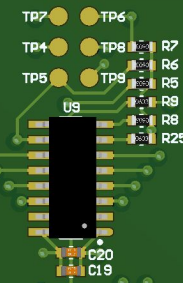
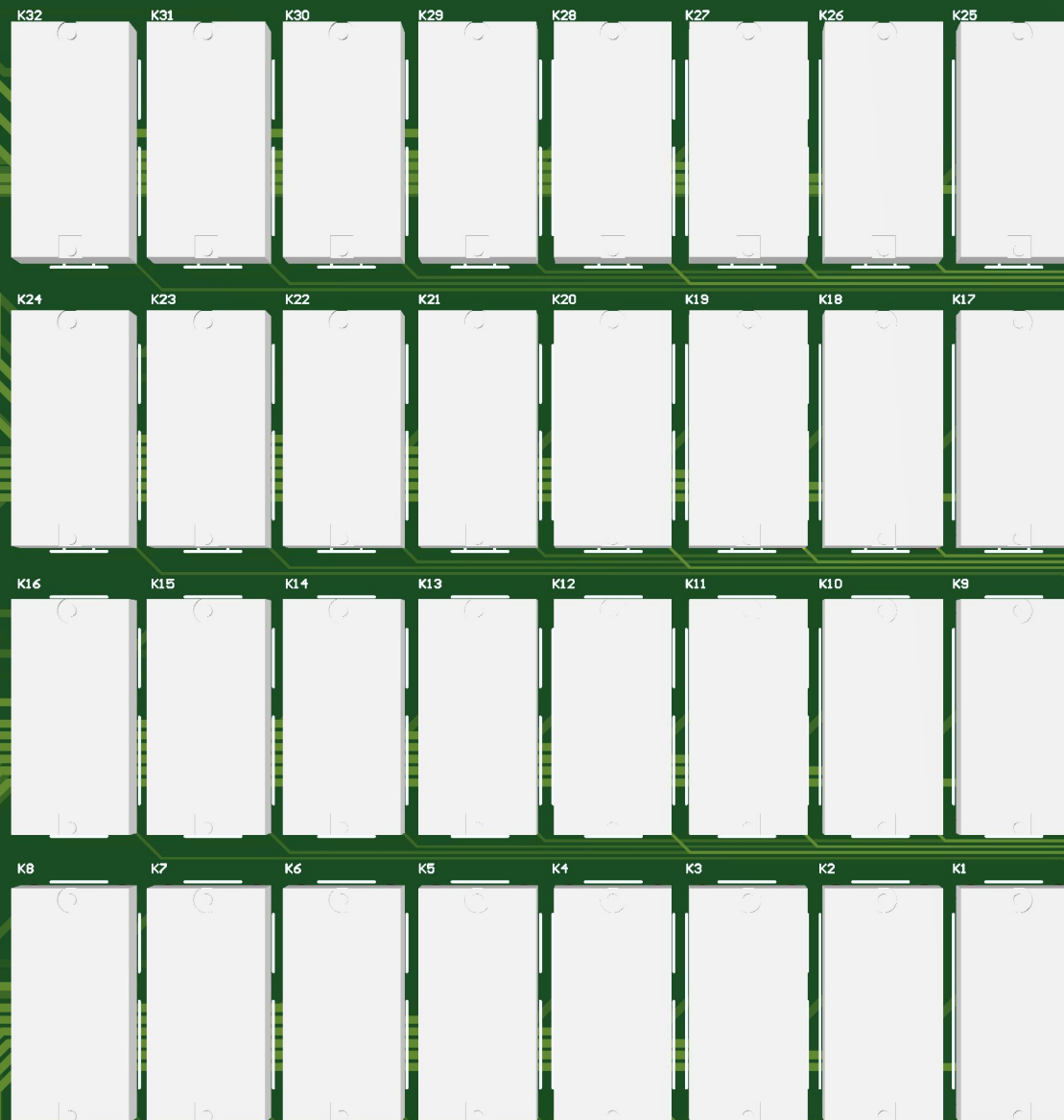


1744 NV2C-0001 5'0' C2818 2=V1

96 64 32

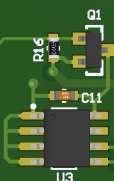
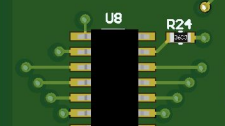
X2



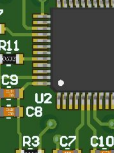
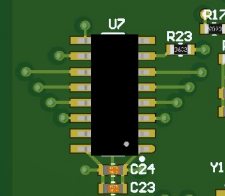
AITONTECH  
MALT132V01



