

HOUDINI

SYSTEM 17

08/23/16

D

C

B

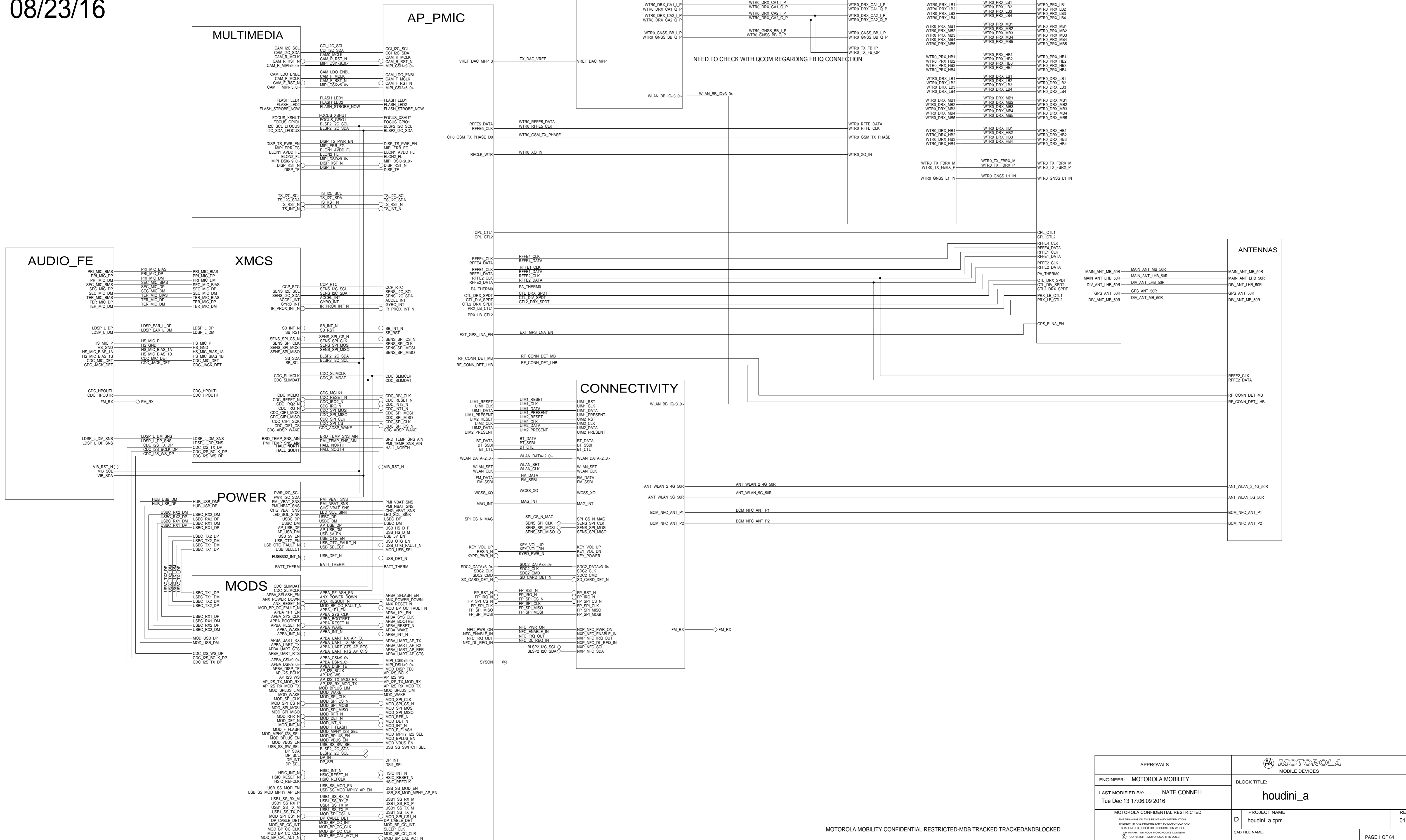
A

D

C

B

A



REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED

<p>APPROVALS</p> <p>ENGINEER: MOTOROLA MOBILITY</p> <p>LAST MODIFIED BY: NATE CONNELL</p> <p>Tue Dec 13 17:06:09 2016</p>		<p>MOTOROLA MOBILE DEVICES</p> <p>BLOCK TITLE:</p> <p>houdini_a</p> <p>PROJECT NAME</p> <p>houdini_a.cpm</p> <p>REV</p> <p>01</p>	
<p>MOTOROLA CONFIDENTIAL RESTRICTED</p> <p>THIS DRAWING OR THIS PRINT AND INFORMATION THEREON ARE PROPERTY OF MOTOROLA AND SHALL NOT BE USED OR DISCLOSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. COPYRIGHT, MOTOROLA, THIS DOES NOT APPLY TO PUBLICATION.</p>		<p>CAD FILE NAME:</p> <p>houidi_a.cpm</p> <p>PAGE 1 OF 64</p>	

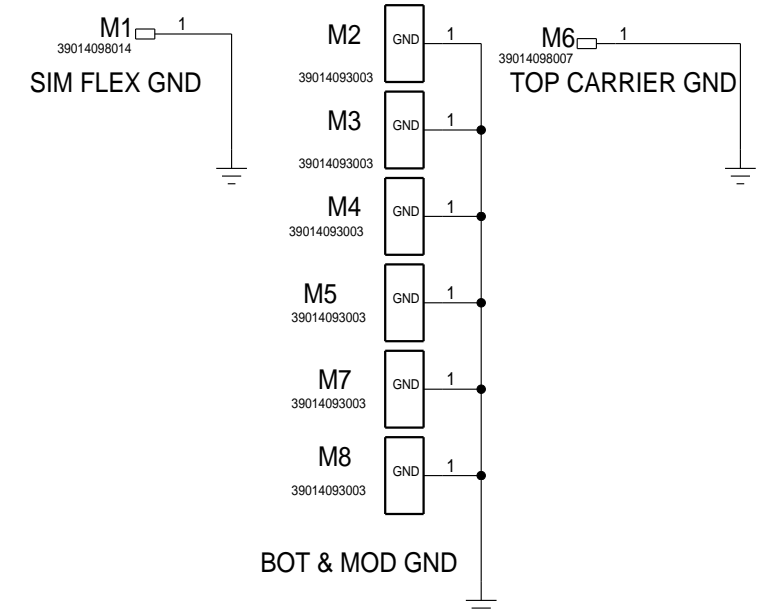
MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

HOUDINI ME/SHIELDS

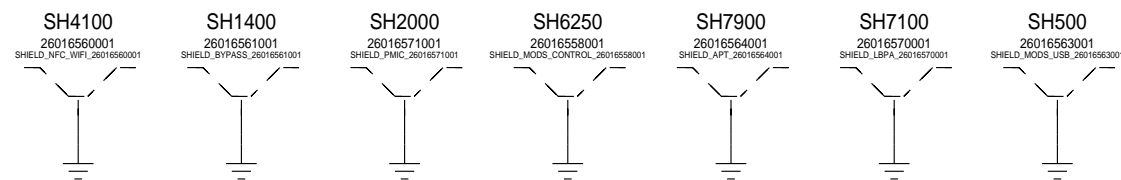
REFERENCE DESIGNATOR RANGES BY BLOCK

- 500 - 599: USER INPUT
- 600 - 799: POWER
- 1000-2999: MSM8953 + PM8953
- 3000-3199: WTR3925
- 4000-4499: CONNECTIVITY
- 4500-4999: AUDIO FE
- 5000-5499: DISPLAY
- 5500-5999: CAMERA
- 6000-6999: XMCS
- 7000-7999: RFFE
- 8000 - 8099: ANTENNA

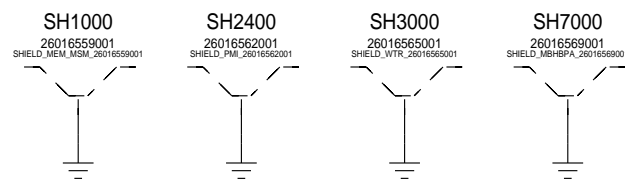
GROUND CONTACTS



TOP SIDE PCB SHIELD



BOTTOM SIDE PCB SHIELD

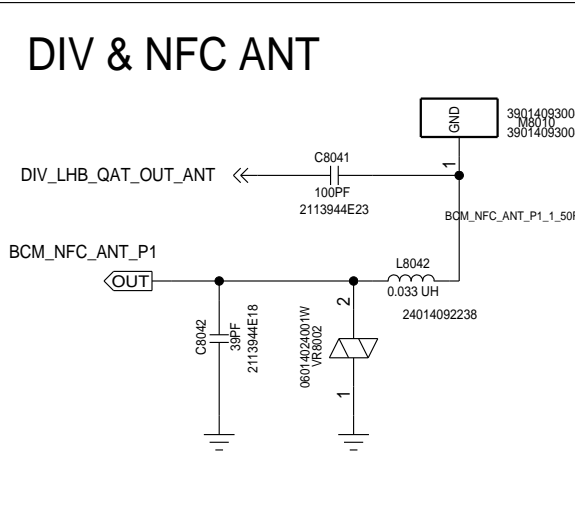
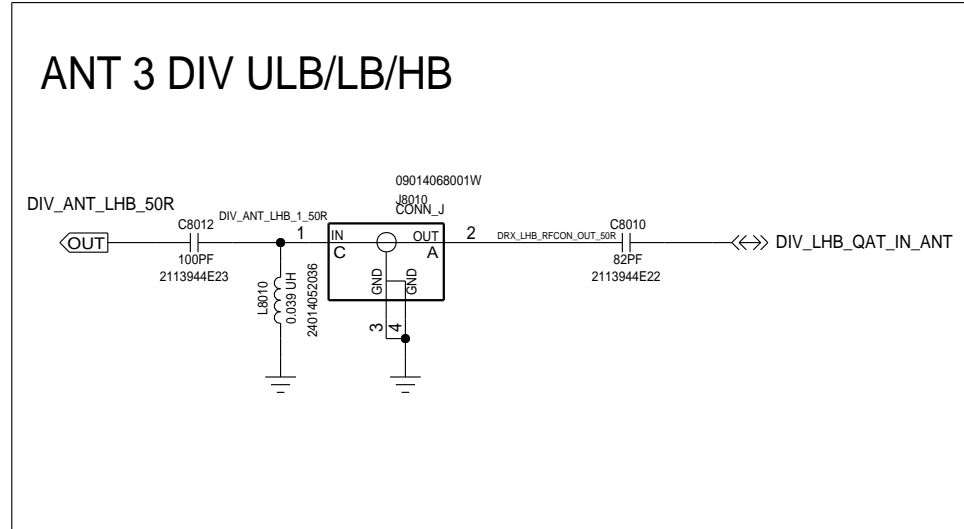
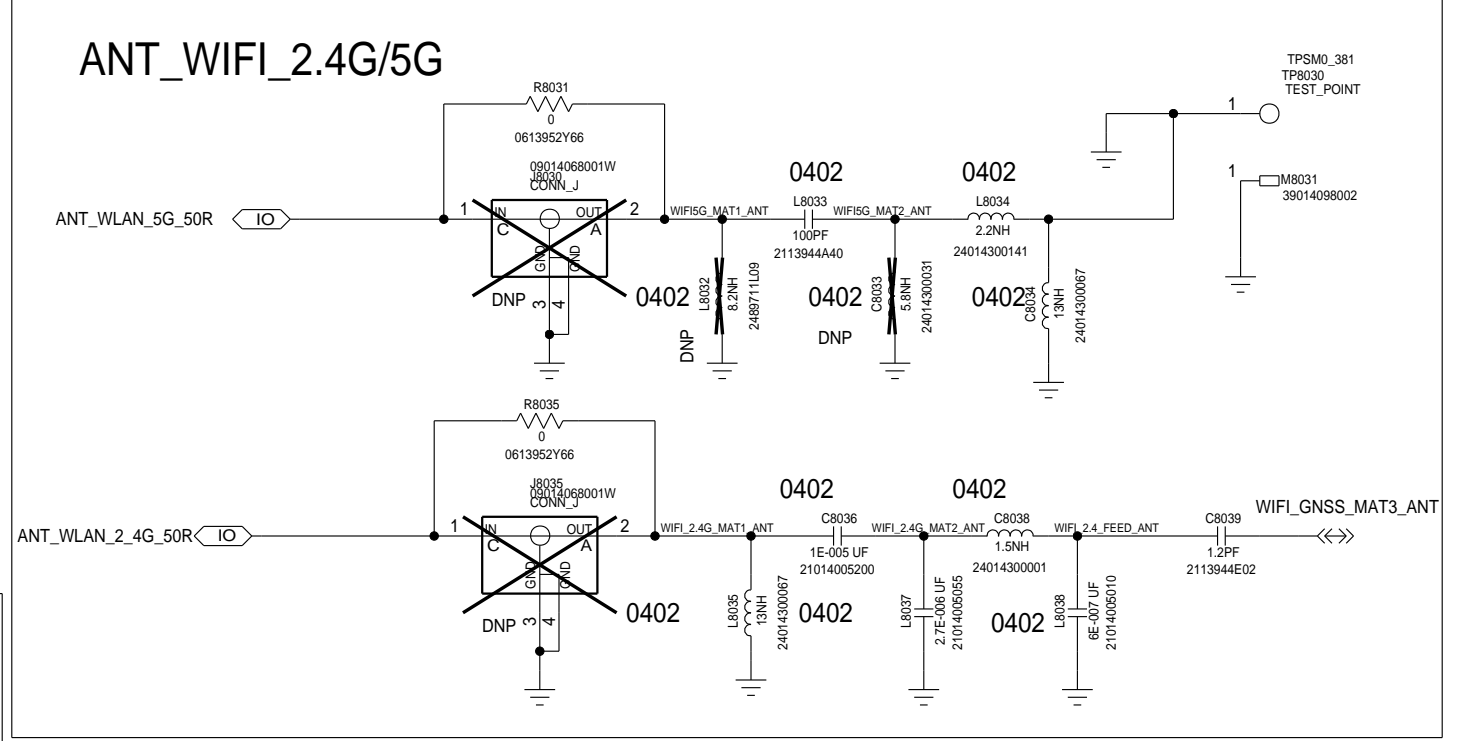
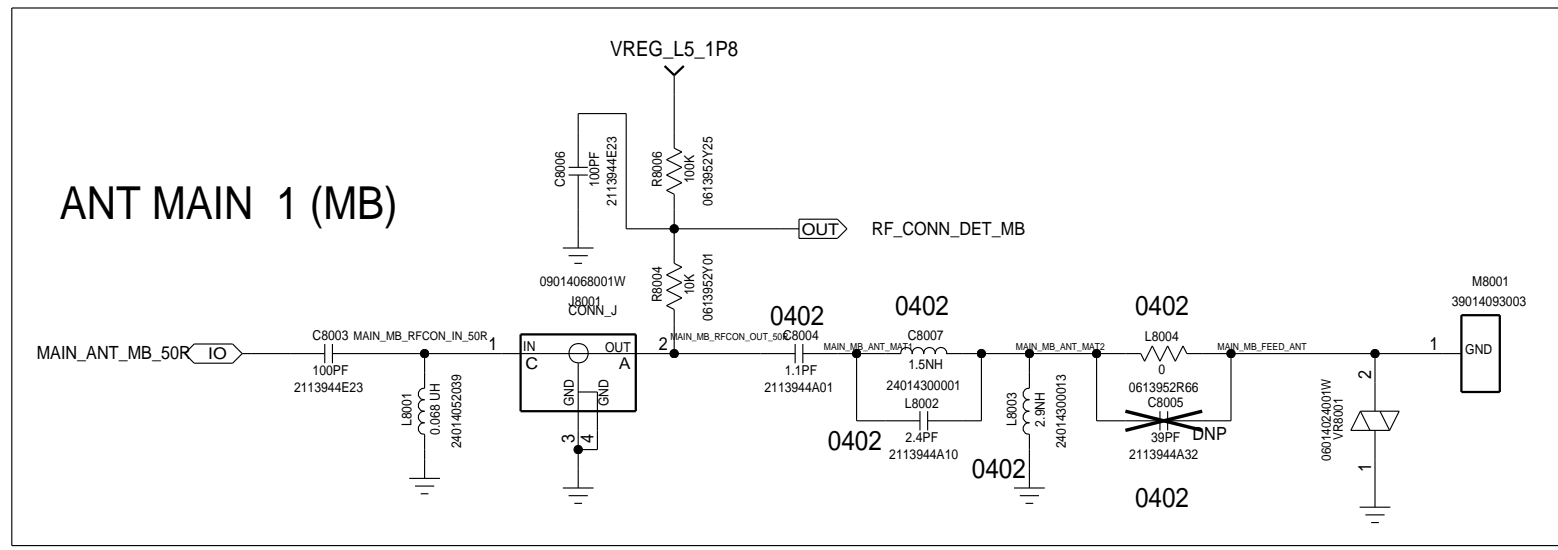
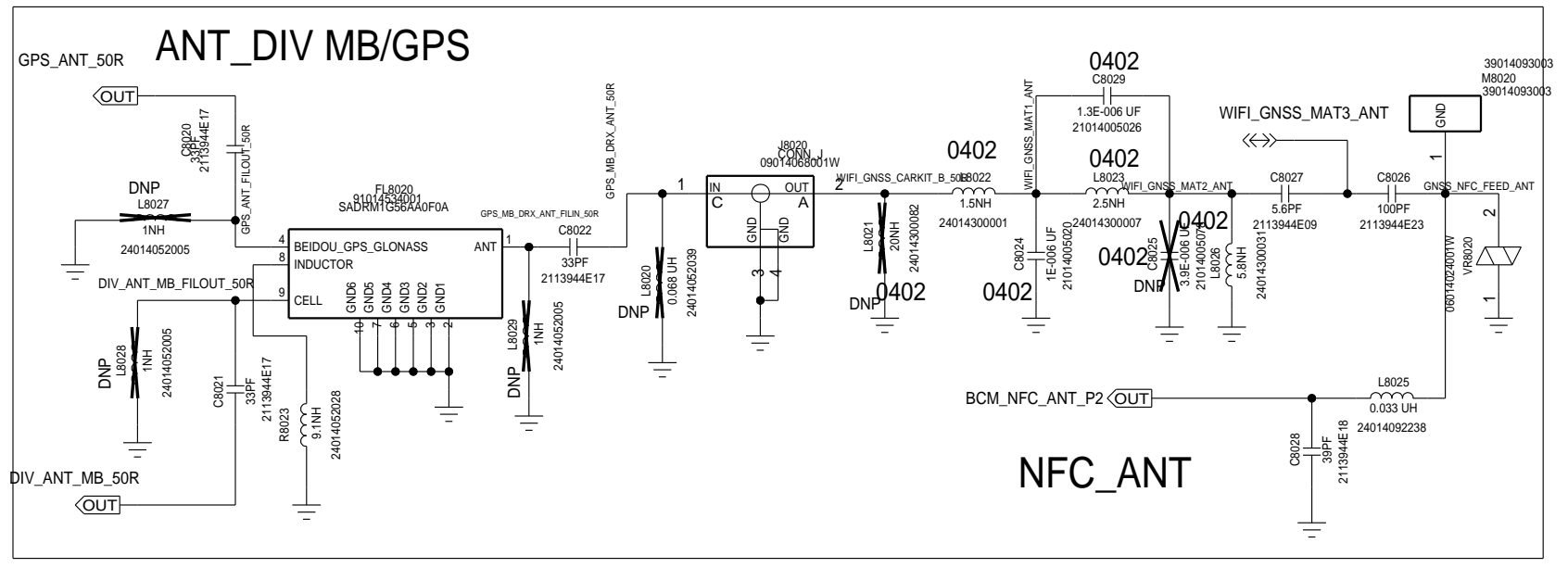
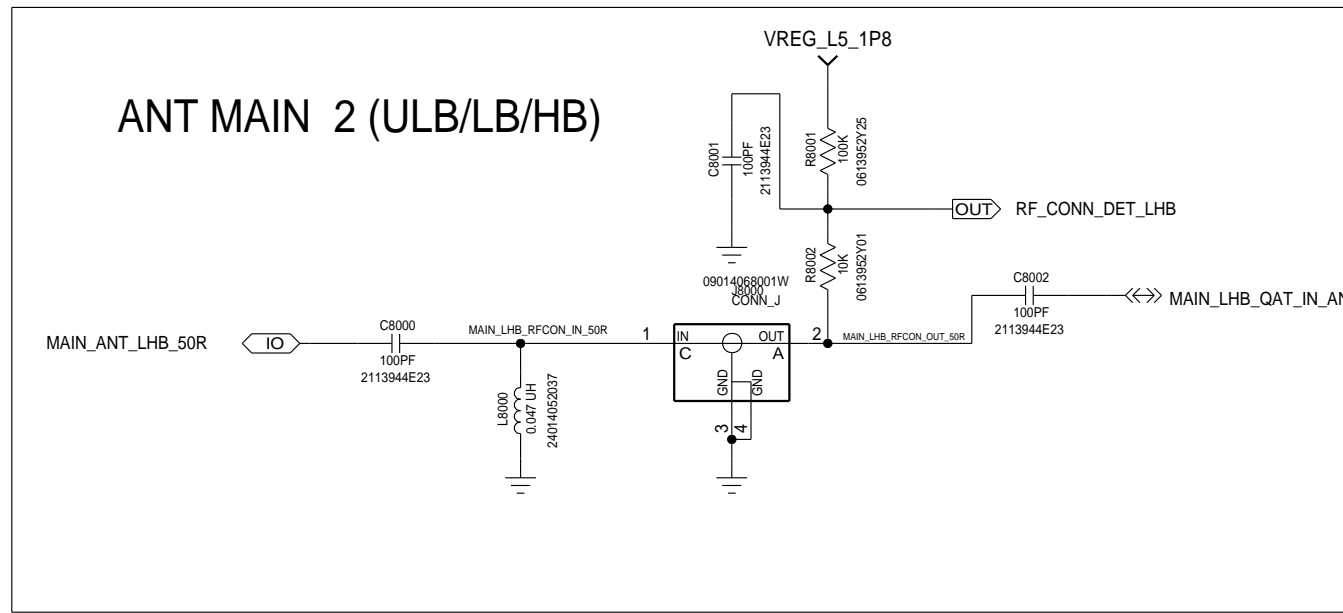


MOTOROLA MOBILITY CONFIDENTIAL RESTRICTED-MDB TRACKED TRACKEDANDBLOCKED

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LAST MODIFIED BY: Thu Jan 05 14:29:33 2017			
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 houdini_a.cpm	REV 01
		CAD FILE NAME:	

8000:antennas

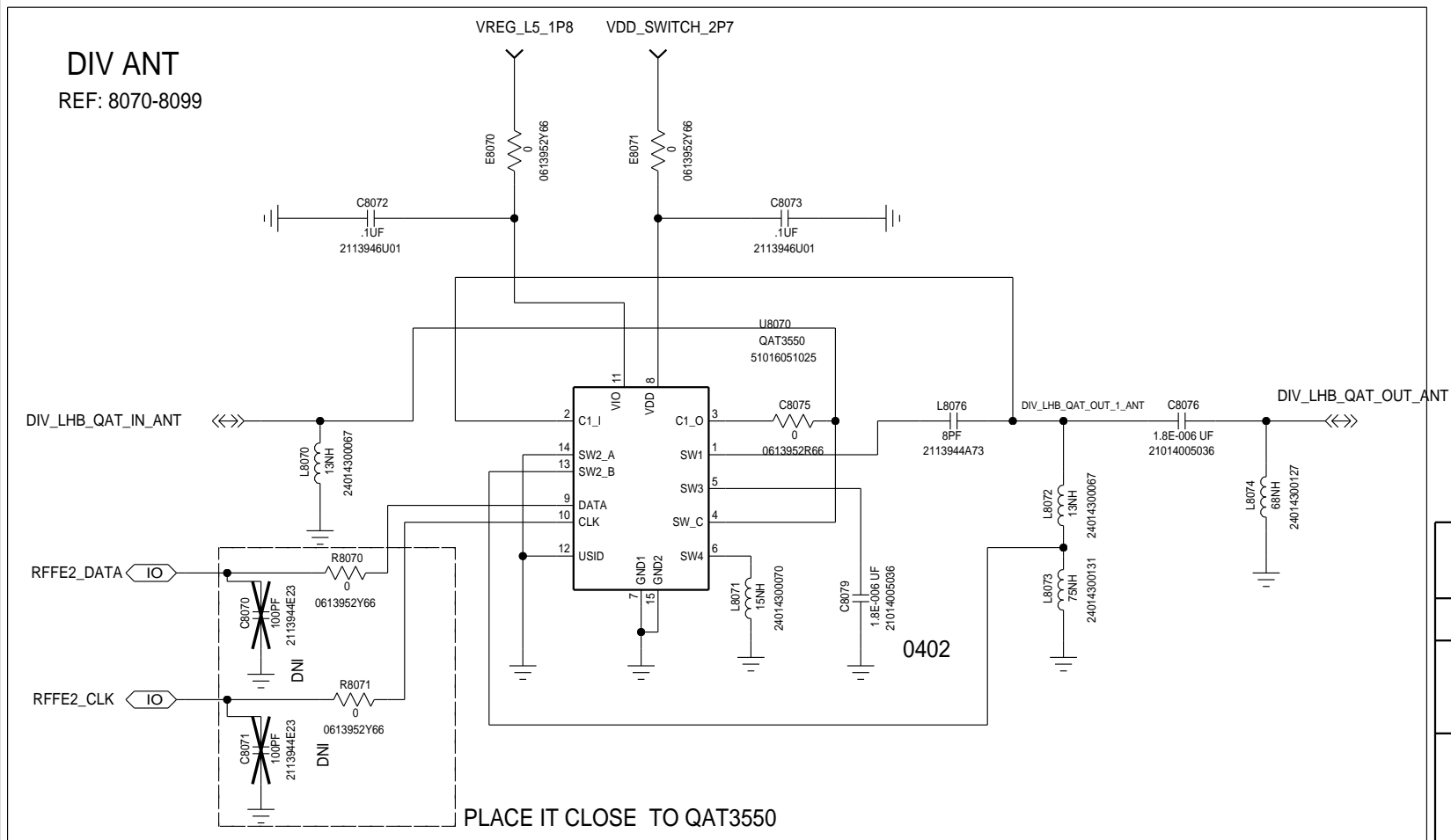
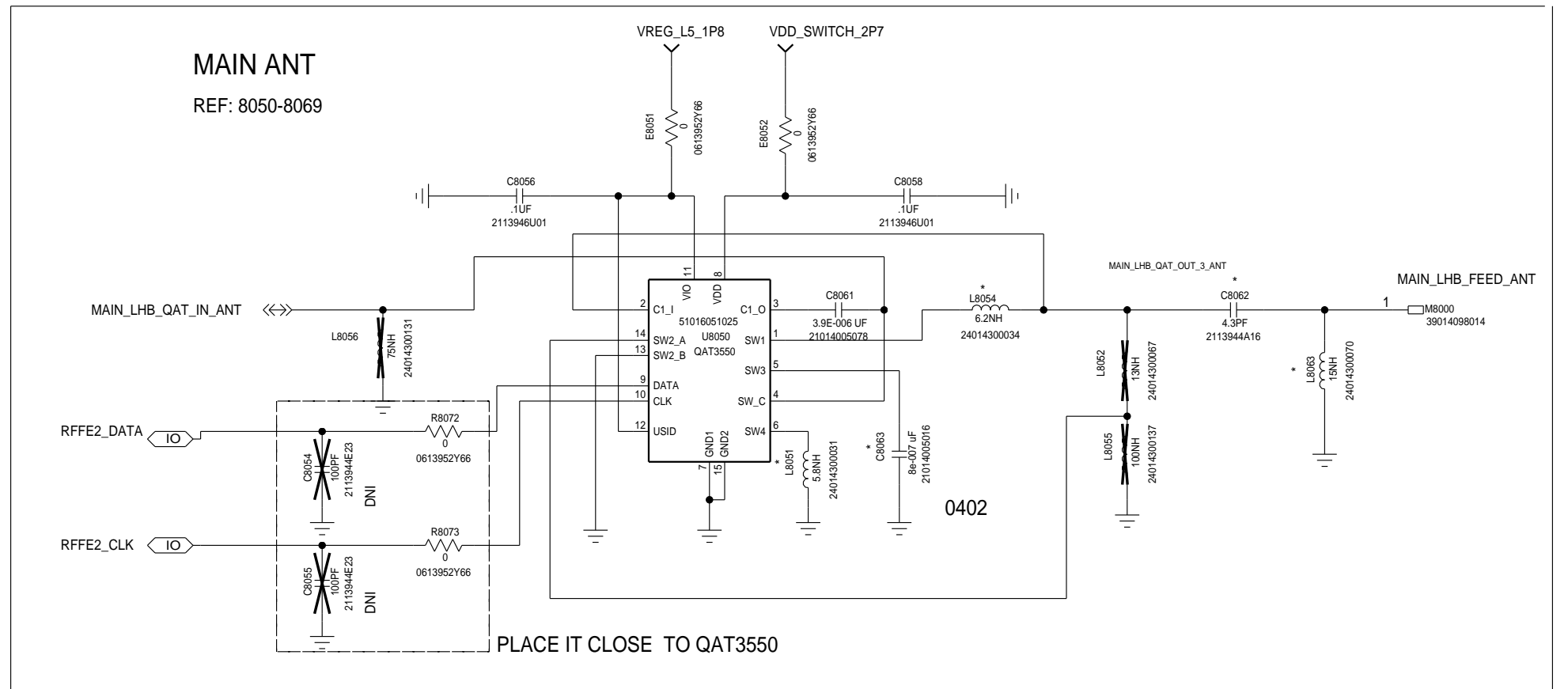
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LAST MODIFIED BY:		antennas	
Tue Feb 07 14:11:57 2017		PROJECT NAME:	
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8050:ANT_TUNER_QAT3550

REF 8050-8099



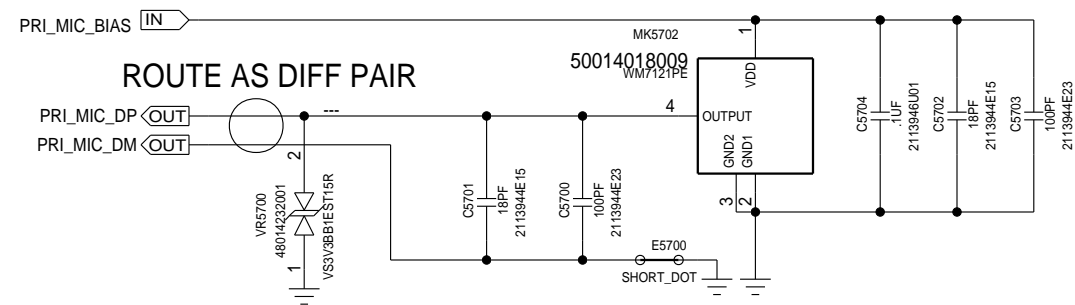
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ENGINEER:		BLOCK TITLE: antennas	
LAST MODIFIED BY: Thu Dec 22 11:36:14 2016		PROJECT NAME houdini_a.cpm	
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		PAGE 4 OF 64	

AFE: MICS

REF: 5700-5799

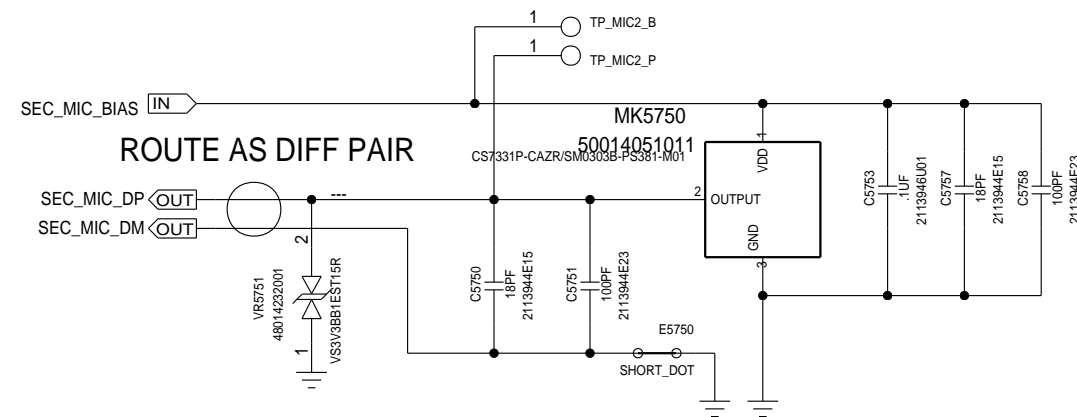
PRIMARY MIC

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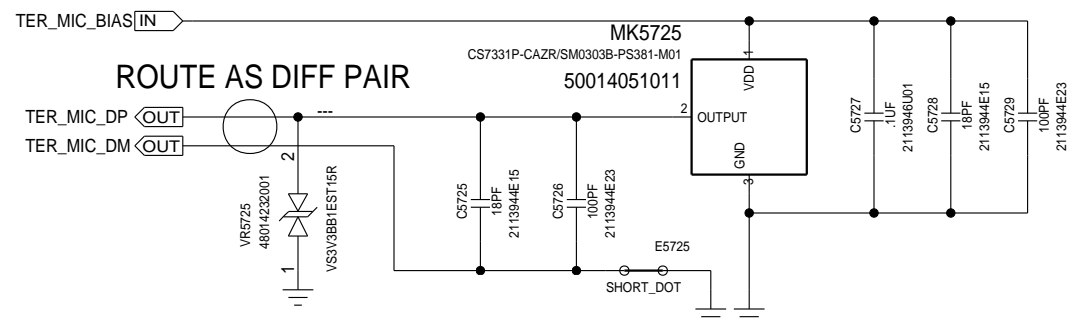
SECONDARY MIC

REF: 5750-5759



TERTIARY MIC

REF: 5725-5730



APPROVALS

ENGINEER: DENNIS BUDNICK

LAST MODIFIED BY: NATE CONNELL
Fri Dec 02 11:33:12 2016

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BLOCK TITLE:

audio_fe

PROJECT NAME

houdini_a.cpm

REV

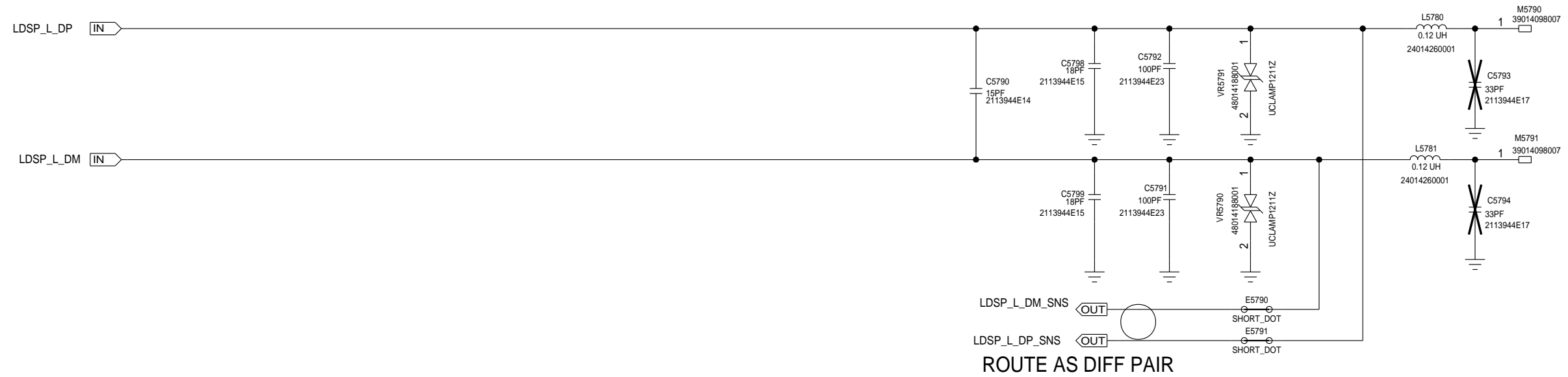
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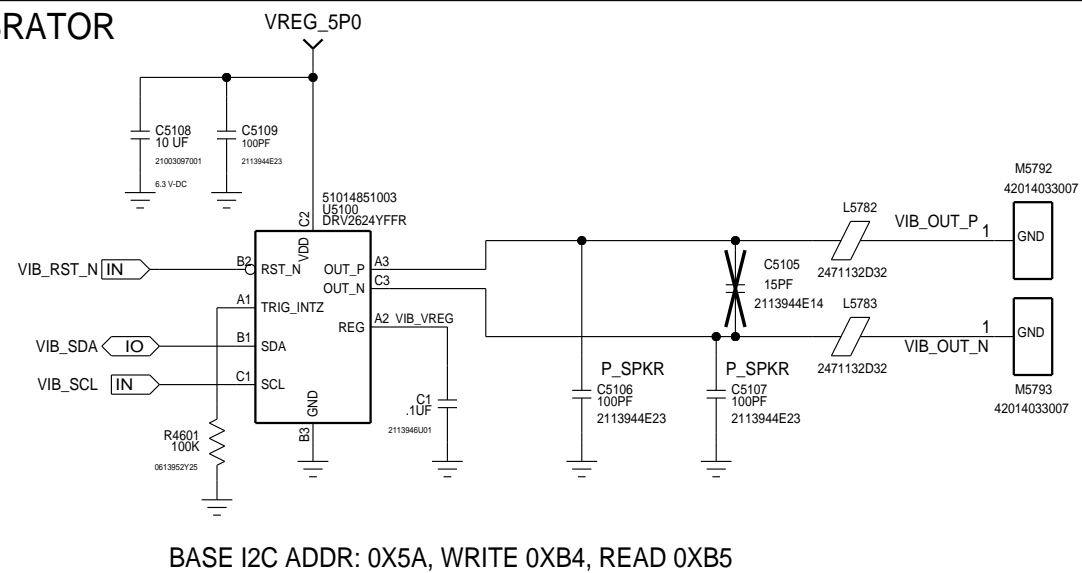
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AFE: SPEAKERS

