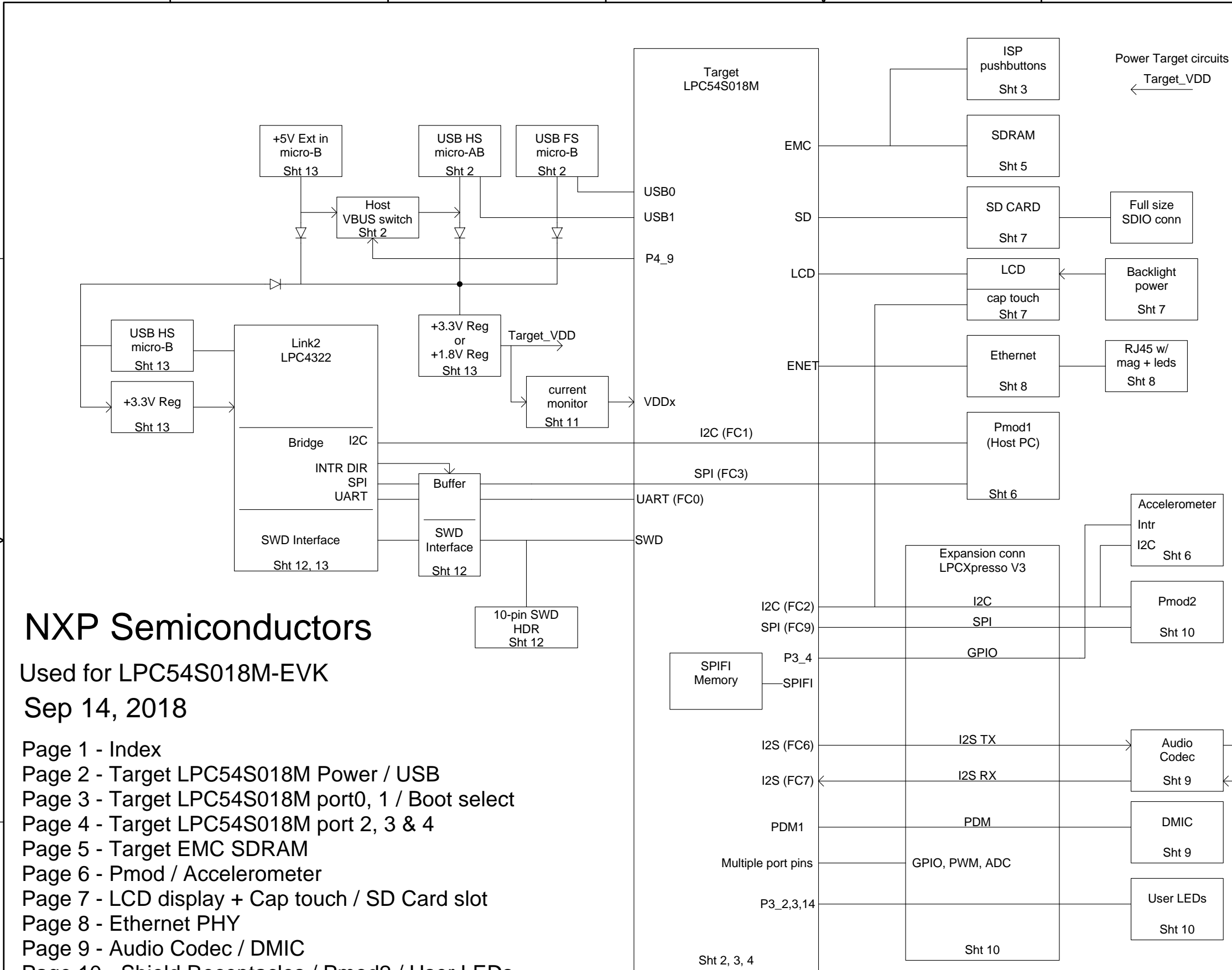


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
1	Schematic initial PCB for MCM	07/29/2018	
A	Schematic & PCB release to production	09/14/2018	

Revision A updated to clarify signal naming and connections 08/07/2020

- Notes:**
- 1) "DNI" = Do Not Install by default
 - 2) "JSx" solder jumpers use 0ohm resistor for default strapping.
 - 3) This board design is used for LPC546xx and LPC540xx products.



NXP Semiconductors

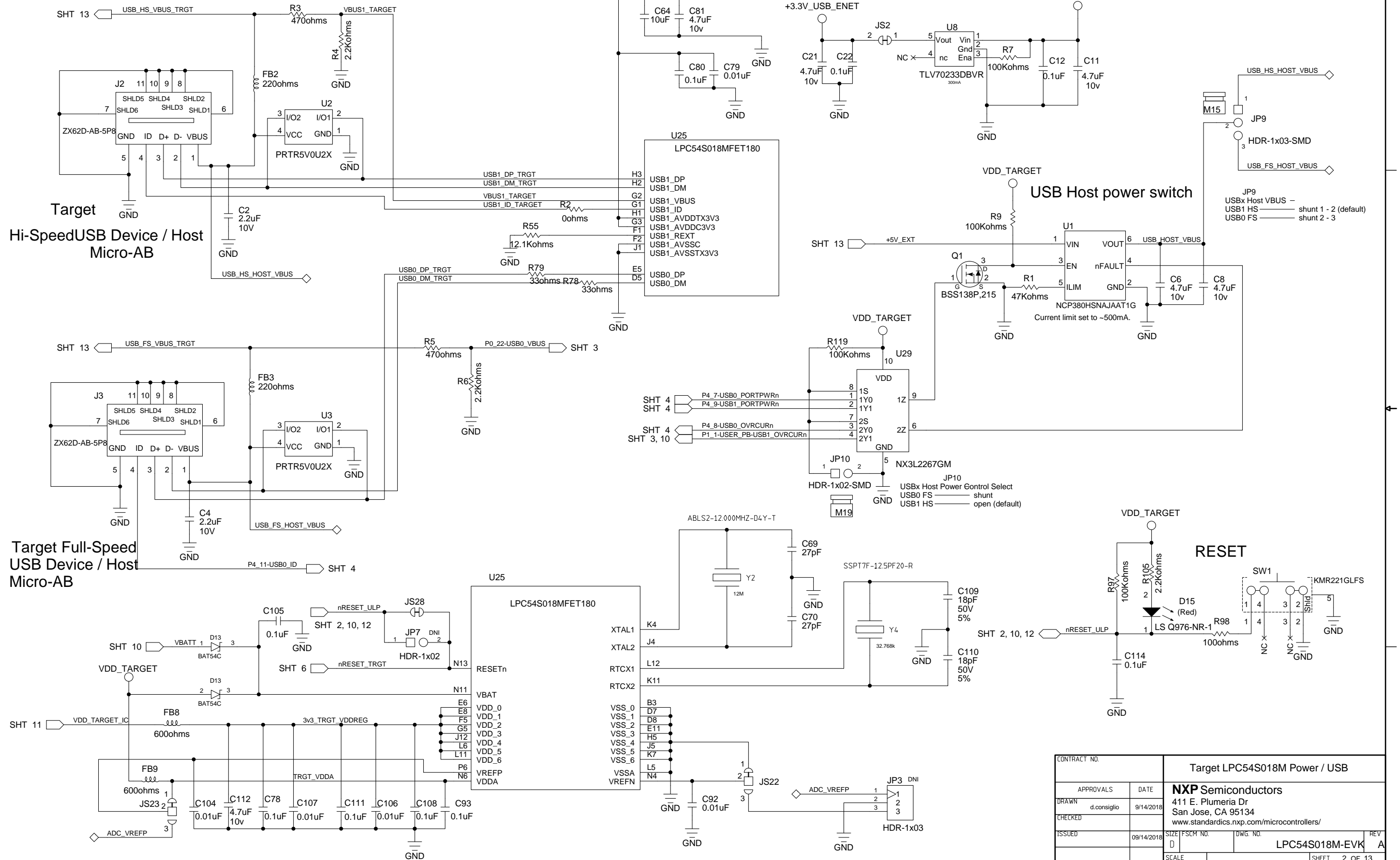
Used for LPC54S018M-EVK
Sep 14, 2018

- Page 1 - Index
- Page 2 - Target LPC54S018M Power / USB
- Page 3 - Target LPC54S018M port0, 1 / Boot select
- Page 4 - Target LPC54S018M port 2, 3 & 4
- Page 5 - Target EMC SDRAM
- Page 6 - Pmod / Accelerometer
- Page 7 - LCD display + Cap touch / SD Card slot
- Page 8 - Ethernet PHY
- Page 9 - Audio Codec / DMIC
- Page 10 - Shield Receptacles / Pmod2 / User LEDs
- Page 11 - LPC54S018M current monitor; LINK2 Bridge buffer
- Page 12 - Debug LINK2 LPC4322 Peripherals / debug buffer
- Page 13 - Debug LINK2 LPC4322 / LINK2 USB / Board Power

CONTRACT NO.		LPC54S018M-EVK	
APPROVALS	DATE	NXP Semiconductors 411 E. Plumeria Dr San Jose, CA 95134 www.standardics.nxp.com/microcontrollers/	
DRAWN d.consiglio	9/14/2018		
CHECKED			
ISSUED	09/14/2018	SIZE FSCM NO.	DWG. NO.
		D	LPC54S018M-EVK
		SCALE	SHEET 1 OF 13

