

ZZZ1

PCB DAZ@
DAZXXXXXXXXX
LA-B052P

ZZZ2

PCB DA1@
DA600143000
M/B LA-B052PR01

S1

for WF
ZSJET_MB_FRAME 1 PC A false
EC10G000200
@

Compal Confidential

Schematics Document

www.ZSJET1.ru

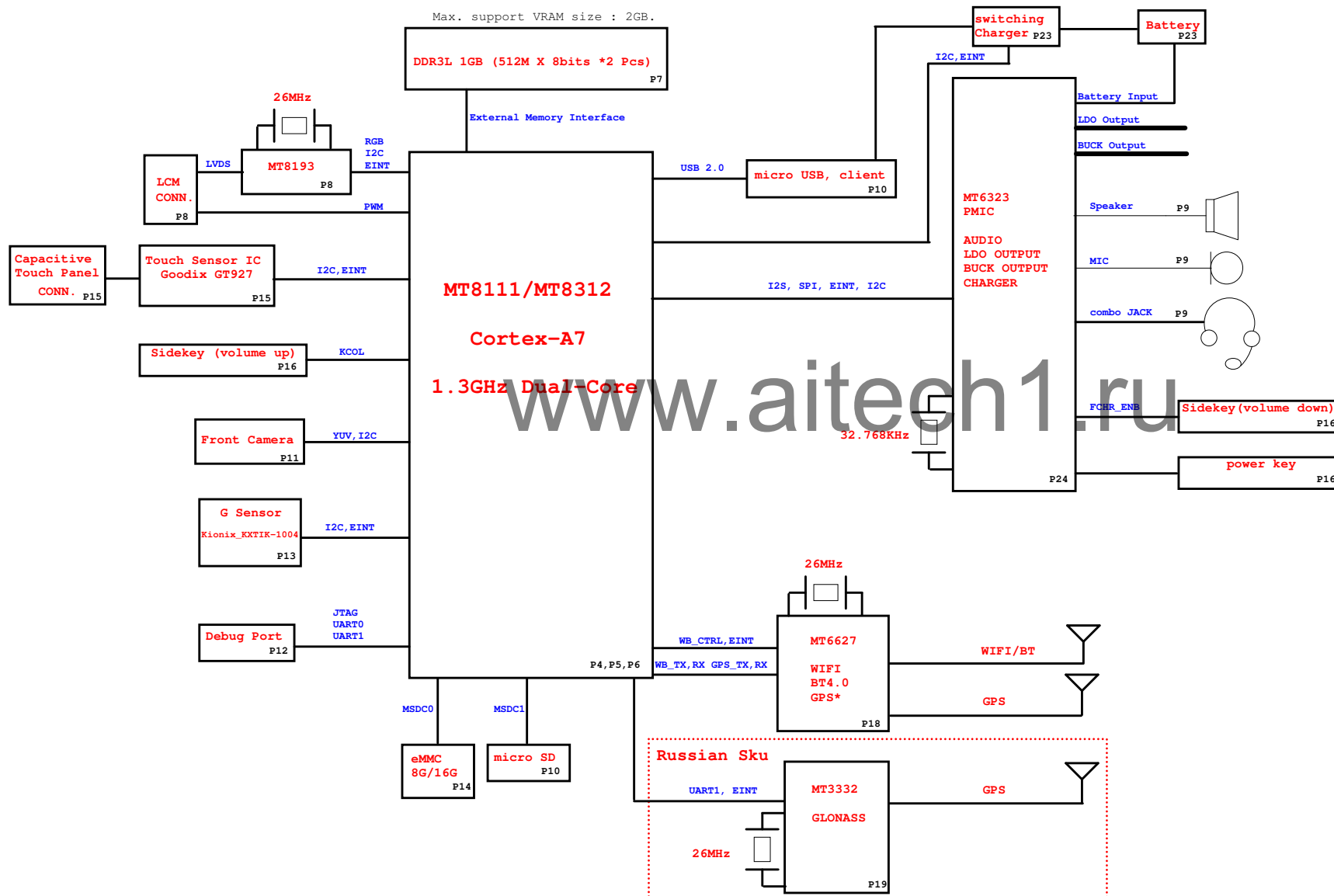
LA-B052P

2013-09-25

REV: 0.1

Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title Cover Page	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF THE CUSTOMER DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number ZSJET LA-B052P	Rev 0.1
				Date: Wednesday, September 25, 2013	Sheet 1 of 28

giordano3 block diagram



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Block Diagram
Size	C	Document Number	ZSJET LA-B052P	Rev
Date:	Wednesday, September 25, 2013	Sheet	2	of 28

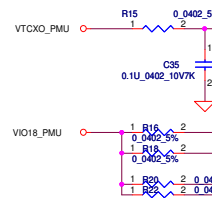
I2C	Device	Address(7 bit)	Address(8bit)	
			Write	Read
I2C0	Touch screen (GT927)	0x5D	0xBA	0xBB
	LCD to LVDS (MT8193)	0x1D	0x3A	0x3B
I2C1	Camera (OV7675)	0x21	0x42	0x43
	Charge (BQ24196)	0x6A	0xD4	0xD5
I2C2	G-sensor (KXTIK-1004)	0x0F	0x1E	0x1F
	G-sensor(STK8313)	0x22	0x44	0x45
	G-sensor (KXTJ2-1009)	0x0E	0x1C	0x1D
	G-sensor (STK8BA50)	0x18	0x30	0x31

[illegible]

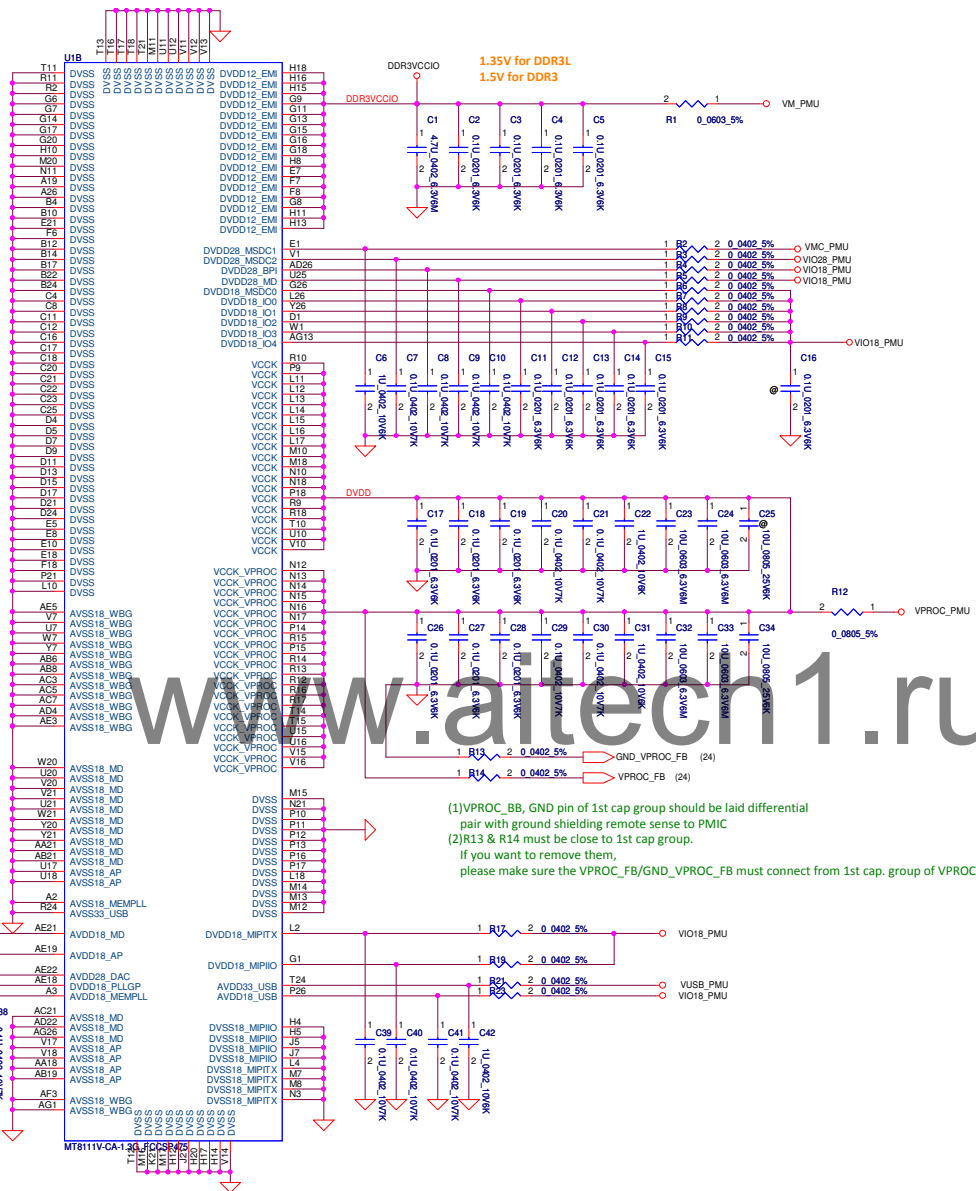
MT6323 Power Plane	Function	Power Level	IDLE	Sleep mode
VPROC_PMU	VPROC switching output for SOC	0.7~ 1.4V	ON	Low voltage
VSYS_PMU	Power supply input of VSYSLDO	2.2V	ON	Gating by SW
VA_PMU	LDO output for MT6323(audio)	2.8V	ON	Gating by SW
VTXCO_PMU	LDO output for TCXO	2.8V	ON	OFF
VCAMA_PMU	LDO output for camera	2.8V	ON	Gating by SW
VM_PMU	LDO output for SOC(DDR3L)	1.35V	ON	Gating by SW
VIO18_PMU	LDO output for eMMC,G-sensor	1.8V	ON	Gating by SW
VIO28_PMU	LDO output for G-sensor,SOC	2.8V	ON	Gating by SW
VCAMD_IO_PMU	LDO output for camera	1.8V	ON	Gating by SW
VEMC_3V3_PMU	LDO output for eMMC	3.3V	ON	Gating by SW
VMCH_PMU	LDO output for micro SD card	3.3V	ON	Gating by SW
VUSB_PMU	LDO output for SOC	3.3V	ON	Gating by SW
VGP1_PMU	LDO output for LCM	3.3V	ON	Gating by SW
VGP2_PMU	LDO output for Touch IC	2.8V	ON	Gating by SW
VCN28_PMU	LDO output for MT6627	2.8V		
VCN33_PMU	LDO output for MT6627	3.3V		
VCN18_PMU	LDO output for MT6627,SOC	1.8V		

