A1
CONTACT
3989013C02

Ant_3
L3
8.2nH
2488158Y12

C1
12pF
2113944A26

Ant_2
L2
1pF
2188881Y06

IDCTR
C2
2.7nH
2488158Y06

ANTENNA
J40_RF
0988612M01

R45
10K
0613952R01

ANT_DETB
C46DNP
C45
39pF
2113944A32

C90
0.5pF
2188881Y01

L90
5.6nH
2488158Y10

L45
39nH
2489828Y20

RF_OUT_2
C15
39pF
2113944A32

BP
C72
10uF
2113946F05

C71
6.8V
4809788E21

C70
10pF
2113944A25

RF_OUT_1
R50DNP

CNTRL_1
R80
1.2K
0613952Q75
C80
39pF
2113944A32

CNTRL_2
R81
1.2K
0613952Q75
C81
3300pF
2113945A12

CNTRL_3
R82
1.2K
0613952Q75
C82
3300pF
2113945A12

U50_PA
RF3178EA
5171743C05
VBAT
ANT
RX850
RX900
RX1800
RX1900
V_SENSE
LB_RFIN
TXEN
VRAMP
HB_RFIN

VSENSE
C56
15pF
2113944A27
R56DNP

RF_REG
C154
1.0uF
2187893N01
C151
1000pF
2113945A09

VCO_REG
C155
1.0uF
2187893N01
C161
1000pF
2113945A09

PERIPH_IO_REG
C227
1.0uF
2187893N01
C228
1000pF
2113945A09

U250_SYN
RF6029
5188450M42
RF_CLK
MCLK
RF_CS
RF_DATA
TX_START
PERIPH_IO_REG
OSCM
RX_ANT_EN
MDI
MS
SCLK
MCKO_TXQB
SSB
SDI
TXST
TX1
OSCOM
RXEN
XTAL_POS
XTAL_NEG
MDI_TXQ
MS_TXIB
CLKR_IB_OUT
TXEN
LDTO
RAMP
OSCO
AFC_DAC
LB_TX_OUT
HB_TX_OUT
FSR_Q_OUT
DRI_QB_OUT
ENR_I_OUT
CLKR
NC
26MHZ_OSCO
FSR
DRI
ENR

ADIN6
R2093
470
0613952Q65
C2093
.01uF
2113945B02
U2002
LM20BIM
5109768D12
VOUT
VPOS
GND1
GND0
OSCM
R2094
1K
0613952M01
C2094
0.1uF
2113946B04

C206
10pF
2113944A25
4809612J53
C207
10pF
2113944A25
Y201_26MHZ
FA23H
26MHz

C60
0.5pF
2188881Y01
L61
2.7nH
2488090Y06
HB_TX_IN
L60
0
0613952R66
R68
100
0613952Q49
R69
22
0613952Q33
R67
0613952Q33
R60
HB_TX_OUT

