

**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  
LPC4357 XPLORE++


Size B	Document Number SCHEMATIC	Rev A.
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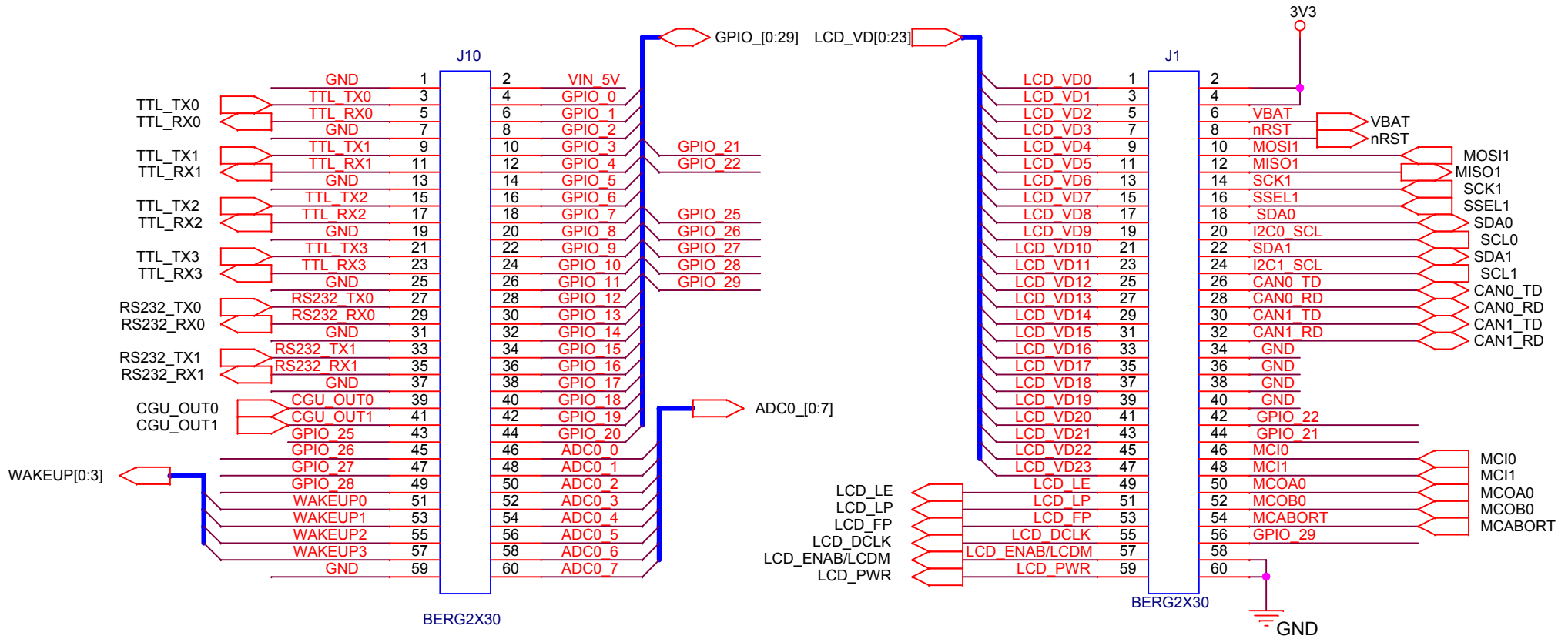
# PIN OUT

PORT	HEADER J10	PORT	HEADER J10	PORT	HEADER J10
GND	GND	1	2	VIN_5V	VIN_5V
GPIO7[24]	TX0	3	4	GPIO_0	GPIO4[0]
GPIO2[25]	RX0	5	6	GPIO_1	GPIO3[0]
GND	GND	7	8	GPIO_2	GPIO6[0]
GPIO6[12]	TX1	9	10	GPIO_3	GPIO6[1]
GPIO6[13]	RX1	11	12	GPIO_4	GPIO3[1]
GND	GND	13	14	GPIO_5	GPIO6[2]
GPIO4[8]	TX2	15	16	GPIO_6	GPIO7[4]
GPIO4[9]	RX2	17	18	GPIO_7	GPIO4[10]
GND	GND	19	20	GPIO_8	GPIO6[10]
GPIO7[17]	TX3	21	22	GPIO_9	GPIO6[11]
GPIO7[18]	RX3	23	24	GPIO_10	GPIO7[14]
GND	GND	25	26	GPIO_11	GPIO7[15]
RS232_TX1	RS232_TX1	27	28	GPIO_12	GPIO7[16]
RS232_RX1	RS232_RX1	29	30	GPIO_13	GPIO5[19]
GND	GND	31	32	GPIO_14	GPIO7[21]
RS232_TX0	RS232_TX0	33	34	GPIO_15	GPIO7[22]
RS232_RX0	RS232_RX0	35	36	GPIO_16	GPIO7[23]
GND	GND	37	38	GPIO_17	GPIO6[24]
CGU_OUT0	CGU_OUT0	39	40	GPIO_18	GPIO6[25]
CGU_OUT1	CGU_OUT1	41	42	GPIO_19	GPIO6[26]
GPIO1[8]	GPIO_25	43	44	GPIO_20	GPIO5[1]
GPIO5[15]	GPIO_26	45	46	ADC0_0	ADC0_0
GPIO6[29]	GPIO_27	47	48	ADC0_1	ADC0_1
GPIO6[30]	GPIO_28	49	50	ADC0_2	ADC0_2
WAKEUP0	WAKEUP0	51	52	ADC0_3	ADC0_3
WAKEUP1	WAKEUP1	53	54	ADC0_4	ADC0_4
WAKEUP2	WAKEUP2	55	56	ADC0_5	ADC0_5
WAKEUP3	WAKEUP3	57	58	ADC0_6	ADC0_6
GND	GND	59	60	ADC0_7	ADC0_7

