Rev	Date	Notes
A	9/10/2010	Created from 750-2152-001, changed input power sensing and enable circuitry, power changes to OMAP
B	10/11/2010	ECN-13172 - Changed U13, DNI R148, install board ID resistor R109, DNI Mic bias resistors, and change T/N for R165
C	10/28/2010	ECN-13183 - Changed resistor stuffing on JTAG connector
D	11/8/2010	ECN-13192 - Changed U14 IC to Schmitt-trigger device

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Pg# - Schematic Page Name

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OMAP4430 Panda Board, 8-Layer

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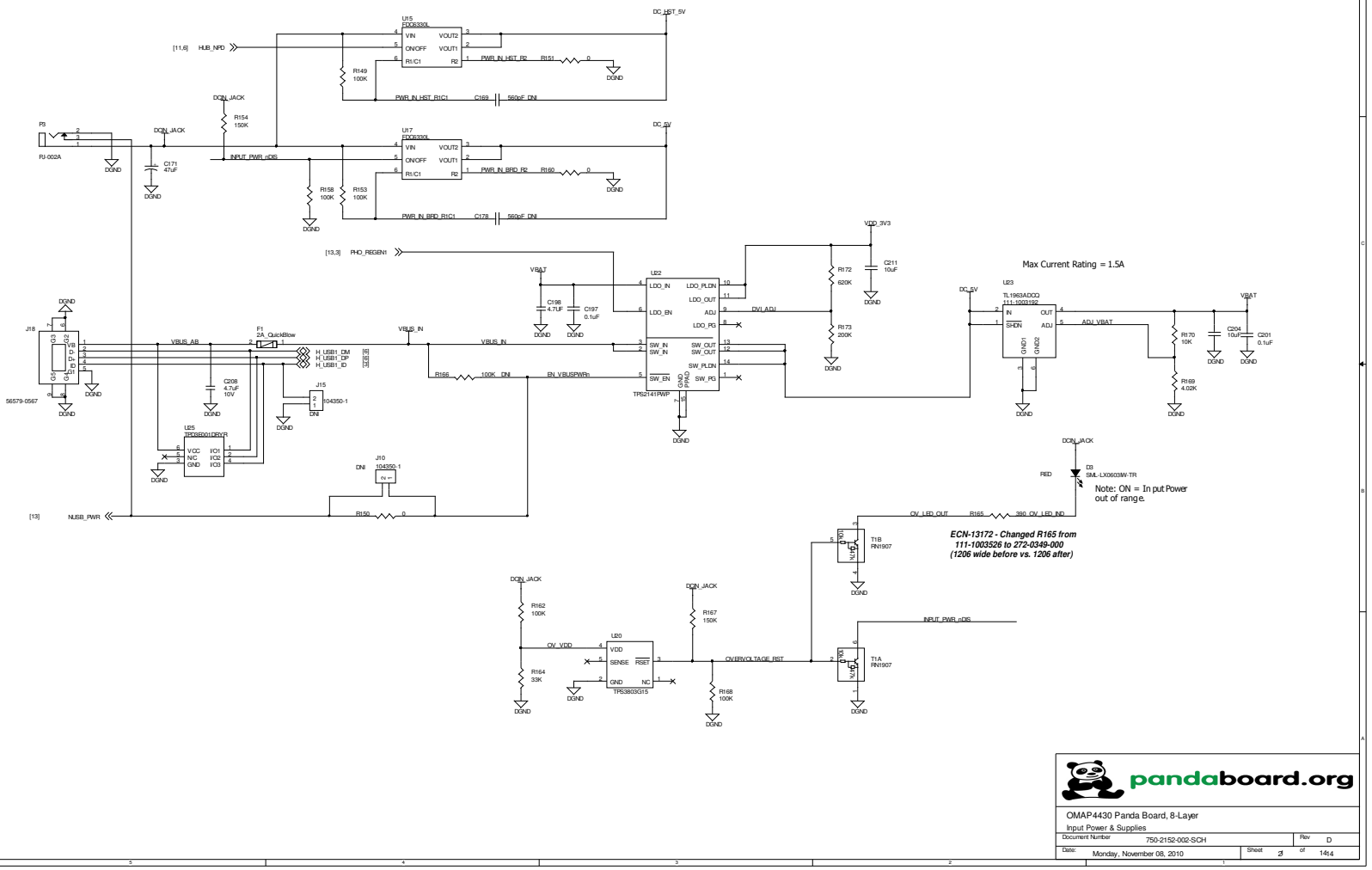

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OMAP4430 Panda Board, 8-Layer

Input Power & Supplies

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OMAP4 Power Management

Component ROOM = PMIC

ECN-13192
Changed U14 from a SN74LVC1G17DCKR to a SN74AUP1G17DCKR

BOOT3 = '0' -> Disable VAUX1 LDO @ Boot-up
BOOT2 = '1' -> VAUX1 LDO default = 1.8V
BOOT1 = '1' -> VMEM = 1.2V (S4b LPDDR2 used)
BOOT0 = '0' -> High battery thresholds for VBATMIN

