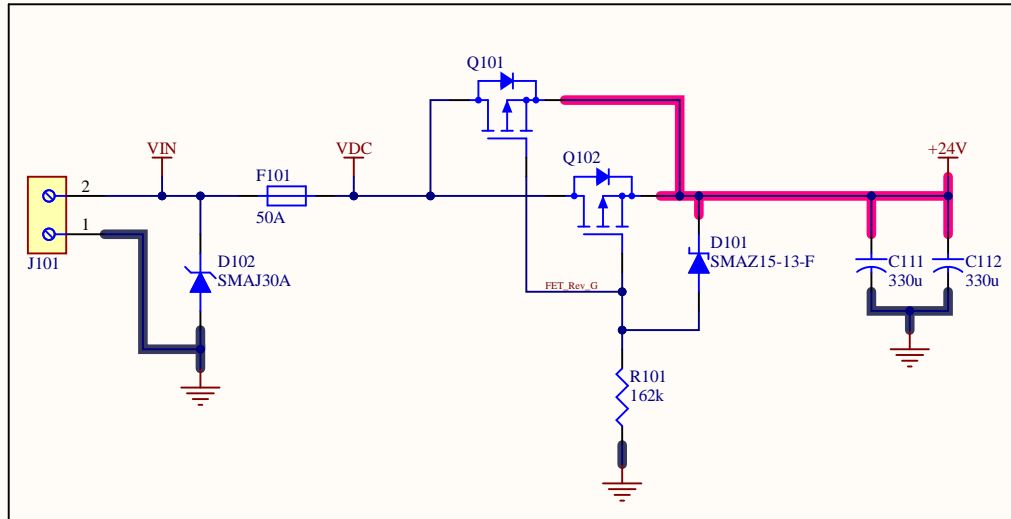
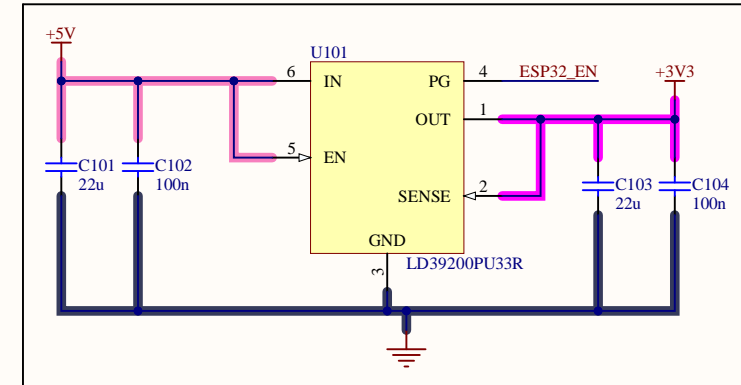


