

Title		
Size	Number	Revision
A4		
Date:	9.08.2022	Sheet of
File:	C:\Users\...\KSS.SchDoc	Drawn By:

1

1

2

2

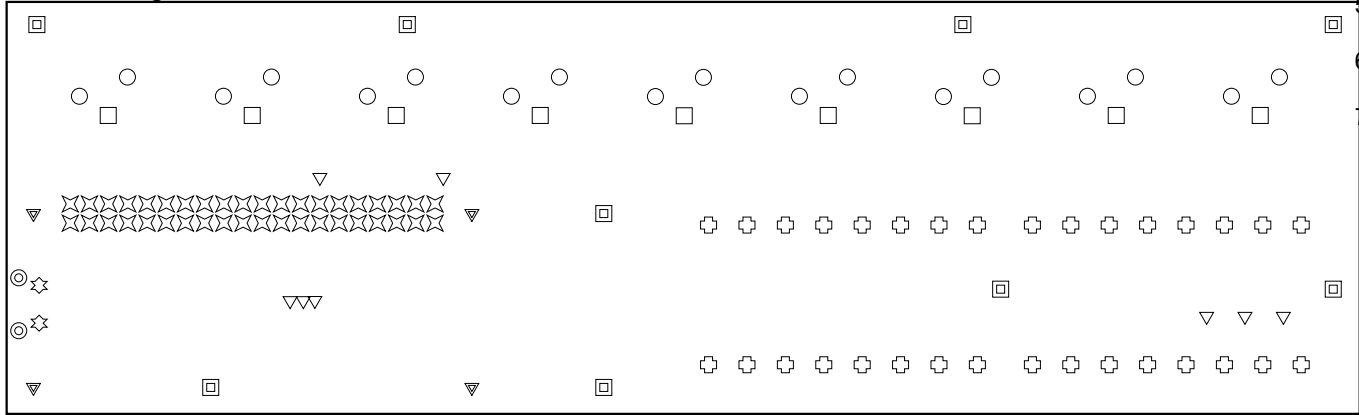
A

B

C

D

Drill Drawing View



Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
✕	40	1.00	Plated	
☆	2	0.55	Plated	+/-0.05
◎	2	0.60	Plated	+/-0.05
⊕	32	1.40	Plated	
○	18	1.50	Plated	
□	9	4.10	Plated	
▼	4	4.50	Plated	
◻	9	2.75	Plated	
▽	8	0.71	Plated	

Note:

- 1
- Text element with square border.
2.
- Text element with no border
- 3
- Text element with circle border
4.
- Text element with no border
5.
- Text element with no border
6.
- Text element with no border
7.
- Text element with no border

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE			
		DIMENSIONS ARE IN INCHES	DRAWN		08.09.2022	TITLE		
		TOLERANCES:	CHECKED					
		FRACTIONAL±	ENG APPR.					
		ANGULAR: MACH±    BEND ±	MFG APPR.					
		TWO PLACE DECIMAL   ±				COMMENTS:		
		THREE PLACE DECIMAL   ±						
		INTERPRET GEOMETRIC	Q.A.			SIZE    DWG. NO.		
		TOLERANCING PER:						
		MATERIAL						
NEXT ASSY	USED ON	FINISH						
APPLICATION		DO NOT SCALE DRAWING				SCALE:    1:1	WEIGHT:	SHEET 1 OF 3

A

B








C

D

1

1

Layer Stack Legend

	Material	Layer	Thickness	Dielectric Material	Type	Gerber
		Top Overlay			Legend	GTO
	Surface Material	Top Solder	0.01mm	Solder Resist	Solder Mask	GTS
	Copper	Top Layer	0.04mm		Signal	GTL
			0.32mm	FR-4	Dielectric	
	Copper	Bottom Layer	0.04mm		Signal	GBL
	Surface Material	Bottom Solder	0.01mm	Solder Resist	Solder Mask	GBS
		Bottom Overlay			Legend	GBO
Total thickness: 0.41mm						

2

2

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE					
		DIMENSIONS ARE IN INCHES	DRAWN		08.09.2022	TITLE				
		TOLERANCES:	CHECKED							
		FRACTIONAL±	ENG APPR.							
		ANGULAR: MACH± BEND ±	MFG APPR.							
		TWO PLACE DECIMAL ±	Q.A.							
		THREE PLACE DECIMAL ±	COMMENTS:			SIZE			DWG. NO.	
		INTERPRET GEOMETRIC TOLERANCING PER:								
		MATERIAL								
NEXT ASSY	USED ON	FINISH								
APPLICATION		DO NOT SCALE DRAWING				SCALE:	1:1	WEIGHT:	SHEET 2 OF 3	