MB_ID0	MB_ID1	
0	0	EVT
0	1	DVT
1	0	PVT
1	1	MP

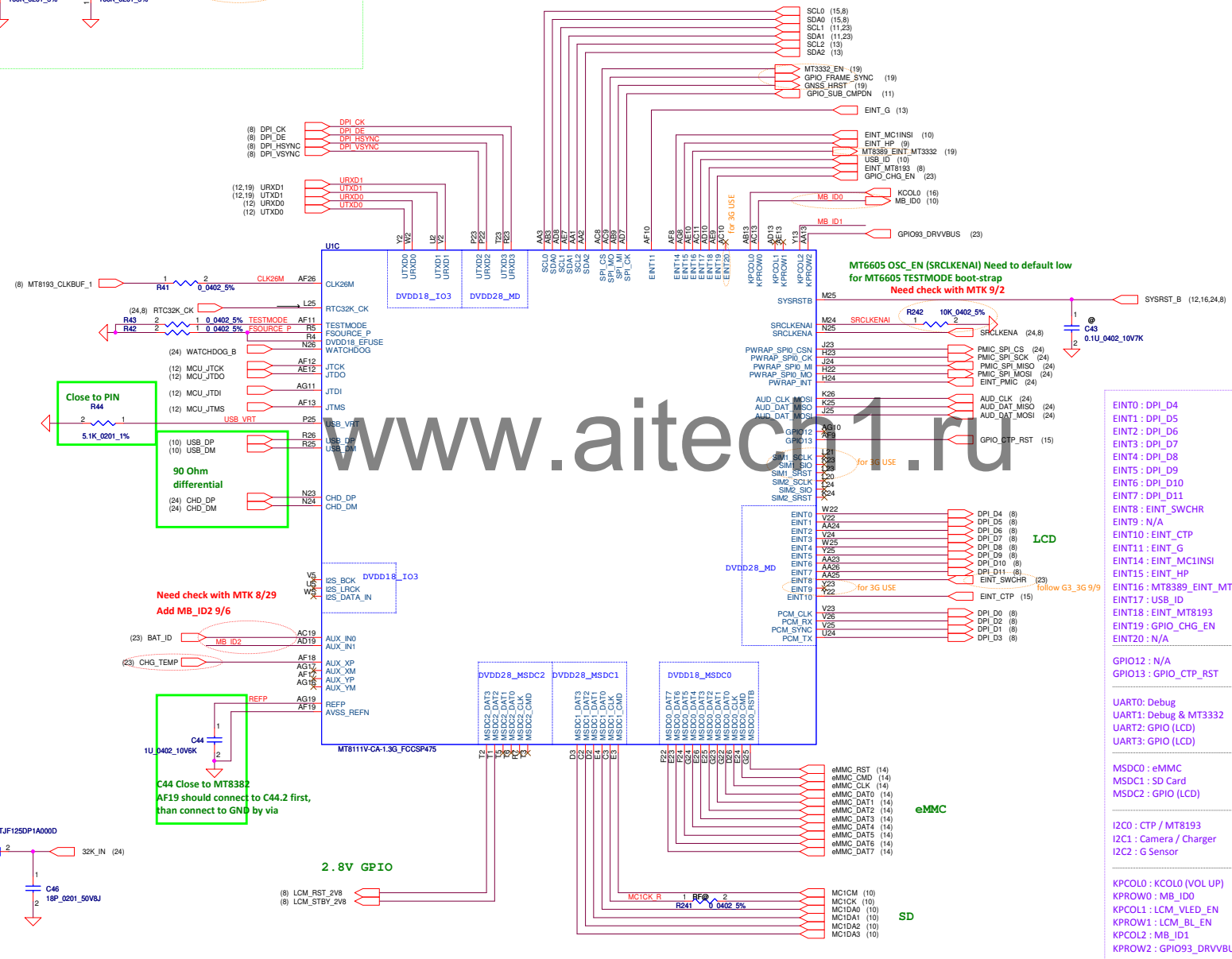
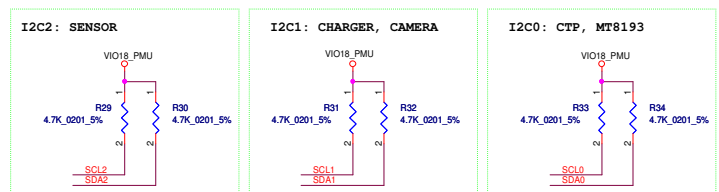
AVSS18_MD and AVSS18_AP
via directly to GND layer



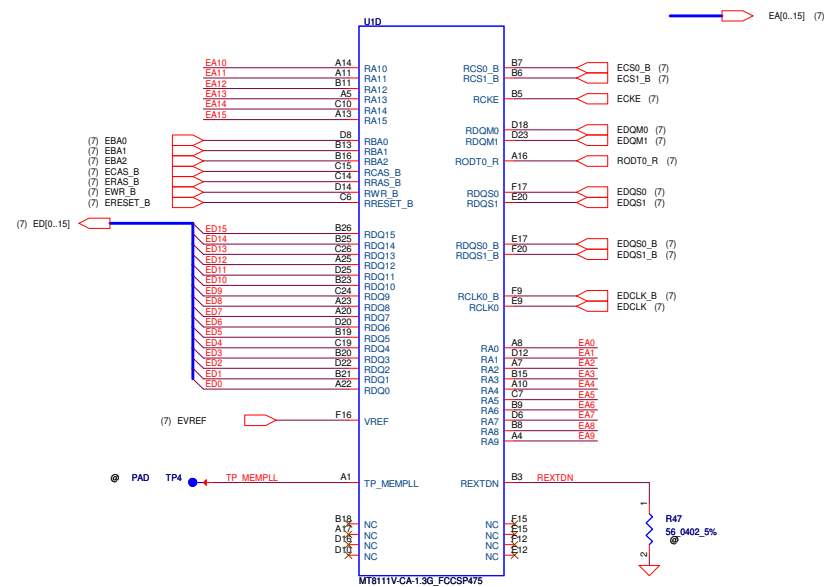
AVDD18_MEMPLL pin and AVSS18_MEMPLL pin should
be connected with PCB CAP first, and then connected
with PMU and PCB ground. CAP should be near MT6582
as possible as we can.



- (1) VPROC_BB, GND pin of 1st cap group should be laid differential pair with ground shielding remote sense to PMIC
 - (2) R13 & R14 must be close to 1st cap group.
- If you want to remove them,
please make sure the VPROC_FB/GND_VPROC_FB must connect from 1st cap. group of VPROC



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title MT8111_Baseband-1
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			Size C	Document Number ZSJET LA-B052P
			Rev 0.1	
			Date: Wednesday, September 25, 2013	Sheet 5 of 28

[illegible]

Pin connection diagram for the M7811V-CA-1.30 FCCSP475 package. The diagram shows connections for various pins including WB_RSTB, WB_SCLK, WB_CTRL0 through WB_CTRL5, WB_TXON, WB_TXOP, WB_TXIN, WB_TXIP, WB_RXON, WB_RXOP, WB_RXIN, WB_RXIP, ANT_SEL0 through ANT_SEL2, and power pins AVDD18_WBG and VCN18_PM. It includes a 10k pull-up resistor on WB_RSTB, a 0.047uF capacitor on F2W_DATA, a 0.047uF capacitor on F2W_CLK, a 10k pull-up resistor on WB_TXON, a 10k pull-up resistor on WB_TXOP, a 10k pull-up resistor on WB_TXIN, a 10k pull-up resistor on WB_TXIP, a 10k pull-up resistor on WB_RXON, a 10k pull-up resistor on WB_RXOP, a 10k pull-up resistor on WB_RXIN, a 10k pull-up resistor on WB_RXIP, and a 10k pull-up resistor on ANT_SEL0. The package is labeled M7811V-CA-1.30 FCCSP475.

Pin connection diagram for MT8111V-CA-1.3G_FCCSP475. The diagram shows connections for the U1E package (left) and MTK Request 9/12 (right).

