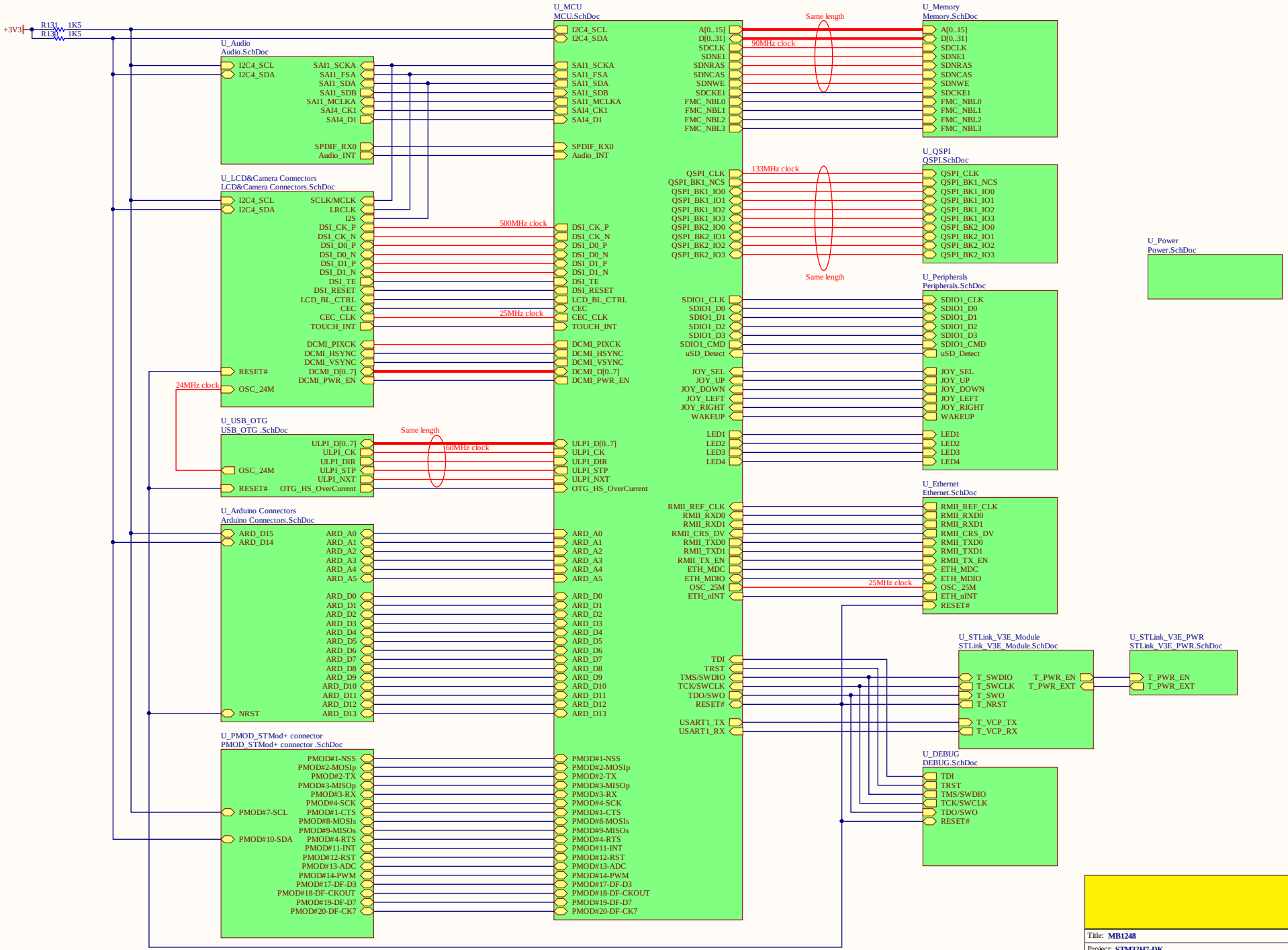
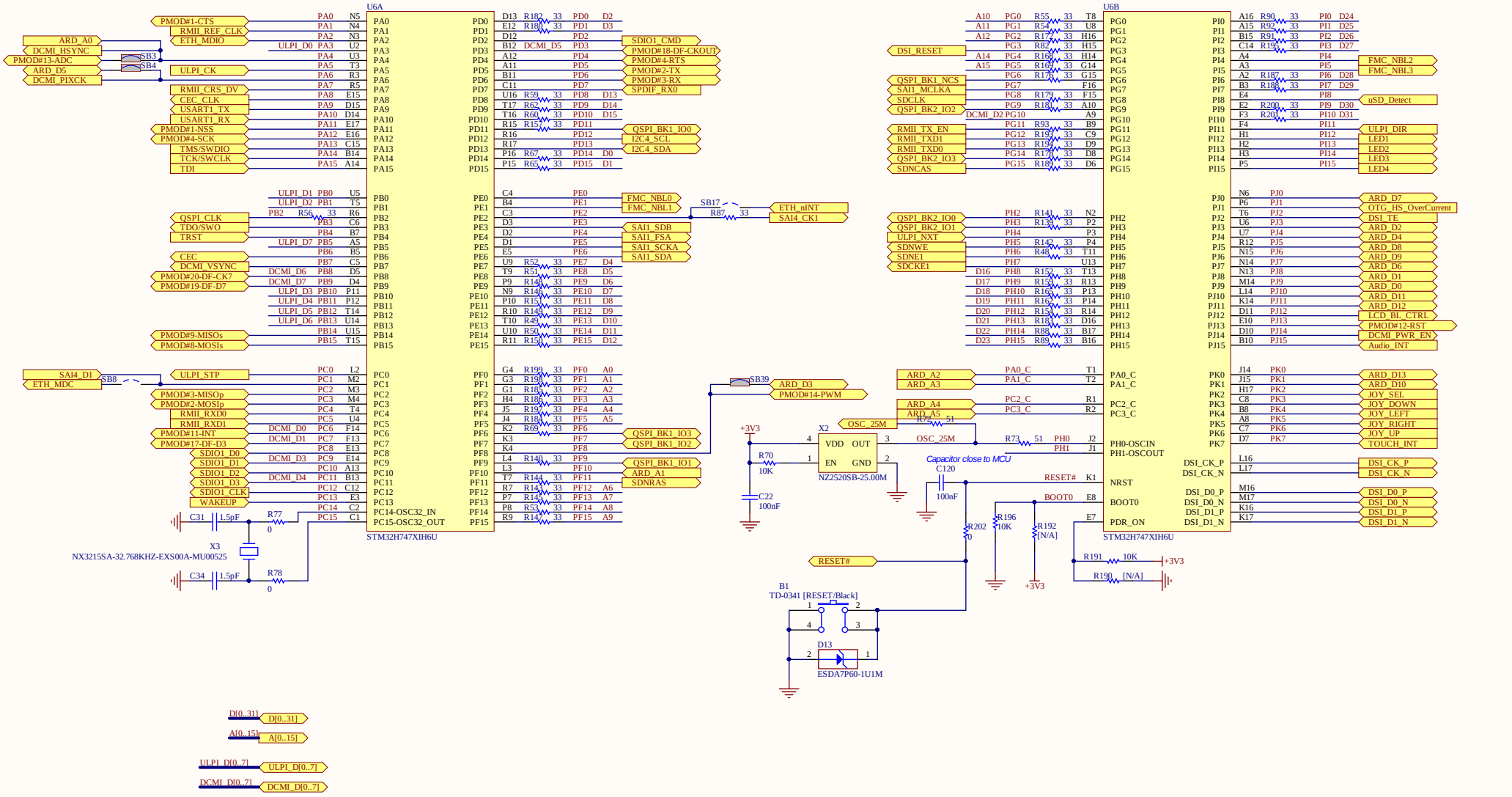


