Title	**Change history**
Size: A4	Document Number: **Davos**
Rev	1.1
Date:	Wednesday, July 22, 2020
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Title	**Block Diagram**
Size: A4	Document Number: **Davos**
Rev	1.1
Date:	Wednesday, July 22, 2020
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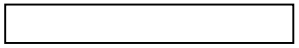
PCB-2008_1V1

Davos REV1.1 6L L109mm W50mm T1.6mm



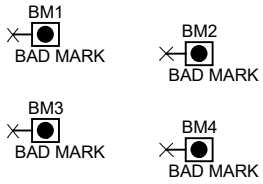
MIN AIK TECHNOLOGY CO.,LTD.		
Title: PCB Dimension		
Size: A4	Document Number: Davos	Rev: 1.1
Date: Wednesday, July 22, 2020	Sheet 3 of 16	

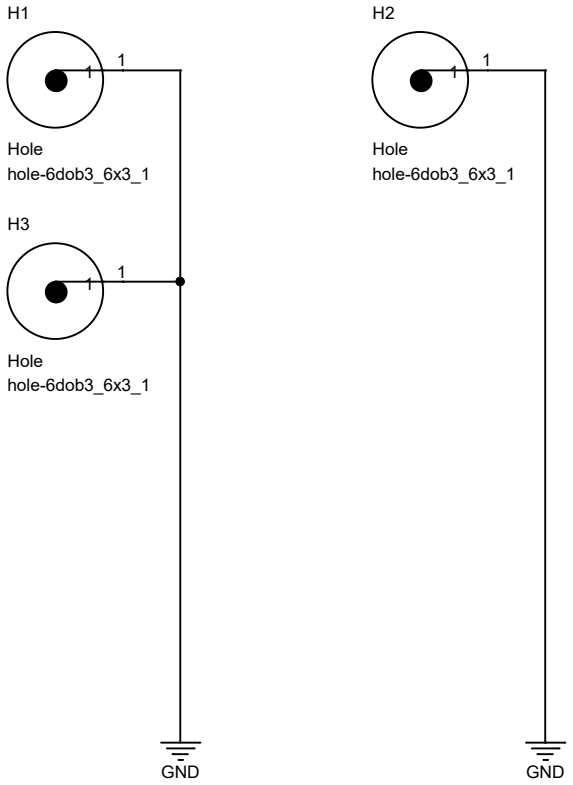
Stack-Up - FR4 FL-170						Control Impedance																		Via Type
Layer			Copper		Core/PP	Er (Dk)				Df				Single 50Ω @ 1GHz			Differential 85Ω @ 5GHz (CIO and USB3.1)				Differential 100Ω @ 2GHz (PCIe, DP, MDI, HDMI & USB2)				Reference Plane Layer	TH
Name	Purpose	Type	Foil [Oz]	Final [mil]	[mil]	@ 1GHz	@ 2GHz	@ 5GHz	@ 10GHz	@ 1GHz	@ 2GHz	@ 5GHz	@ 10GHz	W1 [mil]	D [mil]	Z [Ohm]	W1 [mil]	S [mil]	D [mil]	Z [Ohm]	W1 [mil]	S [mil]	D [mil]	Z [Ohm]		v16c8
CS	Sig	S	0.5	1.4										11	21	50.36	7.7	4	21	85.54	4.5	4	21	100.2	Ref (L2)	
	7628	CORE			7.00	4.30	4.10	3.90	4.00	0.014	0.015	0.015	0.015													
L2	GND	G	1	1.2																					GND	
	2116	PP			4.6	4.10	4.00	3.90	3.70	0.015	0.016	0.017	0.018													
L3	Sig/PWR	V	0.5	0.6										6.5	15	49.27					3.5	4	15	99.89	Ref (L2)	
	6x 2116	CORE			30	4.30	4.10	3.90	3.80	0.015	0.015	0.015	0.015													
L4	Sig/PWR	V	0.5	0.6										6.5	15	49.27					3.5	4	15	99.89	Ref (L5)	
	2116	PP			4.6	4.10	4.00	3.90	3.70	0.015	0.016	0.017	0.018													
L5	GND	G	1	1.2																					GND	
	7628	CORE			7.00	4.30	4.10	3.90	4.00	0.014	0.015	0.015	0.015													
PS	Sig	S	0.5	1.4										11	21	50.36	7.7	4	21	85.54	4.5	4	21	100.2	Ref (L5)	
		Total	4	6.4	53.2																					
		Total	59.6	mil																						
		Total	1.52	mm																						

Remarks

1 W means Width of line
2 S means Spacing between the differential lines
3 D means Distance from other signals
4 Assuming W1 = W + 0.5mil for inner layers and W1 = W + 0.75mil for external layers
5 Assuming H1 = 0.5mil

Title	PCB Stack		
Size A4	Document Number Davos		Rev 1.1
Date: Wednesday, July 22, 2020		Sheet 4 of 16	





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Title: Screw Hole & Bad Mark		
Size: A4	Document Number: Davos	Rev: 1.1
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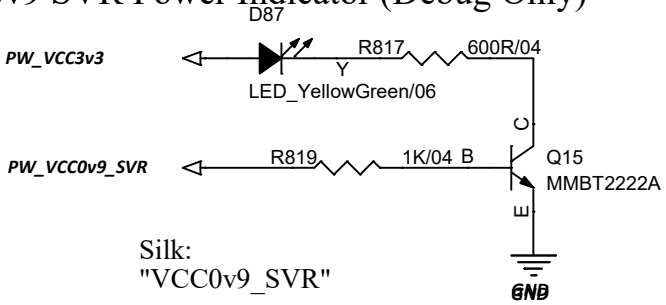
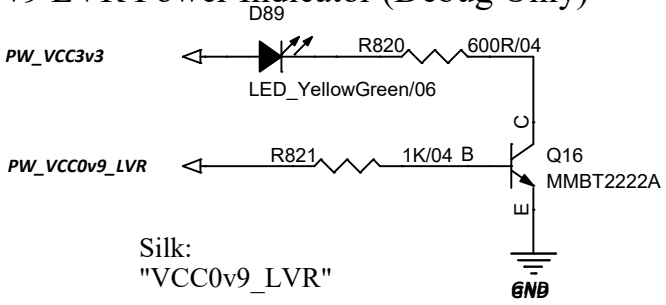
Debug LEDs

0v9 SVR Power Indicator (Debug Only)

