Page 2

OEM board connector interface and
Expansion connectors

Page 3

JTAG interface, ETM interface, QVGA interface,
Ethernet interface and Reset key&LED

Page 4

Analog inputs, I2C: LEDs and joystick,
Memory card interface, Speaker output and IRQ input

Page 5

UART: USB-to-serial interface, RS232 interface,
Power supply and CAN interface

Page 6

USB OTG interface, USB Host interface
and USB device interface

UL = UnLoaded = normally not mounted component.

Rev 1.5

Added J52 and updated J11 for touch screen interface.
Added speaker output (design around U15 and SP1).

Rev 1.4

ABUF_EN (J50, pin7) grounded to enable
memory bus interface.

Rev 1.3

Added D6 and C41.

Rev 1.2

Changed J1 into J1 and J2 (new OEM board connector).
Added C66, C71, C72 and C73.
Added J1 and J51 (power pads for expansion connectors).

Rev 1.1

Added configuration jumpers around QVGA connector.
U1 changed from OR to AND gate.
Added R61 and J47 around MMC/SD interface.
Changed U4 & U5 to MIC29302. Changed R31 to 680R.
Added J30/31/38/40 for RF module interface.
Added R62, LED16, U14 and J48.

Rev 1.0

Original revision

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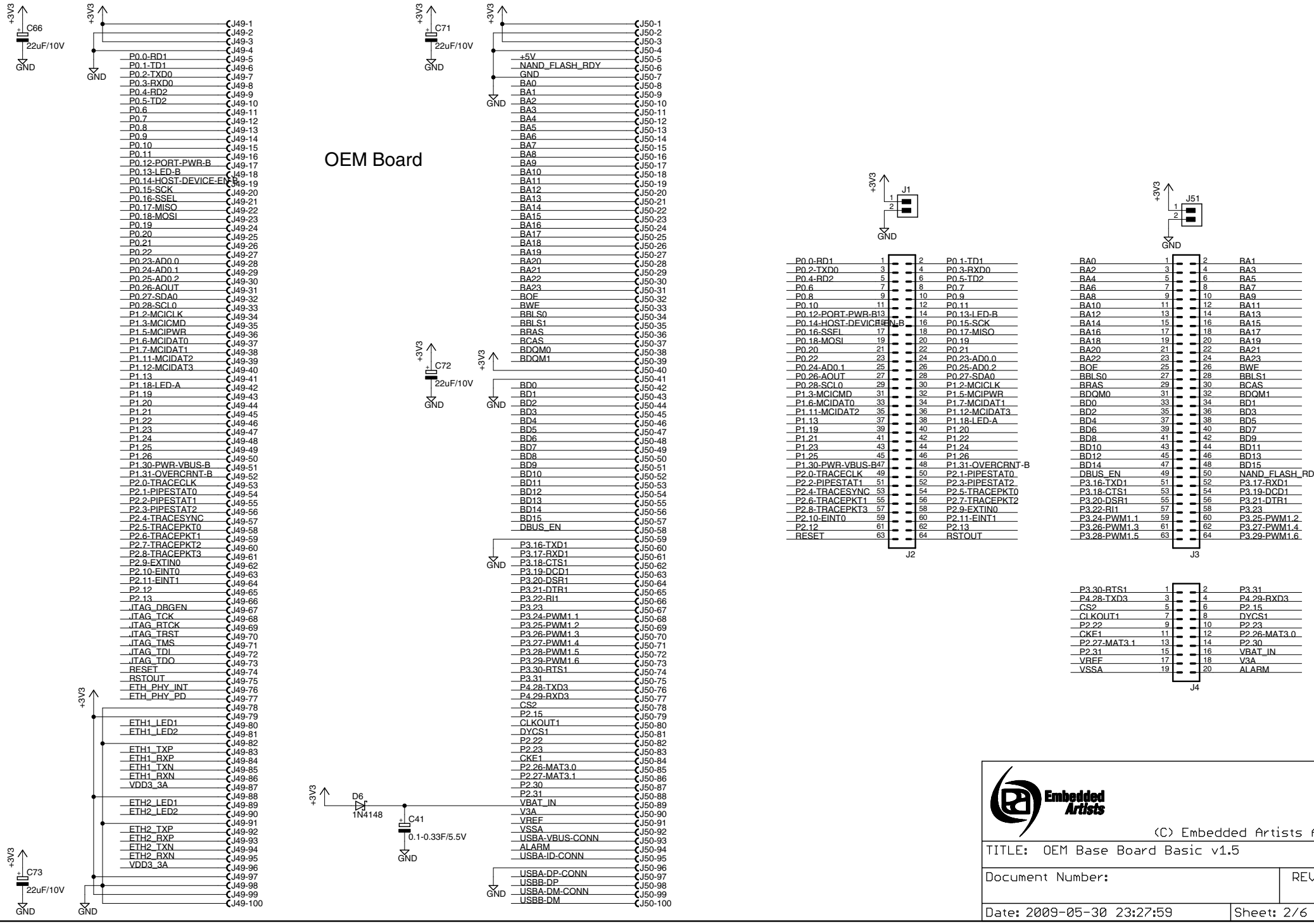
OEM Board
+3V3
C66
22uF/10V
GND
J49-1
J49-2
J49-3
J49-4
P0.0-RD1
P0.1-TD1
P0.2-TXD0
P0.3-RXD0
P0.4-RD2
P0.5-TD2
P0.6
P0.7
P0.8
P0.9
P0.10
P0.11
P0.12-PORT-PWR-B
P0.13-LED-B
P0.14-HOST-DEVICE-ENB
P0.15-SCK
P0.16-SSEL
P0.17-MISO
P0.18-MOSI
P0.19
P0.20
P0.21
P0.22
P0.23-AD0.0
P0.24-AD0.1
