

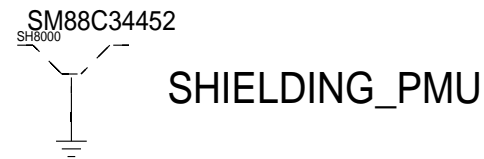
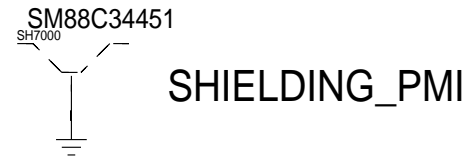
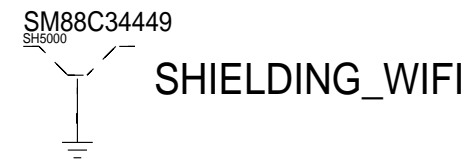
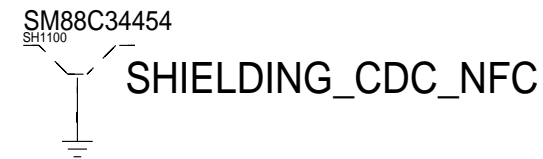
CPU	SDM636 - 0	3CA+ NO CDMA, 1.8G
SC98C23230	SDM636 - 1	2CA+CDMA, 1.8G
SC98C22620	SDM636 - 2	2CA+ NO CDMA, 1.8G
SC98C23231	SDM636 - 3	3CA+CDMA, 1.8G
SC98C23232		

MEMORY DENSITY	VENDOR PN	VENDOR	LENOVO PN
4+64	KMDH6001DA-B422	SAMSUNG	SM38C28210
	H9HP52ACPMADAR-KMM	HYNIX	SM38C33882
	MT29VZZAD8DQKSL-046	MICRON	SM38C35427
4+128	MT29VZZAD9DQKSM-046	MICRON	SM38C46633
6+128	KM3V6001CM-B705	SAMSUNG	SM38C20203

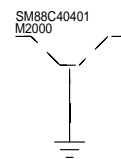
VARIANTS		MARKET MODEL	MEMORY	SIM	NFC	CPU	PCBA
LA	LATAM,BRAZIL	XT1965-2	4+64G	DS	YES	SDM636-2	SP68C35674
WE	WE+JANZ	XT1965-3	4+64G	DS	YES	SDM636-2	SP68C35675
PRC	PRC	XT1965-6	4+128G 6+128G	DS	NO	SDM636-1	SP68C40451 SP68C40453

RioH ME/SHIELDS

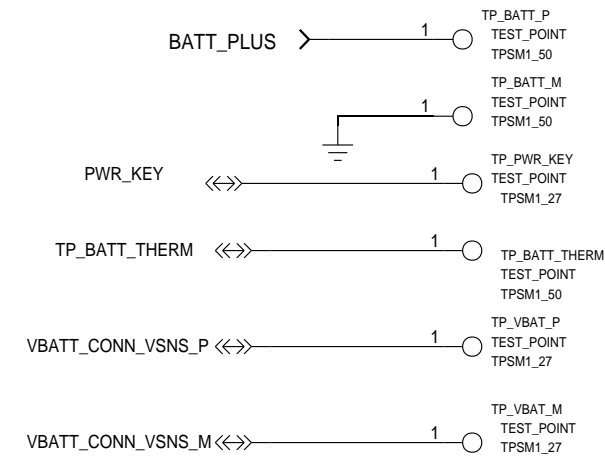
PCB SHIELDING



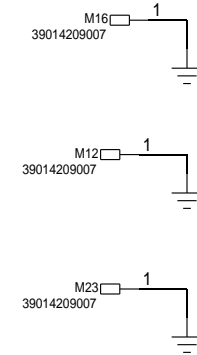
ME CARRIER FIX



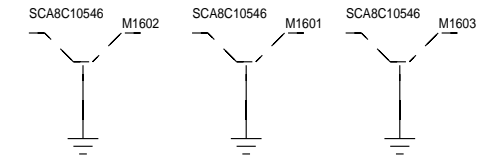
FACTORY TEST POINT FOR USB



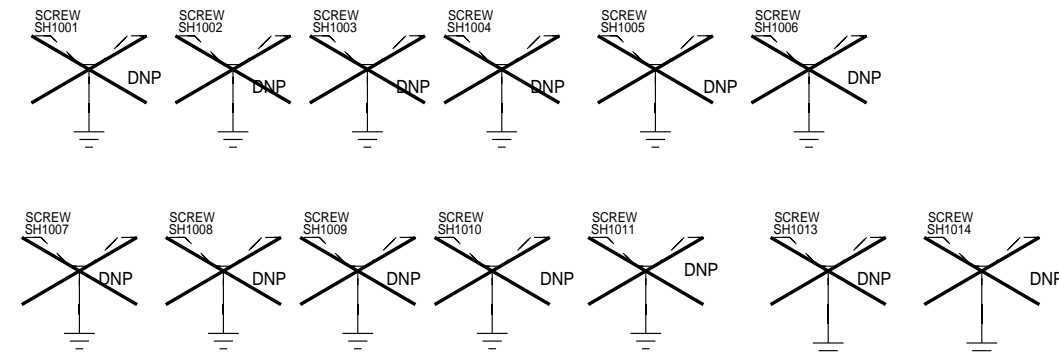
GROUND CONTACTS



RF CABLE CLIP



SCREW

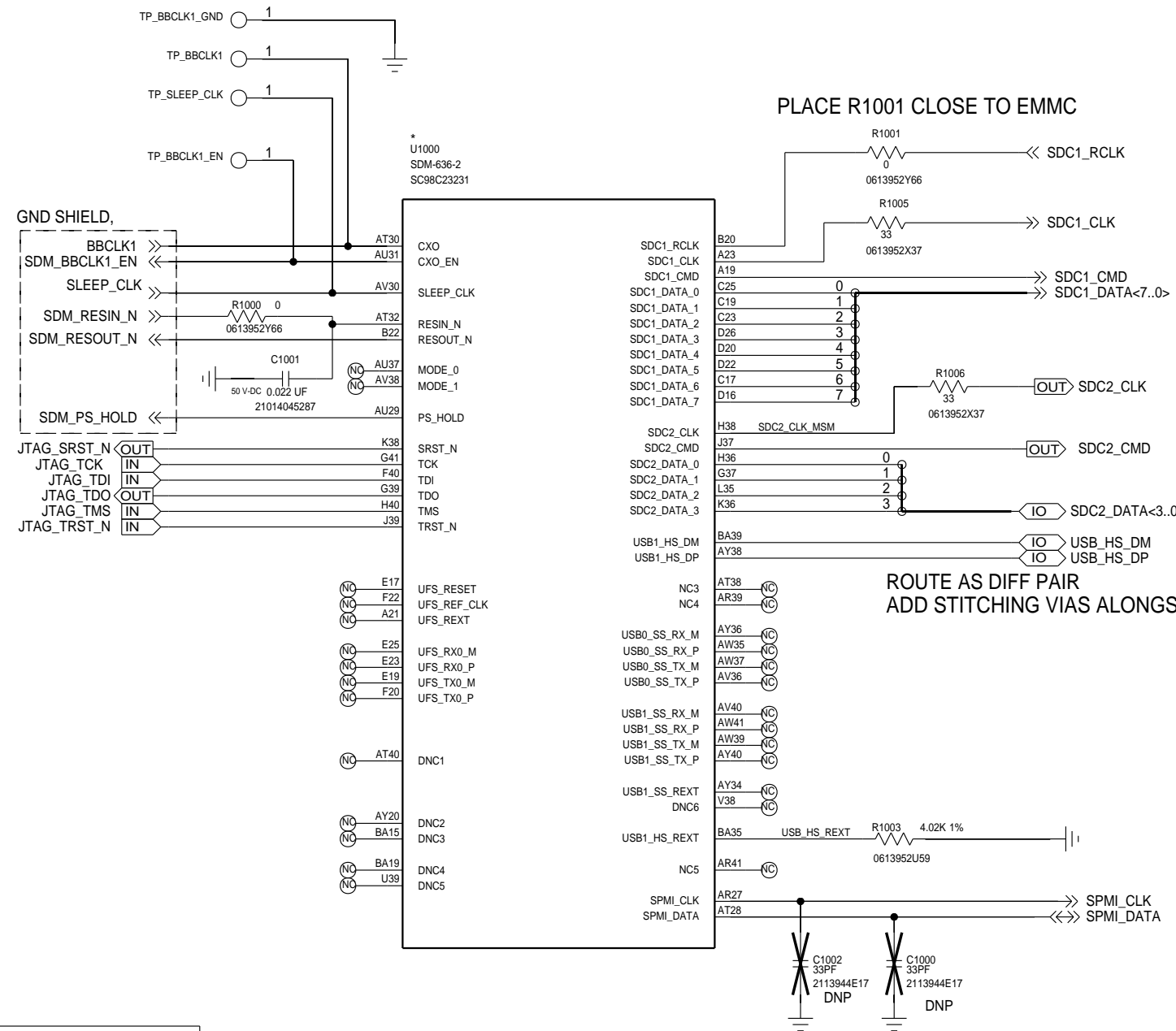


MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

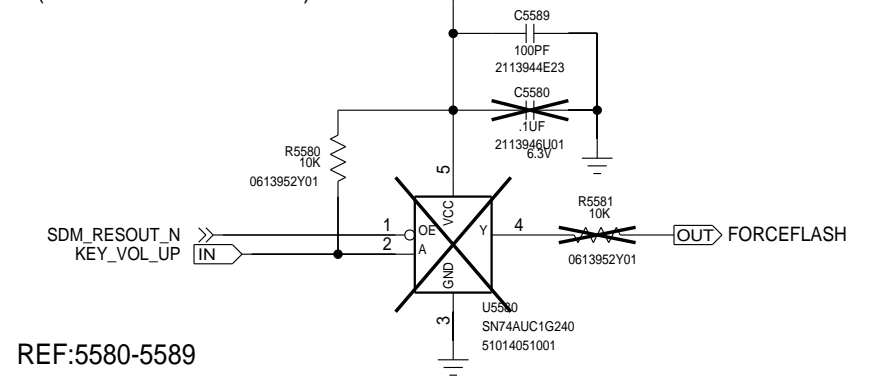
APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:20 2018		rioh	
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		CAD FILE NAME:	
		PAGE 2 OF 66	

SDM: CTRL

REF 1000-1099



FORCE FLASH SUPPORT WITH VOL UP KEY (DNI FOR PRODUCTION)



REF:5580-5589

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:27 2018		ap_pmic	
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		CAD FILE NAME:	
		PAGE 3 OF 66	

SDM: MIPI/DSI/CSI/EBIO

REF 1200-1299

D

C

B

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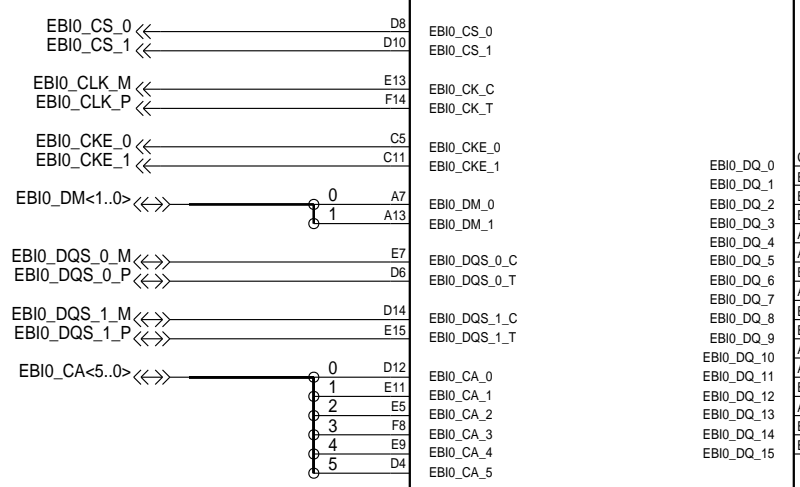
D

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U1000
SDM-636-2
SC98C23231



GND SHIELD FOR EBIO AS A GROUP IF POSSIBLE

GND SHIELD FOR CSI3 AS A GROUP IF POSSIBLE

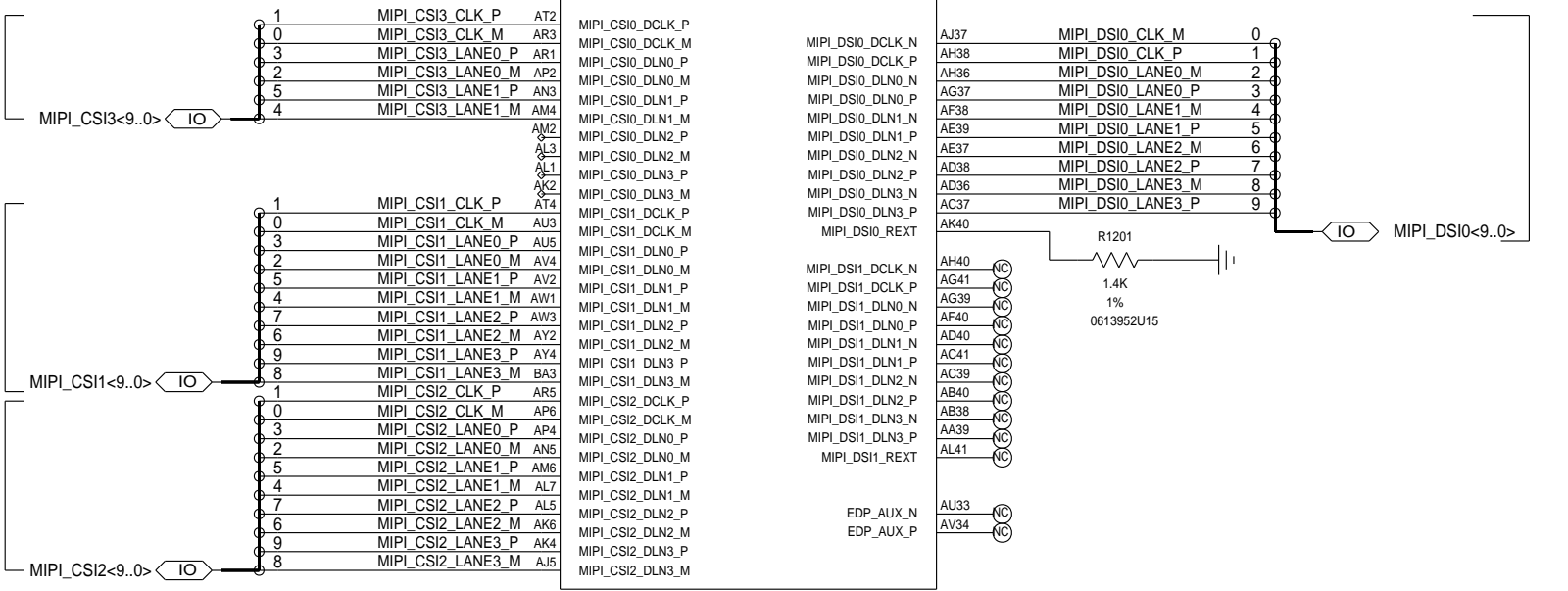
REAR AUX CAMERA

REAR CAMERA

FRONT CAMERA

GND SHIELD FOR CSI2 AS A GROUP IF POSSIBLE
GND SHIELD FOR CSI1 AS A GROUP IF POSSIBLE

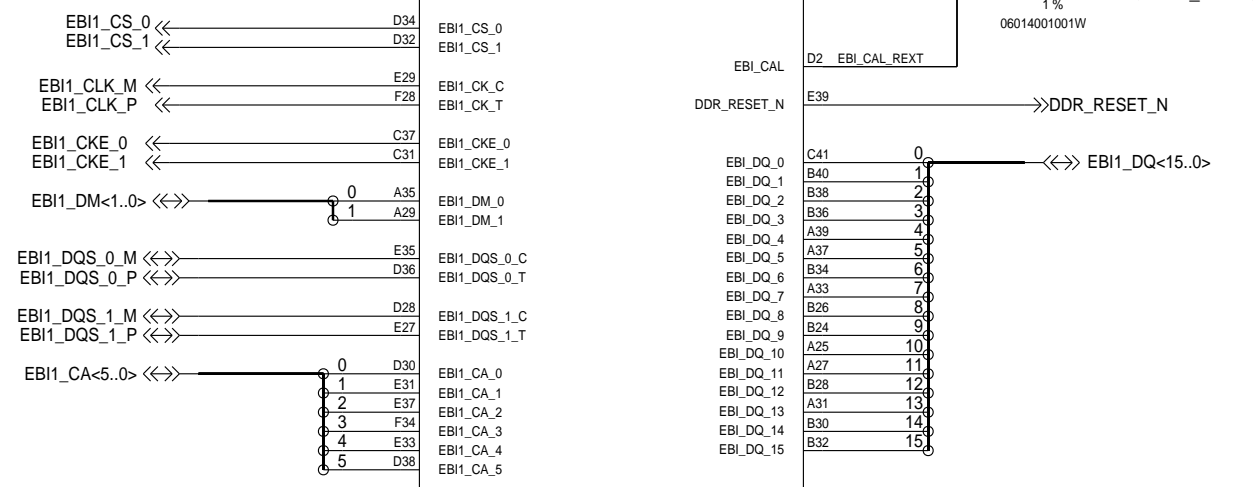
U1000
SDM-636-2
SC98C23231



GND SHIELD FOR DSI0 AS A GROUP IF POSSIBLE

ADD GND STITCHING VIAS FOR EACH SIGNAL GROUP (EBI,CSI,DSI) WHEN POSSIBLE

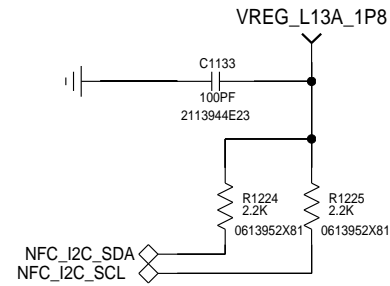
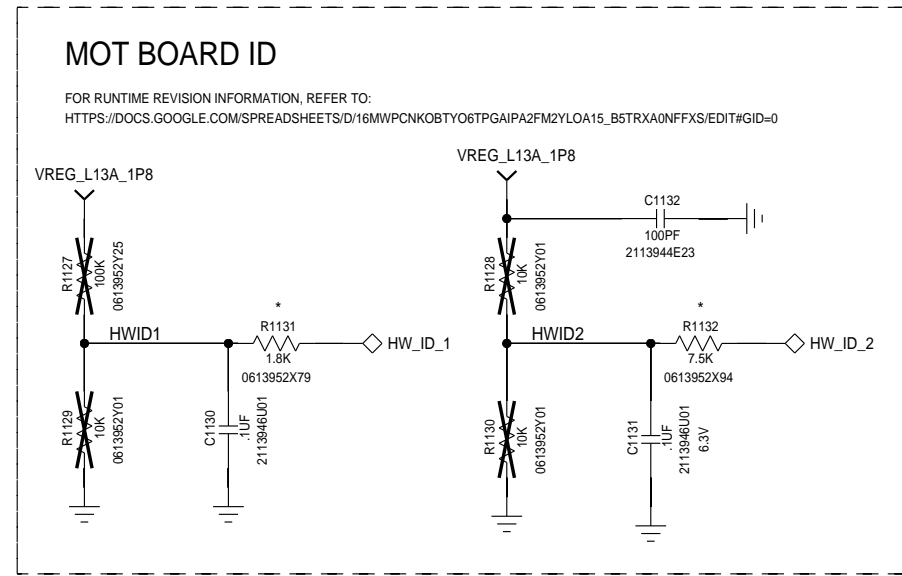
U1000
SDM-636-2
SC98C23231



GND SHIELD FOR EBI1 AS A GROUP IF POSSIBLE

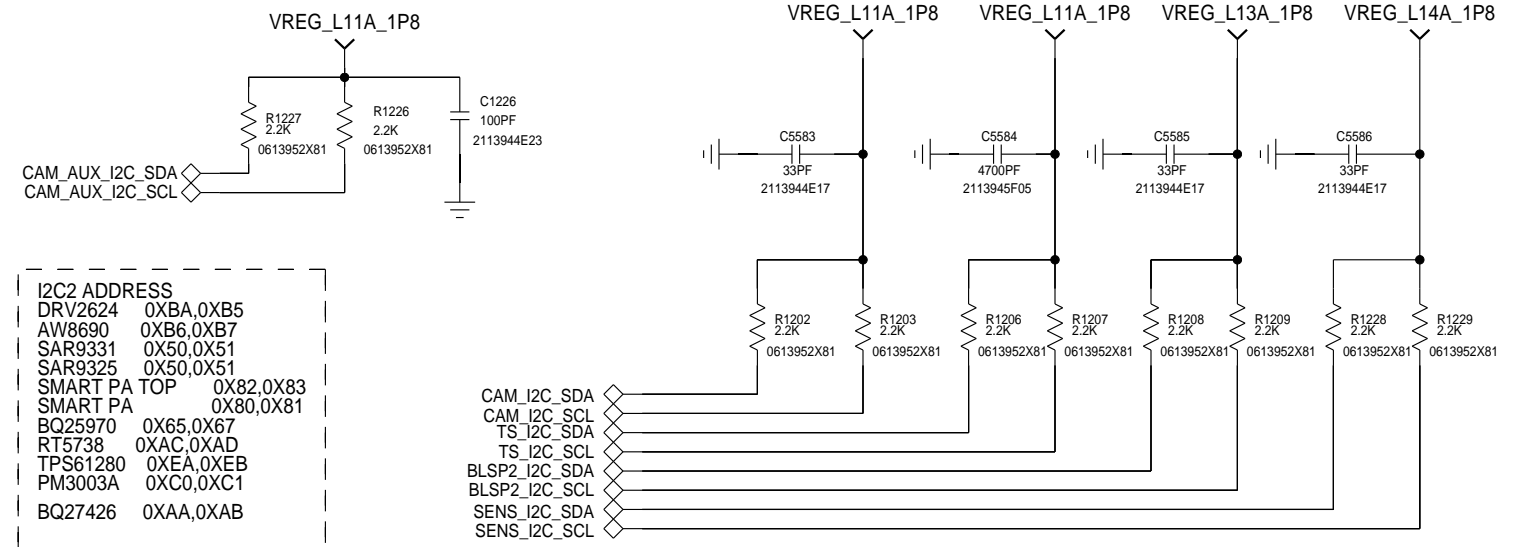
APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE: ap_pmic	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:28 2018		PROJECT NAME rioh.cpm	
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		PAGE 4 OF 66	

SDM: GPIO (0-141) REF 1200-1299



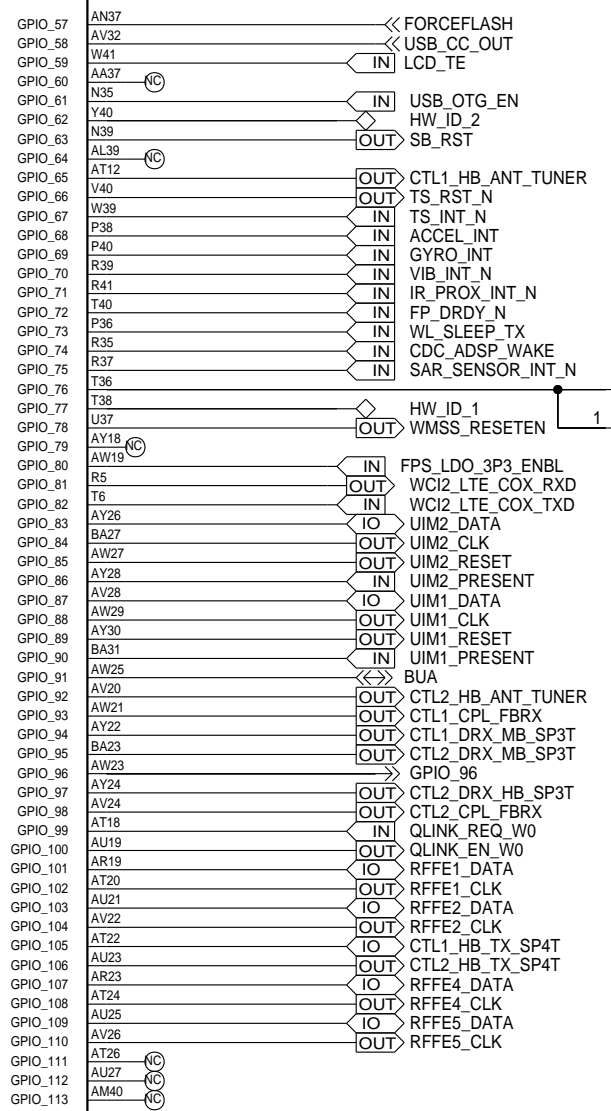
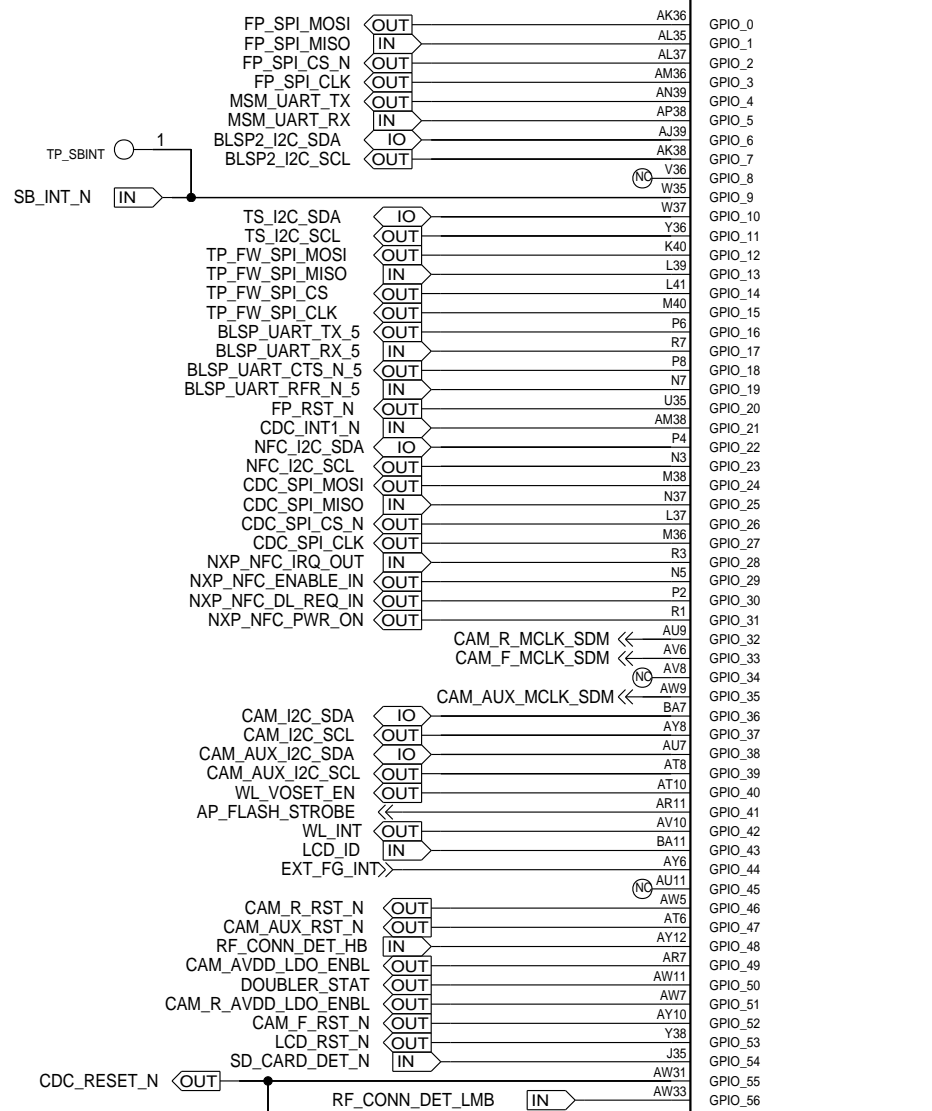
I2C2 ADDRESS

DRV2624	0XB6,0XB5
AW8690	0XB6,0XB7
SAR9331	0X50,0X51
SAR9325	0X50,0X51
SMART PA TOP	0X82,0X83
SMART PA	0X80,0X81
BQ25970	0X65,0X67
RT5738	0XAC,0XAD
TPS61280	0XEA,0XEB
PM3003A	0XC0,0XC1
BQ27426	0XAA,0XAB



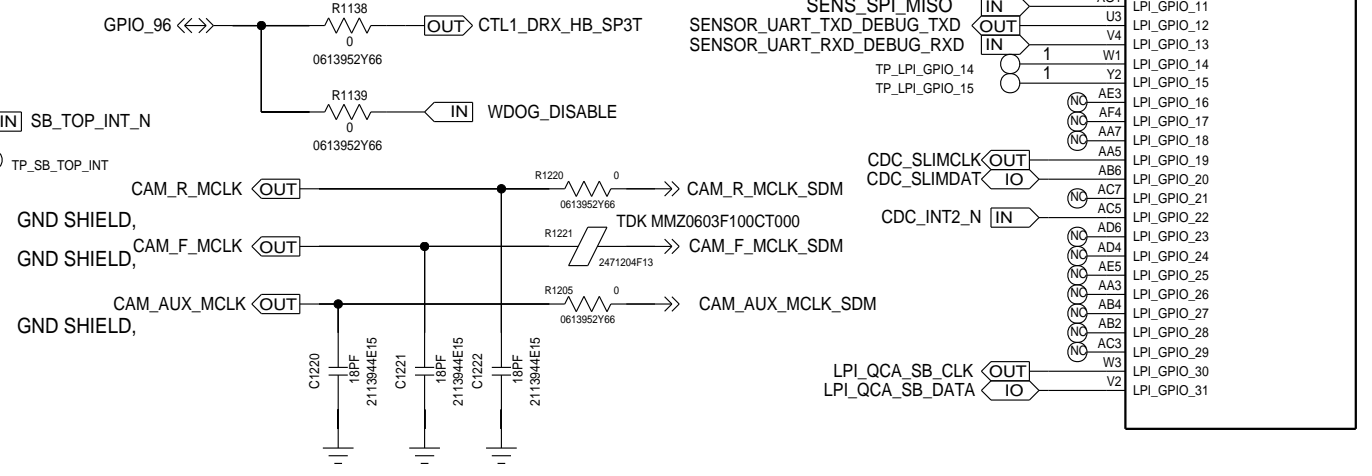
* U1000
SDM-636-2
SC98C23231

* U1000
SDM-636-2
SC98C23231



GPIO92,
GPIO93,
GPIO64,
GPIO63,
GPIO113,
GPIO53,
FOR SECURE BOOT, MAKE SURE NO PULLUP.

GPIO96,
GPIO97,
GPIO98,
GPIO60,
GPIO111,
FAST BOOT DEFAULT 0X00, MAKE SURE NO PULLUP.



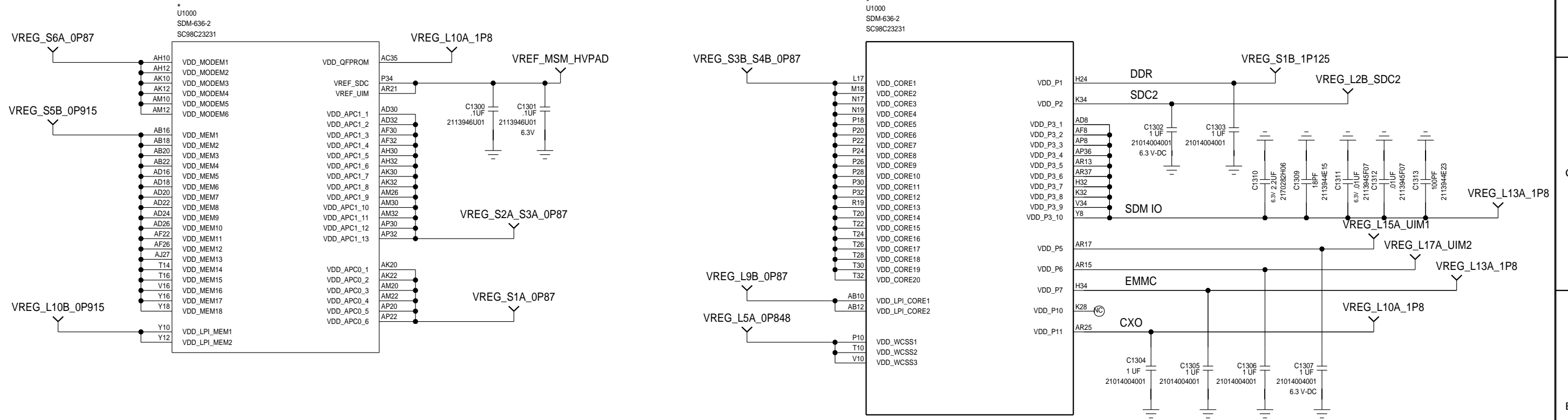
ENSURE THAT THERE ARE NO EXTERNAL PULLS ON THE GPIOs (92, 93, 64, 63,113, AND 53) IF SECURE BOOT IS NOT REQUIRED

APPROVALS			
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI		ap_pmic	
Tue Nov 06 15:02:29 2018		PROJECT NAME	
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		PAGE 5 OF 66	

SDM: PWR1

REF 1300-1399

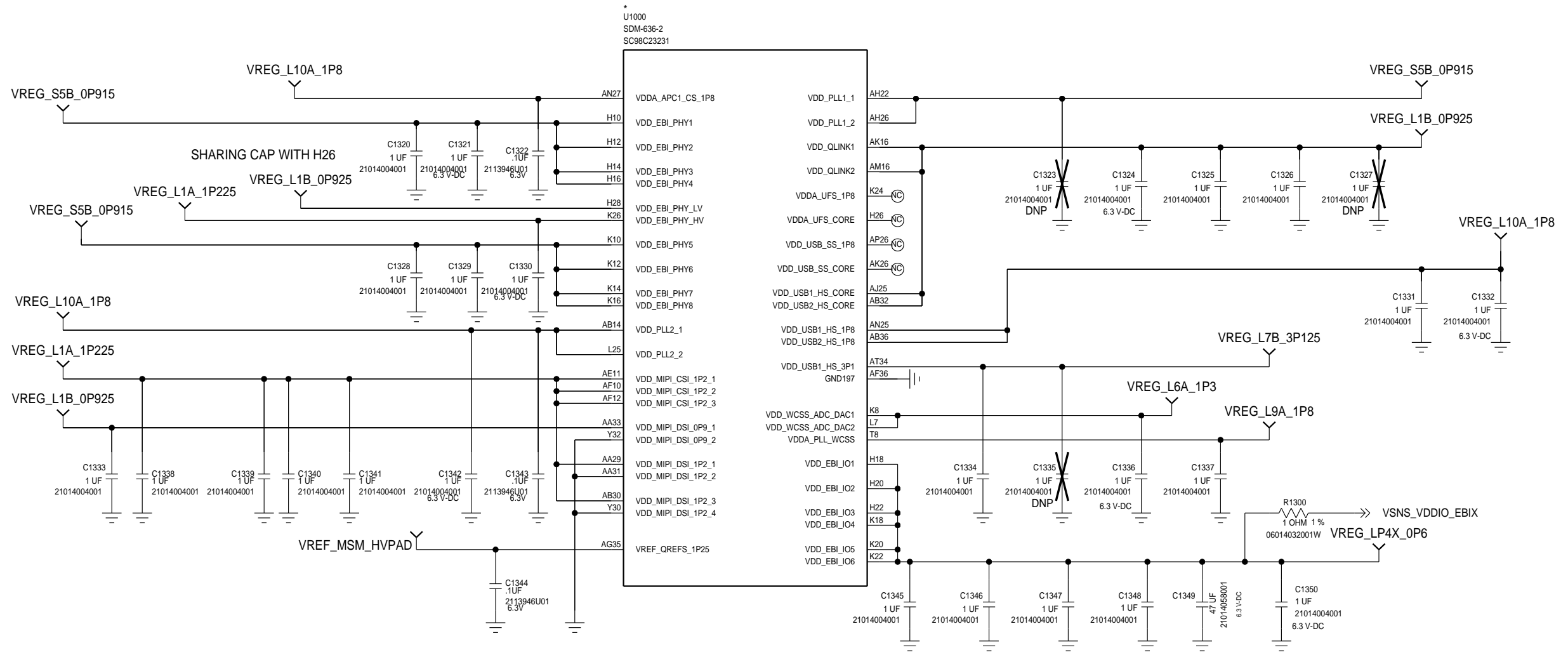
CAD NOTE: PLACE ONE DECAP NEAR PINS V5, V6 AND THE OTHER DECAP NEAR PIN R5



APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:29 2018		ap_pmic	
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		CAD FILE NAME:	
		PAGE 6 OF 66	

SDM: PWR2

REF 1300-1399



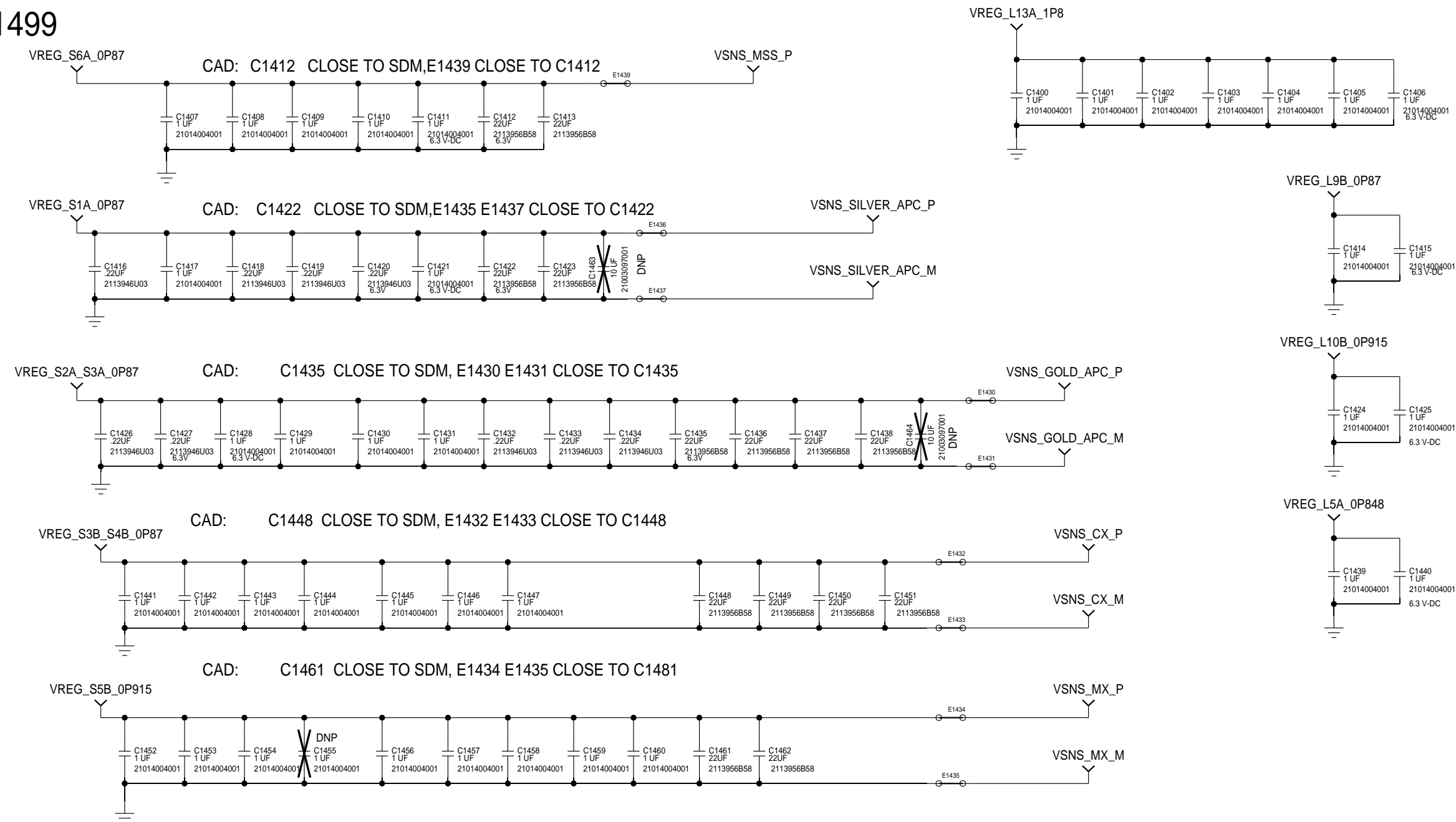
BULK CAP
INSTALL C1349&R1300 FOR LP4X

CAD: C1348 CLOSE TO SDM, R1300 CLOSE TO C1348

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:30 2018		ap_pmic	
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		CAD FILE NAME:	
		PAGE 7 OF 66	

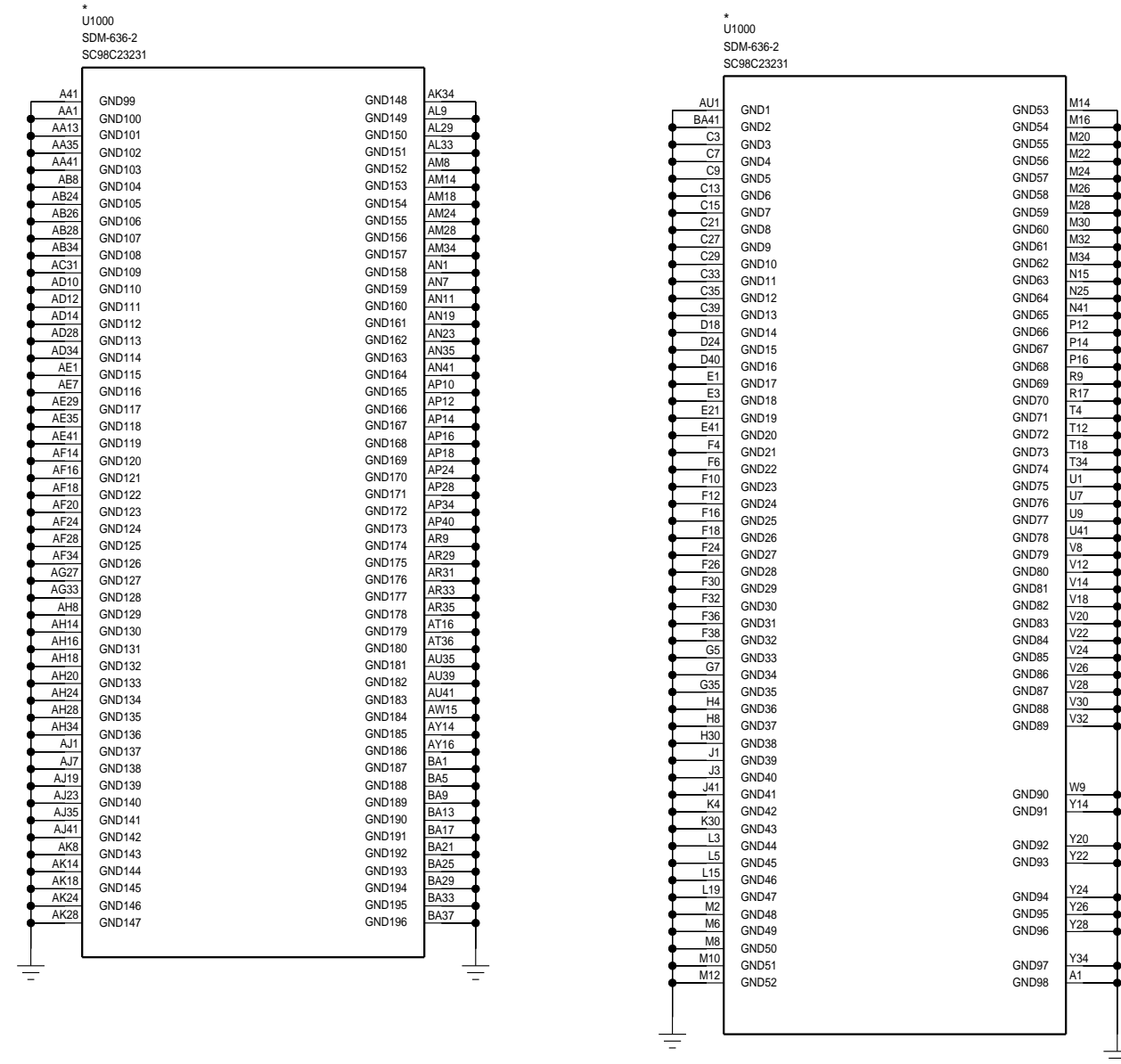
SDM: BYPASS CAPS

REF 1400-1499



APPROVALS		MOTOROLA MOBILE DEVICES	
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		CAD FILE NAME:	
		PAGE 8 OF 66	

SDM: GROUND/DNC



APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
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		B rioh.cpm	01
CAD FILE NAME:		PAGE 9 OF 66	