LB_TX_IN
C57
0
0613952R66
C58
5.1pF
2113944A18
LB_TX_MID
R62
220
0613952Q57
22
R61
220
0613952Q57
LB_TX_OUT

RAMP
C54
39pF
2113944A32

TX_EN_IN
C211
100pF
2113944A40
TX_EN_IN

CNTRL_1
CNTRL_2
CNTRL_3
TX_EN_IN
26MHZ_OSCO

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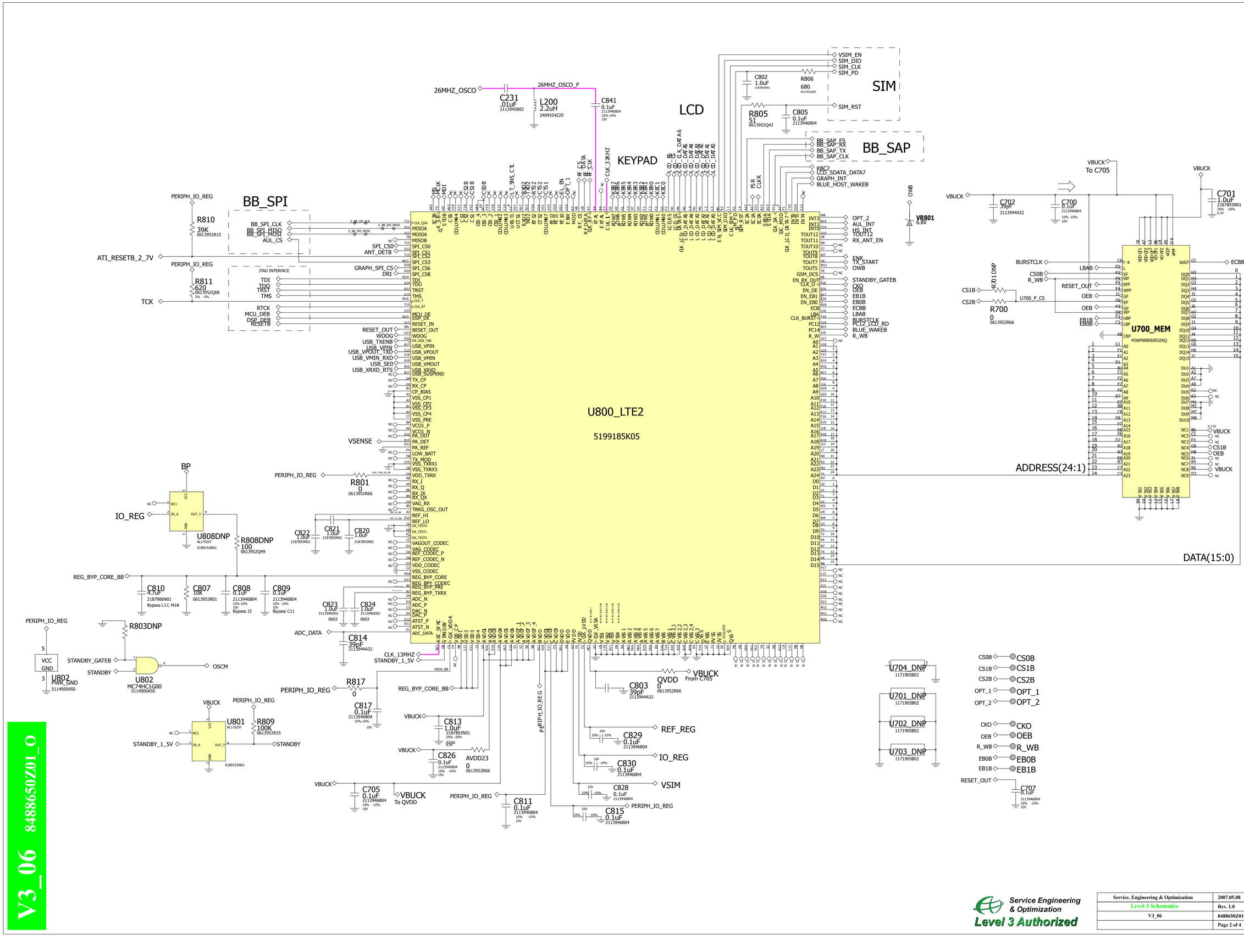
U800_LTE2
5199185K05
BB_SPI
JTAG INTERFACE
KEYPAD
LCD
SIM
BB_SAP
26MHZ_OSCO
26MHZ_OSCO_F
C231 .01uF 2113945B02
L200 2.2uH 2404554Z20
C841 0.1uF 2113946B04
C802 1.0uF 2187893N01
R806 680 0613952Q69
R805 51 0613952Q42
C805 0.1uF 2113946B04
VSIM_EN
SIM_DIO
SIM_CLK
SIM_PD
SIM_RST
BB_SAP_FS
BB_SAP_RX
BB_SAP_TX
BB_SAP_CLK
LCD_SDATA7
GRAPH_INT
BLUE_HOST_WAKEB
VR801 6.8V
PERIPH_IO_REG
R810 39K 0613952R15
R811 620 0613952Q68
ATI_RESETB_2_7V
TCK
BB_SPI_CLK
BB_SPI_MISO
BB_SPI_MOSI
AUL_CS
TDI
TDO
TRST
TMS
RTCK
MCU_DE
DSP_DE
RESETB
SPI_CS0
ANT_DETB
GRAPH_SPI_CS
DRI
RESET_OUT
WDOG
USB_TXENB
USB_VPIN
USB_VPOUT_TXD
USB_VMIN_RXD
USB_SE0
USB_XRXD_RTS
VSENSE
PERIPH_IO_REG
R801 0 0613952R66
BP
IO_REG
U808DNP NL17SZ07 5189153N01
R808DNP 100 0613952Q49
C822 1.0uF 2187893N01
C821 1.0uF 2187893N01
C820 1.0uF 2187893N01
REG_BYP_CORE_BB
C810 4.7uF 2187906N01 Bypass L17, M18
C807 10K 0613952R01
C808 0.1uF 2113946B04 Bypass J2
C809 0.1uF 2113946B04 Bypass C11
