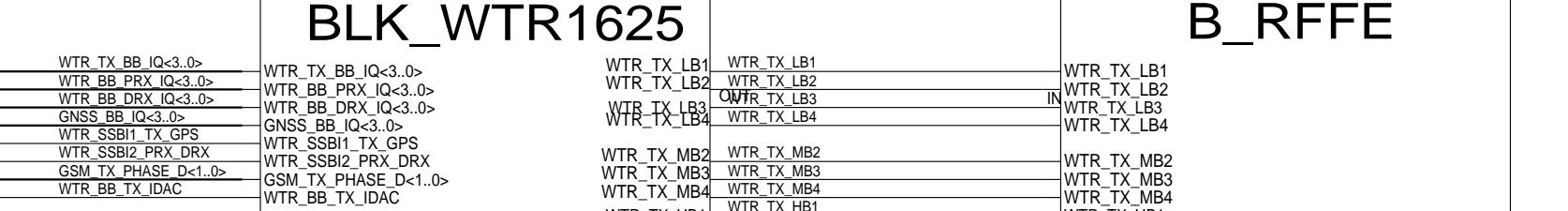
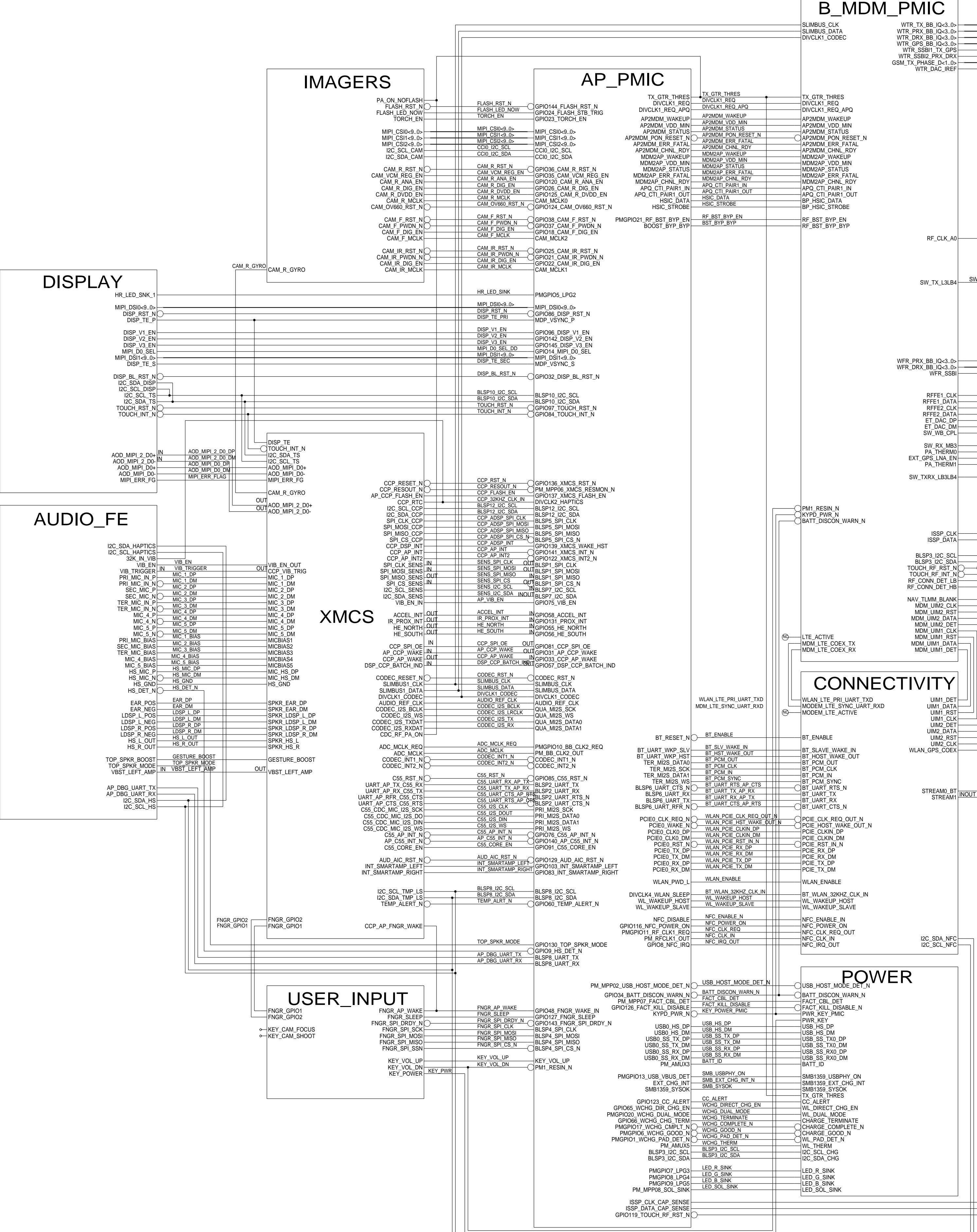
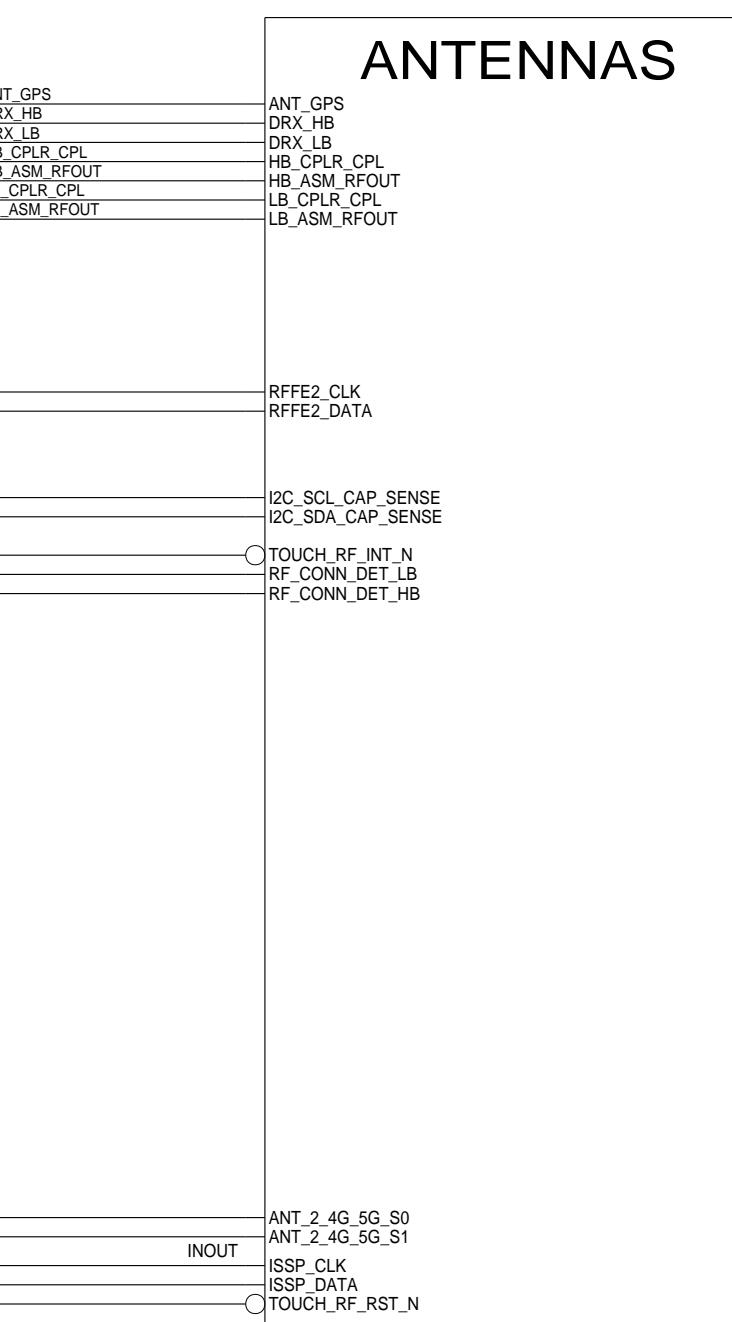


XPLAY APQ P3 TOP



XPLAY APQ EVT (REV A)
LAST CHANGE: 08-25-2014
BOM CHANGE: 09-08-2014



BASED ON SYSTEM 3.0
LEXINGTON 12-12-2013 RELEASE
TAKEN FROM QUANTUM P2: 04-03-2014

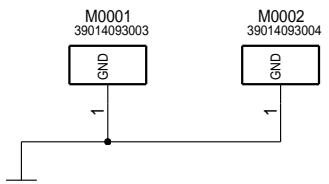
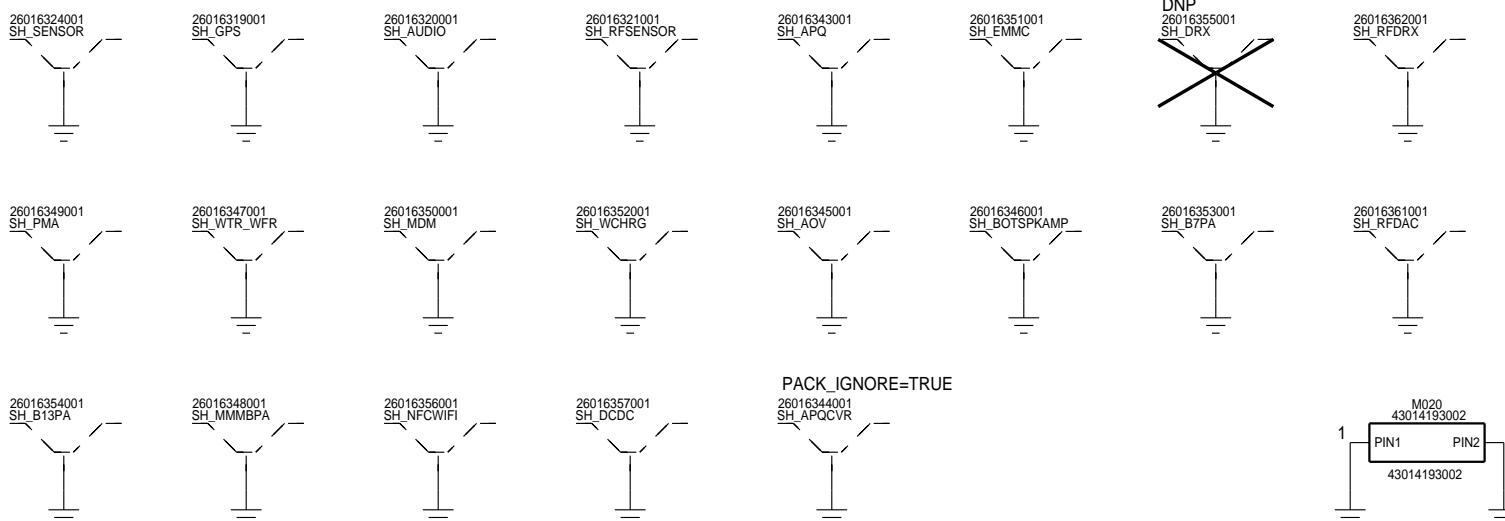
84016396001_01 P1B-1: RELEASED 05-16-2014
84016496001_02 P1B-2: RELEASED 05-21-2014
84016496001_03 P1B-2: RELEASED 05-29-2014
84016496001_04 P2A-1: RELEASED 06-23-2014
84016496001_05 P2B-1: RELEASED 07-25-2014
84016496001_06 P3-EVT: RELEASED 08-28-2014
84016496001_A P3-EVT: SCHEDULED 09-10-2014

MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

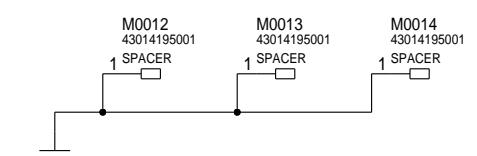
APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: MOTOROLA MOBILITY	BLOCK TITLE: 84016396001_a	
LAST MODIFIED BY: NATE CONNELL	Tue Sep 09 14:31:26 2014	
MOTOROLA CONFIDENTIAL RESTRICTED	PROJECT NAME: 84016396001_a.cpm	
SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. © MOTOROLA MOBILITY INC. 2014 NOT FOR PUBLICATION	REV 01 PAGE 1 OF 80	

XPLAY APQ ME/SHIELDS

SHIELDS



BACK SIDE CHASIS GROUND CLIPS



FRONT SIDE SMT BOSSES

REFERENCE DESIGNATOR RANGES BY BLOCK

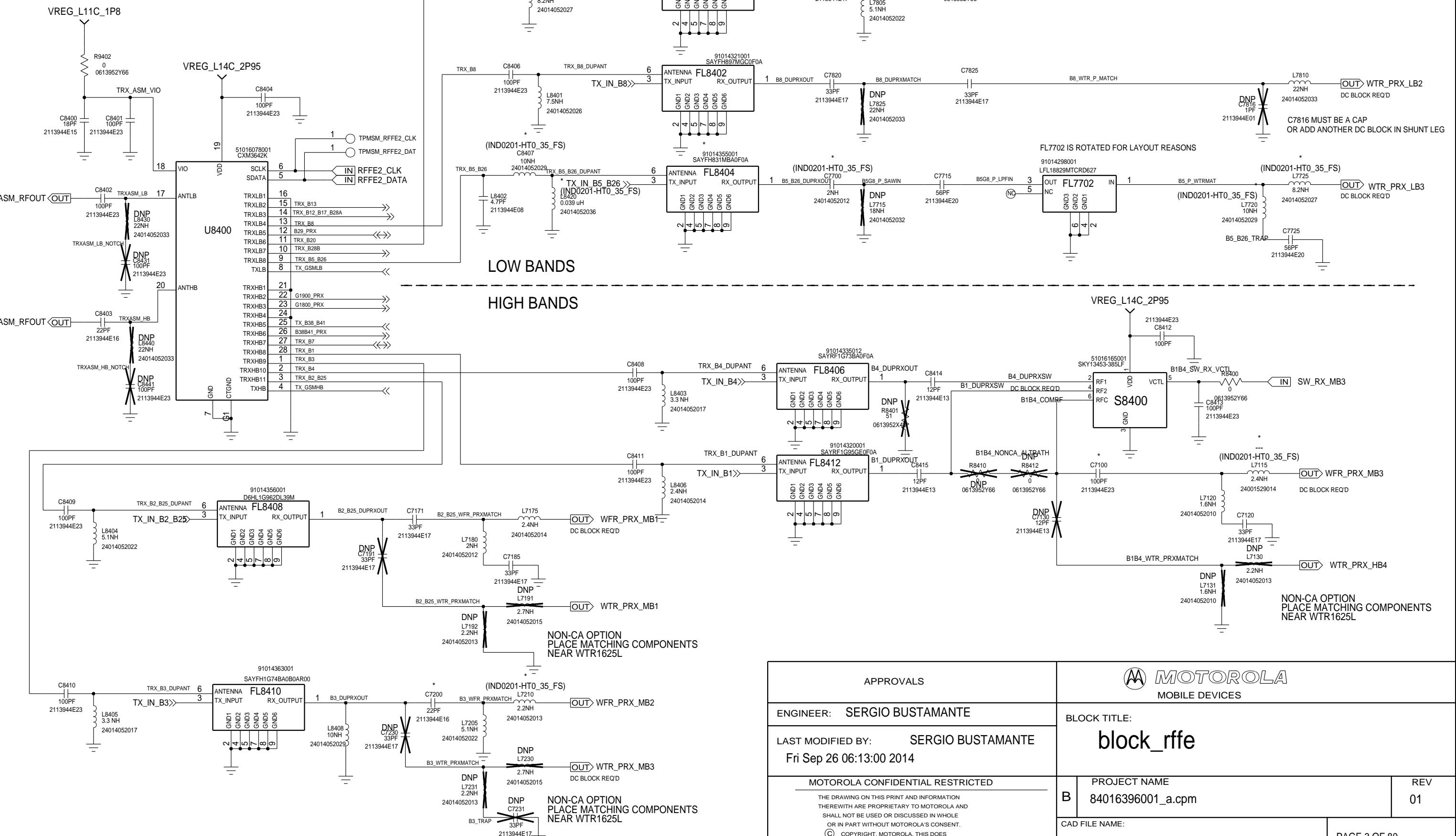
- 000 - 499: ANTENNA
- 500 - 599: USER INPUT
- 600 - 799: POWER
- 1000-2999: APQ8084 + PMA8084
- 3000-3199: WFR1620 + WTR1605
- 3200-3999: MDM9625 + PM8019
- 4000-4499: CONNECTIVITY
- 4500-4999: AUDIO FE
- 5000-5499: DISPLAY
- 5500-5999: CAMERA
- 6000-6999: XMCS
- 7000-8999: RFFE
- 9000-9999: PRODUCT-SPECIFIC (FILTERING, 100PF CAPS)

MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

APPROVALS	 MOTOROLA MOBILE DEVICES	
ENGINEER:	BLOCK TITLE:	
LAST MODIFIED BY:	84016396001_a	
Fri Sep 26 06:13:03 2014		
MOTOROLA CONFIDENTIAL RESTRICTED	PROJECT NAME	REV
<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>		01
CAD FILE NAME:	84016396001_a.cpm	
PAGE 2 OF 80		1

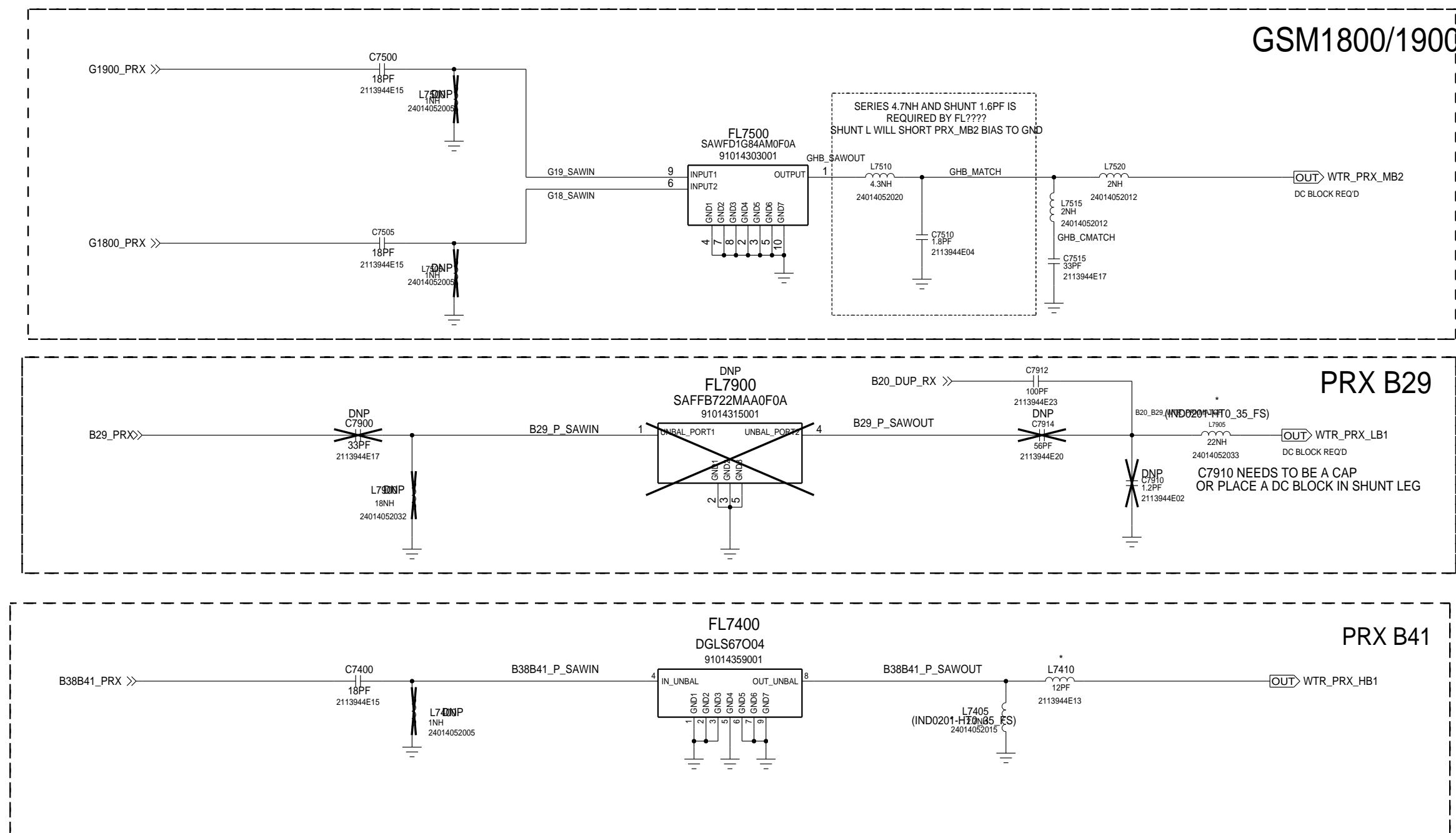
RFFE: TRX SWITCH

REF 7100-8499



RFFE: PRX B29/B41/GSM1800/GSM1900

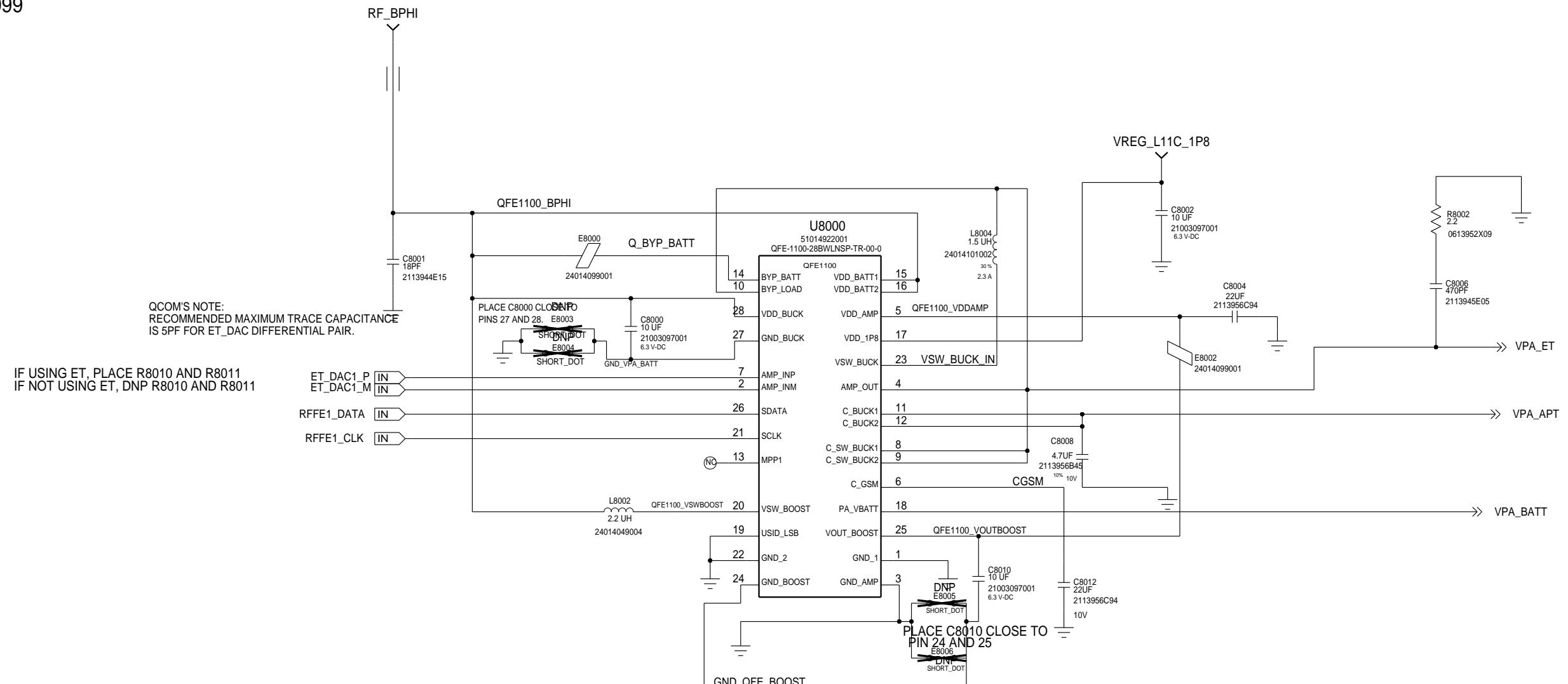
REF 7100-8499



APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: SERGIO BUSTAMANTE	BLOCK TITLE: block_rffe	
LAST MODIFIED BY: SERGIO BUSTAMANTE Fri Sep 26 06:13:00 2014		
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CAD FILE NAME:		PAGE 4 OF 80

RFFE: APT/ET

REF 8000-8099



QCOM'S NOTES:

- QFE1100 ES2 PIN 13 CONNECTION TO PMIC HKADC IS FOR ET ENVELOP GAIN CALIBRATION AND QFE1100 INTERNAL TEMPERATURE SENSOR READING.
- WHEN QFE1100 ES2 PIN13 IS CONNECTED TO PMIC HKADC, PULL-UP RESISTOR ON BB SIDED SHOULD BE REMOVED FOR PM8019 (MDM9X25), OR SOFTWARE SHOULD DISABLE PULL-UP PULL-UP ON PM8941, PIN195 (MSM8974).
- FULL SUPPORT OF LOW VOLTAGE BATTERY WITH LTE 1RB IS AVAILABLE ON ES2 SAMPLE (FEB, 2013). ES2 COMBINED WITH L8001 AND C8005 CHANGE SUPPORTS LOW VOLTAGE BATTERY OVER ALL TECHNOLOGIES WHICH SUPPORT ET.

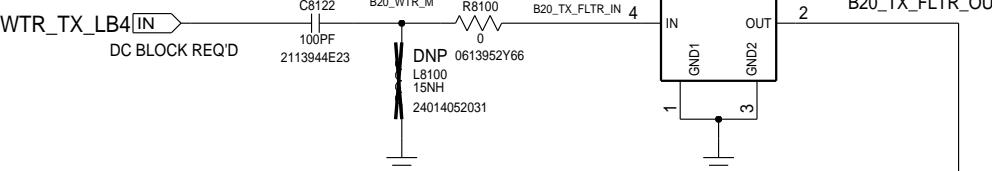
PLEASE REFER TO 80-NA681-5 AND 80-NA681-91 FOR QFE1100 CRITICAL LAYOUT GUIDE LINES IN MORE DETAIL.

APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER:	BLOCK TITLE: block_rffe	
LAST MODIFIED BY: Fri Sep 26 06:13:00 2014		
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CAD FILE NAME:		PAGE 5 OF 80

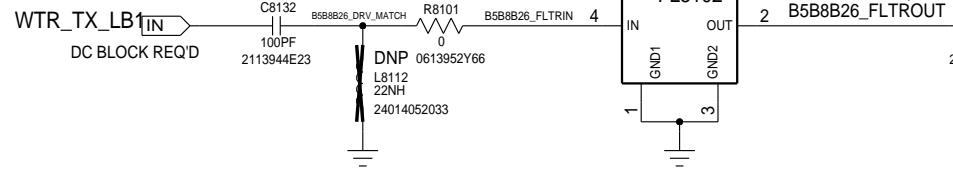
RFFE: TX MMBB PA

REF 8100-8199

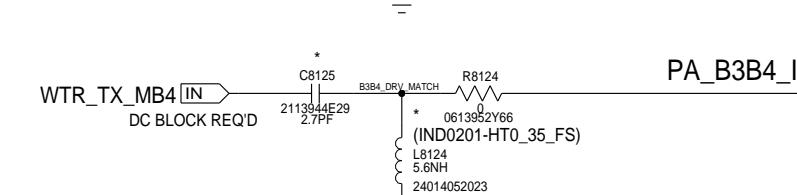
D

WTR_TX_LB4 IS SHARED WITH B13
PLACE C8122 AND C8328 SUCH THAT THEY SHARE COMMON PAD

C



PA_B1B25_IN

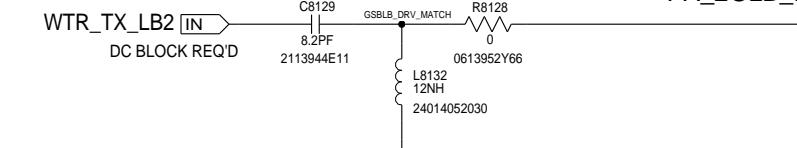


DC BLOCK REQ'D

WTR_TX_MB3 IN

DC BLOCK REQ'D

WTR_TX_MB3 IN

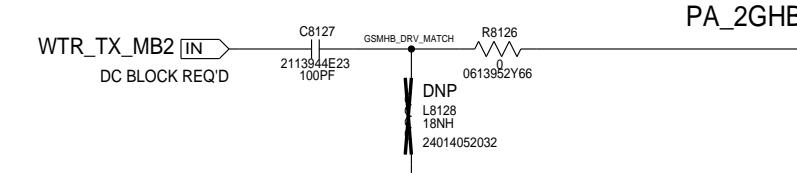


DC BLOCK REQ'D

WTR_TX_MB4 IN

DC BLOCK REQ'D

WTR_TX_MB4 IN

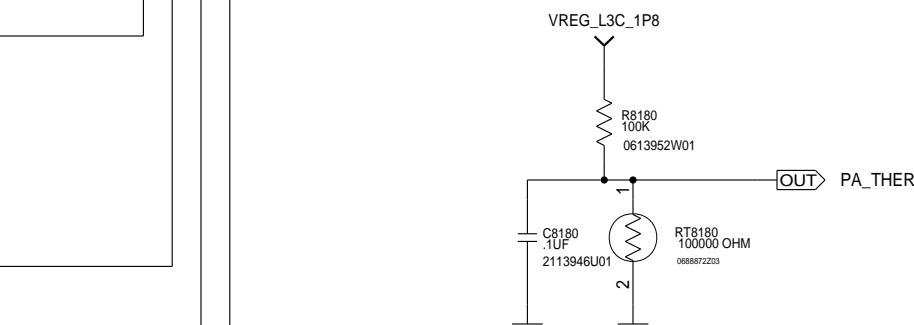
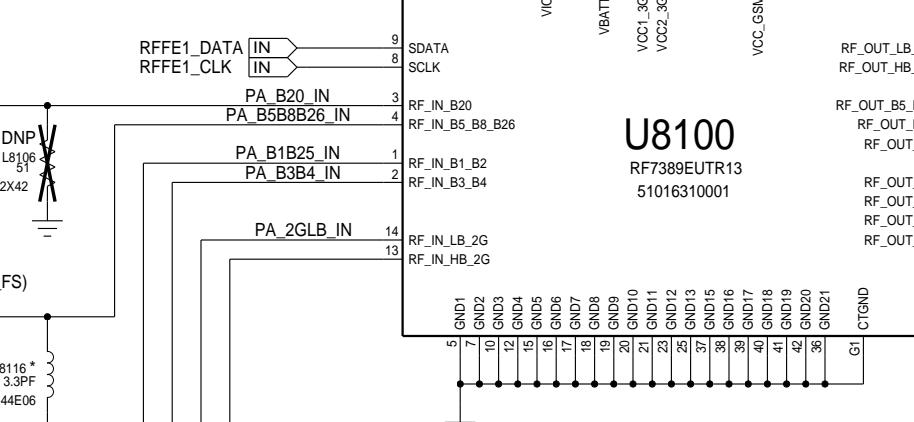
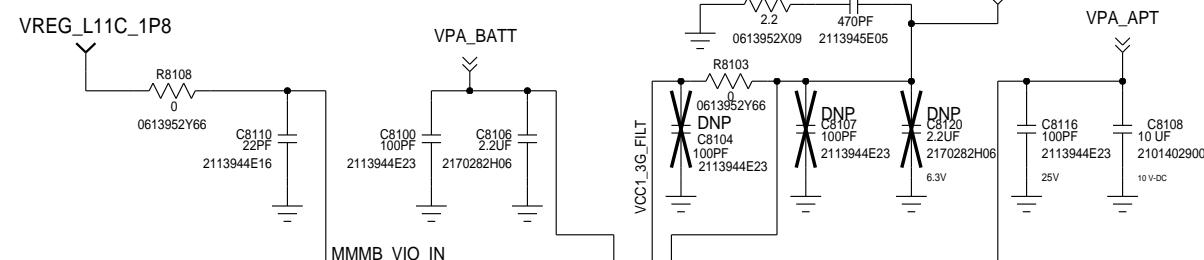


DC BLOCK REQ'D

WTR_TX_MB2 IN

DC BLOCK REQ'D

WTR_TX_MB2 IN

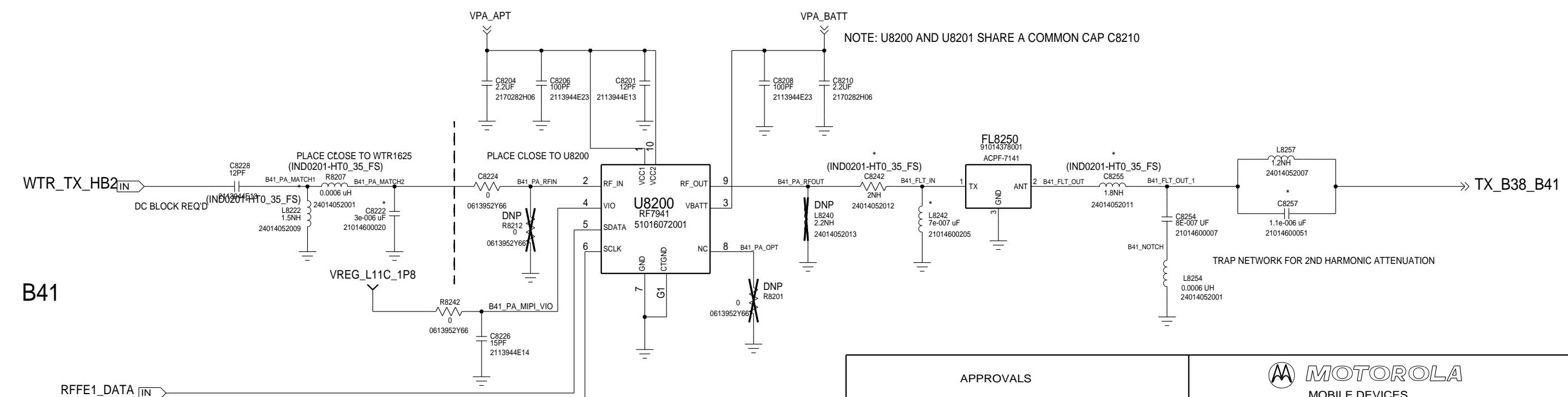
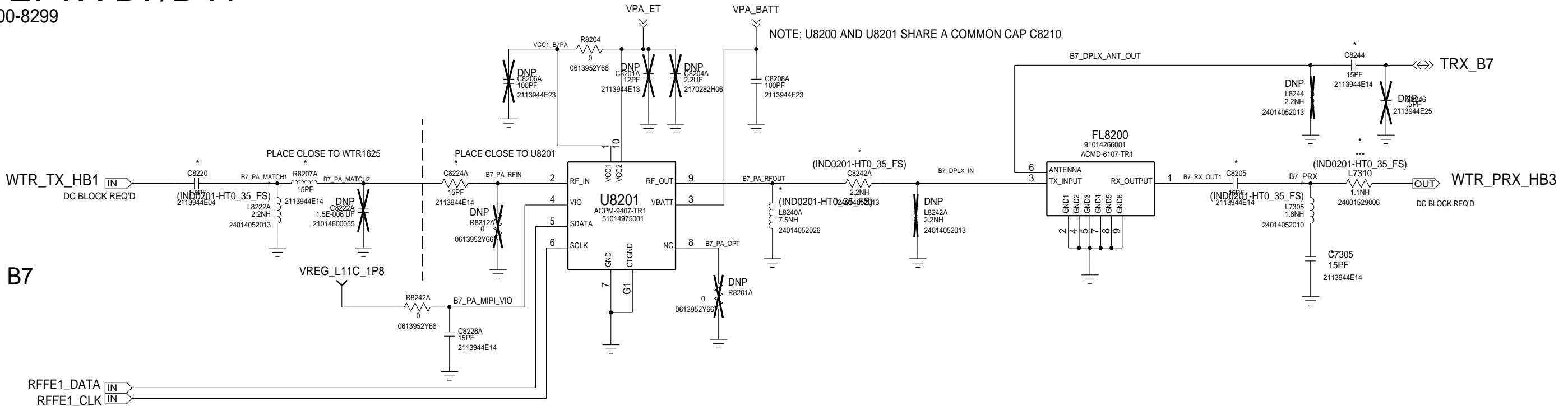


APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: SERGIO BUSTAMANTE	BLOCK TITLE: block_rffe	
LAST MODIFIED BY: SERGIO BUSTAMANTE	Fri Sep 26 06:13:00 2014	
MOTOROLA CONFIDENTIAL RESTRICTED	PROJECT NAME B 89746396001_a.cpm	
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		PAGE 6 OF 80

RFFE: TX B7/B41

REF 7100-8299

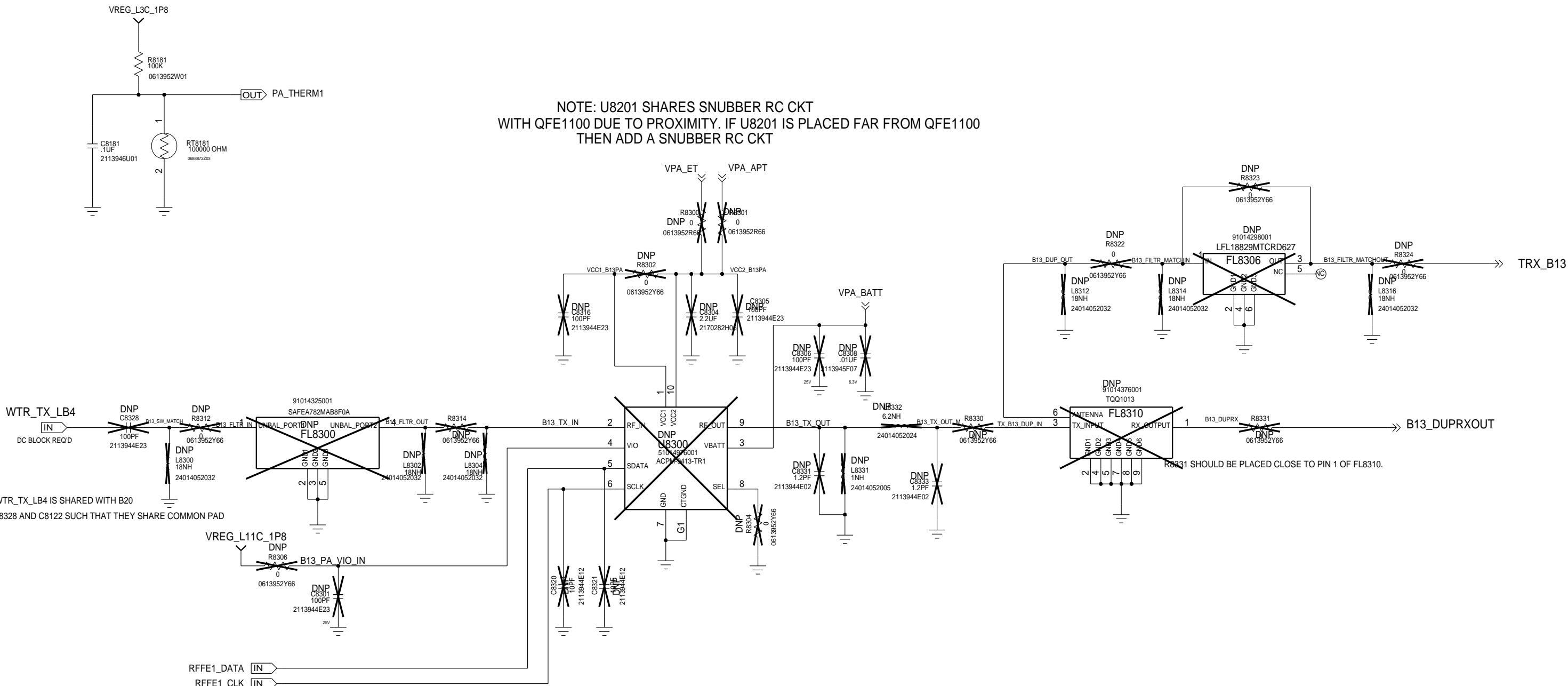
NOTE: U8201 SHARES SNUBBER RC CKT
WITH QFE1100 DUE TO PROXIMITY. IF U8201 IS PLACED FAR FROM QFE1100
THEN ADD A SNUBBER RC CKT



APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: SERGIO BUSTAMANTE	BLOCK TITLE: block_rffe	
LAST MODIFIED BY: SERGIO BUSTAMANTE	Fri Sep 26 06:13:01 2014	
MOTOROLA CONFIDENTIAL RESTRICTED	PROJECT NAME B 89746396001_a.cpm	REV 01
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RFFE: TX B13

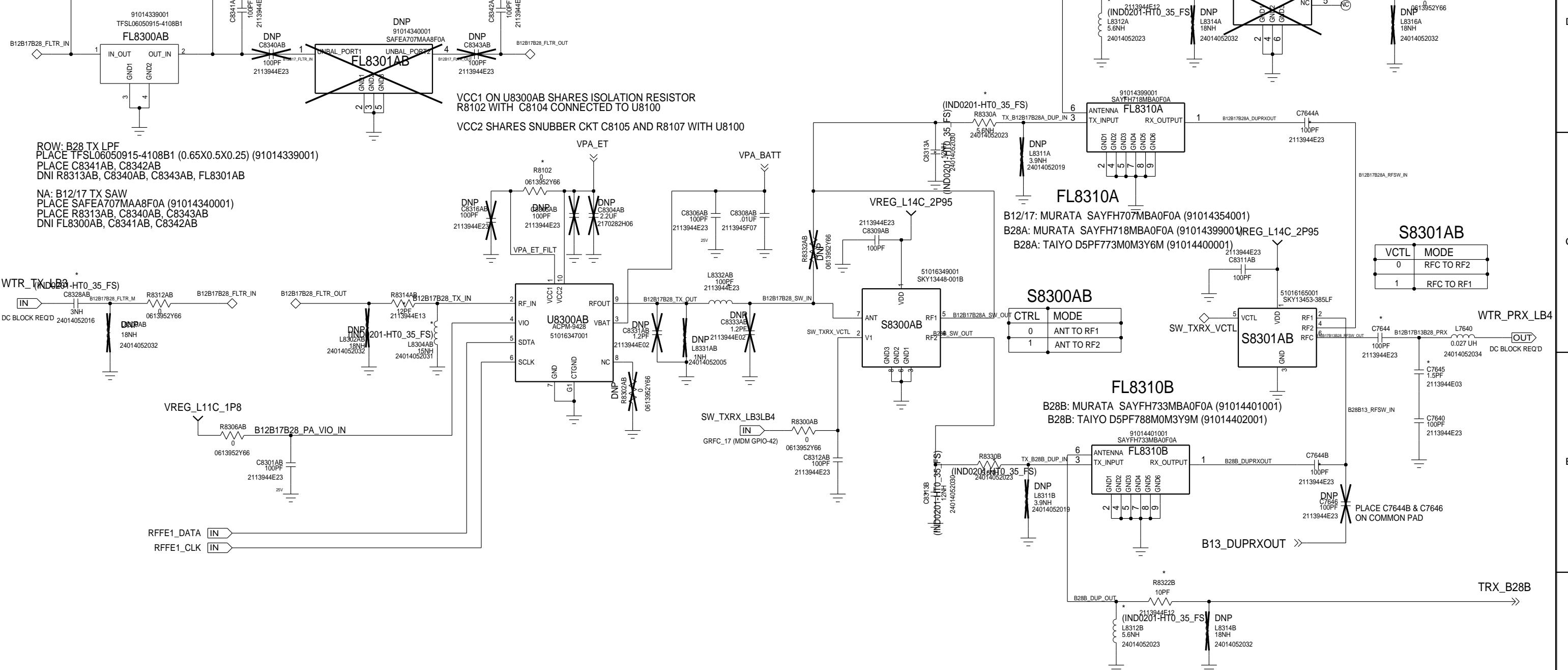
REF 7600-8399



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: SERGIO BUSTAMANTE		BLOCK TITLE: block_rffe	
LAST MODIFIED BY: SERGIO BUSTAMANTE Fri Sep 26 06:13:01 2014			
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		CAD FILE NAME:	PAGE 8 OF 80

RFFE: TX B12/B17/B28

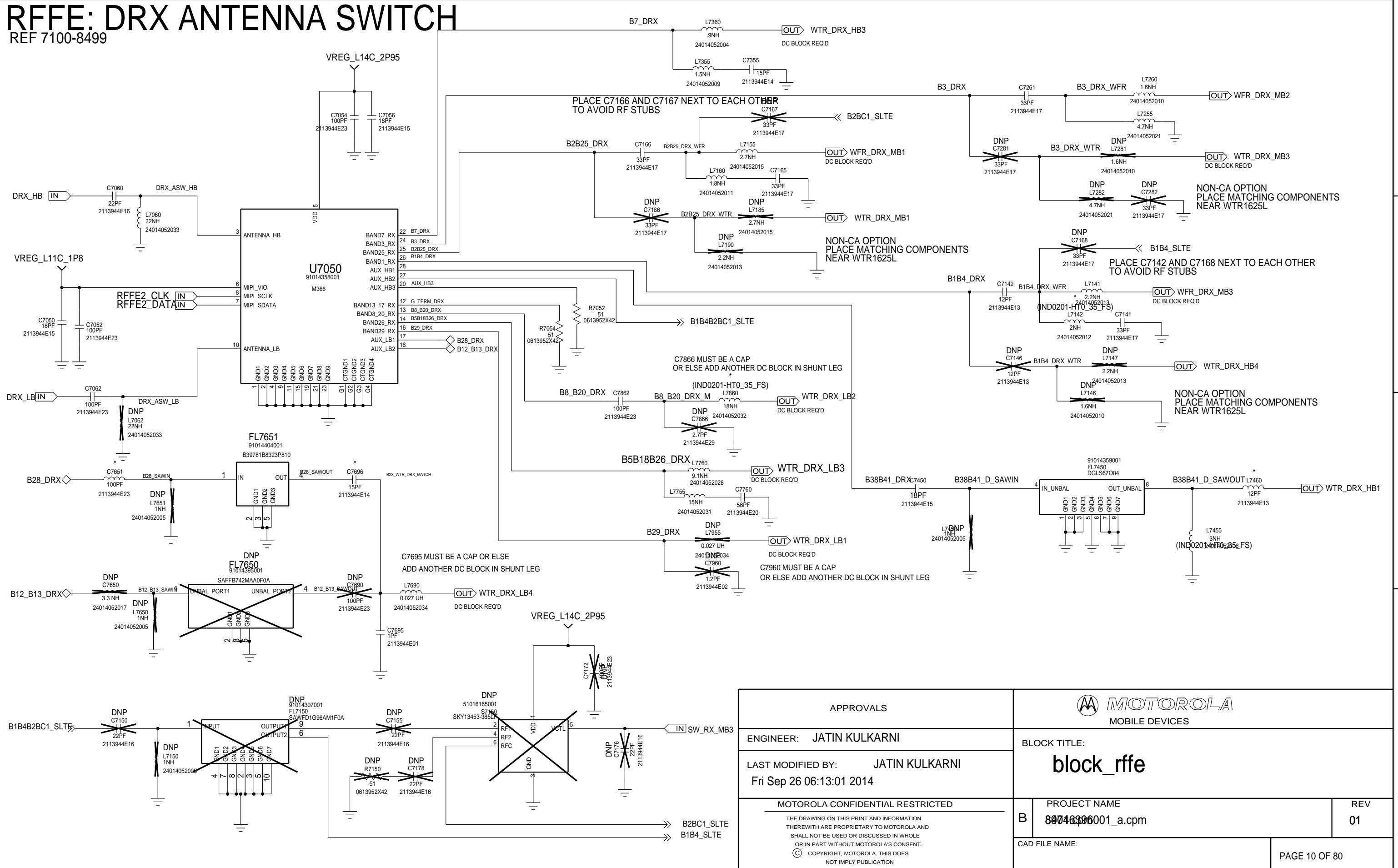
REF 7600-8399



APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: SERGIO BUSTAMANTE	BLOCK TITLE: block_rffe	
LAST MODIFIED BY: SERGIO BUSTAMANTE Fri Sep 26 06:13:01 2014		
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CAD FILE NAME:	PAGE 9 OF 80	

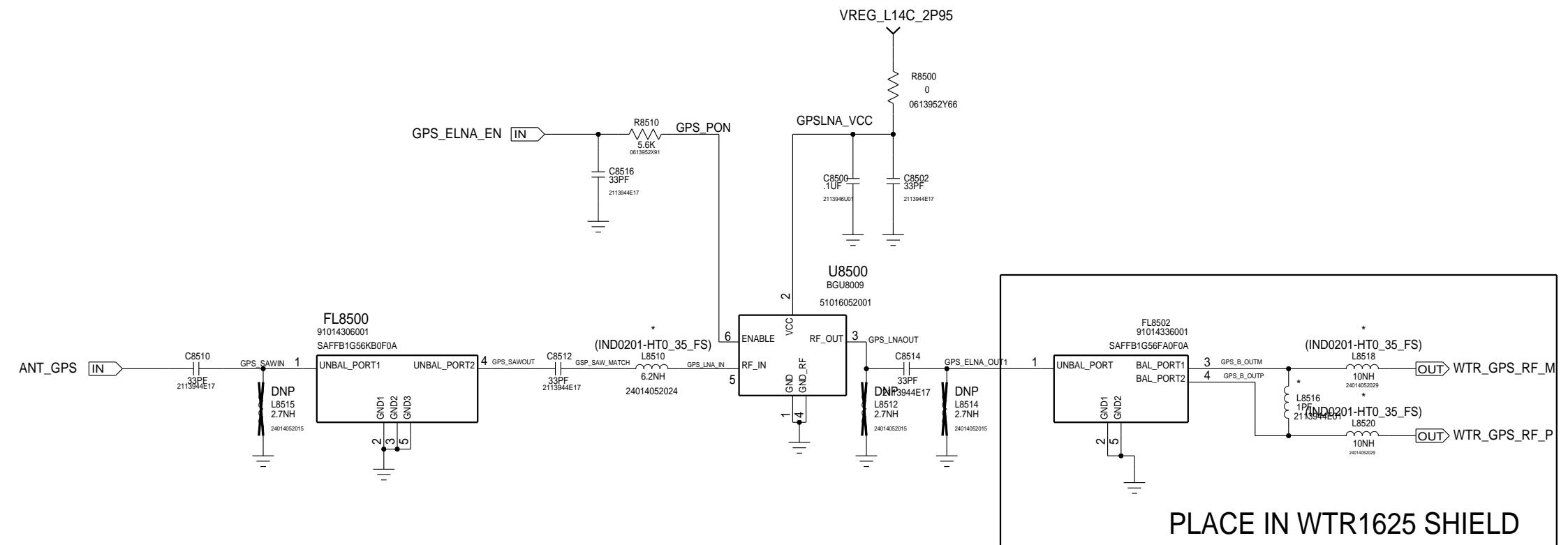
RFFE: DRX ANTENNA SWITCH

REF 7100-8499



RFFE: GPS

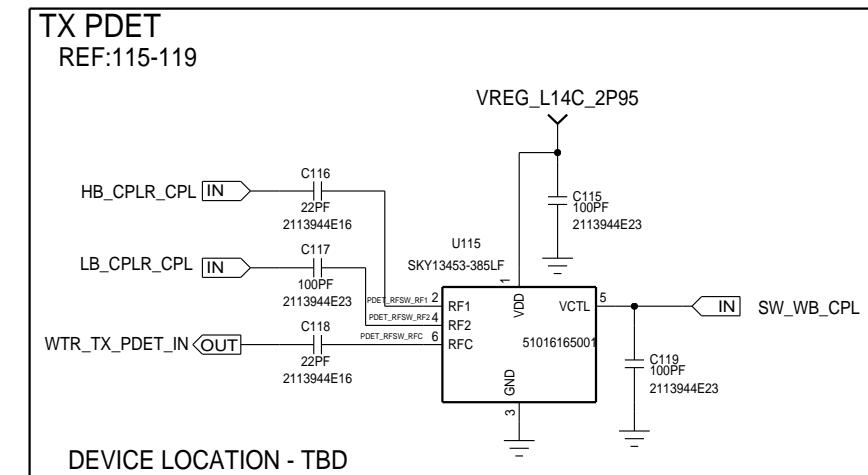
REF : 8500-8549



APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER:	BLOCK TITLE: block_rffe	
LAST MODIFIED BY: Fri Sep 26 06:13:02 2014		
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 89746396001_a.cpm	REV 01
CAD FILE NAME:	PAGE 11 OF 80	