LOUDSPEAKER/EAR PIECE REF:5790-5799



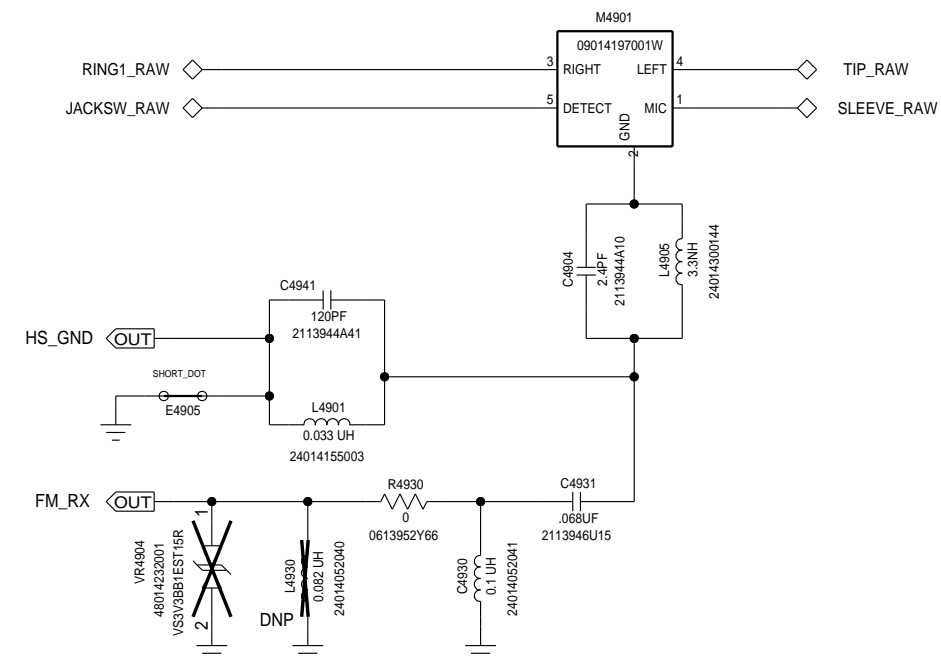
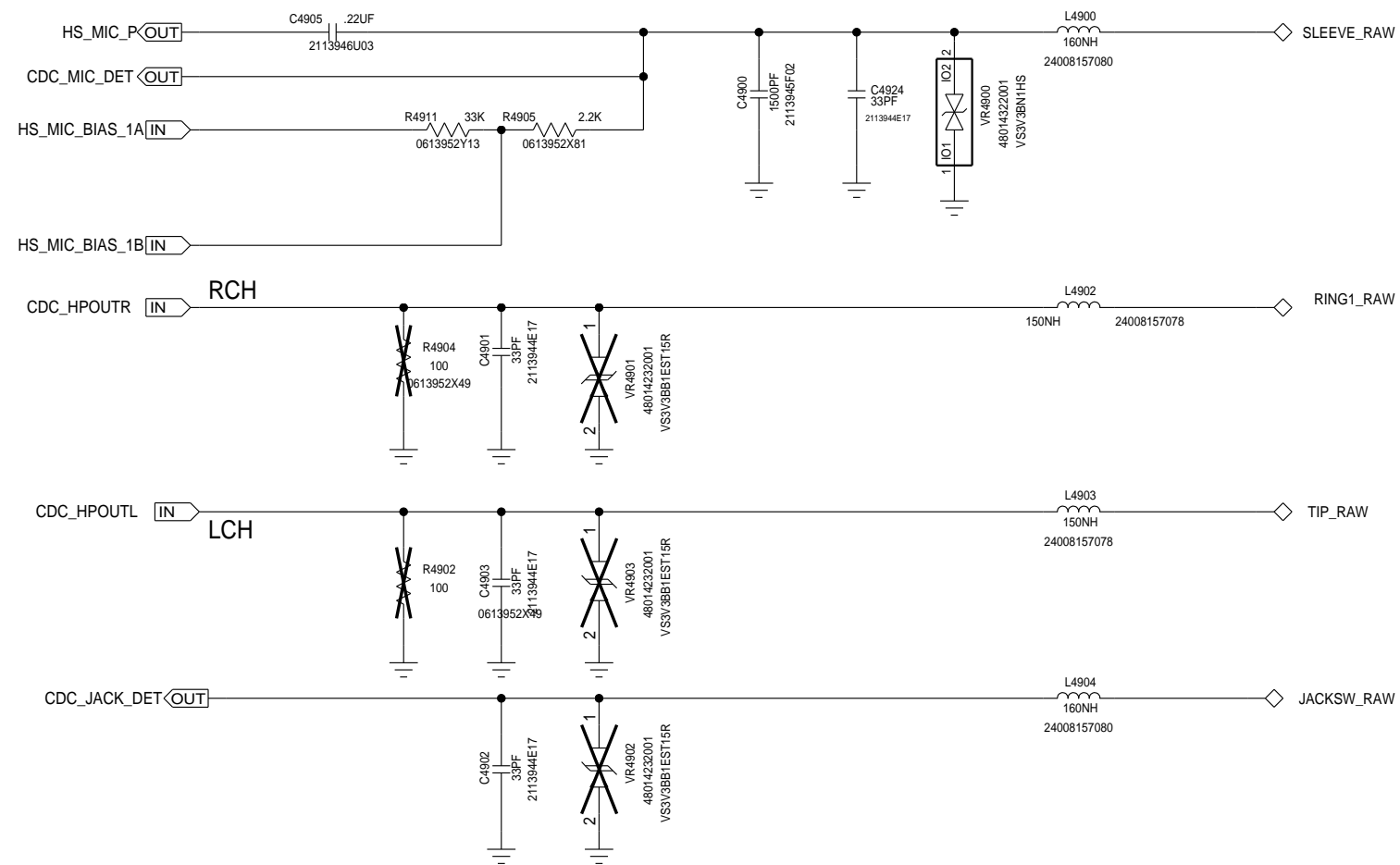
LINEAR VIBRATOR REF 5100-5119



APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: DENNIS BUDNICK		BLOCK TITLE:	
LAST MODIFIED BY: HUNG PHAM Thu Nov 17 13:08:10 2016		audio_fe	
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		B houdini_a.cpm	01
		CAD FILE NAME:	
		PAGE 6 OF 64	

AFE: 3.5MM HEADSET

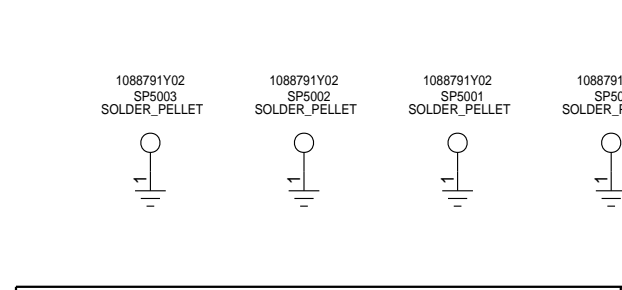
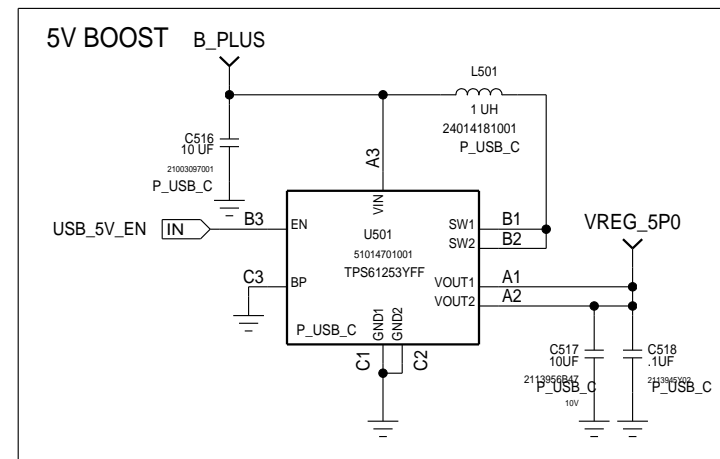
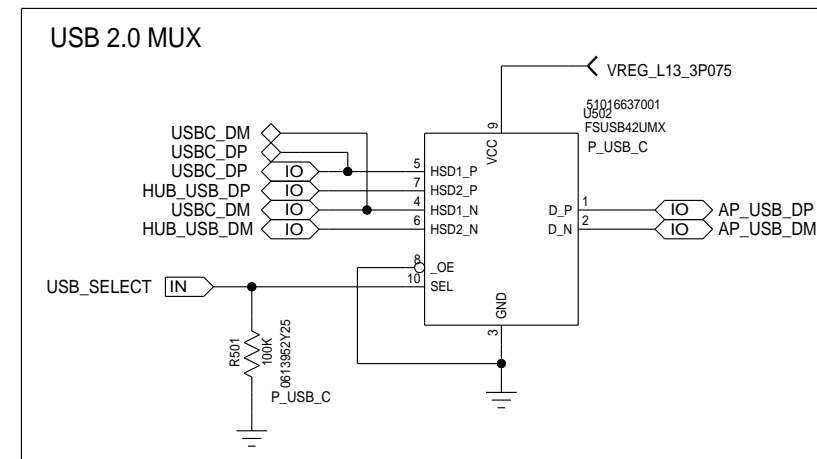
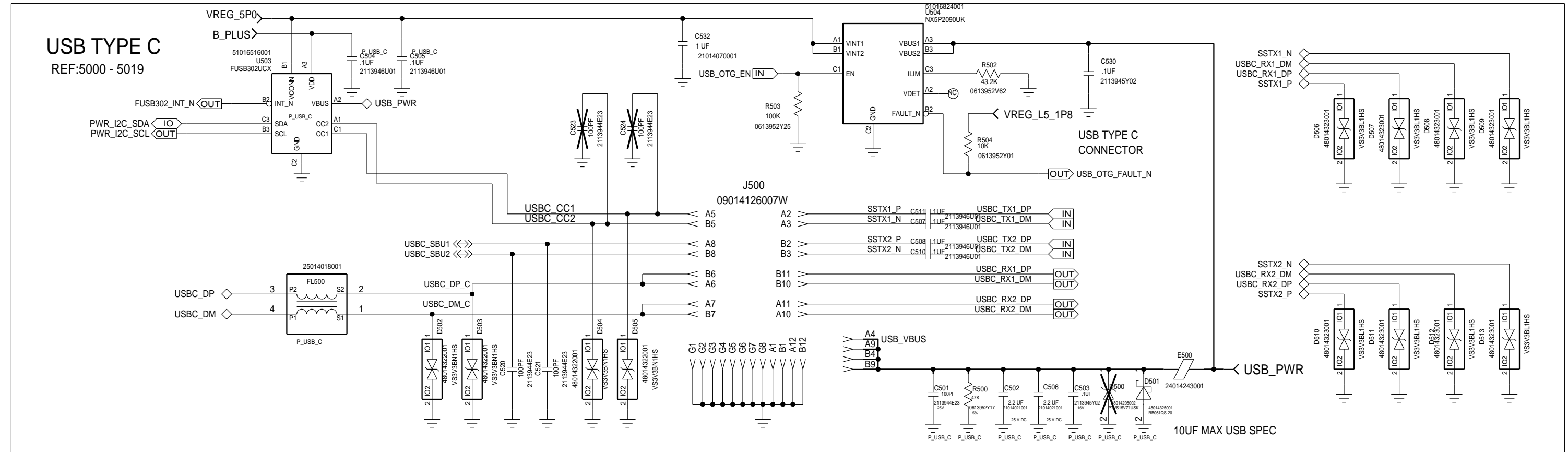
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ENGINEER: MMI		BLOCK TITLE:	
LAST MODIFIED BY: MMI Tue Nov 15 13:46:18 2016		audio_fe	
<small>MOTOROLA CONFIDENTIAL RESTRICTED</small> <small>THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT.</small> <small>© COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</small>		PROJECT NAME	REV
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CAD FILE NAME:		PAGE 7 OF 64	

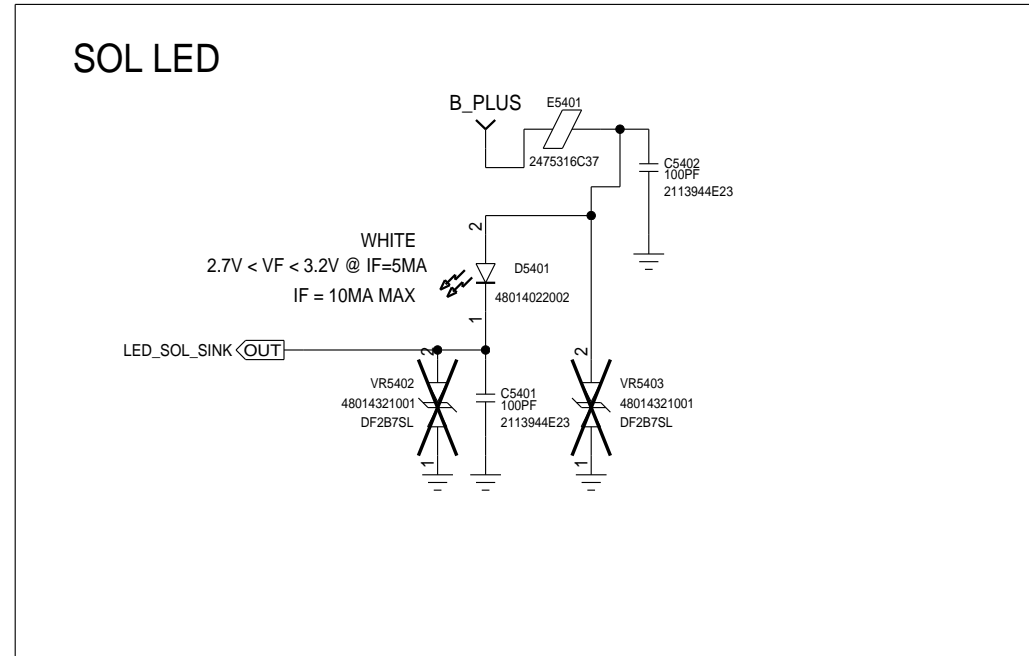
PWR: USB-C

REF:5000 - 5219



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ENGINEER: RICH NG		BLOCK TITLE: power	
LAST MODIFIED BY: NATE CONNELL Tue Feb 07 11:38:41 2017		PROJECT NAME houdini_a.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	
		PAGE 8 OF 64	

PWR: LIGHTING



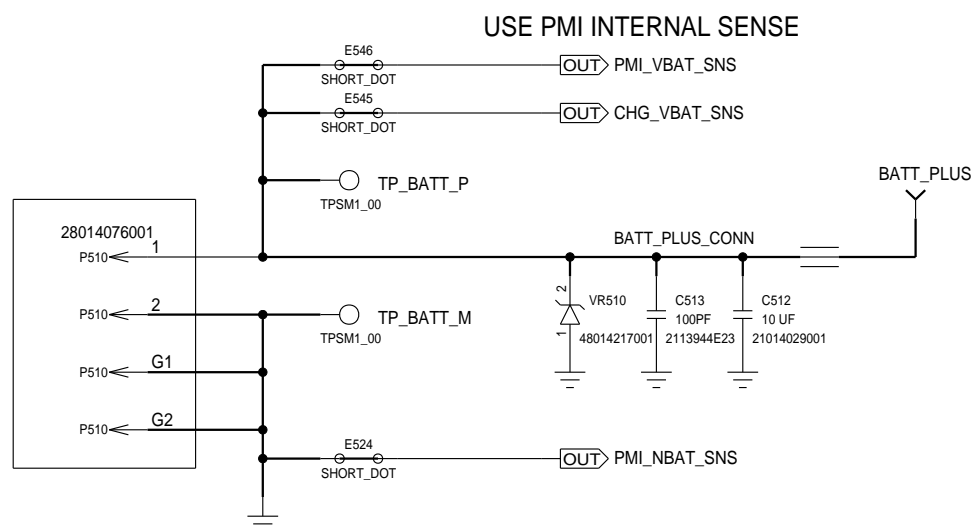
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LAST MODIFIED BY: TIM MILLER Tue Nov 15 13:46:15 2016		power	
MOTOROLA CONFIDENTIAL RESTRICTED <small>THE DRAWING ON THIS PRINT AND INFORMATION THEREWITH ARE PROPRIETARY TO MOTOROLA AND SHALL NOT BE USED OR DISCUSSED IN WHOLE OR IN PART WITHOUT MOTOROLA'S CONSENT. © COPYRIGHT, MOTOROLA. THIS DOES NOT IMPLY PUBLICATION</small>		PROJECT NAME B houdini_a.cpm	REV 01
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		PAGE 9 OF 64	

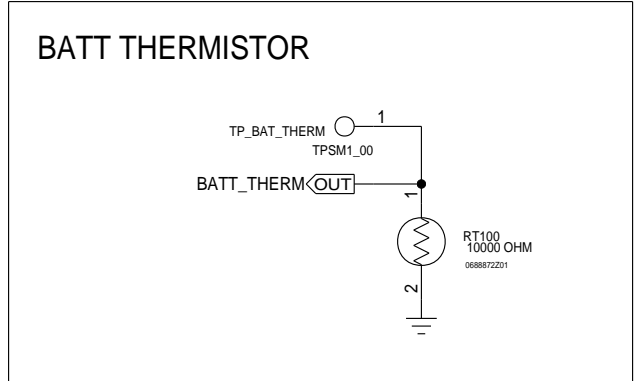
PWR: BATT

REF:510 - 550

BATTERY BLOCK



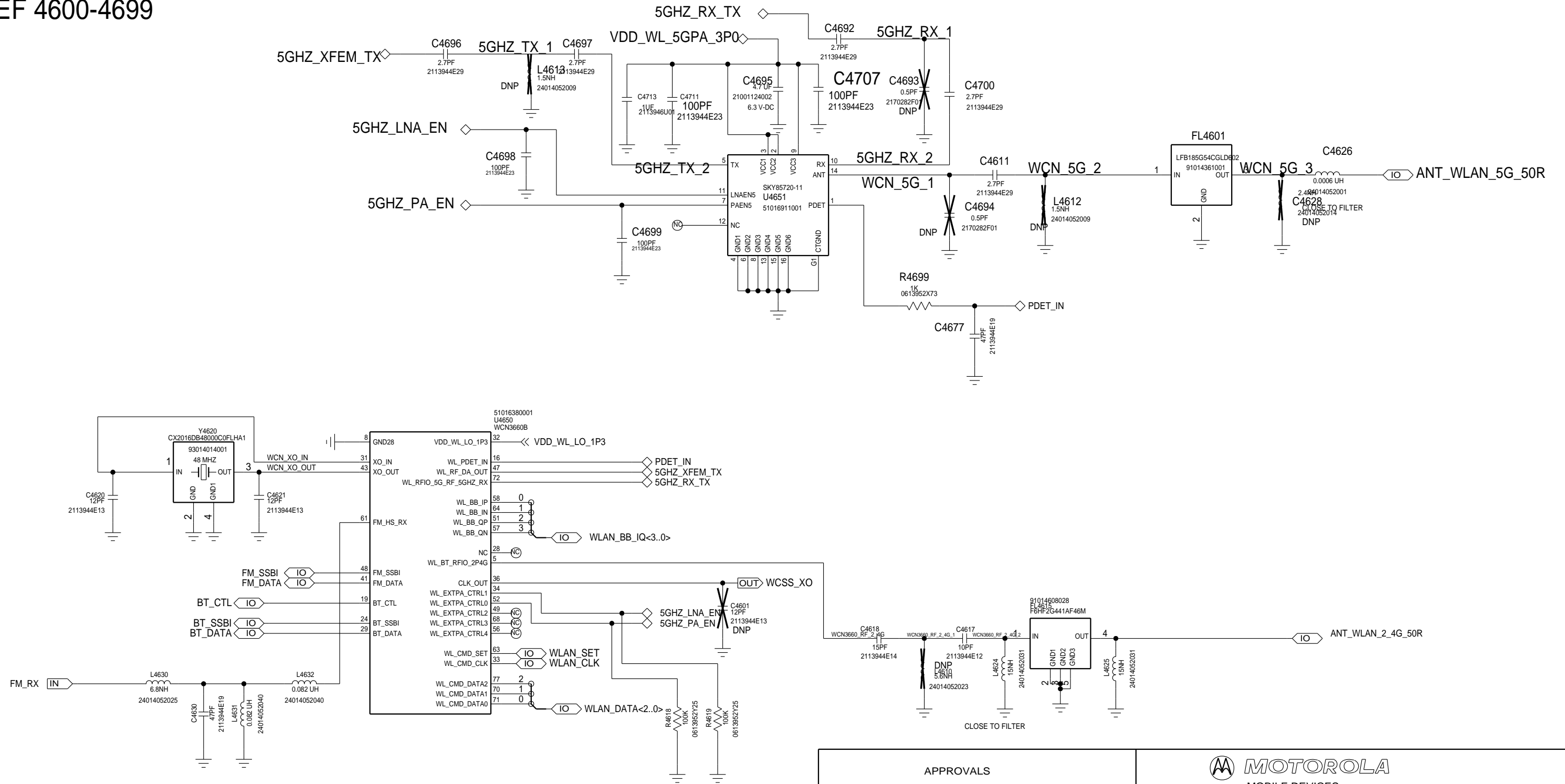
USE PMI INTERNAL SENSE




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WCN3660B RF/CTRL

REF 4600-4699

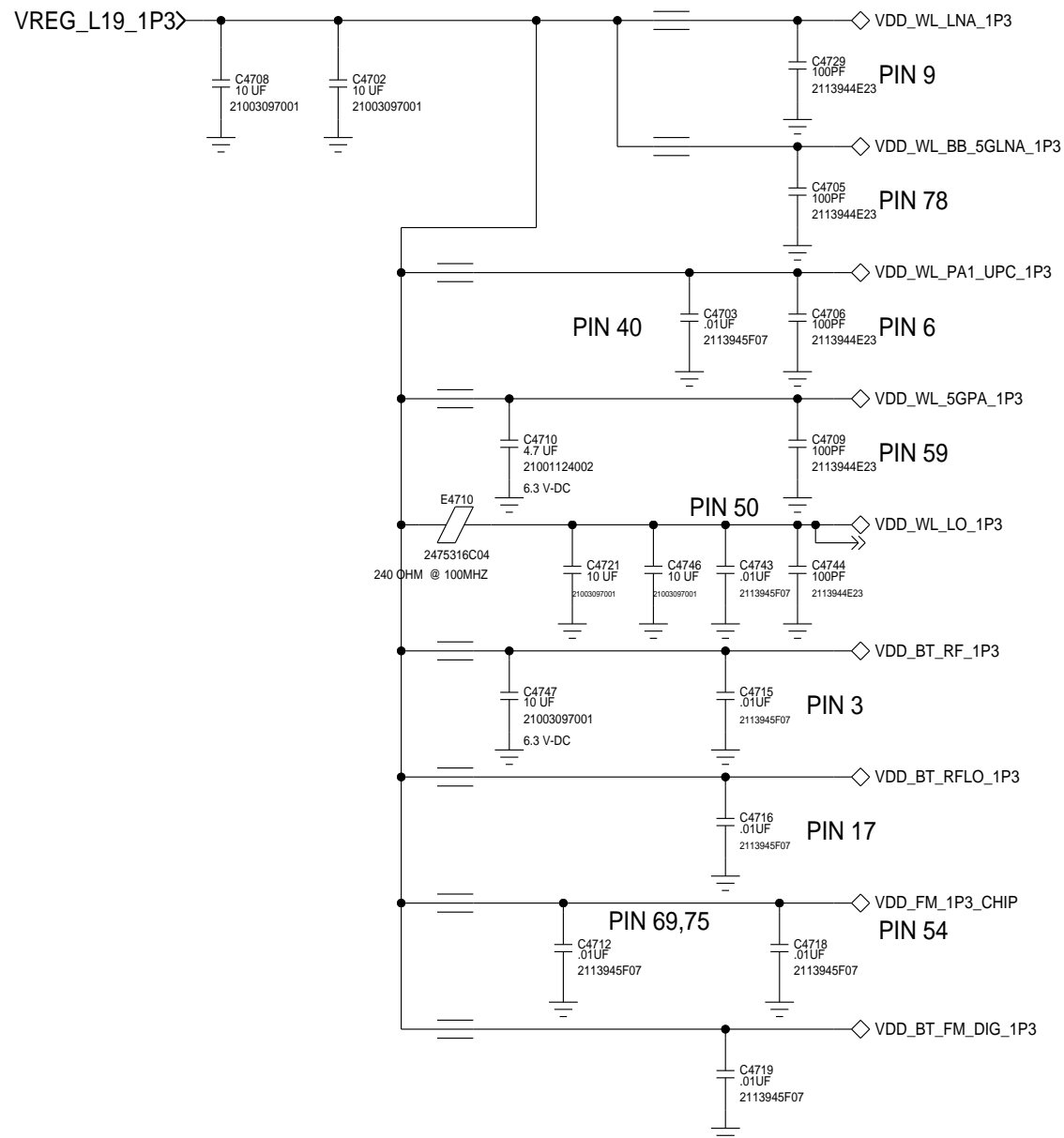


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		CAD FILE NAME:	
		PAGE 11 OF 64	

WCN3660B POWER

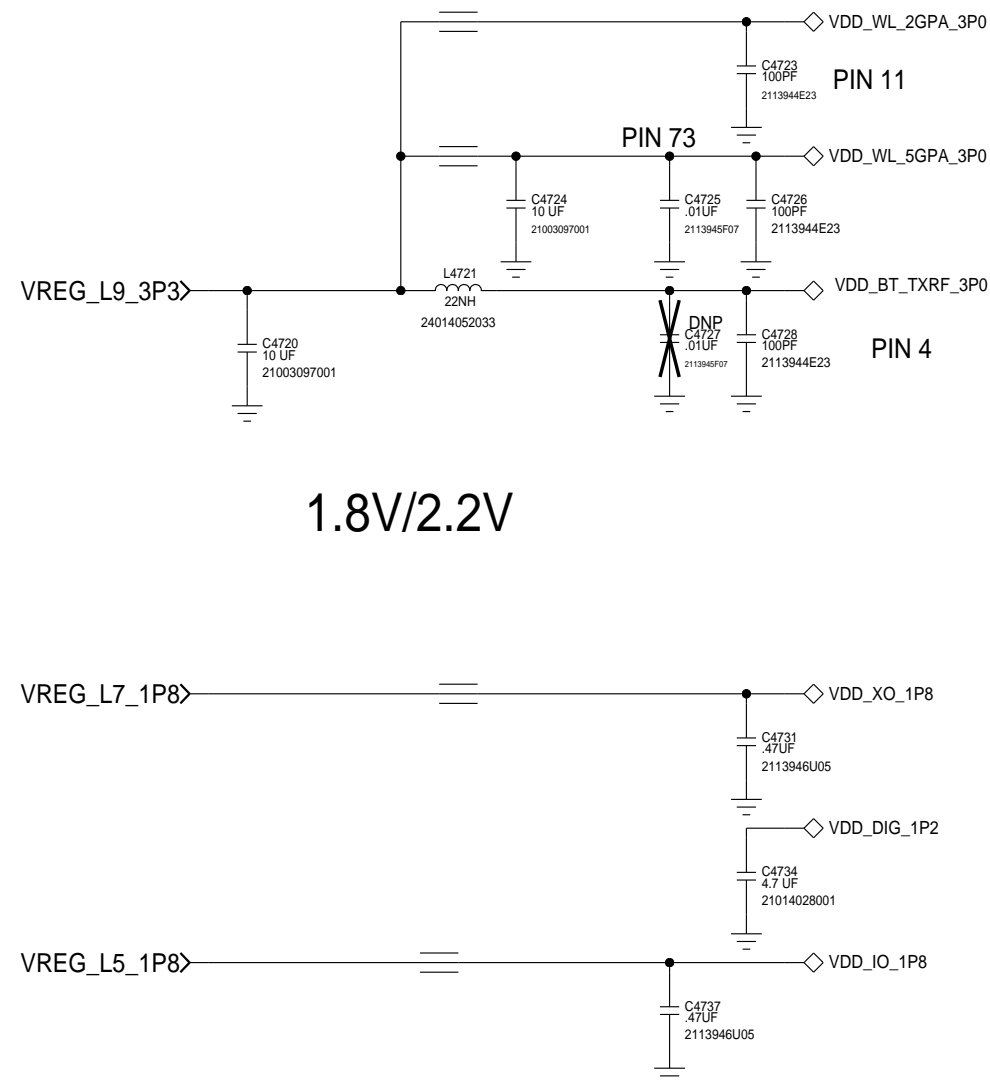
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BT_FM_WLAN_1P3

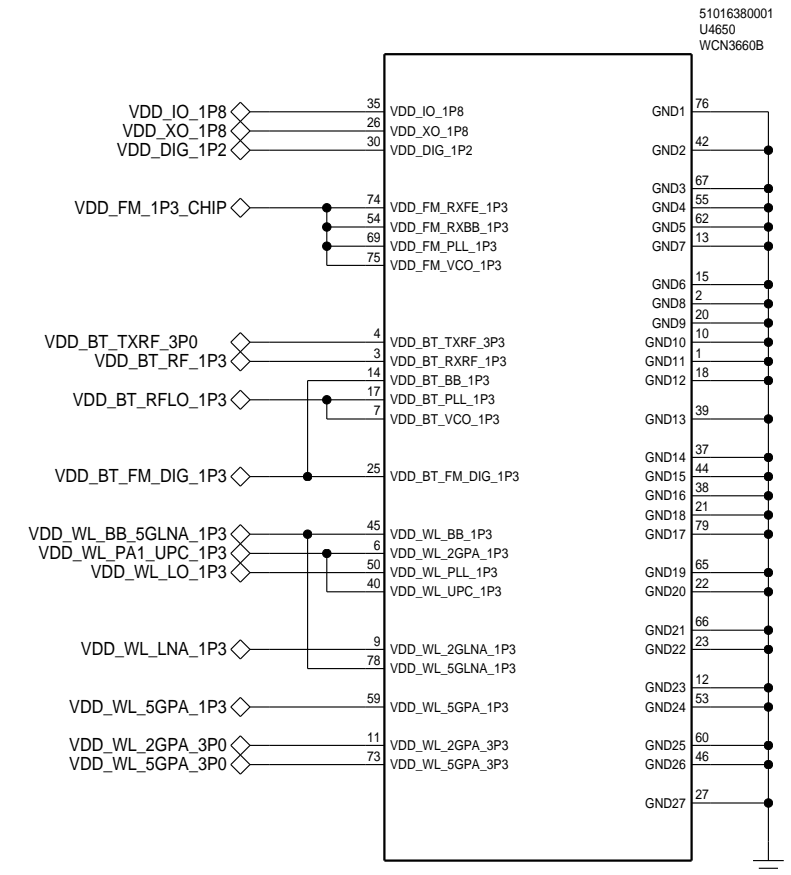


NOTE: RESERVE C4717 AND C4718 FOR 0.01UF BYPASSES

WLBT_3.0V



1.8V/2.2V

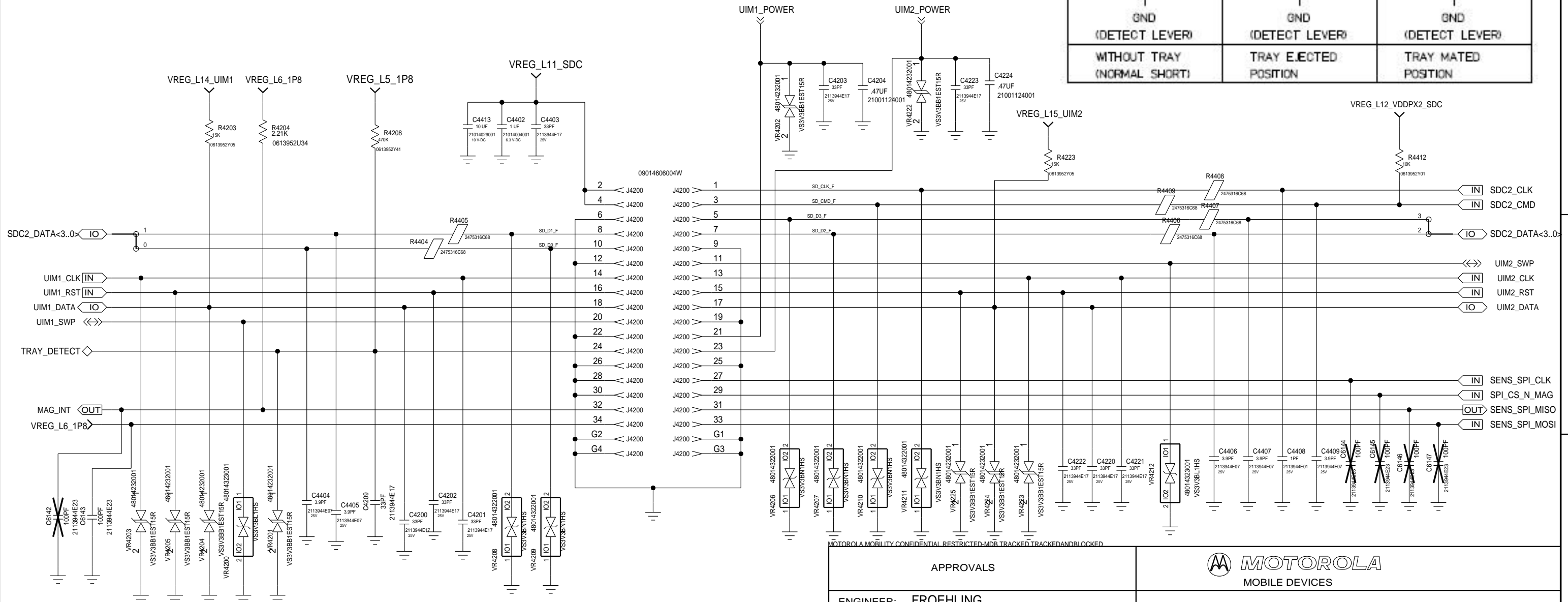
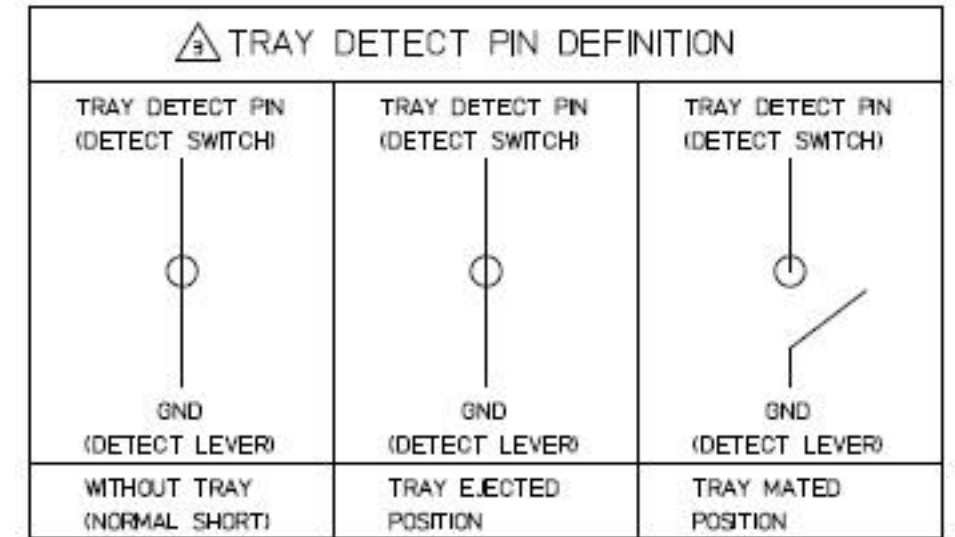


BASED ON 80-WL006-44 REV C

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		CAD FILE NAME:	PAGE 12 OF 64

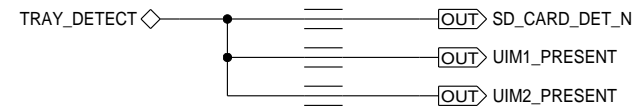
CONN: UIM1/UIM2/SDCARD

REF:4200-4219



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

APPROVALS ENGINEER: FROEHLING LAST MODIFIED BY: FROEHLING Tue Dec 13 17:00:08 2016		MOTOROLA MOBILE DEVICES BLOCK TITLE: <h2 style="font-size: 2em;">connectivity</h2>	
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 houdini_a.cpm	REV 01
		CAD FILE NAME:	
		PAGE 13 OF 64	



USR: FPC

REF: 6600 - 6699

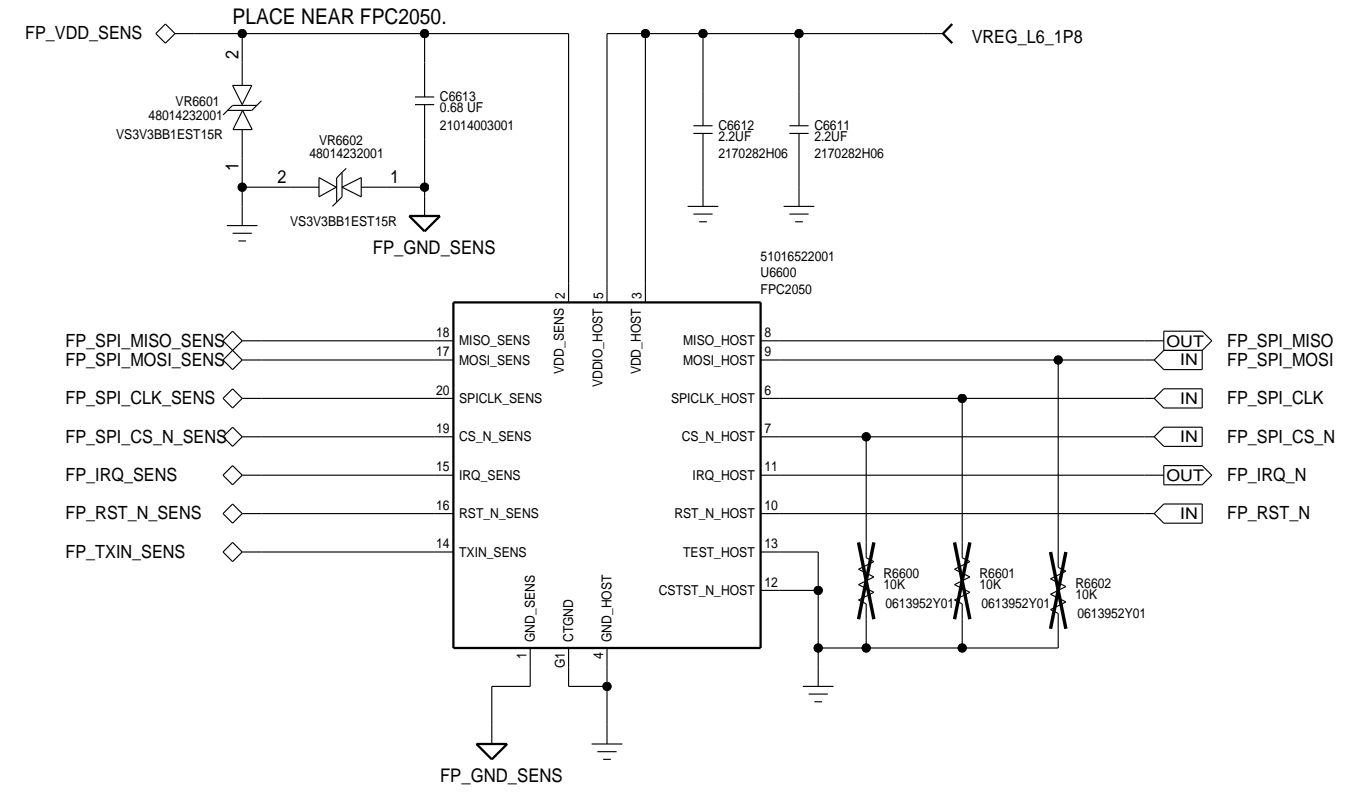
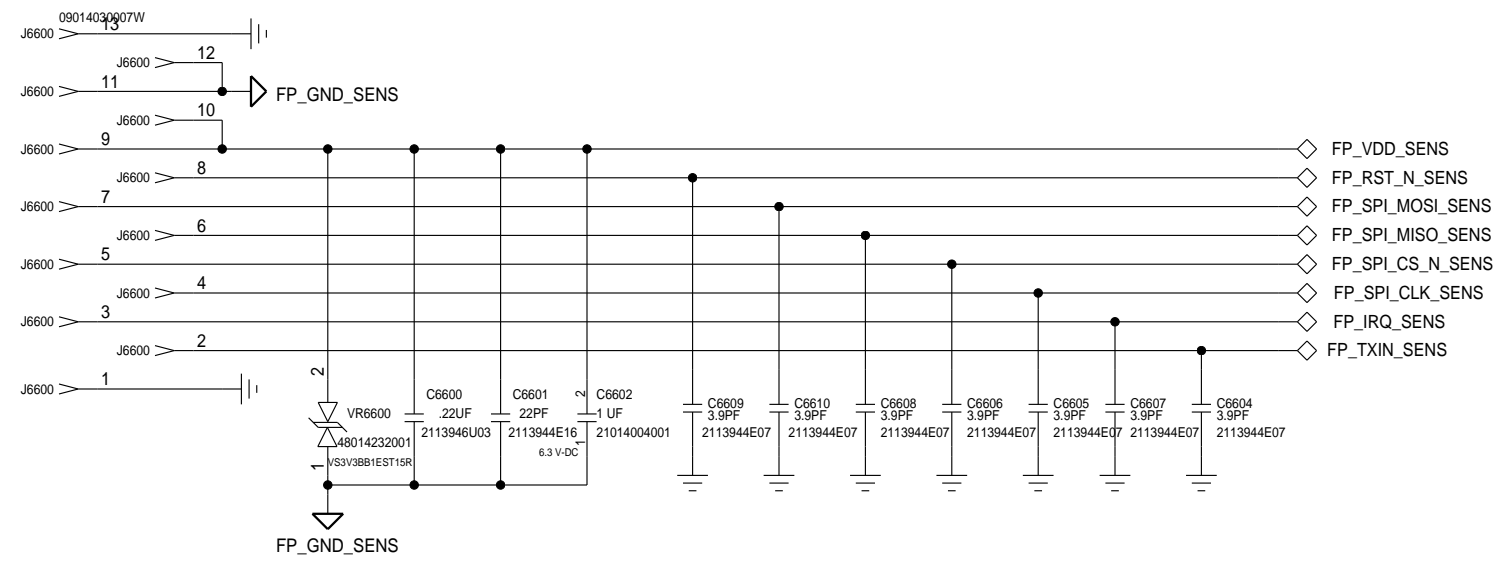
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D

