CIRCUIT DIAGRAM

ANT4 (B17/B20/B28 2nd)

ANT2 (G1800/1900, W_B1/B2, LTE_B1/B2/B3/B4/B40)

ANT1 (G850/900, W_B5/B8, LTE_B5/B7/B8/B17/B20/B28)

ANT3 (B1/B2/B3/B4/B5/B7/B8/B40 2nd)

ANT1 TUNER

Changed Tuner PN (9/12)

GSM_LB

GSM_HB

B17/B20/B28 DRX

B17: EAM63971201
B20: EAM63470401
B28: EAM63491001

B17: EAM62270201
B20: SFSY0042601
B28: EAM63450301

B7 DRX

B2 / B3 DRX

B2: EAM63390701
B3: EAM63930901

B40 DRX

B5 DRX

B8 DRX

B1/B4 DRX

USID : 0x8

for DC-test

SMT Gasket (10ea)_0625

LG Electronics	
Title	Schematic1
A2	PDMNUMBER / Rev
Drawn By: User Name	Sheet 1 of 1 / Date: Drawing Date

B20: EAM64010101
B28B :EAM63431001
B17 :EAM64050101

B17/B20/B28B

B28A

B5 & G850

B8 & G900

B2 / G1900

B3 / G1800

B1

B4

B4

B3

B1

B5

B8

B17/B20/B28B

B28A

B40 TX

TX B7/B40

TX B1/B2/B3/B4

TX B5/B8/B17/B20/B28

PRX B40

TRX B7

PRX B7

B17/B20/B28

B1, B4

LG Electronics

Schematic1

A3

<1-9-5-1_RFIC_MT6169>

Rev_0.4

changed net-name (06/02)

changed net-name (06/02)

U1500
MT6169

+1V825_MTK_VRF
+1V8_MTK_VIO
+1V8_MTK_VIO
+2V8_MTK_VTCXO0
+2V8_MTK_VTCXO0

MODEM_CLK
WLAN_CLK
1SEG_CLK
26M_NFC_CLK
BB_CLK

SR_CLK_EN_0
SR_CLK_EN_0

Value check
PDET_IN
R5005 43
R5006 100
R5007 100

TX_LB1
TX_LB2
TX_LB3
TX_LB4
TX_MB1
TX_MB2
TX_HB1
TX_HB2
TXDET

GSM_LB
B5,B8,B17,B20,B28
B1,B2,B3,B4
GSM_HB
B7,B40
TX_LB3
TX_LB4
TX_MB1
TX_MB2
TX_HB1

B17,B20,B28
B8,G900
B5,G850
B2,G1900
B3,G1800
B7
B40
B1,B4

PRX_LB1_P
PRX_LB1_N
PRX_LB2_P
PRX_LB2_N
PRX_LB3_P
PRX_LB3_N
PRX_MB1_P
PRX_MB1_N
PRX_MB2_P
PRX_MB2_N
PRX_HB1_P
PRX_HB1_N
PRX_HB2_P
PRX_HB2_N
PRX_HB3_P
PRX_HB3_N

RFIP1_LB1
RFIN1_LB1
RFIP1_LB2
RFIN1_LB2
RFIP1_LB3
RFIN1_LB3
RFIP1_MB1
RFIN1_MB1
RFIP1_MB2
RFIN1_MB2
RFIP1_HB1
RFIN1_HB1
RFIP1_HB2
RFIN1_HB2
RFIP1_HB3
RFIN1_HB3

B8
B17,B20,B28
B5
B1,B4
B2,B3
B40
B7

DRX_LB1_P
DRX_LB1_N
DRX_LB2_P
DRX_LB2_N
DRX_LB3_P
DRX_LB3_N
DRX_MB1_P
DRX_MB1_N
DRX_MB2_P
DRX_MB2_N
DRX_HB2_N
DRX_HB2_P
DRX_HB3_P
DRX_HB3_N

RFIP2_LB1
RFIN2_LB1
RFIP2_LB2
RFIN2_LB2
RFIP2_LB3
RFIN2_LB3
RFIP2_MB1
RFIN2_MB1
RFIP2_MB2
RFIN2_MB2
RFIP2_HB1
RFIN2_HB1
RFIP2_HB2
RFIN2_HB2
RFIP2_HB3
RFIN2_HB3

+2V8_MTK_VTCXO0
26M
X5001
OUT
VCC
GND
VCONT
KT2016K26000ZAW28QAS
C5011 0.1u
C5109 0.1u
C5110 DNI

TX_BBIP
TX_BBIN
TX_BBQP
TX_BBQN
RFIC0_TXBB_I_P
RFIC0_TXBB_I_N
RFIC0_TXBB_Q_P
RFIC0_TXBB_Q_N

RX1_BBIP
RX1_BBIN
RX1_BBQP
RX1_BBQN
RFIC0_PRXBB_I_P
RFIC0_PRXBB_I_N
RFIC0_PRXBB_Q_P
RFIC0_PRXBB_Q_N

RX2_BBIP
RX2_BBIN
RX2_BBQP
RX2_BBQN
RFIC0_DRXBB_I_P
RFIC0_DRXBB_I_N
RFIC0_DRXBB_Q_P
RFIC0_DRXBB_Q_N

BSI_CK
BSI_EN
BSI_D0
BSI_D1
BSI_D2
RFIC0_BSI_CLK
RFIC0_BSI_EN
RFIC0_BSI_DATA_0
RFIC0_BSI_DATA_1
RFIC0_BSI_DATA_2

TXBPI
RFIC0_TX_BPI

TMEAS
VRT
R5008 2K TOL=0.01

TST1
TST2
TST3
TST4

XMODE
CLK_SEL
EN_26M_BB
OUT_26M
32K_EN

XO1
XO2
XO3
XO4

R5004 1K

LG Electronics
MODEL NAME
A2
PDM NUMBER
Rev
WTR1605L
20
User Name
Drawing Date

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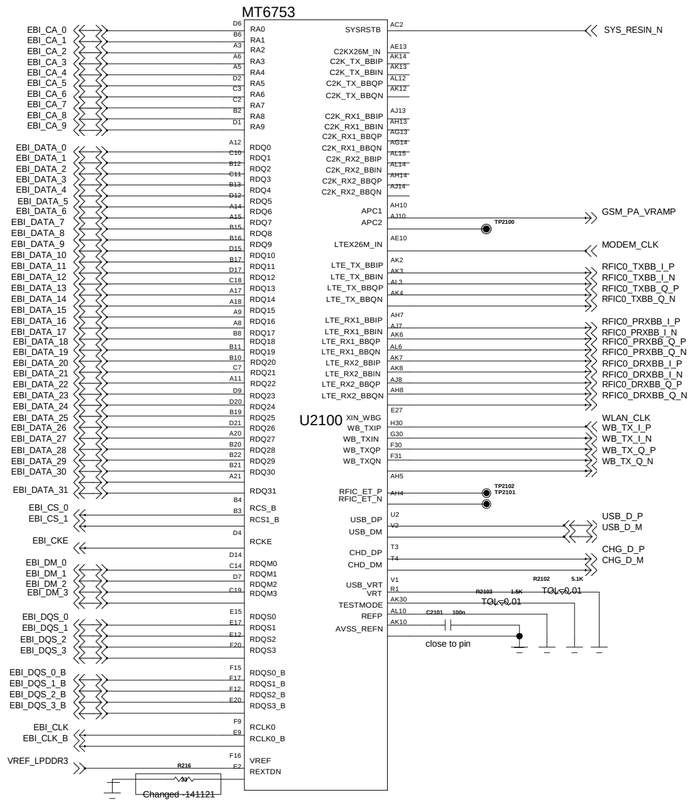
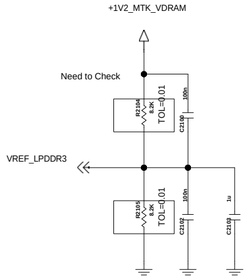




PCB REVISION_GPIO

Revision	R2100	R2101	Level
A	100K	20K	0.300
B	100K	27K	0.383
C	DNI	100K	0.000
D	100K	51K	0.680
1.0	100K	36K	0.476
1.1	100K	DNI	1.8

LG Electronics

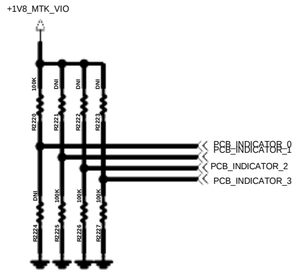
TITLE: Schematic1

SIZE: A2 | DWG NO: PDMNUMBER | REV: Rev

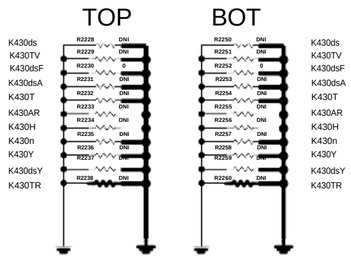
Drawn By: User Name | SHEET: 2-1-1_MSM8974_DATA | Drawing Date:

