ES7632BT3-0417-168ZZ Cover Page

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40	-	PWR_5V/ Vstb_3.3V/1.8V/1.2V
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@ For AO project
*** Un-mount**

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Model Name	Rev
ES7632BT3-0417-168ZZ	01

Size	Page Name	Engineer
C	Cover Page	Gregory_Yu

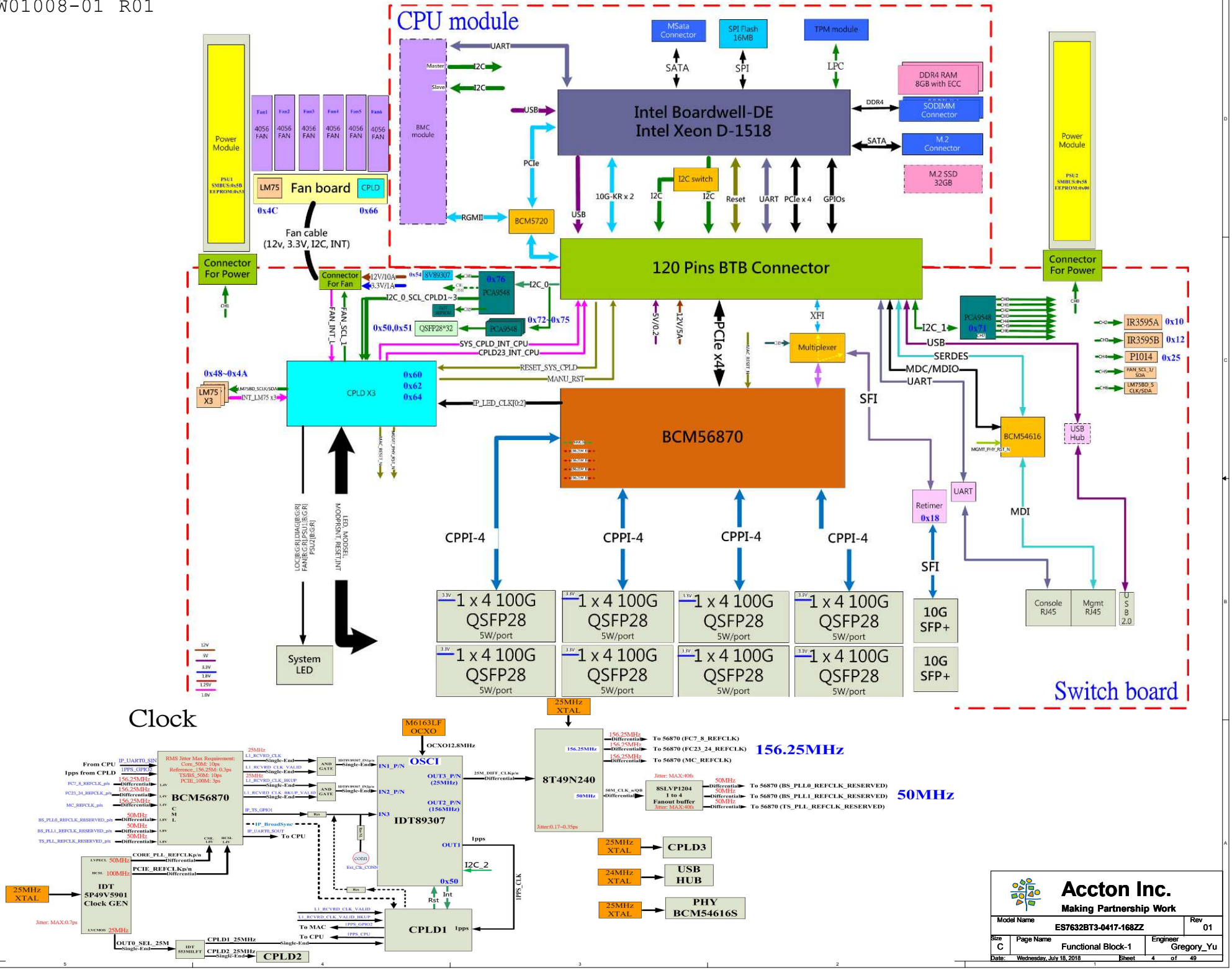
Date: Wednesday, July 18, 2018 Sheet 1 of 49

ES7632BT3-0417-168ZZ Revision History

Rev.	Date	Author	Page	Revision Description
R0A	05 - 17 - 2017	Gregory_Yu		First draft
R0A	06 - 28 - 2017	Gregory_Yu	P39	unmount R2200
R0A	07 - 07 - 2017	Gregory_Yu		Modify diagrams.
R0B	07 - 19 - 2017	Gregory_Yu	P8 P37	Modify PCIe TX interfaces. VID set to 0x64
R0B	08 - 25 - 2017	Gregory_Yu	P7	1.Add IP_LED_CLK2(DATA2) connection between MAC and CPLD1 2.Add MUX U91.
			P44	3.Change R32 and R38 to 1k. 4.Connect R8791 to Vstb_3V3 5.Add XFI interface to CPU.
			P49,P50	6.Delete FPGA
R0B	09 - 13 - 2017	Gregory_Yu	P33,P43	Change C220,C223 to12pF, C731,C736 to 10pF. OSC3,OSC4 to 116000000230A.
R0B	09 - 19 - 2017	Gregory_Yu	P46	Change upper RJ-45 to 119400000476A
R0B	09 - 20 - 2017	Gregory_Yu	P43,P29	Reserve for SGMII 1000/100/10 mode
R0B	09 - 26 - 2017	Gregory_Yu	P7	1. Connect CPLD1 to BroadSync and IP_TS_GPIO1. 2. Change the footprint of H2 H9 H10.
R0B	10 - 17 - 2017	Gregory_Yu	All	Modify revision number
R0B -1	01 - 12 - 2018	Gregory_Yu	P37 P43 P43,P46, P29	Modify ROV to 0.91V. Mount R734,R2189. Unmount R49,R2190. Change to SGMII mode. Mount R8851. Unmount R1289. Modify MGMT LED control. Unmount Q4,R1273,R1274,R1301,R701. MGMT LED controlled by CPLD. Mount R8855,R8856,R8857,R8858,R8859.
R01	03 - 01 - 2018	Gregory_Yu	P43 P07	Add P1 for NEBS surge test. Change Conn93 to U92 for QSPI flash..
R01	03 - 21 - 2018	Gregory_Yu	P43 P46 P44	Add 2.2 Ohm series resistors for NEBS surge test. Disconnect some pins of SFP+ cage to avoid overlapping between chassis and GND for ESD. Connect PCIE_OOB_RX by 4.7k to GND.
R01	03 - 27 - 2018	Gregory_Yu	P42	Delete unused NUT1,2
R01	04 - 30 - 2018	Gregory_Yu	P7 P37	1.Mount QSPI pull-up resistors. 2.ROV default changed to 0.8875V

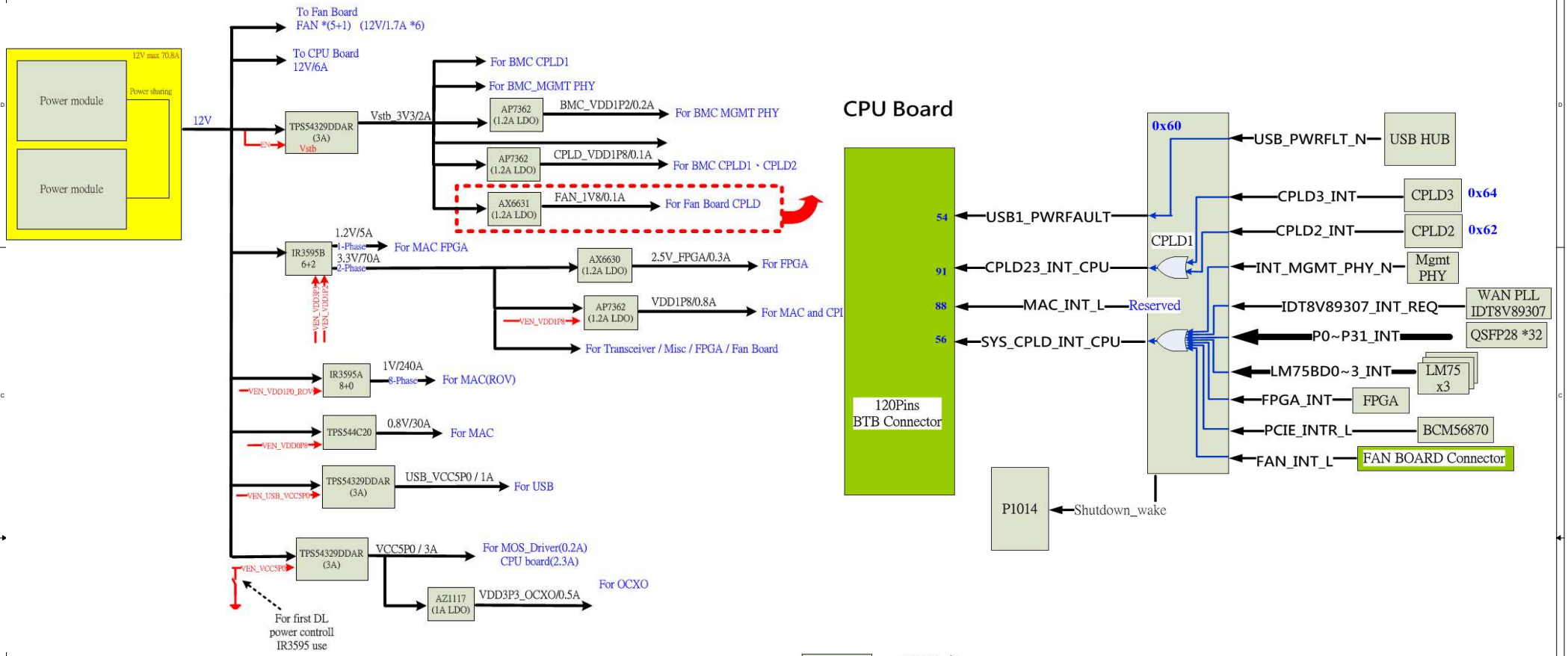
ES7632BT3-0417-168ZZ Revision History

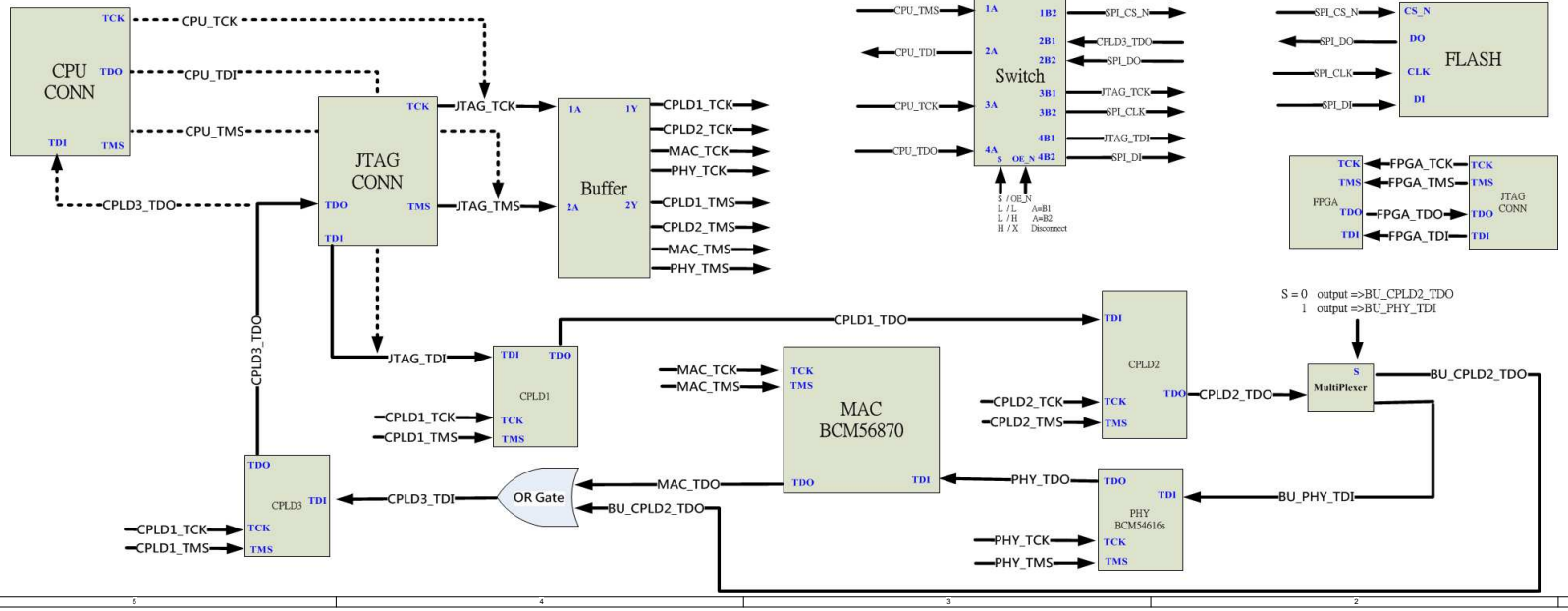
Rev.	Date	Author	Revision Description



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Model Name	ES7632BT3-0417-168ZZ		Rev 01
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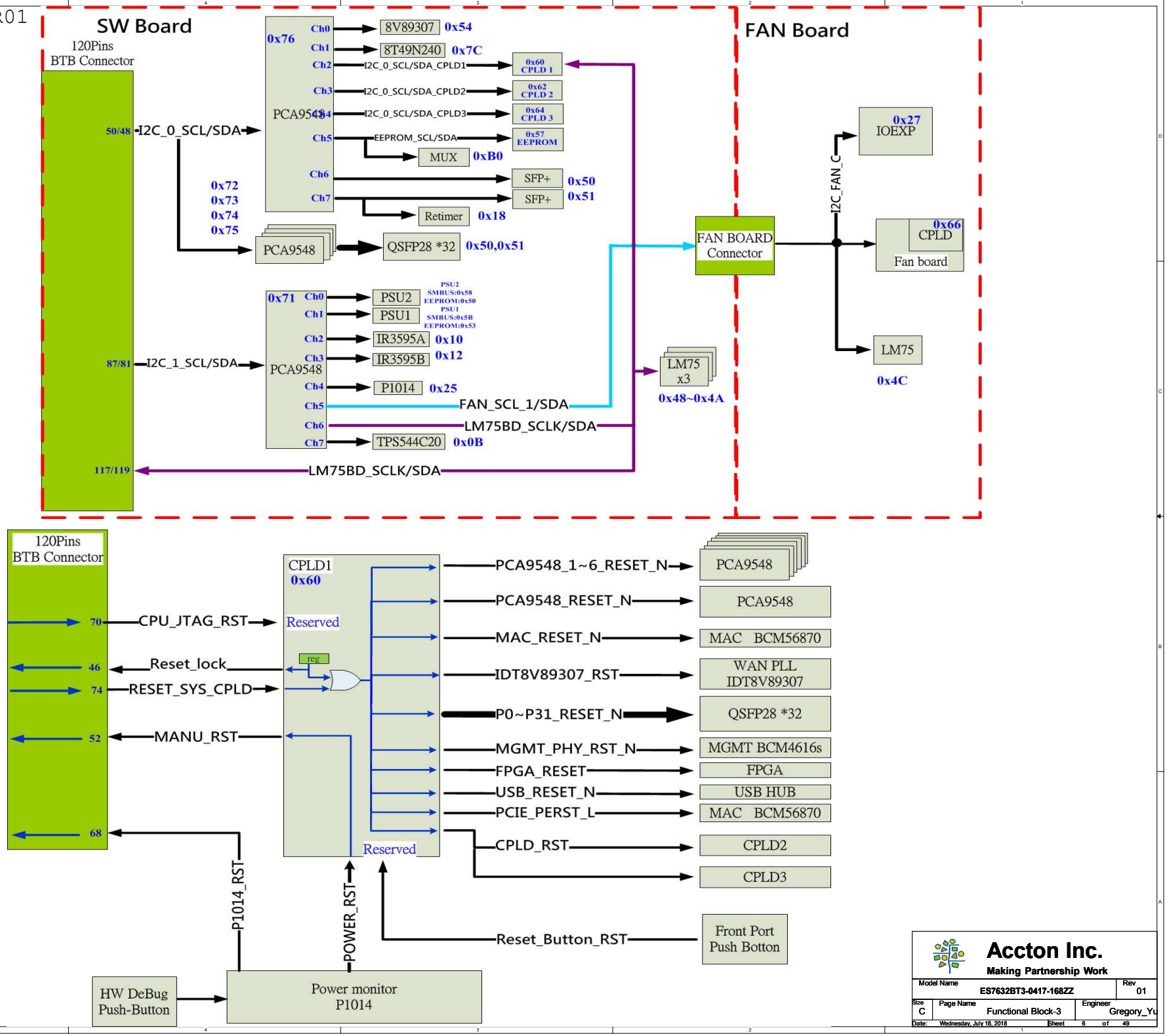
FMA-HW01008-01 R01





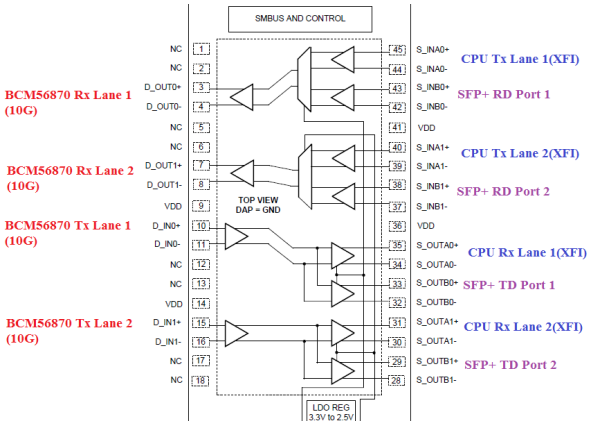
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Model Name	ES7632BT3-0417-168ZZ	Rev	01
Size C	Page Name Functional Block-2	Engineer	Gregory_Yu
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BCM56870 Rx Lane 1 (10G)

BCM56870 Rx Lane 2 (10G)

BCM56870 Tx Lane 1 (10G)

BCM56870 Tx Lane 2 (10G)

CPU Tx Lane 1(XFI)

SFP+ RD Port 1

CPU Tx Lane 2(XFI)

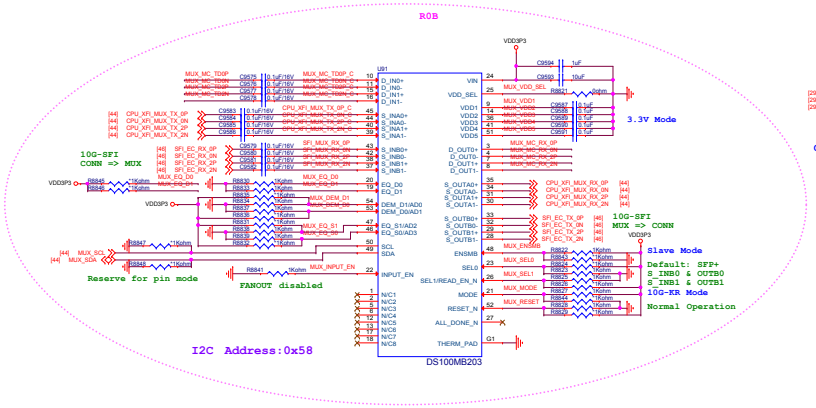
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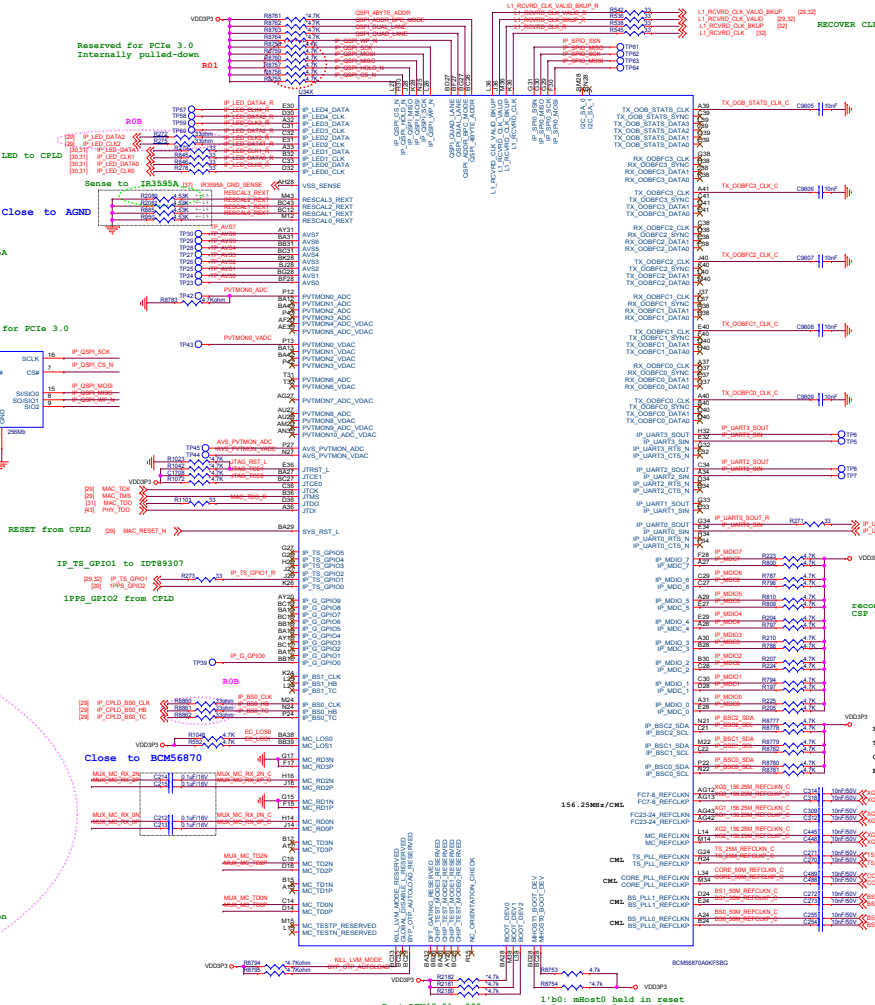
CPU Rx Lane 1(XFI)

SFP+ TD Port 1

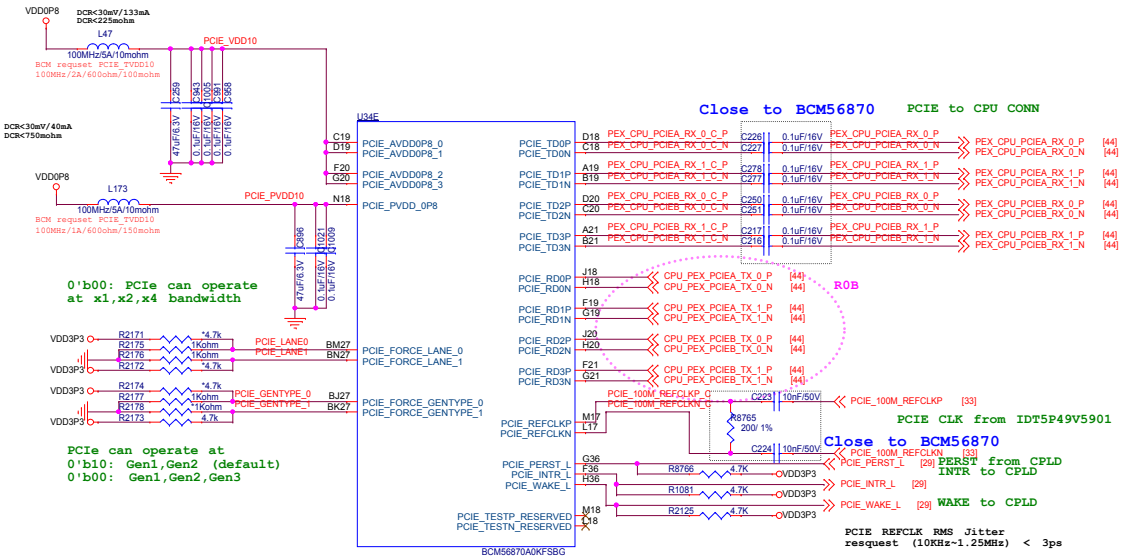
CPU Rx Lane 2(XFI)

