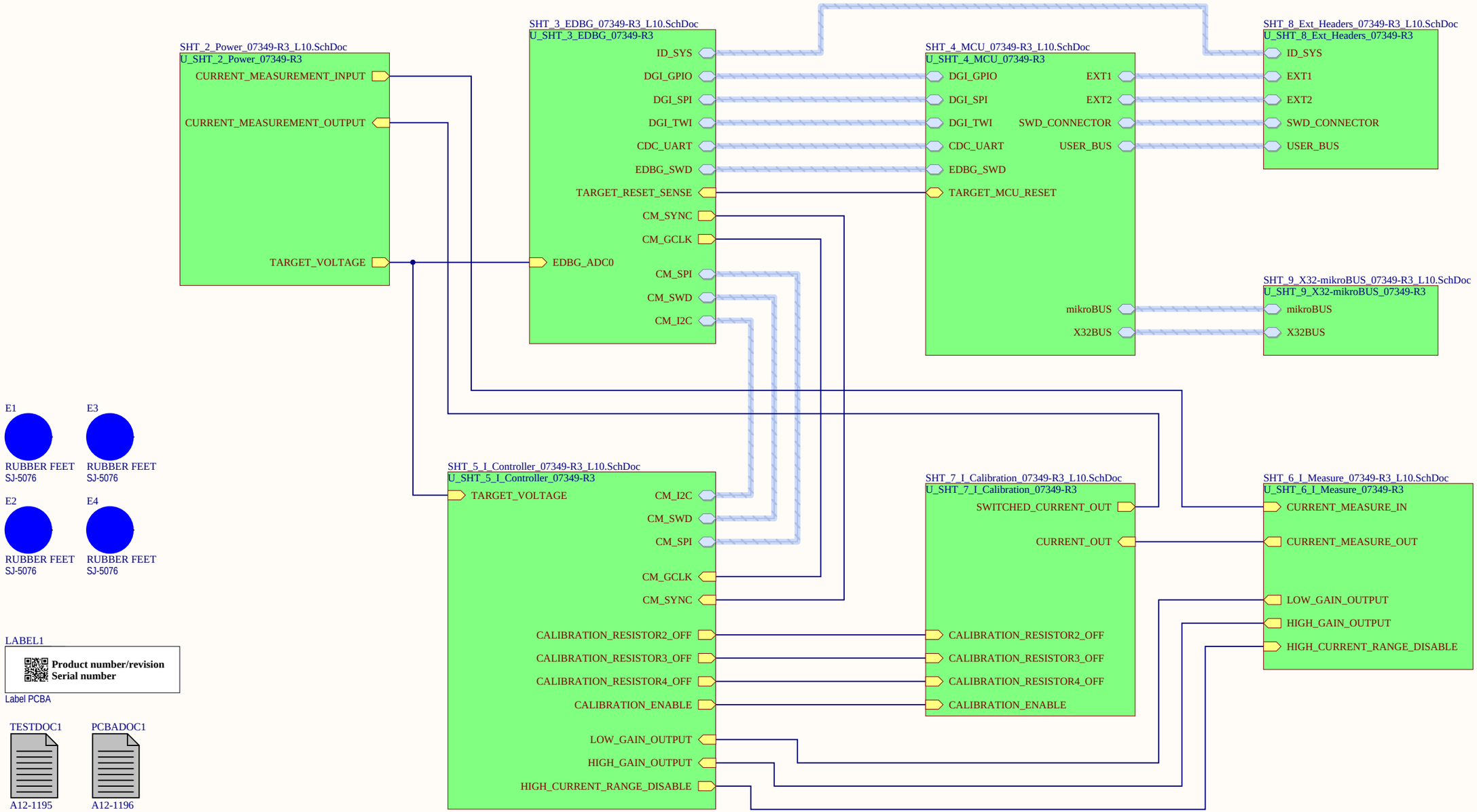


E1
RUBBER FEET
SJ-5076

E3
RUBBER FEET
SJ-5076

E2
RUBBER FEET
SJ-5076

E4
RUBBER FEET
SJ-5076

LABEL1
Product number/revision
Serial number
Label PCBA

TESTDOC1
A12-1195

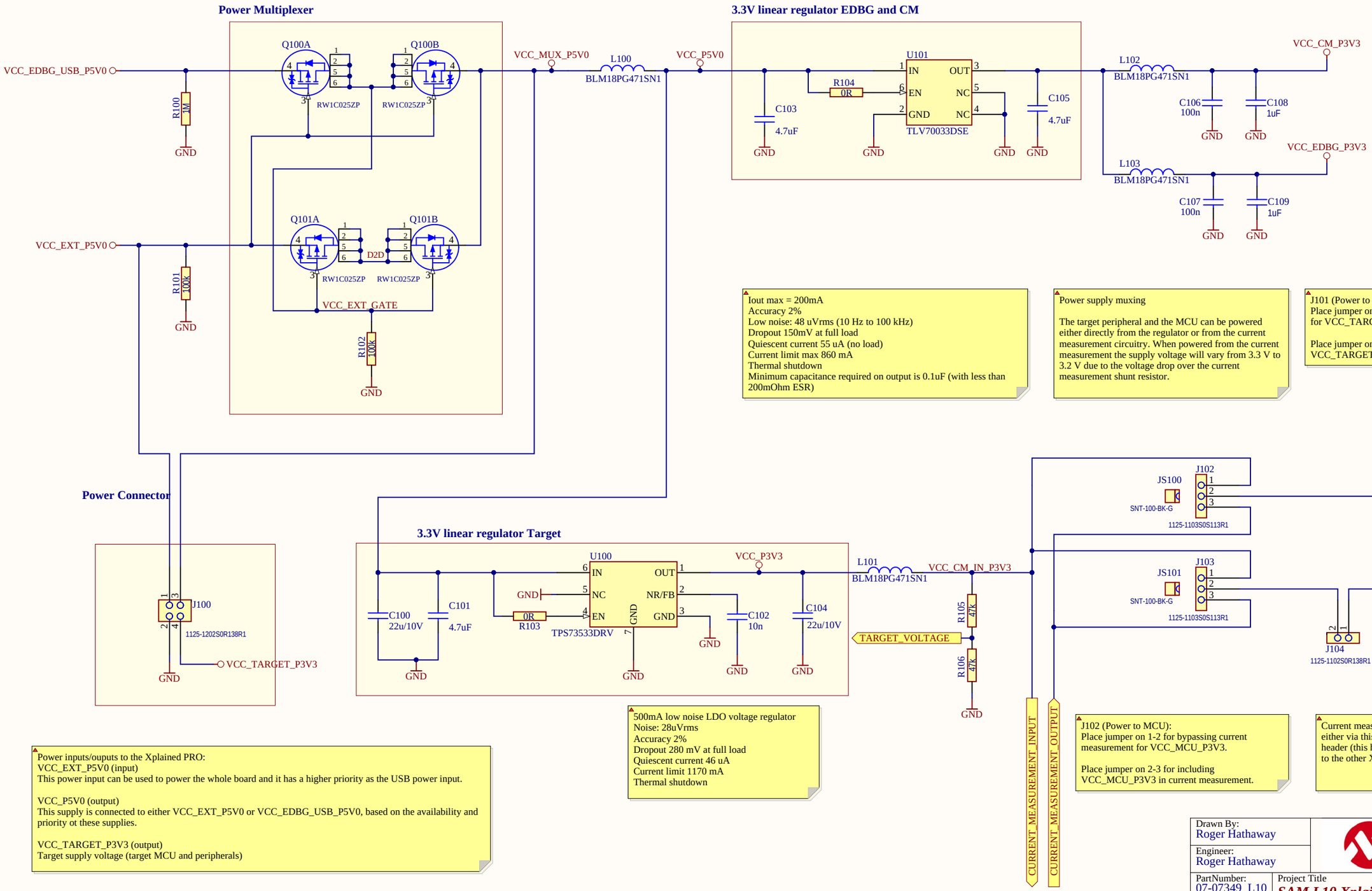
PCBADOC1
A12-1196

PCB1
A08-2869
SAM L10 Xplained Pro PCB

FW1
A11-0196

TEST1
$ >_
A11-0358

Drawn By: Roger Hathaway	MICROCHIP
Engineer: Roger Hathaway	
PartNumber: 07-07349_L10	Project Title: *SAM L10 Xplained Pro*
Sheet Title: Top Level Block Diagram	Designed with Altium
