

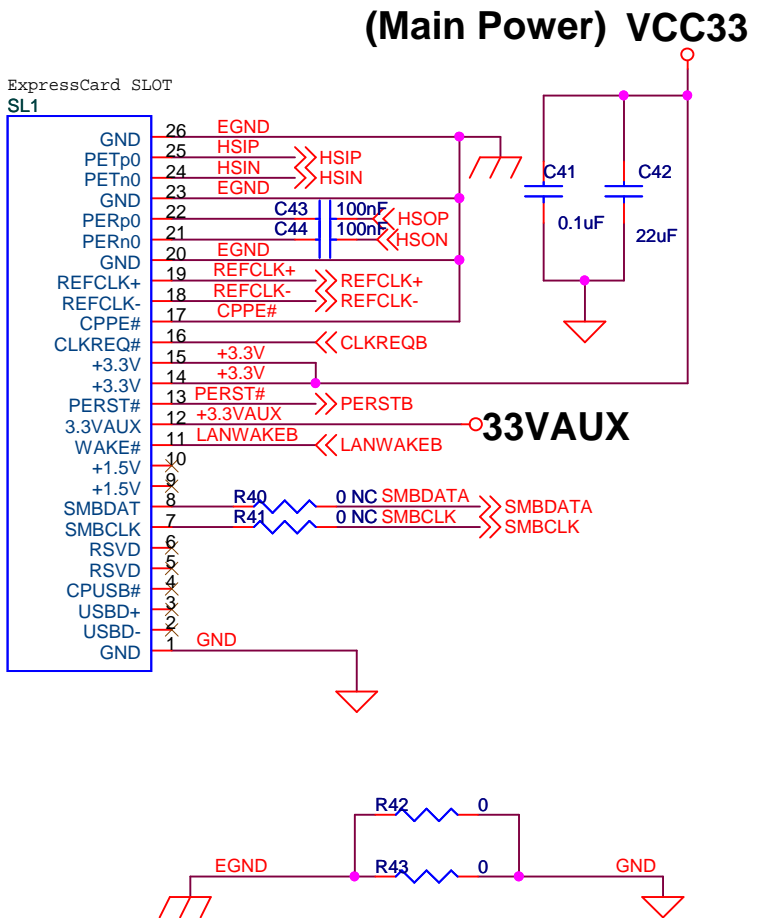
RTL8168E 48Pin Reference Schematic V100

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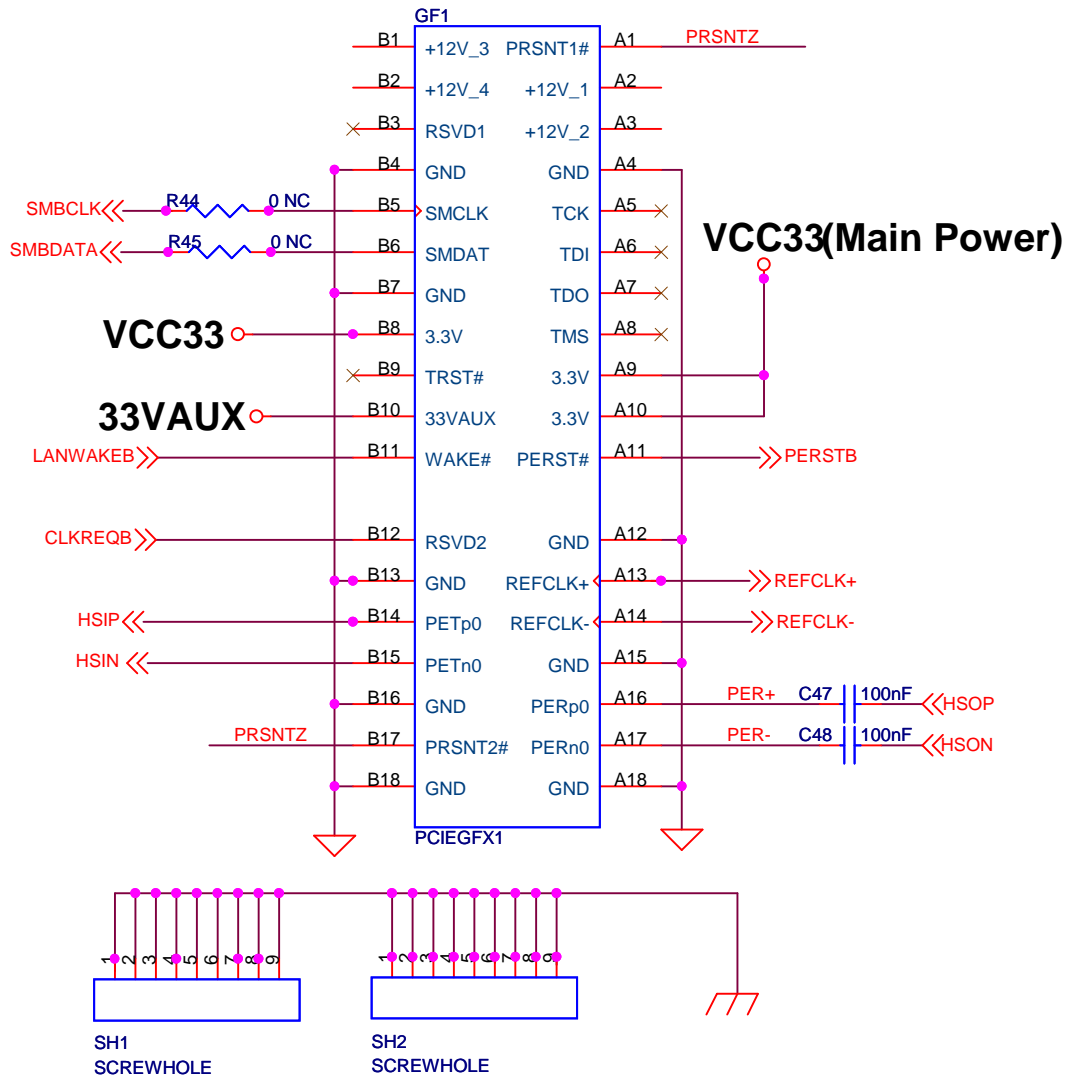
1. Title page
2. PCIE Interface
3. POWER
4. CONTROLLER
5. Optional Function
6. Change Notes

