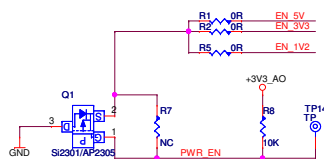
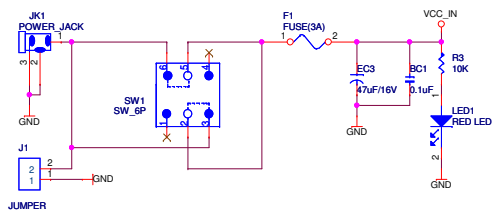


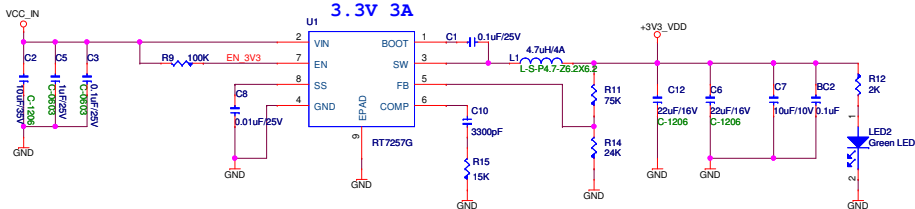
SUNPLUS		
Title: System Block		
Size: Custom	Document Number: SP7021 Demo board	Rev: 1.0
Date: Thursday, September 12, 2016 Sheet 1 of 14		

