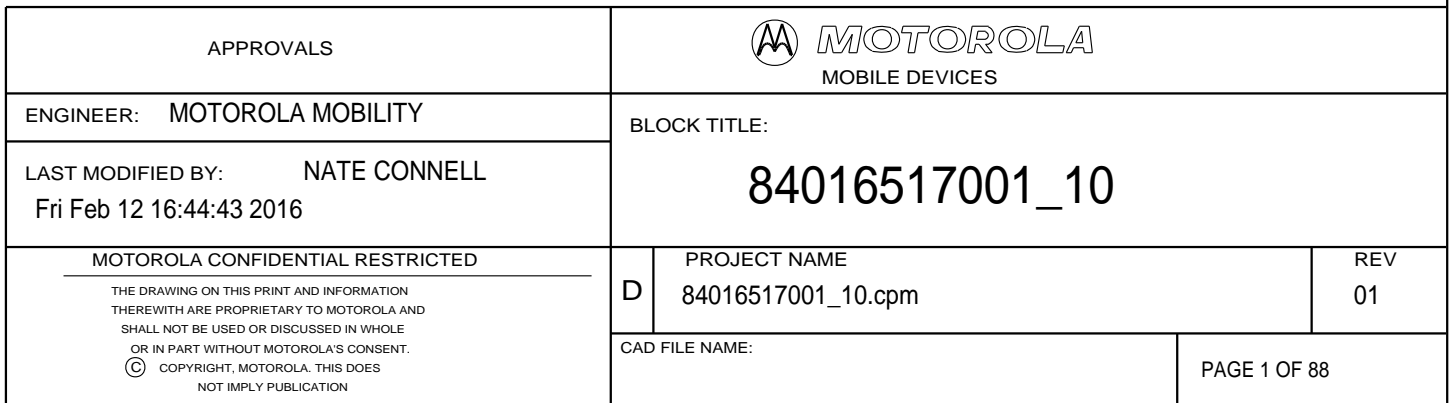


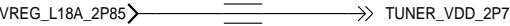
COPIED FROM SYSTEM 5 ON 2-23-2015
SEPARATED FROM PRINCETON ON 4-21-2015
RIPPED WING PARTS ON 4-28-2015
RESYNC PRINCETON P0 GPIOS ON 6-11-2015
MOVED FROM FL36 TO IL93 ON 8-11-2015



ANT: PORTS

REFDES: 000 - 499

SUPPLIES

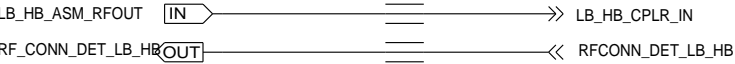


VERIFY POWER SUPPLIES TP PMIC

TRX ULTRA LOW/MID BAND ANTENNA



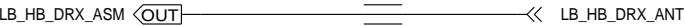
TRX LOW/HIGH BAND ANTENNA



DRX MID BAND ANTENNA



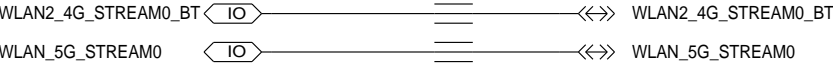
DRX LOW BAND/HIGH BAND ANTENNA



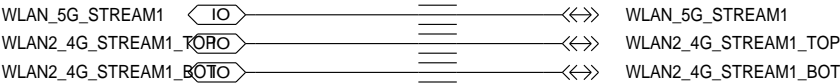
GPS ANTENNA



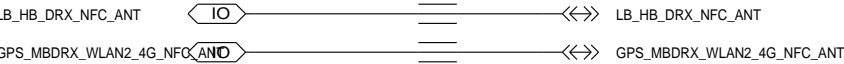
BT/WLAN ANTENNA



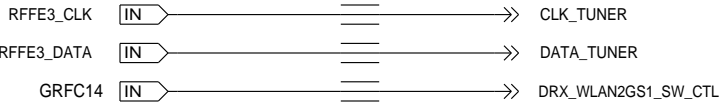
WLAN ANTENNA 2 (FOR 2X2 MIMO SUPPORT)



NFC ANTENNA



INTERFACES



COUPLER PORTS



APPROVALS

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL
Thu Mar 03 15:17:27 2016

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BLOCK TITLE:

antennas

PROJECT NAME
84016517001_10.cpm

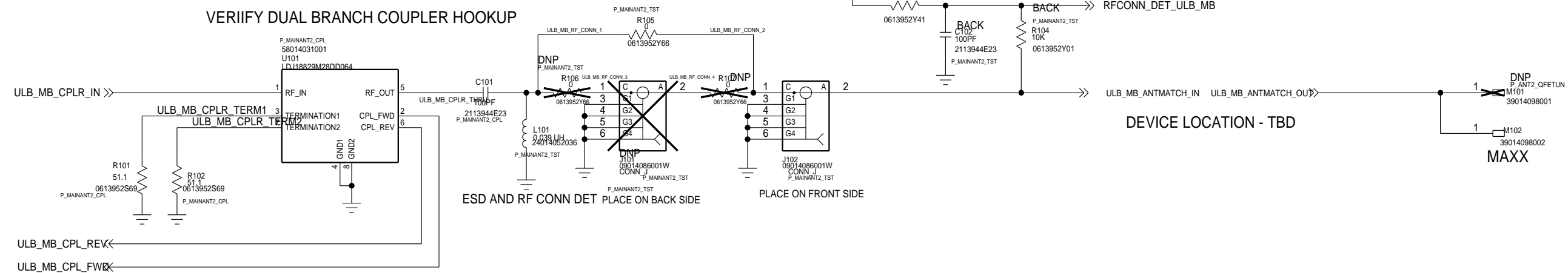
REV
01

CAD FILE NAME:

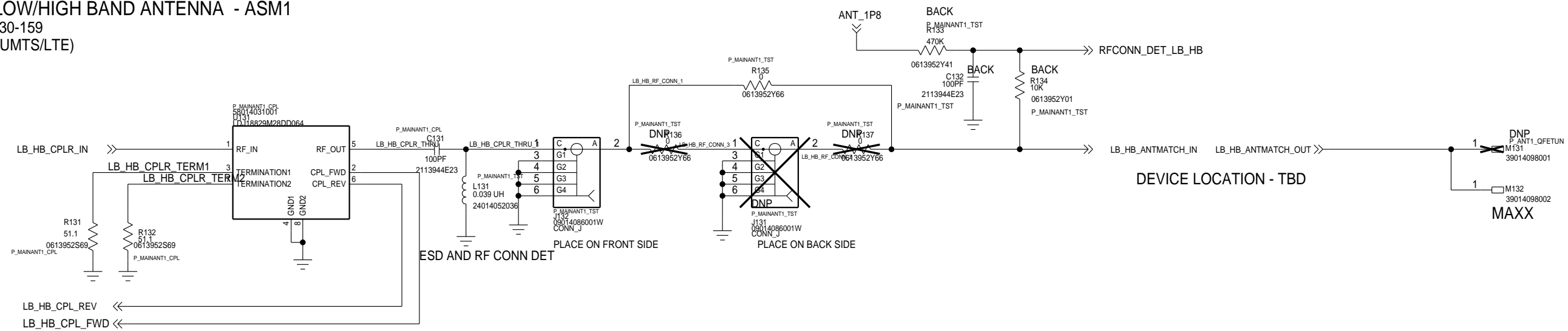
PAGE 3 OF 88

REFDES: 100 - 199


TRX ULTRA LOW/ MID BAND ANTENNA - ASM2
REF:100-129
(GSM/UMTS/LTE)



TRX LOW/HIGH BAND ANTENNA - ASM1
REF:130-159
(GSM/UMTS/LTE)



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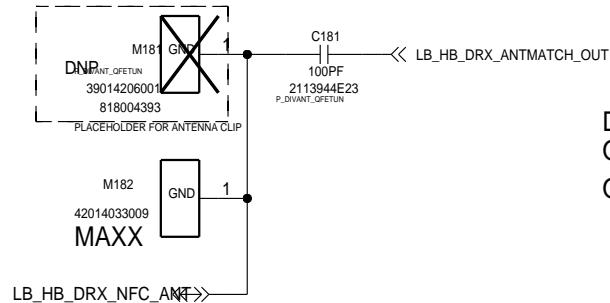
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ENGINEER: MOTOROLA		BLOCK TITLE: <h1>antennas</h1>	
LAST MODIFIED BY: MOTOROLA Thu Mar 03 15:17:28 2016			
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		CAD FILE NAME:	PAGE 4 OF 88

ANT: DIV ANTENNAS

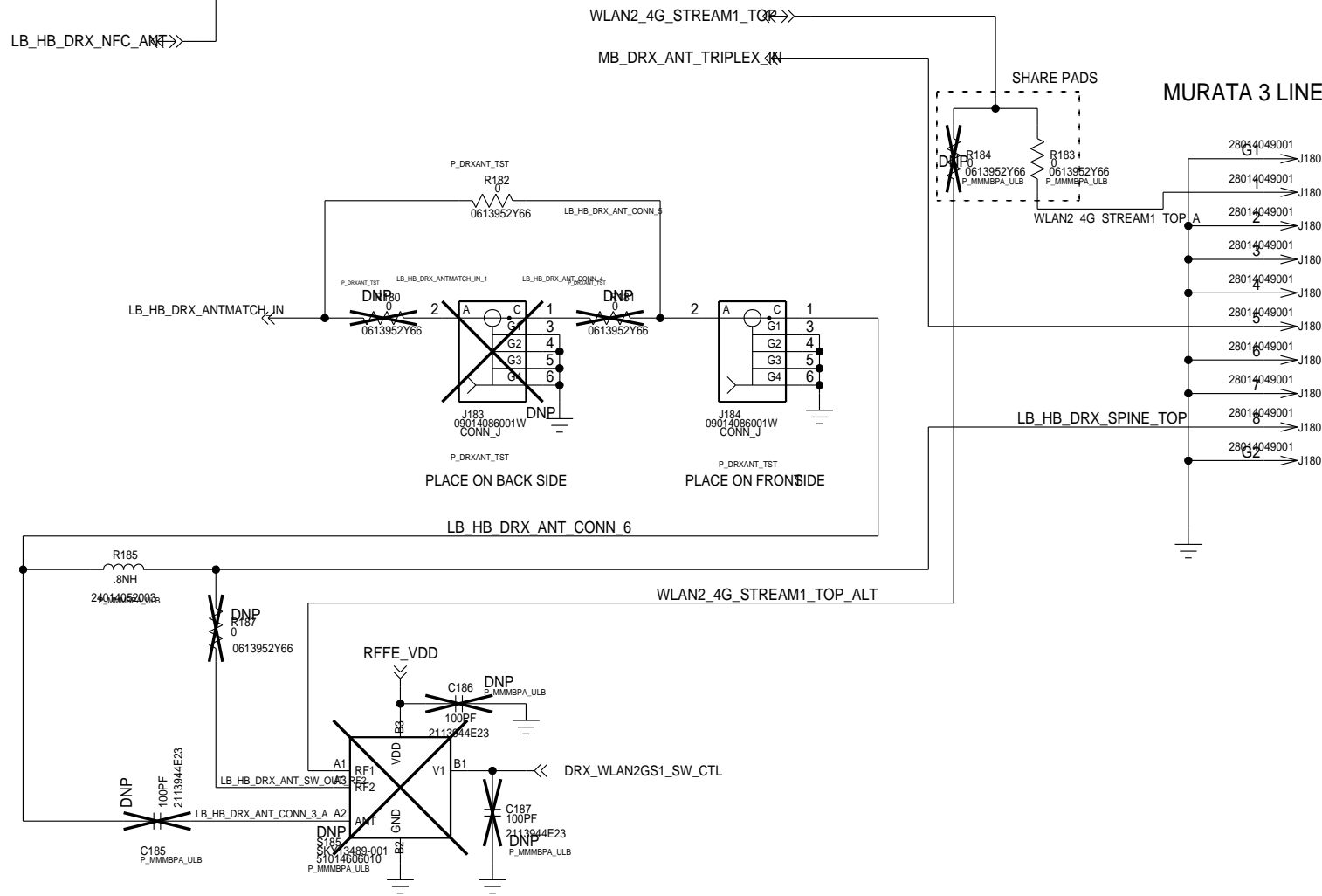
REFDES: 100 - 199

DRX MID BAND ANTENNA
REF:190-199

DRX LOW BAND / HIGH BAND ANTENNA
REF:180-189
(GSM/UMTS/LTE)



DEPENDING ON FINAL POR EITHER J185, J186
OR J183, J184 SHOULD BE PLACED
ONE OF THE SETS SHOULD BE REMOVED FROM THE DESIGN



BACKUP DRX+2.4G WLAN MIMO SIWTH
NON-POR FOR NOW

TOP
OF SPINE

BOTTOM
OF SPINE

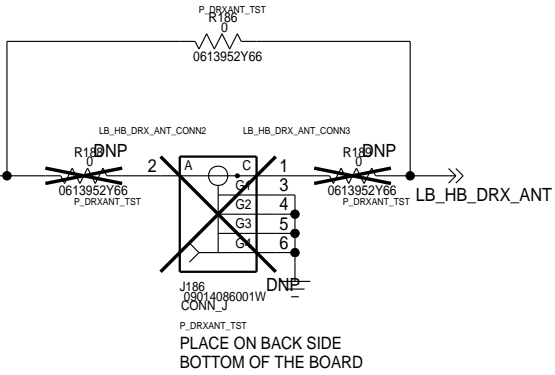
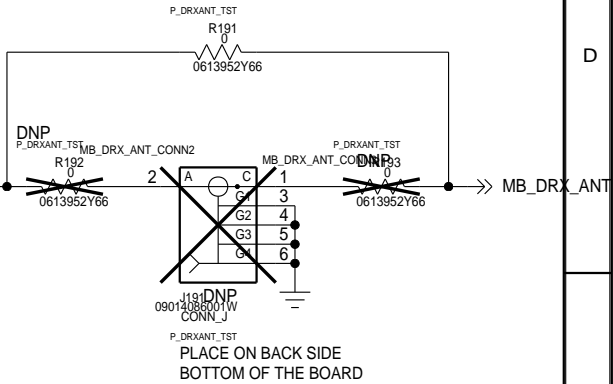
MURATA 3 LINE RF CONN

MURATA 3 LINE RF CONN


WLAN2_4G_STREAM1_BOT

MB_DRX_ANT_CONN1

LB_HB_DRX_ANT_CONN1

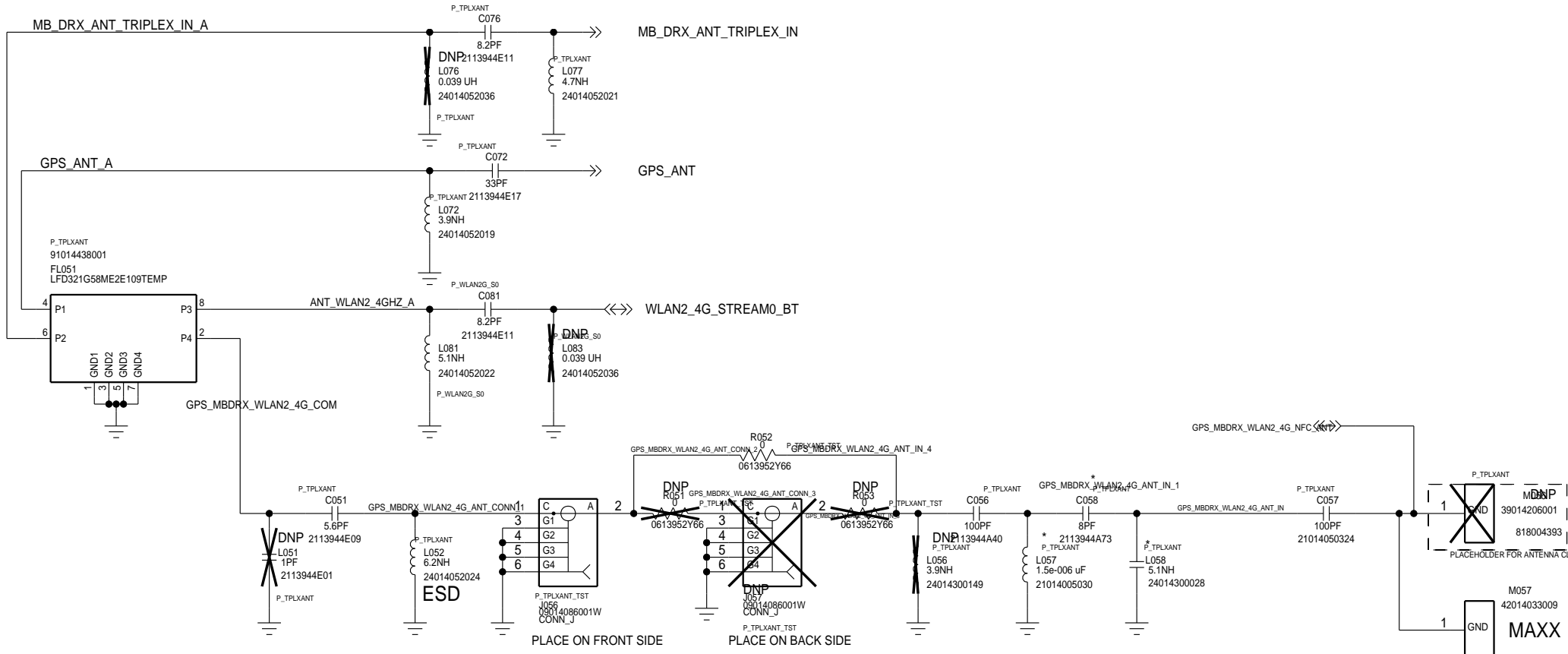


MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

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LAST MODIFIED BY: MOTOROLA Thu Mar 03 15:17:28 2016		antennas	
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		REV 01	
		PAGE 5 OF 88	

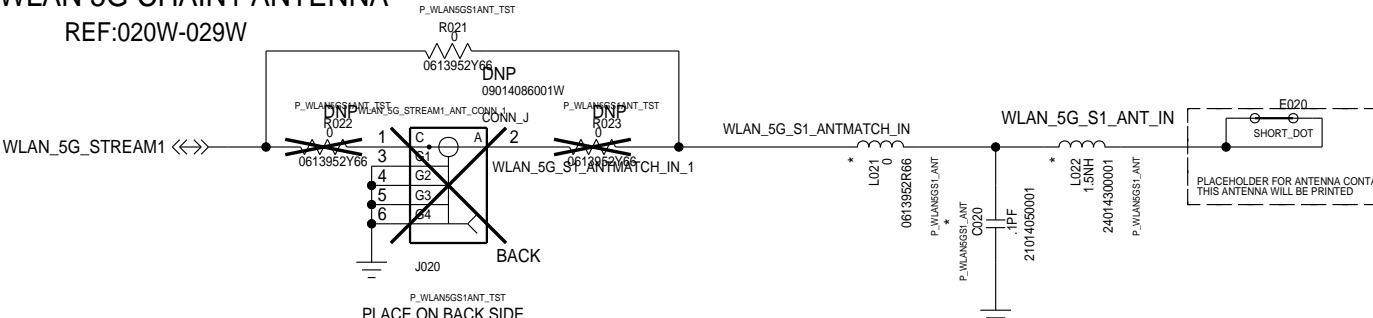
ANT: GPS/WLAN ANTENNAS

GPS/DIV MB/WLAN 2.4GHZ S0 ANTENNA



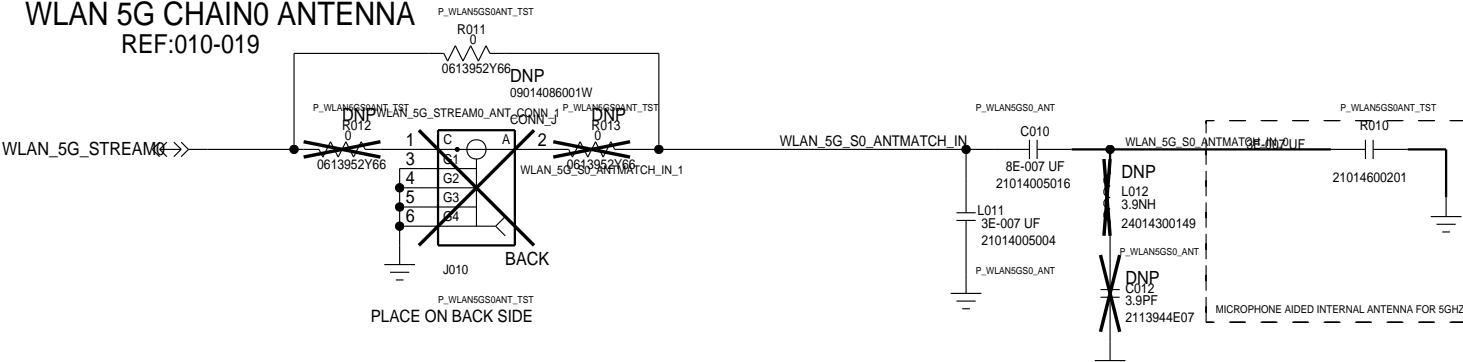
WLAN 5G CHAIN1 ANTENNA

REF:020W-029V




WLAN 5G CHAIN0 ANTENNA

REF:010-019



MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

APPROVALS		 MOTOROLA MOBILE DEVICES	
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LAST MODIFIED BY: MOTOROLA Wed Mar 16 16:38:57 2016			
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		CAD FILE NAME:	PAGE 6 OF 88

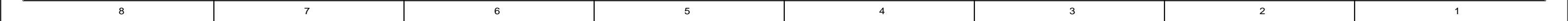
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D

C



A



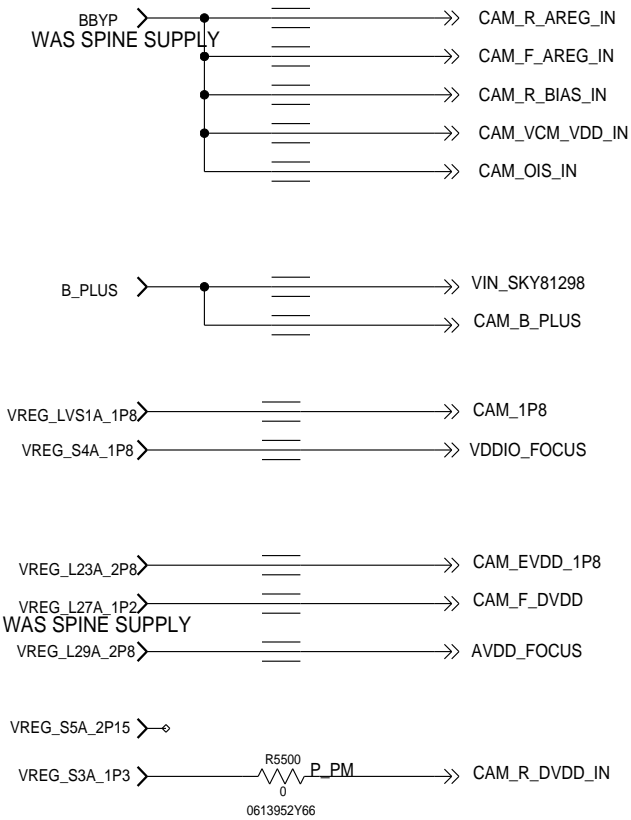
The schematic diagram illustrates the internal architecture of the TRX_EB_Tuner module. It features two main input sections: TRX_TUNER_2_VIO and TRX_TUNER_2_VDD. The TRX_TUNER_2_VIO section includes a network of capacitors (C472, C473, C474, C475) and inductors (L472, L473, L474) connected to the P_ANT1_OFETUN pin. The TRX_TUNER_2_VDD section includes a network of capacitors (C472, C473, C474, C475) and inductors (L472, L473, L474) connected to the P_ANT1_OFETUN pin. The central part of the diagram shows the ANT_TUNER and TUNER_CPL blocks, which are connected to various pins including C_CP, R_EXT, SDATA, SCLK, SEL_A, SEL_B, SEL_C, GND1, GND2, GND3, GND4, GND5, GND6, RF_C2, RF_S1, RF_S2, RF_S3, and LB_HB_ANTMATCH_OUT_B. The TUNER_CPL block is also connected to the LB_HB_ANTMATCH_IN_A pin. The output section includes a network of capacitors (C476, C477, C478, C479) and inductors (L476, L477, L478, L479) connected to the P_ANT1_OFETUN pin. The diagram also shows the connection to the LB_HB_ANTMATCH_OUT pin and the DC BLOCK NEEDED FOR RF CONN DET note.

A

CAM: PORTS

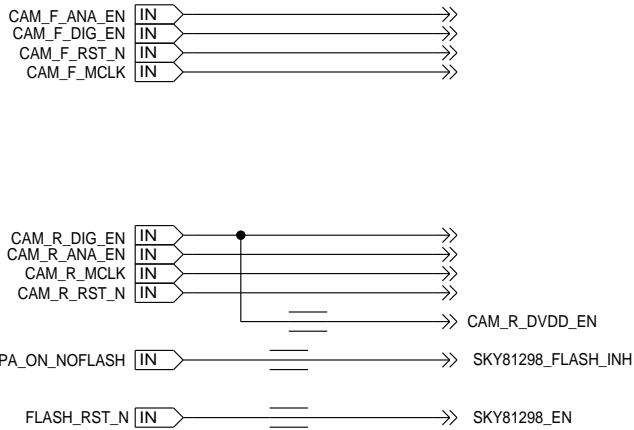
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SUPPLIES

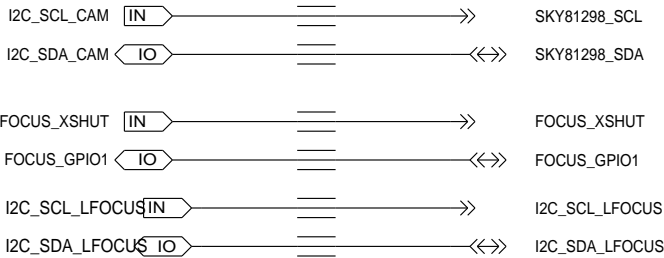


NOTE: PLACE R5500 & R5501 NEAR PM TO GET ONLY ONE SPINE ROUTE.

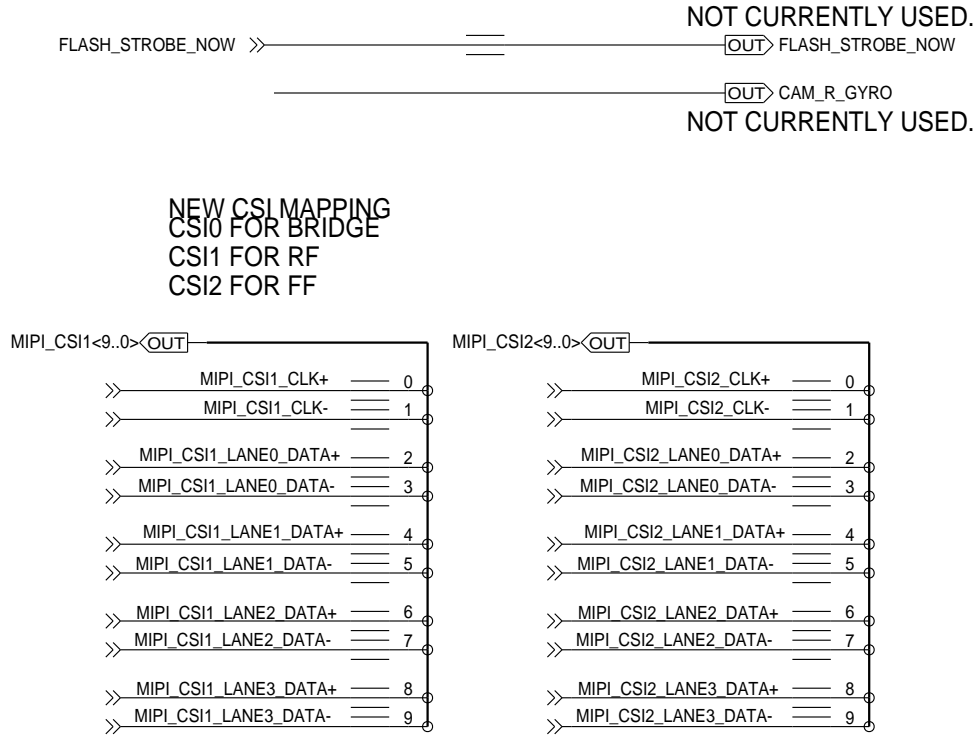
INPUTS



INTERFACES



OUTPUTS



APPROVALS

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL
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MOBILE DEVICES

BLOCK TITLE:

imagers

PROJECT NAME

84016517001_10.cpm

REV

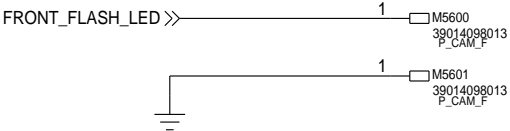
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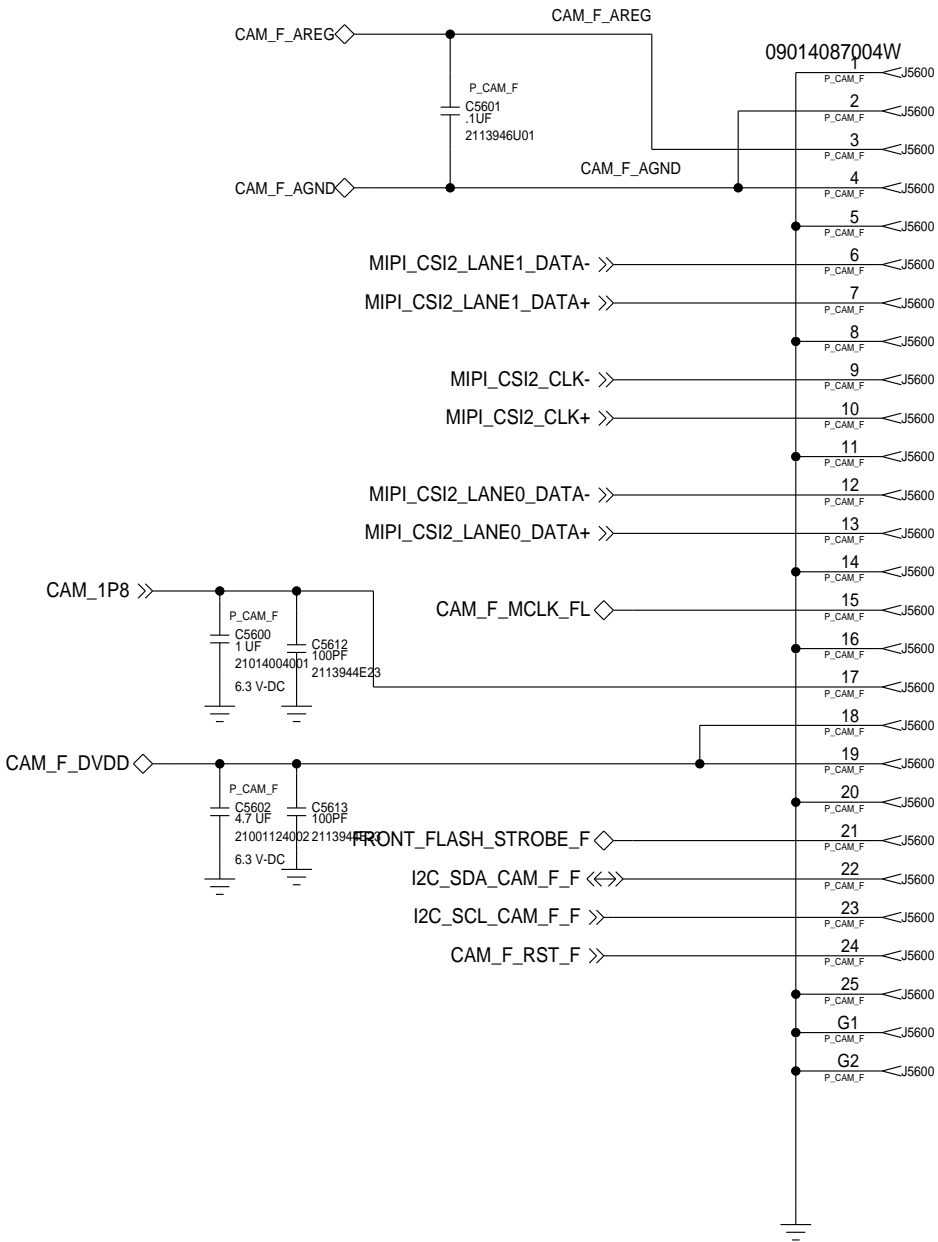
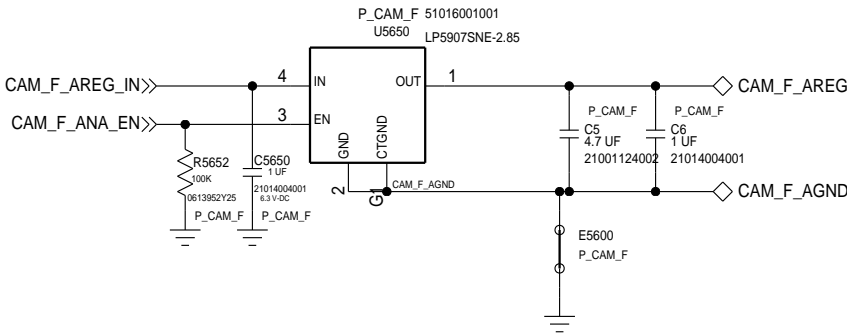
PAGE 8 OF 88

CAM: FRONT
REF 5600-5699

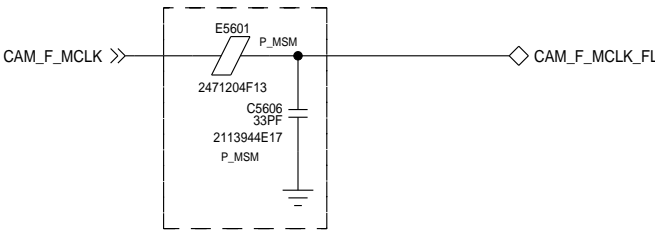
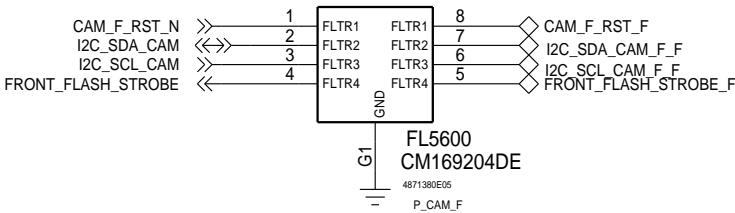
FRONT CAMERA FLASH LED



ANALOG REGULATOR




EMI/ESD FILTER



PLACE MCLK FILTER BY MSM, BUT ZENER AT CAM CONNECTOR

MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: JOHN KRAMER		BLOCK TITLE: imagers	
LAST MODIFIED BY: UID ELRAN Thu Mar 03 15:17:24 2016		PROJECT NAME 84016517001_10.cpm	
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		PAGE 9 OF 88	

D

C

B



5



5

3



D

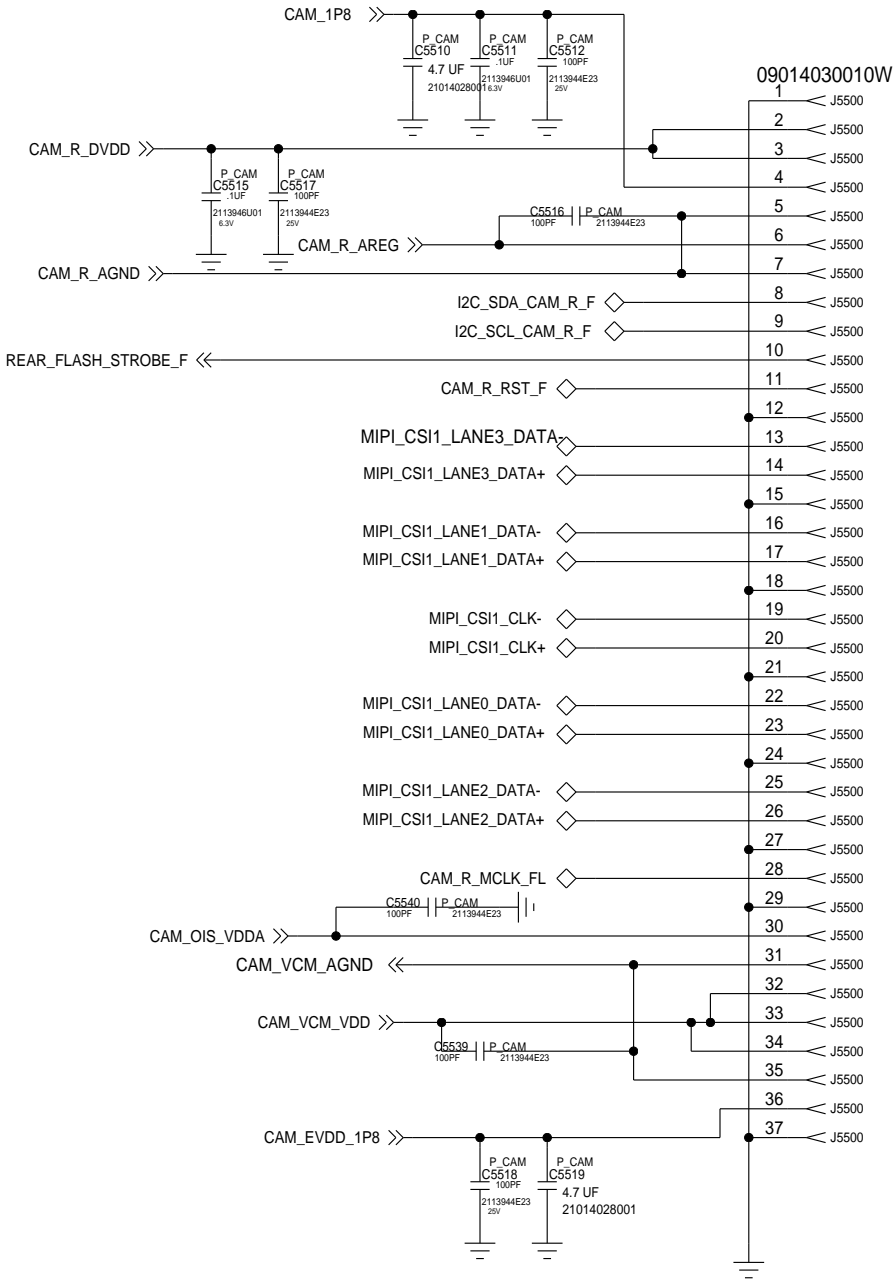


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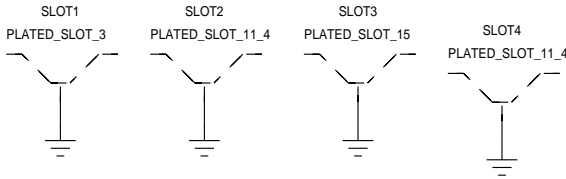
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CAM: REAR CONN

REF:5500-5599 CAM



PLATED THRU SLOTS FOR EDGE PLATING



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: MOTOROLA		BLOCK TITLE:	
LAST MODIFIED BY: MOTOROLA Thu Mar 03 15:17:26 2016		imagers	
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		B 84016517001_10.cpm	
		REV 01	
		CAD FILE NAME:	
		PAGE 11 OF 88	