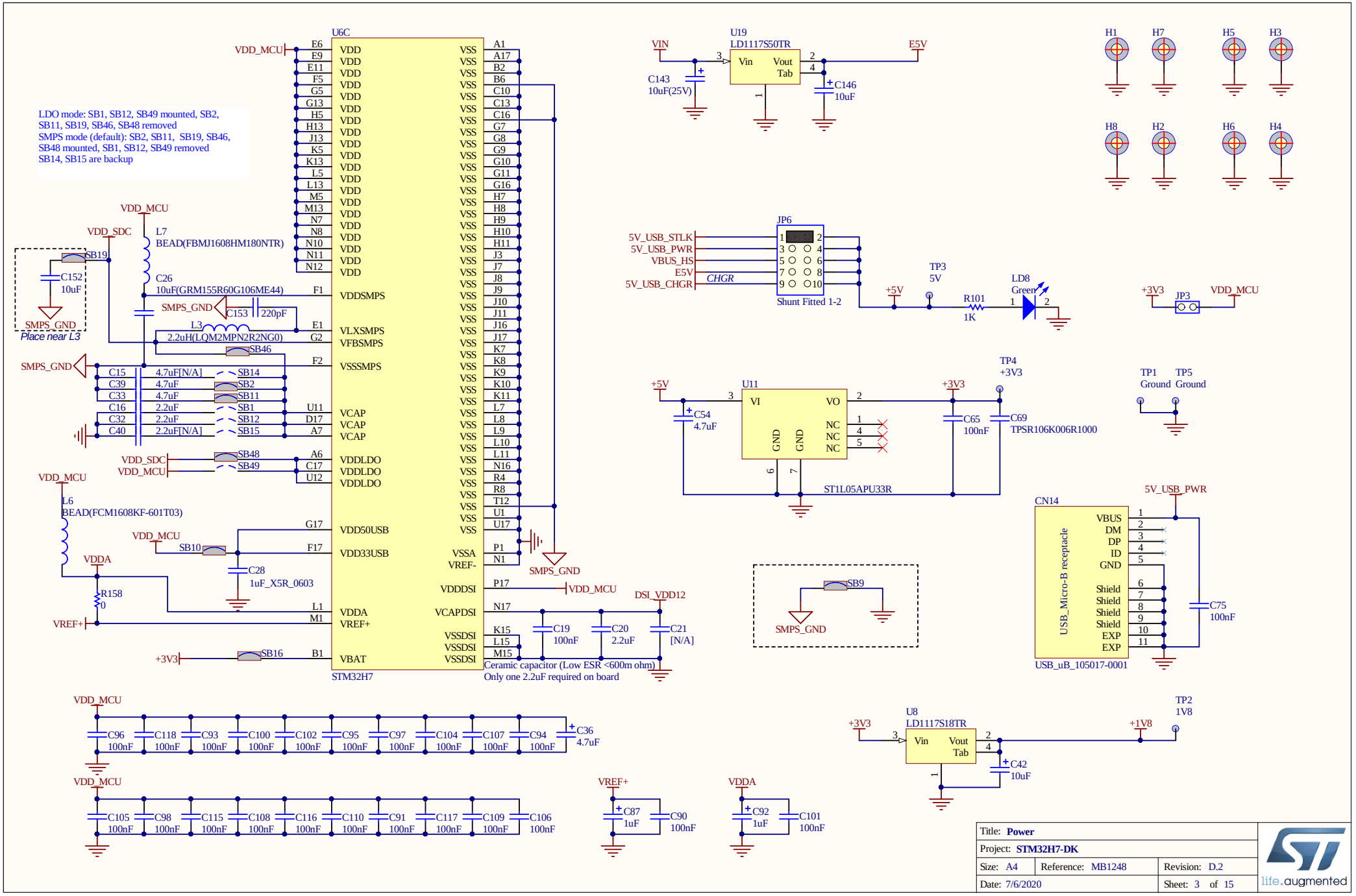
Title: **MB1248**			
Project: **STM32H7-DK**			
Size: A3	Reference: MB1248	Revision: D.2	
Date: 1/21/2019		Sheet: 1 of 15	

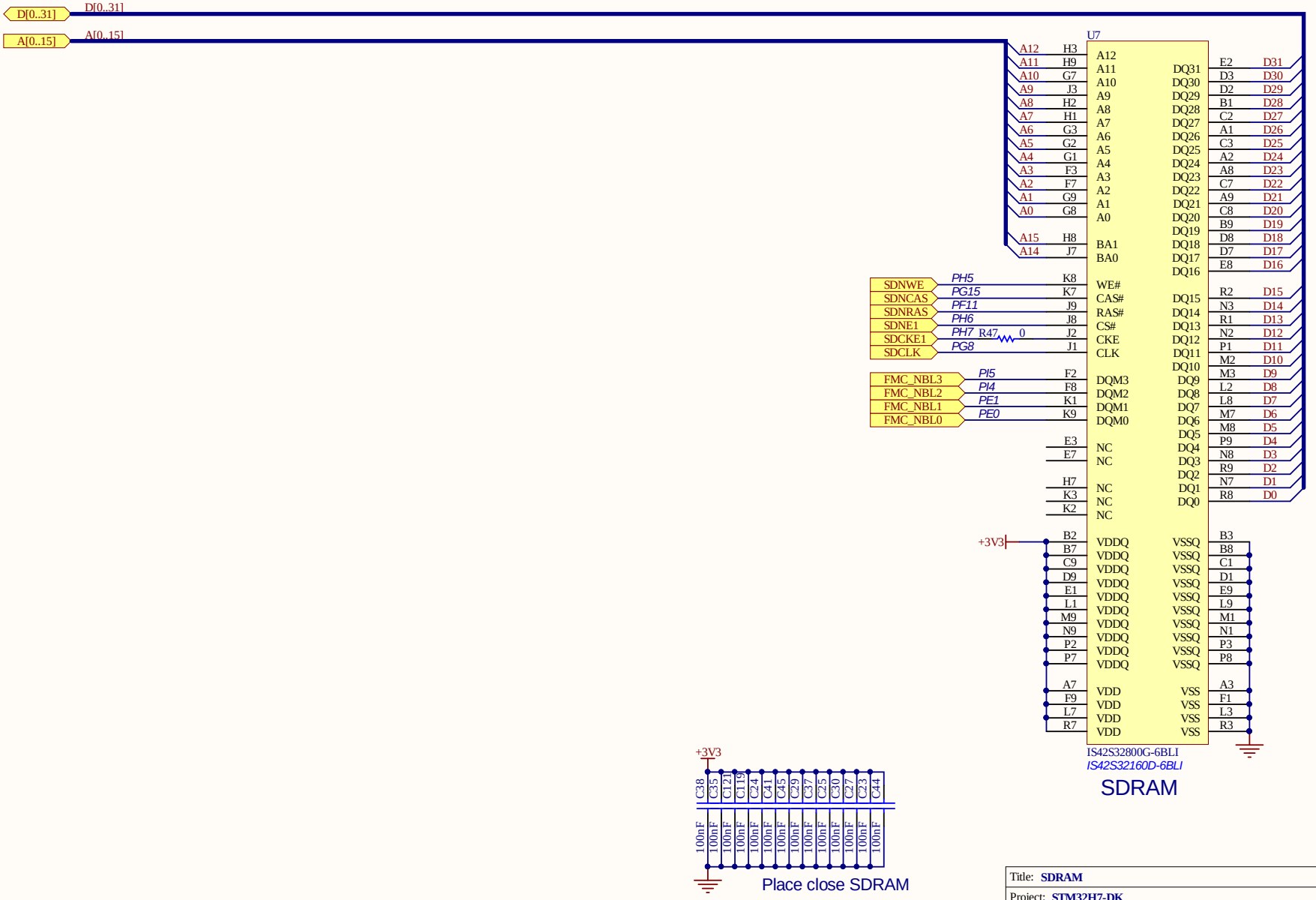
life.augmented



Title: **MCU**			
Project: **STM32H7-DK**			
Size: A3	Reference: MB1248		Revision: D.2
Date: 1/21/2019			Sheet: 2 of 15