A

B

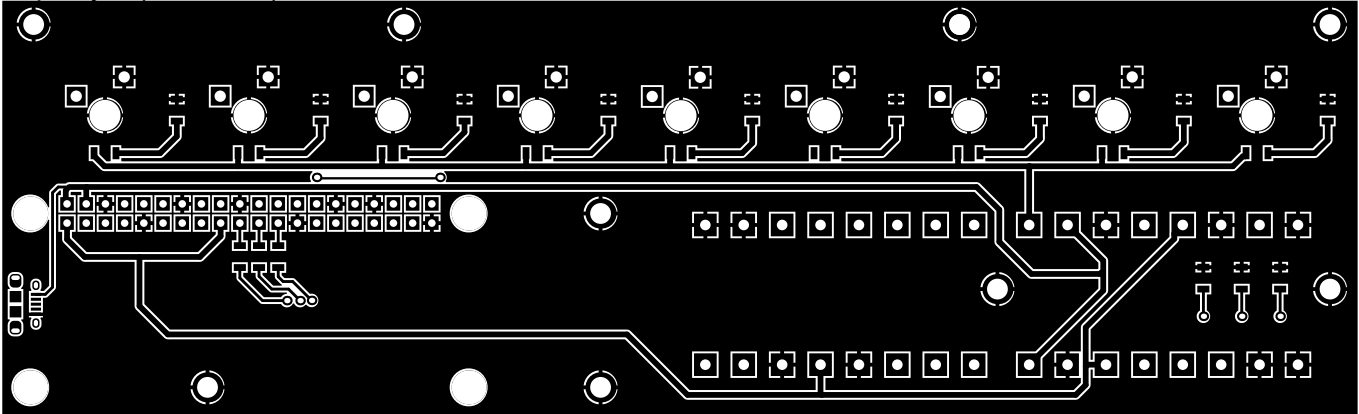
C

D

1

1

Top Layer (Scale: 1:1)



2

2

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE				
		DIMENSIONS ARE IN INCHES	DRAWN		08.09.2022	TITLE			
		TOLERANCES:	CHECKED						
		FRACTIONAL±	ENG APPR.						
		ANGULAR: MACH± BEND ±	MFG APPR.						
		TWO PLACE DECIMAL ±							
		THREE PLACE DECIMAL ±				COMMENTS:			
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.						
		MATERIAL				SIZE	DWG. NO.		
NEXT ASSY	USED ON	FINISH							
APPLICATION		DO NOT SCALE DRAWING				SCALE:	1:1	WEIGHT:	SHEET 3 OF 3

A

B

C

D

## Design Rules Verification Report

Filename : C:\Users\BartoszOstrowski\OneDrive - Robotec.ai sp z o.o\Dokumenty\GitH

Warnings 0  
Rule Violations 182

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=0.254mm) (All),(All)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint ( All )	1
Modified Polygon (Allow modified: No), (Allow shelved: No)	0
Width Constraint (Min=0.254mm) (Max=0.762mm) (Preferred=0.254mm) (All)	0
Hole Size Constraint (Min=0.025mm) (Max=2.54mm) (All)	23
Hole To Hole Clearance (Gap=0.254mm) (All),(All)	1
Minimum Solder Mask Sliver (Gap=0.254mm) (All),(All)	9
Silk To Solder Mask (Clearance=0.254mm) (IsPad),(All)	148
Silk to Silk (Clearance=0.254mm) (All),(All)	0
Net Antennae (Tolerance=0mm) (All)	0
Height Constraint (Min=0mm) (Max=25.4mm) (Preferred=12.7mm) (All)	0
Total	182

Un-Routed Net Constraint ( All )	
Un-Routed Net Constraint: Net KEYS_LED Between Pad D5-1(61.19mm,30.98mm) on Top Layer And Pad D6-1(80.24mm,30.98mm) on Top Layer	