MEMORY: EMCP

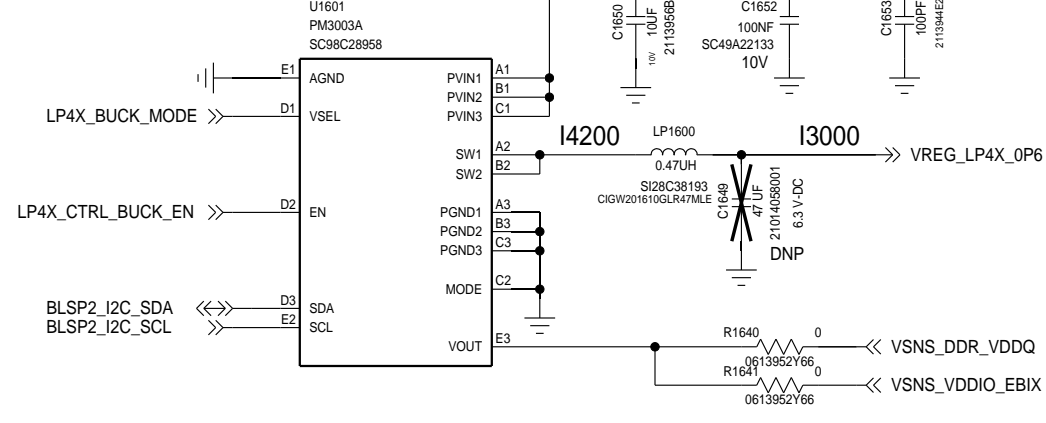
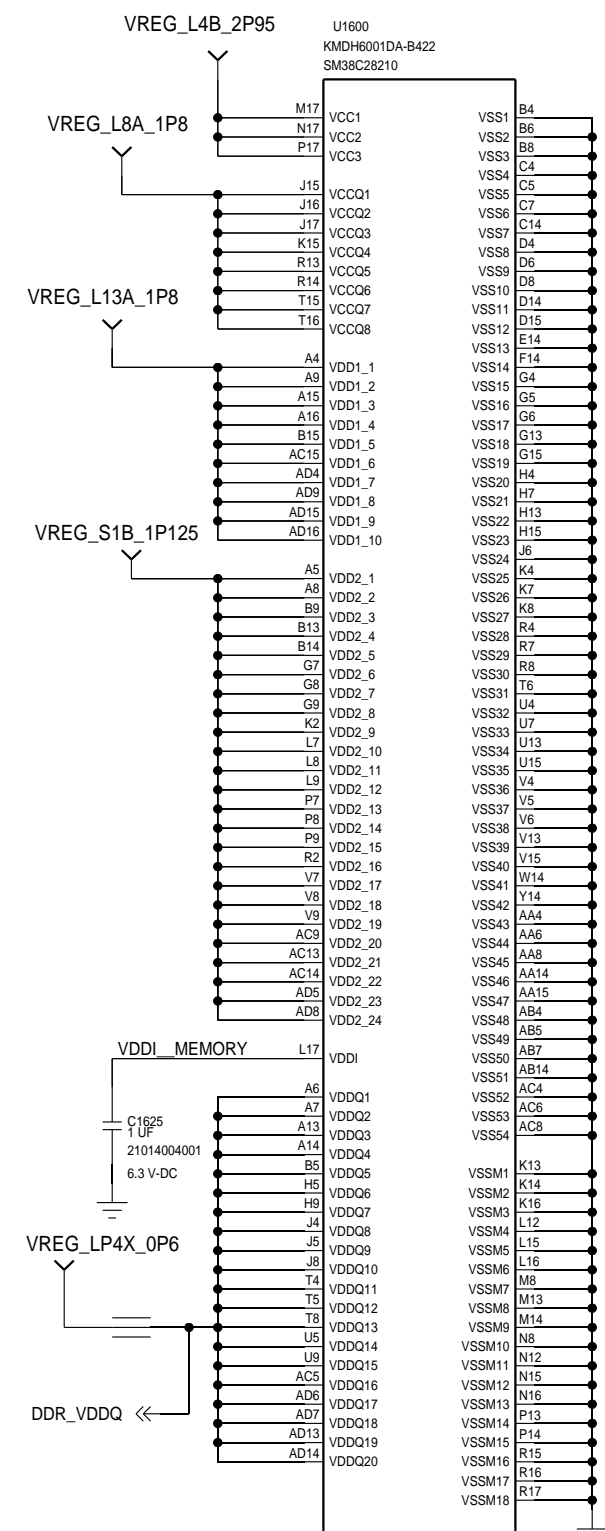
REF: 1600-1699

D

C

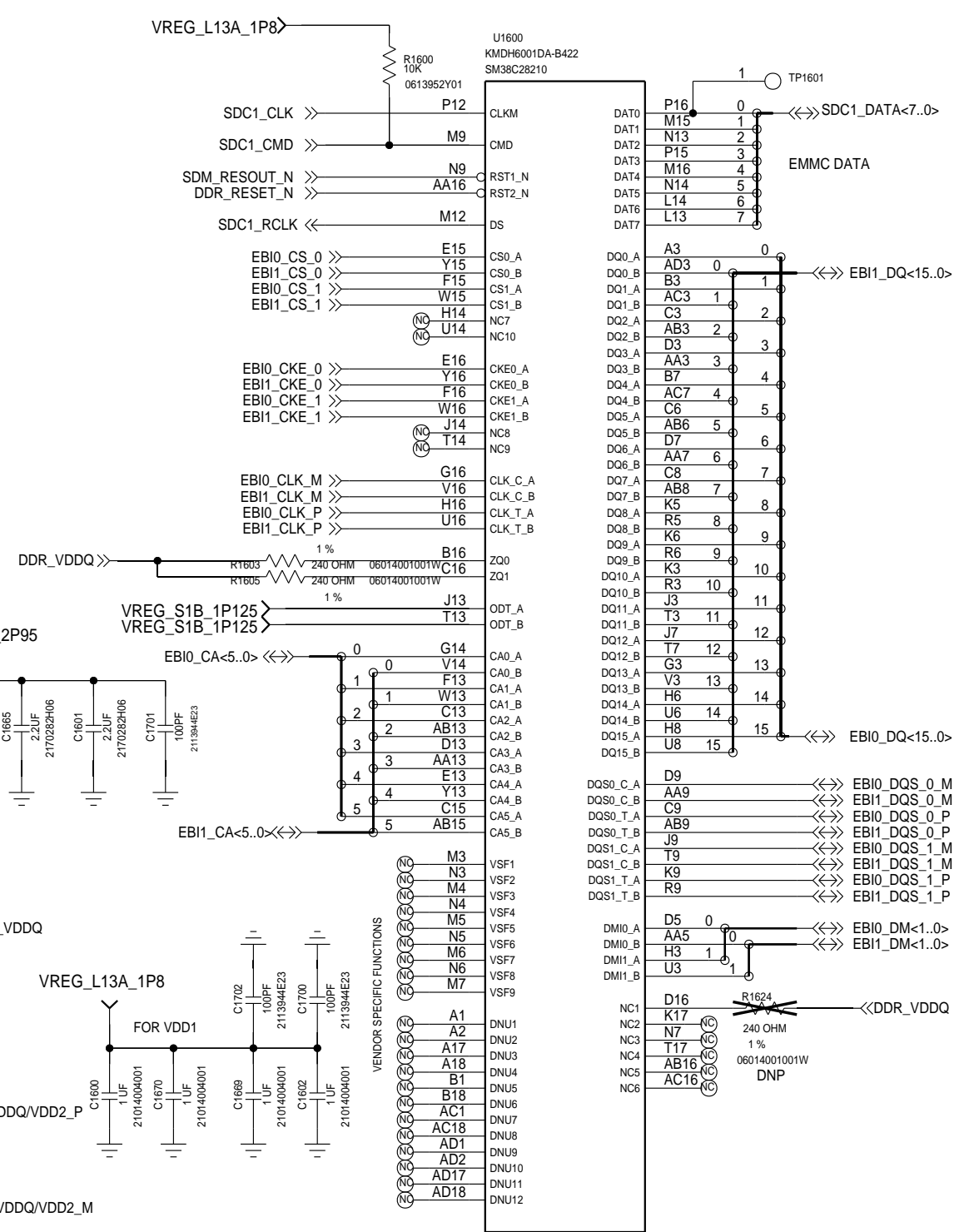
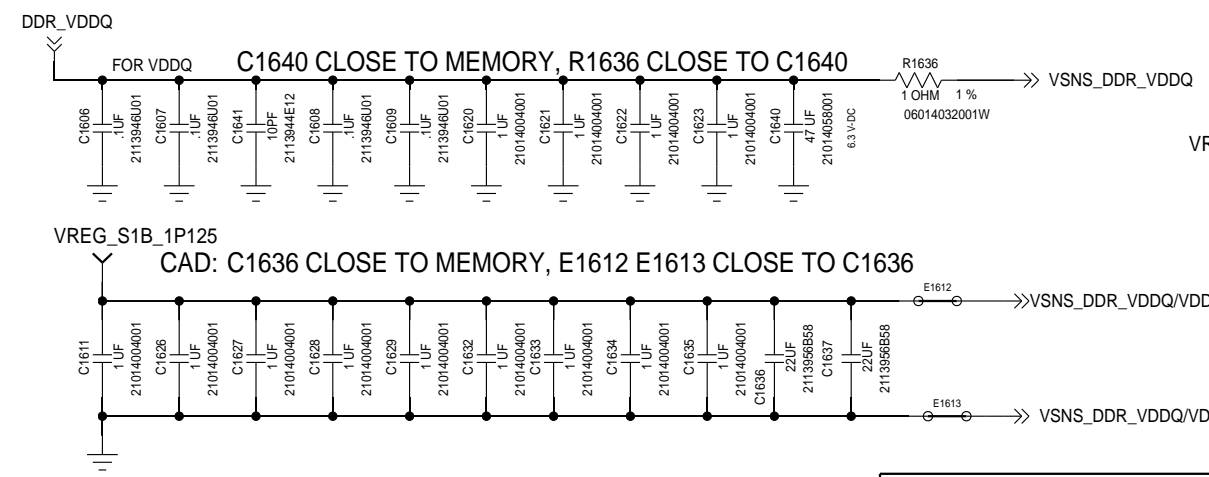
B

A



LP4X DCDC INDUCTOR	DCR = 21MOHM TYP
1ST CIGW201610GLR47MLE	ISAT = 5A MAX, IRMS = 4.7A MAX
2ND MEKK2016TR47MT	DCR = 26MOHM TYP
TAIYO SI29A6N0SW	ISAT = 5A MAX, IRMS = 4.3A MAX
3RD MPIM201610ER47M-LF	DCR = 22MOHM TYP
MICROGATE 24014271001	ISAT = 5A MAX, IRMS = 4.0A MAX

DENSITY	VENDOR PN	VENDOR	LENOVO PN
4+64	KMDH6001DA-B422 H9HP52ACPMADAR-KMM MT29VZZAD8DQKSL-046	SAMSUNG HYNIX MICRON	SM38C28210 SM38C33882 SM38C35427
4+128	MT29VZZAD9DQKSM-046	MICRON	SM38C46633
6+128	KM3V6001CM-B705	SAMSUNG	SM38C20203



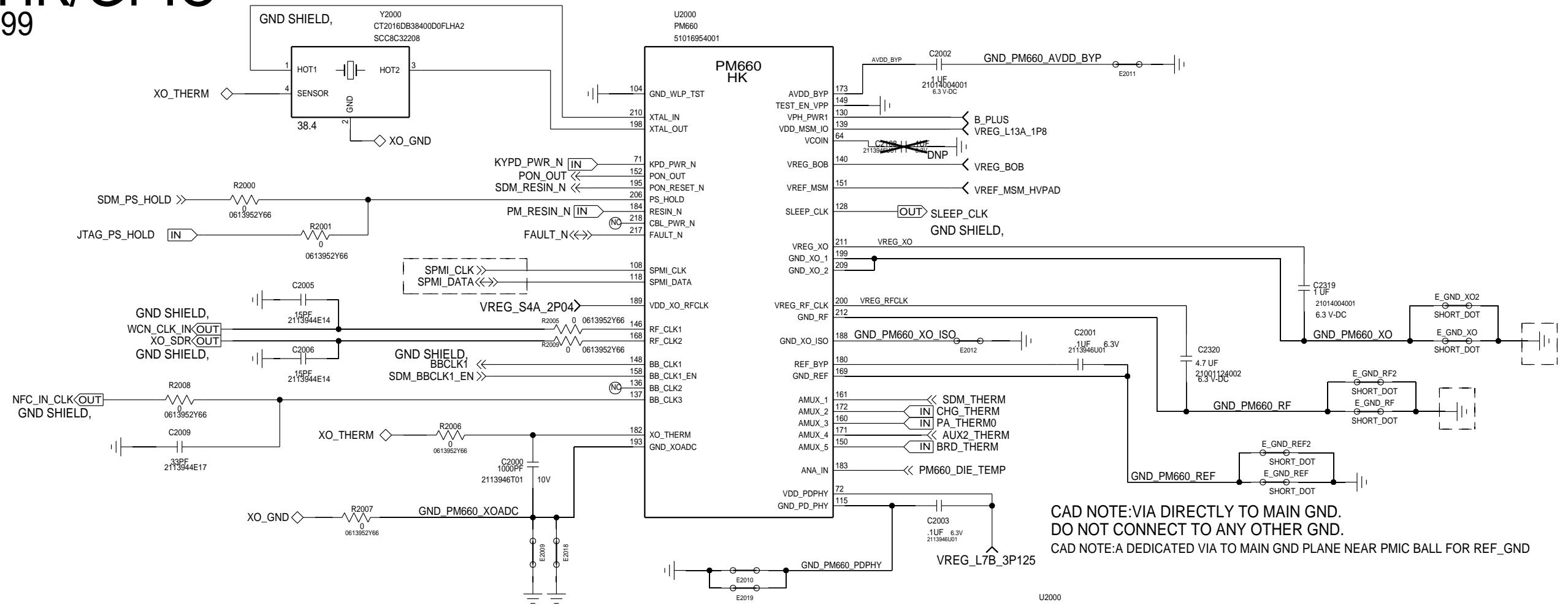
ADD STITCHING VIAS ALONG THE OUTLINE OF DDR AND SDC SIGNALS
 THOSE PARALLEL INTERFACE CAN HAVE LARGE CURRENT, SSN ARE HIGH
 MAY CAUSE RF DESNE IF RETURN CURRENT ARE NOT WELL LIMITED
 AVOID ROUTING SENSITIVE SIGNAL CORSS THIS SECTION
 SENSITIVE SIGNALS CAN BE CLOCKS, (CK, MCLK), ANALOG SIGNALS AND SO ON

APPROVALS		MOTOROLA MOBILE DEVICES	
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CAD FILE NAME:		PAGE 10 OF 66	

PM660: HK/GPIO

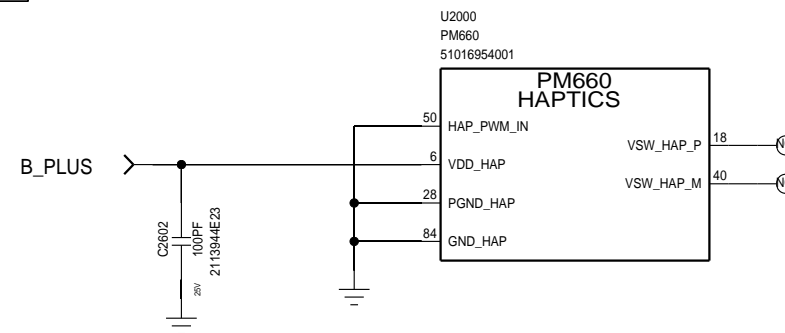
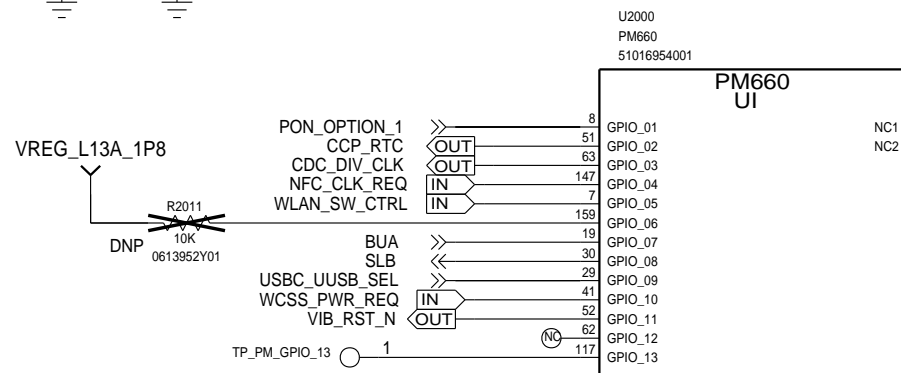
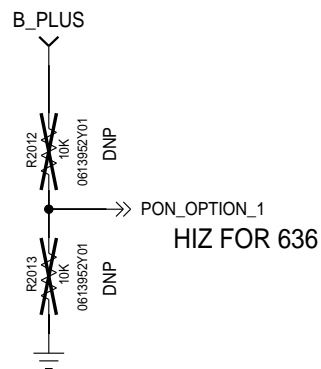
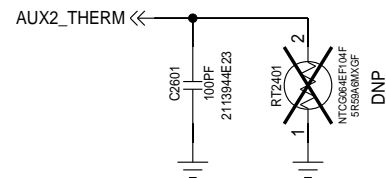
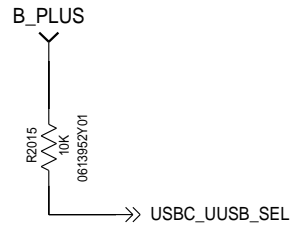
REF: 2000-2099

XTAL_IN, AND XTAL_OUT ROUTED ON 1ST LAYER, NOT AS DIFFERENT PAIR. REFER TO 80-P7747-3 REV. B FOR CRYSTAL LAYOUT GUIDE



CAD NOTE: VIA DIRECTLY TO MAIN GND.
DO NOT CONNECT TO ANY OTHER GND.
CAD NOTE: A DEDICATED VIA TO MAIN GND PLANE NEAR PMIC BALL FOR REF_GND

USBC_UUSB_SEL IS HIGH/HI-Z FOR TYPE-C



APPROVALS			
ENGINEER: ZHANG BEI		BLOCK TITLE:	
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		CAD FILE NAME:	PAGE 11 OF 66

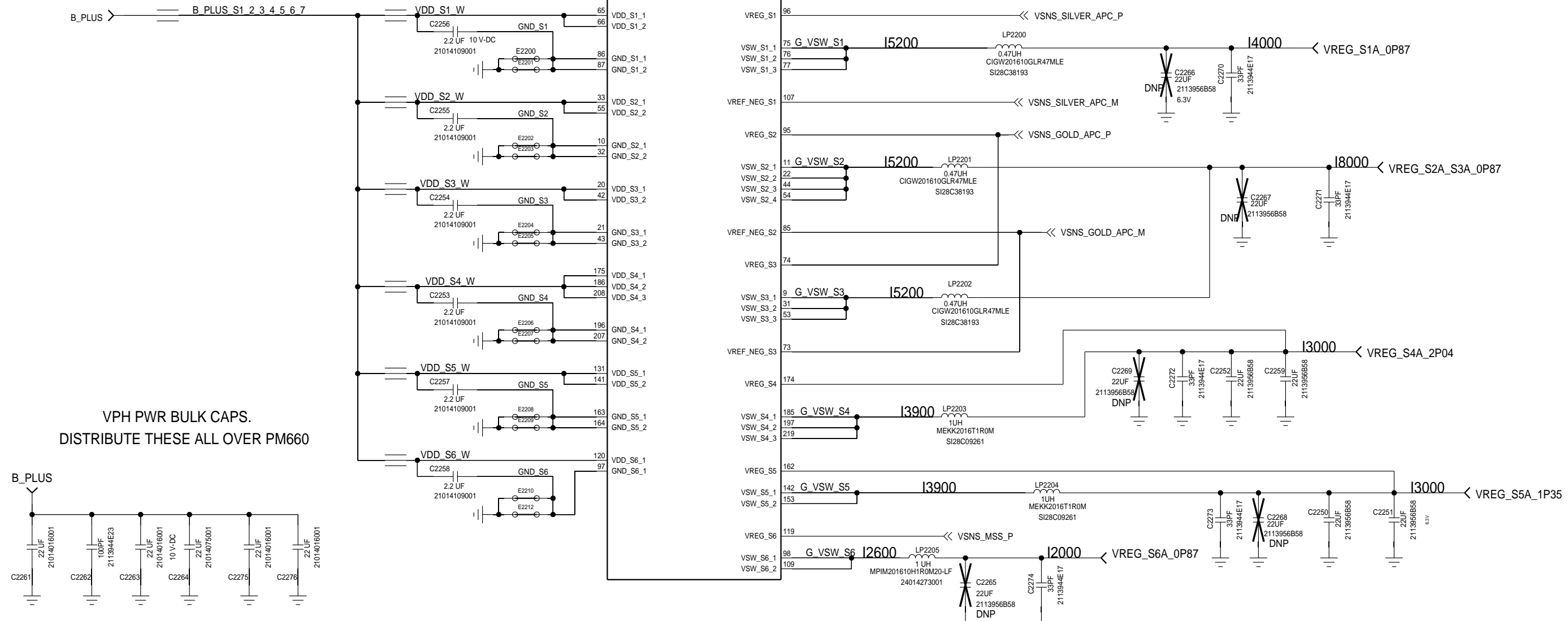
PM660: SMPS

REF: 2200-2299

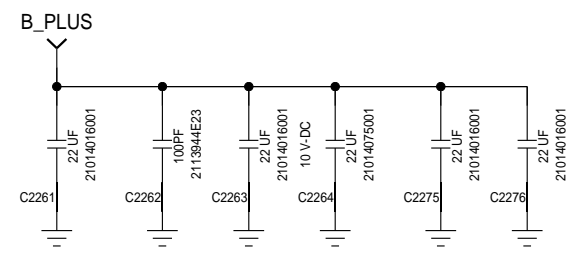
S1A,S2A,S3A INDUCTOR		
1ST	CIGW201610GLR47MLE	DCR = 21MOHM TYP
	SECOM SI28C38193	ISAT = 5A MAX, IRMS = 4.7A MAX
2ND	MEKK2016TR47MT	DCR = 26MOHM TYP
	TAIYO SI29A6N0SW	ISAT = 5A MAX, IRMS = 4.3A MAX
3RD	MPIM201610ER47M-LF	DCR = 22MOHM TYP
	MICROGATE 24014271001	ISAT = 5A MAX, IRMS = 4.0A MAX

U2000
PM660
51016954001

PM660 VREG1



VPH PWR BULK CAPS.
DISTRIBUTE THESE ALL OVER PM660



S4A,S5A INDUCTOR		
1ST	MEKK2016T1R0M	DCR = 26MOHM
	TAIYO SI28C09261	ISAT = 3.6A MAX, IRMS = 3.1A MAX
2ND	MHCHL201610C-1R0M-Q8	DCR = 49MOHM
	CHILISIN SI28C44131	ISAT = 3.6A MAX, IRMS = 3.0A MAX

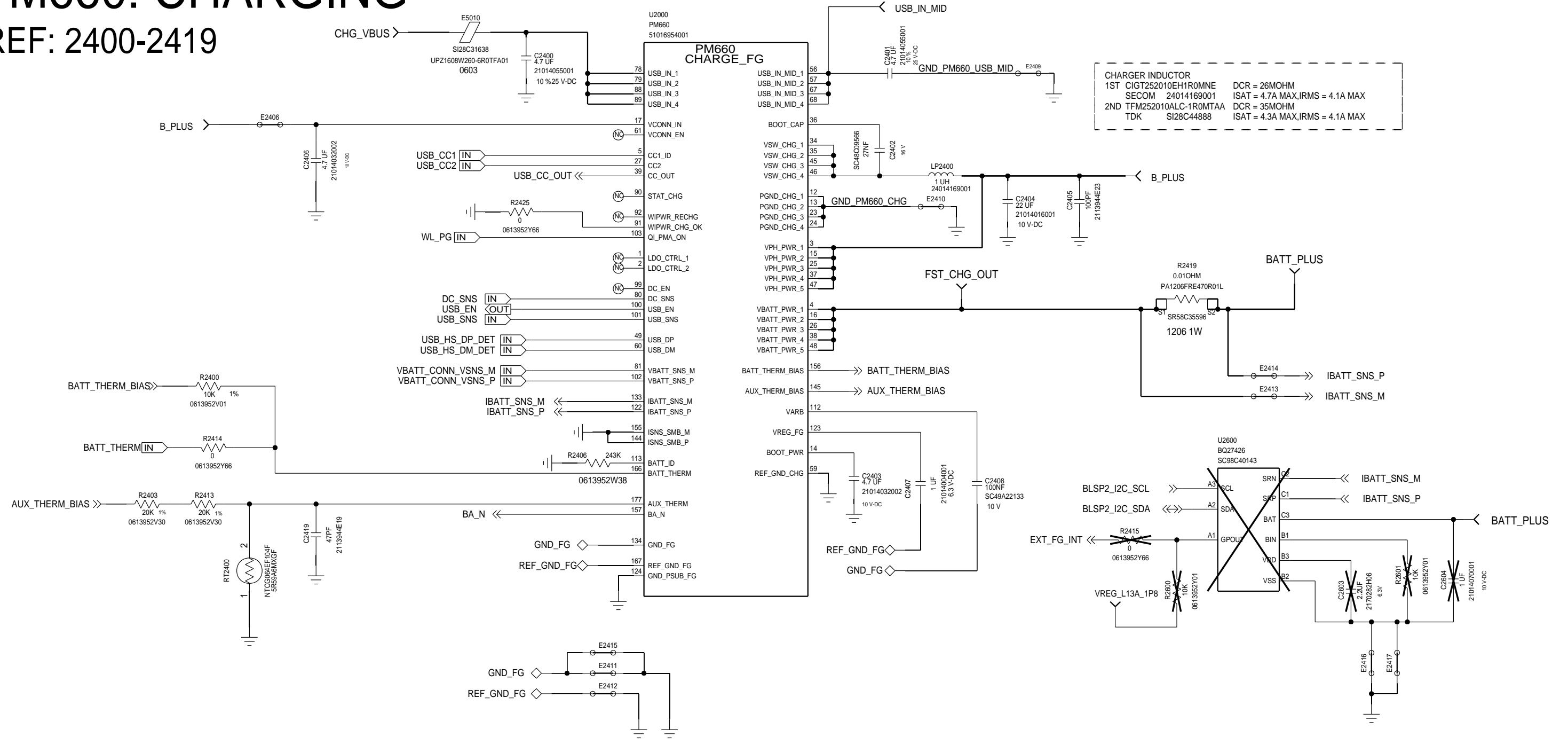
S6A INDUCTOR		
1ST	MPIM201610H1R0M20-LF	DCR = 58MOHM
	MICROGATE 24014273001	ISAT = 3.1A MAX, IRMS = 2.2A MAX
2ND	CIGT201610UM1R0MNE	DCR = 48MOHM
	SECOM SI28C38192	ISAT = 3.1A MAX, IRMS = 2.8A MAX

NOTE: LOCAL CAP PLACE HOLDER PROVIDED FOR LOAD CURRENT MEASUREMENTS

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:30 2018		ap_pmic	
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		CAD FILE NAME:	
		PAGE 12 OF 66	

PM660: CHARGING

REF: 2400-2419

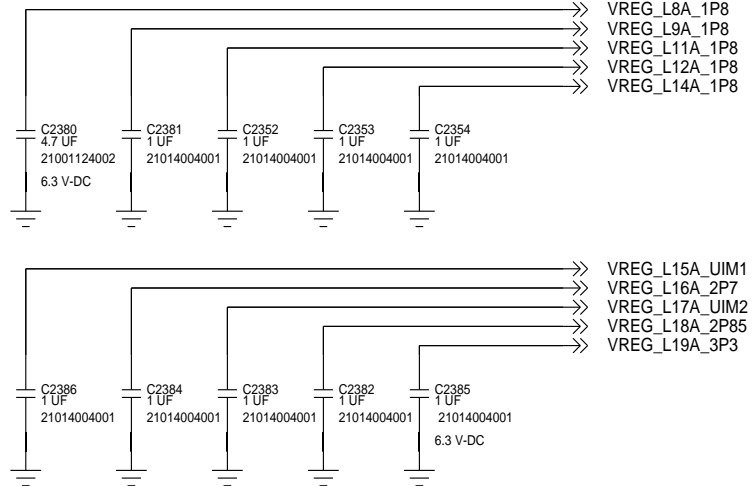
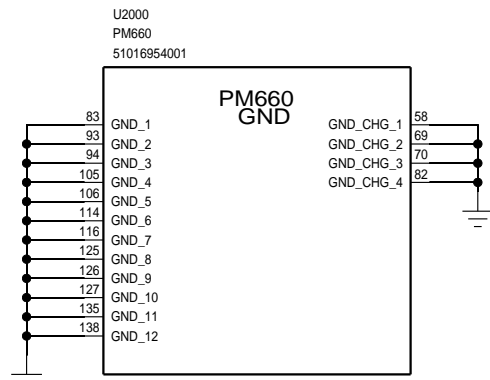
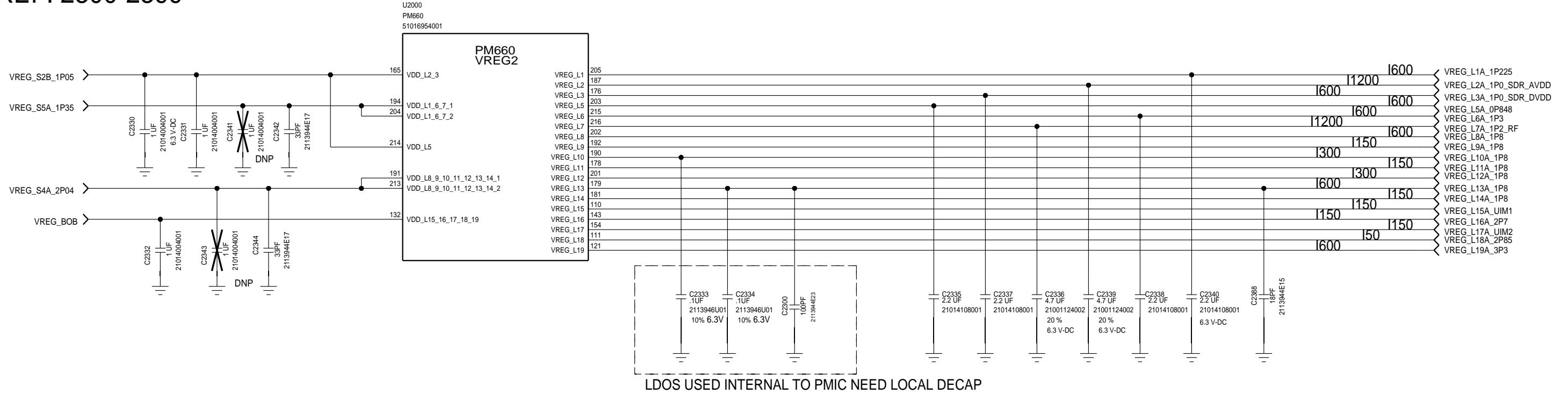


CHARGER INDUCTOR			
1ST CIGT252010EH1ROMNE	DCR = 26MOHM		
SECOM 24014169001	ISAT = 4.7A MAX,IRMS = 4.1A MAX		
2ND TFM252010ALC-1R0MTAA	DCR = 35MOHM		
TDK SI28C44888	ISAT = 4.3A MAX,IRMS = 4.1A MAX		

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:27 2018		ap_pmic	
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CAD FILE NAME:		PAGE 13 OF 66	

PM660: VREGS

REF: 2300-2399



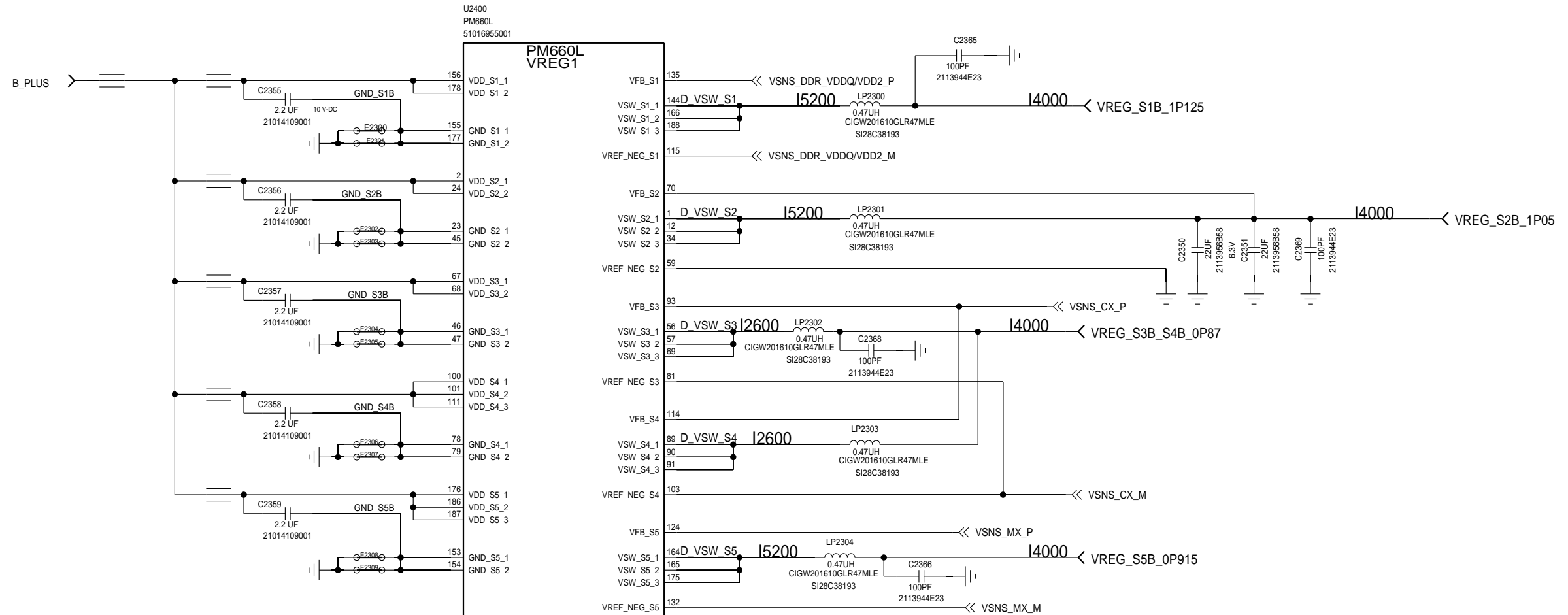
PSEUDO CAPLESS LDOs
FOR CAPLESS LDOs: IF DECAPS ON THE LOAD SIDE DO NOT ADD UP TO LDO SPEC, THEN INSTALL THE CAP CLOSE TO THE PMIC

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:30 2018		ap_pmic	
MOTOROLA CONFIDENTIAL RESTRICTED <small>THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. © COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</small>		PROJECT NAME B rioh.cpm	REV 01
		CAD FILE NAME:	
		PAGE 14 OF 66	

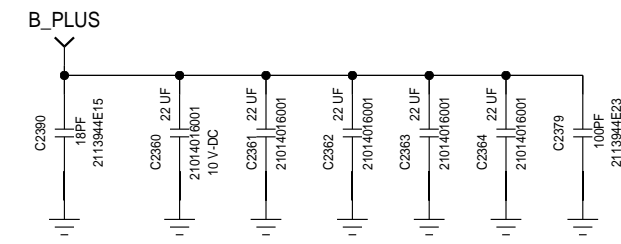
PM660L: SMPS

REF: 2300-2399

S1B-S5B INDUCTOR		
1ST	CIGW201610GLR47MLE	DCR = 21MOHM TYP
	SECOM SI28C38193	ISAT = 5A MAX, IRMS = 4.7A MAX
2ND	MEKK2016TR47MT	DCR = 26MOHM TYP
	TAIYO SI29A6N0SW	ISAT = 5A MAX, IRMS = 4.3A MAX
3RD	MPIM201610ER47M-LF	DCR = 22MOHM TYP
	MICROGATE 24014271001	ISAT = 5A MAX, IRMS = 4.0A MAX



NOTE: LOCAL CAP PLLACE HOLDER PROVIDED FOR LOAD CURRENT MEASUREMENTS

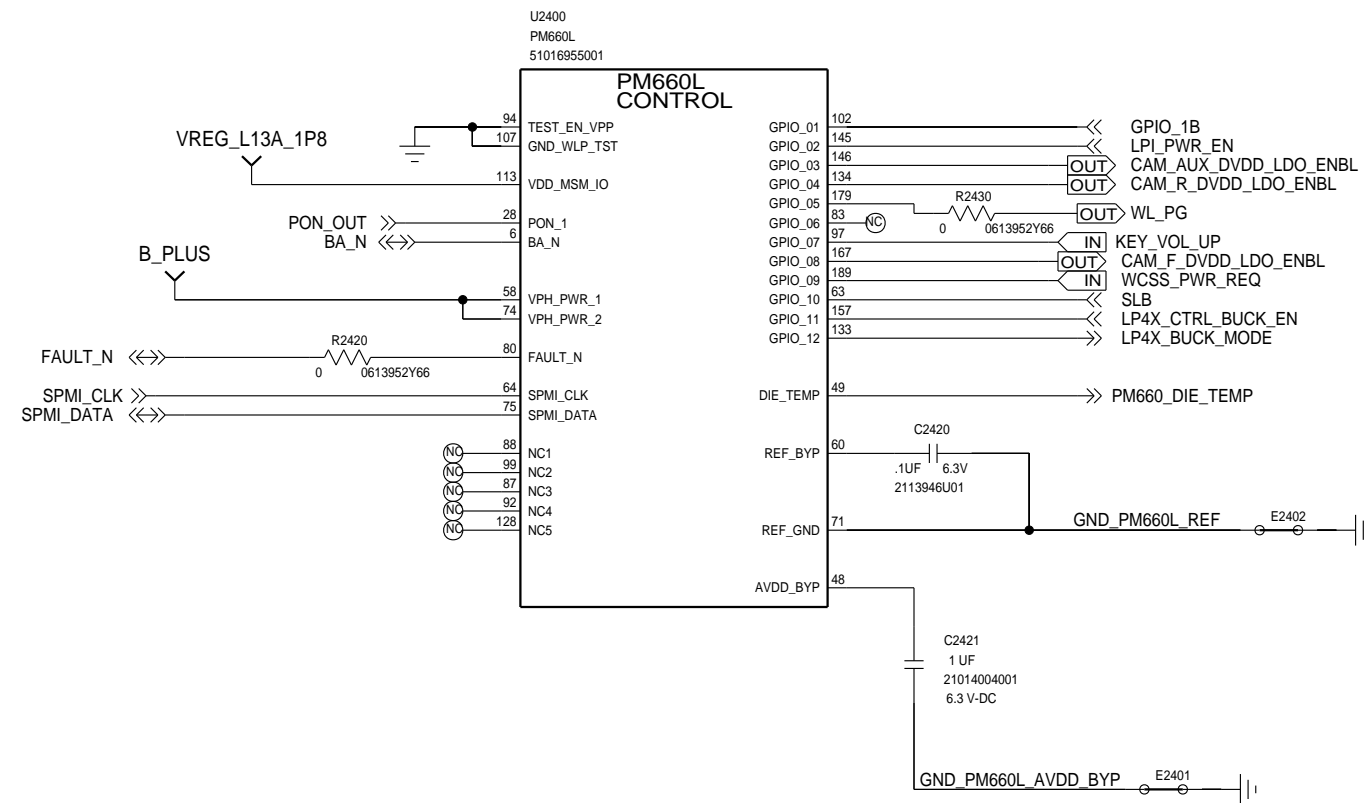


BULK CAPS. DISTRIBUTE THESE ALL OVER U2400

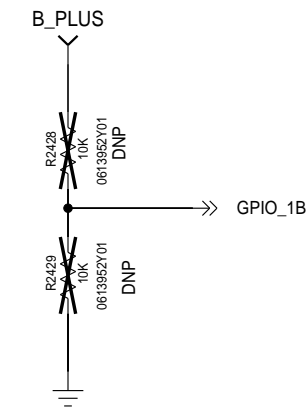
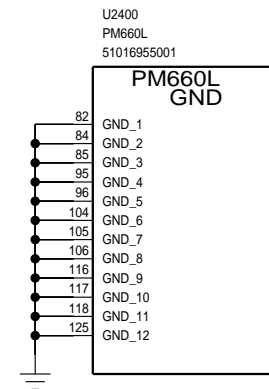
APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:30 2018		ap_pmic	
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		CAD FILE NAME:	
		PAGE 15 OF 66	

PM660L: CONTROL

REF: 2420-2439



GND SHIELDED IF POSSIBLE, ROUTE DIFFERENTIALLY AND SPACING WITH 2X LW

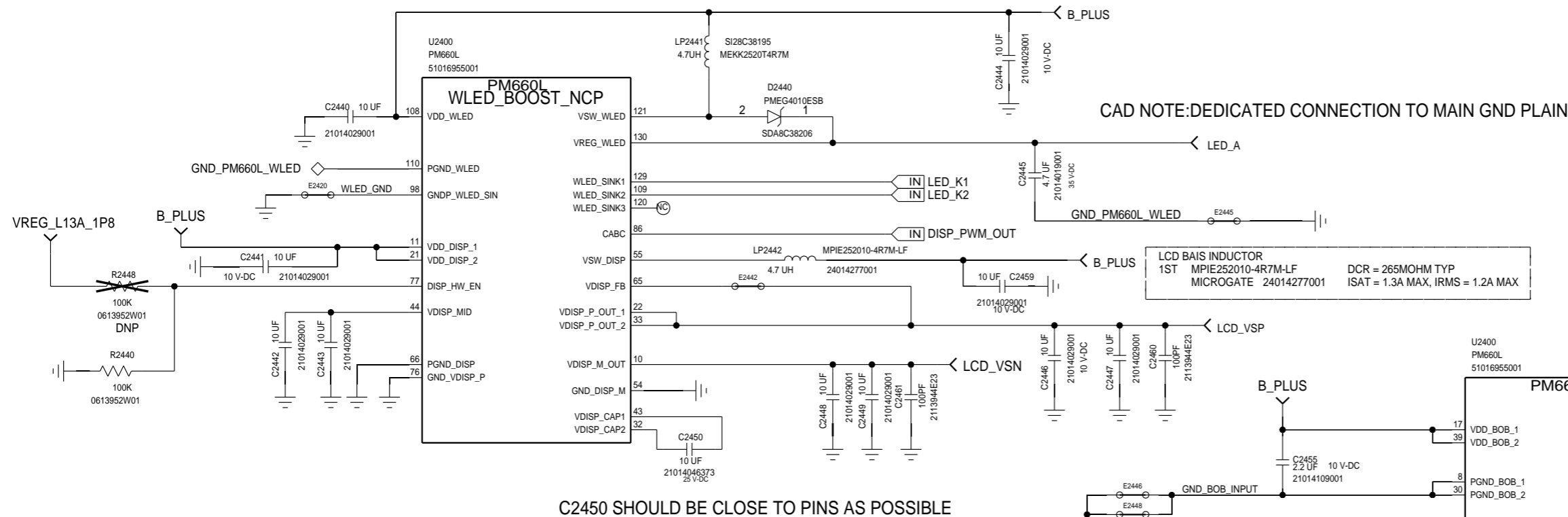


APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:29 2018		ap_pmic	
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		B rioh.cpm	01
CAD FILE NAME:		PAGE 16 OF 66	

PM660L: REG_WLED

REF: 2440-2459

WLED INDUCTOR		
1ST	MEKK2520T4R7M	DCR = 215MOHM TYP
	TAIYO SI28C38195	ISAT = 1.6A MAX, IRMS = 1.5A MAX
2ND	CIGW252010GL4R7MNE	DCR = 180MOHM TYP
	SECOM SI28C15532	ISAT = 1.4A MAX, IRMS = 1.4A MAX
3RD	MPIA252010-4R7M-LF	DCR = 260MOHM TYP
	MICROGATE 24014274001	ISAT = 1.5A MAX, IRMS = 1.15A MAX