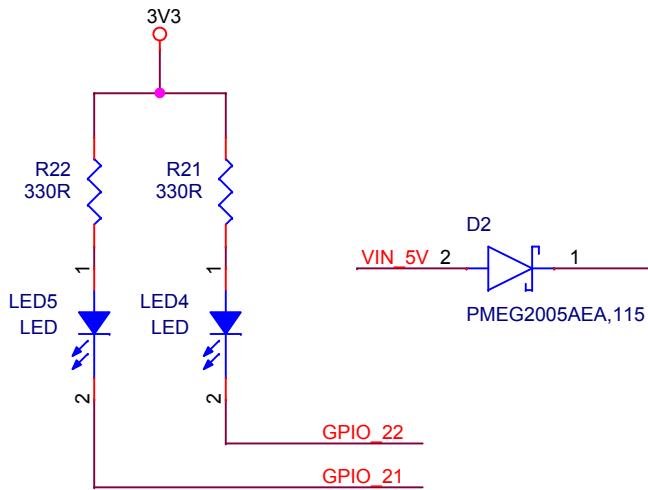
PORT	HEADER J1	PORT	HEADER J1	PORT	HEADER J1
GPIO2[1]	LCD_VD0	1	2	3V3	3V3
GPIO2[4]	LCD_VD1	3	4	3V3	3V3
GPIO2[3]	LCD_VD2	5	6	VBAT	VBAT
GPIO2[2]	LCD_VD3	7	8	nRST	RESET
GPIO2[12]	LCD_VD4	9	10	SSP1_MOSI	GPIO[11]
GPIO4[6]	LCD_VD5	11	12	SSP1_MISO	GPIO7[20]
GPIO4[5]	LCD_VD6	13	14	SSP1_SCK	SSP1_SCK
GPIO3[9]	LCD_VD7	15	16	SSP1_SSEL	GPIO7[19]
GPIO3[13]	LCD_VD8	17	18	I2C0_SDA	I2C0_SDA
GPIO5[12]	LCD_VD9	19	20	I2C0_SCL	I2C0_SCL
GPIO5[14]	LCD_VD10	21	22	I2C1_SDA	GPIO5[3]
GPIO5[13]	LCD_VD11	23	24	I2C1_SCL	GPIO5[4]
GPIO4[3]	LCD_VD12	25	26	CAN0_TD	GPIO7[3]
GPIO2[0]	LCD_VD13	27	28	CAN0_RD	GPIO7[2]
GPIO5[25]	LCD_VD14	29	30	CAN1_TD	GPIO7[0]
GPIO5[24]	LCD_VD15	31	32	CAN1_RD	GPIO7[1]
GPIO4[4]	LCD_VD16	33	34	GND	GND
GPIO3[11]	LCD_VD17	35	36	GND	GND
GPIO3[10]	LCD_VD18	37	38	GND	GND
GPIO5[26]	LCD_VD19	39	40	GND	GND
GPIO5[23]	LCD_VD20	41	42	GPIO_22	GPIO5[18]
GPIO5[22]	LCD_VD21	43	44	GPIO_21	GPIO4[11]
GPIO5[21]	LCD_VD22	45	46	MCI0	GPIO4[2]
GPIO7[12]	LCD_VD23	47	48	MCI1	GPIO4[1]
GPIO3[8]	LCD_LE	49	50	MCOA0	GPIO4[15]
GPIO3[14]	LCD_LP	51	52	MCOB0	GPIO5[17]
GPIO2[5]	LCD_FP	53	54	MCABORT	GPIO4[12]
LCD_DCLK	LCD_DCLK	55	56	GPIO_29	GPIO0[10]
GPIO2[6]	LCD_ENAB/LCDM	57	58	GND	GND
GPIO4[7]	LCD_PWR	59	60	GND	GND

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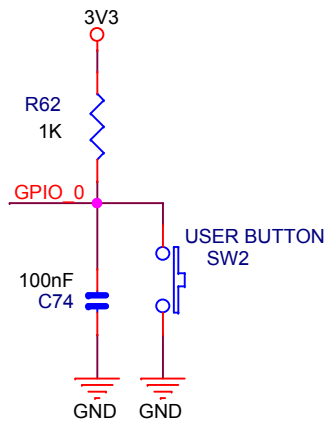
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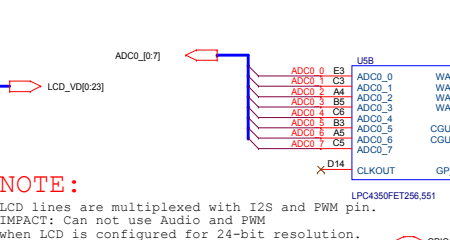
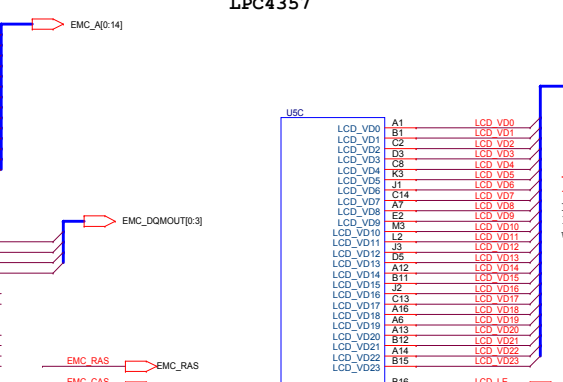
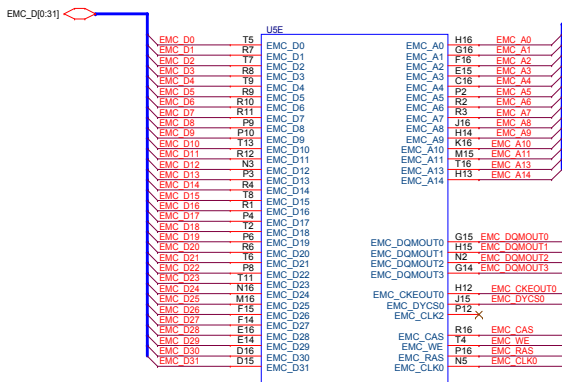
## TEST LED



