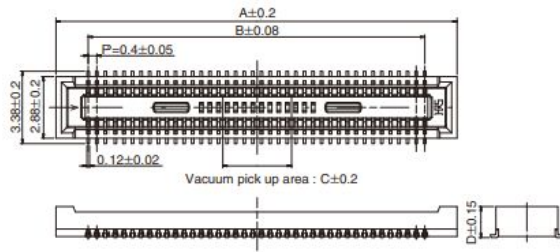
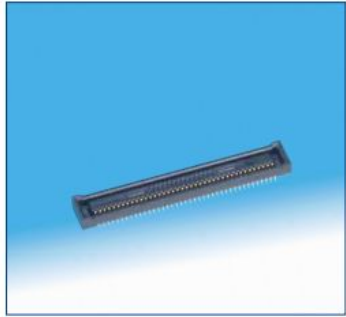


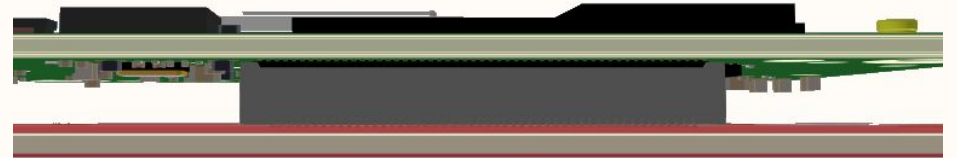
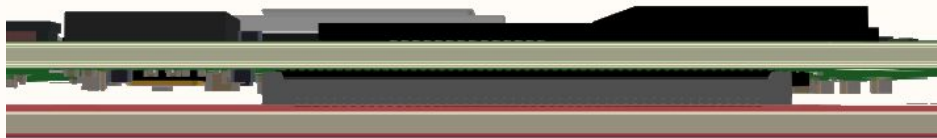
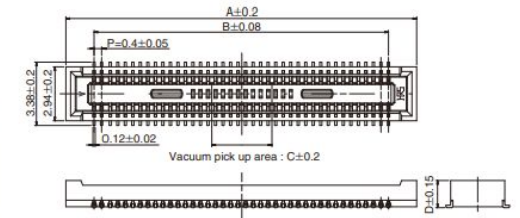
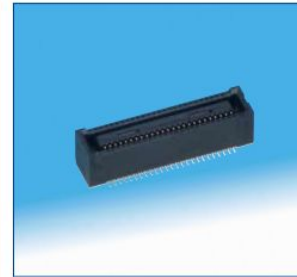
1.5mm with mating connector (clearance under CM4 0mm) : DF40C-100DS-0.4v


[DF40C-100DS-0.4V](#)

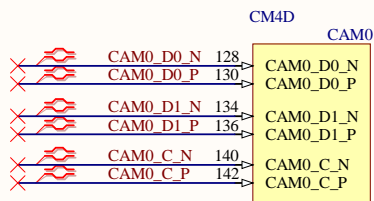


3.0mm with mating connector (clearance under CM4 1.5mm): DF40HC(3.0)-100DS-0.4v

[DF40HC\(3.0\)-100DS-0.4V](#)



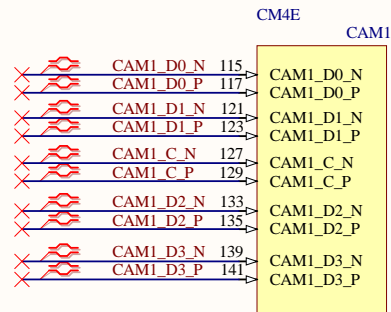
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Size: A4	Number:*	Revision:*		
Date: 11/20/2020	Time: 10:45:43 AM Sheet* of *			
File: G:\My Drive\HW_Product\QWA53-SeaBOX\Connector.SchDoc				



The CM4 supports two camera ports; CAM0 (2 lanes) and CAM1 (4 lanes).

Camera sensors supported by the official Raspberry Pi firmware are; the OmniVision OV5647, Sony IMX219 and Sony IMX477, no security device is required on Compute Module devices to use these camera sensors.

