

# Suanmper

## DVS-0828FINAL.DSN

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Owing to the GM8182 is a high speed IC with high speed DDR2-SDRAM interface, improper PCB layout will cause the function fail.  
From our experience, we found that the GM8182 performance and stability is strongly related to the PCB layout.  
In order to ensure your system will work when making your own EVB at the first time, please copy the Power/Ground and DDR layout of our sample design into your system.  
If your PCB layout of the Power/Ground and DDR part is not identical to our sample design, we may refuse to support your EVB debugging.

GM8182是一顆高速SoC晶片，並搭配高速之DDR2 SDRAM介面。不正確的PCB繞線，會造成EVB系統工作不正常。從我們多次設計GM8182系統經驗，發現GM8182的性能與穩定性，會與PCB繞線品質有強烈之關係。因此我們會提供客戶Layout 與Gerber file做為參考。為了確保客戶在製作屬於自己的EVB時，第一次就能成功。我們要求客戶之PCB繞線，在BGA Power/Ground及DDR SDRAM部分，要與原廠相同。假若客戶之PCB繞線與原廠要求不同時，基於人力考量，我們可能拒絕幫助客戶的PCB佈線工作

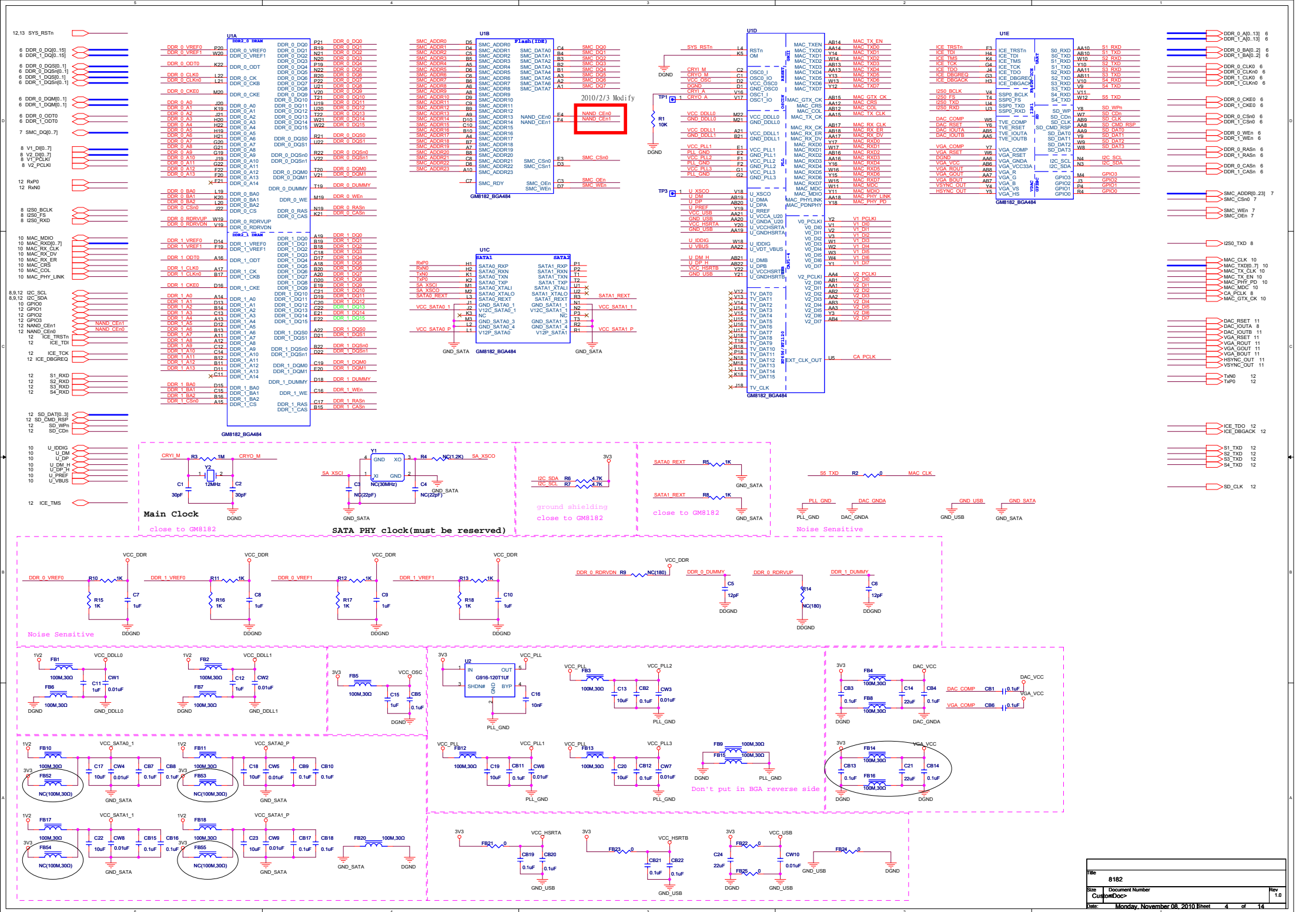
Release Version	Description

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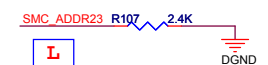
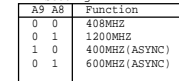
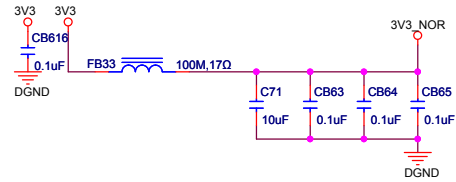
Date	Rev	Description/Change List	Page	Date	Rev	Description/Change List	Page
			1				7
			2				8
			3				9
2009.10.21 2009.10.26	1V0A 1V0B	1. Modify USB power and gnd Bead. 2. Modify GM8182 SATA power and gnd.	4	2009.10.21 2009.10.26	1V0A 1V0B	1. Modify USB Vref Resistor to 11K. 2. Modify OTG IDDIG circuit.	10
			5				11
2009.10.27	1V1	1. Modify DDR series resistor.	6				12



