

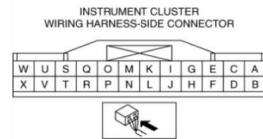
## Cable Extender Assembly



Buy a cable assembly like this one, Aliexpress search phrase: "automotive 24pin extender".

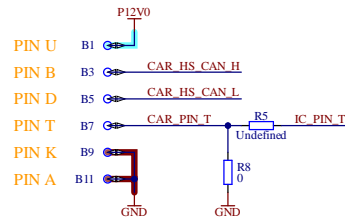
It will be much cheaper than buying raw components, there is no PCB mountable female plug unfortunately so cables are needed.

This PCB shall be mounted inline within this extender

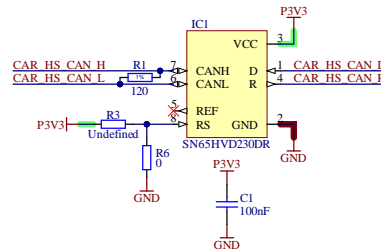


Important pinouts:  
U - 12V Constant  
S - 12V Ignition Relay  
K - GND  
A - GND  
E - MS CAN\_L  
C - MS CAN\_H  
D - HS CAN\_L  
B - HS CAN\_H  
V - Cluster switch sense line  
T - Cluster switch return (ON BM ONLY!)

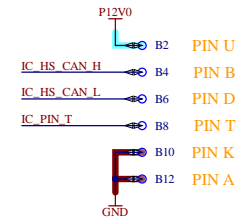
## Extender Male Receptacle (connects to harness)



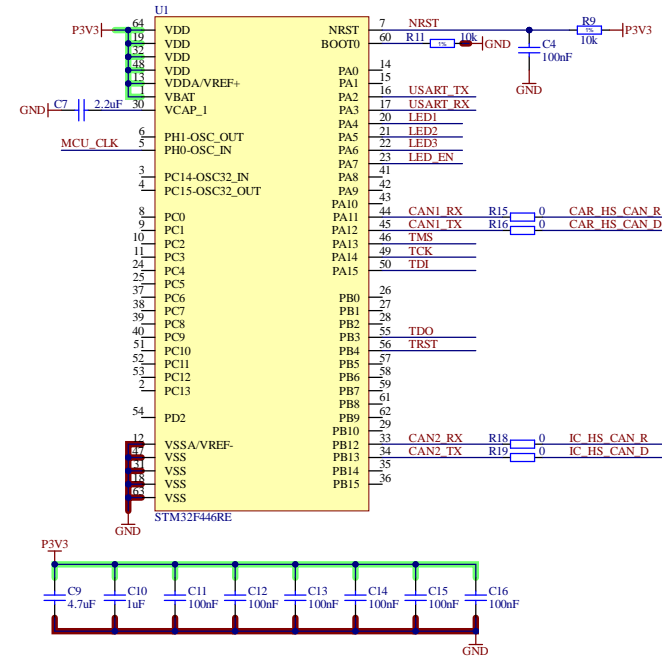
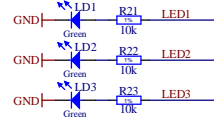
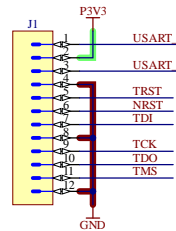
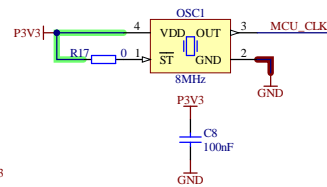
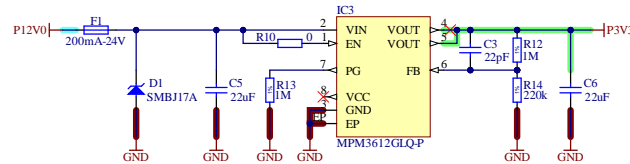
Cut cables corresponding to pins used by this PCB, solder the board inline with them.

