SL.No	TITLE	PAGE NO		SL.No	TITLE	PAGE NO
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2	Clock Circuits, Reset	Page11-Page13		23	BMC DDR	Page57
3	BCM56960 Contol Interface	Page14		24	BMC Strapping and Temp Sensor	Page58
4	BCM56960 PORTS	Page15-Page16		25	BMC signal isolation buffer	Page59
5	BCM56960 Clocks & RX_LOSS, JTAG	Page17		26	USB HUB	Page60
6	BCM56960 Test Clocks, Strapping	Page18		27	USB I2C Bridge	Page61
7	BCM56960Gnd	Page19-Page20		28	GE Switch	Page62
8	BCM56960 Core power	Page21		29	BMC PHY	Page63
9	BCM56960 PLL power	Page22		30	FRONT PANEL PHY	Page64
10	BCM56960 RX & TX power	Page23		31	CPLD	Page65
11	BCM56960 RX & TX & PLL filters	Page24-Page26		32	BOARD ID & EEPROMS	Page66
12	P/S 1.0V Core switching supply	Page27-Page28		33	STANDBY POWER	Page67-Page68
13	P/S 1.0V analog switching supply	Page29-Page30		34	MAIN POWER CONNECTOR	Page69
14	P/S 3.3V switching supply	Page31-Page32		35	FRONT PANEL CONNECTORS	Page70
15	P/S 1.25V & 1.8V	Page33		36	RACKMON & FAN CONNECTOR	Page71
16	POWER MANAGER	Page34		36	HOT SWAP CKT	Page72
17	QSFP CONNECTORS 2X2	Page35-Page42		36	DPLL CONNECTOR	Page73
18	QSFP I2C & IO EXPANDERS	Page43-Page45		37	COM6	Page74-79
19	QSFP LEDS	Page46-Page49		38	M.2	Page80
20	QSFP LEDS CLOCK BUFFER &SHIFTR	Page50-Page51		39	MSATA	Page81
21	MICROSERVER CONNECTOR	Page52		40	COM PHY	Page82

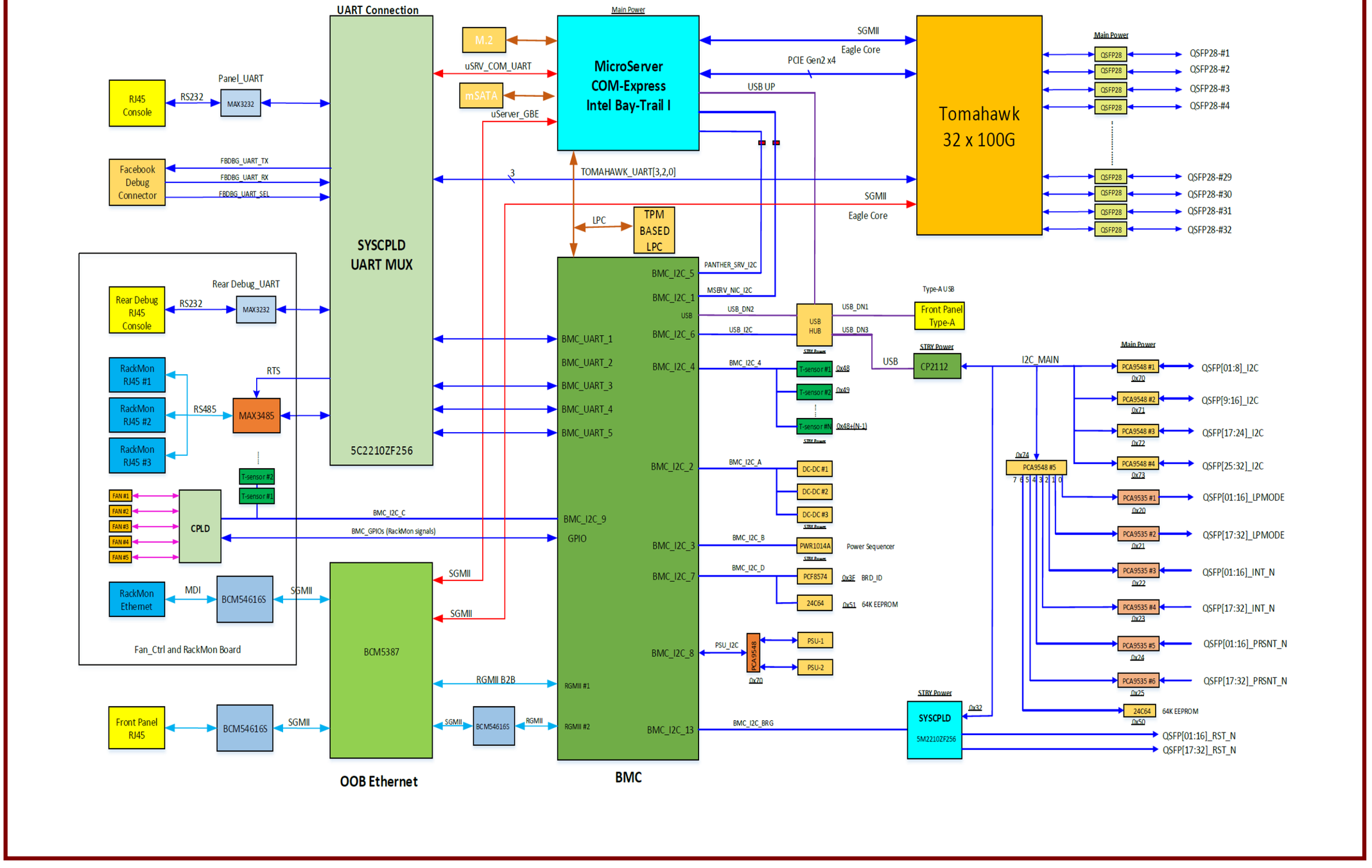
INDEX

FACEBOOK

Title: WEDGE100

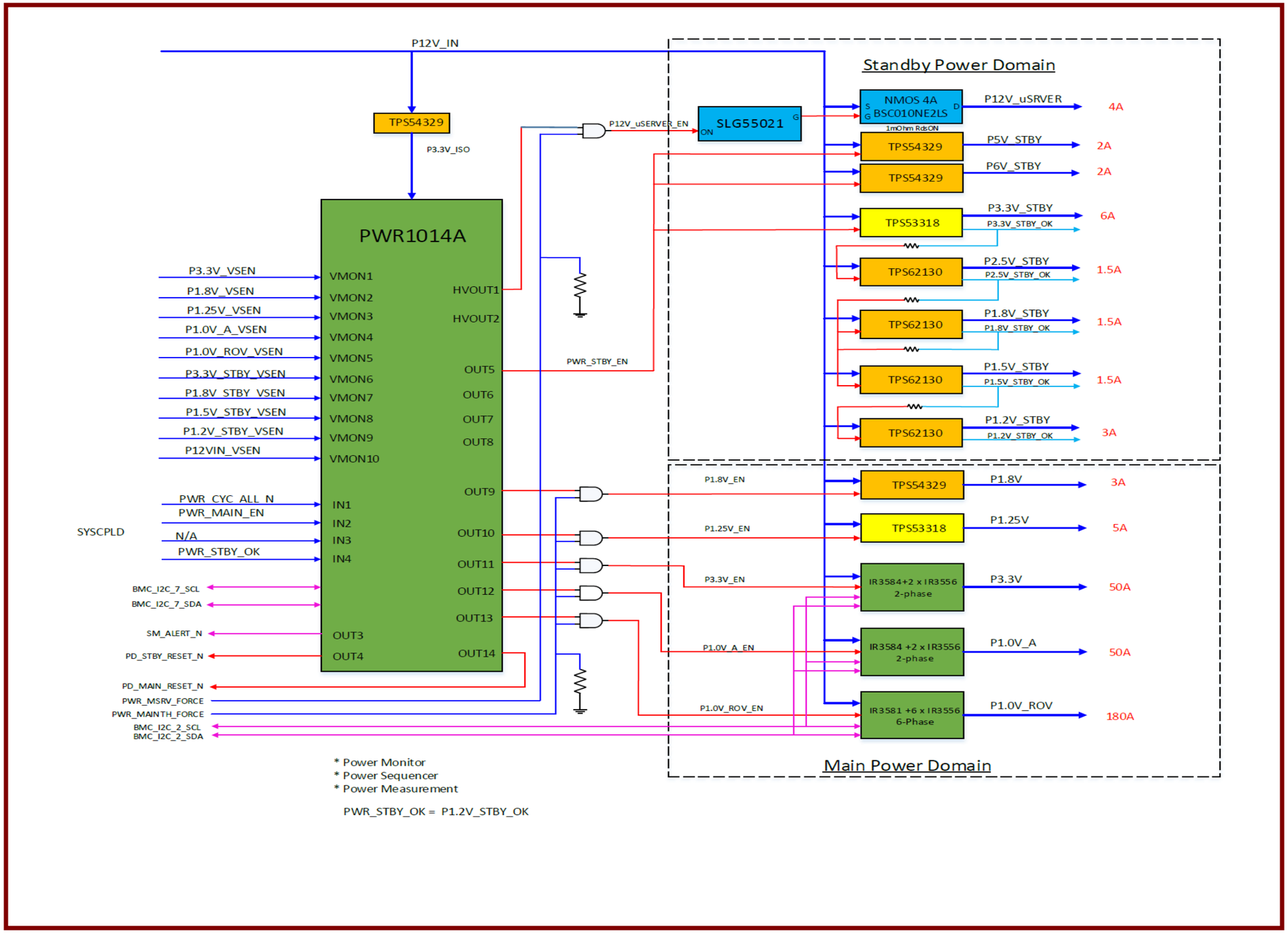
Size: C | Document Number: 137-000016-05 | Rev: 0.4

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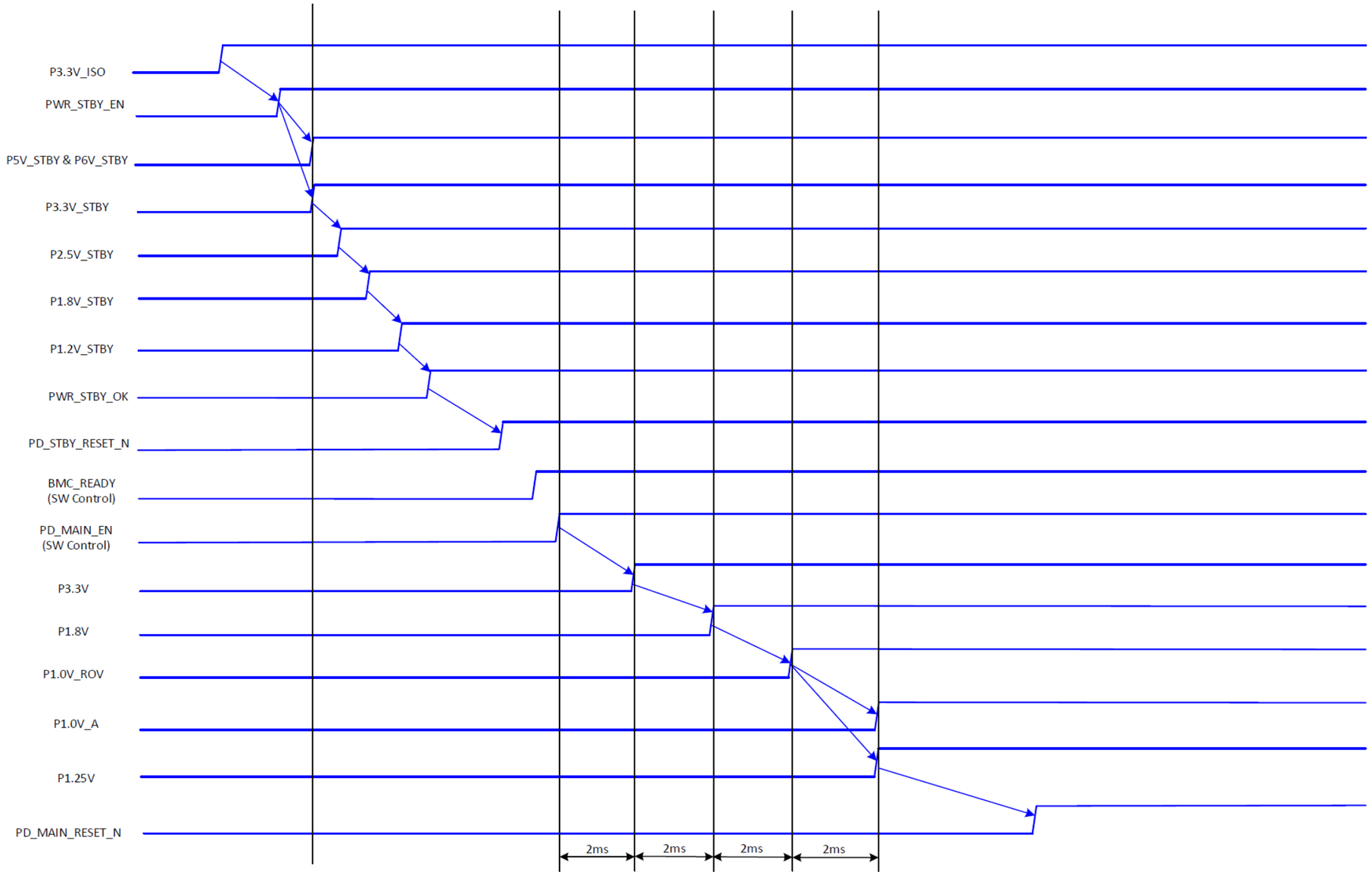
SYSTEM BLOCK DIAGRAM

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POWER BLOCK DIAGRAM

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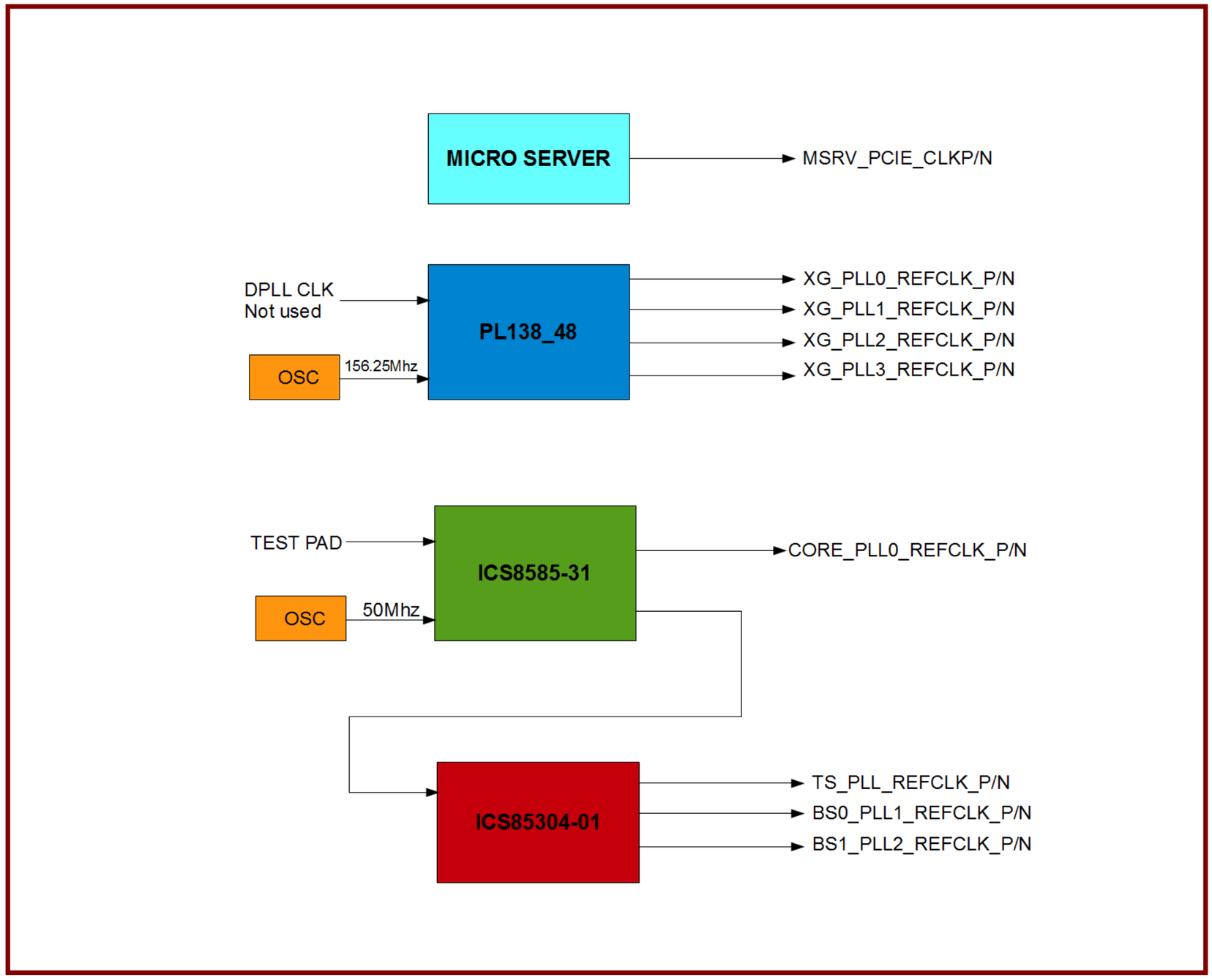
POWER SEQUENCING

FACEBOOK

Title: WEDGE100

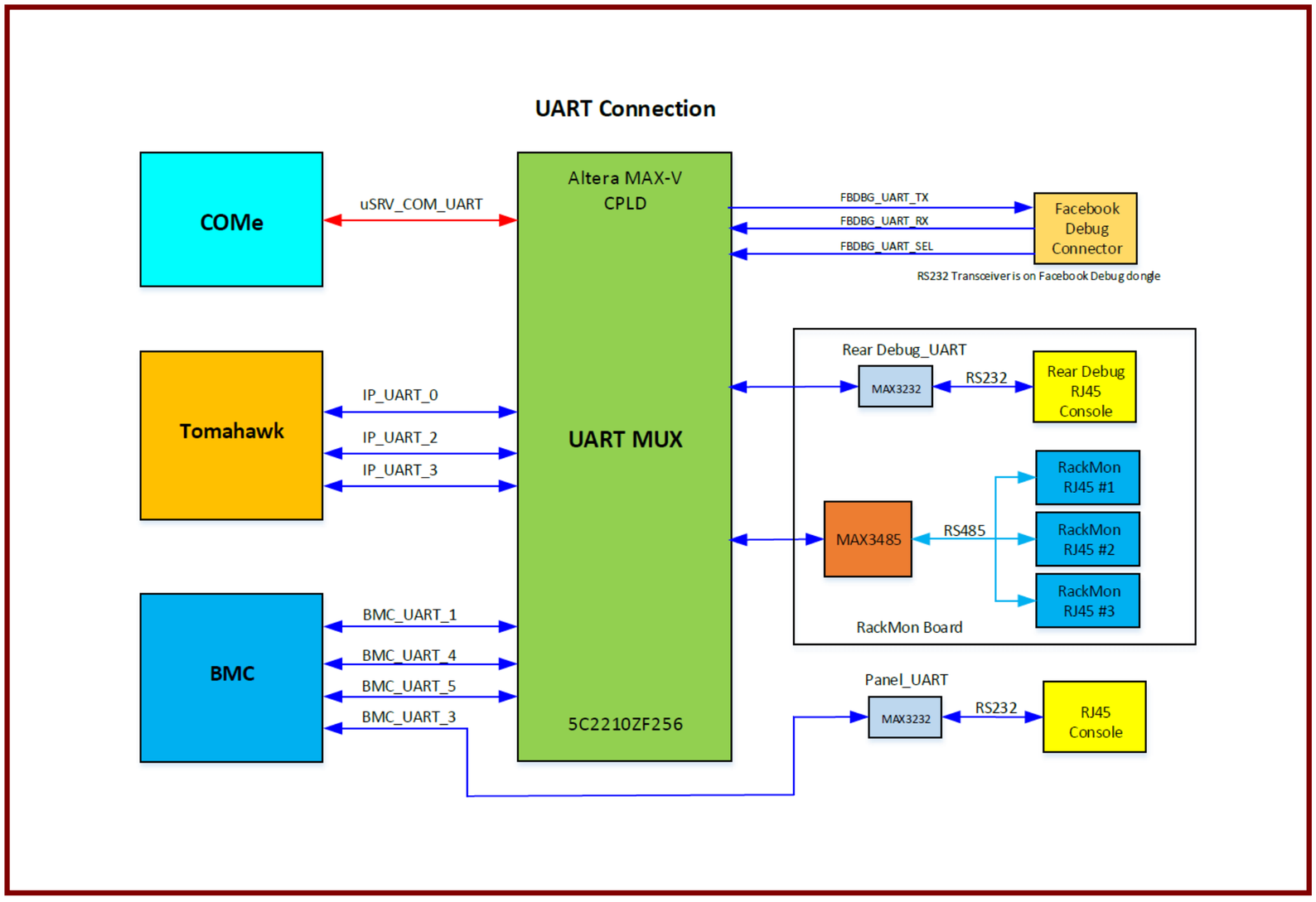
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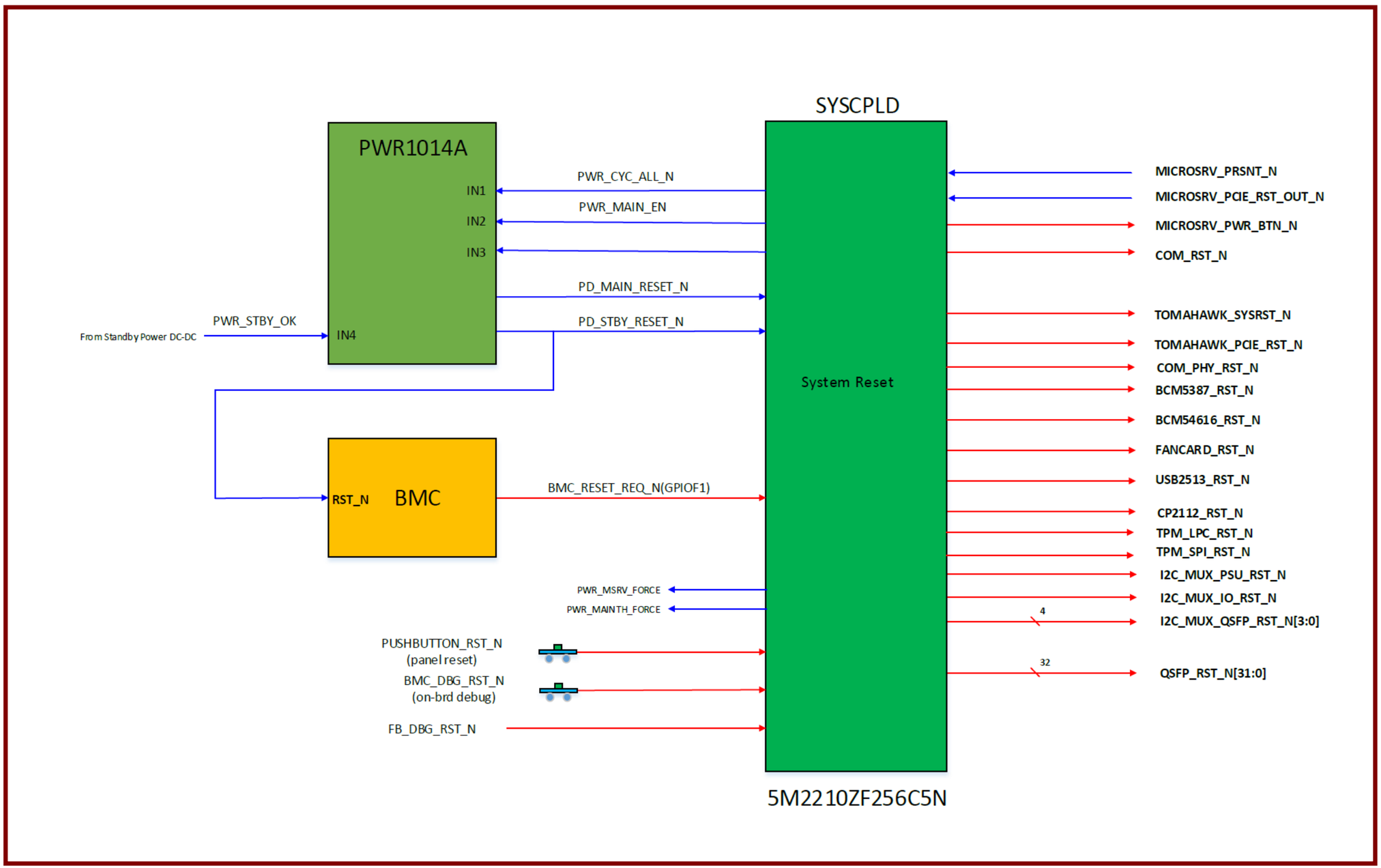
TH CLOCKS

FACEBOOK		
Title: WEDGE100		
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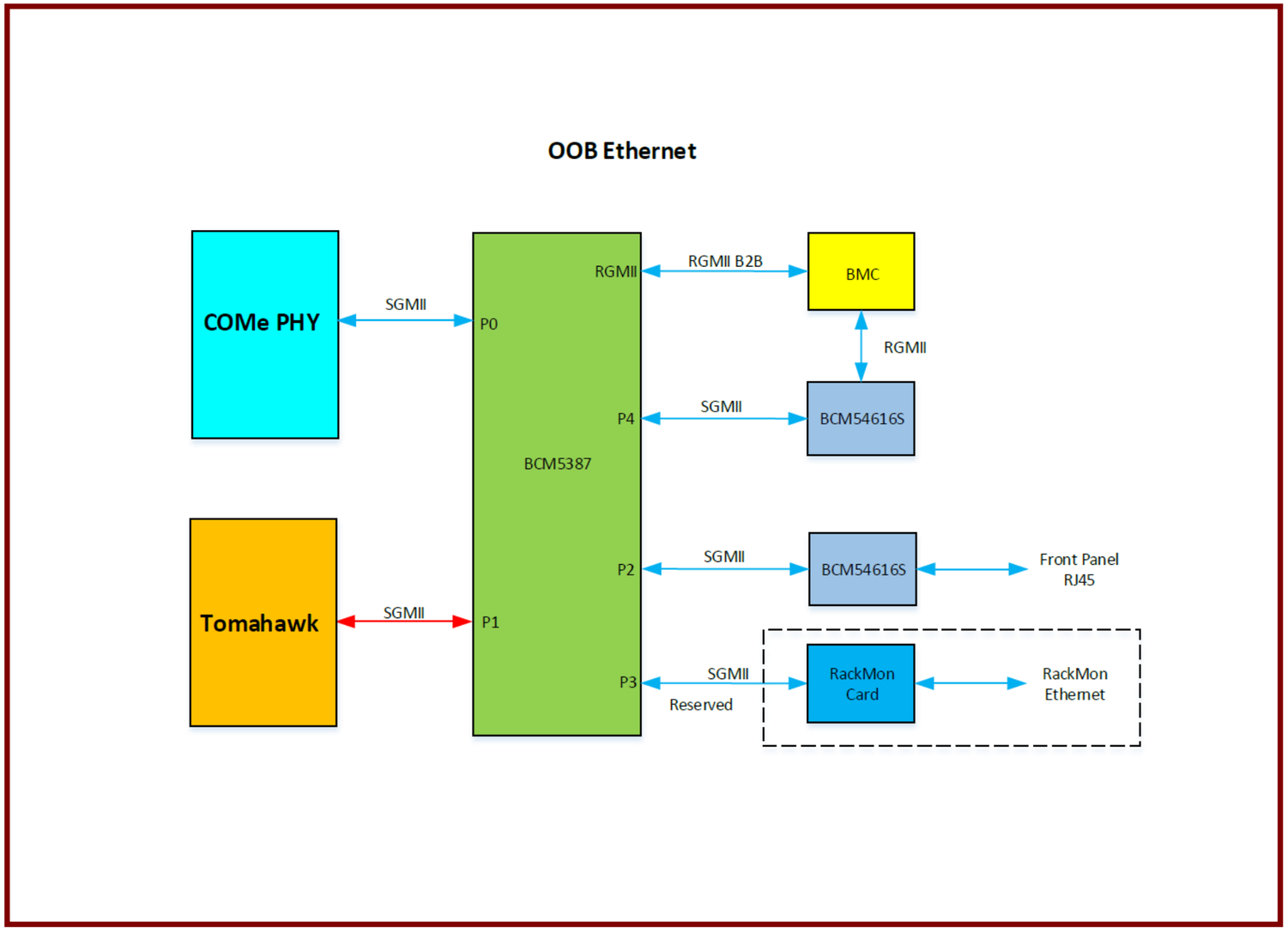
UART BLOCK DIAGRAM

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Size: C	Document Number: 137-000016-05	Rev: 0.4
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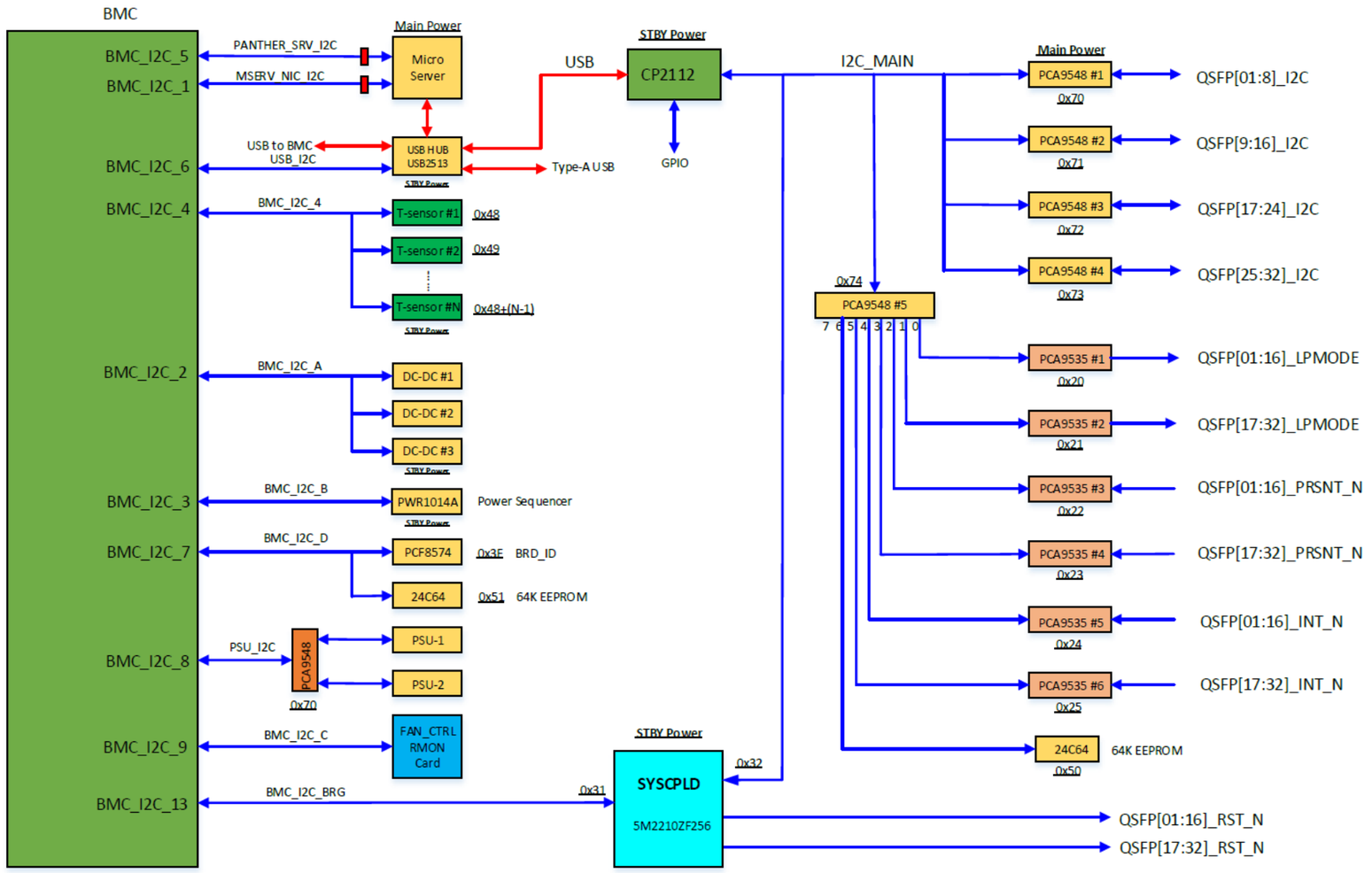
RESET BLOCK DIAGRAM

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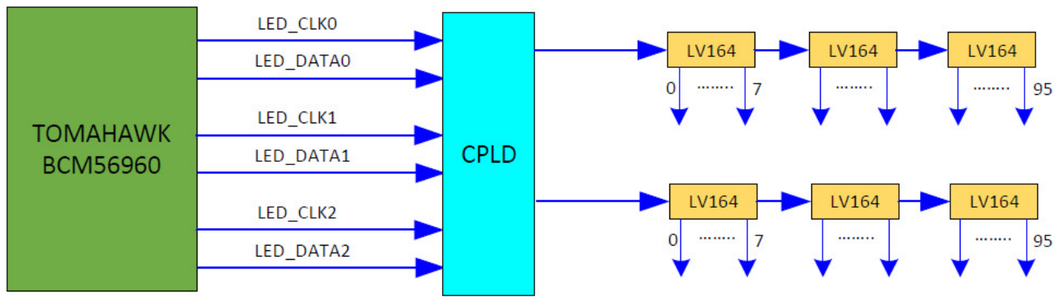
ETHERNET BLOCK DIAGRAM

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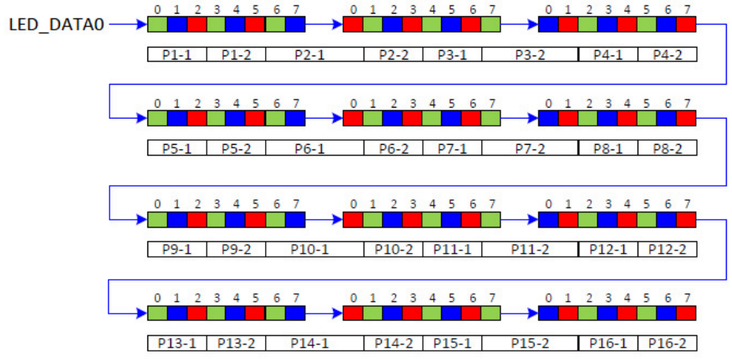
I2C BLOCK DIAGRAM

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LED Stream

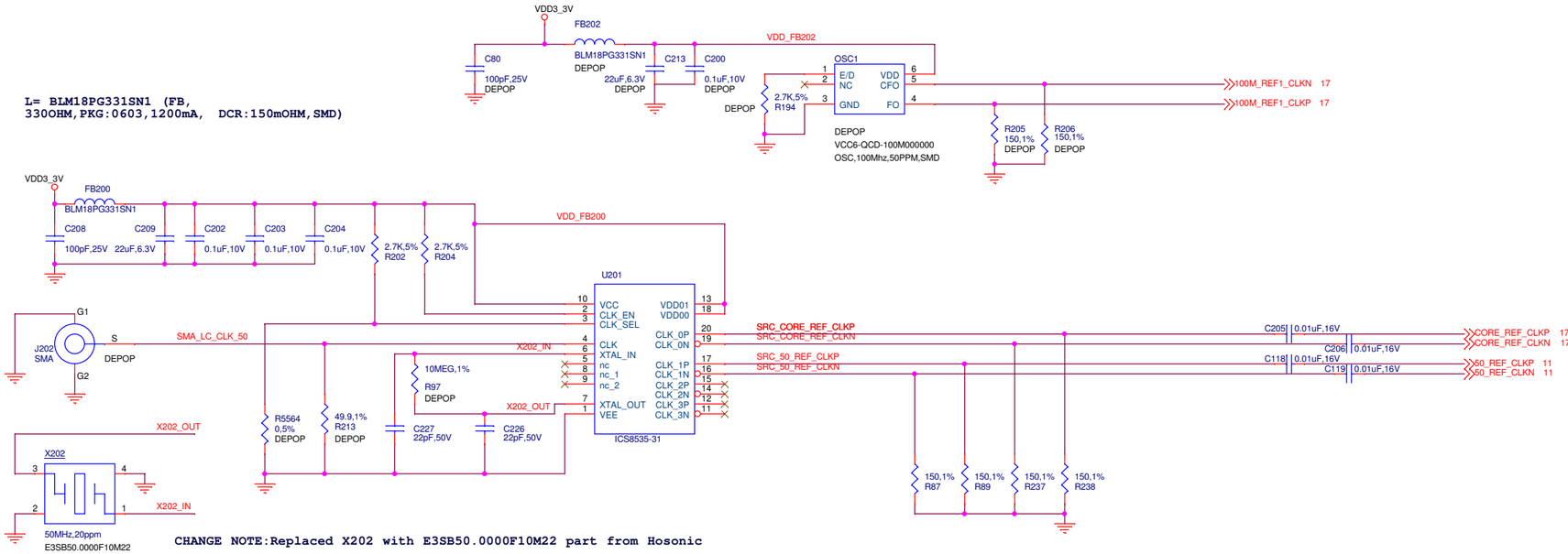
- Each QSFP28 Port has two Tri-Color LED
- 32x6=196 bits if using tri-color LED
- Totally 24 pcs of 74LV164
- Clock input of 74LV164 need buffer



NOTE: LED STREAM IS BASED ON TOMAHAWK PORT ORDER

LED BLOCK DIAGRAM

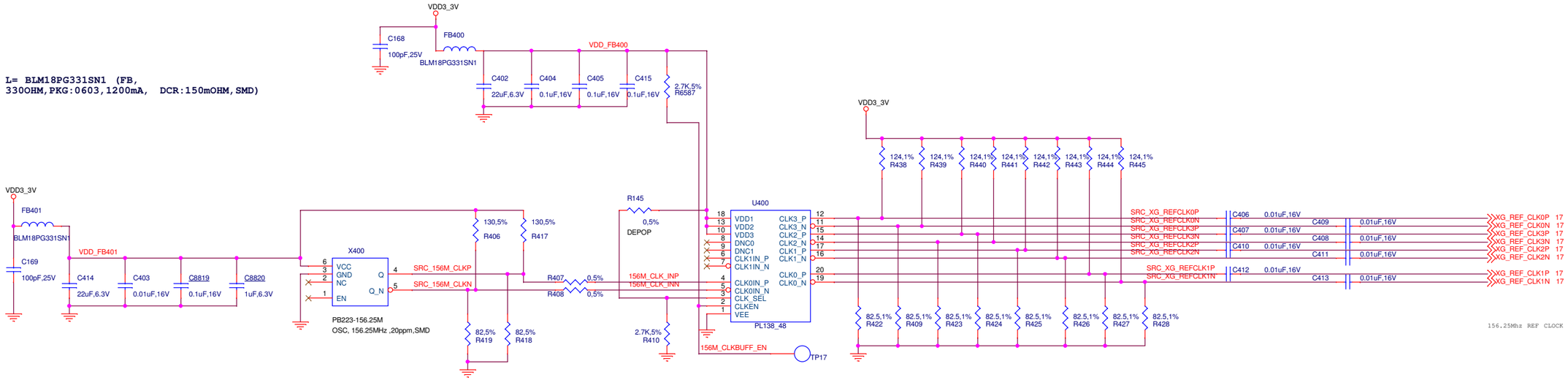
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TOMAHAWK-CLOCKS

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L= BLM18PG331SN1 (FB,
330OHM,PKG:0603,1200mA, DCR:150mOHM,SMD)



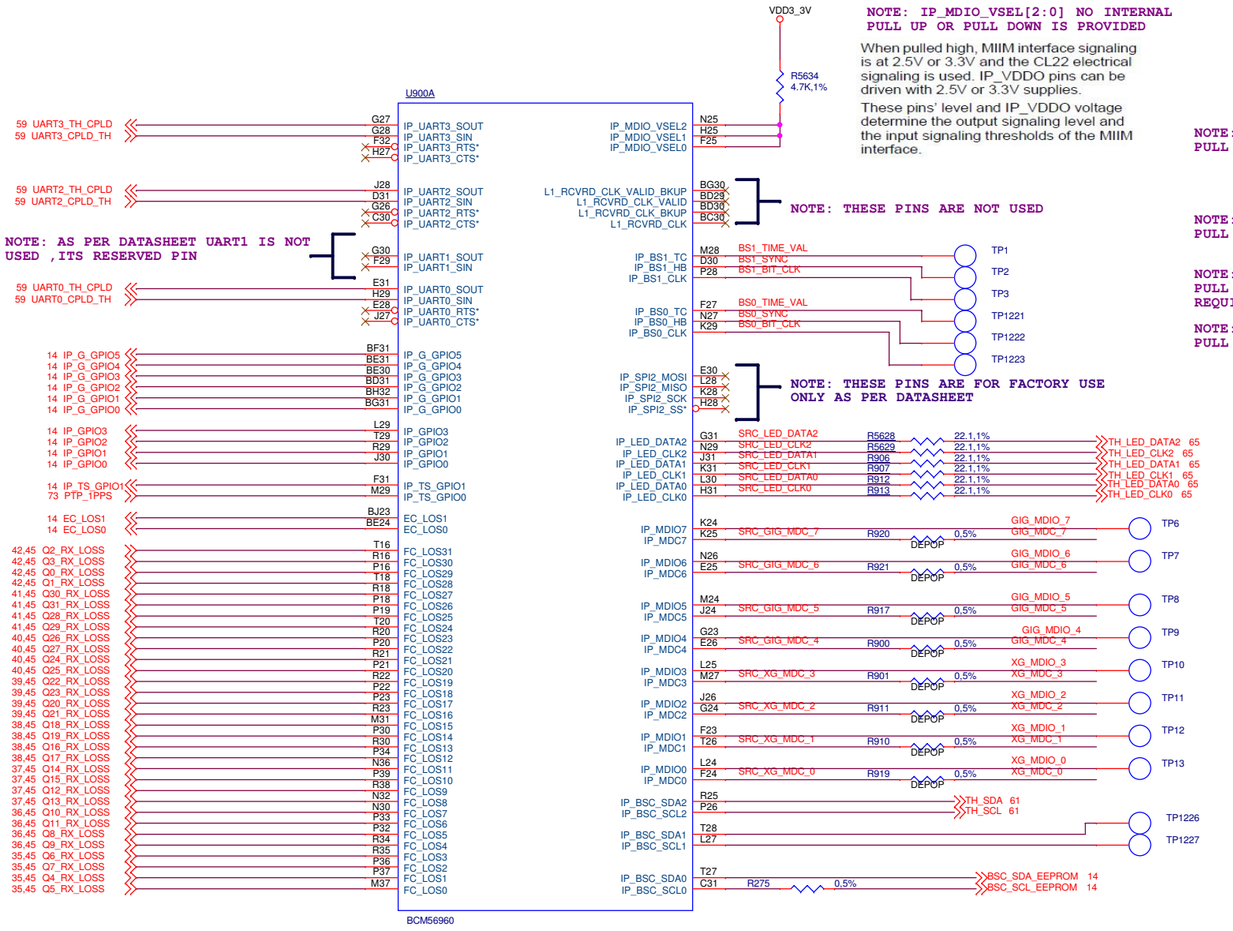
NOTE: AS PER DATASHEET OF PB223-156.25M ,OUTPUTS
ARE ENABLED WITH NO CONNECTION ON THE EN PAD

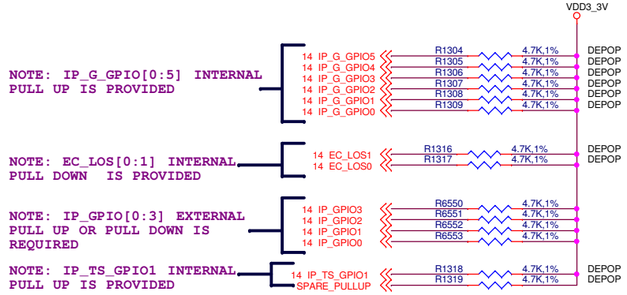
TOMAHAWK-CLOCKS

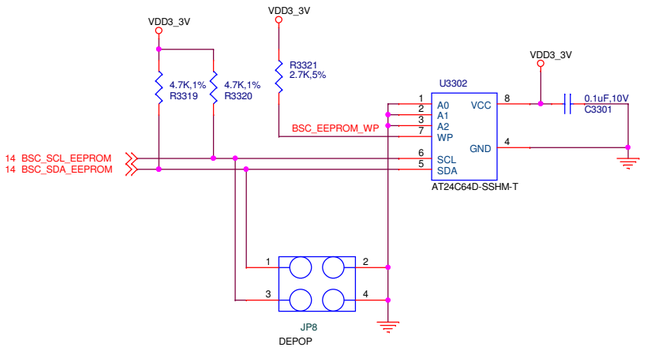
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FACEBOOK		
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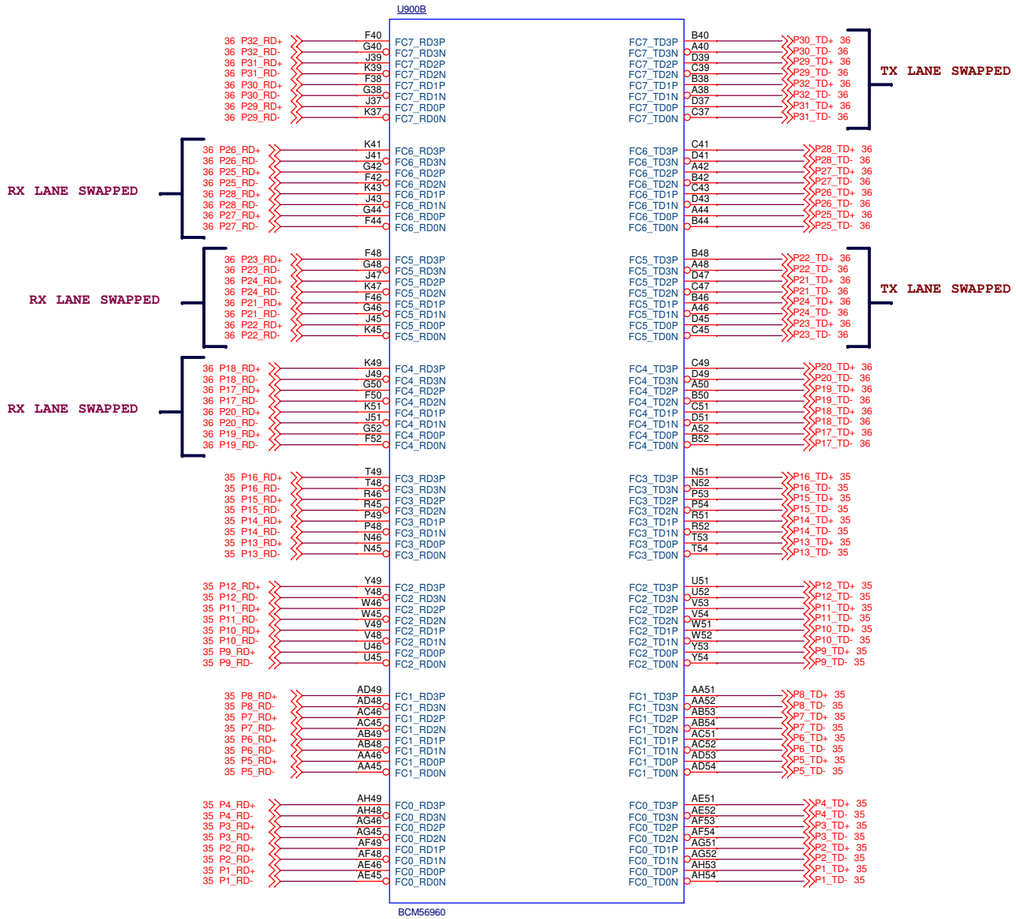


