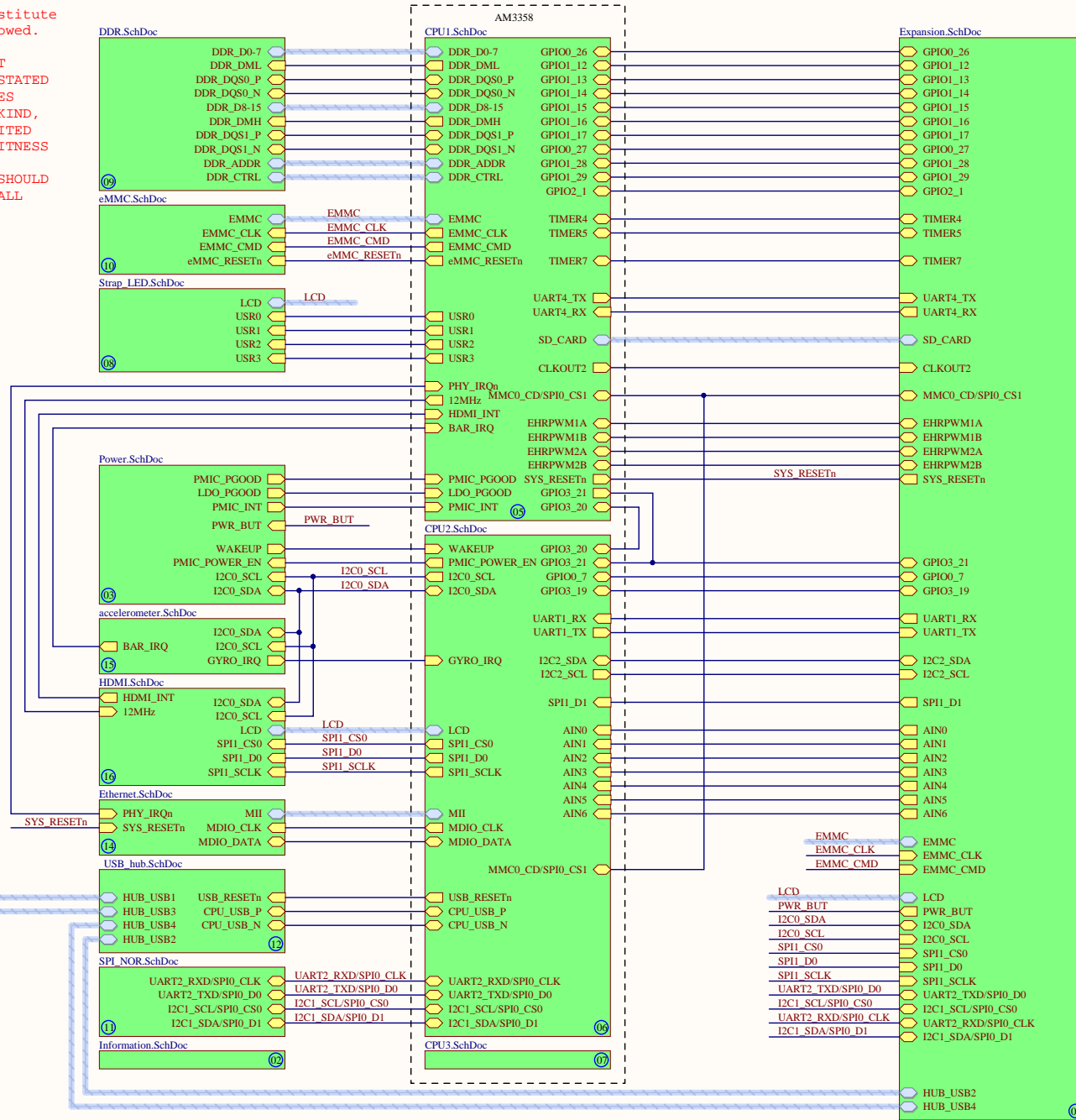


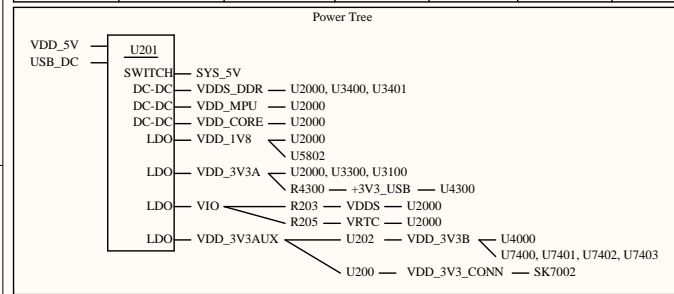
This schematic is *NOT SUPPORTED* and DOES NOT constitute a reference design. Only "community" support is allowed.

THERE IS NO WARRANTY FOR THIS DESIGN , TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE DESIGN "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE DESIGN IS WITH YOU. SHOULD THE DESIGN PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.



Block	Range	Page
Top Level	-	01
Information	4300 - 4399	02
DC-DC and Power	200 - 299	03
Port Expansion	7000 - 7099	04
CPU DDR, Clocks GPIOI	2000 - 2099	05
CPU GPIO2	2100 - 2199	06
CPU Power and Ground	2200 - 2299	07
CPU Pin Strapping and LEDs	7100 - 7199	08
DDR	3400 - 3499	09
eMMC Flash	3300 - 3099	10
SPI NOR Flash	3100 - 3199	11
USB Hub	4300 - 4399	12
USB Ports	4200 - 4299	13
Ethernet and RJ45	4000 - 4099	14
Accelerometer and Barometer	7400 - 7499	15
HDMI Port	5800 - 5899	16