SMPS Power Inputs & Outputs

Phoenix PMIC

FBGA 7x7 mm
16x16 package
0.4mm pitch

111-1003382

RTC Clock Ref

LDO Power Inputs

LDO Outputs

Phoenix Power Management IC

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OMAP4430 Panda Board, 8-Layer	
TWL6030 Power Companion IC	
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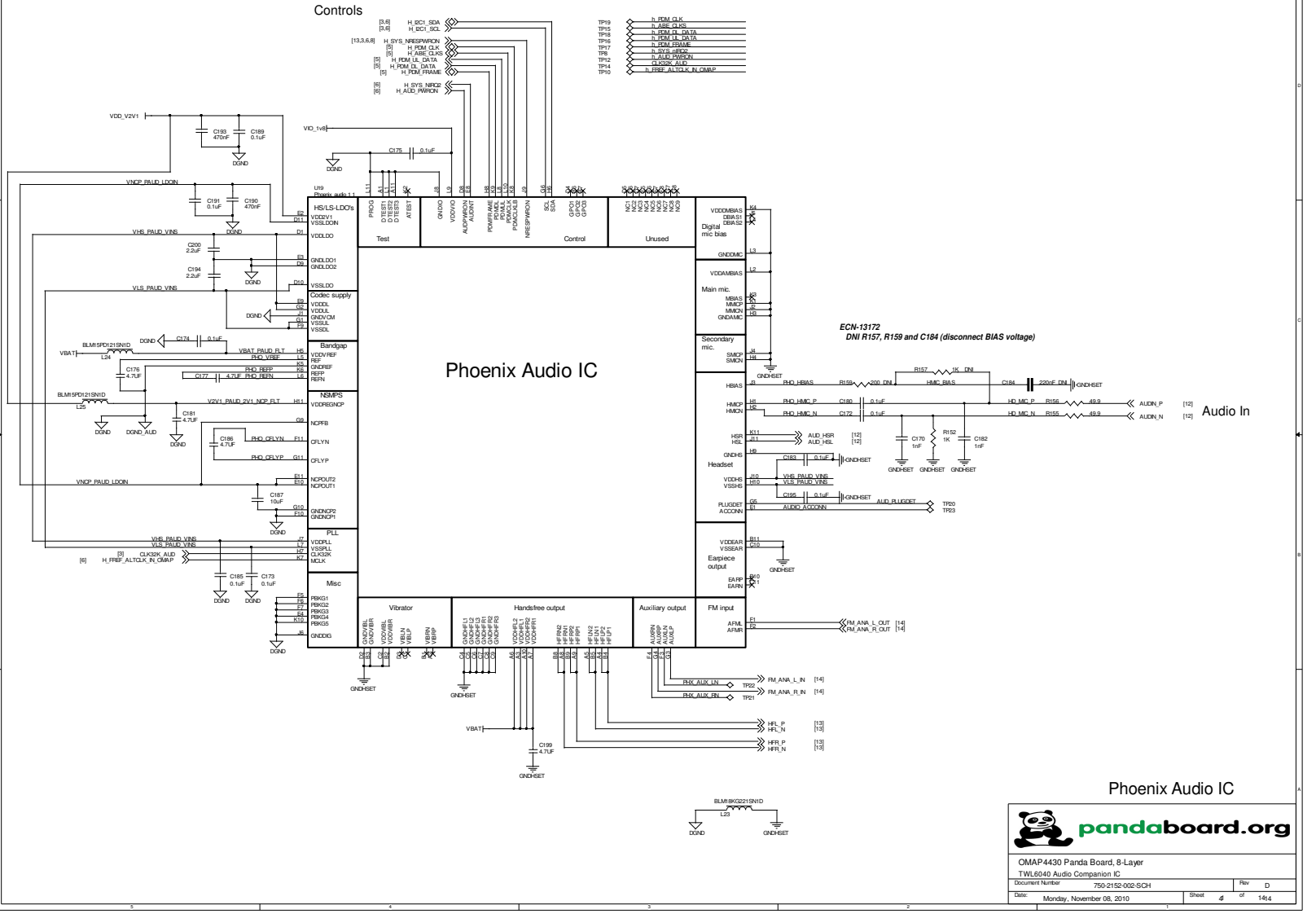
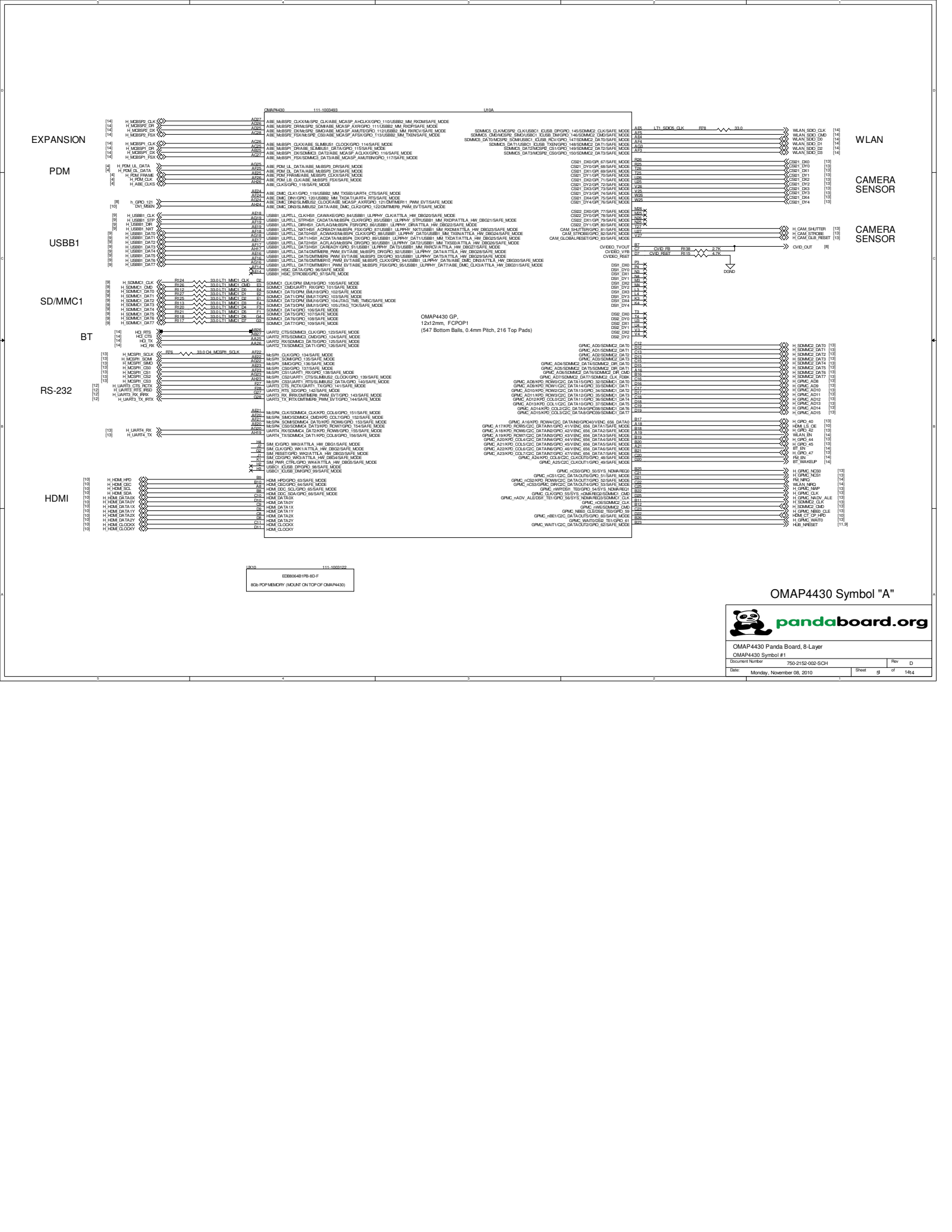
OMAP4 Audio Interfaces