12V INPUT

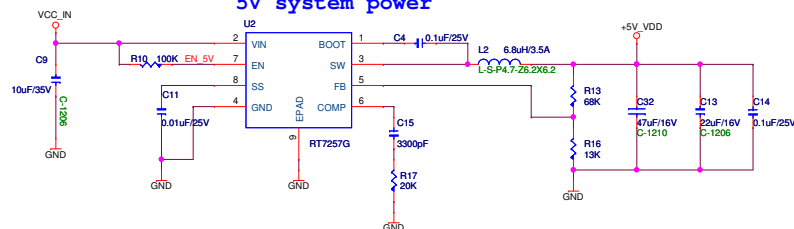


PWR_EN → PWR_EN 4

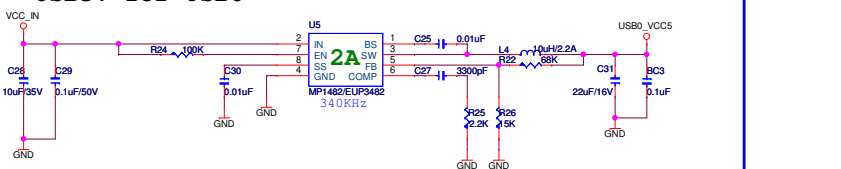
3.3V 3A



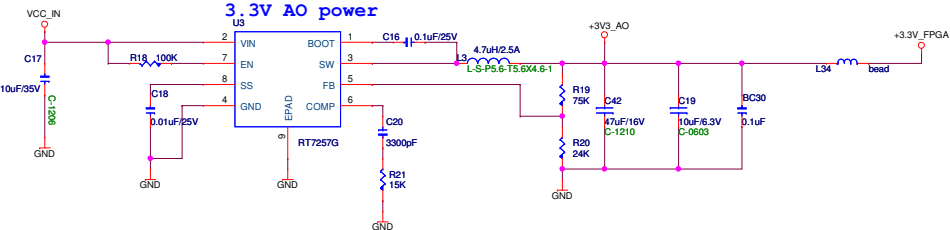
5V system power



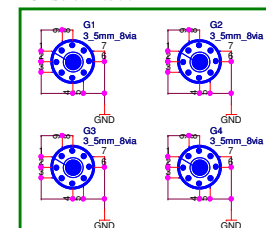
USB5V for USB0



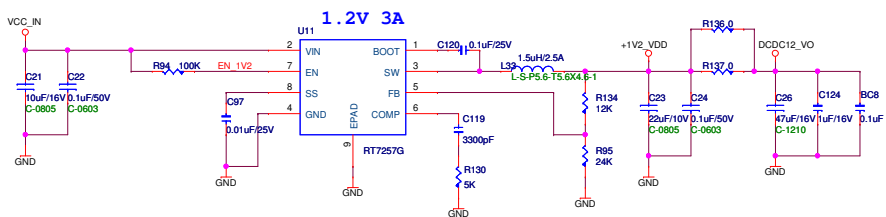
3.3V AO power



PCB Screw Position

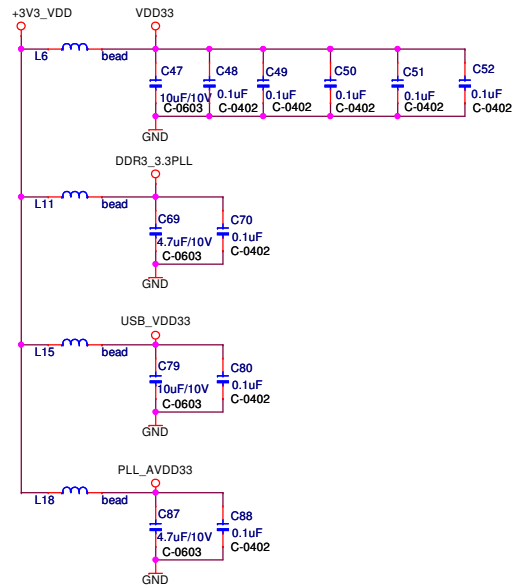


1.2V 3A

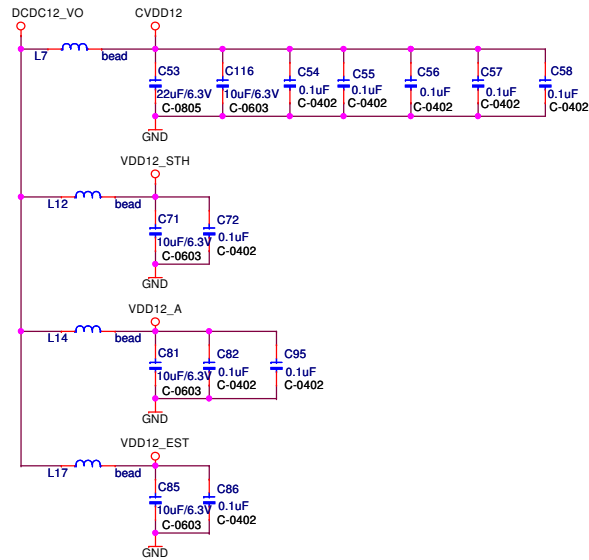


	SUNPLUS		
	Power-1		
	File	Document Number	Rev
	Size	SP7021 Demo board	1.0
Date:	Thursday, September 12, 2013 8:58:21 AM	Page	2 of 14

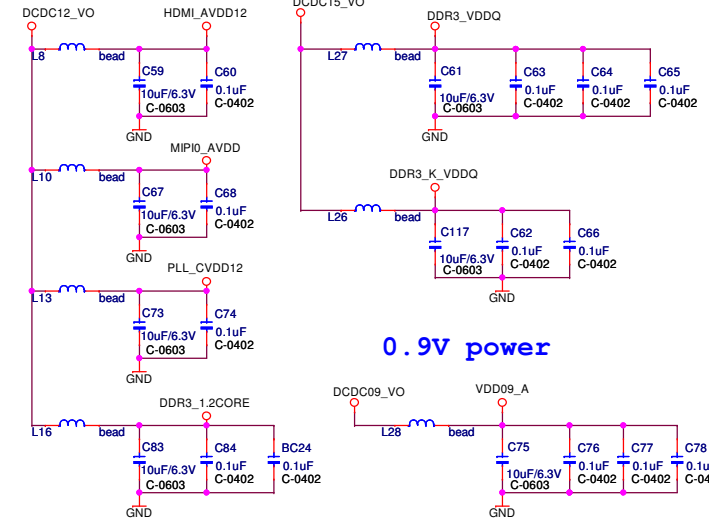
3.3V power



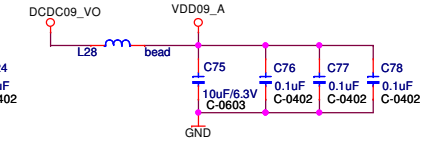
1.2V power



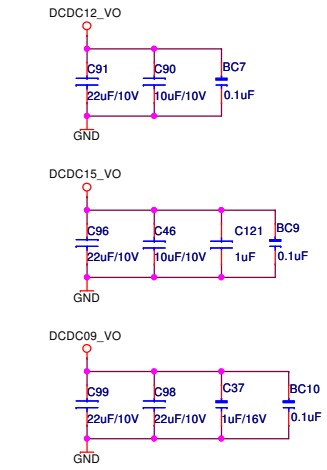
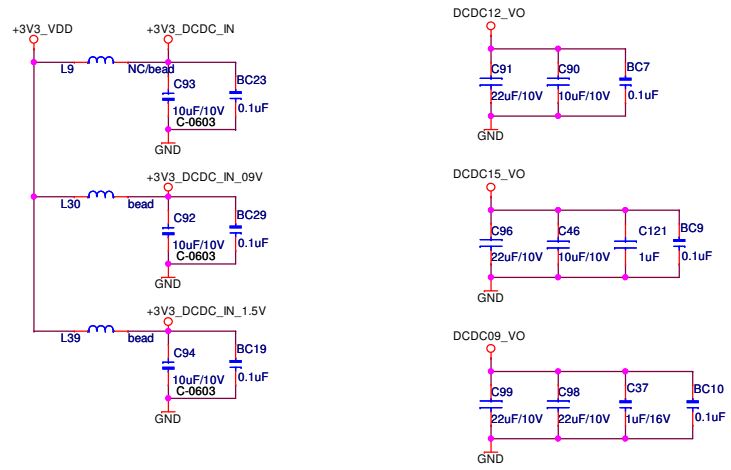
1.5V power



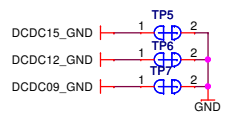
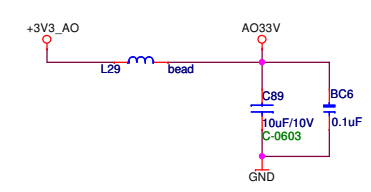
0.9V power




