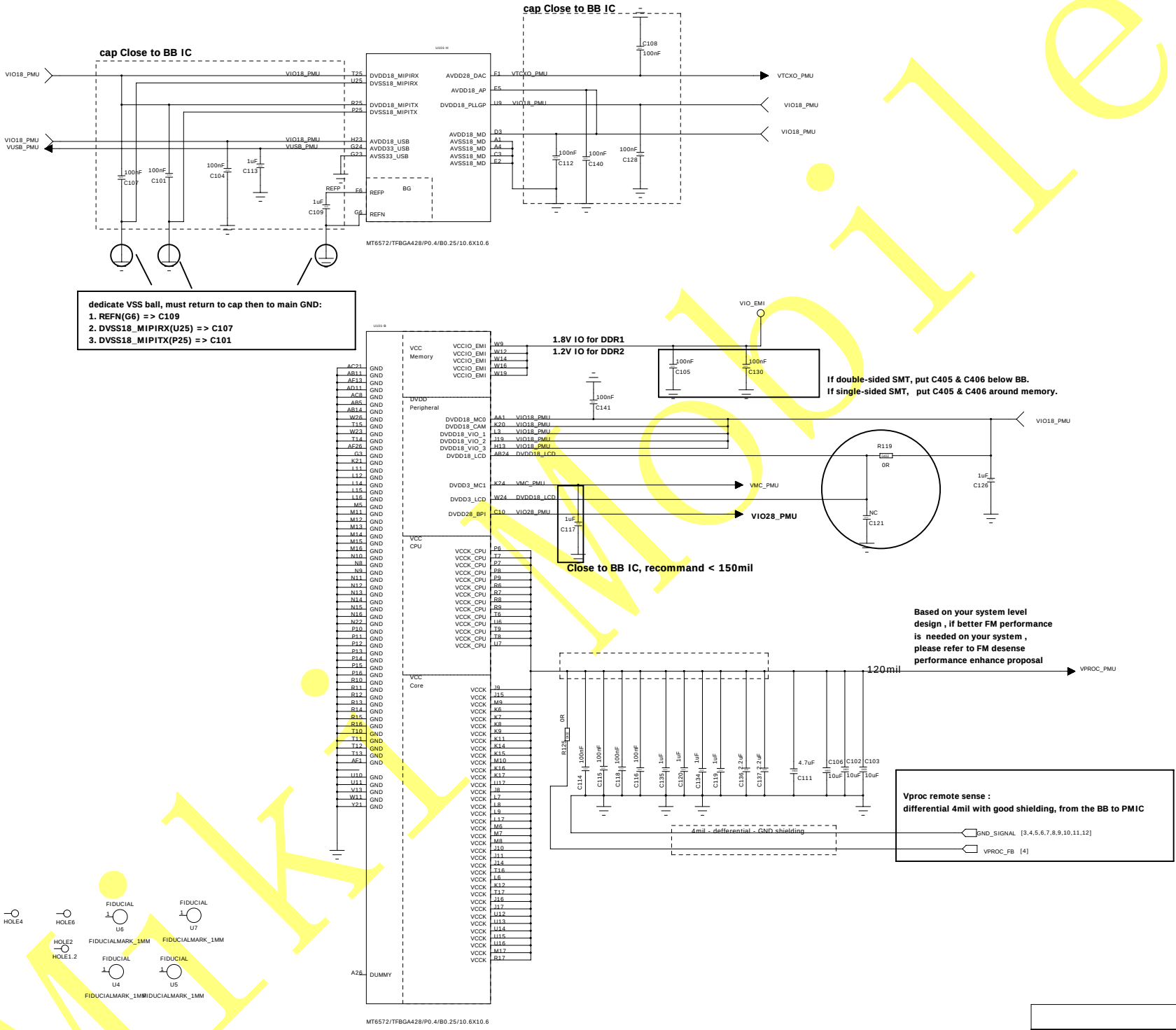

Title	BB- Power		
Size F	Document Number AX705 Mobile PHONE	Rev V1.0	
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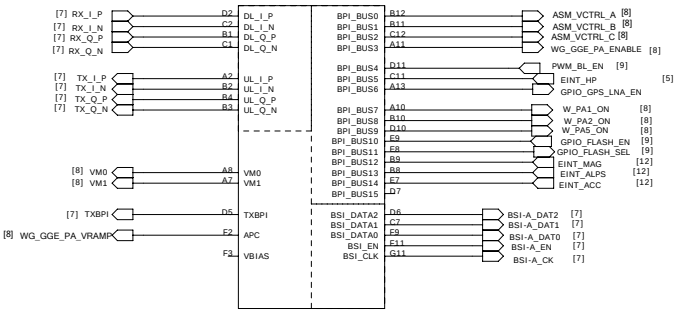
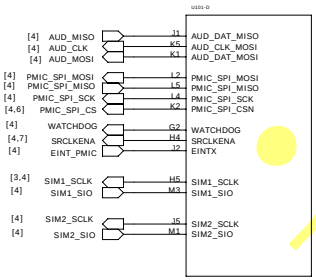
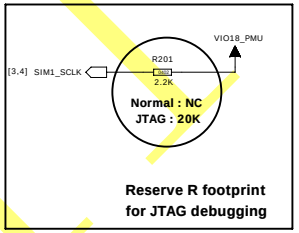