< MT6753_GPIO >

PCB Indicator



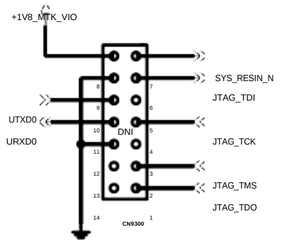
Model Indicator



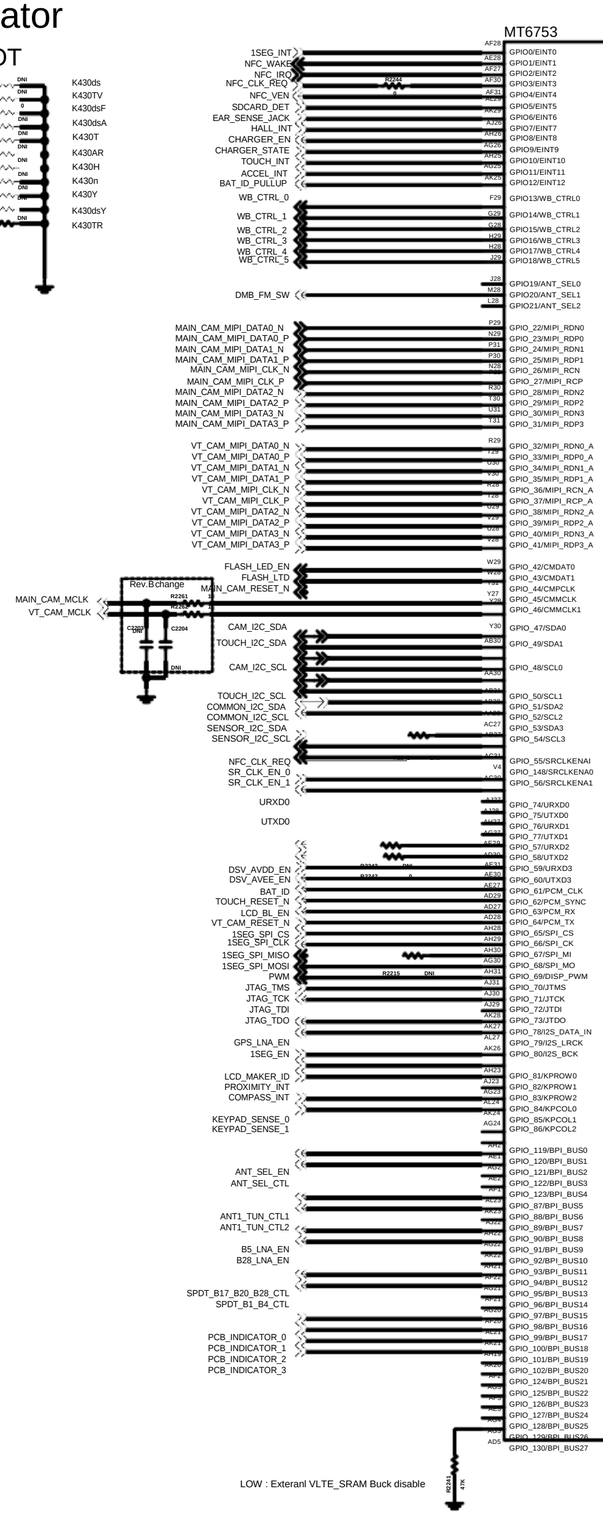
Model	Band	NFC	SIM	GPIO_102	GPIO_101	GPIO_100	GPIO_99	SUM
K430ds	3/7/20	X	Dual	L	L	L	L	0
<----------MMPA	REV.B------		---------->	L	H	H	L	6
K430TV	3/7/28	X	Dual	L	H	L	H	5
<----------MMPA	REV.B------		---------->	L	H	H	H	7
K430dsF	3/7/28	X	Dual	L	L	L	H	1
K430dsA	3/7/28	X	Dual	L	L	H	H	3
K430T	2/4/5/7/28	X	SINGLE	H	H	H	H	15
K430AR	4/28	X	SINGLE	H	L	L	H	9
K430H	2/4/5/7/17	X	SINGLE	H	L	H	H	11
K430n	1/3/7/8/40	O	SINGLE	H	H	H	L	14
K430Y	1/3/5/7/8	X	SINGLE	H	L	H	L	10
K430dsY	1/3/5/7/8/28/40	X	Dual	L	L	H	L	2
K430TR	1/3/7/8/20	X	SINGLE	H	L	L	L	8

Indicator_3 : Dual SIM/Single SIM
Indicator_2 : 1Seg/NFC/etc
Indicator_1 : Band(3G_B4)/40(TDD)/Memory(1G/8G)
Indicator_0 : A0,A*
Indicator_2&1 : MMPA REVISION ±,°Ð

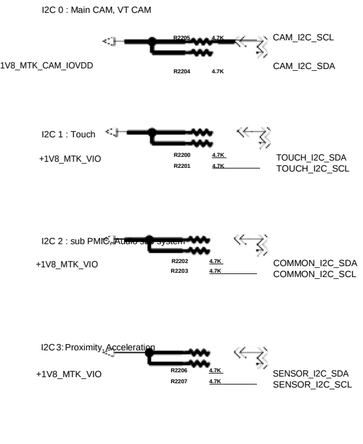
< 9-3-1_JTAG > Rev_0.4



MT6753



I2C Pull-Up



Company	LG Electronics
Title	Schematic1
Size	A2
Number	PDMNUMBER
Rev	
Drawn By	User Name
Sheet	2-2_MT6731SP_GPO
Date	Drawing Date

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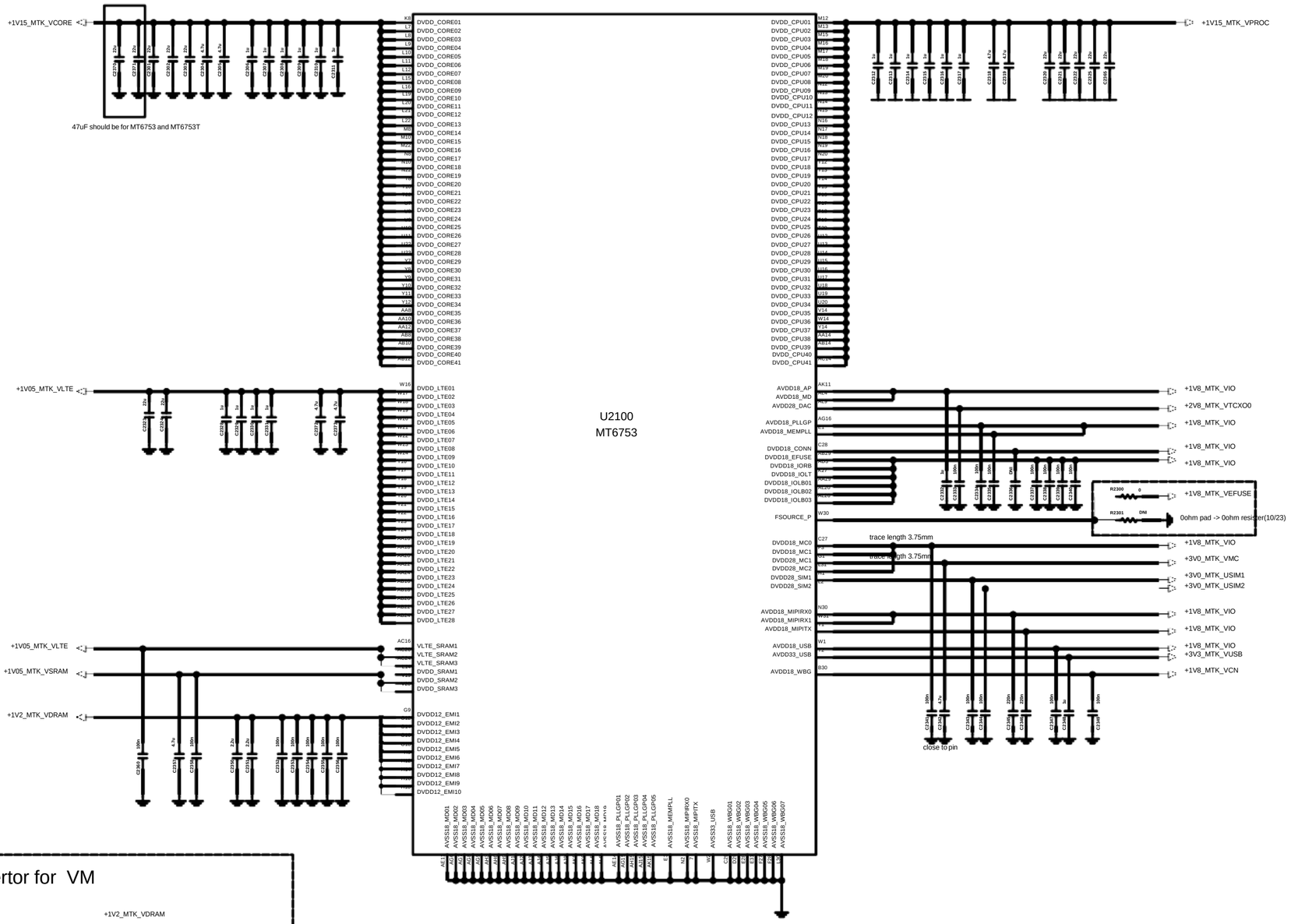
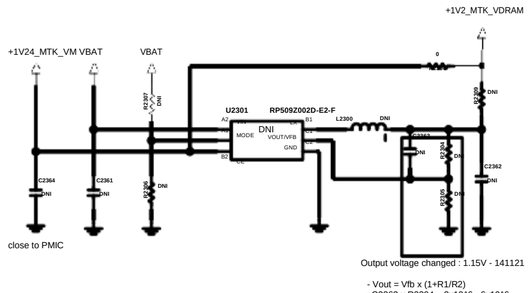


