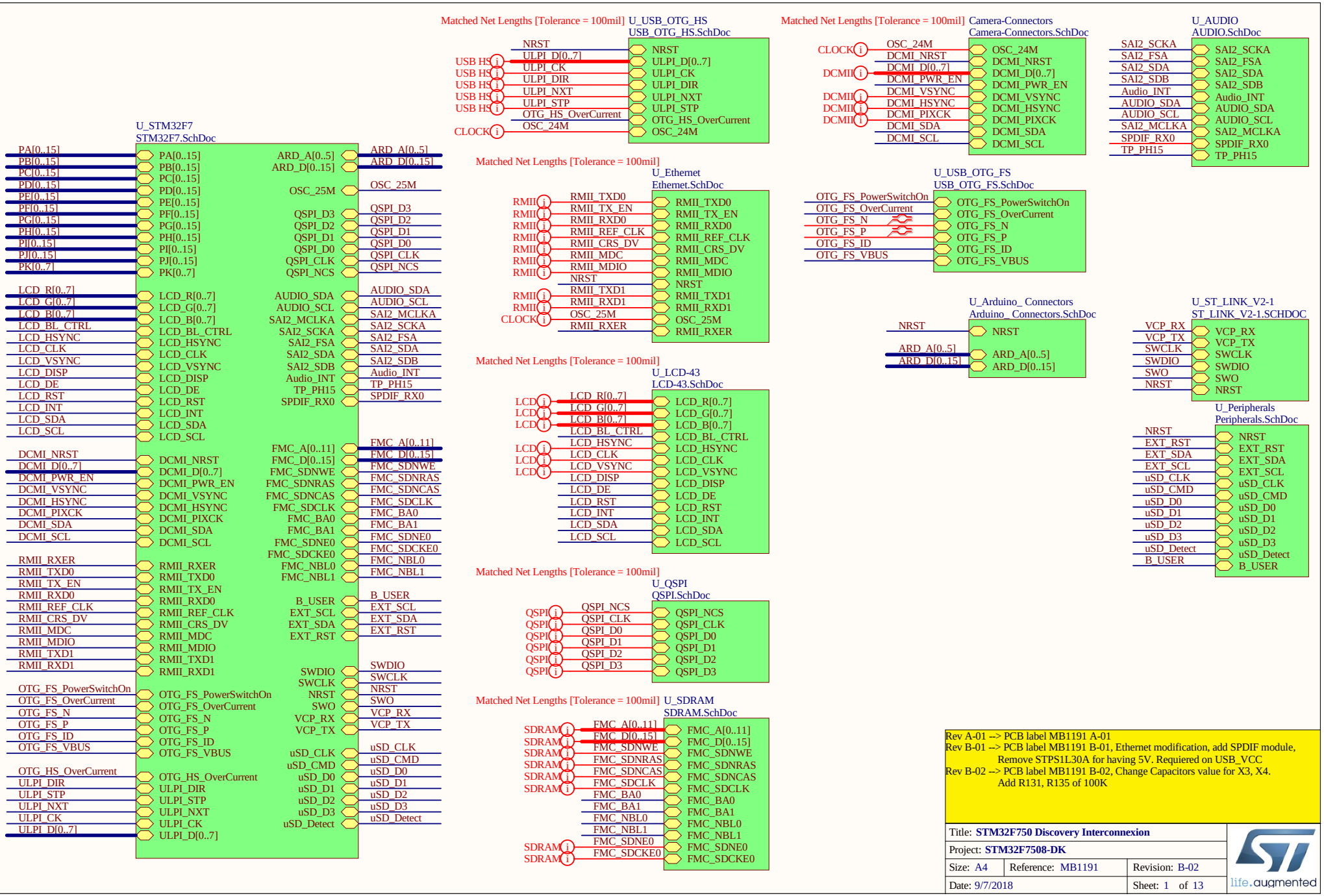
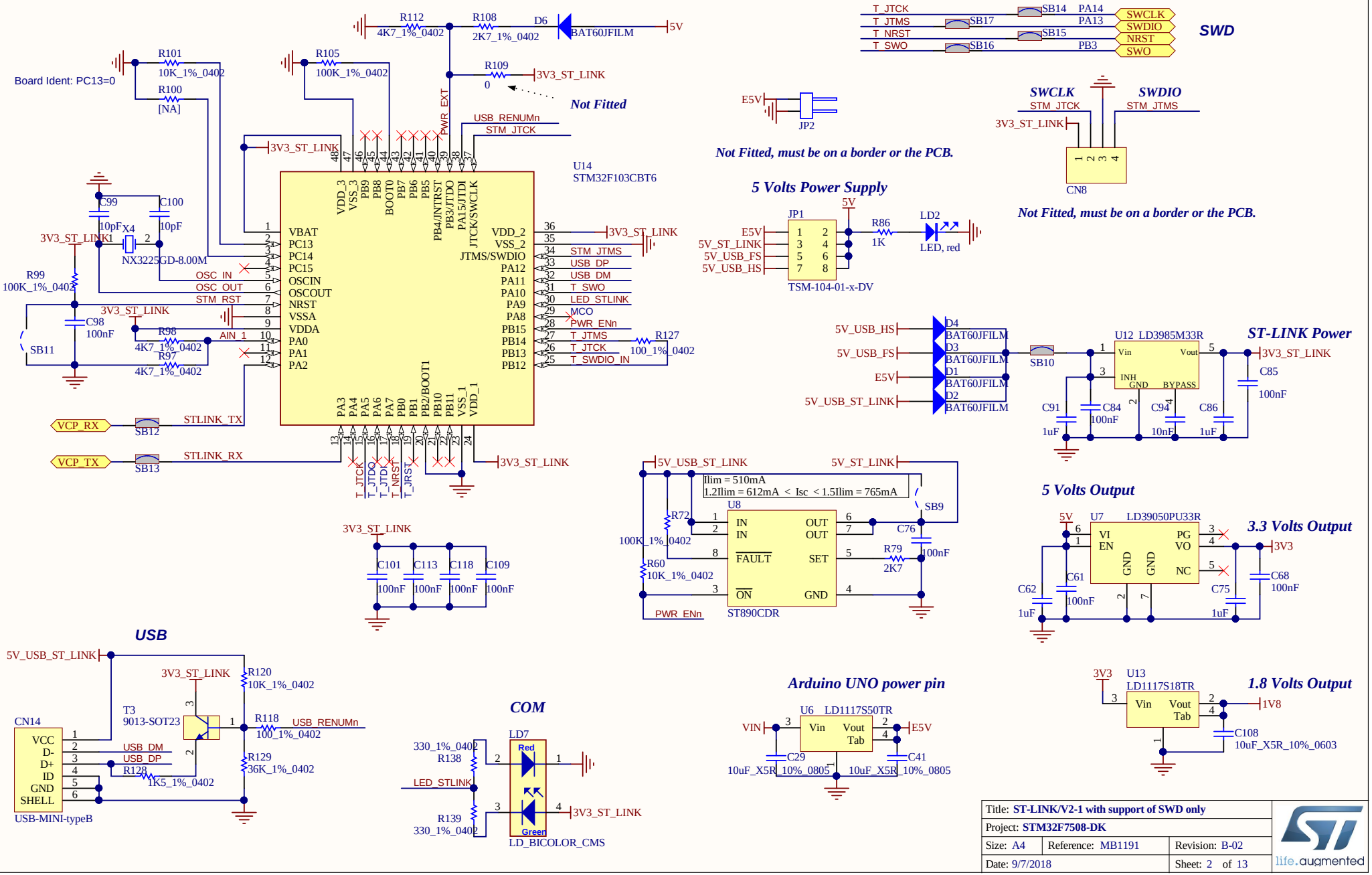
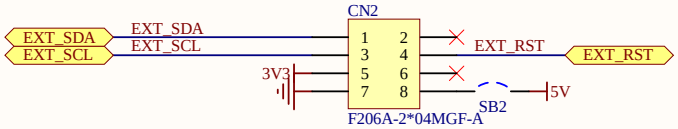