Component ROOM = PAUD




EXPANSION
PDM
USBB1
SD/MMC1
BT
RS-232
HDMI
WLAN
CAMERA SENSOR
CAMERA SENSOR
OMAP4430
111-1003493
U10A
OMAP4430 GP,
12x12mm, FCPOP1
(547 Bottom Balls, 0.4mm Pitch, 216 Top Pads)
U10
111-1003122
EDB8064B1PB-8D-F
8Gb POP MEMDRY (MOUNT ON TOP OF OMAP4430)
OMAP4430 Symbol "A"
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OMAP4430 Panda Board, 8-Layer
OMAP4430 Symbol #1
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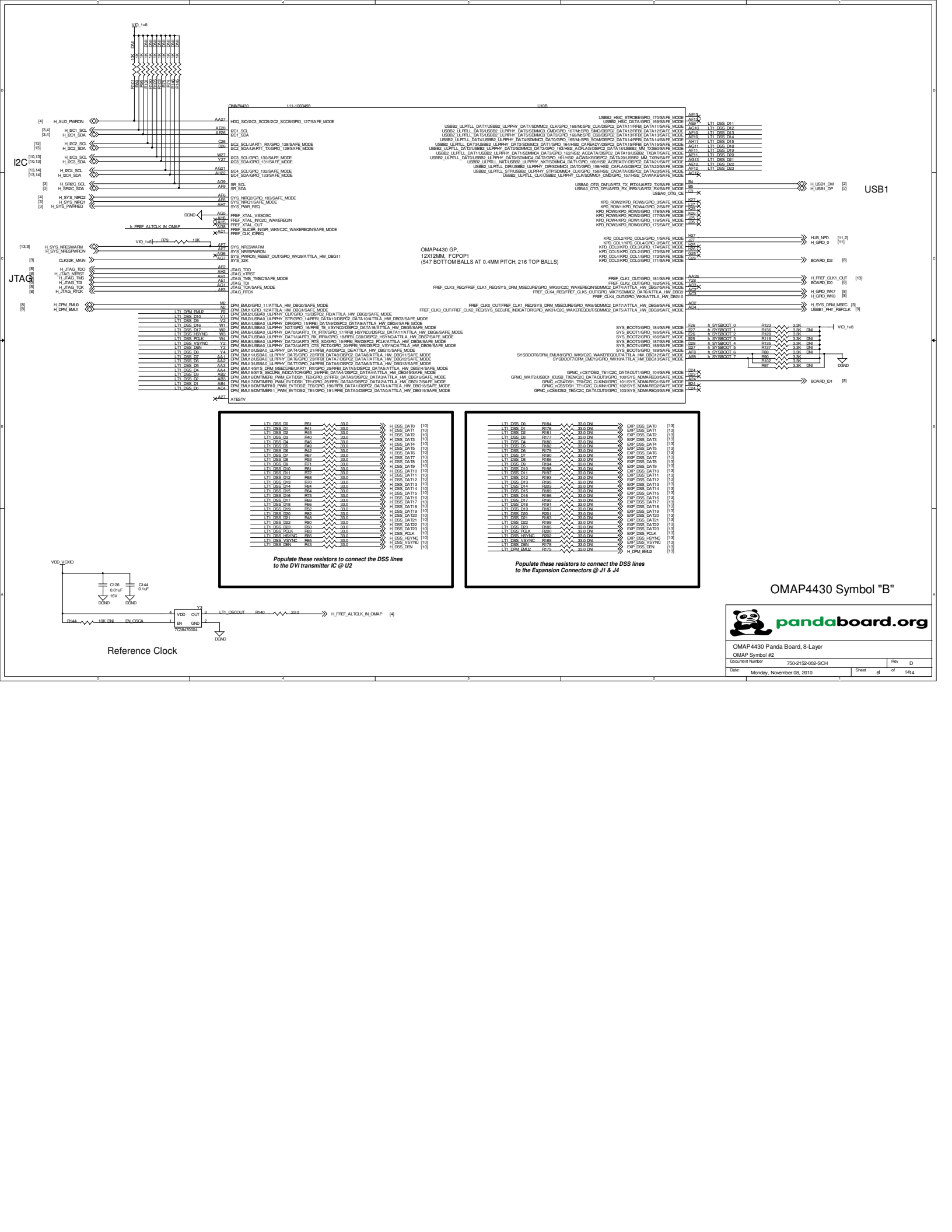
VID_1v8
I2C
JTAG
USB1
OMAP4430 GP,
12X12MM, FCPOP1
(547 BOTTOM BALLS AT 0.4MM PITCH, 216 TOP BALLS)
Populate these resistors to connect the DSS lines to the DVI transmitter IC @ U2