P0.25-AD0.2
P0.26-AOUT
P0.27-SDA0
P0.28-SCL0
P1.2-MCICLK
P1.3-MCICMD
P1.5-MCIPWR
P1.6-MCIDAT0
P1.7-MCIDAT1
P1.11-MCIDAT2
P1.12-MCIDAT3
P1.13
P1.18-LED-A
P1.19
P1.20
P1.21
P1.22
P1.23
P1.24
P1.25
P1.26
P1.30-PWR-VBUS-B
P1.31-OVERCRNT-B
P2.0-TRACECLK
P2.1-PIPESTAT0
P2.2-PIPESTAT1
P2.3-PIPESTAT2
P2.4-TRACESYNC
P2.5-TRACEPKT0
P2.6-TRACEPKT1
P2.7-TRACEPKT2
P2.8-TRACEPKT3
P2.9-EXTIN0
P2.10-EINT0
P2.11-EINT1
P2.12
P2.13
JTAG_DBGEN
JTAG_TCK
JTAG_RTCK
JTAG_TRST
JTAG_TMS
JTAG_TDI
JTAG_TDO
RESET
RSTOUT
ETH_PHY_INT
ETH_PHY_PD
ETH1_LED1
ETH1_LED2
ETH1_TXP
ETH1_RXP
ETH1_TXN
ETH1_RXN
VDD3_3A
ETH2_LED1
ETH2_LED2
ETH2_TXP
ETH2_RXP
ETH2_TXN
ETH2_RXN
VDD3_3A
J49-100
C73
22uF/10V
C71
22uF/10V
J50-1
J50-2
J50-3
J50-4
+5V
NAND_FLASH_RDY
GND
BA0
BA1
BA2
BA3
BA4
BA5
BA6
BA7
BA8
BA9
BA10
BA11
BA12
BA13
BA14
BA15
BA16
BA17
BA18
BA19
BA20
BA21
BA22
BA23
BOE
BWE
BRLS0
BRLS1
BRAS
BCAS
BDQM0
BDQM1
BD0
BD1
BD2
BD3
BD4
BD5
BD6
BD7
BD8
BD9
BD10
BD11
BD12
BD13
BD14
BD15
DBUS_EN
P3.16-TXD1
P3.17-RXD1
P3.18-CTS1
P3.19-DCD1
P3.20-DSR1
P3.21-DTR1
P3.22-RI1
P3.23
P3.24-PWM1.1
P3.25-PWM1.2
P3.26-PWM1.3
P3.27-PWM1.4
P3.28-PWM1.5
P3.29-PWM1.6
P3.30-RTS1
P3.31
P4.28-TXD3
P4.29-RXD3
CS2
P2.15
CLKOUT1
DYCS1
P2.22
P2.23
CKE1
P2.26-MAT3.0
P2.27-MAT3.1
P2.30
P2.31
VBAT_IN
V3A
VREF
VSSA
USBA-VBUS-CONN
ALARM
USBA-ID-CONN
USBA-DP-CONN
USBB-DP
USBA-DM-CONN
USBB-DM
J50-100
C72
22uF/10V
D6
1N4148
C41
0.1-0.33F/5.5V
J1
J2
J3
J4
J51
P0.0-RD1
P0.1-TD1
P0.2-TXD0
P0.3-RXD0
P0.4-RD2
P0.5-TD2
P0.6
P0.7
P0.8
P0.9
P0.10
P0.11