Hole Size Constraint (Min=0.025mm) (Max=2.54mm) (All)	
Hole Size Constraint: (2.75mm > 2.54mm) Pad Free-MH(0mm,0mm) on Multi-Layer Actual Hole Size = 2.75mm	
Hole Size Constraint: (2.75mm > 2.54mm) Pad Free-MH(104.5mm,13mm) on Multi-Layer Actual Hole Size = 2.75mm	
Hole Size Constraint: (2.75mm > 2.54mm) Pad Free-MH(148.5mm,13mm) on Multi-Layer Actual Hole Size = 2.75mm	
Hole Size Constraint: (2.75mm > 2.54mm) Pad Free-MH(148.5mm,48mm) on Multi-Layer Actual Hole Size = 2.75mm	
Hole Size Constraint: (4.5mm > 2.54mm) Pad Free-MH(-23.454mm,0mm) on Multi-Layer Actual Hole Size = 4.5mm	
Hole Size Constraint: (4.5mm > 2.54mm) Pad Free-MH(-23.454mm,23mm) on Multi-Layer Actual Hole Size = 4.5mm	
Hole Size Constraint: (2.75mm > 2.54mm) Pad Free-MH(-23mm,48mm) on Multi-Layer Actual Hole Size = 2.75mm	
Hole Size Constraint: (2.75mm > 2.54mm) Pad Free-MH(26mm,48mm) on Multi-Layer Actual Hole Size = 2.75mm	
Hole Size Constraint: (4.5mm > 2.54mm) Pad Free-MH(34.546mm,0mm) on Multi-Layer Actual Hole Size = 4.5mm	
Hole Size Constraint: (4.5mm > 2.54mm) Pad Free-MH(34.546mm,23mm) on Multi-Layer Actual Hole Size = 4.5mm	
Hole Size Constraint: (2.75mm > 2.54mm) Pad Free-MH(52mm,0mm) on Multi-Layer Actual Hole Size = 2.75mm	
Hole Size Constraint: (2.75mm > 2.54mm) Pad Free-MH(52mm,23mm) on Multi-Layer Actual Hole Size = 2.75mm	
Hole Size Constraint: (2.75mm > 2.54mm) Pad Free-MH(99.5mm,48mm) on Multi-Layer Actual Hole Size = 2.75mm	
Hole Size Constraint: (2.75mm > 2.54mm) Pad Free-MH(99.5mm,48mm) on Multi-Layer Actual Hole Size = 2.75mm	
Hole Size Constraint: (4.1mm > 2.54mm) Pad SW1-MH(-13.56mm,35.98mm) on Multi-Layer Actual Hole Size = 4.1mm	
Hole Size Constraint: (4.1mm > 2.54mm) Pad SW2-MH(5.49mm,35.98mm) on Multi-Layer Actual Hole Size = 4.1mm	
Hole Size Constraint: (4.1mm > 2.54mm) Pad SW3-MH(24.54mm,35.98mm) on Multi-Layer Actual Hole Size = 4.1mm	
Hole Size Constraint: (4.1mm > 2.54mm) Pad SW4-MH(43.59mm,35.98mm) on Multi-Layer Actual Hole Size = 4.1mm	
Hole Size Constraint: (4.1mm > 2.54mm) Pad SW5-MH(62.64mm,35.94mm) on Multi-Layer Actual Hole Size = 4.1mm	
Hole Size Constraint: (4.1mm > 2.54mm) Pad SW6-MH(81.69mm,35.98mm) on Multi-Layer Actual Hole Size = 4.1mm	
Hole Size Constraint: (4.1mm > 2.54mm) Pad SW7-MH(100.74mm,35.94mm) on Multi-Layer Actual Hole Size = 4.1mm	
Hole Size Constraint: (4.1mm > 2.54mm) Pad SW8-MH(119.79mm,35.98mm) on Multi-Layer Actual Hole Size = 4.1mm	
Hole Size Constraint: (4.1mm > 2.54mm) Pad SW9-MH(138.84mm,35.98mm) on Multi-Layer Actual Hole Size = 4.1mm	

Hole To Hole Clearance (Gap=0.254mm) (All),(All)	
Hole To Hole Clearance Constraint: (Collision < 0.254mm) Between Pad Free-MH(99.5mm,48mm) on Multi-Layer And Pad Free-MH(99.5mm,48mm)	