For internal DCDC

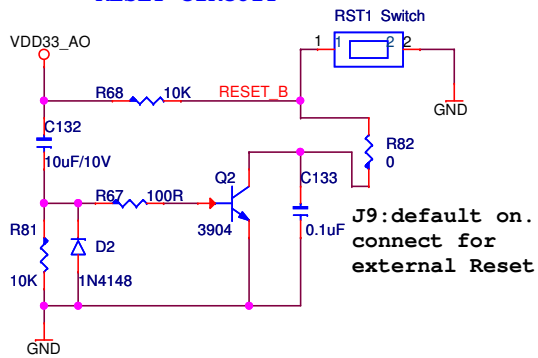


AO 3.3V power

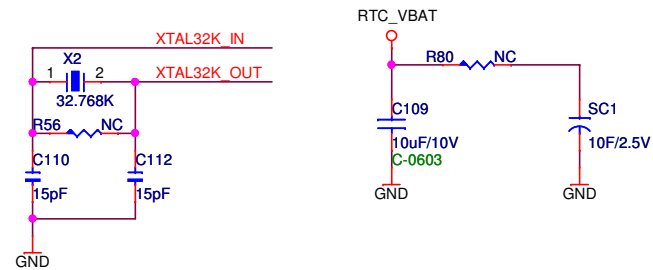


		SUNPLUS	
		Power Tree	
File	Size	Document Number	Rev
Custom	10K	SP7021 Demo board	1.0
Date:	Thursday, September 12, 2019		Sheet 3 of 14

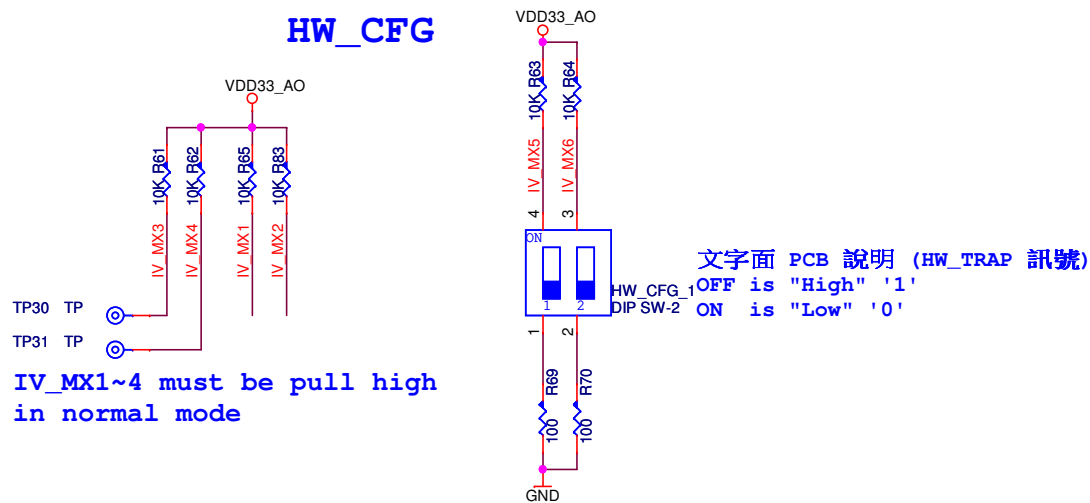
RESET CIRCUIT



32K X'tal and RTC battery

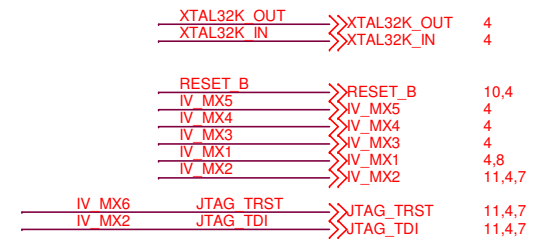
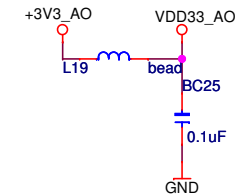


HW_CFG



IV_MX1~4 must be pull high
in normal mode

HW_CFG	(IV_MX6)	(IV_MX5)
	[2]	[1]
eMMC boot	1	1
SD Card boot / ISP	0	0
USB_ISP	1	0