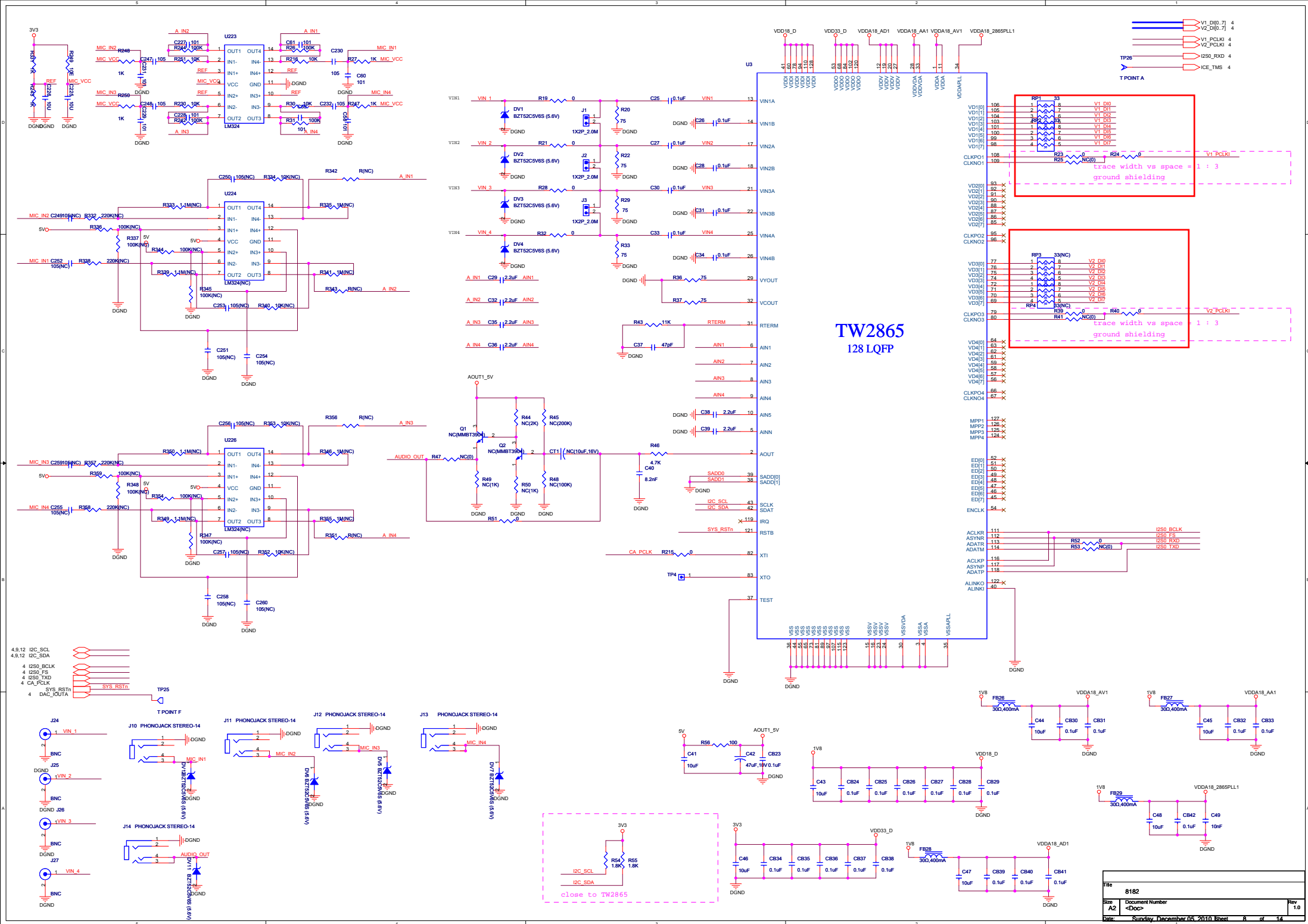




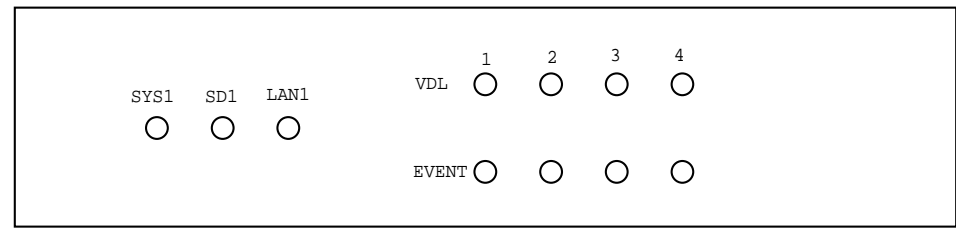
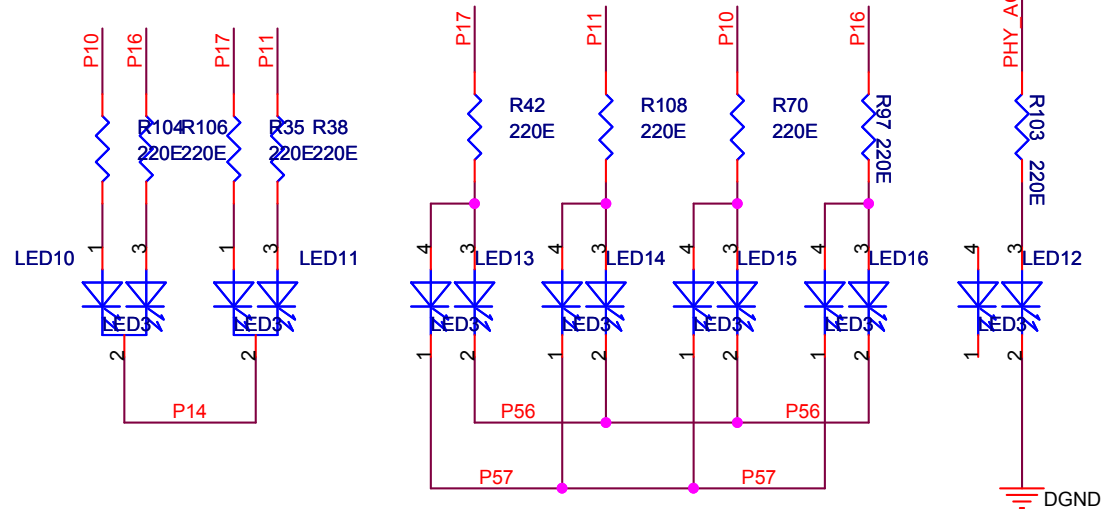