RFFE: PDET

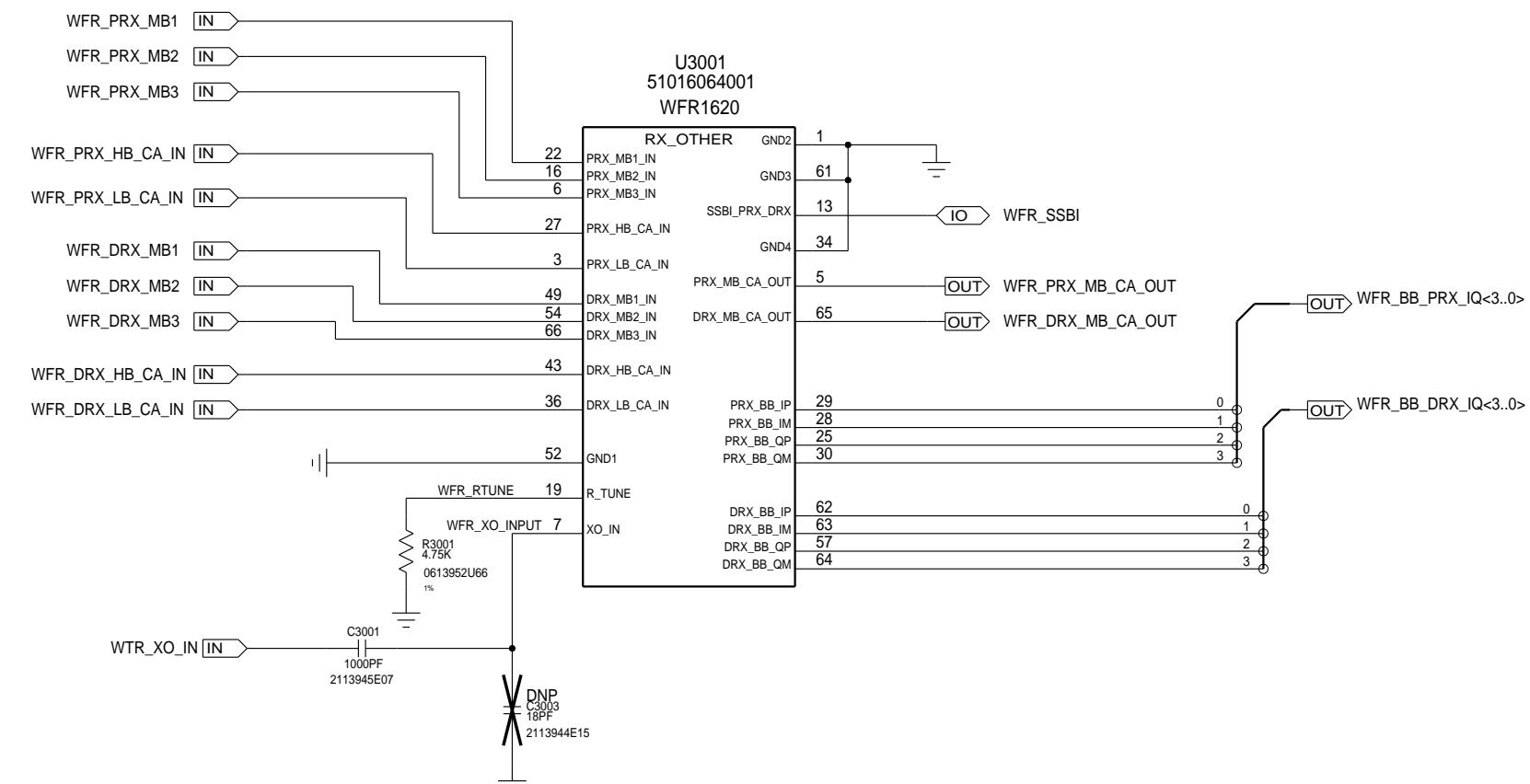
REF : 8500-8549



APPROVALS	 MOTOROLA MOBILE DEVICES	
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LAST MODIFIED BY:	block_rffe	
Fri Sep 26 06:13:02 2014	PROJECT NAME	REV
MOTOROLA CONFIDENTIAL RESTRICTED	B 89746396001_a.cpm	
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CAD FILE NAME:		PAGE 12 OF 80

WFR1620: BB RF

REF 3000-3019

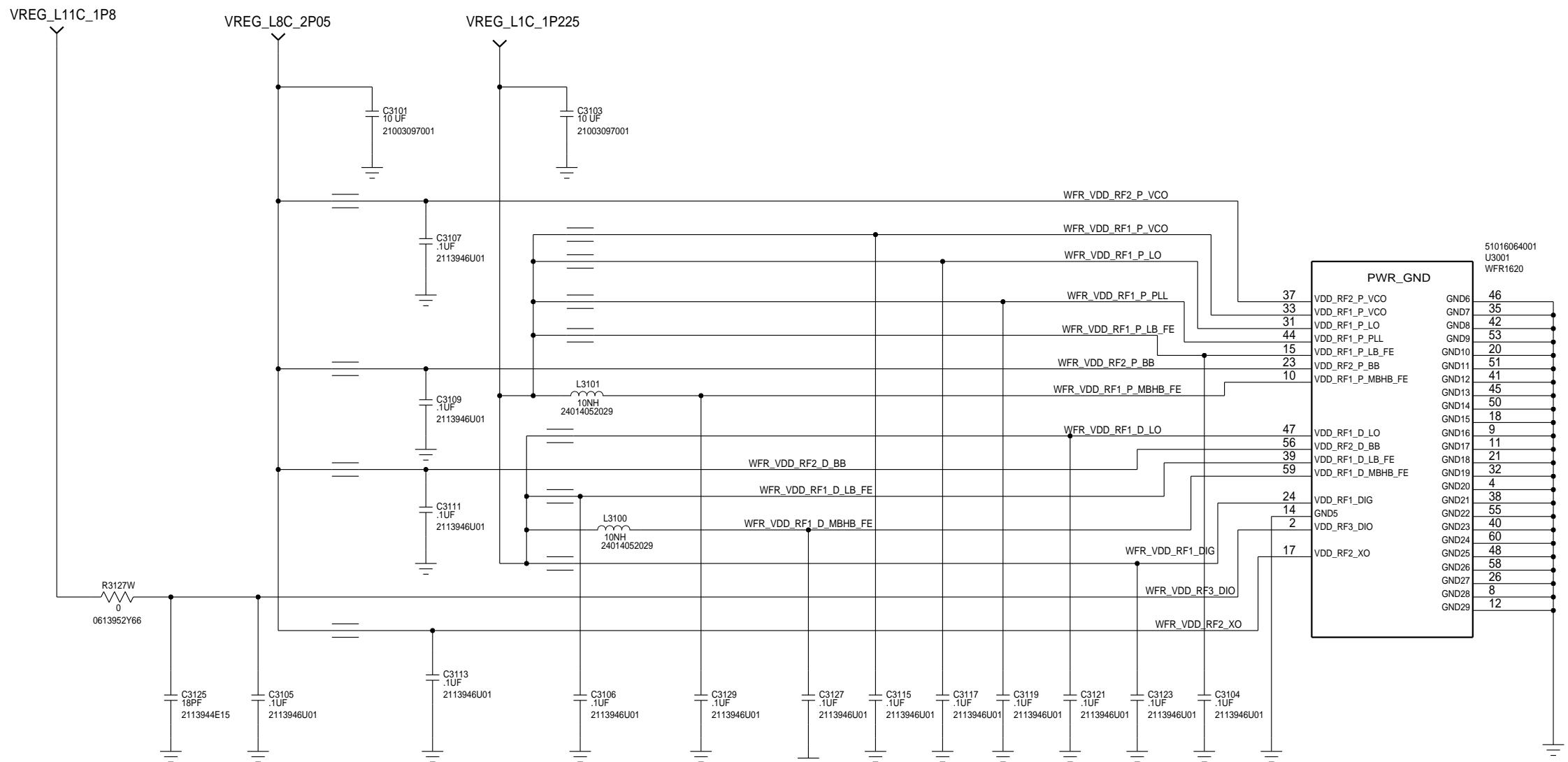


TEMPORARY XPLAY COPY TO IMPORT RF CORE
 WILL UPDATE TO FINAL NEXPLAY WHEN RF CORE IMPORT DONE

APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER:	BLOCK TITLE:	
LAST MODIFIED BY: Fri Sep 26 06:12:59 2014	block_wfr1620	
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 89746396001_a.cpm	REV 01
CAD FILE NAME:	PAGE 13 OF 80	

WFR1620: POWER

REF 3020-3099



NOTES

- THE POWER PIN CONNECTIONS SHOULD EMPLOY STAR CONNECTIONS

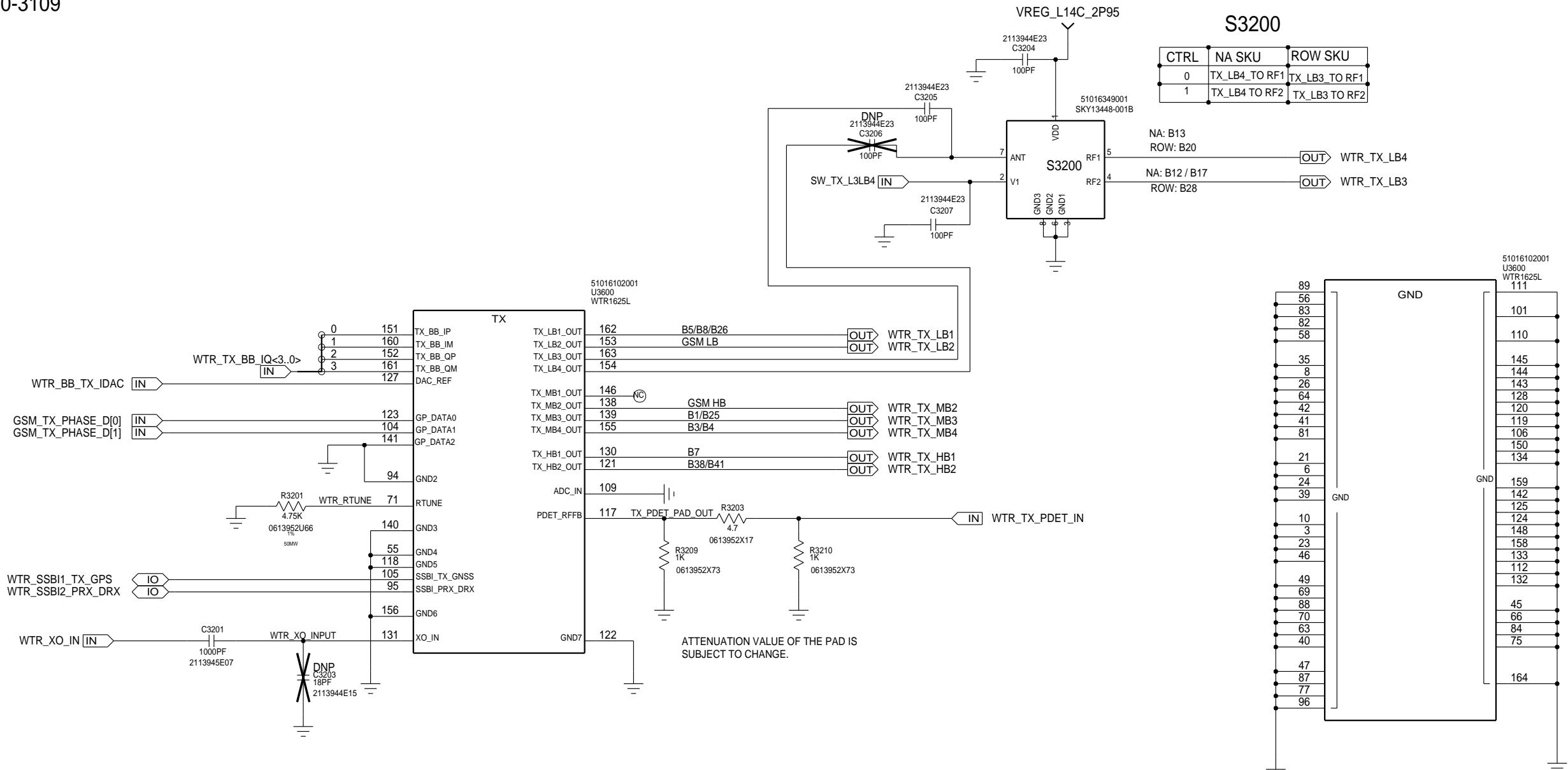
TEMPORARY XPLAY COPY TO IMPORT RF CORE

WILL UPDATE TO FINAL NEXPLAY WHEN RF CORE IMPORT DONE

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE: block_wfr1620	
LAST MODIFIED BY: Fri Sep 26 06:12:59 2014			
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		CAD FILE NAME:	PAGE 14 OF 80

WTR1625: TX/GROUND

REF 3100-3109

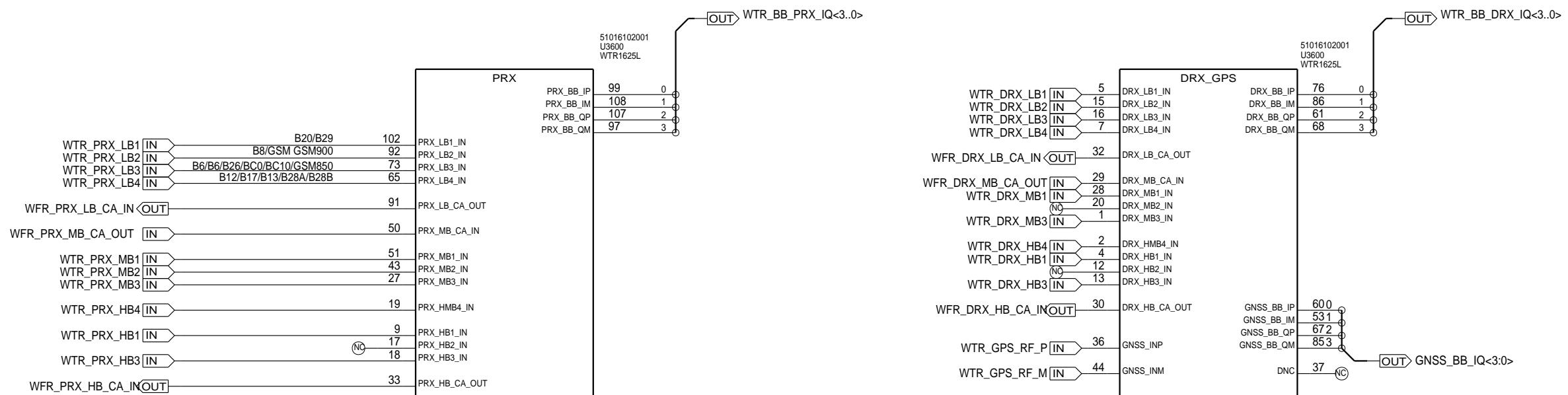


TEMPORARY XPLAY COPY TO IMPORT RF CORE
WILL UPDATE TO FINAL NEXPLAY WHEN RF CORE IMPORT DONE

APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER:	BLOCK TITLE:	
LAST MODIFIED BY:	block_wtr1625	
Fri Sep 26 06:12:58 2014	PROJECT NAME	REV
MOTOROLA CONFIDENTIAL RESTRICTED	B 89746396001_a.cpm	01
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PAGE 15 OF 80		PAGE 15 OF 80

WTR1625: PRX/DRX/GPS

REF 3110-3119



QCOM'S NOTE:

WTR/WFR CA_IN/OUT INTERCONNECTION MAXIMUM TRACE LENGTH
LOW BAND 12 MM; MID/ HI BAND 10 MM

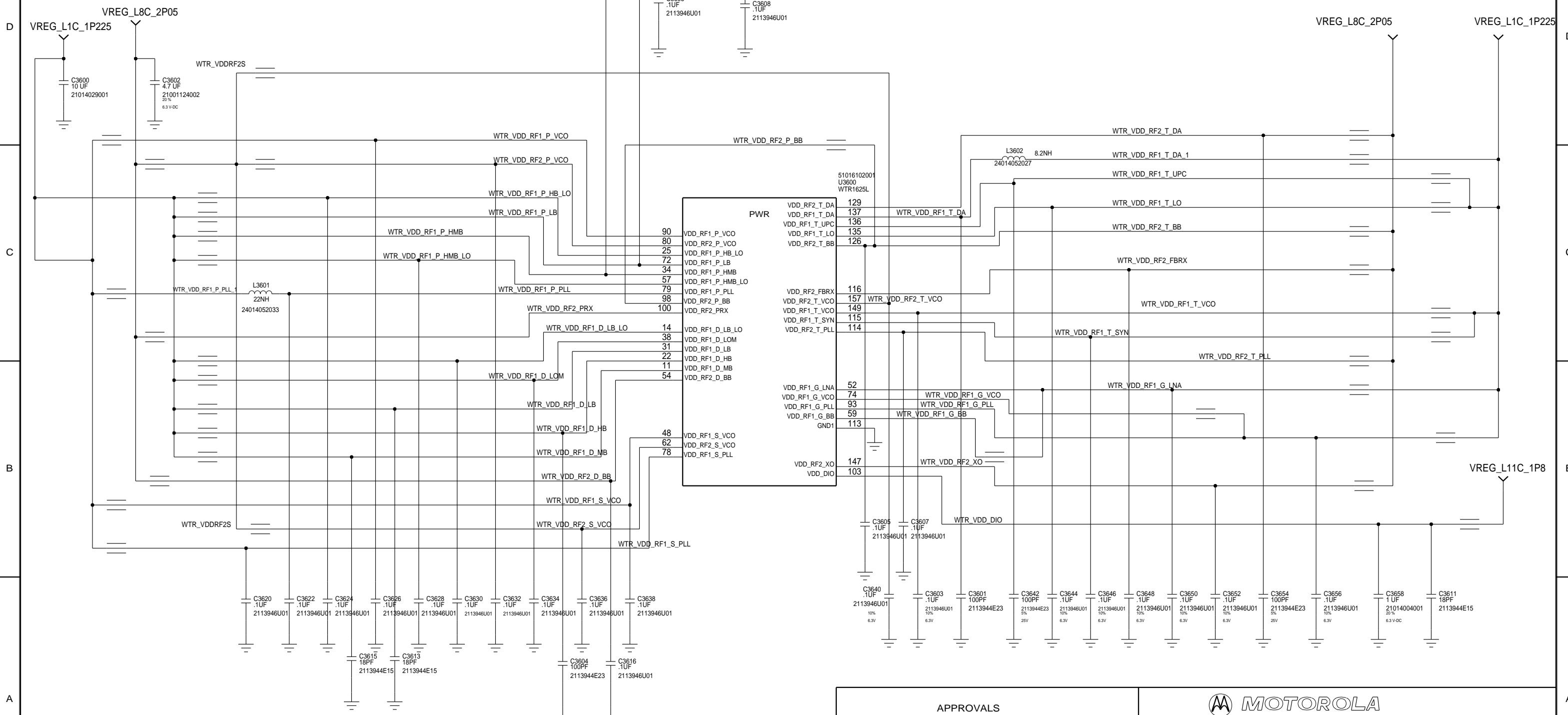
TEMPORARY XPLAY COPY TO IMPORT RF CORE

WILL UPDATE TO FINAL NEXPLAY WHEN RF CORE IMPORT DONE

APPROVALS	 MOTOROLA MOBILE DEVICES		
ENGINEER:	BLOCK TITLE: block_wtr1625		
LAST MODIFIED BY: Fri Sep 26 06:12:58 2014			
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	CAD FILE NAME:		PAGE 16 OF 80

WTR1625: POWER

REF 3120-3199



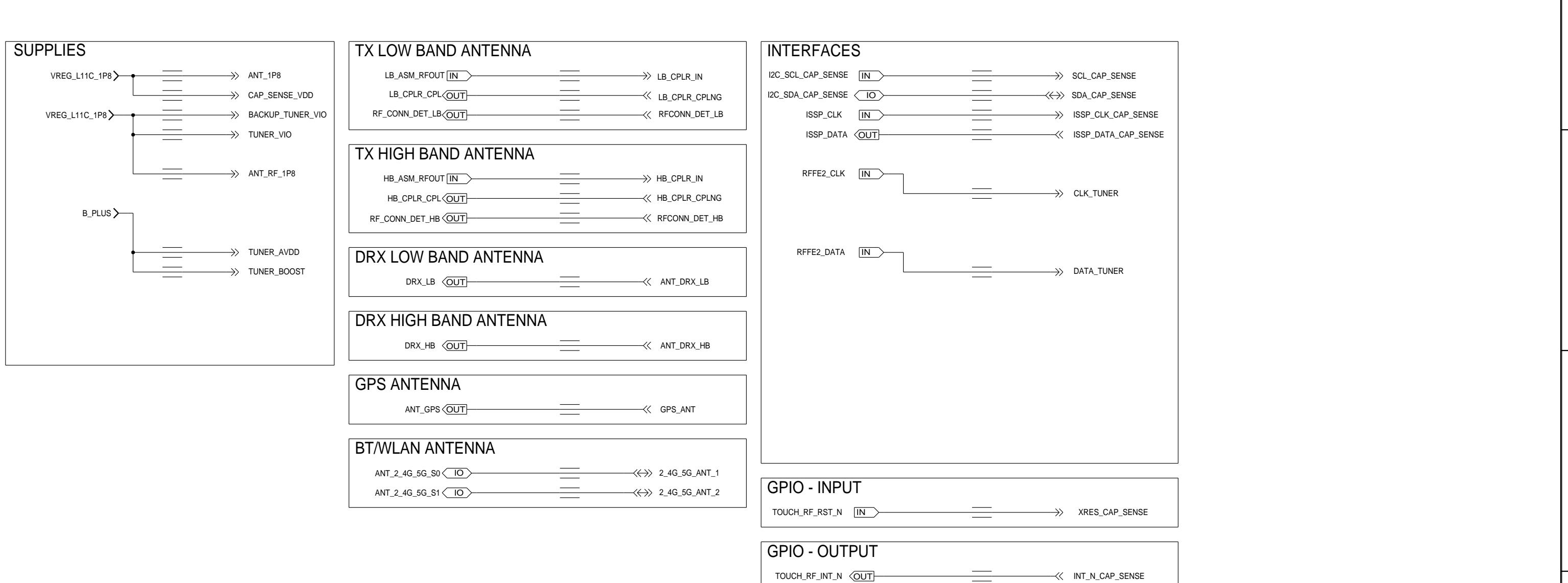
TEMPORARY XPLAY COPY TO IMPORT RF CORE

WILL UPDATE TO FINAL NEXPLAY WHEN RF CORE IMPORT DONE

APPROVALS	 MOTOROLA MOBILE DEVICES		
ENGINEER:	BLOCK TITLE: block_wtr1625		
LAST MODIFIED BY: Fri Sep 26 06:12:58 2014			
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	CAD FILE NAME:		PAGE 17 OF 80

ANT: PORTS

REFDES: 000 - 499



APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: NATE CONNELL	BLOCK TITLE: antennas	
LAST MODIFIED BY: NATE CONNELL Fri Sep 26 06:12:57 2014		
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 84016396001_a.cpm	REV 01
CAD FILE NAME:		PAGE 18 OF 80

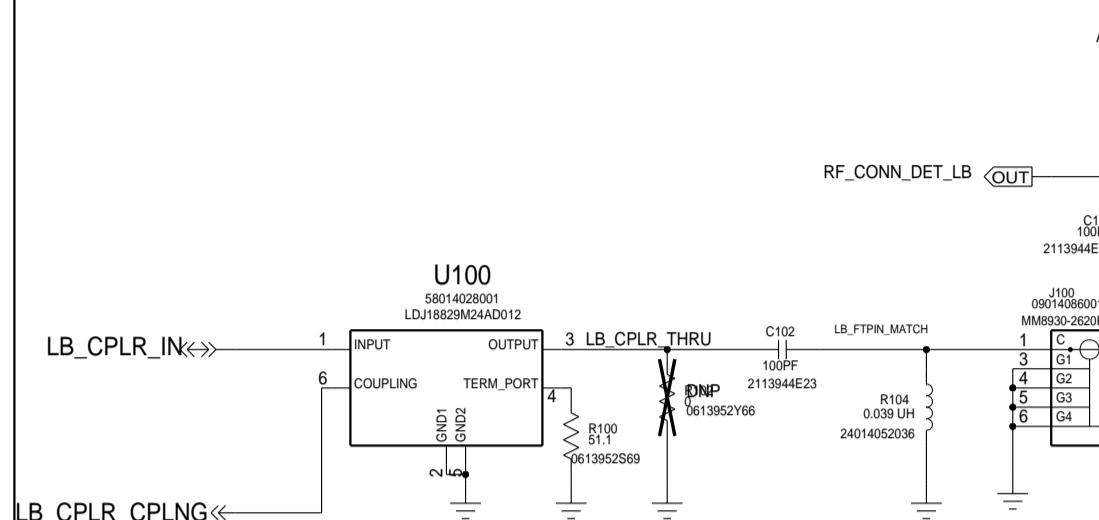
ANTENNAS

MAIN LOW BAND PORT

REF:100-114

DEVICE LOCATION - BOTTOM

TX LOW BAND ANTENNA
(GSM/UTMS/LTE)

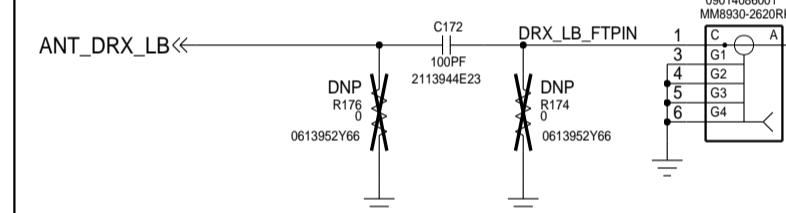


DRX LOW BAND PORT

REF:170-179

DEVICE LOCATION - TOP LEFT

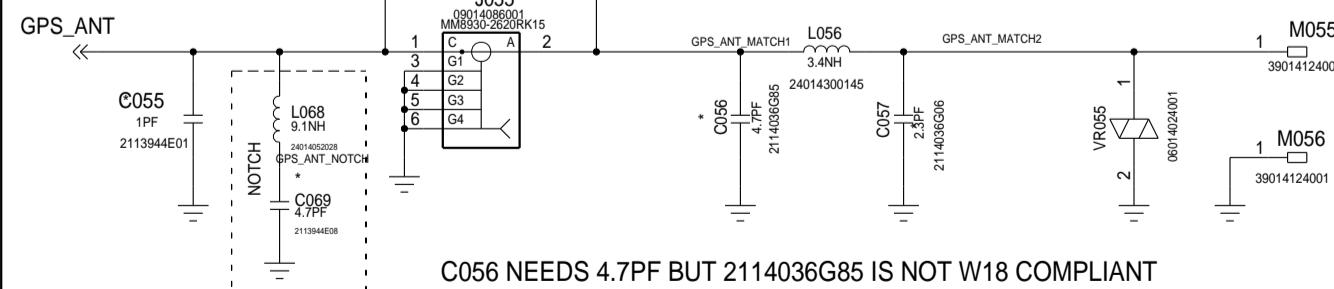
(GSM/UTMS/LTE)



GPS ANTENNA

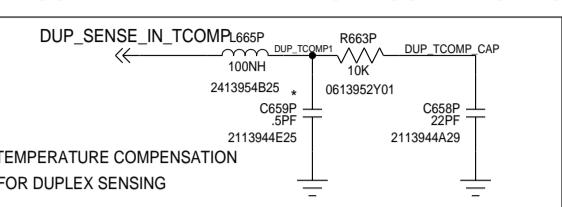
REF: 055-069

LOCATION - TOP RIGHT



C056 NEEDS 4.7PF BUT 2114036G85 IS NOT W18 COMPLIANT

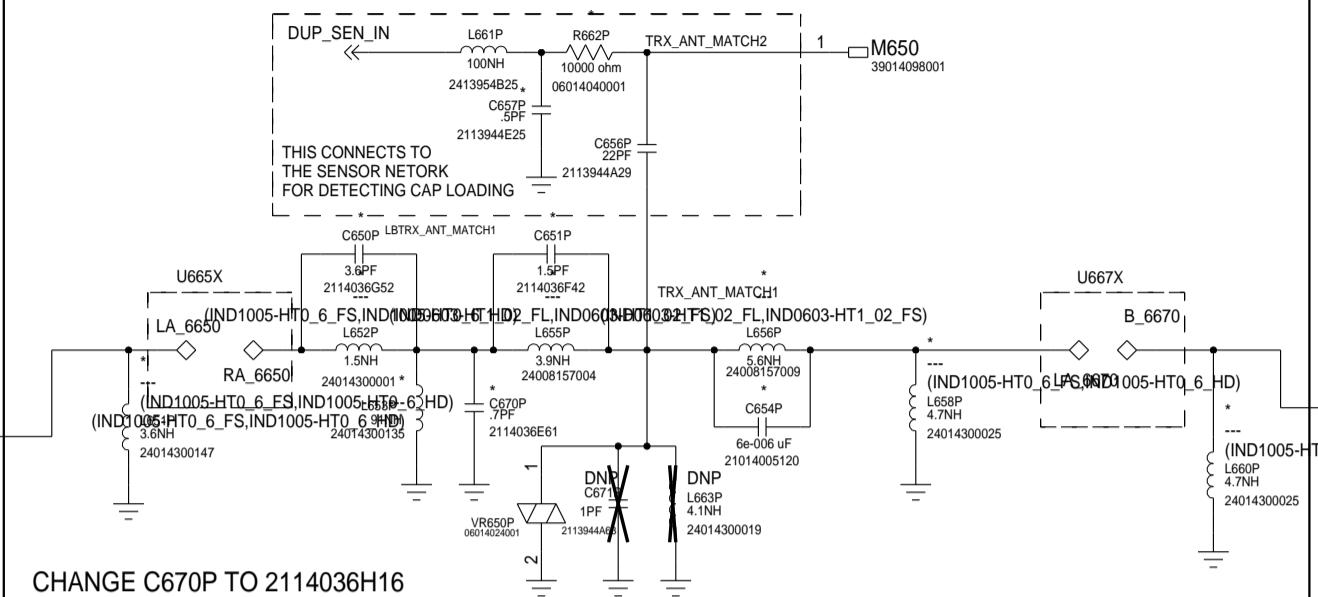
COMPONENTS ADDED FOR TEMPERATURE COMPENSATION. IT IS CRITICAL THAT THE CAP. C656 IN THE MATCHING NETWORK TO HAVE COG TEMPERATURE CHARACTERISTICS AND THE SAME TYPE AND SAME VALUE CAP MUST BE USED IN THE TEMPERATURE COMPENSATION CIRCUIT.



MAIN ANTENNA MATCH

REF: 650 - 699

R662P IS PLACEHOLDER PIN 0613952J01 (GENERIC 0603 10K RESISTOR) WHILE THE 06014040001 PART IS BEING GENERATED IN LRS



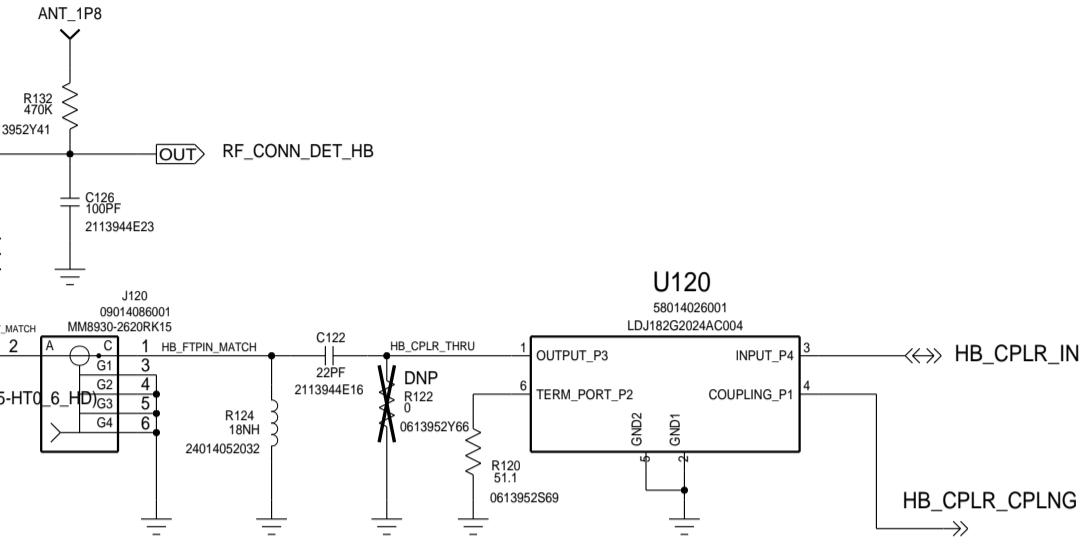
CHANGE C670P TO 2114036H16

MAIN HIGH BAND PORT

REF:120-139

DEVICE LOCATION - BOTTOM

TX HIGH BAND ANTENNA
(GSM/UTMS/LTE)



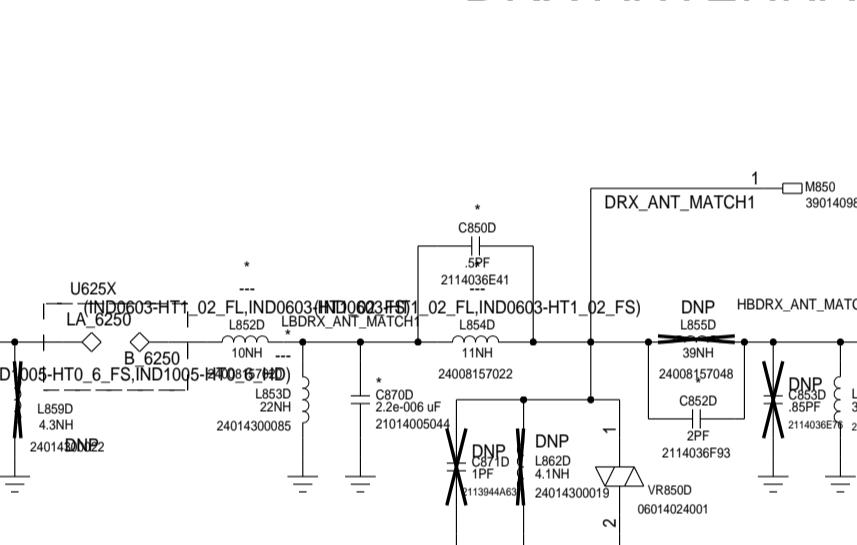
DRX LOW BAND PORT

REF:180-189

DEVICE LOCATION - TOP LEFT

(GSM/UTMS/LTE)

DRX ANTENNA MATCH

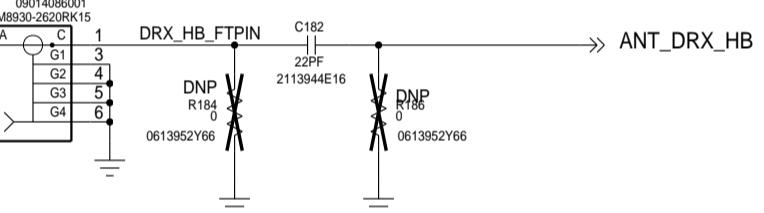


DRX HIGH BAND PORT

REF:180-189

DEVICE LOCATION - TOP LEFT

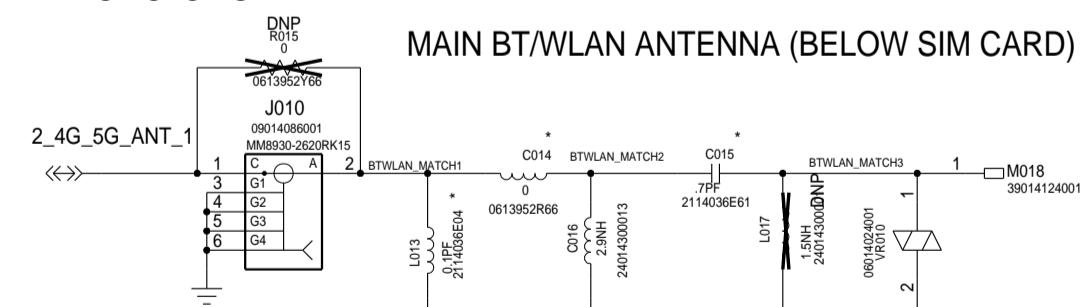
(GSM/UTMS/LTE)



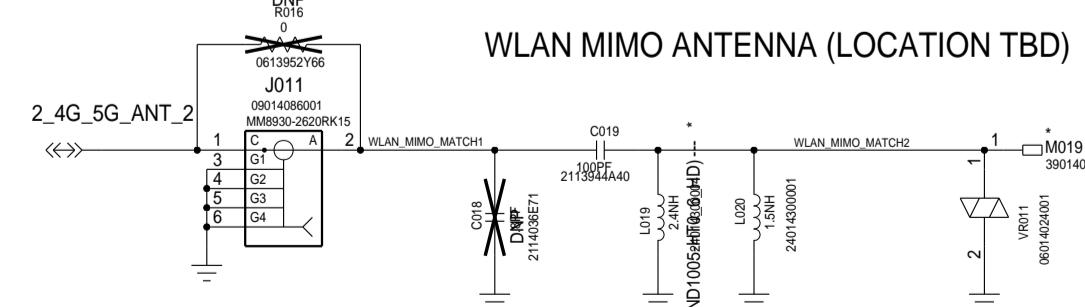
BT/WLAN ANTENNA

REF:010-019

MAIN BT/WLAN ANTENNA (BELOW SIM CARD)



WLAN MIMO ANTENNA (LOCATION TBD)



MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKED AND BLOCKED

APPROVALS

MOTOROLA
MOBILE DEVICES

ENGINEER: BUSTAMANTE

BLOCK TITLE:

antennas

LAST MODIFIED BY: BUSTAMANTE

Fri Sep 26 06:12:57 2014

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PROJECT NAME
C 84016396001_a.cpm

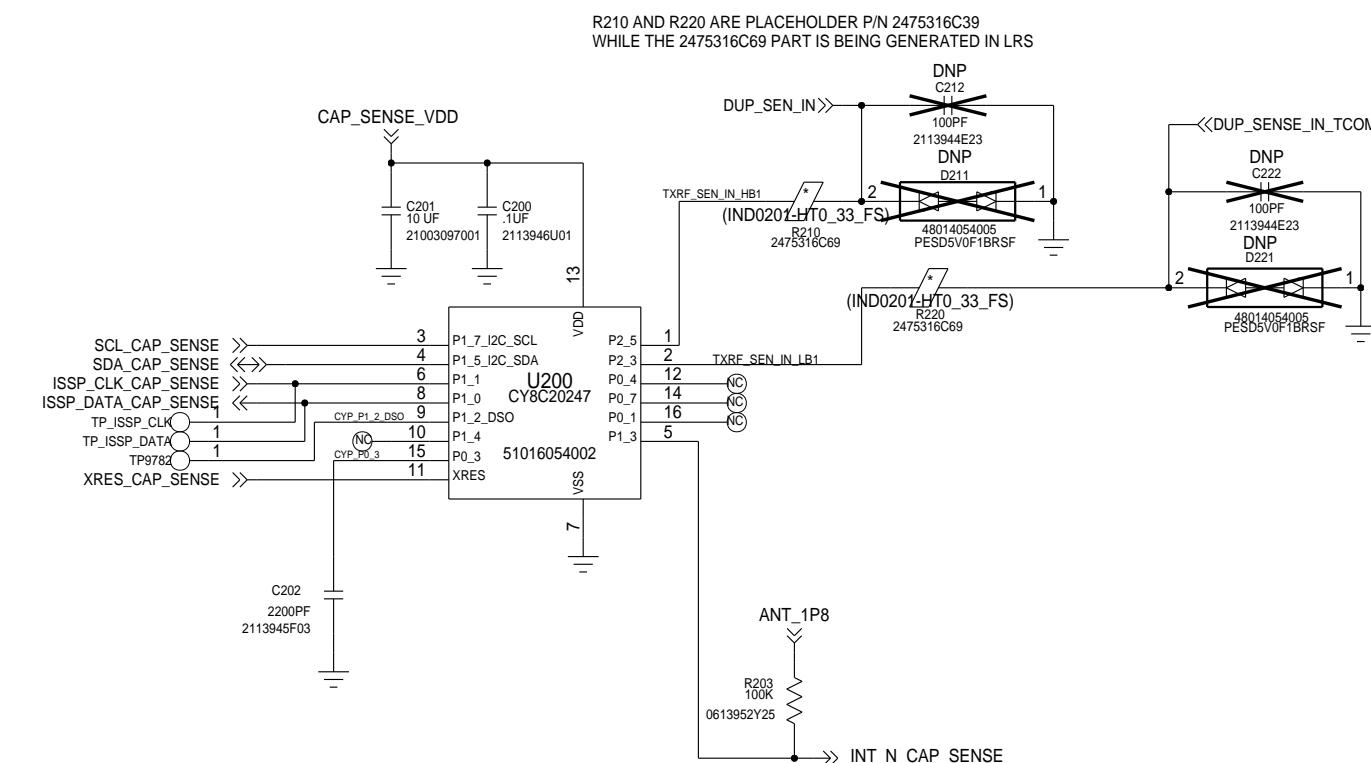
REV
01

CAD FILE NAME:

PAGE 19 of 80

ANT: CAP SENSE

REFDES: 200-299



APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: MOTOROLA	BLOCK TITLE:	
LAST MODIFIED BY: MOTOROLA Fri Sep 26 06:12:57 2014	antennas	
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CAD FILE NAME:		PAGE 20 OF 80

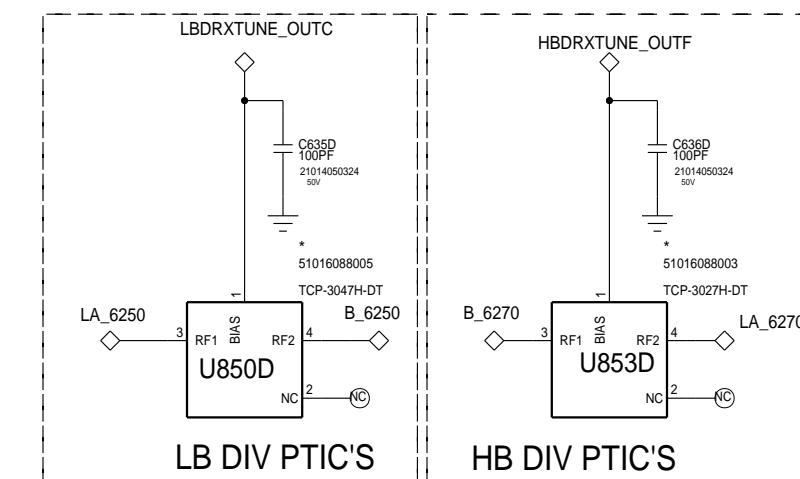
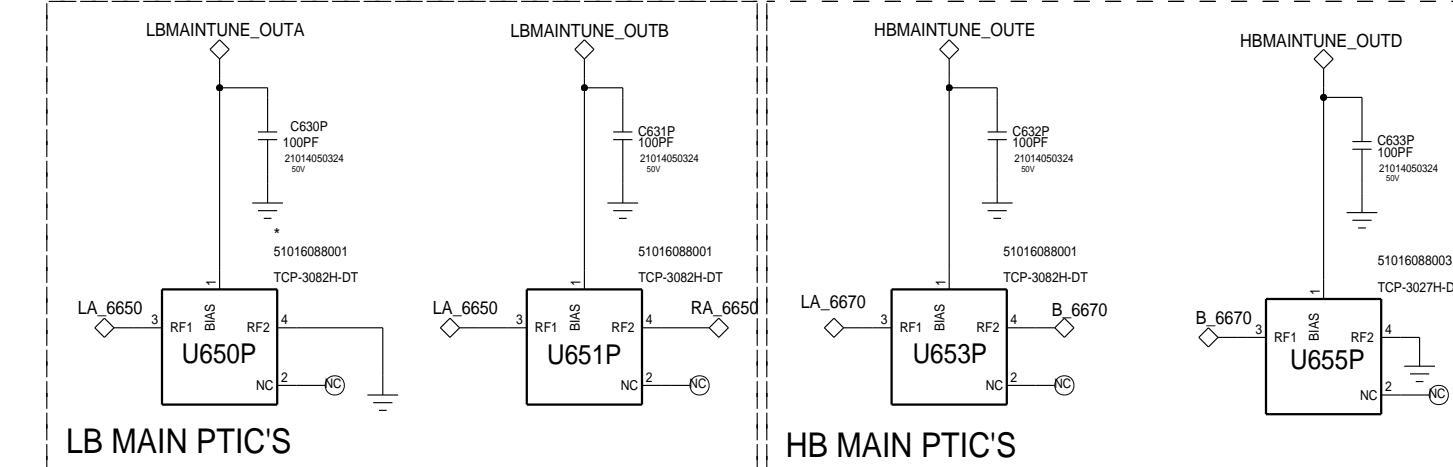
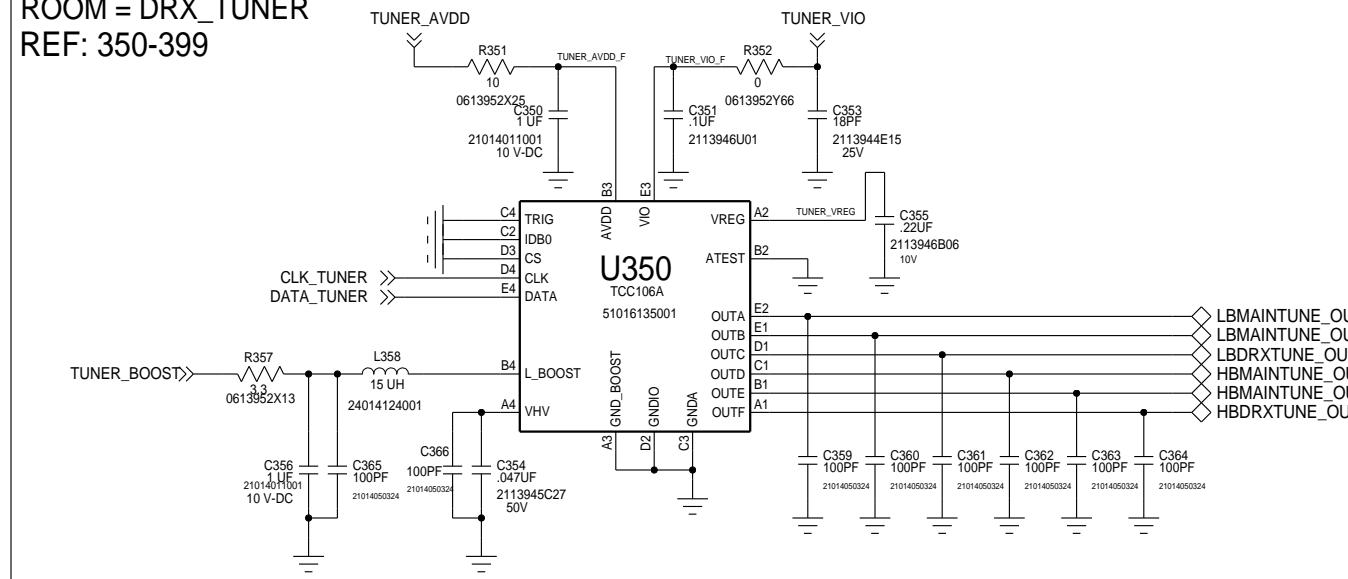
ANT: TUNERS

REFDES: 300-499

MAIN / DIVERSITY RX (RFFE2)

ROOM = DRX_TUNER

REF: 350-399

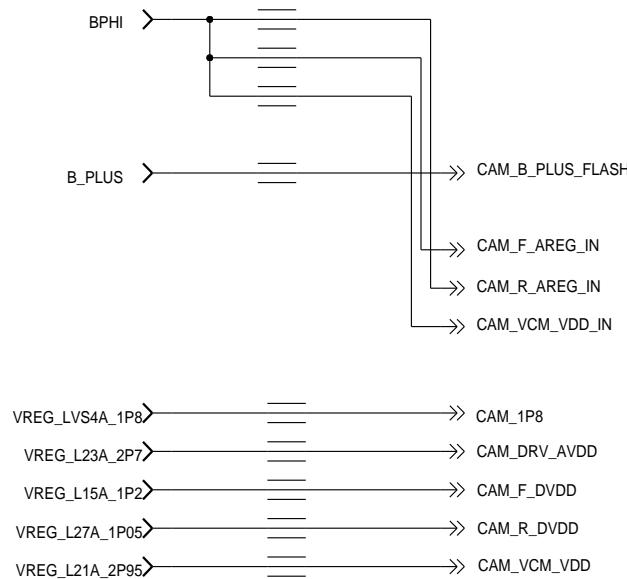


APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: MOTOROLA	BLOCK TITLE:	
LAST MODIFIED BY: MOTOROLA Fri Sep 26 06:12:58 2014	antennas	
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CAD FILE NAME:		PAGE 21 OF 80