U1E Package Pins:

- M0, M1, M2, M3, M4, M5, M6, M7, M8, M9, M10
- K0, K1, K2, K3, K4, K5, K6, K7, K8, K9, K10
- J1, J2, J3, J4
- G1, G2, G3, G4
- H3
- N1

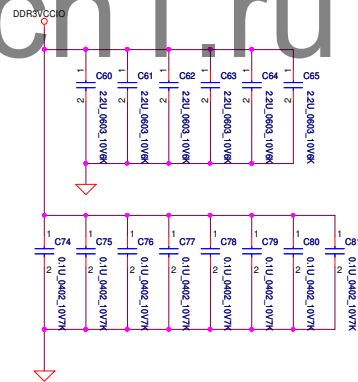
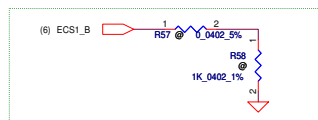
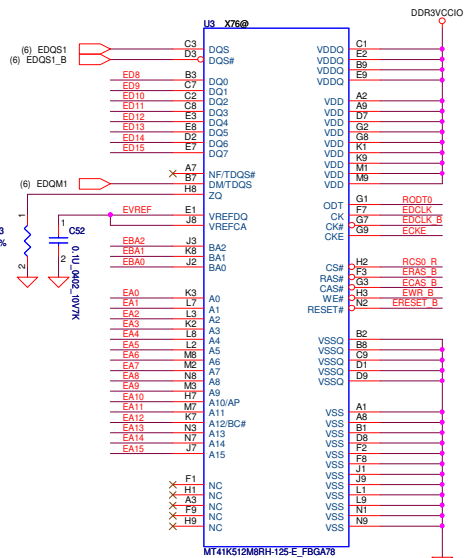
MTK Request 9/12:

- US, VS, AD9
- LCM_VLED_EN (25)
- LCM_BL_EN (25)
- LCD_PWM (25)
- B2, B1
- CMMCLK (11)
- CMPCLK (11)
- CMDAT0, CMDAT1, CMDAT2, CMDAT3, CMDAT4, CMDAT5, CMDAT6, CMDAT7

Connections:

- US to LCM_VLED_EN (25)
- VS to LCM_VLED_EN (25)
- AD9 to LCM_VLED_EN (25)
- B2 to CMMCLK (11)
- B1 to CMPCLK (11)
- CMDAT0 to CMMCLK (11)
- CMDAT1 to CMPCLK (11)
- CMDAT2 to CMMCLK (11)
- CMDAT3 to CMPCLK (11)
- CMDAT4 to CMMCLK (11)
- CMDAT5 to CMPCLK (11)
- CMDAT6 to CMMCLK (11)
- CMDAT7 to CMPCLK (11)
- N1 to VRT via R49 (1.5K, 0201_1%)

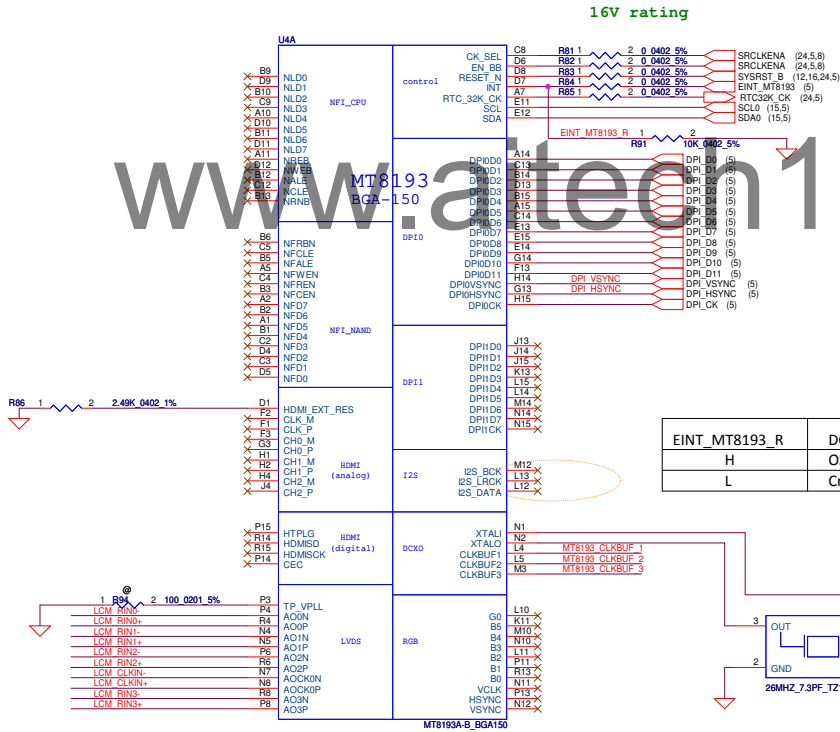
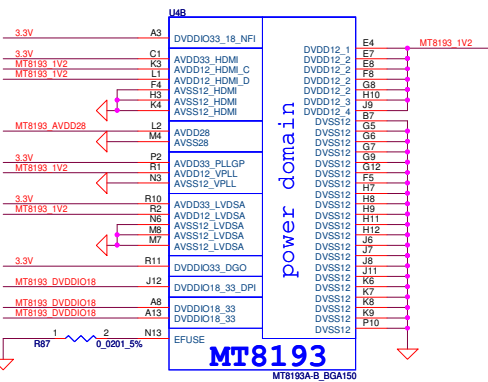
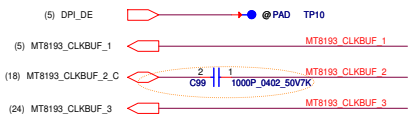
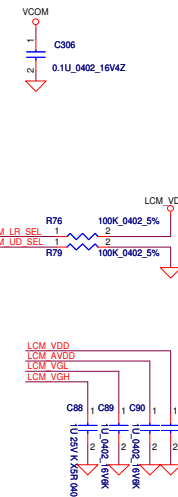
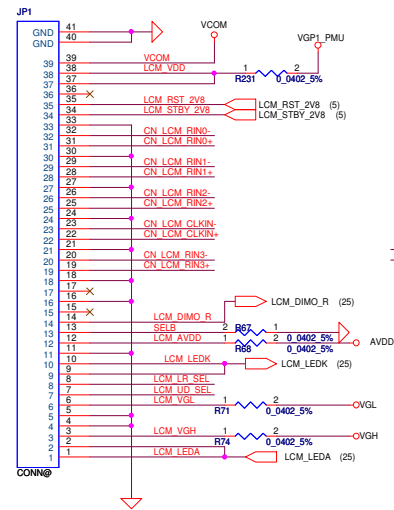
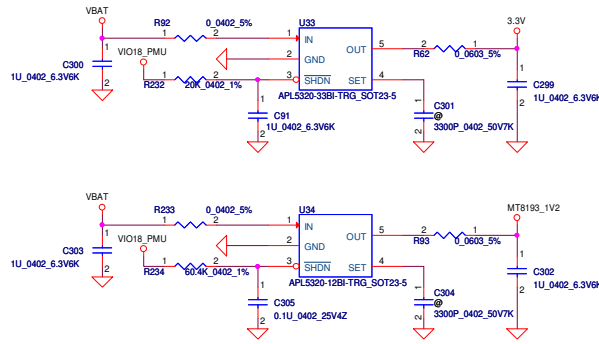
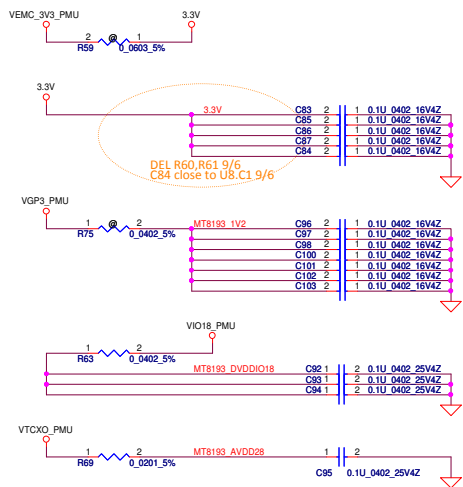
Close to MT8382



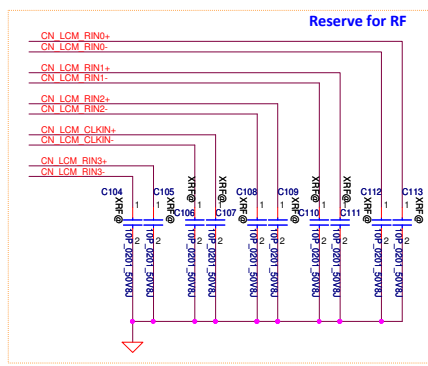
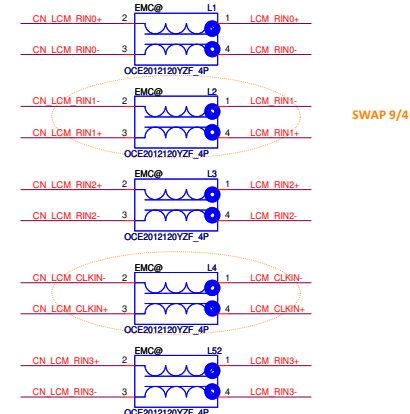
ZZZ9 MICRON 1GB@
X76543BOL02
ALT. GROUP PARTS MICRON 1G ZSJ1V

www.aitech1.ru

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title	Memory - DDR3L
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT USED AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
					ZSJET LA-B052P
				Date:	Wednesday, September 25, 2013
				Sheet	7 of 28

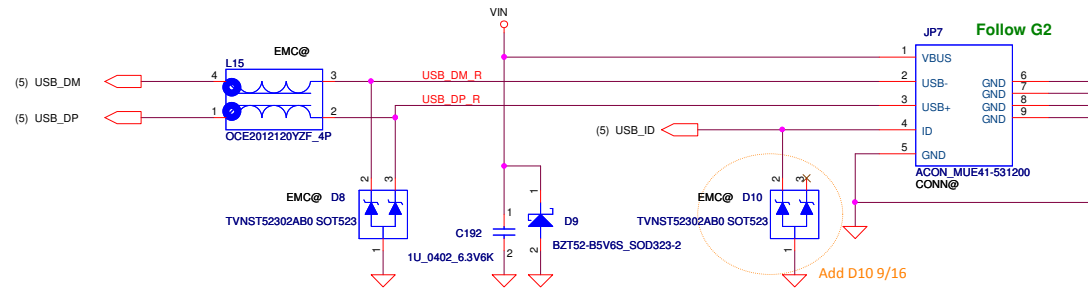


EINT_MT8193_R	DCXO
H	OSC
L	Crystal



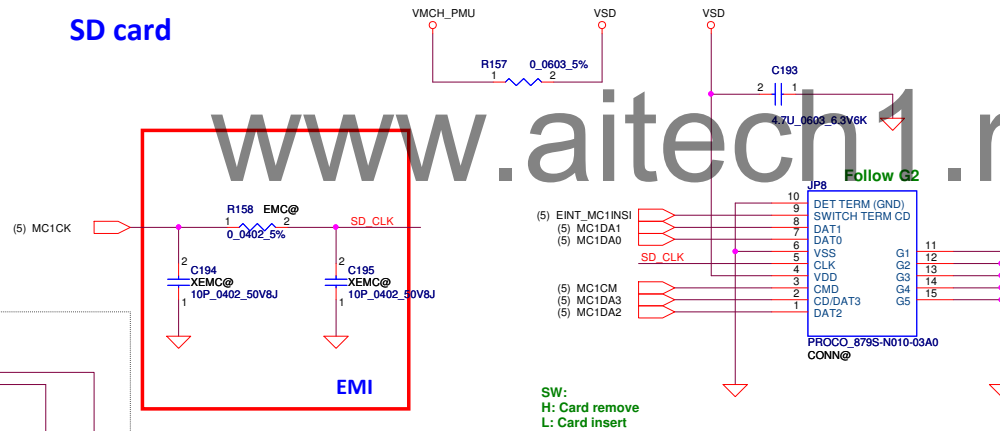
Micro-USB

If mini-A connector insert => CID < 0V => Low
If mini-B connector insert => CID > 1.2V => High
IDPULLUP pin is replaced by 1.2V power source.