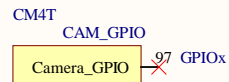
Raspberry Pi Compute Module 4



The CM4 supports two camera ports; CAM0 (2 lanes) and CAM1 (4 lanes).

Camera sensors supported by the official Raspberry Pi firmware are; the OmniVision OV5647, Sony IMX219 and Sony IMX477, no security device is required on Compute Module devices to use these camera sensors.

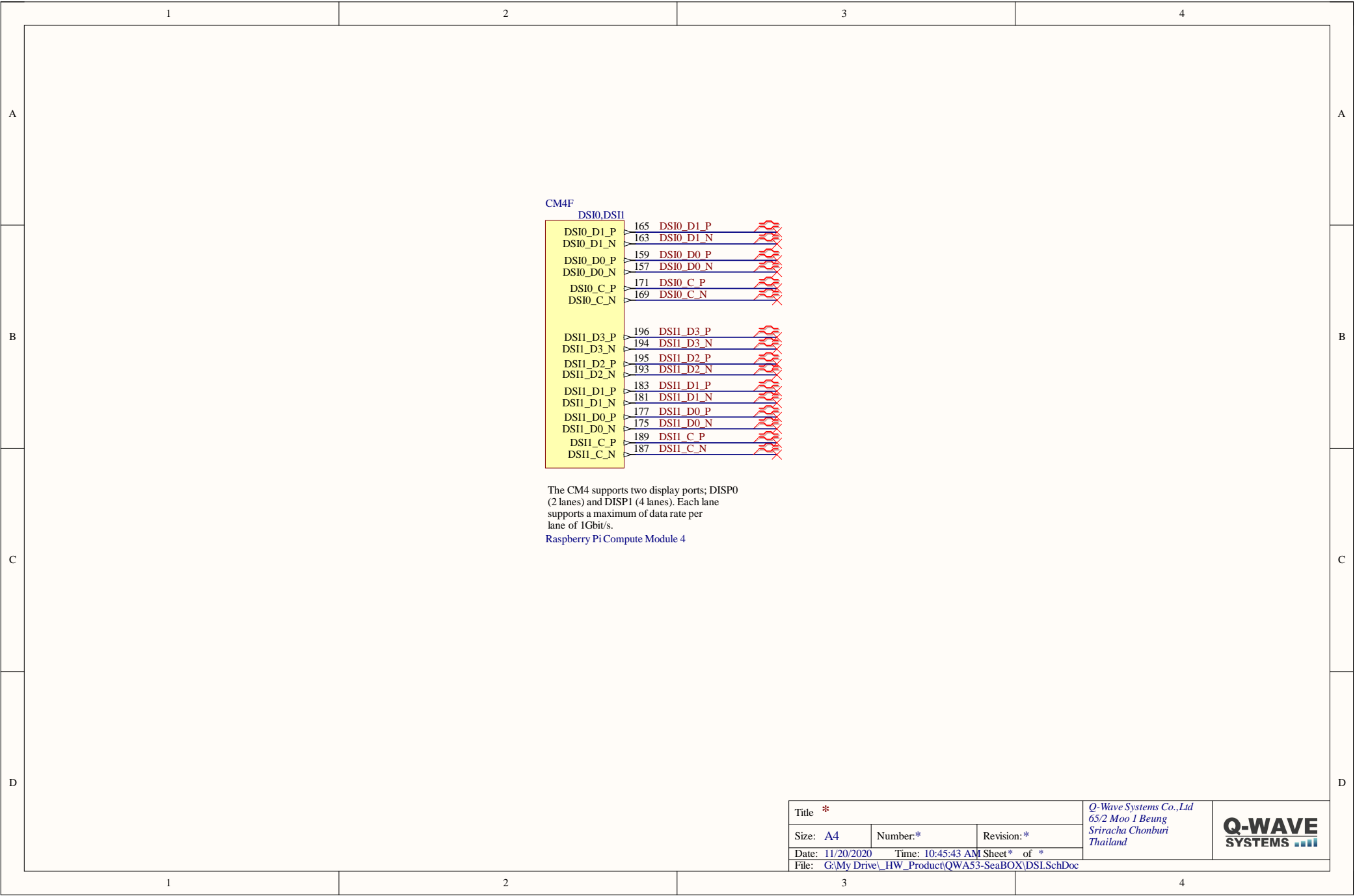
Raspberry Pi Compute Module 4

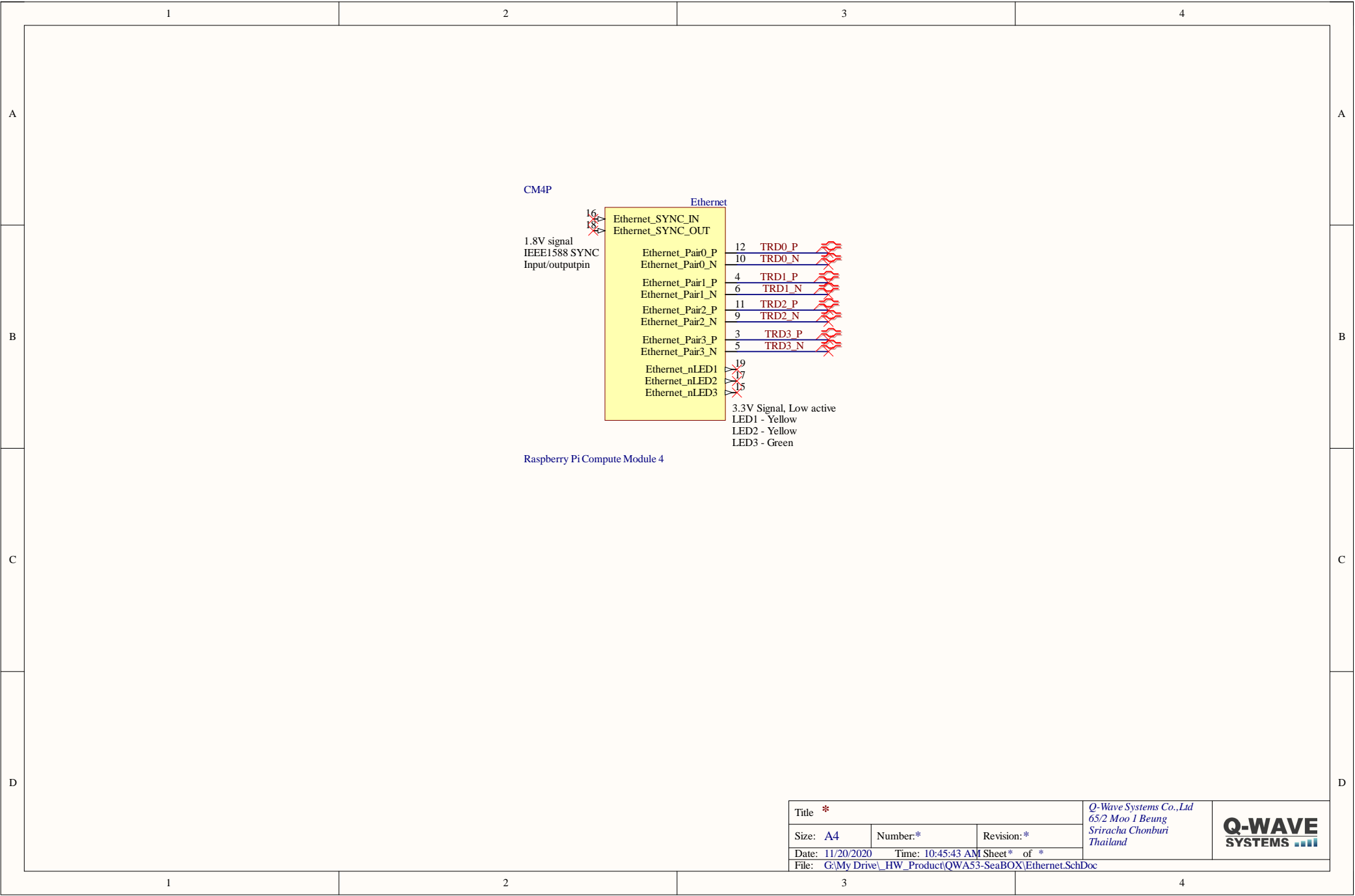


