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Power,Flash,SDcard
User switch,Reset switch.

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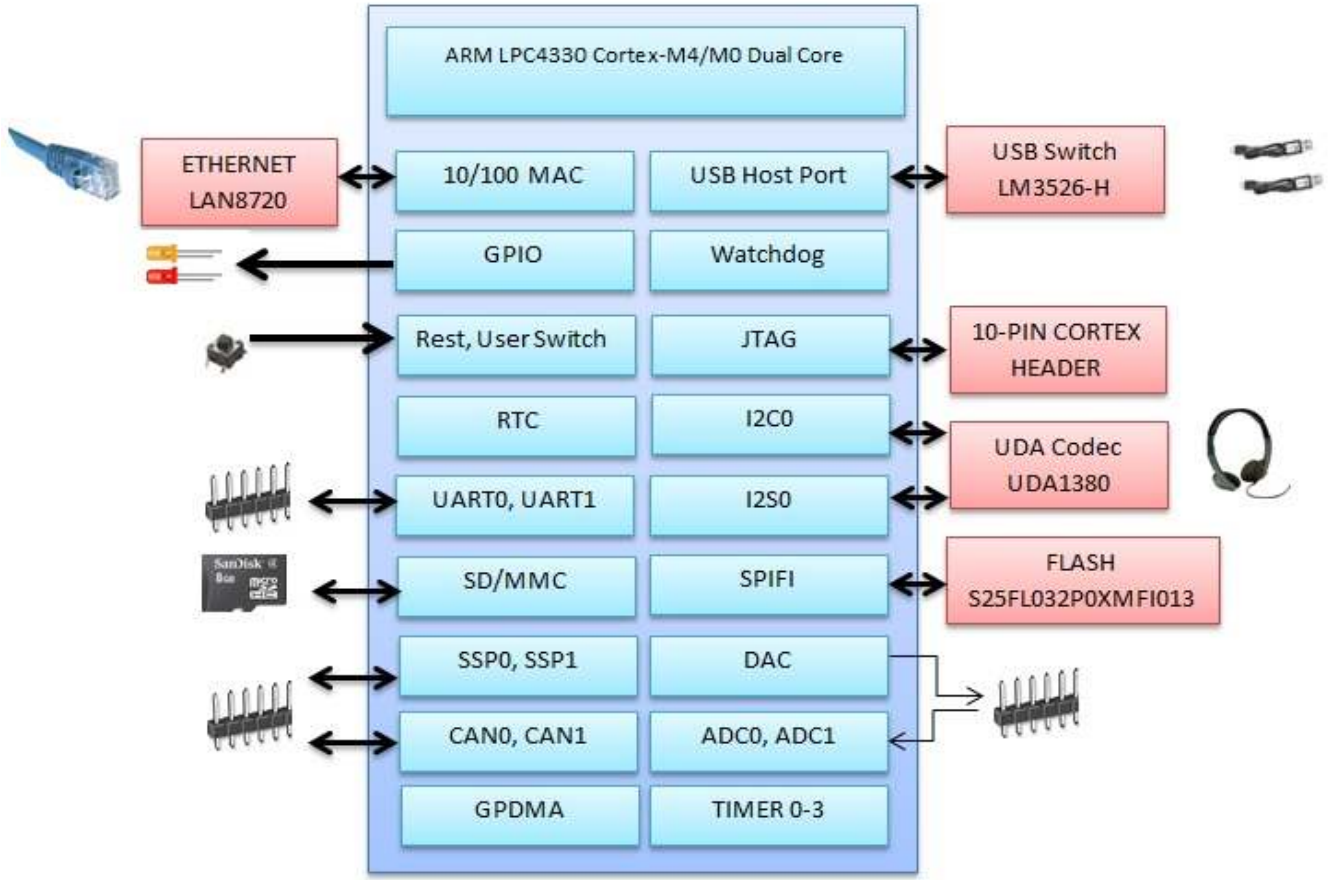
Design Overview



Disclaimer:

Schematic's are for reference only.
NGX Technologies Pvt. Ltd. provides no warranty for the use of these schematics.