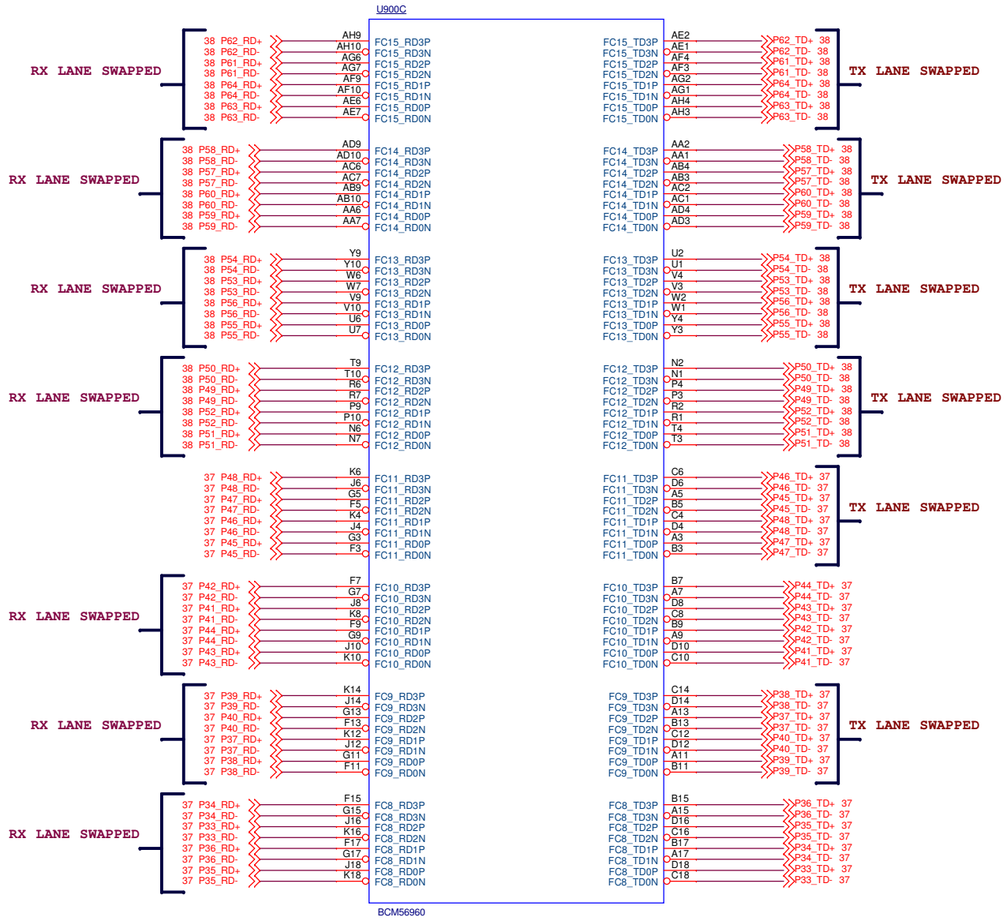
NOTE: THE IP MDC/MDIO[0:7] ARE MEANT FOR INTERFACE TO EXTERNAL PHY AS PER DATASHEET

TOMAHAWK-CONTROL INTERFACE

Title	FACEBOOK	
	WEDGE100	
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SWAPPING IS DONE ON TX/RX LANE FOR EASE OF ROUTING

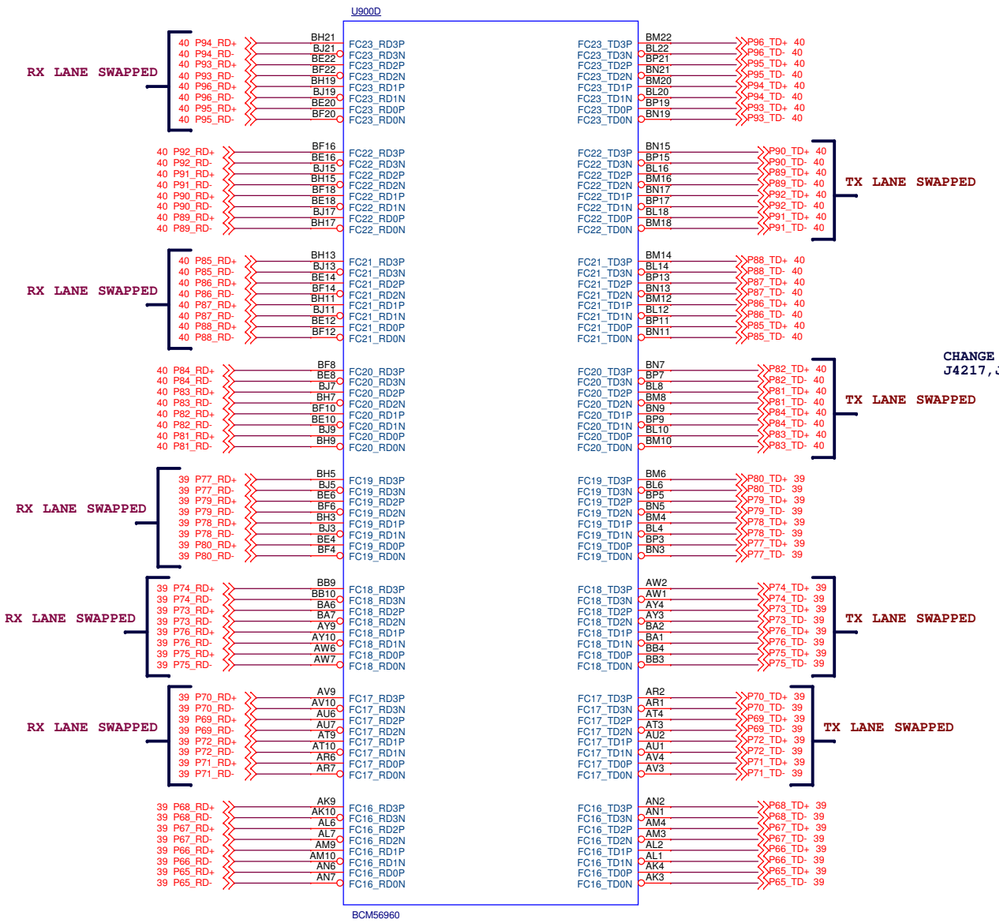


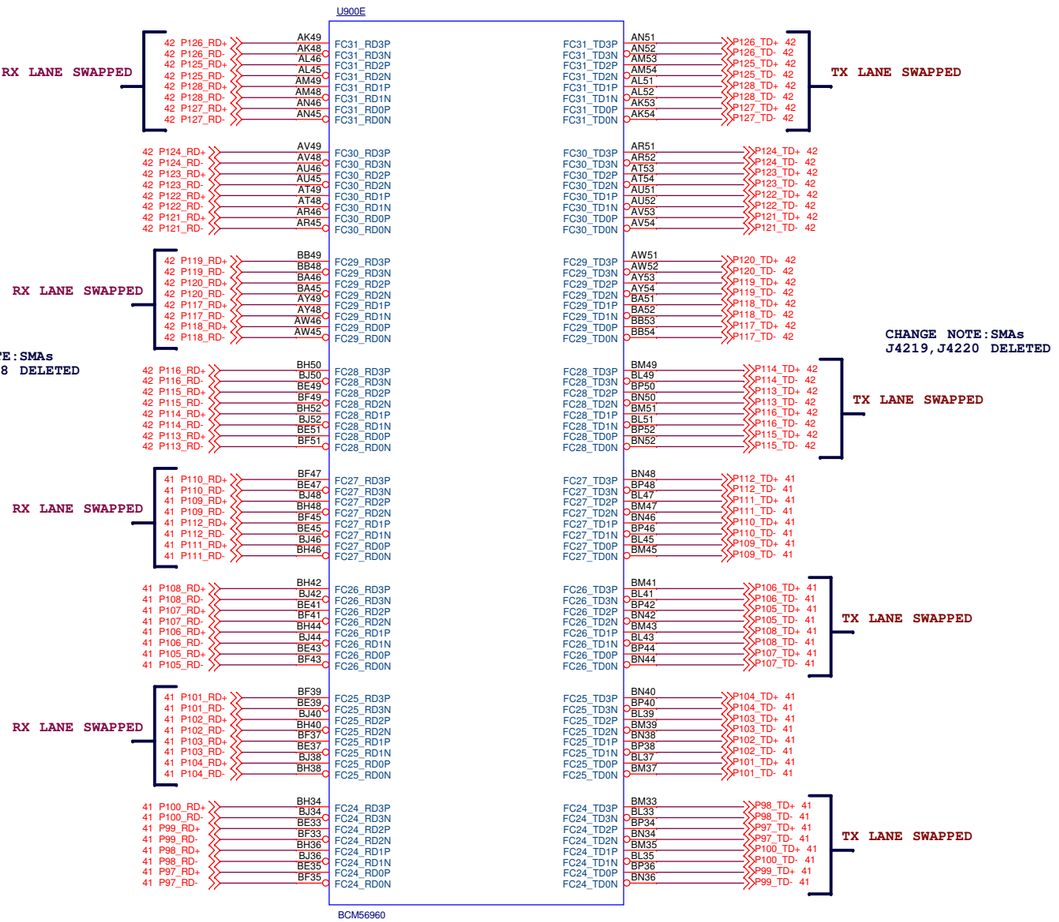


TOMAHAWK-PORTS

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	WEDGE100	
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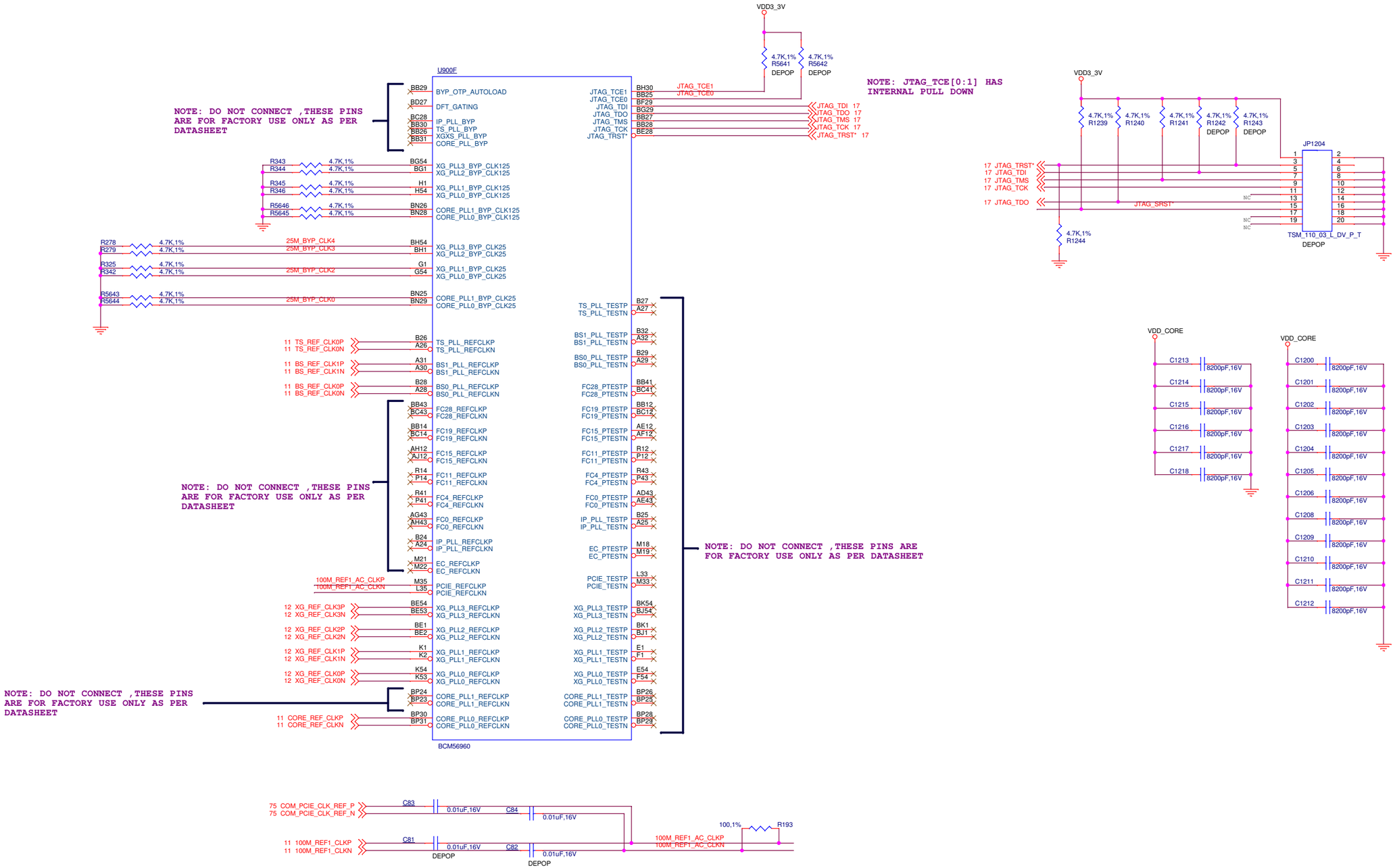
SWAPPING IS DONE ON TX/RX LANE FOR EASE OF ROUTING





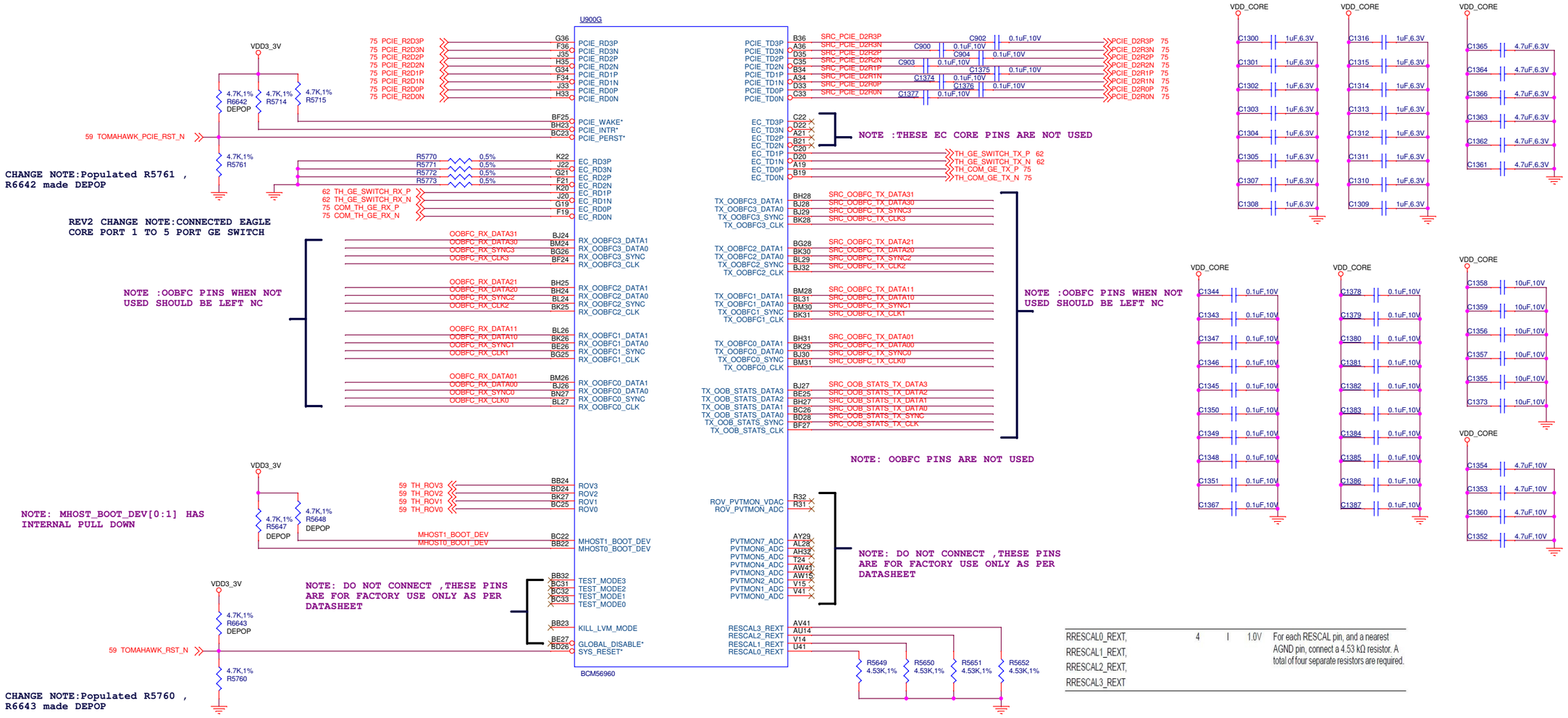
TOMAHAWK-PORTS

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TOMAHAWK-CLOCKS&JTAG

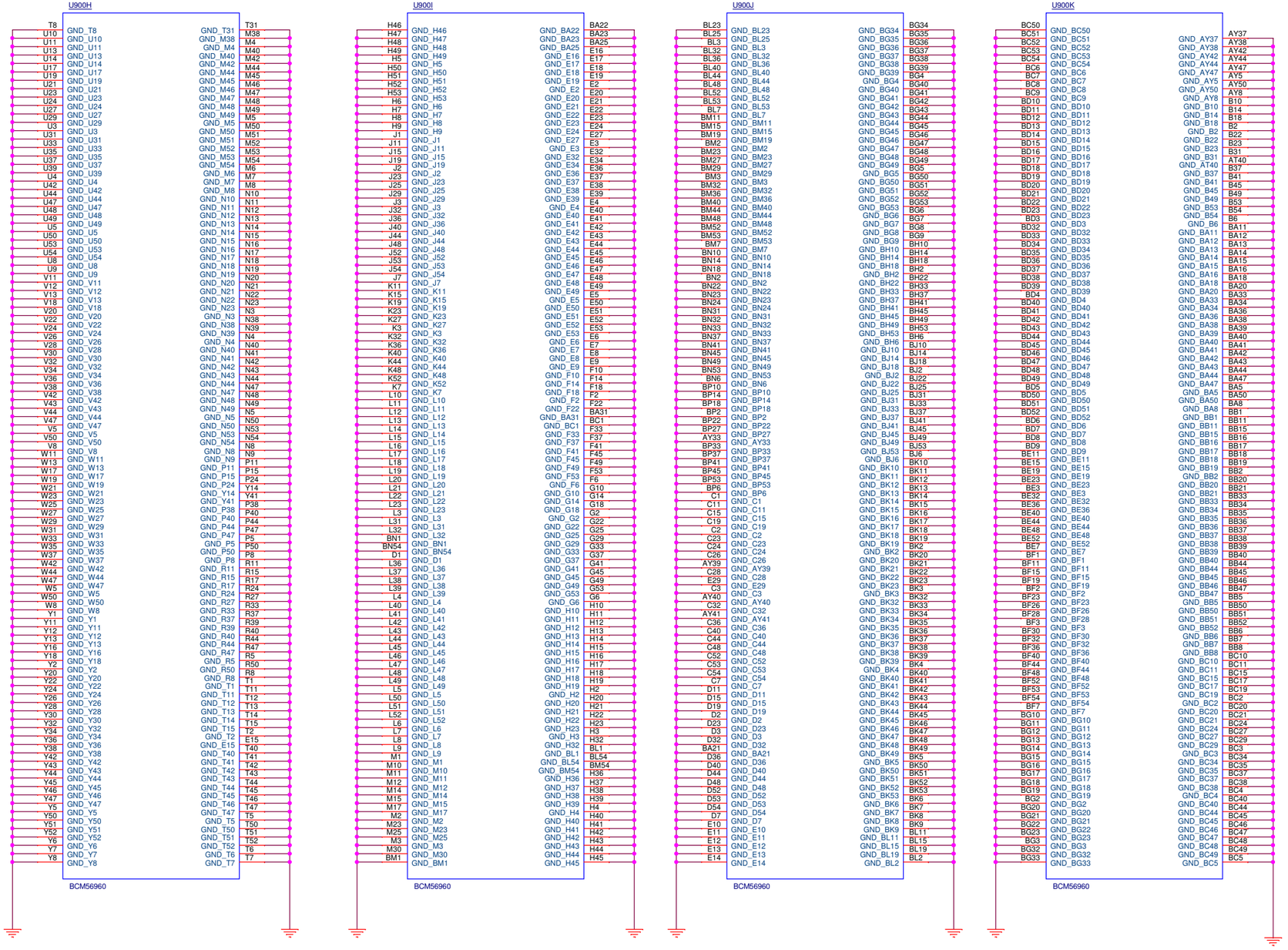
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RRESCAL0_REXT, RRESCAL1_REXT, RRESCAL2_REXT, RRESCAL3_REXT	4	I	1.0V	For each RESCAL pin, and a nearest AGND pin, connect a 4.53 kΩ resistor. A total of four separate resistors are required.

TOMAHAWK-TESTCLOCKS& STRAPPING

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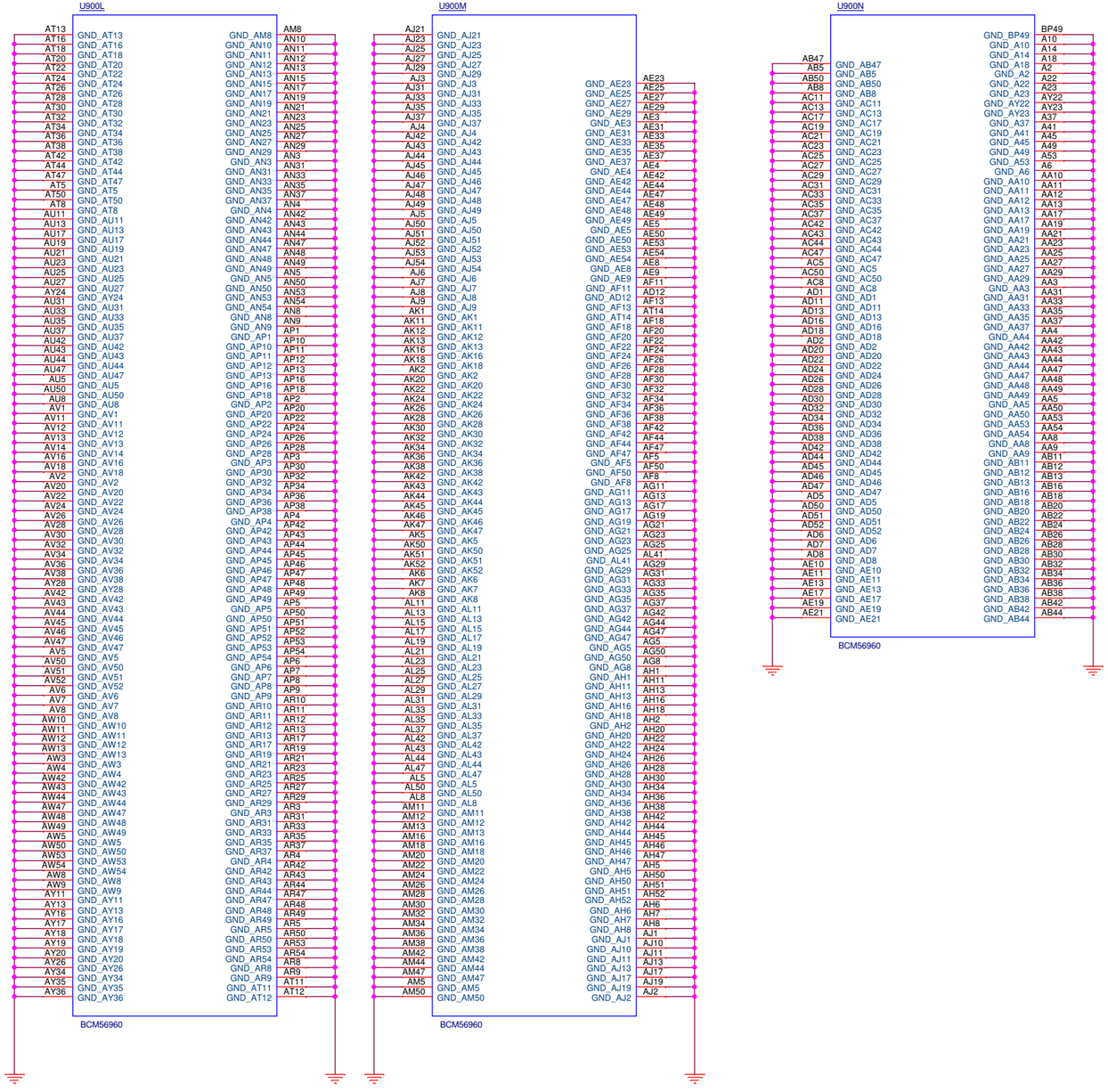
TOMAHAWK-GND&DECAPS

FACEBOOK

Title: WEDGE100

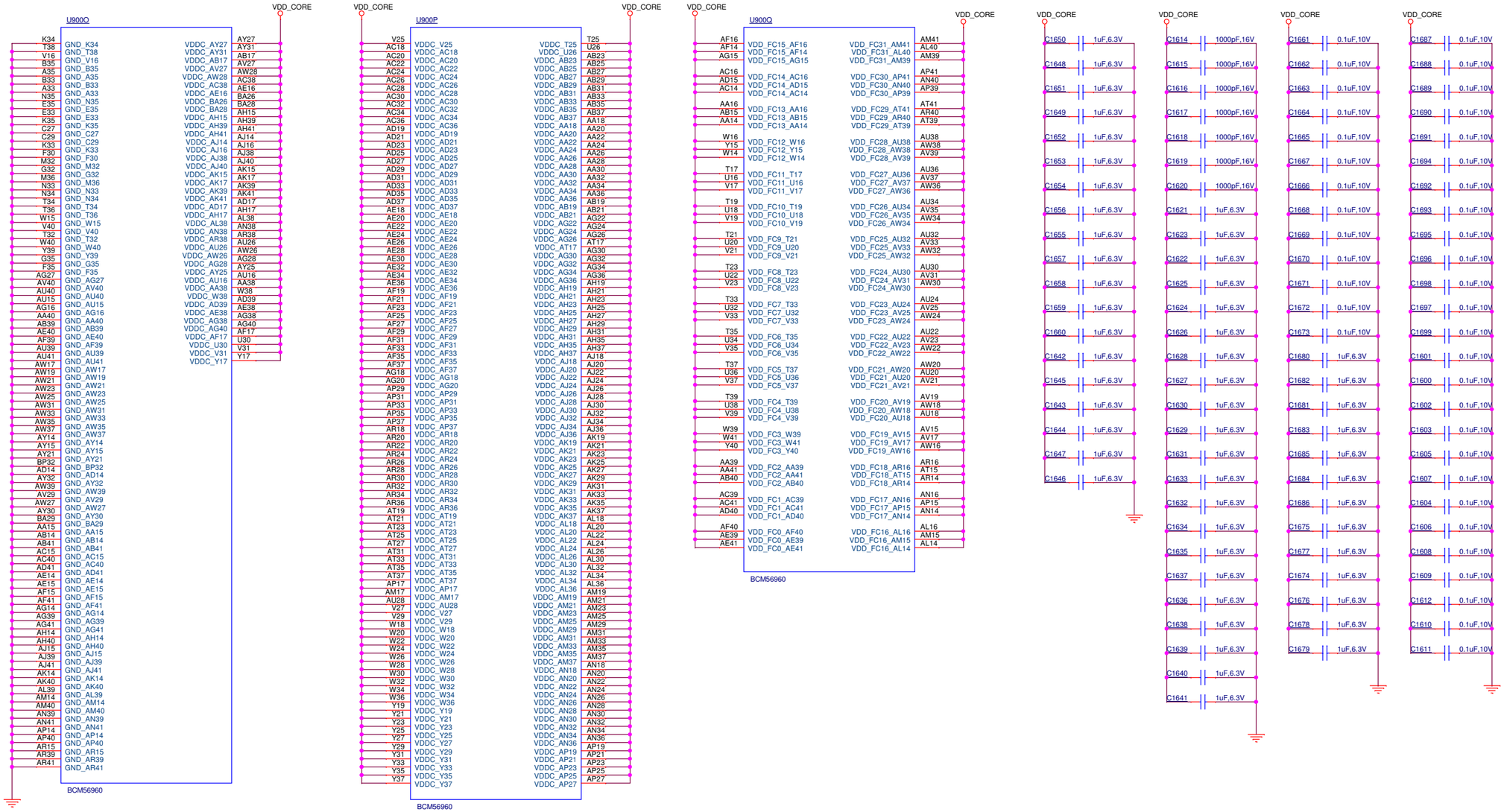
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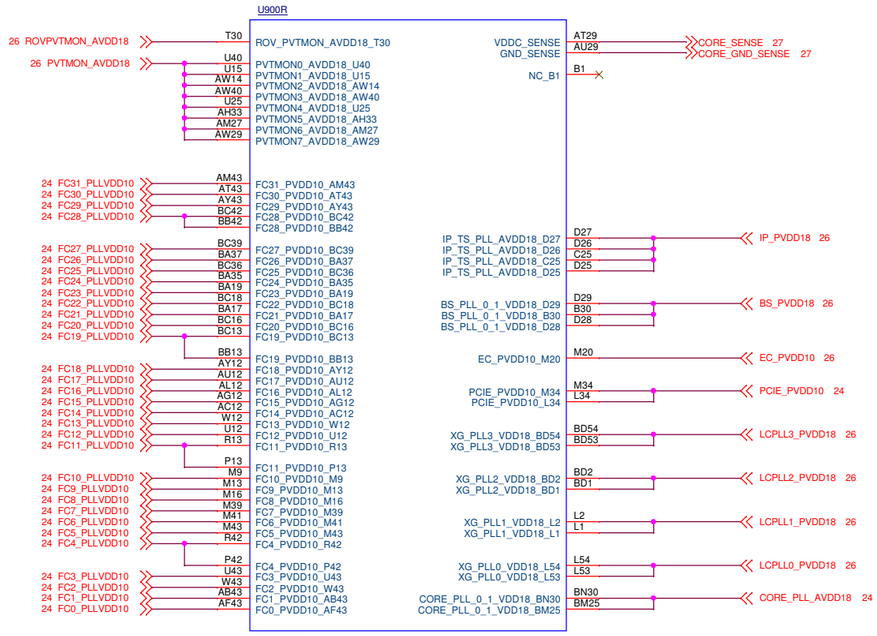
TOMAHAWK-GND&DECAPS

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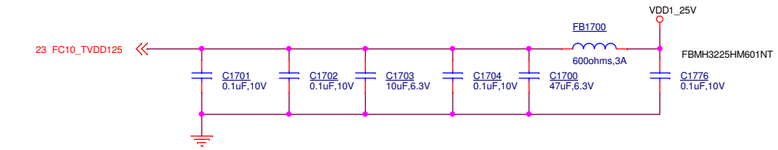


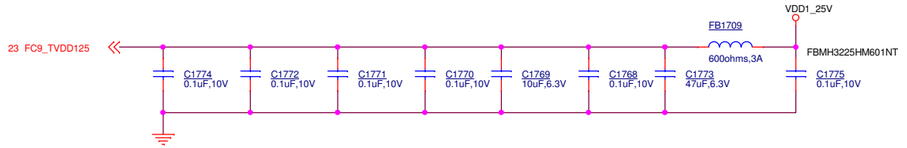
TOMAHAWK-POWER

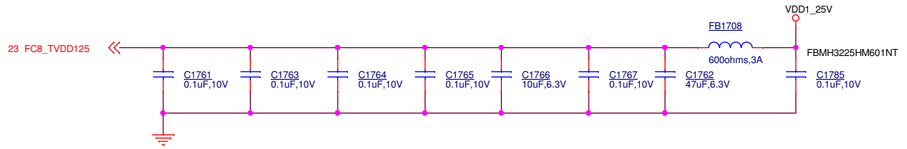
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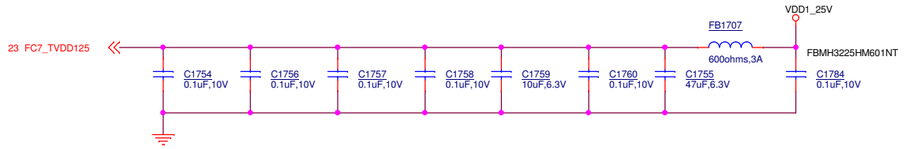


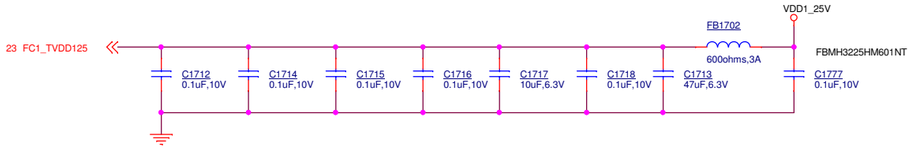
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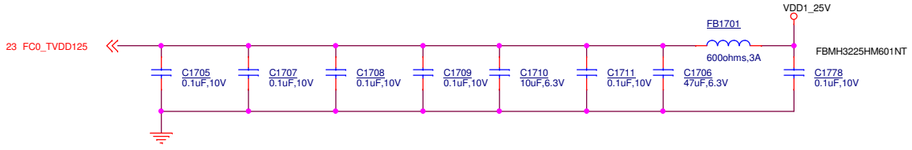


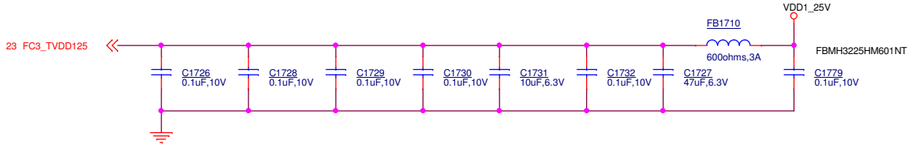


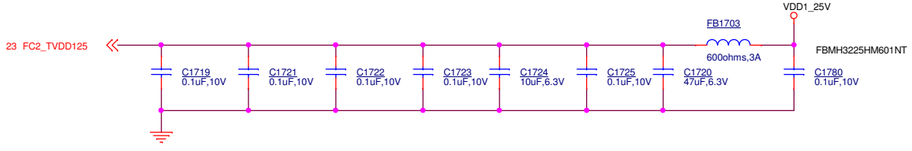


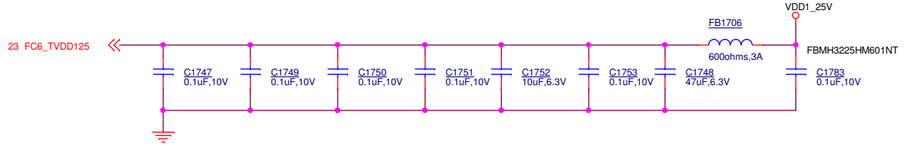


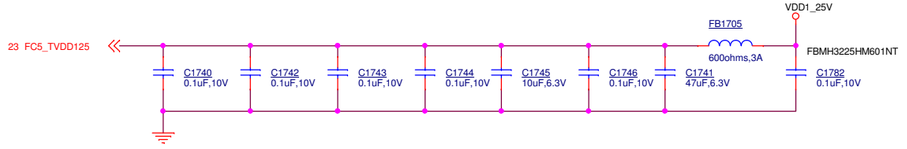


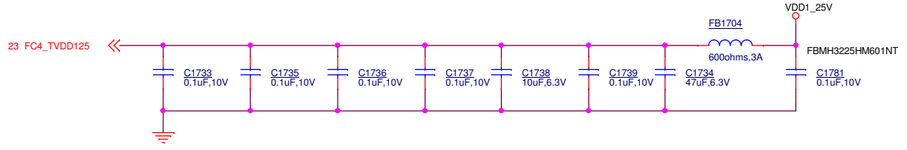






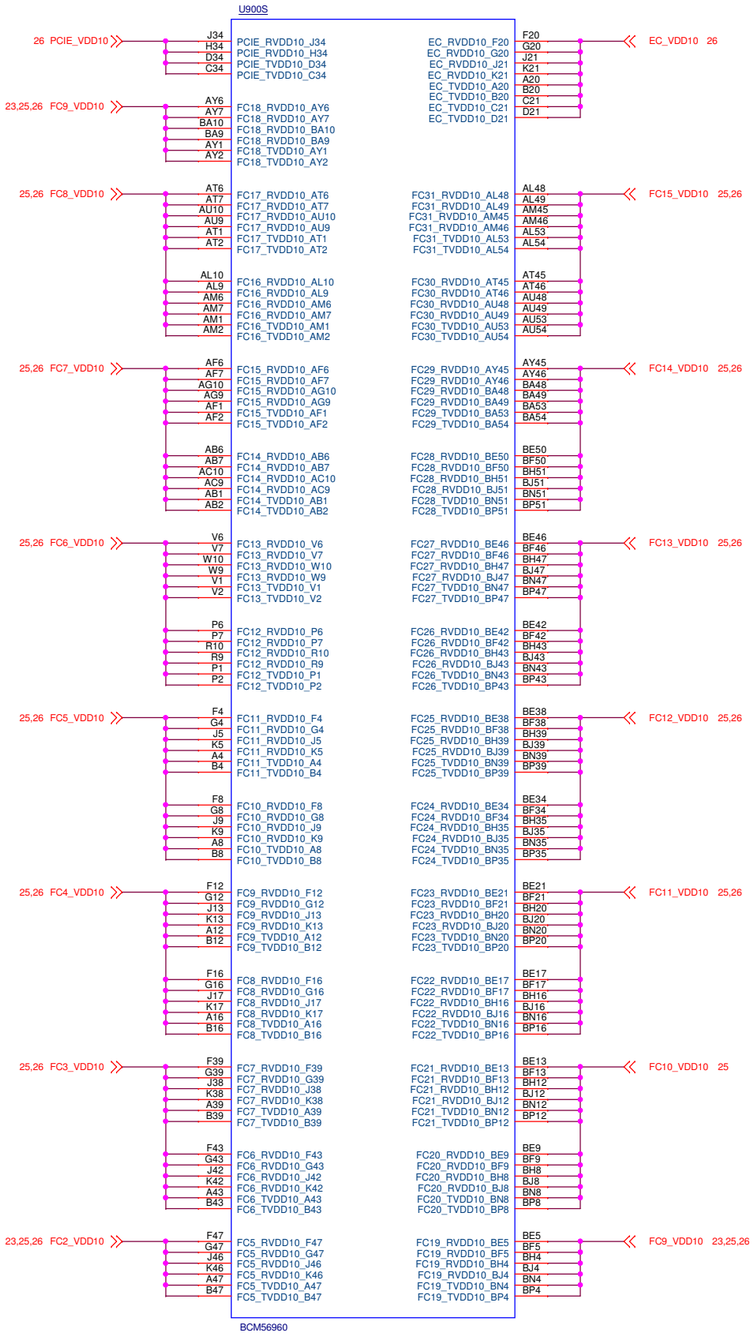


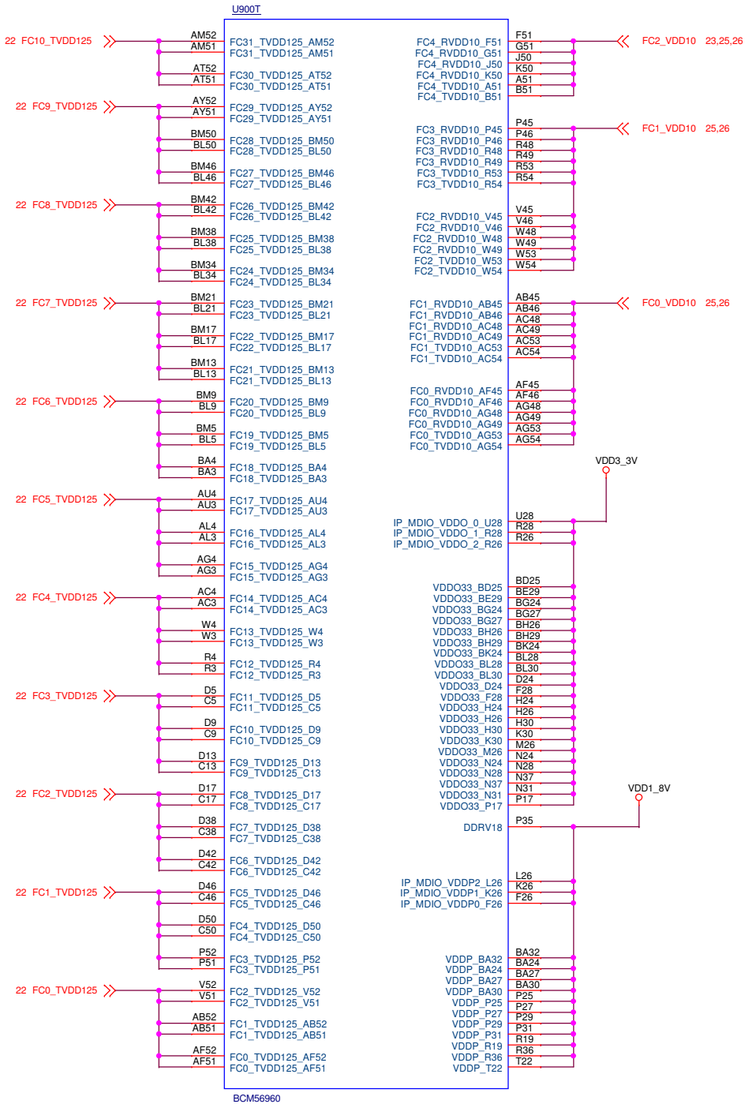




TOMAHAWK-PLL POWER

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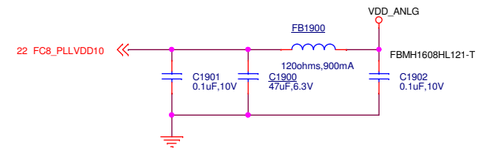


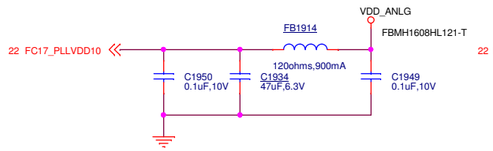


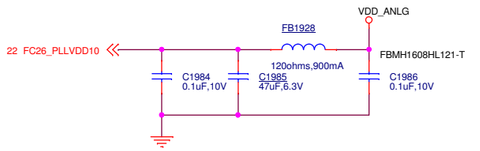
TOMAHAWK-TX & RX POWER

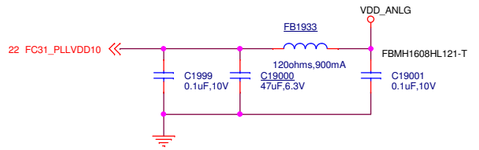
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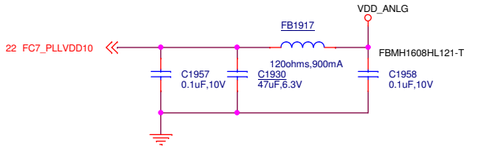
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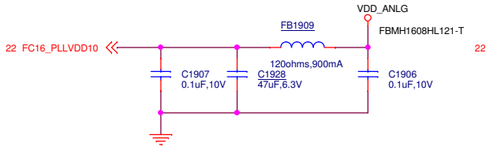


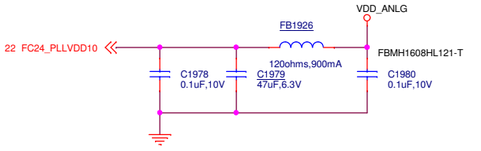


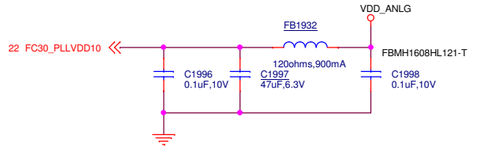


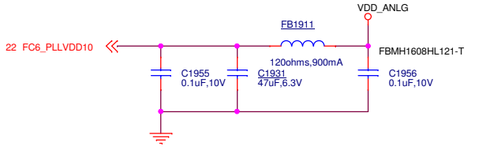


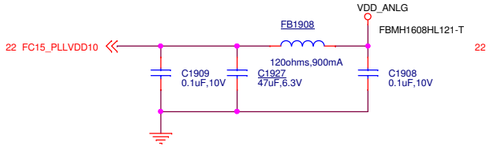


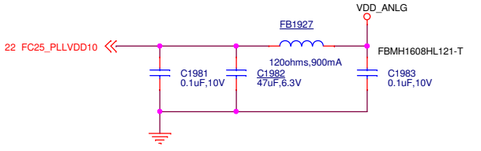


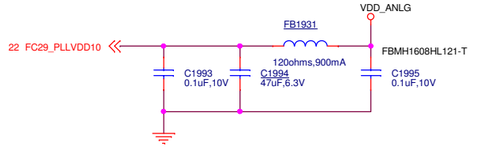


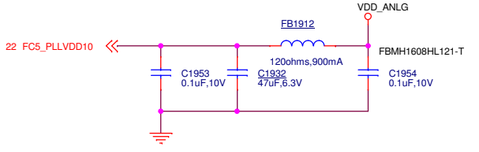


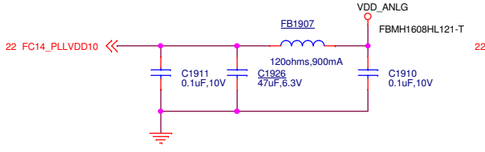


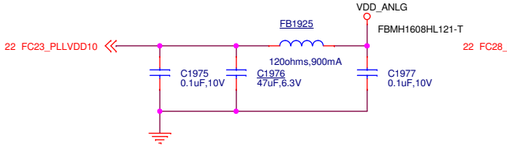


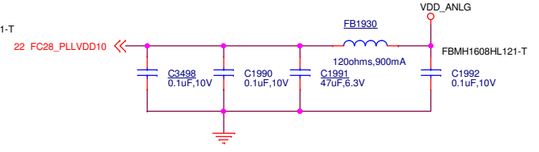


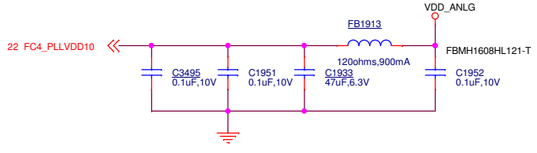


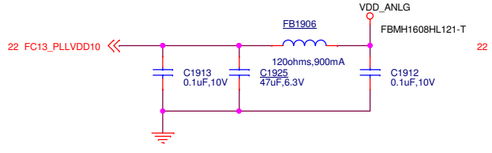


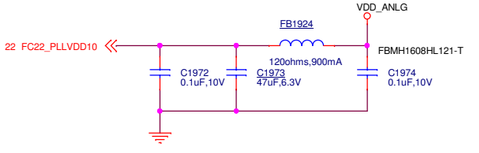


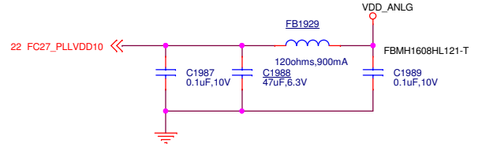


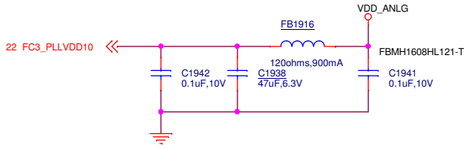


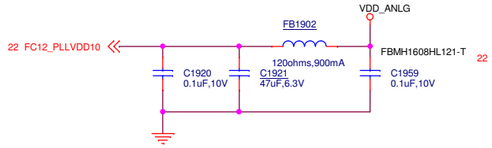


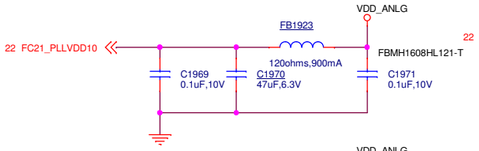


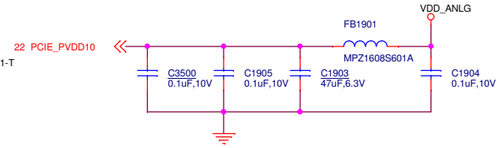


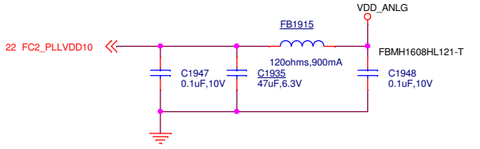


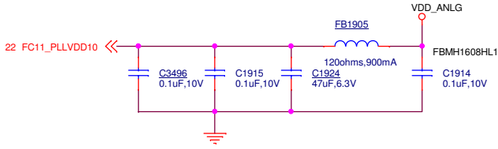


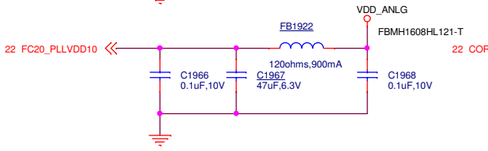


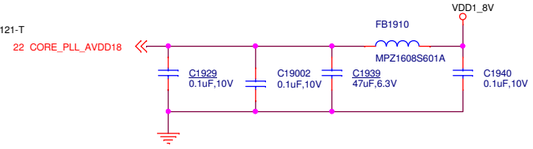


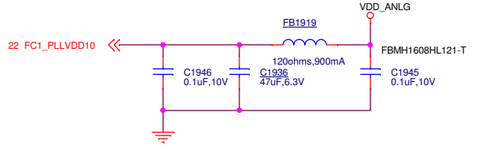


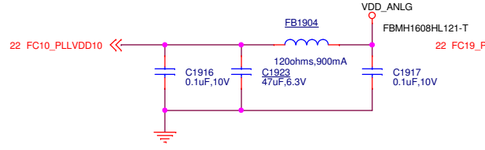


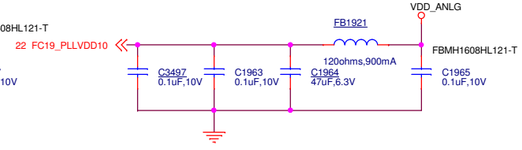




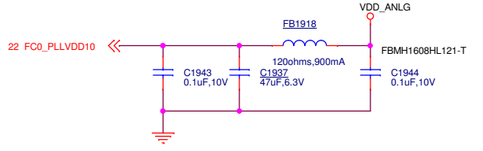


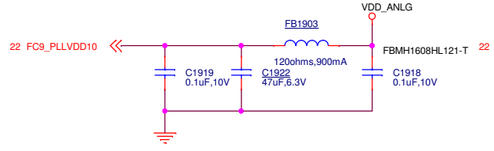


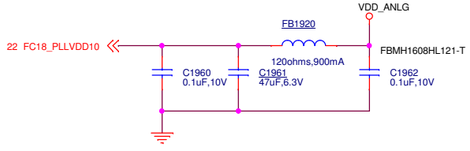




L= MPZ1608S601A(FB,600OHM,0603,1000mA,150mOHM,SMD)