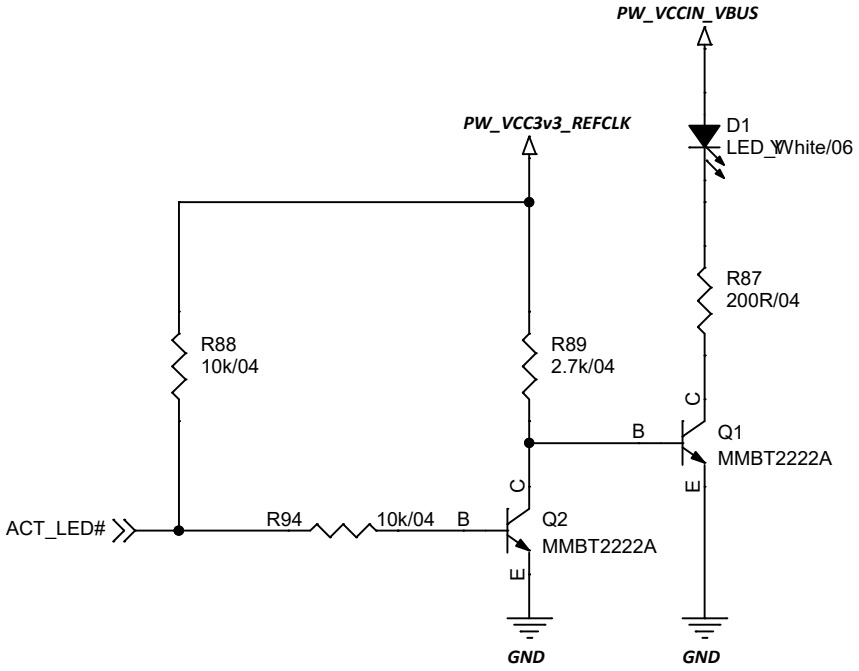


Silk:
"VCC0v9_SVR"

0v9 LVR Power Indicator (Debug Only)

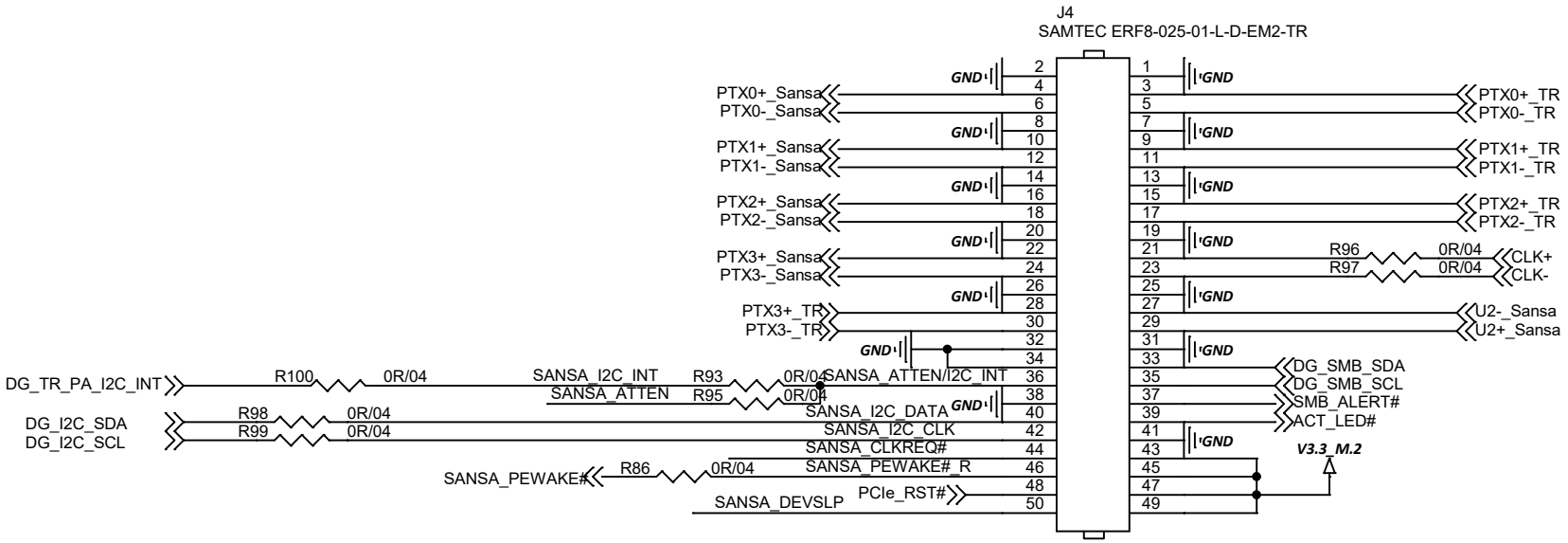


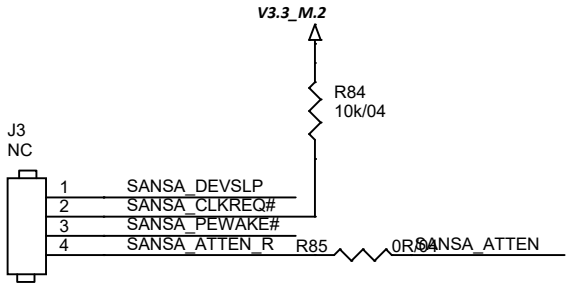
Silk:
"VCC0v9_LVR"

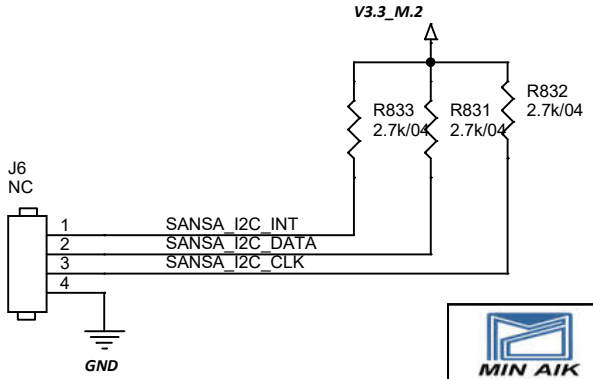


MIN AIK TECHNOLOGY CO.,LTD.