1		2			3			4			
SYSBOOT[15:14]	SYSBOOT[13:12]	SYSBOOT[11:10]	SYSBOOT[9]	SYSBOOT[8]	SYSBOOT[7:6]	SYSBOOT[5]	SYSBOOT[4:0]	Boot Sequence			
00b = 19.2MHz 01b = 24MHz 10b = 25MHz 11b = 26MHz	00b (all other values reserved)	Don't care for ROM code	Don't care for ROM code	Don't care for ROM code	Don't care for ROM code	0 = CLKOUTI disabled 1 = CLKOUTI enabled	11100b <-	MMC1 SW7100 open	MMCO SW7100 closed	UART0	USB0
00b = 19.2MHz 01b = 24MHz 10b = 25MHz 11b = 26MHz	00b (all other values reserved)	Don't care for ROM code	Don't care for ROM code	Don't care for ROM code	Don't care for ROM code	0 = CLKOUTI disabled 1 = CLKOUTI enabled	11000b	SPi0 SW7100 open	MMCO SW7100 closed	USB0	UART0



I2C Buses			
BUS	DEVICE	FUNCTION	I2C READ ADDR
I2C0	U201	REGULATOR	REGULATOR
	U7000	EEPROM	EEPROM
	U7400	MPU-9150 Gyro, Accelerometer, Compass	0xC0 or 0xC1
	U7401	MPU-6000 Gyro, Accelerometer	0xC0 or 0xC1
	U7402	MPU-9250 Gyro, Accelerometer, Compass	0xC0 or 0xC1
	U7403	LPS331AP Barometer	0xC8 or 0xBA
I2C1	U5802	TD19988 HDMI Transmitter	
	-	Expansion Port	

[illegible]

* If Part Is Fitted Only
 § VIO is a combination of VDDS and VRTC
 ~ VDD 1V8 is a combination of VDD_PLL, VDD_ADC and VDD_1V8

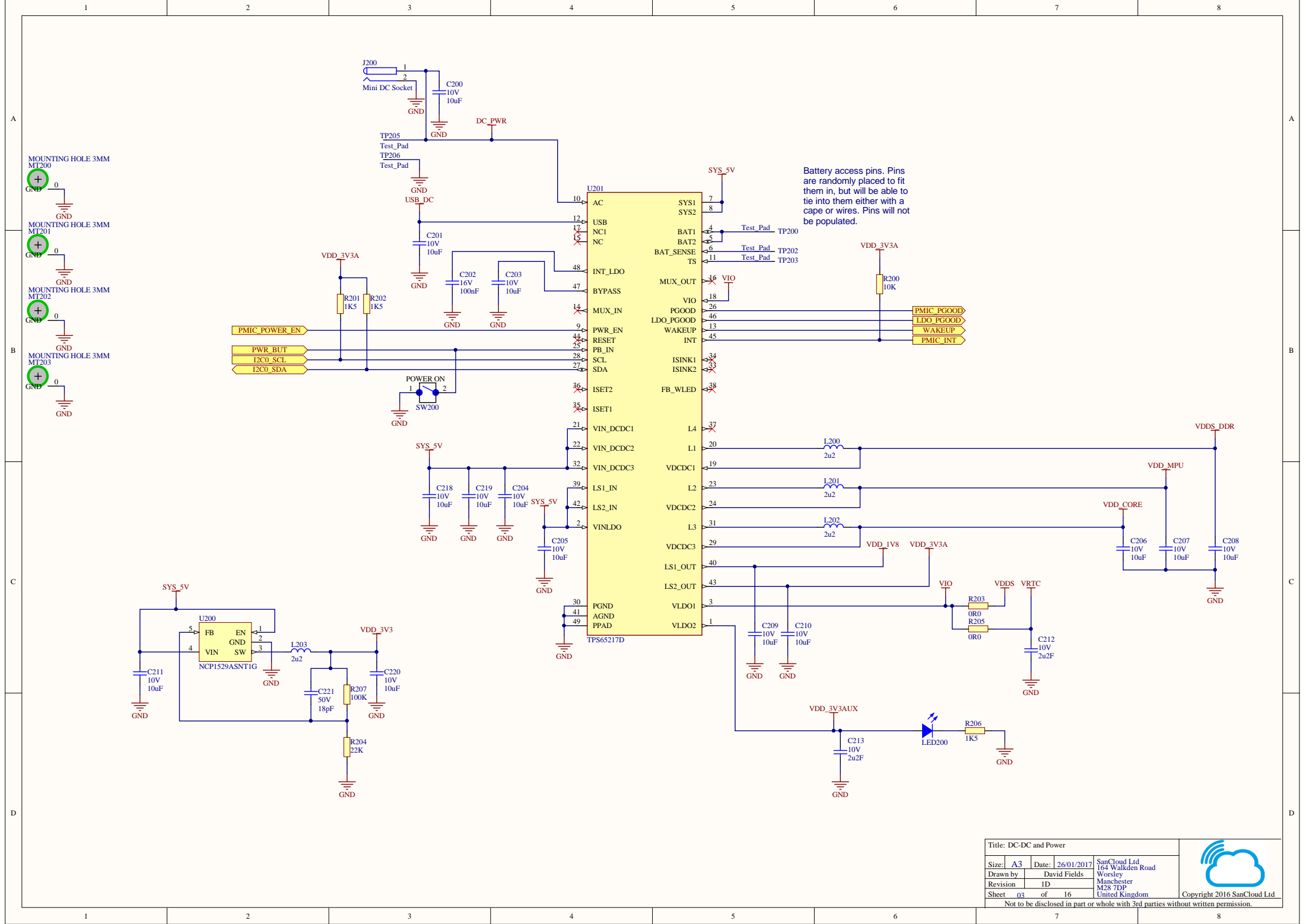
Version	Description
1D	Backer Released Design

