CORAL PVT (N24)

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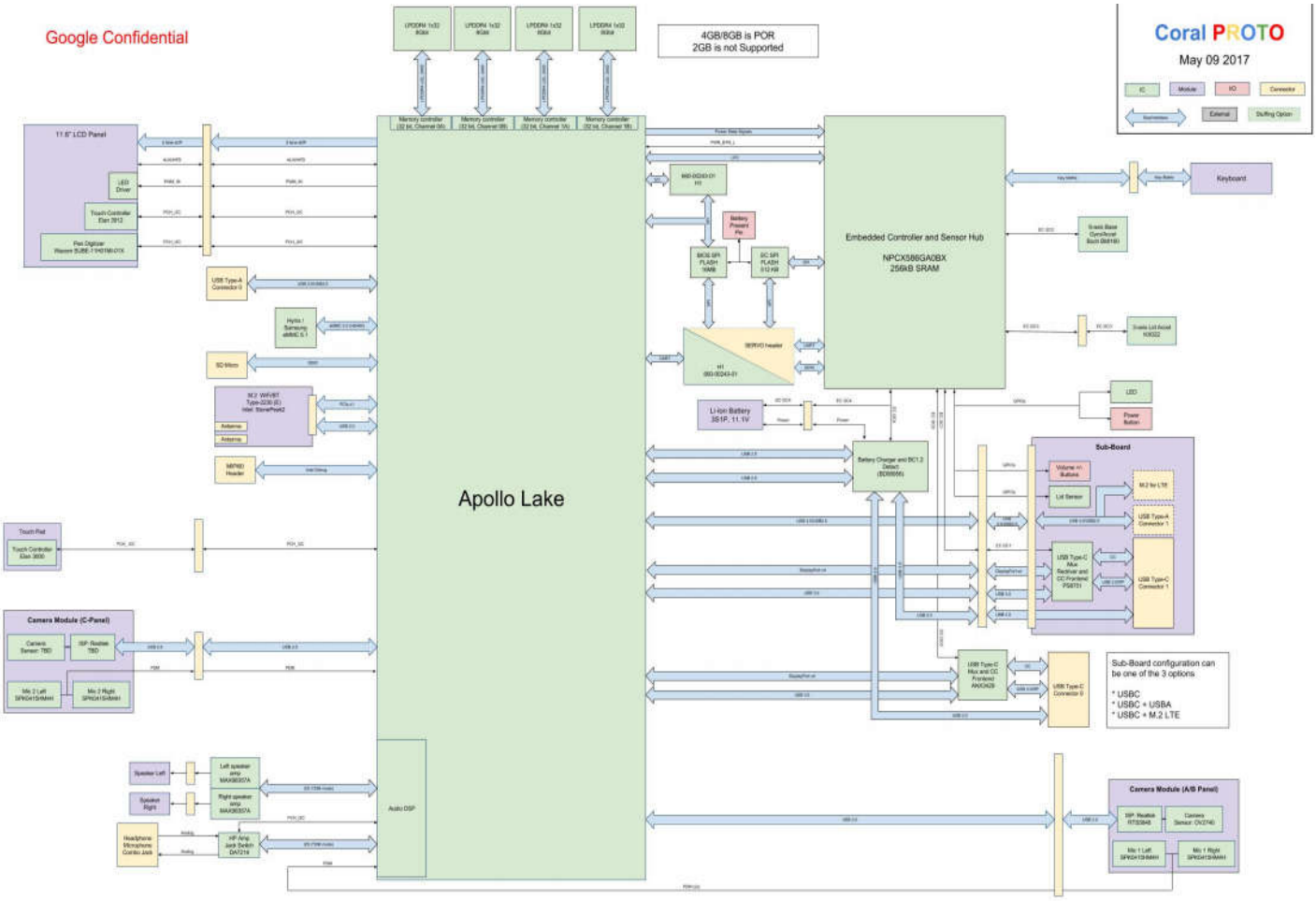

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Page Name	SYSTEM BLOCK DIAGRAM		
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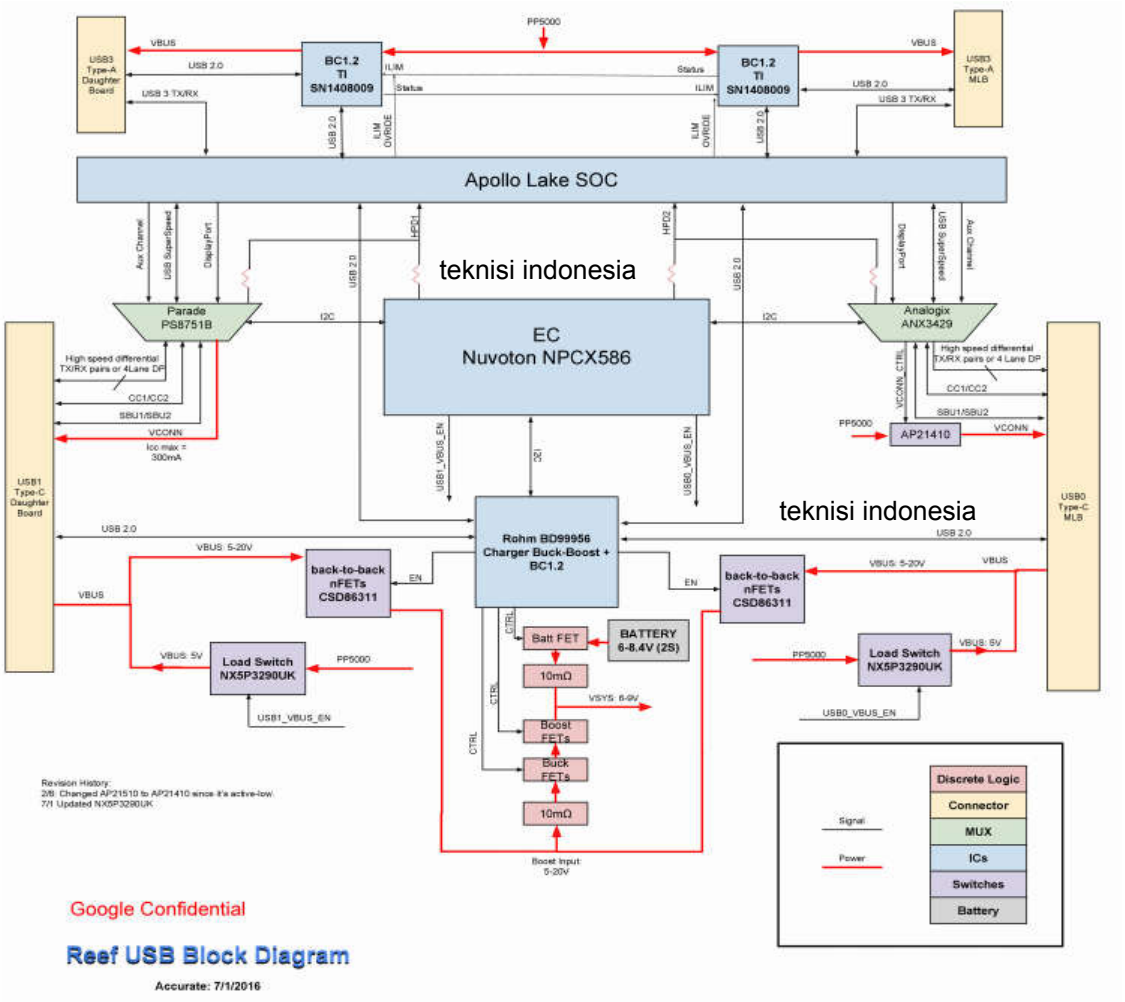

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Reef USB Block Diagram

Accurate: 7/1/2016

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Page Name	USB TYPE-C BLOCK DIAGRAM		
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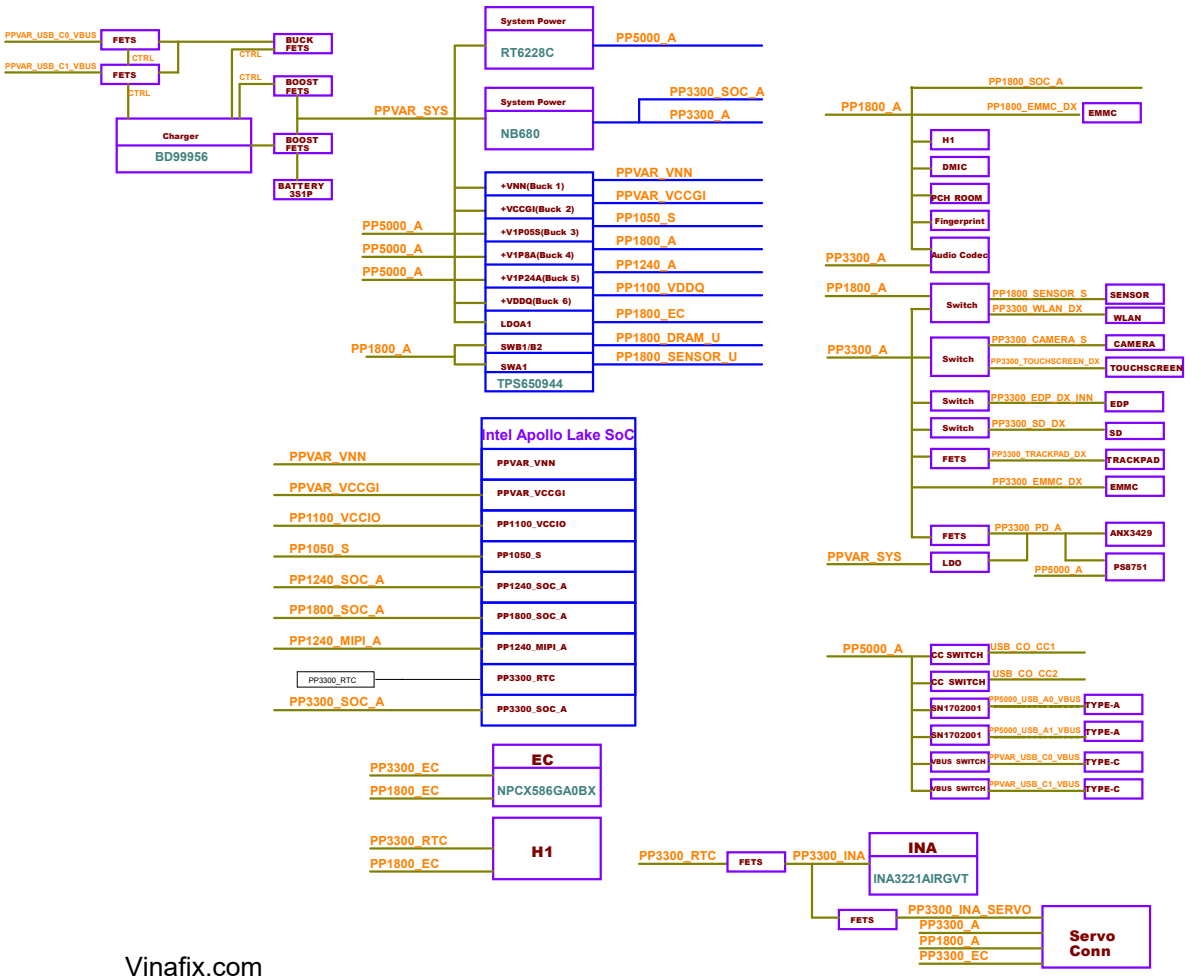

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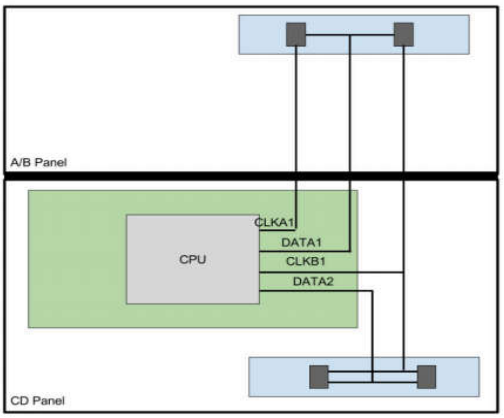
EC I2C Address

Bus	Alternate function	Schematic net name	Device1	Address1 (7bit)	Device2	Address2
I2C0_0	-	EC_I2C_USB_C0_PD	Analogix TCPC	0x50 (check7/8 bit)		
I2C0_1	-	EC_I2C_USB_C1_PD	Parade TCPC	0x0B		
I2C1	-	EC_I2C_GYRO	BOSCH Gyro	0x68		
I2C2	-	EC_I2C_SENSOR	Kionix Accelerometer	0x1F	Bosch Barometer(removed)	0x76
I2C3	-	EC_I2C_POWER	Rohm Charger	0x09	Battery Pack	TBD

AP I2C Address

Bus	Alternate function	Schematic net name	Device1	Address1 (7bit)
I2C0	-	PCH_I2C_H1	H1	TBD
I2C1	-	PCH_I2C_NFC (unstuff)	NXP NPC300	0x29 (check 7/8 bit)
I2C2	-	PCH_I2C_AUDIO	HP AMP	0x1A
I2C3	-	PCH_I2C_TOUCHSCREEN	TOUCHSCREEN	TBD
I2C4	-	PCH_I2C_TRACKPAD	TRACKPAD	TBD
I2C5	ISH I2C0	unused		
I2C6	ISH I2C1	unused		
I2C7	ISH I2C2	unused		
SMBUS	I2C7	unused		
PMIC_I2C	-	PCH_I2C_PMIC	PMIC	0x5E

DMIC Diagram



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Page Name: I2C MAP
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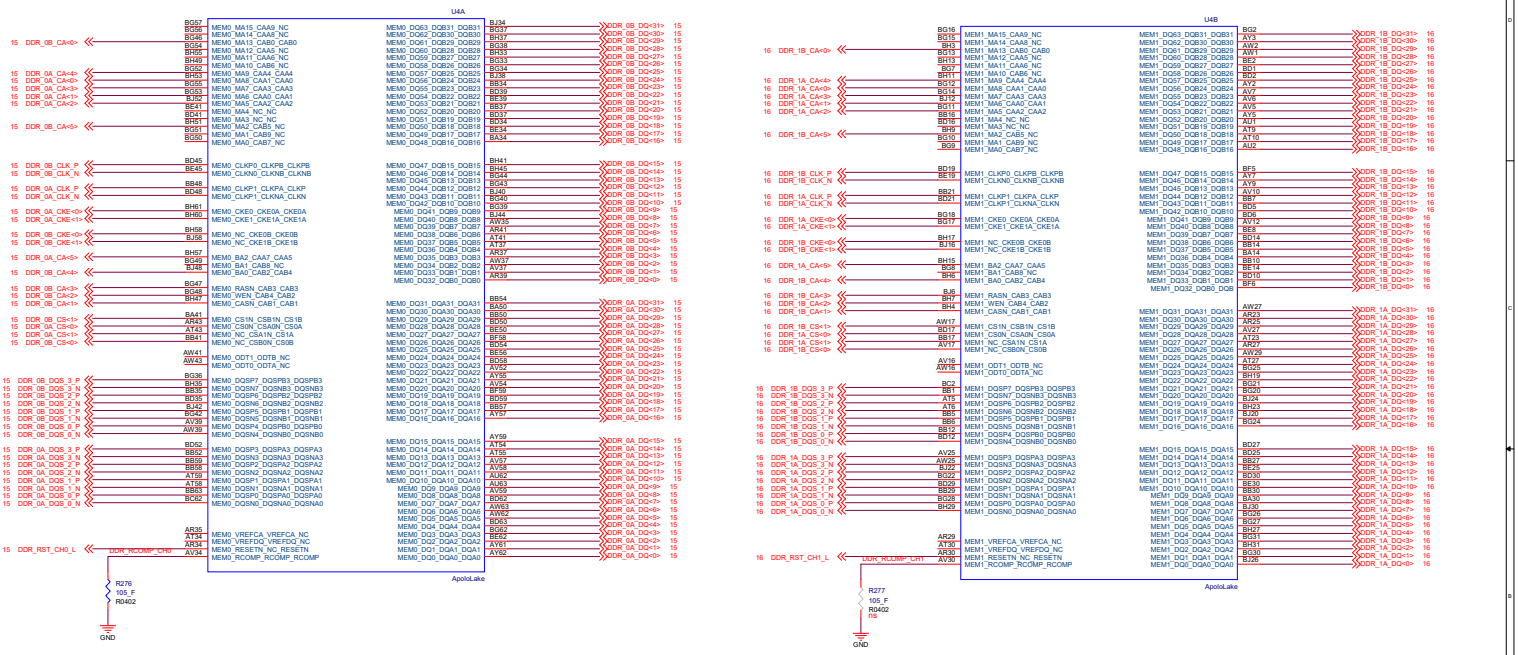

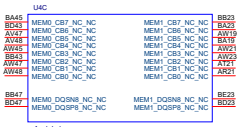

PINS CAN BE SWAPPED PER PDG UPON REQUEST

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Page Name	APL MEMORY		
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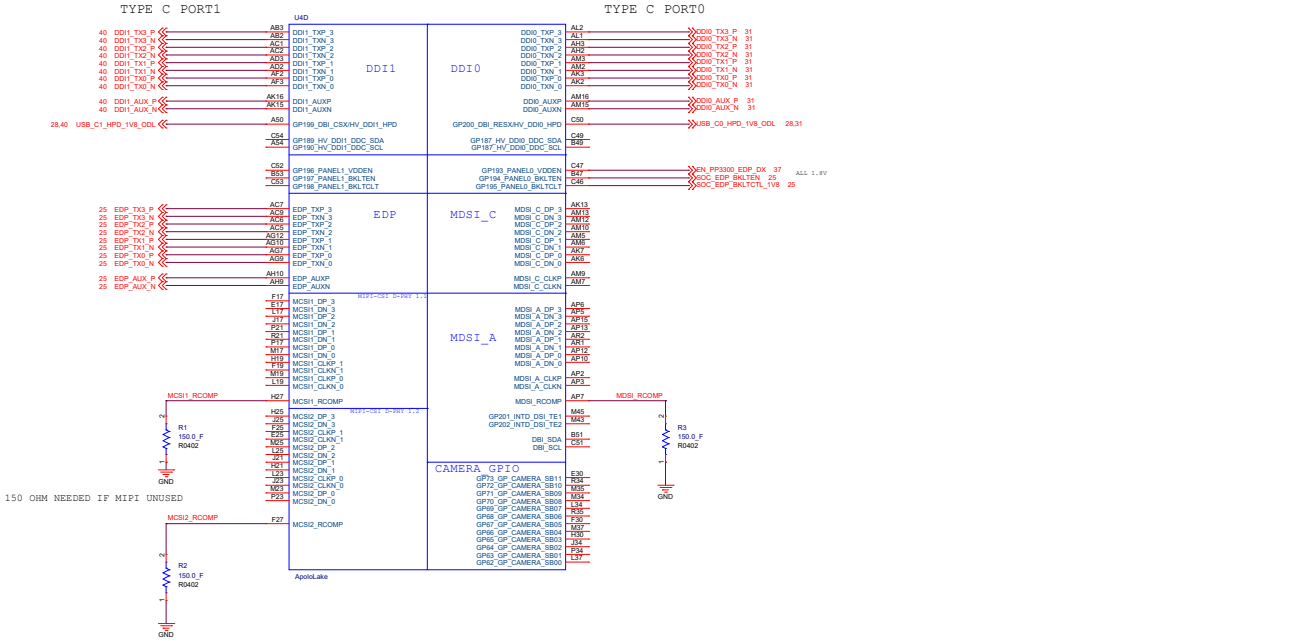