TOMAHAWK-POWER FILTERS

	FACEBOOK	
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Size C	Document Number 137-000016-05	Rev 0.4
Date: Sunday, January 31, 2016	Sheet 24 of 83	

L= FBMJ3216HS800-T(FB,80ohm,PKG:1206,4A,DCR:10mOHM,SMD)

23,26 FC8_VDD10
C3460 0.1uF,10V | C3458 0.1uF,10V | C3461 0.1uF,10V | C3462 0.1uF,10V | C3463 0.1uF,10V | C3464 0.1uF,10V | C3465 0.1uF,10V | C3466 0.1uF,10V | C3459 47uF,6.3V
FB2016 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C170 100pF,25V

23,26 FC7_VDD10
C3457 0.1uF,10V | C3455 0.1uF,10V | C3454 0.1uF,10V | C3453 0.1uF,10V | C3452 0.1uF,10V | C3456 47uF,6.3V
FB2015 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C171 100pF,25V

23,26 FC6_VDD10
C3543 0.1uF,10V | C3451 0.1uF,10V | C3449 0.1uF,10V | C3448 0.1uF,10V | C3447 0.1uF,10V | C3446 0.1uF,10V | C3445 0.1uF,10V | C3450 47uF,6.3V
FB2014 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C172 100pF,25V

23,26 FC5_VDD10
C3443 0.1uF,10V | C3442 0.1uF,10V | C3441 0.1uF,10V | C3440 0.1uF,10V | C3439 0.1uF,10V | C3438 0.1uF,10V | C3437 0.1uF,10V | C3436 0.1uF,10V | C3444 47uF,6.3V
FB2013 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C173 100pF,25V

23,26 FC4_VDD10
C3434 0.1uF,10V | C3433 0.1uF,10V | C3432 0.1uF,10V | C3431 0.1uF,10V | C3430 0.1uF,10V | C3429 0.1uF,10V | C3428 0.1uF,10V | C3427 0.1uF,10V | C3435 47uF,6.3V
FB2012 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C174 100pF,25V

23,26 FC3_VDD10
C3425 0.1uF,10V | C3424 0.1uF,10V | C3423 0.1uF,10V | C3422 0.1uF,10V | C3421 0.1uF,10V | C3420 0.1uF,10V | C3419 0.1uF,10V | C3418 0.1uF,10V | C3426 47uF,6.3V
FB2011 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C175 100pF,25V

23,26 FC2_VDD10
C3416 0.1uF,10V | C3415 0.1uF,10V | C3414 0.1uF,10V | C3413 0.1uF,10V | C3412 0.1uF,10V | C3411 0.1uF,10V | C3410 0.1uF,10V | C3409 0.1uF,10V | C3417 47uF,6.3V
FB2010 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C176 100pF,25V

23,26 FC1_VDD10
C3406 0.1uF,10V | C3408 0.1uF,10V | C3405 0.1uF,10V | C3404 0.1uF,10V | C3403 0.1uF,10V | C3402 0.1uF,10V | C3401 0.1uF,10V | C3400 0.1uF,10V | C3407 47uF,6.3V
FB2009 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C177 100pF,25V

23,26 FC0_VDD10
C2095 0.1uF,10V | C2094 0.1uF,10V | C2093 0.1uF,10V | C2092 0.1uF,10V | C2091 0.1uF,10V | C2090 0.1uF,10V | C2088 0.1uF,10V | C2097 47uF,6.3V
FB2008 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C178 100pF,25V

23,26 FC15_VDD10
C2013 0.1uF,10V | C2011 0.1uF,10V | C2014 0.1uF,10V | C2015 0.1uF,10V | C2017 0.1uF,10V | C2018 0.1uF,10V | C2019 0.1uF,10V | C2020 0.1uF,10V | C2021 0.1uF,10V | C2012 47uF,6.3V
FB2001 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C179 100pF,25V

23,26 FC14_VDD10
C2024 0.1uF,10V | C2026 0.1uF,10V | C2027 0.1uF,10V | C2028 0.1uF,10V | C2029 0.1uF,10V | C2030 0.1uF,10V | C2031 0.1uF,10V | C2032 0.1uF,10V | C2023 47uF,6.3V
FB2002 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C180 100pF,25V

23,26 FC13_VDD10
C2035 0.1uF,10V | C2033 0.1uF,10V | C2036 0.1uF,10V | C2037 0.1uF,10V | C2038 0.1uF,10V | C2039 0.1uF,10V | C2041 0.1uF,10V | C2043 0.1uF,10V | C2034 47uF,6.3V
FB2003 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C181 100pF,25V

23,26 FC12_VDD10
C2046 0.1uF,10V | C2044 0.1uF,10V | C2047 0.1uF,10V | C2048 0.1uF,10V | C2049 0.1uF,10V | C2050 0.1uF,10V | C2051 0.1uF,10V | C2053 0.1uF,10V | C2045 47uF,6.3V
FB2004 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C182 100pF,25V

23,26 FC11_VDD10
C2057 0.1uF,10V | C2055 0.1uF,10V | C2060 0.1uF,10V | C2061 0.1uF,10V | C2062 0.1uF,10V | C2063 0.1uF,10V | C2064 0.1uF,10V | C2065 0.1uF,10V | C2056 47uF,6.3V
FB2005 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C183 100pF,25V

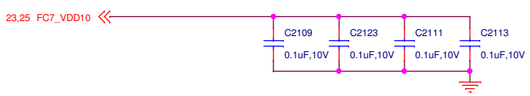
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C2068 0.1uF,10V | C2066 0.1uF,10V | C2069 0.1uF,10V | C2070 0.1uF,10V | C2071 0.1uF,10V | C2072 0.1uF,10V | C2073 0.1uF,10V | C2074 0.1uF,10V | C2075 0.1uF,10V | C2076 0.1uF,10V | C2067 47uF,6.3V
FB2006 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C184 100pF,25V

23,26 FC9_VDD10
C2079 0.1uF,10V | C2080 0.1uF,10V | C2081 0.1uF,10V | C2082 0.1uF,10V | C2083 0.1uF,10V | C2084 0.1uF,10V | C2085 0.1uF,10V | C2087 0.1uF,10V | C2078 47uF,6.3V
FB2007 80ohms,4A FBMJ3216HS800-T
VDD_ANLG C185 100pF,25V

TOMAHAWK-POWER FILTERS

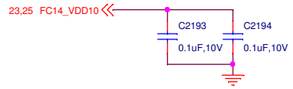
FACEBOOK
Title: WEDGE100
Size: C | Document Number: 137-000016-05 | Rev: 0.4
Date: Sunday, January 31, 2016 | Sheet 25 of 83

THESE ARE EXTRA DECAPS FOR FC*VDD10 ,FILTERS ARE IN PAGE 23

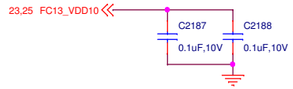




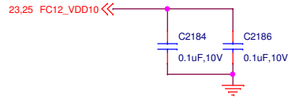




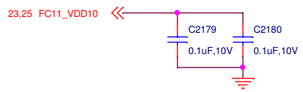






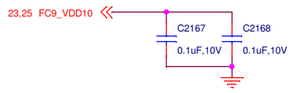




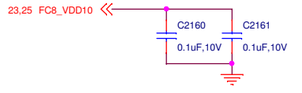




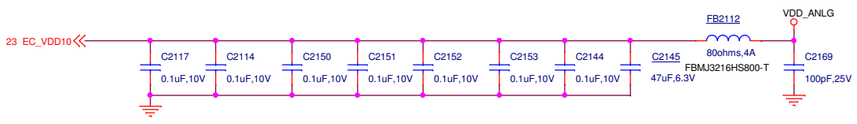




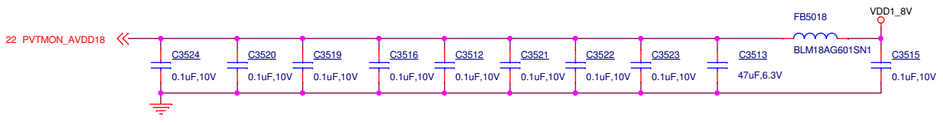




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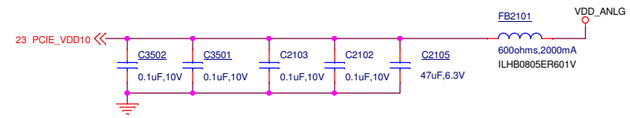


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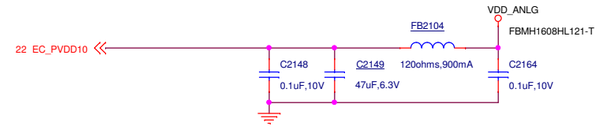


REV2 CHANGE NOTE:C2145 CHANGED TO 47UF

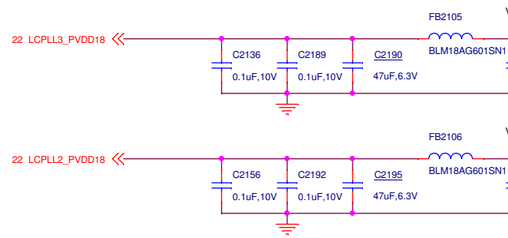
L= ILHB0805ER601V(FB,600ohm,PKG:0805,2000mA,DCR:100mOHM,SMD)

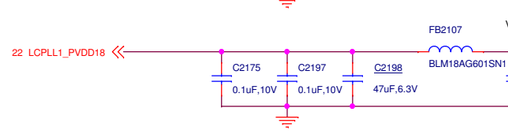


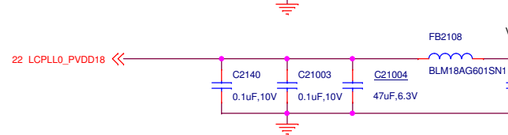
L= FBMH1608HL121-T(FB,120OHM,PKG:0603,900mA,DCR:130mOHM,SMD)

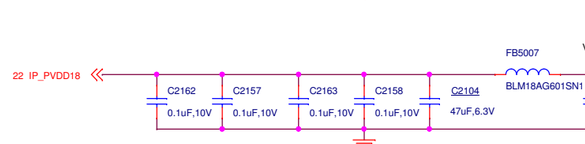


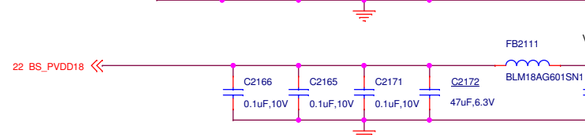
L= BLM18AG601SN1(FB,600ohms,PKG:0603,500MA,DCR:380mOHM,SMD)













TOMAHAWK-POWER FILTERS

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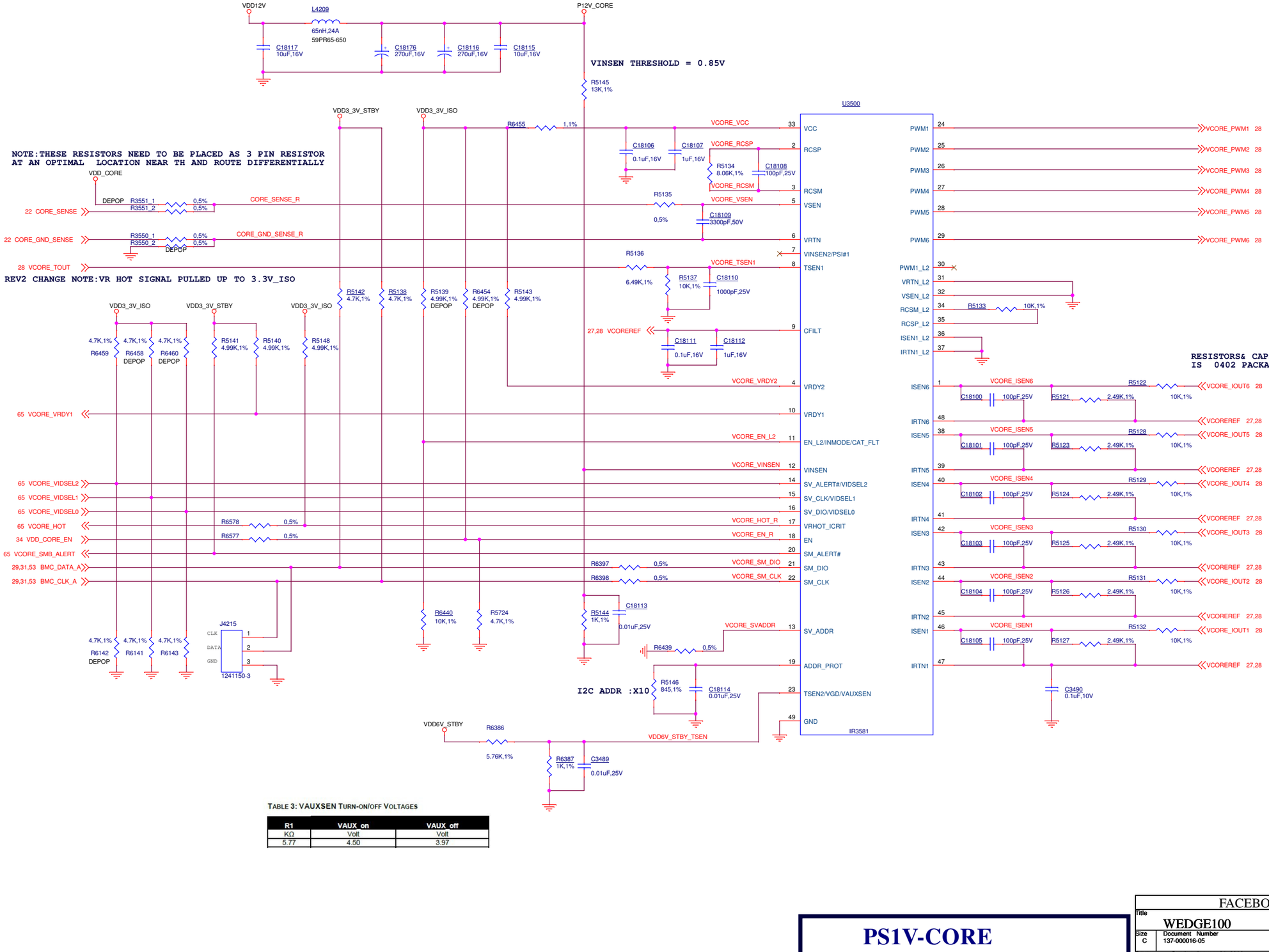


TABLE 3: VAUXSEN TURN-ON/OFF VOLTAGES

R1	VAUX_on	VAUX_off
KΩ	Volt	Volt
5.77	4.50	3.97

PS1V-CORE

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PLACE UNDER DRIVER CHIP

P12V_CORE

C19136 10uF,25V
C19137 10uF,25V
C19124 0.22uF,25V
C19122 10uF,16V
C19121 10uF,16V

U3600 IR3555

NC
TOUT/FLT
IOUT
ZCD_EN#
LGND
PWM
REFIN
VCC
VDRV
PGND1 PGND4
GATEL1 GATEL2
BOOST
VIN6 VIN5 VIN4 VIN3 VIN2 VIN1
PGND3 PGND2
SW10 SW9 SW8 SW7 SW6 SW5 SW4 SW3 SW2 SW1

27,28 VCORE_TOUT
27 VCORE_IOUT1
27 VCORE_PWM1
27,28 VCOREREF

0.1uF,16V C19119
VDD6V_STBY
C19032 1uF,16V

VCORE_PH1
L4102 150nH,70A 59PR9872N IND,150nH,70A,0.29mOHM,SMD
VDD_CORE
C19034 22uF,6.3V

VCORE_BST1
C19029 0.22uF,25V
R6535 0,5%

PLACE UNDER DRIVER CHIP

P12V_CORE

C19138 10uF,25V
C19139 10uF,25V
C19051 0.22uF,25V
C19050 10uF,16V
C19049 10uF,16V

U3601 IR3555

27,28 VCORE_TOUT
27 VCORE_IOUT2
27 VCORE_PWM2
27,28 VCOREREF

C19123 0.1uF,16V
VDD6V_STBY
C19046 1uF,16V

VCORE_PH2
L2 150nH,70A 59PR9872N IND,150nH,70A,0.29mOHM,SMD
VDD_CORE
C19048 22uF,6.3V

VCORE_BST2
C19038 0.22uF,25V
R6536 0,5%

NEED A DETAILED ANALYSIS TO DETERMINE THE NUMBER OF DECAPS

VDD_CORE
R6447 49.9,1%
C19020 470uF,6.3V
C19118 470uF,6.3V
C19117 470uF,6.3V
C19112 470uF,6.3V
C19113 470uF,6.3V
C19114 470uF,6.3V
C19115 470uF,6.3V
C19116 470uF,6.3V

VDD_CORE
C19200 470uF,2V
C19201 470uF,2V

PLACE THESE 3PIN CAPS NEAR TH

10 x 22uF/0805 MLCC near VR, on top layer

VDD_CORE
C19021 C19022 C19023 C19024 C19120 C19133 C19134 C19135 C19003 C19004
22uF,6.3V

10 x 22uF/0805 MLCC near VR, on top layer

VDD_CORE
C19035 C19036 C19037 C19039 C19040 C19041 C19042 C19044 C19045 C19005
22uF,6.3V DEPOP

PLACE UNDER DRIVER CHIP

P12V_CORE

C19143 10uF,25V
C19142 10uF,25V
C19078 0.22uF,25V
C19077 10uF,16V
C19076 10uF,16V

U3602 IR3555

27,28 VCORE_TOUT
27 VCORE_IOUT3
27 VCORE_PWM3
27,28 VCOREREF

0.1uF,16V C19030
VDD6V_STBY
C19065 1uF,16V

VCORE_PH3
L3 150nH,70A 59PR9872N IND,150nH,70A,0.29mOHM,SMD
VDD_CORE
C19067 22uF,6.3V

VCORE_BST3
C19063 0.22uF,25V
R6538 0,5%

PLACE UNDER DRIVER CHIP

P12V_CORE

C19141 10uF,25V
C19140 10uF,25V
C19075 0.22uF,25V
C19074 10uF,16V
C19073 10uF,16V

U3603 IR3555

27,28 VCORE_TOUT
27 VCORE_IOUT4
27 VCORE_PWM4
27,28 VCOREREF

C19125 0.1uF,16V
VDD6V_STBY
C19070 1uF,16V

VCORE_PH4
L4 150nH,70A 59PR9872N IND,150nH,70A,0.29mOHM,SMD
VDD_CORE
C19072 22uF,6.3V

VCORE_BST4
C19068 0.22uF,25V
R6537 0,5%

20 x 22uF/0805 MLCC near ASIC, on top layer

VDD_CORE
C19056 C19057 C19058 C19059 C19060 C19061 C19018 C19019 C19062 C19052
22uF,6.3V

VDD_CORE
C19007 C19008 C19009 C19010 C19011 C19012 C19053 C19054 C19055 C19006
22uF,6.3V

PLACE UNDER DRIVER CHIP

P12V_CORE

C19145 10uF,25V
C19144 10uF,25V
C19111 0.22uF,25V
C19110 10uF,16V
C19109 10uF,16V

U3604 IR3555

27,28 VCORE_TOUT
27 VCORE_IOUT5
27 VCORE_PWM5
27,28 VCOREREF

C19016 0.1uF,16V
VDD6V_STBY
C19098 1uF,16V

VCORE_PH5
L5 150nH,70A 59PR9872N IND,150nH,70A,0.29mOHM,SMD
VDD_CORE
C19100 22uF,6.3V

VCORE_BST5
C19096 0.22uF,25V
R6539 0,5%

PLACE UNDER DRIVER CHIP

P12V_CORE

C19147 10uF,25V
C19146 10uF,25V
C19108 0.22uF,25V
C19107 10uF,16V
C19106 10uF,16V

U3605 IR3555

27,28 VCORE_TOUT
27 VCORE_IOUT6
27 VCORE_PWM6
27,28 VCOREREF

C19017 0.1uF,16V
VDD6V_STBY
C19103 1uF,16V

VCORE_PH6
L6 150nH,70A 59PR9872N IND,150nH,70A,0.29mOHM,SMD
VDD_CORE
C19105 22uF,6.3V

VCORE_BST6
C19101 0.22uF,25V
R6540 0,5%

20 x 22uF/0805 MLCC near ASIC, on bottom layer

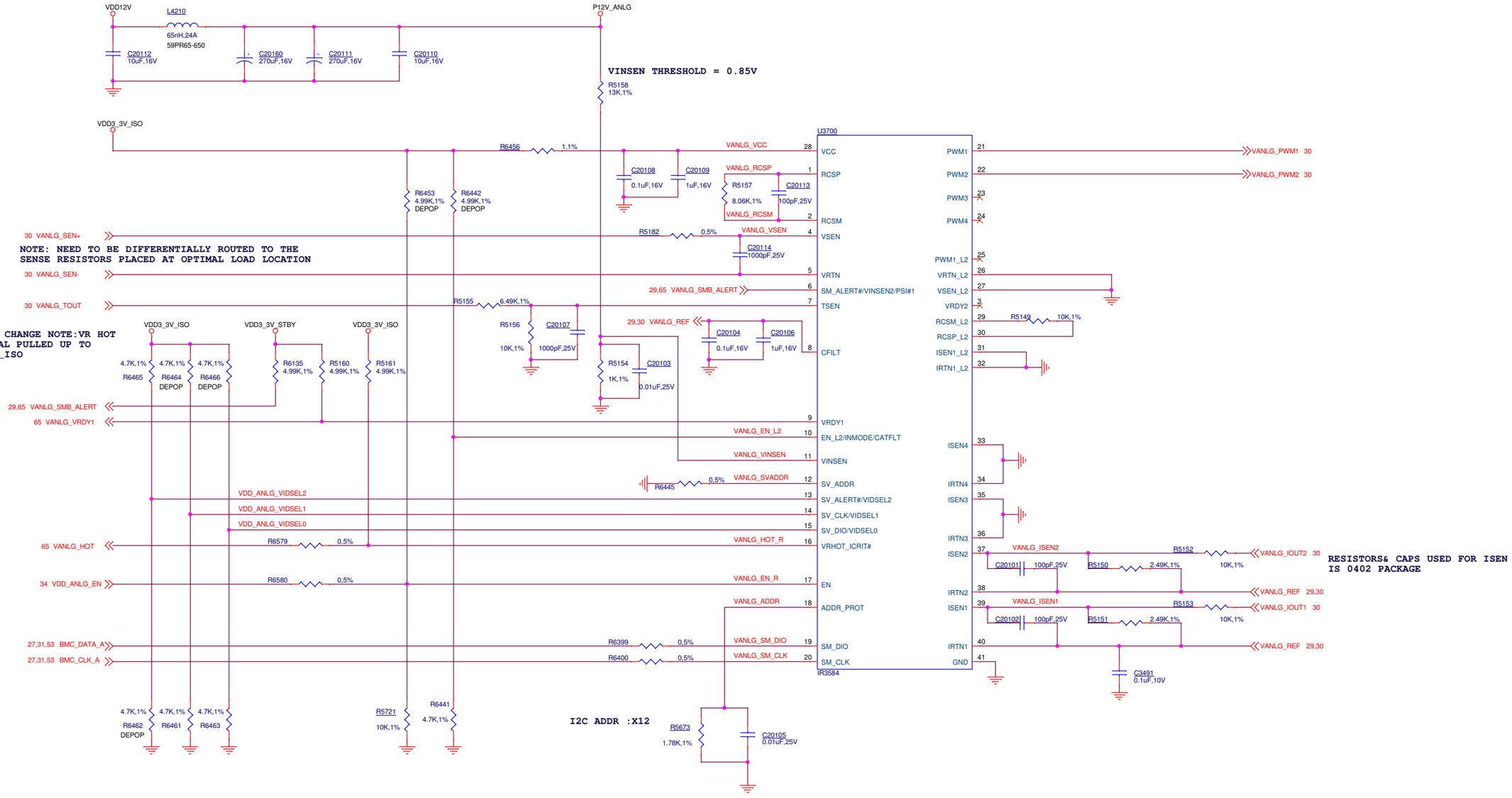
VDD_CORE
C19090 C19091 C19092 C19013 C19014 C19015 C19093 C19094 C19095 C19079
22uF,6.3V

VDD_CORE
C19081 C19082 C19083 C19084 C19085 C19086 C19087 C19088 C19089 C19080
22uF,6.3V

REV2 CHANGE NOTE:SWAPPED THE POSITION OF BOOST CAP AND RESISTOR AS PER IR FEEDBACK

PS1V-CORE

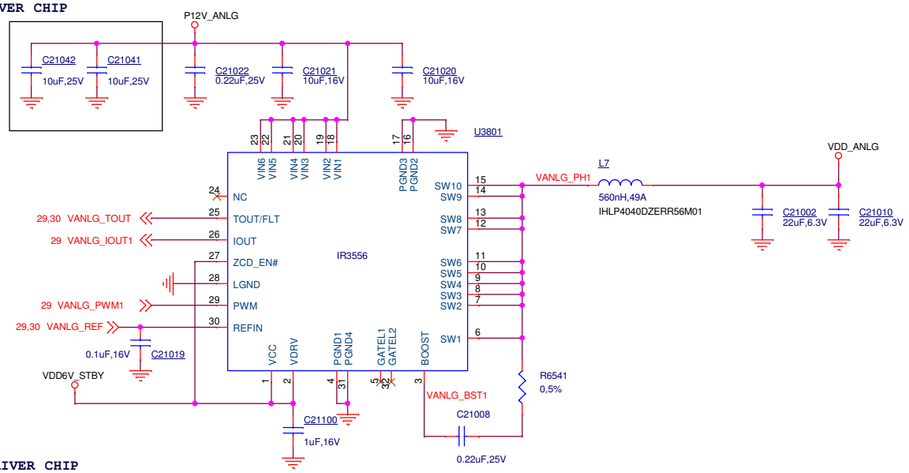
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Title: WEDGE100
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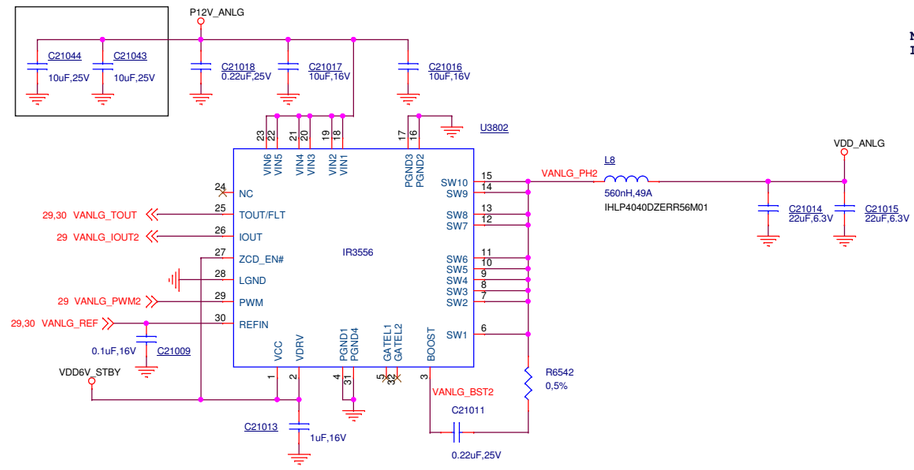
PS1V-ANLG

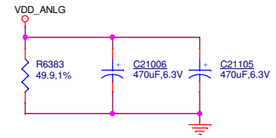
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Title: WEDGE100		
Size: C	Document Number: 137-000016-05	Rev: 0.4
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PLACE UNDER DRIVER CHIP

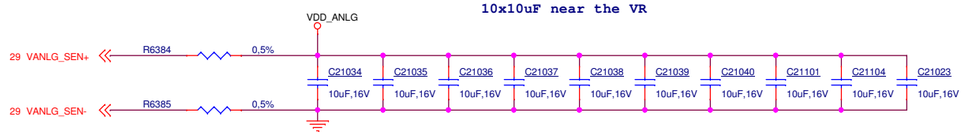


PLACE UNDER DRIVER CHIP

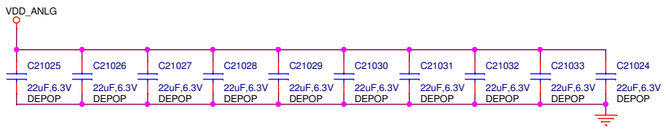




10x10uF near the VR



NOTE: THESE RESISTORS NEED TO BE PLACED AT AN OPTIMAL LOCATION NEAR LOAD AND ROUTE DIFFERENTIALLY

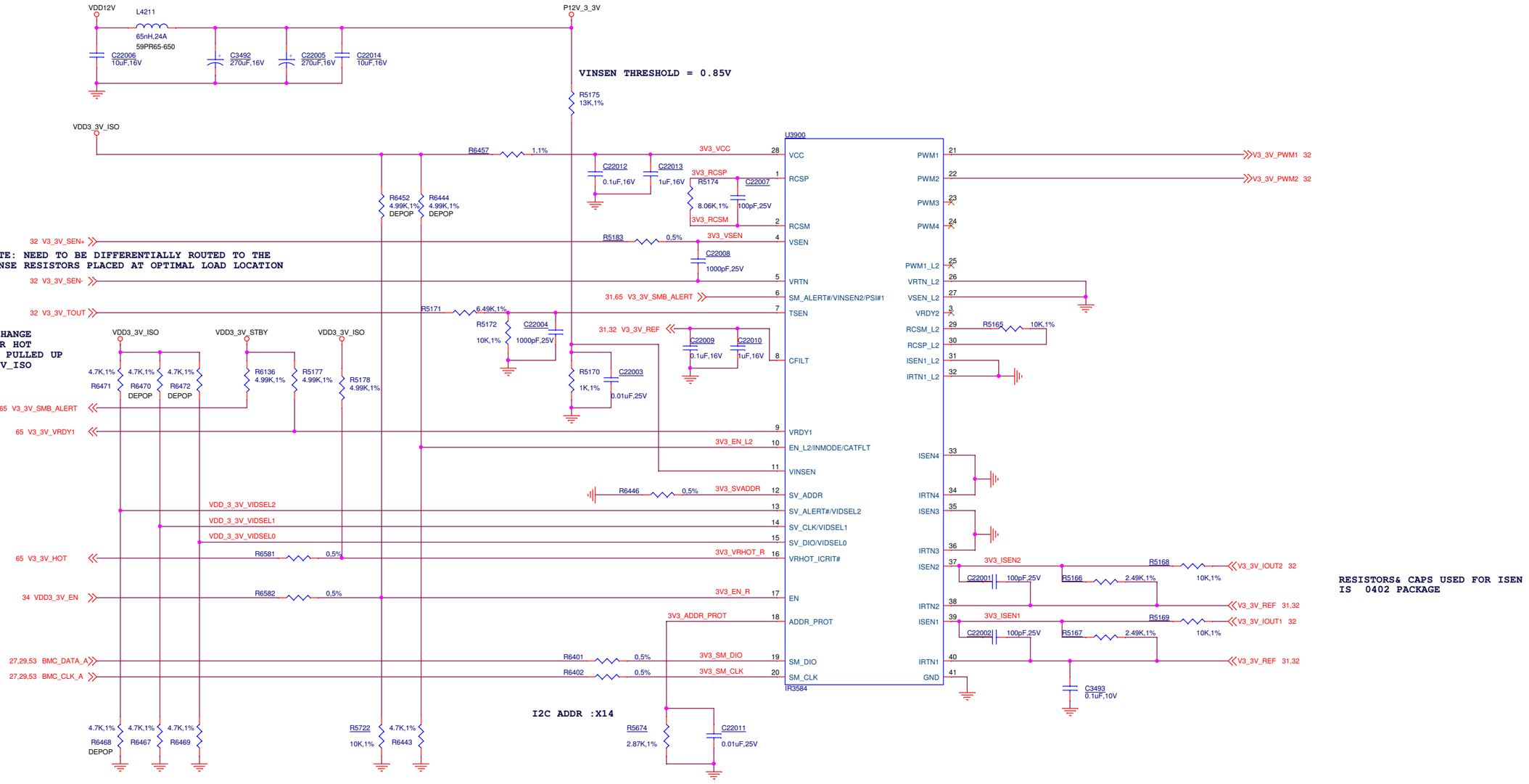


REV2 CHANGE NOTE:SWAPPED THE POSITION OF BOOST CAP AND RESISTOR AS PER IR FEEDBACK

PS1V-ANLG

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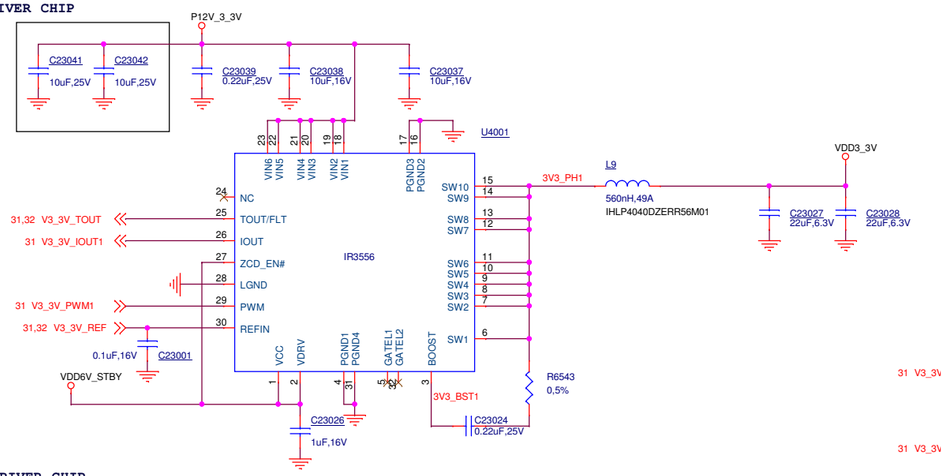
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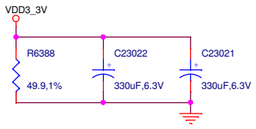
PS3.3V

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PLACE UNDER DRIVER CHIP

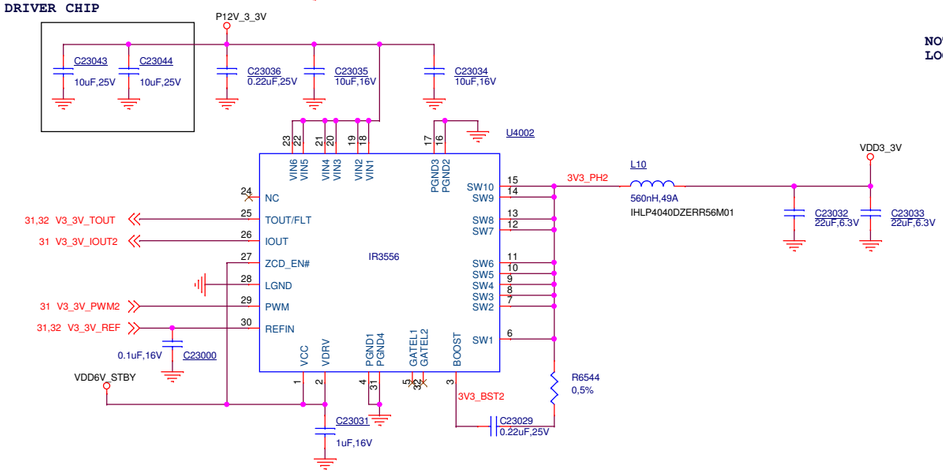


REV3 CHANGE NOTE:CHANGED THE FOOTPRINT OF C23022 AND C23021 AS PER ACCTON RECOMMENDATION

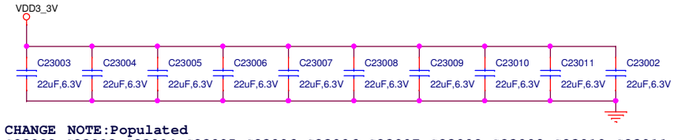




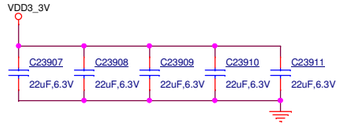
PLACE UNDER DRIVER CHIP



NOTE: THESE RESISTORS NEED TO BE PLACED AT AN OPTIMAL LOCATION NEAR LOAD AND ROUTE DIFFERENTIALLY



CHANGE NOTE:Populated
C23002,C23003,C23004,C23005,C23006,C23006,C23007,C23008,C23009,C23010,C23011



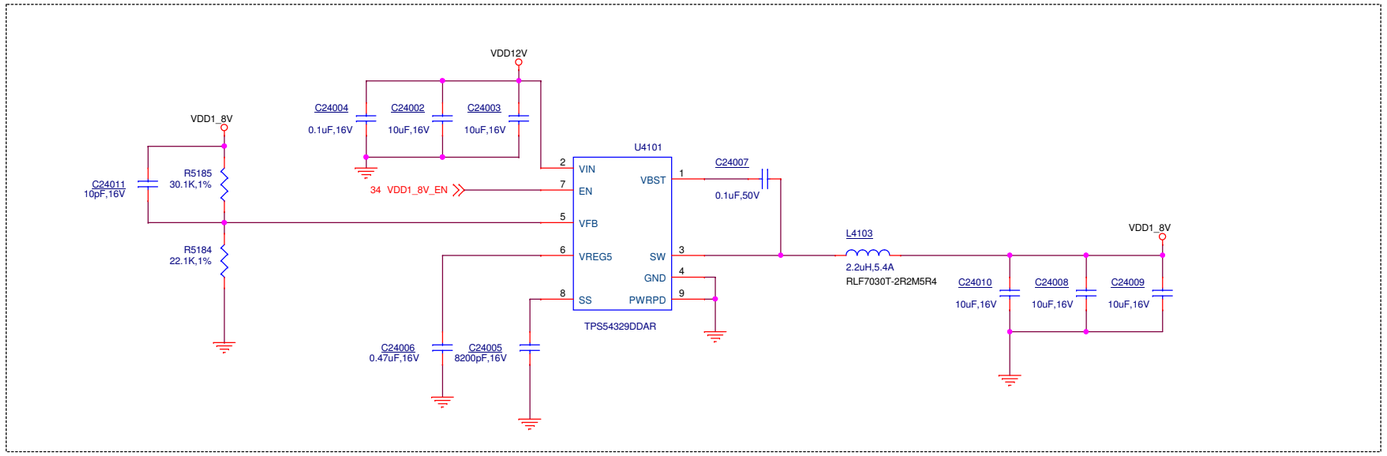
CHANGE NOTE:Added C23907,C23908,C23909,C23910,C23911

REV2 CHANGE NOTE:SWAPPED THE POSITION OF BOOST CAP AND RESISTOR AS PER IR FEEDBACK

PS3.3V

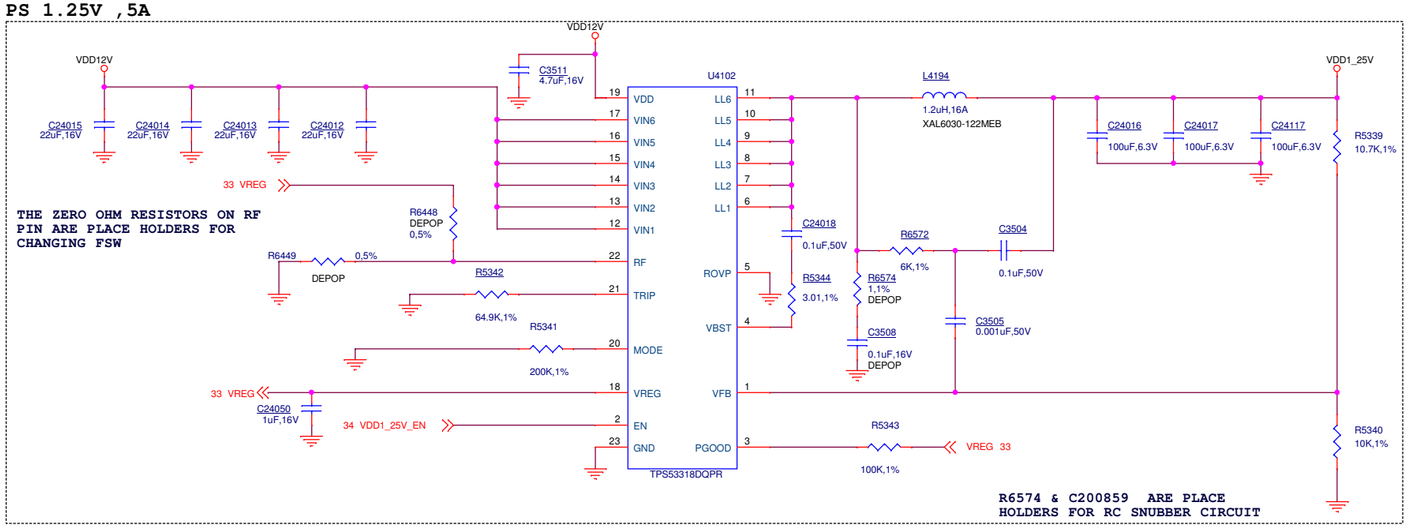
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PS 1.8V ,3A



VIN =12V
Device =TPS54329DDAR
Vout =1.8V
Ioutmax = 3A
Softstart = 1.15ms
L= RLF7030T-2R2M5R4(2.2uH,5.4A,DCR=10mOhms)
Cout=GRM21BR61C106KE15L(CER,10UF,0805,16V)

PS 1.25V ,5A



THE ZERO OHM RESISTORS ON RF PIN ARE PLACE HOLDERS FOR CHANGING FSW

R6574 & C200859 ARE PLACE HOLDERS FOR RC SNUBBER CIRCUIT

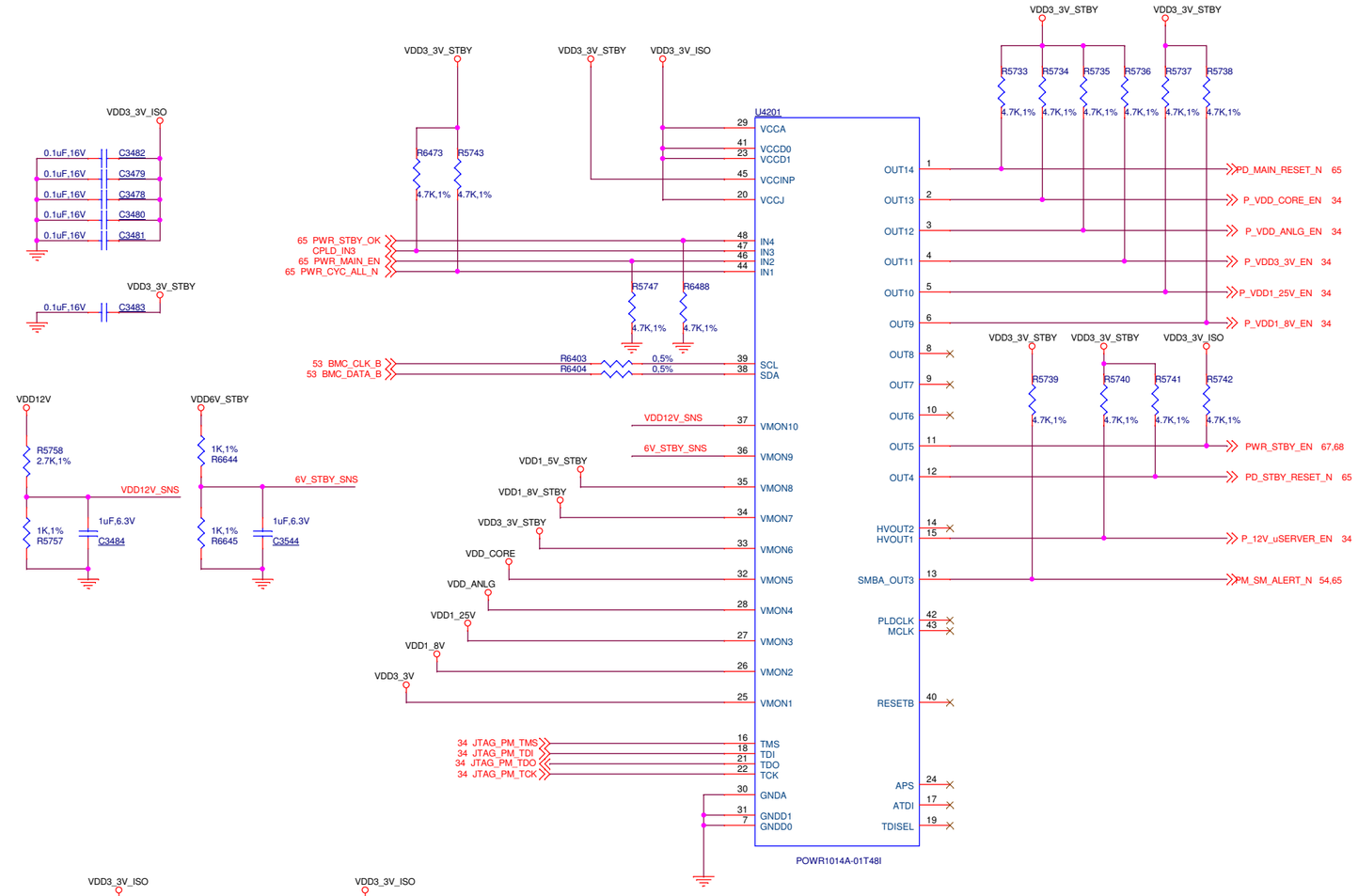
VIN =12V
Device =TPS53318DQPR
Vout =1.25V
Ioutmax = 5A
Iocp = 6.25A
Fsw= 500Khz
Rtrip= 64.9K
Rmode= 200K to GND: Softstart =2.8ms
L= XAL6030-122MEB (1.2uH,16A,DCR=7.5mOhms)
Cout=GRM31CR60J107ME39L(CER,100UF,1206,6.3V)

PS 1.8V & 1.25V

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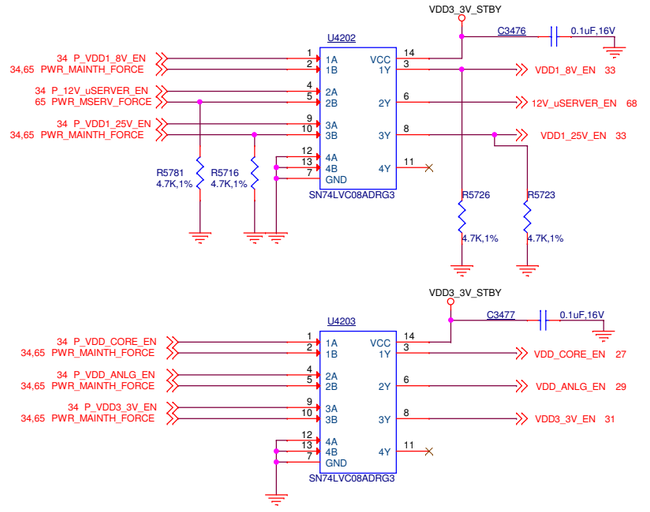
NOTE:PWR_STBY_OK = P1_2V_STBY_OK