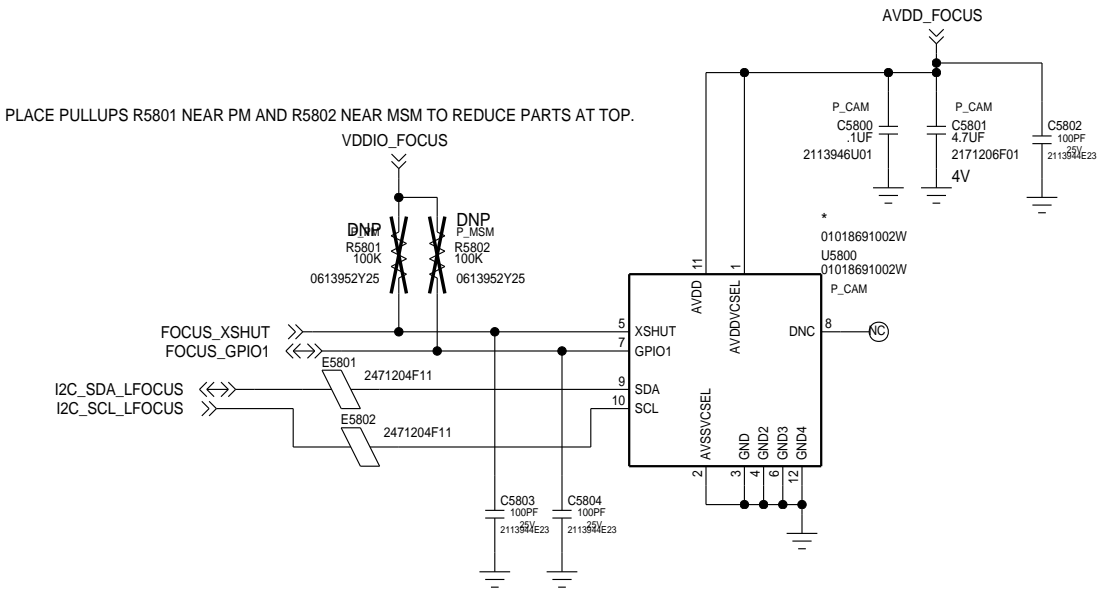
CAM: FOCUS


REF:5800-5899

LASER FOCUS MODULE

REF:5800-5899

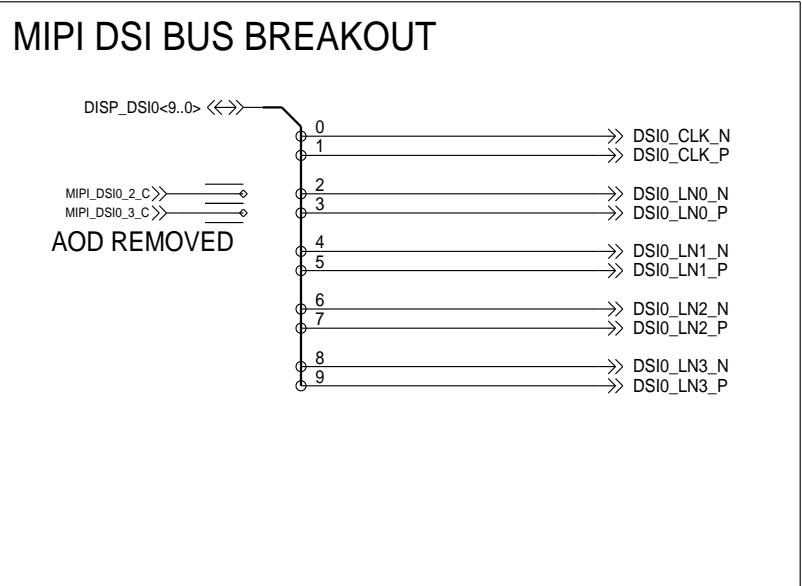
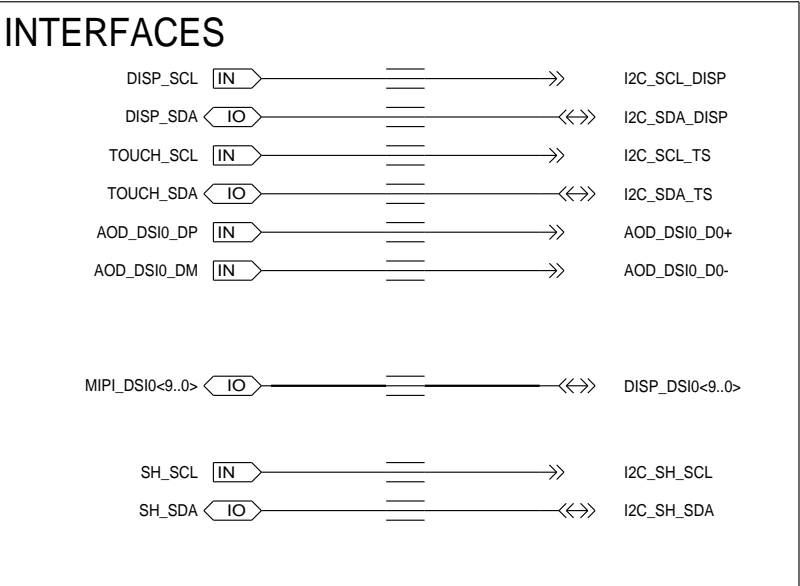
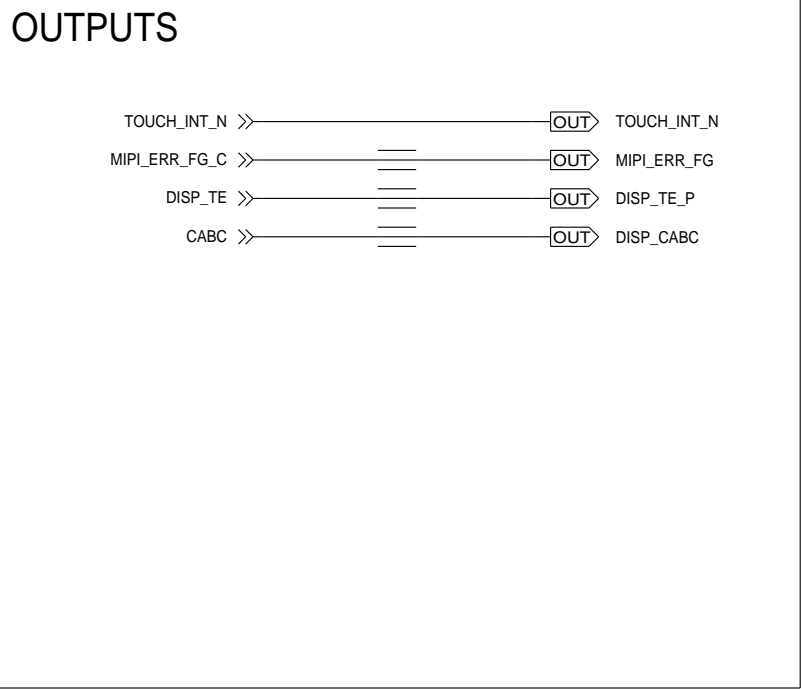
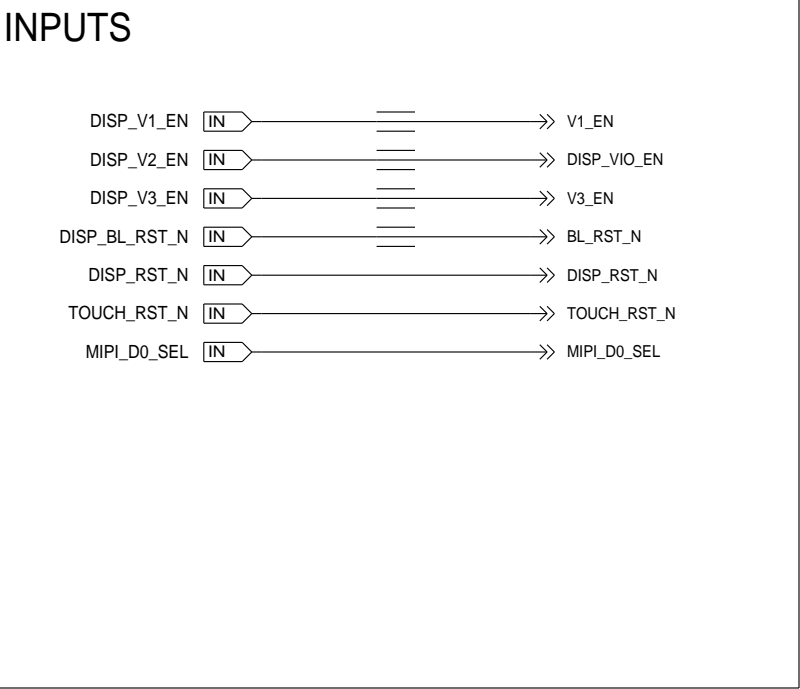
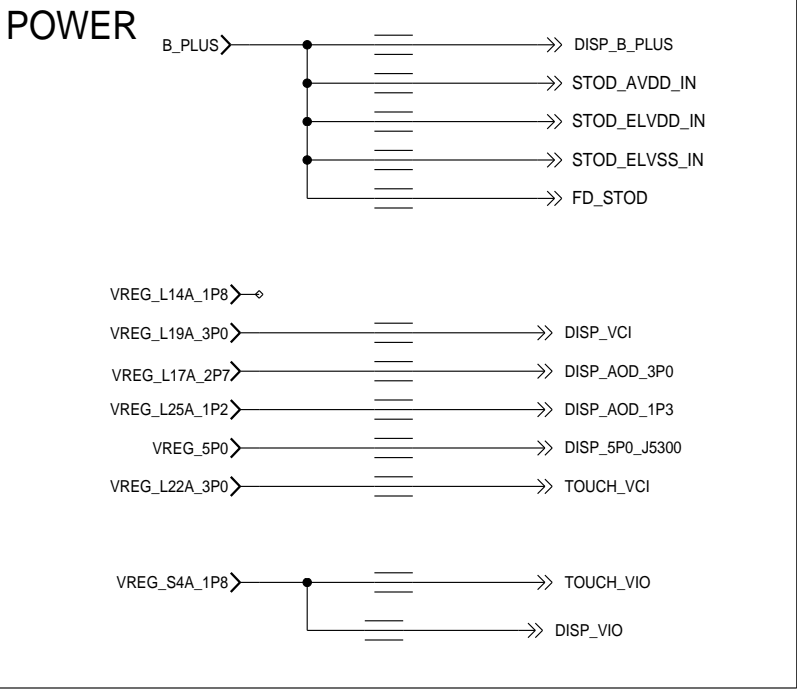
I2C ADDR: 0X52 ???




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ENGINEER: MOTOROLA		BLOCK TITLE:	
LAST MODIFIED BY: MOTOROLA Thu Mar 03 15:17:26 2016		imagers	
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		REV 01	
		CAD FILE NAME:	
		PAGE 12 OF 88	

DISP: PORTS

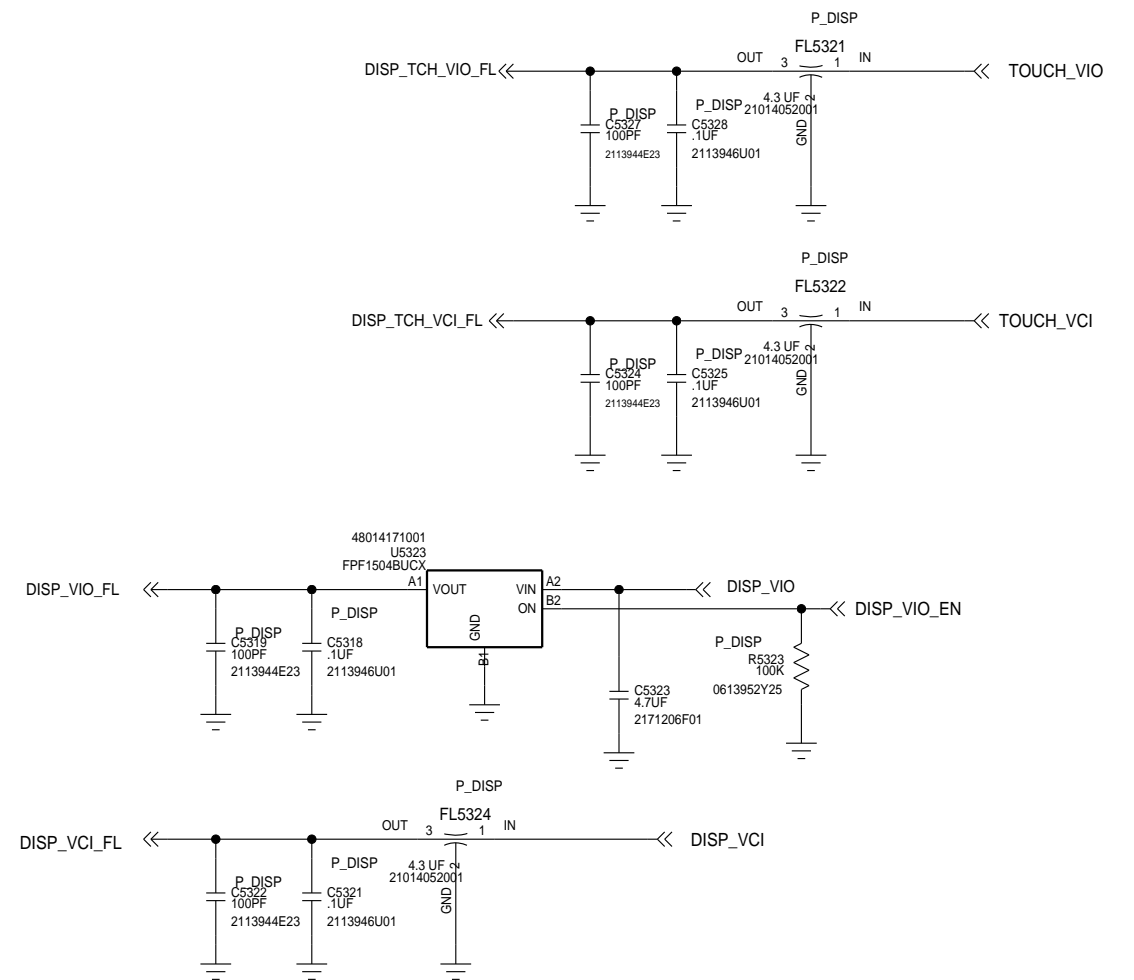
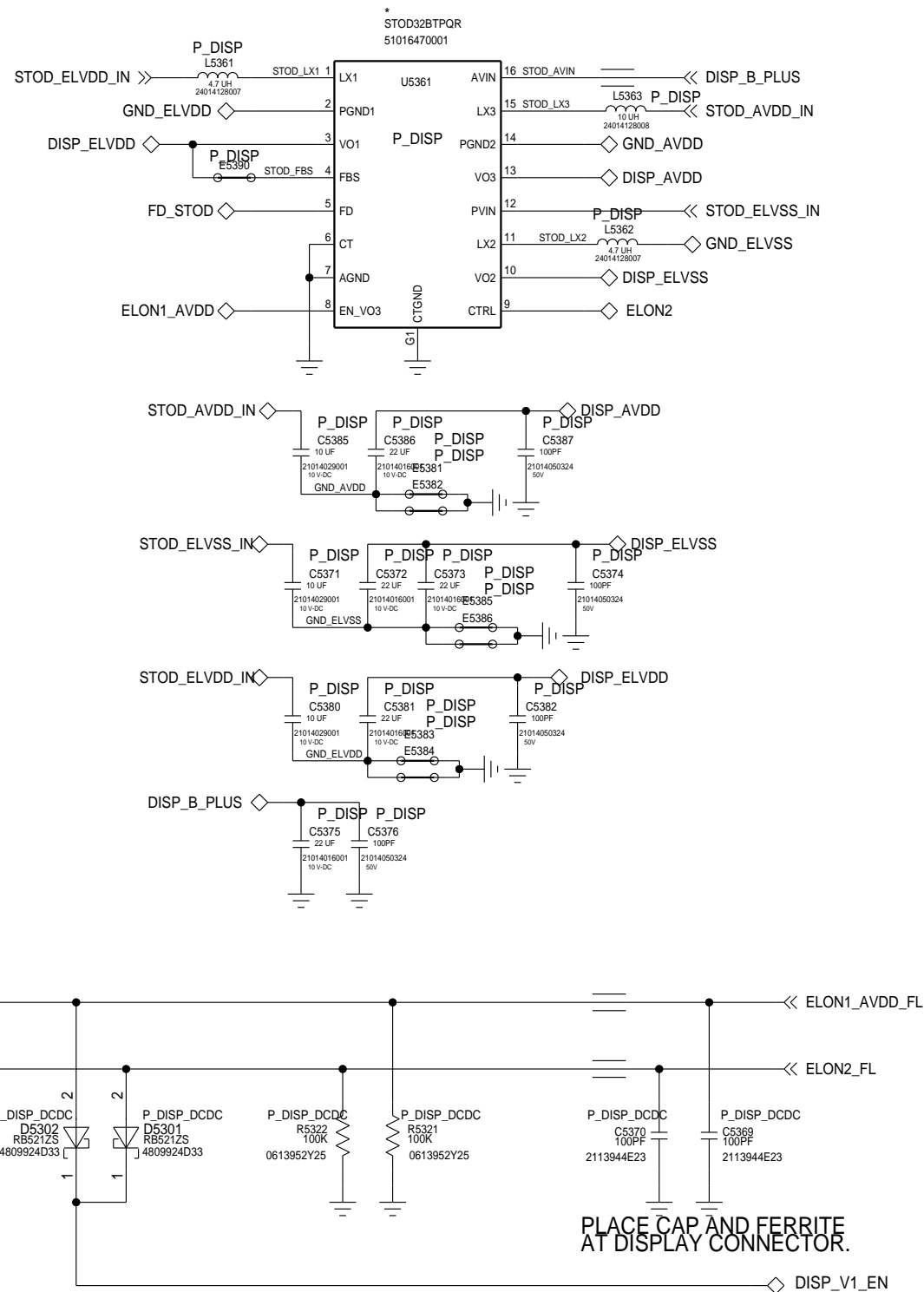
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ENGINEER: NATE CONNELL		BLOCK TITLE:	
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		B 84016517001_10.cpm	REV 01
		CAD FILE NAME:	
		PAGE 13 OF 88	

DISP: POWER

REF 5300-5399



APPROVALS

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL
Thu Mar 03 15:17:23 2016

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BLOCK TITLE:

display

PROJECT NAME

B 84016517001_10.cpm

REV

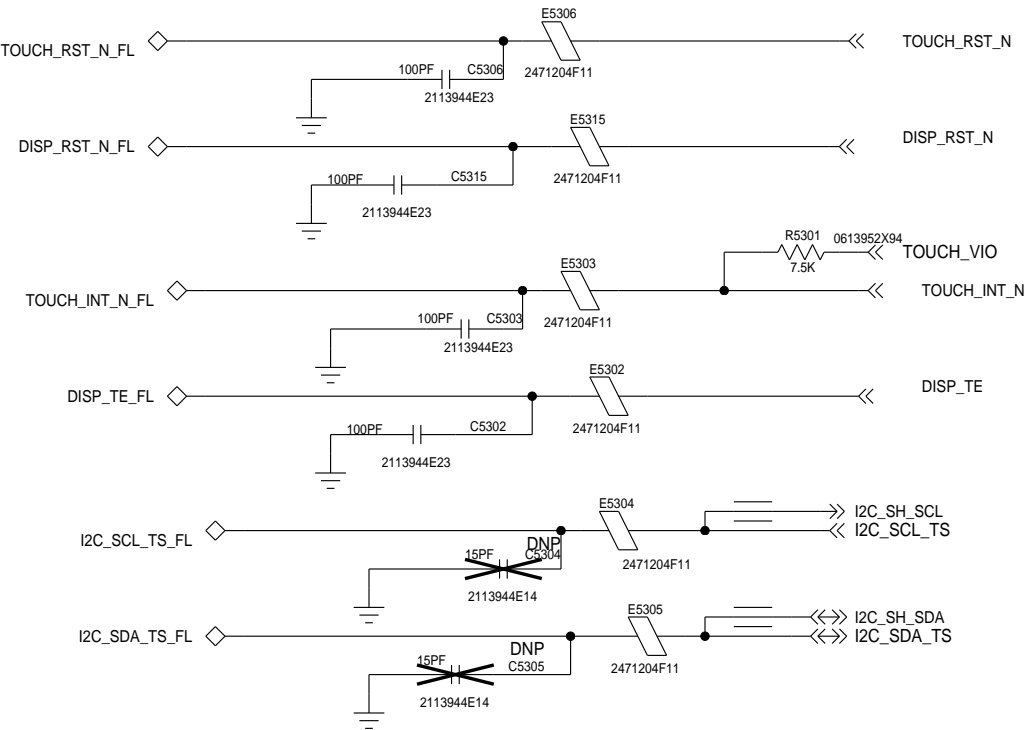
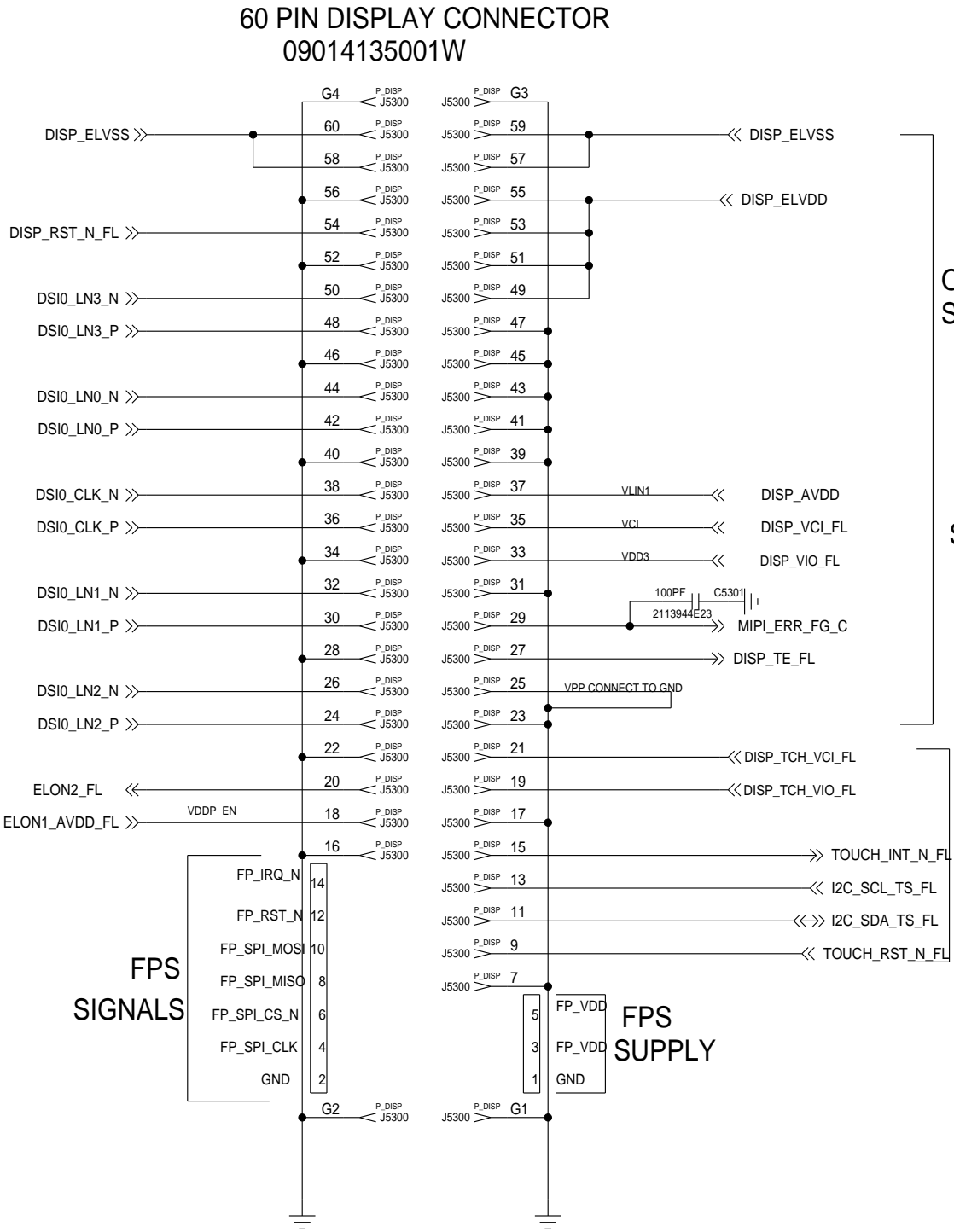
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CAD FILE NAME:

PAGE 14 OF 88


DISP: CONNECTOR

REF 5300-5349



NOTE: SOME DISPLAY CONNECTOR PINS ARE ON THE "USR: FPC" PAGE.

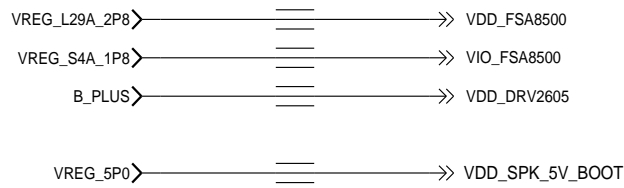
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APPROVALS		 MOTOROLA MOBILE DEVICES	
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		PAGE 15 OF 88	

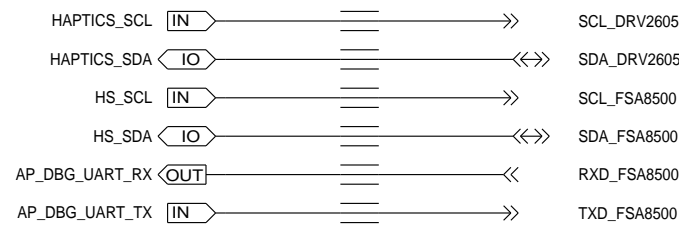
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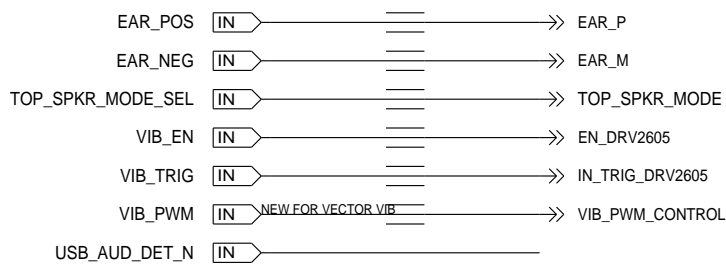
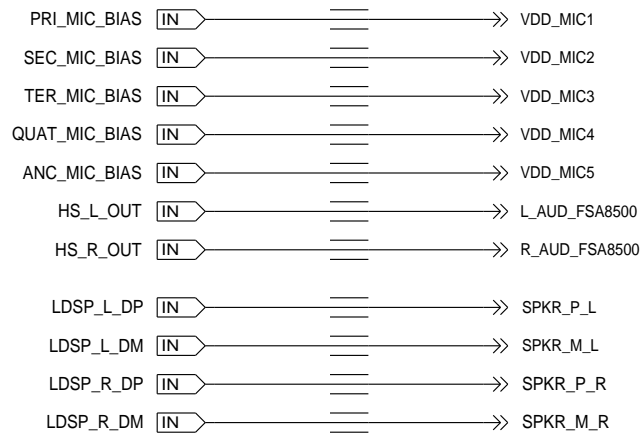
POWER



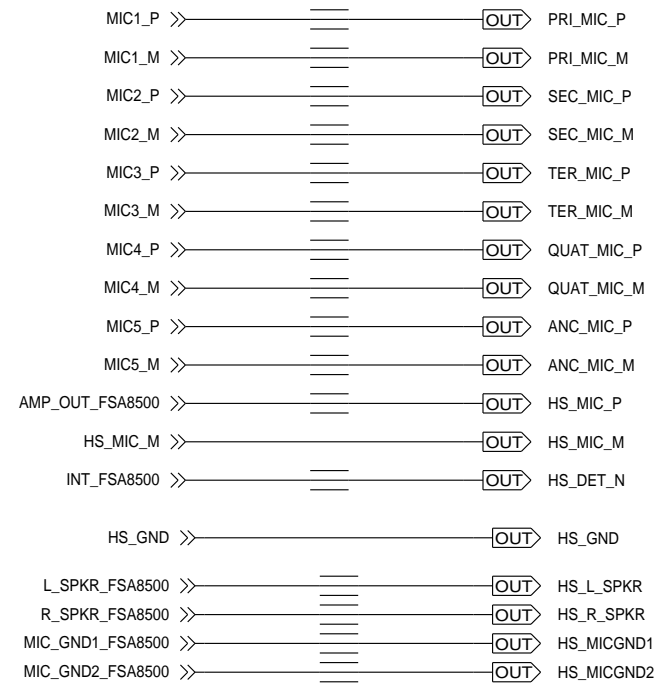
INTERFACES



INPUTS



OUTPUTS



WING

APPROVALS

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL
Thu Mar 03 15:17:20 2016

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BLOCK TITLE:

audio_fe

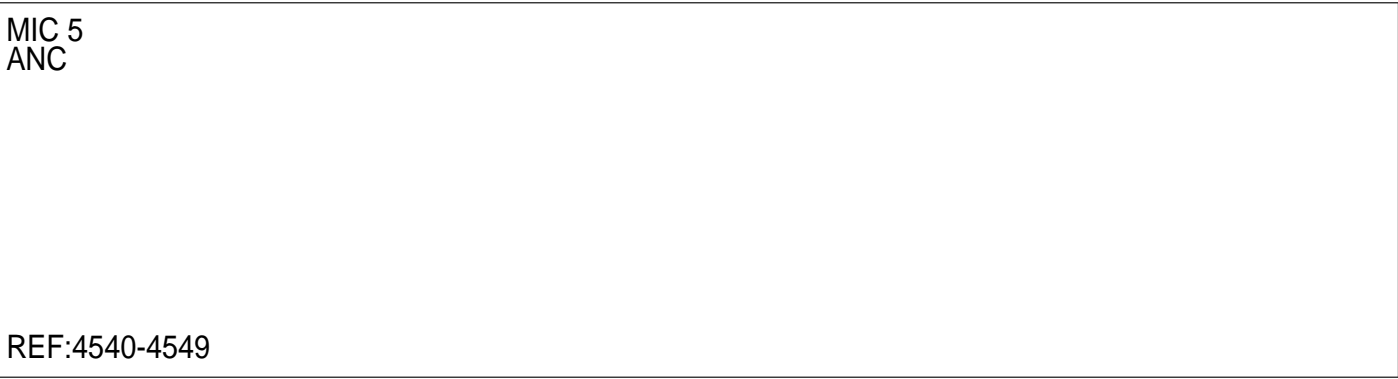
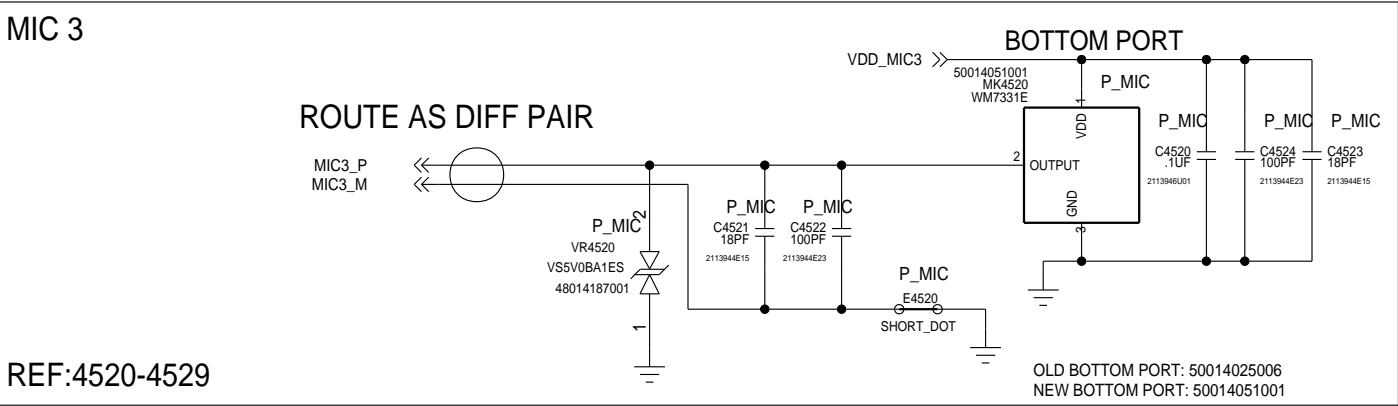
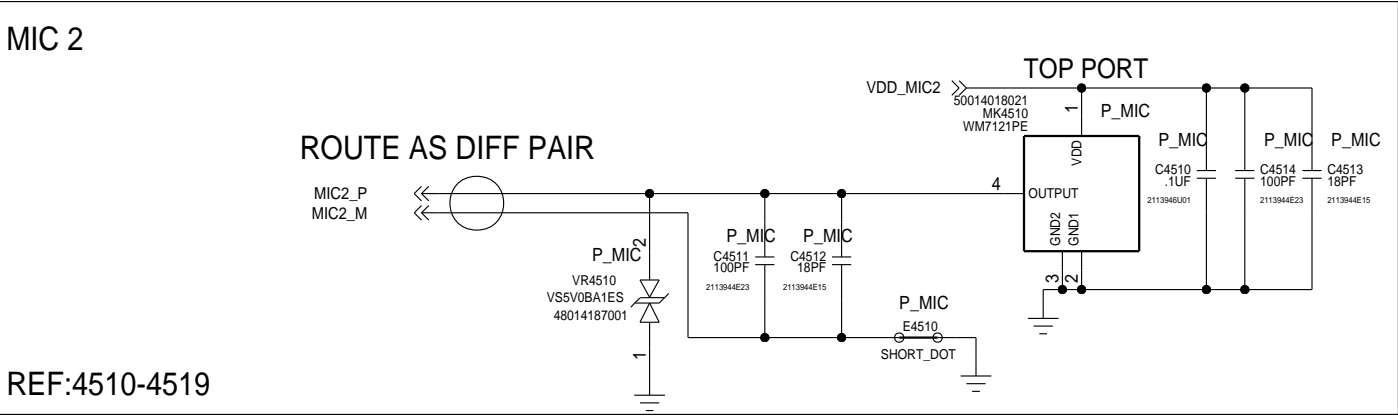
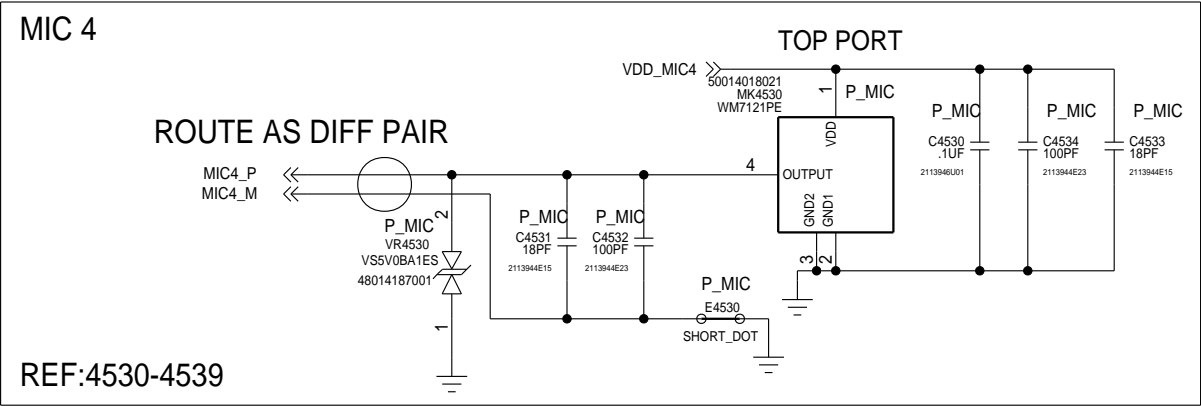
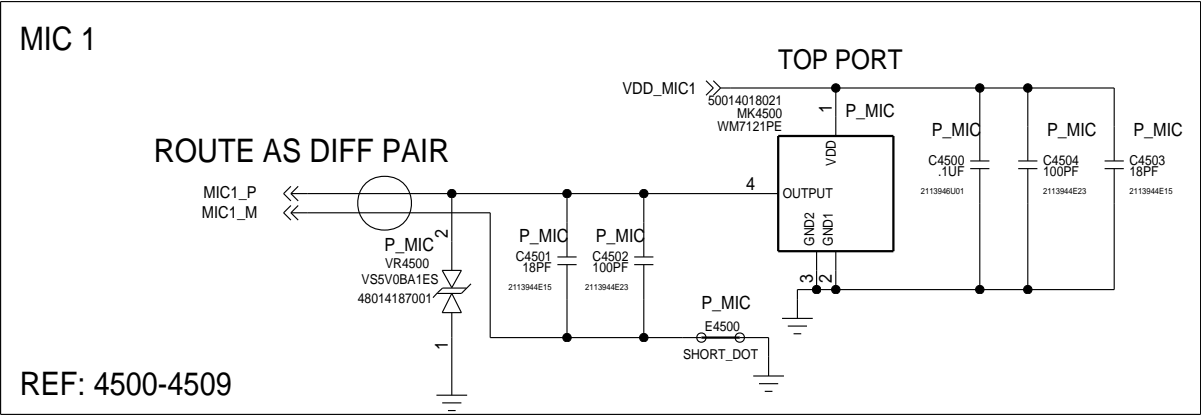
PROJECT NAME
84016517001_10.cpm


REV
01

CAD FILE NAME:

PAGE 16 OF 88

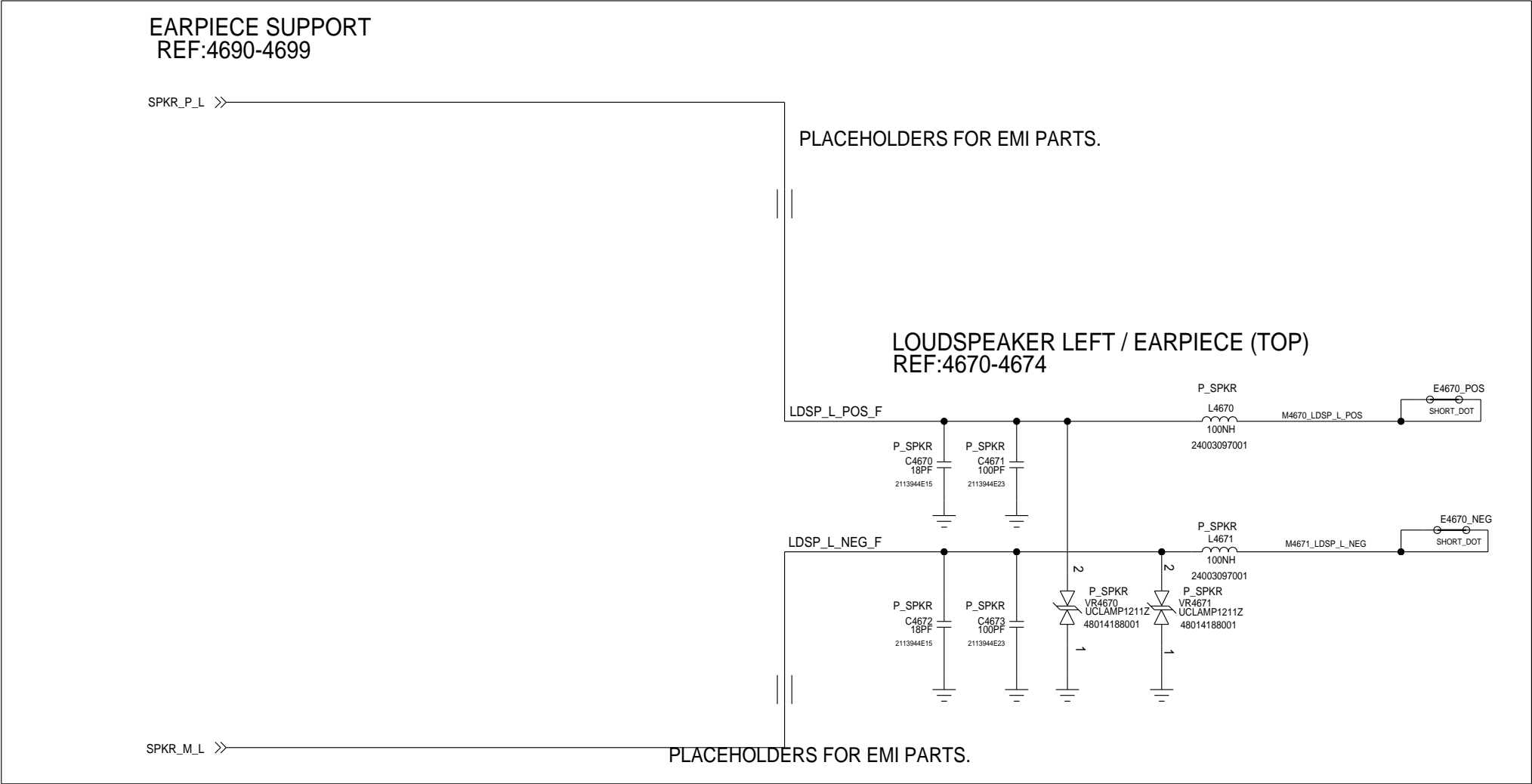
AFE: MICS
REF: 4500-4599



APPROVALS		 MOTOROLA MOBILE DEVICES	
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LAST MODIFIED BY: MOTOROLA Thu Mar 03 15:17:21 2016		PROJECT NAME B 84016517001_10.cpm	
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		REV 01	
		PAGE 17 OF 88	

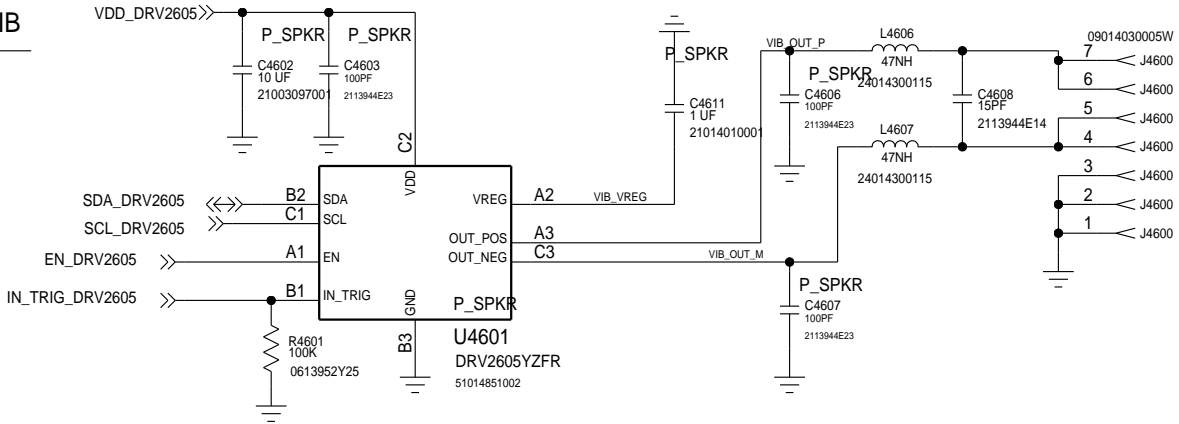
AFE: SPEAKERS


REF: 4600-4699



LINEAR VIBRATOR
REF DES 4600-4619

NOT USING COIN VIB
VIB_PWM_CONTROL >>



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: MOTOROLA		BLOCK TITLE: audio_fe	
LAST MODIFIED BY: MOTOROLA Thu Mar 03 15:17:21 2016		PROJECT NAME 84016517001_10.cpm	
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		CAD FILE NAME: PAGE 18 OF 88	