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B

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D

C

B

A

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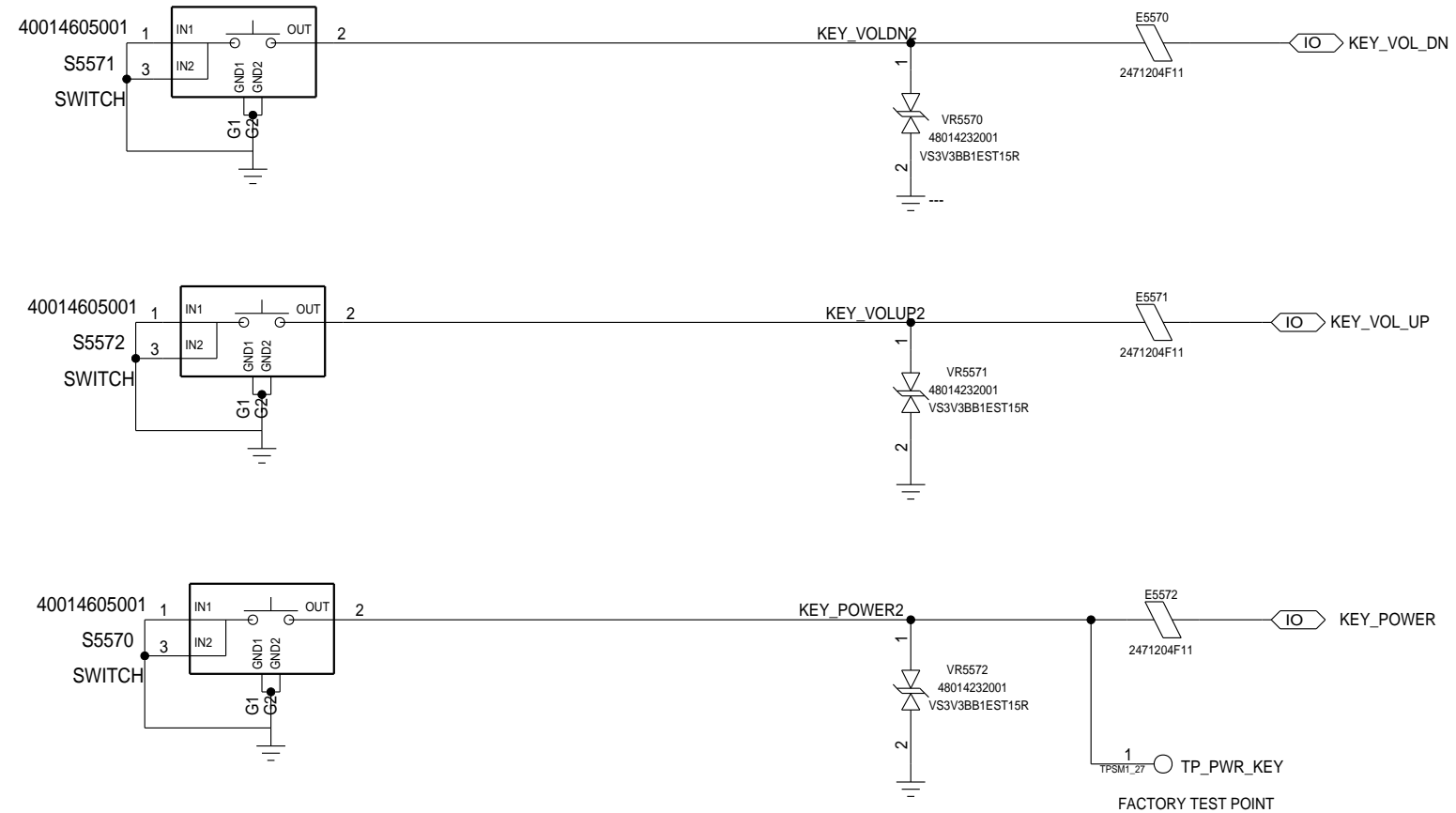
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		B houdini_a.cpm	01
CAD FILE NAME:		PAGE 14 OF 64	

SIDE KEY

REF:5570-5579

MECHANICAL KEYS

VOL_UP/DOWN/GND TPS NEED P0 BRINGUP ONLY



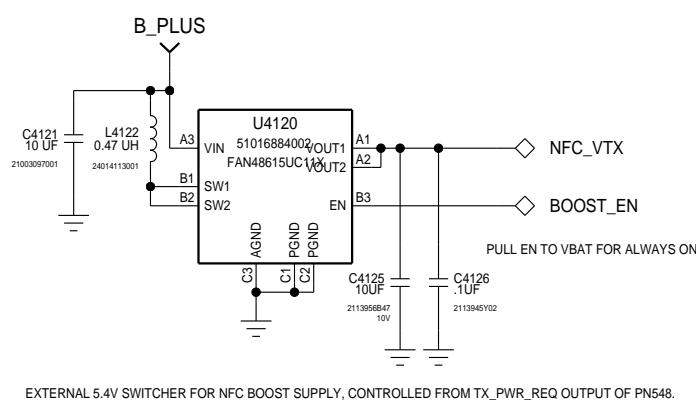
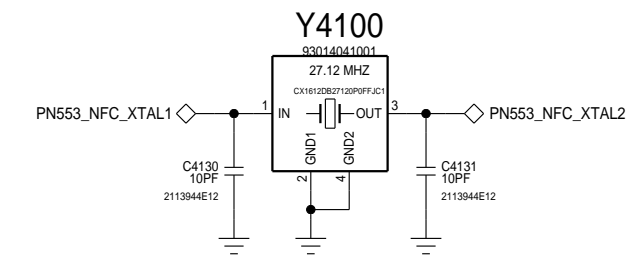
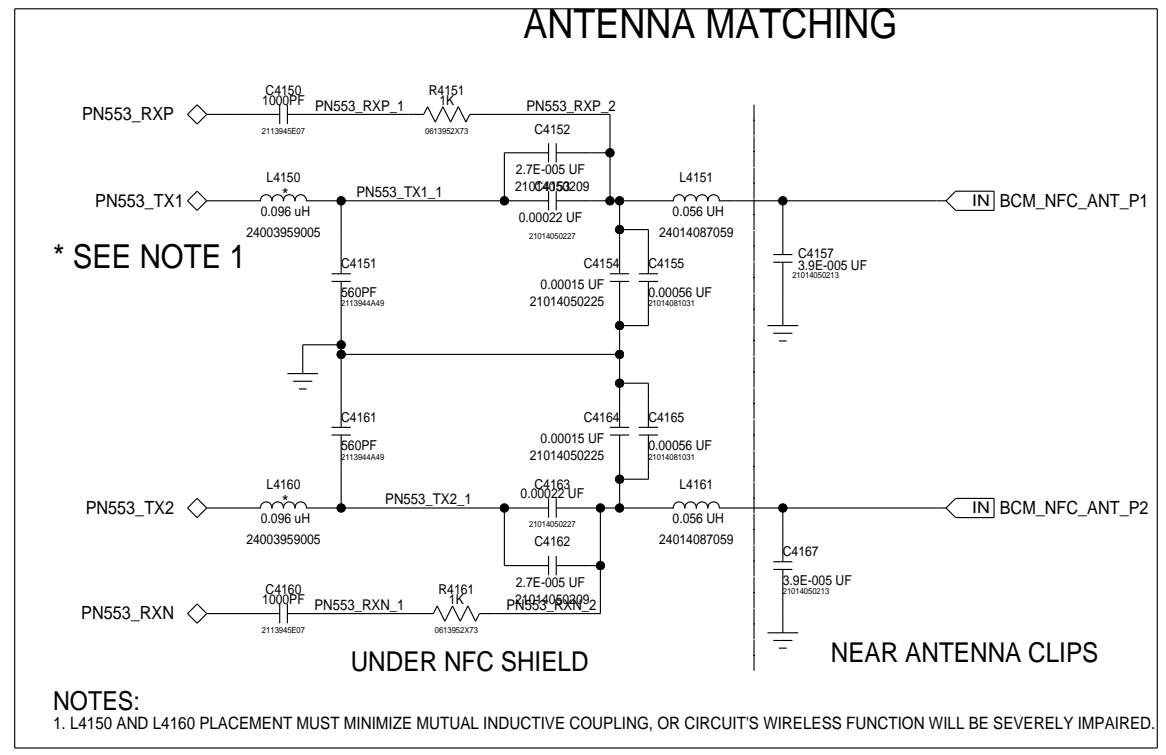
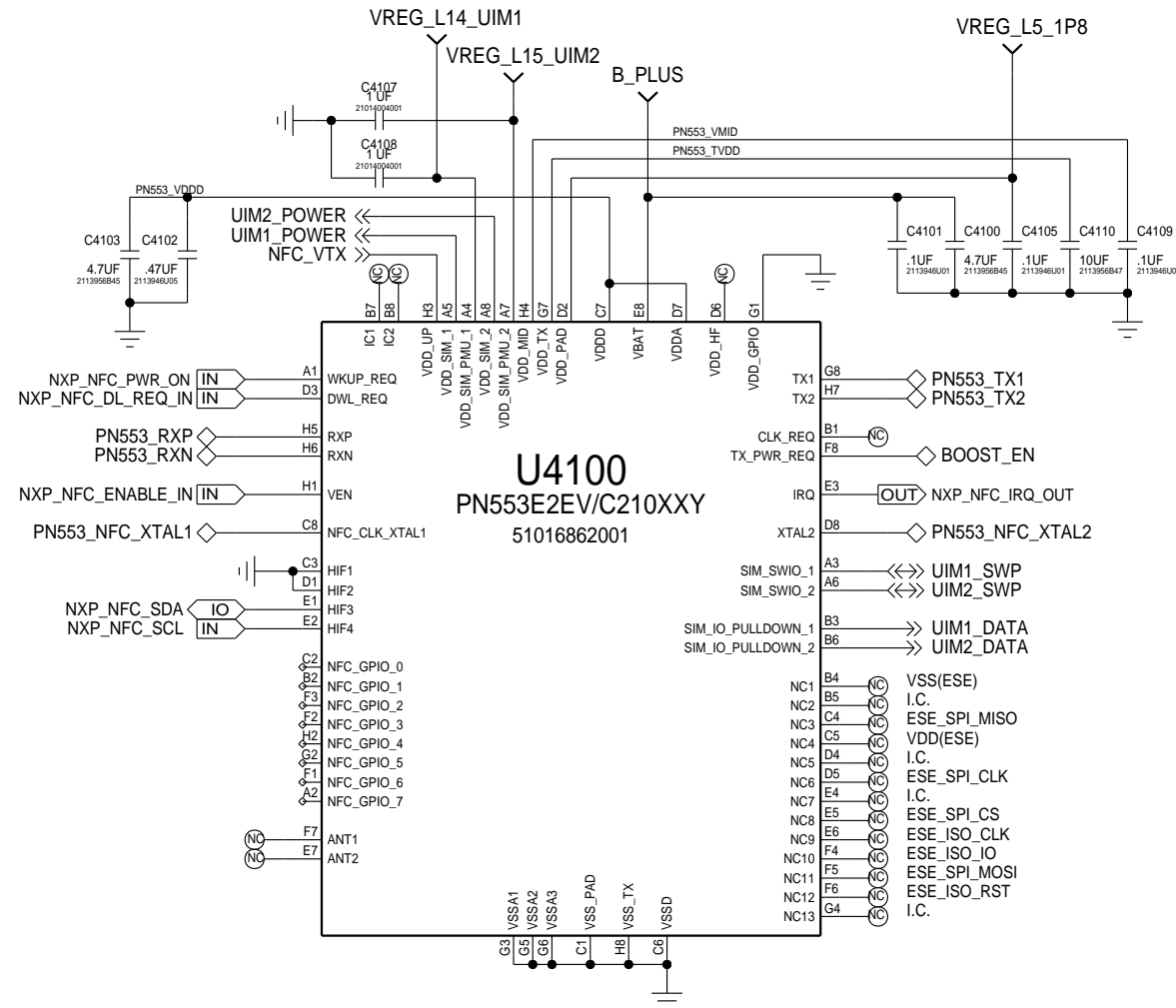
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ENGINEER: NATE CONNELL		BLOCK TITLE:	
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		B houdini_a.cpm	01
CAD FILE NAME:		PAGE 15 OF 64	

CONN: PN553 NFC

REF: 4100-4199

PN553 I2C ADDRESS MAP

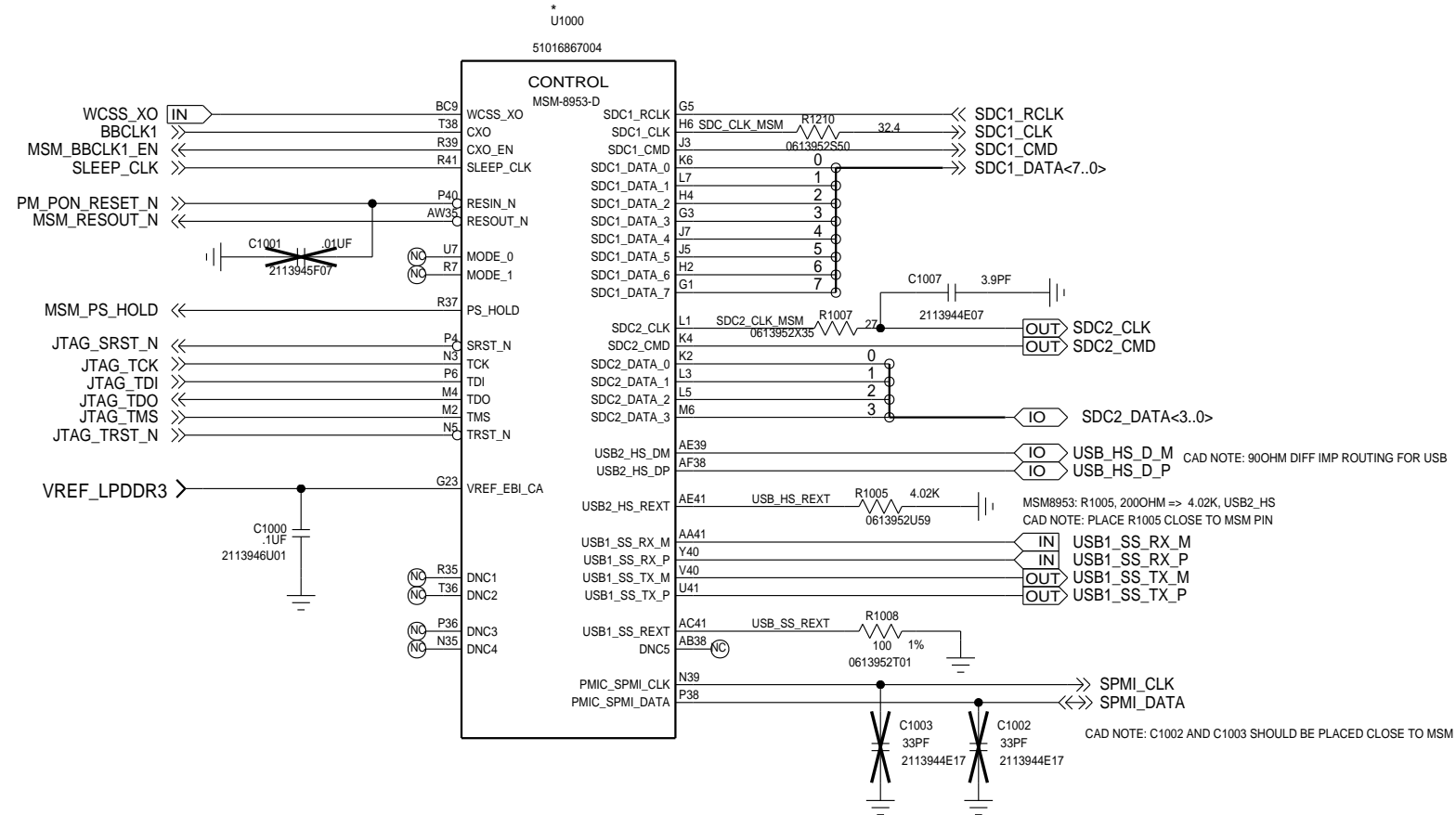
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LOW	HIGH	0X52	0X53
HIGH	LOW	0X54	0X55
HIGH	HIGH	0X56	0X57



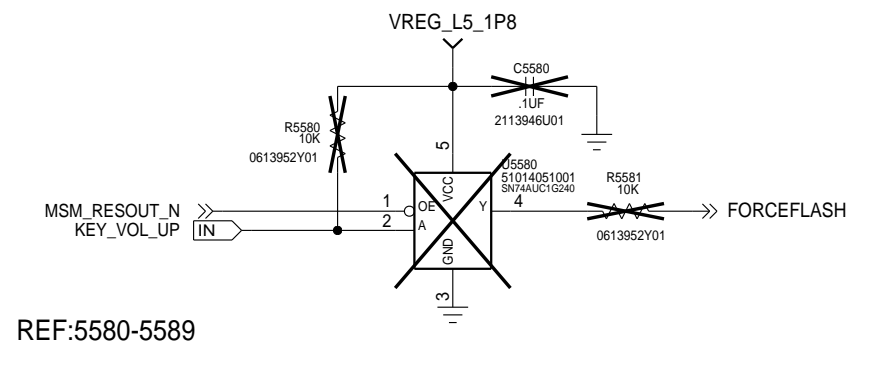
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		B houdini_a.cpm	01
CAD FILE NAME:		PAGE 16 OF 64	

MSM: CTRL

REF 1000-1099



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

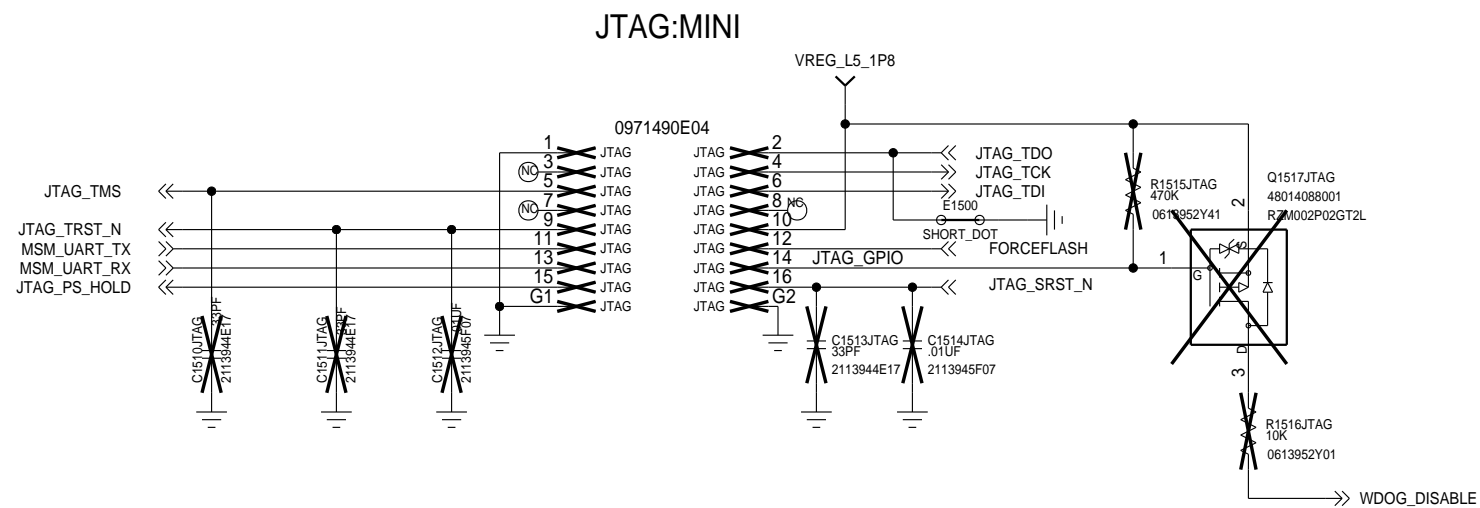


REF:5580-5589

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		PAGE 17 OF 64	

MSM: DEBUG

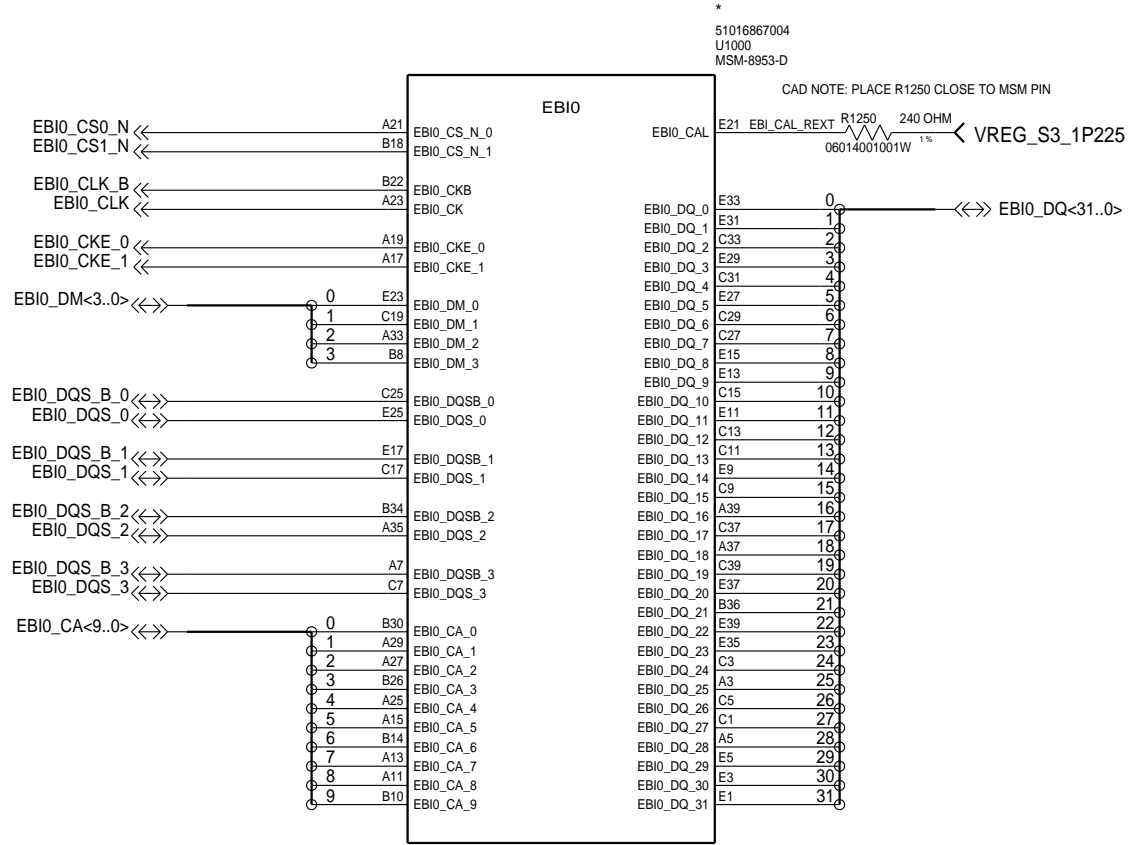
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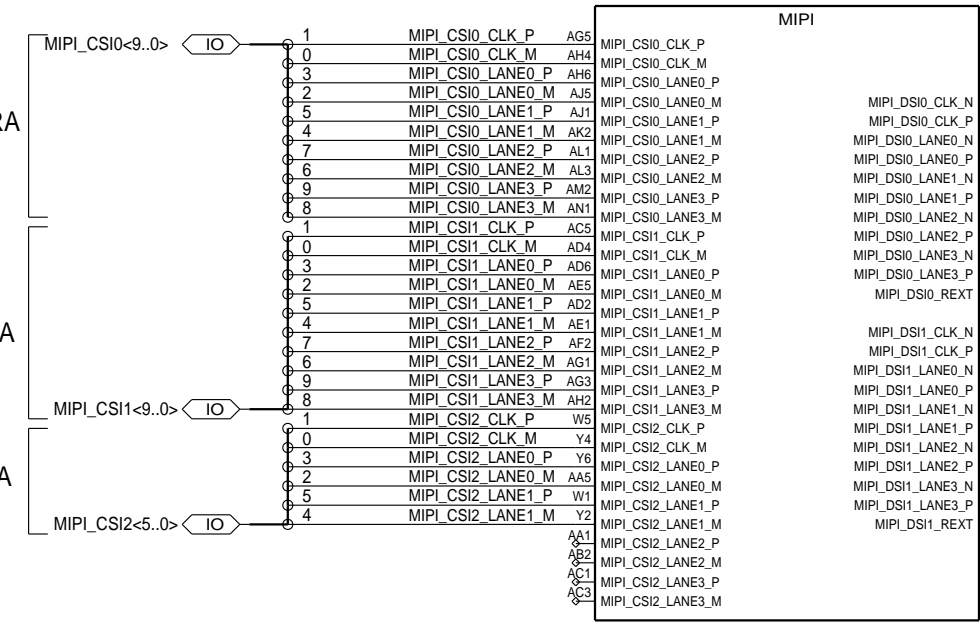
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		B houdini_a.cpm	01
CAD FILE NAME:		PAGE 18 OF 64	

MSM: MIPI/DSI/CSI/EBIO

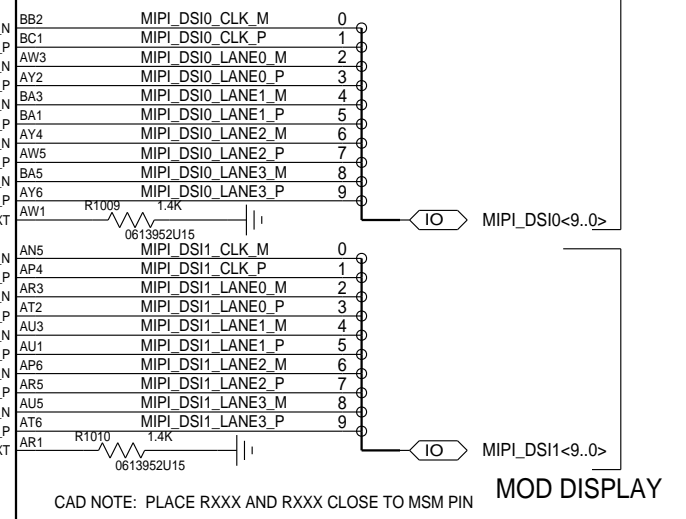
REF 1200-1299



MODS CAMERA
REAR CAMERA
FRONT CAMERA



U1000
51016867004
MSM-8953-D



APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: Tue Nov 15 13:45:59 2016		ap_pmic	
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		CAD FILE NAME:	PAGE 19 OF 64

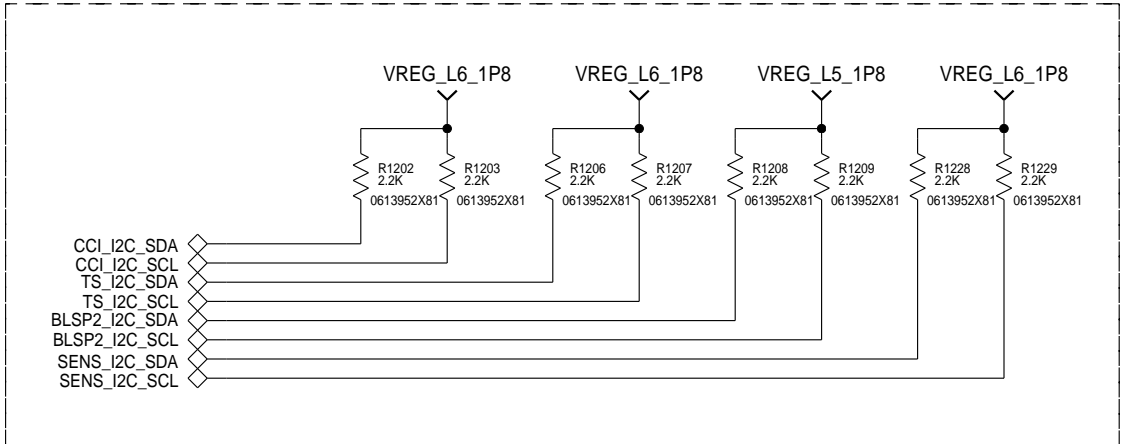
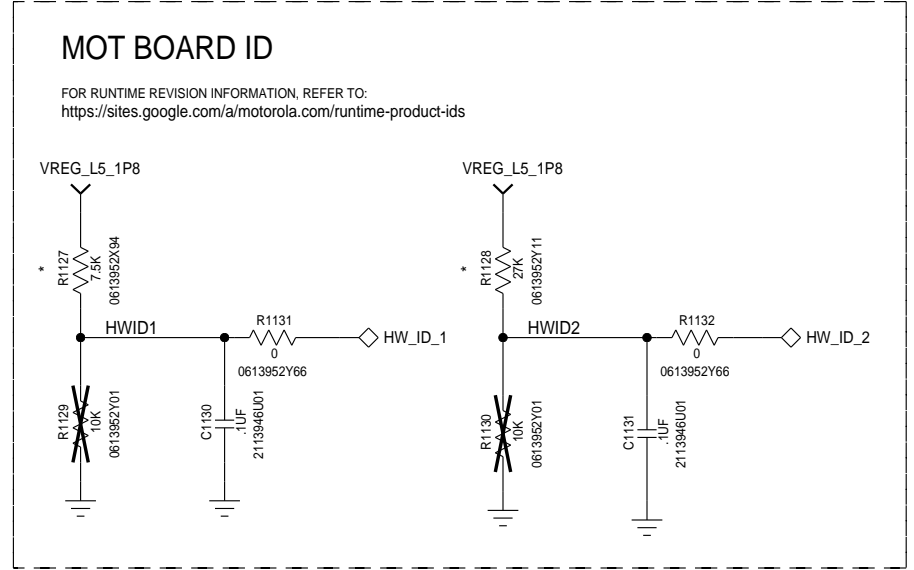
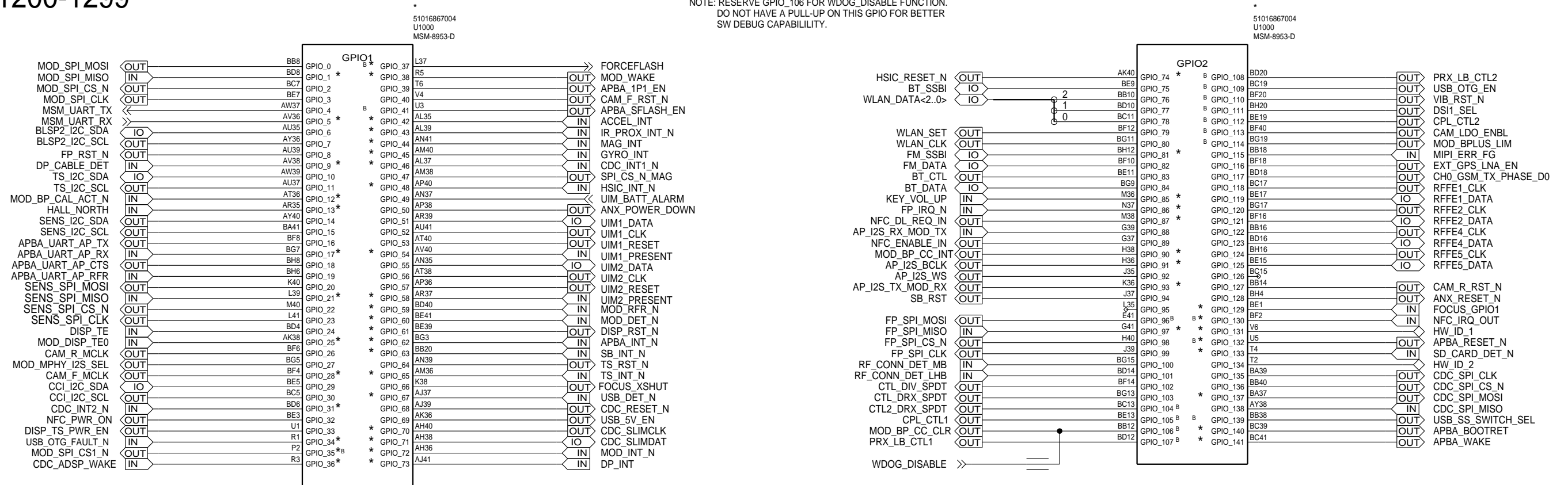
MSM: GPIO (0-141)

REF 1200-1299

NOTE: ASTERISK(*) INDICATE MODEM POWER MANAGEMENT (MPM) WAKE-UP PINS.

NOTE: DO NOT HAVE PULL-UPS ON THE FOLLOWING GPIOs UNLESS INTEND FOR BOOT OR SECURE BOOT RELATED CONFIGURATIONS:
GPIO_8, 9, 91, 107, 108, 109

NOTE: RESERVE GPIO_106 FOR WDOG_DISABLE FUNCTION.
DO NOT HAVE A PULL-UP ON THIS GPIO FOR BETTER SW DEBUG CAPABILITY.

