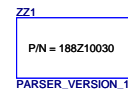
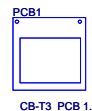
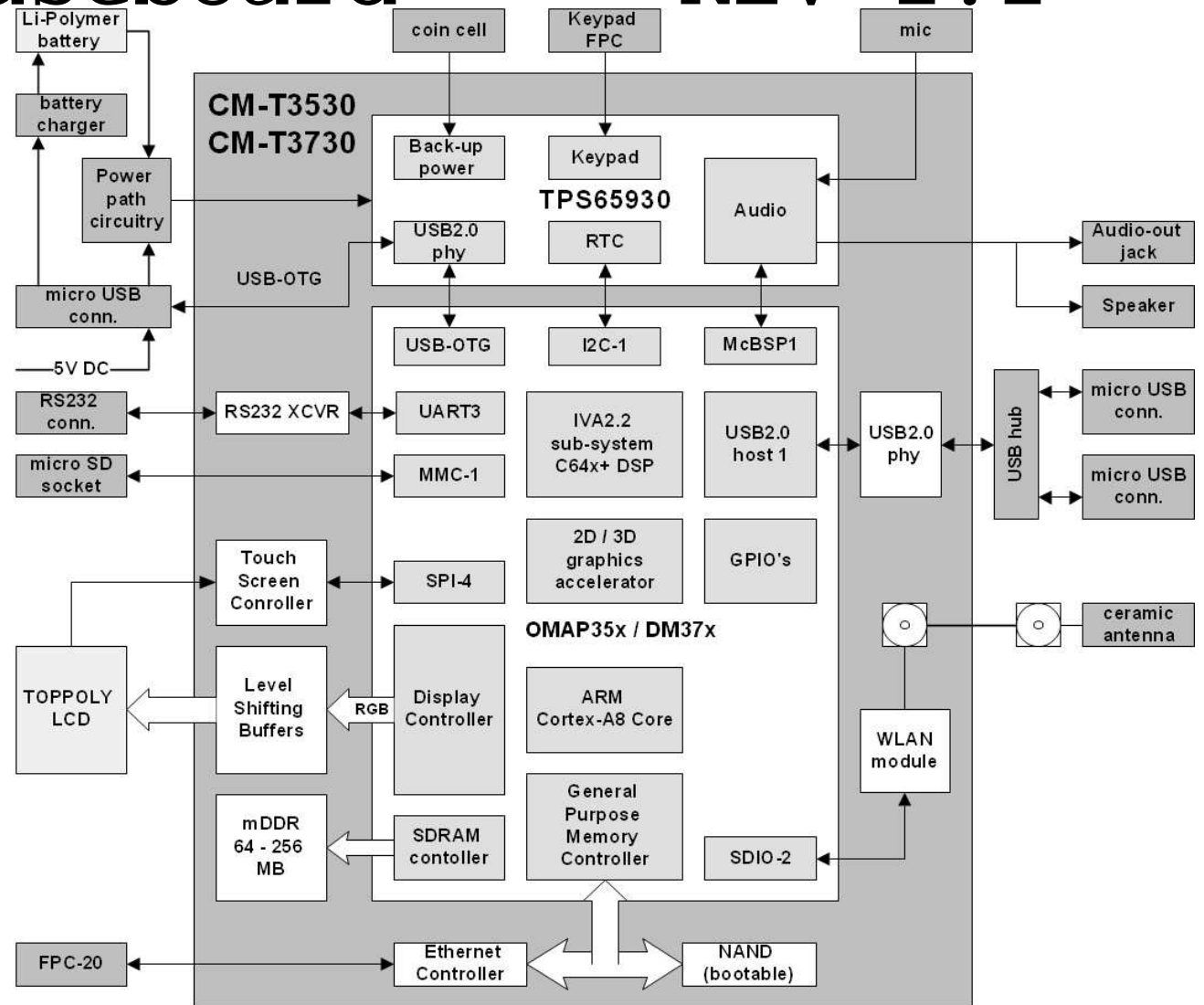
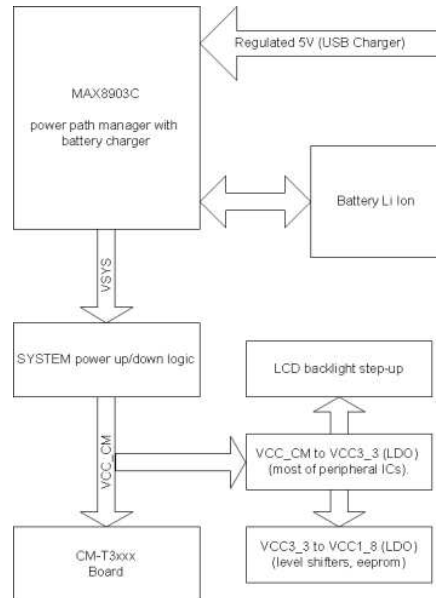