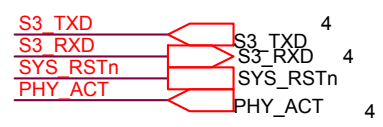
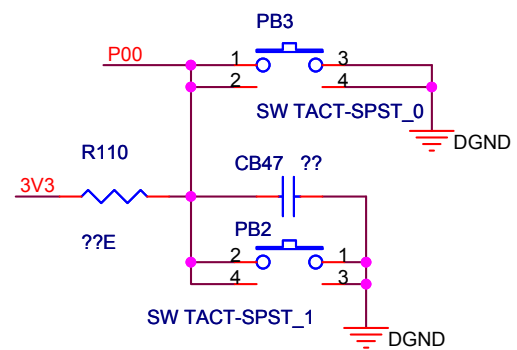
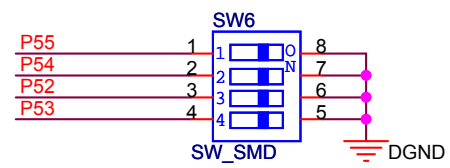
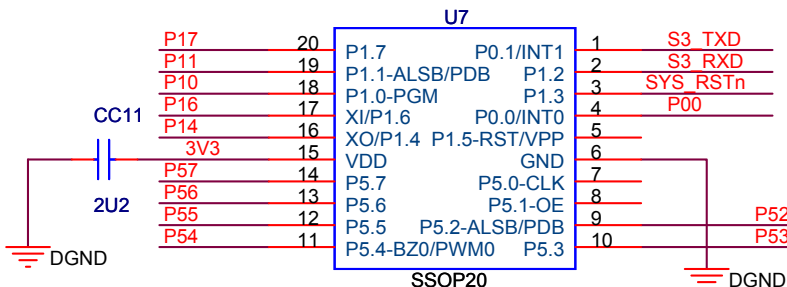