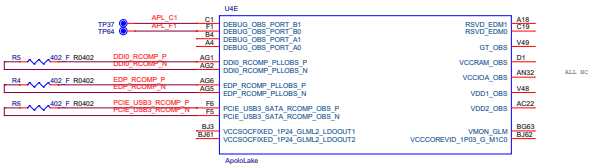

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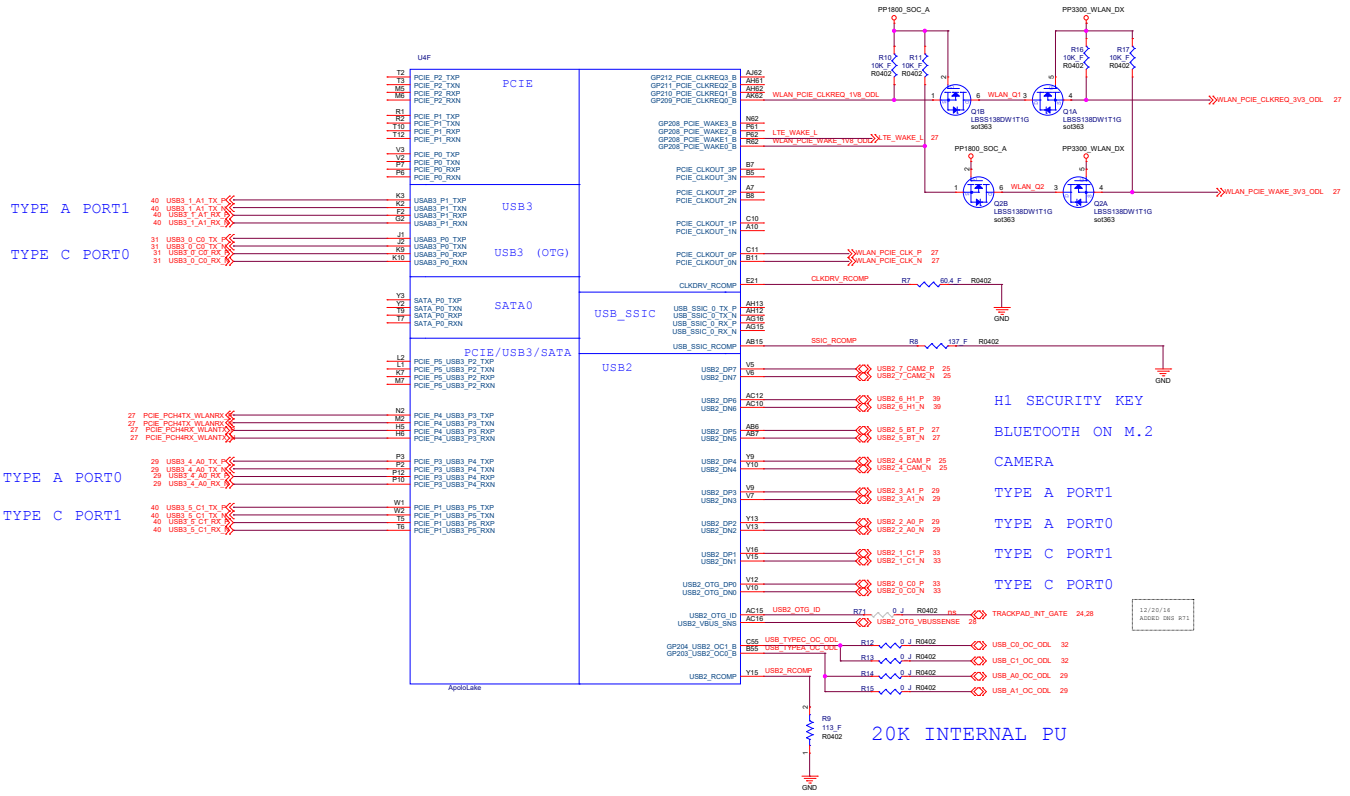

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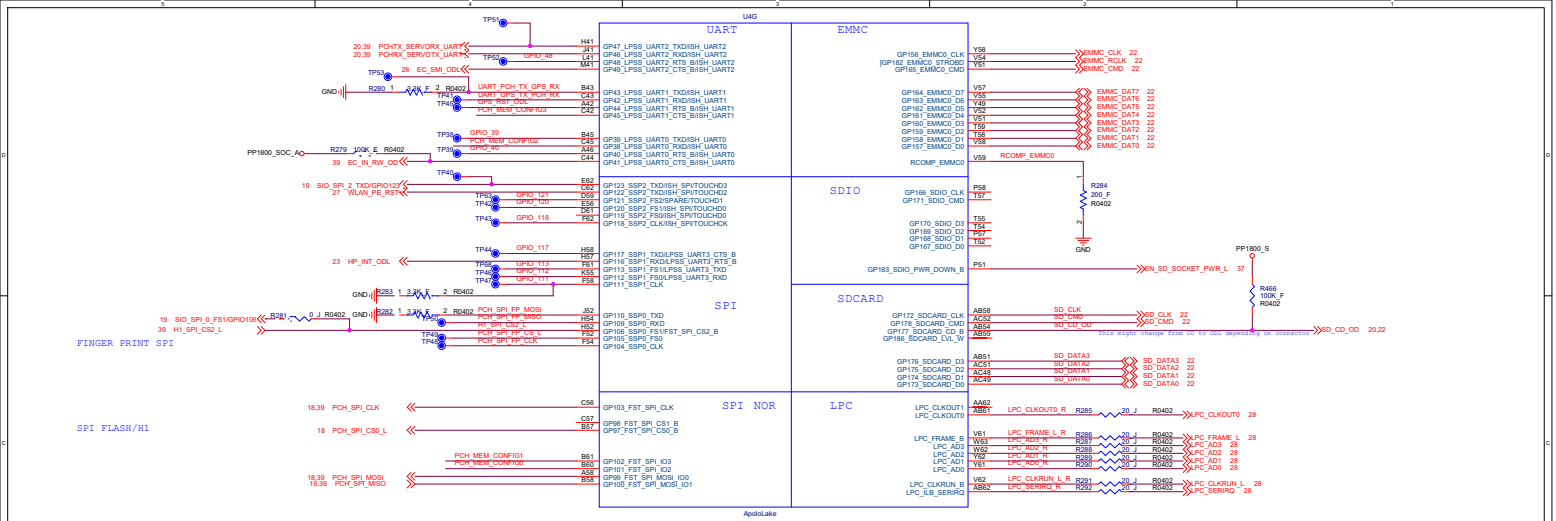

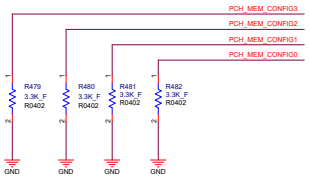

MEMORY TYPE	CONFIG3	CONFIG2	CONFIG1	CONFIG0
SAMSUNG 8GB K4F6E304HB	0	0	0	0
SAMSUNG 4GB K4F8E304HB	0	0	0	1
MICRON 8GB MT53B512M32D2NP-062WT:C	0	0	1	0
MICRON 4GB MT53B256M32D1NP-062 WT:C	0	0	1	1
HYNIX 8GB H9HCNNNBPUMLHR	0	1	0	0
HYNIX 4GB H9HCNNN8KUMLHR	0	1	0	1

HARDWARE STRAPS (* = SYSTEM STRAP SELECTION)				
GPIO_39: INTERNAL 20K PD *DISABLE CSE ROM BYPASS: 0 ENABLE CSE ROM BYPASS: 1	GPIO_47: INTERNAL 20K PD *DON'T FORCE DNX FW LOAD: 0 FORCE DNX FW LOAD: 1	GPIO_106: INTERNAL 20K PU *MUST BE HIGH WHEN RSM_RST_N DEASSERTS	GPIO_117: INTERNAL 20K PD *MUST BE LOW WHEN RSM_RST_N DEASSERTS	GPIO_120: INTERNAL 20K PD *TOP SWAP OVERRIDE DISABLE: 0 TOP SWAP OVERRIDE ENABLE: 1
GPIO_40: INTERNAL 20K PD *MUST BE LOW WHEN RSM_RST_N DEASSERTS	GPIO_48: INTERNAL 20K PD *MUST BE LOW WHEN RSM_RST_N DEASSERTS	GPIO_111: INTERNAL 20K PU DO NOT BOOT FROM SPI: 1 *BOOT FROM SPI: 0	GPIO_123: INTERNAL 20K PU MUST BE HIGH WHEN RSM_RST_N DEASSERTS	GPIO_121: INTERNAL 20K PD *MUST BE LOW WHEN RSM_RST_N DEASSERTS
GPIO_43: INTERNAL 20K PU ENABLE BOOT FROM EMMC: 1 *DISABLE BOOT FROM EMMC: 0	GPIO_104: INTERNAL 20K PD *MUST BE LOW WHEN RSM_RST_N DEASSERTS	GPIO_118: INTERNAL 20K PD *NO FLASH DESCRIPTOR OVERRIDE: 0 OVERRIDE FLASH DESCRIPTOR: 1	GPIO_112: INTERNAL 20K PD *MUST BE LOW WHEN RSM_RST_N DEASSERTS	
GPIO_44: INTERNAL 20K PU *ENABLE BOOT FROM SPI: 1 DISABLE BOOT FROM SPI: 0	GPIO_105: INTERNAL 20K PD *MUST BE LOW WHEN RSM_RST_N DEASSERTS	GPIO_110: INTERNAL 20K PU LPC BUFFERS AT 1.8V: 1 *LPC BUFFERS AT 3.3V: 0	GPIO_113: INTERNAL 20K PD *MUST BE LOW WHEN RSM_RST_N DEASSERTS	

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Page Name	APL UART/SPI/EMMC/SD/LPC	
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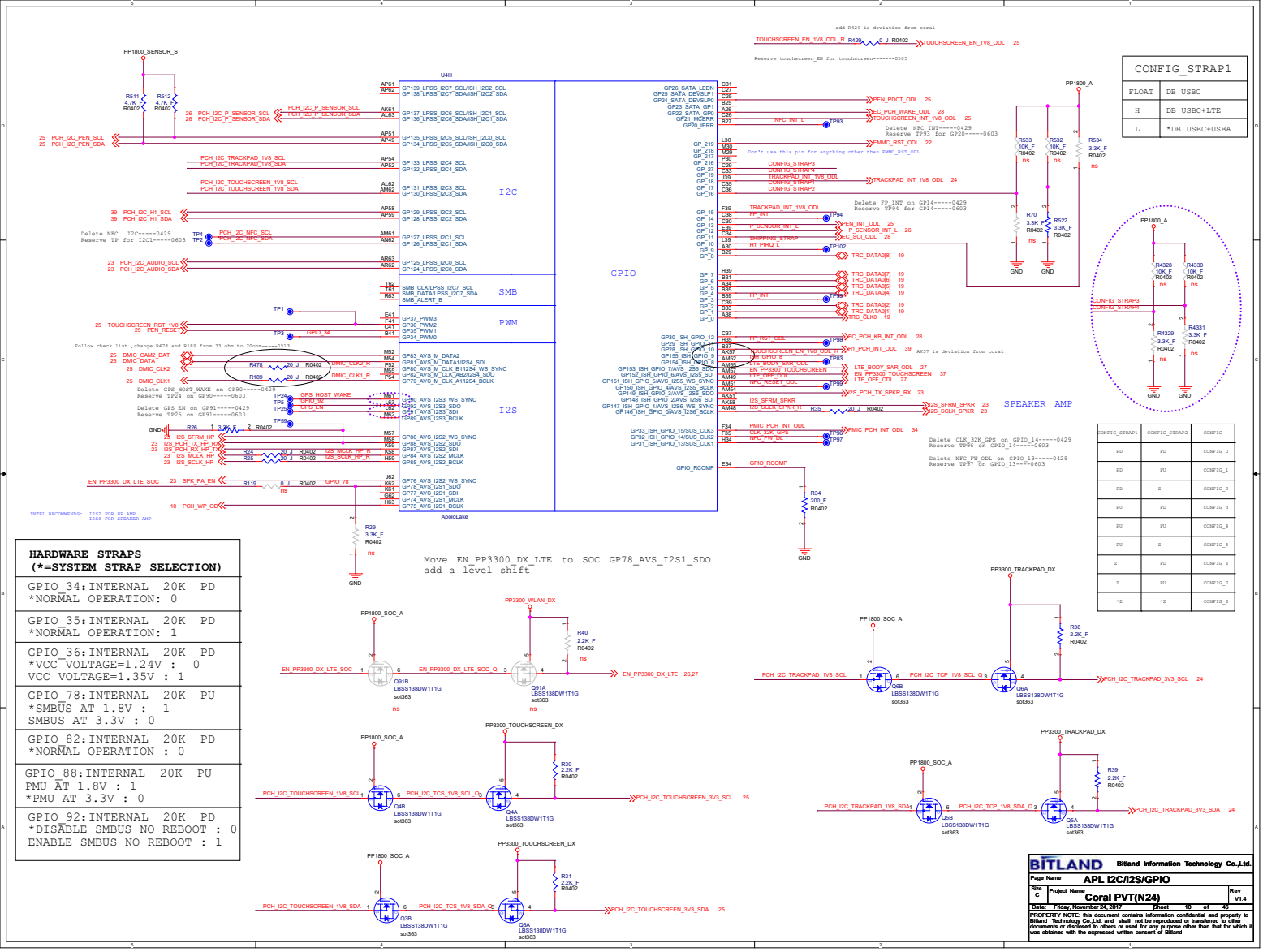

CONFIG_STRAP1	
FLOAT	DB USBC
H	DB USBC+LTE
L	*DB USBC+USBA

CONFIG_STRAP1	CONFIG_STRAP3	CONFIG
PD	PD	CONFIG_0
PD	PU	CONFIG_1
PD	Z	CONFIG_2
PU	PD	CONFIG_3
PU	PU	CONFIG_4
PU	Z	CONFIG_5
Z	PD	CONFIG_6
Z	PU	CONFIG_7
*Z	*Z	CONFIG_8

HARDWARE STRAPS
(*=SYSTEM STRAP SELECTION)

GPIO_34:INTERNAL 20K PD *NORMAL OPERATION: 0
GPIO_35:INTERNAL 20K PD *NORMAL OPERATION: 1
GPIO_36:INTERNAL 20K PD *VCC VOLTAGE=1.24V : 0 VCC VOLTAGE=1.35V : 1
GPIO_78:INTERNAL 20K PU *SMBUS AT 1.8V : 1 SMBUS AT 3.3V : 0
GPIO_82:INTERNAL 20K PD *NORMAL OPERATION : 0
GPIO_88:INTERNAL 20K PU PMU AT 1.8V : 1 *PMU AT 3.3V : 0
GPIO_92:INTERNAL 20K PD *DISABLE SMBUS NO REBOOT : 0 ENABLE SMBUS NO REBOOT : 1

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Page Name	APL I2C/I2S/GPIO	
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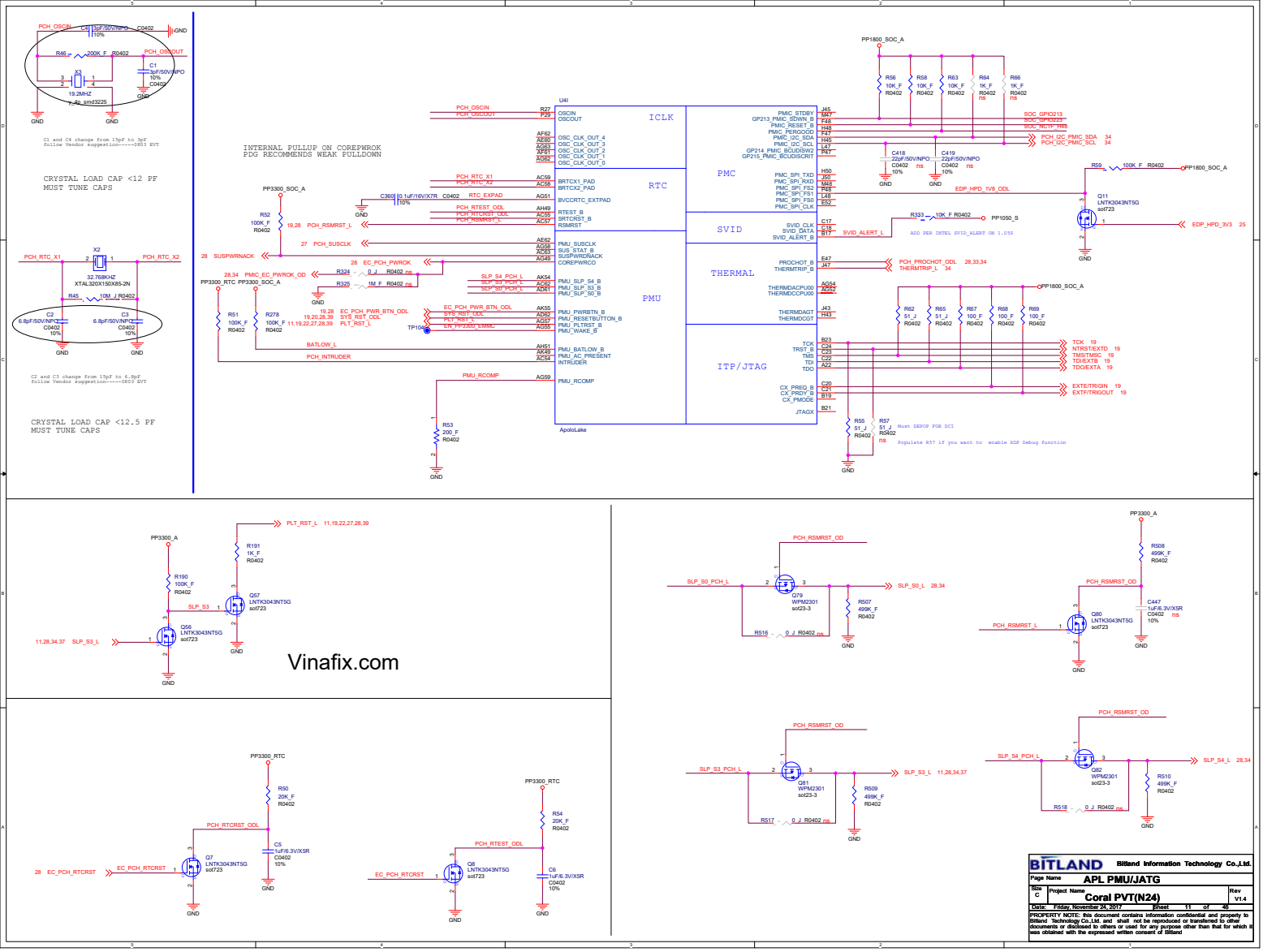