P0.12-PORT-PWR-B
P0.13-LED-B
P0.14-HOST-DEVICE-ENB
P0.15-SCK
P0.16-SSEL
P0.17-MISO
P0.18-MOSI
P0.19
P0.20
P0.21
P0.22
P0.23-AD0.0
P0.24-AD0.1
P0.25-AD0.2
P0.26-AOUT
P0.27-SDA0
P0.28-SCL0
P1.2-MCICLK
P1.3-MCICMD
P1.5-MCIPWR
P1.6-MCIDAT0
P1.7-MCIDAT1
P1.11-MCIDAT2
P1.12-MCIDAT3
P1.13
P1.18-LED-A
P1.19
P1.20
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P1.22
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P1.24
P1.25
P1.26
P1.30-PWR-VBUS-B
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P2.0-TRACECLK
P2.1-PIPESTAT0
P2.2-PIPESTAT1
P2.3-PIPESTAT2
P2.4-TRACESYNC
P2.5-TRACEPKT0
P2.6-TRACEPKT1
P2.7-TRACEPKT2
P2.8-TRACEPKT3
P2.9-EXTIN0
P2.10-EINT0
P2.11-EINT1
P2.12
P2.13
RESET
RSTOUT
BA0
BA1
BA2
BA3
BA4
BA5
BA6
BA7
BA8
BA9
BA10
BA11
BA12
BA13
BA14
BA15
BA16
BA17
BA18
BA19
BA20
BA21
BA22
BA23
BOE
BBLS0
BBLS1
BRAS
BCAS
BDQM0
BDQM1
BD0
BD1
BD2
BD3
BD4
BD5
BD6
BD7
BD8
BD9
BD10
BD11
BD12
BD13
BD14
BD15
DBUS_EN
NAND_FLASH_RDY
P3.16-TXD1
P3.17-RXD1
P3.18-CTS1
P3.19-DCD1
P3.20-DSR1
P3.21-DTR1
P3.22-RI1
P3.23
P3.24-PWM1.1
P3.25-PWM1.2
P3.26-PWM1.3
P3.27-PWM1.4
P3.28-PWM1.5
P3.29-PWM1.6
P3.30-RTS1
P3.31
P4.28-TXD3
P4.29-RXD3
CS2
P2.15
CLKOUT1
DYCS1
P2.22
P2.23
CKE1
P2.26-MAT3.0
P2.27-MAT3.1
P2.30
P2.31
VBAT_IN
VREF
V3A
VSSA
ALARM
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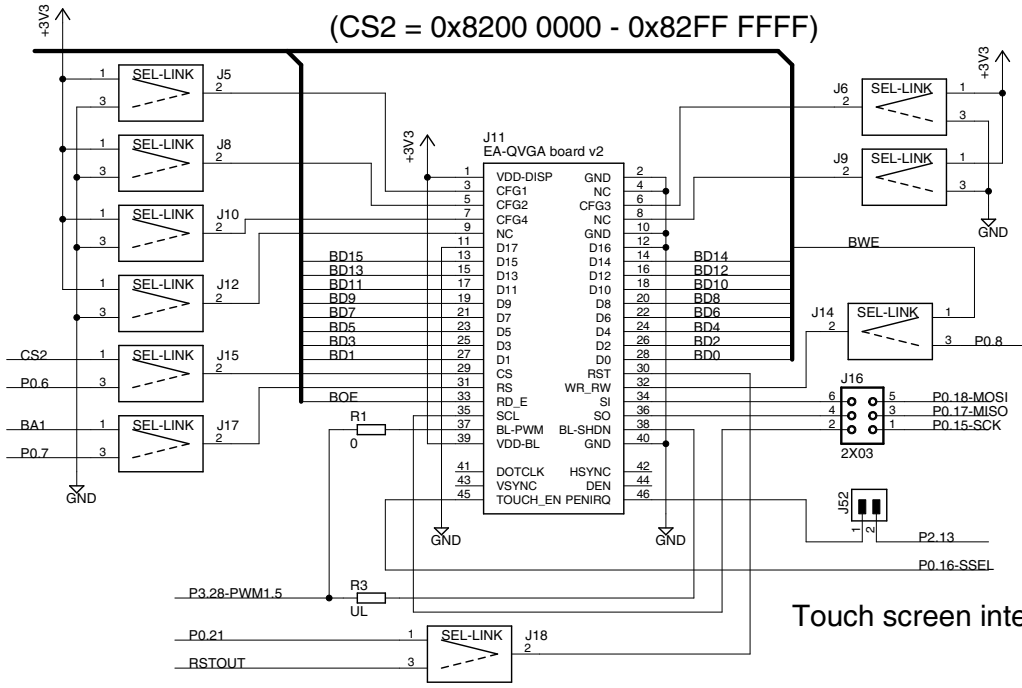
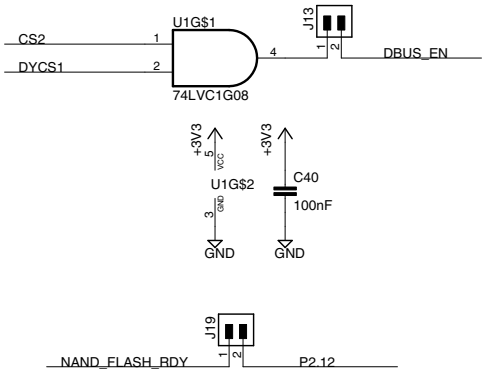
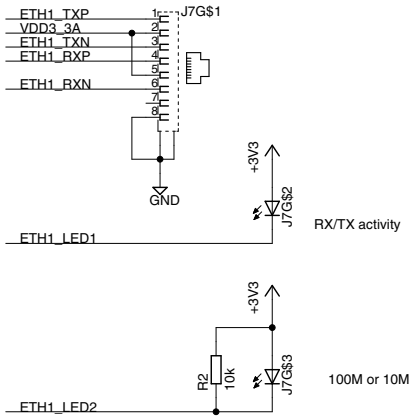
Connector for color QVGA LCD
(CS2 = 0x8200 0000 - 0x82FF FFFF)