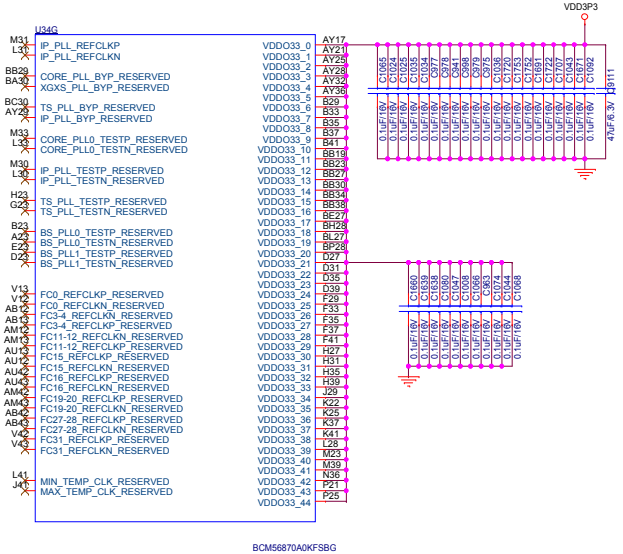
SFP+ TD Port 2

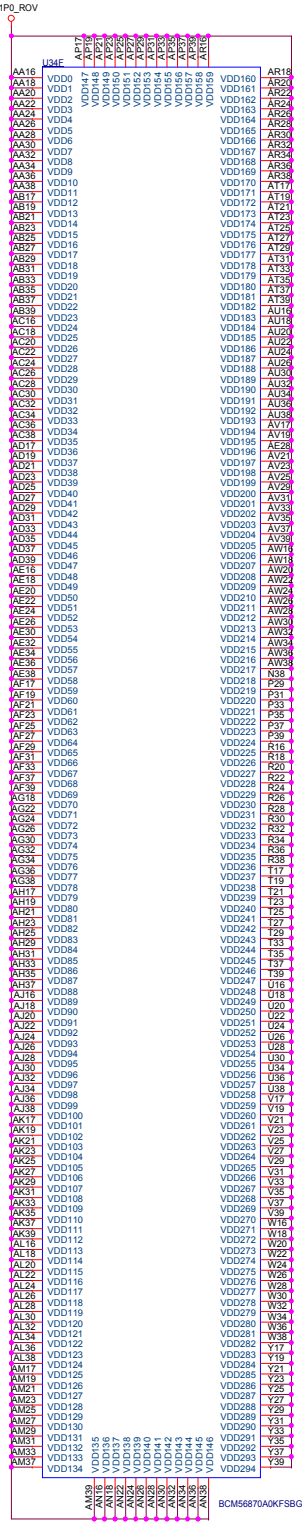


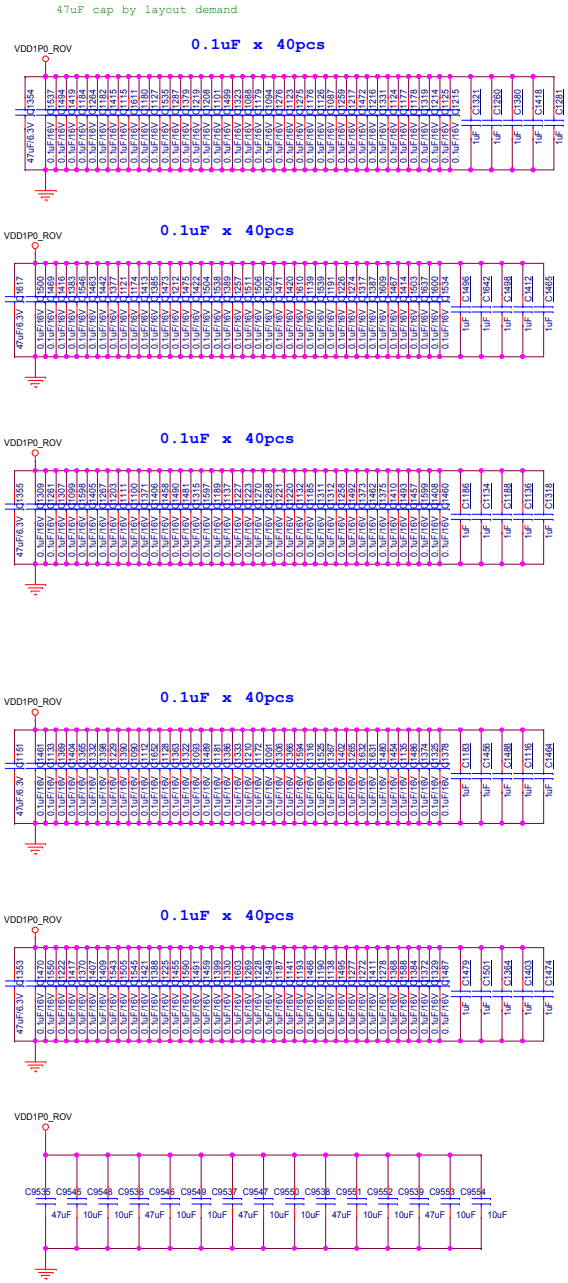


Accton Inc. Making Partnership Work			
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Size: D	Page Name: BCM56870_Interface	Engineer: Gregory_Yu	
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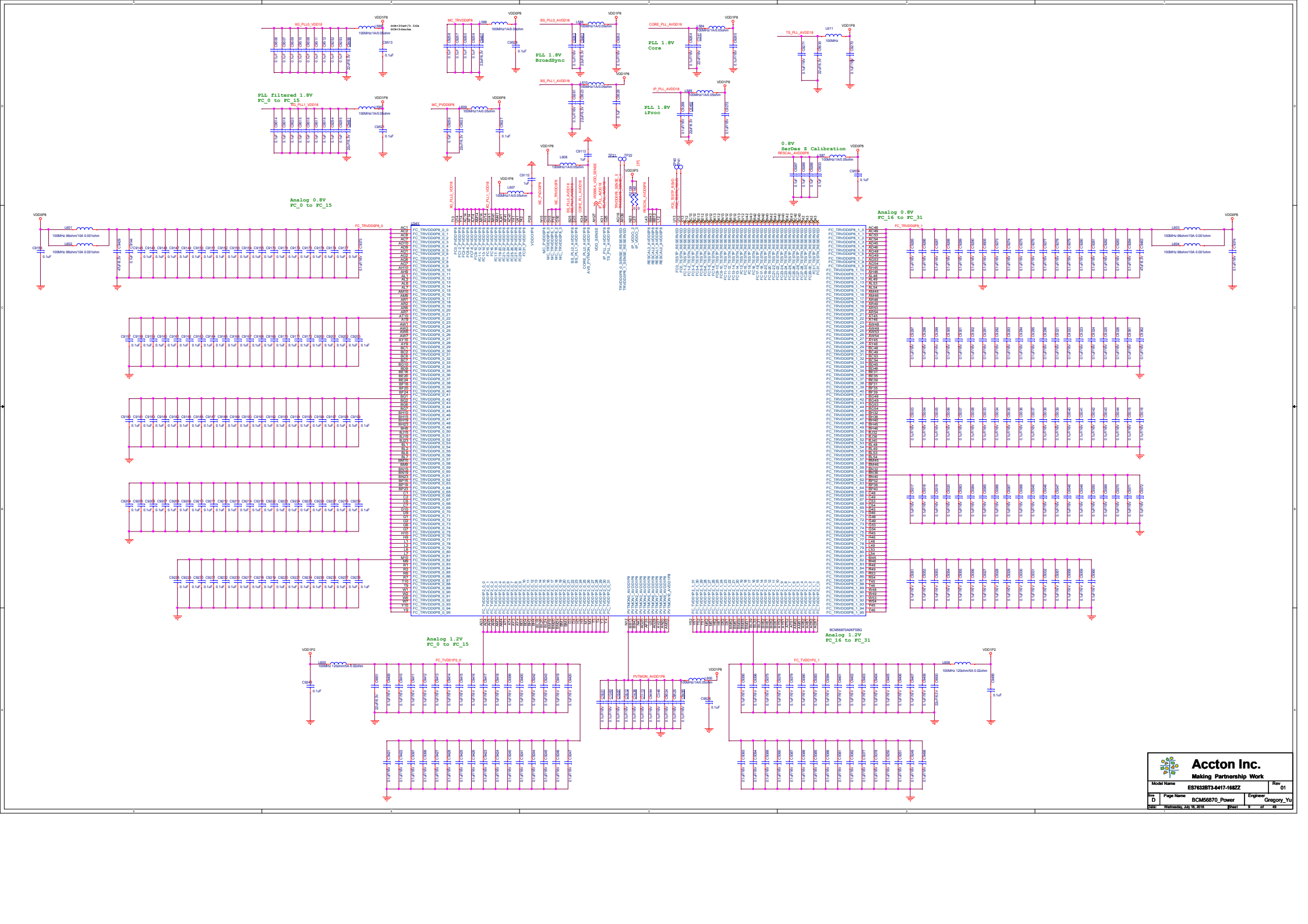




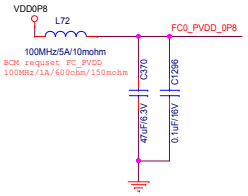


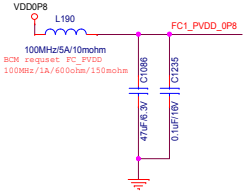


Accton Inc. Making Partnership Work			
Model Name	ES7632BT3-0417-168ZZ		Rev 01
Size C	Page Name BCM56870_Power and PCIE	Engineer Gregory_Yu	
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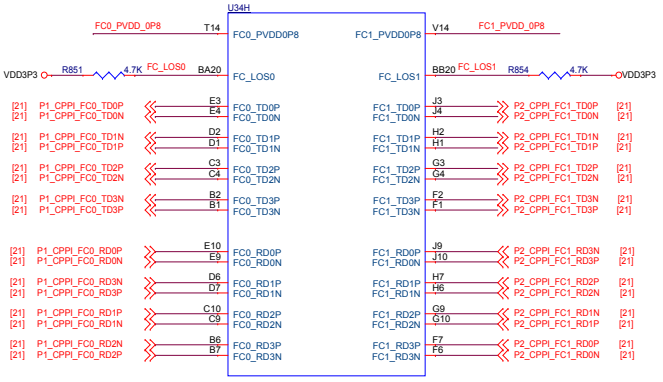

PLL 1.8V BroadSync
PLL 1.8V Core
PLL 1.8V iProc
PLL filtered 1.8V FC_0 to FC_15
Analog 0.8V FC_0 to FC_15
Analog 0.8V FC_16 to FC_31
0.8V SerDes Z Calibration
Analog 1.2V FC_0 to FC_15
Analog 1.2V FC_16 to FC_31
Accton Inc.
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Page Name BCM56870_Power
Engineer Gregory_Yu
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For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm



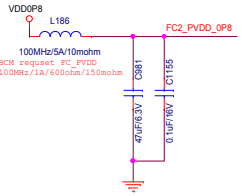


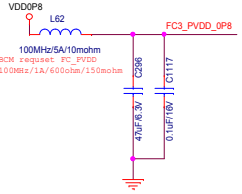
Max I=96mA
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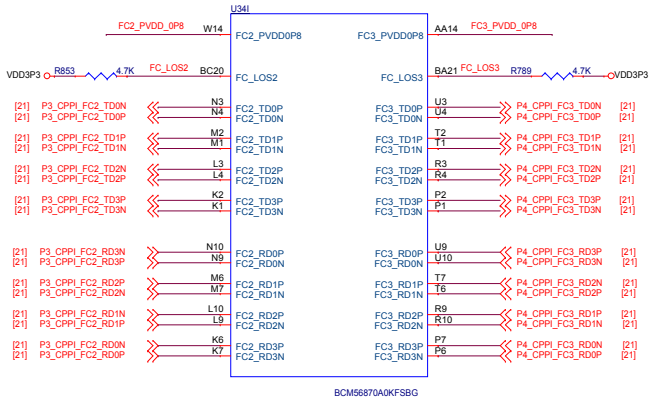


Port 1 Port 2

For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm







Port 3 Port 4

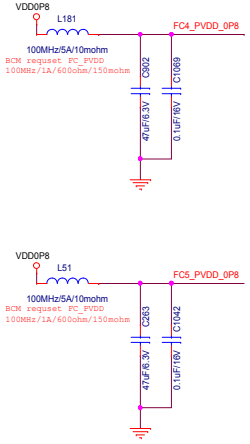
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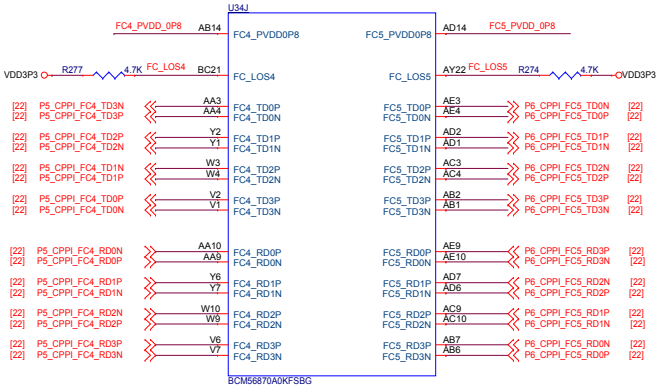
Model Name	Rev
ES7632BT3-0417-168ZZ	01

Size	Page Name	Engineer
C	BCM56870_FalconCore0-3	Gregory_Yu

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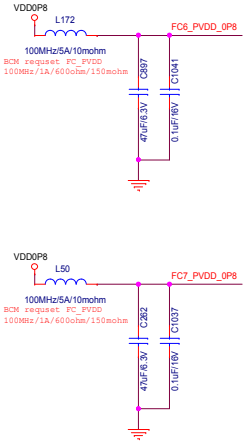
For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm

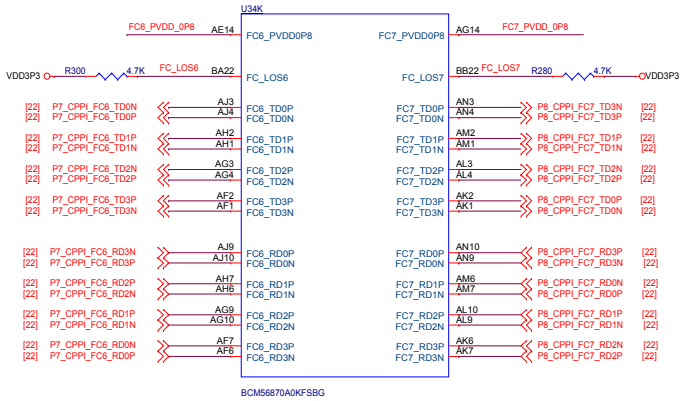




Port 5 **Port 6**

For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm





Port 7 **Port 8**

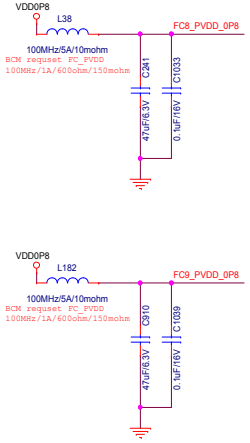
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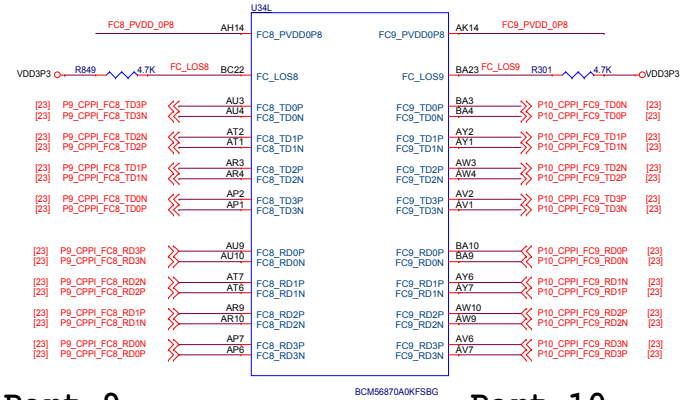
Model Name	Rev
ES7632BT3-0417-168ZZ	01

Size	Page Name	Engineer
C	BCM56870_FalconCore4-7	Gregory_Yu

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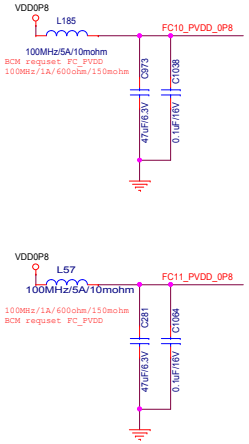
For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm

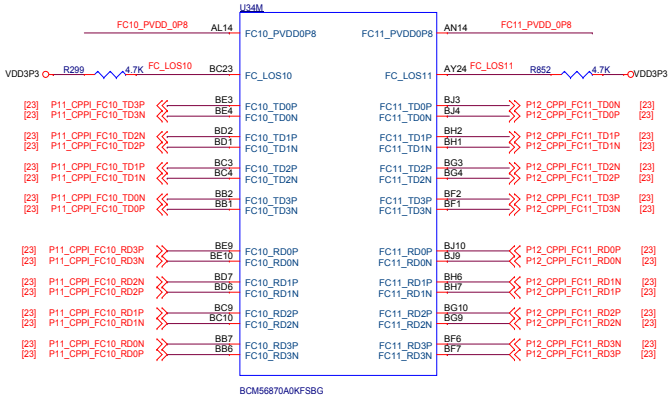




Port 9 **Port 10**

For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm



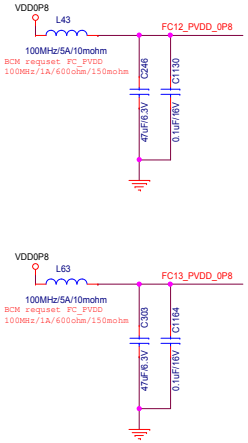


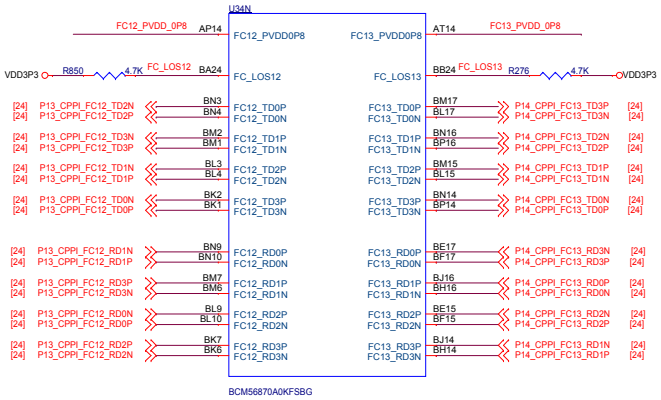
Port 11 **Port 12**

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Model Name		Rev
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Size: C	Page Name: BCM56870_FalconCore8-11	Engineer: Gregory_Yu
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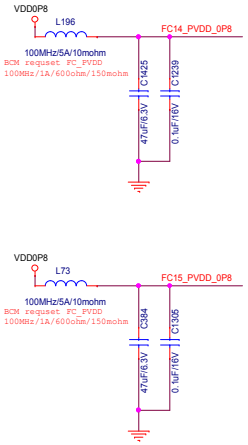
For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm

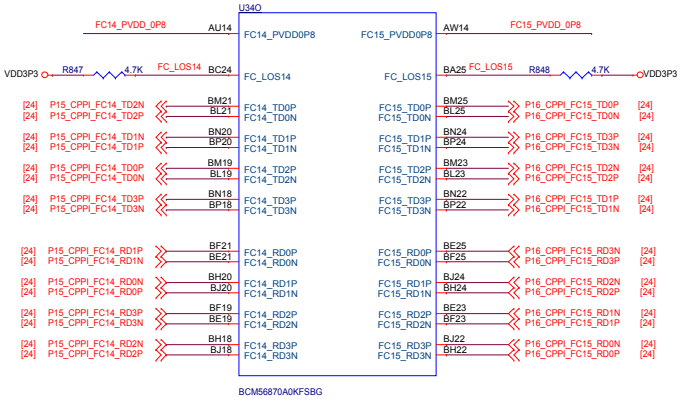




Port 13 **Port 14**

For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm



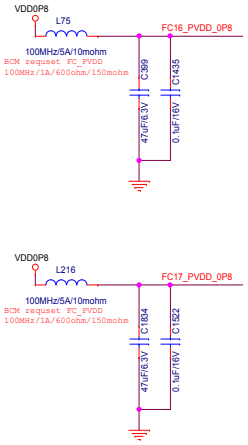


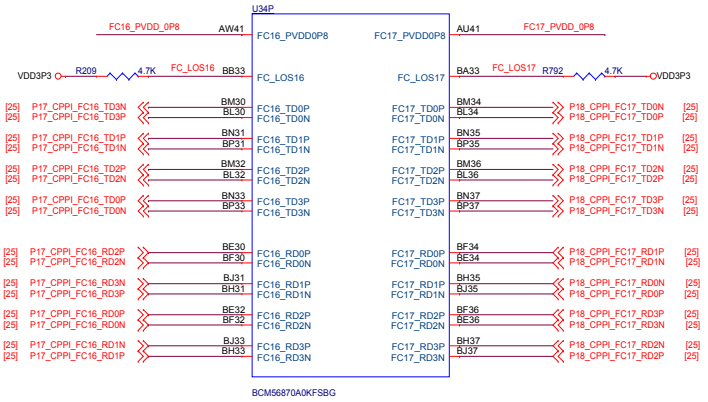
Port 15 **Port 16**

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Model Name	ES7632BT3-0417-168ZZ	Rev 01
Size C	Page Name BCM56870_FalconCore12-15	Engineer Gregory_Yu
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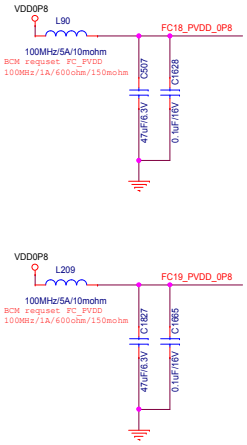
For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm

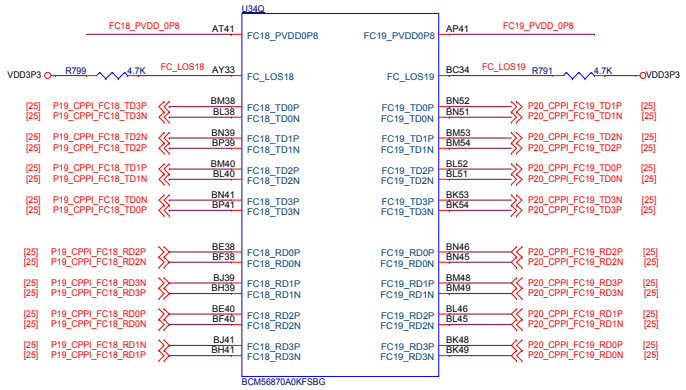




Port 17 **Port 18**

For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm



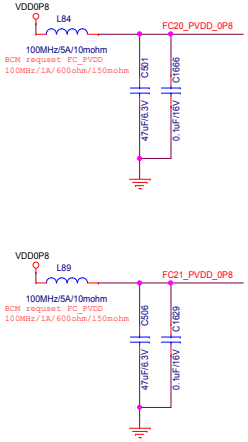


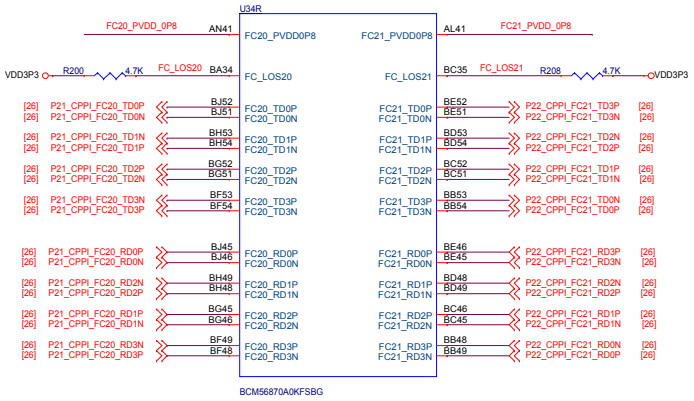
Port 19 **Port 20**

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Size: C	Page Name: BCM56870_FalconCore16-19	Engineer: Gregory Yu
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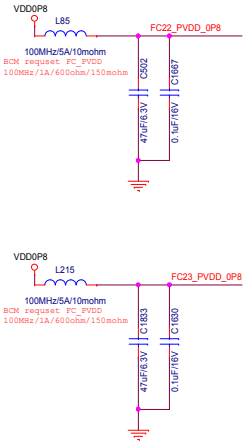
For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm

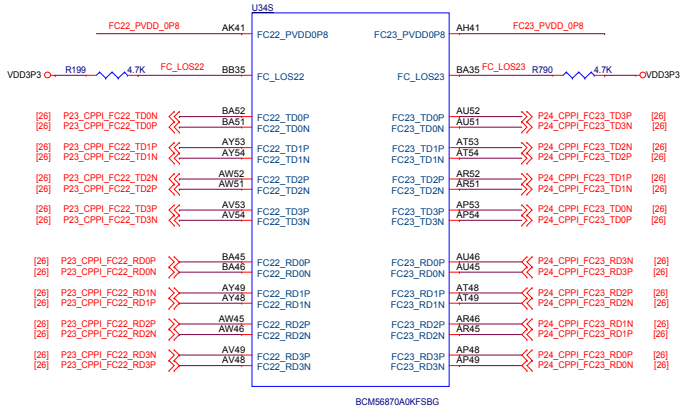




Port 21 **Port 22**

For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm





Port 23 **Port 24**

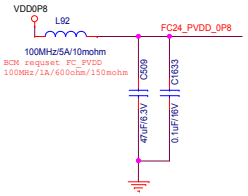
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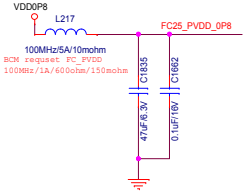
Model Name	Rev
ES7632BT3-0417-168ZZ	01

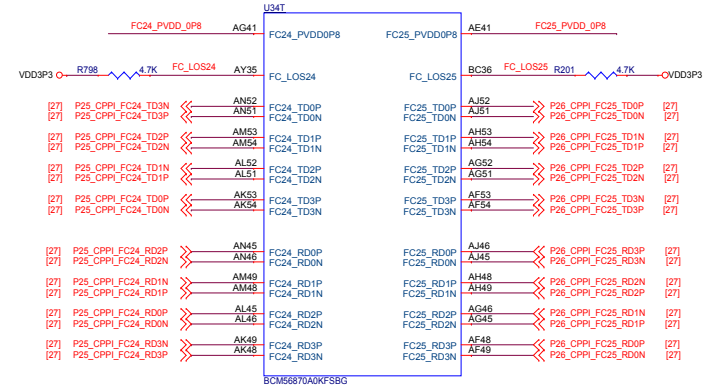
Size	Page Name	Engineer
C	BCM56870_FalconCore20-23	Gregory_Yu