CM4_3.3V signalling. Typically used to Shutdown the camera to reduce power

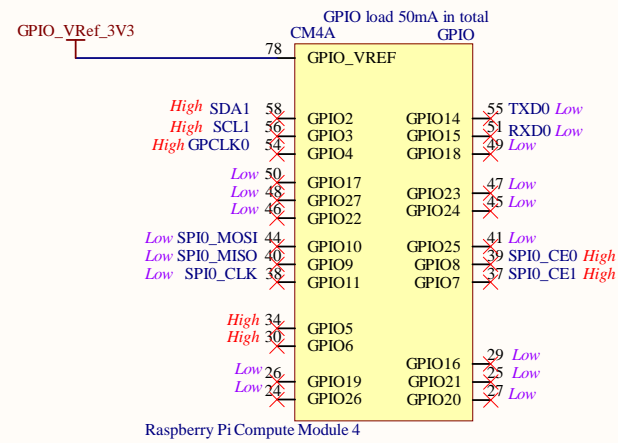
Raspberry Pi Compute Module 4


Title *			Q-Wave Systems Co.,Ltd 65/2 Moo 1 Beung Sriracha Chonburi Thailand	Q-WAVE SYSTEMS
Size: A4	Number:*	Revision:*		
Date: 11/20/2020	Time: 10:45:43 AM Sheet* of *			
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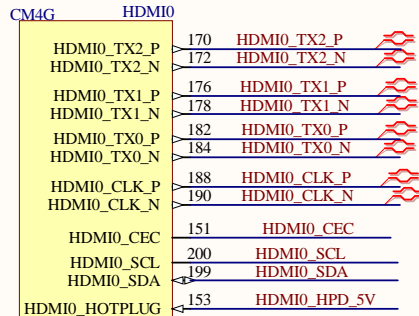