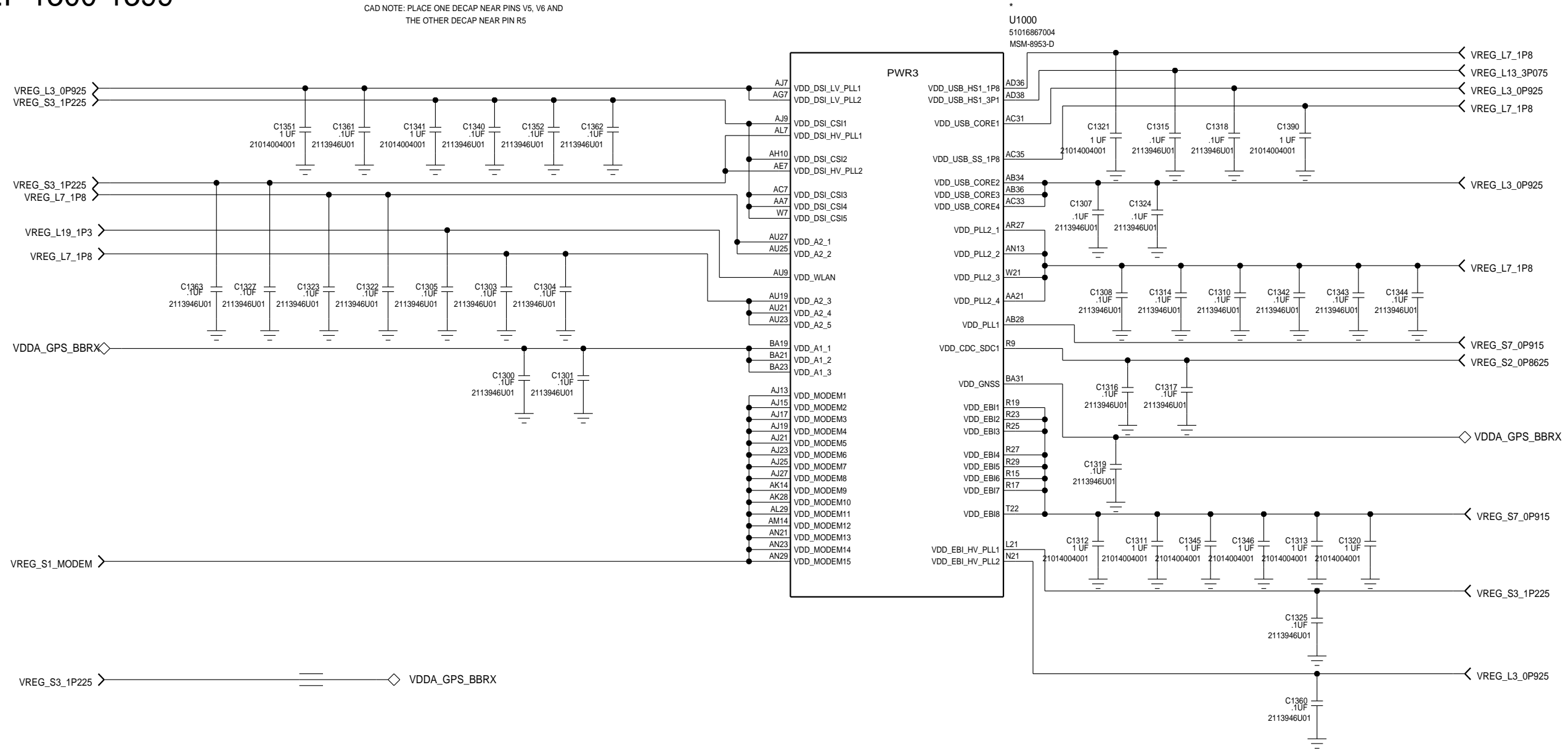


APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: MOTOROLA Tue Nov 15 13:46:00 2016		ap_pmic	
MOTOROLA CONFIDENTIAL RESTRICTED		PROJECT NAME	REV
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CAD FILE NAME:		PAGE 20 OF 64	

MSM: PWR1

REF 1300-1399

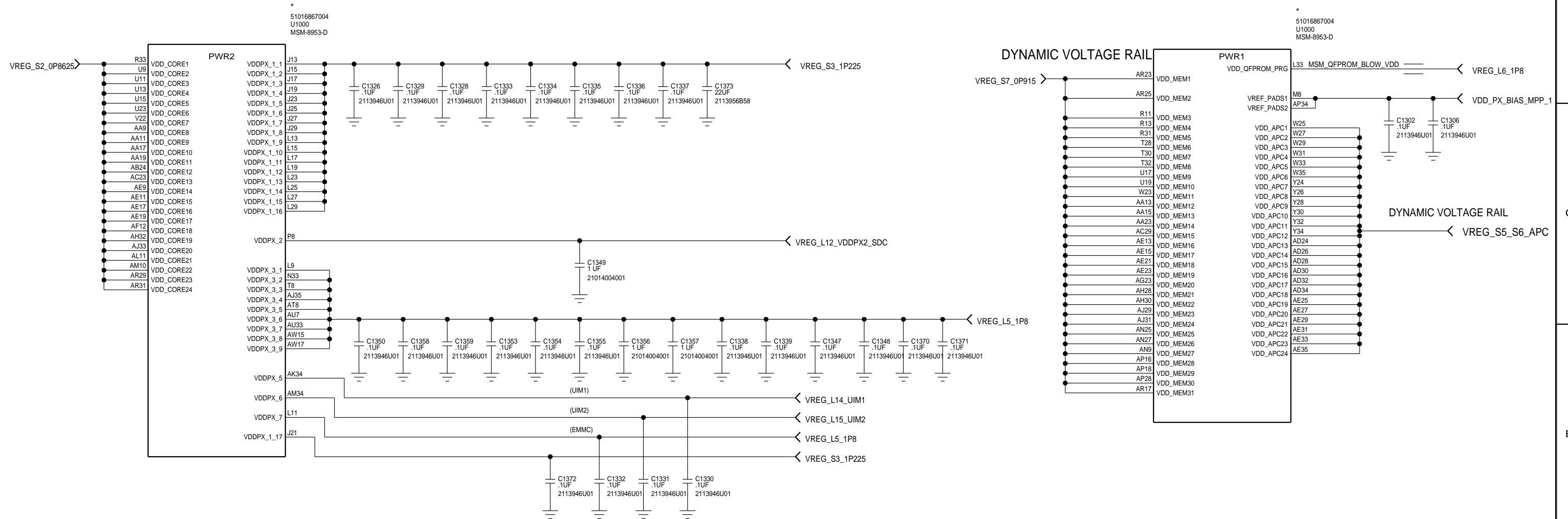
CAD NOTE: PLACE ONE DECAP NEAR PINS V5, V6 AND THE OTHER DECAP NEAR PIN R5




APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: FAN021 Tue Nov 15 13:46:01 2016		ap_pmic	
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		CAD FILE NAME:	
		PAGE 21 OF 64	

MSM: PWR2

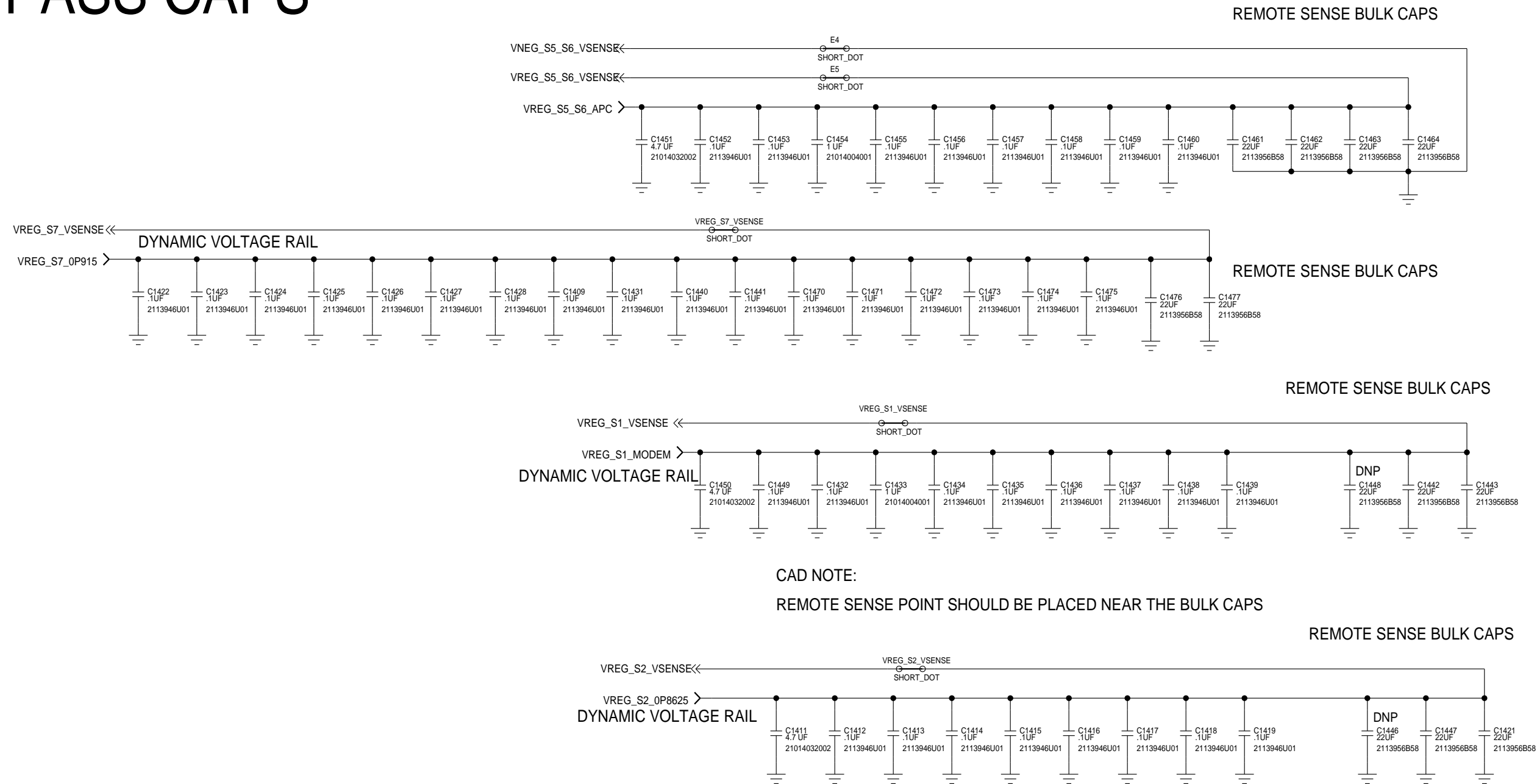
REF 1300-1399



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: FAN021 Tue Nov 15 13:46:01 2016		ap_pmic	
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		B houdini_a.cpm	01
		CAD FILE NAME:	
		PAGE 22 OF 64	

MSM: BYPASS CAPS

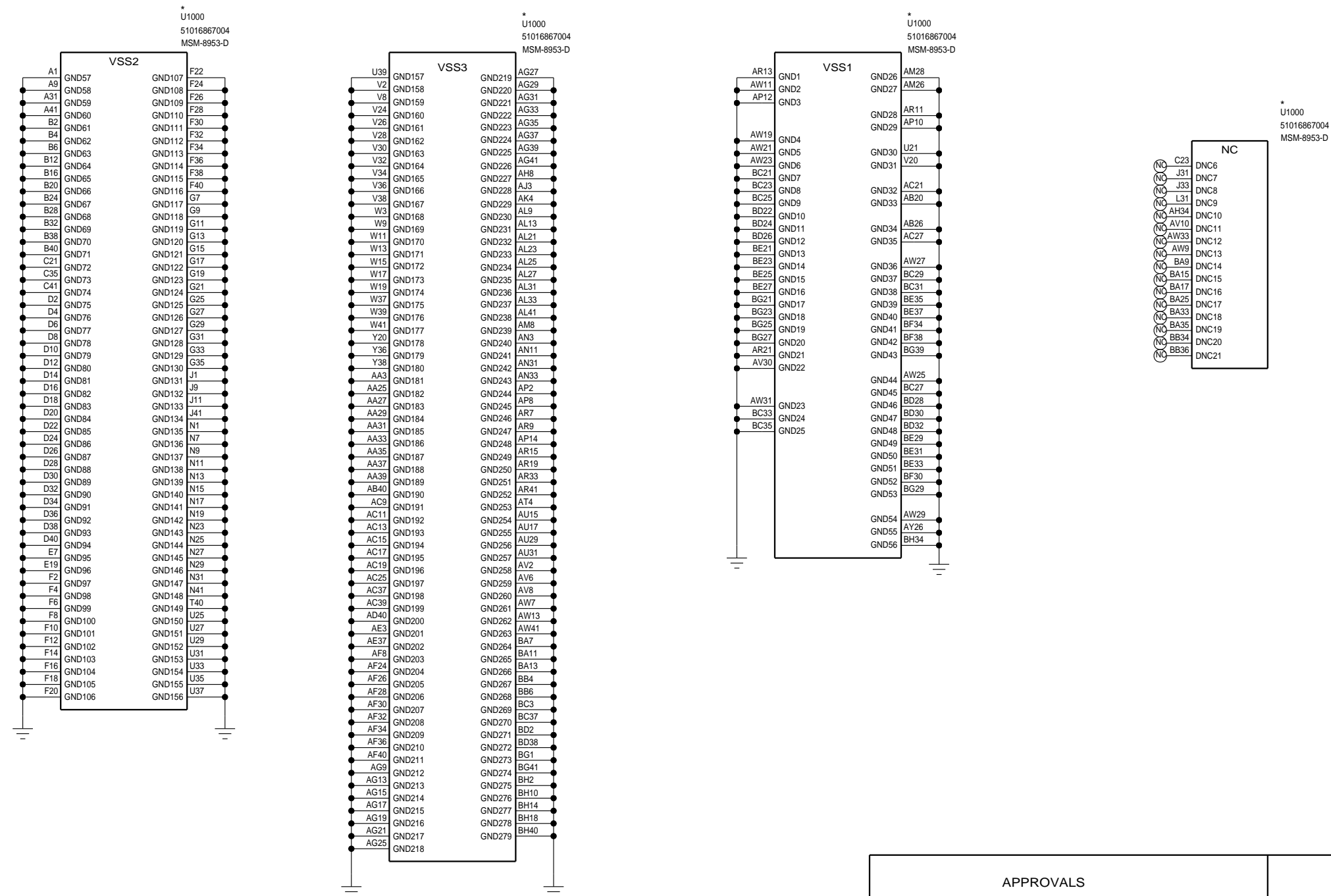
REF 1400-1499



CAD NOTE:
REMOTE SENSE POINT SHOULD BE PLACED NEAR THE BULK CAPS

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
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		B houdini_a.cpm	01
CAD FILE NAME:		PAGE 23 OF 64	

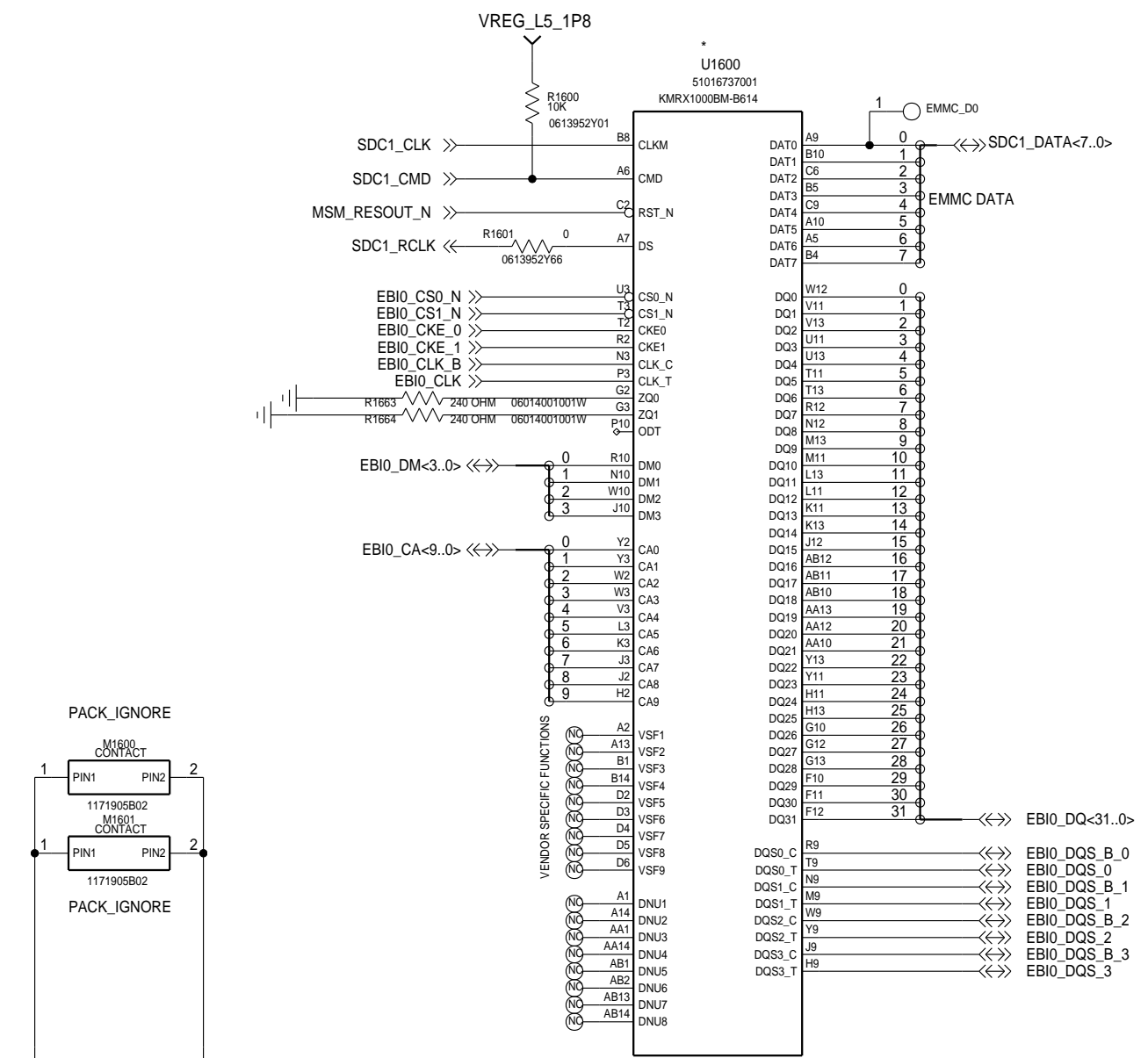
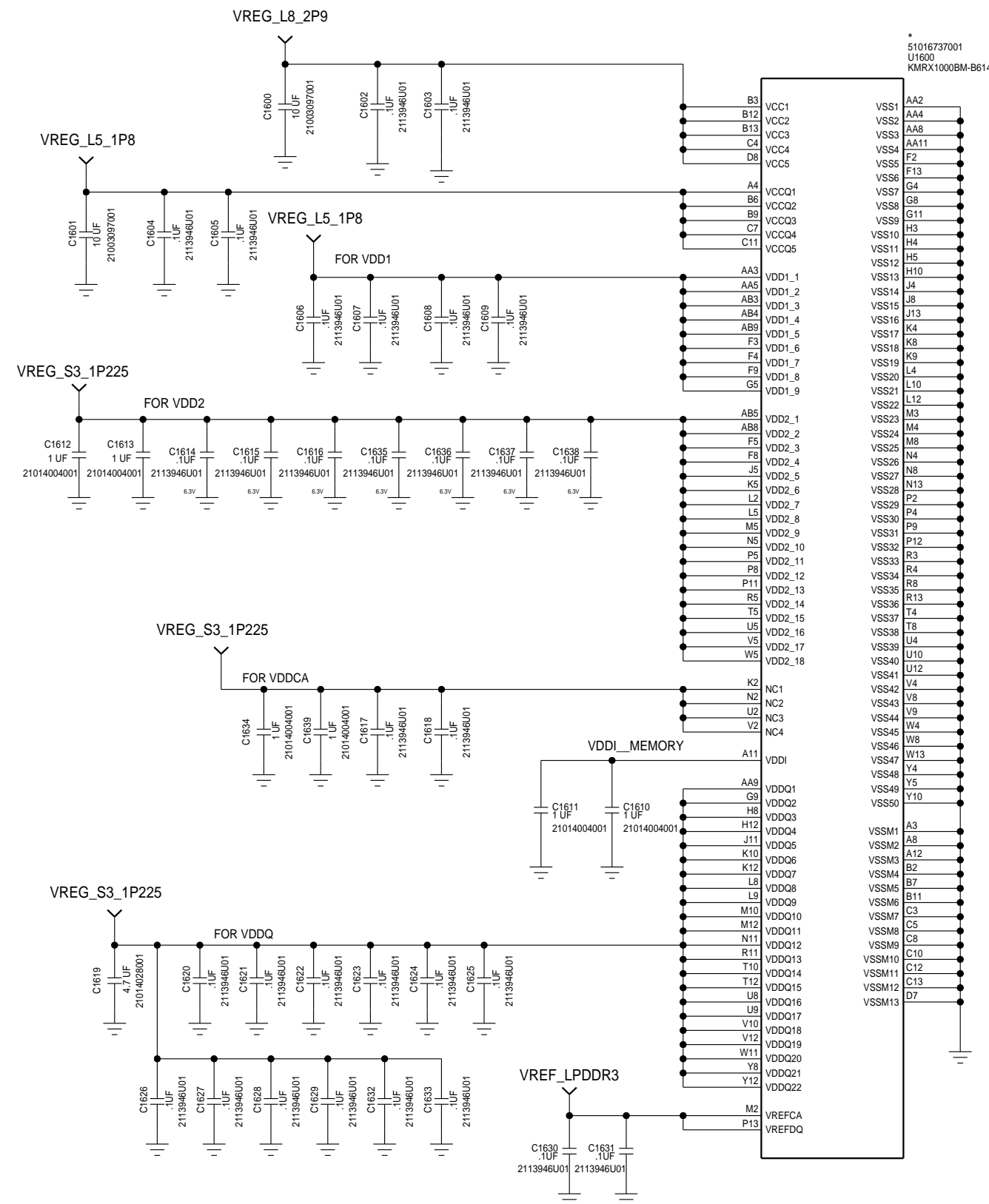
MSM: GROUND/DNC



APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: FAN021 Tue Nov 15 13:46:03 2016		ap_pmic	
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		CAD FILE NAME:	
		PAGE 24 OF 64	

MEMORY: EMCP

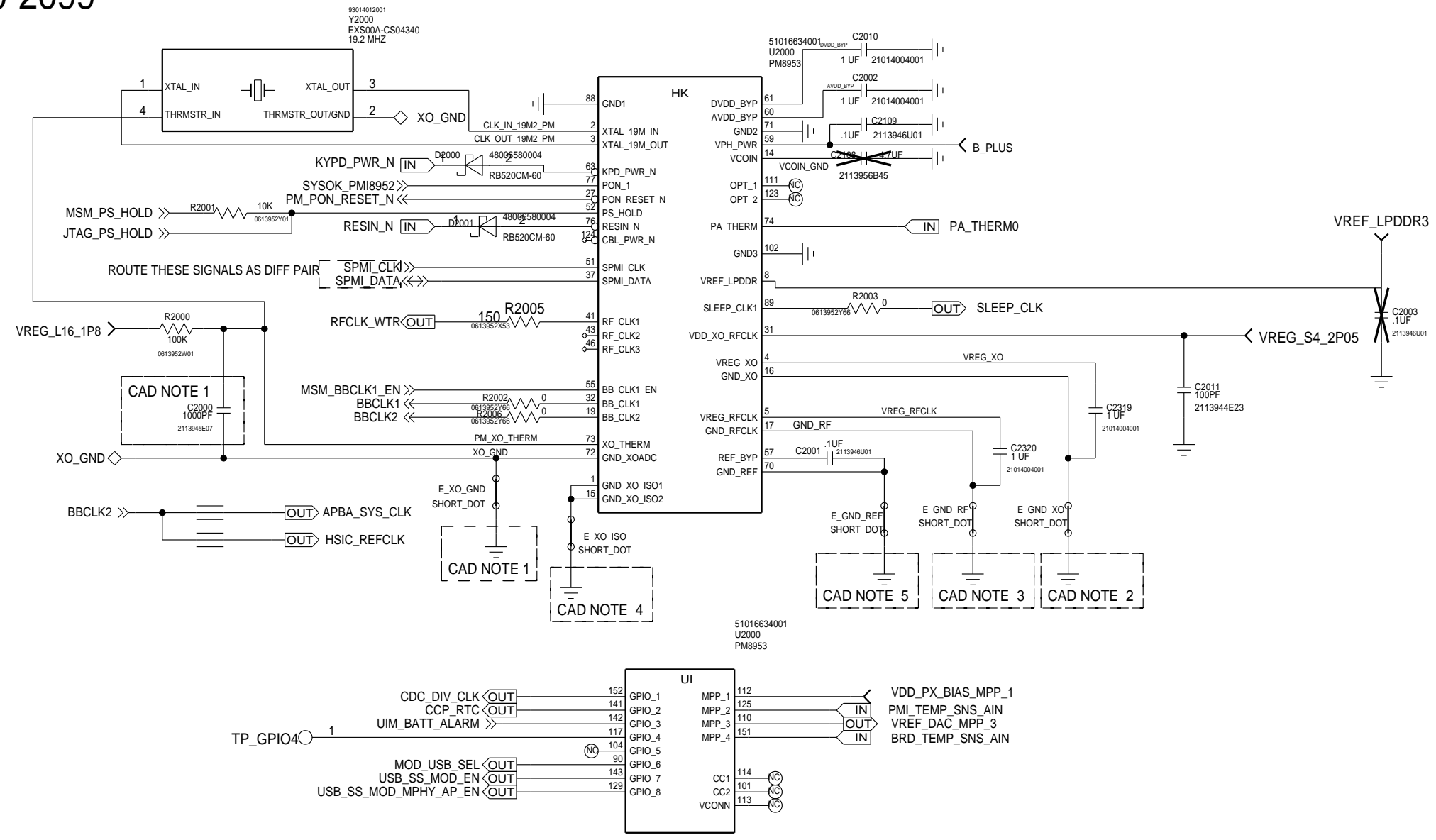
REF: 1600-1699 MCP: 16GB EMMC, 2GB LPDDR3



APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: MMI		BLOCK TITLE:	
LAST MODIFIED BY: MMI Tue Nov 15 13:46:04 2016		ap_pmic	
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CAD FILE NAME:		PAGE 25 OF 64	

PM8953: HK/GHRG/LED/GPIO

REF: 2000-2099

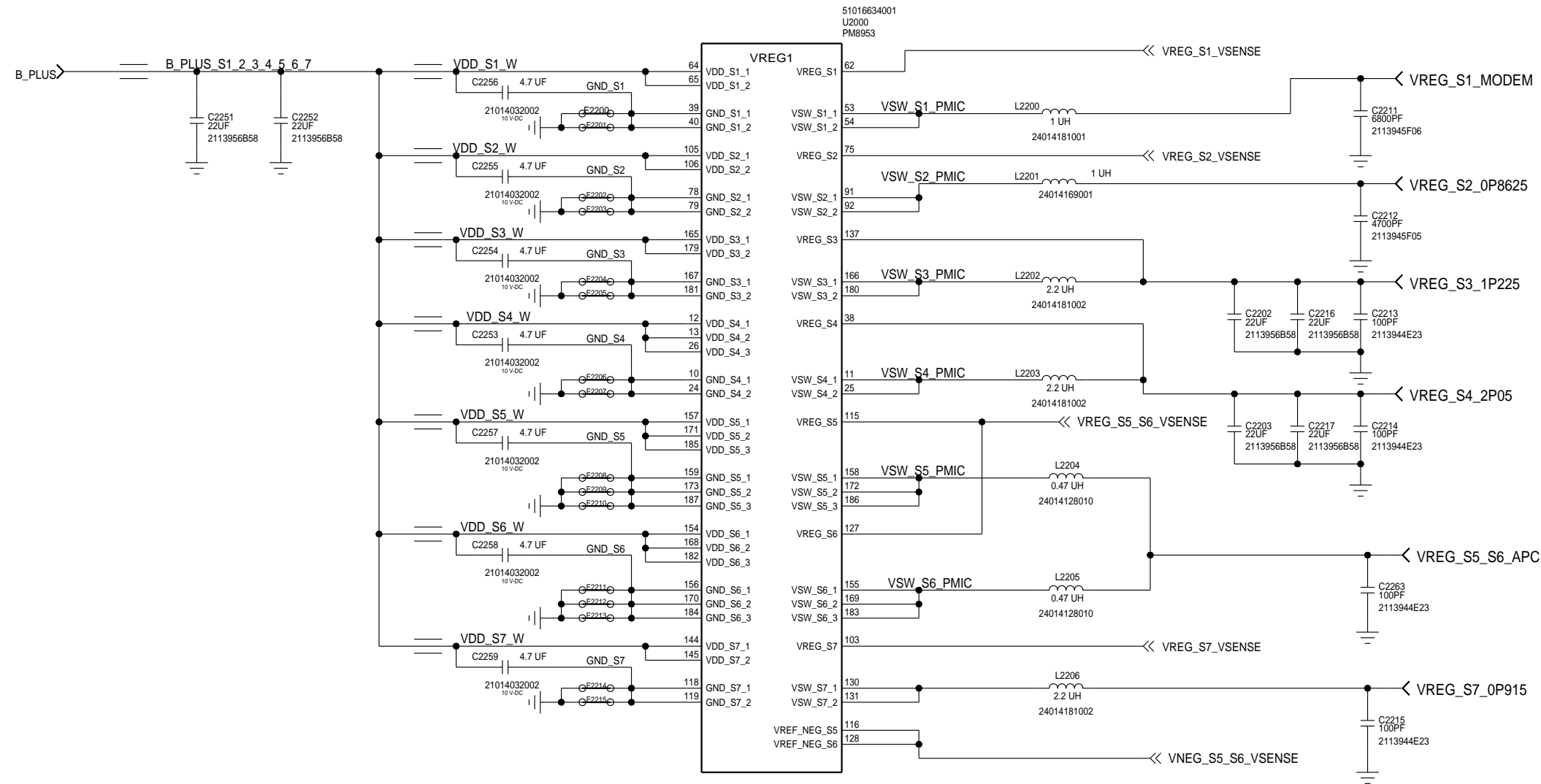


CAD NOTE 1 : PLACE C2000 CLOSER TO Y2000 AND CONNECT GND_XOADC TO CAP GND AND THEN CONNECT TO MAIN GND PLANE THROUGH DEDICATED VIA
 CAD NOTE 2 : CONNECT GND_XO TO C2319 CAP GND AND THEN CONNECT TO MAIN GND USING DEDICATED VIA.
 CAD NOTE 3 : CONNECT GND_RFCLK TO C2320 CAP GND AND THEN CONNECT TO MAIN GND PLANE USING DEDICATED VIA.
 CAD NOTE 4 : CONNECT GND_XO_ISO TO MAIN GND PLANE USING DEDICATED VIA. DO NOT SHARE THIS GND WITH OTHER GROUNDS.
 CAD NOTE 5 : CONNECT GND_REF TO CAPACITOR C2001 GND AND THEN CONNECT TO MAIN GND PLANE USING DEDICATED VIA. DON NOT SHARE THIS GND WITH OTHER GND.

APPROVALS		MOTOROLA MOBILE DEVICES	
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		CAD FILE NAME:	
		PAGE 26 OF 64	

PM8953: SMPS

REF: 2200-2299

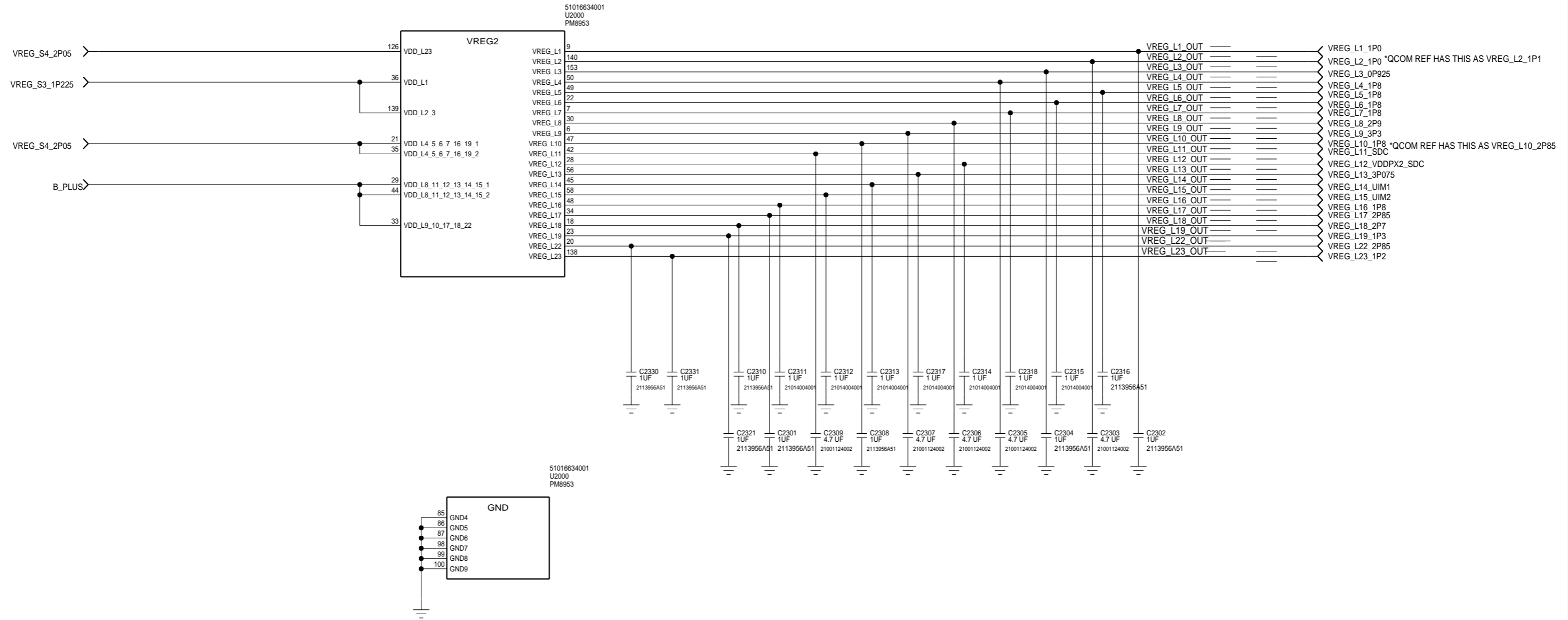


NOTE: PLACE INPUT CAPS CLOSE TO RESPECTIVE VIN PINS
EACH CAP GND SHOULD BE STAR-ROUTED

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: MMI		BLOCK TITLE:	
LAST MODIFIED BY: MMI Tue Nov 15 13:46:05 2016		ap_pmic	
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		CAD FILE NAME:	
		PAGE 27 OF 64	

PM8953: VREGS

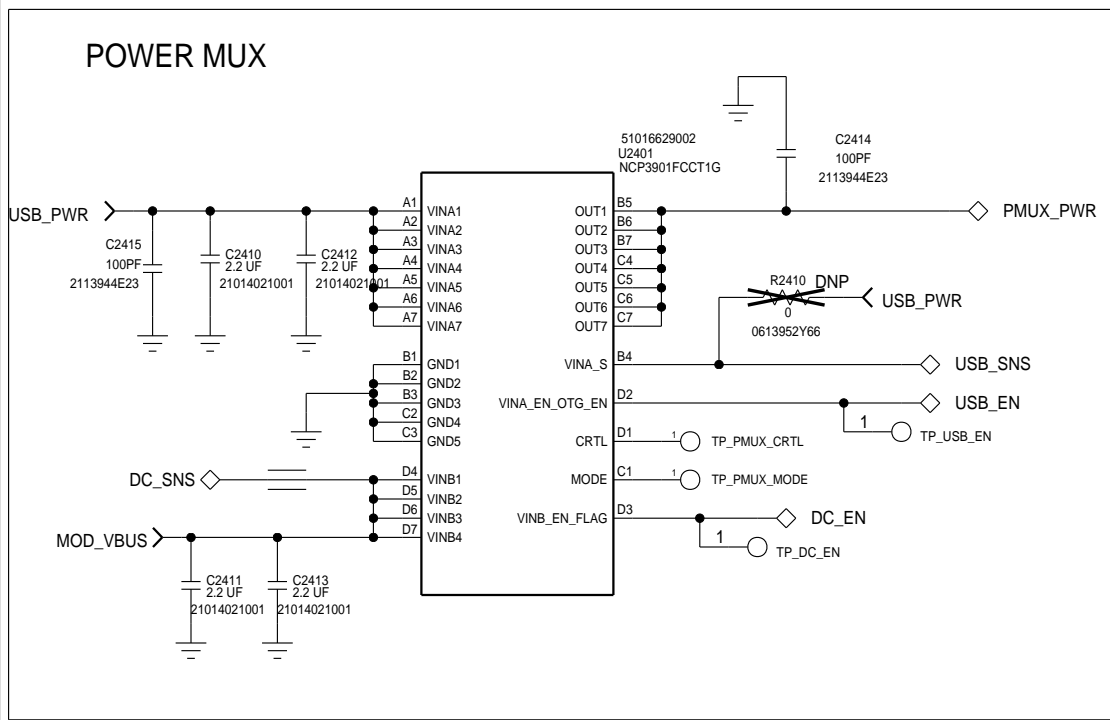
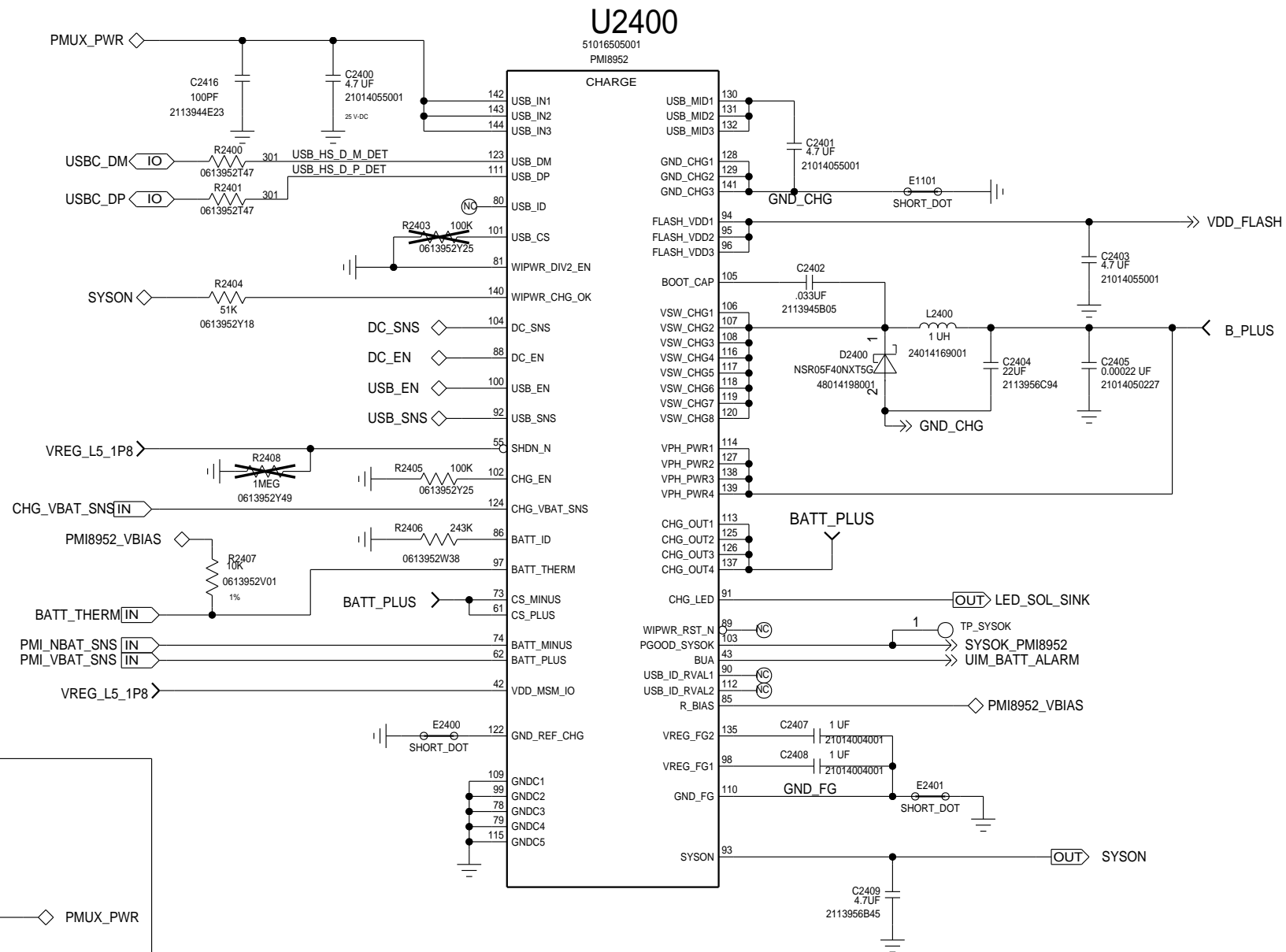
REF: 2300-2399



APPROVALS		MOTOROLA MOBILE DEVICES	
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LAST MODIFIED BY: MMI Tue Nov 15 13:46:06 2016		ap_pmic	
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		CAD FILE NAME:	
		PAGE 28 OF 64	