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

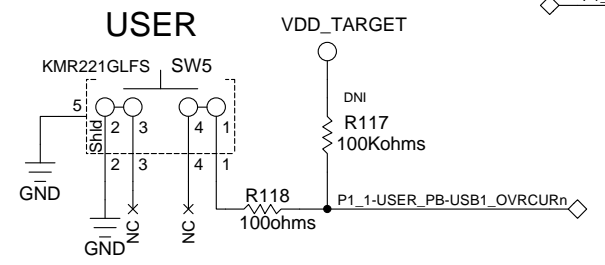
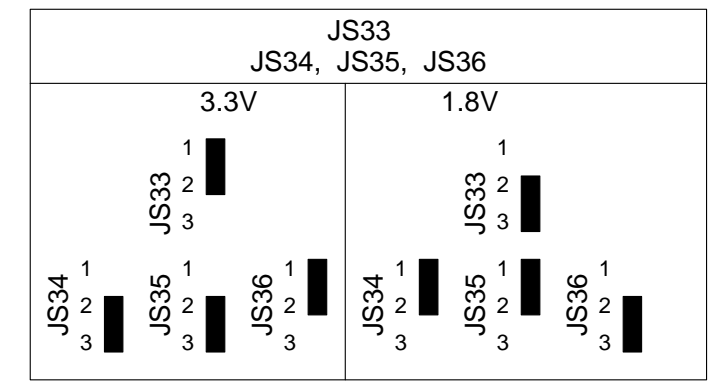
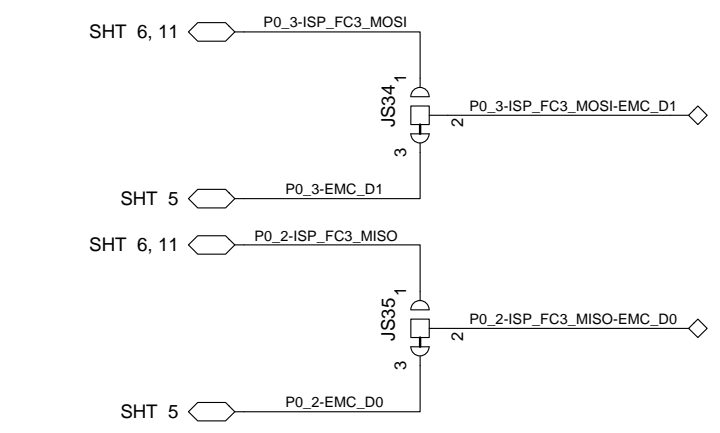
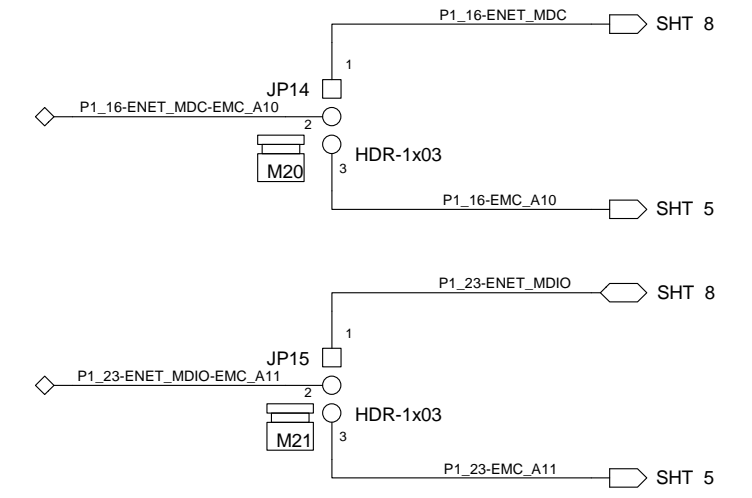
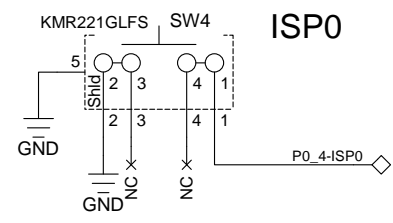
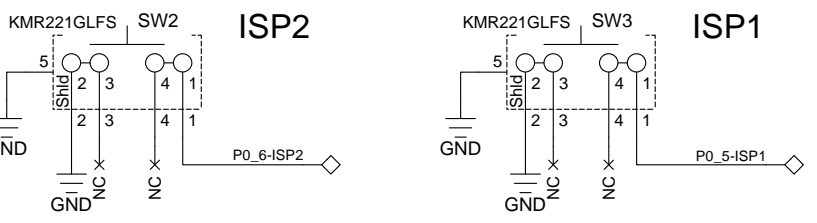
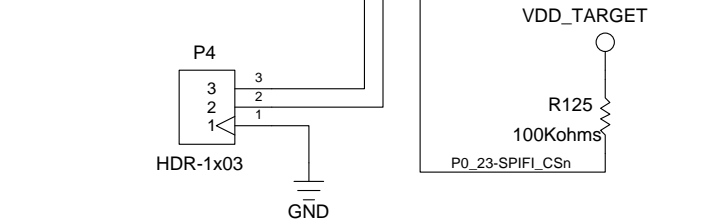
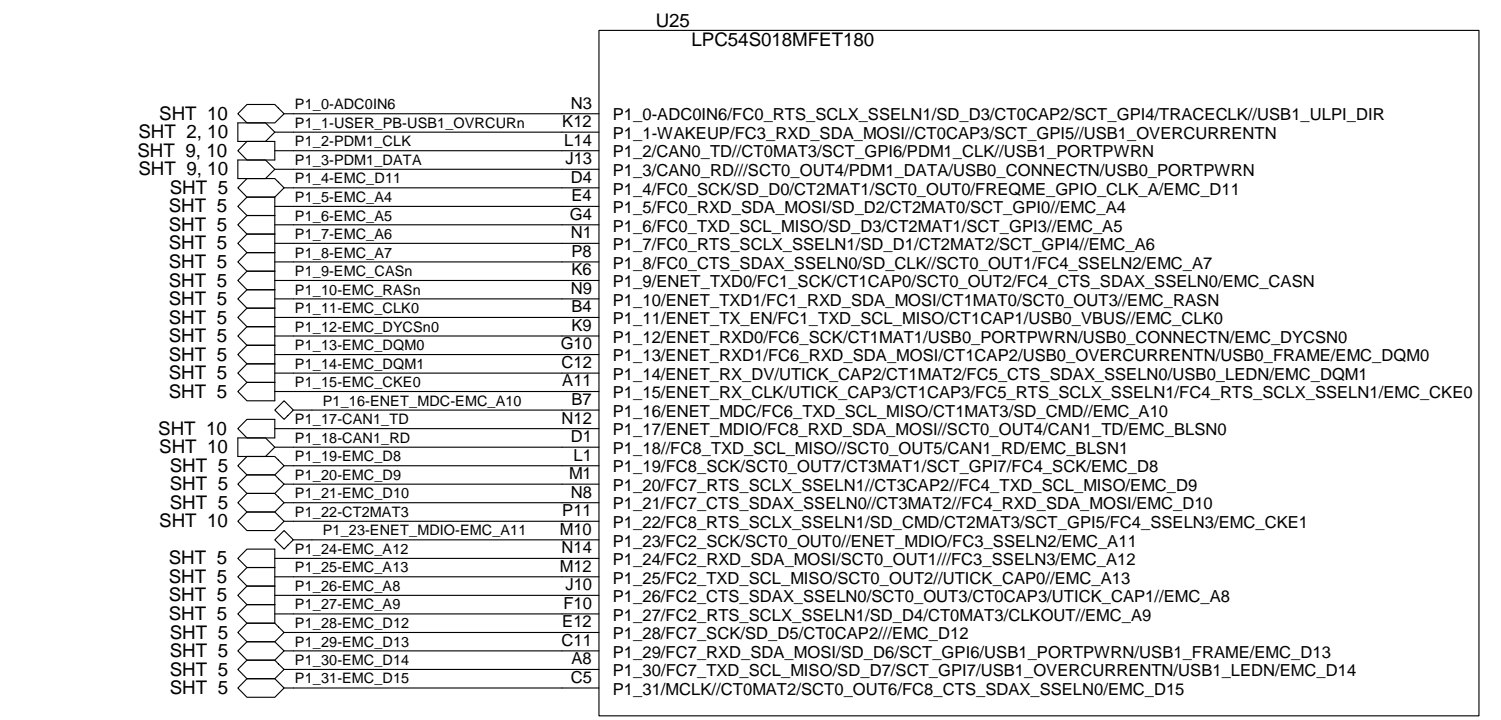
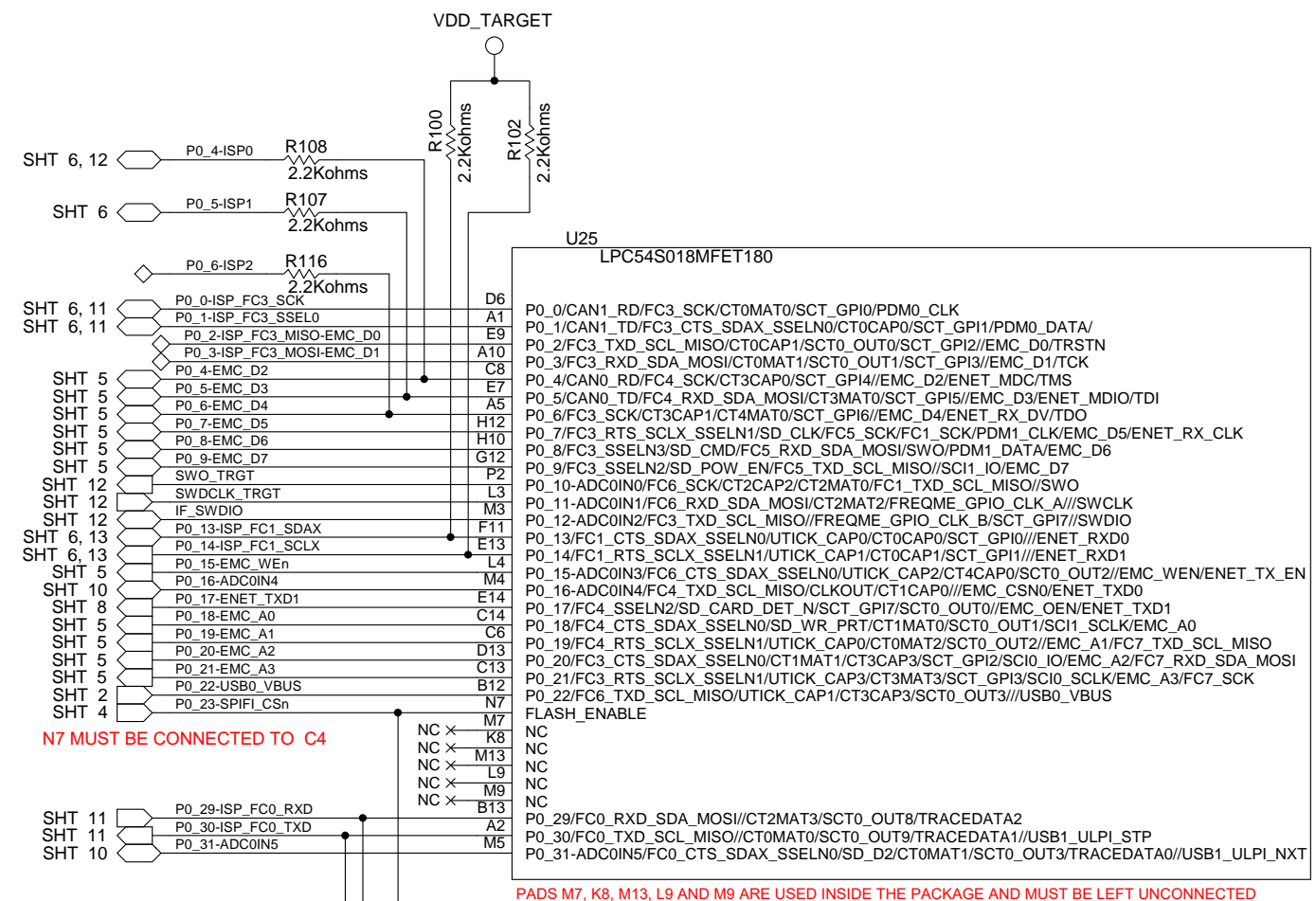
Target USB HS / ENET+3.3V Power



CONTRACT NO.		Target LPC54S018M Power / USB	
APPROVALS	DATE	NXP Semiconductors 411 E. Plumeria Dr San Jose, CA 95134 www.standardics.nxp.com/microcontrollers/	
DRAWN	d.consiglio 9/14/2018		
CHECKED			
ISSUED	09/14/2018		
SIZE	FSCM NO.	DWG. NO.	REV
		LPC54S018M-EVK	A
SCALE		SHEET 2 OF 13	

