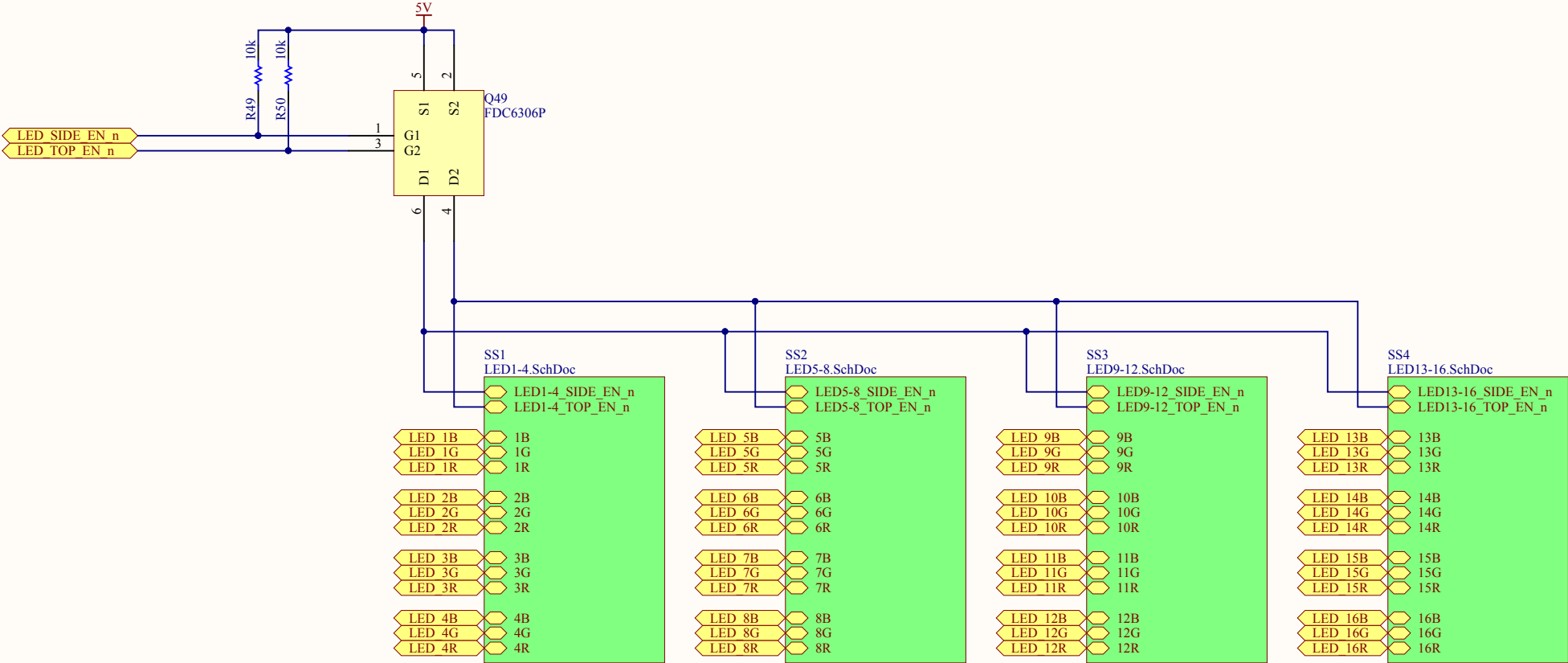


▲ All LEDs have been set to 20mA forward current for 5V via:
RED: R=150R
GREEN: R=91R
BLUE: R=91R