U_STM32F7
STM32F7.SchDoc
PA[0..15]
PB[0..15]
PC[0..15]
PD[0..15]
PE[0..15]
PF[0..15]
PG[0..15]
PH[0..15]
PI[0..15]
PJ[0..15]
PK[0..7]
LCD_R[0..7]
LCD_G[0..7]
LCD_B[0..7]
LCD_BL_CTRL
LCD_HSYNC
LCD_CLK
LCD_VSYNC
LCD_DISP
LCD_DE
LCD_RST
LCD_INT
LCD_SDA
LCD_SCL
DCMI_NRST
DCMI_D[0..7]
DCMI_PWR_EN
DCMI_VSYNC
DCMI_HSYNC
DCMI_PIXCK
DCMI_SDA
DCMI_SCL
RMII_RXER
RMII_TXD0
RMII_TX_EN
RMII_RXD0
RMII_REF_CLK
RMII_CRS_DV
RMII_MDC
RMII_MDIO
RMII_TXD1
RMII_RXD1
OTG_FS_PowerSwitchOn
OTG_FS_OverCurrent
OTG_FS_N
OTG_FS_P
OTG_FS_ID
OTG_FS_VBUS
OTG_HS_OverCurrent
ULPI_DIR
ULPI_STP
ULPI_NXT
ULPI_CK
ULPI_D[0..7]
ARD_A[0..5]
ARD_D[0..15]
OSC_25M
QSPI_D3
QSPI_D2
QSPI_D1
QSPI_D0
QSPI_CLK
QSPI_NCS
AUDIO_SDA
AUDIO_SCL
SAI2_MCLKA
SAI2_SCKA
SAI2_FSA
SAI2_SDA
SAI2_SDB
Audio_INT
TP_PH15
SPDIF_RX0
FMC_A[0..11]
FMC_D[0..15]
FMC_SDNWE
FMC_SDNRAS
FMC_SDNCAS
FMC_SDCLK
FMC_BA0
FMC_BA1
FMC_SDNE0
FMC_SDCKE0
FMC_NBL0
FMC_NBL1
B_USER
EXT_SCL
EXT_SDA
EXT_RST
SWDIO
SWCLK
NRST
SWO
VCP_RX
VCP_TX
uSD_CLK
uSD_CMD
uSD_D0
uSD_D1
uSD_D2
uSD_D3
uSD_Detect
Matched Net Lengths [Tolerance = 100mil]
U_USB_OTG_HS
USB_OTG_HS.SchDoc
NRST
ULPI_D[0..7]
ULPI_CK
ULPI_DIR
ULPI_NXT
ULPI_STP
OTG_HS_OverCurrent
OSC_24M
USB HS
CLOCK
Matched Net Lengths [Tolerance = 100mil]
U_Ethernet
Ethernet.SchDoc
RMII_TXD0
RMII_TX_EN
RMII_RXD0
RMII_REF_CLK
RMII_CRS_DV
RMII_MDC
RMII_MDIO
NRST
RMII_TXD1
RMII_RXD1
OSC_25M
RMII_RXER
RMII
CLOCK
Matched Net Lengths [Tolerance = 100mil]
U_LCD-43
LCD-43.SchDoc
LCD_R[0..7]
LCD_G[0..7]
LCD_B[0..7]
LCD_BL_CTRL
LCD_HSYNC
LCD_CLK
LCD_VSYNC
LCD_DISP
LCD_DE
LCD_RST
LCD_INT
LCD_SDA
LCD_SCL
LCD
Matched Net Lengths [Tolerance = 100mil]
U_QSPI
QSPI.SchDoc
QSPI_NCS
QSPI_CLK
QSPI_D0
QSPI_D1
QSPI_D2
QSPI_D3
QSPI
Matched Net Lengths [Tolerance = 100mil]
U_SDRAM
SDRAM.SchDoc
FMC_A[0..11]
FMC_D[0..15]
FMC_SDNWE
FMC_SDNRAS
FMC_SDNCAS
FMC_SDCLK
FMC_BA0
FMC_BA1
FMC_NBL0
FMC_NBL1
FMC_SDNE0
FMC_SDCKE0
SDRAM
Matched Net Lengths [Tolerance = 100mil]
Camera-Connectors
Camera-Connectors.SchDoc
OSC_24M
DCMI_NRST
DCMI_D[0..7]
DCMI_PWR_EN
DCMI_VSYNC
DCMI_HSYNC
DCMI_PIXCK
DCMI_SDA
DCMI_SCL
CLOCK
DCMII
U_AUDIO
AUDIO.SchDoc
SAI2_SCKA
SAI2_FSA
SAI2_SDA
SAI2_SDB
Audio_INT
AUDIO_SDA
AUDIO_SCL
SAI2_MCLKA
SPDIF_RX0
TP_PH15
U_USB_OTG_FS
USB_OTG_FS.SchDoc
OTG_FS_PowerSwitchOn
OTG_FS_OverCurrent
OTG_FS_N
OTG_FS_P
OTG_FS_ID
OTG_FS_VBUS
U_Arduino_ Connectors
Arduino_ Connectors.SchDoc
NRST
ARD_A[0..5]
ARD_D[0..15]
U_ST_LINK_V2-1
ST_LINK_V2-1.SCHDOC
VCP_RX
VCP_TX
SWCLK
SWDIO
SWO
NRST
U_Peripherals
Peripherals.SchDoc
EXT_RST
EXT_SDA
EXT_SCL
uSD_CLK
uSD_CMD
uSD_D0
uSD_D1
uSD_D2
uSD_D3
uSD_Detect
B_USER
Rev A-01 --> PCB label MB1191 A-01
Rev B-01 --> PCB label MB1191 B-01, Ethernet modification, add SPDIF module,
Remove STPS1L30A for having 5V. Requiered on USB_VCC
Rev B-02 --> PCB label MB1191 B-02, Change Capacitors value for X3, X4.
Add R131, R135 of 100K
Title: STM32F750 Discovery Interconnexion
Project: STM32F7508-DK
Size: A4
Reference: MB1191
Revision: B-02
Date: 9/7/2018
Sheet: 1 of 13
life.augmented