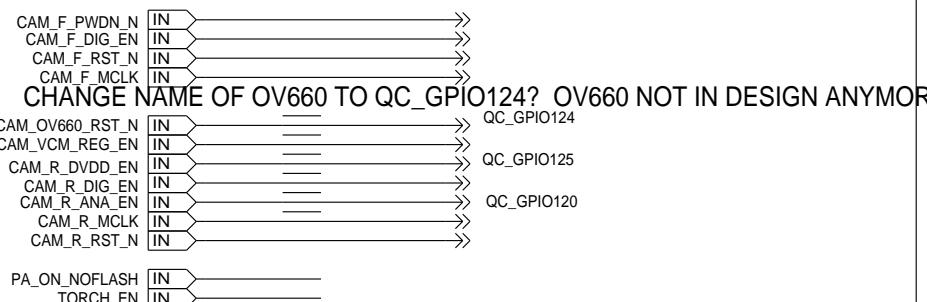
CAM: PORTS

REF 5500-5999

SUPPLIES



INPUTS



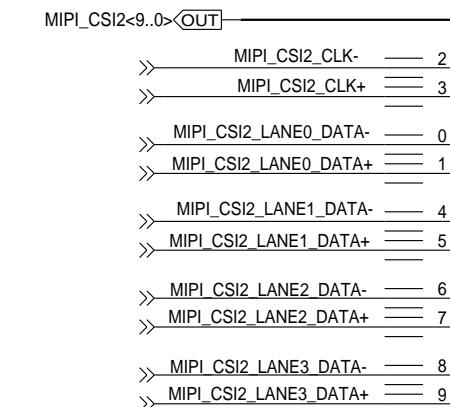
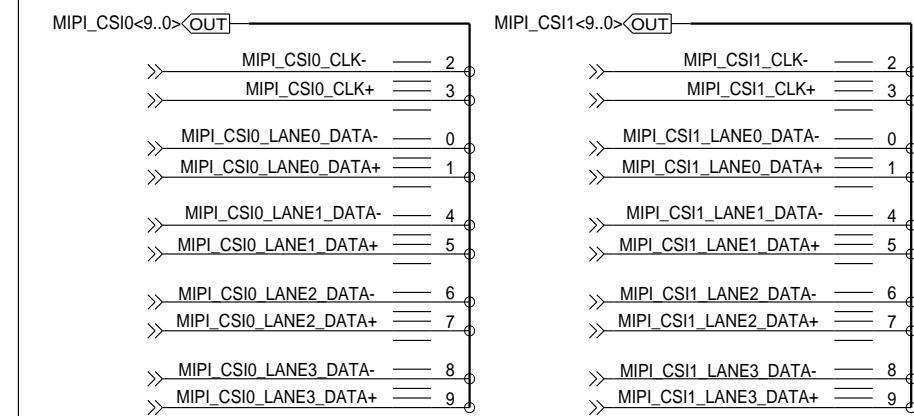
INTERFACES



OUTPUTS

CAM_R_GYRO

FOR WING PAGE



APPROVALS

MOTOROLA
MOBILE DEVICES

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL
Fri Sep 26 06:12:56 2014

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BLOCK TITLE:

imagers

PROJECT NAME
B 84016396001_a.cpm

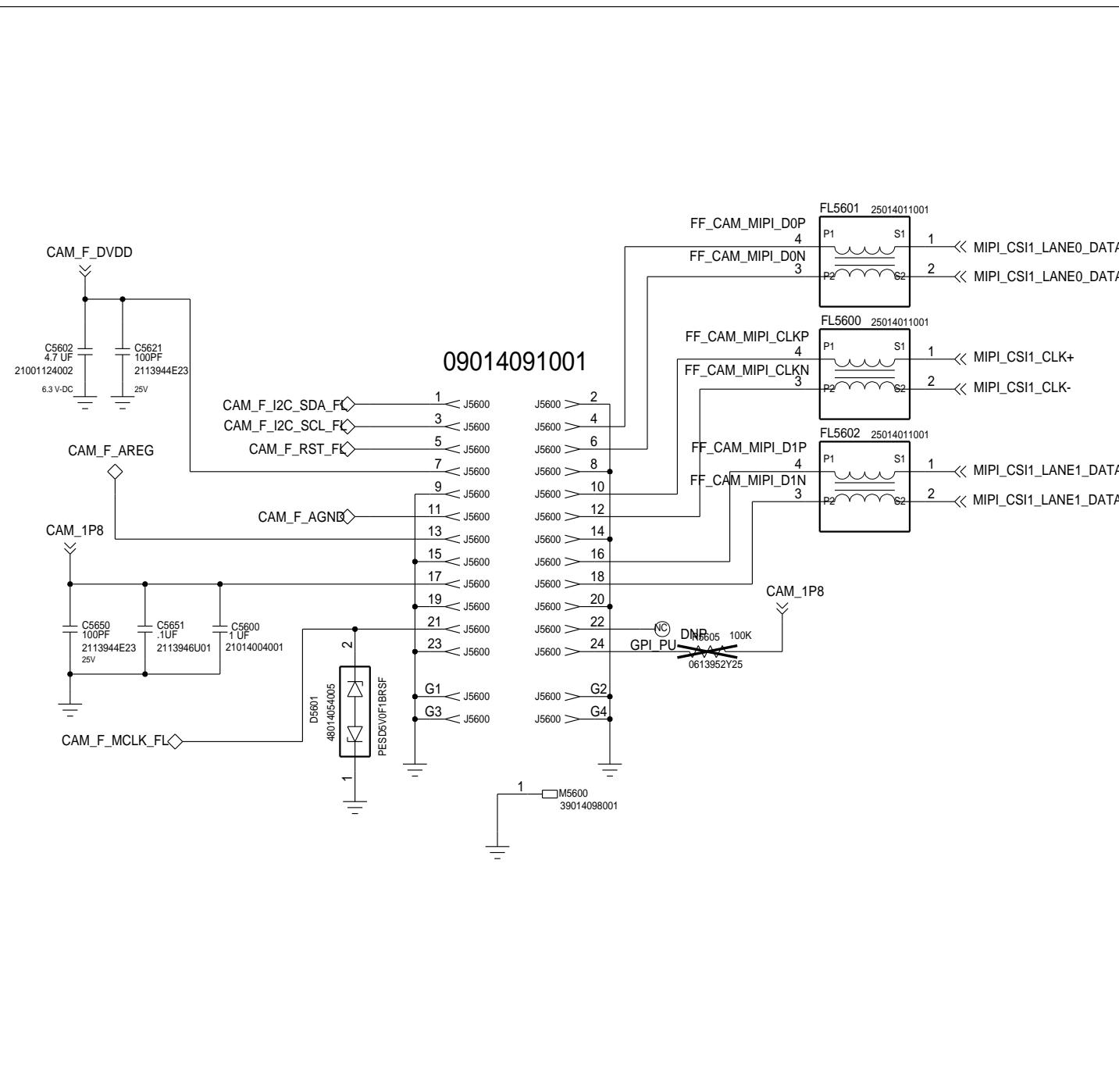
REV
01

CAD FILE NAME:

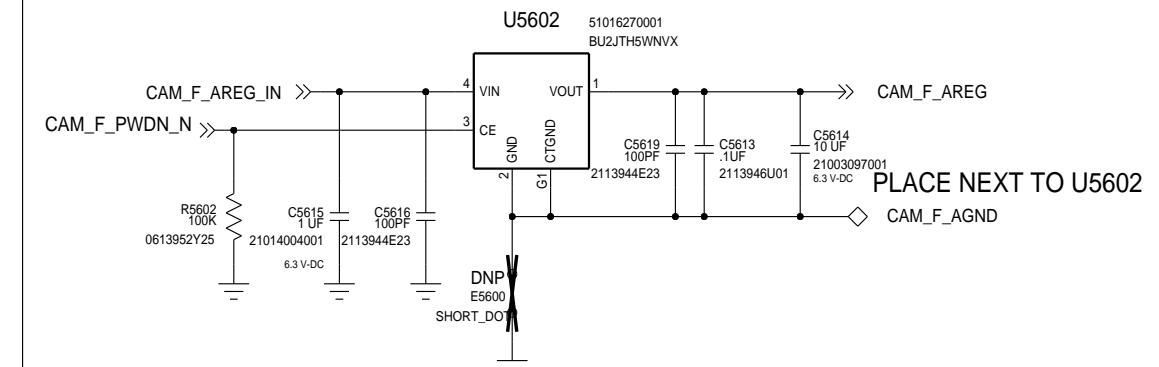
PAGE 22 OF 80

CAM: FRONT

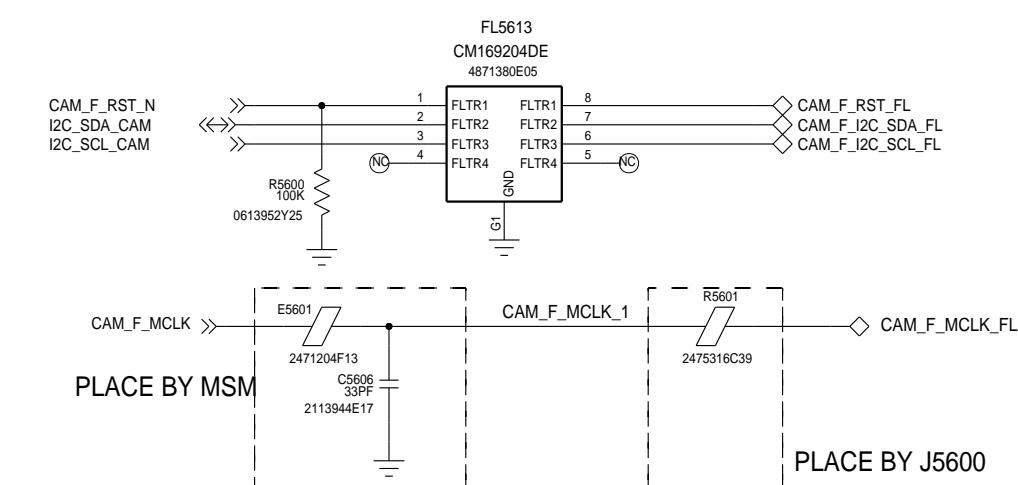
REF 5600-5699



POWER



EMI/ESD FILTER



MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

APPROVALS

MOTOROLA
MOBILE DEVICES

ENGINEER: JOHN KRAMER

BLOCK TITLE:

LAST MODIFIED BY: UID ELRAN
Fri Sep 26 06:12:56 2014

imagers

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PROJECT NAME
B 84016396001_a.cpm

REV
01

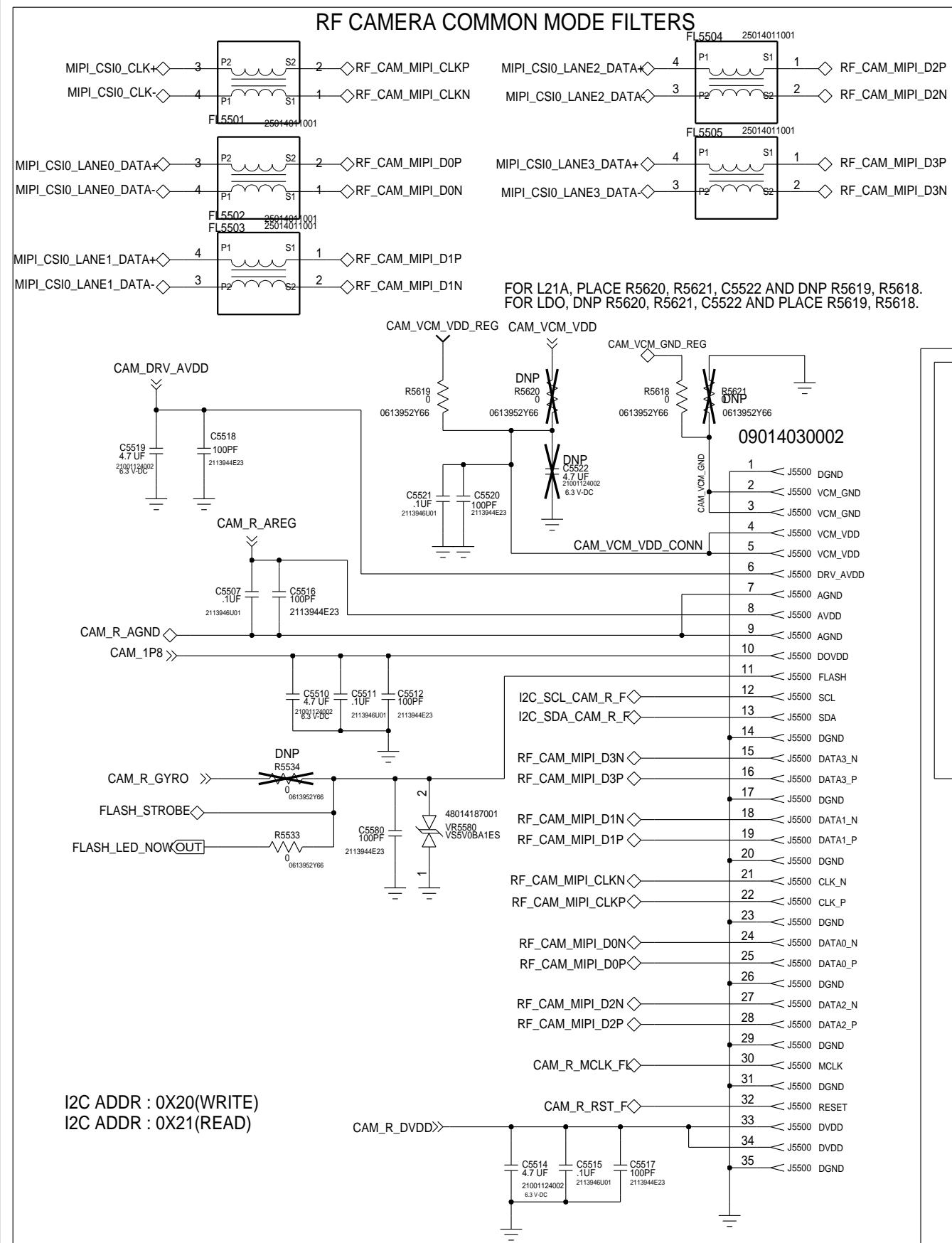
CAD FILE NAME:

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CAM: REAR

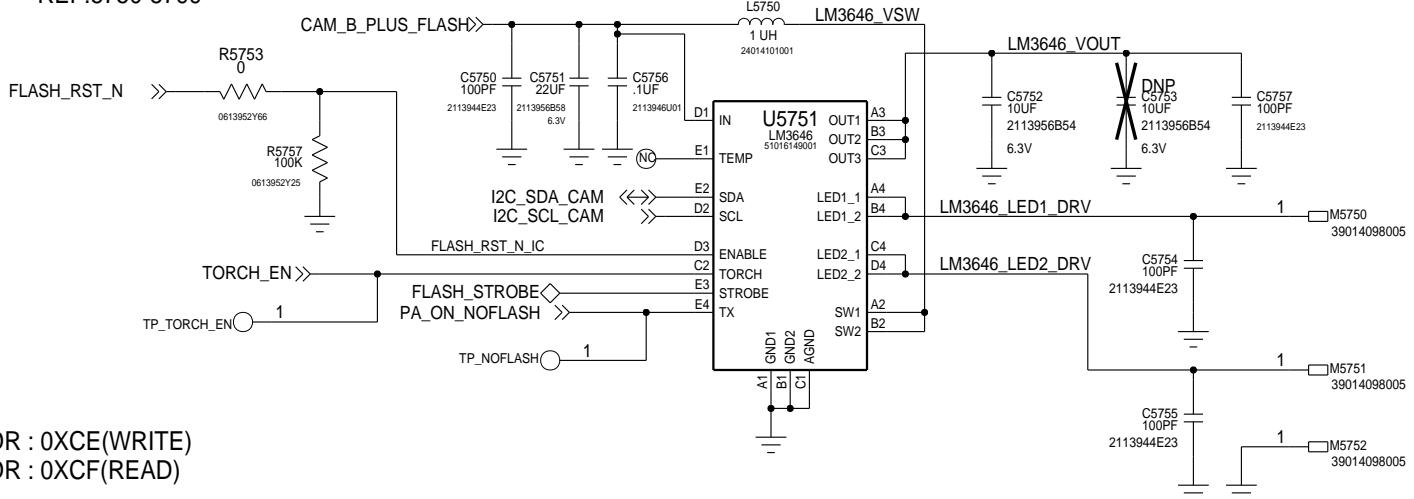
REF:5500-5599

REF:5500-5599

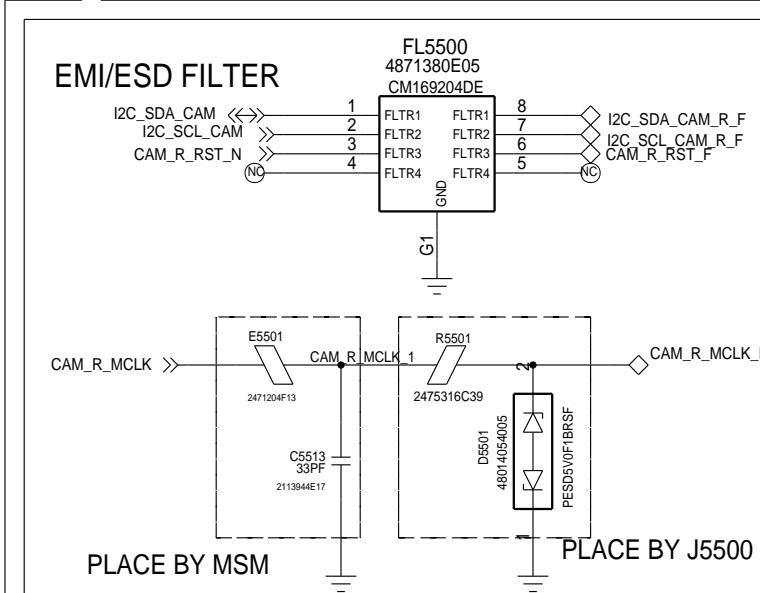


LED FLASH DRIVER - LM3646

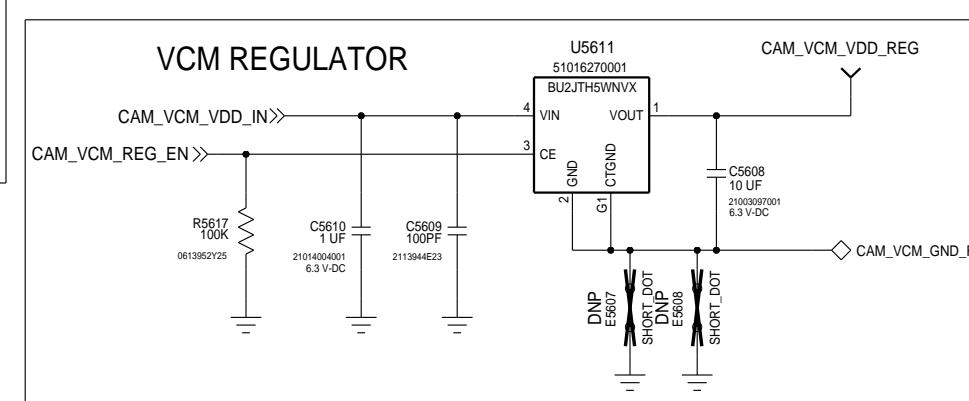
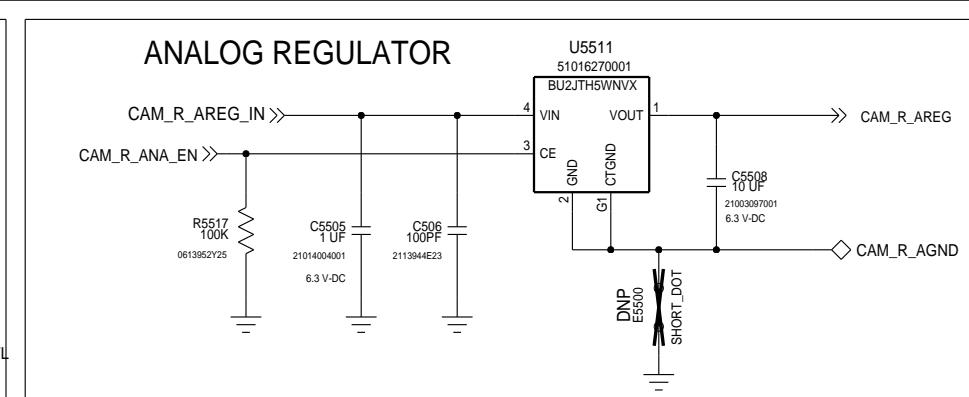
REF:5750-5799



I2C ADDR : 0XCE(WRITE)
I2C ADDR : 0XCF(READ)



NOTE : R5501 IS FOR RF TEST

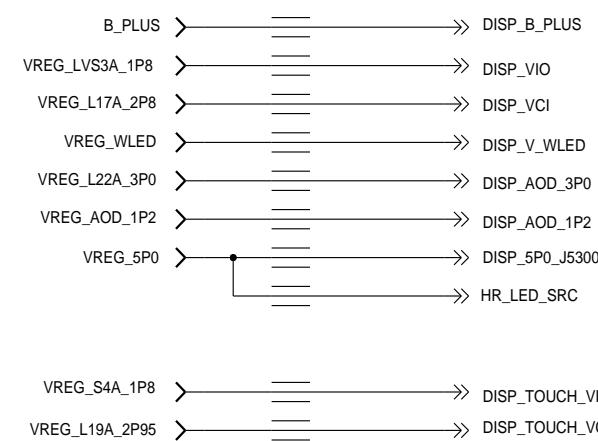


APPROVALS	 MOTOROLA MOBILE DEVICES		
ENGINEER: MOTOROLA	BLOCK TITLE: imagers		
LAST MODIFIED BY: MOTOROLA Fri Sep 26 06:12:56 2014			
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CAD FILE NAME:		PAGE 24 OF 80	

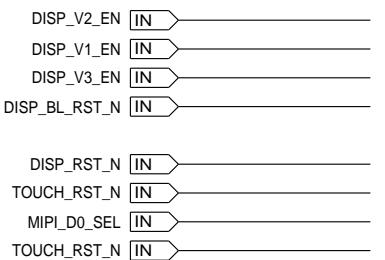
DISP: PORTS

REF 5000-5499

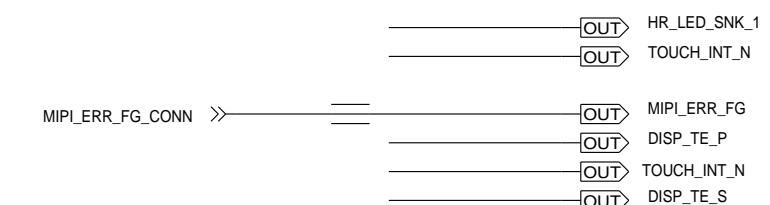
SUPPLIES



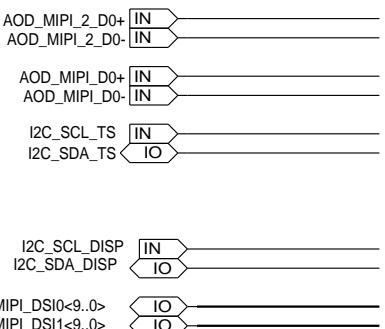
INPUTS



OUTPUTS



INTERFACES



APPROVALS

MOTOROLA
MOBILE DEVICES

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL
Fri Sep 26 06:12:54 2014

BLOCK TITLE:

display

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PROJECT NAME
B 84016396001_a.cpm

REV
01

CAD FILE NAME:

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DISP: POWER

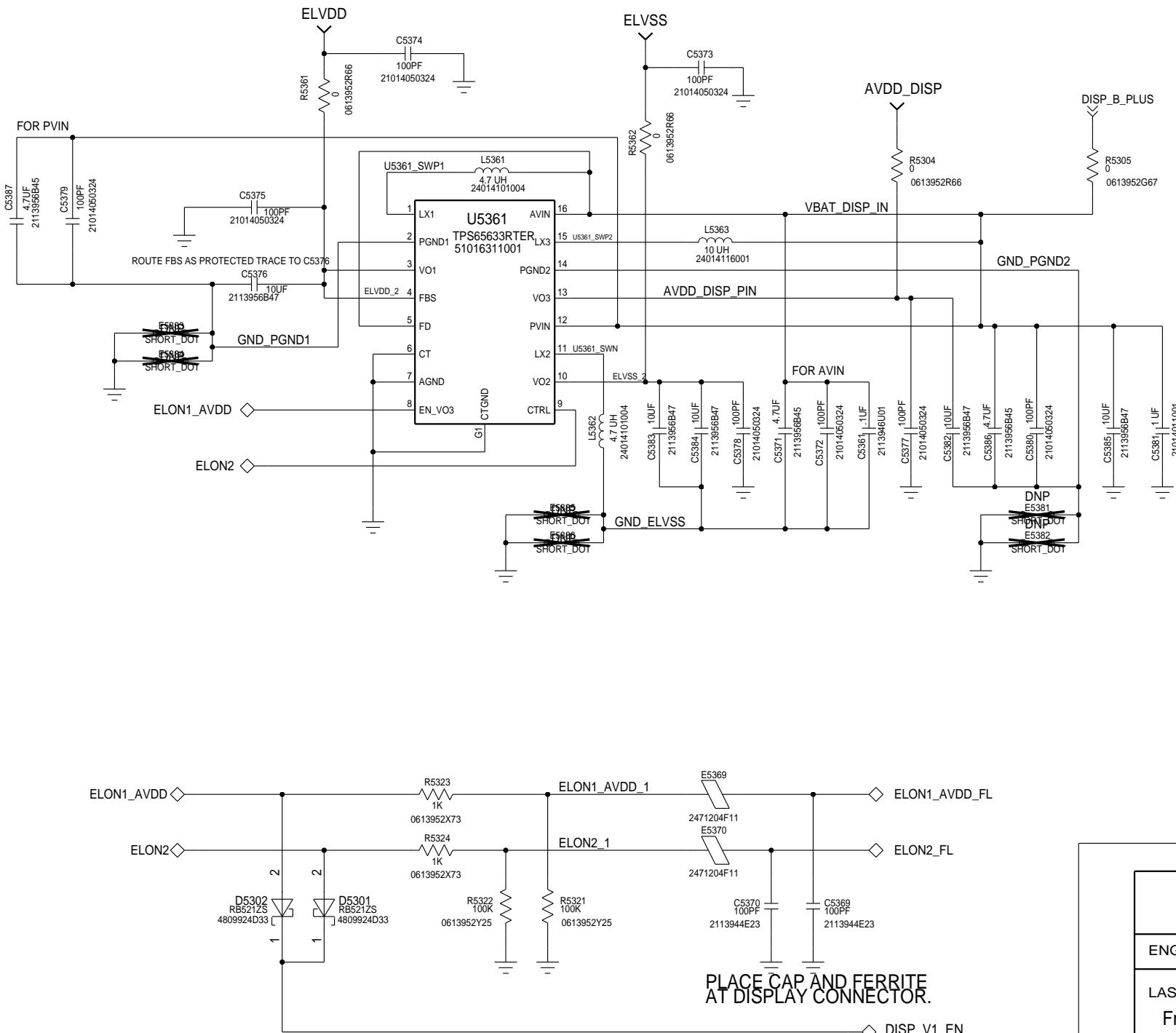
REF 5000-5499

D

D

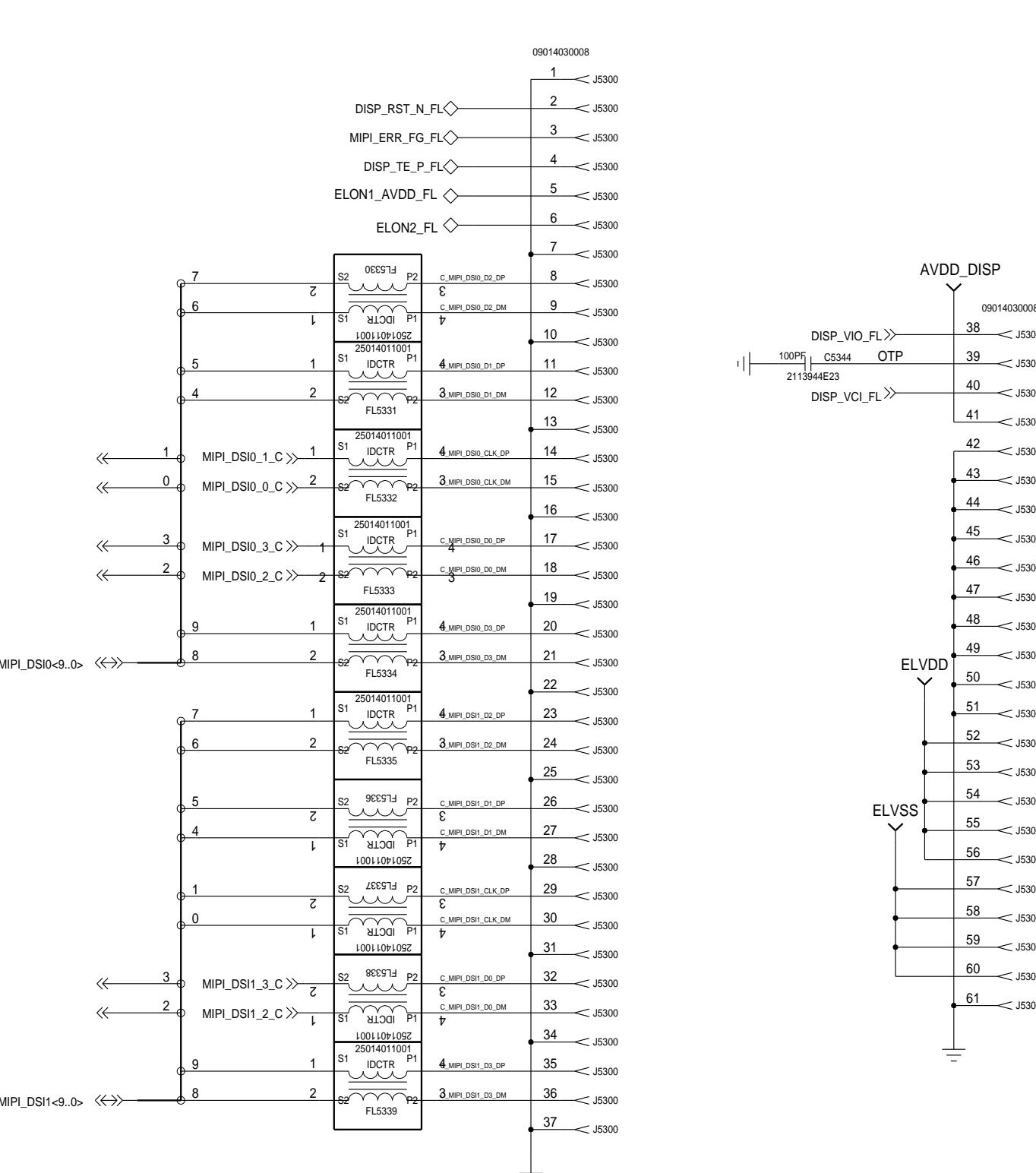
NOTES

1. CHANGE GLOBAL SUPPLY NAME OF OUTPUT OF U5304 FROM VBAT_DISP_CONN TO VBAT_DISP; DELETE GLOBAL VBAT_DISP_CONN ON J5301
2. CONNECT SUPPLY ELVDD,ELVSS, AVDD_DISP AND SIGNAL ELVDD_SNS FL, ELON1_AVDD_FL,ELON2_FL TO DISPLAY CONN J5301 PER PRODUCT PLAN
3. E5361 AND E5362 ARE 0402 PLACE HOLDERS FOR 0402 SIZE FERRITE BEAD PER PRODUCT DISP RF DESENSE NEEDS; CAPS ON VBAT_DISP CAN BE TWEAKED ON PRODUCT.
4. CHANGE REF 5300-5349 TO REF 5300-5399 FOR THIS PAGE



DISP: CONNECTOR

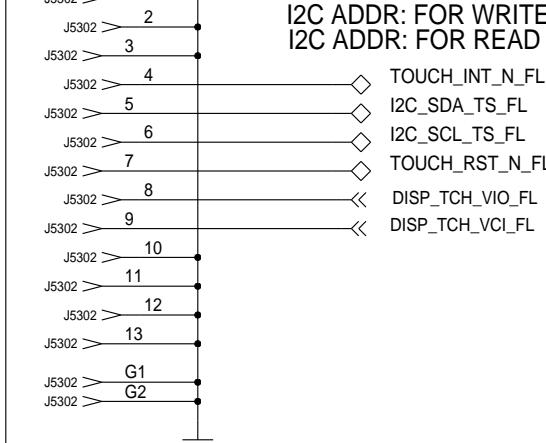
REF 5300-5349



TOUCH CONNECTOR (MXT640T)

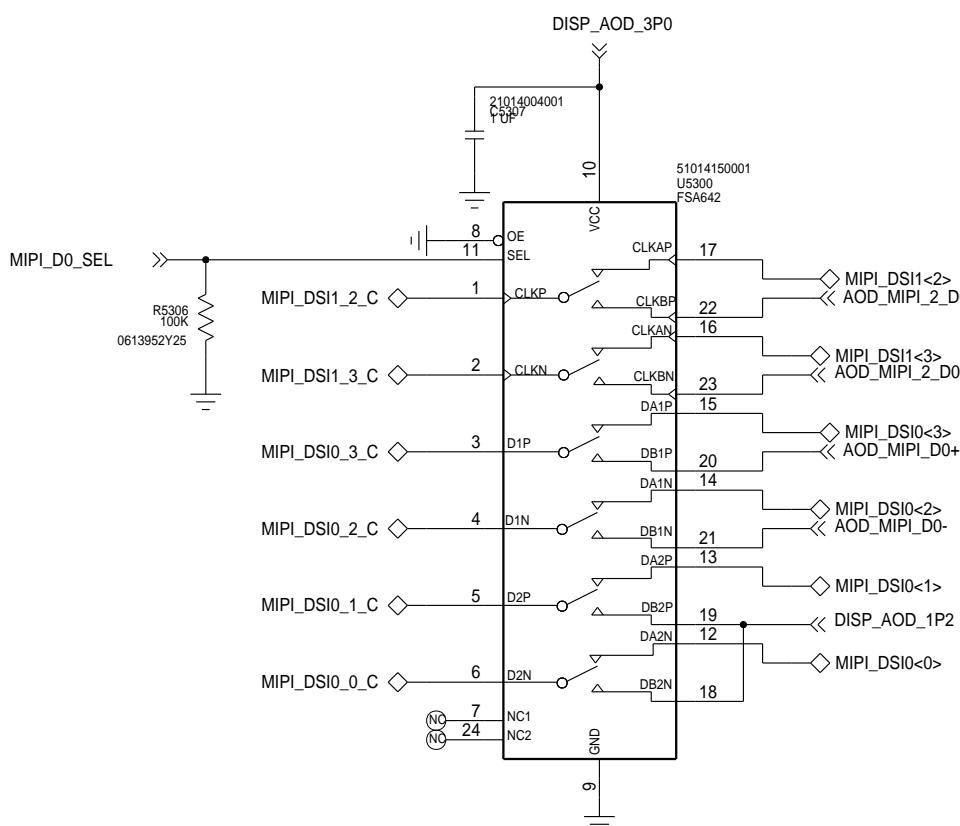
28009257003

I2C ADDR :0X4A
I2C ADDR: FOR WRITE 0X94
I2C ADDR: FOR READ 0X95



APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: NATE CONNELL	BLOCK TITLE: display	
LAST MODIFIED BY: NATE CONNELL Fri Sep 26 06:12:55 2014		
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CAD FILE NAME:		PAGE 27 OF 80

DISP: AOD



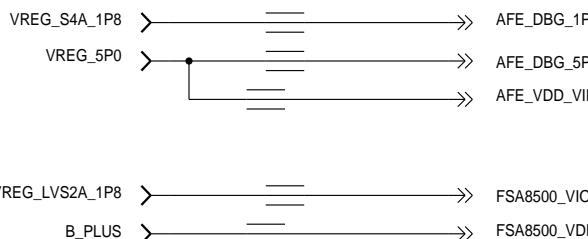
APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: MOTOROLA	BLOCK TITLE: display	
LAST MODIFIED BY: MOTOROLA Fri Sep 26 06:12:55 2014		
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CAD FILE NAME:		PAGE 28 OF 80

AFE: PORTS

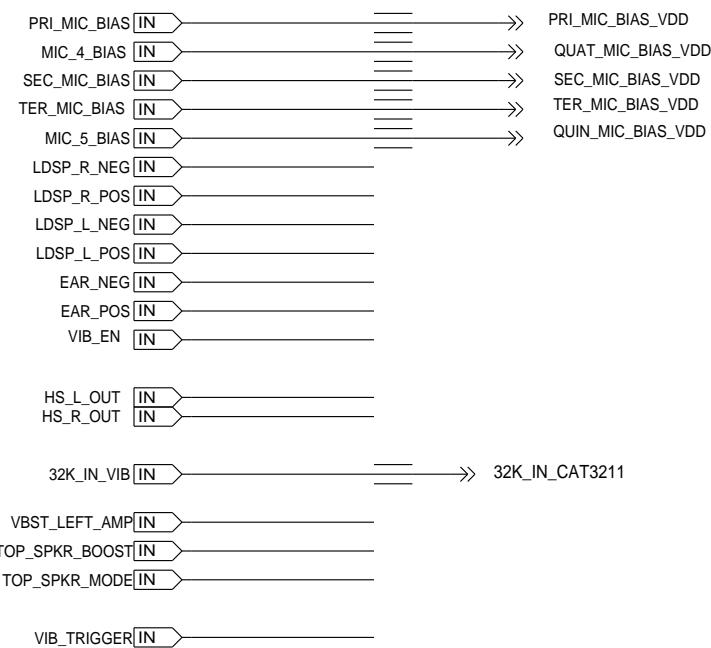
REF 4500-4999

D

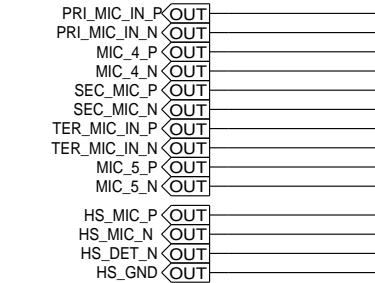
SUPPLIES



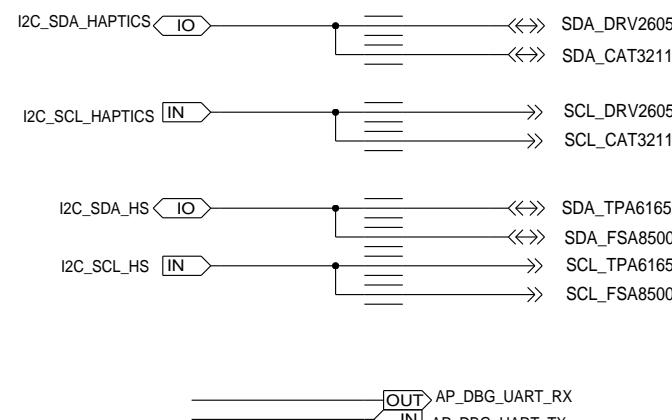
INPUTS



OUTPUTS



INTERFACES



APPROVALS

MOTOROLA
MOBILE DEVICES

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL
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BLOCK TITLE:

audio_fe

PROJECT NAME
B 84016396001_a.cpm

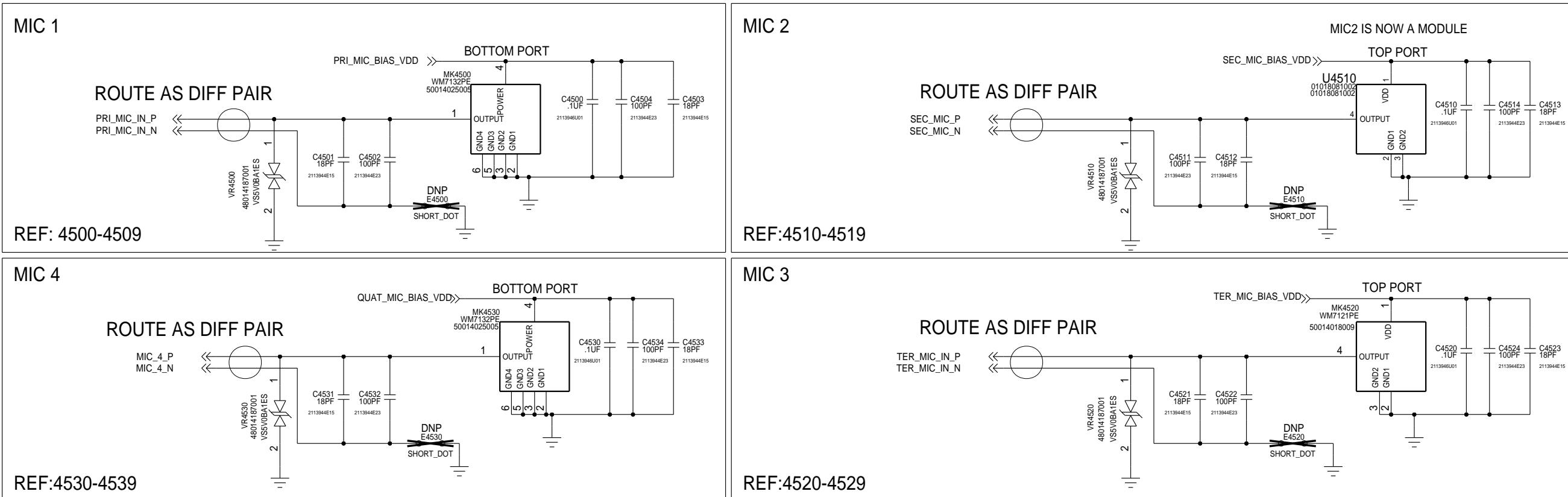
REV
01

CAD FILE NAME:

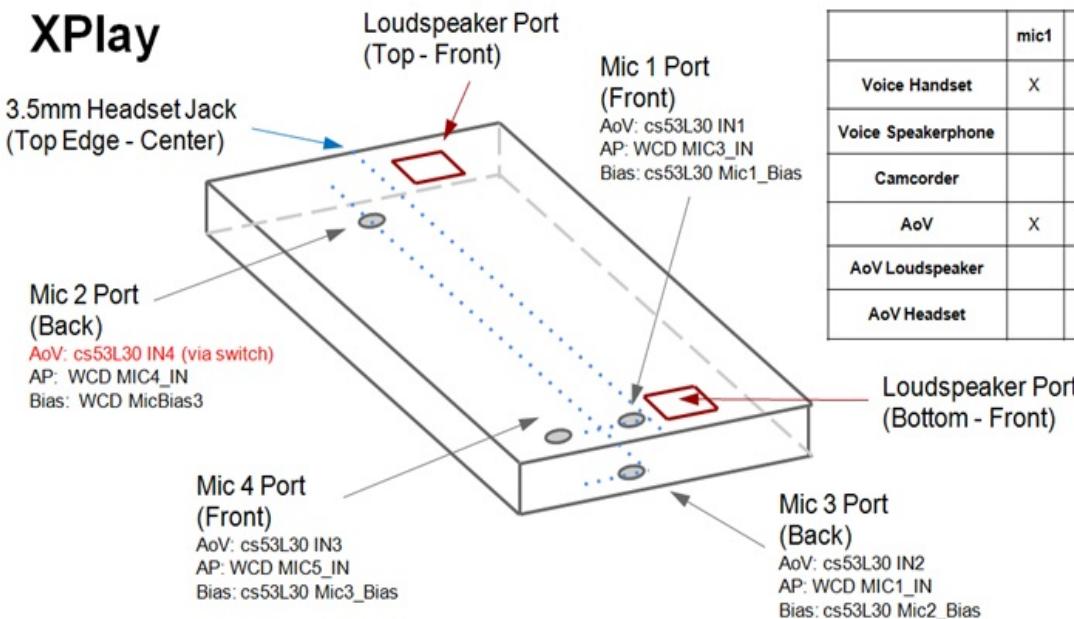
PAGE 29 OF 80

AFE: MICS

REF: 4500-4599



XPlay



	mic1	mic2	mic3	mic4	HS mic
Voice Handset	X				
Voice Speakerphone		X			
Camcorder		X	X		
AoV	X		X	X	
AoV Loudspeaker		X			
AoV Headset					X

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: MOTOROLA		BLOCK TITLE: audio_fe	
LAST MODIFIED BY: MOTOROLA Fri Sep 26 06:12:53 2014			
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AFE: SPEAKERS

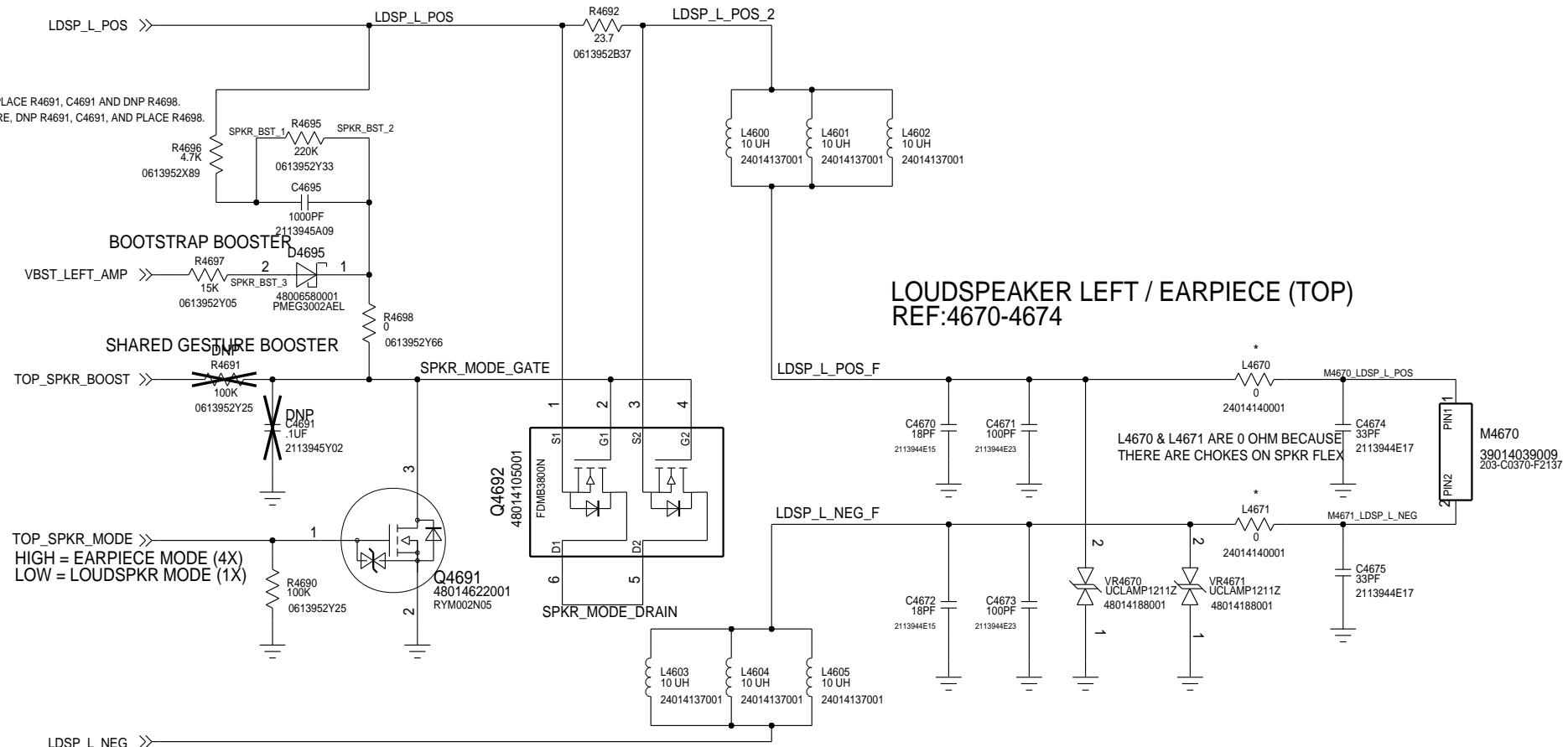
REF: 4600-4699

D

D

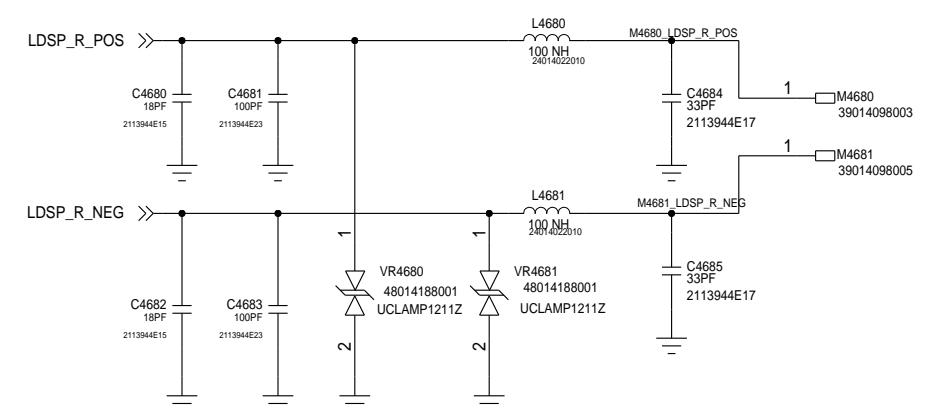
EARPIECE SUPPORT REF:4690-4699

NOTE:

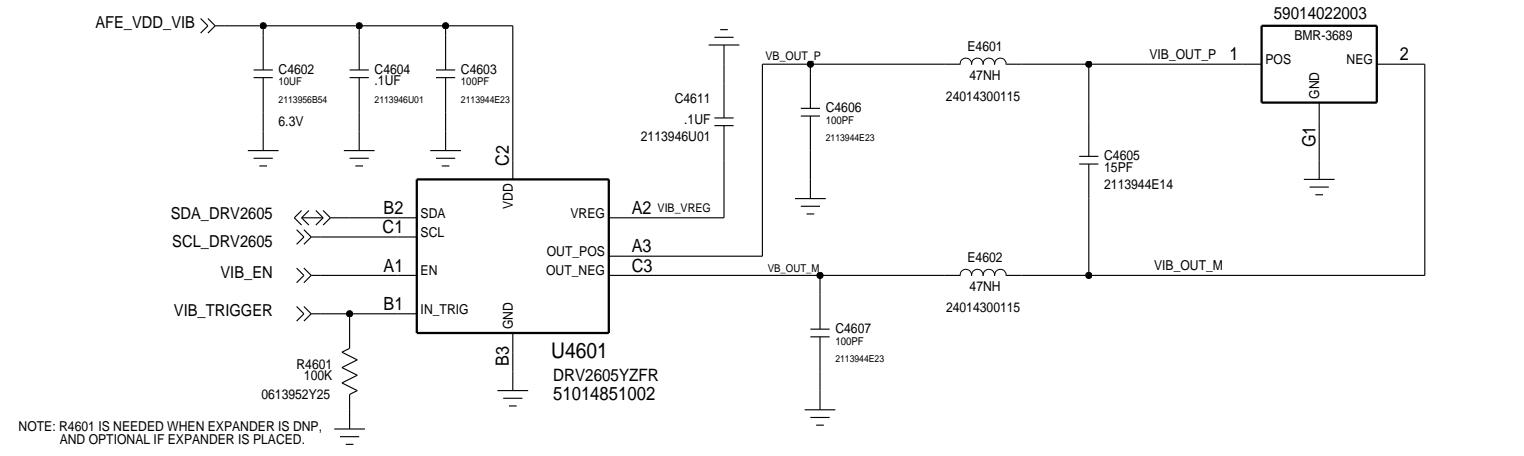
WITH GESTURE, PLACE R4691, C4691 AND DNP R4698.
WITHOUT GESTURE, DNP R4691, C4691, AND PLACE R4698.

LOUDSPEAKER LEFT / EARPIECE (TOP) REF:4670-4674

LOUDSPEAKER RIGHT (BOTTOM) REF:4680-4684



ROTARY VIBRATOR REF DES 4600-4619

NOTE: R4601 IS NEEDED WHEN EXPANDER IS DNP,
AND OPTIONAL IF EXPANDER IS PLACED.