CB-T3x baseboard

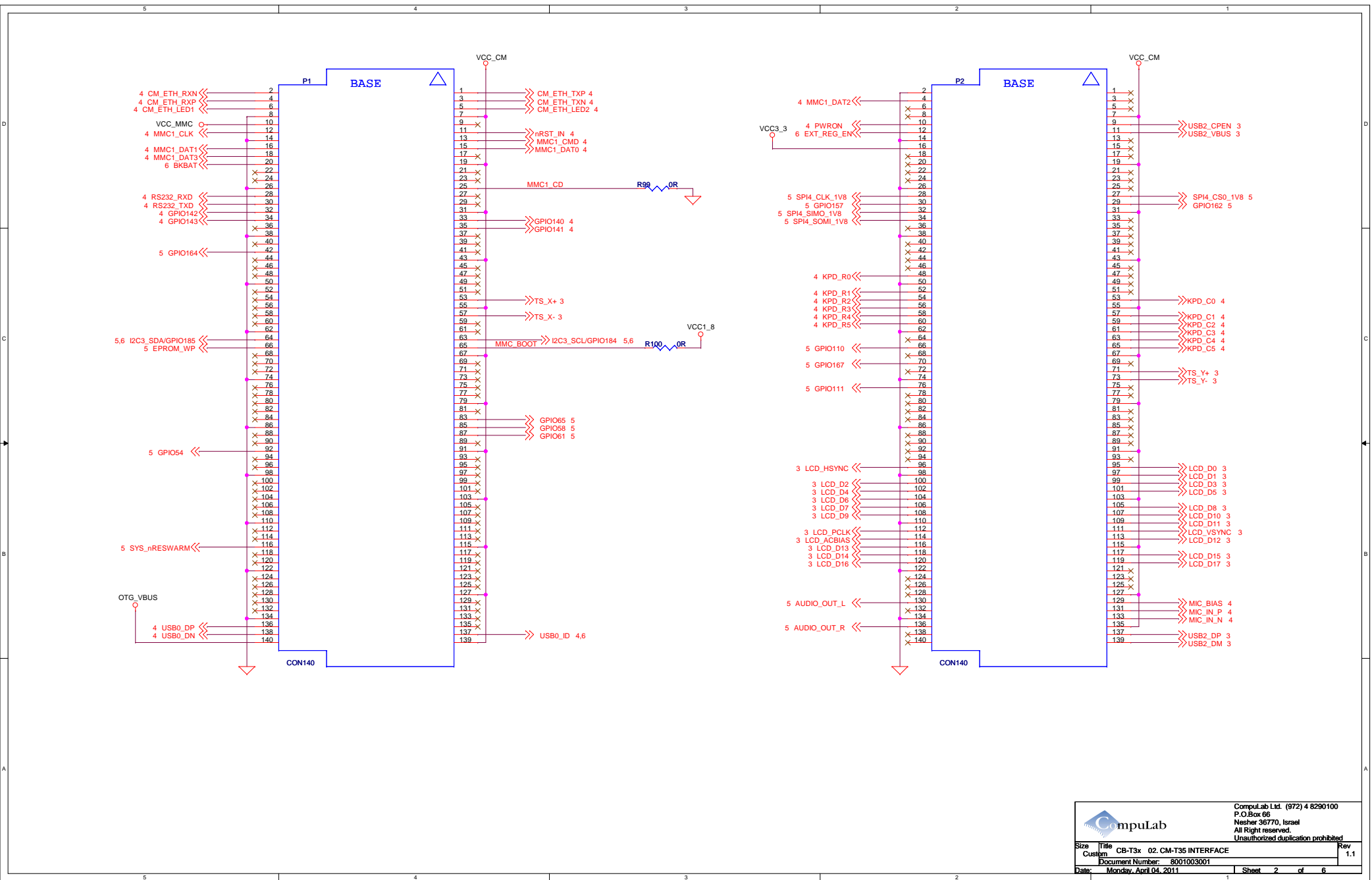
REV 1.1

PAGE	FUNCTION
1	INDEX
2	CM-T3x30 INTERFACE
3	LCD & USB HUB
4	CONNECTORS, BUTTONS, LEDS
5	MISCELLANEOUS
6	POWER

POWER SUPPLY SCHEME



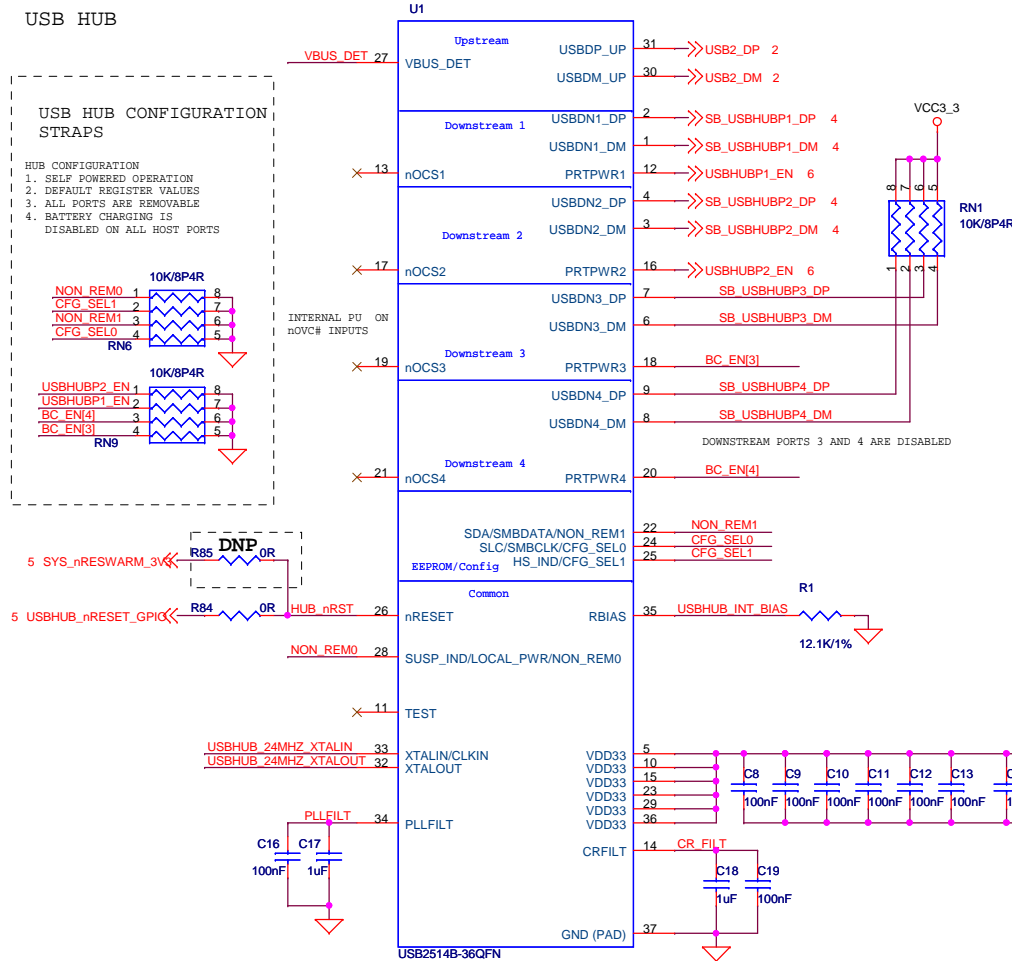
CompuLab
Size Title CB-T3x 01. INDEX
Custom Document Number: 8001003001
Date: Monday, April 04, 2011
Rev 1.1
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Nesher 36770, Israel
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Sheet 1 of 6