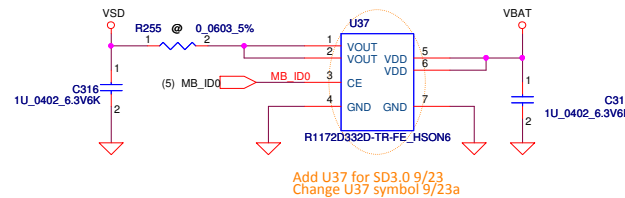
Compal GND MTK GND

SD card



SW:
H: Card remove
L: Card insert

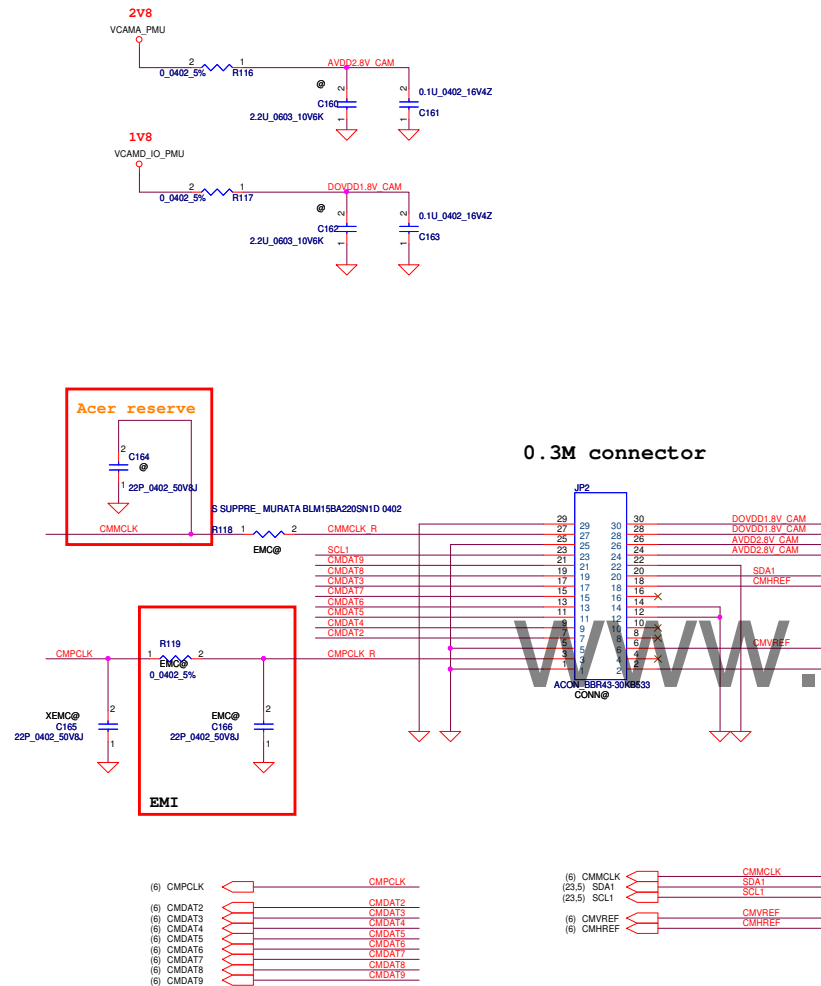
Reserve for RF, Close U1



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title SD card/USB	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF FIRST DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev
				Custom	0.1
				Date	Wednesday, September 25, 2013
				Sheet	10 of 28

JSJET LA-B052P

Front Camera



Security Classification		Compal Secret Data		Compal Electronics, Inc.			
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title	Camera		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number	Rev	
					ZSJET LA-B052P	0.1	
				Date:	Wednesday, September 25, 2013	Sheet	11 of 28

5 4 3 2 1

Common Debug

JP3

(16,24,5,8) SYSRST_B

R120

0_0402_5%

URXD0 (5)
UTXD0 (5)
URXD1 (19,5)
UTXD1 (19,5)

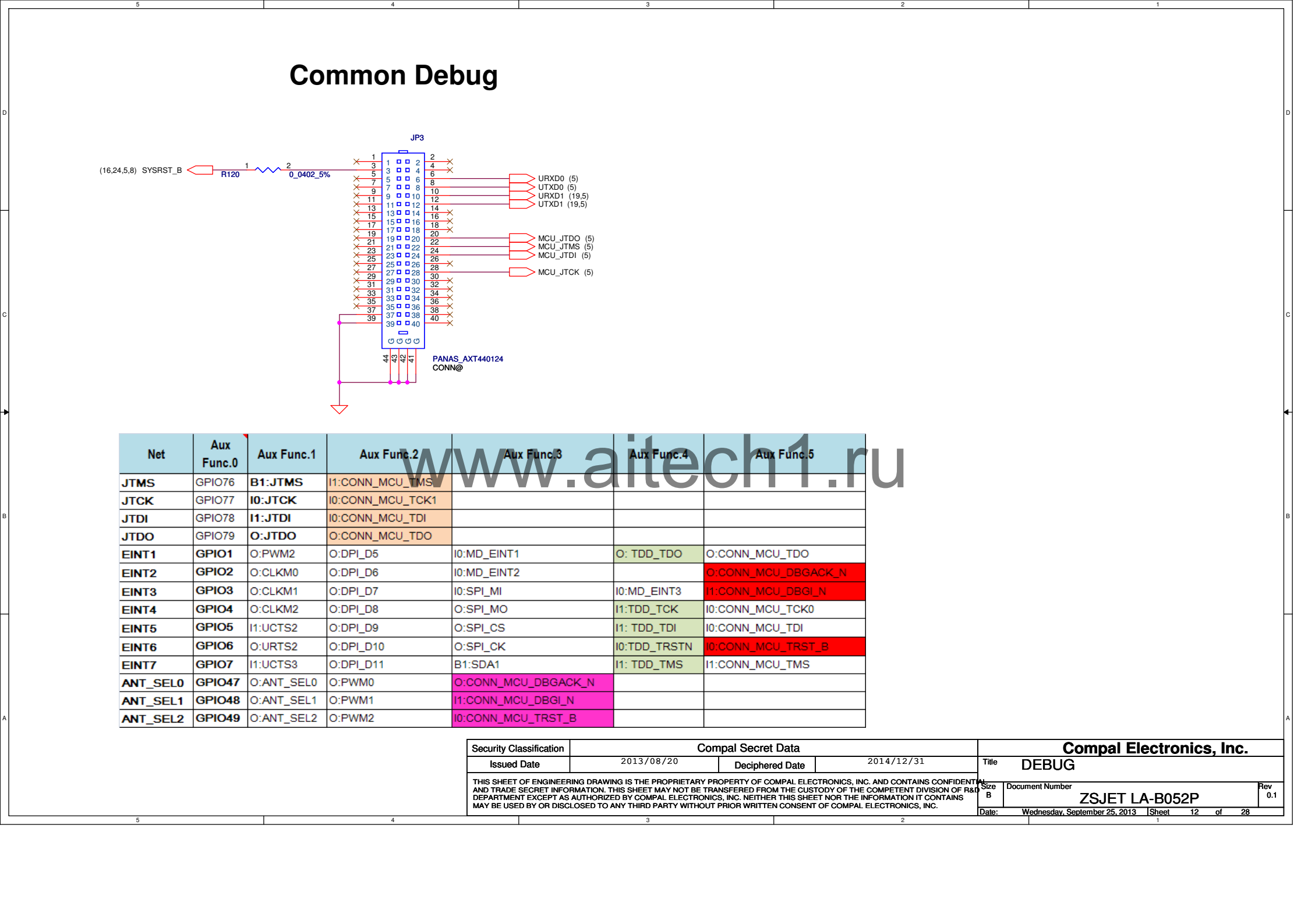
MCU_JTDO (5)
MCU_JTMS (5)
MCU_JTDI (5)
MCU_JTCK (5)