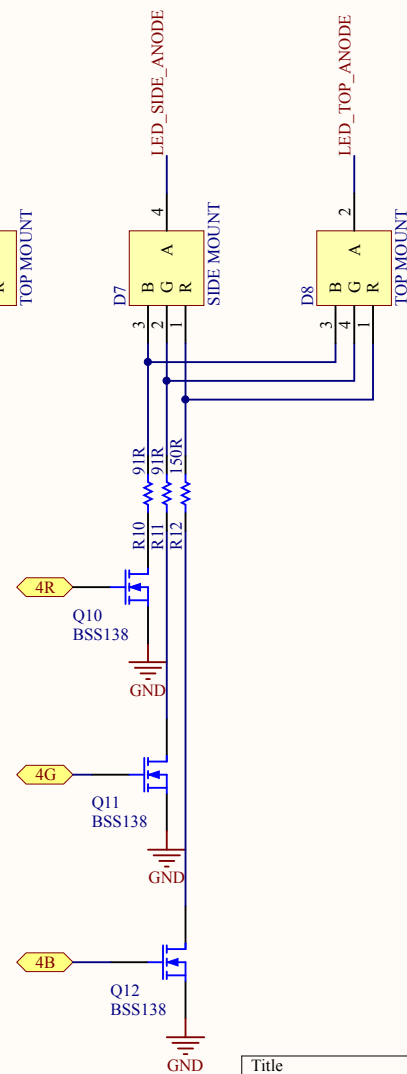
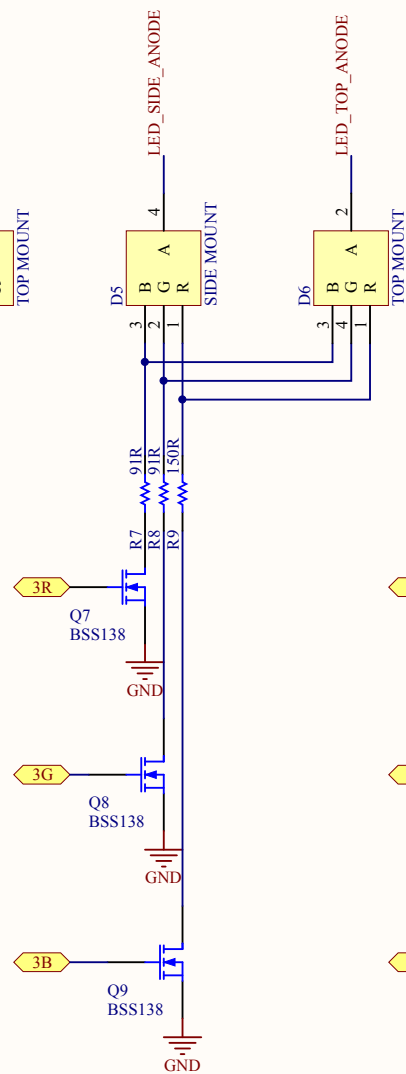
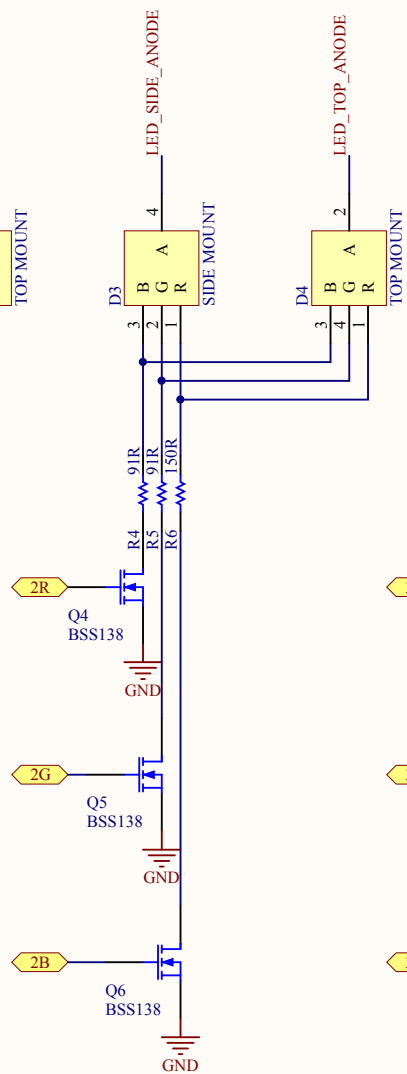
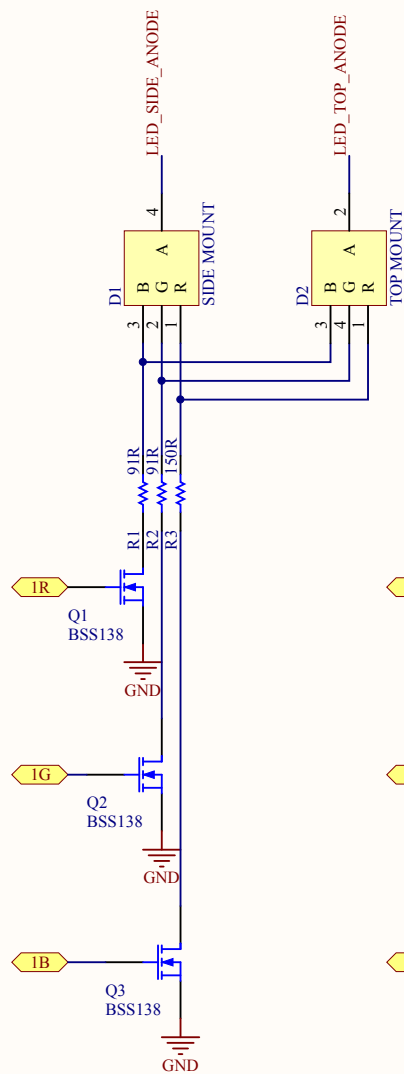
▲ SIDE LED:
Vf @ If=20mA (Min->Typ->Max):
RED: 1.8->2.0->2.4V
GREEN: 3.0->3.3->3.6V
BLUE: 3.0->3.3->3.6V

▲ TOP LED:
Vf @ If=20mA (Avg->Max):
RED: 2.0->2.6V
GREEN: 3.2->4.0V
BLUE: 3.2->4.0V