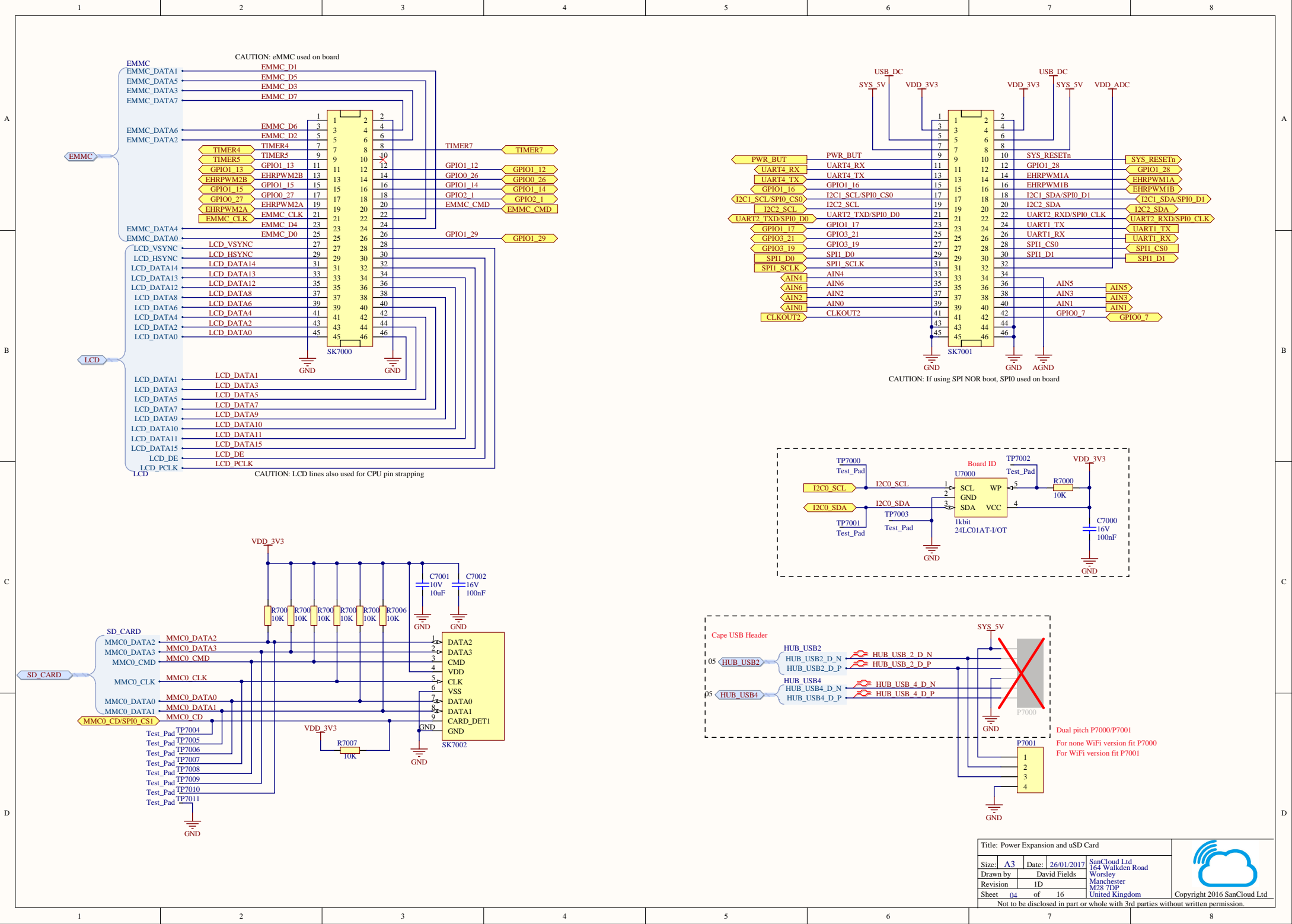
Notes:

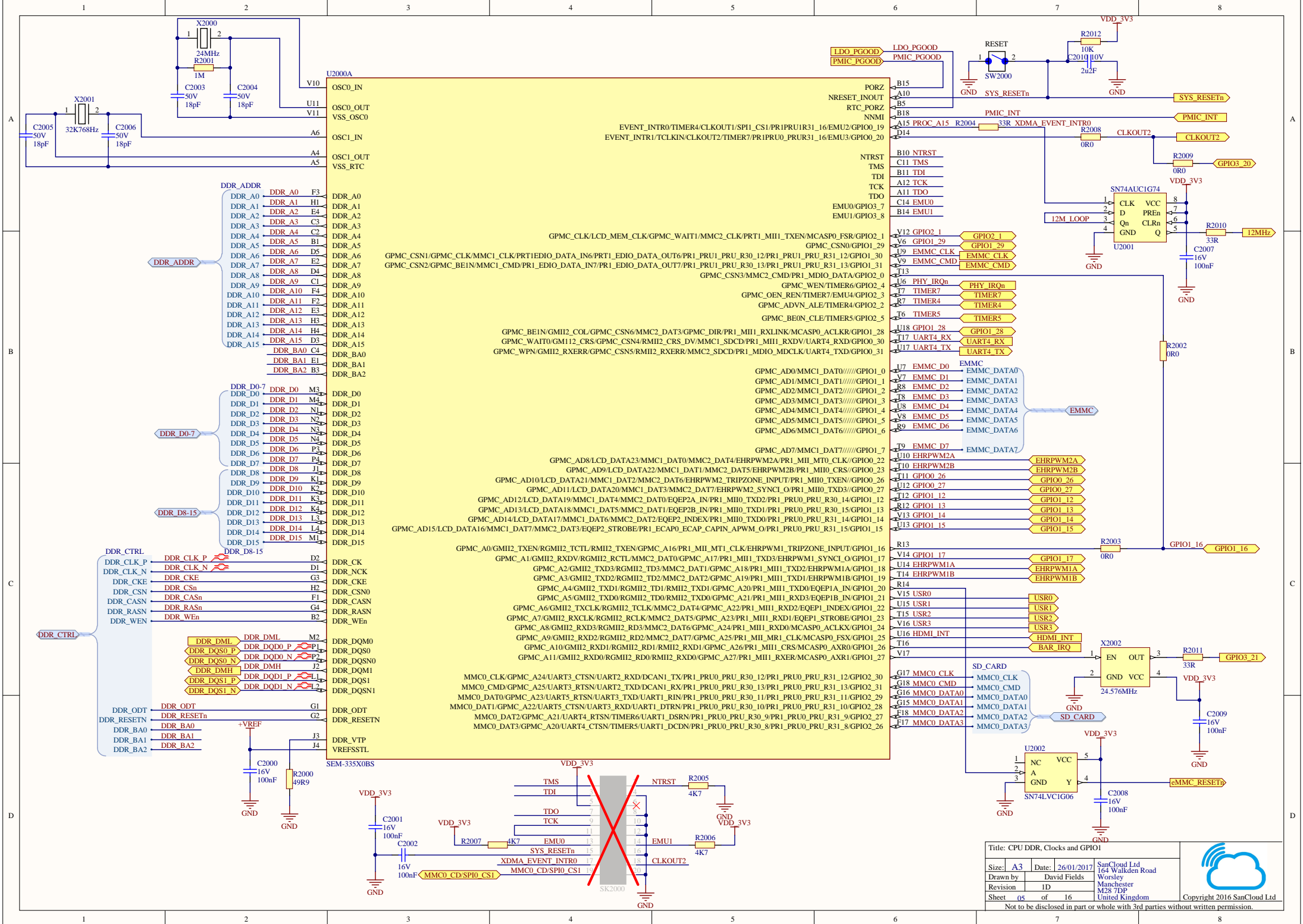
USB OTG Port - Normally USB port 0 on U2000 is configured for a device port only. Since this port is an On The Go port it can be configured for host mode instead. To use USB 0 has host mode R2000 and R2104 must be fitted. R2000 means U2000 is in host mode. R2104 is to make the OTG port provide power to the external device. The Linux Kernel must also be recompiled to enable USB 0 in host mode.