# [1] POWER

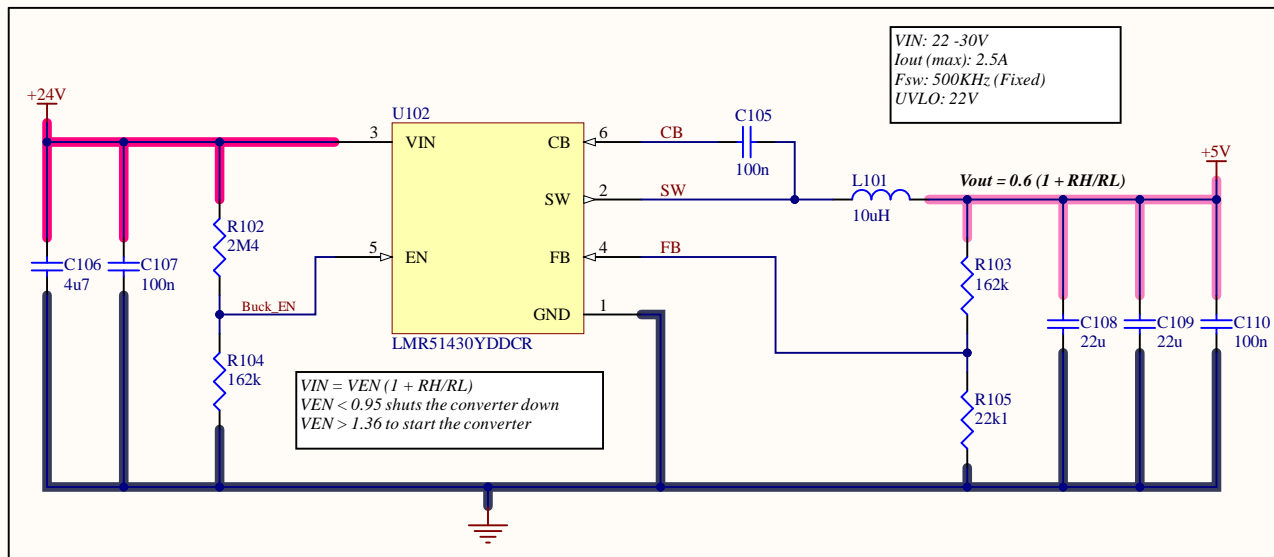
## Input Power & Protection



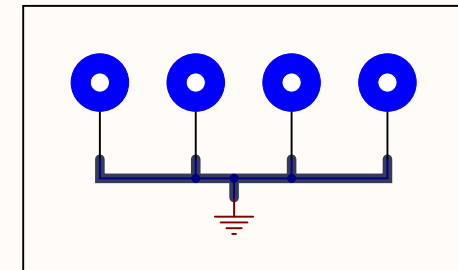
## 5V to 3V3 LDO



## 24V to 5V Buck Converter



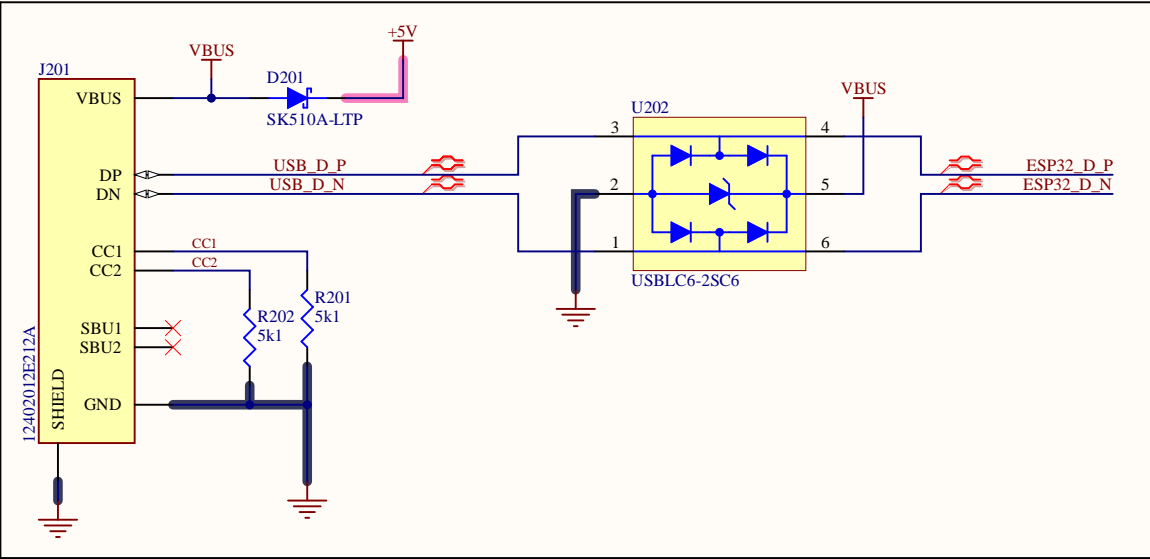