BITLAND	Bitland Information Technology Co.,Ltd.
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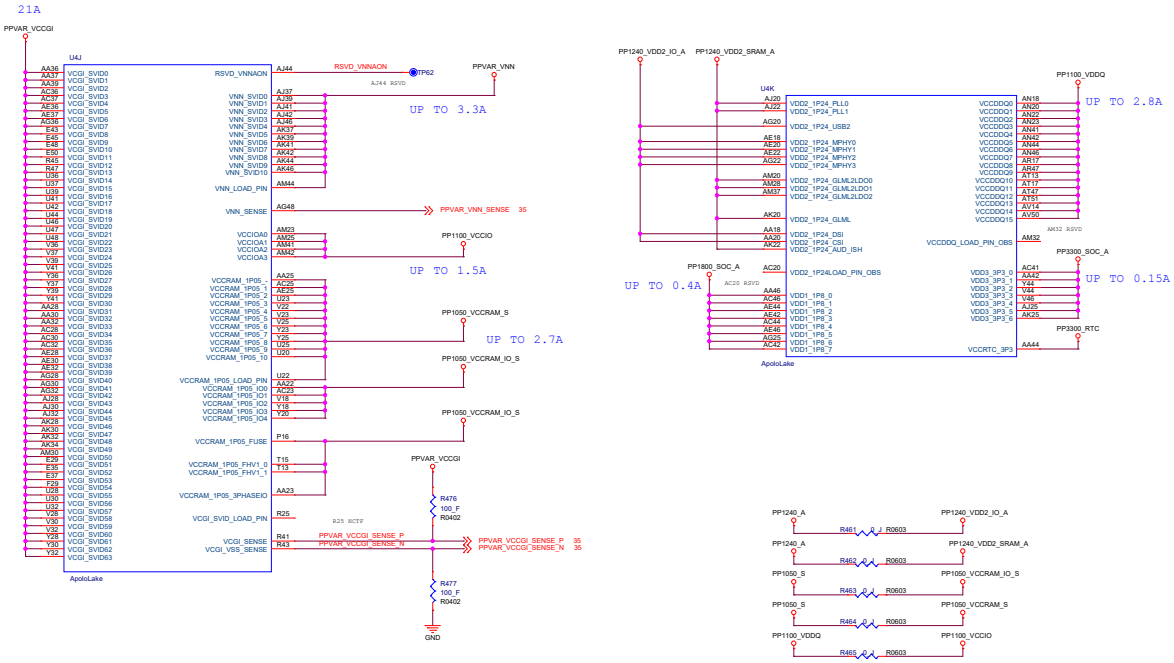

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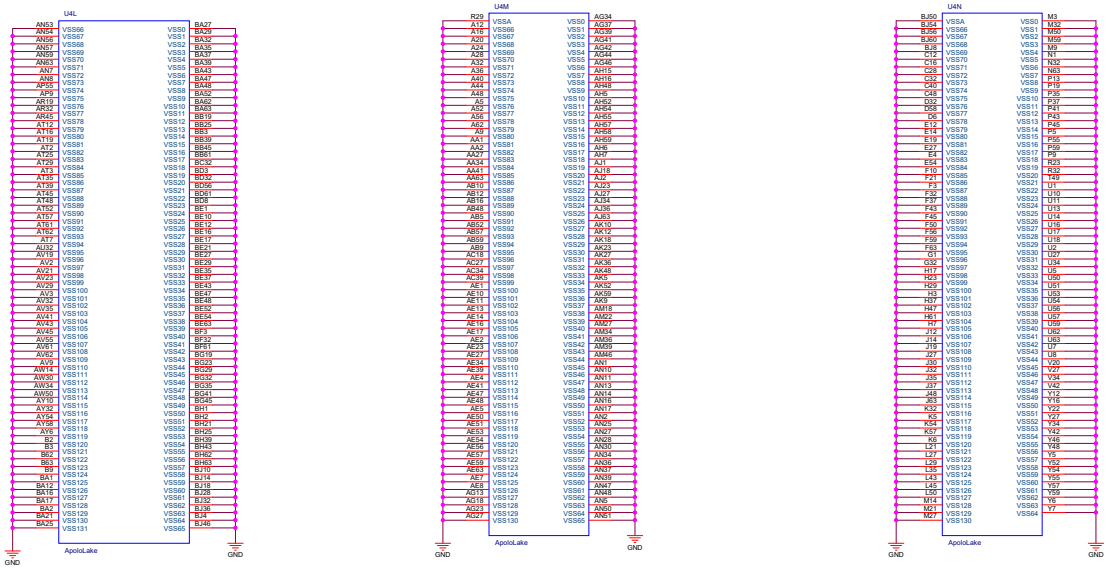

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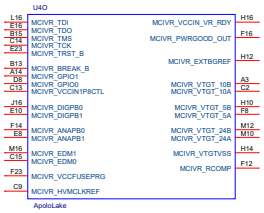

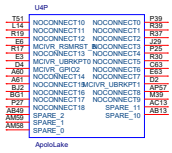

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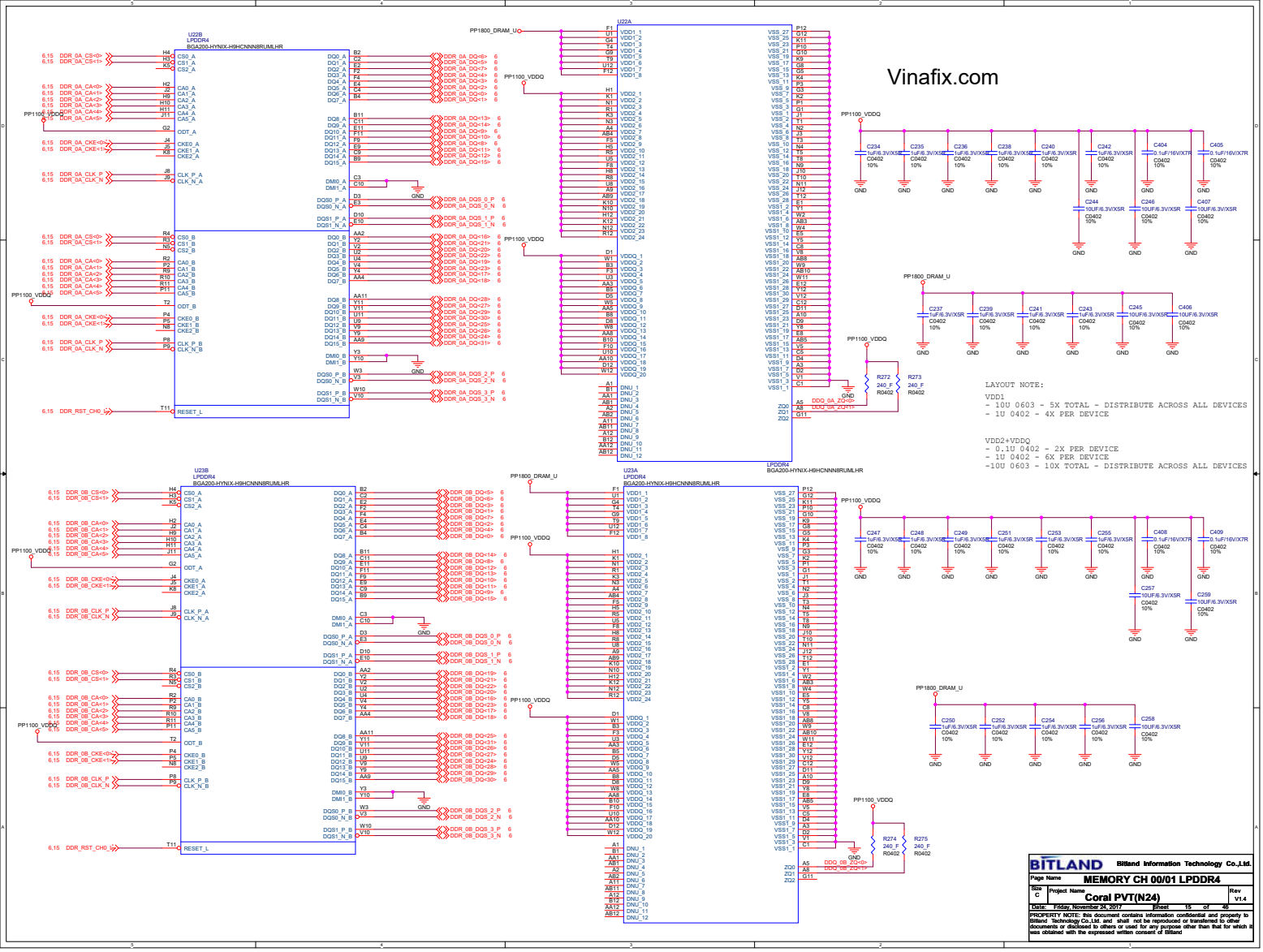

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Page Name	MEMORY CH 00/01 LPDDR4		
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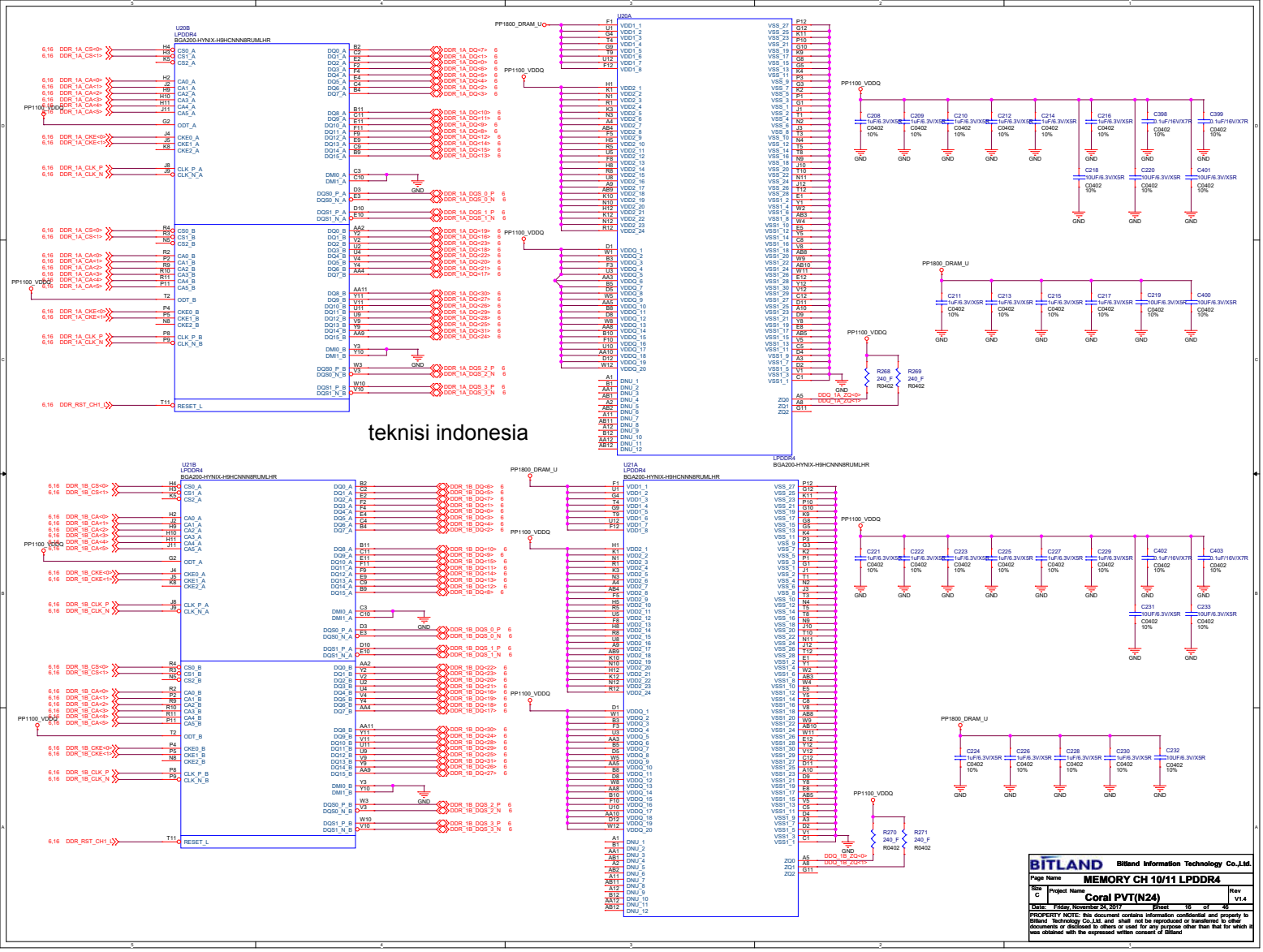

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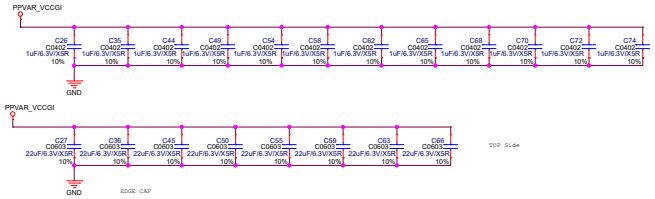
PPVAR_VCCGI



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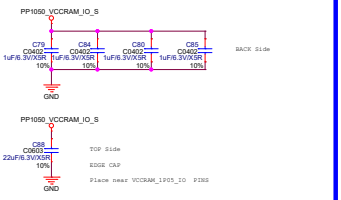
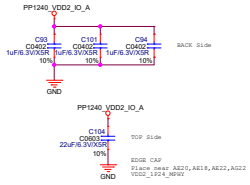
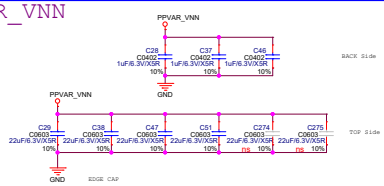


PP1240_VDD2_IO_A



PPVAR_VNN



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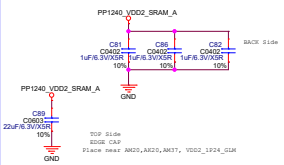

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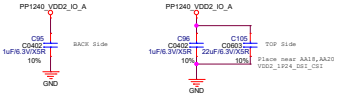

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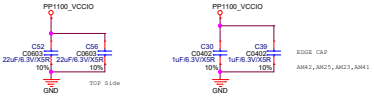
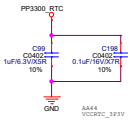
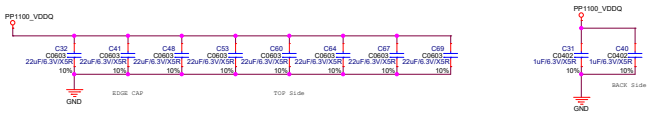


PP1240_VDD2_SRAM_A

PP3300_RTC



PP1100_VDDQ



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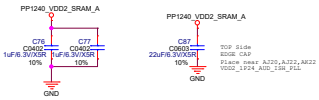
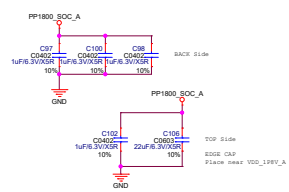


PP1800_SOC_A



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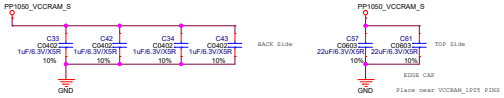
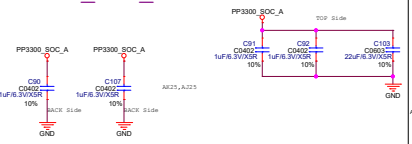


PP1240_VDD2_IO_A

PP3300_SOC_A



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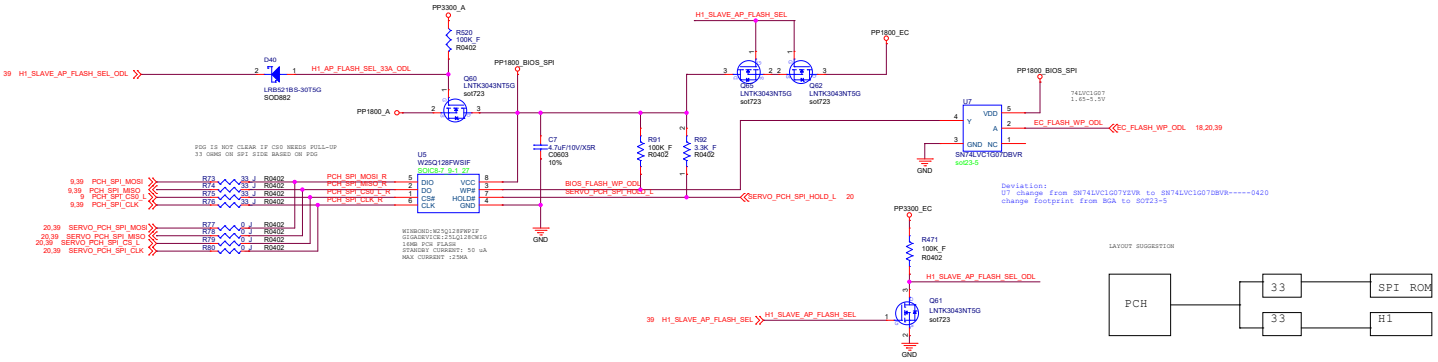
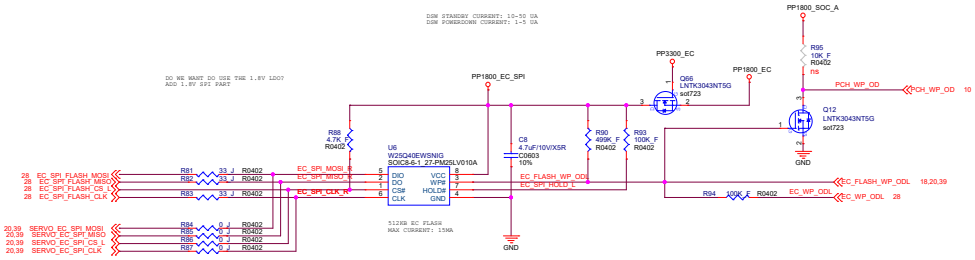
PCH SPI FLASH



EC SPI FLASH



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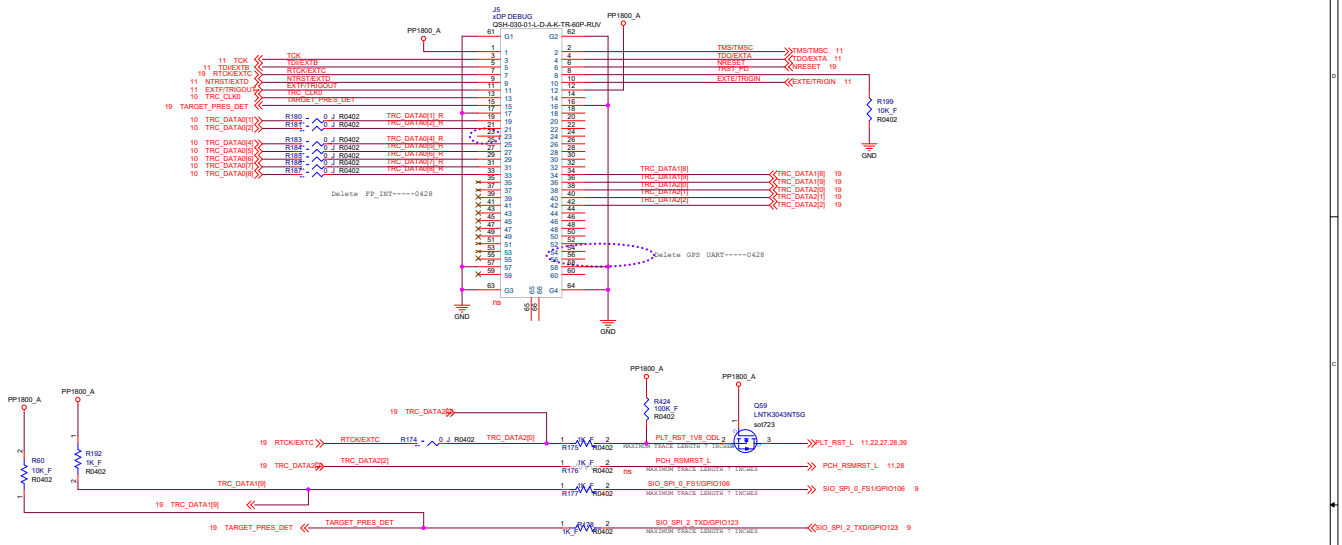