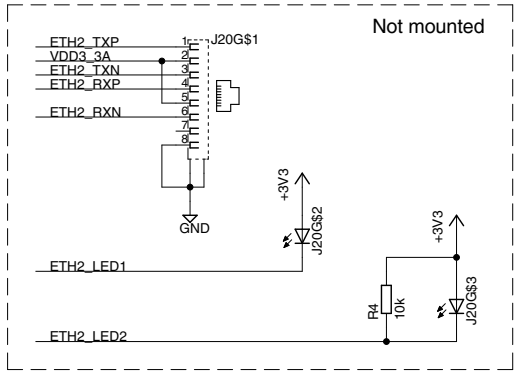


Touch screen interface

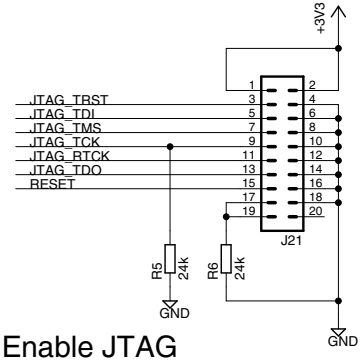


RJ45 Ethernet connector

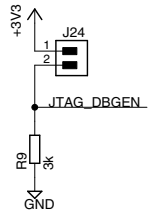




JTAG interface

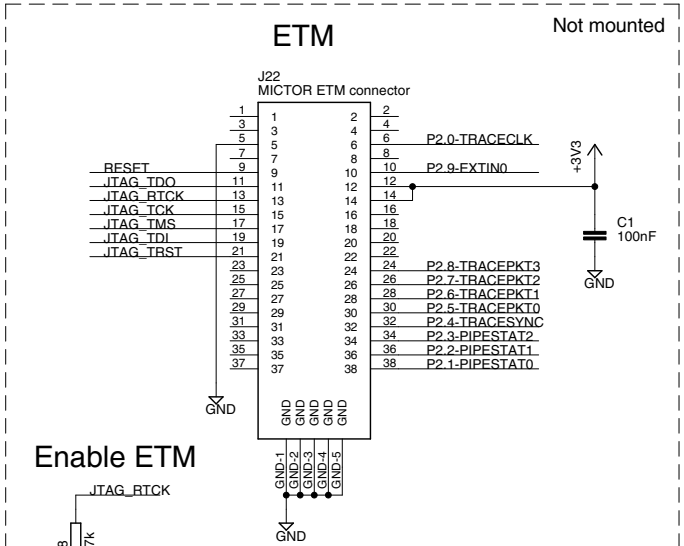


Enable JTAG

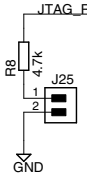


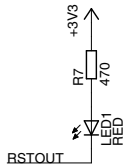