GPIO_VREF Must be connected to CM4_3.3V (pins 84 and 86) for 3.3V GPIO or CM4_1.8V (pins 88 and 90) for 1.8V GPIO. This pin cannot be floating or connected to ground



Title *			<i>Q-Wave Systems Co.,Ltd</i> 65/2 Moo 1 Beung Sriracha Chonburi Thailand	
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Date: 11/20/2020	Time: 10:45:43 AM Sheet * of *			
File: G:\My Drive\HW Product\QWA53-SeaBOX\GPIO.SchDoc				

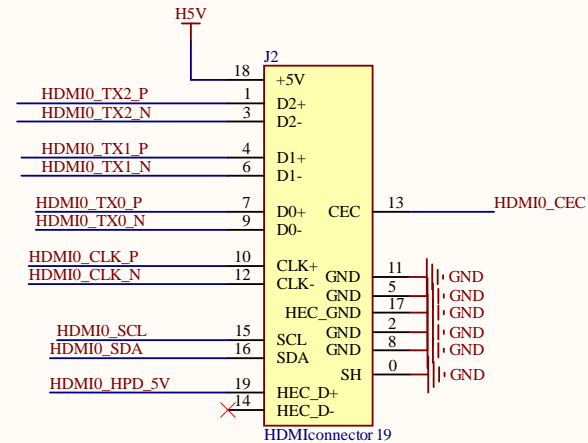
CEC is also supported, an internal 27K pullup resistor is included in the CM4.