NGX Technologies Pvt. Ltd.		
Title: 01 COVER		
Size: B	Document Number: XPLORER	Rev: 1.2
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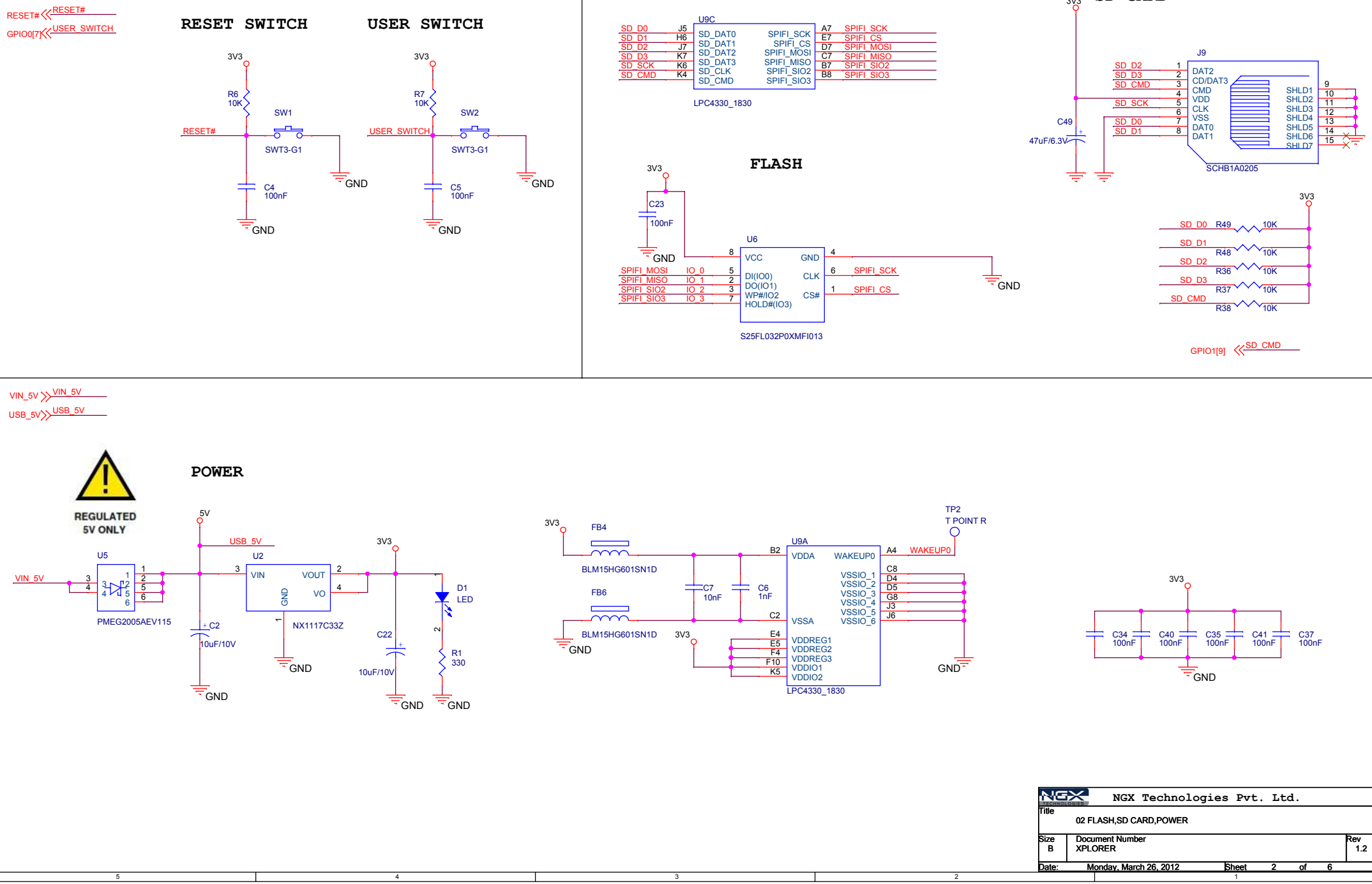