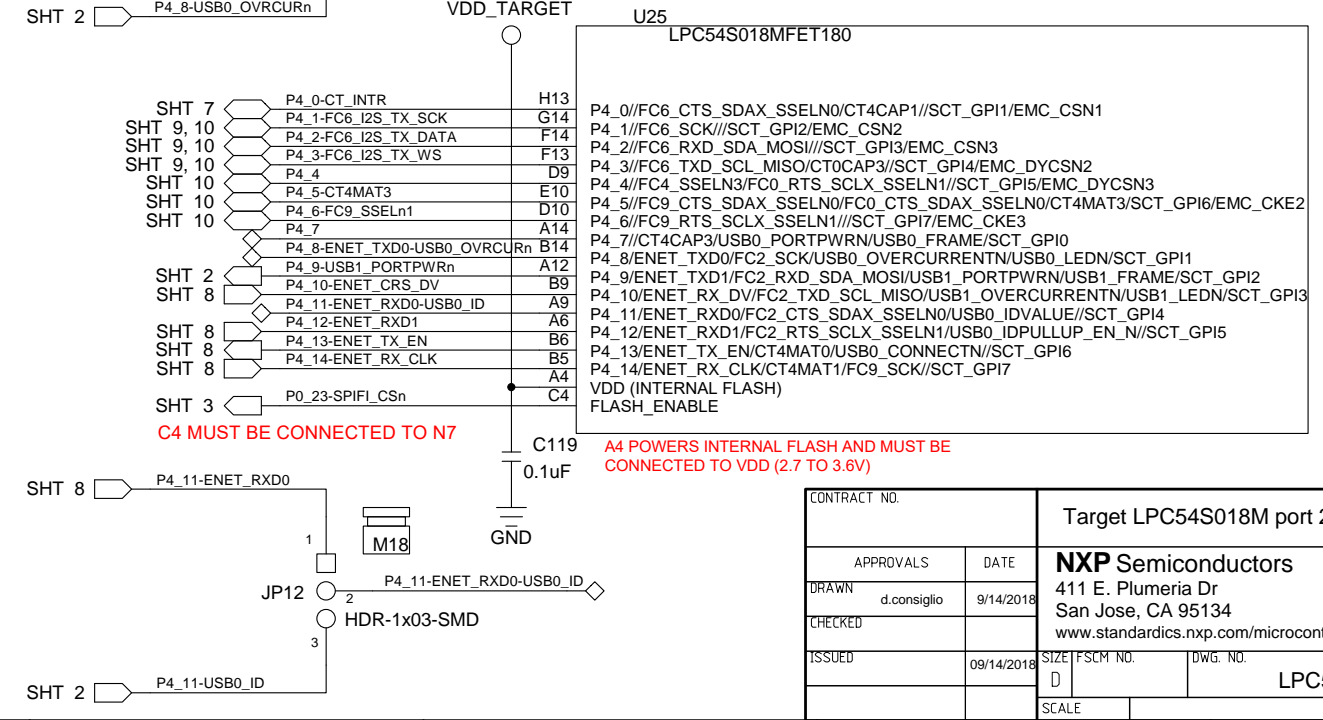
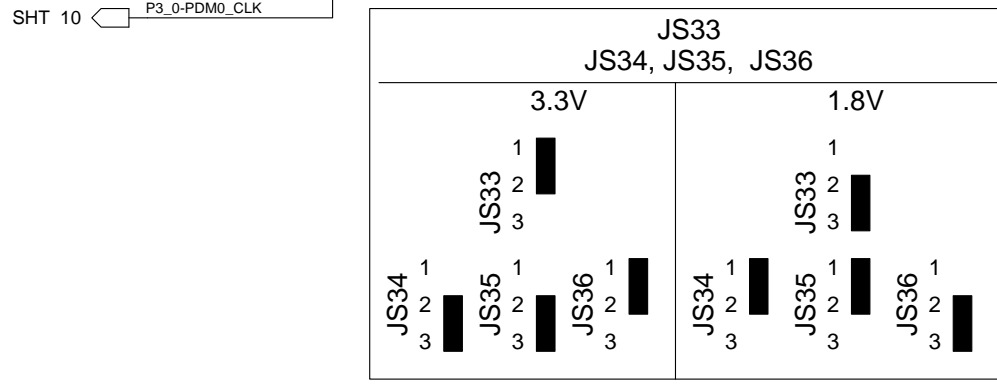
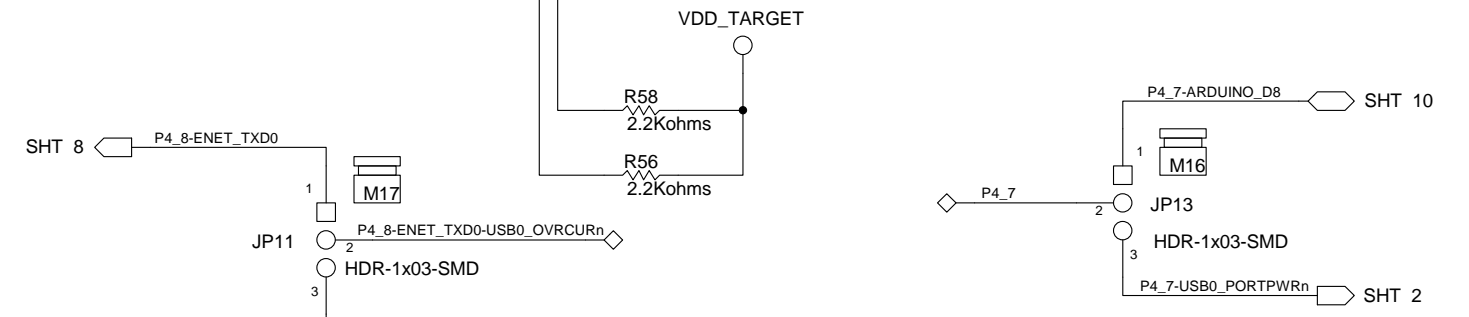
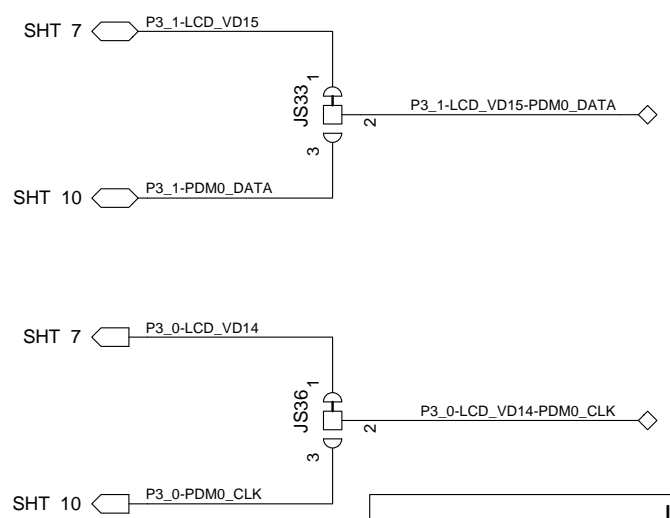
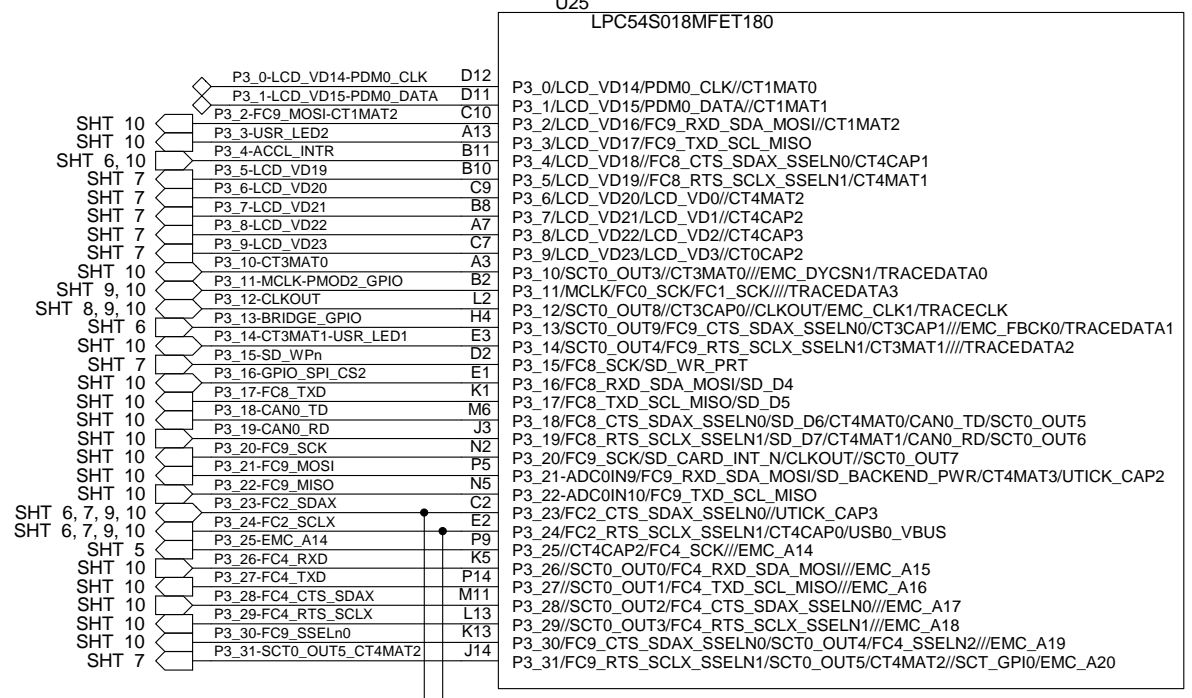
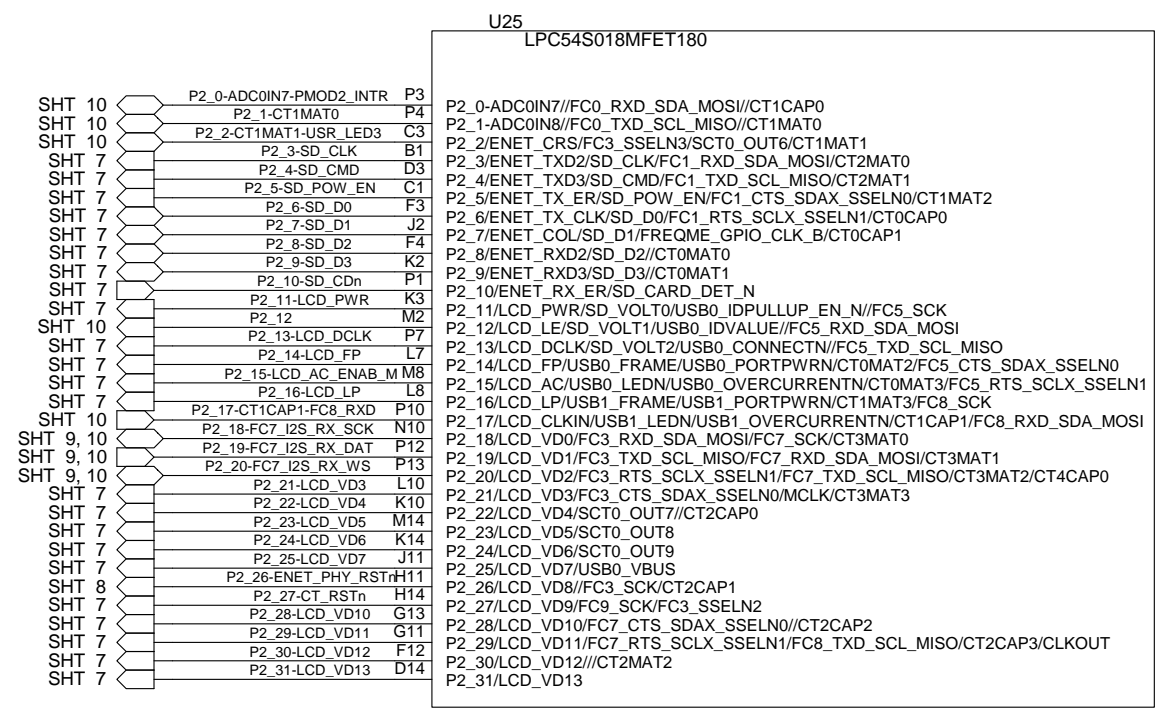
H=8ND, V=4LA