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For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm

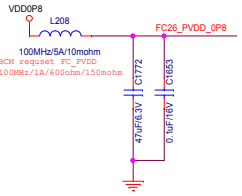


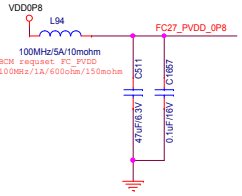


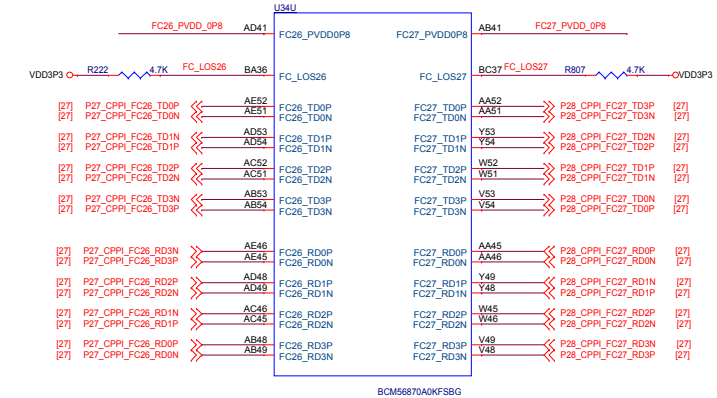


Port 25 **Port 26**

For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm





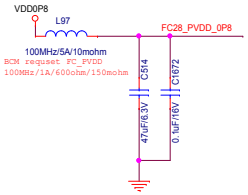


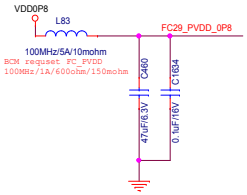
Port 27 **Port 28**

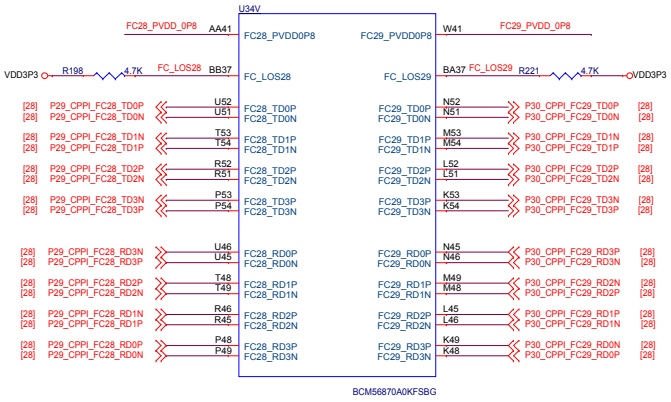
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Model Name		Rev
ES7632BT3-0417-168ZZ		01
Size: C	Page Name: BCM56870_FalconCore24-27	Engineer: Gregory Yu
Date: Wednesday, July 18, 2018	Sheet 16 of 49	

For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm

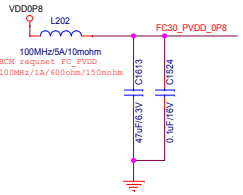


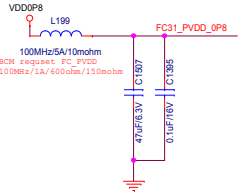


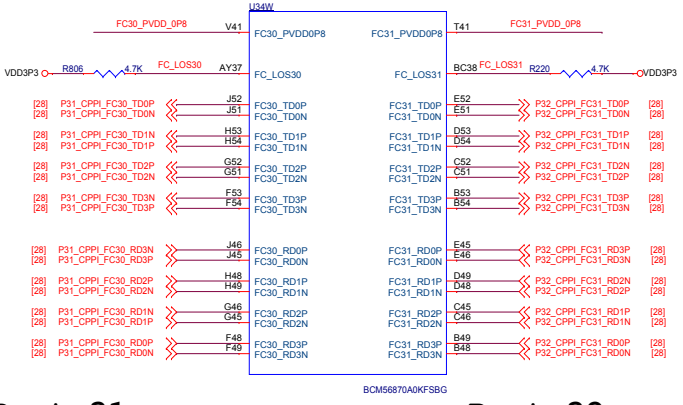


Port 29 Port 30

For FC_*PVDD
DCR<30mV/0.15A
DCR<200mohm







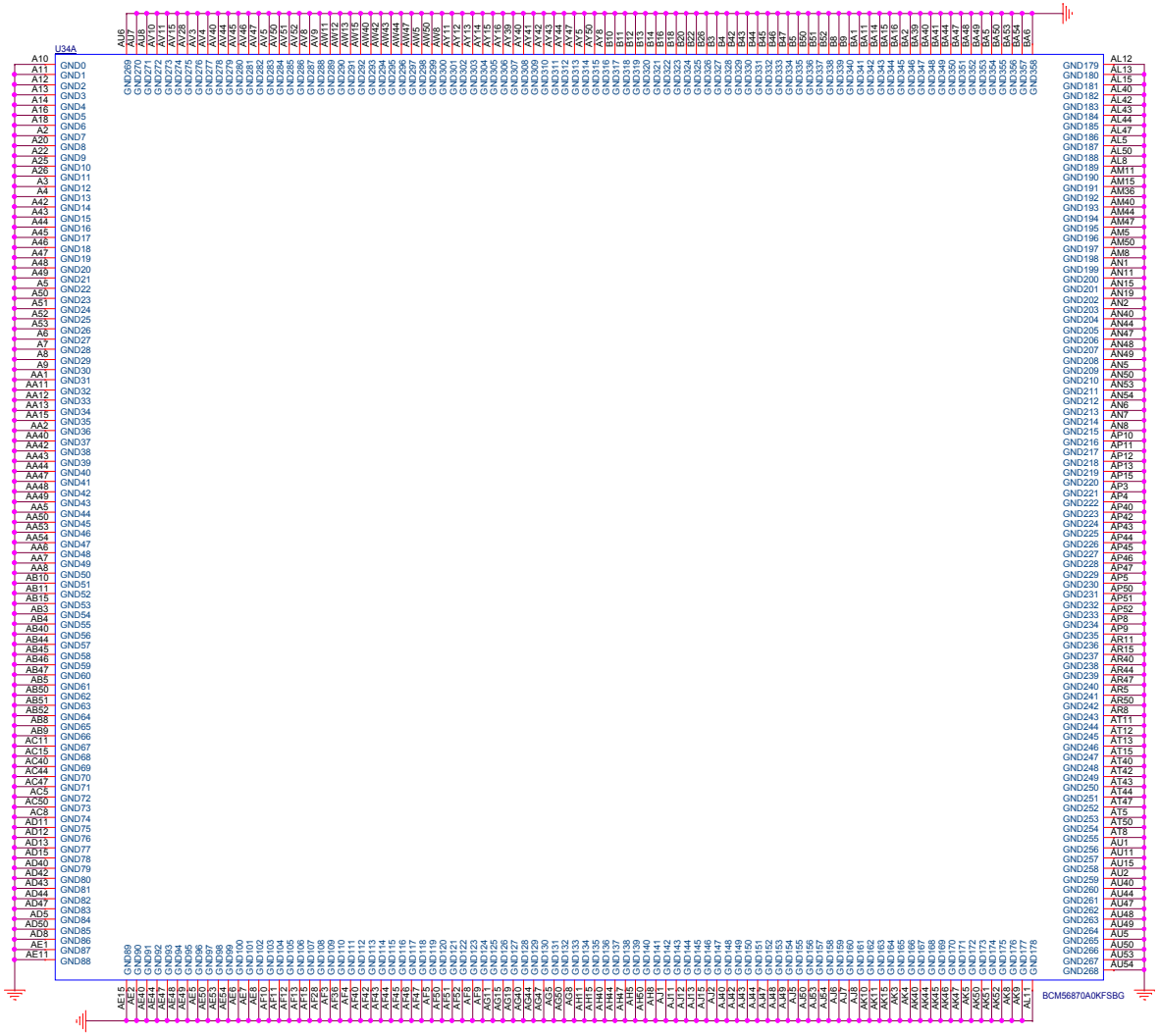
Port 31 Port 32

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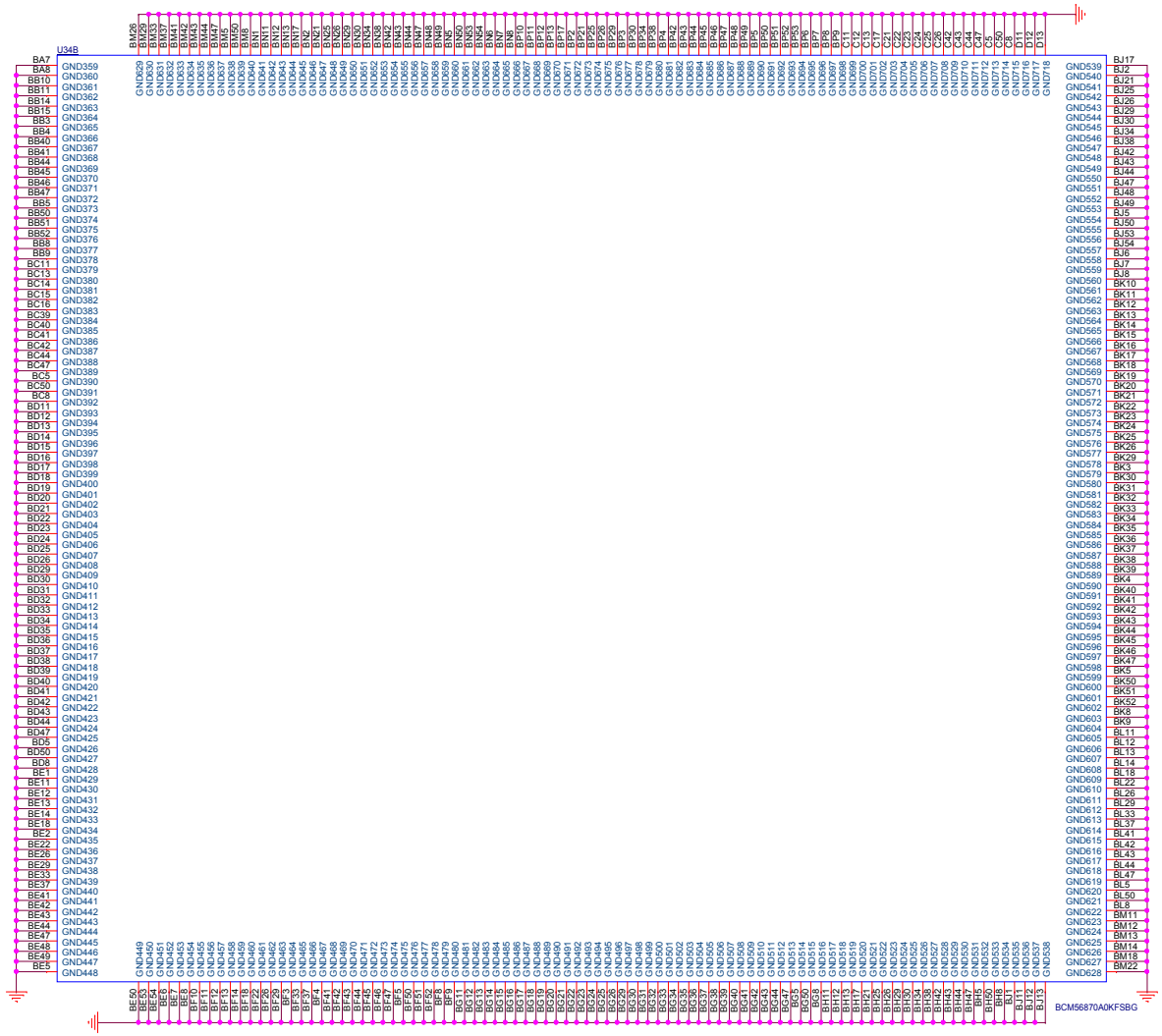
Model Name	Rev
ES7632BT3-0417-168ZZ	01

Size	Page Name	Engineer
C	BCM56870_FalconCore27-31	Gregory_Yu

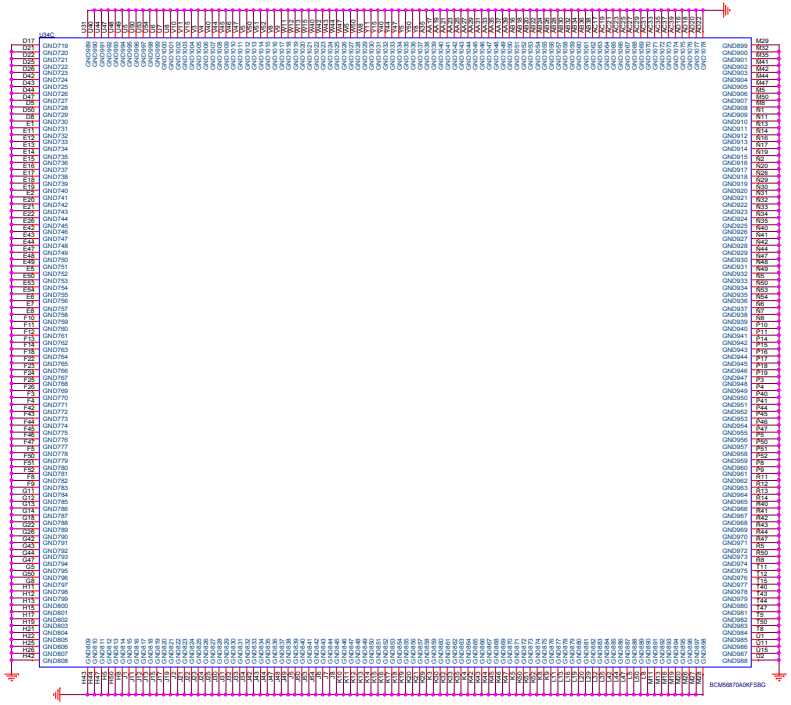
Date: Wednesday, July 18, 2018 Sheet 17 of 49

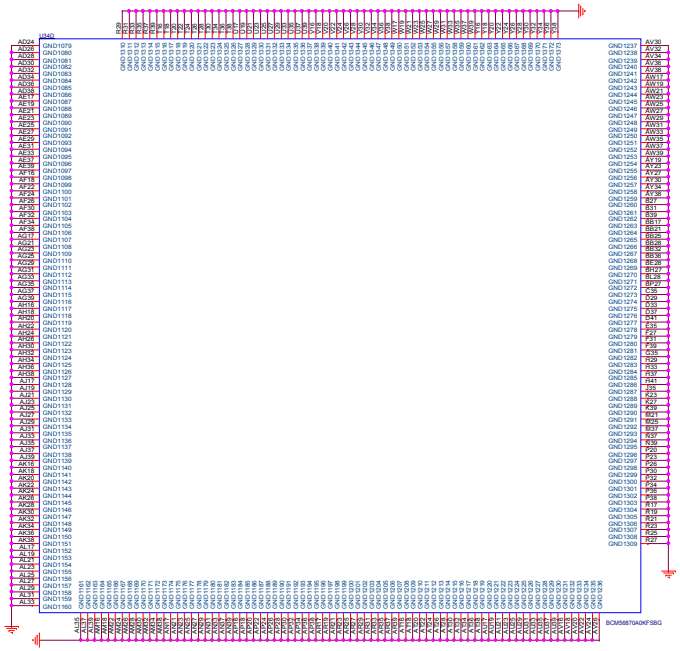


Accton Inc.	
Making Partnership Work	
Model Name: ES7632BT3-0417-168ZZ	Rev: 01
Size: C	Page Name: BCM56870_GND1
Engineer: Gregory_Yu	
Date: Wednesday, July 18, 2018	Sheet 18 of 49

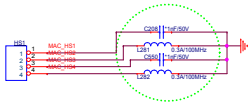


Accton Inc.	Making Partnership Work
Model Name	ES7632BT3-0417-168ZZ
Rev	01
Size	C
Page Name	BCM56870_GND2
Engineer	Gregory_Yu
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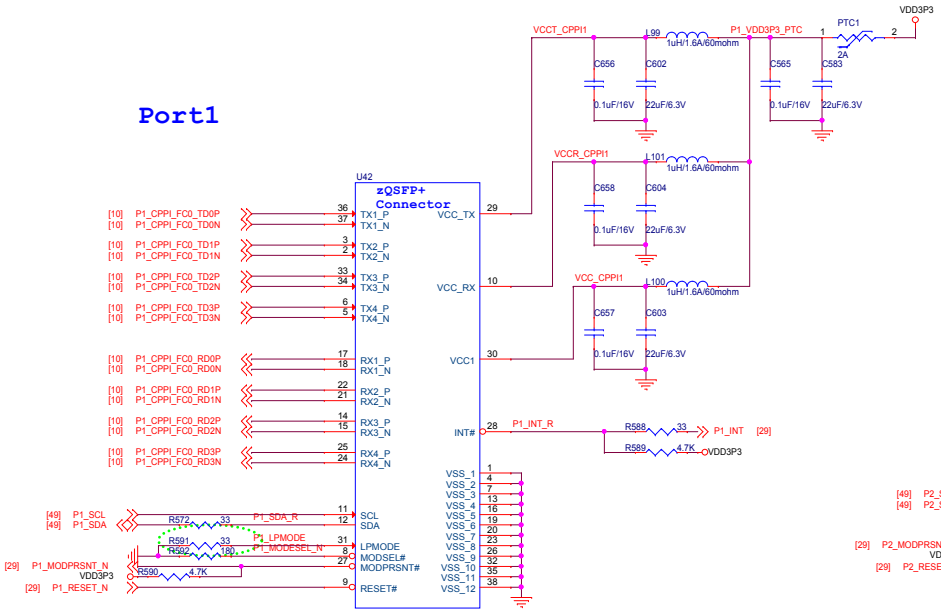
Accton Inc.
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Model Name	ES7632BT3-0417-1682Z	Rev
		01

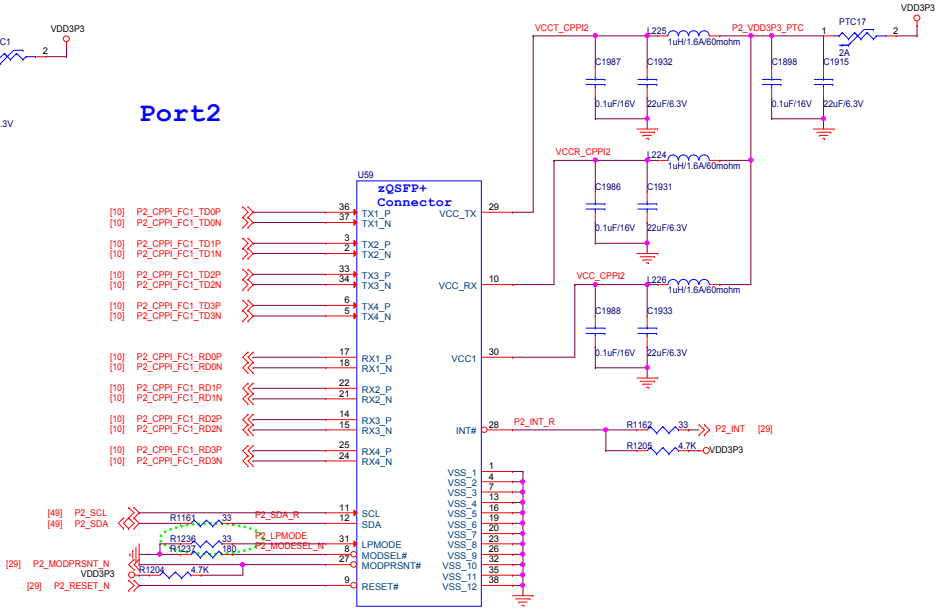
Size	Page Name	Engineer
D	BCM56870_GND3/HEATSINK	Gregory_Yu

Date: Wednesday, July 18, 2018 Sheet 30 of 49

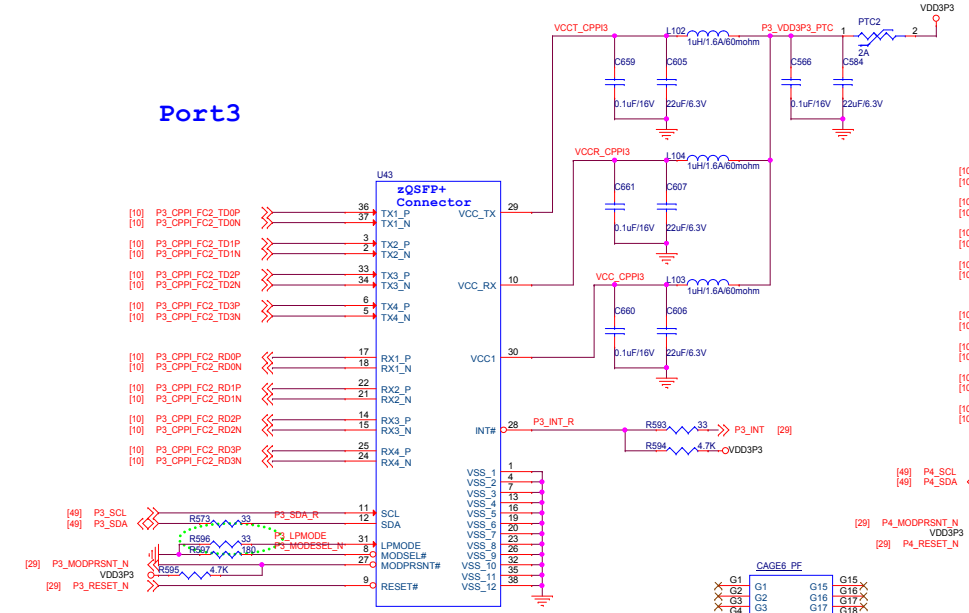
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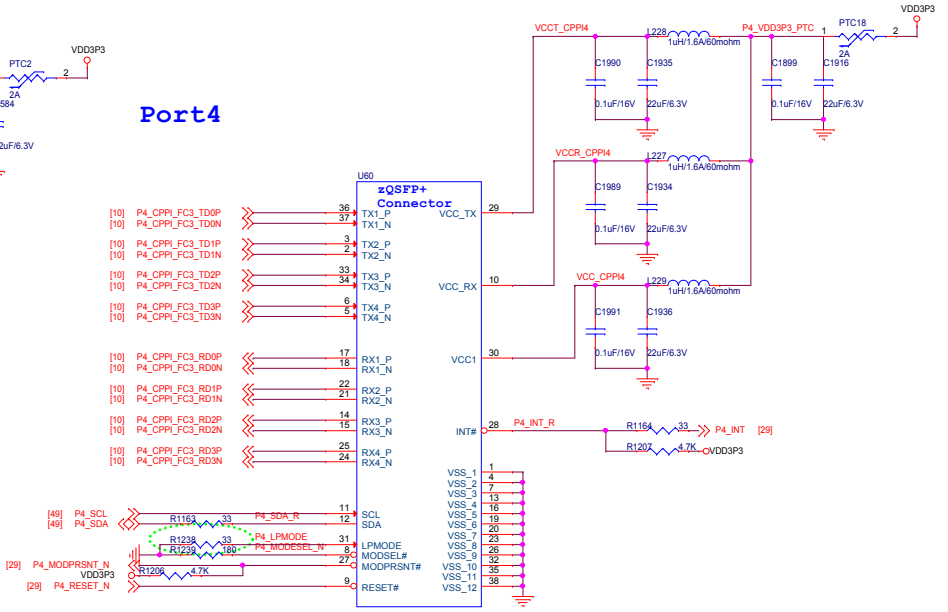
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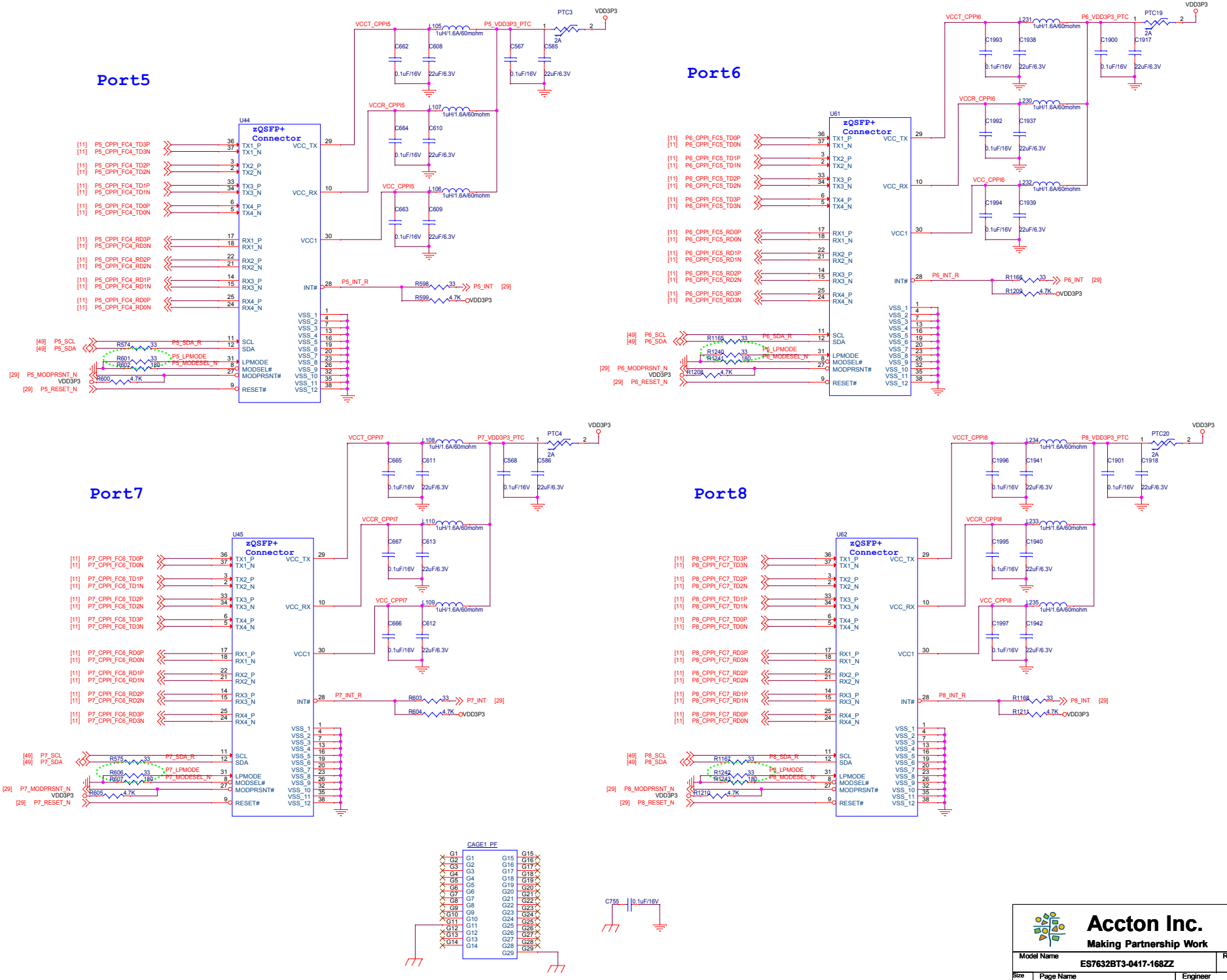
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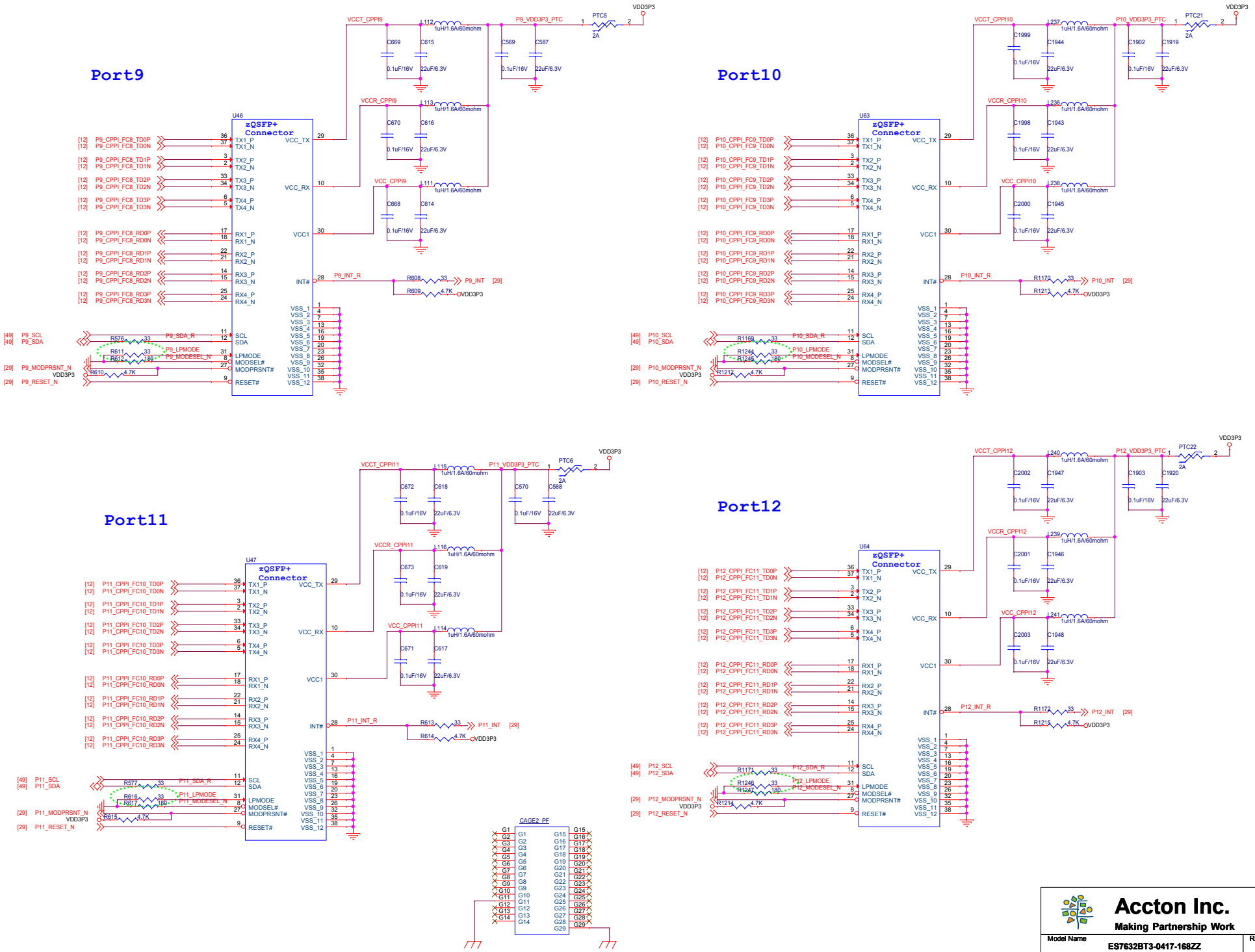
Port4



