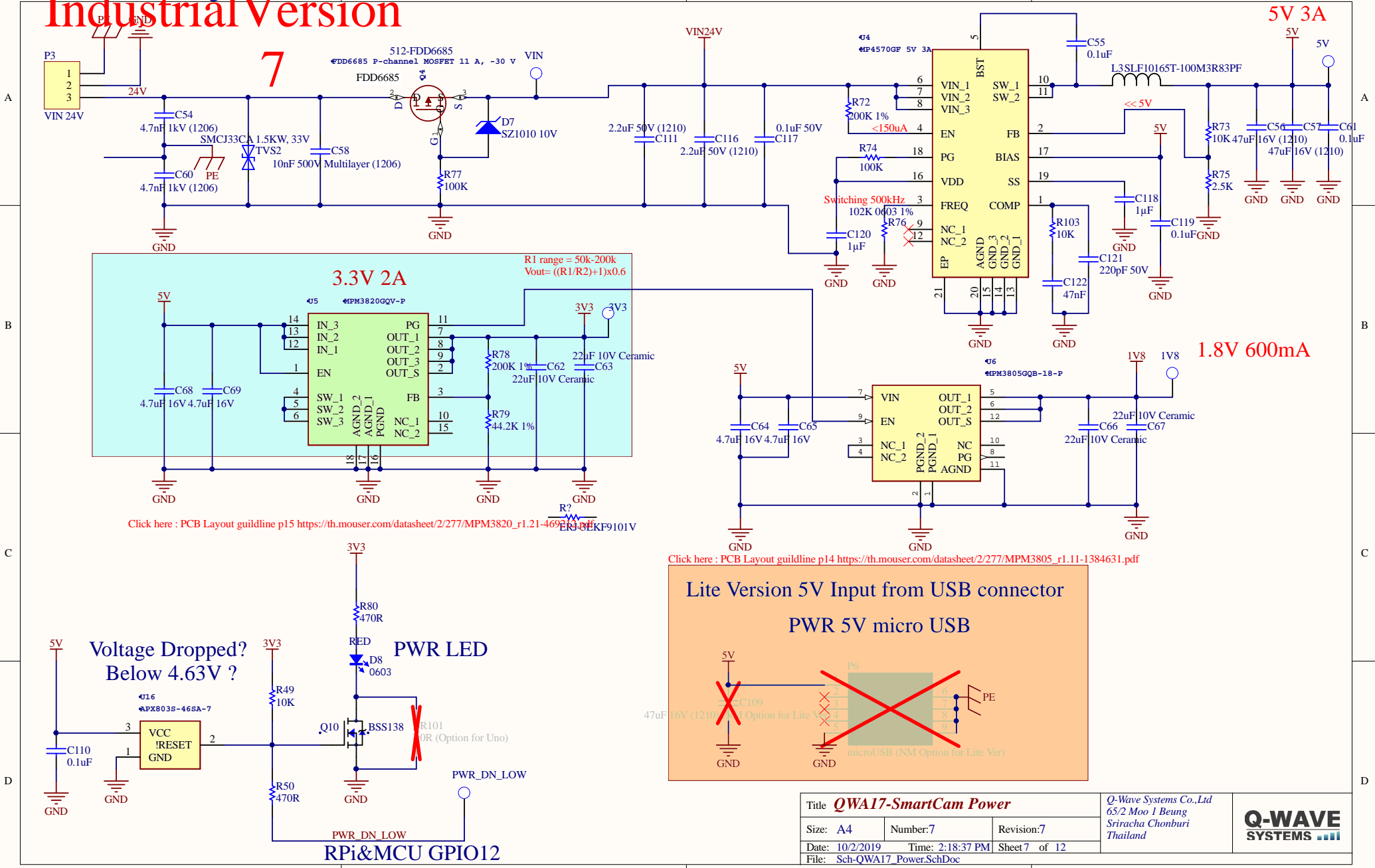
Cannot open file
D:_HW_Product\
_REF-DOC-DES
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Coupler\001.png

> Output DIO 24V (500mA Max for each)