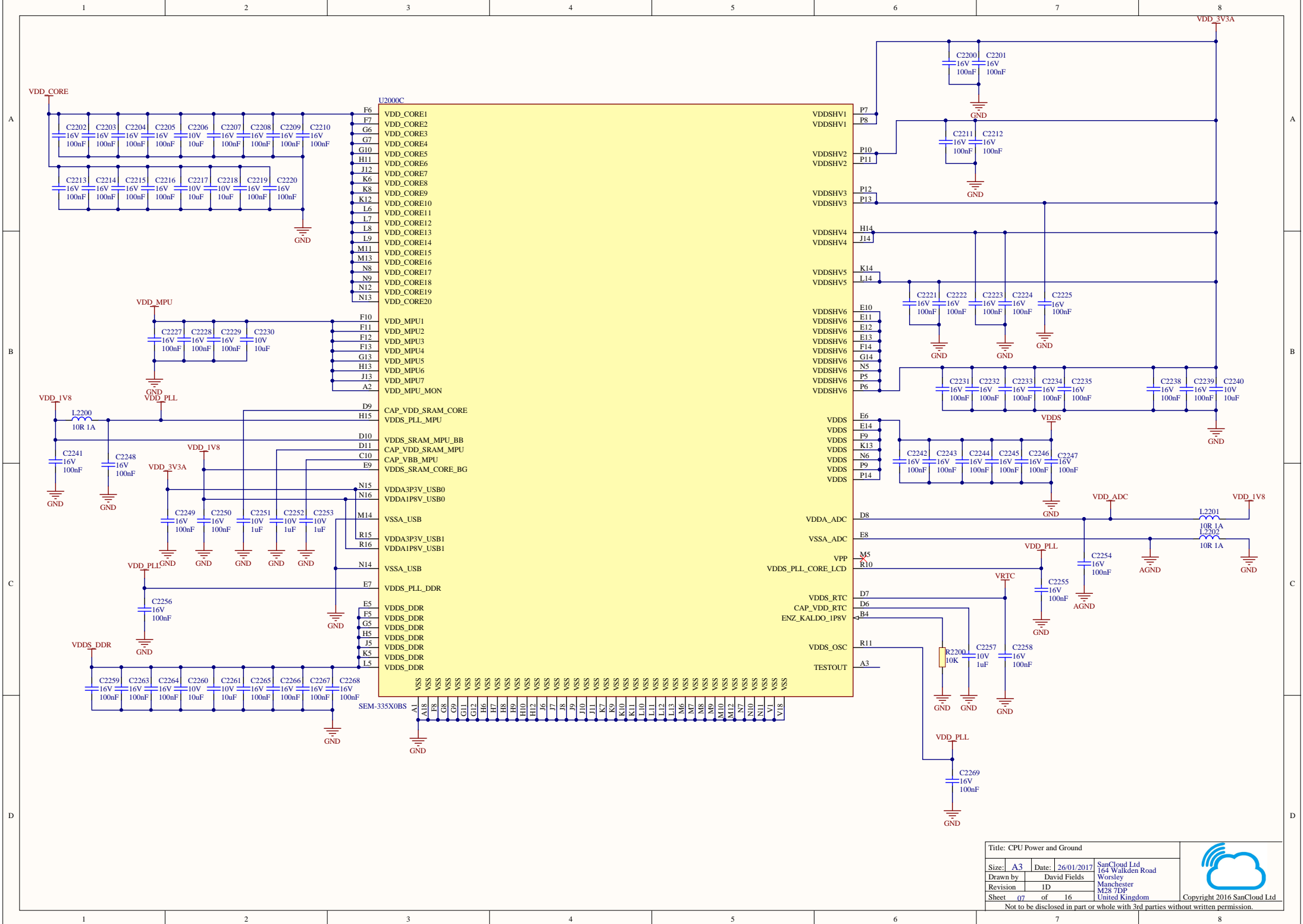
SPI NOR - Standard boot device is eMMC flash. It is possible to make U2000 boot from SPI NOR instead. This has several security benefits since the bootloader is now separate from the application image. To enable this mode `SYSMODE[2]` must change from 1 to 0. This is done by removing R7135 and fitting R7114. U3100 must also be fitted. Be aware that SPI NOR signals are also used on the expansion port.