ETM

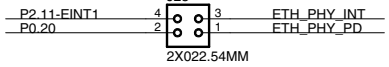
Not mounted

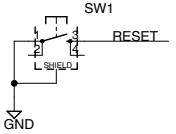


Enable ETM









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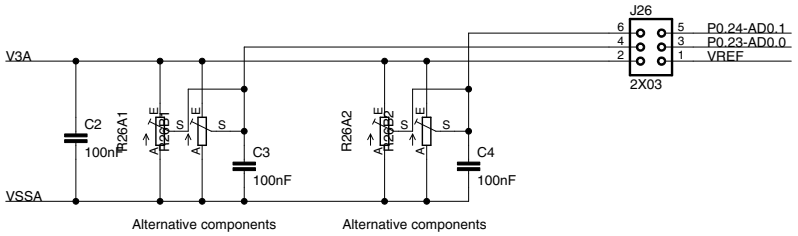
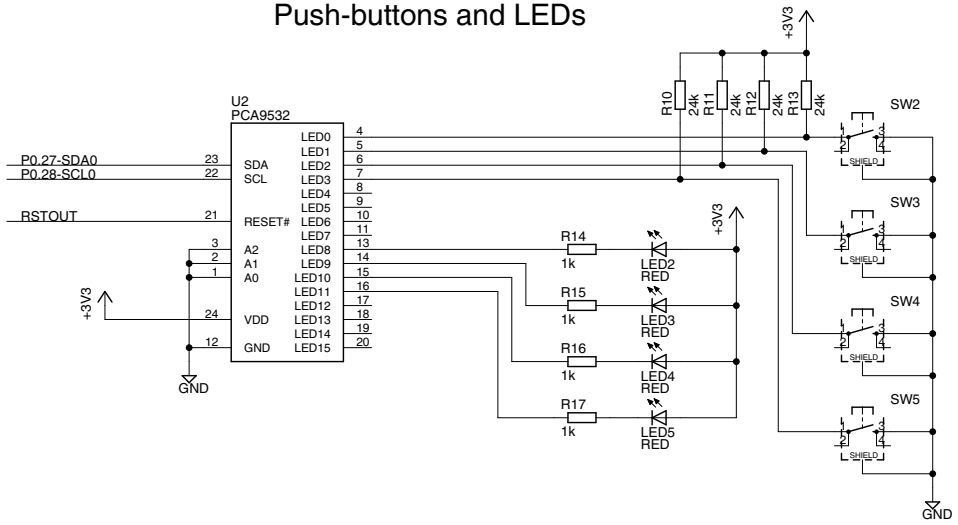
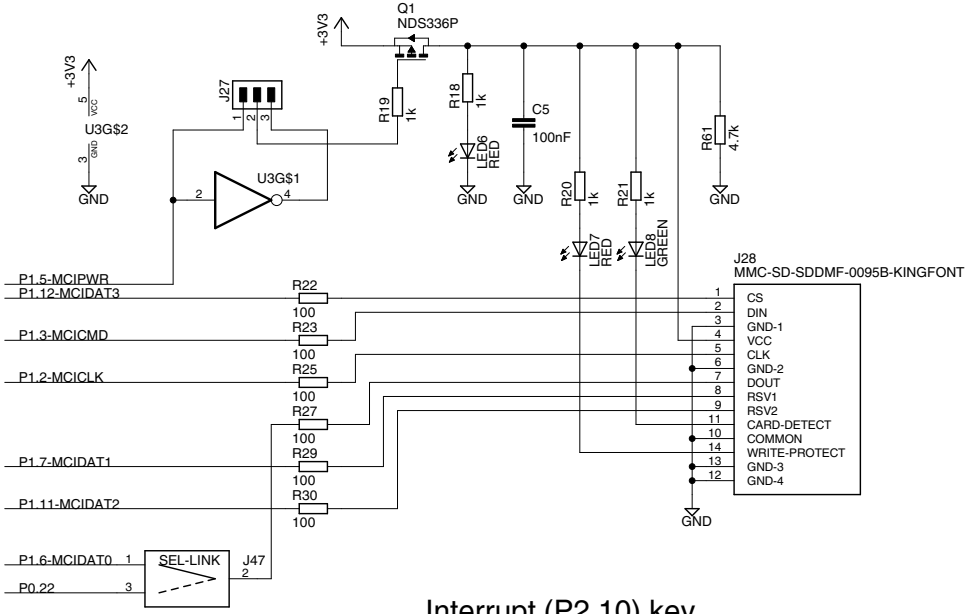
Analog inputs