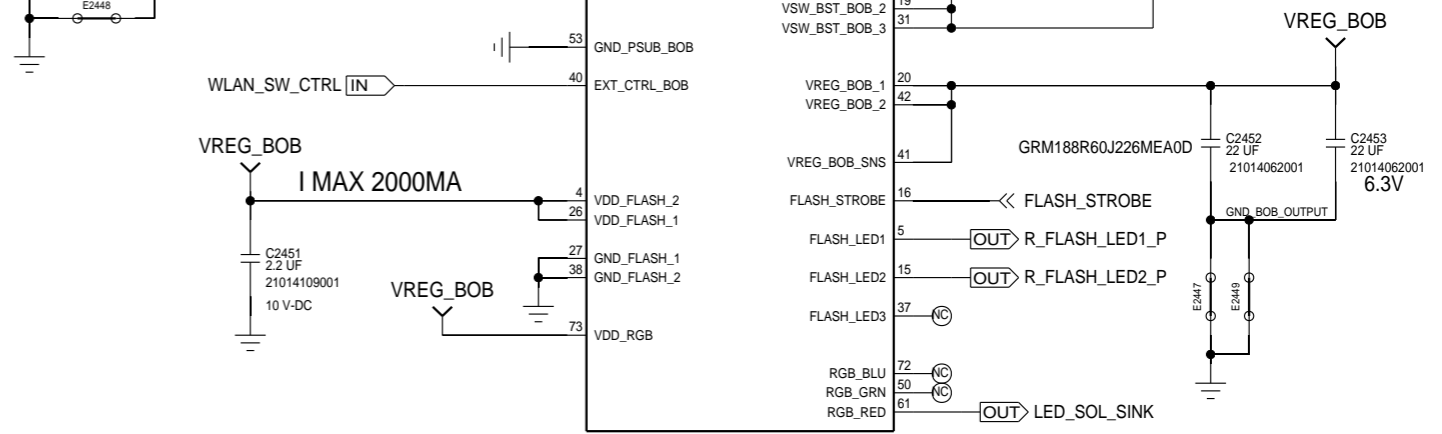
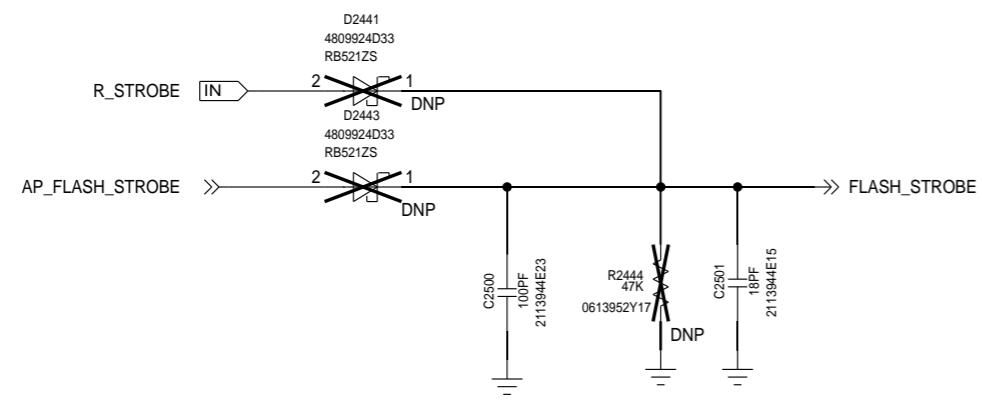


BOB INDUCTOR		
1ST	CIGW201610GLR47MLE	DCR = 21MOHM TYP
	SECOM SI28C38193	ISAT = 5A MAX, IRMS = 4.7A MAX
2ND	MEKK2016TR47MT	DCR = 26MOHM TYP
	TAIYO SI29A6N0SW	ISAT = 5A MAX, IRMS = 4.3A MAX
3RD	MPIM201610ER47M-LF	DCR = 22MOHM TYP
	MICROGATE 24014271001	ISAT = 5A MAX, IRMS = 4.0A MAX

LCD BAIS INDUCTOR		
1ST	MPIE252010-4R7M-LF	DCR = 265MOHM TYP
	MICROGATE 24014277001	ISAT = 1.3A MAX, IRMS = 1.2A MAX

C2450 SHOULD BE CLOSE TO PINS AS POSSIBLE

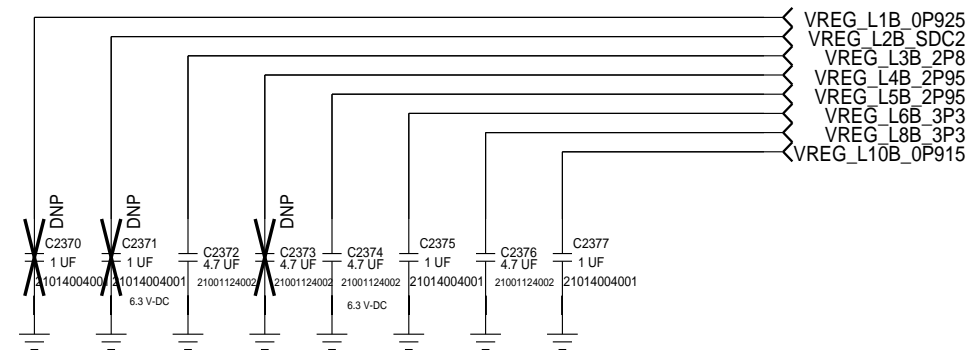
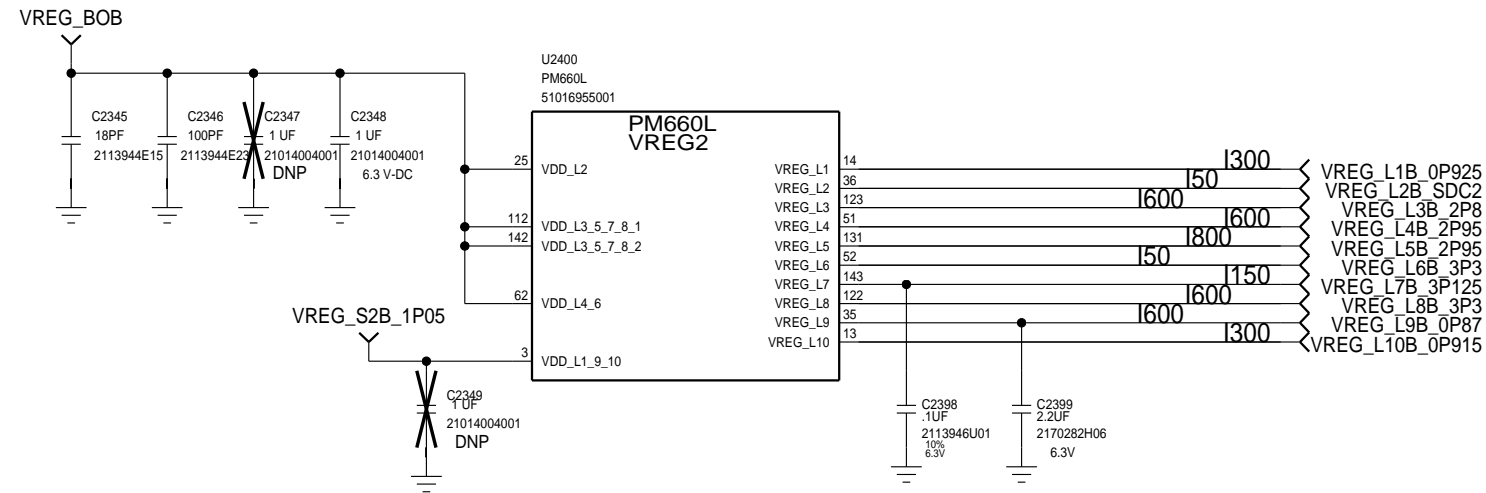
DNP FLASH STROBE LOGIC



APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:	ZHANG BEI	BLOCK TITLE:	ap_pmic
LAST MODIFIED BY:	ZHANG BEI	PROJECT NAME:	rioh.cpm
	Tue Nov 06 15:02:28 2018	REV:	01
MOTOROLA CONFIDENTIAL RESTRICTED		CAD FILE NAME:	PAGE 17 OF 66
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PM660L: VREGS

REF: 2300-2399



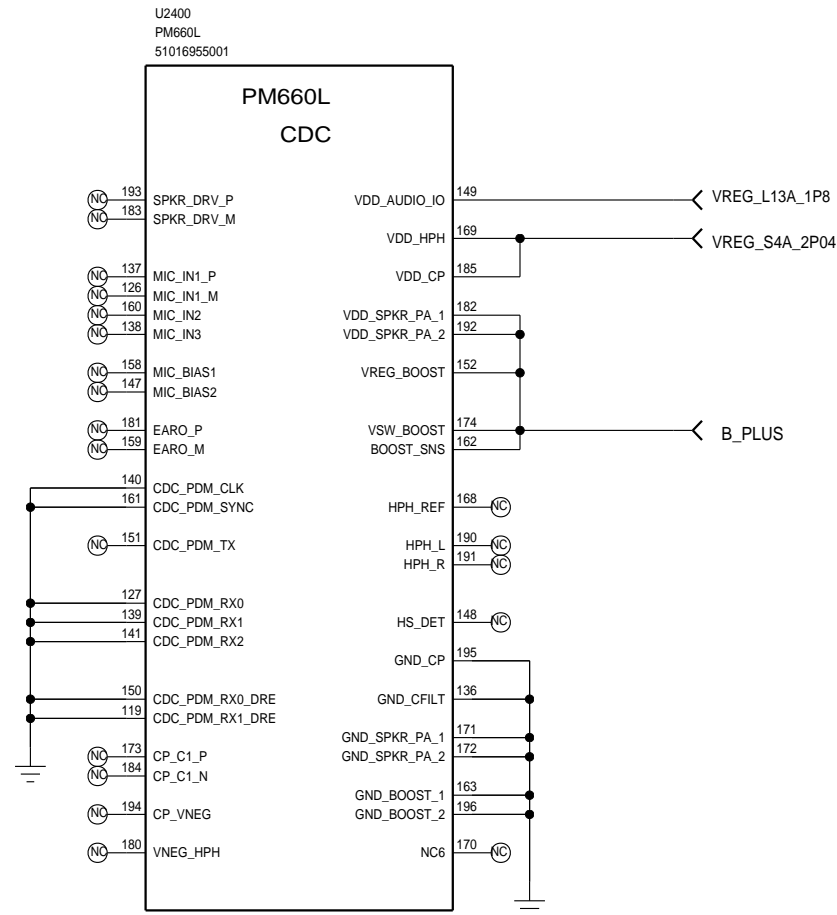
PSEUDO CAPLESS LODS

FOR CAPLESS LODS:IF DECAPS ON THE LOAD SIDE DO NOT ADD UP TO LDO SPEC, THEN INSTALL THE CAP CLOSE TO THE PMIC

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:30 2018		ap_pmic	
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		CAD FILE NAME:	
		PAGE 18 OF 66	

PM660L: CODEC

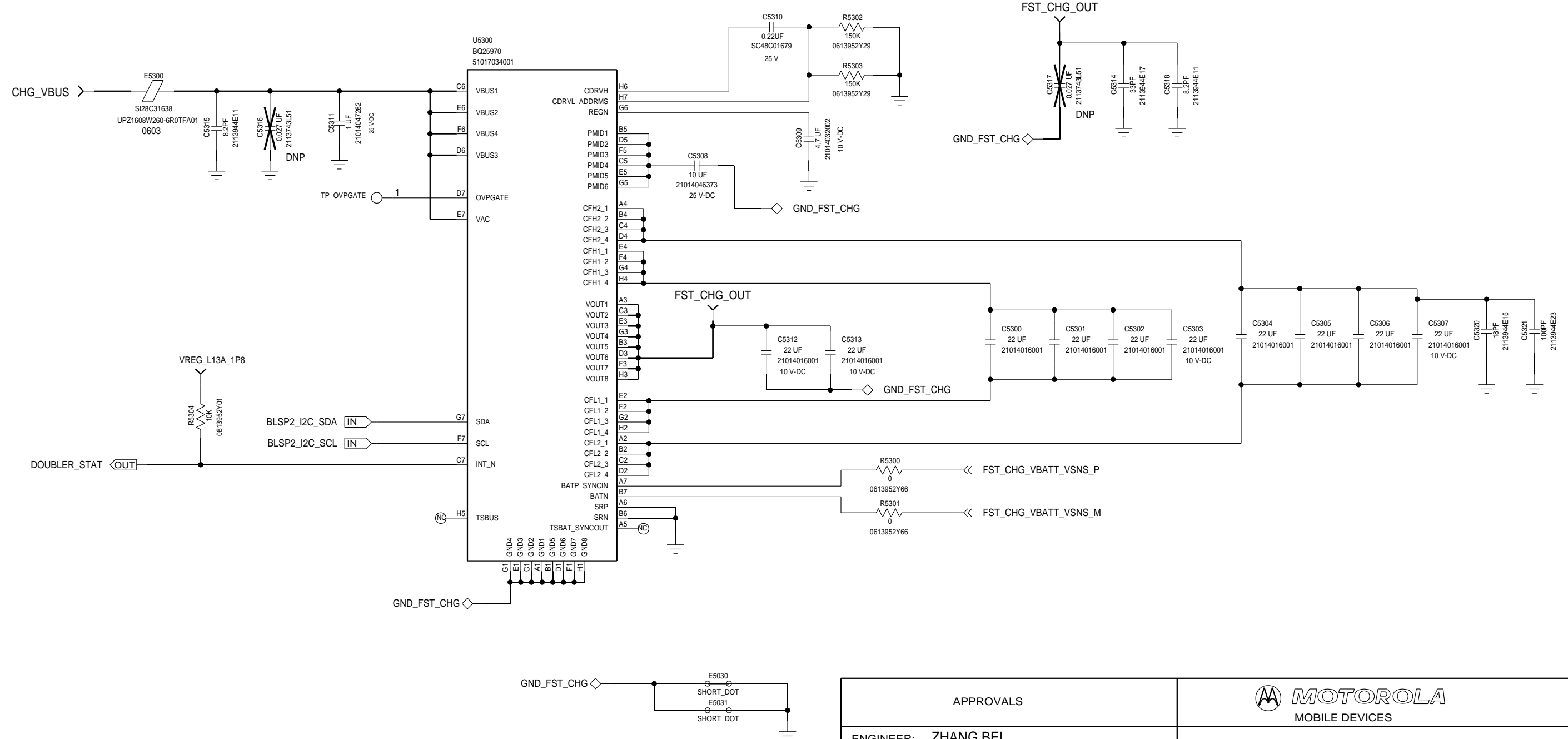
REF 2500-2579



APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:30 2018		ap_pmic	
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		CAD FILE NAME:	
		PAGE 19 OF 66	

PWR: FAST CHARGER

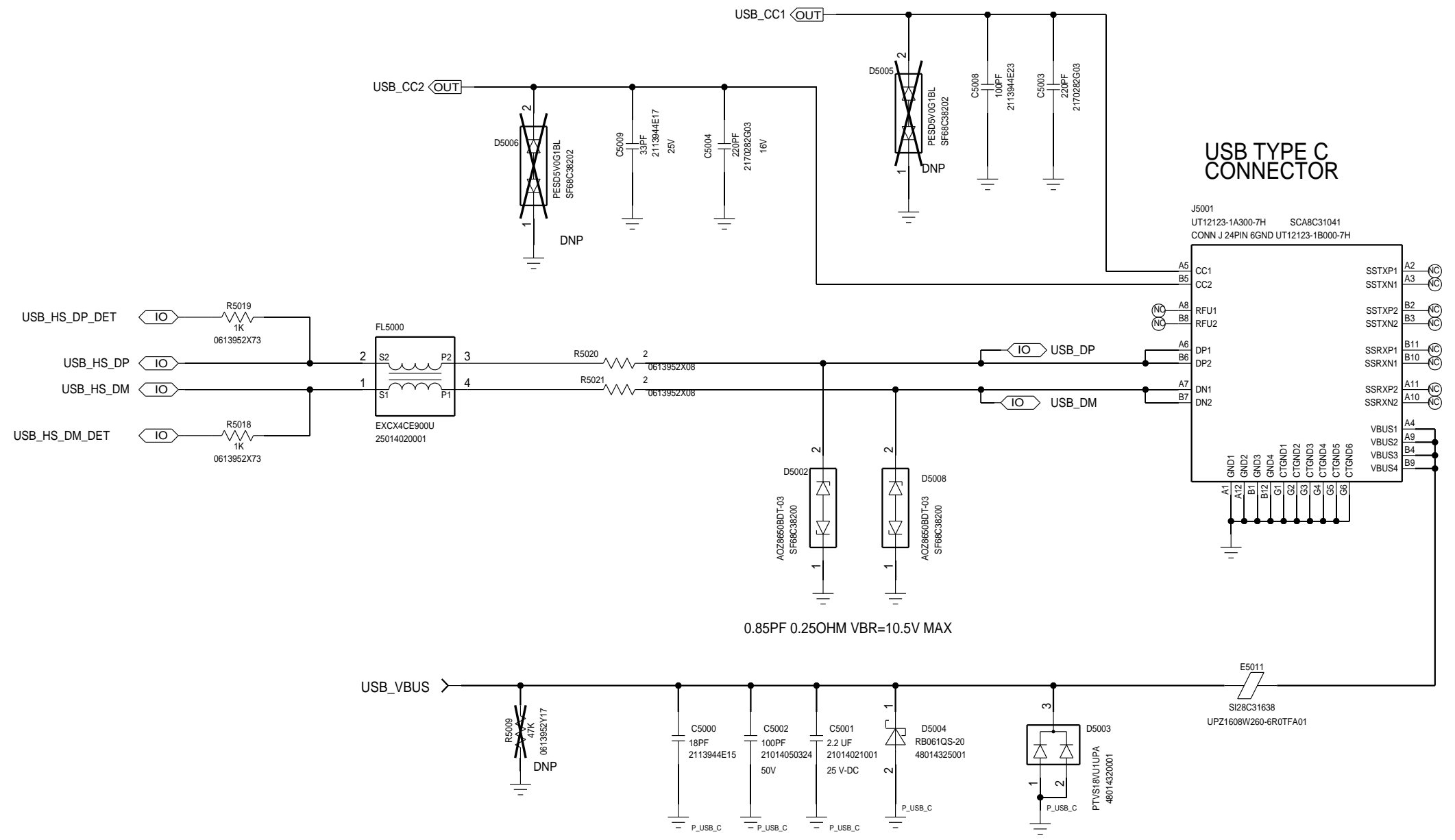
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APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:26 2018		power	
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		CAD FILE NAME:	
		PAGE 20 OF 66	

PWR: USB-C

REF:5300 - 5399



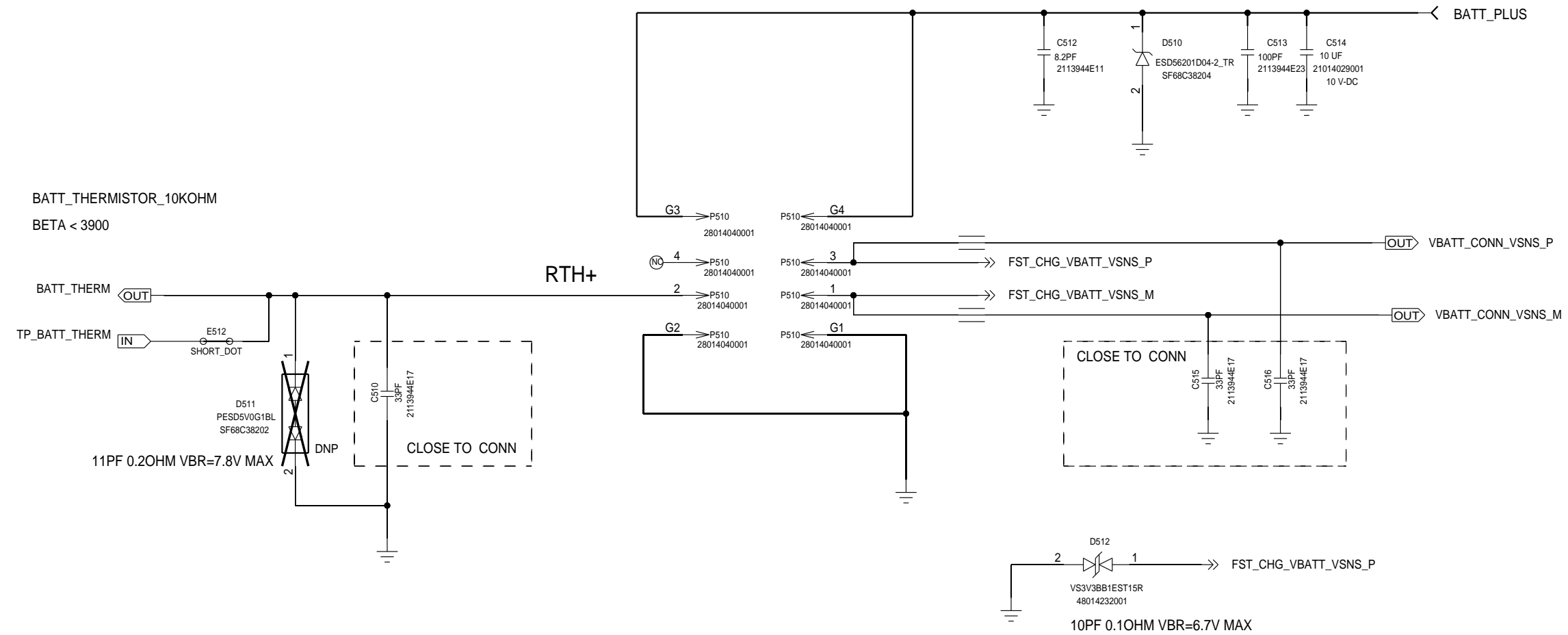
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ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:25 2018		power	
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		CAD FILE NAME:	
		PAGE 21 OF 66	

PWR: BATT

REF:510 - 550

BATTERY BLOCK

USE PMI INTERNAL SENSE

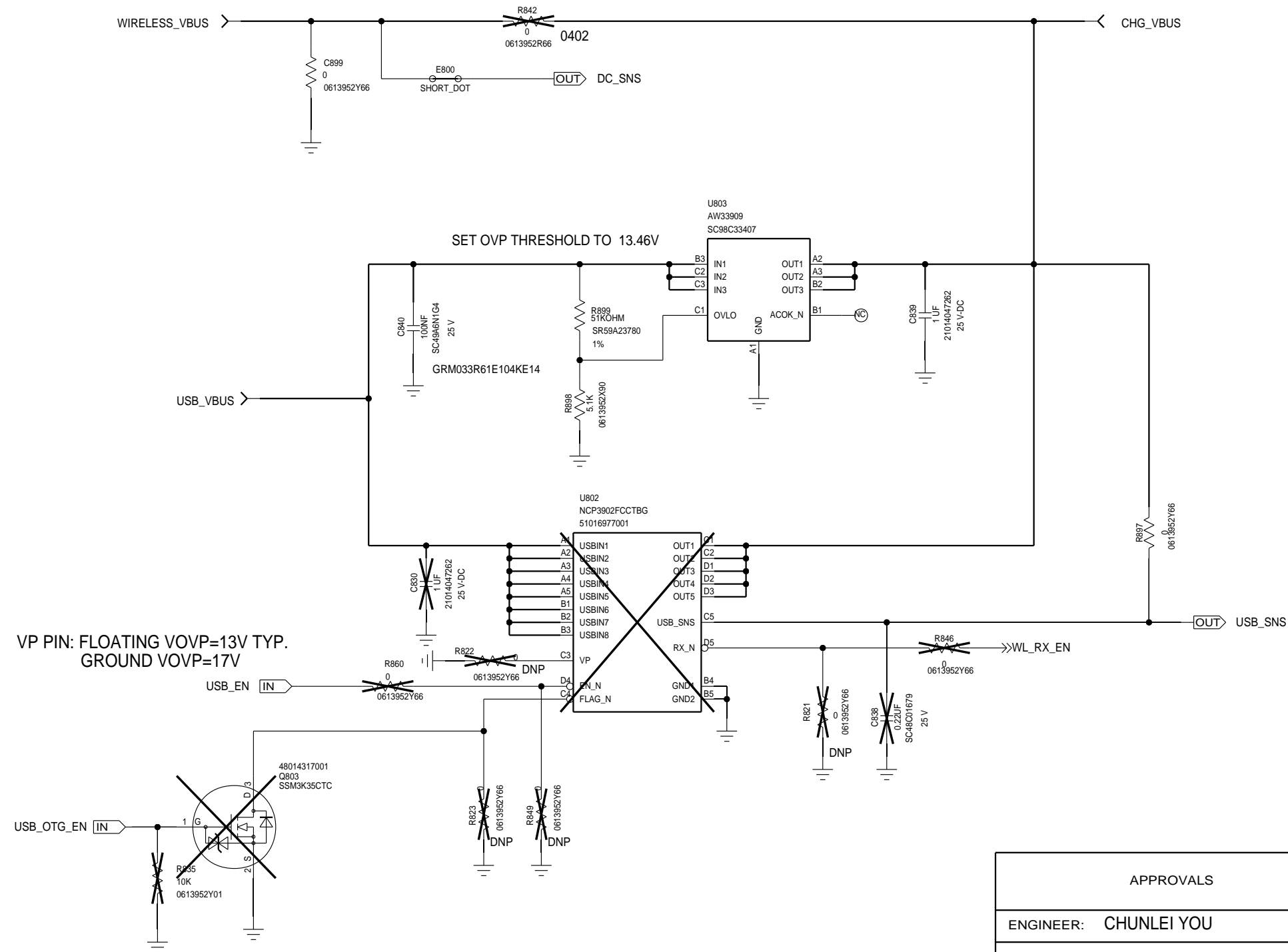


APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:26 2018		power	
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		B rioh.cpm	01
		CAD FILE NAME:	
		PAGE 22 OF 66	

PWR: OVP

REF:800 - 899

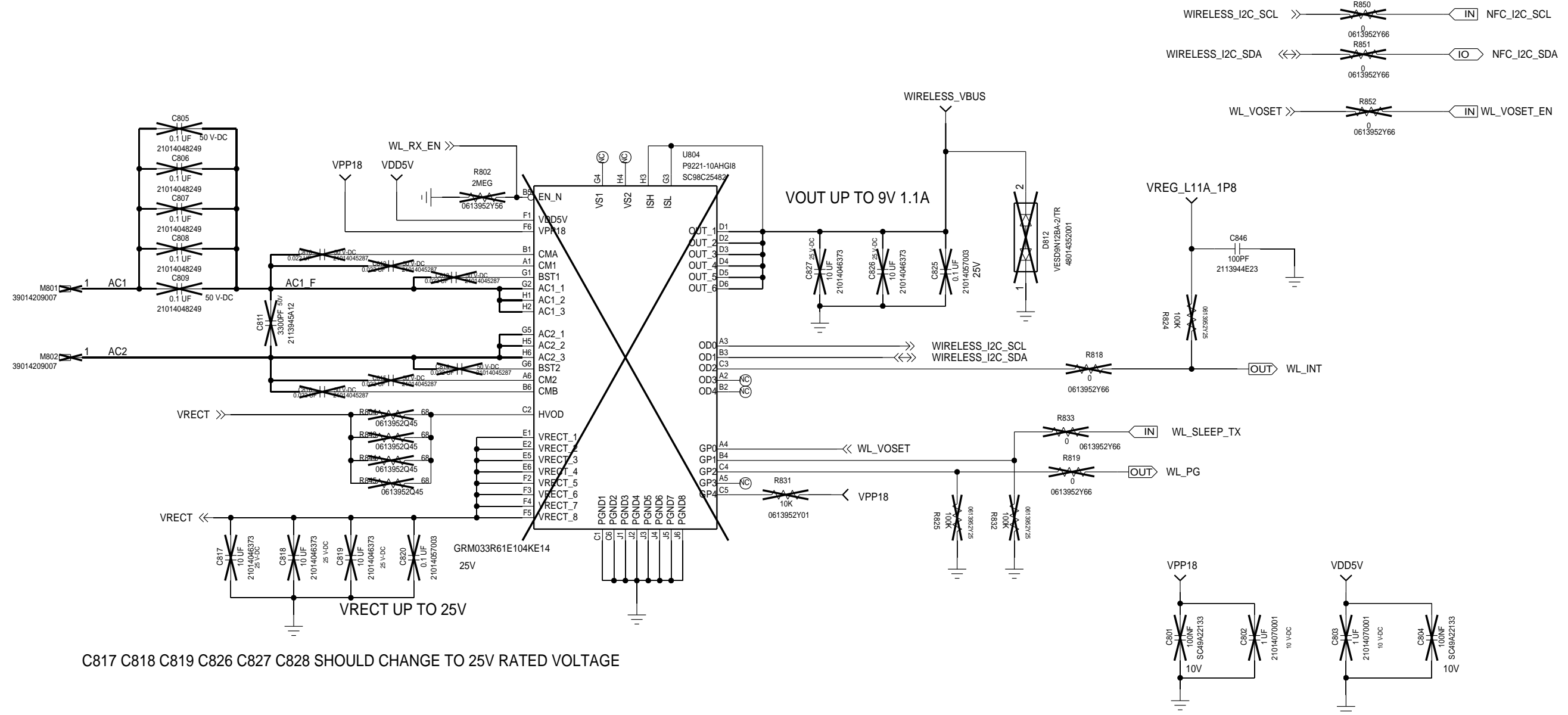
0402 RES 00HM RATED CURRENT 1A.



APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: CHUNLEI YOU		BLOCK TITLE:	
LAST MODIFIED BY: Tue Nov 06 15:02:25 2018		power	
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		B rloh.cpm	01
CAD FILE NAME:		PAGE 23 OF 66	

WIRELESS CHARGER

REF:800 - 899

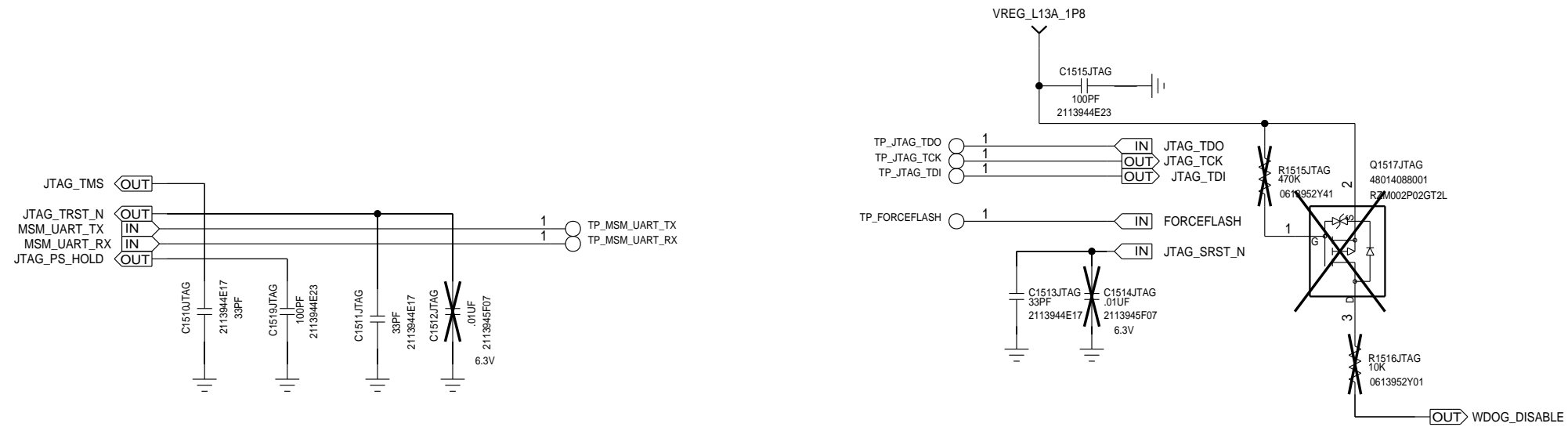


C817 C818 C819 C826 C827 C828 SHOULD CHANGE TO 25V RATED VOLTAGE

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: CHUNLEI YOU		BLOCK TITLE: power	
LAST MODIFIED BY: Tue Nov 06 15:02:25 2018		PROJECT NAME rioh.cpm	
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		PAGE 24 OF 66	

DEBUG PORT

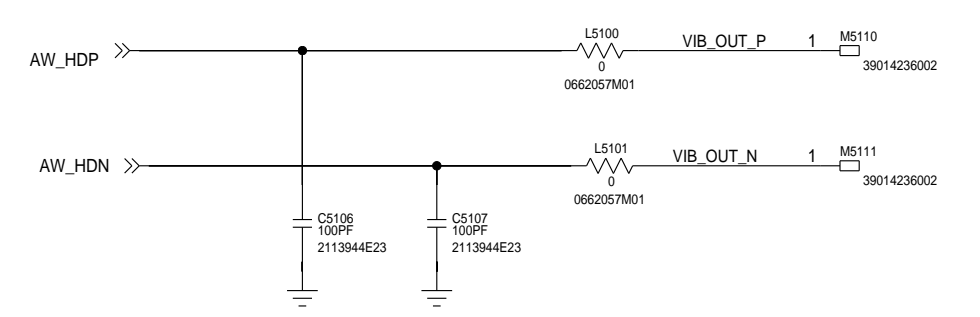
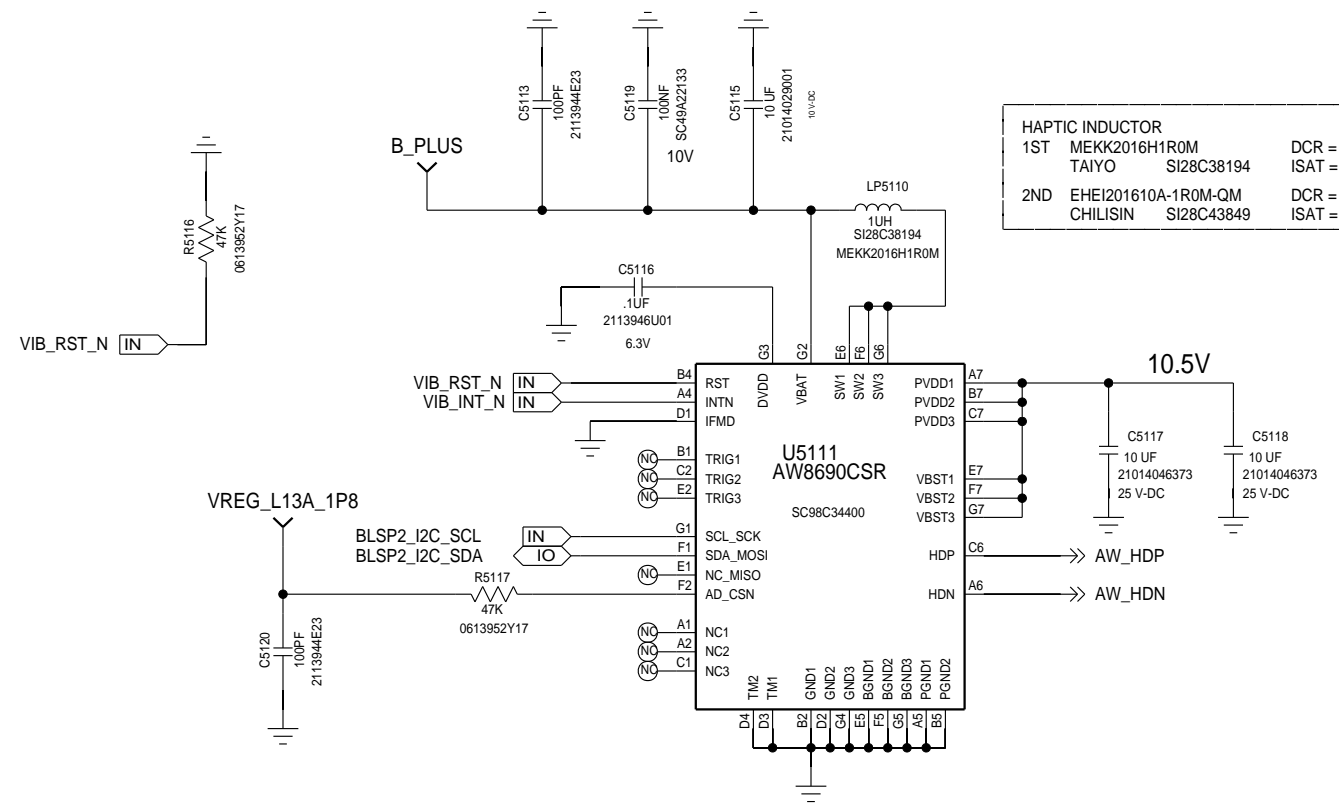
REF 1000-1099



APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:38 2018		misc	
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		B rich.cpm	01
CAD FILE NAME:		PAGE 25 OF 66	

VIB DRIVER

REF: 2000-2099



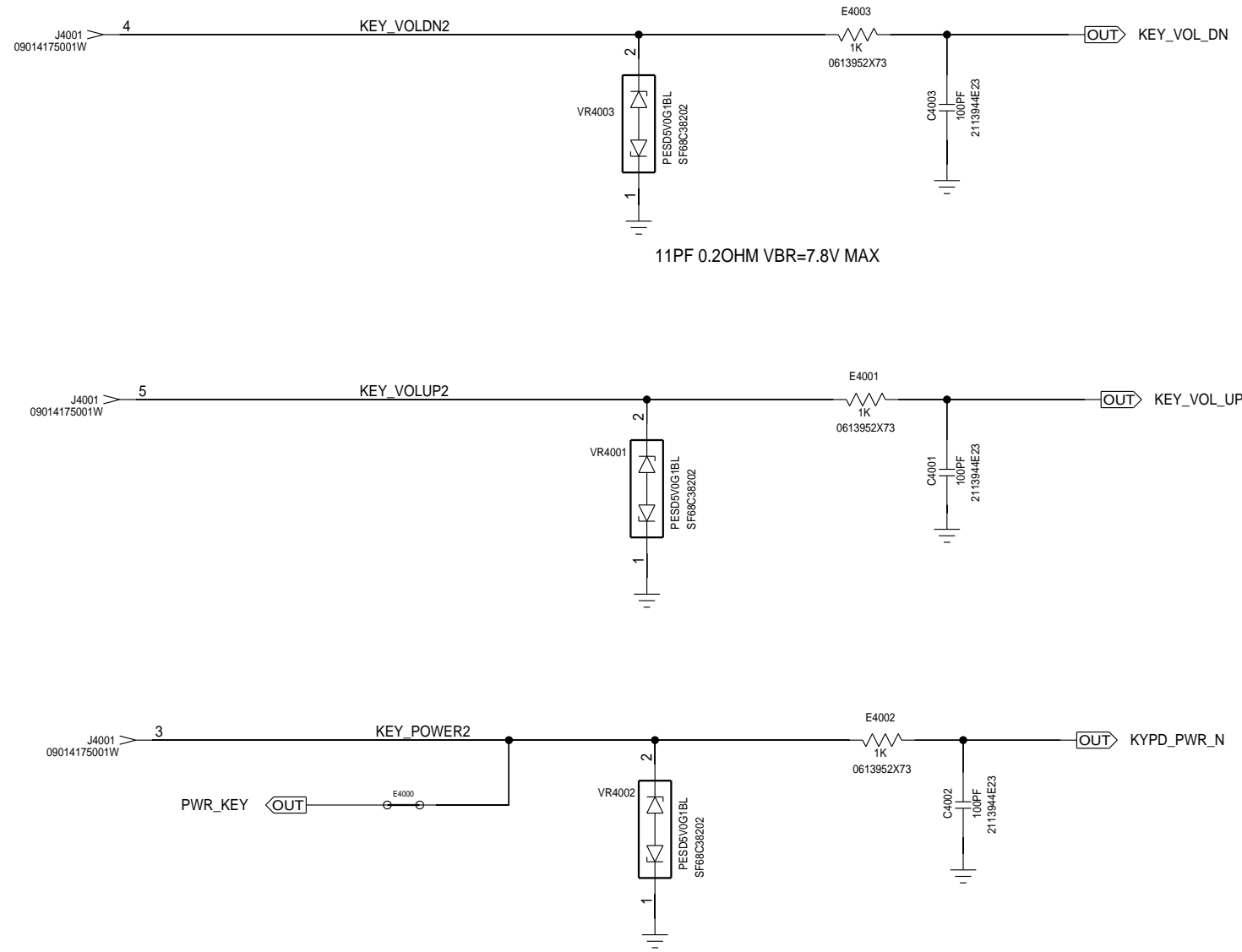
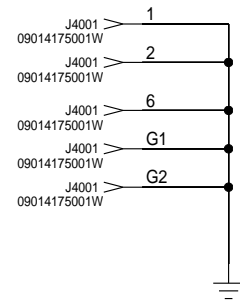
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ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:38 2018		misc	
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		B rloh.cpm	01
CAD FILE NAME:		PAGE 26 OF 66	

UI: SIDE KEY

REF:4000-4199

MECHANICAL KEYS

VOL_UP/DOWN/GND TPS NEED P0 BRINGUP ONLY

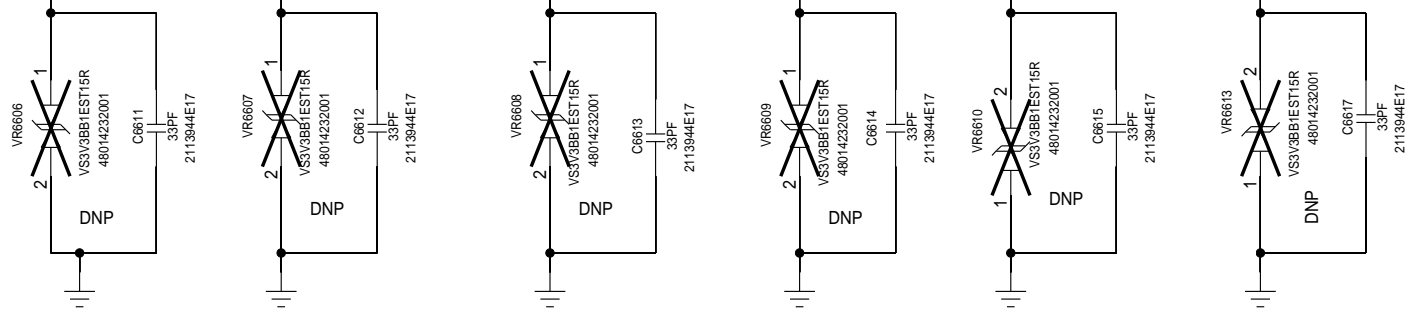
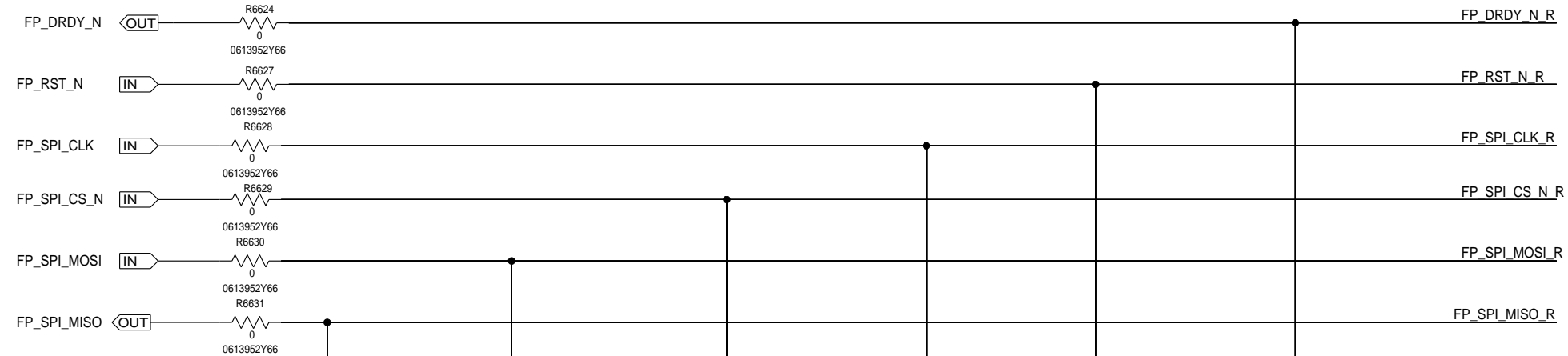
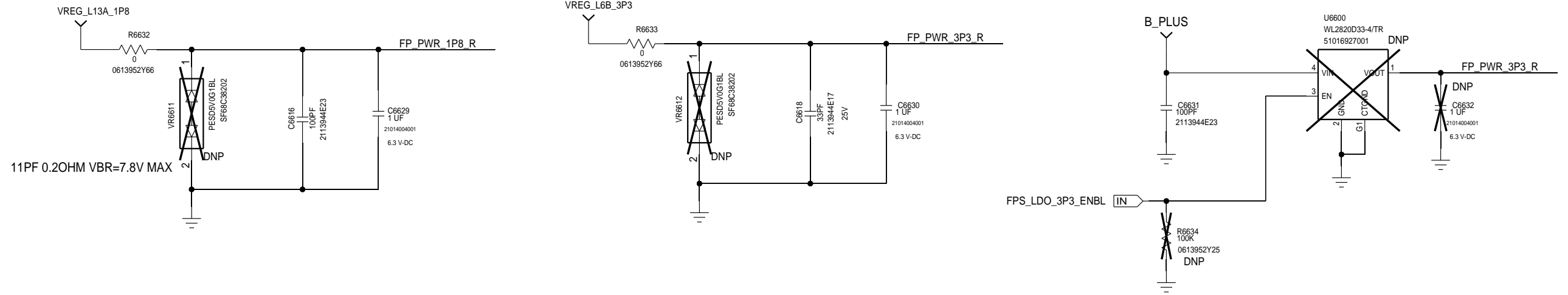


