LCFC Confidential

S360 Lucienne M/B Schematics Document

AMD FP6 Lucienne with DDR4

2020-09-21

REV:0.2

Security Classification	LC Future Center Secret Data			Title: S360_ALC
Issued Date	2019/02/27	Deciphered Date	2020/02/27	Size: Custom; Document Number: S360 Lucienne; Rev: 0.2
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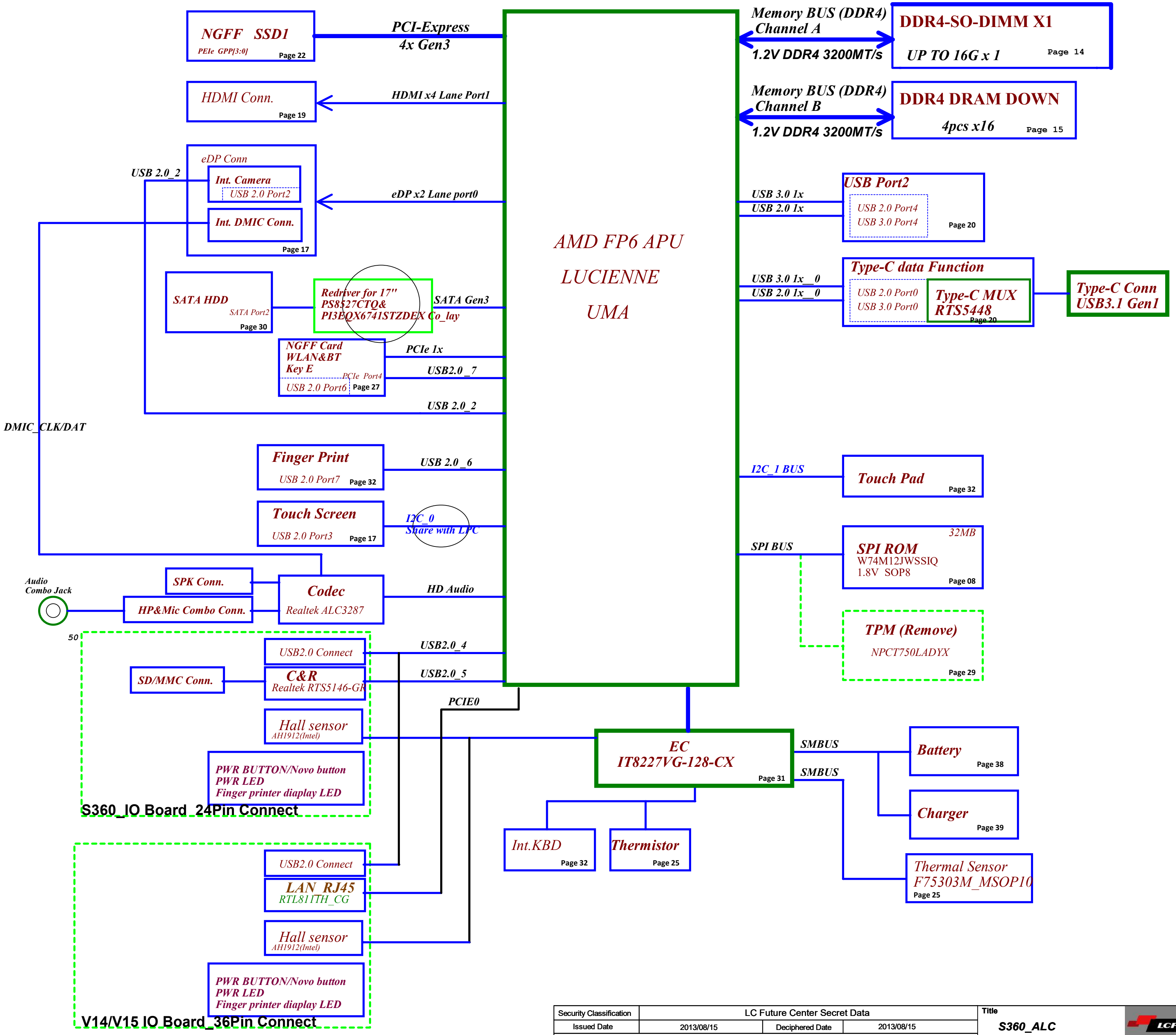
S360 Lucienne M/B Schematics



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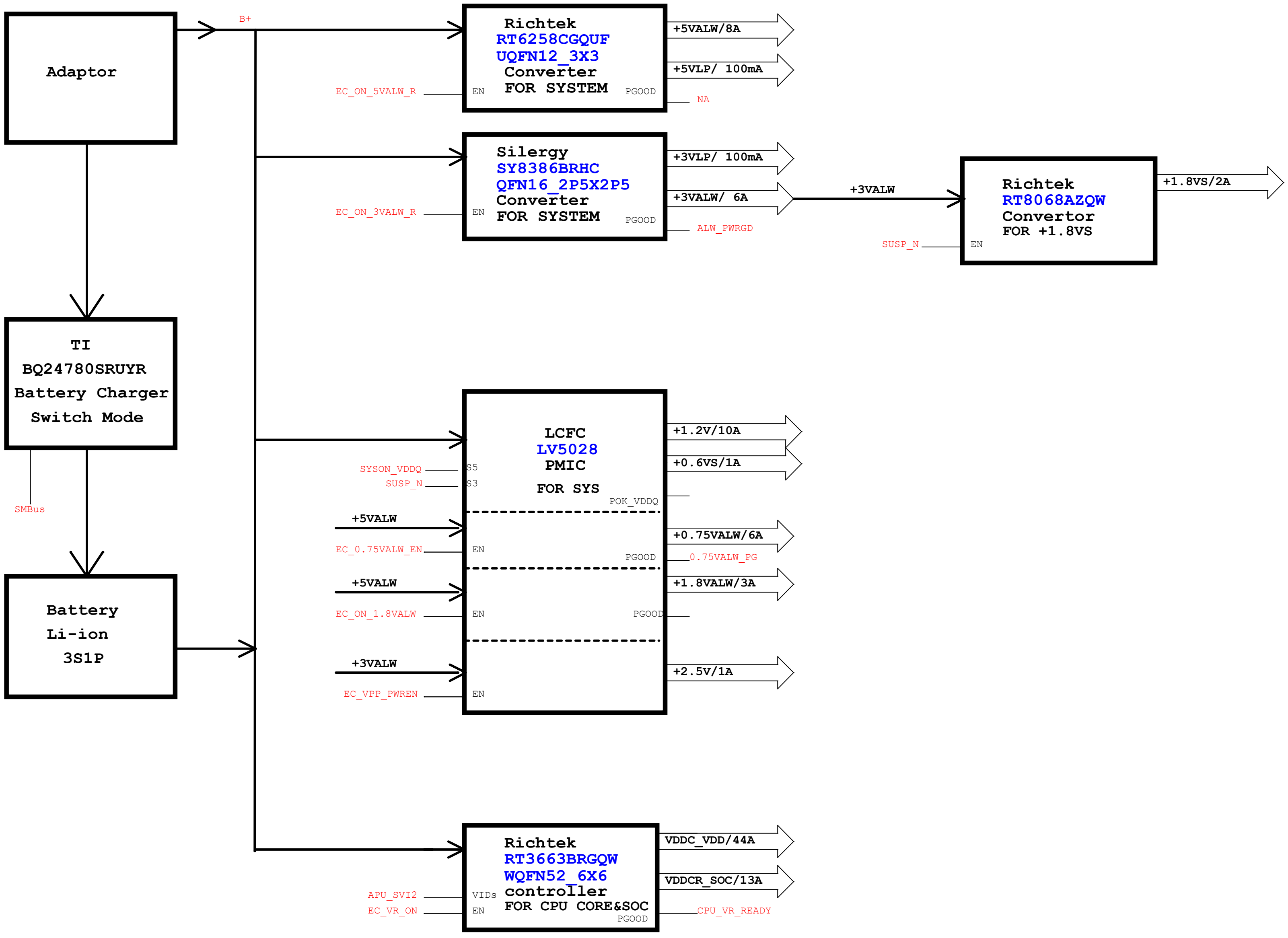

Security Classification	LC Future Center Secret Data			Title
Issued Date	2013/08/15	Deciphered Date	2013/08/15	Power Diagram

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Voltage Rails (O --> Means ON , X --> Means OFF)

Power Plane / State	B+ +3VL +5VL	+3VALW +5VALW +1.8VALW +0.75VALW		+1.2V +2.5V_DDR	+5VS +3VS +1.8VS +0.75VS +0.6VS +VDDC_VDD +VDDCR_SOC	
S0	O	O		O	O	O
S0Ix						
S3	O	O		O	X	X
S3 Battery only	O	O		O	X	X
S5 S4 AC Only	O	O		X	X	X
S5 S4 Battery only	O	X		X	X	X
S5 S4 AC & Battery don't exist	X	X		X	X	X

HSIO Matrix

HSIO PORT		Function
USB2.0	0	Type-C USB2.0 Port 0
	1	USB3.0_P1
	2	Carmera
	3	~~Touch Screen~~ Change to I2C
	4	USB2.0 Port(For DB USB2.0)
	5	Cardread
	6	FingerPrint
	7	BT
USB3.0	0	Type-C USB3.0 Port 0
	1	USB3.0_P1
	4	NC
	5	NC
DisPlay	0	eDP 2*Lane
	1	HDMI
	2	NC
	3	NC
PCIE/ SATA	PCIE0	LAN
	PCIE1	WLAN
	PCIE2/SATA0	SATA HDD
	PCIE3/SATA1	N/A
	PCIE4	N/A
	PCIE5	N/A
	PCIE6	N/A
	PCIE7	N/A
	PCIE8/SATA2	
	PCIE9/SATA3	SSD
	PCIE10	
	PCIE11	

Type-c Port

USB3.0 Port

Follow AT Define ok_0610

SMBUS Control Table OK

Source / Slave	EC IT8227C EC_SMB_0 +3VS	EC_SMB_1 +3VL_EC	EC_SMB_3 +3VL_EC	EC_SMB_4 +3VL_EC	PCH I2C0 1.8VS/3.3VS	I2C1 1.8VS/3.3VS	I2C2/SMBUS 1.8VS/3.3VS	
DGPU								
Memory Down	X	X	X	X	X	X	X	X
SODIMM							V 3VS	
BATT	X	V +3VL_EC	X	X	X	X	X	X
Charger	X	V +3VL_EC	X	X	X	X	X	X
WLAN	X	X	X	X	X	X	X	X
PMIC	X	X	V +3VL_EC	X	X	X	X	X
	X	X	X	X	X	X	X	X
Thermal Sensor	V +3VS	X	X	X	X	X	X	X
LPC&TS	X	X	X	X	V +3VS_CPU	X	X	X
TP	X	X	X	X	X	V 3VS	X	X
	X	X	X	X	X	X	X	X
	X	X	X	X	X	X	X	X

EC SMBus0 address

Device	Address
DGPU	
Thermal Sensor(NCT7718W)	
Thermal Sensor(NCT7719W)	1001_101xb
TOF	

EC SMBus1 address

Device	Address
Smart Battery	0x16
Charger	0x12

EC SMBus3 address

Device	Address
IMVP9	
PMIC	0x34

EC SMBus4 address

Device	Address
PD	TBD

PCH SML0 address

Device	Address
Re-Timer	TBD

PCH SML1 address

Device	Address
PD	TBD

PCH ISH I2C0 address

Device	Address
TOF	
Accelerometer(MB)	001 1000b
Accelerometer(DB)	001 1001b
Light Sensor	1000 100xb

PD I2C3 address

Device	Address
Re-Timer	TBD

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Size C | Document Number Notes PWR Map/SMBUS/HSIO | Rev 0.2

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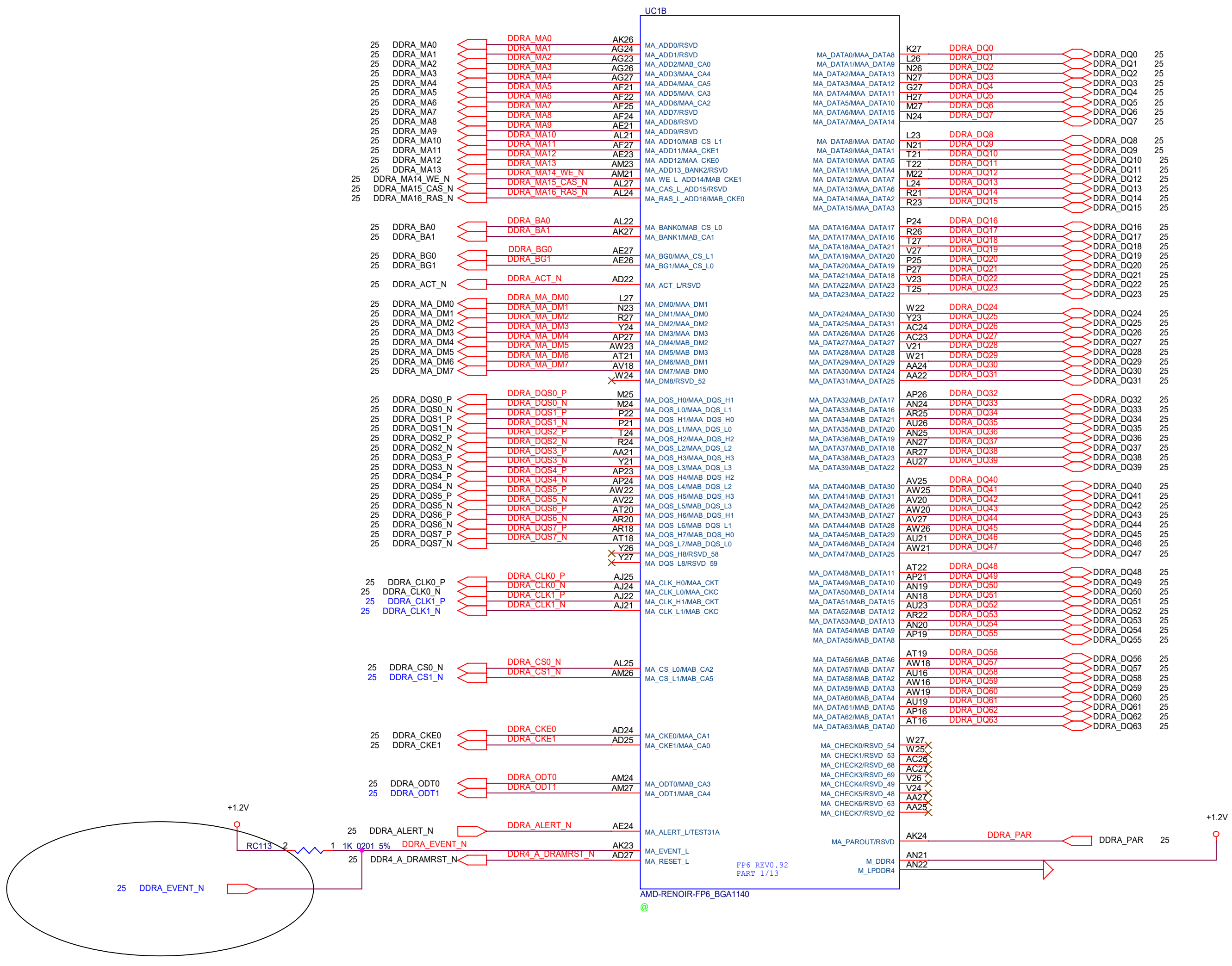

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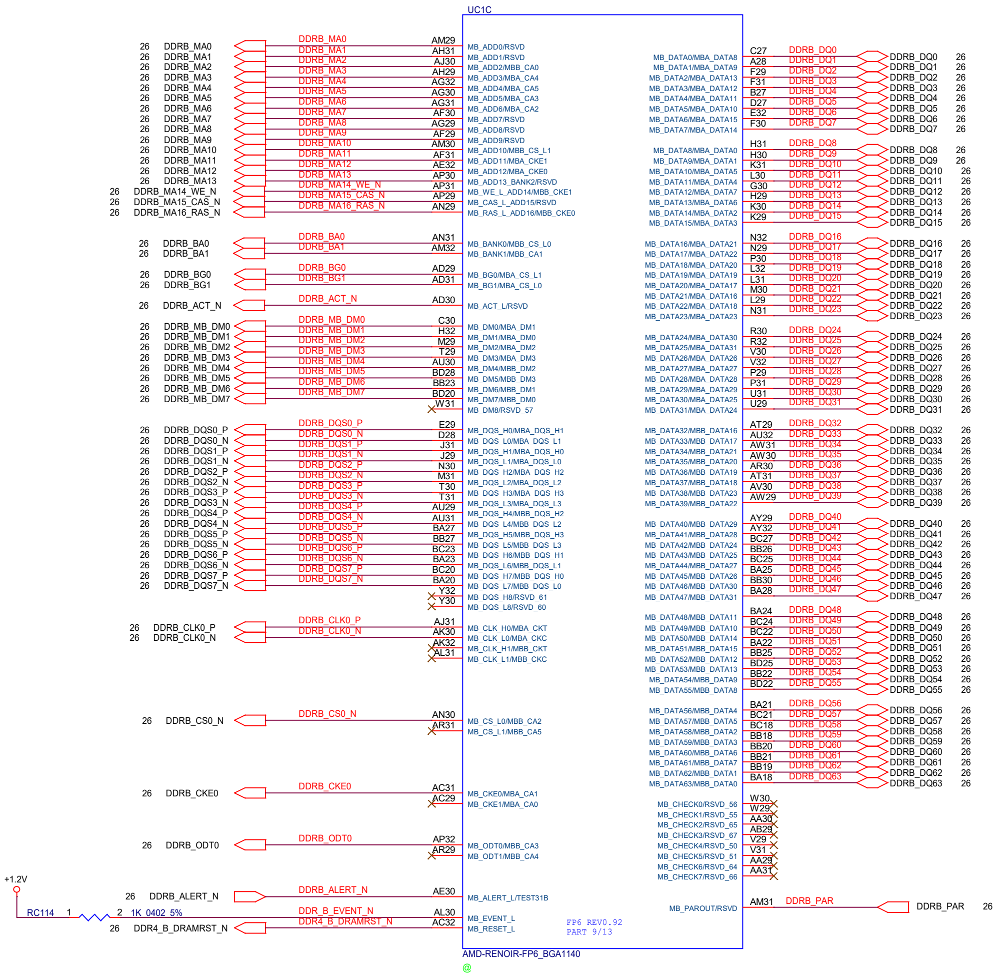
Size	Document Number	Rev
C	CPU(2/16):(DDR4-Chanel-A)	0.2



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C	CPU(3/16):(DDR4-Chanel-B)	0.2

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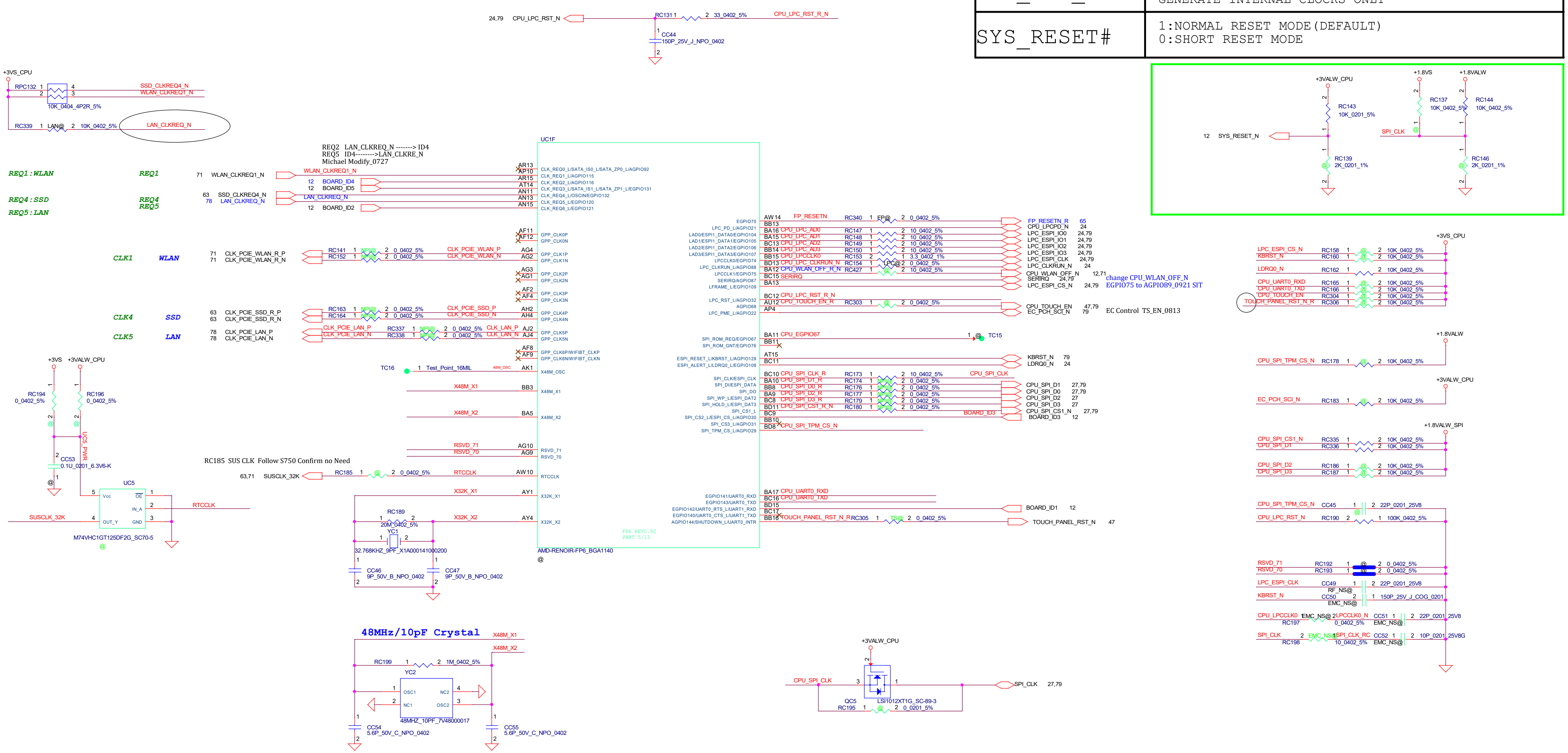
PD FW Update