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



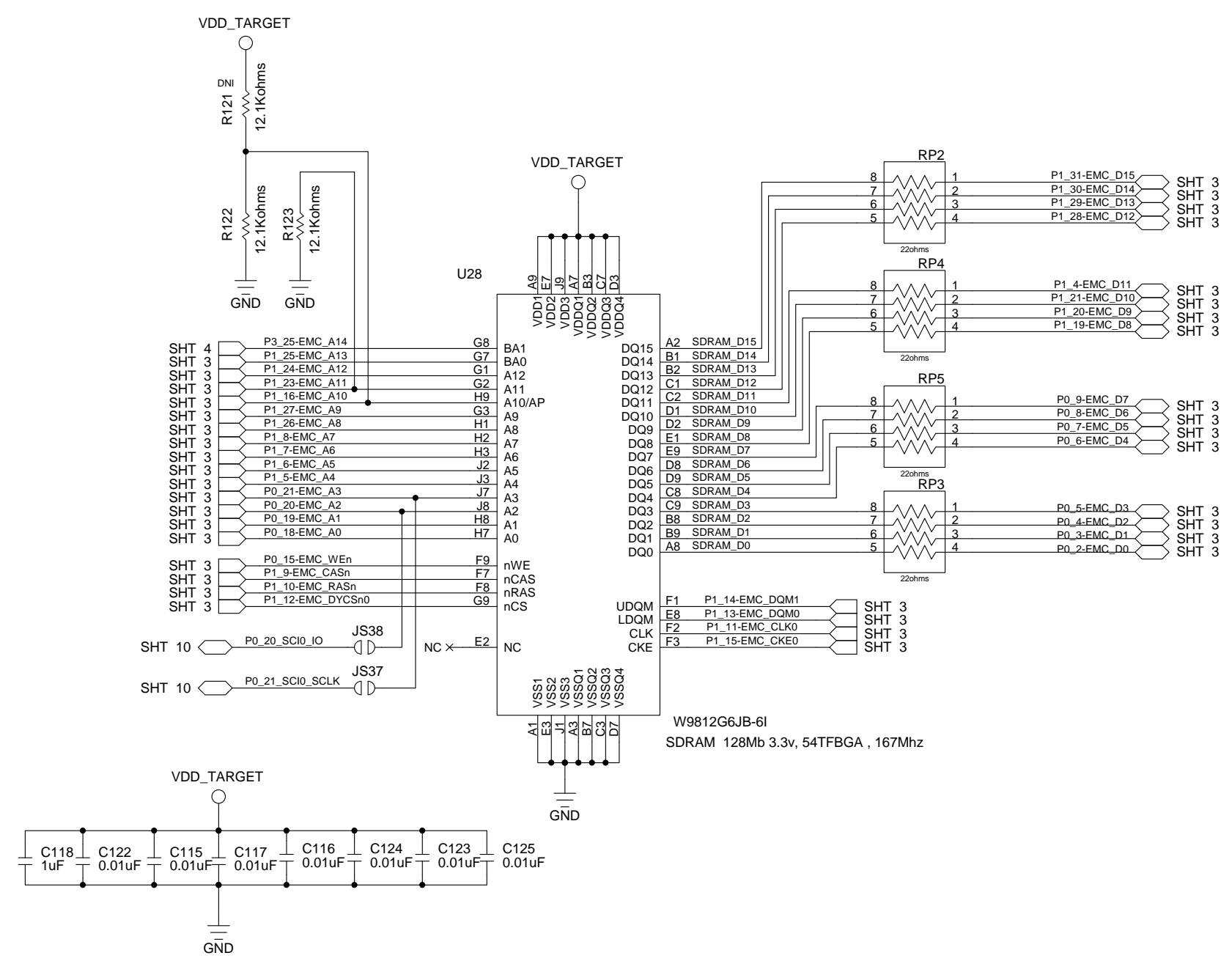
CONTRACT NO.		Target LPC54S018M port0, 1 / Boot select	
APPROVALS	DATE	NXP Semiconductors	
DRAWN d.consiglio	9/14/2018	411 E. Plumeria Dr San Jose, CA 95134 www.standardics.nxp.com/microcontrollers/	
CHECKED		SIZE	DWG. NO.
ISSUED	09/14/2018	D	LPC54S018M-EVK
SCALE		SHEET 3 OF 13	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



CONTRACT NO.		Target LPC54S018M port 2, 3 & 4	
APPROVALS	DATE	NXP Semiconductors	
DRAWN d.consiglio	9/14/2018	411 E. Plumeria Dr San Jose, CA 95134 www.standardics.nxp.com/microcontrollers/	
CHECKED		SIZE	DWG. NO.
ISSUED	09/14/2018	D	LPC54S018M-EVK
SCALE		SHEET 4 OF 13	

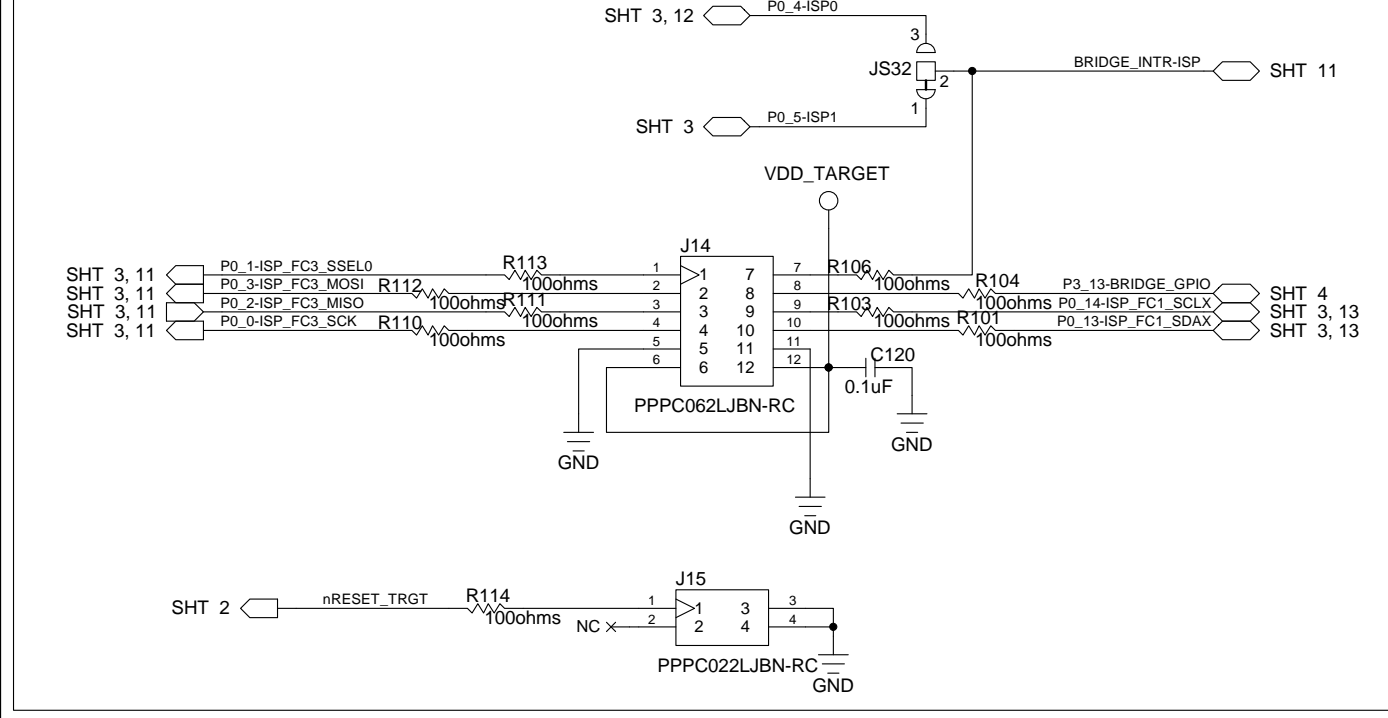
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



CONTRACT NO.		Target EMC SDRAM			
APPROVALS	DATE	NXP Semiconductors 411 E. Plumeria Dr San Jose, CA 95134 www.standardics.nxp.com/microcontrollers/			
DRAWN	d.consiglio				9/14/2018
CHECKED					
ISSUED	09/14/2018				
		SIZE	FSCM NO.	DWG. NO.	REV
		D		LPC54S018M-EVK	A
		SCALE			SHEET 5 OF 13

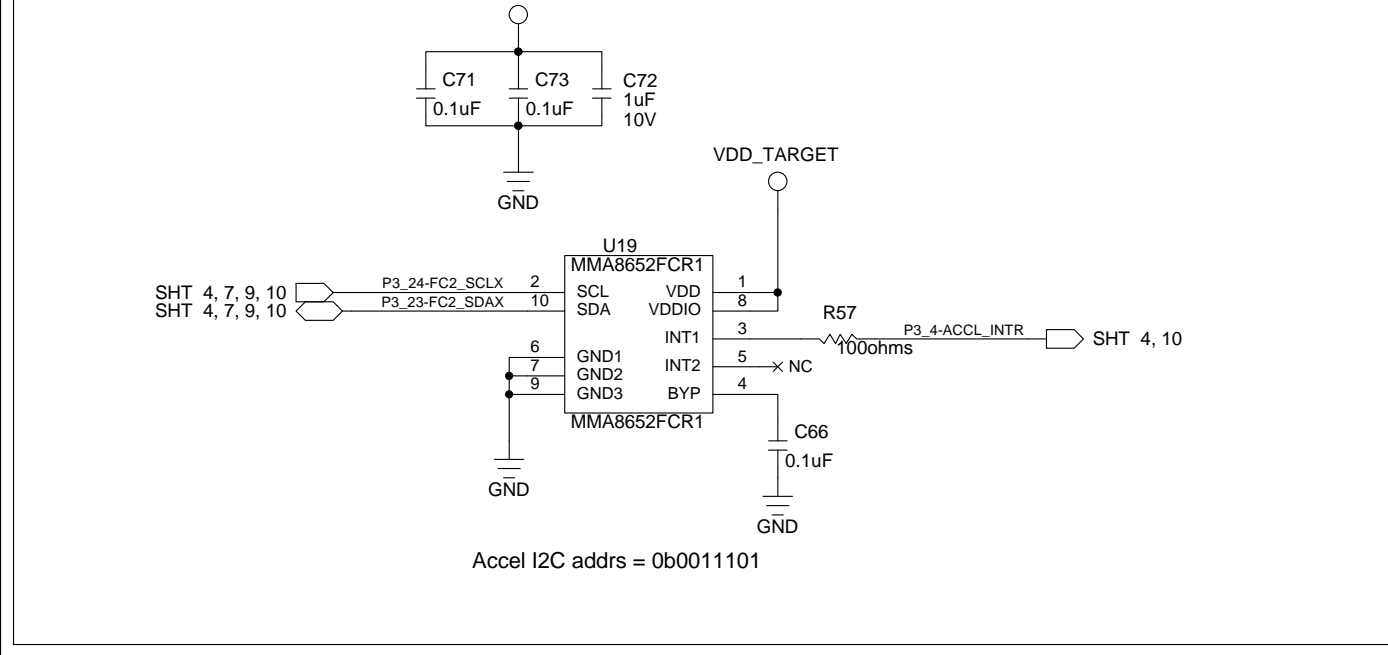
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