PANAS_AXT440124
CONN@

Net	Aux Func.0	Aux Func.1	Aux Func.2	Aux Func.3	Aux Func.4	Aux Func.5
JTMS	GPIO76	B1:JTMS	I1:CONN_MCU_TMS			
JTCK	GPIO77	I0:JTCK	I0:CONN_MCU_TCK1			
JTDI	GPIO78	I1:JTDI	I0:CONN_MCU_TDI			
JTDO	GPIO79	O:JTDO	O:CONN_MCU_TDO			
EINT1	GPIO1	O:PWM2	O:DPI_D5	I0:MD_EINT1	O: TDD_TDO	O:CONN_MCU_TDO
EINT2	GPIO2	O:CLKM0	O:DPI_D6	I0:MD_EINT2		O:CONN_MCU_DBGACK_N
EINT3	GPIO3	O:CLKM1	O:DPI_D7	I0:SPI_MI	I0:MD_EINT3	I1:CONN_MCU_DBGI_N
EINT4	GPIO4	O:CLKM2	O:DPI_D8	O:SPI_MO	I1:TDD_TCK	I0:CONN_MCU_TCK0
EINT5	GPIO5	I1:UCTS2	O:DPI_D9	O:SPI_CS	I1: TDD_TDI	I0:CONN_MCU_TDI
EINT6	GPIO6	O:URTS2	O:DPI_D10	O:SPI_CK	I0:TDD_TRSTN	I0:CONN_MCU_TRST_B
EINT7	GPIO7	I1:UCTS3	O:DPI_D11	B1:SDA1	I1: TDD_TMS	I1:CONN_MCU_TMS
ANT_SEL0	GPIO47	O:ANT_SEL0	O:PWM0	O:CONN_MCU_DBGACK_N		
ANT_SEL1	GPIO48	O:ANT_SEL1	O:PWM1	I1:CONN_MCU_DBGI_N		
ANT_SEL2	GPIO49	O:ANT_SEL2	O:PWM2	I0:CONN_MCU_TRST_B		

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title	DEBUG
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number ZSJET LA-B052P
				Date: Wednesday, September 25, 2013	Sheet 12 of 28

Rev 0.1



5 4 3 2 1

Common Debug

JP3

(16,24,5,8) SYSRST_B

R120

0_0402_5%

URXD0 (5)
UTXD0 (5)
URXD1 (19,5)
UTXD1 (19,5)

MCU_JTDO (5)
MCU_JTMS (5)
MCU_JTDI (5)
MCU_JTCK (5)

PANAS_AXT440124
CONN@

Net	Aux Func.0	Aux Func.1	Aux Func.2	Aux Func.3	Aux Func.4	Aux Func.5
JTMS	GPIO76	B1:JTMS	I1:CONN_MCU_TMS			
JTCK	GPIO77	I0:JTCK	I0:CONN_MCU_TCK1			
JTDI	GPIO78	I1:JTDI	I0:CONN_MCU_TDI			
JTDO	GPIO79	O:JTDO	O:CONN_MCU_TDO			
EINT1	GPIO1	O:PWM2	O:DPI_D5	I0:MD_EINT1	O:TDD_TDO	O:CONN_MCU_TDO
EINT2	GPIO2	O:CLKM0	O:DPI_D6	I0:MD_EINT2		O:CONN_MCU_DBGACK_N
EINT3	GPIO3	O:CLKM1	O:DPI_D7	I0:SPI_MI	I0:MD_EINT3	I1:CONN_MCU_DBGI_N
EINT4	GPIO4	O:CLKM2	O:DPI_D8	O:SPI_MO	I1:TDD_TCK	I0:CONN_MCU_TCK0
EINT5	GPIO5	I1:UCTS2	O:DPI_D9	O:SPI_CS	I1:TDD_TDI	I0:CONN_MCU_TDI
EINT6	GPIO6	O:URTS2	O:DPI_D10	O:SPI_CK	I0:TDD_TRSTN	I0:CONN_MCU_TRST_B
EINT7	GPIO7	I1:UCTS3	O:DPI_D11	B1:SDA1	I1:TDD_TMS	I1:CONN_MCU_TMS
ANT_SEL0	GPIO47	O:ANT_SEL0	O:PWM0	O:CONN_MCU_DBGACK_N		
ANT_SEL1	GPIO48	O:ANT_SEL1	O:PWM1	I1:CONN_MCU_DBGI_N		
ANT_SEL2	GPIO49	O:ANT_SEL2	O:PWM2	I0:CONN_MCU_TRST_B		

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title	DEBUG
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number ZSJET LA-B052P
				Date: Wednesday, September 25, 2013	Sheet 12 of 28

Rev 0.1

5 4 3 2 1

Common Debug

JP3

(16,24,5,8) SYSRST_B

R120

0_0402_5%

URXD0 (5)
UTXD0 (5)
URXD1 (19,5)
UTXD1 (19,5)

MCU_JTDO (5)
MCU_JTMS (5)
MCU_JTDI (5)
MCU_JTCK (5)

PANAS_AXT440124
CONN@

Net	Aux Func.0	Aux Func.1	Aux Func.2	Aux Func.3	Aux Func.4	Aux Func.5
JTMS	GPIO76	B1:JTMS	I1:CONN_MCU_TMS			
JTCK	GPIO77	I0:JTCK	I0:CONN_MCU_TCK1			
JTDI	GPIO78	I1:JTDI	I0:CONN_MCU_TDI			
JTDO	GPIO79	O:JTDO	O:CONN_MCU_TDO			
EINT1	GPIO1	O:PWM2	O:DPI_D5	I0:MD_EINT1	O:TDD_TDO	O:CONN_MCU_TDO
EINT2	GPIO2	O:CLKM0	O:DPI_D6	I0:MD_EINT2		O:CONN_MCU_DBGACK_N
EINT3	GPIO3	O:CLKM1	O:DPI_D7	I0:SPI_MI	I0:MD_EINT3	I1:CONN_MCU_DBGI_N
EINT4	GPIO4	O:CLKM2	O:DPI_D8	O:SPI_MO	I1:TDD_TCK	I0:CONN_MCU_TCK0
EINT5	GPIO5	I1:UCTS2	O:DPI_D9	O:SPI_CS	I1:TDD_TDI	I0:CONN_MCU_TDI
EINT6	GPIO6	O:URTS2	O:DPI_D10	O:SPI_CK	I0:TDD_TRSTN	I0:CONN_MCU_TRST_B
EINT7	GPIO7	I1:UCTS3	O:DPI_D11	B1:SDA1	I1:TDD_TMS	I1:CONN_MCU_TMS
ANT_SEL0	GPIO47	O:ANT_SEL0	O:PWM0	O:CONN_MCU_DBGACK_N		
ANT_SEL1	GPIO48	O:ANT_SEL1	O:PWM1	I1:CONN_MCU_DBGI_N		
ANT_SEL2	GPIO49	O:ANT_SEL2	O:PWM2	I0:CONN_MCU_TRST_B		

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title	DEBUG
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number ZSJET LA-B052P
				Date: Wednesday, September 25, 2013	Sheet 12 of 28

Rev 0.1

R121

20 0402 5%
SD028000A8R
STK8313@

R122

0 0402 5%
SD028000080
STK8313@

C167

1U 0402 6.3V6K
SE000000K80
STK8313@

C168

0.1U 0402 10V6K
SE095104K80
STK8313@

R250

0 0201 5%
SD043000080
STK8BA50@

R251

0 0201 5%
SD043000080
STK8BA50@

R252

20 0402 5%
SD028000A8R
STK8BA50@

R253

0 0402 5%
SD028000080
STK8BA50@

C313

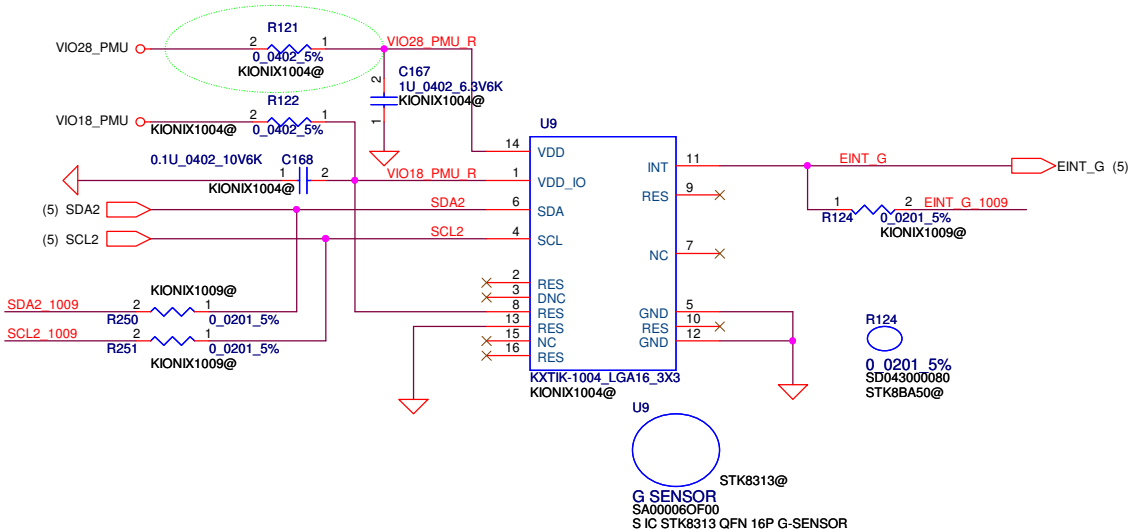
1U 0402 6.3V6K
SE000000K80
STK8BA50@

C314

1U 0402 6.3V6K
SE000000K80
STK8BA50@

for co-lay STK8313 ,R121 need change to 20 ohm

G-Sensor



ZZZ4

STK8313@

G SENSOR
X76503BOL11
ALT. GROUP PARTS G-SENSOR SITRONIX ZSJVV

ZZZ5

KIONIX1004@

G SENSOR
X76503BOL12
T. GROUP PARTS G-SENSOR KIONIX ZSJVV

ZZZ6

STK8BA50@

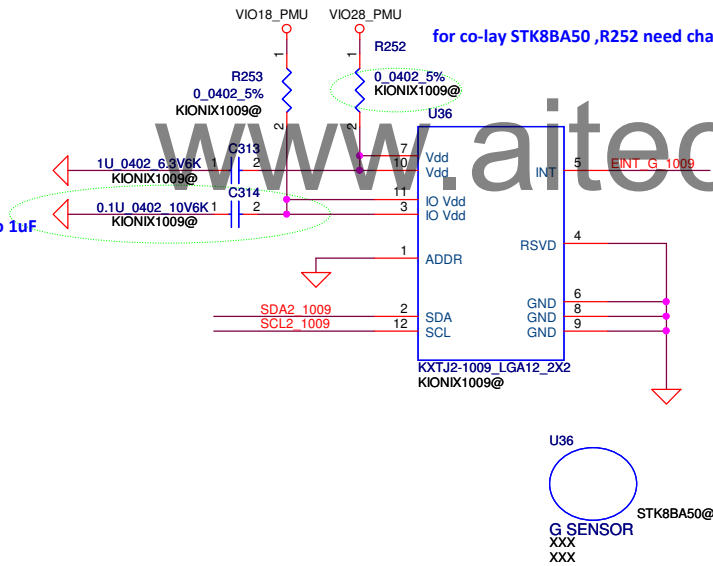
G SENSOR
X76503BOL13

ZZZ7

KIONIX1009@

G SENSOR
X76503BOL14

for co-lay STK8BA50 ,R252 need change to 20 ohm



for co-lay STK8BA50 ,C314 need change to 1uF

Compal GND

MTK GND

X76 level	BOM structure	Note
	STK8313@	
	KIONIX1004@	
	STK8BA50@	
	KIONIX1009@	

	slave addresses
STK8313	0x22 (W:0x44, R:0x45)
KIONIX1004	0x0F (W:0x1E, R:0x1F)
STK8BA50	0x18 (W:0x30, R:0x31)
KIONIX1009	0x0E (W:0x1C, R:0x1D)