STRAP PINS	SYS_RESET#
PCH_SPI_CLK	1:USE 48MHZ CRYSTAL CLOCK AND GENERATE BOTH INTERNAL AND EXTERNAL CLOCKS(DEFAULT) 0:USE 100MHZ PCIE CLOCK AS REFERENCE CLOCK AND GENERATE INTERNAL CLOCKS ONLY
SYS_RESET#	1:NORMAL RESET MODE(DEFAULT) 0:SHORT RESET MODE



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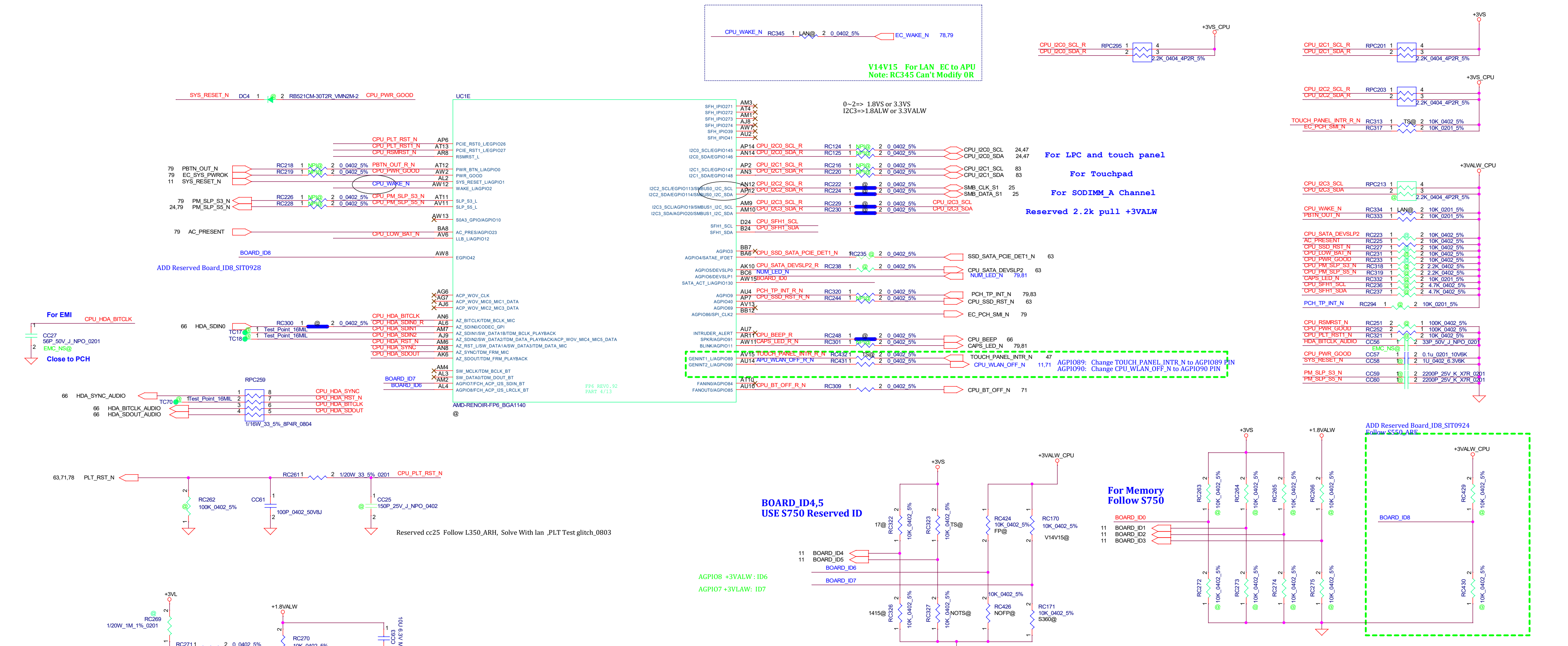

ID4	AGPIO116	S0_3.3V
ID5	EGPIO131	S0_3.3V
ID6	AGPIO8	+3VALW
ID7	AGPIO7	+3VALW
ID8	EGPIO42	S5_3.3V

Board ID[4]	0	14"15"	RC326
	1	17"	
Board ID[5]	0	NOTS@	
	1	TS@	
Board ID[6]	0	NOFP@	
	1	FP@	
Board ID[7]	0	S360@	
	1	V14V15@	

Board ID[0,1,2,3]	Memory	Stuff R
0000	Samsung 4G	RC272,RC273,RC274,RC275
0001	Samsung 8G	RC272,RC273,RC274,RC266
0010	Reserved	RC272,RC273,RC265,RC275
0111	Micron 4G	RC272,RC264,RC265,RC266
0101	Micron 8G	RC272,RC264,RC274,RC266
0110	Reserved	RC272,RC264,RC265,RC275
1000	Hynix 4G	RC263,RC273,RC274,RC275
1001	Hynix 8G	RC263,RC273,RC274,RC266
1010	Reserved	RC263,RC273,RC265,RC275
1111	DIMM_ONLY	

IDO	AGPIO130	S0_3.3V
ID1	EGPIO142	S0_3.3V
ID2	EGPIO121	S0_3.3V
ID3	AGPIO30	+1.8VALW

DDP?

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10	Reserved	RC263,RC273,RC265,RC275

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Size	Document Number	Rev
A	CPU(7/16): AUDIO	0.2

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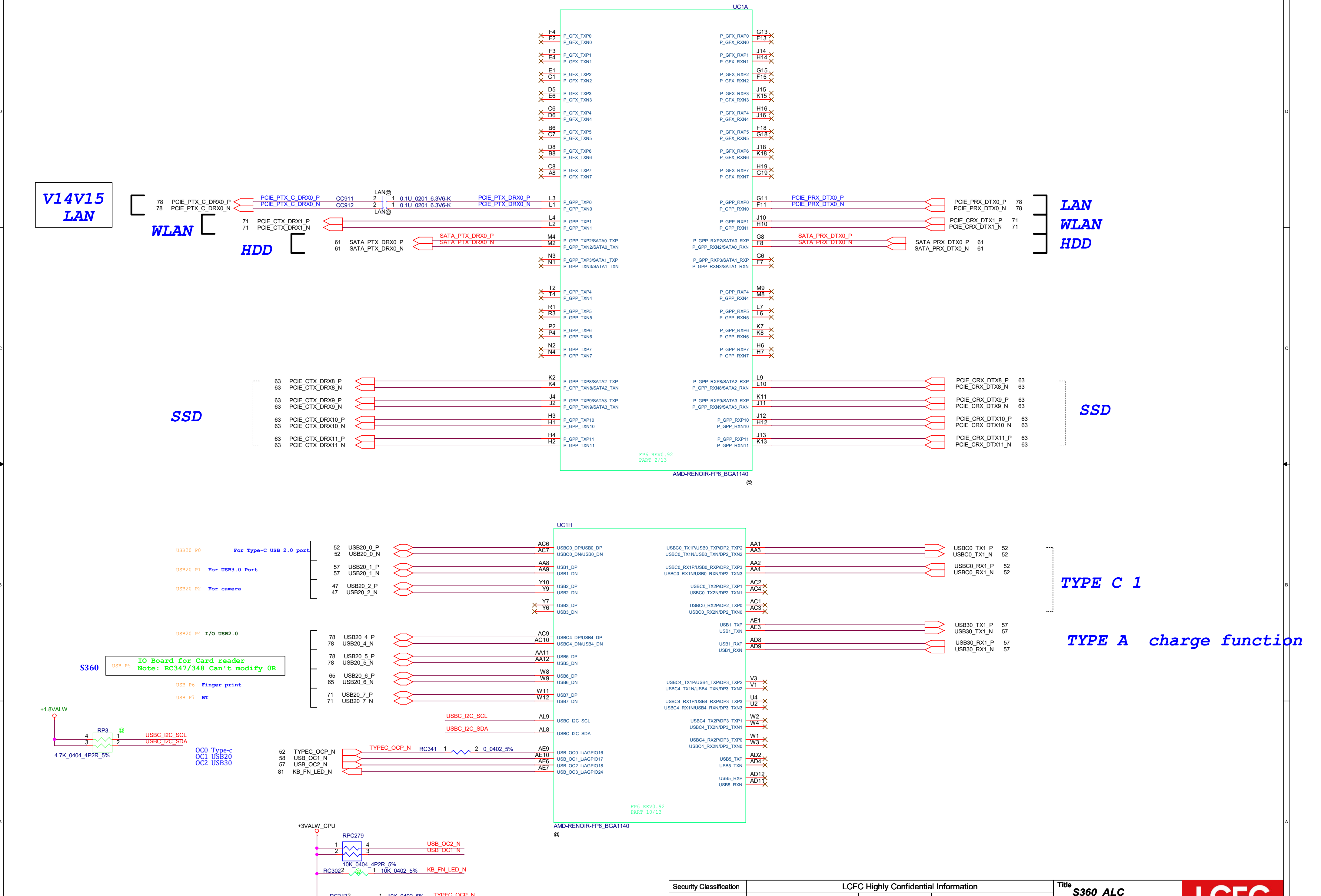

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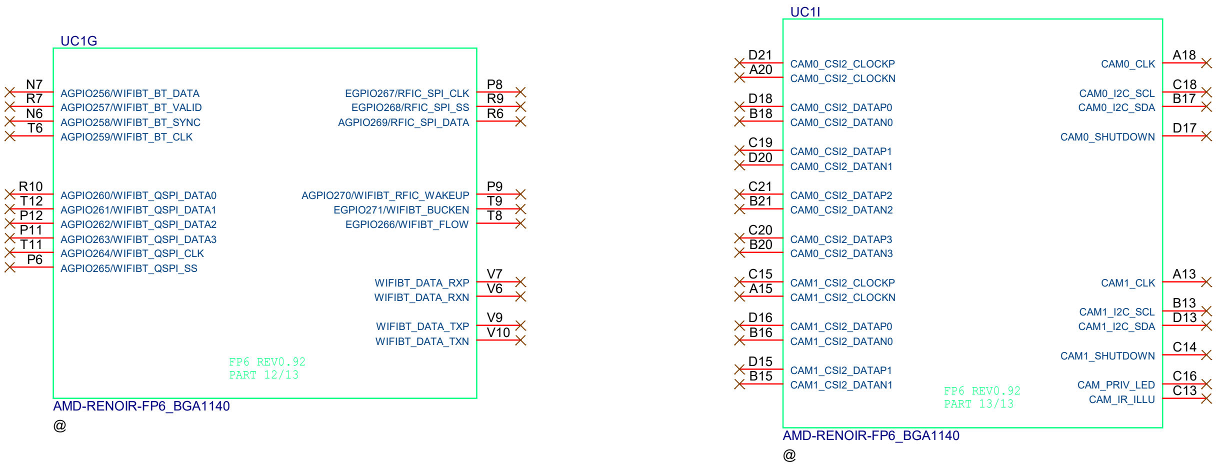

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Size	Document Number	Rev
A	CPU(10/16): CLOCK SIGNALS	0.2

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Size	Document Number	Rev
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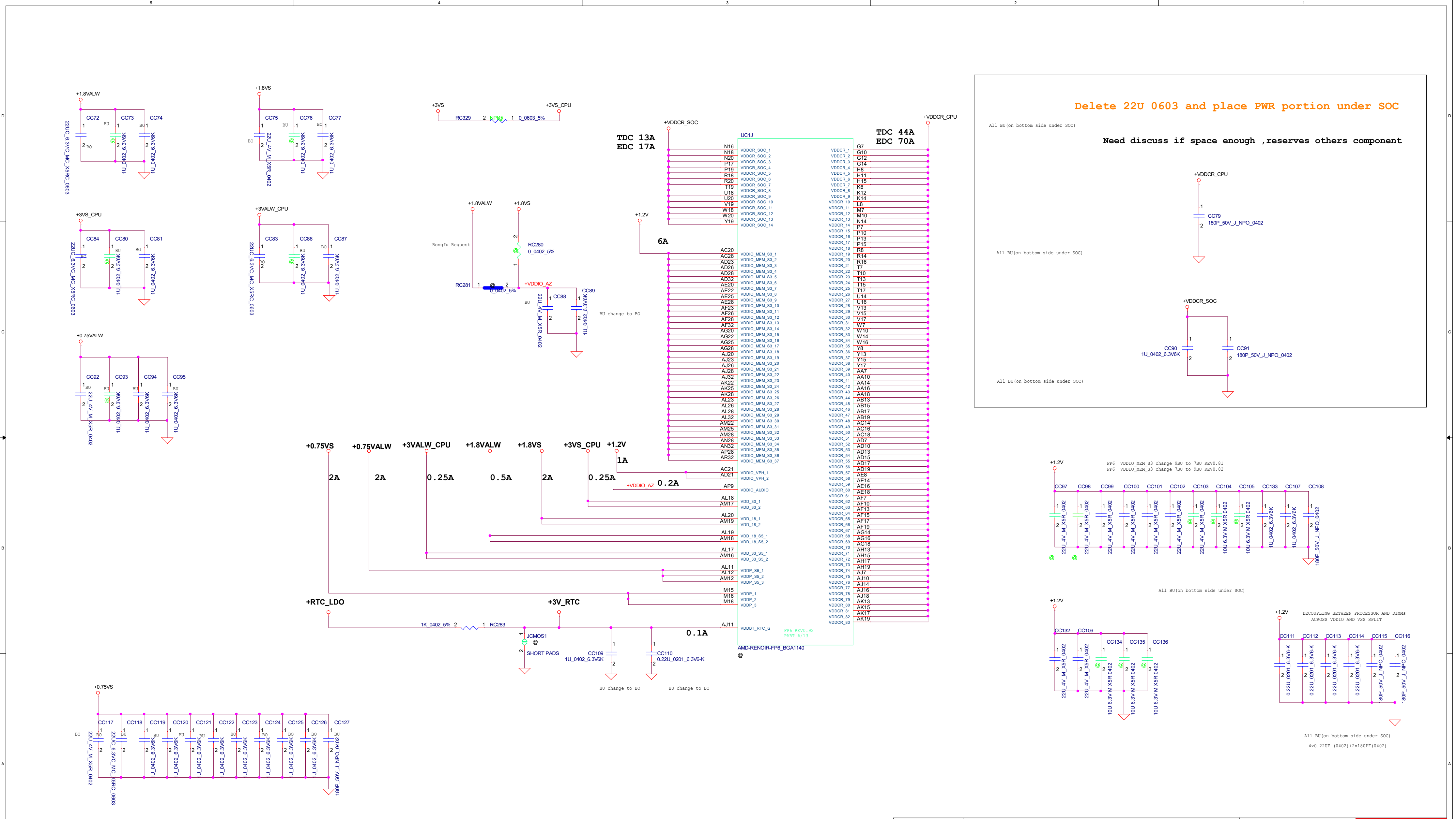

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A	CPU(12/16):CPU Power(1/2)	0.2

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Size	Document Number	Rev
A	CPU(14/16): PCH Power	0.2

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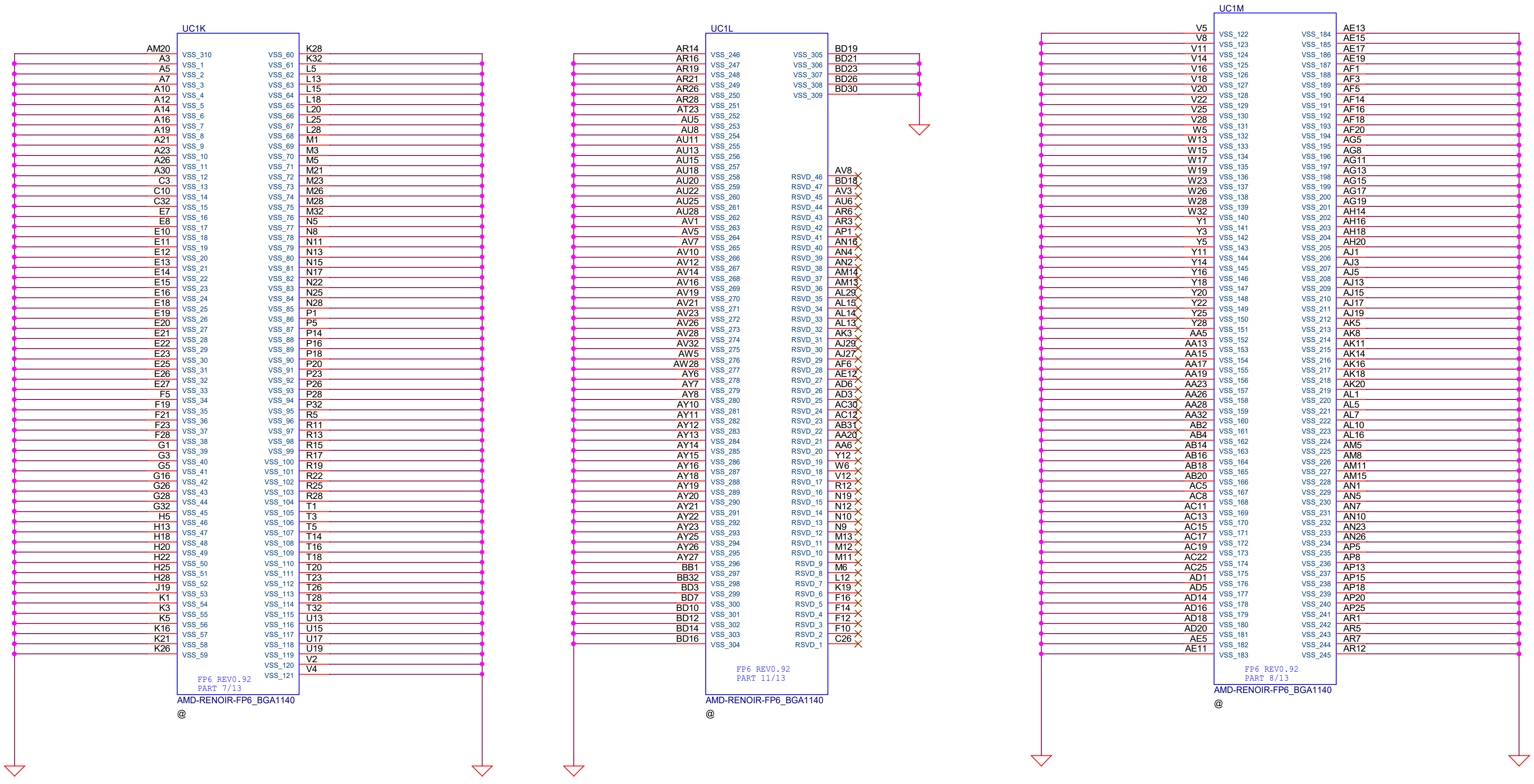

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5 4 3 2 1

D D

C C

B B

A A

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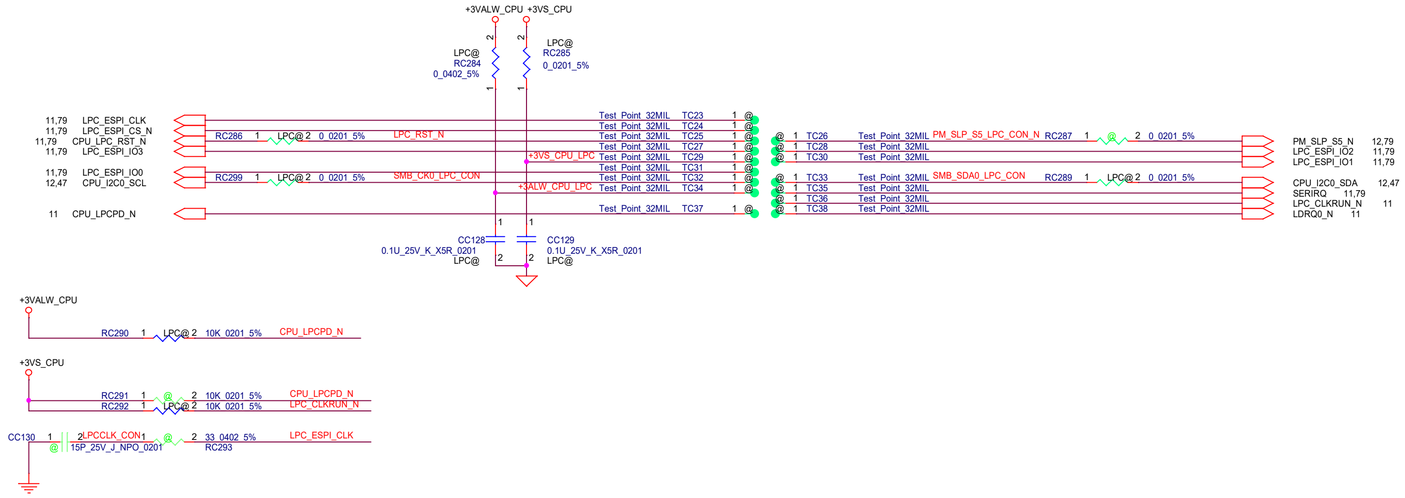
A	CPU(16/16): CFG/RESERVED	0.2