External Buck convertor for VM



LG Electronics

MODEL NAME

A2 | PDM NUMBER | Rev

Drawn by: User Name | Sheet: 1 | File: 2-1-1_MSM8974_DATA | Date: Drawing Date

< MT6753_GND >

U2100
MT6753

A1	NC1	NC7	AK1
A2	NC2	NC8	AL1
A30	NC3	NC9	AL2
A31	NC4	NC10	AL30
B1	NC5	NC11	AL31
B31	NC6		

MT6753

A27	DVSS01	DVSS68	R17
B5	DVSS02	DVSS69	R18
B7	DVSS03	DVSS70	R19
B9	DVSS04	DVSS71	R20
B18	DVSS05	DVSS72	R21
B25	DVSS06	DVSS73	T7
C5	DVSS07	DVSS74	T8
C8	DVSS08	DVSS75	T11
C11	DVSS09	DVSS76	T12
C14	DVSS10	DVSS77	T13
C18	DVSS11	DVSS78	T14
C21	DVSS12	DVSS79	T15
C24	DVSS13	DVSS80	T16
D1	DVSS14	DVSS81	U6
D14	DVSS15	DVSS82	U11
D18	DVSS16	DVSS83	U13
E4	DVSS17	DVSS84	U14
G10	DVSS18	DVSS85	U15
G11	DVSS19	DVSS86	V16
G13	DVSS20	DVSS87	V17
G14	DVSS21	DVSS88	V18
G12	DVSS22	DVSS89	V21
H10	DVSS23	DVSS90	V22
H13	DVSS24	DVSS91	V23
H15	DVSS25	DVSS92	W7
H17	DVSS26	DVSS93	W8
K7	DVSS27	DVSS94	W9
K9	DVSS28	DVSS95	W10
L13	DVSS29	DVSS96	W11
L17	DVSS30	DVSS97	W12
L19	DVSS31	DVSS98	W13
L23	DVSS32	DVSS99	W15
M7	DVSS33	DVSS100	W16
M9	DVSS34	DVSS101	Y13
M11	DVSS35	DVSS102	Y15
M21	DVSS36	DVSS103	AA7
M23	DVSS37	DVSS104	AA8
N7	DVSS38	DVSS105	AA11
N9	DVSS39	DVSS106	AA13
N11	DVSS40	DVSS107	AA15
N21	DVSS41	DVSS108	AA17
N23	DVSS42	DVSS109	AA19
P7	DVSS43	DVSS110	AA21
P8	DVSS44	DVSS111	AA23
P9	DVSS45	DVSS112	AB7
P10	DVSS46	DVSS113	AB9
P11	DVSS47	DVSS114	AB11
P12	DVSS48	DVSS115	AB13
P13	DVSS49	DVSS116	AB15
P14	DVSS50	DVSS117	AB17
P15	DVSS51	DVSS118	AB19
P16	DVSS52	DVSS119	AB21
P17	DVSS53	DVSS120	AB23
P18	DVSS54	DVSS121	AC7
P19	DVSS55	DVSS122	AC8
P20	DVSS56	DVSS123	AC9
P21	DVSS57	DVSS124	AC10
R7	DVSS58	DVSS125	AC11
R8	DVSS59	DVSS126	AC12
R9	DVSS60	DVSS127	AC13
R10	DVSS61	DVSS128	AC15
R11	DVSS62	DVSS129	AC17
R12	DVSS63	DVSS130	AC18
R13	DVSS64	DVSS131	AC19
R14	DVSS65	DVSS132	AC21
R15	DVSS66	DVSS133	AC22
R16	DVSS67	DVSS134	AC23

U2100

LG Electronics

TITLE: Schematic1

SIZE: A2 | DWG NO: PDMNUMBER | REV:

SHEET: of | Date: | DRAWN BY:

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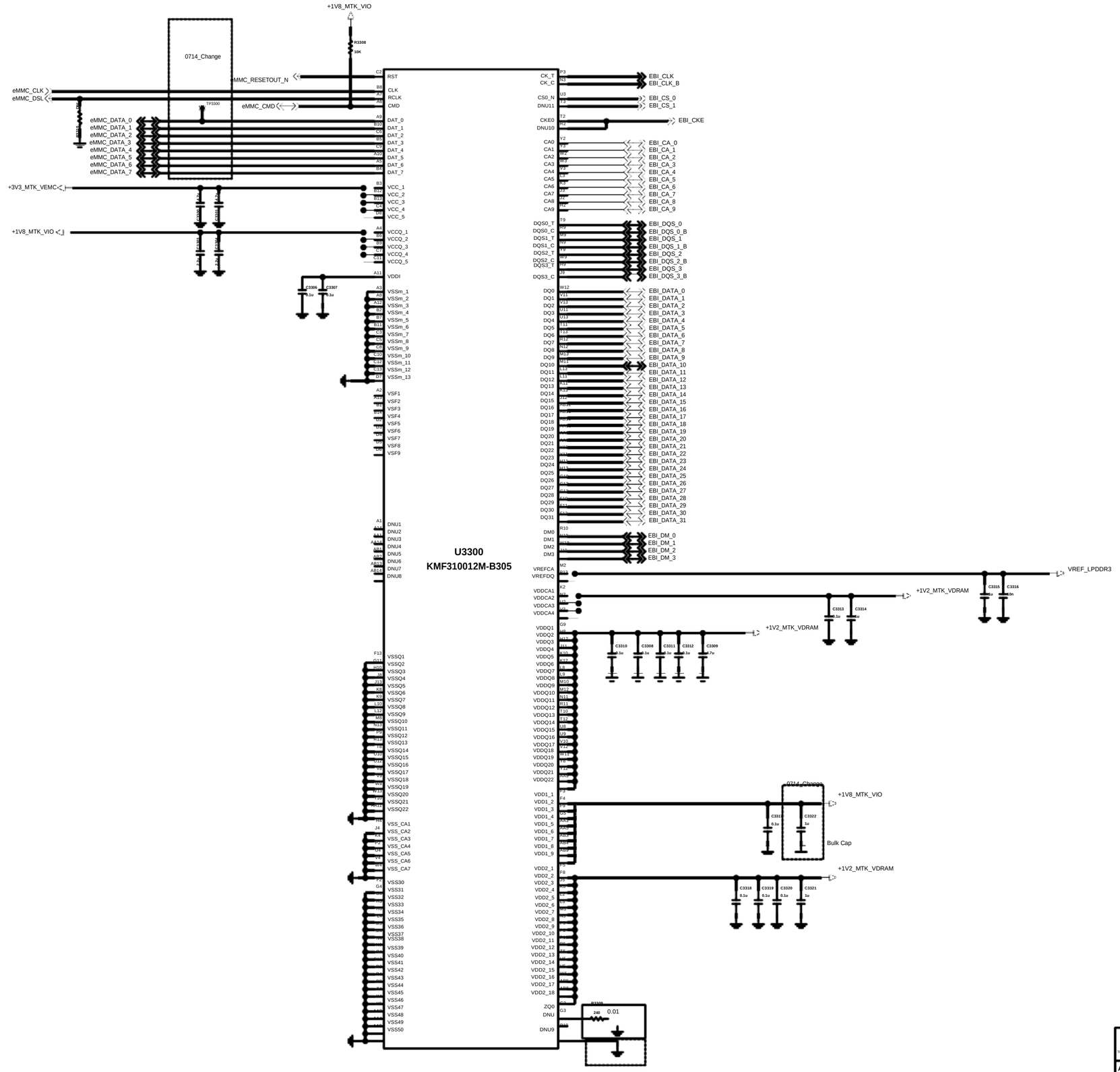