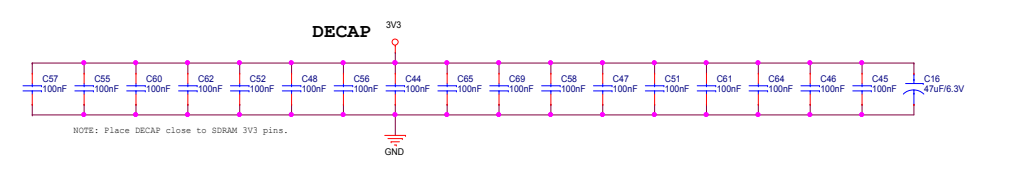
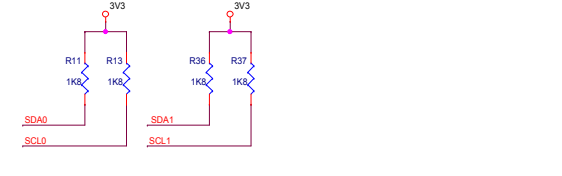
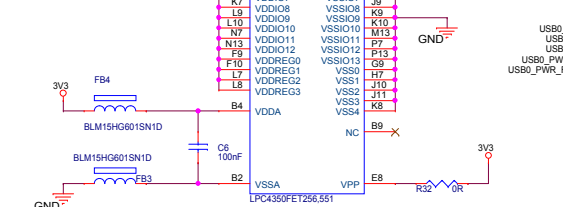
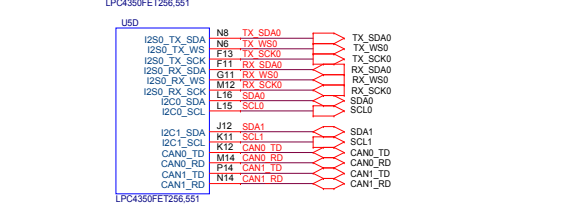
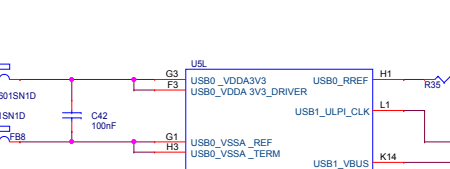
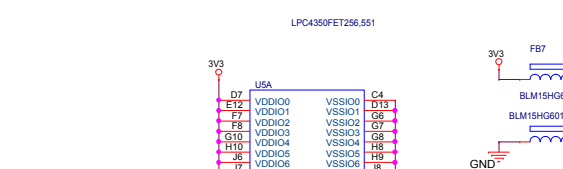
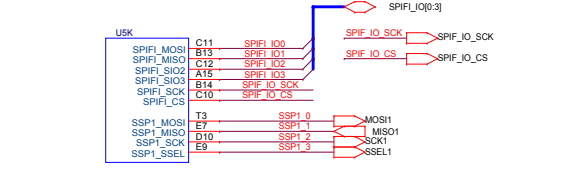
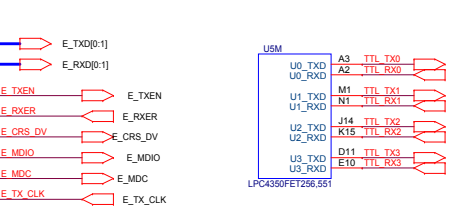
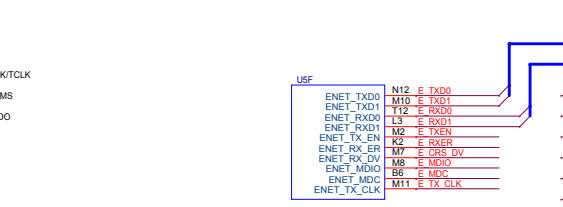
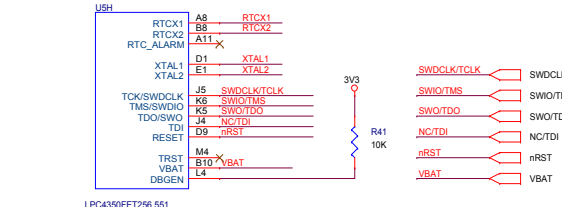
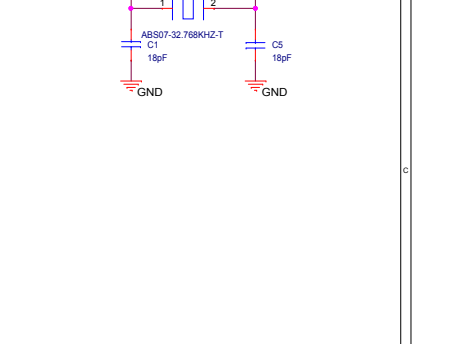
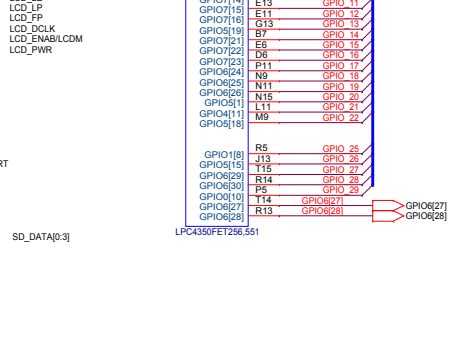
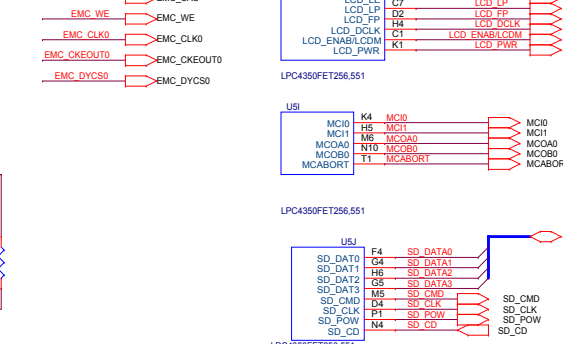
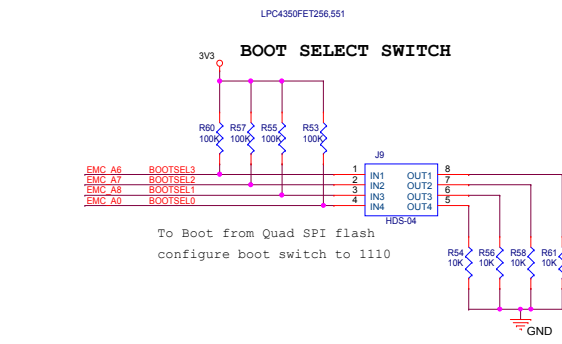
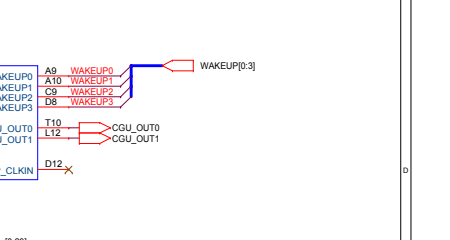
## USER SWITCH