5 4 3 2 1

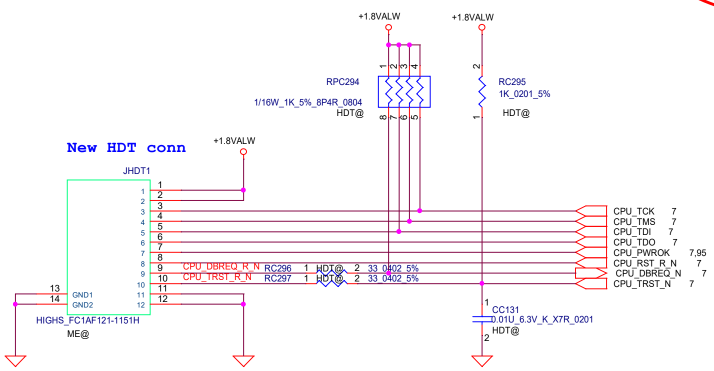
LPC ROM EMULATOR HEADER



HDT Debug Header

注意下这句话

RC3152 RC3153 should be put on APU side to reduce stub when MP



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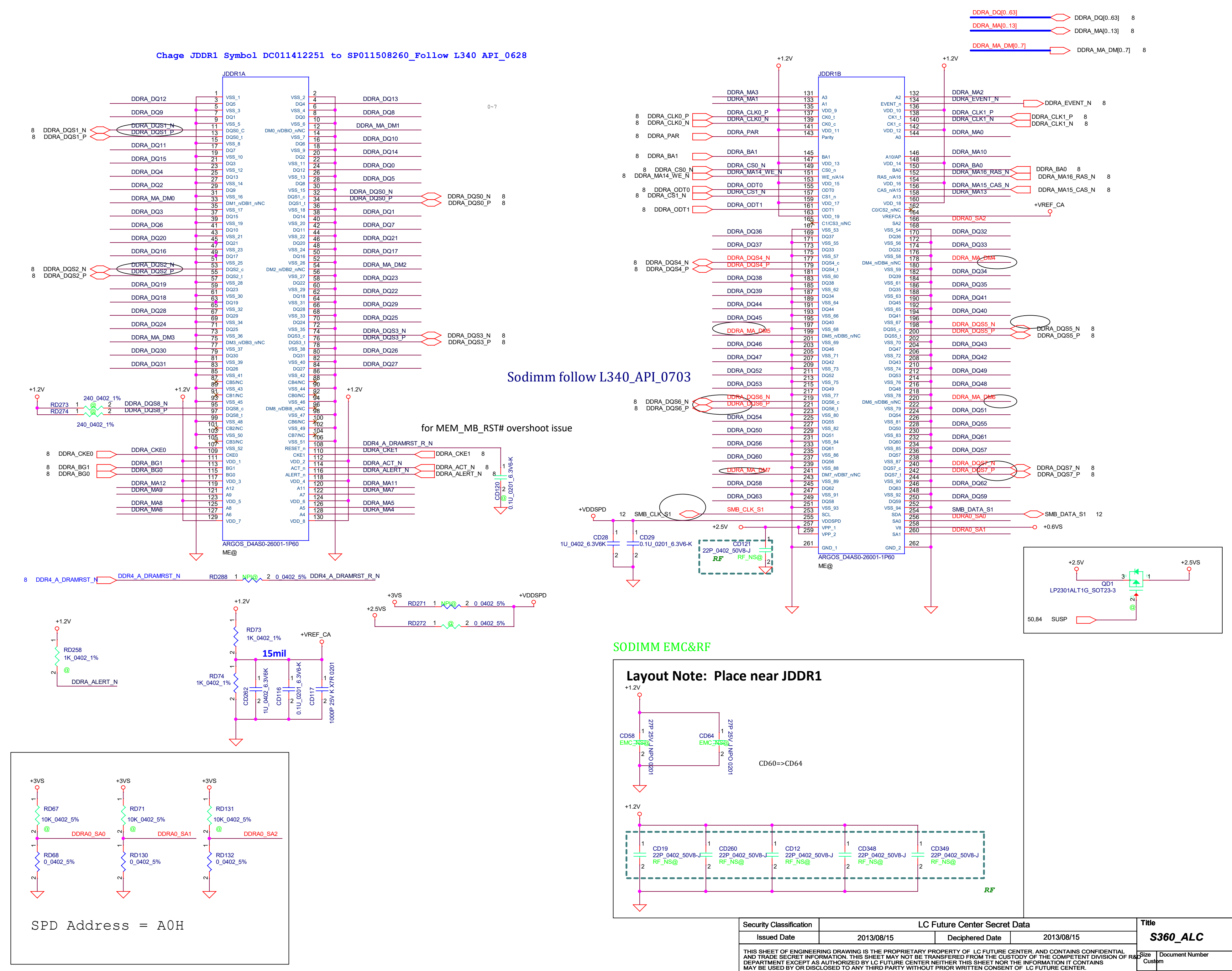

Swap Table

Pin Name	Net Name
DQ0	DDRA_DQ6
DQ1	DDRA_DQ5
DQ2	DDRA_DQ2
DQ3	DDRA_DQ3
DQ4	DDRA_DQ4
DQ5	DDRA_DQ0
DQ6	DDRA_DQ1
DQ7	DDRA_DQ7
DQS#0	DDRA_DQS#0
DQS0	DDRA_DQS0
DQ8	DDRA_DQ13
DQ9	DDRA_DQ9
DQ10	DDRA_DQ14
DQ11	DDRA_DQ10
DQ12	DDRA_DQ12
DQ13	DDRA_DQ8
DQ14	DDRA_DQ15
DQ15	DDRA_DQ11
DQS#1	DDRA_DQS#1
DQS1	DDRA_DQS1
DQ16	DDRA_DQ20
DQ17	DDRA_DQ21
DQ18	DDRA_DQ22
DQ19	DDRA_DQ19
DQ20	DDRA_DQ16
DQ21	DDRA_DQ17
DQ22	DDRA_DQ23
DQ23	DDRA_DQ18
DQS#2	DDRA_DQS#2
DQS2	DDRA_DQS2
DQ24	DDRA_DQ28
DQ25	DDRA_DQ29
DQ26	DDRA_DQ31
DQ27	DDRA_DQ27
DQ28	DDRA_DQ24
DQ29	DDRA_DQ25
DQ30	DDRA_DQ30
DQ31	DDRA_DQ26
DQS#3	DDRA_DQS#3
DQS3	DDRA_DQS3
DQ32	DDRA_DQ33
DQ33	DDRA_DQ37
DQ34	DDRA_DQ34
DQ35	DDRA_DQ38
DQ36	DDRA_DQ32
DQ37	DDRA_DQ36
DQ38	DDRA_DQ35
DQ39	DDRA_DQ39
DQS#4	DDRA_DQS#4
DQS4	DDRA_DQS4
DQ40	DDRA_DQ44
DQ41	DDRA_DQ40
DQ42	DDRA_DQ47
DQ43	DDRA_DQ43
DQ44	DDRA_DQ41
DQ45	DDRA_DQ45
DQ46	DDRA_DQ46
DQ47	DDRA_DQ42
DQS#5	DDRA_DQS#5
DQS5	DDRA_DQS5
DQ48	DDRA_DQ48
DQ49	DDRA_DQ49
DQ50	DDRA_DQ55
DQ51	DDRA_DQ50
DQ52	DDRA_DQ52
DQ53	DDRA_DQ53
DQ54	DDRA_DQ54
DQ55	DDRA_DQ51
DQS#6	DDRA_DQS#6
DQS6	DDRA_DQS6
DQ56	DDRA_DQ60
DQ57	DDRA_DQ56
DQ58	DDRA_DQ63
DQ59	DDRA_DQ59
DQ60	DDRA_DQ61
DQ61	DDRA_DQ57
DQ62	DDRA_DQ58
DQ63	DDRA_DQ62
DQS#7	DDRA_DQS#7
DQS7	DDRA_DQS7

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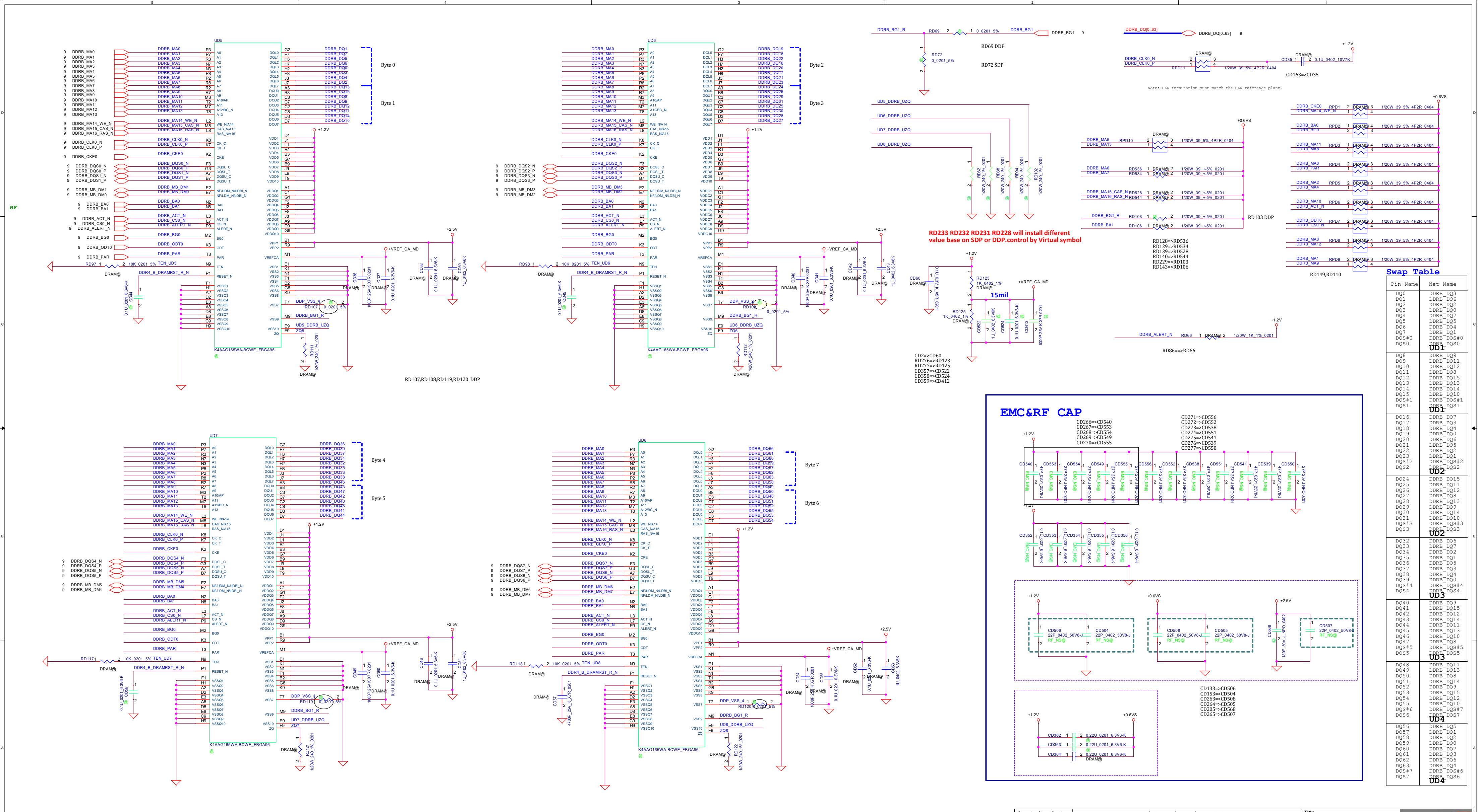

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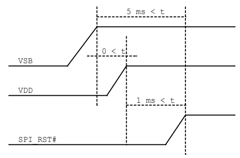
TABLE of TPM (U9801)		
Vendor	P/N	LCFC P/N
Nuvoton	NPCT750LABYX	SA00008KS20
ST Micro	ST33HTPH2E32AHC0	SA000089E20

NOTE:
Check timing sequence in SDV phase.

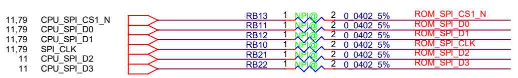


NOTE:
1) It is recommended to connect the TPM to the system's standby voltage to improve performance.
2) SPI_RST# must be asserted for at least 5 msec after VSB power-up.
3) VSB may come up anytime before VDD power-up, but not after VDD power-up.
4) SPI_RST# may be asserted together with VDD power negation, but should not at any point exceed 0.5V above the VDD power level.

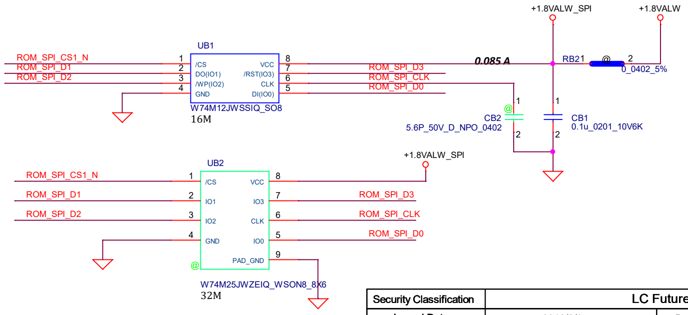
TABLE

Pin No	TCG PTP Spec (v38)	Nuvoton NPCT750LABYX	ST Micro ST33HTPH2E32AHC0
1	VDD	VSB	NC
2	GND	NC	GND
3	NC	NC	NC
4	GPIO	GPIO/PP	PP
5	NC	NC	NC
6	GPIO	GPIO3	NC
7	GPIO	NC	GPIO
8	VDD	VHIO	NC
9	NC	NC	NC
10	NC	NC	NC
11	NC	NC	NC
12	NC	NC	NC
13	GPIO	GPIO4	NC
14	NC	NC	NC
15	NC	NC	NC
16	GND	GND	NC
17	SPI_RST#	RST#	SPI_RST#
18	SPI_PIRQ#	PIRQ#/GPIO2	SPI_PIRQ#
19	SPI_CLK	SCLK	SPI_CLK
20	SPI_CS#	SCS#/GPIO5	SPI_CS#
21	MOSI	MOSI/GPIO7	MOSI
22	VDD	VHIO	VPS
23	GND	GND	NC
24	MISO	MISO	MISO
25	NC	NC	NC
26	NC	NC	NC
27	NC	NC	NC
28	NC	NC	NC
29	SDA/GPIO1	SDA/GPIO1	NC
30	SDA/GPIO0	SDA/GPIO0	NC
31	NC	NC	NC
32	NC	NC	NC

SPI ROM



Used RPMC BIOS ROM



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Size: C
Document Number: GPU Strap
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Size	Document Number	Rev
C	GPU PWR2	0.2

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Size: C | Document Number: GPU GND | Rev: 0.2

Security Classification	LC Future Center Secret Data		
Issued Date	2019/07/02	Deciphered Date	2019/07/02

Title

S360_ALC

LCFC

Size C | Document Number L350 A+N | Rev 0.2

Date: Monday, September 28, 2020 | Sheet 37 of 110

Security Classification	LC Future Center Secret Data		
Issued Date	2019/07/02	Deciphered Date	2019/07/02

Title

S360_ALC

Size	Document Number	Rev
C	L350 A+N	0.2

Security Classification	LC Future Center Secret Data		
Issued Date	2019/07/02	Deciphered Date	2019/07/02

Title
S360_ALC

Size C | Document Number **L350 A+N** | Rev 0.2

Date: Monday, September 28, 2020

Security Classification	LC Future Center Secret Data		
Issued Date	2019/07/02	Deciphered Date	2019/07/02

Title
S360_ALC

Size C | Document Number L350 A+N | Rev 0.2

Date: Monday, September 28, 2020 |

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

LCFC

Size C

Document Number VRAM C [31:0]

Rev 0.2

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

LCFC

Size C

Document Number VRAM C [64:32]

Rev 0.2

Date: Monday, September 28, 2020

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

LCFC

Size C

Document Number VRAM D [64:32]