KEEP CLOSE TO THE PIN

LG Electronics

TITLE: Schematic1

A2 | PDM NUMBER | Rev

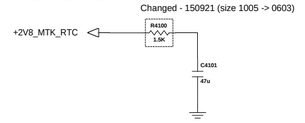
Sheet 29 | Drawing Date

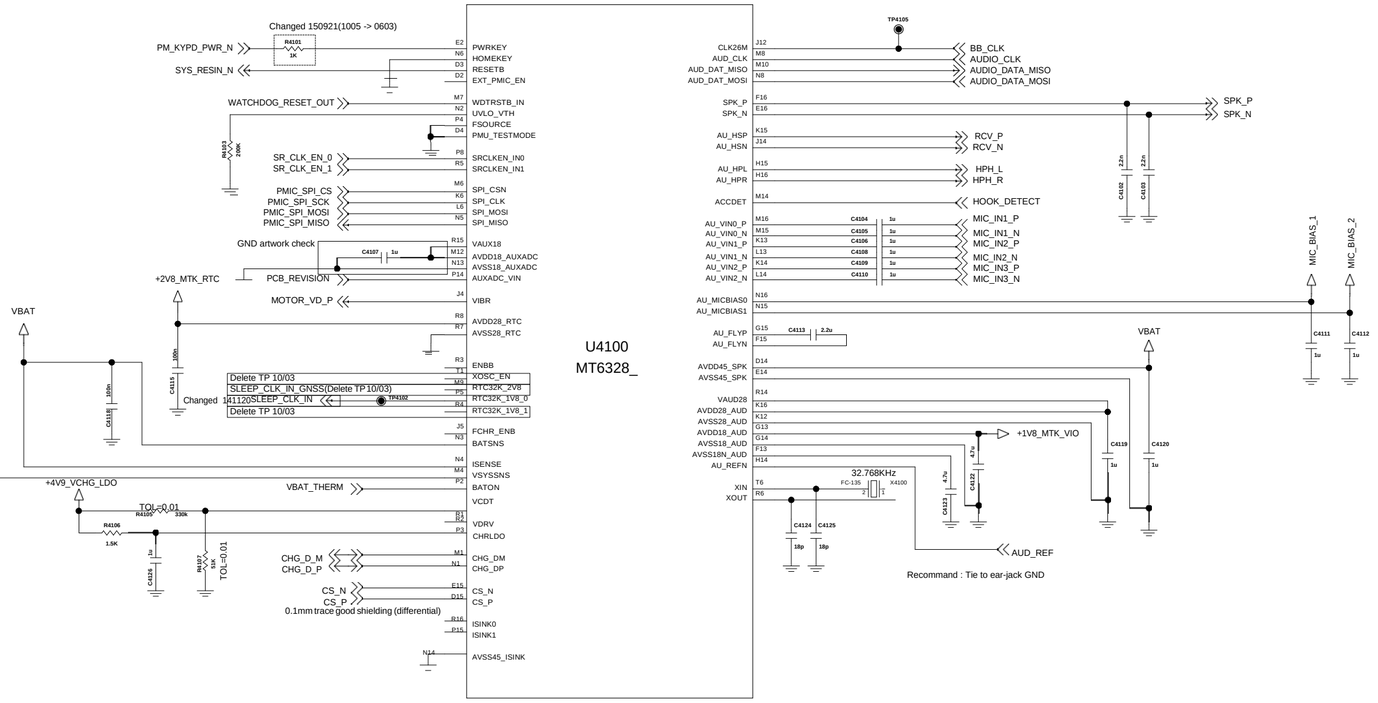
DRAWN BY: User Name

< MT6328_DATA >

BACKUP BATTERY

Changed - 150921 (size 1005 -> 0603)





LG Electronics				
TITLE	Schematic1			
SIZE	DWG NO	PDM NUMBER	REV	Rev
A2				
DRAWN BY	User Name	SHEET	1 of 1	Date Drawing Date

4711_PMIC_PM8226

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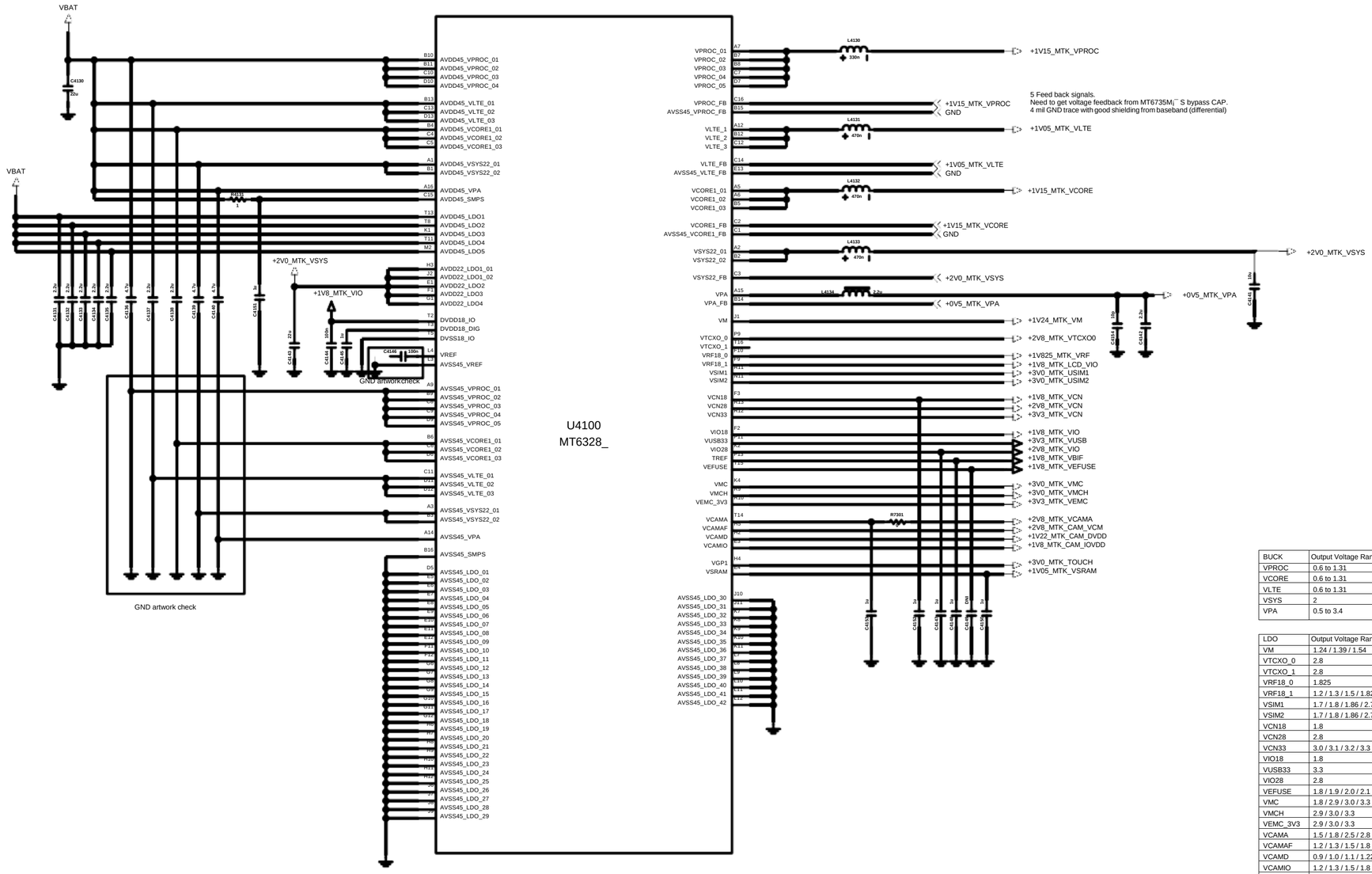


BUCK	Output Voltage Range(V)	Output Current(mA)
VPROC	0.6 to 1.31	5000
VCORE	0.6 to 1.31	3500
VLTE	0.6 to 1.31	2800
VSYS	2	1900
VPA	0.5 to 3.4	600

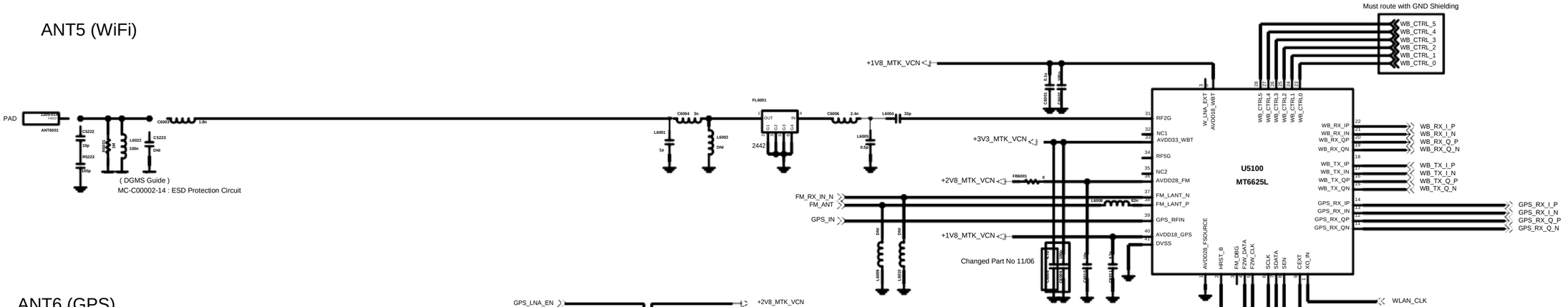
LDO	Output Voltage Range(V)	Output Current(mA)
VM	1.24 / 1.39 / 1.54	1000
VTCXO_0	2.8	40
VTCXO_1	2.8	40
VRF18_0	1.825	350
VRF18_1	1.2 / 1.3 / 1.5 / 1.825	300
VSIM1	1.7 / 1.8 / 1.86 / 2.76 / 3.0 / 3.1	50
VSIM2	1.7 / 1.8 / 1.86 / 2.76 / 3.0 / 3.1	50
VCN18	1.8	150
VCN28	2.8	40
VCN33	3.0 / 3.1 / 3.2 / 3.3 / 3.4 / 3.5 / 3.6	350
VIO18	1.8	600
VUSB33	3.3	20
VIO28	2.8	200
VEFUSE	1.8 / 1.9 / 2.0 / 2.1 / 2.2	200
VMC	1.8 / 2.9 / 3.0 / 3.3	200
VMCH	2.9 / 3.0 / 3.3	800
VEMC_3V3	2.9 / 3.0 / 3.3	400
VCAMA	1.5 / 1.8 / 2.5 / 2.8	200
VCAMAF	1.2 / 1.3 / 1.5 / 1.8 / 2.0 / 2.8 / 3.0 / 3.3	200
VCAMD	0.9 / 1.0 / 1.1 / 1.22 / 1.3 / 1.5	500
VCAMIO	1.2 / 1.3 / 1.5 / 1.8	200
VGP1	1.2 / 1.3 / 1.5 / 1.8 / 2.5 / 2.8 / 3.0 / 3.3	200
VSRAM	0.6 to 1.31	400
VIBR	1.2 / 1.3 / 1.5 / 1.8 / 2.0 / 2.8 / 3.0 / 3.3	100
VAUX18	1.8	40
VAUD28	2.8	40
DVDD18_DIG	1.8	20
VRTC	2.8	2