## Mounting Holes



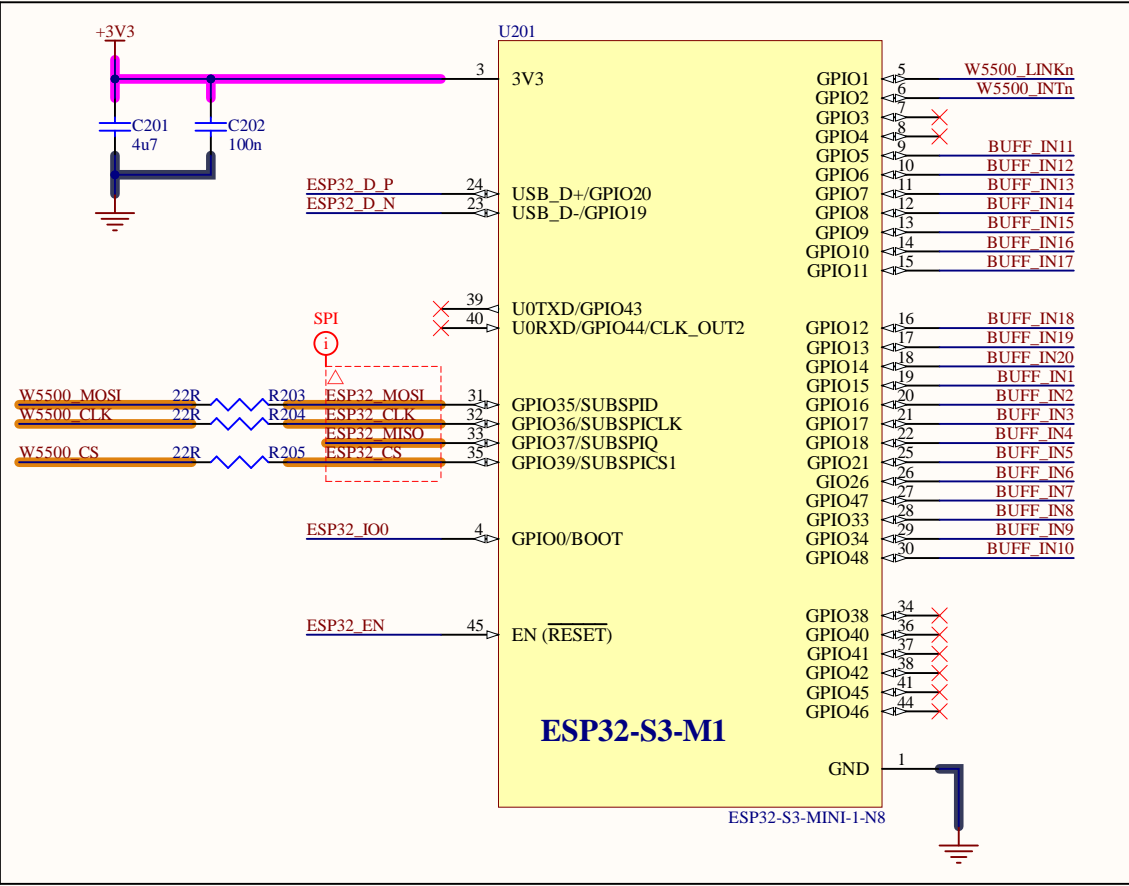
Title		
Size	Number	Revision
B		
Date:	11-10-2025	Sheet of
File:	D:\Khaled\...\(1) Controller A20_Power.Sch.Dwg	
	Drawn By:	