A PULLDOWN IS PROVIDED TO PWR_STBY_OK SO THAT
TILL CPLD IS PROGRAMMED , PWR_STBY_OK WILL BE LOW



CHANGE NOTE:J4214 changed with 8pin connector PH08RA3BAAB05

REV3 CHANGE NOTE:J4214
Pin5 deleted after accton feedback



CHANGE NOTE:UNUSED INPUT PINS OF U4202, U4203 GROUNDED

NOTE: AND GATE IS TO ENSURE THAT ENABLE IS LOW DURING POWERING UP

POWER MANAGEMENT

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QSFP CONNECTOR 2X2

J2600

2289129-2

CONN, 2x2 ZOSFP+4 INTERNAL LIGHT PIPES WITH EMI SPRING FINGERS

VDD3_3V

4.7K,1% R2411 R2412 R2414 R2413 R2410 R2409 R2415 R2408

4.7K,1% R5189 R5190 R5191 R5192 R5193 R5194 R5195 R5196

R2419 0.5%

R2418 0.5%

R5198 0.5%

R5197 0.5%

L2408 4.7uH L2411 4.7uH L2409 4.7uH

L2407 4.7uH L2410 4.7uH L2406 4.7uH

L4104 4.7uH L4105 4.7uH L4106 4.7uH

L4107 4.7uH L4108 4.7uH L4109 4.7uH

C26002 C26003 C26013 C26014 C26012 C26016 C26017 C26015 C26011
22uF,6.3V 0.1uF,10V 22uF,6.3V 0.1uF,10V 22uF,6.3V 0.1uF,10V 1000pF,16V 1000pF,16V 1000pF,16V

C26001 C26000 C26008 C26007 C26009 C26005 C26004 C26006 C26010
22uF,6.3V 0.1uF,10V 22uF,6.3V 0.1uF,10V 22uF,6.3V 0.1uF,10V 1000pF,16V 1000pF,16V 1000pF,16V

C26018 C26019 C26021 C26022 C26023 C26024 C26020 C26025 C26026
22uF,6.3V 0.1uF,10V 22uF,6.3V 0.1uF,10V 22uF,6.3V 0.1uF,10V 1000pF,16V 1000pF,16V 1000pF,16V

C26027 C26028 C26030 C26031 C26032 C26033 C26029 C26034 C26035
22uF,6.3V 0.1uF,10V 22uF,6.3V 0.1uF,10V 22uF,6.3V 0.1uF,10V 1000pF,16V 1000pF,16V 1000pF,16V

TL6	TL_TX4P	TL30	Q4_VCC1_C
TL5	TL_TX4N	TL29	Q4_TX_VCC_C
TL33	TL_TX3P	TL10	Q4_RX_VCC_C
TL34	TL_TX3N		
TL3	TL_TX2P		
TL2	TL_TX2N		
TL36	TL_TX1P		
TL37	TL_TX1N		
TL25	TL_RX4P		
TL24	TL_RX4N		
TL14	TL_RX3P		
TL15	TL_RX3N		
TL22	TL_RX2P		
TL21	TL_RX2N		
TL17	TL_RX1P		
TL18	TL_RX1N		
BL6	BL_TX4P		
BL5	BL_TX4N		
BL33	BL_TX3P		
BL34	BL_TX3N		
BL3	BL_TX2P		
BL2	BL_TX2N		
BL36	BL_TX1P		
BL37	BL_TX1N		
BL25	BL_RX4P		
BL24	BL_RX4N		
BL14	BL_RX3P		
BL15	BL_RX3N		
BL22	BL_RX2P		
BL21	BL_RX2N		
BL17	BL_RX1P		
BL18	BL_RX1N		
SH1	GND_SH1		
SH2	GND_SH2		
SH3	GND_SH3		
SH4	GND_SH4		
SH5	GND_SH5		
SH6	GND_SH6		
SH7	GND_SH7		
SH8	GND_SH8		
SH9	GND_SH9		
SH10	GND_SH10		
TL1	GND_TL1		
TL4	GND_TL4		
TL7	GND_TL7		
TL20	GND_TL20		
TL35	GND_TL35		
TL38	GND_TL38		
SH11	GND_SH11		
SH12	GND_SH12		
SH13	GND_SH13		
TR6	TR_TX4P	TR30	Q6_VCC1_C
TR5	TR_TX4N	TR29	Q6_TX_VCC_C
TR33	TR_TX3P	TR10	Q6_RX_VCC_C
TR34	TR_TX3N		
TR3	TR_TX2P		
TR2	TR_TX2N		
TR36	TR_TX1P		
TR37	TR_TX1N		
TR25	TR_RX4P		
TR24	TR_RX4N		
TR14	TR_RX3P		
TR15	TR_RX3N		
TR22	TR_RX2P		
TR21	TR_RX2N		
TR17	TR_RX1P		
TR18	TR_RX1N		
BR6	BR_TX4P		
BR5	BR_TX4N		
BR33	BR_TX3P		
BR34	BR_TX3N		
BR3	BR_TX2P		
BR2	BR_TX2N		
BR36	BR_TX1P		
BR37	BR_TX1N		
BR25	BR_RX4P		
BR24	BR_RX4N		
BR14	BR_RX3P		
BR15	BR_RX3N		
BR22	BR_RX2P		
BR21	BR_RX2N		
BR17	BR_RX1P		
BR18	BR_RX1N		
TR1	GND_TR1		
TR4	GND_TR4		
TR7	GND_TR7		
TR20	GND_TR20		
TR35	GND_TR35		
TR38	GND_TR38		
SH16	GND_SH16		
SH17	GND_SH17		
SH18	GND_SH18		
SH19	GND_SH19		
SH20	GND_SH20		
SH21	GND_SH21		
SH22	GND_SH22		
SH23	GND_SH23		
SH24	GND_SH24		
SH25	GND_SH25		
SH33	GND_SH33		
SH34	GND_SH34		
SH35	GND_SH35		
SH36	GND_SH36		
SH37	GND_SH37		
SH38	GND_SH38		

TL_VCC1	TL30	Q4_VCC1_C	
TL_VCCTX	TL29	Q4_TX_VCC_C	
TL_VCCRX	TL10	Q4_RX_VCC_C	
TL_SDA	TL12	Q4_SDA	43
TL_SCL	TL11	Q4_SCL	43
TL_INT_N	TL28	Q4_RX_LOSS	14,45
TL_MODPRS_N	TL27	Q4_PRSNT	45
GND_TL13	TL13		
GND_TL16	TL16		
GND_TL19	TL19		
GND_TL23	TL23		
GND_TL26	TL26		
GND_TL32	TL32		
TL_LPMODE	TL31	Q4_LPMODE	44
TL_MODSEL	TL8		
TL_RESET_N	TL9	Q4_RESET_N	65
BL_VCC1	BL30	Q5_VCC1_C	
BL_VCCTX	BL29	Q5_TX_VCC_C	
BL_VCCRX	BL10	Q5_RX_VCC_C	
BL_SDA	BL12	Q5_SDA	43
BL_SCL	BL11	Q5_SCL	43
BL_INT_N	BL28	Q5_RX_LOSS	14,45
BL_MODPRS_N	BL27	Q5_PRSNT	45
BL_LPMODE	BL31	Q5_LPMODE	44
BL_MODSEL	BL8		
BL_RESET_N	BL9	Q5_RESET_N	65
GND_BL1	BL1		
GND_BL4	BL4		
GND_BL7	BL7		
GND_BL20	BL20		
GND_BL13	BL13		
GND_BL16	BL16		
GND_BL19	BL19		
GND_BL23	BL23		
GND_BL26	BL26		
GND_BL32	BL32		
GND_BL35	BL35		
GND_BL38	BL38		
GND_SH15	SH15		
GND_SH14	SH14		

TR_VCC1	TR30	Q6_VCC1_C	
TR_VCCTX	TR29	Q6_TX_VCC_C	
TR_VCCRX	TR10	Q6_RX_VCC_C	
TR_SDA	TR12	Q6_SDA	43
TR_SCL	TR11	Q6_SCL	43
TR_INT_N	TR28	Q6_RX_LOSS	14,45
TR_MODPRS_N	TR27	Q6_PRSNT	45
GND_TR13	TR13		
GND_TR16	TR16		
GND_TR19	TR19		
GND_TR23	TR23		
GND_TR26	TR26		
GND_TR32	TR32		
TR_LPMODE	TR31	Q6_LPMODE	44
TR_MODSEL	TR8		
TR_RESET_N	TR9	Q6_RESET_N	65
BR_VCC1	BR30	Q7_VCC1_C	
BR_VCCTX	BR29	Q7_TX_VCC_C	
BR_VCCRX	BR10	Q7_RX_VCC_C	
BR_SDA	BR12	Q7_SDA	43
BR_SCL	BR11	Q7_SCL	43
BR_INT_N	BR28	Q7_RX_LOSS	14,45
BR_MODPRS_N	BR27	Q7_PRSNT	45
BR_LPMODE	BR31	Q7_LPMODE	44
BR_MODSEL	BR8		
BR_RESET_N	BR9	Q7_RESET_N	65
GND_BR1	BR1		
GND_BR4	BR4		
GND_BR7	BR7		
GND_BR20	BR20		
GND_BR13	BR13		
GND_BR16	BR16		
GND_BR19	BR19		
GND_BR23	BR23		
GND_BR26	BR26		
GND_BR32	BR32		
GND_BR35	BR35		
GND_BR38	BR38		
GND_SH26	SH26		
GND_SH27	SH27		
GND_SH28	SH28		
GND_SH29	SH29		
GND_SH30	SH30		
GND_SH31	SH31		
GND_SH32	SH32		

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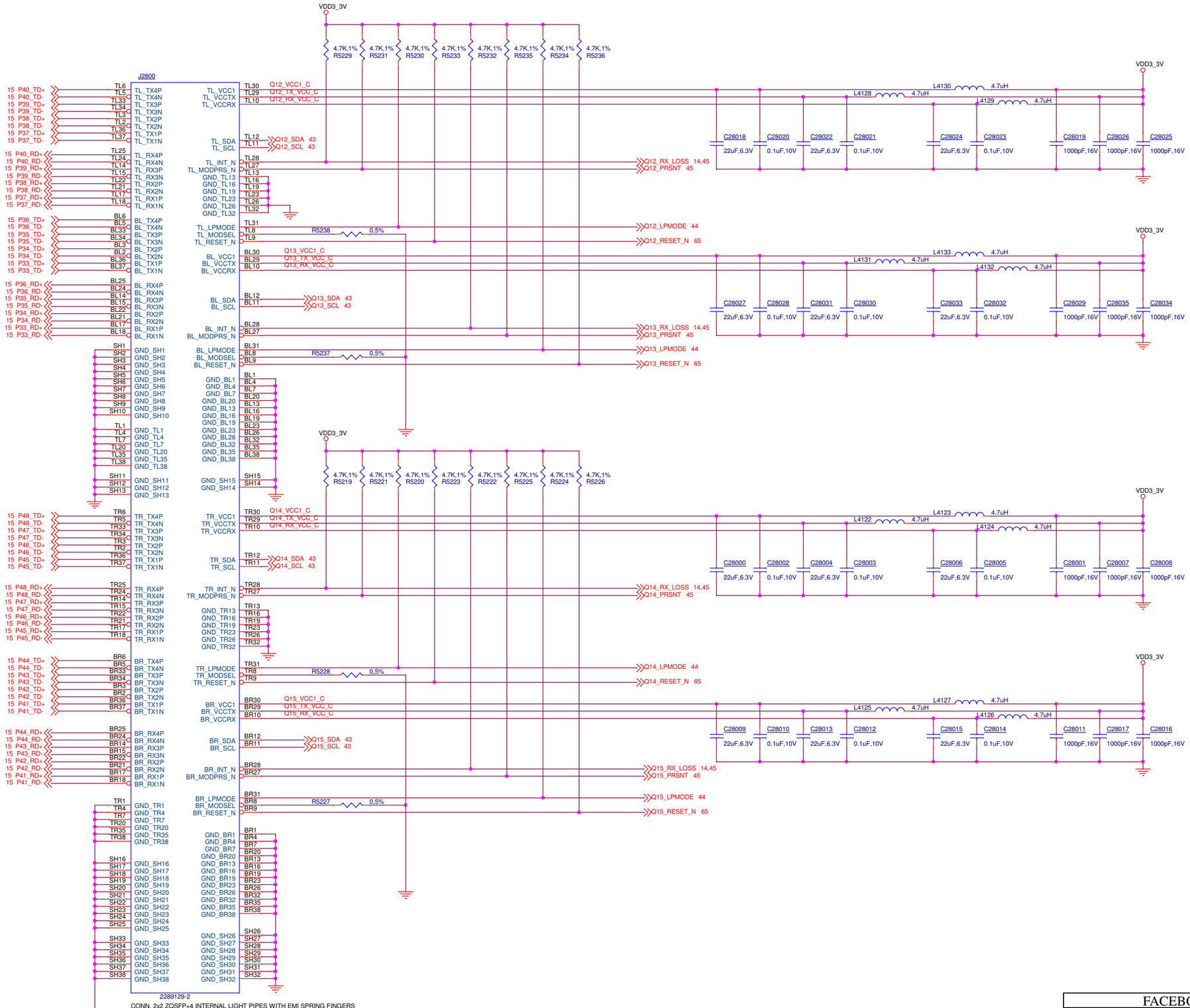
QSFP CONNECTOR 2X2

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J2800
2289129-2
CONN, 2x2 ZQSFP+4 INTERNAL LIGHT PIPES WITH EMI SPRING FINGERS
VDD3_3V
4.7K,1% R5229
4.7K,1% R5231
4.7K,1% R5230
4.7K,1% R5233
4.7K,1% R5232
4.7K,1% R5235
4.7K,1% R5234
4.7K,1% R5236
TL_TX4P
TL_TX4N
TL_TX3P
TL_TX3N
TL_TX2P
TL_TX2N
TL_TX1P
TL_TX1N
TL_RX4P
TL_RX4N
TL_RX3P
TL_RX3N
TL_RX2P
TL_RX2N
TL_RX1P
TL_RX1N
TL_VCC1
TL_VCCTX
TL_VCCRX
TL_SDA
TL_SCL
TL_INT_N
TL_MODPRS_N
TL_LPMODE
TL_MODSEL
TL_RESET_N
Q12_VCC1_C
Q12_TX_VCC_C
Q12_RX_VCC_C
Q12_SDA 43
Q12_SCL 43
Q12_RX_LOSS 14,45
Q12_PRSNT 45
Q12_LPMODE 44
Q12_RESET_N 65
R5238 0,5%
L4128 4.7uH
L4130 4.7uH
L4129 4.7uH
C28018 22uF,6.3V
C28020 0.1uF,10V
C28022 22uF,6.3V
C28021 0.1uF,10V
C28024 22uF,6.3V
C28023 0.1uF,10V
C28019 1000pF,16V
C28026 1000pF,16V
C28025 1000pF,16V
BL_TX4P
BL_TX4N
BL_TX3P
BL_TX3N
BL_TX2P
BL_TX2N
BL_TX1P
BL_TX1N
BL_RX4P
BL_RX4N
BL_RX3P
BL_RX3N
BL_RX2P
BL_RX2N
BL_RX1P
BL_RX1N
BL_VCC1
BL_VCCTX
BL_VCCRX
BL_SDA
BL_SCL
BL_INT_N
BL_MODPRS_N
BL_LPMODE
BL_MODSEL
BL_RESET_N
Q13_VCC1_C
Q13_TX_VCC_C
Q13_RX_VCC_C
Q13_SDA 43
Q13_SCL 43
Q13_RX_LOSS 14,45
Q13_PRSNT 45
Q13_LPMODE 44
Q13_RESET_N 65
R5237 0,5%
L4131 4.7uH
L4133 4.7uH
L4132 4.7uH
C28027 22uF,6.3V
C28028 0.1uF,10V
C28031 22uF,6.3V
C28030 0.1uF,10V
C28033 22uF,6.3V
C28032 0.1uF,10V
C28029 1000pF,16V
C28035 1000pF,16V
C28034 1000pF,16V
4.7K,1% R5219
4.7K,1% R5221
4.7K,1% R5220
4.7K,1% R5223
4.7K,1% R5222
4.7K,1% R5225
4.7K,1% R5224
4.7K,1% R5226
TR_TX4P
TR_TX4N
TR_TX3P
TR_TX3N
TR_TX2P
TR_TX2N
TR_TX1P
TR_TX1N
TR_RX4P
TR_RX4N
TR_RX3P
TR_RX3N
TR_RX2P
TR_RX2N
TR_RX1P
TR_RX1N
TR_VCC1
TR_VCCTX
TR_VCCRX
TR_SDA
TR_SCL
TR_INT_N
TR_MODPRS_N
TR_LPMODE
TR_MODSEL
TR_RESET_N
Q14_VCC1_C
Q14_TX_VCC_C
Q14_RX_VCC_C
Q14_SDA 43
Q14_SCL 43
Q14_RX_LOSS 14,45
Q14_PRSNT 45
Q14_LPMODE 44
Q14_RESET_N 65
R5228 0,5%
L4122 4.7uH
L4123 4.7uH
L4124 4.7uH
C28000 22uF,6.3V
C28002 0.1uF,10V
C28004 22uF,6.3V
C28003 0.1uF,10V
C28006 22uF,6.3V
C28005 0.1uF,10V
C28001 1000pF,16V
C28007 1000pF,16V
C28008 1000pF,16V
BR_TX4P
BR_TX4N
BR_TX3P
BR_TX3N
BR_TX2P
BR_TX2N
BR_TX1P
BR_TX1N
BR_RX4P
BR_RX4N
BR_RX3P
BR_RX3N
BR_RX2P
BR_RX2N
BR_RX1P
BR_RX1N
BR_VCC1
BR_VCCTX
BR_VCCRX
BR_SDA
BR_SCL
BR_INT_N
BR_MODPRS_N
BR_LPMODE
BR_MODSEL
BR_RESET_N
Q15_VCC1_C
Q15_TX_VCC_C
Q15_RX_VCC_C
Q15_SDA 43
Q15_SCL 43
Q15_RX_LOSS 14,45
Q15_PRSNT 45
Q15_LPMODE 44
Q15_RESET_N 65
R5227 0,5%
L4125 4.7uH
L4127 4.7uH
L4126 4.7uH
C28009 22uF,6.3V
C28010 0.1uF,10V
C28013 22uF,6.3V
C28012 0.1uF,10V
C28015 22uF,6.3V
C28014 0.1uF,10V
C28011 1000pF,16V
C28017 1000pF,16V
C28016 1000pF,16V
GND_TL13
GND_TL16
GND_TL19
GND_TL23
GND_TL26
GND_TL32
GND_BL1
GND_BL4
GND_BL7
GND_BL20
GND_BL13
GND_BL16
GND_BL19
GND_BL23
GND_BL26
GND_BL32
GND_BL35
GND_BL38
GND_TR13
GND_TR16
GND_TR19
GND_TR23
GND_TR26
GND_TR32
GND_BR1
GND_BR4
GND_BR7
GND_BR20
GND_BR13
GND_BR16
GND_BR19
GND_BR23
GND_BR26
GND_BR32
GND_BR35
GND_BR38
GND_SH1
GND_SH2
GND_SH3
GND_SH4
GND_SH5
GND_SH6
GND_SH7
GND_SH8
GND_SH9
GND_SH10
GND_SH11
GND_SH12
GND_SH13
GND_SH15
GND_SH14
GND_SH16
GND_SH17
GND_SH18
GND_SH19
GND_SH20
GND_SH21
GND_SH22
GND_SH23
GND_SH24
GND_SH25
GND_SH26
GND_SH27
GND_SH28
GND_SH29
GND_SH30
GND_SH31
GND_SH32
GND_SH33
GND_SH34
GND_SH35
GND_SH36
GND_SH37
GND_SH38
GND_TL1
GND_TL4
GND_TL7
GND_TL20
GND_TL35
GND_TL38
GND_TR1
GND_TR4
GND_TR7
GND_TR20
GND_TR35
GND_TR38
GND_BR1
GND_BR4
GND_BR7
GND_BR20
GND_BR13
GND_BR16
GND_BR19
GND_BR23
GND_BR26
GND_BR32
GND_BR35
GND_BR38
15 P40_TD+
15 P40_TD-
15 P39_TD+
15 P39_TD-
15 P38_TD+
15 P38_TD-
15 P37_TD+
15 P37_TD-
15 P40_RD+
15 P40_RD-
15 P39_RD+
15 P39_RD-
15 P38_RD+
15 P38_RD-
15 P37_RD+
15 P37_RD-
15 P36_TD+
15 P36_TD-
15 P35_TD+
15 P35_TD-
15 P34_TD+
15 P34_TD-
15 P33_TD+
15 P33_TD-
15 P36_RD+
15 P36_RD-
15 P35_RD+
15 P35_RD-
15 P34_RD+
15 P34_RD-
15 P33_RD+
15 P33_RD-
15 P48_TD+
15 P48_TD-
15 P47_TD+
15 P47_TD-
15 P46_TD+
15 P46_TD-
15 P45_TD+
15 P45_TD-
15 P48_RD+
15 P48_RD-
15 P47_RD+
15 P47_RD-
15 P46_RD+
15 P46_RD-
15 P45_RD+
15 P45_RD-
15 P44_TD+
15 P44_TD-
15 P43_TD+
15 P43_TD-
15 P42_TD+
15 P42_TD-
15 P41_TD+
15 P41_TD-
15 P44_RD+
15 P44_RD-
15 P43_RD+
15 P43_RD-
15 P42_RD+
15 P42_RD-
15 P41_RD+
15 P41_RD-
FACEBOOK
Title
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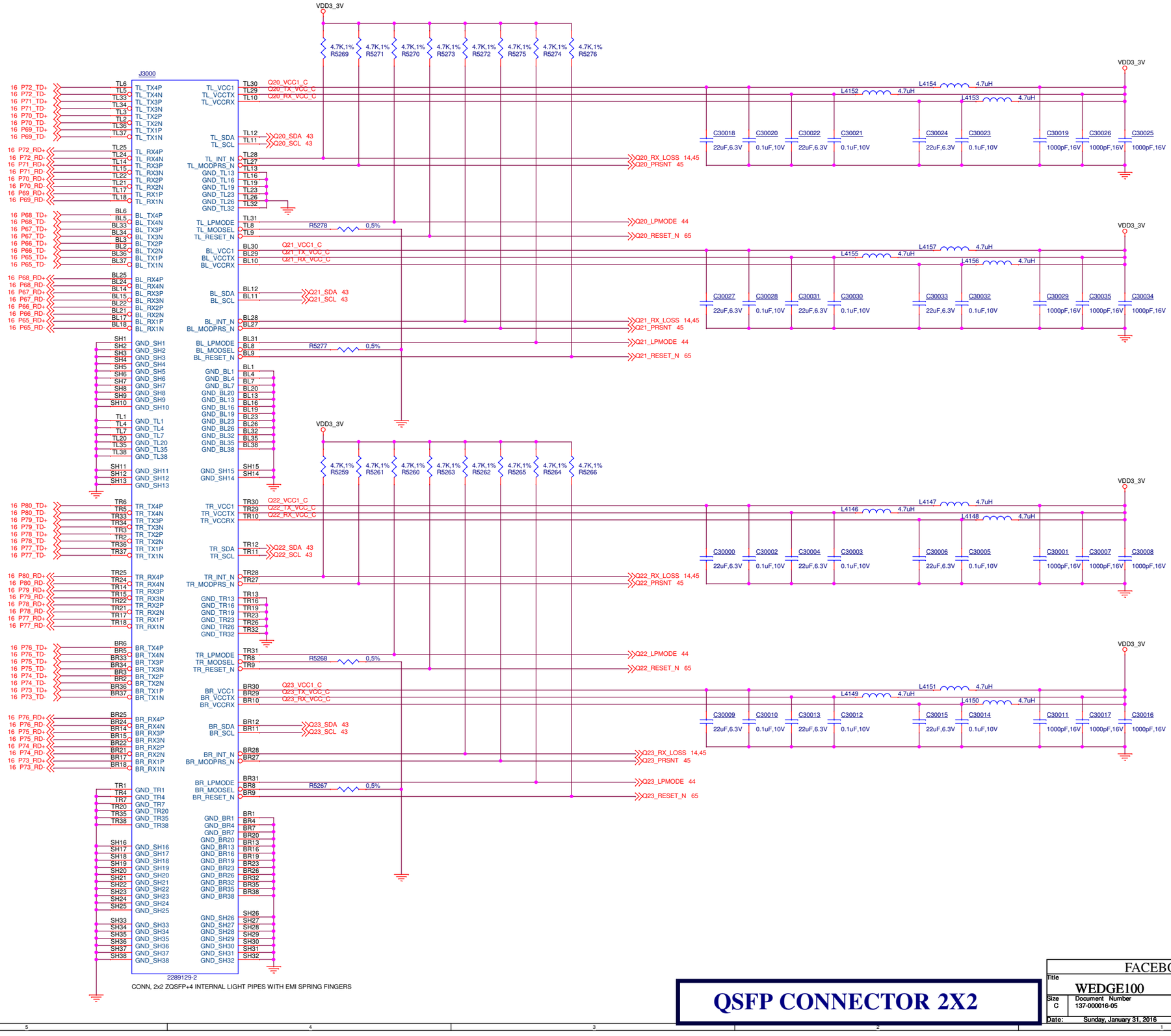
QSFP CONNECTOR 2X2

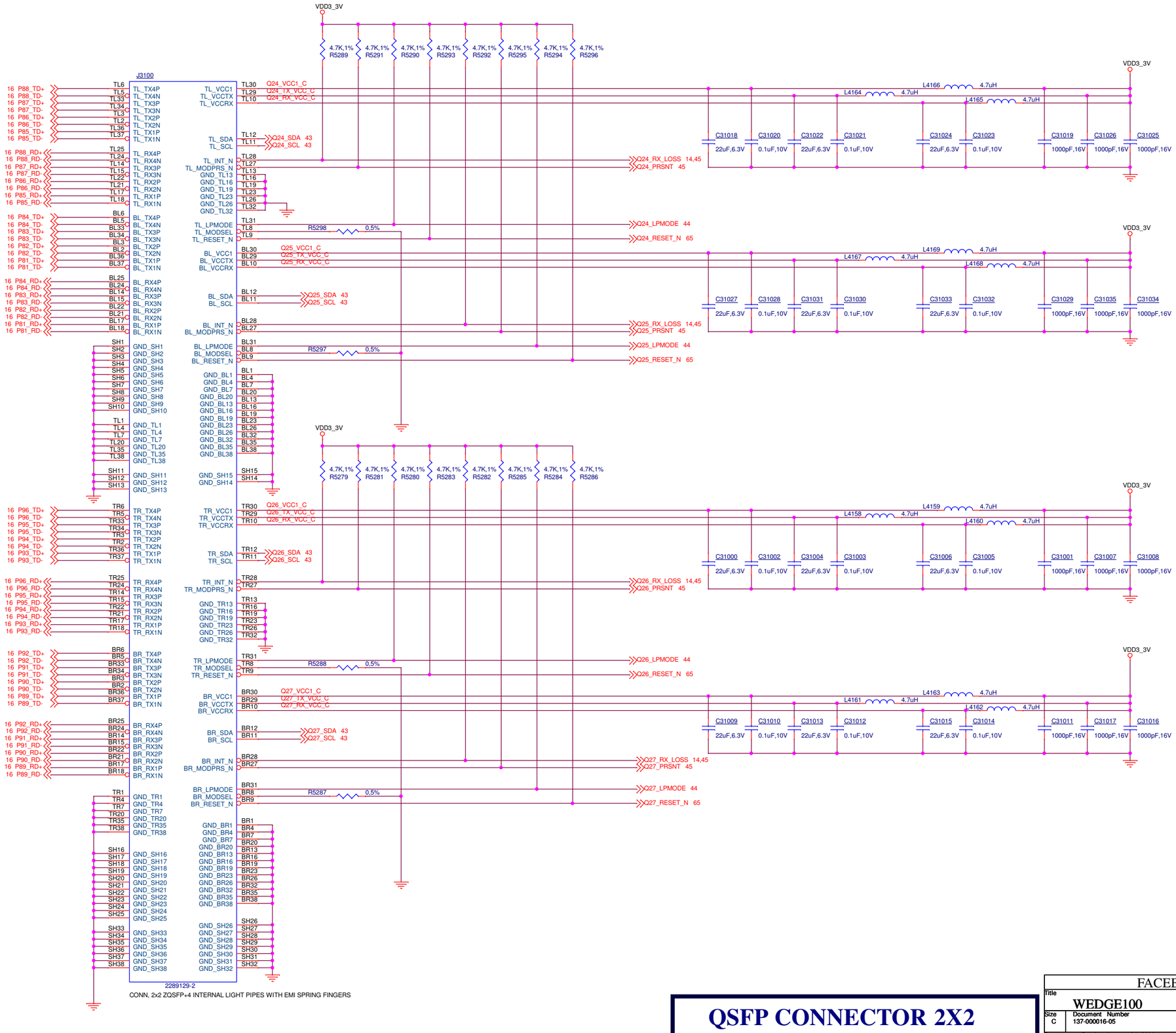
J2900

2289129-2

CONN, 2x2 ZQSFP+4 INTERNAL LIGHT PIPES WITH EMI SPRING FINGERS

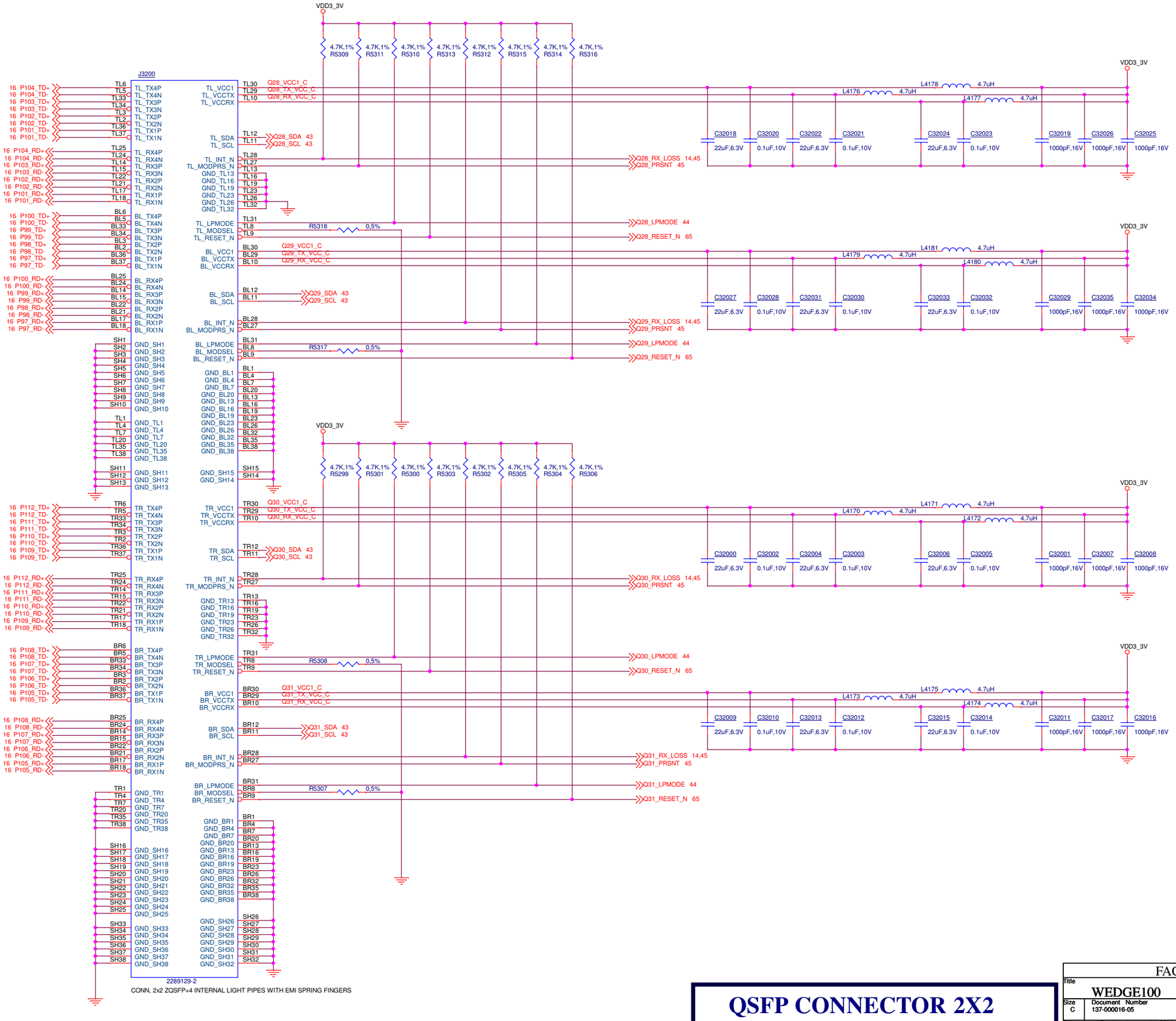
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J3000
VDD3_3V
4.7K,1% R5269
4.7K,1% R5271
4.7K,1% R5270
4.7K,1% R5273
4.7K,1% R5272
4.7K,1% R5275
4.7K,1% R5274
4.7K,1% R5276
TL_TX4P TL_TX4N TL_TX3P TL_TX3N TL_TX2P TL_TX2N TL_TX1P TL_TX1N
TL_RX4P TL_RX4N TL_RX3P TL_RX3N TL_RX2P TL_RX2N TL_RX1P TL_RX1N
TL_VCC1 TL_VCCTX TL_VCCRX
Q20_VCC1_C Q20_TX_VCC_C Q20_RX_VCC_C
TL_SDA TL_SCL
Q20_SDA 43 Q20_SCL 43
TL_INT_N TL_MODPRS_N
Q20_RX_LOSS 14,45 Q20_PRSNT 45
GND_TL13 GND_TL16 GND_TL19 GND_TL23 GND_TL26 GND_TL32
TL_LPMODE TL_MODSEL TL_RESET_N
R5278 0,5%
Q20_LPMODE 44 Q20_RESET_N 65
L4152 4.7uH L4154 4.7uH L4153 4.7uH
C30018 22uF,6.3V C30020 0.1uF,10V C30022 22uF,6.3V C30021 0.1uF,10V
C30024 22uF,6.3V C30023 0.1uF,10V
C30019 1000pF,16V C30026 1000pF,16V C30025 1000pF,16V
BL_TX4P BL_TX4N BL_TX3P BL_TX3N BL_TX2P BL_TX2N BL_TX1P BL_TX1N
BL_RX4P BL_RX4N BL_RX3P BL_RX3N BL_RX2P BL_RX2N BL_RX1P BL_RX1N
BL_VCC1 BL_VCCTX BL_VCCRX
Q21_VCC1_C Q21_TX_VCC_C Q21_RX_VCC_C
BL_SDA BL_SCL
Q21_SDA 43 Q21_SCL 43
BL_INT_N BL_MODPRS_N
Q21_RX_LOSS 14,45 Q21_PRSNT 45
BL_LPMODE BL_MODSEL BL_RESET_N
R5277 0,5%
Q21_LPMODE 44 Q21_RESET_N 65
L4155 4.7uH L4157 4.7uH L4156 4.7uH
C30027 22uF,6.3V C30028 0.1uF,10V C30031 22uF,6.3V C30030 0.1uF,10V
C30033 22uF,6.3V C30032 0.1uF,10V
C30029 1000pF,16V C30035 1000pF,16V C30034 1000pF,16V
GND_SH1 GND_SH2 GND_SH3 GND_SH4 GND_SH5 GND_SH6 GND_SH7 GND_SH8 GND_SH9 GND_SH10
GND_TL1 GND_TL4 GND_TL7 GND_TL20 GND_TL35 GND_TL38
GND_SH11 GND_SH12 GND_SH13
GND_BL1 GND_BL4 GND_BL7 GND_BL20 GND_BL13 GND_BL16 GND_BL19 GND_BL23 GND_BL26 GND_BL32 GND_BL35 GND_BL38
GND_SH15 GND_SH14
VDD3_3V
4.7K,1% R5259
4.7K,1% R5261
4.7K,1% R5260
4.7K,1% R5263
4.7K,1% R5262
4.7K,1% R5265
4.7K,1% R5264
4.7K,1% R5266
TR_TX4P TR_TX4N TR_TX3P TR_TX3N TR_TX2P TR_TX2N TR_TX1P TR_TX1N
TR_RX4P TR_RX4N TR_RX3P TR_RX3N TR_RX2P TR_RX2N TR_RX1P TR_RX1N
TR_VCC1 TR_VCCTX TR_VCCRX
Q22_VCC1_C Q22_TX_VCC_C Q22_RX_VCC_C
TR_SDA TR_SCL
Q22_SDA 43 Q22_SCL 43
TR_INT_N TR_MODPRS_N
Q22_RX_LOSS 14,45 Q22_PRSNT 45
GND_TR13 GND_TR16 GND_TR19 GND_TR23 GND_TR26 GND_TR32
TR_LPMODE TR_MODSEL TR_RESET_N
R5268 0,5%
Q22_LPMODE 44 Q22_RESET_N 65
L4146 4.7uH L4147 4.7uH L4148 4.7uH
C30000 22uF,6.3V C30002 0.1uF,10V C30004 22uF,6.3V C30003 0.1uF,10V
C30006 22uF,6.3V C30005 0.1uF,10V
C30001 1000pF,16V C30007 1000pF,16V C30008 1000pF,16V
BR_TX4P BR_TX4N BR_TX3P BR_TX3N BR_TX2P BR_TX2N BR_TX1P BR_TX1N
BR_RX4P BR_RX4N BR_RX3P BR_RX3N BR_RX2P BR_RX2N BR_RX1P BR_RX1N
BR_VCC1 BR_VCCTX BR_VCCRX
Q23_VCC1_C Q23_TX_VCC_C Q23_RX_VCC_C
BR_SDA BR_SCL
Q23_SDA 43 Q23_SCL 43
BR_INT_N BR_MODPRS_N
Q23_RX_LOSS 14,45 Q23_PRSNT 45
BR_LPMODE BR_MODSEL BR_RESET_N
R5267 0,5%
Q23_LPMODE 44 Q23_RESET_N 65
L4149 4.7uH L4151 4.7uH L4150 4.7uH
C30009 22uF,6.3V C30010 0.1uF,10V C30013 22uF,6.3V C30012 0.1uF,10V
C30015 22uF,6.3V C30014 0.1uF,10V
C30011 1000pF,16V C30017 1000pF,16V C30016 1000pF,16V
GND_TR1 GND_TR4 GND_TR7 GND_TR20 GND_TR35 GND_TR38
GND_SH16 GND_SH17 GND_SH18 GND_SH19 GND_SH20 GND_SH21 GND_SH22 GND_SH23 GND_SH24 GND_SH25
GND_SH33 GND_SH34 GND_SH35 GND_SH36 GND_SH37 GND_SH38
GND_BR1 GND_BR4 GND_BR7 GND_BR20 GND_BR13 GND_BR16 GND_BR19 GND_BR23 GND_BR26 GND_BR32 GND_BR35 GND_BR38
GND_SH26 GND_SH27 GND_SH28 GND_SH29 GND_SH30 GND_SH31 GND_SH32
2289129-2
CONN, 2x2 ZQSFP+4 INTERNAL LIGHT PIPES WITH EMI SPRING FINGERS
QSFP CONNECTOR 2X2
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CHANGE NOTE:SMAs J4221,J4222,J4223,J4224 DELETED

J3300

VDD3_3V

4.7K,1% R5329 · 4.7K,1% R5331 · 4.7K,1% R5330 · 4.7K,1% R5333 · 4.7K,1% R5332 · 4.7K,1% R5335 · 4.7K,1% R5334 · 4.7K,1% R5336

16 P120_TD+	TL6	TL_TX4P	TL_VCC1	TL30	Q0_VCC1_C
16 P120_TD-	TL5	TL_TX4N	TL_VCCTX	TL29	Q0_TX_VCC_C
16 P119_TD+	TL33	TL_TX3P	TL_VCCRX	TL10	Q0_RX_VCC_C
16 P119_TD-	TL34	TL_TX3N			
16 P118_TD+	TL3	TL_TX2P			
16 P118_TD-	TL2	TL_TX2N			
16 P117_TD+	TL36	TL_TX1P			
16 P117_TD-	TL37	TL_TX1N			
			TL_SDA	TL12	Q0_SDA 43
			TL_SCL	TL11	Q0_SCL 43
16 P120_RD+	TL25	TL_RX4P			
16 P120_RD-	TL24	TL_RX4N	TL_INT_N	TL28	Q0_RX_LOSS 14,45
16 P119_RD+	TL14	TL_RX3P	TL_MODPRS_N	TL27	Q0_PRSNT 45
16 P119_RD-	TL15	TL_RX3N	GND_TL13	TL13	
16 P118_RD+	TL22	TL_RX2P	GND_TL16	TL16	
16 P118_RD-	TL21	TL_RX2N	GND_TL19	TL19	
16 P117_RD+	TL17	TL_RX1P	GND_TL23	TL23	
16 P117_RD-	TL18	TL_RX1N	GND_TL26	TL26	
			GND_TL32	TL32	
16 P116_TD+	BL6	BL_TX4P	TL_LPMODE	TL31	Q0_LPMODE 44
16 P116_TD-	BL5	BL_TX4N	TL_MODSEL	TL8	R5338 0.5%
16 P115_TD+	BL33	BL_TX3P	TL_RESET_N	TL9	Q0_RESET_N 65
16 P115_TD-	BL34	BL_TX3N			
16 P114_TD+	BL3	BL_TX2P			
16 P114_TD-	BL2	BL_TX2N			
16 P113_TD+	BL36	BL_TX1P	BL_VCC1	BL30	Q1_VCC1_C
16 P113_TD-	BL37	BL_TX1N	BL_VCCTX	BL29	Q1_TX_VCC_C
			BL_VCCRX	BL10	Q1_RX_VCC_C
16 P116_RD+	BL25	BL_RX4P			
16 P116_RD-	BL24	BL_RX4N			
16 P115_RD+	BL14	BL_RX3P	BL_SDA	BL12	Q1_SDA 43
16 P115_RD-	BL15	BL_RX3N	BL_SCL	BL11	Q1_SCL 43
16 P114_RD+	BL22	BL_RX2P			
16 P114_RD-	BL21	BL_RX2N			
16 P113_RD+	BL17	BL_RX1P	BL_INT_N	BL28	Q1_RX_LOSS 14,45
16 P113_RD-	BL18	BL_RX1N	BL_MODPRS_N	BL27	Q1_PRSNT 45
			BL_LPMODE	BL31	Q1_LPMODE 44
			BL_MODSEL	BL8	R5337 0.5%
			BL_RESET_N	BL9	Q1_RESET_N 65

	SH1	GND_SH1	GND_BL1	BL1	
	SH2	GND_SH2	GND_BL4	BL4	
	SH3	GND_SH3	GND_BL7	BL7	
	SH4	GND_SH4	GND_BL20	BL20	
	SH5	GND_SH5	GND_BL13	BL13	
	SH6	GND_SH6	GND_BL16	BL16	
	SH7	GND_SH7	GND_BL19	BL19	
	SH8	GND_SH8	GND_BL23	BL23	
	SH9	GND_SH9	GND_BL26	BL26	
	SH10	GND_SH10	GND_BL32	BL32	
	TL1	GND_TL1	GND_BL35	BL35	
	TL4	GND_TL4	GND_BL38	BL38	
	TL7	GND_TL7			
	TL20	GND_TL20			
	TL35	GND_TL35			
	TL38	GND_TL38			
	SH11	GND_SH11	GND_SH15	SH15	
	SH12	GND_SH12	GND_SH14	SH14	
	SH13	GND_SH13			

VDD3_3V

4.7K,1% R5319 · 4.7K,1% R5321 · 4.7K,1% R5320 · 4.7K,1% R5323 · 4.7K,1% R5322 · 4.7K,1% R5325 · 4.7K,1% R5324 · 4.7K,1% R5326

16 P128_TD+	TR6	TR_TX4P	TR_VCC1	TR30	Q2_VCC1_C
16 P128_TD-	TR5	TR_TX4N	TR_VCCTX	TR29	Q2_TX_VCC_C
16 P127_TD+	TR33	TR_TX3P	TR_VCCRX	TR10	Q2_RX_VCC_C
16 P127_TD-	TR34	TR_TX3N			
16 P126_TD+	TR3	TR_TX2P			
16 P126_TD-	TR2	TR_TX2N			
16 P125_TD+	TR36	TR_TX1P			
16 P125_TD-	TR37	TR_TX1N			
			TR_SDA	TR12	Q2_SDA 43
			TR_SCL	TR11	Q2_SCL 43
16 P128_RD+	TR25	TR_RX4P			
16 P128_RD-	TR24	TR_RX4N	TR_INT_N	TR28	Q2_RX_LOSS 14,45
16 P127_RD+	TR14	TR_RX3P	TR_MODPRS_N	TR27	Q2_PRSNT 45
16 P127_RD-	TR15	TR_RX3N	GND_TR13	TR13	
16 P126_RD+	TR22	TR_RX2P	GND_TR16	TR16	
16 P126_RD-	TR21	TR_RX2N	GND_TR19	TR19	
16 P125_RD+	TR17	TR_RX1P	GND_TR23	TR23	
16 P125_RD-	TR18	TR_RX1N	GND_TR26	TR26	
			GND_TR32	TR32	
16 P124_TD+	BR6	BR_TX4P	TR_LPMODE	TR31	Q2_LPMODE 44
16 P124_TD-	BR5	BR_TX4N	TR_MODSEL	TR8	R5328 0.5%
16 P123_TD+	BR33	BR_TX3P	TR_RESET_N	TR9	Q2_RESET_N 65
16 P123_TD-	BR34	BR_TX3N			
16 P122_TD+	BR3	BR_TX2P			
16 P122_TD-	BR2	BR_TX2N			
16 P121_TD+	BR36	BR_TX1P	BR_VCC1	BR30	Q3_VCC1_C
16 P121_TD-	BR37	BR_TX1N	BR_VCCTX	BR29	Q3_TX_VCC_C
			BR_VCCRX	BR10	Q3_RX_VCC_C
16 P124_RD+	BR25	BR_RX4P			
16 P124_RD-	BR24	BR_RX4N			
16 P123_RD+	BR14	BR_RX3P	BR_SDA	BR12	Q3_SDA 43
16 P123_RD-	BR15	BR_RX3N	BR_SCL	BR11	Q3_SCL 43
16 P122_RD+	BR22	BR_RX2P			
16 P122_RD-	BR21	BR_RX2N			
16 P121_RD+	BR17	BR_RX1P	BR_INT_N	BR28	Q3_RX_LOSS 14,45
16 P121_RD-	BR18	BR_RX1N	BR_MODPRS_N	BR27	Q3_PRSNT 45
			BR_LPMODE	BR31	Q3_LPMODE 44
			BR_MODSEL	BR8	R5327 0.5%
			BR_RESET_N	BR9	Q3_RESET_N 65

	TR1	GND_TR1	GND_BR1	BR1	
	TR4	GND_TR4	GND_BR4	BR4	
	TR7	GND_TR7	GND_BR7	BR7	
	TR20	GND_TR20	GND_BR20	BR20	
	TR35	GND_TR35	GND_BR13	BR13	
	TR38	GND_TR38	GND_BR16	BR16	
	SH16	GND_SH16	GND_BR19	BR19	
	SH17	GND_SH17	GND_BR23	BR23	
	SH18	GND_SH18	GND_BR26	BR26	
	SH19	GND_SH19	GND_BR32	BR32	
	SH20	GND_SH20	GND_BR35	BR35	
	SH21	GND_SH21	GND_BR38	BR38	
	SH22	GND_SH22			
	SH23	GND_SH23			
	SH24	GND_SH24			
	SH25	GND_SH25			
	SH33	GND_SH33	GND_SH26	SH26	
	SH34	GND_SH34	GND_SH27	SH27	
	SH35	GND_SH35	GND_SH28	SH28	
	SH36	GND_SH36	GND_SH29	SH29	
	SH37	GND_SH37	GND_SH30	SH30	
	SH38	GND_SH38	GND_SH31	SH31	
			GND_SH32	SH32	

2289129-2

CONN, 2x2 ZQSFP+4 INTERNAL LIGHT PIPES WITH EMI SPRING FINGERS

VDD3_3V

L4190 4.7uH · L4188 4.7uH · L4189 4.7uH

C33018 22uF,6.3V · C33020 0.1uF,10V · C33022 22uF,6.3V · C33021 0.1uF,10V · C33024 22uF,6.3V · C33023 0.1uF,10V · C33019 1000pF,16V · C33026 1000pF,16V · C33025 1000pF,16V