SUNPLUS

Title
HW_CFG/RESET/RTC

Size
Custom

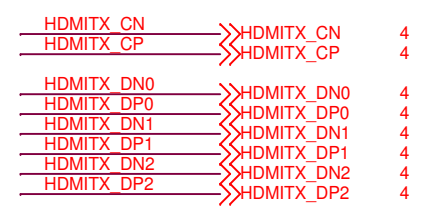
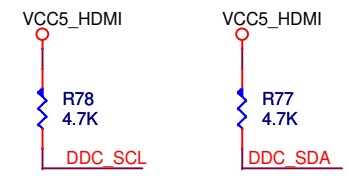
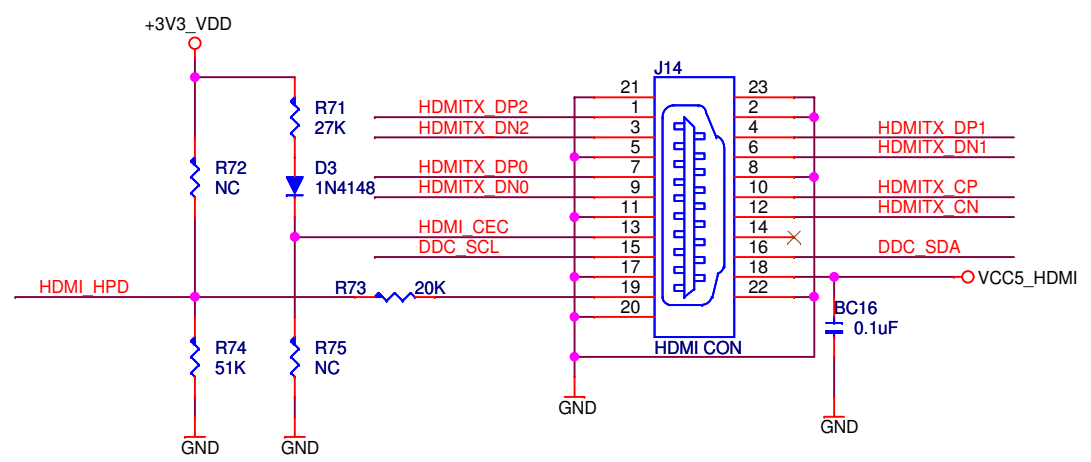
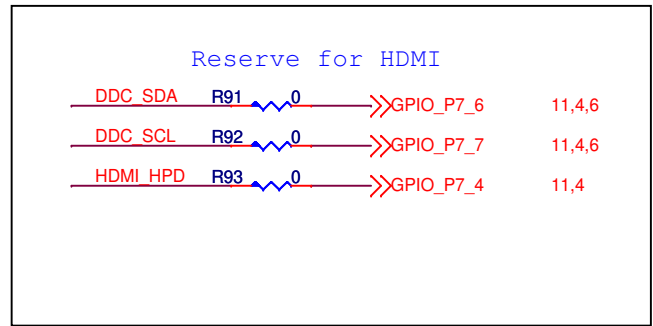
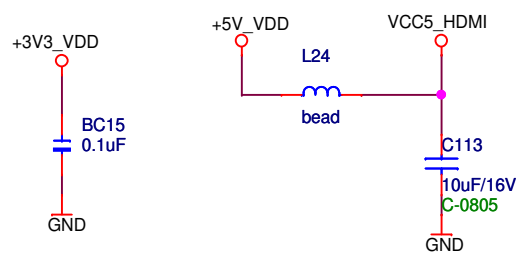
Document Number
SP7021 Demo board

Date: Thursday, September 12, 2013

Rev
1.0

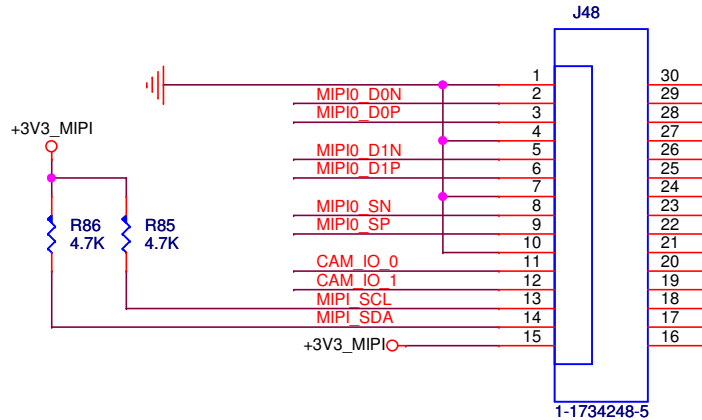
Sheet 6 of 14

Differential signals (TXCP/N, TXD0P/N, TXD1P/N and TXD2P/N):
50ohm single_ended, and 100ohm differential

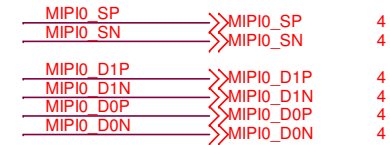
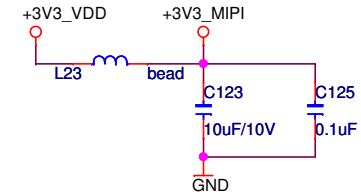


	SUNPLUS		
	Title HDMI TX		
	Size Custom	Document Number SP7021 Demo board	Rev 1.0
Date:		Thursday, September 12, 2013	Sheet 7 of 14

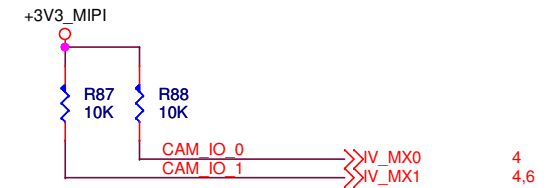
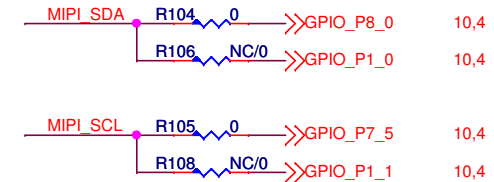
Differential impedance of differential pairs of MIPI should be kept 100 Ohm