MT6572/TFBGA428/P0.4/B0.25/10.6X10.6

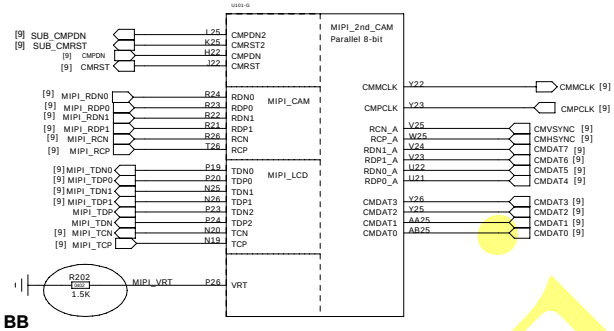


MT6572/TFBGA428/P0.4/B0.25/10.6X10.6

reserve for JTAG debug



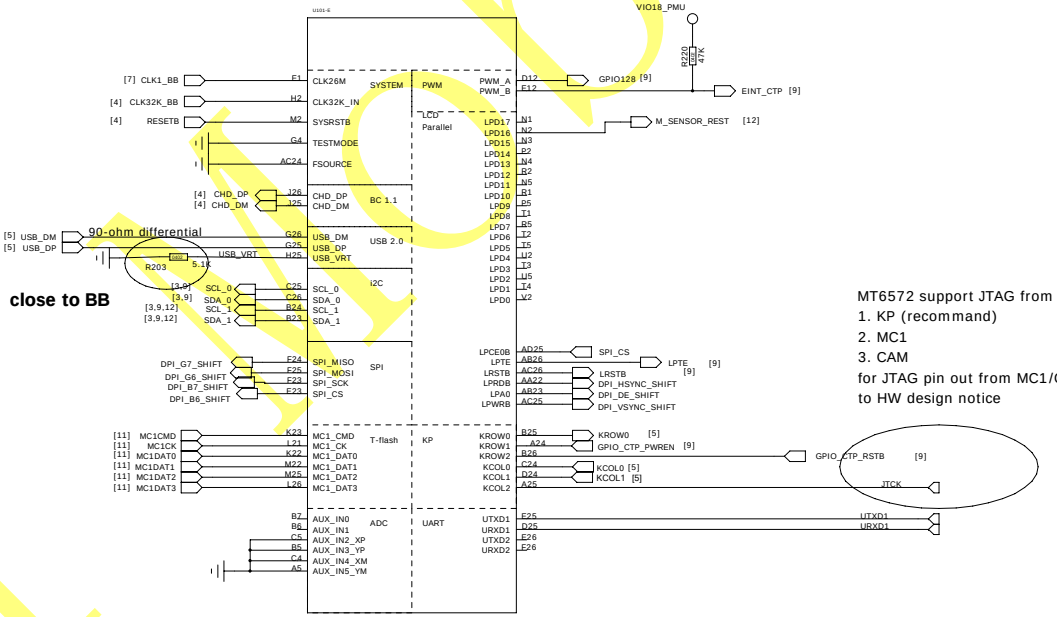
Based on your system level design , if better desense performance is needed on your system , please refer to desense performance enhance proposal



close to BB

MT6572/TFBGA428/P0.4/B0.25/10.6X10.6

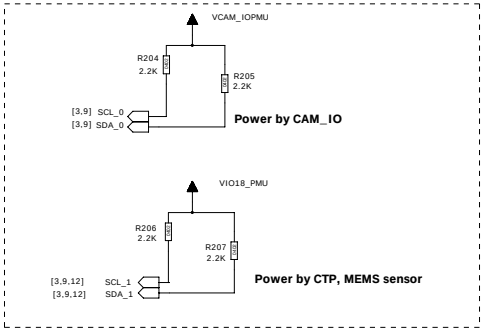
close to BB



MT6572/TFBGA428/P0.4/B0.25/10.6X10.6

MT6572 support JTAG from below :
1. KP (recommand)
2. MC1
3. CAM

for JTAG pin out from MC1/CAM, refer to HW design notice



Title	BB - peripheral	
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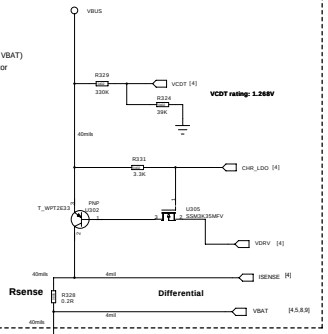
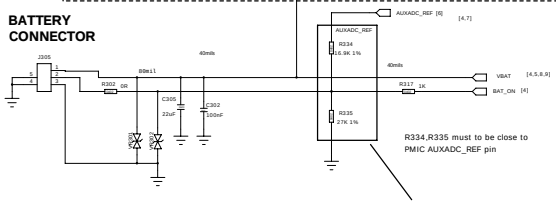
Charger

1. Close to Battery Connector.
(Rsense (R328) <10mm)
2. Main path should be 40mil.
(VBUS -> U303's E, -> U303's C -> R328 -> VBAT)
3. Star connection from R328 to BAT Connector



BATTERY CONNECTOR

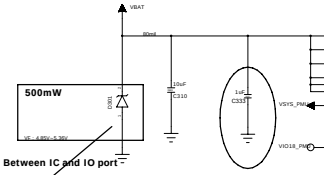


R334,R335 must to be close to PMIC AUXADC_REF pin

if battery NTC is 10kohm, R334=39K, R335=90K
if battery NTC is 47kohm, R334=190K, R335=390K
Refer to MT6323 HW design notice

Based on your system level design , if better ESD performance is needed on your system, please refer to ESD performance enhance proposal

Add Zenar Diode Place on the path from VBAT to IC (Battery connector or test point or IO connector)



Between IC and IO port

Refer to MT6323 design notice for Zener selection

Based on your system level design , if better EOS performance is needed on your system, please refer to EOS performance enhance proposal