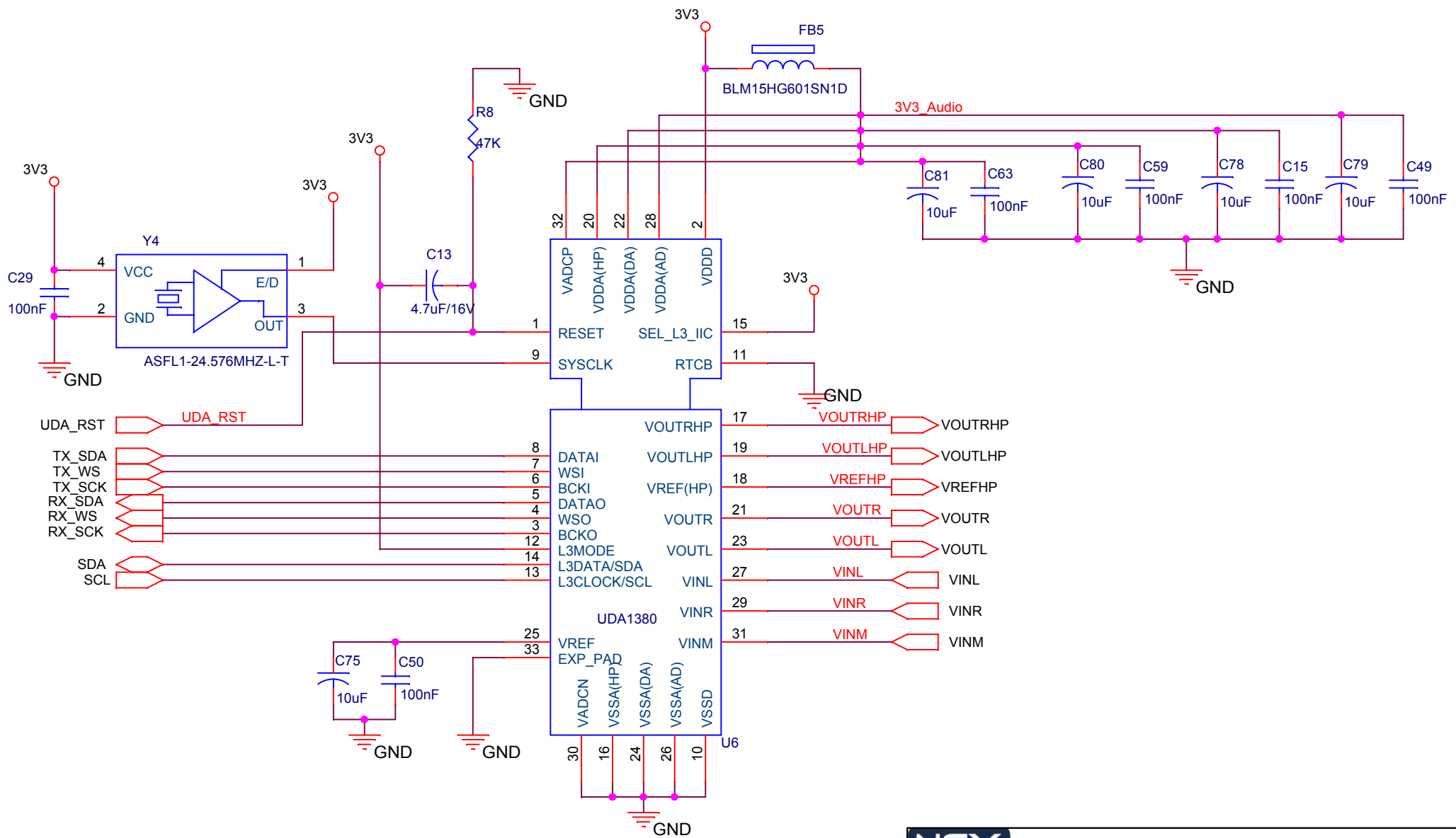
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**NOTE:**  
LCD lines are multiplexed with I2S and PWM pin.  
IMPACT: Can not use Audio and PWM  
when LCD is configured for 24-bit resolution.

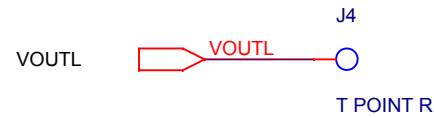
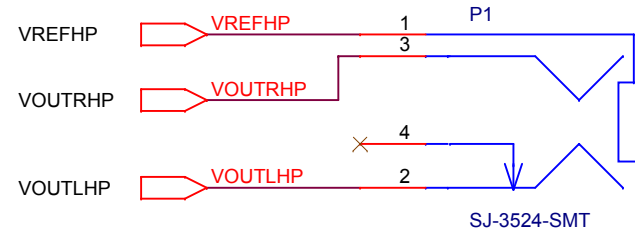
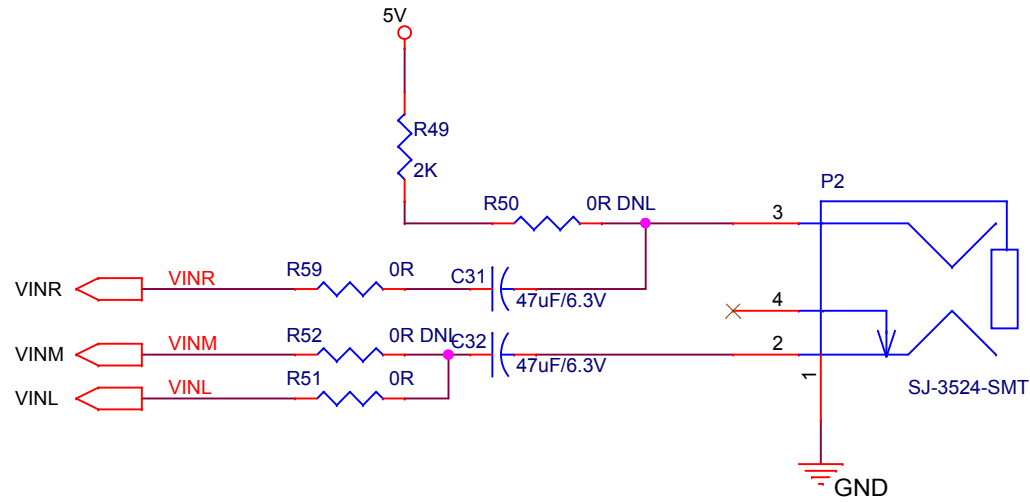


