This schematic is for all versions of GL3520.

History

Rev.	Date	Comments	Made by	Approved by
1.00	2012/10/15	Formal release.	Mars Lin	Eric Hsu
1.10	2012/11/06	Description revise.	Mars Lin	Eric Hsu
1.20	2013/02/05	Modify VBUS pin circuit.	Mars Lin	Eric Hsu
1.30	2013/03/12	Modify U3 pin5 connection as P_SPI_DO	Mars Lin	Eric Hsu
1.40	2013/05/14	1.Change C67 to 4.7uF from 10P for USB-IF test 2.Modify R3, from 30K change to 10K.	Mars Lin	Chris Lin
1.50	2014/02/05	Modify U1 pin4/5/8.	Mars Lin	Chris Lin
1.60	2014/02/06	Modify U1 pin22.	Mars Lin	Chris Lin
1.70	2014/03/20	Updated DCP diagram RESET pin, Bus Power, and discharge resistance description	Mars Lin	Chris Lin

GENESYS LOGIC, INC.

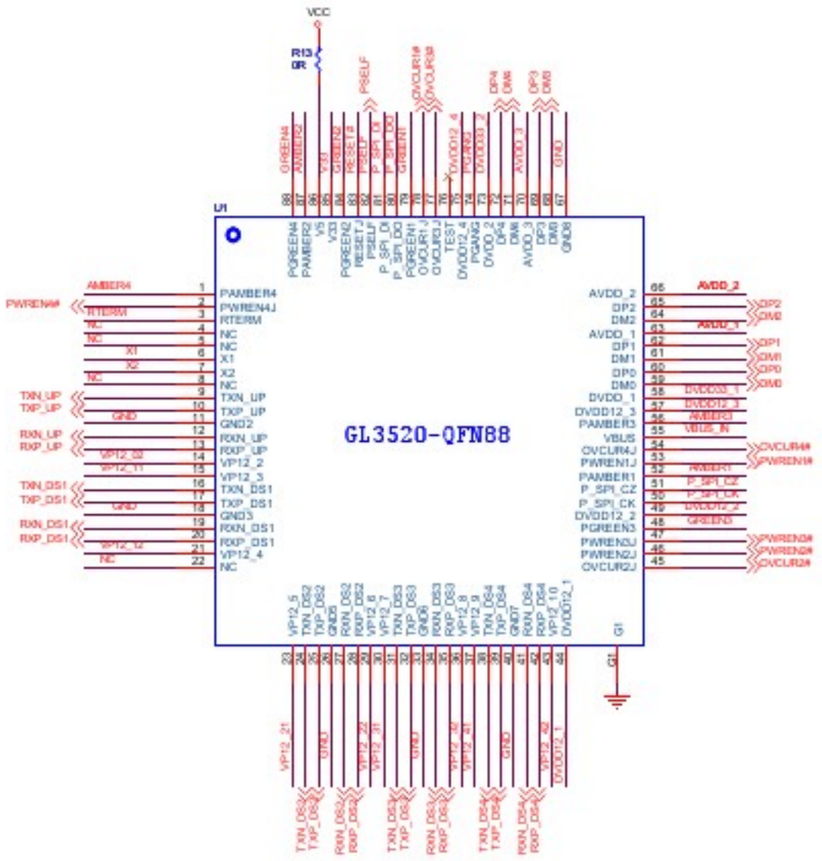
GLB12016D GL3520 QFN88 Schematic

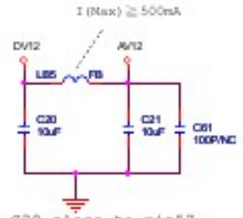
Title: USB3.0 4-Port Hub