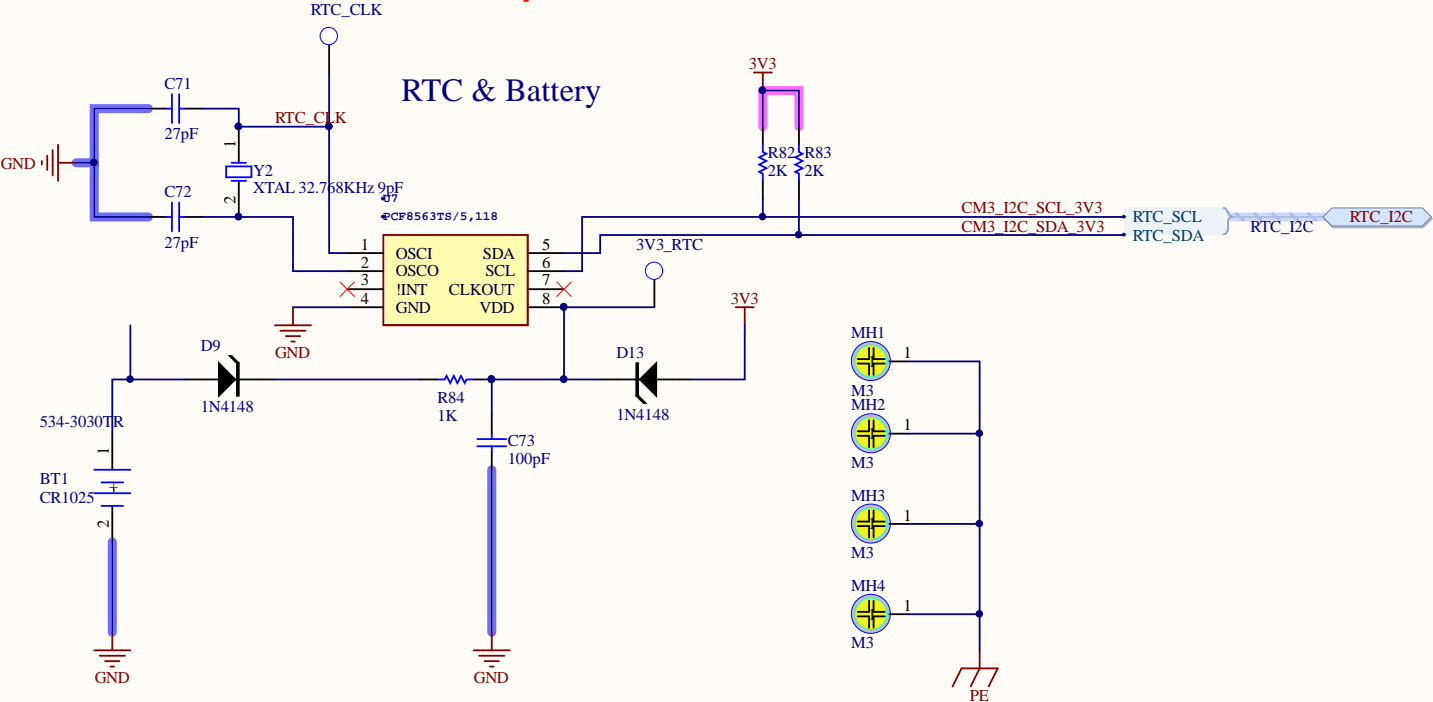


| | | | | |
|---|------------------|---------------|--|--|
| Title <i>QWA17-SmartCam-SmartCam DIO</i> | | | <i>Q-Wave Systems Co.,Ltd</i> 65/2 Moo 1 Beung Sriracha Chonburi Thailand | Q-WAVE SYSTEMS  |
| Size: A4 | Number:3 | Revision:7 | | |
| Date: 10/2/2019 | Time: 2:18:36 PM | Sheet 3 of 12 | | |
| File: Sch-QWA17_DIO.SchDoc | | | | |

Industrial Version



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USB HUB Port

USB A Host 1

Industrial Version 7

USB Current 1.2A

USB Port LED (5V)