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Model Name: ES7632BT3-0417-168ZZ		Rev: 01
Size: C	Page Name: QSFP28_P1-P4	Engineer: Gregory_Yu
Date: Wednesday, July 18, 2018	Sheet: 21 of 49	

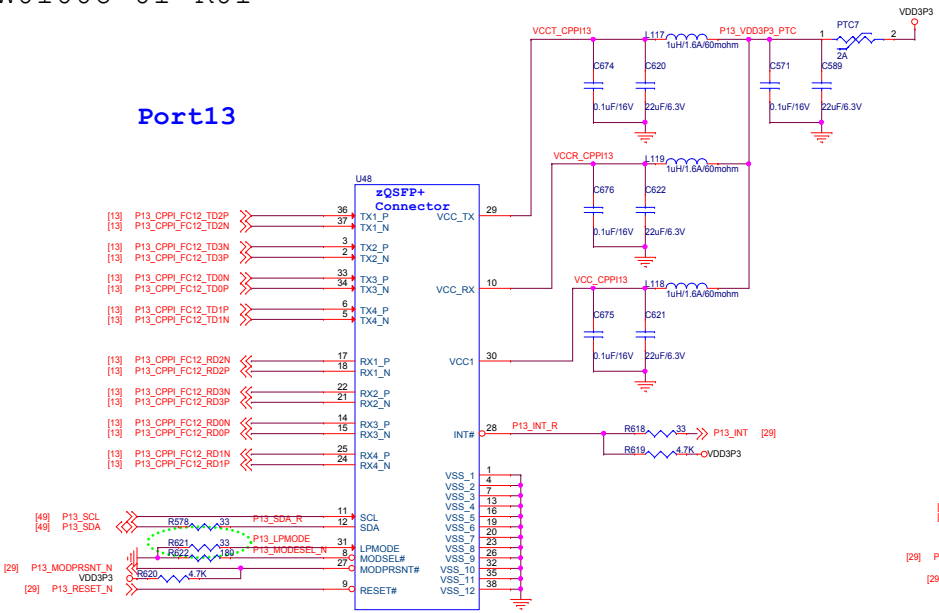


Accton Inc.		
Making Partnership Work		
Model Name: ES7632BT3-0417-168ZZ		Rev: 01
Size: C	Page Name: QSFP28_P5-P8	Engineer: Gregory_Yu
Date: Wednesday, July 18, 2018	Sheet: 22 of 49	

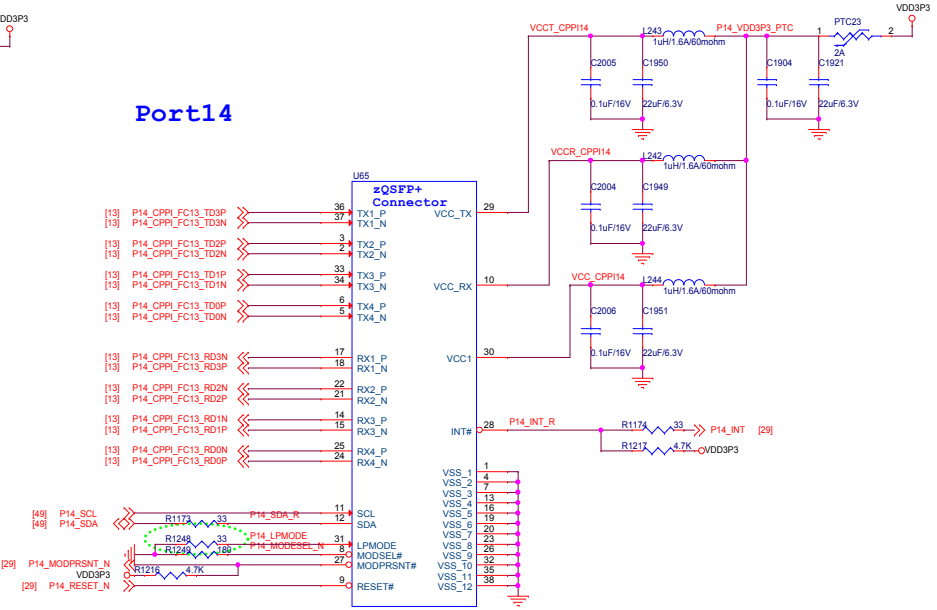


Accton Inc.		
Making Partnership Work		
Model Name	ES7632BT3-0417-168ZZ	Rev 01
Size C	Page Name QSFP28_P9-P12	Engineer Gregory_Yu
Date: Wednesday, July 18, 2018	Sheet 23 of 49	

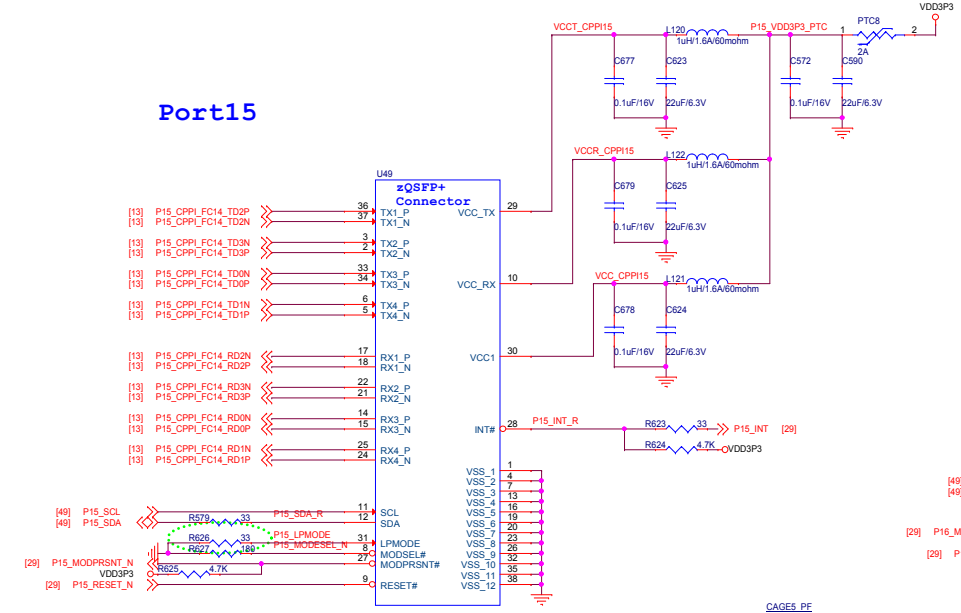
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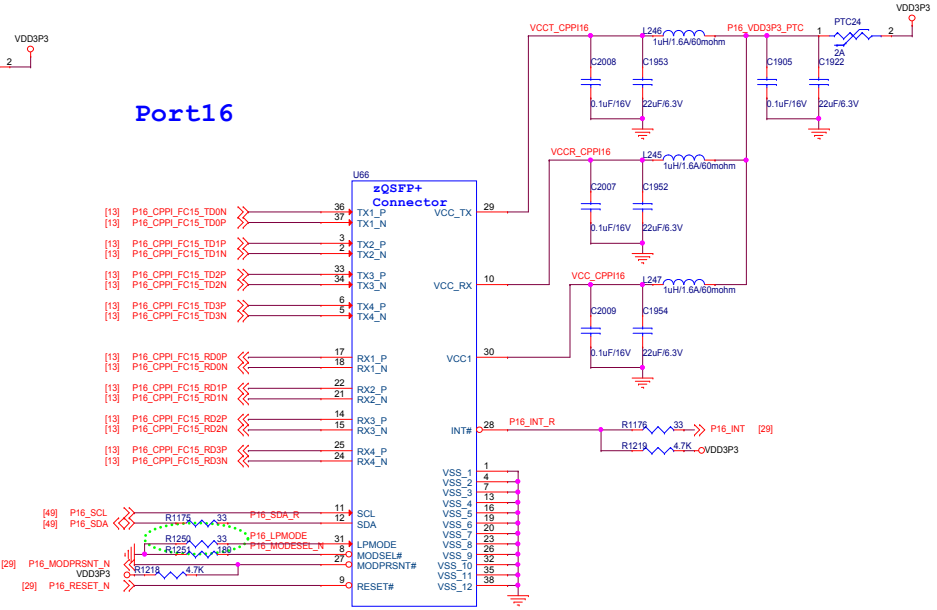
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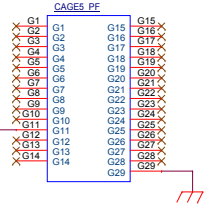


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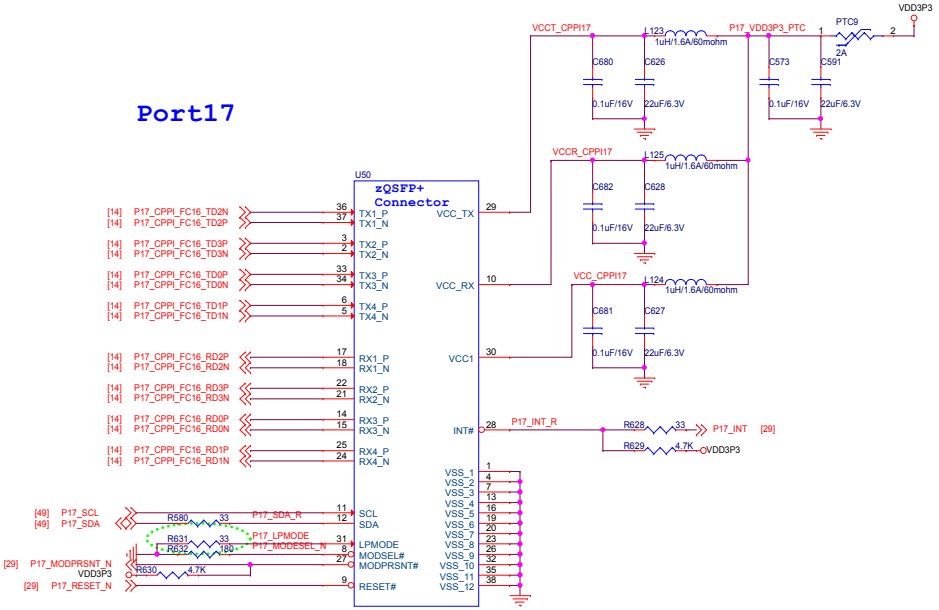
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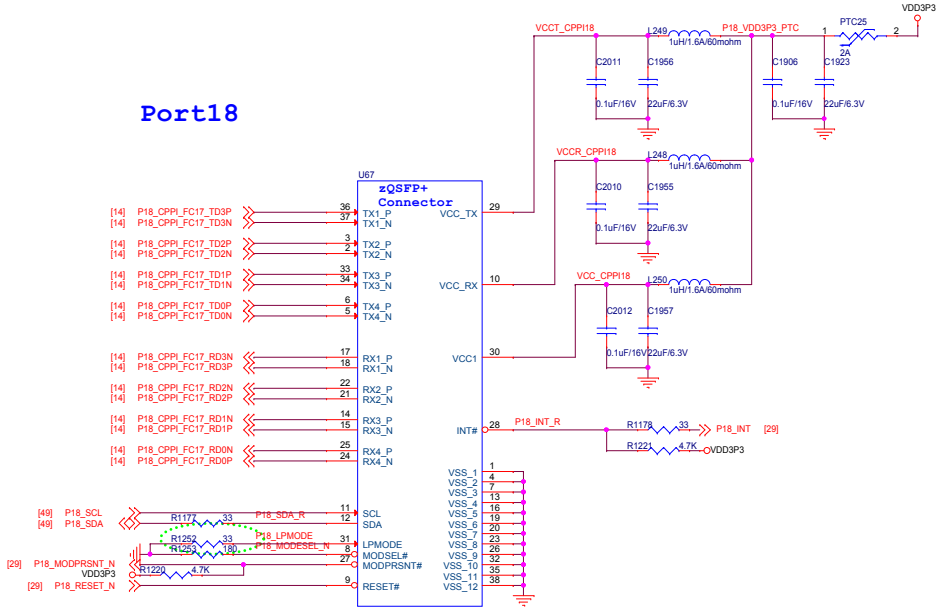


Accton Inc.		
Making Partnership Work		
Model Name: ES7632BT3-0417-168ZZ		Rev: 01
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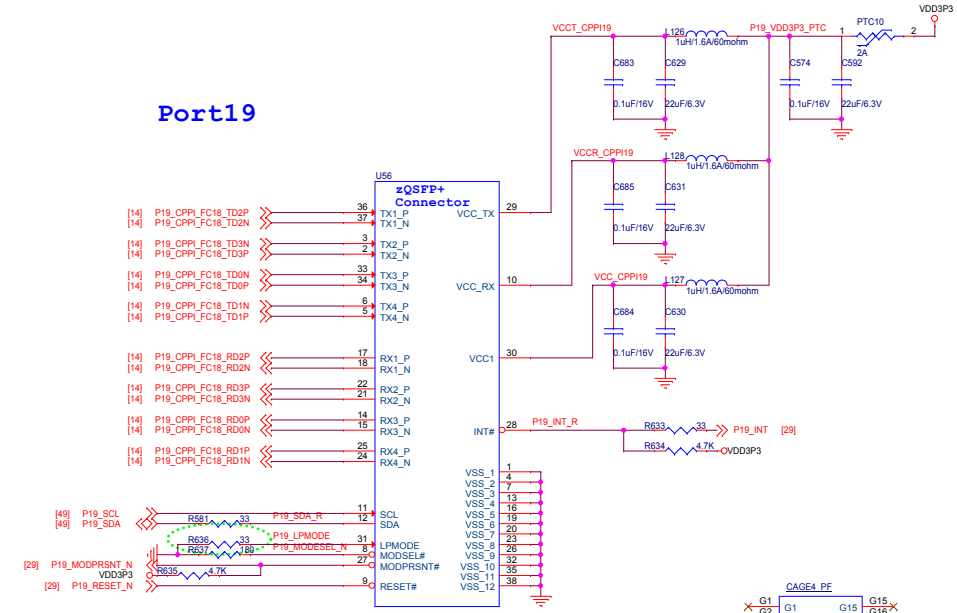
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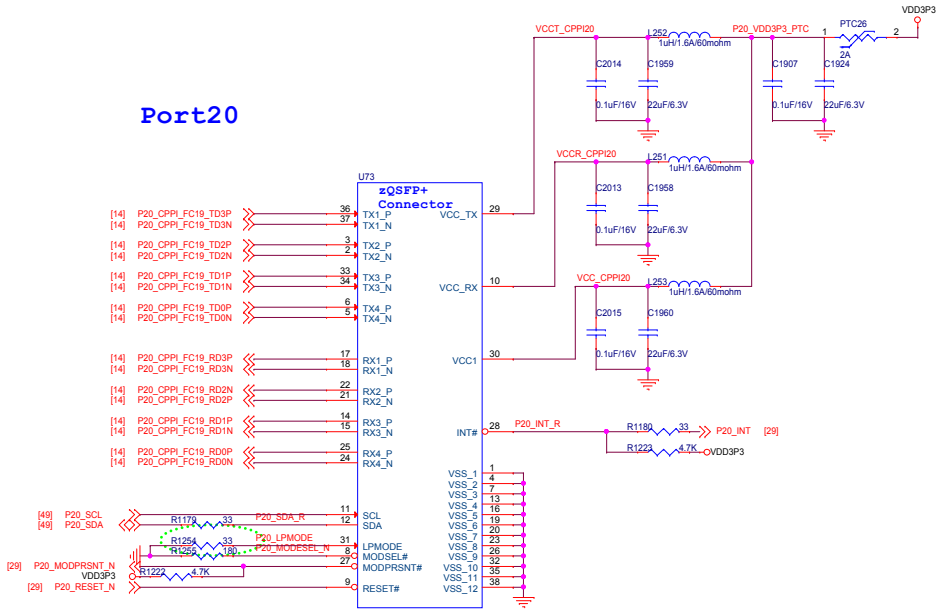
Port18



Port19

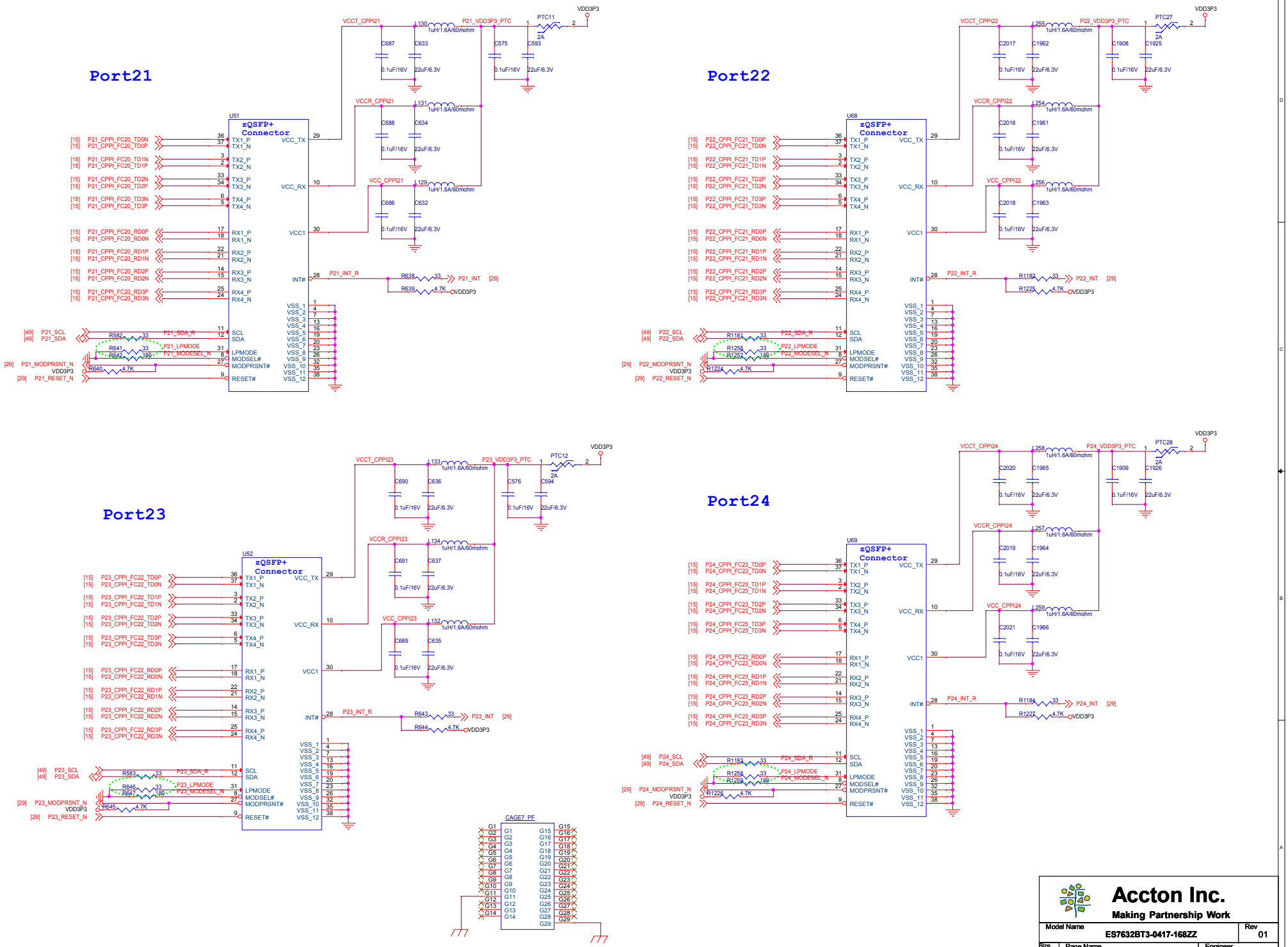


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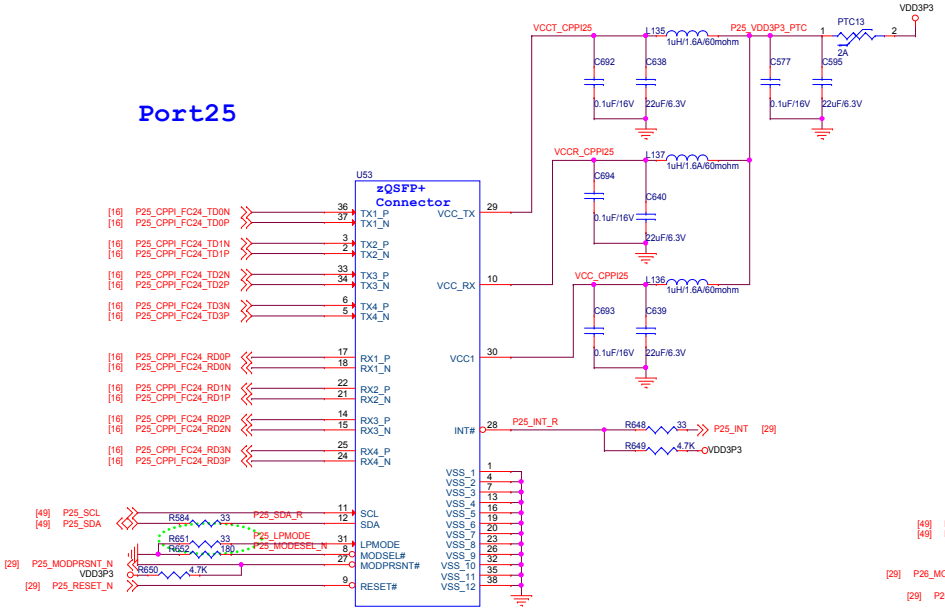
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Model Name	ES7632BT3-0417-168ZZ	Rev	01
Size C	Page Name QSFP28_P17-P20	Engineer	Gregory_Yu
Date: Wednesday, July 18, 2018	Sheet 25 of 49		