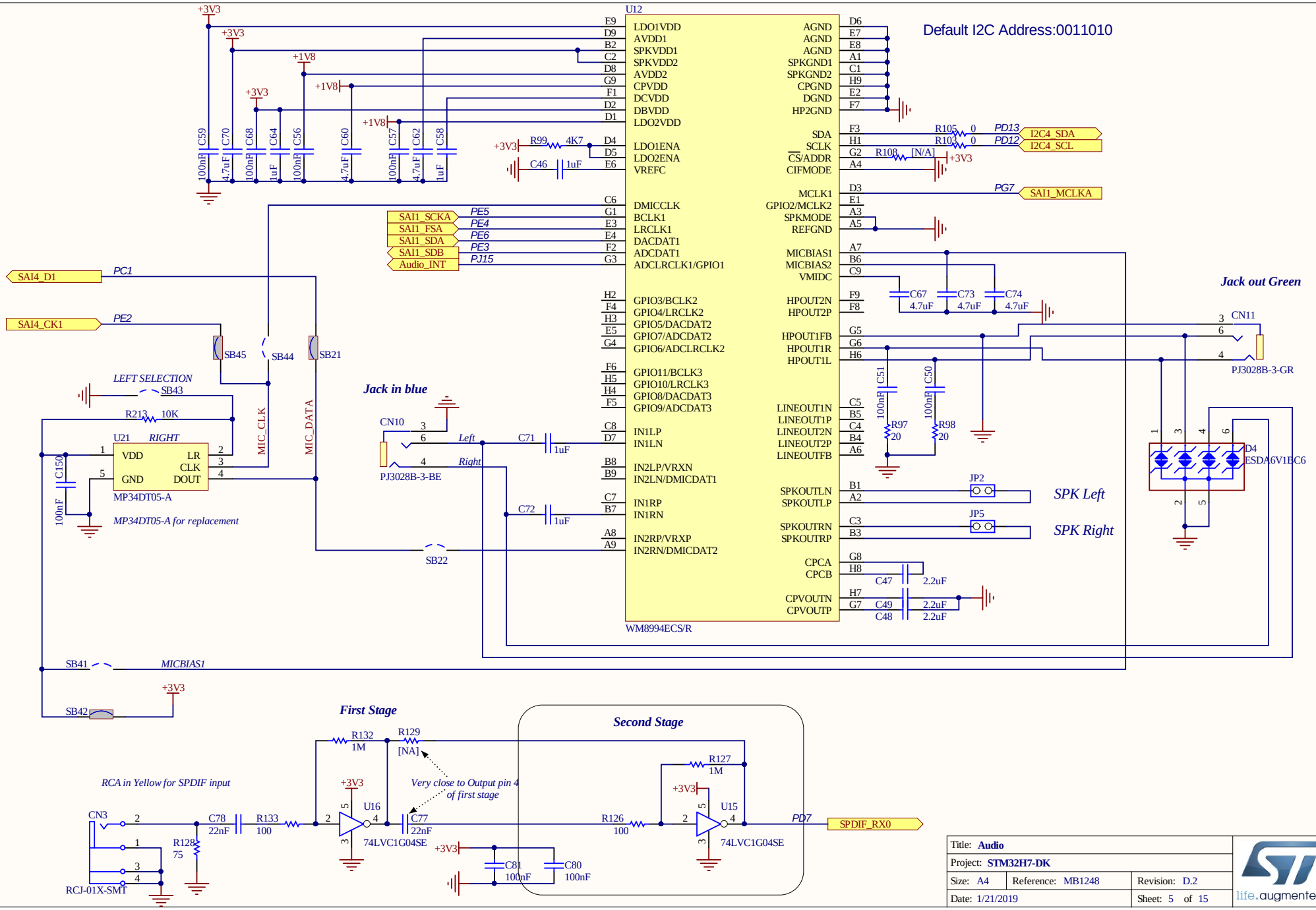
life.augmented


LDO mode: SB1, SB12, SB49 mounted, SB2, SB11, SB19, SB46, SB48 removed
SMPS mode (default): SB2, SB11, SB19, SB46, SB48 mounted, SB1, SB12, SB49 removed
SB14, SB15 are backup
U6C
STM32H7
U19
LD1117S50TR
U11
ST1L05APU33R
U8
LD1117S18TR
JP6
Shunt Fitted 1-2
CN14
USB_uB_105017-0001
Ceramic capacitor (Low ESR <600m ohm)
Only one 2.2uF required on board
Place near L3
Title: Power
Project: STM32H7-DK
Size: A4
Reference: MB1248
Revision: D.2
Date: 7/6/2020
Sheet: 3 of 15
life.augmented

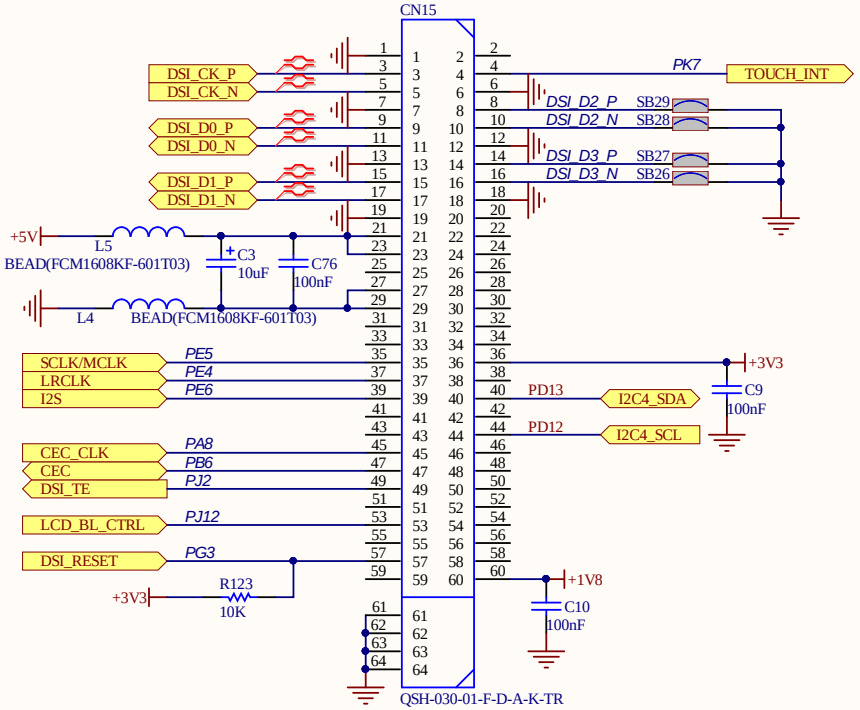


Title: **SDRAM**		
Project: **STM32H7-DK**		
Size: A4	Reference: MB1248	Revision: D.2
Date: 1/21/2019		Sheet: 4 of 15