USB Power Control 2.1A

To RPi >

Lite Version connect 5V direct to PWR2

1.8V Bypass Cap

3.3V Bypass Cap

1.8V Bypass Cap

3.3V Bypass Cap

Title **QWA17-SmartCam USB Hub**

Size: A4

Number:9

Revision:7

Date: 10/2/2019

Time: 2:18:37 PM

Sheet 9 of 12

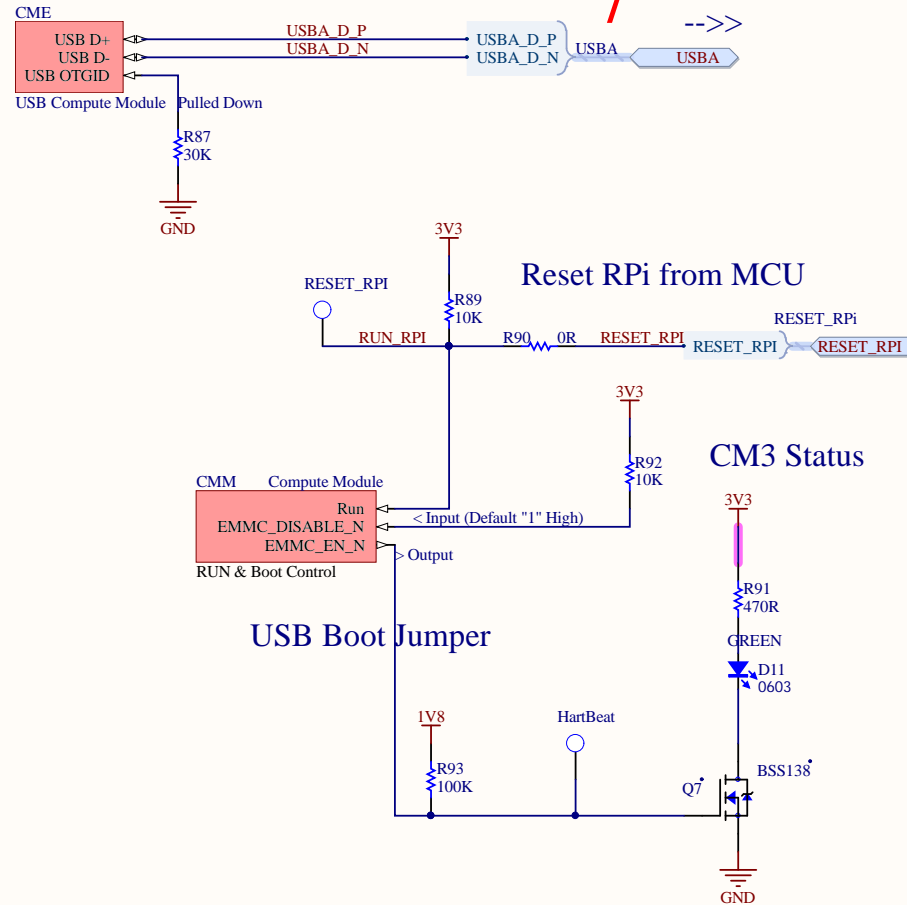
File: Sch-QWA17_USB Hub.SchDoc


Q-Wave Systems Co.,Ltd
65/2 Moo 1 Beung
Sriracha Chonburi
Thailand

Q-WAVE
SYSTEMS

USB Switch(USB or eMMC Boot)