ISENSE/BSTSNS 4mil differential to Rsense

Close to PMIC

Refer to MT6323 design notice for Buck GND layout rule

Refer to GPS co-clock layout rule

refer to system analog LDO performance improve proposal

Connect TSX/XTAL GND to AUXADC_GND first than connect to main GND

C322 must to be close to PMIC AUXADC_TSX pin

dedicate VSS ball, must return to cap then to main GND:
1. GND_VREF(N14) => C320

RTC

RTC 32K : X301+C324+C319=> mount, R333=> NC
32K-less: X301+C324=> remove, C319+R333=> 0R

Close to chip

==> for longer RTC time sustain after battery remove, please refer to RTC design notice

Title	PMIC	
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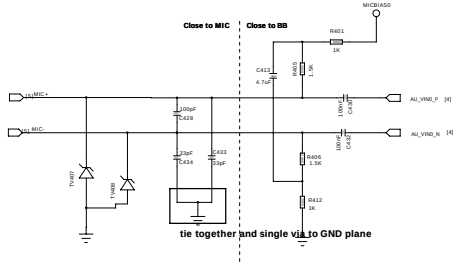
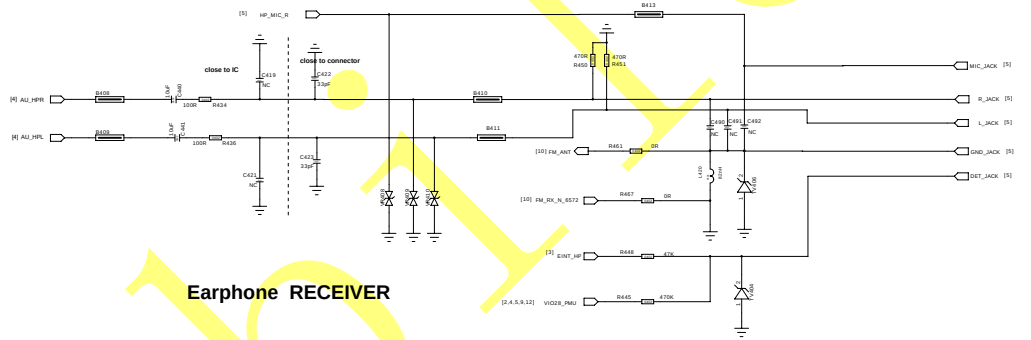
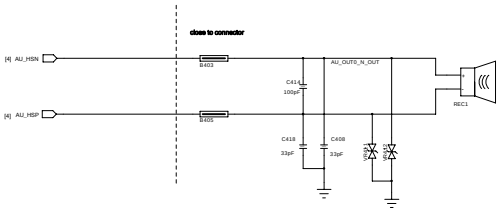
Handset Microphone 1