C823 1.0uF 2113946D02 0603
C824 1.0uF 2113946D02 0603
ADC_DATA
C814 39pF 2113944A32
CLK_13MHZ
STANDBY_1_5V
R817 0
C817 0.1uF 2113946B04
C813 1.0uF 2187893N01 0204
C826 0.1uF 2113946B04
AVDD23 0 0613952R66
C705 0.1uF 2113946B04
VBUCK To QVDD
C811 0.1uF 2113946B04
C815 0.1uF 2113946B04
C803 39pF 2113944A32
QVDD 0 0613952R66
VBUCK From C705
C829 0.1uF 2113946B04
REF_REG
C830 0.1uF 2113946B04
IO_REG
C828 0.1uF 2113946B04
VSIM
PERIPH_IO_REG
PERIPH_IO_REG
R803DNP
U802 MC74HC1G00 5114000A50
PWR_GND
STANDBY_GATEB
STANDBY
OSCM
U801 NL17SZ07 5189153N01
R809 100K 0613952R25
STANDBY
OPT_2
AUL_INT
HS_INT
TOUT12
RX_ANT_EN
ENR
TX_START
OWB
STANDBY_GATEB
CKO
OEB
EB1B
EB0B
ECBB
LBAB
BURSTCLK
PC12_LCD_RD
BLUE_WAKEB
R_WB
ADDRESS(24:1)
DATA(15:0)
VBUCK
To C705
C702 39pF 2113944A32
C700 0.1uF 2113946B04
C701 1.0uF 2187893N01
BURSTCLK
LBAB
CS0B
R_WB
RESET_OUT
OEB
EB1B
EB0B
CS1B
CS2B
R701 DNP
R700 0 0613952R66
U700_P_CS
U700_MEM
M36P0R8060E0ZAQ
ECBB
U704_DNP 1171905B02
U701_DNP 1171905B02
U702_DNP 1171905B02
U703_DNP 1171905B02
CS0B
CS1B
CS2B
OPT_1
OPT_2
CKO
OEB
R_WB
EB0B
EB1B
RESET_OUT
C707 0.1uF 2113946B04
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M900 1171905B02 — RESETB / NC
M901 1171905B02 — NC / PERIPH_IO_REG_OUT
M902 1171905B02 — GRAPH_REG / NC
M903 1171905B02 — NC / NC