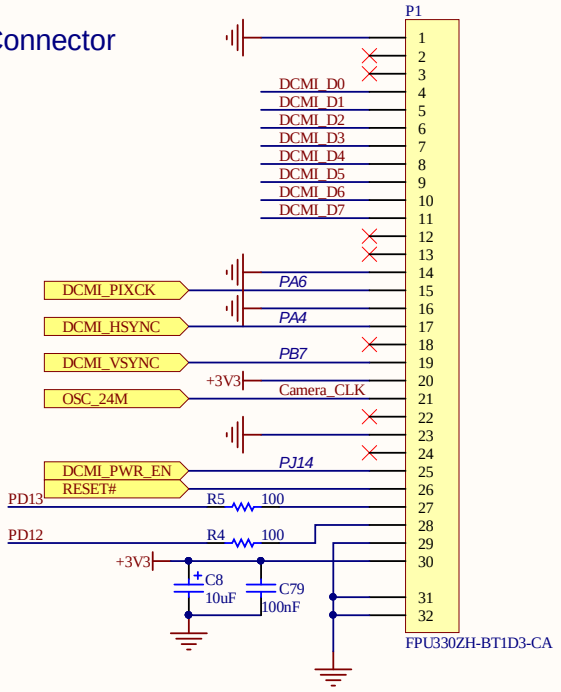
life.augmented


Default I2C Address:0011010
U12
WM8994ECS/R
LDO1VDD
AVDD1
SPKVDD1
SPKVDD2
AVDD2
CPVDD
DCVDD
DBVDD
LDO2VDD
LDO1ENA
LDO2ENA
VREFC
DMICCLK
BCLK1
LRCLK1
DACDAT1
ADCDAT1
ADCLRCLK1/GPIO1
GPIO3/BCLK2
GPIO4/LRCLK2
GPIO5/DACDAT2
GPIO7/ADCDAT2
GPIO6/ADCLRCLK2
GPIO11/BCLK3
GPIO10/LRCLK3
GPIO8/DACDAT3
GPIO9/ADCDAT3
IN1LP
IN1LN
IN2LP/VRXN
IN2LN/DMICDAT1
IN1RP
IN1RN
IN2RP/VRXP
IN2RN/DMICDAT2
AGND
SPKGND1
SPKGND2
CPGND
DGND
HP2GND
SDA
SCLK
CS/ADDR
CIFMODE
MCLK1
GPIO2/MCLK2
SPKMODE
REFGND
MICBIAS1
MICBIAS2
VMIDC
HPOUT2N
HPOUT2P
HPOUT1FB
HPOUT1R
HPOUT1L
LINEOUT1N
LINEOUT1P
LINEOUT2N
LINEOUT2P
LINEOUTFB
SPKOUTLN
SPKOUTLP
SPKOUTRN
SPKOUTRP
CPCA
CPCB
CPVOUTN
CPVOUTP
+3V3
+1V8
R99 4K7
C46 1uF
R105 0
R103 0
R108 [N/A]
PD13
PD12
I2C4_SDA
I2C4_SCL
PG7
SAI1_MCLKA
SAI1_SCKA
SAI1_FSA
SAI1_SDA
SAI1_SDB
Audio_INT
PE5
PE4
PE6
PE3
PJ15
SAI4_D1
PC1
SAI4_CK1
PE2
SB45
SB44
SB21
SB22
SB43
LEFT SELECTION
R213 10K
MIC_CLK
MIC_DATA
U21 RIGHT
VDD
GND
LR
CLK
DOUT
MP34DT05-A
MP34DT05-A for replacement
C150 100nF
Jack in blue
CN10
Left
Right
PJ3028B-3-BE
C71 1uF
C72 1uF
C67 4.7uF
C73 4.7uF
C74 4.7uF
Jack out Green
CN11
PJ3028B-3-GR
C51 100nF
C50 100nF
R97 20
R98 20
D4
ESDA6V1BC6
JP2
JP5
SPK Left
SPK Right
C47 2.2uF
C49 2.2uF
C48 2.2uF
SB41
MICBIAS1
SB42
First Stage
Second Stage
RCA in Yellow for SPDIF input
CN3
RCJ-01X-SMT
R128 75
C78 22nF
R133 100
R132 1M
R129 [NA]
Very close to Output pin 4 of first stage
U16
74LVC1G04SE
C77 22nF
C81 100nF
C80 100nF
R127 1M
R126 100
U15
74LVC1G04SE
PD7
SPDIF_RX0
Title: Audio
Project: STM32H7-DK
Size: A4
Reference: MB1248
Revision: D.2
Date: 1/21/2019
Sheet: 5 of 15
life.augmented

DSI LCD

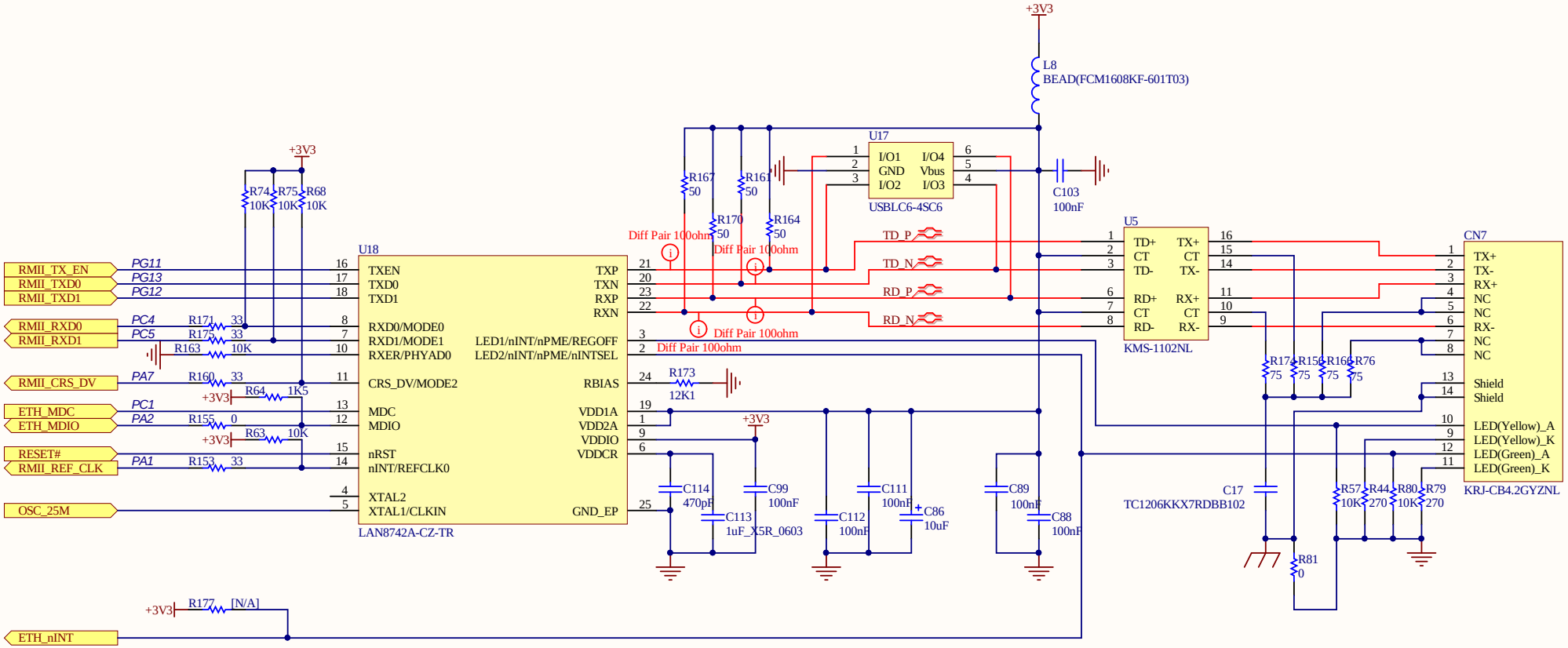


Camera Connector



Title: **LCD&Camera Connectors**		
Project: **STM32H7-DK**		
Size: A4	Reference: MB1248	Revision: D.2
Date: 1/21/2019		Sheet: 6 of 15