Title: Debug LEDs		
Size: A	Document Number: Davos	Rev: 1.1
Date: Wednesday, July 22, 2020	Sheet 6 of 16	







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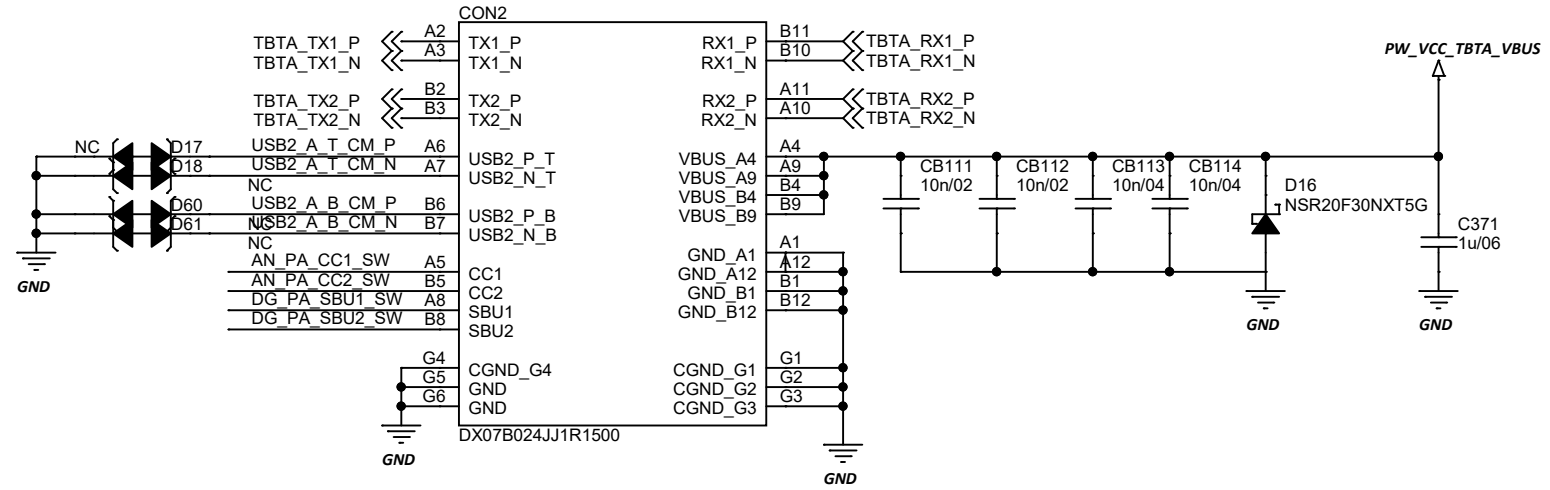
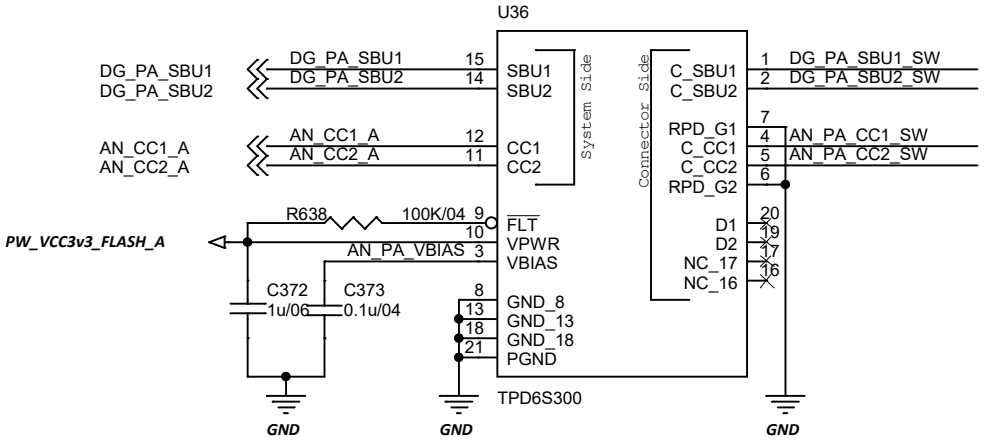
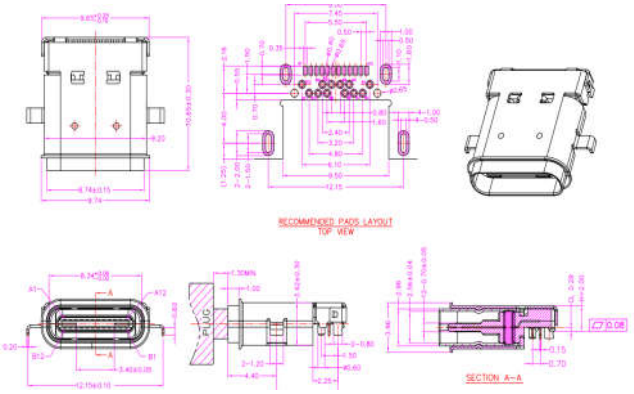
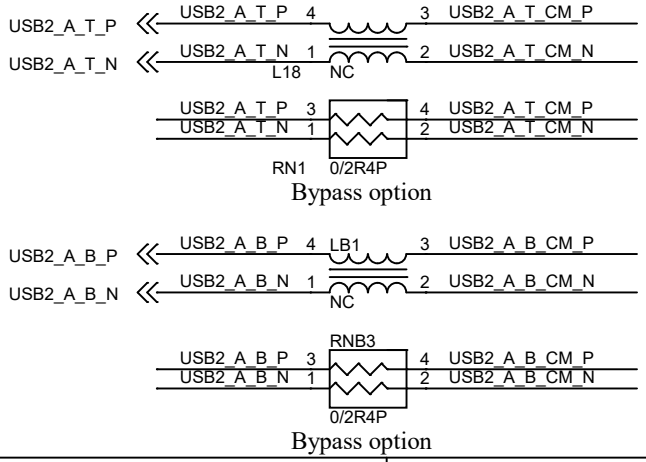
MIN AIK TECHNOLOGY CO.,LTD.