Rev 0.2

Date: Monday, September 28, 2020

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

LCFC

Size	Document Number	Rev
A	eDP MUX	0.2

Date: Monday, September 28, 2020

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

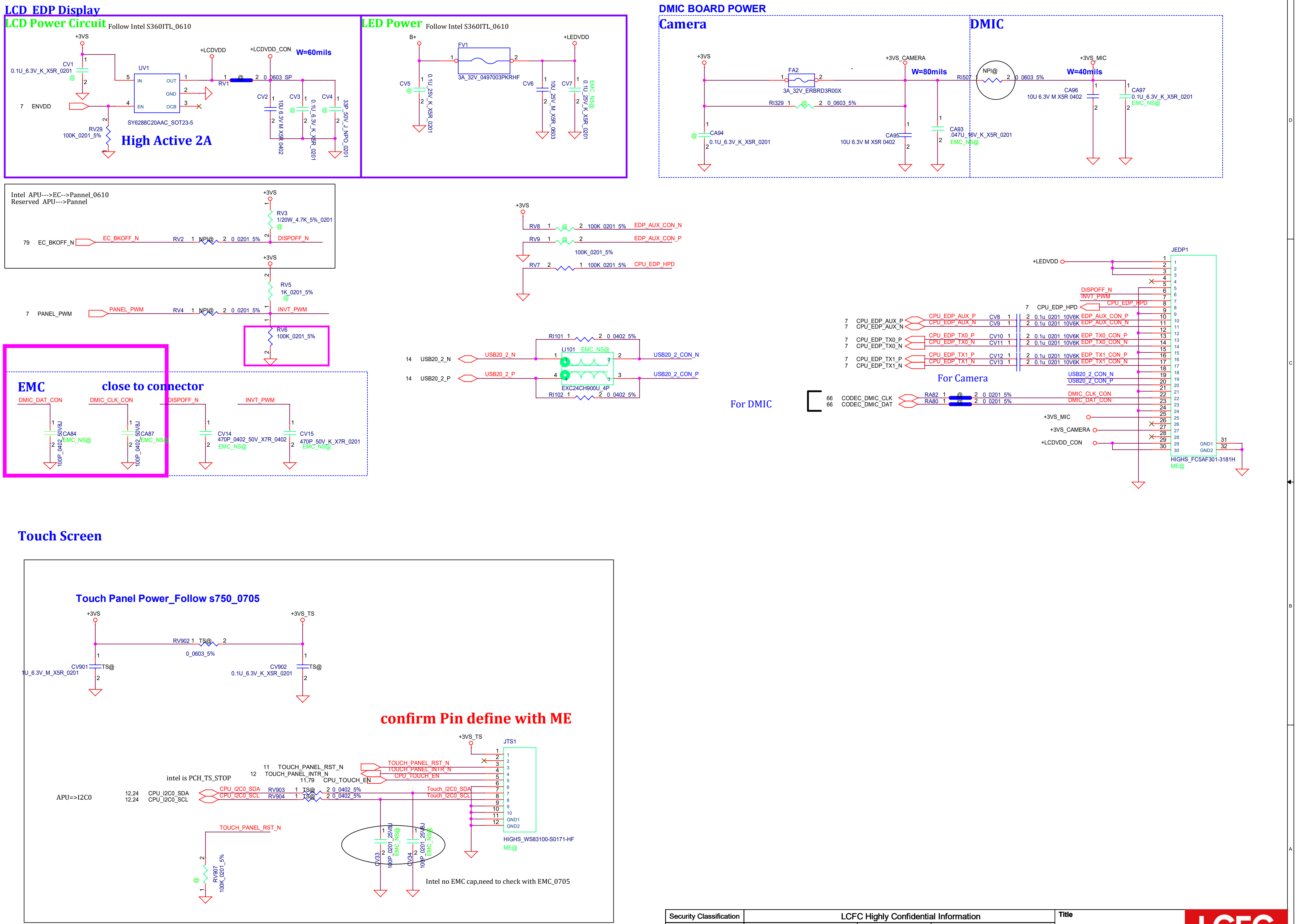
LCFC

Size C

Document Number NV DDS LOGIC

Rev 0.2

Date: Monday, September 28, 2020



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

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LCFC

Size: C | Document Number: eDP_DDI/CAM/DMIC/ISH | Rev: 0.2

Date: Monday, September 28, 2020 | Sheet 47 of 110

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title **S360_ALC**

LCFC

Size	Document Number	Rev
A	DP	0.2

Date: Monday, September 28, 2020

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

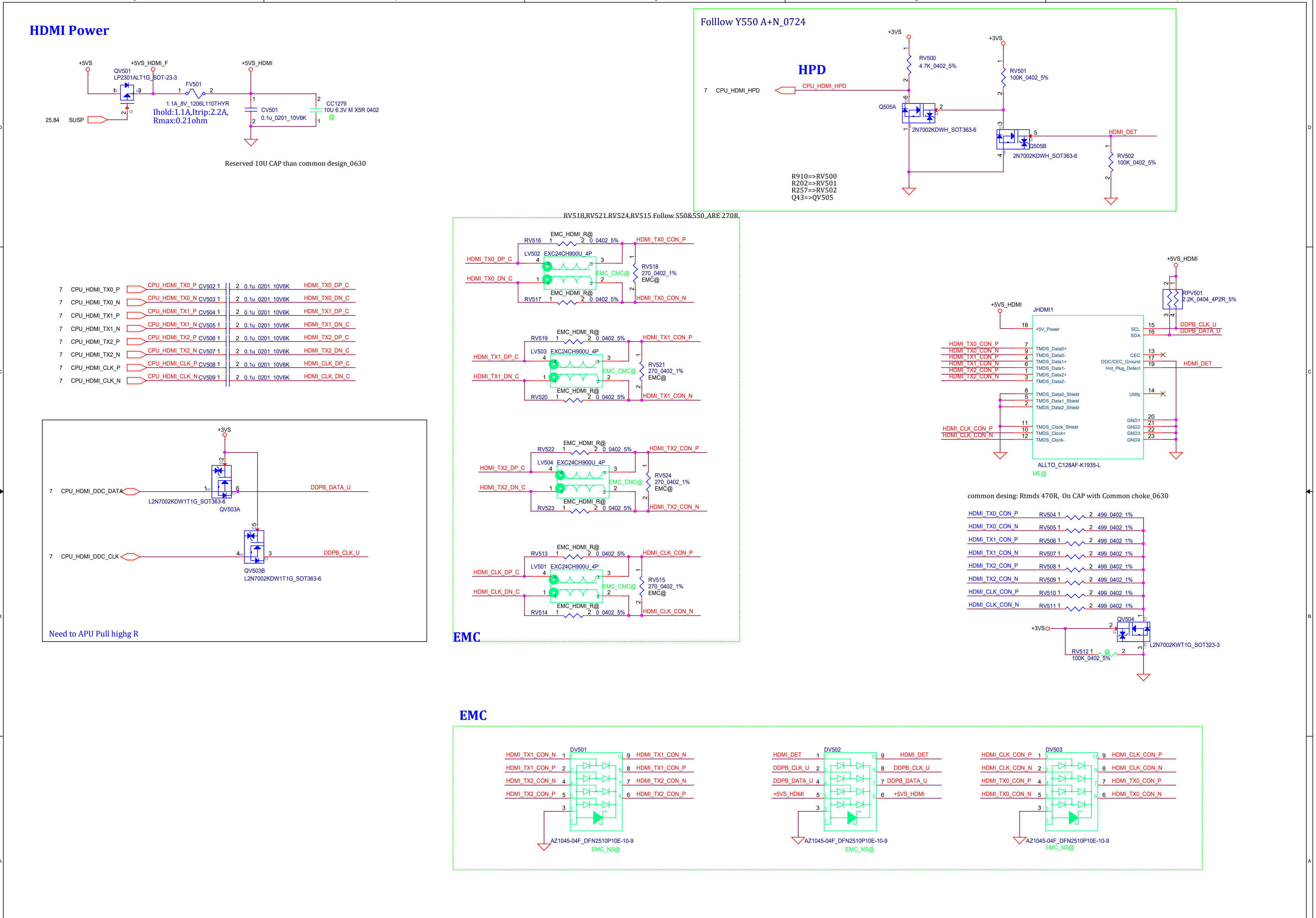
LCFC

Size C

Document Number HDMI RETIMER

Rev 0.2

Date: Monday, September 28, 2020



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

LCFC

Size: C | Document Number: HDMI CONN | Rev: 0.2

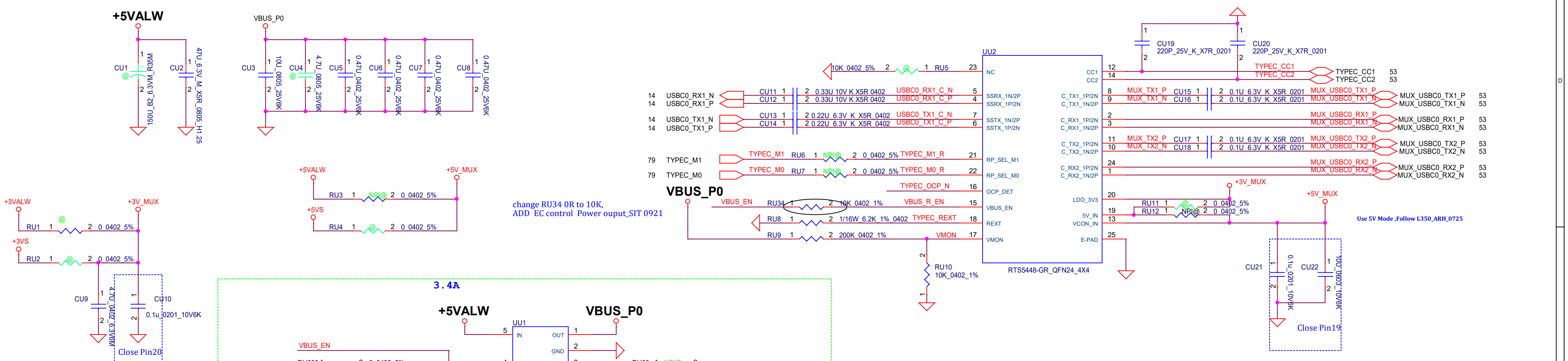
Date: Monday, September 28, 2020 | Sheet 50 of 110

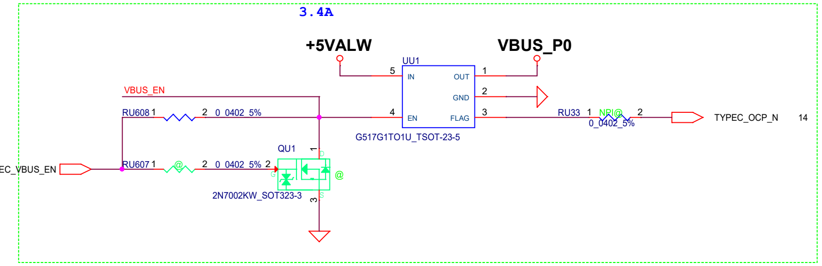
Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

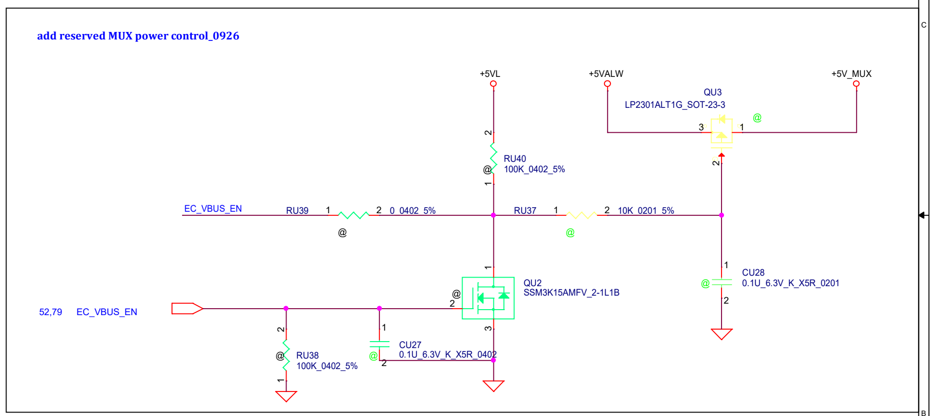
Title: S360_ALC

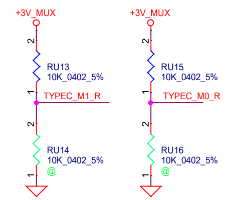
LCFC

Size	Document Number	Rev
C	TYPEC Controller PortA	0.2





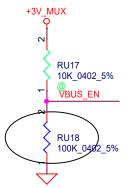




Rp configuration

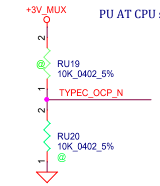
Rp:3A (now)

	M1	M0	Note
Rp:900mA	0	1	RU14/RU15 mount
Rp:1.5A	1	0	RU13/RU16 mount
Rp:3.0A	1	1	RU13/RU15 mount



For C_VBUS
power switch enable pin

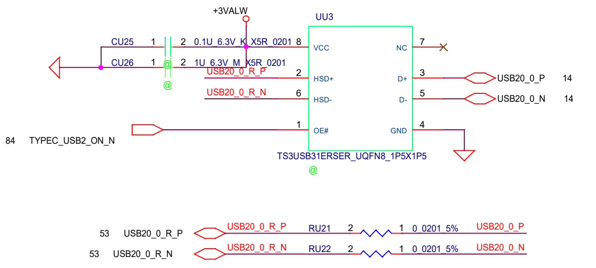
Power switch enable pin	Note
Low Active	RU17 mount
High Active	RU18 mount



PU AT CPU side _0725

For C_VBUS
power switch OCP pin

Power switch OCP pin	Note
Low Active	RU19 mount
High Active	RU20 mount



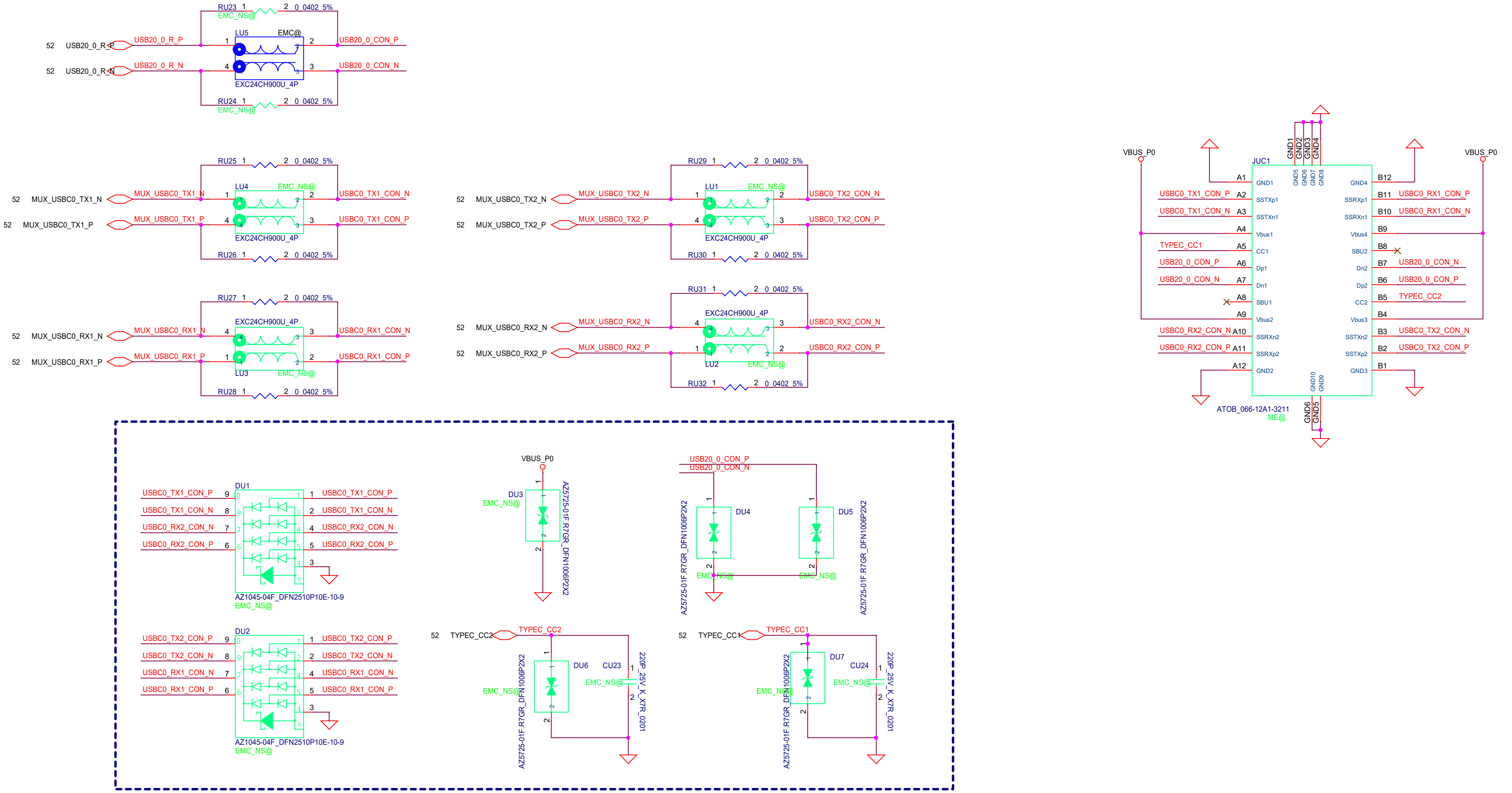
Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

LCFC

Size: C | Document Number: TYPEC MUX PortA | Rev: 0.2

L350_ARH/L340_API/YOGA530 ALL use COMMON CHOCK_0725



EMC Require stuff on frist phase， SDV output report Remove==>0804

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

Size C Document Number TYPEC CONN PortB Rev 0.2

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

LCFC

Size C

Document Number TYPEC Controller PortB

Rev 0.2

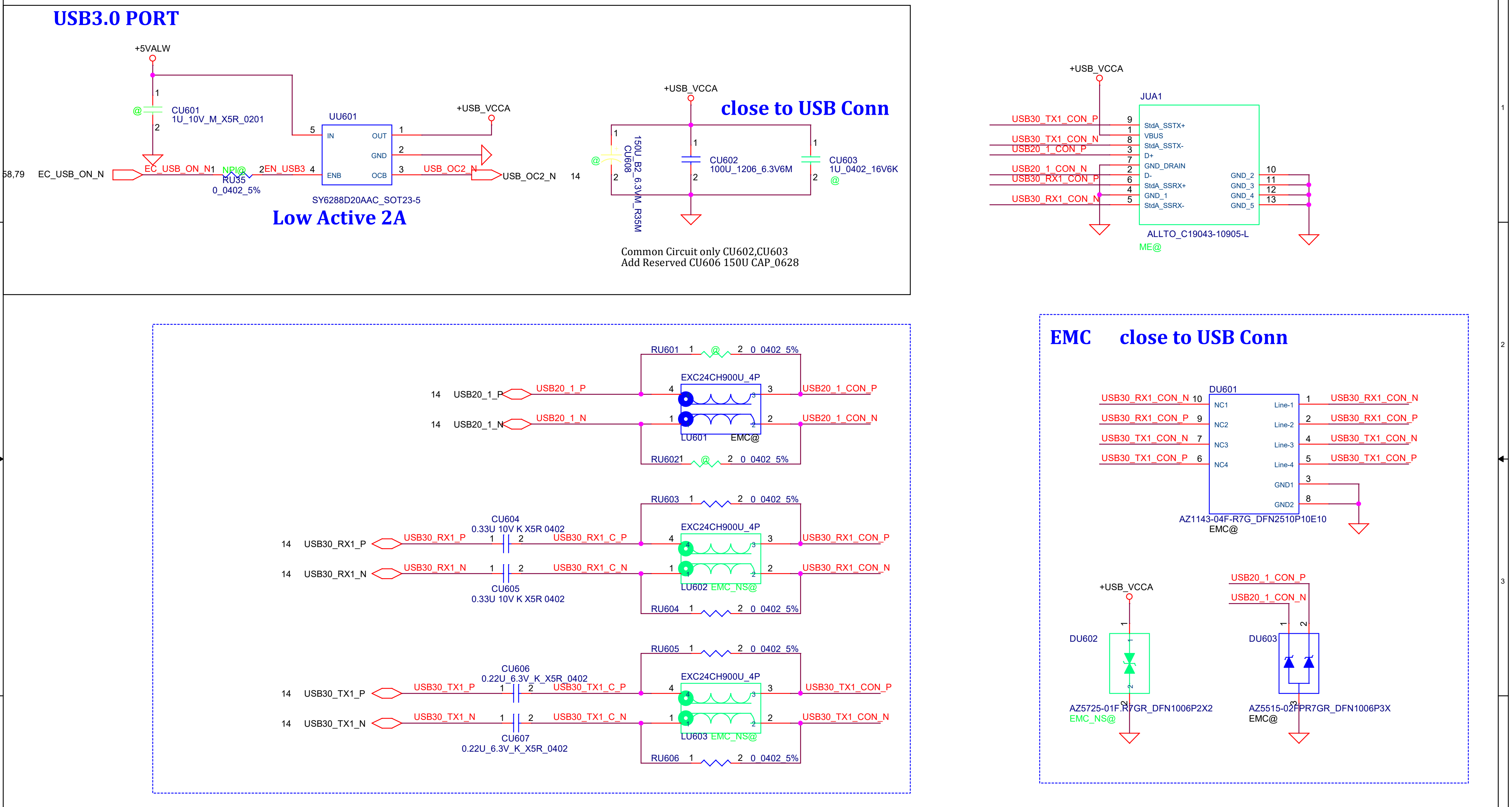
Date: Monday, September 28, 2020

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title **S360_ALC**

LCFC

Size	Document Number	Rev
Custom	TYPEC CONN PortB	0.2



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

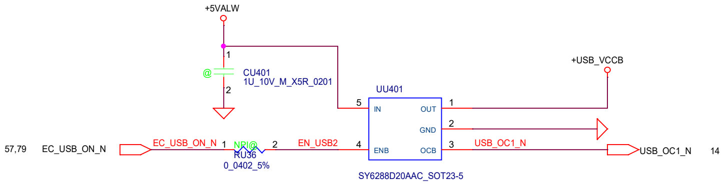
LCFC

Size: B | Document Number: USBA_PortA | Rev: 0.2

Date: Monday, September 28, 2020 | Sheet 57 of 110

USB2.0 Port and CMC&TVS&CAP MOVE to SUB Board

USB2.0 PORT



Low Active 2A

the diffrent with Base:
1.S540 No USB2.0 only,S360&V14V15 have

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: *S360_ALC*

LCFC

Size: C | Document Number: *USBA PortB* | Rev: 0.2

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

LCFC

Size C

Document Number USBA PortC

Rev 0.2

Date: Monday, September 28, 2020

Title S360_ALC

LCFC

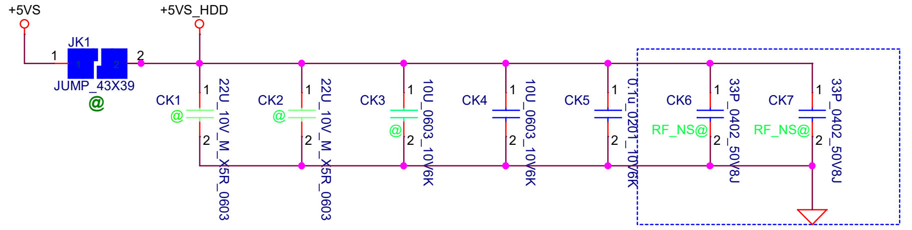
Size C

Document Number USB HUB

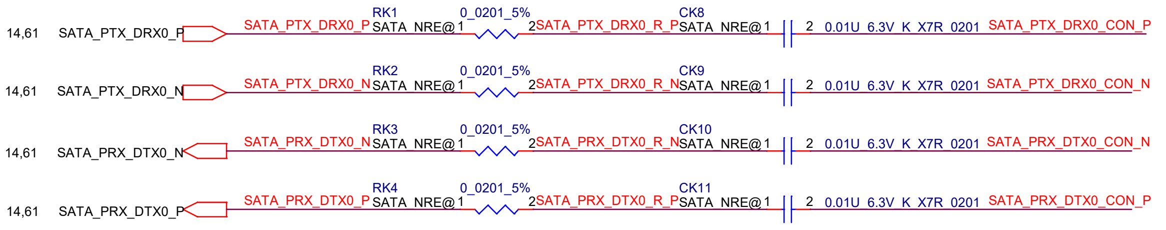
Rev 0.2

Date: Monday, September 28, 2020

HDD Power

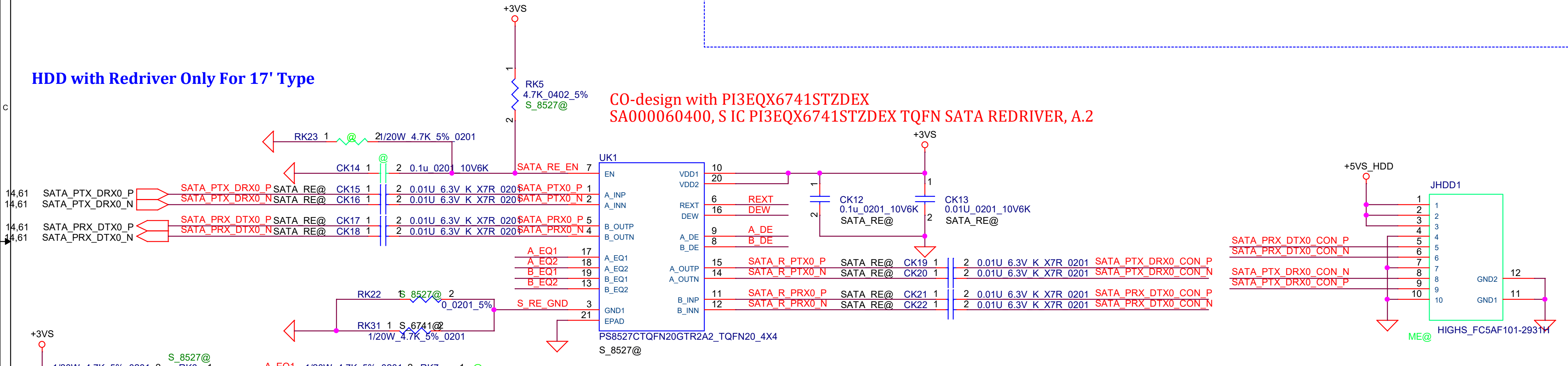


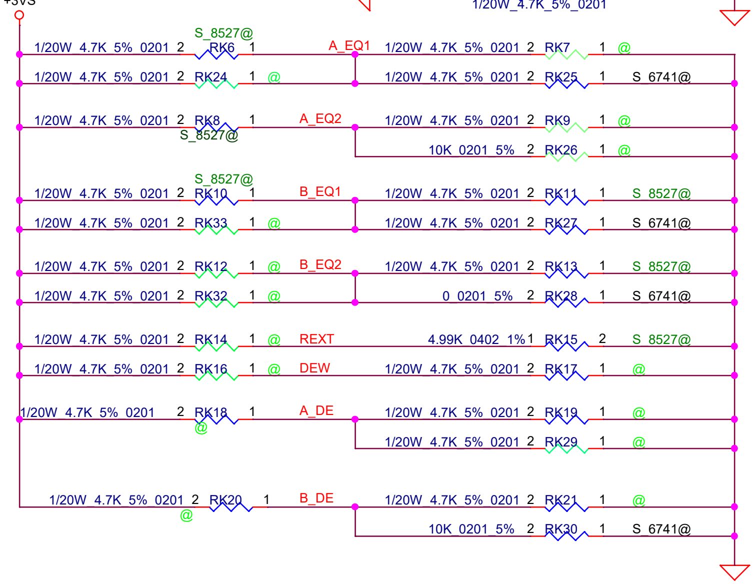
HDD Without Redriver



HDD with Redriver Only For 17' Type

CO-design with PI3EQX6741STZDEX
SA000060400, S IC PI3EQX6741STZDEX TQFN SATA REDRIVER, A.2





PS8257CTQ：EQ Follow S350_ARE Stuff_0717

REXT：external res for output swiing adjustment
it canbe left open or tie to GND,internally generated bias
current be used and the output is as default swing setting;

the pin canbe connected 4.99k to GND,the output swing
willbe at the default value with Reference to the ex RES

