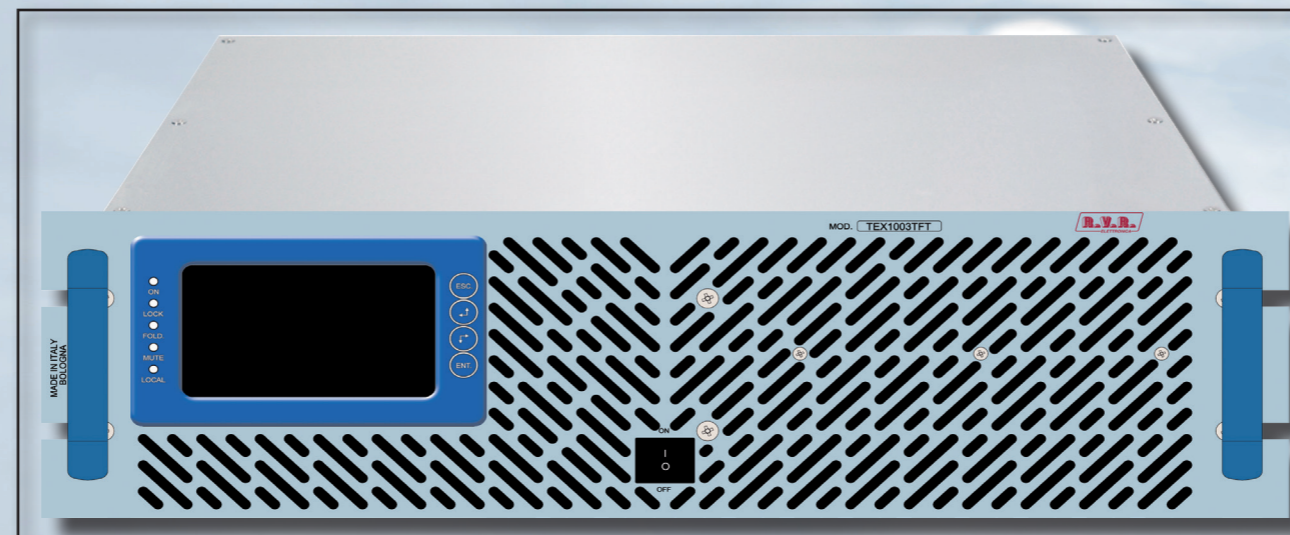




# TEX1003TFT

## TECHNICAL ANNEX VOLUME2



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Member of CISQ Federation



CERTIFIED MANAGEMENT SYSTEM  
ISO 9001



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Manufactured by R.V.R. ELETTRONICA Italy



## Appendix A Piani di montaggio, schemi elettrici, liste componenti / *Component layouts, schematics, bills of material*

Questa parte del manuale contiene i dettagli tecnici riguardanti la costruzione delle singole schede componenti il TEX1003TFT. L'appendice è composta dalle seguenti sezioni:

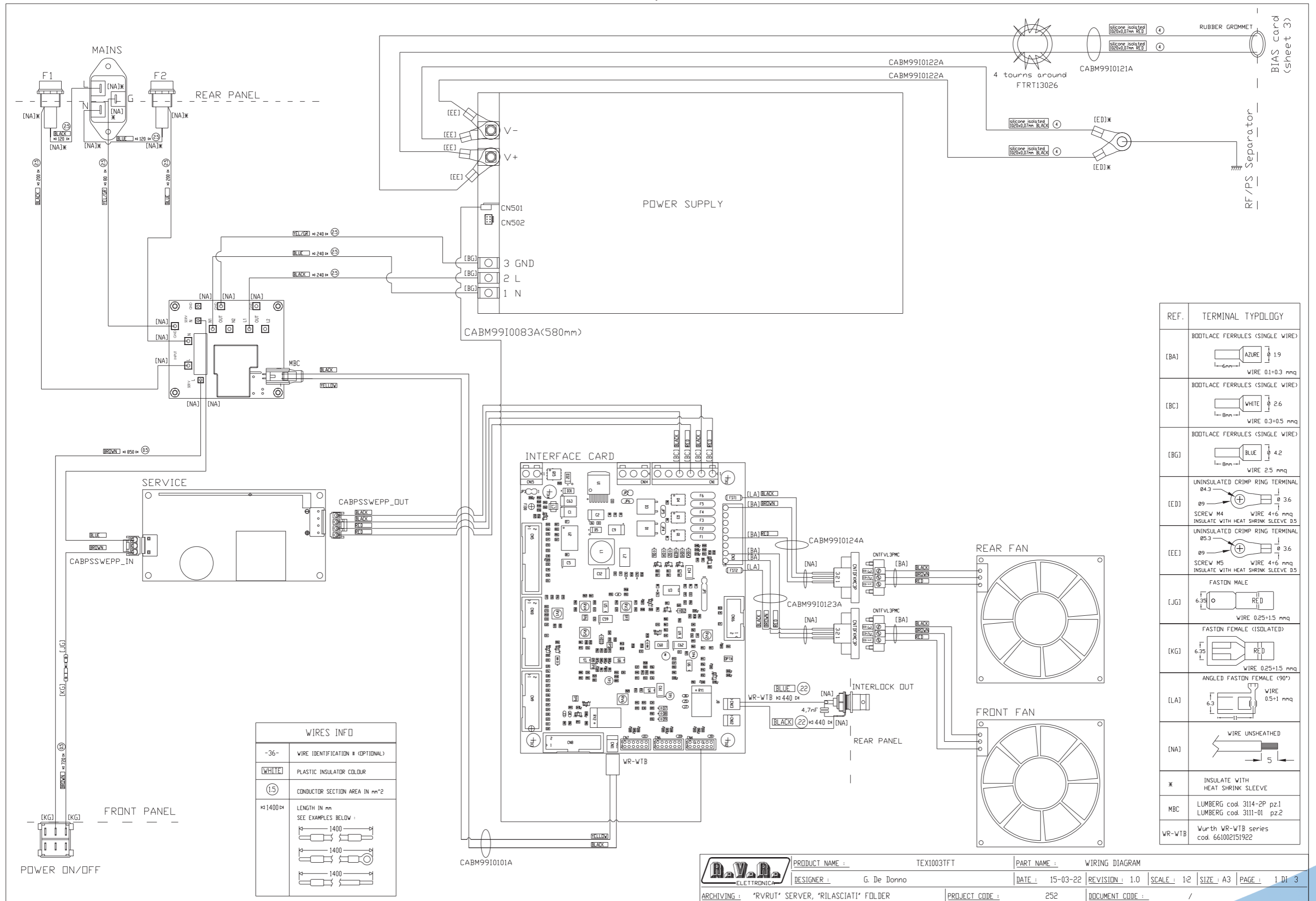
*This part of the manual contains the technical details about the different Cards of the TEX1003TFT. This appendix is composed of the following sections:*

Description	RVR Code	Vers.	Page
Wiring Diagram	/	1.0	1
Main Board	SLMA0276R04V01	1.1	4
Driver Card	SLDR0271R03V05	1.1	9
Splitter Card	SLSITEX500L1	1.0	12
R.F. Card	SL237RF4001	1.0	14
Combiner Card	SLCM0374R01V01	1.0	18
LPF Card	SLLPFTEX2K5	1.2	20
Interface Card	SLIN0467R03V06	1.0	23
Surge Protection Card	SLSR0516R01V01	1.0	26
Power Supply	PSSWRSP2000-48	1.0	28
Auxiliary Power Supply	PSSWEPP15024	1.0	31
Panel Card	SLPC0463R05V02	1.0	32
Pass-Through Card	SLFILPJ1KM	2.1	37
Fuse Card	SLFUSTEX1K6LG	1.2	39
BIAS Interface Card	SLIN0501R01V01	1.0	41
BIAS Card	SLBI0439R03V06	1.0	43
Directional Coupler Card	SLDC0375R01V01	1.2	46
Telemetry Card	SLTL0509R01V01	1.1	48
Stereo Coder Card	SLCTC30V03V01	1.1	51
Clipper Card	SLCS0391R01V02	1.0	54
15kHz Audio Filter Card	SLAU0469R01V04	1.0	56