PMI8952: CHARGING

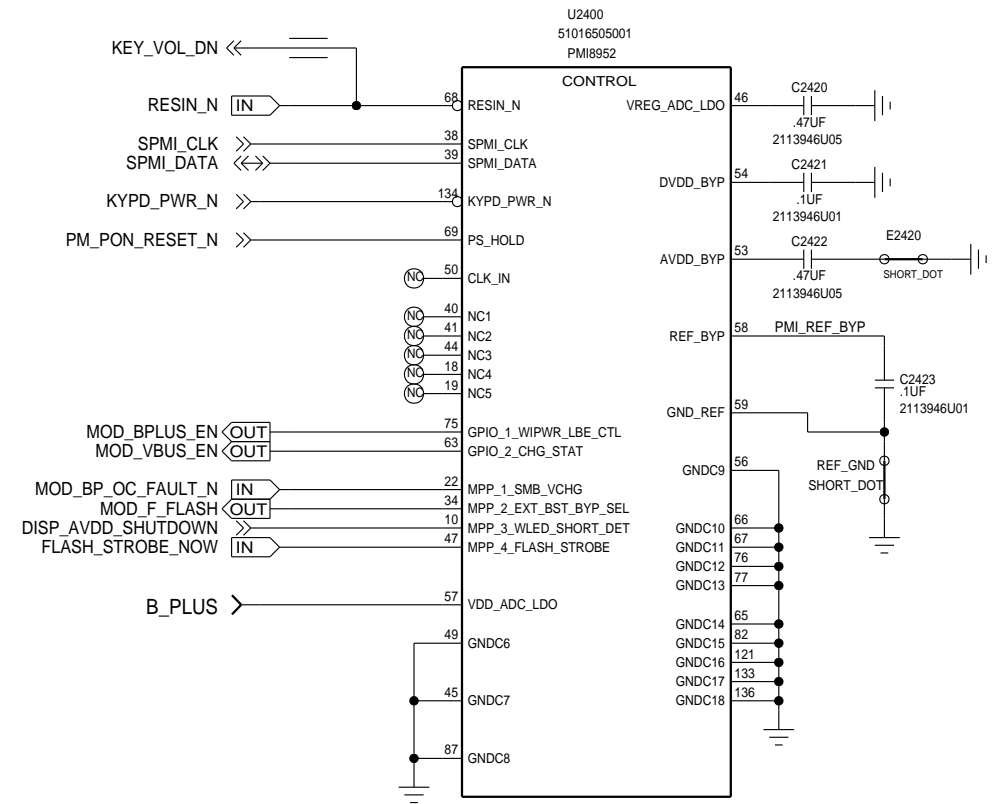
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ENGINEER: MMI		BLOCK TITLE:	
LAST MODIFIED BY: MMI Thu Dec 22 15:29:34 2016		ap_pmic	
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		CAD FILE NAME:	
		PAGE 29 OF 64	

PMI8952: IO_REF

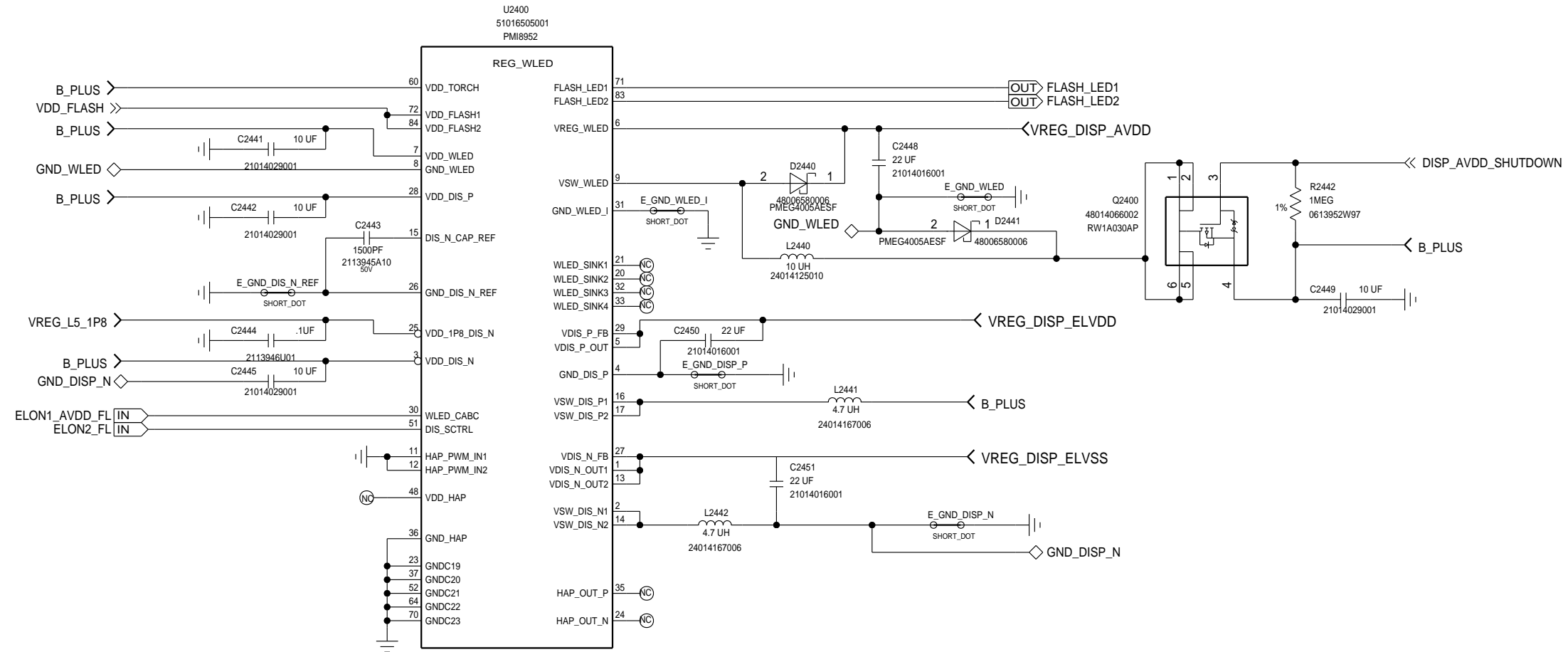
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LAST MODIFIED BY: MMI Tue Nov 15 13:46:08 2016		ap_pmic	
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		CAD FILE NAME:	
		PAGE 30 OF 64	

PMI8952: REG_WLED

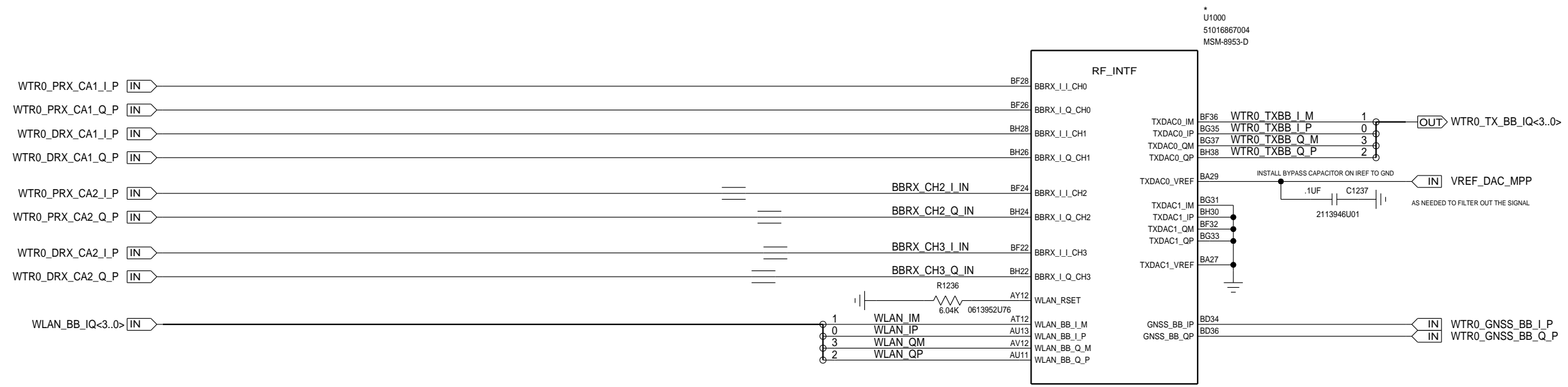
REF: 2440-2459



APPROVALS		MOTOROLA MOBILE DEVICES	
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LAST MODIFIED BY: MMI Tue Nov 15 13:46:08 2016		ap_pmic	
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		CAD FILE NAME:	
		PAGE 31 OF 64	

MSM: RF INTERFACE

REF 1200-1299



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

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY: FAN021 Tue Nov 15 13:45:58 2016		block_mdm9x25m_pm8019	
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		CAD FILE NAME:	PAGE 32 OF 64

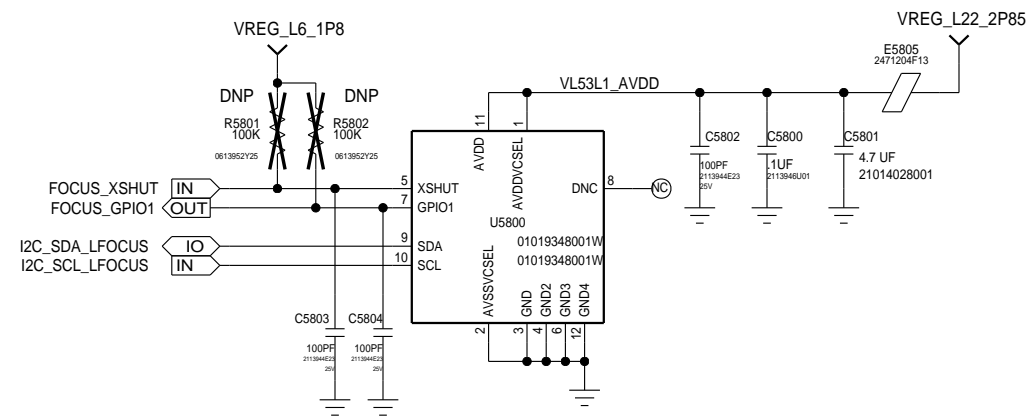
CAM: REAR LASER FOCUS

REF:5800-5899

REAR LASER FOCUS

REF:6190-6199

I2C ADDR:0X29

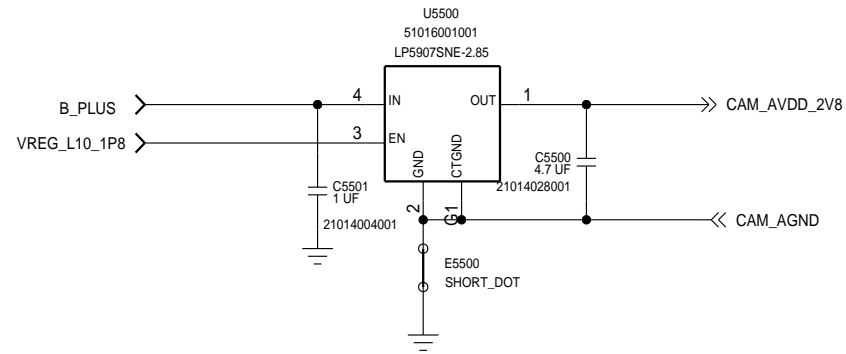


APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: MOTOROLA		BLOCK TITLE:	
LAST MODIFIED BY: MOTOROLA Tue Feb 07 14:07:52 2017		multimedia	
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		B houdini_a.cpm	01
		CAD FILE NAME:	
		PAGE 33 OF 64	

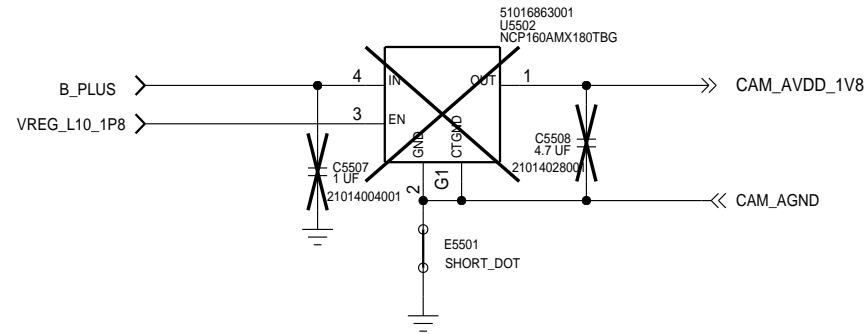
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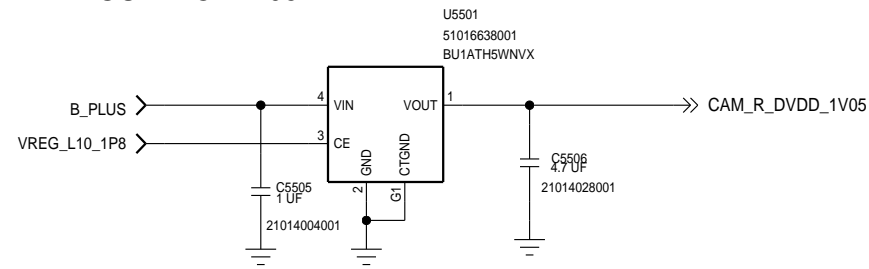
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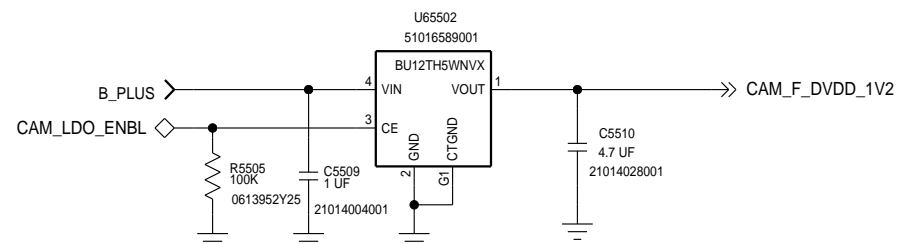
ANALOG REGULATOR 1.8V



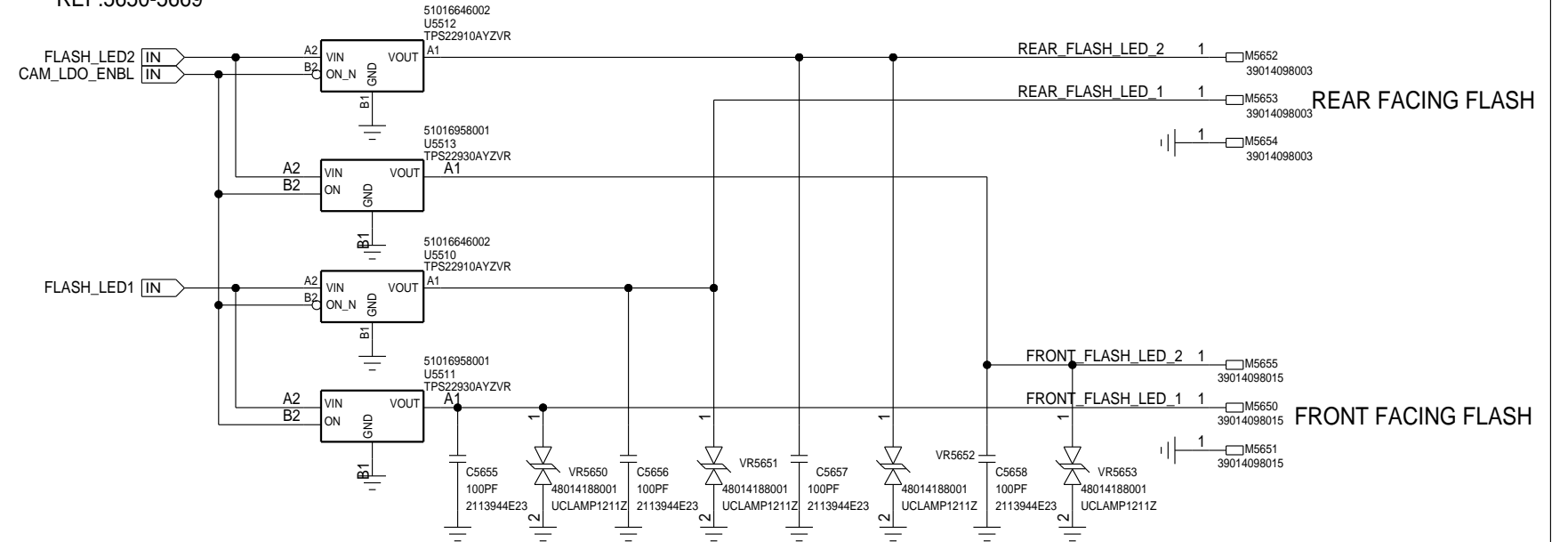
DIGITAL REGULATOR 1.05V



CAMERA CORE - 1.2V



LED MUX FOR REAR VS. FRONT FLASH
REF:5650-5669



APPROVALS

ENGINEER: MMI
LAST MODIFIED BY: MMI
Tue Dec 20 09:10:18 2016

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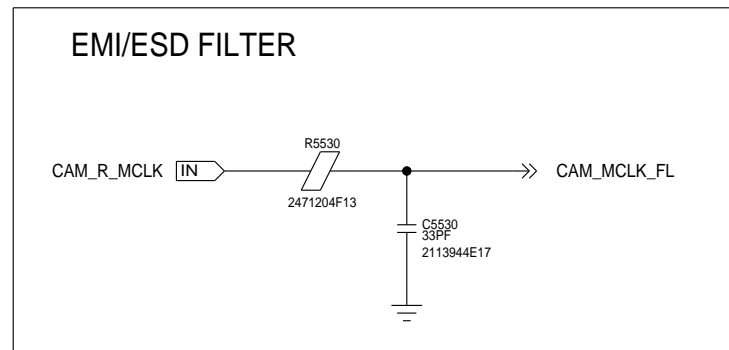
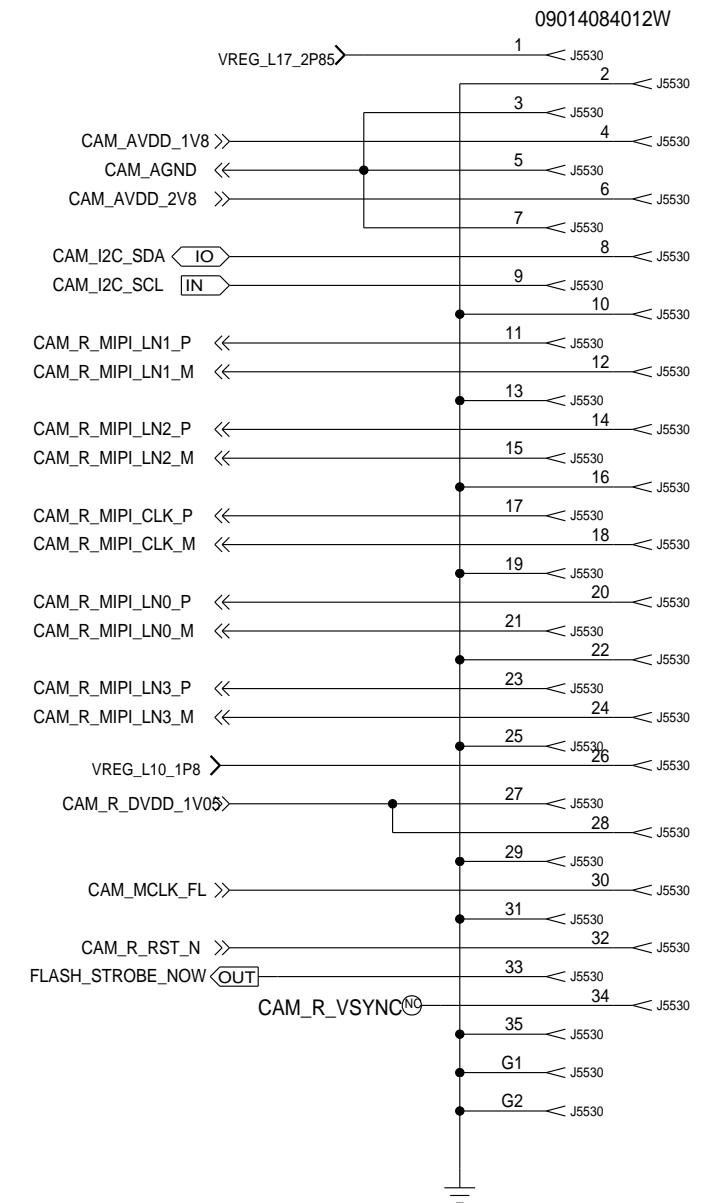
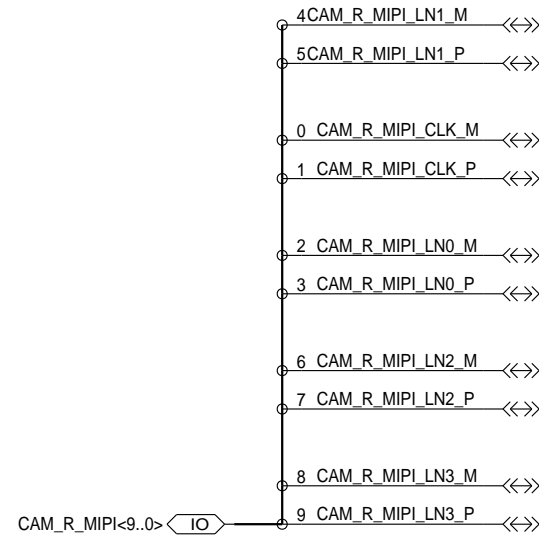
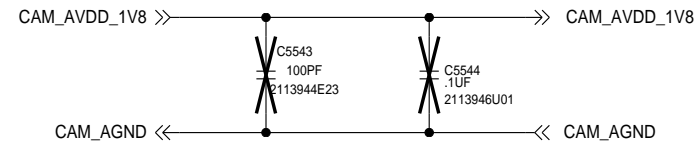
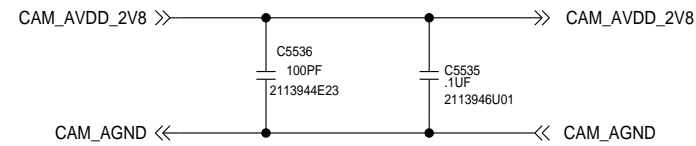
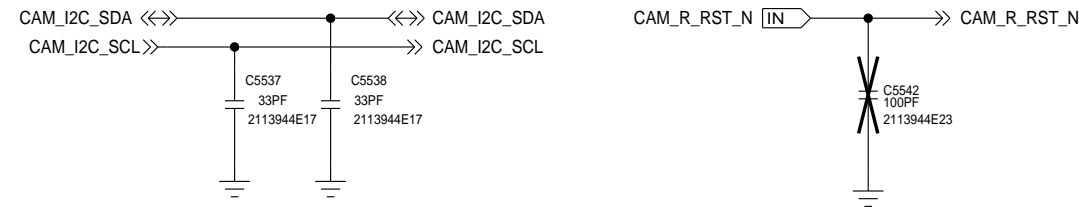
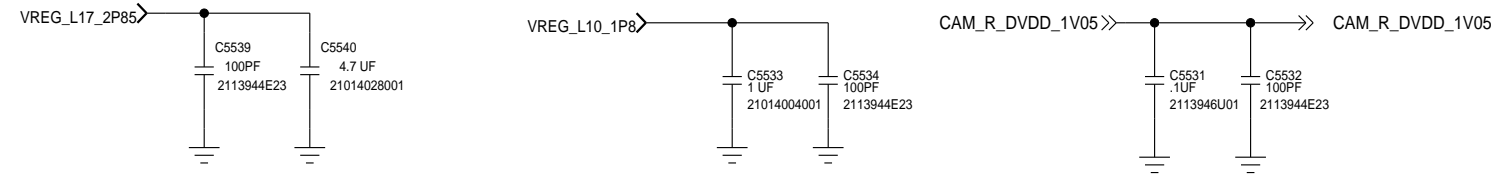
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PROJECT NAME: houdini_a.cpm
REV: 01

CAD FILE NAME:
PAGE 34 OF 64

CAM: REAR

REF:5530-5549

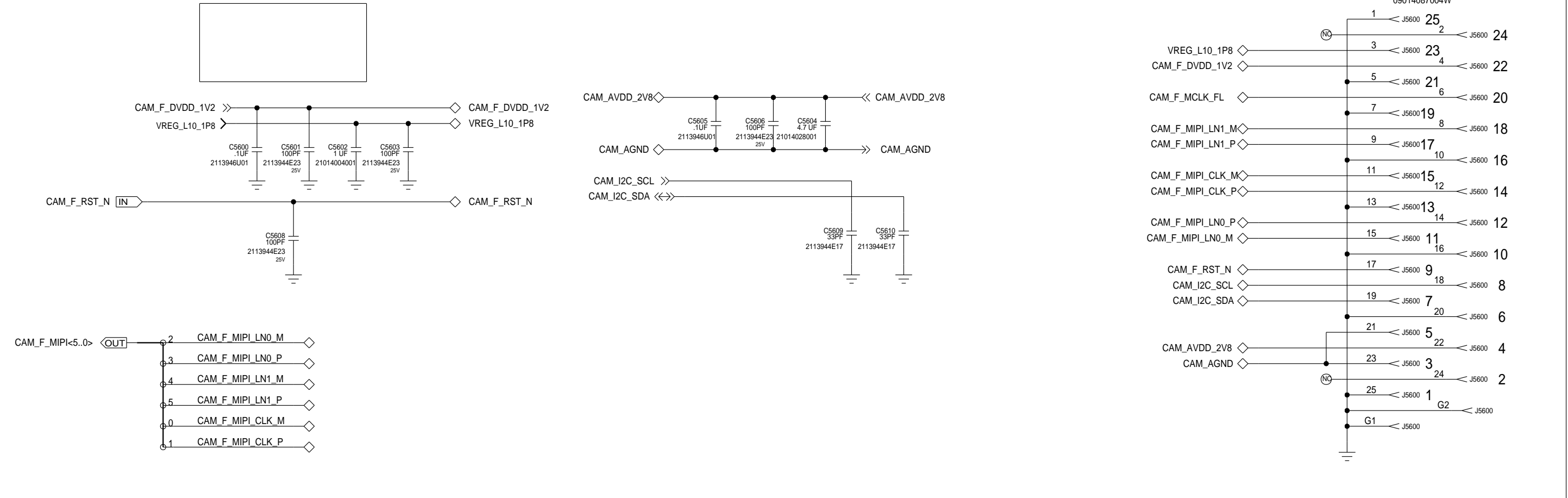


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ENGINEER: JOHN KRAMER		BLOCK TITLE:	
LAST MODIFIED BY: AZIZ NOORI Tue Nov 15 13:45:54 2016		multimedia	
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		B houdini_a.cpm	01
CAD FILE NAME:		PAGE 35 OF 64	

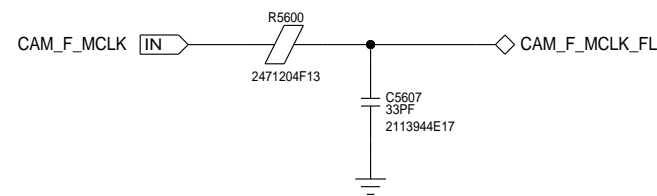
CAM: FRONT

REF 5600-5620

FF CAMERA CONNECTOR FRONT CAM I2C ADDR:



EMI/ESD FILTER



APPROVALS

ENGINEER: JOHN KRAMER

LAST MODIFIED BY: NATE CONNELL
Tue Nov 15 13:45:55 2016

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PROJECT NAME

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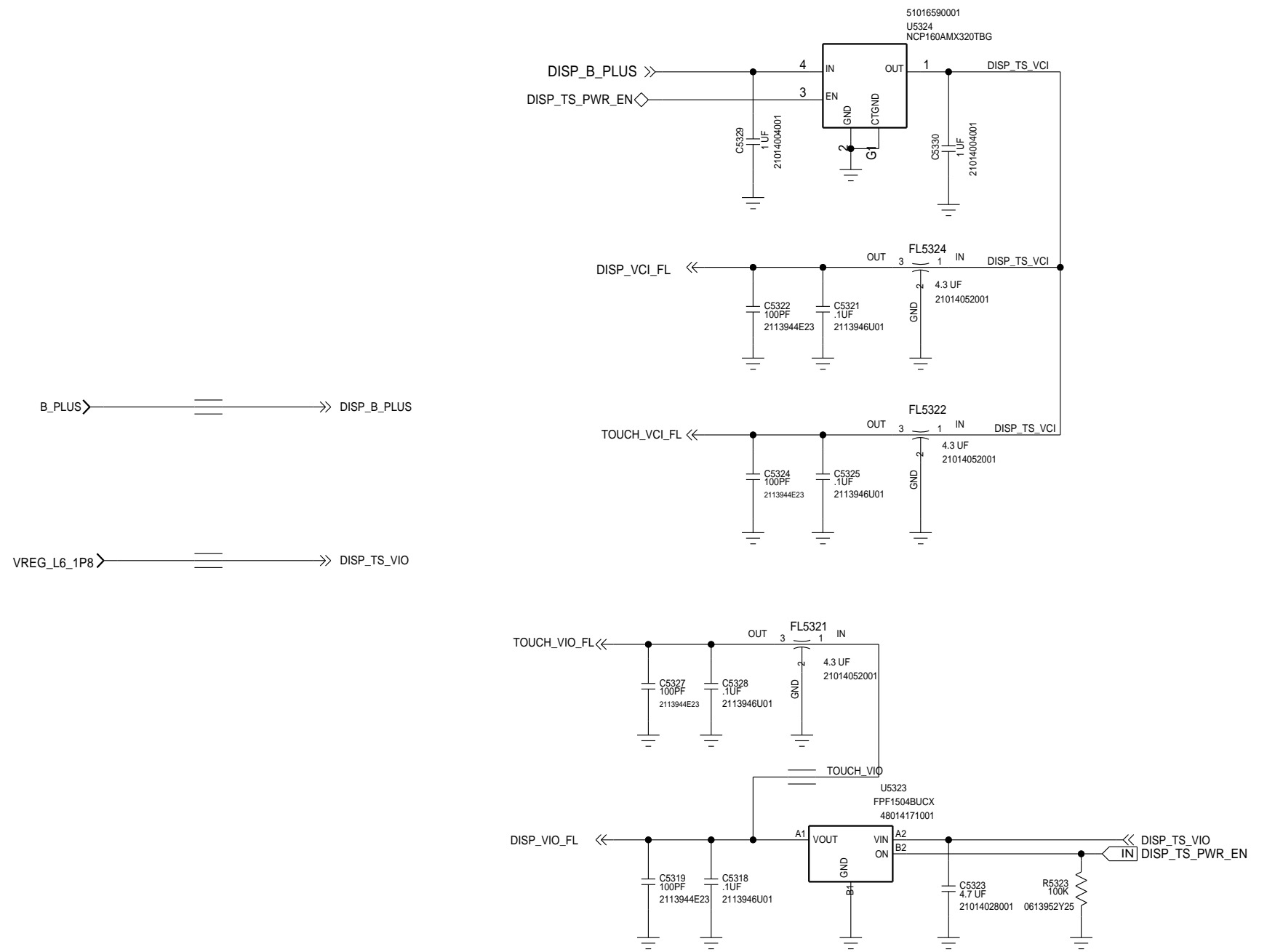
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01

CAD FILE NAME:

PAGE 36 OF 64

DISP: POWER

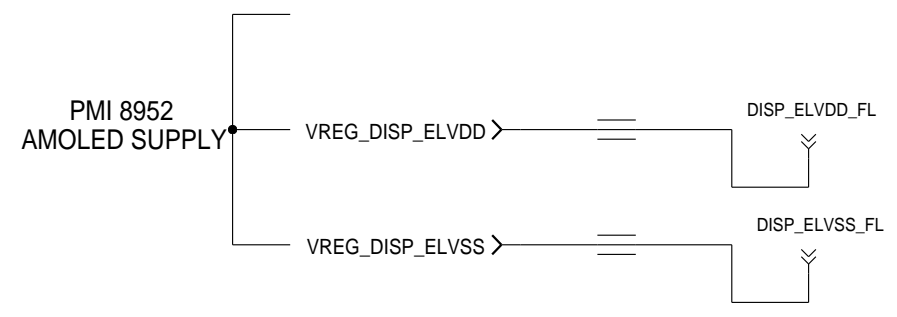
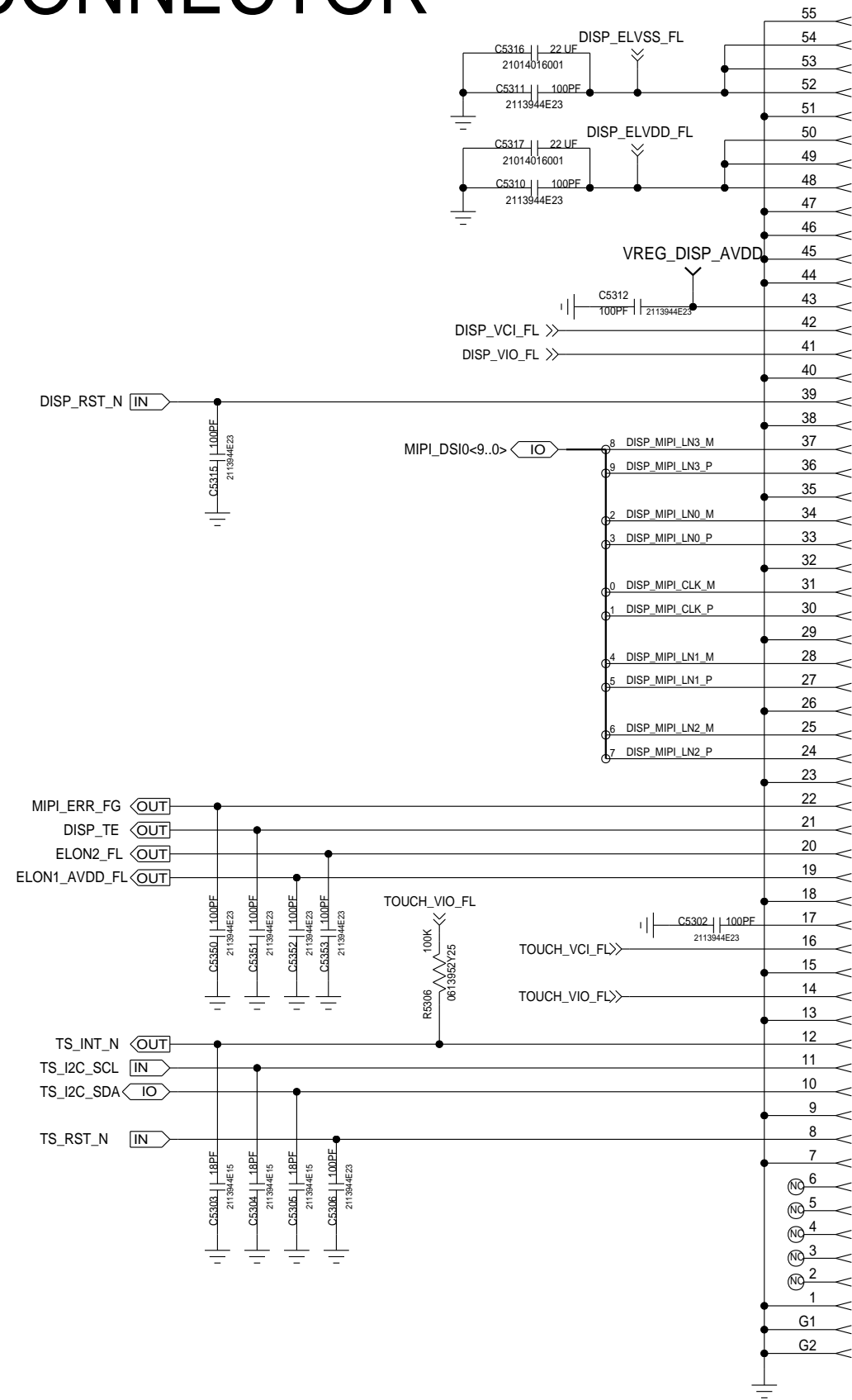


B_PLUS >====>> DISP_B_PLUS

VREG_L6_1P8 >====>> DISP_TS_VIO

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: MMI		BLOCK TITLE:	
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		CAD FILE NAME: _____	
		PAGE 37 OF 64	

DISP: CONNECTOR

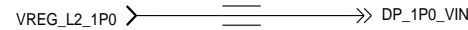
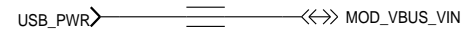
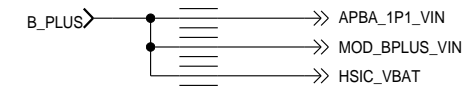


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		B houdini_a.cpm	01
CAD FILE NAME:		PAGE 38 OF 64	

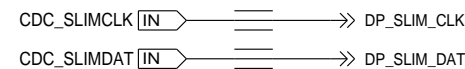
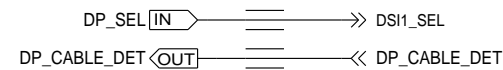
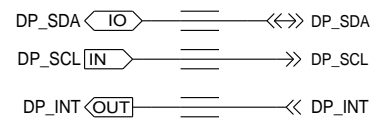
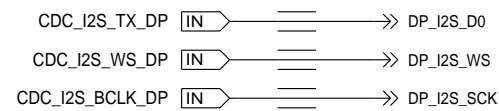
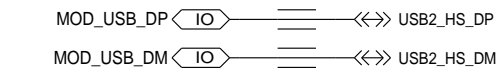
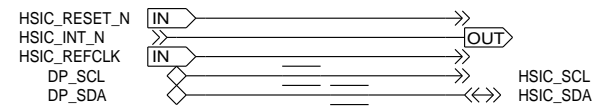
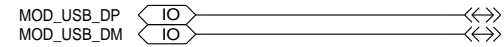
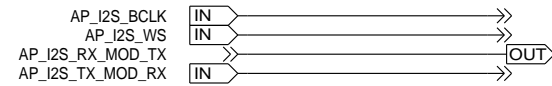
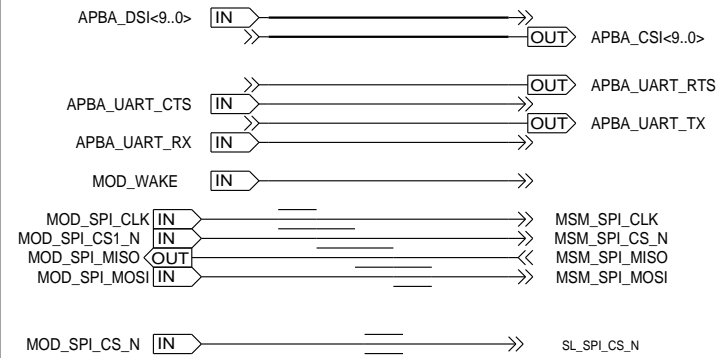
MODS: PORTS