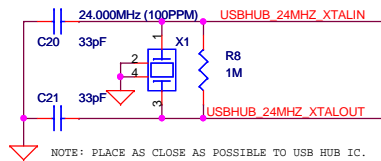
USB HUB

USB HUB CONFIGURATION STRAPS

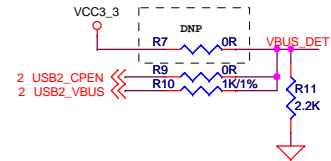
- HUB CONFIGURATION
1. SELF POWERED OPERATION
 2. DEFAULT REGISTER VALUES
 3. ALL PORTS ARE REMOVABLE
 4. BATTERY CHARGING IS DISABLED ON ALL HOST PORTS



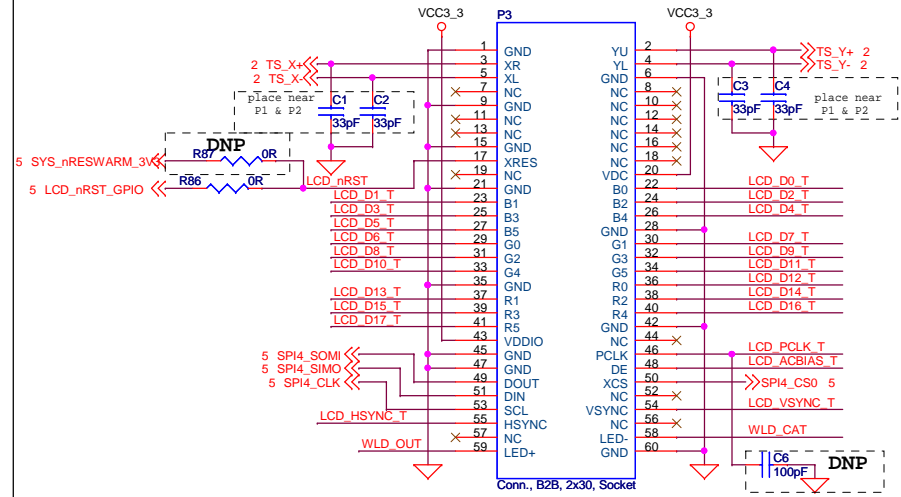
USB HUB XTAL



USB HUB PROVISIONS

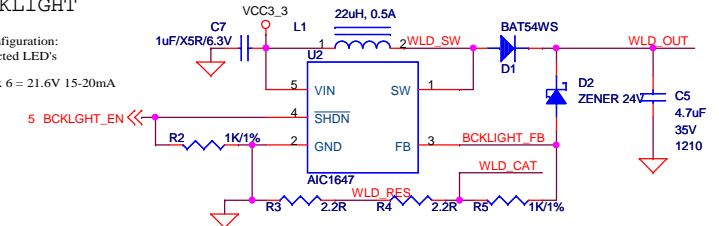


TOPPOLY LCD CONNECTOR + BACKLIGHT DRIVER



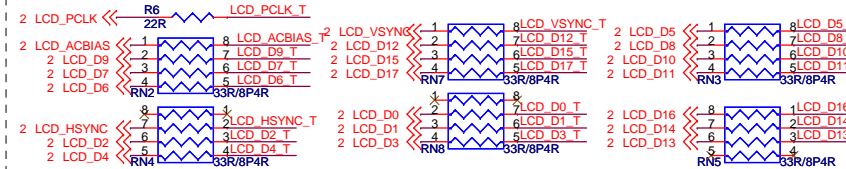
LCD BACKLIGHT

Typical LED configuration:
6 serially connected LED's
3.6V typical Vf x 6 = 21.6V 15-20mA