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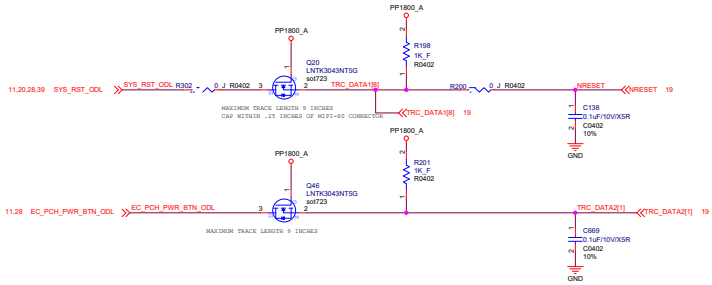

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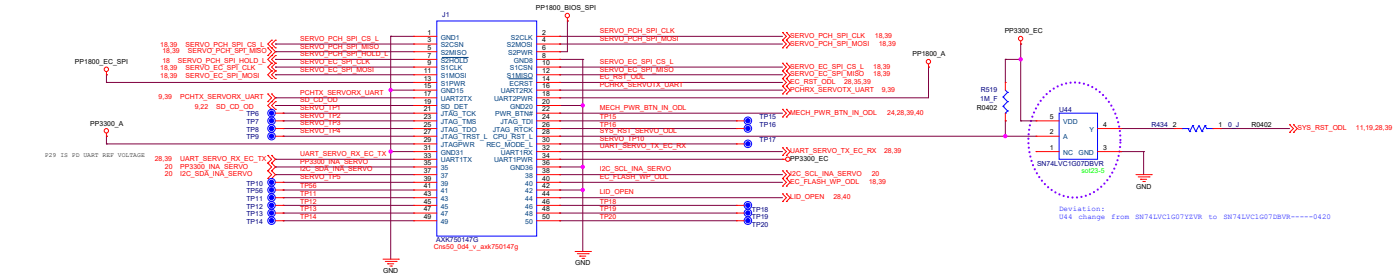
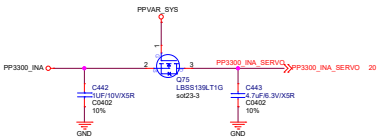
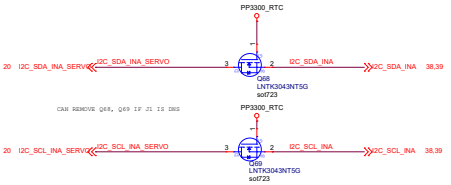
P18 IS PCH UART REF VOLTAGE
CAN REMOVE U44, R519 IF J1 IS DNS
P34 IS EC UART REF VOLTAGE







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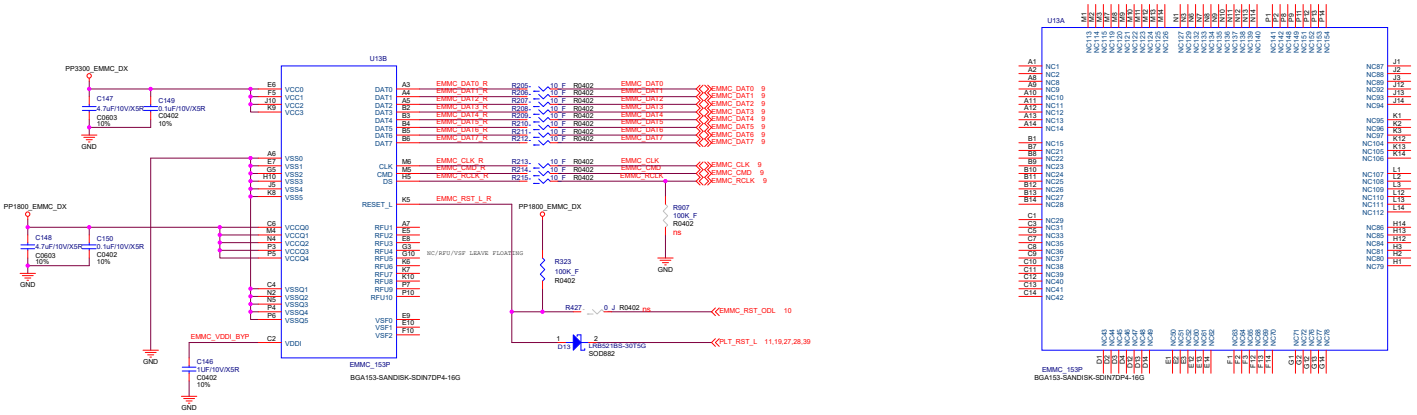
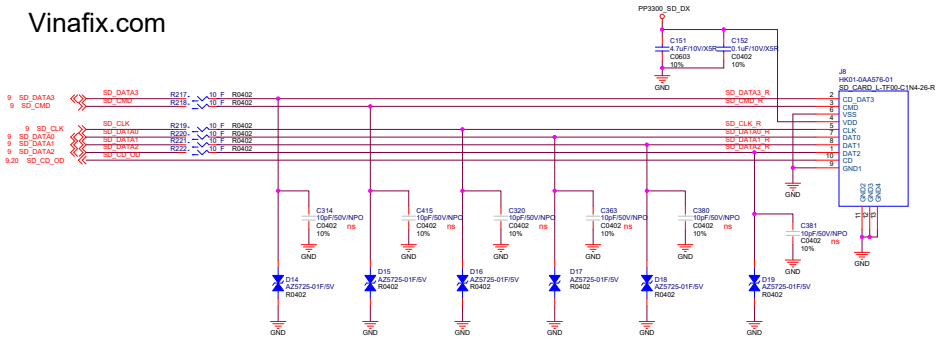
EMMC STORAGE



MICRO SD CARD

Vinafix.com



BITLAND	Bitland Information Technology Co.,Ltd.		
Page Name	EMMC/SD		
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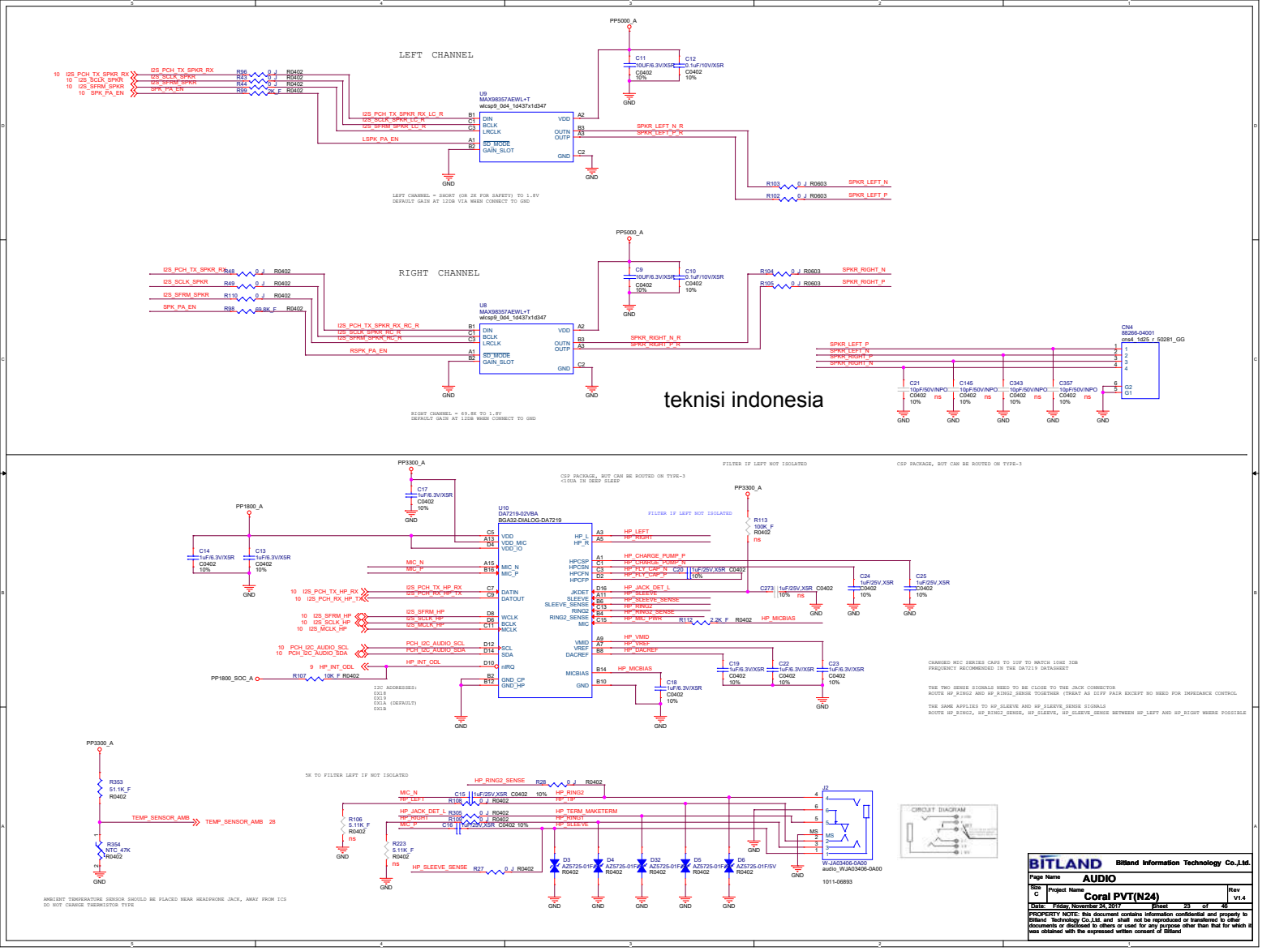

BITLAND	Bitland Information Technology Co.,Ltd.
Page Name	AUDIO
Size C	Project Name: Coral PVT(N24)
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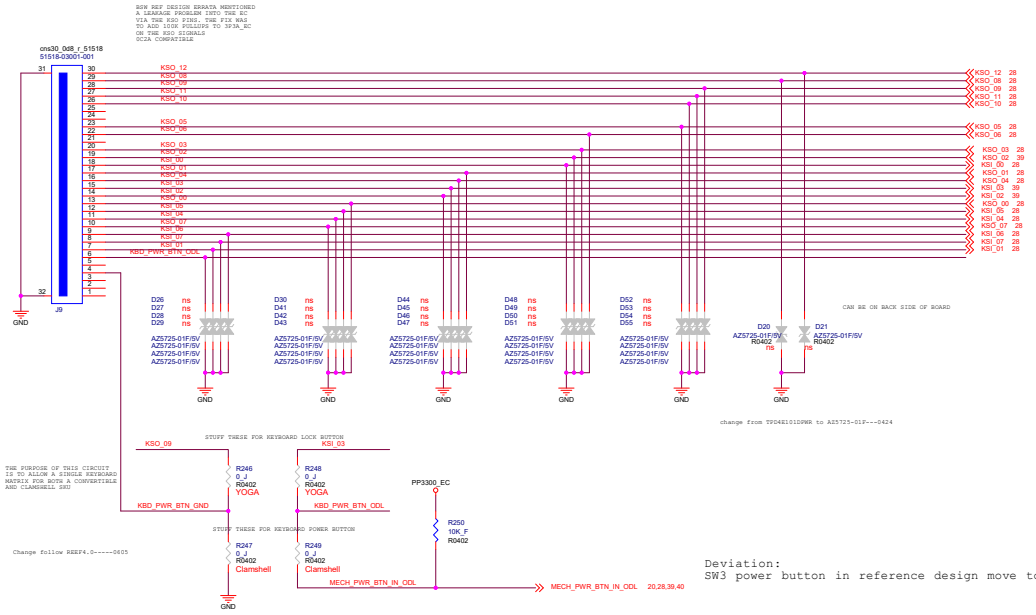
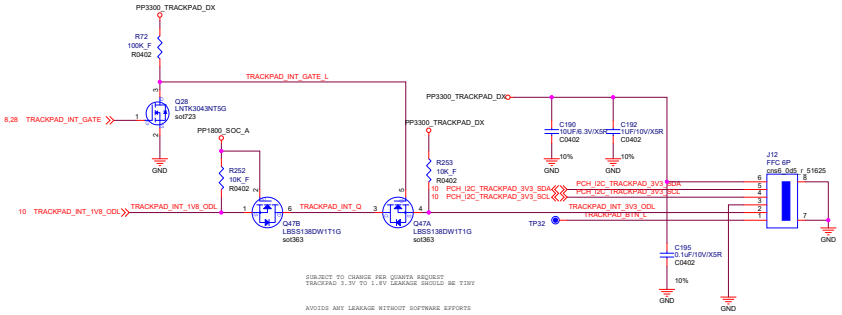
KEYBOARD CONNECTOR



Deviation:
SW3 power button in reference design move to DB due to different ME design

PEN CONNECTOR (MOVE TO J19)

TRACKPAD CONNECTOR



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Page Name	BASE:KB/TP		
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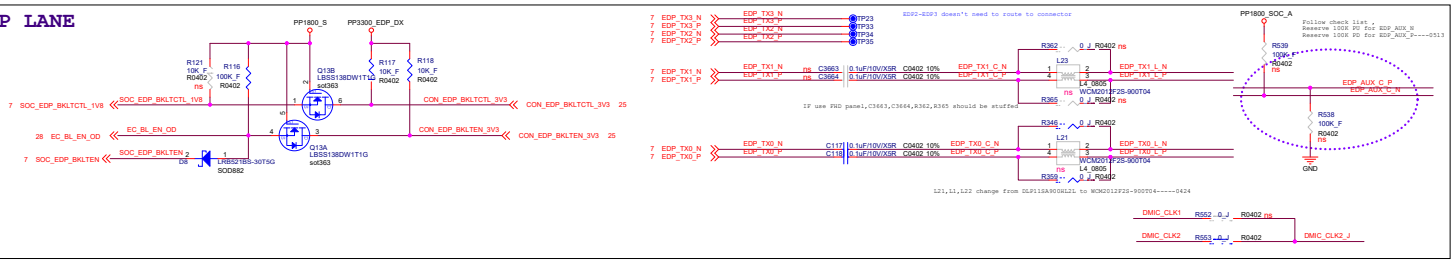
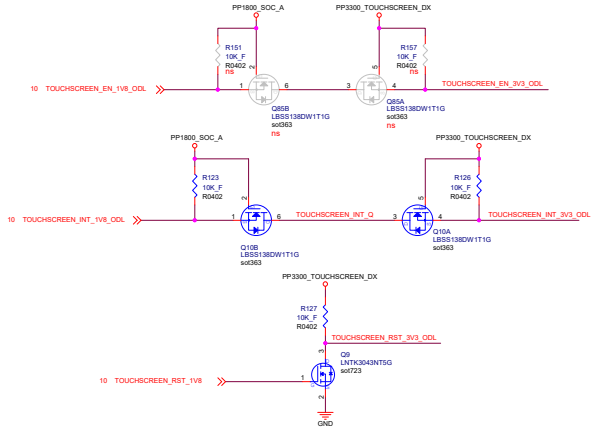
EDP LANE



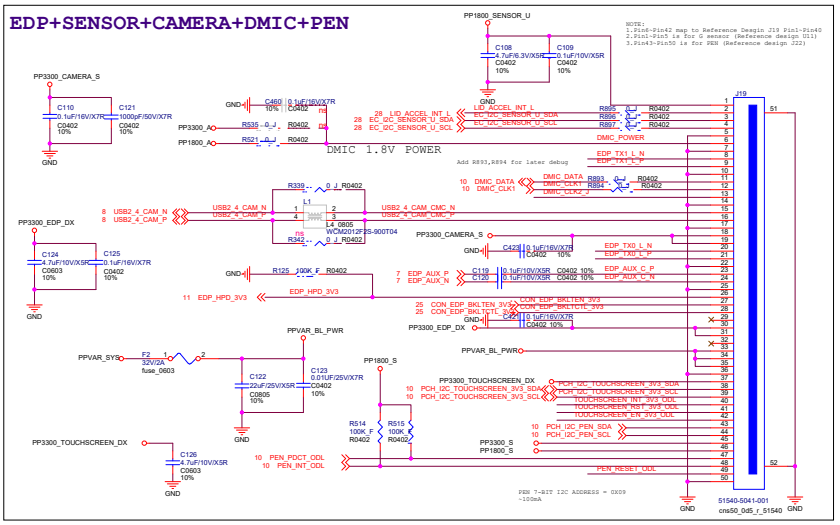
LID ACCEL (MOVE TO PAGE45)

PEN

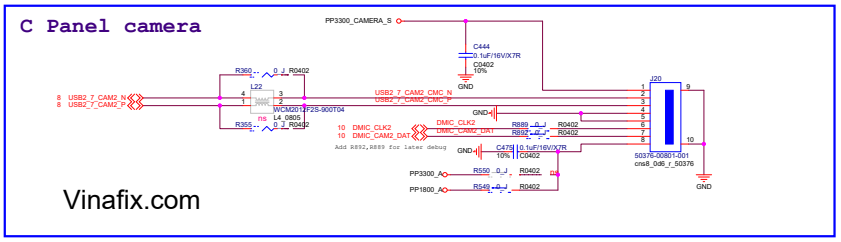
TOUCHSCHREEN



EDP+SENSOR+CAMERA+DMIC+PEN



C Panel camera



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BITLAND	Bitland Information Technology Co.,Ltd.		
Page Name	EDP/CAM/TOUCH		
Size C	Project Name	Coral PVT(N24)	Rev V1.4
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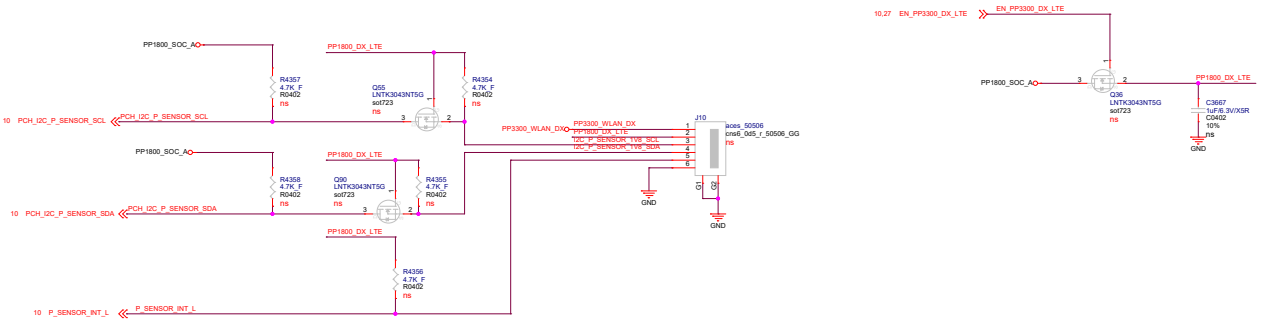
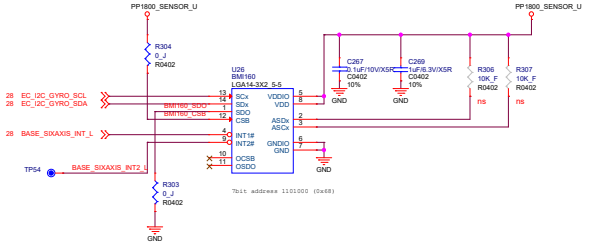
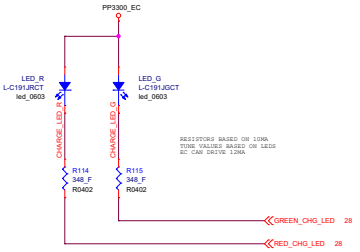
P-SENSOR