UNDERFILL STRIPS

RF PROTECTION
HAND_SPKRM, HAND_SPKRP
C1015 39pF 2113944A32
C1014 39pF 2113944A32
C1064 39pF 2113944A32
C1065 39pF 2113944A32
ALERTM, ALERTP

BP
C945 100pF 2113944A40
C929 100pF 2113944A40

PERIPH_IO_REG, CTS1
U950_DNP TC7S2125 5188085K13
R950_DNP 100K 0613952R25
USB_ID

RTC_BATT_DNP
RTC_BATT
C932 39pF 2113944A32
C933DNP
C915 1.0uF 2187893N01

VCO_REG_CNTL_PM
Q910 MBT35200MT1 4813973M77
VCO_REG_Q910_PM
R917 1K 0613952Q73 5%
VCO_REG
L904 100nH 2415429H36
C906 4.7uF 2187906N01 15% -15%
C909A 10uF 2113946F05 10% -10%
C909B 10uF 2113946F05

C926 0.1uF 2113946B04
C925 1.0uF 2187893N01
VATLAS_PM
VBUS
R924
MC146 32.768KHz
Y900_32K 4809995L20
C923 15pF 2113944A27
C922 15pF 2113944A27
USB_TXENB
USB_SE0
USB_VPOUT_TXD

WDOG
C902 0.1uF 2113946B04
IO_REG 2.775V E901 IO_REG_OUT
C903 2.2uF 2113946D05
REF_REG 1.575V E902 REF_REG_OUT
C904 2.2uF 2113946D05
REG_3V
C905 2.2uF 2113946D05
PERIPH_IO_REG_OUT
2.775V E905
C907 2.2uF 2113946D05
RF_REG 2.775V E906 RF_REG_OUT
C908 2.2uF 2113946D05
GRAPH_REG
C910 2.2uF 2113946D05
VSIM E909 VSIM_OUT
C911 1.0uF 2187893N01
AUD_REG
R922DNP
THERM
R990 39K 0613952R15 5%
R991 20K 0613952R08 5%
C990 .01uF 2113945B02
TOUT12
C928DNP
E910_DNP
ADIN6
SIM_PD
BP
AUD_REG
C912 2.2uF 2113946D05
BP
L903 39nH 2415429H28
FL_BP_PM
VBUCK
E911
VBUCK_OUT
C935A 4.7uF 2187906N01 15% -15%
C935BDNP
D901 BAS52 4809924D29
L901 10uH 2589193N06
C913A 22uF 2113946F08
C913B 10uF 2113946F05
VBOOST
C938DNP
C936A 22uF 2113946F08
C936B 22uF 2113946F08
C936C 22uF 2113946F08
C936DDNP
D902 BAS52 4809924D29
VBOOST: C936 sensor trace to U900-G16
L902 4.7uH 2590031N04
BUCKOUT_PM

ISNS_PM
BPFET_PM
BATTFET_PM
BATTP
PERIPH_IO_REG
BP
AUL_INT
LEDB1
LEDG 1
MICBIAS1
MICINNM
SPI_MISO
SPI_MOSI
RVR_SW

U900_AUL
5188450M48
LED LINES
MICROPHONE
REGULATORS
HAND SPEAKER
CHARGER
VBUCK
VBOOST

C934 0.1uF 2113946B04
TXOUT_PM
BB_SAP_RX
VATLAS_PM
BTRF_REG
C914 2.2uF 2113946D05
PERIPH_IO_REG
C947 0.1uF 2113946B04 10V
R944 1K 0613952Q73 5%
BP
C944 0.1uF 2113946B04 10V
Q943_DNP 4813973M77
VCC_BTPA
10uF min 2x10uF typ 33 uF max
C943A_DNP 10uF 2113946F05 10%
C943B_DNP 10uF 2113946F05 10% -10%

DM_TXD_PM, R920 22 0613952Q33, DM_TXD
DP_RXD_PM, R921 22 0613952Q33, DP_RXD
USB_ID
USB_XRXD_RTS
USB_VMIN_RXD
USB_VPIN
C921 0.1uF 2113946B04
C920 1.0uF 2187893N01 20% -20%
R907 43K 0613952R16 5%
C919 .01uF 2113945B02 10% -10%
C927 1500pF 2113945A10 10% -10%
C918 0.1uF 2113946B04
C917 0.1uF 2113946B04
RESETB
C931 0.1uF 2113946B04
BB_SAP_TX
R942DNP
OSCM
TX_START
ALERTM
ALERTP
BP
ISNS_PM
C916 0.1uF 2113946B04
CHRGISNSP_PM
CHRG_LED_SINK
AUL_CS
BB_SAP_FS
VBOOST
TXOUT_PM