1. FFC connector, 30 pin, 0.5mm, vertical
2. Pin compatible to Raspberry Pi 2 camera connector
3. MIPI/CSI-RX

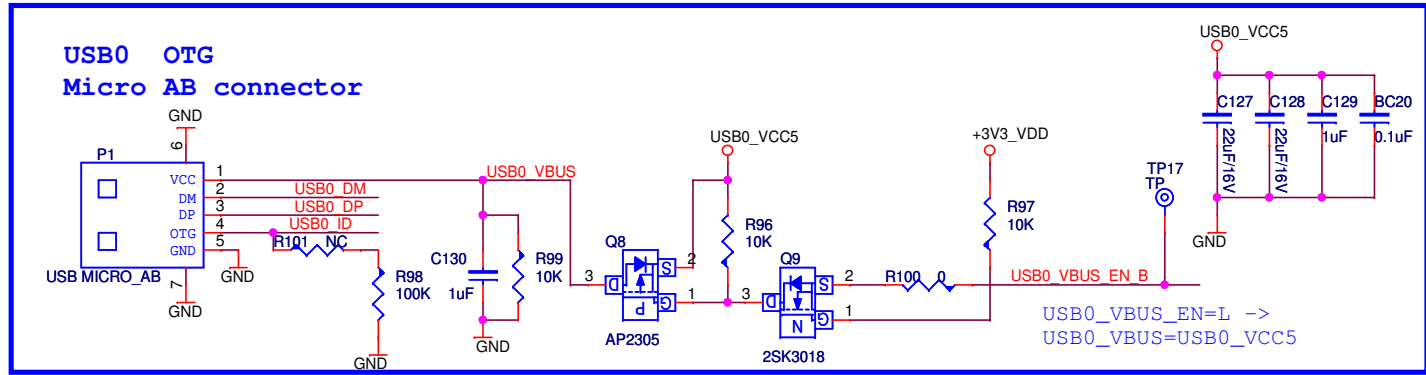


Option: for I2C share with TPM or FBIO

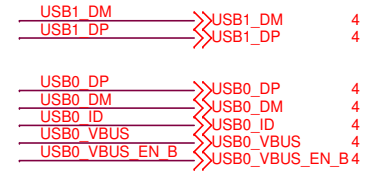
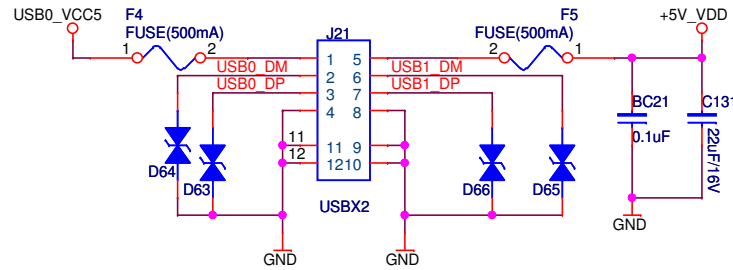