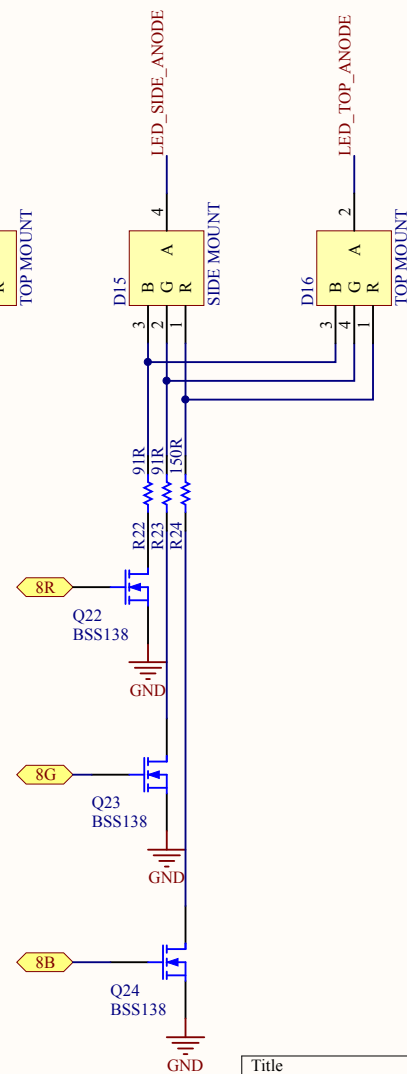
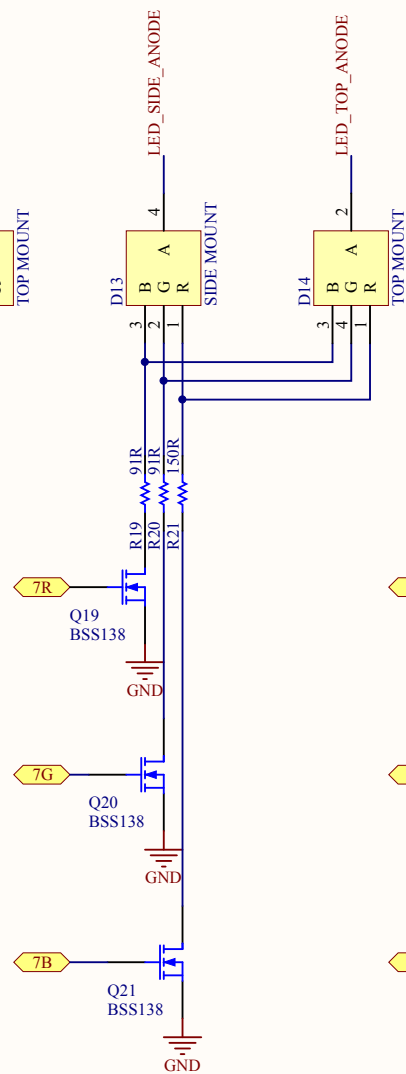
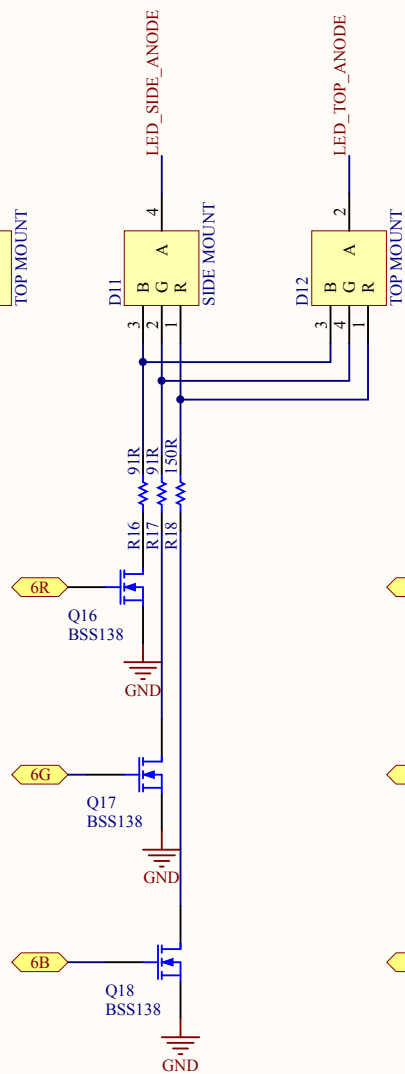
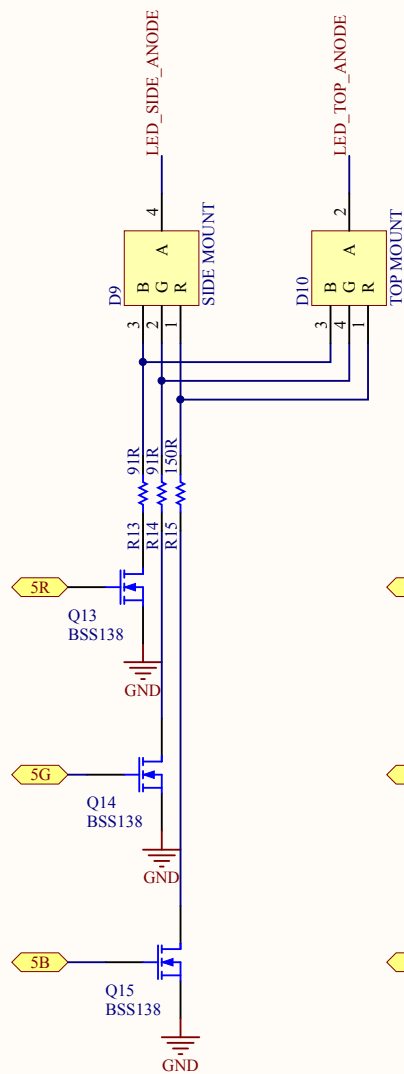
CLV1A-FKB-CJ1M1F1BB7R4S3: 675med Red, 1055med Green, 337med Blue
CLV1A-FKB-CK1N1G1BB7R4S3: 730med Red, 1150med Green, 365med Blue