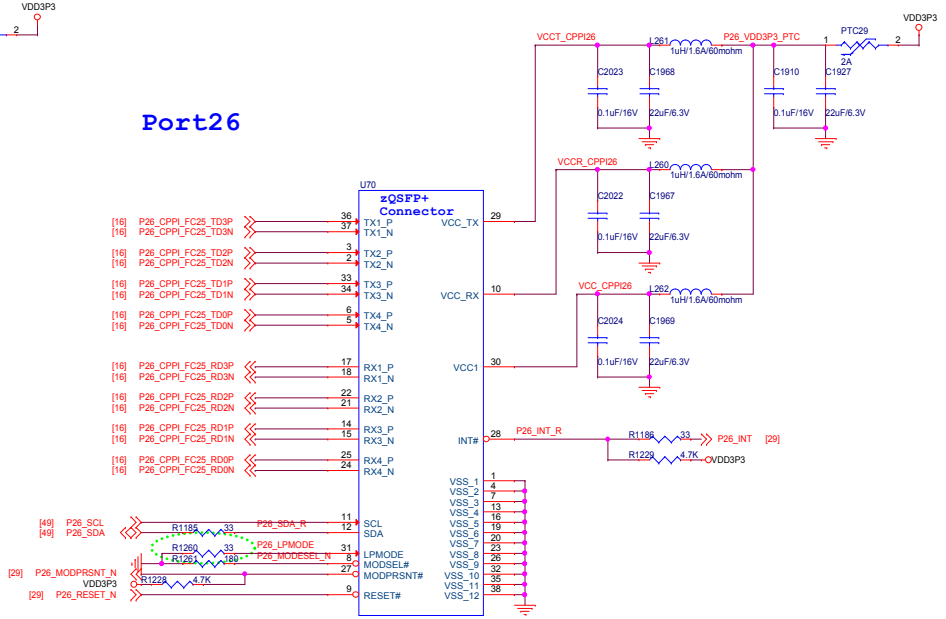


Accton Inc.	Making Partnership Work		
Model Name	ES7632BT3-0417-168ZZ	Rev	01
Size C	Page Name QSFP28_P21-P24	Engineer	Gregory_Yu
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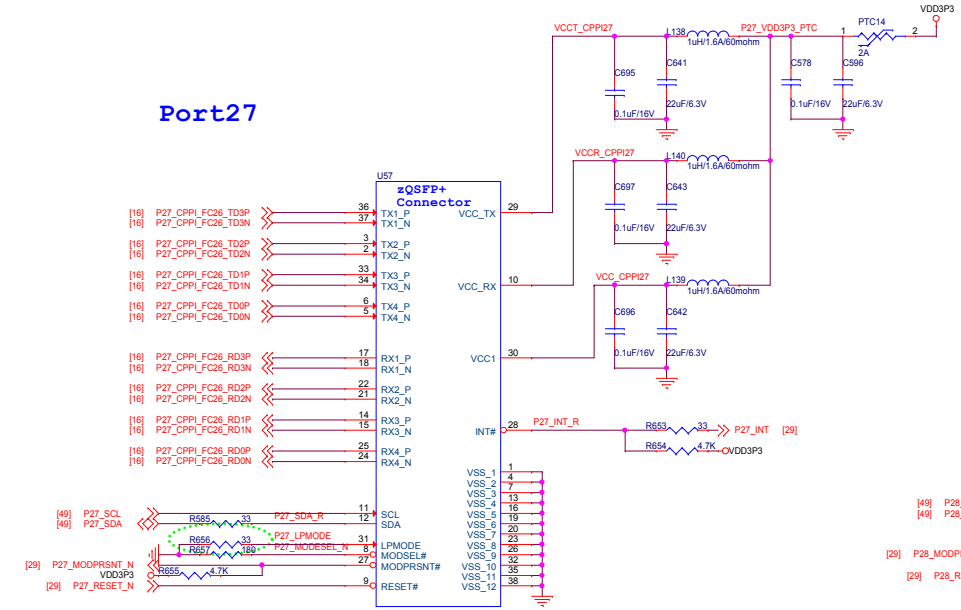
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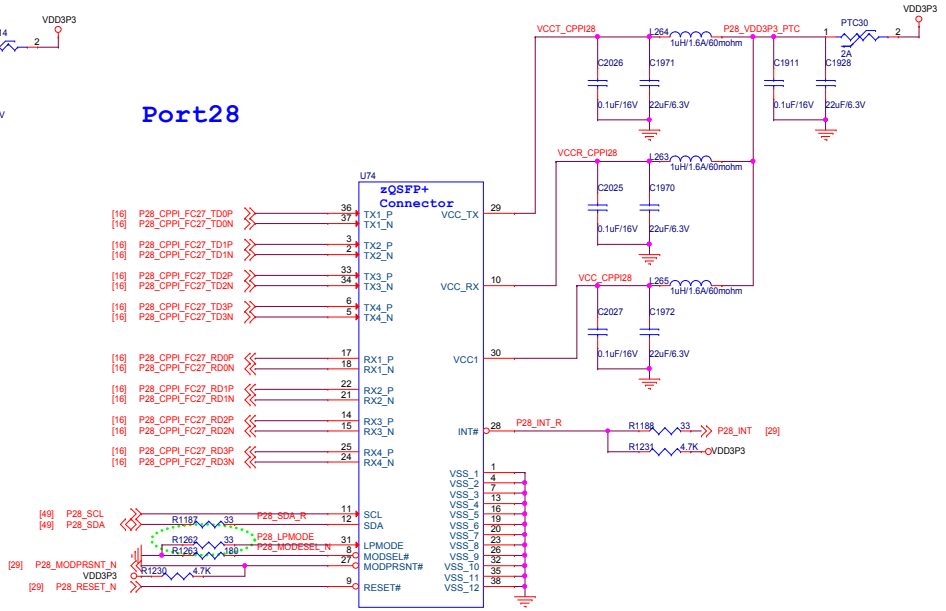
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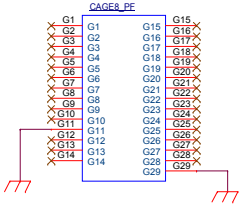


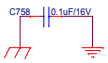
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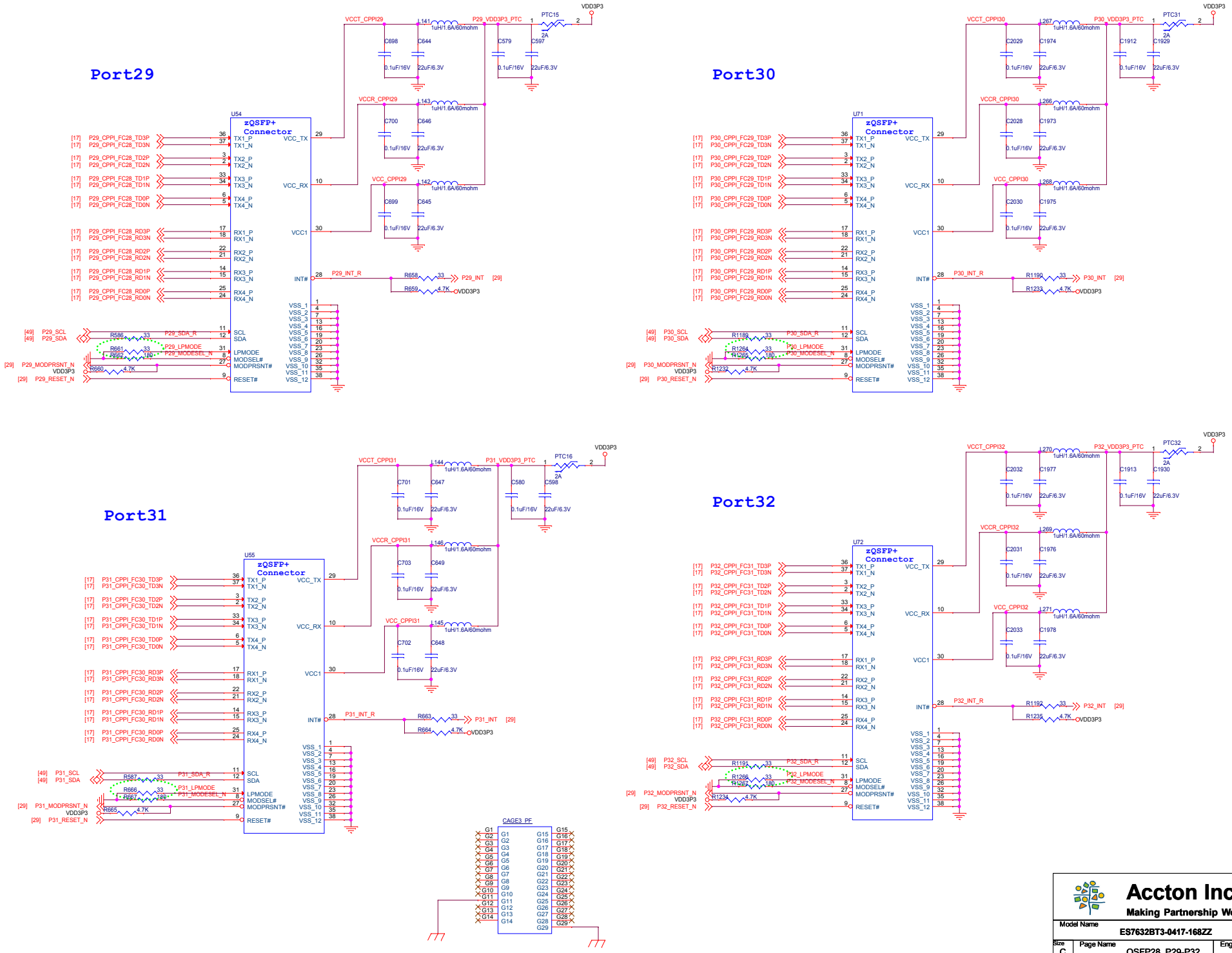
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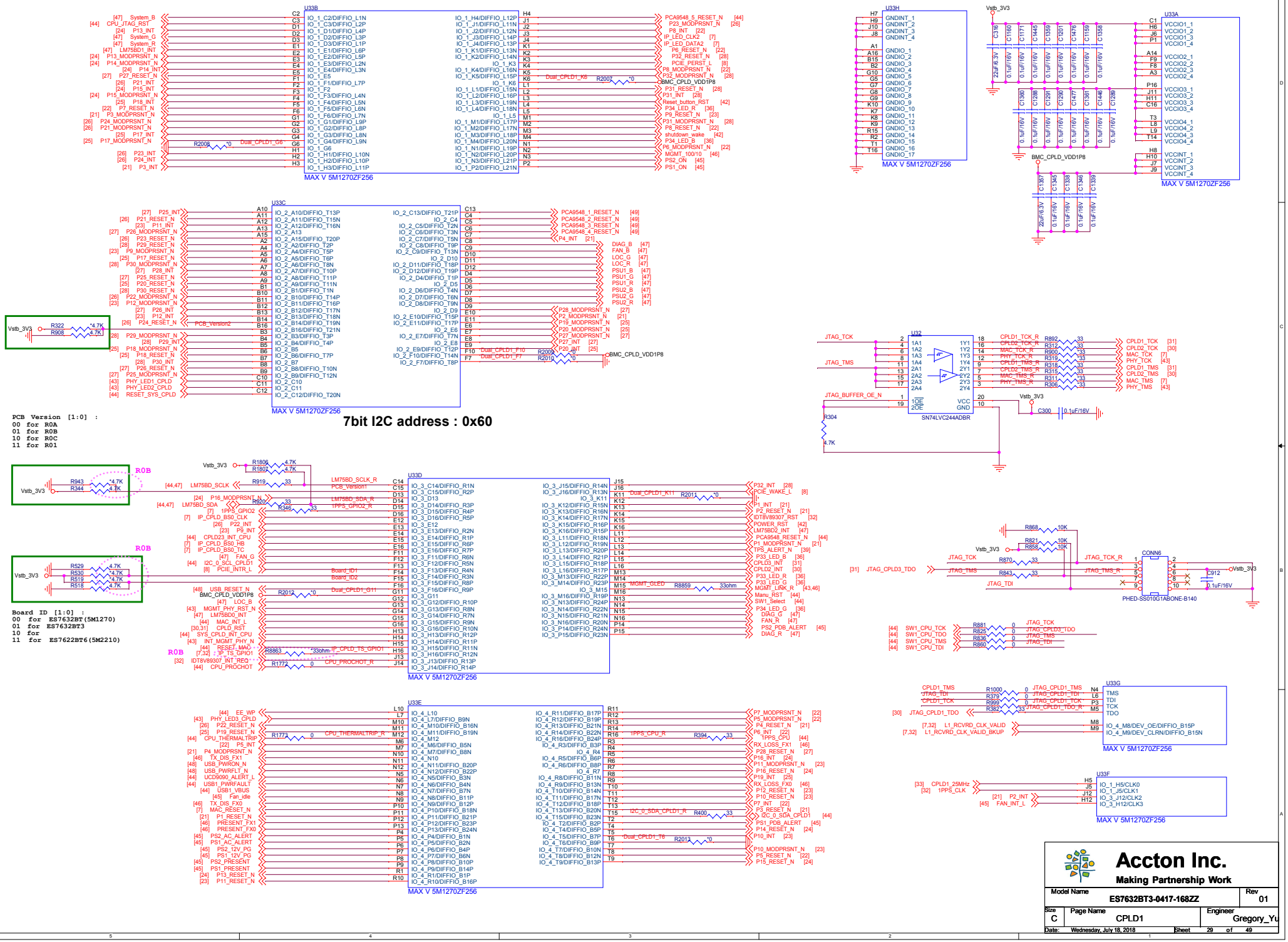


Accton Inc. Making Partnership Work		
Model Name: ES7632BT3-0417-168ZZ		Rev: 01
Size: C	Page Name: QSFP28_P25-P28	Engineer: Gregory_Yu
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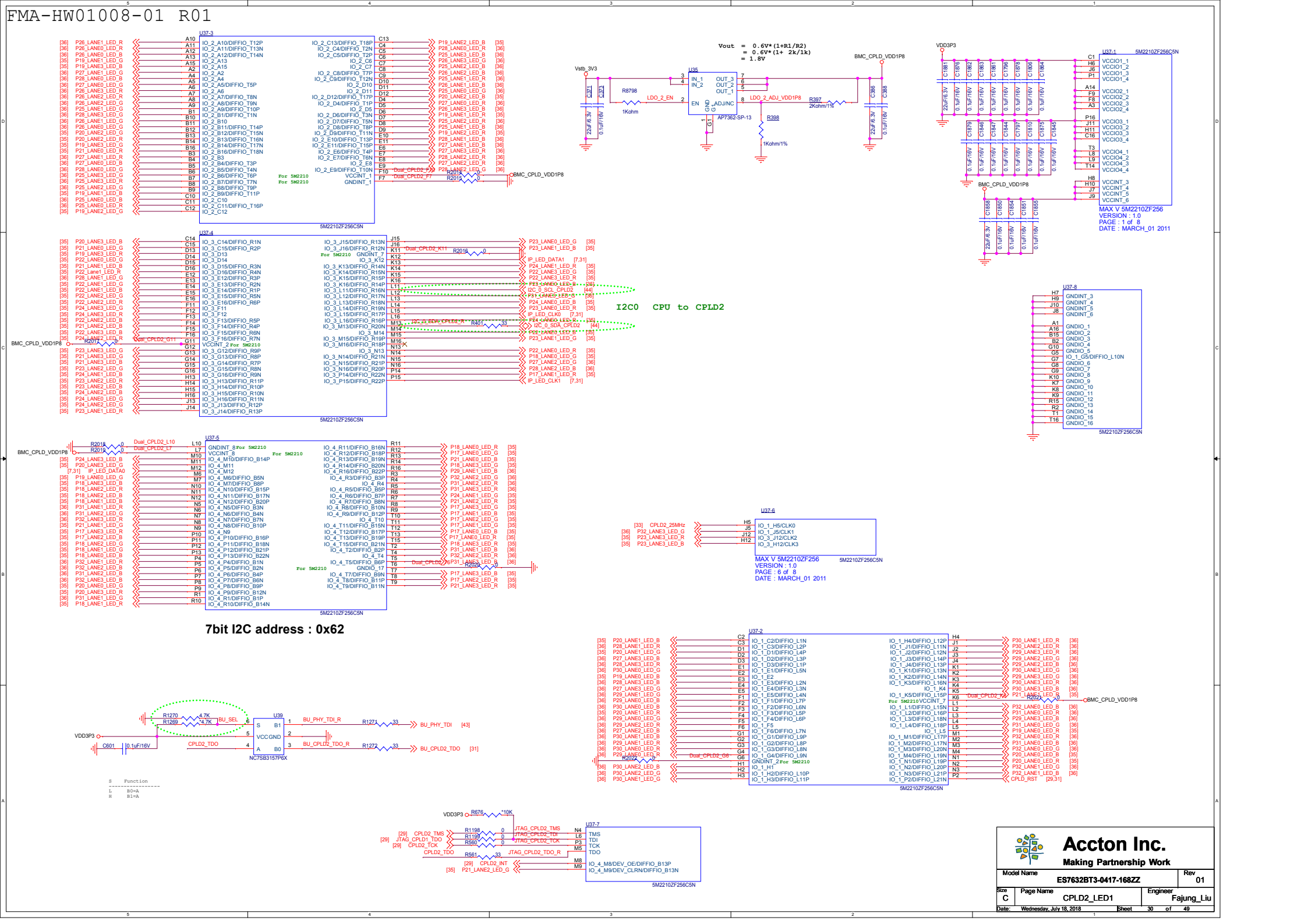

Port29
Port30
Port31
Port32
zQSFP+ Connector
U54
U71
U55
U72
VDD3P3
CAGE3_PF
Accton Inc.
Making Partnership Work
Model Name
ES7632BT3-0417-168ZZ
Rev
01
Size
C
Page Name
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Engineer
Gregory_Yu
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49

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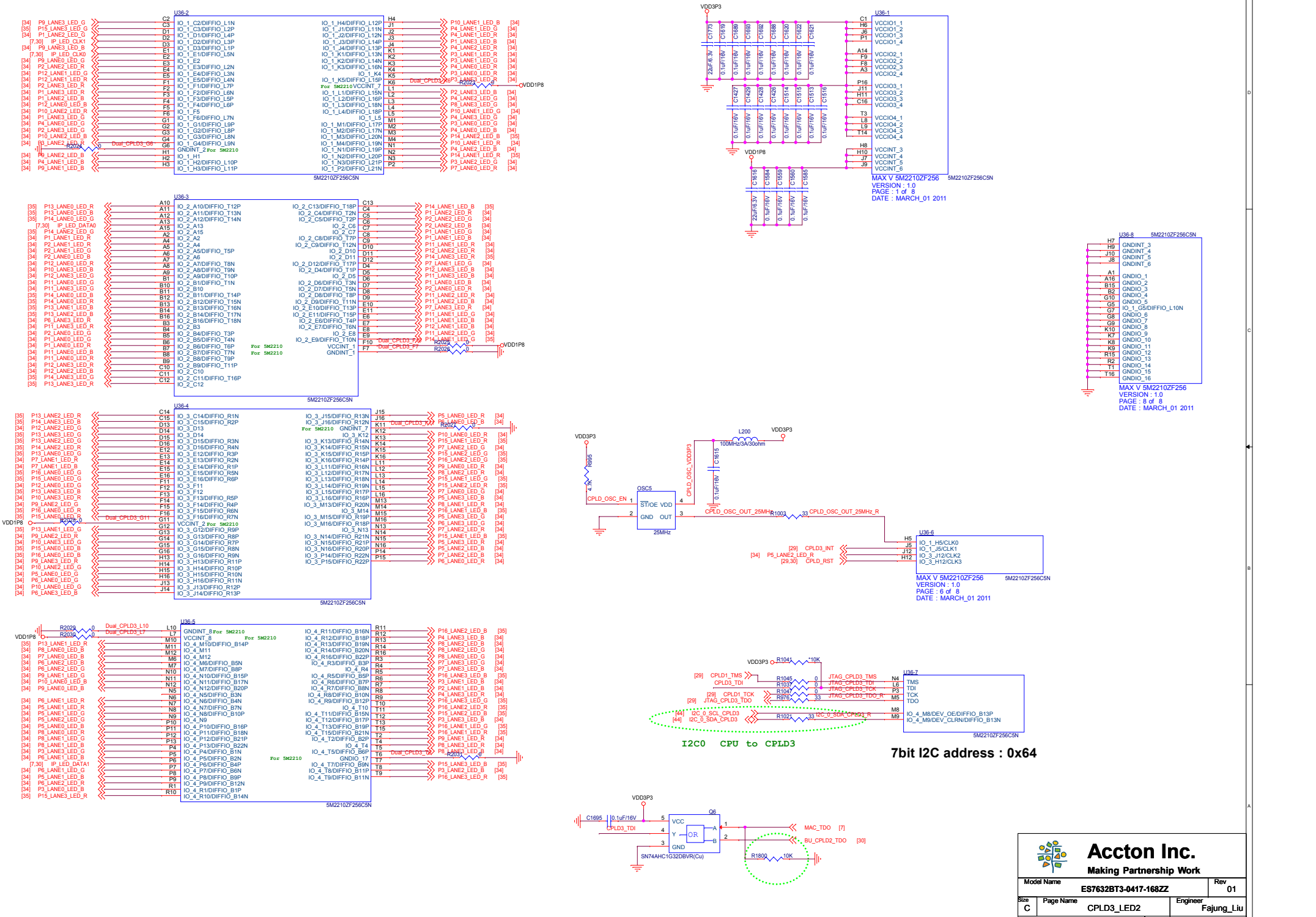
All I/O inculde internal pull-up resistor



Accton Inc.	Making Partnership Work
Model Name	ES7632BT3-0417-168ZZ
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Size	C
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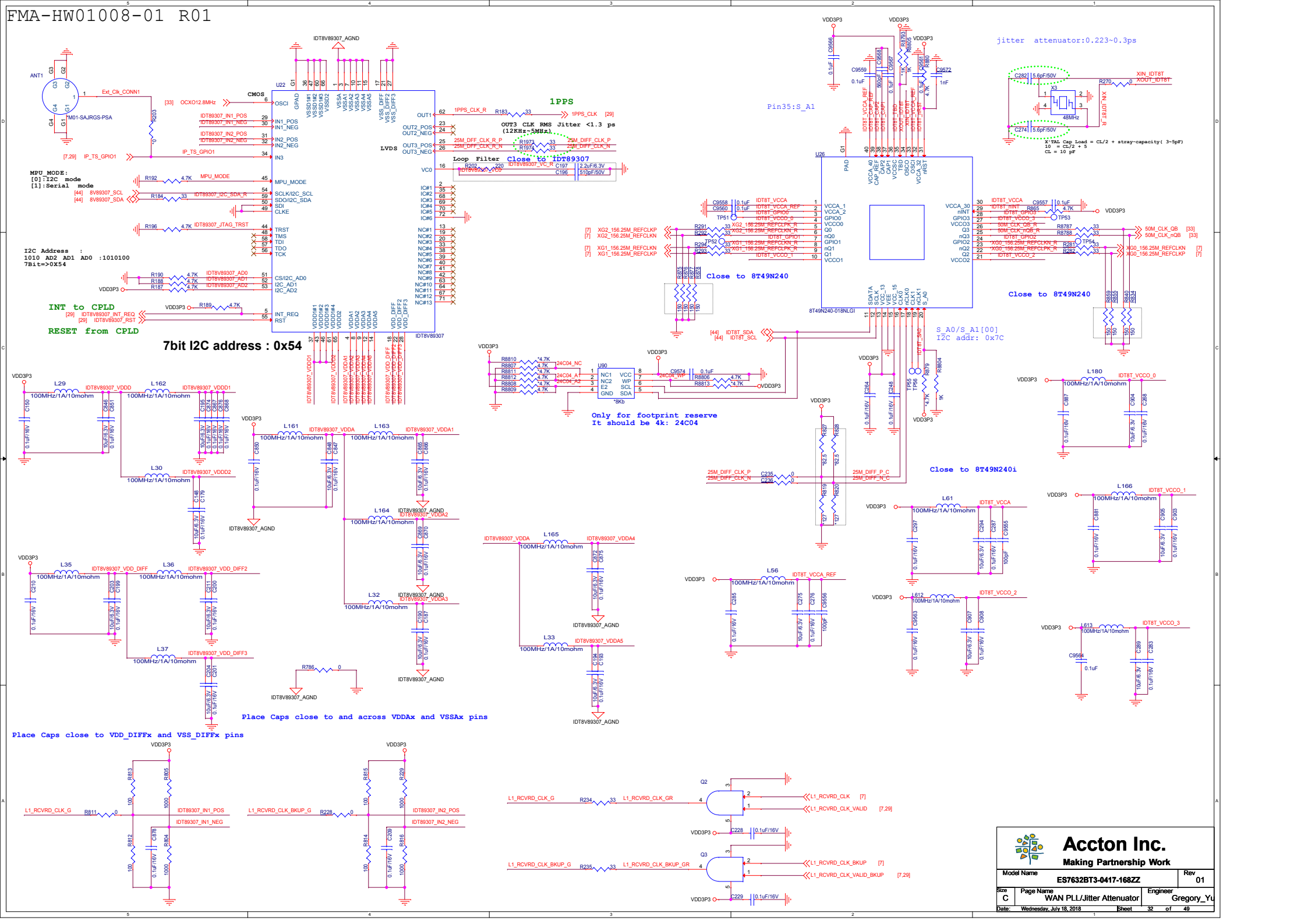