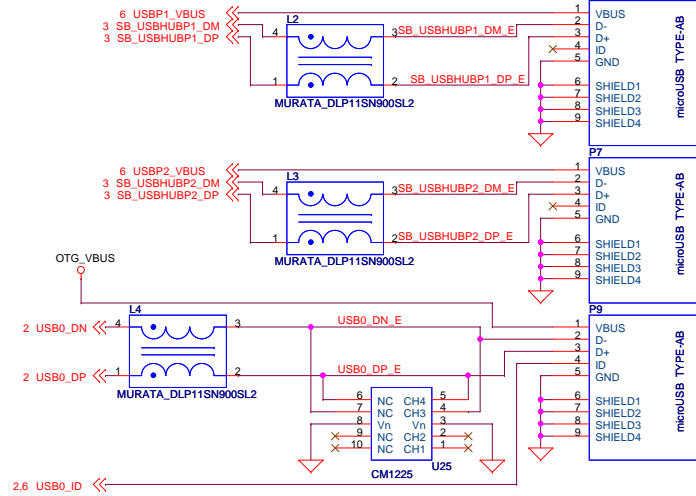


LCD TERMINATION

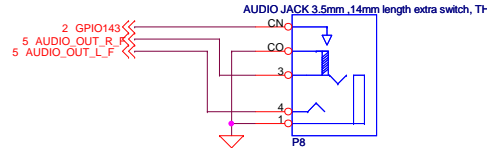
place termination near CAMI connectors



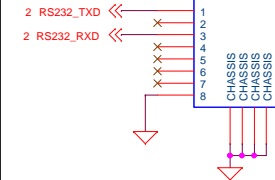
USB PORTS



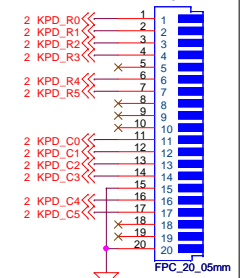
STEREO OUT JACK



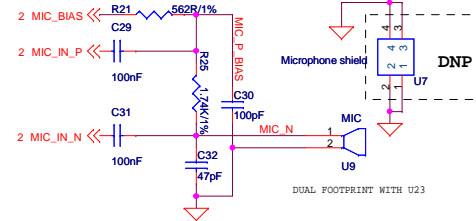
RS232 CONNECTOR



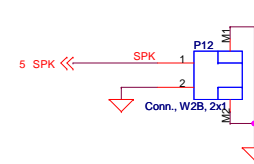
KEYPAD CONNECTOR



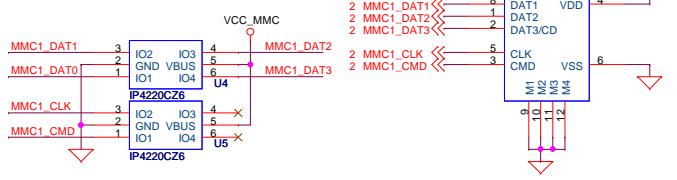
ELECTRET MICROPHONE - assemble by default