Size: B / Sch #:03-07349_L10 / Revision:3	Date: 4/19/2018 11:05:13 AM / Sheet 1 of 9
File: SHT_1_Top Level_07349-R3_L10.SchDoc	Altium.com

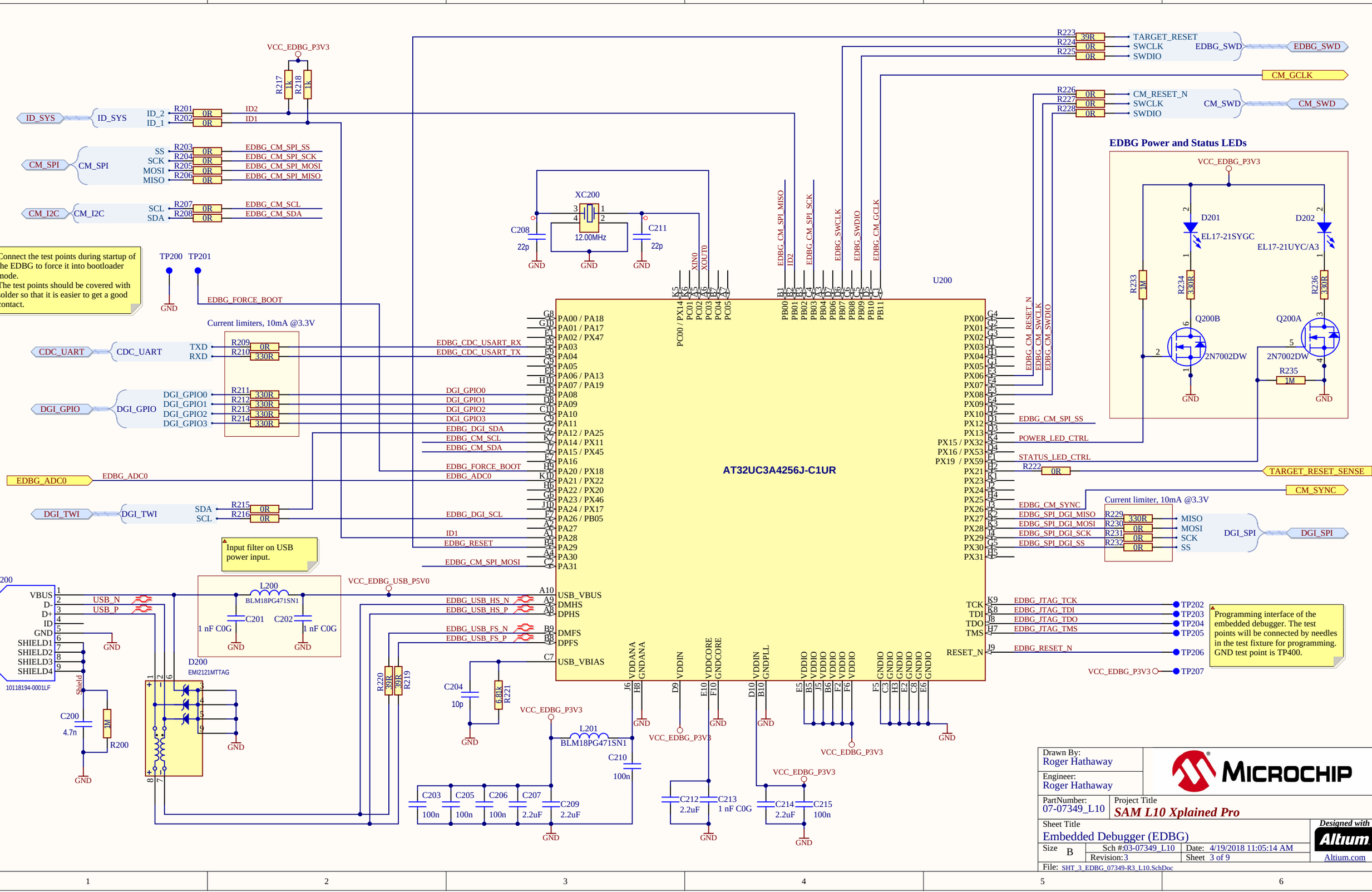


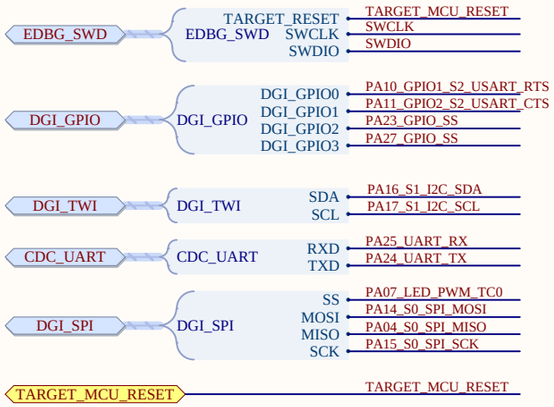
Drawn By:	Roger Hathaway
Engineer:	Roger Hathaway
PartNumber:	07-07349_L10
Project Title	*SAM L10 Xplained Pro*
Sheet Title	Input Source Select and Power Supplies
Size	B
Sch #:	03-07349_L10
Date:	4/19/2018 11:05:13 AM
Revision:	3
Sheet	2 of 9
File:	SHT_2_Power_07349-R3_L10.SchDoc