LG Electronics
MSM8926_B2_mini
Size: A2 | Number: PDMNUMBER | Rev:
Date: 2014-03-26 | Sheet: 4-1-3-2_PMIC_PM8926_POWER | of
User Name | Working Date

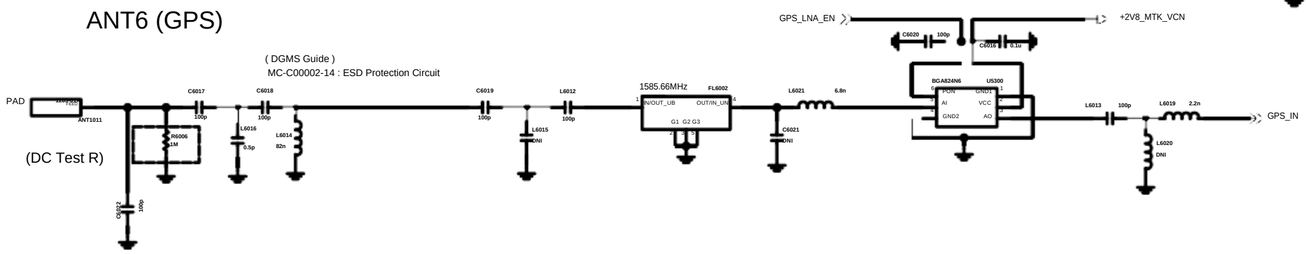
<5-1-1-18_MT6625L_WiFi_BT_GPS_FM>

Rev_0.3

ANT5 (WiFi)



ANT6 (GPS)



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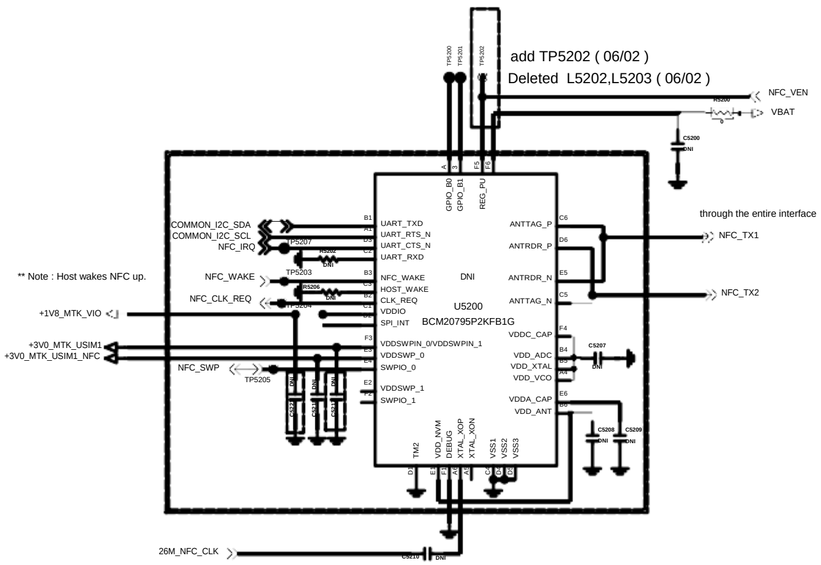
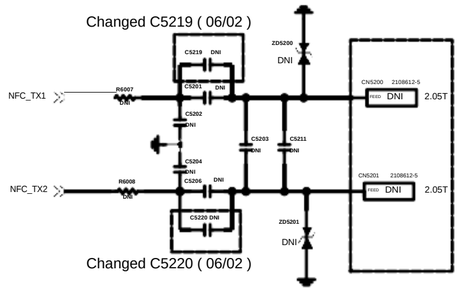


NFC Antenna



LG Electronics

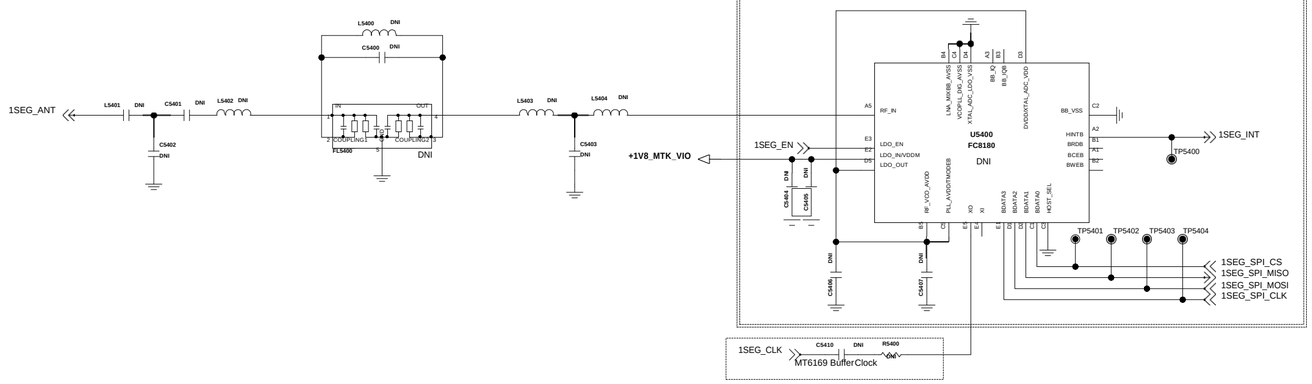
Schematic1

A2 | PDMNUMBER | Rev

Drawn By: User Name | Size: A2 | Number: PDMNUMBER | Rev | Sheet: 8 of 8 | Drawing Date

<Only for LATAM>

<5-3-1-6_One_SEG_FC8180> Rev_1.0



CIS_DNI

LG Electronics	
TITLE	Schematic1
SIZE A2	DWG NO PDMNUMBER
REV Rev	
SHEET	101
DRAWN BY	User Name
Date	5-3-1-6_One_SEG_FC8180 Drawing Date

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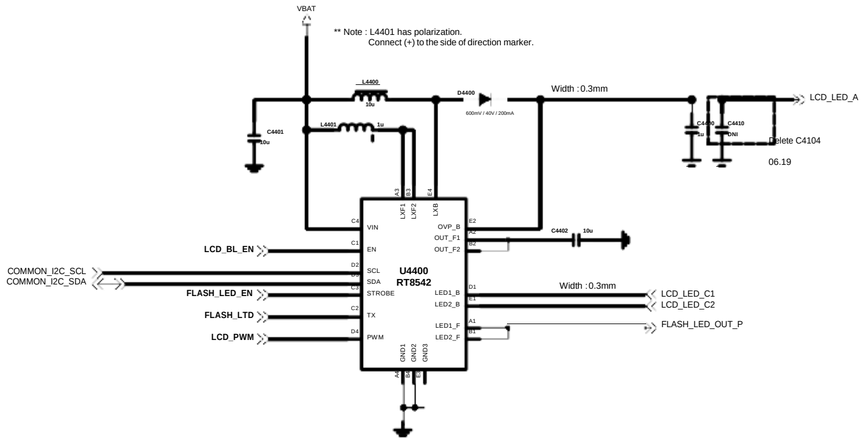