DEW:De-emphasis width setting for A&B

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title	S360_ALC		
Size: Custom	Document Number: HDD		Rev: 0.2
Date: Monday, September 28, 2020	Sheet 61 of 110		

LCFC

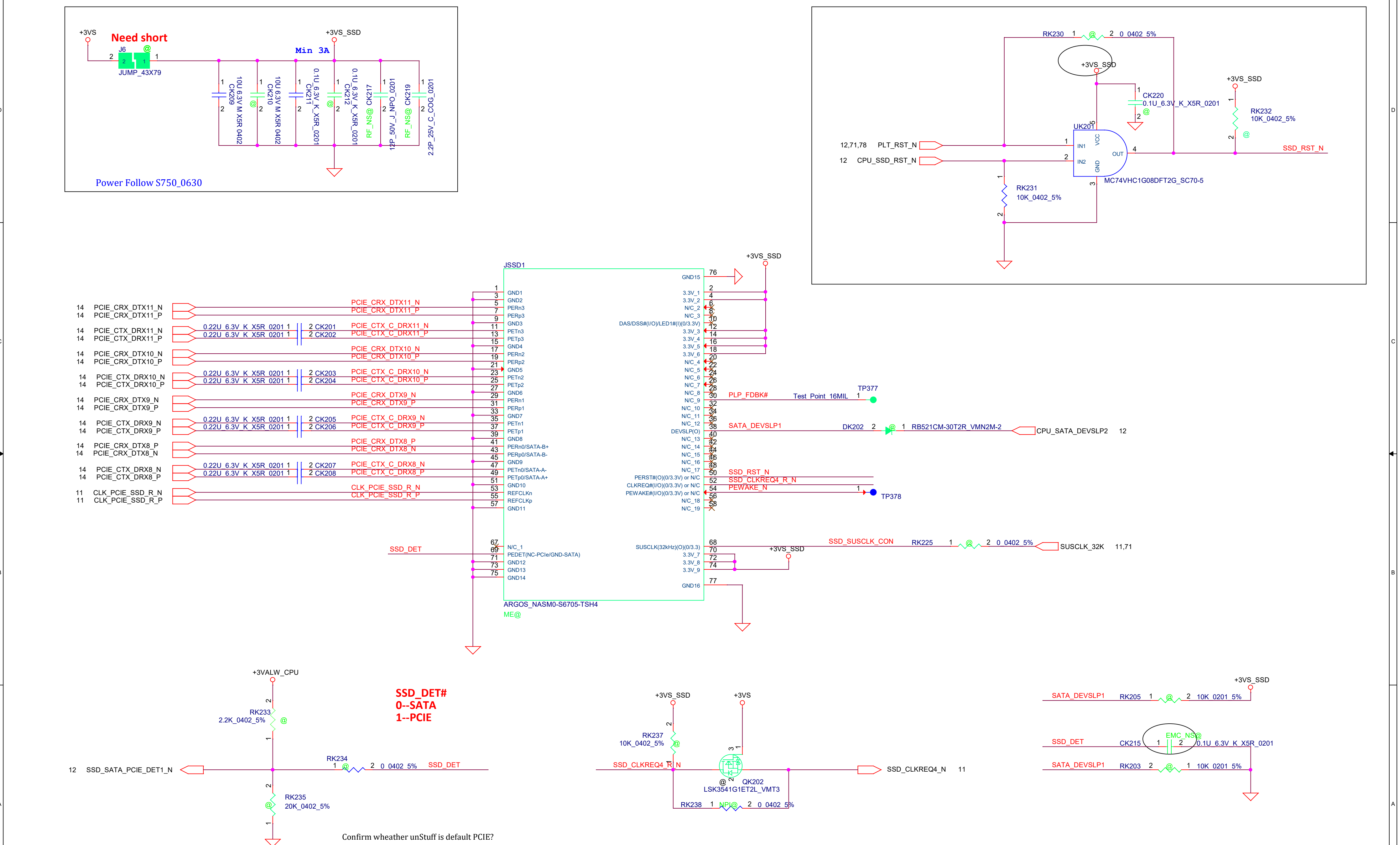
Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

LCFC

Size	Document Number	Rev
C	ODD	0.2

Date: Monday, September 28, 2020 Sheet 62 of 110



Security Classification	LCFC Highly Confidential Information			Title: S360_ALC	LCFC
Issued Date	2012/07/01	Deciphered Date	2014/07/01		
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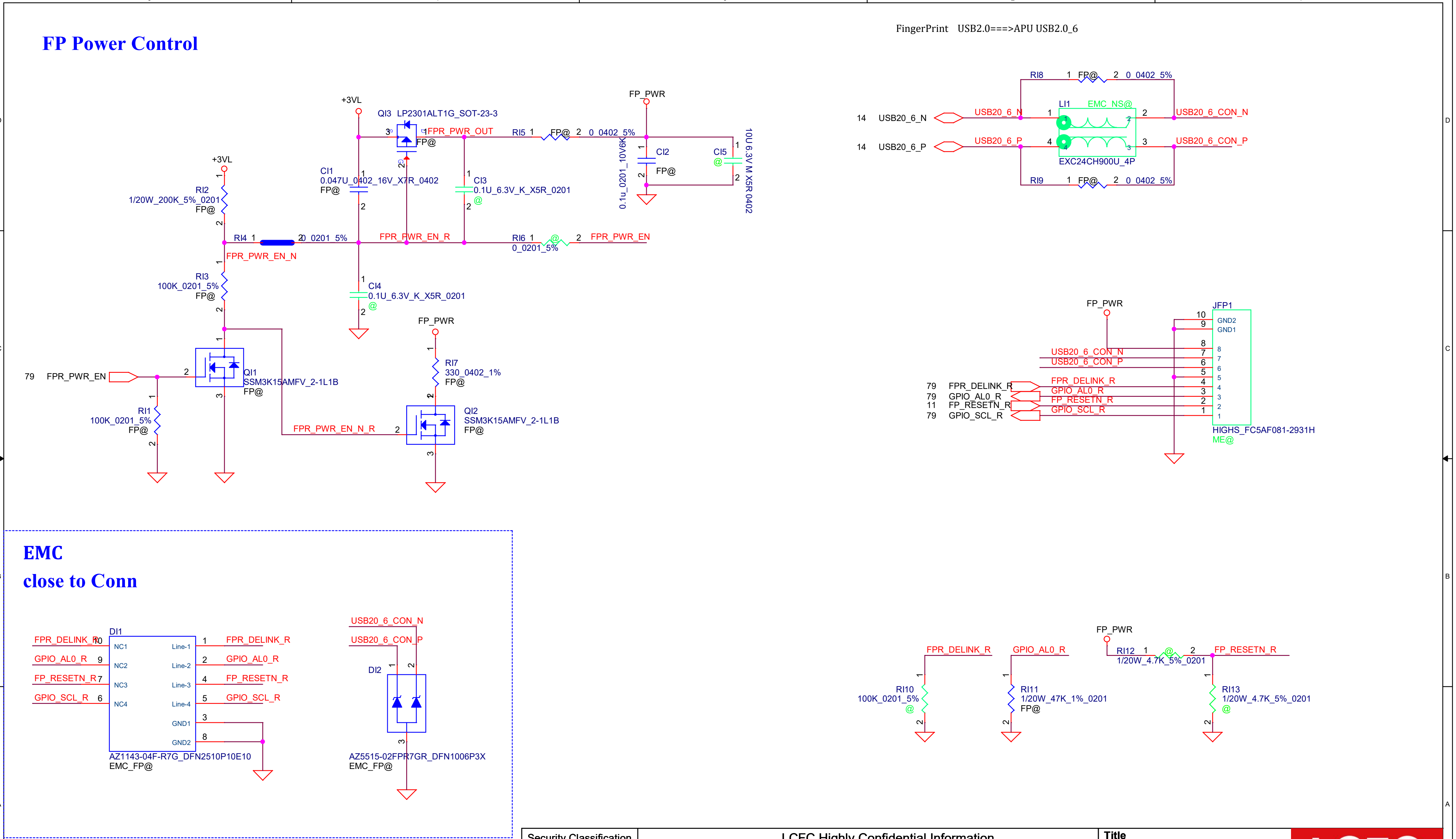
				Date: Monday, September 28, 2020	Sheet 63 of 110

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

LCFC

Size C | Document Number EMMC | Rev 0.2



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

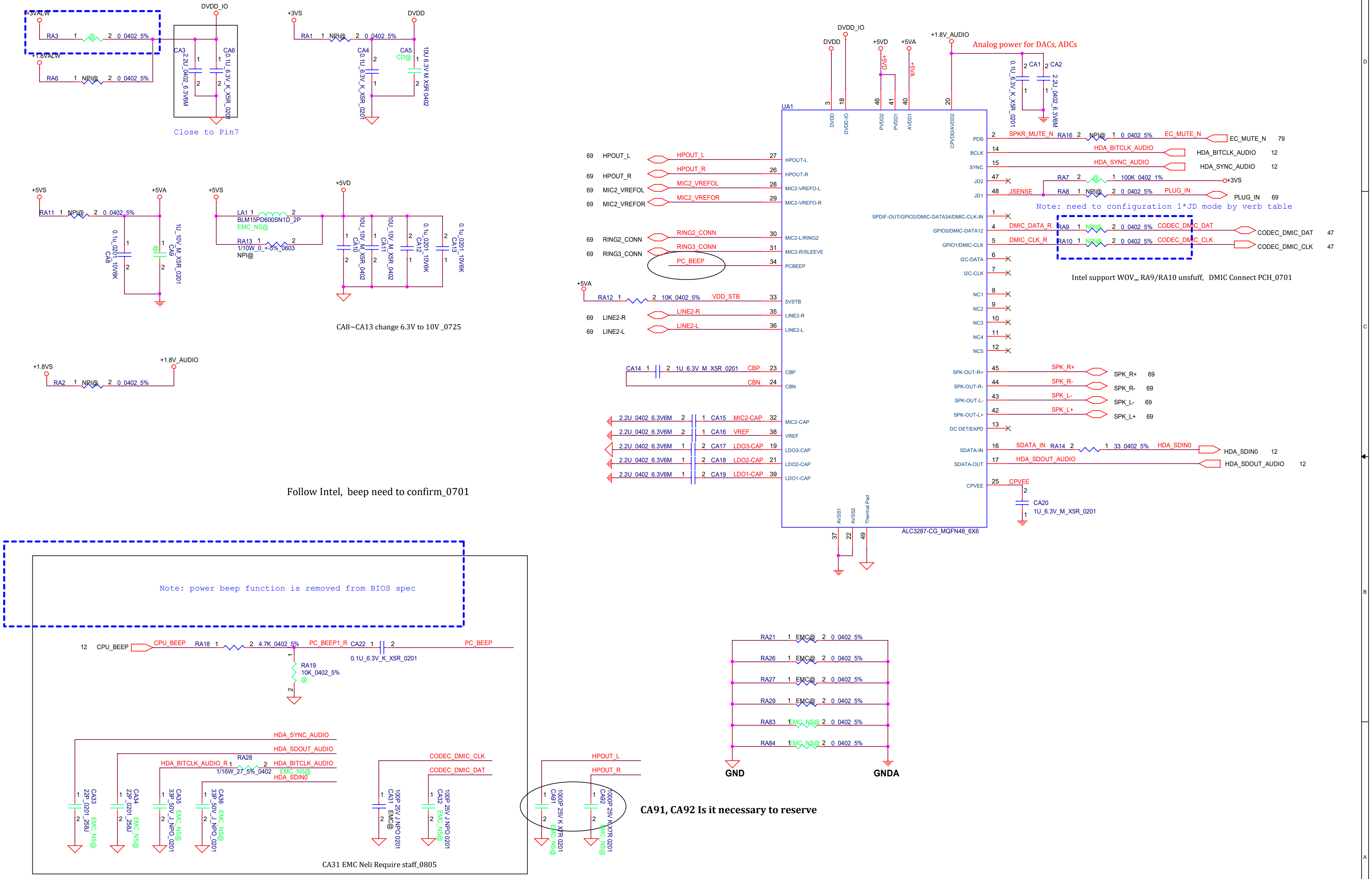
LCFC

Size: B | Document Number: FPR | Rev: 0.2

Date: Monday, September 28, 2020 |

the diffrent with Base MODULE:
1.Module no ra3 to DVDD_IO,S360&V14&V15 reserve
2.Module no ra5 CA21 to EC_BEEP,S360&V14&V15 reserve

Note: DVDD-IO must be equal to or smaller than DVDD



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

LCFC

Size: C | Document Number: Audio Codec | Rev: 0.2

Date: Monday, September 28, 2020 | Sheet 66 of 110

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

Size C | Document Number **Audio Amplifier** | Rev 0.2

Date: Monday, September 28, 2020 |

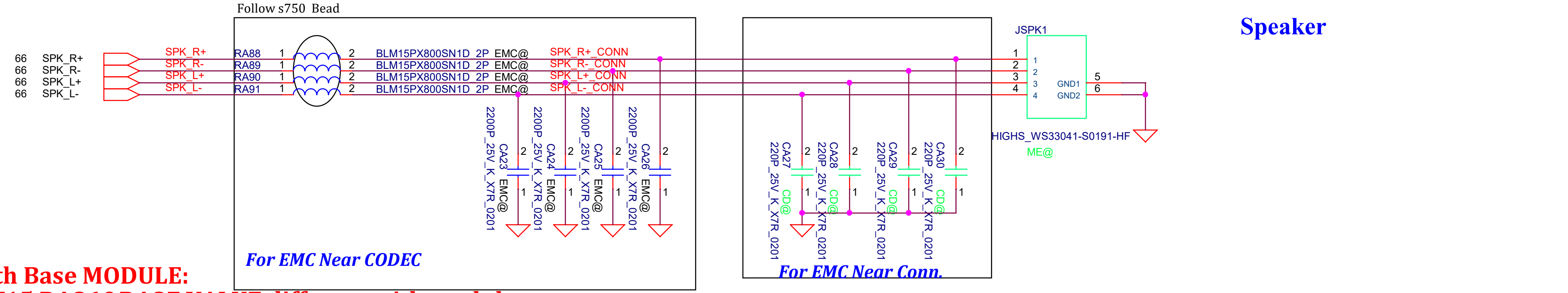
Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

LCFC

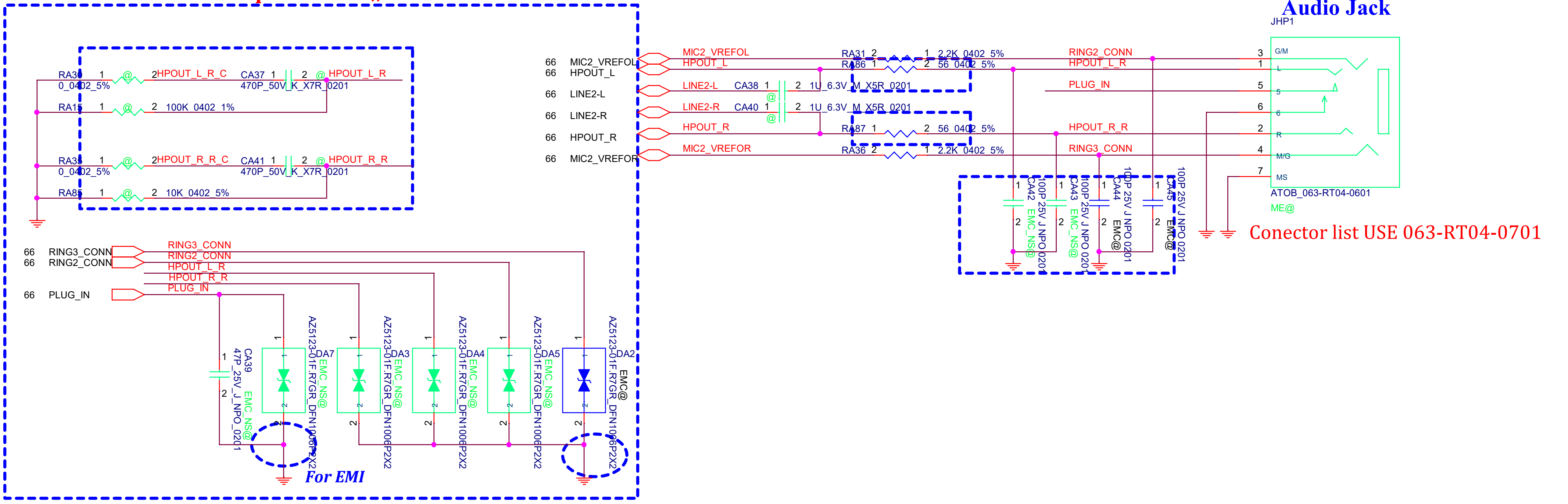
Size: C
Document Number: Audio DSP
Rev: 0.2

Date: Monday, September 28, 2020



the diffrent with Base MODULE:
1.S360&V14&V15 RA86&RA87 VALUE different with module,

2.for EMC TVS EMC_NS@ type different with module
3.GND type different
4.module no CA37&CA41 part circuit,,S360&V14&V15 reserve



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

LCFC

Size: B | Document Number: Audio_SPK/Jack | Rev: 0.2

Date: Monday, September 28, 2020 | Sheet 69 of 110

S360_AUC
Card reader Circuit MOVE to SUB Board S360
USB2.0 on SUB Board

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

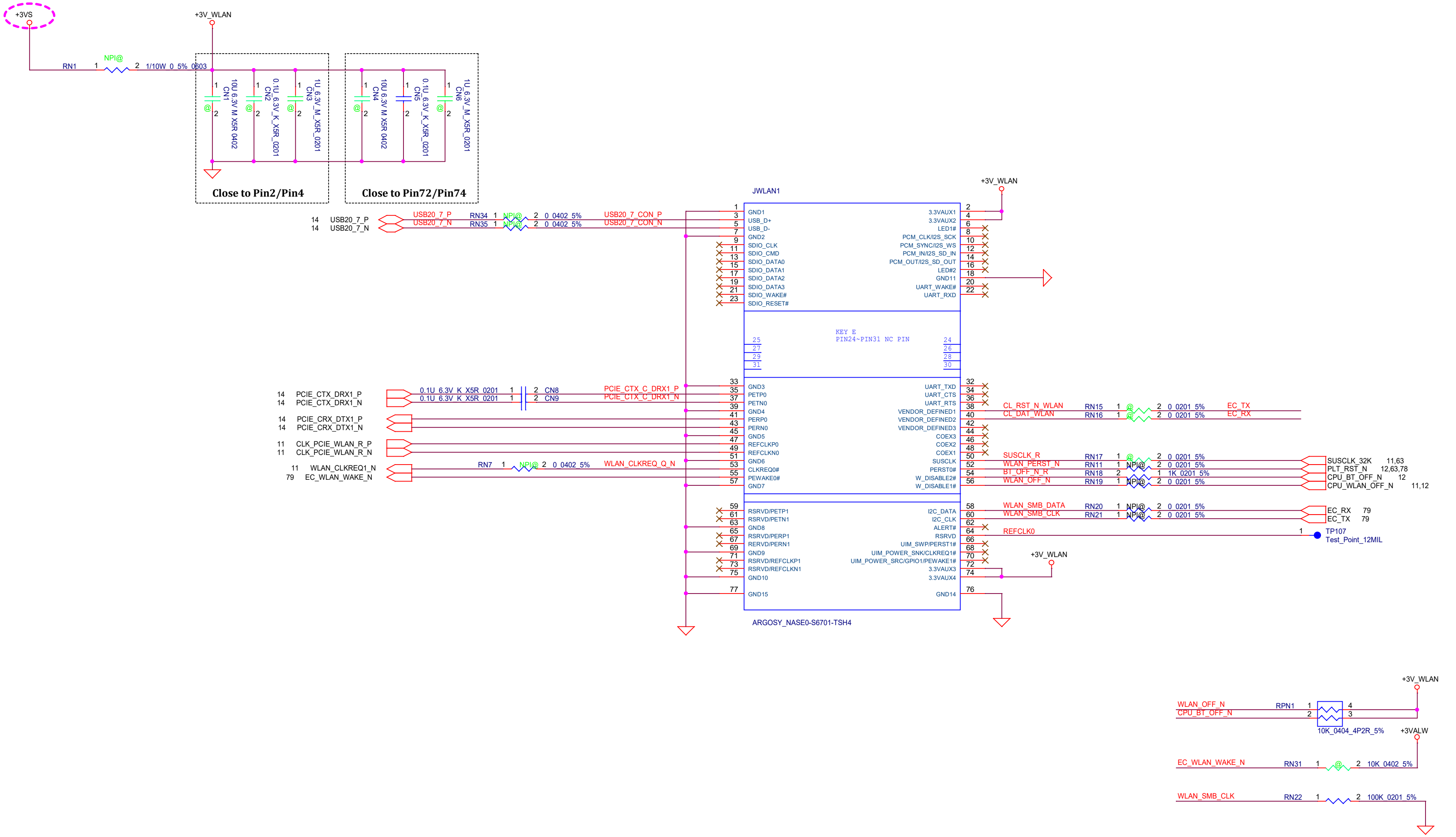
LCFC

Size: C
Document Number: Card Reader
Rev: 0.2

Date: Monday, September 28, 2020

Mini-Express Card(WLAN/WiMAX)