Accton Inc.	Making Partnership Work
Model Name	ES7632BT3-0417-168ZZ
Rev	01
Size	C
Page Name	CPLD2_LED1
Engineer	Fajung_Liu
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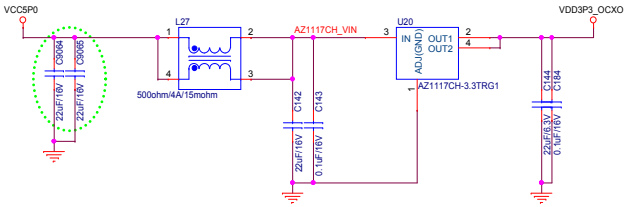
Accton Inc. Making Partnership Work			
Model Name	ES7632BT3-0417-168ZZ		Rev 01
Size C	Page Name CPLD3_LED2		Engineer Fajung_Liu
Date: Wednesday, July 18, 2018		Sheet 31 of 49	

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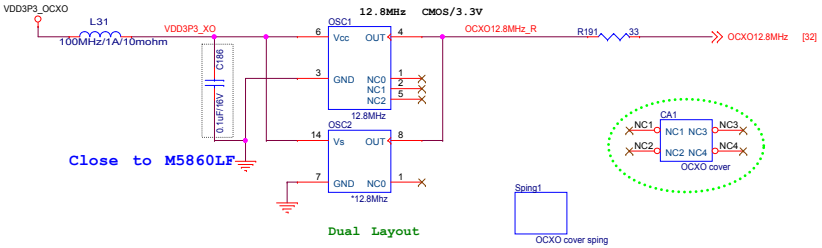


Accton Inc.			
Making Partnership Work			
Model Name	ES7632BT3-0417-168ZZ		Rev 01
Size C	Page Name WAN PLL/Jitter Attenuator		Engineer Gregory_Yu
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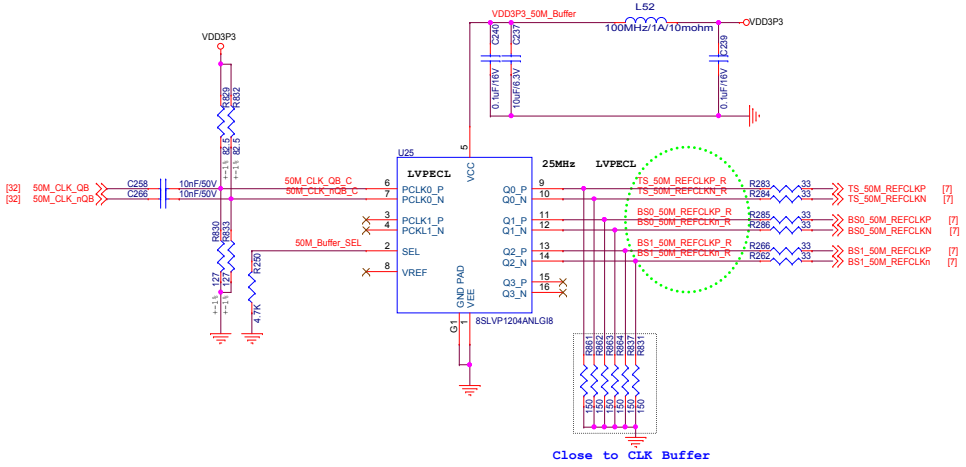
5V convert to 3.3V/0.5A For OCXO



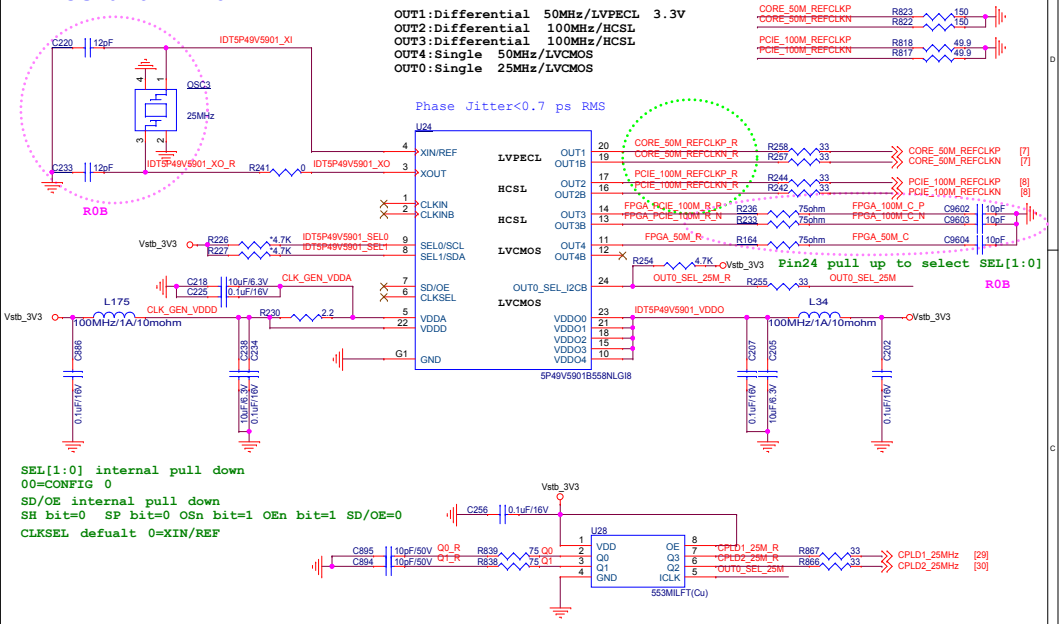
OCXO 12.8MHz For IDT8V89307



50MHz Buffer(1 to 3) For BCM56870

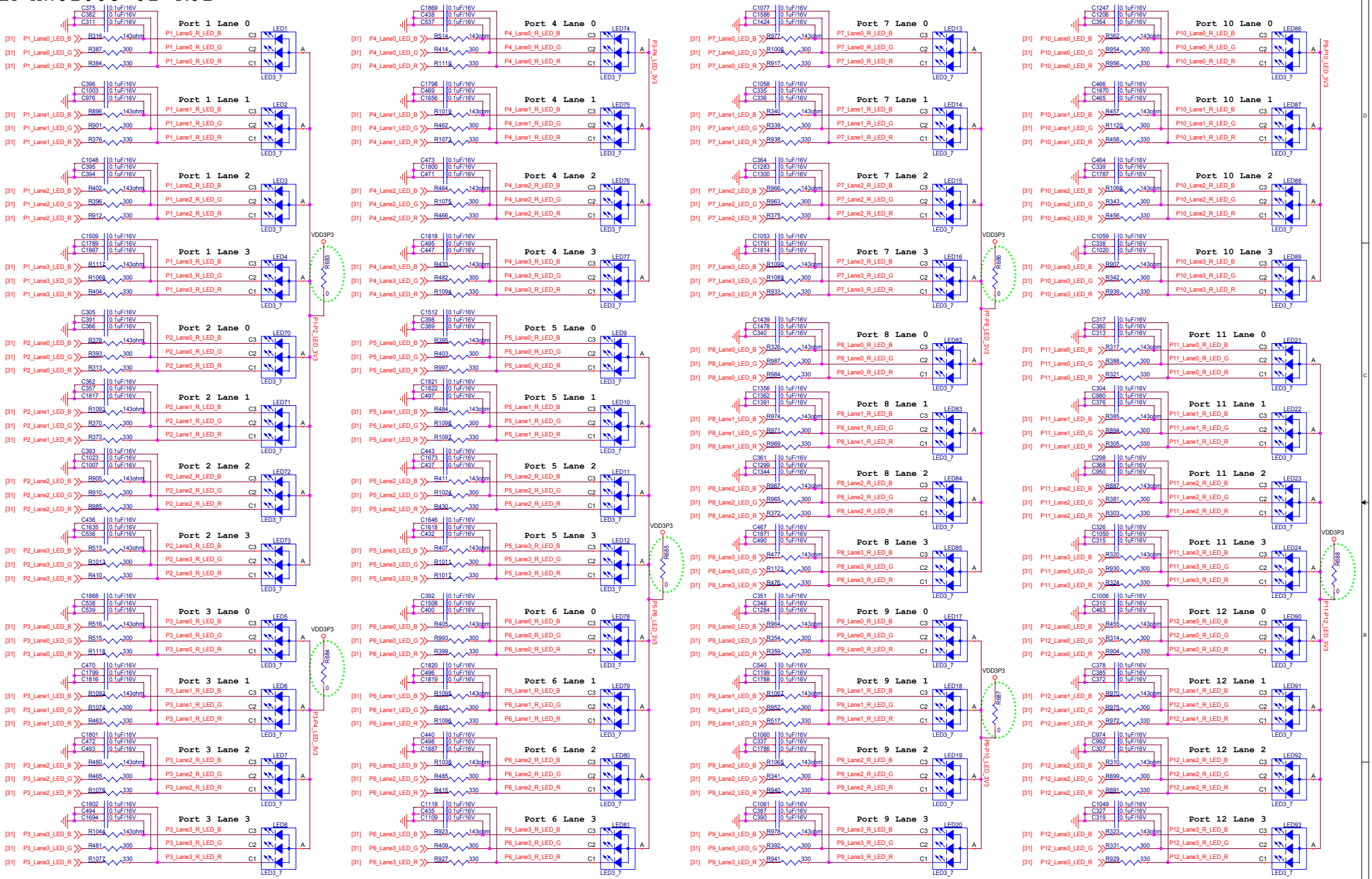


OUT1 50MHz For BCM56870
OUT2 100MHz For BCM56870 PCIe
OUT3 100MHz For FPGA PCIe
OUT4 50MHz For FPGA
OUT0 25MHz For CPLD



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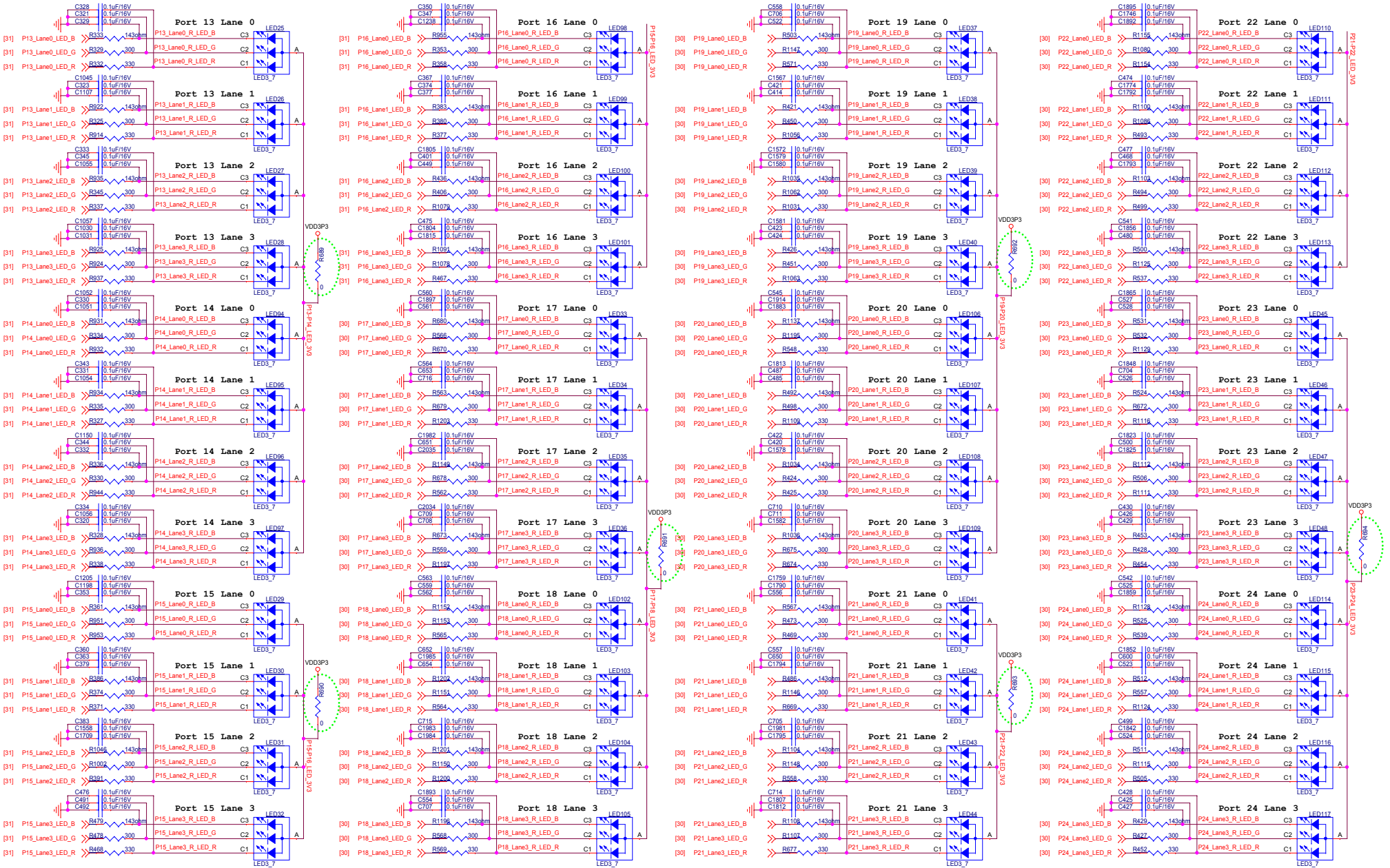
Model Name	ES7632BT3-0417-168ZZ	Rev 01
Size C	Page Name Clock GEN/Buffer	Engineer Gregory_Yu
Date: Wednesday, July 18, 2018	Sheet 33 of 49	



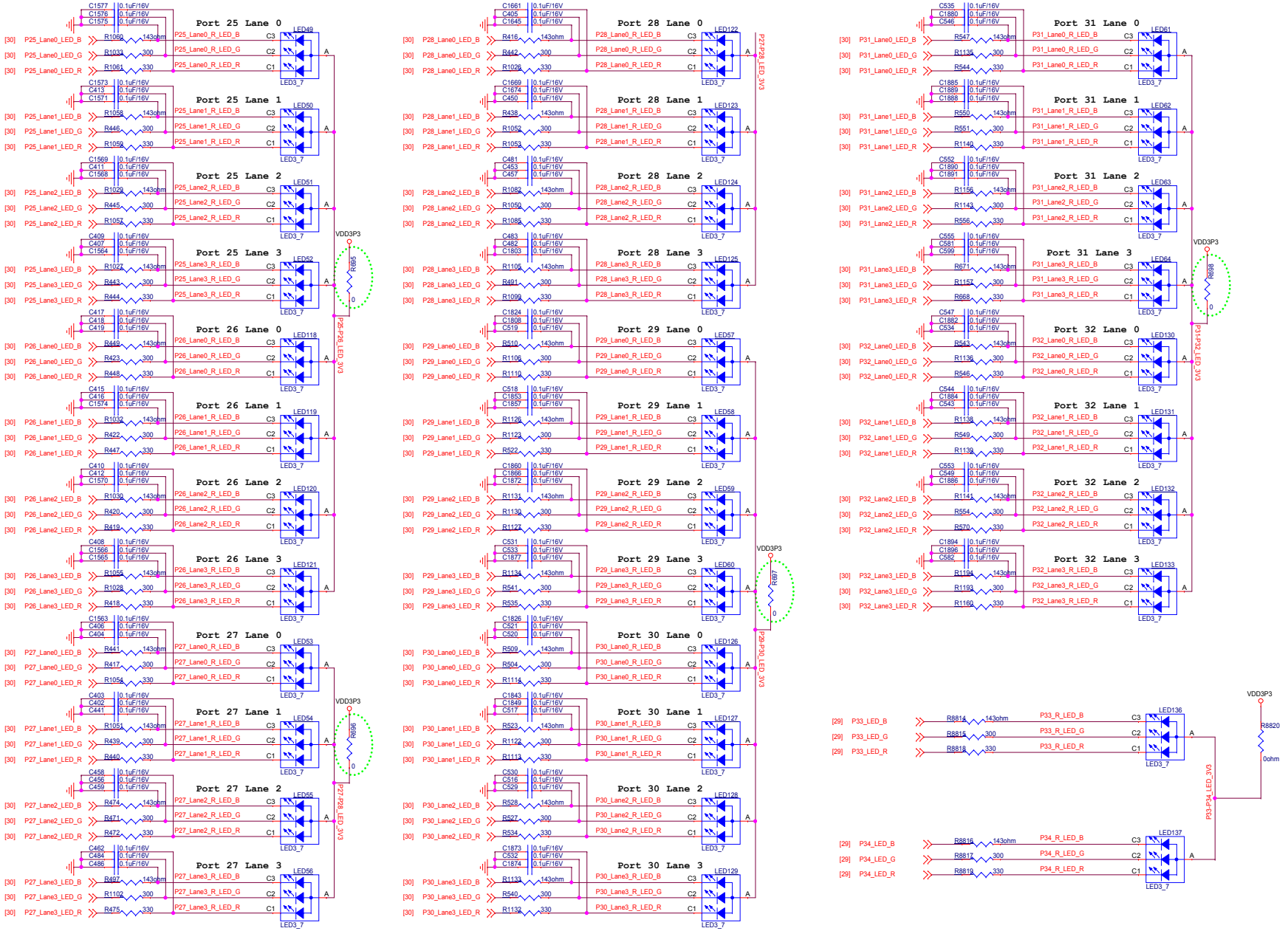
LED From CPLD

Low : Light
High : Don't Light

Accton Inc. Making Partnership Work			
Model Name	ES7632BT3-0417-168ZZ		Rev 01
Size C	Page Name LED_P1-P12	Engineer Gregory_Yu	
Date: Wednesday, July 18, 2018	Sheet 34 of 49		

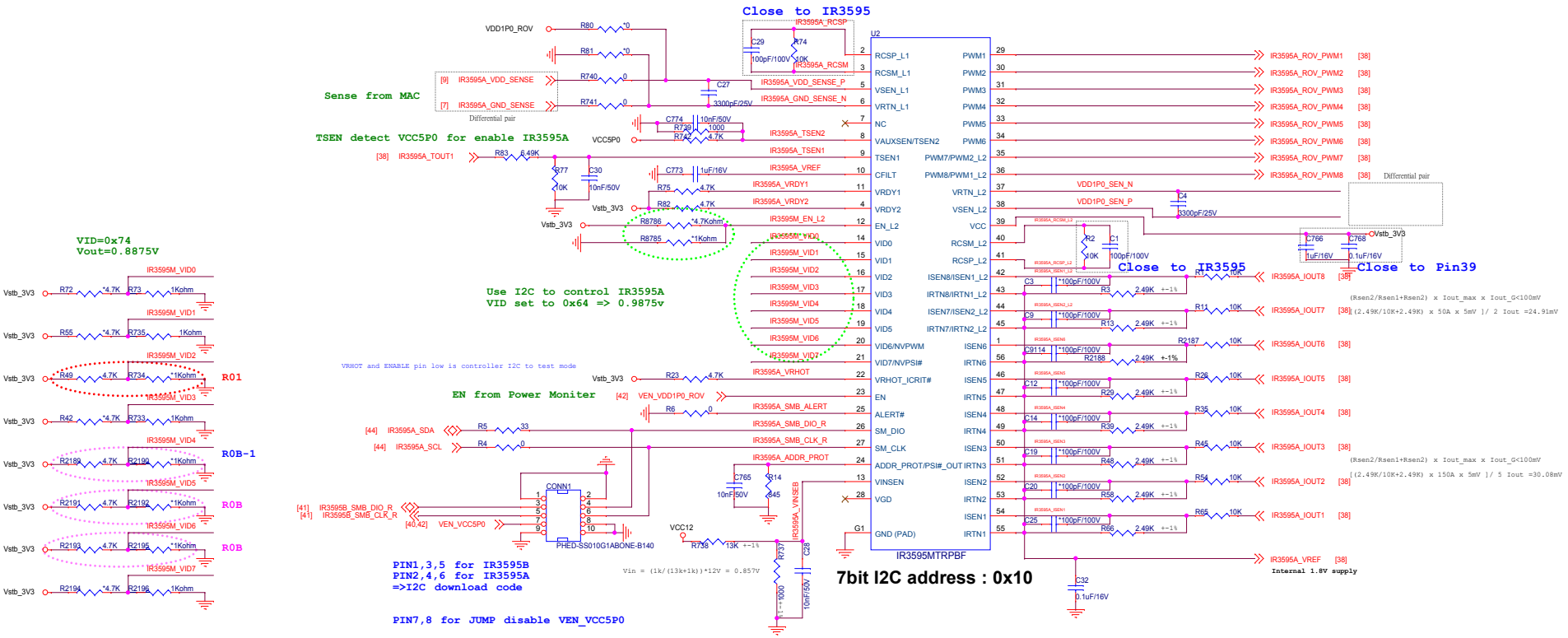


Accton Inc.			
Making Partnership Work			
Model Name	ES7632BT3-0417-168ZZ		Rev 01
Size C	Page Name LED_P13-P24		Engineer Gregory_Yu
Date: Wednesday, July 18, 2018		Sheet 35 of 49	

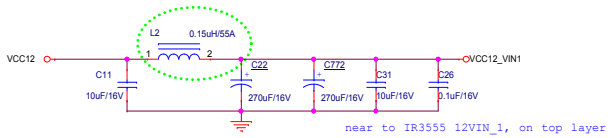


Accton Inc.			
Making Partnership Work			
Model Name	ES7632BT3-0417-168ZZ		Rev 01
Size C	Page Name LED_P25-P32		Engineer Fajung_Liu
Date: Wednesday, July 18, 2018		Sheet 36 of 49	

IR3595 Mutli-Phase
8 Phase for VDD1P0_ROV



For MOS 12V Input



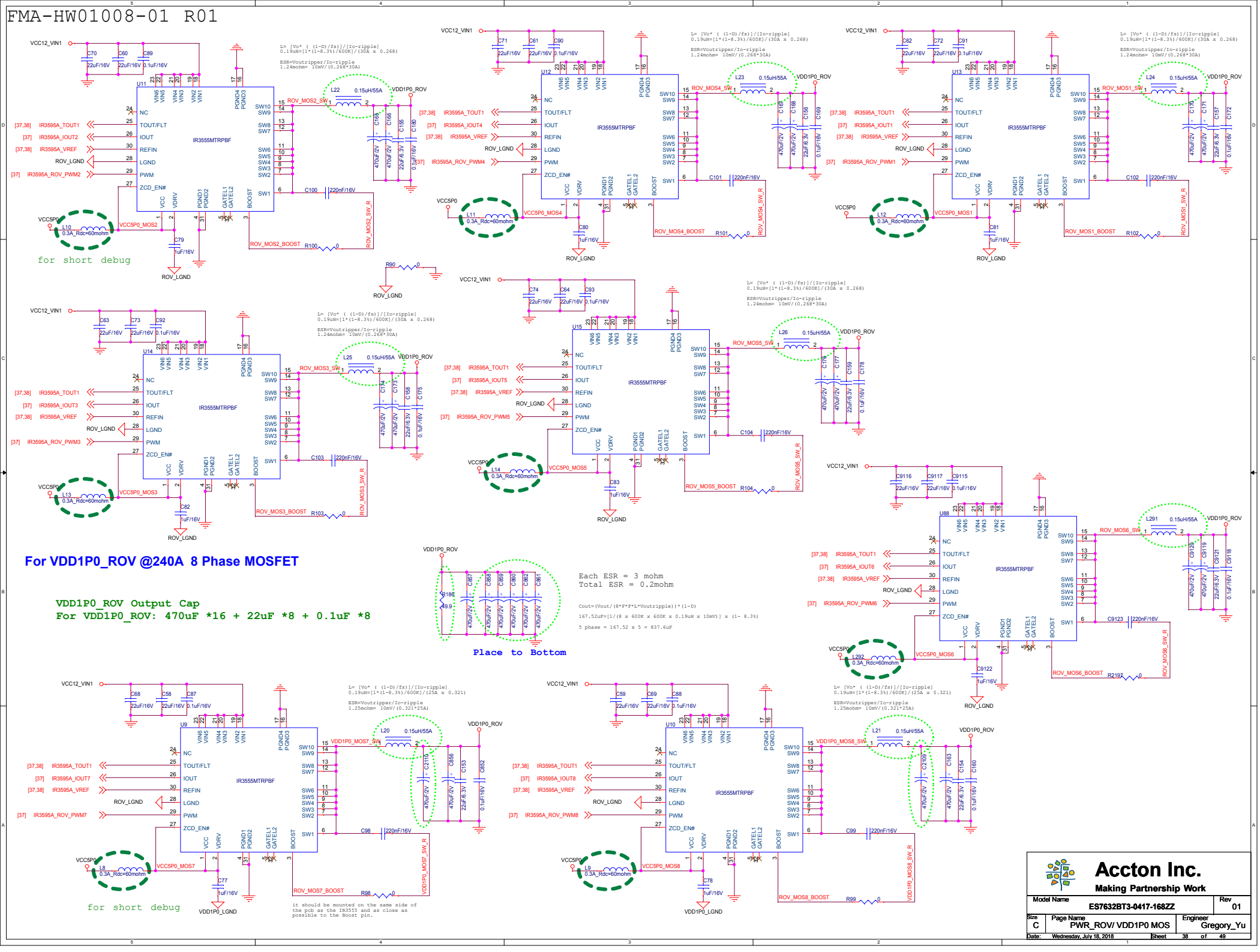
Cin=100*(Vo*Io/Vin)/Vin*(1-D)/F
D=Vo/Vi=1/12=0.083 , Io=30A
37.87uF=100 * (1* 30 / 12) /12*(1-8.3%)/600K
5 phase = 37.87uF x 5 = 189.35uF