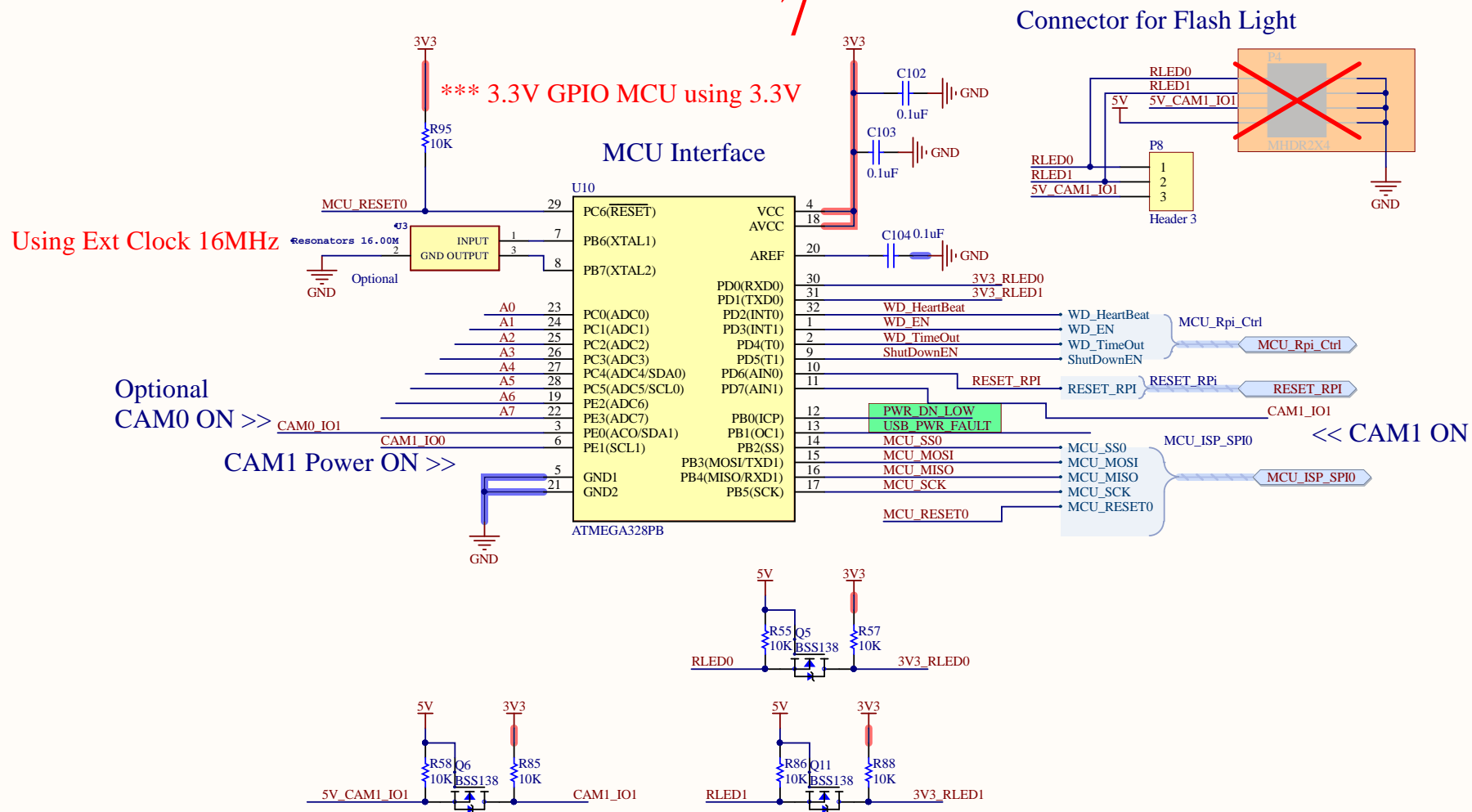
Industrial Version 7



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|---|-------------------------|------------------------------|--|--|
| Title <i>QWA17-SmartCam USB Boot</i> | | | <i>Q-Wave Systems Co.,Ltd</i> 65/2 Moo 1 Beung Sriracha Chonburi Thailand | Q-WAVE SYSTEMS  |
| Size: A4 | Number: 10 | Revision: 7 | | |
| Date: 10/2/2019 | Time: 2:18:37 PM | Sheet 10 of 12 | | |
| File: Sch-QWA17 USB-SW-Boot.SchDoc | | | | |