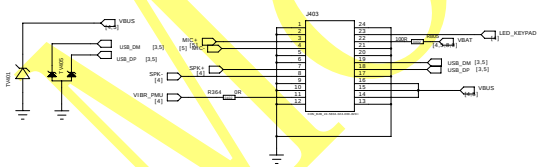
Earphone RECEIVER

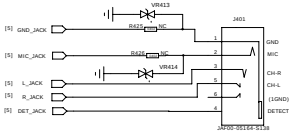


HANDSET RECEIVER

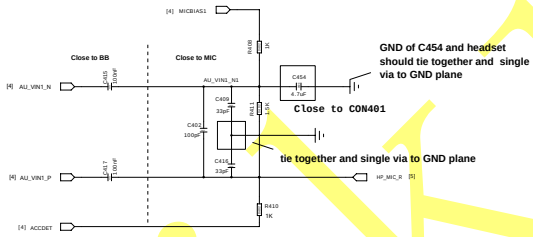


B2B

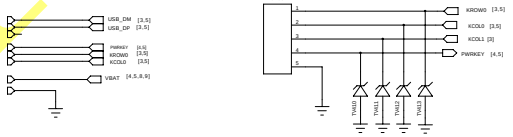


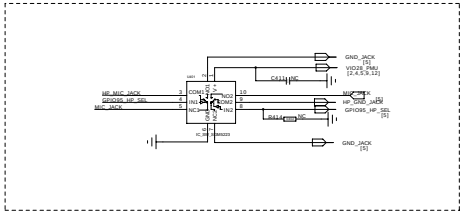


Earphone MICPHONE



Side key and Power key





Title	Audio,I/O,USB	
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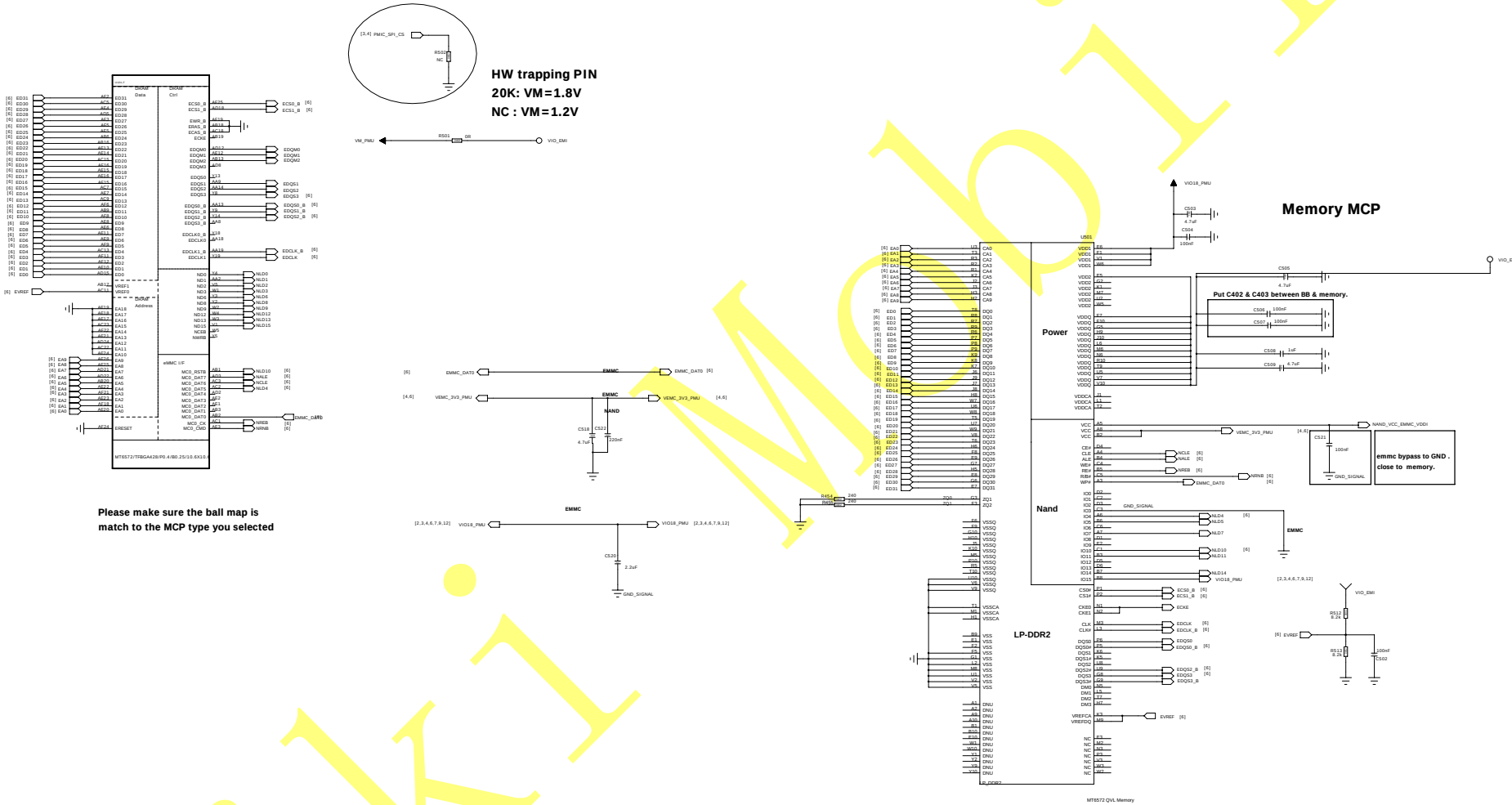

Title	Memory		
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SKY77590 control logic table

	Enable	VctC	VctB	VctA
LB_GMSK_TX	H	L	L	H
HB_GMSK_TX	H	L	H	H
LB_EDGE_TX	H	H	L	H
HB_EDGE_TX	H	H	H	H
TRX1	L	H	L	L
TRX2	L	H	H	L
TRX3	L	H	L	H
TRX4	L	H	H	H
TRX5	L	L	H	L
TRX6	L	L	L	H

MODE \ Logic	DCXO_32K_EN	XMODE	VXODIG
	0(GND)	1(VIO18)	1(VIO18)
DCXO + 32K XO	0(GND)	1(VIO18)	1(VIO18)
DCXO + 32K-Less	1(VTXCO28)	1(VTXCO28)	1(VTXCO28)

Two Application Circuit Conditions,
1.TSX Circuit : X600=TSX, R653=R656=NC, R654=100K+-1%, R655=R657=0ohm
2.XTAL Circuit :X600=Mobile XTAL, R653=R656=0ohm, R654=R655=R657=NC

Route AUXADC_REF/AUXADC_TSX as differential trace with well GND shielding and route AUXADC_GND with 24mil trace width under AUXADC_TSX/AUXADC_REF trace to provide return current path.

Route AUXADC_REF with 4mil trace width
Route AUXADC_TSX with 4mil trace width
Route AUXADC_GND with 24mil trace width under AUXADC_REF/AUXADC_TSX trace
Connect TSX/XTAL GND to GND_AUXADC first than connect to main GND
Close to each other and nearby X600
connect to main GND
connect to main GND