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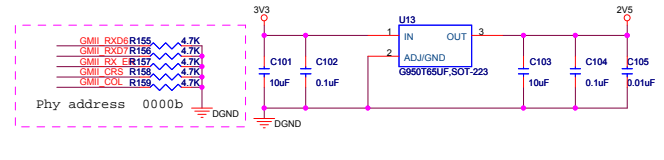
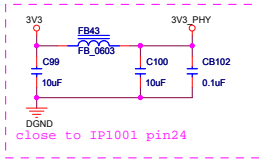
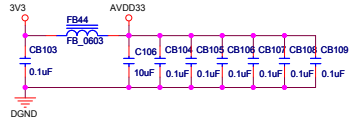
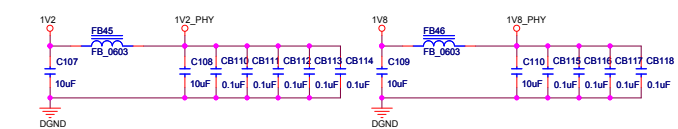
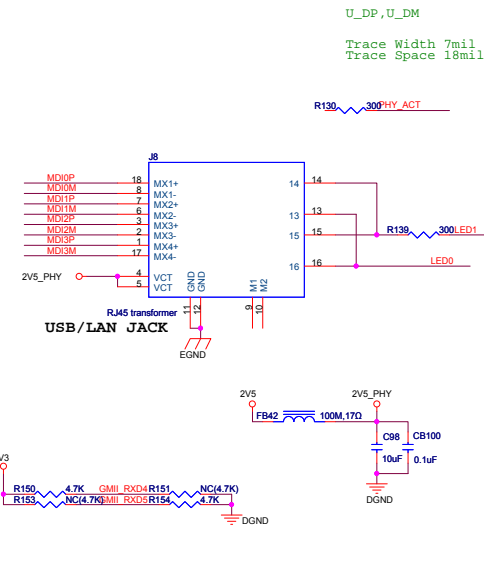
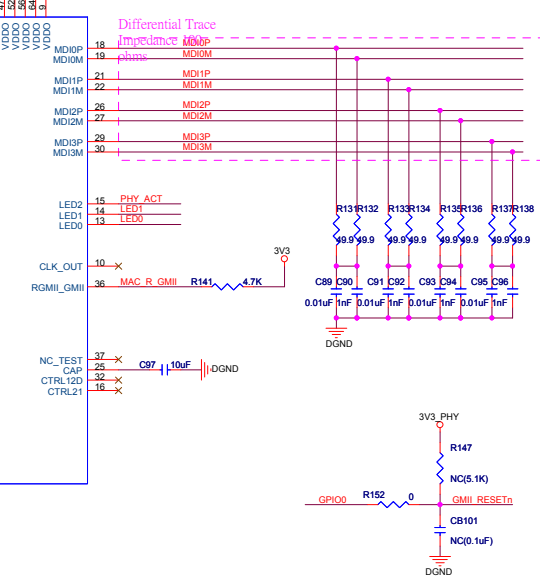
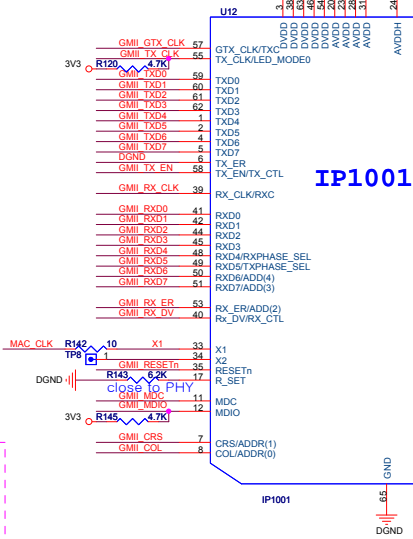
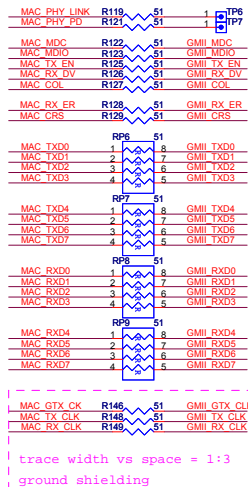
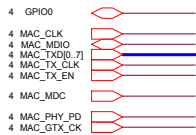