Populate these resistors to connect the DSS lines to the Expansion Connectors @ J1 & J4
Reference Clock
OMAP4430 Symbol "B"
pandaboard.org
OMAP4430 Panda Board, 8-Layer
OMAP Symbol #2
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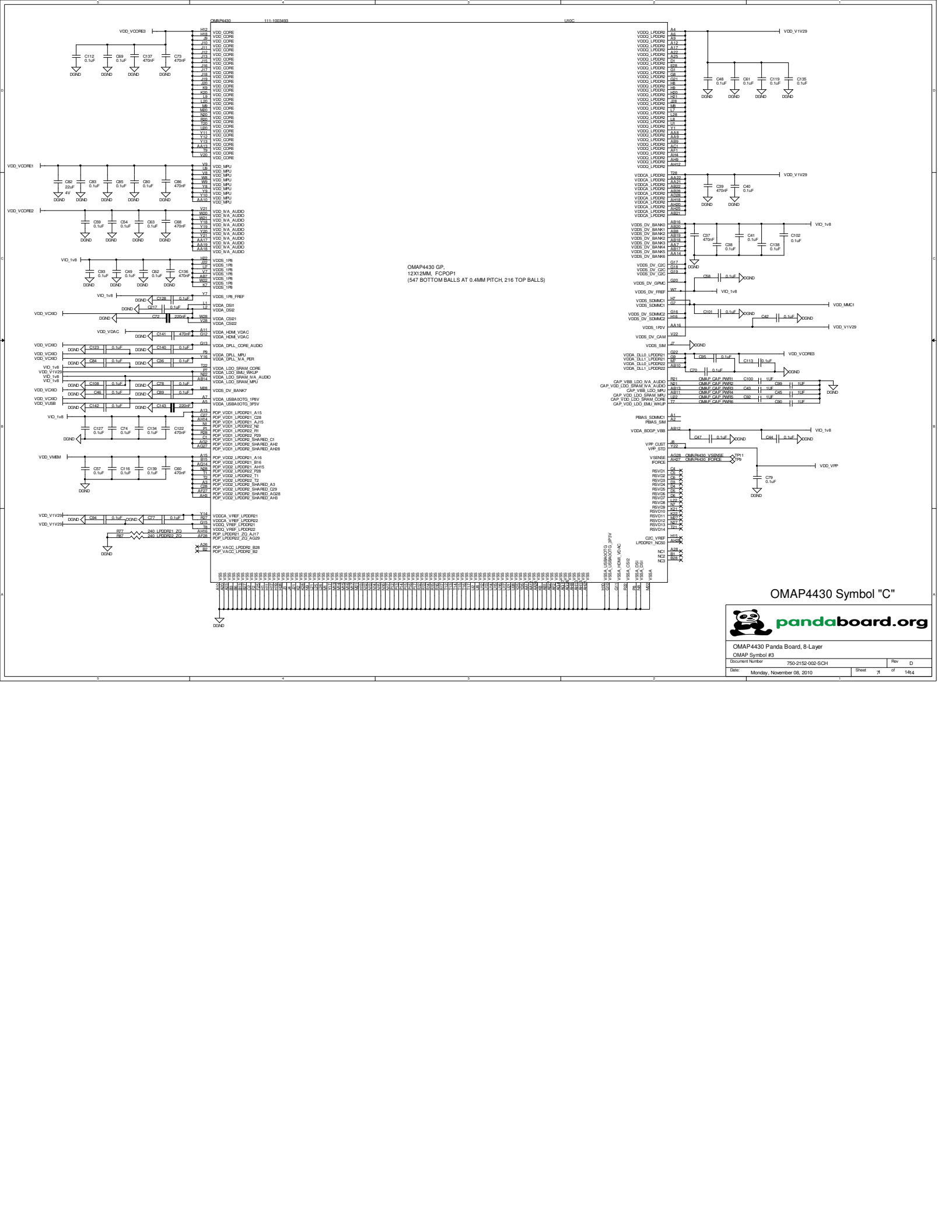
OMAP4430 GP,
12X12MM, FCPOP1
(547 BOTTOM BALLS AT 0.4MM PITCH, 216 TOP BALLS)
OMAP4430 Symbol "C"
pandaboard.org
OMAP4430 Panda Board, 8-Layer
OMAP Symbol #3
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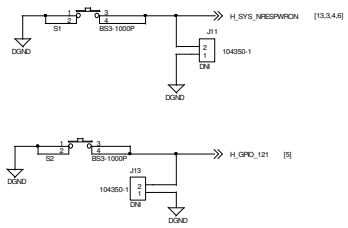
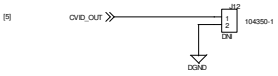
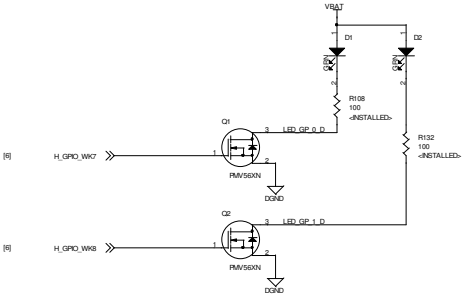
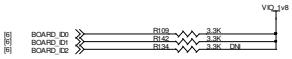