MT6166

Reserved LC filter

R610 close to 3G PA

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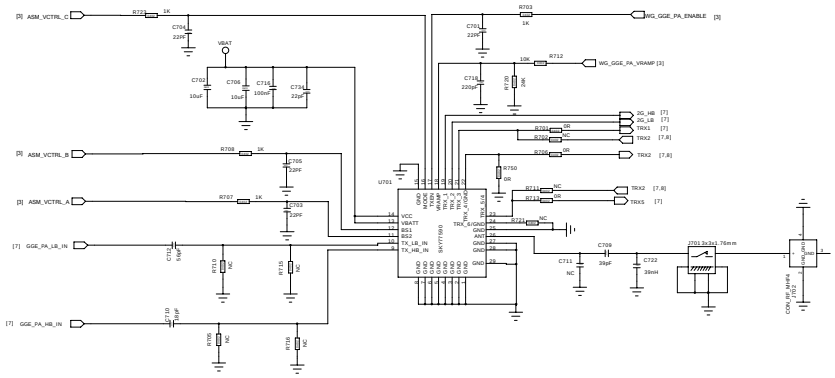
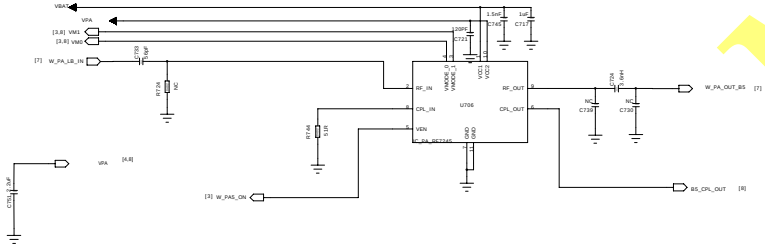
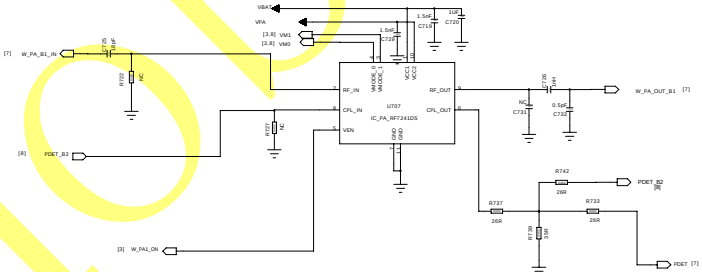
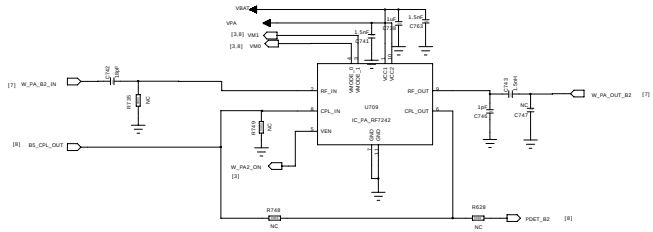
RF_TX_ASM









Title	RF_TX_ASM	
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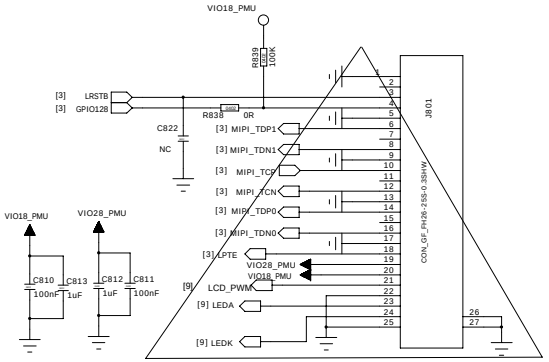
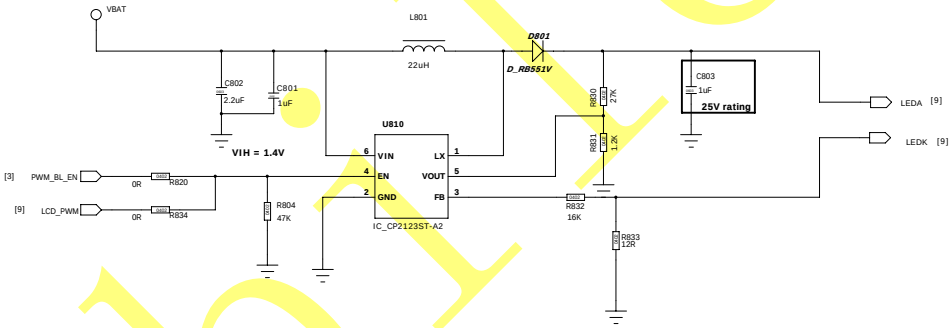
LCD