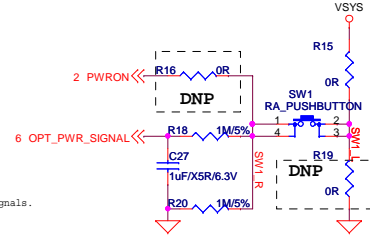
SPEAKER CONNECTOR



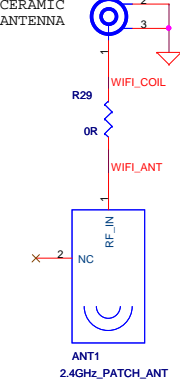
SD/MMC SOCKET



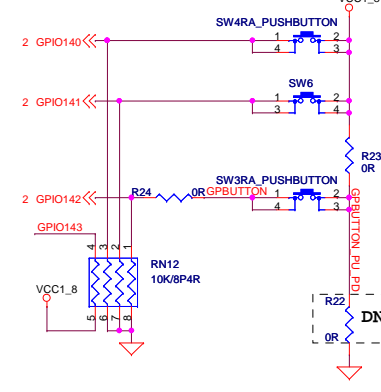
POWER/SUSPEND/RESUME BUTTON



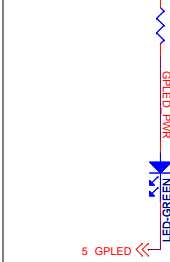
WIFI CERAMIC ANTENNA



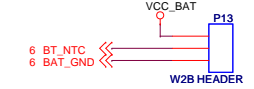
GENERAL PURPOSE BUTTONS



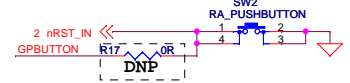
GENERAL PURPOSE LED



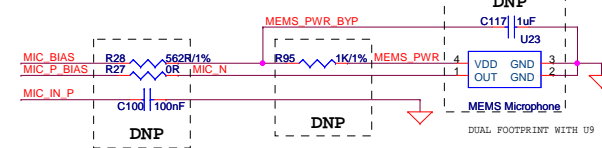