REF: 700-799

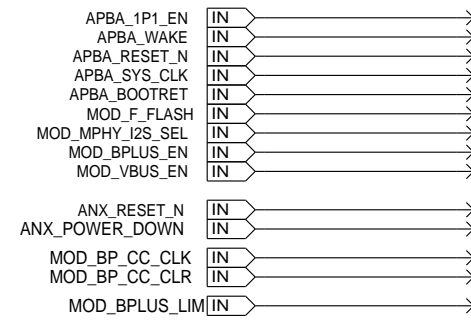
SUPPLIES



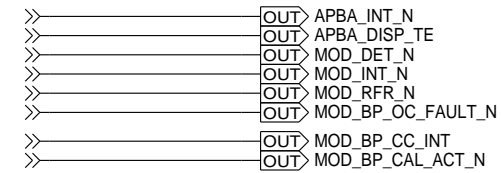
INTERFACES



GPIO - INPUT



GPIO - OUTPUT



APPROVALS

ENGINEER: NATE CONNELL

LAST MODIFIED BY: NATE CONNELL
Tue Nov 15 13:45:48 2016

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BLOCK TITLE:

slice_if

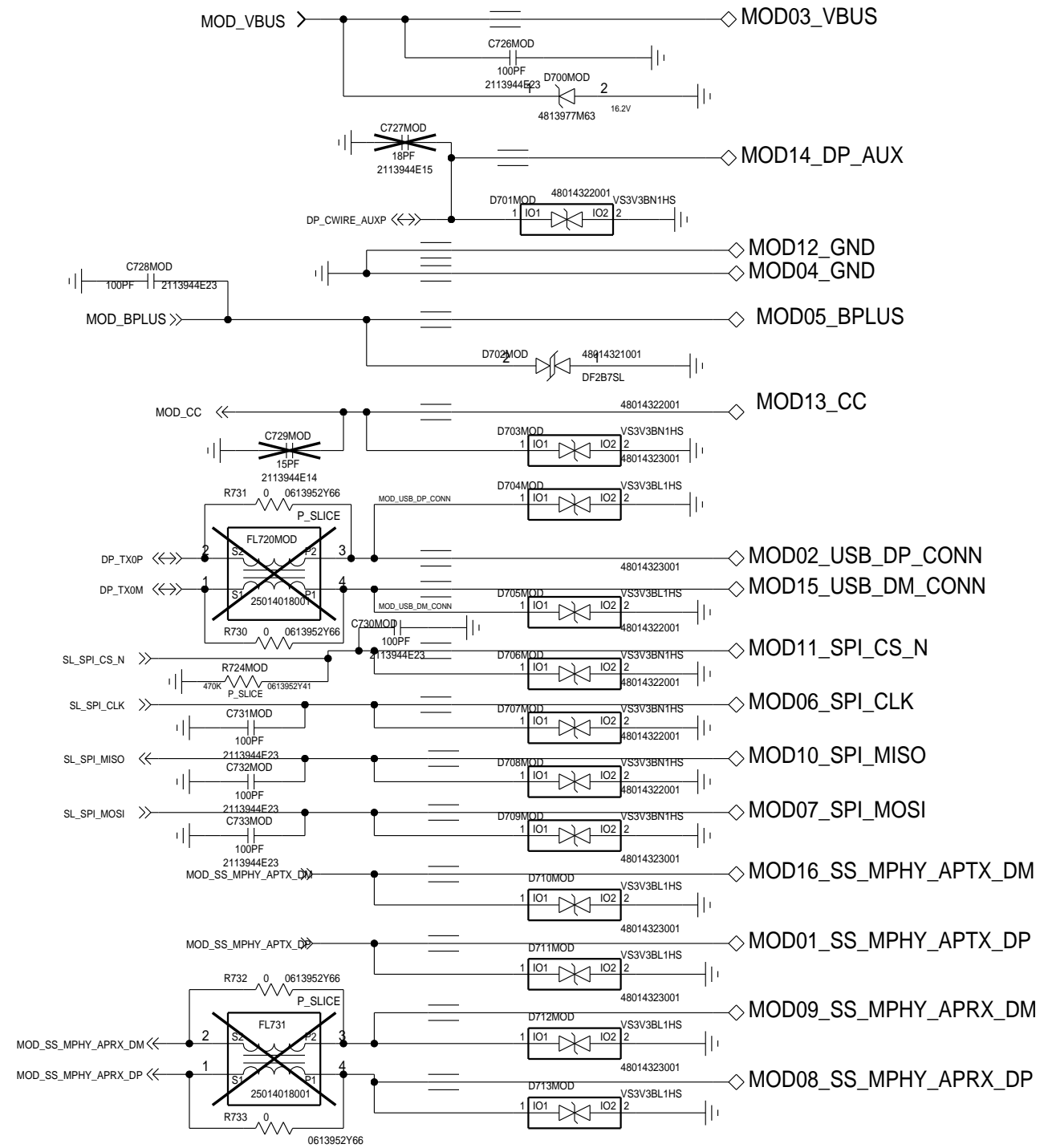
PROJECT NAME
houdini_a.cpm

REV
01

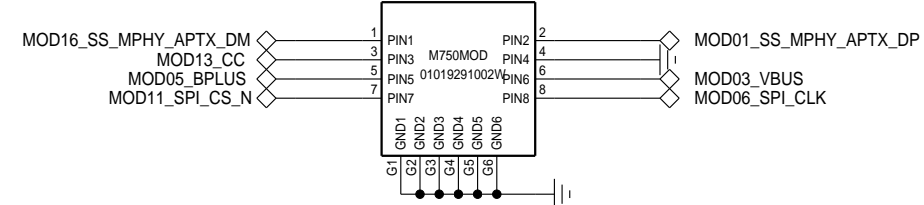
CAD FILE NAME:

PAGE 39 OF 64

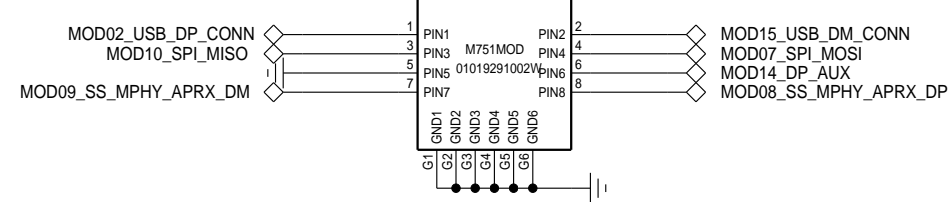
MODS: CONTACTS



PIN1 OF M701 IS PIN1 OF 16-PIN PLATFORM MOD CONTACT MATRIX



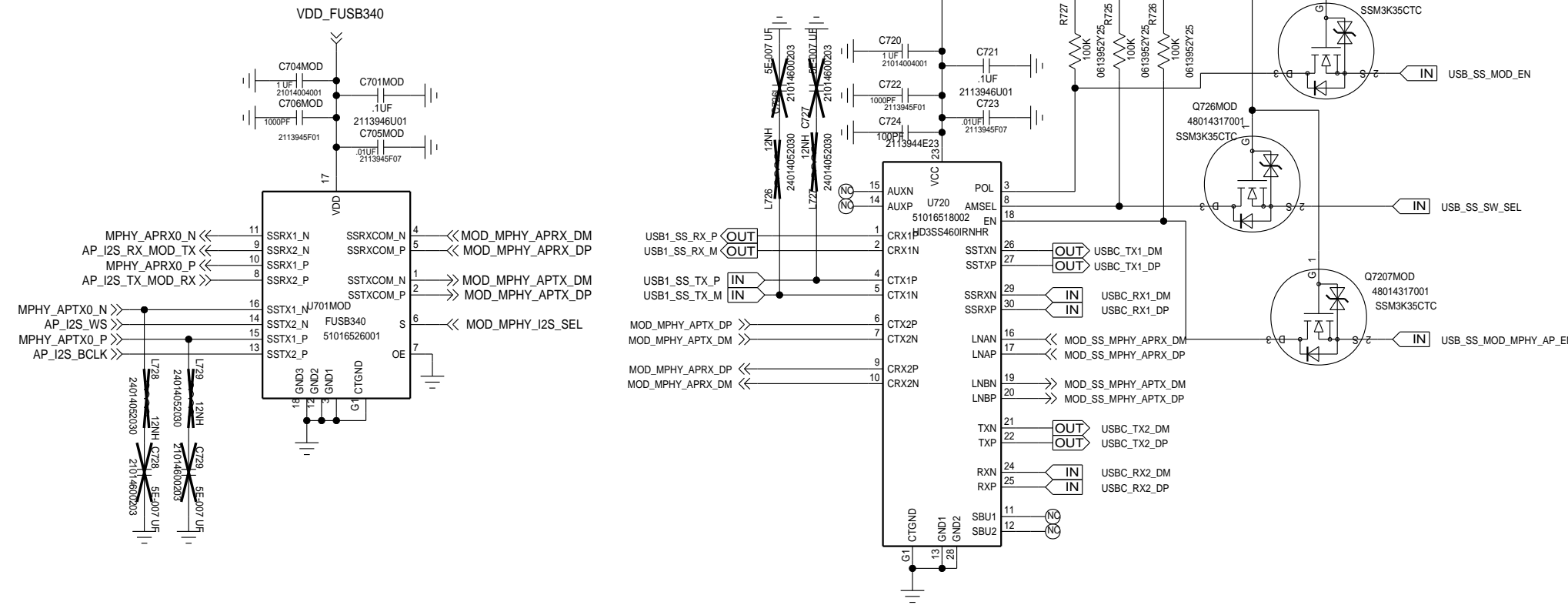
PIN1 OF M702 IS PIN5 OF 16-PIN PLATFORM MOD CONTACT MATRIX



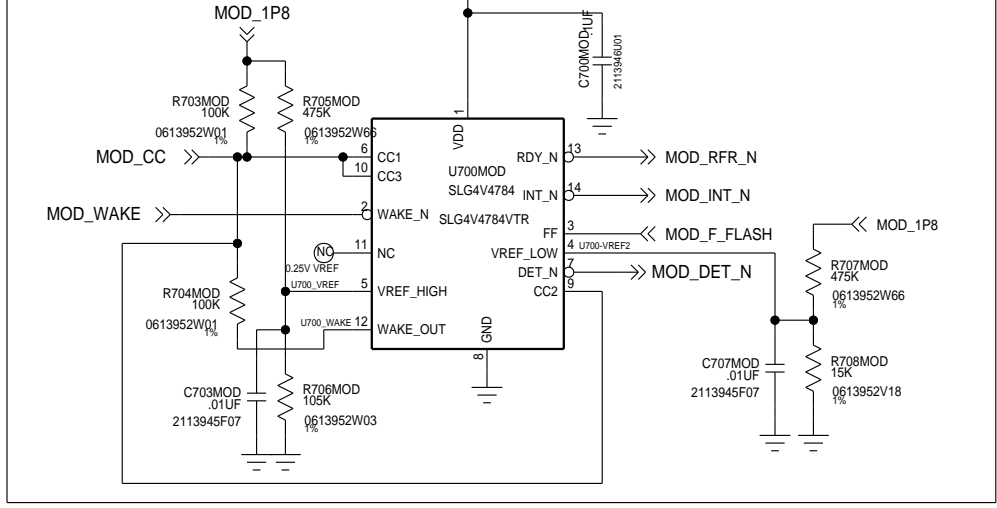
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ENGINEER: MMI		BLOCK TITLE:	
LAST MODIFIED BY: MMI Tue Nov 15 13:45:49 2016		slice_if	
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		B houdini_a.cpm	01
		CAD FILE NAME:	PAGE 40 OF 64

MODS: I/F

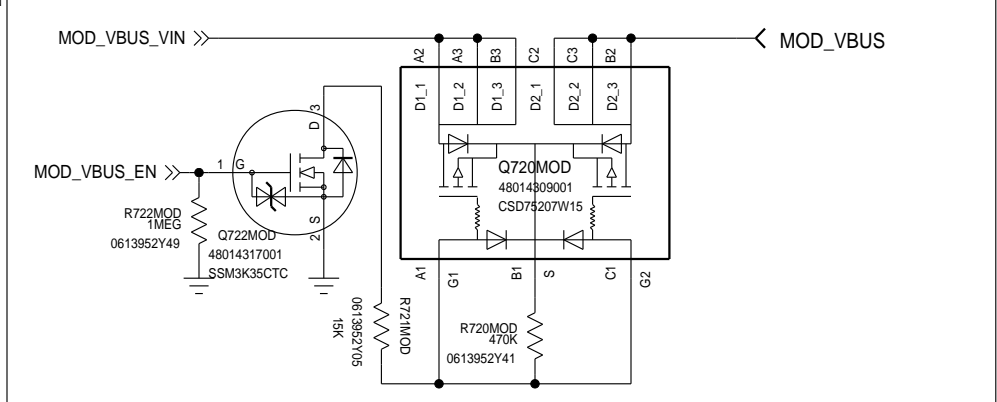
MODS MUXES



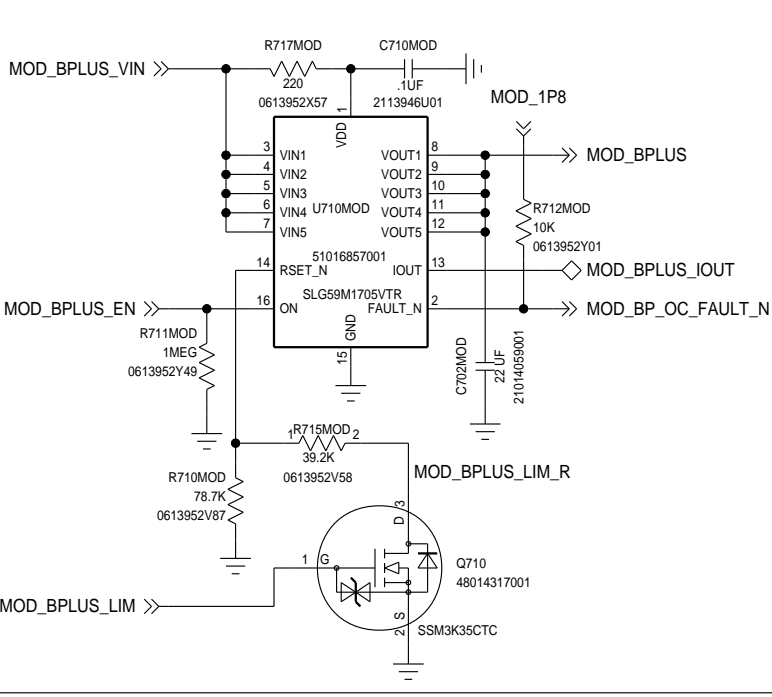
MODS DETECTION



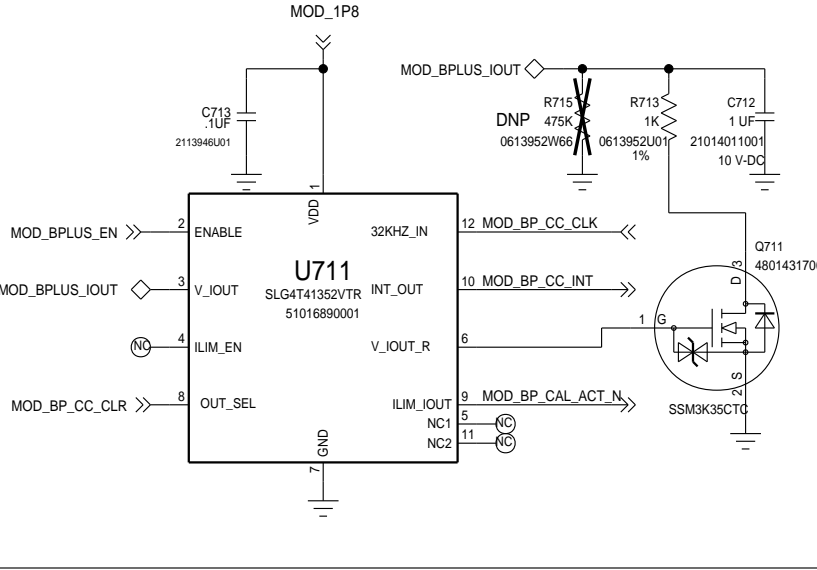
MODS VBUS POWER



MODS BPLUS POWER SWITCH



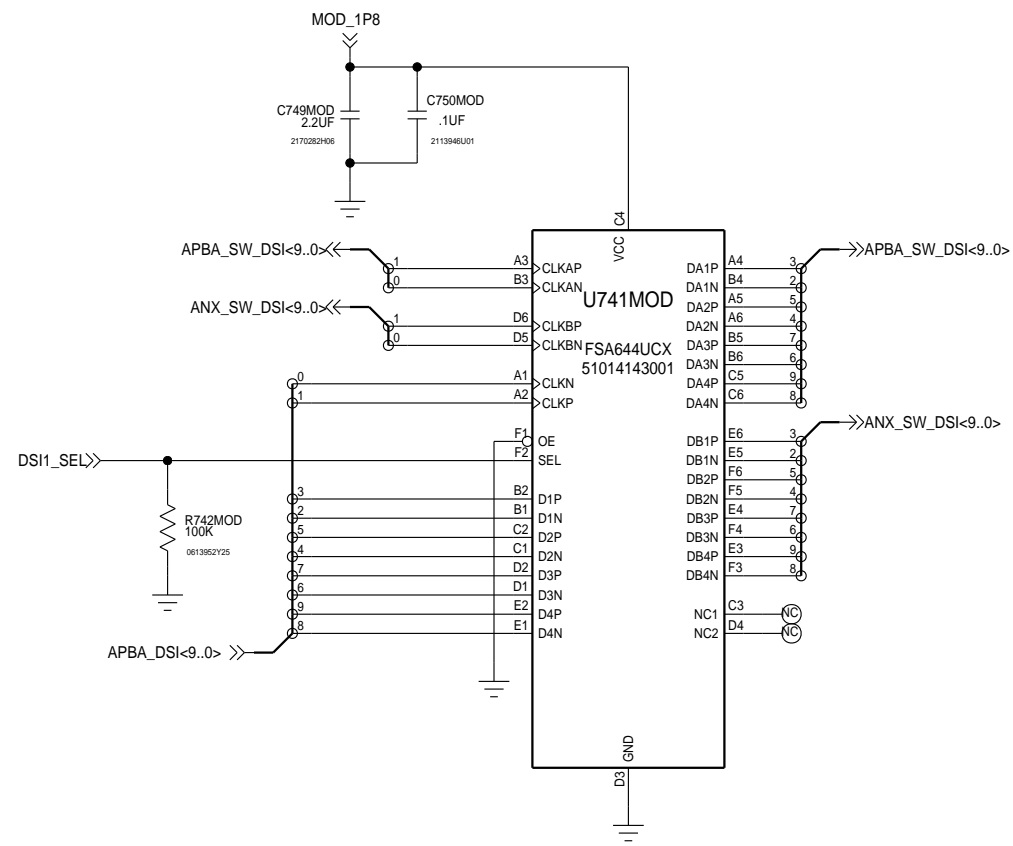
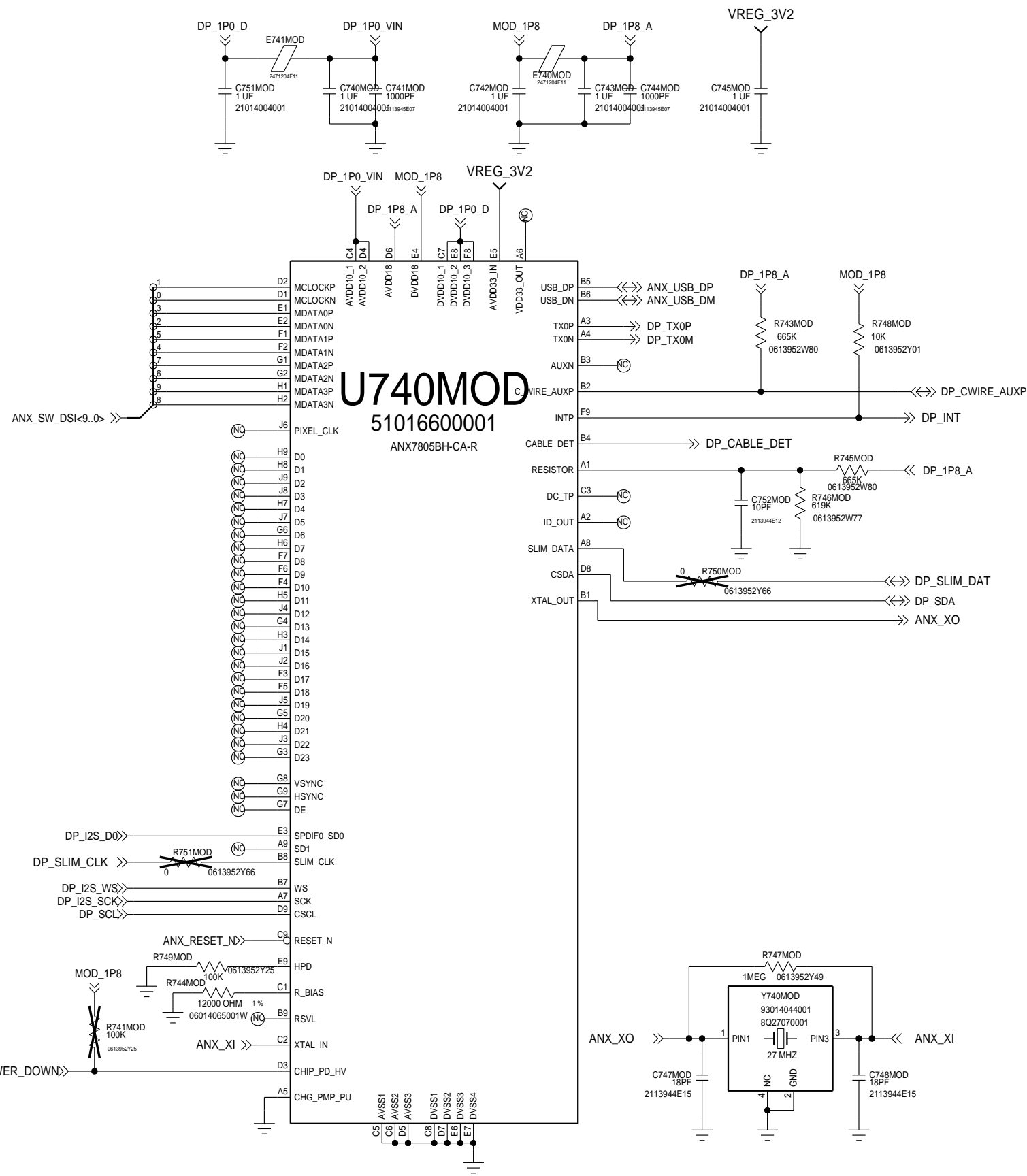
MODS BPLUS CURRENT MONITOR



POL	AMSEL	EN	From/To MSM		Configuration	From/To Bridge		Configuration	Use case
			CTX1	CRX1		CTX2	CRX2		
0	0	1	SSTX	SSRX	MSM <-> USB connector	LnB	LnA	Bridge <-> MOD	Yes
1	0	1	LnB	LnA	MSM <-> MOD	SSTX	SSRX	Bridge <-> USB connector	Yes
0	1	1	LnC	LnD	MSM <-> USB connector	LnB	LnA	Bridge <-> MOD	Yes
1	1	1	LnB	LnA	MSM <-> MOD	LnC	LnD	Bridge <-> USB connector	Yes

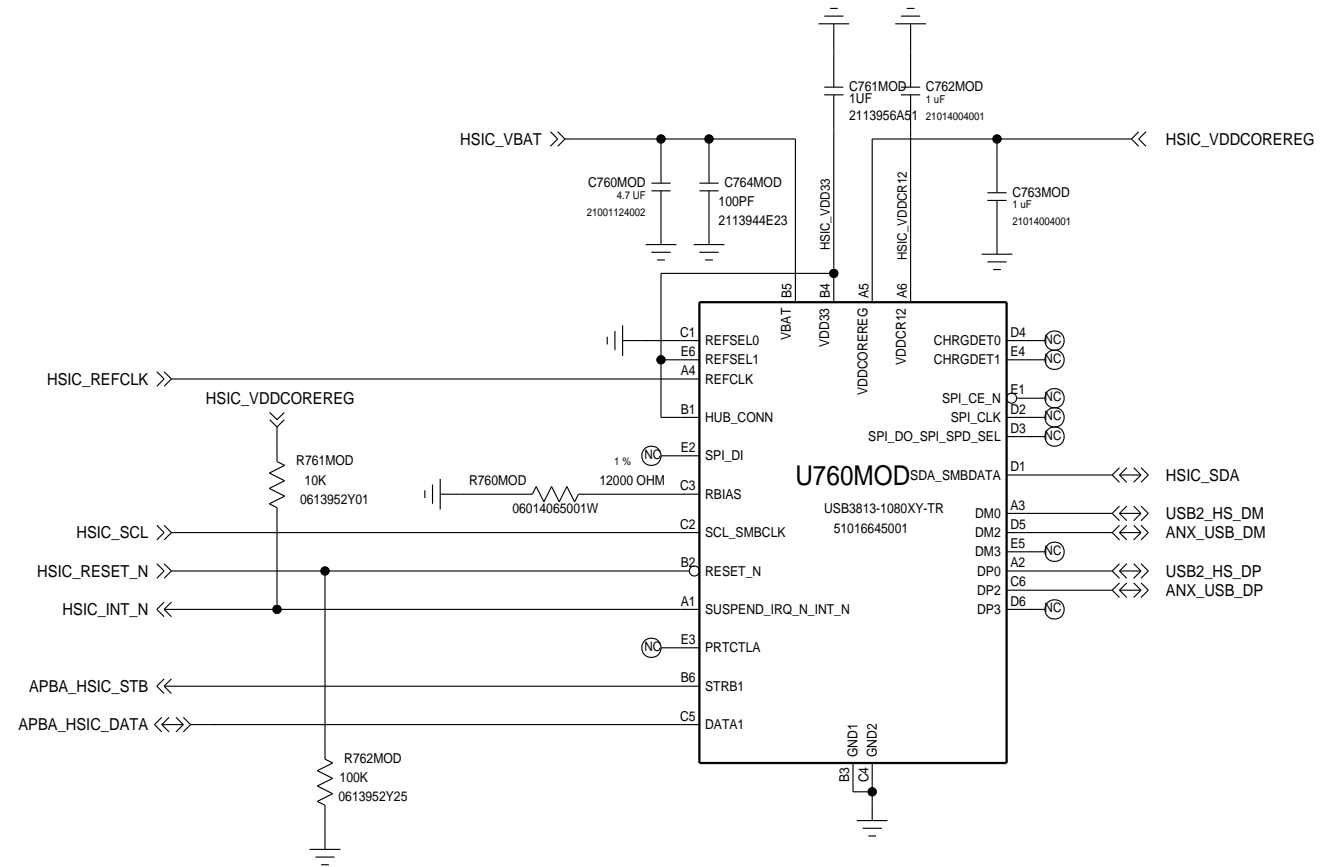
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ENGINEER: MMI		BLOCK TITLE:	
LAST MODIFIED BY: MMI Wed Feb 01 11:06:02 2017		slice_if	
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		B houdini_a.cpm	01
CAD FILE NAME:		PAGE 41 OF 64	


MODS: DRM INTERFACE



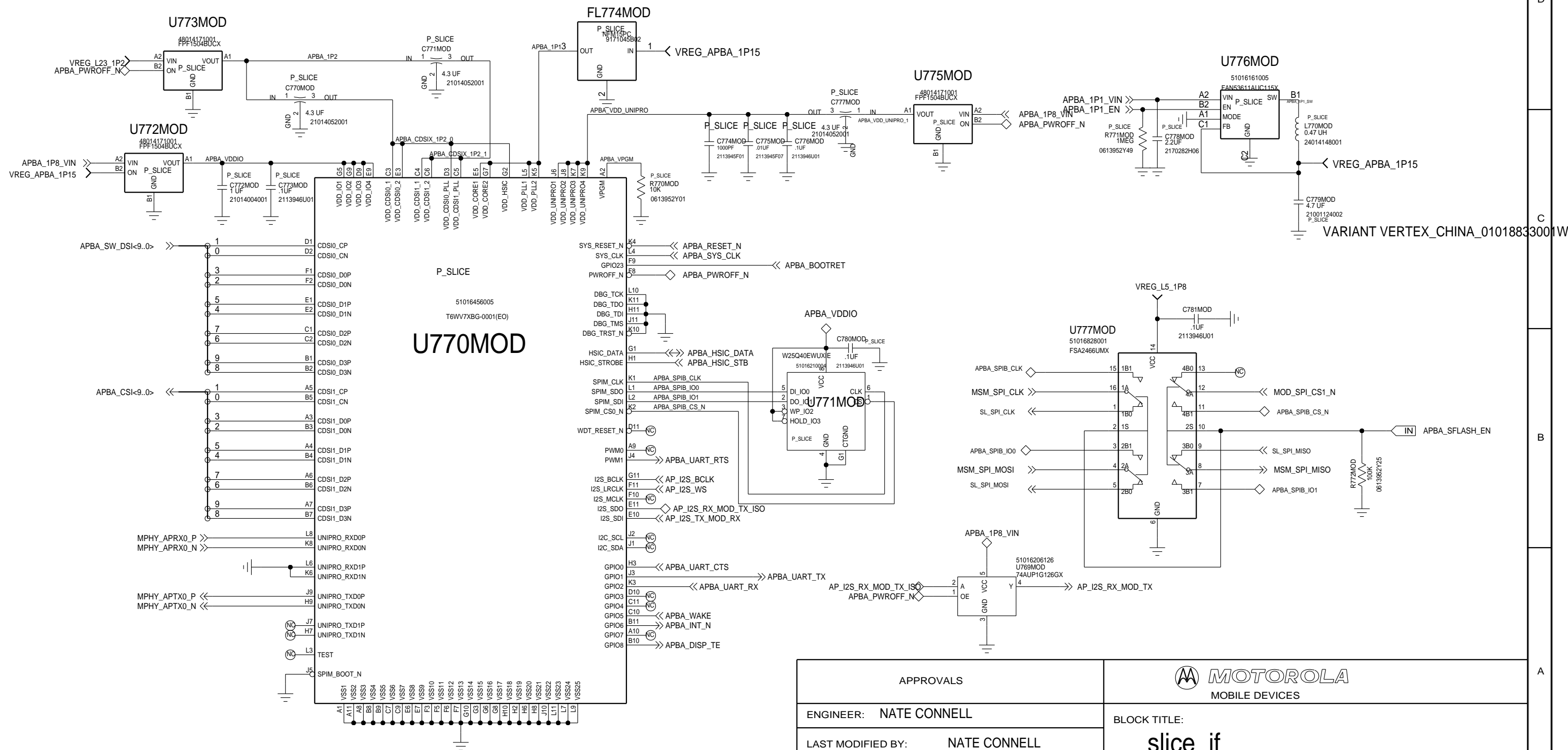
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ENGINEER: NATE CONNELL		BLOCK TITLE: slice_if	
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MODS: HSIC



APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER: Froehling		BLOCK TITLE:	
LAST MODIFIED BY: Tue Feb 14 11:09:42 2017		slice_if	
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		CAD FILE NAME:	
		PAGE 43 OF 64	

MODS: BRIDGE

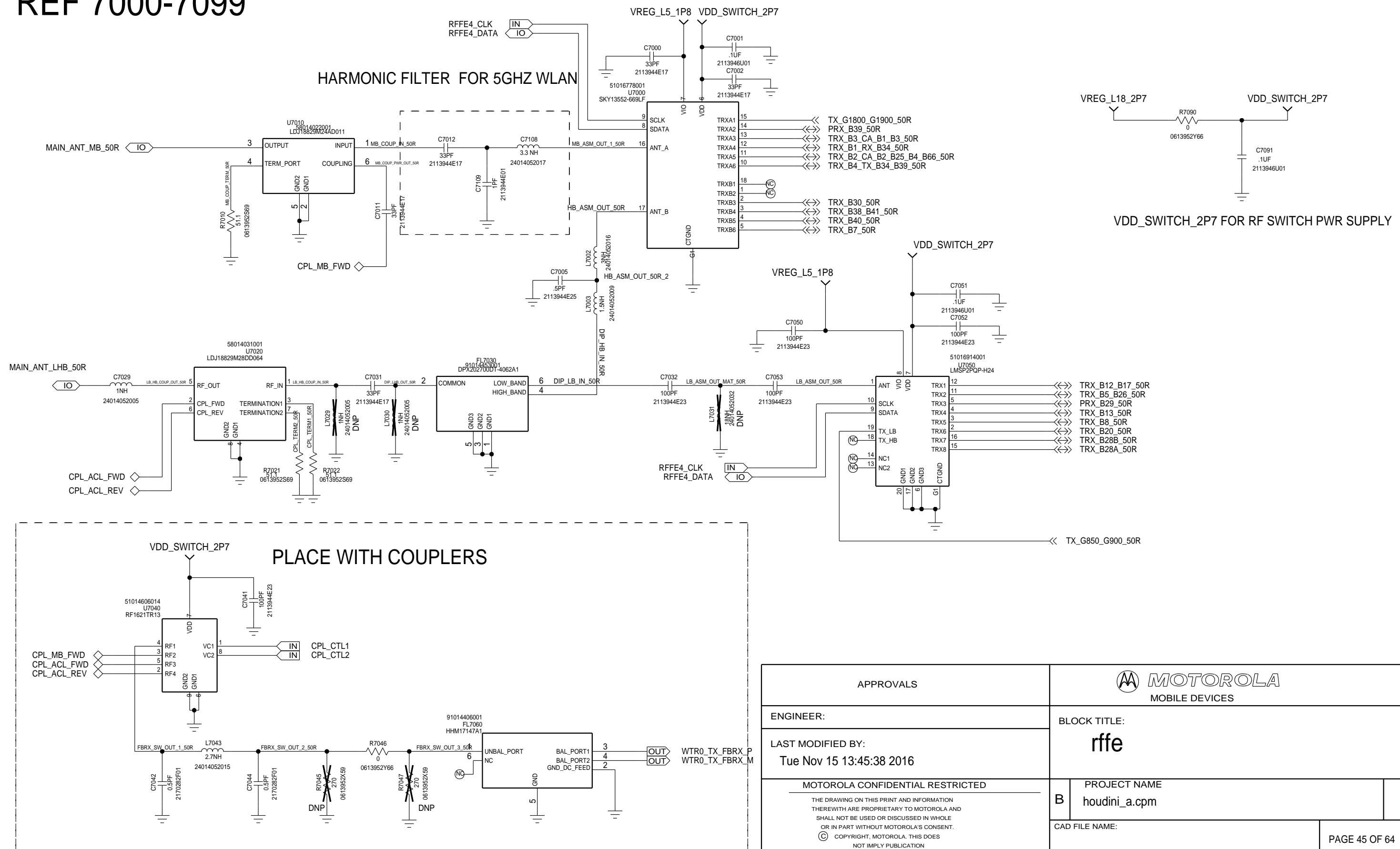


APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER: NATE CONNELL		BLOCK TITLE: slice_if	
LAST MODIFIED BY: NATE CONNELL Fri Jan 13 14:35:09 2017			
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		CAD FILE NAME:	PAGE 44 OF 64

VARIANT VERTEX_CHINA_01018833001W

RFFE:TRX ASM

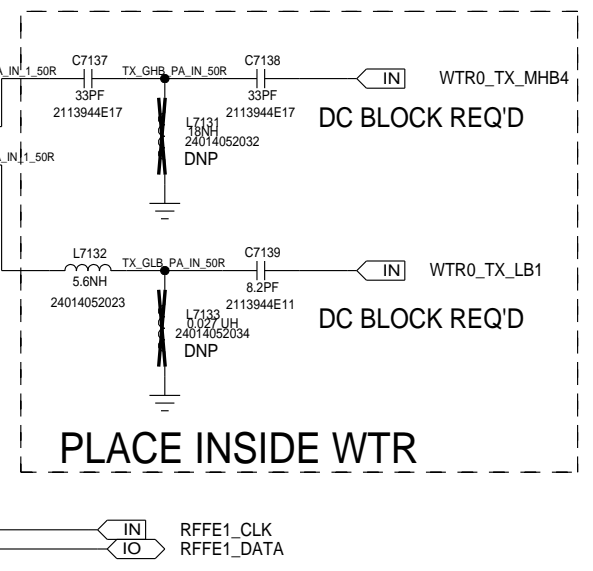
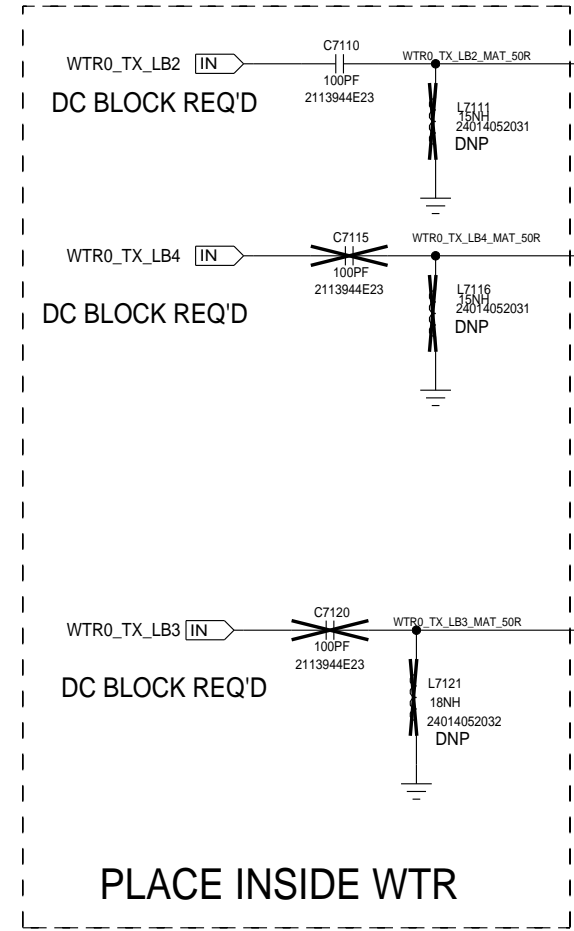
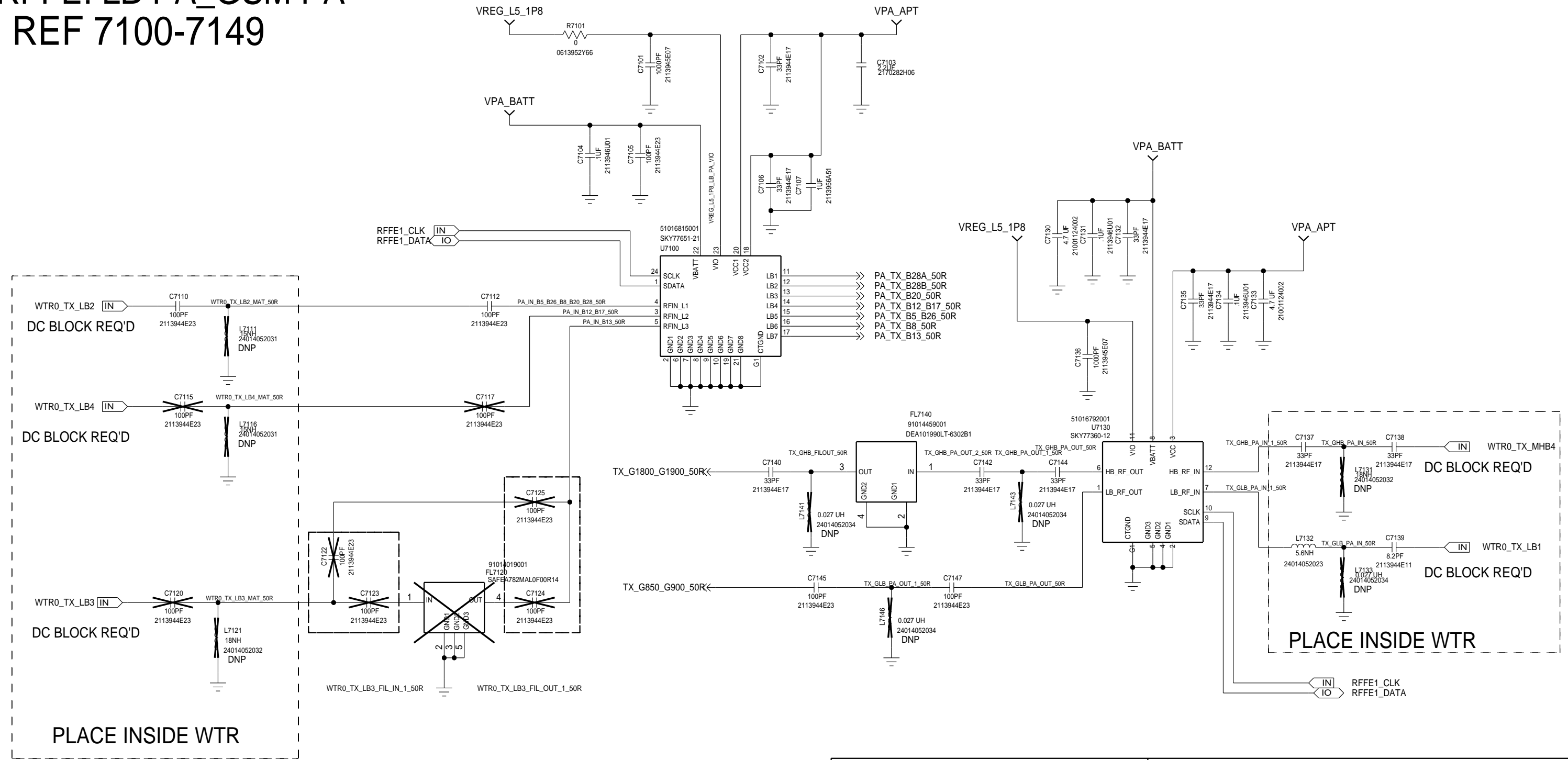
REF 7000-7099