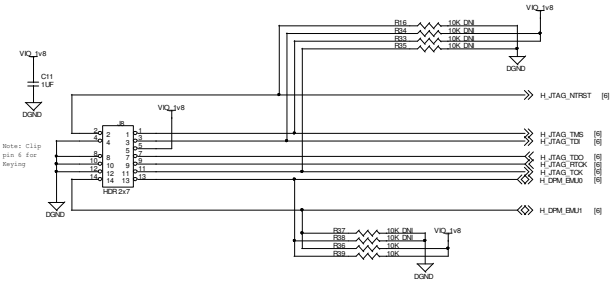
These three OMAP GPIOs are intended for use as board ID indicators, allowing up to 8 unique Panda builds/variants.

Valid values are:
"000" - 720-2151-001 6-layer PCB
"001" - 720-2152-001 8-layer PCB
"011" - 720-2152-002 8-layer PCB



ECN-13172 - Install R109

ECN-13183 - DNI R16, R33-R35



ECN-13183 - Install R36, R39

OMAP Debug IF - JTAG Connectors

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OMAP4430 Panda Board, 8-Layer			
JTAG, Debug Connectors			
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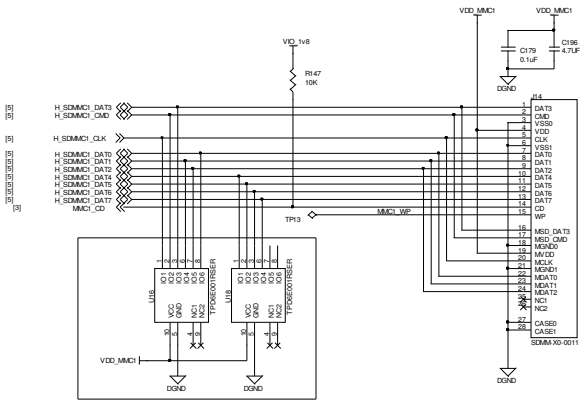