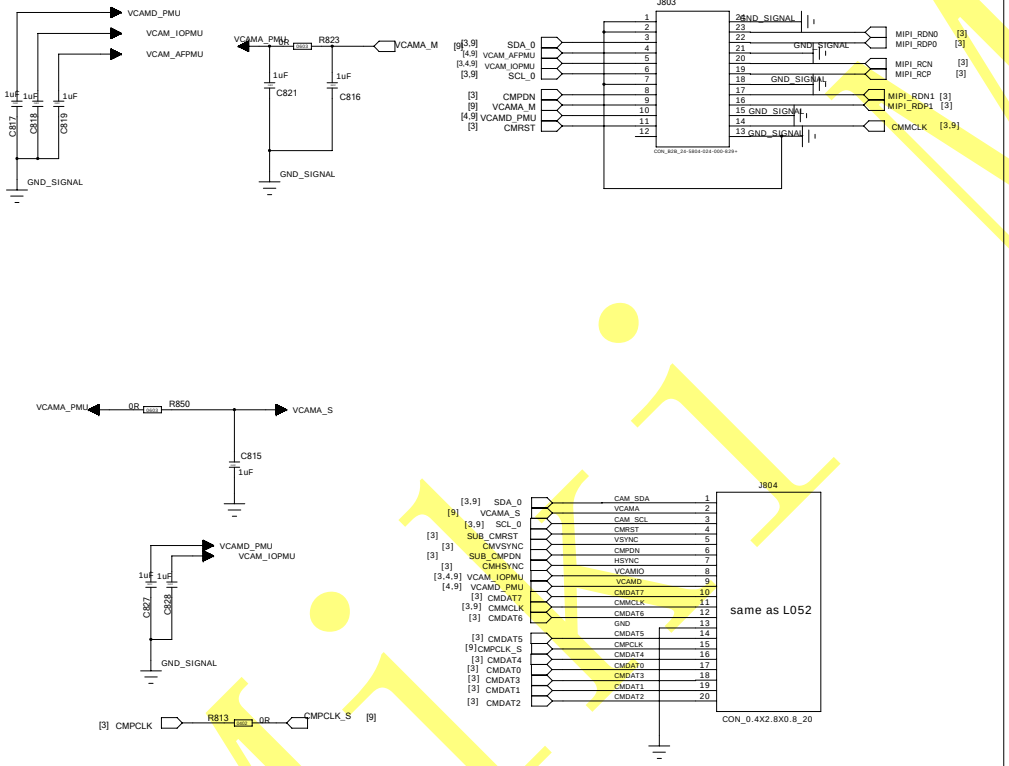


9 LED series

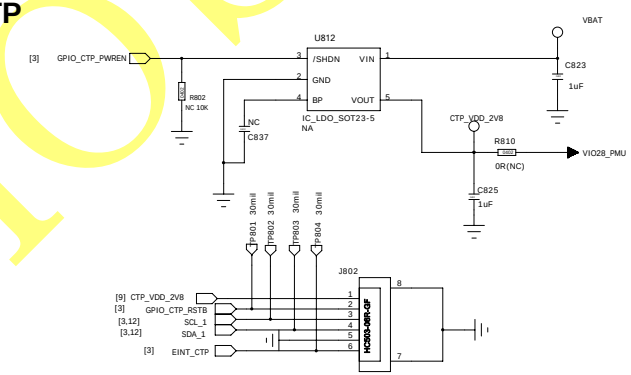
BACKLIGHT DRIVER



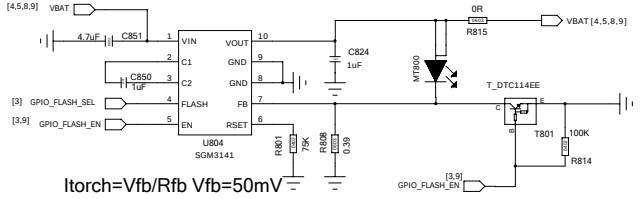
Camera



CTP



FLASH LED



Itorch=Vfb/Rfb Vfb=50mV

Iflash=Vfb/Rfb Vfb=1.23x11.2K/Rset

Title	LCD, Touch		
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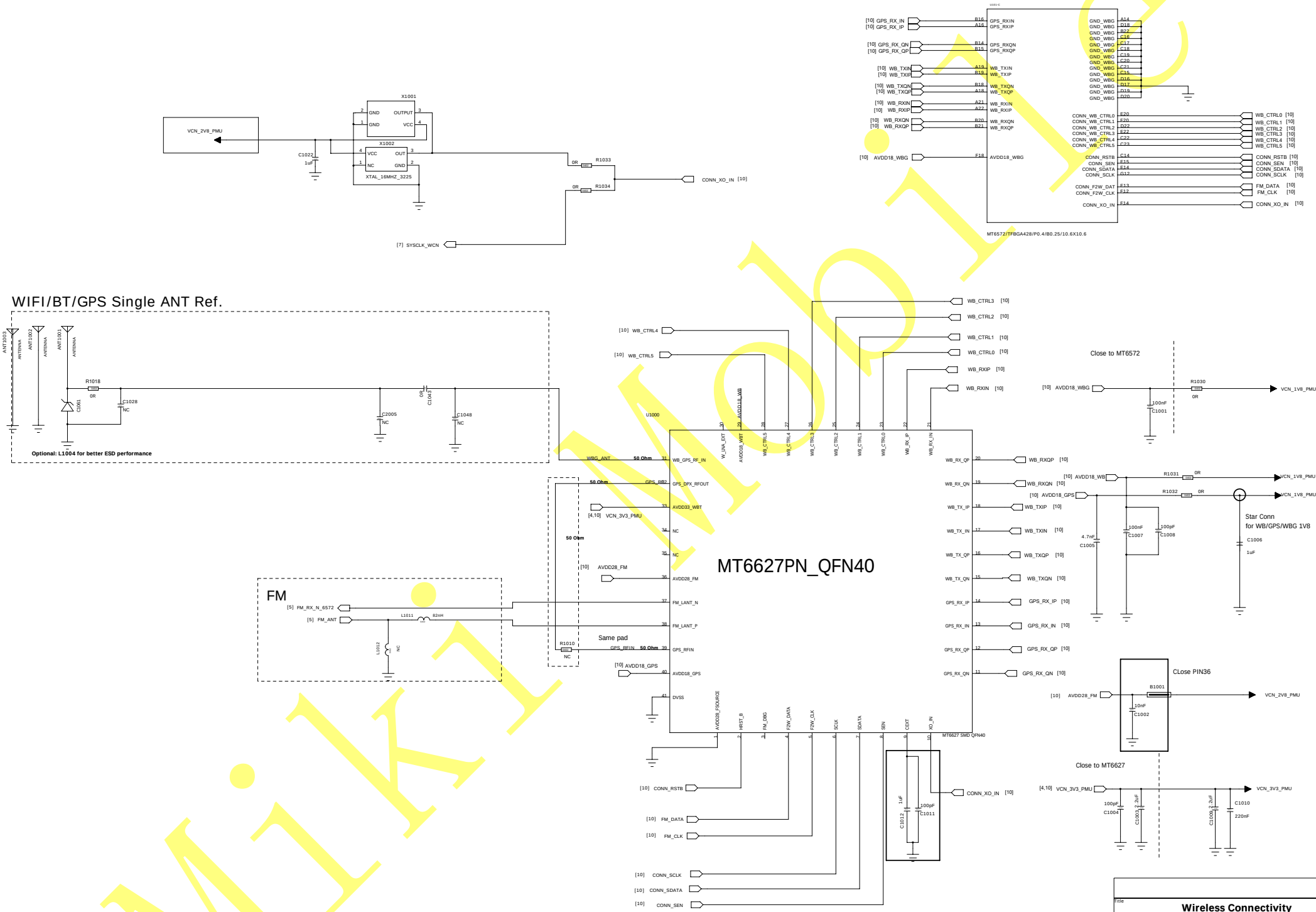
WIFI/BT/GPS Single ANT Ref.
ANT1003
ANT1002
ANT1001
ANTENNA
R1018
0R
C1028
NC
C1061
C2005
C1048
C1043
Optional: L1004 for better ESD performance
X1001
X1002
VCN_2V8_PMU
C1022
1uF
XTAL_16MHZ_3225
R1033
R1034
CONN_XO_IN [10]
[7] SYSCLK_WCN
MT6572/TFBGA428/P0.4/B0.25/10.6X10.6
[10] GPS_RX_IN
[10] GPS_RX_IP
[10] GPS_RX_QN
[10] GPS_RX_QP
[10] WB_TXIN
[10] WB_TXIP
[10] WB_TXQN
[10] WB_TXQP
[10] WB_RXIN
[10] WB_RXIP
[10] WB_RXQN
[10] WB_RXQP
[10] AVDD18_WBG
GPS_RXIN
GPS_RXIP
GPS_RXQN
GPS_RXQP
WB_TXIN
WB_TXIP
WB_TXQN
WB_TXQP
WB_RXIN
WB_RXIP
WB_RXQN
WB_RXQP
AVDD18_WBG
GND_WBG
CONN_WB_CTRL0
CONN_WB_CTRL1
CONN_WB_CTRL2
CONN_WB_CTRL3
CONN_WB_CTRL4
CONN_WB_CTRL5
CONN_RSTB
CONN_SEN
CONN_SDATA
CONN_SCLK
CONN_F2W_DAT
CONN_F2W_CLK
CONN_XO_IN
WB_CTRL0 [10]
WB_CTRL1 [10]
WB_CTRL2 [10]
WB_CTRL3 [10]
WB_CTRL4 [10]
WB_CTRL5 [10]
CONN_RSTB [10]
CONN_SEN [10]
CONN_SDATA [10]
CONN_SCLK [10]
FM_DATA [10]
FM_CLK [10]
CONN_XO_IN [10]
[10] WB_CTRL4
[10] WB_CTRL5
WB_CTRL3 [10]