Title: Sansa I/F		
Size: A4	Document Number: Davos	Rev: 1.1
Date: Wednesday, July 22, 2020	Sheet 7 of 16	

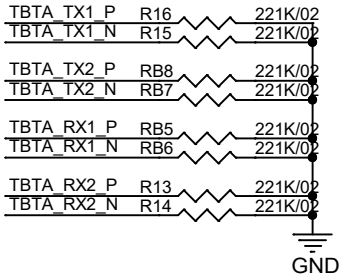






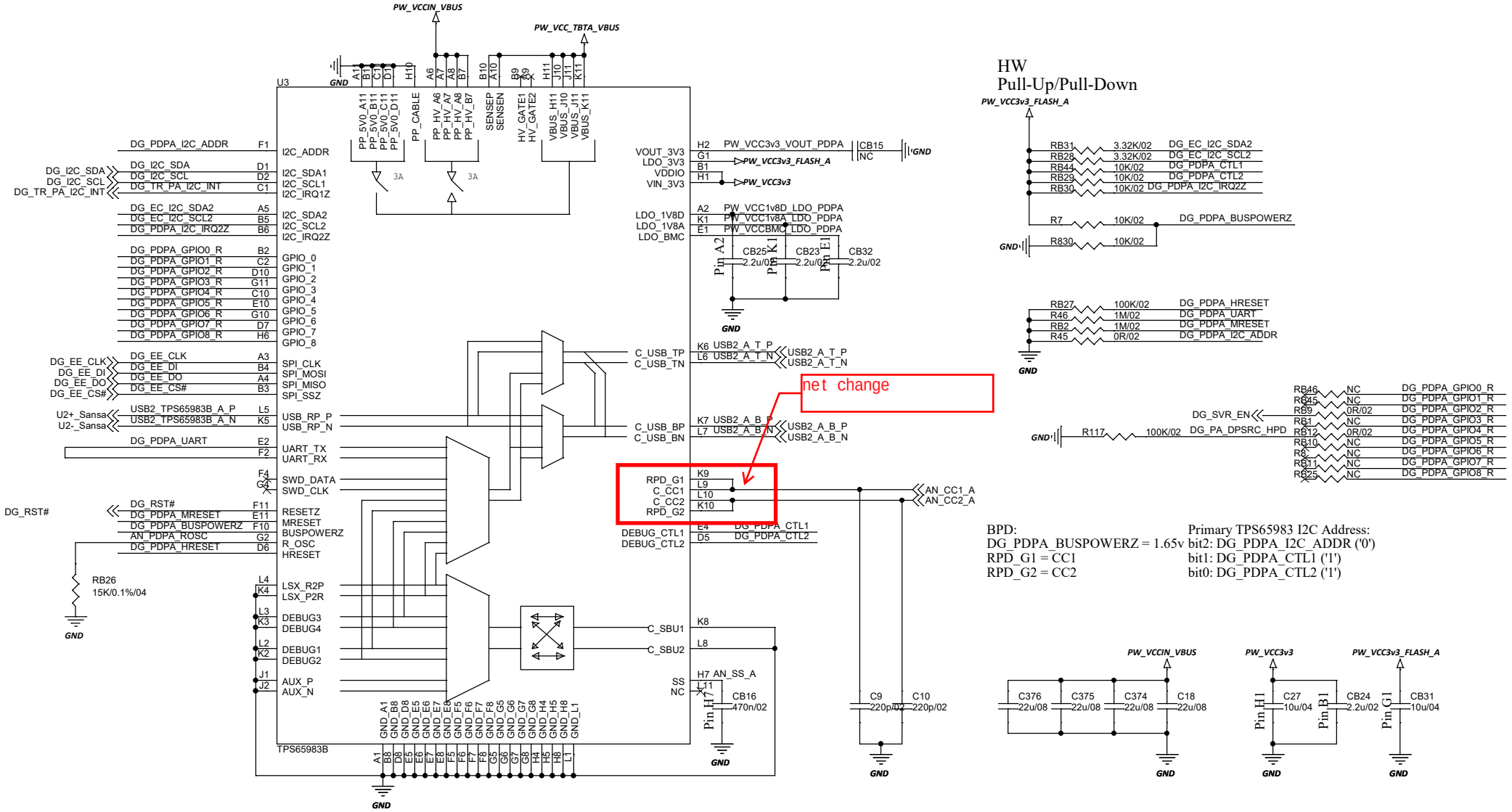


Bleeding Resistors



MIN AIK TECHNOLOGY CO.,LTD.

Title: Thunderbolt Port		
Size: A4	Document Number: Davos	Rev: 1.1
Date: Wednesday, July 22, 2020	Sheet 8 of 16	



HW
Pull-Up/Pull-Down

BPD:
DG_PDPA_BUSPOWERZ = 1.65v
RPD_G1 = CC1
RPD_G2 = CC2

Primary TPS65983 I2C Address:
bit2: DG_PDPA_I2C_ADDR ('0')
bit1: DG_PDPA_CTL1 ('1')
bit0: DG_PDPA_CTL2 ('1')

MIN AIK TECHNOLOGY CO.,LTD.

Title	Port Controller TPS65983	
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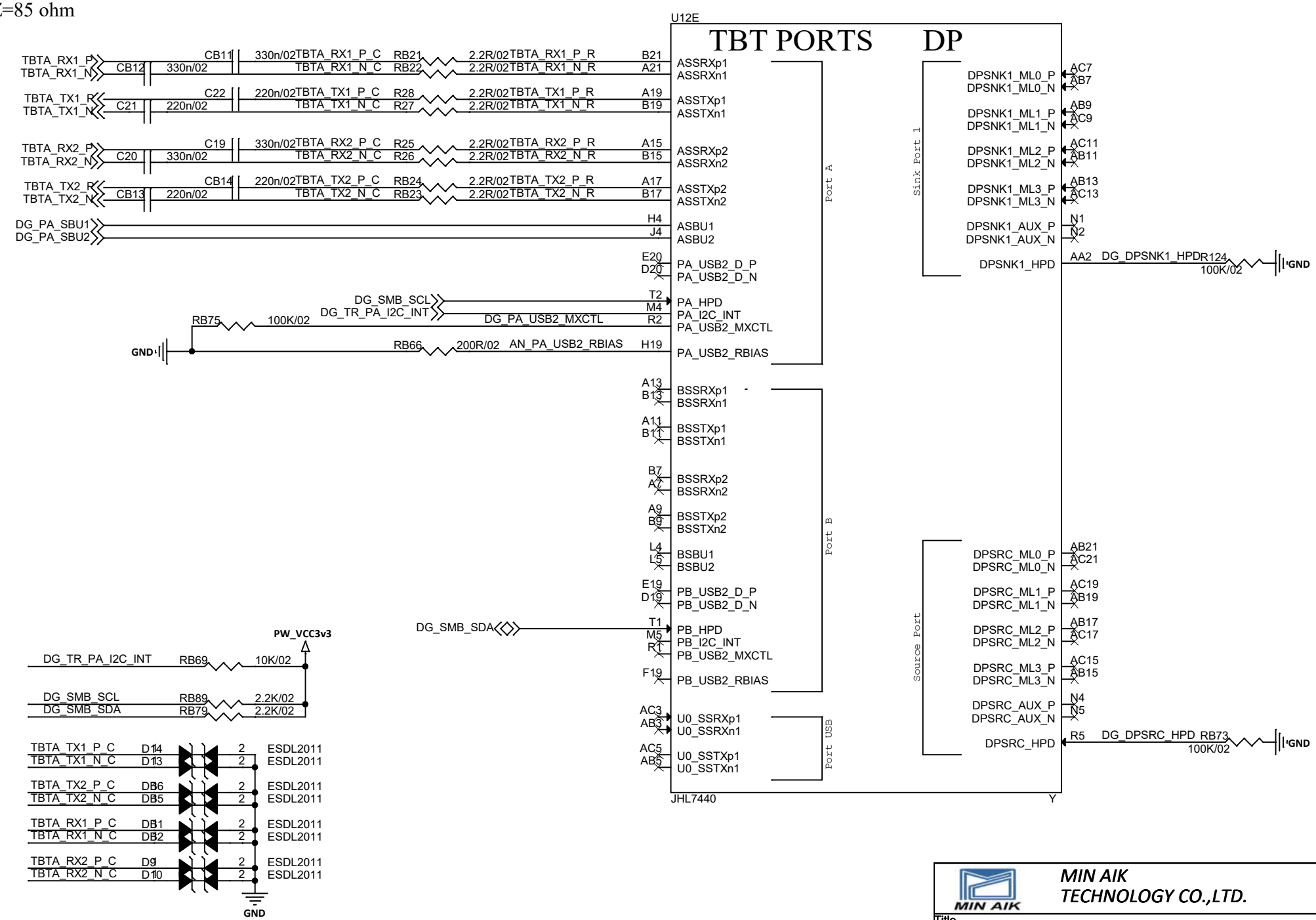
Z=85 ohm