VDD3_3V

L4193 4.7uH · L4191 4.7uH · L4192 4.7uH

C33027 22uF,6.3V · C33028 0.1uF,10V · C33031 22uF,6.3V · C33030 0.1uF,10V · C33033 22uF,6.3V · C33032 0.1uF,10V · C33029 1000pF,16V · C33035 1000pF,16V · C33034 1000pF,16V

VDD3_3V

L4183 4.7uH · L4182 4.7uH · L4184 4.7uH

C33000 22uF,6.3V · C33002 0.1uF,10V · C33004 22uF,6.3V · C33003 0.1uF,10V · C33006 22uF,6.3V · C33005 0.1uF,10V · C33001 1000pF,16V · C33007 1000pF,16V · C33008 1000pF,16V

VDD3_3V

L4187 4.7uH · L4185 4.7uH · L4186 4.7uH

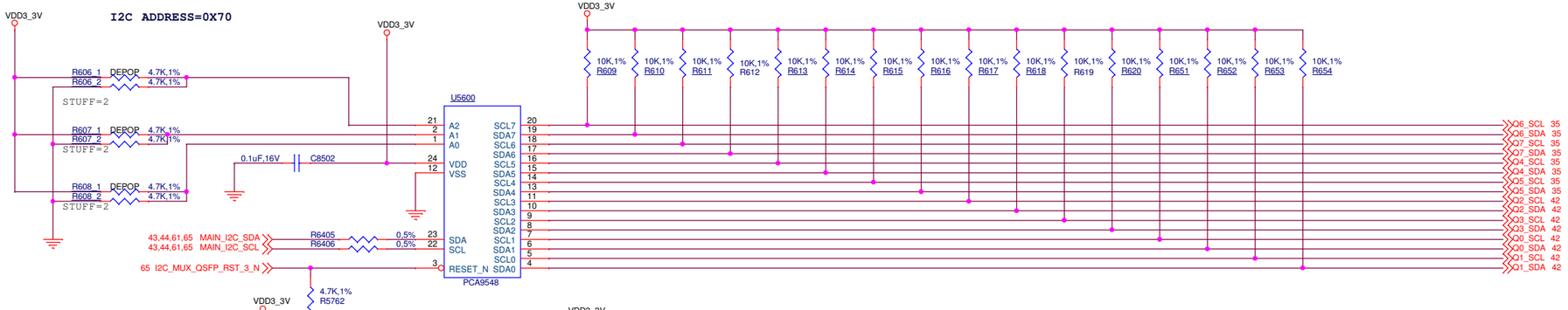
C33009 22uF,6.3V · C33010 0.1uF,10V · C33013 22uF,6.3V · C33012 0.1uF,10V · C33015 22uF,6.3V · C33014 0.1uF,10V · C33011 1000pF,16V · C33017 1000pF,16V · C33016 1000pF,16V

QSFP CONNECTOR 2X2

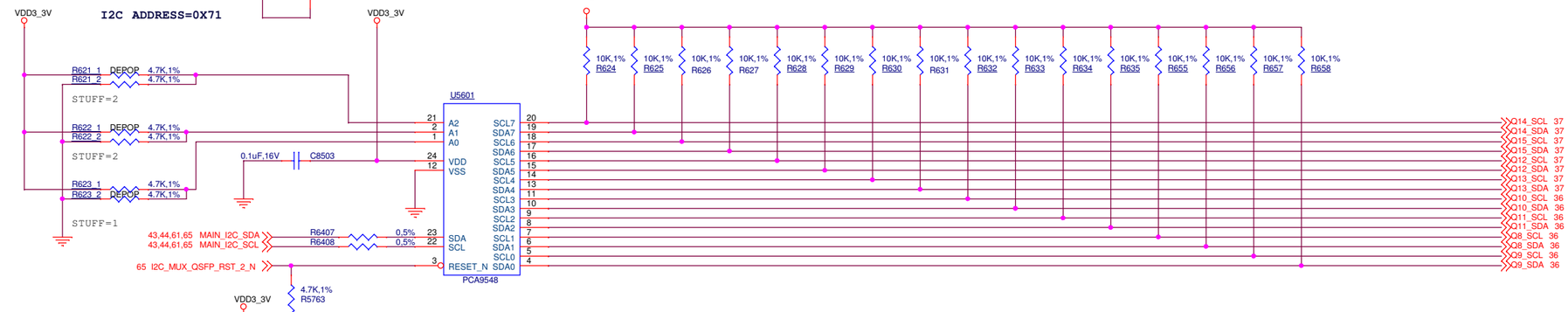
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Date: Sunday, January 31, 2016	Sheet 42 of 83		

QSFP I2C INTERFACE

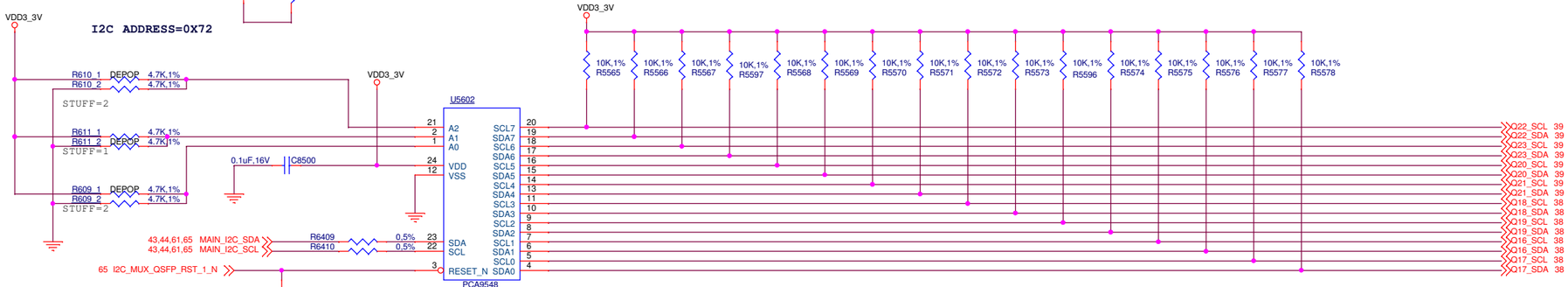
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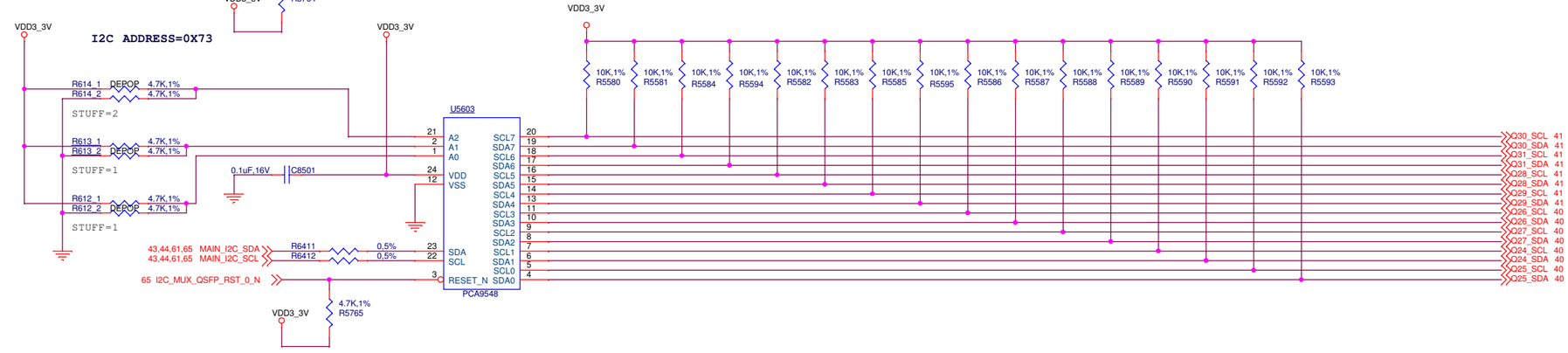
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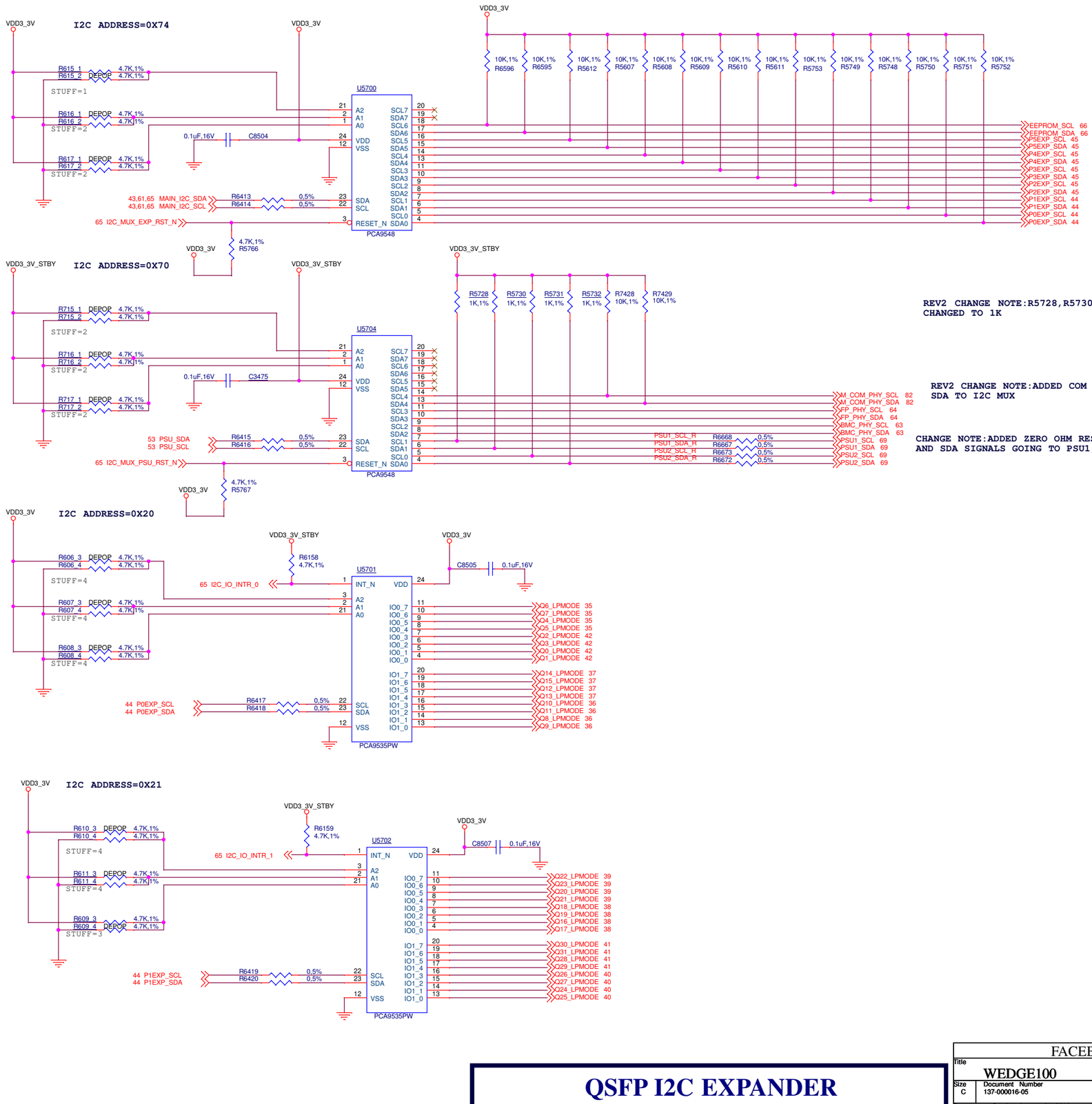
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I2C ADDRESS=0X73

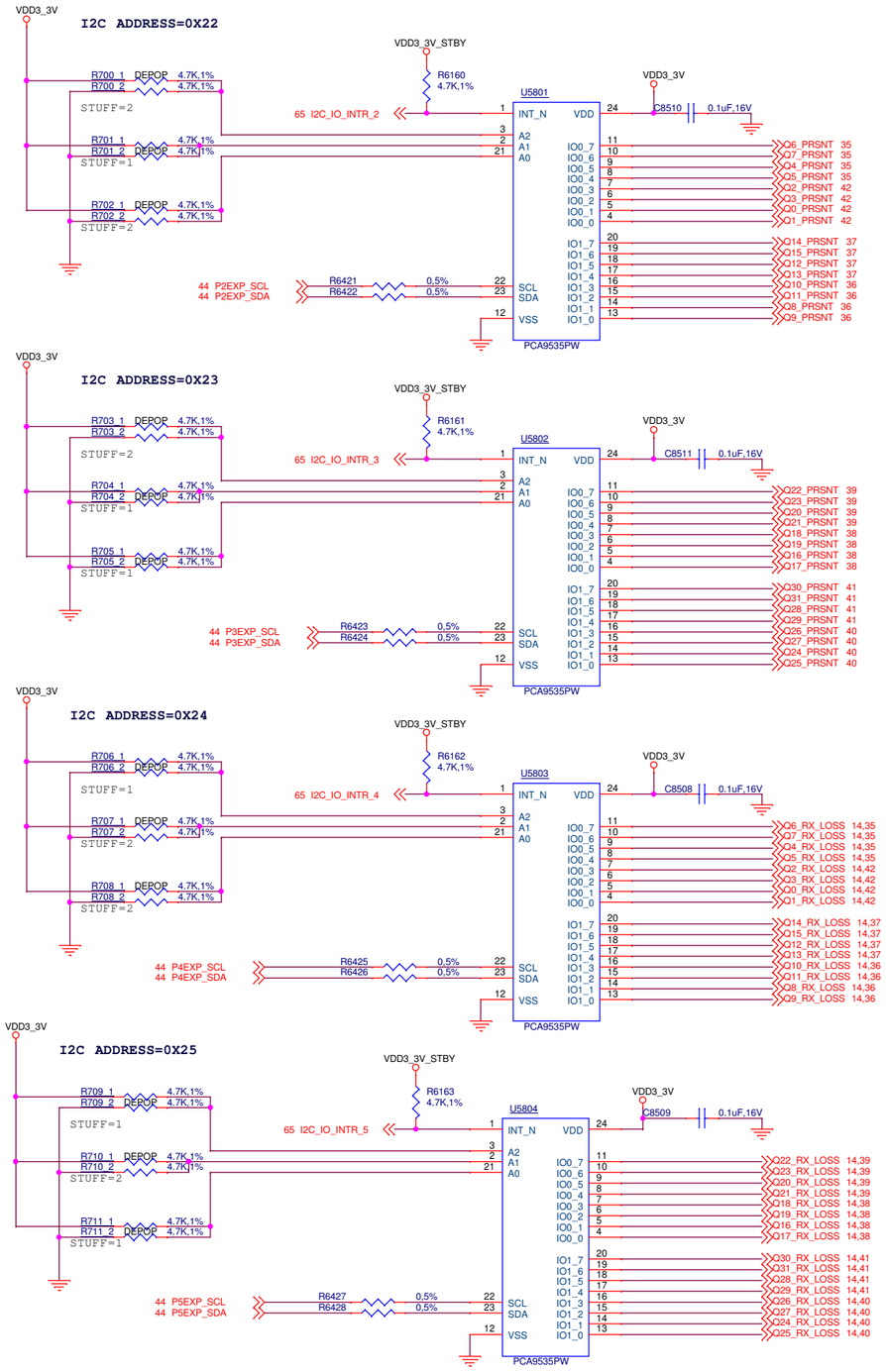


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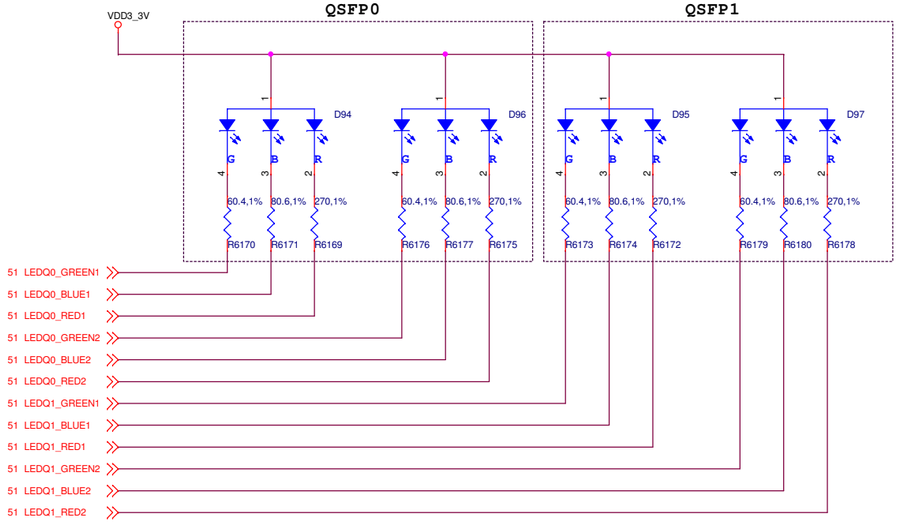
QSFP I2C EXPANDER

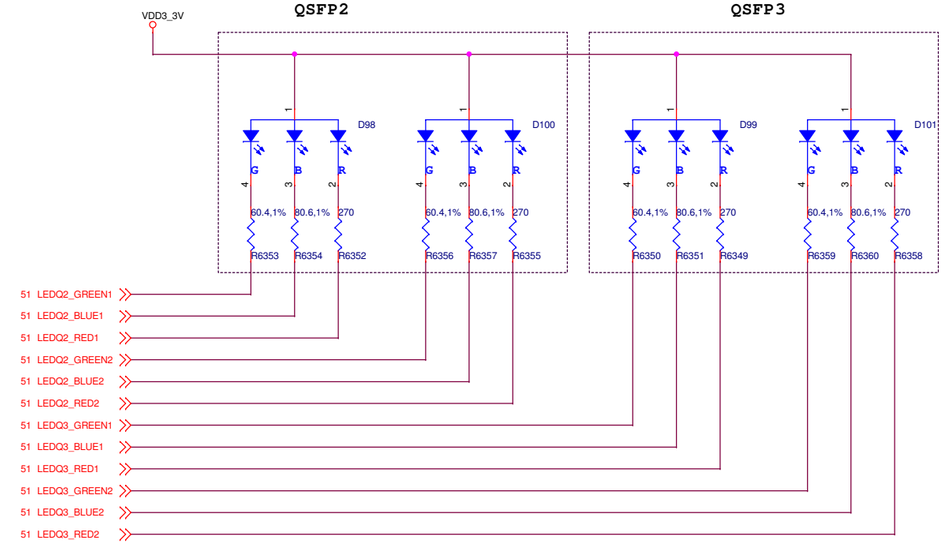
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Date: Sunday, January 31, 2016	Sheet 44 of 83	

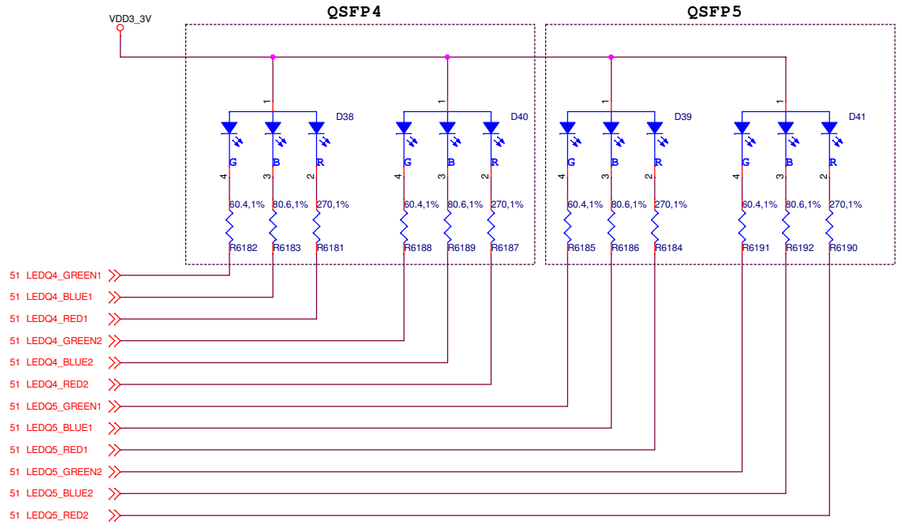


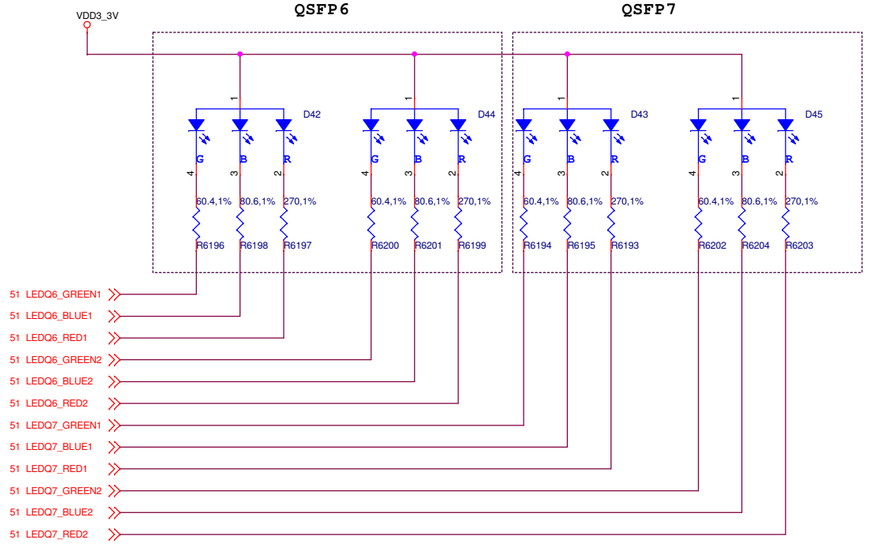
QSFP I2C EXPANDER

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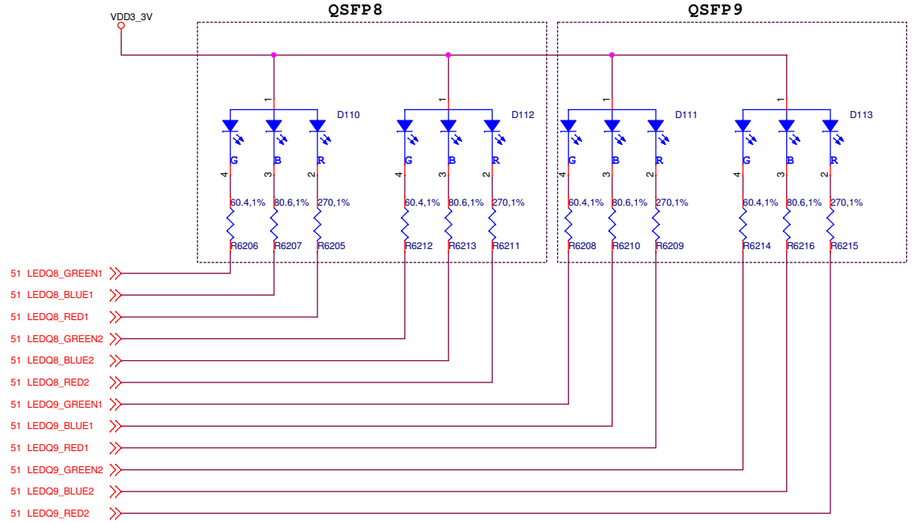
QSFP LEDS-1

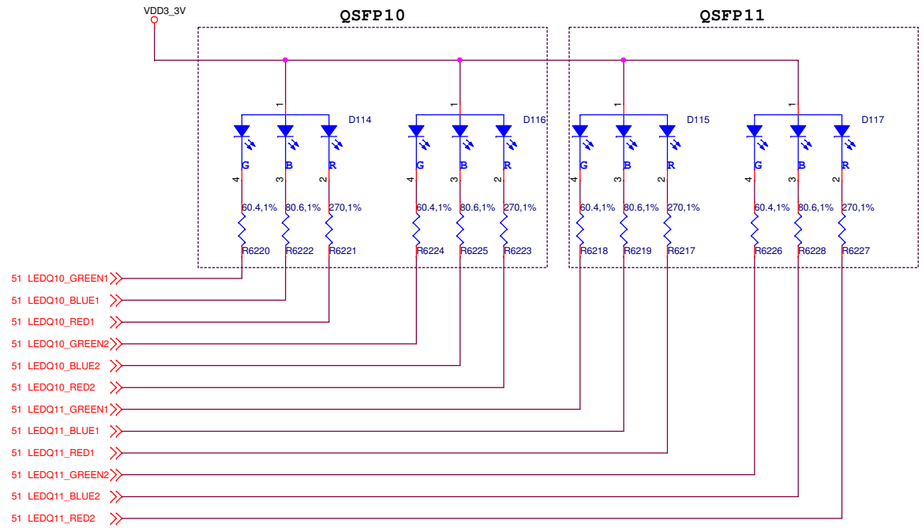
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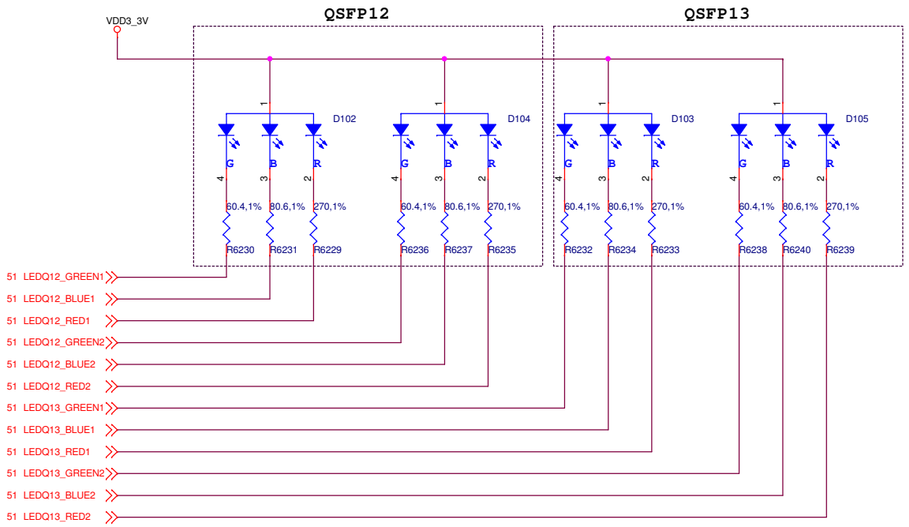
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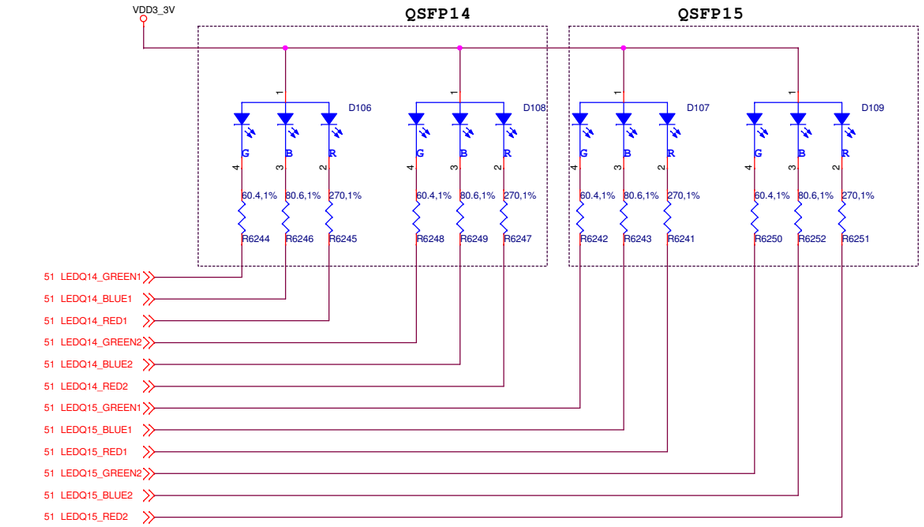
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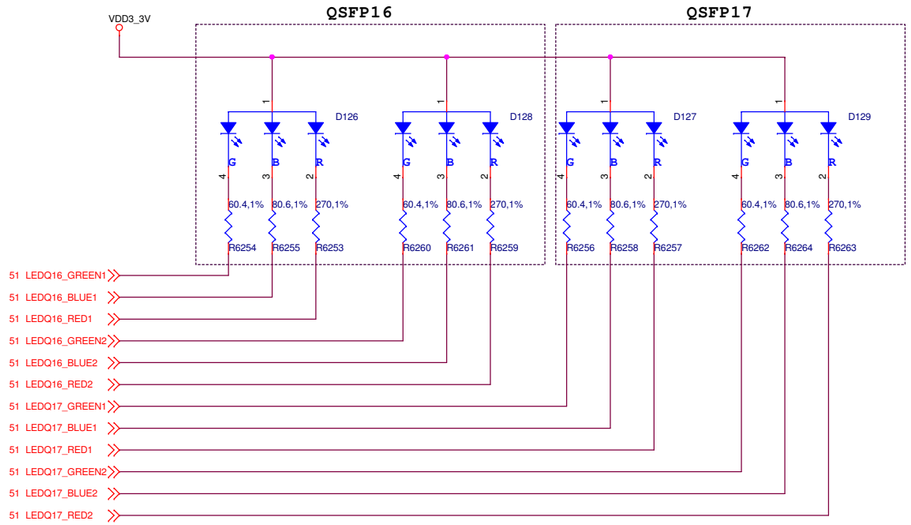
QSFP LEDS-2

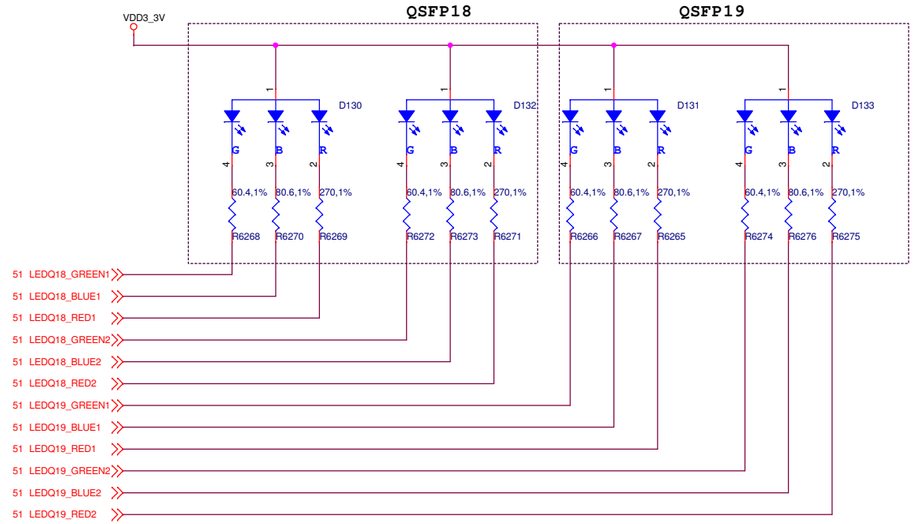
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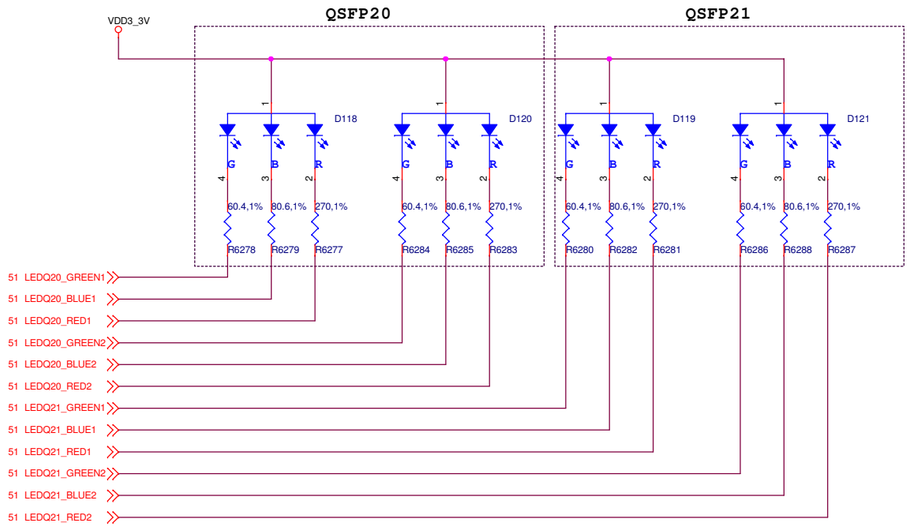
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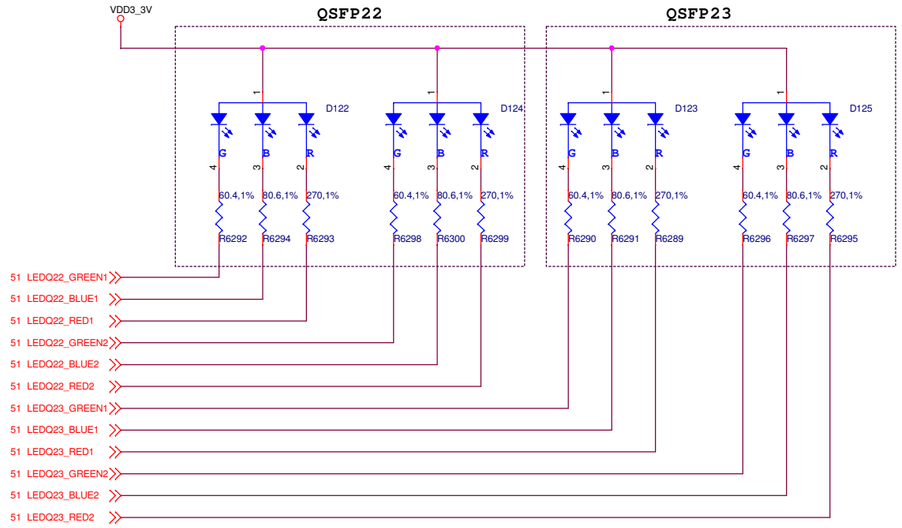
Size	Document Number	Rev
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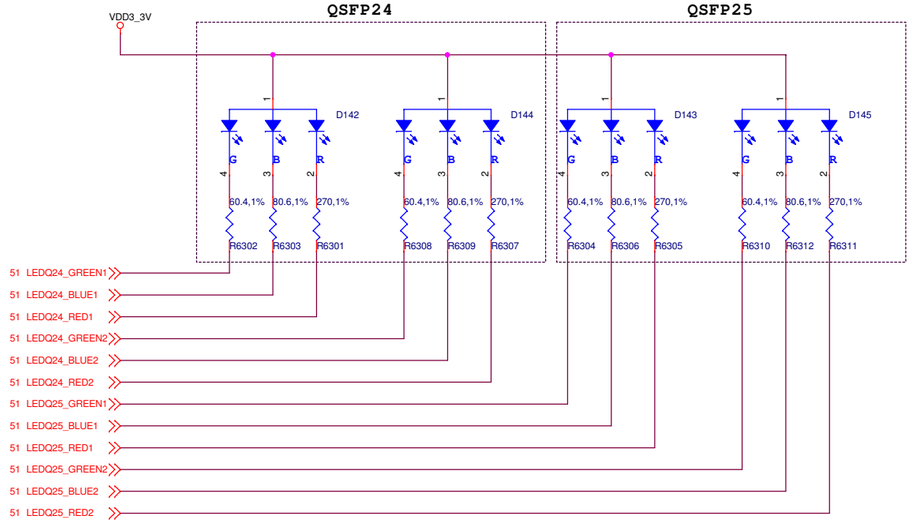
QSFP LEDS-3

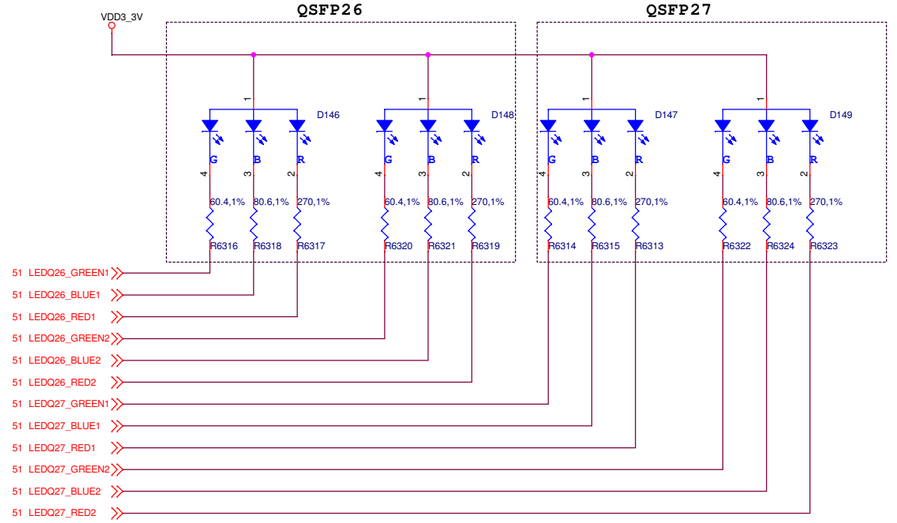
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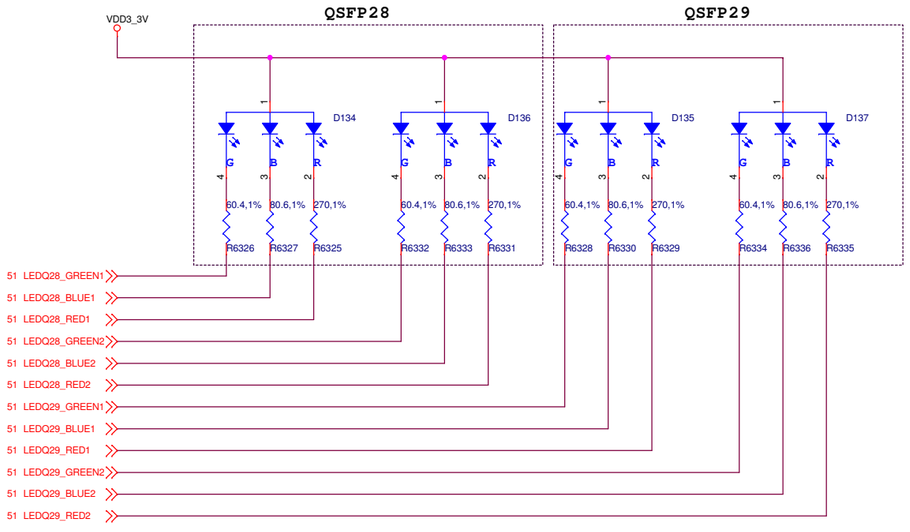
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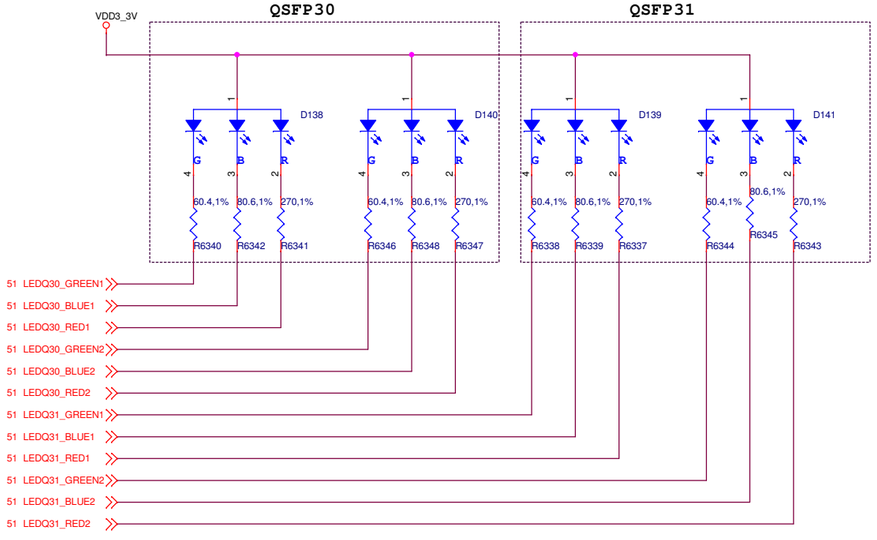
Size	Document Number	Rev
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QSFP LEDS-4

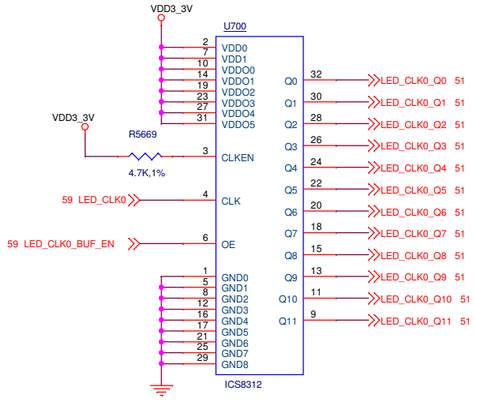
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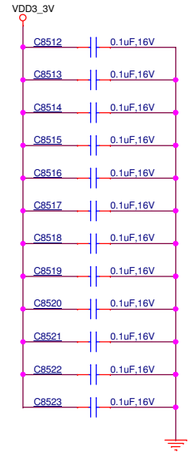
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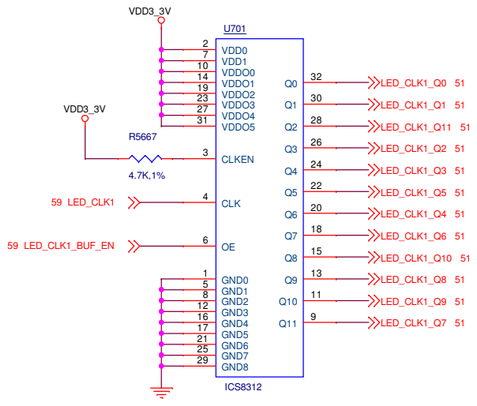
Size	Document Number	Rev
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REV3 CHANGE NOTE:CHANGED MFG_PN OF U700 AND U701 WITH COMMERCIAL PART -8312AYLFT







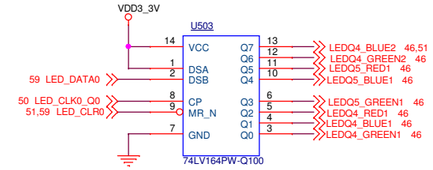
REV2 CHANGE NOTE: SWAPPING DONE AT U701 OUTPUTS

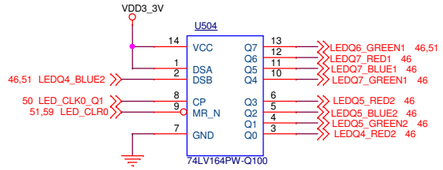
QSFP LED CLOCK FANOUT BUFFERS

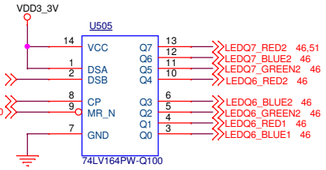
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Size: C	Document Number: 137-000016-05	Rev: 0.4
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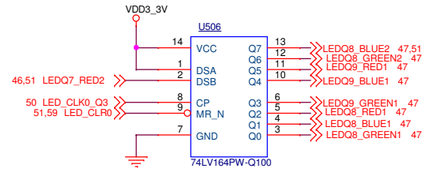
NOTE: LED STREAM IS BASED ON TOMAHAWK PORT ORDER

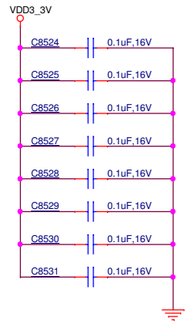
REV2 CHANGE NOTE: SHIFT REGISTERS ARE RE ARRANGED AS PER THE NEW TOMAHAWK LED DATA OUT