# UDA1380



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# AUDIO JACK3.5MM



## NOTE:

DNI R50, R52



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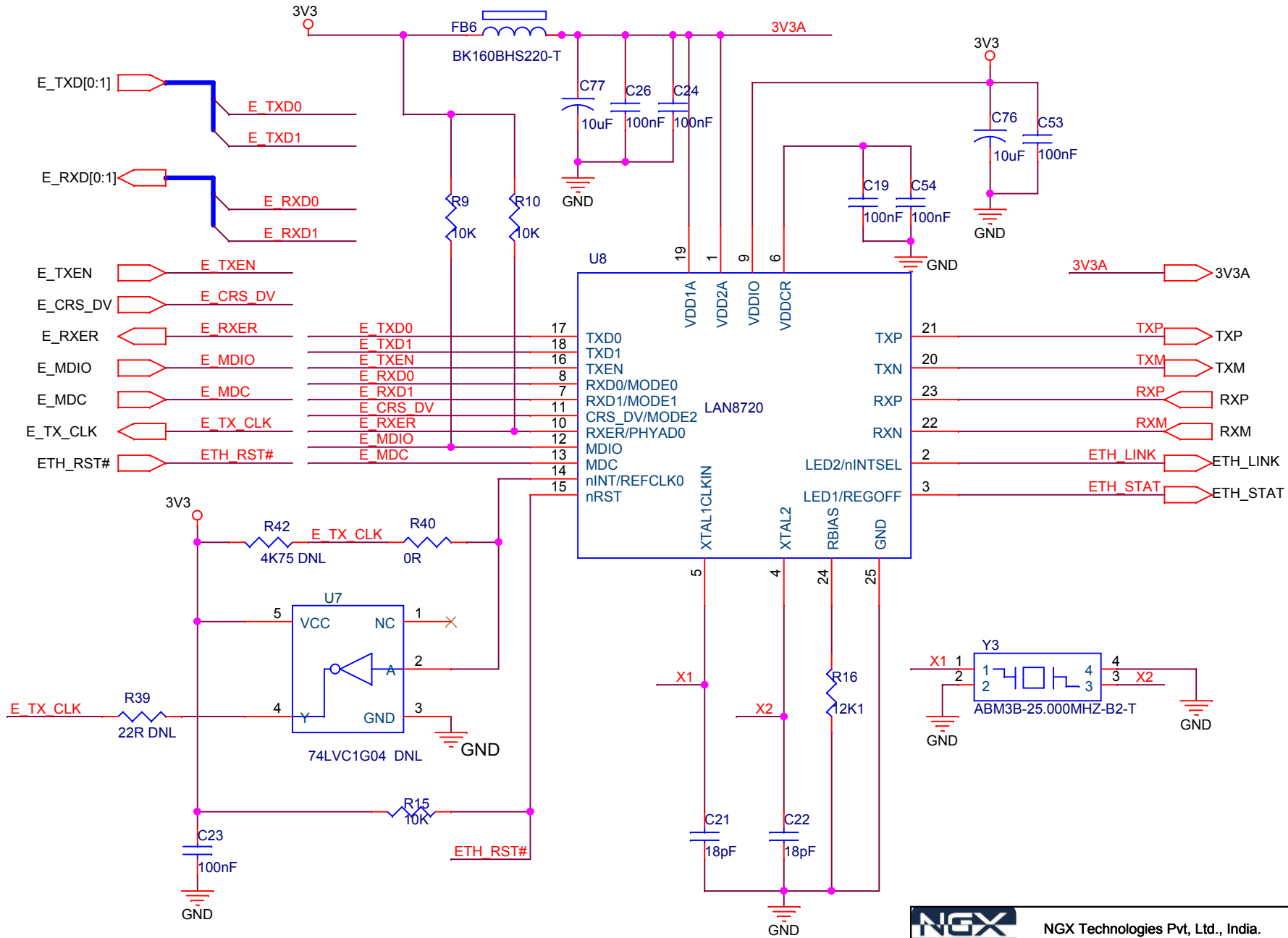
Title  
LPC4357 XPLOER++

Size A Document Number  
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# ETHERNET LAN8720



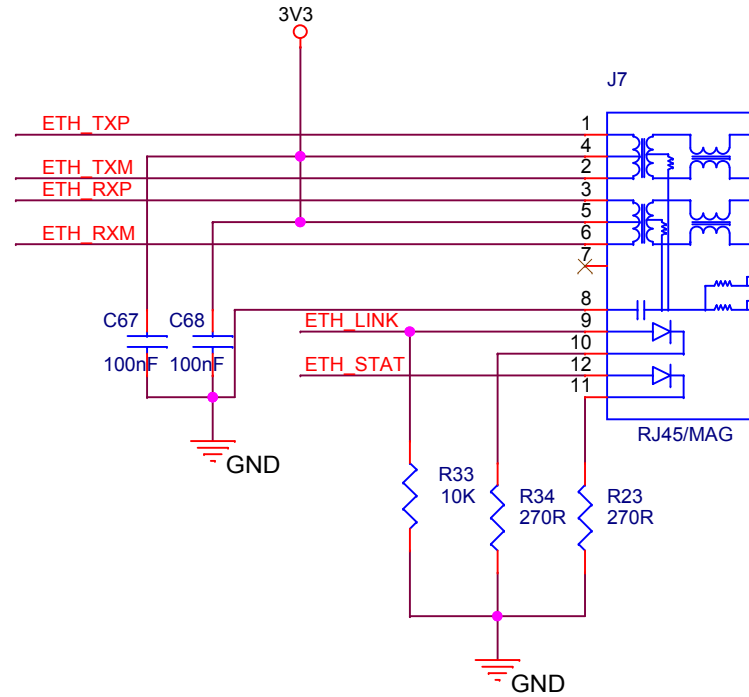
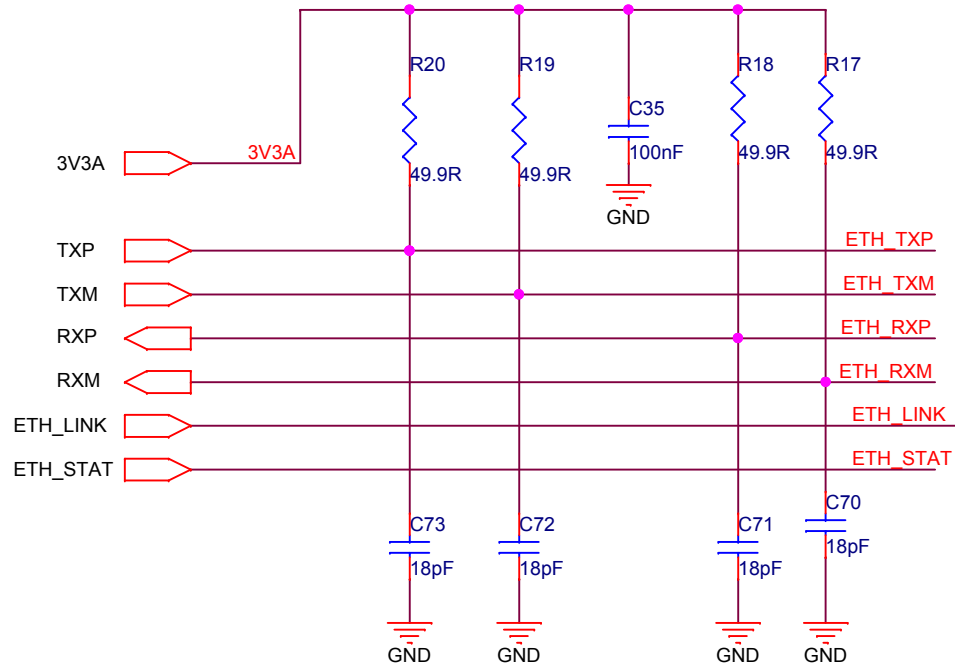
**NOTE:**  
DNI R39, R42, U7