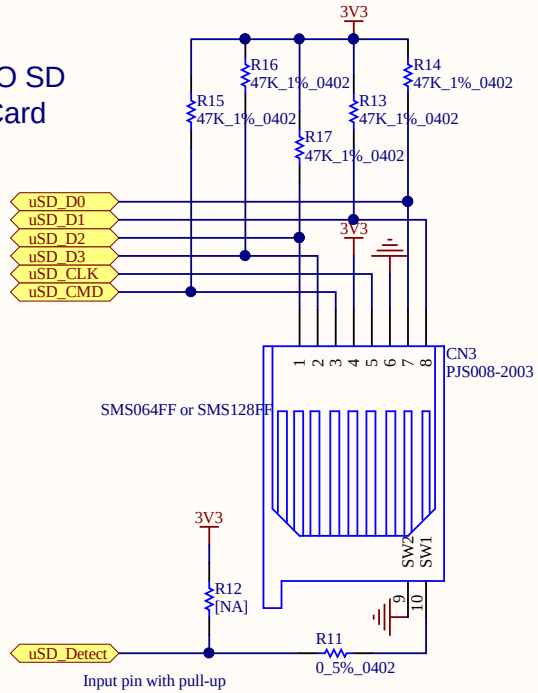
Title: **ST-LINK/V2-1 with support of SWD only**		
Project: **STM32F7508-DK**		
Size: A4	Reference: MB1191	Revision: B-02
Date: 9/7/2018		Sheet: 2 of 13