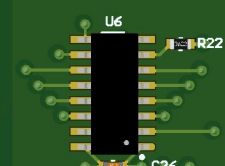
STATUS



UART



ADDRESS

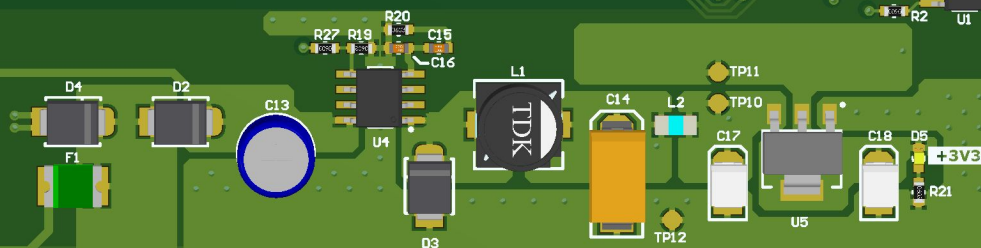


X3  
VPC35  
VPC2  
VPC66

X1  
CANH  
CANL  
+24V  
GND



Place The Serial Number



65 33 1

Date	Description	Modified
20.02.12.	First	marrob
20.04.12.	- R1,R21: 10K0-ról változott 2K20-ra	marrob
20.05.10.	- R5,R7: 2K20 helyett 180R	marrob
20.06.25.	- A belső és külső vezetősávokat vastagabb venni 20mil->28mil - EEPROM kapcsolható - MALT132V01	marrob

▲ Gyártási paraméterek:

A furatátmérők KÉSZ átmérők.  
PCB legyen: FR4 1.55mm  
Forrasztásgátló lakk TOP és BOT lehet zöld  
Pozíció nyomat TOP oldalon

Relay Card MALT132

Project: MTST191104

Author: Margit Róbert

Size: A4

Date: 7/8/2021

Variant:[No Variations]

Checked by:Bíró Péter

Number: 1

Time: 12:03:35 AM

Revision: 2

Sheet 1 of 4

Konvolúció

Support:  
marrob50hz@gmail.com

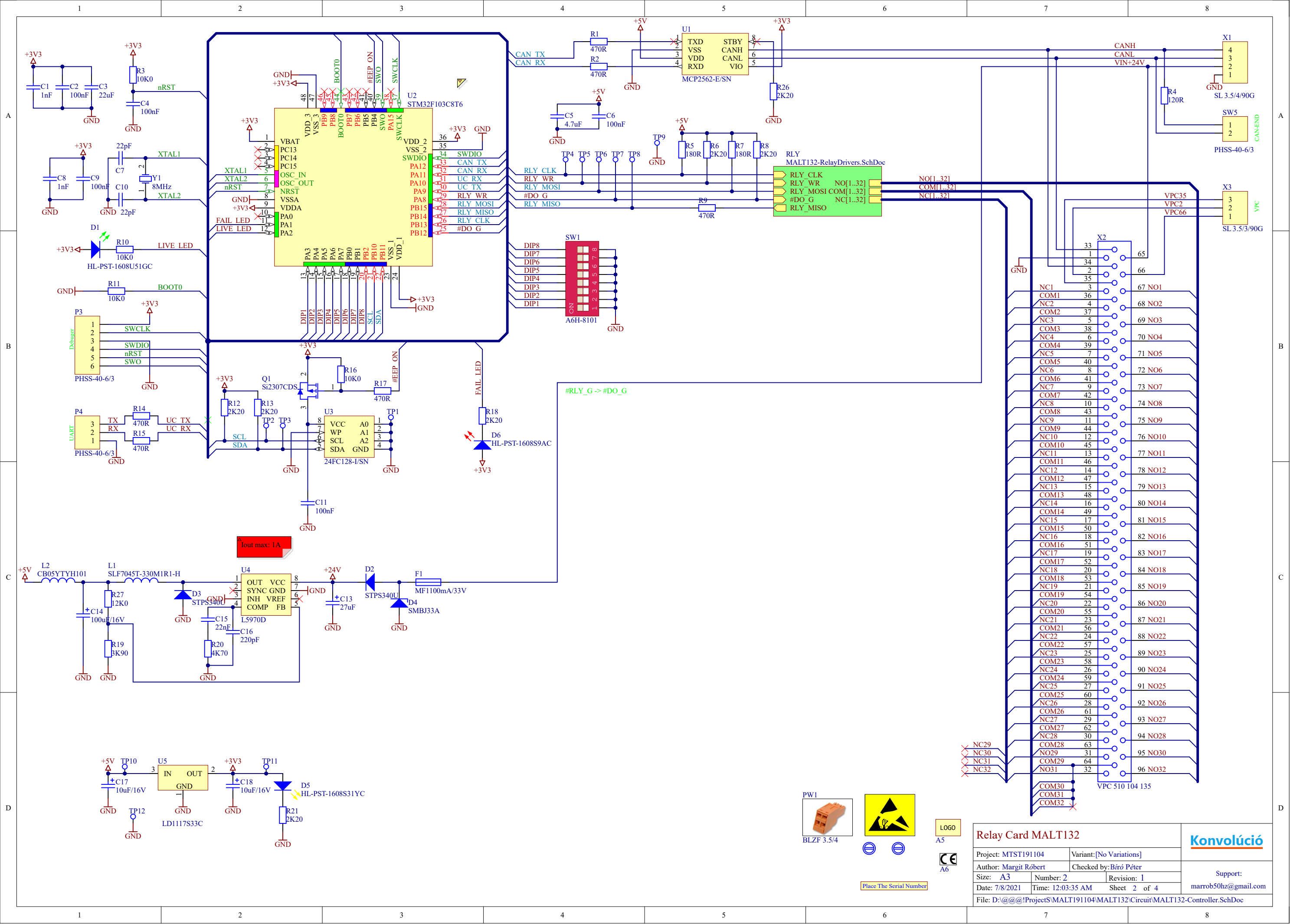
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1