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APPROVALS

MOTOROLA
MOBILE DEVICES

ENGINEER: DENNIS BUDNICK

LAST MODIFIED BY: TIM MILLER

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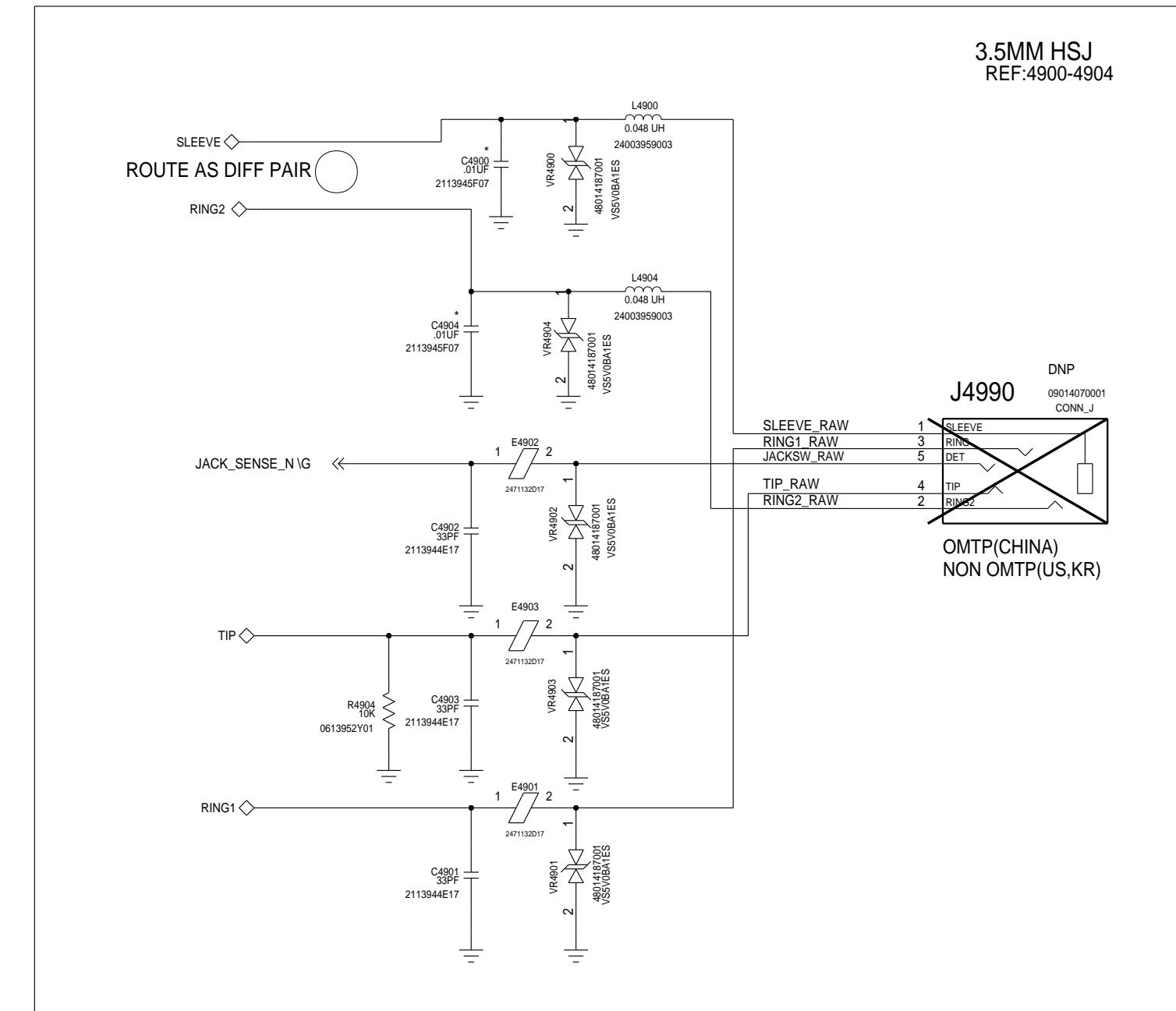
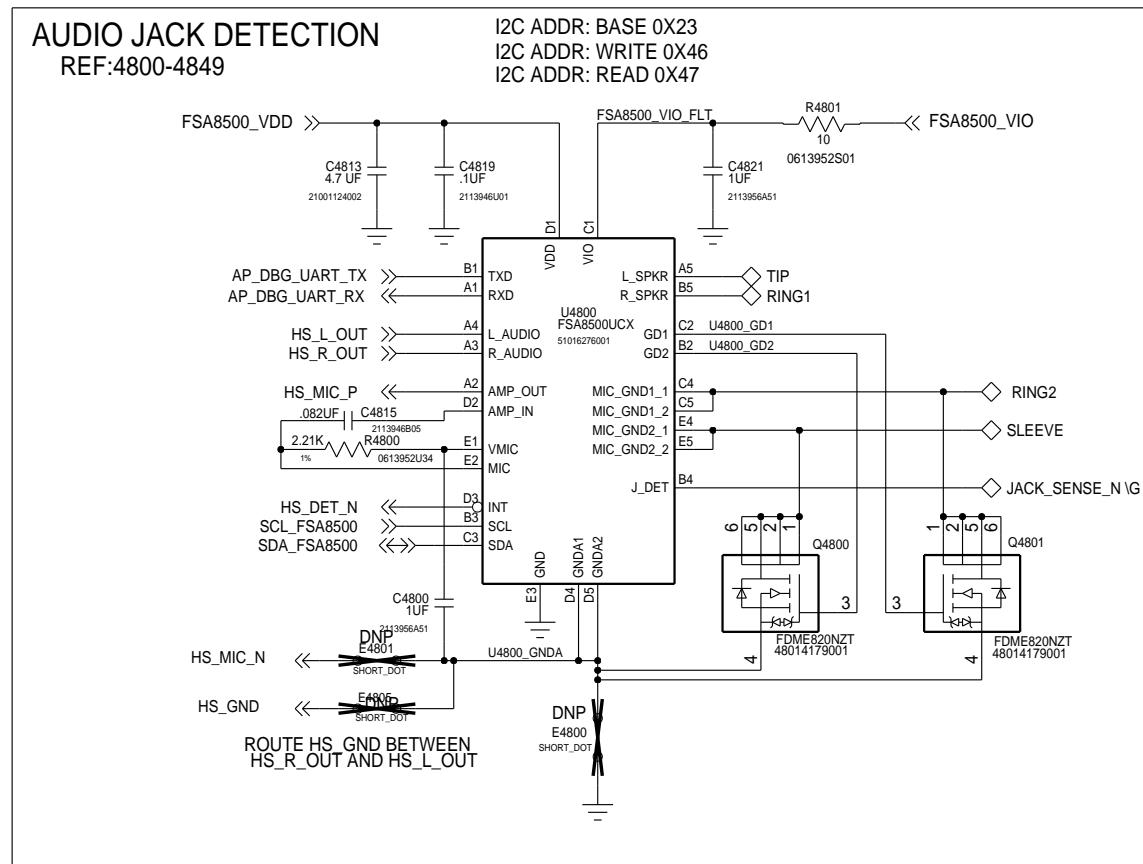
PROJECT NAME
B 84016396001_a.cpm

REV
01

CAD FILE NAME:

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AFE: 3.5MM HEADSET



MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

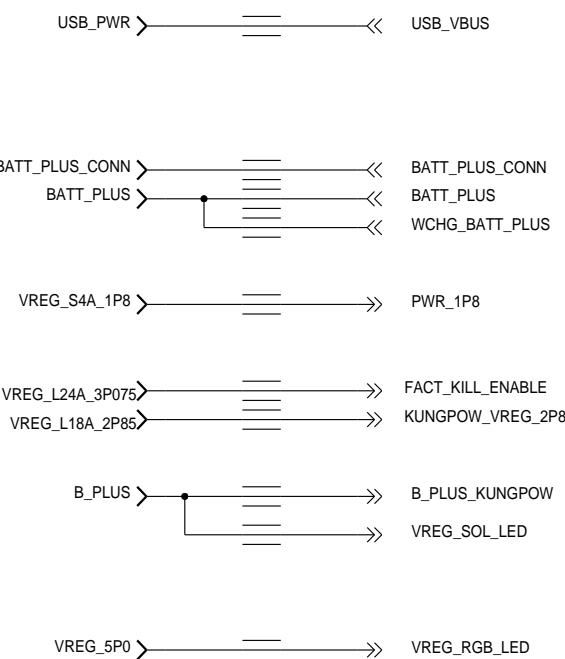
APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: MATT MOTTIER		BLOCK TITLE: audio_fe	
LAST MODIFIED BY: NATE CONNELL Fri Sep 26 06:12:54 2014			
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CAD FILE NAME:		PAGE 32 OF 80	

PWR: PORTS

REF 500-799

D

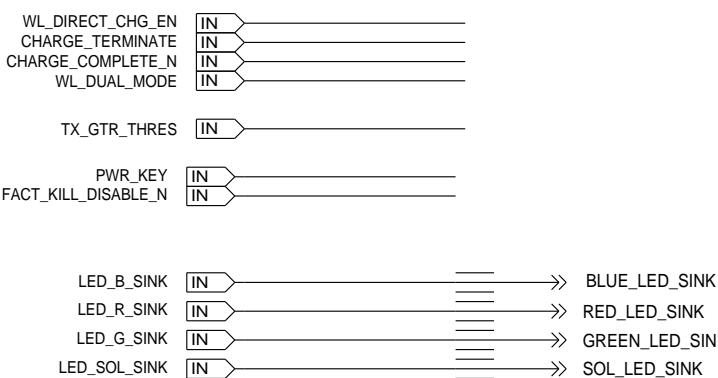
SUPPLIES



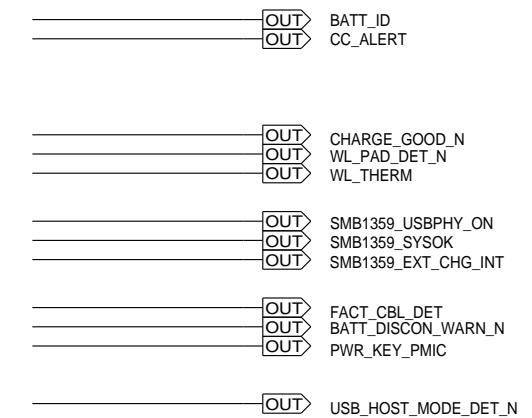
C

A

INPUTS



OUTPUTS



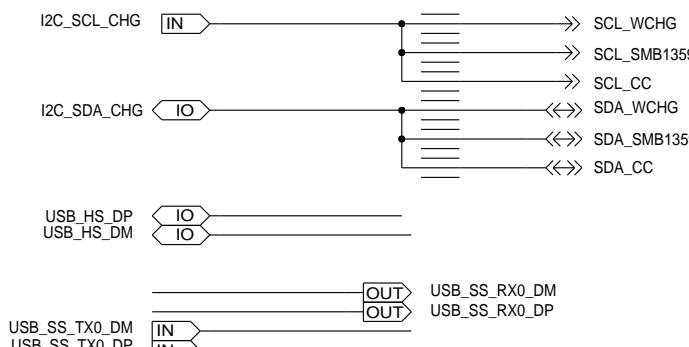
D

C

B

A

INTERFACES



APPROVALS

MOTOROLA
MOBILE DEVICES

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL
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BLOCK TITLE:

power

PROJECT NAME
B 84016396001_a.cpm

REV
01

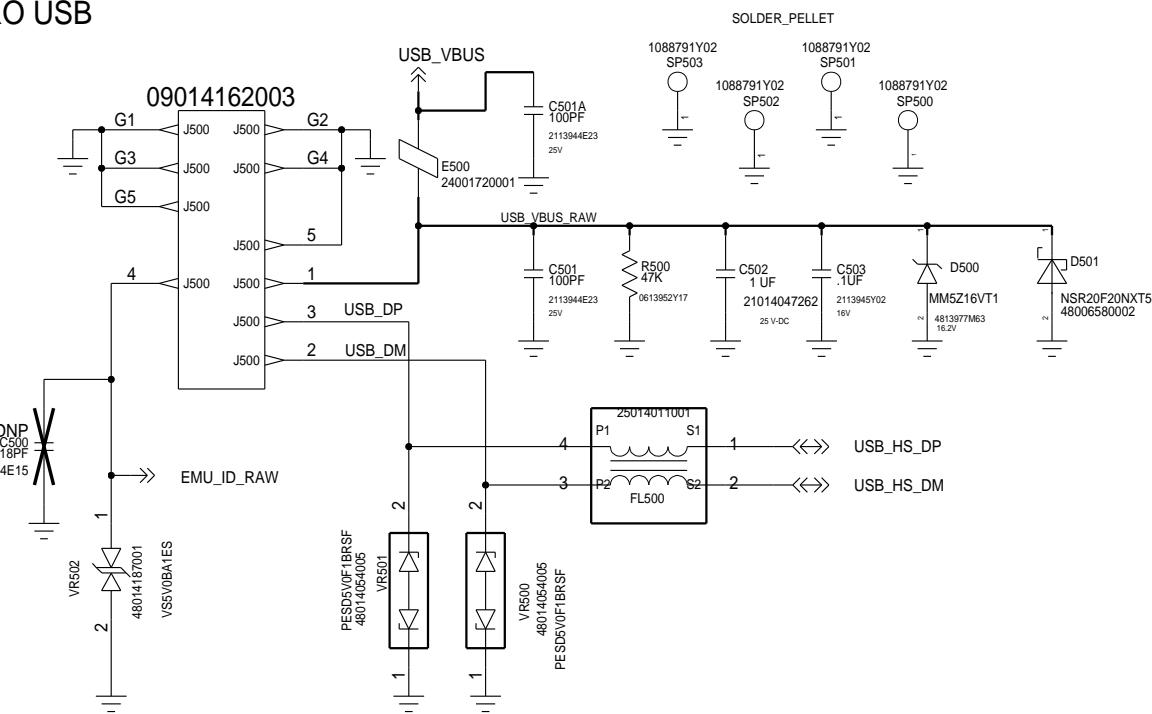
CAD FILE NAME:

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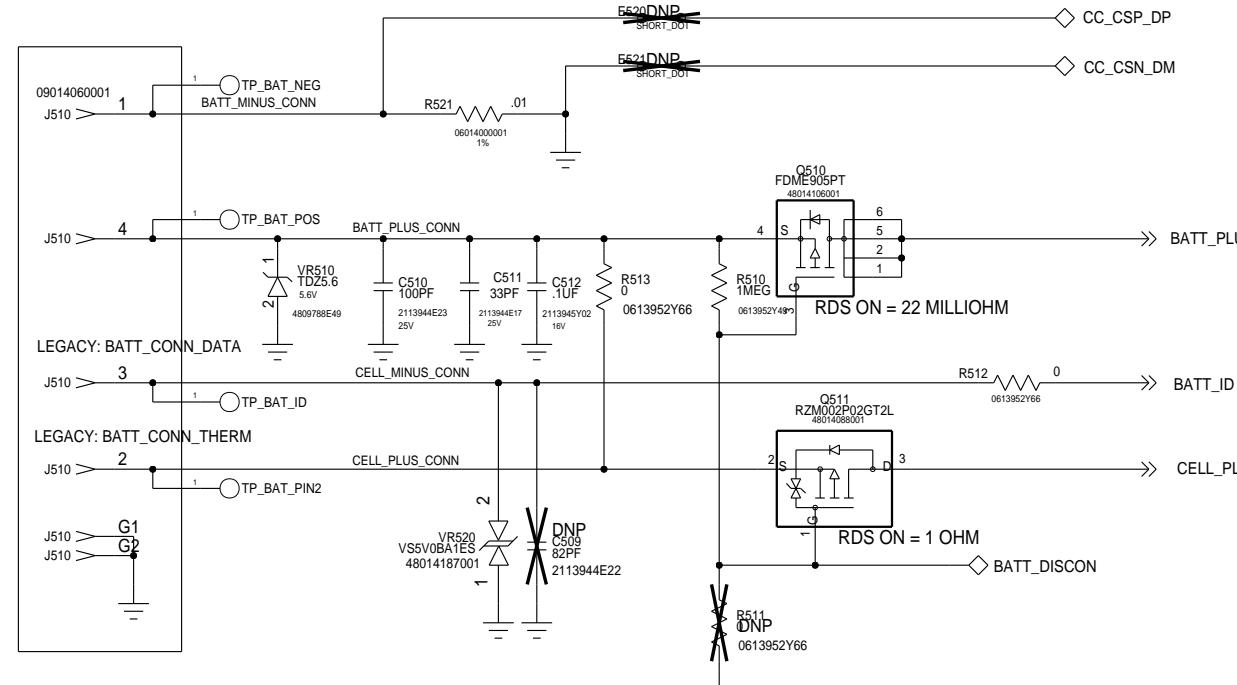
PWR: USB2 / BATT

REF: 500-530

MICRO USB

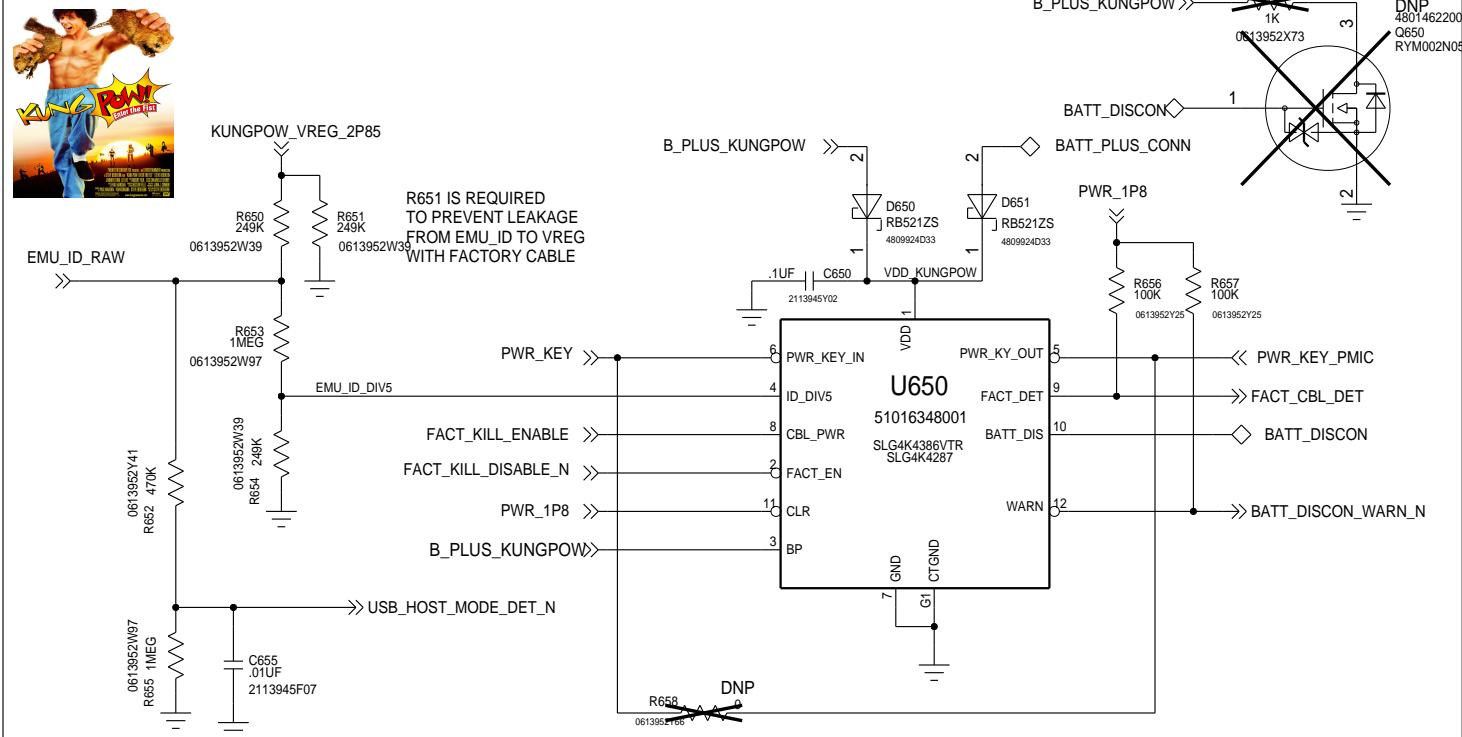


BATTERY BLOCK

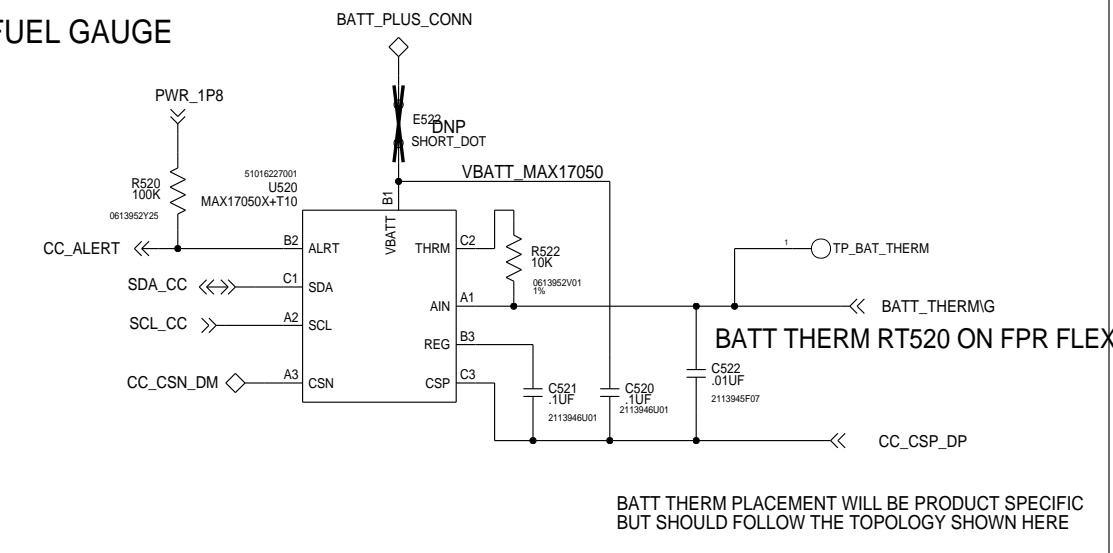


NOTE:
FOR BATTERIES THAT SUPPORT POSITIVE CELL SENSE, USE TP_BAT_PIN2 AND DNI R513.
EZ30 BATTERY DOES NOT SUPPORT POSITIVE CELL SENSE. BATTERY FLEX PIN 2 MUST BE FLOATING.

KUNG POW BATTERY DISCONNECT



FUEL GAUGE



MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKED AND BLOCKED

APPROVALS

MOTOROLA
MOBILE DEVICES

ENGINEER: RICH NG

BLOCK TITLE:

LAST MODIFIED BY: UDI ELRAN
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PWR: EXT CHG

REF: 540-559

D

D

C

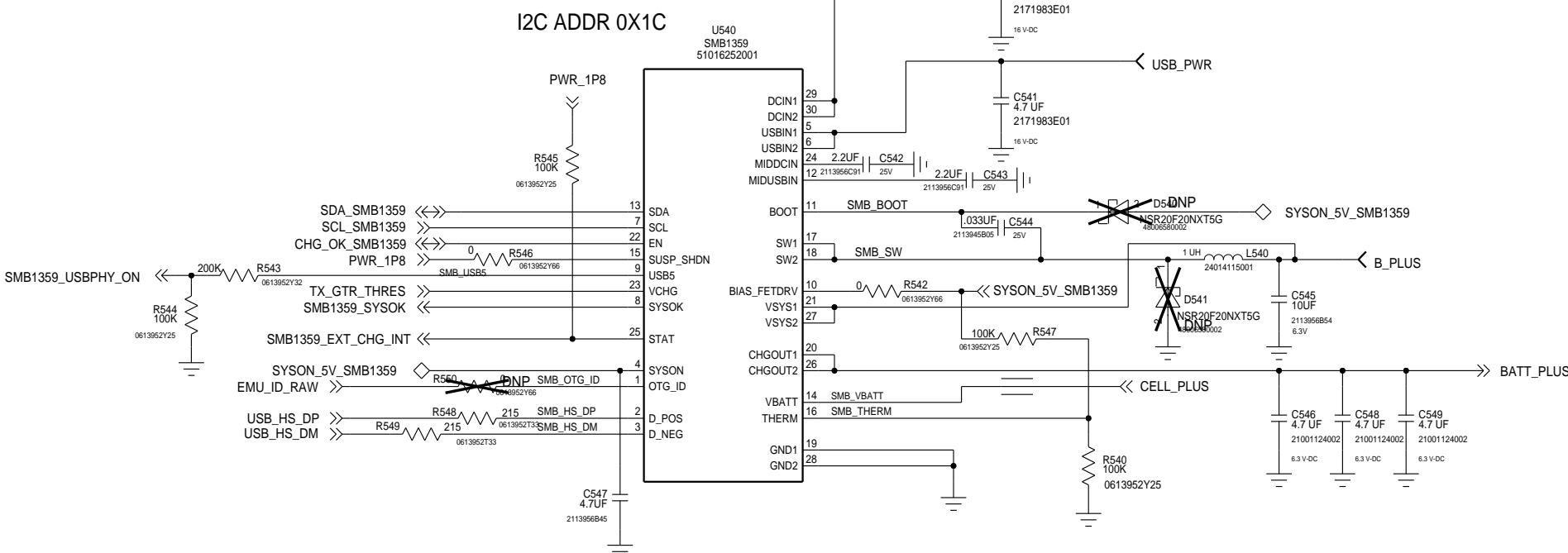
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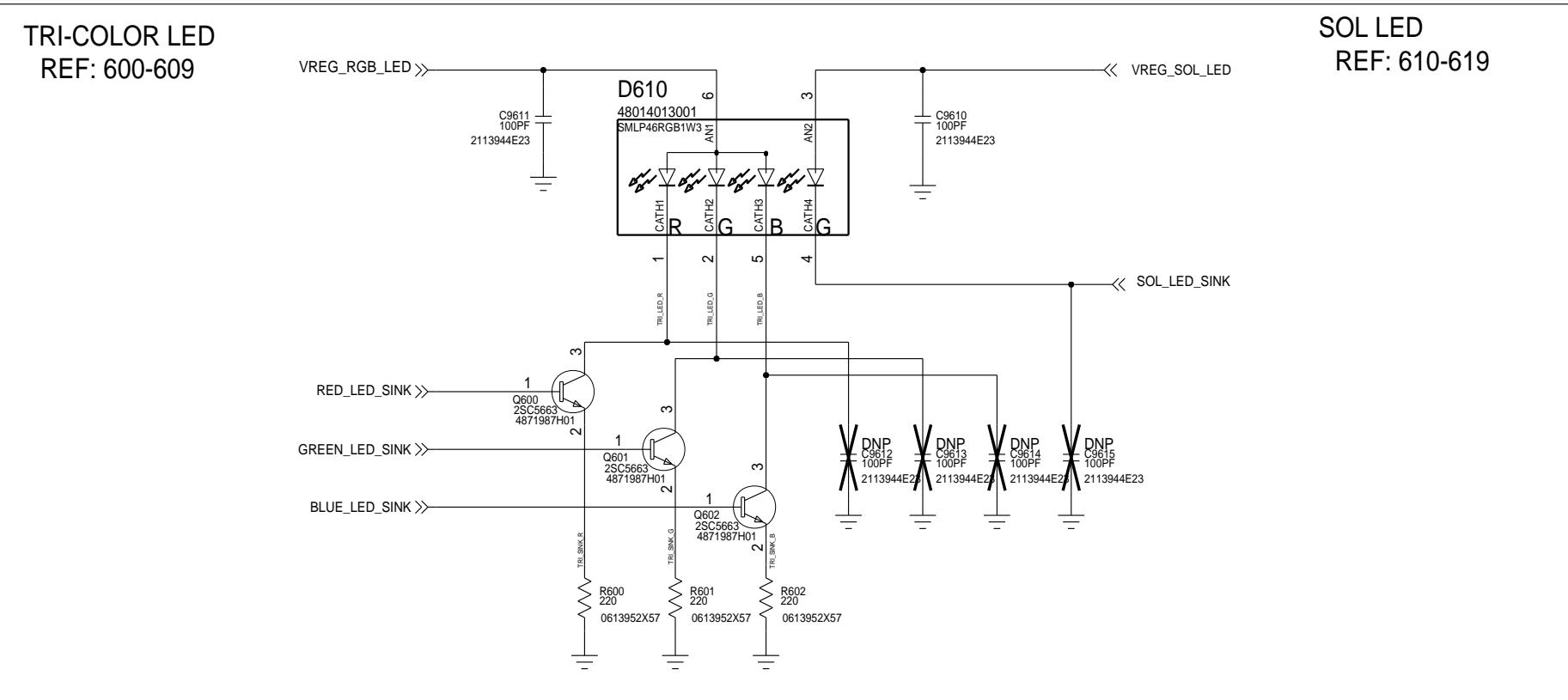
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APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER:	BLOCK TITLE: power	
LAST MODIFIED BY: R. NG Fri Sep 26 06:12:52 2014		
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CAD FILE NAME:	PAGE 35 OF 80	

PWR: LIGHTING

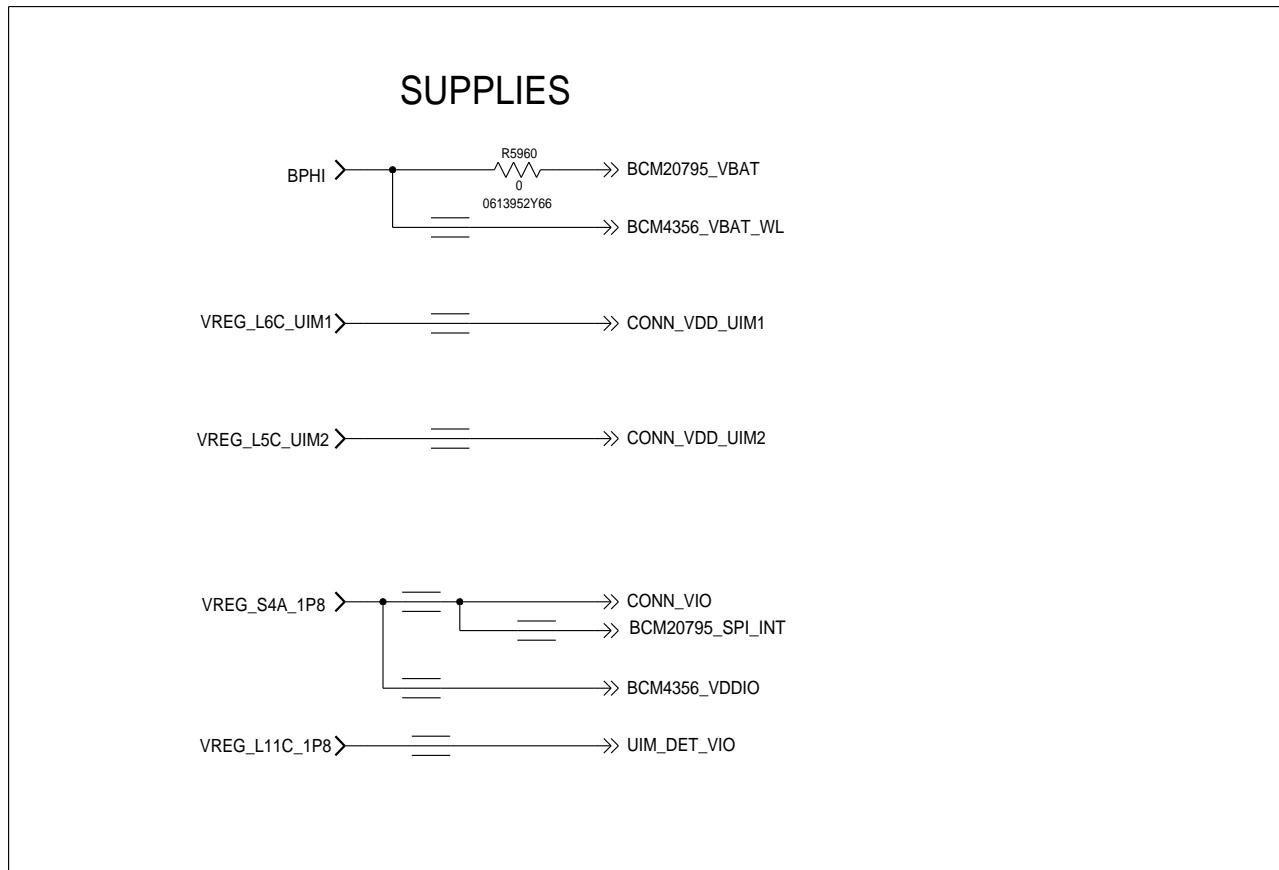


MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER:	BLOCK TITLE: power	
LAST MODIFIED BY: TIM MILLER Fri Sep 26 06:12:52 2014		
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CAD FILE NAME:		PAGE 36 OF 80

CONN: POWER

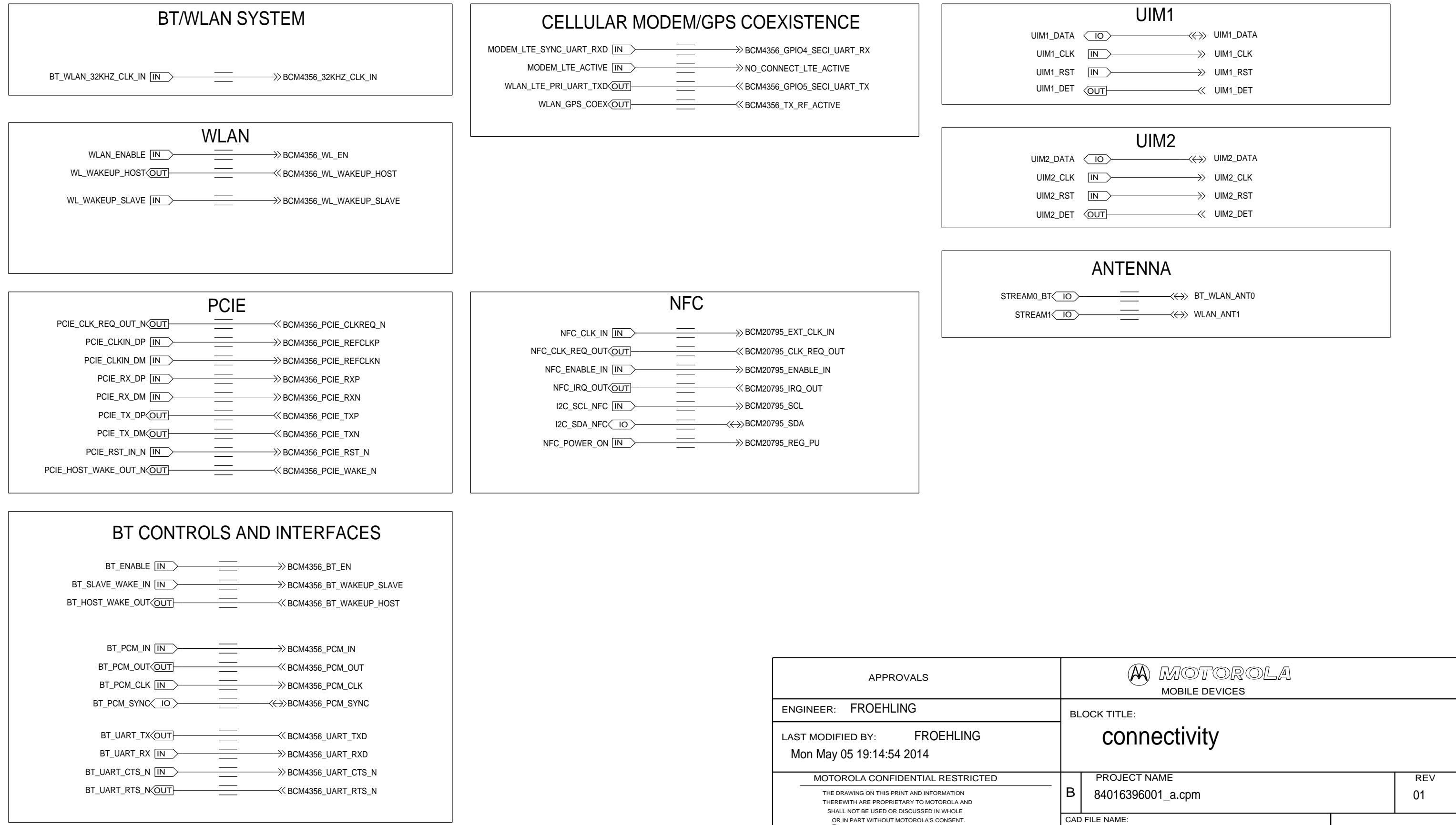
REF 4000-4499



APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: FROEHLING	BLOCK TITLE: connectivity	
LAST MODIFIED BY: FROEHLING Fri Sep 26 06:12:50 2014		
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	CAD FILE NAME:	PAGE 38 OF 80

CONN: PORTS

REF 4000-4499



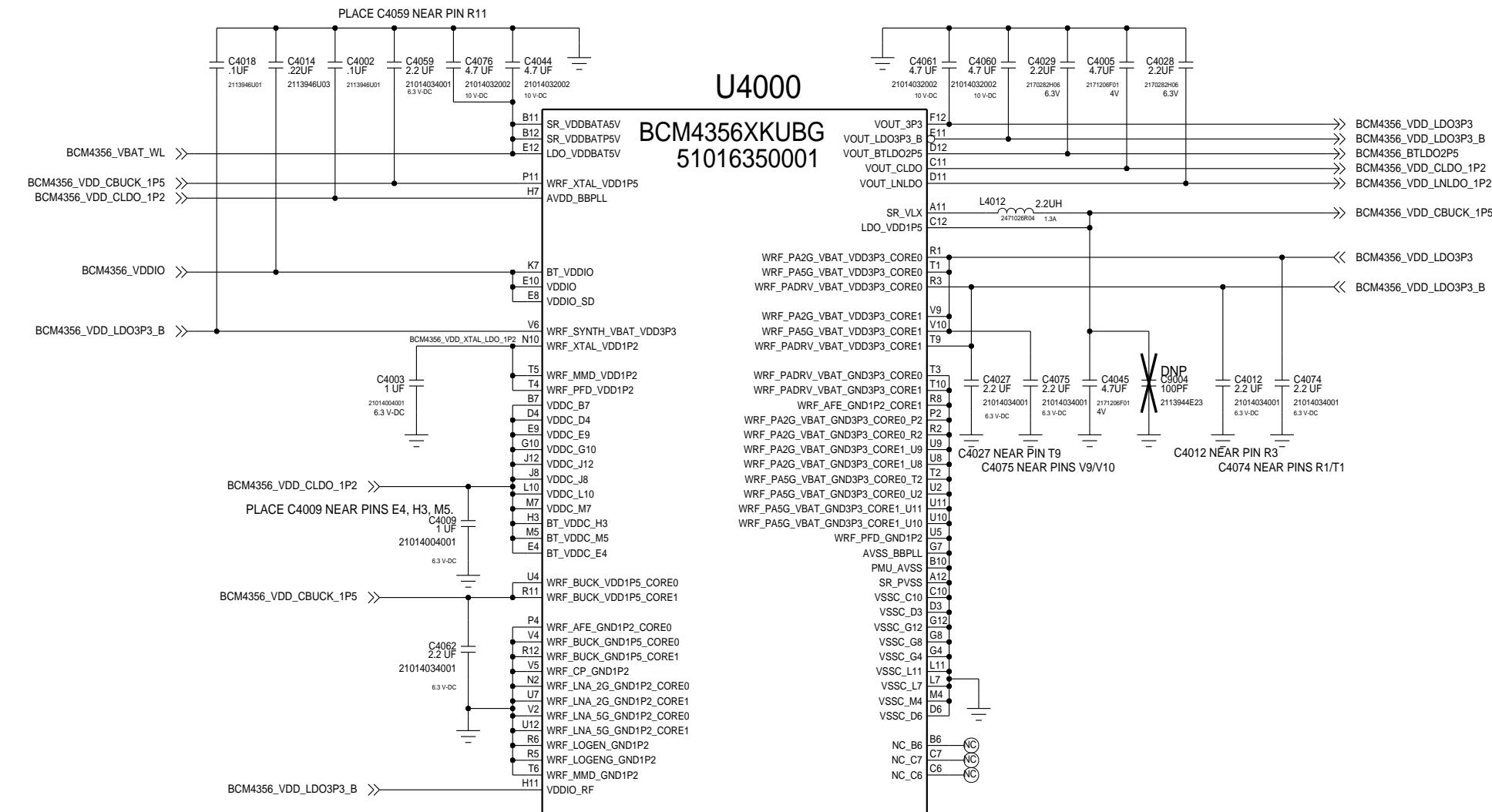
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ENGINEER: FROEHLING		BLOCK TITLE:	
LAST MODIFIED BY: FROEHLING		connectivity	
Mon May 05 19:14:54 2014			
MOTOROLA CONFIDENTIAL RESTRICTED	PROJECT NAME	REV	
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CONN: BCM4356 POWER

REF 4000-4099

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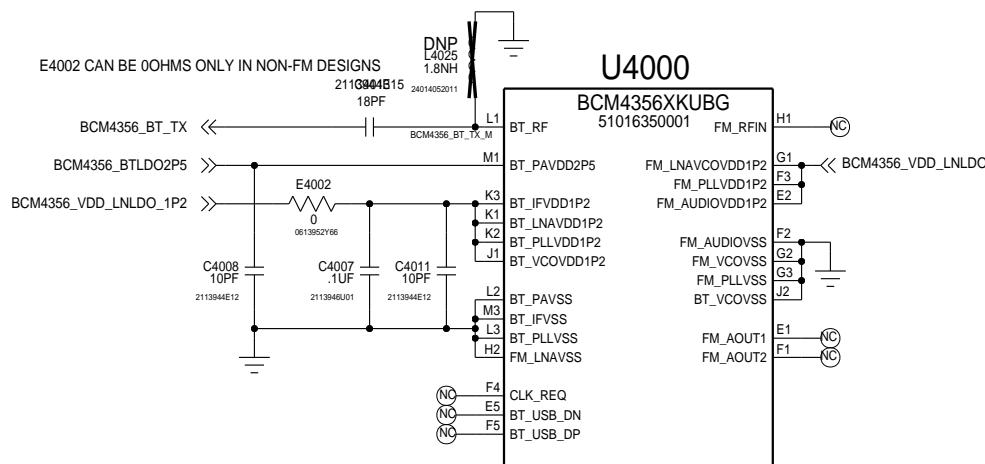
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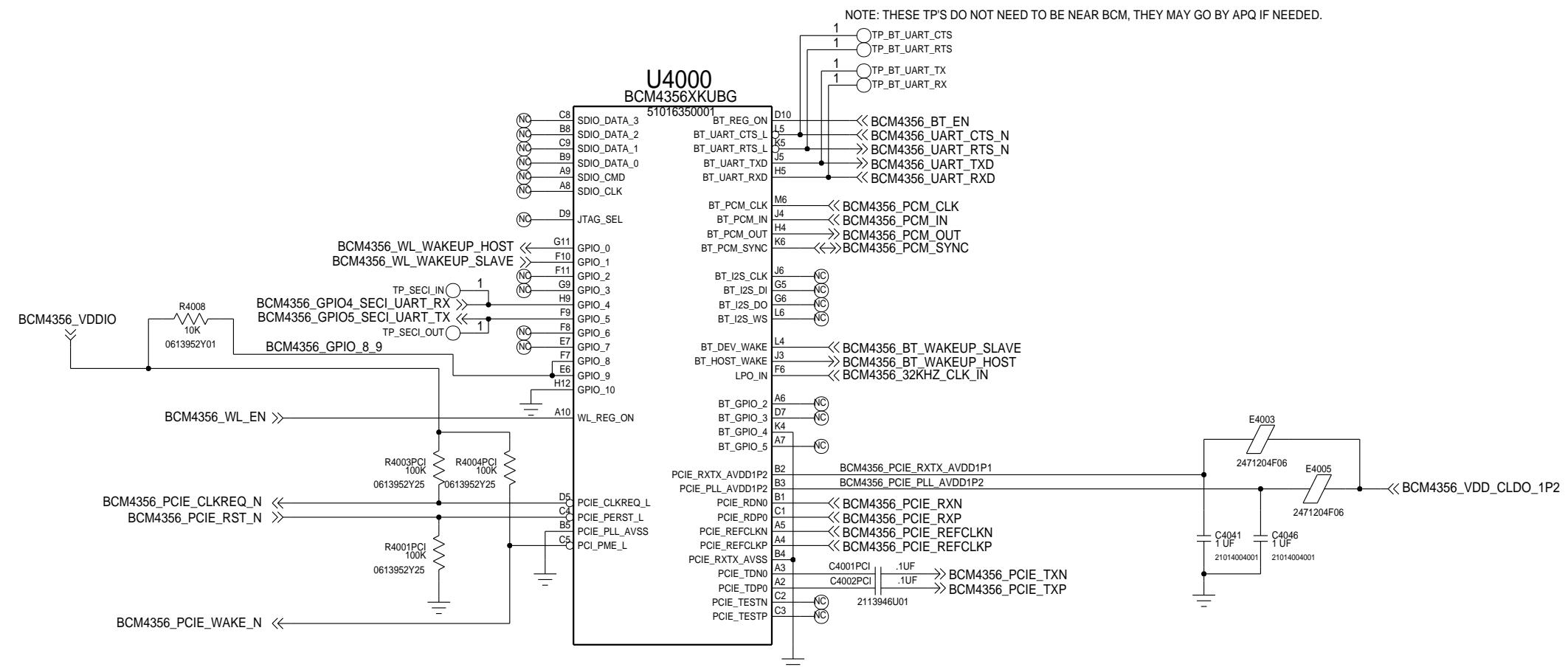
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CONN: BCM4356 CONTROL

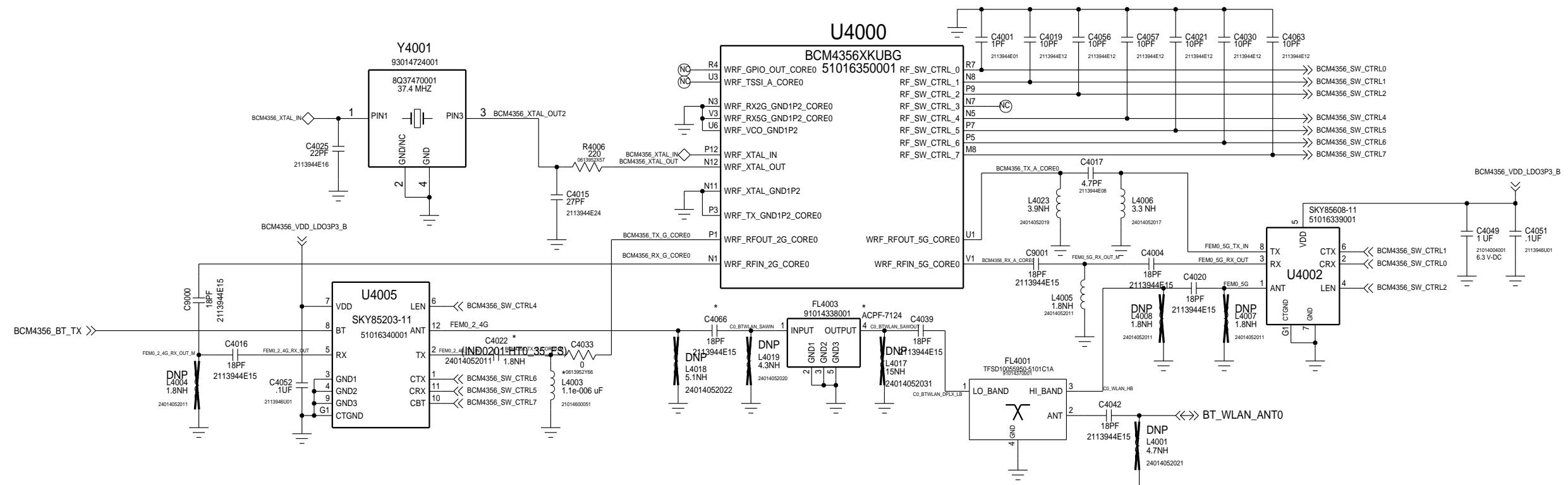
REF 4000-4099



APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: FROEHLING	BLOCK TITLE: connectivity	
LAST MODIFIED BY: FROEHLING Fri Sep 26 06:12:50 2014		
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CAD FILE NAME:		PAGE 41 OF 80

CONN: BCM4356 WLAN CHAIN 0

REF 4000-4099



A-band RF T/R Switch Truth Table

	RF_SW_CTRL1	RF_SW_CTRL0	RF_SW_CTRL2
WLAN TX	H	L	L
WLAN RX	L	H	H
RX Bypass	L	H	L
All Off	L	L	L

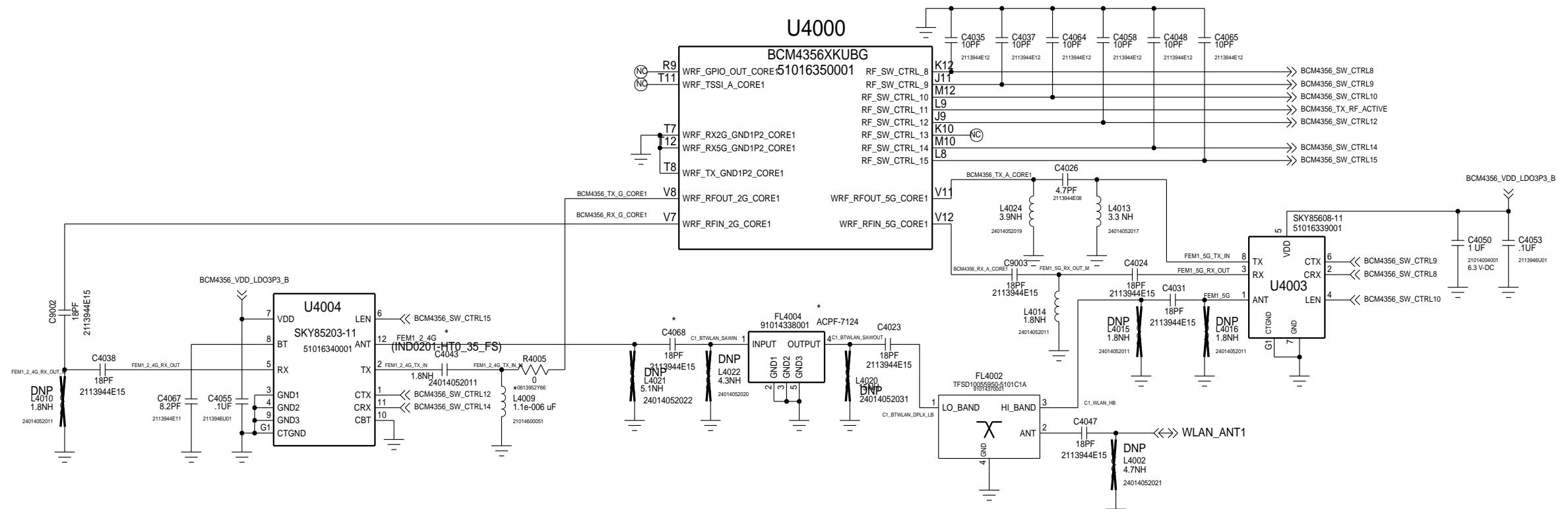
G-band RF T/R Switch Truth Table

	RF_SW_CTRL6	RF_SW_CTRL5	RF_SW_CTRL7	RF_SW_CTRL4
WL_TX	H	L	L	L
WL_RX	L	H	L	H
RX Bypass	L	H	L	L
BT_TX	L	L	H	L
All Off	L	L	L	L