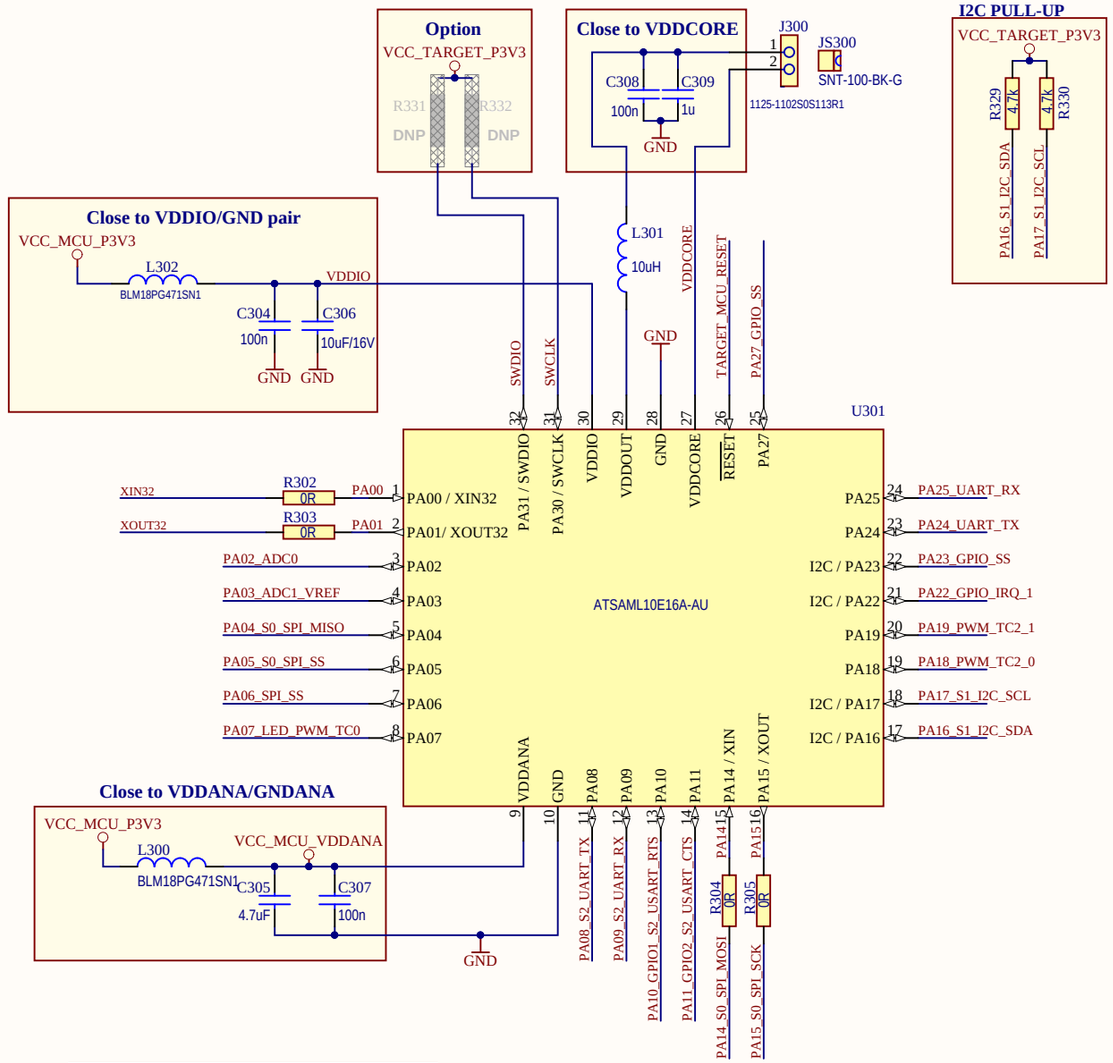
MICROCHIP

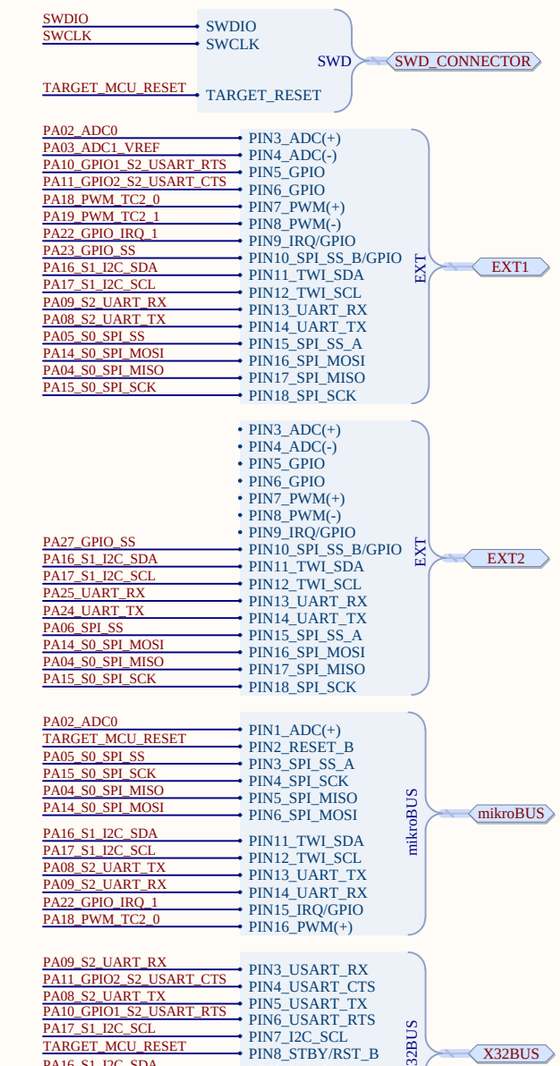
Designed with Altium

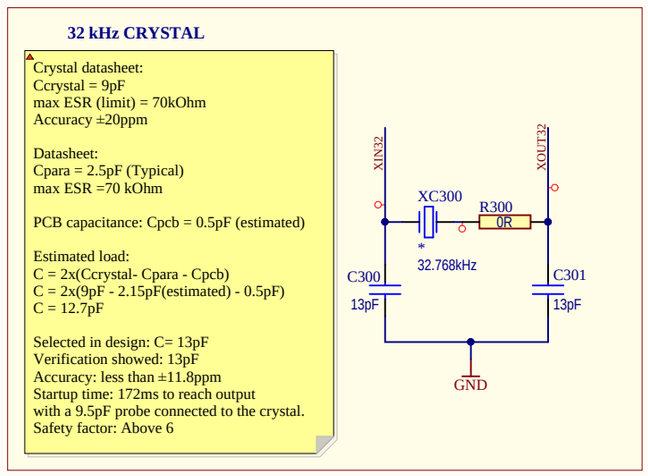
Altium.com

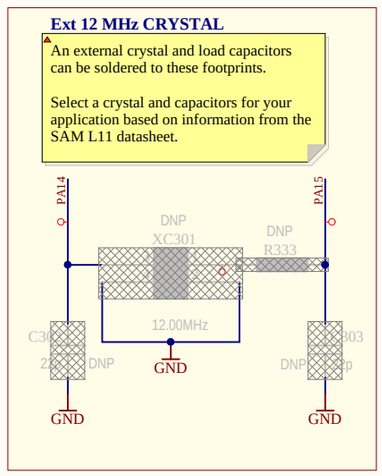

VCC_EDBG_P3V3
R217 1k
R218 1k
ID_SYS
ID_SYS
ID_2
ID_1
R201 0R
R202 0R
ID2
ID1
CM_SPI
CM_SPI
SS
SCK
MOSI
MISO
R203 0R
R204 0R
R205 0R
R206 0R
EDBG_CM_SPI_SS
EDBG_CM_SPI_SCK
EDBG_CM_SPI_MOSI
EDBG_CM_SPI_MISO
CM_I2C
CM_I2C
SCL
SDA
R207 0R
R208 0R
EDBG_CM_SCL
EDBG_CM_SDA
Connect the test points during startup of the EDBG to force it into bootloader mode.
The test points should be covered with solder so that it is easier to get a good contact.
TP200
TP201
GND
EDBG_FORCE_BOOT
Current limiters, 10mA @3.3V
CDC_UART
CDC_UART
TXD
RXD
R209 0R
R210 330R
EDBG_CDC_USART_RX
EDBG_CDC_USART_TX
DGI_GPIO
DGI_GPIO
DGI_GPIO0
DGI_GPIO1
DGI_GPIO2
DGI_GPIO3
R211 330R
R212 330R
R213 330R
R214 330R
DGI_GPIO0
DGI_GPIO1
DGI_GPIO2
DGI_GPIO3
EDBG_DGI_SDA
EDBG_CM_SCL
EDBG_CM_SDA
EDBG_FORCE_BOOT
EDBG_ADC0
EDBG_ADC0
EDBG_ADC0
DGI_TWI
DGI_TWI
SDA
SCL
R215 0R
R216 0R
EDBG_DGI_SCL
ID1
EDBG_RESET
EDBG_CM_SPI_MOSI
Input filter on USB power input.
XC200
12.00MHz
C208 22p
C211 22p
GND
XIN0
XOUT0
EDBG_CM_SPI_MISO
EDBG_CM_SPI_SCK
EDBG_SWCLK
EDBG_SWDIO
EDBG_CM_GCLK
U200
AT32UC3A4256J-C1UR
PA00 / PA18
PA01 / PA17
PA02 / PX47
PA03
PA04
PA05
PA06 / PA13
PA07 / PA19
PA08
PA09
PA10
PA11
PA12 / PA25
PA14 / PX11
PA15 / PX45
PA16
PA20 / PX18
PA21 / PX22
PA22 / PX20
PA23 / PX46
PA24 / PX17
PA26 / PB05
PA27
PA28
PA29
PA30
PA31
PC00 / PX14
PC01
PC02
PC03
PC04
PC05
PB00
PB01
PB02
PB03
PB04
PB05
PB06
PB07
PB08
PB09
PB10
PB11
PX00
PX01
PX02
PX03
PX04
PX05
PX06
PX07
PX08
PX09
PX10
PX12
PX13
PX15 / PX32