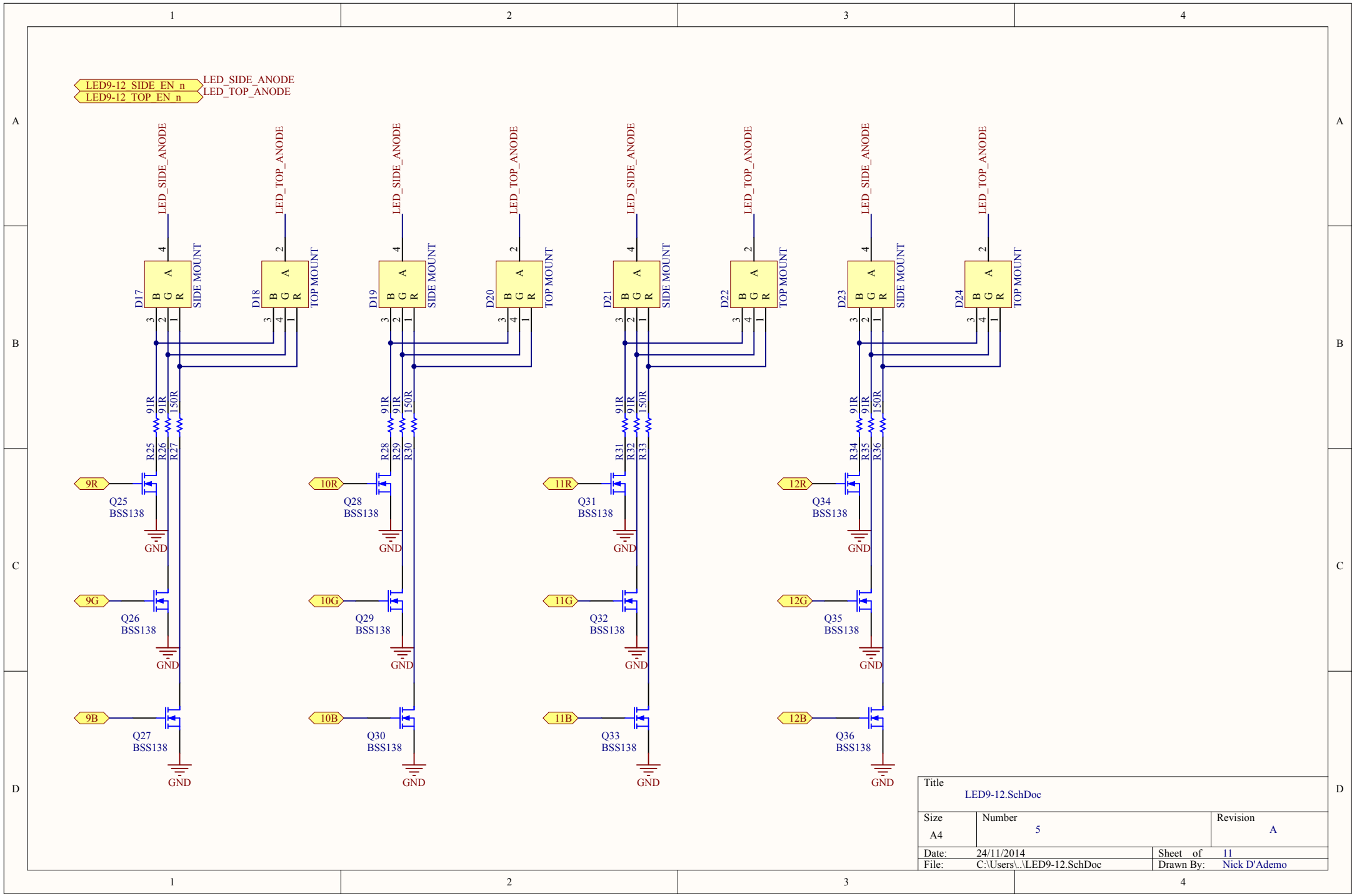
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Size	Number	Revision	
A4	2	A	
Date:	24/06/2014	Sheet of	11
File:	C:\Users\...\LEDs.SchDoc	Drawn By:	Nick D'Ademo