CHRGCTRL_PM
CHRGCOMMON_PM
CHRGRAW_PM
R904 0.1 0689774Y02
R939A 1 0613952Q01
R939B 1 0613952Q01
R905 0.1 0689774Y02
C940 39pF 2113944A32
C939A 2.2uF 2113956C23 10% -10% 25V
C939B 2.2uF 2113956C23 10% -10% 25V
mW ?
M1
Q905 SI8415DB 4805807C49
M2
Q906 SI8401DB 4805807C48
COMMON SOURCE
CHRGISNSP_PM
R910 0.1 5% -5% 0689774Y02
ISNS_PM
CHRG CURR
CURRENT MONITOR
R911 20m 1% -1% 0688044N02
BATTP
C961 39pF 2113944A32
C964DNP 15pF 2113944A27
C960 10uF 2113946F05 10% -10%
C924 0.1uF 2113945D04 10% -10% 25V
D903 MBRM120ET3 4809653F10
M4
Q903 SI8401DB 4805585Q23
BPFET_PM
M3
Q904 FDC697P 4805921T27
BATTFET_PM
C966DNP
C963 0.1uF 2113946B04
C962 0.1uF 2113946B04
C968DNP
C967DNP
C965BDNP
C965A 4.7uF 2187906N01

TEST POINTS
AUL_CS — AUL_CS
AUL_INT — AUL_INT
CLK_32KHZ — CLK_32KHZ
USB_XRXD_RTS — USB_XRXD_RTS
USB_VMIN_RXD — USB_VMIN_RXD
USB_VPIN — USB_VPIN
USB_TXENB — USB_TXENB
USB_SE0 — USB_SEO
USB_VPOUT_TXD — USB_VPOUT_TXD
BATTFET_PM — BATTFET
BPFET_PM — BPFET
CHRGCTRL_PM — CHRGCTRL
CHGRCOMMON_PM — CHRGCOMMON

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BATTERY

J3_BATTERY
3989906N01
CONTACT
C1425
R1200 47K 0613952Q89
D1426 4809788E24 6.93V
VR50 6.93V
D1427 4809788E24 6.93V
THERM
BATTP
OWB
P_BATT_IO_REG

SIM BLOCK

SIM_CLK
SIM_CLK_PIN3
R1215 0687765N01
R1201 100 0613952Q49
SIM_RST
C1209 12pF 2113944A26
C1208 0.1uF 2113946B04 10%-10% 10V
R1214 0687765N01
VSIM
C1205 0.1uF 2113946B04
R1213 0687765N01
J4_SIM
symbol
3971332A02
SIM_DIO
R1210 3.9K 0613952Q87
C1204 12pF 2113944A26
R1202 100 0613952Q49
0670284D01
R1212
IO_SIM

C1210 12pF 2113944A26
C1211 12pF 2113944A26
VVIB
VIBRATOR
5989889N01
MOTOR
D_VIB 4809924D29
VIBRATOR

VR961DNP
VBUS
MINIUSB
J1_USB
VR922BDNP EDZC68B 4809788E28 6.8V
VR921BDNP EDZC68B 4809788E28 6.8V
VR921A RSB6 4870359B01
VR922A RSB6 4870359B01
VR960 16.2V 4805656W46
DM_TXD
DP_RXD
USB_ID
VR950 4809788E24 6.93V
C951 39pF 2113944A32
C950 1000pF 2113945A09 50V 10%-10%
VR920DNP

L1422 48nH 2471992B42 TOP
ALERTP
C1424 15pF 2113944A27
ALERTM
L1423 48nH 2471992B42 BOTTOM
VR1422 MMSZ2V7T1 4813977M65 2.7V
VR1423 MMSZ2V7T1 4813977M65 2.7V
VR1400 4809948D49