PX16 / PX53
PX19 / PX59
PX21
PX23
PX24
PX25
PX26
PX27
PX28
PX29
PX30
PX31
USB_VBUS
DMHS
DPHS
DMFS
DPFS
USB_VBIAS
TCK
TDI
TDO
TMS
RESET_N
VDDANA
GNDANA
VDDIN
VDDCORE
GNDCORE
VDDIN
GNDPLL
VDDIO
GNDIO
R223 39R
R224 0R
R225 0R
TARGET_RESET
SWCLK
SWDIO
EDBG_SWD
EDBG_SWD
CM_GCLK
R226 0R
R227 0R
R228 0R
CM_RESET_N
SWCLK
SWDIO
CM_SWD
CM_SWD
EDBG_CM_RESET_N
EDBG_CM_SWCLK
EDBG_CM_SWDIO
EDBG_CM_SPI_SS
POWER_LED_CTRL
STATUS_LED_CTRL
R222 0R
TARGET_RESET_SENSE
CM_SYNC
Current limiter, 10mA @3.3V
EDBG_CM_SYNC
EDBG_SPI_DGI_MISO
EDBG_SPI_DGI_MOSI
EDBG_SPI_DGI_SCK
EDBG_SPI_DGI_SS
R229 330R
R230 0R
R231 0R
R232 0R
MISO
MOSI
SCK
SS
DGI_SPI
DGI_SPI
EDBG Power and Status LEDs
VCC_EDBG_P3V3
D201
EL17-21SYGC
D202
EL17-21UYC/A3
R233 1M
R234 330R
R236 330R
Q200B
2N7002DW
Q200A
2N7002DW
R235 1M
GND
TP202
TP203
TP204
TP205
TP206
TP207
Programming interface of the embedded debugger. The test points will be connected by needles in the test fixture for programming. GND test point is TP400.
J200
VBUS
D-
D+
ID
GND
SHIELD1
SHIELD2
SHIELD3
SHIELD4
10118194-0001LF
USB_N
USB_P
Shield
C200 4.7n
R200 1M
D200
EMI2121MTTAG
L200
BLM18PG471SN1
C201 1 nF C0G
C202 1 nF C0G
VCC_EDBG_USB_P5V0
EDBG_USB_HS_N
EDBG_USB_HS_P
EDBG_USB_FS_N
EDBG_USB_FS_P
R220 39R
R219 39R
C204 10p
R221 6.81k
L201
BLM18PG471SN1
C210 100n
C203 100n
C205 100n
C206 100n
C207 2.2uF
C209 2.2uF
C212 2.2uF
C213 1 nF C0G
C214 2.2uF
C215 100n
Drawn By: Roger Hathaway
Engineer: Roger Hathaway
PartNumber: 07-07349_L10
Project Title: SAM L10 Xplained Pro
Sheet Title: Embedded Debugger (EDBG)
Size B
Sch #:03-07349_L10
Revision:3
Date: 4/19/2018 11:05:14 AM
Sheet 3 of 9
File: SHT_3_EDBG_07349-R3_L10.SchDoc
Designed with Altium
Altium.com