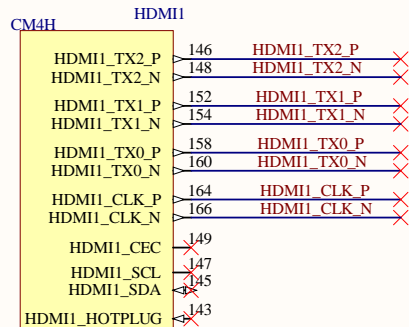
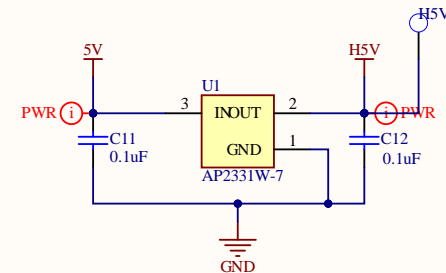
Raspberry Pi Compute Module 4

HDMIO_HOTPLUG
Input HDMII Hotplug Internally pulled down with a 100K. 5V tolerant.

HDMIO_SDA,SCL
Bidir HDMII SDA Internally pulled up with a 1.8K. 5V tolerant



Current Limit 200mA



Raspberry Pi Compute Module 4

HDMII_HOTPLUG
Input HDMII Hotplug Internally pulled down with a 100K. 5V tolerant.

HDMII_SDA,SCL
Bidir HDMII SDA Internally pulled up with a 1.8K. 5V tolerant

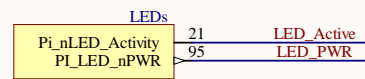
HDMI signals should be routed as 100Ω differential pairs, each signal within a pair should ideally be matched to better

than 0.15mm. Pairs don't typically need any extra matching as they only have to be matched to 25mm.

CEC is also supported, an internal 27K pullup resistor is included in the CM4.

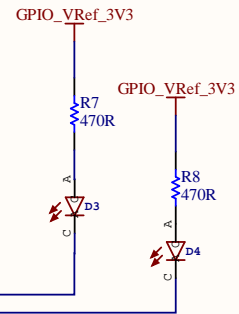
Title *			Q-Wave Systems Co.,Ltd 65/2 Moo 1 Beung Sriracha Chonburi Thailand	Q-WAVE SYSTEMS
Date: 11/20/2020	Number:*	Revision: *		
Time: 10:45:43 AM	Sheet* of *			
File: G:\My Drive\HW_Product\QWA53-SeaBOX\HDMI2.0.SchDoc				


CM4L
Pi_nLED_Activity
Low Active Pi Activity LED. 20mA Max 5V tolerant
(VOL<0.4V). (this is the signal that drives
the Green LED on the Raspberry Pi 4, Model B)