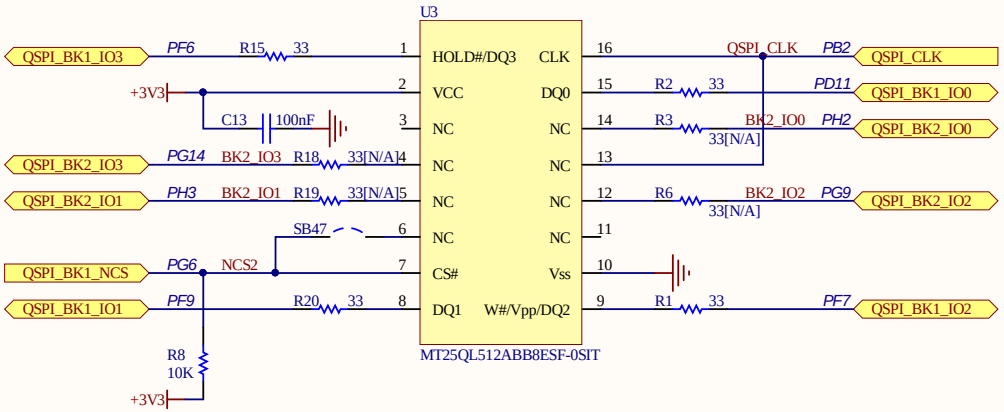
life.augmented

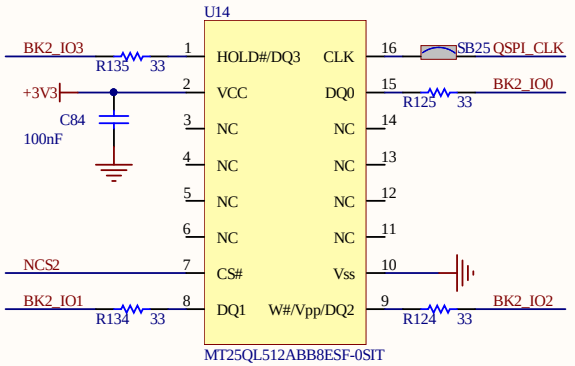


Title: **Ethernet**		
Project: **STM32H7-DK**		
Size: A4	Reference: MB1248	Revision: D.2
Date: 1/21/2019		Sheet: 7 of 15

life.augmented

Twin Quad SPI Flash





Two QSPI Flash solution

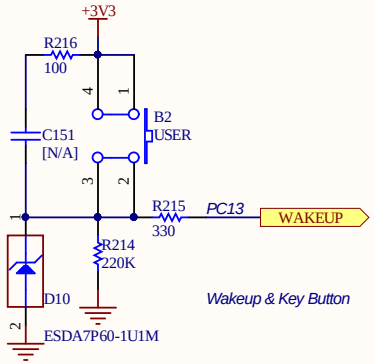
Twin Quad SPI Flash solutions:

One Twin Quad SPI Fllash	U3:MT25TL01GHBB8ESF-0SIT	U14:NA	R3/R6/R18/R19, SB47 ON	R124/R125/R134/R135, SB25, C84 OFF
Two Quad SPI Fllash (default)	U3:MT25QL512ABB8ESF-0SIT	U14:MT25QL512ABB8ESF-0SIT	R124/R125/R134/R135, SB25, C84 ON	R3/R6/R18/R19, SB47 OFF

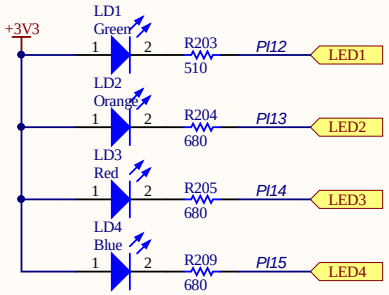
Title: **QSPI**		
Project: **STM32H7-DK**		
Size: A4	Reference: MB1248	Revision: D.2
Date: 1/21/2019		Sheet: 8 of 15