D

C



A

DELETED, NO NEED

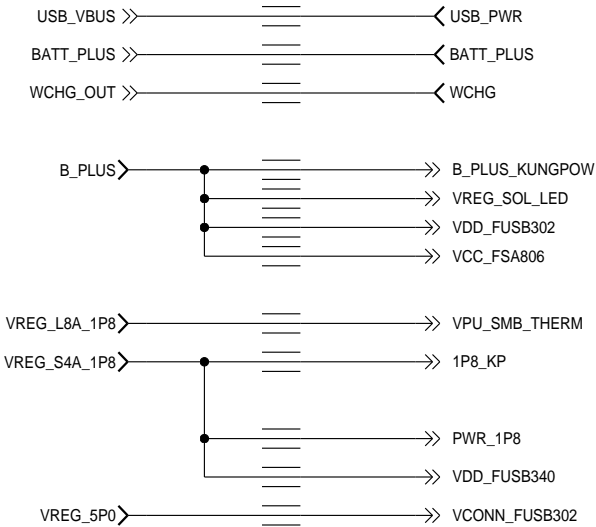
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A

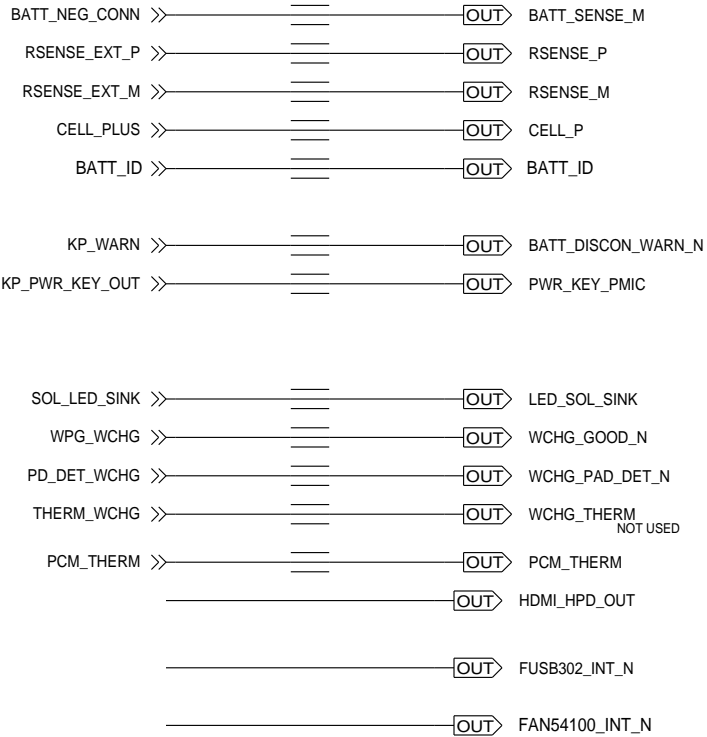
PWR: PORTS

REF 500-799

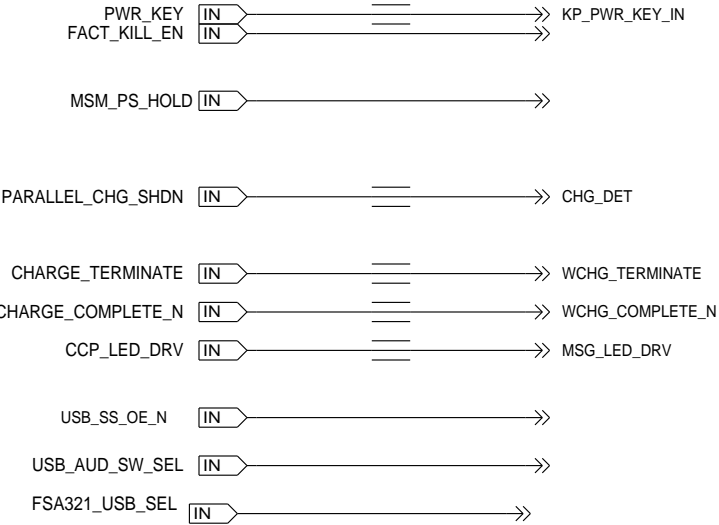
POWER



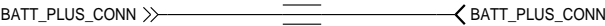
OUTPUTS



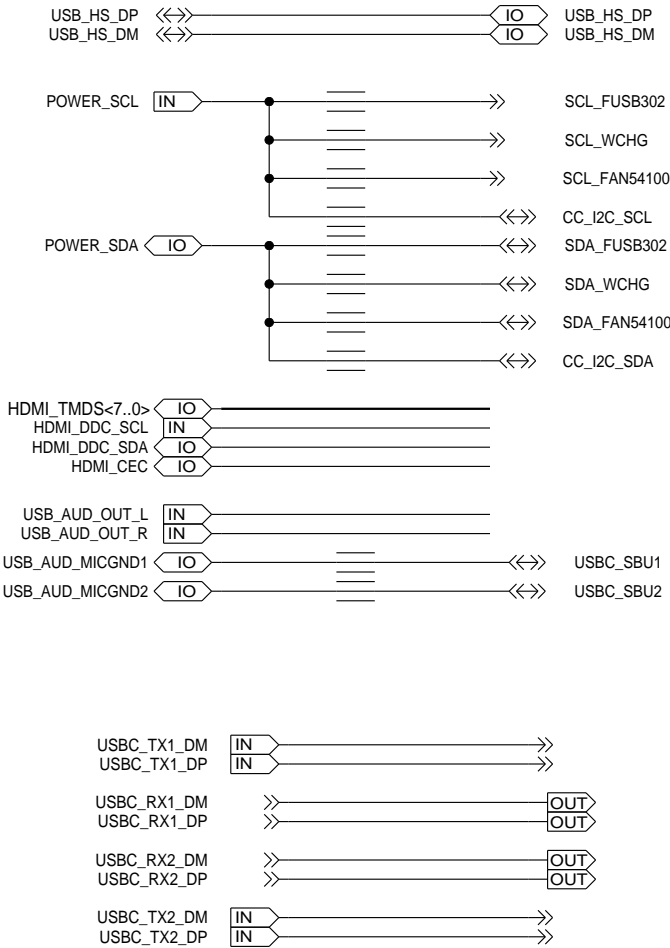
INPUTS



WING



INTERFACES



APPROVALS

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL
Thu Mar 03 15:17:17 2016

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BLOCK TITLE:

power

PROJECT NAME
B 84016517001_10.cpm

REV
01

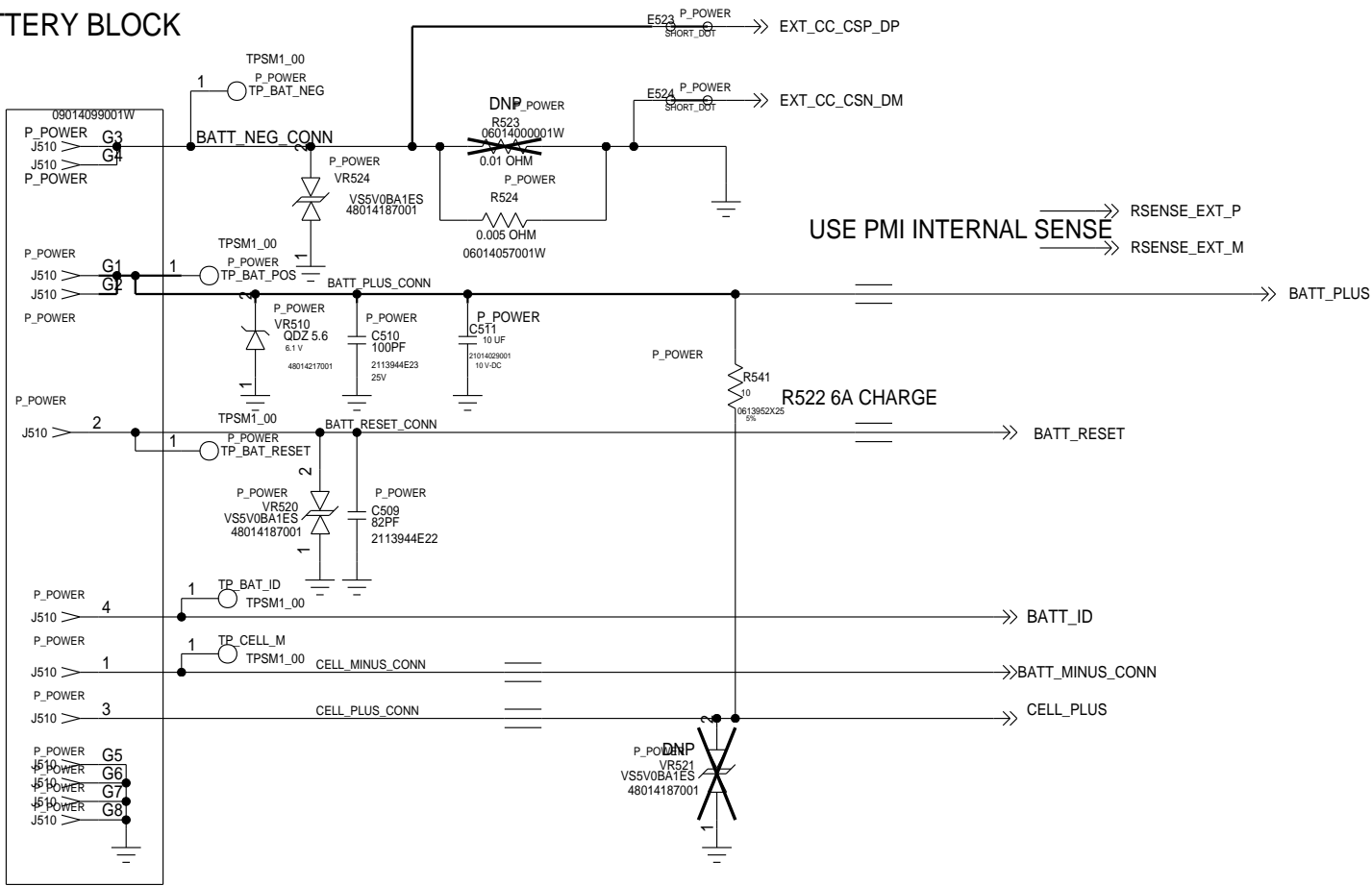
CAD FILE NAME:

PAGE 20 OF 88

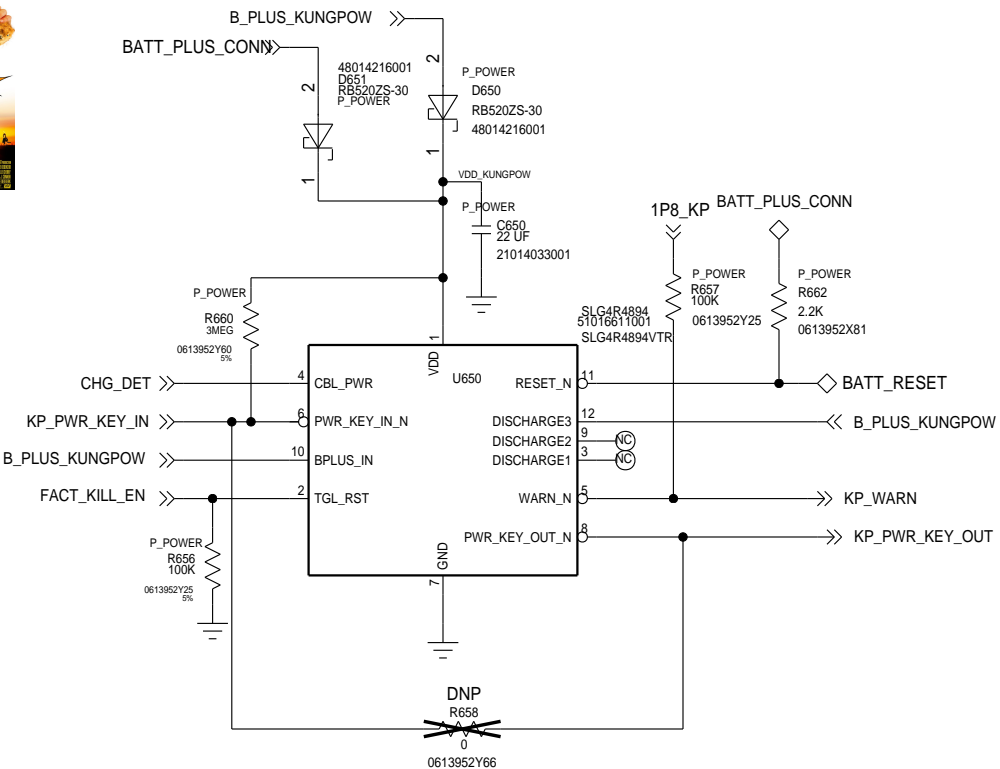
PWR: BATT

REF: 510-530

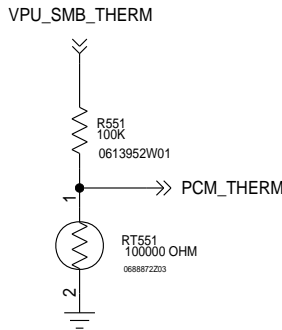
BATTERY BLOCK




KUNG KOW BATTERY DISCONNECT



PLACEHOLDER FOR VECTOR BATTERY THERMISTOR

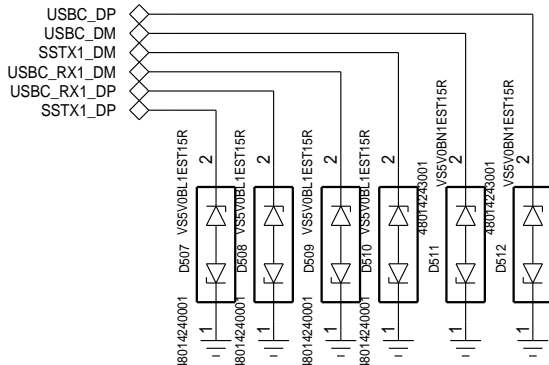
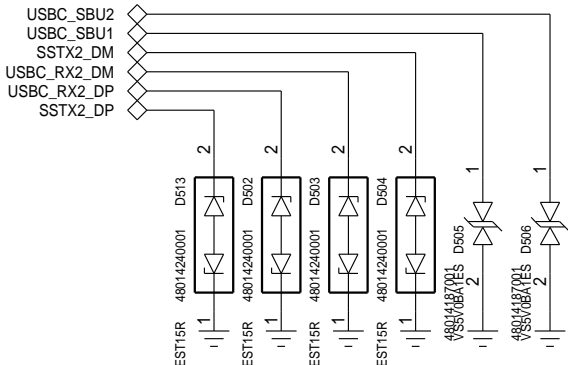
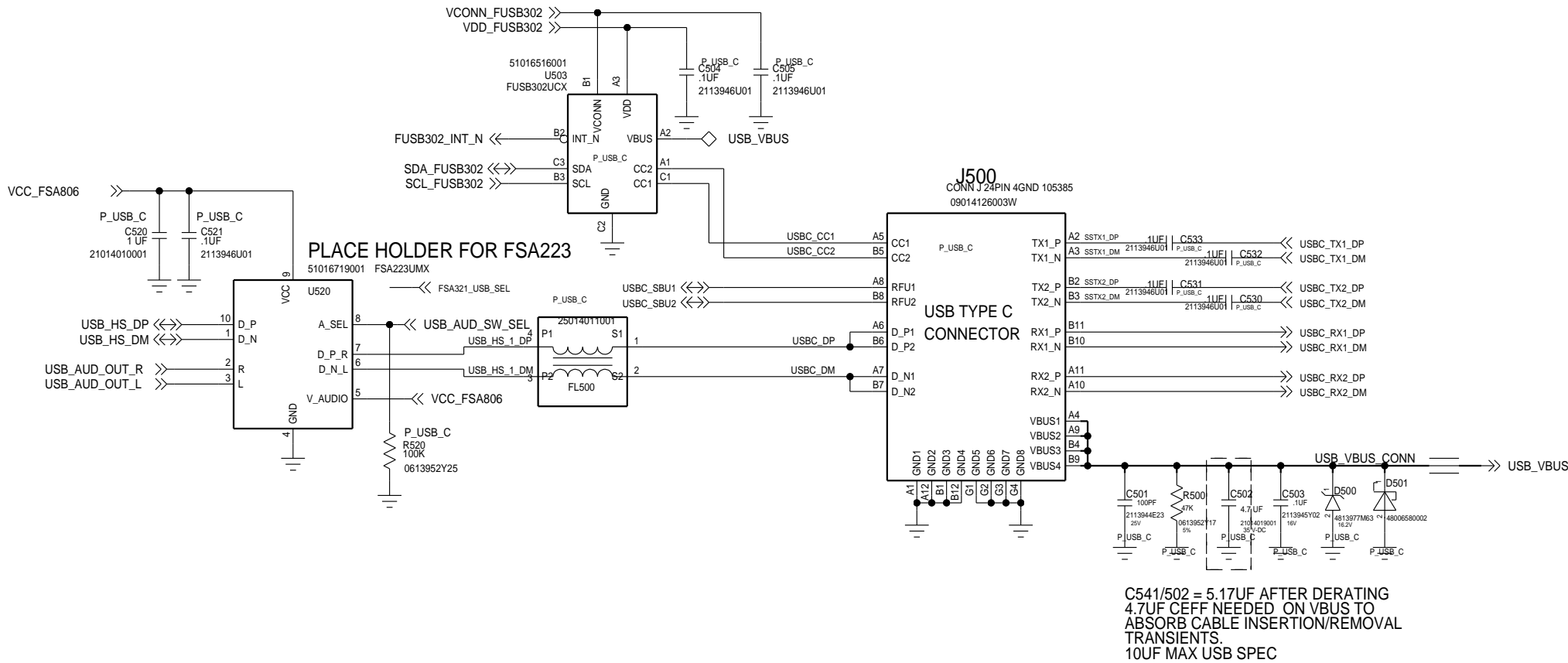


MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED


APPROVALS	 MOBILE DEVICES		
ENGINEER: RICH NG	BLOCK TITLE: power		
LAST MODIFIED BY: UDI ELRAN Thu Mar 03 15:17:17 2016			
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	CAD FILE NAME:		PAGE 21 OF 88

PWR: USB C

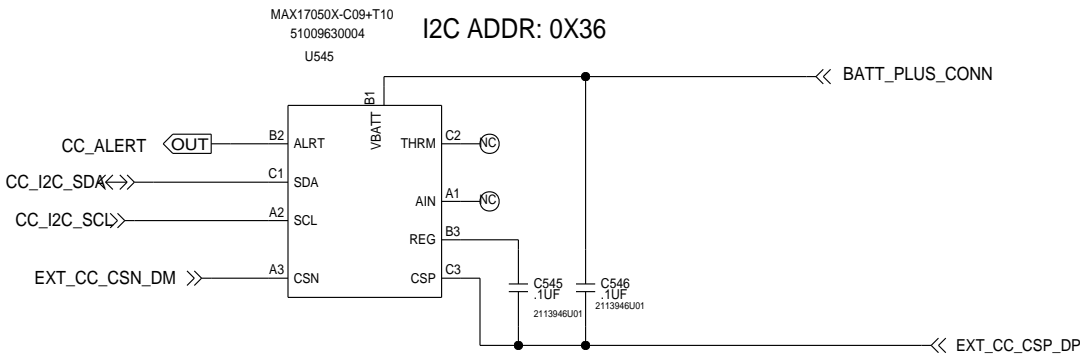
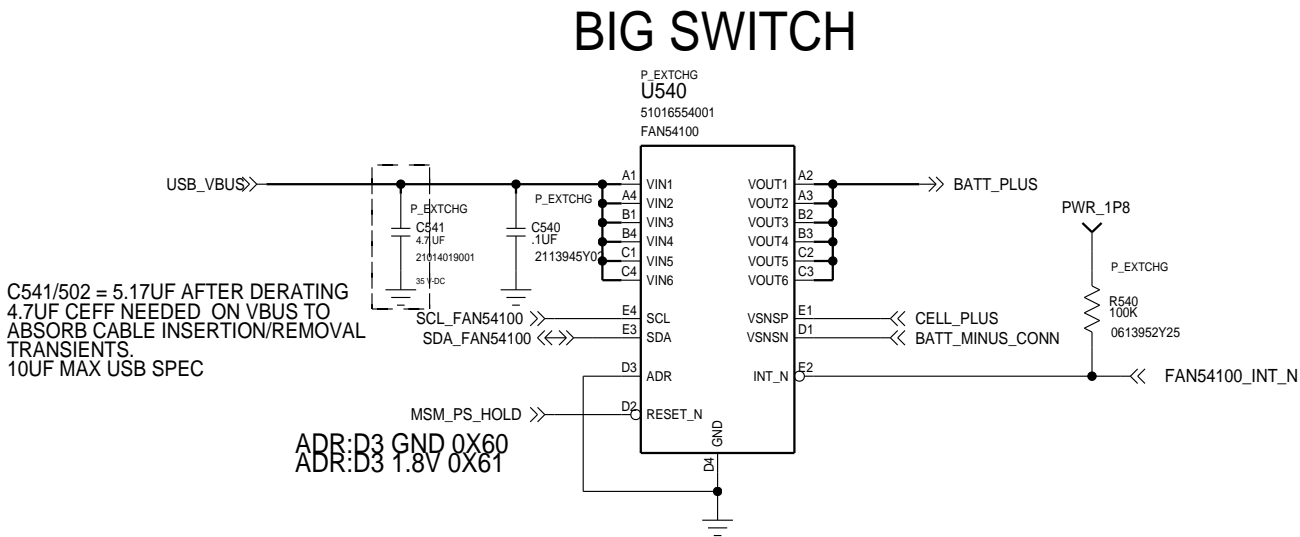
REF: 500-509, 520-539




MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

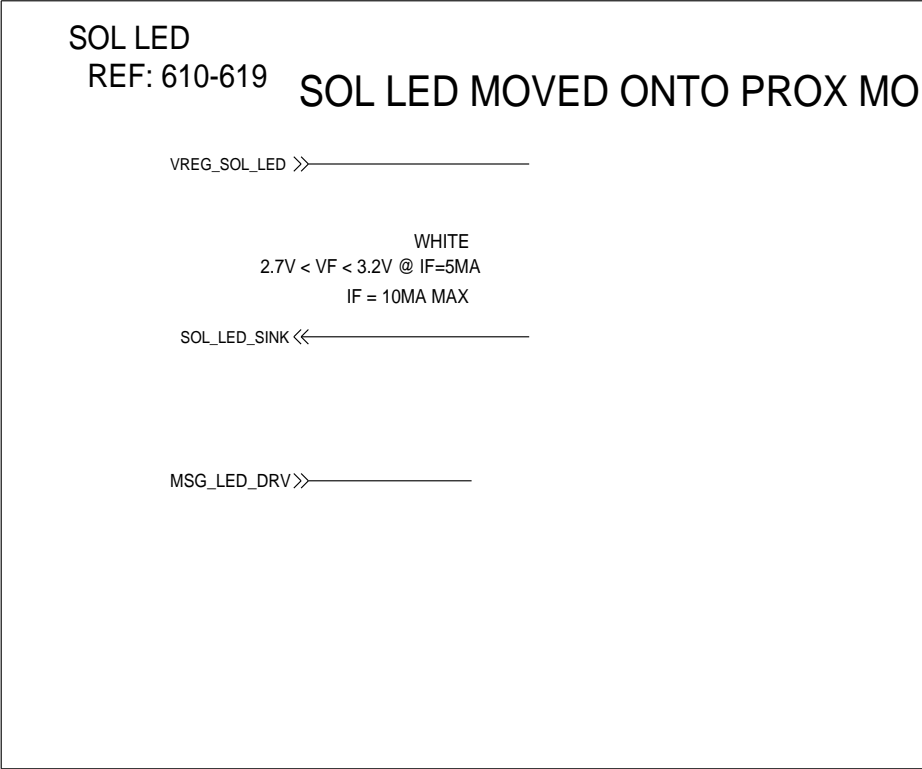
APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: MMI		BLOCK TITLE:	
LAST MODIFIED BY: MMI Thu Mar 03 15:17:18 2016		power	
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		84016517001_10.cpm	
		REV	
		01	
		PAGE 22 OF 88	

PWR: EXT CHG
REF: 540-549




APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: MMI		BLOCK TITLE:	
LAST MODIFIED BY: MMI Thu Mar 03 15:17:19 2016		power	
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		B 84016517001_10.cpm	REV 01
		CAD FILE NAME:	
		PAGE 23 OF 88	

PWR: LIGHTING

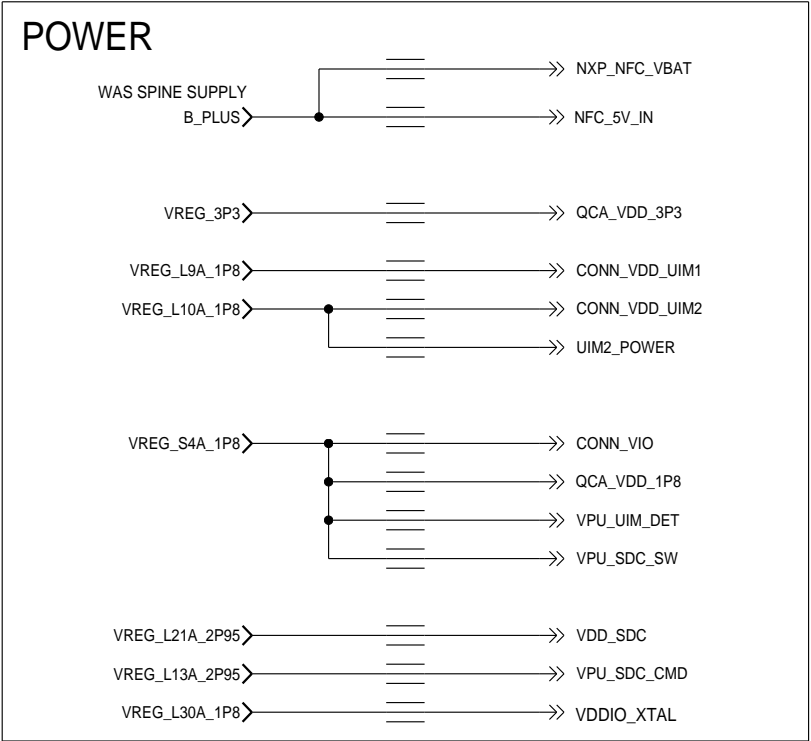



MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

APPROVALS		<div> MOTOROLA</div> <div>MOBILE DEVICES</div>	
ENGINEER:		BLOCK TITLE: power	
LAST MODIFIED BY: TIM MILLER Wed Feb 10 10:23:34 2016			
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		REV 01	
		CAD FILE NAME:	
		PAGE 24 OF 88	

CONN: POWER

REF 4490-4499



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: FROEHLING		BLOCK TITLE:	
LAST MODIFIED BY: FROEHLING Thu Mar 03 15:17:12 2016		connectivity	
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		B 84016517001_10.cpm	REV 01
		CAD FILE NAME:	
		PAGE 25 OF 88	

CONN: PORTS

REF 4000-4499

BT/WLAN SYSTEM

QCA61X4_CLK_REQ_OUT<OUT>====<< QCA61X4_CLK_REQ_OUT
BT_WLAN_32KHZ_CLK_IN [IN]====>> QCA61X4_32KHZ_CLK_IN

WLAN

WLAN_ENABLE [IN]====>> QCA61X4_WL_EN
QCA61X4_DBG_UART_TX<OUT>====<< QCA61X4_DBG_UART_TXD
QCA61X4_DBG_UART_RXD [IN]====>> QCA61X4_DBG_UART_RXD

PCIE

PCIE_CLK_REQ_OUT_N<OUT>====<< QCA61X4_PCIE_CLKREQ_N
PCIE_CLKIN_DP [IN]====>> QCA61X4_PCIE_REFCLKP
PCIE_CLKIN_DM [IN]====>> QCA61X4_PCIE_REFCLKN
PCIE_RX_DP [IN]====>> QCA61X4_PCIE_RXP
PCIE_RX_DM [IN]====>> QCA61X4_PCIE_RXN
PCIE_TX_DP<OUT>====<< QCA61X4_PCIE_TXP
PCIE_TX_DM<OUT>====<< QCA61X4_PCIE_TXN
PCIE_RST_IN_N [IN]====>> QCA61X4_PCIE_RST_N
PCIE_HOST_WAKE_OUT_N<OUT>====<< QCA61X4_PCIE_WAKE_N

BT CONTROLS AND INTERFACES

BT_ENABLE [IN]====>> QCA61X4_BT_EN

BT_PCM_IN [IN]====>> QCA61X4_PCM_IN
BT_PCM_OUT<OUT>====<< QCA61X4_PCM_OUT
BT_PCM_CLK [IN]====>> QCA61X4_PCM_CLK
BT_PCM_SYNC<IO>====<<=> QCA61X4_PCM_SYNC

BT_UART_TX<OUT>====<< QCA61X4_UART_TXD
BT_UART_RX [IN]====>> QCA61X4_UART_RXD
BT_UART_CTS_N [IN]====>> QCA61X4_UART_CTS_N
BT_UART_RTS_N<OUT>====<< QCA61X4_UART_RTS_N

CELLULAR MODEM/GPS COEXISTENCE

MODEM_LTE_SYNC_UART_RXD [IN]====>> QCA61X4_LTE_SYNC
MODEM_LTE_ACTIVE [IN]====>> QCA61X4_LTE_ACTIVE
WLAN_LTE_PRI_UART_TXD<OUT>====<< QCA61X4_LTE_PRI

NFC

NFC_ENABLE_IN [IN]====>> NXP_NFC_ENABLE_IN
NFC_IRQ_OUT<OUT>====<< NXP_NFC_IRQ_OUT
NFC_SCL [IN]====>> NXP_NFC_SCL
NFC_SDA<IO>====<<=> NXP_NFC_SDA
NFC_POWER_ON [IN]====>> NXP_NFC_PWR_ON
NFC_DL_REQ_IN [IN]====>> NXP_NFC_DL_REQ_IN (PN548 ONLY)

SDCARD

SDC_CLK [IN]====>> SDC_CLK
SDC_DET_N<OUT>====<< SDC_SW
SDC_CMD [IN]====>> SDC_CMD
SDC_DATA<3..0><IO>====<<=> SDC_DATA<3..0>

UIM1

UIM1_DATA <IO>====<<=> UIM1_DATA
UIM1_CLK [IN]====>> UIM1_CLK
UIM1_RST [IN]====>> UIM1_RST
UIM1_DET <OUT>====<< UIM1_DET

UIM2

UIM2_DATA <IO>====<<=> UIM2_DATA
UIM2_CLK [IN]====>> UIM2_CLK
UIM2_RST [IN]====>> UIM2_RST
UIM2_DET <OUT>====<< UIM2_DET

ANTENNA

WLAN2_4G_STREAM0_BT <IO>====<<=> BT_WLAN2_4G_S0
WLAN2_4G_STREAM1 <IO>====<<=> WLAN2_4G_S1
WLAN2_4G_STREAM1_TOP <IO>====<<=> WL_RFIO_LO_S1_TOP
WLAN2_4G_STREAM1_BOT <IO>====<<=> WL_RFIO_LO_S1_BOT
WLAN_5G_STREAM0 <IO>====<<=> WLAN_5G_S0
WLAN_5G_STREAM1 <IO>====<<=> WLAN_5G_S1
LB_HB_DRX_NFC_ANT <IO>====<<=> LB_HB_DRX_NFC_ANT
GPS_MBDRX_WLAN2_4G_NFC_ANT<IO>====<<=> GPS_MBDRX_WLAN2_4G_NFC_ANT

APPROVALS

ENGINEER: FROEHLING

LAST MODIFIED BY: FROEHLING
Tue Feb 09 09:20:54 2016

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MOTOROLA

MOBILE DEVICES

BLOCK TITLE:

connectivity

PROJECT NAME

B 84016517001_10.cpm

REV

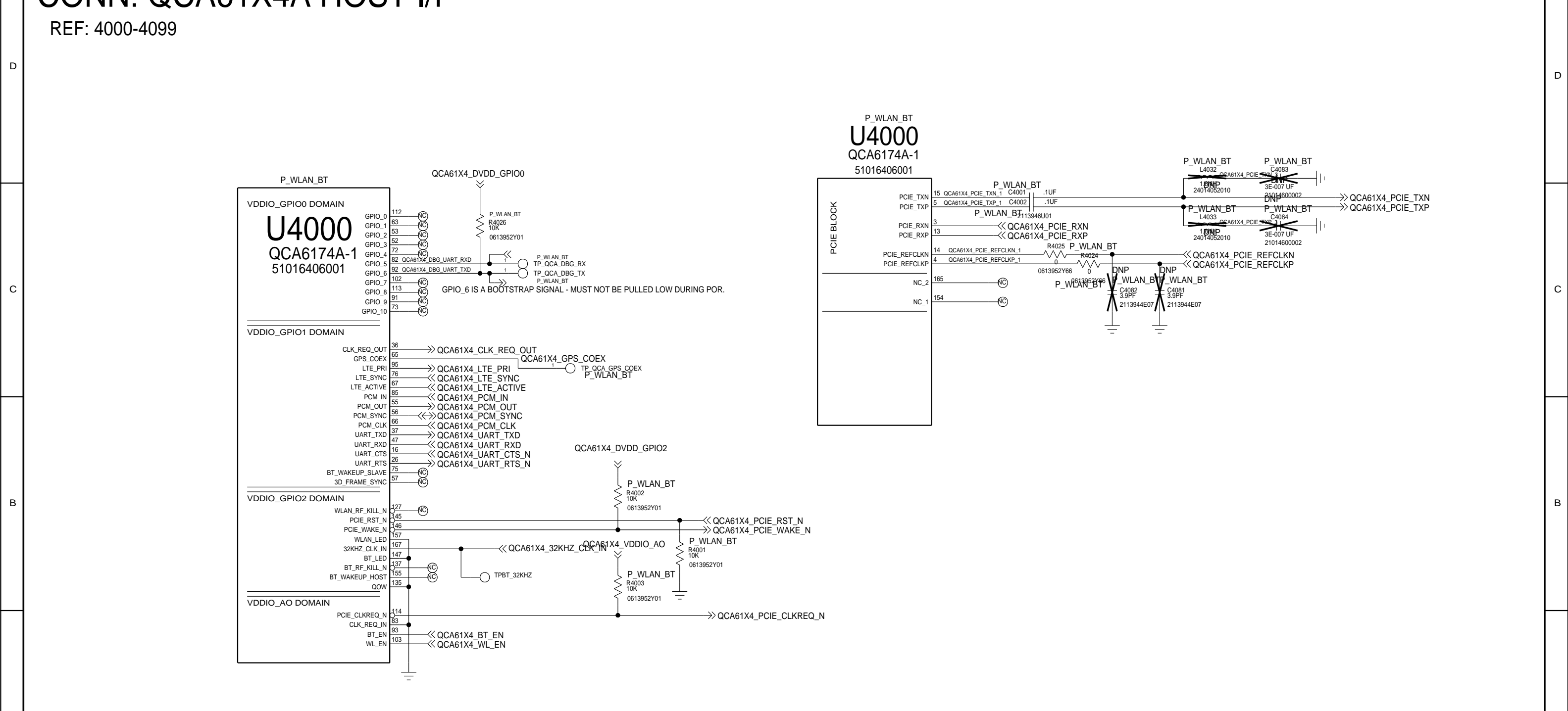
01

CAD FILE NAME:


PAGE 26 OF 88

8	7	6	5	4	3	2	1
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CONN: QCA61X4A HOST I/F



A		MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED	A
	APPROVALS		MOTOROLA MOBILE DEVICES
	ENGINEER: FROEHLING		BLOCK TITLE:
	LAST MODIFIED BY: FROEHLING Thu Mar 03 15:17:13 2016		connectivity
	<div style="text-align: center;">MOTOROLA CONFIDENTIAL RESTRICTED</div> <div style="font-size: small; text-align: center;"><p>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.</p><p>© COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</p></div>		<div style="float: right;">REV 01</div> <div style="clear: both;"></div> <div style="float: left;">B PROJECT NAME 84016517001_10.cpm</div> <div style="clear: both;"></div> CAD FILE NAME: <div style="float: right;">PAGE 27 OF 88</div> <div style="clear: both;"></div>
BASED ON 80-WL420-42 REV. D			

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: FROEHLING		BLOCK TITLE: <h1>connectivity</h1>	
LAST MODIFIED BY: FROEHLING Thu Mar 03 15:17:13 2016			
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		CAD FILE NAME:	
		PAGE 27 OF 88	

D



A



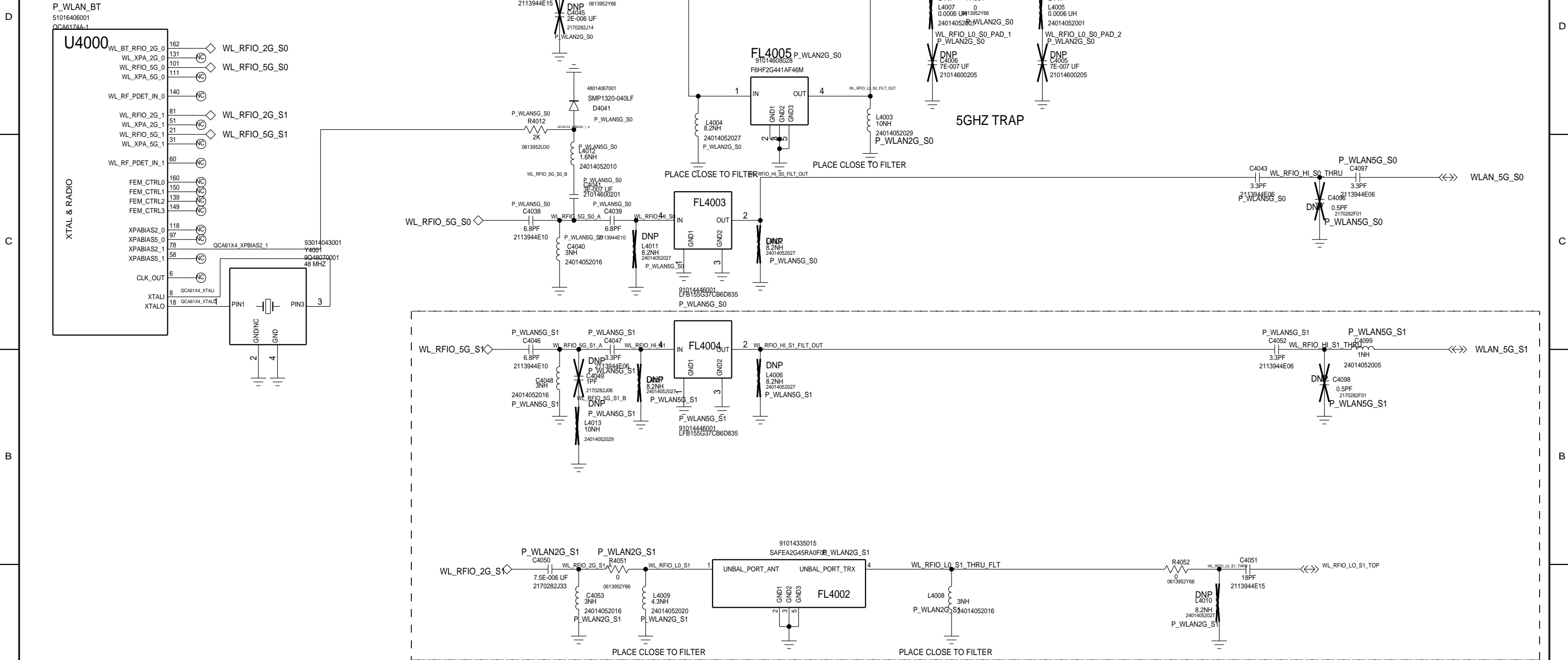
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2