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				G-Sensor
				Document Number
				ZSJET LA-B052P
				Rev 0.1
				Date: Wednesday, September 25, 2013 Sheet 13 of 28

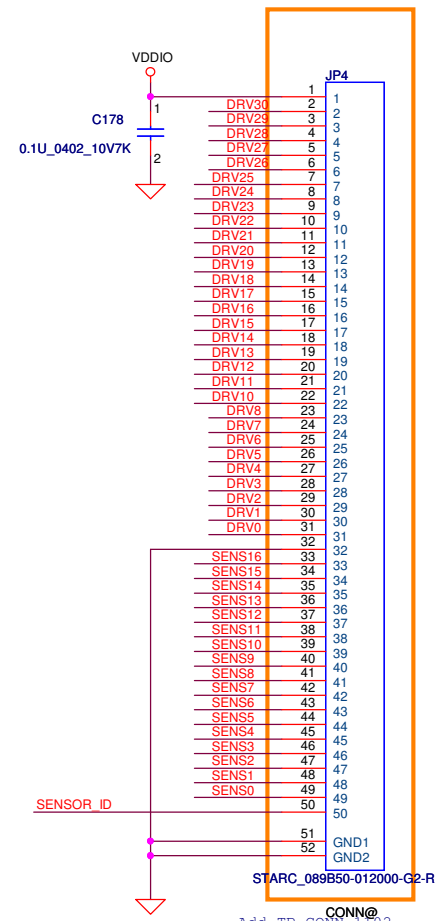
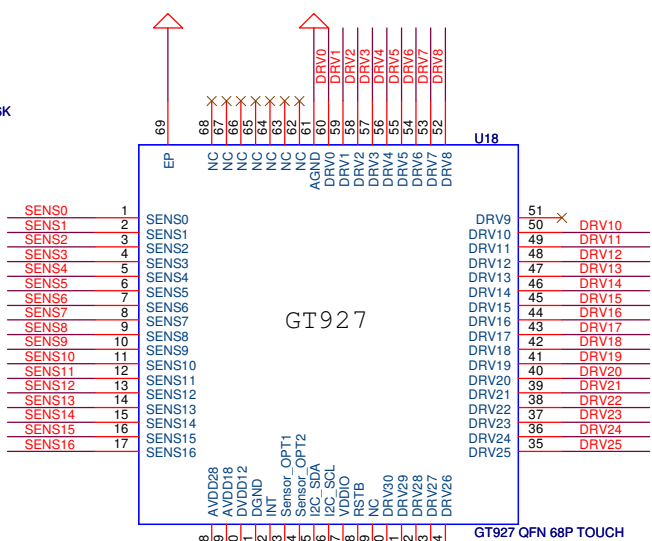
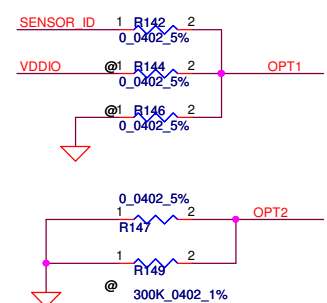
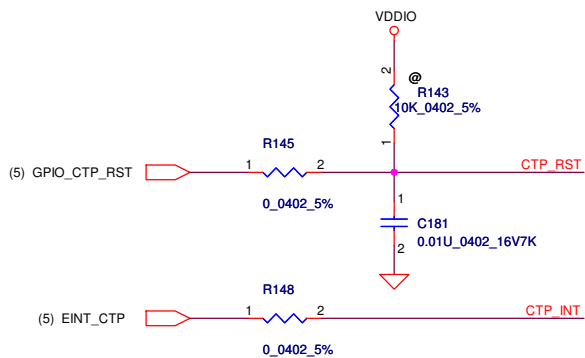
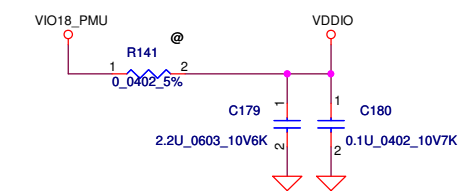
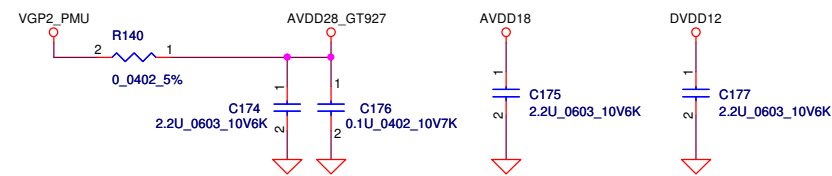
Close to Memory



Pinout diagram of the eMMC module showing connections to the processor. The diagram includes labels for CLK_R, R190, 27, 0601, 1%, eMMC_DAT0, eMMC_CLK, eMMC_CMD, eMMC_RST, MTK advise to use 270hm, and PK0 TP1. The connections are shown as lines between the module pins and the processor pins.

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title	eMMC
<p>THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.</p>				Size C	Document Number ZSJET LA-B052P
				Date: Wednesday, September 25, 2013	Sheet 14 of 28

VGP2_PMU for CTP 2.8V



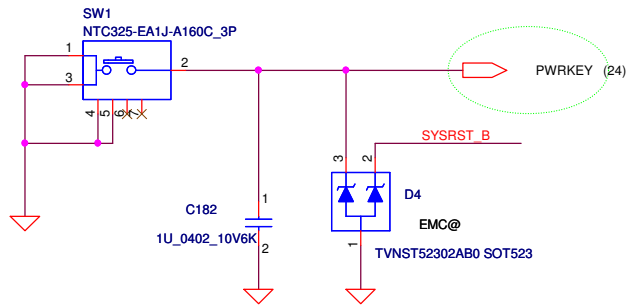
Compal GND

MTK GND

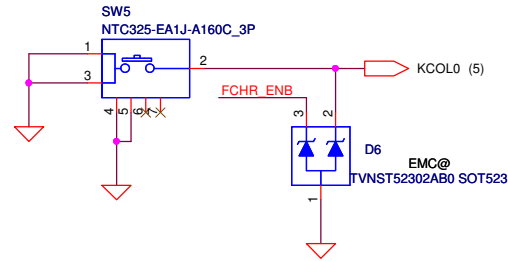
www.aitech1.ru

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title	Touch Panel
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev
				ZSJET LA-B052P	0.1
				Date: Wednesday, September 25, 2013	Sheet 15 of 28

Power-on Button



Volume Up

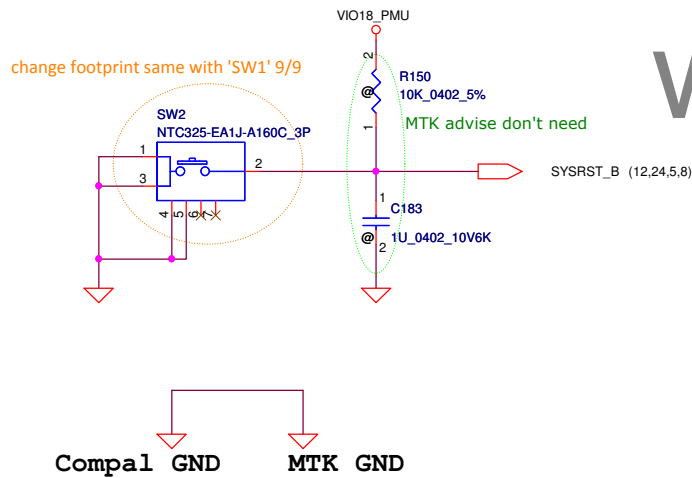


Notice :

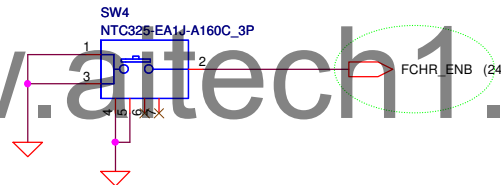
1. Due to KCOL0 & KROW0 reset mode = GPIO input mode, "Force USB download mode" will be fail in KCOL0+KROW0. So we change VolumeUp key=KCOL0+GND
2. Keypad matrix will become as
(KEY1=KCOL0+GND)

	KCOL0	KCOL1	KCOL2
KROW0	KEY 1	KEY 2	KEY 5
KROW1		KEY 3	KEY 6
KROW2		KEY 4	KEY 7

RESET



Volume Down(Download Key)



FCHR_ENB (VOL_DOWN#) can be configured as a normal key function

Notice :