life.augmented

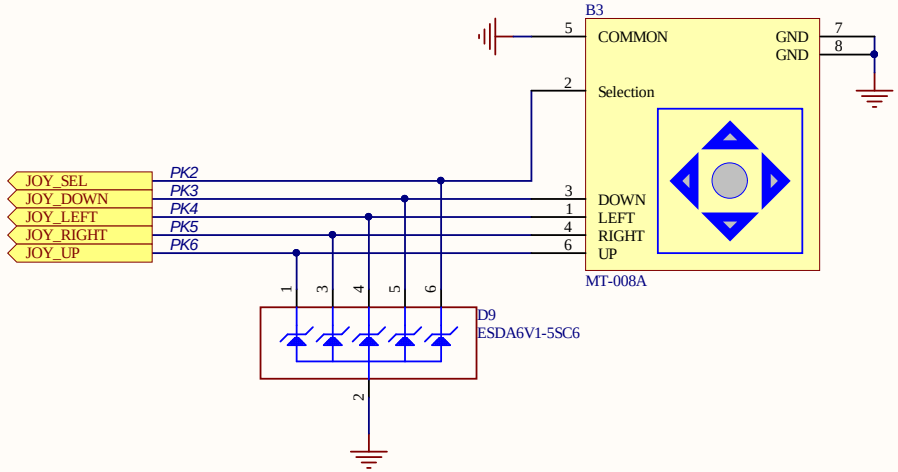
Buttons



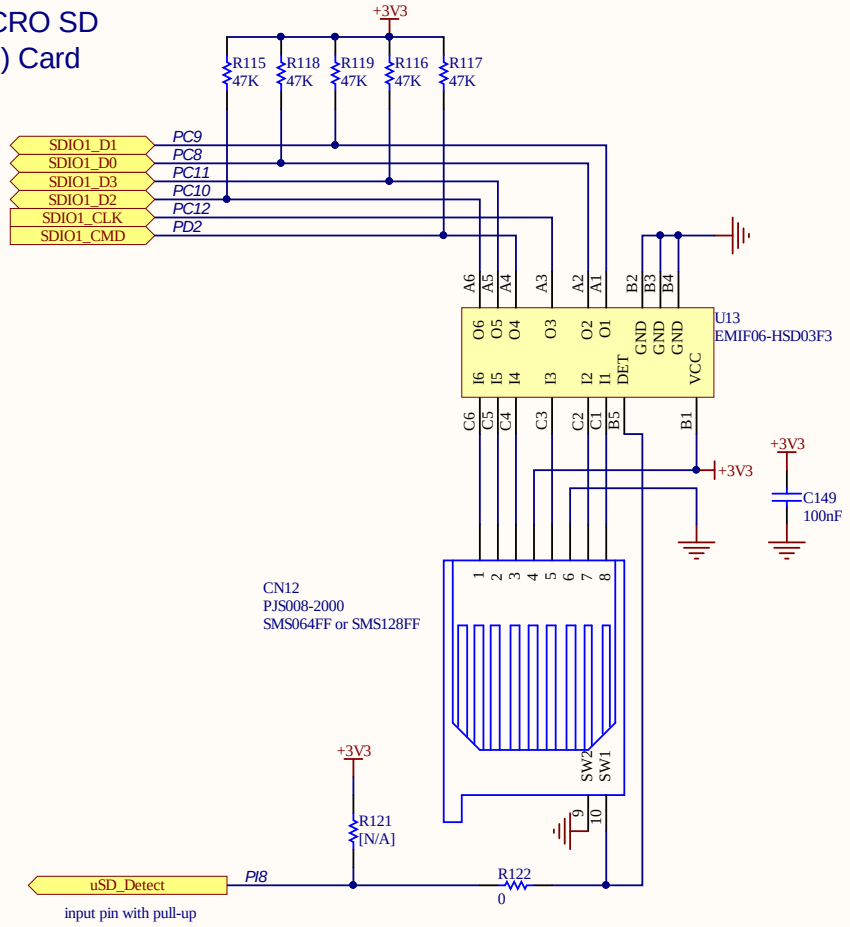
LEDs



Joystick



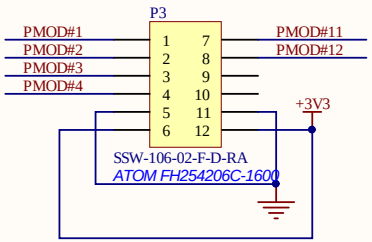
MICRO SD (TF) Card



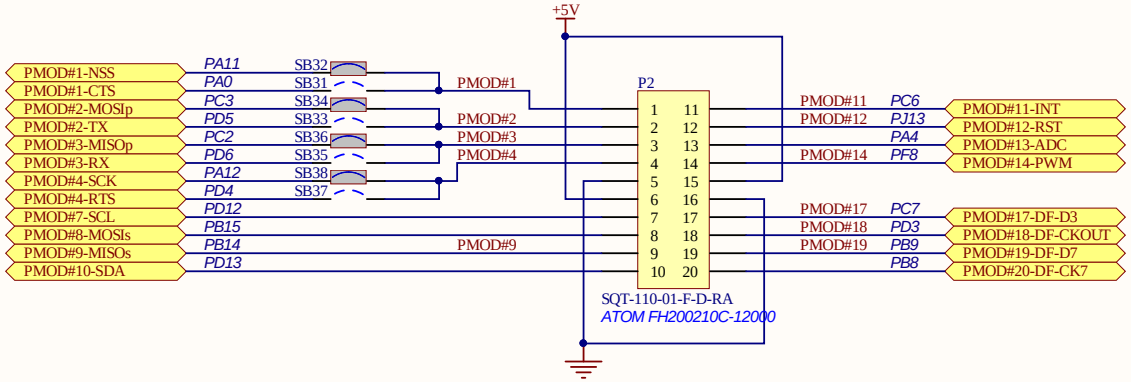
Title: **Peripherals**			
Project: **STM32H7-DK**			
Size: A4	Reference: MB1248	Revision: D.2	
Date: 1/21/2019		Sheet: 9 of 15	