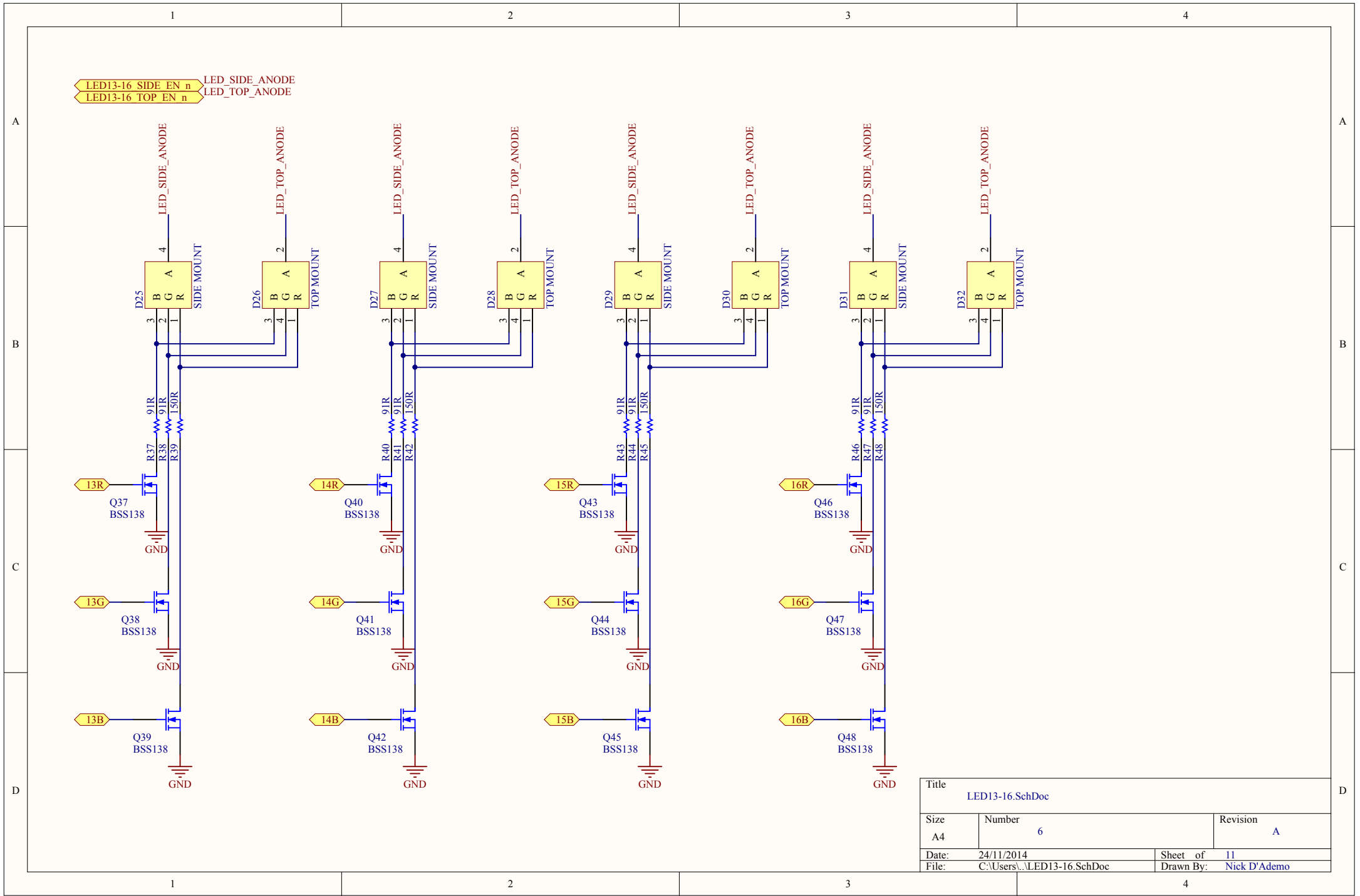
Title LED1-4.SchDoc			
Size A4	Number 3		Revision A
Date:	24/11/2014	Sheet of	11
File:	C:\Users\...\\LED1-4.SchDoc	Drawn By:	Nick D'Ademo

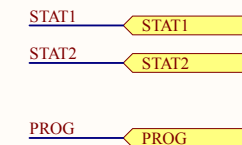