SPI / I2C header (PMOD compatible) Host interface



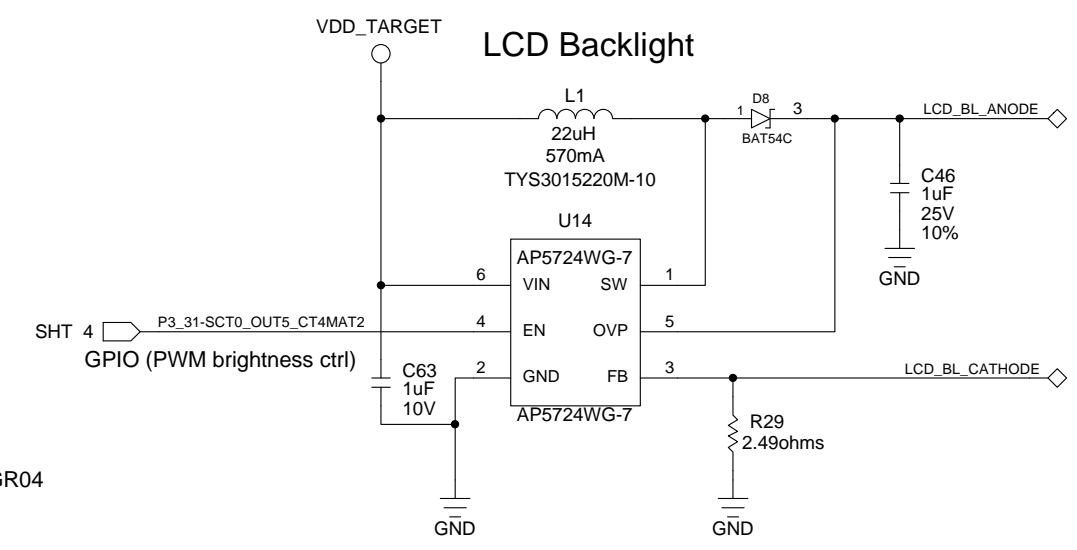
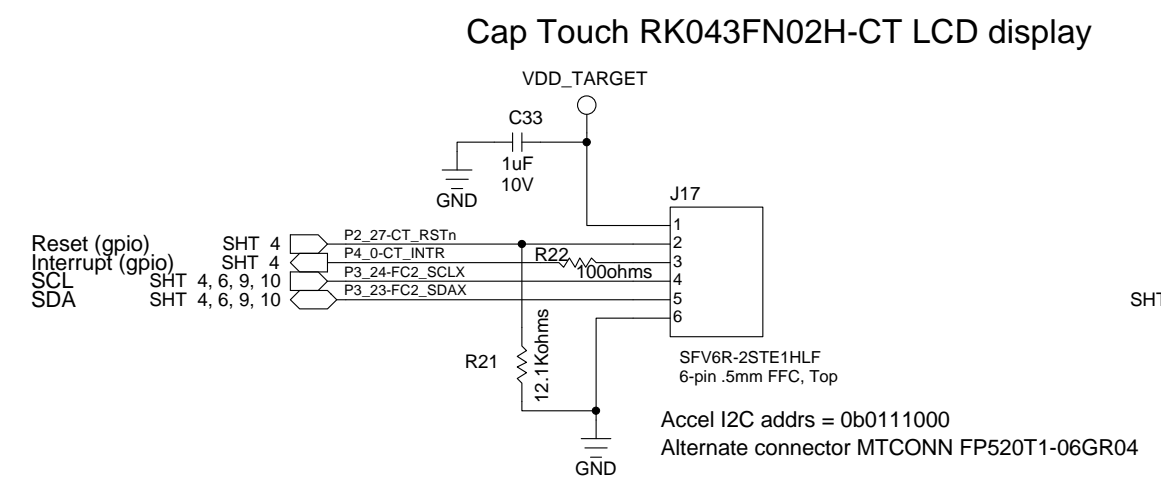
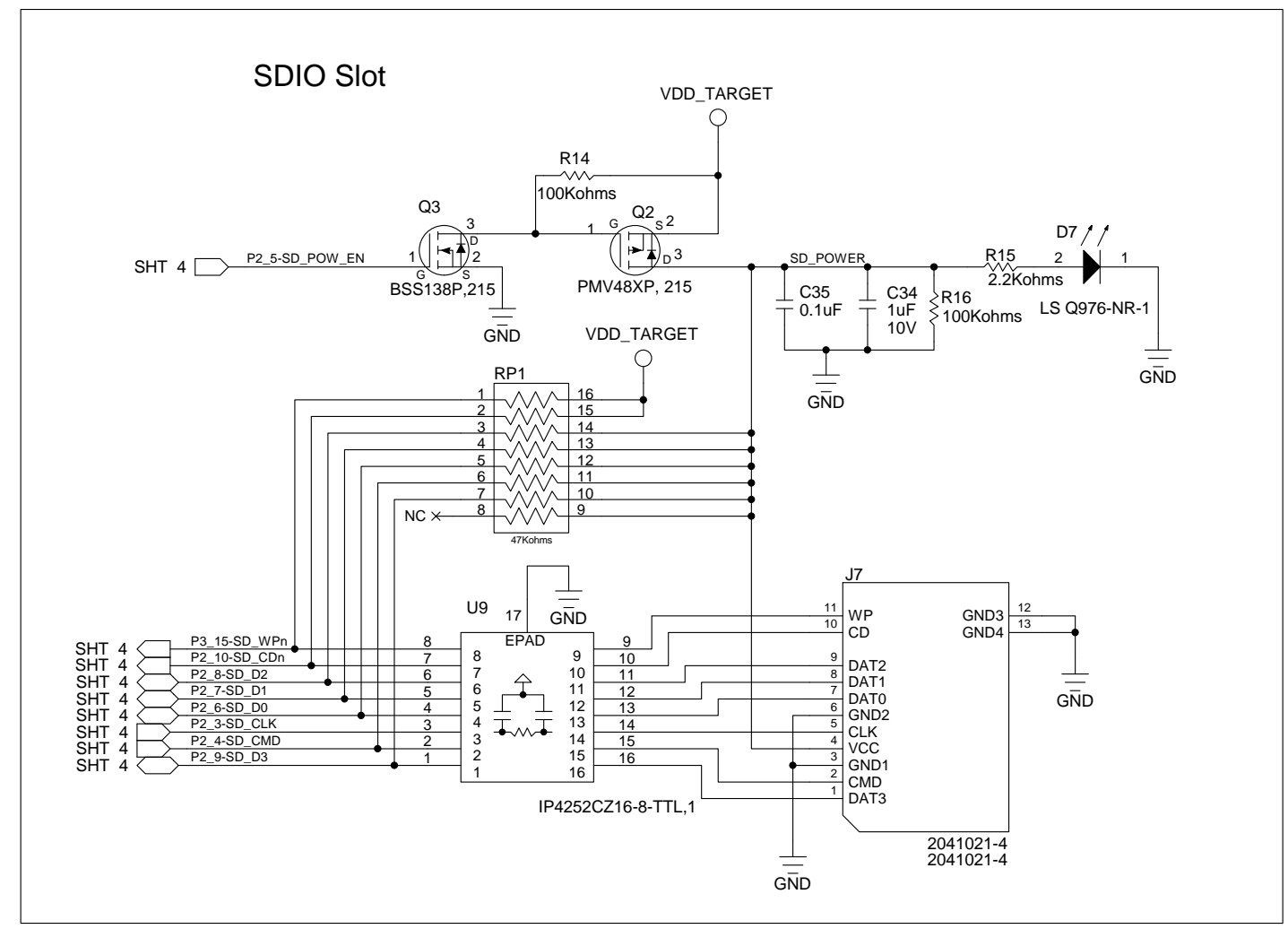
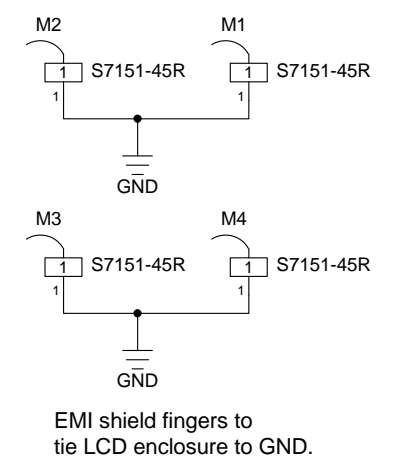
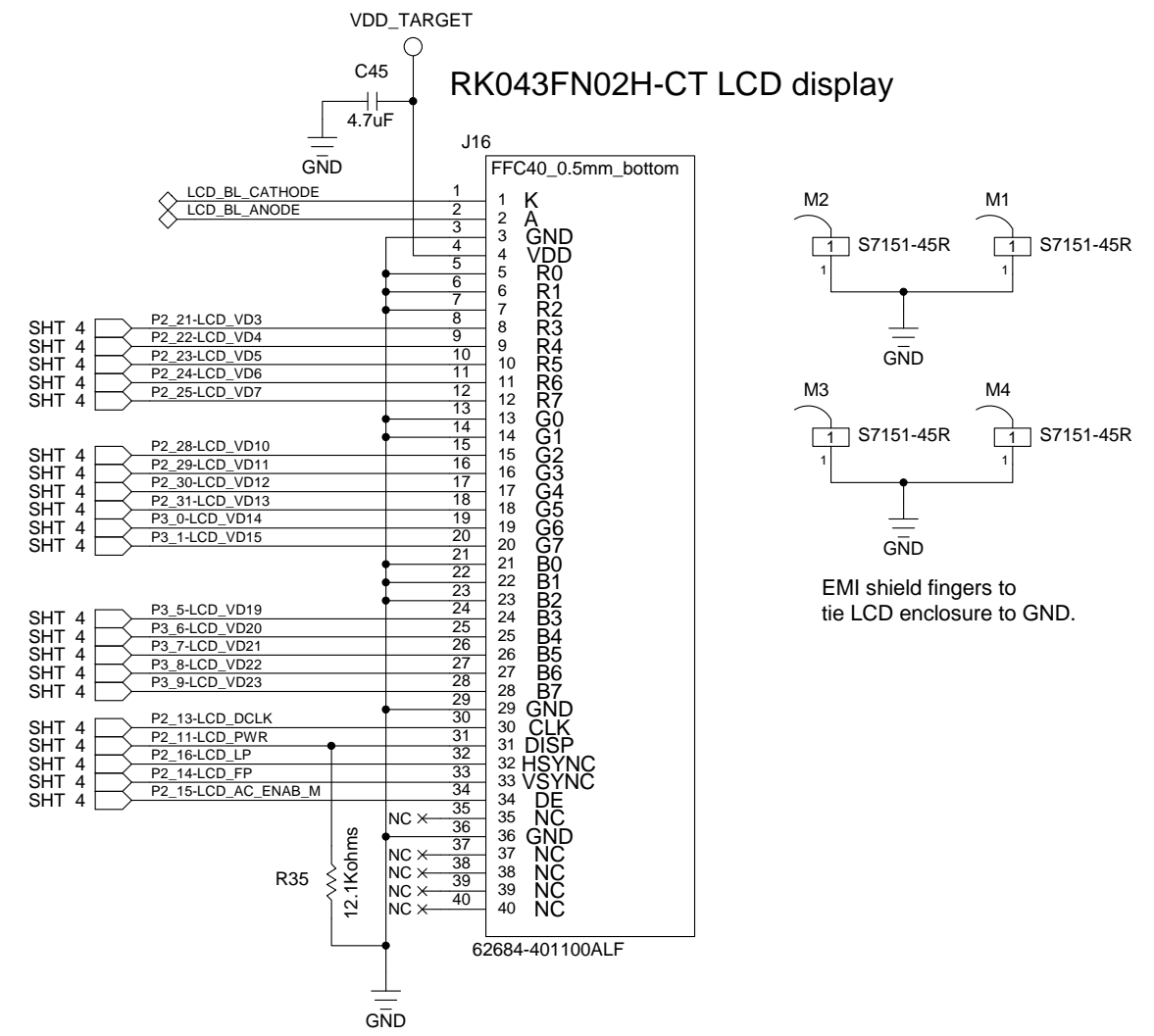
PMOD pin function	LPC546xx/540xx supported function
Pin 1: GPIO/SPI-SSEL(out)/UART-CTS(in)	GPIO/SPI-SSEL(in/out)
Pin 2: GPIO/SPI-MOSI(out)/UART-TXD(out)	GPIO/SPI-MOSI(in/out)
Pin 3: GPIO/SPI-MISO(in)/UART-RXD(in)	GPIO/SPI-MISO(out/in)
Pin 4: GPIO/SPI-SCK(out)/UART-RTS(out)	GPIO/SPI-SCK(in/out)
Pin 5: GND	GND
Pin 6: VCC(3.3V)	VCC(3.3V)
Pin 7: GPIO/INT(in)	GPIO/INT(out/in)
Pin 8: GPIO/RESET(out)	GPIO/RESET(out)
Pin 9: GPIO/SCL	SCL
Pin 10: GPIO/SDA	SDA
Pin 11: GND	GND
Pin 12: VCC(3.3V)	VCC(3.3V)