NGX TECHNOLOGIES	NGX Technologies Pvt. Ltd.	
Title	02 FLASH,SD CARD,POWER	
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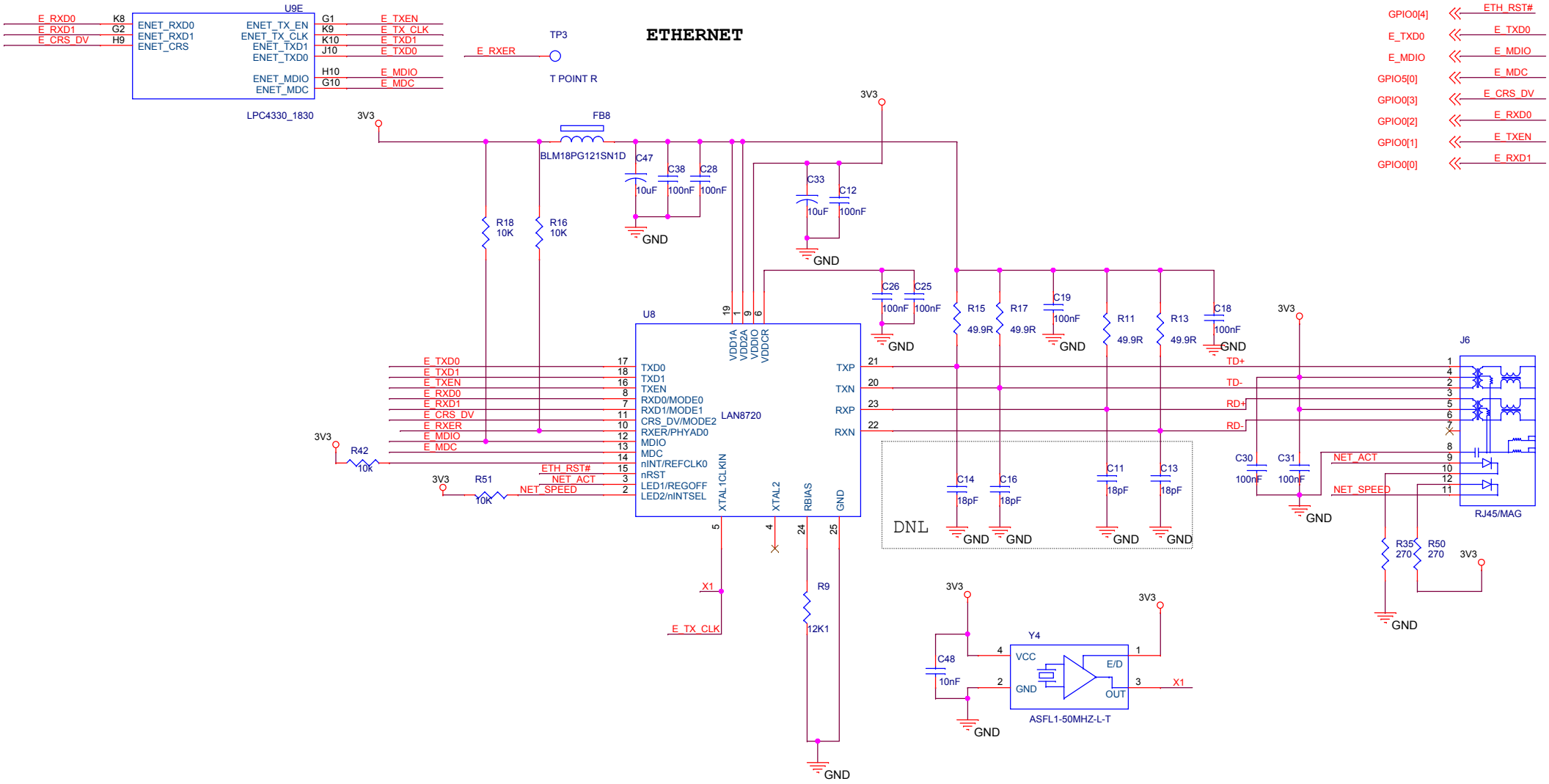
ETHERNET