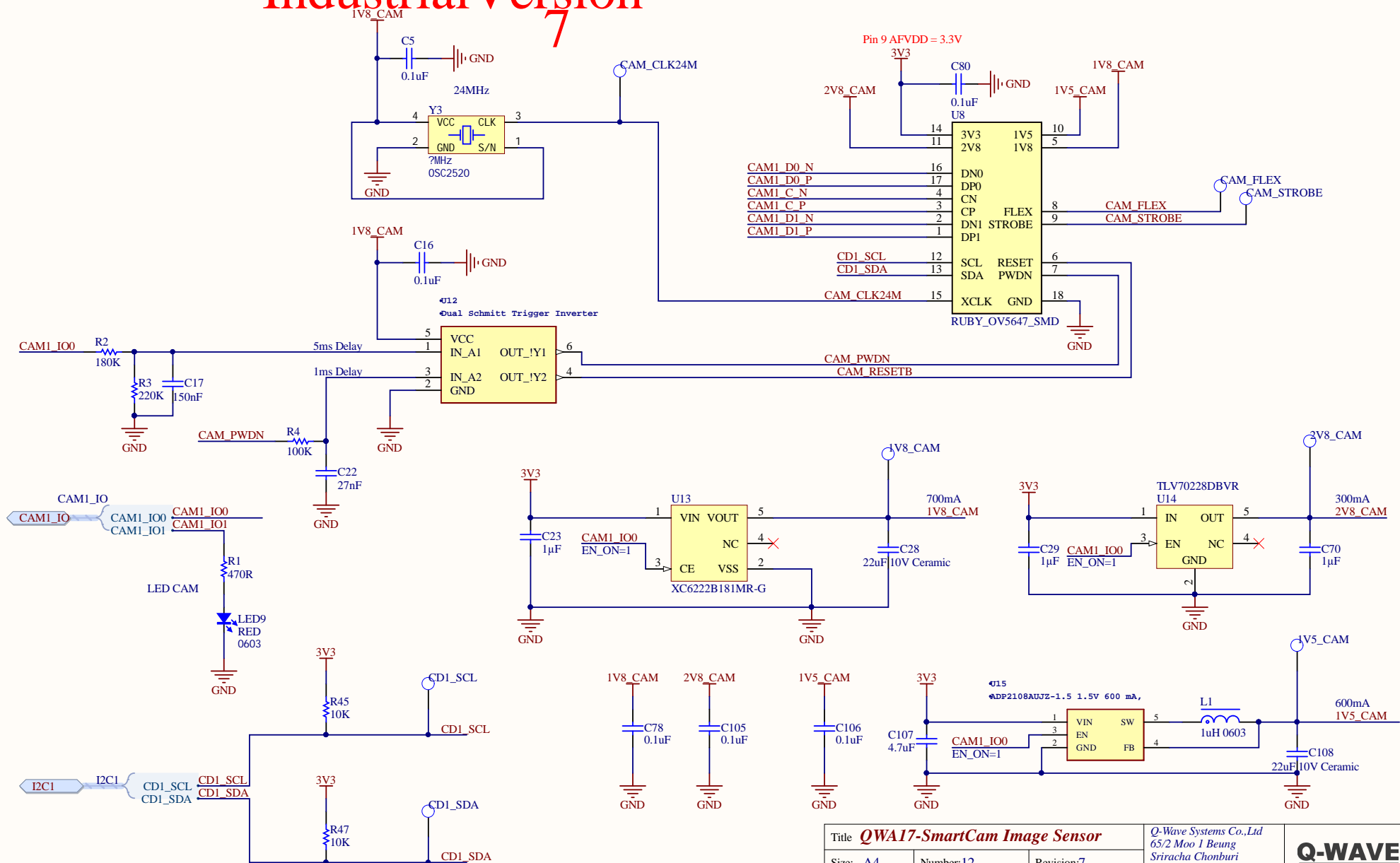
Q-WAVE
SYSTEMS

Industrial Version

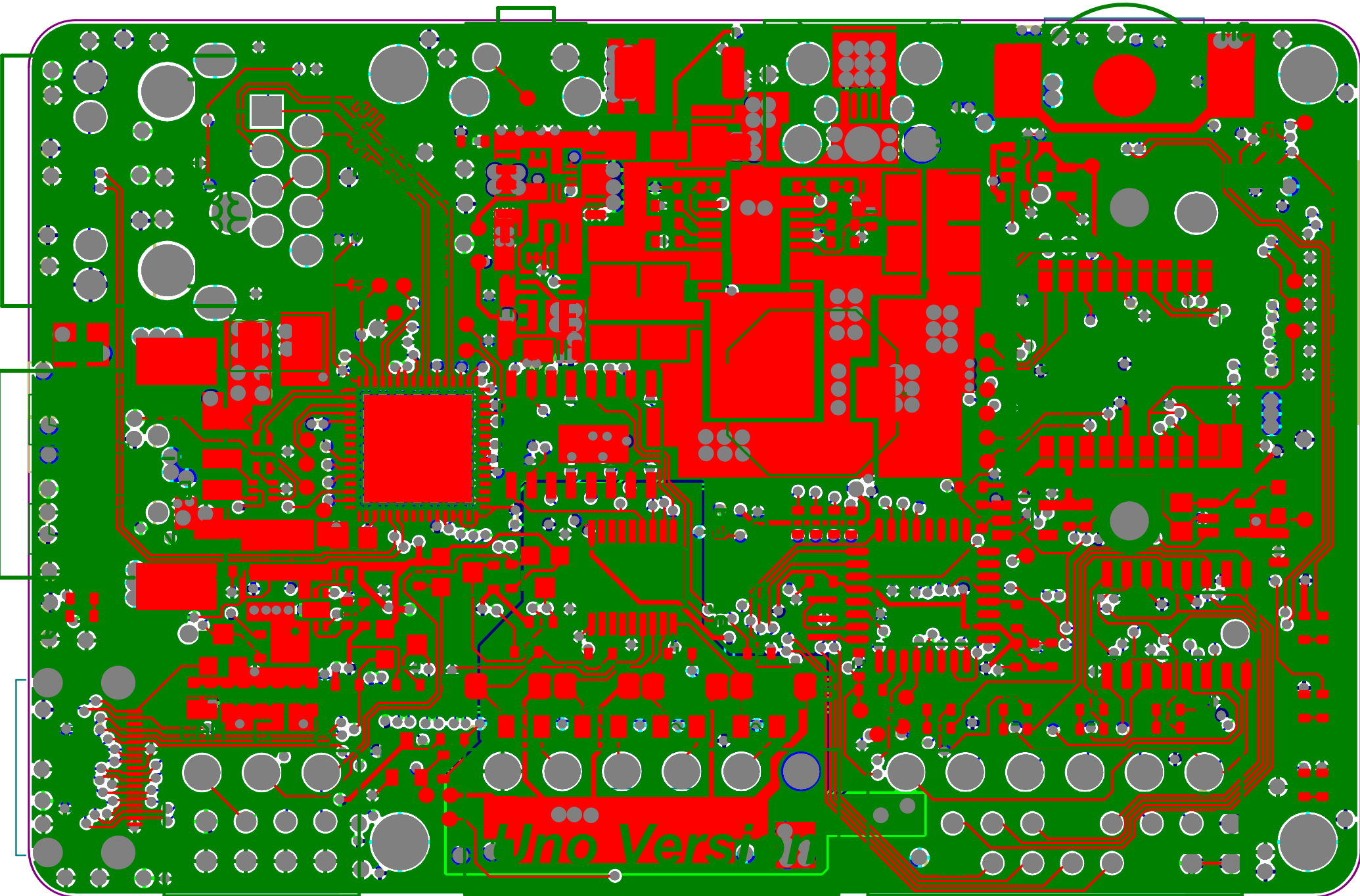


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|--|-------------------------|------------------------------|---------------------------------|
| Title <i>QWA17-SmartCam MCU</i> | | | Q-WAVE SYSTEMS |
| Size: A4 | Number: 11 | Revision: 7 | |
| Date: 10/2/2019 | Time: 2:18:38 PM | Sheet 11 of 12 | |
| File: Sch-QWA17 MCU.SchDoc | | | |

Industrial Version



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|---|-------------------------|------------------------------|---------------------------------|
| Title <i>QWA17-SmartCam Image Sensor</i> | | | Q-WAVE SYSTEMS |
| Size: A4 | Number: 12 | Revision: 7 | |
| Date: 10/2/2019 | Time: 2:18:38 PM | Sheet 12 of 12 | |
| File: Sch-QWA17 V7 ImageSensor.SchDoc | | | |