B

CONN: QCA61X4A RADIO/XTAL
REF 4000-4099



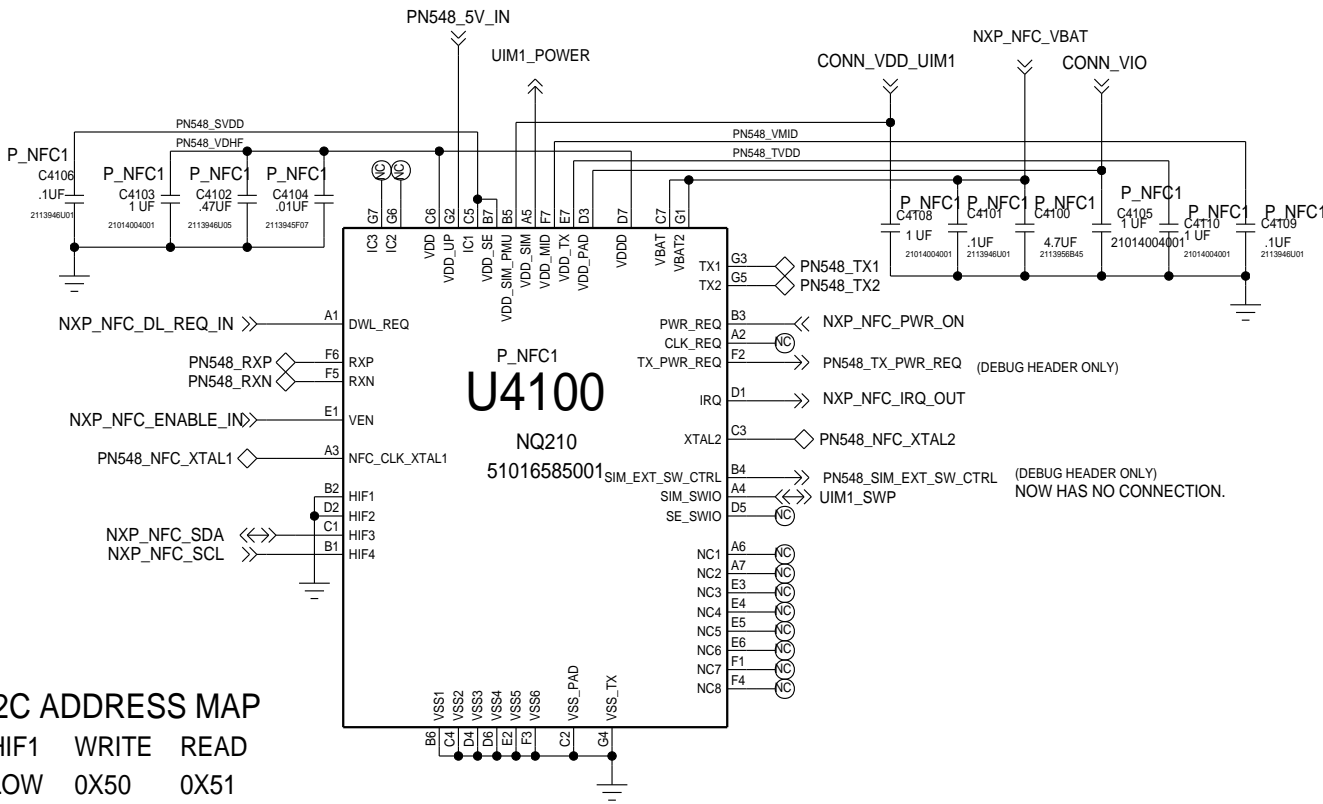
SECOND CHAIN SUPPORT FOR QCA6174A ONLY

BASED ON 80-WL420-42 REV. C / 80-WL420-43 REV. E

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: FROEHLING		BLOCK TITLE:	
LAST MODIFIED BY: FROEHLING Wed Mar 16 16:40:21 2016		connectivity	
MOTOROLA CONFIDENTIAL RESTRICTED		PROJECT NAME	REV
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		CAD FILE NAME:	
		PAGE 29 OF 88	

CONN: NXP NFC

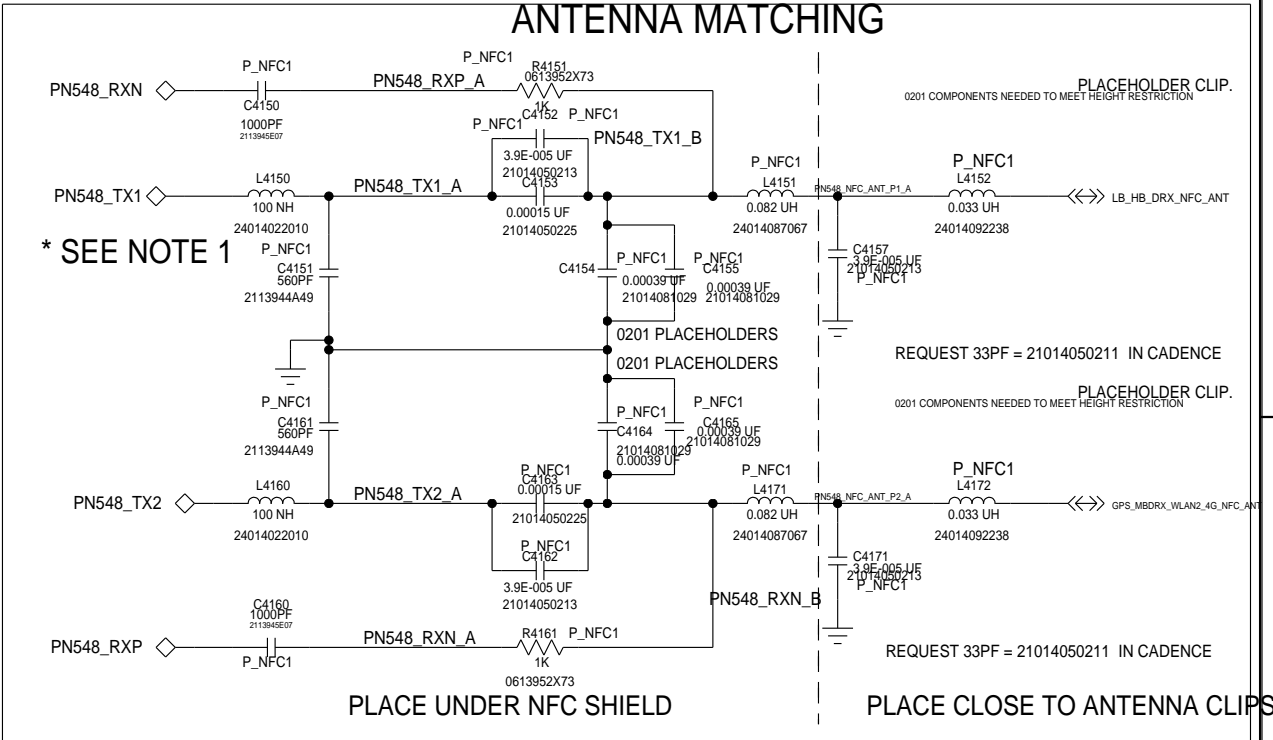
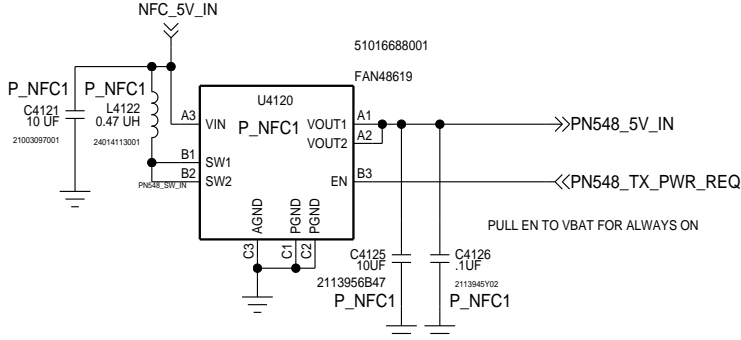
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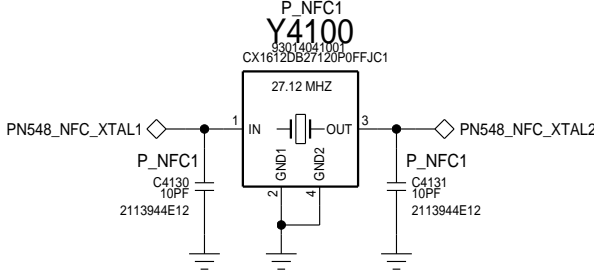
PN548 I2C ADDRESS MAP

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

ALL ADDRESSES OK VS BUNKER HILL M2




REFERENCE DESIGNATOR	27.12 MHZ CRYSTAL OSCILLATOR	19.2 MHZ EXTERNAL CLOCK
C4130	PLACE	DNI
C4131	PLACE	DNI
C4190	DNI	PLACE
Y4100	PLACE	DNI

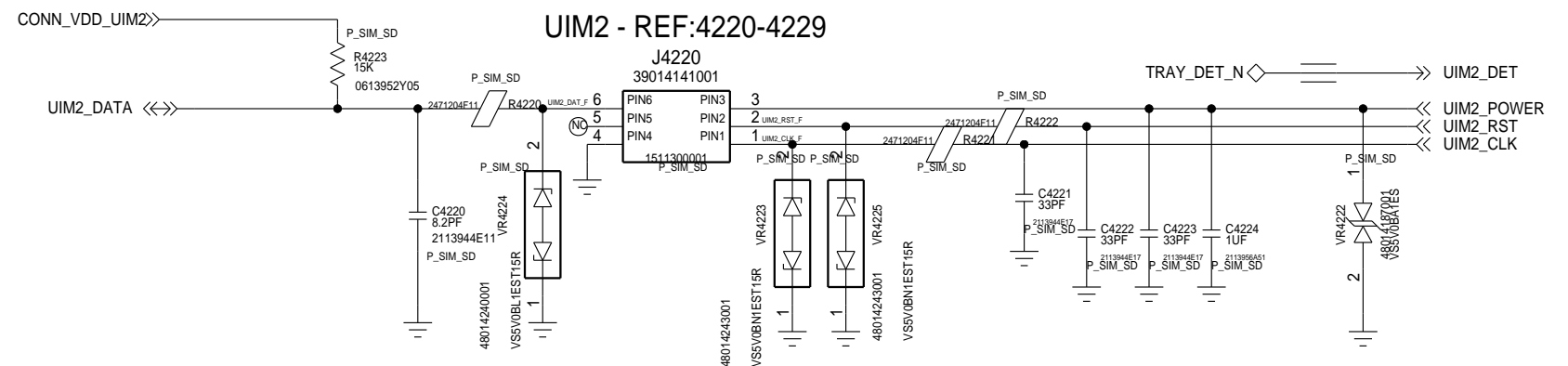
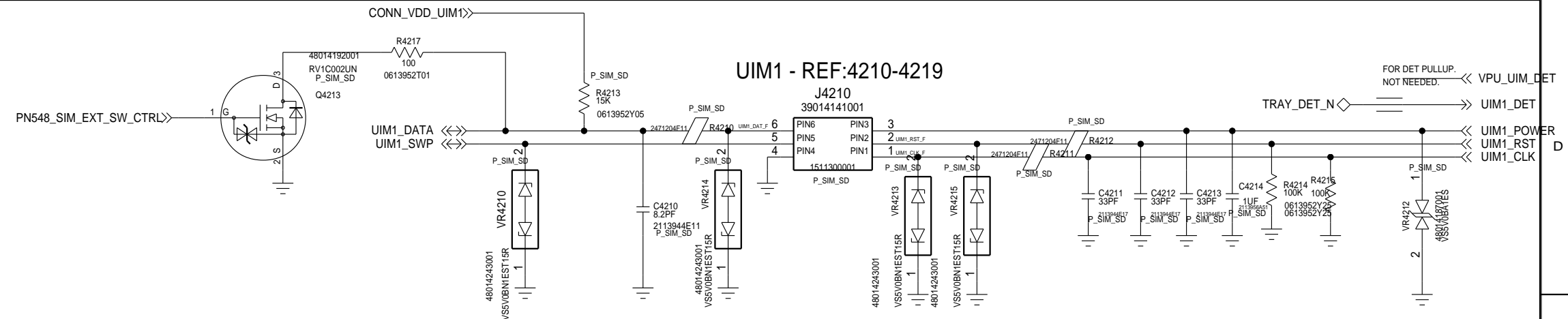


NOTES:

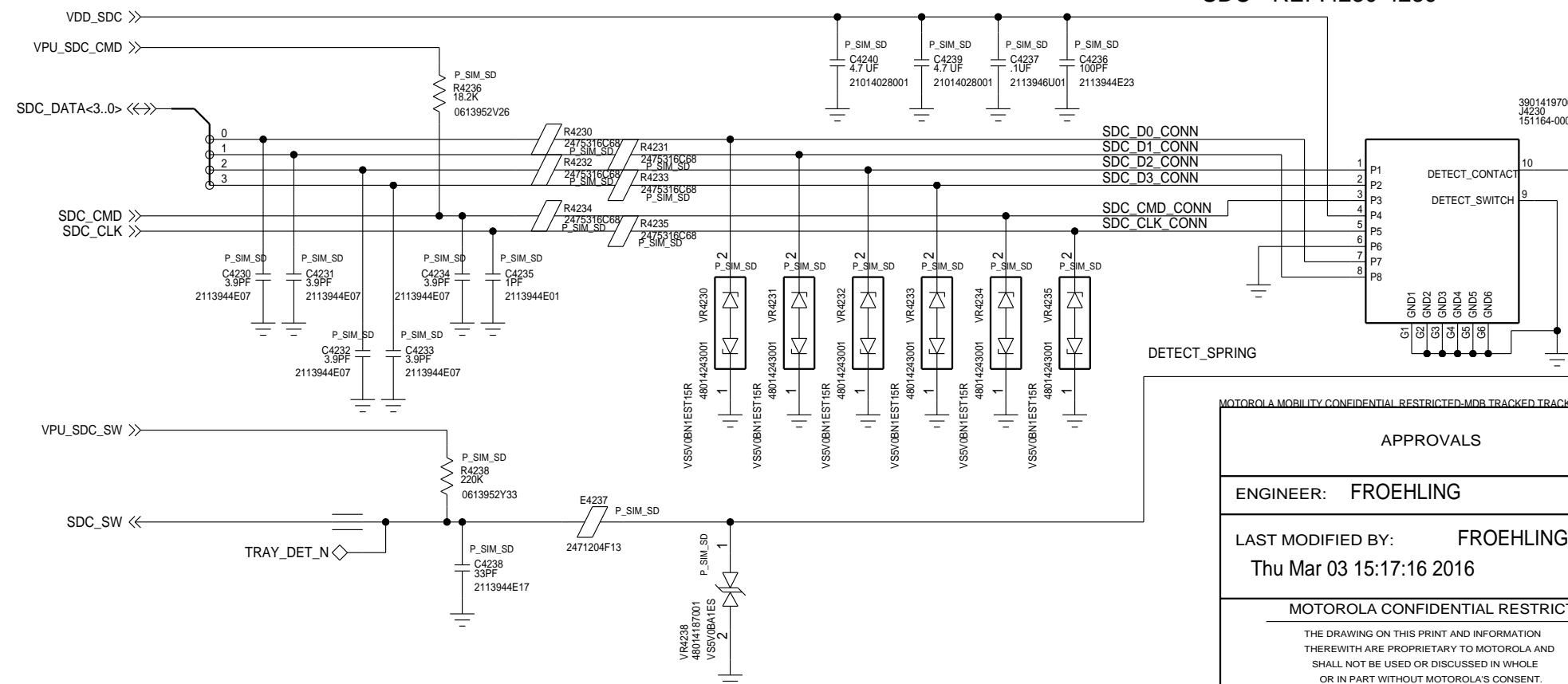
1. L4150W AND L4160W PLACEMENT MUST MINIMIZE MUTUAL INDUCTIVE COUPLING, OR CIRCUIT'S WIRELESS FUNCTION WILL BE SEVERELY IMPAIRED.

APPROVALS		<div> MOTOROLA</div> <div>MOBILE DEVICES</div>		
ENGINEER: FROEHLING		BLOCK TITLE: connectivity		
LAST MODIFIED BY: FROEHLING Thu Mar 03 15:17:15 2016				
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		B 84016517001_10.cpm		01
		CAD FILE NAME:		PAGE 30 OF 88


CONN: UIM1 / UIM2 / SD
REF:4200-4299



SDC - REF:4230-4239



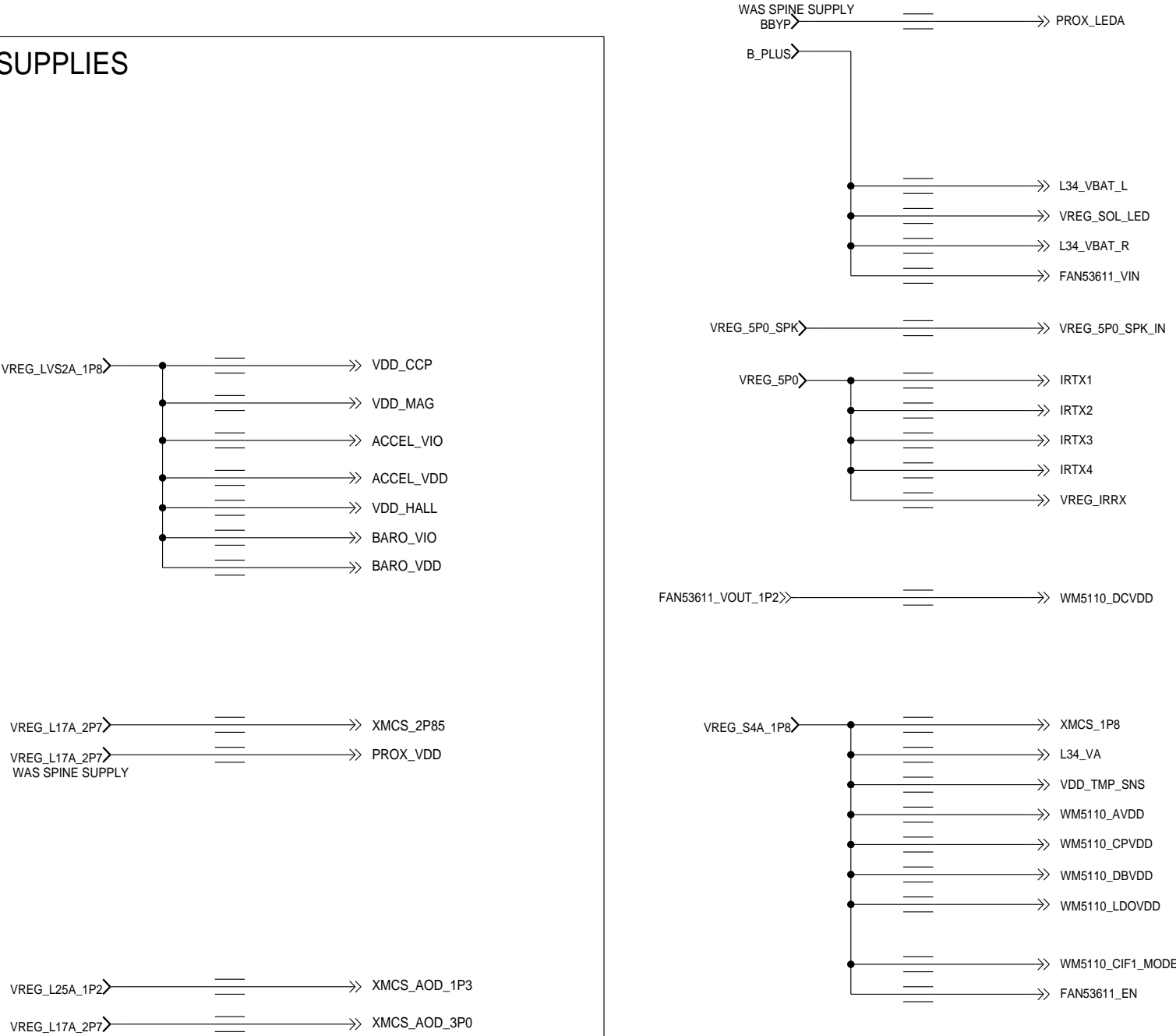
TRAY INSERTED = SWITCH CLOSE = LOGIC L
TRAY REMOVED = SWITCH OPEN = LOGIC H


APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: FROEHLING		BLOCK TITLE: <h1>connectivity</h1>	
LAST MODIFIED BY: FROEHLING Thu Mar 03 15:17:16 2016			
MOTOROLA CONFIDENTIAL RESTRICTED		PROJECT NAME B 84016517001_10.cpm	REV 01
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XMCS: POWER

REF 6000-6999

SUPPLIES

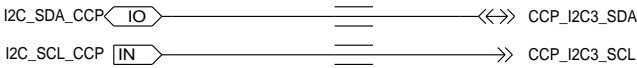
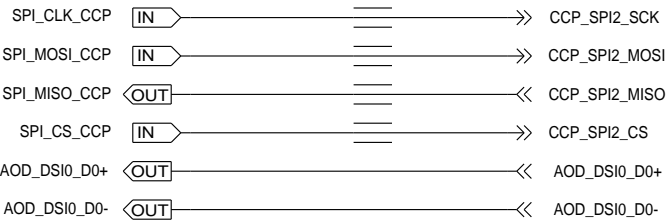
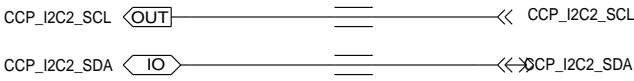
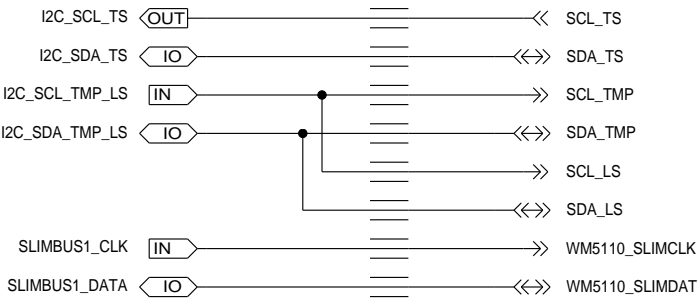


APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: NATE CONNELL		BLOCK TITLE:	
LAST MODIFIED BY: NATE CONNELL Thu Mar 03 15:17:08 2016		xmcs	
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		B 84016517001_10.cpm	REV 01
		CAD FILE NAME:	
		PAGE 32 OF 88	

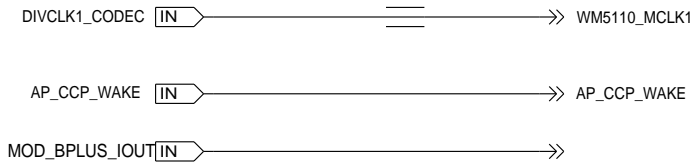
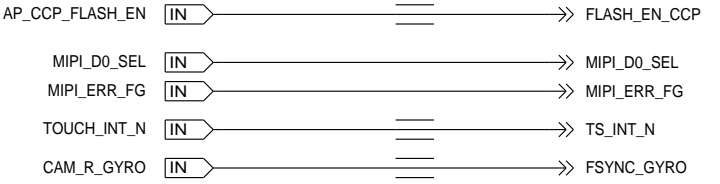
XMCS: PORTS

REF 6000-6999

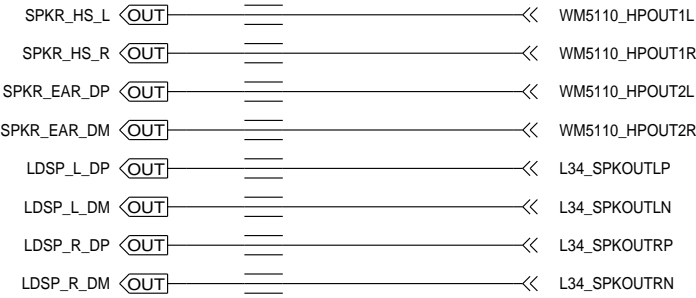
INTERFACES



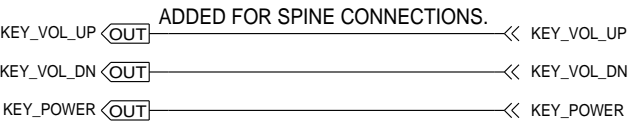
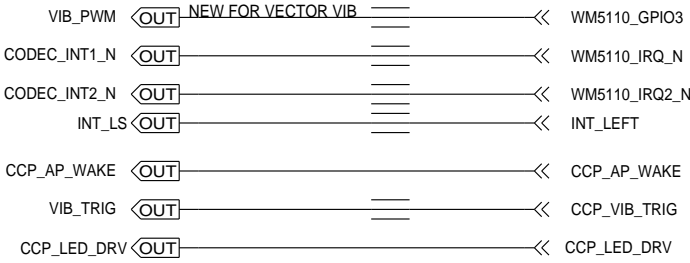
INPUTS



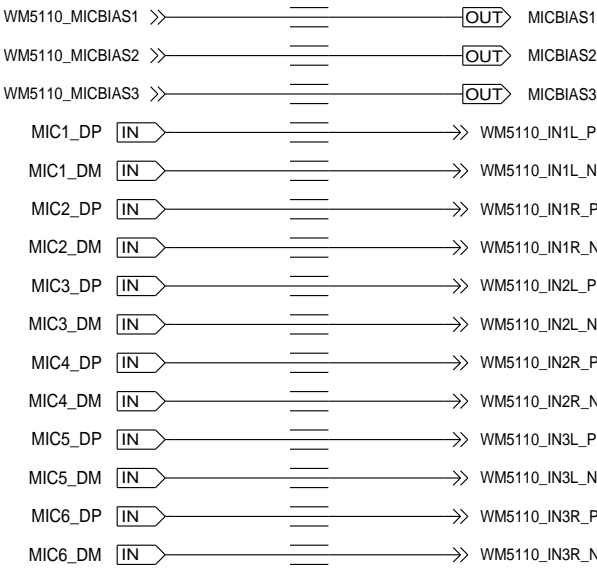
SPEAKER PATHS



OUTPUTS



MICROPHONES



APPROVALS

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL
Wed Feb 10 10:09:03 2016

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BLOCK TITLE:

xmcs

PROJECT NAME
B 84016517001_10.cpm

CAD FILE NAME:


REV
01


D


C





A


CCP_DSP_INT  —

CCP_AP_INT  —

CCP_SPI2_SCK  —

CCP_SPI2_MOSI  —

CCP_SPI2_MISO  —

CCP_SPI2_CS  —

APPROVALS

LAST MODIFIED BY: NATE CONNELL
Thu Mar 03 15:17:09 2016

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	PROJECT NAME
B	84016517001_10.cpm

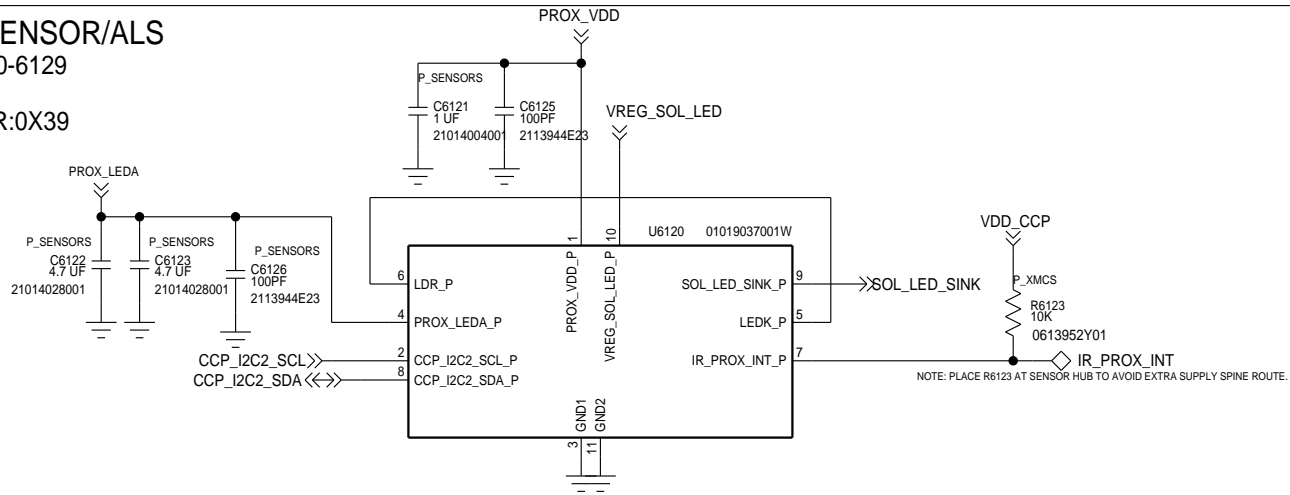
PAGE 34 OF 88

XMCS: SENSORS

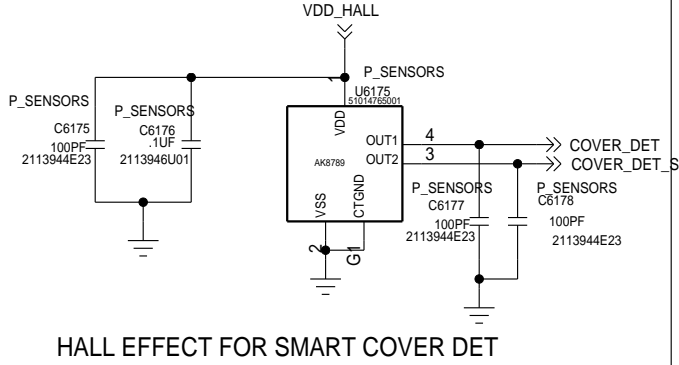
REF: 6100-6199

PROX SENSOR/ALS
REF:6120-6129

I2C ADDR:0X39

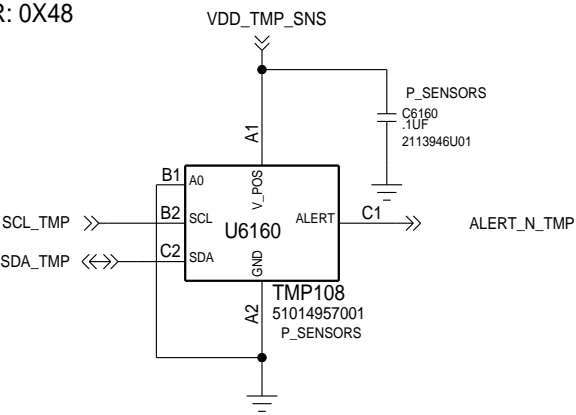


HALL EFFECT
REF:6170-6179



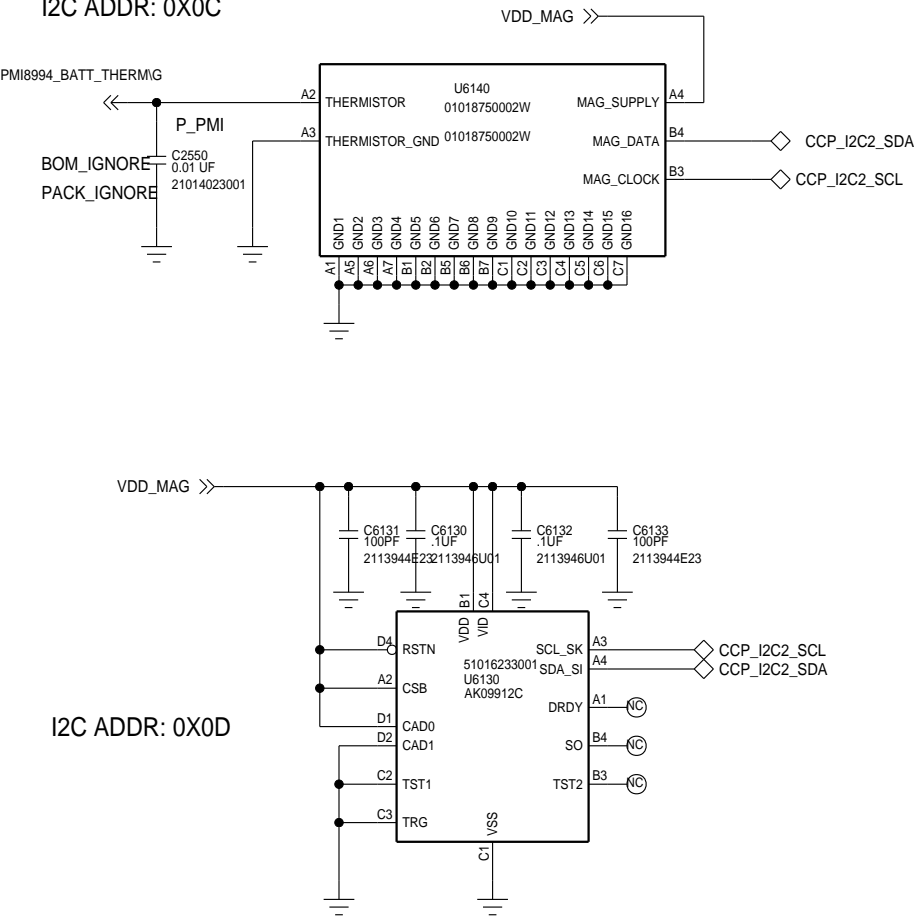
BOARD TEMP SENSORS
REF:6160-6169

I2C ADDR: 0X48



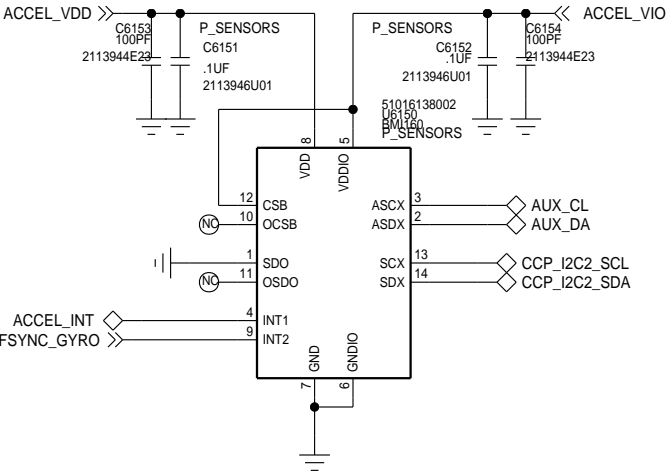
MAGNETOMETER
REF:6140-6149

I2C ADDR: 0X0C



ACCELEROMETER+GYRO
REF:6150-6159

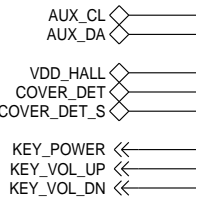
I2C ADDR: 0X68



SPINE CONNECTIONS

NOTE: SPINE BRD DELETED

U9999 (01018645001W) XMCS BLK DELETED



BACK SIDE PROX SENSOR/ALS
REF:6110-6119 DELETED

MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

JOHN GORSICA/NATE CONNELL APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: MOTOROLA		BLOCK TITLE:	
LAST MODIFIED BY: MOTOROLA Fri Mar 04 10:10:47 2016		xmcs	
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		REV 01	
		CAD FILE NAME:	
		PAGE 35 OF 88	

XMCS: IR GESTURES

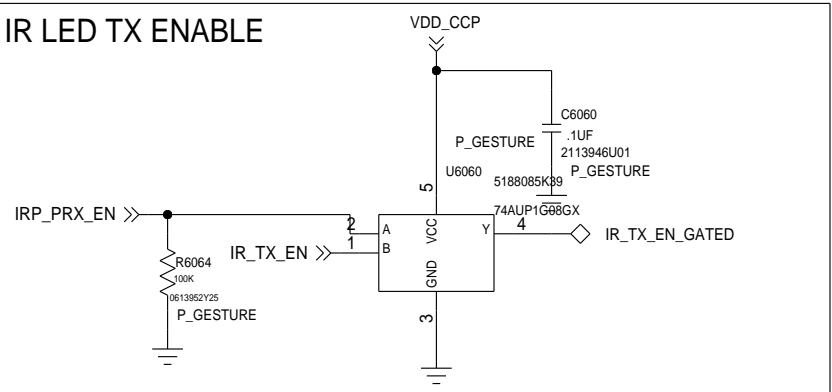
REF 6500-6549

IR TX 3
LOWER LEFT

IR TX 2
LOWER RIGHT

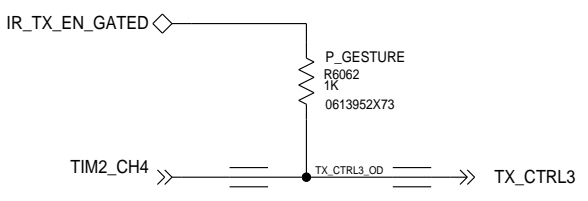
IR TX 1
UPPER LEFT

IR LED TX ENABLE



IR LED 3 DRIVE

TIM2_CH4 IS OPEN DRAIN



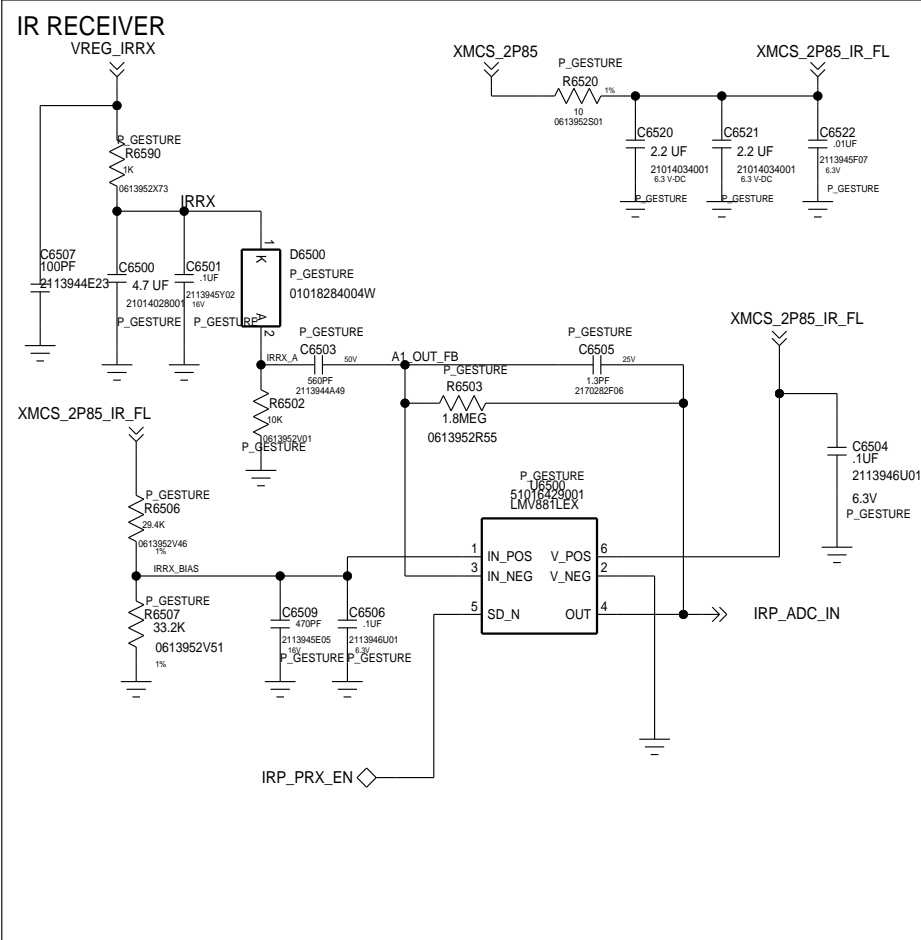
IR LED 2 DRIVE

TIM2_CH3 IS OPEN DRAIN


IR LED 1 DRIVE

TIM2_CH1 IS OPEN DRAIN

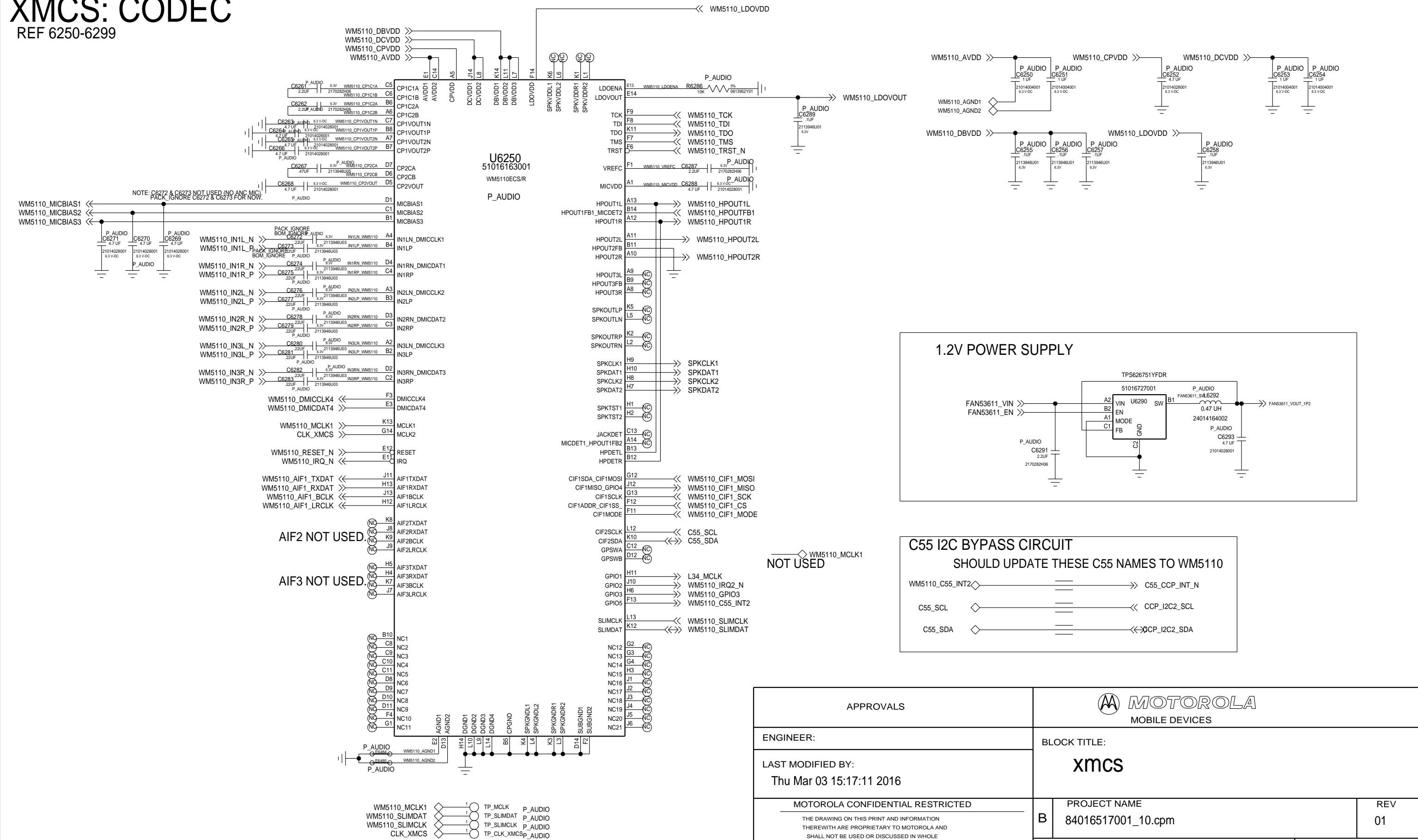
NOTE: CAUSE TX1 TO FIRE FOR TX3 AS WELL.




MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: MATT MOTTIER		BLOCK TITLE: xmcs	
LAST MODIFIED BY: UDI ELRAN Thu Mar 03 15:17:10 2016		PROJECT NAME 84016517001_10.cpm	
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CAD FILE NAME:		PAGE 36 OF 88	

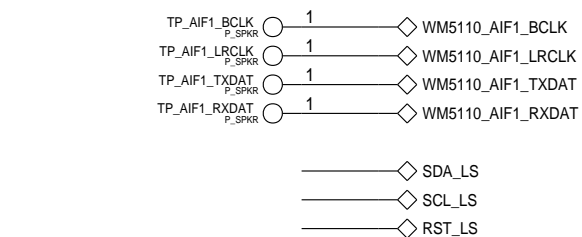
XMCS: CODEC



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE: <h1>xmcs</h1>	
LAST MODIFIED BY: Thu Mar 03 15:17:11 2016			
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		CAD FILE NAME:	
		PAGE 37 OF 88	

REF 6400-6499

```
I2C ADDR: FOR WRITE 0X80
I2C ADDR: FOR READ 0X81
```



```

I2C ADDR: FOR WRITE 0X82
I2C ADDR: FOR READ  0X83

```

APPROVALS

ENGINEER:

LAST MODIFIED BY:

Thu Mar 03 15:17:11 2016

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BLOCK TITLE:

xmcs

PROJECT NAME

B	84016517001_10.cpm
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EV
1

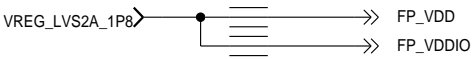
CAD FILE NAME:

PAGE 38 OF 88

USR: PORTS

REF: 800-999

SUPPLIES




INTERFACES



GPIO - INPUT

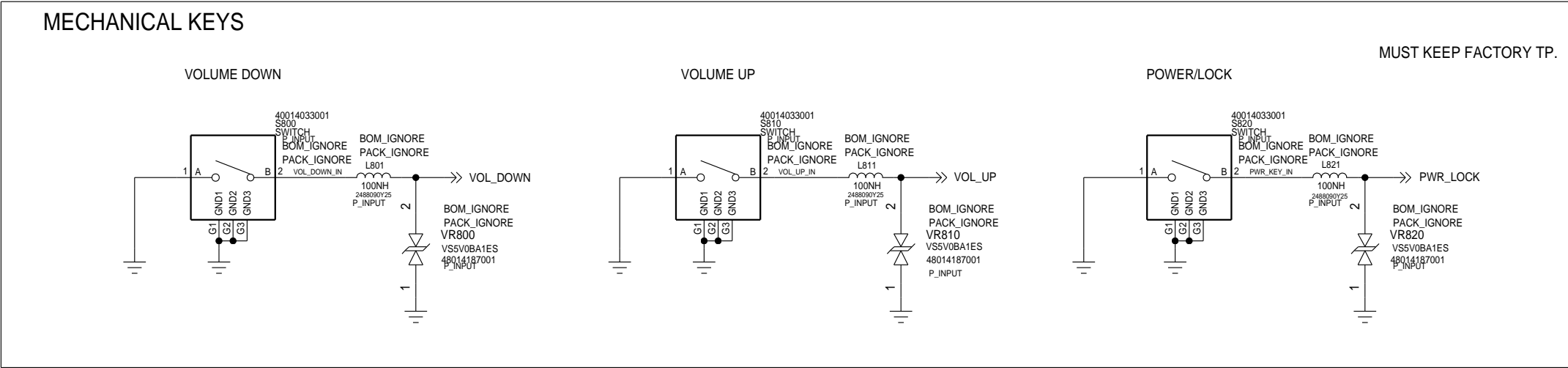
GPIO - OUTPUT



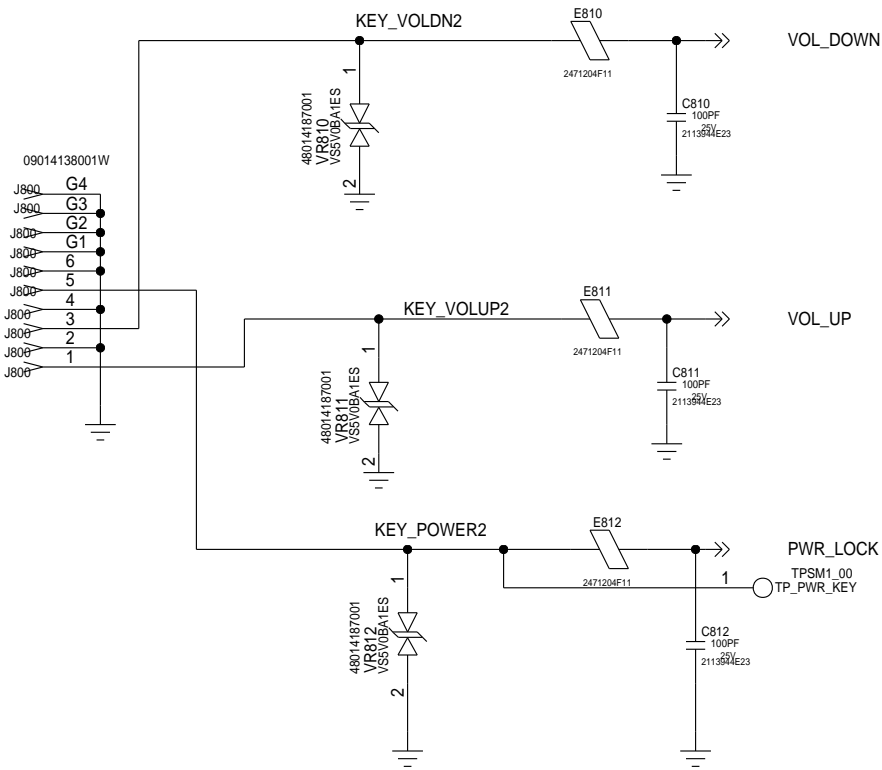
APPROVALS		<div> MOTOROLA</div> <div>MOBILE DEVICES</div>	
ENGINEER: NATE CONNELL		BLOCK TITLE: user_input	
LAST MODIFIED BY: NATE CONNELL Thu Mar 03 15:17:06 2016			
<div>MOTOROLA CONFIDENTIAL RESTRICTED</div> <div>THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT.</div> <div>© COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</div>		<div>B</div> <div>PROJECT NAME</div> <div>84016517001_10.cpm</div>	<div>REV</div> <div>01</div>
		<div>CAD FILE NAME:</div> <div>PAGE 39 OF 88</div>	


USR: INPUT

REF: 800-899



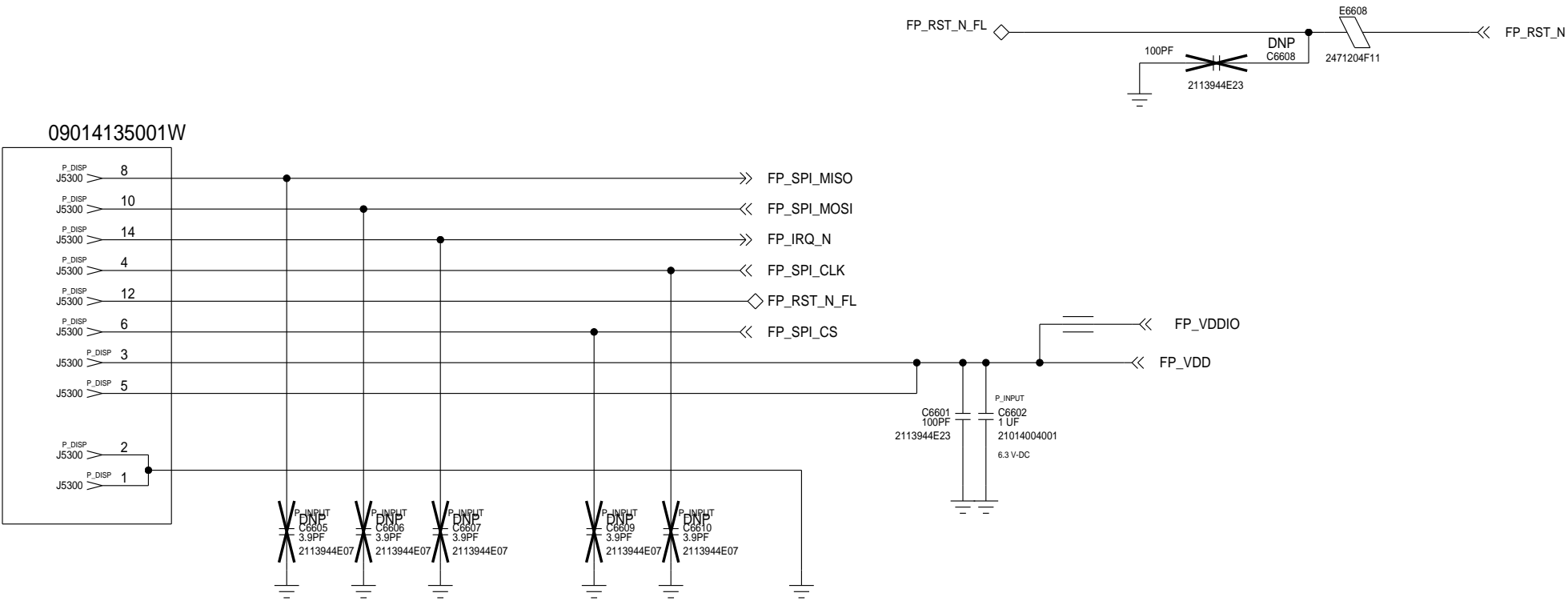
SIDEKEY FLEX CONN



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: NATE CONNELL		BLOCK TITLE:	
LAST MODIFIED BY: NATE CONNELL Thu Mar 03 15:17:07 2016		user_input	
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 84016517001_10.cpm	
		CAD FILE NAME:	
		REV 01	
		PAGE 40 OF 88	

USR: FPC

REF: 6600 - 6699



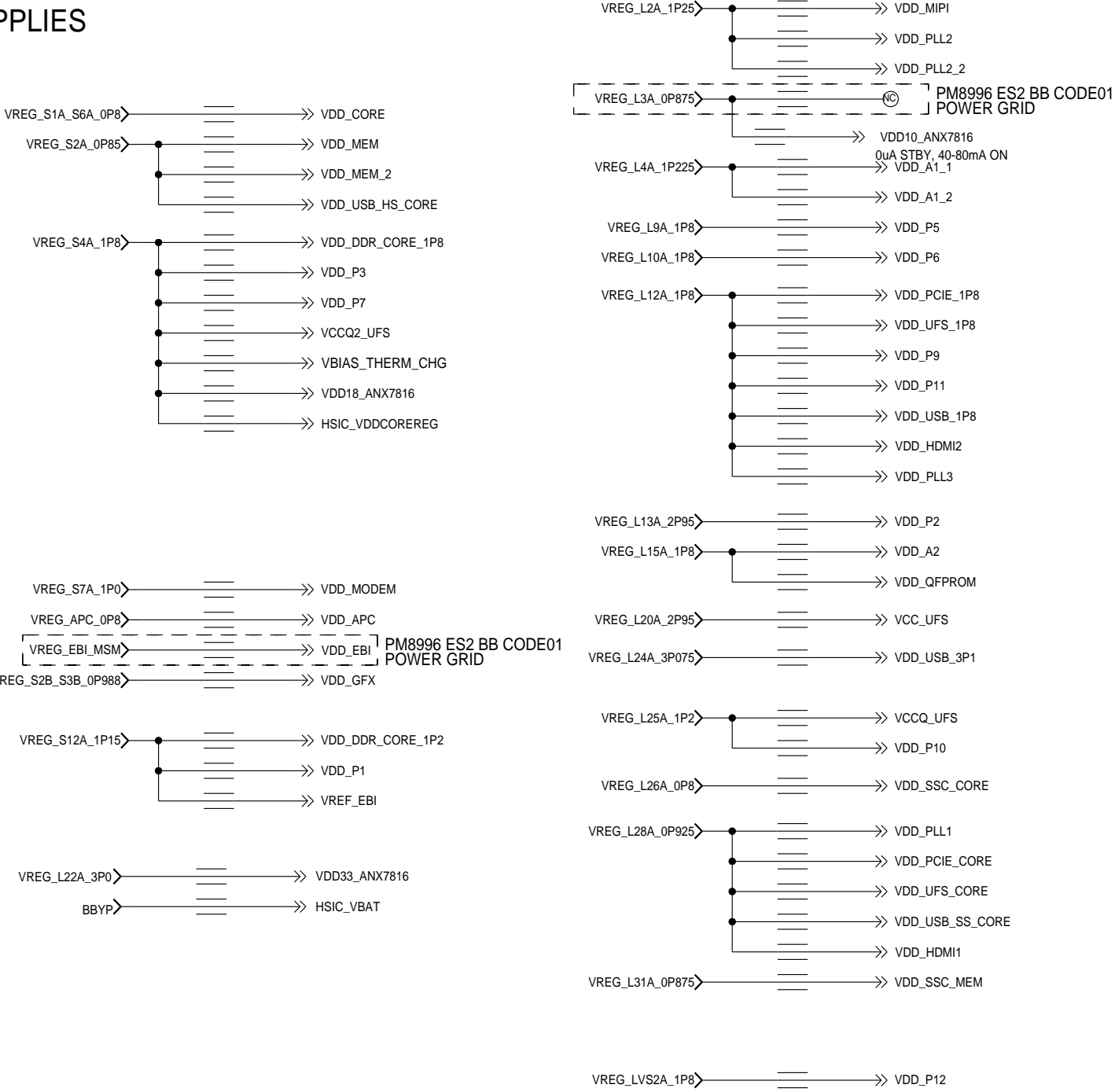
NOTE: FPC CONNECTOR USES PINS FROM THE DISPLAY CONNECTOR.
SEE THE "DISP: CONNECTOR" PAGE FOR THE REMAINING PINS.


APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: NATE CONNELL		BLOCK TITLE:	
LAST MODIFIED BY: NATE CONNELL Thu Mar 03 15:17:07 2016		user_input	
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		B 84016517001_10.cpm	REV 01
		CAD FILE NAME:	
		PAGE 41 OF 88	

MSM8996: POWER

REFDES: 1200-1299

SUPPLIES



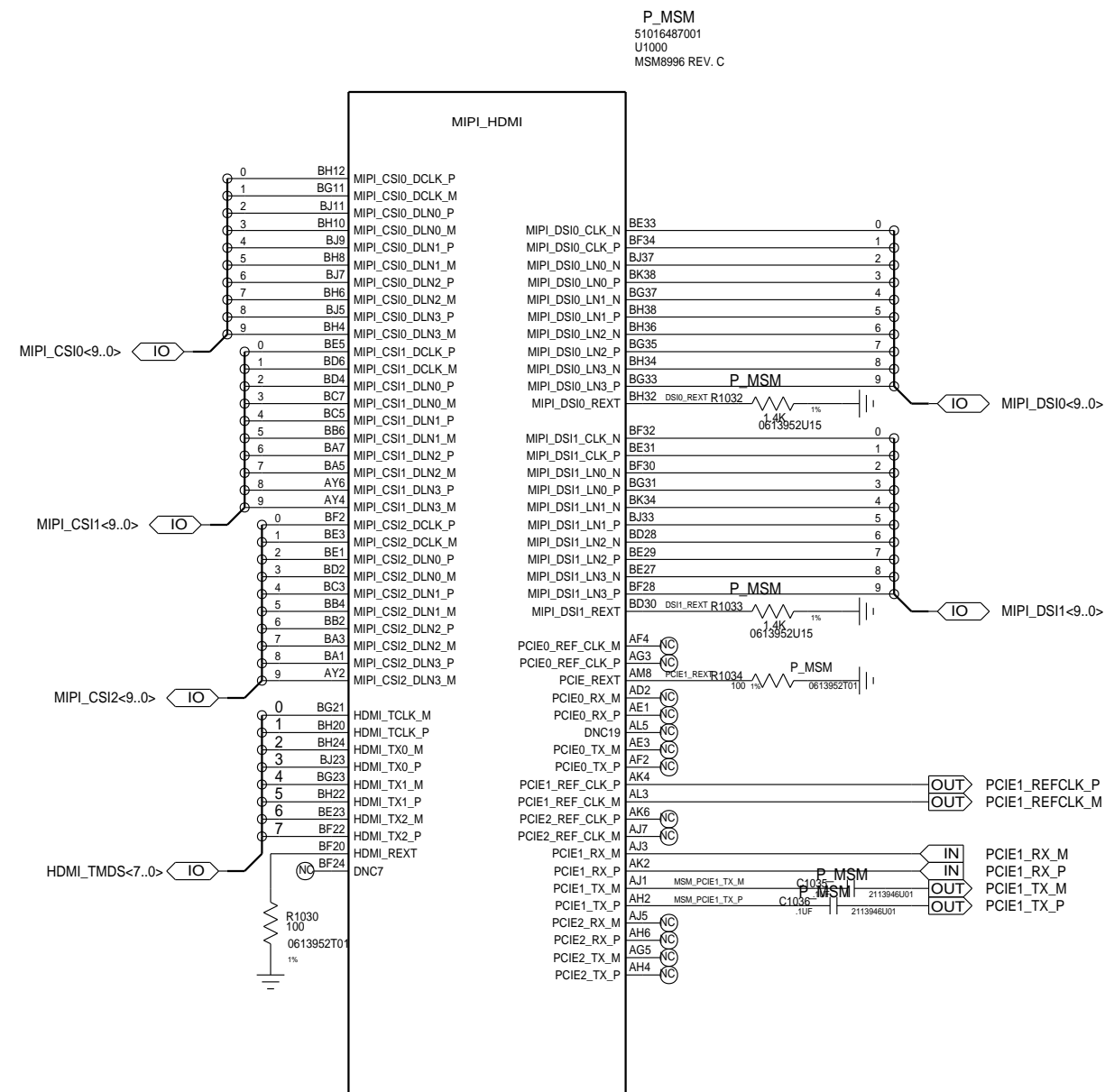
APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: NATE CONNELL		BLOCK TITLE: ap_pmic	
LAST MODIFIED BY: NATE CONNELL Thu Mar 03 15:16:51 2016			
MOTOROLA CONFIDENTIAL RESTRICTED <small>THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. © COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</small>		PROJECT NAME B 84016517001_10.cpm	
		REV 01	
		CAD FILE NAME:	
		PAGE 42 OF 88	

REFDES: 1000-1099




MSM8996: MIPI/HDMI/PCIE

REFDES: 1030-1039



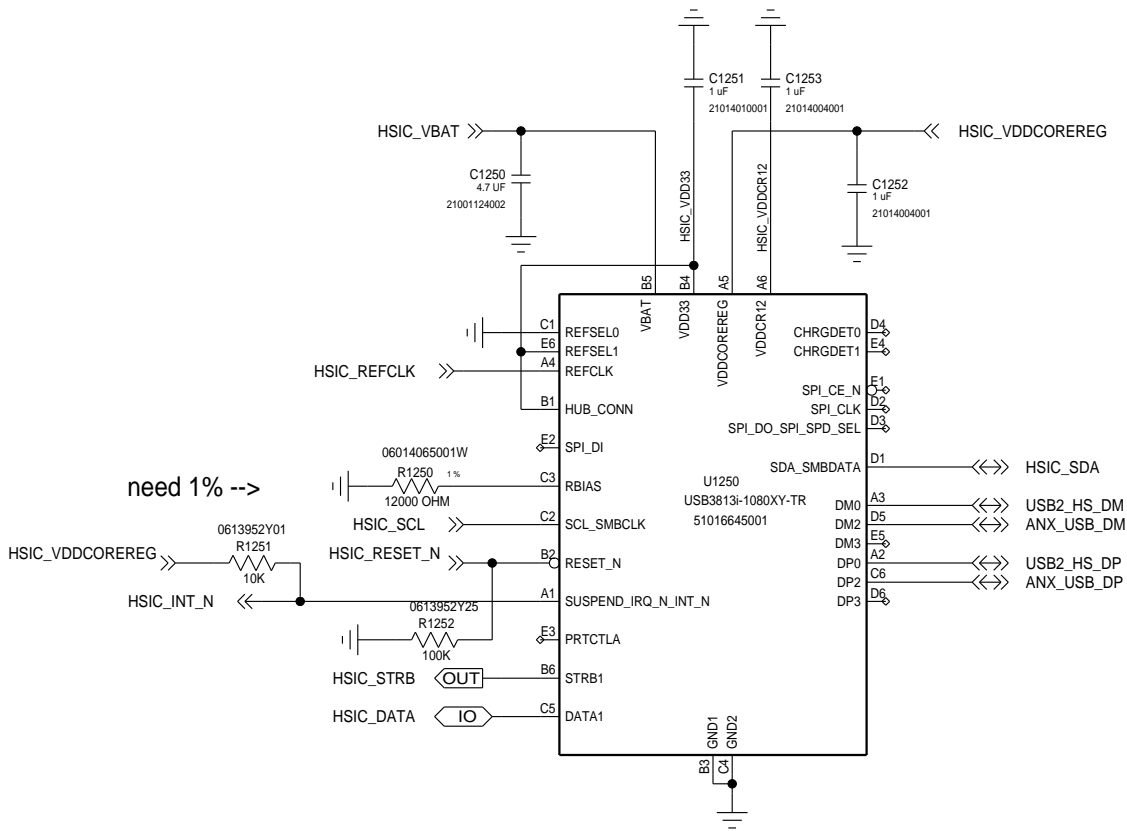
MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED


APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:	BLOCK TITLE: <div style="font-size: 24pt; font-weight: bold;">ap_pmic</div>		
LAST MODIFIED BY: Thu Mar 03 15:16:53 2016			
MOTOROLA CONFIDENTIAL RESTRICTED		PROJECT NAME B 84016517001_10.cpm	REV 01
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BASED ON 80-NT204-41 REV. B

MSM8996: HSIC

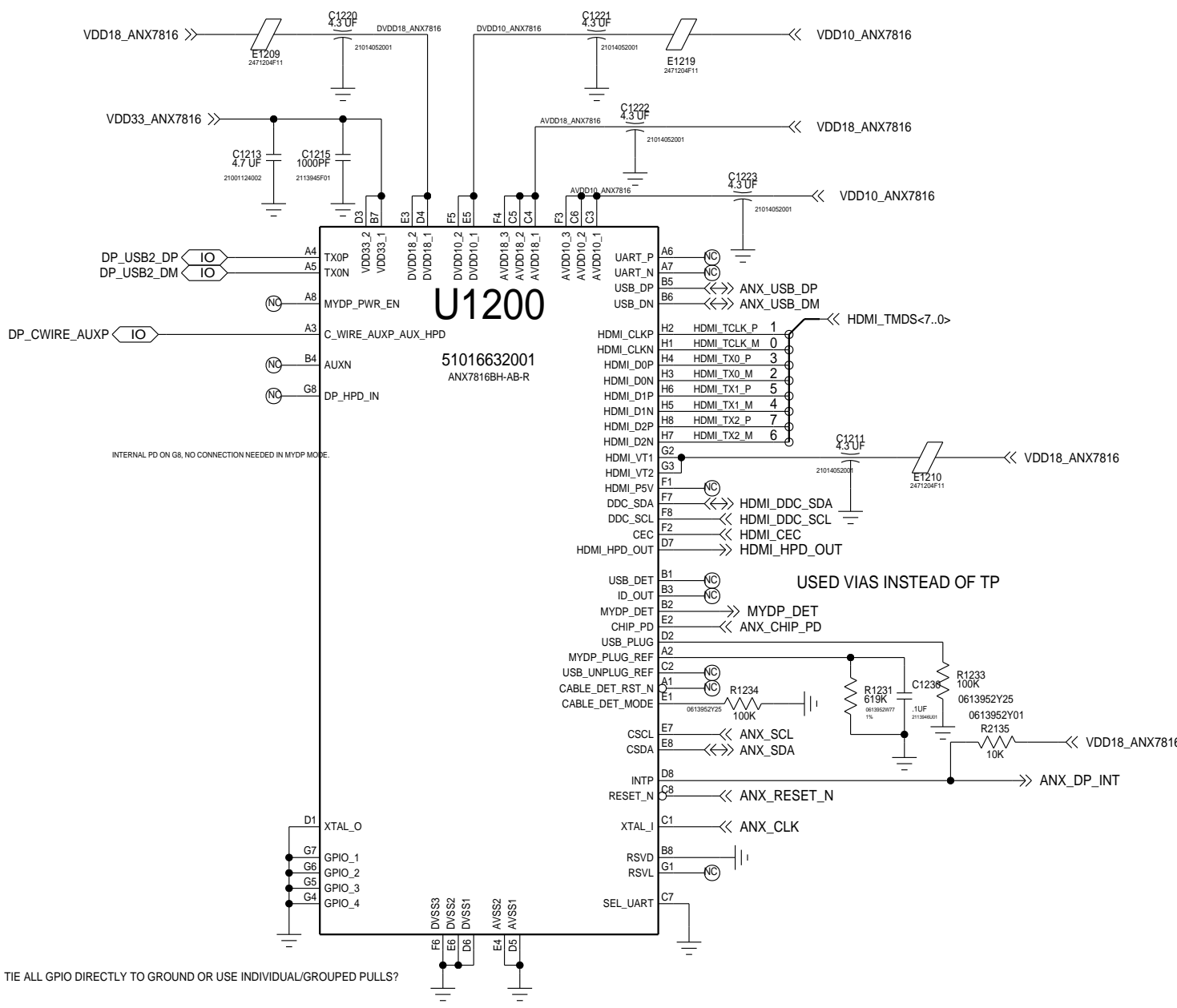
REFDES: 1200-1239



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: Froehling		BLOCK TITLE:	
LAST MODIFIED BY: Thu Mar 03 15:16:54 2016		ap_pmic	
MOTOROLA CONFIDENTIAL RESTRICTED <small>THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. © COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</small>		PROJECT NAME	
		B 84016517001_10.cpm	REV 01
		CAD FILE NAME:	
		PAGE 45 OF 88	

MSM8996: HDMI->DP INTERFACE

REFDES: 1200-1239
7-BIT I2C ADDR: 0x50



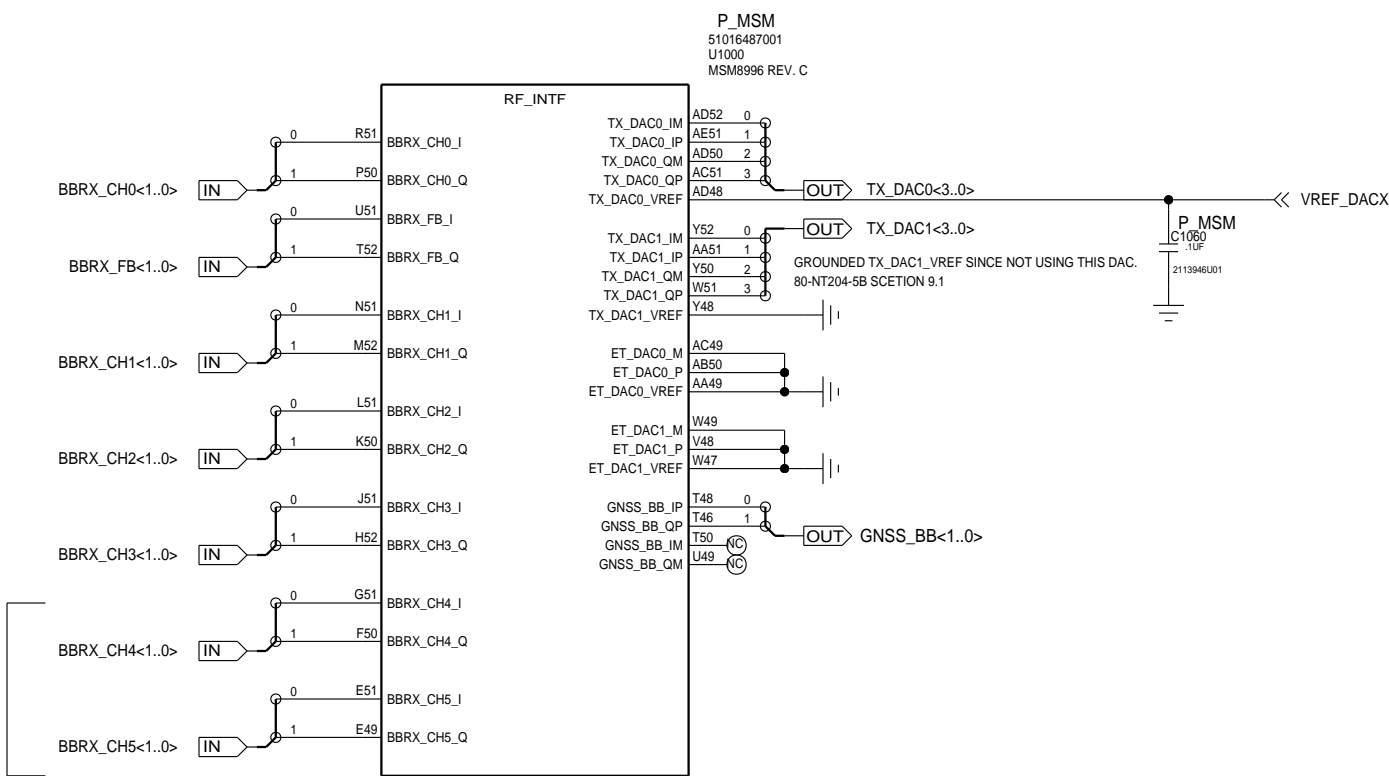
Resolution	Pixel Clock Freq. (MHz)	Power Consumption					
		Typical Values					
		AVDD33_IN (mAmps)	AVDD18 (mAmps)	DVDD18 (mAmps)	AVDD10 (mAmps)	DVDD10 (mAmps)	Power (mWatts)
Standby	N/A	10.63 ¹	0.9 ¹	0.3 ¹	0	0	42 ¹
480p60	27	2.5	40	0	25	15	125
720p60	74.25	2.5	45	0	30	20	145
1080p60	148.5	2.5	50	0	35	30	165
1080p60 30bpp	185.6	2.5	50	0	40	35	175
4K2K	297	2.5	55	0	45	40	200
6.75G							

1. Standby power consumption values are μ Amps (μ A) and μ Watts (μ W).

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: Froehling		BLOCK TITLE:	
LAST MODIFIED BY: Thu Mar 03 15:16:54 2016		ap_pmic	
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		REV 01 PAGE 46 OF 88	


MSM8996: RF INTERFACE

REFDES: 1040-1049

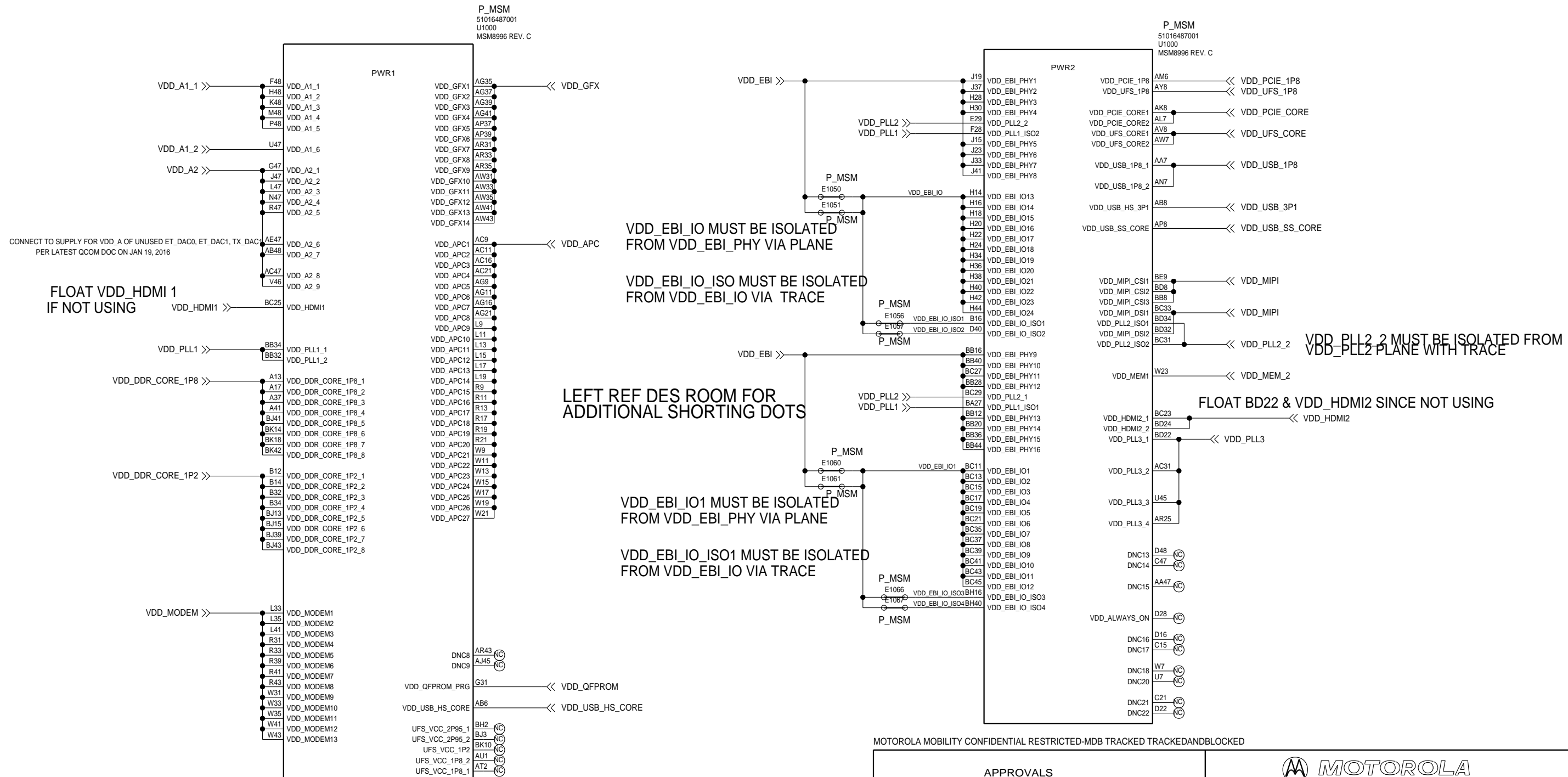


BASED ON 80-NT204-41 REV. B


MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: Thu Mar 03 15:16:55 2016		ap_pmic	
MOTOROLA CONFIDENTIAL RESTRICTED <small>THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. © COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</small>		PROJECT NAME	
		B 84016517001_10.cpm	REV 01
		CAD FILE NAME:	
		PAGE 47 OF 88	

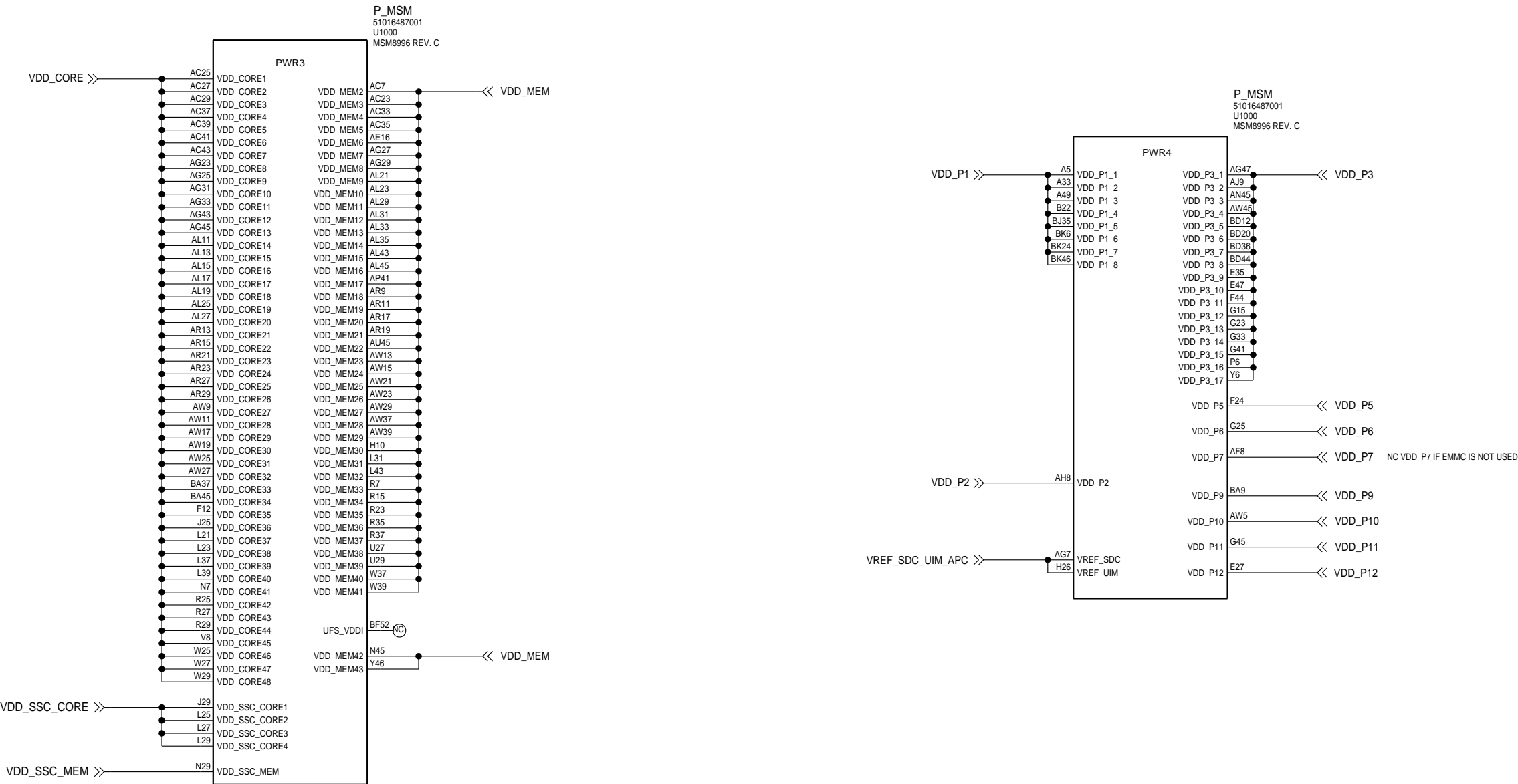
MSM8996: POWER 1



MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED


APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: MOTOROLA		BLOCK TITLE: <div>ap_pmic</div>	
LAST MODIFIED BY: MOTOROLA Thu Jan 21 16:45:54 2016			
MOTOROLA CONFIDENTIAL RESTRICTED <hr/> <small> THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. © COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION </small>		B PROJECT NAME 84016517001_10.cpm	REV 01
		CAD FILE NAME:	PAGE 48 OF 88