life.augmented

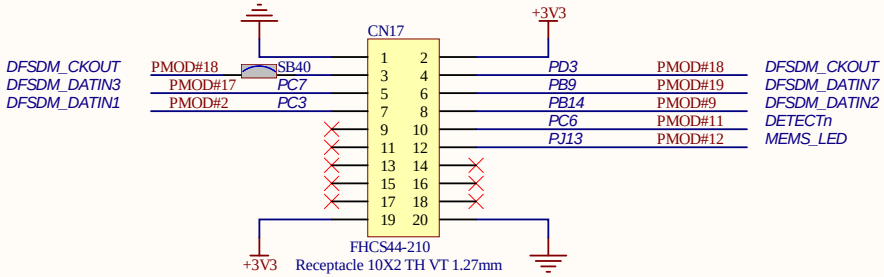
PMOD



STMod+

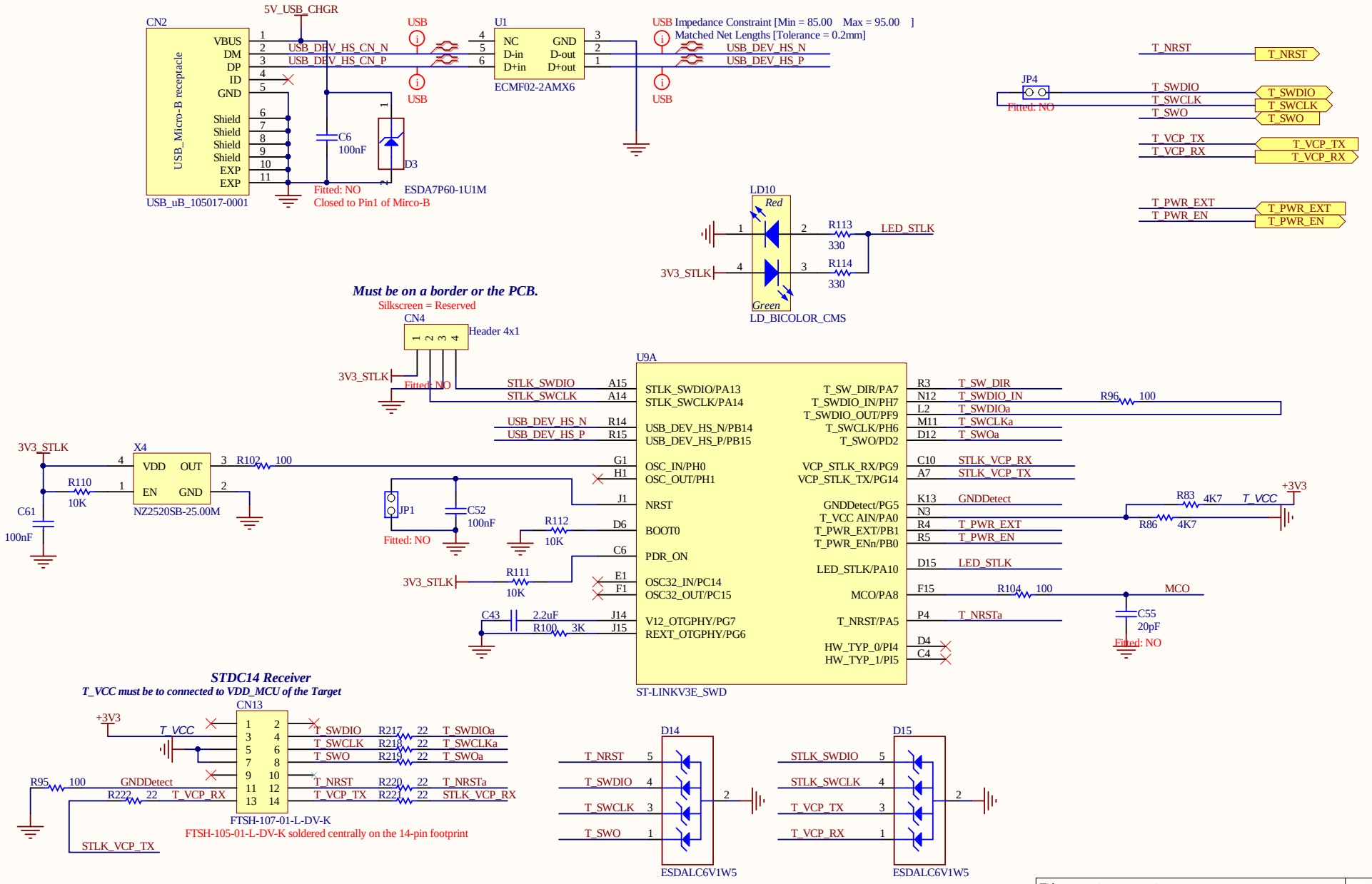


Audio Connector



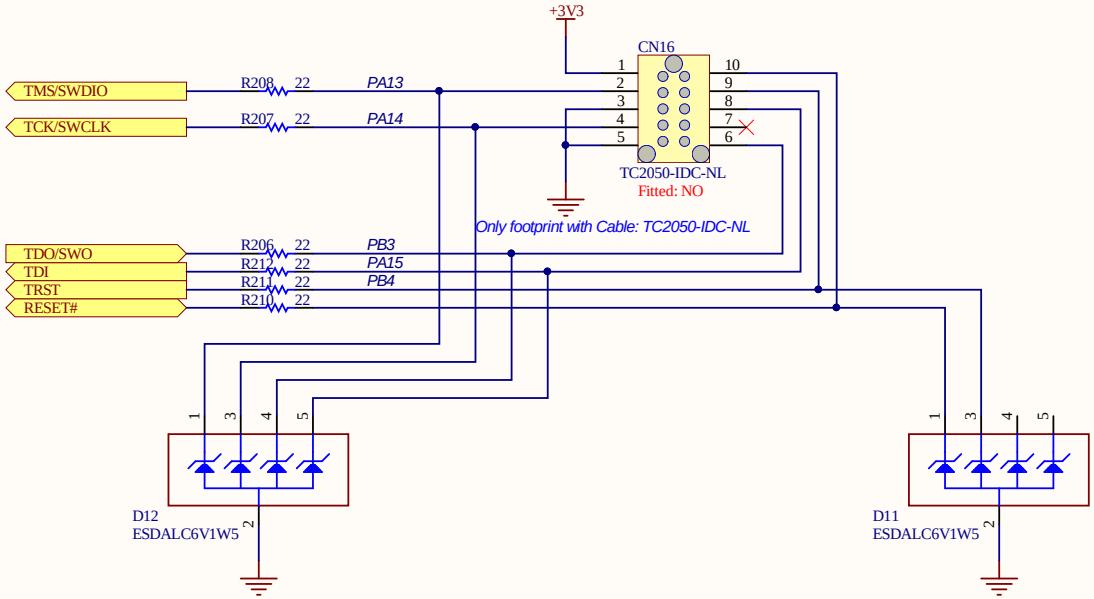
Title: **PMOD_STMod+ connector**		
Project: **STM32H7-DK**		
Size: A4	Reference: MB1248	Revision: D.2
Date: 1/21/2019		Sheet: 10 of 15

life.augmented



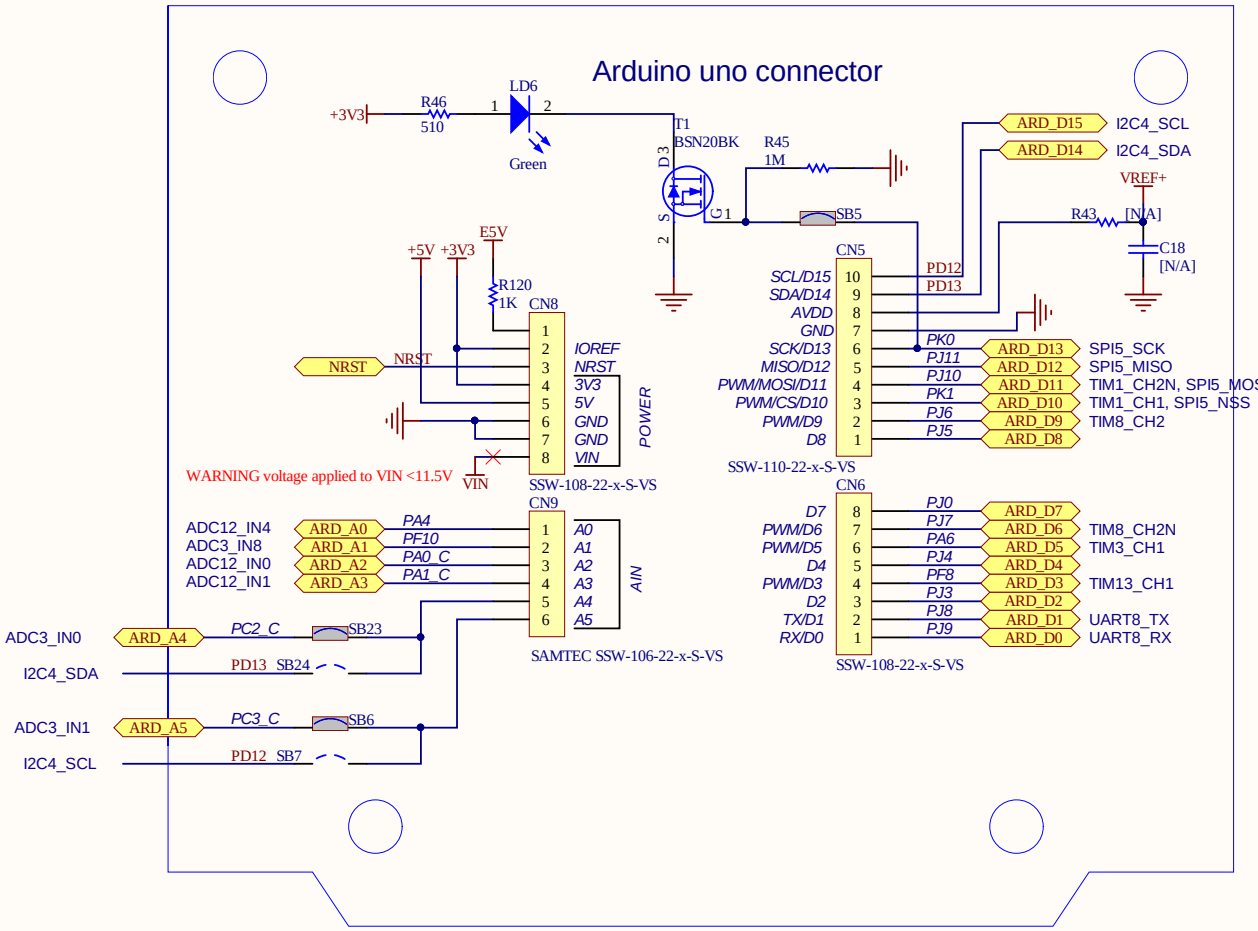
Title: **STLink_V3E_Module**		
Project: **STM32H7-DK**		
Size: A4	Reference: MB1248	Revision: D.2
Date: 1/21/2019		Sheet: 11 of 15