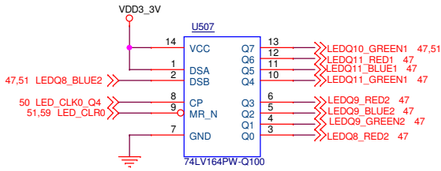


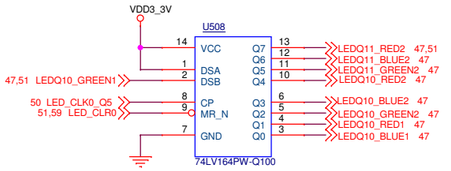


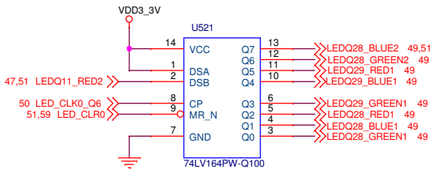


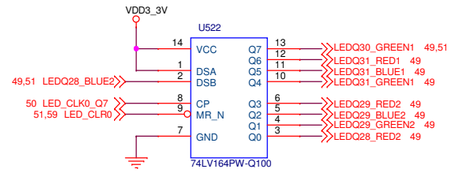


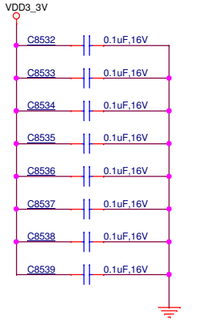


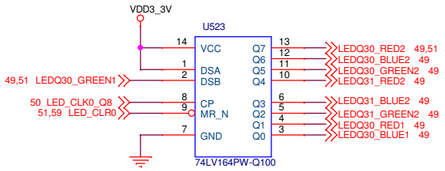


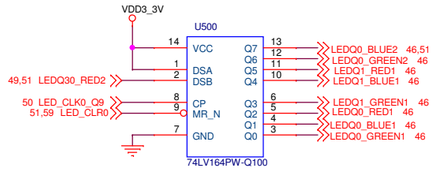


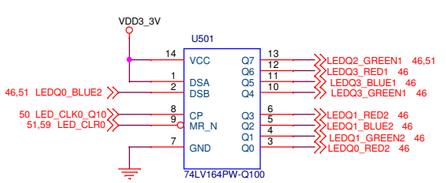


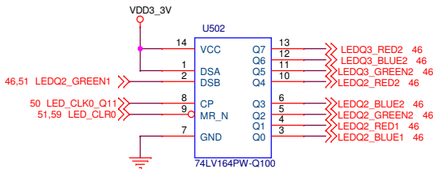


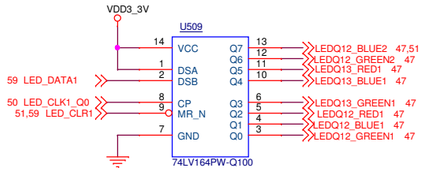


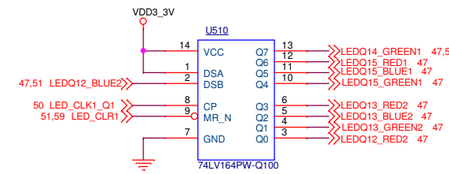


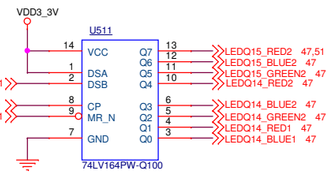


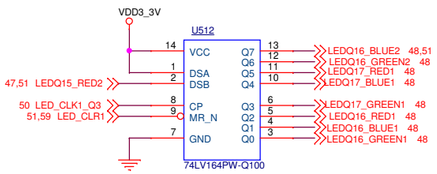


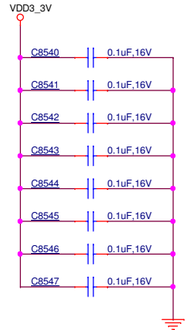


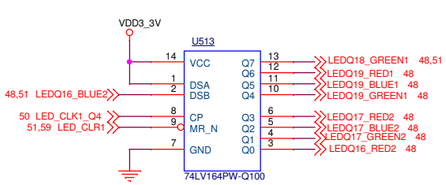


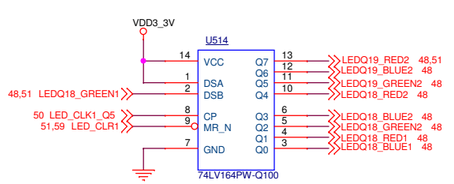


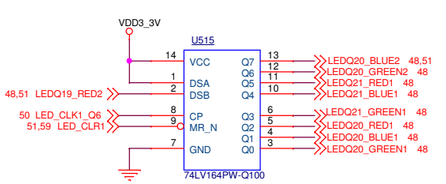


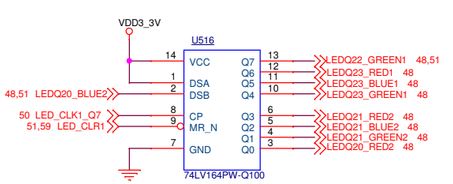


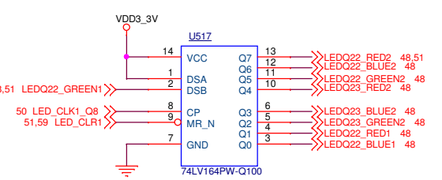


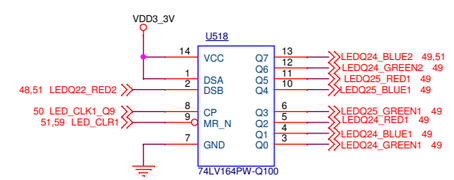


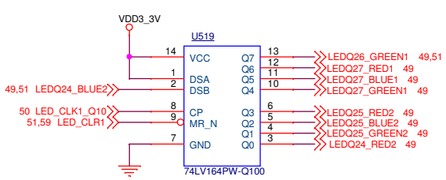


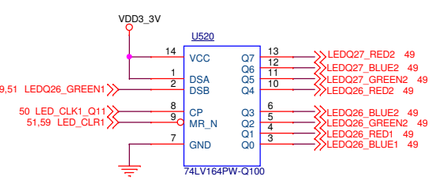












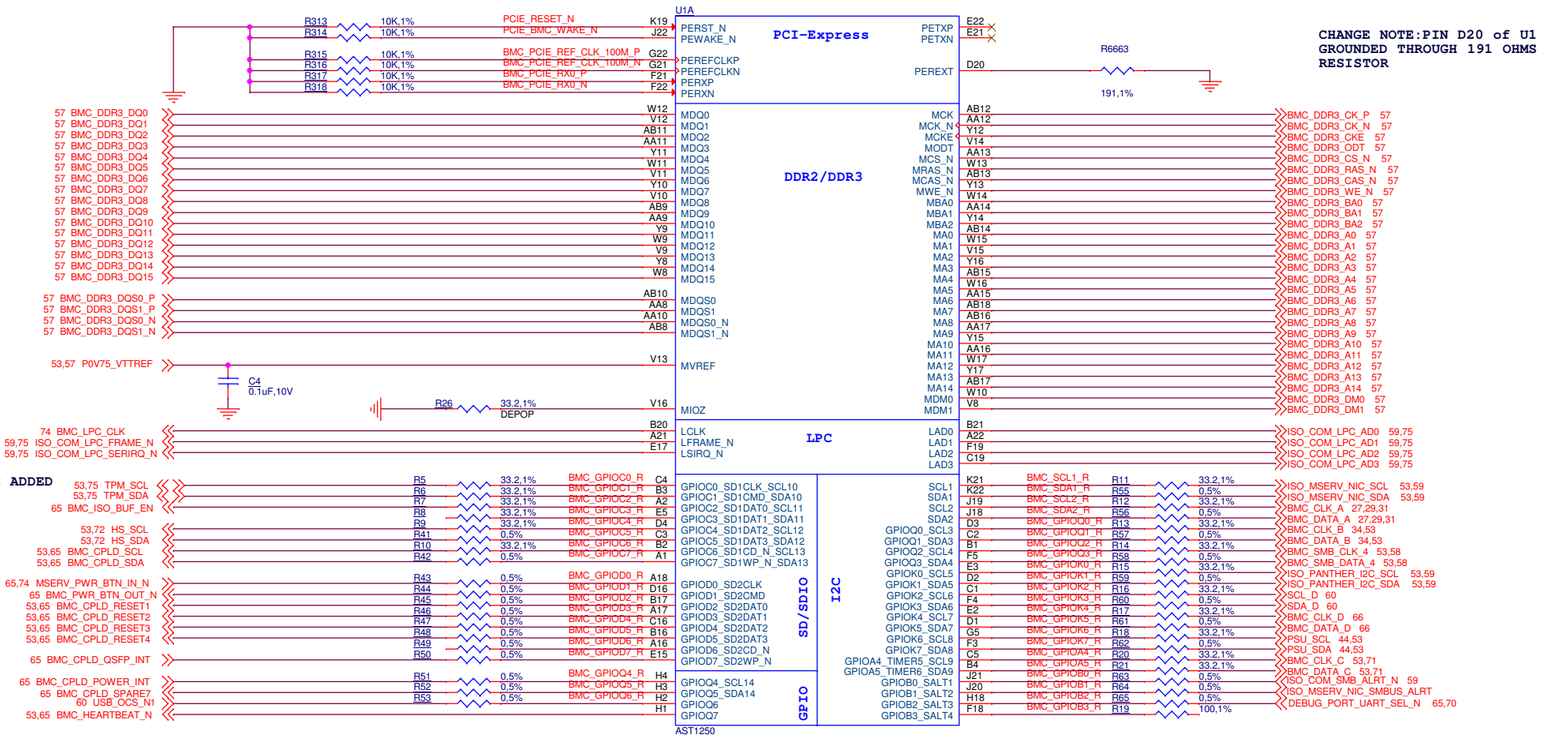
QSFP LED SHIFT REGISTERS

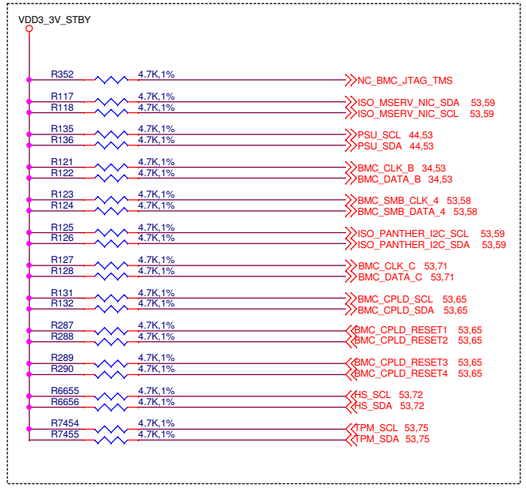
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Size: C	Document Number: 137-000016-05	Rev: 0.4
Date: Sunday, January 31, 2016	Sheet 51 of 83	

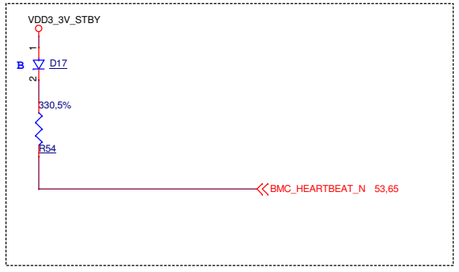
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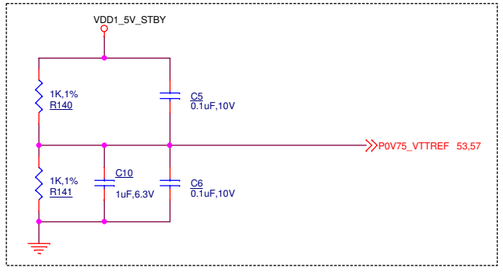
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Title: WEDGE100		
Size: C	Document Number: 137-000016-05	Rev: 0.4
Date: Sunday, January 31, 2016	Sheet 52 of 83	









REV3 CHANGE NOTE:PULL UP FOR TPM I2C ADDED

BMC- PAGE1

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RACKPORT BITS ARE DELETED BECAUSE THESE FUNCTIONS ARE MOVED TO RACKMON CONNECTOR

PREVIOUSLY ALL 12V INFORMATION WERE COLLECTED FROM HOT SWAP ,NOW ITS THROUGH I2C

65 ISO_MICROSRV_PRSNT_N

R6862 4.7K,1% DEPOP

REV2 CHANGE NOTE:BMC SPI TO TPM MODULE

REV3 CHANGE NOTE:SPI SIGNALS DELETED

U1B

AST1250

BMC NOR/NAND/SPI

57 SPI_IBMC_BT_CS_N	R29	33.2,1%	SPI_IBMC_BT_CS_N_R	R19	ROMCS0_N	ROMA0	R20
57 SPI_IBMC_BT_CS1_N	R6516	33.2,1%	SPI_IBMC_BT_CS1_N_R	V20	GPIOR0_ROMCS1_N	ROMA1	R21
				W21		ROMA2	R22
				V23	GPIOR1_ROMCS2_N	ROMA3	P18
			NC_DEBUG_SYS_SEL	U19	GPIOR2_ROMCS3_N	ROMA4	P19
			NC_BMC_PWR_BTN	R18	GPIOR3_ROMCS4_N	ROMA5	P20
			NC_BMC_RST_BTN	N21	ROMOE_N_GPIOS4	ROMA6	P21
					ROMWE_N_GPIOS5	ROMA7	P22
						ROMA8	M19
58 SPI_IBMC_BT_CLK_R	R28	33.2,1%				ROMA9	M20
57 SPI_IBMC_BT_CLK				T22	ROMD0	ROMA10	M21
58 SPI_IBMC_BT_DO_R	R27	33.2,1%		T21	ROMD1	ROMA11	M22
57 SPI_IBMC_BT_DO				T20	ROMD2	ROMA12	L18
57,58 SPI_IBMC_BT_DI				U22	ROMD3	ROMA13	L19
57 SPI_IBMC_BT_D2				U21	ROMD4_GPIOS0_VPODE	ROMA14	L20
65 BMC_SPI_WP_N	R66	0,5%	SAS_FLT_0_R	T19	ROMD5_GPIOS1_VPOHS	ROMA15	L21
	R67	0,5%	SAS_FLT_1_R	V22	ROMD6_GPIOS2_VPOVS	ROMA16	T18
	R68	0,5%	SAS_FLT_2_R	U20	ROMD7_GPIOS3_VPOCLK	ROMA17	N18
				A8	GPIOH0_ROMD8_NCTS6	ROMA18	N19
				C7	GPIOH1_ROMD9_NDCD6	ROMA19	M18
				B7	GPIOH2_ROMD10_NDSR6	ROMA20	N22
70 QSFP_LED_POSITION	R73	0,5%	SAS_FLT_7_R	A7	GPIOH3_ROMD11_NRI6	ROMA21	N20
34,65 PM_SM_ALERT_N	R74	0,5%	SAS_FLT_8_R	D7	GPIOH4_ROMD12_NDTR6	ROMA22	L22
72 HS_FAULT_N	R75	0,5%	SAS_FLT_9_R	B6	GPIOH5_ROMD13_NRTS6	ROMA23	K18
72 HOTSWAP_PG	R76	0,5%	SAS_FLT_10_R	A6	GPIOH6_ROMD14_TXD6		V21
	R77	0,5%	SAS_FLT_11_R	E7	GPIOH7_ROMD15_RXD6		W22

System UART

	R78	0,5%	SAS_FLT_12_R	U1	GPIOL0_NCTS1	GPIOM0_NCTS2_VPIB2	V3
	R79	0,5%	SAS_FLT_13_R	T5	GPIOL1_NDCD1_VPIDE	GPIOM1_NDCD2_VPIB3	W2
	R80	0,5%	SAS_FLT_14_R	U3	GPIOL2_NDSR1_VPIODD	GPIOM2_NDSR2_VPIB4	Y1
				V1	GPIOL3_NRI1_VPIHS	GPIOM3_NRI2_VPIB5	V4
				U4	GPIOL4_NDTR1_VPIVS	GPIOM4_NDTR2_VPIB6	W3
65 BMC_UART_1_RTS	R81	0,5%	BMC_UART_TX_1	V2	GPIOL5_NRTS1_VPICLK	GPIOM5_NRTS2_VPIB7	Y2
65 BMC_UART_1_TX	R82	0,5%	BMC_UART_RX_1	W1	GPIOL6_TXD1_VPIB0	GPIOM6_TXD2_VPIB8	AA1
65 BMC_UART_1_RX				U5	GPIOL7_RXD1_VPIB1	GPIOM7_RXD2_VPIB9	V5

BMC UART

65 DEBUG_UART_SEL_0				D15	GPIOE0_NCTS3	GPIOF0_NCTS4	D18
				C15	GPIOE1_NDCD3	GPIOF1_NDCD4_SIOPBI_N	B19
62 SWITCH_EEPROM1_WRT				B15	GPIOE2_NDSR3	GPIOF2_NDSR4_SIOPWRGD	A20
				A15	GPIOE3_NRI3	GPIOF3_NRI4_SIOPBO_N	D17
				E14	GPIOE4_NDTR3	GPIOF4_NDTR4	B18
54 LED_PWR_BLUE				D14	GPIOE5_NRTS3	GPIOF5_NRTS4_SIOSCI_N	A19
70 BMC_UART_3_TX				C14	GPIOE6_TXD3	GPIOF6_TXD4	E16
70 BMC_UART_3_RX				B14	GPIOE7_RXD3	GPIOF7_RXD4	C17
65 BMC_UART_5_RX				G1	RXD5	TXD5	H5

R475 0,5% BMC_MSERVE_ISOBUF_EN 65
R364 0,5% BMC_MAIN_RESET_N 65
R363 0,5% CPLD_JTAG_SEL 65
MSERV_POWERUP 65
BMC_UART_4_RTS 65
BMC_UART_4_TX 65
BMC_UART_4_RX 65
BMC_UART_5_TX 65

MAC1

62 BMC_SW_RXCLK				E11	RGMII1RXCK_RMII1RCLK_GPIOU4	RGMII1TXCK_RMII1TXEN_GPIOT0	A12
62 BMC_SW_RXDV				D11	RGMII1RXCTL_GPIOU5	RGMII1TXCTL_GPIOT1	B12
62 BMC_SW_RXD0				C11	RGMII1RXD0_RMII1RXD0_GPIOU6	RGMII1TXD0_RMII1TXD0_GPIOT2	C12
62 BMC_SW_RXD1				B11	RGMII1RXD1_RMII1RXD1_GPIOU7	RGMII1TXD1_RMII1TXD1_GPIOT3	D12
62 BMC_SW_RXD2				A11	RGMII1RXD2_RMII1CRSDV_GPIOV0	RGMII1TXD2_GPIOT4	E12
62 BMC_SW_RXD3				E10	RGMII1RXD3_RMII1RXER_GPIOV1	RGMII1TXD3_GPIOT5	A13
						GPIOR6_MDC1	C6
						GPIOR7_MDIO1	A5

R5653 33,1% BMC_SW_TXCLK 62
R5654 33,1% BMC_SW_TXEN 62
R5657 33,1% BMC_SW_TXD0 62
R5655 33,1% BMC_SW_TXD1 62
R5656 33,1% BMC_SW_TXD2 62
R5658 33,1% BMC_SW_TXD3 62
R6647 33,1% SWITCH_MDC 62
SWITCH_MDIO 62

MAC2

63 BMC_RXCLK				C9	RGMII2RXCK_RMII2RCLK_GPIOV2	RGMII2TXCK_RMII2TXEN_GPIOT6	D9
63 BMC_RXDV				B9	RGMII2RXCTL_GPIOV3	RGMII2TXCTL_GPIOT7	E9
63 BMC_RXD0				A9	RGMII2RXD0_RMII2RXD0_GPIOV4	RGMII2TXD0_RMII2TXD0_GPIOU0	A10
63 BMC_RXD1				E8	RGMII2RXD1_RMII2RXD1_GPIOV5	RGMII2TXD1_RMII2TXD1_GPIOU1	B10
63 BMC_RXD21				D8	RGMII2RXD2_RMII2CRSDV_GPIOV6	RGMII2TXD2_GPIOU2	C10
63 BMC_RXD3				C8	RGMII2RXD3_RMII2RXER_GPIOV7	RGMII2TXD3_GPIOU3	D10
54 BMC_RGMII_CLK_125	R6156	DEPOP 0,5%				GPIOA6_TIMER7_MDC2	A3
63 CLK125				B8	RGMIICK	GPIOA7_TIMER8_MDIO2	D5

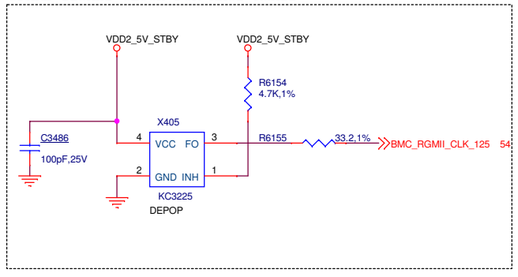
R5059 33,1% BMC_TXCLK 63
R5060 33,1% BMC_TXEN 63
R5033 33,1% BMC_TXD0 63
R5034 33,1% BMC_TXD1 63
R5035 33,1% BMC_TXD2 63
R5036 33,1% BMC_TXD3 63
R6148 33,1% BMC_MDC 63,64
BMC_MDIO 63,64,71

System SPI

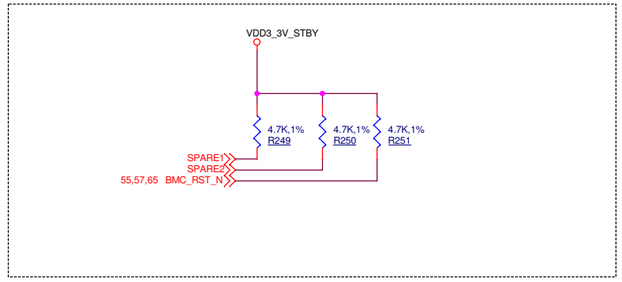
				C22	GPIOI0_SYSCS_N	GPIOI4_SPICS0_N_VBCS_N	B22
				G18	GPIOI1_SYSCK	GPIOI5_SPICK_VBCK	G19
				D19	GPIOI2_SYSDO	GPIOI6_SPIDO_VBDO	C18
				C20	GPIOI3_SYSDI	GPIOI7_SPIDI_VBDI	E20

R98 33,2,1% BMC_EEPROM1_SPI_SS 62,74
BMC_EEPROM1_SPI_SCK 62,74
BMC_EEPROM1_SPI_MOSI 62,74
BMC_EEPROM1_SPI_MISO 62,74

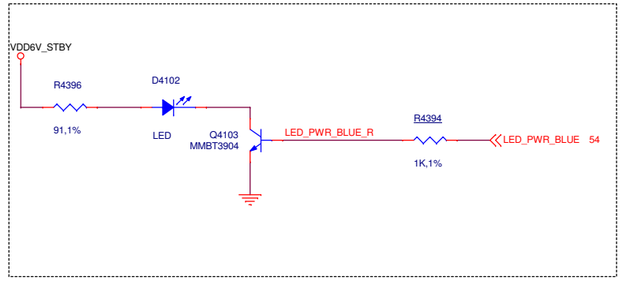
SPARE 125Mhz CLOCK FOR MAC2 RGMII



SPARE PULLUP



POWER BLUE LED



BMC- PAGE2

FACEBOOK

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Date: Sunday, January 31, 2016 Sheet 54 of 83

REV2 CHANGE NOTE:ADDED COMe CONTROL SIGNALS

REV3 CHANGE NOTE:COM_TPM_SPI_SEL,BUF_EN IS NOT USED

U1C

MISC
CLKIN
SRST_N
ENTEST

VGA
DACB
DACG
DACR
VGAHS_GPIOJ4
VGAVS_GPIOJ5
DDCCLK_GPIOJ6
DDCDAT_GPIOJ7

FAN
GPIOO0_TACH0_VPIG8
GPIOO1_TACH1_VPIG9
GPIOO2_TACH2_VPIR0
GPIOO3_TACH3_VPIR1
GPIOO4_TACH4_VPIR2
GPIOO5_TACH5_VPIR3
GPIOO6_TACH6_VPIR4
GPIOO7_TACH7_VPIR5
GPIOP0_TACH8_VPIR6
GPIOP1_TACH9_VPIR7
GPIOP2_TACH10_VPIR8
GPIOP3_TACH11_VPIR9
GPIOP4_TACH12
GPIOP5_TACH13
GPIOP6_TACH14_BMCINT
GPIOP7_TACH15_FLACK
GPION0_PWM0_VPIG0
GPION1_PWM1_VPIG1
GPION2_PWM2_VPIG2
GPION3_PWM3_VPIG3
GPION4_PWM4_VPIG4
GPION5_PWM5_VPIG5
GPION6_PWM6_VPIG6
GPION7_PWM7_VPIG7

ADC
ADC0_GPIW0
ADC1_GPIW1
ADC2_GPIW2
ADC3_GPIW3
ADC4_GPIW4
ADC5_GPIW5
ADC6_GPIW6
ADC7_GPIW7
ADC8_GPIX0
ADC9_GPIX1
ADC10_GPIX2
ADC11_GPIX3
ADC12_GPIX4
ADC13_GPIX5
ADC14_GPIX6
ADC15_GPIX7

USB
USB2AV33
USB2VRES
USB2AVSS
USB2_DP/USB2_HDP
USB2_DN/USB2_HDN
USB11_HDP
USB11_HDN
USB11_DP/USB11_HDP2
USB11_DN/USB11_HDN2

PECI
PECIVDD
PECI

JTAG
NTRST
TDI_BDM
TMS
TCK
RTCK
TDO

SGPIO
GPIOJ0_SGPMCK
GPIOJ1_SGPMLD
GPIOJ2_SGPMO
GPIOJ3_SGPMI
GPIOG0_SGPSCK
GPIOG1_SGPSLD
GPIOG2_SGPSI0
GPIOG3_SGPSI1

GPIO
GPIOA0_MAC1LINK
GPIOA1_MAC2LINK
GPIOA2_TIMER3
GPIOA3_TIMER4
GPIOB4_LPCRST_N
GPIOB5_LPCPD_N_LPCSMI_N
GPIOB6_LPCPME_N
GPIOB7_EXTRST_N_SPICS1_N
GPIOG4_WDTRST1_OSCCLK
GPIOG5_WDTRST2_USBCKI
GPIOG6_FLBUSY_N
GPIOG7_FLWP_N
GPIOY0_SIOS3_N
GPIOY1_SIOS5_N
GPIOY2_SIOPWREQ_N
GPIOY3_SIOONCTRL_N

AST1250

REV2 CHANGE NOTE:COM NIC AND COM PANTHER ISO BUFFER ENABLE ADDED TO BMC

REV2 CHANGE NOTE:ADDED COMe CONTROL SIGNALS

REV2 CHANGE NOTE:ADDED LPC RESET SIGNAL

JTAG BOUNDARY SCAN HEADER

JP5
TE 1241050-5

REV3 CHANGE NOTE:CHANGED JP5 WITH SMD CONNECTOR FROM TE 1241050-5

BOARD REV ID

REV2 CHANGE NOTE:BOARD REV ID CHANGED TO 010

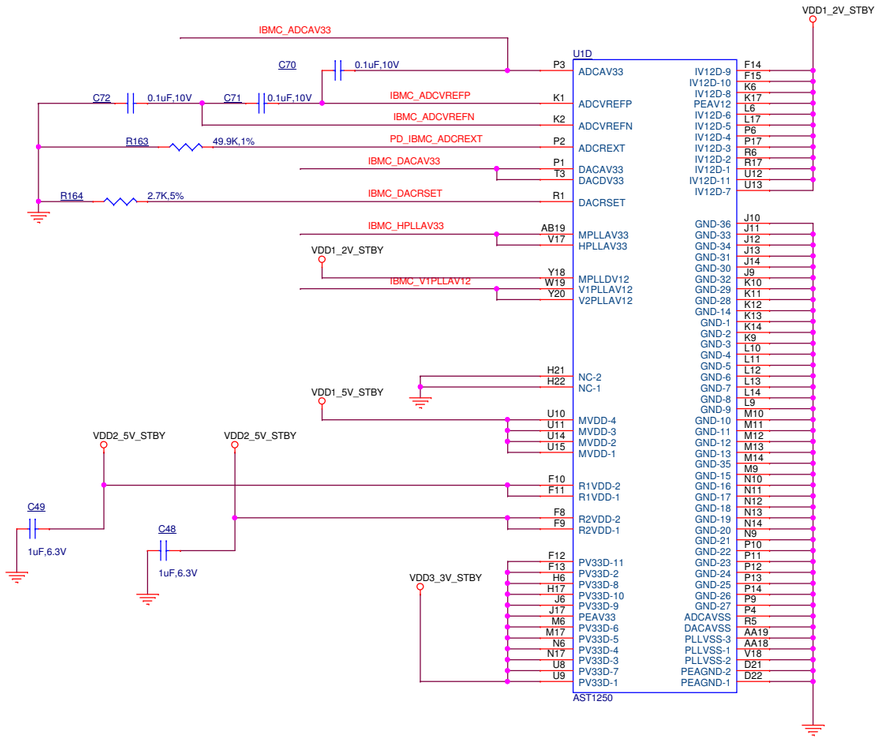
VOLTAGE DIVIDER FOR BMC ADC VOLTAGE SENSORS

BMC CLK 24Mhz

OSC2
24MHZ

BMC- PAGE3

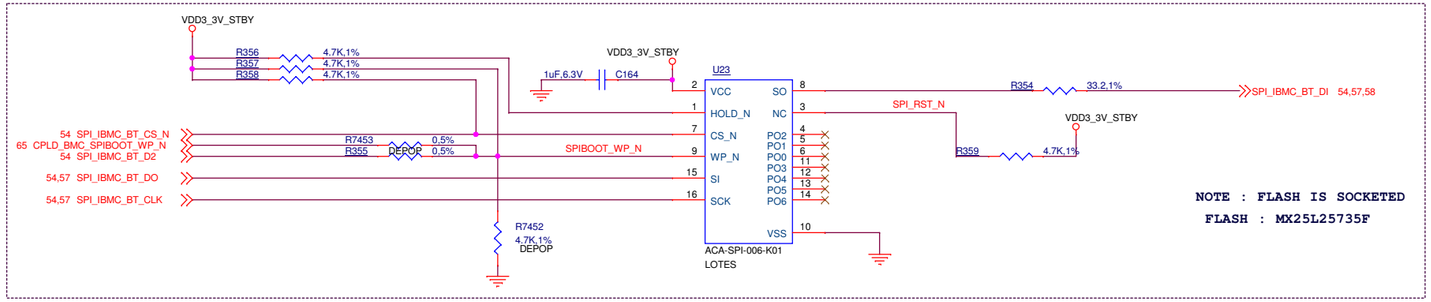
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BMC- PAGE4

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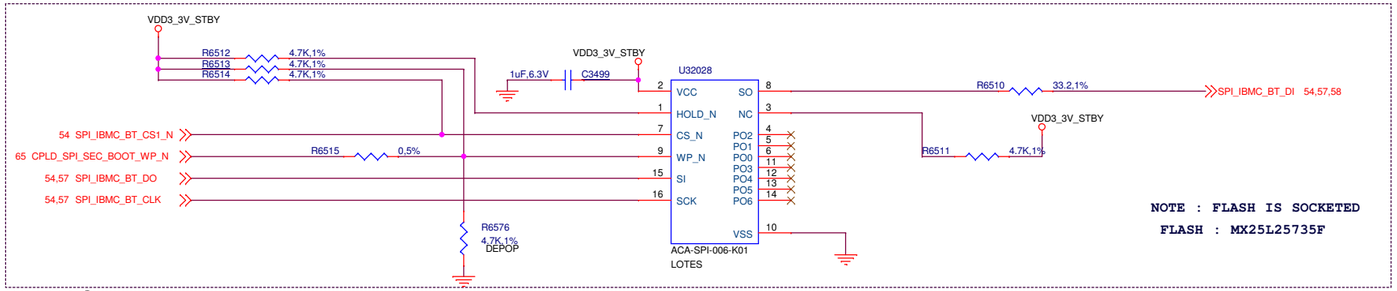
SPI BOOT FLASH



U223
MX25L25735F

NOTE:PLACE FLASH : MX25L25735F U223 IN SOCKET U23

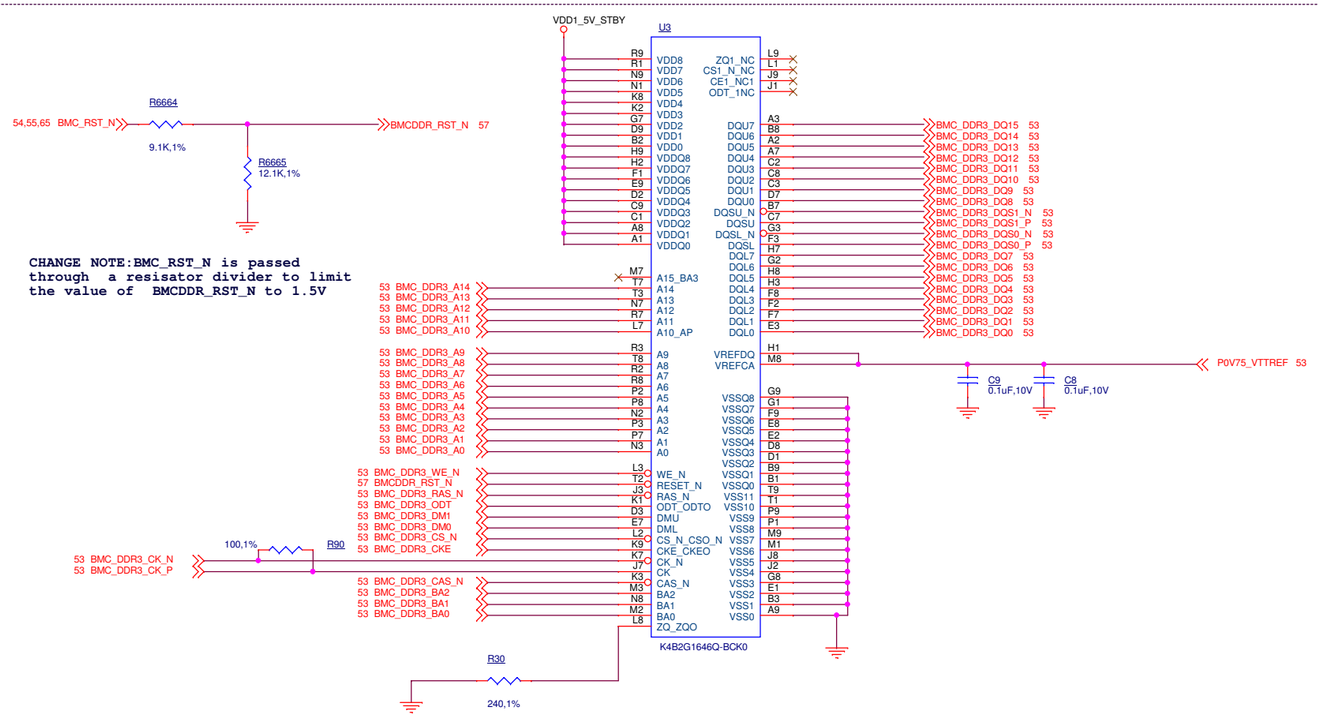
SECONDARY SPI BOOT FLASH

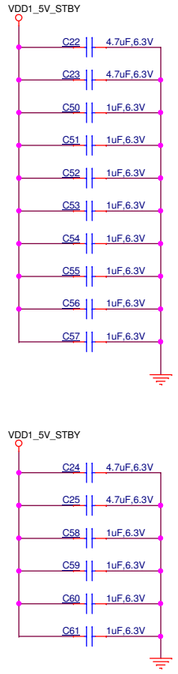


U224
MX25L25735F

NOTE:PLACE FLASH : MX25L25735F U224 IN SOCKET U32028

BMC DDR3

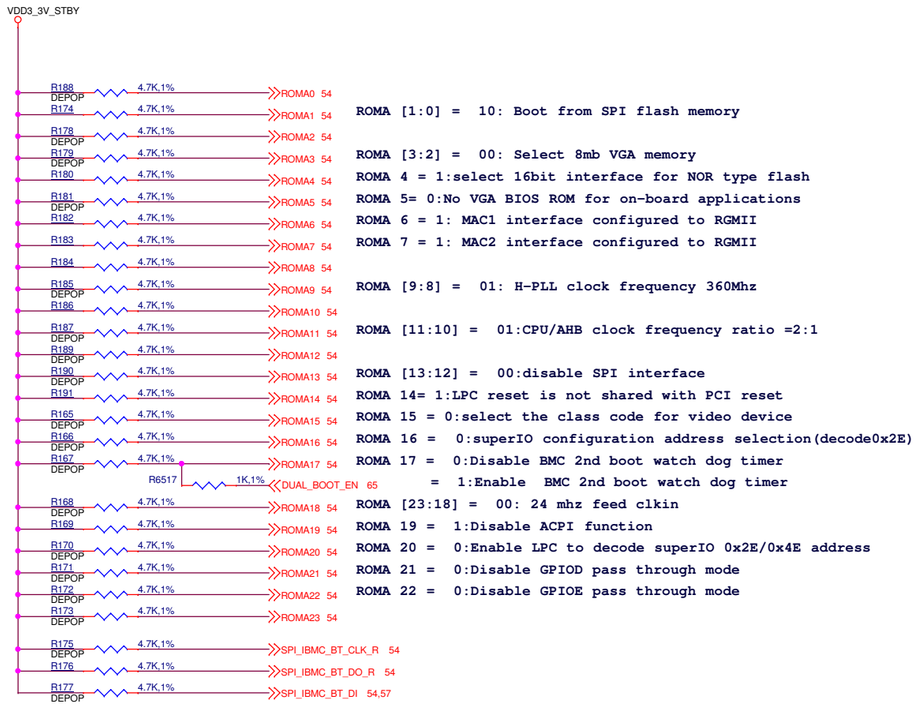




BMC DDR

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BMC STRAPPING



ROMA [1:0] = 10: Boot from SPI flash memory

ROMA [3:2] = 00: Select 8mb VGA memory
ROMA 4 = 1:select 16bit interface for NOR type flash
ROMA 5= 0:No VGA BIOS ROM for on-board applications
ROMA 6 = 1: MAC1 interface configured to RGMII
ROMA 7 = 1: MAC2 interface configured to RGMII

ROMA [9:8] = 01: H-PLL clock frequency 360Mhz

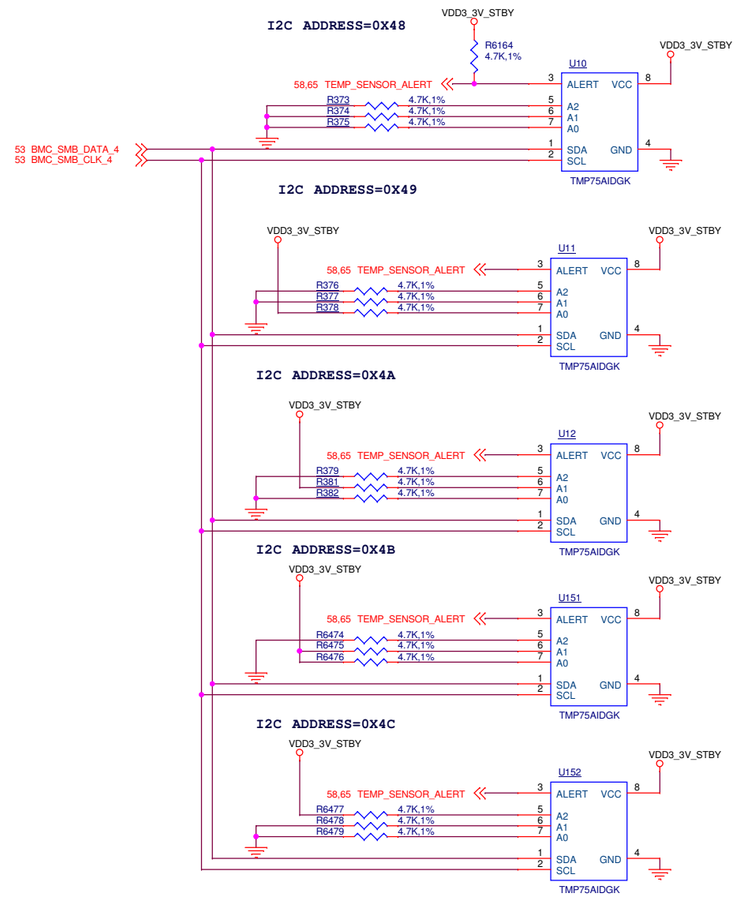
ROMA [11:10] = 01:CPU/AHB clock frequency ratio =2:1

ROMA [13:12] = 00:disable SPI interface
ROMA 14= 1:LPC reset is not shared with PCI reset
ROMA 15 = 0:select the class code for video device
ROMA 16 = 0:superIO configuration address selection(decode0x2E)
ROMA 17 = 0:Disable BMC 2nd boot watch dog timer
= 1:Enable BMC 2nd boot watch dog timer
ROMA [23:18] = 00: 24 mhz feed clkin
ROMA 19 = 1:Disable ACPI function
ROMA 20 = 0:Enable LPC to decode superIO 0x2E/0x4E address
ROMA 21 = 0:Disable GPIOD pass through mode
ROMA 22 = 0:Disable GPIOE pass through mode

NOTE: FOR ROMA 17 CPLD will make it high or low to enable or disable Dual BOOT option

REV2 CHANGE NOTE:ROMA 14 AND ROMA21
STRAPPING CHANGED

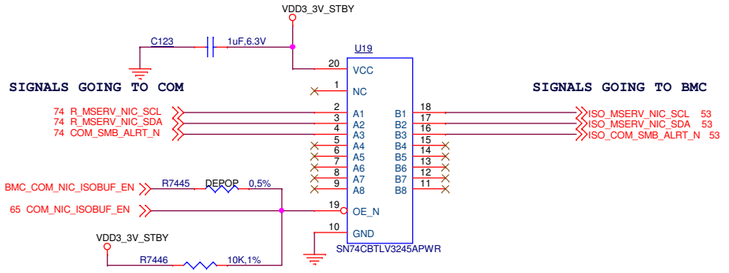
TEMP SENSORS

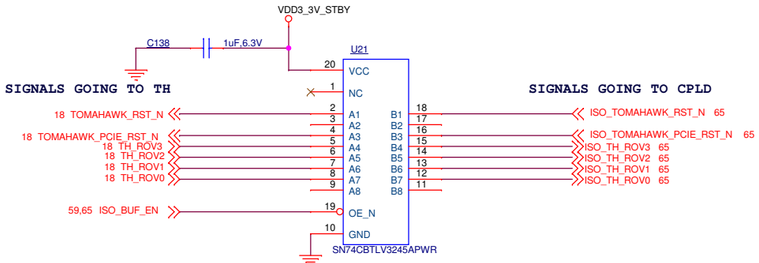


BMC STRAPPING &TEMP SENSOR

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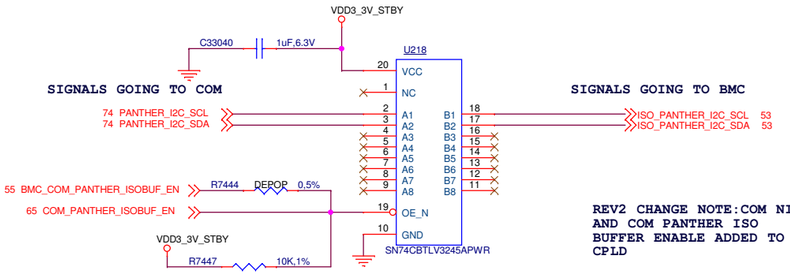
REV2 CHANGE NOTE:ISOLATION BUFFERS ADDED TO ACCOMMODATE COMe SIGNALS



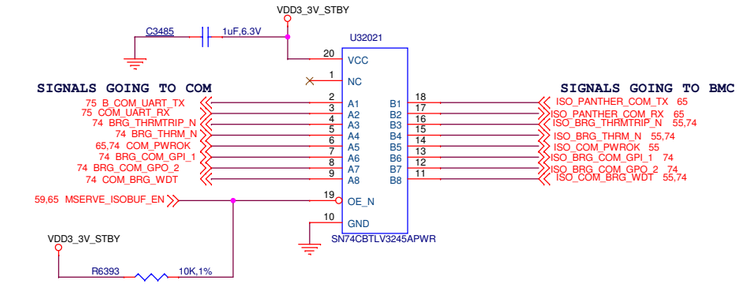


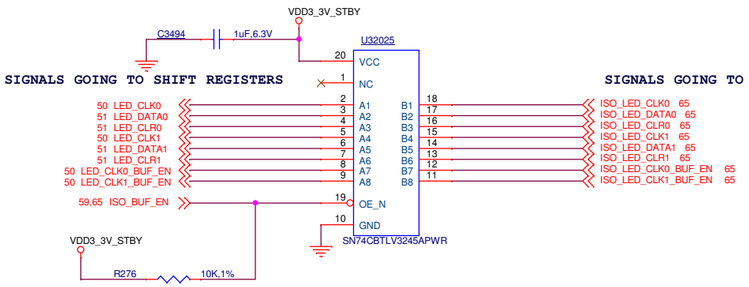
REV2 CHANGE NOTE:ISOLATION BUFFER U32034 REMOVED

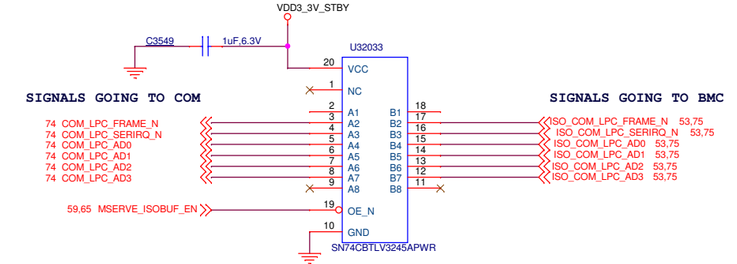
REV2 CHANGE NOTE:ISOLATION BUFFER U218 ADDED

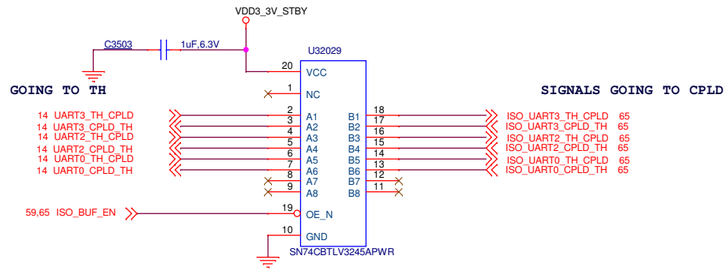


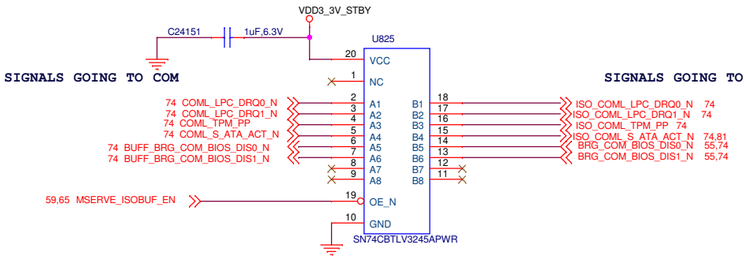
REV2 CHANGE NOTE:COM NIC AND COM PANTHER ISO BUFFER ENABLE ADDED TO CPLD

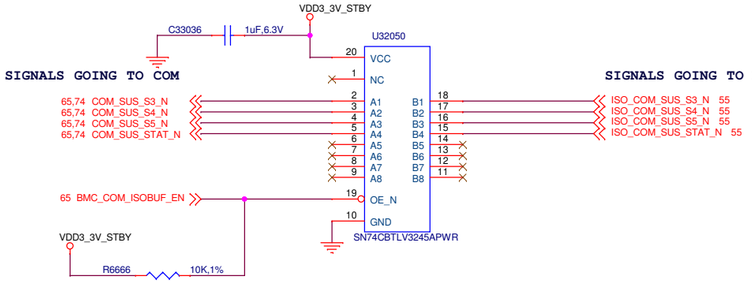


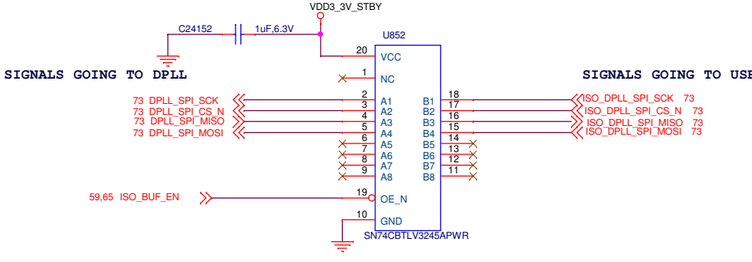








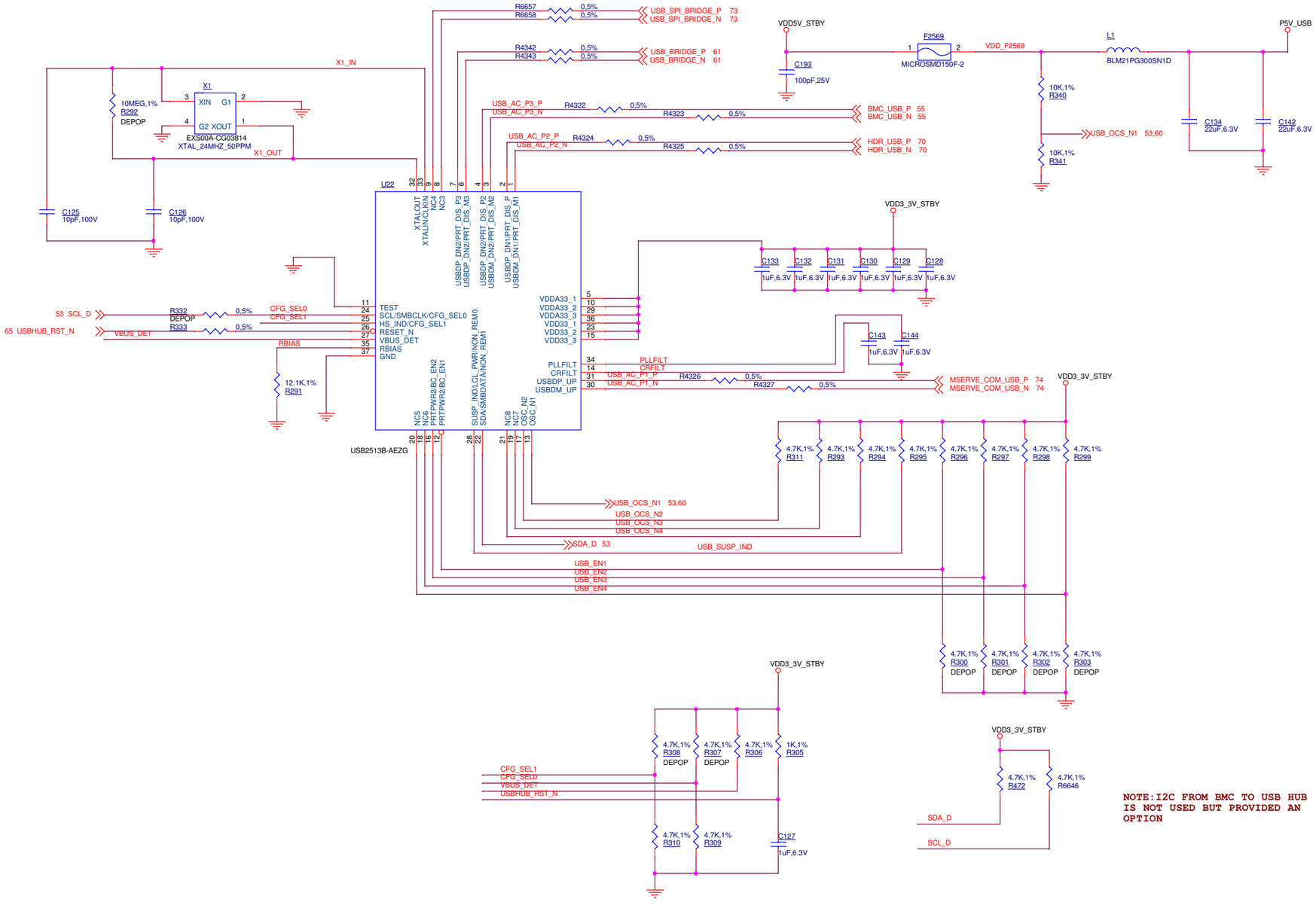




SIGNAL ISOLATION BUFFERS

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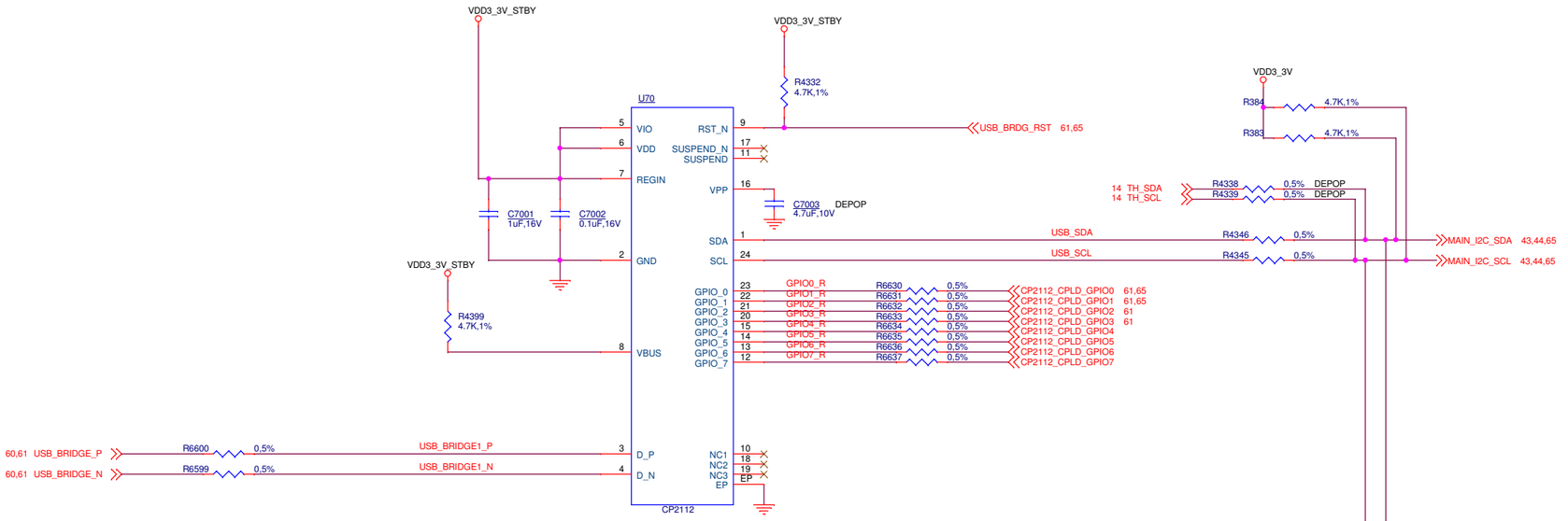
NOTE:FOR EVTA THE USB HUB USED IS 3PORT (USB2513B-AEZG) ;WHEN WE ARE IMPLEMENTING DPLL MODULE USB HUB WILL BE CHANGED TO 4 PORT PART(USB2514)