EagleEye Smart Camera

PMR ACT CAM

CR1020

3U

VIN

5U

5U

VIN

5U

MS

Smart Camera
Q-WAVE
SYSTEMS

Q-Wave Systems

EagleEye

QMA-17

1+

2+

3+

4+

D0

D1

D1

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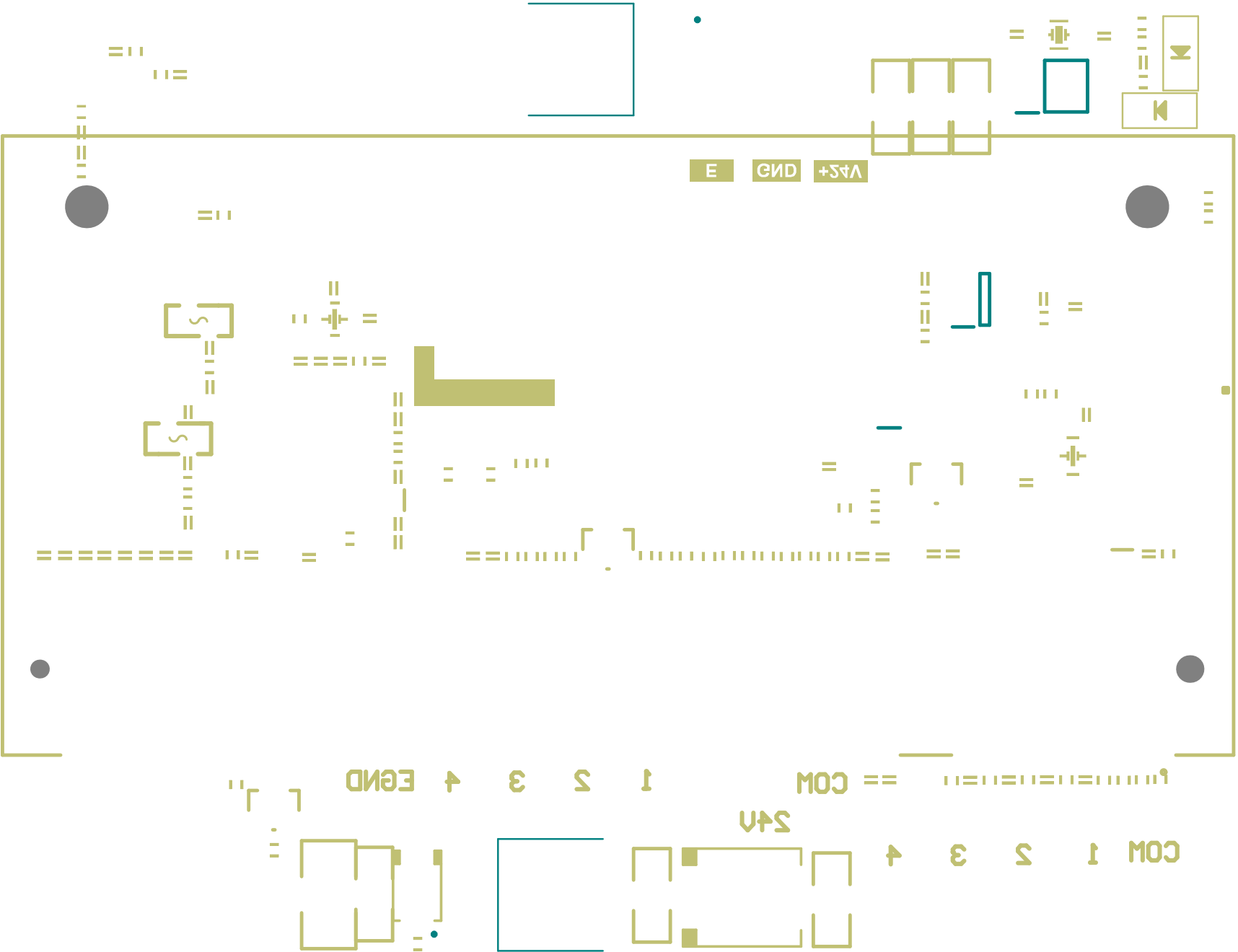