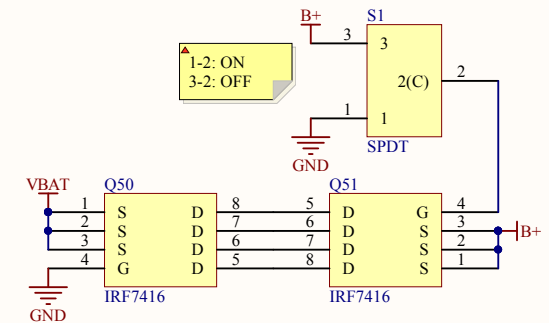
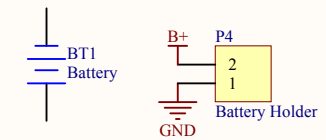
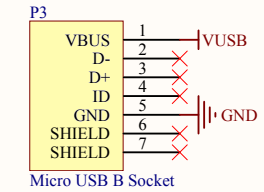
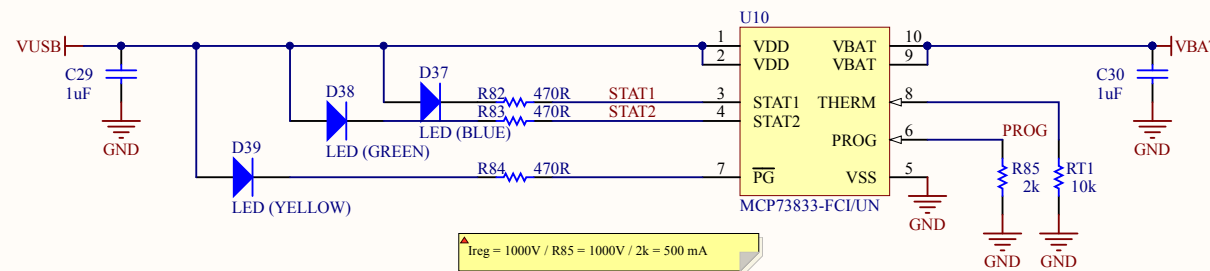
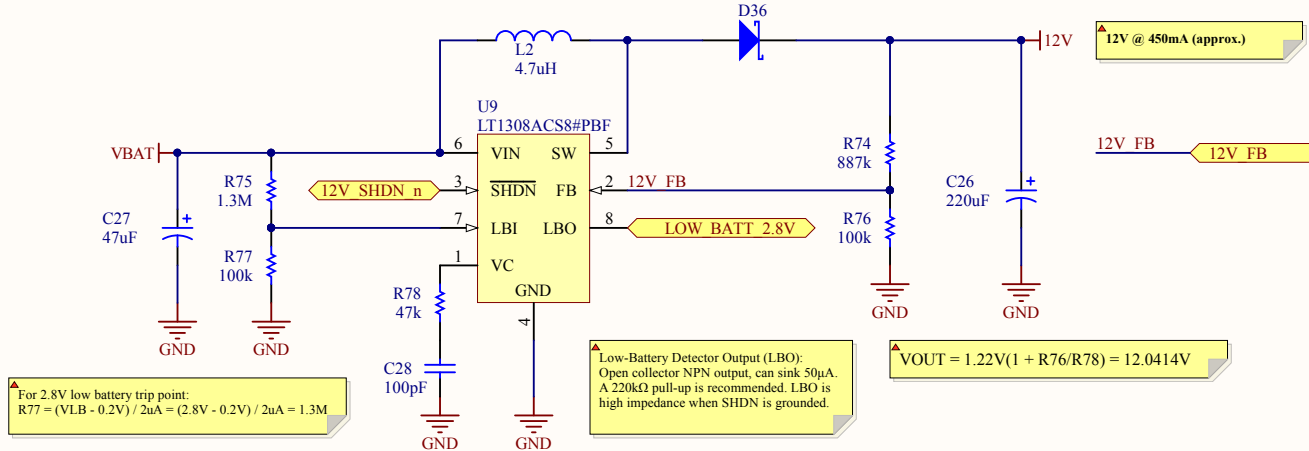
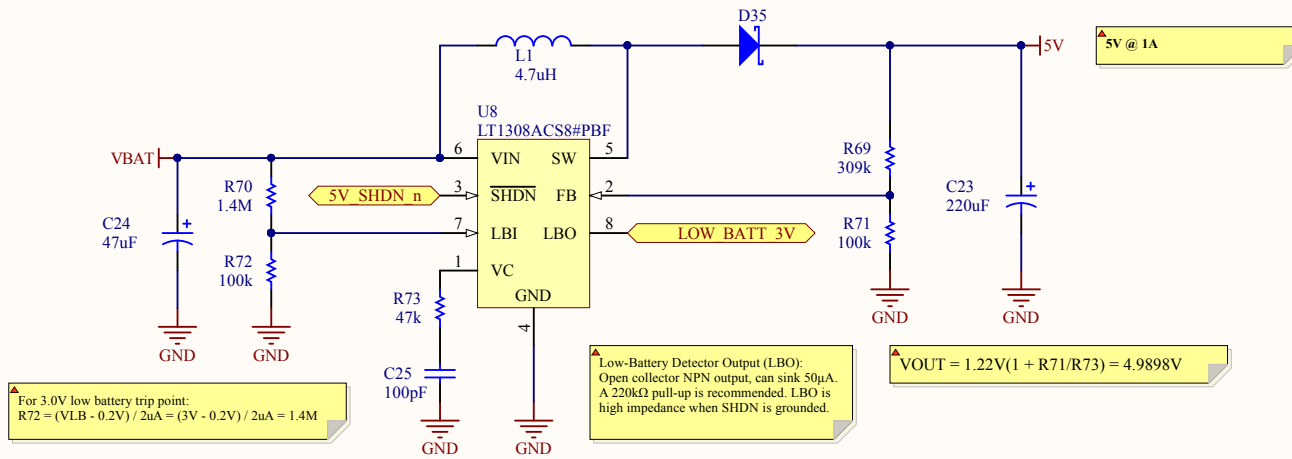