# [1] ESP32

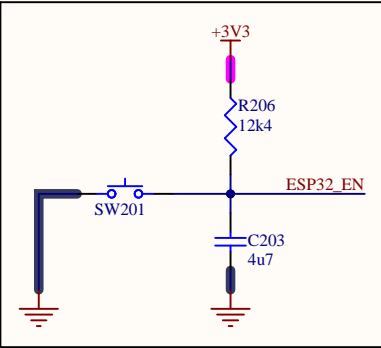
## ESP32 USB



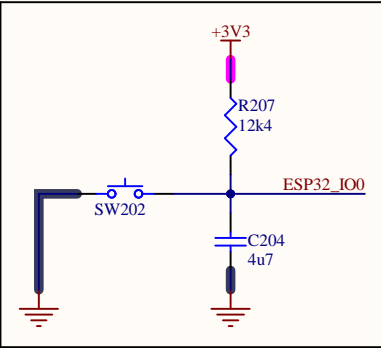
## ESP32 Module



## RESET Button



## BOOT Button

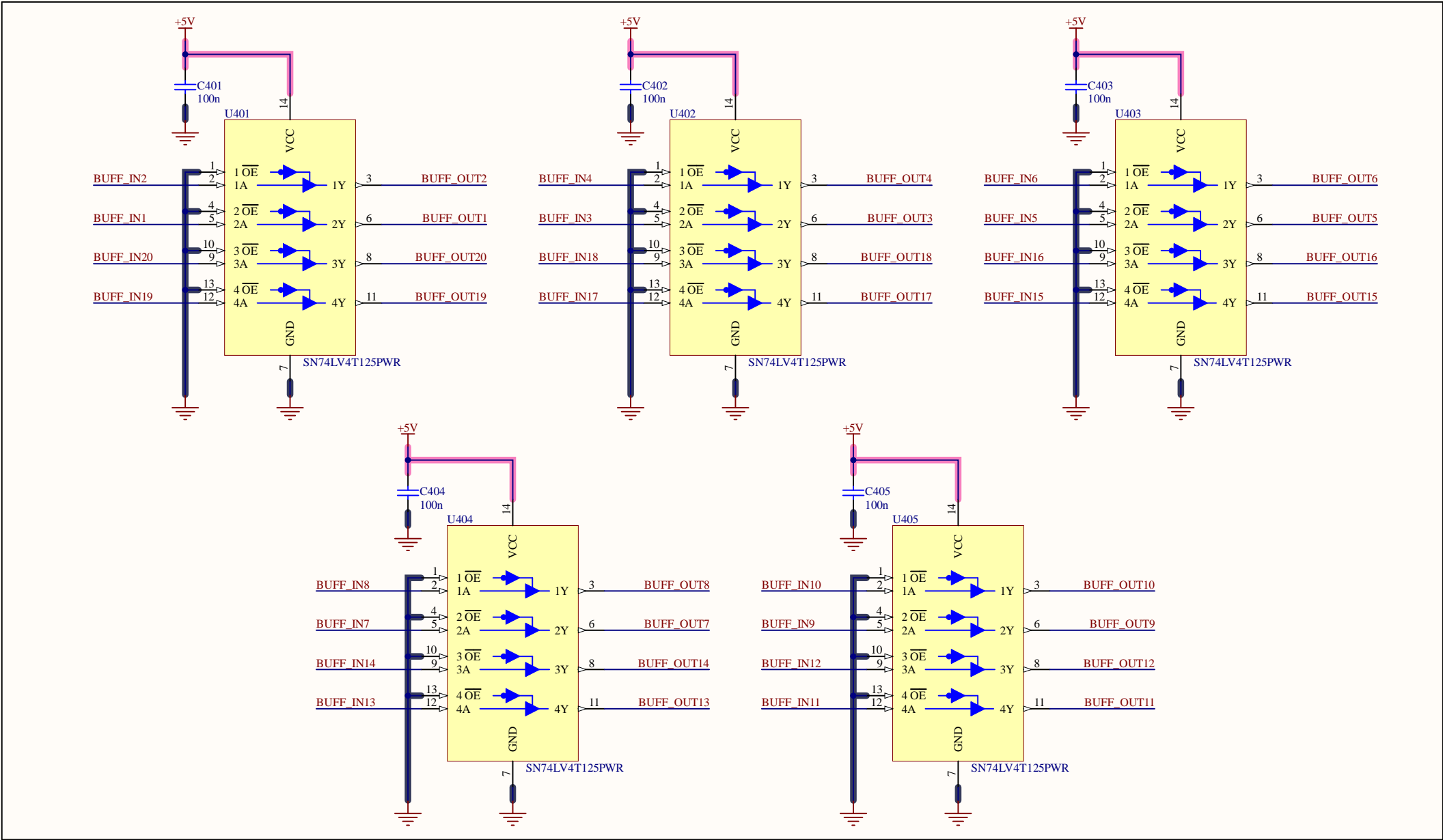


Title		
Size	Number	Revision
B		
Date:	11-10-2025	Sheet of
File:	D:\Khaled\...\(2) Controller A20_ESP32_Sch	Drawn By:



# [4] BUFFERS

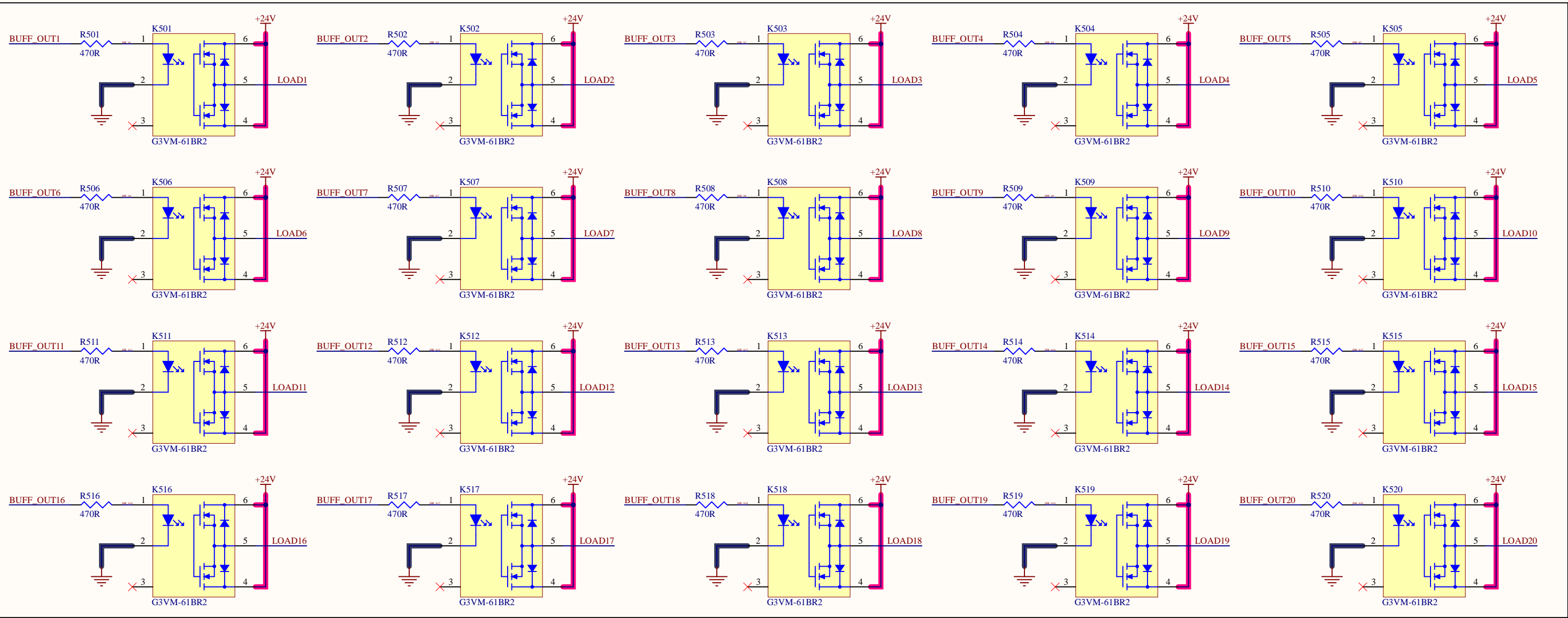
## Quadruple Buffer Translator



Title		
Size	Number	Revision
B		
Date:	11-10-2025	Sheet of
File:	D:\Khaled\...\(4) Controller A20_BUFFER.DSN	