Size: Custom | Document Number: History | Rev: 1.70

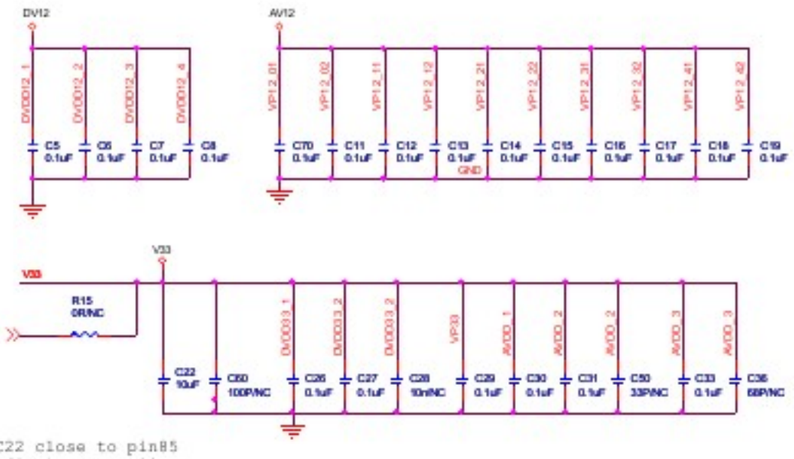
Date: Thursday, March 20, 2014 | Sheet 1 of 3

R13 :Mount , R15/R53 remove -> Internal regulator 5V to 3.3V LDO
R15,R53 :Mount R13 remove-> External regulator 5V to 3.3V LDO
U1 pin 4/22 as GND for GL3520-10.
U1 pin 5 as VP33 for GL3520-10.
U1 pin 8 as VP12_01 for GL3520-10.

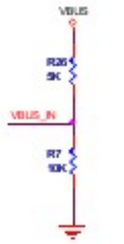


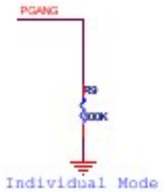


C20 close to pin57,
C21 close to pin23,
C61 close to C21

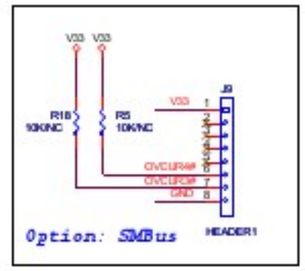


C22 close to pin85
C60 close to C22

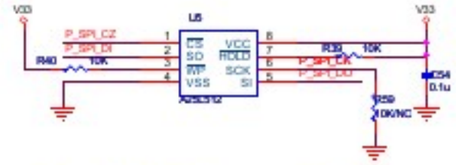




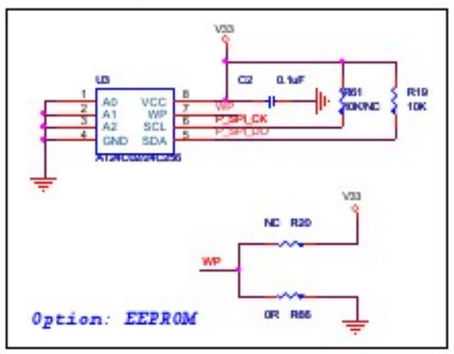
Individual Mode



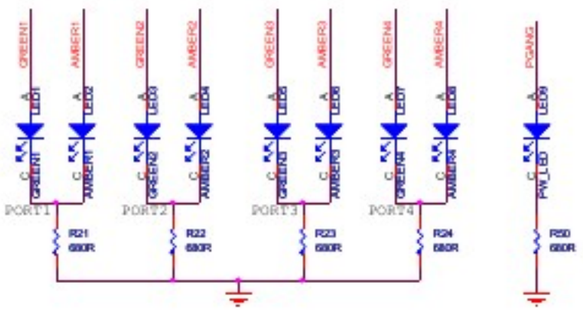
Option: SMBus

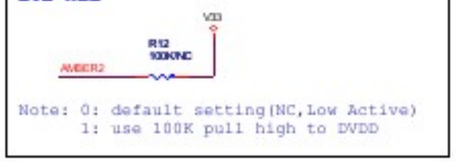


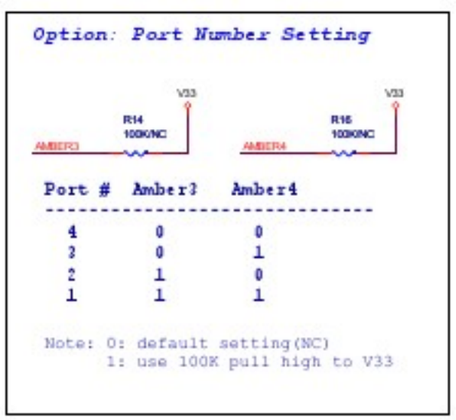
Option:R59&R61 reserved for GL3520-20/GL3521