2

3

4



Relay Card MALT132

Project: MTST191104

Author: Margit Róbert

Size: A3

Date: 7/8/2021

Variant:[No Variations]

Checked by:Bíró Péter

Number: 2

Time: 12:03:35 AM

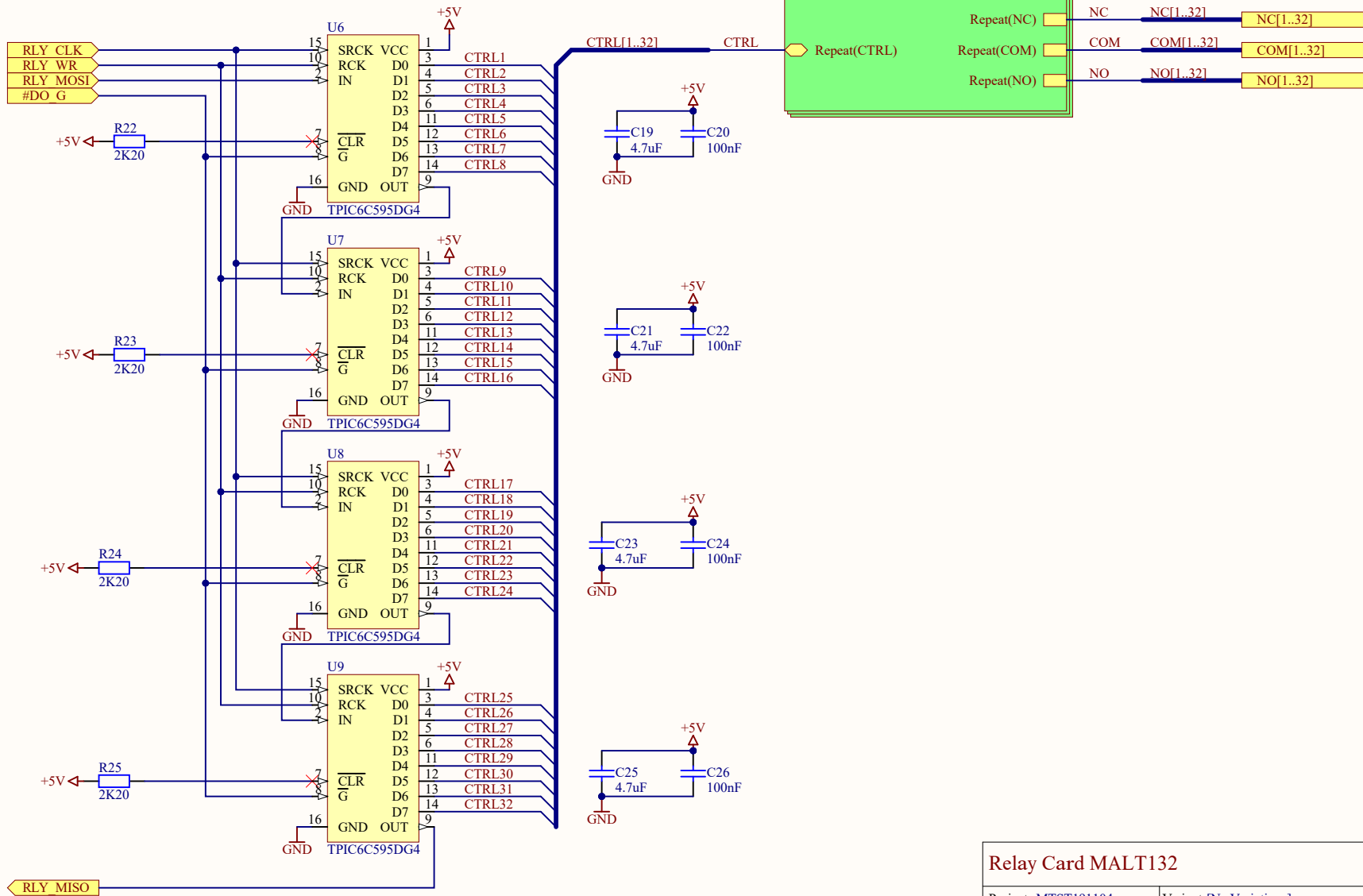
Revision: 1

Sheet 2 of 4

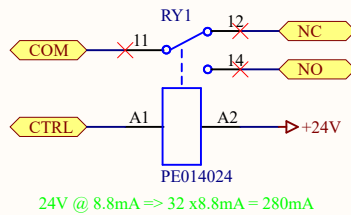
Support:  
marrob50hz@gmail.com

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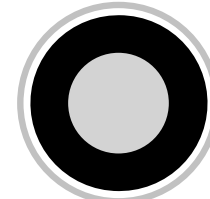
Konvolúció