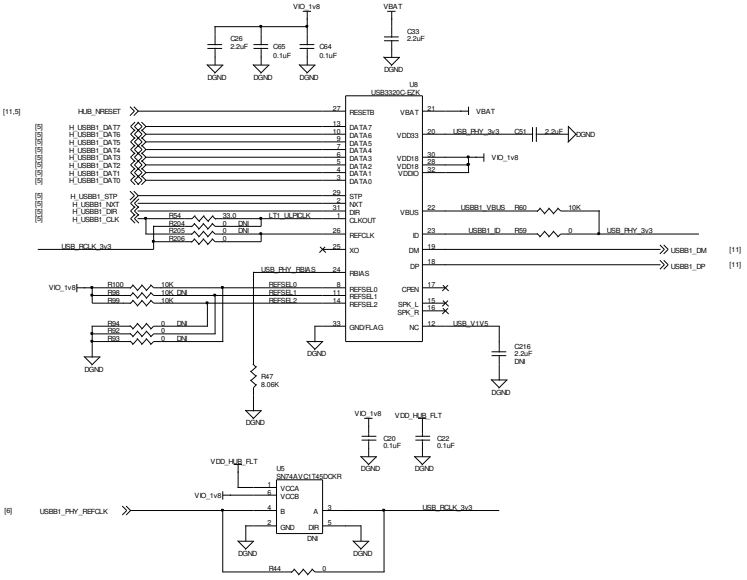

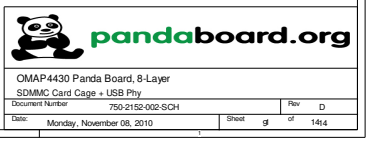

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SDMMC Card Cage + USB Phy

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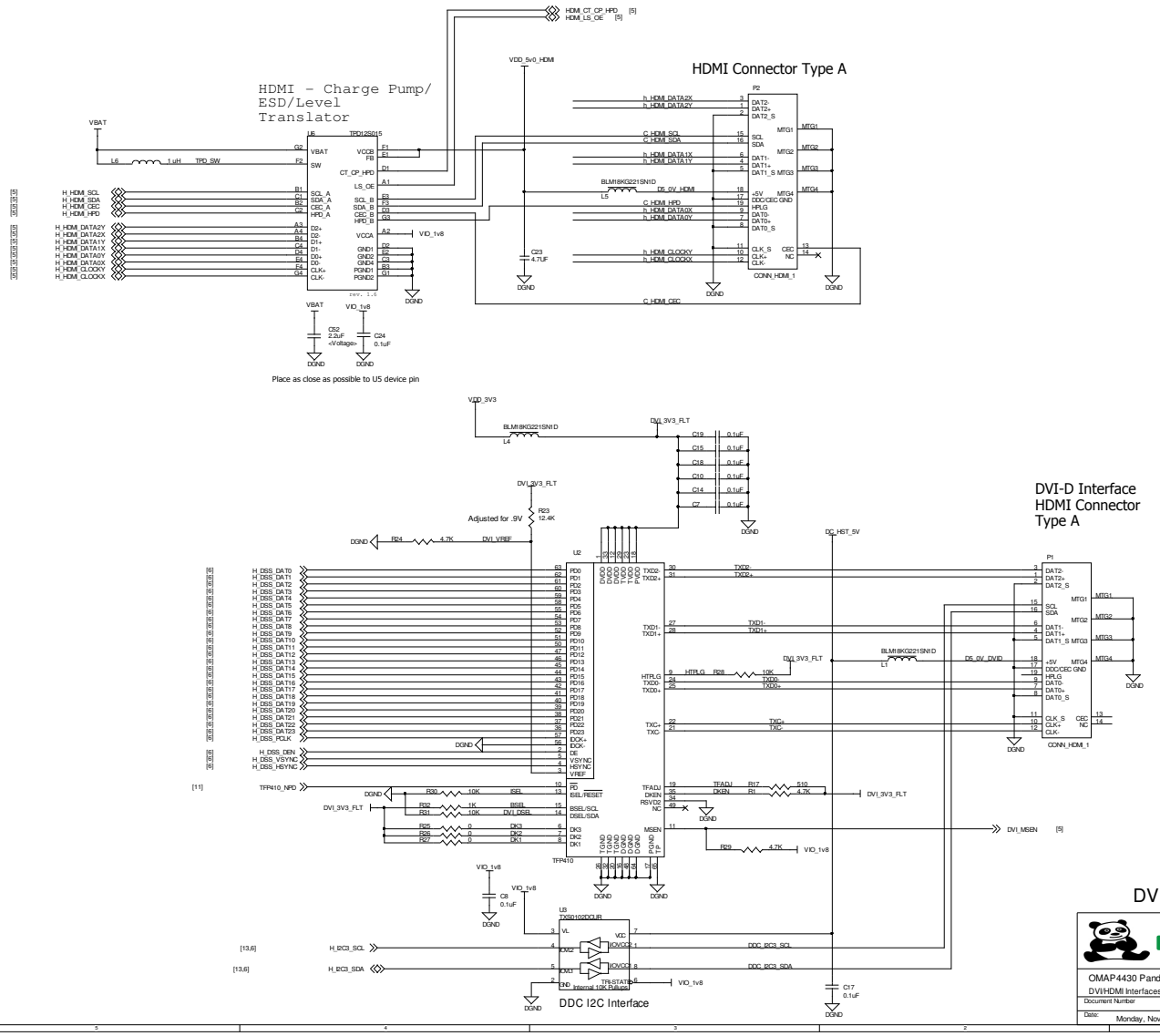
HDMI – Charge Pump/
ESD/Level
Translator
HDMI Connector Type A
DVI-D Interface
HDMI Connector
Type A
DDC I2C Interface
Place as close as possible to U5 device pin
Adjusted for .9V
DVI & HDMI Interfaces
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DVI/HDMI Interfaces
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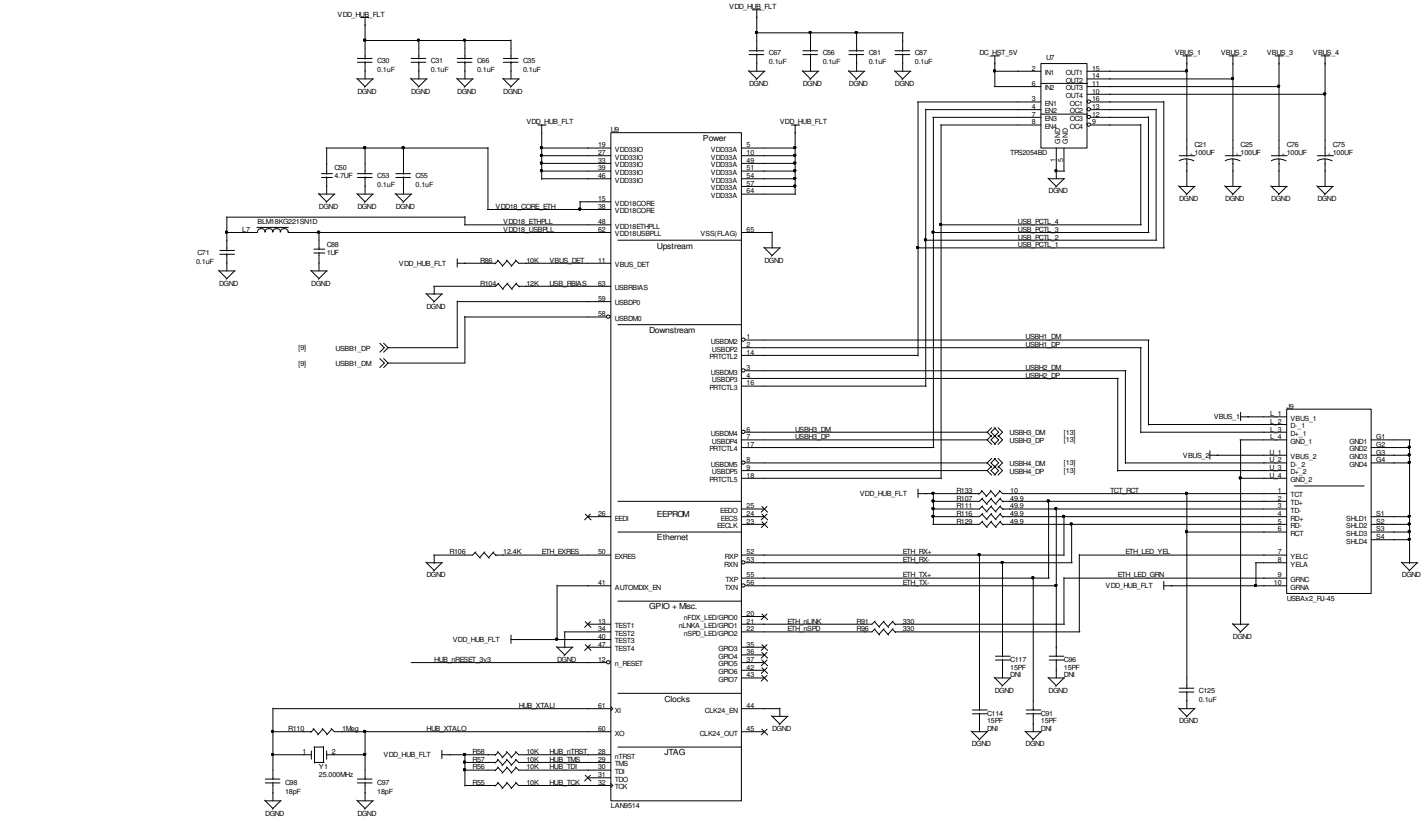
USB + Ethernet Hub