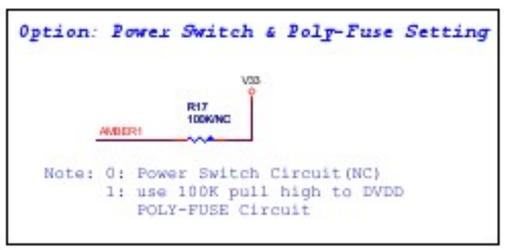


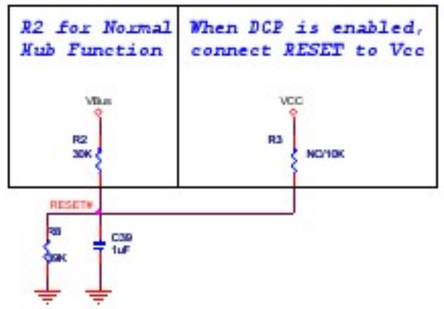
Option: EEPROM

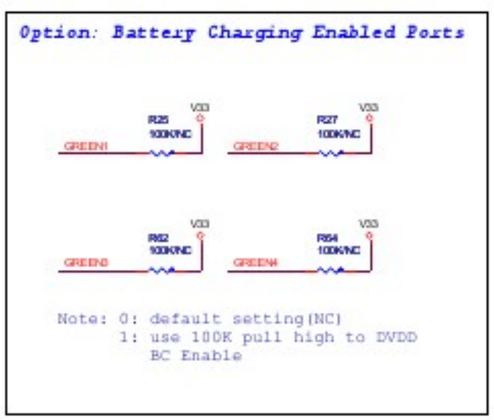










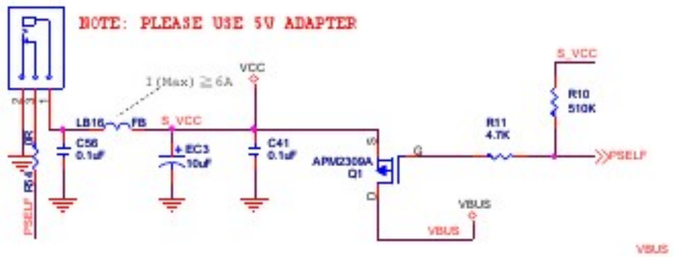


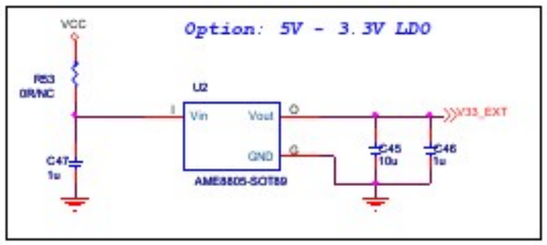
GENESYS LOGIC, INC.		
GLB12016D GL3520 QFN88 Schematic		
Title: USB3.0 4-Port Hub		
Size: Custom	Document Number: GL3520 QFN88	Rev: 1.70
Date: Thursday, March 20, 2014	Sheet 2 of 3	

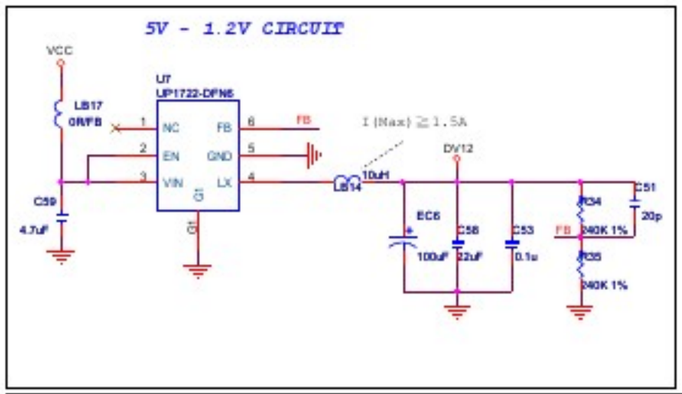
If Hub is supplied by bus-power,
please still tighten PSELF to high in case Hub is connected with high-power devices.