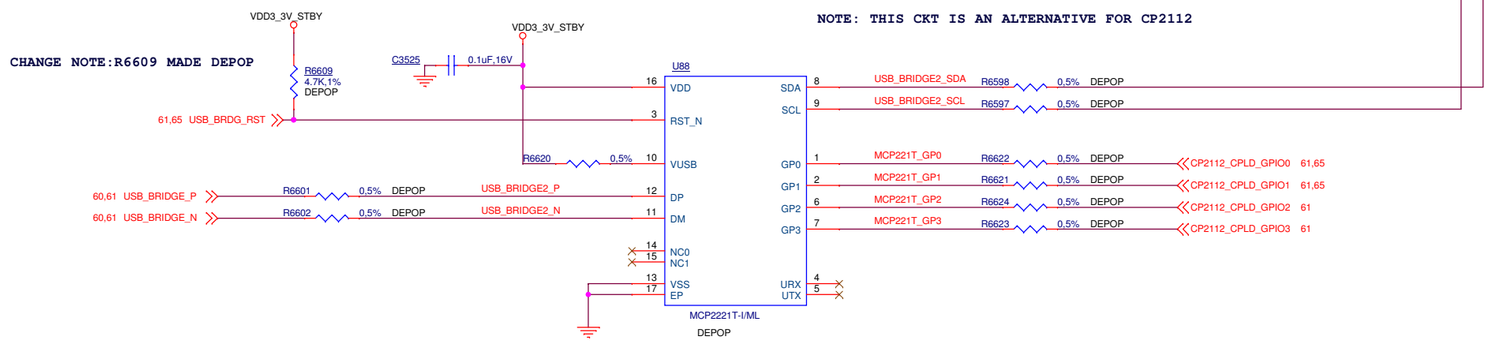


NOTE:I2C FROM BMC TO USB HUB IS NOT USED BUT PROVIDED AN OPTION

USB HUB

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USB I2C BRIDGE

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L= BLM18AG601SN1(FB,600ohms ,PKG: 0603,200MA,DCR:500mOHM,SMD)

REV2 CHANGE NOTE:ADDED A FERRITE BEAD TO GENERATE VDD1_2V_STBY_DVDD

REV2 CHANGE NOTE:ADDED TWO MORE DECAPS TO VDD2_5V_STBY_B

REV2 CHANGE NOTE:ADDED A FERRITE BEAD TO GENERATE VDD2_5V_STBY_OVDD

CHANGE NOTE:R5018 MADE DEPOP

HARDWARE STRAPPING TABLE		
PINS	STRAPPING VALUE	DESCRIPTION
MODE[1,0]	00	RGMII MODE
QOS_EN	0	DISABLE QOS FUNCTION
QOS_FC_OFF	1	DISABLE FLOW CONTROL
HW_FWDG_EN	1	FRAME FORWARDING ENABLED
CPU_EPROM_SEL	0	EEPROM INTERFACE ENABLED
CLK_FREQ[1:0]	10	113MHz NORMAL OPERATION
EEPROM_EXT[1:0]	00	Supports 93C46 EEPROM
AUTO_POLL	1	EXTERNAL PHY POLLING DISABLED
BC_SUPP_EN	0	RATE BASED BROADCAST SUPPRESSION DISABLED

SWITCH EEPROM

org pin pulled high to select x16 mode

FACEBOOK

GE SWITCH

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L= BLM18EG221SN1D(FB, 220OHM,2A,DCR:50mOHMS,PKG: 0603,SMD)

PHY ADDRESS: A4,A3,A2,A1,A0=11000

REV2 CHANGE NOTE:CHANGED C7014 TO 10UF

HARDWARE STRAPPING TABLE		
PINS	STRAPPING VALUE	DESCRIPTION
REFCLK_SEL[1:0]	10	XTAL INPUT SELECTED
CLK_SEL_125	0	25Mhz INPUT REF CLK ON CLK PINS
RGMII_SEL[1:0]	01	RGMII 2.5V SELECTED
INTERF_SEL[1:0]	01	RGMII-FIBRE MODE SELECTED
LOWPWR	0	ULTRA LOW POWER DOWN MODE DISABLED

BMC PHY EEPROM

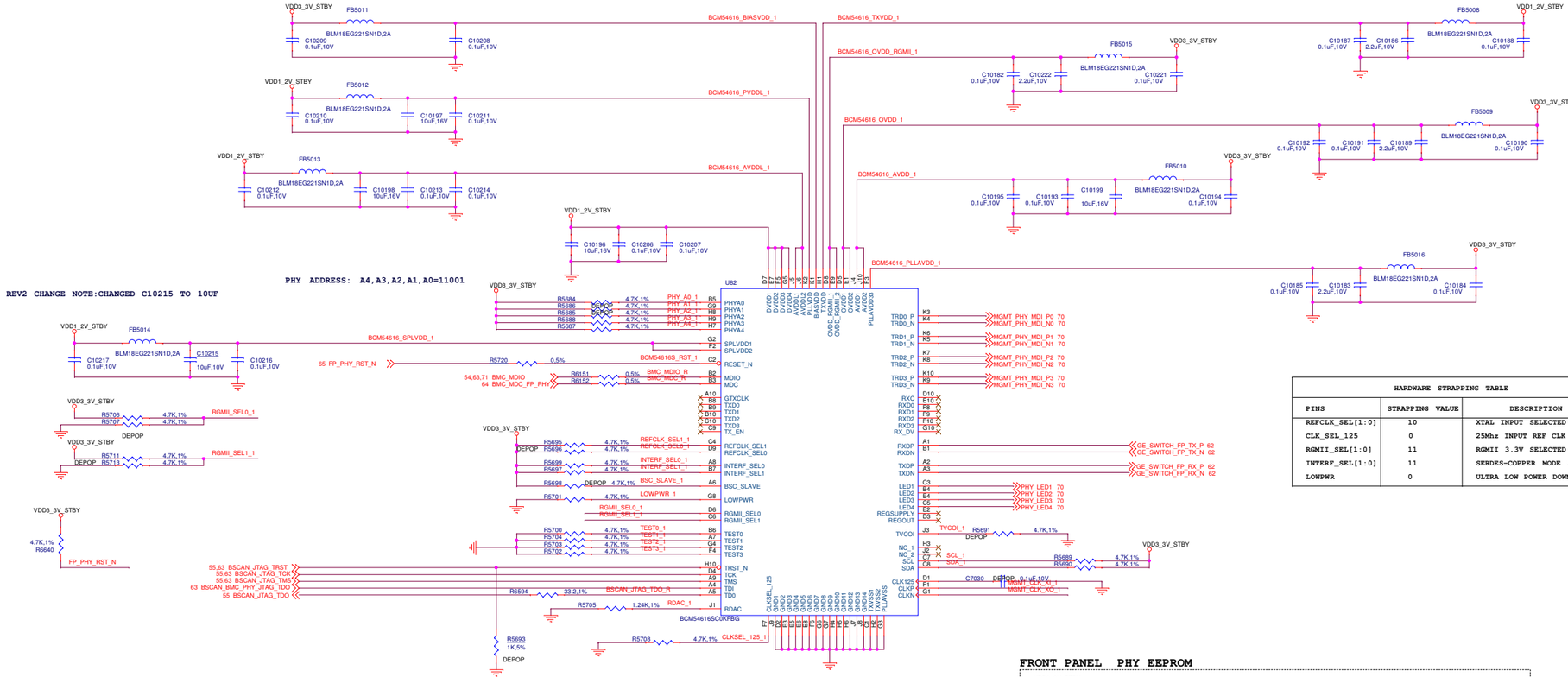
BMC PHY

FACEBOOK			
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L= BLM18EG221SN1D(FB, 220OHM,2A,DCR:50mOHMS,PKG: 0603,SMD)

PHY ADDRESS: A4,A3,A2,A1,A0=11001

REV2 CHANGE NOTE:CHANGED C10215 TO 10UF



HARDWARE STRAPPING TABLE		
PINS	STRAPPING VALUE	DESCRIPTION
REFCLK_SEL[1:0]	10	XTAL INPUT SELECTED
CLK_SEL_125	0	25Mhz INPUT REF CLK ON CLK PINS
RGMII_SEL[1:0]	11	RGMII 3.3V SELECTED
INTERF_SEL[1:0]	11	SERDES-COPPER MODE SELECTED
LOWPWR	0	ULTRA LOW POWER DOWN MODE DISABLED

BMC MDC FAN OUT BUFFER

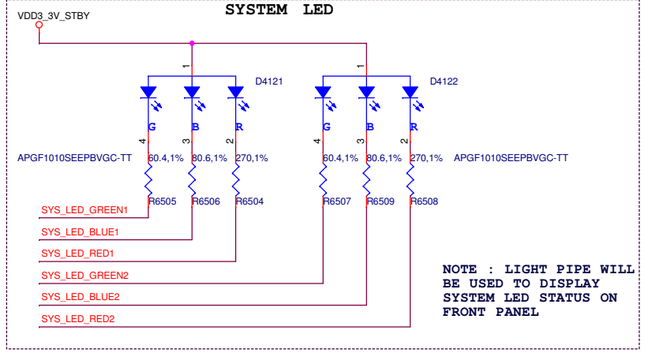
FRONT PANEL PHY EEPROM

FACEBOOK

FRONT PANEL PHY

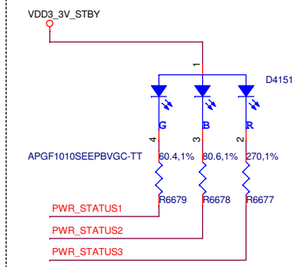
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SYSTEM LED

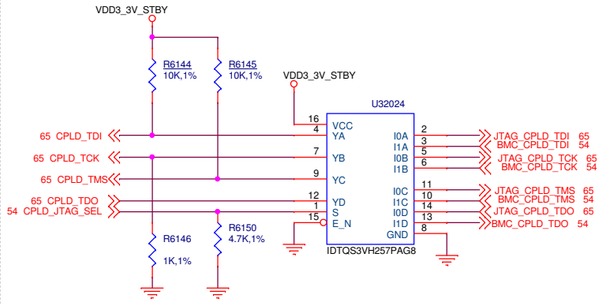


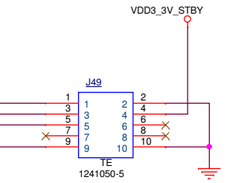
NOTE : LIGHT PIPE WILL BE USED TO DISPLAY SYSTEM LED STATUS ON FRONT PANEL

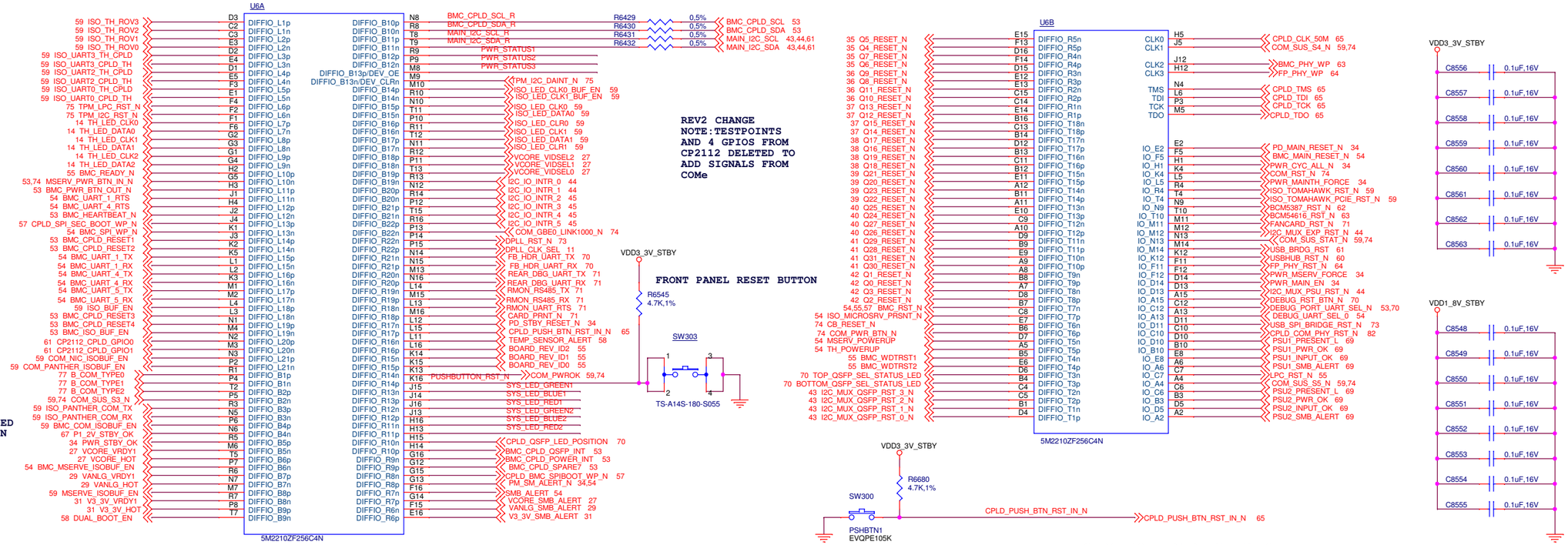
POWER STATUS LED



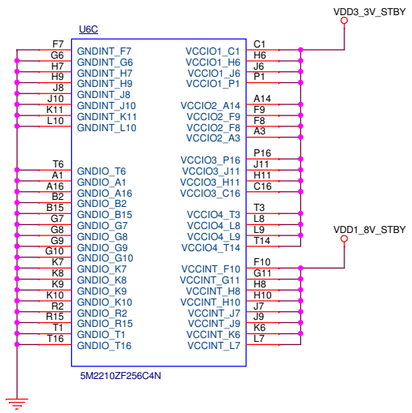
CHANGE NOTE:ADDED TRI COLOR LED TO SHOW POWER STATUS

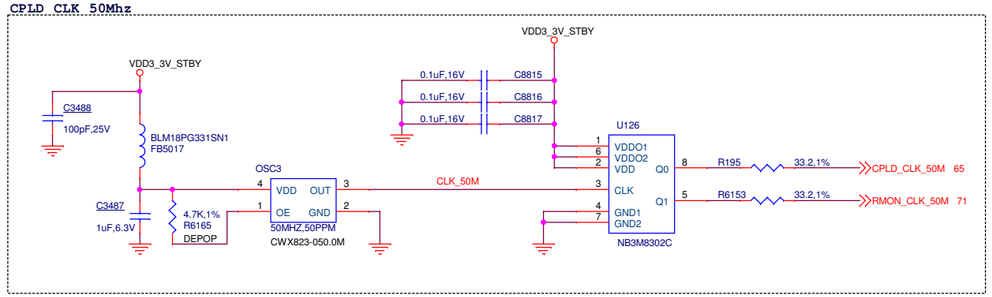






REV2 CHANGE NOTE:COM NIC AND COM PANTHER ISO BUFFER ENABLE ADDED TO CPLD



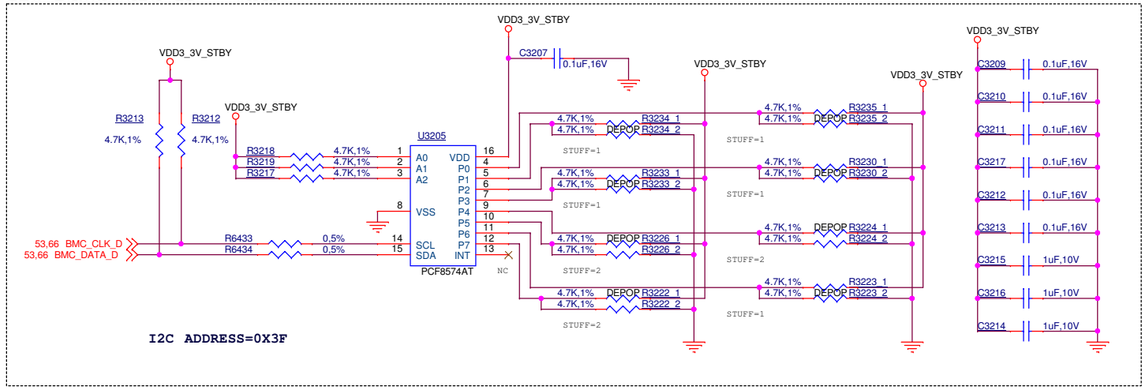


CPLD

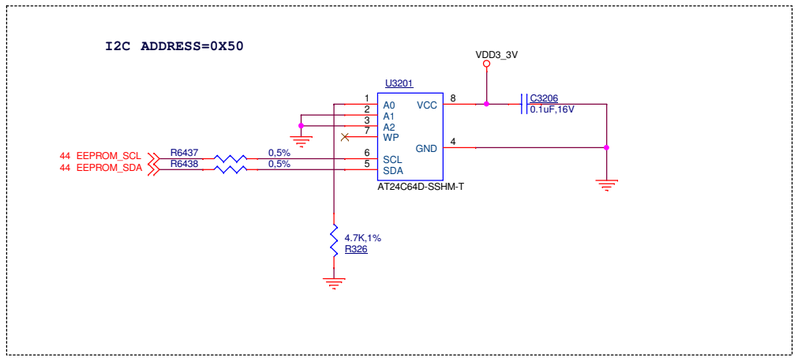
FACEBOOK			
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BOARDS	BASE BOARD ID
SENTINEL	0X6F
FABRIC LEFT	0X6F
FABRIC RIGHT	0XEF
WEDGE100	0X4F

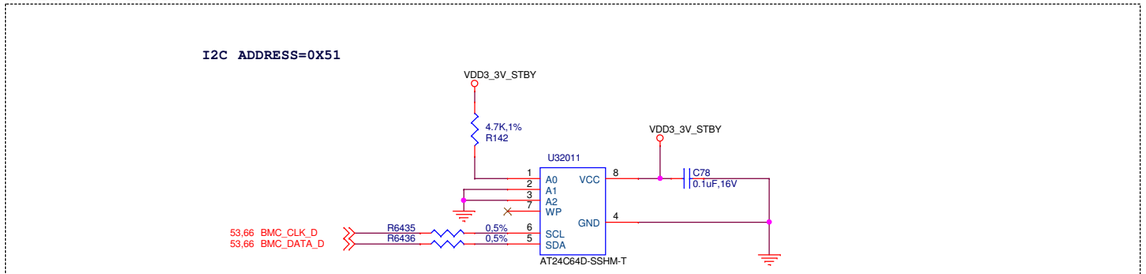
I2C Baseboard ID = 0x4F



ADDITIONAL EEPROM



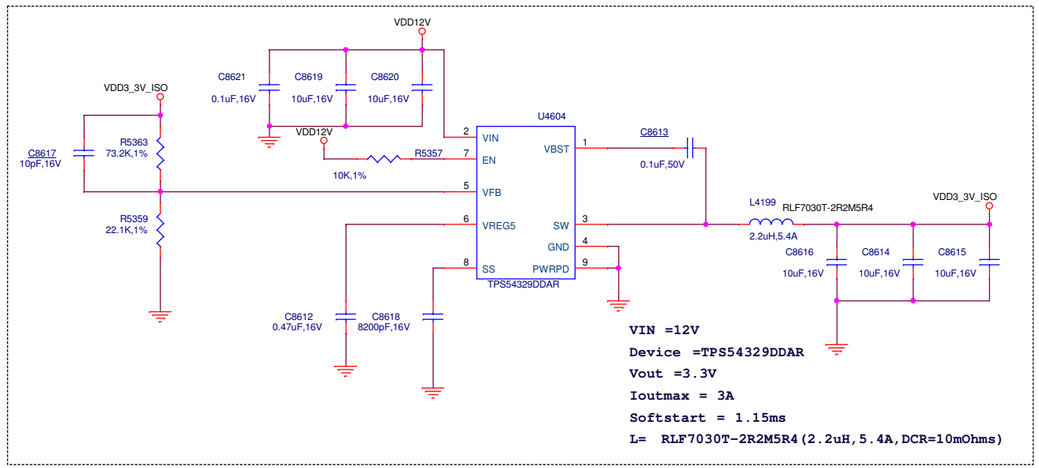
BOARD ID EEPROM



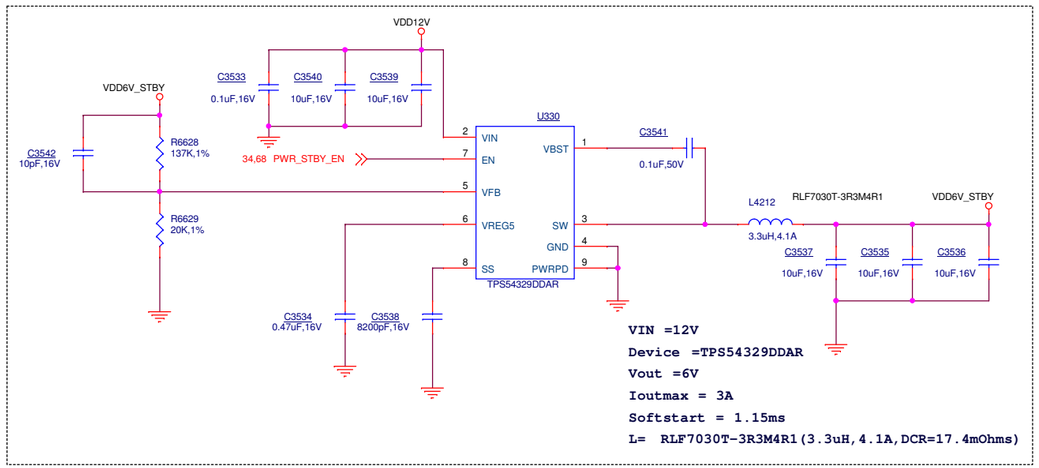
BOARD ID & EEPROMS

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PS 3.3V ISO,3A



PS 6V STBY,1.5A



2.5V STBY,1.5A

PS 1.8V STBY,1.5A

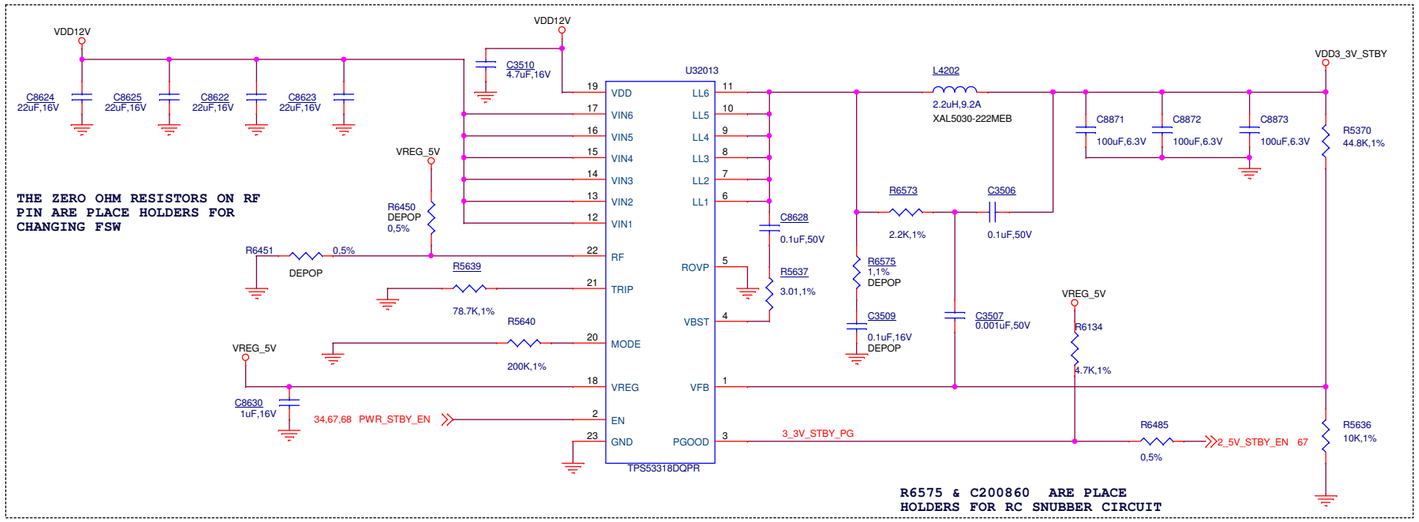
PS 1.5V STBY,1.5A

PS1.2V STBY,1.5A

STBY POWER

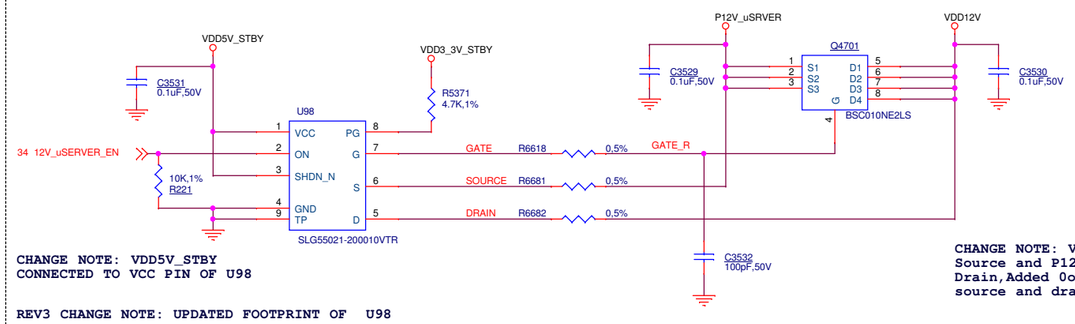
FACEBOOK		
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PS 3.3V STBY ,6A

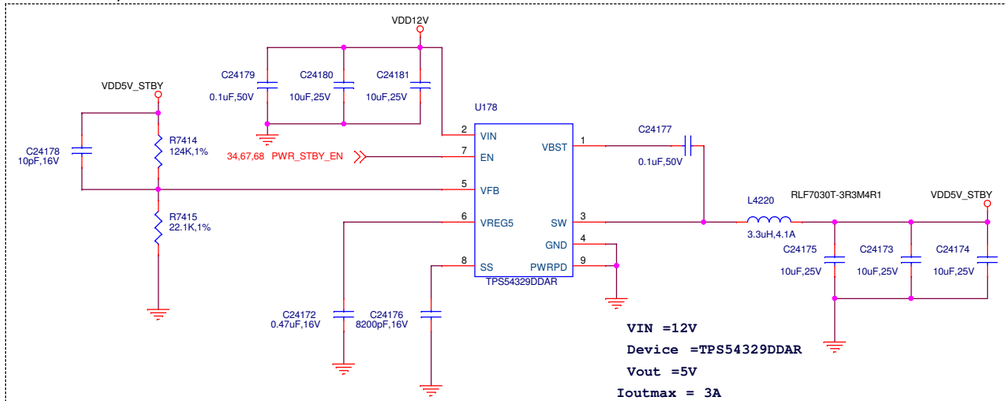


VIN =12V
Device =TPS53318DQPR
Vout =3.3V
Ioutmax = 6A
Iocp = 7.5A
Fsw= 500Khz
Rtrip= 78.7K
Rmode= 200K to GND: Softstart =2.8ms
L=XAL5030-222MEB(2.2uH,9.2A,DCR=13.2mOhms)
Cout=GRM31CR60J107ME39L(CER,100UF,1206,6.3V)

PS12V uSERVER,4A



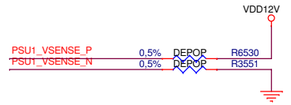
PS 5V STBY,3A

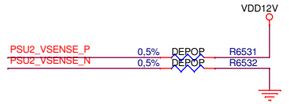


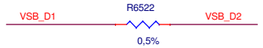
REV2 CHANGE NOTE:ADDED NEW SUPPLY FOR 5V

STBY POWER

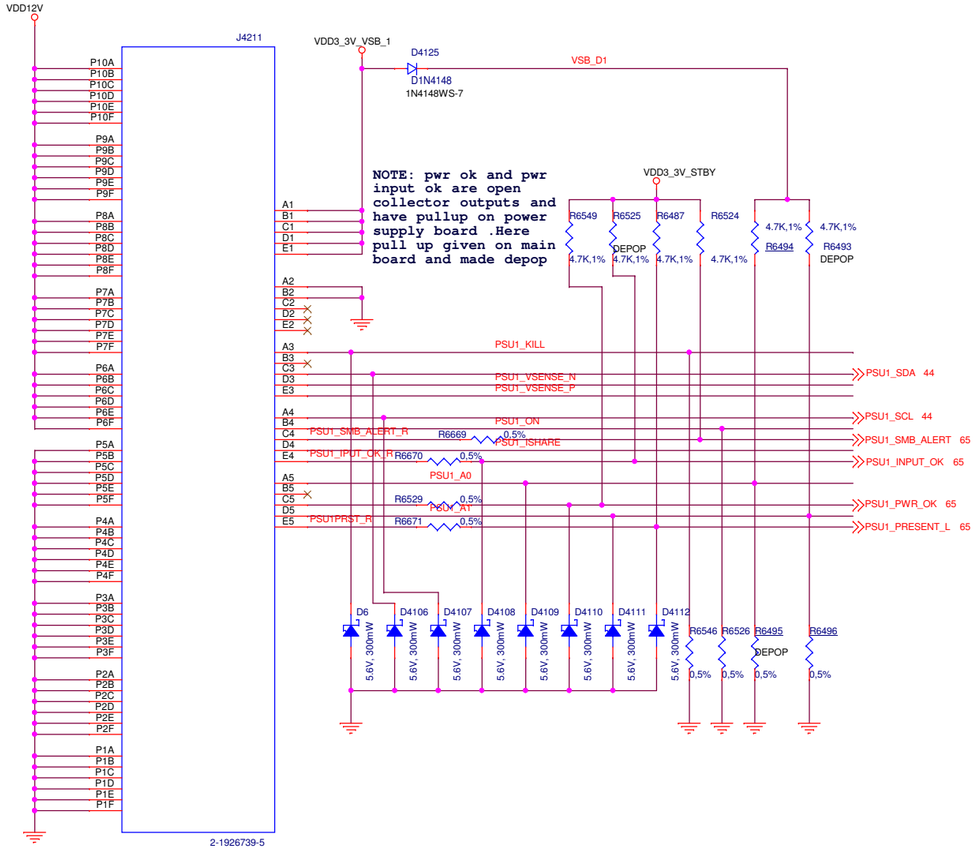
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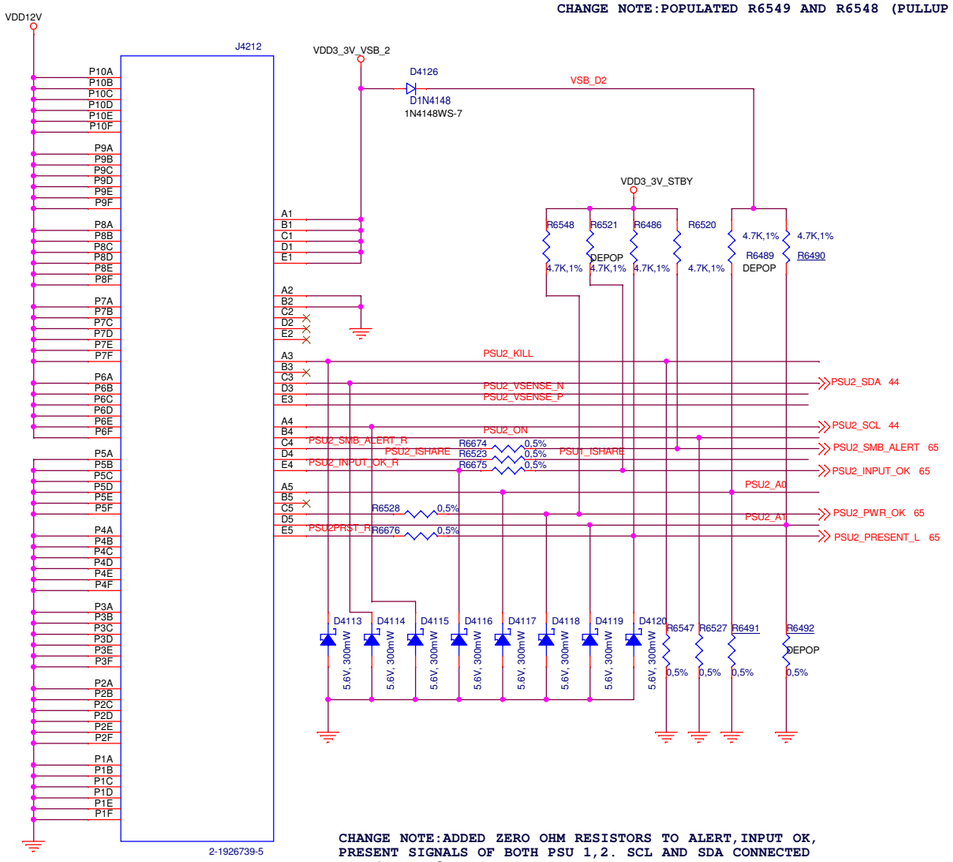






CHANGE NOTE:POPULATED R6549 AND R6548 (PULLUP FOR POWEROK)



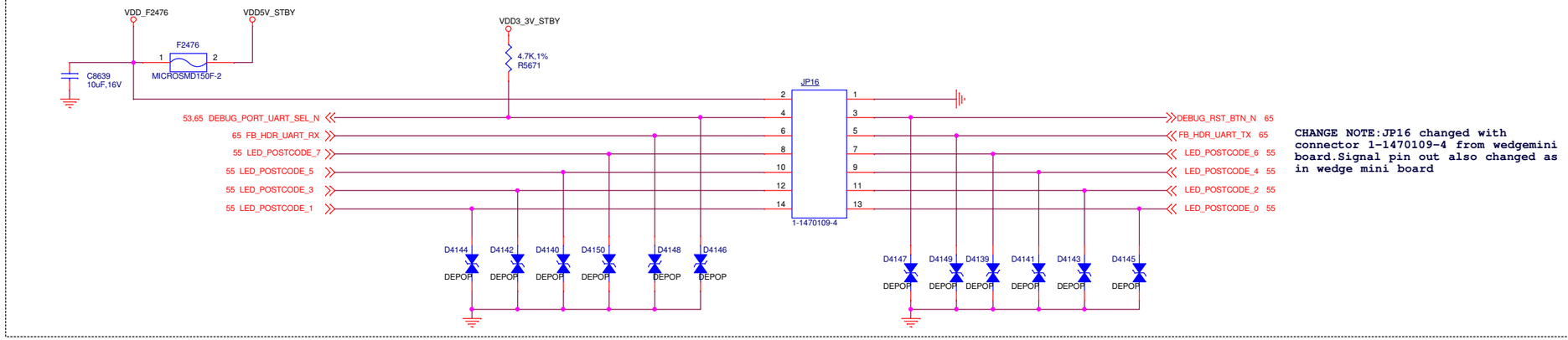


CHANGE NOTE:ADDED ZERO OHM RESISTORS TO ALERT,INPUT OK, PRESENT SIGNALS OF BOTH PSU 1,2. SCL AND SDA CONNECTED TO A4 AND C3 PINS RESPECTIVELY

POWER CONNECTOR

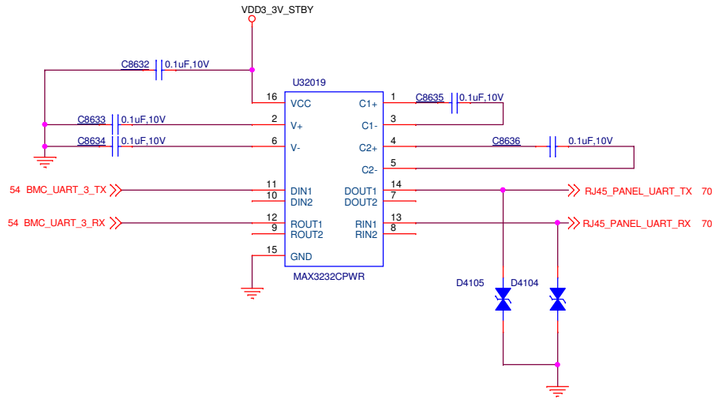
Title	FACEBOOK WEDGE100	
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FB DEBUG HEADER PORT

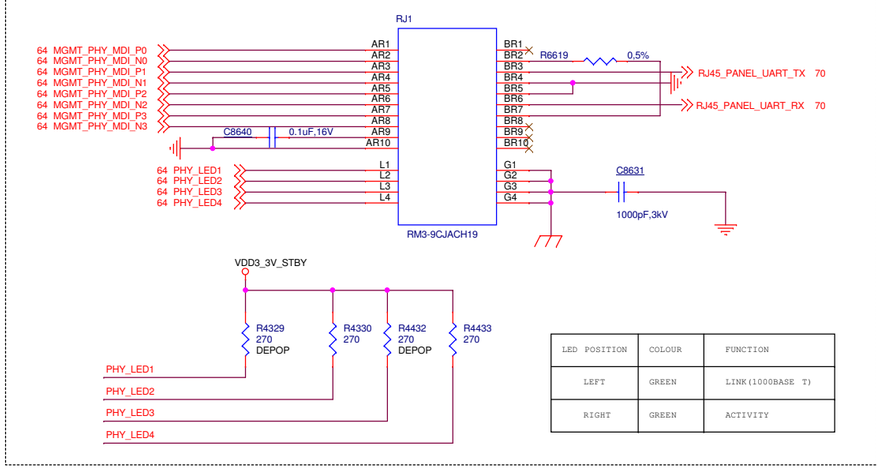


CHANGE NOTE:JP16 changed with connector 1-1470109-4 from wedgemini board.Signal pin out also changed as in wedge mini board

PANEL UART TRANSEIVER

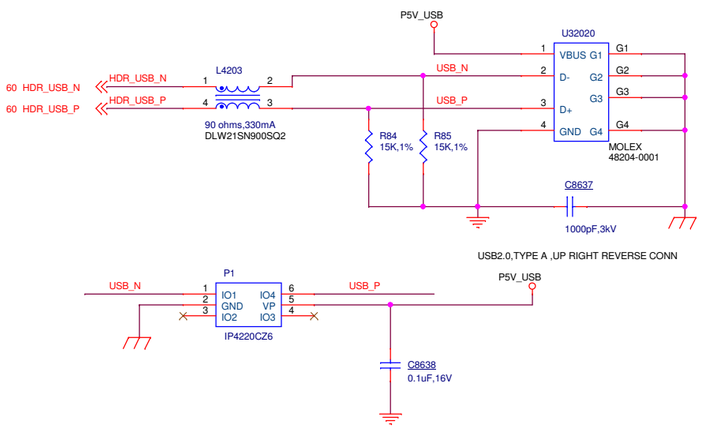


MANAGEMENT PORT AND PANEL UART CONSOLE

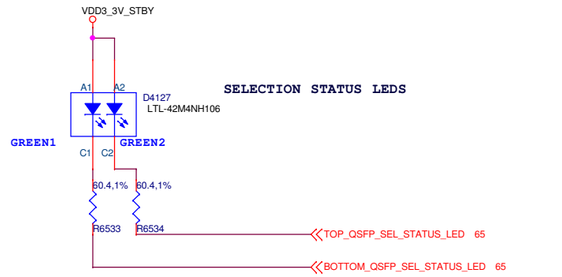


LED POSITION	COLOUR	FUNCTION
LEFT	GREEN	LINK(1000BASE T)
RIGHT	GREEN	ACTIVITY

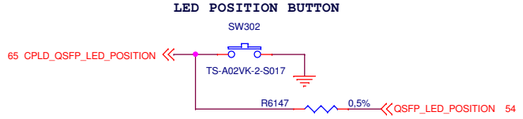
TYPE A USB PORT



SELECTION STATUS LEDS

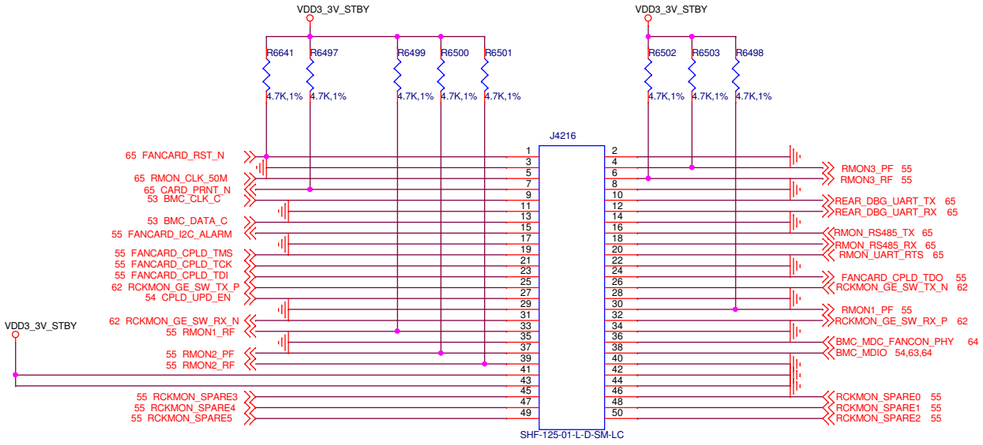


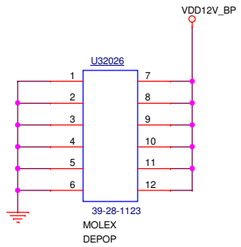
LED POSITION BUTTON

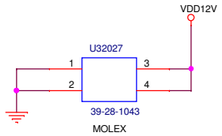


FRONT PANEL CONNECTORS

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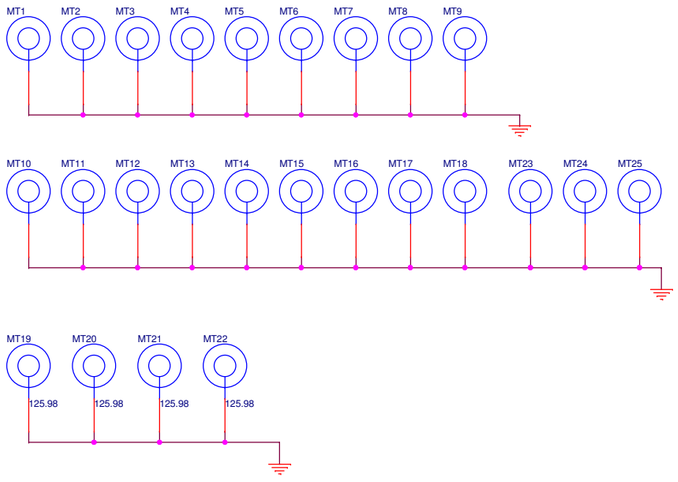




DC SKU POWER CONNECTOR

FAN POWER CONNECTOR

NOTE: DEPOP FOR AC SKU

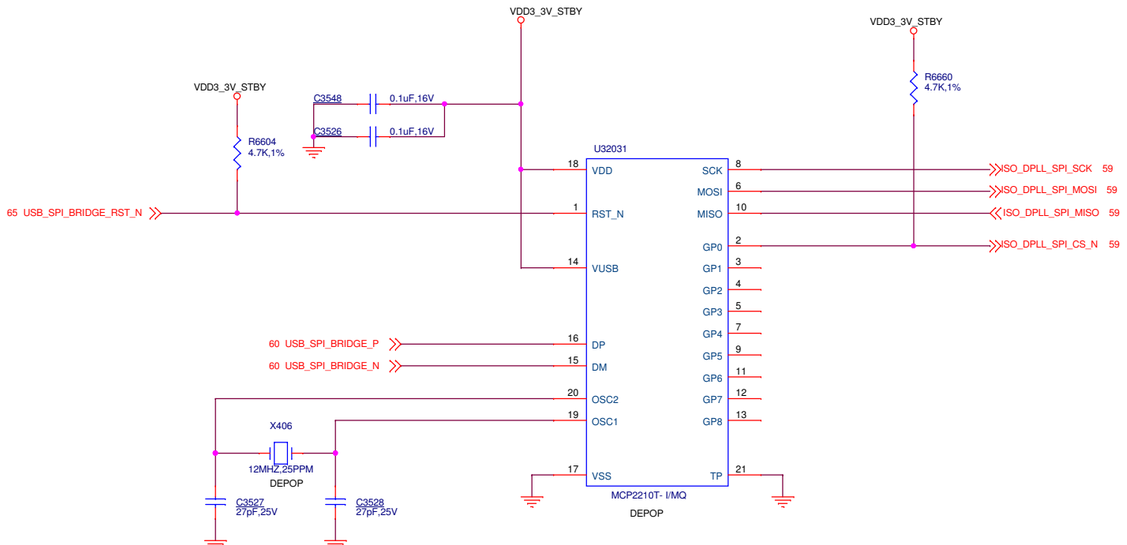


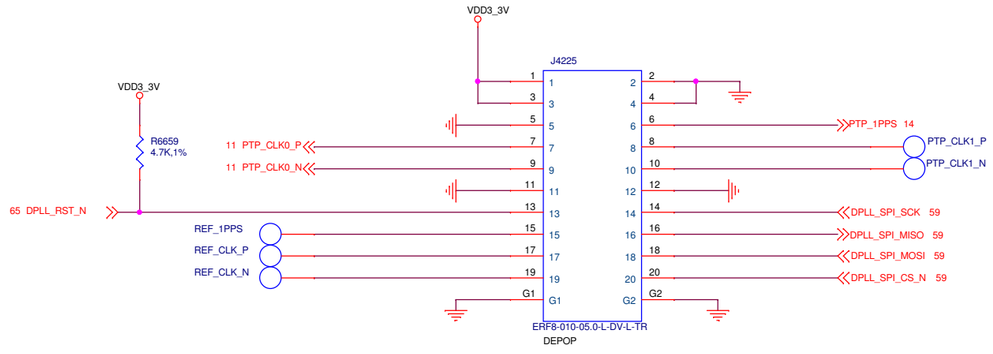
RACKMON & FAN CONNECTOR

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HOTSWAP CKT

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DPLL CONN & SPI BRIDGE

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PLACE HOLDER TO ADJUST DELAY IF REQUIRED