MIN AIK TECHNOLOGY CO.,LTD.		
Title: Titan Ridge DD - High Speed		
Size: A4	Document Number: Davos	Rev: 1.1
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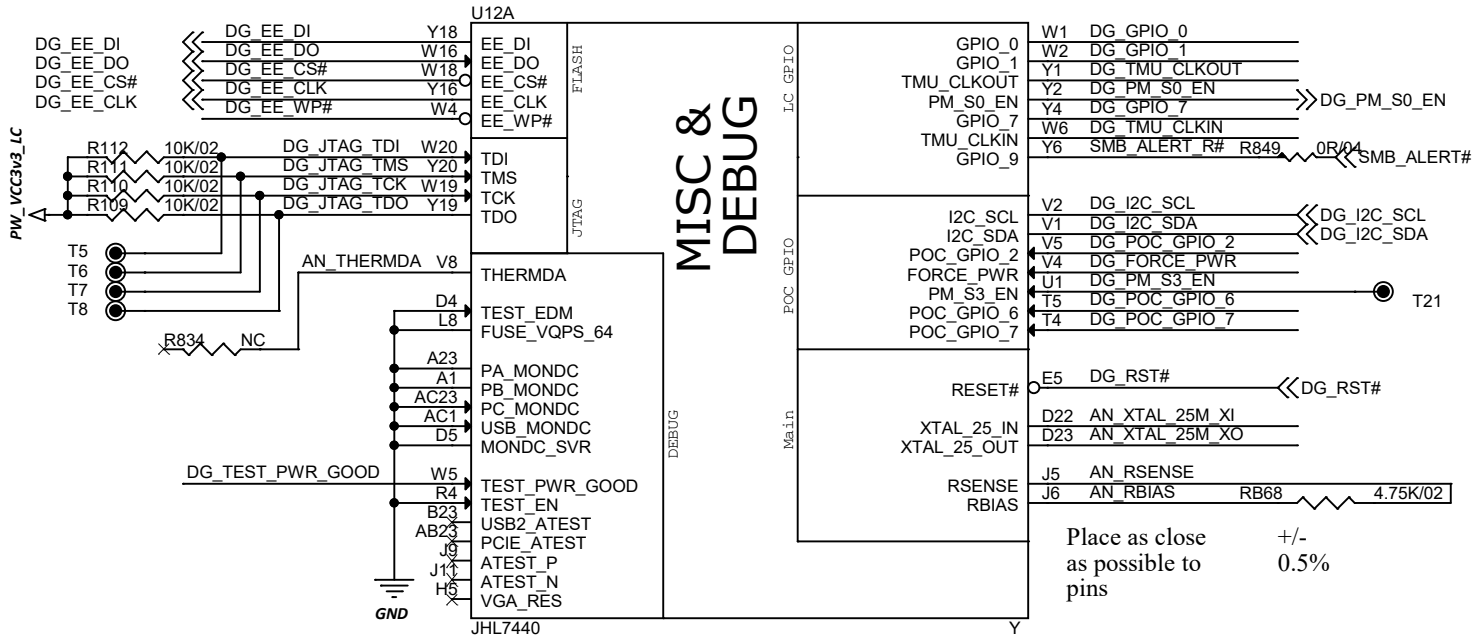
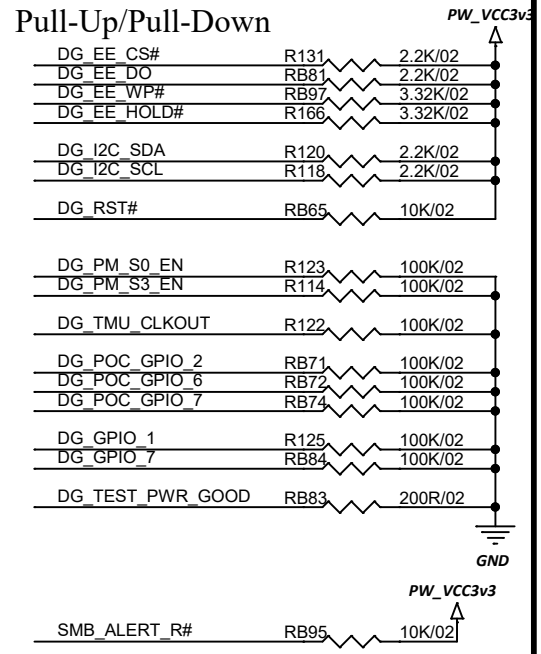
Titan Ridge DD - Misc Part