BATTERY HEADER



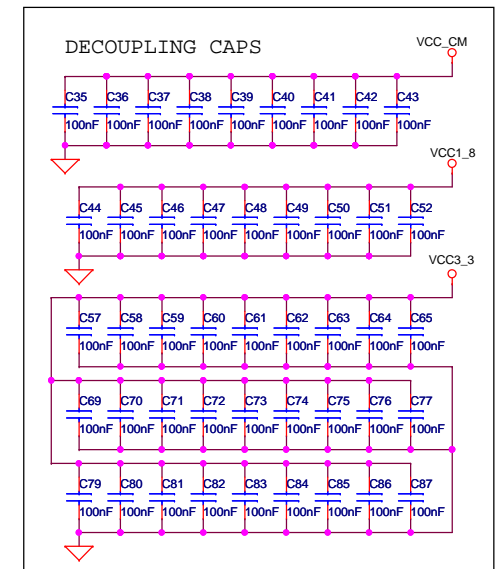
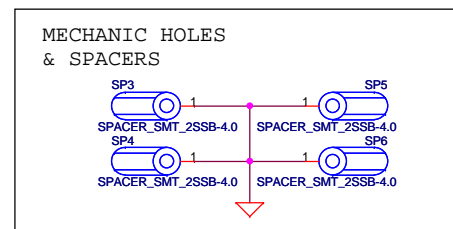
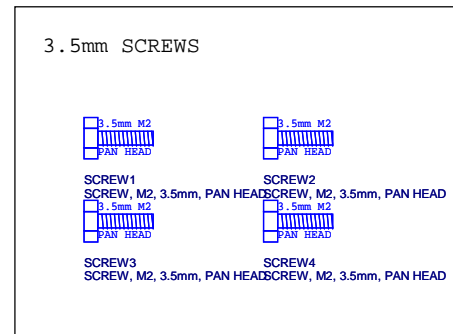
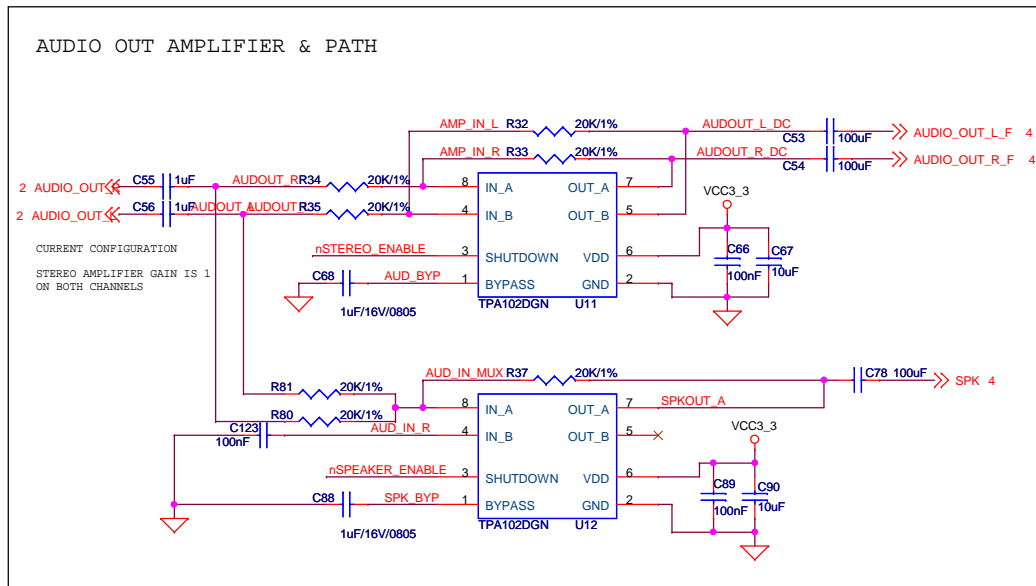
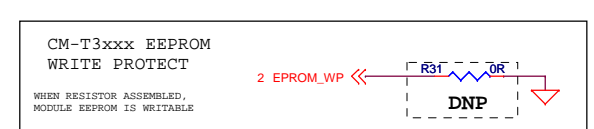
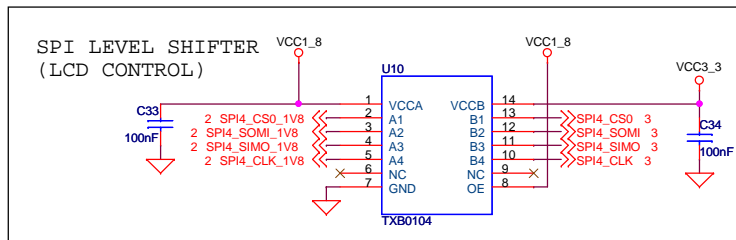
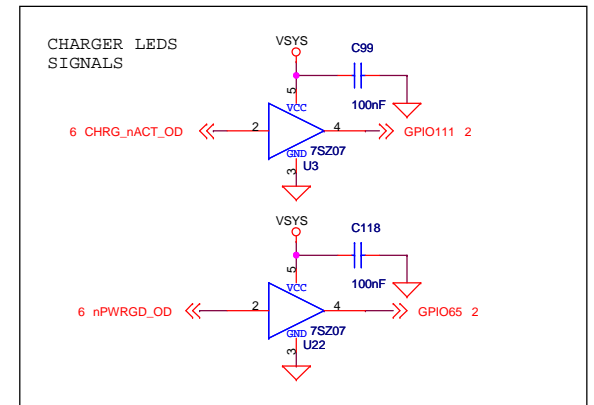
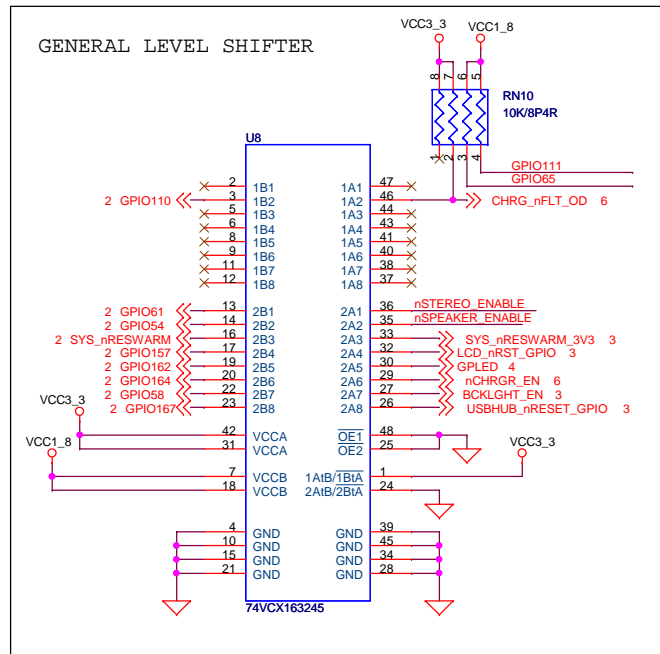
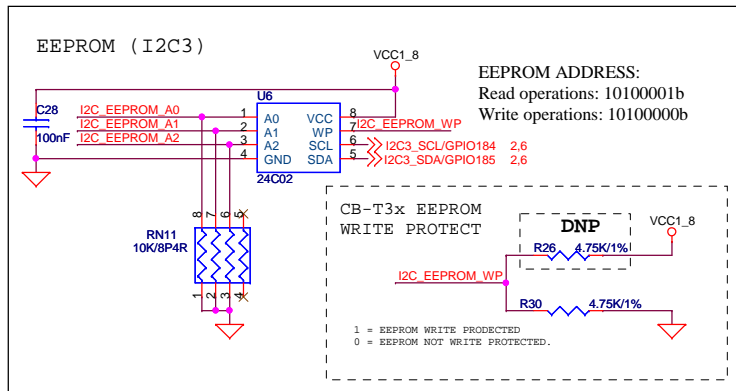
RESET BUTTON