Accelerometer 3-axis



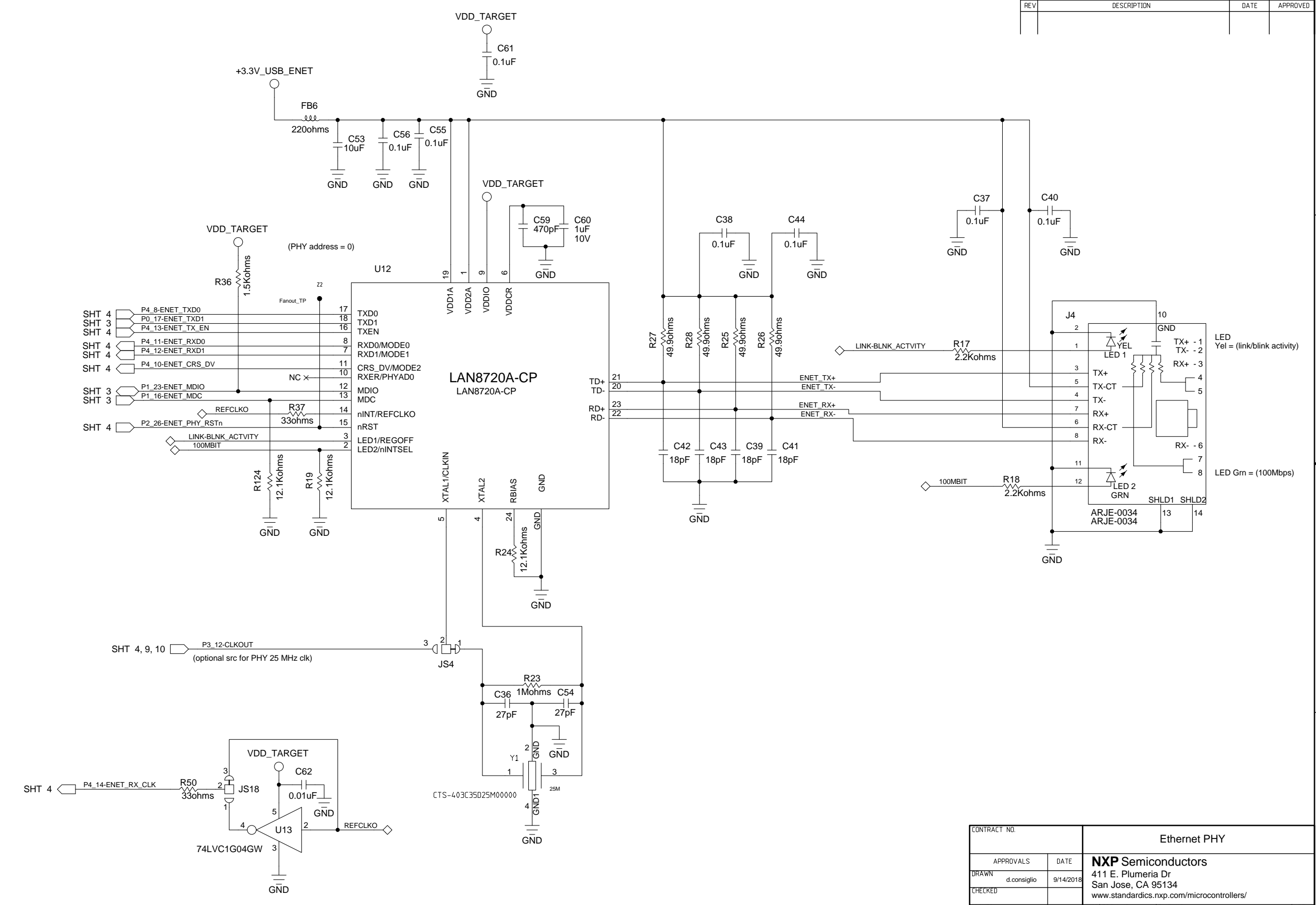
CONTRACT NO.		Pmod / Accelerometer	
APPROVALS	DATE	NXP Semiconductors 411 E. Plumeria Dr San Jose, CA 95134 www.standardics.nxp.com/microcontrollers/	
DRAWN	d.consiglio		
CHECKED			
ISSUED	09/14/2018		
SIZE	D	FSCM NO.	DWG. NO.
SCALE		LPC54S018M-EVK	
		REV A	
		SHEET 6 OF 13	

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



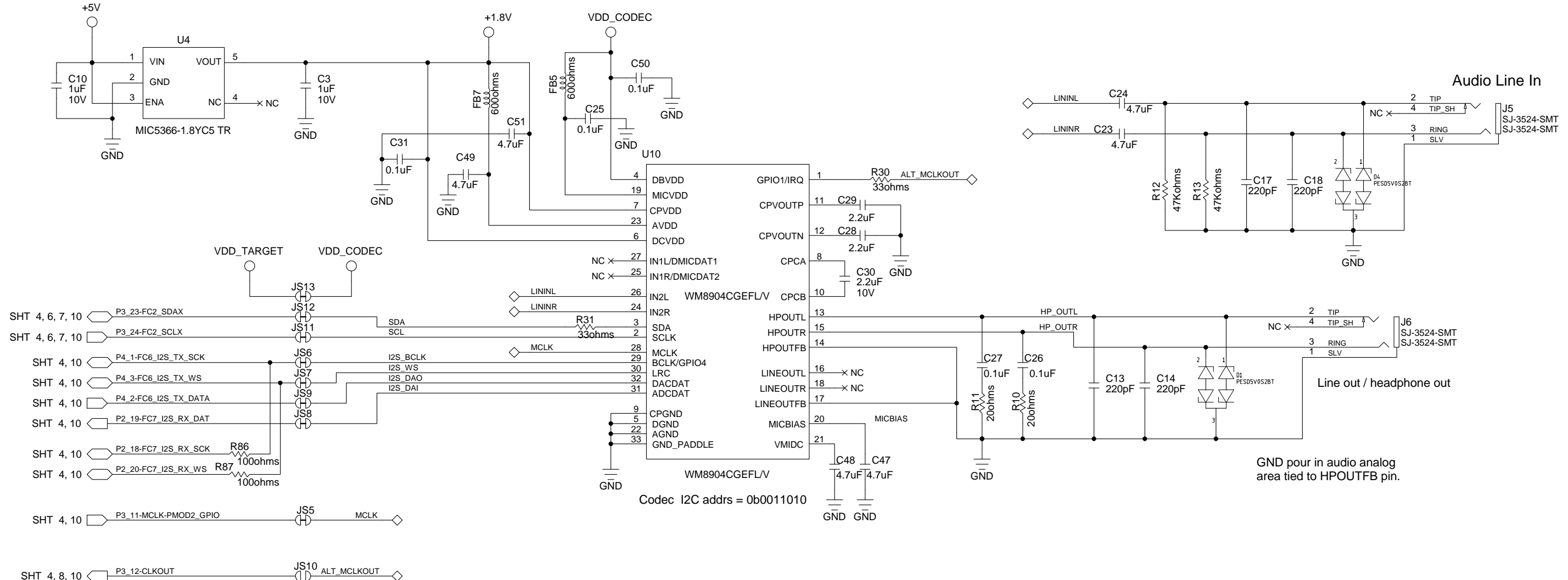
CONTRACT NO.		LCD display + Cap touch / SD Card slot	
APPROVALS	DATE	NXP Semiconductors	
DRAWN	d.consiglio	411 E. Plumeria Dr	
CHECKED		San Jose, CA 95134	
ISSUED	09/14/2018	www.standardics.nxp.com/microcontrollers/	
SCALE		SIZE / FSCM NO.	DWG. NO.
			LPC54S018M-EVK
			REV A
			SHEET 7 OF 13

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



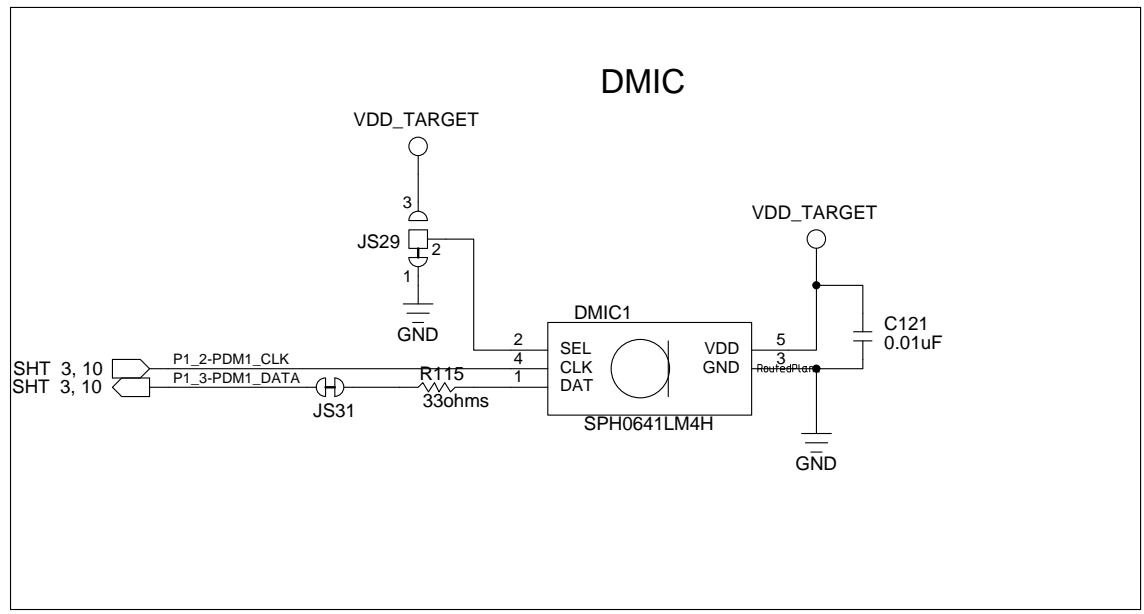
CONTRACT NO.		Ethernet PHY	
APPROVALS	DATE	NXP Semiconductors	
DRAWN	d.consiglio	411 E. Plumeria Dr	
CHECKED	9/14/2018	San Jose, CA 95134	
ISSUED	09/14/2018	www.standardics.nxp.com/microcontrollers/	
SCALE		SIZE / FSCM NO.	DWG. NO.
			LPC54S018M-EVK
			REV. A
		SHEET	8 OF 13