Titan Ridge DD - Misc Symbol

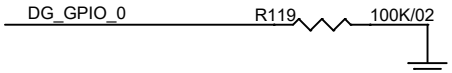


HW Pull-Up/Pull-Down

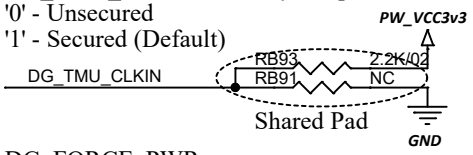


HW Configuration for Debug

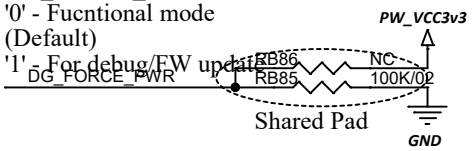
DG_GPIO_0: PU for Debug only



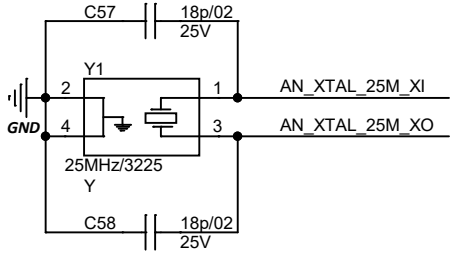
DG_TMU_CLKIN: Security Strap
'0' - Unsecured
'1' - Secured (Default)



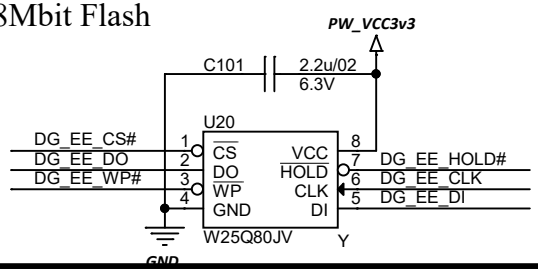
DG_FORCE_PWR:
'0' - Fucntional mode (Default)
'1' - For debug/FW update



25MHz, 30ppm, 20pF TR Crystal



8Mbit Flash



MIN AIK TECHNOLOGY CO.,LTD.

Title	Titan Ridge DD - Misc Part	
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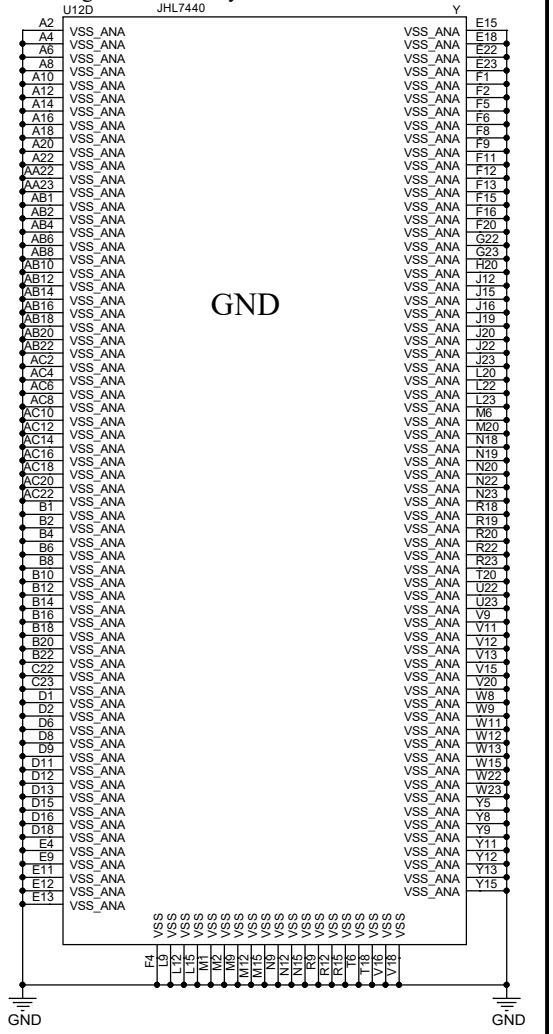
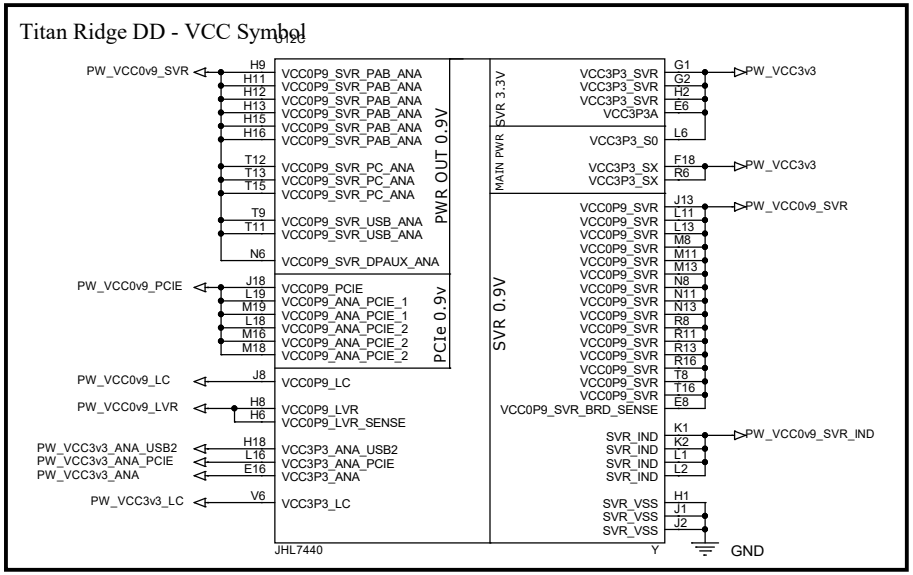
Titan Ridge DD - Power Supply & GND Parts