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# RJ45 MAGNETICS



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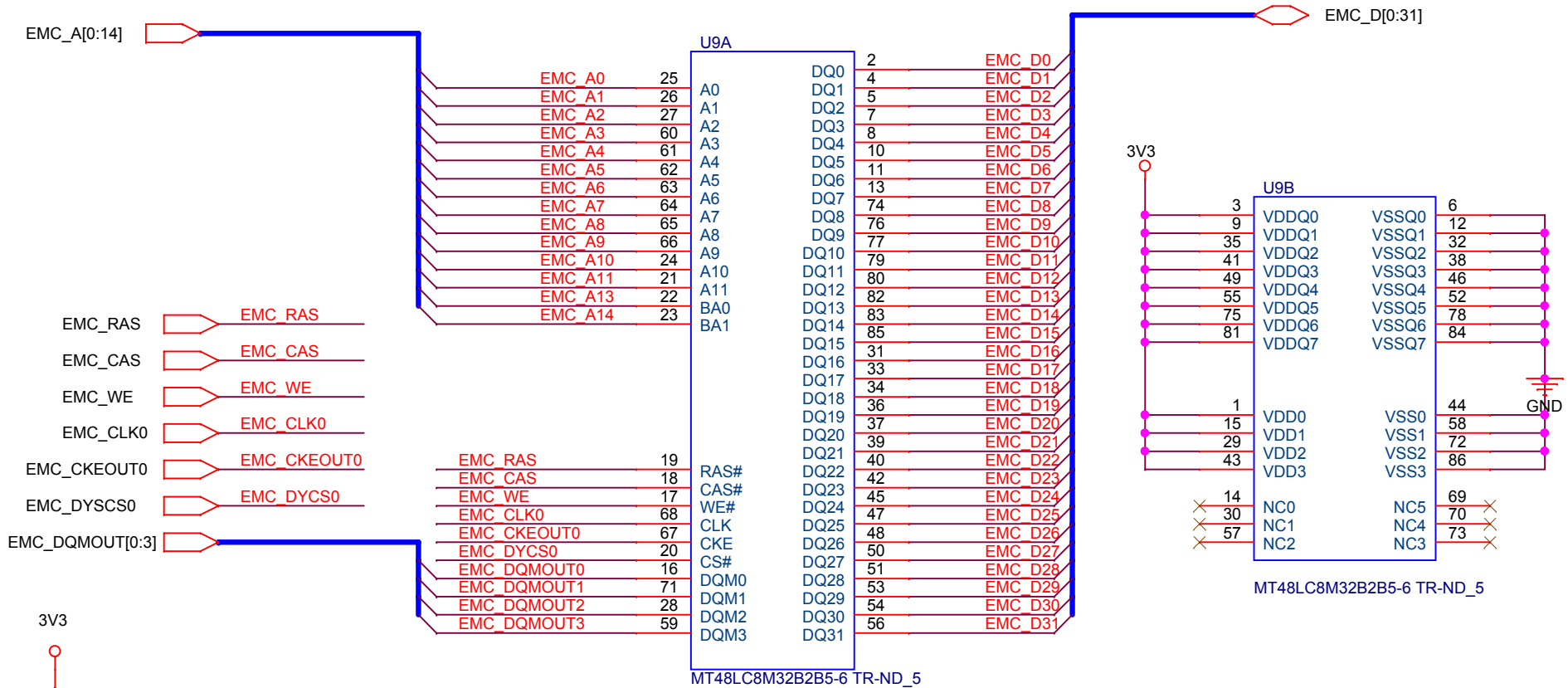
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RJ45 MAGNETICS

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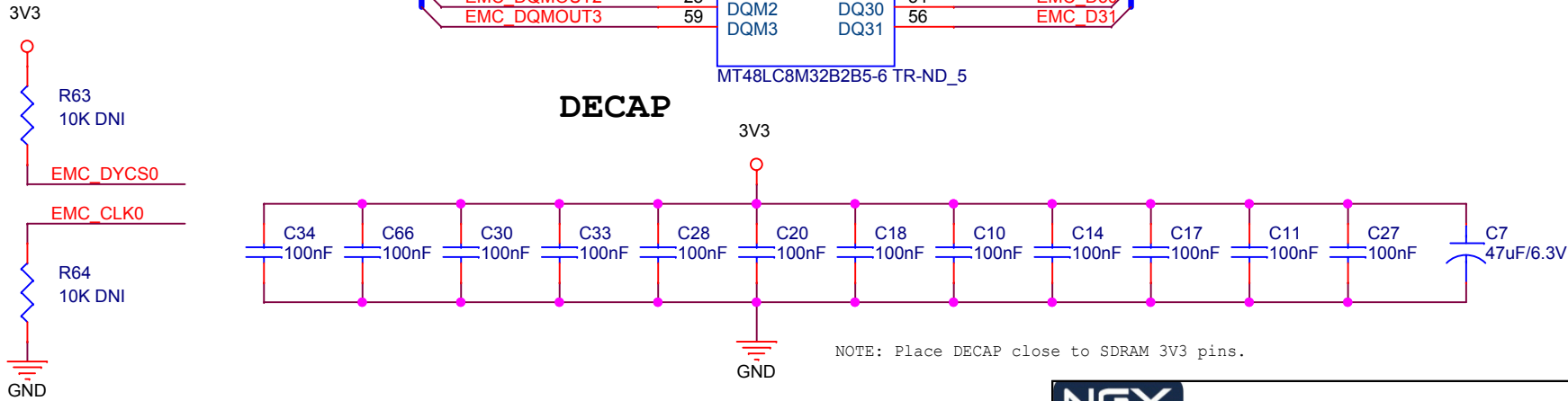
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# SDRAM