SUNPLUS

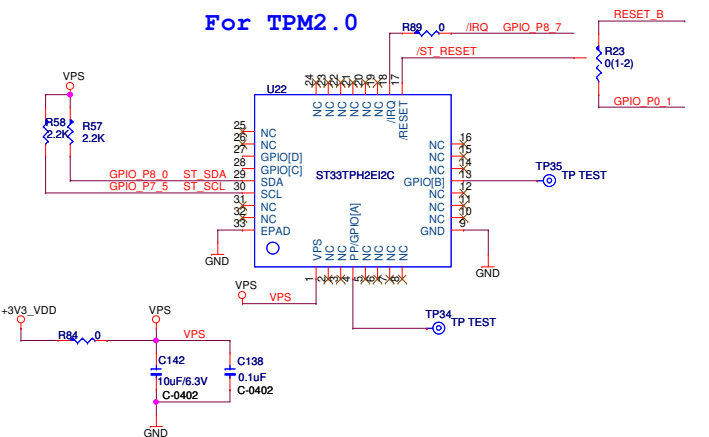
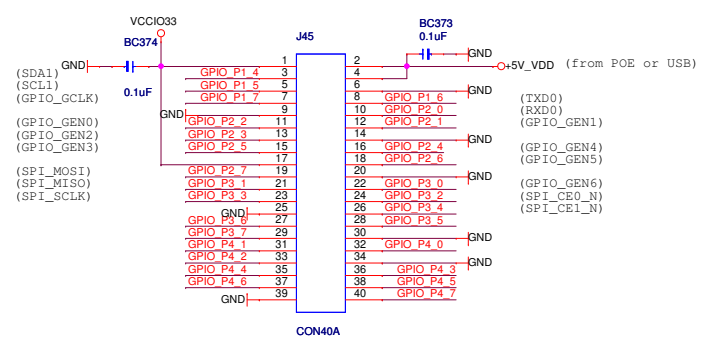
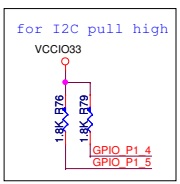
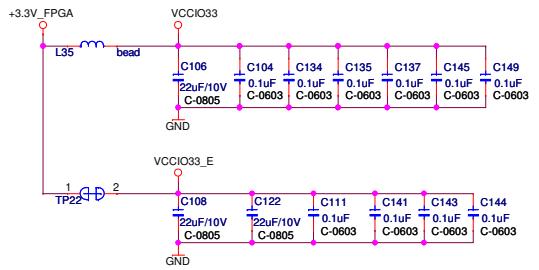
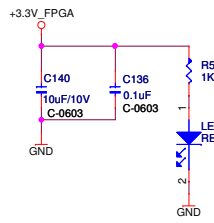
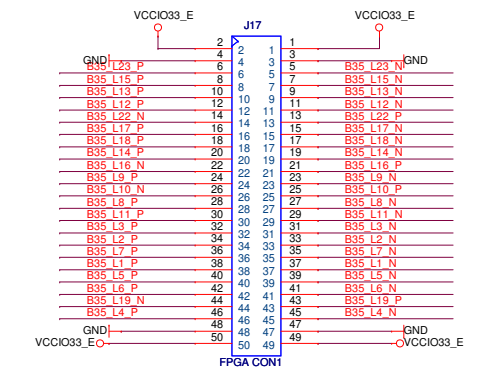
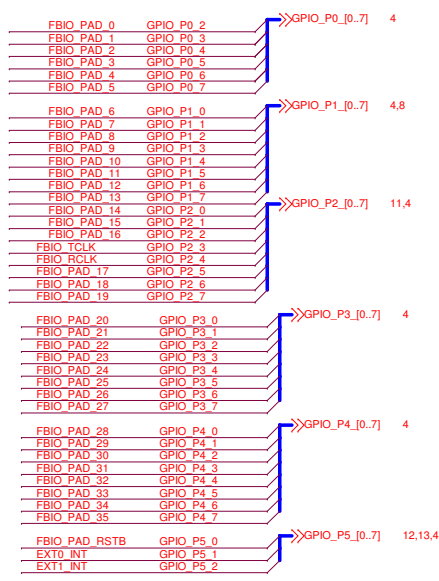
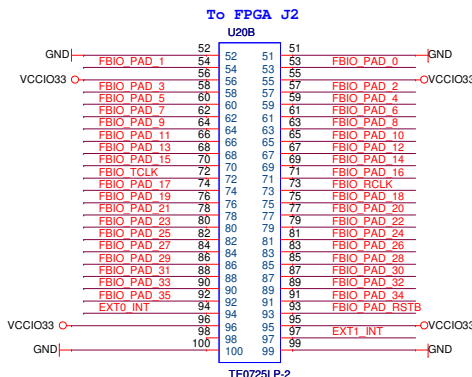
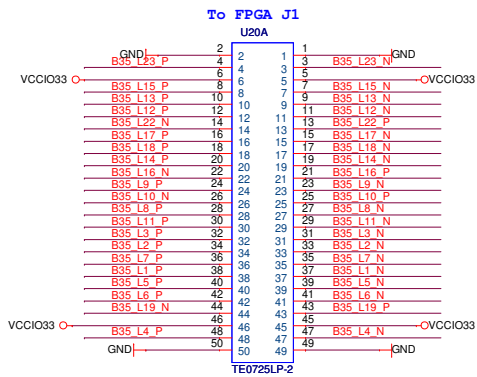
Title		
MIPI RX		
Size	Document Number	Rev
Custom	SP7021 Demo board	1.0
Date: Thursday, September 12, 2019		



USB0/1 Type A



	SUNPLUS		
	USB OTG		
	Size Custom	Document Number SP7021 Demo board	Rev 1.0
	Date:	Thursday, September 12, 2019	Sheet 9 of 14



1. 2x20 pin header, 100 mil, 180 degree
2. From GPIO of SP-7021 directly
3. Pin-compatible to Raspberry Pi 2 GPIO expansion

Title
FPGA BOARD

Size
Custom

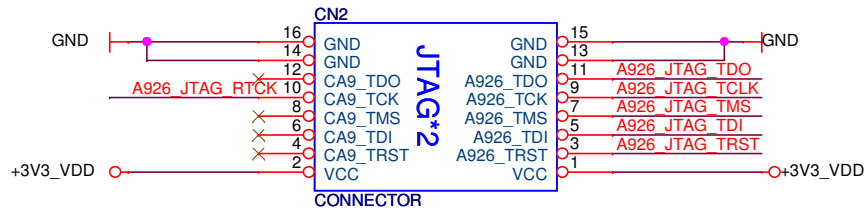
Document Number
SP7021 Demo board

Rev
1.0

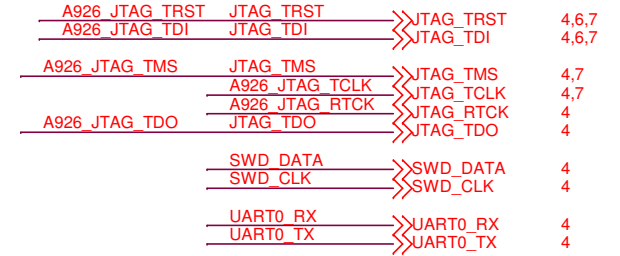
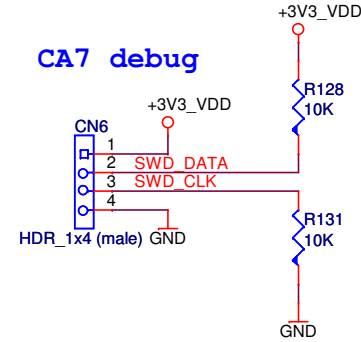
Date: Thursday, September 12, 2019 **Sheet** 10 of 14