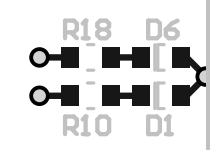
Relay Card MALT132				<div>Konvolúció</div>	
Project: MTST191104		Variant:[No Variations]			
Author: Margit Róbert		Checked by: <u>Bíró Péter</u>			
Size: <b>A4</b>	Number: <b>3</b>	Support: marrob50hz@gmail.com			
Date: 7/8/2021	Time: 12:03:36 AM				
		Sheet 3 of 4			
File: D:@@@@ProjectS\MALT191104\MALT132\Circuit\MALT132-RelayDrivers.SchDoc					



Relay Card MALT132			Konvolúció
Project: MTST191104		Variant:[No Variations]	
Author: Margit Róbert		Checked by: Bíró Péter	
Size: A4	Number: 4	Revision: 1	
Date: 7/8/2021	Time: 12:03:36 AM	Sheet 4 of 4	
File: D:\@@@!\ProjectS\MALT191104\MALT132\Circuit\MALT132-Relay.SchDoc			Support: marrob50hz@gmail.com



ATONTECH  
MALT132V01

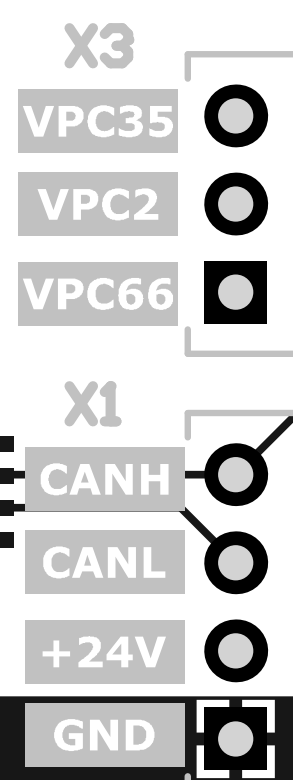


STATUS

UART

ADDRESS

CAN-END

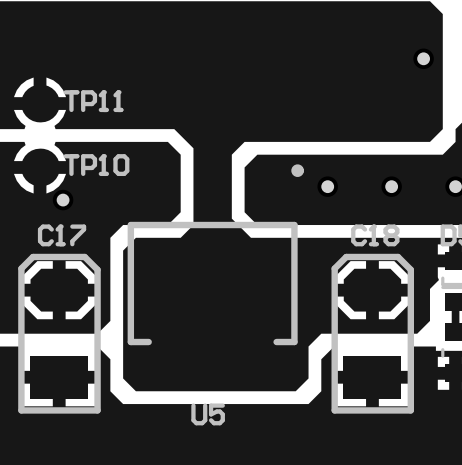
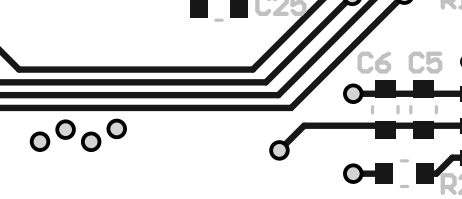
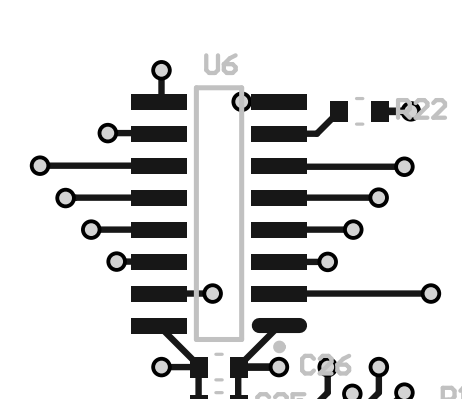
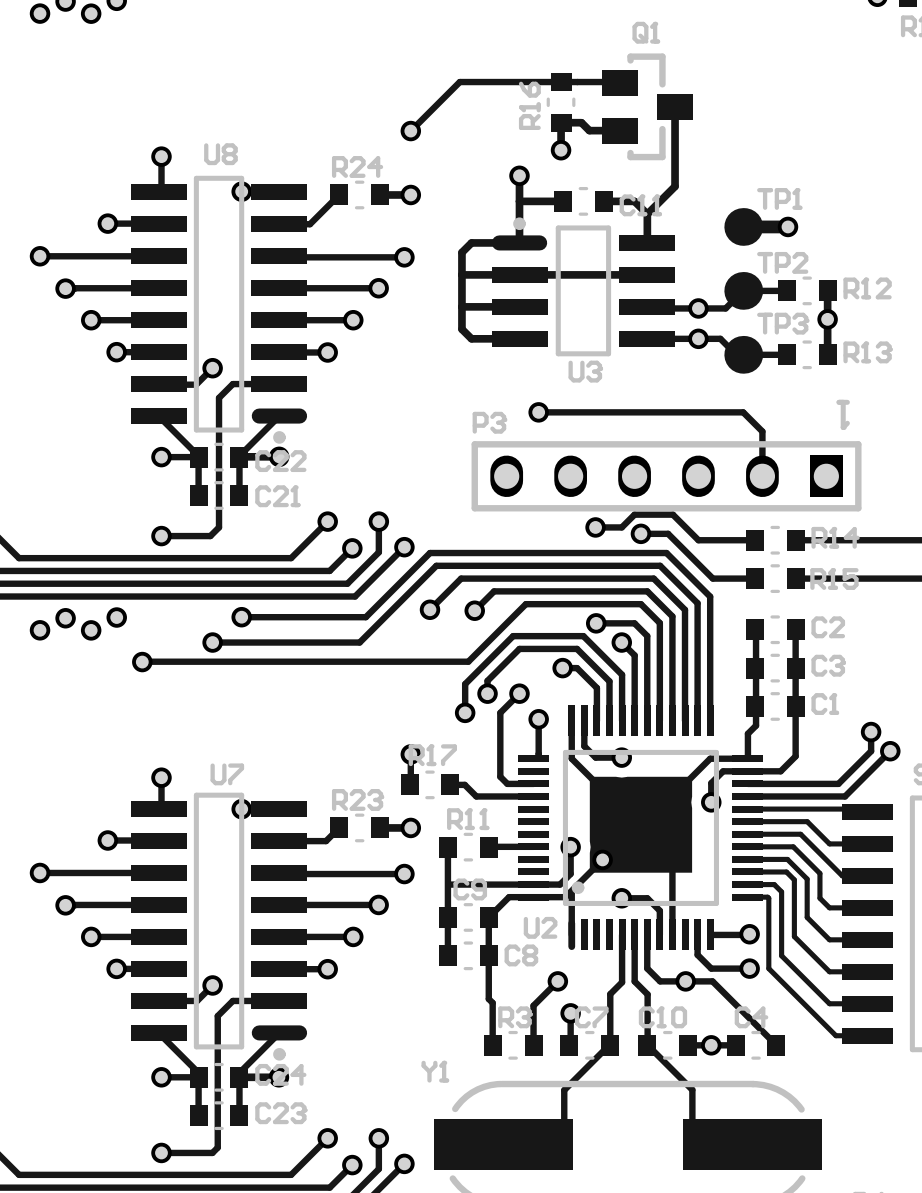
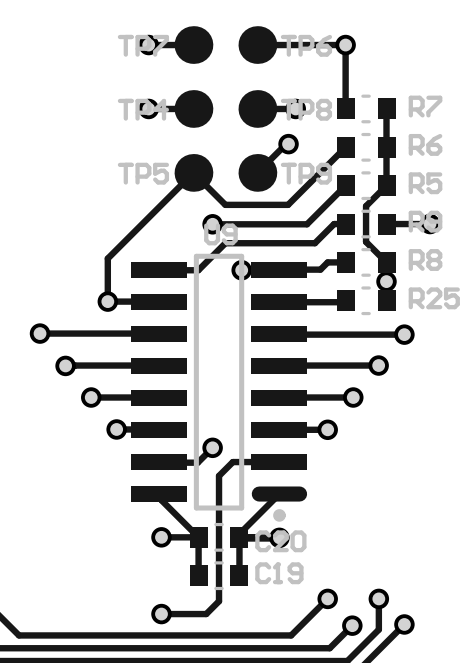