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



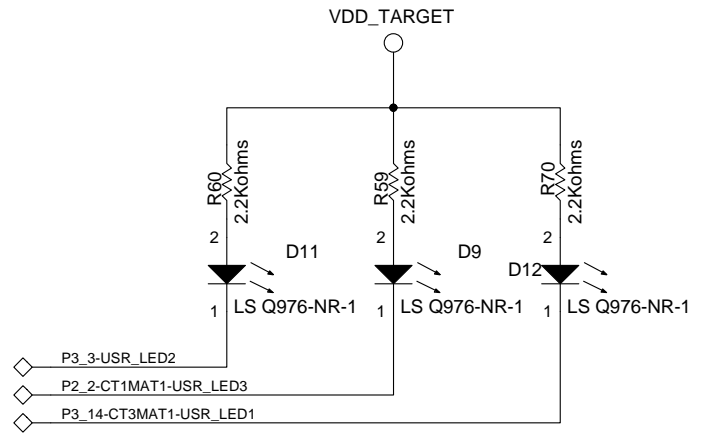
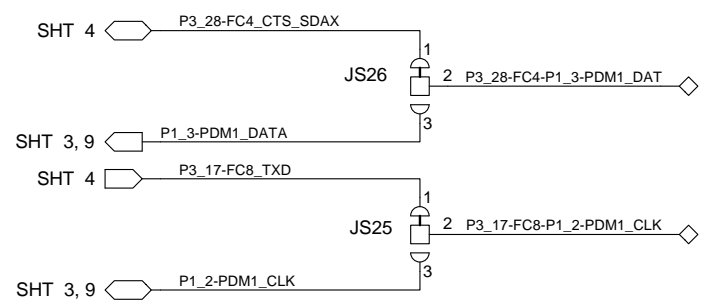
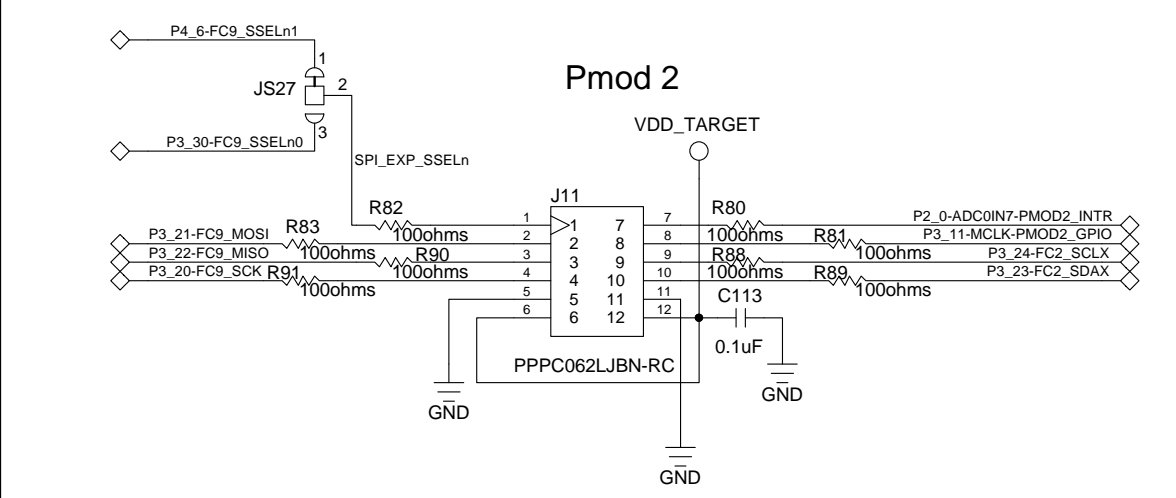
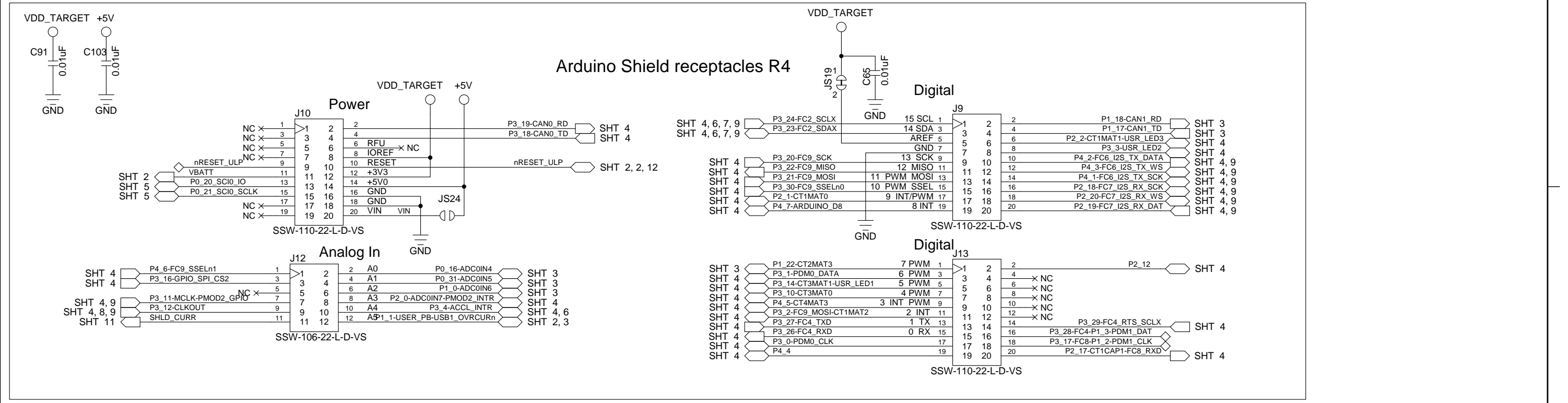
Codec I2C addr = 0b0011010

GND pour in audio analog area tied to HPOUTFB pin.



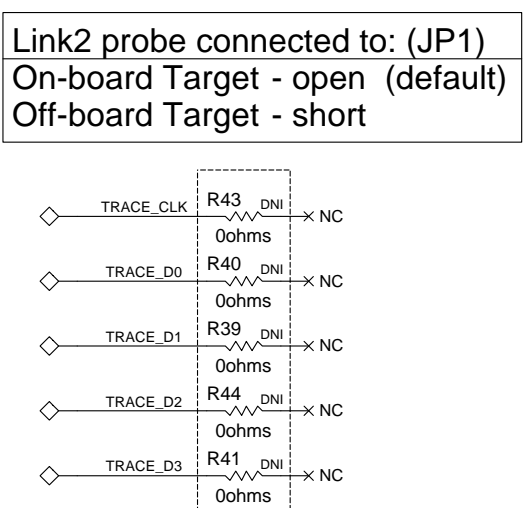
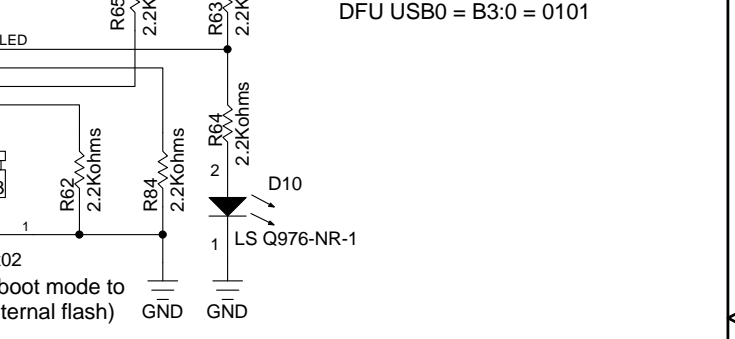
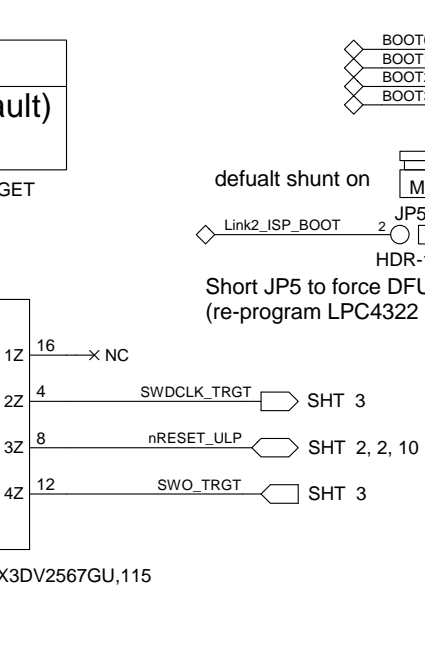
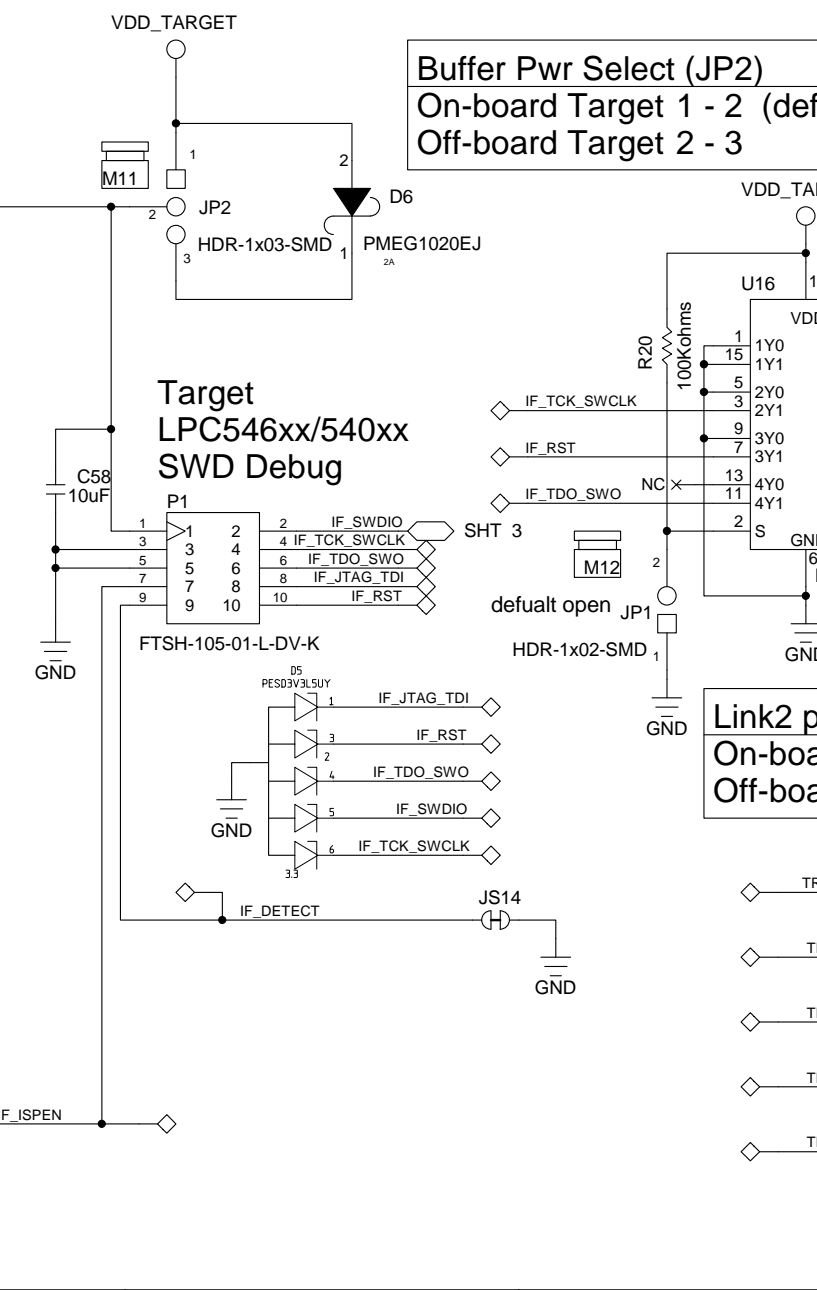
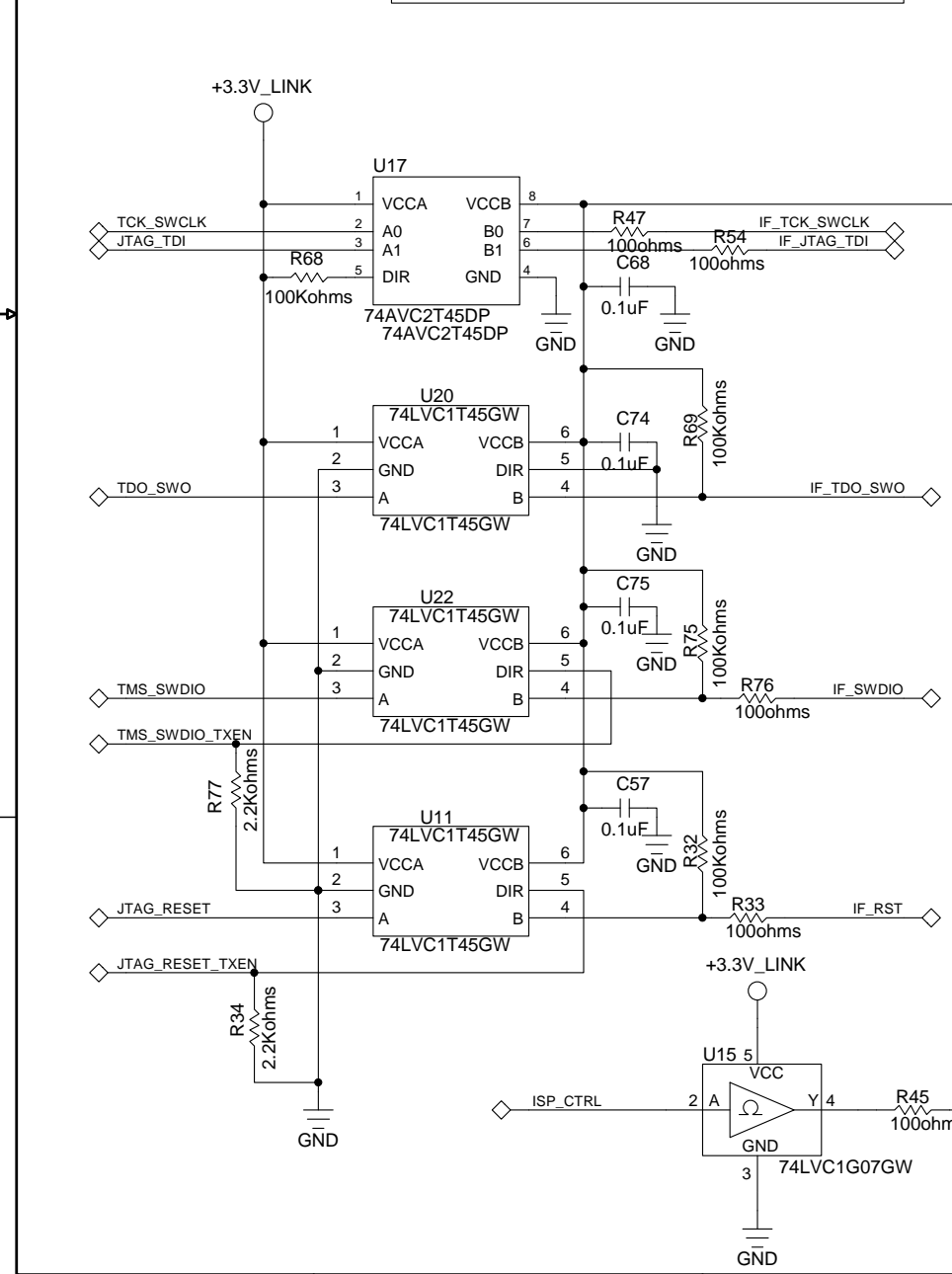
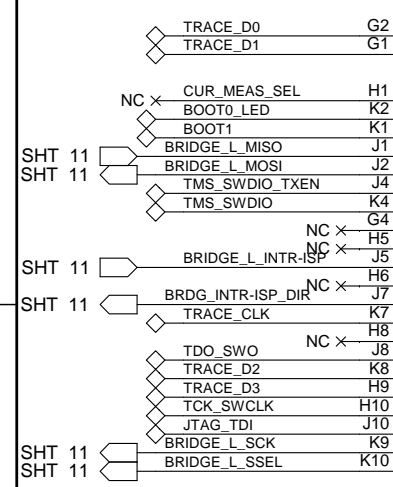
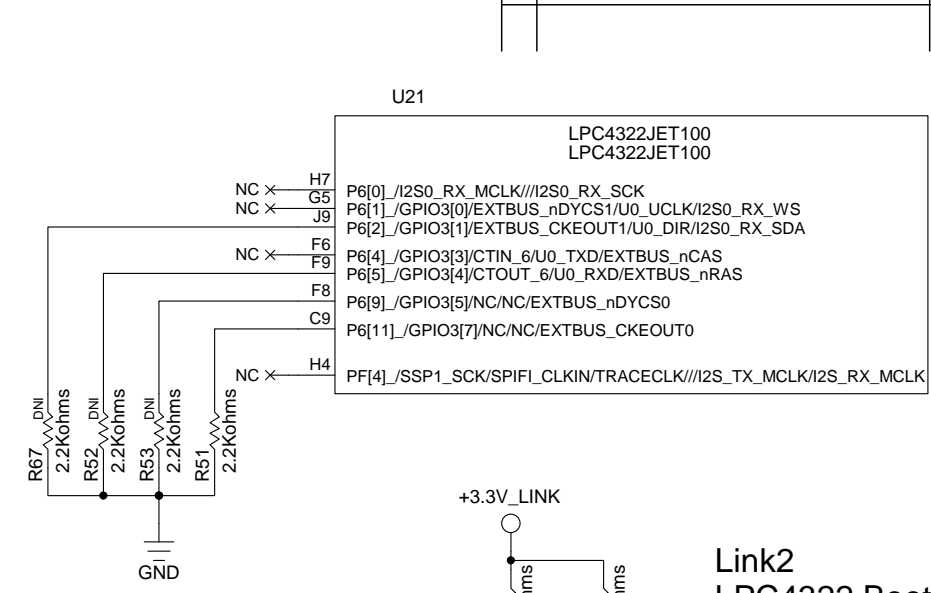
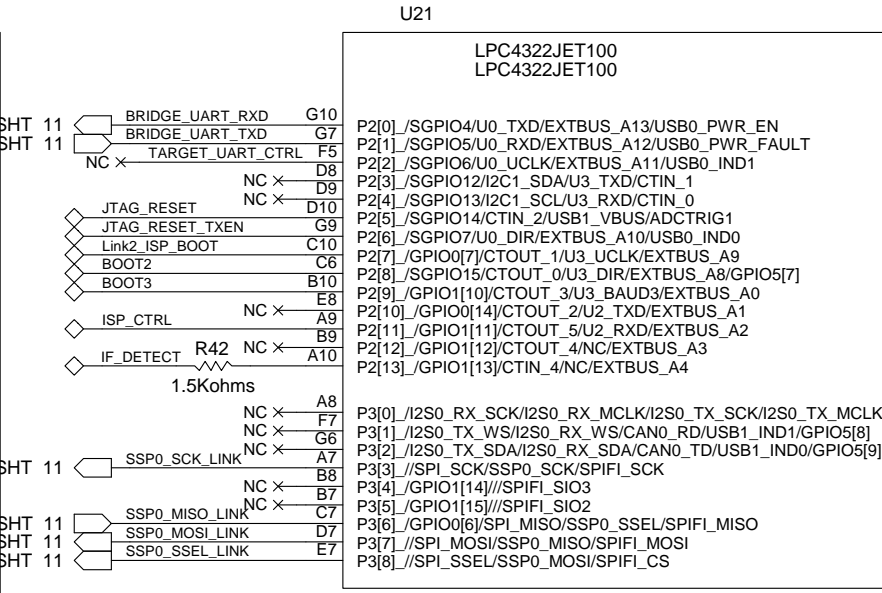
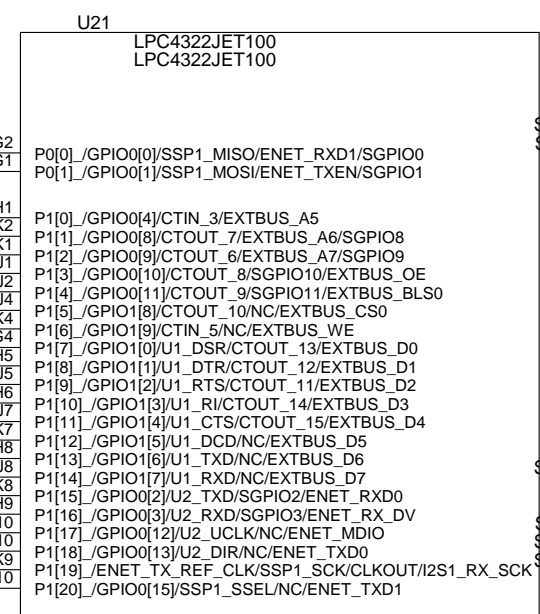
CONTRACT NO.		Audio Codec / DMIC	
APPROVALS	DATE	NXP Semiconductors 411 E. Plumeria Dr San Jose, CA 95134 www.standardics.nxp.com/microcontrollers/	
DRAWN	9/14/2018		
CHECKED			
ISSUED	09/14/2018	SIZE	D
		FSCM NO.	
		DWG. NO.	LPC54S018M-EVK
		REV	A
		SCALE	SHEET 9 OF 13