REV3 CHANGE NOTE : C24166 CHANGED TO 27PF

C24166 27pF,25V
R7412 DEPOP 0,5%

VDD3_3V_STBY
C24150 0.1uF,50V

U821
CDCVF2505PWR
53 BMC_LPC_CLK
75 TPM_LPC_CLK
COM_LPC_CLK 74

VCC3_3V_SPIPWR
C24158 0.1uF,50V

U841
CDCV304PWR
74 COM_FLASH_SPI_CLK
COM_TPM_SPI_CLK
R7410 33.2,1%
R7411 33.2,1%
R7381 4.7K,1%
COM_SPI_CLK 74

REV3 CHANGE
NOTE:COM_TPM_SPI_CLK IS
NOT USED

VDD3_3V_STBY
R6772 4.7K,1%
R6773 4.7K,1%
ISO_COML_LPC_DRQ0_N 59
ISO_COML_LPC_DRQ1_N 59
R7342 4.7K,1% DEPOP
ISO_COML_TPM_PP 59
R7341 4.7K,1%

59,74 R_MSERV_NIC_SDA
59,74 PANTHER_I2C_SDA
74,81 COM_MSATA_SMBDAT
59,74 R_MSERV_NIC_SDA
R7424 DEPOP 0,5%
R7423 0,5%
R6748 DEPOP 0,5%
R6746 DEPOP 0,5%
R7451 0,5%
MSERV_NIC_SDA 74
COM_SMB_DAT 74

59,74 R_MSERV_NIC_SCL
59,74 PANTHER_I2C_SCL
74,81 COM_MSATA_SMBCK
59,74 R_MSERV_NIC_SCL
R7426 DEPOP 0,5%
R7425 0,5%
R6749 DEPOP 0,5%
R6747 DEPOP 0,5%
R7450 0,5%
MSERV_NIC_SCL 74
COM_SMB_CK 74

VDD3_3V_STBY
R7420 4.7K,1% ISO_BRG_THRM_N 55,59,74
R7418 DEPOP 4.7K,1% BRG_COM_BIOS_DIS0_N
R7419 DEPOP 4.7K,1% BRG_COM_BIOS_DIS1_N
R7355 DEPOP 4.7K,1% PANTHER_I2C_SCL 59,74
R7356 DEPOP 4.7K,1% PANTHER_I2C_SDA 59,74
R7340 4.7K,1% COM_GBE0_LINK1000_N 65,74
R6767 DEPOP 4.7K,1% COM_SUS_S3_N
R6768 DEPOP 4.7K,1% COM_SUS_S4_N
R7343 DEPOP 4.7K,1% COM_SUS_S5_N
R7344 DEPOP 4.7K,1% COM_SUS_STAT_N
R6856 DEPOP 4.7K,1% COM_MSATA_SMBDAT 74,81
R6857 DEPOP 4.7K,1% COM_MSATA_SMBCK 74,81

VCC3_3V_SPIPWR
R6769 DEPOP 4.7K,1%
R6770 4.7K,1%
74 SPI_FLASH_CS_N
74 SPI_FLASH_MISO
R6745 DEPOP 4.7K,1%
J100
ACA-SPI-004-F01
VCC3_3V_SPIPWR
C979 1uF,6.3V
R6771 4.7K,1%
SPI_FLASH_SCK 74
SPI_FLASH_MOSI 74

SPI FLASH SOCKET

U99
W25Q64FVSSIG
SPI FLASH

NOTE: SPI FLASH U99 NEED TO BE PLACED IN J100

J4228A
3-5353652-6
Stacking height eight 8mm

77 COM6_PHY_MDI_P0
77 COM6_PHY_MDI_N0
77 COM6_PHY_MDI_P1
77 COM6_PHY_MDI_N1
77 COM6_PHY_MDI_P2
77 COM6_PHY_MDI_N2
77 COM6_PHY_MDI_P3
77 COM6_PHY_MDI_N3
77 COM_CTREF
65,74 COM_GBE0_LINK1000_N
GBE0_MDI0+ A13
GBE0_MDI0- A12
GBE0_MDI1+ A10
GBE0_MDI1- A9
GBE0_MDI2+ A7
GBE0_MDI2- A6
GBE0_MDI3+ A3
GBE0_MDI3- A2
GBE0_CTREF A14
GBE0_ACT# B2
GBE0_LINK# A8
GBE0_LINK100# A4
GBE0_LINK1000# A5
AC/HDA_RST# A30
AC/HDA_BITCLK A32
AC/HDA_SYNC A29
AC/HDA_SDOUT A33
AC/HDA_SDIN0 B30
AC/HDA_SDIN1 B29
AC/HDA_SDIN2 B28
59 COM_LPC_SERIRQ_N
59 COM_LPC_FRAME_N
59 COM_LPC_AD0
59 COM_LPC_AD1
59 COM_LPC_AD2
59 COM_LPC_AD3
59 COML_LPC_DRQ0_N
59 COML_LPC_DRQ1_N
74 COM_LPC_CLK
R6763 0,5%
LPC_SERIRQ A50
LPC_FRAME# B3
LPC_AD0 B4
LPC_AD1 B5
LPC_AD2 B6
LPC_AD3 B7
LPC_DRQ0# B8
LPC_DRQ1# B9
LPC_CLK B10
74 COM_SMB_DAT
74 COM_SMB_CK
59,74 COM_SMB_ALRT_N
SMB_DAT B14
SMB_CK B13
SMB_ALERT# B15
74 MSERV_NIC_SDA
74 MSERV_NIC_SCL
I2C_DAT B34
I2C_CK B33
59,65 COM_SUS_S3_N
59,65 COM_SUS_S4_N
59,65 COM_SUS_S5_N
59,65 COM_SUS_STAT_N
SUS_S3# A15
SUS_S4# A18
SUS_S5# A24
SUS_STAT# B18
VDD3_3V_STBY
R6774 4.7K,1%
BATLOW# A27
59 BRG_THRMTRIP_N
59 BRG_THRM_N
THRMTRIP# A35
THRM# B35
SPKR B32
59 BRG_COM_GPI_1
GPI0 A54
GPI1 A63
GPI2 A67
GPI3 A85
59 BRG_COM_GPO_2
GPO0 A93
GPO1 B54
GPO2 B57
GPO3 B63
VCC3_3V_SPIPWR
74 COM_SPI_MISO
74 COM_SPI_CLK
74 COM_SPI_MOSI
74 COM_SPI_CS_N
SPI_POWER A91
SPI_MISO A92
SPI_CLK A94
SPI_MOSI A95
SPI_CS# B97

SATA0_TX+ A16
SATA0_TX- A17
SATA0_RX+ A19
SATA0_RX- A20
SATA1_TX+ B16
SATA1_TX- B17
SATA1_RX+ B19
SATA1_RX- B20
SATA2_TX+ A22
SATA2_TX- A23
SATA2_RX+ A25
SATA2_RX- A26
SATA3_TX+ B22
SATA3_TX- B23
SATA3_RX+ B25
SATA3_RX- B26
S_ATA_ACT# A28
SATA0_COM_TX_P 80
SATA0_COM_TX_N 80
SATA0_COM_RX_P 80
SATA0_COM_RX_N 80
SATA1_COM_TX_P 81
SATA1_COM_TX_N 81
SATA1_COM_RX_P 81
SATA1_COM_RX_N 81
COML_S_ATA_ACT_N 59
USB0+ A46
USB0- A45
USB1+ B46
USB1- B45
USB2+ A43
USB2- A42
USB3+ B43
USB3- B42
USB4+ A40
USB4- A39
USB5+ B40
USB5- B39
USB6+ A37
USB6- A36
USB7+ B37
USB7- B36
MSERVE_COM_USB_P 60
MSERVE_COM_USB_N 60
USB_0_1_OC# B44
USB_2_3_OC# A44
USB_4_5_OC# B38
USB_6_7_OC# A38
VDD3_3V_STBY
R7348 4.7K,1% DEPOP
TPM_PP A96
PWRBTN# B12
PWR_OK B24
CB_RESET# B50
SYS_RESET# B49
WDT B27
TYPE10# A97
BIOS_DIS0# A34
BIOS_DIS1# B88
COML_TPM_PP 59
COM_PWR_BTN_N 65,74
COM_PWROK 59,65,74
CB_RESET_N 65,74
COM_RST_N 65,74
COM_BRG_WDT 59
BUFF_BRG_COM_BIOS_DIS0_N 59
BUFF_BRG_COM_BIOS_DIS1_N 59

PANTHER_I2C_SCL
PANTHER_I2C_SDA
JP9 DEPOP

C113 0.1uF,50V
SW2
PSHBTN1 EVQPE105K
VDD3_3V_STBY
R248 4.7K,1%
MSERV_PWR_BTN_IN_N 53,65

VDD3_3V_STBY
R6750 4.7K,1% DEPOP
R6751 4.7K,1%
80 HDD_LED_N
59,81 ISO_COML_S_ATA_ACT_N
D4152 BAW56LT1G
D4153 LED
R6765 150,5%
VDD5V_STBY

VDD3_3V_STBY
R5776 4.7K,1%
R5754 4.7K,1%
R252 4.7K,1%
R192 4.7K,1%
COM_SMB_ALRT_N 59,74
COM_RST_N 65,74
CB_RESET_N 65,74
COM_PWR_BTN_N 65,74
COM_PWROK 59,65,74
R6855 4.7K,1%

NOTE: COM_PWROK IS PULLED DOWN ,ELSE IT WILL BE FLOATING BEFORE ISO BUFFER IS ENABLED

VDD3_3V_STBY
R6757 4.7K,1% DEPOP
R6758 4.7K,1% DEPOP
R6759 4.7K,1% DEPOP
R6761 4.7K,1%
R6760 4.7K,1%
R6762 4.7K,1%
59,74 PANTHER_I2C_SCL
59,74 PANTHER_I2C_SDA

U32043
PCA9534DWR
VDD3_3V_STBY
C980 0.1uF,50V
BRG_COM_BIOS_DIS0_N 55,59
BRG_COM_BIOS_DIS1_N 55,59
COM_SPI_SEL 55,74
ISO_COM_BRG_WDT 55,59
ISO_BRG_THRMTRIP_N 55,59
ISO_BRG_THRM_N 55,59,74
ISO_BRG_COM_GPI_1 59
ISO_BRG_COM_GPO_2 59
VDD3_3V_STBY
R6766 4.7K,1%

I2C ADDRESS=0X20

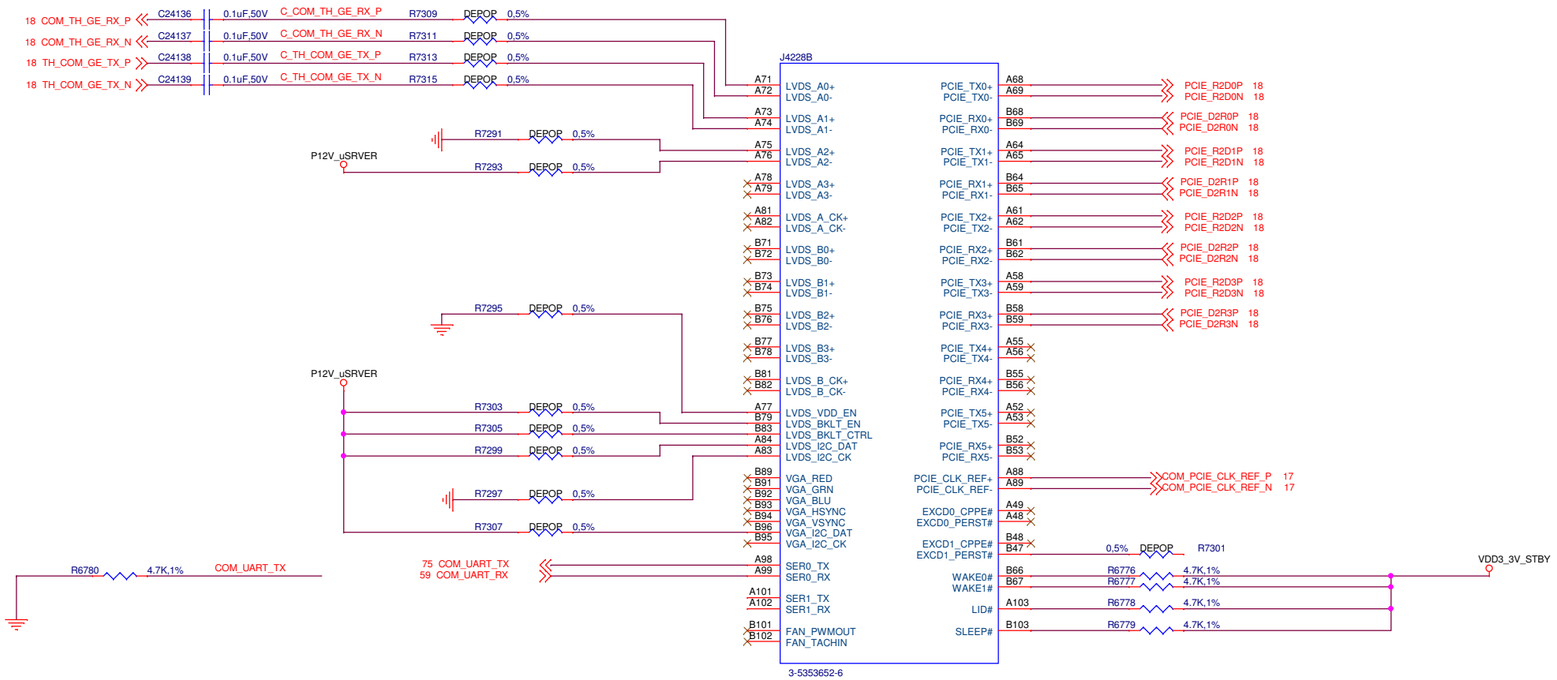
VDD3_3V_STBY
R7421 4.7K,1% DEPOP
74 SPI_FLASH_MOSI
74 SPI_FLASH_SCK
74 SPI_FLASH_CS_N
74 SPI_FLASH_MISO
55,74 COM_SPI_SEL
R6752 4.7K,1%
55 COM6_BUF_EN
R7448 4.7K,1%

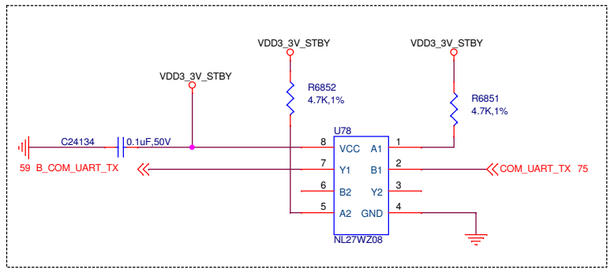
U32042
SN74CBTLV3257
VDD3_3V_STBY
COM_SPI_MOSI 74
BMC_EEPROM1_SPI_MOSI 54,62
COM_FLASH_SPI_CLK 74
BMC_EEPROM1_SPI_SCK 54,62
COM_SPI_CS_N 74
BMC_EEPROM1_SPI_SS 54,62
COM_SPI_MISO 74
BMC_EEPROM1_SPI_MISO 54,62

NOTE: COM_SPI_SEL AND SWITCH_EEPROM1_WRT ,SWITCH1_EEPROM1_WRT SHOULD NOT BE ENABLED AT SAME TIME BECAUSE SPI SIGNALS ARE SHARED

COM6 CONNECTOR PAGE 1

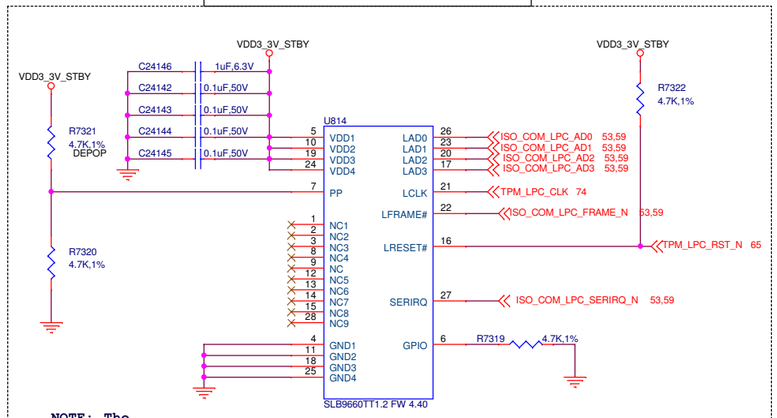
FACEBOOK		
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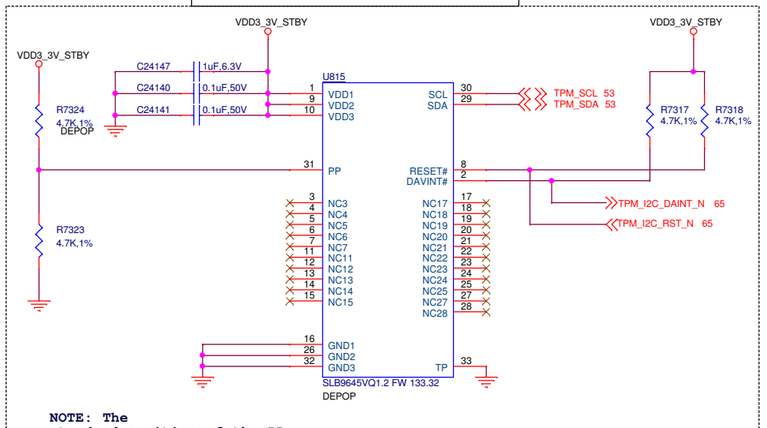
REV3 CHANGE NOTE:DELETED U220 :MUX TO SELECT BMC OR COM SPI TO TPM MODULE

LPC BASED TPM



NOTE: The standard position of the PP pin IS GND. If the pin is connected to VDD, some special commands are enabled

I2C BASED TPM

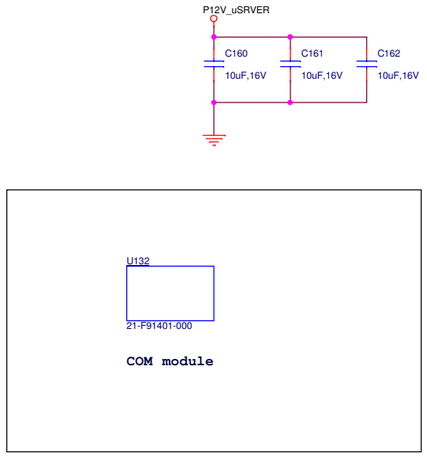


NOTE: The standard position of the PP pin IS GND. If the pin is connected to VDD, some special commands are enabled

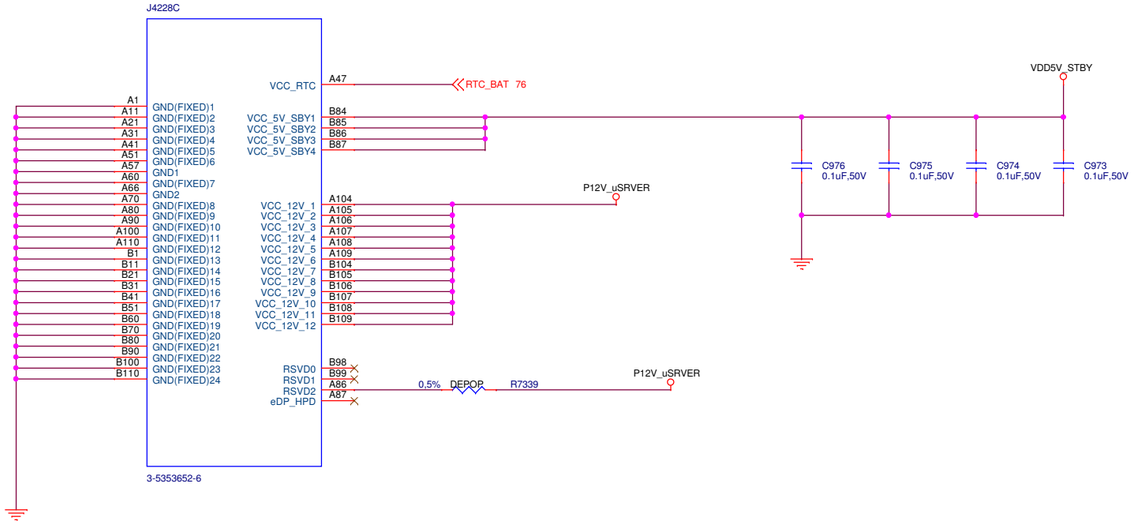
REV3 CHANGE NOTE:U815 CHANGED WITH I2C BASED TPM

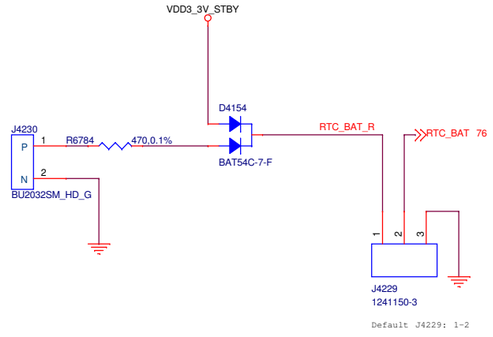
COM6 CONNECTOR PAGE 2

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PEM NUTS

REV2 CHANGE NOTE:PEM NUTS FOR COMe MODULE ADDED

REV3 CHANGE NOTE:FOOT PRINT CHANGED FOR PEM NUTS

REV3 CHANGE NOTE:FOOT PRINT CHANGED FOR COMe

COM6 CONNECTOR PAGE 3

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J4228D

D26 DDI1_PAIR0+
D27 DDI1_PAIR0-
D29 DDI1_PAIR1+
D30 DDI1_PAIR1-
D32 DDI1_PAIR2+
D33 DDI1_PAIR2-
D36 DDI1_PAIR3+
D37 DDI1_PAIR3-
C25 DDI1_PAIR4+
C26 DDI1_PAIR4-
C29 DDI1_PAIR5+
C30 DDI1_PAIR5-
C15 DDI1_PAIR6+
C16 DDI1_PAIR6-
D16 DDI1_CTRLDATA_AUX-
D15 DDI1_CTRLCLK_AUX+
D34 DDI1_DDC_AUX_SEL
C24 DDI1_HPD
D39 DDI2_PAIR0+
D40 DDI2_PAIR0-
D42 DDI2_PAIR1+
D43 DDI2_PAIR1-
D46 DDI2_PAIR2+
D47 DDI2_PAIR2-
D49 DDI2_PAIR3+
D50 DDI2_PAIR3-
C33 DDI2_CTRLDATA_AUX-
C32 DDI2_CTRLCLK_AUX+
C34 DDI2_DDC_AUX_SEL
D44 DDI2_HPD
C39 DDI3_PAIR0+
C40 DDI3_PAIR0-
C42 DDI3_PAIR1+
C43 DDI3_PAIR1-
C46 DDI3_PAIR2+
C47 DDI3_PAIR2-
C49 DDI3_PAIR3+
C50 DDI3_PAIR3-
C37 DDI3_CTRLDATA_AUX-
C36 DDI3_CTRLCLK_AUX+
C38 DDI3_DDC_AUX_SEL
C44 DDI3_HPD

3-5353652-6

USB_SSTX0+ D4
USB_SSTX0- D3
USB_SSRX0+ C4
USB_SSRX0- C3
USB_SSTX1+ D7
USB_SSTX1- D6
USB_SSRX1+ C7
USB_SSRX1- C6
USB_SSTX2+ D10
USB_SSTX2- D9
USB_SSRX2+ C10
USB_SSRX2- C9
USB_SSTX3+ D13
USB_SSTX3- D12
USB_SSRX3+ C13
USB_SSRX3- C12

PCIE_TX6+ D19
PCIE_TX6- D20
PCIE_RX6+ C19
PCIE_RX6- C20
PCIE_TX7+ D22
PCIE_TX7- D23
PCIE_RX7+ C22
PCIE_RX7- C23

TYPE0# C54
TYPE1# C57
TYPE2# D57

VDD5V_STBY

R7345 4.7K,1%
R7346 4.7K,1%
R7347 4.7K,1%

COM_TYPE0 77
COM_TYPE1 77
COM_TYPE2 77

Pull up to 5V Standby and to CPLD with 5V protection. Decode TYPE0#, TYPE1#, and TYPE2# in CPLD and only power up the module 12V if it is Type 6 or Type 10

77 COM_TYPE0
77 COM_TYPE1
77 COM_TYPE2

R7432 0.5%
R7435 0.5%
R7436 0.5%

B_COM_TYPE0 65
B_COM_TYPE1 65
B_COM_TYPE2 65

R7431 9.1K,1%
R7433 9.1K,1%
R7434 9.1K,1%

74 COM_CTREF

R6785 0.5%
R6786 0.5%
R6787 0.5%
R6788 0.5%

U32047

74 COM6_PHY_MDI_P0 1 TD1+ TX1+ 24 COM_MGMT_PHY_MDI_P0 82
74 COM6_PHY_MDI_N0 2 TD1- TX1- 23 COM_MGMT_PHY_MDI_N0 82
3 TDCT1 TXCT1 22
4 TDCT2 TXCT2 21
74 COM6_PHY_MDI_P1 5 TD2+ TX2+ 20 COM_MGMT_PHY_MDI_P1 82
74 COM6_PHY_MDI_N1 6 TD2- TX2- 19 COM_MGMT_PHY_MDI_N1 82
74 COM6_PHY_MDI_P2 7 TD3+ TX3+ 18 COM_MGMT_PHY_MDI_P2 82
74 COM6_PHY_MDI_N2 8 TD3- TX3- 17 COM_MGMT_PHY_MDI_N2 82
9 TDCT3 TXCT3 16
10 TDCT4 TXCT4 15
74 COM6_PHY_MDI_P3 11 TD4+ TX4+ 14 COM_MGMT_PHY_MDI_P3 82
74 COM6_PHY_MDI_N3 12 TD4- TX4- 13 COM_MGMT_PHY_MDI_N3 82

H5120NL

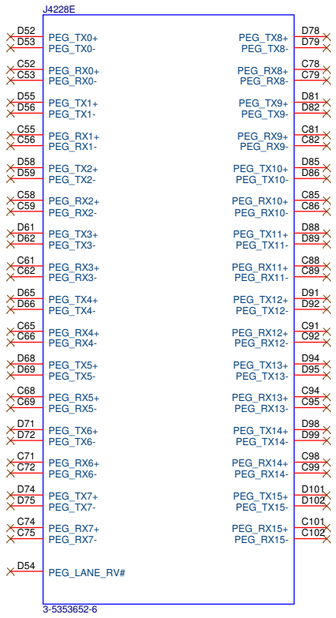
MAGNETICS

C972 0.1uF,50V
C971 0.1uF,50V
C970 0.1uF,50V
C969 0.1uF,50V

C968 0.1uF,50V
C967 0.1uF,50V
C966 0.1uF,50V
C965 0.1uF,50V

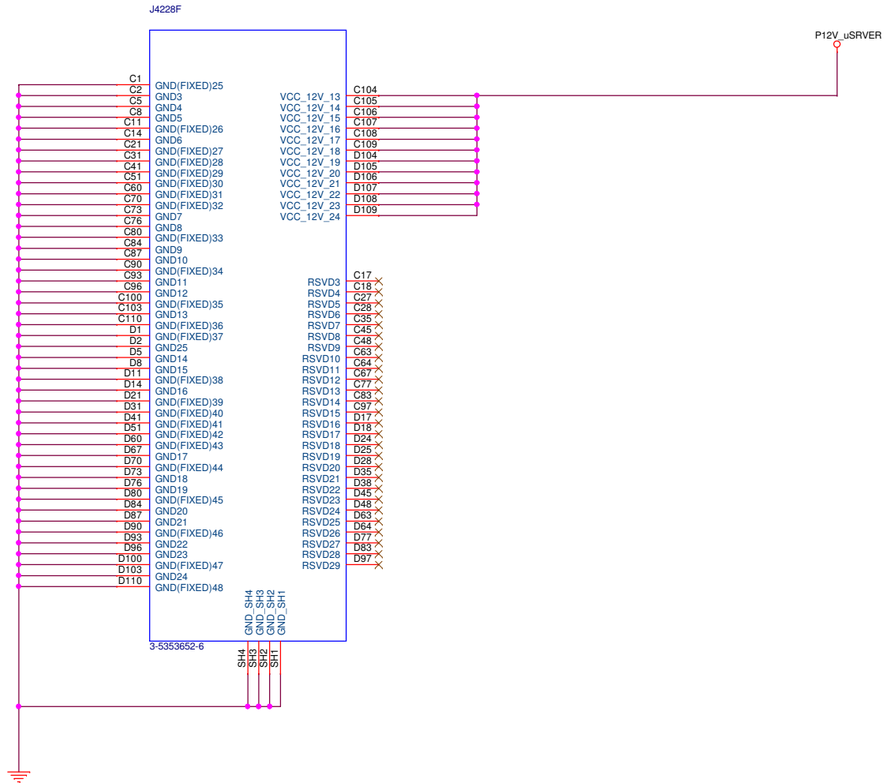
COM6 CONNECTOR PAGE 4

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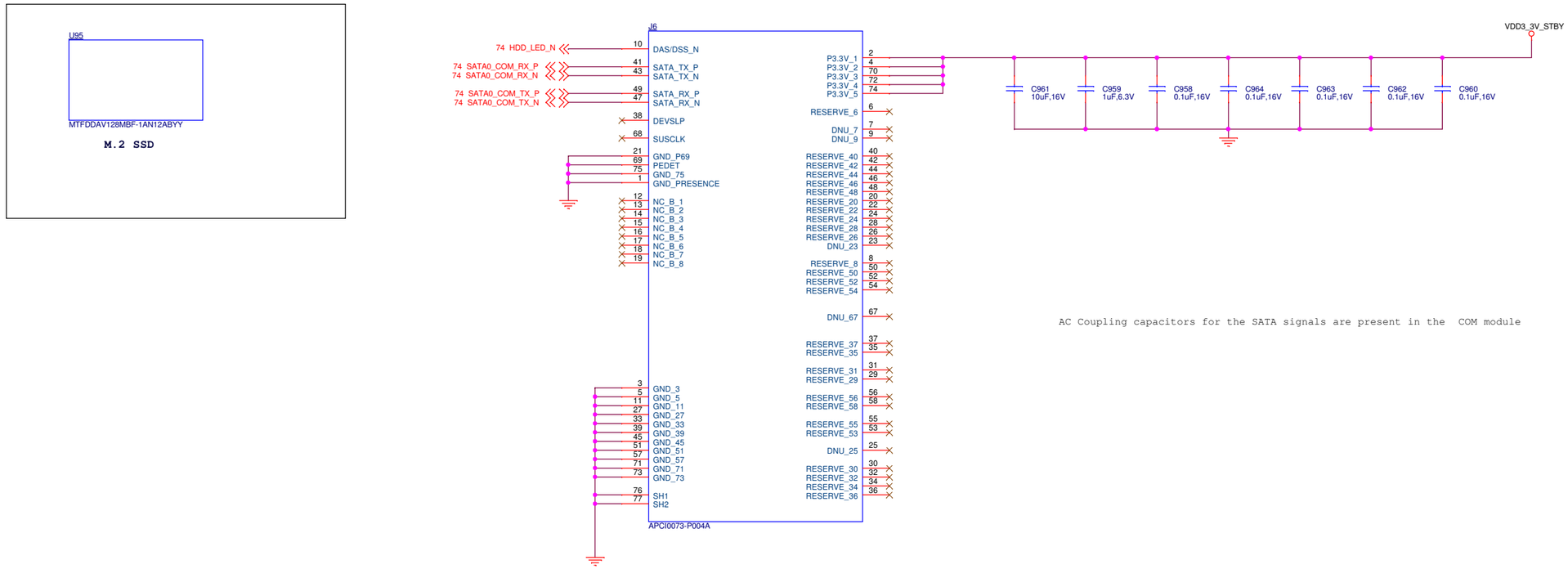
COM6 CONNECTOR PAGE 5

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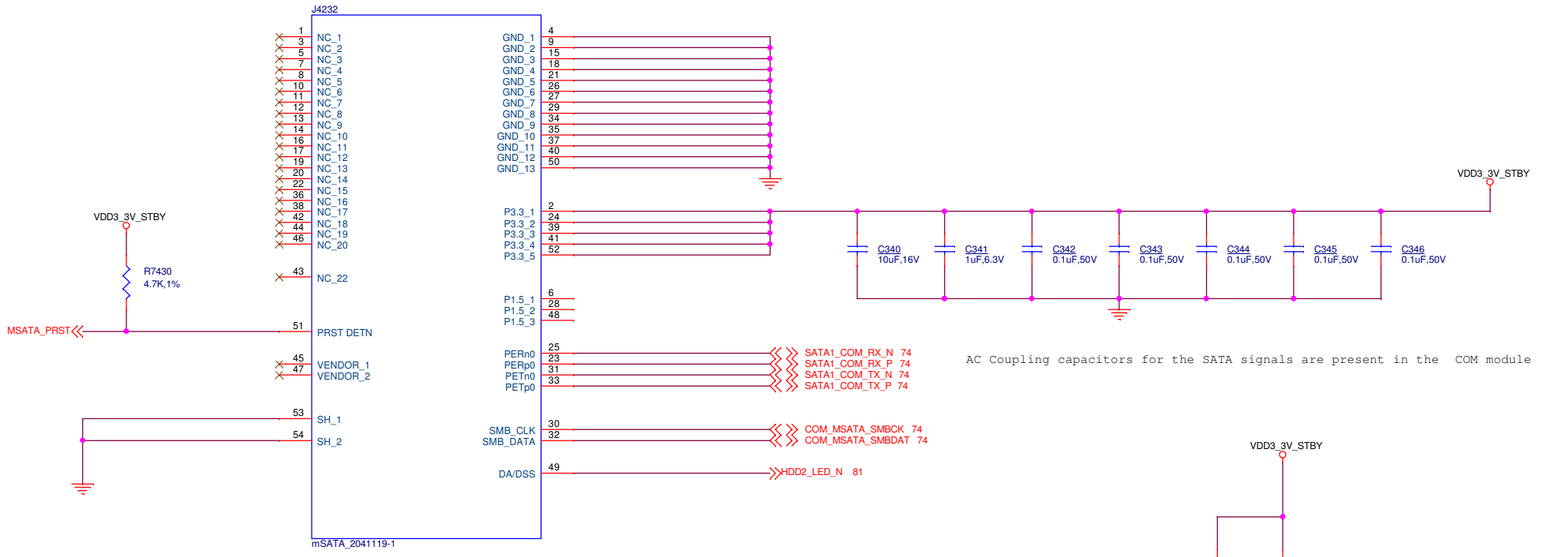
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AC Coupling capacitors for the SATA signals are present in the COM module

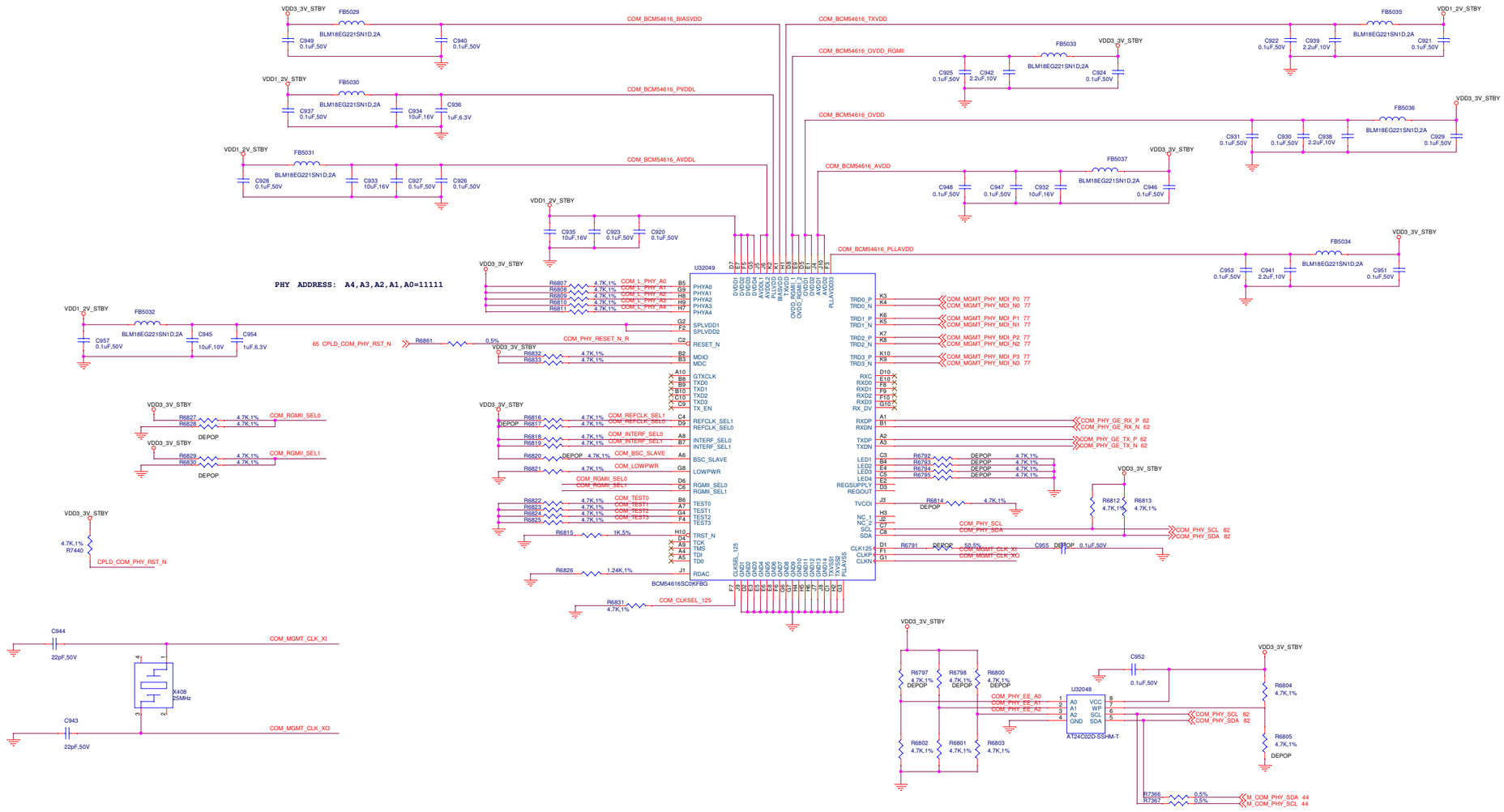
M.2SSD CONNECTOR

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MSATA CONNECTOR

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

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)

COM PHY

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Sl no	Changes	Page No	REV
4	Changed bulk caps to 47uF FB changed with FBMH3225HM601NT (FB, 600OHM,3000mA,DCR:42mOhms1210,SMD)	22	Rev0
5	Renamed core_pvdd as core_pll_avdd18	24	Rev0
6	core_pll_avdd18 connected to 1.8v	24	Rev0
7	Changed the power net names as VDD10,TVDD125	22-26	Rev0
8	Changed bulk caps to 47uF FB changed FBMH1608HL121-T(FB,120OHM,PKG:0603,900mA,DCR:130mOHM,SMD)	24	Rev0
9	Added one more decap pcie_pvdd10	24	Rev0
10	Changed bulk caps to 47uF, FB changed with FBMJ3216HS800-T(FB,80ohm,PKG:1206,4A,DCR:10mOHM,SMD)	25	Rev0
11	FB changed with broadcom recommended FB part ILHB0805ER601V(FB,600ohm,PKG:0805,2000mA,DCR:100m OHM,SMD)	26	Rev0
12	Added two more decaps PCIE_VDD10	26	Rev0
13	Changed bulk caps to 47uF	26	Rev0
14	FB changed FBMH1608HL121-T(FB,120OHM,PKG:0603,900mA,DCR:130mOHM,SMD)	26	Rev0
15	Added 0 ohms resistors in mdc/mdio path of phy	63	Rev0
16	Changed the addressof PHYs, to 11000 for U50,11001 for U8	63,64	Rev0 Rev0 Rev0
17	Connected bmc_mdc/mdio signal to rackmon connector	54,71	Rev0
18	Connected switch_mdc/mdio to GPIOR6,R7	54	Rev0
19	Changed the I2C address of temp sensor Text to 0x4A, 0x4B, 0x4C	58	Rev0
20	BMC_CLK_A/BMC_DATA_A has pull to 3.3v_iso through 10k. 10K changed to 4.7K	27	Rev0
21	Connect BMC_HEARTBEAT_N signal to CPLD pin J2	53,65	Rev0
22	Connected BMC_CPLD_SPARE[1:7] to cpld	53,65	Rev0
23	Connected CPLD_SPI_SEC_BOOT_WP_N signal from cpld to WP_N pin of U32028. Connected BMC_SPI_WP_N signal from CPLD to BMC ROMD4.	57,65	Rev0
24	Changed C24011 and C8617 with 10 pF Caps.	33,67	Rev0
25	Added RCC network for tps53318 device(U4102,U32013) .	33,68	Rev0
26	Changed five 22uf caps at output of TPS53318 to three 100uf caps(U4102,U32013) .	33,68	Rev0
27	Added placeholder for Rc snubber ckt in TPS53318 device ckt(U4102,U32013)	33,68	Rev0
28	Added4.7uf cap for vdd pin of TPS 53318(U4102,U32013)	33,68	Rev0
29	R5344 and and R5637 Changed from 0 ohm resistor to 3.01 ohms	33,68	Rev0
30	Changed TPS62130 to TPS62130A device	67	Rev0
31	Added pull down for WP_N pin R6576and made depop ,R6513 populated	57	Rev0
32	Changed the package of R6574,R6575 to 0805	33,68	Rev0
33	R5637 R5344 changed to 0603 package	33,68	Rev0
34	Added 10 uf caps,two for each driver in the power sections vdd core,anlg,3.3	28,30,32	Rev0
35	C8613,C24007 changed to 0.1uf,50v,0603	33,67	Rev0
36	c8628,c24018 changed to 0.1uf,50v,0402	33,68	Rev0
37	Added 0 ohm resistors in enable and vhot signals of power sections vdd core,anlg,3.3	28,30,32	Rev0
38	Led position button moved to page 68	65,70	Rev0
39	C19200,C19201 added	27	Rev0
40	Connected Front panel PHY and BMC PHY eeprom to U5704 empty I2C bus through 0 ohms	63,64,44	Rev0
41	RCKMON_SPARE(0:3) moved to GPIOJ0:3	55	Rev0
42	PM_SM_ALERT_N connected to BMC also	54,34	Rev0
43	BMC_CPLD_SPARE GPIOs can be remaned as BMC_CPLD_reset1/2/3/4	53	Rev0
44	BMC_CPLD_SPARE5 renamed as BMC_CPLD_QSFP_INT and BMC_CPLD_SPARE6 renamed as BMC_CPLD_POWER_INT	53	Rev0
45	Added 8 test points to CPLD unused pins	65	Rev0
46	Added R6587 for clk buffer enable	12	Rev0
47	Added R6588 for clk buffer enable	11	Rev0
48	Added protection diodes for all signals in debug header	70	Rev0
49	Added base board ID table	66	Rev0
50	Added pull down R6589 for BMC_JTAG_TRST_N	55	Rev0
51	Base board ID changed to 0x4F(R3226_1 made depop,R3226_2 populated)	66	Rev0
52	Changed R6380 to 137K from 130K	67	Rev0
53	Changed R6382 to 80.6K from 75K	67	Rev0
54	Connected JTAG signals of both PHYs and BMC	55,63,64	Rev0
55	Added filters for pvtmon_avdd18 and rovpvtmon_avdd18	22,26	Rev0
56	Qsfp low speed signal names changed as per Qsfp port number		Rev0
57	R6589 populated and R6593 made depop	55	Rev0
58	Led assignment changed as per qsfp port numbering	46,47,48, 49,51	Rev0
59	Fancard CPLD upgrade signals moved to GPIOs J4,J5,J6,J7	55	Rev0
60	BMC watchdog timer 1,2 connected to cpld	5565	Rev0
61	BMC_ISO_BUF_EN connected to CPLD	53,65	Rev0
62	BMC_MSERVE_ISOBUF_EN connected to cpld	54,65	Rev0

Sl no	Changes	Page No	REV
63	I2C of U3201 connected to port6 of U5700	44,66	Rev0
64	Added a spare USB to I2C Bridge U88	61	Rev0
65	12V power switch to uServer changed to nmos(U4701),gate drive used is U98(SLG55021)	68	Rev0
66	Spare USB to I2C Bridge U88 replaced with MCP2221T from MICRO CHIP	61	Rev0
67	Changed the existing 5v_stby to 6V_stby supply	67	Rev0
68	Added a new LDO for 5V_stby supply	68	Rev0
69	RJ1 pin 2 and 7 connected using zero ohm	70	Rev0
70	Added pullup resistors on all reset signals		Rev0
71	Changed R5673 to 1.78K and R5674 to 2.87K	29,31	Rev0
72	Deleted U309	13	Rev0
73	Removed 1.2V_stby from power manager and connected 6v_stby(VMON9)	34	Rev0
74	Added a series resistor for switch MDC	54	Rev0
75	changed FB4202 to TDK MPZ1608S601A	62	Rev0
76	BMC_DATA_A,CLK_A,DATA_B,CLK_B pulled up to 3.3V_STE	27,34	Rev0
77	Added a fanout buffer to BMC_MDC	64	Rev0
78	Added two pulldown resistors on BMC_PHY_SCL/SDA	63	Rev0
79	Added hotswap circuit	72	Rev0
80	Changed the power connector to 12pin	71	Rev0
81	Deleted pull down resistors on BMC_PHY_SCL/SDA	63	Rev0
82	Added DPLL connector, usb to spi bridge	73	Rev0
83	Changed U22 USB Hub to 4 port part	60	Rev0
84	Added clk signals from DPLL to clk selector U202	11	Rev0
85	Changed R6144,R6145 to 10K from 1K	65	Rev0
86	On J4216 signals swapped between pin 24,30 with pin 25,31 respectively	71	Rev0
87	J4217,J4218,J4219,J4220,J4221,J4222,J4223,J4224 Deleted	16,42	Rev1
88	Added resistor divider R6664,R6665 to BMC_RST_N	57	Rev1
89	U98 VCC pin connected to 5V_Stby	68	Rev1
90	Changed R4394 to 1K	54	Rev1
91	pin D20 OF U1 grounded through 191ohm res,unused pins of U4202,U4203 grounded	53,34	Rev1
92	R5018,R6609 made depop	63,61	Rev1
93	Removed SMAs J4217-J4224	16,42	Rev1
94	Replaced JP16 with vertical connector 1-1470109-4 from TE	70	Rev1
95	loaded capacitors C23002,C23003,C23004,C23005,C23006,C23006,C23007,C23008,C23009,C23010,C23011 on 3.3V rail	32	Rev1
96	Depop resistors R6643 and R6642 and populate R5760 and R5761	18	Rev1
97	Connected LPC and SPI signals from BMC to Isolaton buffers U32033,U32034 and J1	53,54,59	Rev1
98	Added 5 caps c23907-C23911 to 3.3V rail near 3.3v PS	32	Rev1
99	Replaced X202 with Hosonic part	11	Rev1
100	Populate pull up on PSU1,2 power ok signal(R6549,R6548)	69	Rev1
101	Add zero ohm resistor on PSU signals such as scl,sda,smb alert,inputok,present_l	44,69	Rev1
102	PSU side scl is swapped with sda,scl connected to A4 and sda to C3	69	Rev1
103	J4214 changed with 8pin connector PH08RA3BAAB05	34	Rev1
104	Added tricolor led D4151	65	Rev1
105	Q4701 D ans S connection swapped	68	Rev1
106	Added pull up to CPLD_push_button_reset_n	65	Rev1
107	Added COMe	74-79	Rev2
108	Changed the powersupply for 5V_Stby	68	Rev2
109	R171 made depop,r191 populated	68	Rev2
110	U55 and U103 WP signal connected to CPLD	63,64	Rev2
111	C7030 made depop	63	Rev2
112	Board revision ID changed to 010	55	Rev2
113	Added Isolation buffer U218	59	Rev2
114	Added SPI connection from BMC to TPM based SPI through U220	54,75	Rev2
115	Added Pem nuts for COMe	76	Rev2
116	CPLD_BMC_SPIBOOT_WP_N) connected to CPLD IN3 signal pin in CPLD	65,57	Rev2
117	COM_SMB_ALRT_N moved to same isolation buffer having COM_SMB bus U19	59	Rev2
118	COM_SMB_DAT/CK are connected to BMC i2c bus 1(R_MSERVE_NIC_SDA/SCL)	74	Rev2
119	Changed JP5 with SMD part from TE	55	Rev3
120	Updated the footprint of U98,C23022,C23021	68,32	Rev3
121	Updated the MFG_P/N of U700 and U701 with commercial part	50	Rev3
122	Deletd pin5 of J4214 as per Accton recommendation	34	Rev3
123	Changed C24166 with 27pF cap	74	Rev3
124	U220 deleted,U815 changed to I2C based TPM	75	Rev4

CHANGE TRACKER

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