X3

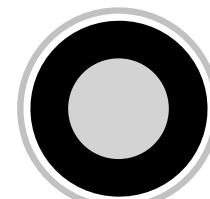
VPC35  
VPC2  
VPC66

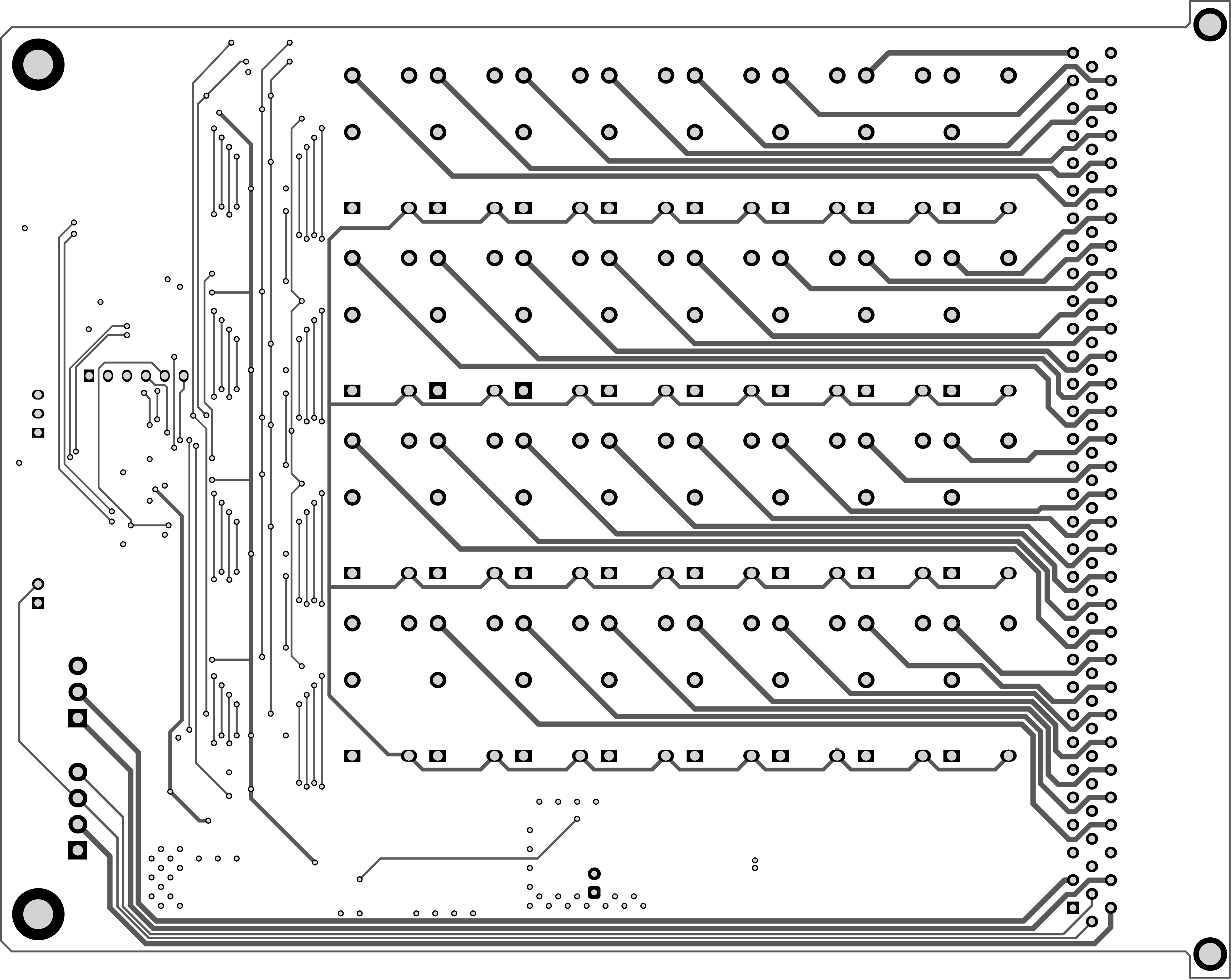
X1

CANH  
CANL  
+24V  
GND



Place The Serial Number





Comment	Description	Designator	Quantity	Supplier	Manufacturer	ManufacturerPartNo.
1nF	Capacitor, 1nF, 50V, 5%, NP0, SMT, 0603	C1, C8	2	LOM-82-06-33;LOM-82-09-55;	YAG	CC0603JRNPO9BN102
100nF	Capacitor, 100nF, 50V, 10%, X7R, SMT, 0603	C2, C4, C6, C9, C11, C20, C22, C24, C26	9	LOM-82-03-47;TME-CC0603KRX7R98B104;	YAG	CC0603KRX7R98B104
22uF	Capacitor, 22uF, 6.3V, 20%, XSR, SMT, 0603	C3	1	LOM-82-09-23;TME-CL10A226MQ8NRNCI;	Samsung	CL10A226MQ8NRNC
4.7uF	Capacitor, 4.7uF, 6.3V, 10%, XSR, SMT, 0603	C5, C19, C21, C23, C25	5	LOM-82-08-10;TME-CL10A475KQBNNNC	YAG	CL10A475KQBNNNC
22pF	Capacitor, 22pF, 50V, 5%, NP0, SMT, 0603	C7, C10	2	LOM-82-02-18	YAG	CC0603JRNPO9BN220
27uF	Electrolytic Capacitors, 27uF, 35V, 20%, THT, 6.3x7mm 2.5mm	C13	1	FAR-1895676;	NICHICON	UPW1V270MD11TD
100uF/16V	Tantalum Capacitors, 100uF, 16V, 10%, SMT, D	C14	1	LOM-92-01-05;TME-TAJD107M016R;LOM-92-01-42;LOM-92-01-18;TME-TAJD107K016RNJ;FAR-397348	AVX	TAJD107K0165NJ
22nF	Capacitor, 22nF, 50V, 10%, X7R, SMT, 0603	C15	1	LOM-82-06-91;	SAMSUNG	CC0603KRX7R98B223
220pF	Capacitor, 220pF, 50V, 10%, NP0, SMT, 0603	C16	1	LOM-82-13-70;	SAMSUNG	CL10C221J88NNND
10uF/16V	Tantalum Capacitors, 10uF, 16V, 10%, 800mOHM, SMT, B	C17, C18	2	TME-T494B106K016AT;FAR-T494B106K010AT;	KEMET	T494B106K016AT
HL-PST-1608U51GC	LED, Green, SMT, 0603	D1	1	LOM-95-03-80	Hongli Tronic	HL-PST-1608U51GC
STPS340J	Diode, SMT, DO-214AA	D2, D3	2	FAR-9803548;LOM-83-02-19;TME-STPS340J	STMICROELECTRONICS	STPS340J
SMBJ133A	TVS, 33V, Uni, SMT, SMB	D4	1	LOM-96-00-47	Uttelfuse	SMBJ133A
HL-PST-1608S31YC	LED, Yellow, SMT, 0603	D5	1	LOM-95-03-79	Hongli Tronic	HL-PST-1608S31YC
HL-PST-1608S9AC	LED, Red, SMT, 0603	D6	1	LOM-95-03-78	Hongli Tronic	HL-PST-1608S9AC
MF1100mA/33V	Multifuse, 1100mA, 33V, SMT, 1812	F1	1	LOM-44-03-25;TME-1812L110/133MR;MOLJ-576-1812L110/33MR	Uttelfuse	1812L110/33MR
PE014024	Relay, SPDT, 24V, 5A/250AC, 5A/30VDC,THT, 20x10x10mm	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18, K19, K20, K21, K22, K23, K24, K25, K26, K27, K28, K29, K30, K31, K32	32	LOM-42-16-87;	TE CONNECTIVITY	
SLF7045T-330M1R1-M	Inductor, 68uH, 1.1A, SMT, 7 x 7 x 4.5mm	L1	1	LOM-93-04-11;FAR-2215717;	TDK	SLF7045T-330M1R1-M
CB05YTH101	Filter, 3A, SMT, 0805	L2	1	LOM-93-03-09;	VIKING	CB05YTH101
PHSS-40-6/3	Connector Pin Strip, 40/6, 2.54, 180, Male, THT	P3	1	LOM-43-00-73	T&T CONNECTION	PHSS-40-6/3