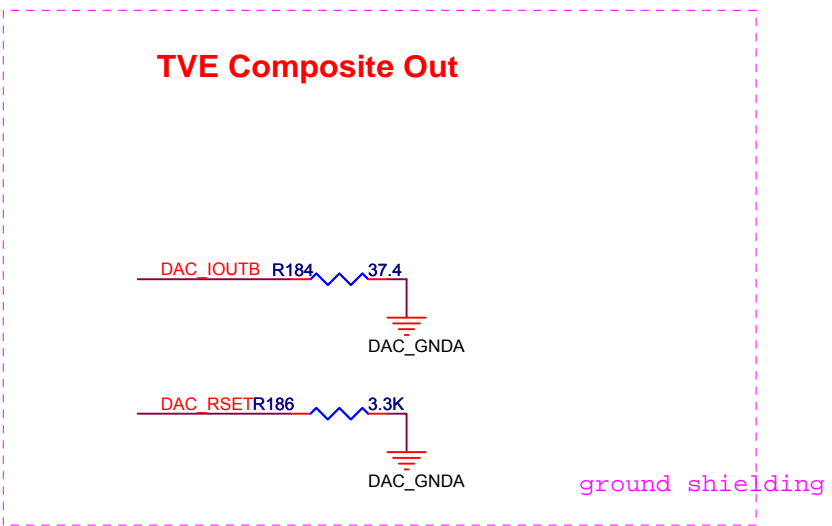
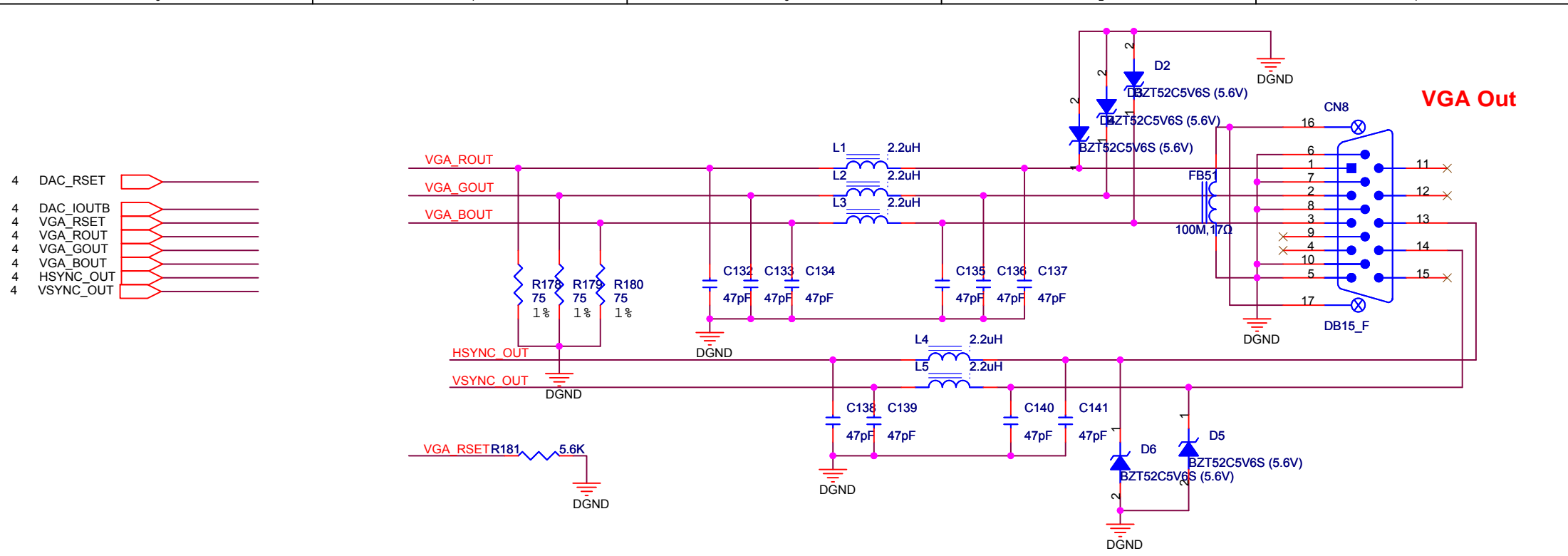


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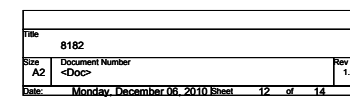
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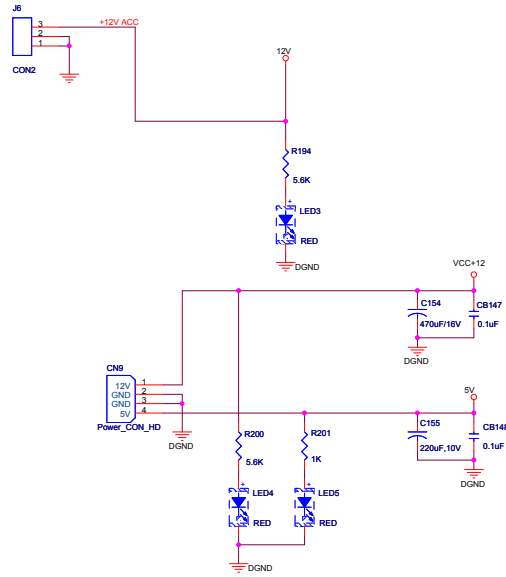