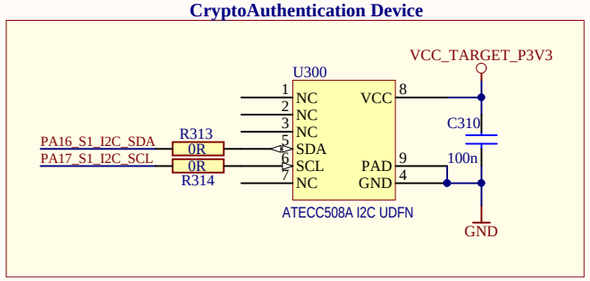




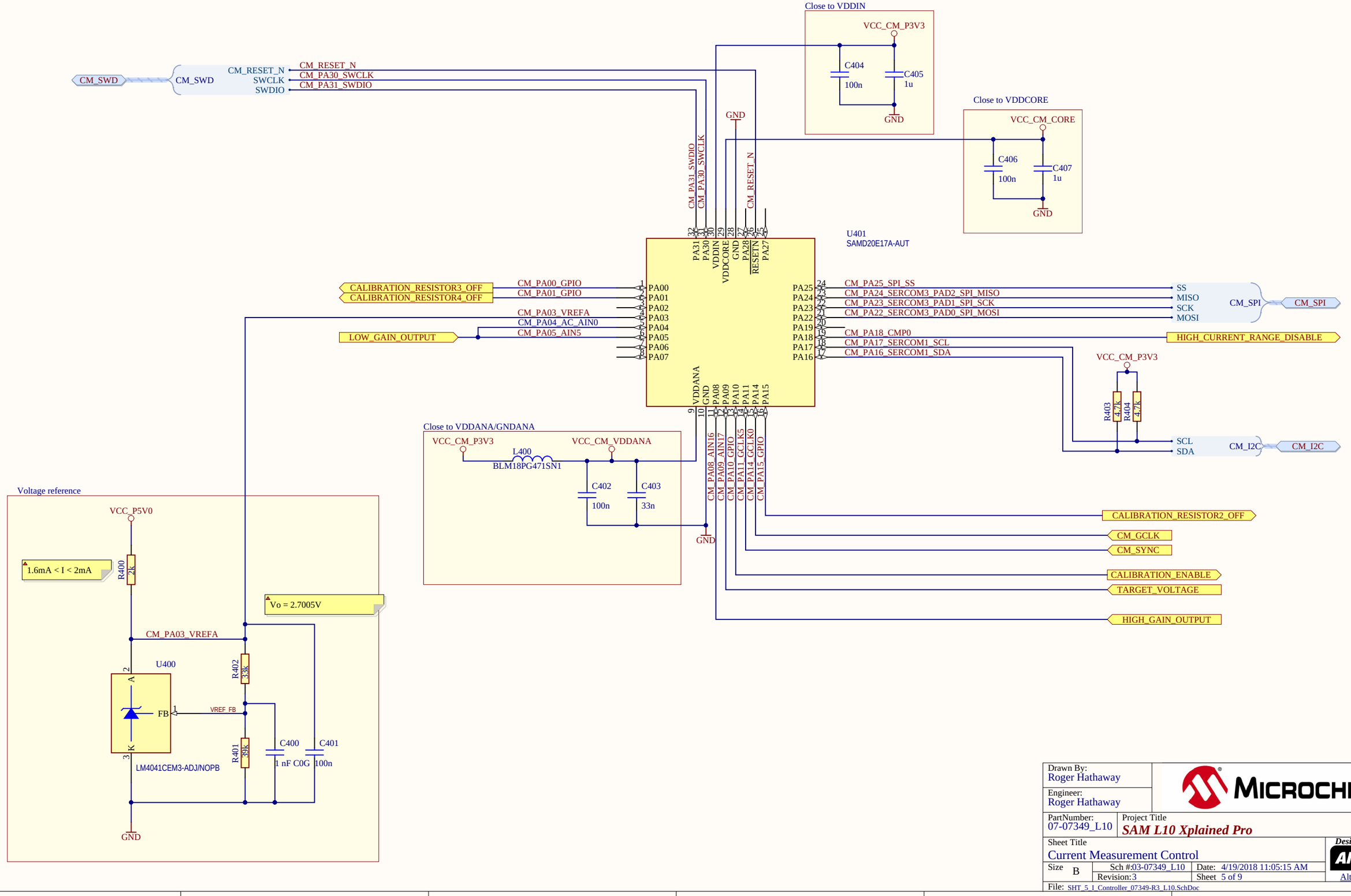






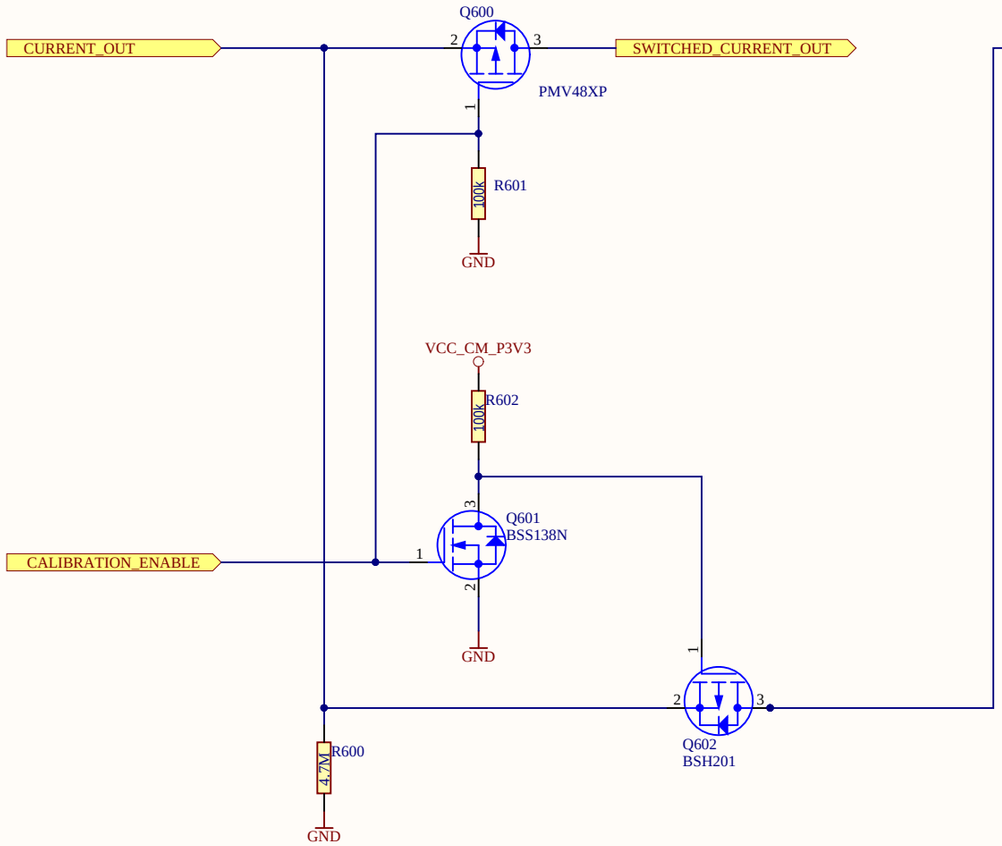


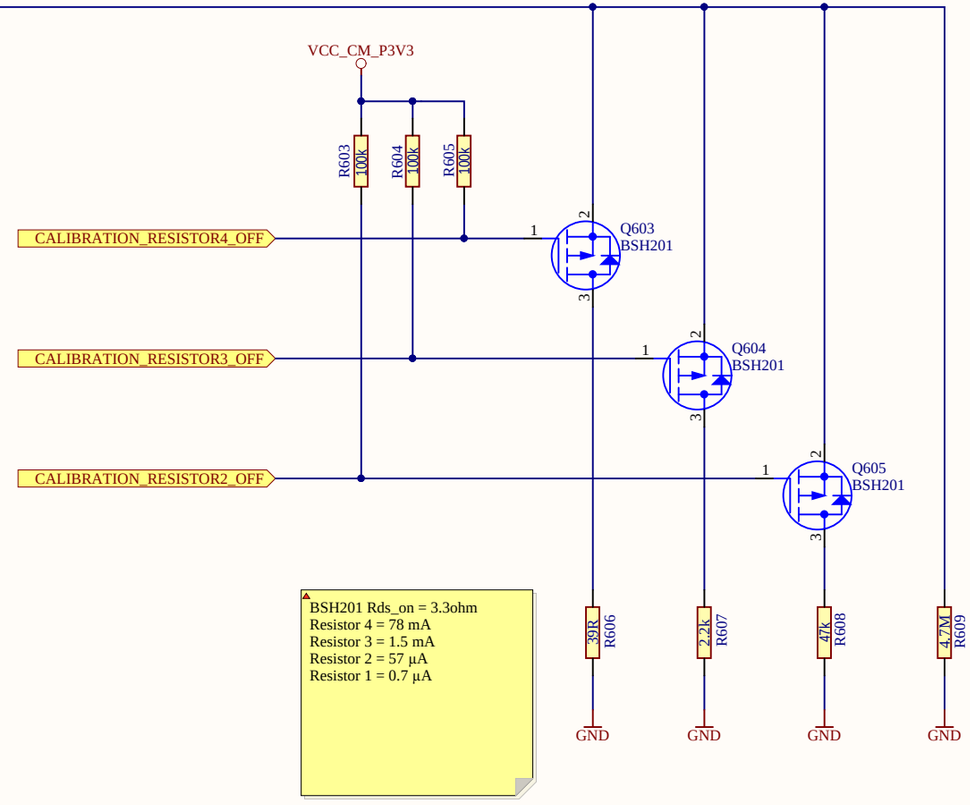
Drawn By: Roger Hathaway	
Engineer: Roger Hathaway	
PartNumber: 07-07349_L10	Project Title: *SAM L10 Xplained Pro*
Sheet Title: Target MCU	Designed with Altium
Size: B	Sch #:03-07349_L10 · Date: 4/19/2018 11:05:15 AM · Revision:3 · Sheet 4 of 9