ETHERNET ROUTING GUIDELINES

=>Keep the trace length difference between TX+ and TX- (or RX+ and RX-) in 700 mils.
=> Keep RX+/- signal on the top layer, the RX+/- signal should avoid any vias, if possible. Avoid right angle signal trace.
=>The crystal/oscillator clock and the switching noise from digital signals should be far away from TX+/-, RX+/- pairs.
=>Keep TX, RX differential signals running symmetric, equal length, and closely. The trace spacing between TX+ and TX- or between RX+ and RX- pair should be in 8 ~ 10 mils.
The better spacing between TX+/- and RX+/- pairs should be larger than 200 mils
=>The trace length from LAN8720 to the transformer should not be longer than 5 inches, keep the trace as straight as possible, and keep it parallel for differential pairs.
=>The termination resistors 49.9Ω and capacitors of TX± and RX± pairs should be placed near the transformer side and should be shorter than 400 mils.

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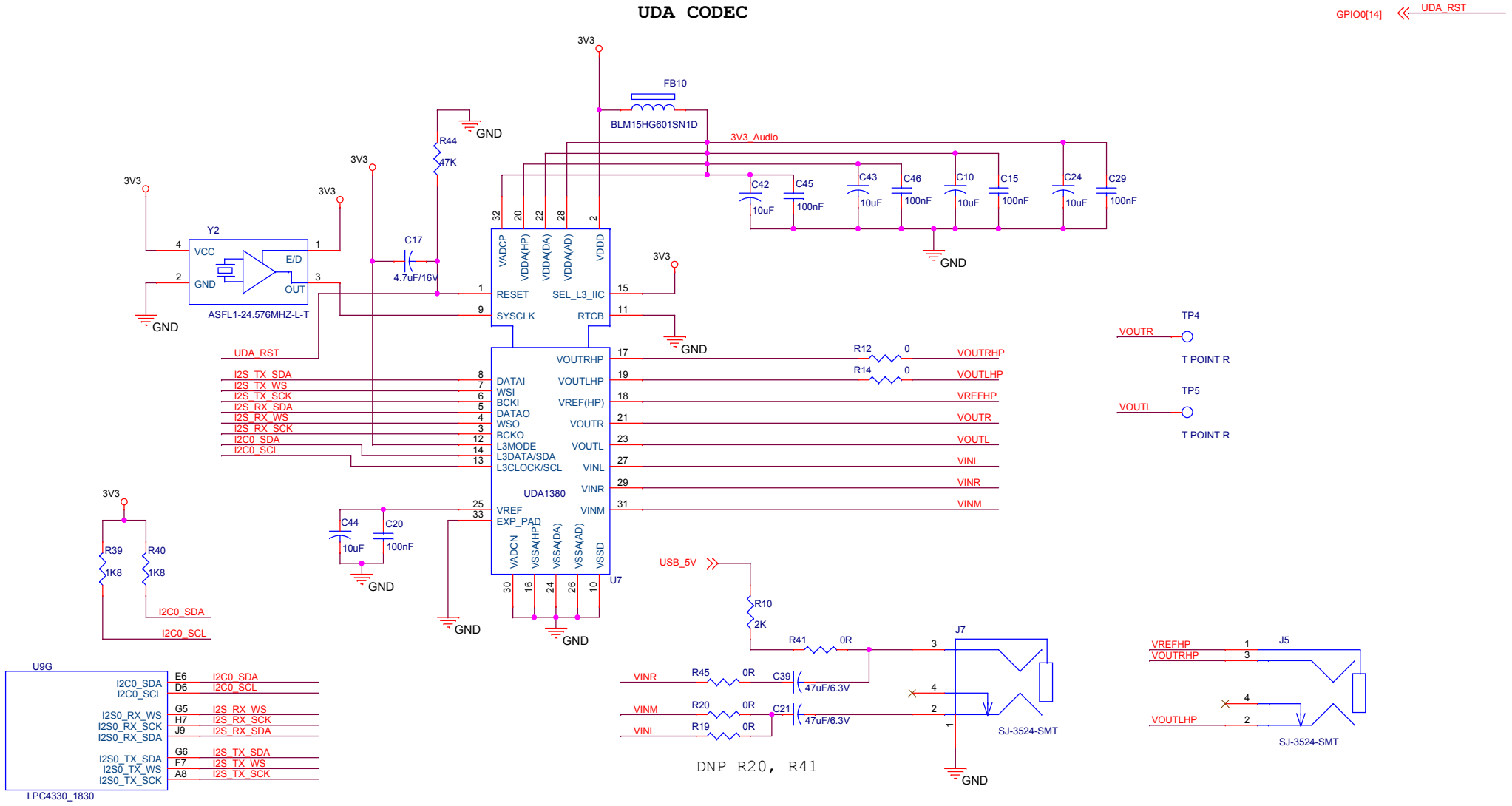
UDA CODEC