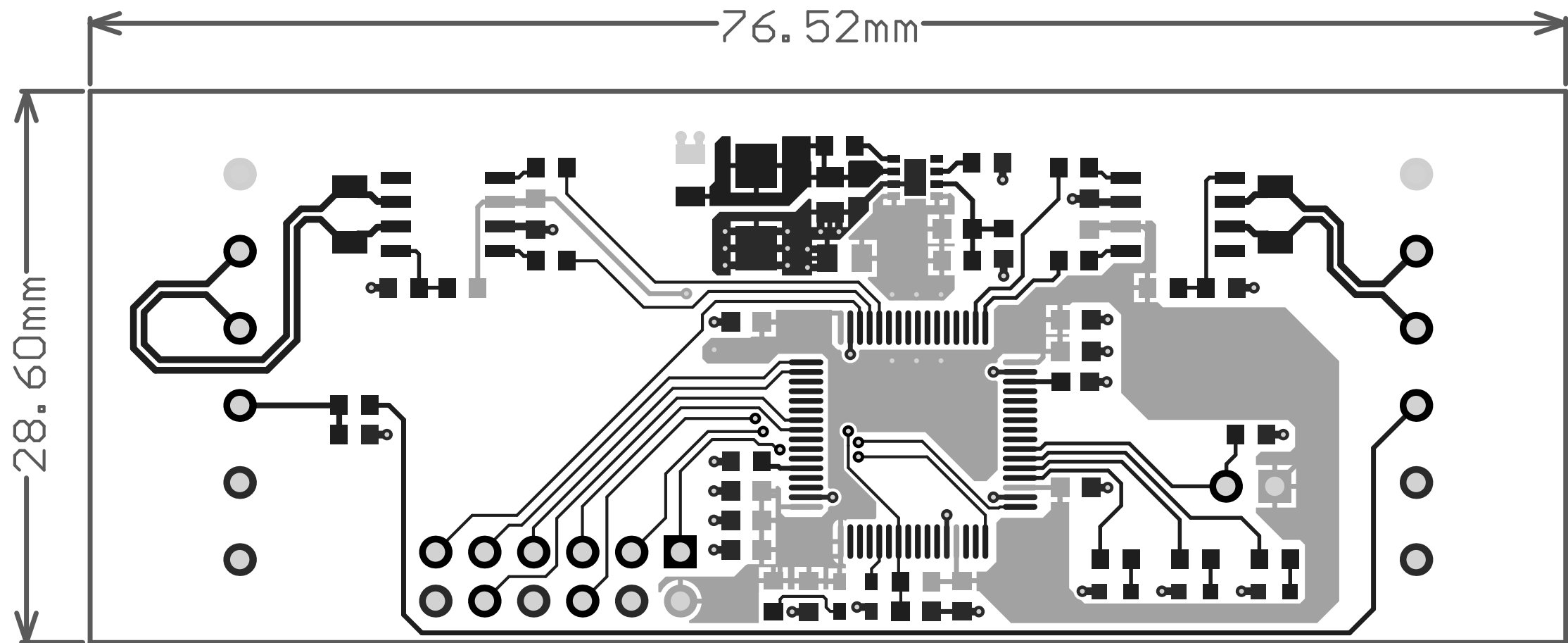


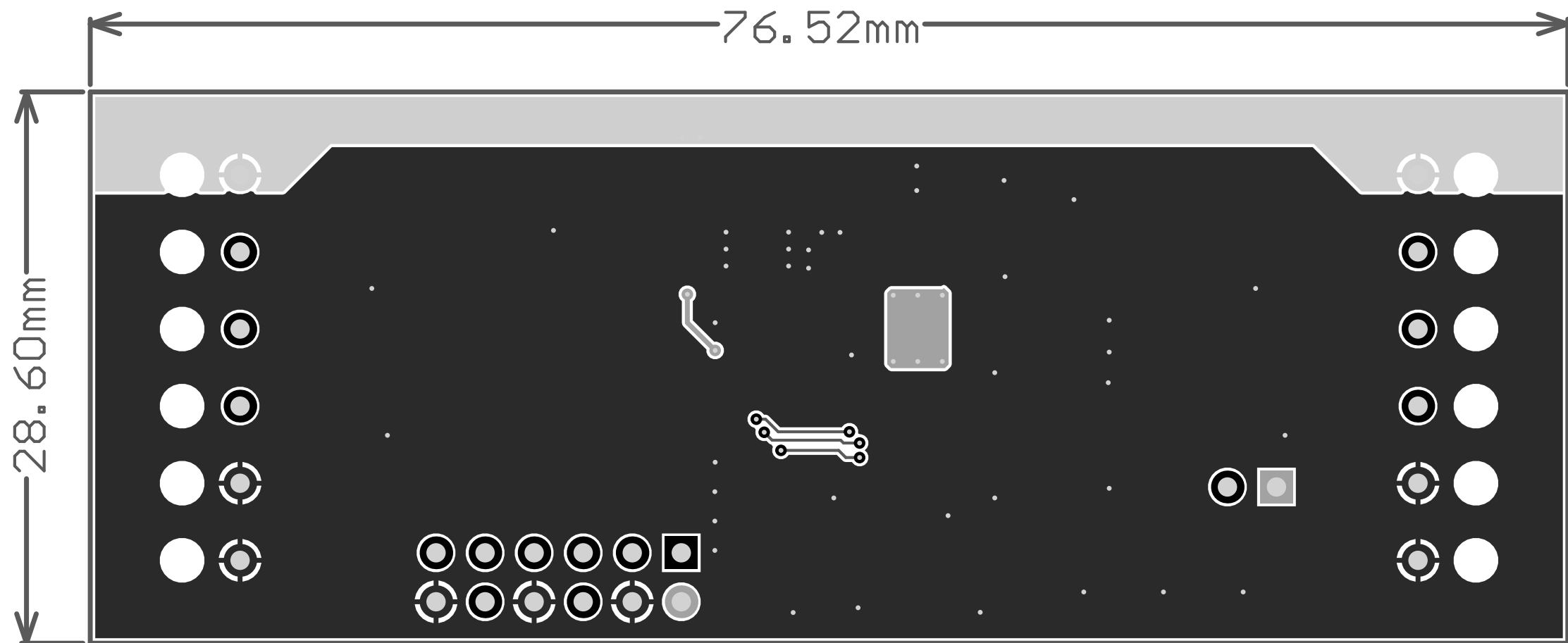
## Extender Female Plug (connects to cluster)