11PF 0.2OHM VBR=7.8V MAX

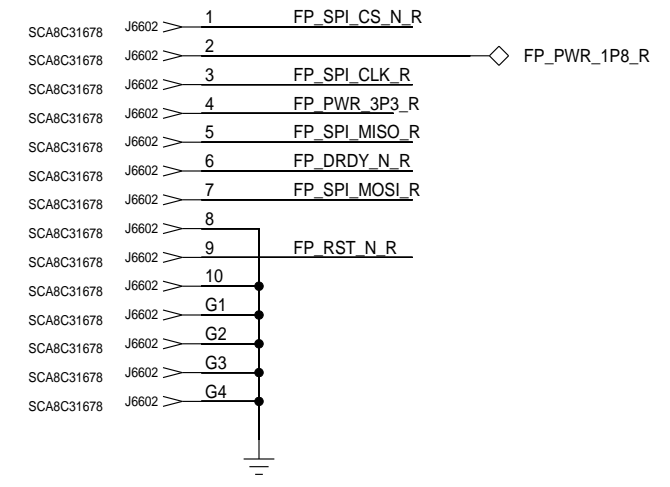
APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: NATE CONNELL		BLOCK TITLE:	
LAST MODIFIED BY: NATE CONNELL Tue Nov 06 15:02:27 2018		ui	
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		CAD FILE NAME:	
		PAGE 27 OF 66	

UI: FPS

REF: 6600 - 6699



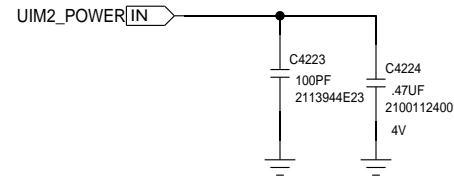
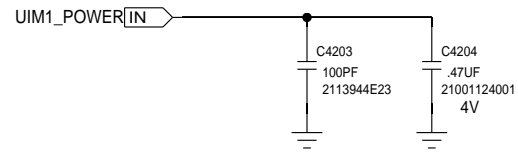
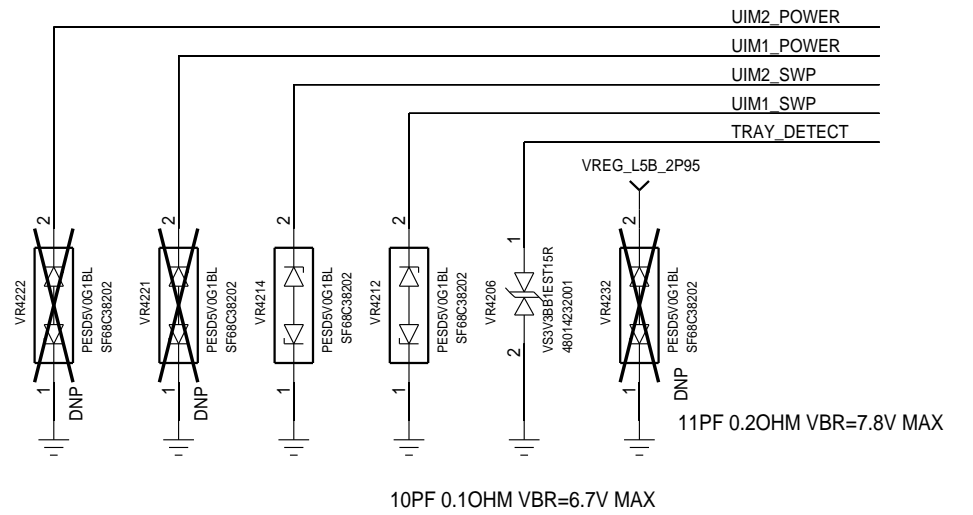
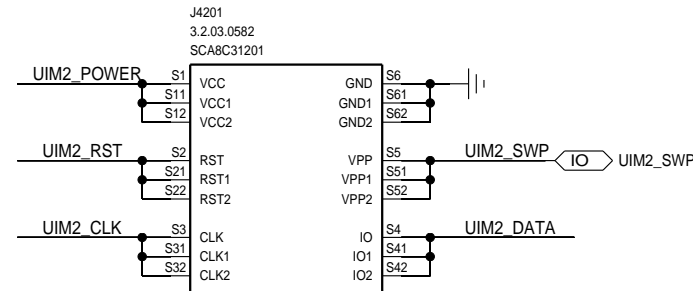
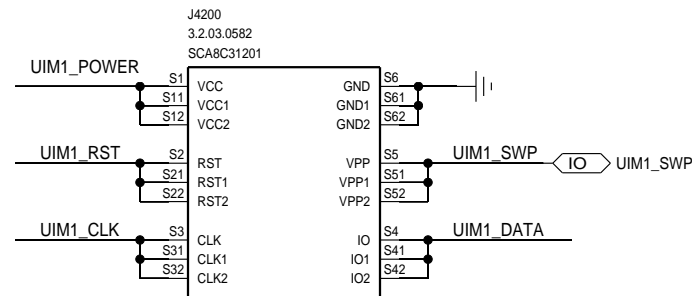
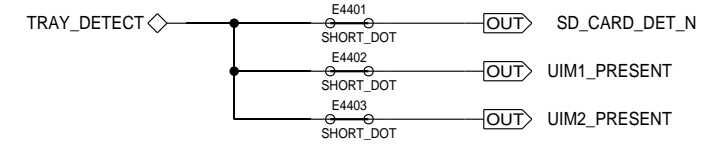
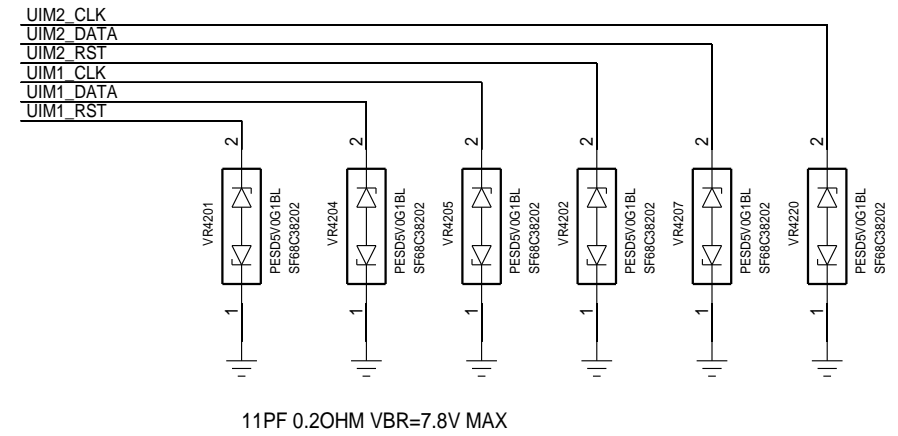
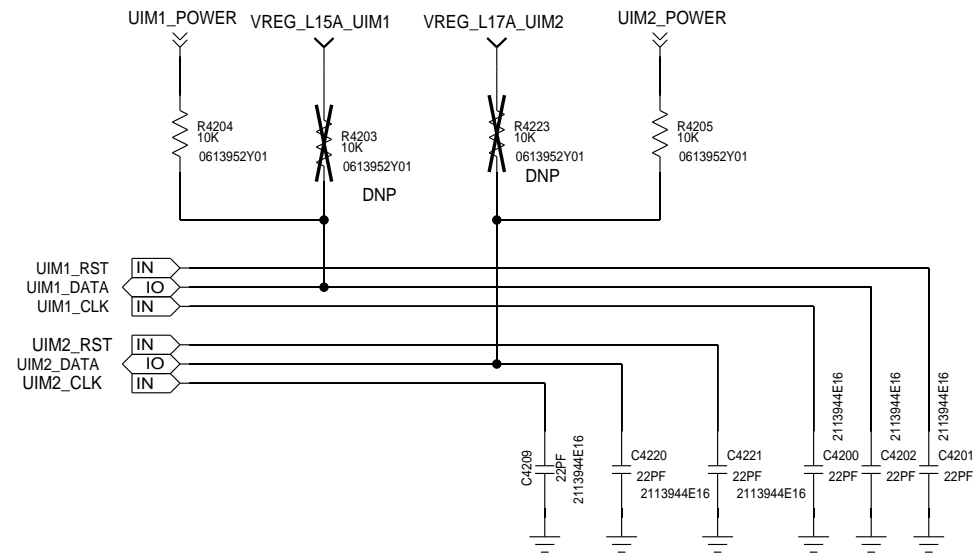
10PF 0.1OHM VBR=6.7V MAX



APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: NATE CONNELL		BLOCK TITLE:	
LAST MODIFIED BY: NATE CONNELL Tue Nov 06 15:02:26 2018		ui	
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		CAD FILE NAME:	PAGE 28 OF 66

UI: UIM

REF:4200-4499



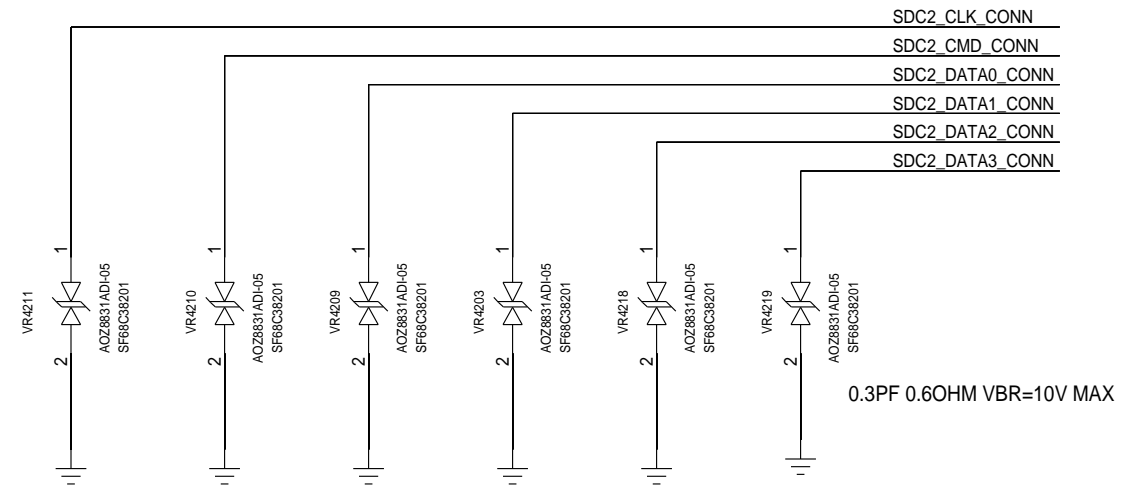
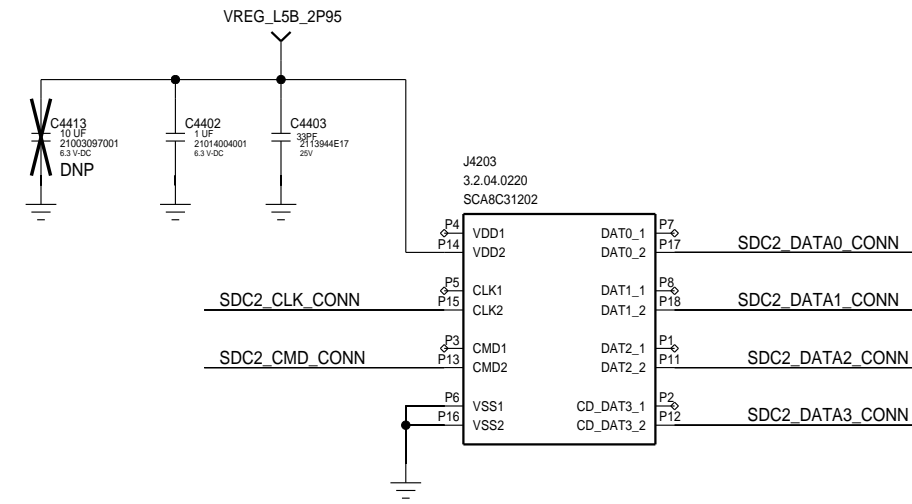
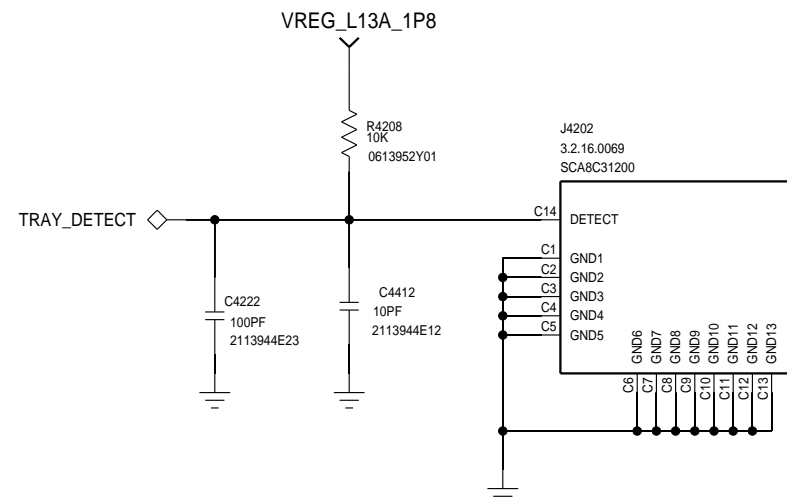
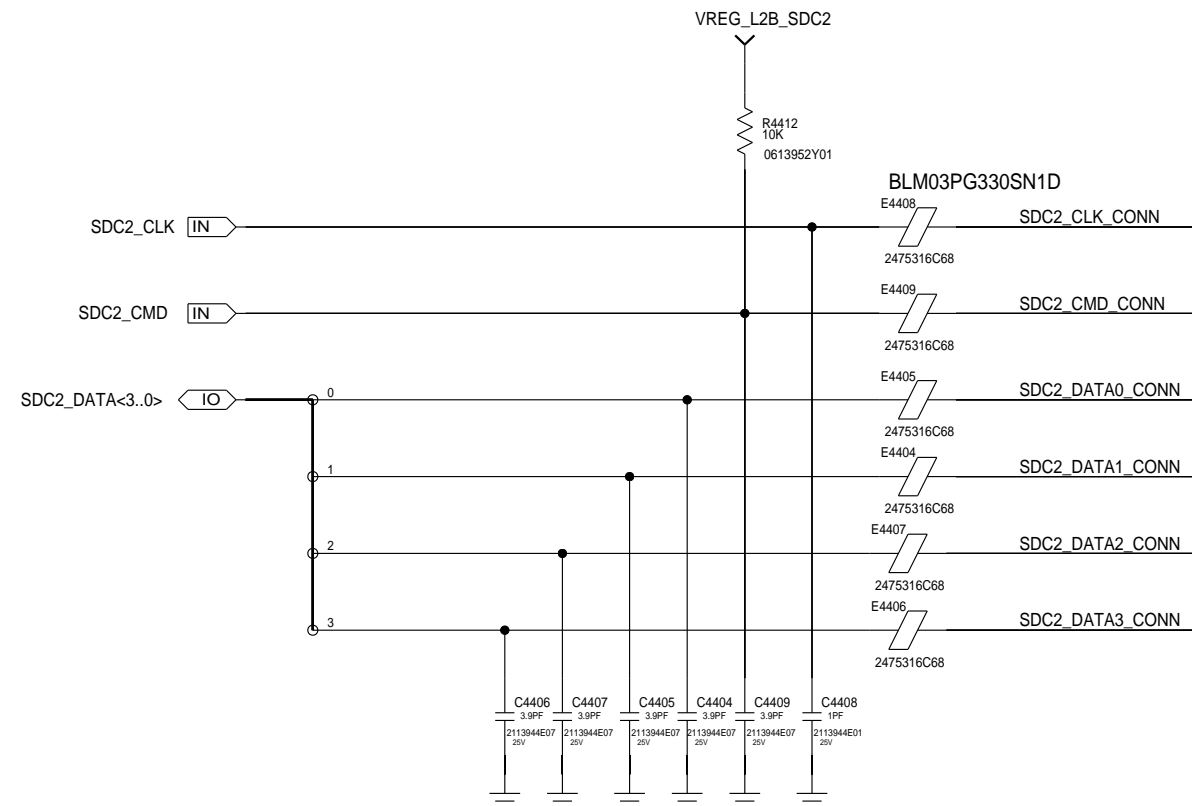
NOTE 1: USE 24.9K PULL-UP TO SUPPORT HOT SWAP WITH FREEZE-IO FEATURE.
 NOTE 2: UIM_PWR BYPASS OF 0.33UF RECOMMENDED BY NFC IC SUPPLIER, PLACE NEAR CONNECTOR.

MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:26 2018		ui	
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		B rloh.cpm	01
CAD FILE NAME:		PAGE 29 OF 66	

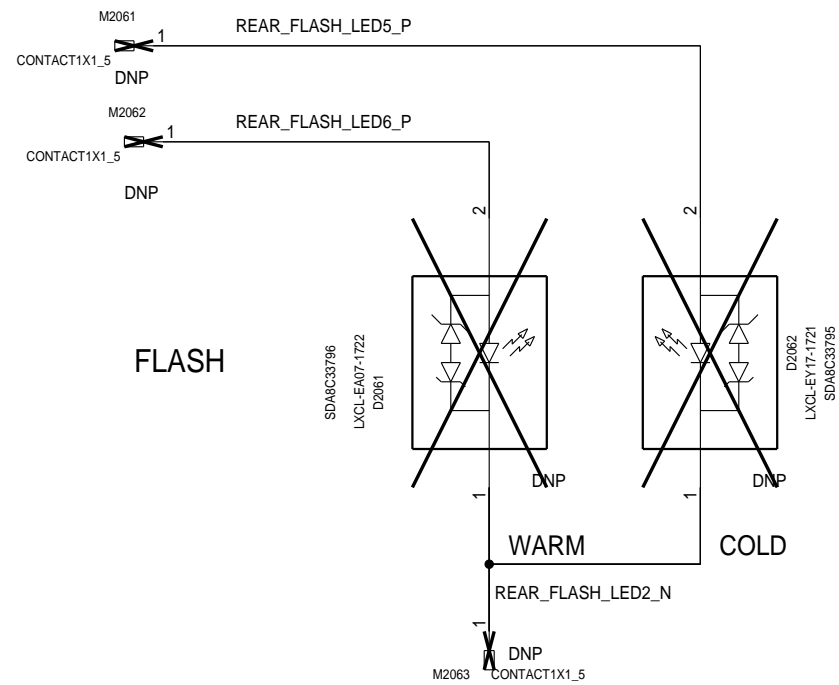
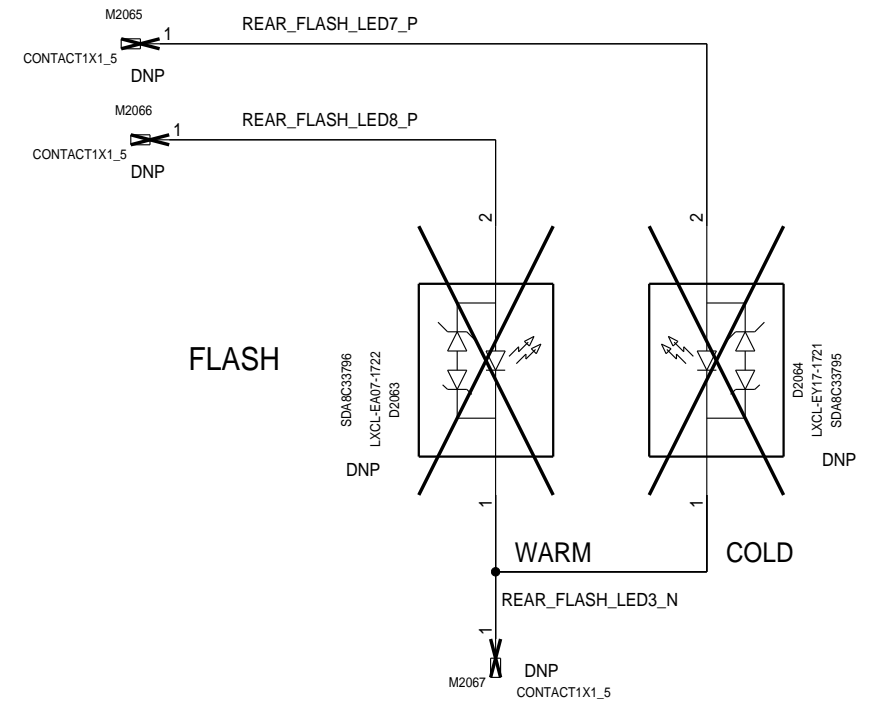
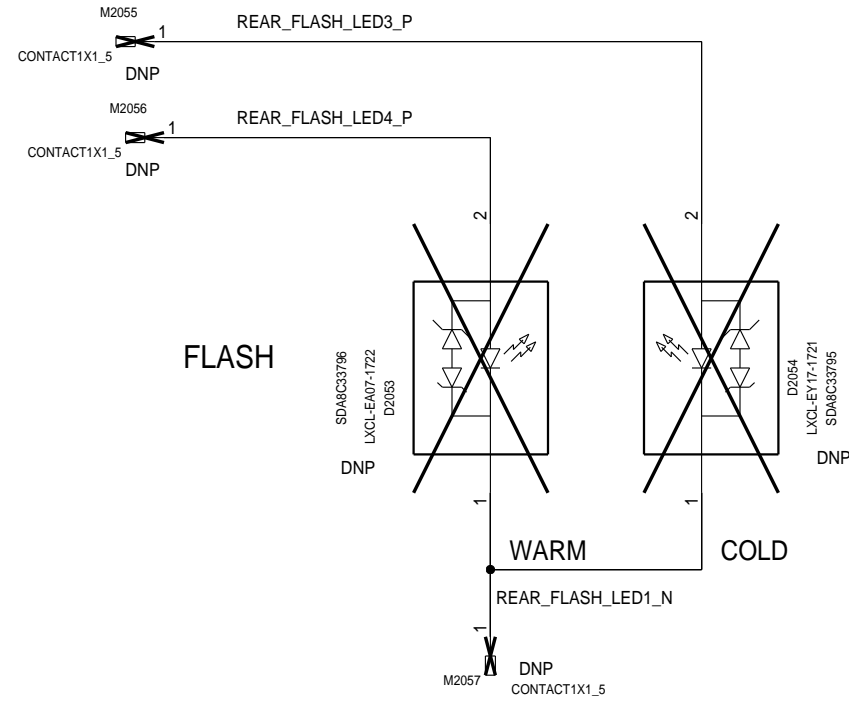
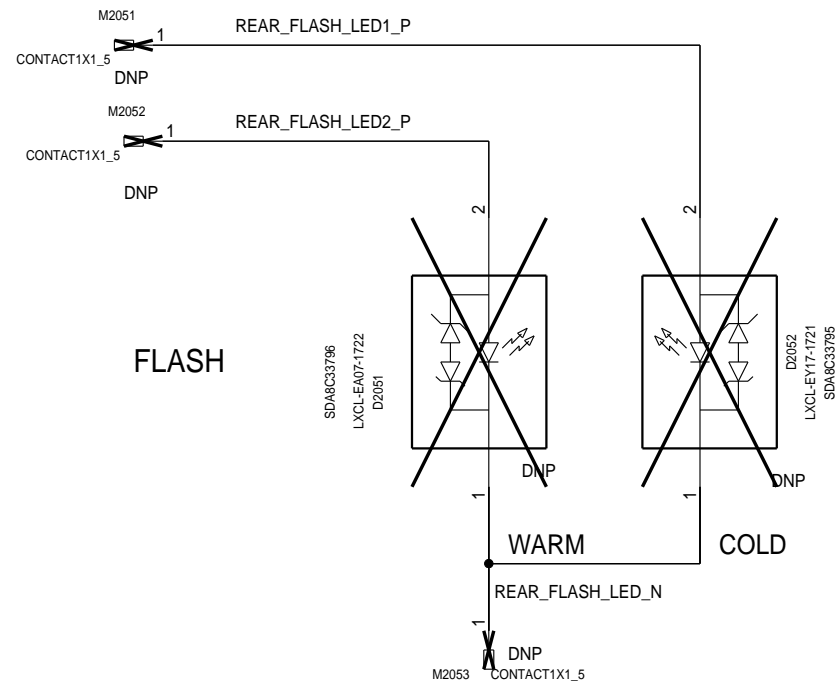
UI: SDCARD

REF:4200-4499



APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:27 2018		ui	
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		B rioh.cpm	01
CAD FILE NAME:		PAGE 30 OF 66	

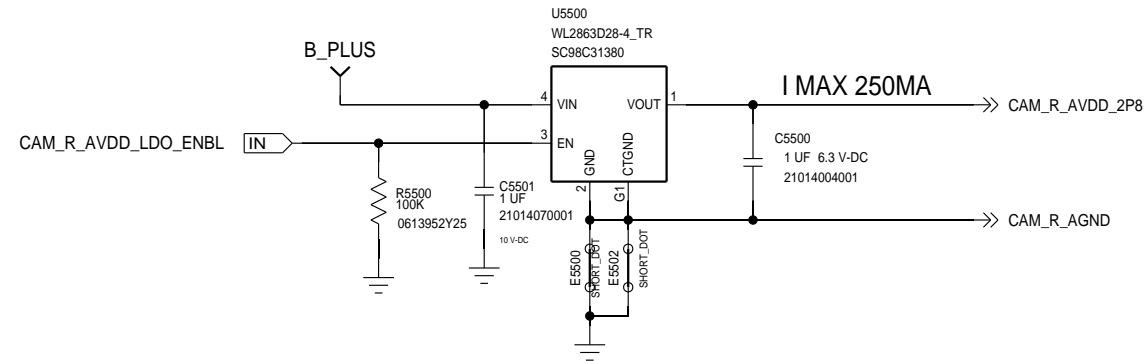
CAM: REAR FLASH



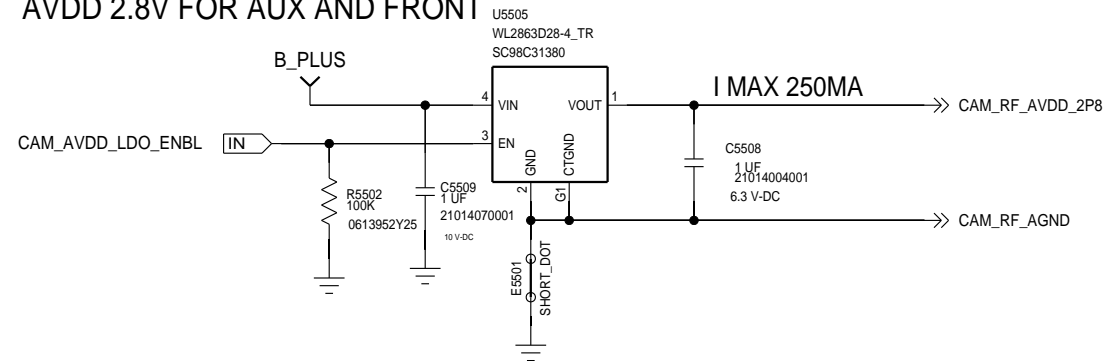
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ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:21 2018		multimedia	
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		CAD FILE NAME:	
		PAGE 31 OF 66	

CAM: POWER REF:5500-5529

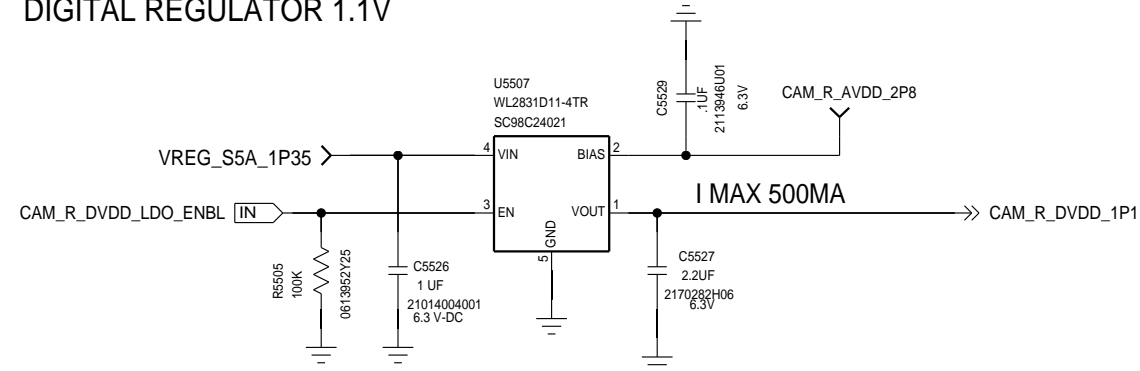
AVDD 2.8V FOR REAR MAIN



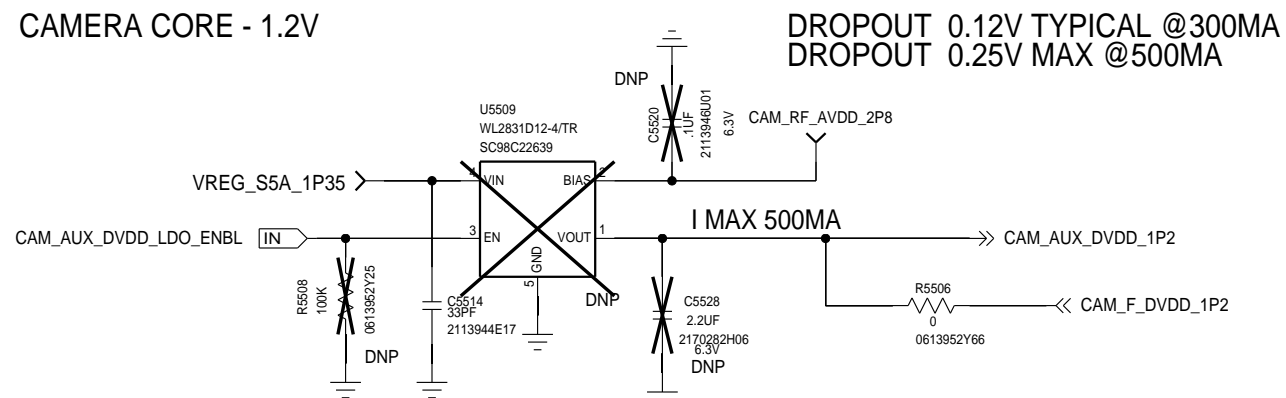
AVDD 2.8V FOR AUX AND FRONT



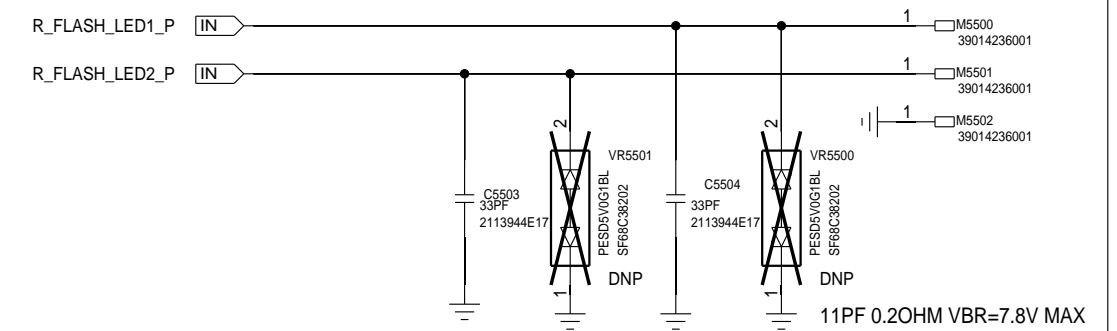
DIGITAL REGULATOR 1.1V



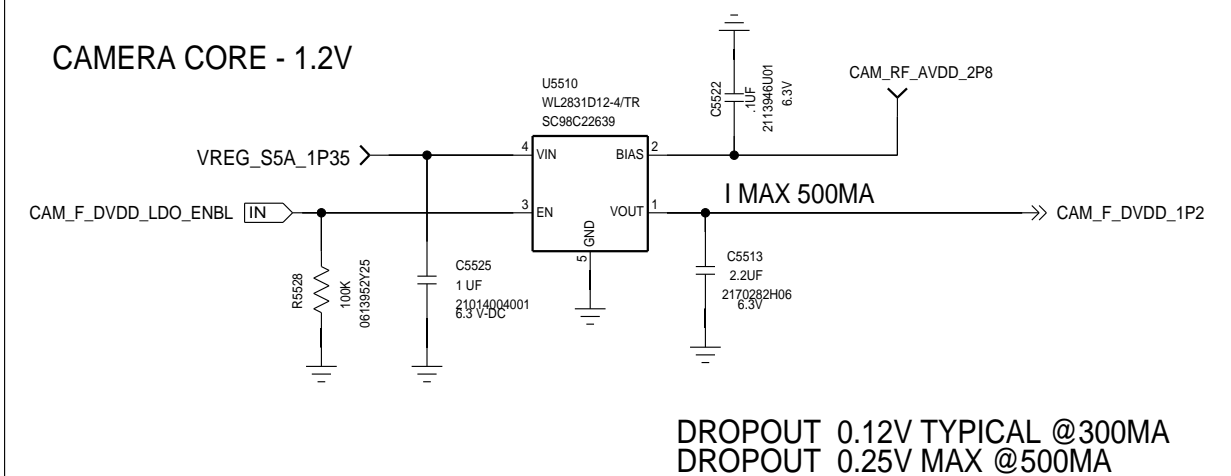
CAMERA CORE - 1.2V



REAR FACING FLASH REAR FLASH I MAX 1500MA FOR EACH



CAMERA CORE - 1.2V



APPROVALS

ENGINEER: ZHANG BEI

LAST MODIFIED BY: ZHANG BEI
Tue Nov 06 15:02:23 2018

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BLOCK TITLE:

multimedia

PROJECT NAME

B rioh.cpm

REV

01

CAD FILE NAME:

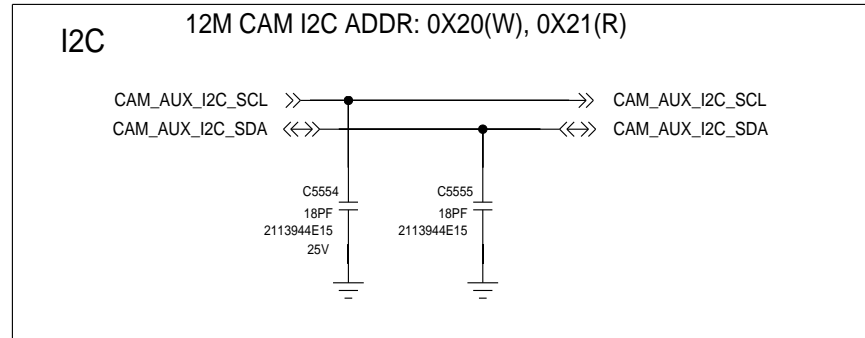
PAGE 32 OF 66

CAM: FRONT CONNECTOR

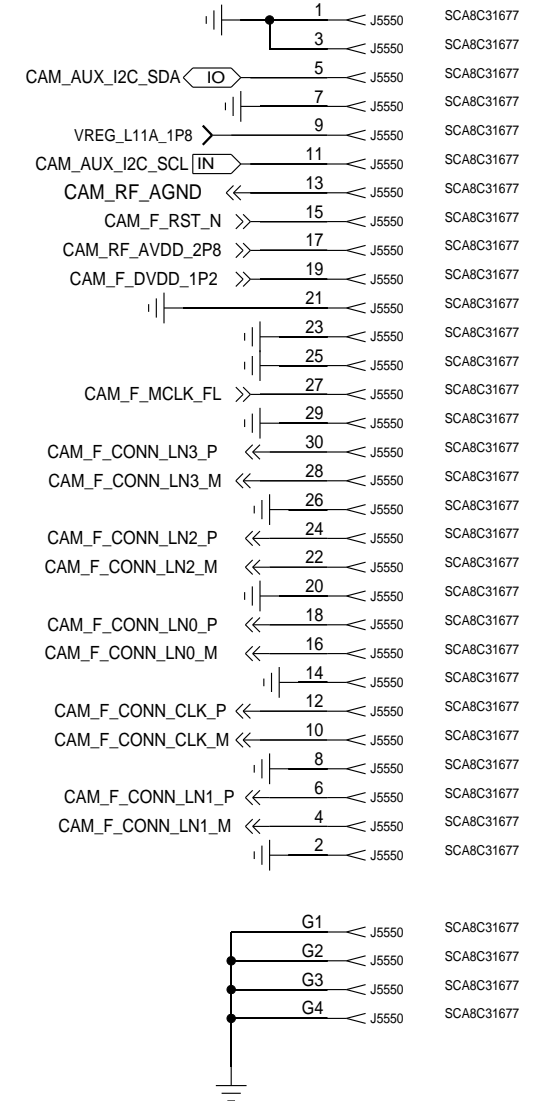
REF 5550-5569

SENSOR: OV12A10
12M, 1.25UM, 1/2.8", 4096X3072

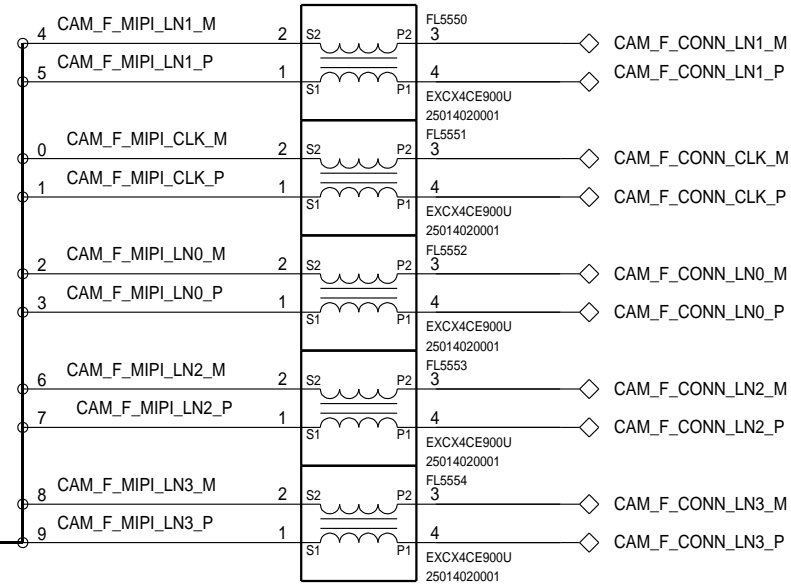
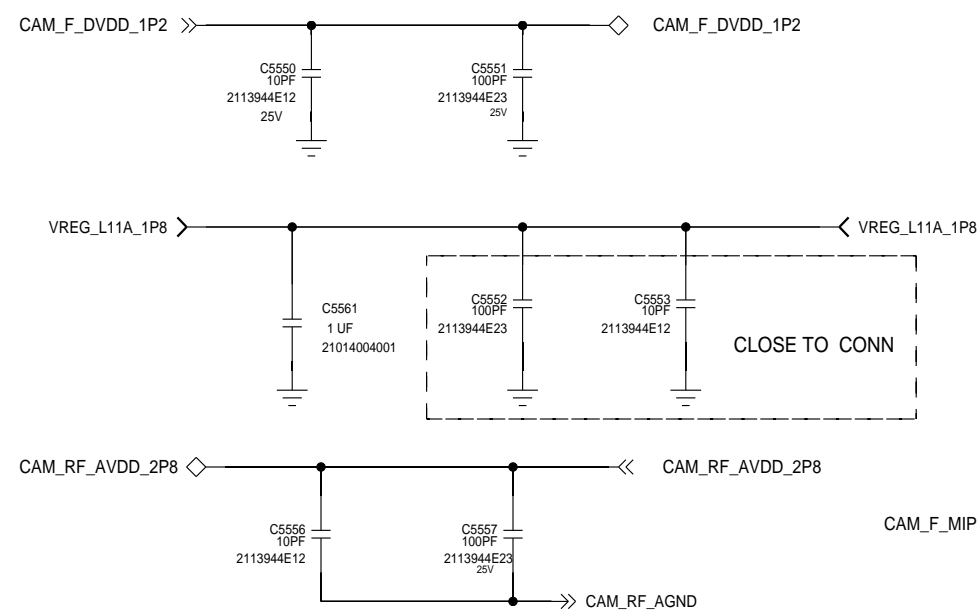
FF CAMERA CONNECTOR



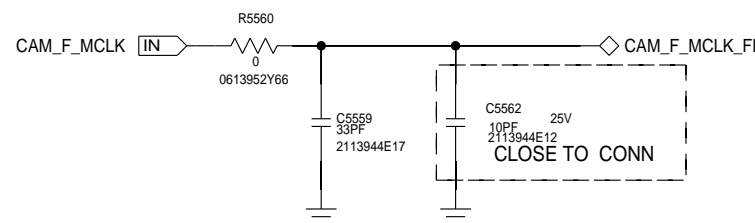
CAM I2C ADDRESS
 FRONT OV12A10 CAM_AUX_I2C
 SENSOR: 0X20,0X21
 EEPROM: 0XA0,0XA1
 AUX S5K5E9YX04 CAM_AUX_I2C
 SENSOR: 0X20,0X21
 REAR MAIN IMX519 CAM_I2C
 SENSOR: 0X34,0X35
 OIS: 0X48,0X49
 EEPROM: 0XA0,0XA1



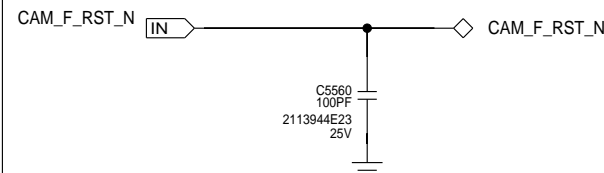
CAPACIORS BEADS ON THIS PAGE NEED BE PLACED CLOSE TO FRONT CAMERA CONNECTOR PIN.