ECN-13172
Changed U13 from a TXS0104EZXUR to a TXB0104ZXUR, and DNI R148

USB/Ethernet Hub

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OMAP4430 Panda Board, 8-Layer	
Hub IC (Ethernet + 2X USB Host Ports)	
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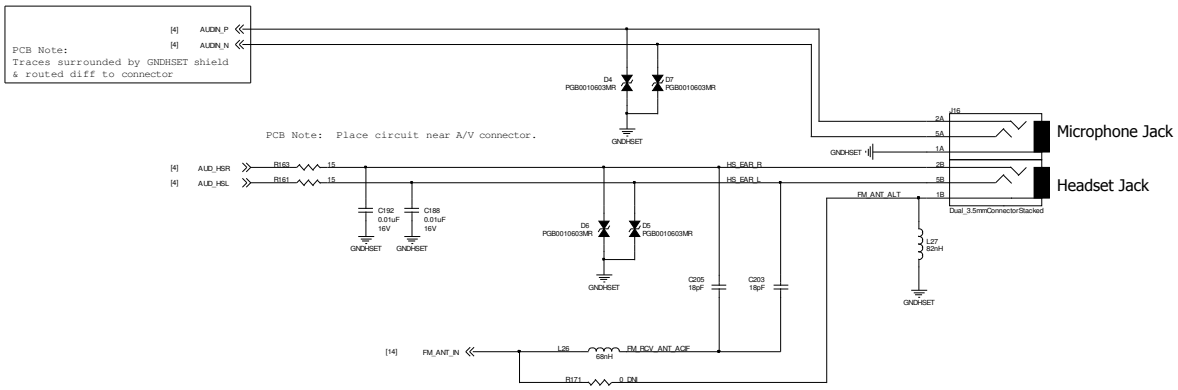

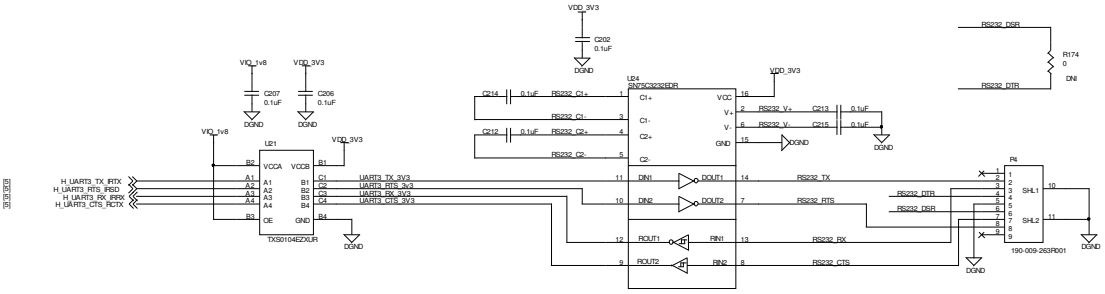

RS-232
CONNECTOR

3.5mm Audio Conn + RS-232 I/F

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OMAP4430 Panda Board, 8-Layer			
Audio Jack & RS-232 Connector			
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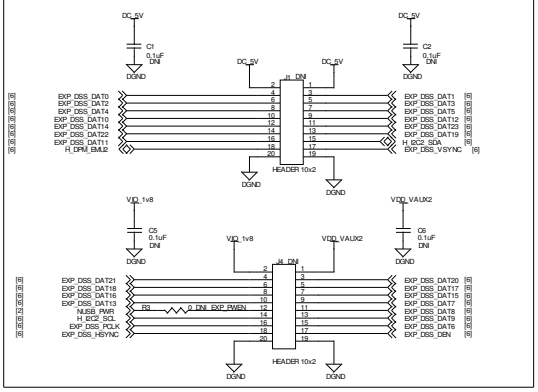
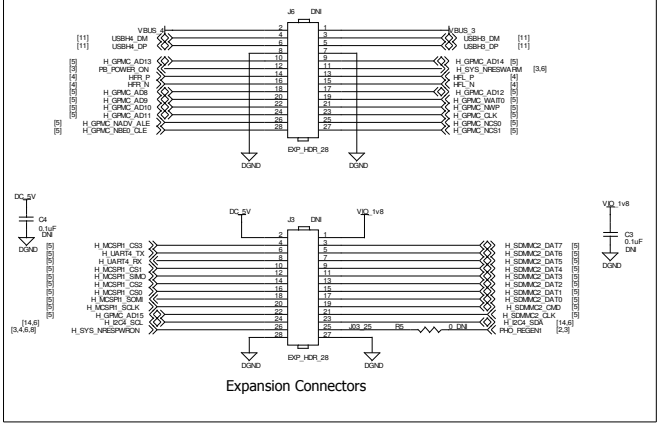
LCD Expansion Connector s (Beagle Legacy)