Copy Wlan common design



Security Classification	LCFC Highly Confidential Information			Title	S360_ALC
Issued Date	2012/07/01	Deciphered Date	2014/07/01	Size C	Document Number WLAN — Rev 0.2
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LCFC

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

LCFC

Size C

Document Number WWAN

Rev 0.2

Date: Monday, September 28, 2020

LAN Circuit MOVE to SUB Board in V360 DB V14V15

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

LCFC

Size	Document Number	Rev
A	LAN Chipset	0.2

Date: Monday, September 28, 2020

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

LCFC

Size C

Document Number LAN Transformer

Rev 0.2

Date: Monday, September 28, 2020

Title: S360_ALC

LCFC

Size	Document Number	Rev
C	LAN CONN	0.2

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

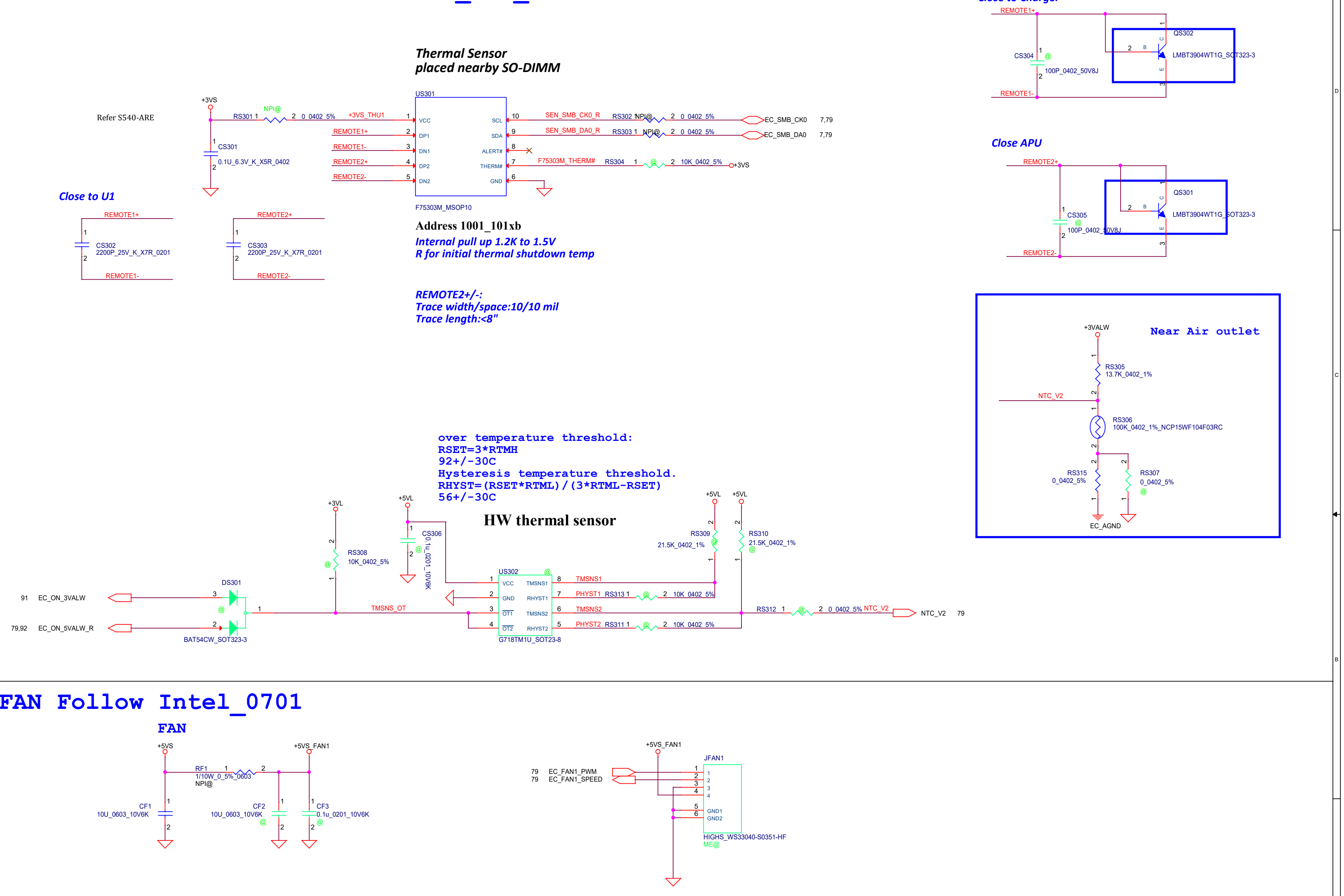
LCFC

Size	Document Number	Rev
D	Sensor	0.2

Date: Monday, September 28, 2020

APU Thermal Sensor Follow S750_ARH_0701

FAN Follow Intel_0701



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC
Size: Custom | Document Number: Sensor | Rev: 0.2
Date: Monday, September 28, 2020

FPC+cable+Wire

Intel Record

3VALW for LED&V360 Lanchip Power；
3VS for S360 Card Reader，V360 ISOLATE_N

USB2.0_1 For USB2.0 Connector；
USB2.0_6 For S360 Card Reader

AMD Record

USB2.0_4 For USB2.0 Connector；
USB2.0_5 For S360 Card Reader

For IO USB2.0

For IO C&R S360

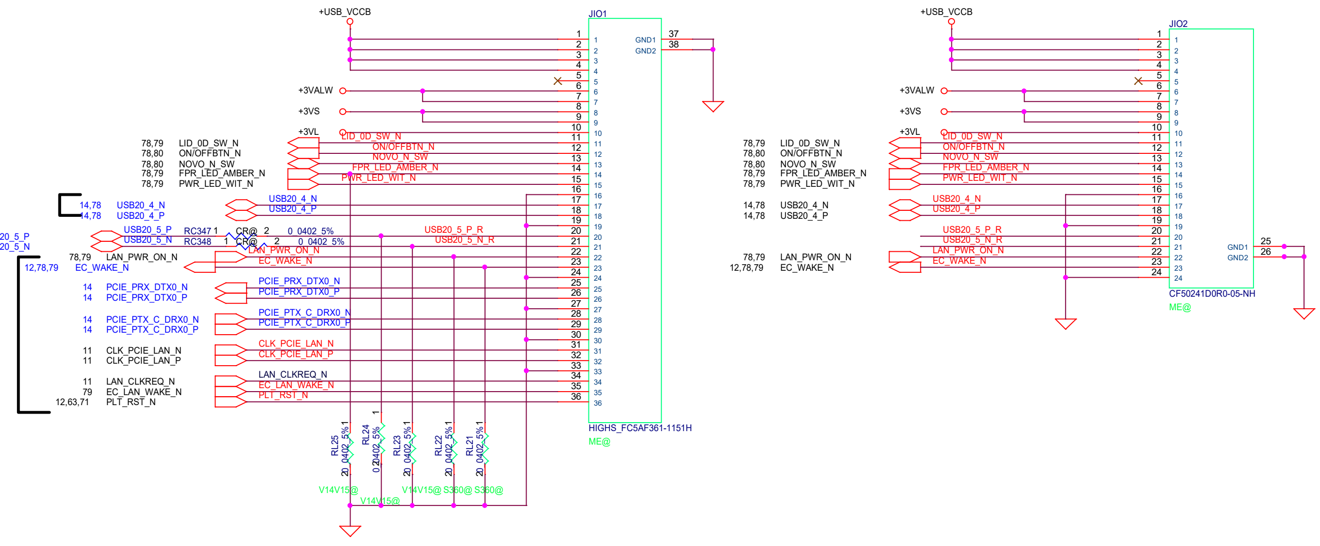
PIN23 Intel is PCH_LAN_WAKE_N
AMD IO Board Reserd 0R to this PIN:EC_WAKE_N(EC&APU)_0708

For LAN

EC_LAN_WAKE_N: Lan to EC GPJ7 For V360

V14V15: USB2.0 LAN

S360: USB2.0 C&R

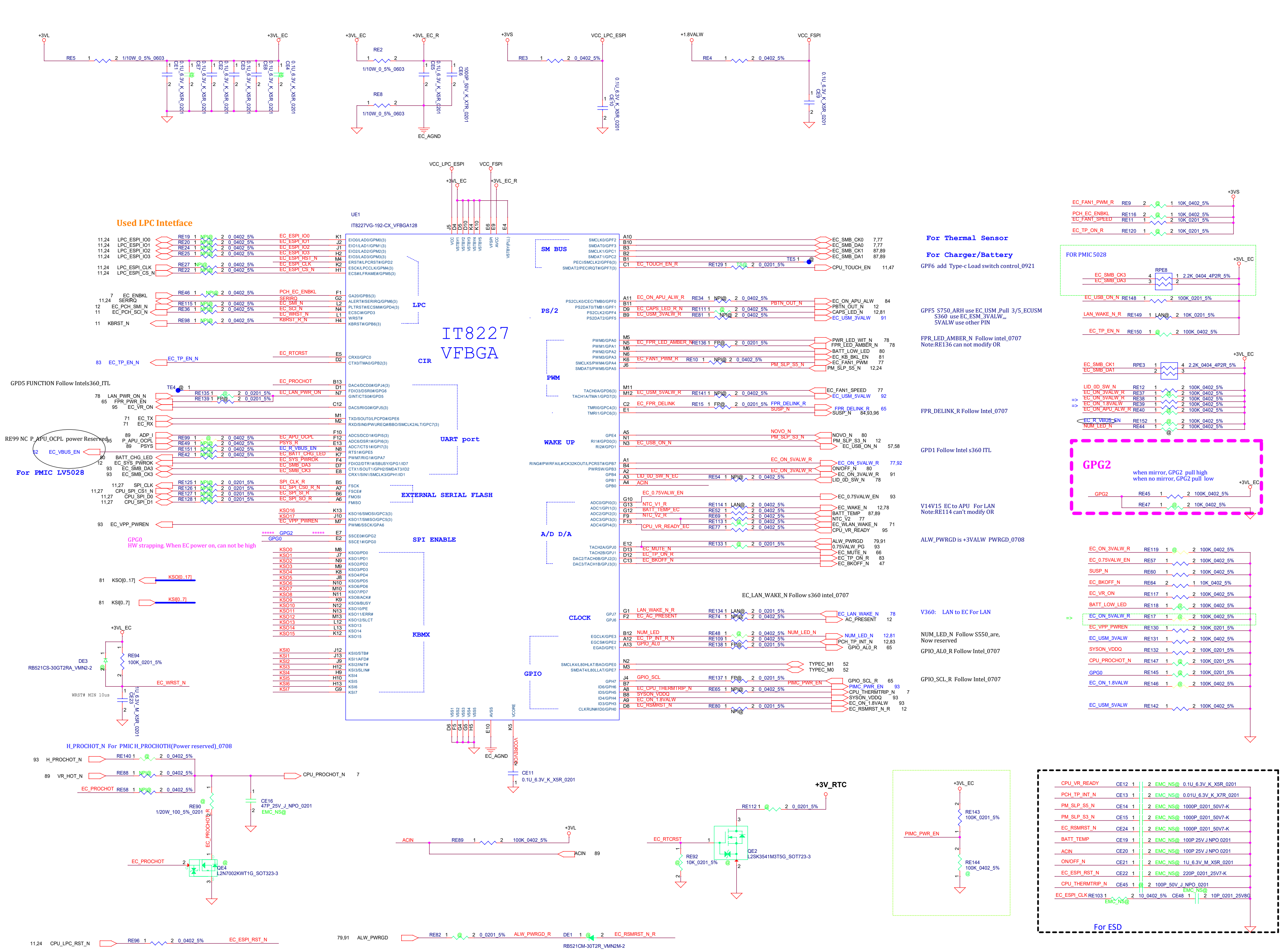


Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

Size: C | Document Number: Sub Board CONN | Rev: 0.2

Date: Monday, September 28, 2020 |



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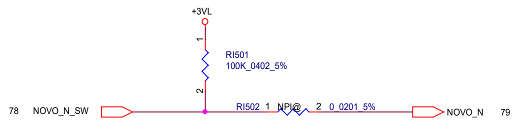
Title: S360_ALC

LCFC

Size	Document Number	Rev
Custom	EC	0.2

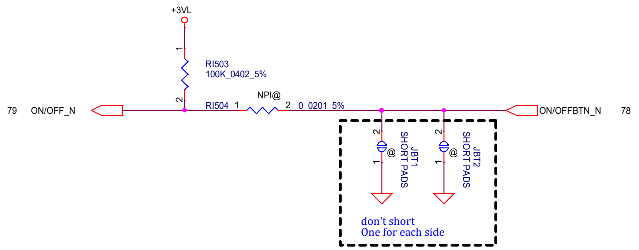
Date: Monday, September 28, 2020 | Sheet 79 of 110

NOVO BUTTON

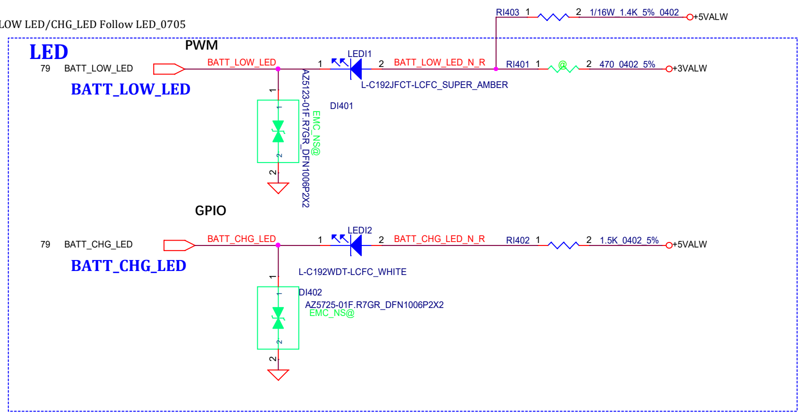


PWR BUTTON

Nove button:follow S750 RI504 0R , Intel 2.2k



LOW LED/CHG_LED Follow LED_0705



Power LED
check S750_ARH IO Board_0705

Grudual 1s on ,Gradual 1s off ,2s off

LED	State	LED Behavior
State (Same as the power button LED)	System on	White_on(battery: 21%~100%)
		500ms on,500ms off(battery: 0%~20%)
	Standby LID closed	
	System off	OFF
Charging	Battery only	OFF
	Charging	Amber_on(battery: 1%~90%)
		White on(battery: 91%~100%)

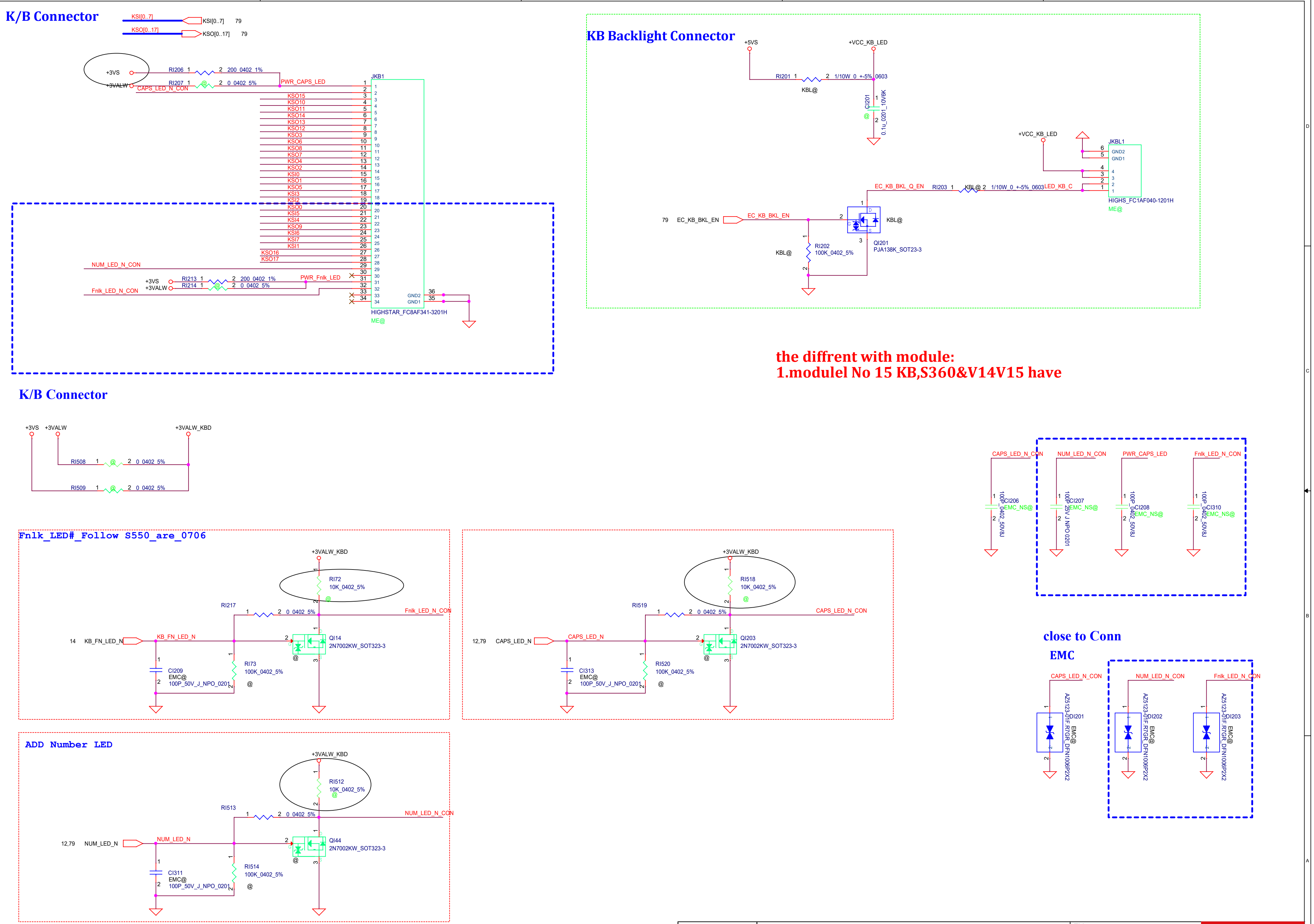
Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

LCFC

Size: C
Document Number: LED/Button
Rev: 0.2

Date: Monday, September 28, 2020



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Issued Date	2012/07/01	Deciphered Date	2014/07/01

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Size: C | Document Number: KB/KBBL CONN | Rev: 0.2

Date: Monday, September 28, 2020 | Sheet 81 of 110

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

LCFC

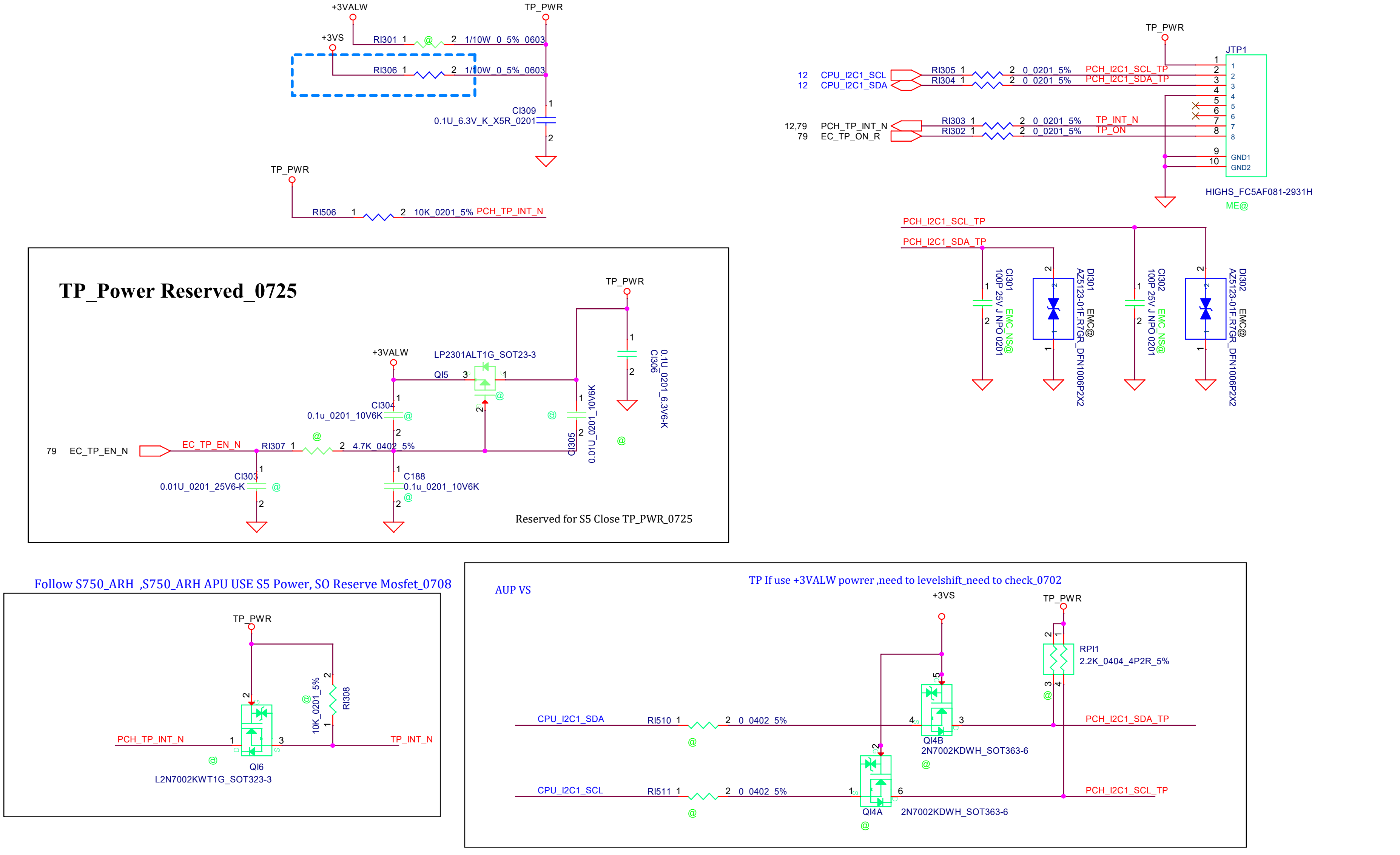
Size C | Document Number **Anti Ghost KB** | Rev 0.2