EMI/ESD FILTER



XSHUTDOWN



APPROVALS

ENGINEER: ZHANG BEI
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PROJECT NAME
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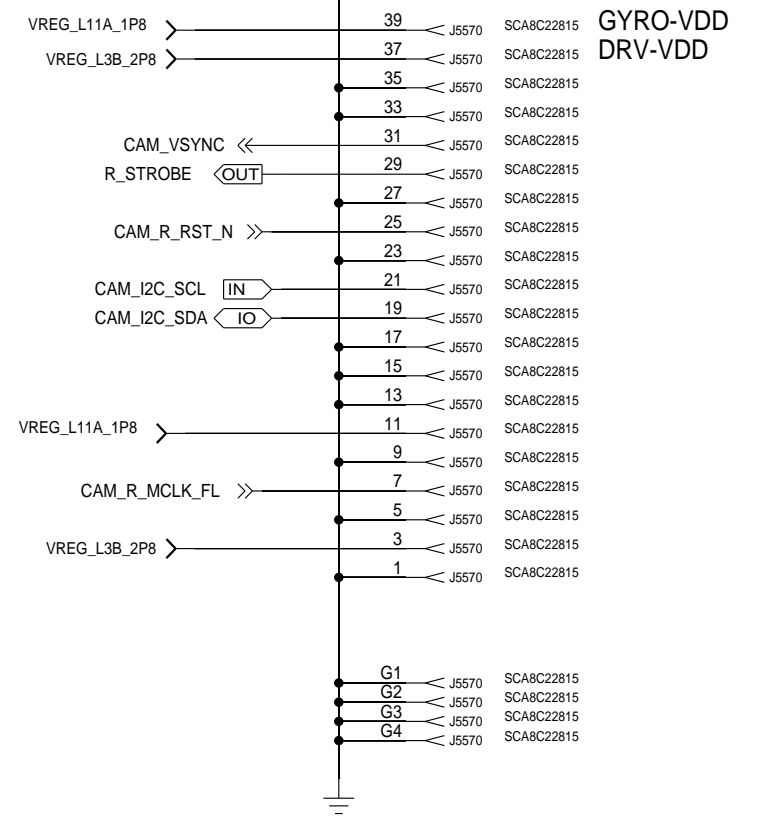
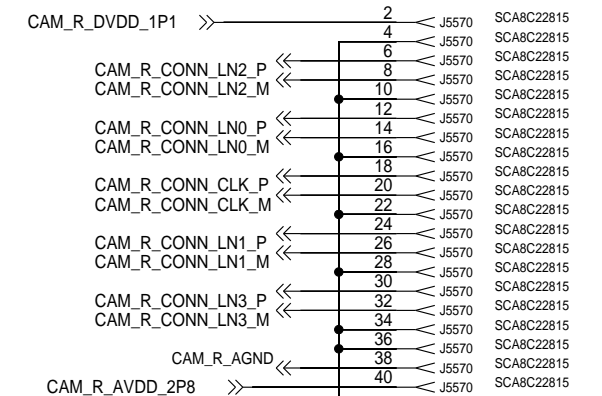
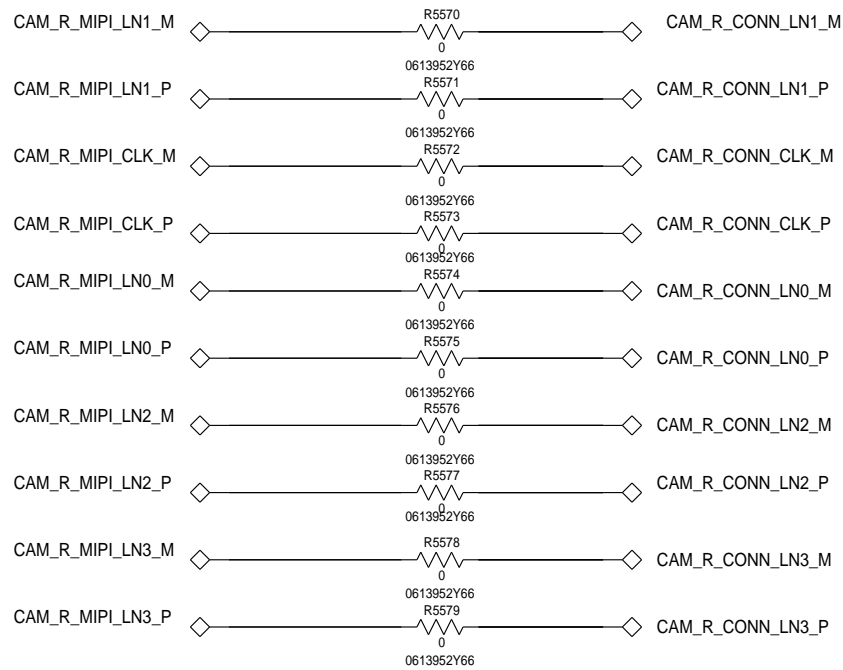
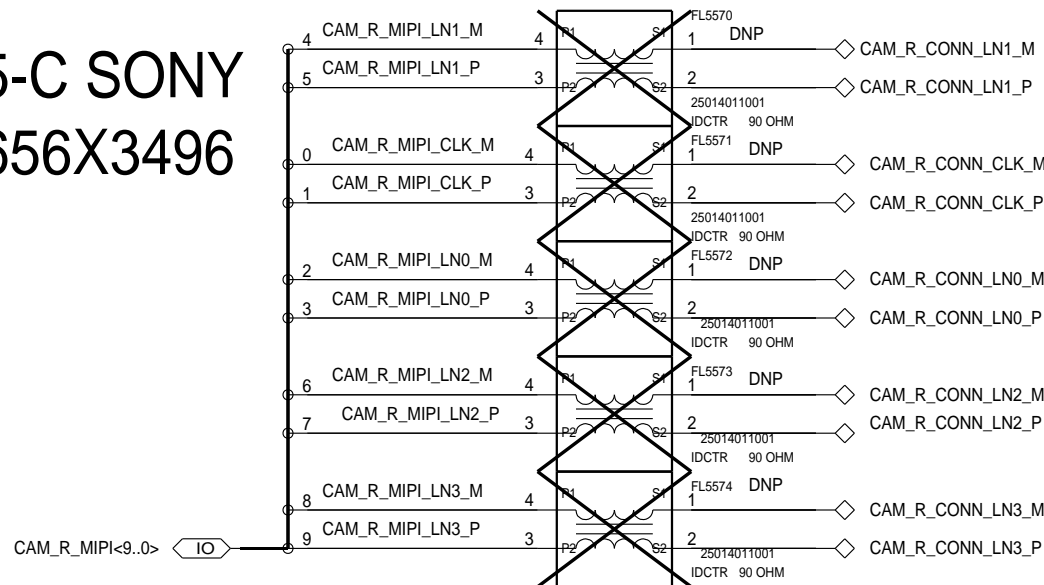
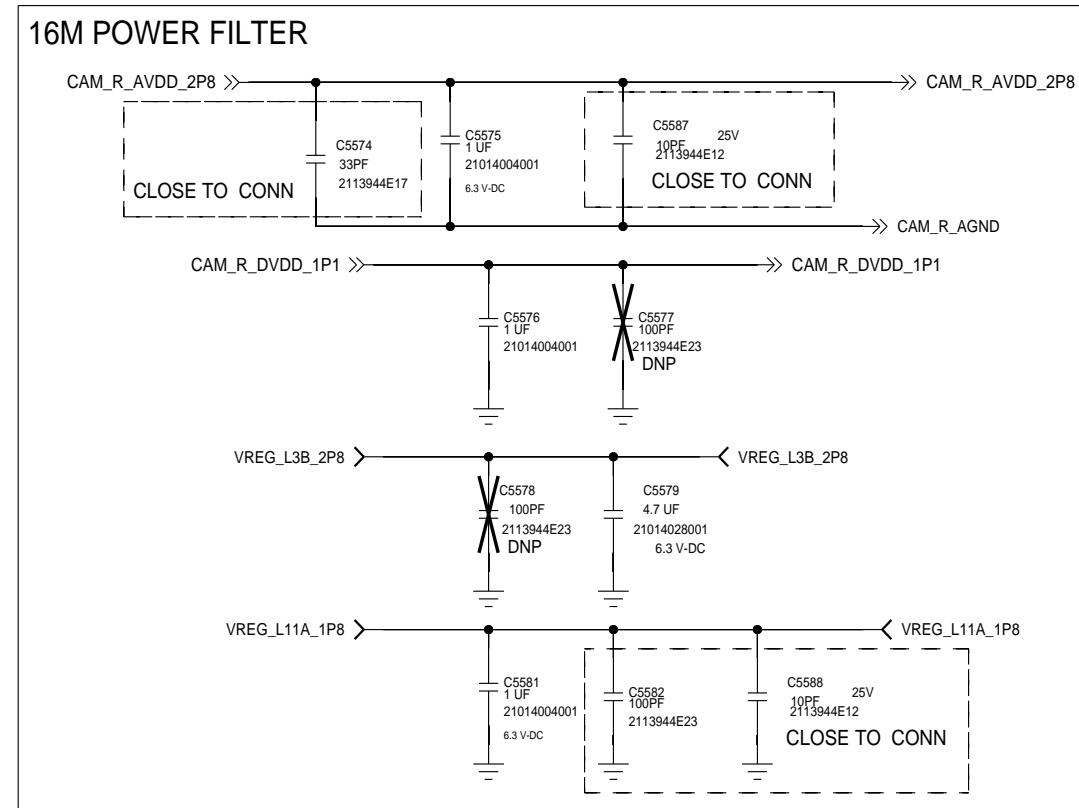
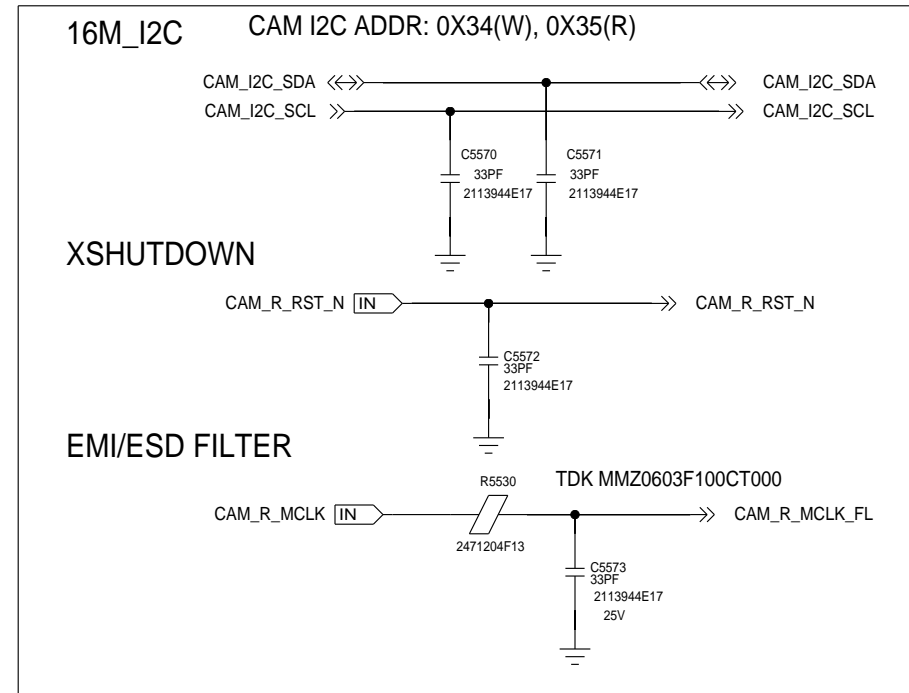
REV
 01

CAD FILE NAME:

cam: rear main connector

REF:5570-5589

SENSOR: IMX519-AAQH5-C SONY
16M, 1.22UM, 1/2.534", 4656X3496



CAPACIORS BEADS ON THIS PAGE NEED BE PLACED CLOSE TO MAIN REAR CAMERA CONNECTOR PIN.

APPROVALS			
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CAD FILE NAME:		PAGE 34 OF 66	

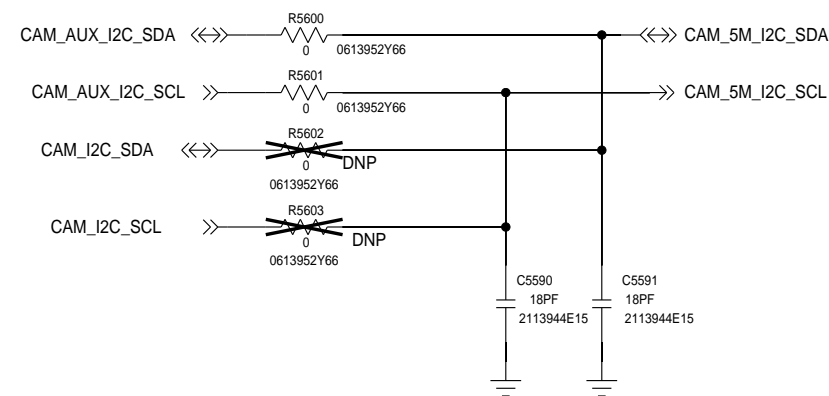
CAM: REAR AUX CONNECTOR

REF:5590-5610 5M CAM I2C ADDR: 0X20(W), 0X21(R)

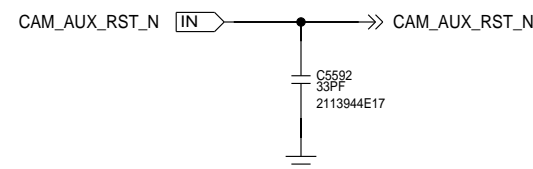
SENSOR: S5K5E9YX04 SAMSUNG

5M, 1.12UM, 1/5", 2592X1944

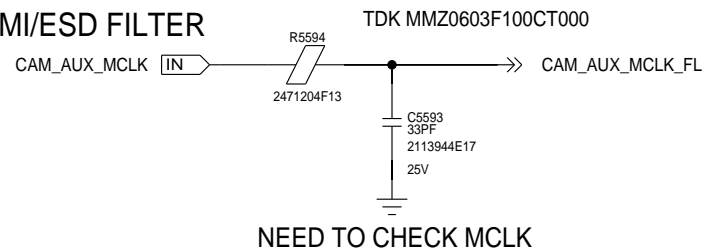
AUX_I2C



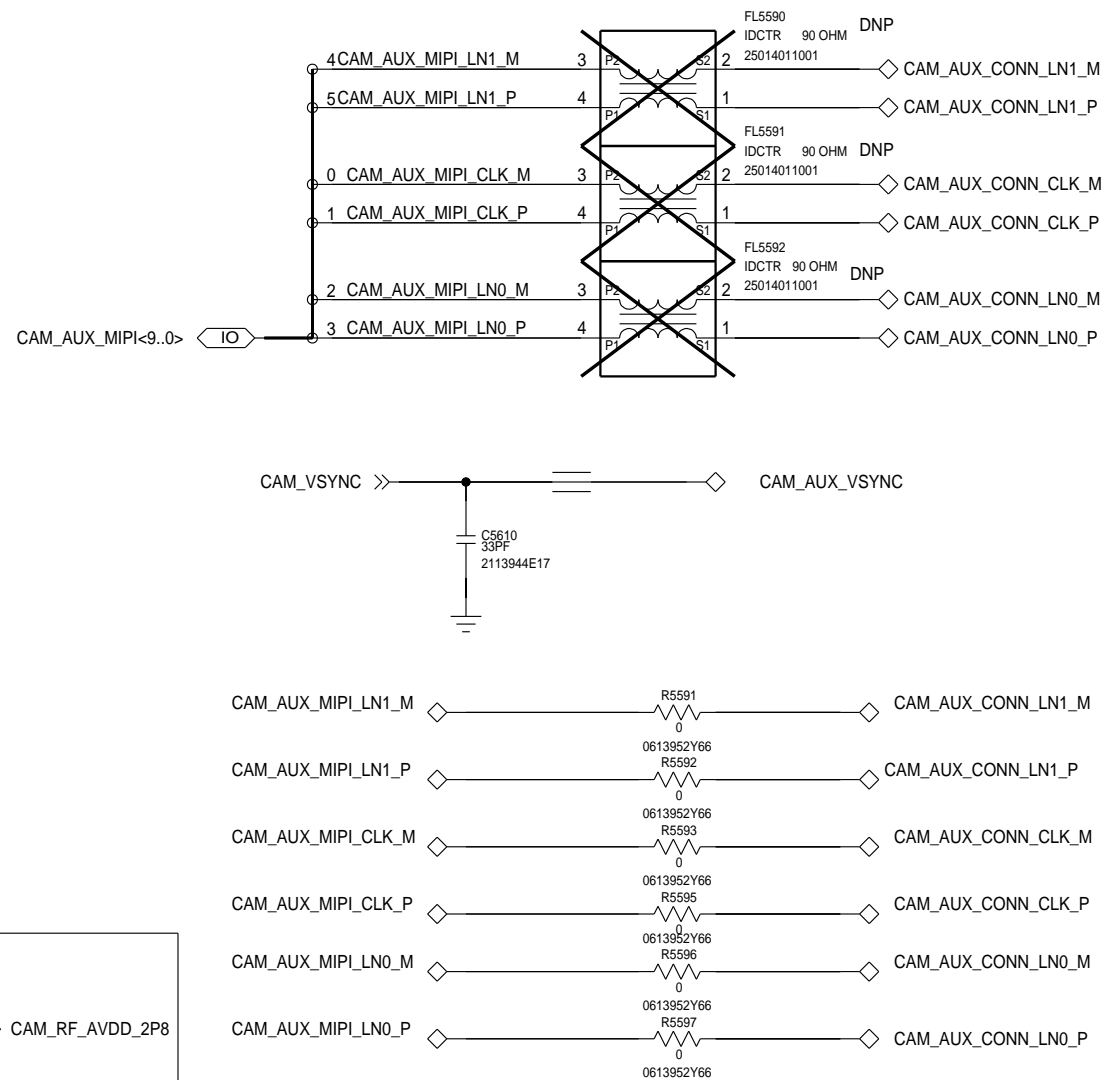
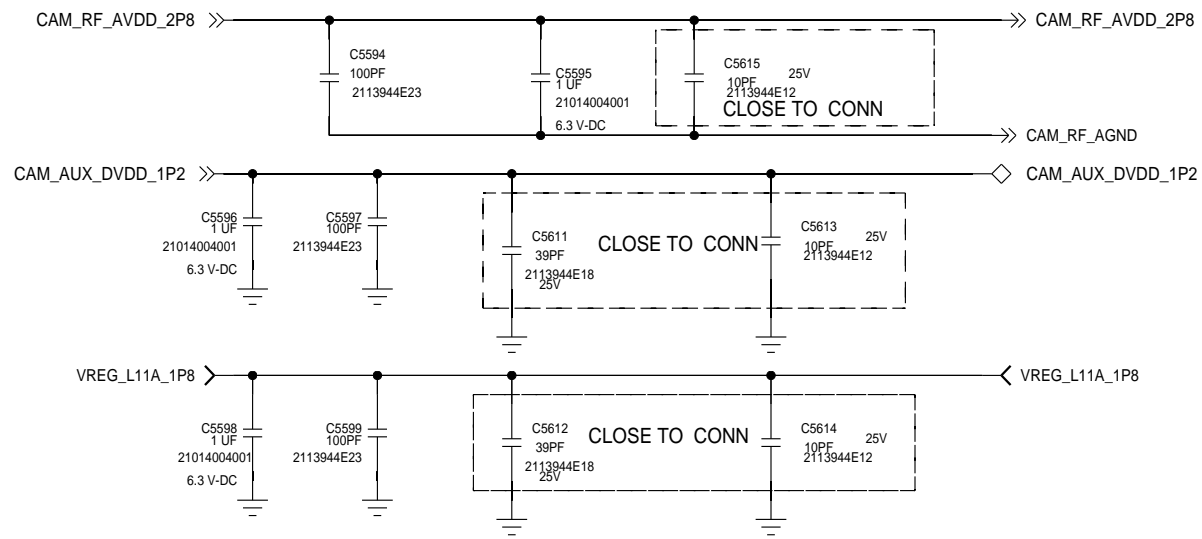
XSHUTDOWN



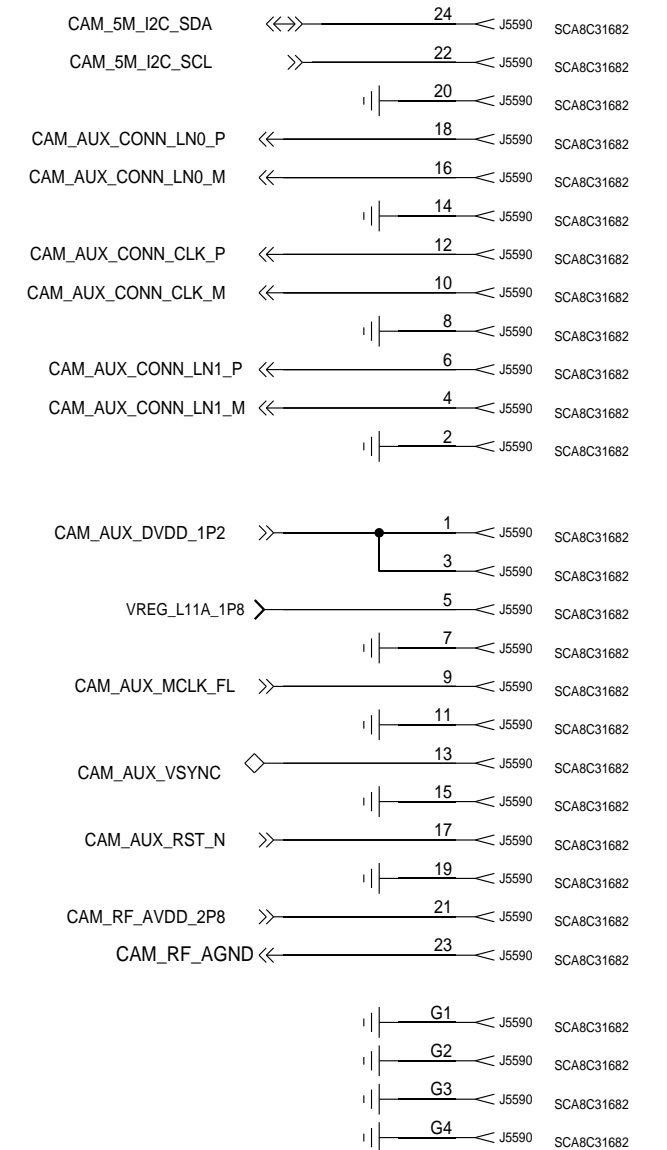
EMI/ESD FILTER



AUX POWER FILTER



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APPROVALS		MOTOROLA MOBILE DEVICES	
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LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:23 2018		multimedia	
MOTOROLA CONFIDENTIAL RESTRICTED		PROJECT NAME	REV
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CAD FILE NAME:		PAGE 35 OF 66	

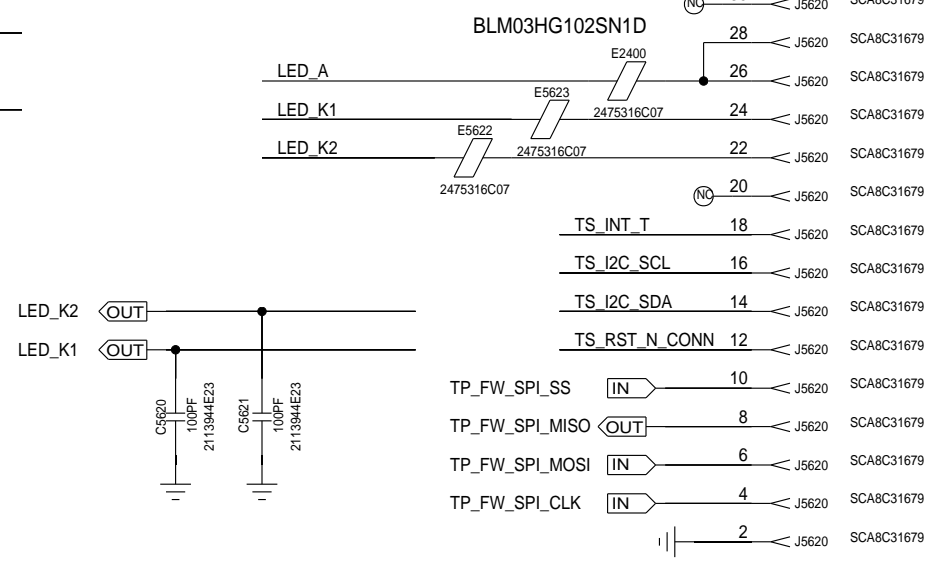
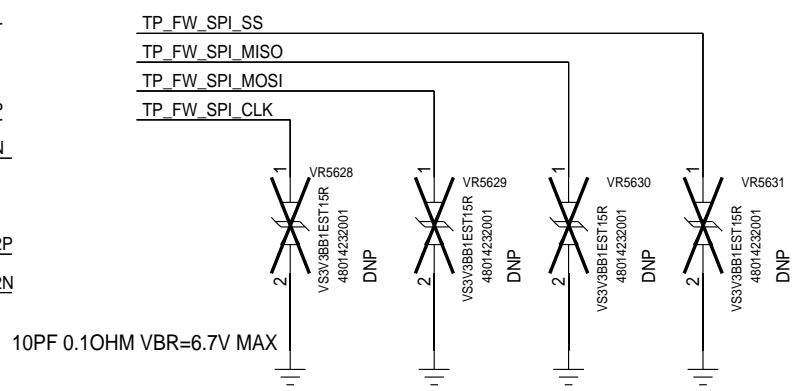
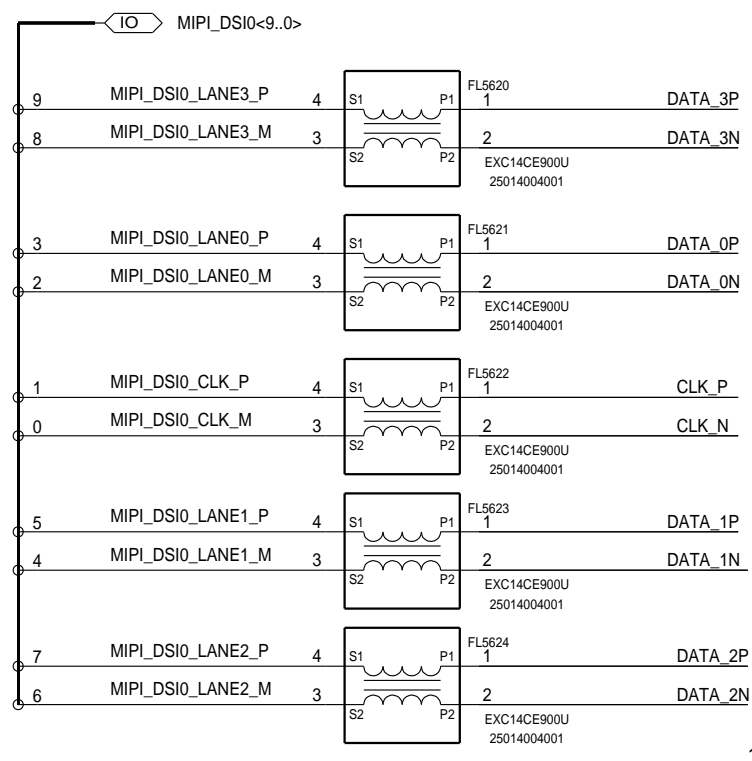
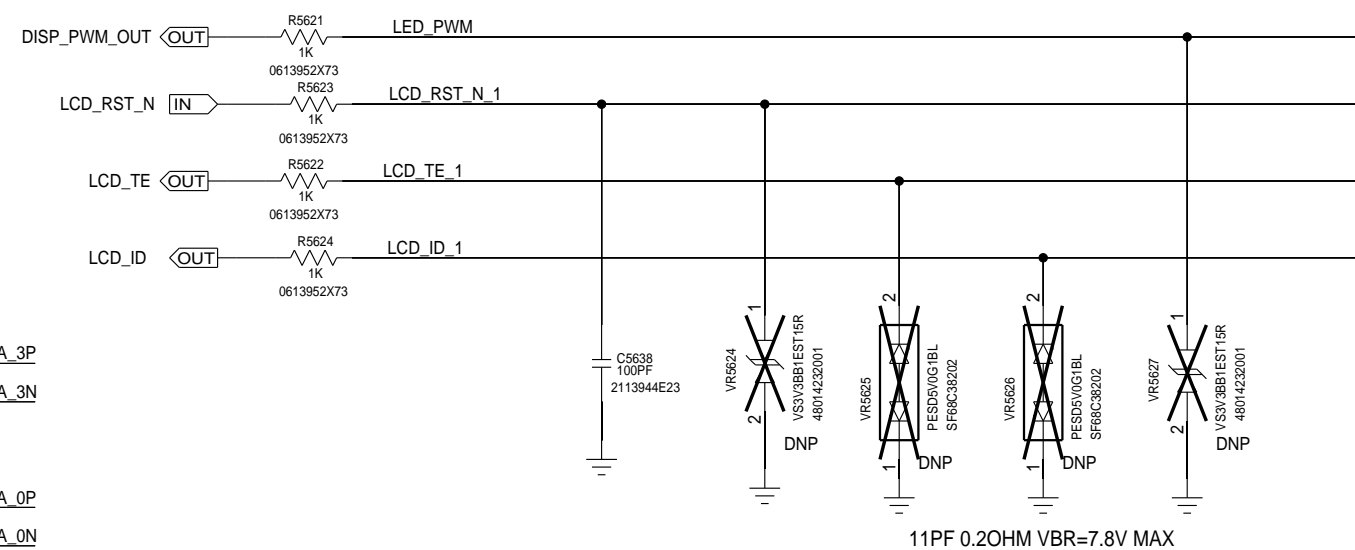
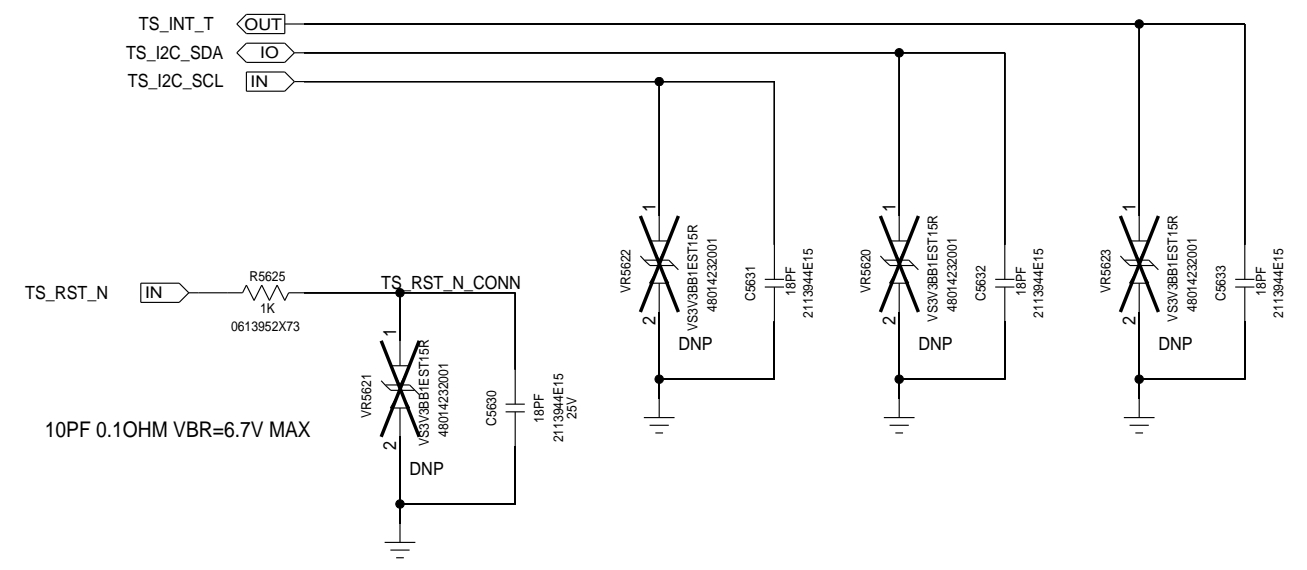
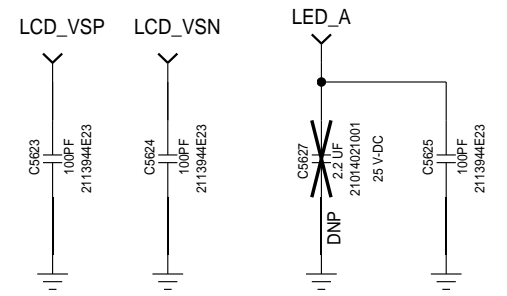
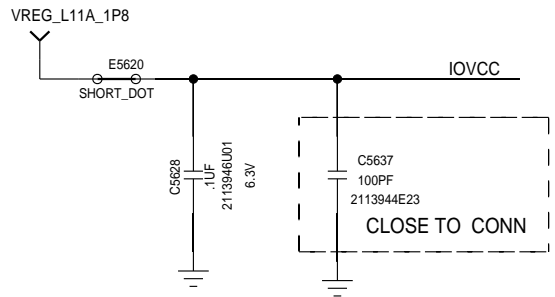
DISP: CONNECTOR

REF:5620--5650

ATTENTION TO POWER SUPPLY

LCD BACKUP ID

NO	1	J5620	SCA8C31679
LCD_ID_1	3	J5620	SCA8C31679
	5	J5620	SCA8C31679
DATA_3N	7	J5620	SCA8C31679
DATA_3P	9	J5620	SCA8C31679
	11	J5620	SCA8C31679
DATA_ON	13	J5620	SCA8C31679
DATA_OP	15	J5620	SCA8C31679
	17	J5620	SCA8C31679
CLK_N	19	J5620	SCA8C31679
CLK_P	21	J5620	SCA8C31679
	23	J5620	SCA8C31679
DATA_1N	25	J5620	SCA8C31679
DATA_1P	27	J5620	SCA8C31679
	29	J5620	SCA8C31679
DATA_2N	31	J5620	SCA8C31679
DATA_2P	33	J5620	SCA8C31679
	35	J5620	SCA8C31679
LED_PWM	37	J5620	SCA8C31679
LCD_TE_1	39	J5620	SCA8C31679
LCD_RST_N_1	40	J5620	SCA8C31679
IOVCC	38	J5620	SCA8C31679
	36	J5620	SCA8C31679
LCD_VSP	34	J5620	SCA8C31679
LCD_VSN	32	J5620	SCA8C31679
	30	J5620	SCA8C31679
	28	J5620	SCA8C31679
	26	J5620	SCA8C31679
	24	J5620	SCA8C31679
	22	J5620	SCA8C31679
	20	J5620	SCA8C31679
TS_INT_T	18	J5620	SCA8C31679
TS_I2C_SCL	16	J5620	SCA8C31679
TS_I2C_SDA	14	J5620	SCA8C31679
TS_RST_N_CONN	12	J5620	SCA8C31679
TP_FW_SPL_SS	10	J5620	SCA8C31679
TP_FW_SPL_MISO	8	J5620	SCA8C31679
TP_FW_SPL_MOSI	6	J5620	SCA8C31679
TP_FW_SPL_CLK	4	J5620	SCA8C31679
	2	J5620	SCA8C31679



GND SHIELDED FOR MIPI DSI SIGNALS AS A GROUP
ADD GND STITCHING VIAS FOR EACH SIGNAL GROUP (EBI,CSI,DSI) WHEN POSSIBLE TO MINIMIZE RETURN CURRENT LOOP

APPROVALS

ENGINEER: ZHANG BEI

LAST MODIFIED BY: ZHANG BEI
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MOTOROLA
MOBILE DEVICES

BLOCK TITLE:
multimedia

PROJECT NAME: rioh.cpm

REV: 01

CAD FILE NAME:

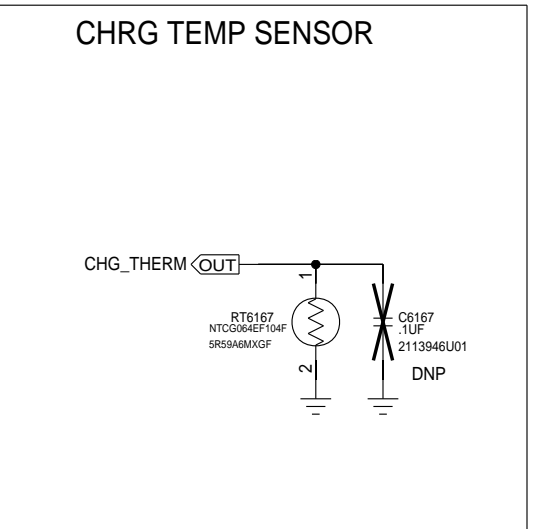
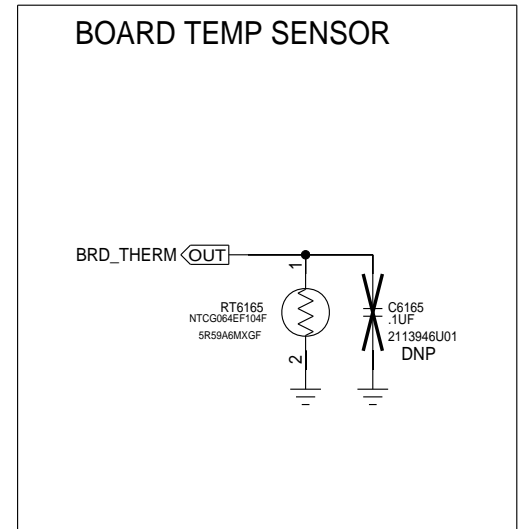
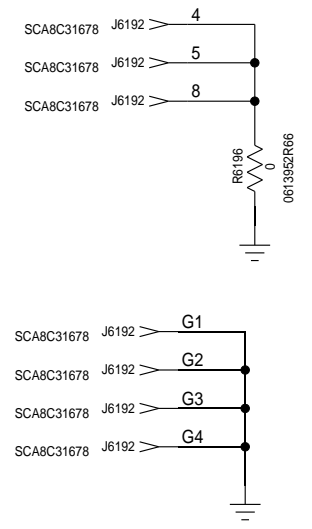
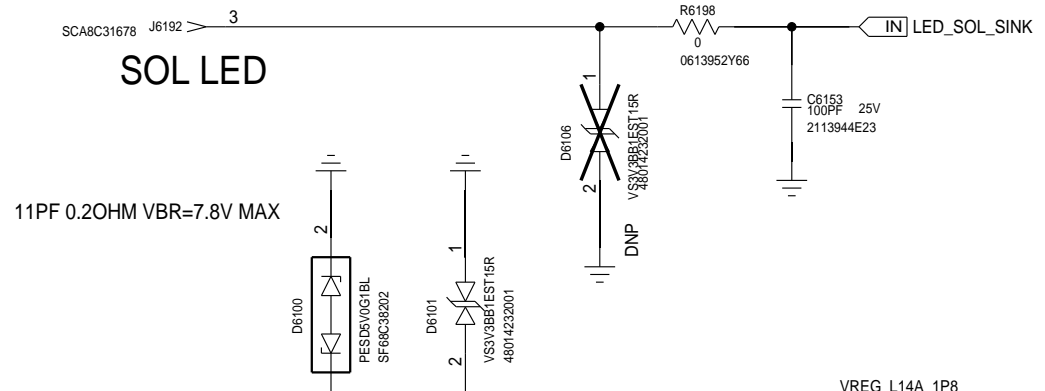
PAGE 36 OF 66

XMCS: SENSORS

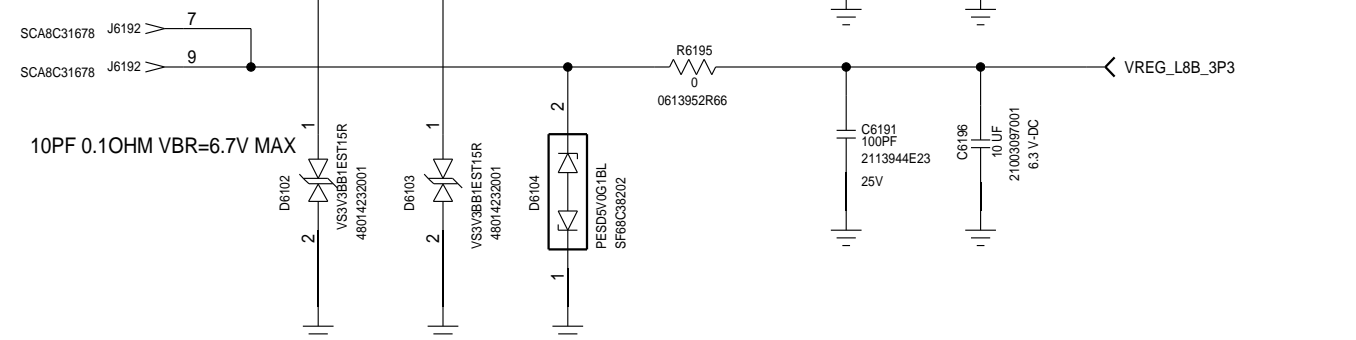
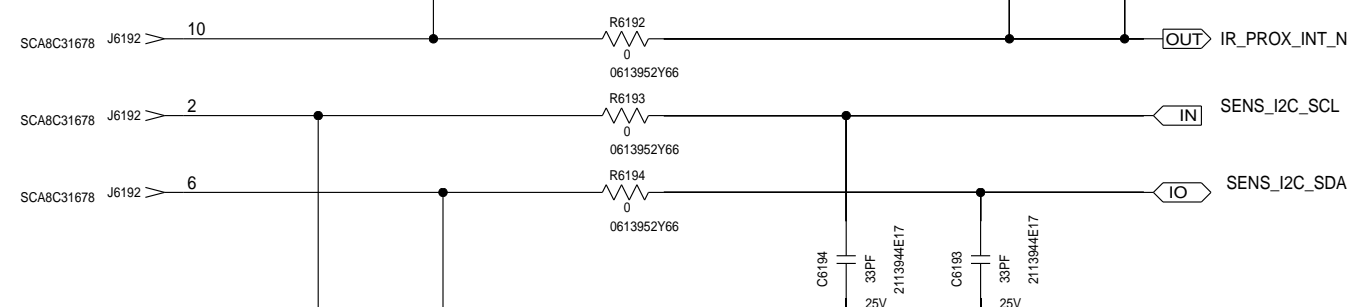
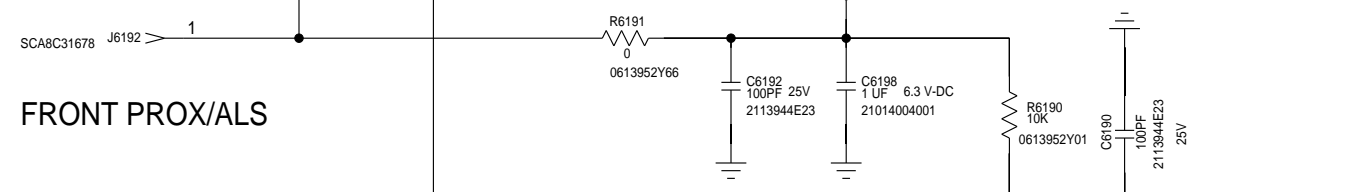
REF: 6100-6199

AWAY FROM NOISY SIGNALS AND HIGH POWER SOURCES

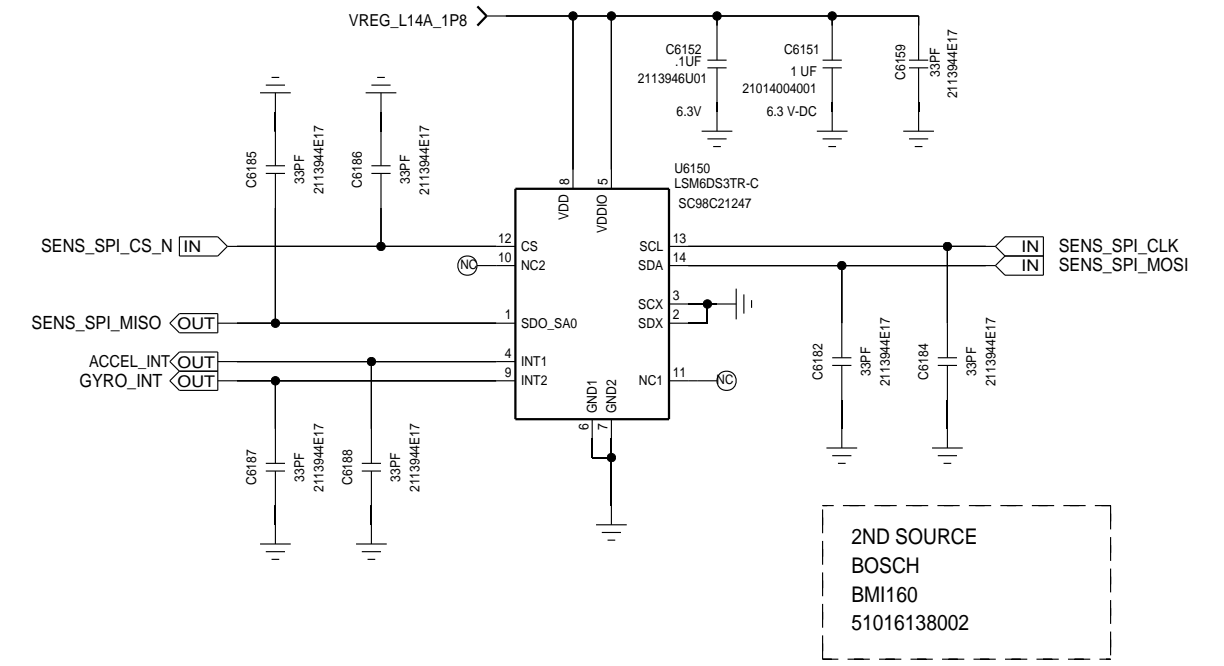
D



C

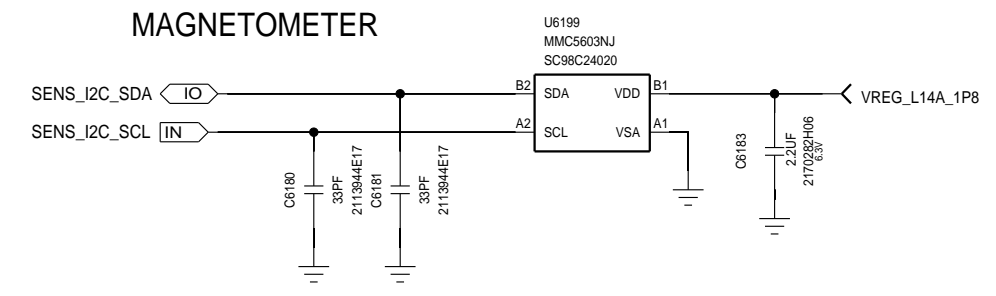


ACCELEROMETER+GYRO



2ND SOURCE
BOSCH
BMI160
51016138002

A



I2C ADDRESS
MMC5603NJ 0X60,0X61
CS47L35 0X34,0X35
TMD3702V 0X49,0X4A

JOHN GORSICA/NATE CONNELL
APPROVALS

ENGINEER: ZHANG BEI

LAST MODIFIED BY: ZHANG BEI
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MOTOROLA
MOBILE DEVICES

BLOCK TITLE:
xmcs

PROJECT NAME
rio.h.cpm

REV
01

CAD FILE NAME:

PAGE 37 OF 66

D

C

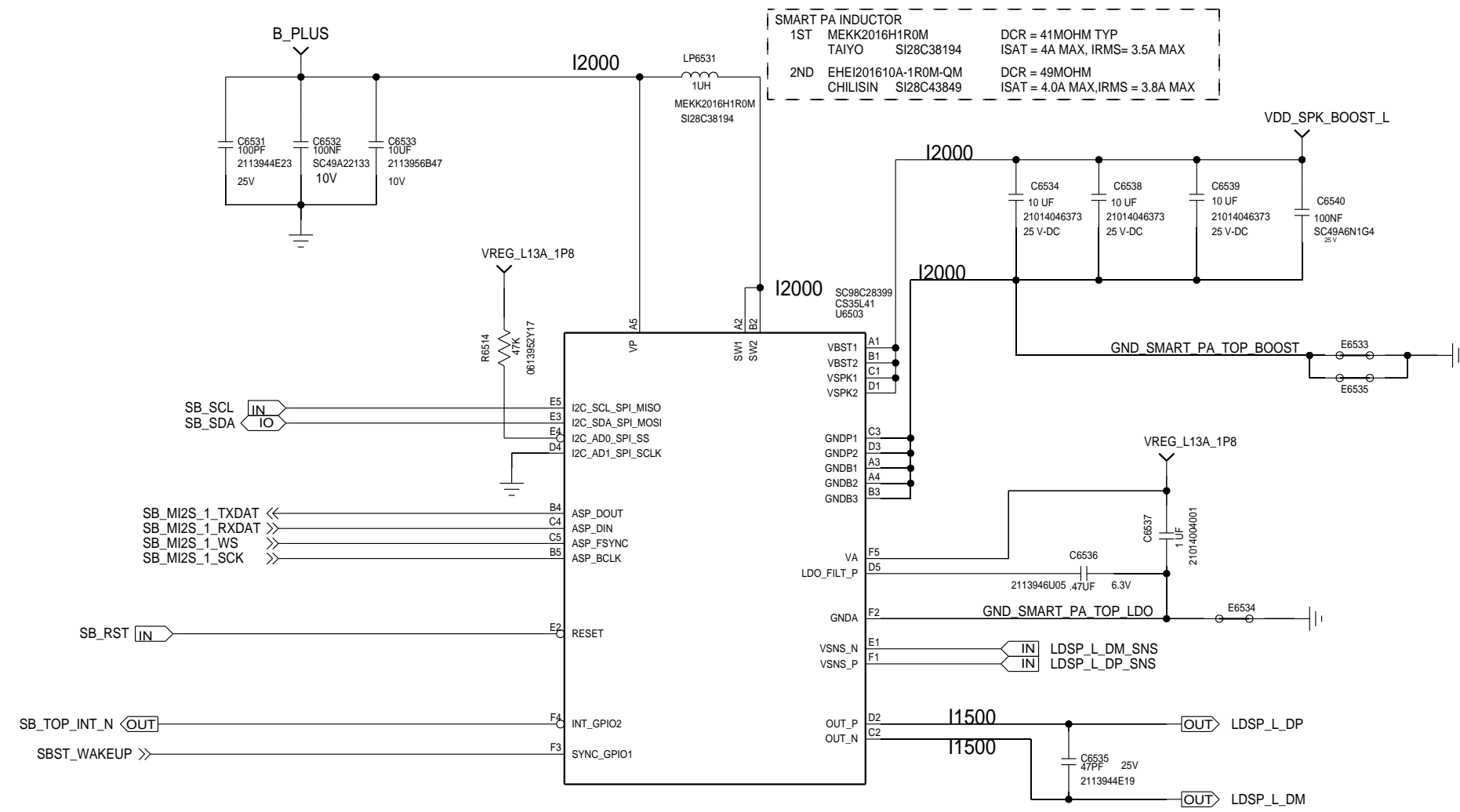
B

A

XMCS: SMART BOOST TOP

REF 6500-6599

*** BOOST IC I2C ADD. 0X??

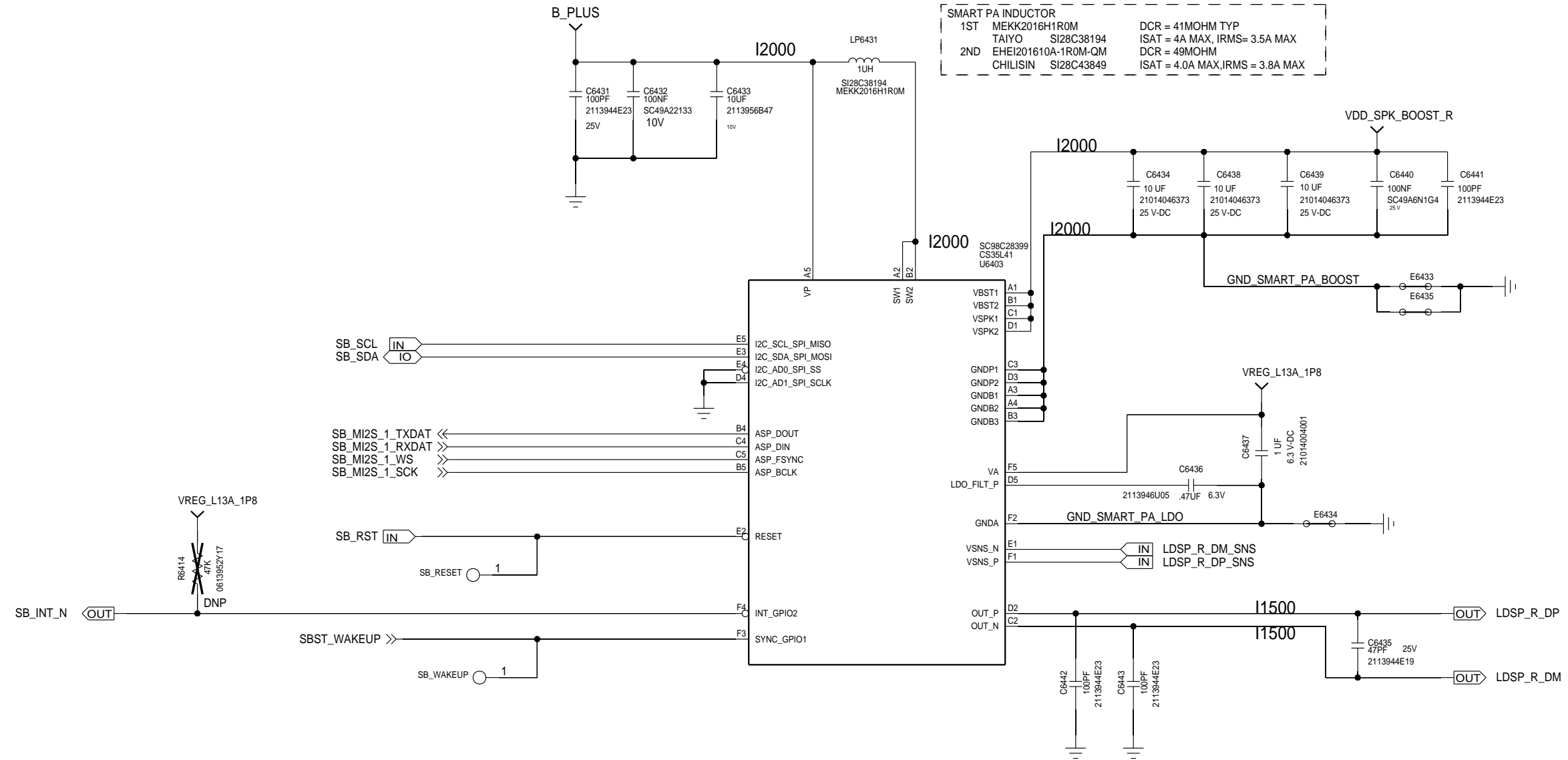


APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:24 2018		xmcs	
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		B rioh.cpm	01
CAD FILE NAME:		PAGE 38 OF 66	

XMCS: SMART BOOST

REF 6400-6499

*** BOOST IC I2C ADD. 0X??

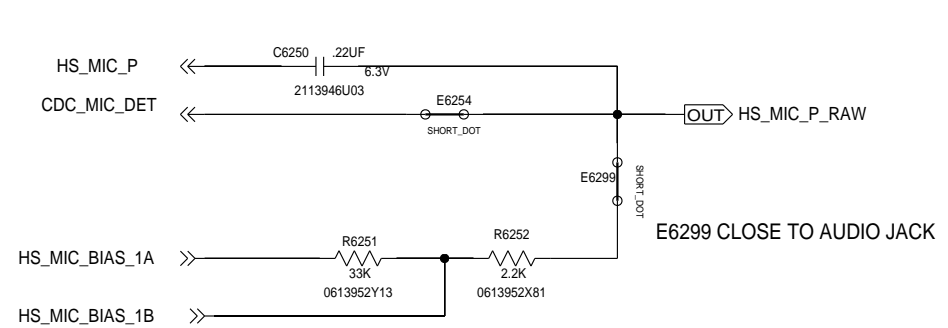
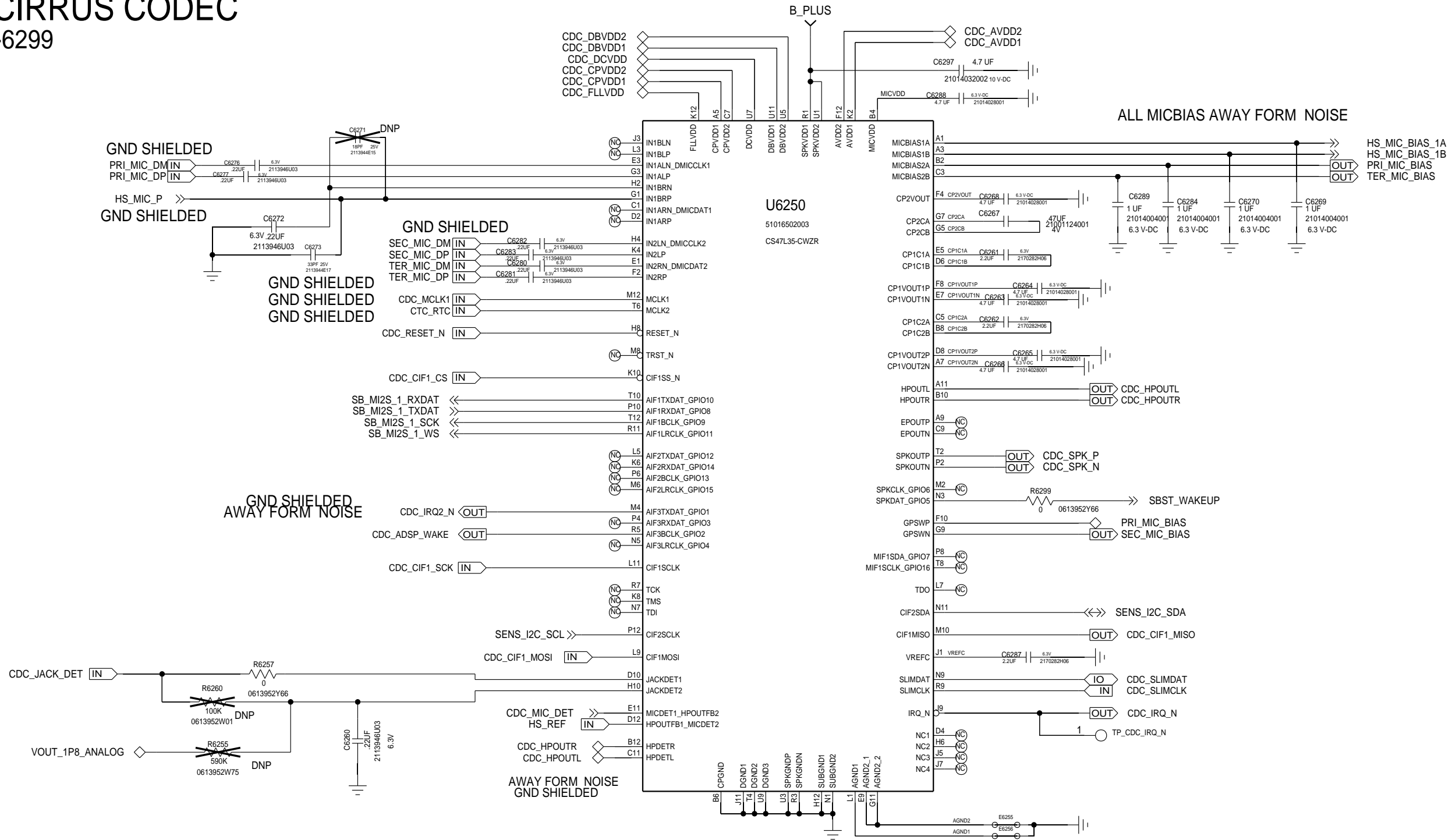


SMART PA INDUCTOR			
1ST	MEKK2016H1R0M	DCR = 41MOHM TYP	
	TAIYO SI28C38194	ISAT = 4A MAX, IRMS = 3.5A MAX	
2ND	EHEI201610A-1R0M-QM	DCR = 49MOHM	
	CHILISIN SI28C43849	ISAT = 4.0A MAX, IRMS = 3.8A MAX	

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:	ZHANG BEI	BLOCK TITLE:	
LAST MODIFIED BY:	ZHANG BEI Tue Nov 06 15:02:24 2018	xmcs	
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CAD FILE NAME:		PAGE 39 OF 66	

XMCS: CIRRUS CODEC

REF 6250-6299



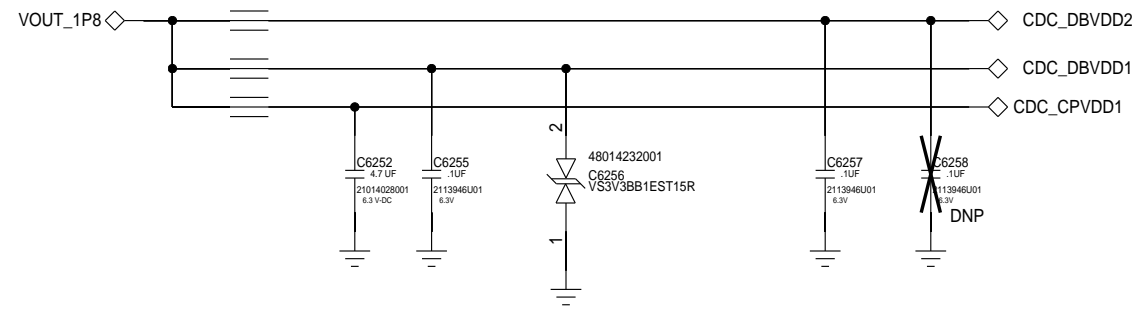
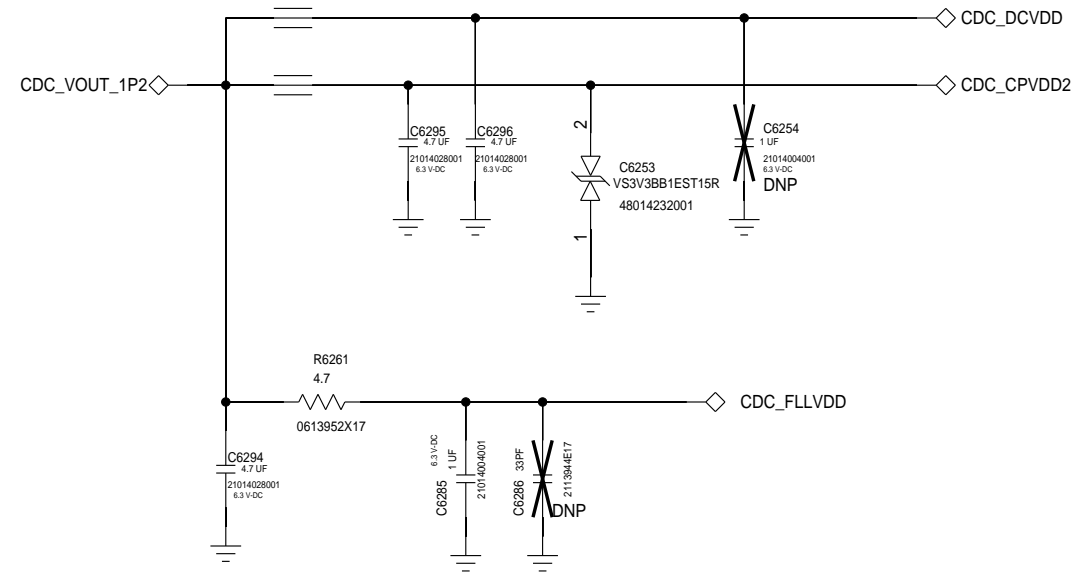
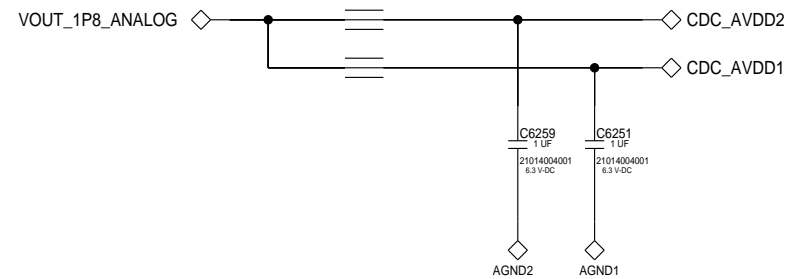
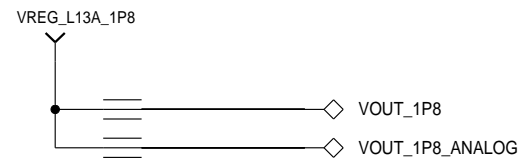
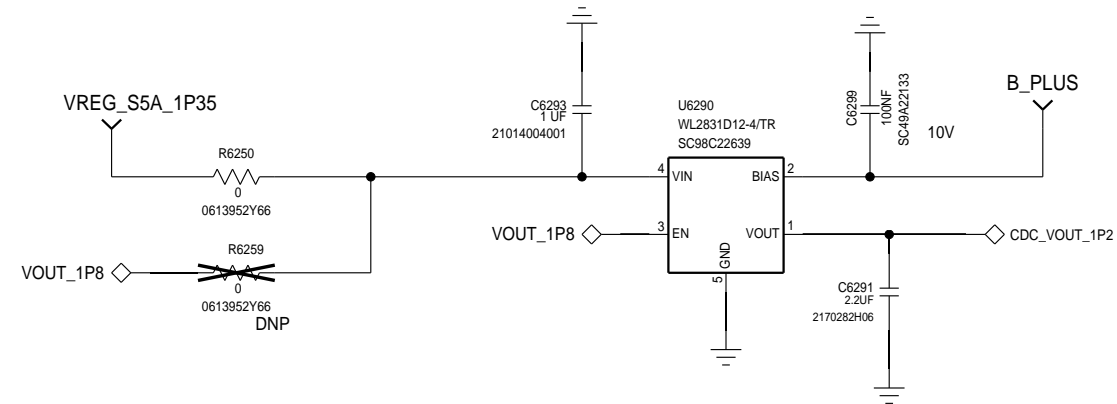
APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:24 2018		xmcs	
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		B rioh.cpm	01
CAD FILE NAME:		PAGE 40 OF 66	

XMCS: CODEC POWER

REF 6250-6299

1.2V POWER SUPPLY

DROPOUT 0.12V TYPICAL @300MA
DROPOUT 0.25V MAX @500MA



APPROVALS		MOTOROLA MOBILE DEVICES	
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		B rioh.cpm	01
CAD FILE NAME:		PAGE 41 OF 66	

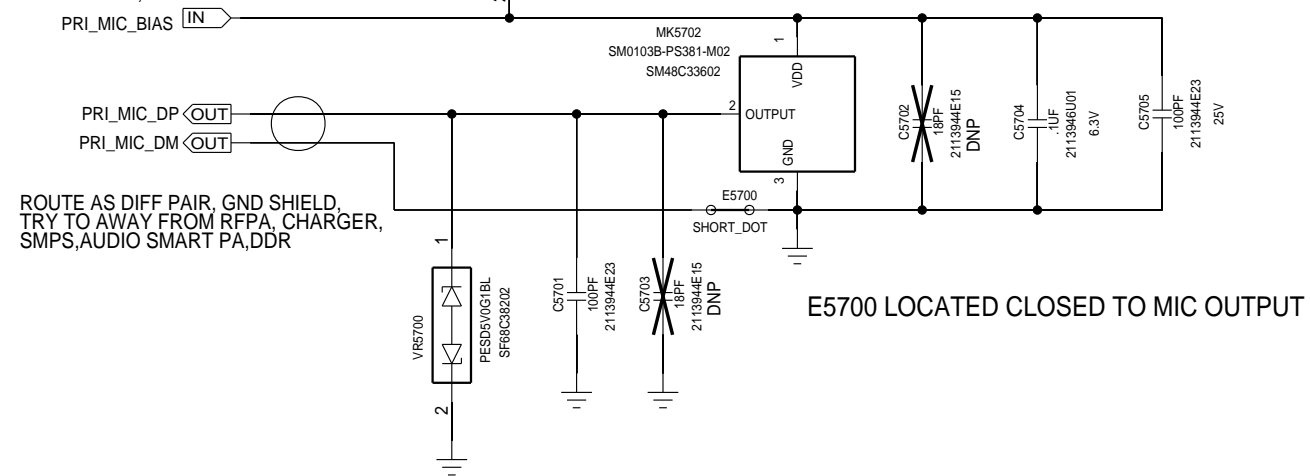
AFE: MICS

REF: 5700-5789

PRIMARY MIC

REF: 5700-5709

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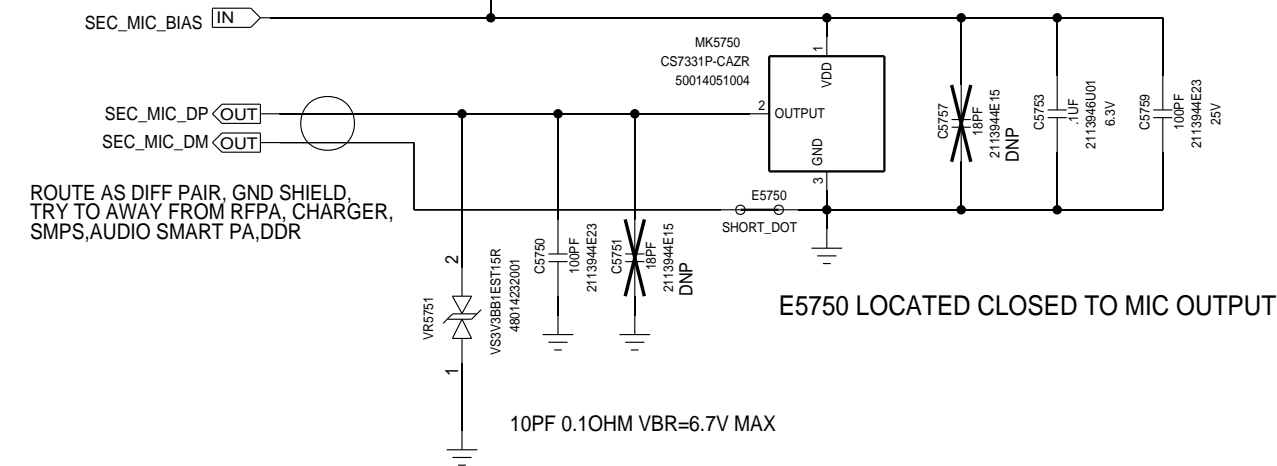


MIC 2ND SOURCE
KNOWLES
SPV08A7LR5H-1
SM48C31211

SECONDARY MIC

REF: 5750-5759

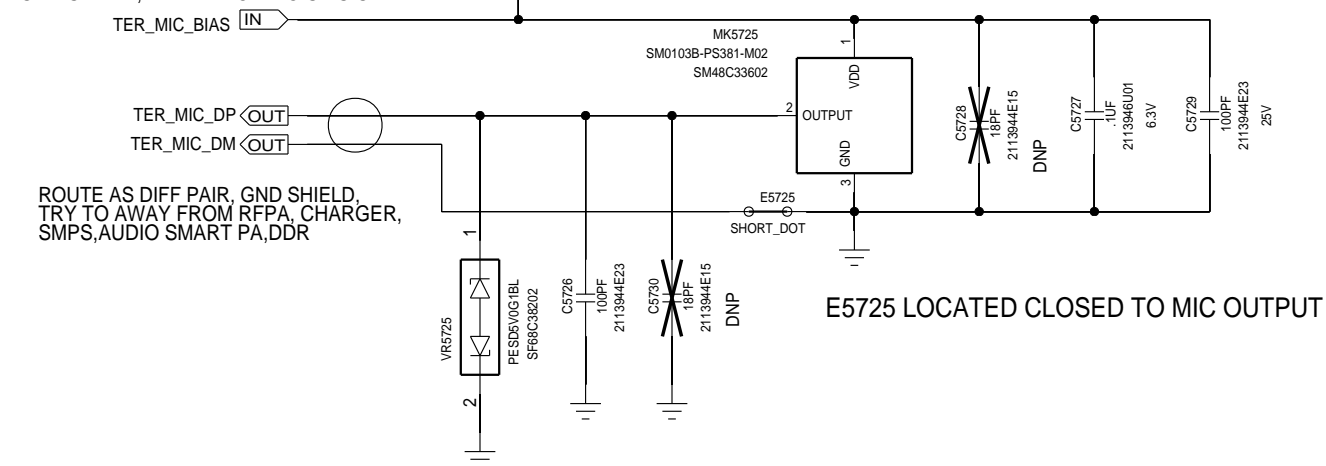
GND SHIELD, AWAY FROM NOISY SIGNAL



TERTIARY MIC

REF: 5725-5730

GND SHIELD, AWAY FROM NOISY SIGNAL



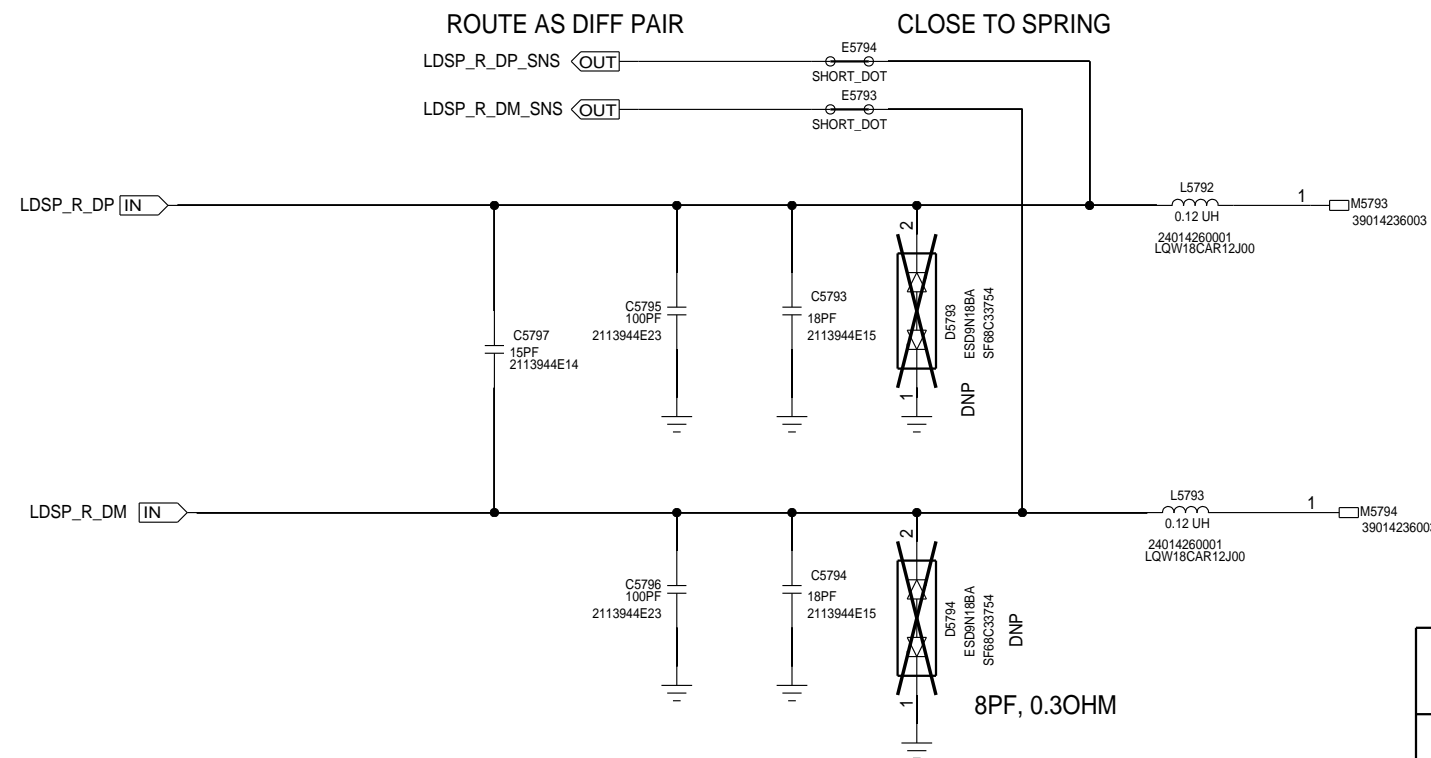
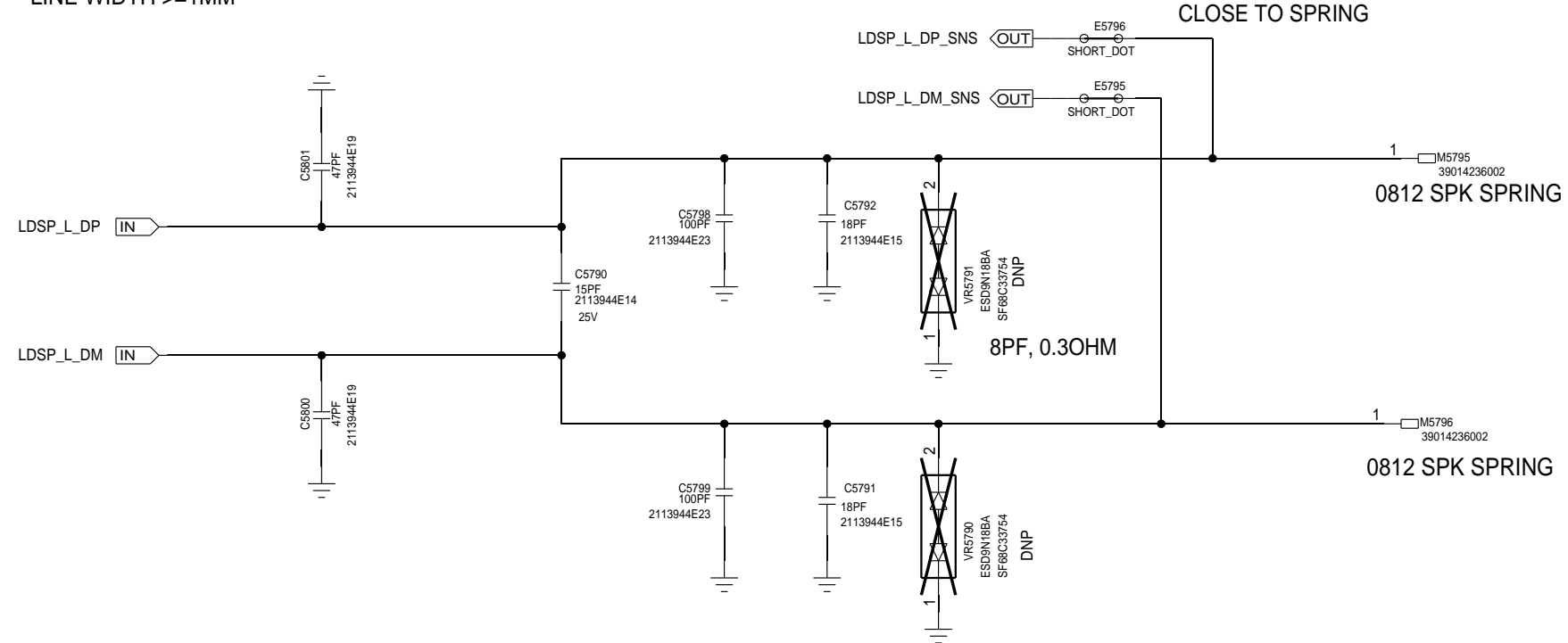
APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE: audio_fe	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:21 2018		PROJECT NAME rio.cpm	
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		PAGE 42 OF 66	

AFE: SPEAKERS

LOUDSPEAKER/EAR PIECE

REF:5790-5799

ROUTE AS DIFF PAIR
LINE WIDTH $\geq 1\text{MM}$ ADD STITCHING VIAS ALONGSIDE IF POSSIBLE

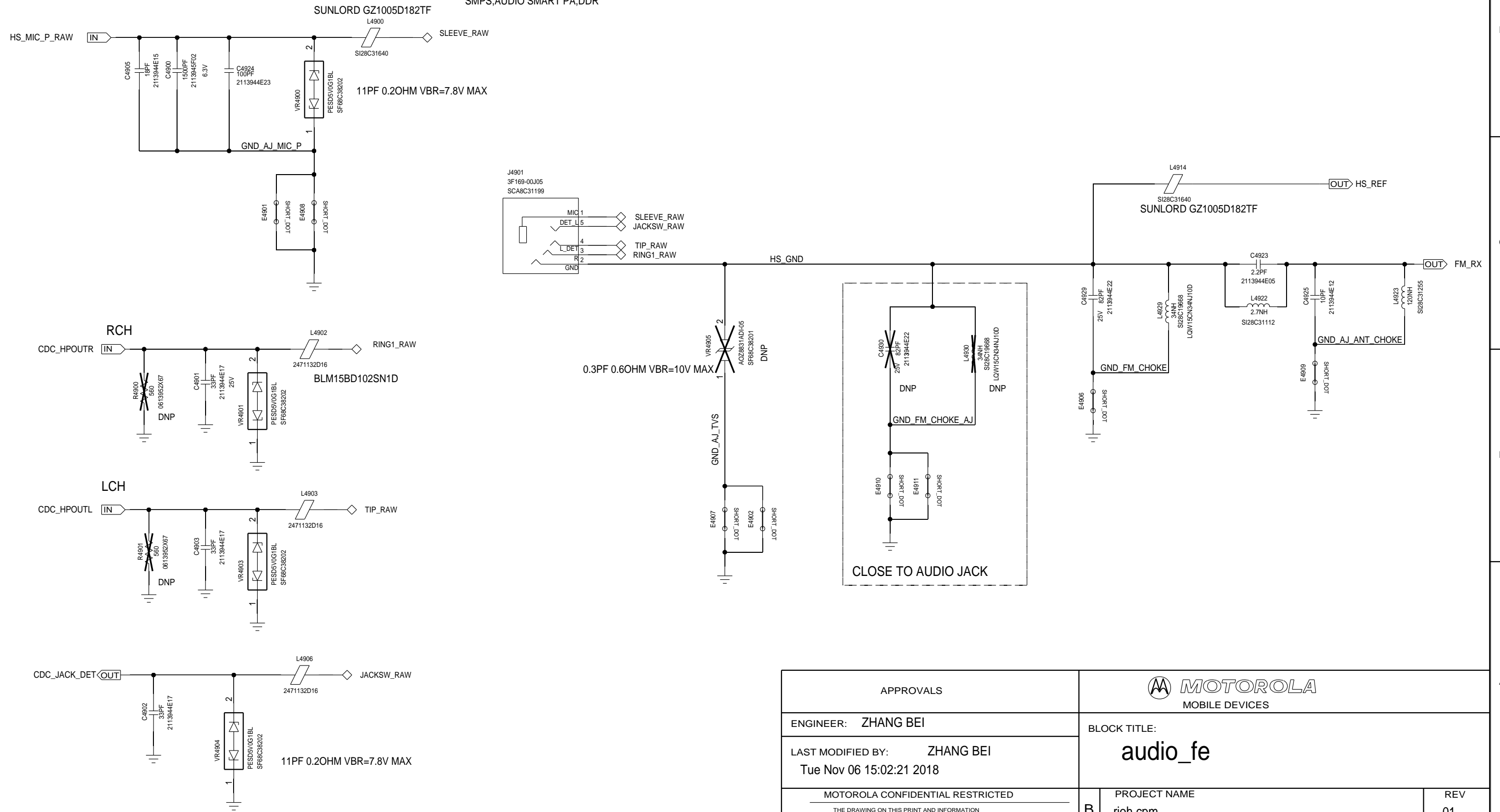


APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE:	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:21 2018		audio_fe	
MOTOROLA CONFIDENTIAL RESTRICTED		PROJECT NAME	REV
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		CAD FILE NAME:	
		PAGE 43 OF 66	

AFE: 3.5MM HEADSET

REF:4900-4949

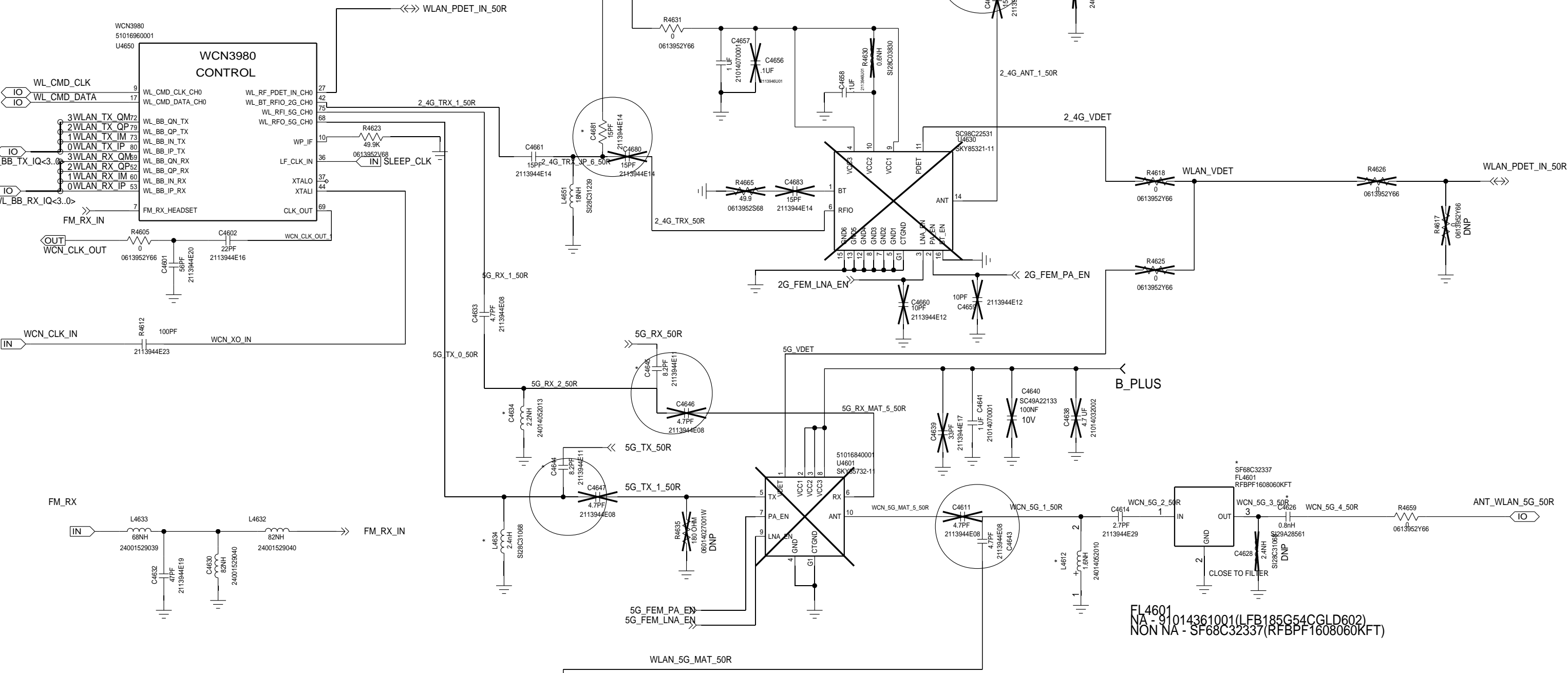
GND SHIELD,
TRY TO AWAY FROM RFP, CHARGER,
SMPS,AUDIO SMART PA,DDR



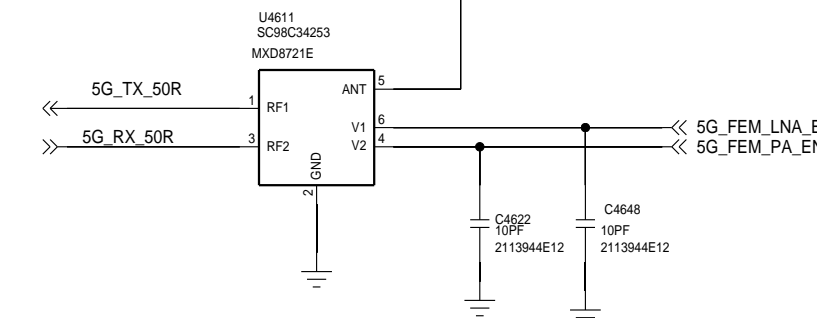
APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: ZHANG BEI		BLOCK TITLE: audio_fe	
LAST MODIFIED BY: ZHANG BEI Tue Nov 06 15:02:21 2018		PROJECT NAME rio.h.cpm	
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		PAGE 44 OF 66	

WCN3980 RF/CTRL

REF 4600-4699



FL4601
 NA - 91014361001(LFB185G54CGLD602)
 NON NA - SF68C32337(RFBPF1608060KFT)

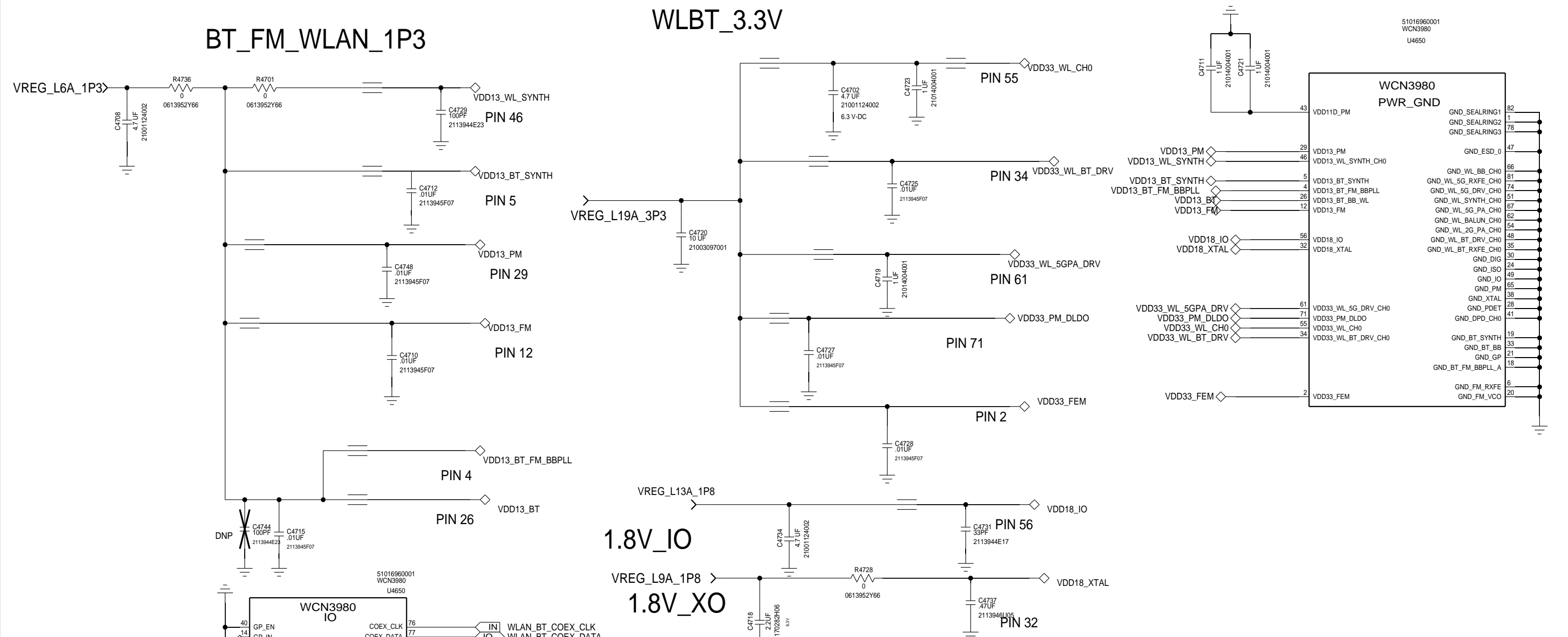


APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: LAST MODIFIED BY: FROEHLING Tue Nov 06 15:02:32 2018			
MOTOROLA CONFIDENTIAL RESTRICTED <small>THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. © COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</small>		PROJECT NAME B rioh.cpm	REV 01
CAD FILE NAME:		PAGE 45 OF 66	