# DECAP



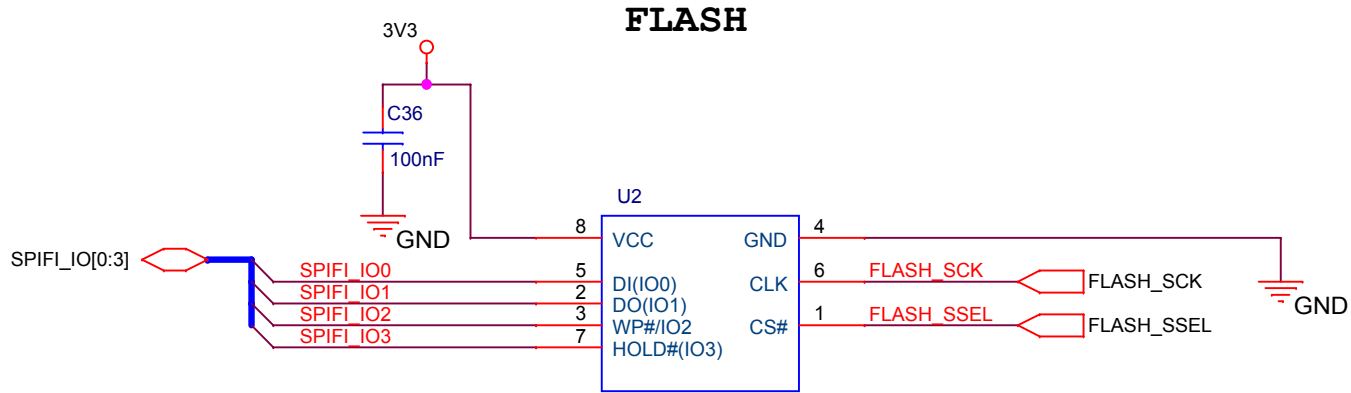
**NOTE:**  
 DNI R63,R64

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S25FL032P0XMFI013

SPIFI\_MOSI---->SPIFI\_IO0  
 SPIFI\_MISO---->SPIFI\_IO1  
 SPIFI\_SIO2---->SPIFI\_IO2  
 SPIFI\_SIO3---->SPIFI\_IO3

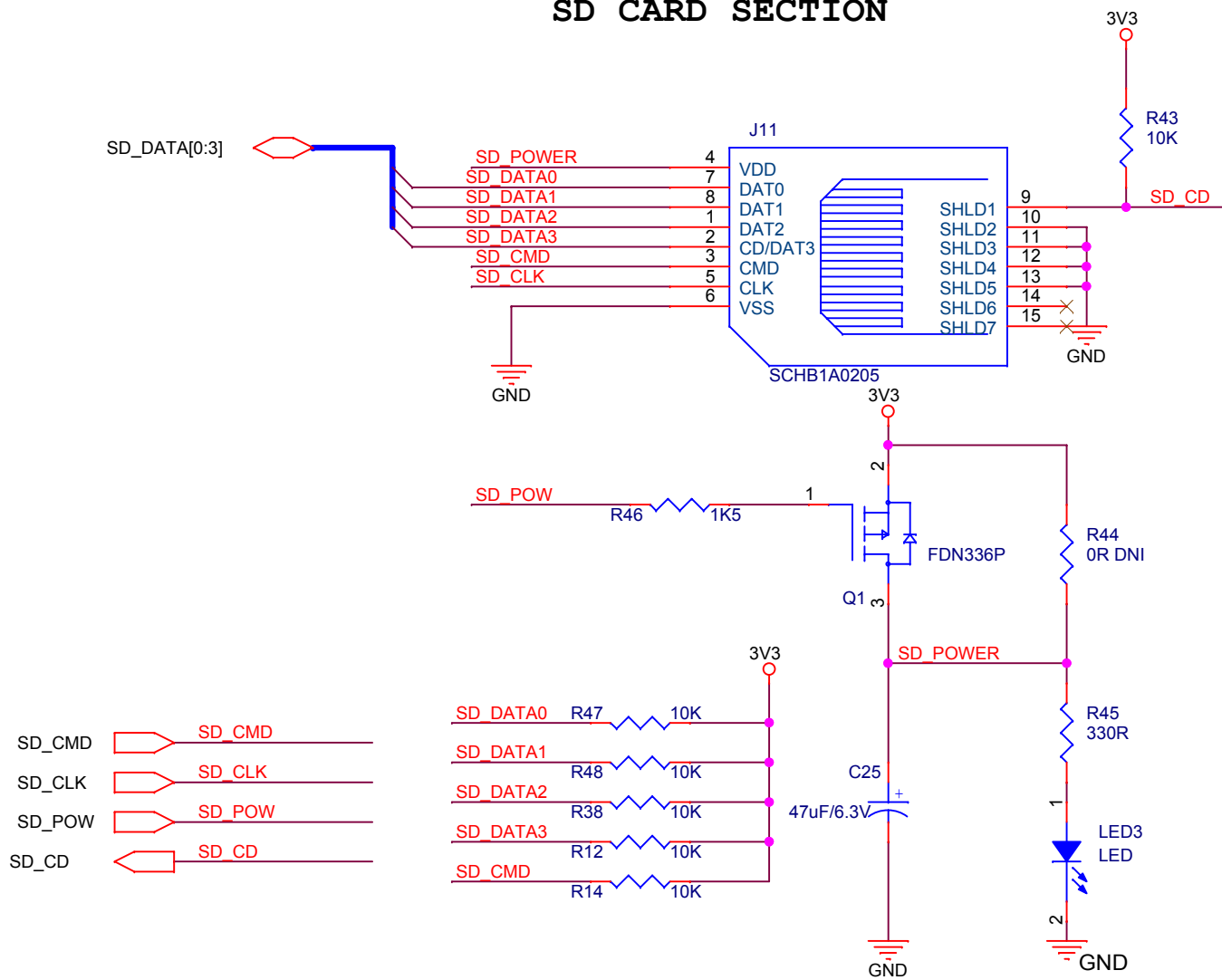


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Title  
 LPC4357 XPLOER++

Size A	Document Number FLASH	Rev A.
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# SD CARD SECTION



**NOTE:**

DNI R44



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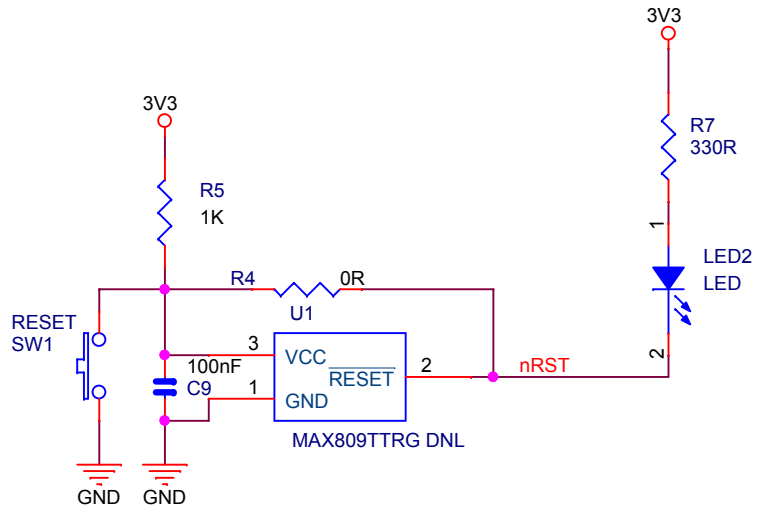
Title  
LPC4357 XPLORER++

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SD\_MICRO\_MMC

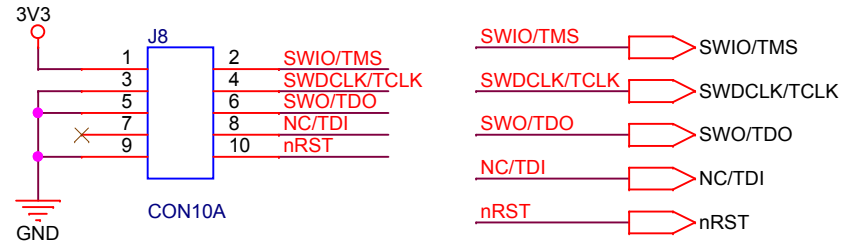
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## RESET SWITCH