ARM926 JTAG

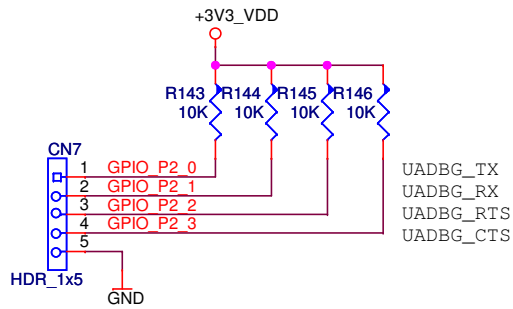
Connect to JTAG daughter board



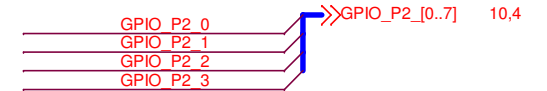
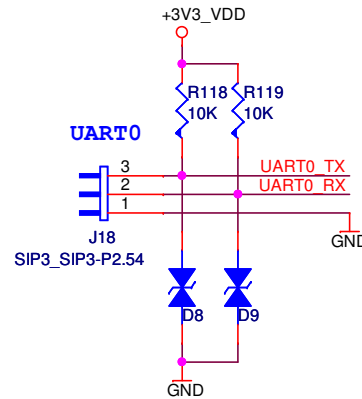
CA7 debug



For UART2AXI

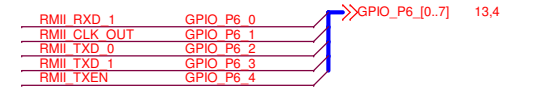
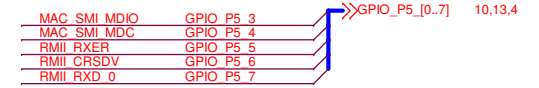
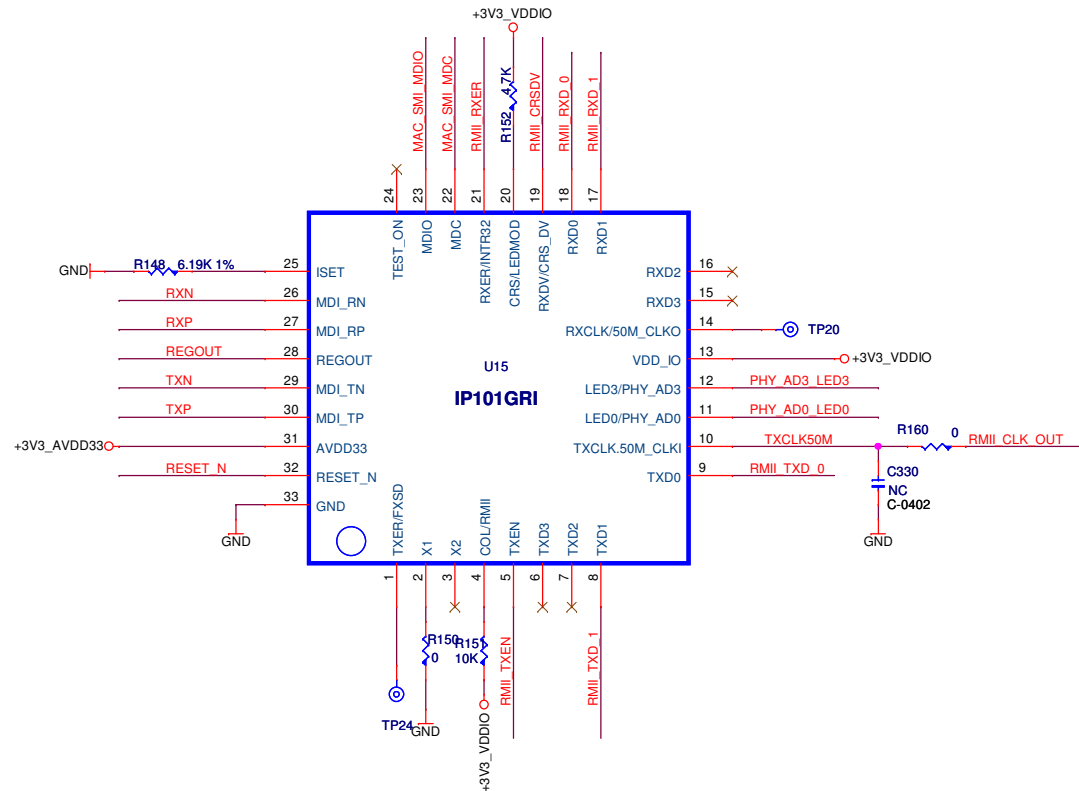
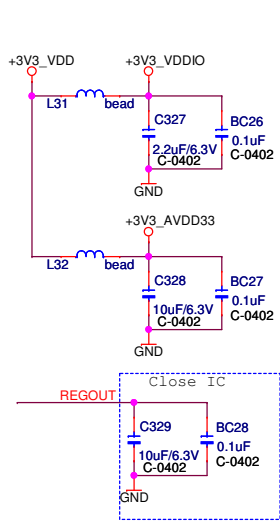