BASED ON 80-WL022-41 REV. A

WCN3980 POWER AND GND, CONTROL

REF 4700-4799



BASED ON 80-WL022-41 REV. A

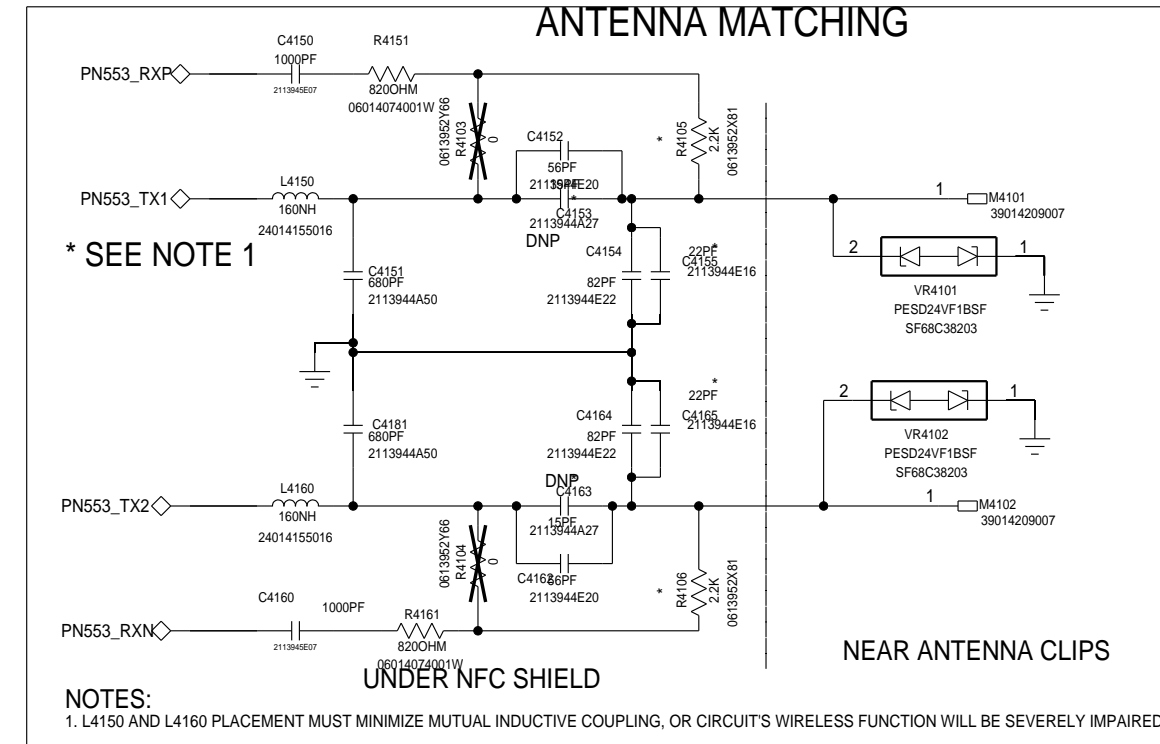
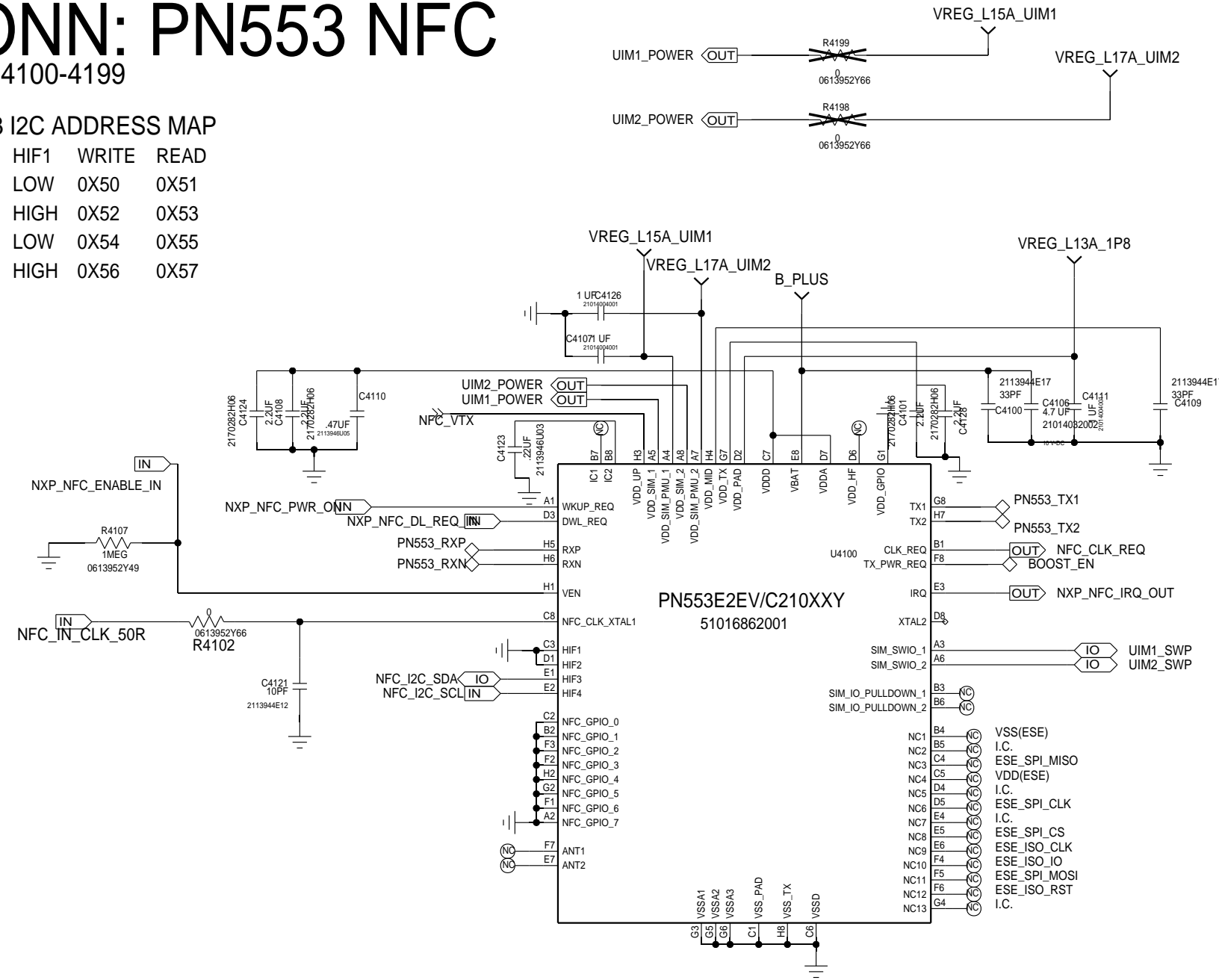
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ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: FROEHLING Tue Nov 06 15:02:32 2018		connectivity	
MOTOROLA CONFIDENTIAL RESTRICTED <small>THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. © COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</small>		PROJECT NAME: B rloh.cpm	REV: 01
CAD FILE NAME:		PAGE 46 OF 66	

CONN: PN553 NFC

REF: 4100-4199

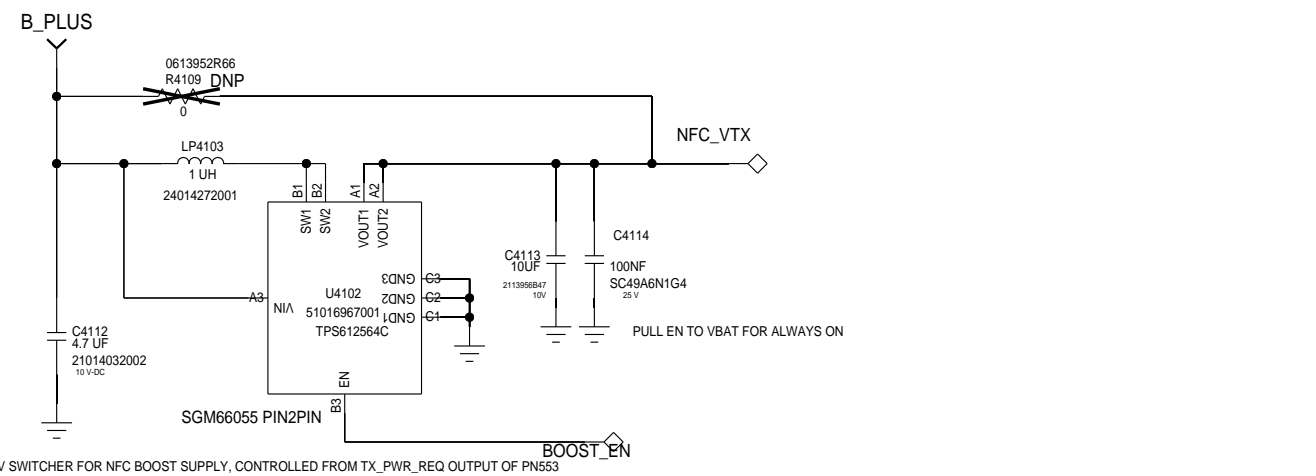
PN553 I2C ADDRESS MAP

HIF2	HIF1	WRITE	READ
LOW	LOW	0X50	0X51
LOW	HIGH	0X52	0X53
HIGH	LOW	0X54	0X55
HIGH	HIGH	0X56	0X57



* SEE NOTE 1

NOTES:
1. L4150 AND L4160 PLACEMENT MUST MINIMIZE MUTUAL INDUCTIVE COUPLING, OR CIRCUIT'S WIRELESS FUNCTION WILL BE SEVERELY IMPAIRED.



APPROVALS			
ENGINEER: MOTOROLA		BLOCK TITLE:	
LAST MODIFIED BY: MOTOROLA Tue Nov 06 15:02:33 2018		connectivity	
MOTOROLA CONFIDENTIAL RESTRICTED		PROJECT NAME	REV
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CAD FILE NAME:		PAGE 47 OF 66	

RFFE:TRX ASM REF 7000-7099

VDD_SWITCH_2P7 FOR RF SWITCH PWR SUPPLY

VREG_L16A_2P7 VDD_RF_SWITCH_2P7_BOT VREG_L16A_2P7 VDD_RF_SWITCH_2P7_TOP

VREG_L13A_1P8_RF VDD_RF_SWITCH_2P7_BOT

D

C

B

A

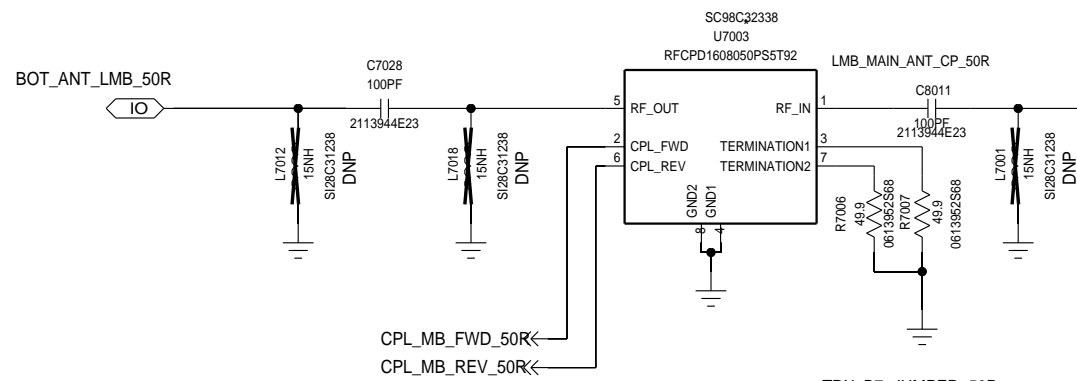
D

C

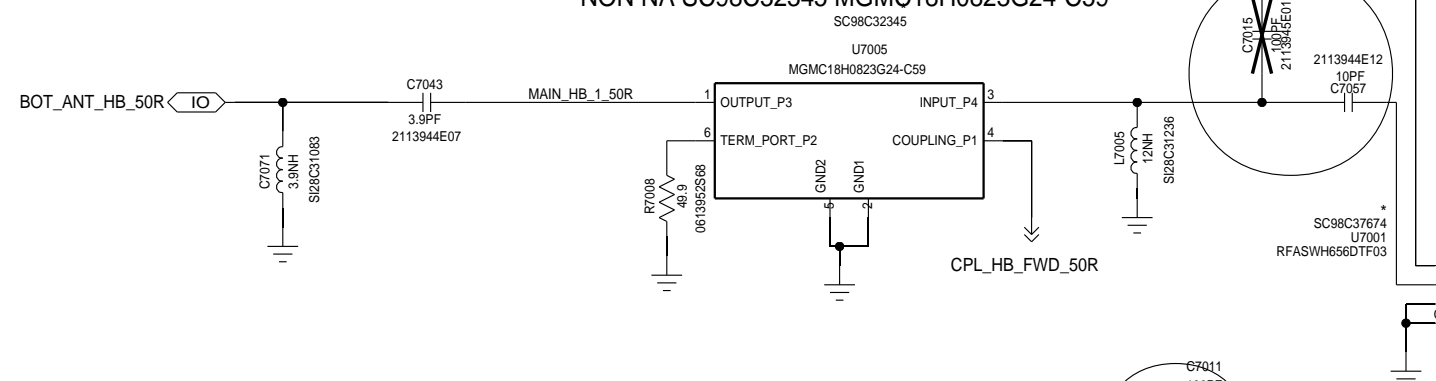
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A

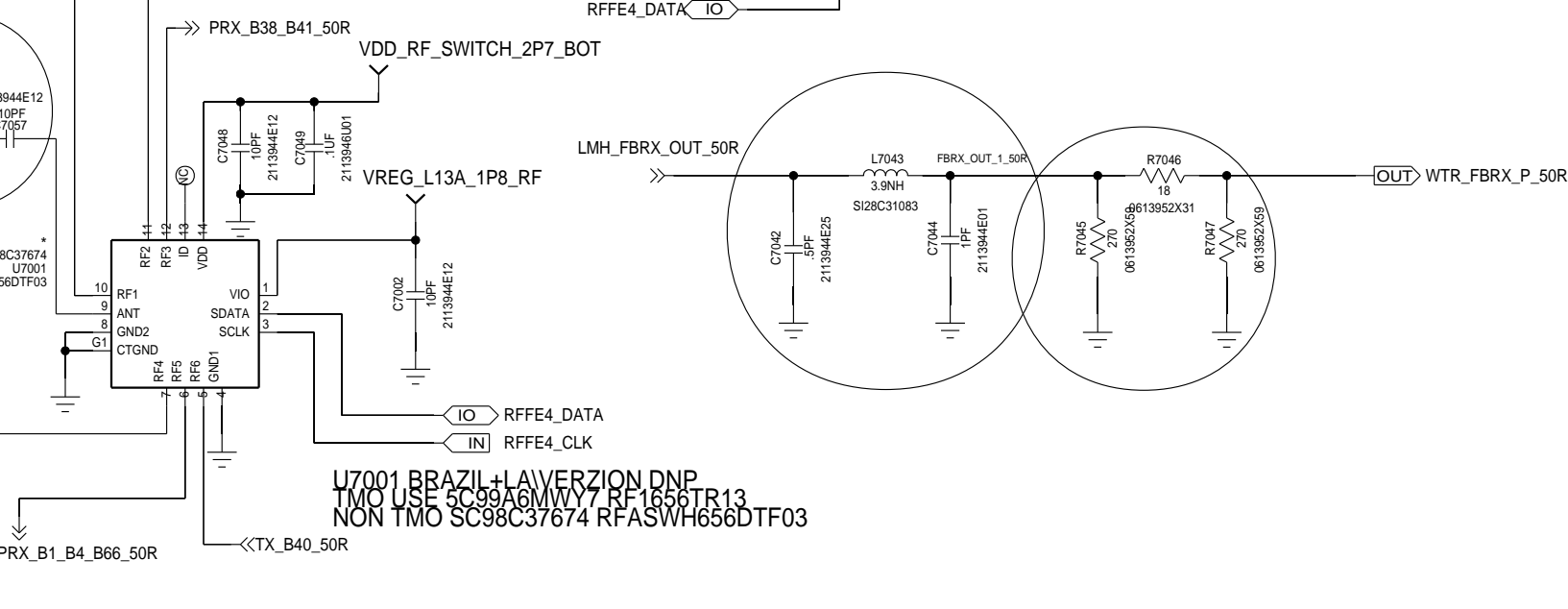
U7003
NA USE SC98C21210 LDJ18829M28DG014
NON NA SC98C32338 RFCPD1608050PS5T92



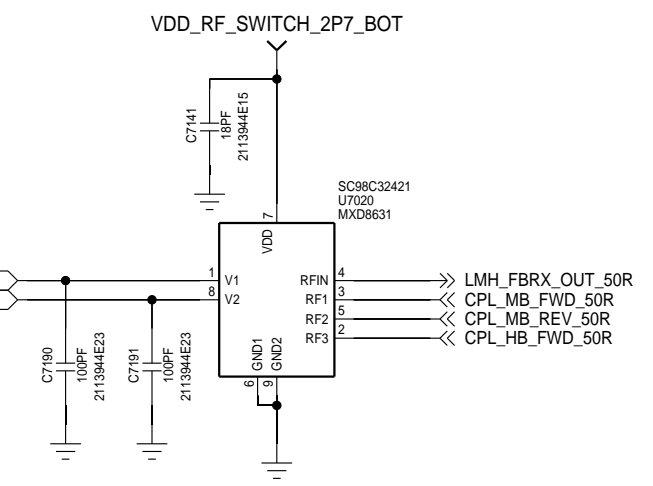
U7005
NA USE 58014033001 LDJ18829M25AG006
NON NA SC98C32345 MGMC18H0823G24-C59



U7001 BRAZIL+LAVERZION DNP
TMO USE 5C99A6MVY7 RF1656TR13
NON TMO SC98C37674 RFASWH656DTF03



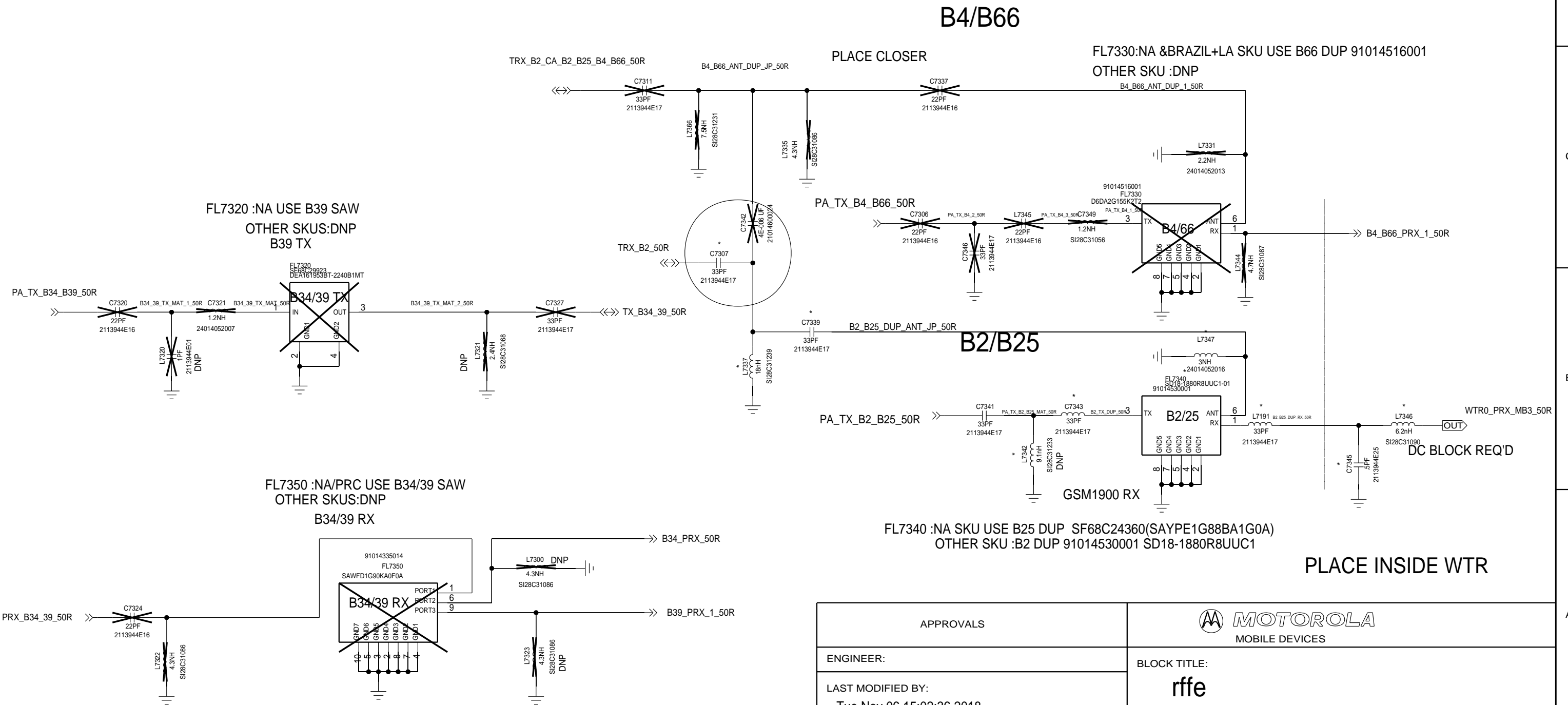
GRFC1_GPIO93
CTL1_CPL_FBRX
CTL2_CPL_FBRX
GRFC6_GPIO98



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE: rfe	
LAST MODIFIED BY: Tue Nov 06 15:02:34 2018		PROJECT NAME B rioh.cpm	
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RFFE :MB_TRX_B2,4,34,39,G1900

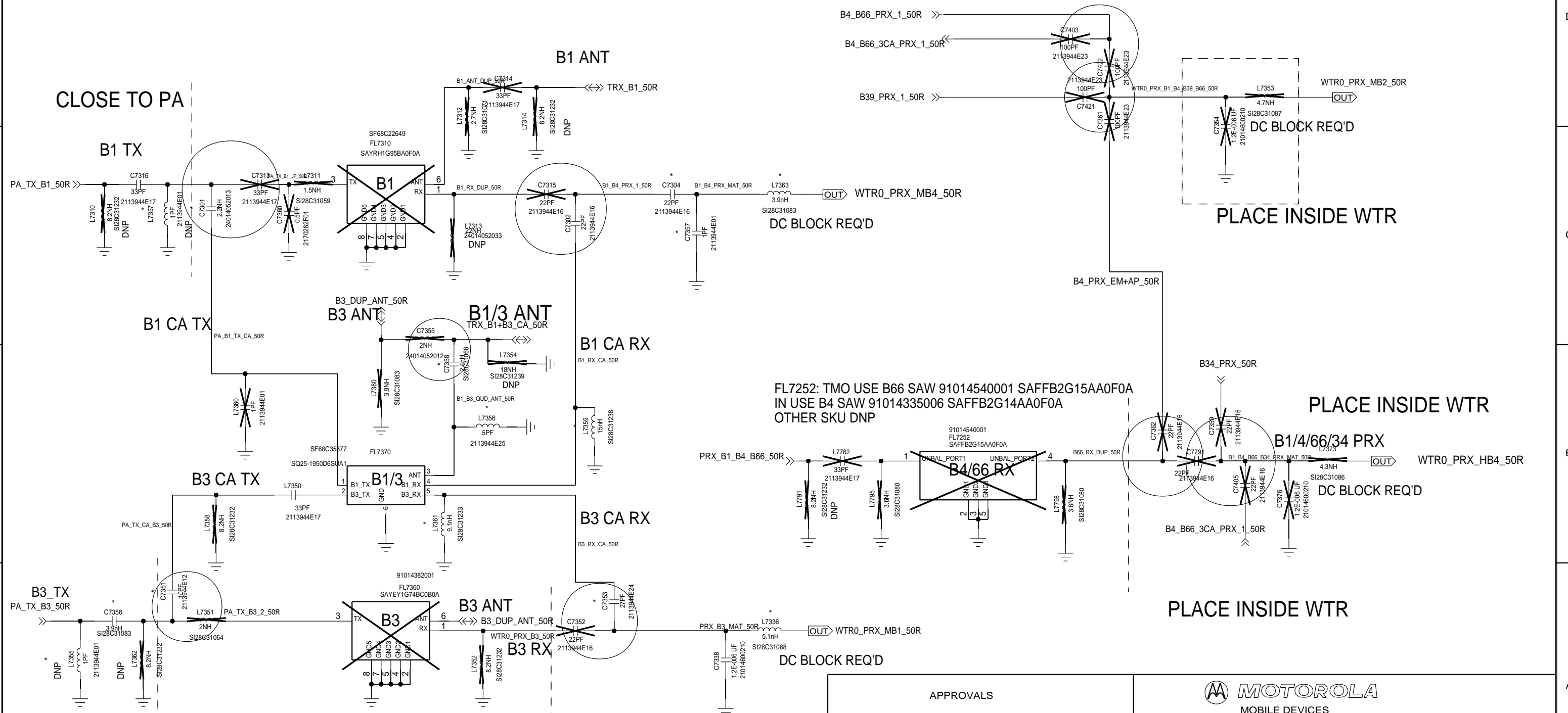
REF 7300-7399




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Tue Nov 06 15:02:36 2018		PROJECT NAME	
MOTOROLA CONFIDENTIAL RESTRICTED		B rieh.cpm	REV 01
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		PAGE 51 OF 66	

RFFE: MB_TRX_B1_3_B1/3 QUAD_G1800

REF 7350-7399



FL7252: TMO USE B66 SAW 91014540001 SAFFB2G15AA0F0A
 IN USE B4 SAW 91014335006 SAFFB2G14AA0F0A
 OTHER SKU DNP

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY:		rfe	
Tue Nov 06 15:02:36 2018		PROJECT NAME	
MOTOROLA CONFIDENTIAL RESTRICTED <small>THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. © COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</small>		B	rioh.cpm
		CAD FILE NAME:	
		REV	01
PAGE 52 OF 66			

CLOSE TO PA

PLACE INSIDE WTR

PLACE INSIDE WTR

PLACE INSIDE WTR

PLACE INSIDE WTR

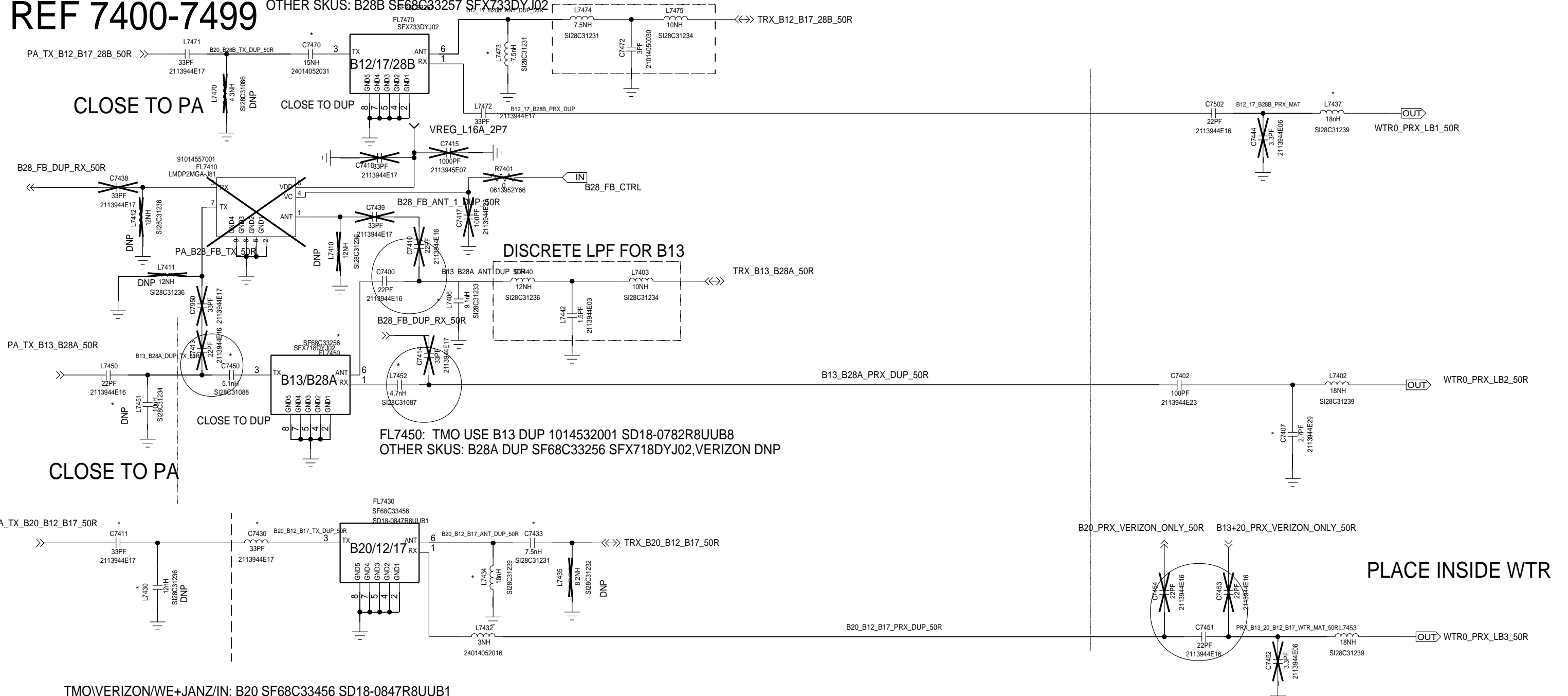
CLOSE TO PA

RFFE: LB_TRX_B12,17,13,20,28

REF 7400-7499

TMO/VERIZON B12/17 91014387001 D5DA737M5K2H2
 OTHER SKUS: B28B SF68C33257 SFX733DYJ02

DISCRETE LPF



CLOSE TO PA

CLOSE TO PA

CLOSE TO DUP

DISCRETE LPF FOR B13

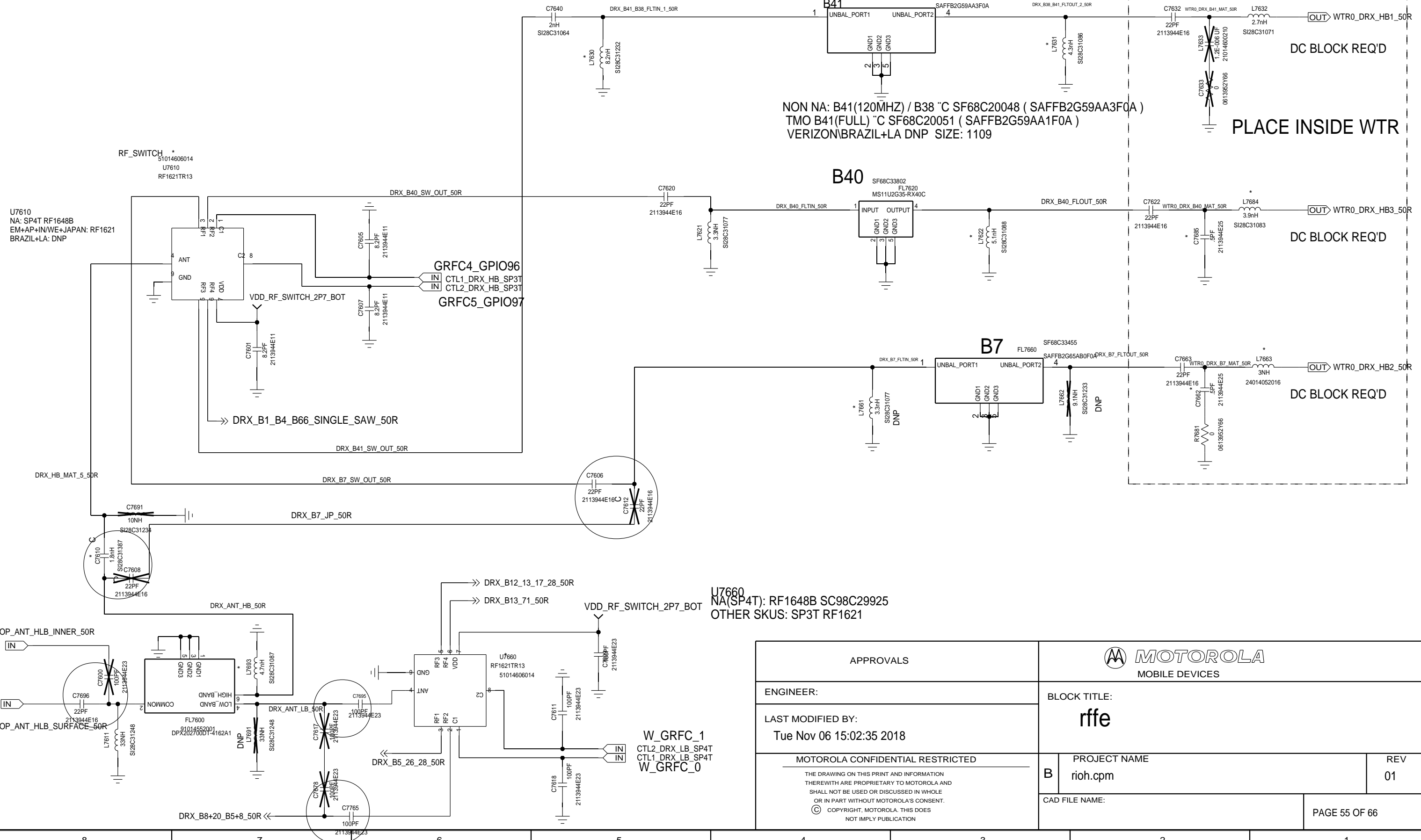
PLACE INSIDE WTR

FL7450: TMO USE B13 DUP 1014532001 SD18-0782R8UUB8
 OTHER SKUS: B28A DUP SF68C33256 SFX718DYJ02, VERIZON DNP

TMO/VERIZON/WE+JANZ/IN: B20 SF68C33456 SD18-0847R8UUB1
 BRAZIL+LA: B12/17 91014387001 D5DA737M5K2H2

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY:		rfe	
Tue Nov 06 15:02:36 2018		PROJECT NAME	
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		CAD FILE NAME:	

REF 7600-7699



NON NA: B41(120MHZ) / B38 °C SF68C20048 (SAFFB2G59AA3F0A)
 TMO B41(FULL) °C SF68C20051 (SAFFB2G59AA1F0A)
 VERIZON/BRAZIL+LA DNP SIZE: 1109

PLACE INSIDE WTR

DC BLOCK REQ'D

DC BLOCK REQ'D

DC BLOCK REQ'D

U7660
 NA(SP4T): RF1648B SC98C29925
 OTHER SKUS: SP3T RF1621

W_GRFC_1
 CTL2_DRX_LB_SP4T
 CTL1_DRX_LB_SP4T
 W_GRFC_0

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY:		rfe	
Tue Nov 06 15:02:35 2018		PROJECT NAME	
MOTOROLA CONFIDENTIAL RESTRICTED		B	rioh.cpm
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		01	
		PAGE 55 OF 66	

RFFE: MB_DRX_B1,2,3,4,25,39,66

REF 7700-7749 B34/39 RX

FL7715:TMO\VERIZON B25+B66 91014518001 SAWFD1G96AC2F0A
 PRC B34+B39 91014335014 SAWFD1G90KA0F0A OTHER DNP

FL7710:VERIZON DNP
 TMO\BRAZIL+LA USE B3 FLITER 91014308001 SAFFB1G84AB0F0A
 OTHER SKUS USE B2 FLITER 91014335005 SAFFB1G96AB0F0A

FL7700 :TMO USE B34+B39 DUAL SAW 91014335014 SAWFD1G90KA0F0A
 FL7700 :BRAZIL+LA USE B25+B66 DUAL SAW 91014518001 SAWFD1G96AC2F0A
 FL7700 :OTHER SKUS USE B1+B3 DUAL SAW 91014424001 SAWFD1G84AA0F0A

J7701 NA - 09014068001W(MM8030-2610RJ3)
 OTHER - SCA8C29399(818011998)

U7712 TMO/VERIZON/PRC(SP3T): RF1621 51014606014
 NON NA(SPDT): RF1621A 51016674001

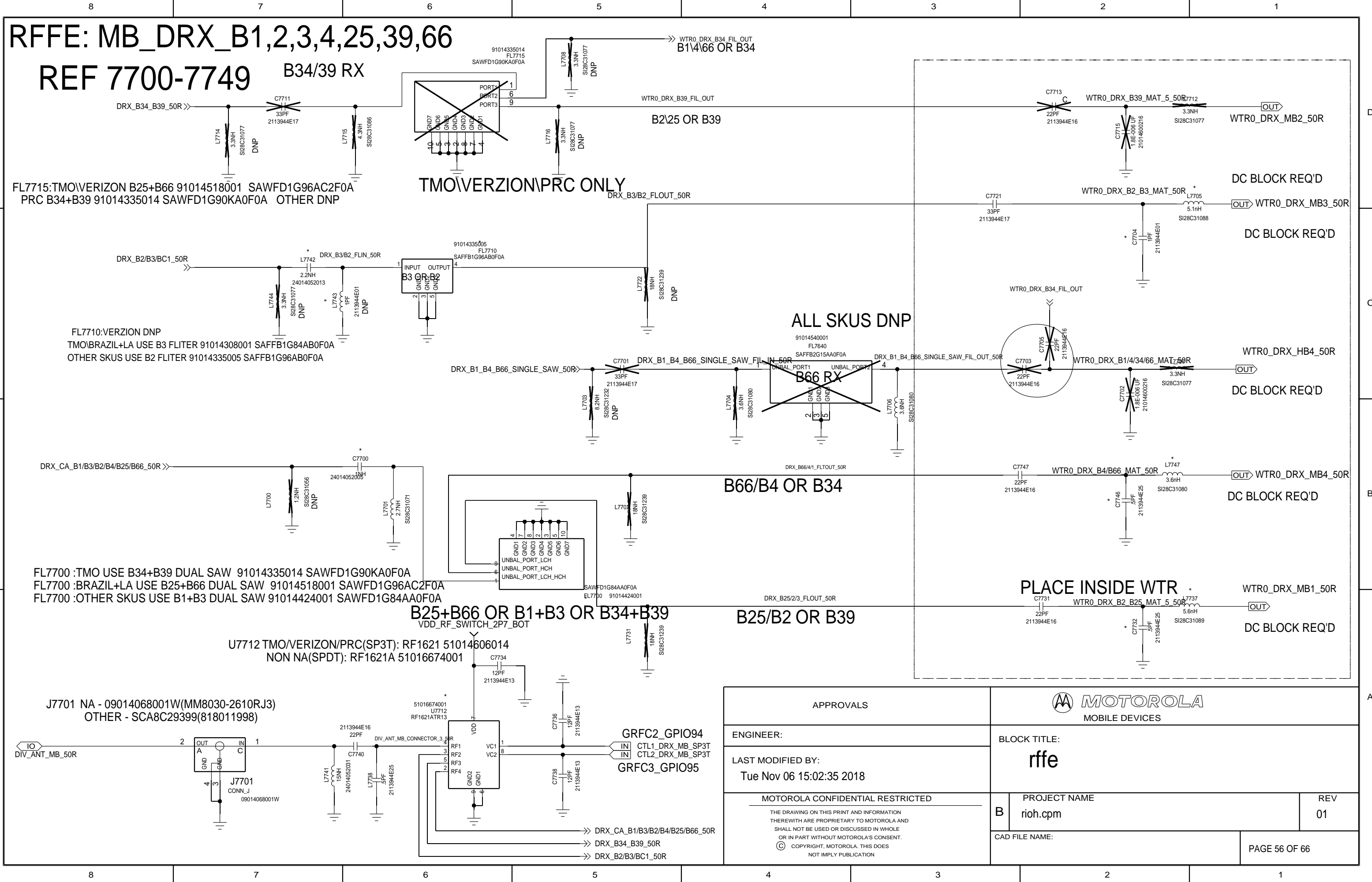
B25+B66 OR B1+B3 OR B34+B39
 VDD_RF_SWITCH_2P7_BOT

B66/B4 OR B34

B25/B2 OR B39

ALL SKUS DNP

TMO\VERIZON\PRC ONLY

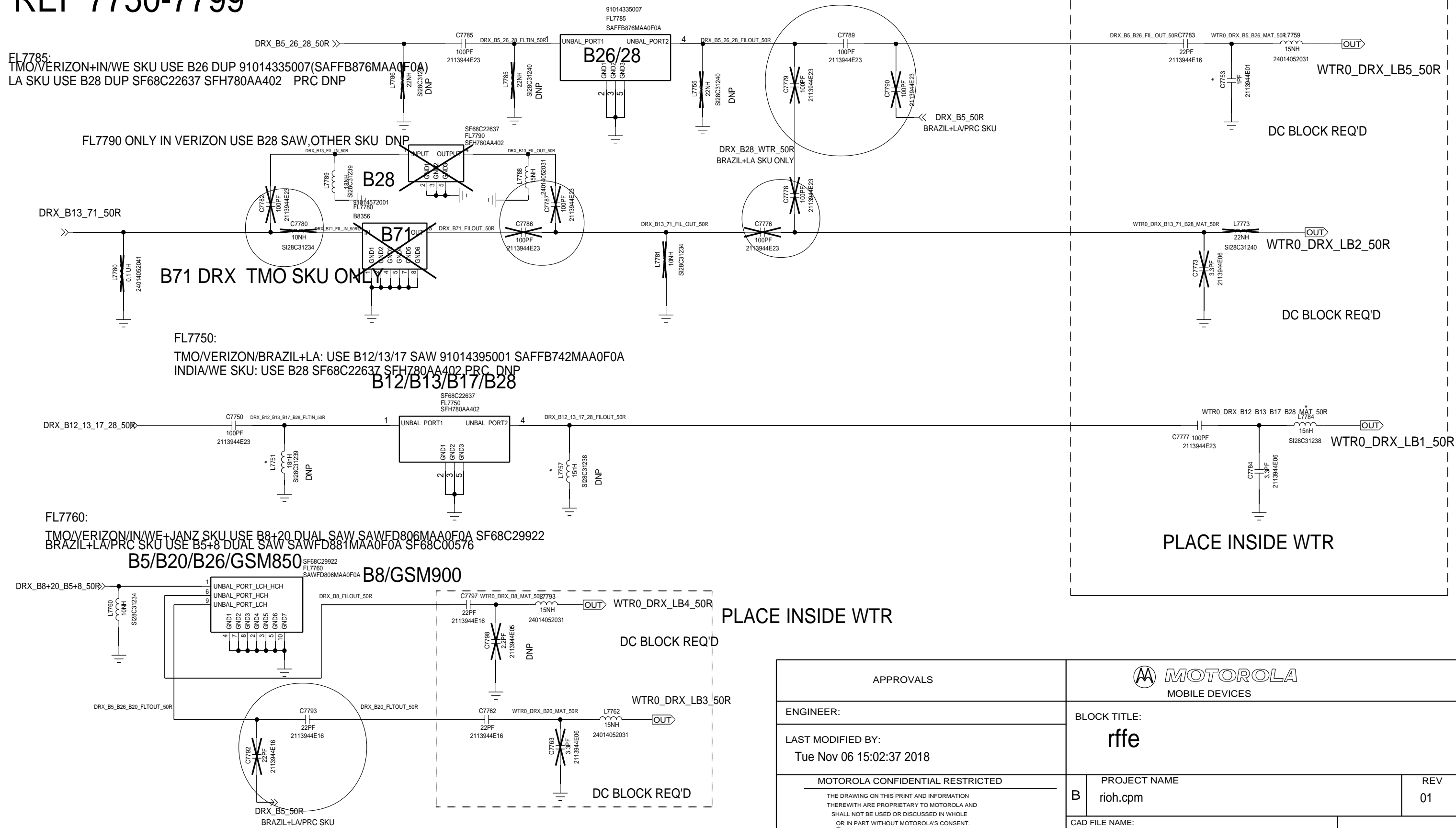


APPROVALS	
ENGINEER:	
LAST MODIFIED BY:	Tue Nov 06 15:02:35 2018
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MOTOROLA MOBILE DEVICES	
BLOCK TITLE: rfe	
PROJECT NAME B rioh.cpm	REV 01
CAD FILE NAME:	
PAGE 56 OF 66	