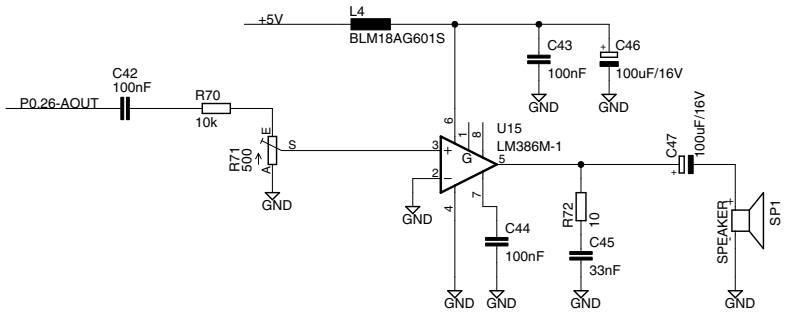
Push-buttons and LEDs



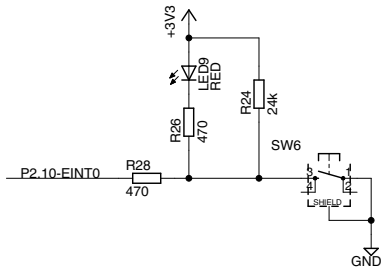
MMC/SD Memory Card I/F



Speaker amplifier



Interrupt (P2.10) key



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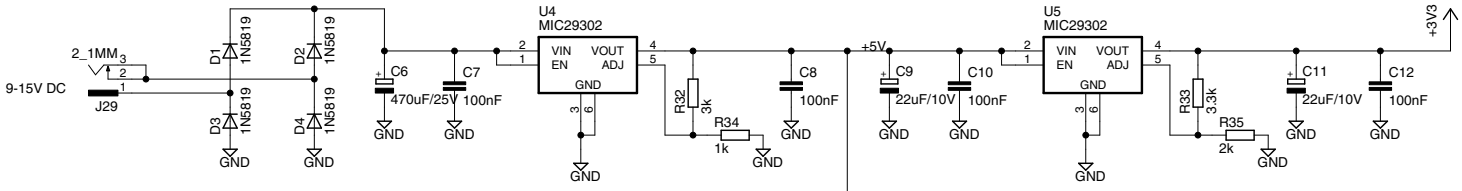
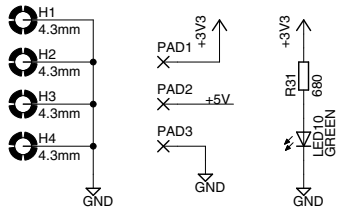
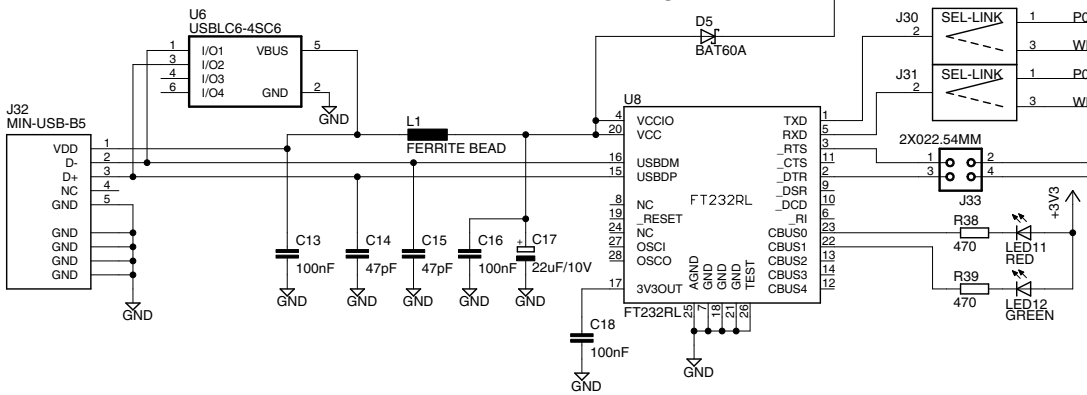
Power Supply