GYRO SENSOR



CHARGE/BATTERY LED



BITLAND	Bitland Information Technology Co.,Ltd.	
Page Name	GYRO/CHARGE LED/P-Sensor	
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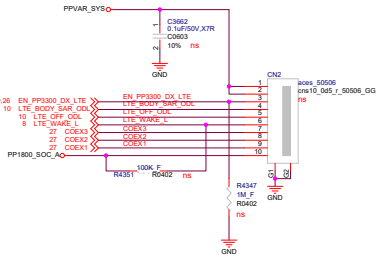
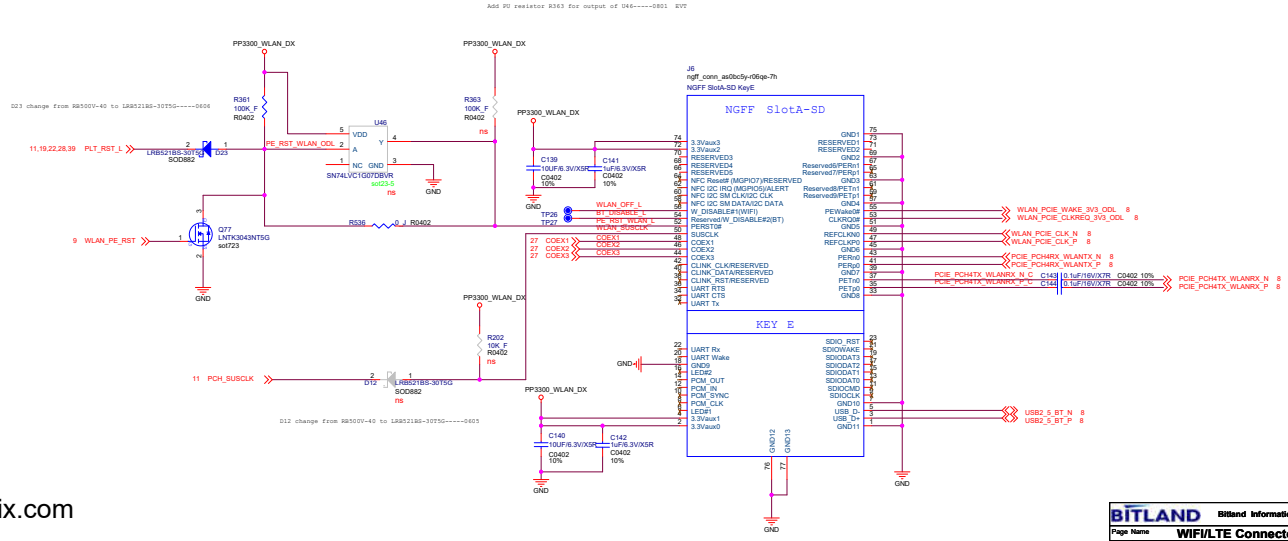
TO LTE/B CONNECTOR



WIFI



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BITLAND	Bitland Information Technology Co.,Ltd.		
Page Name	WIFI/LTE Connector		
Size C	Project Name	Coral PVT(N24)	Rev V1.4
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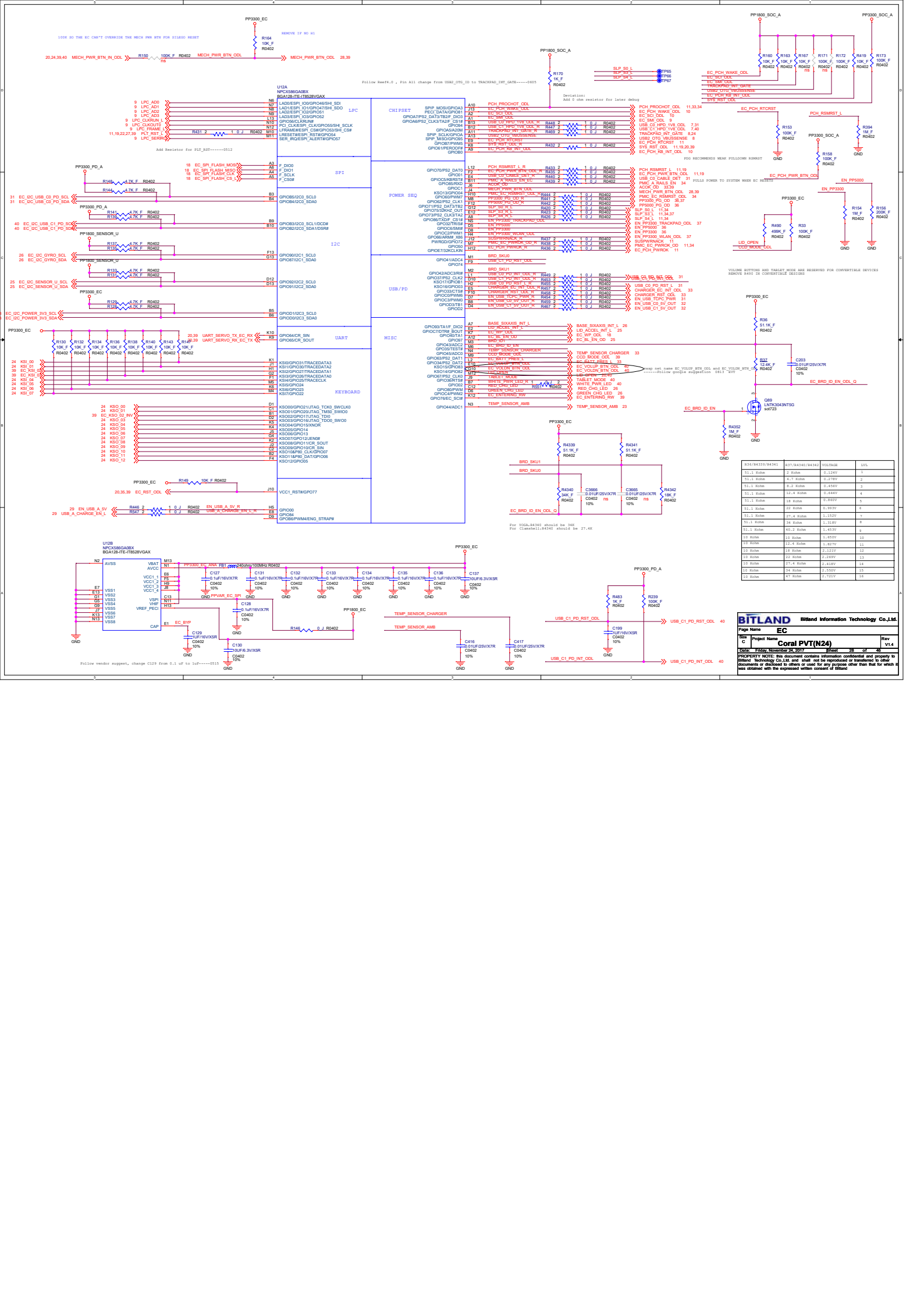
PP3300_EC
100K SO THE EC CAN'T OVERRIDE THE MECH PWR BTN FOR SILEGO RESET
REMOVE IF NO H1
R164 10K_F R0402
20,24,39,40 MECH_PWR_BTN_IN_ODL
R150 100K_F R0402 ns
MECH_PWR_BTN_ODL
MECH_PWR_BTN_ODL 28,39
PP1800_SOC_A
R170 1K_F R0402
Follow Reef4.0 , Pin A11 change from USB2_OTG_ID to TRACKPAD_INT_GATE-----0605
Deviation: Add 0 ohm resistor for later debug
SLP_S0_L
SLP_S4_L
TP65
TP66
TP67
PP1800_SOC_A
PP3300_SOC_A
R160 10K_F R0402
R163 10K_F R0402
R167 10K_F R0402 ns
R171 100K_F R0402 ns
R172 100K_F R0402
R419 10K_F R0402
R173 100K_F R0402
EC_PCH_WAKE_ODL
EC_SCI_ODL
EC_SMI_ODL
TRACKPAD_INT_GATE
USB2_OTG_VBUSSENSE
EC_PCH_KB_INT_ODL
SYS_RST_ODL
U12A
NPCX586GA0BX
BGA128-ITE-IT8528VGAX
LPC
CHIPSET
SPI
POWER SEQ
I2C
USB/PD
MISC
UART
KEYBOARD
LAD0/ESPI_IO0/GPIO46/SHI_SDI
LAD1/ESPI_IO1/GPIO47/SHI_SDO
LAD2/ESPI_IO2/GPIO50
LAD3/ESPI_IO3/GPIO52
LPC_CLKRUN
PCI_CLK/ESPI_CLK/GPIO55/SHI_SCLK
LFRAME#/ESPI_CS#/GPIO53/SHI_CS#
LRESET#/ESPI_RST#/GPIO54
SER_IRQ/ESPI_ALERT#/GPIO57
PCH_PROCHOT_ODL
EC_PCH_WAKE_ODL
EC_SCI_ODL
EC_SMI_ODL
USB_C0_HPD_1V8_ODL_R
USB_C1_HPD_1V8_ODL_R
TRACKPAD_INT_GATE_R
USB2_OTG_VBUSSENSE
EC_PCH_RTCRST
SYS_RST_ODL_R
EC_PCH_KB_INT_ODL
SPIP_MOSI/GPIOA3
PECI_DATA/GPIOB1
GPIOA7/PS2_DAT3/TB2/F_DIO3
GPIOA6/PS2_CLK3/TA2/F_CS1#
GPIOA5/A20M
SPIP_SCLK/GPIOA
SPIP_MISO/GPIOB5
GPIOB7/PWM5
GPIOB6/PWM4/ENG_STRAP#
GPIOB0
PCH_PROCHOT_ODL 11,33,34
EC_PCH_WAKE_ODL 10
EC_SCI_ODL 10
EC_SMI_ODL 9
USB_C0_HPD_1V8_ODL 7,31
USB_C1_HPD_1V8_ODL 7,40
TRACKPAD_INT_GATE 8,24
USB2_OTG_VBUSSENSE 8
EC_PCH_RTCRST 11
SYS_RST_ODL 11,19,20,39
EC_PCH_KB_INT_ODL 10
PDG RECOMMENDS WEAK PULLDOWN RSMRST
PCH_RSMRST_L
R153 100K_F R0402
R394 1M_F R0402
R158 100K_F R0402
GND
PP3300_SOC_A
EC_PCH_RTCRST
PCH_RSMRST_L
EC_PCH_PWR_BTN_ODL
EN_PP5000
EN_PP3300
PP3300_EC
R154 1M_F R0402
R156 200K_F R0402
R490 499K_F R0402
R33 100K_F R0402
LID_OPEN
LID_MODE_ODL
VOLUME BUTTONS AND TABLET MODE ARE RESERVED FOR CONVERTIBLE DEVICES
REMOVE R490 IN CONVERTIBLE DESIGNS
PP3300_PD_A
PP3300_PD_A
PP1800_SENSOR_U
PP3300_SENSOR_U
PP3300_EC
PP3300_EC
R145 4.7K_F R0402
R144 4.7K_F R0402
R141 4.7K_F R0402
R139 4.7K_F R0402
R137 4.7K_F R0402
R135 4.7K_F R0402
R133 4.7K_F R0402
R131 4.7K_F R0402
R129 4.7K_F R0402
R128 4.7K_F R0402
EC_I2C_USB_C0_PD_SCL
EC_I2C_USB_C0_PD_SDA
EC_I2C_USB_C1_PD_SCL
EC_I2C_USB_C1_PD_SDA
EC_I2C_GYRO_SCL
EC_I2C_GYRO_SDA
EC_I2C_SENSOR_U_SCL
EC_I2C_SENSOR_U_SDA
EC_I2C_POWER_3V3_SCL
EC_I2C_POWER_3V3_SDA
R130 10K_F R0402
R132 10K_F R0402
R134 10K_F R0402
R136 10K_F R0402
R138 10K_F R0402
R140 10K_F R0402
R143 10K_F R0402
R142 10K_F R0402
UART_SERVO_TX_EC_RX
UART_SERVO_RX_EC_TX
KSI_00
KSI_01
EC_KSI_02
EC_KSI_03
KSI_04
KSI_05
KSI_06
KSI_07
KSO_00
KSO_01
EC_KSO_02_INV
KSO_03
KSO_04
KSO_05
KSO_06
KSO_07
KSO_08
KSO_09
KSO_10
KSO_11
KSO_12
PP3300_EC
R149 10K_F R0402
EC_RST_ODL
VCC1_RST#/GPO77
PP3300_EC
R446 2 1 0 J R0402 EN_USB_A_5V_R
R547 2 1 0 J R0402 USB_A_CHARGE_EN_L_R
EN_USB_A_5V
USB_A_CHARGE_EN_L
GPIO00
GPIO84
GPIOB6/PWM4/ENG_STRAP#
R431 2 1 0 J R0402 PLT_RST_L
PLT_RST_L
Add Resistor for PLT_RST-------0512
18 EC_SPI_FLASH_MOSI
18 EC_SPI_FLASH_MISO
18 EC_SPI_FLASH_CLK
18 EC_SPI_FLASH_CS_L
F_DIO0
F_DIO1
F_SCLK
F_CS0#
GPIOB5/I2C0_SCL0
GPIOB4/I2C0_SDA0
GPIOB3/I2C0_SCL1/DCD#
GPIOB2/I2C0_SDA1/DSR#
GPIO90/I2C1_SCL0
GPIO87/I2C1_SDA0
GPIO92/I2C2_SCL0
GPIO91/I2C2_SDA0
GPIOD1/I2C3_SCL0
GPIOD0/I2C3_SDA0
GPIO64/CR_SIN
GPIO65/CR_SOUT
KSI0/GPIO31/TRACEDATA3
KSI1/GPIO30/TRACEDATA2
KSI2/GPIO27/TRACEDATA1
KSI3/GPIO26/TRACEDATA0
KSI4/GPIO25/TRACECLK
KSI5/GPIO24
KSI6/GPIO23
KSI7/GPIO22
KSO0/GPIO21/JTAG_TCK0_SWCLK0
KSO1/GPIO20/JTAG_TMS0_SWIO0
KSO2/GPIO17/JTAG_TDI0
KSO3/GPIO16/JTAG_TDO0_SWO0
KSO4/GPIO15/XNOR
KSO5/GPIO14
KSO6/GPIO13
KSO7/GPIO12/JEN0#
KSO8/GPIO11/CR_SOUT
KSO9/GPIO10/CR_SIN
KSO10/BP80_CLK/GPIO07
KSO11/BP60_DAT/GPIO06
KSO12/GPIO05
VCC1_RST#/GPO77
GPIO00
GPIO84
GPIOB6/PWM4/ENG_STRAP#
BASE_SIXAXIS_INT_L
LID_ACCEL_INT_L
EC_WP_ODL
EC_BL_EN_OD
BRD_ID
EC_BRD_ID_EN
TEMP_SENSOR_CHARGER
CCD_MODE_ODL
EC_BATT_PRES_L
EC_VOLUP_BTN_ODL
EC_VOLDN_BTN_ODL
TABLET_MODE
WHITE_PWR_LED_R
RED_CHG_LED
GREEN_CHG_LED
EC_ENTERING_RW
TEMP_SENSOR_AMB
BASE_SIXAXIS_INT_L 26
LID_ACCEL_INT_L 25
EC_WP_ODL 18
EC_BL_EN_OD 25
TEMP_SENSOR_CHARGER 33
CCD_MODE_ODL 30
EC_BATT_PRES_L 33
EC_VOLUP_BTN_ODL 40
EC_VOLDN_BTN_ODL 40
TABLET_MODE 40
WHITE_PWR_LED_R 40
RED_CHG_LED 26
GREEN_CHG_LED 26
EC_ENTERING_RW 39
TEMP_SENSOR_AMB 23
Swap net name EC_VOLUP_BTN_ODL and EC_VOLDN_BTN_ODL
------Follow google suggestion 0813 EVT
R36 51.1K_F R0402
R37 12.4K_F R0402
C203 0.01UF/25V/X7R C0402 10%
EC_BRD_ID_EN_ODL_Q
EC_BRD_ID_EN
Q89 LNTK3043NT5G sot723
R4352 1M_F R0402
GND
PP3300_EC
R4339 51.1K_F R0402
R4341 51.1K_F R0402
BRD_SKU1
BRD_SKU0
R4340 34K_F R0402
C3666 0.01UF/25V/X7R C0402 ns 10%
C3695 0.01UF/25V/X7R C0402 ns 10%
R4342 18K_F R0402
EC_BRD_ID_EN_ODL_Q
For YOGA.R4340 should be 34K
For Clamshell.R4340 should be 27.4K
R33/R4339/R4341
R37/R4340/R4342
VOLTAGE
LVL
51.1 Kohm 2 Kohm 0.124V 1
51.1 Kohm 4.7 Kohm 0.278V 2
51.1 Kohm 8.2 Kohm 0.456V 3
51.1 Kohm 12.4 Kohm 0.644V 4
51.1 Kohm 18 Kohm 0.880V 5
51.1 Kohm 22 Kohm 0.993V 6
51.1 Kohm 27.4 Kohm 1.152V 7
51.1 Kohm 34 Kohm 1.318V 8
51.1 Kohm 40.2 Kohm 1.453V 9
10 Kohm 10 Kohm 1.650V 10
10 Kohm 12.4 Kohm 1.827V 11
10 Kohm 18 Kohm 2.121V 12
10 Kohm 22 Kohm 2.269V 13
10 Kohm 27.4 Kohm 2.418V 14
10 Kohm 34 Kohm 2.550V 15
10 Kohm 47 Kohm 2.721V 16
U12B
NPCX586GA0BX
BGA128-ITE-IT8528VGAX
PP3300_EC_ANA
FB1 600@240ohms/100MHz R0402
PP3300_EC
C127 1uF/16V/X7R C0402 10%
C131 1uF/16V/X7R C0402 10%
C132 1uF/16V/X7R C0402 10%
C133 0.1uF/16V/X7R C0402 10%
C134 0.1uF/16V/X7R C0402 10%
C135 0.1uF/16V/X7R C0402 10%
C136 0.1uF/16V/X7R C0402 10%
C137 10UF/6.3V/X5R C0402 10%
PPVAR_EC_SPI
C128 0.1uF/16V/X7R C0402 10%
R146 0_J R0402
PP1800_EC
C129 1UF/16V/X5R C0402 10%
C130 10UF/6.3V/X5R C0402 10%
EC_BYP
Follow vendor suggest, change C129 from 0.1 uF to 1uF-----0515
TEMP_SENSOR_CHARGER
TEMP_SENSOR_AMB
C416 0.01UF/25V/X7R C0402 10%
C417 0.01UF/25V/X7R C0402 10%
PP3300_PD_A
R483 1K_F R0402
R239 100K_F R0402
USB_C1_PD_RST_ODL
USB_C1_PD_RST_ODL 40
C199 1UF/16V/X5R C0402 10%
USB_C1_PD_INT_ODL
USB_C1_PD_INT_ODL 40
BITLAND
Bitland Information Technology Co.,Ltd.
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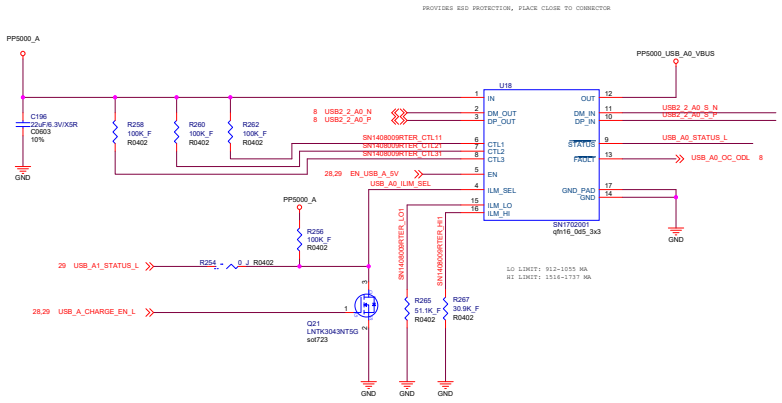
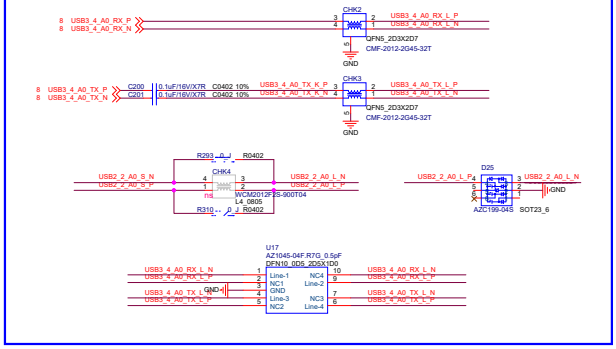