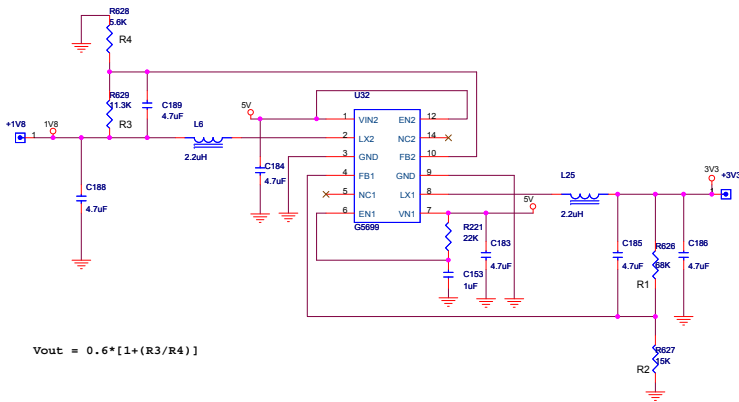
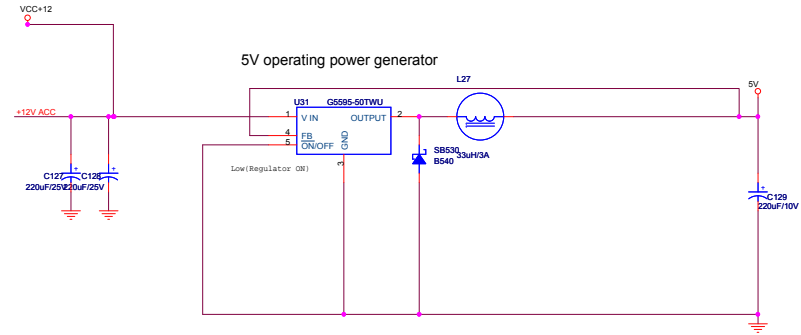
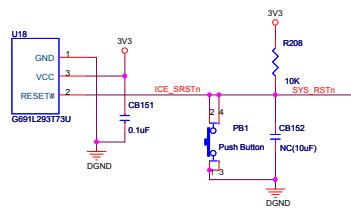
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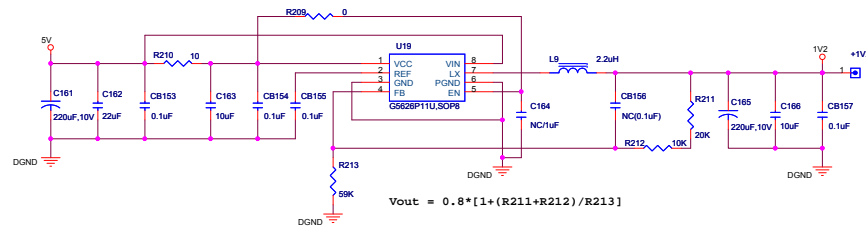
## 12V INPUT