Company	NGX Technologies Pvt. Ltd.
Title	04 AUDIO
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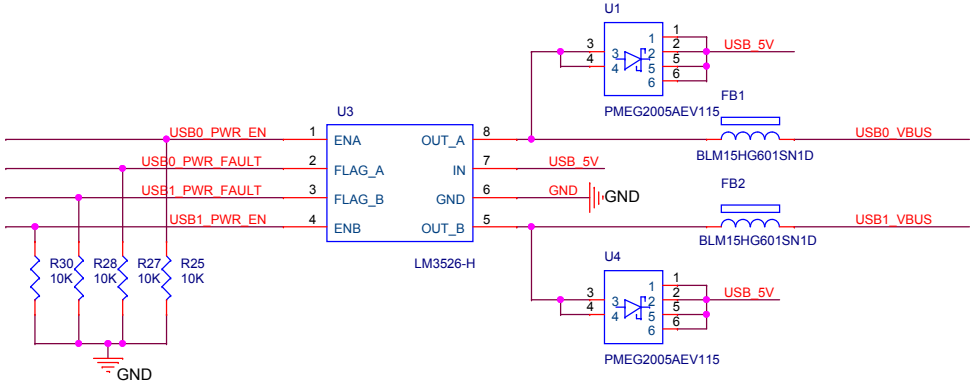
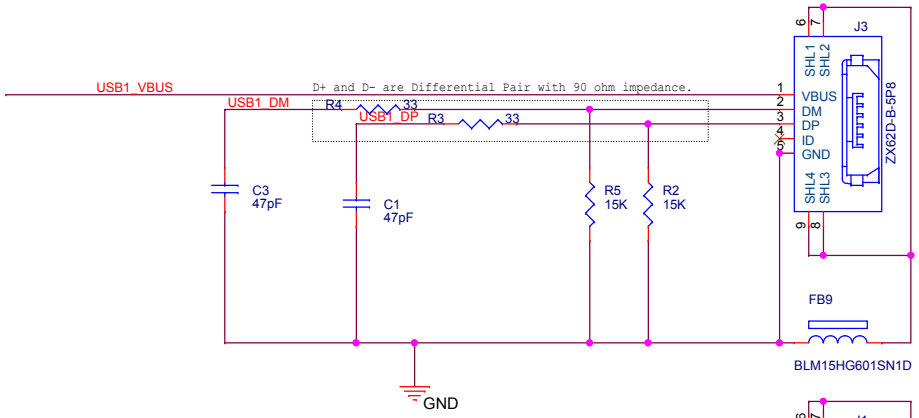
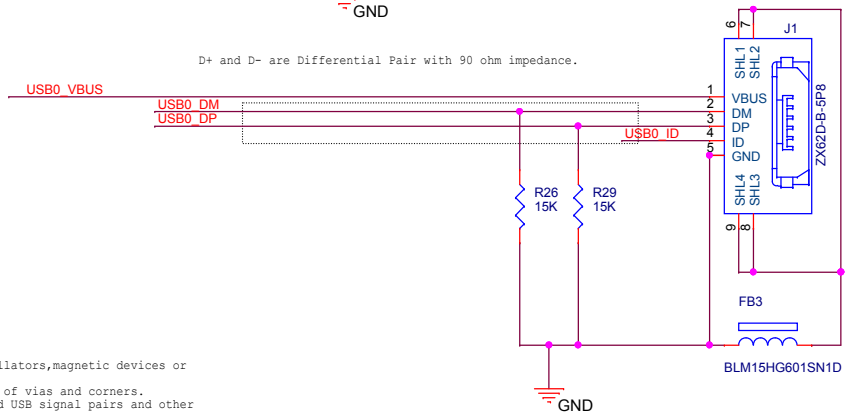
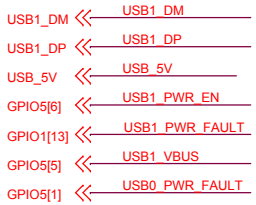
USB SECTION