Deviation
Change L5(PCMF3USB3S) to discrete EMI filter and ESD----0420



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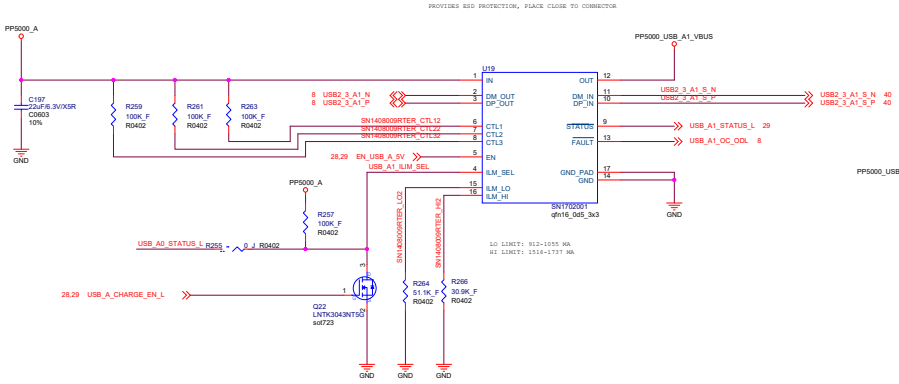

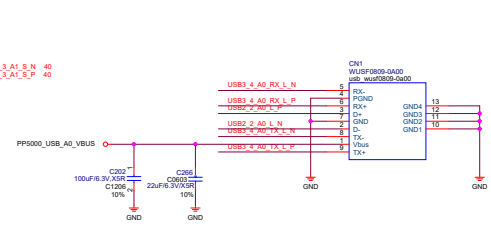

BITLAND	Bitland Information Technology Co.,Ltd.		
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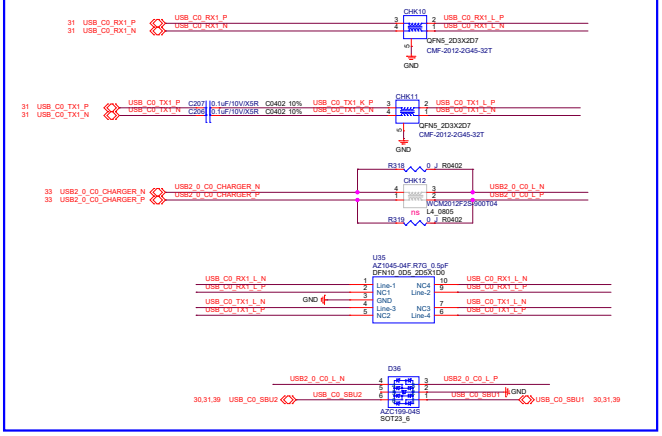
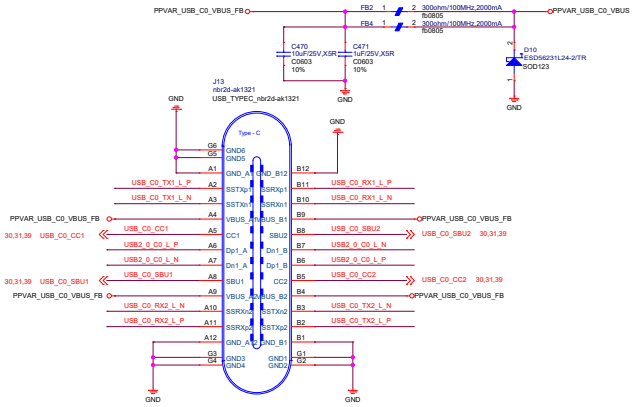
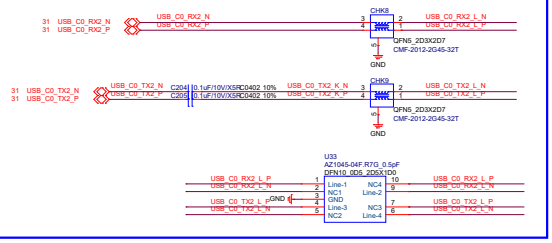
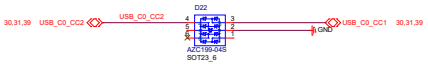
Deviation:
Change L6(PCMF3USB3S) to discrete EMI filter and ESD----0420





Deviation:
Change L7(PCMF2USB3S) to discrete EMI filter and ESD----0420





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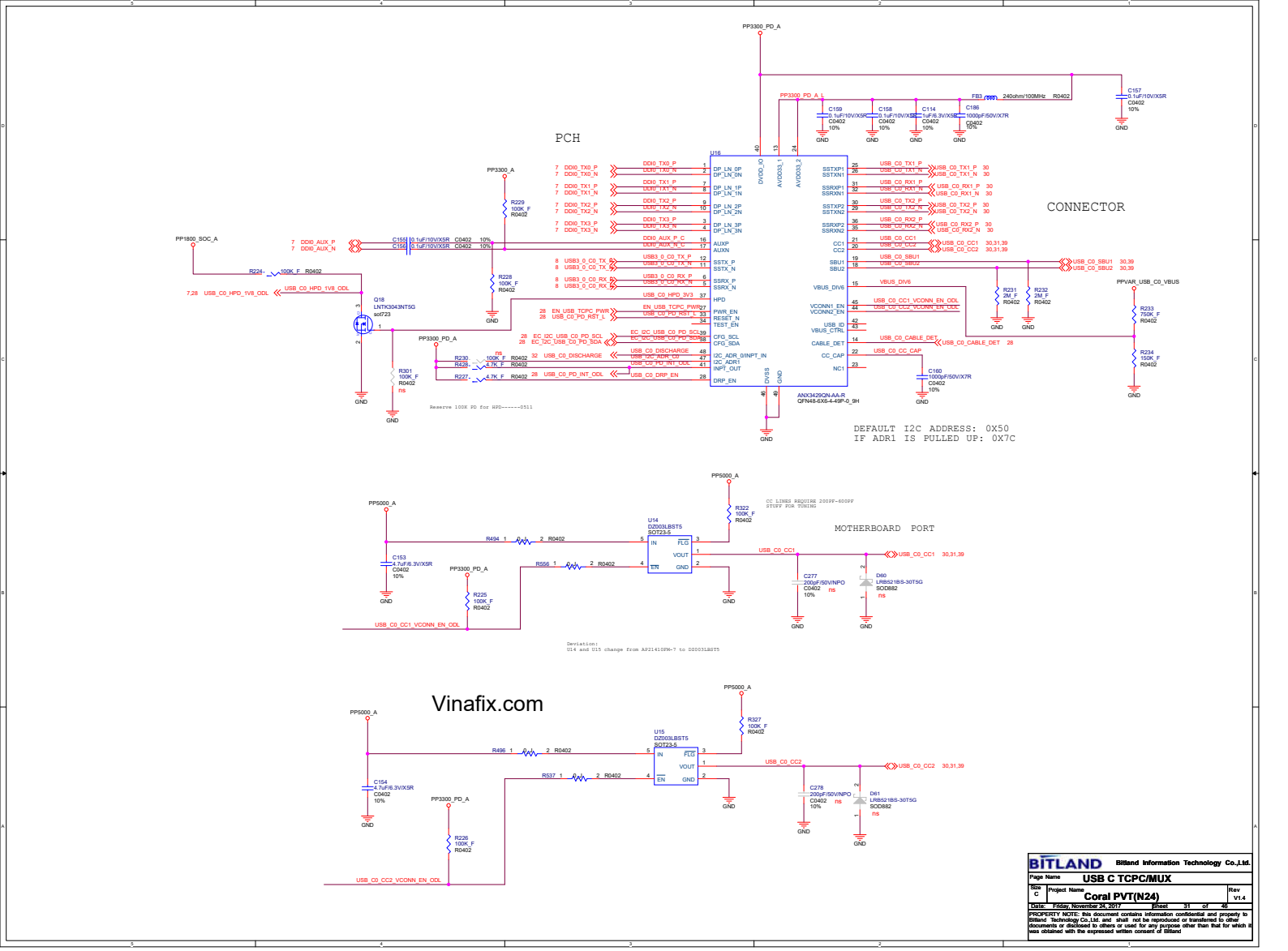

BITLAND	Bitland Information Technology Co.,Ltd.		
Page Name	USB C TCPC/MUX		
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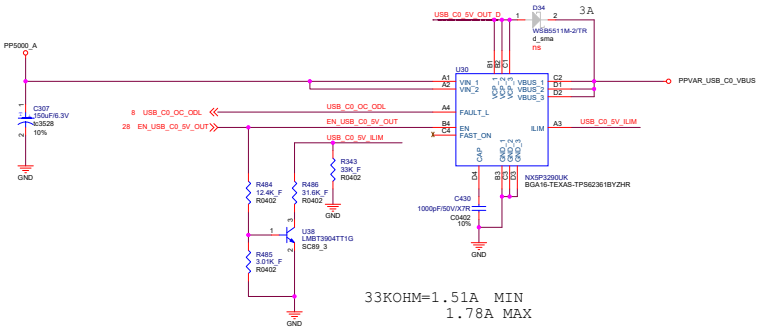
PORT 0

PROVIDES ESD PROTECTION, PLACE CLOSE TO CONNECTOR

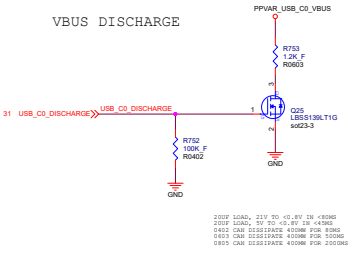


DRIVE 3.3V = EN@3A
EC PU = EN@1.5A
DRIVE 0V = OFF
EC HI-Z = OFF

33KOHM=1.51A MIN
1.78A MAX

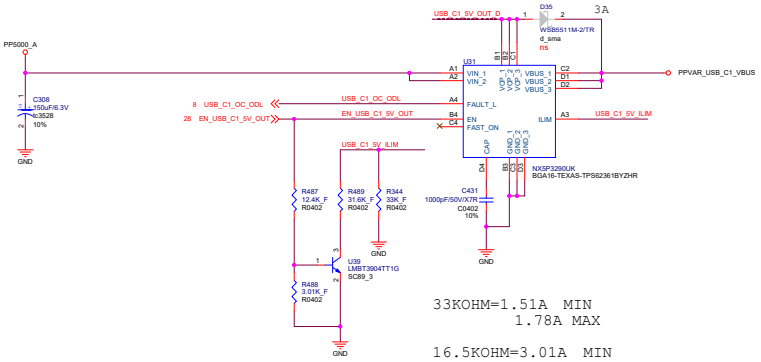
16.5KOHM=3.01A MIN
3.56A MAX

VBUS DISCHARGE



PORT 1

PROVIDES ESD PROTECTION, PLACE CLOSE TO CONNECTOR



DRIVE 3.3V = EN@3A
EC PU = EN@1.5A
DRIVE 0V = OFF
EC HI-Z = OFF

33KOHM=1.51A MIN
1.78A MAX

16.5KOHM=3.01A MIN
3.56A MAX

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Page Name	USB C 5V OUT	
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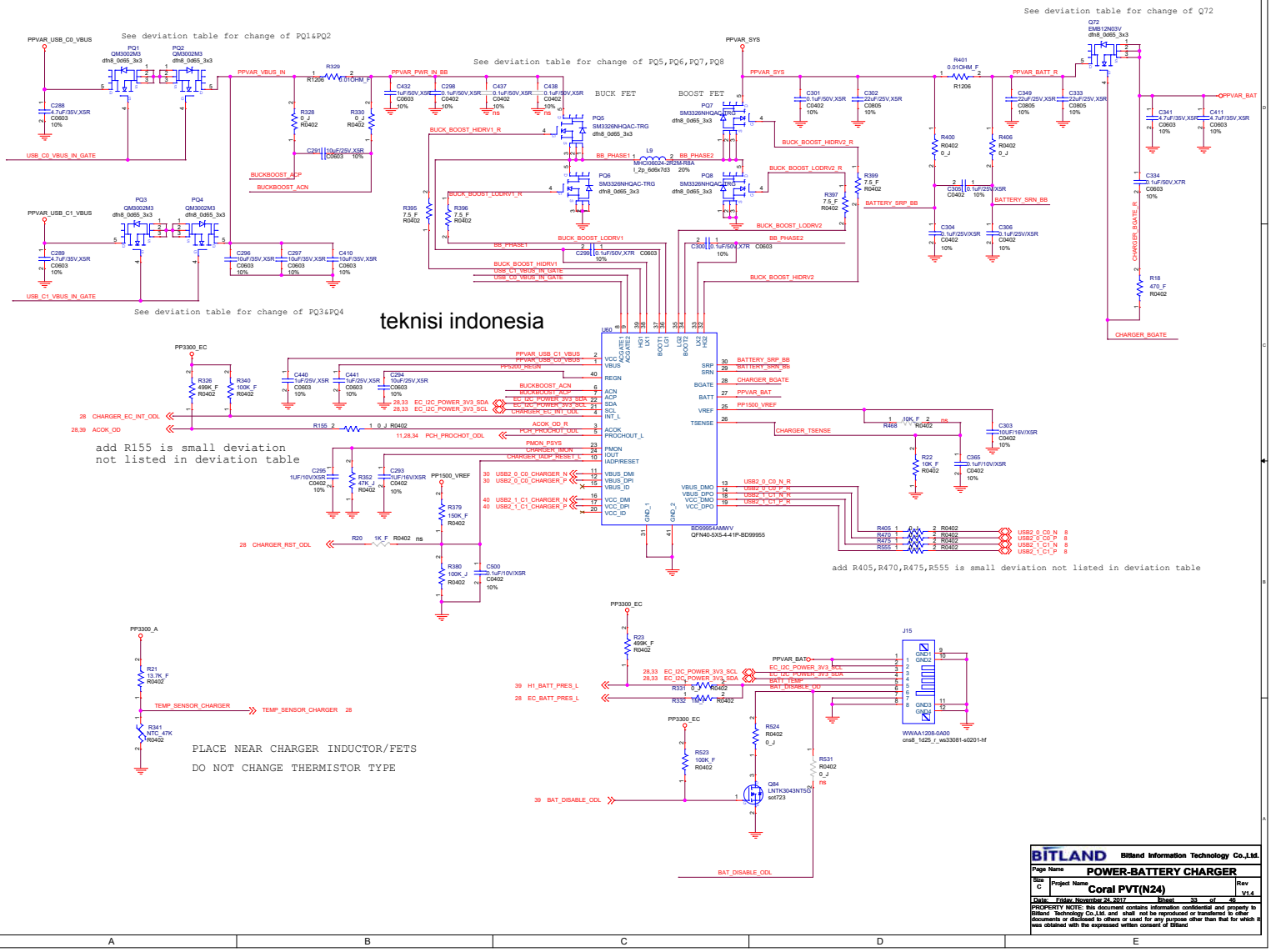

Bitland Information Technology Co.,Ltd.	
Page Name	POWER-BATTERY CHARGER
Size C	Project Name Coral PVT(N24)
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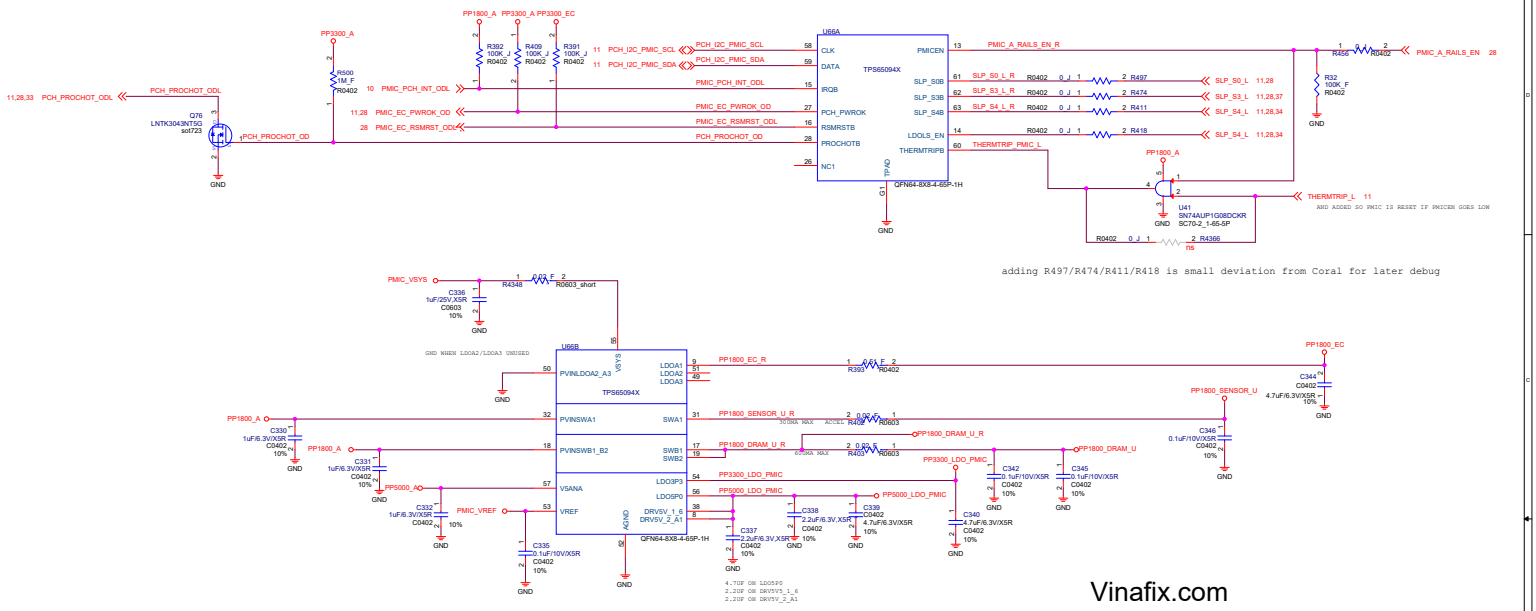
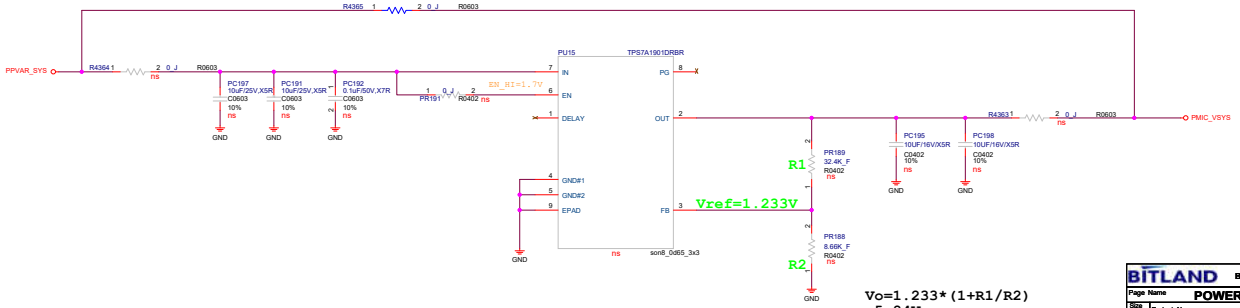