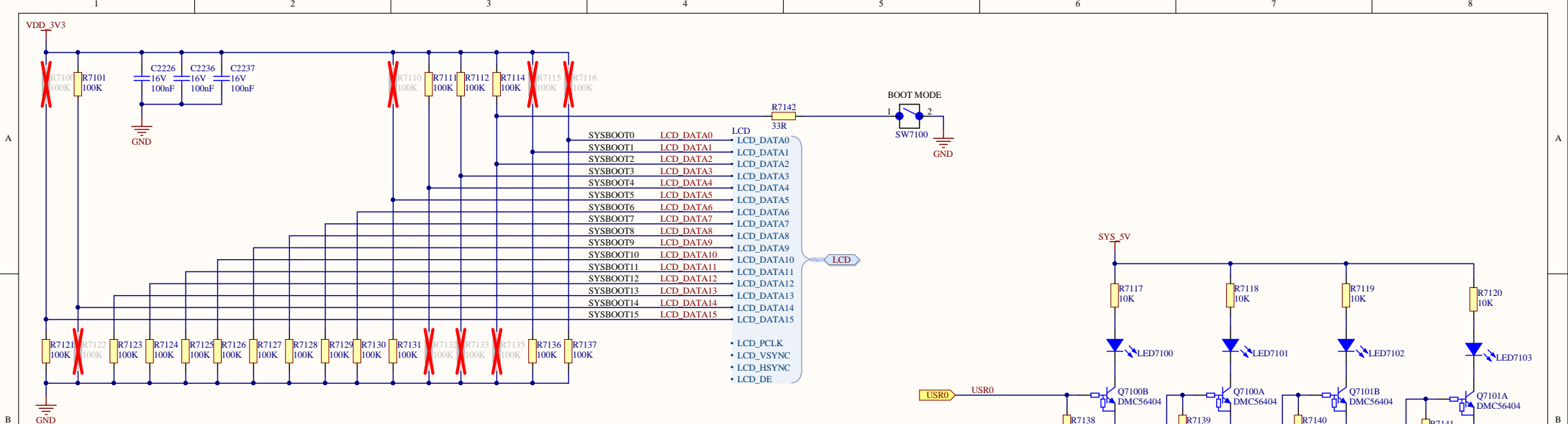
Title: Information			
Size: <u>A3</u>	Date: <u>26/01/2017</u>	SanCloud Ltd 164 Walkden Road Worsley Manchester M28 7DP United Kingdom	
Drawn by	David Fields		
Revision	1D		
Sheet <u>02</u> of 16		Copyright 2016 SanCloud Ltd	
Not to be disclosed in part or whole with 3rd parties without written permission.			