Realtek Semiconductor Corp.		
No.2, Industry E. Rd. IX, Science-Based Industrial Park, Hsinchu, Taiwan 300		
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Option 1: ExpressCard SLOT



Option 2: PCIE SLOT



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A

B

C

D

E

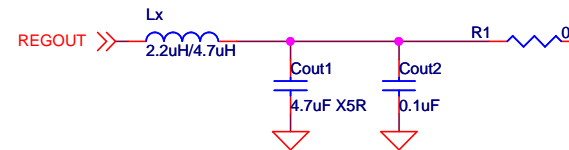
Configurations When Using Switch Regulator or External 1.05V supply

mode	Lx	Cout1,2	R1	Cin1,2	R3	R23	R24
SWR	O	O	O	O	O	O	X
External	X	X	X	X	X	X	O

External 1.05V Supply When Not Using Switch Regulator.
If Using External 1.05V Supply Pls. Contact With FAE.

1.05V Supply >>

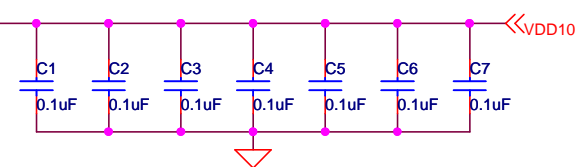
Pls. refer to RTL8168E Layout
Guide & Inductor AVL for Lx, Cout1,
Cout2 selection criteria.



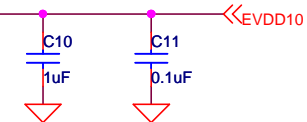
Remove When Not Using Switch Regulator

C1 to C7
Close To U5

* C1 to C7 are for VDD10 pins-- 3, 6, 9, 13, 29, 41, 45.



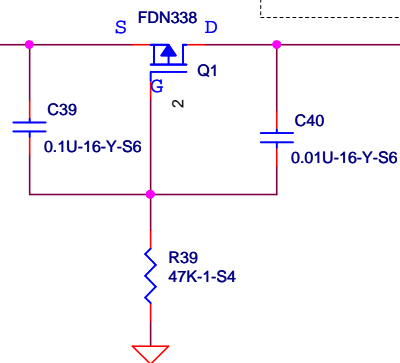
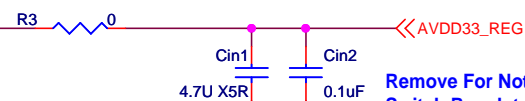
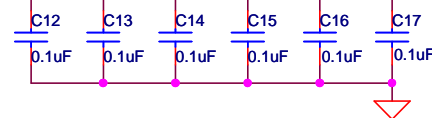
* C10 ,C11 are for EVDD10 pins--21.