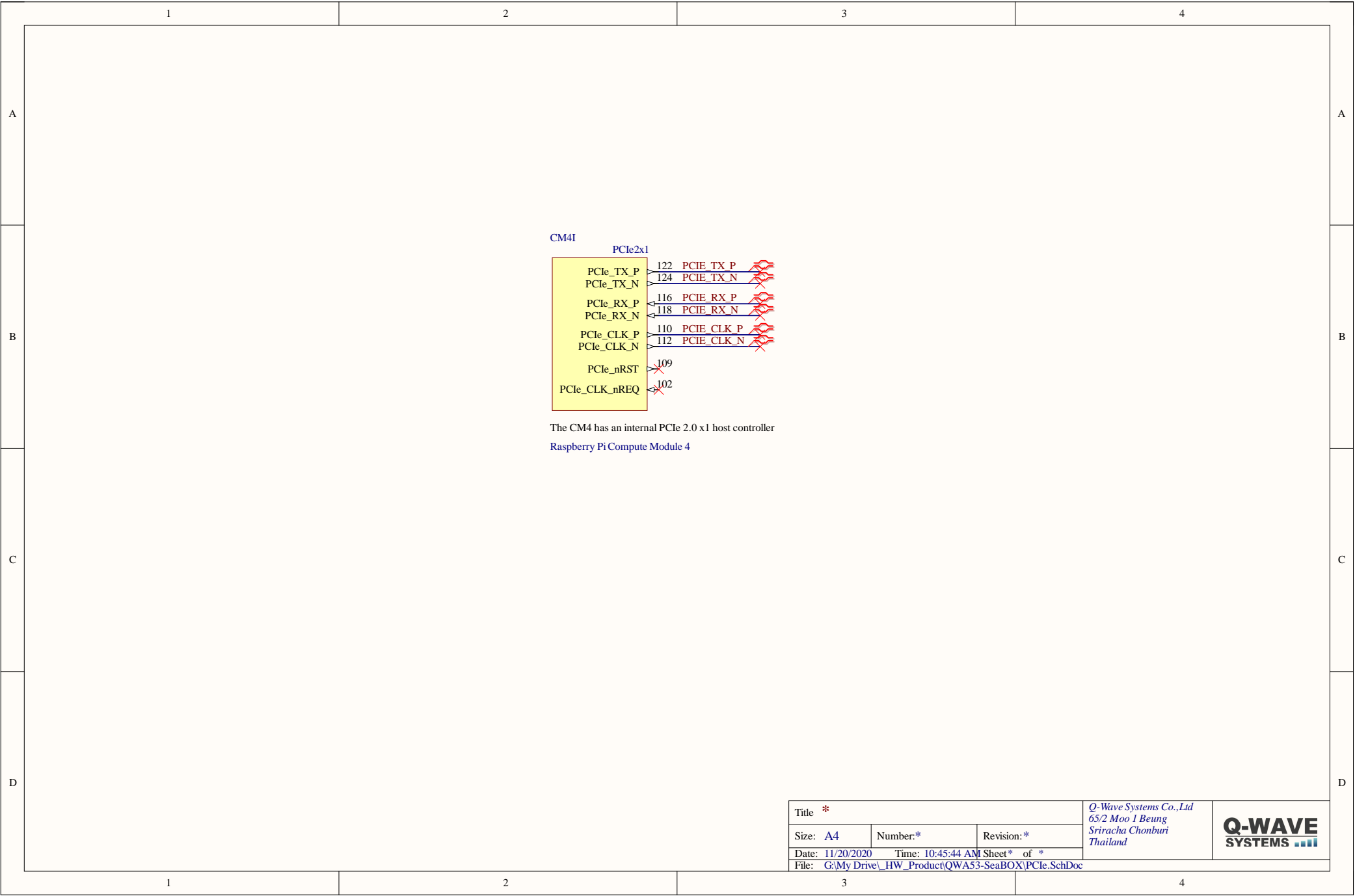


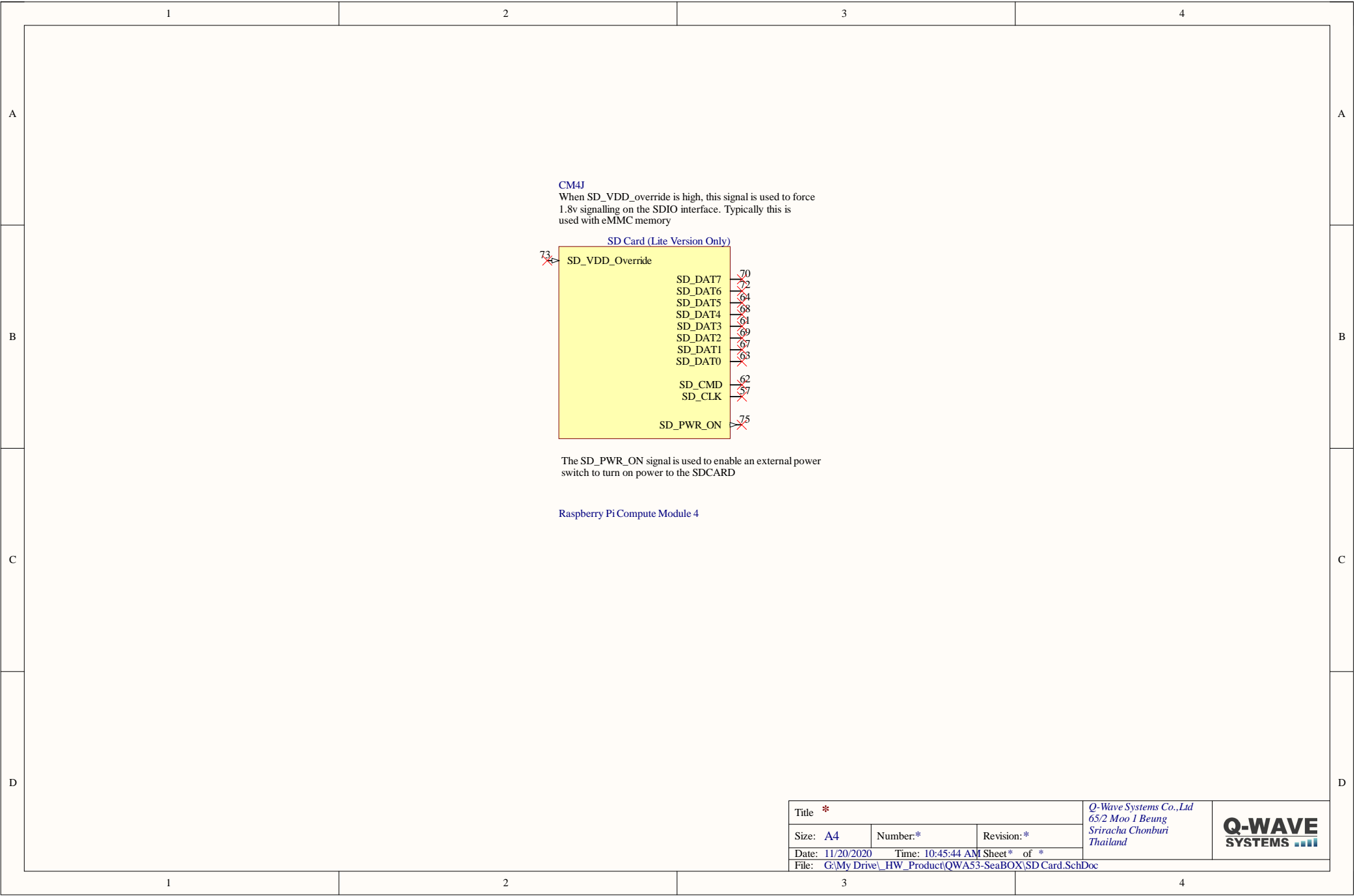
PI_LED_nPWR
Low active Output to drive Power On LED. This
signal needs to be buffered.

Raspberry Pi Compute Module 4



Title *			Q-Wave Systems Co.,Ltd 65/2 Moo 1 Beung Sriracha Chonburi Thailand	
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Right Pin 101-200
High Speed

PCIe
CSI
DSI
HDMI
USB

Right Pin 1-100
Low Speed

Power
Ethernet
SD Card
GPIO

Logo1

Breadboard 350pin

QWAVE Logo

200 199
102 101



100 99
2 1

The CM4 is a compact 40×55 mm module. The Module is 4.7mm deep, but when connected the height will be 5.078 or

6.578 mm depending on the stacking height chosen.

1. $4 \times M2.5$ Mounting holes (inset 3.5mm from module edge)


2. PCB thickness $1.2\text{mm} \pm 10\%$

3. BCM2711 SOC height including solder balls $2.378 \pm 0.11\text{mm}$

4. Stacking height either:

a. 1.5mm with mating connector (clearance under CM4 0mm) : DF40C-100DS-0.4v

b. 3.0mm with mating connector (clearance under CM4 1.5mm): DF40HC(3.0)-100DS-0.4v