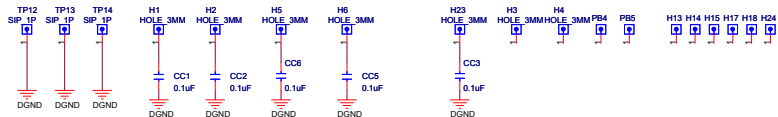
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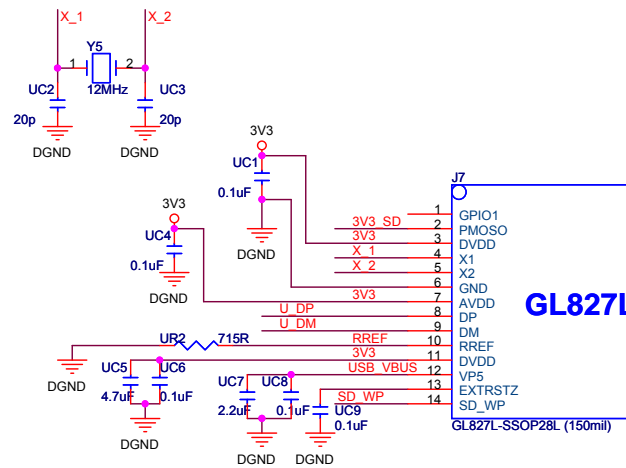
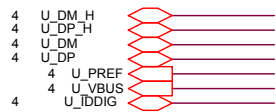


## 1.2V operating power generator



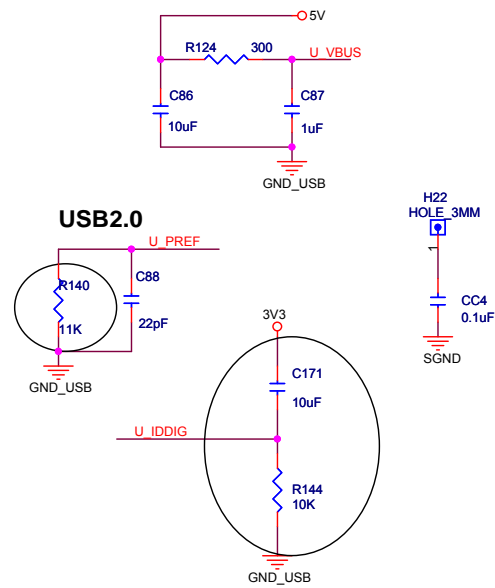
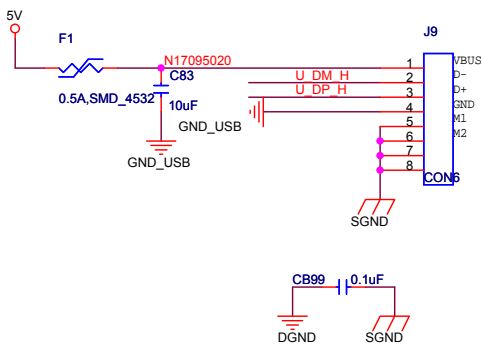
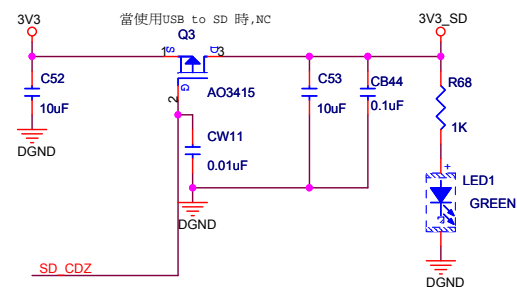
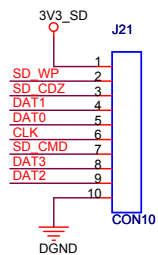
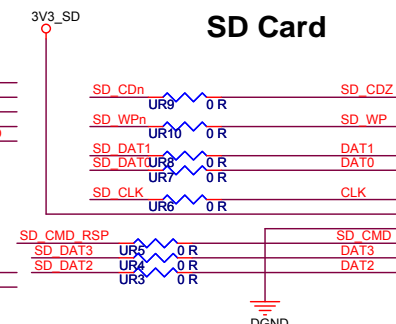
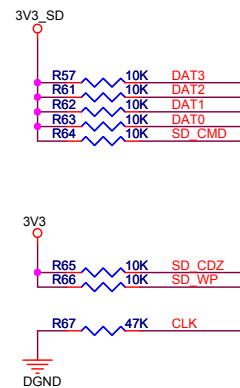
$$V_{out} = 0.8 * [1 + (R211 + R212) / R213]$$





Optional: without S/N support

Differential Trace Impedance 90 ohms



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