MSM8996: POWER 2



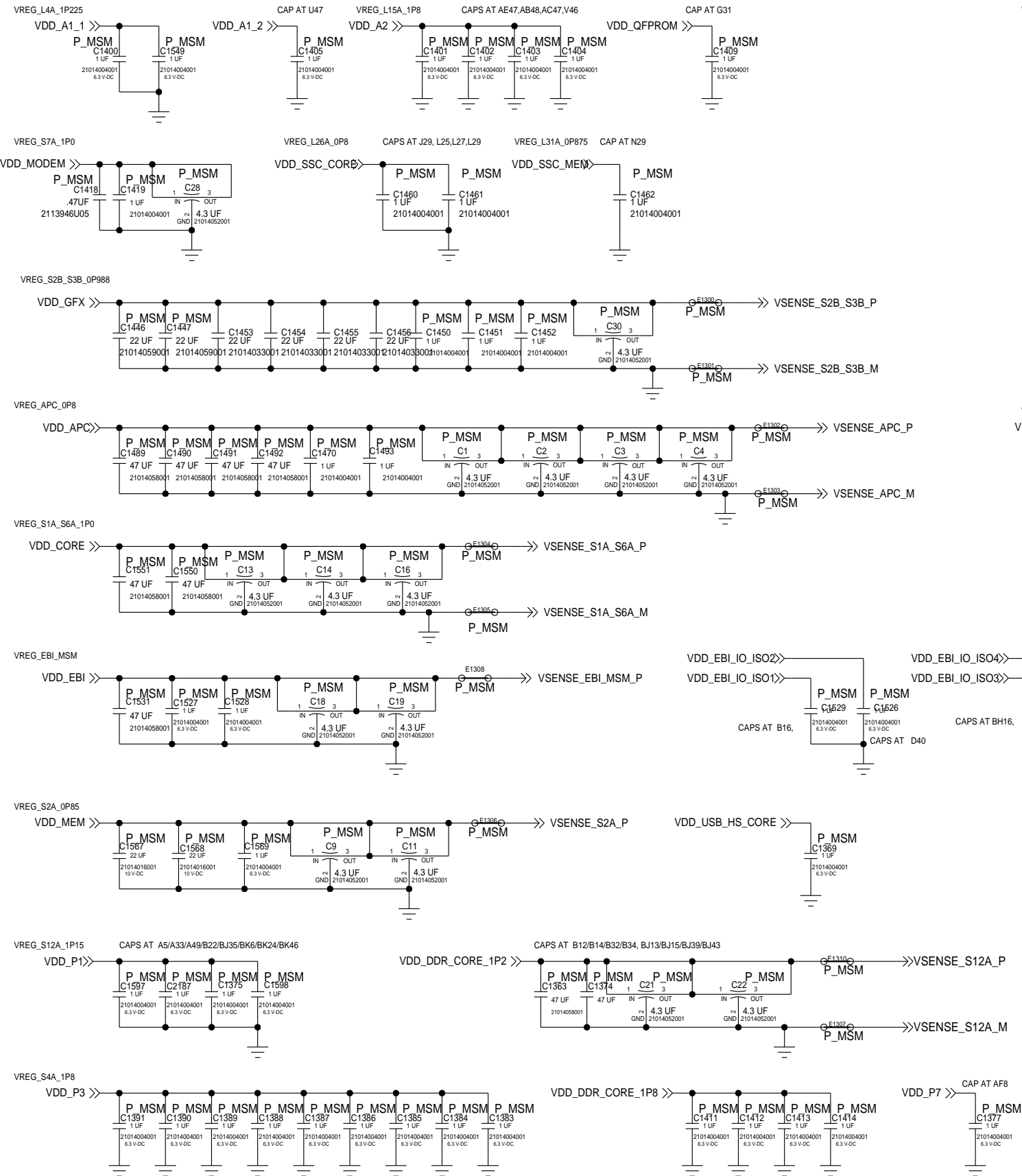
BASED ON 80-NT204-41 REV. B

MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

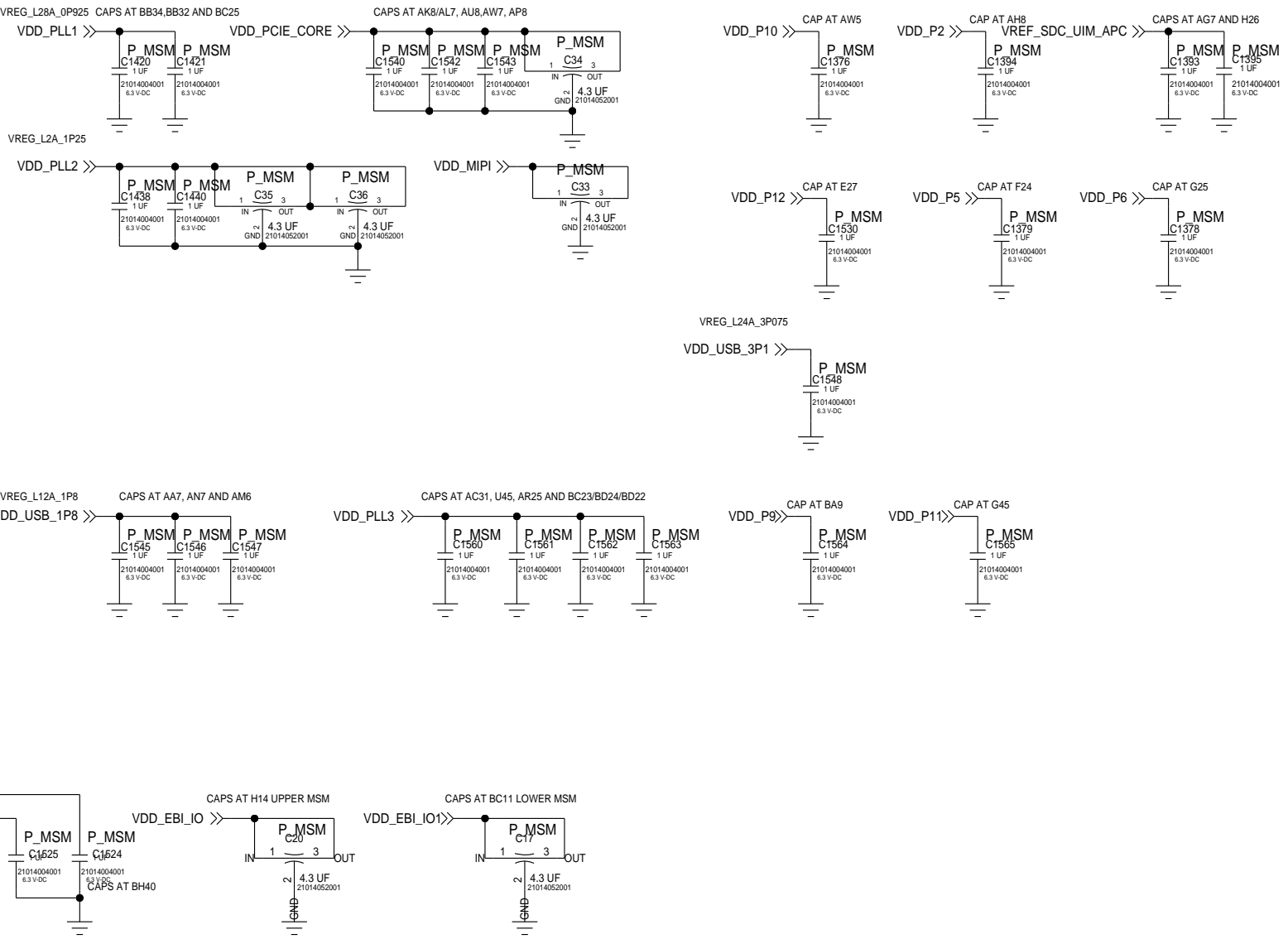
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LAST MODIFIED BY: MOTOROLA Thu Nov 05 10:18:02 2015		ap_pmic	
MOTOROLA CONFIDENTIAL RESTRICTED <small>THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. © COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</small>		PROJECT NAME	
		84016517001_10.cpm	
		REV 01	
		CAD FILE NAME:	
		PAGE 49 OF 88	

MSM8996: BYPASS CAPS


REFDES: 1300-1599



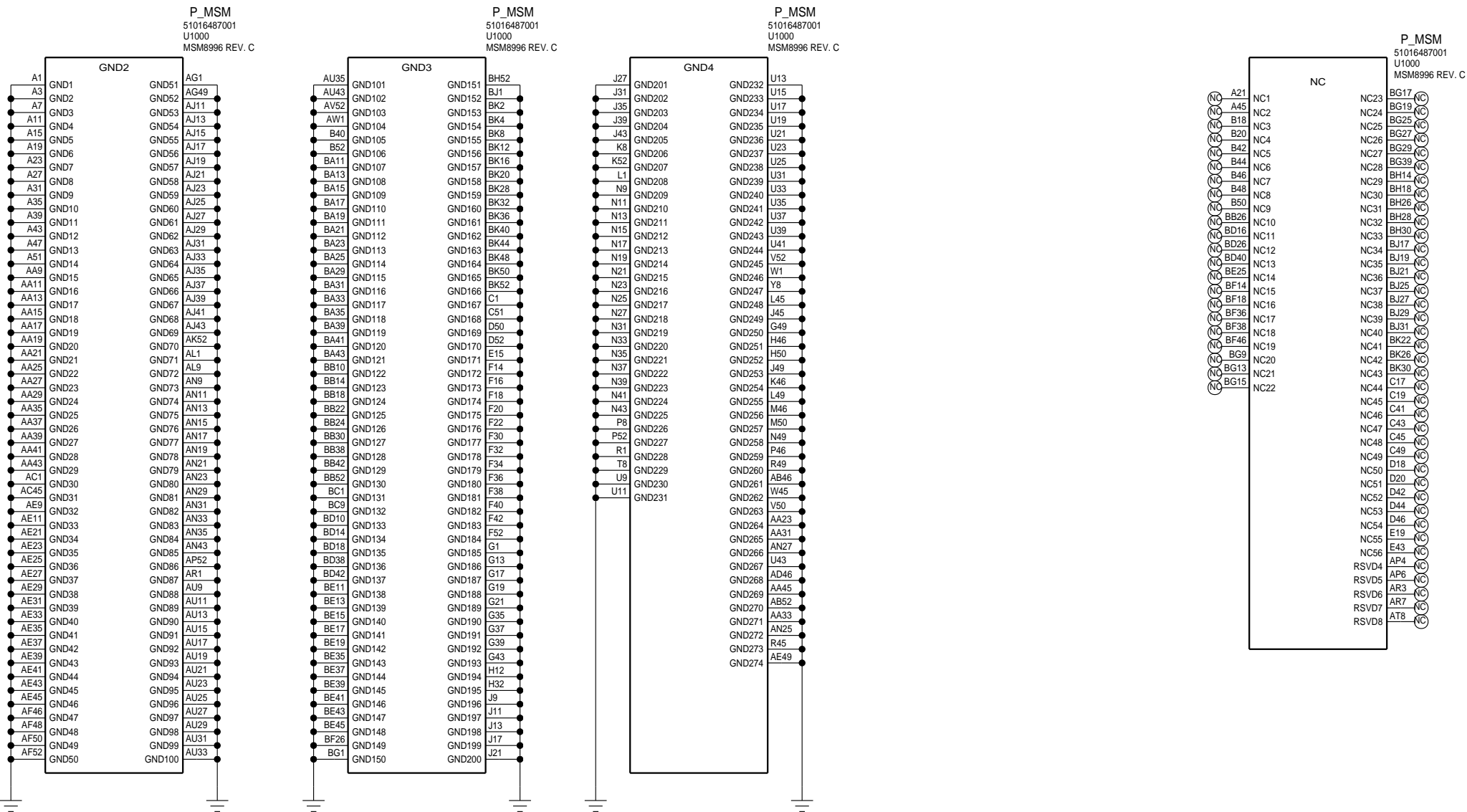
BASED ON 80-NT204-41 REV. B



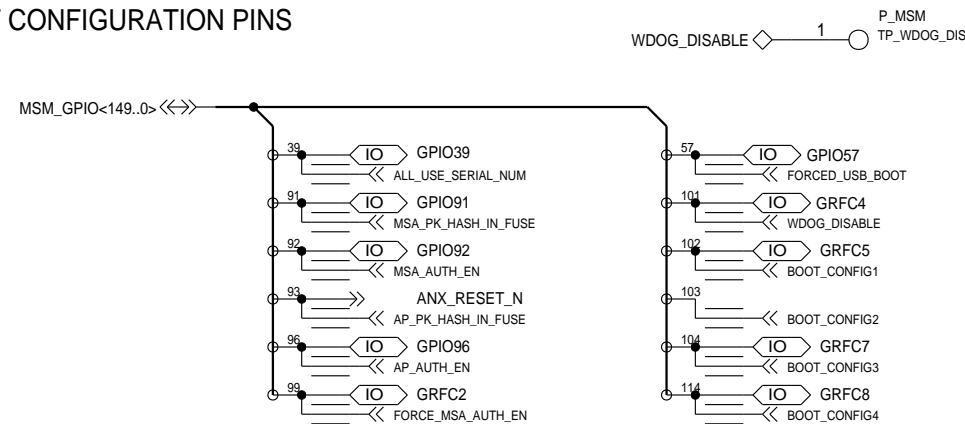
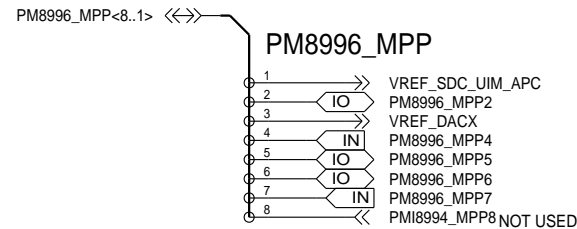
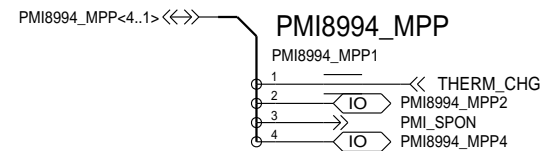
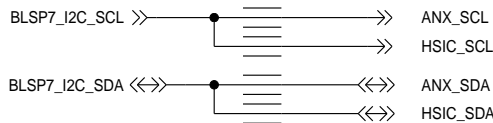
MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY:		ap_pmic	
Thu Mar 03 15:16:57 2016			
MOTOROLA CONFIDENTIAL RESTRICTED		PROJECT NAME	
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		01	
		PAGE 50 OF 88	

MSM8996: GND/NC



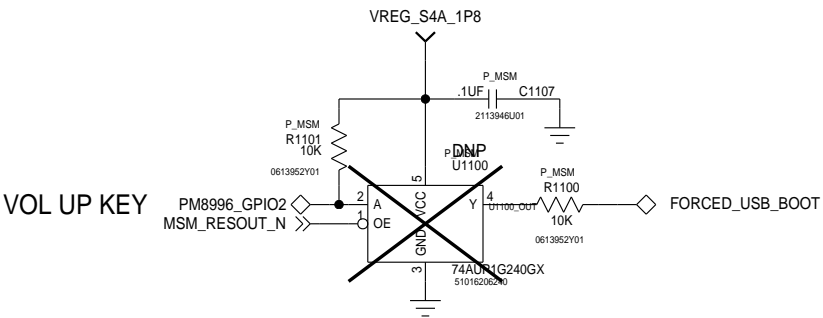
REFDES: 1100-1199



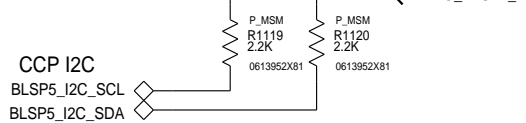
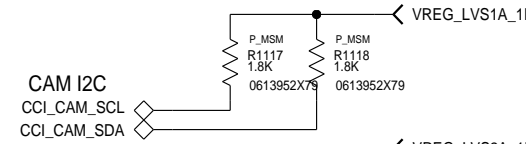
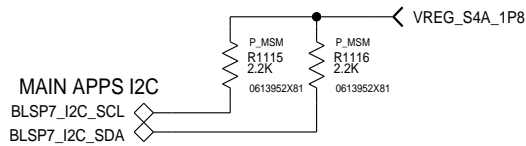
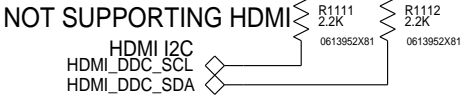
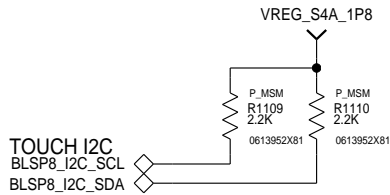
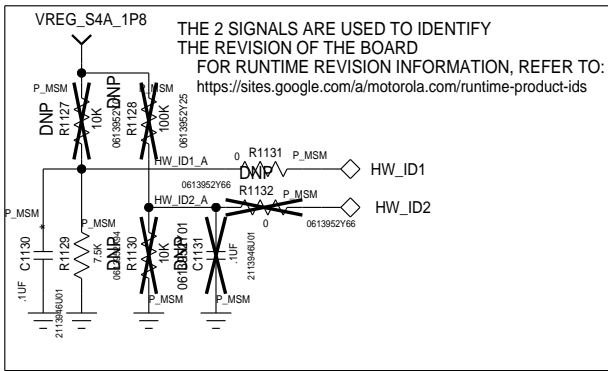
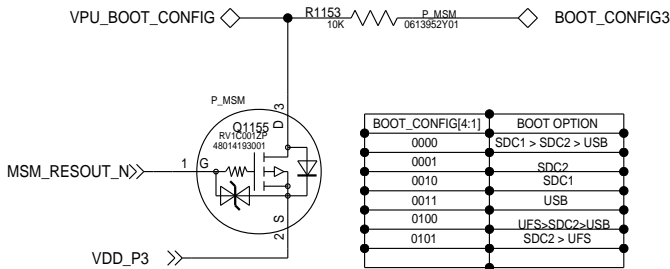
MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

MSM8996: SUPPORT

REFDES: 1100-1199



BOOT OPTIONS



APPROVALS

ENGINEER:

LAST MODIFIED BY: TIM MILLER
Thu Mar 03 15:16:59 2016

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BLOCK TITLE:

ap_pmic

PROJECT NAME
84016517001_10.cpm

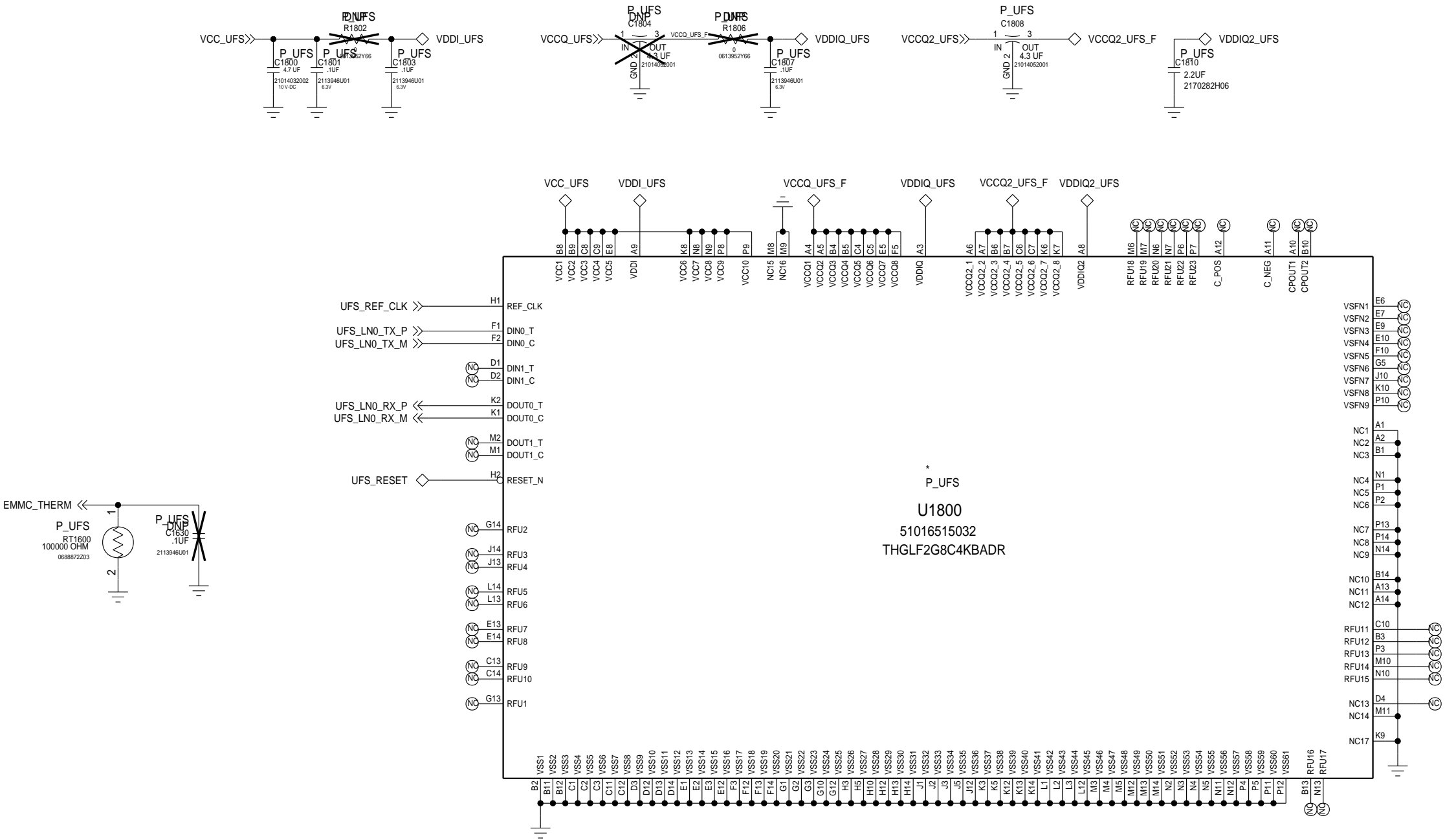
CAD FILE NAME:

REV
01

PAGE 53 OF 88


MSM8996: UFS

REFDES: 1600-1699



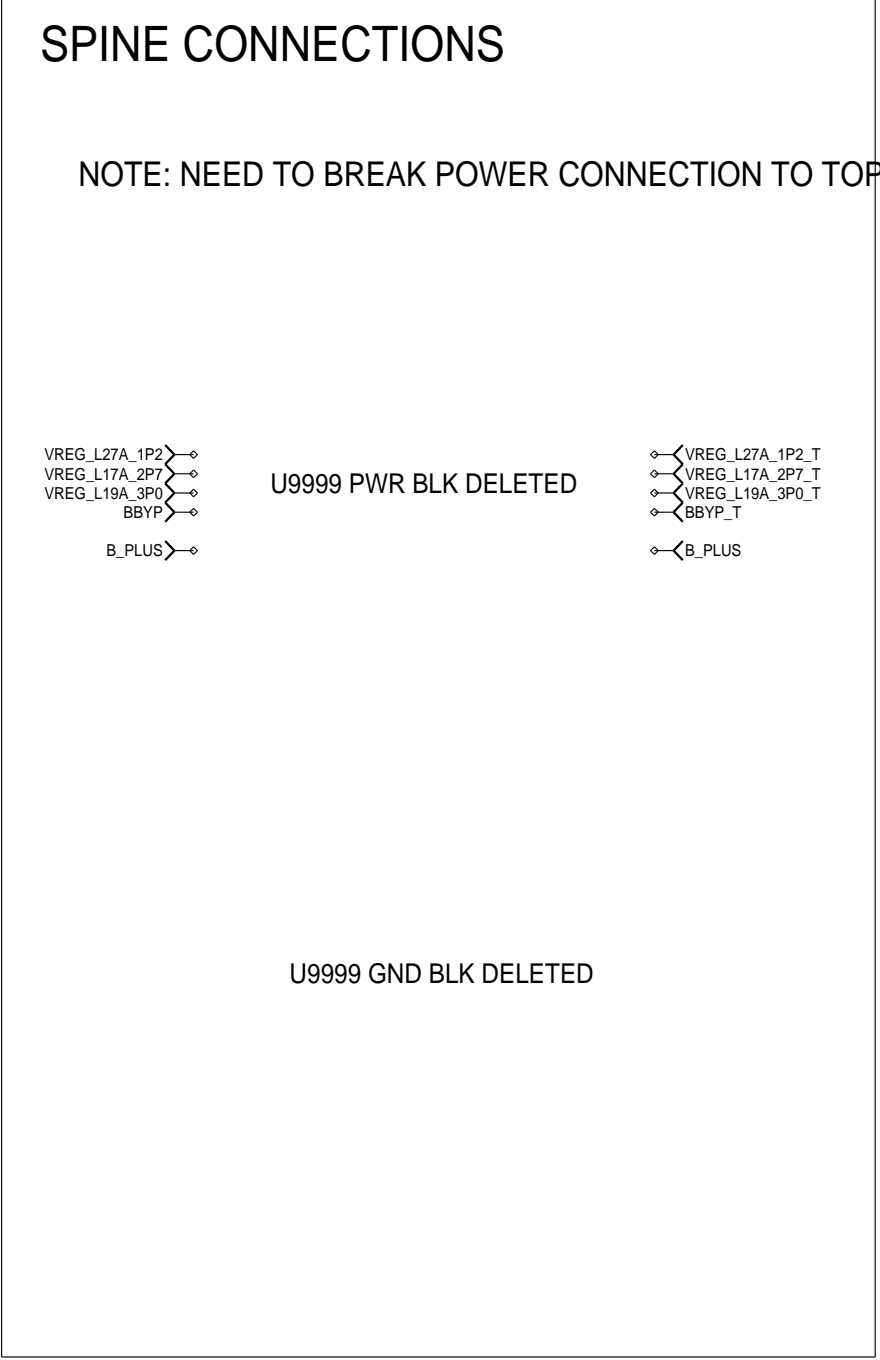
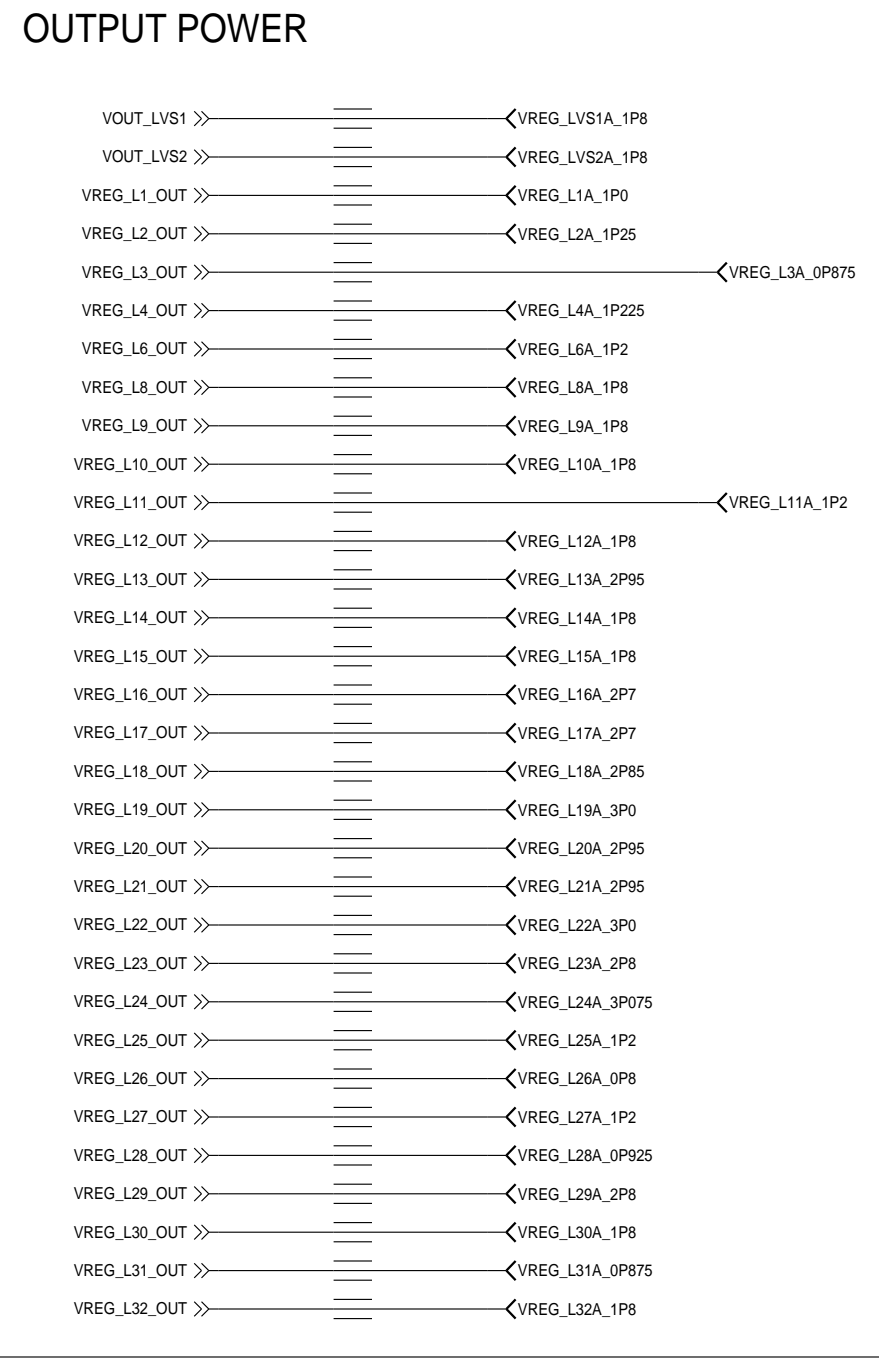
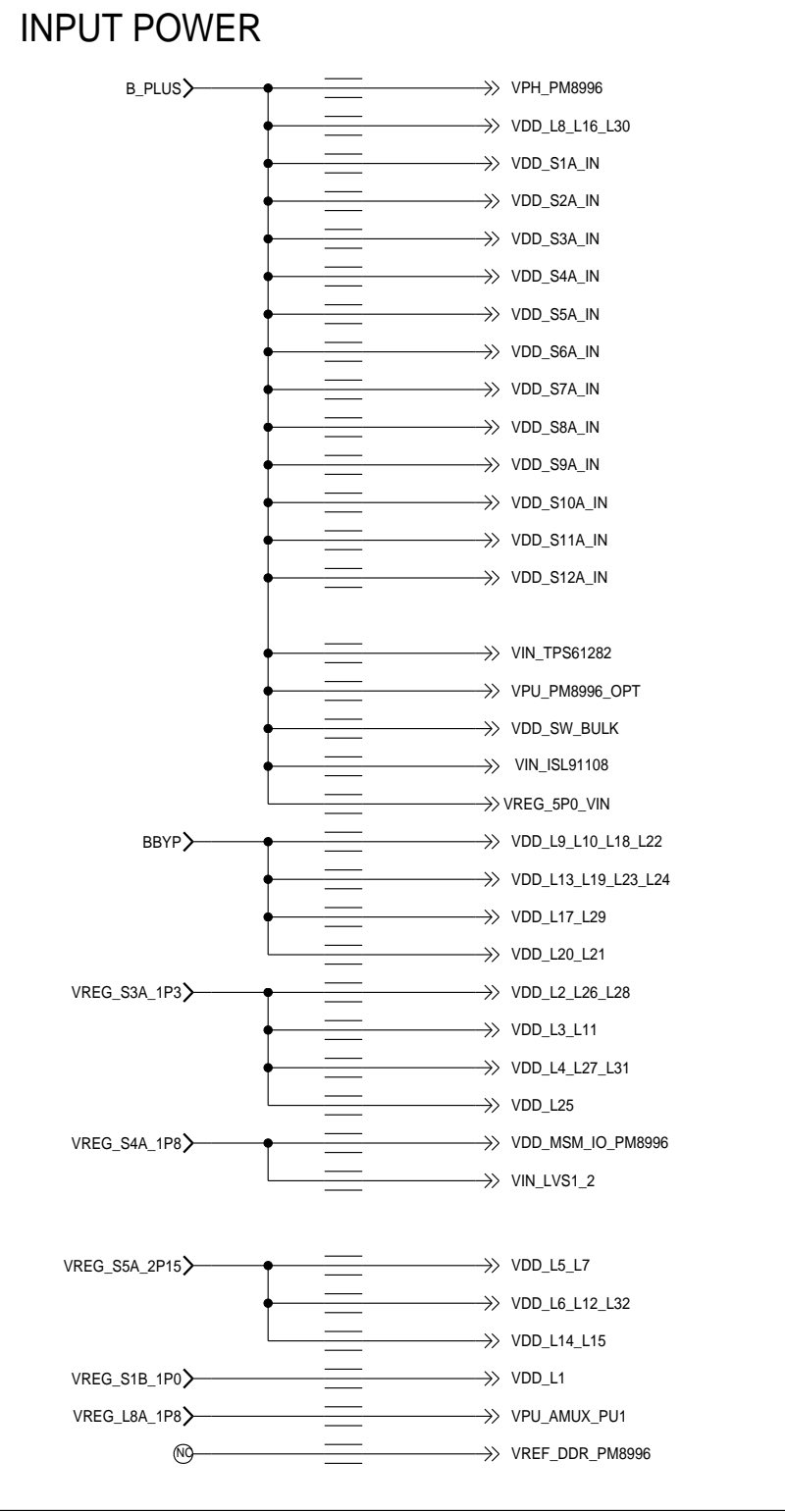
NOTE: MUST USE UFS 2.0 GEAR 3 PARTS
32GB = 51016515032
64GB = 51016515064


MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: MOTOROLA		BLOCK TITLE:	
LAST MODIFIED BY: MOTOROLA Wed Mar 16 16:02:52 2016		ap_pmic	
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		B 84016517001_10.cpm	
		CAD FILE NAME:	
		REV 01	
		PAGE 54 OF 88	

PM8996: POWER

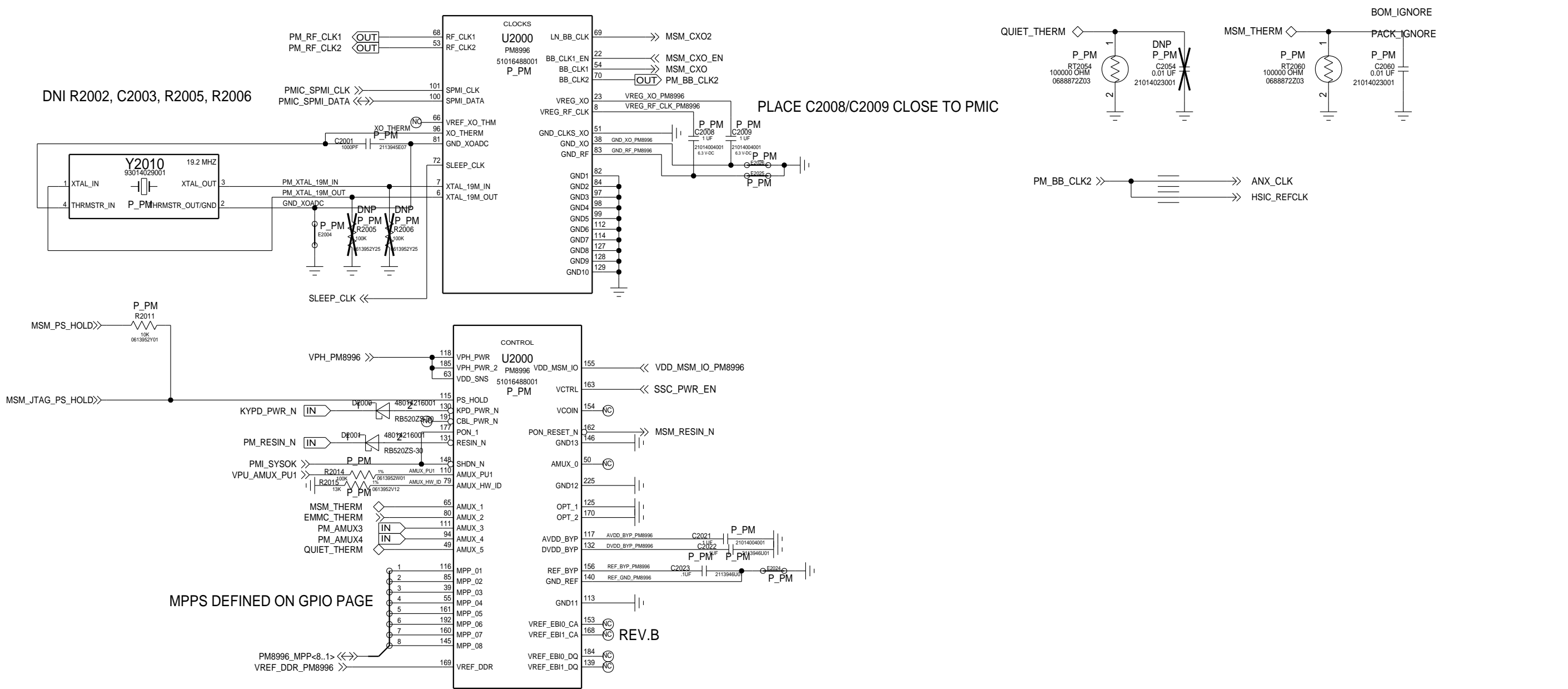
REFDES: 2300-2399



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: NATE CONNELL		BLOCK TITLE: ap_pmic	
LAST MODIFIED BY: NATE CONNELL Thu Mar 03 15:17:00 2016		PROJECT NAME 84016517001_10.cpm	
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>		REV 01	
		CAD FILE NAME: PAGE 55 OF 88	

PM8996: CLK/CTRL/GPIO

REFDES: 2000-2099



FOLLOW CRYSTAL OSCILLATOR PLACEMENT/LAYOUT INSTRUCTIONS IN QCOM DOCUMENT 80-N5423-5 (P. 221 IN REV G)


*19.2MHZ CRYSTAL+THERMISTOR OPTIONS

PACKAGE PART NUMBER
2520 93014012001
2016 93014029001

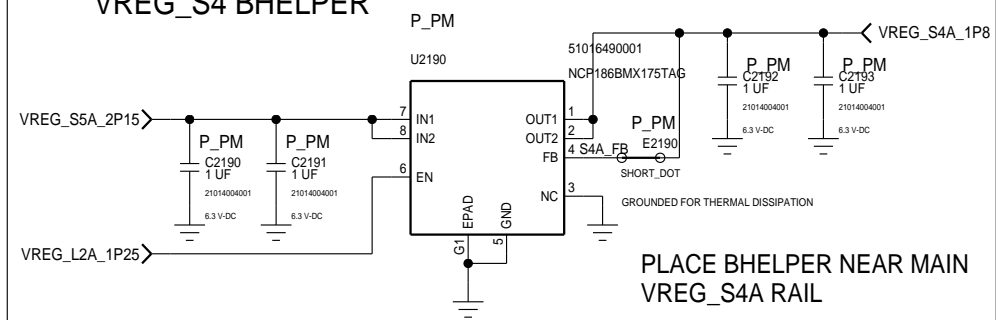
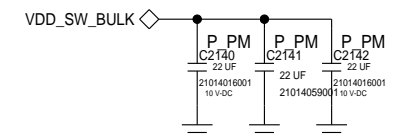
PM GPIOs DEFINED ON MSM GPIO PAGE

BASED ON 80-NJ051-41 REV. B

MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED


APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: Thu Mar 03 15:17:00 2016		ap_pmic	
MOTOROLA CONFIDENTIAL RESTRICTED 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		PROJECT NAME	
		B 84016517001_10.cpm	
		REV 01	
		CAD FILE NAME:	
		PAGE 56 OF 88	

REFDES: 2100-2199



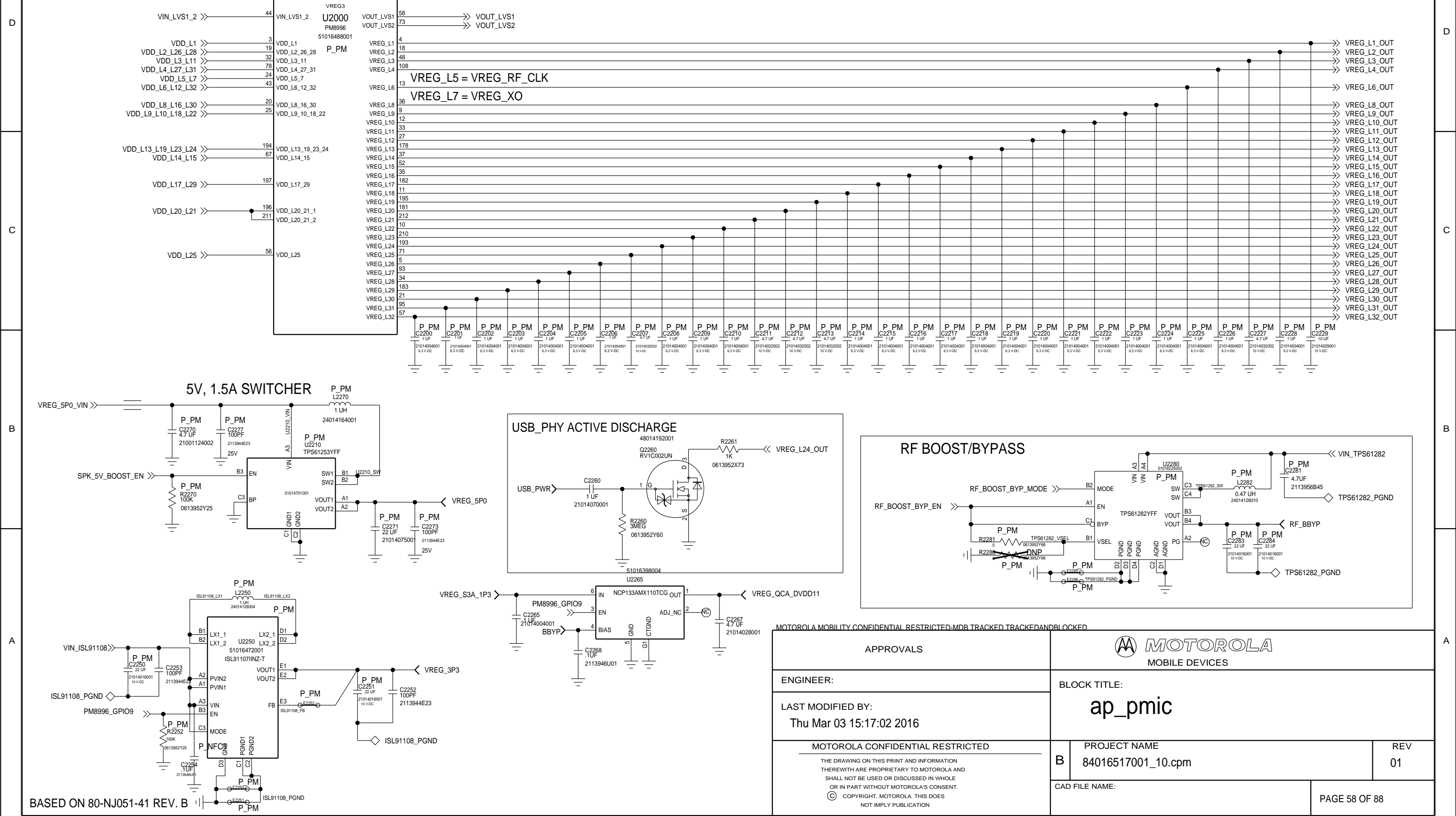
PLACE BHELPER NEAR MAIN
VREG_S4A RAIL

BASED ON 80-NJ051-41 REV. B

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:	BLOCK TITLE: <div style="font-size: 24pt; font-weight: bold;">ap_pmic</div>		
LAST MODIFIED BY: Thu Mar 03 15:17:01 2016			
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CAD FILE NAME:			PAGE 57 OF 88