POWER CIRCUIT

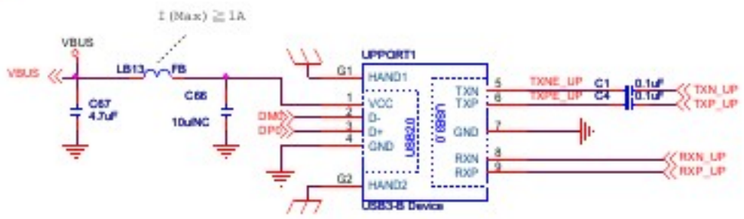
NOTE: PLEASE USE 5V ADAPTER

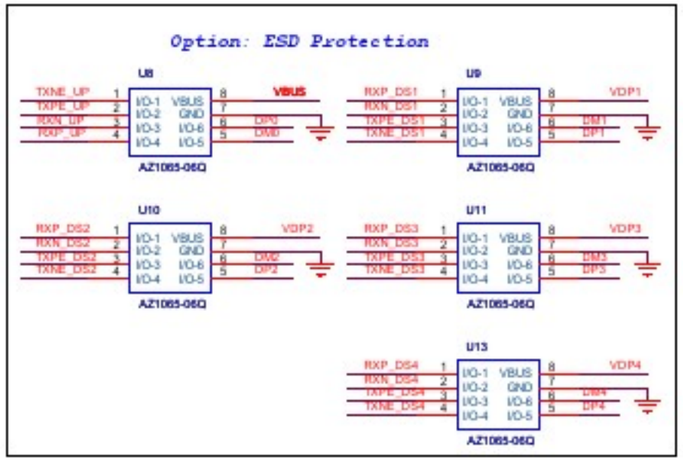




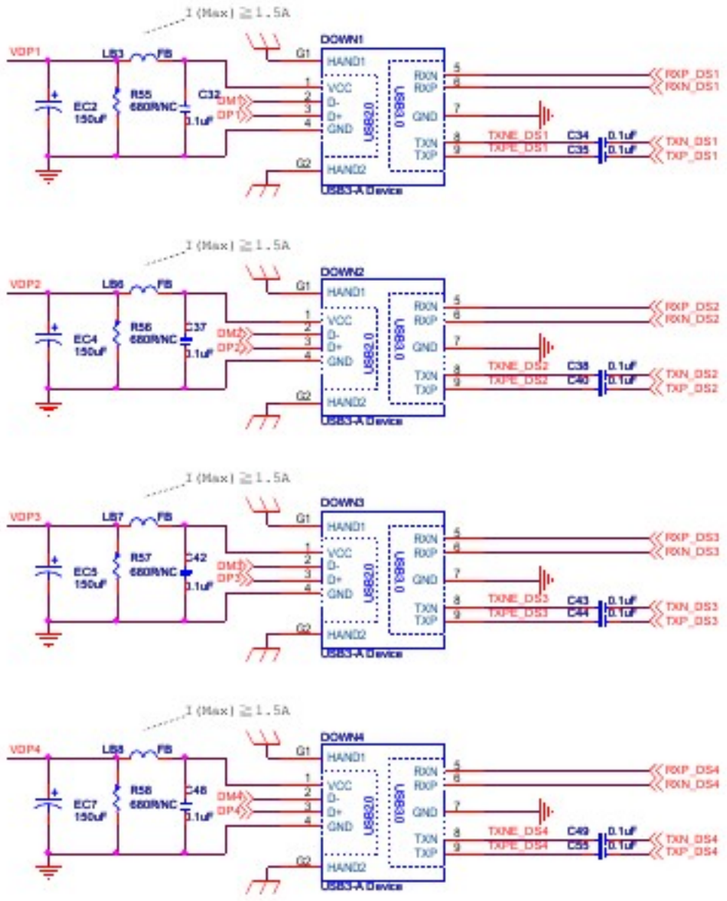


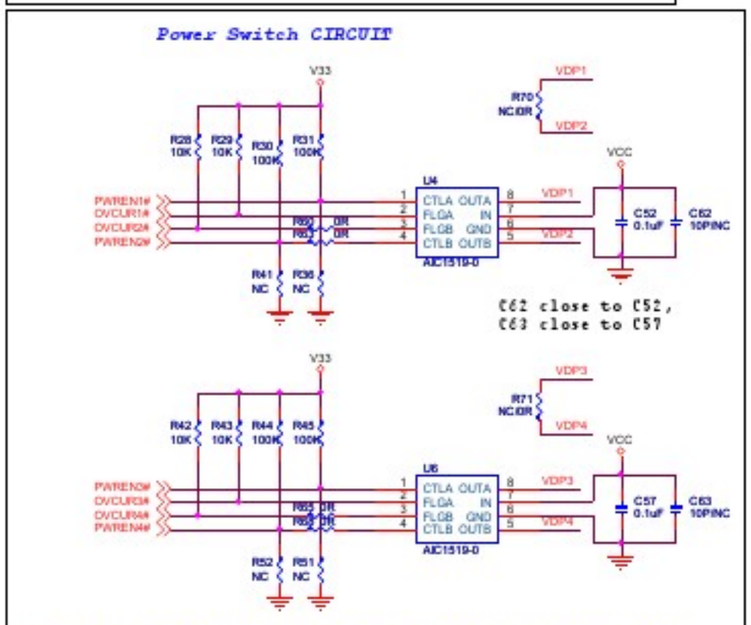
Differential trace, space, trace is 8, 7, 8 (mil).
Ground gap > 20mil. Impedance is 90ohm.
Differential pair mismatch < 5mil.



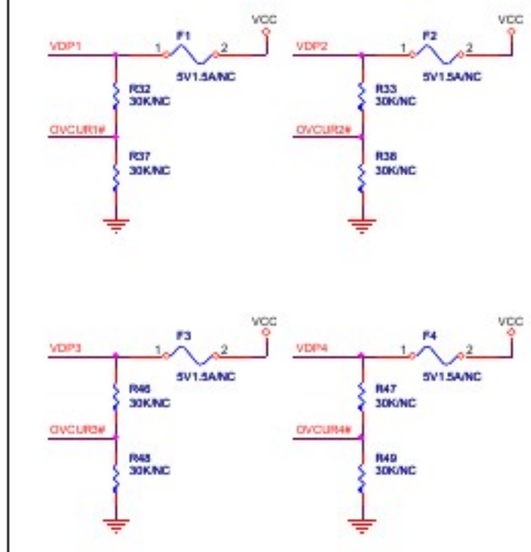


Discharge resistance (R55&R56&R57&R58) is not needed while Hub's upstream port is not removable.(embedded applications)

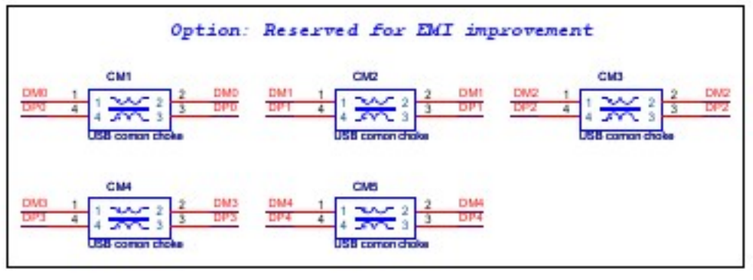




(1)100K pull down resistor shall be put on CTL pin for charging (DCP) function.
(2)If AIC1519-1(High active) is used, 100K pull down resistor shall be put on CTL pin.
100K pull high resistor shall be put on CTL pin for charging(DCP) function.



OVCUR1#~4# Floating : Non-Removable (Compound device)



GENESYS LOGIC, INC.	
GLB12016D GL3520 QFN88 Schematic	
Title: USB3.0 4-Port Hub	
Size: Custom	Document Number: Power
Rev: 1.70	
Date: Thursday, March 20, 2014	Sheet 3 of 3