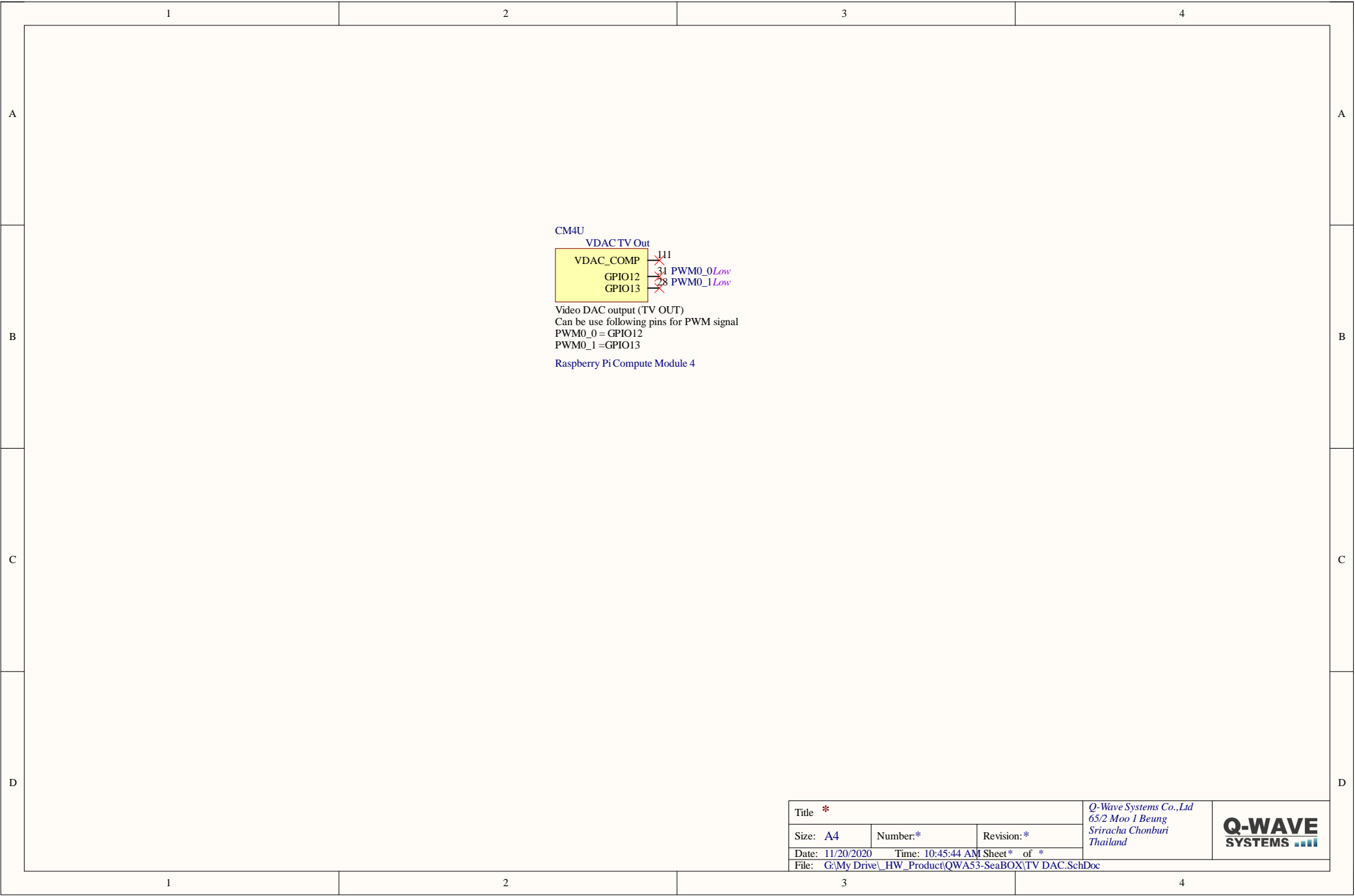
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Title *			<div>Q-Wave Systems Co.,Ltd</div> <div>65/2 Moo 1 Beung</div> <div>Sriracha Chonburi</div> <div>Thailand</div> <div><div>Q-WAVE</div><div>SYSTEMS</div><div><div></div><div></div><div></div></div></div>
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