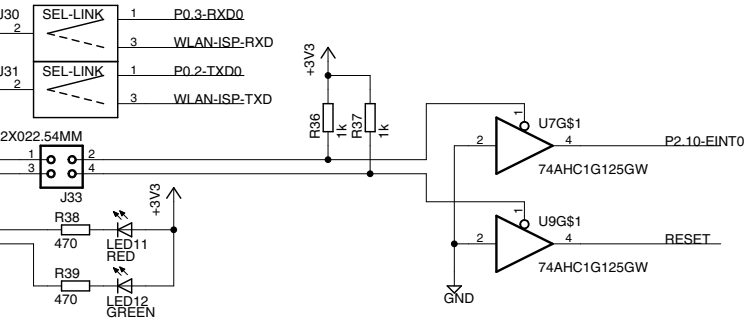


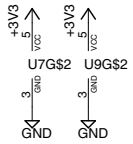


UART #0 over USB Serial Bridge

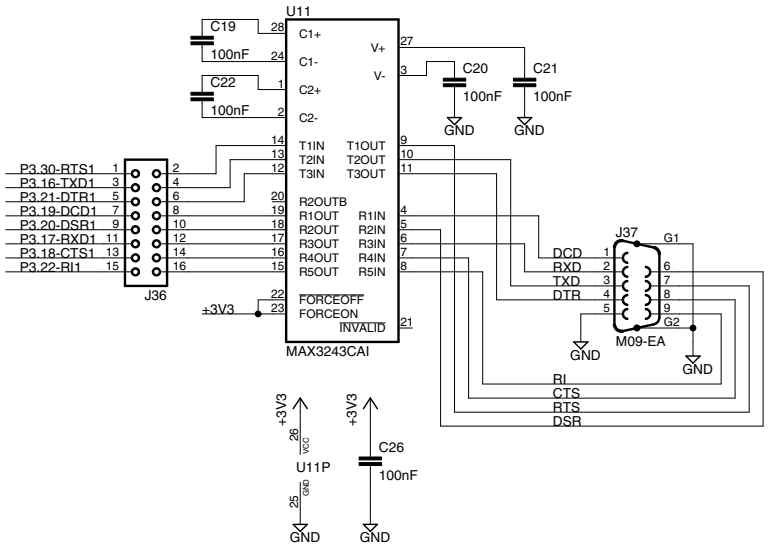


ISP functionality

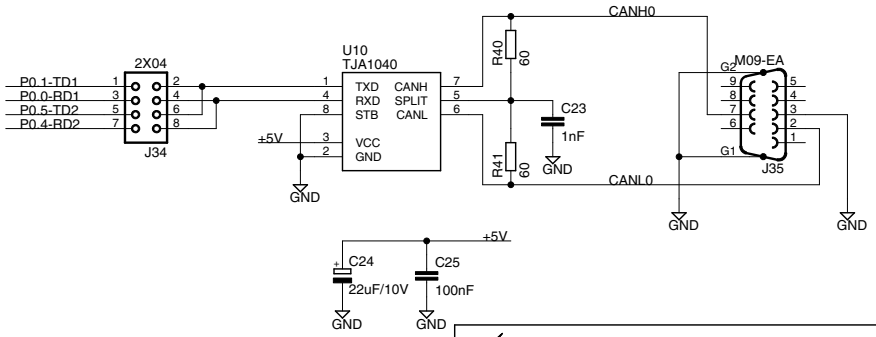




UART #1 RS232 full modem



CAN transceiver



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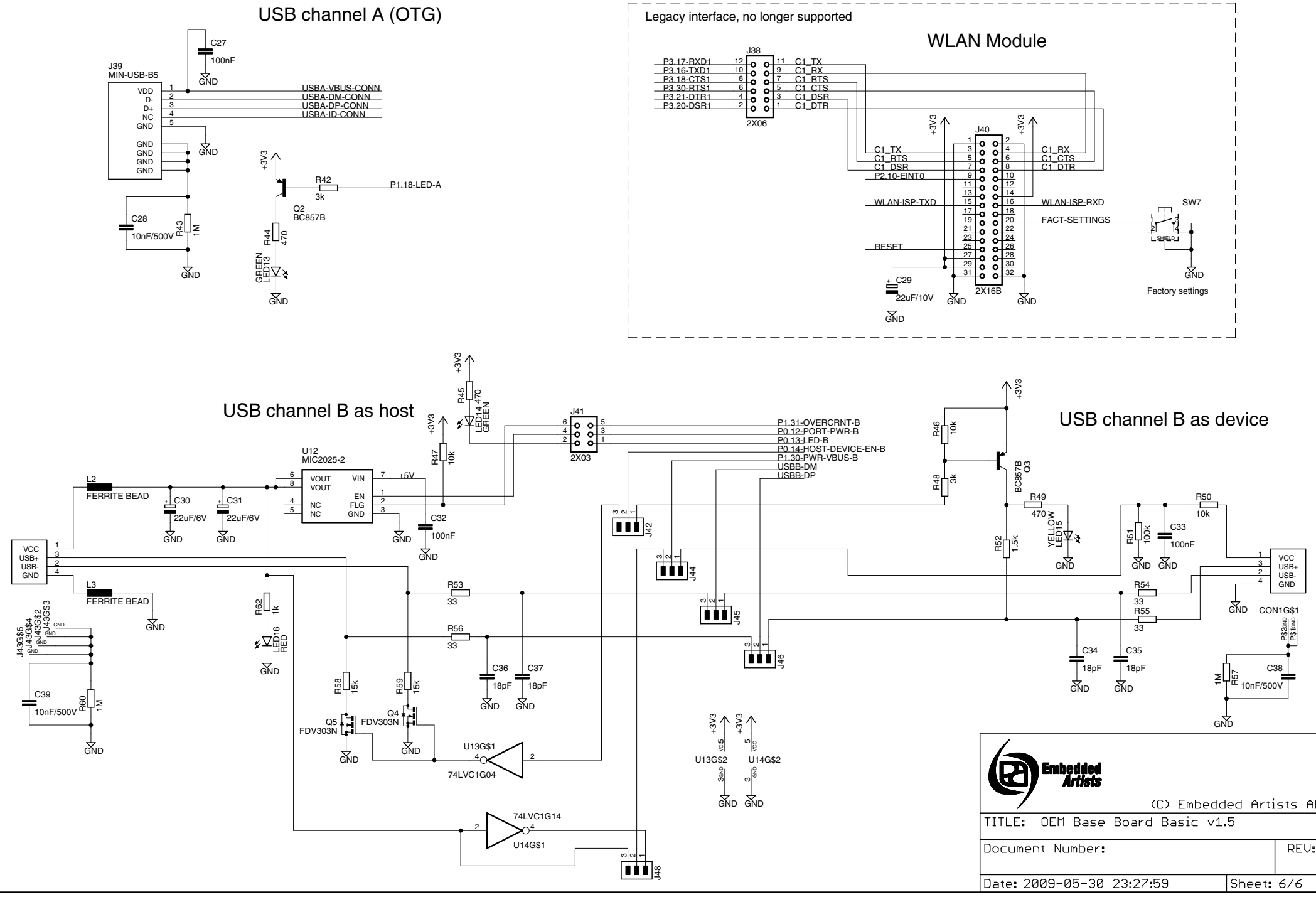
USB channel A (OTG)
J39
MIN-USB-B5
VDD
D-
D+
NC
GND
C27
100nF
C28
10nF/500V
R43
1M
R42
3k
R44
470
Q2
BC857B
LED13
GREEN
P1.18-LED-A
USBA-VBUS-CONN
USBA-DM-CONN
USBA-DP-CONN
USBA-ID-CONN
Legacy interface, no longer supported
WLAN Module
J38
2X06
P3.17-RXD1
P3.16-TXD1
P3.18-CTS1
P3.30-RTS1
P3.21-DTR1
P3.20-DSR1
C1_TX
C1_RX
C1_RTS
C1_CTS
C1_DSR
C1_DTR
J40
2X16B
P2.10-EINT0