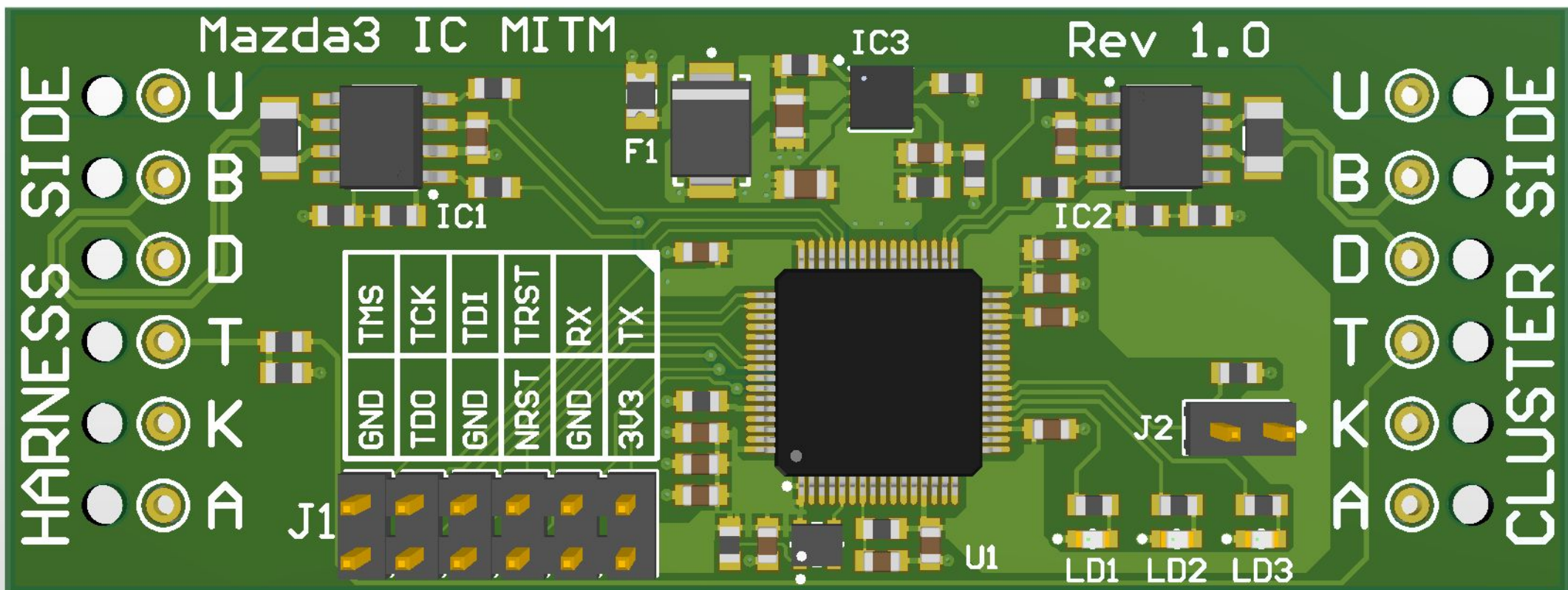


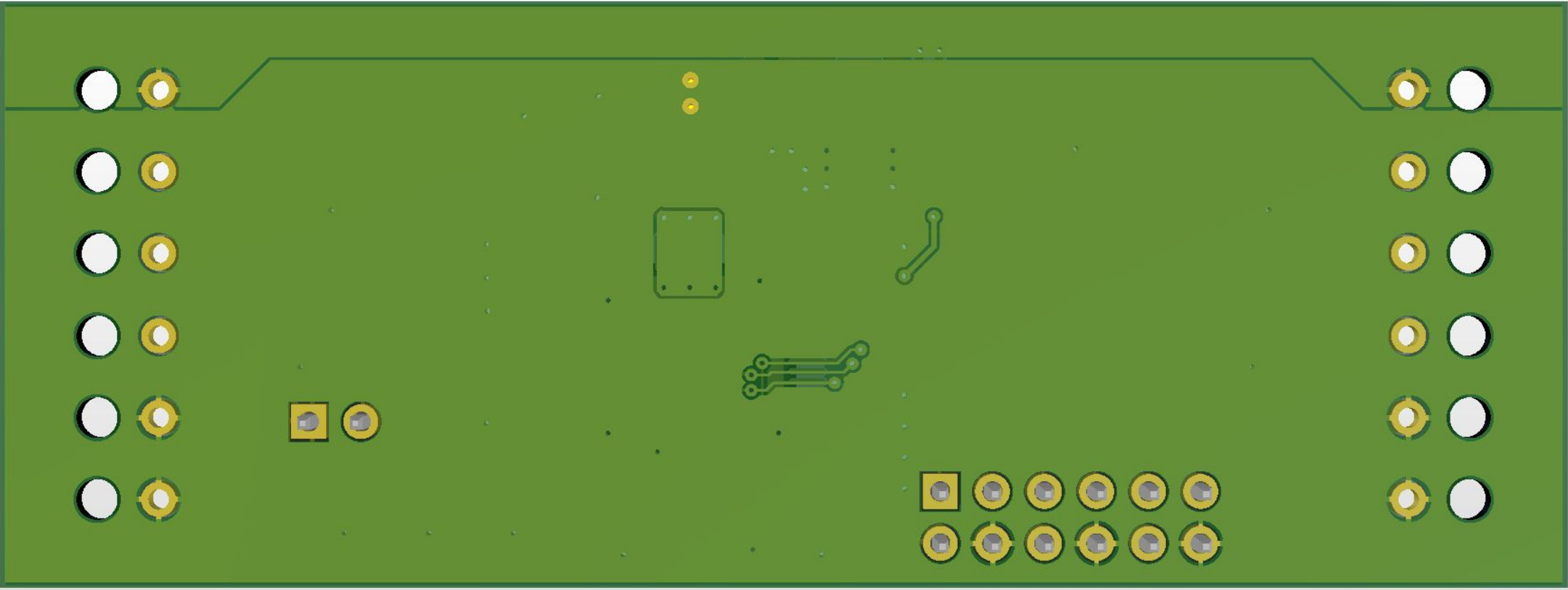
Cut cables corresponding to pins used by this PCB, solder the board inline with them.











Layer	Name	Material	Thickness	Constant	Board Layer Stack
	Top Overlay				
	Top Solder	Solder Resist	0.010mm	3.5	
1	Top Layer		0.036mm		
	Dielectric 1	FR-4	1.000mm	4.8	
2	Bottom Layer		0.036mm		
	Bottom Solder	Solder Resist	0.010mm	3.5	
	Bottom Overlay				