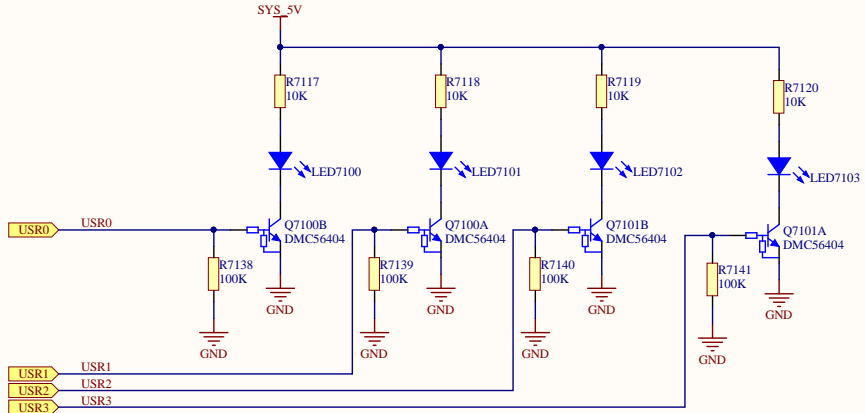


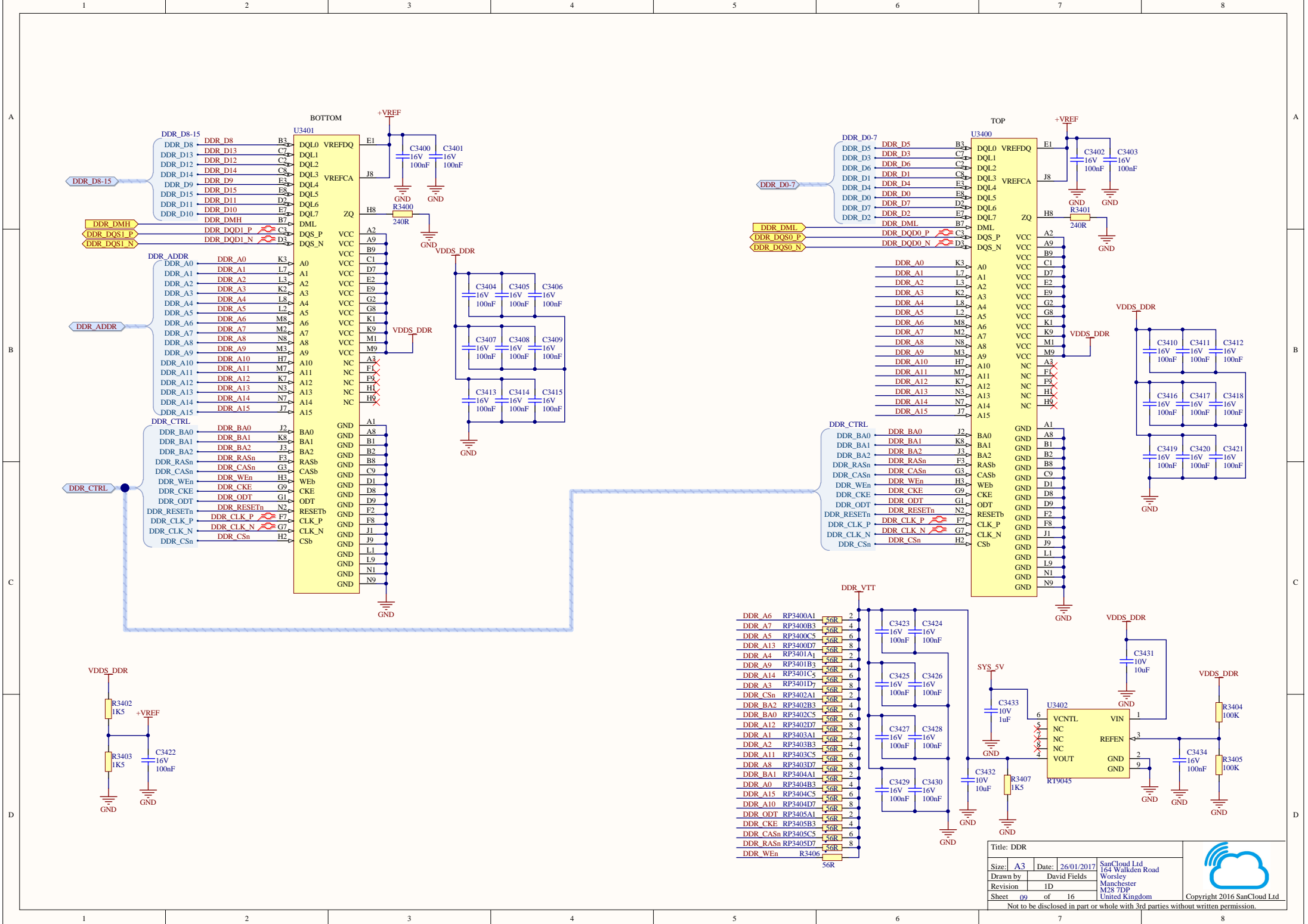


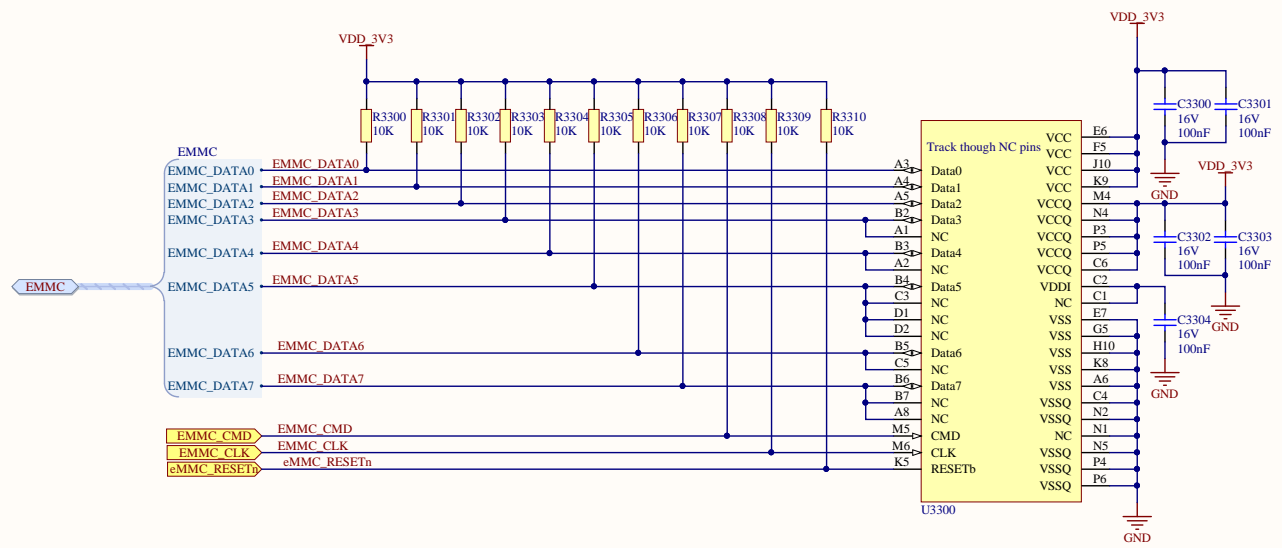


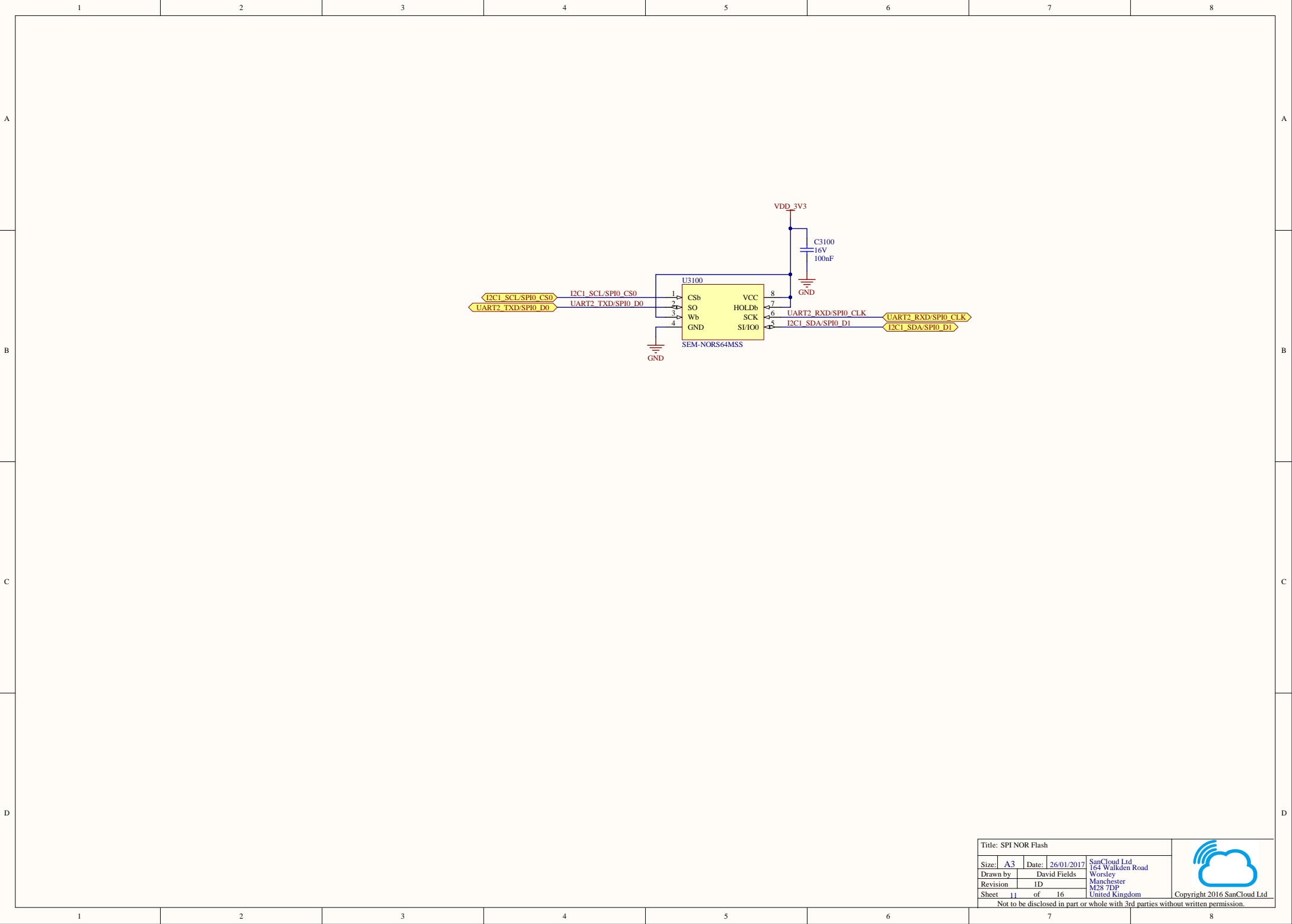


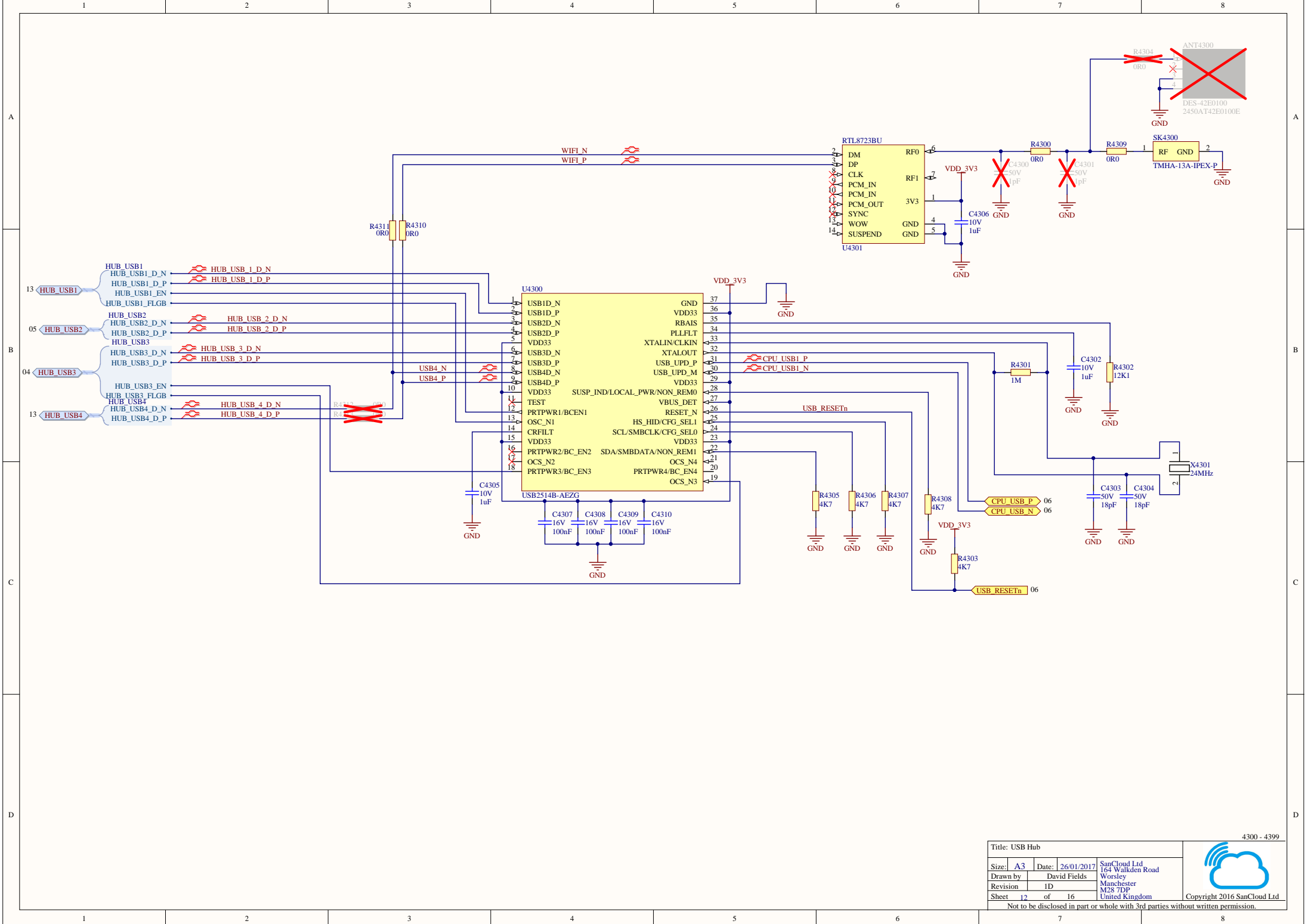
SYSBOOT[15:14]	SYSBOOT[13:12]	SYSBOOT[11:10]	SYSBOOT[9]	SYSBOOT[8]	SYSBOOT[7:6]	SYSBOOT[5]	SYSBOOT[4:0]	Boot Sequence			
00b = 19.2MHz 01b = 24MHz 10b = 25MHz 11b = 26MHz	00b (all other values reserved)	Don't care for ROM code	Don't care for ROM code	Don't care for ROM code	Don't care for ROM code	0 = CLKOUT1 disabled 1 = CLKOUT1 enabled	11100b <-	MMC1 SW7100 open	MMC0 SW7100 closed	UART0	USB0
00b = 19.2MHz 01b = 24MHz 10b = 25MHz 11b = 26MHz	00b (all other values reserved)	Don't care for ROM code	Don't care for ROM code	Don't care for ROM code	Don't care for ROM code	0 = CLKOUT1 disabled 1 = CLKOUT1 enabled	11000b	SPI0 SW7100 open	MMC0 SW7100 closed	USB0	UART0