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		PAGE 45 OF 64	

RFFE: LB PA_GSM PA

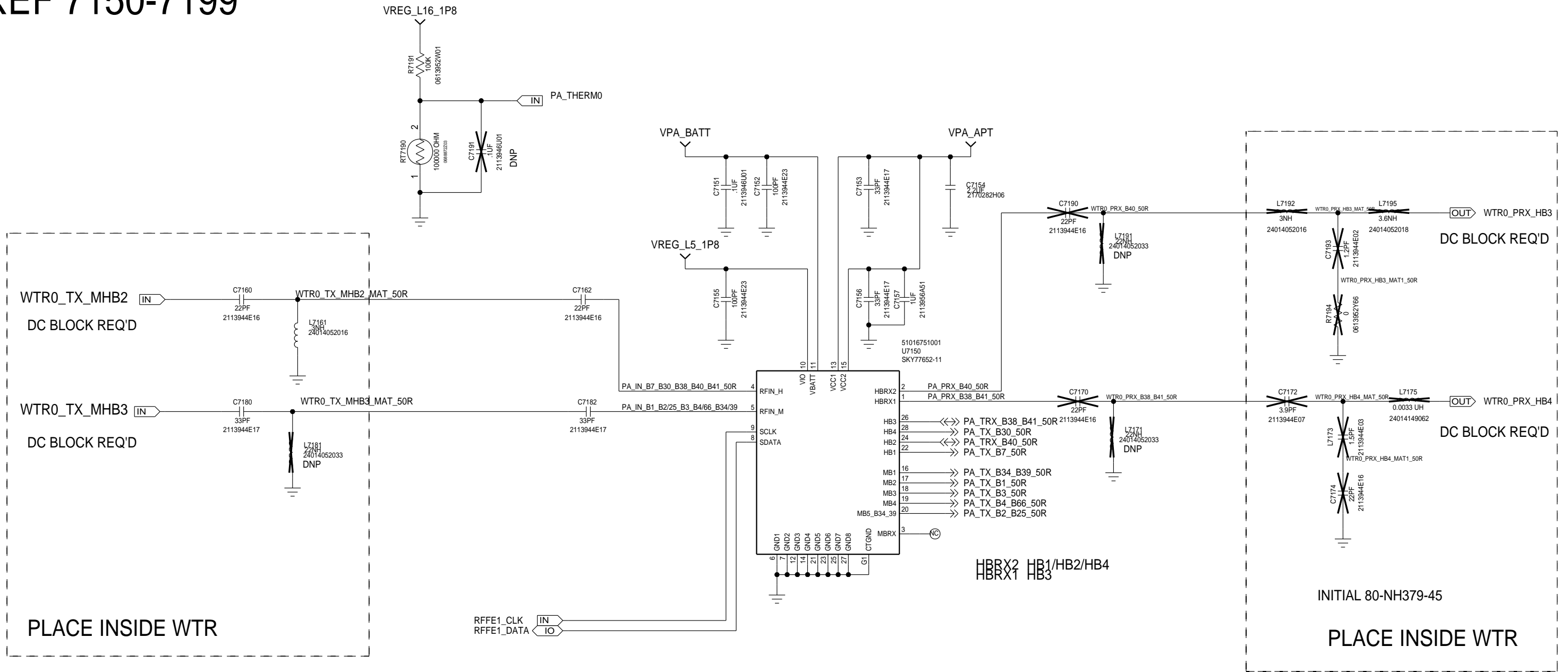
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APPROVALS		MOTOROLA MOBILE DEVICES	
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		PAGE 46 OF 64	

RFFE: MB/HB PA_SKY77652-11

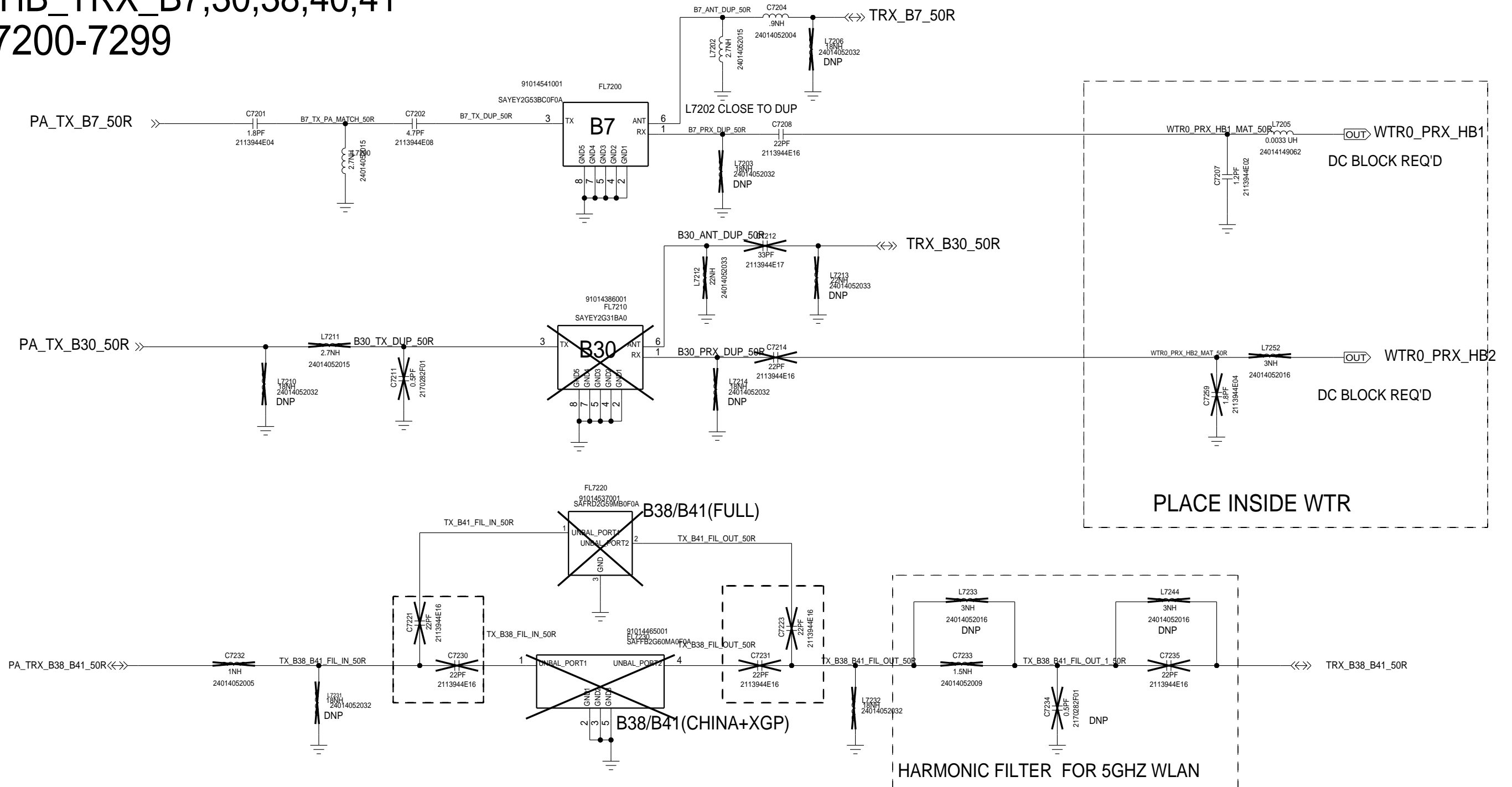
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		B houdini_a.cpm	01
CAD FILE NAME:		PAGE 47 OF 64	

RFFE: HB_TRX_B7,30,38,41

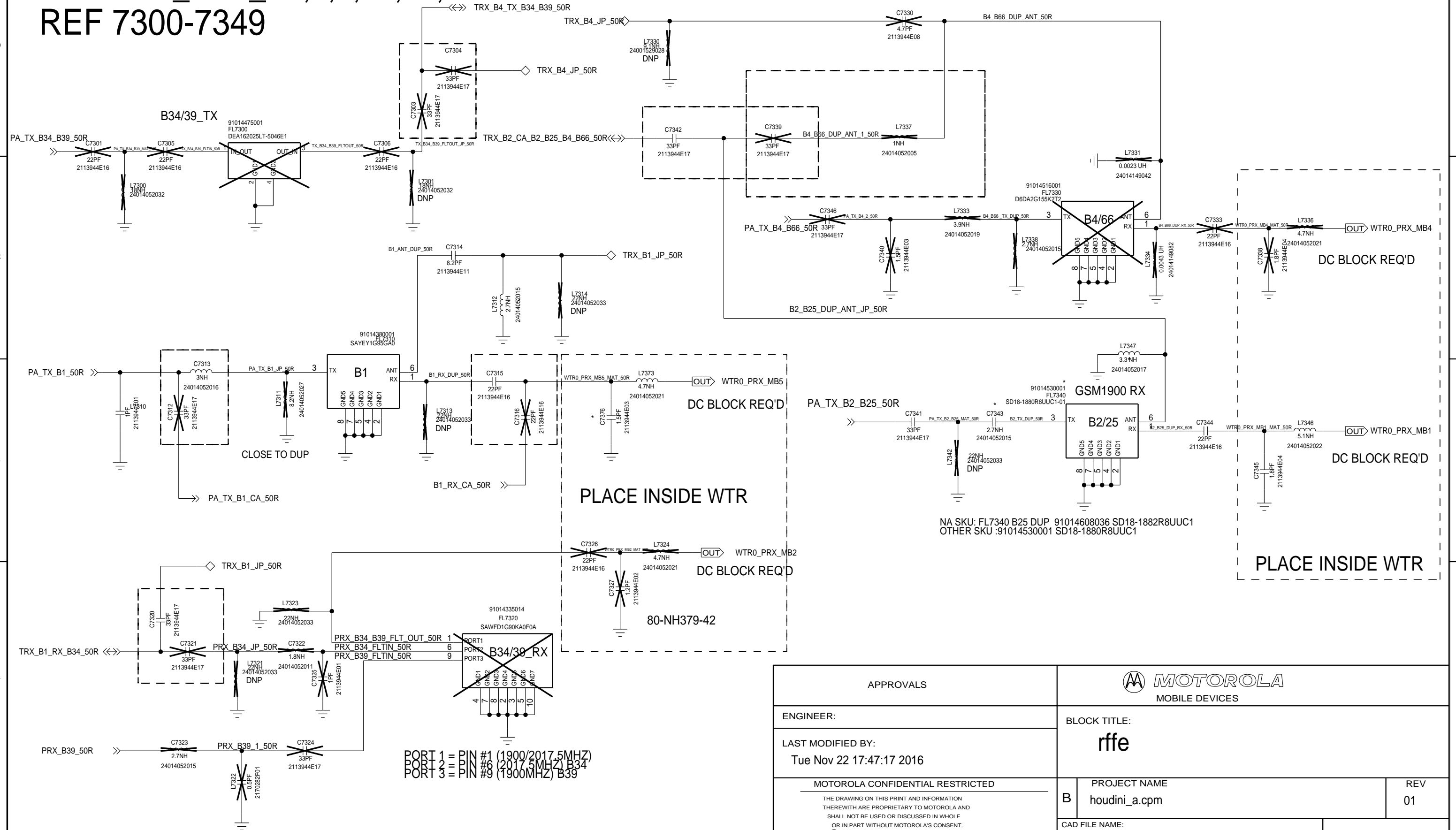
REF 7200-7299



APPROVALS		 MOTOROLA MOBILE DEVICES	
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		B houdini_a.cpm	01
		CAD FILE NAME:	
		PAGE 48 OF 64	

RFFE : MB_TRX_B1,2,4,34,39,G1900

REF 7300-7349

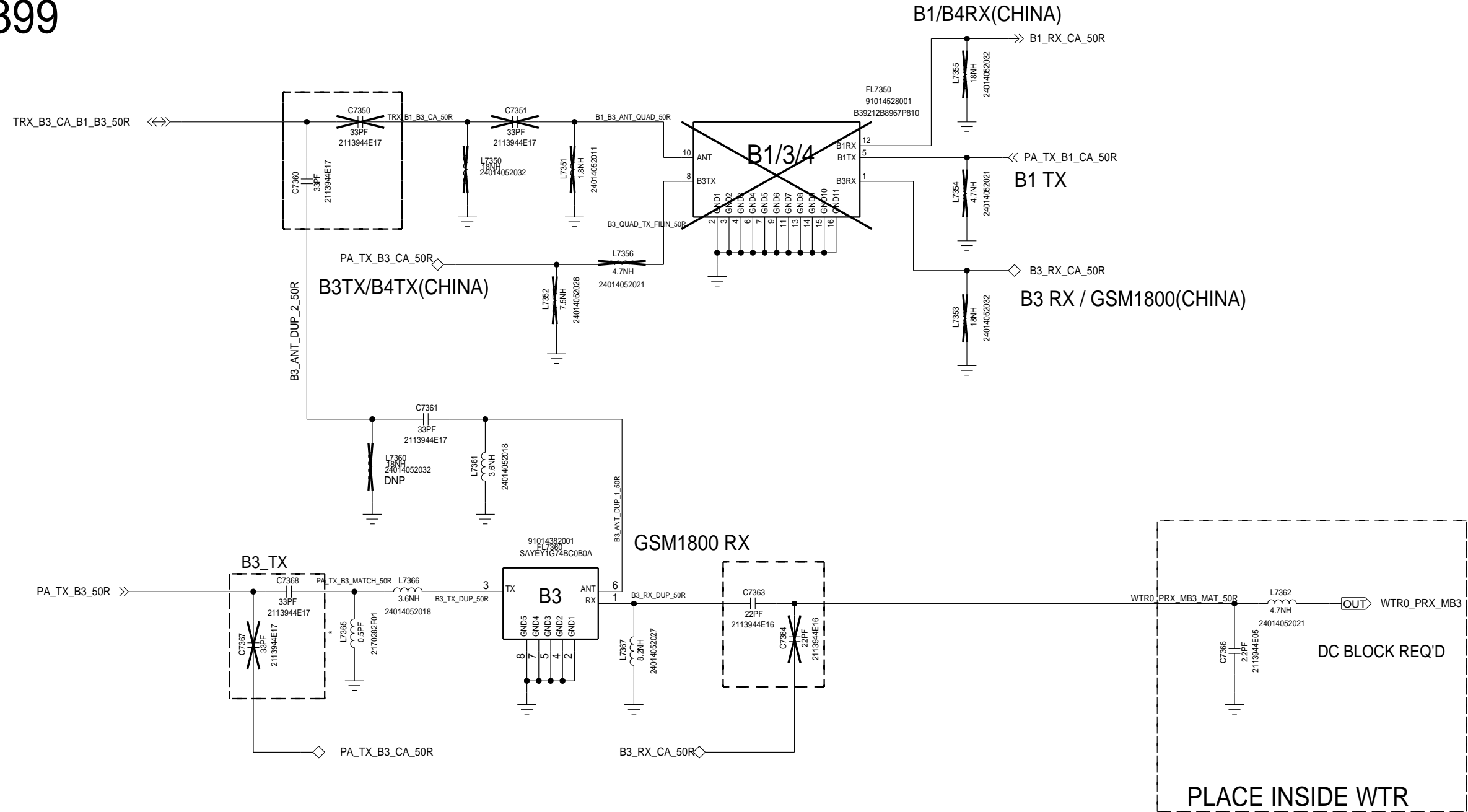


PORT 1 = PIN #1 (1900/2017.5MHZ)
 PORT 2 = PIN #6 (2017.5MHZ) B34
 PORT 3 = PIN #9 (1900MHZ) B39

APPROVALS		 MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY:		rfe	
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		PAGE 49 OF 64	

RFFE: MB_TRX_B3_B1/3 Quad_G1800

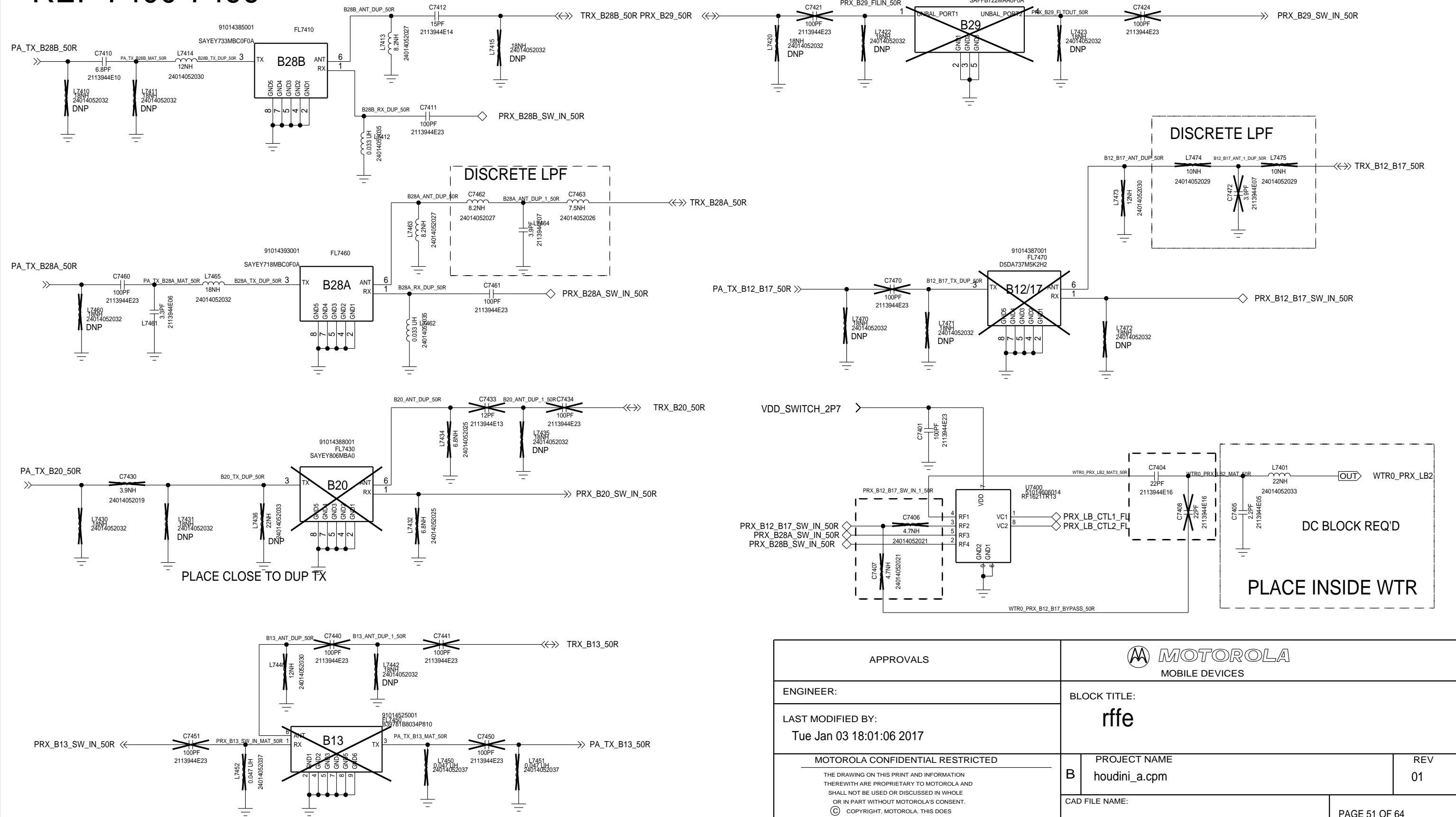
REF 7350-7399



APPROVALS		MOTOROLA MOBILE DEVICES	
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		B houdini_a.cpm	01
CAD FILE NAME:		PAGE 50 OF 64	

RFFE: LB_TRX_B12,13,17,20,28,29

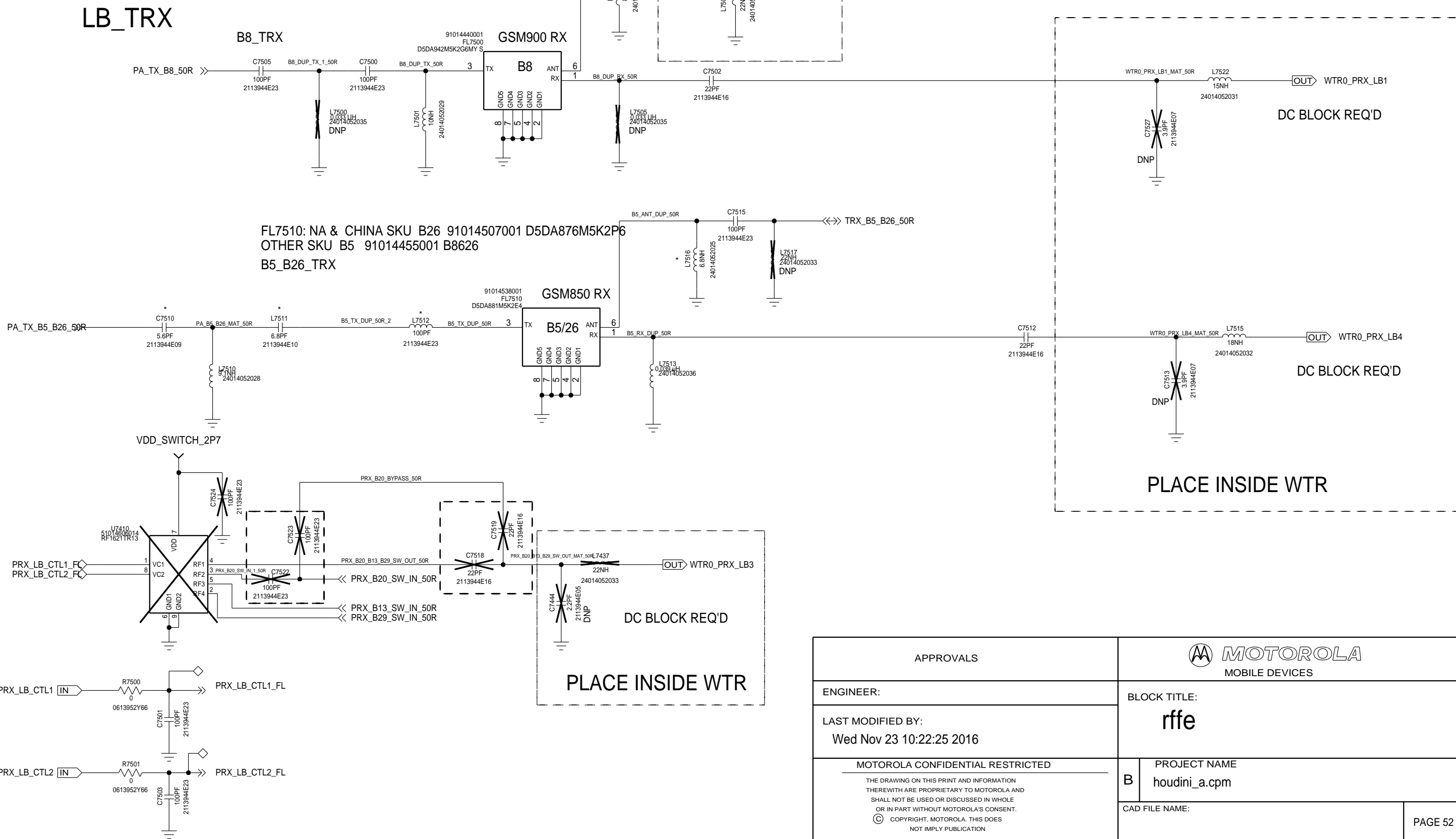
REF 7400-7499



APPROVALS		MOTOROLA MOBILE DEVICES	
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LAST MODIFIED BY: Tue Jan 03 18:01:06 2017		PROJECT NAME: houdini_a.cpm	
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		PAGE 51 OF 64	

RFFE: LB_TRX_B5,8,G850/900

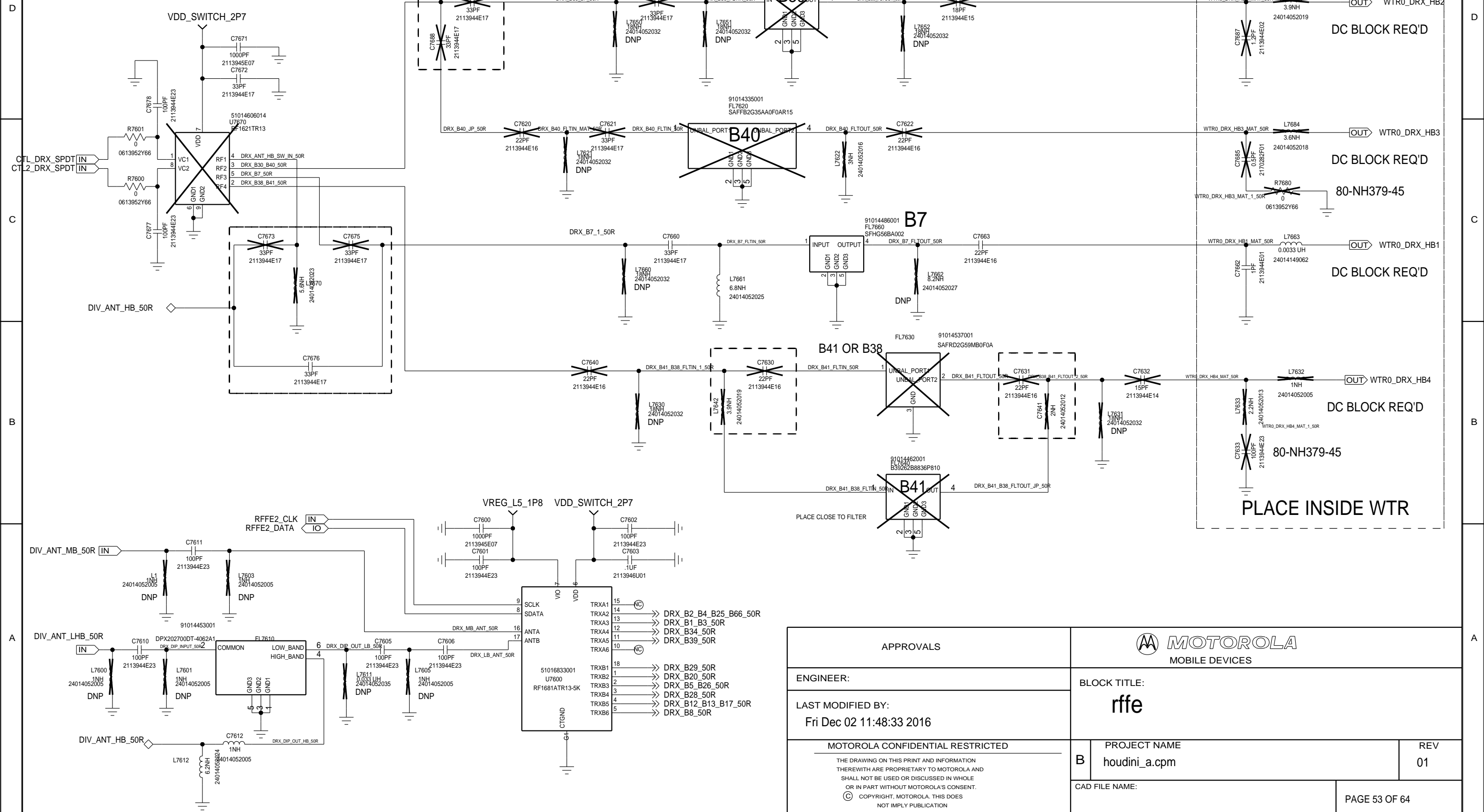
REF 7500-7549



APPROVALS		MOTOROLA MOBILE DEVICES	
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Wed Nov 23 10:22:25 2016		PROJECT NAME	
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CAD FILE NAME:		PAGE 52 OF 64	

RFFE: DRX ASM_HB_B7,30,38,40,41

REF 7600-7699



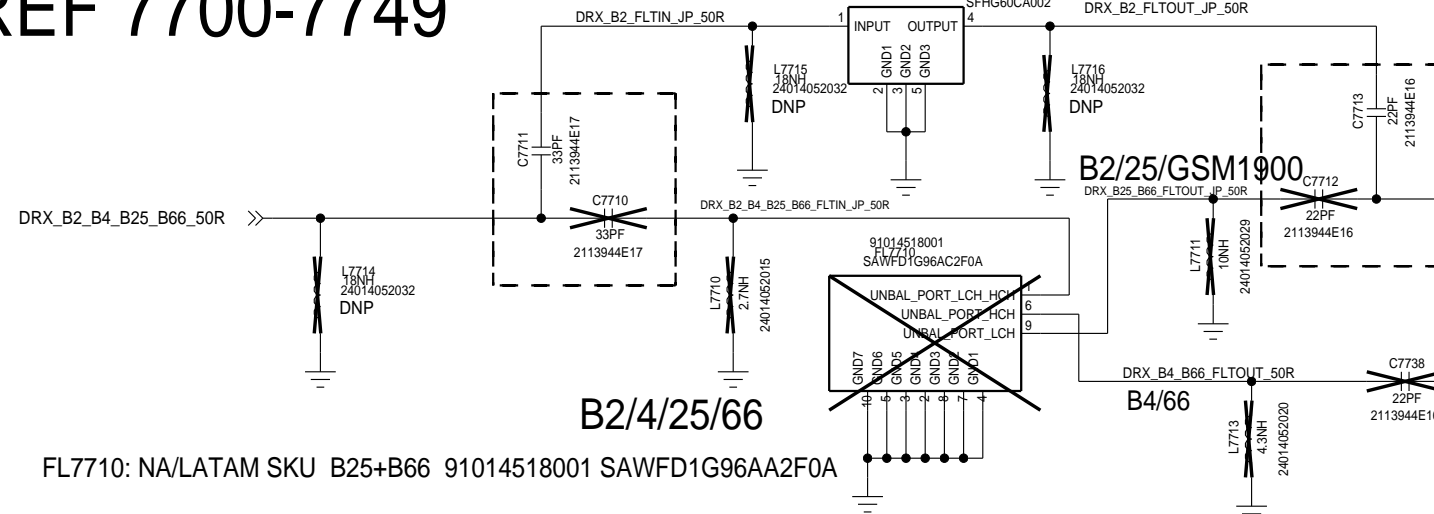
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Fri Dec 02 11:48:33 2016		PROJECT NAME:	
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		CAD FILE NAME:	
			REV 01
		PAGE 53 OF 64	

RFFE: MB_DRX_B1,2,3,4,,25,34,39,66

REF 7700-7749

B2/GSM1900

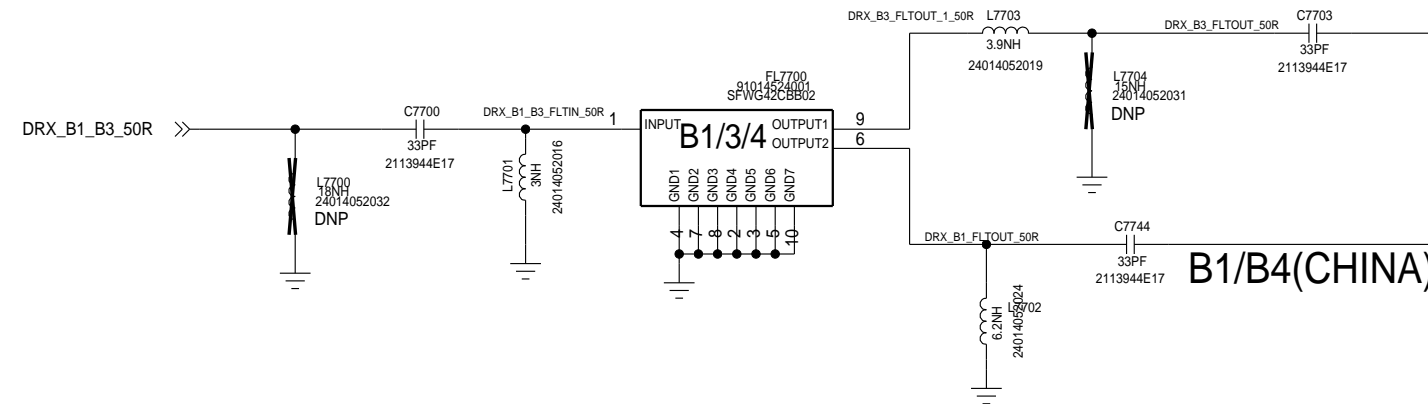
FL7715: EMEA/APAC/BRAZIL/CHINA/INDIA SKU B2 91014498001 SFHG60CA002



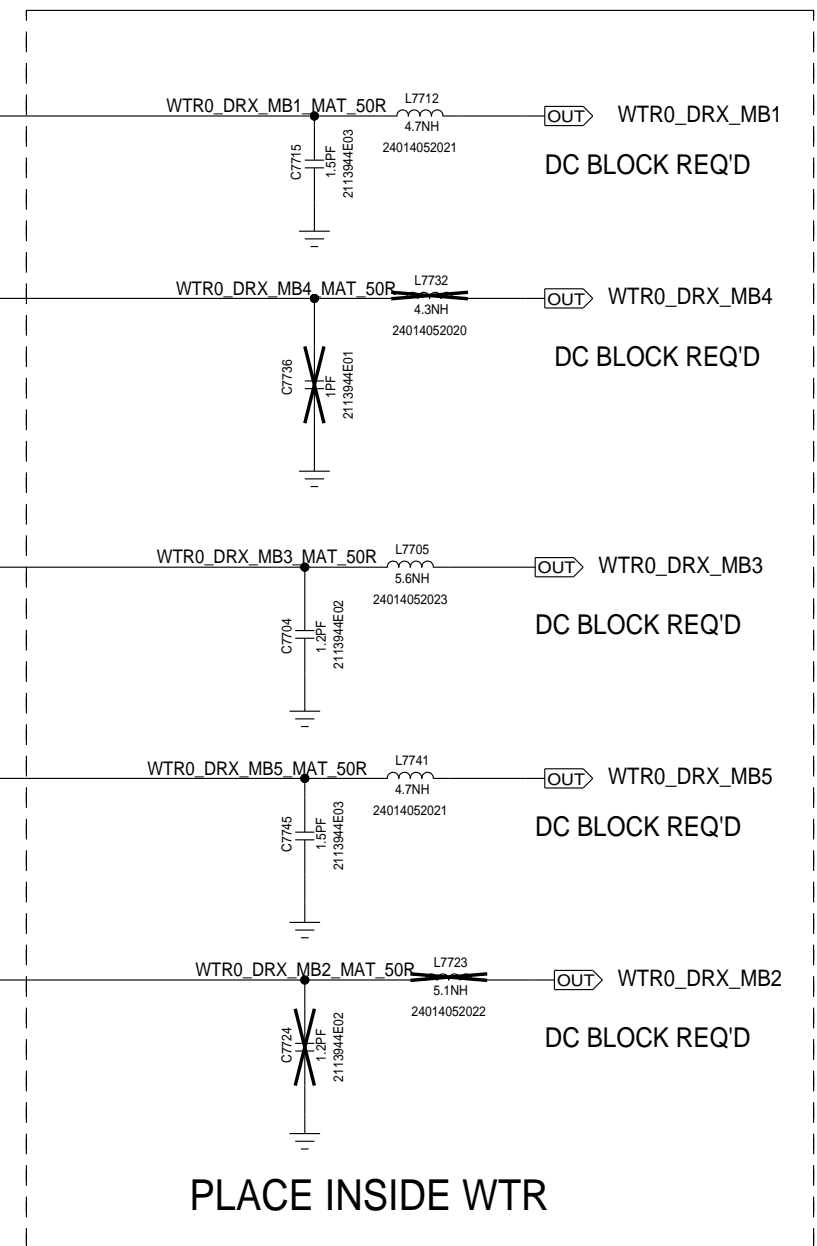
B2/4/25/66

FL7710: NA/LATAM SKU B25+B66 91014518001 SAWFD1G96AA2F0A

B3/GSM1800



B1/B4(CHINA)