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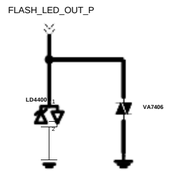
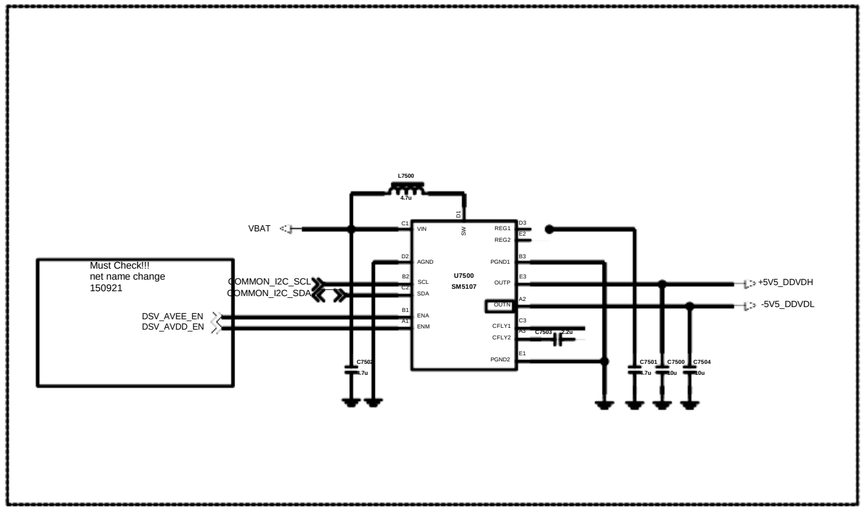
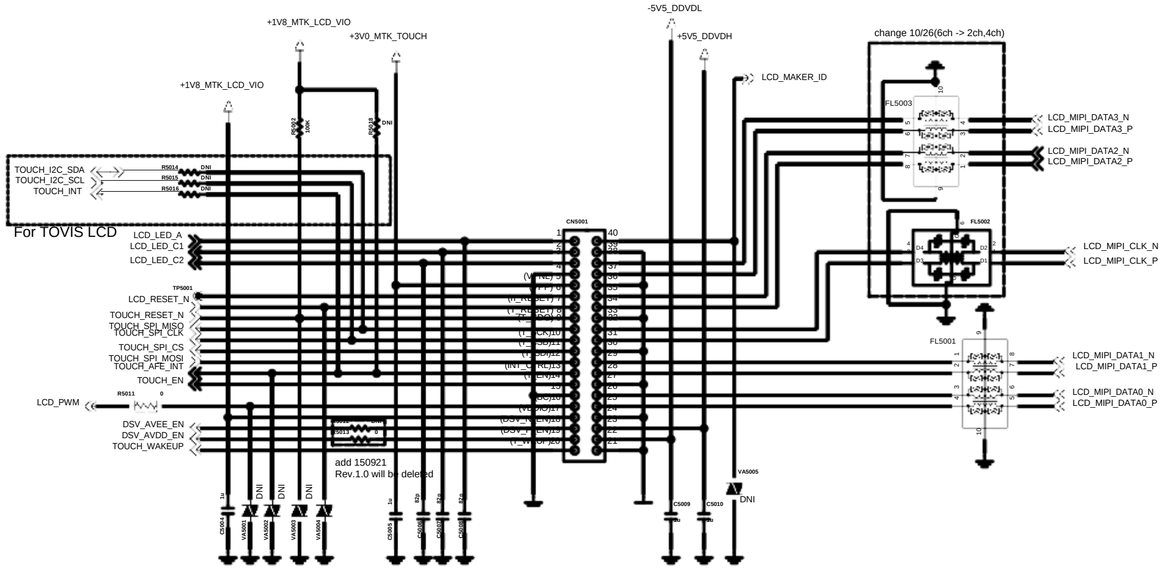


ZD9830 : Clamping 12.3V / 65pF / 150mW

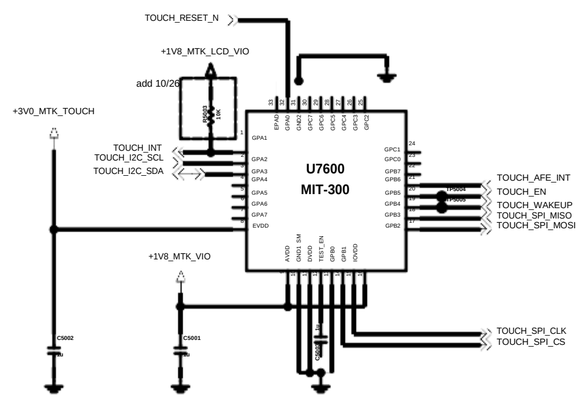
<DSV_SM5107>



5.3" Incell LCD Connector



TOUCH IC



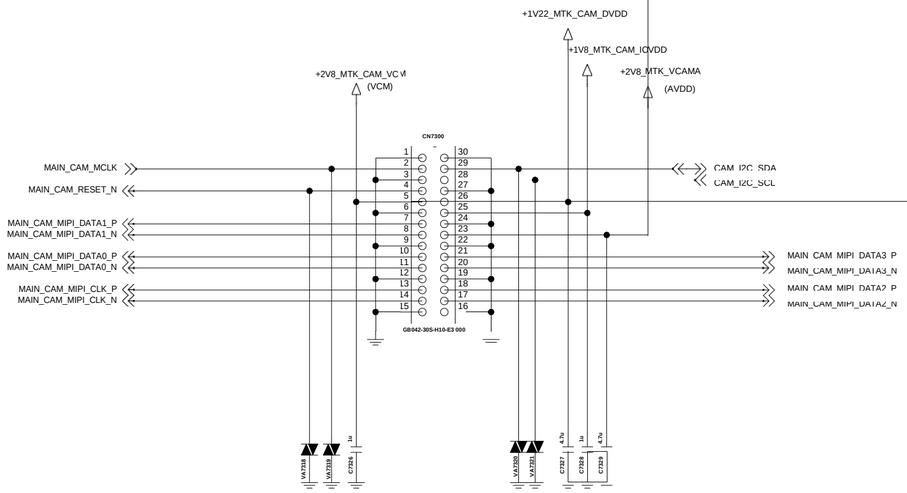
LG Electronics

Schematic1

A2	PDMNUMBER	Rev
User Name	23 23	Drawing Date

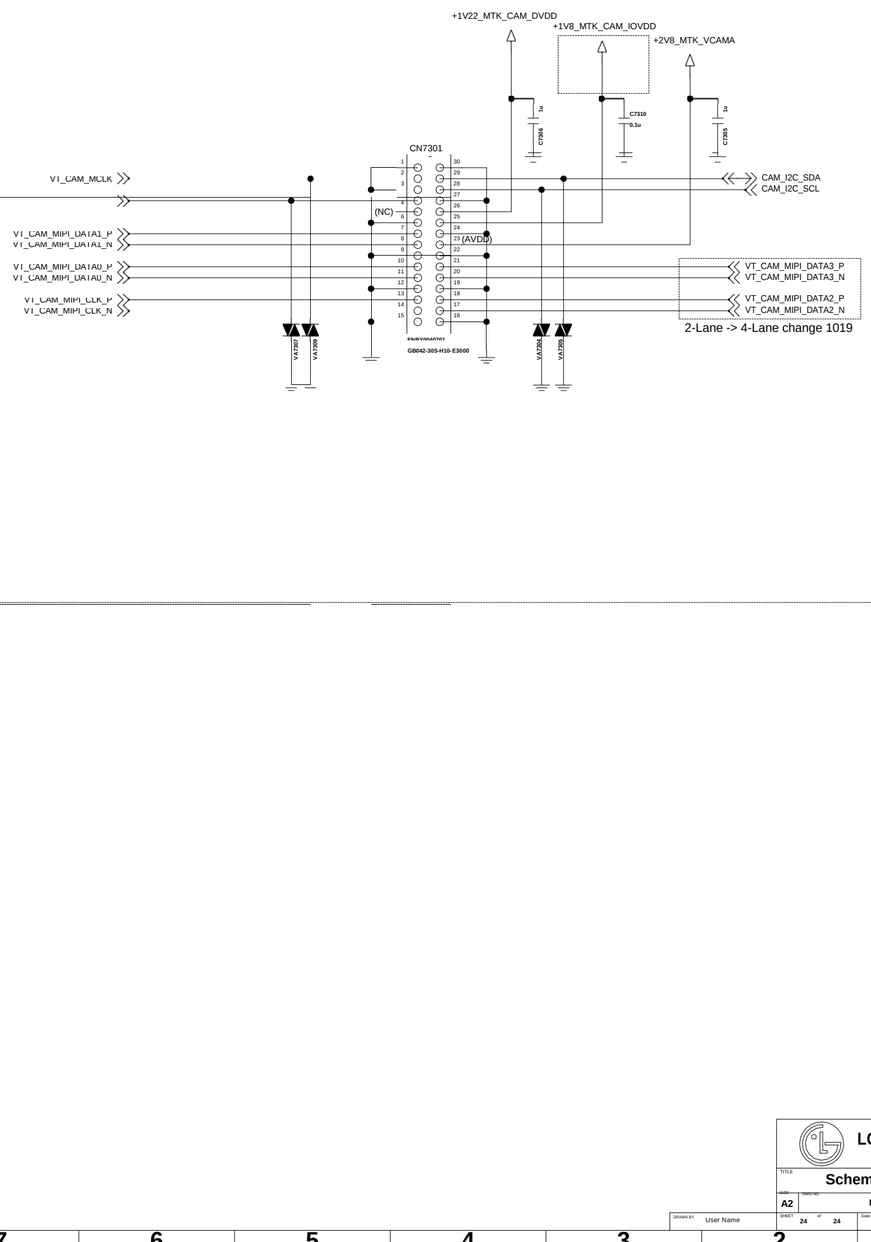
< 7-3_Main_Camera > Rev_1.2

Camera 5. 30pin 8M & 13 AF



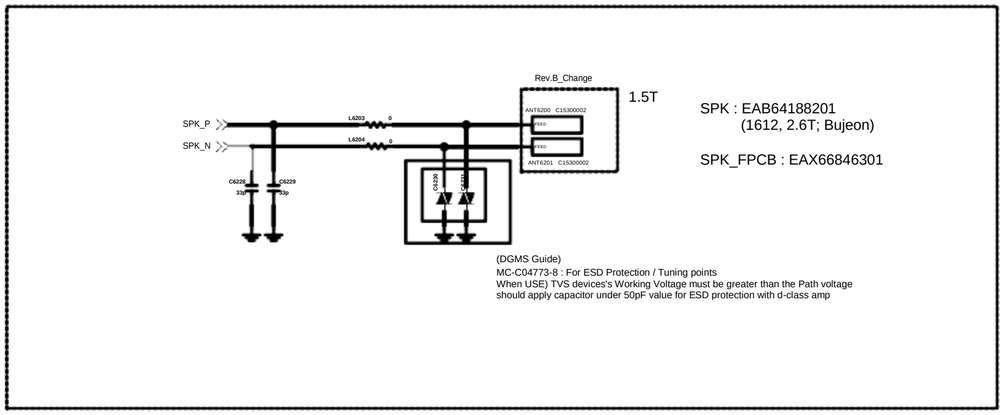
<VT Camera>

Option 5M/8M Change Pin Map(30Pin)