## JTAG



**NOTE :**

DNI U1



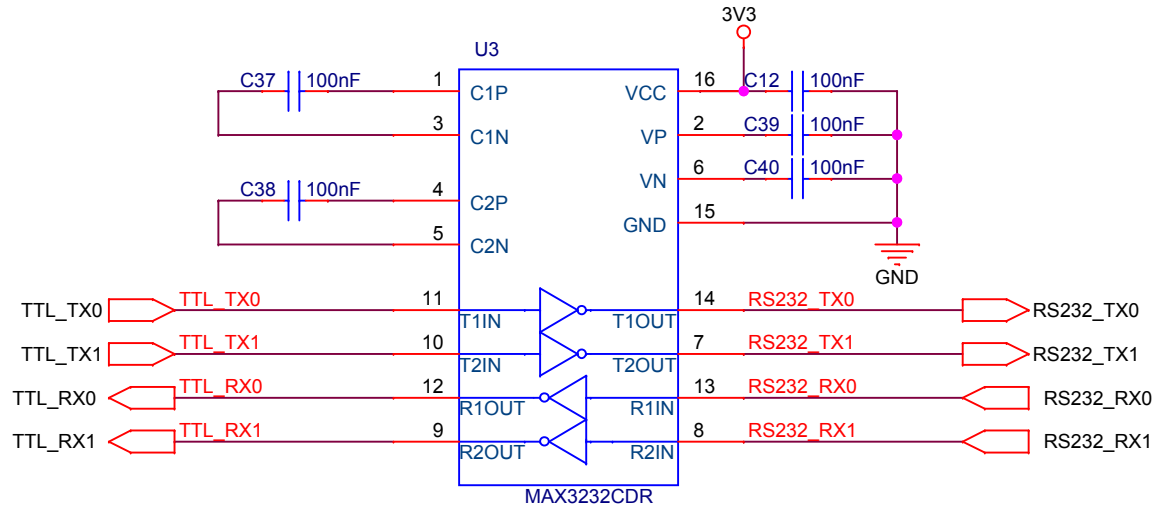
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# UART SECTION



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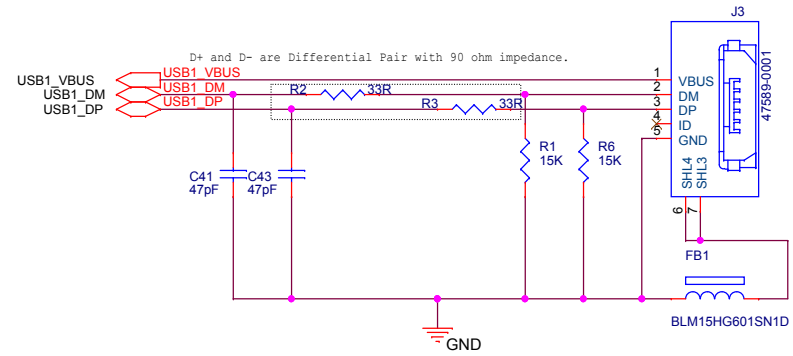
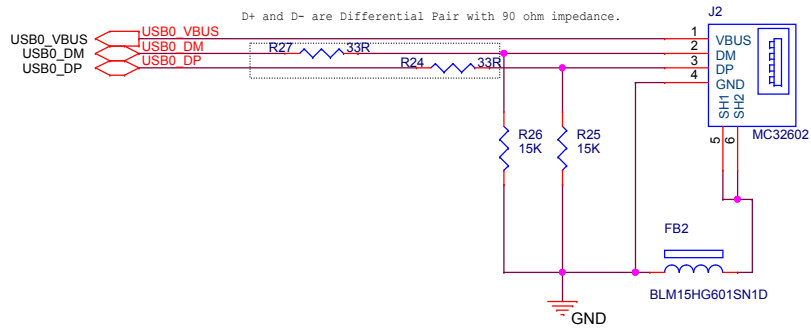
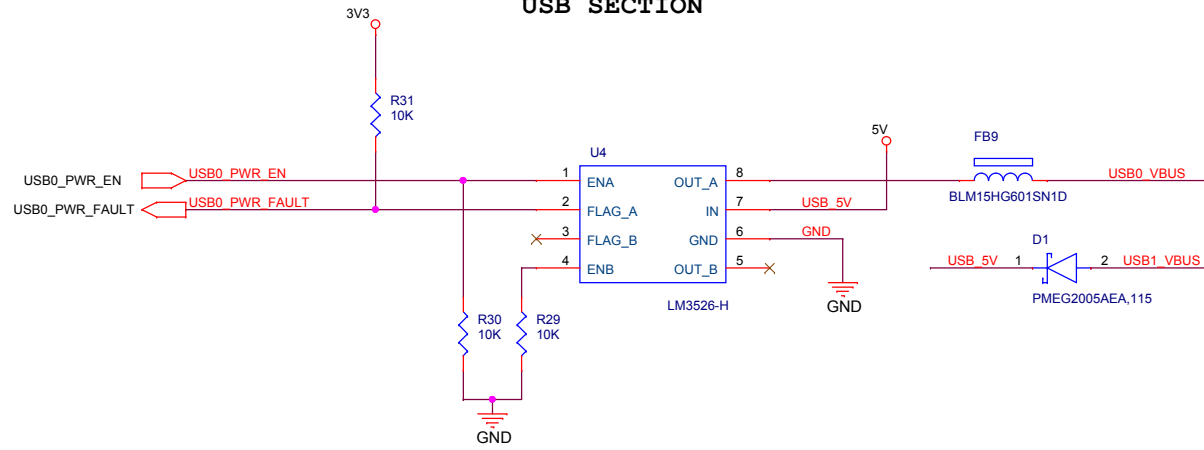
Title  
LPC4357 XPLORER++

Size A	Document Number UART_MAX3232
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## USB SECTION

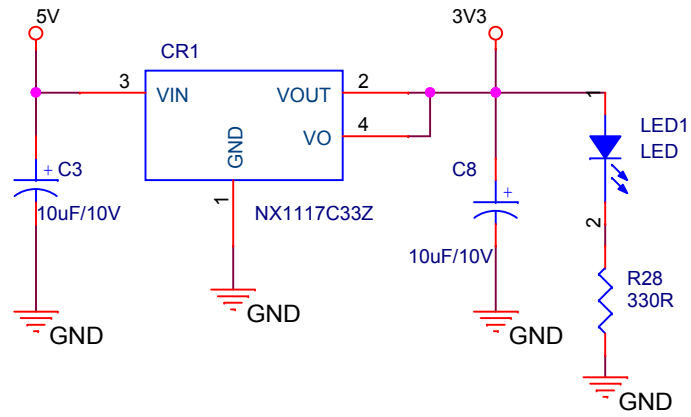


### USB ROUTING GUIDELINES

- =>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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# POWER



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LPC1788 XPLORER++

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