File: SHT_4_MCU_07349-R3_L10.SchDoc	Altium.com



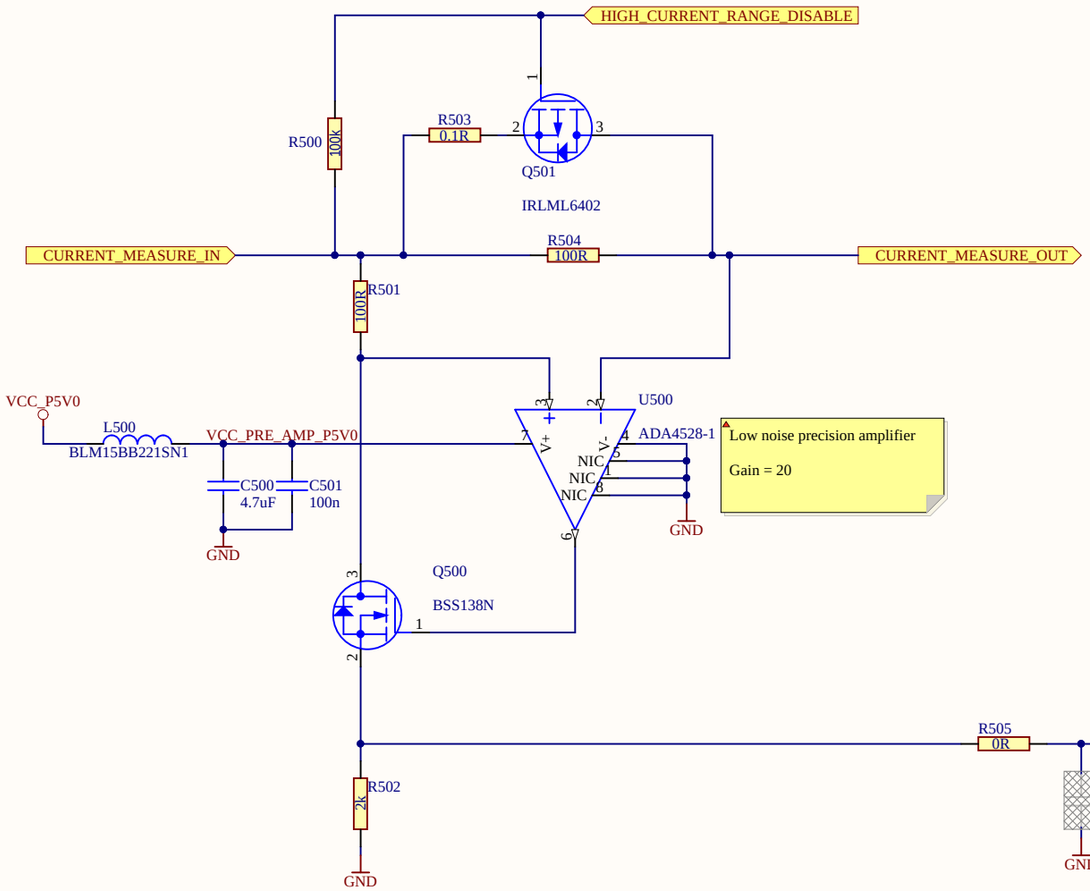
Drawn By: Roger Hathaway	MICROCHIP
Engineer: Roger Hathaway	
PartNumber: 07-07349_L10	Project Title: *SAM L10 Xplained Pro*
Sheet Title: Current Measurement Control	Designed with Altium — Altium.com
Size: B	Sch #:03-07349_L10 · Revision:3 · Date: 4/19/2018 11:05:15 AM · Sheet 5 of 9
File: SHT_5_1_Controller_07349-R3_L10.SchDoc	