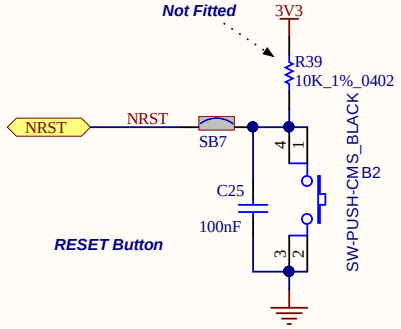
life.augmented

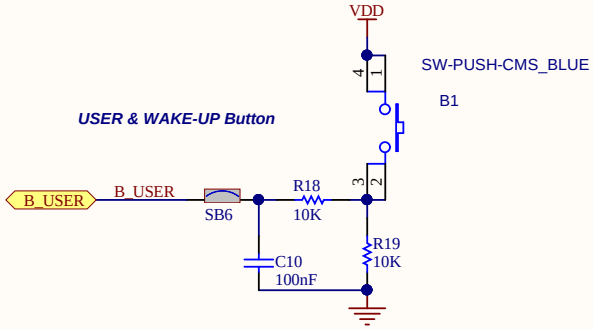
EXT/RF E2P Connector



MICRO SD (TF) Card

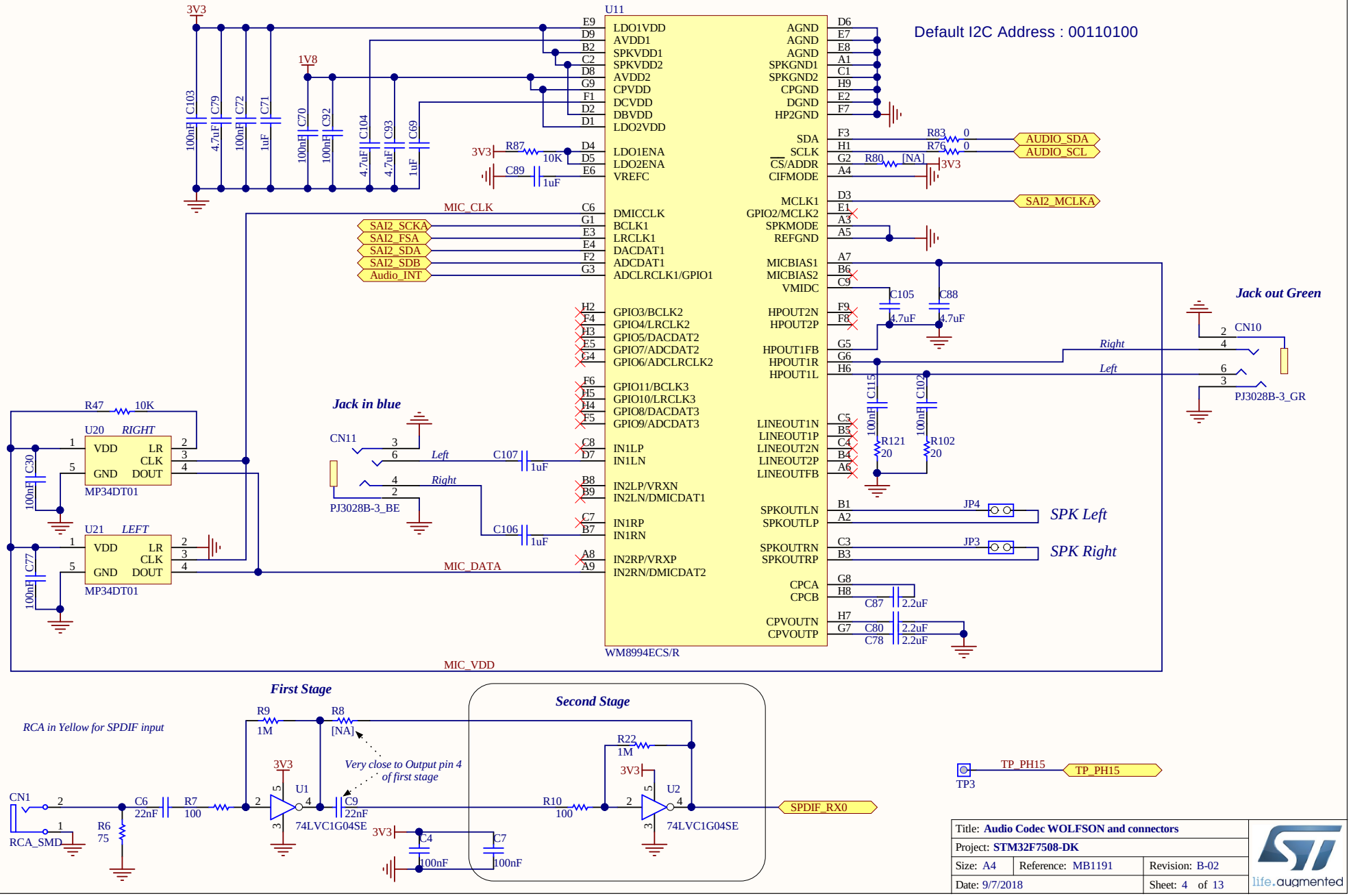




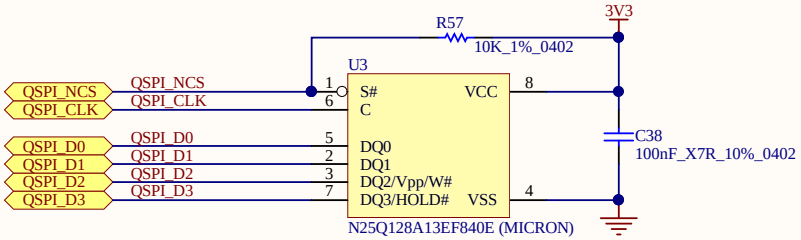


Title: **Joystick, ACP, LEDs and Push Button**		
Project: **STM32F7508-DK**		
Size: A4	Reference: MB1191	Revision: B-02
Date: 9/7/2018		Sheet: 3 of 13

life.augmented


Default I2C Address : 00110100
U11
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
MIC_CLK
MIC_DATA
MIC_VDD
SAI2_SCKA
SAI2_FSA
SAI2_SDA
SAI2_SDB
Audio_INT
AUDIO_SDA
AUDIO_SCL
SAI2_MCLKA
Jack out Green
CN10
PJ3028B-3_GR
Right
Left
Jack in blue
CN11
PJ3028B-3_BE
U20 RIGHT
U21 LEFT
MP34DT01
VDD
GND
LR
CLK
DOUT
SPK Left
SPK Right
JP4
JP3
First Stage
Second Stage
RCA in Yellow for SPDIF input
Very close to Output pin 4 of first stage
74LVC1G04SE
CN1
RCA_SMD
SPDIF_RX0
TP3
TP_PH15
Title: Audio Codec WOLFSON and connectors
Project: STM32F7508-DK
Size: A4
Reference: MB1191
Revision: B-02
Date: 9/7/2018
Sheet: 4 of 13
life.augmented

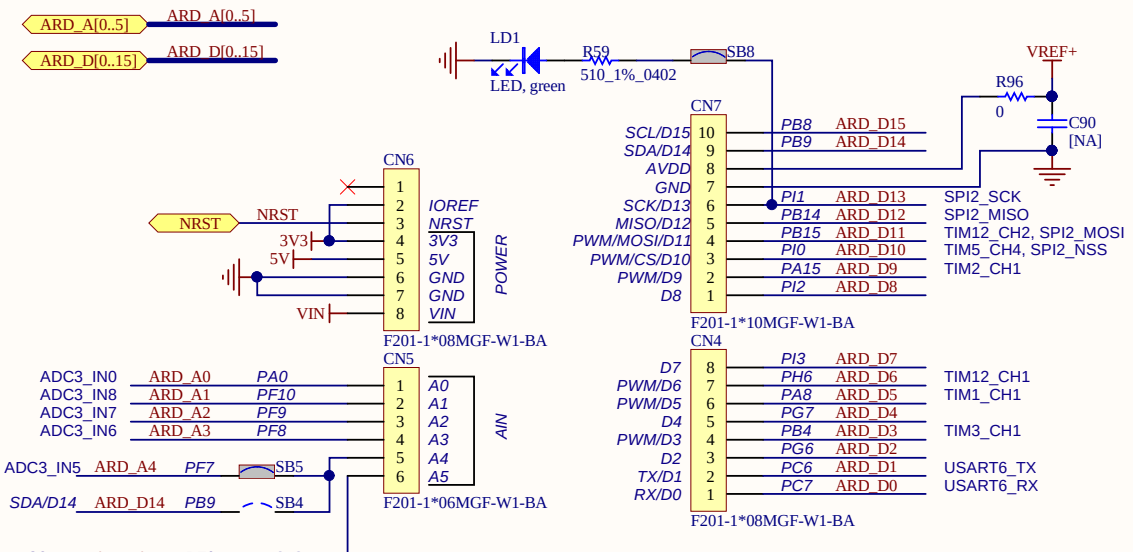
Quad SPI Flash Memory



Title: **Quad SPI Flash Memory (MICRON)**		
Project: **STM32F7508-DK**		
Size: A4	Reference: MB1191	Revision: B-02
Date: 9/7/2018		Sheet: 5 of 13