PHSS-40-6/3	Connector Pin Strip, 40/3, 2.54, 180, Male, THT	P4	1	LOM-43-00-73	T&T CONNECTION	PHSS-40-6/3
BLZF 3.5/4	Terminal Block, 3.5mm, 4, 180, wire	PW1	1	FAR-1179253;	WEIDMULLER	BLZF 3.5/4
SI2307CDS	MOSFET, P, SMD, SOT-23	Q1	1	LOM-86-03-40;FAR-SI2307CDS-T1-GE3	VISHAY	SI2307CDS
470R	Resistor, 470R, 0.1W, 1%, SMT, 0603	R1, R2, R9, R14, R15, R17	6	LOM-80-31-61;TME-CQ0603-470R-1%;	VIKING	WRO6X4700FTL
10K0	Resistor, 10K0, 0.1W, 1%, SMT, 0603	R3, R10, R11, R16	4	LOM-80-15-13;TME-CRCW060310K0FKTABC	ASJ	CR16-1002-FK
120R	Resistor, 120R, 0.25W, 1%, SMT, 1206	R4	1	LOM-80-10-15;	Viking Tech Corp	
180R	Resistor, 180R, 0.1W, 1%, SMT, 0603	R5, R7	2	LOM-80-14-36	VIKING	0603 1% CR-03FL7--180R
2K20	Resistor, 2K20, 0.1W, 1%, SMT, 0603	R6, R8, R12, R13, R18, R21, R22, R23, R24, R25, R26	11	LOM-80-11-80;TME-CRCW06032K20INTABC	VIKING	
3K90	Resistor, 3K90, 0.125W, 1%, SMT, 0603	R19	1	LOM-80-11-66;TME-CRCW06033K90FKTABC	Viking Tech Corp.	CR-03FL7--3K90.1W
4K70	Resistor, 4K70, 0.1W, 1%, SMT, 0603	R20	1	LOM-80-11-85;TME-CRCW06034K70FKTABC	VIKING	
12K0	Resistor, 12K0, 0.125W, 1%, SMT, 0603	R27	1	LOM-80-19-36;	Walsin	Yageo Corp.
AGH-8101	DIP Switch, 8, SPST, 180°, SMT, Custom	SW1	1	TME-AGH-8101;FAR-8774285;	OMRON	AGH-8101
PHSS-40-6/3	Connector Pin Strip, 40/2, 2.54, 180, Male, THT	SW5	1	LOM-43-00-73	T&T CONNECTION	PHSS-40-6/3
MCP2562-E/SN	Transceiver, CAN, 5V, SMT, SOIC-8	U1	1	TME-MCP2562-E/SN;MOU-579-MCP2562-E/SN;	MICROCHIP	MCP2562-E/SN
STM32F103C8T6	Processor, ARM Cortex M3, SMT, LQFP48	U2	1	TME-STM32F103C8T6;	ST	STM32F103C8T6
24FC128-I/SN	EEPROM, I2C, 128Kbit 16Kx8Byte, SMT, SOIC-8	U3	1	FAR-1567993;TME-24FC128-I/SN;TME-M24128-BRMNGTP	MICROCHIP, STMICROELECTRONICS	24FC128-I/SN;M24128-BRMNGTP
LS970D	DC/DC, SMT, SOIC-8	U4	1	TME-LS970D;FAR-1077141;	STMicroelectronics	LS970D
LD1117533C	LDO, SMT, SOT-223	U5	1	LOM-89-06-98;TME-LD1117533CTR;FAR-2253482;	STM	LD1117533C
TPIC6C595DG4	Shift Register, SMT, SO-16	U6, U7, U8, U9	4	FAR-1651928;SOS-W122381;TME-TPIC6C595DG4;RSC-526-870;LOM-89-08-16;	TI	TPIC6C595DG4
SL 3.5/4/90G	Terminal Block, 3.5mm, 4, 90°, THT	X1	1	FAR-1121793;	WEIDMULLER	SL 3.5/04/90G
VPC 510 104 135	Connector VPC, THT, Custom	X2	1	MIC-510 104 135	VPC	510 104 135
SL 3.5/3/90G	Terminal Block, 3.5mm, 3, 90°, THT	X3	1	FAR-1121791;	WEIDMULLER	SL 3.5/03/90G
8MHz	Crystal, SMT, HC495M	Y1	1	LOM-40-01-23;FAR-1842346;RS-703-7103;TME-8.00M-1840HC49R;RET-62-01-82	IQD FREQUENCY PRODUCTS	8.00M-SMDHC49R