Target disconnect for calibration

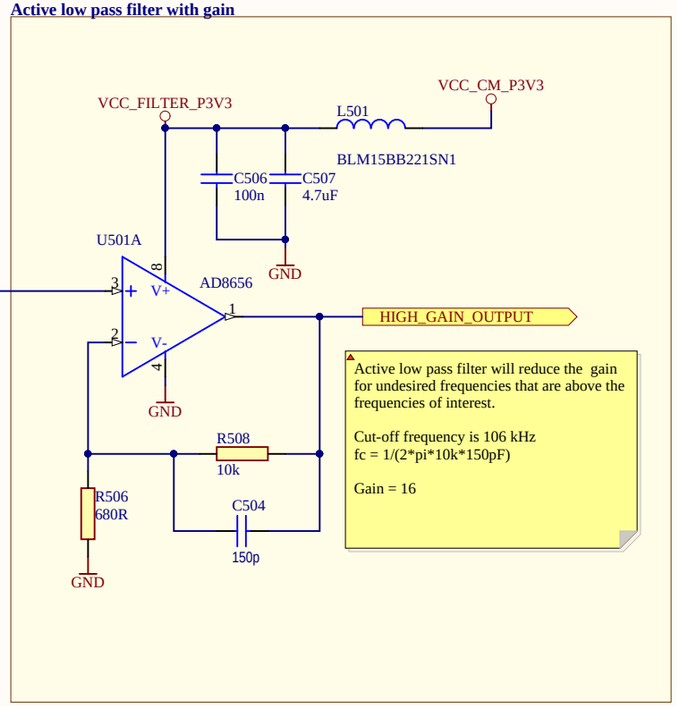




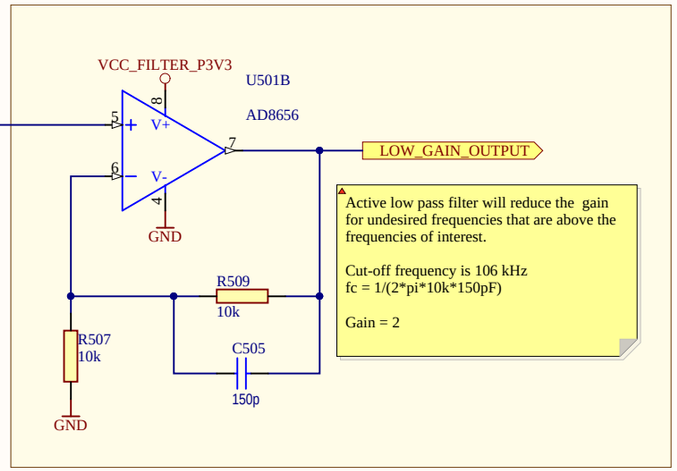
Drawn By: Roger Hathaway	MICROCHIP
Engineer: Roger Hathaway	
PartNumber: 07-07349_L10	Project Title: *SAM L10 Xplained Pro*
Sheet Title: Current Measurement Calibration	Designed with Altium — Altium.com
Size: B	Sch #:03-07349_L10 · Date: 4/19/2018 11:05:16 AM
	Revision:3 · Sheet 6 of 9
File: SHT_7_I_Calibration_07349-R3_L10.SchDoc	



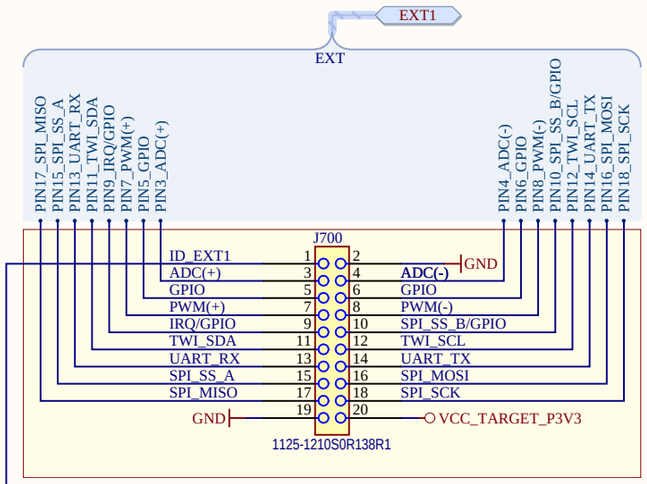
Active low pass filter with gain



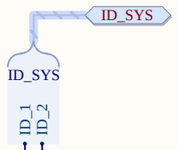
Active low pass filter with gain

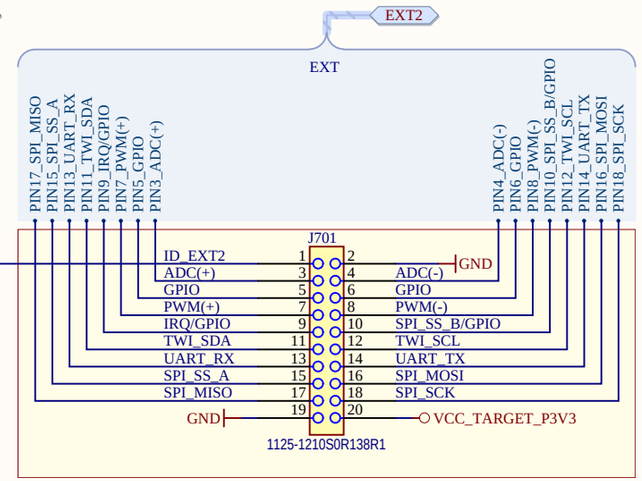


Drawn By: Roger Hathaway	MICROCHIP
Engineer: Roger Hathaway	
PartNumber: 07-07349_L10	Project Title: *SAM L10 Xplained Pro*
Sheet Title: Current Measurement Front End	Designed with Altium (Altium.com)
Size: B	Sch #:03-07349_L10 · Date: 4/19/2018 11:05:16 AM
	Revision: 3 · Sheet 7 of 9
File: SHT_6_I_Measure_07349-R3_L10.SchDoc	

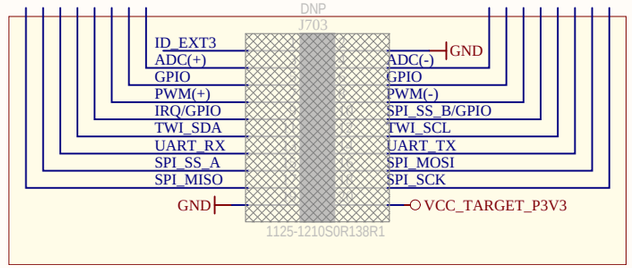


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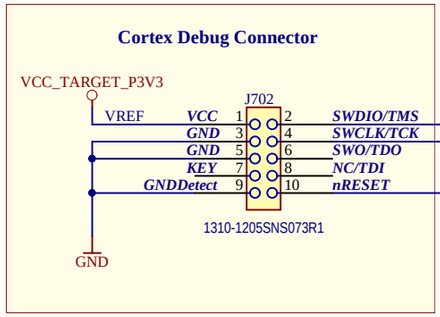




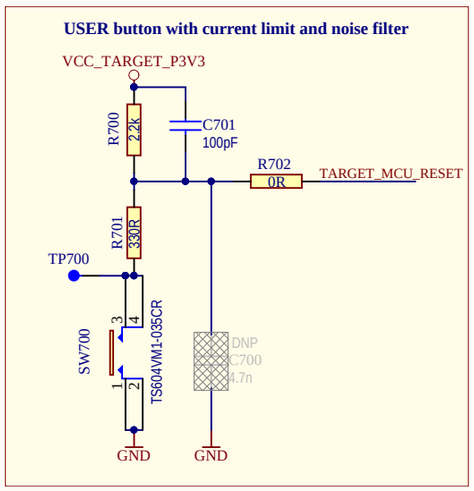
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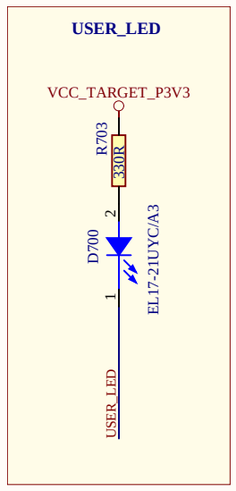


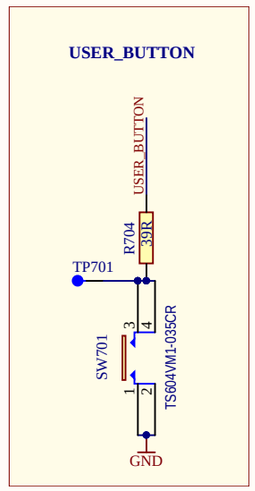
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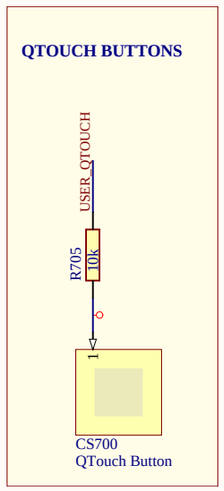