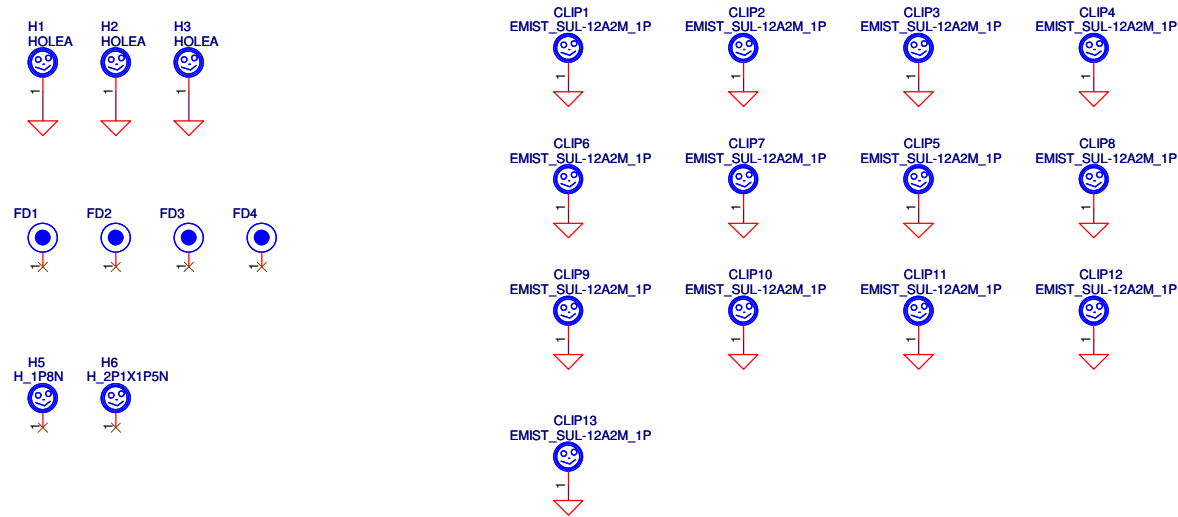
There are 3 options for "Long press to shutdown" function

- 1.PWRKEY + FCHR_ENB
- 2.PWERKEY only
- 3.FCHR_ENB only

During download mode, default = PWRKEY + FCHR_ENB

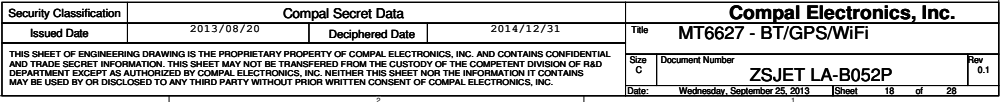
For other case (exclude download mode), default = PWERKEY only

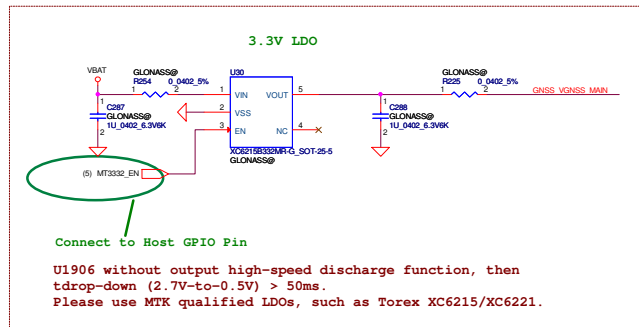
SCREW HOLE



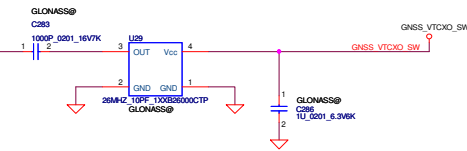
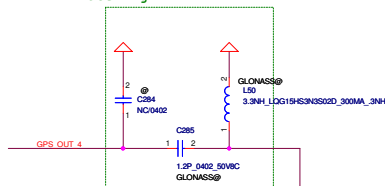
www.aitech1.ru

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title	SCREW HOLE
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number ZSJET LA-B052P
				Date:	Wednesday, September 25, 2013
				Sheet	17 of 28





MT3332 on-chip LNA Matching



1.8V / 2.8V IO Voltage Selection

2.8V IO : U32 pin30 · 42 need change to GNSS_VTLDO
1.8V IO : U32 pin30 · 42 (IO voltage is SMPS_IV8)

www.aitech1.ru

MT3332
QFN-48pins

C294 close to pin1

C296 is close to pin3

pin14 connect to C297 GND net first,
then connect to reference GND

C296 is close to pin3

RTC Voltage (2.8V)

Connect GNSS_HOST_VRTC to always alive voltage source, and keep the voltage swing of GNSS_HOST_32K RTC clock same as GNSS_HOST_VRTC.

Reserved for improving GNSS Hot-Start performance.

Reference Frequency Selection

16.368MHz TCXO : R228 = NC, PIN_41 = NC
26MHz TCXO : R228 = 10K, PIN_41 = NC
26MHz XTAL : R228 = 10K, PIN_41 contact 10K

Connect to HOST UART (TX/RX) interface

Security Classification			Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31		MT3332 - GLONASS	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.						Rev 0.1
Document Number				ZSJET LA-B052P		
Date				Wednesday, September 25, 2013 13:00		

5

4

3

2

1

D

D

C

C

B

B

A

A

www.aitech1.ru

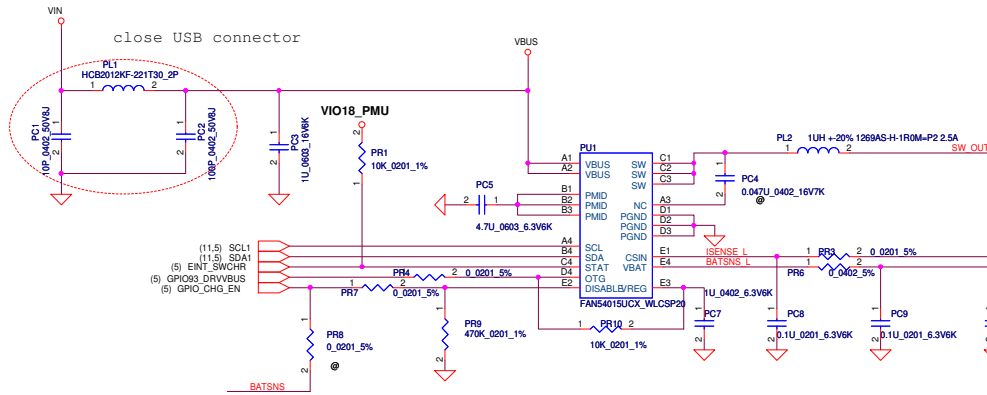
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				RF MT6166 (3G)	
				Size	Document Number
				Custom	ZSJET LA-B052P
				Date	Wednesday, September 25, 2013
				Sheet	20 of 28
				Rev	0.1

www.aitech1.ru

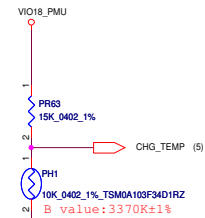
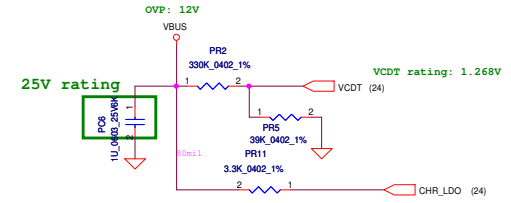
Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title RF_TX_ASM (3G)
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF THE DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			Document Number ZSJET LA-B052P	Rev 0.1
			Date Wednesday, September 25, 2013	Sheet 21 of 28

www.aitech1.ru

Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title Connector - SIM (3G)		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number ZSJET LA-B052P	Rev 0.1
				Date:	Wednesday, September 25, 2013	Sheet 22 of 28



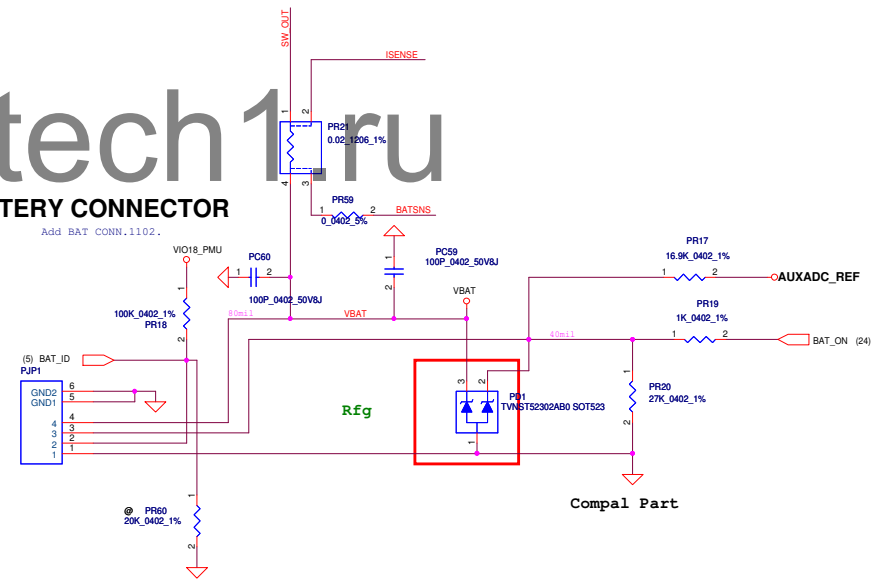
Charger



www.aitech1.ru

BATTERY CONNECTOR

Add BAT_CONN.1102.