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



CONTRACT NO.		Shield Receptacles / Pmod2 / User LEDs	
APPROVALS	DATE	NXP Semiconductors	
DRAWN	d.consiglio	411 E. Plumeria Dr	
CHECKED		San Jose, CA 95134	
ISSUED	09/14/2018	www.standardics.nxp.com/microcontrollers/	
SIZE	D	SCALE	
FSCM NO.		DWG. NO.	LPC54S018M-EVK
REV	A	SHEET	10 OF 13

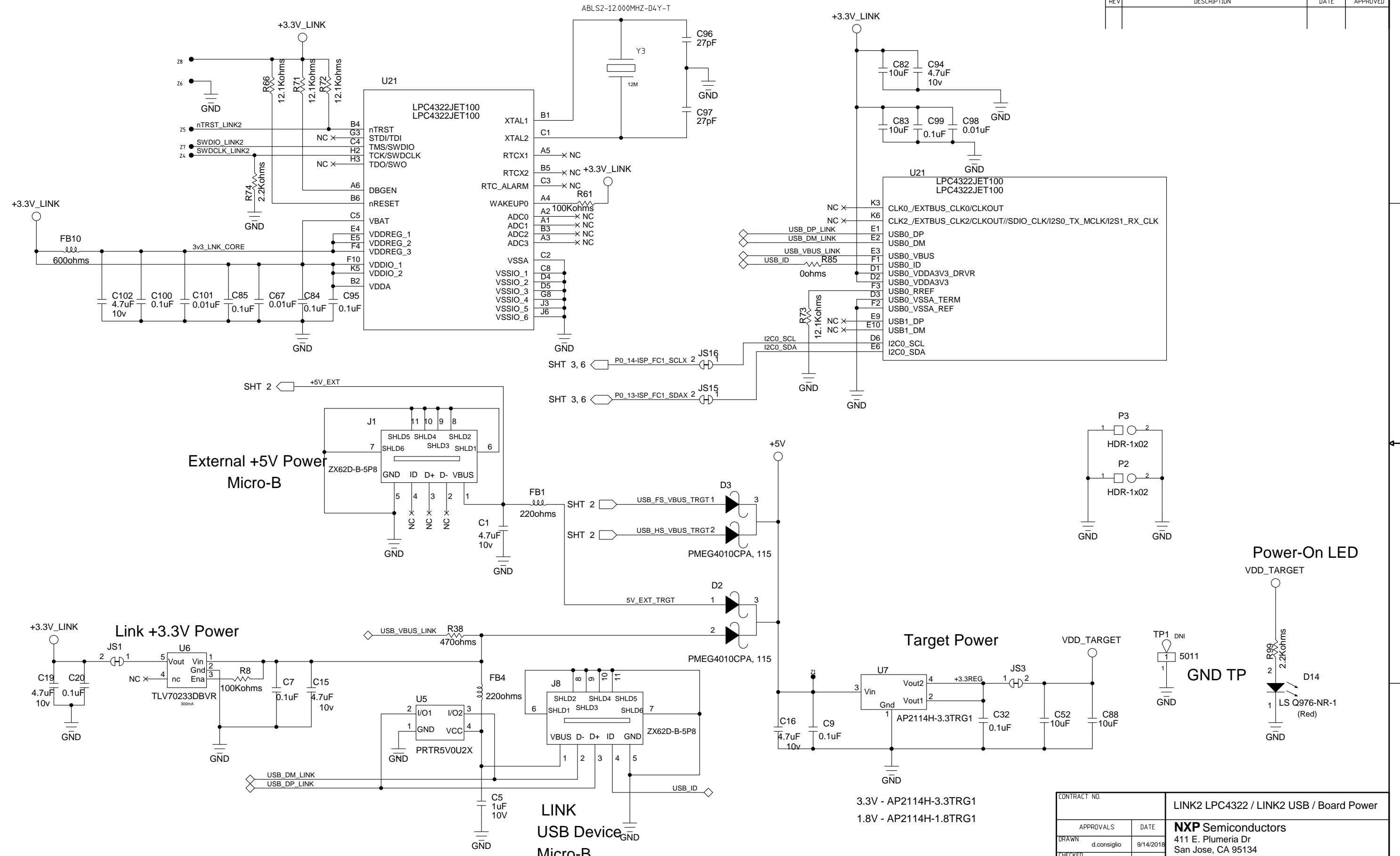
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



CONTRACT NO.		LINK2 LPC4322 Peripherals / debug buffer	
APPROVALS	DATE	NXP Semiconductors	
DRAWN d.consiglio	9/14/2018	411 E. Plumeria Dr San Jose, CA 95134 www.standardics.nxp.com/microcontrollers/	
CHECKED		SIZE	DWG. NO.
ISSUED	09/14/2018	D	LPC54S018M-EVK
		SCALE	SHEET 12 OF 13

LPC54S018M

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



CONTRACT NO.		LINK2 LPC4322 / LINK2 USB / Board Power	
APPROVALS	DATE	NXP Semiconductors 411 E. Plumeria Dr San Jose, CA 95134 www.standardics.nxp.com/microcontrollers/	
DRAWN	9/14/2018		
CHECKED			
ISSUED	09/14/2018	SIZE	D
		FSCM NO.	
		DWG. NO.	LPC54S018M-EVK
		REV	A
		SCALE	SHEET 13 OF 13