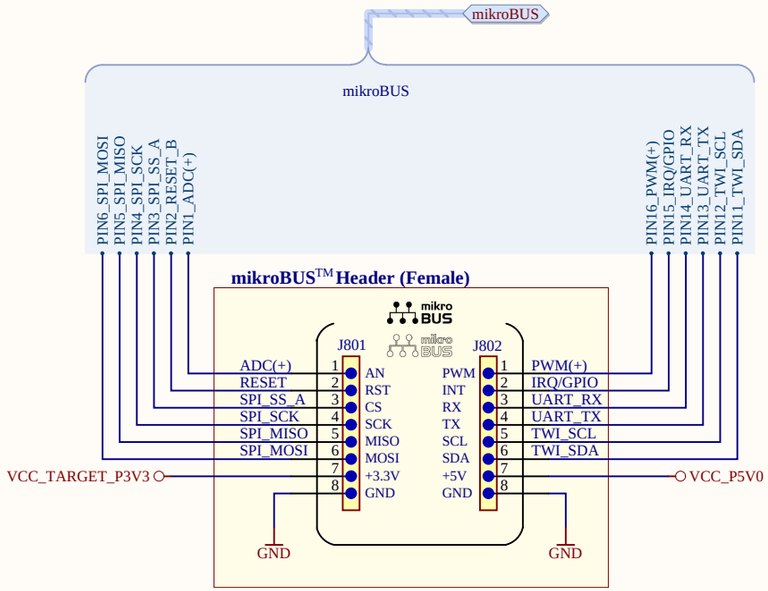


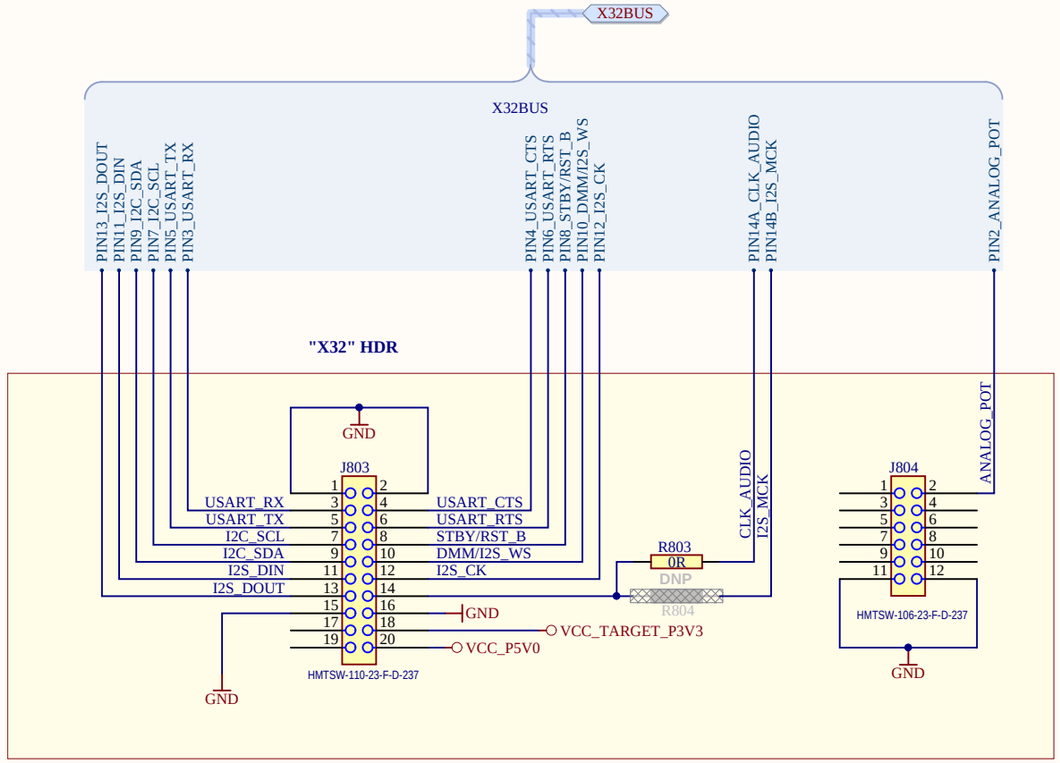


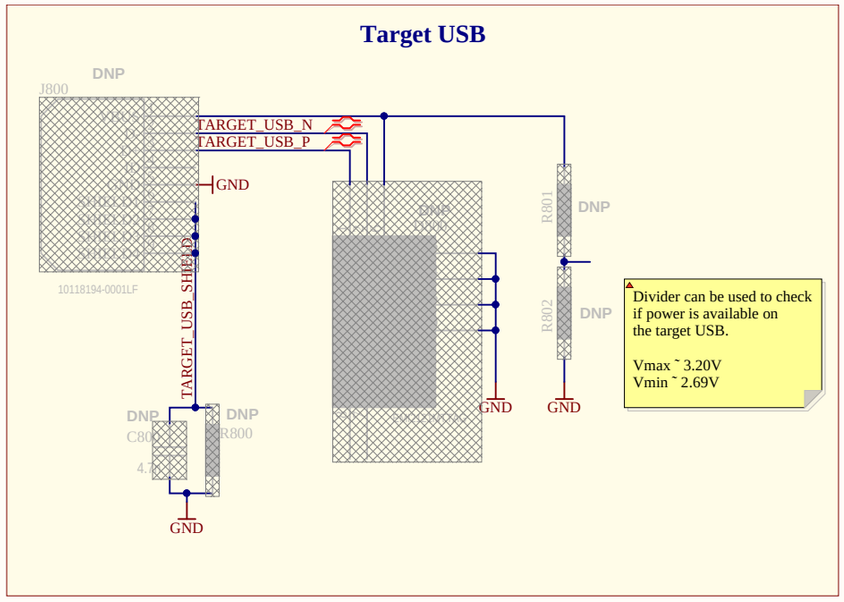




Drawn By: Roger Hathaway	MICROCHIP
Engineer: Roger Hathaway	
PartNumber: 07-07349_L10	Project Title: *SAM L10 Xplained Pro*
Sheet Title: Extension Connectors	Designed with Altium — Altium.com
Size: B	Sch #:03-07349_L10 · Revision:3 · Date: 4/19/2018 11:05:17 AM · Sheet 8 of 9
File: SHT_8_Ext_Headers_07349-R3_L10.SchDoc	







Drawn By: Roger Hathaway	MICROCHIP
Engineer: Roger Hathaway	
PartNumber: 07-07349_L10	Project Title: *SAM L10 Xplained Pro*
Sheet Title: X32 and mikroBUS Connectors	Designed with Altium
Size: B	Sch #:03-07349_L10 · Revision:3 · Date: 4/19/2018 11:05:17 AM · Sheet 9 of 9
File: SHT_9_X32-mikroBUS_07349-R3_L10.SchDoc	Altium.com