PMIC_VSYS



BITLAND	Bitland Information Technology Co.,Ltd.		
Page Name	POWER-PMIC LOGIC		
Size C	Project Name	Coral PVT(N24)	Rev V1.4
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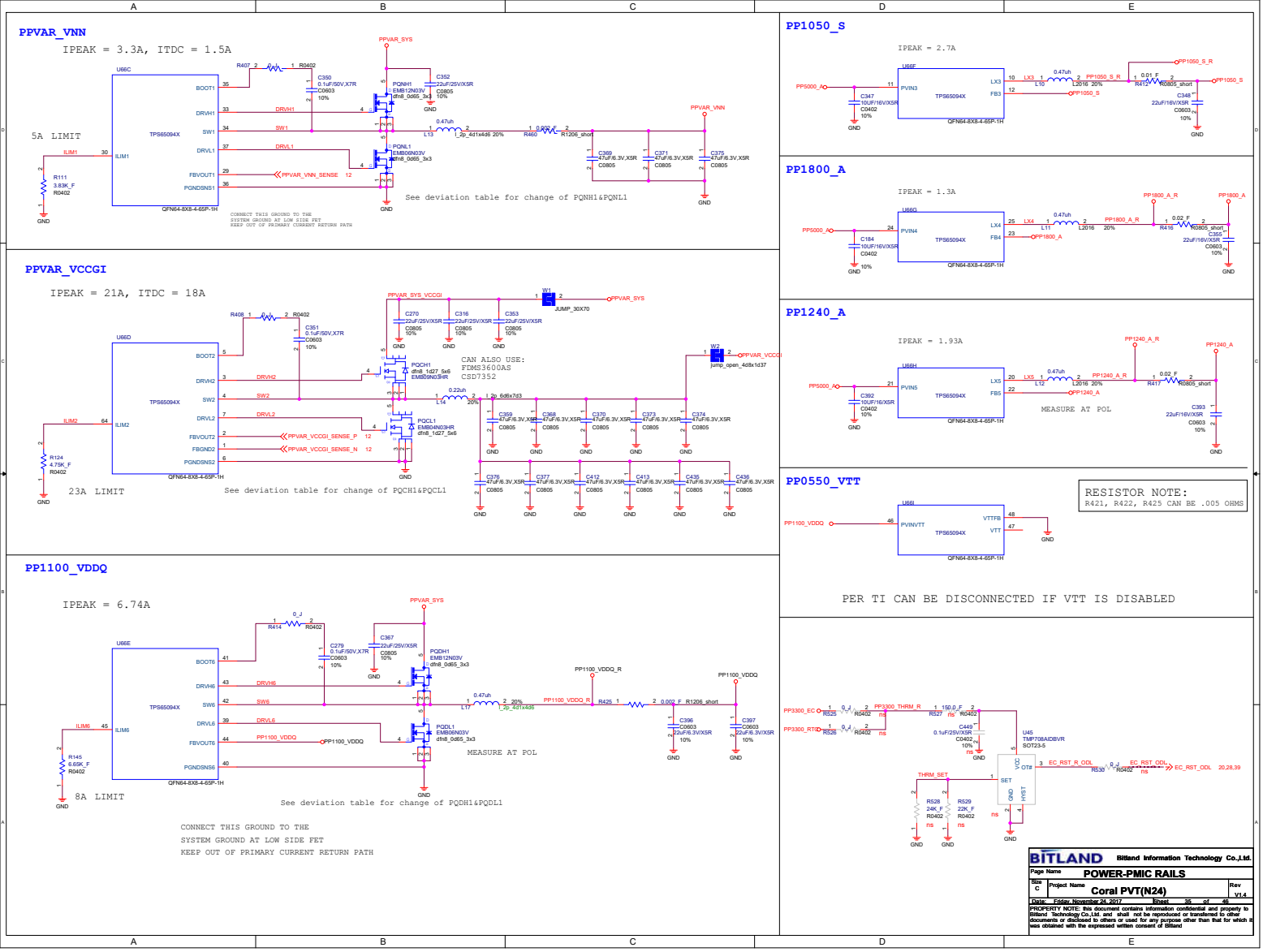
PPVAR_VNN
IPEAK = 3.3A, ITDC = 1.5A
5A LIMIT
See deviation table for change of PQNH1&PQNL1
PPVAR_VCCGI
IPEAK = 21A, ITDC = 18A
CAN ALSO USE:
FDMS3600AS
CSD7352
23A LIMIT
See deviation table for change of PQCH1&PQCL1
PP1100_VDDQ
IPEAK = 6.74A
8A LIMIT
See deviation table for change of PQDH1&PQDL1
MEASURE AT POL
CONNECT THIS GROUND TO THE
SYSTEM GROUND AT LOW SIDE FET
KEEP OUT OF PRIMARY CURRENT RETURN PATH
PP1050_S
IPEAK = 2.7A
PP1800_A
IPEAK = 1.3A
PP1240_A
IPEAK = 1.93A
MEASURE AT POL
PP0550_VTT
RESISTOR NOTE:
R421, R422, R425 CAN BE .005 OHMS
PER TI CAN BE DISCONNECTED IF VTT IS DISABLED
BITLAND
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POWER-PMIC RAILS
Coral PVT(N24)
Friday, November 24, 2017
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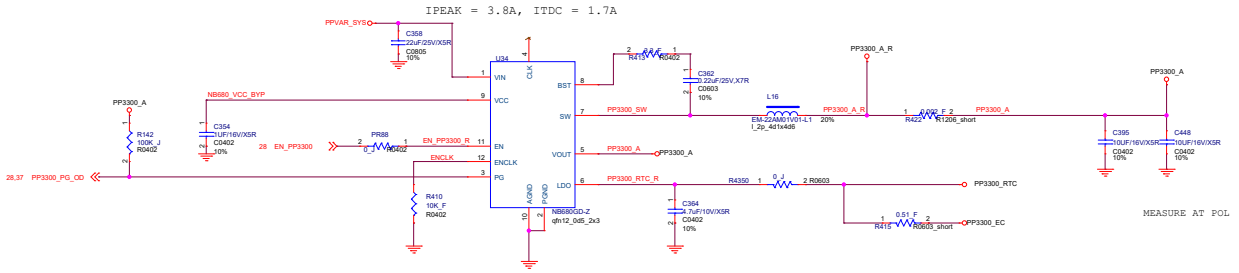
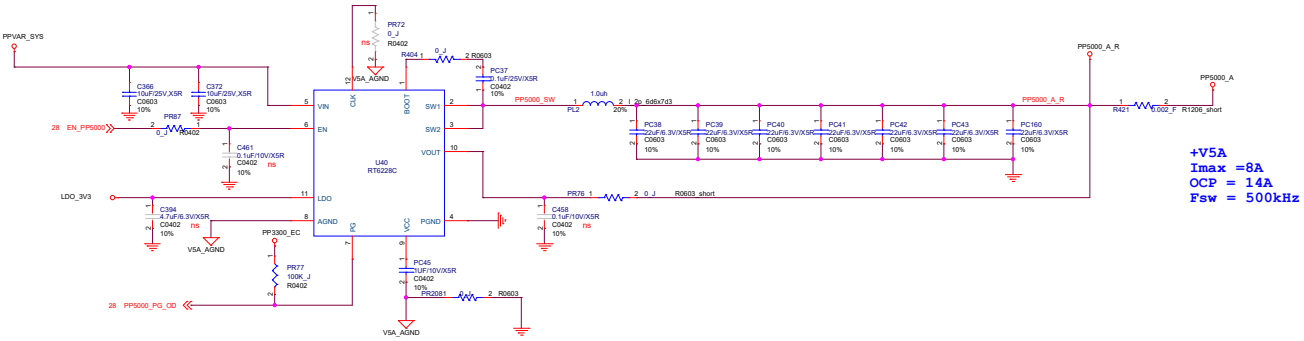
PP3300_A



PP5000_A



this deviation, please See deviation in deviation list table

Bitland Information Technology Co.,Ltd.			
Page Name	POWER +V5A / +V3.3A		
Size C	Project Name	Conal PVT(N24)	Rev V1.4
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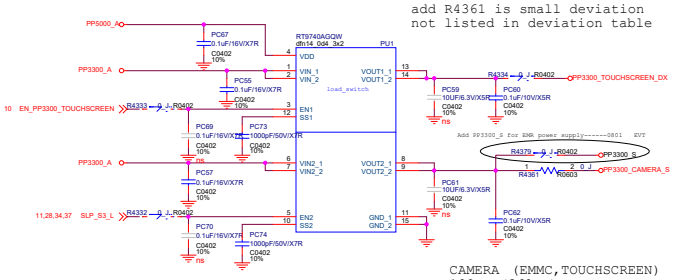
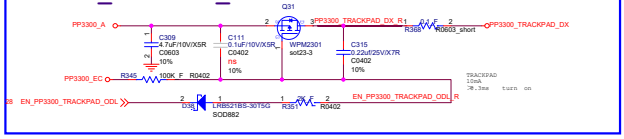
add R4361 is small deviation
not listed in deviation table



CAMERA (EMMC,TOUCHSCREEN)
180MA (360MA)

Vinafix.com

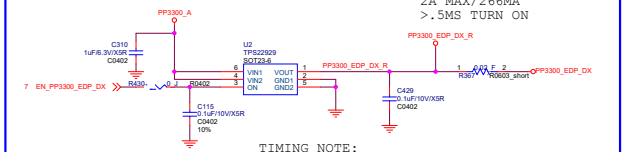
PP3300_TRACKPAD_DX



PP3300_EDP_DX

C310 C429 need change from 4.7uf and 2.2uf to
1uf and 0.1uf because of deviation of Loadswitch

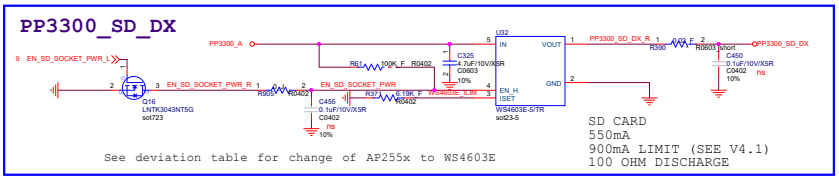
DISPLAY
2A MAX/266MA
>.5MS TURN ON



TIMING NOTE:
OTHER THAN LISTED,TURN-ON TIME IS ~50US

THE FOLLOWING RESISTORS CAN BE 0.05 OHMS
R364, R370, R381, R383, R386, R388, R389,
R390, R402, R403

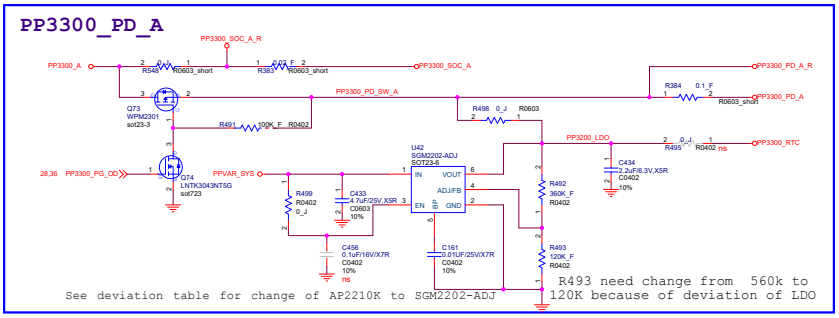
PP3300_SD_DX



See deviation table for change of AP255x to WS4603E

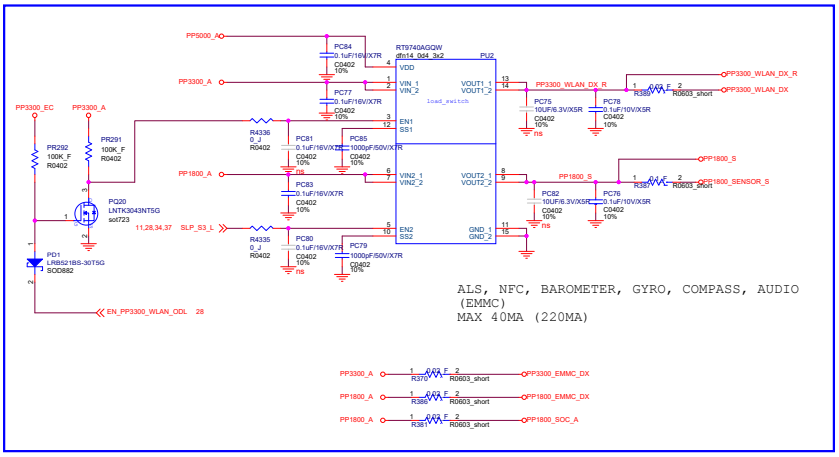
SD CARD
550mA
900mA LIMIT (SEE V4.1)
100 OHM DISCHARGE

PP3300_PD_A



See deviation table for change of AP2210K to SGM2202-ADJ

R493 need change from 560k to
120K because of deviation of LDO



ALS, NFC, BAROMETER, GYRO, COMPASS, AUDIO
(EMMC)
MAX 40MA (220MA)

BITLAND	Bitland Information Technology Co.,Ltd.		
Page Name	POWER-LOAD SWITCH		
Size C	Project Name Coral PVT(N24)		Rev V1.4
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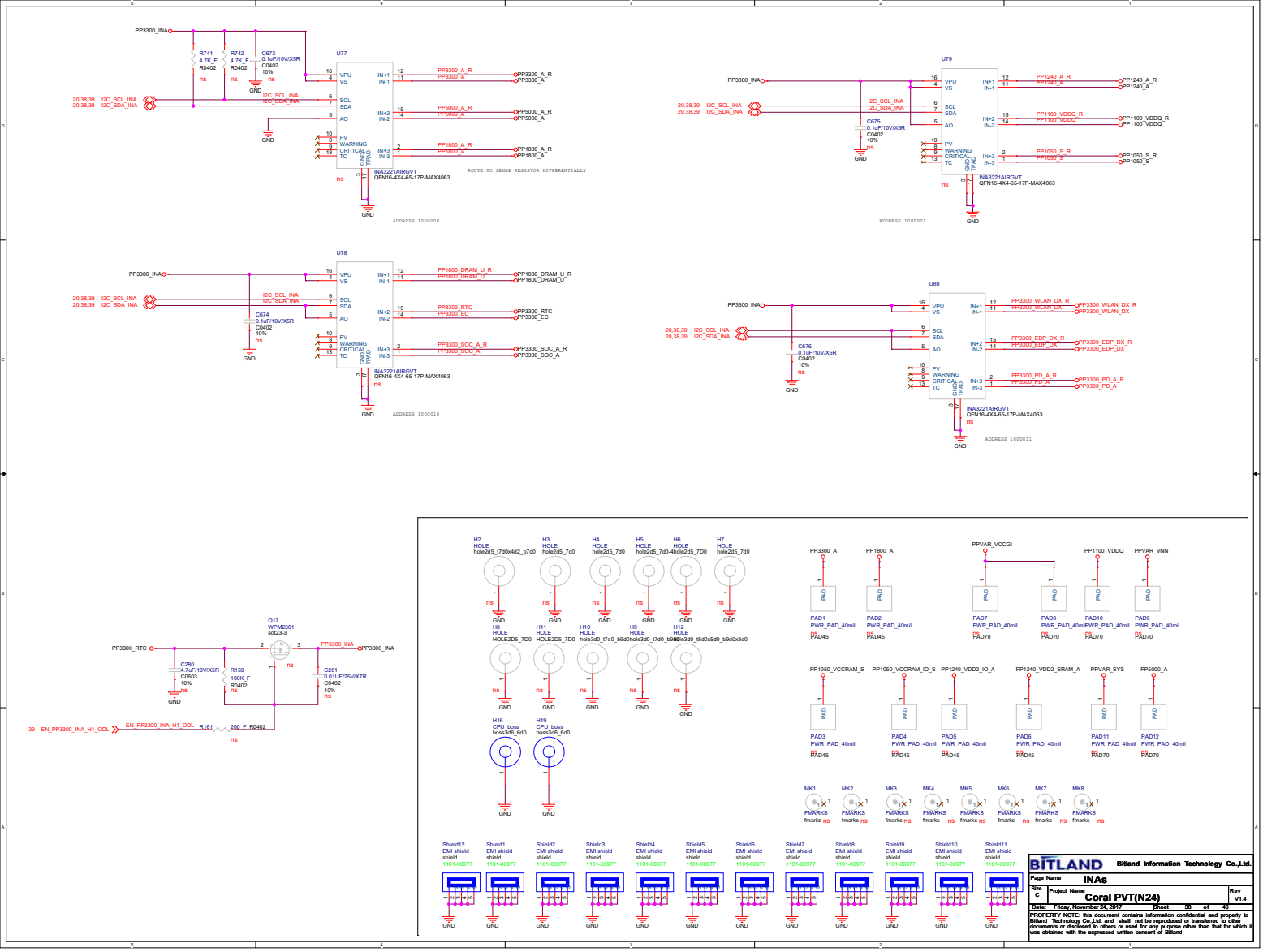