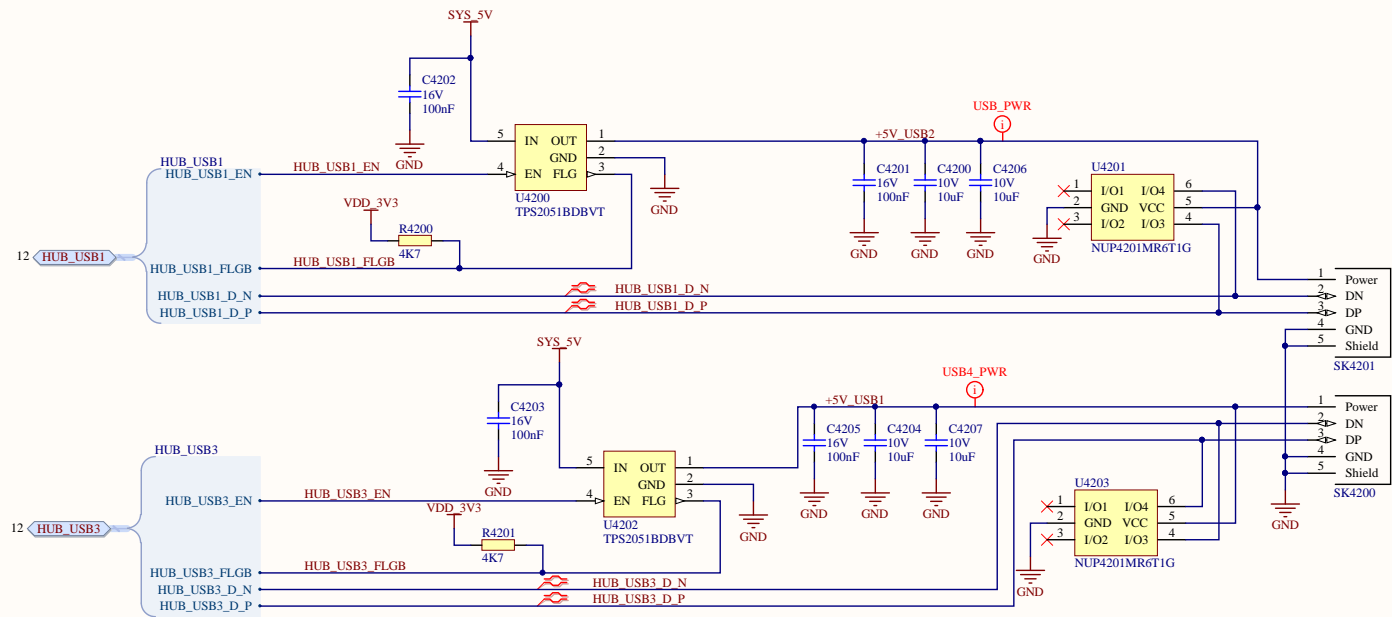












A

B

C

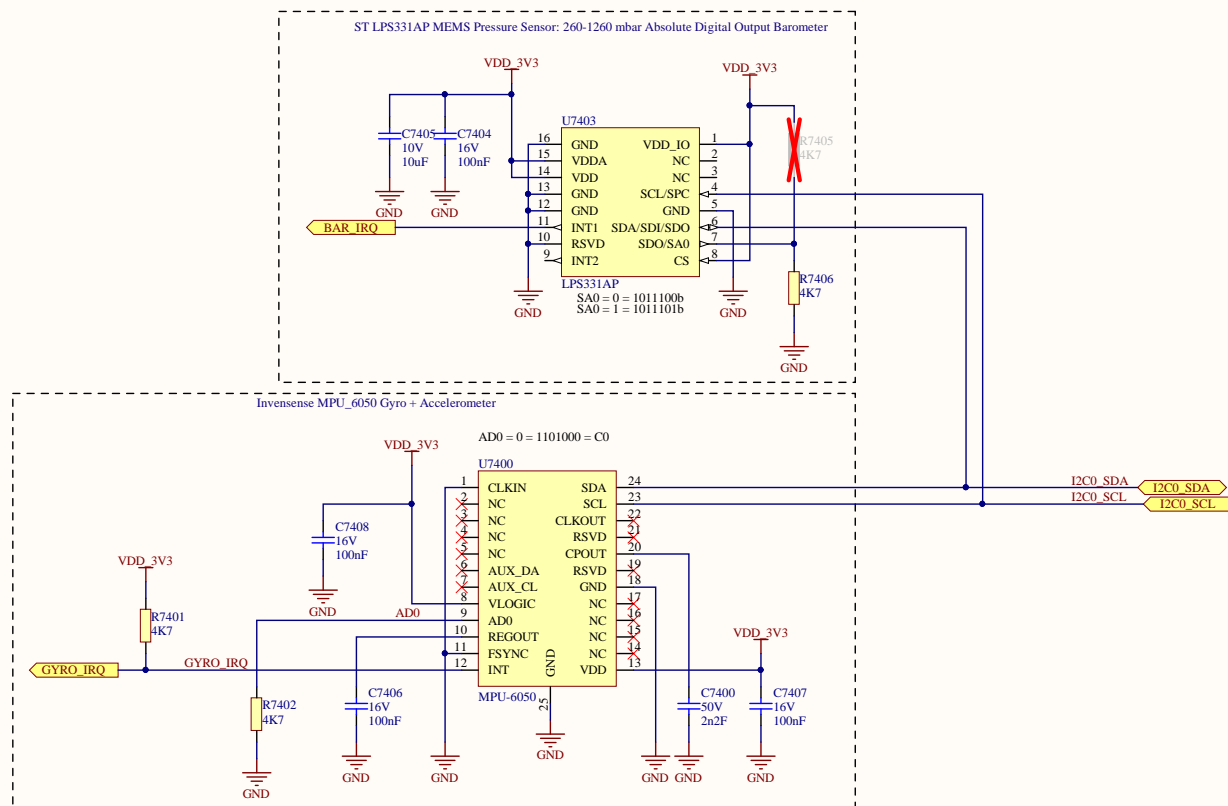
D


A

B

C

D



Title: Accelerometer and Barometer			
Size: A3	Date: 26/01/2017	SanCloud Ltd 164 Walkden Road Worsley Manchester M28 7DP United Kingdom Copyright 2016 SanCloud Ltd	
Drawn by: David Fields			
Revision: 1D			
Sheet 15 of 16			
Not to be disclosed in part or whole with 3rd parties without written permission.			

1

2

3

4

5

6

7

8