Date: Monday, September 28, 2020 | Sheet 82 of 110

Touch Pad

(the diffrent with Base MODULE:
1.Module no RI306,S360&V14&V15 Rerserve) Intel 备注

Need support wake up by touch pad
Follow latest UE spec

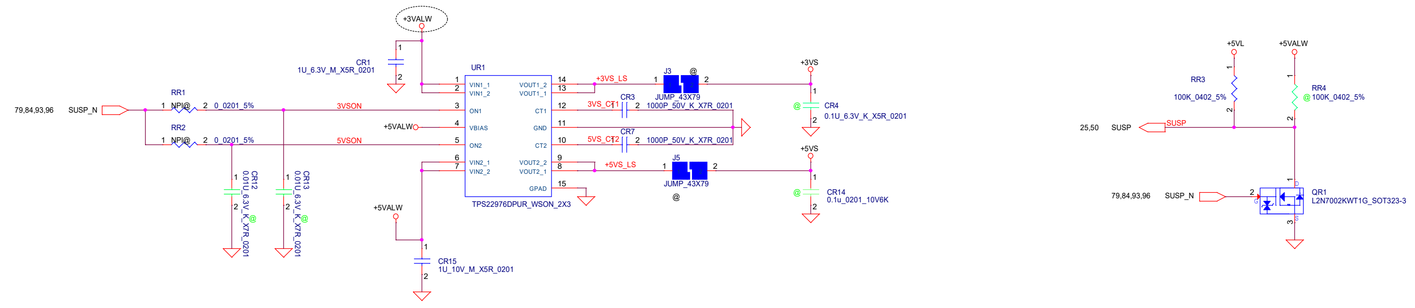


Security Classification	LCFC Highly Confidential Information			Title
Issued Date	2012/07/01	Deciphered Date	2014/07/01	S360_ALC

Size: Custom | Document Number: TouchPad CONN | Rev: 0.2

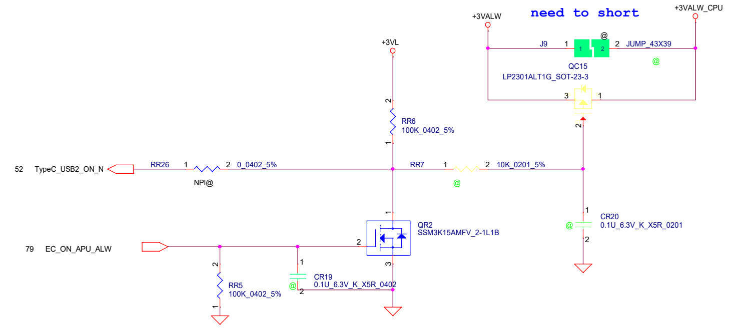
Date: Monday, September 28, 2020 |

3VS/5VS

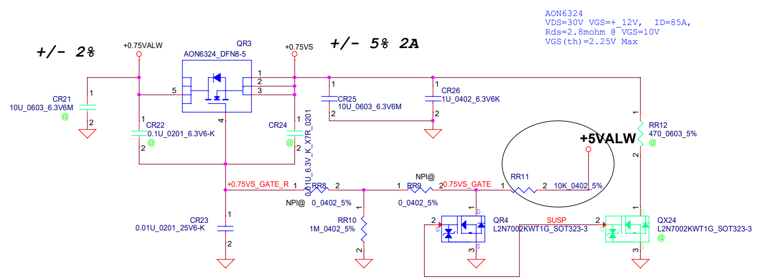


QR1 change 2N7002 footprint SOT363-6 to sot323-3

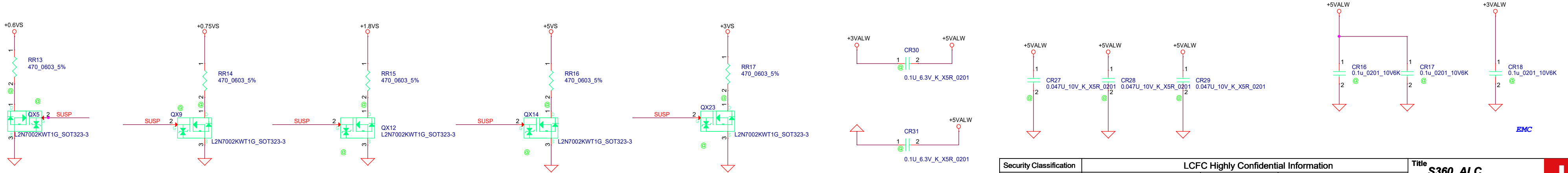
TO +3VALW_APU



TO +0.75VS



For DisCharge



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

LCFC

Size: Custom | Document Number: DCDC SYSTEM PWR | Rev 0.2

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S360_ALC

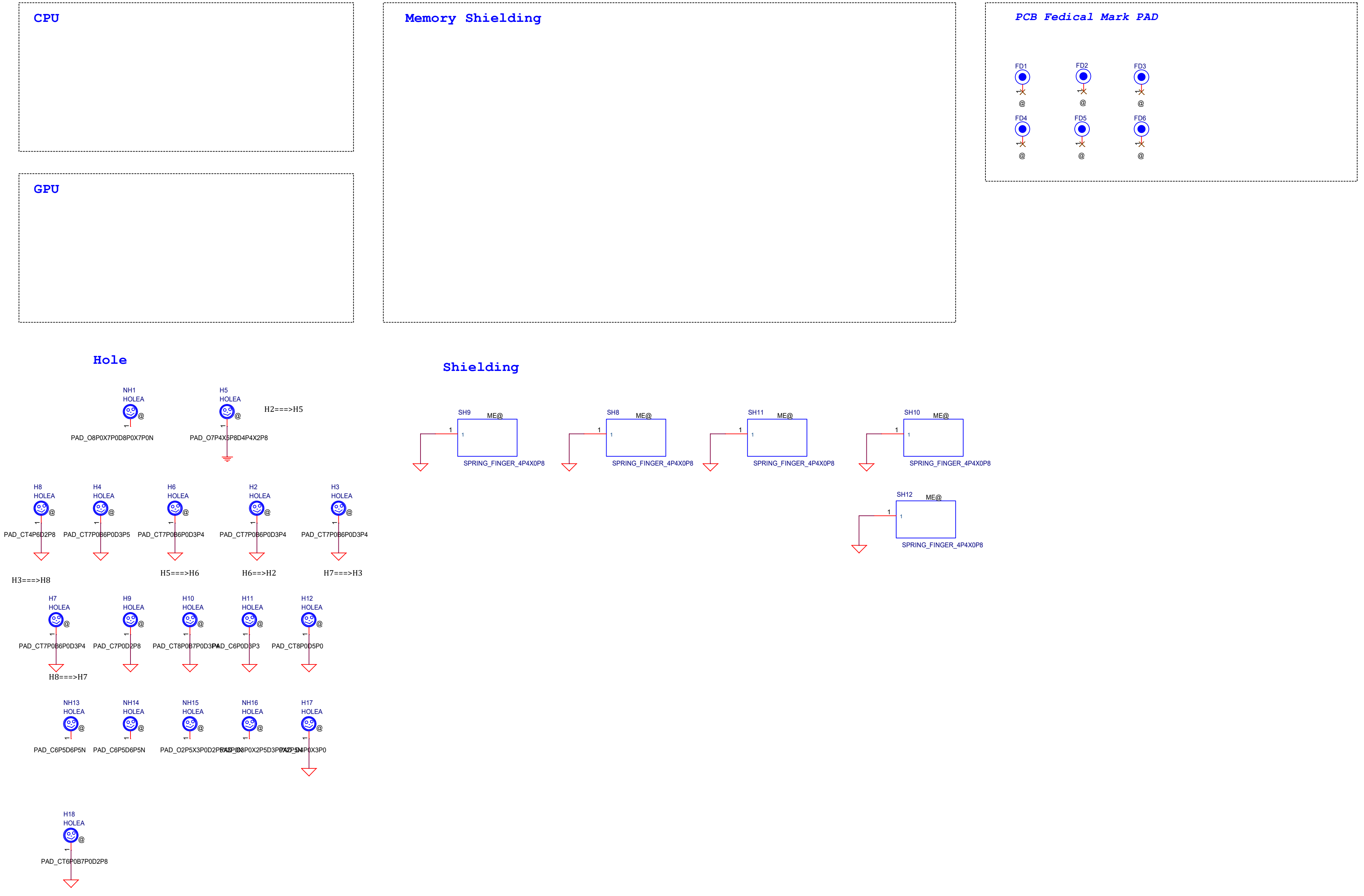
LCFC

Size C

Document Number DCDC MS PWR

Rev 0.2

Date: Monday, September 28, 2020



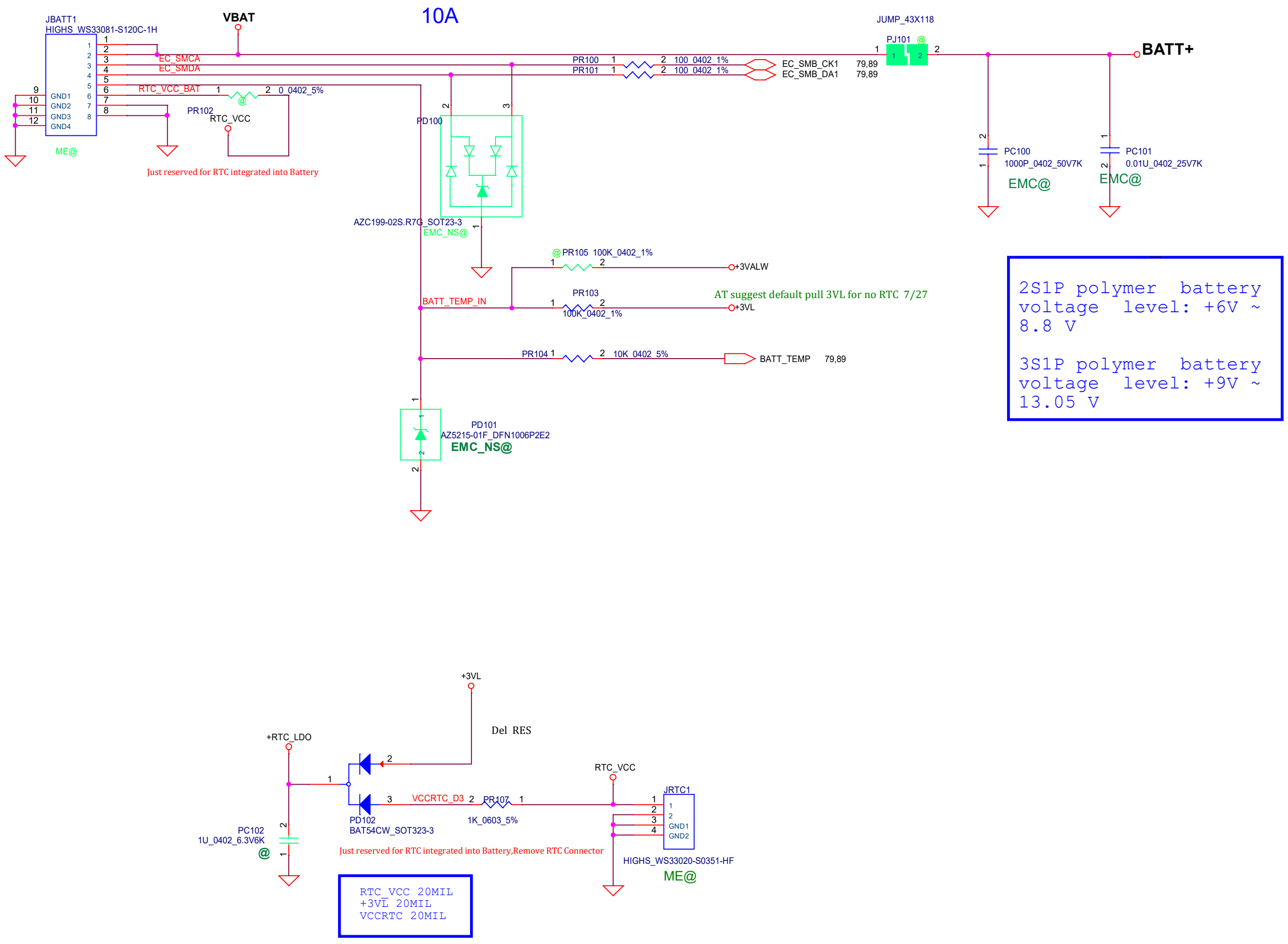
Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

LCFC

Size: C
Document Number: Hole/Shielding
Rev: 0.2

Date: Monday, September 28, 2020

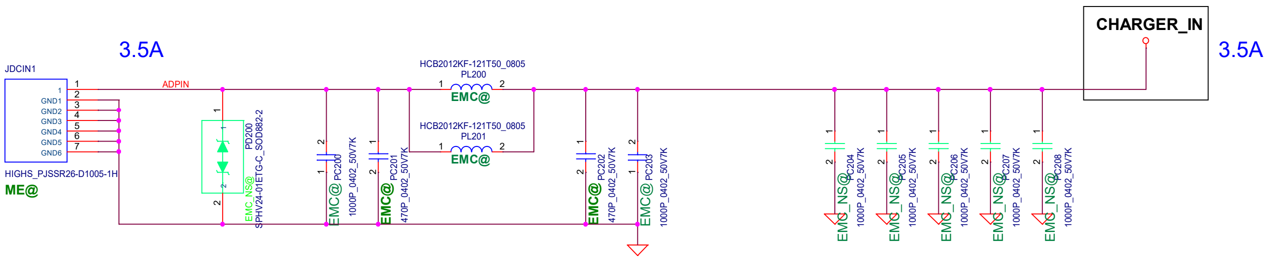


Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

LCFC

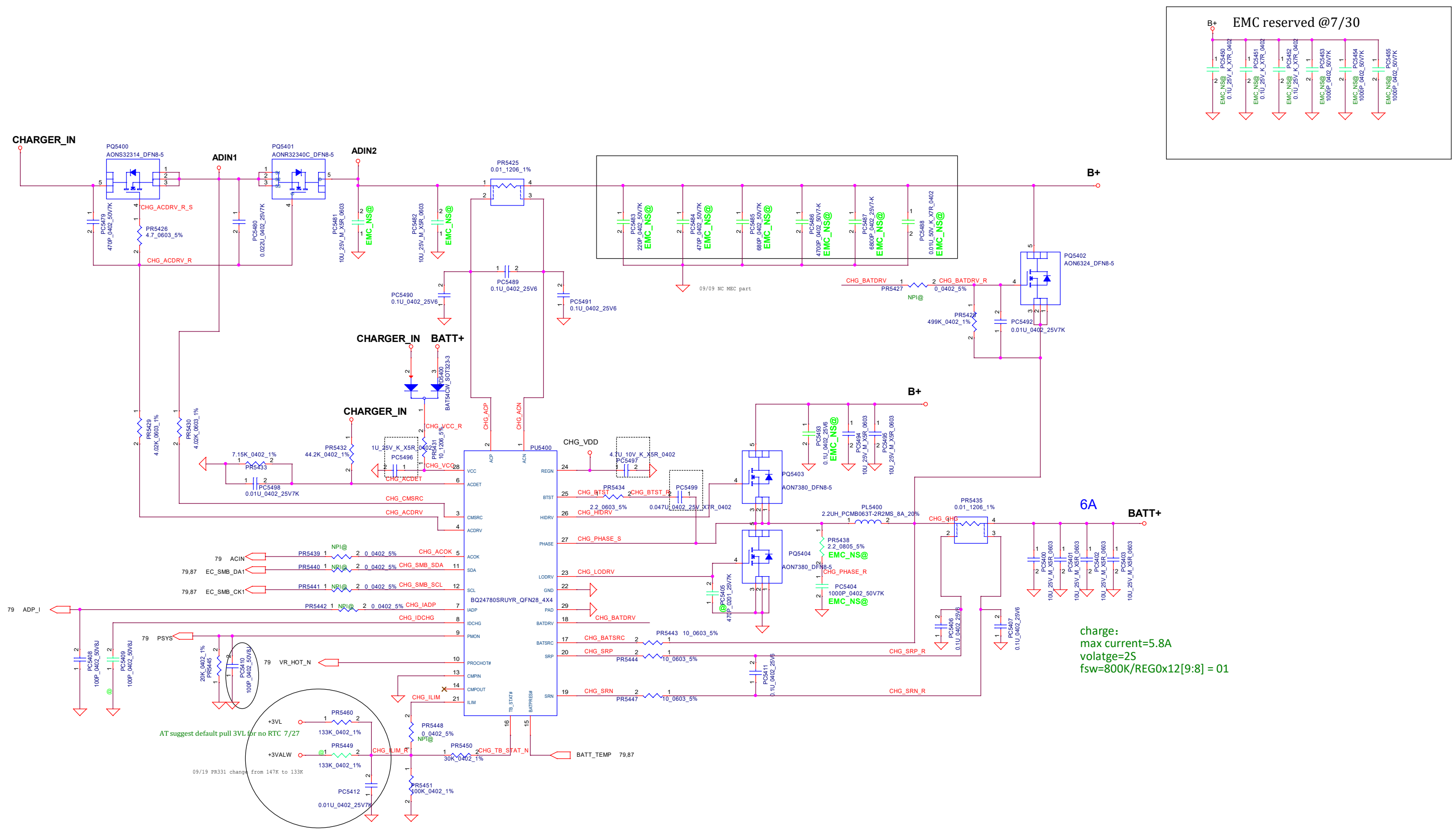
Size: C | Document Number: PWR DCIN/RTC | Rev: 0.2



Security Classification	LC Future Center Secret Data		
Issued Date	2019/11/06	Deciphered Date	2019/11/05

Title: S360_ALC

Size	Document Number	Rev
C	PWR ACIN	0.2



ACDECT setting 17.2V
Charge current limit HW=7A
DC discharge limit =28A
Discharge current limit HW=9A during Turbo boost

IDPM	V(ILIM)	PR5320
500mA	1.2V	402K
1.0A	1.4V	332K
1.5A	1.6V	280K
2.0A	1.8V	237K
3.0A	2.2V	174K
3.25A	2.3V	162K
4.0A	2.6V	162K

← LOGIC

VILIM=1V+40x(VACP-VACN)=1+40xIDPMxRAC

IND IN USE	PR5333
1uH	93K
2.2uH	137K
3.3uH	169K

← LOGIC

# of CELL	VCELL_PRES	PR5322
1-CELL	1.5V	301K
2-CELL	2.4V	150K
3-CELL	3.3V	82K
4-CELL	4.5V	33.2K

← LOGIC

Security Classification	LC Future Center Secret Data		
Issued Date	2019/11/06	Deciphered Date	2019/11/05