RFFE: LB_DRX_B5,8,12,13,17,20,26,28

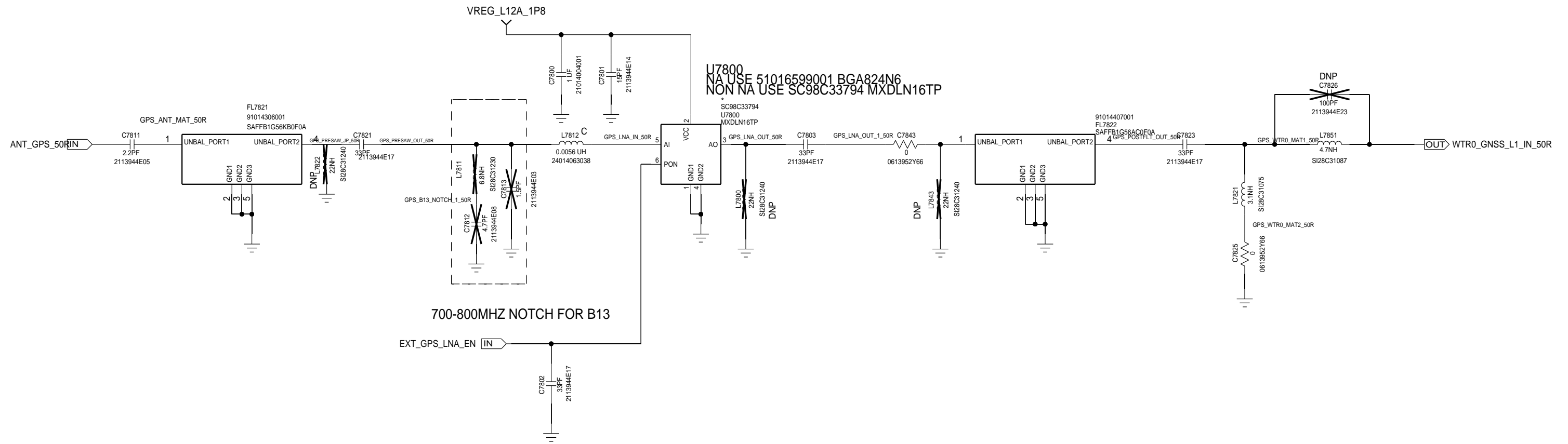
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		01	
CAD FILE NAME:		PAGE 57 OF 66	

RFFE: GPS

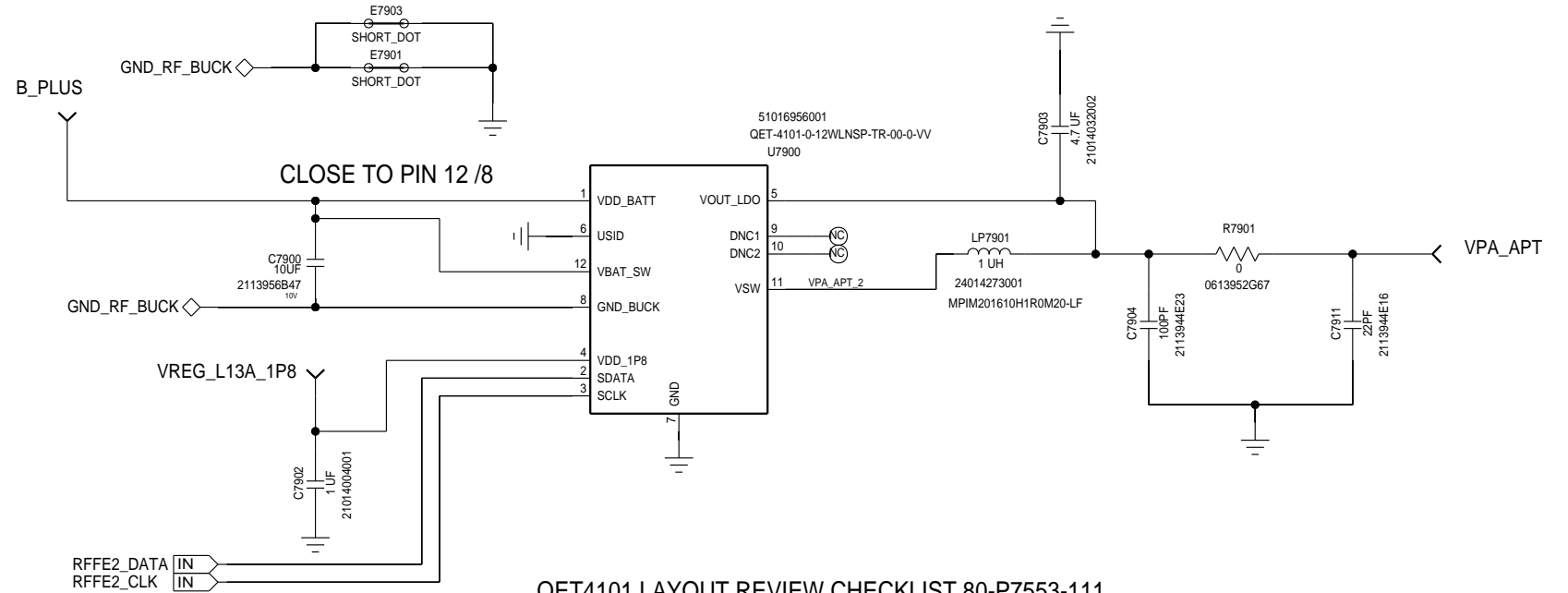
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APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: Tue Nov 06 15:02:35 2018		rfe	
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		rio.h.cpm	
CAD FILE NAME:		REV 01	
		PAGE 58 OF 66	

RFFE: QFE4101&TI DCDC REF7900-7949

APT DCDC INDUCTOR		
1ST	MPIM201610H1R0M20-LF	DCR = 58MOHM
	MICROGATE 24014273001	ISAT = 3.1A MAX, IRMS = 2.2A MAX
2ND	CIGT201610UM1R0MNE	DCR = 48MOHM
	SECOM S128C38192	ISAT = 3.1A MAX, IRMS = 2.8A MAX



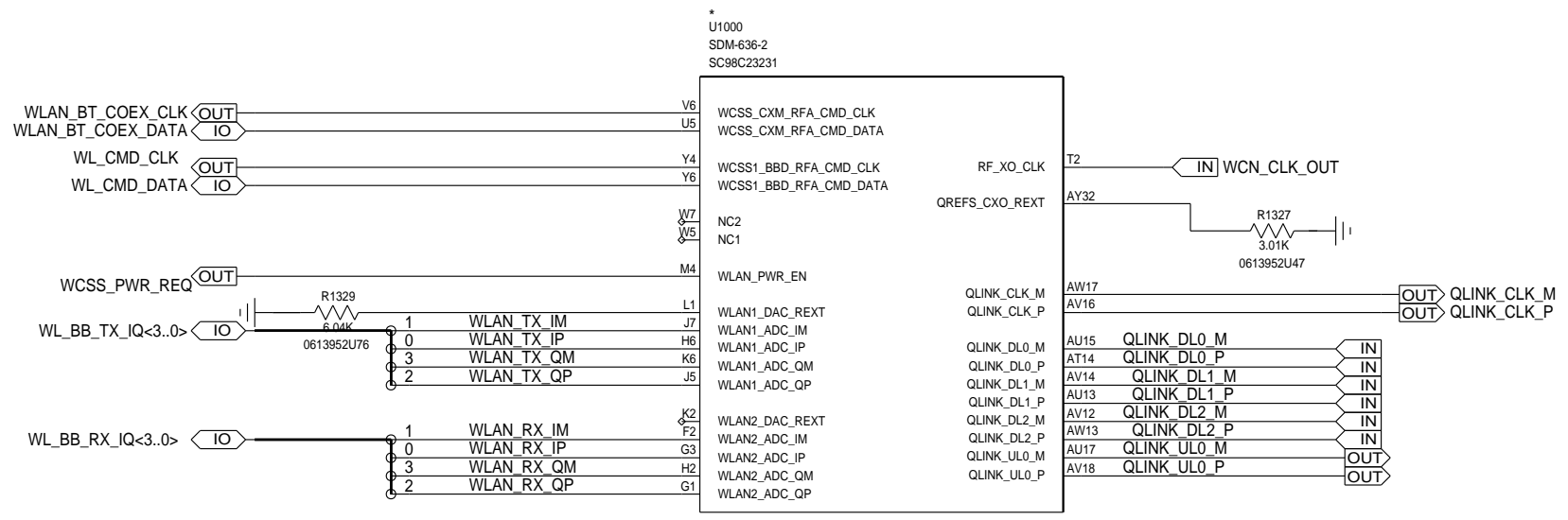
DO NOT VIA DIRECTLY TO GROUND PLANE. KEEP ISOLATED ON SURFACE LAYER

NOTE1: NO VIAS ON PIN 8 (GND_SW) AND PIN 12 (VBAT_SW). NO VIAS ON C7900 PADS. USE SHORT AND WIDE TRACES CONNECTING FROM CHIP PINS TO C7900. EXTEND THE TRACE (1Y 1MM), THEN VIAS DOWN AND CONNECT TO THE GROUND AND POWER PLANE/FILL ON THE NEXT LAYER. KEEP THE NEXT LAYER AS CONTINUOUS GROUND UNDERNEATH THE AREA FROM CHIP PINS TO THE C7900 CONNECTION.

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: Tue Nov 06 15:02:35 2018		rffe	
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		CAD FILE NAME:	
		PAGE 59 OF 66	

MSM: RF INTERFACE

REF 1200-1299

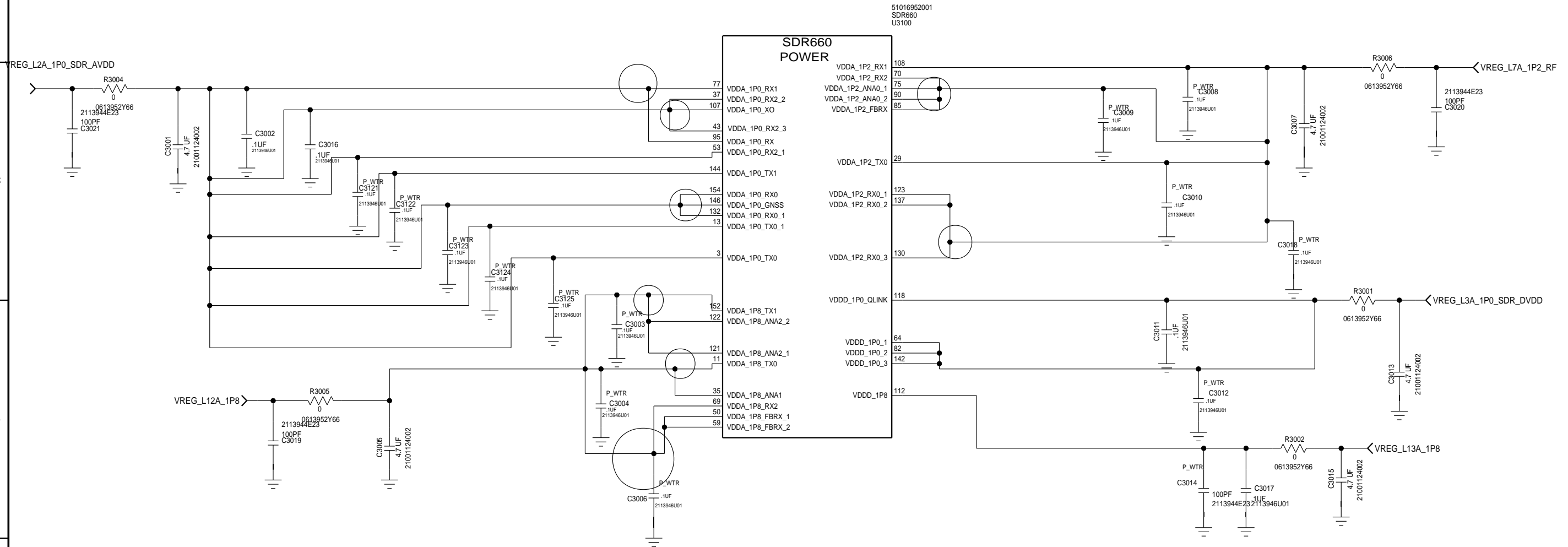


NEED TO APPLY LC FILTER FOR REDUCE B40 RX SPURS(QC 80-NP237-56)
LC FILTER COULD BE PLACED ANYWHERE BETWEEN WTR BBRX_IQ AND MSM BBRX_IQ PINS
BUT THE GND FOR SHUNT C SHOULD NOT BE SHARED WITH EITHER WTR OR MSM GND ON ANY LAYER.
A DIRECT VIA FROM SHUNT C TO MAIN GND IS RECOMMENDED

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: FAN021 Tue Nov 06 15:02:32 2018		block_mdm9x25m_pm8019	
MOTOROLA CONFIDENTIAL RESTRICTED <small>THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. © COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</small>		PROJECT NAME B rioh.cpm	REV 01
		CAD FILE NAME:	
		PAGE 60 OF 66	

SDR660: POWER

REF 3000-3099

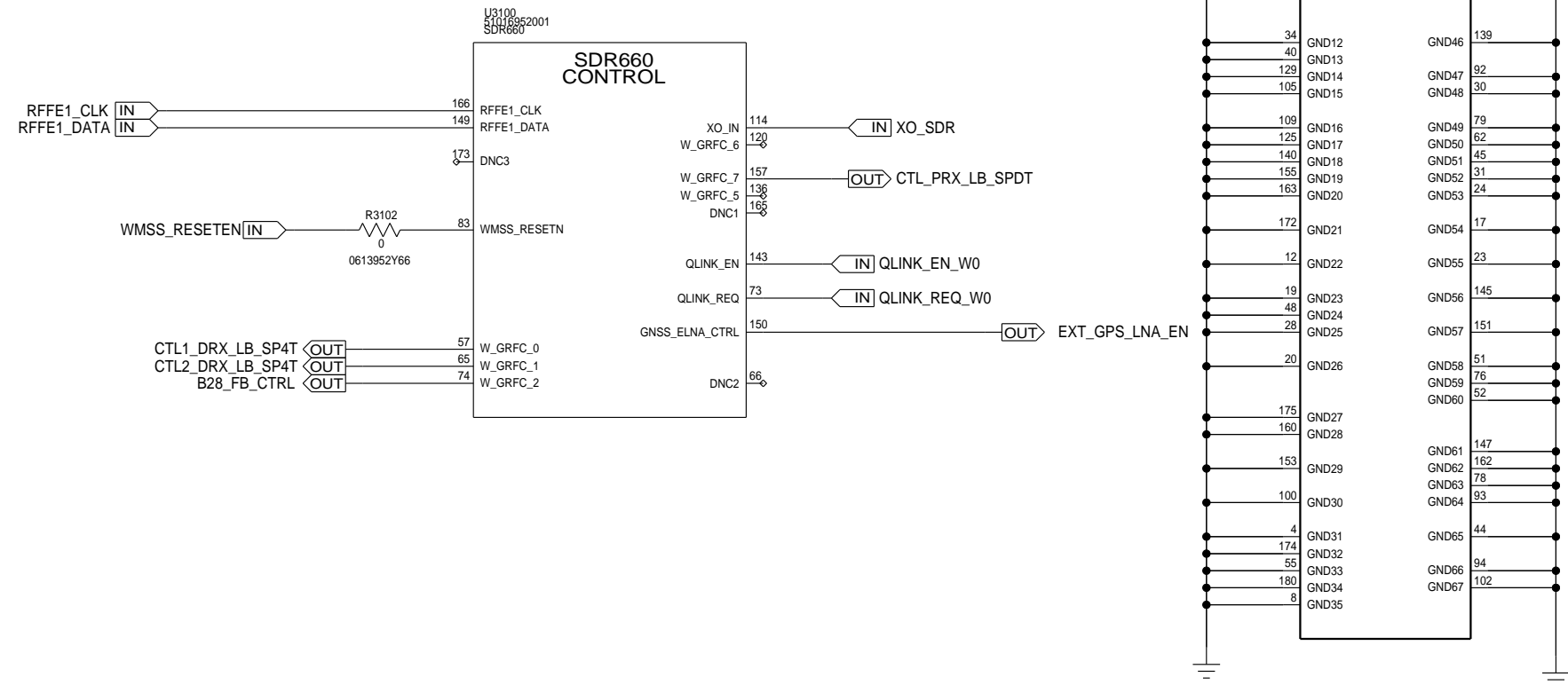


CIRCLE PRESENT SDR660 POWER SUPPLY STAR ROUTING

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: Tue Nov 06 15:02:34 2018		blk_sdr660	
MOTOROLA CONFIDENTIAL RESTRICTED <small>THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. © COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</small>		PROJECT NAME B 8974cppm	REV 01
		CAD FILE NAME:	
		PAGE 61 OF 66	

SDR660: TX/PWR/GROUND

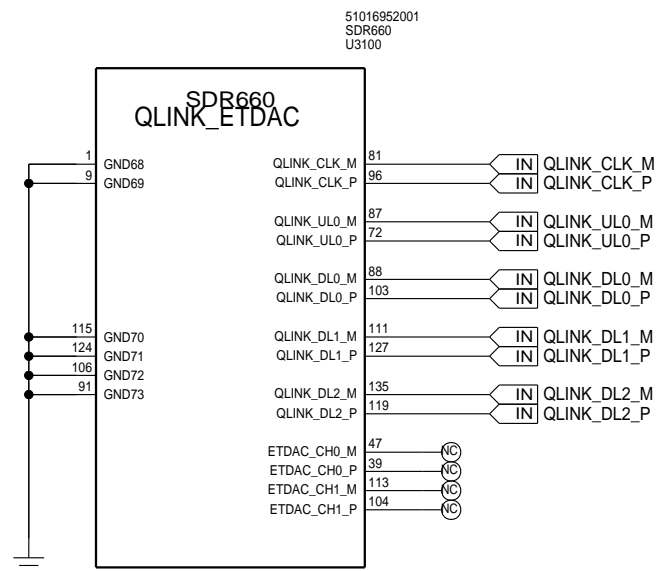
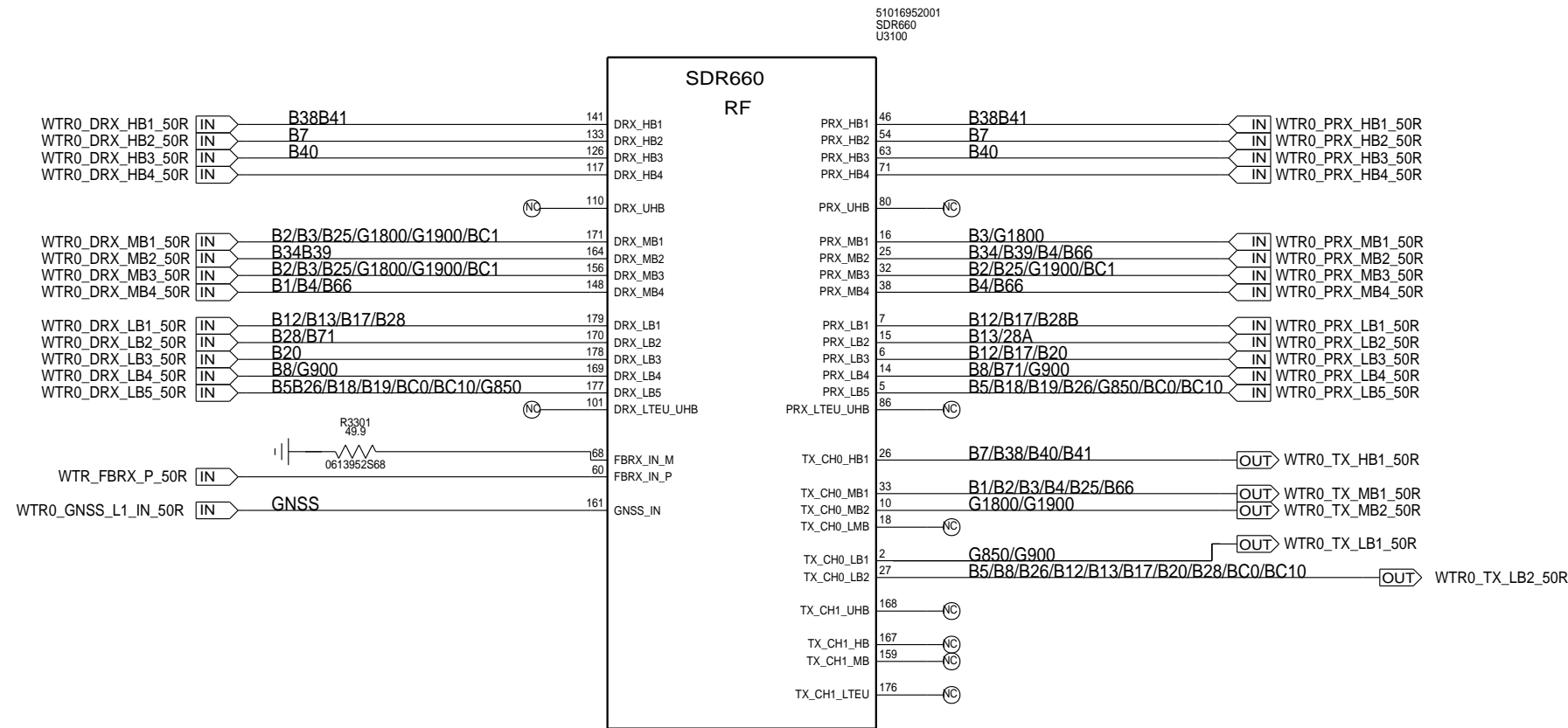
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APPROVALS		MOTOROLA MOBILE DEVICES	
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		CAD FILE NAME:	
		PAGE 62 OF 66	

SDR660: PRX/DRX/GPS

REF 3200-3299

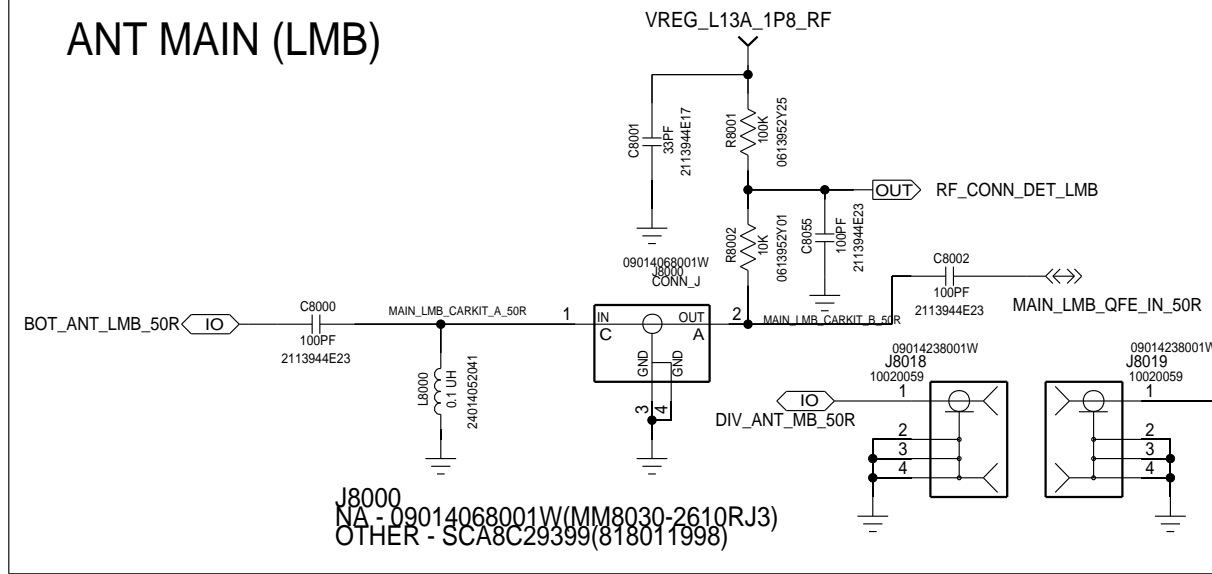


APPROVALS		MOTOROLA MOBILE DEVICES	
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LAST MODIFIED BY:		blk_sdr660	
Tue Nov 06 15:02:34 2018			
MOTOROLA CONFIDENTIAL RESTRICTED		PROJECT NAME	
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		REV 01	
		PAGE 63 OF 66	

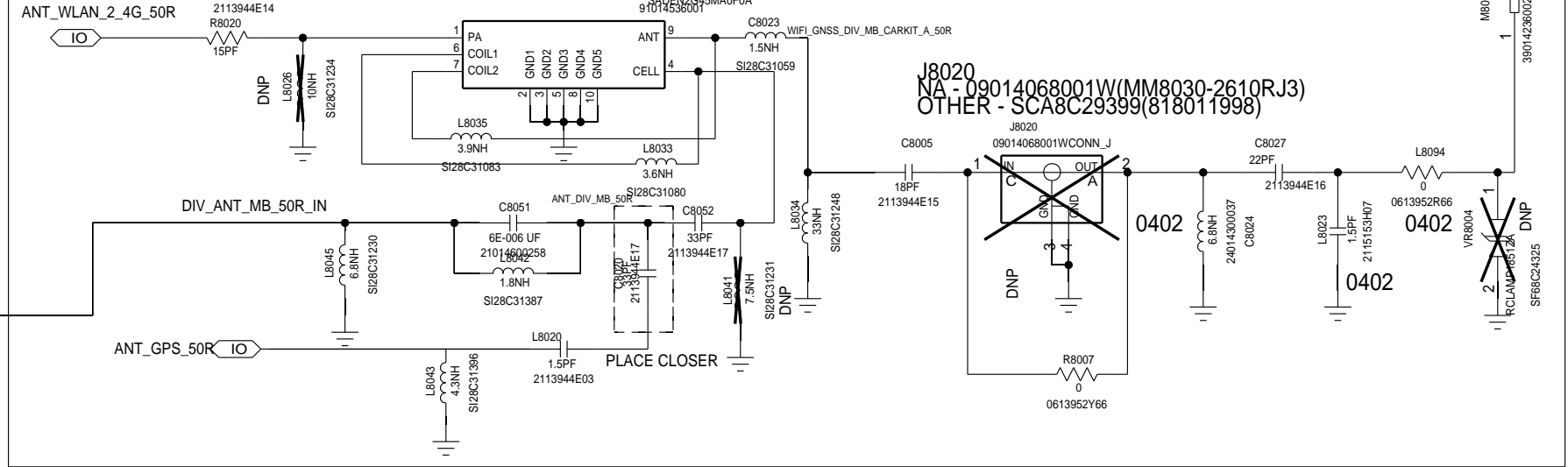
8000:antennas

REF 8000-8049

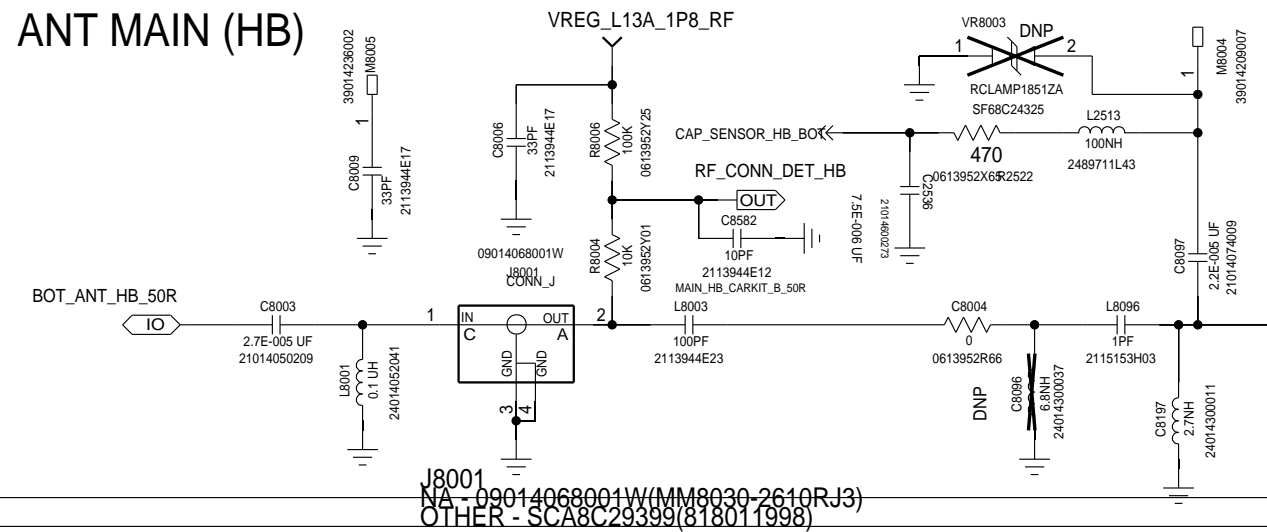
ANT MAIN (LMB)



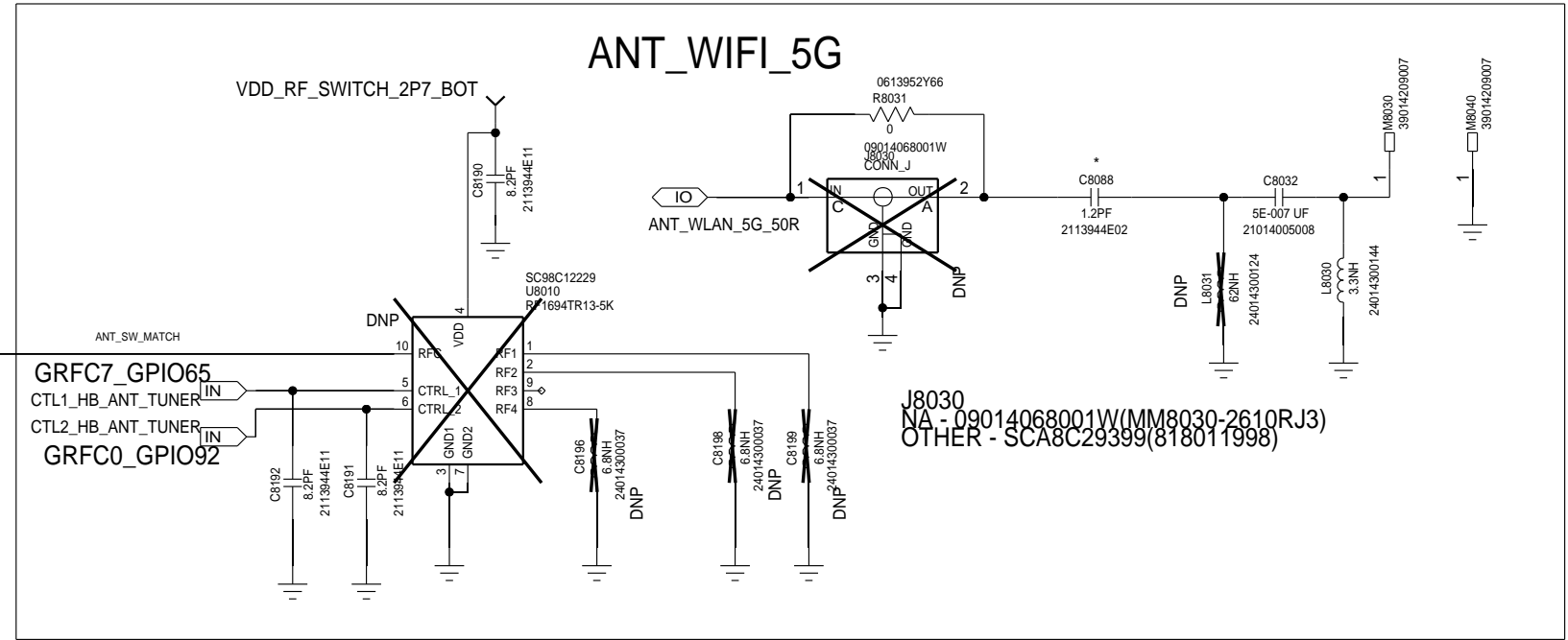
ANT_WIFI 2.4G/GPS/DRX MB



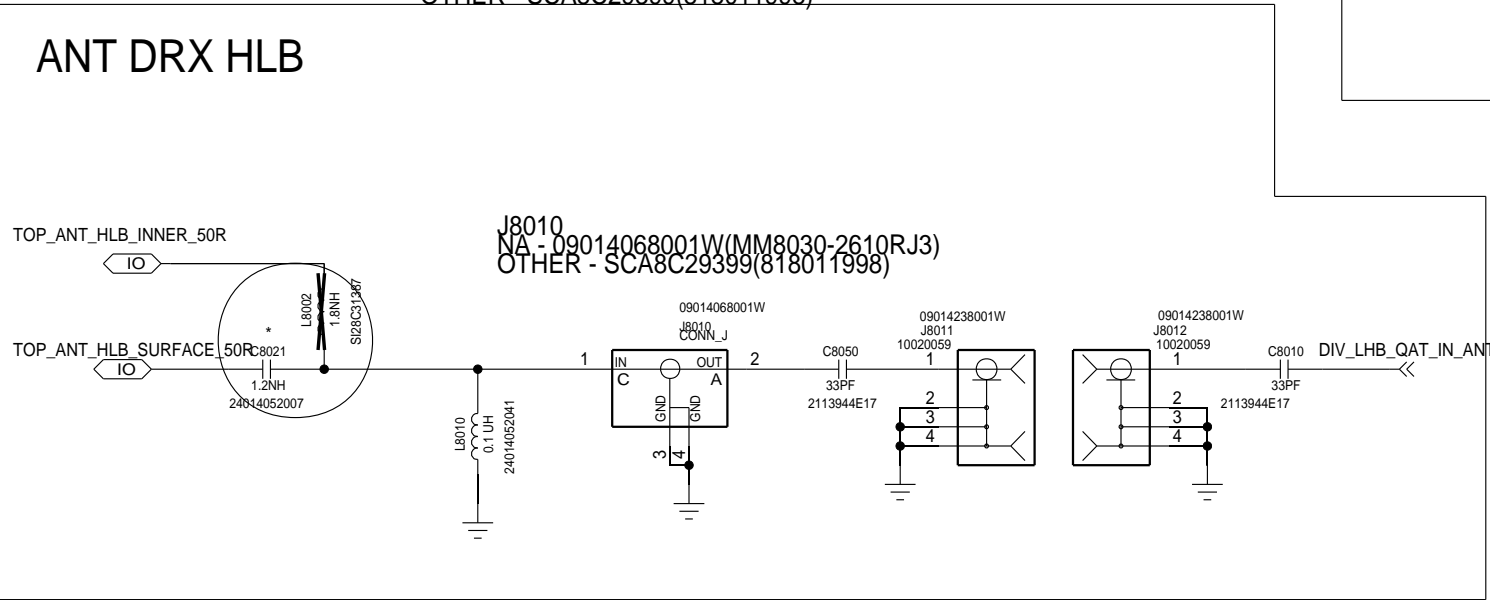
ANT MAIN (HB)



ANT_WIFI_5G



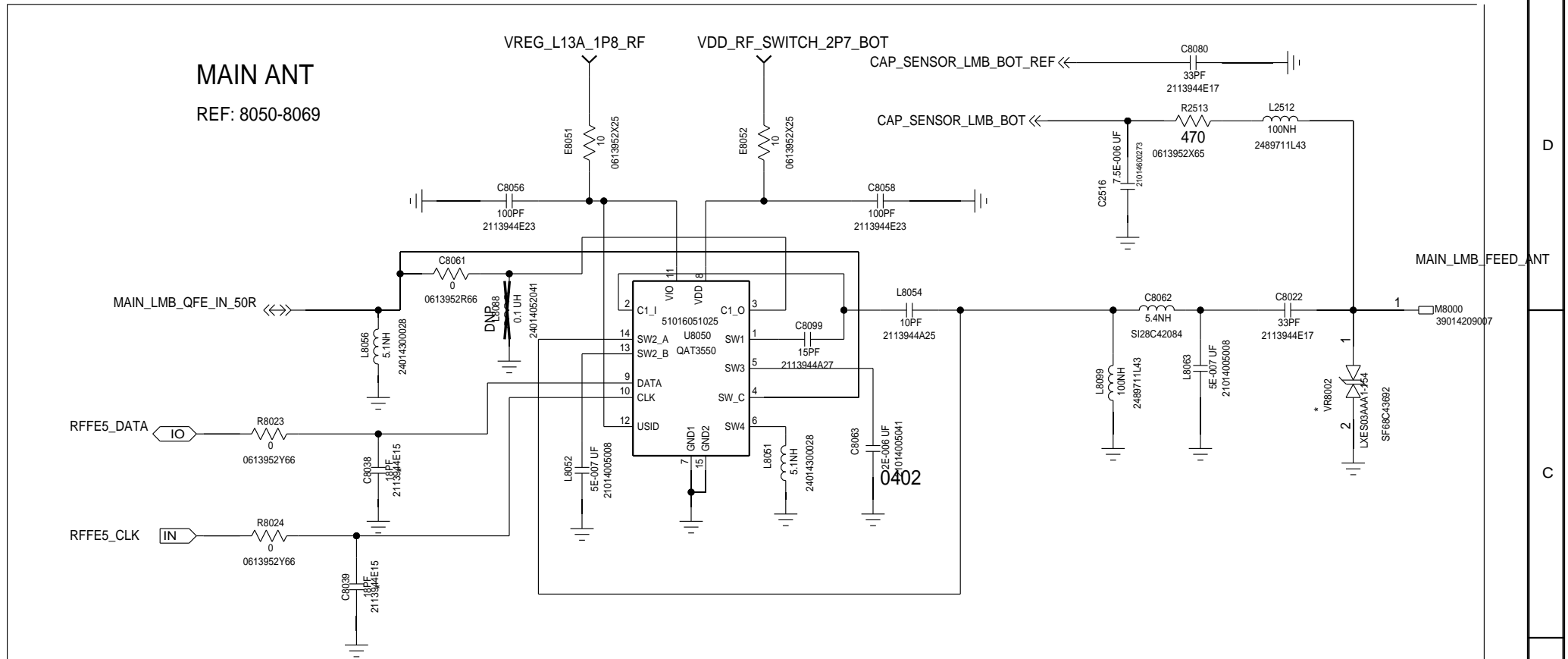
ANT DRX HLB



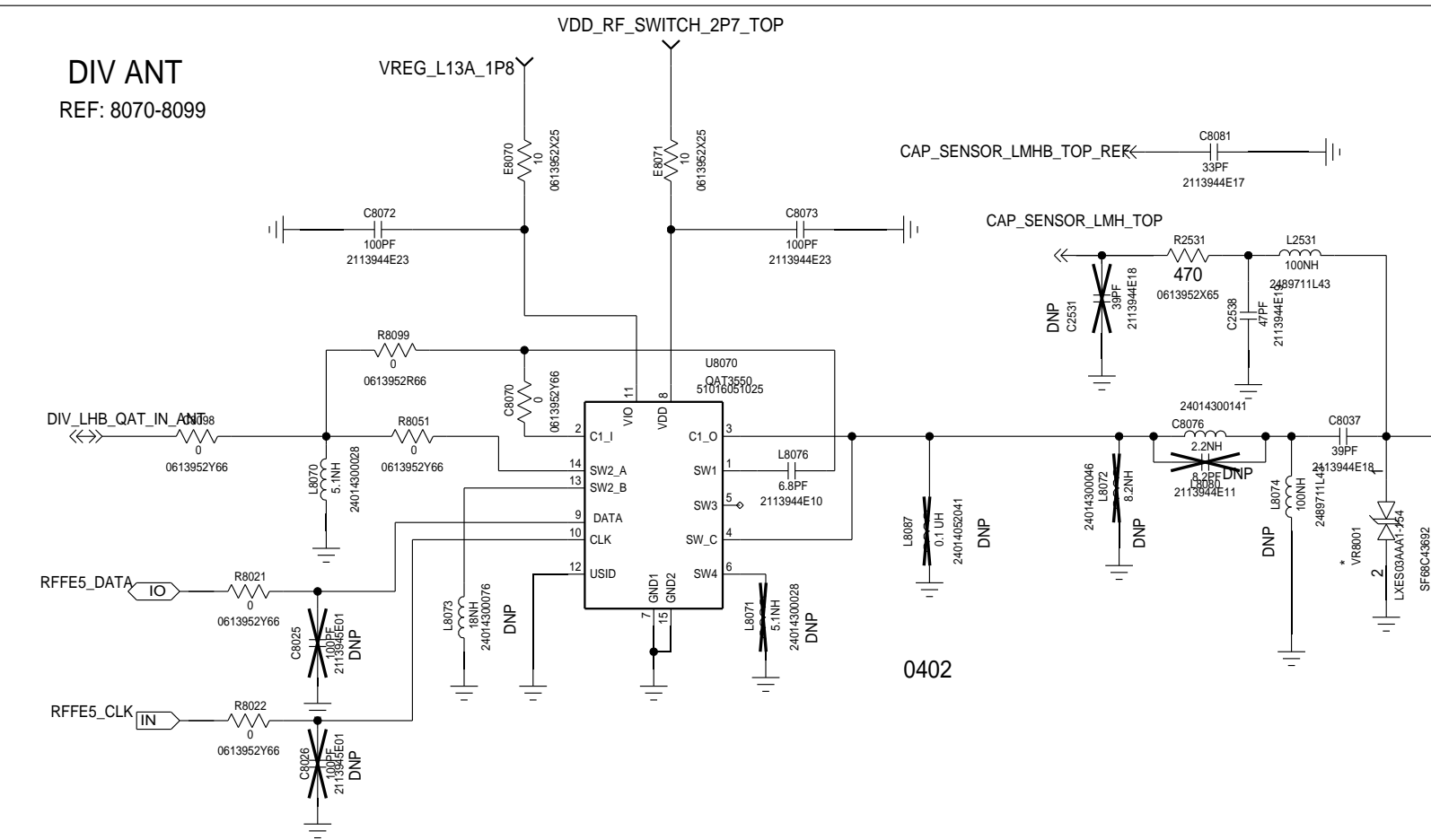
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REF 8050-8099

MAIN ANT REF: 8050-8069

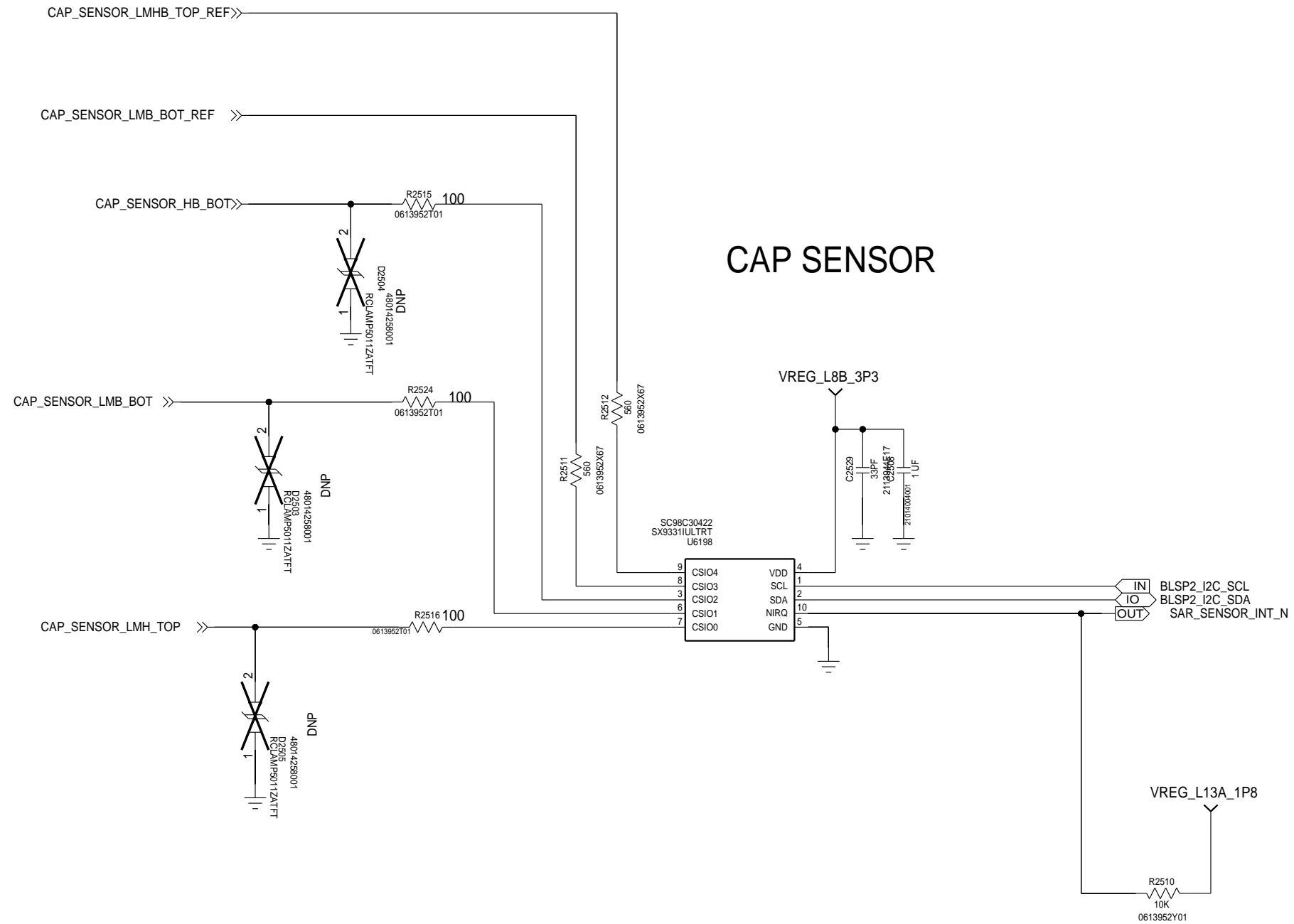


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		PAGE 66 OF 66	