Cin=100*(Vo*Io/Vin)/Vin*(1-D)/F
D=Vo/Vi=1/12 , Io=25A
26.52uF=100 x (1* 25 / 12) /12*(1-8.3%)/600K
2 phase = 26.52uF x 2 = 53.04uF

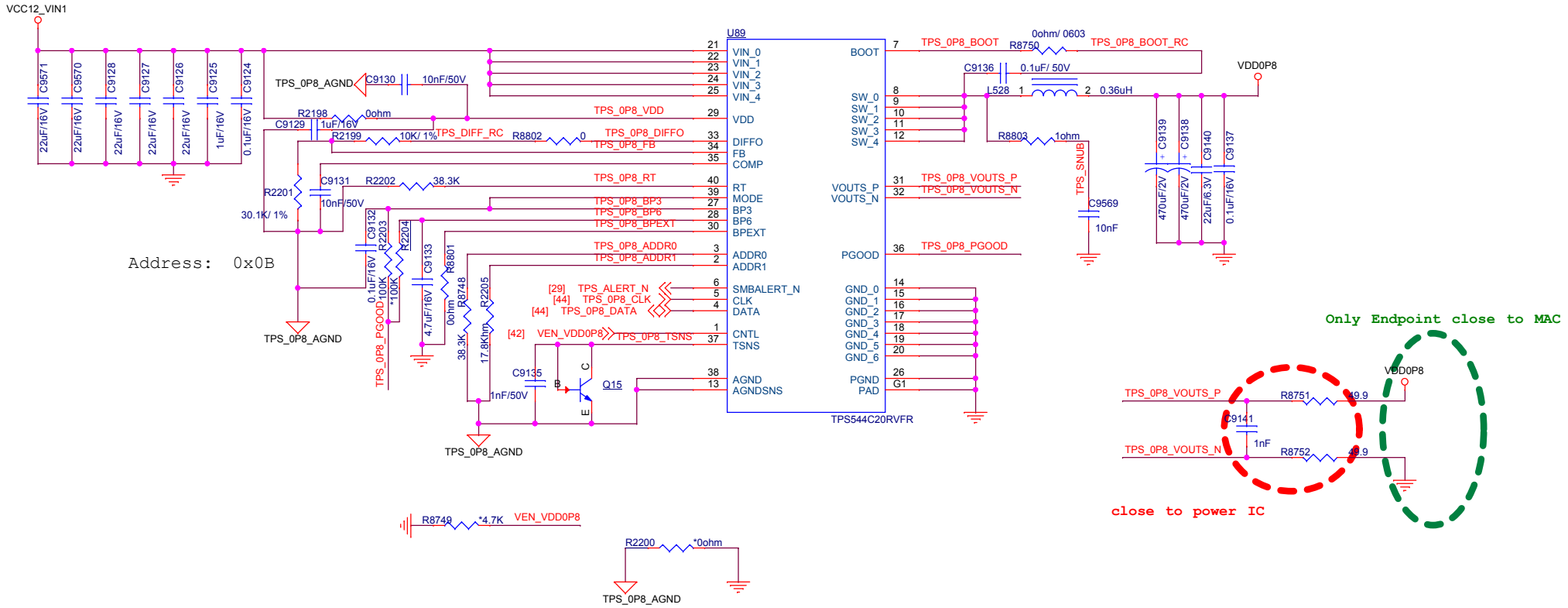
5 phase + 2 phase =159.15uF + 53.04uF = 212.19uF

Accton Inc.
Making Partnership Work

Model Name	ES7632BT3-0417-168ZZ	Rev 01
Size C	Page Name PWR_ROV / VDD1P0	Engineer Gregory_Yu
Date: Wednesday, July 18, 2018	Sheet 37 of 49	

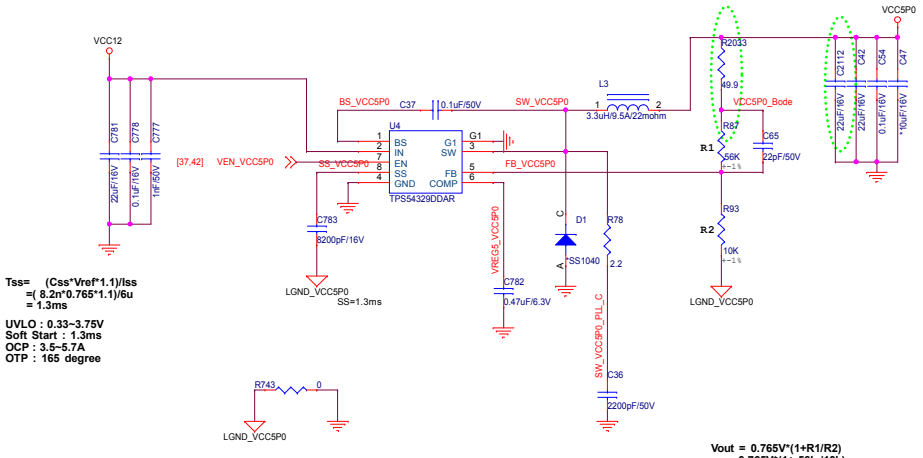


Accton Inc.		
Making Partnership Work		
Model Name: ES7632BT3-0417-168ZZ		Rev: 01
Size: C	Page Name: PWR_ROV/ VDD1P0 MOS	Engineer: Gregory_Yu
Date: Wednesday, July 18, 2018	Sheet: 38 of 49	



Accton Inc.		
Making Partnership Work		
Model Name: ES7632BT3-0417-168ZZ		Rev: 01
Size: B	Page Name: PWR_VDD0P8	Engineer: Gregory_Yu
Date: Wednesday, July 18, 2018	Sheet 39 of 49	

12V convert to 5V @3A For MOS Driver and CPU Board

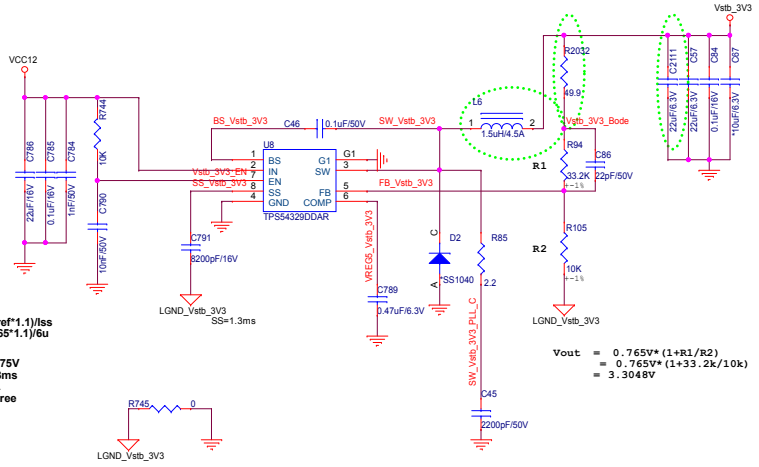


Tss= (Css*Vref*1.1)/Iss
=(8.2n*0.765*1.1)/6u
= 1.3ms

UVLO : 0.33~3.75V
Soft Start : 1.3ms
OCP : 3.5~5.7A
OTP : 165 degree

Vout = 0.765V*(1+R1/R2)
= 0.765V*(1+ 56k /10k)
= 5.049V

12V convert to 3.3V @0.5A For Standby Voltage (IR Control/Power Monitor)

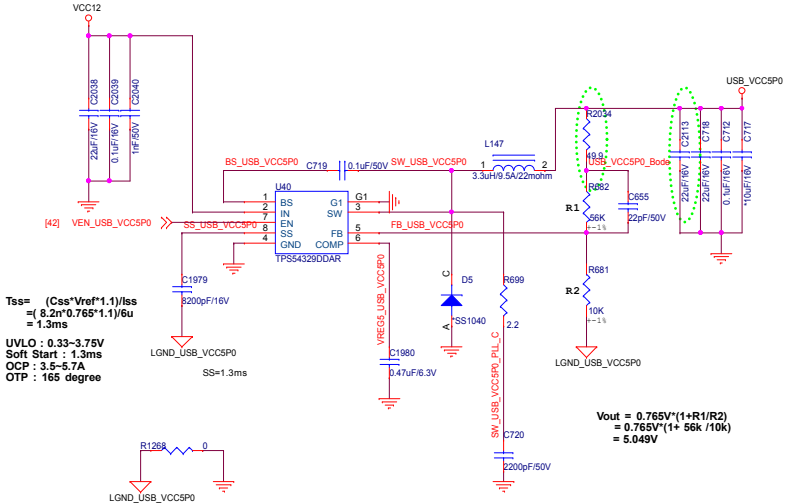


Tss= (Css*Vref*1.1)/Iss
=(8.2n*0.765*1.1)/6u
= 1.3ms

UVLO : 0.33~3.75V
Soft Start : 1.3ms
OCP : 3.5~5.7A
OTP : 165 degree

Vout = 0.765V*(1+R1/R2)
= 0.765V*(1+33.2k/10k)
= 3.3048V

12V convert to 5V @1A For USB

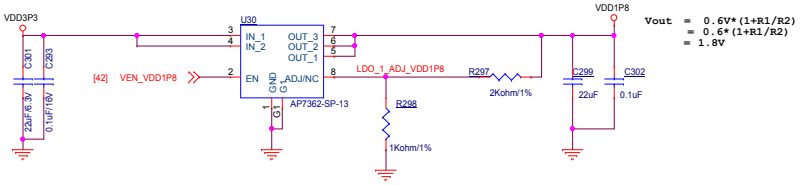


Tss= (Css*Vref*1.1)/Iss
=(8.2n*0.765*1.1)/6u
= 1.3ms

UVLO : 0.33~3.75V
Soft Start : 1.3ms
OCP : 3.5~5.7A
OTP : 165 degree

Vout = 0.765V*(1+R1/R2)
= 0.765V*(1+ 56k /10k)
= 5.049V

3.3V convert to 1.8V @0.8A For BCM56870 、CPLD



Vout = 0.6V*(1+R1/R2)
= 0.6*(1+R1/R2)
= 1.8V

Accton Inc. Making Partnership Work		
Model Name: ES7632BT3-0417-168ZZ		Rev: 01
Size: C	Page Name: PWR_5V/ Vstb_3.3V/1.8V	Engineer: Daniel_Yang
Date: Wednesday, July 18, 2018	Sheet 40 of 49	

FMA-HW01008-01 R01

IR3595 Mutli-Phase
2Phase for VDD3P3
1Phase for VDD1P2

Close to IR3595

U16 IR3595MTRPBF

EN from Power monitor

EN fromm Power monitor

Vin = (1k/(13k+1k))*12V = 0.857V

Internal 1.8V supply

Close to IR3595

Close to Pin39

7bit I2C address : 0x12

For VDD1P2 @5A 1 Phase MOSFET

VDD1P2 Output Cap

For VDD1P2: 470uF *1 + 22uF *2 + 0.1uF *2

Each ESR = 3 mohm
Total ESR = 3 // 3 // 3 = 1mohm

Cout=(Vout/(8*F*F*L*Voutripple))*(1-D)
167.52uF=[1.25/(8 x 600K x 600K x 0.19uH x 12.5mV)] x (1- 8.3%)
1 phase = 167.52uF

L= (Vo* ((1-D)/fs))/(Io-ripple]
0.19uH=[1.25*(1-8.3%)/600K)/(5A x 2.01)

ESR=Voutripper/Io-ripple
1.24mohm= 3.3V/(2.01*5A)

U7 IR3555MTRPBF

it should be mounted on the same side of the pcb as the IR3555 and as close as possible to the Boost pin.

For VDD3P3 @50A 2 Phase MOSFET

VDD3P3 Output Cap
For VDD3P3: 100uF *4 + 22uF *2 +0.1uF *2

Cout=(Vout/(8*F*F*L*Voutripple))*(1-D)
167.52uF=[3.3/(8 x 600K x 600K x 0.19uH x 33mV)] x (1- 8.3%)
2 phase = 167.52 x 2 = 335.04uF

near to IR3555 VCC12VIN_2, on top layer

Cin=100*(Vo*Io/Vin)/Vin*(1-D)/F
87.53uF=100 x (3.3* 25 / 12) /12*(1-8.3%)/600K
2 phase = 87.53uF x 2 = 175.06uF

Cin=100*(Vo*Io/Vin)/Vin*(1-D)/F
6.63uF=100 x (1.25* 5 / 12) /12*(1-8.3%)/600K
1 phase = 6.63uF

2 phase + 1 phase =175.06uF + 6.63uF =181.69uF

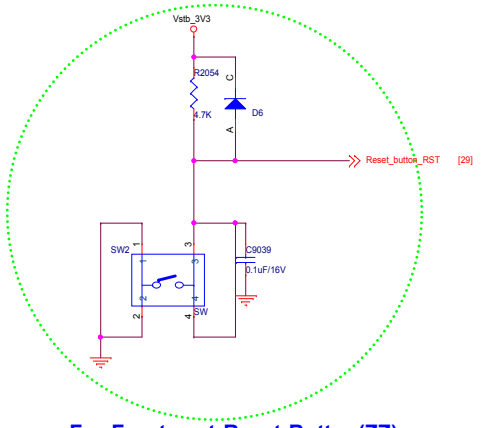
L= [Vo* ((1-D)/fs)]/[Io-ripple]
0.19uH=[3.3*(1-8.3%)/600K]/(25A x 1.061)

ESR=Voutripper/Io-ripple
1.25mohm= 3.3V/(1.061*25A)

U5 IR3555MTRPBF

U6 IR3555MTRPBF

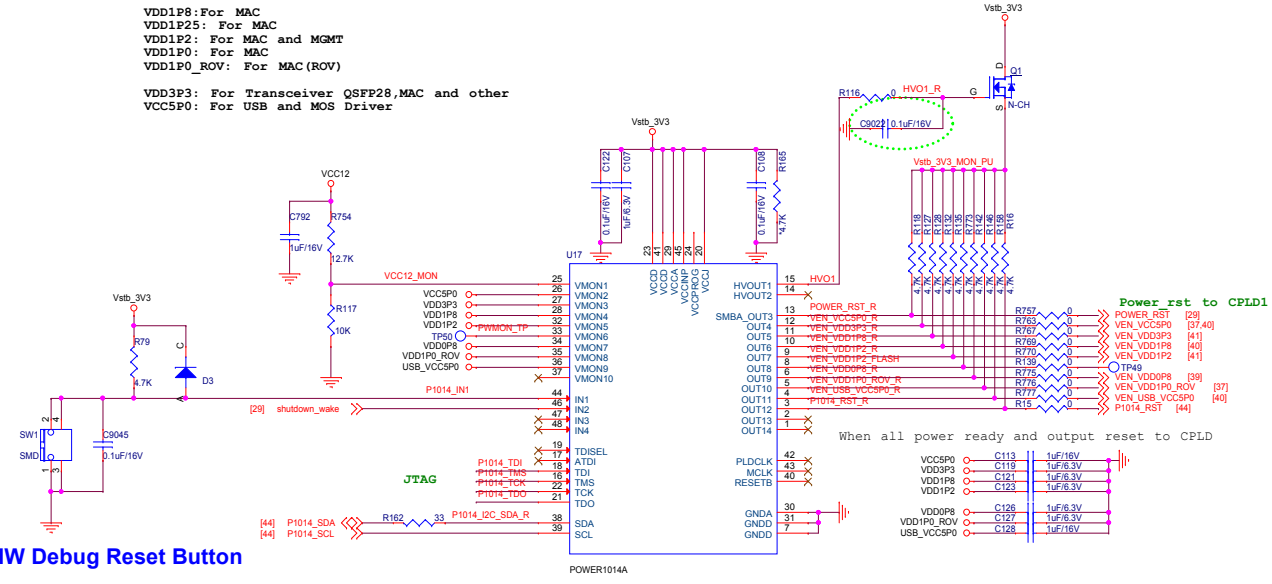
Accton Inc.	Making Partnership Work
Model Name	ES7632BT3-0417-168ZZ
Rev	01
Size	C
Page Name	PWR_VDD3P3/ VDD1P25
Engineer	Daniel_Yang
Date:	Wednesday, July 18, 2018
Sheet	41 of 49



For Front port Reset Button(ZZ)

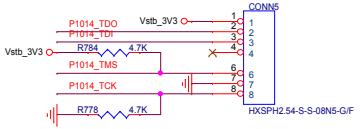
VDD1P8:For MAC
VDD1P25: For MAC
VDD1P2: For MAC and MGMT
VDD1P0: For MAC
VDD1P0_ROV: For MAC(ROV)

VDD3P3: For Transceiver QSFP28,MAC and other
VCC5P0: For USB and MOS Driver

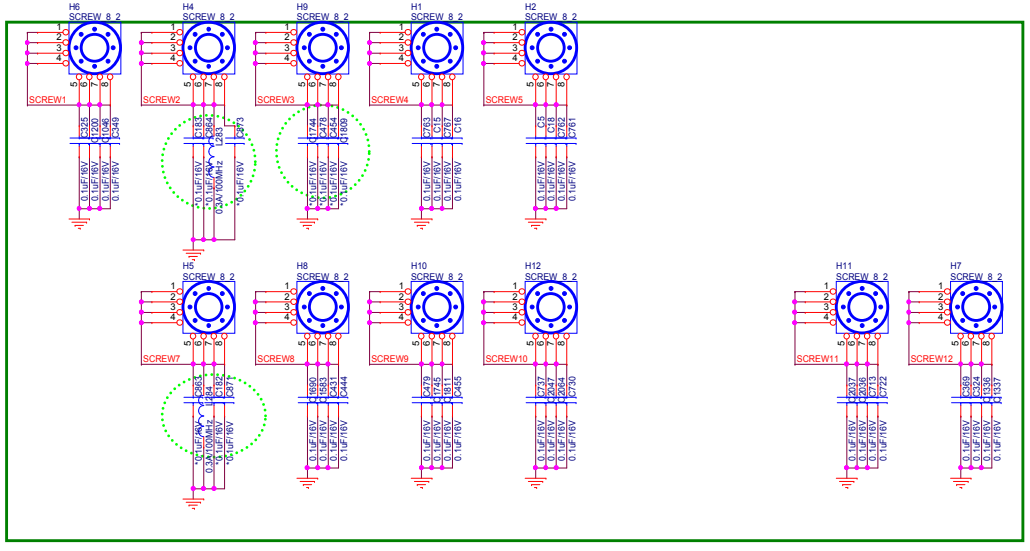


For HW Debug Reset Button

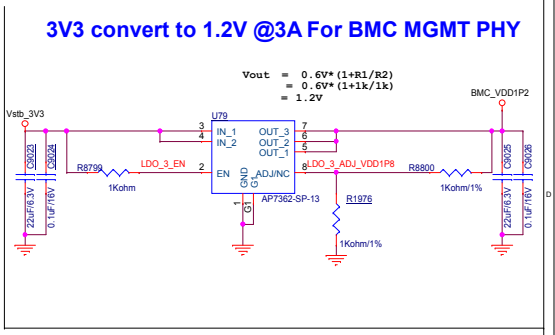
7bit I2C address : 0x25

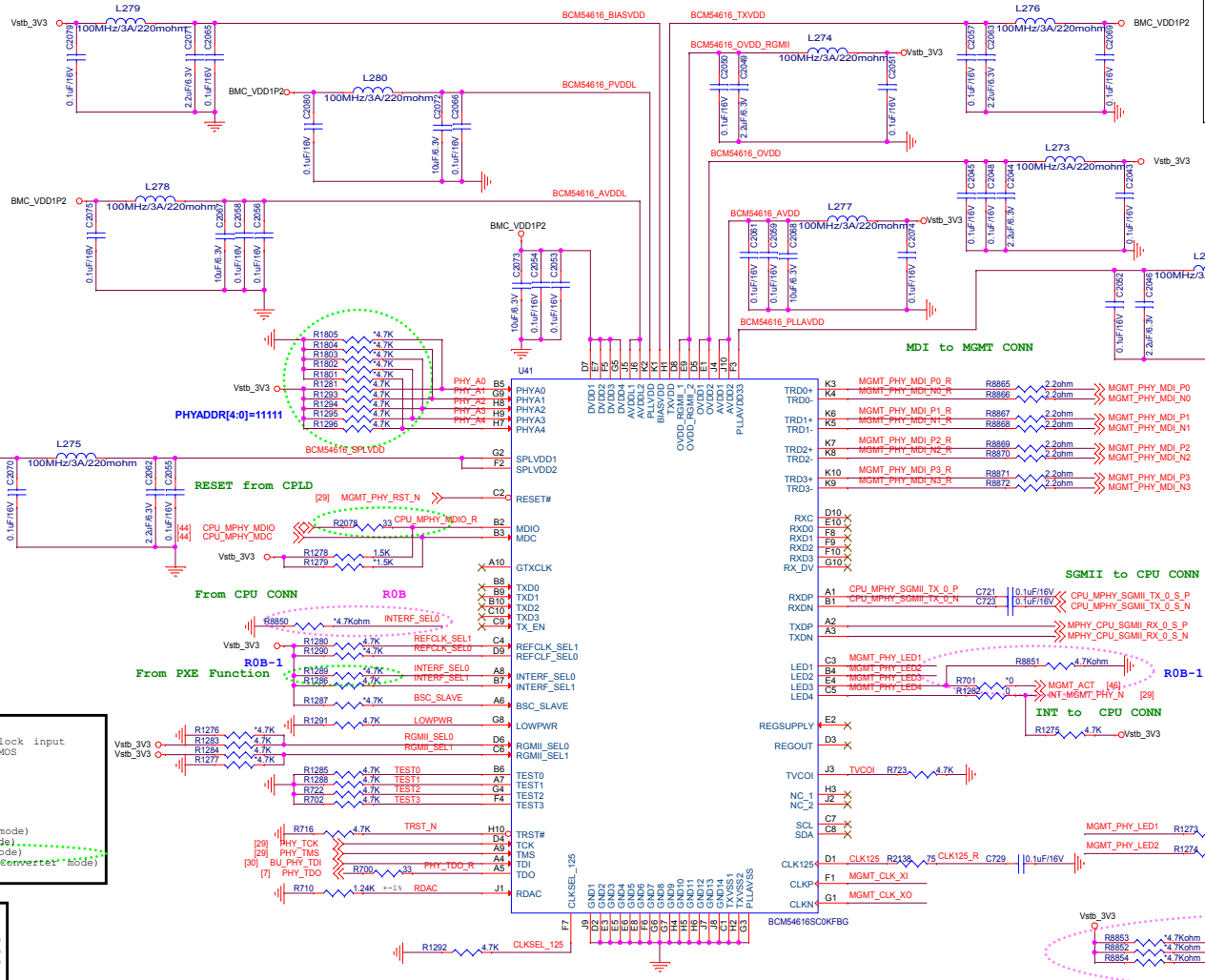


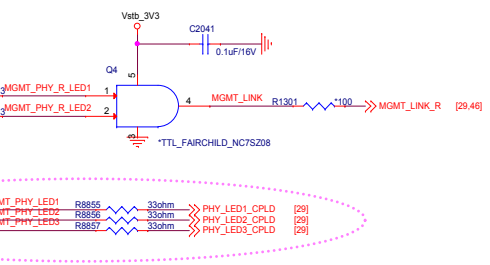
Mounting Hole

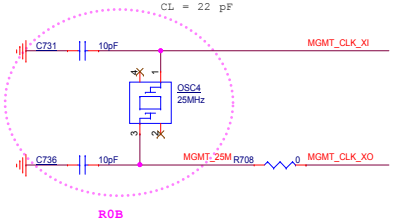


Accton Inc. Making Partnership Work		
Model Name	ES7632BT3-0417-168ZZ	Rev 01
Size C	Page Name Power Monitor/Mounting Holes	Engineer Gregory_Yu
Date: Wednesday, July 18, 2018	Sheet 42 of 49	









REFCLK_SEL [1:0]
00 = Select differential clock input
01 = Select single-ended CMOS
*10 = Select XTAL input
11 = Not allowed