# [5] MOSFET SSRs

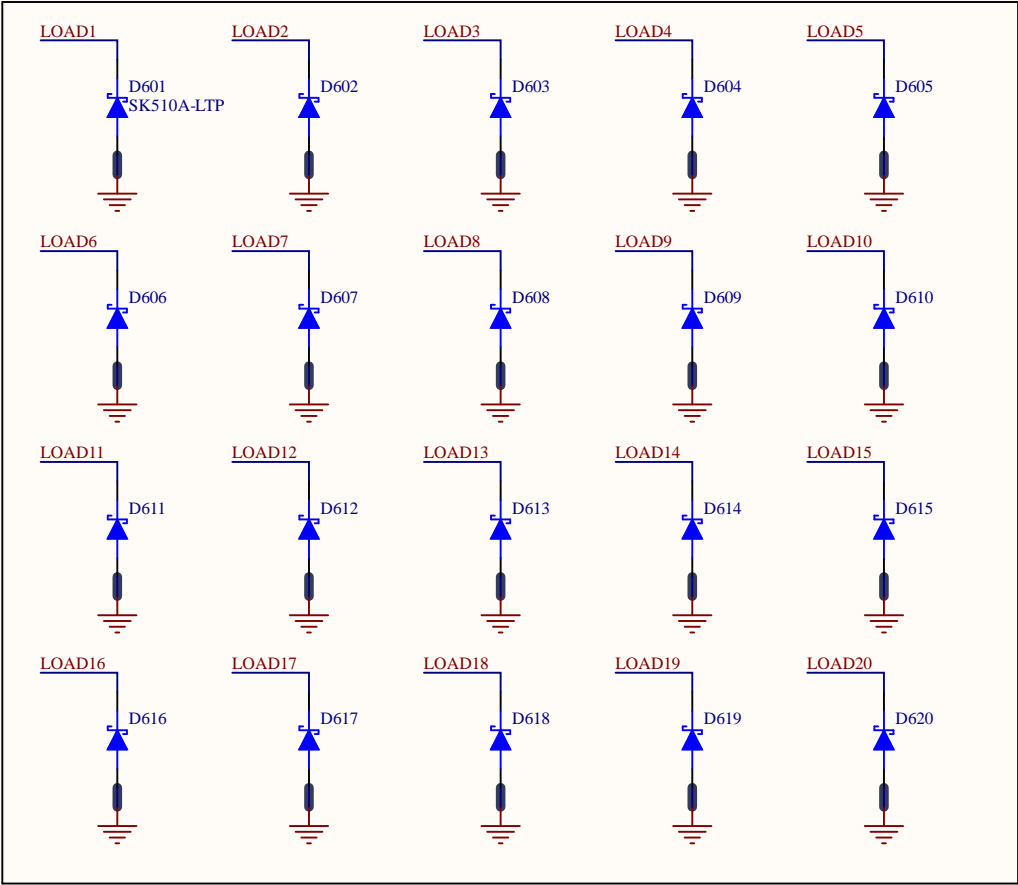
## MOSFET SSRs



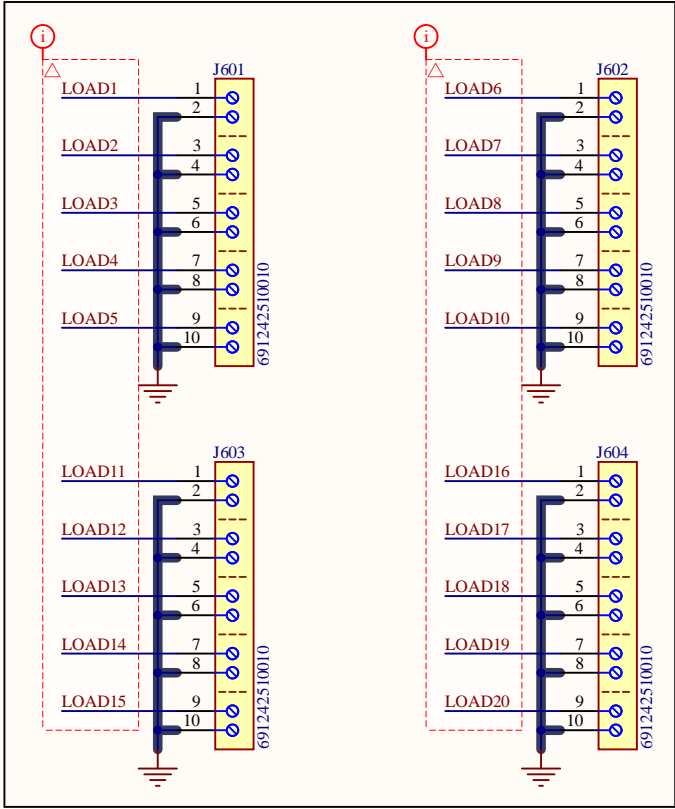
Title		
Size	Number	Revision
B		
Date:	11-10-2025	Sheet of
File:	D:\Khaled\...\(5) Controller A20_SSRs.Sch	Down By:

# [6] OUTPUTS

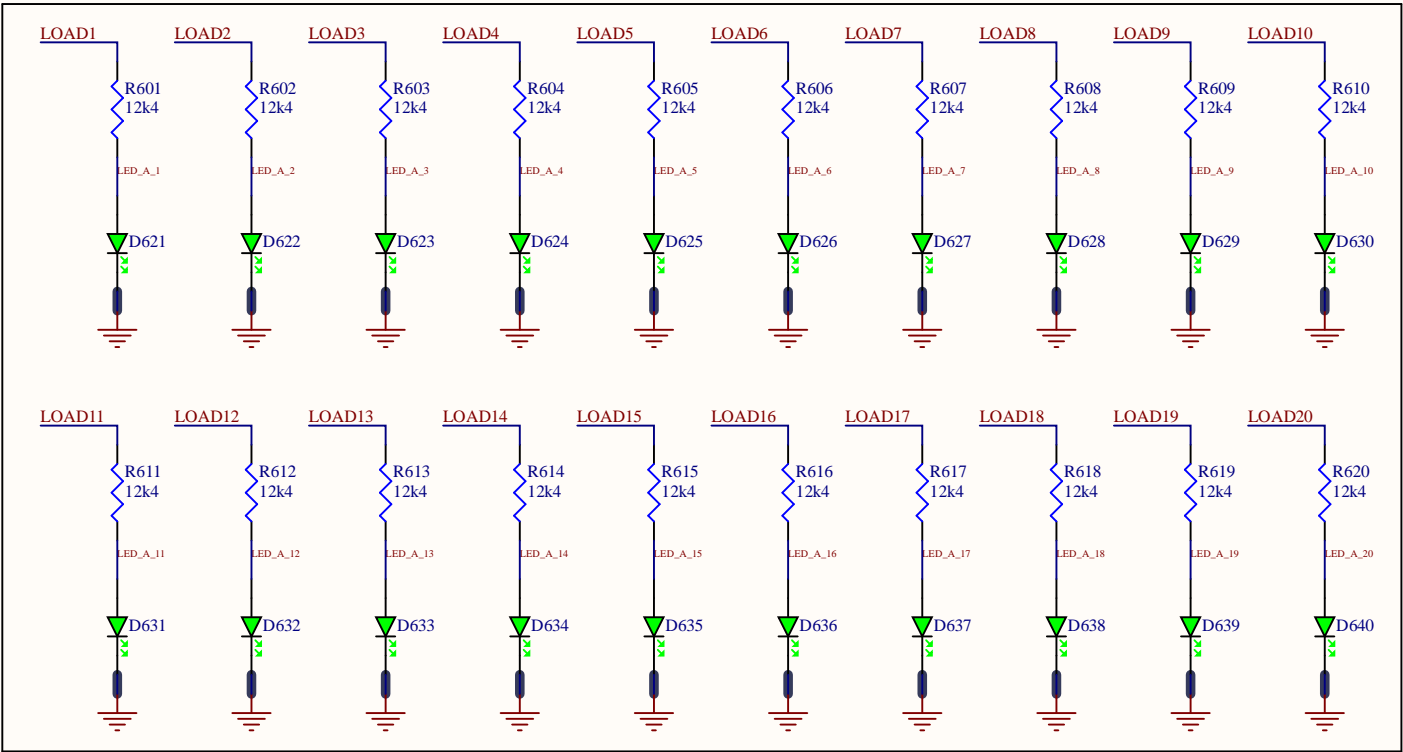
## Flyback Diodes



## OUTPUT Connectors



## OUTPUT LED Indicators



Title		
Size	Number	Revision
A3		
Date:	11-10-2025	Sheet of
File:	D:\Khaled\...(6) Controller A20_OUTPUT	11-10-2025