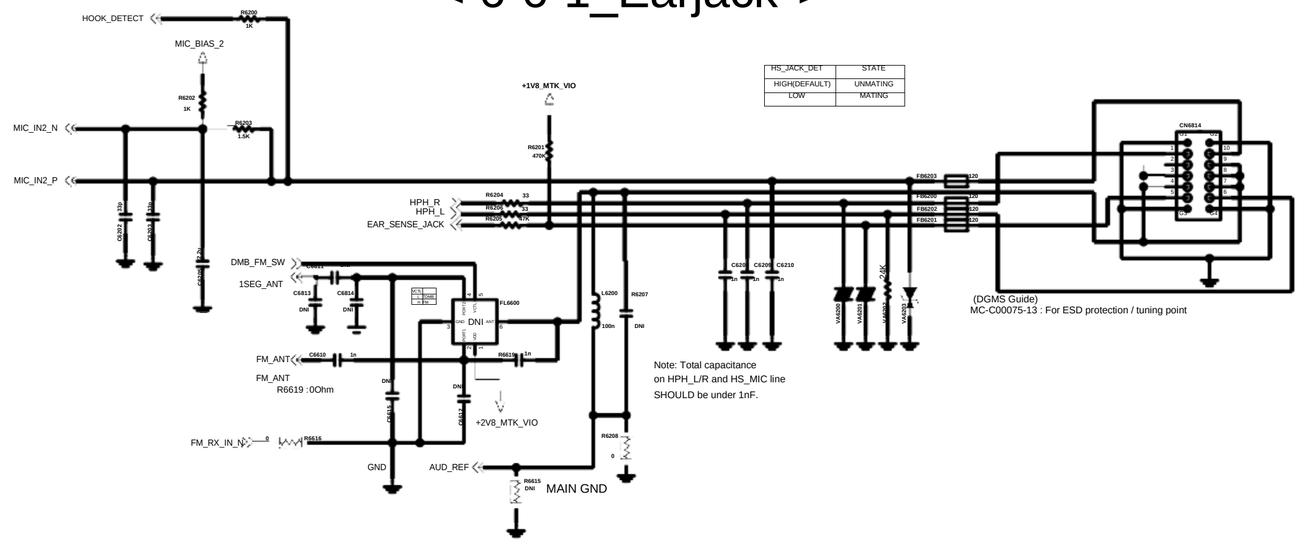


LG Electronics			
TITLE: Schematic1			
SIZE: A2	DWG NO: PDMNUMBER		REV: Rev
DRAWN BY: User Name	SHEET: 24 of 24	Date: Drawing Date	

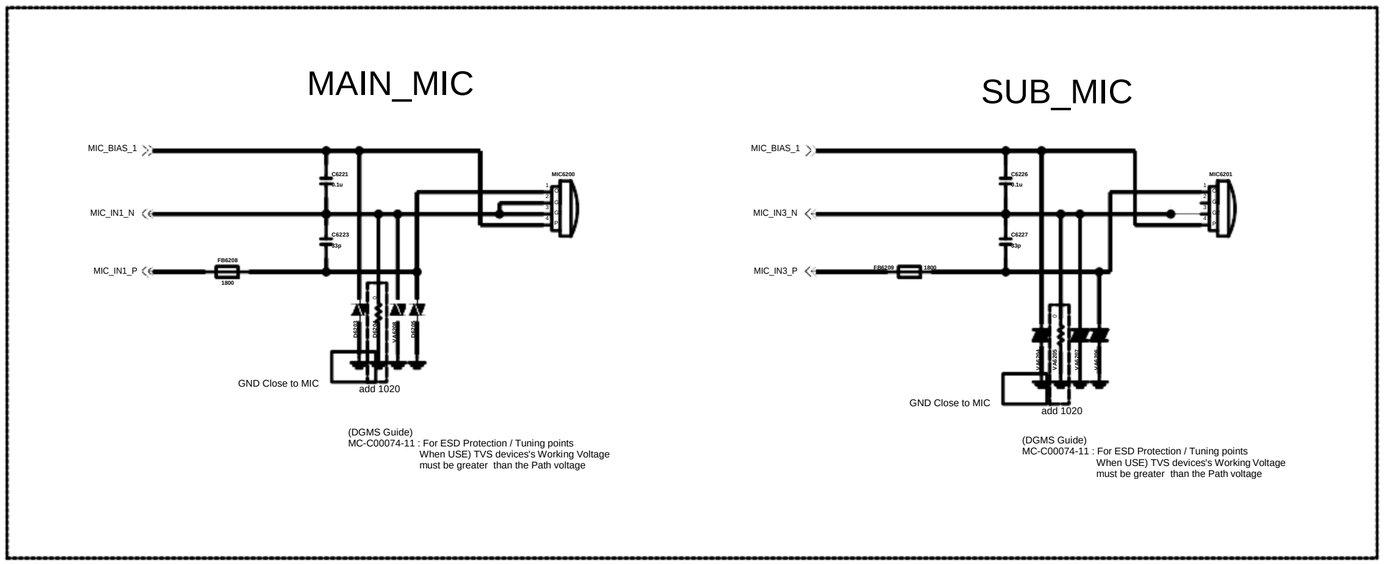
< 6-7-1_Speaker > Rev_1.2



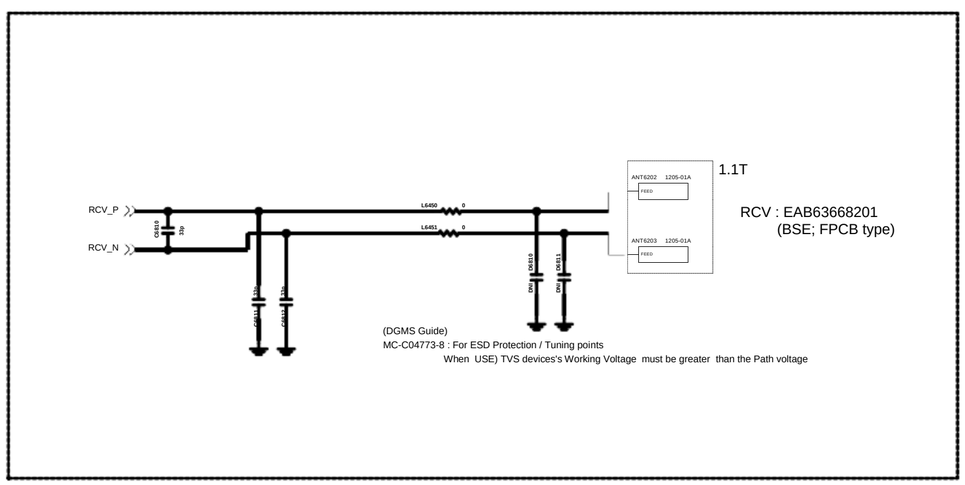
< 6-6-1_Earjack >



< 6-9-1_MIC > Rev_1.0



< 6-8-1_Receiver > Rev_1.1



LG Electronics

MSM8926_X5_GLOBAL

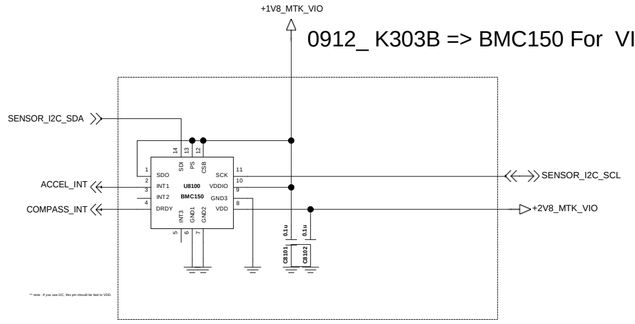
A2 | PDMNUMBER | Rev

Sensor 5

User Name

Drawing Date

<8-1-2-1_Accel_Compass_BMC150> Rev_1.0



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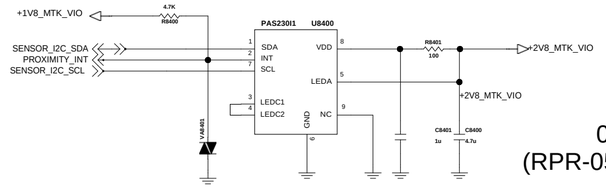
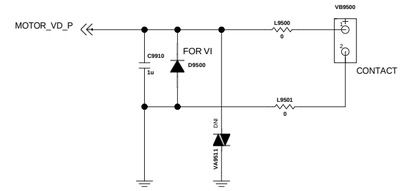