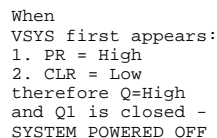
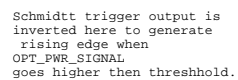


MEMS MICROPHONE - not assembled by default



The power button can control one of two signals.
1. OPT_PWR_SIGNAL - which controls the HW POWER CONTROL CIRCUIT (POWER Page in this schematic). (assembled by default) - The pull-up resistor and capacitor should be assembled for this case.
2. PWRON - which is connected to the PWRON signal of CM-T3x30, this signal is SW controlled, and can be used to Suspend/Resume/Power-off the system (SW Controlled). - The serial resistor and Pull down resistor should be assembled

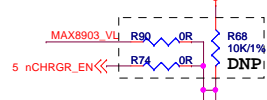
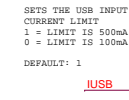
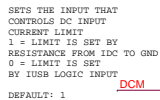




MAIN POWER SUPPLY AND BATTERY CHARGER



CT SETS THE CHARGE TIMER
 $T_{pre} = 33\text{min} \cdot C_{ct}/0.15\mu\text{F} = 22\text{mins}$
 $T_{fstchrg} = 660\text{min} \cdot C_{ct}/0.15\mu\text{F} = 440\text{mins}$
 $T_{top-off} = 15\text{s}$

[illegible]

The schematic diagram illustrates the USB ID pin circuit for the DNP module. The circuit is powered by OTG_VBUS and VBUS_INPUT. A network of resistors (R50, R51, R52, R57, R58, R66, R71, R101) and a Si7413DN buffer are used to interface the USB ID pin (2.4 USB0_ID) with the VBUS_IS_OUT pin. The DNP module is shown as a black box with pins 1 through 9.

WHEN EM-T35 OPERATES AS
A USB HOST AND PROVIDES
OTG_VBUS ITSELF, (ID = LOW)
Q2 IS CLOSED AND MAX8903
DOES NOT THINK THAT
A DC POWER SOURCE IS PRESENT.

BT1 ML1220

The diagram illustrates the RTL9186A voltage divider circuit. The IC is connected to VCC3.3 and VCC1.8. The output voltage V_{out} is calculated as $V_{out} = 0.8 \cdot (1 + R1/R2)$. The circuit includes a 10uF capacitor C113, a 100K resistor R82, a 2.49K resistor R83, and a 10uF capacitor C114. The output voltage is 1V8SBYFB.

The schematic diagram shows the DS2786 battery monitor circuit. The DS2786 is connected to a battery (BAT) through a sense resistor R75 (0.018R, 0.5W). The VIN pin is connected to the battery positive terminal. The VPROG pin is connected to the battery positive terminal through a 150R/1% resistor R67. The VSS pin is connected to the battery negative terminal (BAT_GND). The I2C3_SCL/GPIO184 pin is connected to the I2C3_SCL pin of the microcontroller. The I2C3_SDA/GPIO185 pin is connected to the I2C3_SDA pin of the microcontroller. The SNS pin is connected to the battery negative terminal. The DS2786 is also connected to a 10nF capacitor C112 to ground.

Size		Title	Rev
Custom		CB-T3x 06.POWER	1.1
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Wednesday, May 11, 2011		8001003001	
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