Title LED5-8.SchDoc			
Size A4	Number 4		Revision A
Date:	24/11/2014	Sheet of	11
File:	C:\Users\...\\LED5-8.SchDoc	Drawn By:	Nick D'Ademo



Title		
LED9-12.SchDoc		
Size	Number	Revision
A4	5	A
Date:	24/11/2014	Sheet of 11
File:	C:\Users\...\LED9-12.SchDoc	Drawn By: Nick D'Ademo





Title Power Supply.SchDoc			
Size A4	Number 7	Revision A	
Date:	24/11/2014	Sheet of	11
File:	C:\Users\...\Power Supply.SchDoc	Drawn By:	Nick D'Ademo

▲ AMS light sensors (www.ams.com) have the following pin-outs:
GND - 1
VDD - 2
OUT - 3

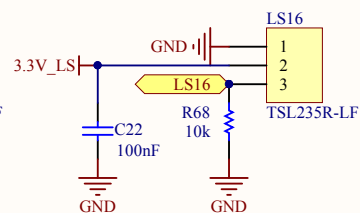
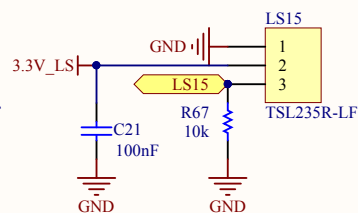
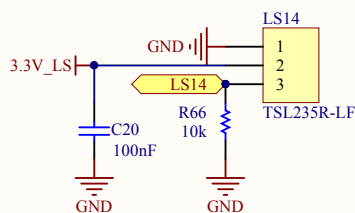
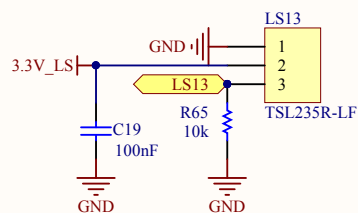
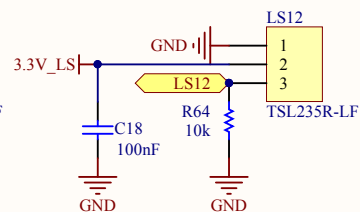
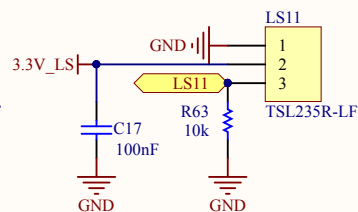
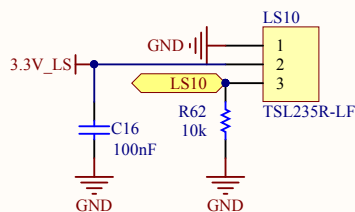
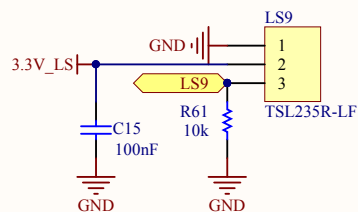
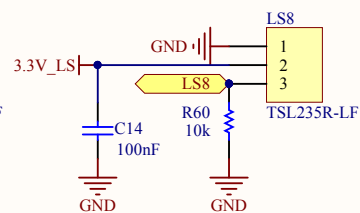
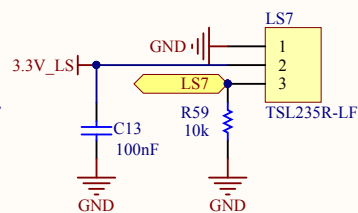
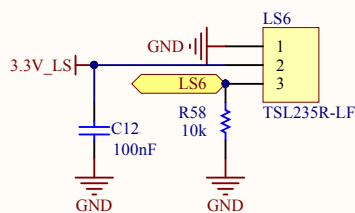
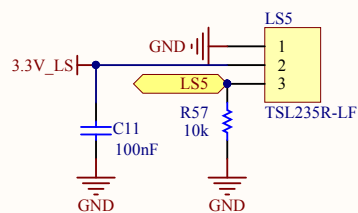
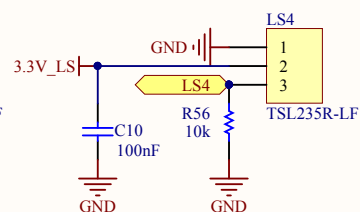
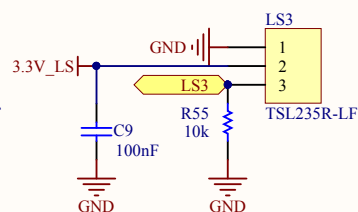
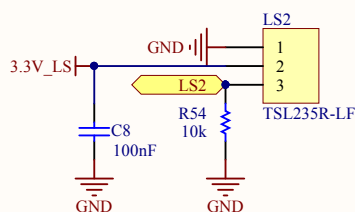
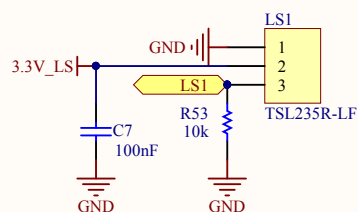
Light-to-Frequency parts:

TSL235
TSL237
TSL245 (IR light)

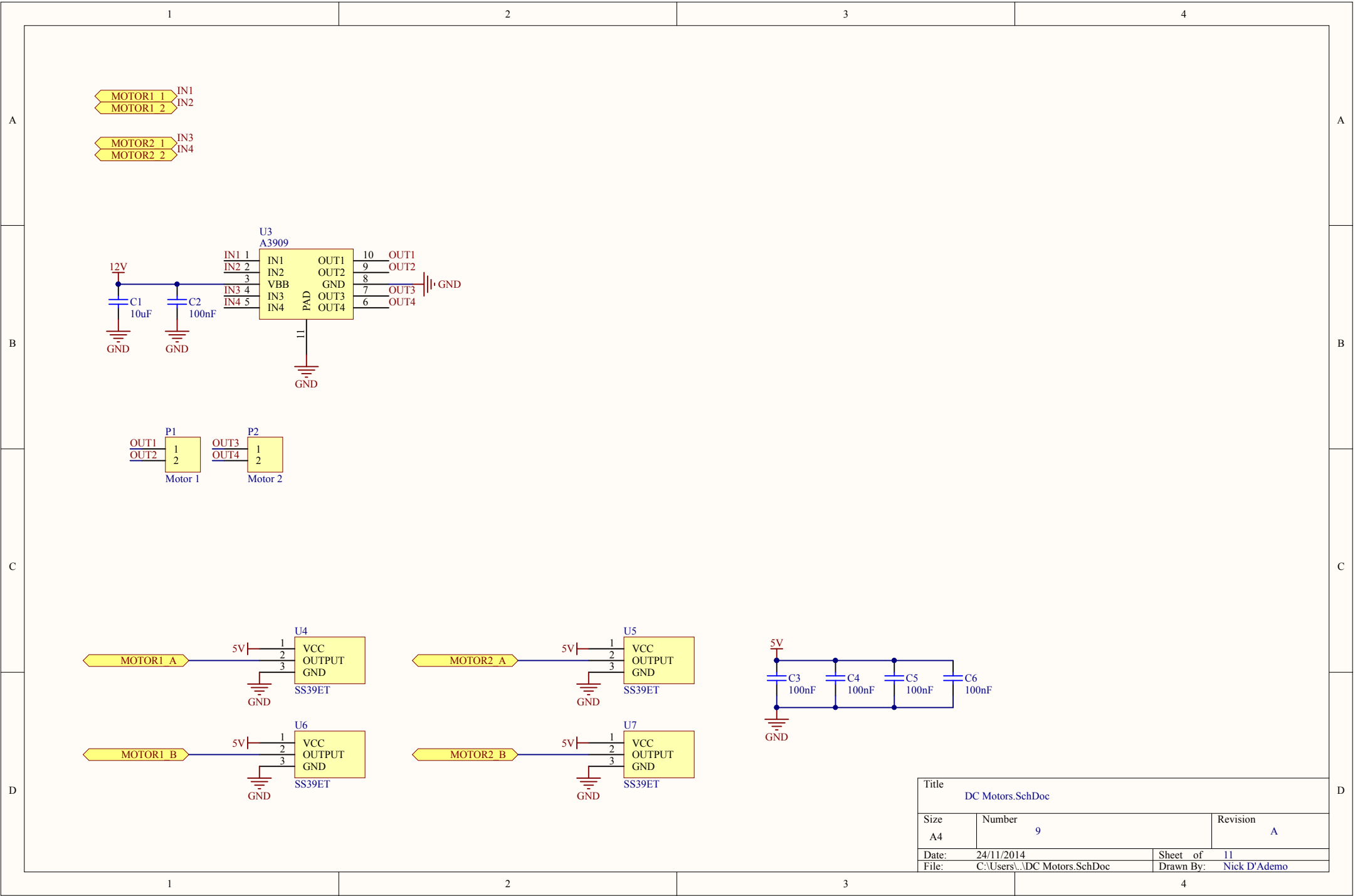
Light-to-Voltage parts:

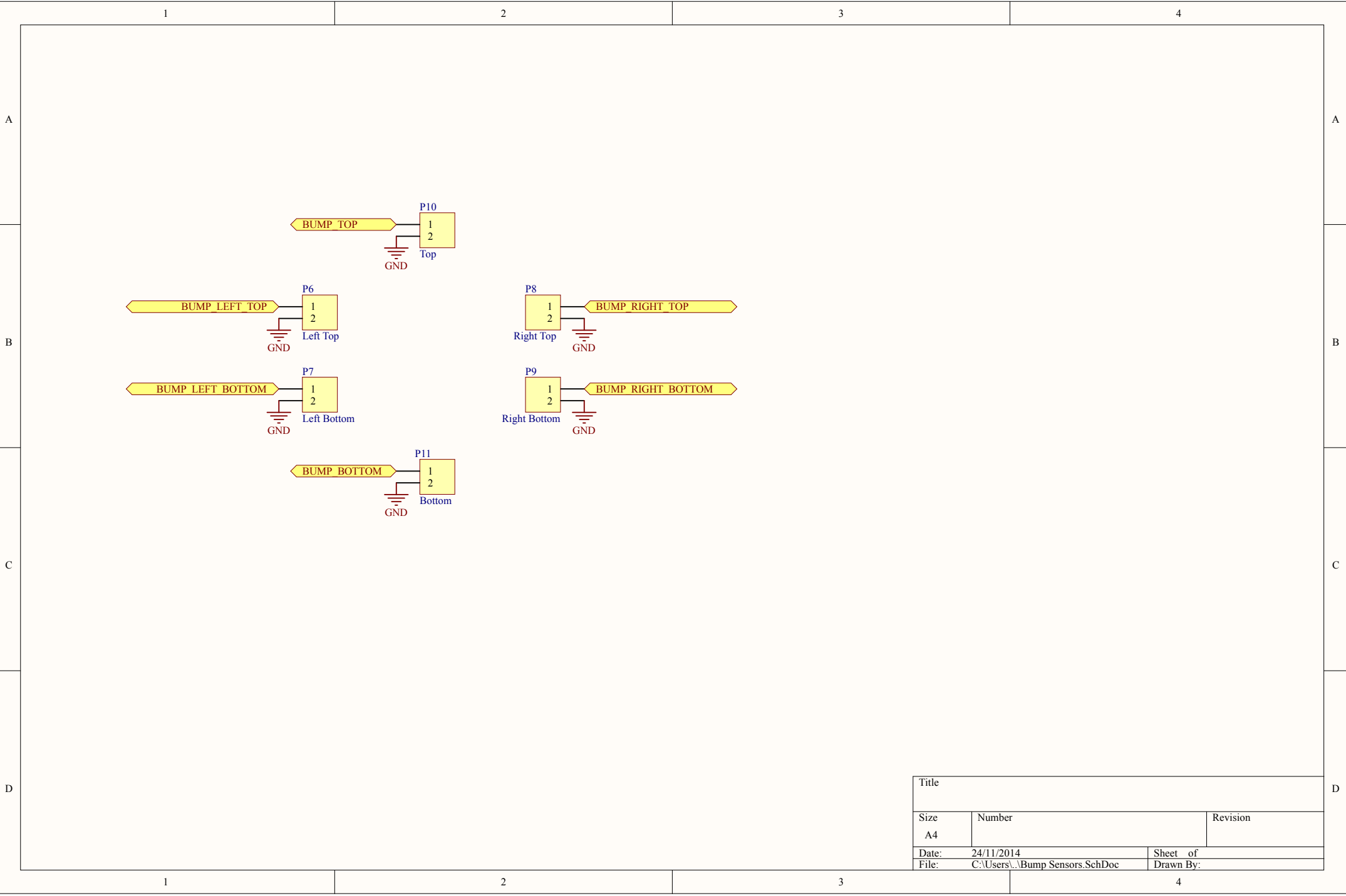
TSL125
TSL135
TSL145
TSL250R
TSL251R
TSL252R
TSL253R
TSL254R
TSL257
TSL260R (IR light)
TSL261R (IR light)
TSL262R (IR light)
TSL267 (IR light)

▲ Only install R53 to R68 if Light-to-Voltage parts are used.



Title Light Sensors.SchDoc			
Size A4	Number 8	Revision A	
Date:	24/11/2014	Sheet of	11
File:	C:\Users\...\Light Sensors.SchDoc	Drawn By:	Nick D'Ademo





Title		
Size A4	Number	Revision
Date: 24/11/2014	Sheet of	
File: C:\Users\...\Bump Sensors.SchDoc	Drawn By:	