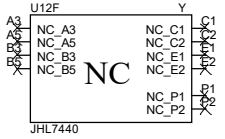
Titan Ridge DD - GND Symbol



Titan Ridge DD - VCC Symbol

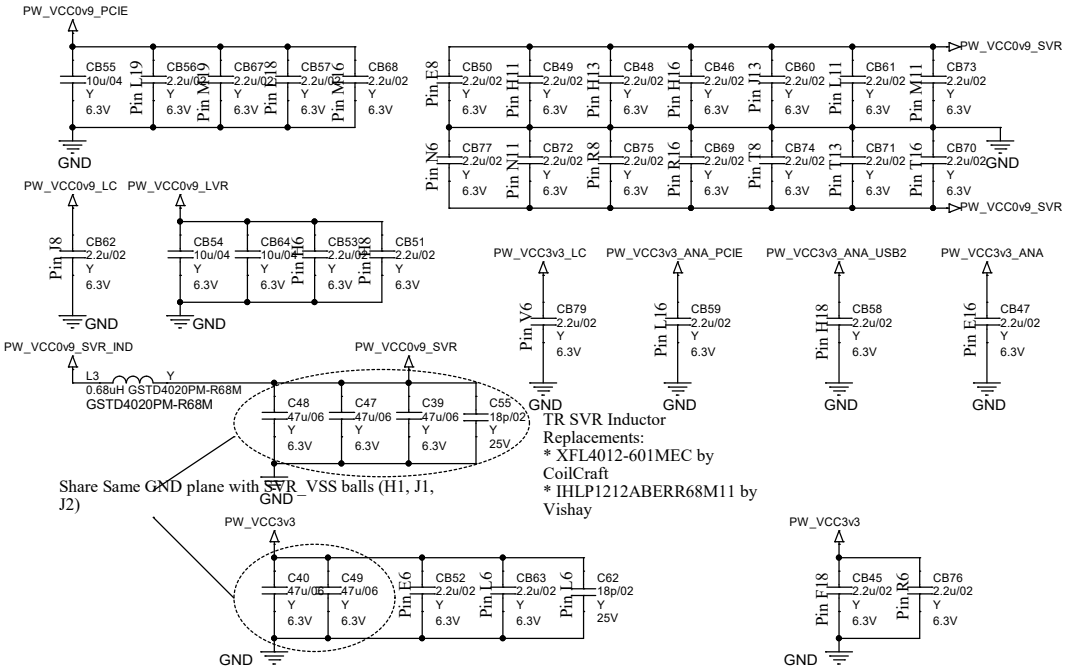


Titan Ridge DD - NC Symbol



Do not connect to GND, please leave floating

Power Supply Decoupling



MIN AIK TECHNOLOGY CO.,LTD.

Title	Titan Ridge DD - Power Supply & GND Parts	
Size A3	Document Number Davos	Rev 1.1
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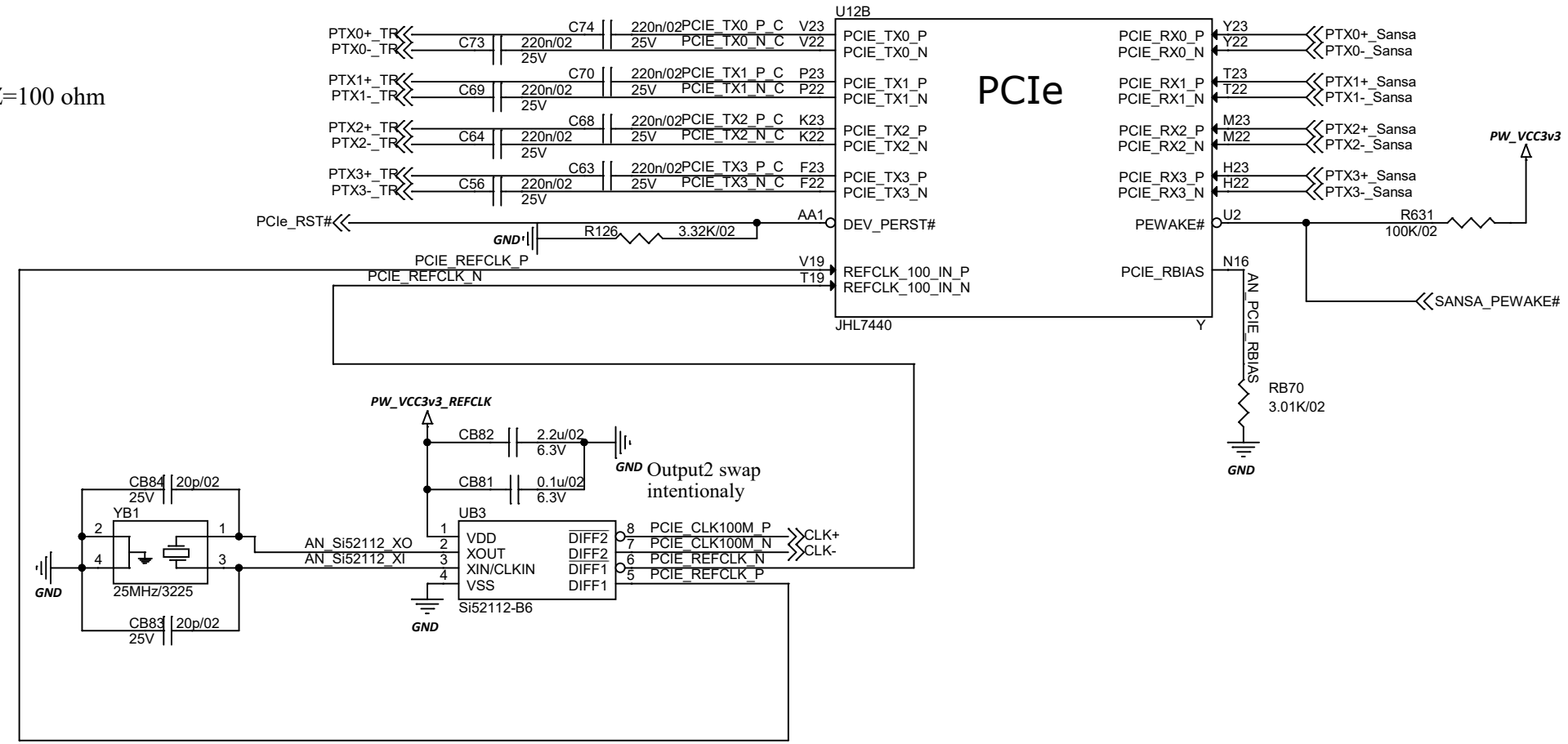
Z=100 ohm