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: FROEHLING		BLOCK TITLE: connectivity	
LAST MODIFIED BY: FROEHLING Fri Sep 26 06:12:51 2014			
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CAD FILE NAME:		REV 01	
		PAGE 42 OF 80	

CONN: BCM4356 WLAN CHAIN 1

REF 4000-4099



A-band RF T/R Switch Truth Table

	RF_SW_CTRL9	RF_SW_CTRL8	RF_SW_CTRL10
WLAN_TX	H	L	L
WLAN_RX	L	H	H
RX Bypass	L	H	L
All Off	L	L	L

G-band RF T/R Switch Truth Table

	RF_SW_CTRL12	RF_SW_CTRL14	RF_SW_CTRL15
WL_TX	H	L	L
WL_RX	L	H	H
RX Bypass	L	H	L
All Off	L	L	L

APPROVALS

MOTOROLA
MOBILE DEVICES

ENGINEER: FROEHLING

BLOCK TITLE:

LAST MODIFIED BY: FROEHLING
Fri Sep 26 06:12:51 2014

connectivity

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CAD FILE NAME:

PAGE 43 OF 80

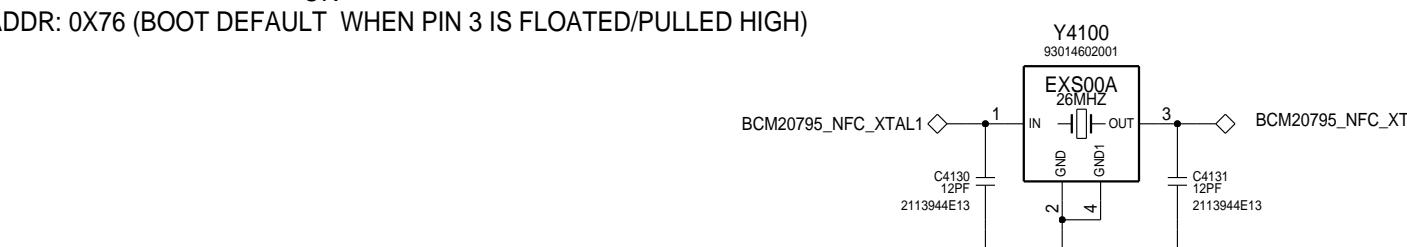
CONN: BCM20795 NFC

REF: 4100-4199

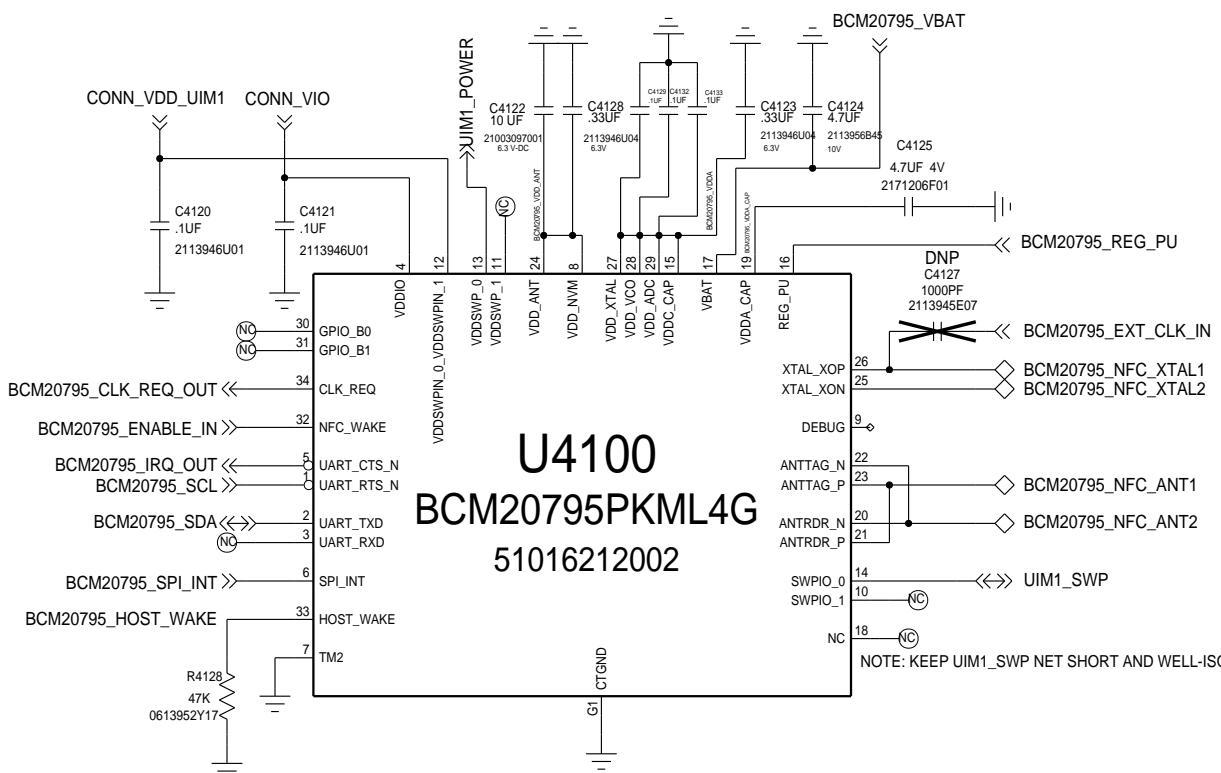
I2C ADDR: 0X77 (BOOT DEFAULT WHEN PIN 3 IS PULLED TO GROUND)

OR

I2C ADDR: 0X76 (BOOT DEFAULT WHEN PIN 3 IS FLOATED/PULLED HIGH)



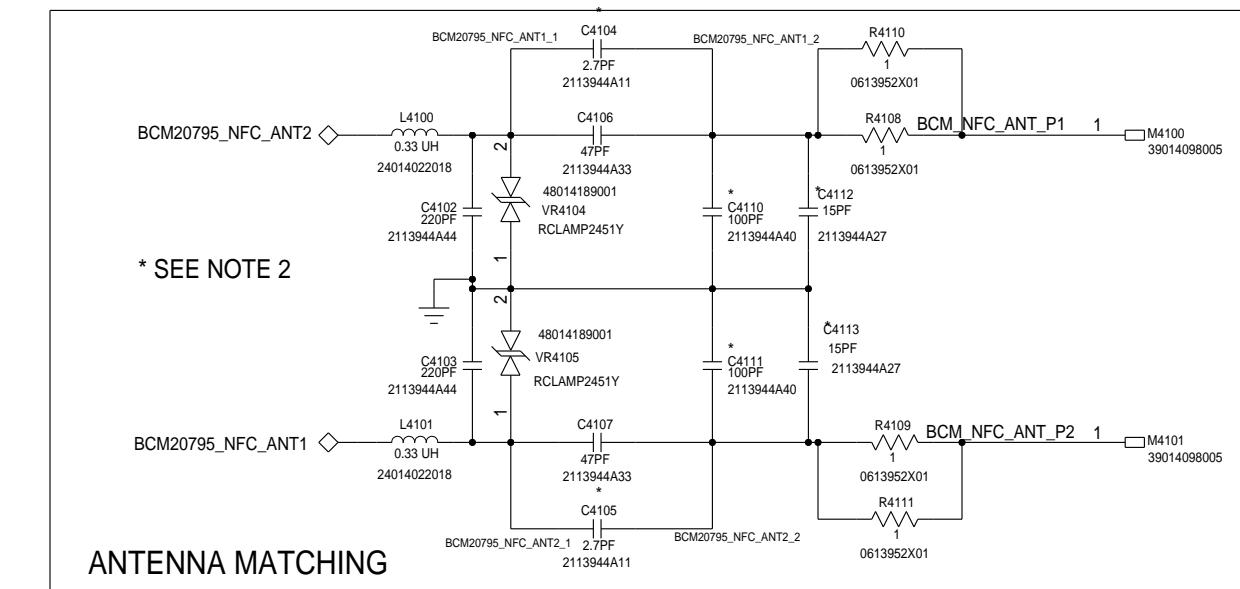
* SEE NOTE 1



NOTES:

1. PER BROADCOM RECOMMENDATION, CAPACITANCE ON UIM1_POWER NET SHOULD BE 0.33UF. TOO LITTLE COMPROMISES REGULATOR STABILITY, TOO MUCH CAN CAUSE INADVERTENT POWER-ON RESETS AT VDD.

2. L5900W AND L5901W PLACEMENT MUST MINIMIZE MUTUAL INDUCTIVE COUPLING, OR CIRCUIT'S WIRELESS FUNCTION WILL BE SEVERELY IMPAIRED.



ANTENNA MATCHING

REFERENCE DESIGNATOR	26 MHZ CRYSTAL OSCILLATOR	19.2 MHZ EXTERNAL CLOCK
C4130	PLACE	DNI
C4131	PLACE	DNI
C4127	PLACE	PLACE
Y4100	PLACE	DNI



APPROVALS

ENGINEER: FROEHLING

BLOCK TITLE:

connectivity

LAST MODIFIED BY: FROEHLING
Sep 26 06:12:51 2014

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B 84016396001_a.cpm

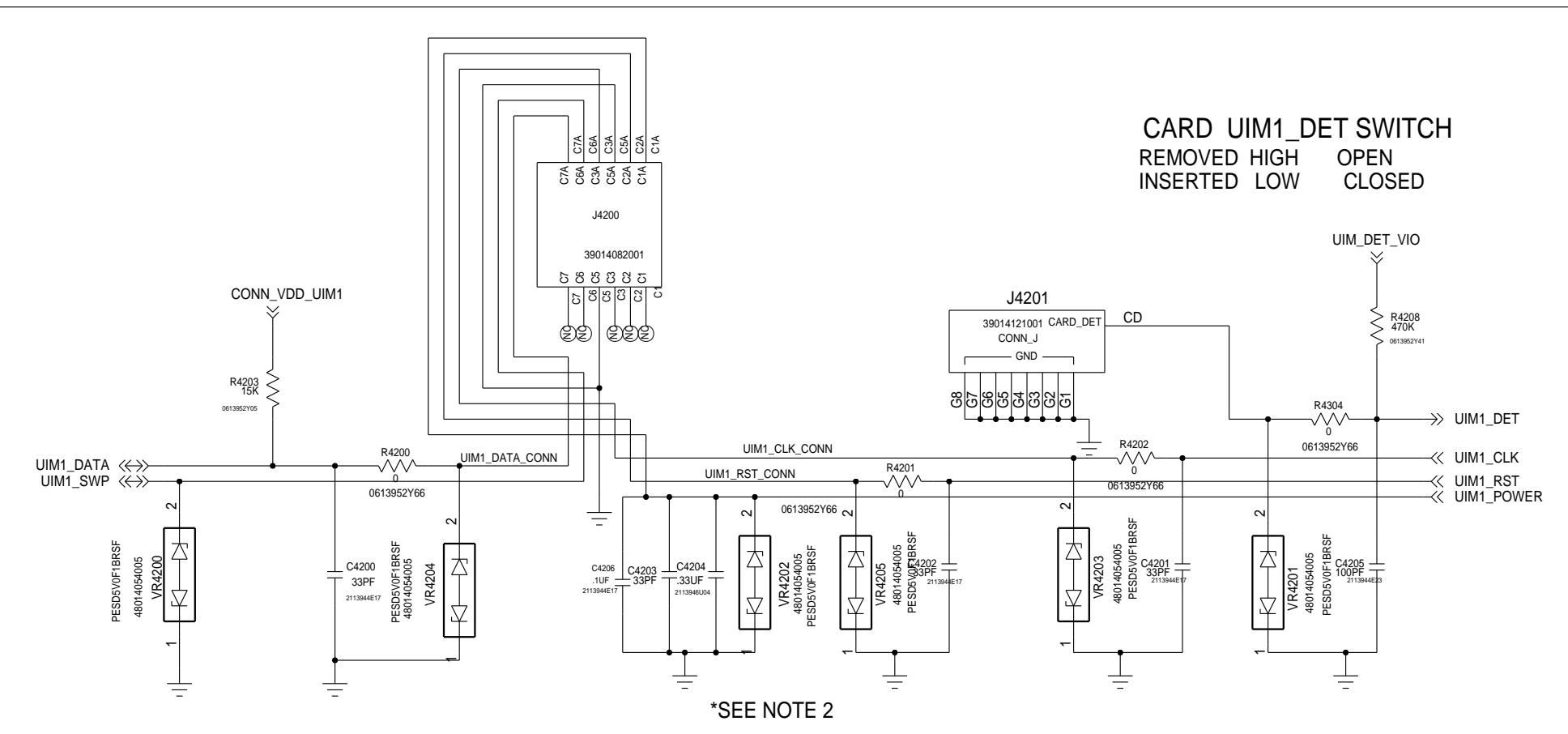
REV
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CAD FILE NAME:

PAGE 44 OF 80

CONN: UIM1

REF:4200-4219



MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKED AND BLOCKED

APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: FROEHLING	BLOCK TITLE: connectivity	
LAST MODIFIED BY: FROEHLING Fri Sep 26 06:12:51 2014		
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CAD FILE NAME:		PAGE 45 OF 80

XMCS: POWER

REF 6000-6999

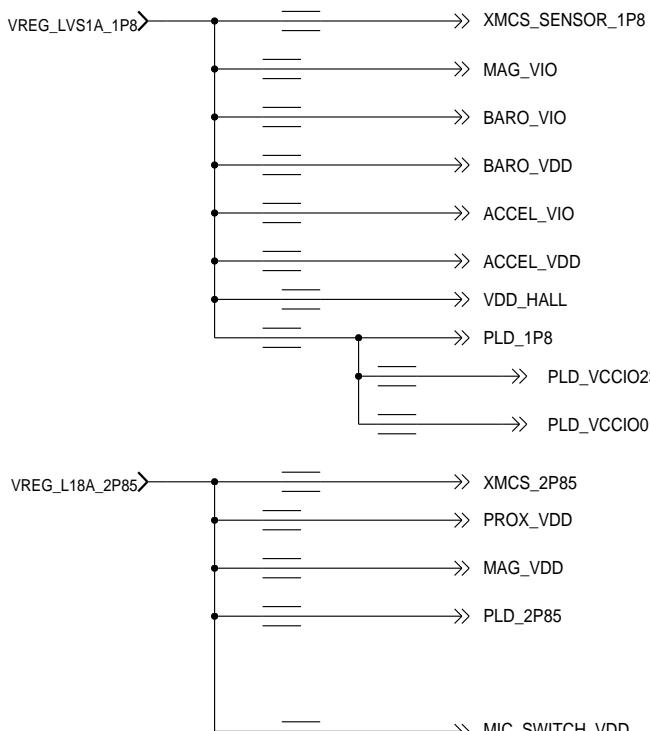
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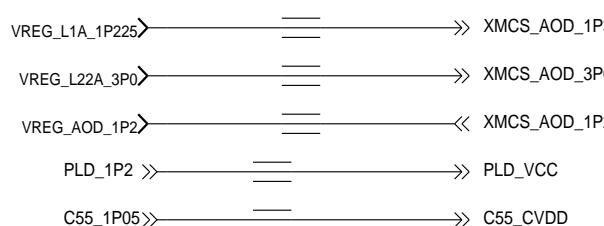
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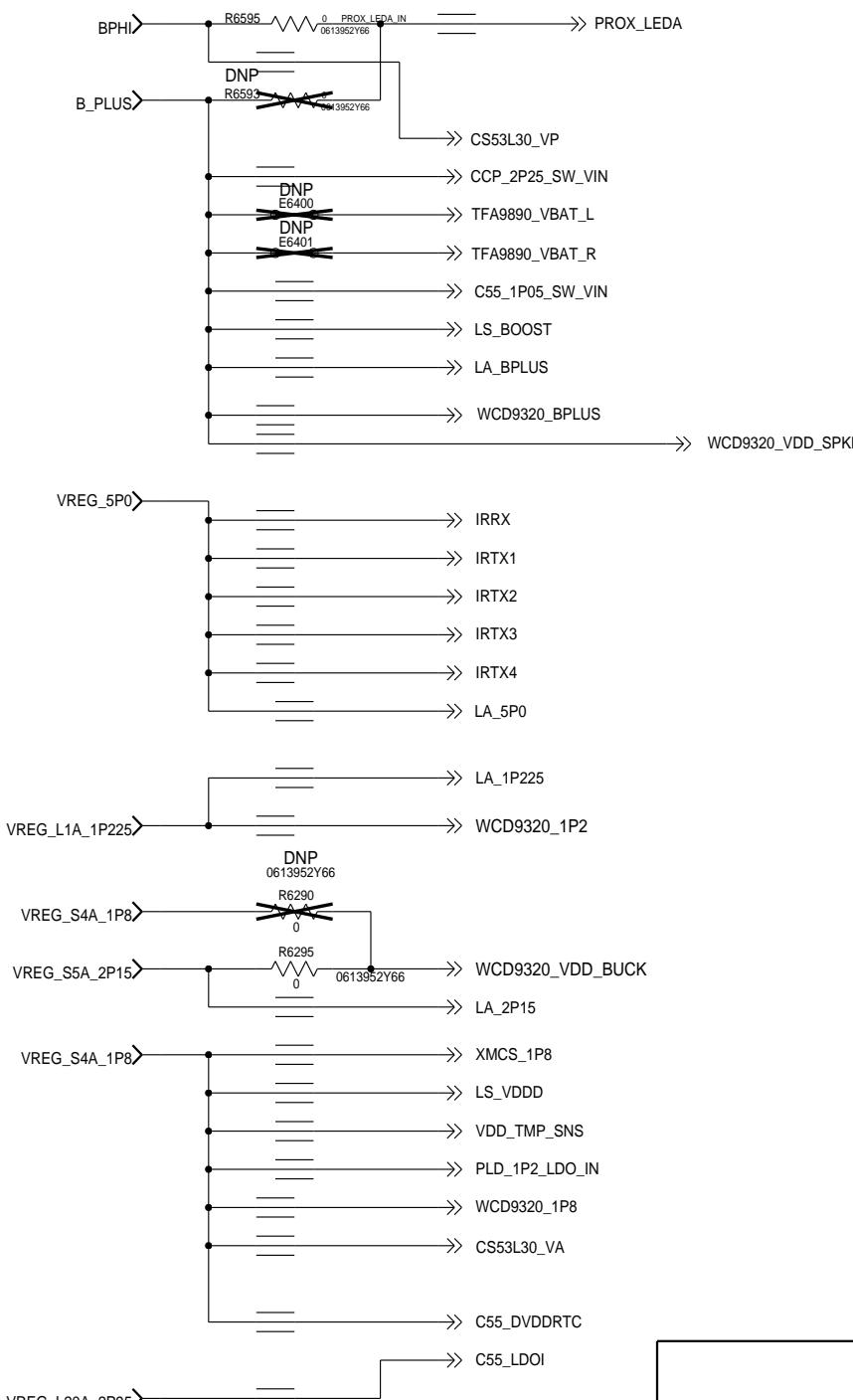
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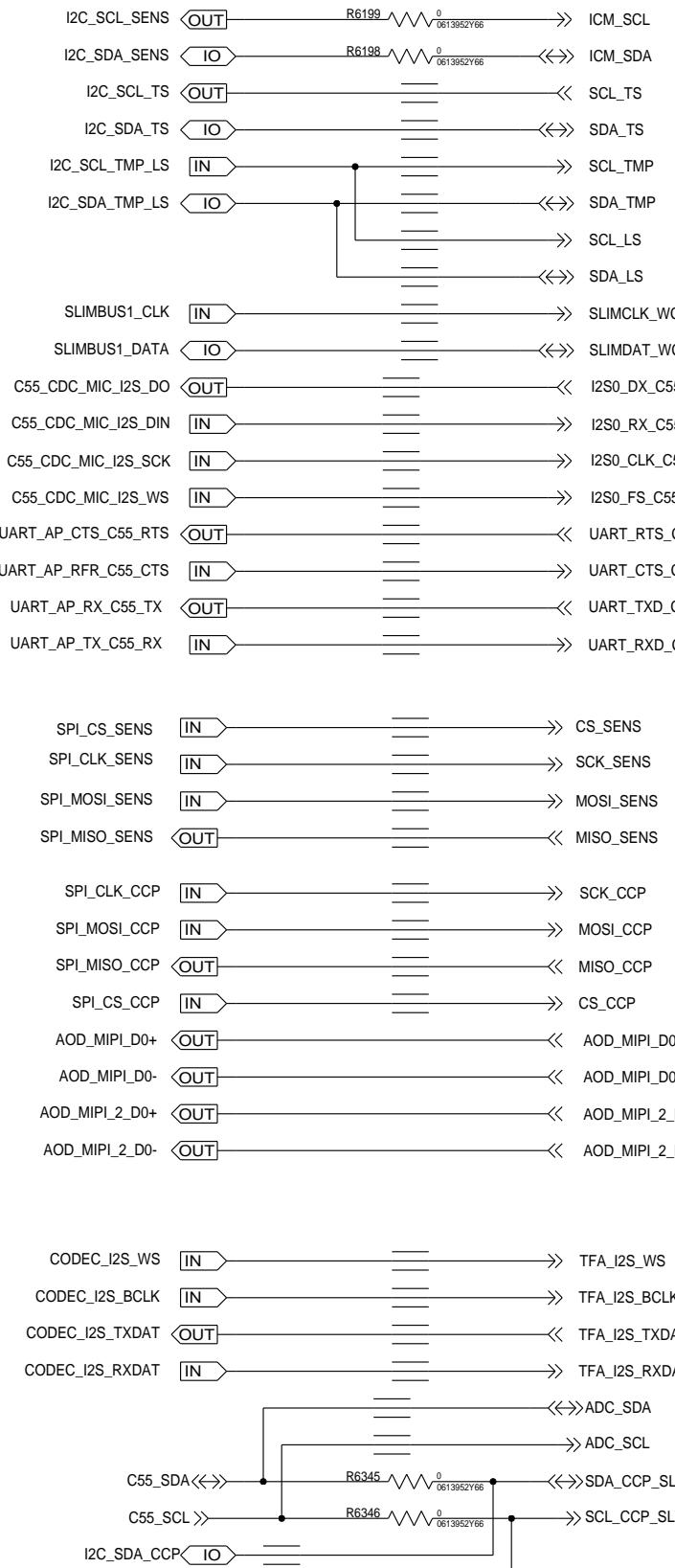


APPROVALS	MOTOROLA MOBILE DEVICES	
ENGINEER: NATE CONNELL	BLOCK TITLE: XMCS	
LAST MODIFIED BY: NATE CONNELL Fri Sep 26 06:12:45 2014		
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CAD FILE NAME:	PAGE 46 OF 80	

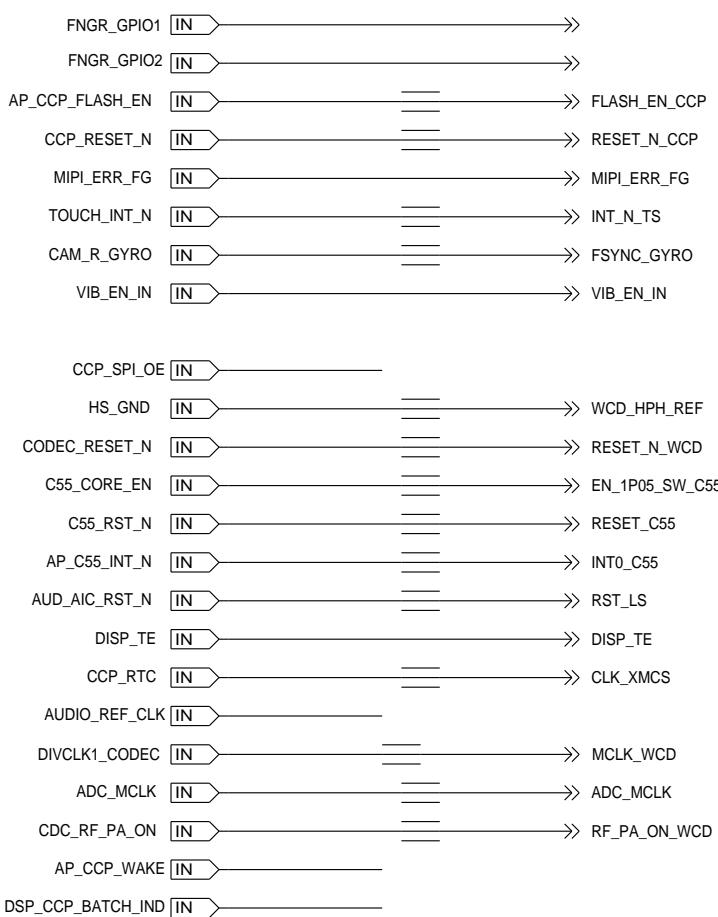
XMCS: PORTS

REF 6000-6999

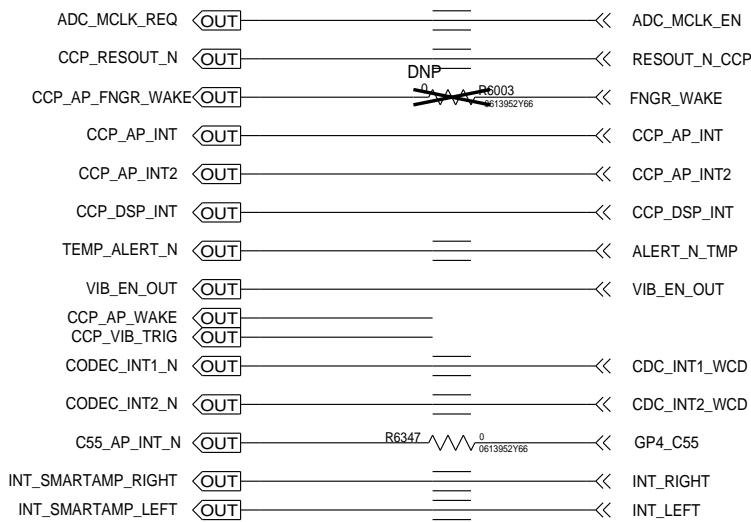
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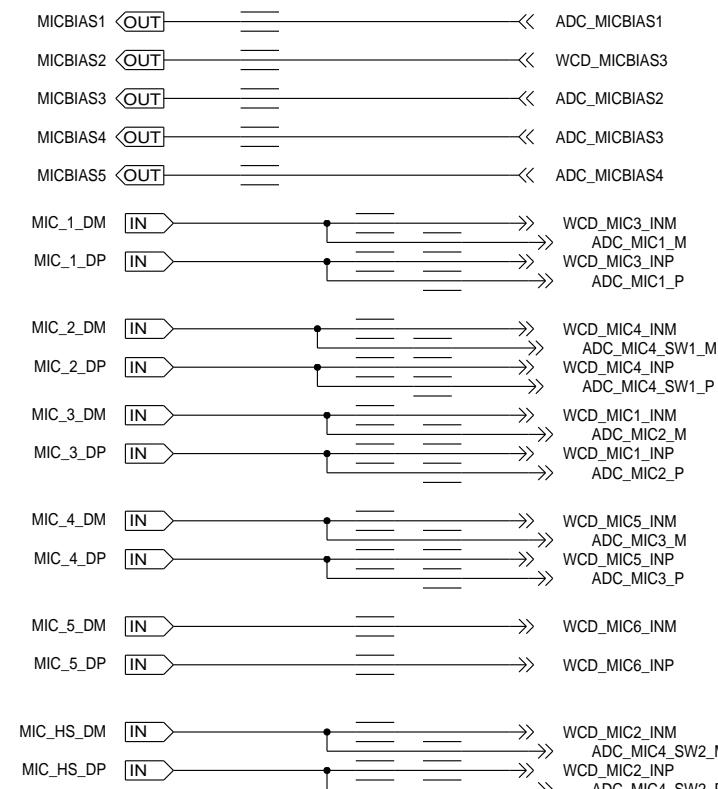
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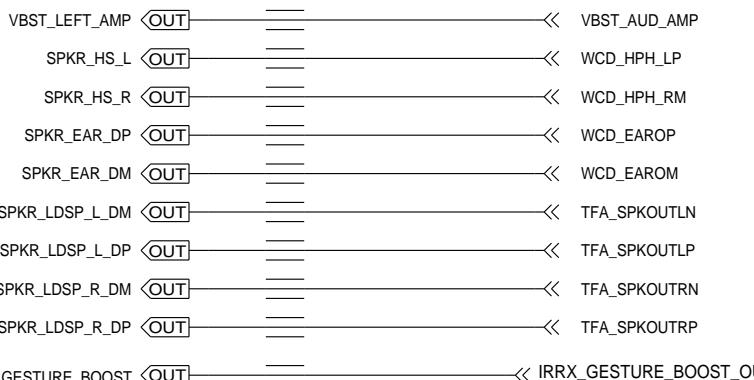
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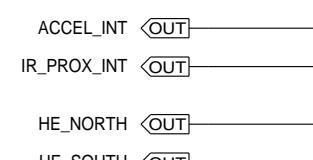
MIC PATHS



SPEAKER PATHS



SENSOR INTERRUPT OUTPUTS



APPROVALS

MOTOROLA
MOBILE DEVICES

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL
Fri Jul 11 13:58:52 2014

BLOCK TITLE:

Xmcs

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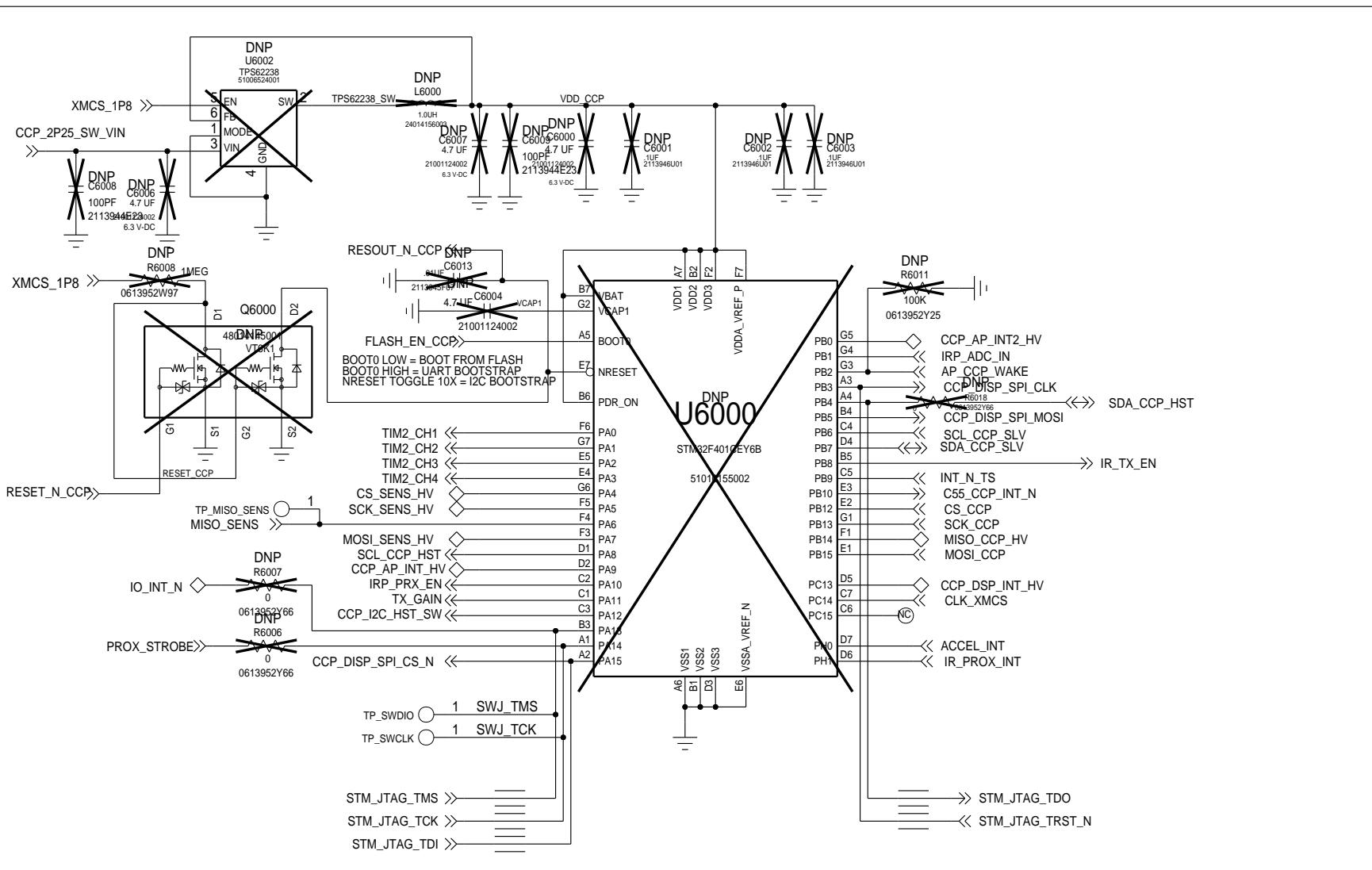
PROJECT NAME
B 84016396001_a.cpmREV
01

CAD FILE NAME:

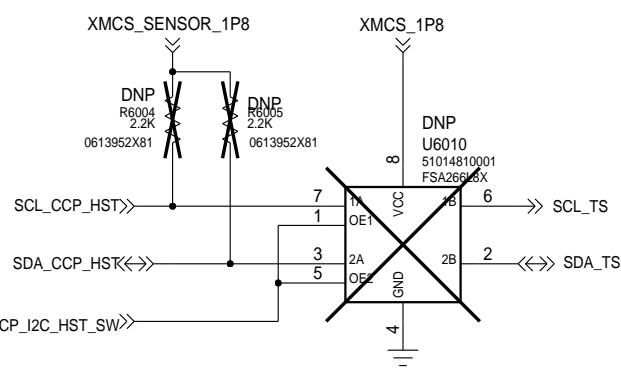
PAGE 47 OF 80

XMCS: CCP

REF: 6000-6049



I2C SUPPORT

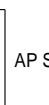


TESTPOINTS

- ```

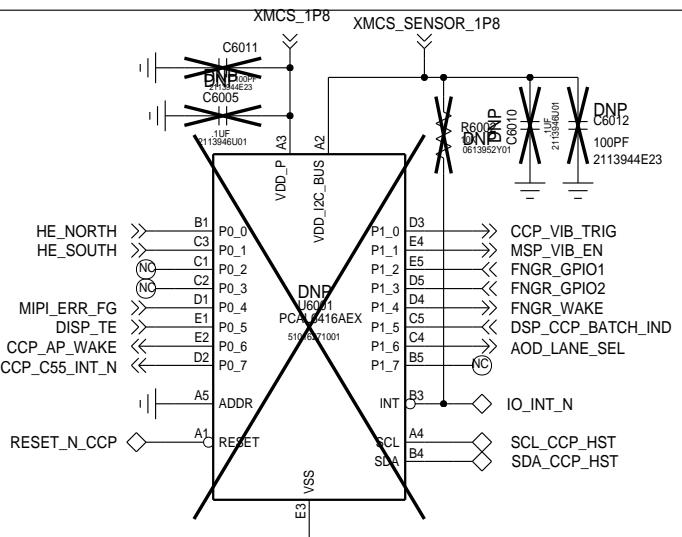
graph LR
 ESET_N_CCP --> TP_RESET_N_CCP
 CCP_DSP_INT --> TP_CCP_DSP_INT
 CCP_AP_INT --> TP_CCP_AP_INT
 SCK_CCP --> TP_SCK_CCP
 MOSI_CCP --> TP_MOSI_CCP
 MISO_CCP --> TP_MISO_CCP
 CS_CCP --> TP_CS_CCP

```

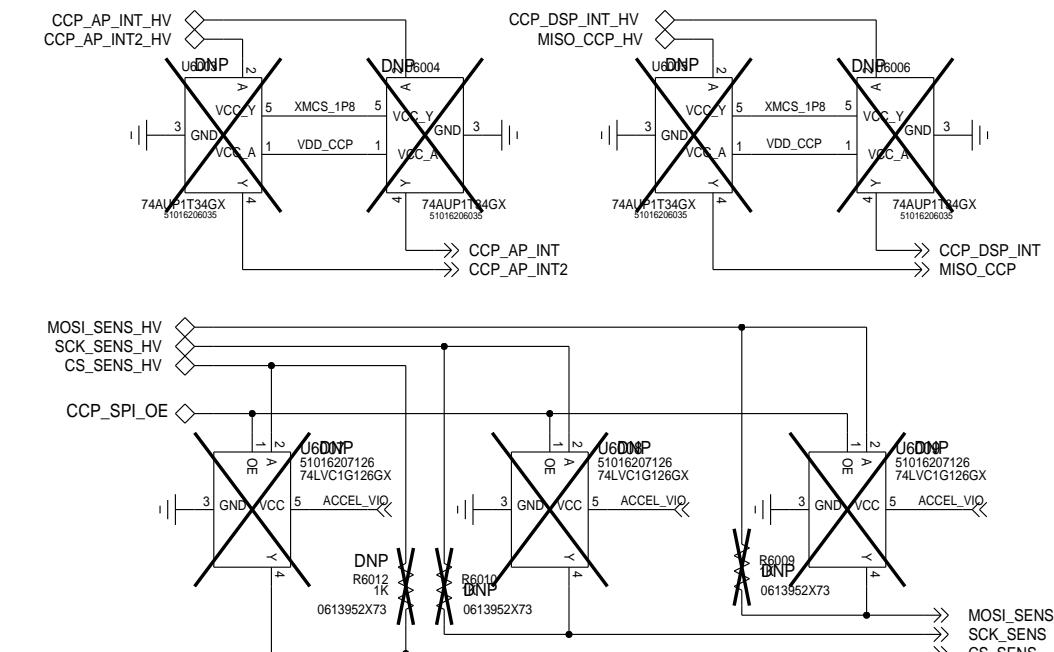


I/O EXPANSION

I2C ADDR: 0X20



## I/O LEVEL SHIFTERS



## APPROVALS

ENGINEER: JOHN GORSICA

LAST MODIFIED BY: NATE CONNELL  
Fri Sep 26 06:12:46 2014

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**MOTOROLA**  
MOBILE DEVICES

BLOCK TITLE

xmcs

PROJECT NAME  
84016396001\_a.cpm

REV  
01

**CAD FILE NAME:**

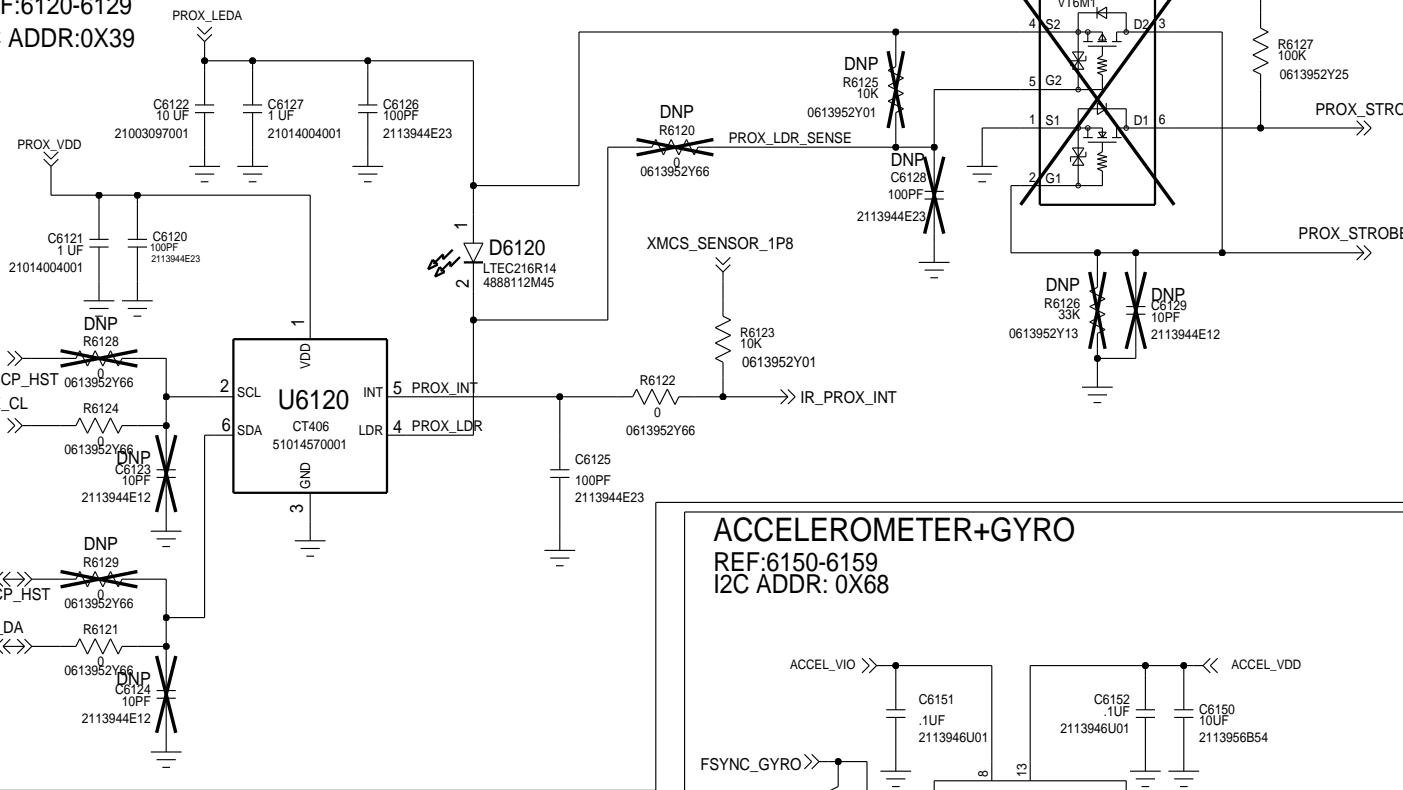
PAGE 48 OF 80

# XMCS: SENSORS

REF: 6100-6199

## PROX SENSOR/ALS

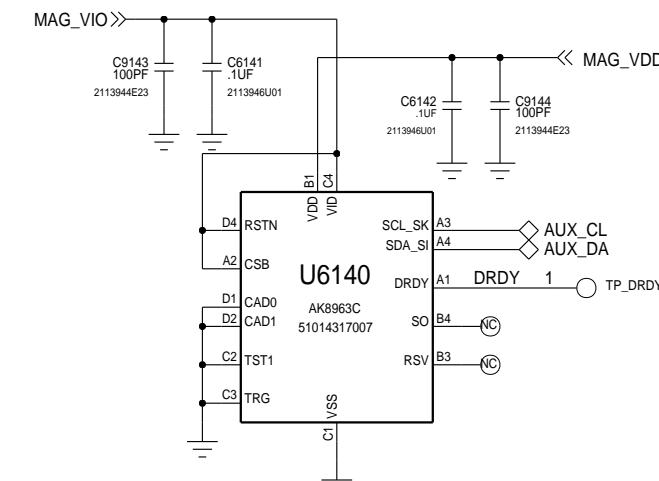
REF: 6120-6129  
I2C ADDR: 0X39



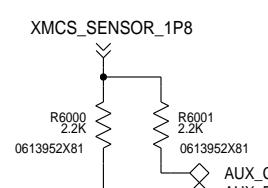
## MAGNETOMETER

REF: 6140-6149

I2C ADDR: 0X0C

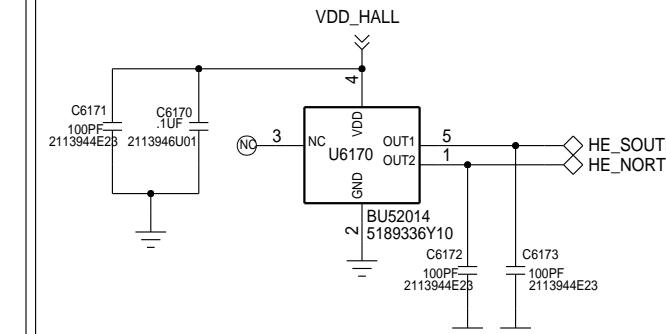


## I2C SUPPORT



## HALL EFFECT

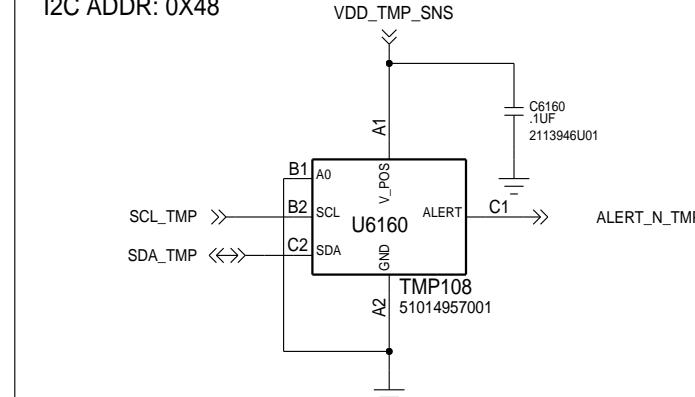
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## BOARD TEMP SENSORS

REF: 6160-6169

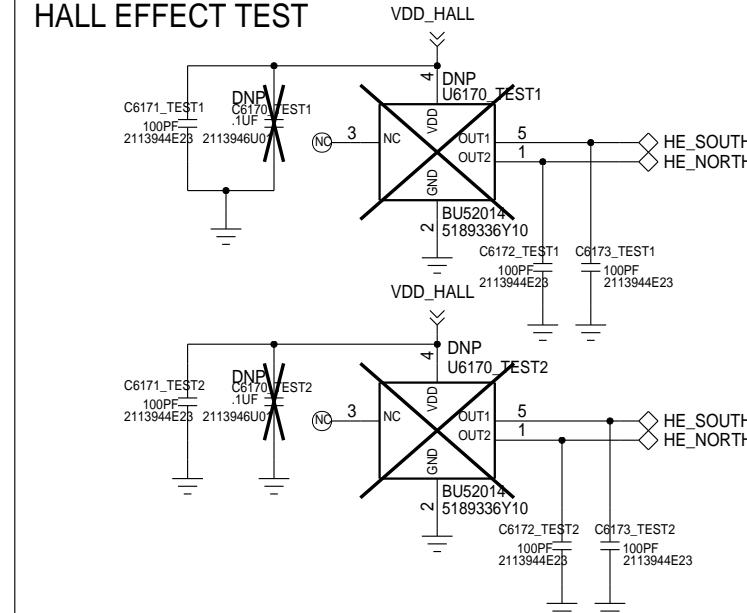
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I2C ADDR: 0X49

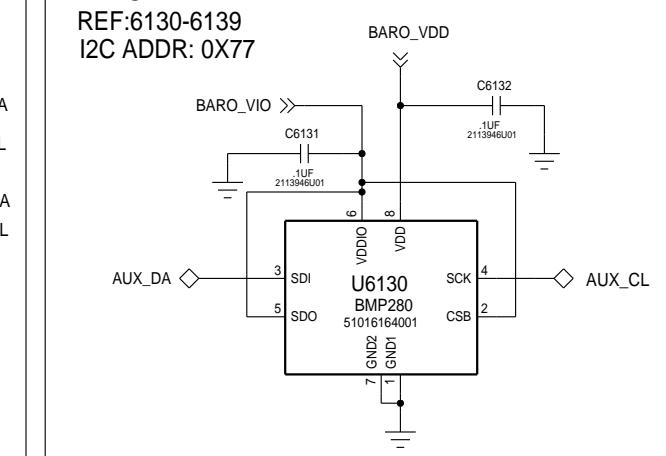
U6161 DELETED

## HALL EFFECT TEST



## BAROMETER

REF: 6130-6139  
I2C ADDR: 0X77



## JOHN GORSICA/NATE CONNELL APPROVALS

ENGINEER: C HERNANDEZ

LAST MODIFIED BY: C HERNANDEZ

Fri Sep 26 06:12:46 2014

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**MOTOROLA**  
MOBILE DEVICES

BLOCK TITLE:

**XMCS**

PROJECT NAME

B 84016396001 ABBAGOOCHIE

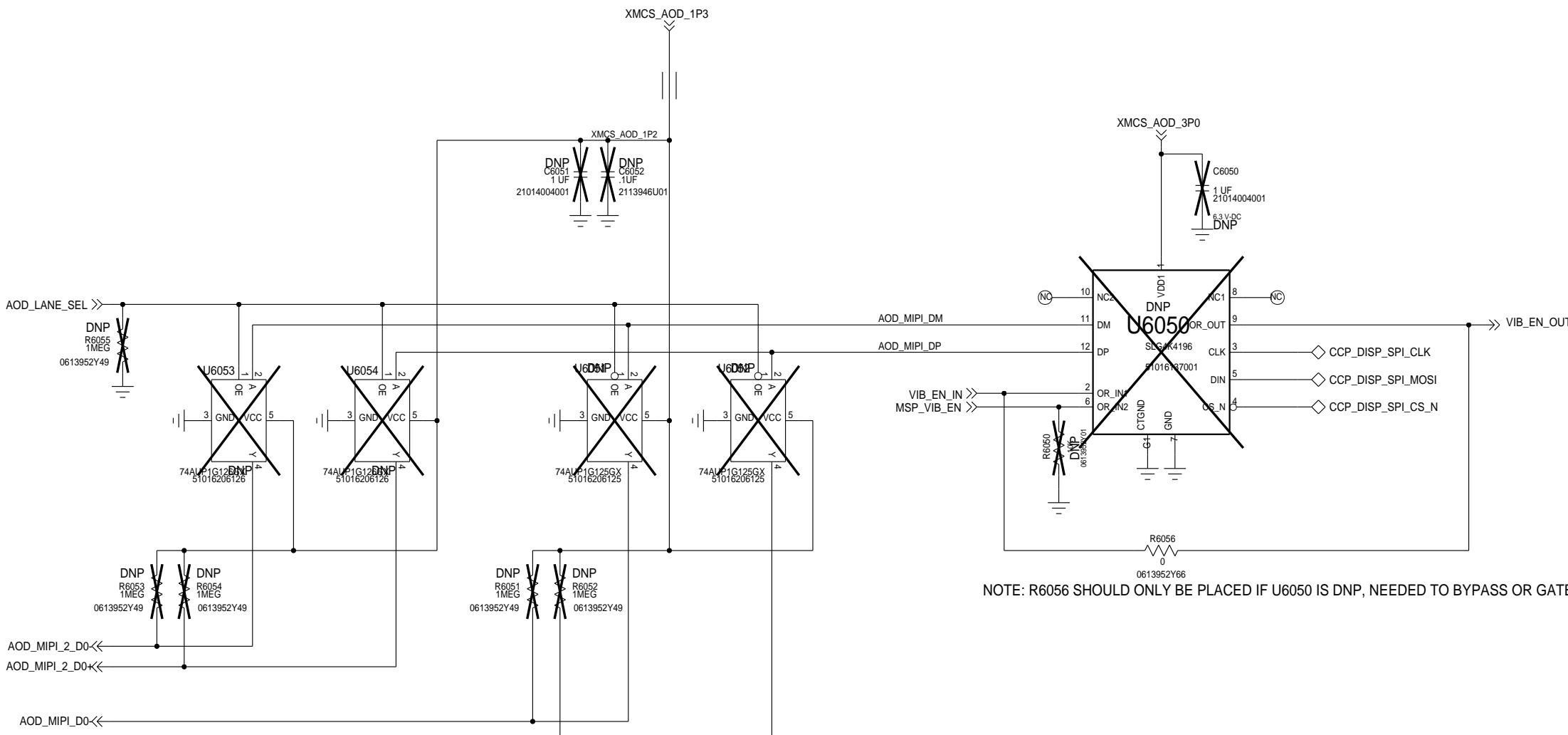
REV 01

CAD FILE NAME:

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# XMCS: AOD

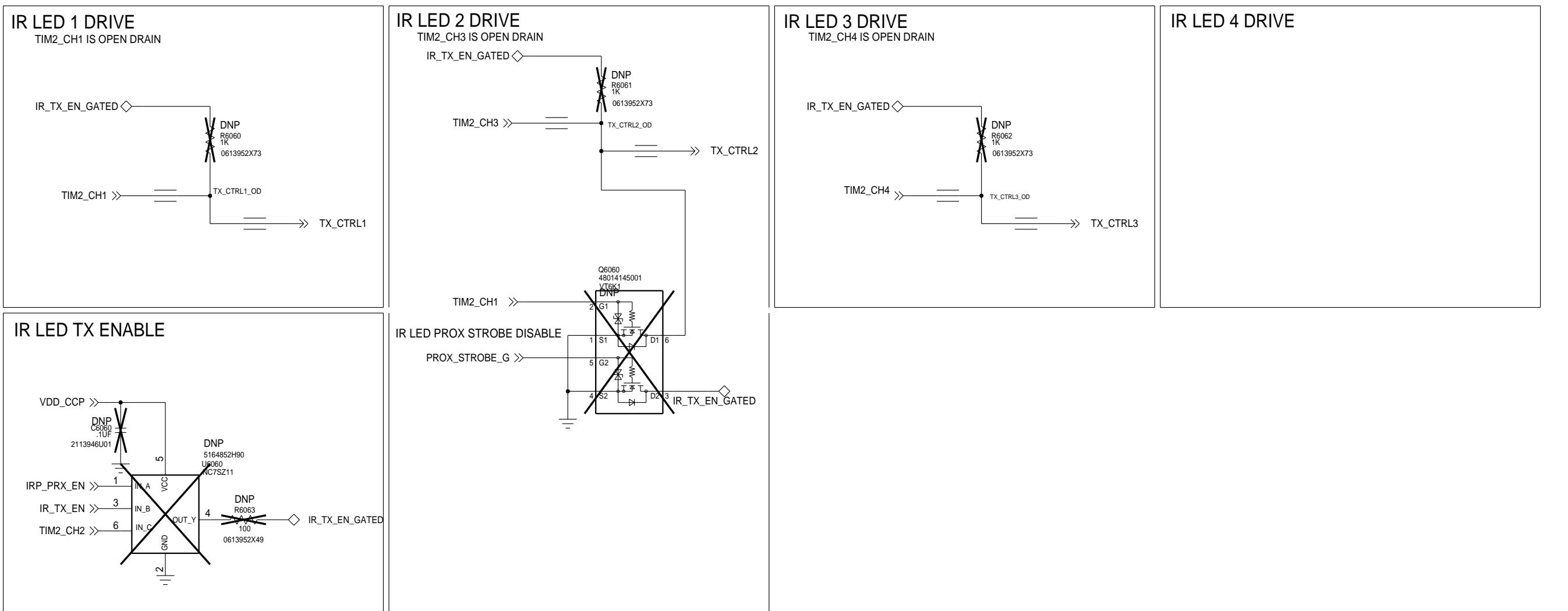
REF: 6050-6059



|                                                                                                                                                                                                                                                                                                  |                                     |               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|---------------|
| APPROVALS                                                                                                                                                                                                                                                                                        | MOTOROLA<br>MOBILE DEVICES          |               |
| ENGINEER: MOTOROLA                                                                                                                                                                                                                                                                               | BLOCK TITLE:                        |               |
| LAST MODIFIED BY: MOTOROLA<br>Fri Sep 26 06:12:47 2014                                                                                                                                                                                                                                           | xmcs                                |               |
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| CAD FILE NAME:                                                                                                                                                                                                                                                                                   |                                     | PAGE 50 OF 80 |

# XMCS: NATIVE IR

REF: 6060-6069



|                                                                                                                                                                                                                                                                                                  |                                     |               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|---------------|
| APPROVALS                                                                                                                                                                                                                                                                                        | MOTOROLA<br>MOBILE DEVICES          |               |
| ENGINEER: NATE CONNELL                                                                                                                                                                                                                                                                           | BLOCK TITLE:<br><b>XMCS</b>         |               |
| LAST MODIFIED BY: NATE CONNELL<br>Fri Sep 26 06:12:47 2014                                                                                                                                                                                                                                       |                                     |               |
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|                                                                                                                                                                                                                                                                                                  | CAD FILE NAME:                      | PAGE 51 OF 80 |

**XMCS: FPGA IR**

REF: 6500-6599

**FPGA IR DELETED**

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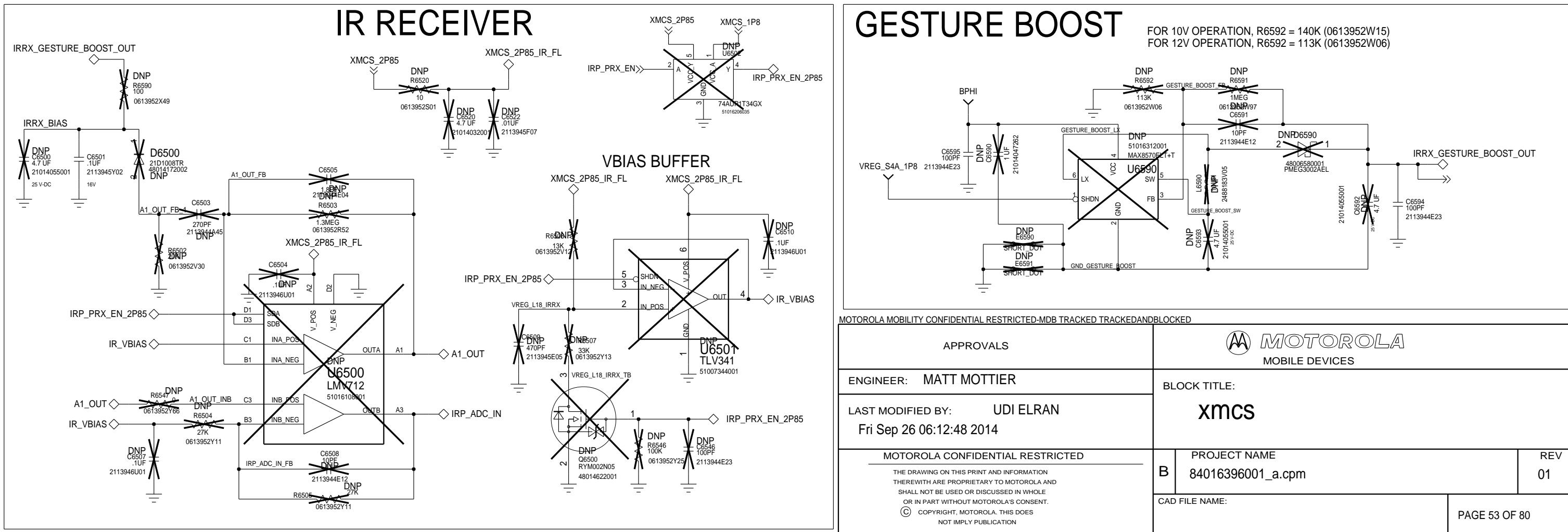
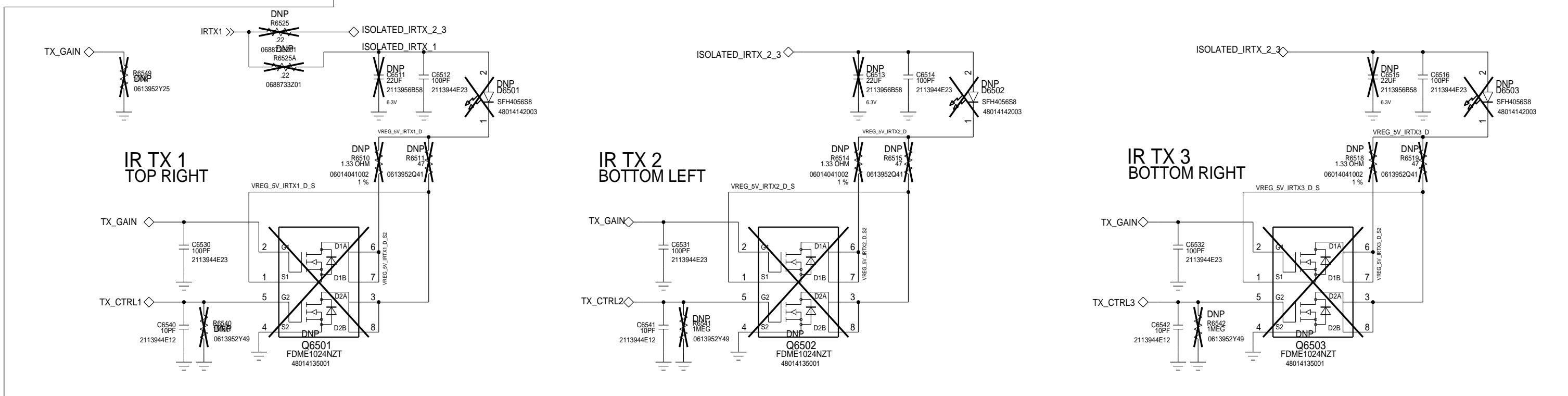
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|                                                                                                                                                                                                                                                                                                  |                                                                                                                         |               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------|
| APPROVALS                                                                                                                                                                                                                                                                                        |  <b>MOTOROLA</b><br>MOBILE DEVICES |               |
| ENGINEER: MOTOROLA                                                                                                                                                                                                                                                                               | BLOCK TITLE:<br><b>xmcs</b>                                                                                             |               |
| LAST MODIFIED BY: MOTOROLA<br>Fri May 02 17:24:49 2014                                                                                                                                                                                                                                           |                                                                                                                         |               |
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|                                                                                                                                                                                                                                                                                                  | CAD FILE NAME:                                                                                                          | PAGE 52 OF 80 |

# XMCS: IR LED

REF 6500-6549

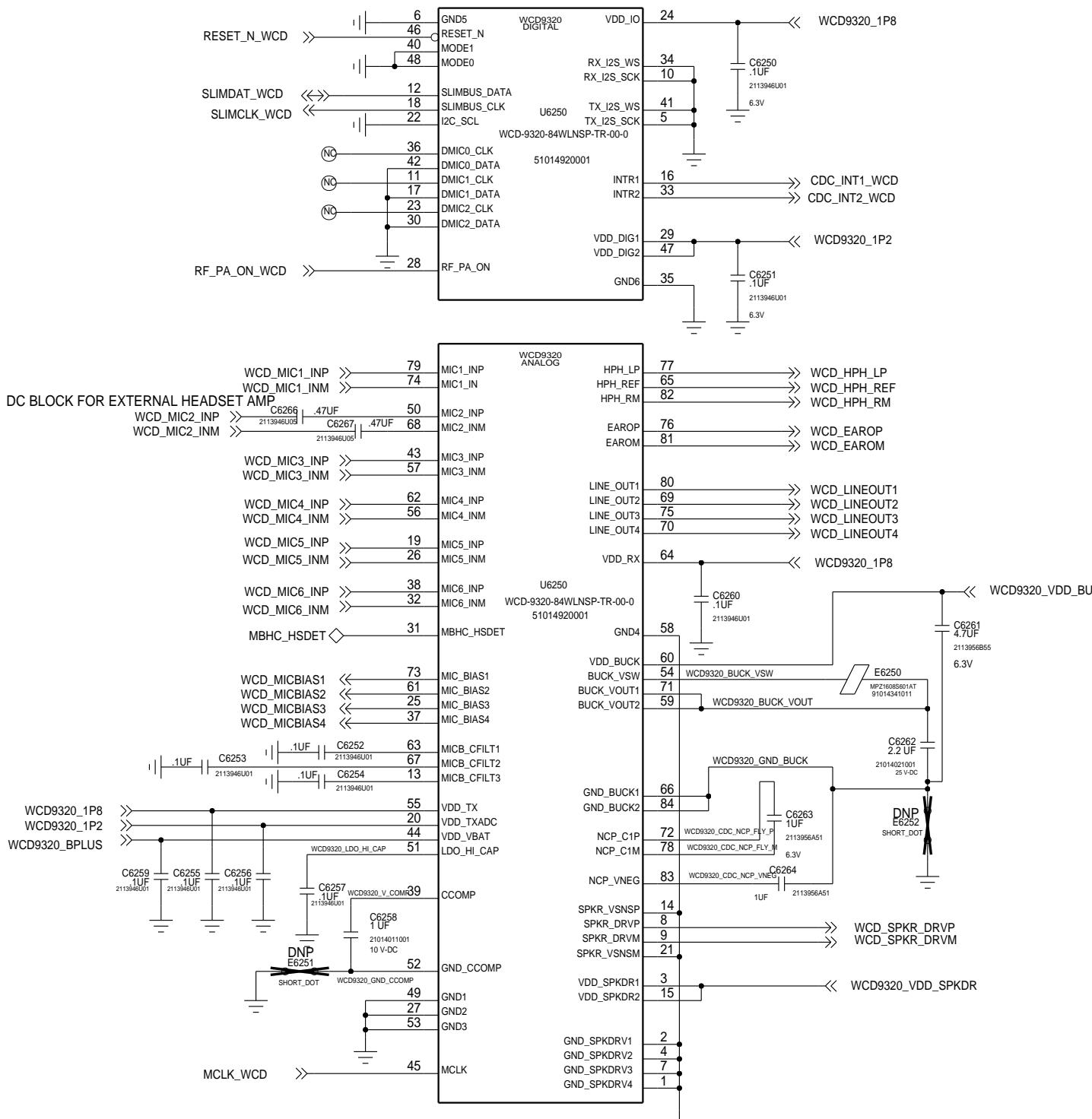
## IR TRANSMITTER



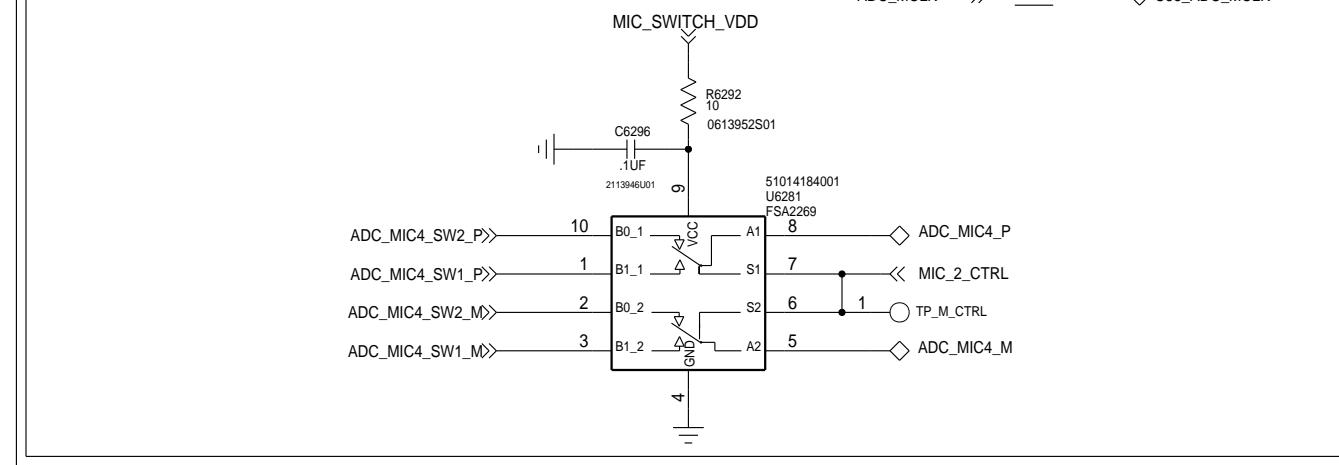
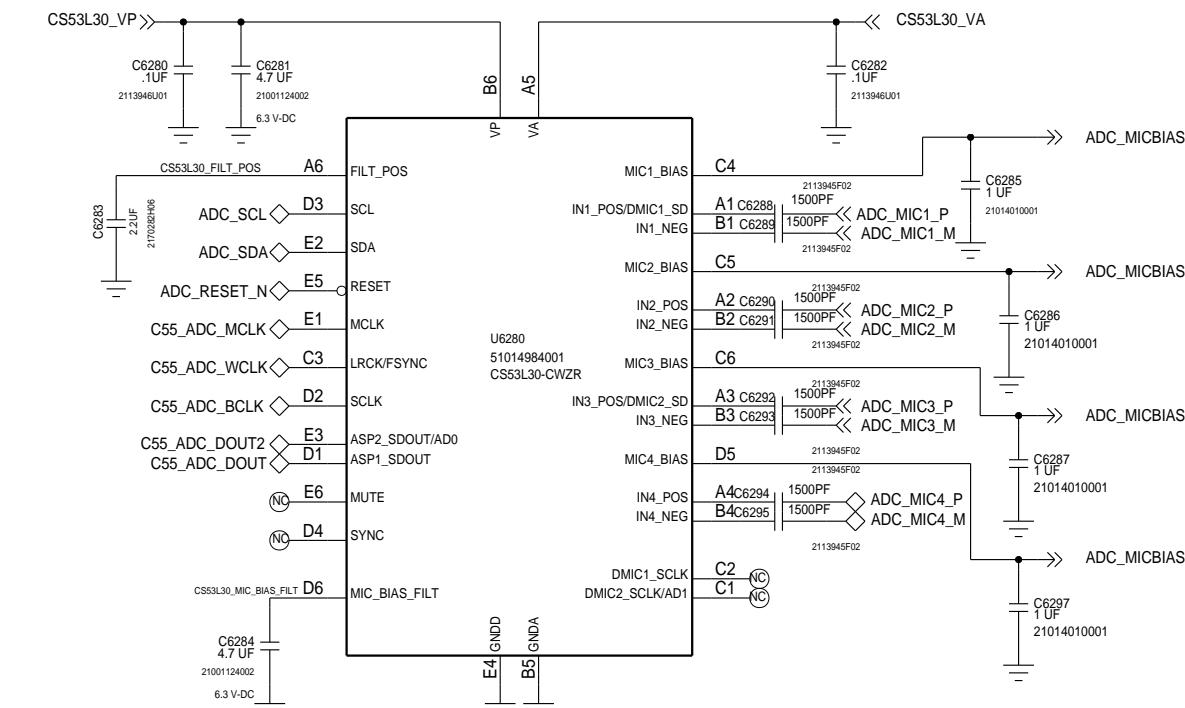
# XMCS: CODEC

REF 6250-6299

## WCD9320



## CIRRUS ADC



MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

|                                                                                                                                                                                                                                           |                                                                                                                         |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----|
| APPROVALS                                                                                                                                                                                                                                 |  <b>MOTOROLA</b><br>MOBILE DEVICES |     |
| ENGINEER:                                                                                                                                                                                                                                 | BLOCK TITLE:                                                                                                            |     |
| LAST MODIFIED BY:                                                                                                                                                                                                                         | <b>Xmcs</b>                                                                                                             |     |
| MOTOROLA CONFIDENTIAL RESTRICTED                                                                                                                                                                                                          |                                                                                                                         | REV |
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| PROJECT NAME                                                                                                                                                                                                                              |                                                                                                                         |     |
| B 84016396001_a.cpm                                                                                                                                                                                                                       |                                                                                                                         |     |
| CAD FILE NAME:                                                                                                                                                                                                                            |                                                                                                                         |     |
| PAGE 54 OF 80                                                                                                                                                                                                                             |                                                                                                                         |     |

# XMCS: DSP

REF 6300-6399

D

D

C

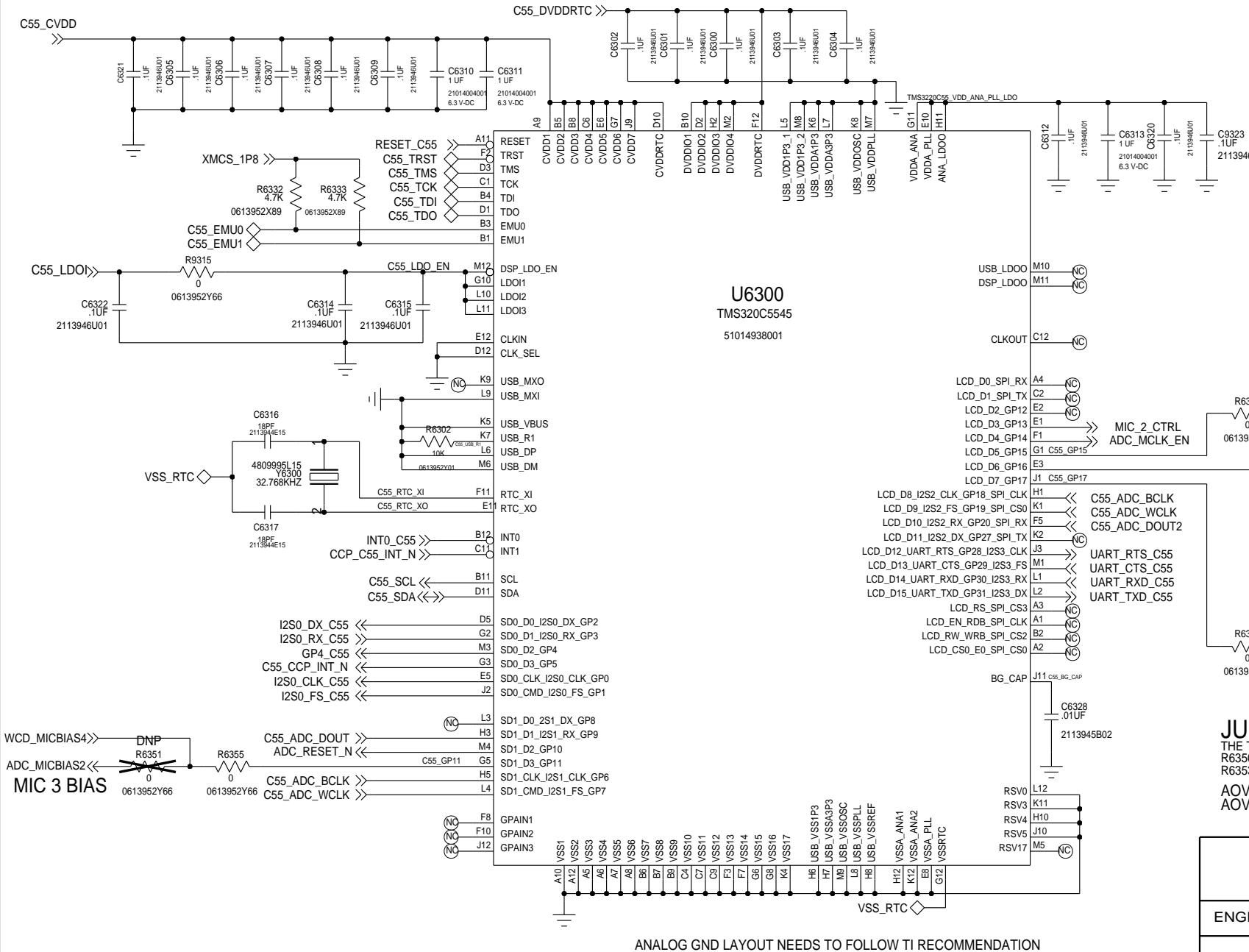
C

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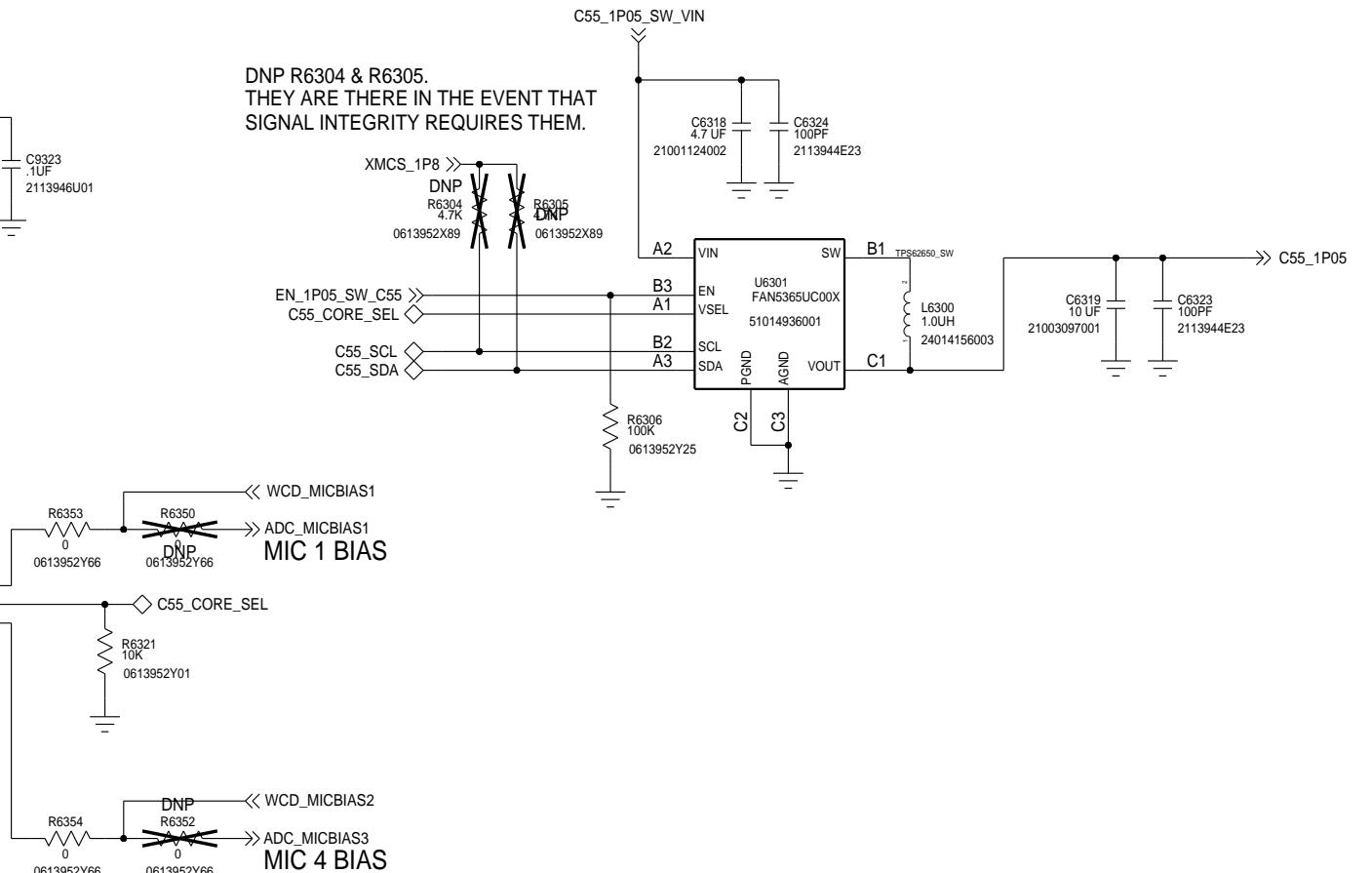
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DNP R6304 & R6305.  
THEY ARE THERE IN THE EVENT THAT SIGNAL INTEGRITY REQUIRES THEM.

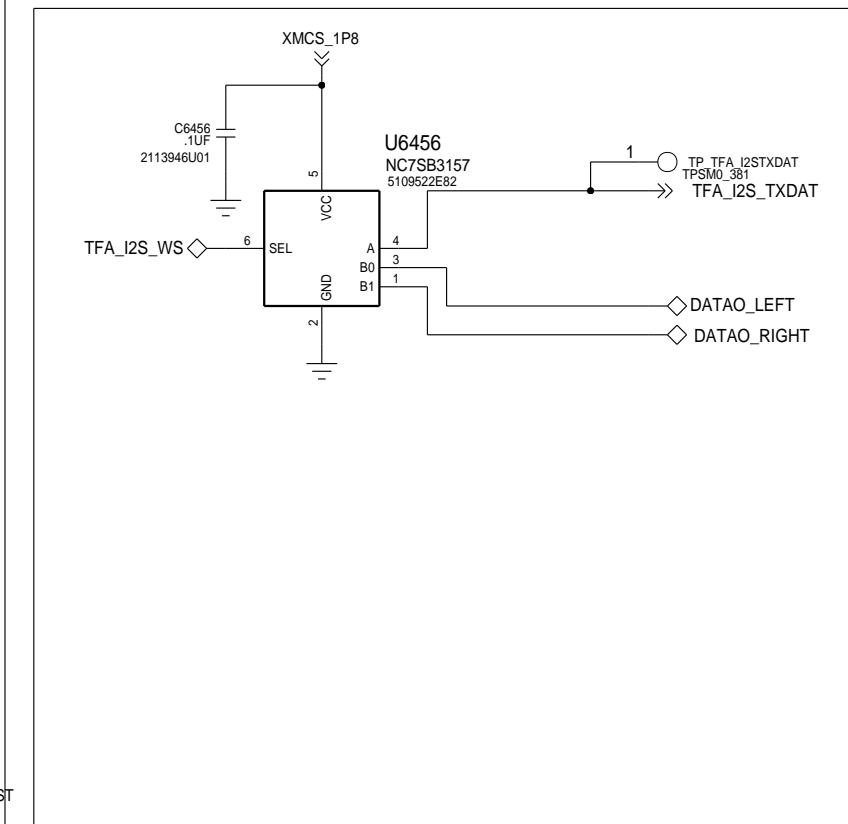
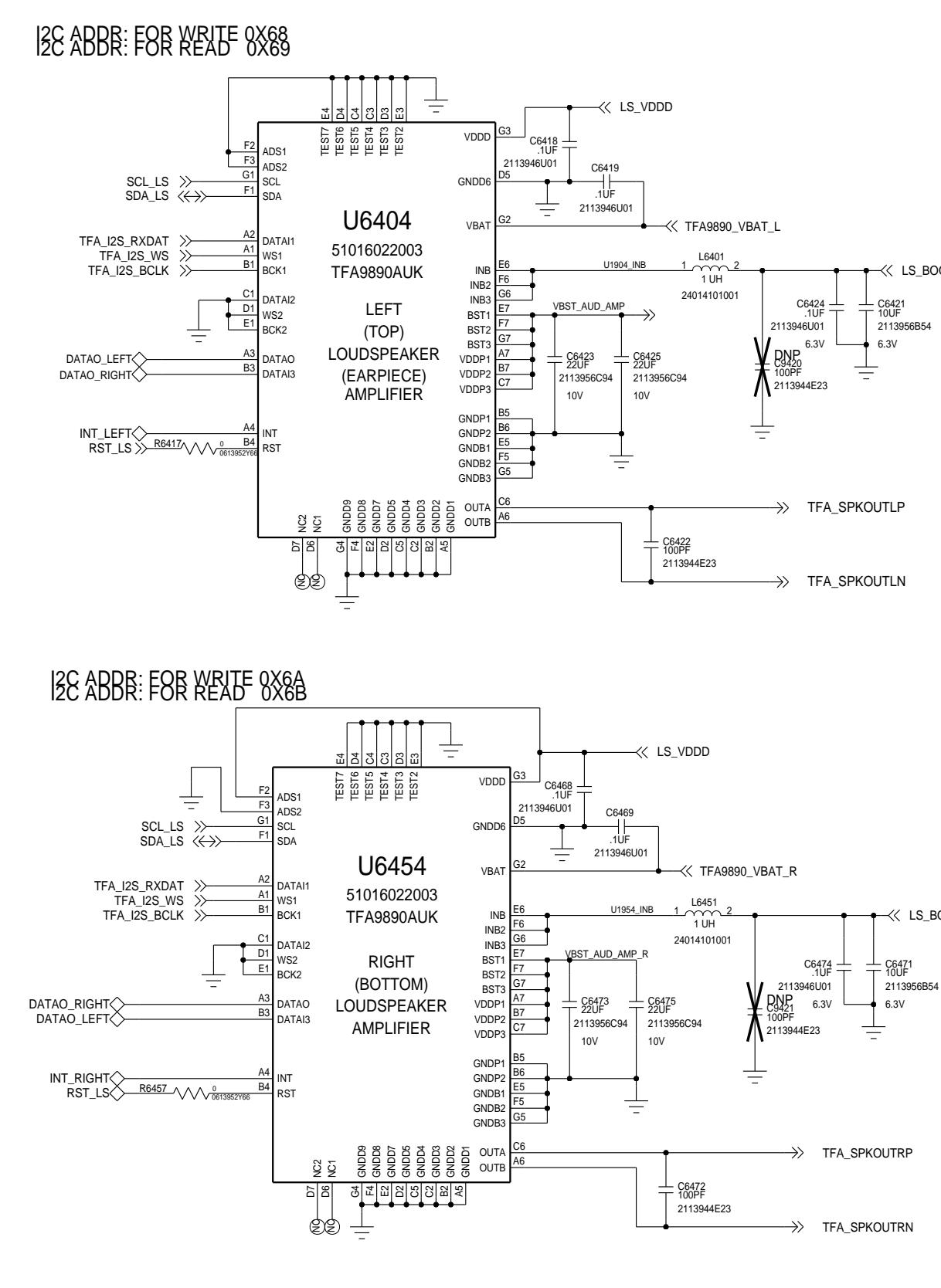


**MOTOROLA**  
MOBILE DEVICES

|                                                                                                                                                                             |                     |               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------|
| APPROVALS                                                                                                                                                                   |                     |               |
| ENGINEER:                                                                                                                                                                   | BLOCK TITLE:        |               |
| LAST MODIFIED BY:                                                                                                                                                           | xmcs                |               |
| Fri Sep 26 06:12:49 2014                                                                                                                                                    |                     |               |
| MOTOROLA CONFIDENTIAL RESTRICTED                                                                                                                                            | PROJECT NAME        | REV           |
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# XMCS: LOUD SPEAKER

REF 6400-6499



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APPROVALS

**MOTOROLA**  
MOBILE DEVICES

ENGINEER:

BLOCK TITLE:

LAST MODIFIED BY:

**XMCS**

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PROJECT NAME

**B** 84016396001\_a.cpm

REV

01

CAD FILE NAME:

PAGE 56 OF 80

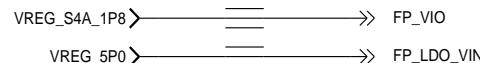
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REF: 800-999

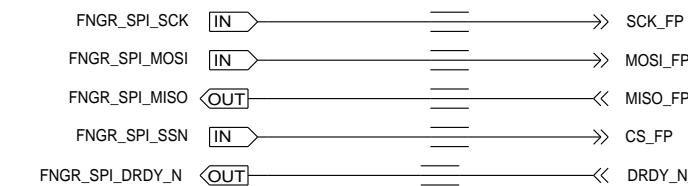
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D

## SUPPLIES



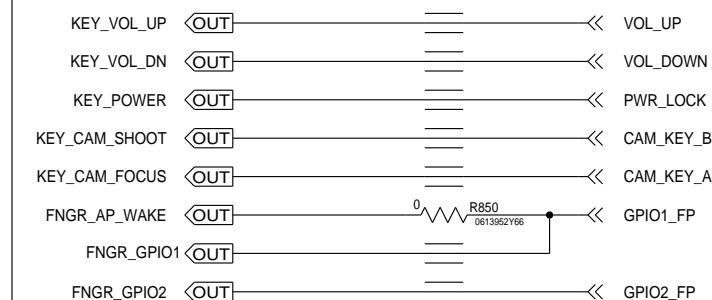
## INTERFACES



## GPIO - INPUT



## GPIO - OUTPUT



C

C

B

B

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A

| APPROVALS |
|-----------|
|-----------|

**MOTOROLA**  
MOBILE DEVICES

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL  
Fri Sep 26 06:12:45 2014

BLOCK TITLE:

**user\_input**

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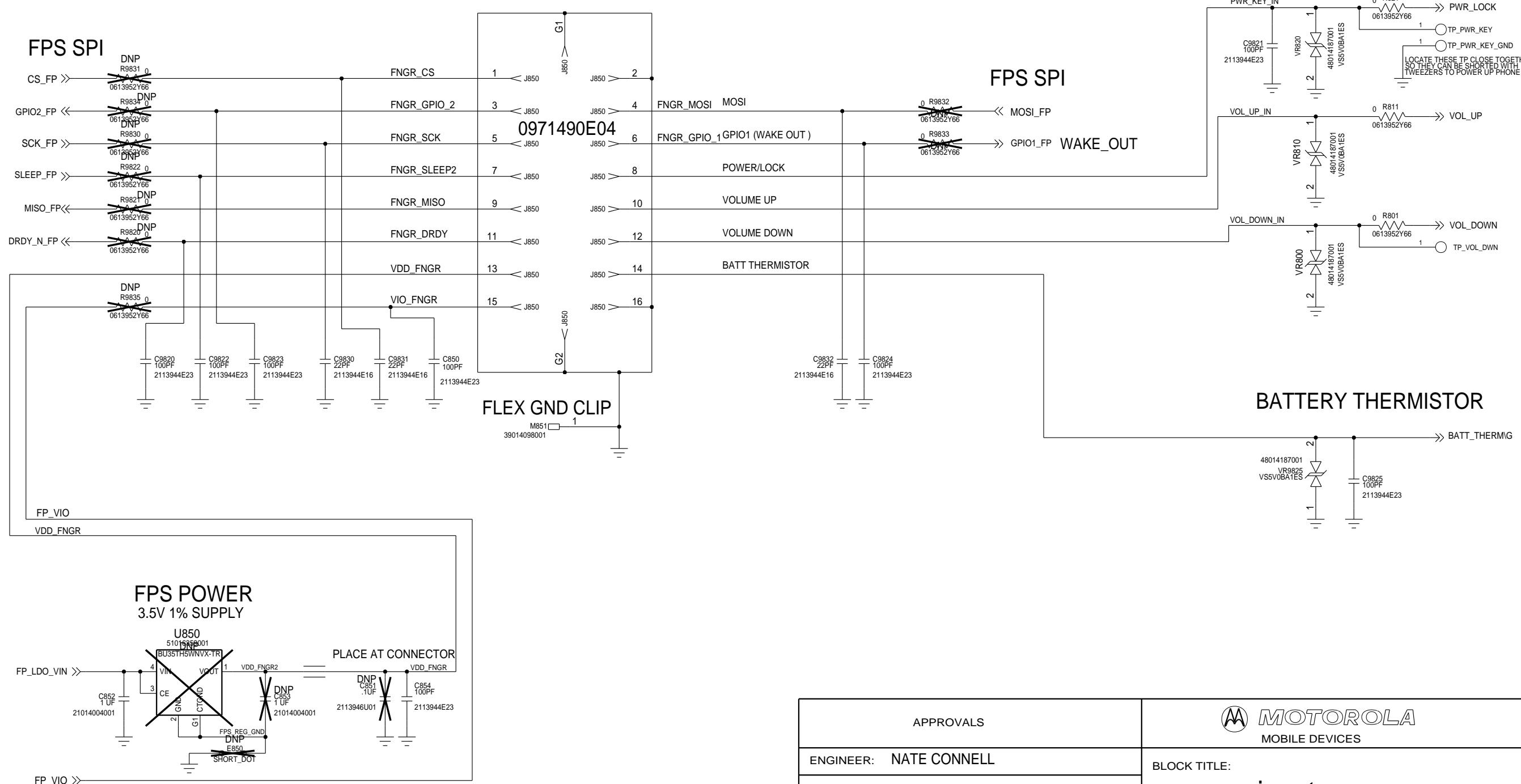
CAD FILE NAME:

PAGE 57 OF 80

# USR: INPUT

REF: 800-899

## BRIDGE FLEX CONNECTOR



|                                                                                                                                                                                                                                                                  |                                     |           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------|
| APPROVALS                                                                                                                                                                                                                                                        | <b>MOTOROLA</b><br>MOBILE DEVICES   |           |
| ENGINEER: NATE CONNELL                                                                                                                                                                                                                                           | BLOCK TITLE:<br><b>user_input</b>   |           |
| LAST MODIFIED BY: NATE CONNELL<br>Fri Sep 26 06:12:45 2014                                                                                                                                                                                                       |                                     |           |
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| CAD FILE NAME:                                                                                                                                                                                                                                                   | PAGE 58 OF 80                       |           |

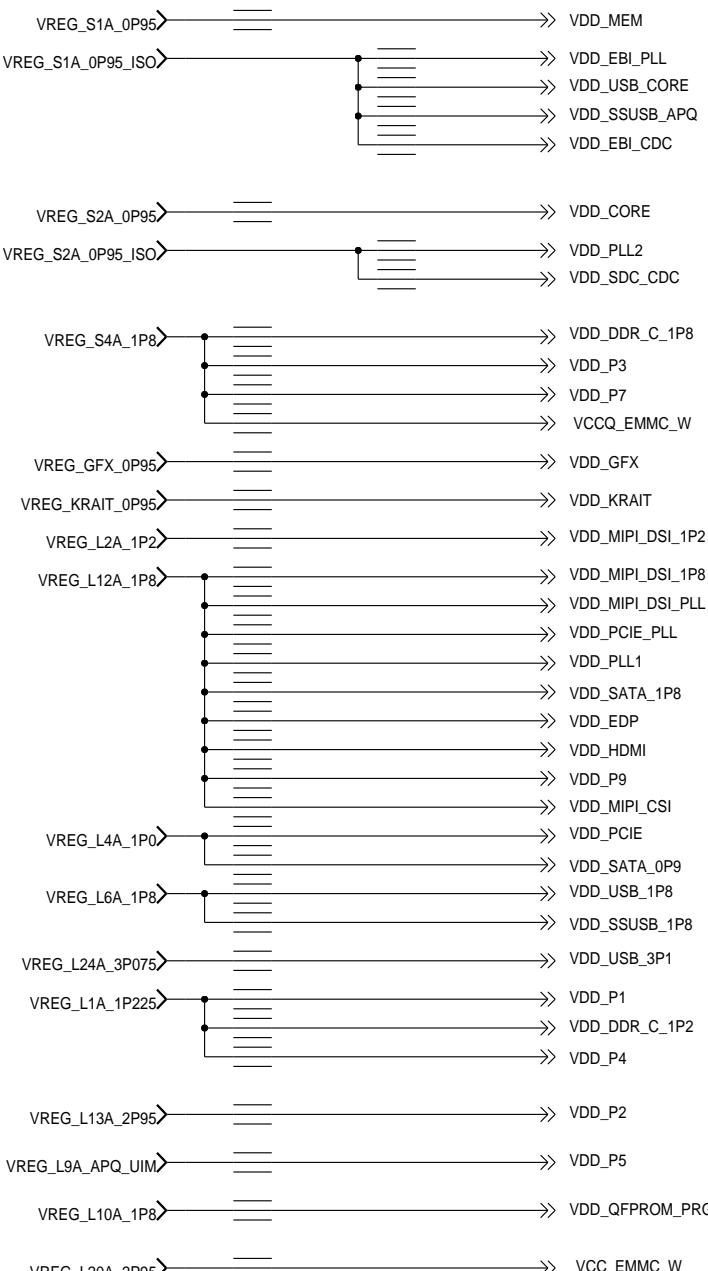
# APQ: POWER

REF: 1000-1999

D

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## SUPPLIES



C

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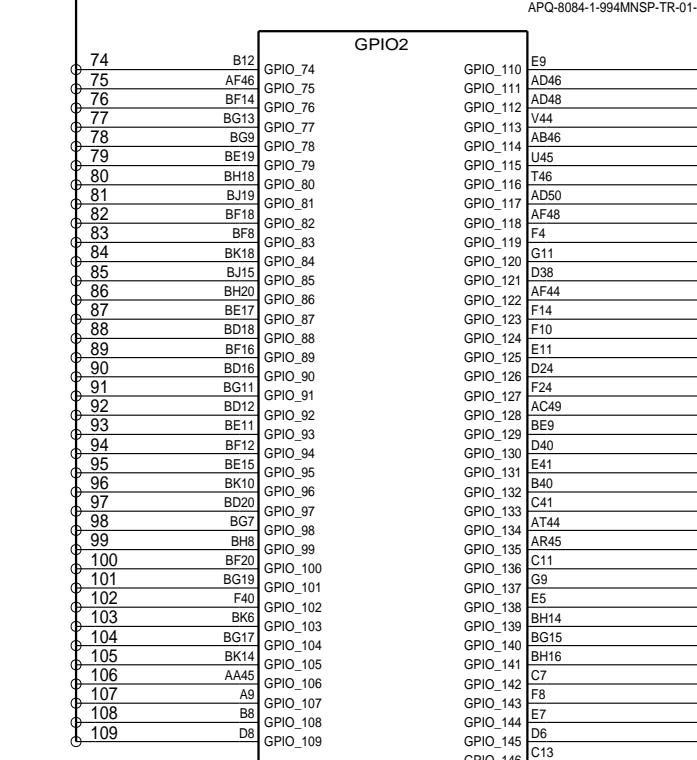
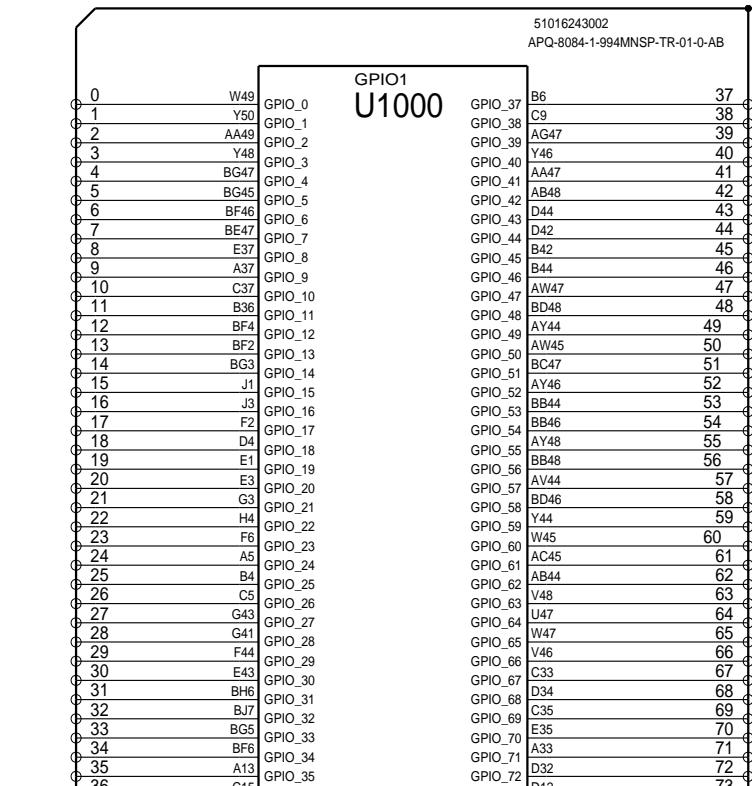
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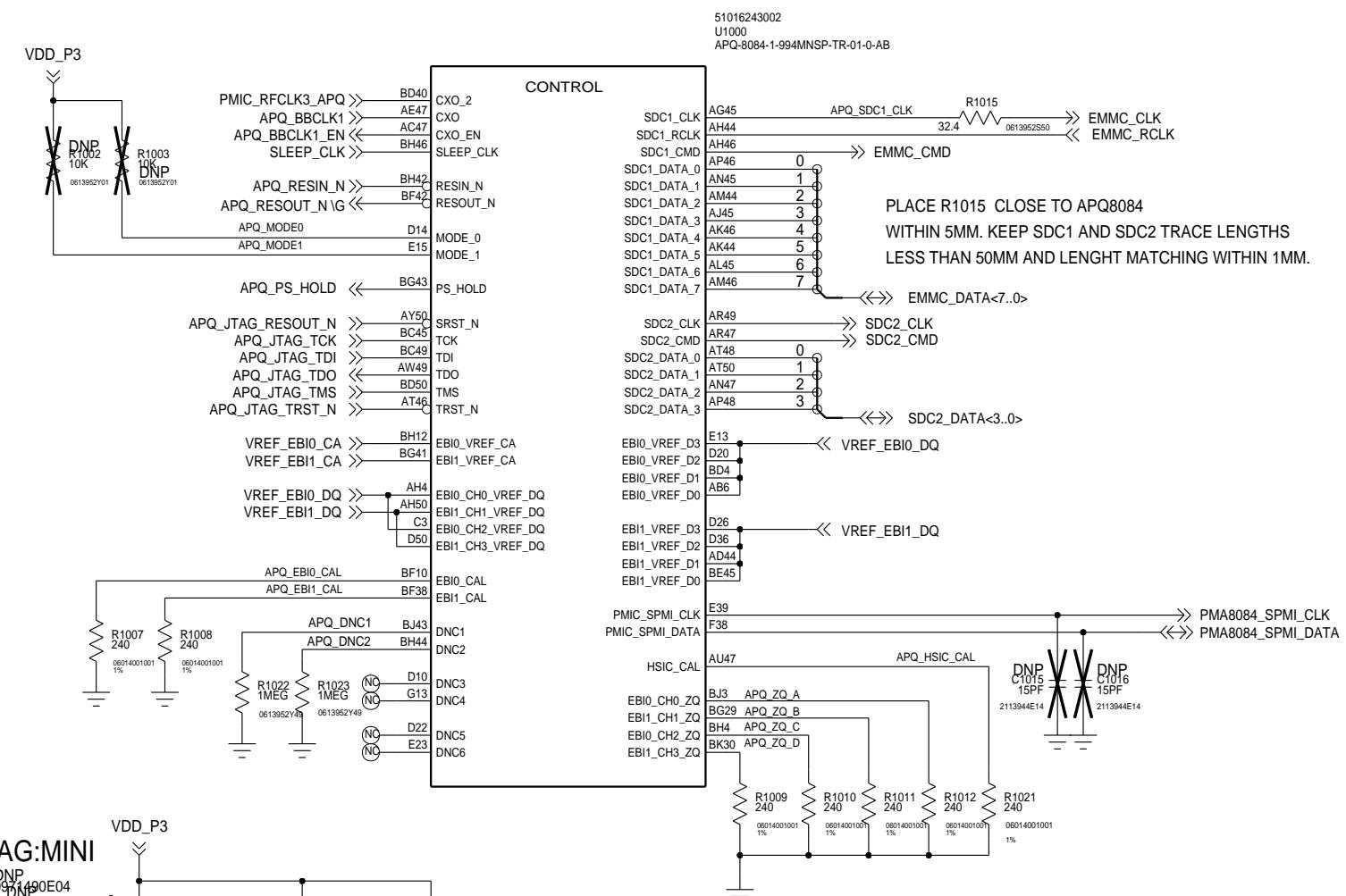
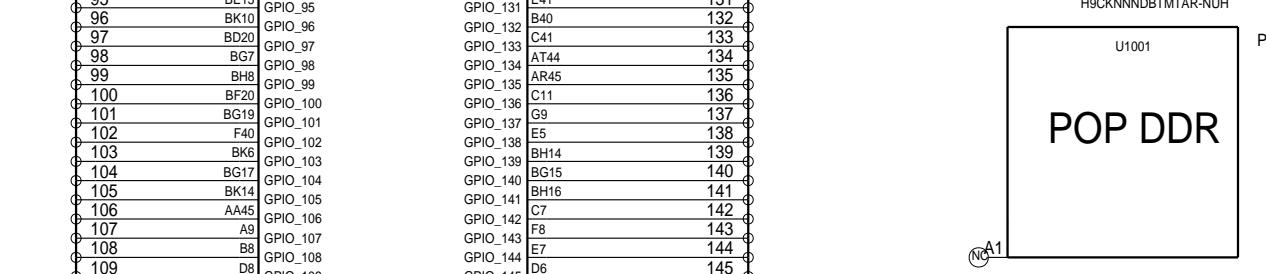
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| APPROVALS                                                                                                                                                                                                                                                                    | MOTOROLA<br>MOBILE DEVICES          |               |
| ENGINEER: NATE CONNELL                                                                                                                                                                                                                                                       | BLOCK TITLE:                        |               |
| LAST MODIFIED BY: NATE CONNELL                                                                                                                                                                                                                                               | Fri Sep 26 06:12:40 2014            |               |
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| CAD FILE NAME:                                                                                                                                                                                                                                                               |                                     | PAGE 59 OF 80 |