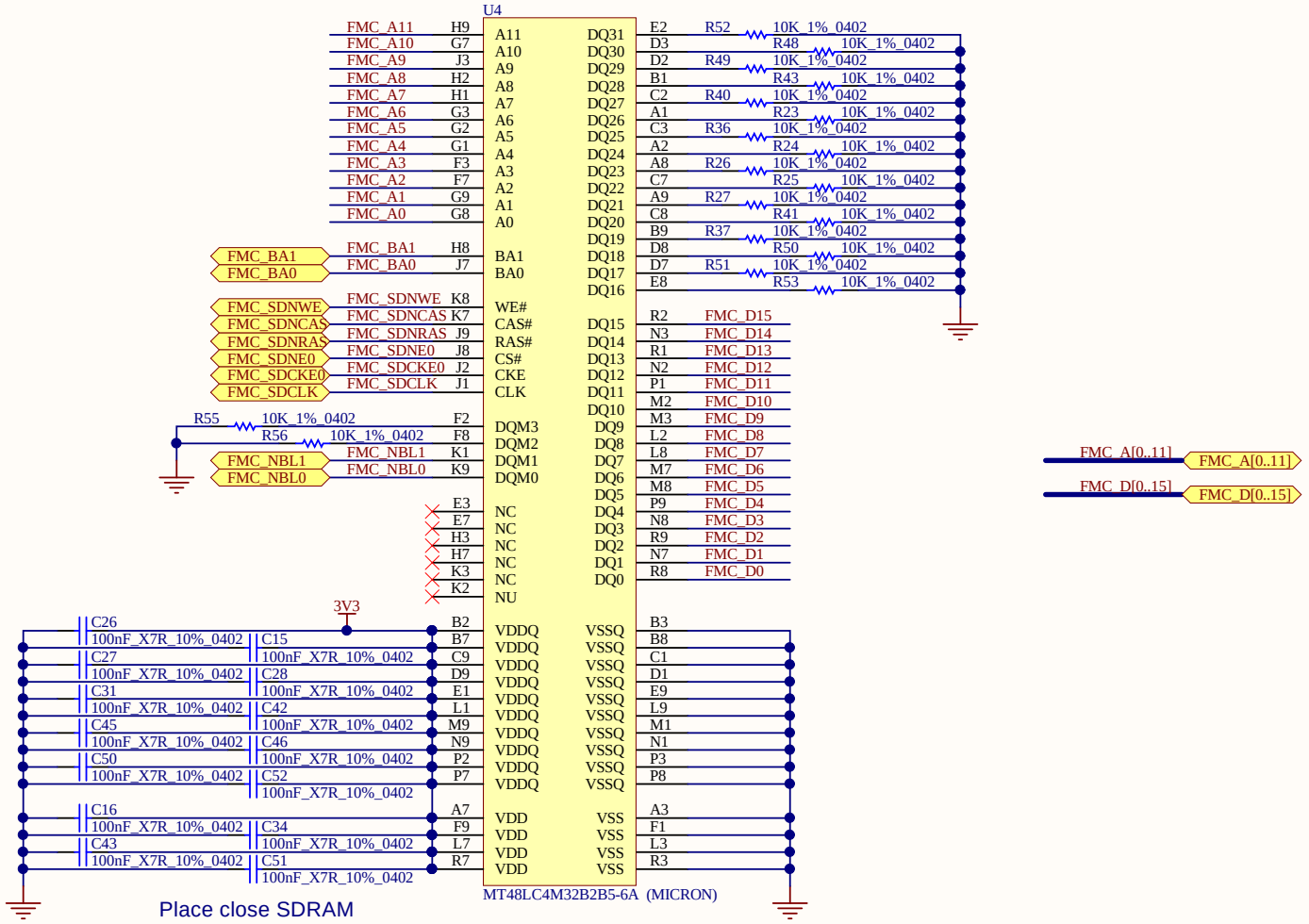
life.augmented

Arduino UNO connector



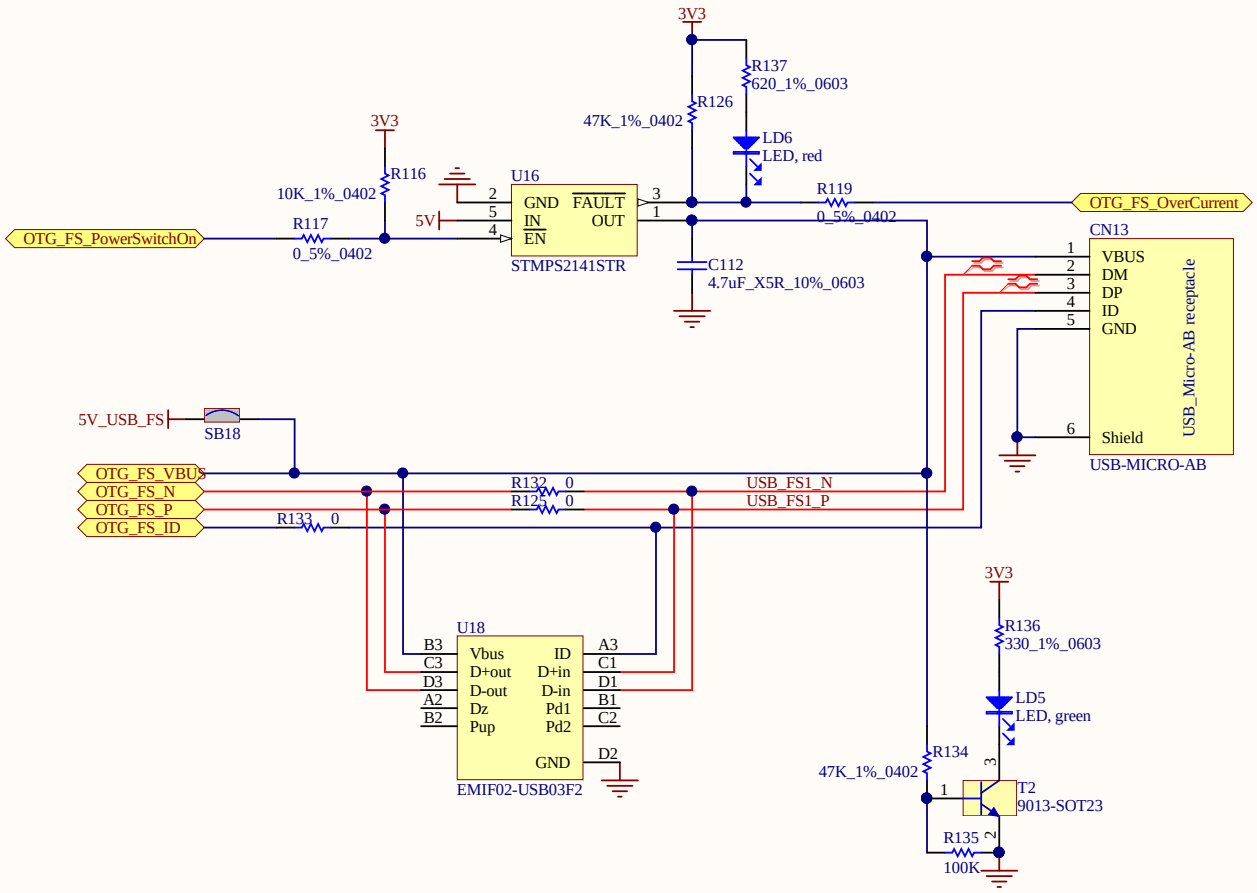
Title: **Arduino UNO connectors**		
Project: **STM32F7508-DK**		
Size: A4	Reference: MB1191	Revision: B-02
Date: 9/7/2018		Sheet: 6 of 13