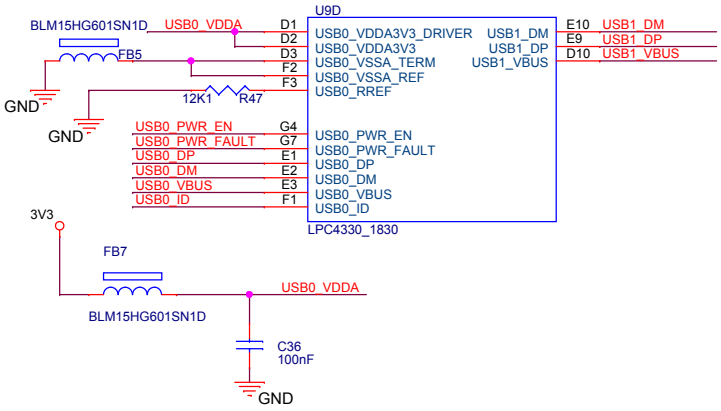


USB1 Power enable and fault pins are monitored/controlled using GPIO.









	1/0
USB0_PWR_EN	HOST/DEVICE
USB1_PWR_EN	HOST/DEVICE

NOTE:- When both USB0 and USB1 are in Host mode external 5V DC to be given to J8 pin 2.

USB ROUTING GUIDELINES

=>Route USB trace pairs together [DM & DP].
=>Do not route USB traces under crystals, oscillators,magnetic devices or ICs that use and/or duplicate clocks.
=>Route high-speed USB signals using a minimum of vias and corners.
=>Use 20-mil minimum spacing between high-speed USB signal pairs and other signal traces for optimal signal quality.

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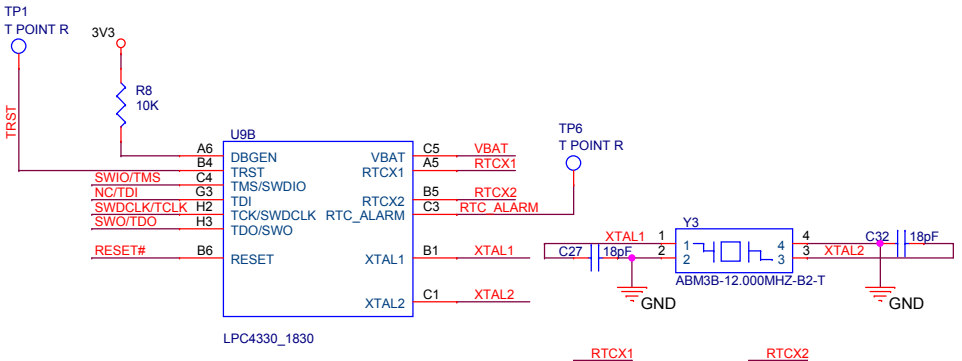
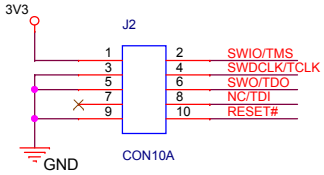
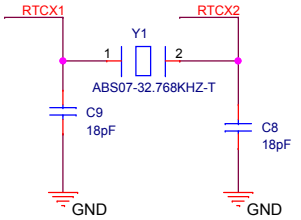
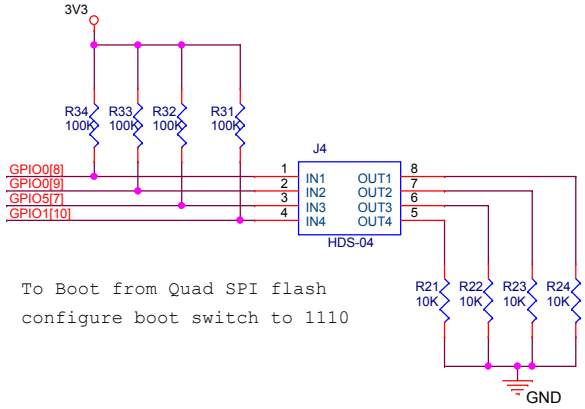