# APQ: CTRL / GPIO

REF 1000-1099

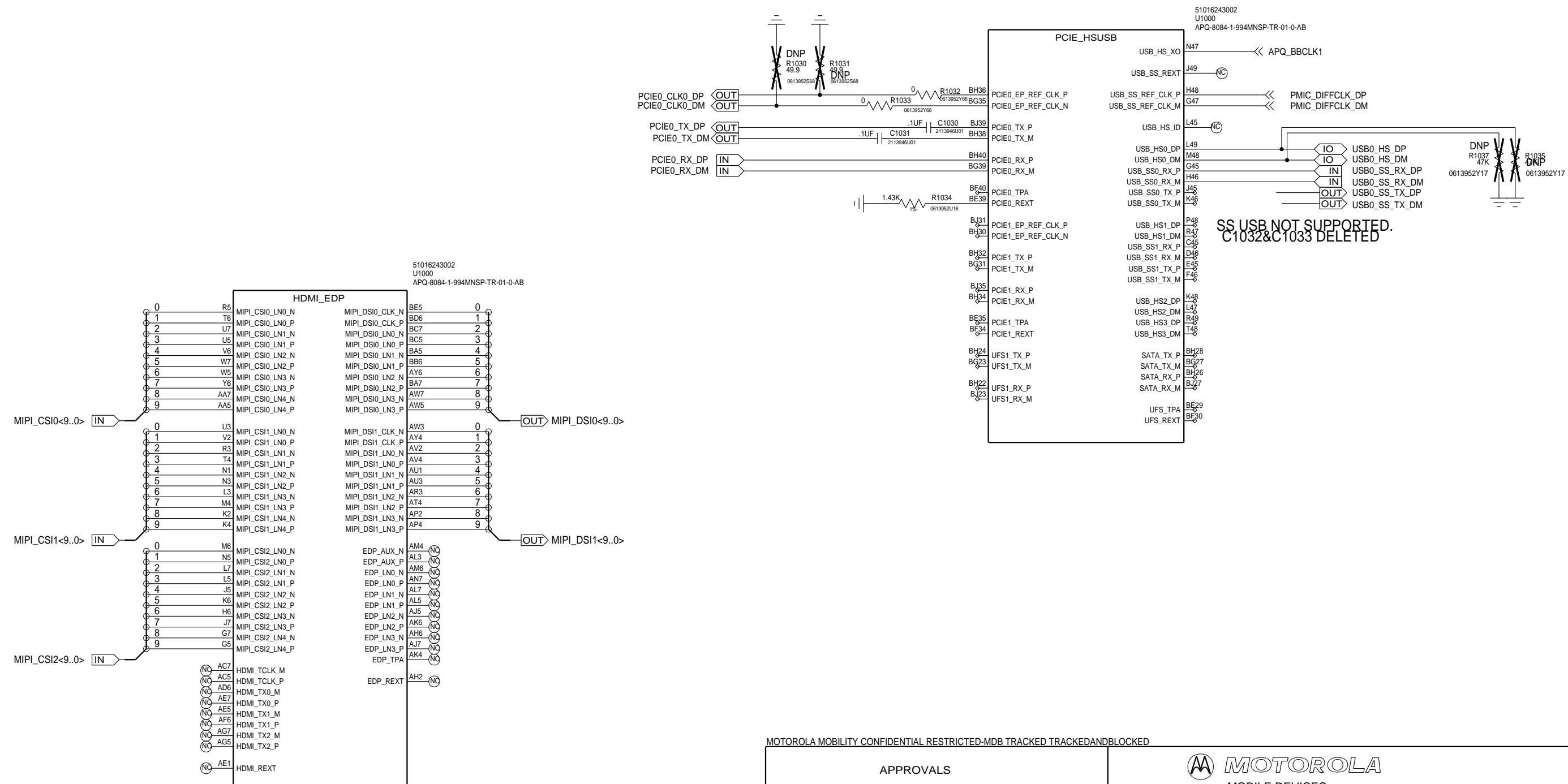


BASED ON 80-NA437-41 REV. G



# APQ: MIPI/USB/PCIE

REF 1030-1039



BASED ON 80-NA437-41 REV. G

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APPROVALS

**MOTOROLA**  
MOBILE DEVICES

ENGINEER:

LAST MODIFIED BY:  
Fri Sep 26 06:12:41 2014

BLOCK TITLE:

**ap\_pmic**

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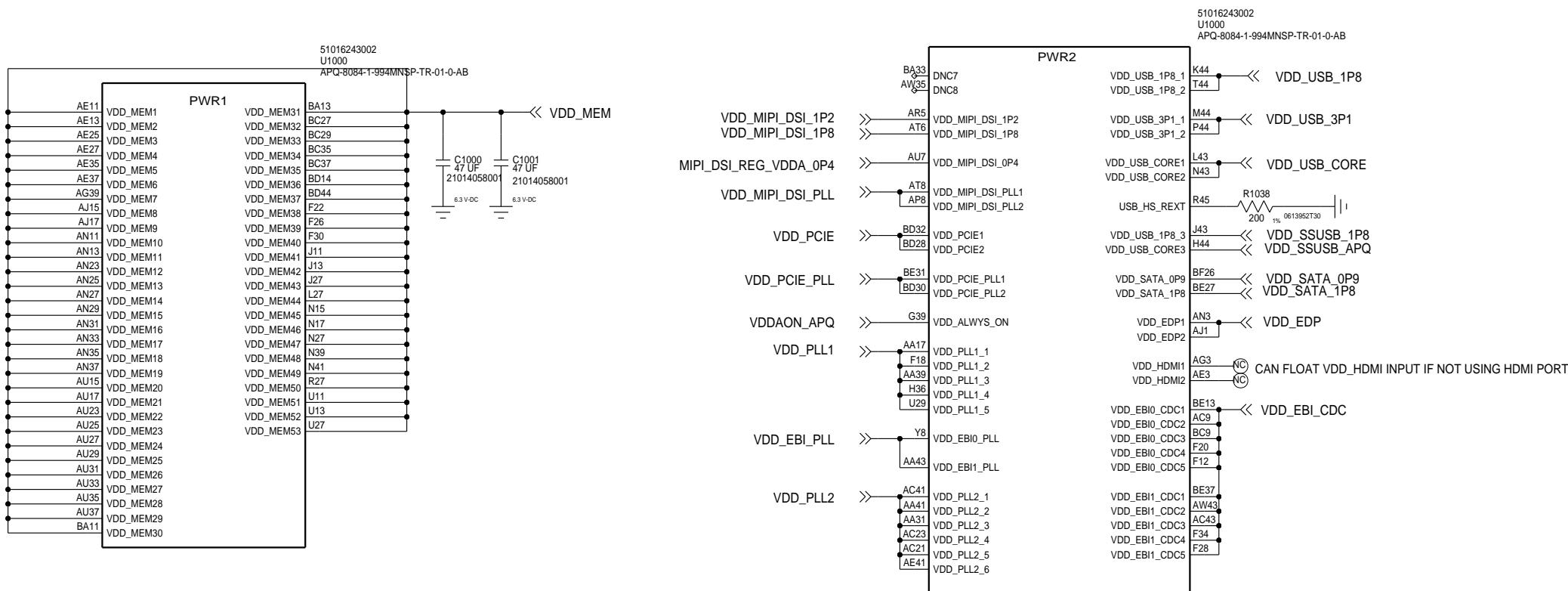
PROJECT NAME  
**B 84016396001\_a.cpm**

REV  
01

CAD FILE NAME:

PAGE 61 OF 80

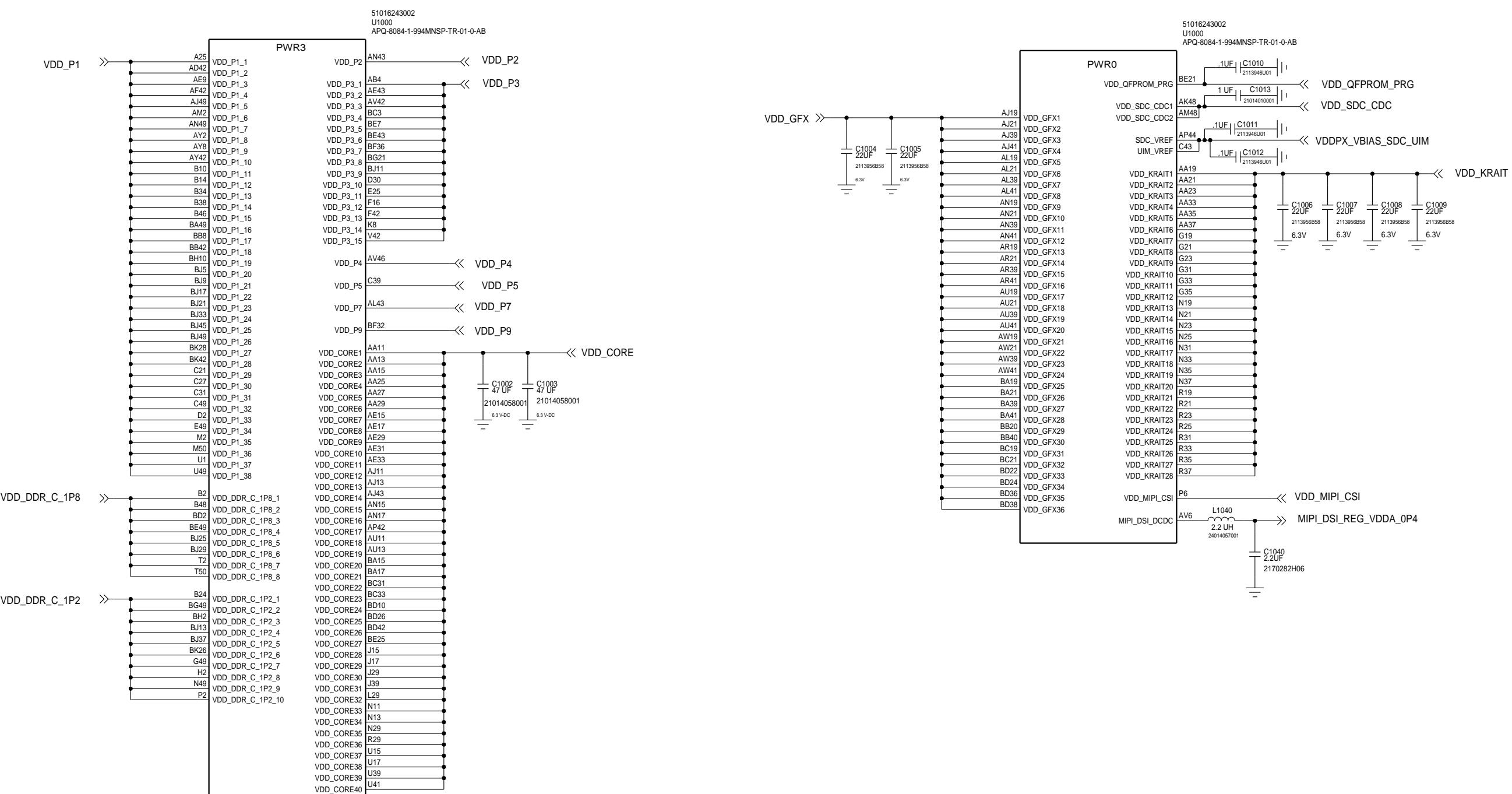
# APQ: POWER 1



MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

|                                                                                                                                                                                                                                                                       |                                     |           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------|
| APPROVALS                                                                                                                                                                                                                                                             | MOTOROLA<br>MOBILE DEVICES          |           |
| ENGINEER: MOTOROLA                                                                                                                                                                                                                                                    | BLOCK TITLE:<br><br>ap_pmic         |           |
| LAST MODIFIED BY: MOTOROLA<br>Fri Sep 26 06:12:41 2014                                                                                                                                                                                                                |                                     |           |
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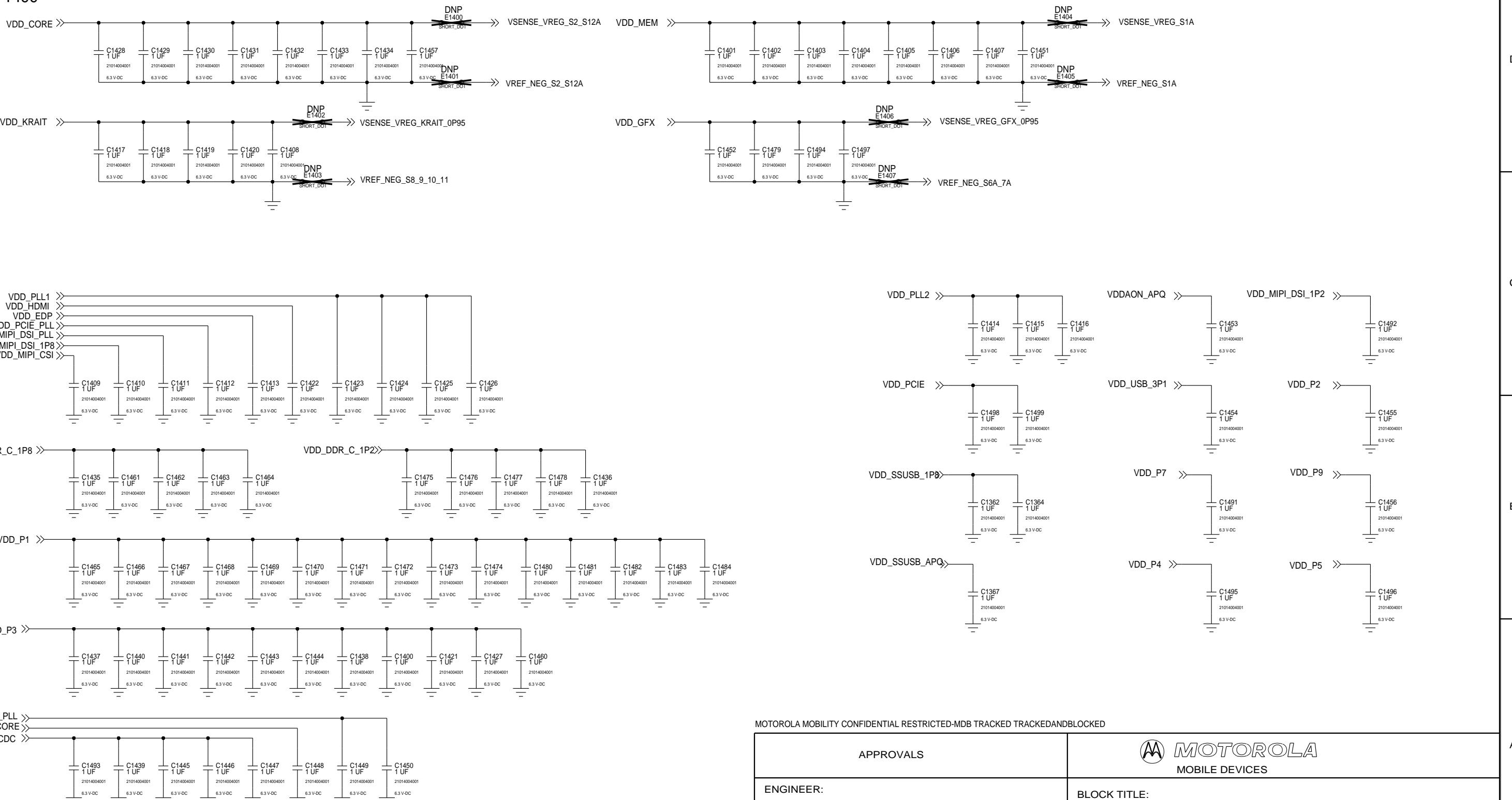
# APQ: POWER 2



|                                                                                                                                                                                                                       |  |                                     |  |
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| APPROVALS                                                                                                                                                                                                             |  | MOTOROLA<br>MOBILE DEVICES          |  |
| ENGINEER: MOTOROLA                                                                                                                                                                                                    |  | BLOCK TITLE:<br><br>ap_pmic         |  |
| LAST MODIFIED BY: MOTOROLA<br>Fri Sep 26 06:12:41 2014                                                                                                                                                                |  |                                     |  |
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| CAD FILE NAME:                                                                                                                                                                                                        |  | REV<br>01                           |  |
|                                                                                                                                                                                                                       |  | PAGE 63 OF 80                       |  |

# APQ: BYPASS CAPS

REF 1400-1499



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APPROVALS



ENGINEER

LAST MODIFIED BY:  
Fri Sep 26 06:12:42 2014

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**B** PROJECT NAME  
84016396001\_a.cpm

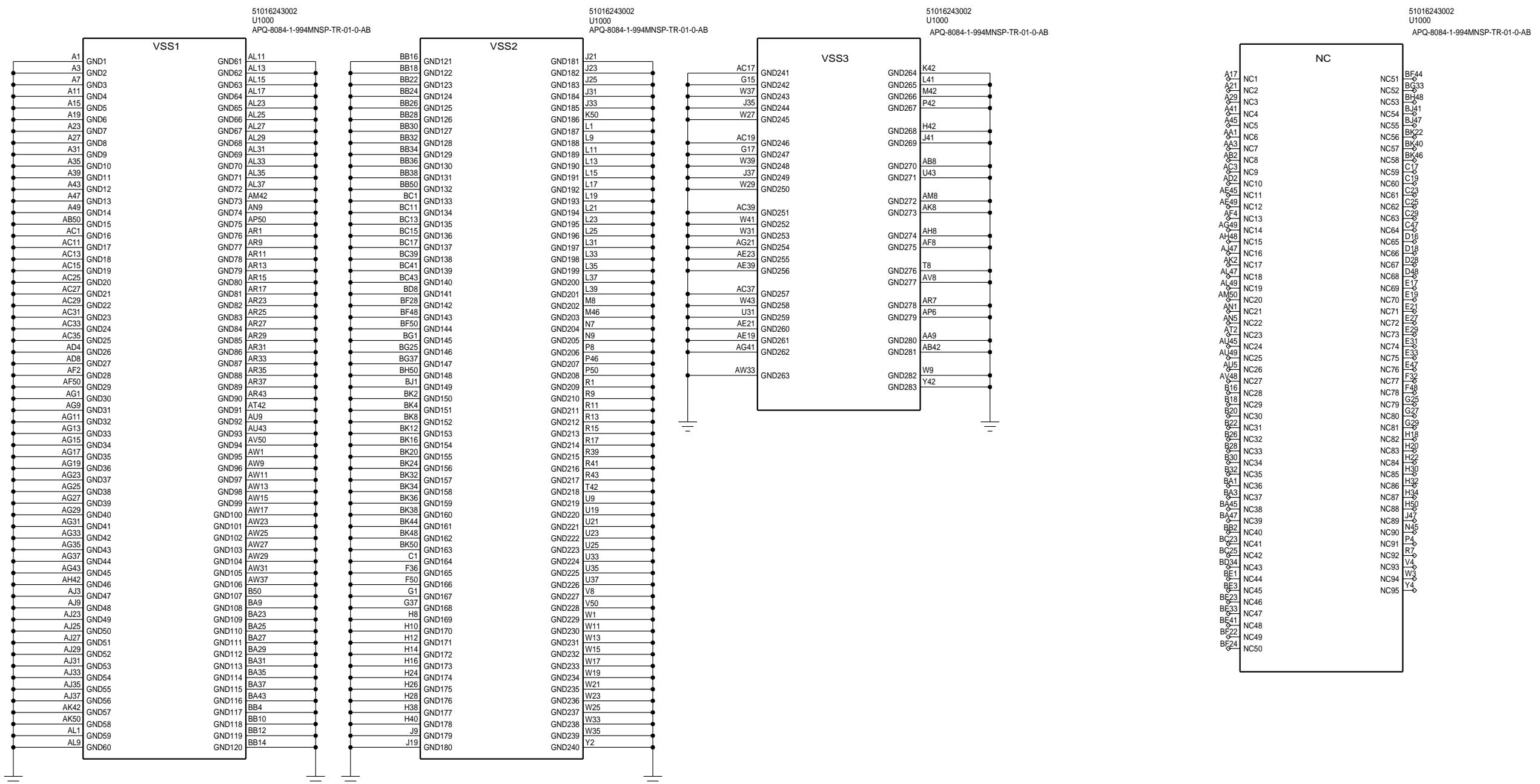
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01

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# APQ: GND/NC

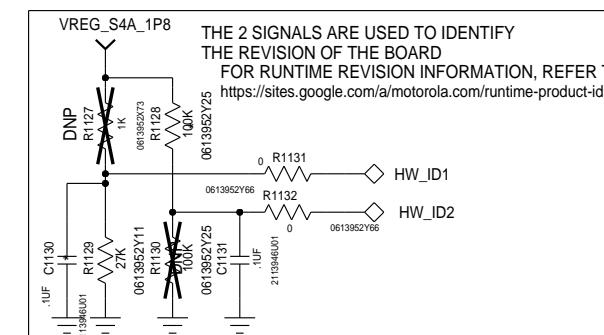
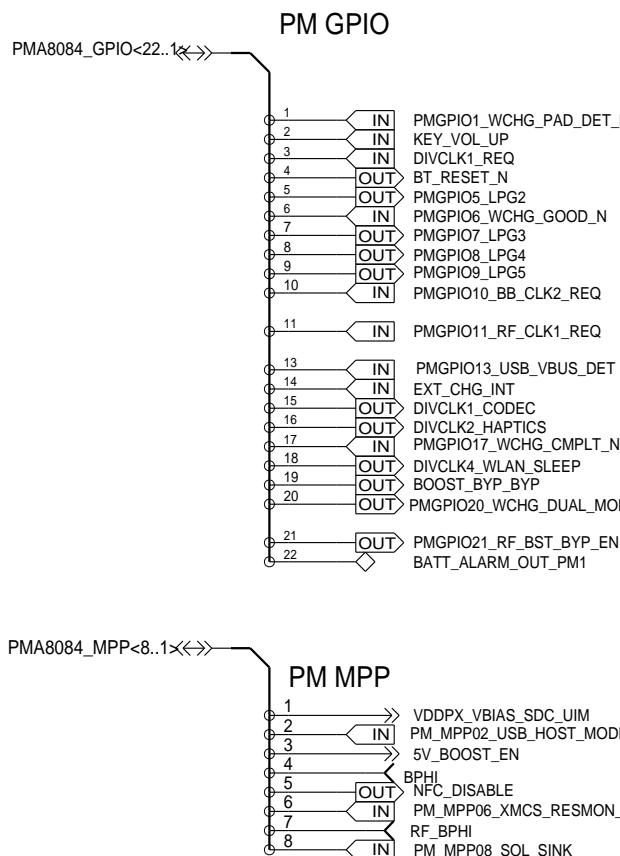
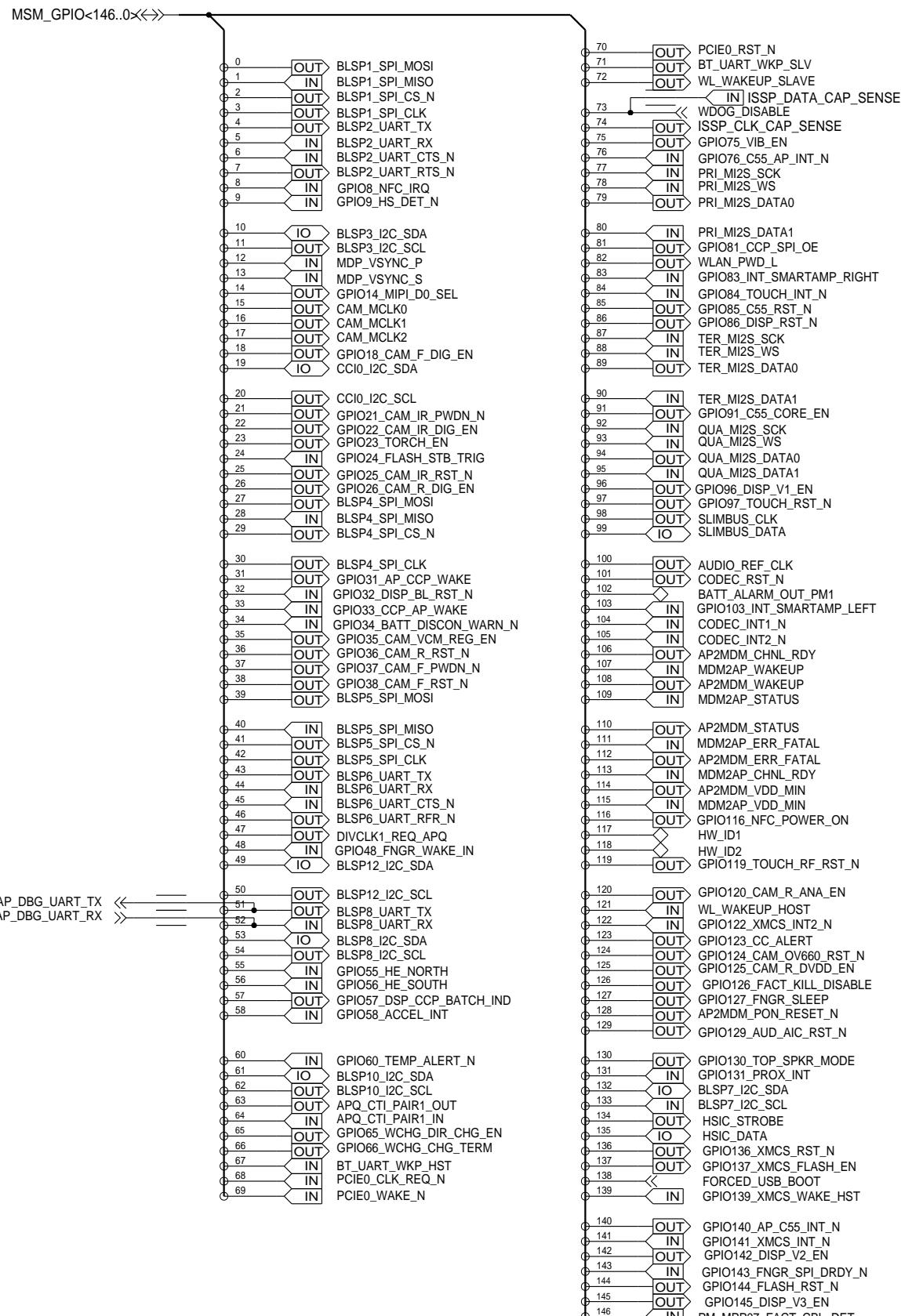


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|                                                                                                                                                                                                                                                                                                  |  |                                                                                                                         |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------|--|
| APPROVALS                                                                                                                                                                                                                                                                                        |  |  <b>MOTOROLA</b><br>MOBILE DEVICES |  |
| ENGINEER:                                                                                                                                                                                                                                                                                        |  |                                                                                                                         |  |
| LAST MODIFIED BY:<br>Fri Sep 26 06:12:42 2014                                                                                                                                                                                                                                                    |  | BLOCK TITLE:<br><b>ap_pmic</b>                                                                                          |  |
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|                                                                                                                                                                                                                                                                                                  |  | REV<br>01                                                                                                               |  |
|                                                                                                                                                                                                                                                                                                  |  | CAD FILE NAME:                                                                                                          |  |
|                                                                                                                                                                                                                                                                                                  |  | PAGE 65 OF 80                                                                                                           |  |

# APQ: GPIO MAP

PURPLE=MOT CUSTOM  
CYAN=QCOM REFERENCE



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APPROVALS

**MOTOROLA**  
MOBILE DEVICES

ENGINEER:

LAST MODIFIED BY: TIM MILLER  
Fri Sep 26 06:12:42 2014

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B 84016396001\_a.cpm

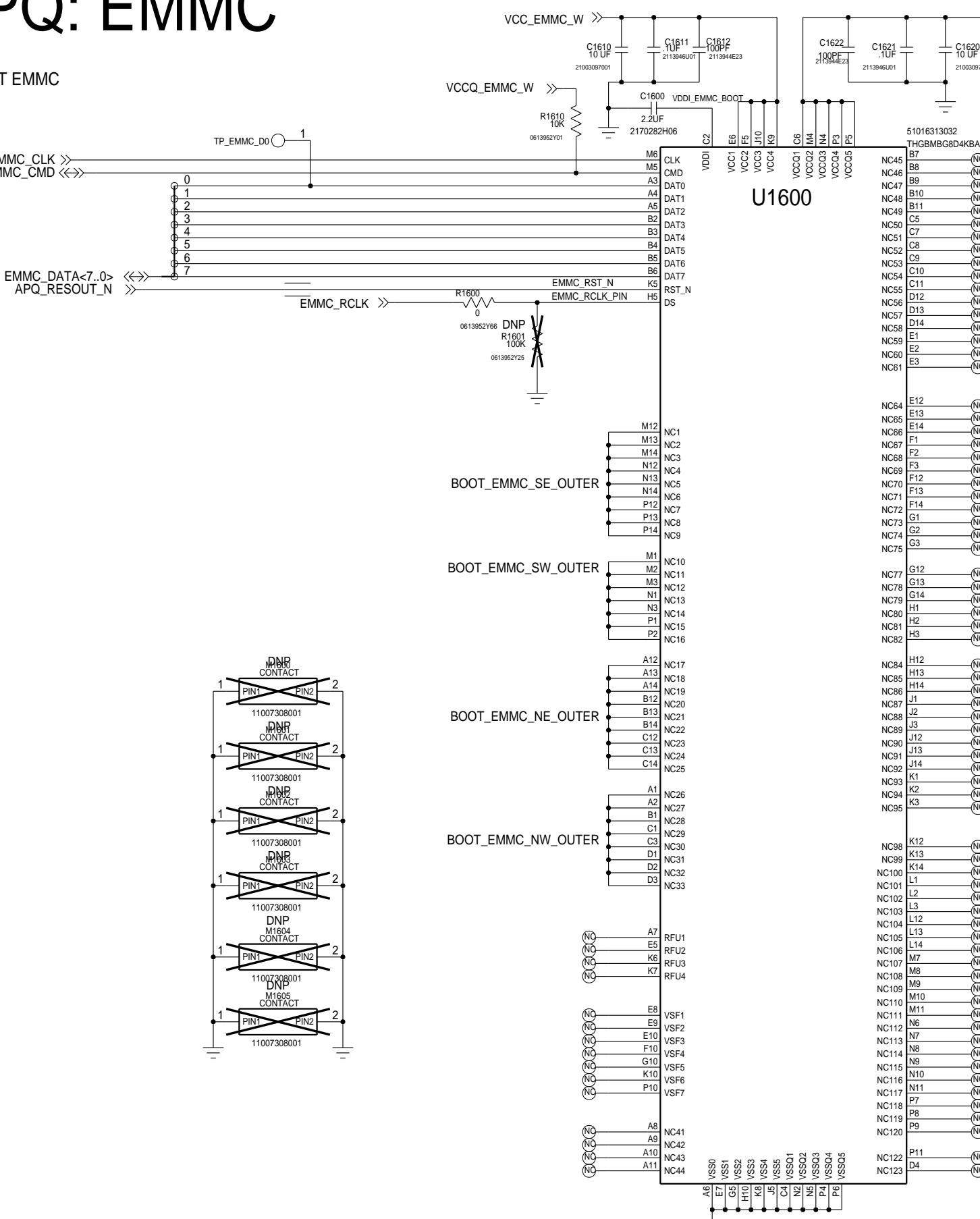
REV  
01

CAD FILE NAME:

PAGE 66 OF 80

# APQ: EMMC

BOOT EMMC



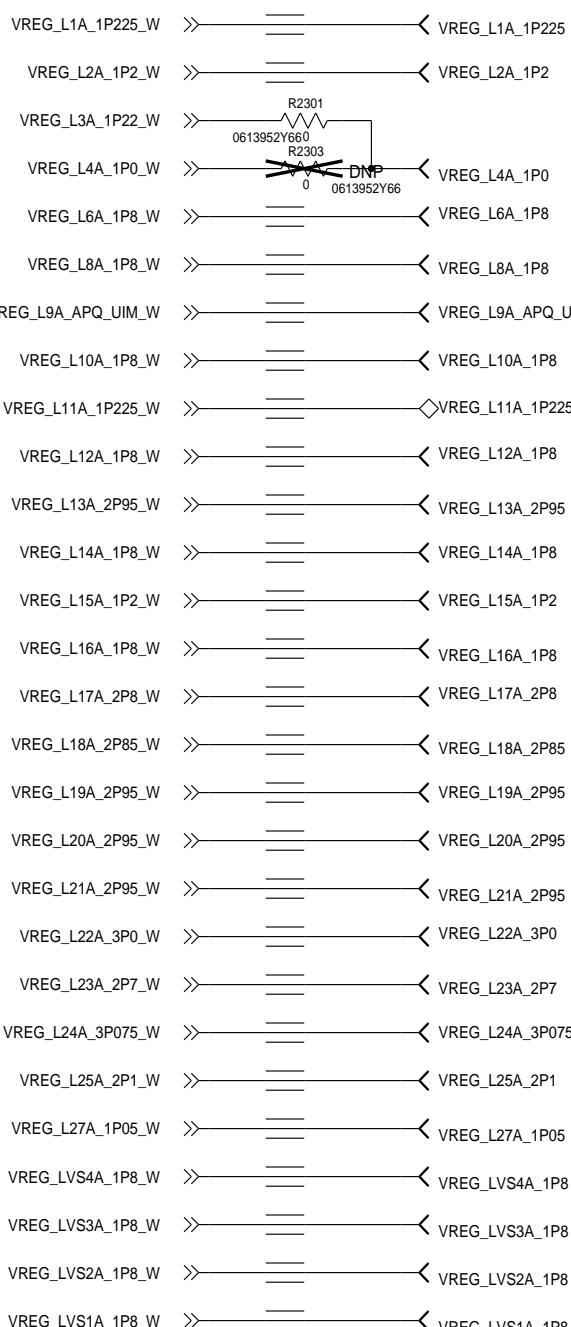
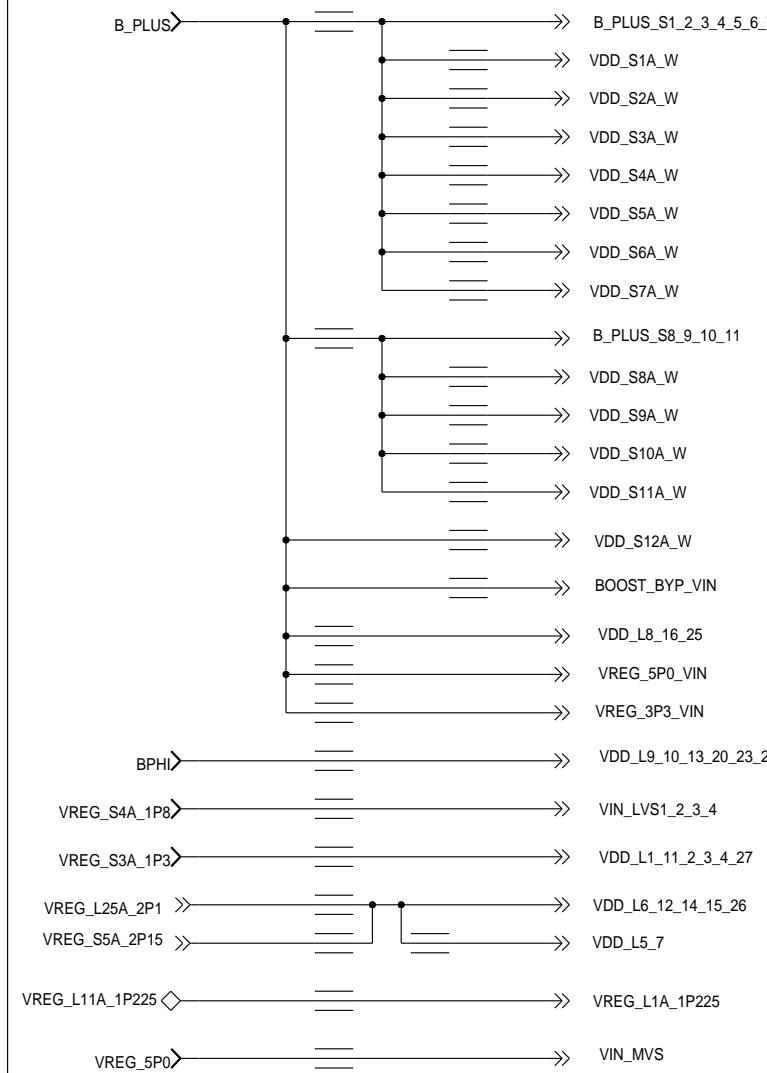
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|                                                                                                                                                                                                                                          |                                    |                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------|
| APPROVALS                                                                                                                                                                                                                                | <b>MOTOROLA</b><br>MOBILE DEVICES  |                               |
| ENGINEER: MOTOROLA                                                                                                                                                                                                                       | BLOCK TITLE:<br><br><b>ap_pmic</b> |                               |
| LAST MODIFIED BY: MOTOROLA<br>Fri Sep 26 06:12:43 2014                                                                                                                                                                                   |                                    |                               |
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| CAD FILE NAME:                                                                                                                                                                                                                           |                                    | PAGE 67 OF 80                 |

# PMA8084: POWER

REF: 2000-2999

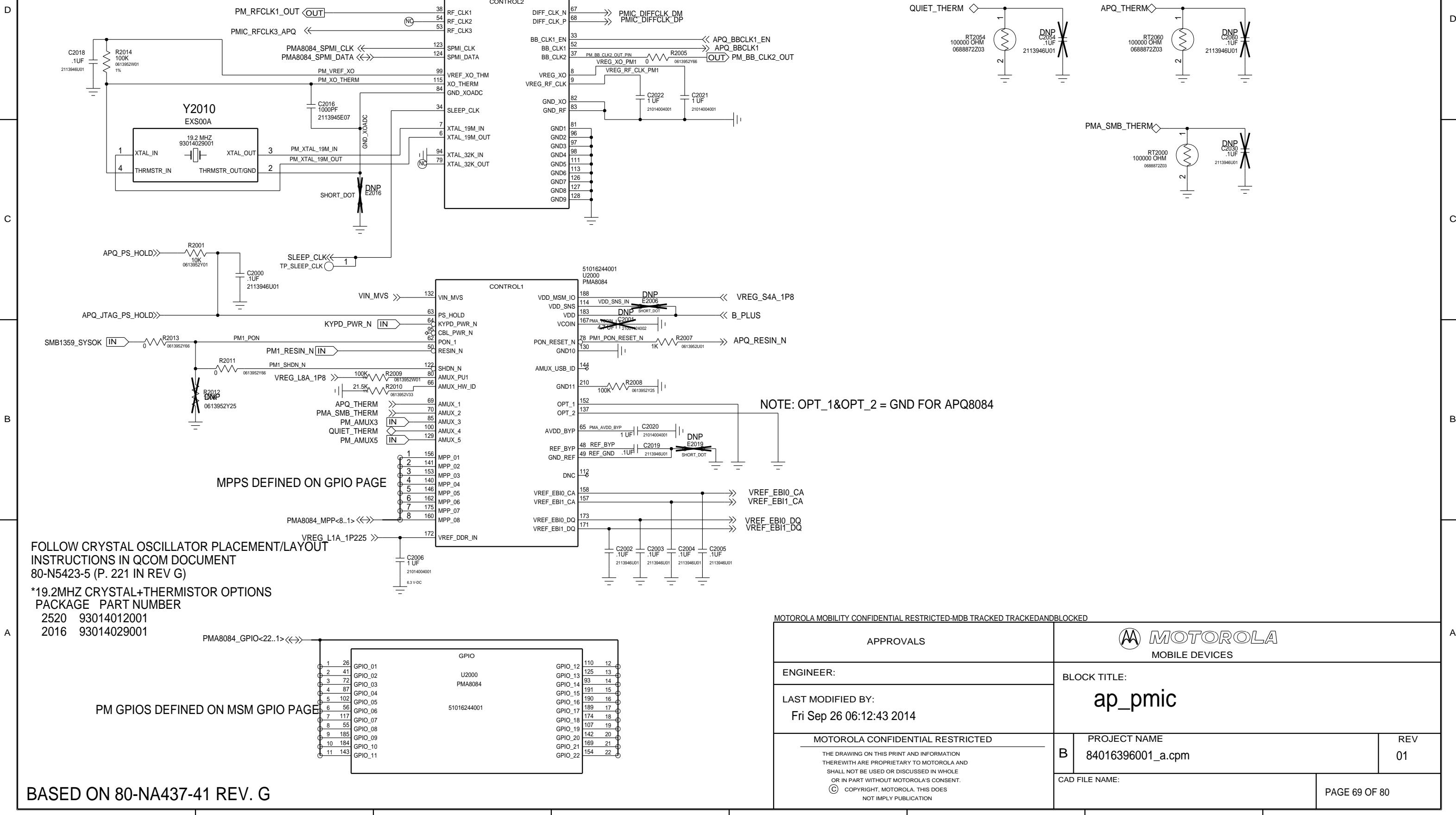
## SUPPLIES



|                                                                                                                                                                                                                                                                                                  |                                     |           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------|
| APPROVALS                                                                                                                                                                                                                                                                                        | MOTOROLA<br>MOBILE DEVICES          |           |
| ENGINEER: NATE CONNELL                                                                                                                                                                                                                                                                           | BLOCK TITLE:<br><br>ap_pmic         |           |
| LAST MODIFIED BY: NATE CONNELL<br>Fri Sep 26 06:12:43 2014                                                                                                                                                                                                                                       |                                     |           |
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| CAD FILE NAME:                                                                                                                                                                                                                                                                                   | PAGE 68 OF 80                       |           |

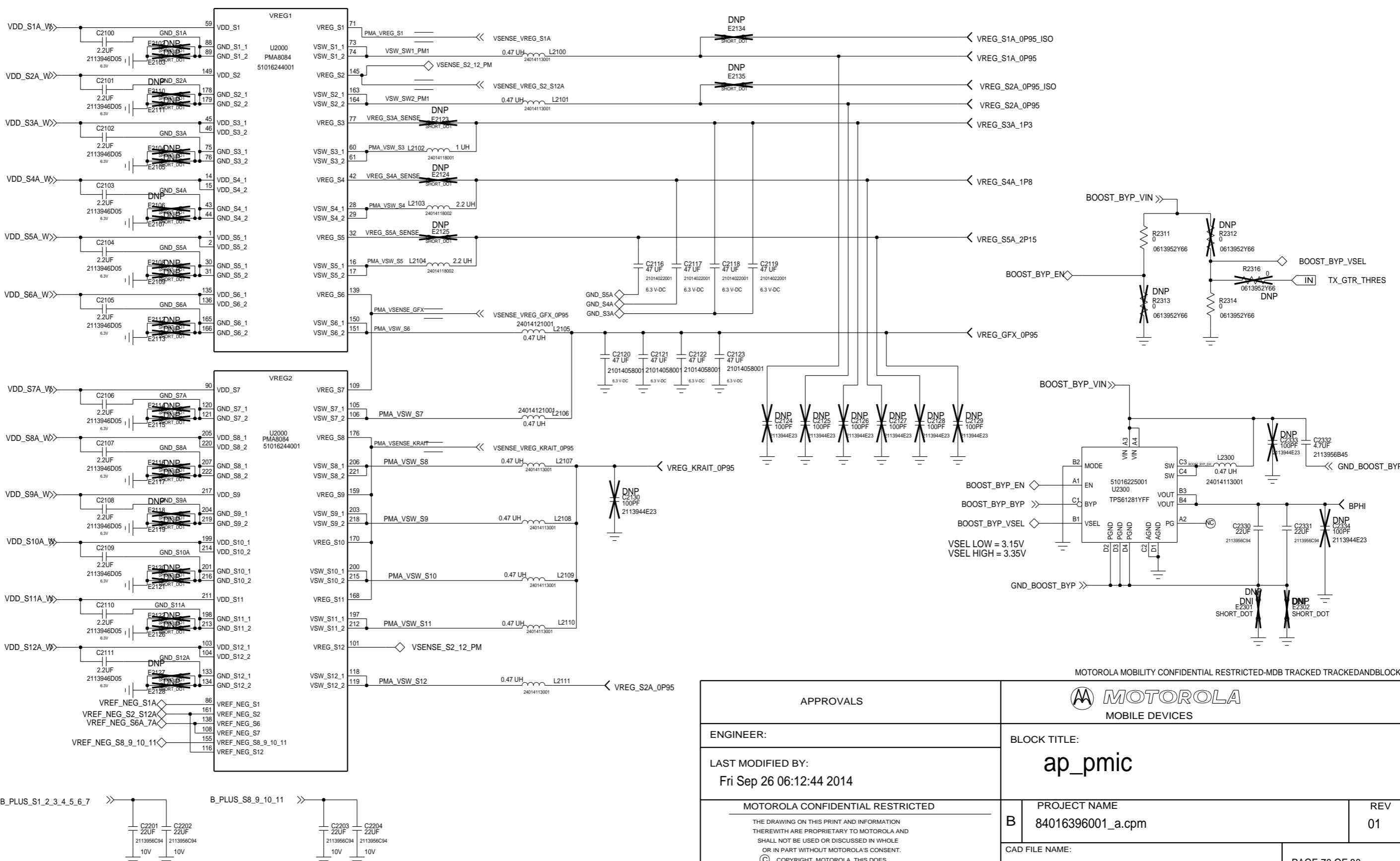
# PMA8084: CLK/CTRL/GPIO

## REF 2000-2099



# PMA8084: SMPS

REF 2200-2299

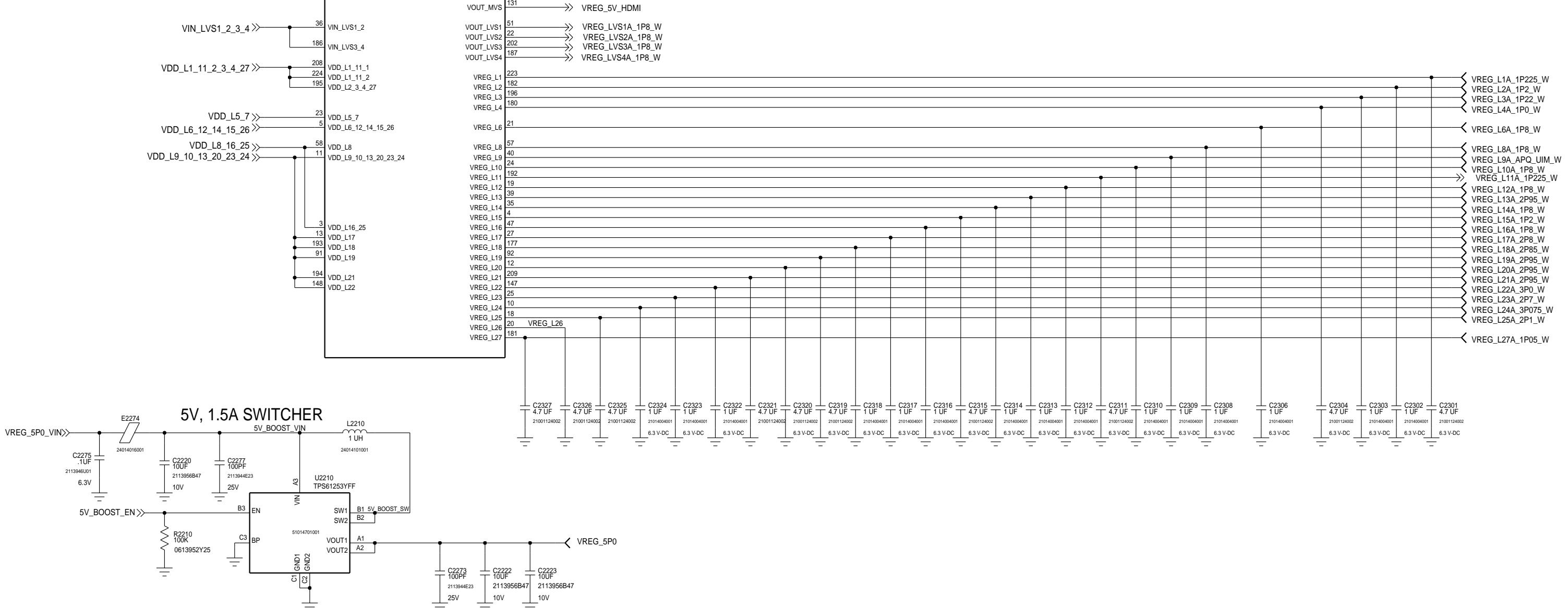


|                                                                                                                                                                                                                                          |  |                                     |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------|--|
| APPROVALS                                                                                                                                                                                                                                |  | <b>MOTOROLA</b><br>MOBILE DEVICES   |  |
| ENGINEER:                                                                                                                                                                                                                                |  | BLOCK TITLE:                        |  |
| LAST MODIFIED BY:<br>Fri Sep 26 06:12:44 2014                                                                                                                                                                                            |  | ap_pmic                             |  |
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# PMA8084: VREGS

REF 2300-2349

## LINEAR REGULATORS



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APPROVALS

MOTOROLA  
MOBILE DEVICES

ENGINEER:

BLOCK TITLE:

LAST MODIFIED BY:

Fri Sep 26 06:12:44 2014

ap\_pmic

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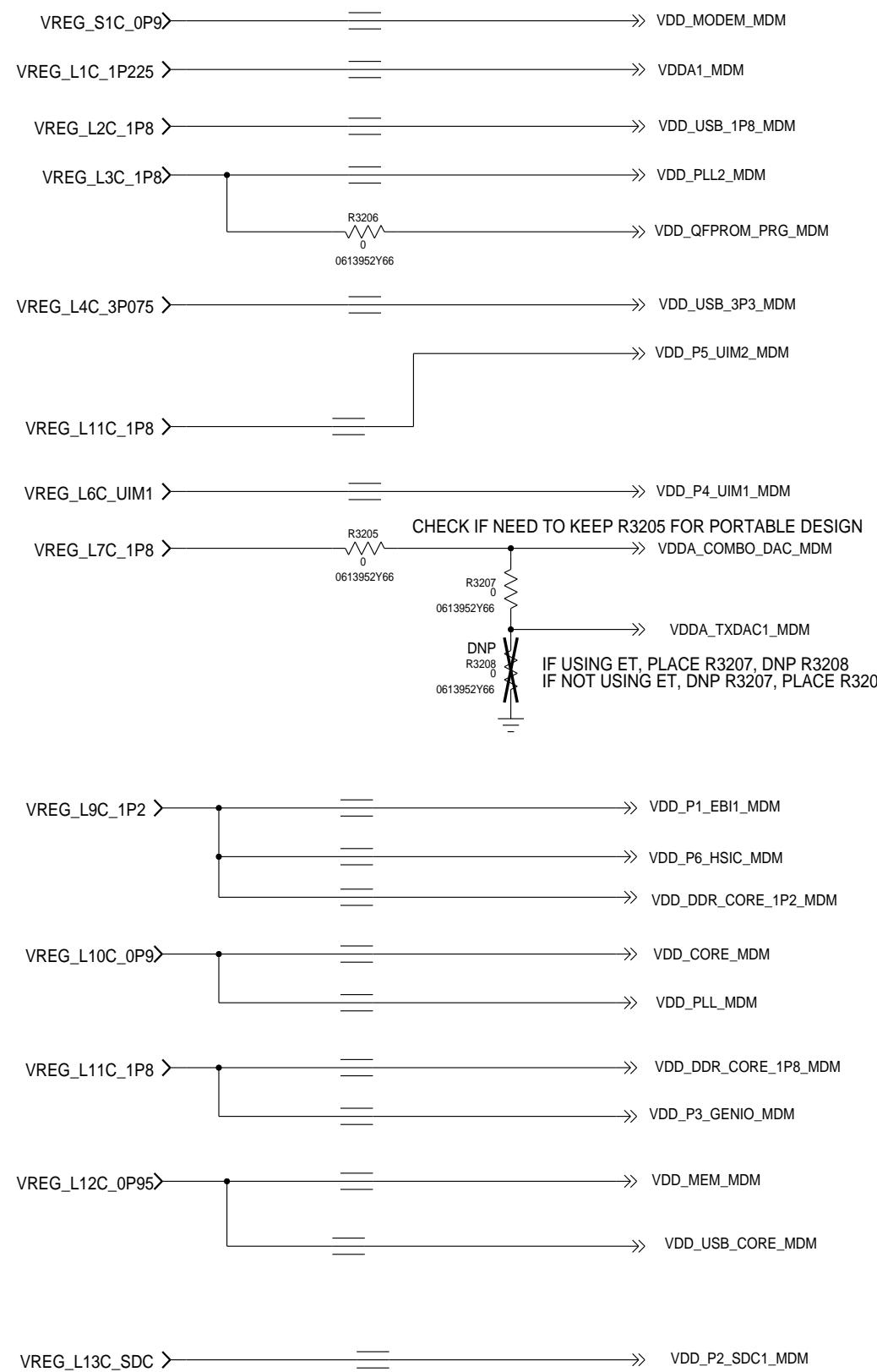
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CAD FILE NAME:

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# MDM9x25M POWER

REF 3200-3249

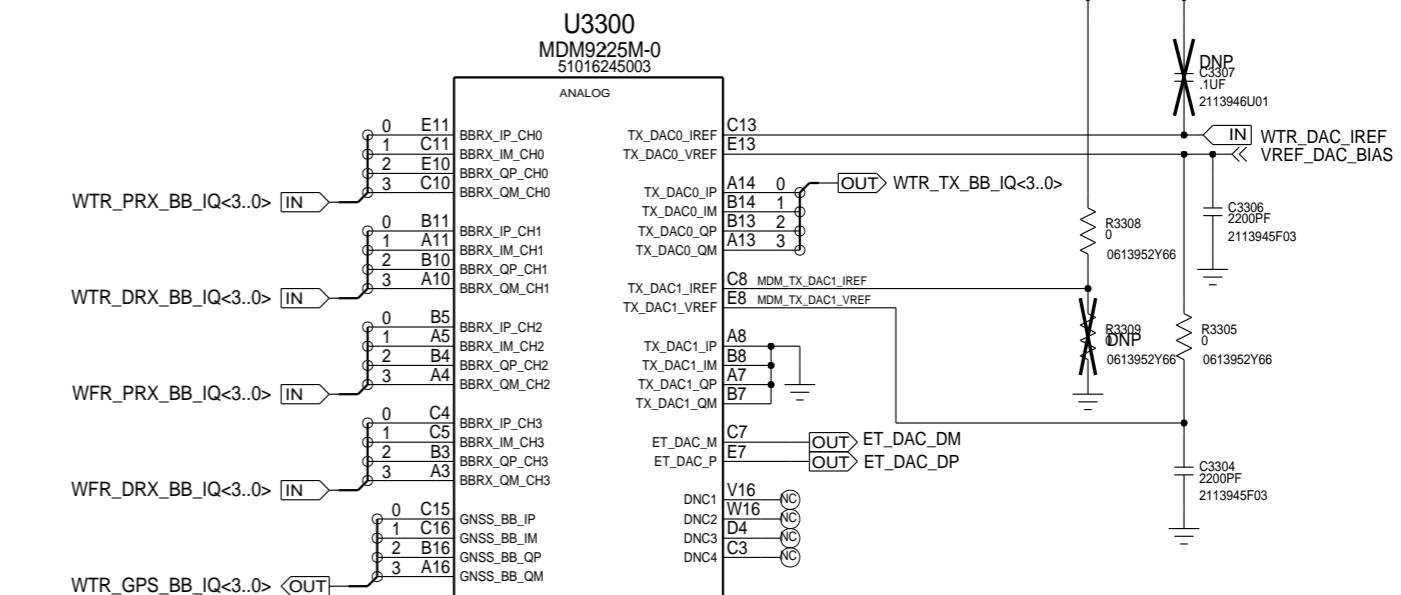
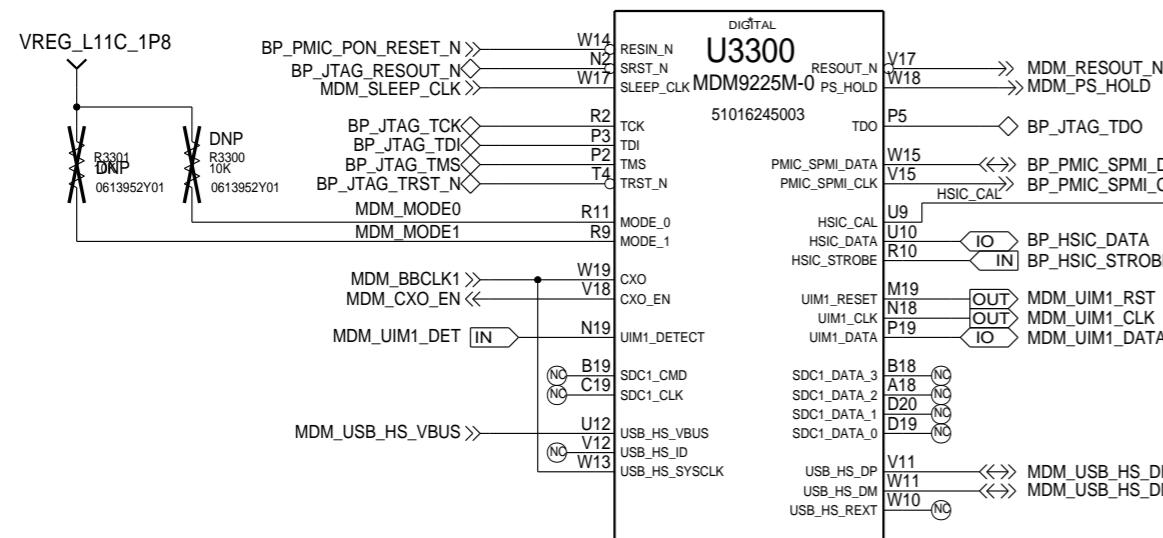


BASED ON 80-NJ851-41 REV.A

|                                                                                                                                                                                                                                                                              |                                     |                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------|
| APPROVALS                                                                                                                                                                                                                                                                    | MOTOROLA<br>MOBILE DEVICES          |                       |
| ENGINEER: W00281                                                                                                                                                                                                                                                             | BLOCK TITLE:                        | block_mdm9x25m_pm8019 |
| LAST MODIFIED BY: W00281<br>Fri Sep 26 06:12:37 2014                                                                                                                                                                                                                         |                                     |                       |
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|                                                                                                                                                                                                                                                                              | CAD FILE NAME:                      | PAGE 72 OF 80         |

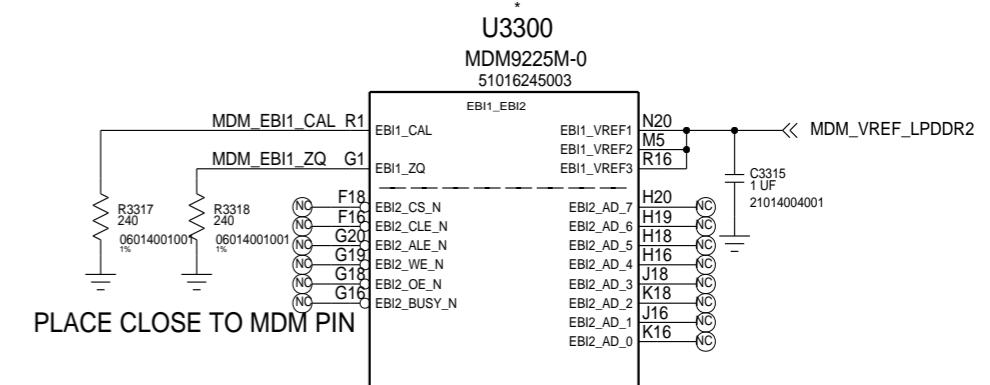
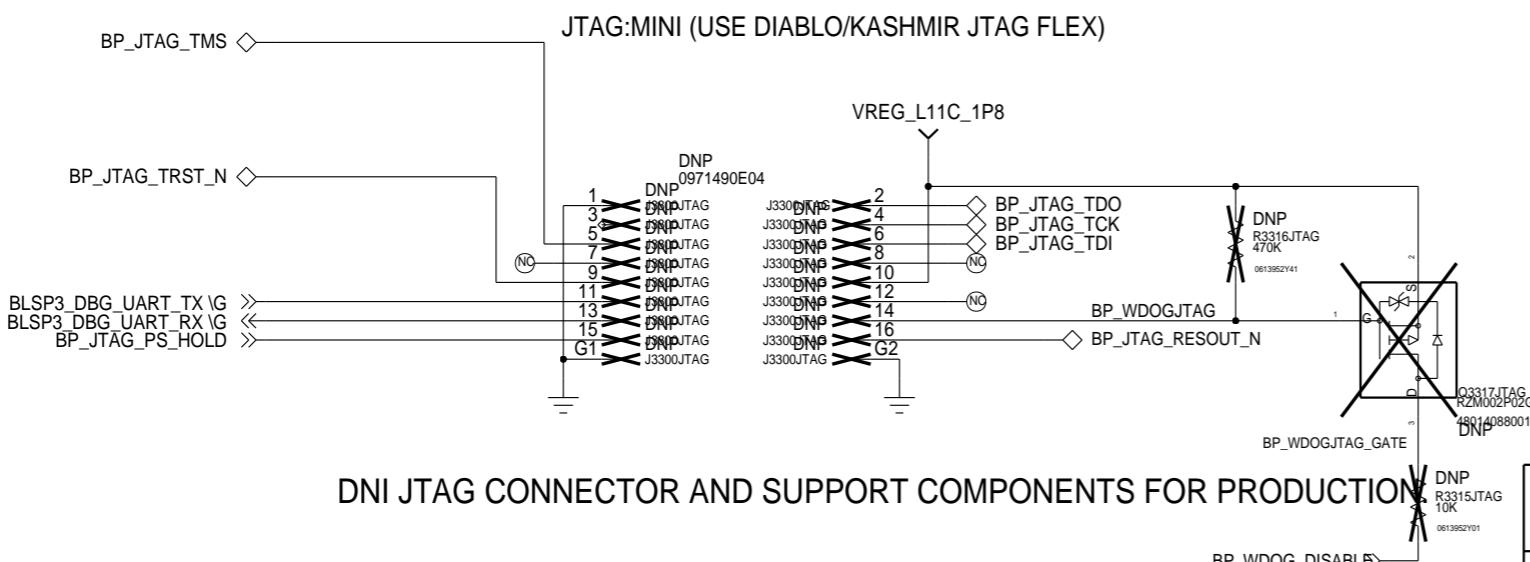
# MDM9x25M CTRL/ANALOG/JTAG

REF 3300-3399



IF USING ET, PLACE R3308 & R3305, DNP R3209  
IF NOT USING ET, DNP R3308 & R3305, PLACE R3309 AND REPLACE C3304 W/ 0OHM

NOTE: PLACE R3309W NEAR PIN W10 FOR WING BRD  
DELETE R3309W AND LEAVE PIN W10 NC FOR PORTABLE

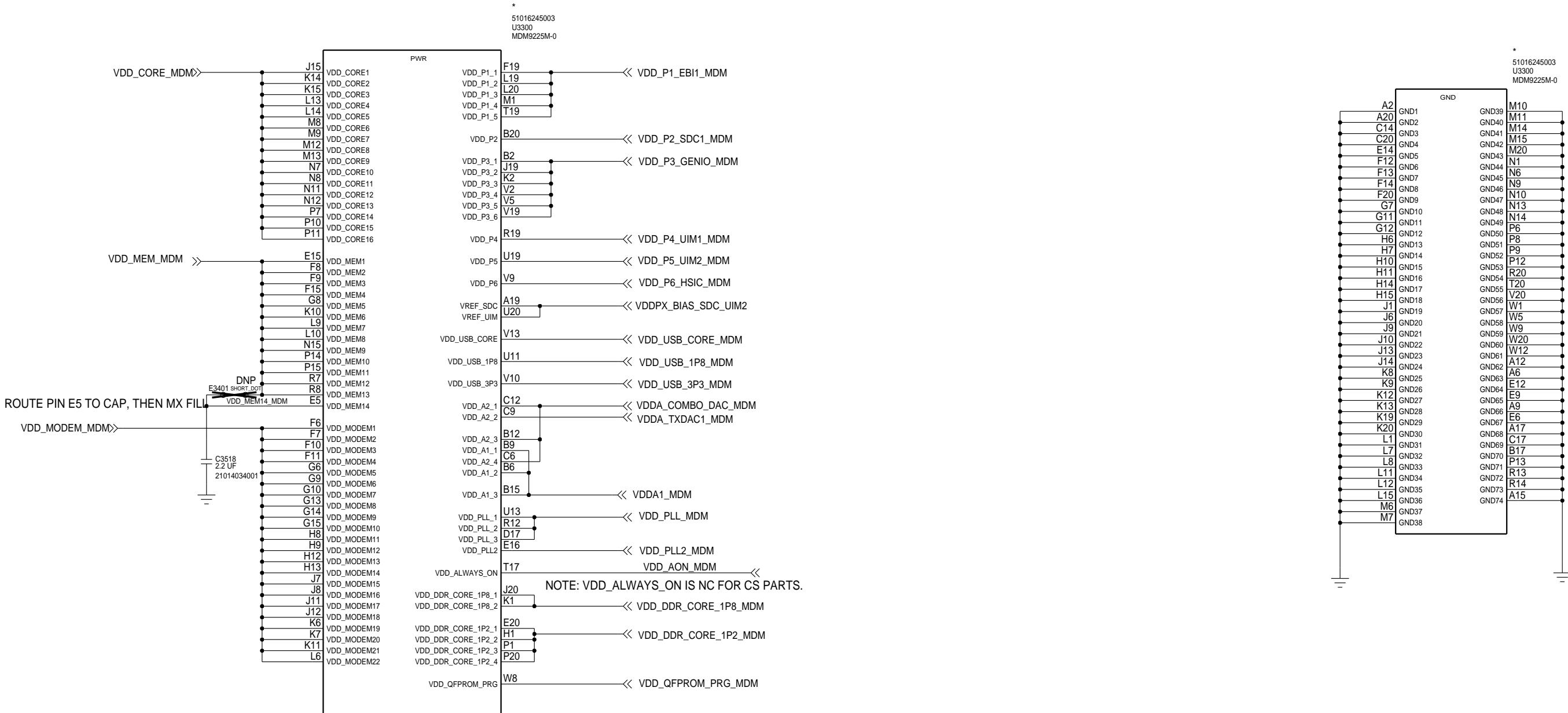


BASED ON 80-NJ851-41 REV.A

|                                                                                                                                                                                                                                                                              |   |                                              |               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------------|---------------|
| APPROVALS                                                                                                                                                                                                                                                                    |   | MOTOROLA<br>MOBILE DEVICES                   |               |
| ENGINEER: THIREN RAYAMAJHI                                                                                                                                                                                                                                                   |   | BLOCK TITLE:<br><b>block_mdm9x25m_pm8019</b> |               |
| LAST MODIFIED BY: THIREN RAYAMAJHI<br>Fri Sep 26 06:12:38 2014                                                                                                                                                                                                               |   |                                              |               |
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| CAD FILE NAME:                                                                                                                                                                                                                                                               |   |                                              | PAGE 73 OF 80 |

# MDM9x25M POWER1/2

REF 3400-3499

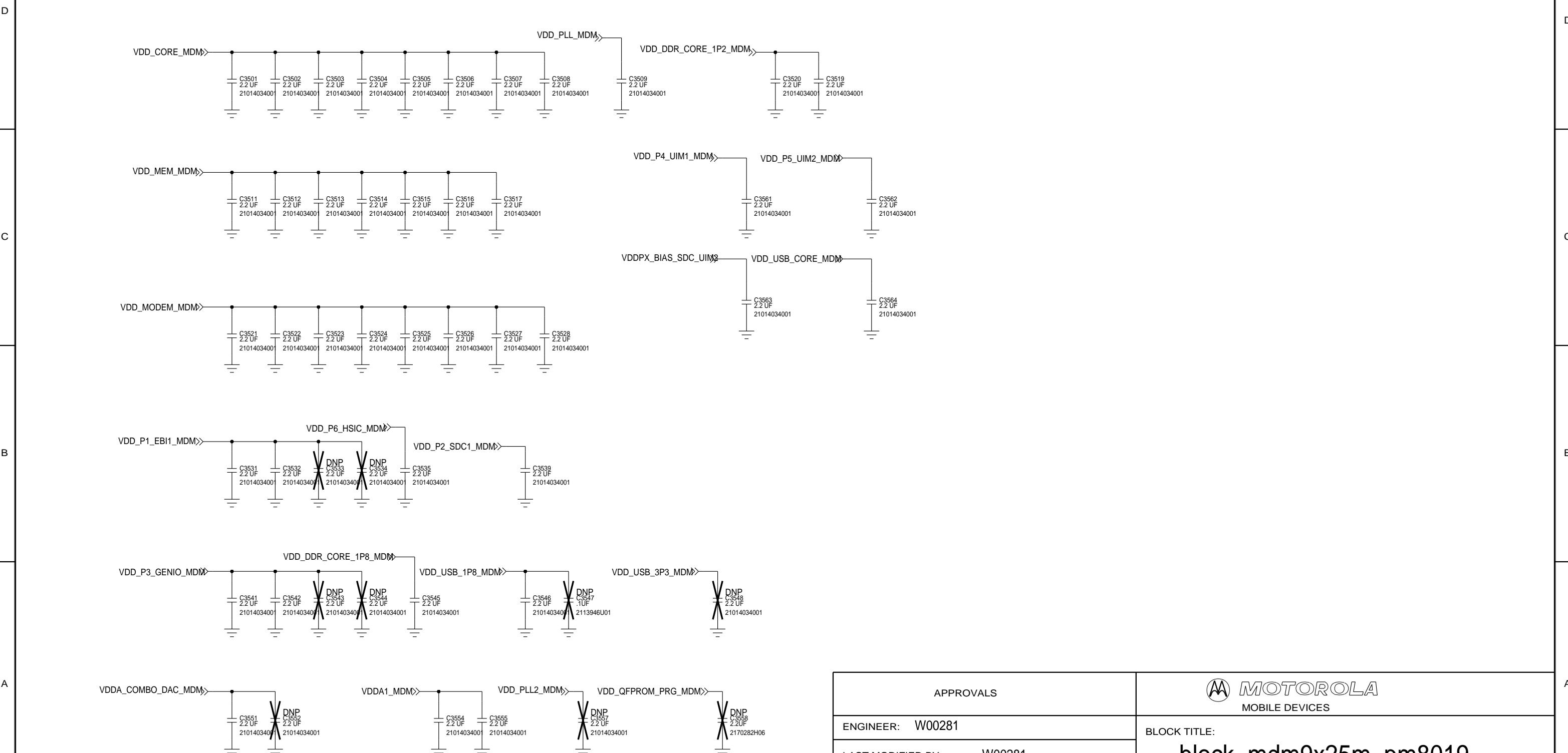


|                                                                                                                                                                                                                                                                                           |  |                                                                                                                         |                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------|------------------|
| APPROVALS                                                                                                                                                                                                                                                                                 |  |  <b>MOTOROLA</b><br>MOBILE DEVICES |                  |
| ENGINEER: W00281                                                                                                                                                                                                                                                                          |  | BLOCK TITLE:<br><b>block_mdm9x25m_pm8019</b>                                                                            |                  |
| LAST MODIFIED BY: W00281<br>Fri Sep 26 06:12:38 2014                                                                                                                                                                                                                                      |  |                                                                                                                         |                  |
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|                                                                                                                                                                                                                                                                                           |  | CAD FILE NAME:                                                                                                          | PAGE 74 OF 80    |

BASED ON 80-NJ851-41 REV.A

# MDM9x25M POWER 2/2

## REF 3500-3599



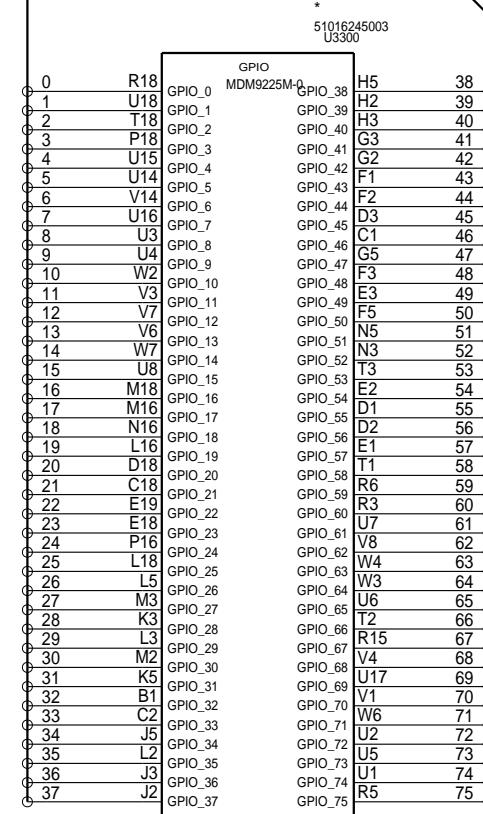
BASED ON 80-NJ851-41 REV.A

|                                                                                                                                                                                                                                                                              |  |                                              |           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------|-----------|
| APPROVALS                                                                                                                                                                                                                                                                    |  | MOTOROLA<br>MOBILE DEVICES                   |           |
| ENGINEER: W00281                                                                                                                                                                                                                                                             |  | BLOCK TITLE:<br><b>block_mdm9x25m_pm8019</b> |           |
| LAST MODIFIED BY: W00281<br>Fri Sep 26 06:12:38 2014                                                                                                                                                                                                                         |  |                                              |           |
| MOTOROLA CONFIDENTIAL RESTRICTED<br>THE DRAWING ON THIS PRINT AND INFORMATION<br>THEREWITH ARE PROPRIETARY TO MOTOROLA AND<br>SHALL NOT BE USED OR DISCUSSED IN WHOLE<br>OR IN PART WITHOUT MOTOROLA'S CONSENT.<br>© COPYRIGHT, MOTOROLA. THIS DOES<br>NOT IMPLY PUBLICATION |  | PROJECT NAME<br>B 84016396001_a.cpm          | REV<br>01 |
| CAD FILE NAME:                                                                                                                                                                                                                                                               |  | PAGE 75 OF 80                                |           |

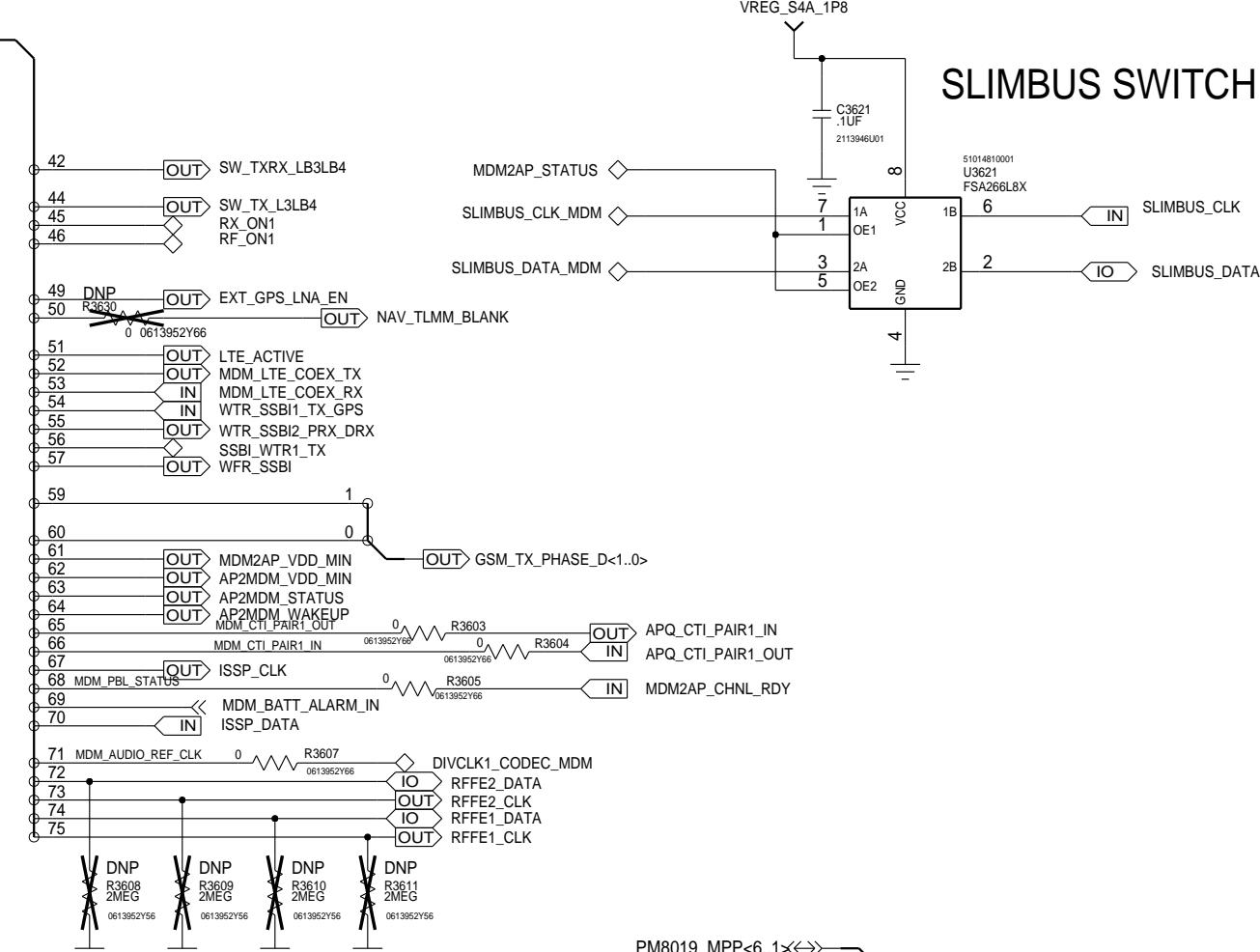
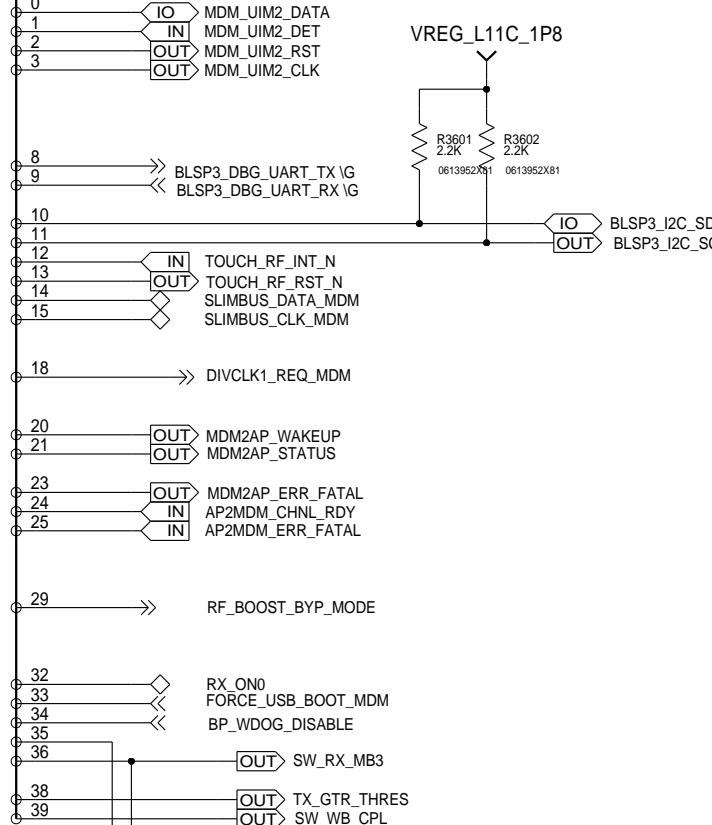
# MDM9x25M GPIO MAP

REF 3600-3699

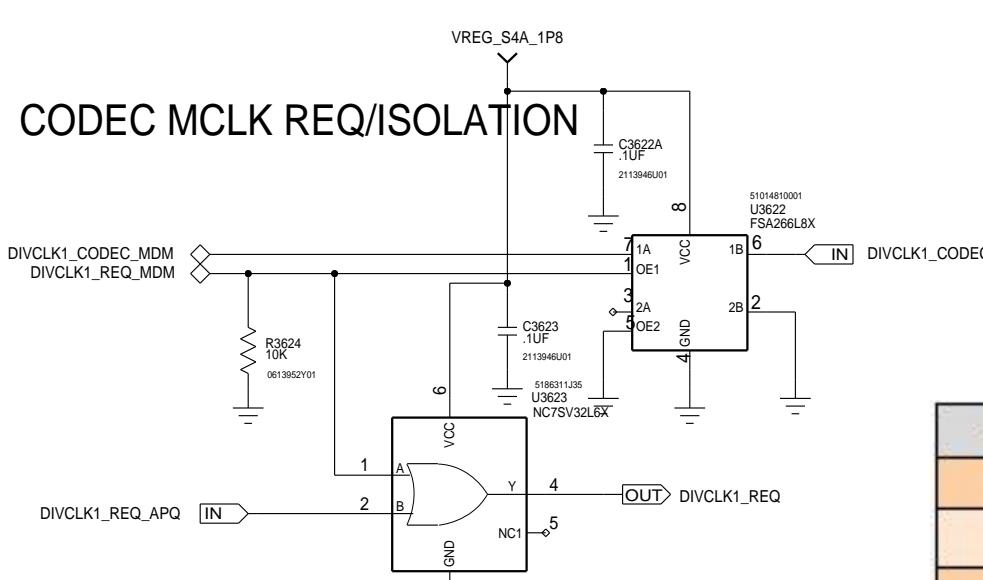
D



MDM\_GPIO\_&lt;75..0&gt;



## CODEC MCLK REQ/ISOLATION



| BOOT_CONFIG[4:1] | Boot device          |
|------------------|----------------------|
| 0b00000          | NAND followed by USB |
| 0b00001          | NAND                 |
| 0b00010          | USB                  |
| 0b00011          | HSIC                 |

BASED ON 80-NJ851-41 REV.A

## APPROVALS

**MOTOROLA**  
MOBILE DEVICES

ENGINEER: W00281

LAST MODIFIED BY: W00281  
Fri Sep 26 06:12:39 2014

MOTOROLA CONFIDENTIAL RESTRICTED

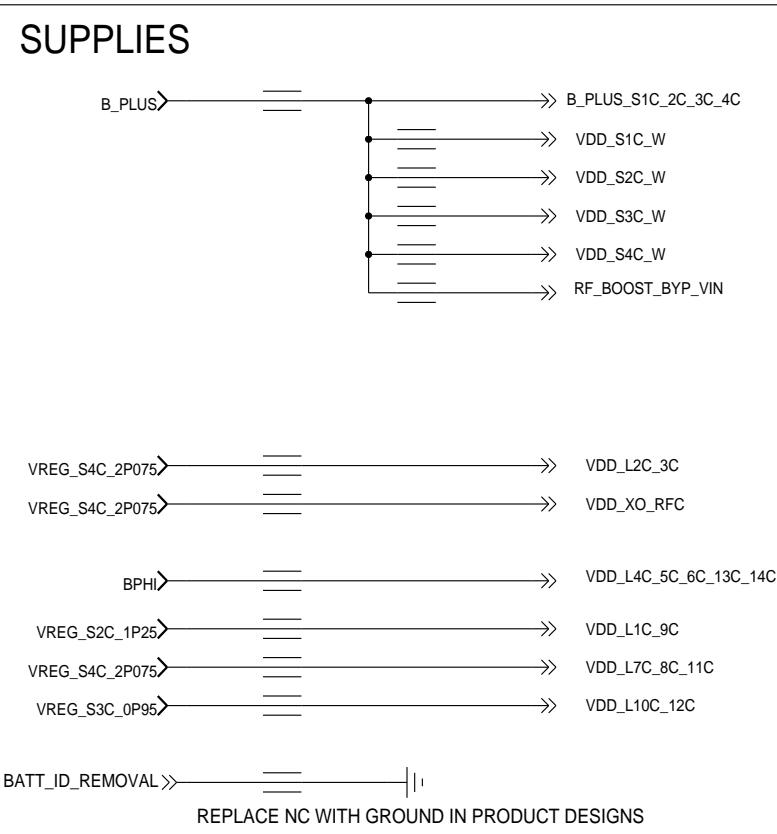
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**block\_mdm9x25m\_pm8019**PROJECT NAME  
B 84016396001\_a.cpmREV  
01

CAD FILE NAME:

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# PM8019 POWER

REF 3900-3949



|                  |            |                |
|------------------|------------|----------------|
| VREG_L1C_1P225_W | >> ————— < | VREG_L1C_1P225 |
| VREG_L2C_1P8_W   | >> ————— < | VREG_L2C_1P8   |
| VREG_L3C_1P8_W   | >> ————— < | VREG_L3C_1P8   |
| VREG_L4C_3P075_W | >> ————— < | VREG_L4C_3P075 |
| VREG_L5C_UIM2_W  | >> ————— < | VREG_L5C_UIM2  |
| VREG_L6C_UIM1_W  | >> ————— < | VREG_L6C_UIM1  |
| VREG_L7C_1P8_W   | >> ————— < | VREG_L7C_1P8   |
| VREG_L8C_2P05_W  | >> ————— < | VREG_L8C_2P05  |
| VREG_L9C_1P2_W   | >> ————— < | VREG_L9C_1P2   |
| VREG_L10C_0P9_W  | >> ————— < | VREG_L10C_0P9  |
| VREG_L11C_1P8_W  | >> ————— < | VREG_L11C_1P8  |
| VREG_L12C_0P95_W | >> ————— < | VREG_L12C_0P95 |
| VREG_L13C_SDC_W  | >> ————— < | VREG_L13C_SDC  |
| VREG_L14C_2P95_W | >> ————— < | VREG_L14C_2P95 |

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|                                                                                                                                                                                                                                                                                                  |                                     |                                              |               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------------------|---------------|
| APPROVALS                                                                                                                                                                                                                                                                                        |                                     | MOTOROLA<br>MOBILE DEVICES                   |               |
| ENGINEER: W00281                                                                                                                                                                                                                                                                                 |                                     | BLOCK TITLE:<br><b>block_mdm9x25m_pm8019</b> |               |
| LAST MODIFIED BY: W00281<br>Fri Sep 26 06:12:39 2014                                                                                                                                                                                                                                             |                                     |                                              |               |
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| CAD FILE NAME:                                                                                                                                                                                                                                                                                   |                                     |                                              | PAGE 77 OF 80 |

# PM8019 CONTROL/CLOCK

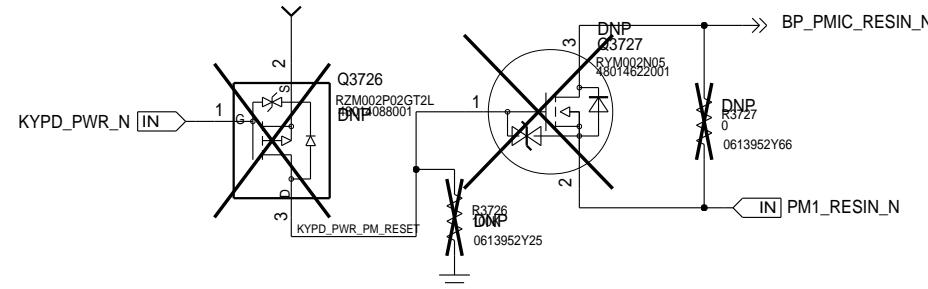
REF 3700-3799

## OR GATE FORCE BP RESET

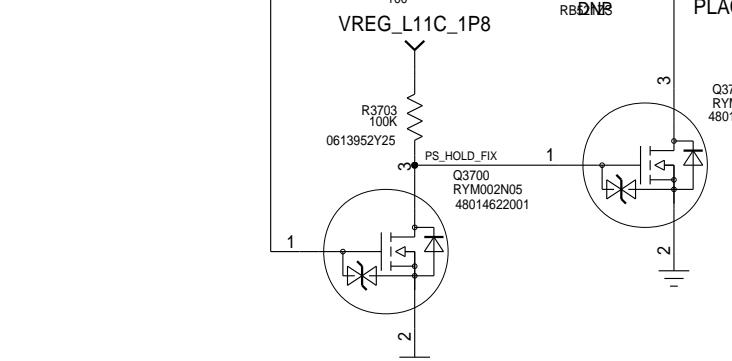
BP\_PMIC\_RESIN\_N LOW

WHEN BOTH KYPD PWR N AND PM1 RESIN N LOW

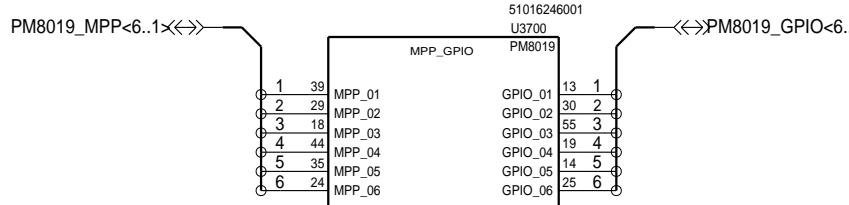
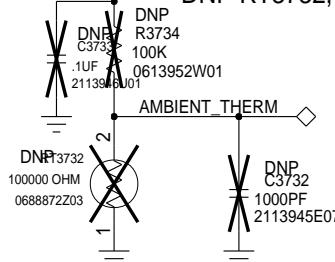
VREG\_L11C\_1P



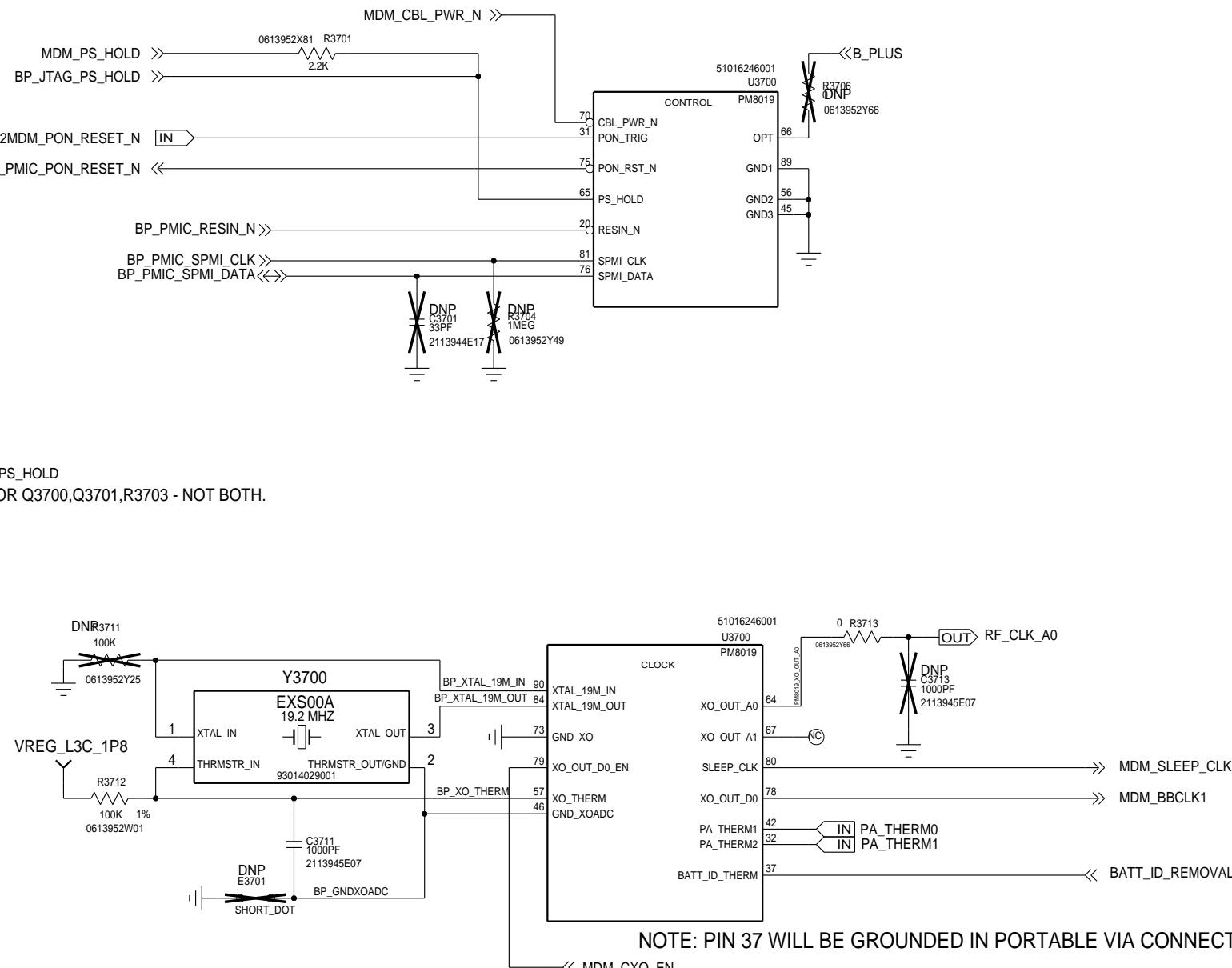
AP2MDM\_PON\_RESET\_N >> U6T1392B4R9T3701 MDM\_PS\_RESET1 X2 X2 PLACE\_FATHER\_B27042\_B27050\_B27052\_B27054\_B27056\_B27058\_B27060



VREG\_L3C\_1P8  
THIS IS NOT CURRENTLY BEING USED  
DNP RT3732, C3732, C3733, R3734.



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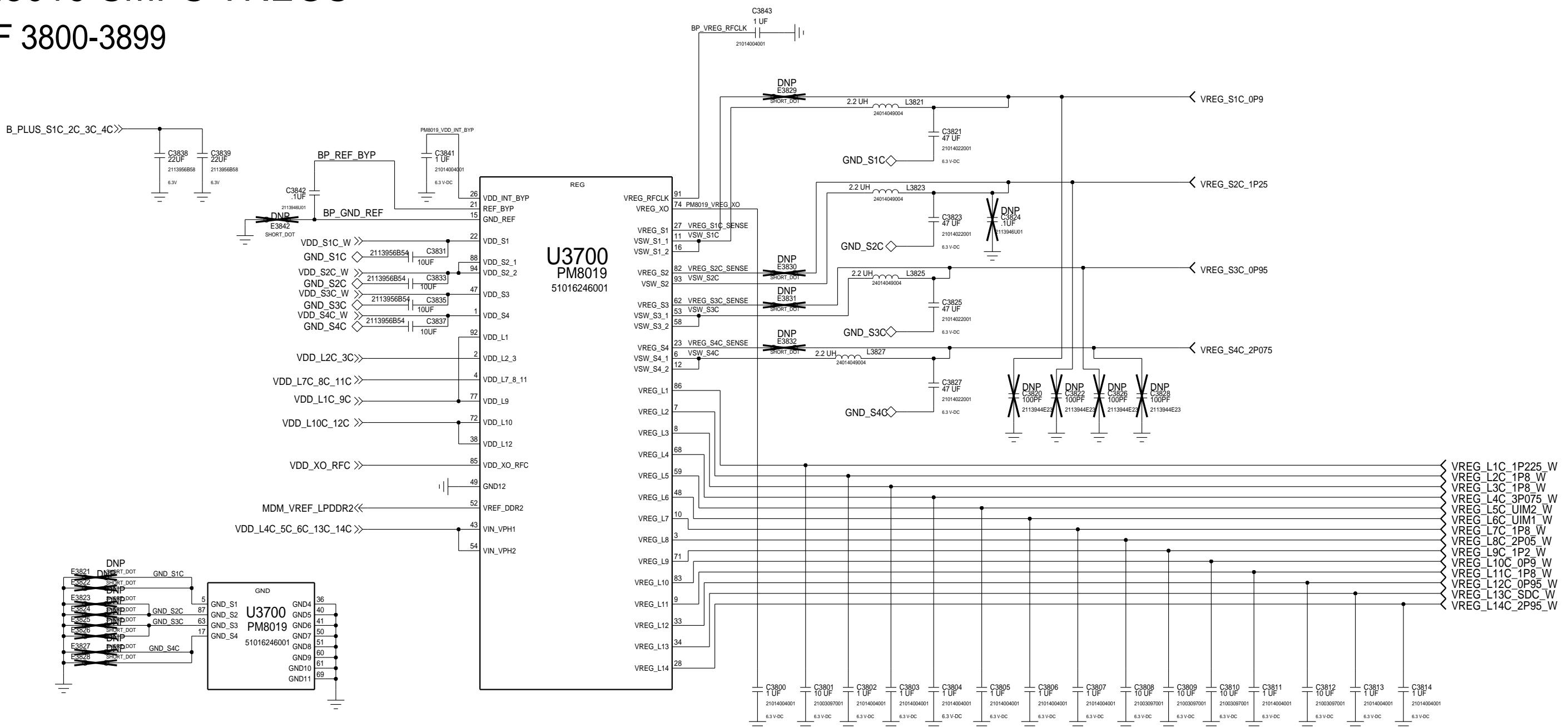


NOTE: PIN 37 WILL BE GROUNDED IN PORTABLE VIA CONNECTION ON PM8019 POWER SHEET

|                                                                                                                                                                                                                                                                                                  |  |                                                                                                                         |                                   |               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------|
| APPROVALS                                                                                                                                                                                                                                                                                        |  |  <b>MOTOROLA</b><br>MOBILE DEVICES |                                   |               |
| ENGINEER: W00281                                                                                                                                                                                                                                                                                 |  | BLOCK TITLE:<br><b>block_mdm9x25m_pm8019</b>                                                                            |                                   |               |
| LAST MODIFIED BY: W00281<br>Fri Sep 26 06:12:39 2014                                                                                                                                                                                                                                             |  |                                                                                                                         |                                   |               |
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|                                                                                                                                                                                                                                                                                                  |  | CAD FILE NAME:                                                                                                          |                                   | PAGE 78 OF 80 |

# PM8019 SMPS VREGS

## REF 3800-3899

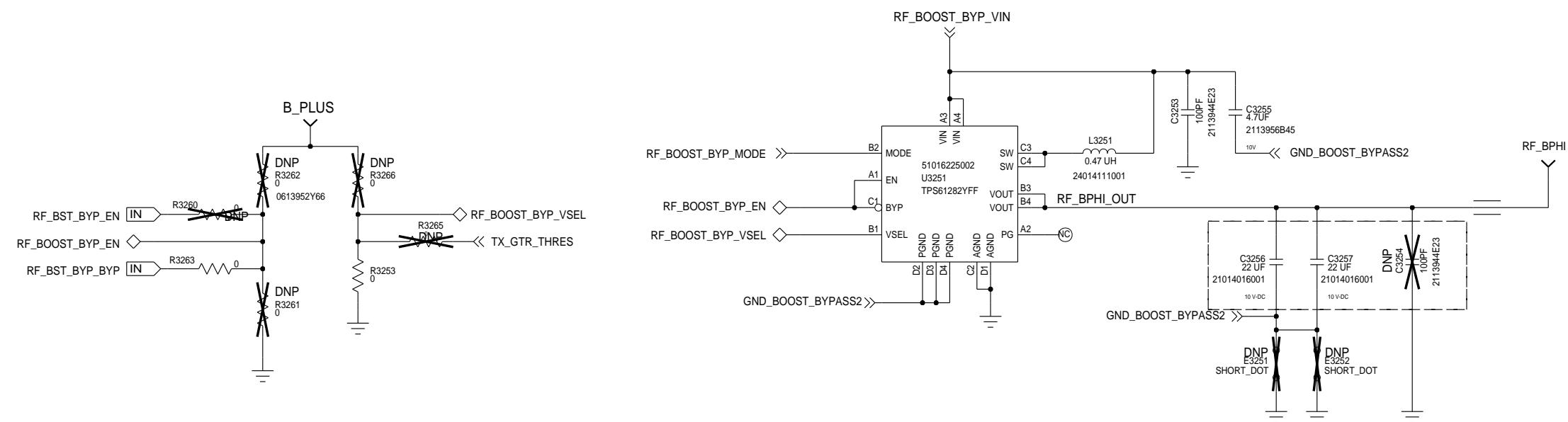


|                                                                                                                                                                                                                                                                                                                             |  |                                                                                                                         |                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------|------------------|
| APPROVALS                                                                                                                                                                                                                                                                                                                   |  |  <b>MOTOROLA</b><br>MOBILE DEVICES |                  |
| ENGINEER: W00281                                                                                                                                                                                                                                                                                                            |  | BLOCK TITLE:<br><b>block_mdm9x25m_pm8019</b>                                                                            |                  |
| LAST MODIFIED BY: W00281<br>Fri Sep 26 06:12:39 2014                                                                                                                                                                                                                                                                        |  |                                                                                                                         |                  |
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|                                                                                                                                                                                                                                                                                                                             |  | CAD FILE NAME:                                                                                                          | PAGE 79 OF 80    |

BASED ON 80-NJ851-41 REV.A

# PM8019 BST/BYP

REF 3250-3299



|                                                                                                                                                                                                                                                                                  |                                                                                                                         |                                   |               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------|
| APPROVALS                                                                                                                                                                                                                                                                        |  <b>MOTOROLA</b><br>MOBILE DEVICES |                                   |               |
| ENGINEER: W00281                                                                                                                                                                                                                                                                 | BLOCK TITLE:<br><b>block_mdm9x25m_pm8019</b>                                                                            |                                   |               |
| LAST MODIFIED BY: W00281<br>Fri Sep 26 06:12:40 2014                                                                                                                                                                                                                             |                                                                                                                         |                                   |               |
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|                                                                                                                                                                                                                                                                                  | CAD FILE NAME:                                                                                                          |                                   | PAGE 80 OF 80 |