life.augmented



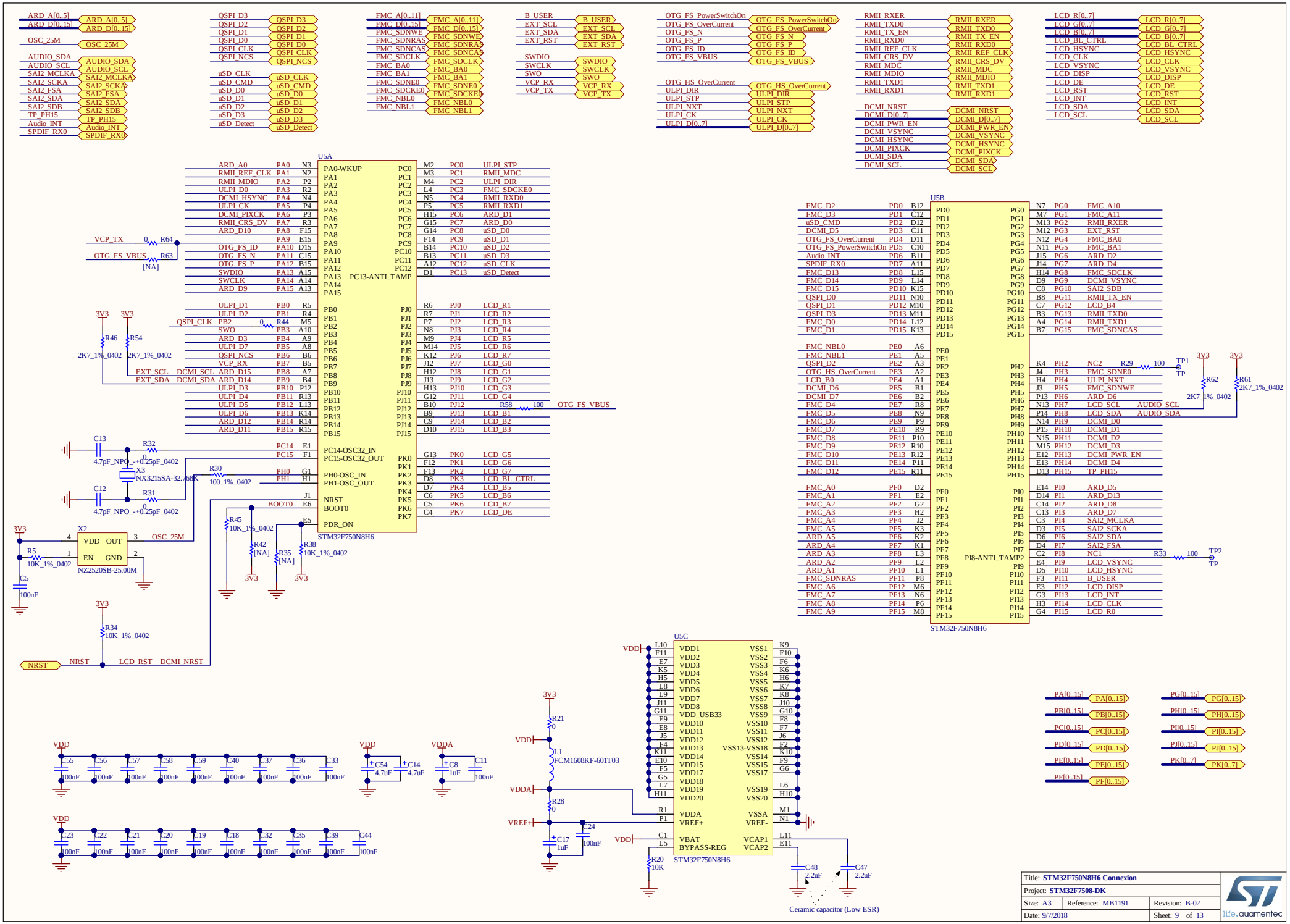
Title: **SDRAM (MICRON)**		
Project: **STM32F7508-DK**		
Size: A4	Reference: MB1191	Revision: B-02
Date: 9/7/2018		Sheet: 7 of 13