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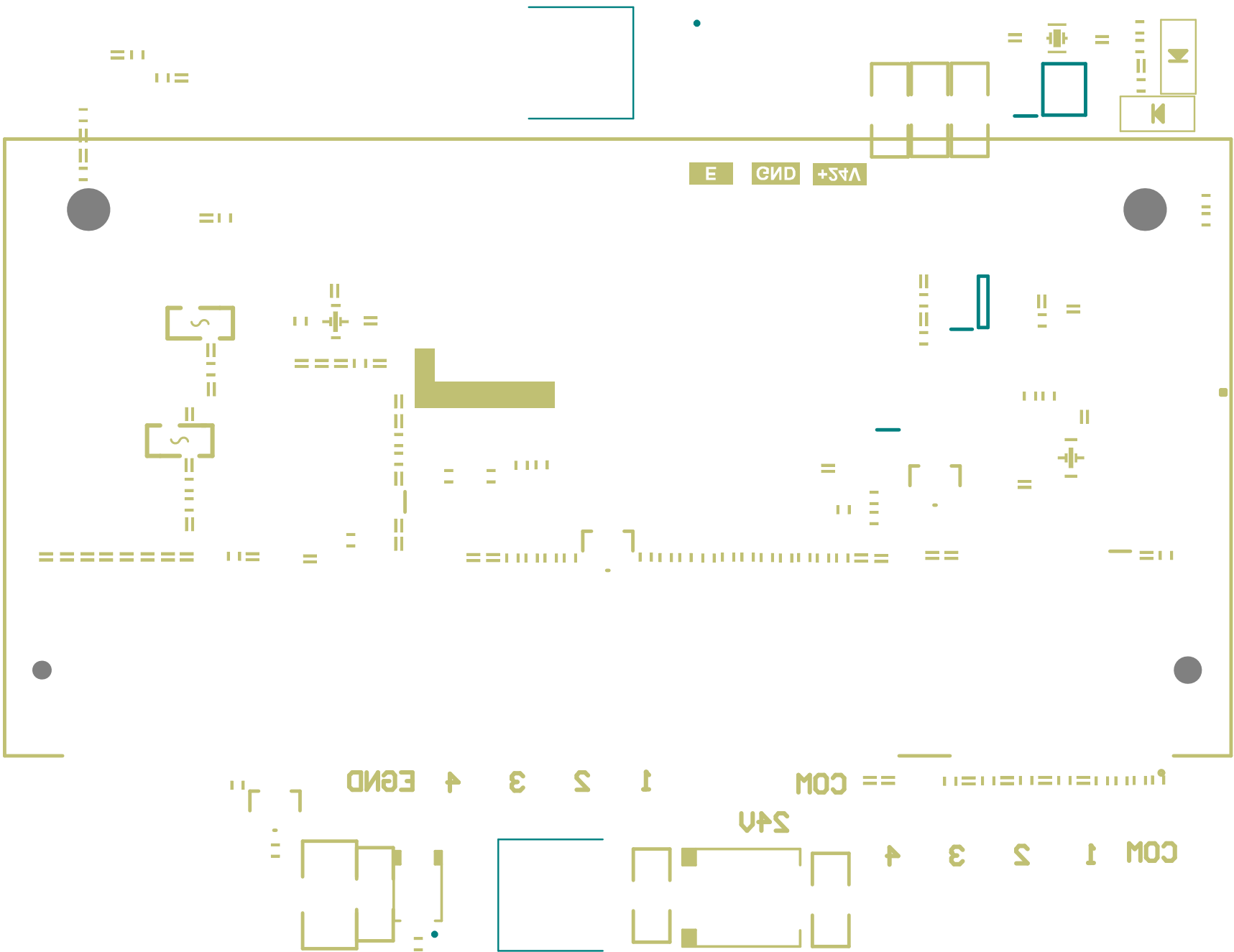
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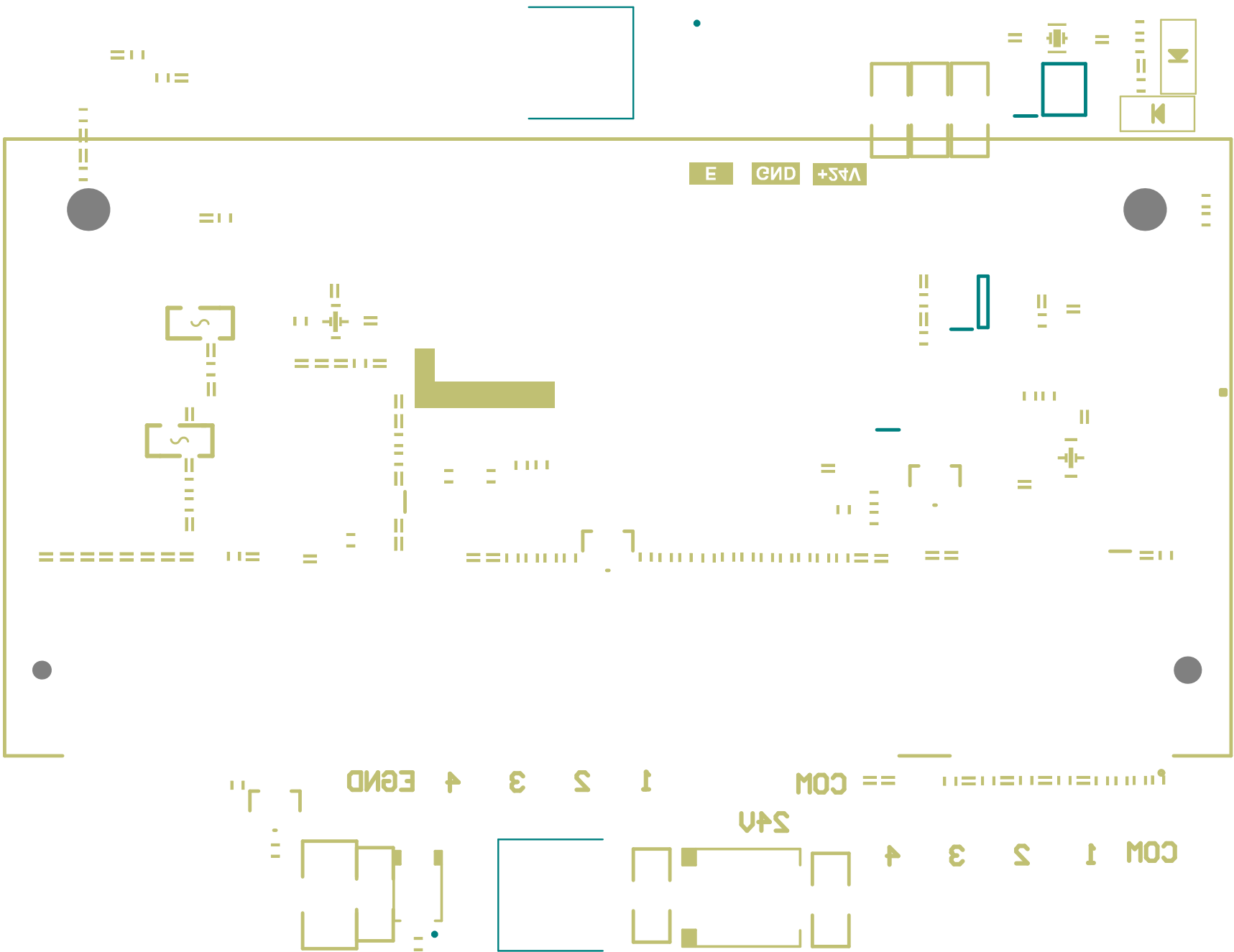
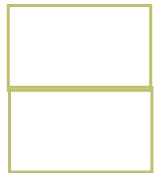
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D140

D141







ONAC