UART0 for debug



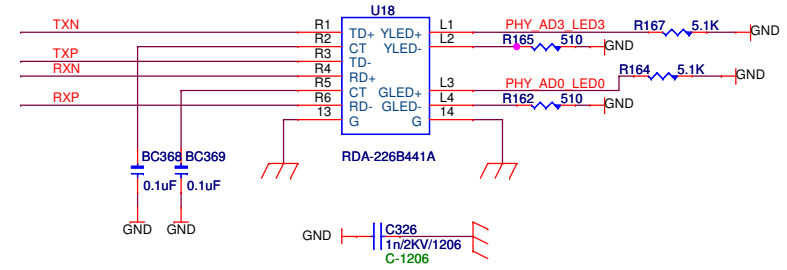
SUNPLUS

Title		
Debug JTAG/SWD/UART0		
Size	Document Number	Rev
Custom	SP7021 Demo board	1.0
Date: Thursday, September 12, 2013		

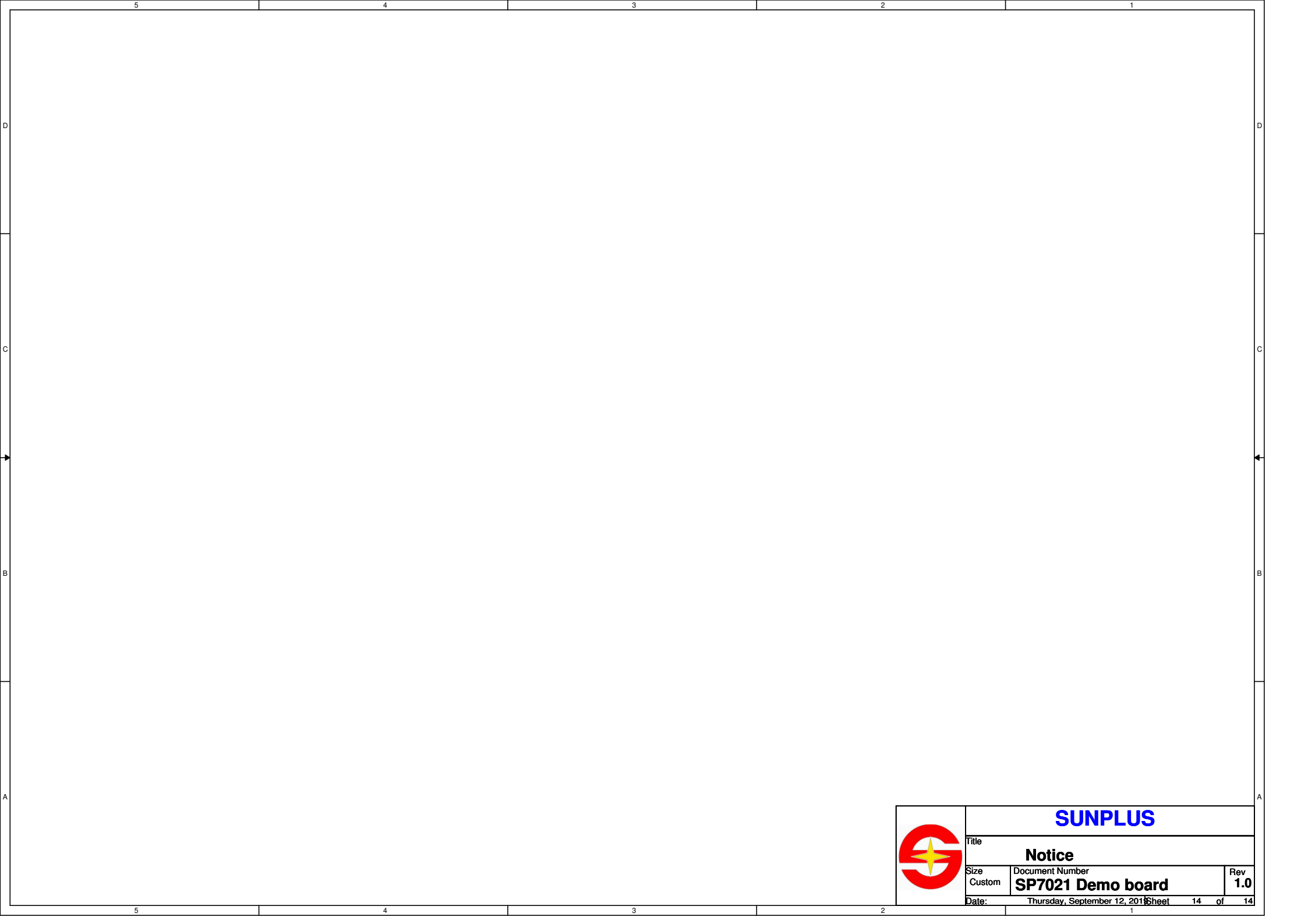



1st Ethernet: "Phy ID: 0 (PHY_ADx=00)"

TX and RX P->N swap for layout **RJ45**



	SUNPLUS		
	Title		
	First EPHY		
	Size Custom	Document Number SP7021 Demo board	Rev 1.0
Date: Thursday, September 12, 2019 12 of 14			



	SUNPLUS		
	Title		
	Notice		
	Size	Document Number	Rev
Custom	SP7021 Demo board	1.0	
Date:	Thursday, September 12, 2014		
	Sheet	14	of 14