JTAG

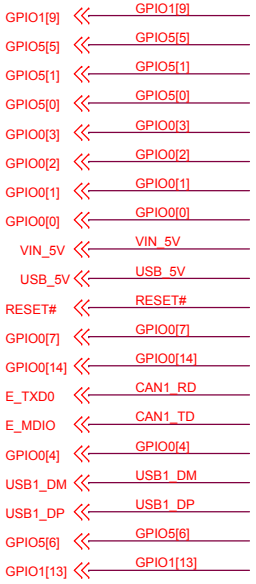




BOOT SELECT SWITCH

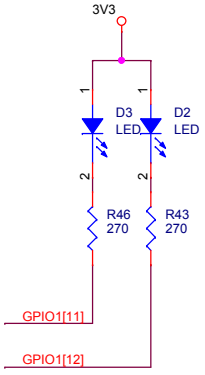


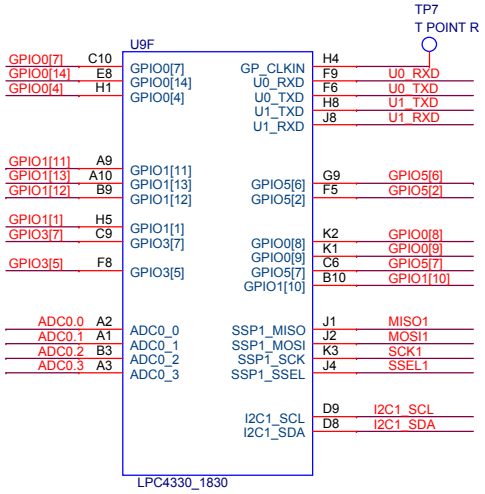
To Boot from Quad SPI flash
configure boot switch to 1110

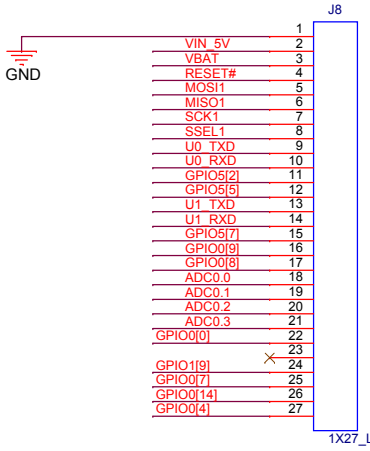


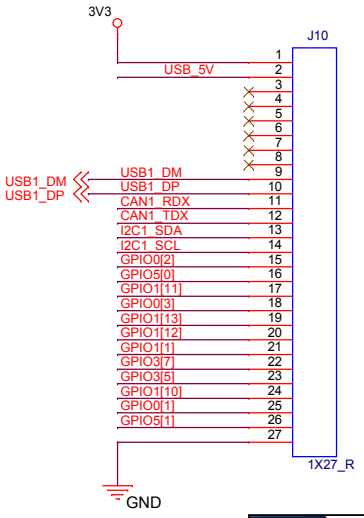
CAN1 IS MULTIPLEXED WITH ETHERNET

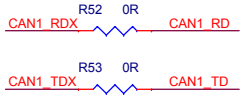
BLINKY LED











NOTE:

* CAN1 cannot be used when Ethernet is enabled.
* Load R52 and R53 to use CAN1
* ADC lines 5V tolerant

NGX Technologies Pvt. Ltd.		
Title: 06 JTAG,BOOT SW,BLINKY LED,HEADER		
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