Title: S360_ALC

Size: D | Document Number: PWR CHARGER | Rev: 0.2

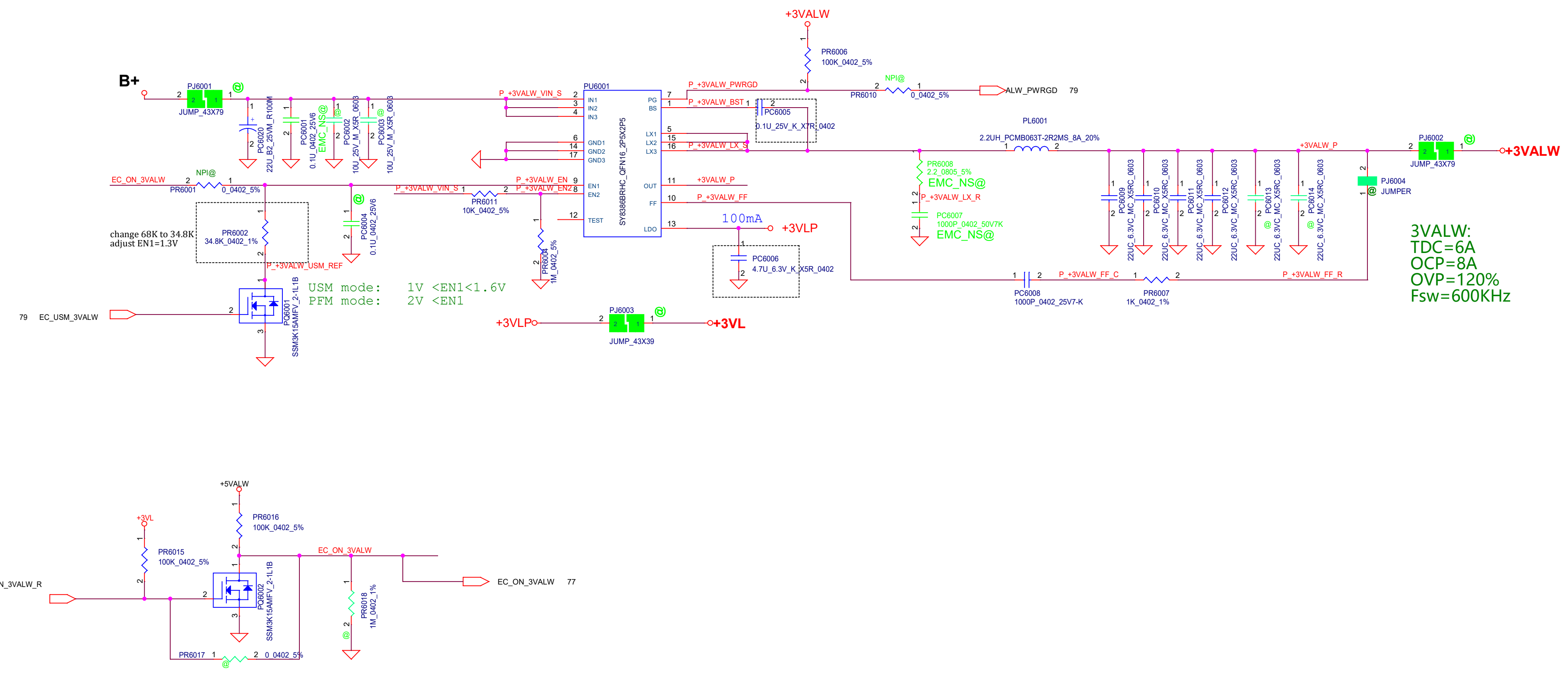
Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title S540-TGL

LCFC

Size C | Document Number PWR_DCC | Rev 0.1

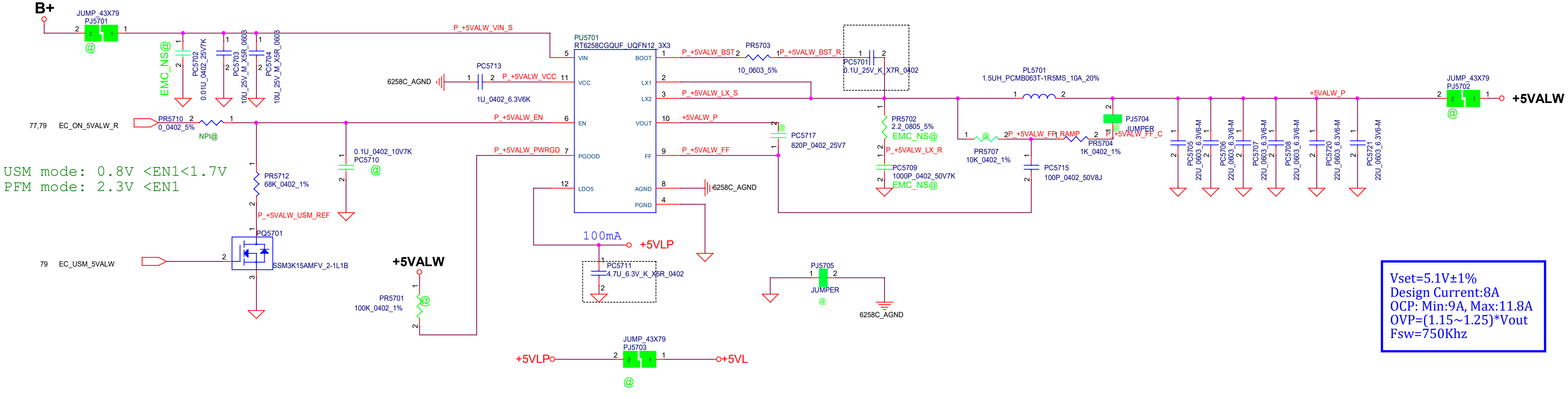
Date: Monday, September 28, 2020 |



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title	S360_ALC		
Size C	Document Number PWR_3VALW		Rev 0.2
Date: Monday, September 28, 2020	Sheet 91 of 110		

LCFC



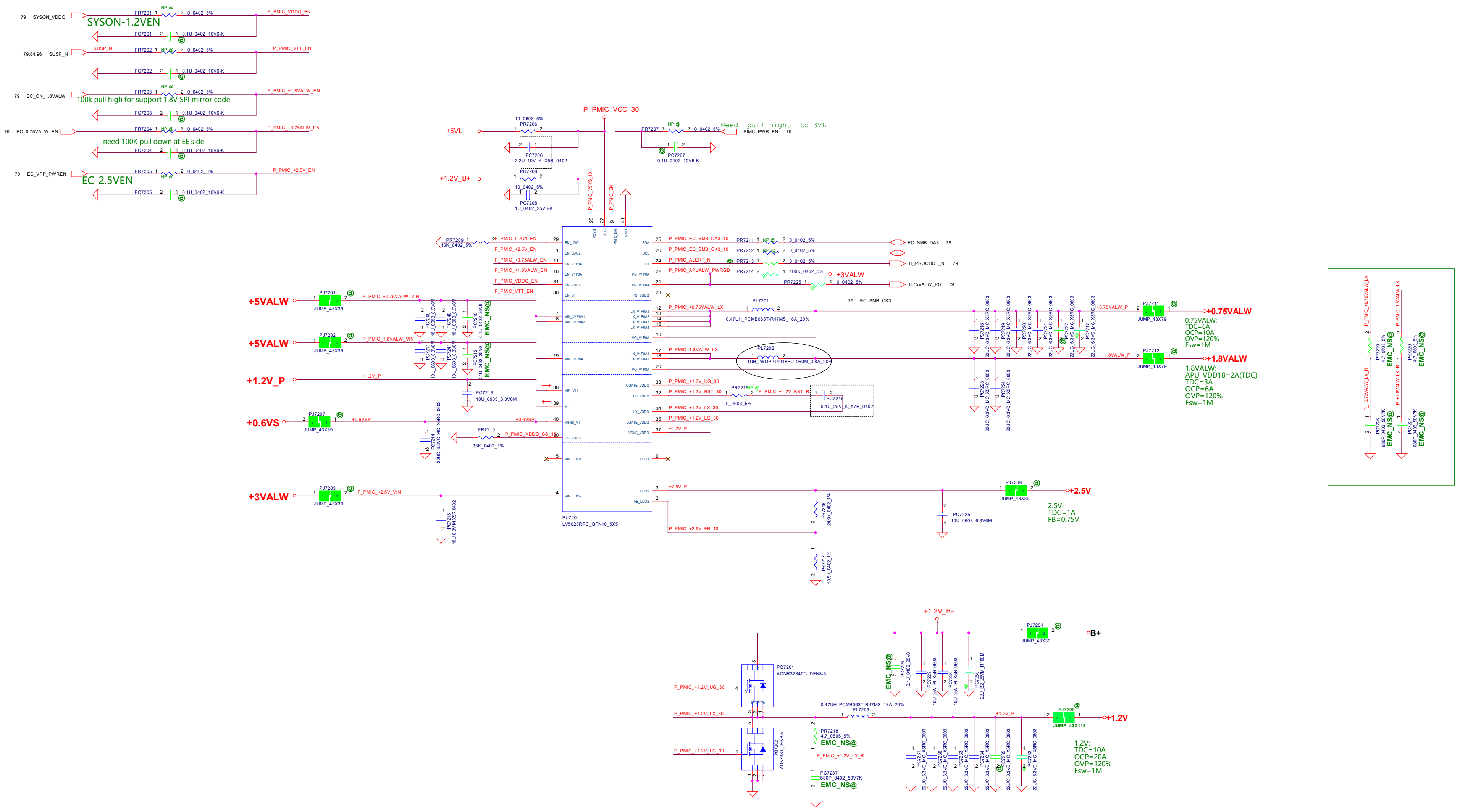
Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

LCFC

Size: C | Document Number: PWR_5VALW | Rev: 0.2

Date: Monday, September 28, 2020 |



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

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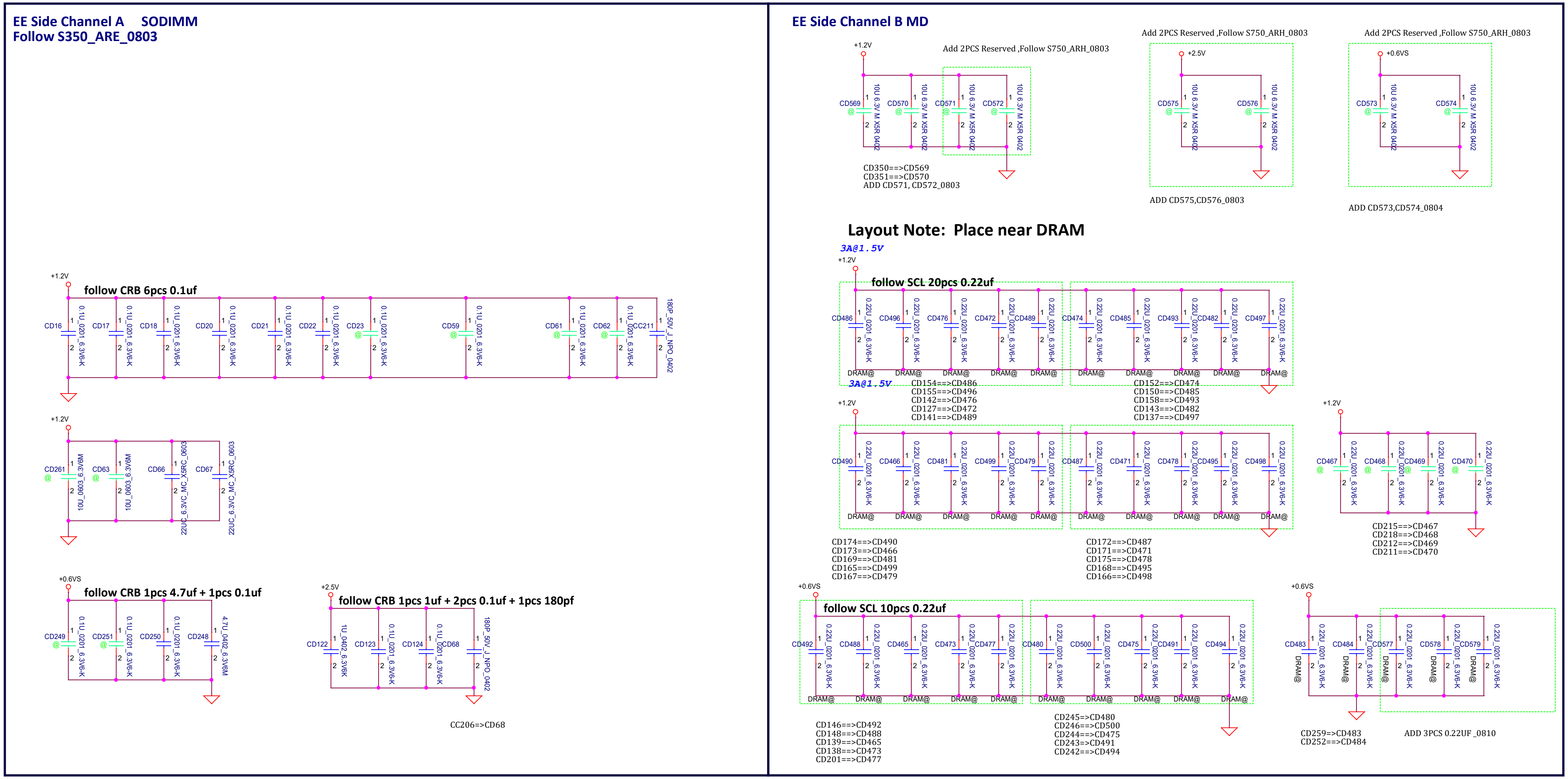
Title: S360_ALC

LCFC

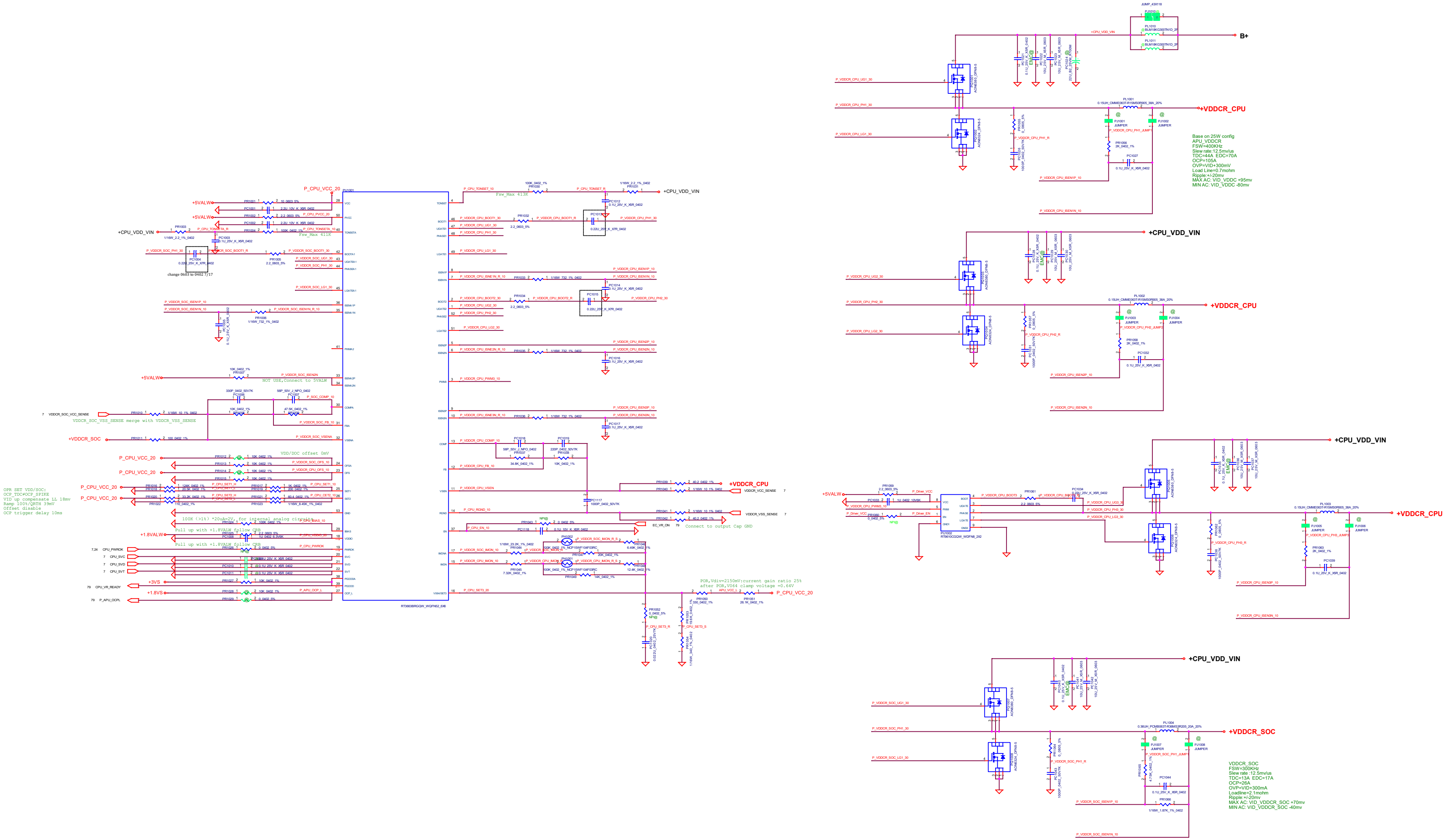
Size: D | Document Number: PWR SysPMIC | Rev: 0.2

Date: Monday, September 28, 2020 | Sheet 93 of 110



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC
Size: C
Document Number: PWR Memory Decoupling
Rev: 0.2
Date: Monday, September 28, 2020



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

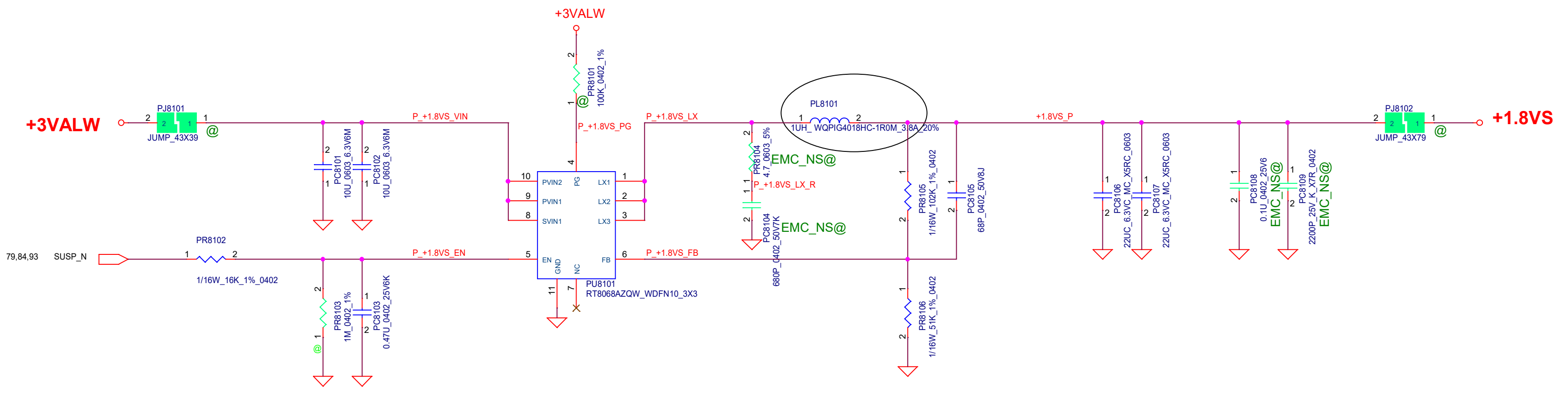
LCFC

Size: E

Document Number: PWR_CPU Controller

Rev: 0.2

Date: Monday, September 28, 2020



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

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Title: S360_ALC

LCFC

Size	Document Number	Rev
C	PWR 1.8VS	0.2

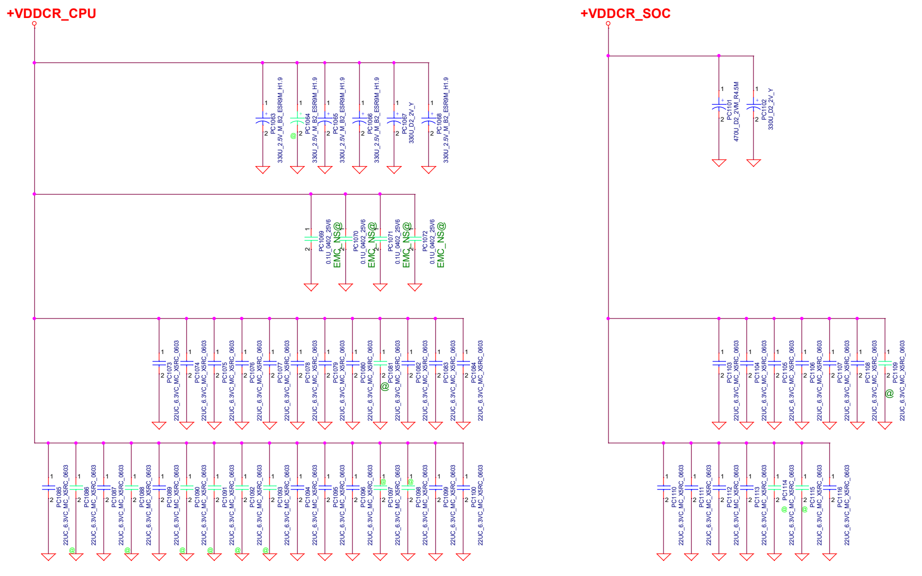
Date: Monday, September 28, 2020 Sheet 96 of 110

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title <Title>

LCFC

Size C Document Number <Doc> Rev <RevCode>



Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S360_ALC

LCFC

Size	Document Number	Rev
D	PWR CUP Decouping	0.2

Date: Monday, September 28, 2020

Title <Title>

LCFC

Size	Document Number	Rev
B	<Doc>	<RevCode>

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title <Title>

LCFC

Size	Document Number	Rev
C	<Doc>	<RevCode>

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title <Title>

LCFC

Size D | Document Number <Doc> | Rev <RevCode>

Date: Monday, September 28, 2020 |

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title	<Title>		
Size: D	Document Number: <Doc>	Rev: <RevCode>	
Date: Monday, September 28, 2020	Sheet 103 of 110		

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title: S540-TGL

LCFC

Size	Document Number	Rev
B	PWR GPU PWR2	0.1

Date: Monday, September 28, 2020

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title <Title>

LCFC

Size B | Document Number <Doc> | Rev <RevCode>

Date: Monday, September 28, 2020 |

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title
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Size	Document Number	Rev
D	<Doc>	<RevCode>

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title <Title>

LCFC

Size	Document Number	Rev
C	<Doc>	<RevCode>

Date: Monday, September 28, 2020 Sheet 107 of 110

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title <Title>

LCFC

Size	Document Number	Rev
D	<Doc>	<RevCode>

Date: Monday, September 28, 2020 | Sheet 108 of 110

Security Classification	LCFC Highly Confidential Information		
Issued Date	2012/07/01	Deciphered Date	2014/07/01

Title <Title>

LCFC

Size D	Document Number <Doc>	Rev <RevCode>
Date: Monday, September 28, 2020	Sheet 109 of 110	

Title <Title>

LCFC

Size	Document Number	Rev
D	<Doc>	<RevCode>