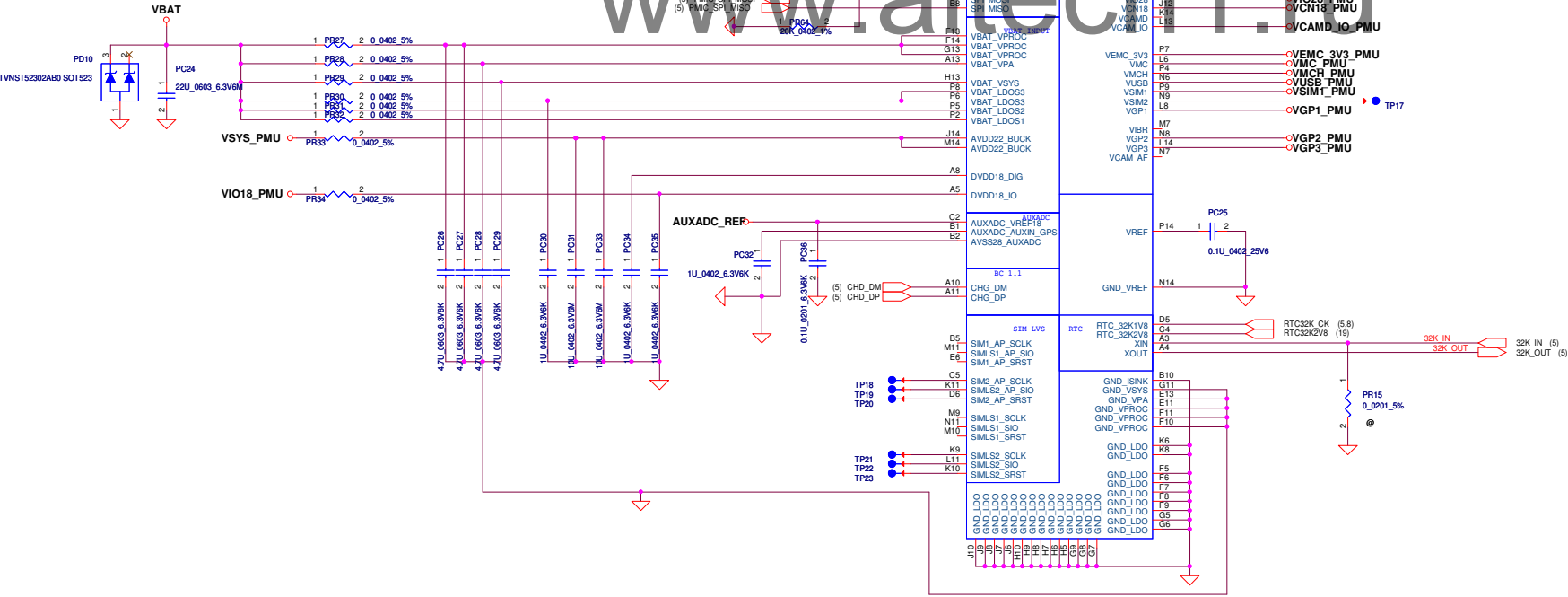
Compal Part

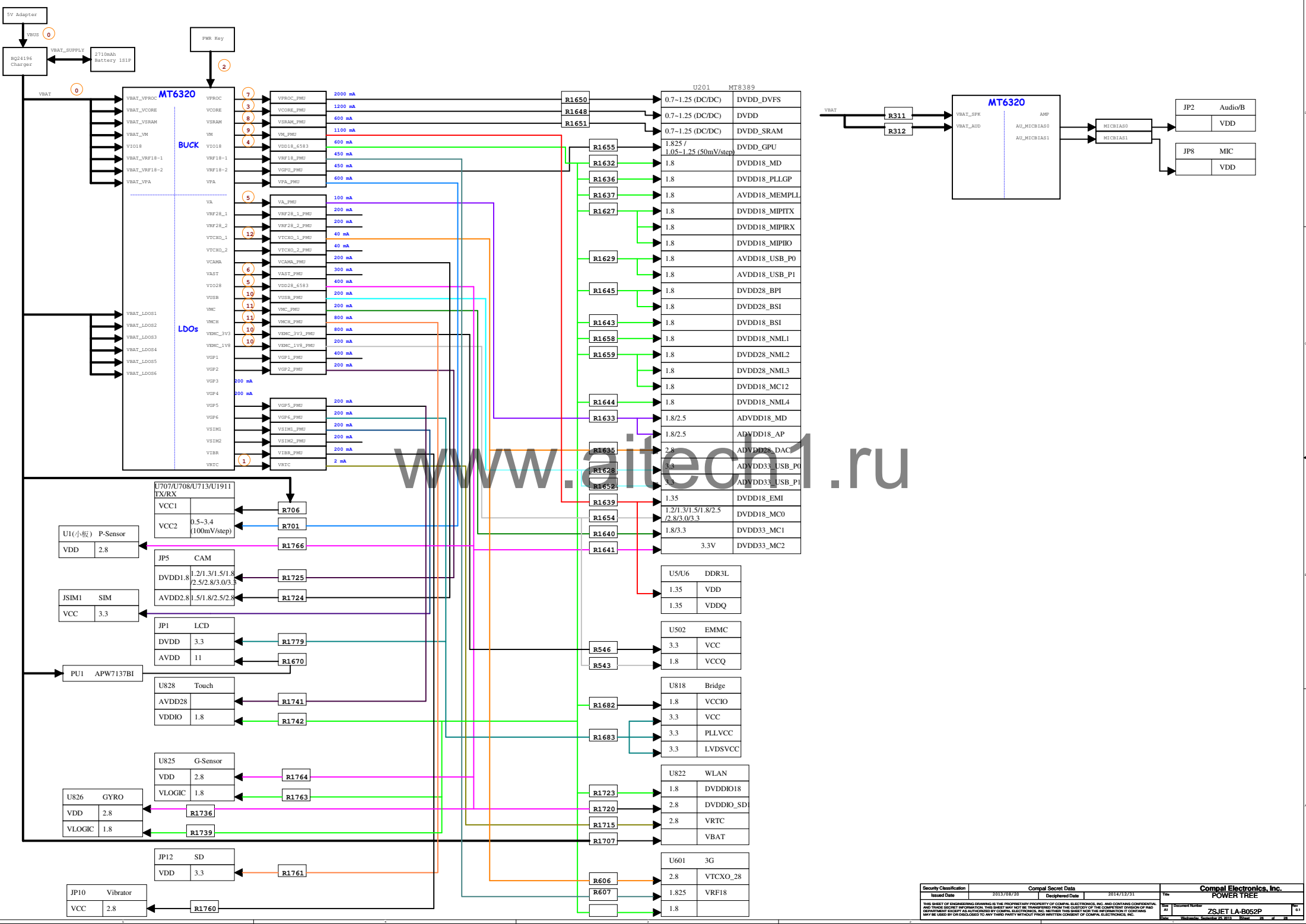
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title	Charger
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size C	Document Number ZSJ1V-LAB052P
				Date: Wednesday, September 25, 2013	Sheet 23 of 28

	LPDDR2/1.2V	PCDDR3L/1.35V	PCDDR3/1.5V	LPDDR1/1.8V	Default
SPI_CSN	H	L(20K)	H	L(20K)	PU
AUD_MOSI	L	H(20K)	H(20K)	L	PD

PMIC

	Symbol	Vout (V)	Iout (mA)
Buck	VPROC	1.15	2800
	VPA	0.5~3.4	600
	VSYS	2.2	1200
Analog LDO	VA	2.8	150
	VCN28	2.8	30
	VTCXO	2.8	40
	VCAMA	2.8	150
	VCN33	3.3/3.4/3.5/3.6	240
Digital LDO	VRTC	2.8	2
	VM	1.24/1.35/1.5/1.84	700
	VRP18	1.825	200
	VIO18	1.8	300
	VIO28	2.8	200
	VCN18	1.8	120
	VCAMD	1.2/1.3/1.5/1.8	150
	VCAM_IO	1.8	100
	VEMC_3V3	3.0/3.3	400
	VMC	1.8/3.3	100
	VMCH	3.0/3.3	400
	VUSB	3.3	20
	VSIM1	1.8/3.0	50
	VSIM2	1.8/3.0	50
	VGP1	1.2/1.3/1.5/1.8/2.0/2.8/3.0/3.3	100
	VIBR	1.2/1.3/1.5/1.8/2.0/2.8/3.0/3.3	100
	VGP2	1.2/1.3/1.5/1.8/2.0/2.5/2.8/3.0	200
	VGP3	1.2/1.3/1.5/1.8	200
	VCAM_AF	1.2/1.3/1.5/1.8/2.0/2.8/3.0/3.3	100





2013/3/11
Update PD11 , D308 , D309 , D310 , D311 , L301 ,
L302 , L303 , L304 , L307 , C647 , C646 , C635 ,
C638 compal P/N
Change to un-pop : PR50 , R1838 , R314 ,R315
Change to pop : R1855

2013/3/13
Add C318

2013/3/14
Del R332,R348

2013/4/1
add R1847
reserve 0-ohm for panel design

2013/4/10
reserve C346 for VGP6 PMU
PR51 change to 15K_0402_1%
PH1 change to 10K_0402_1%

2013/4/15
Add PL5 , PC143 ,PC144 for EMI request
Add PC21 , PC22 ,PC23 for RF request

2013/4/22
Change L307 and C342 to reserve

2013/5/6
Change L306 and C338 BOM structure to 3G@

2013/5/6
Change PC21,PC22 and PC23 BOM structure to 3G@
PC21 change from 22P to 10P
PC22 and PC23 change 68P to 33P

2013/5/8
Change L305 and C337 BOM structure to 3G@

2013/5/8
Change D311 and C638 BOM structure to 3G@

2013/5/20
Change PR30 , PR31 ,R339 ,R321 , R322 , R323
R324 , R325 , R326 , R327 , R328, R329 , R338 ,
R1855 to R-SHORT

2013/5/24
Add PR32(reserve)

2013/6/18
L304 change from SH0000XK00 to SH00000U00
L301,L302,L303 change from SH0000XJ00 to SH00000YN00

www.aitech1.ru

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title POWER PIR	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF FIRST DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Part Custom	Document Number ZSJET LA-B052P
				Date	Rev 0.1
				Date: Wednesday, September 25, 2013 1 Sheet 27 of 28	

www.aitech1.ru

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/20	Deciphered Date	2014/12/31	Title HW PIR	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF FIRST DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number ZSJET LA-B052P	Rev 0.1
				Date: Wednesday, September 25, 2013	Sheet 28 of 28