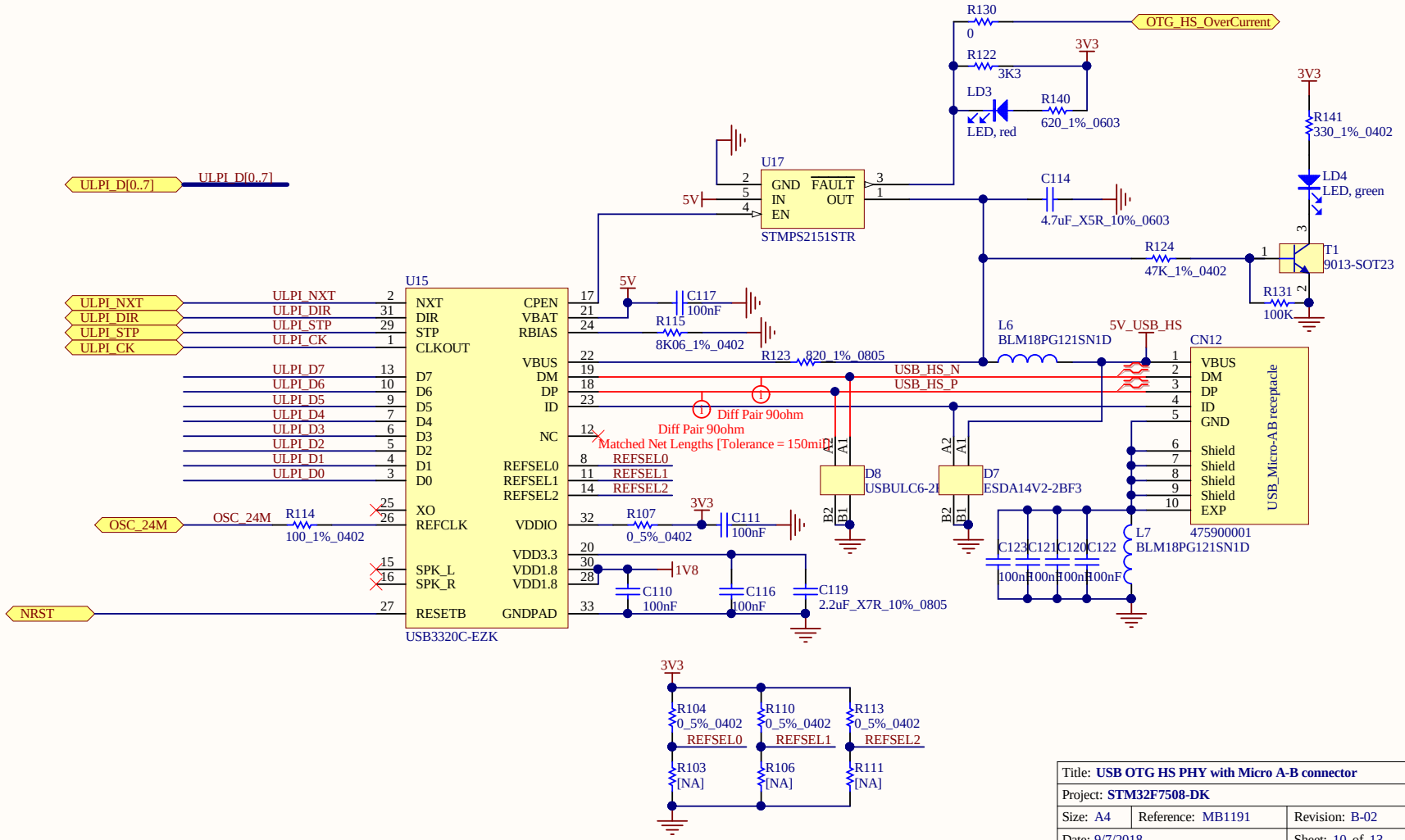
life.augmented



Title: **USB OTG FS with Micro A-B connector**		
Project: **STM32F7508-DK**		
Size: A4	Reference: MB1191	Revision: B-02
Date: 9/7/2018		Sheet: 8 of 13

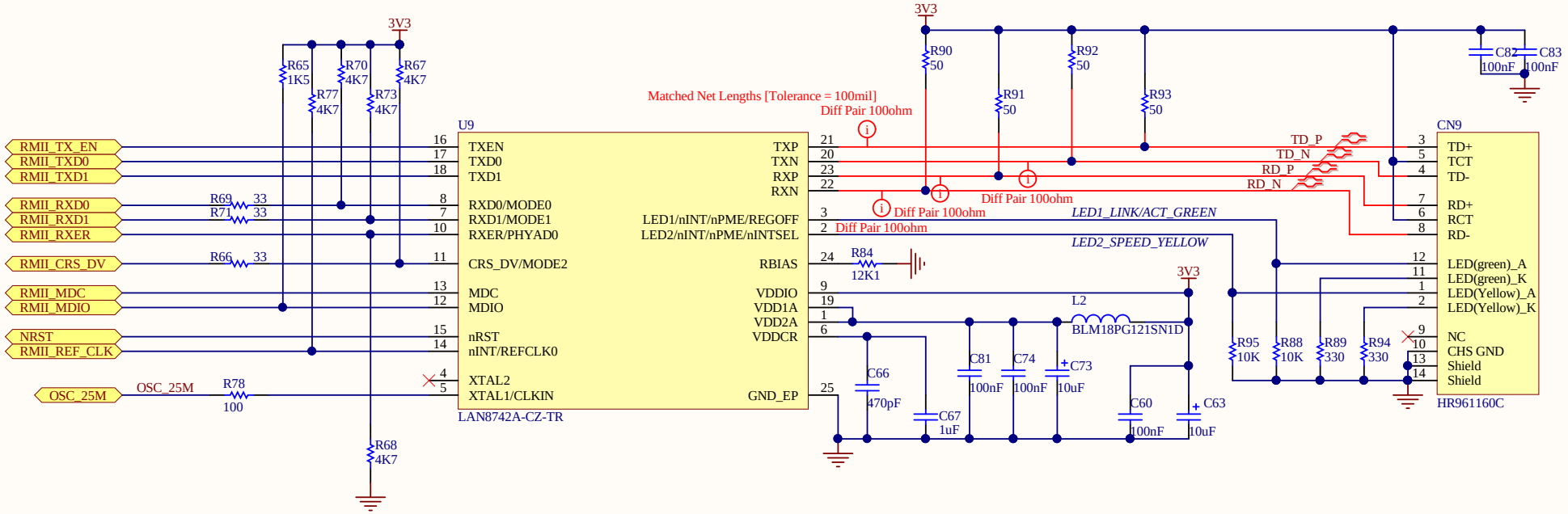
life.augmented


ARD_A[0..5]
ARD_D[0..15]
OSC_25M
AUDIO_SDA
AUDIO_SCL
SAI2_MCLKA
SAI2_SCKA
SAI2_FSA
SAI2_SDA
SAI2_SDB
TP_PH15
Audio_INT
SPDIF_RX0
QSPI_D3
QSPI_D2
QSPI_D1
QSPI_D0
QSPI_CLK
QSPI_NCS
uSD_CLK
uSD_CMD
uSD_D0
uSD_D1
uSD_D2
uSD_D3
uSD_Detect
FMC_A[0..11]
FMC_D[0..15]
FMC_SDNWE
FMC_SDNRAS
FMC_SDNCAS
FMC_SDCLK
FMC_BA0
FMC_BA1
FMC_SDNE0
FMC_SDCKE0
FMC_NBL0
FMC_NBL1
B_USER
EXT_SCL
EXT_SDA
EXT_RST
SWDIO
SWCLK
SWO
VCP_RX
VCP_TX
OTG_FS_PowerSwitchOn
OTG_FS_OverCurrent
OTG_FS_N
OTG_FS_P
OTG_FS_ID
OTG_FS_VBUS
OTG_HS_OverCurrent
ULPI_DIR
ULPI_STP
ULPI_NXT
ULPI_CK
ULPI_D[0..7]
RMII_RXER
RMII_TXD0
RMII_TX_EN
RMII_RXD0
RMII_REF_CLK
RMII_CRS_DV
RMII_MDC
RMII_MDIO
RMII_TXD1
RMII_RXD1
DCMI_NRST
DCMI_D[0..7]
DCMI_PWR_EN
DCMI_VSYNC
DCMI_HSYNC
DCMI_PIXCK
DCMI_SDA
DCMI_SCL
LCD_R[0..7]
LCD_G[0..7]
LCD_B[0..7]
LCD_BL_CTRL
LCD_HSYNC
LCD_CLK
LCD_VSYNC
LCD_DISP
LCD_DE
LCD_RST
LCD_INT
LCD_SDA
LCD_SCL
U5A
STM32F750N8H6
U5B
STM32F750N8H6
U5C
STM32F750N8H6
X2
NZ2520SB-25.00M
X3
NX3215SA-32.768K
VCP_TX
OTG_FS_VBUS
[NA]
3V3
VDD
VDDA
NRST
BOOT0
PDR_ON
Ceramic capacitor (Low ESR)
Title: STM32F750N8H6 Connexion
Project: STM32F7508-DK
Size: A3
Reference: MB1191
Revision: B-02
Date: 9/7/2018
Sheet: 9 of 13
life.augmentec