C10,C11
Close To U5 Pin 21.

* C12 to C17 are for VDD33 pins-- 12, 27, 39, 42, 47, 48.

VDD33

33VAUX

C12 to C17
Close To U5Remove For Not Using
Switch Regulator

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Title
RTL8168E Reference circuit: Power

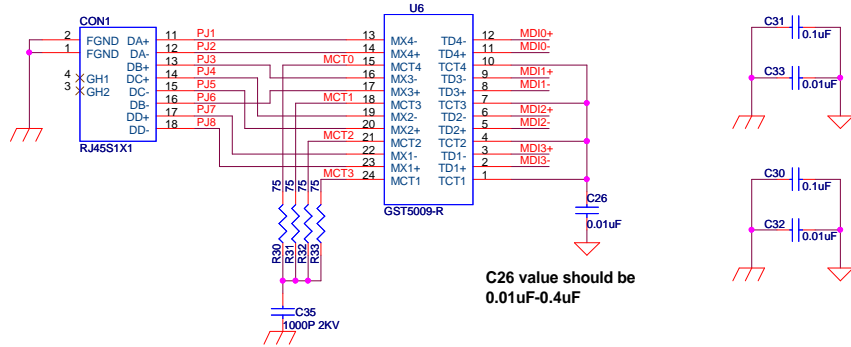
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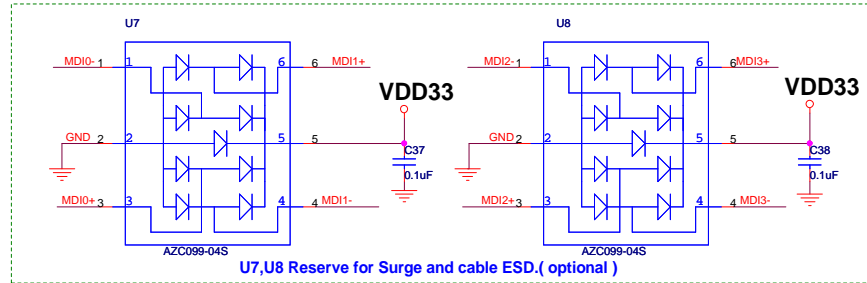
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Connector / TVS

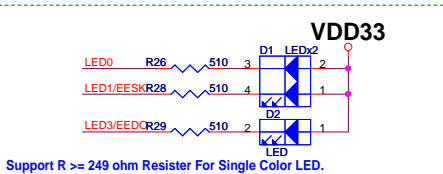


C26 value should be 0.01uF-0.4uF

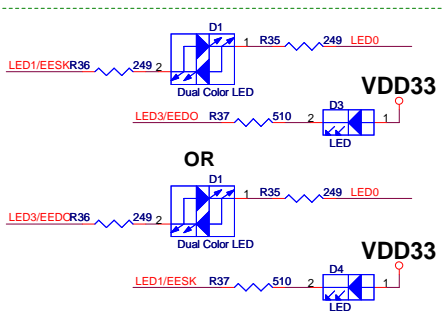


U7,U8 Reserve for Surge and cable ESD.(optional)

LED



Support R >= 249 ohm Resistor For Single Color LED.

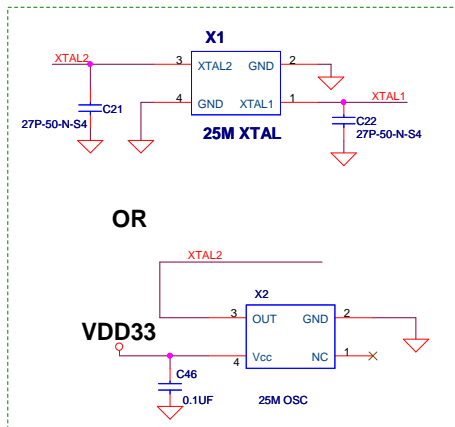


Support R >= 249 ohm Resistor For Single Color LED.

Support R >= 125 ohm Resistor For Dual Color LED.