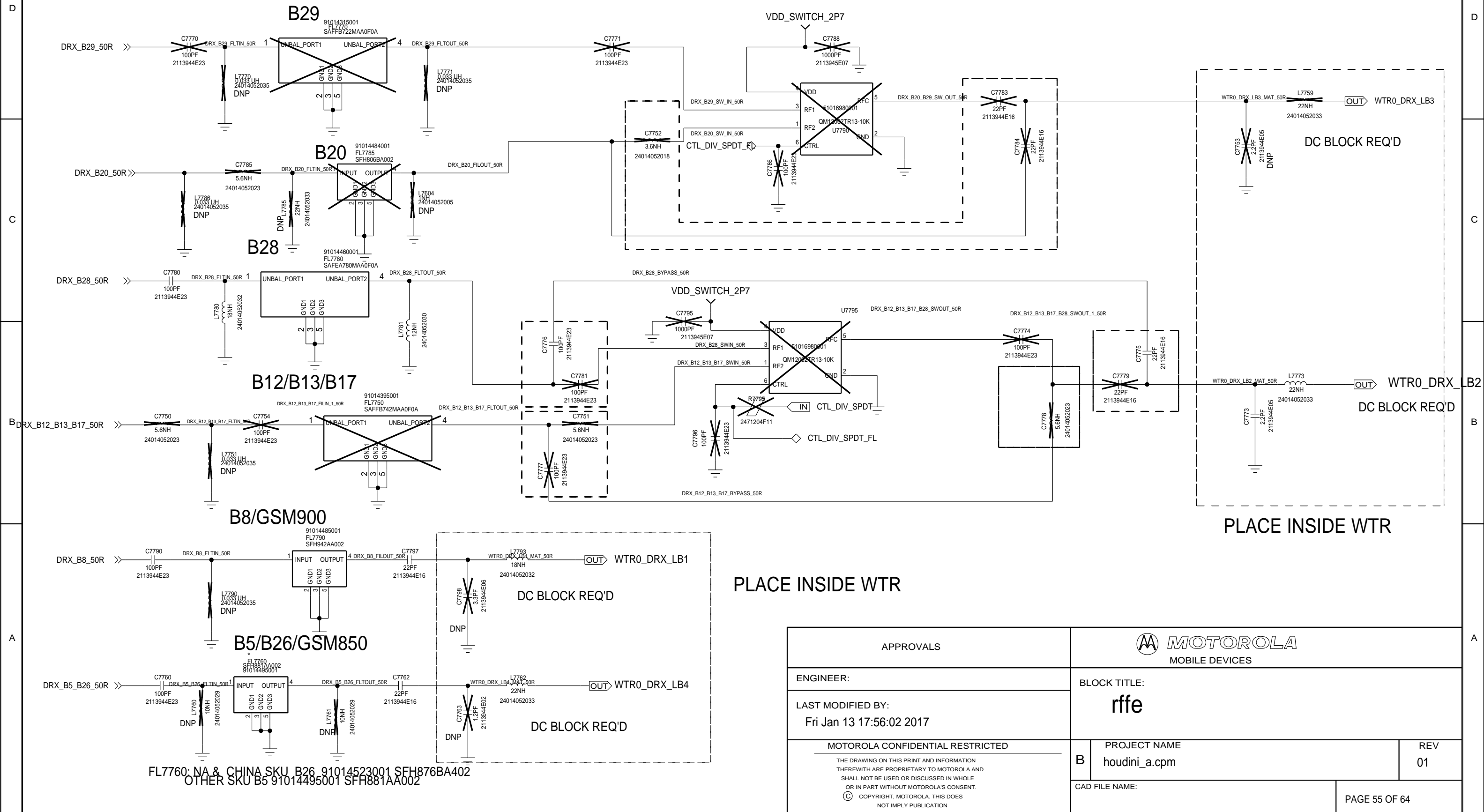


PLACE INSIDE WTR

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE: rffe	
LAST MODIFIED BY: Tue Nov 22 17:48:25 2016		PROJECT NAME B houdini_a.cpm	
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		PAGE 54 OF 64	

RFFE: LB_DRX_B5,8,12,13,17,20,26,28,29

REF 7750-7799

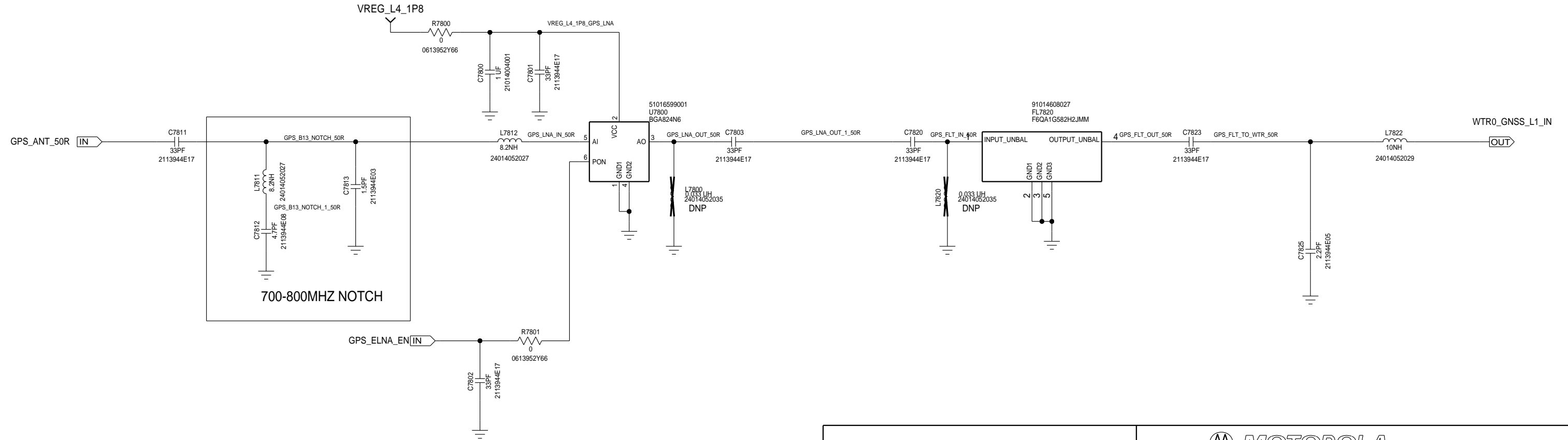


FL7760: NA & CHINA SKU B26 91014523001 SFH876BA402
 OTHER SKU B5 91014495001 SFH881AA002

APPROVALS		MOTOROLA MOBILE DEVICES	
ENGINEER:		BLOCK TITLE:	
LAST MODIFIED BY:		rfe	
Fri Jan 13 17:56:02 2017		PROJECT NAME	
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		PAGE 55 OF 64	

RFFE: GPS

REF7800-7899

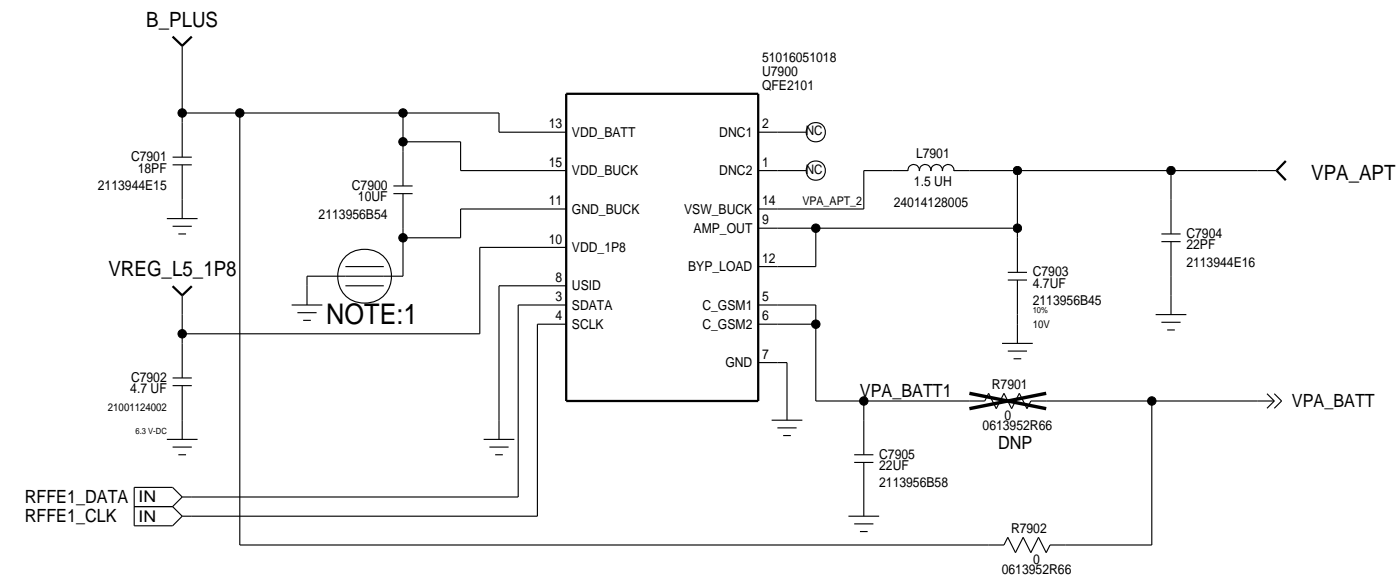


APPROVALS		MOTOROLA MOBILE DEVICES	
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LAST MODIFIED BY:		rffe	
Tue Nov 15 13:45:46 2016			
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		CAD FILE NAME:	PAGE 56 OF 64

RFFE: QFE2101

REF7900-7949

DCDC



DO NOT VIA DIRECTLY TO GROUND PLANE. KEEP ISOLATED ON SURFACE LAYER;
BYPASS OPTION FOR VPA_VBATT
DNP APPROPRIATELY

APPROVALS

ENGINEER:

LAST MODIFIED BY:

Tue Nov 15 13:45:47 2016

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BLOCK TITLE:

rffe

PROJECT NAME

houdini_a.cpm

REV

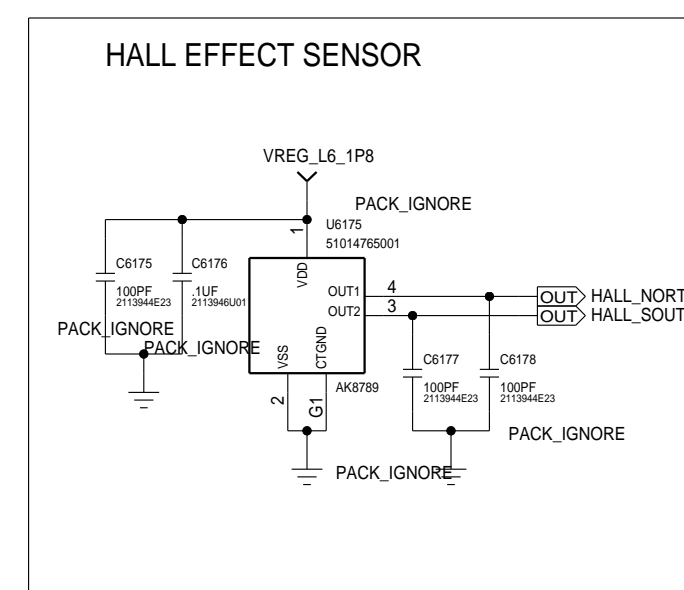
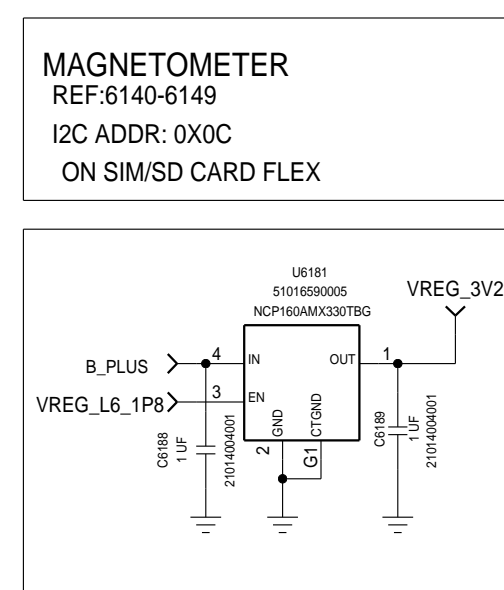
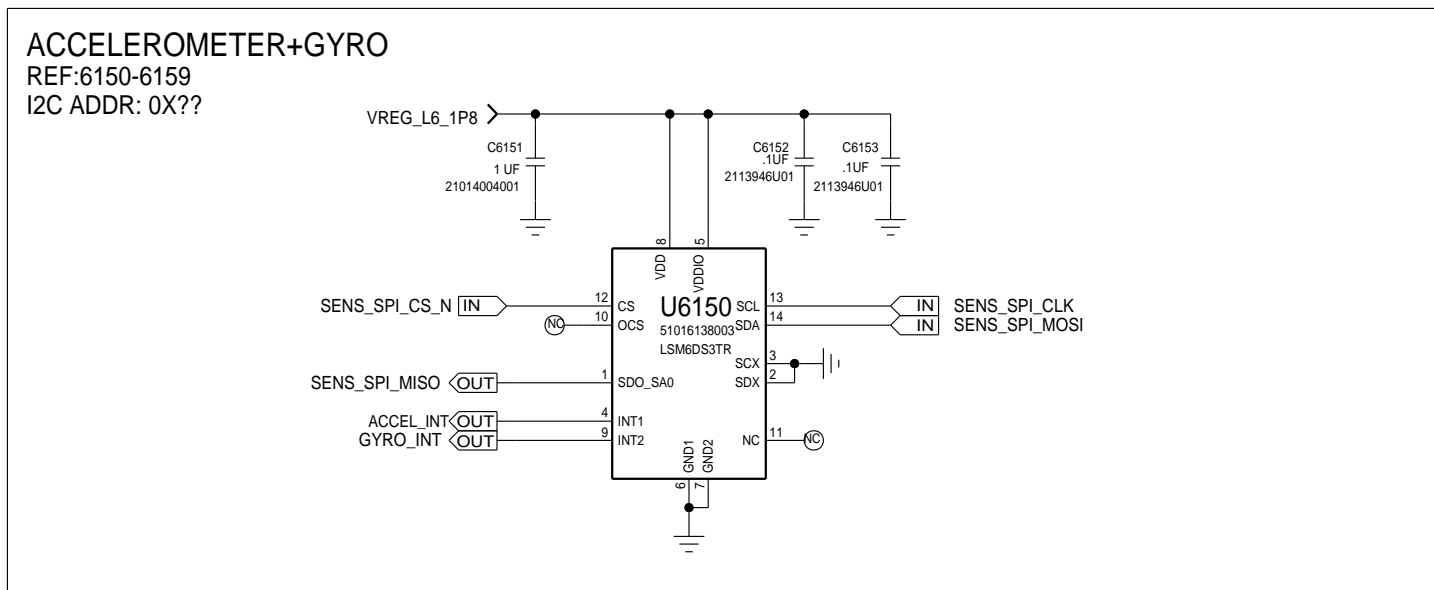
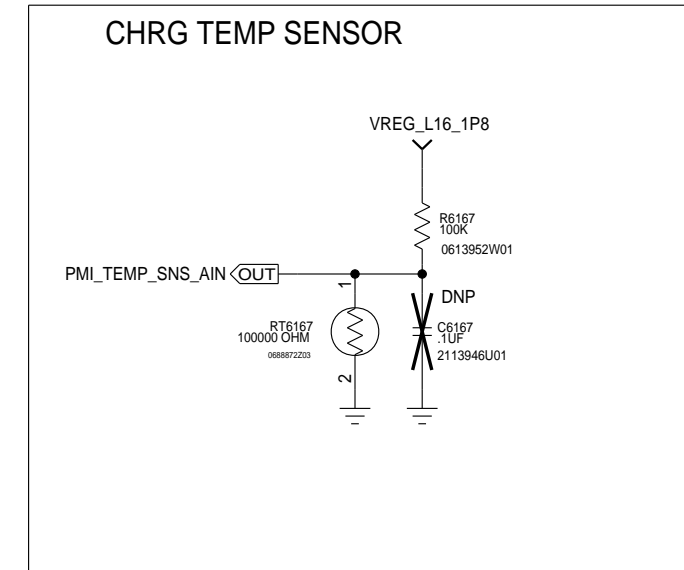
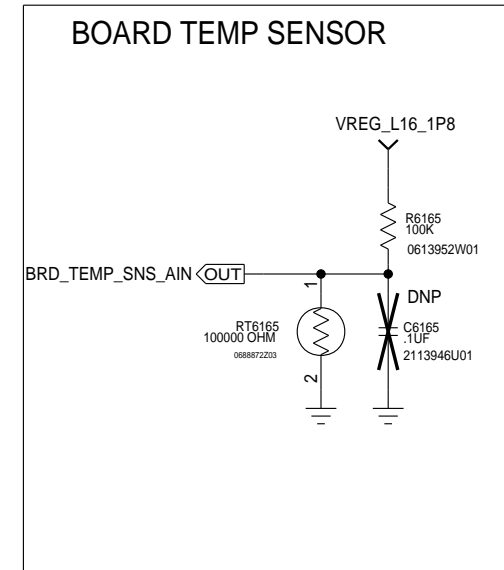
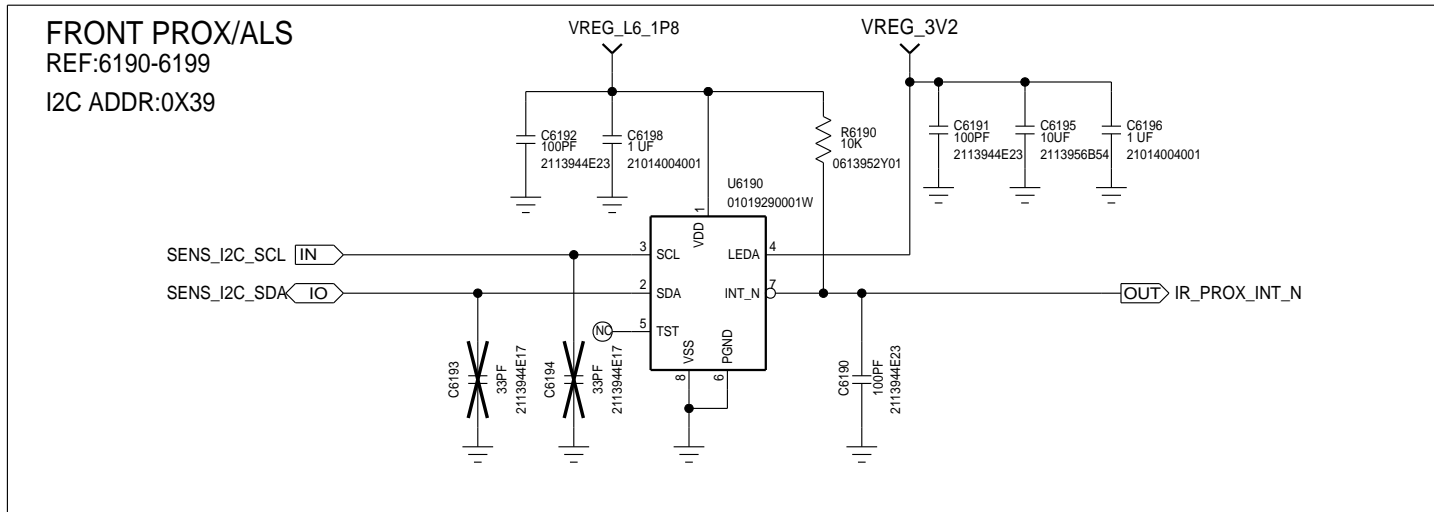
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CAD FILE NAME:

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XMCS: SENSORS

REF: 6100-6199

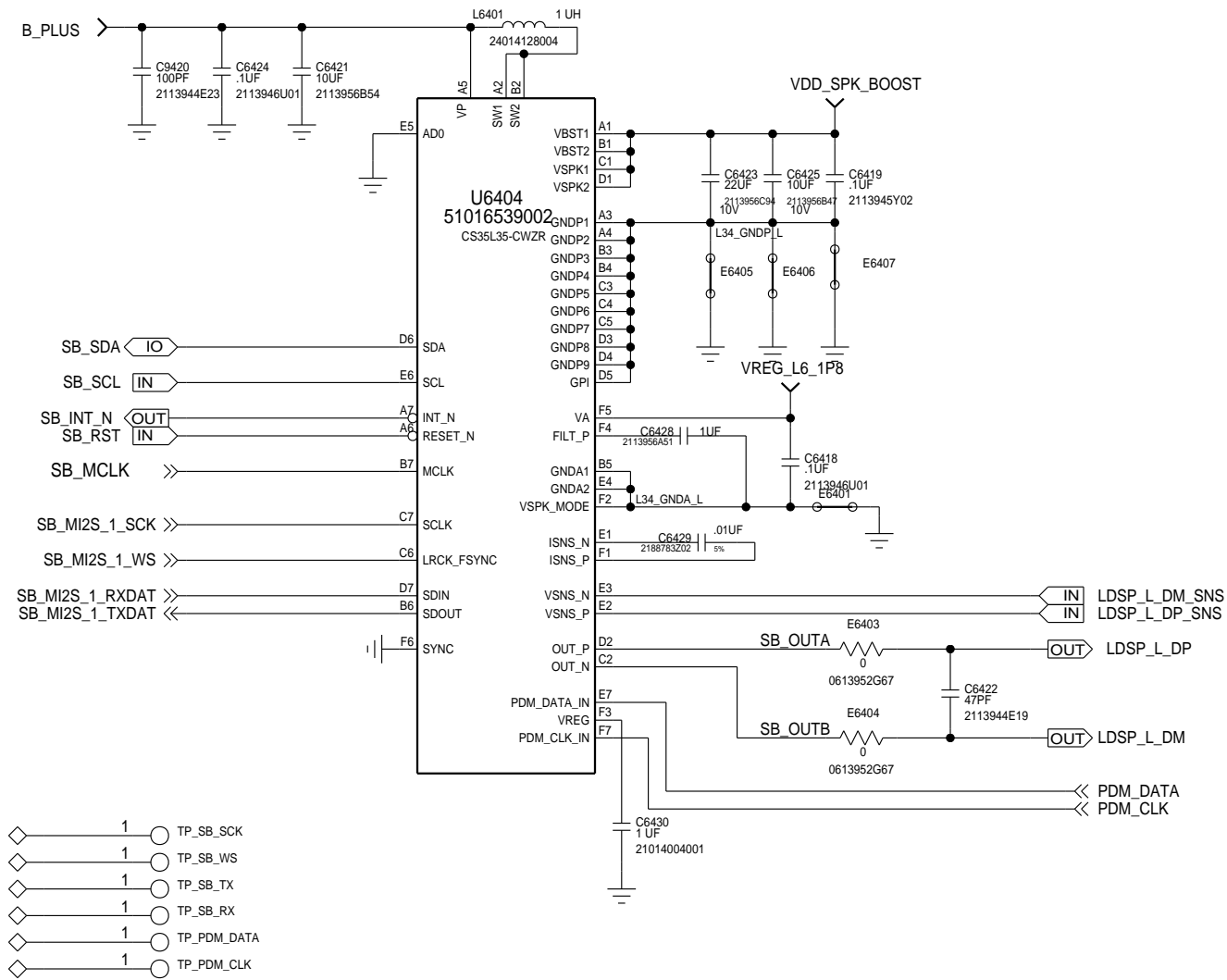


JOHN GORSICA/NATE CONNELL APPROVALS		MOTOROLA MOBILE DEVICES	
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		PAGE 58 OF 64	

XMCS: SMART BOOST

REF 6400-6499

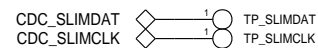
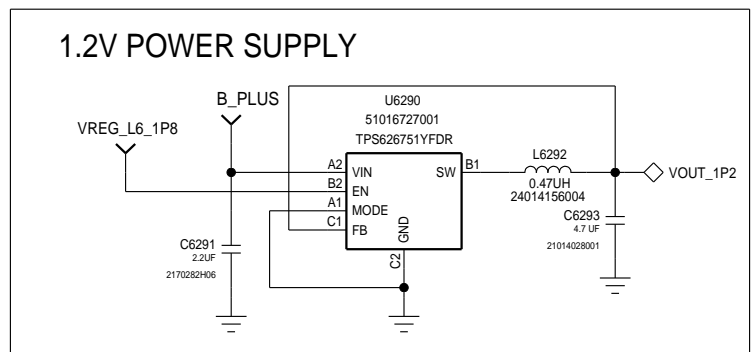
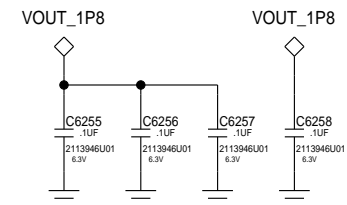
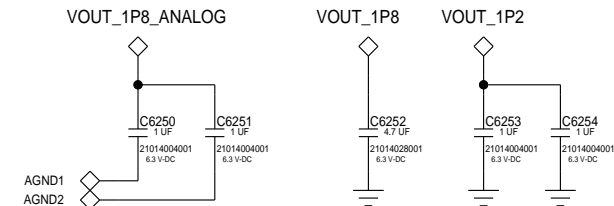
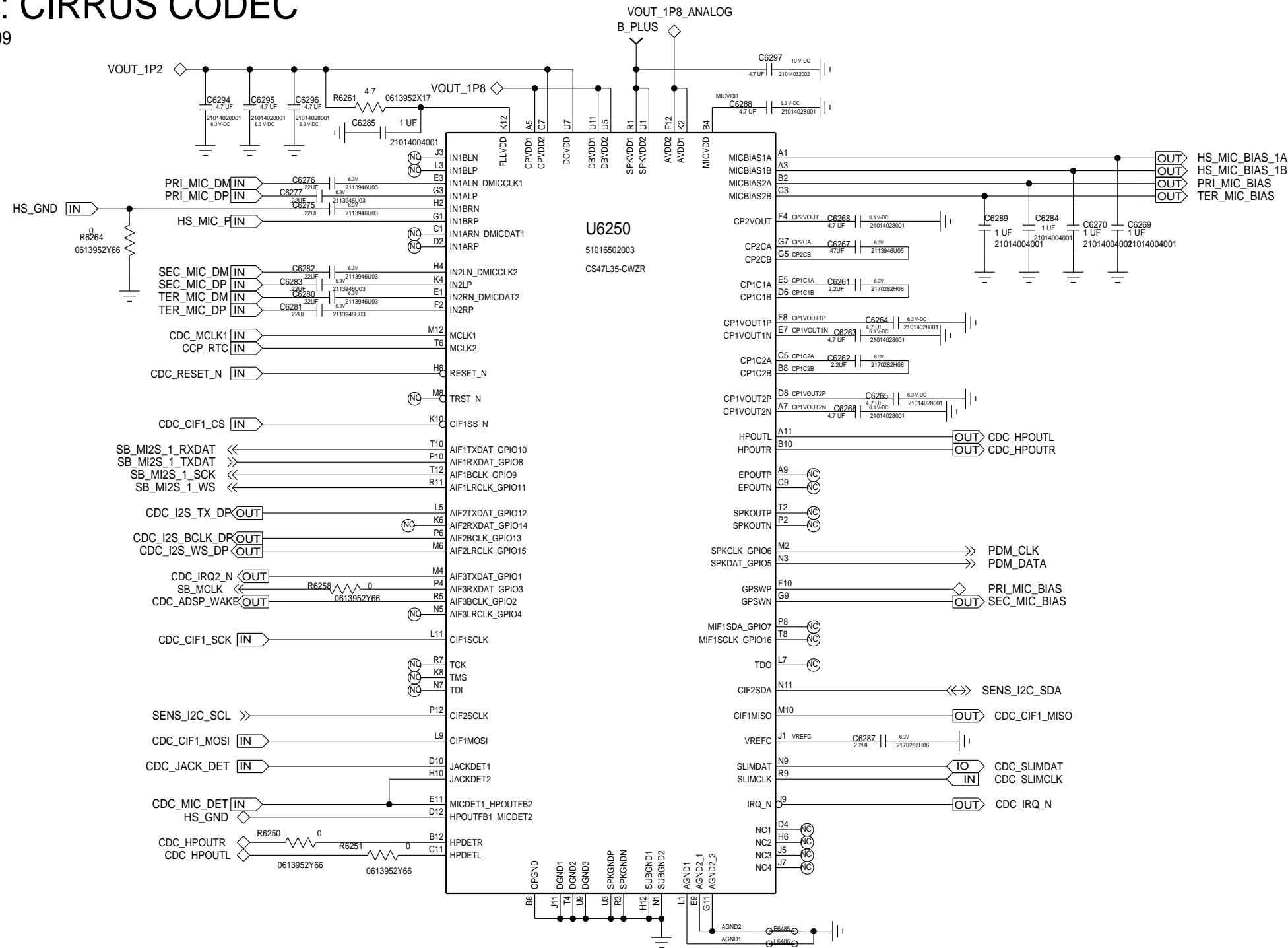
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		CAD FILE NAME:	
		PAGE 59 OF 64	

XMCS: CIRRUS CODEC

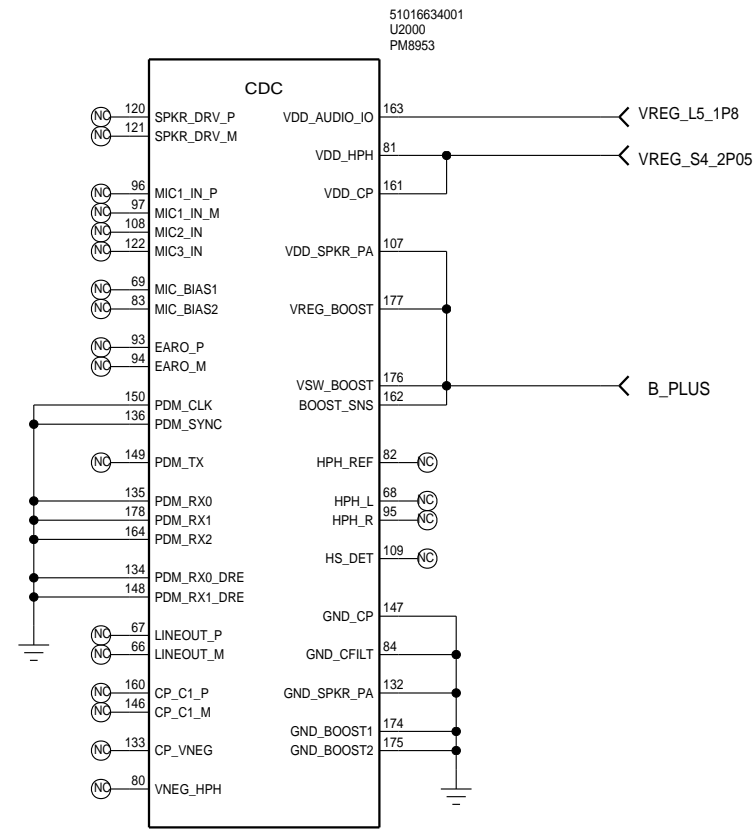
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CAD FILE NAME:		PAGE 60 OF 64	

XMCS: PMIC CODEC

REF 2500-2579

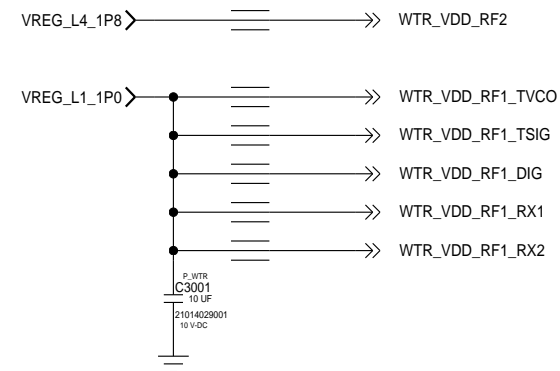


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		CAD FILE NAME:	
		PAGE 61 OF 64	

WTR3925: POWER

REF 3000-3099

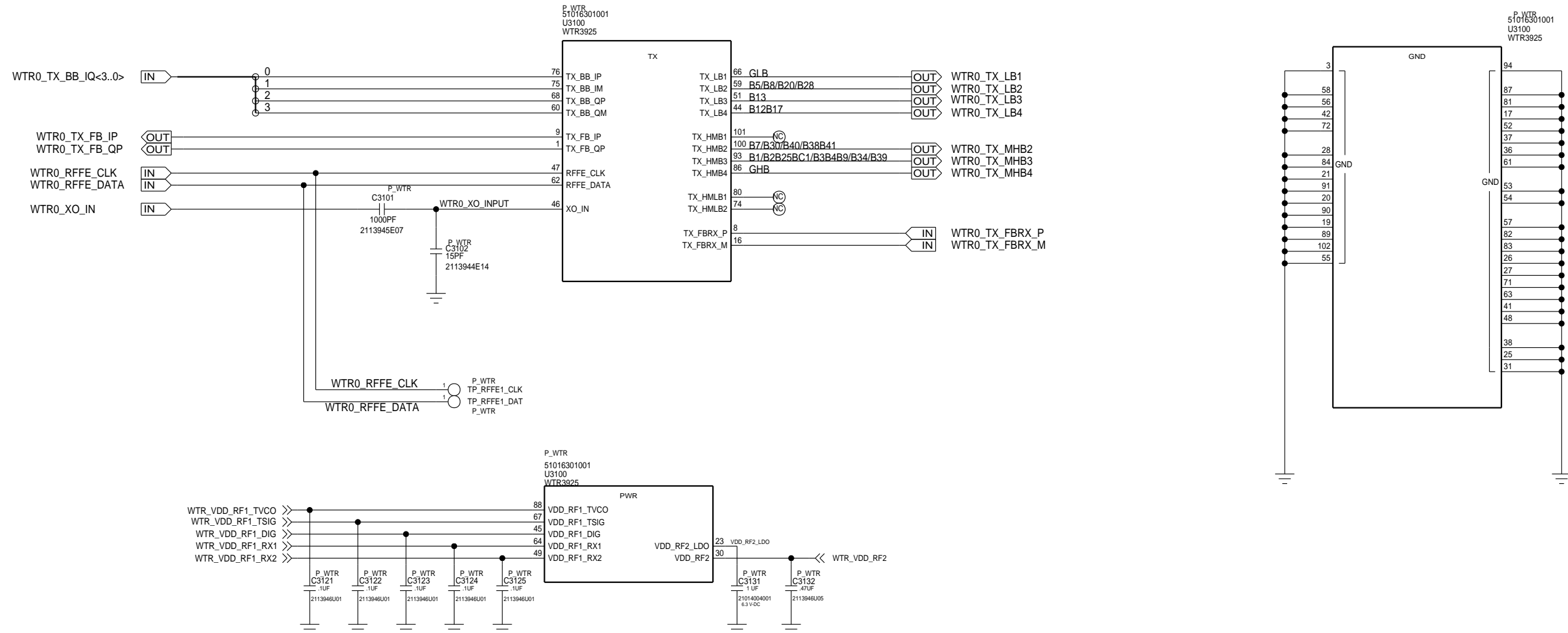
SUPPLIES



APPROVALS		MOTOROLA MOBILE DEVICES	
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		CAD FILE NAME:	
		PAGE 62 OF 64	

WTR3925: TX/PWR/GROUND

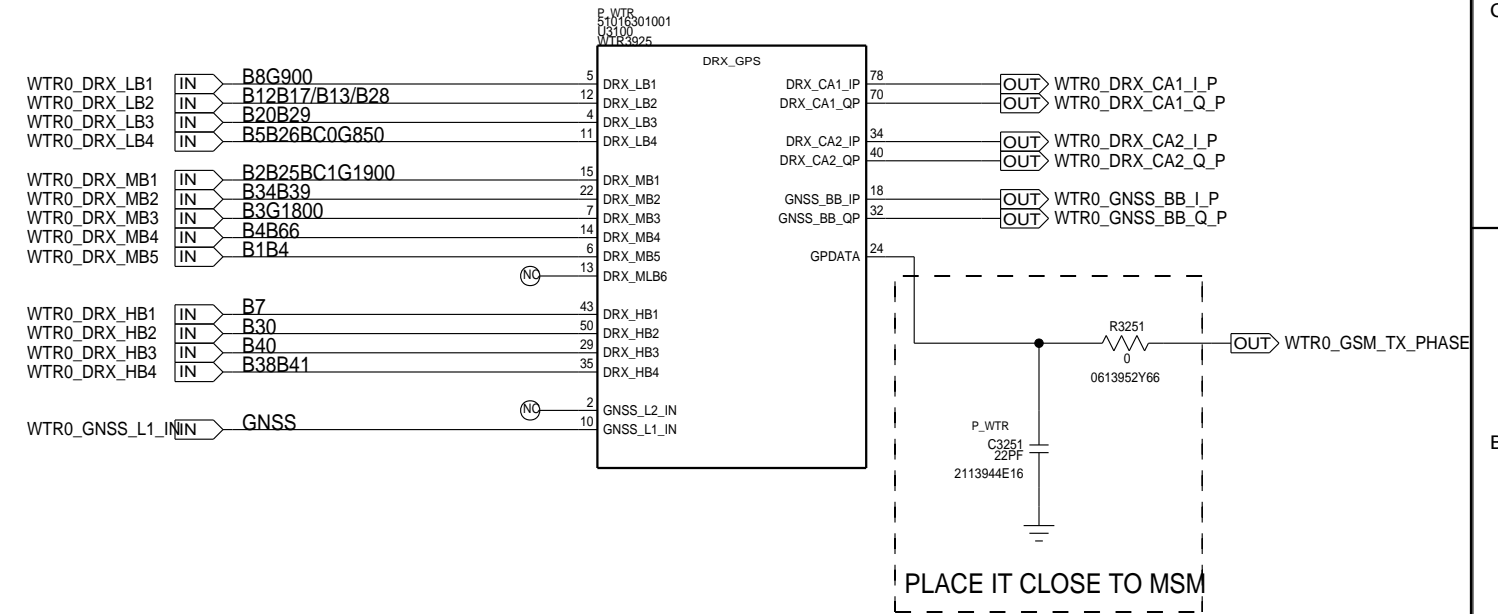
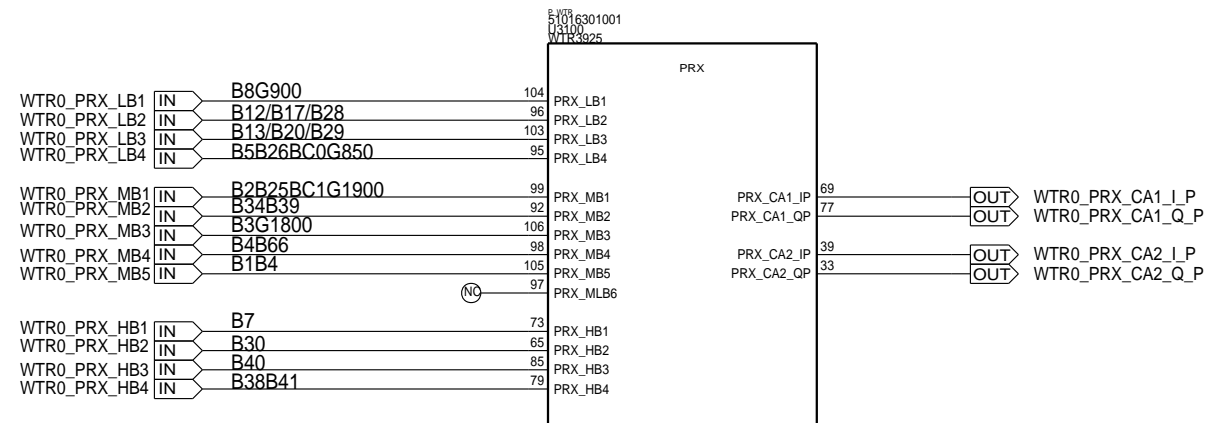
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		CAD FILE NAME:	
		PAGE 63 OF 64	

WTR3925: PRX/DRX/GPS

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