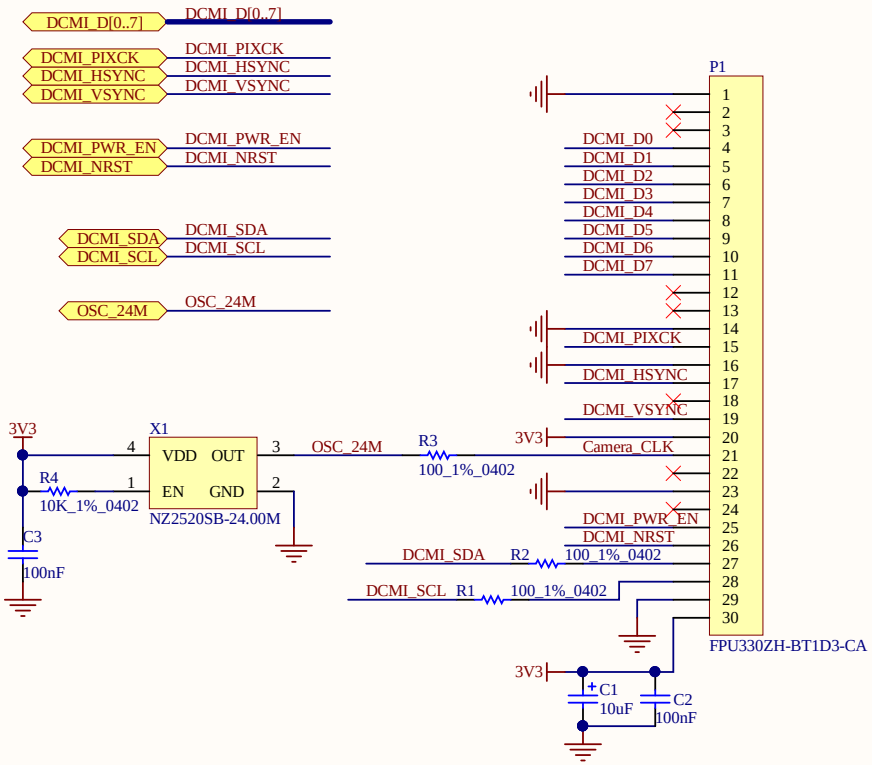
Title: **USB OTG HS PHY with Micro A-B connector**		
Project: **STM32F7508-DK**		
Size: A4	Reference: MB1191	Revision: B-02
Date: 9/7/2018		Sheet: 10 of 13

life.augmented



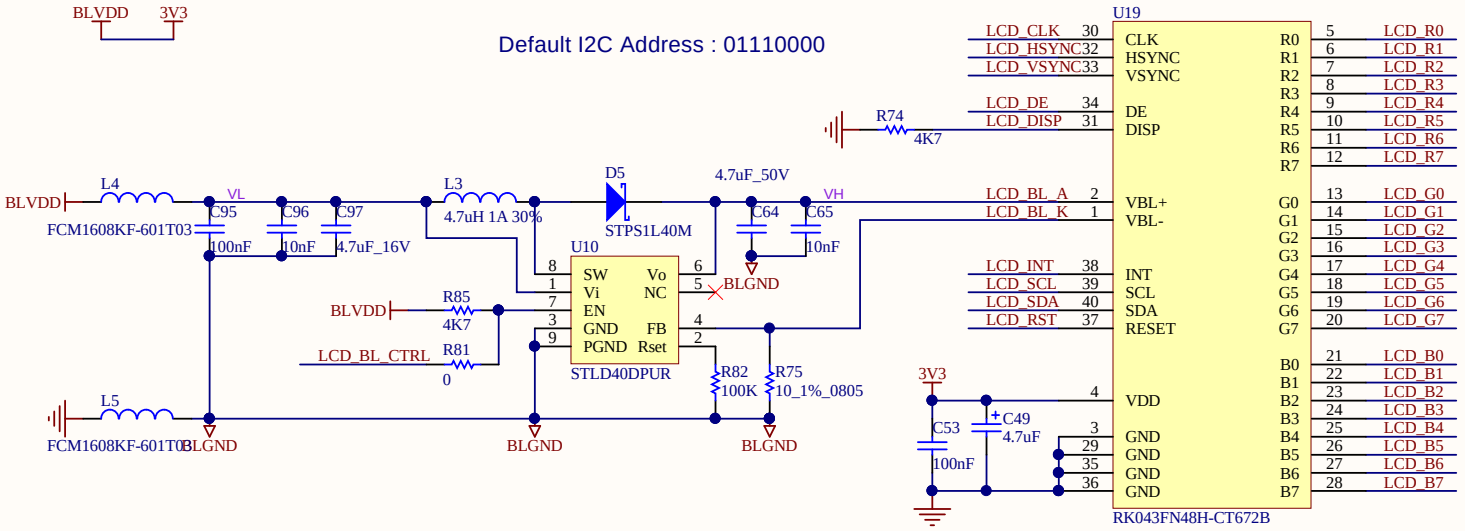
Title: **Ethernet PHY with RJ45 connector**		
Project: **STM32F7508-DK**		
Size: A4	Reference: MB1191	Revision: B-02
Date: 9/7/2018		Sheet: 11 of 13

life.augmented



Title: **External Camera connector**		
Project: **STM32F7508-DK**		
Size: A4	Reference: MB1191	Revision: B-02
Date: 9/7/2018		Sheet: 12 of 13

life.augmented



Backlight driver & PFC of LCD panel

LCD_G[0..7] LCD_G[0..7]
LCD_B[0..7] LCD_B[0..7]
LCD_R[0..7] LCD_R[0..7]

LCD_BL_CTRL LCD_BL_CTRL

LCD_CLK LCD_CLK
LCD_HSYNC LCD_HSYNC
LCD_VSYNC LCD_VSYNC

LCD_DE LCD_DE
LCD_DISP LCD_DISP

LCD_INT LCD_INT
LCD_RST LCD_RST

LCD_SCL LCD_SCL
LCD_SDA LCD_SDA

Title: **LCD 4.3" with Capacitive Touch**		
Project: **STM32F7508-DK**		
Size: A4	Reference: MB1191	Revision: B-02
Date: 9/7/2018		Sheet: 13 of 13

life.augmented