WLAN-ISP-TXD
WLAN-ISP-RXD
FACT-SETTINGS
RESET
SW7
Factory settings
C29
22uF/10V
USB channel B as host
U12
MIC2025-2
VOUT
VIN
EN
FLG
NC
+5V
L2
FERRITE BEAD
L3
C30
22uF/6V
C31
22uF/6V
C32
100nF
R45
470
LED14
GREEN
R47
10k
J41
2X03
P1.31-OVERCRNT-B
P0.12-PORT-PWR-B
P0.13-LED-B
P0.14-HOST-DEVICE-EN-B
P1.30-PWR-VBUS-B
USBB-DM
USBB-DP
J42
J44
J45
J46
J48
VCC
USB+
USB-
GND
R53
33
R56
33
R62
1k
LED16
RED
R58
15k
R59
15k
Q5
FDV303N
Q4
FDV303N
C36
18pF
C37
18pF
C39
10nF/500V
R60
1M
U13G$1
74LVC1G04
74LVC1G14
U14G$1
USB channel B as device
R46
10k
R48
3k
Q3
BC857B
R49
470
YELLOW
LED15
R52
1.5k
R50
10k
R51
100k
C33
100nF
R54
33
R55
33
C34
18pF
C35
18pF
CON1G$1
C38
10nF/500V
R57
1M
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