Minimum Solder Mask Sliver (Gap=0.254mm) (All), (All)
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad X6-1(-22.7mm, 12.3mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.172mm < 0.254mm) Between Pad X6-1(-22.7mm, 12.3mm) on Top Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad X6-2(-22.7mm, 11.65mm) on Top Layer And Pad X6-3(-22.7mm, 11mm)
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad X6-3(-22.7mm, 11mm) on Top Layer And Pad X6-4(-22.7mm, 10.35mm)
Minimum Solder Mask Sliver Constraint: (0.047mm < 0.254mm) Between Pad X6-4(-22.7mm, 10.35mm) on Top Layer And Pad X6-5(-22.7mm, 9.7mm)
Minimum Solder Mask Sliver Constraint: (0.172mm < 0.254mm) Between Pad X6-5(-22.7mm, 9.7mm) on Top Layer And Pad X6-MH(-22.7mm, 8.5mm)
Minimum Solder Mask Sliver Constraint: (0.247mm < 0.254mm) Between Pad X6-MH(-25.4mm, 14.5mm) on Multi-Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.247mm < 0.254mm) Between Pad X6-MH(-25.4mm, 7.5mm) on Multi-Layer And Pad
Minimum Solder Mask Sliver Constraint: (0.051mm < 0.254mm) Between Via (12.249mm, 11.475mm) from Top Layer to Bottom Layer And Via

Silk To Solder Mask (Clearance=0.254mm) (IsPad) (All)

[illegible]