WB_CTRL2 [10]
WB_CTRL1 [10]
WB_CTRL0 [10]
WB_RXIP [10]
WB_RXIN [10]
U1000
MT6627PN_QFN40
MT6627 SMD QFN40
WBG_ANT
50 Ohm
WB_GPS_RF_IN
GPS_RF2
GPS_DPX_RFOUT
AVDD33_WBT
VCN_3V3_PMU
[4,10]
NC
AVDD28_FM
FM_LANT_N
FM_LANT_P
Same pad
GPS_RFIN
R1010
AVDD18_GPS
DVSS
W_LNA_EXT
AVDD18_WBT
WB_CTRL5
WB_CTRL4
WB_CTRL3
WB_CTRL2
WB_CTRL1
WB_CTRL0
WB_RX_IP
WB_RX_IN
WB_RX_QP
WB_RX_QN
WB_TX_IP
WB_TX_IN
WB_TX_QP
WB_TX_QN
GPS_RX_IP
GPS_RX_IN
GPS_RX_QP
GPS_RX_QN
AVDD28_FSOURCE
HRST_B
FM_DIG
F2W_DATA
F2W_CLK
SCLK
SDATA
SRN
CEXT
XO_IN
WB_RXQP [10]
WB_RXQN [10]
WB_TXIP [10]
WB_TXIN [10]
WB_TXQP [10]
WB_TXQN [10]
GPS_RX_IP [10]
GPS_RX_IN [10]
GPS_RX_QP [10]
GPS_RX_QN [10]
CONN_RSTB [10]
FM_DATA [10]
FM_CLK [10]
CONN_SCLK [10]
CONN_SDATA [10]
CONN_SEN [10]
CONN_XO_IN [10]
FM
[5] FM_RX_N_6572
[5] FM_ANT
L1011
82nH
L1012
NC
Close to MT6572
[10] AVDD18_WBG
R1030
0R
VCN_1V8_PMU
100nF
C1001
[10] AVDD18_WB
[10] AVDD18_GPS
R1031
R1032
4.7nF
C1005
100nF
C1007
100pF
C1008
Star Conn
for WB/GPS/WBG 1V8
C1006
1uF
CLose PIN36
B1001
[10] AVDD28_FM
10nF
C1002
Close to MT6627
[4,10] VCN_3V3_PMU
100pF
C1004
2.2uF
C1003
C1009
C1010
220nF
1uF
C1012
100pF
C1011
Title
Wireless Connectivity
Size
F
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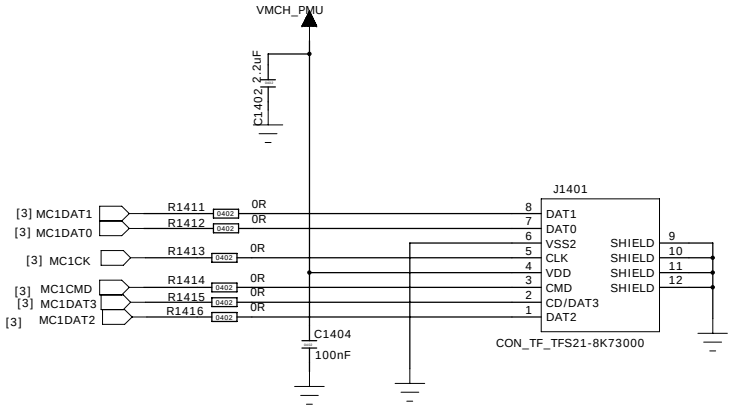
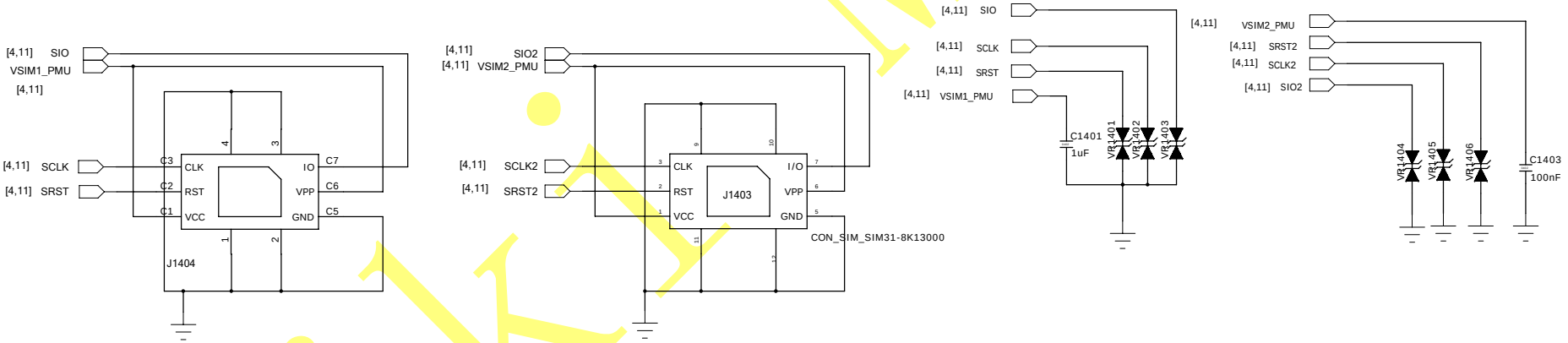
SD CARD