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Page Name	INAs	
Size C	Project Name Coral PVT(N24)	Rev V1.4
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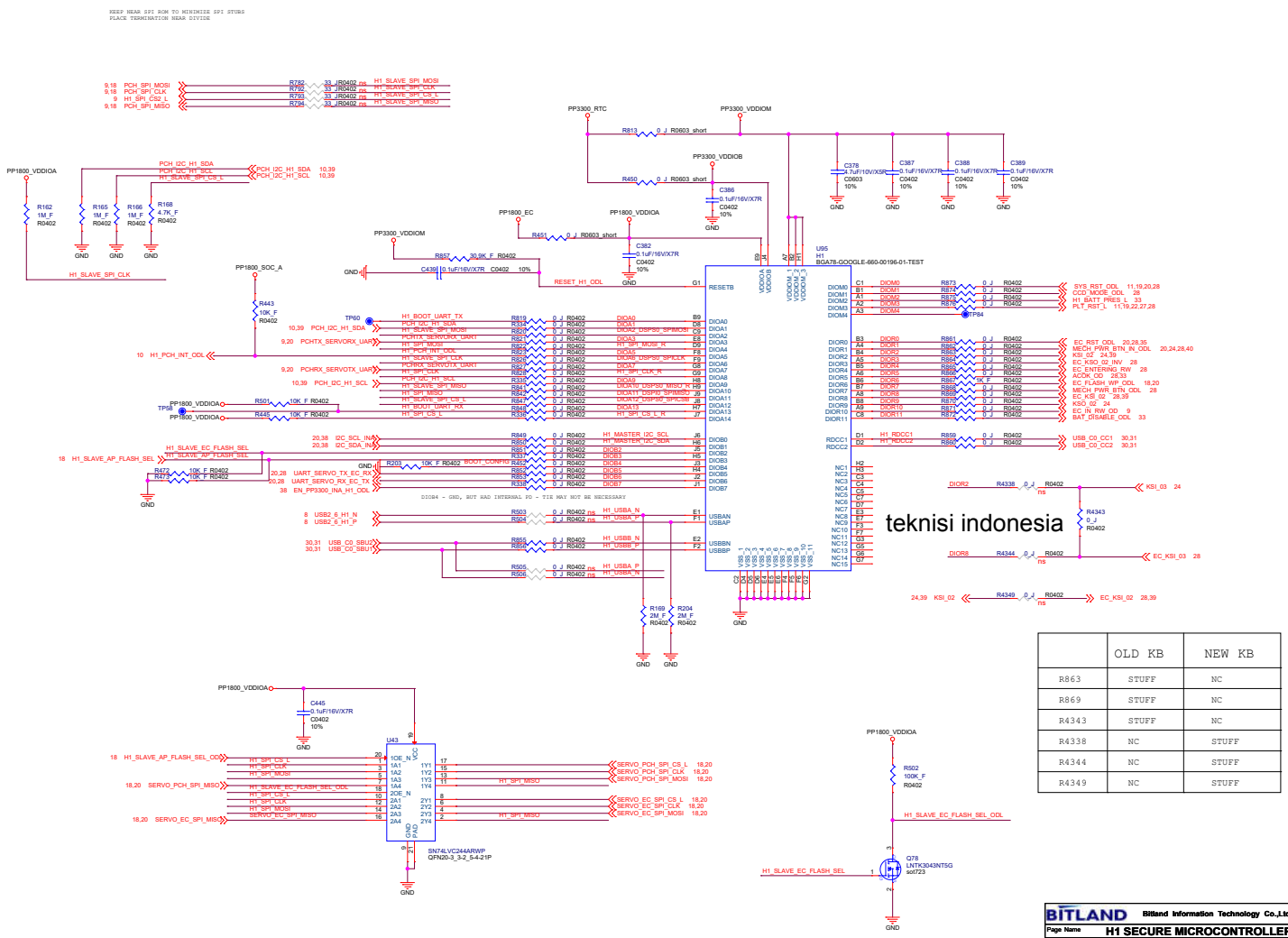

	OLD KB	NEW KB
R863	STUFF	NC
R869	STUFF	NC
R4343	STUFF	NC
R4338	NC	STUFF
R4344	NC	STUFF
R4349	NC	STUFF

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Page Name: H1 SECURE MICROCONTROLLER

Size: C | Project Name: Coral PVT(N24) | Rev: V1.4

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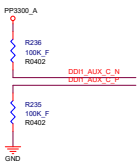
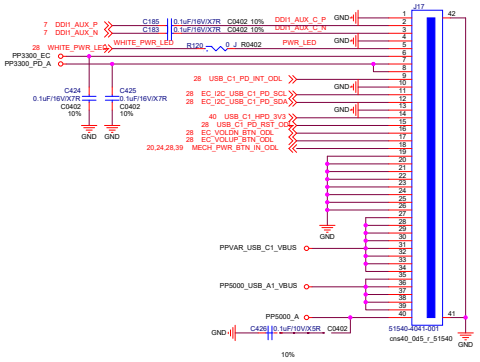
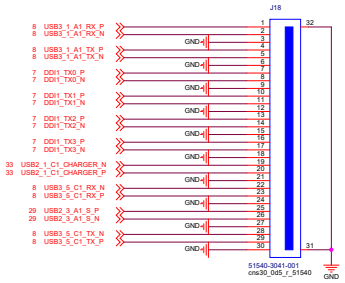
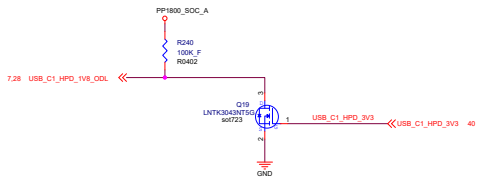


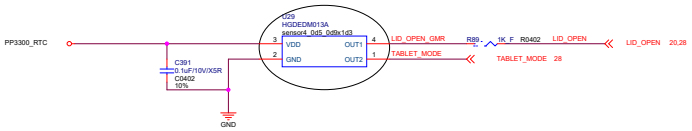
For J17.13 ,P10 R522 has stuff to pull CONFIG_STRAP1 low
For J17.5 ,Coral need to place PWR LED on Daughter board
For J17.18 ,Coral need a PWR BTN on daughter board and move GMR sensor to MB





Vinafix.com





Deviation:
due to ME design, we need move GMR sensor from daughter board to mother board

MOTHER BOARD

BITLAND	Bitland Information Technology Co.,Ltd.	
Page Name	MLB CONNECTORS	
Size C	Project Name: Coral PVT(N24)	Rev V1.4
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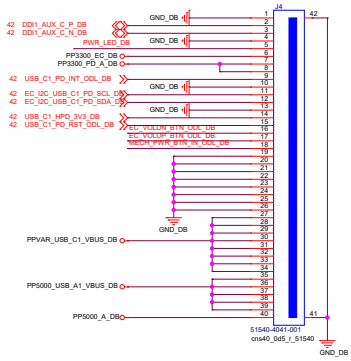
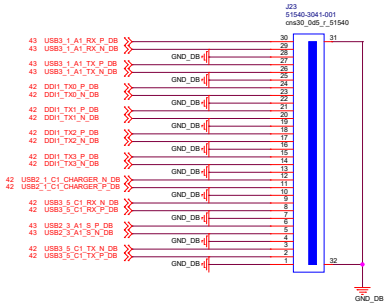
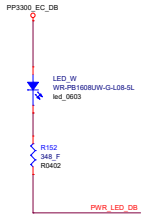
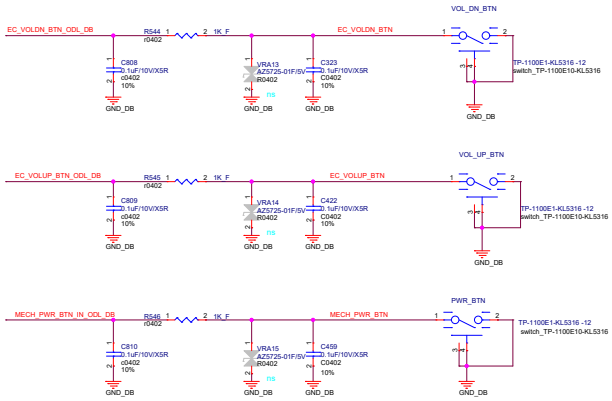
CONFIG STRAP1 TABLE MOVE TO PAGE10







Reserve Power LED for YOGA------0510



Deviation:
due to ME design, we need move GMR sensor from daughter board to mother board

DAUGHTER BOARD

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Page Name: SUB:MLB CONNECTORS

Size: C | Project Name: Coral PVT(N24) | Rev: V1.4

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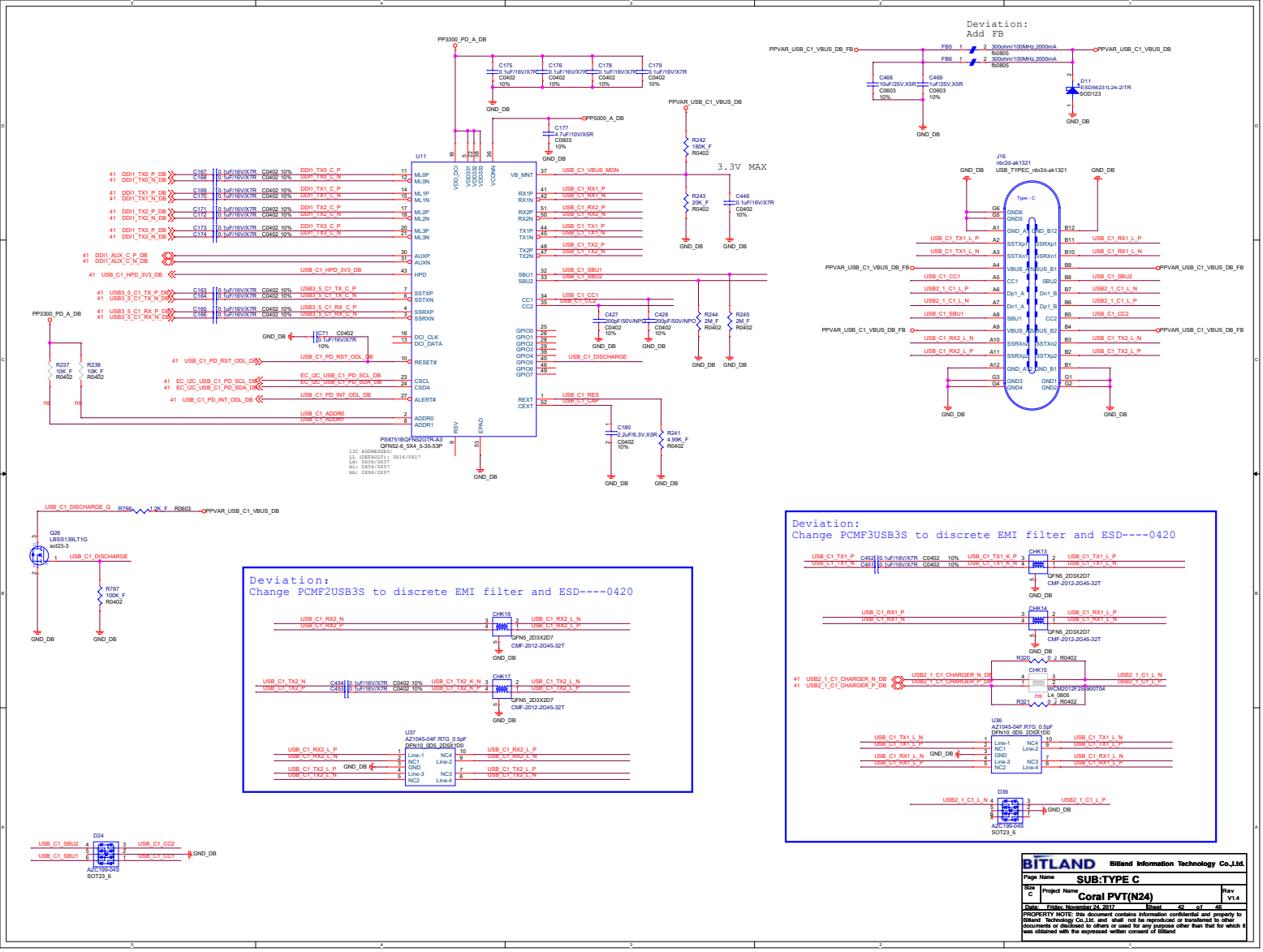
PP3300_PD_A_DB
PPVAR_USB_C1_VBUS_DB
PP5000_A_DB
U11
PS8751BQFN92GTR-A3
QFN52-6_5X4_5-35-53P
3.3V MAX
GND_DB
USB_C1_VBUS_MON
USB_C1_DISCHARGE
USB_C1_RES
USB_C1_CAP
USB_C1_CC1
USB_C1_CC2
USB_C1_SBU1
USB_C1_SBU2
USB_C1_RX1_P
USB_C1_RX1_N
USB_C1_RX2_P
USB_C1_RX2_N
USB_C1_TX1_P
USB_C1_TX1_N
USB_C1_TX2_P
USB_C1_TX2_N
USB_C1_HPD_3V3_DB
USB_C1_PD_RST_ODL_DB
USB_C1_PD_INT_ODL_DB
USB_C1_ADDR0
USB_C1_ADDR1
EC_I2C_USB_C1_PD_SCL_DB
EC_I2C_USB_C1_PD_SDA_DB
DDI1_TX0_C_P
DDI1_TX0_C_N
DDI1_TX1_C_P
DDI1_TX1_C_N
DDI1_TX2_C_P
DDI1_TX2_C_N
DDI1_TX3_C_P
DDI1_TX3_C_N
DDI1_AUX_C_P_DB
DDI1_AUX_C_N_DB
USB3_5_C1_TX_C_P
USB3_5_C1_TX_C_N
USB3_5_C1_RX_C_P
USB3_5_C1_RX_C_N
Deviation:
Add FB
PPVAR_USB_C1_VBUS_DB_FB
FB5
FB6
300ohm/100MHz,2000mA
fb0805
C468
10uF/25V,X5R
C0603
C469
1uF/25V,X5R
C0603
D11
ESD56231L24-2/TR
SOD123
J16
nbr2d-ak1321
USB_TYPEC_nbr2d-ak1321
Type - C
Deviation:
Change PCMF2USB3S to discrete EMI filter and ESD----0420
CHK13
CHK14
CHK15
CHK16
CHK17
QFN5_2D3X2D7
CMF-2012-2G45-32T
R320
R321
0_J_R0402
WCM2012F2S-900T04
L4_0805
U36
U37
AZ1045-04F R7G_0.5pF
DFN10_0D5_2D5X1D0
D39
D24
AZC199-04S
SOT23_6
Q26
LBSS139LT1G
sot23-3
R767
100K_F
R0402
USB_C1_DISCHARGE_O
R768
1.2K_F
R0603
PPVAR_USB_C1_VBUS_DB
USB2_1_C1_CHARGER_N_DB
USB2_1_C1_CHARGER_P_DB
BITLAND
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Page Name
SUB:TYPE C
Size
C
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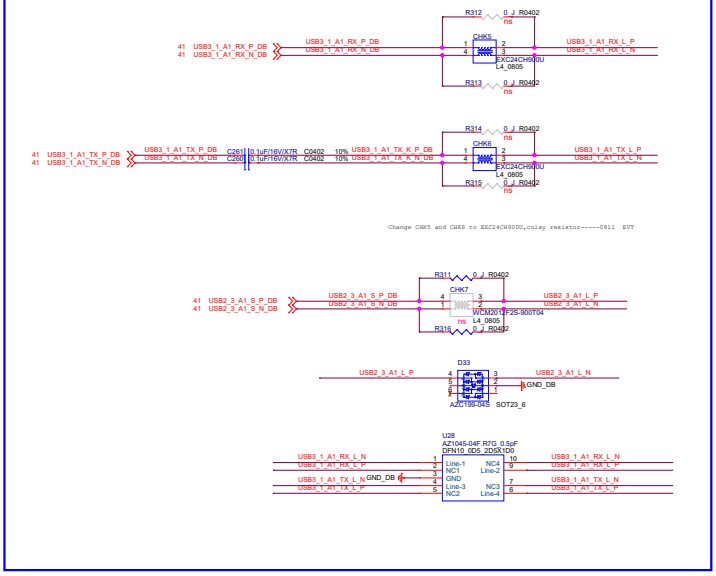
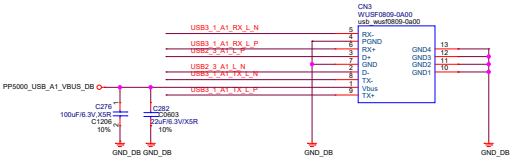
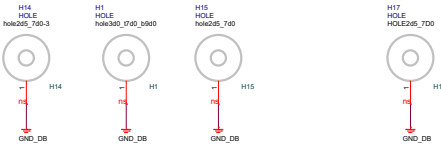
Deviation:
Change L18(PCMF3USB3S) to discrete EMI filter and ESD----0420







BITLAND	Bitland Information Technology Co.,Ltd.	
Page Name	SUB:TYPE A	
Size C	Project Name Coral PVT(N24)	Rev V1.4
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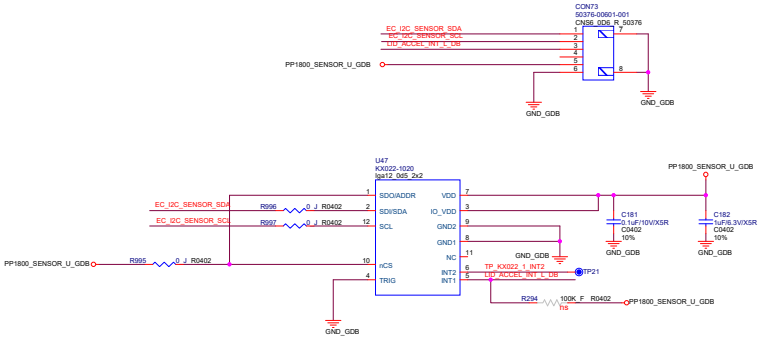

I2C MODE: (SET BY NCS TIE TO VDDIO)
I2C ADDRESS: 0X3C (SDO_ADDR = GND), 0X3E (SDO_ADDR = VDDIO)
I2C MAX SPEED = 3.4MHZ

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Page Name: SUB:G sensor IN LID

Size: C | Project Name: Coral PVT(N24) | Rev: V1.4

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Components that should be DNS to remove feature

Barometer	NFC	GPS	Finger Print	INA (MP Only)	MIPI60	Silego	TPM (not yet approved for DNS)
U1	J11	J14	J10	R741	everything on MIPI60 Debug Header page	U24	D31
R457	C191	C677	C185	R742		C262	Q23
C266	C193	C662	C186	C673		R300	R294
C268	C187	R317	R42	U77	**Servo (MP Only)**	Q24	R299
R302	C188			U79			U25
Q15	C189			C675	everything on Servo page		C263
R122	C194			U80			C264
Q14	R251			C676			C265
R121	R40			U78			
	Q41			C674			
	R388			C280			
	C323			R159			
	R374			Q17			
	Q38			C281			
	R19			R161			
	R179			C442			
				Q75			
				C443			

NOTE:Barometer/NFC/GPS/Fingerprint/Silego/TPM are all removed

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Page Name: DNS FEATURE

Size: C | Project Name: Coral PVT(N24) | Rev: V1.4

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SCHEMATIC CHANGES

Sel Coral Page	Sel Coral Component affected	Change	Reason	Sel Change Date	Bitland Complete Date	Sel Sign on	Cros Bug	SW Req?	Comments
Page33	R20	Rohm recommends to change the R20 from 0 ohm to 1k	Vendor Recommend	2017/06/19	2017/06/19			No	
ALL	TPM/H1	Rename TPM/HAVEN to H1	only H1 will be used	2017/06/19	2017/06/19			No	
Page 44 45	G sensor/DNS	exchange Page44 and Page45	customer request	2017/06/23	2017/06/23			No	
Page 33	Charger	C303 change for 1uF to 10uF	Rohm suggest	2017/06/30	2017/06/30			No	
Page 10	LTE	Move EN_PP3300_DX_LTE to SOC GP78_AVS_I2S1_SDO add a level shift.	Google suggest	2017/07/08	2017/07/08			Yes	
Page 28	EC ADC	Rename GPIO41 to BRD_SKU0, GPIO42 to BRD_SKU1	Google suggest	2017/07/08	2017/07/08			No	
Page 23	SPK AMP	Change MAX98357AETE+T (U8, U9) to WLP package for cost saving	Google suggest	2017/07/08	2017/07/08			No	
Page 34	THERMTRIP_PMIC_L	Reserve bypass resistor R4366 for THERMTRIP_PMIC_L	Google suggest	2017/09/20	2017/09/20			No	

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Page Name	SCHEMATIC CHANGES	
Size C	Project Name: Coral PVT(N24)	Rev V1.4
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