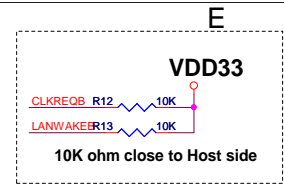
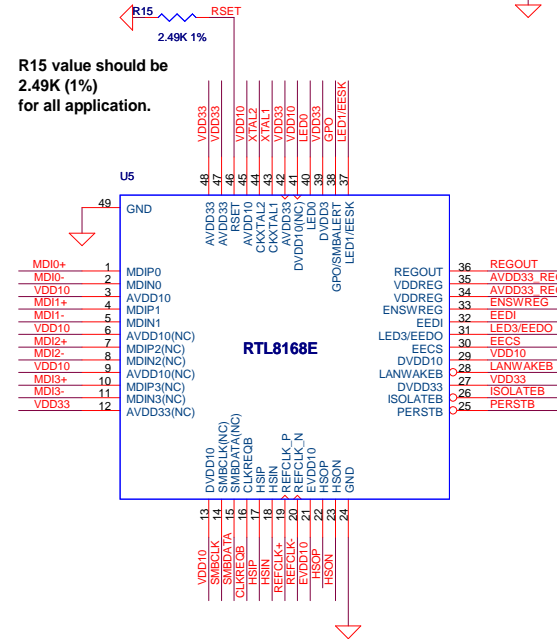
Only support LED0+LED1 / LED0+LED3 Dual Color LED Combinations when using EEPROM

XTAL or OSC



Controller

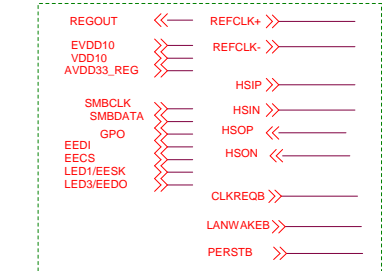
R15 value should be 2.49K (1%) for all application.



More Detail Layout Pls. Refer to Layout Guide

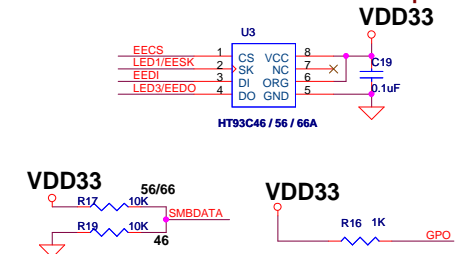
R23 For Enable Switch Regulator.
R24 For Disable Switch Regulator.

VCC33 (Main Power)

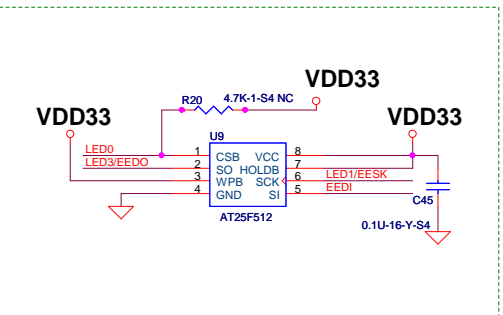


Function (EEPROM, Efues)

Refer to PAGE 5. for more detailed description.



Boot Rom for PXE



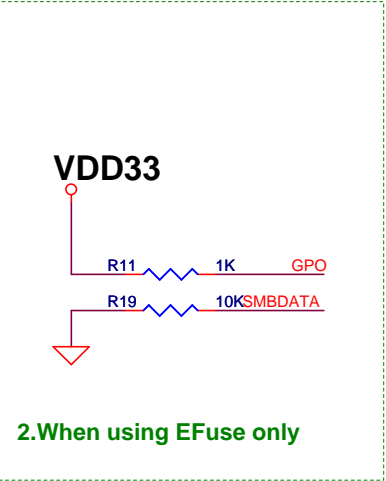
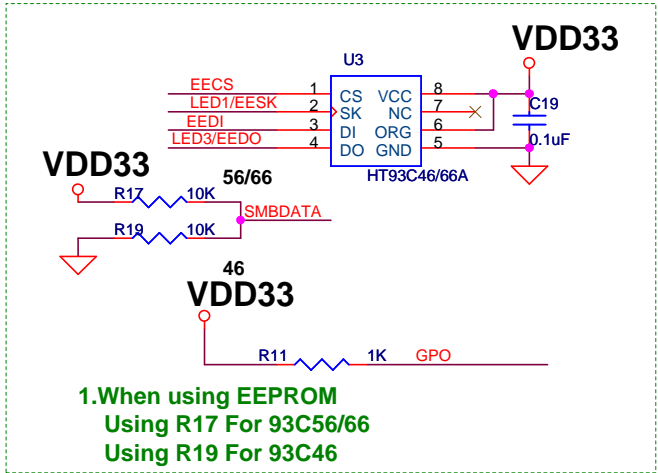
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For RTL8168E EEPROM / Efuse Function (2 Option)



Change Note V100

1. First Release

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