MICNM
INT_MICP
5089874N01
MIC
C1206 33pF 2113944A31
C1201 0.1uF 2113946B04
C1202 22pF 2113944A29
C1200 10pF 2113944A25
MICBIAS1
C1207 33pF 2113944A31
C1203 0.1uF 2113946B04

J2_KEYBRD
0989851N02
TOP
PERIPH_IO_REG
C816 1.0uF 2187893N01 20%-20% 6.3V
HS_INT
R1401 47K 0613952R17
U1401 NL17SZ06 5114007A42
C40 0.1uF 2113946B04
ATI_RESETB_2_7V
C801 0.1uF 2113946B04 10%-10% 10V
BB_SPI_MISO
BB_SPI_MOSI
R2095 100
R2097 100
PC12_LCD_RD
R2112_DNP
R2099 100
BB_SPI_CLK
GRAPH_SPI_CS
R_LCD3
GRAPH_INT
R38 100 0613952Q49
LCD_SDATA_DATA7
LCD_RS
R_LCD3 100 0689209N01
VRBB4 4809948D49
LCD_DATA3
LCD_DATA5
LCD_CS
LCD_DATA2
R_LCD1 100 0689209N01
LCD_CLK_DATA6
LCD_DATA1
LCD_DATA0
LCD_DATA4
R_LCD2 100 0689209N01
KBR6
KBR4
KBR3
KBR5
KBR2
KBR1
FL1401 CSPEMI306AG 4809526L12
KBC6
KBC4
KBC3
KBC5
KBC2
KBC0
KBR7
KBC7
KBC1
KBR0_KP
KBR0
R3 100 0613952Q49
VRBB1 4809948D49
C10DNP
REG_3V
C937 0.1uF 2113946B04
RTC_BATT
C41 0.1uF 2113946B04
IO_REG_FLIP
C39 1000pF 2113945A09
C43 0.1uF 2113946B04
EL_EN
R39 4.7K 0613952Q89
C42 0.1uF 2113946B04
HAND_SPKRM
HAND_SPKRP
CLK_32KHZ_2_7V
VBUCK_FLIP
C23 0.1uF 2113946B04
GRAPH_REG
C19 0.1uF 2113946B04
LT_SNS_CTL
ADC_DATA
R11DNP 8.2K 0613952Q95
LEDB1
C9 0.1uF 2113946B04
PWR_SW
C1420 .01uF 2113945B02

BTRF_REG
PERIPH_IO_REG
C303 0.1uF 2113946B04
C394 1.0uF
U300_SYM
35Y01
V_I_O
VDD_USB
BTRF_REG
BTL_REG
BLUE_WAKEB
BLUE_HOST_WAKEB
BLUE_WAKE
BLUE_HOST_WAKE
BLUE_CLK_EN
EEPROM_CLK
EEPROM_DATA
BLUE_TX
BLUE_RX
BLUE_CTS
BLUE_RTS
USB_DETACH
USB_DP
USB_DN
TM0
TM1_2
TM3
XTAL_IN
XTAL_OUT
ASAP_TX
ASAP_RX
ASAP_FS
ASAP_CLK
REG_CTRL
LPO_IN
RESET_N
ANTENNA_MATCH
TX_PU_TDD_N
CTGND
TXD2
RXD2
CTS2
RTS2
R303 0613952Q95 8.2K
R301 0613952R39 390K
BB_SAP_TX
BB_SAP_RX
BB_SAP_FS
BB_SAP_CLK
CLK_32KHZ
RESETB
Y301 4809612J53 26MHz
C301 15pF 2113944A27
C302 15pF 2113944A27
C319 0.5pF 2188881Y01
L319 12nH 2488090Y14
L320 1nH 2488090Y01
BT_FEED

IO_REG
VBUCK
IO_REG
IO_REG_FLIP
VBUCK_FLIP
C970 39pF 2113944A32
Q960 DG3535 Dual SPDT 5188160Y02

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