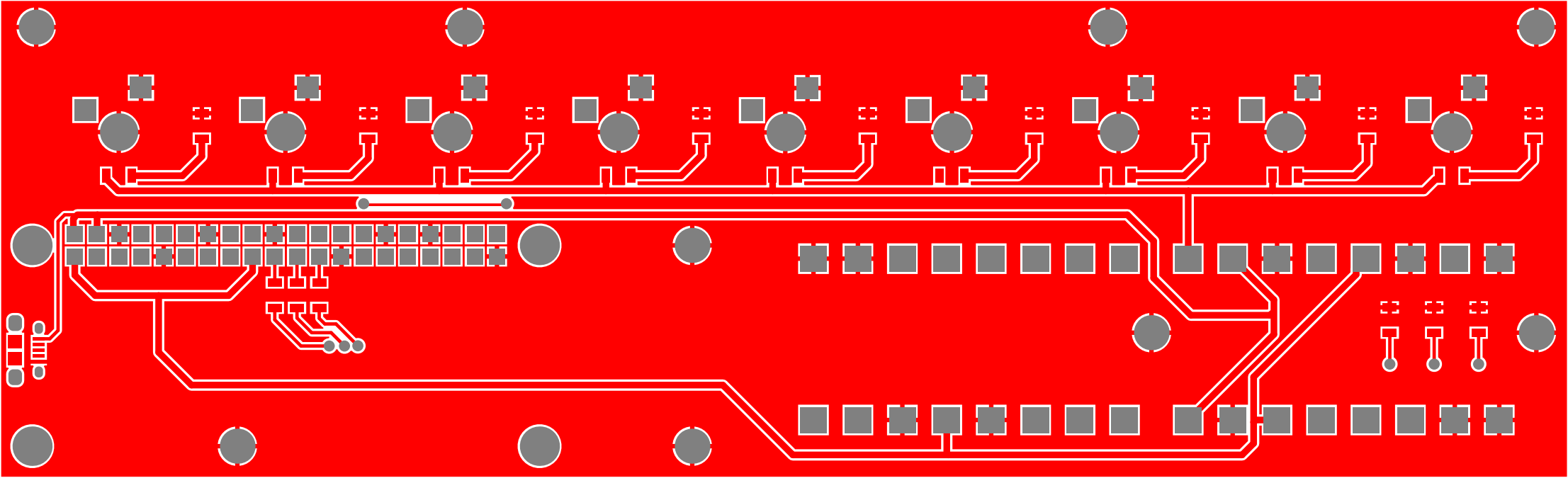


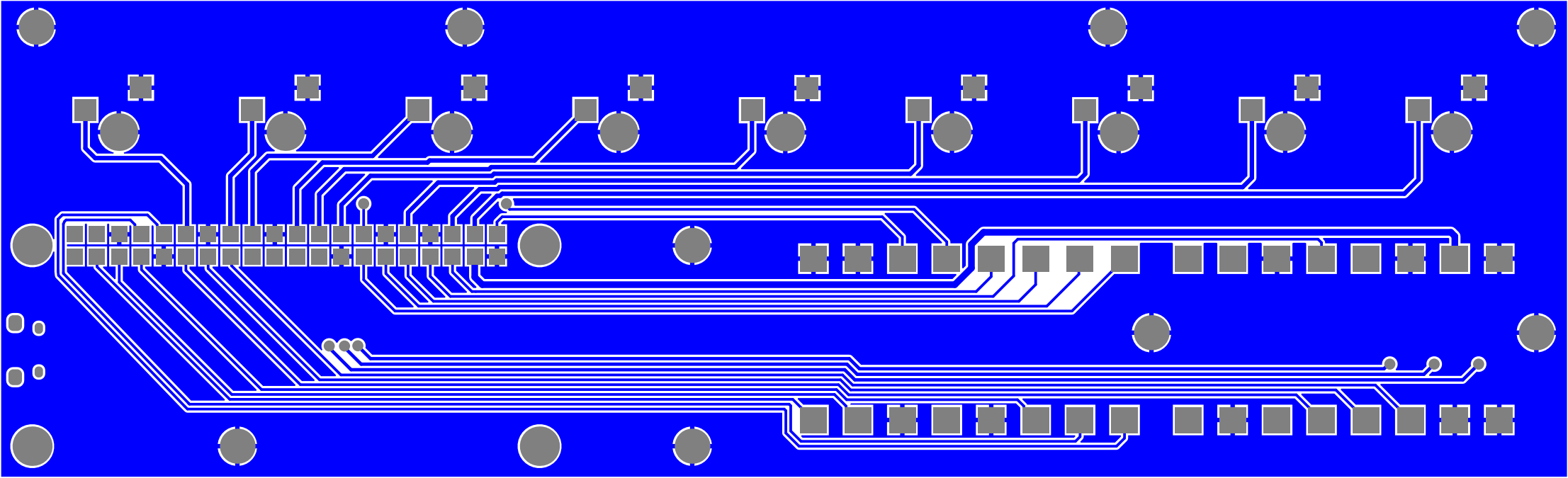


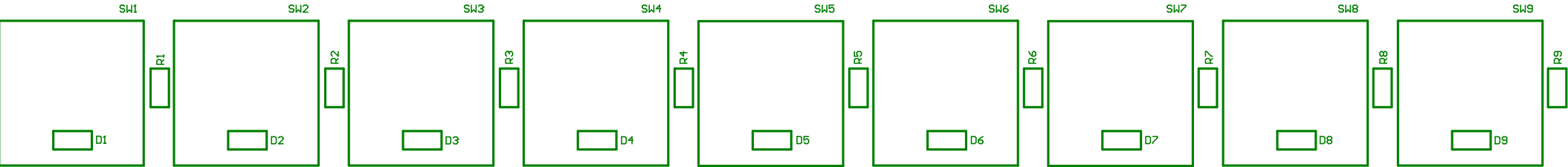


## Electrical Rules Check Report

Class	Document	Message
Warning	KSS.SchDoc	Nets Wire 5V has multiple names (Net Label 5V, Net Label MOSFET_VIN, Power Object 5V (3))
Warning	KSS.SchDoc	Nets Wire BUTTON_LED_3 has multiple names (Net Label BUTTON_LED_3, Net Label BUZZER GND, Net Label GPS GND, Net Label MOSFET_GND, Net Label MOSFET_GND_IF, Power Object GND (7))
Warning	KSS.SchDoc	Nets Wire BUTTON_LED_4 has multiple names (Net Label BUTTON_LED_4, Net Label GPS PWR, Net Label MOSFET_VIN_IF, Power Object 3V3 (2))
Warning	KSS.SchDoc	Nets Wire BUZZER V+ has multiple names (Net Label BUZZER V+, Net Label GPIO26 (2))
Warning	KSS.SchDoc	Nets Wire GPIO2 has multiple names (Net Label GPIO2 (2), Net Label OUT_SIG_1)
Warning	KSS.SchDoc	Nets Wire GPIO3 has multiple names (Net Label GPIO3 (2), Net Label OUT_SIG_2)
Warning	KSS.SchDoc	Nets Wire GPIO4 has multiple names (Net Label GPIO4 (2), Net Label GPS PPS)
Warning	KSS.SchDoc	Nets Wire GPIO13 has multiple names (Net Label GPIO13 (2), Net Label MOSFET_GATE_IF)
Warning	KSS.SchDoc	Nets Wire GPIO14 has multiple names (Net Label GPIO14 (2), Net Label GPS TX)
Warning	KSS.SchDoc	Nets Wire GPIO15 has multiple names (Net Label GPIO15 (2), Net Label GPS RX)
Warning	KSS.SchDoc	Nets Wire GPIO17 has multiple names (Net Label GPIO17 (2), Net Label SIG_1 (LED))
Warning	KSS.SchDoc	Nets Wire GPIO27 has multiple names (Net Label GPIO27 (2), Net Label SIG_2 (BUTTON))
Warning	KSS.SchDoc	Nets Wire KEYS_LED has multiple names (Net Label KEYS_LED (2), Net Label MOSFET_VOUT)







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