0711_Change
(RPR-0521-->PAS230I1)

Rev_0.3

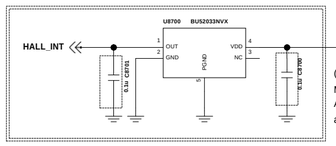
< 9-9-1-1_Motor >

9pi Motor



<8-7-1-6_Hall_IC_BU52033NVX>

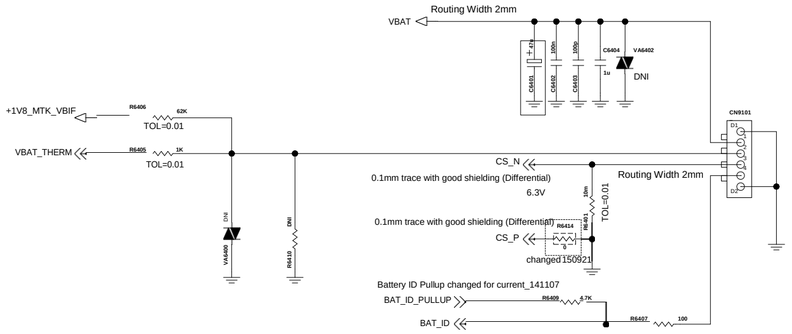
Rev_1.1 0901_revive



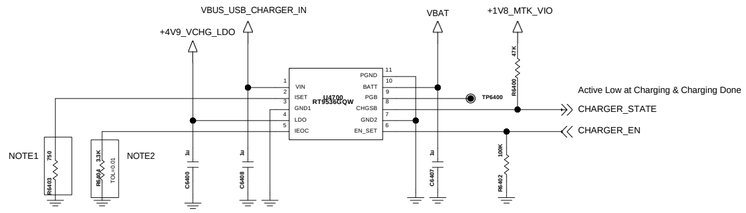
(DGMS Guide)
MC-C00058-12
Adjust the bypass capacitor value as necessary, according to signal line noise conditions

LG Electronics		
TITLE	MSM8926_X5_GLOBAL	
SIZE A2	DWG NO PDMNUMBER	Rev
DRAWN BY User Name	SHEET Sensor 5 of	Date Drawing Date

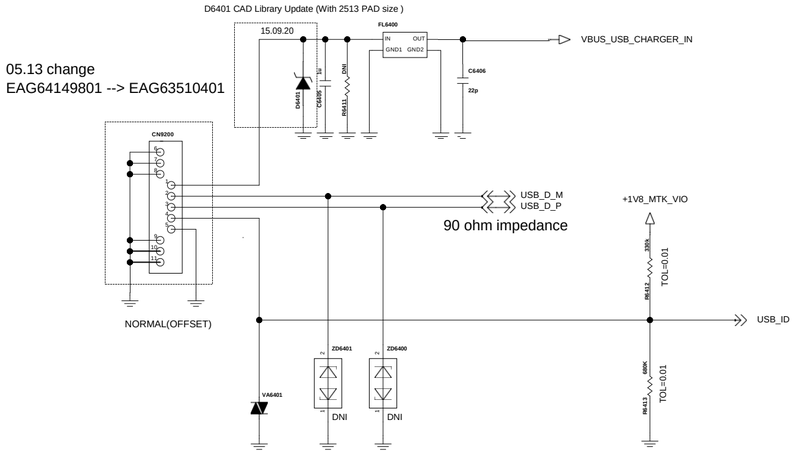
<9-1-2_Battery_CNT_4P>



<4-7-1-1_Linear Charger_RT9536>



< 9-2-1_IO_USB2.0 >



LG Electronics

TITLE: MSM8926_B2_mini

SIZE: A2 | DWG NO: PDMNUMBER | Rev

drawn BY: User Name | SHEET: etc of 19 | Date: Drawing Date

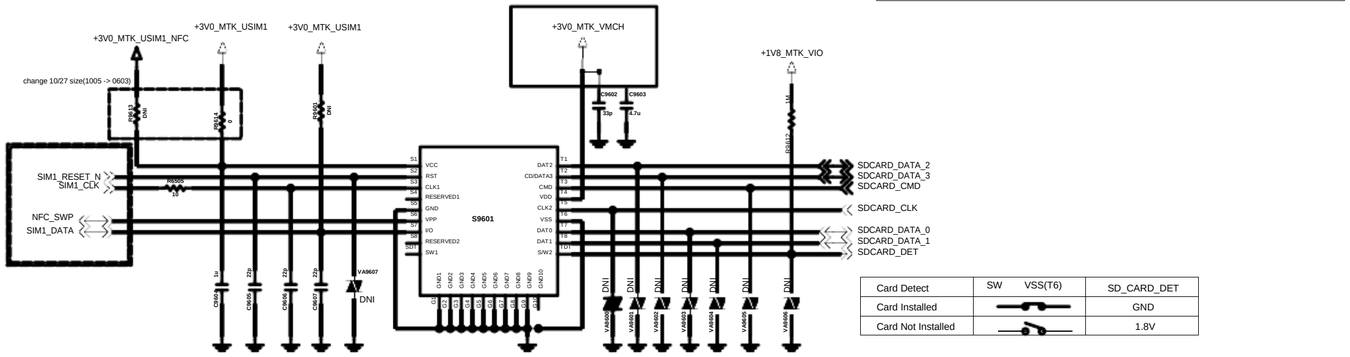
< 9-6_u_SDCARD_Socket > Rev_1.2

Circuit 1. u-SDCARD SIM Combo for QMC /w Low Detection

Note 1. +2V95_SD_PULL_UP (1.8 or 2.95V) switches automatically per inserted SD Card version
For example, SD card Version 2.0 = 2.95V, Version 3.0 = 1.8V

Note 2. +2V95_SD_VCC is SD/MMC Power

Caution ! - According to MSM8960, APQ8064 BackPowering issue, +2V95_SD_PULL_UP was Always on during sleep mode.
However, It is possible for MSM8974, MSM8x10 .. to be turned off, so, FET circuit to turn off it is not needed any more.



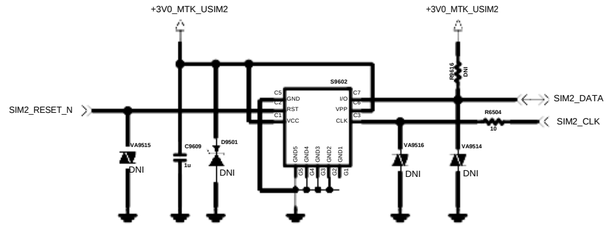
Card Detect	SW VSS(T6)	SD_CARD_DET
Card Installed		GND
Card Not Installed		1.8V

(DGMS Guide)
MC-C04581-13 : Below items should be satisfied
1. SIM_DATA pull-up resistor
2. Use under 33pF (Cap_Varistor) on each signal line
3. When routing, SIM_DATA, SIM_CLK should be seperated
4. CAP,Varistor should Place close to connector

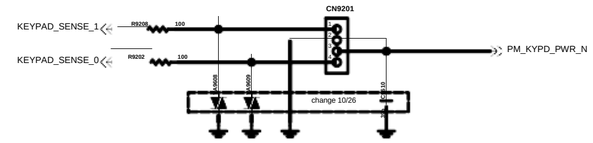
(DGMS Guide)
MC-C04582-14 : Below items should be satisfied
1. SD_DETECT Pull-up or Pull-down
2. Data/CMD line should be needed Pull-up resistor
(If chipset has internal Pull-up, comment it on circuit)
3. Use under total 10pF Capacitance on each line ; Data [0:3], CMD - Cap. TVS diode, varistor
(on other line, We recommend 10pF capacitance and use under 30pF capacitance)
4. CAP,Varistor should Place close to connector

(DGMS Guide)
MC-C05446-7 : Below items should be satisfied
1. Power of SD card should use independant Power source just like LDO/PMIC which can turn off it.
2. Per chip type which support SD card should manage current capacity.
(In case of High speed mode, SD Card Power should get margin of 200mA)
3. Do not connect serial component to SD card power, voltage drop can arise at Power line.

Nano SIM(EAG64650901)

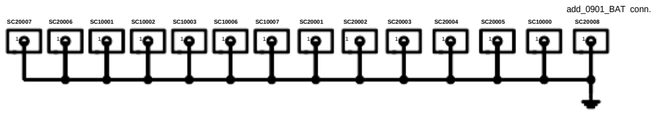


BACK KEY CONNECTOR

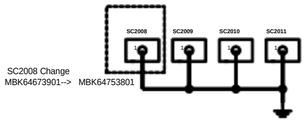


<TOP SHIELD CAN CLIP>

add_0901_BAT conn.



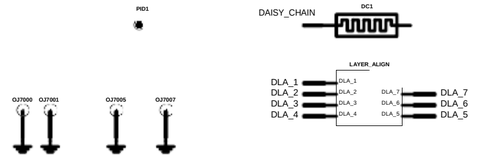
<BOT SHIELD CAN >



SC2008 Change
MBK64673901--> MBK64753801

<2015/07/31>

PID 6x6



LG Electronics
MSM8926_B2_mini
A2
PDMNUMBER
Rev
etc
19
Drawing Date
User Name