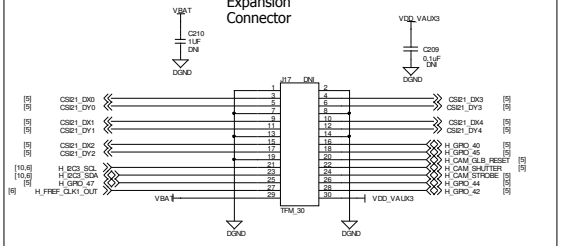


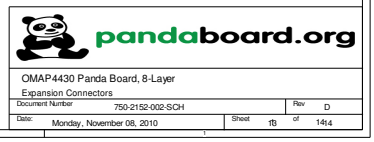
Expansion Connectors



Expansion Connectors

Camera Sensor Expansion Connector





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Expansion Connectors

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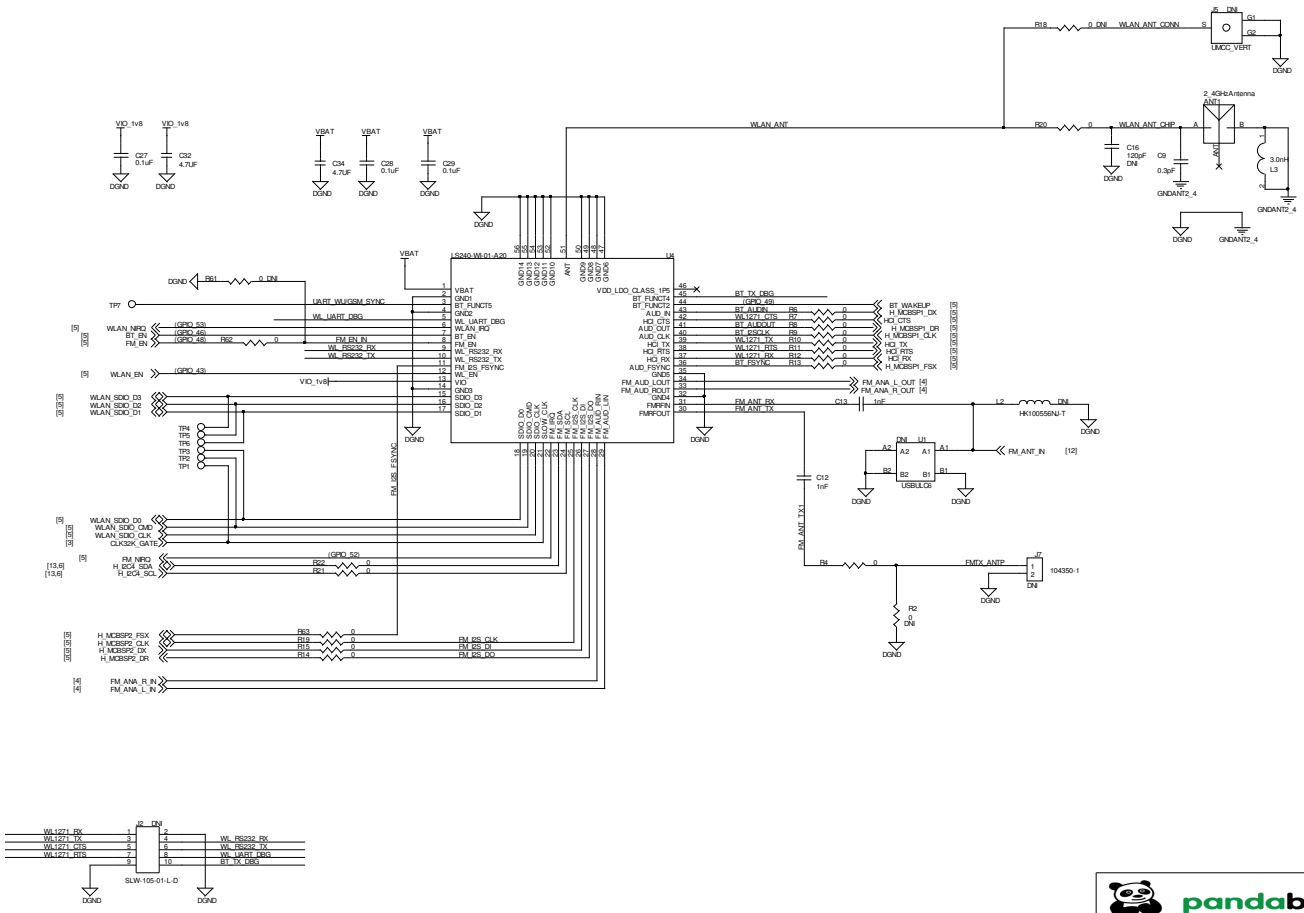

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WLAN/Bluetooth/FM

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