INTERF_SEL [1:0]
00 = RGMII-Copper (Copper mode)
01 = RGMII-Fiber (Fiber mode)
*10 = SGMII-Copper (SGMII mode)
11 = Serdes-Copper (Media Converter mode)

RGMII_SEL[1:0]
00 = Reserved
01 = RGMII (2.5V)
10 = RGMII (1.8V)
*11 = RGMII (3.3V)

CLKSEL 125
*0 = 25MHz input reference clock
1 = 125MHz input reference clock

X'TAL Cap Load = CL/2 + stray-capacity(3~5pF)
16 = CL/2 + 5
CL = 22 pF

POR Config (LED lup)
LED1 High >> Copper AN enable
LED2 High >> Full-duplex
LED3 High >> AN at 10/100/1000BASE-T
LED4 High >> AN at 10/100/1000BASE-T

Config LED Pin as below
LED1 /LINKSP[1]
LED2 /LINKSP[2]
LED3 /ACTIVITY
LED4 /INTR

Power Name	Volt	Description
DVDD	1.2V	for digital core
OVDD	3.3V	for non RGMII pads
OVDD_RGMII	3.3V	In SGMII mode, 2.5V or 3.3V should be provided
AVDDL	1.2V	for analog core
AVDD	3.3V	for analog core
PLLVDD	1.2V	PLL supply
BIASVDD	3.3V	Bias VDD
TXVDD	1.2V	transmitter and receiver of the SerDes
SPLLVDD	1.2V	to the SerDer PLL
PLLAVDD33	3.3V	to the reference clock of SerDes PLL

Accton Inc.
Making Partnership Work

Model Name	ES7632BT3-0417-168ZZ	Rev 01
Size C	Page Name PHY_BCM54616S	Engineer Gregory_Yu
Date: Wednesday, July 18, 2018	Sheet 43 of 49	

I2C detect LM75 of CPU Board

SGMII CPU to MGMT

SGMII MGMT to CPU

MDC/MDIO CPU to MGMT

1PPS MAC to CPU
CPLD23_INT CPU_CPLD to CPU
1PPS CPLD to CPU

I2C1 CPU to PCA9548 and PCA9548*4 for transceivers

CPU_TDI:CPU Output
UART CPU to RS232

MAC_INT_L CPLD to CPU (Reserved)

PCIE Gen2 X4

R0B

XFI CPU to MAC

XFI MAC to CPU

XFI MAC to CPU

XFI CPU to MAC

CPU_XFI_EC_RX need to add 0.uF AC-Coupling and close to CPU side

USB CPU to USB HUB

UCD9090_ALERT_L CPU to CPLD (Reserved)

RESET CPU to CPLD1

CPU_JTAG_RST CPU to CPLD (Reserved)

CPU_TDO:CPU Input

1588 CPU to MAC

SYS_CPLD_INT CPU_CPLD to CPU
USBI_PWRFAULT USB Current Limit to CPU
Manu_RST CPLD1 to CPU

I2C0 CPU to CPLD123
RESET MAC CPU to CPLD (Reserved)
CPU_THERMALTRIP CPU to CPLD (Reserved)
USBI_VBUS CPU to USB Current Limit

CPU_TDO:CPU Input
CPU_TDI:CPU Output

I2C Address : 1110 AD2 AD1 AD0 :1110001 7Bit=>0X71

7bit I2C address : 0x71

I2C Address : 1110 AD2 AD1 AD0 :1110110 7Bit=>0X76

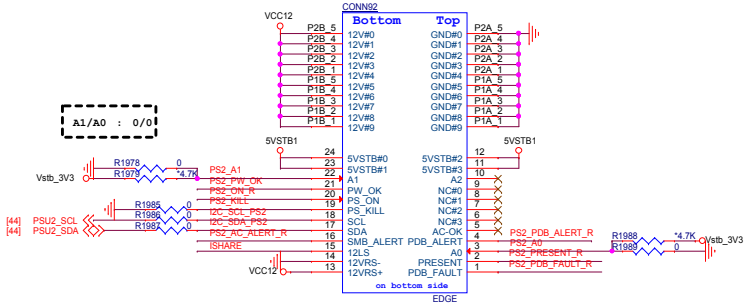
7bit I2C address : 0x76

I2C Address : 1010 A2 A1 A0 :1010111 7Bit=>0X57

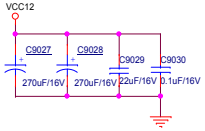
7bit I2C address : 0x57

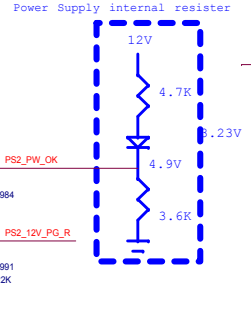
Accton Inc. Making Partnership Work			
Model Name	ES7632BT3-0417-168ZZ		Rev 01
Size C	Page Name CONN to CPU Board	Engineer Gregory_Yu	
Date: Wednesday, July 18, 2018		Sheet 44 of 49	

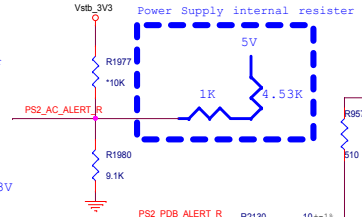
Power Module CONN

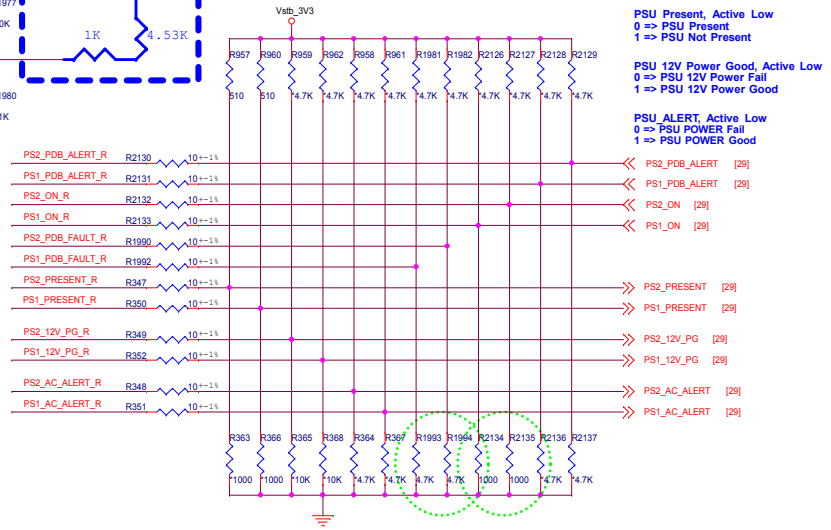


PSU2 7bit I2C address : 0x58;EEPROM:0x50









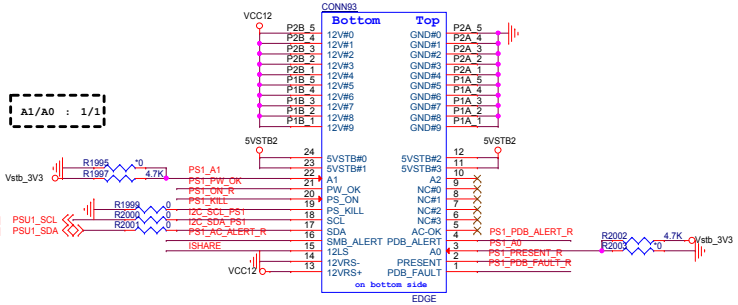
PSU_PBD_FAULT, Active Low
0 => PSU POWER Operate
1 => PSU POWER Shut Down

PSU_Present, Active Low
0 => PSU Present
1 => PSU Not Present

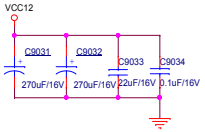
PSU_12V Power Good, Active Low
0 => PSU 12V Power Fail
1 => PSU 12V Power Good

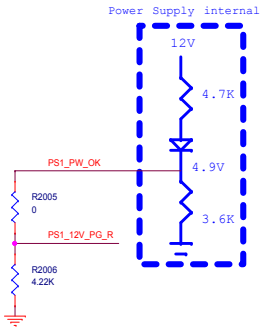
PSU_ALERT, Active Low
0 => PSU POWER Fail
1 => PSU POWER Good

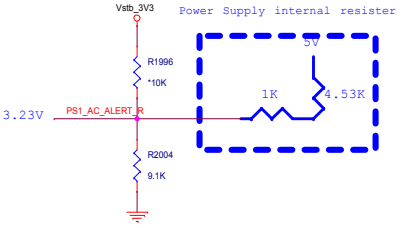
Pin Name	Description
PS On	0 : 12V output
	1 : 12V not output
PS 12V OK	1 : 12V output Good
	0 : 12V output fail
PS ALERT	1 : OK
	0 : Alert to system
PS Present	0 : Present
	1 : Not present

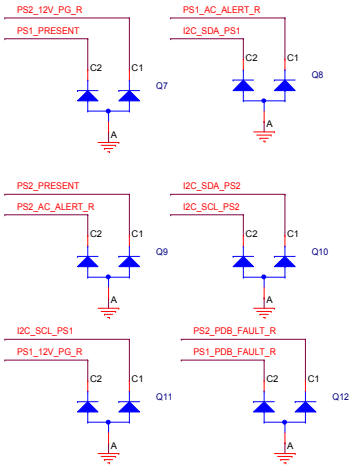


PSU1 7bit I2C address : 0x5B;EEPROM:0x53

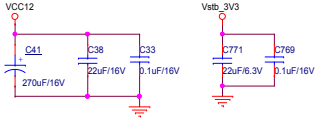


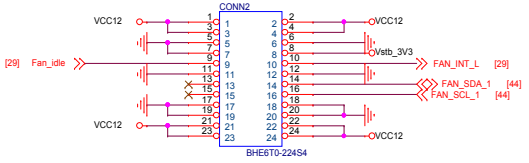






Fan Board CONN





Accton Inc.
Making Partnership Work

Model Name	Rev
ES7632BT3-0417-168ZZ	01

Size	Page Name	Engineer
C	CONN to Power Module/Fan	Gregory_Yu

Date: Wednesday, July 18, 2018 Sheet 45 of 49

UART <==> CPU CONN

Console:Lower Port

Management: Upper Port

R0B

R0B-1

For EMI

For ESD
GND & Chassis not overlapped

Upper Port

Lower Port

I2C slave

I2C address
: 0x18

VCC2V5

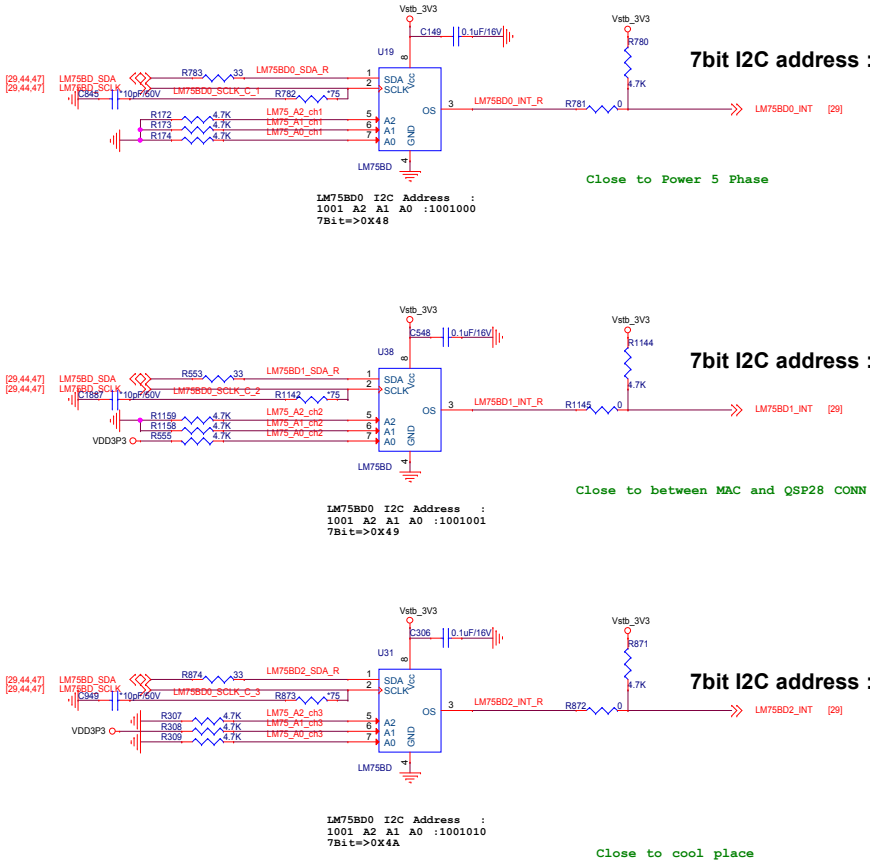
Accton Inc.
Making Partnership Work

Model Name	Rev
ES7632BT3-0417-168ZZ	01

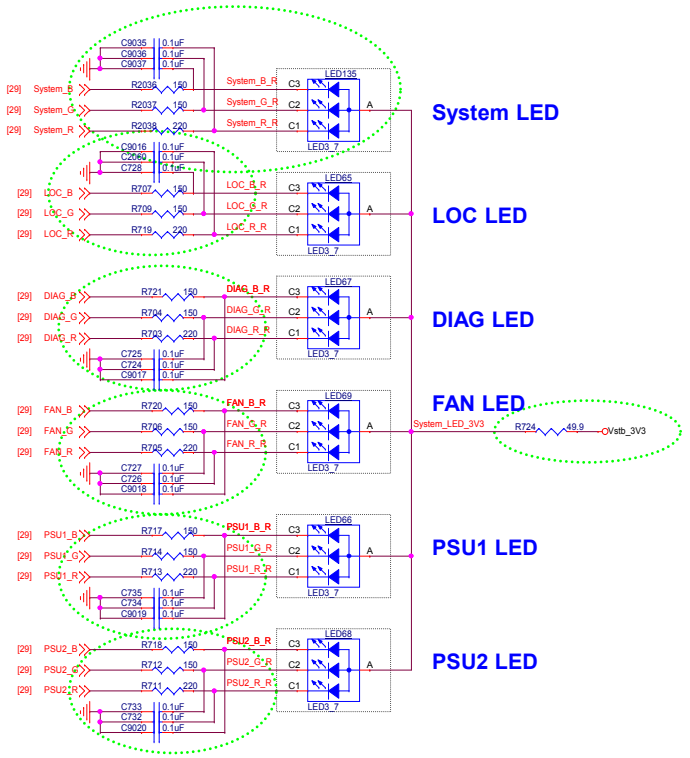
Size	Page Name	Engineer
C	Console/MGMT/SFP+ CONN	Gregory_Yu

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Thermal sensor

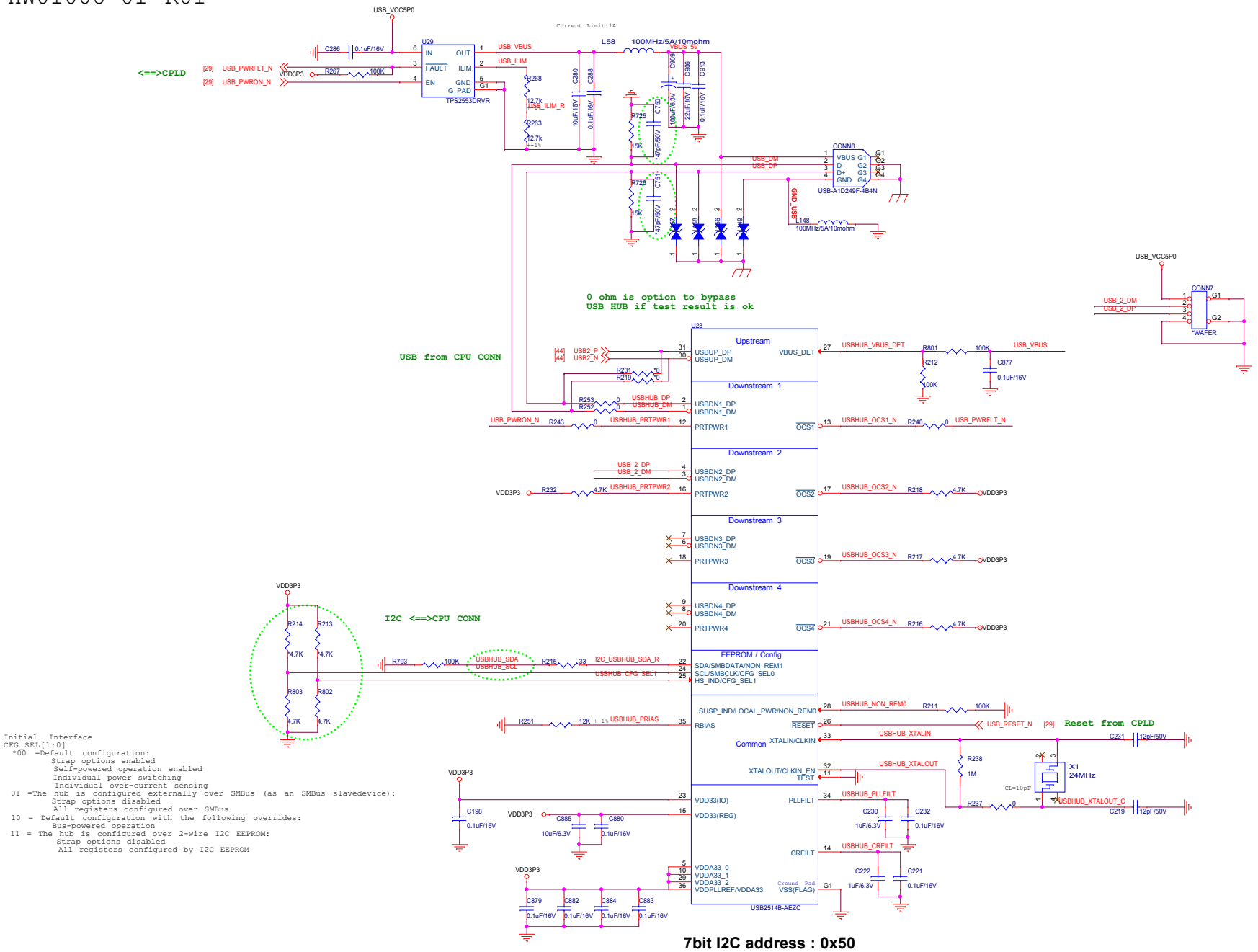


System LED



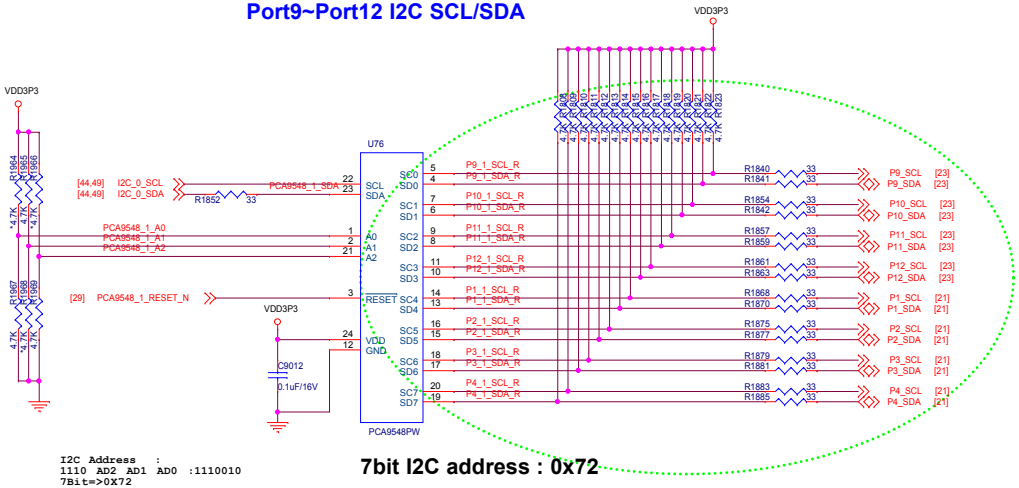
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Model Name	ES7632BT3-0417-168ZZ	Rev 01
Size C	Page Name Thermal Sensor/SYS LED	Engineer Fajung_Liu
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Model Name: ES7632BT3-0417-168ZZ			Rev: 01
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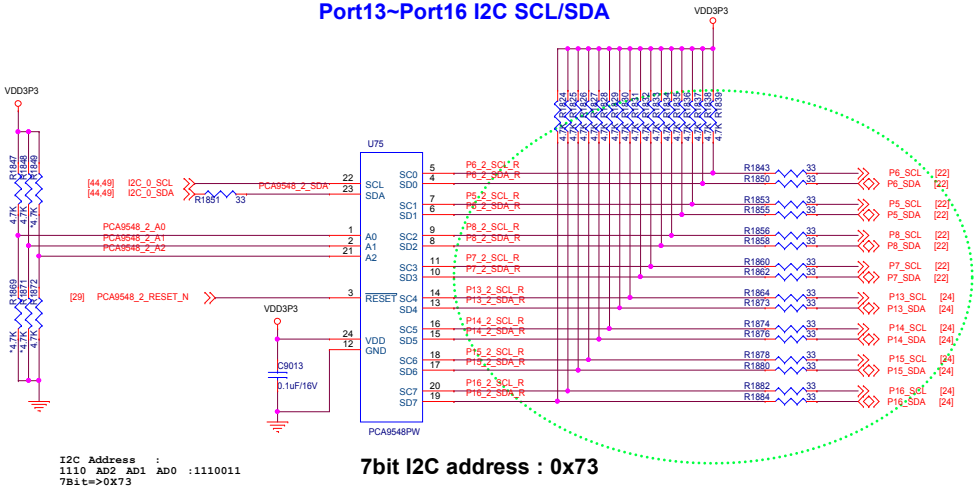
Port1~Port4
Port9~Port12 I2C SCL/SDA



I2C Address :
1110 AD2 AD1 AD0 :1110010
7Bit=>0X72

7bit I2C address : 0x72

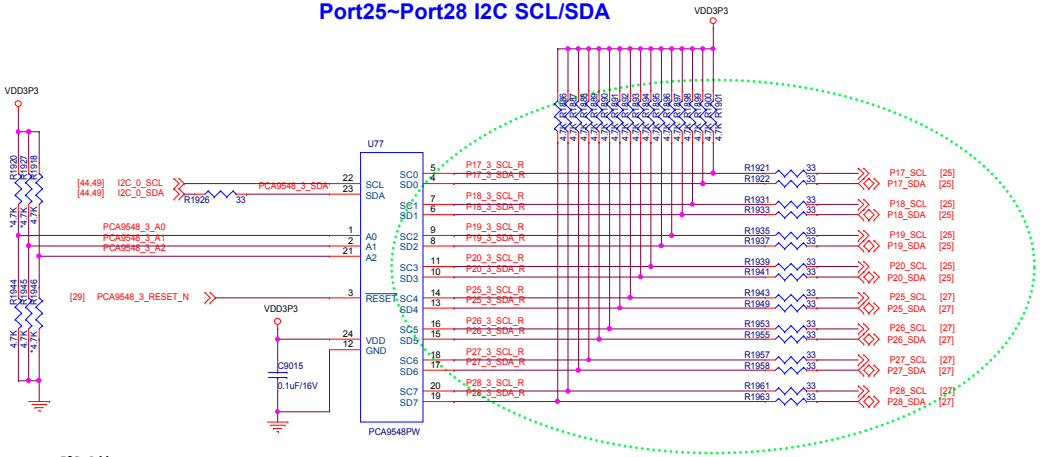
Port5~Port8
Port13~Port16 I2C SCL/SDA



I2C Address :
1110 AD2 AD1 AD0 :1110011
7Bit=>0X73

7bit I2C address : 0x73

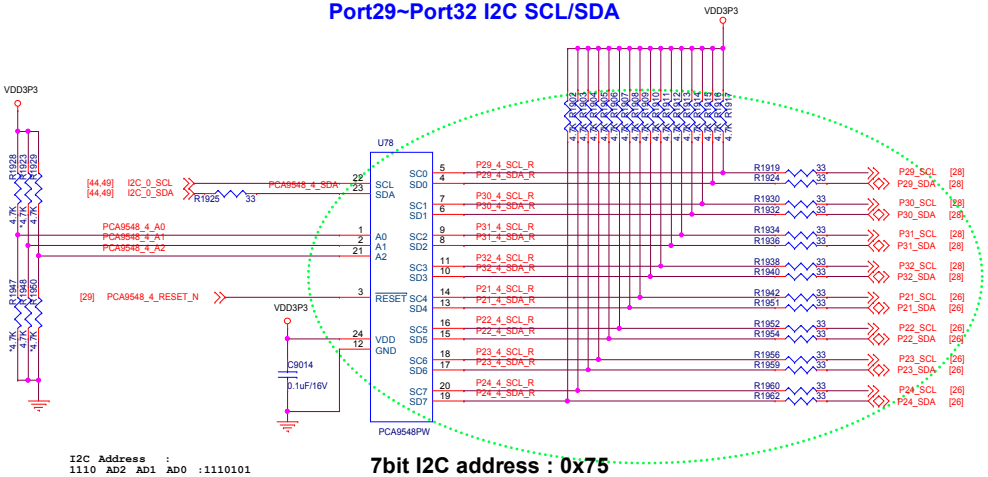
Port17~Port20
Port25~Port28 I2C SCL/SDA



I2C Address :
1110 AD2 AD1 AD0 :1110100
7Bit=>0X74

7bit I2C address : 0x74

Port21~Port24
Port29~Port32 I2C SCL/SDA



I2C Address :
1110 AD2 AD1 AD0 :1110101
7Bit=>0X75

7bit I2C address : 0x75

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