MIN AIK TECHNOLOGY CO.,LTD.		
Title: Clk Generator, TR PCIe Part		
Size: A4	Document Number: Davos	Rev: 1.1
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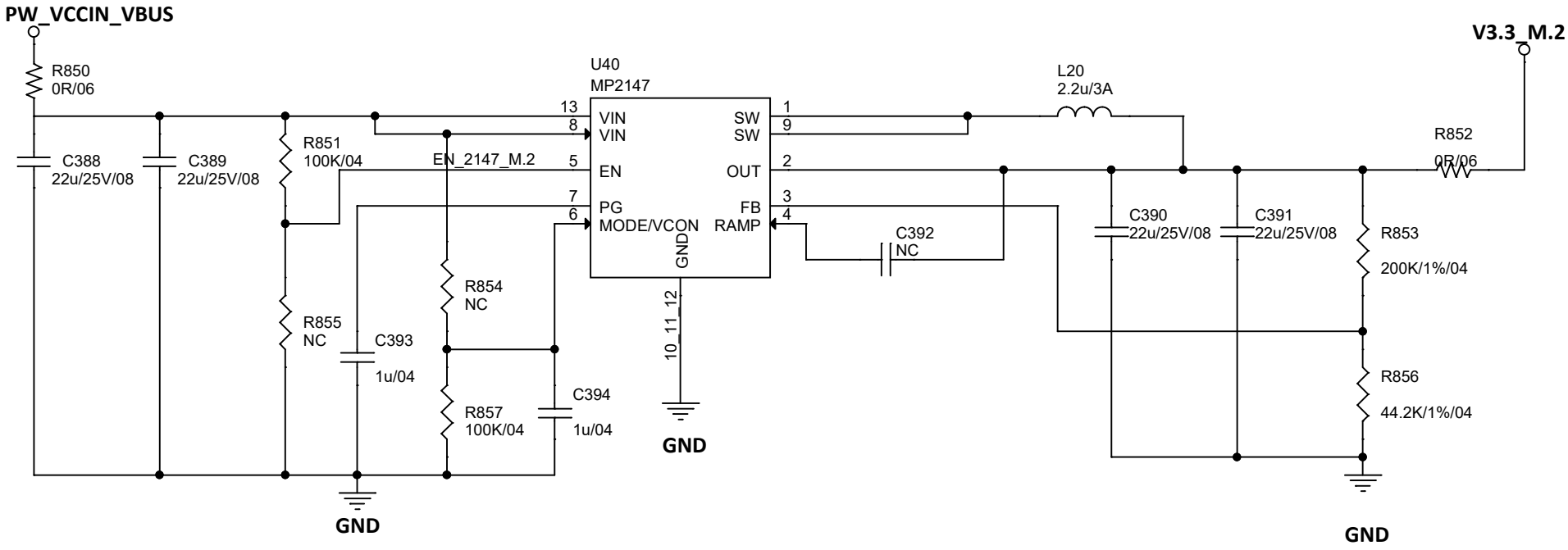
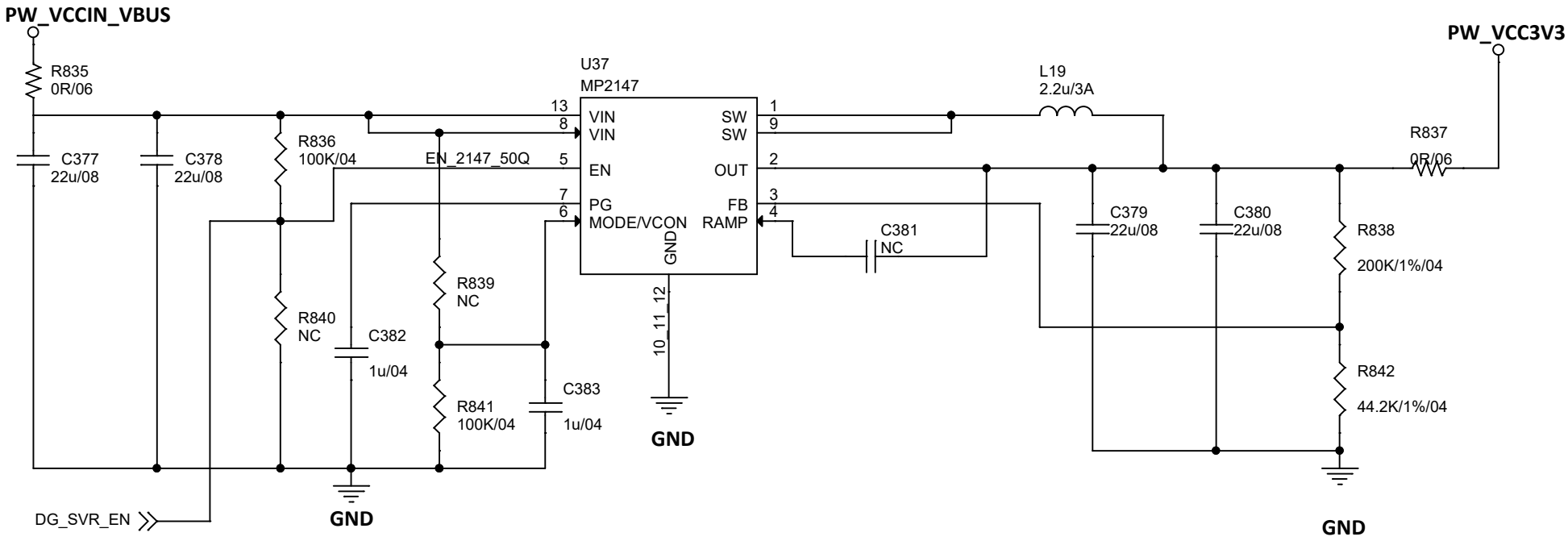
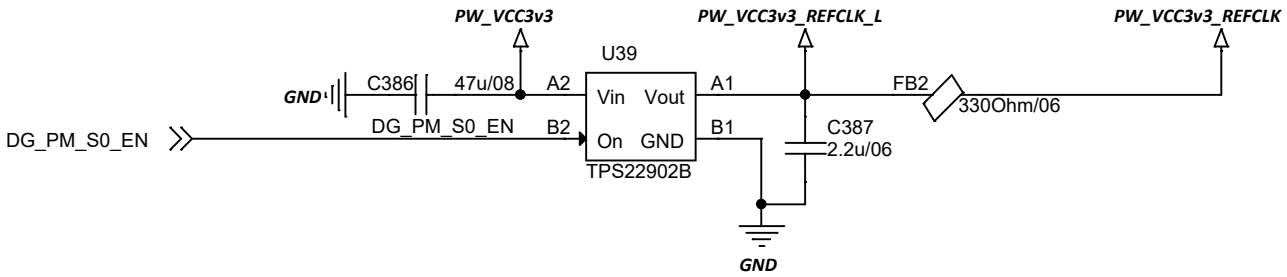


Title	3.3V Power M.2	
Size: A	Document Number: Sansa	Rev: 1.1
Date: Wednesday, July 22, 2020	Sheet 14 of 16	



Title	**3.3V Power**	
Size: A	Document Number: **Davos**	Rev: 1.1
Date: Wednesday, July 22, 2020	Sheet 15 of 16	

3v3 Ref Clock Supply



Title	**3.3V Power**	
Size: A	Document Number: **Davos**	Rev: 1.1
Date: Wednesday, July 22, 2020	Sheet 16 of 16	