## Design Rules Verification Report

Filename : D:\@@@!\ProjectS\MALT191104\MALT132\Circuit\MALT132V01.PcbDoc

Warnings 0  
Rule Violations 0

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=0.203mm) (HasFootprint('SSOP-28')),(All)	0
Clearance Constraint (Gap=0.203mm) (HasFootprint('VSSOP-10')),(All)	0
Clearance Constraint (Gap=0.178mm) (All),(All)	0
Clearance Constraint (Gap=0.203mm) (HasFootprint('DCK')),(All)	0
Clearance Constraint (Gap=0.203mm) (HasFootprint('LQFP-48')),(All)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint ( All )	0
Modified Polygon (Allow modified: No), (Allow shelved: No)	0
Width Constraint (Min=0.203mm) (Max=1.27mm) (Preferred=0.254mm) (All)	0
Power Plane Connect Rule(Direct Connect )(Expansion=0.508mm) (Conductor Width=0.254mm) (Air Gap=0.254mm)	0
Hole Size Constraint (Min=0.025mm) (Max=5.08mm) (All)	0
Hole To Hole Clearance (Gap=0.254mm) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0.013mm) (HasFootprint('LQFP-48')),(All)	0
Minimum Solder Mask Sliver (Gap=0.013mm) (HasFootprint('VSSOP-10')),(All)	0
Minimum Solder Mask Sliver (Gap=0.013mm) (HasFootprint('TQFP64-E0.5')),(All)	0
Minimum Solder Mask Sliver (Gap=0.013mm) (HasFootprint('DCK')),(All)	0
Minimum Solder Mask Sliver (Gap=0.013mm) (HasFootprint('MSOP-12')),(All)	0
Minimum Solder Mask Sliver (Gap=0.013mm) (HasFootprint('SOT-23-5')),(All)	0
Minimum Solder Mask Sliver (Gap=0.013mm) (HasFootprint('C1206 - 4W')),(All)	0
Minimum Solder Mask Sliver (Gap=0.127mm) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0.013mm) (HasFootprint('SSOP-28')),(All)	0
Silk To Solder Mask (Clearance=0.127mm) (IsPad),(All)	0
Silk to Silk (Clearance=0.102mm) (All),(All)	0
Net Antennae (Tolerance=0mm) (All)	0
Height Constraint (Min=0mm) (Max=100mm) (Preferred=12.7mm) (All)	0
Total	0