life.augmented



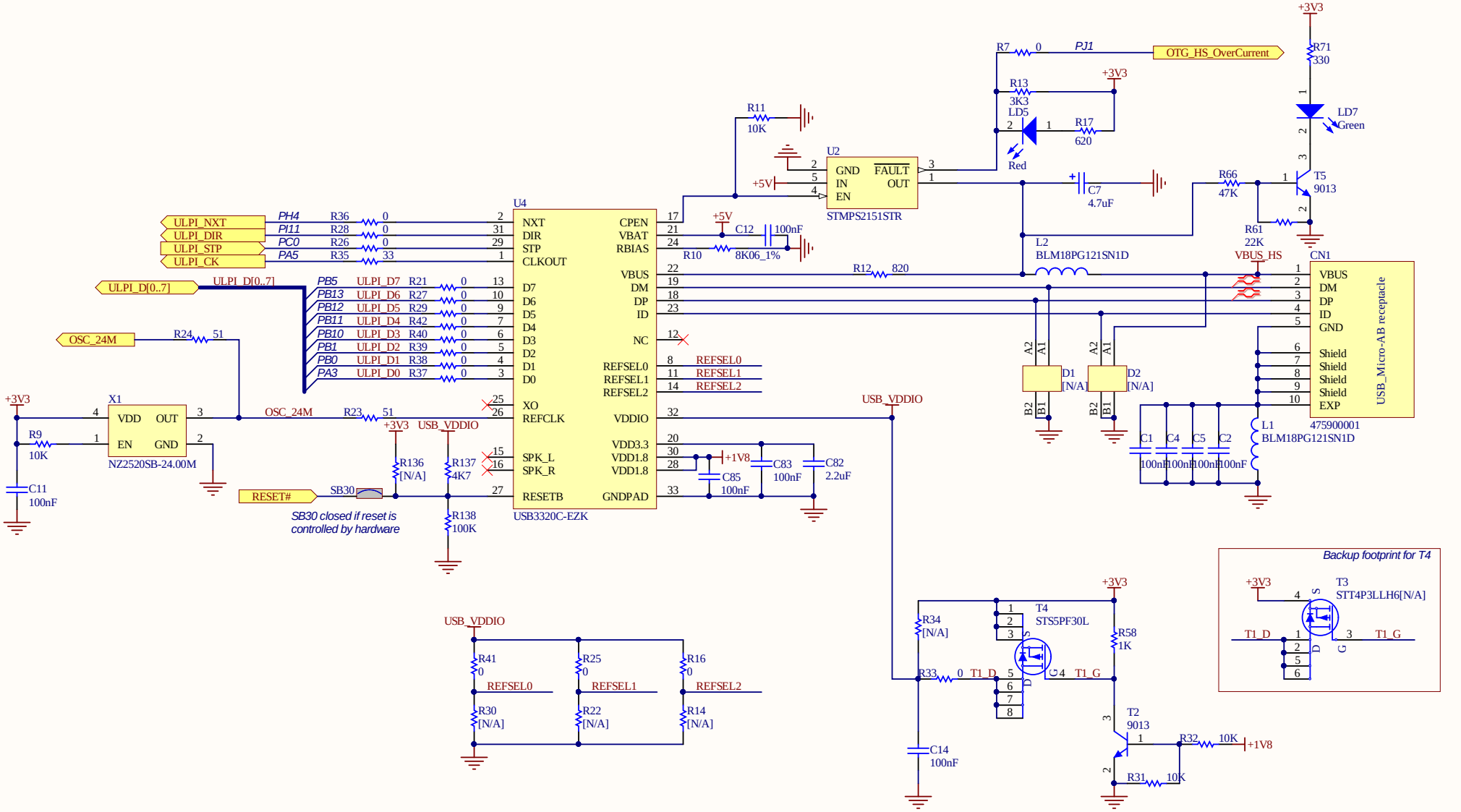
Title: **TAG Connector**			
Project: **STM32H7-DK**			
Size: A4	Reference: MB1248	Revision: D.2	
Date: 1/21/2019		Sheet: 12 of 15	

life.augmented



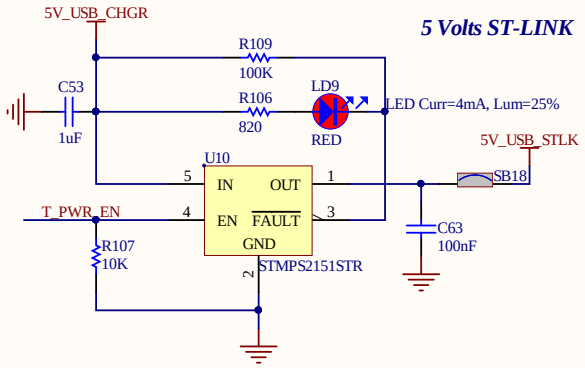
Title: **Arduino connectors**		
Project: **STM32H7-DK**		
Size: A4	Reference: MB1248	Revision: D.2
Date: 1/21/2019		Sheet: 13 of 15

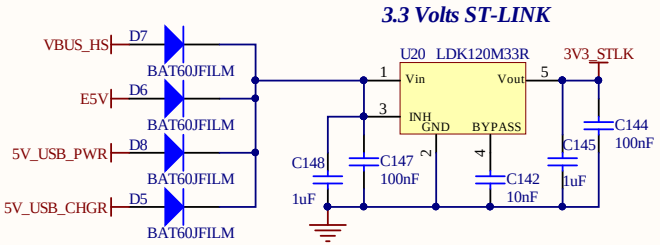
life.augmented

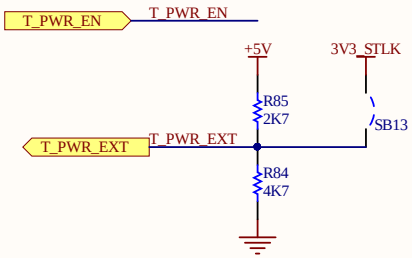


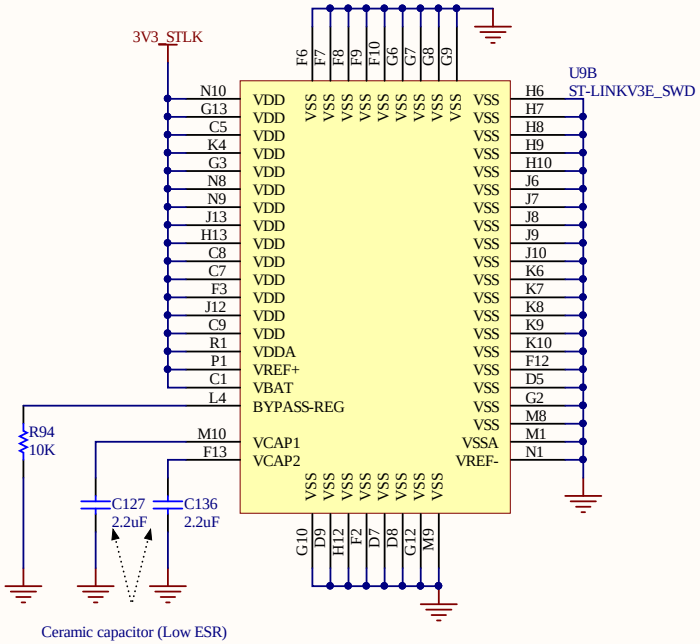
Title: **USB_OTG_HS**			
Project: **STM32H7-DK**			
Size: A4	Reference: MB1248	Revision: D.2	
Date: 1/21/2019		Sheet: 14 of 15	

life.augmented

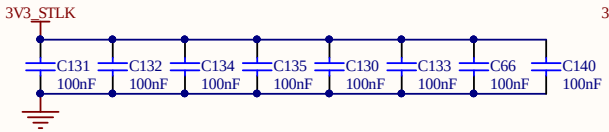


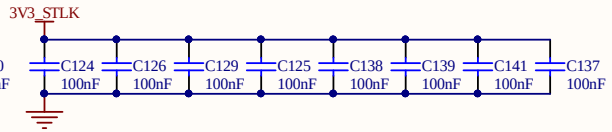


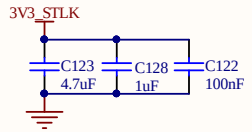




Ceramic capacitor (Low ESR)







Title: **STLink_V3E_PWR**		
Project: **STM32H7-DK**		
Size: A4	Reference: MB1248	Revision: D.2
Date: 1/21/2019		Sheet: 15 of 15

life.augmented