PM8996: VREGS

REFDES: 2200-2299



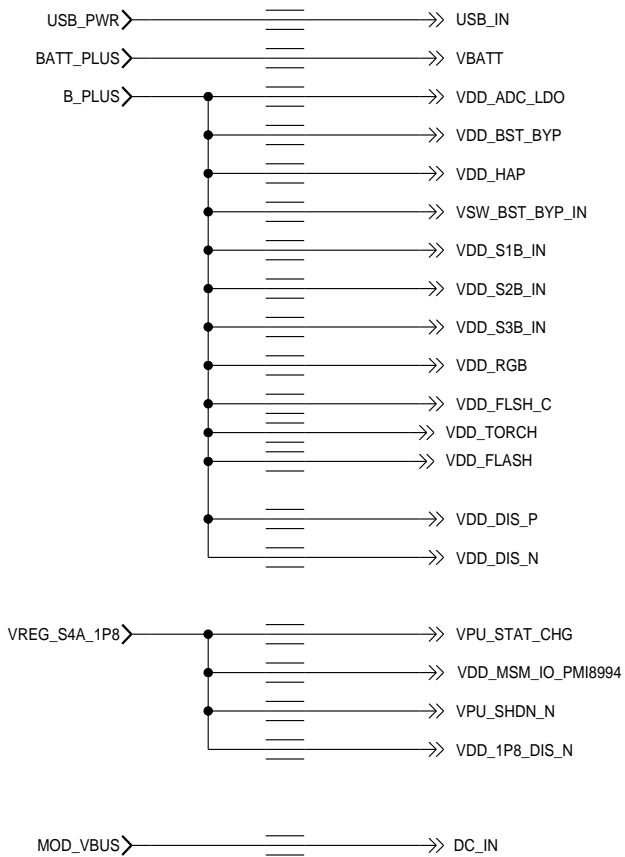
BASED ON 80-NJ051-41 REV. B

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE: ap_pmic	
LAST MODIFIED BY: Thu Mar 03 15:17:02 2016		PROJECT NAME 84016517001_10.cpm	
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			PAGE 58 OF 88

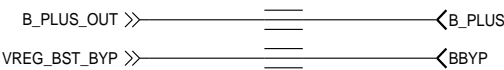
PMI8996: POWER


REFDES: 2400-2499

INPUT POWER



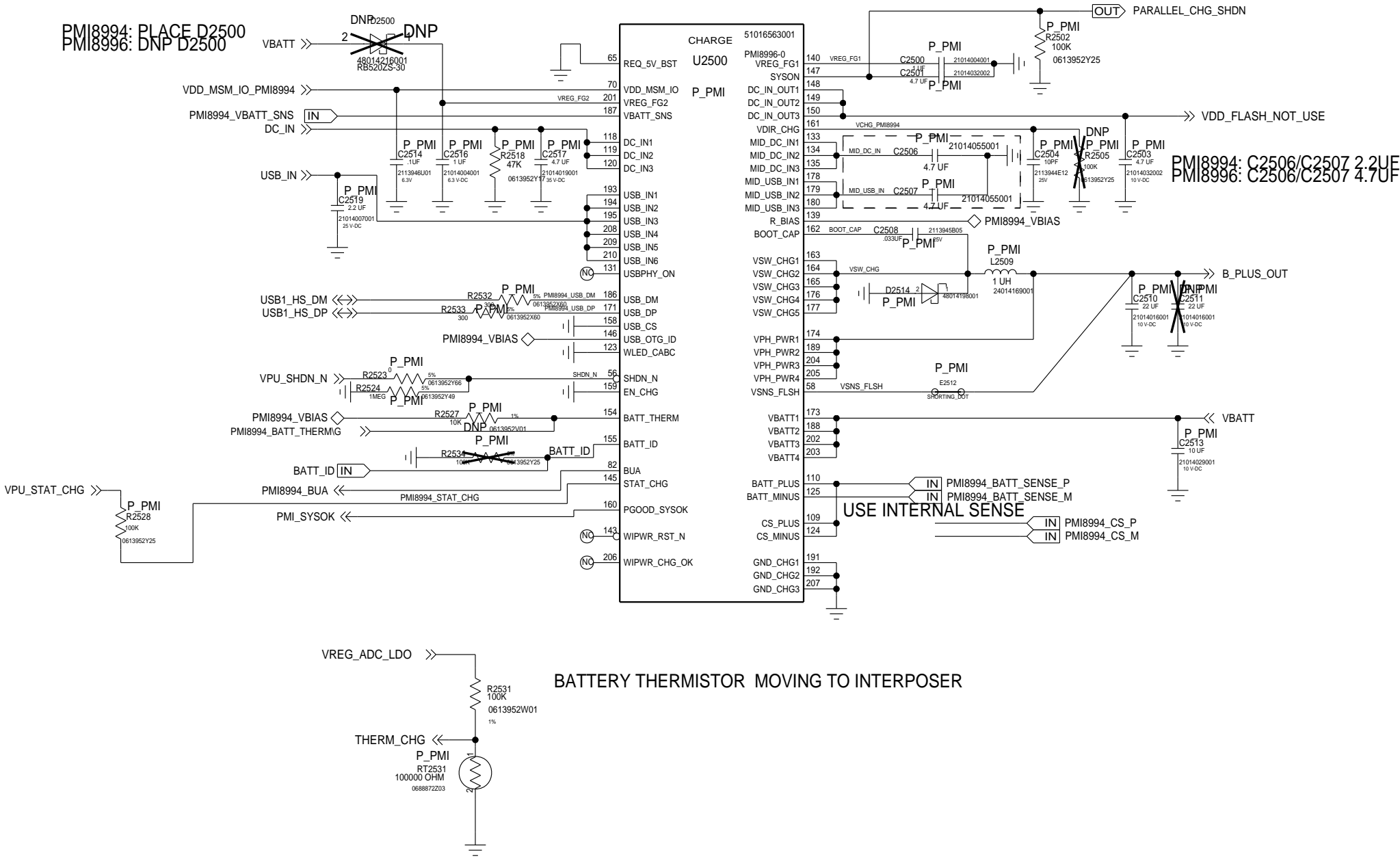
OUTPUT POWER




APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: NATE CONNELL		BLOCK TITLE: ap_pmic	
LAST MODIFIED BY: NATE CONNELL Thu Mar 03 15:17:02 2016			
<div>MOTOROLA CONFIDENTIAL RESTRICTED</div> <div>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</div>		PROJECT NAME B 84016517001_10.cpm	REV 01
		CAD FILE NAME: <div></div>	PAGE 59 OF 88

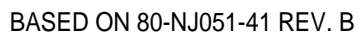
PMI8996: CHG/USB

REFDES: 2500-2599



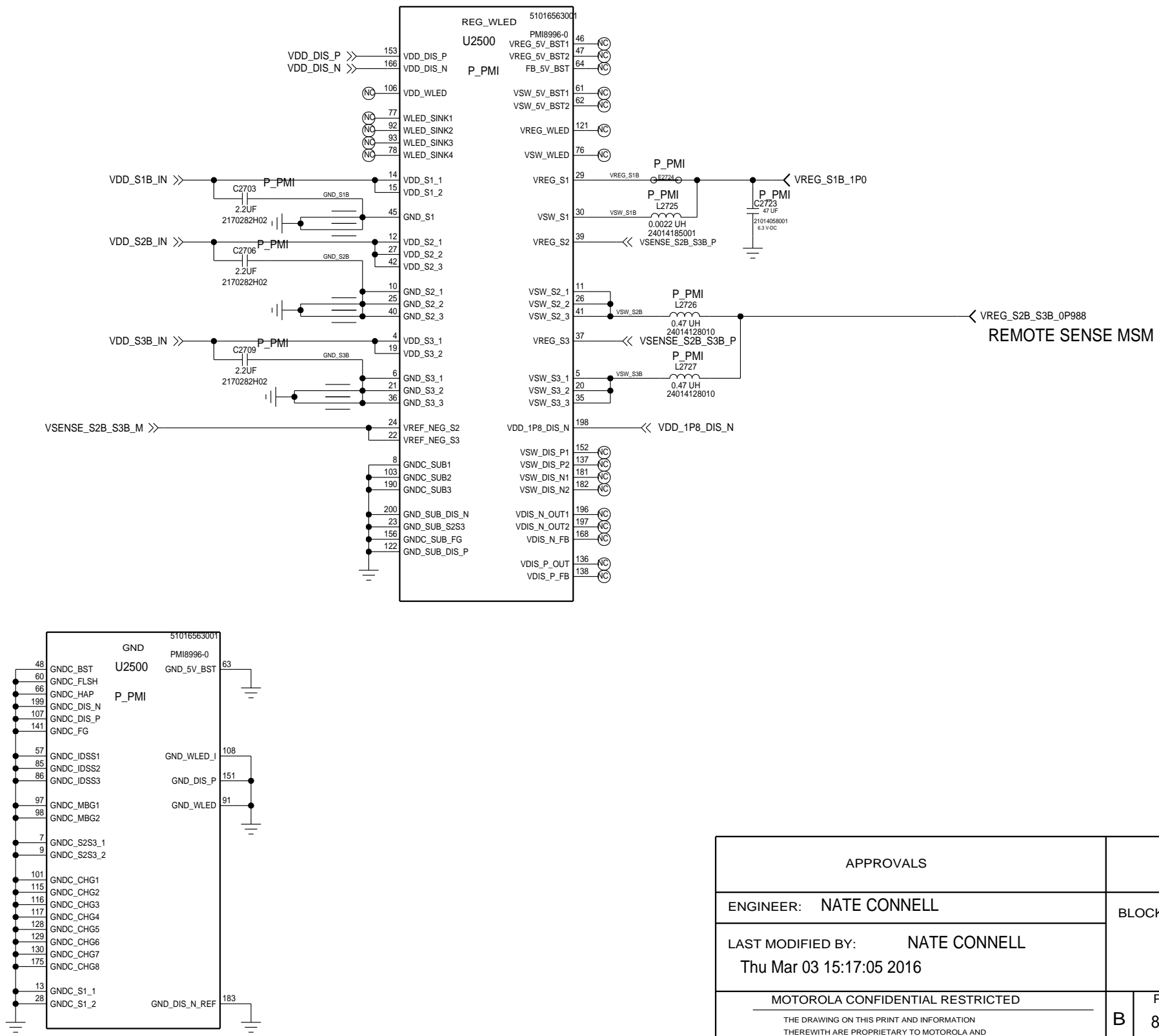
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ENGINEER: NATE CONNELL		BLOCK TITLE:	
LAST MODIFIED BY: NATE CONNELL Thu Mar 03 15:17:03 2016		ap_pmic	
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		B 84016517001_10.cpm	REV 01
		CAD FILE NAME:	
		PAGE 60 OF 88	

REFDES: 2600-2699


PAGE 61 OF 88

PMI8996: REF/WLED/GND

REFDES: 2700-2799



BASED ON 80-NJ051-41 REV. B

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: NATE CONNELL		BLOCK TITLE:	
LAST MODIFIED BY: NATE CONNELL Thu Mar 03 15:17:05 2016		ap_pmic	
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		B 84016517001_10.cpm	REV 01
		CAD FILE NAME:	
		PAGE 62 OF 88	

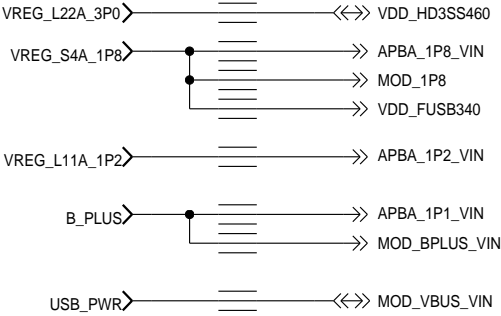
87654321

MODS: PORTS

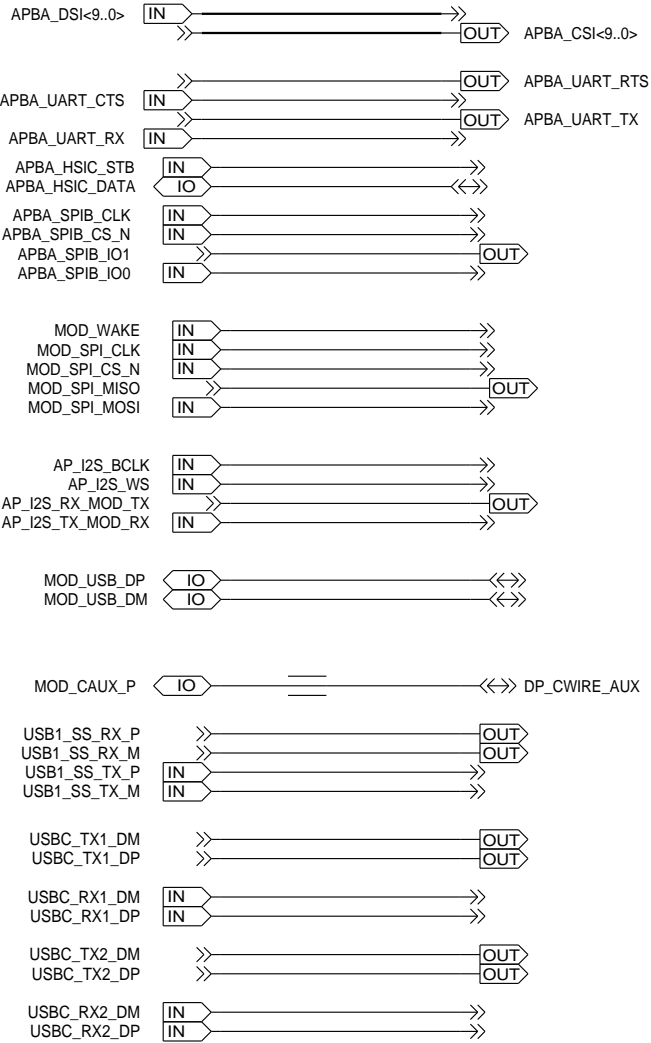
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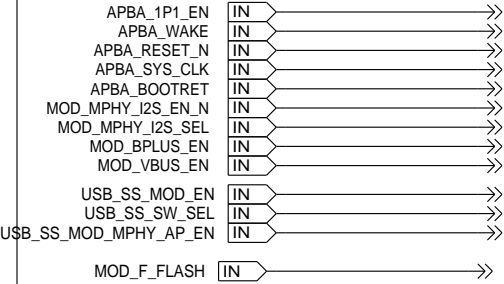
SUPPLIES



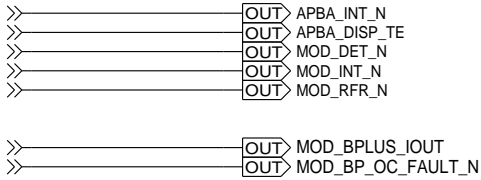
INTERFACES



GPIO - INPUT



GPIO - OUTPUT



APPROVALS

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL
Thu Mar 03 15:16:48 2016

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BLOCK TITLE:

slice_if

PROJECT NAME
84016517001_10.cpm

REV
01

CAD FILE NAME:

PAGE 63 OF 88

87654321

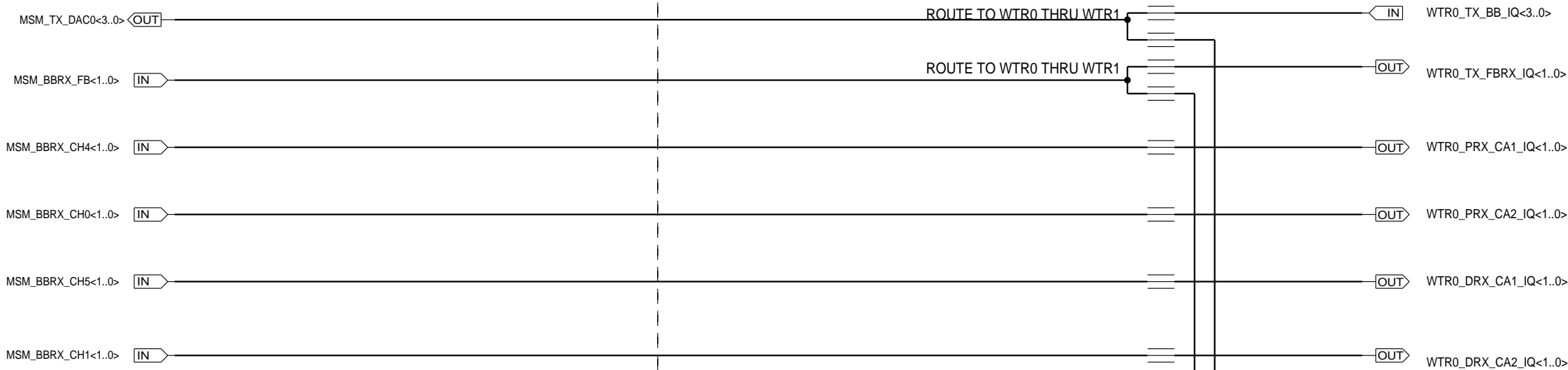
PAGE 64 OF 88

2



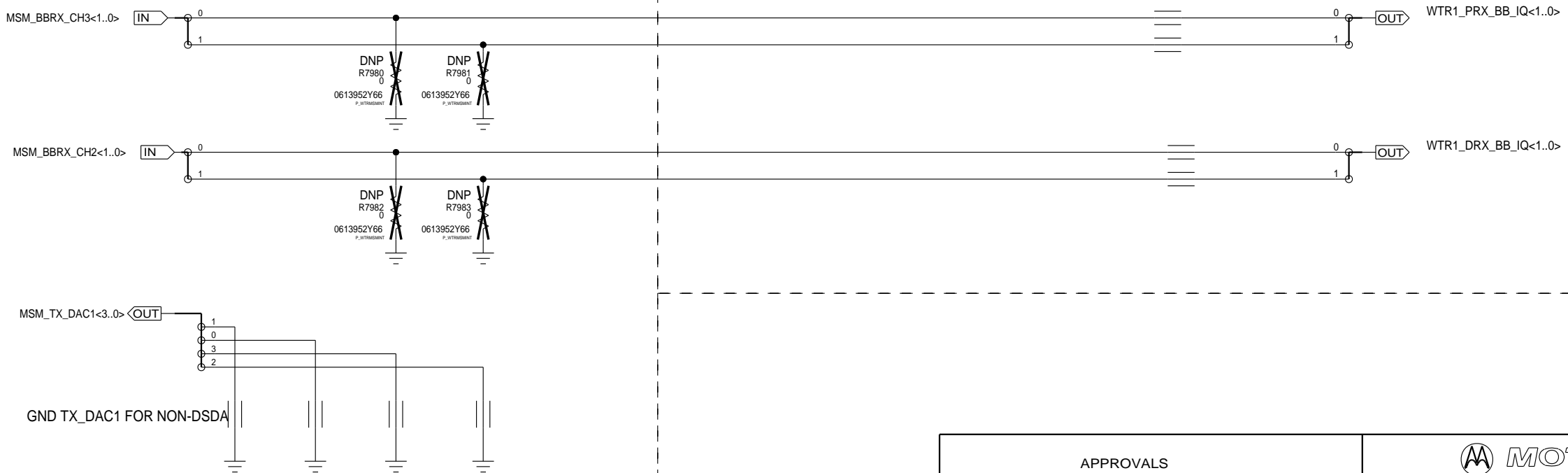
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REFDES: 7950-7999

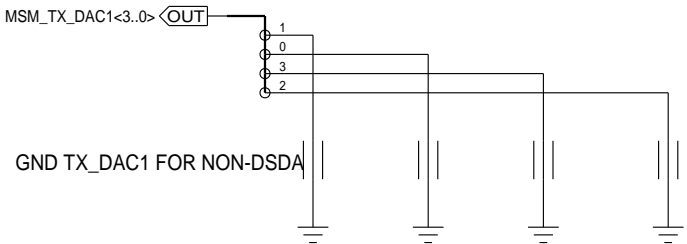


WTR39X5_WTR0

MODEM MSM



WTR4905_WTR1



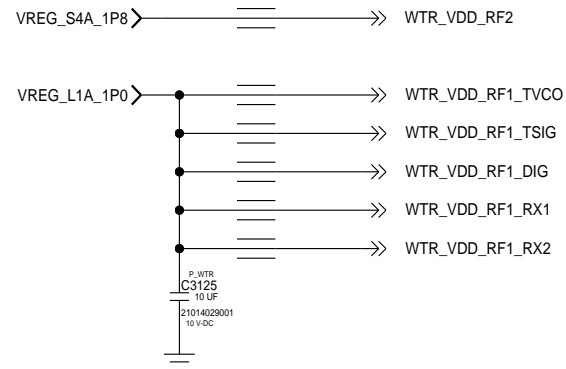
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2CA	DNP	PLACE
3CA	PLACE	DNP

NEED TO CLEAN UP RESISTOR OPTIONS
DO NOT NEED ALL THE OPTIONS

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: MMI		BLOCK TITLE: blk_modem_iq_int	
LAST MODIFIED BY: MMI Thu Mar 03 15:16:48 2016			
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		REV 01	
		CAD FILE NAME:	
		PAGE 66 OF 88	

REF 3120-3199

SUPPLIES



APPROVALS

ENGINEER:

LAST MODIFIED BY:
Thu Mar 03 15:16:46 2016

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BLOCK TITLE:

blk_wtr3925

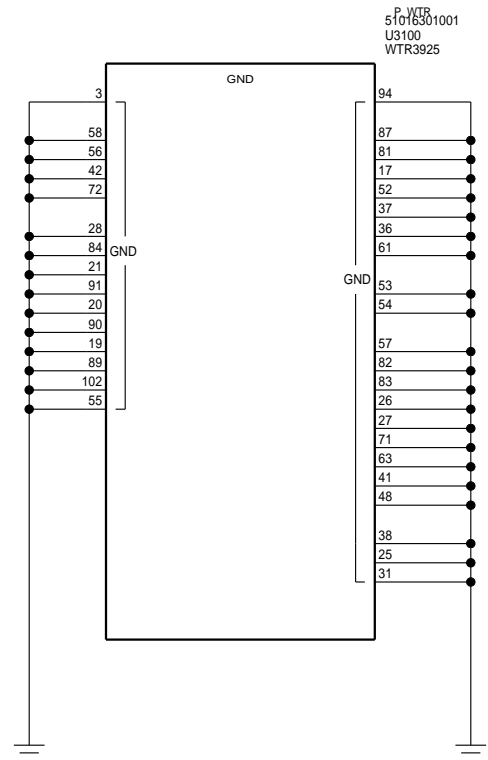
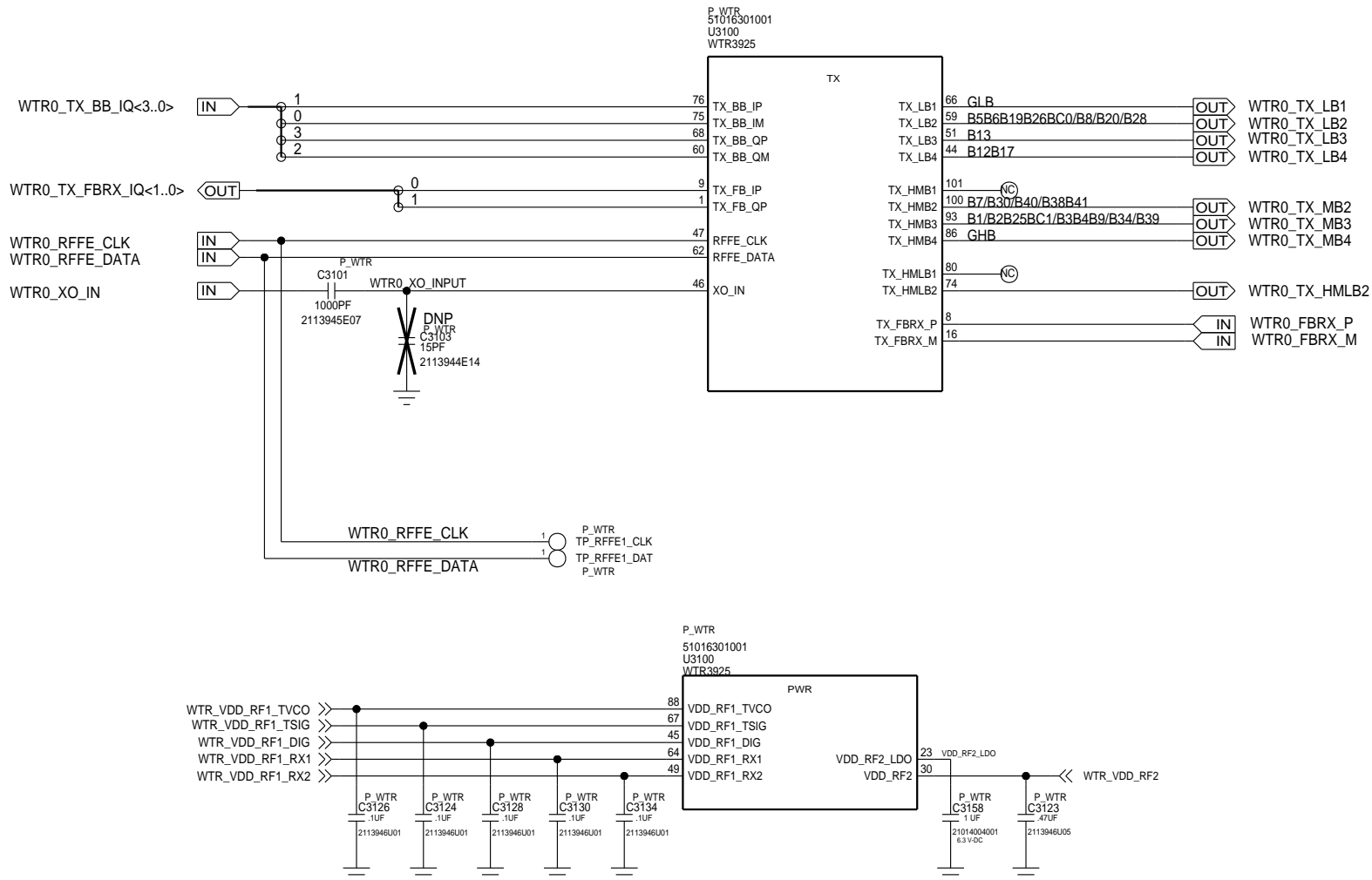
B	PROJECT NAME
	80046517001_10.cpm

CAD FILE NAME:

EV
1

WTR3925: TX/PWR/GROUND

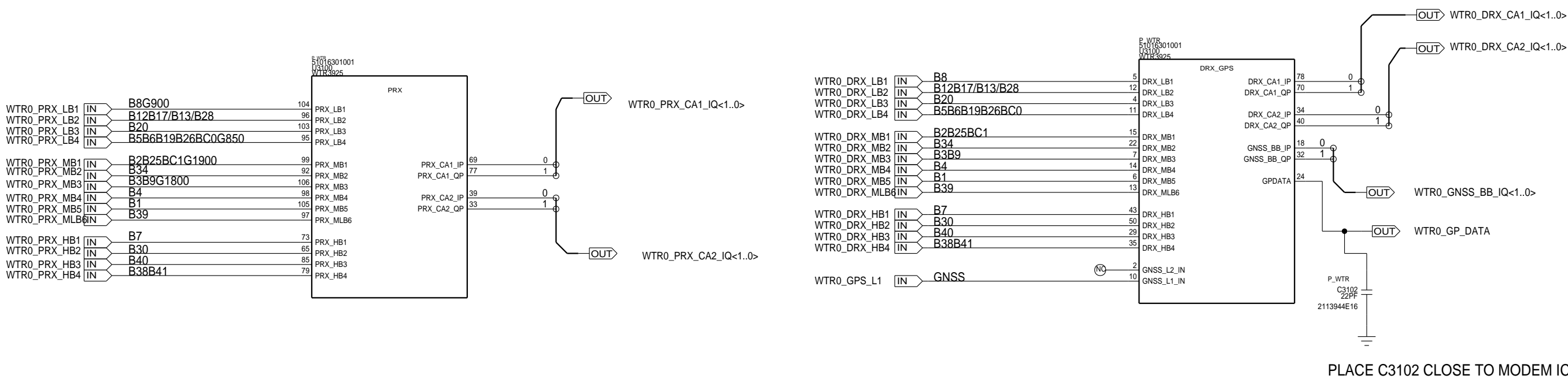
REF 3100-3109




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ENGINEER:		blk_wtr3925	
LAST MODIFIED BY:		80746517001_10.cpm	
Thu Mar 03 15:16:47 2016		REV 01	
MOTOROLA CONFIDENTIAL RESTRICTED		PAGE 68 OF 88	
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WTR3925: PRX/DRX/GPS


REF 3110-3119



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY:		blk_wtr3925	
MOTOROLA CONFIDENTIAL RESTRICTED		PROJECT NAME	REV
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		CAD FILE NAME:	PAGE 69 OF 88

REF 3400-3499

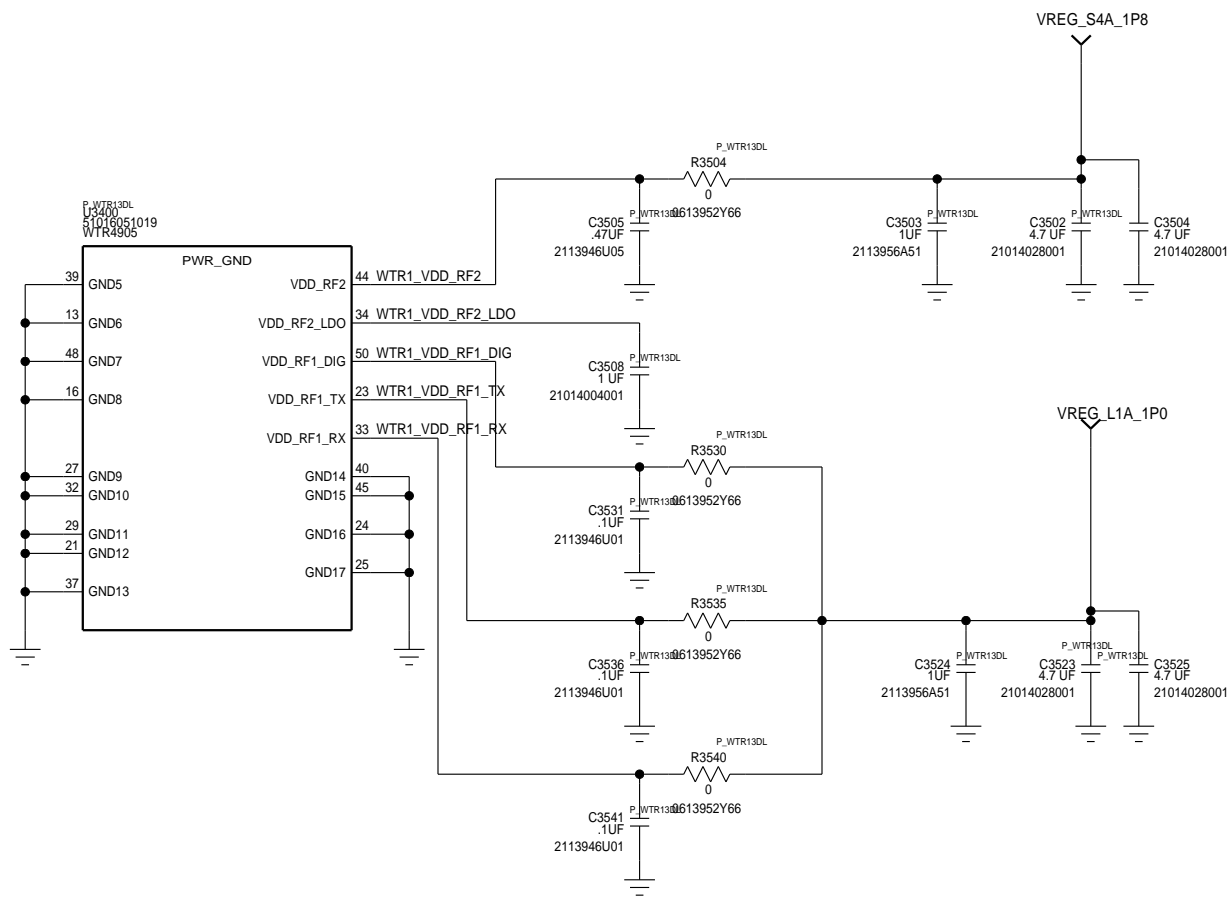



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: MMI	BLOCK TITLE: blk_wtr4905		
LAST MODIFIED BY: Thu Mar 03 15:16:45 2016			
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		CAD FILE NAME:	PAGE 70 OF 88

BASED ON 80-NL713-44 REV. A


WTR4905: POWER

REF 3500-3599



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: Thu Mar 03 15:16:45 2016		blk_wtr4905	
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CAD FILE NAME:			PAGE 71 OF 88

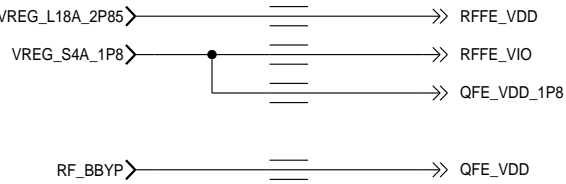
8	7	6	5	4	3	2	1
<div>RFFE: BLOCK DIAGRAM</div> <div>REFDES: 7000-8999</div>							
D							D
C							C
B							B
A							A
8	7	6	5	4	3	2	1

APPROVALS		 MOTOROLA MOBILE DEVICES		
ENGINEER: MMI		BLOCK TITLE: blk_rffe_3ca		
LAST MODIFIED BY: MMI Thu Mar 26 15:36:06 2015				
<div>MOTOROLA CONFIDENTIAL RESTRICTED</div> <div>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</div>		B	PROJECT NAME 84016517001_10.cpm	REV 01
		CAD FILE NAME:		PAGE 72 OF 88

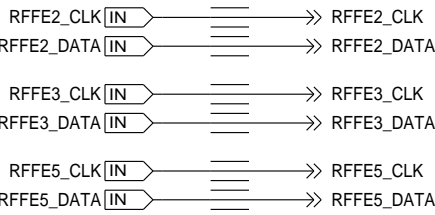
RFFE: PORTS

REFDES: 7000-8999

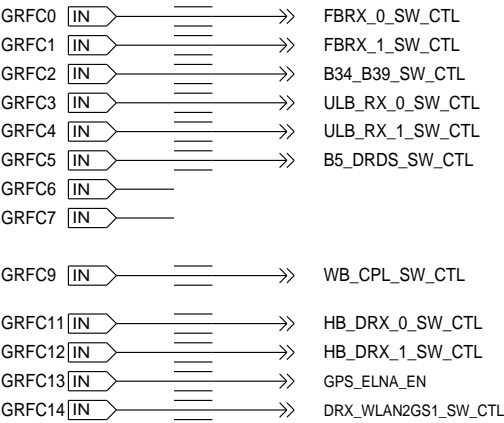
POWER



INTERFACES - RFFE MIPI



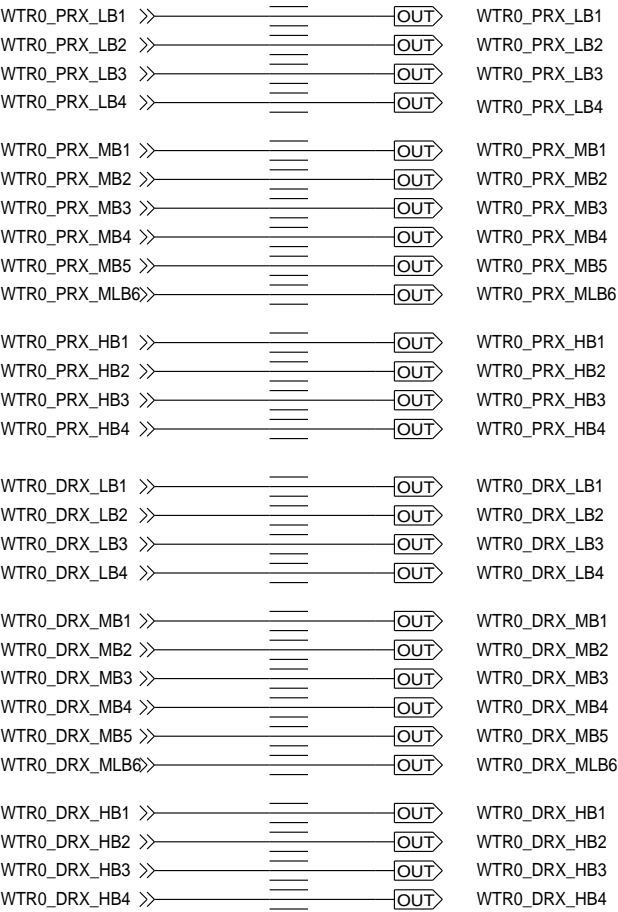
INTERFACES - RFFE GPIO/GRFC



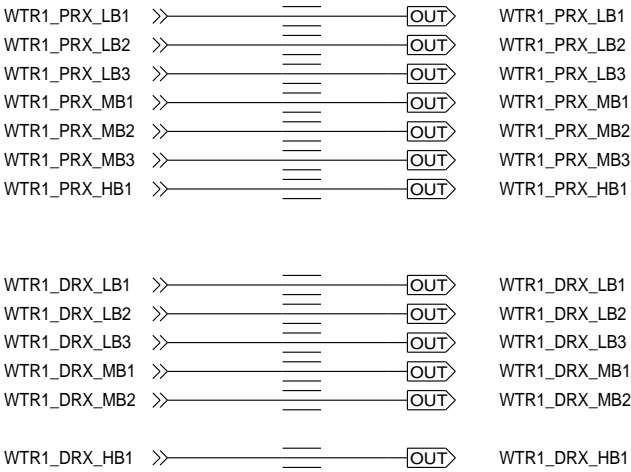
GRFC ASSIGNMENTS MIGHT CHANGE

NOTE: GRFC7 SHOULD NOT BE ASSIGNED TO RF
IT IS RESERVED AS BOOT_CONFIG CONTROL GPIO

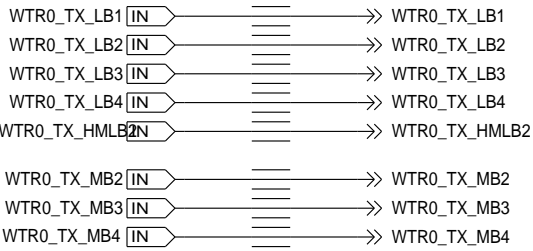
OUTPUTS - RF RECEIVER - WTR0



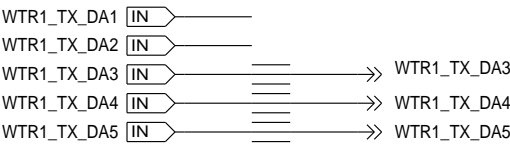
OUTPUTS - RF RECEIVER - WTR1 (3DL/DSDA)



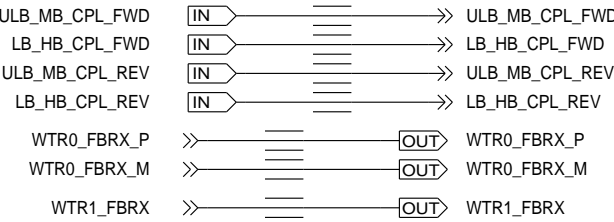
INPUTS - RF DRIVER - WTR0



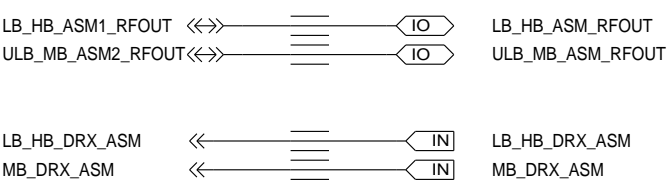
INPUTS - RF DRIVER - WTR1 (3DL/DSDA)



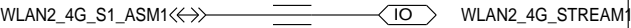
INPUTS /OUTPUTS - DETECTORS



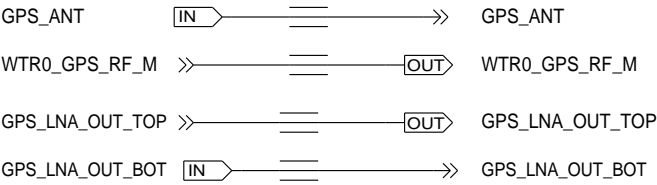
OUTPUTS - RF ANTENNA CONNECTORS



WLAN 2.4GHZ STREAM-1



GPS



THERMISTORS



QUALCOMM RECOMMENDS PLACING BOTH THERMISTORS
FOR FUTURE SW IMPLEMENTATION THEY ARE WORKING ON

APPROVALS

ENGINEER: MMI

LAST MODIFIED BY: MMI
Thu Mar 03 15:16:35 2016

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BLOCK TITLE:

blk_rffe_3ca

PROJECT NAME
B 84016517001_10.cpm

REV
01

CAD FILE NAME:

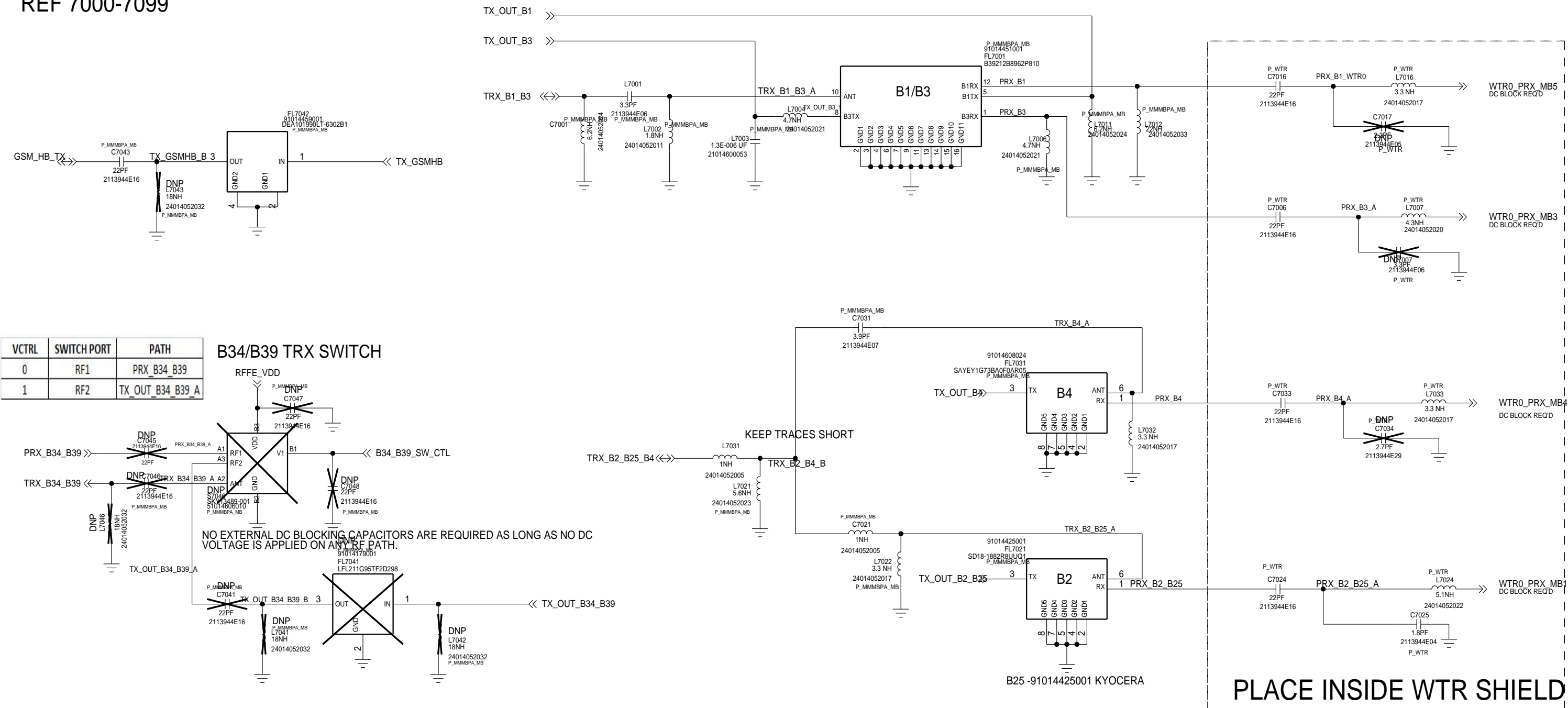
PAGE 73 OF 88

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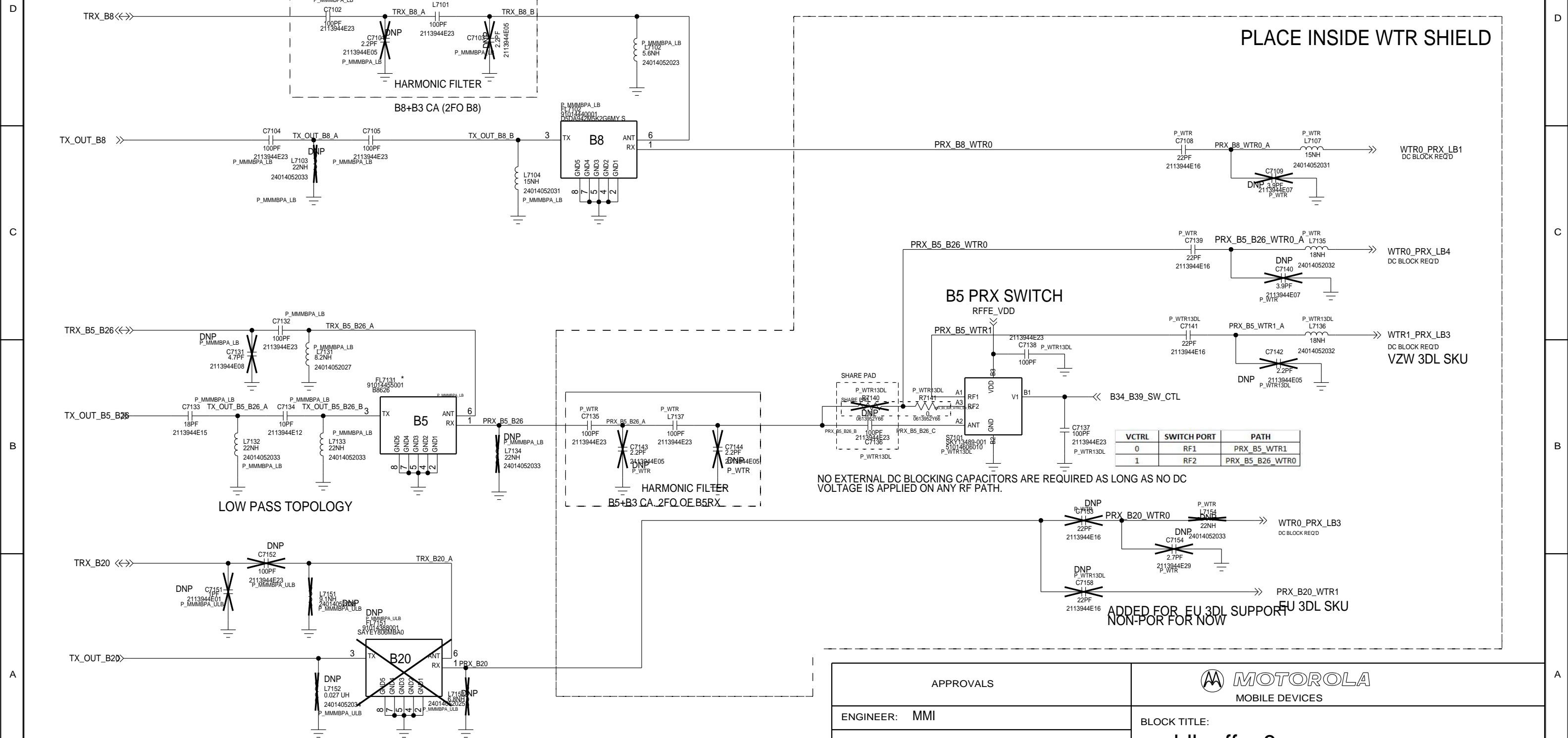
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RFFE: TRX MB
REF 7000-7099



APPROVALS		MOTOROLA MOBILE DEVICES		
ENGINEER: MMI		BLOCK TITLE:		
LAST MODIFIED BY: MMI Thu Mar 03 15:16:36 2016		blk_rfe_3ca		
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		B 84016517001_10.cpm		01
CAD FILE NAME:		PAGE 75 OF 88		

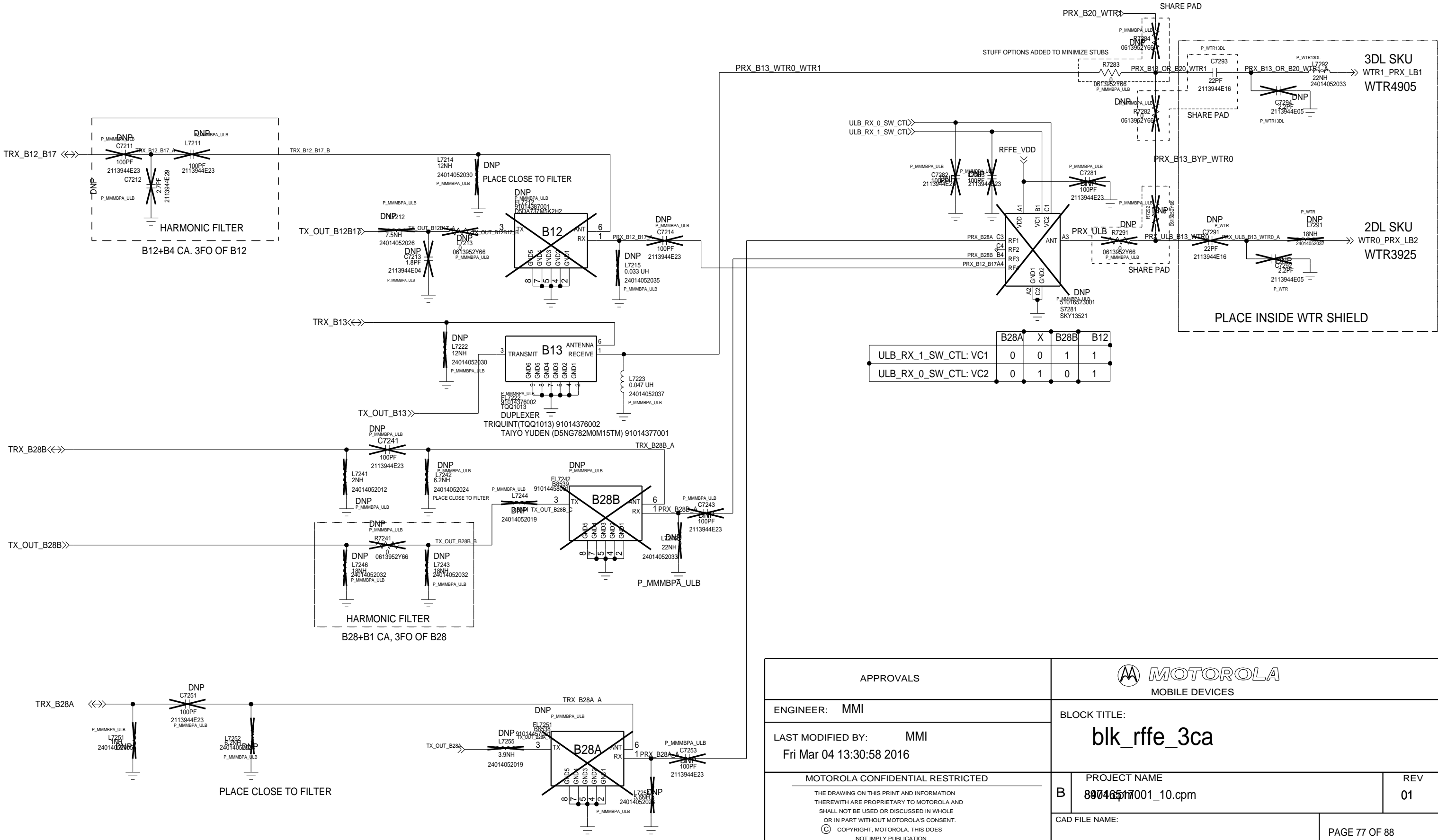
RFFE: TRX LB
REF 7100-7199



APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: MMI		BLOCK TITLE: blk_rfe_3ca	
LAST MODIFIED BY: Thu Mar 31 11:03:51 2016		PROJECT NAME B 80746517001_10.cpm	
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		CAD FILE NAME: 80746517001_10.cpm	
		PAGE 76 OF 88	

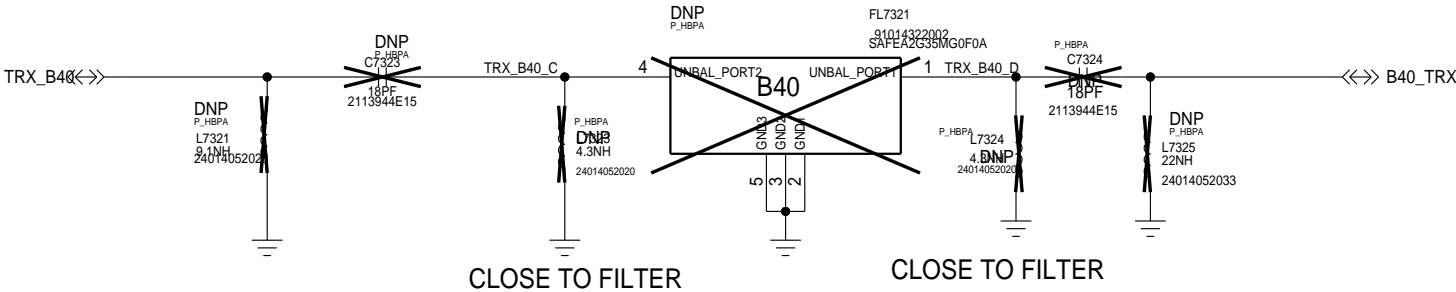
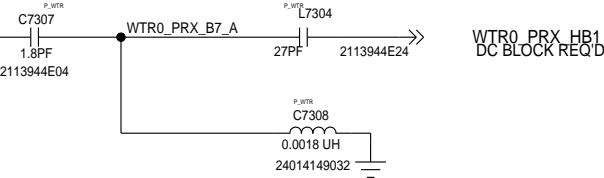
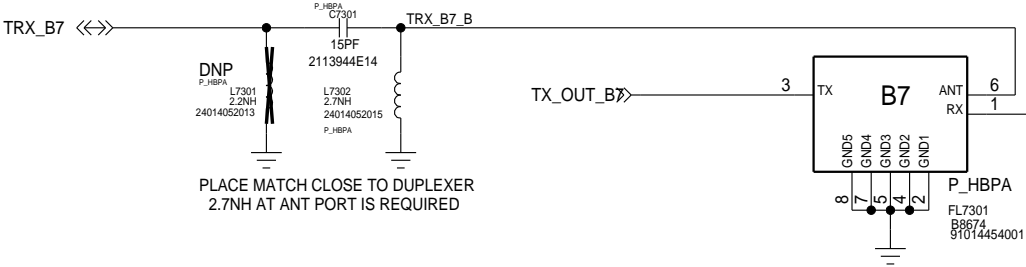
RFFE: TRX ULB

REF 7200-7299

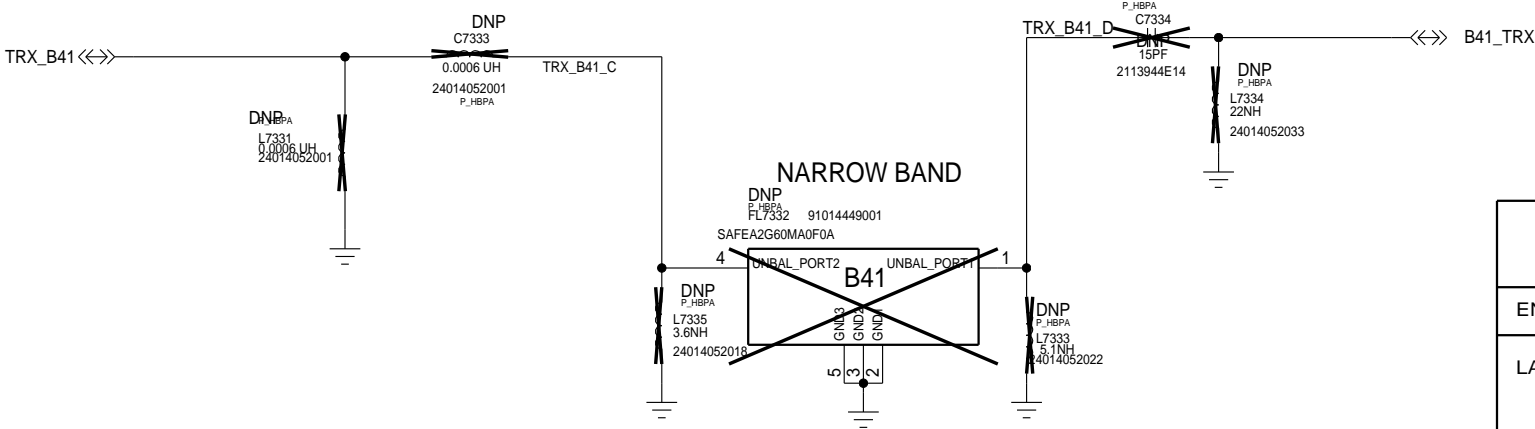



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LAST MODIFIED BY: MMI Fri Mar 04 13:30:58 2016		blk_rfe_3ca	
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		B 80146517001_10.cpm	01
CAD FILE NAME:			PAGE 77 OF 88

RFFE: TRX HB
REF 7300-7399



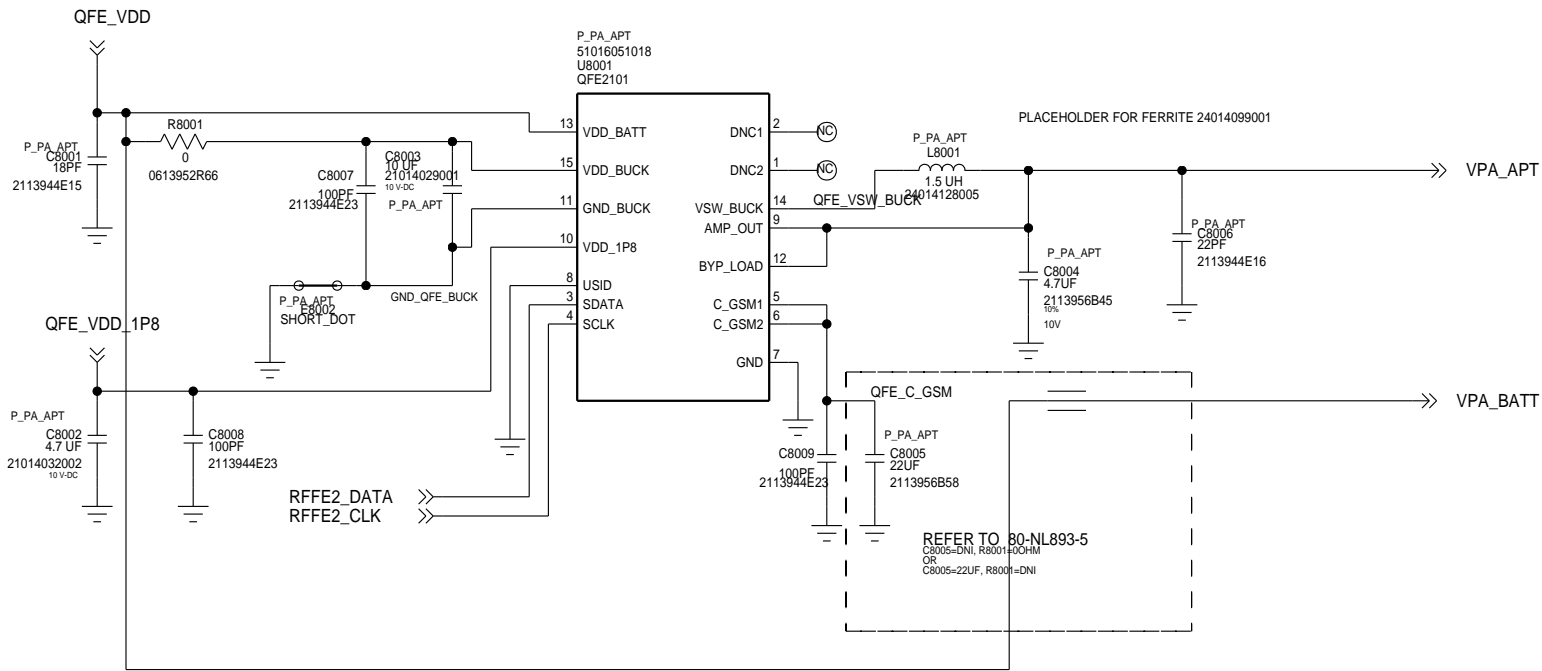
PLACE INSIDE WTR SHIELD





APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: MMI		BLOCK TITLE: blk_rfe_3ca	
LAST MODIFIED BY: MMI Thu Mar 03 15:16:38 2016		PROJECT NAME 84016517001_10.cpm	
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			PAGE 78 OF 88

RFFE: APT

REF 8000-8099



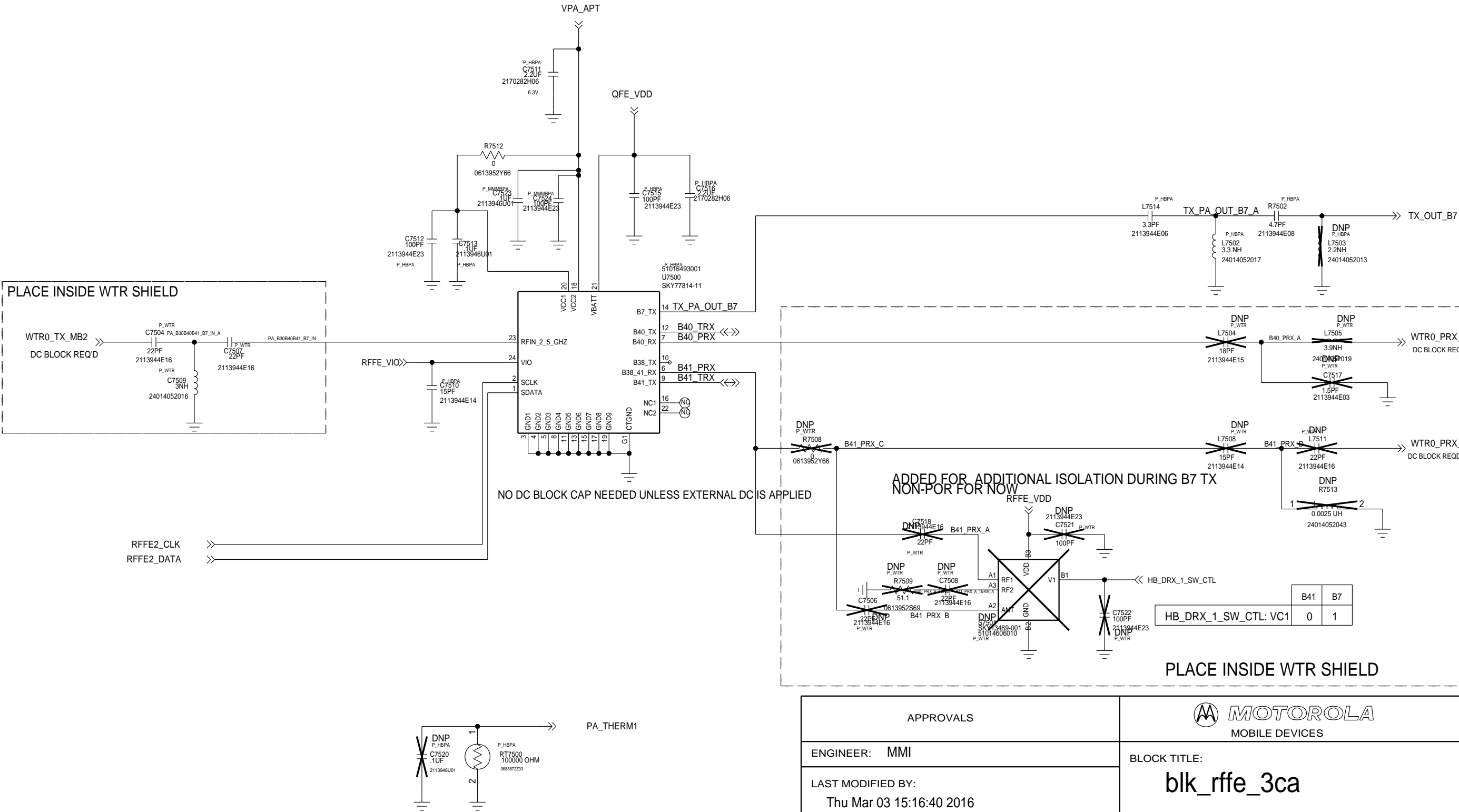
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		B 8000-8099_10.cpm	01
CAD FILE NAME:			PAGE 79 OF 88

REF 7400-7499

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RFFE: TX B7/B38/B41/B40/B30

REF 7500-7599



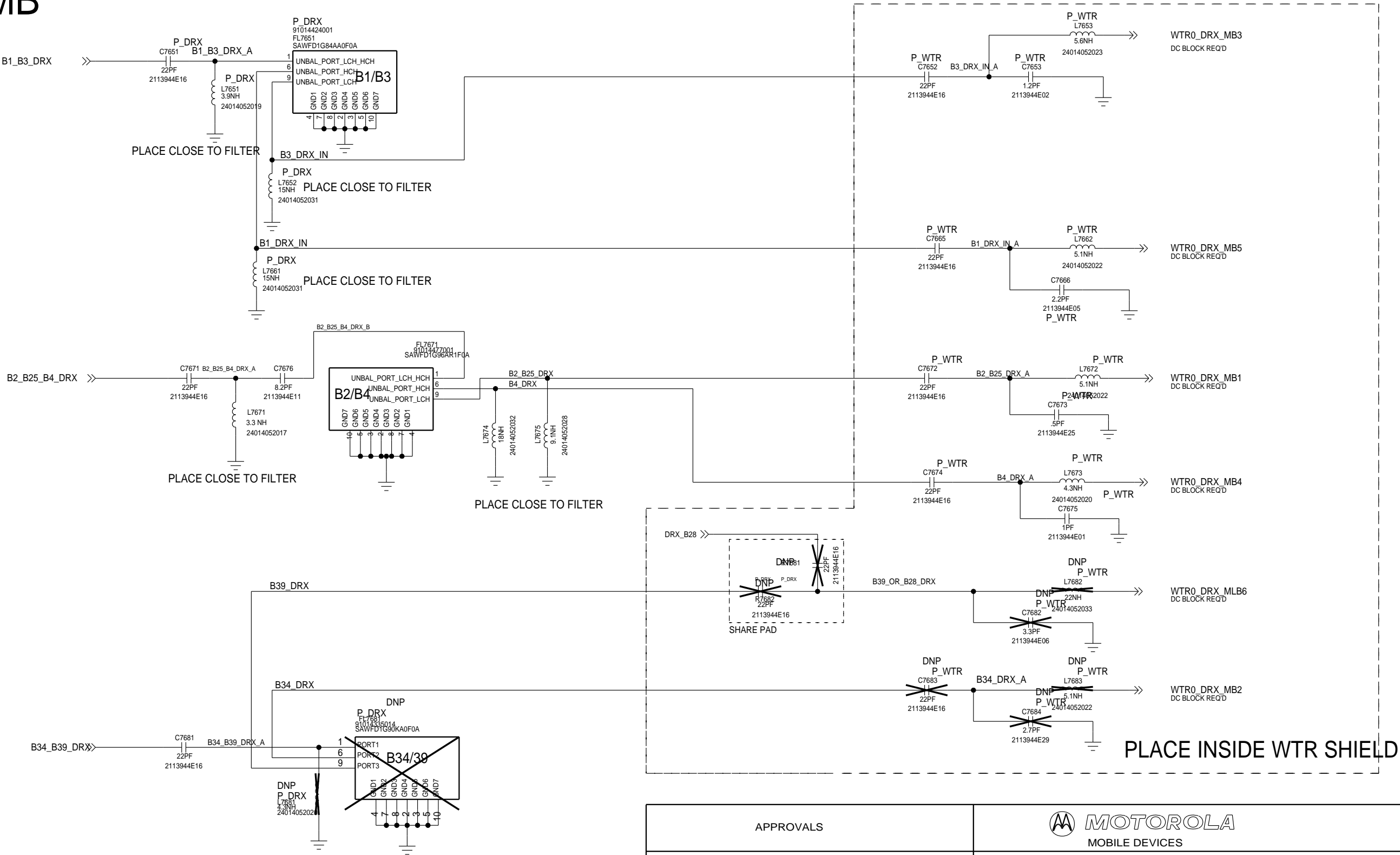
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ENGINEER: MMI		BLOCK TITLE: blk_rfe_3ca	
LAST MODIFIED BY: Thu Mar 03 15:16:40 2016		PROJECT NAME 80746517001_10.cpm	
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		CAD FILE NAME: 80746517001_10.cpm	
		PAGE 81 OF 88	


REF 7600-7649

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RFFE: DRX MB

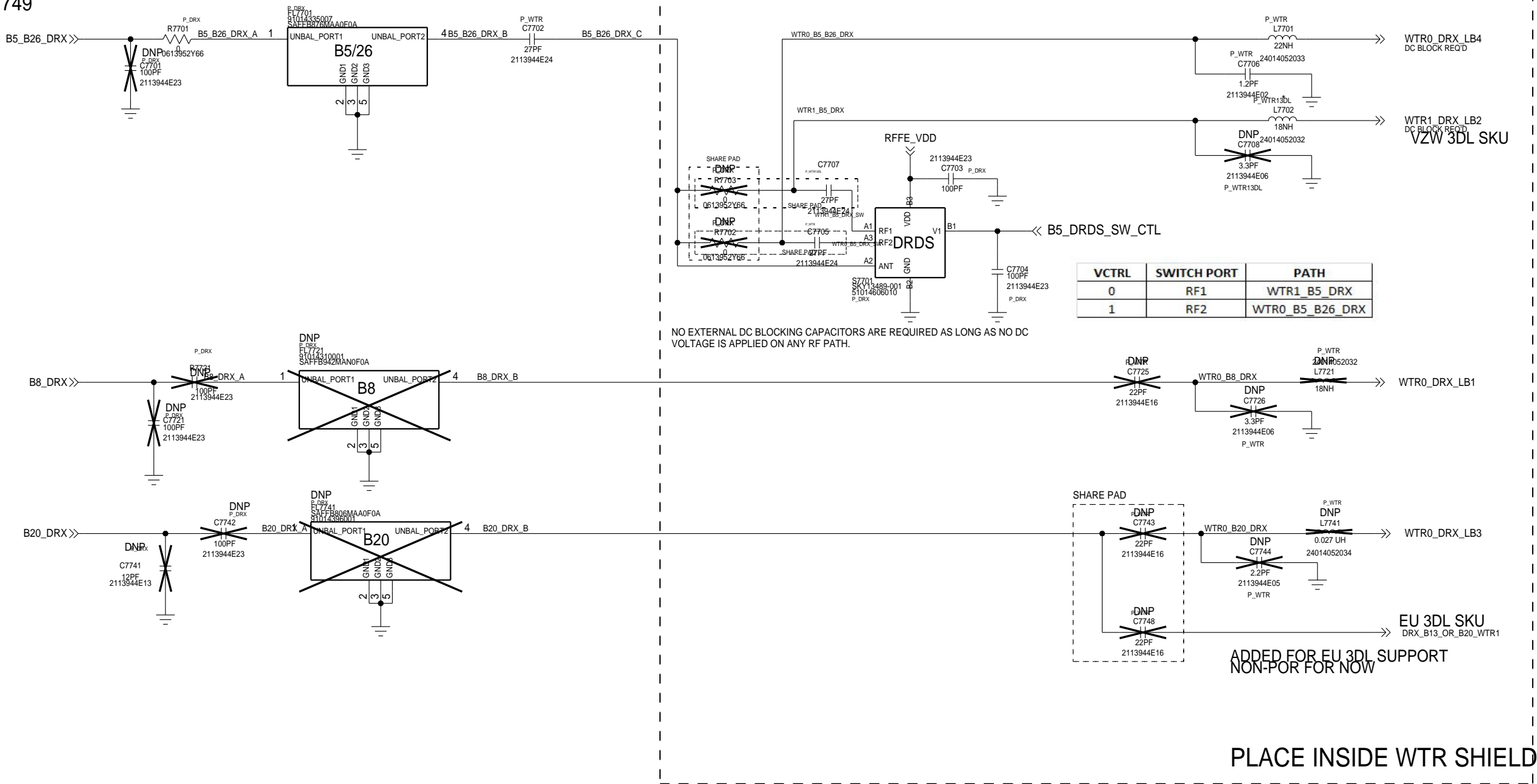
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		CAD FILE NAME: 80746517001_10.cpm	
		PAGE 83 OF 88	

RFFE: DRX LB

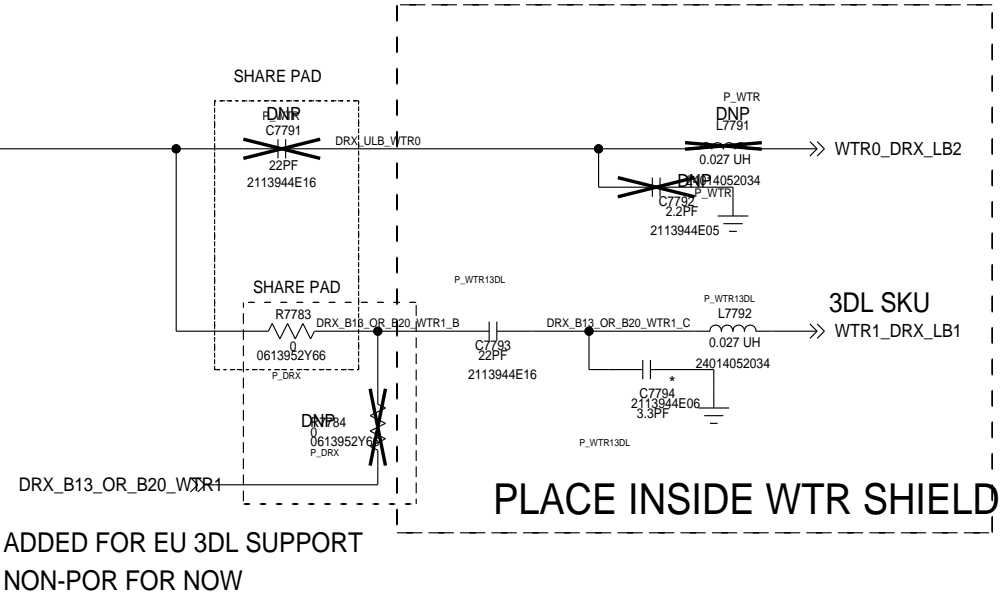
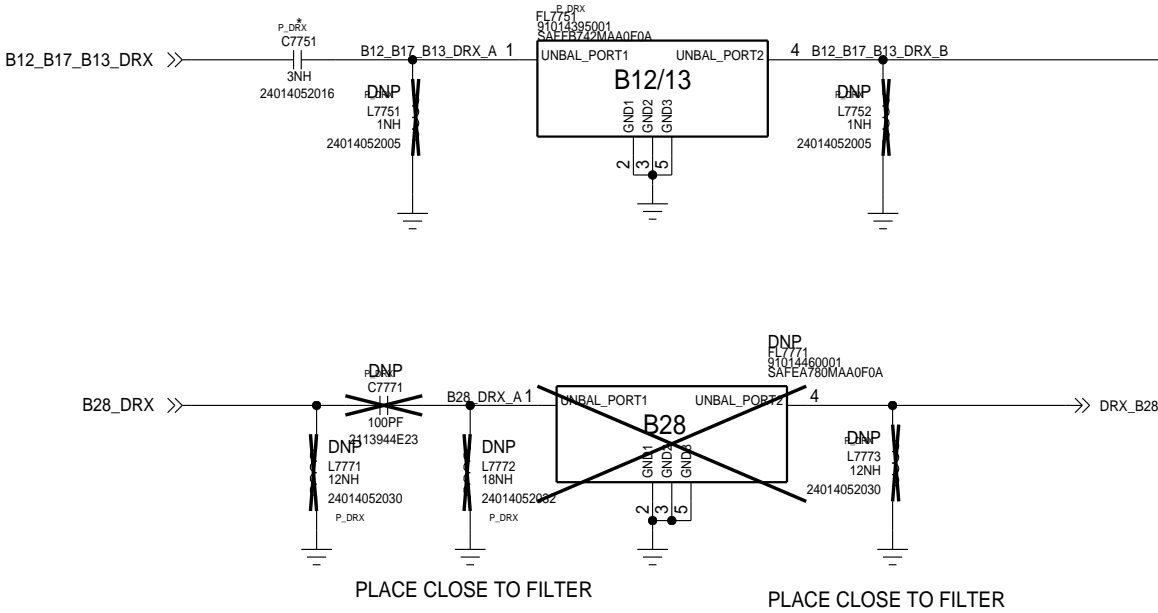
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		CAD FILE NAME:	
		REV 01	
		PAGE 84 OF 88	

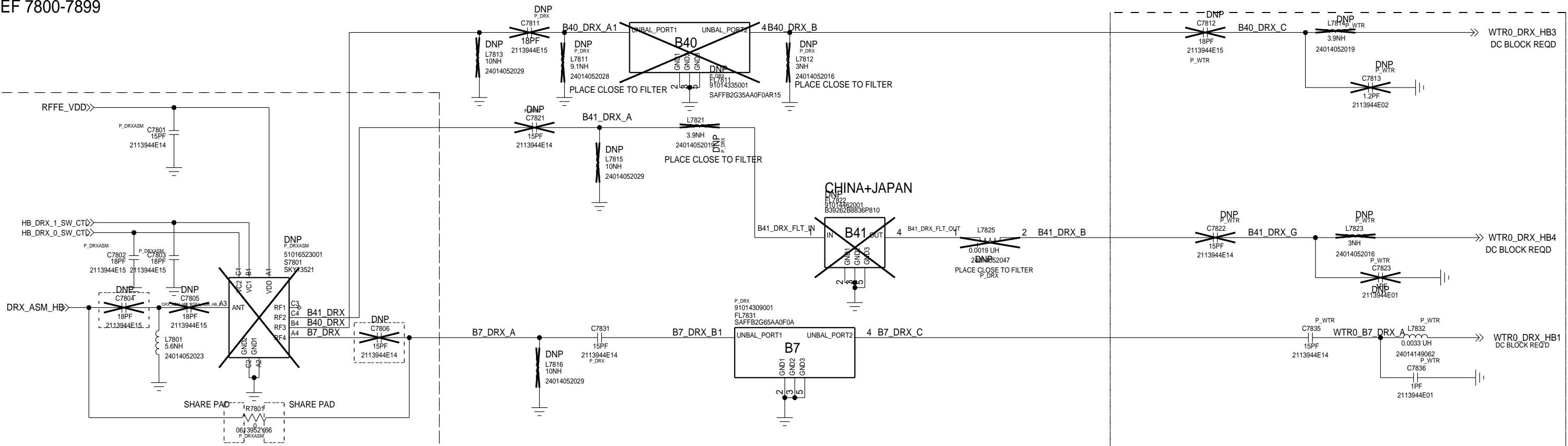
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REF: 7750-7799



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		B 84016517001_10.cpm	
		REV 01	
		CAD FILE NAME:	
		PAGE 85 OF 88	

RFFE: DRX HB
REF 7800-7899




NO EXTERNAL DC BLOCKING CAPACITORS ARE REQUIRED AS LONG AS VOLTAGE IS APPLIED ON ANY RF PATH.

		B41	B40	B7
HB_DRX_1_SW_CTL: VC1		0	1	1
HB_DRX_0_SW_CTL: VC2		1	0	1

PLACE NEXT TO U7601

PLACE INSIDE WTR SHIELD

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: MMI		BLOCK TITLE:	
LAST MODIFIED BY: MMI Mon Mar 07 14:17:41 2016		blk_rfe_3ca	
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		CAD FILE NAME: PAGE 86 OF 88	

REF : 8500-8549

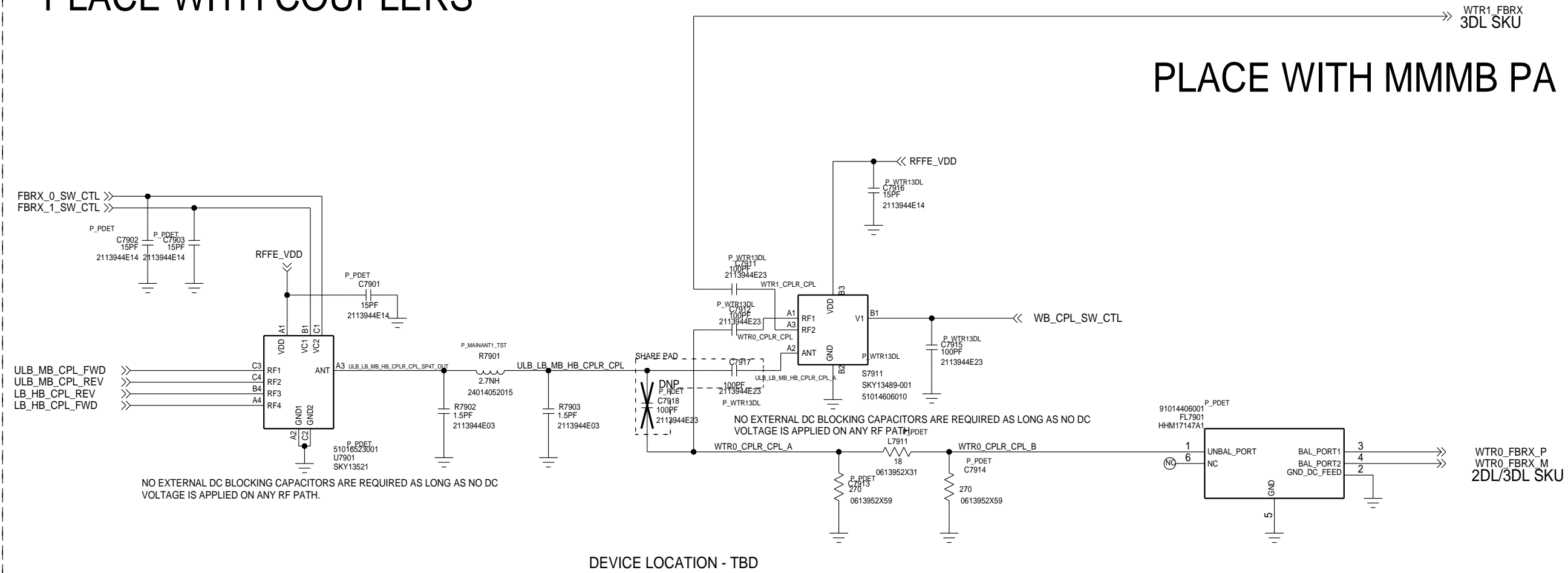
PAGE 87 OF 88


RFFE: PDET

REF : 7900-7949

PLACE WITH COUPLERS

PLACE WITH MMMB PA



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: MMI		BLOCK TITLE:	
LAST MODIFIED BY: MMI Fri Mar 04 10:59:13 2016		blk_rfe_3ca	
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		CAD FILE NAME:	
		PAGE 88 OF 88	