SIM CARD



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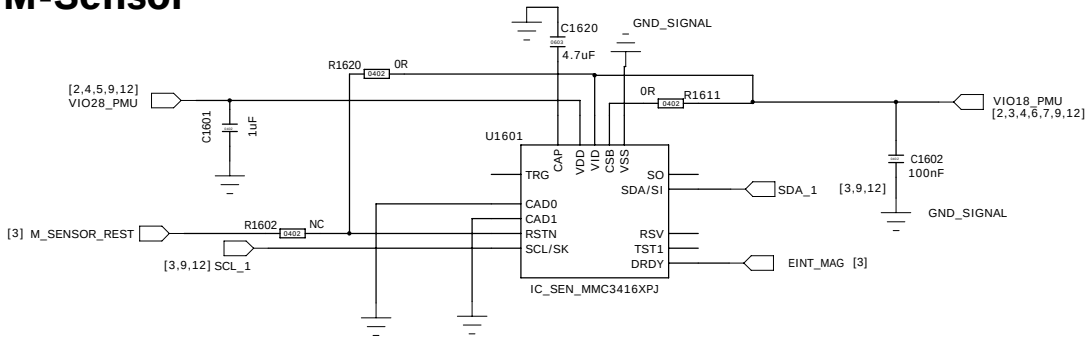
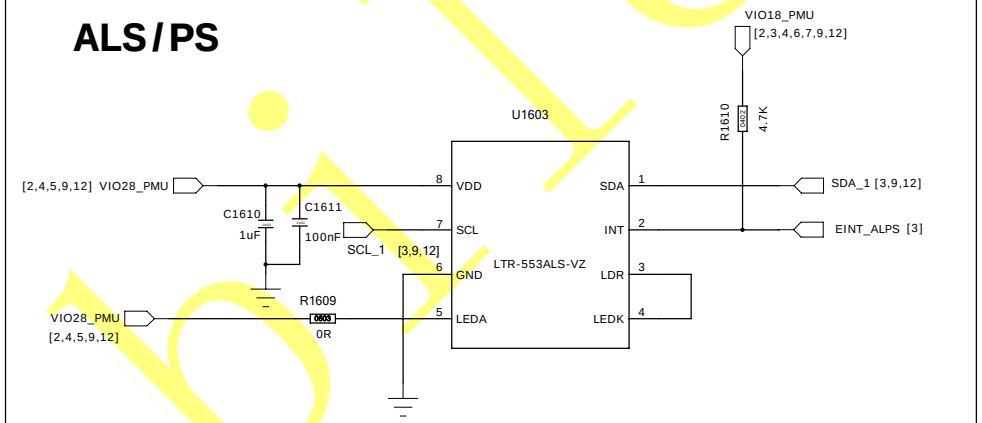
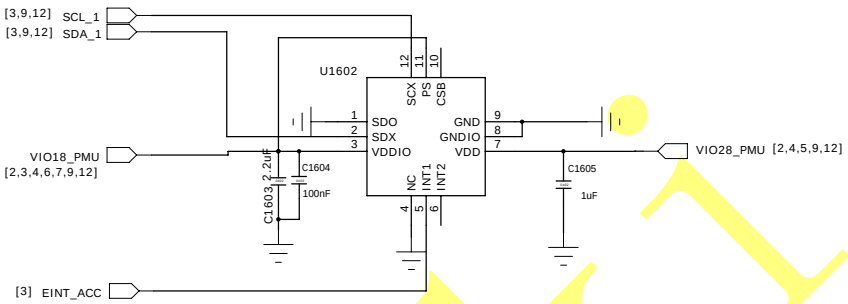
M-Sensor



ALS/PS



G-Sensor



Title	Memory CARD	
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