### Document History

Date	Version	Reason	Code	Editor
08/04/2021	1.0	First Release	/	J.H. Berti
01/09/2021	1.1	KKCAB252B, SLDR0271R03V05 & SLPC0463R04V02 upgrade	/	J.H. Berti
06/05/2022	1.2	SLMA0276R04V01, SLPC0463R05V02,SLDR0271R03V05 Upgrade	/	J.H. Berti

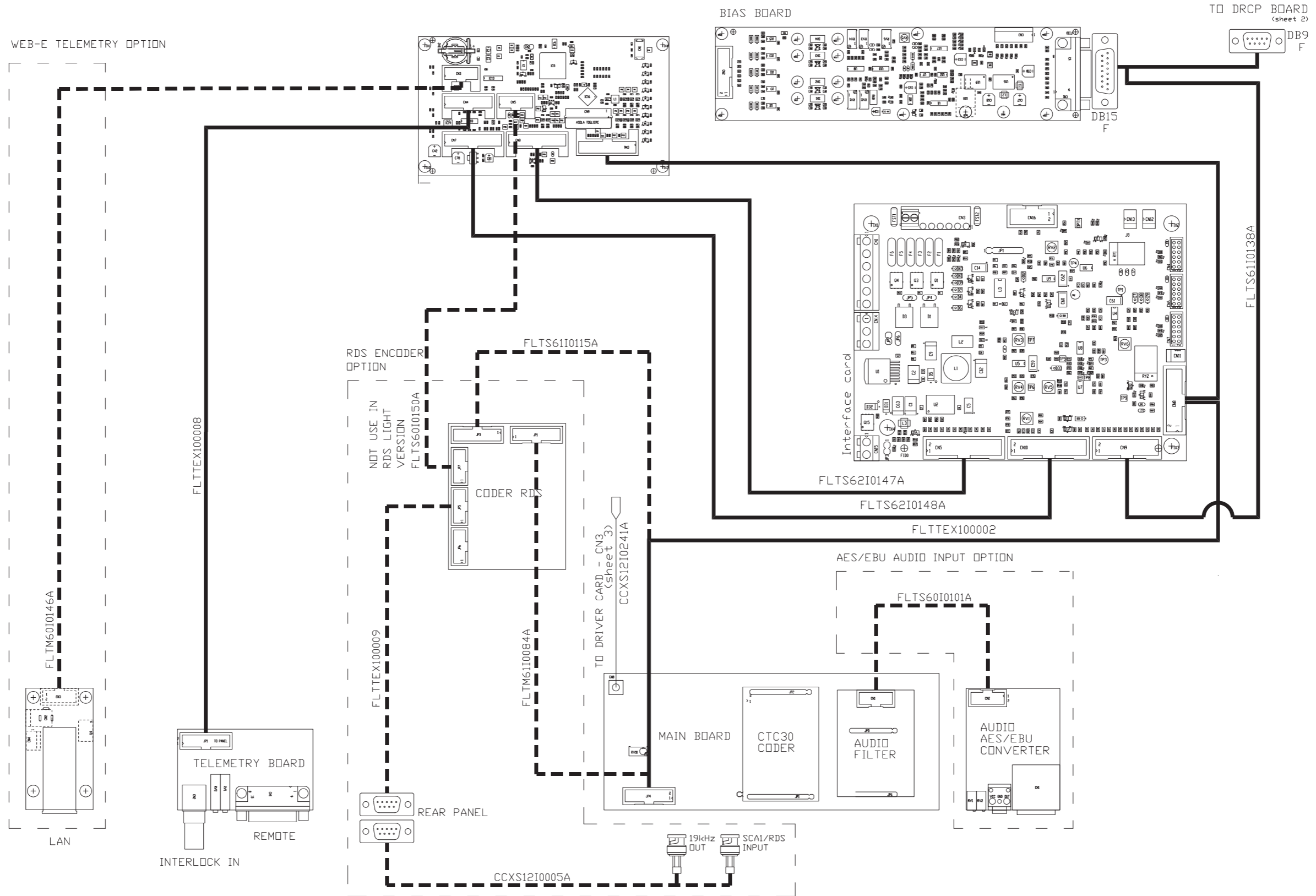




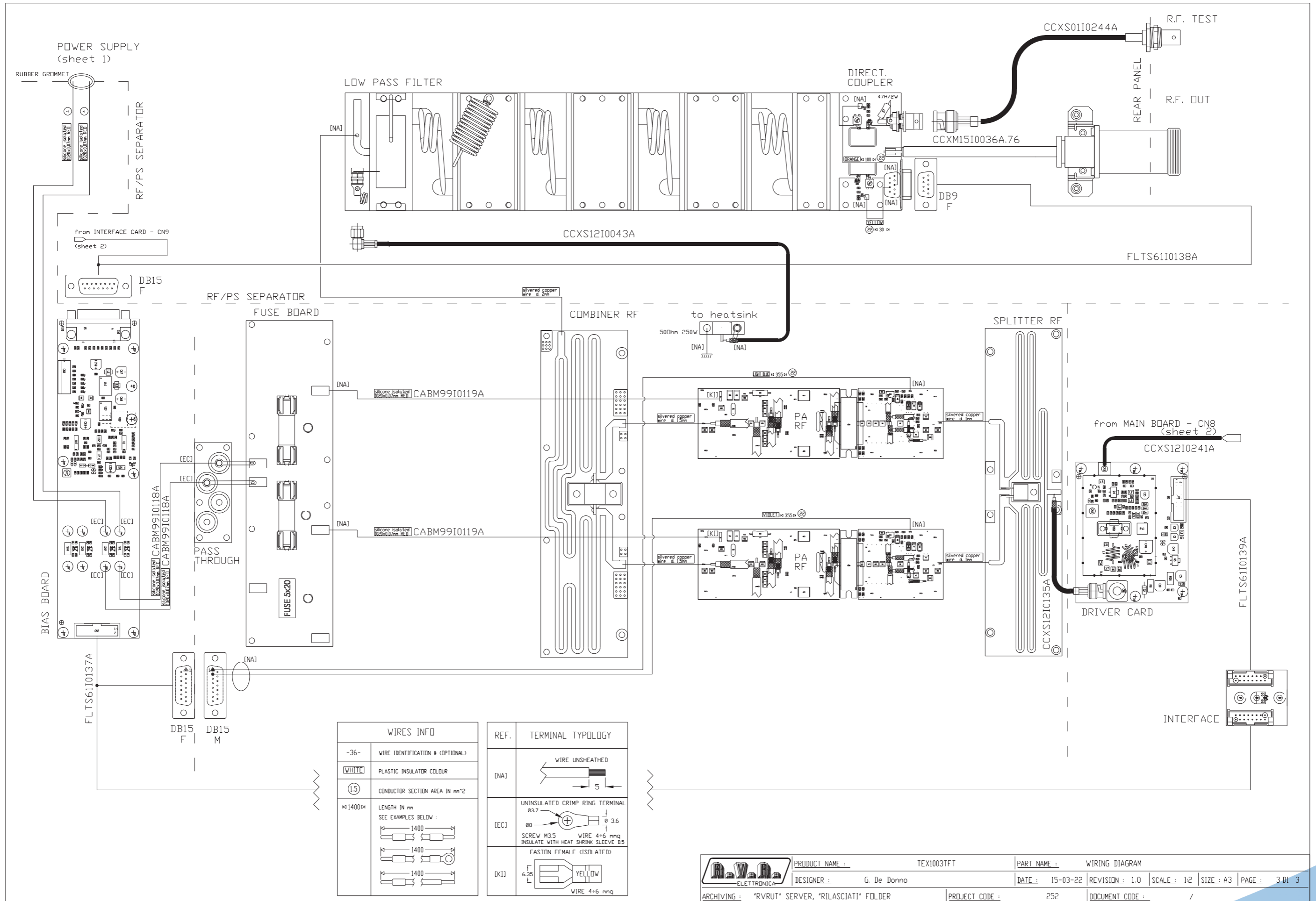
WIRES INFO	
-36-	WIRE IDENTIFICATION # (OPTIONAL)
WHITE	PLASTIC INSULATOR COLOUR
(15)	CONDUCTOR SECTION AREA IN mm <sup>2</sup>
≈1400±	LENGTH IN mm SEE EXAMPLES BELOW :

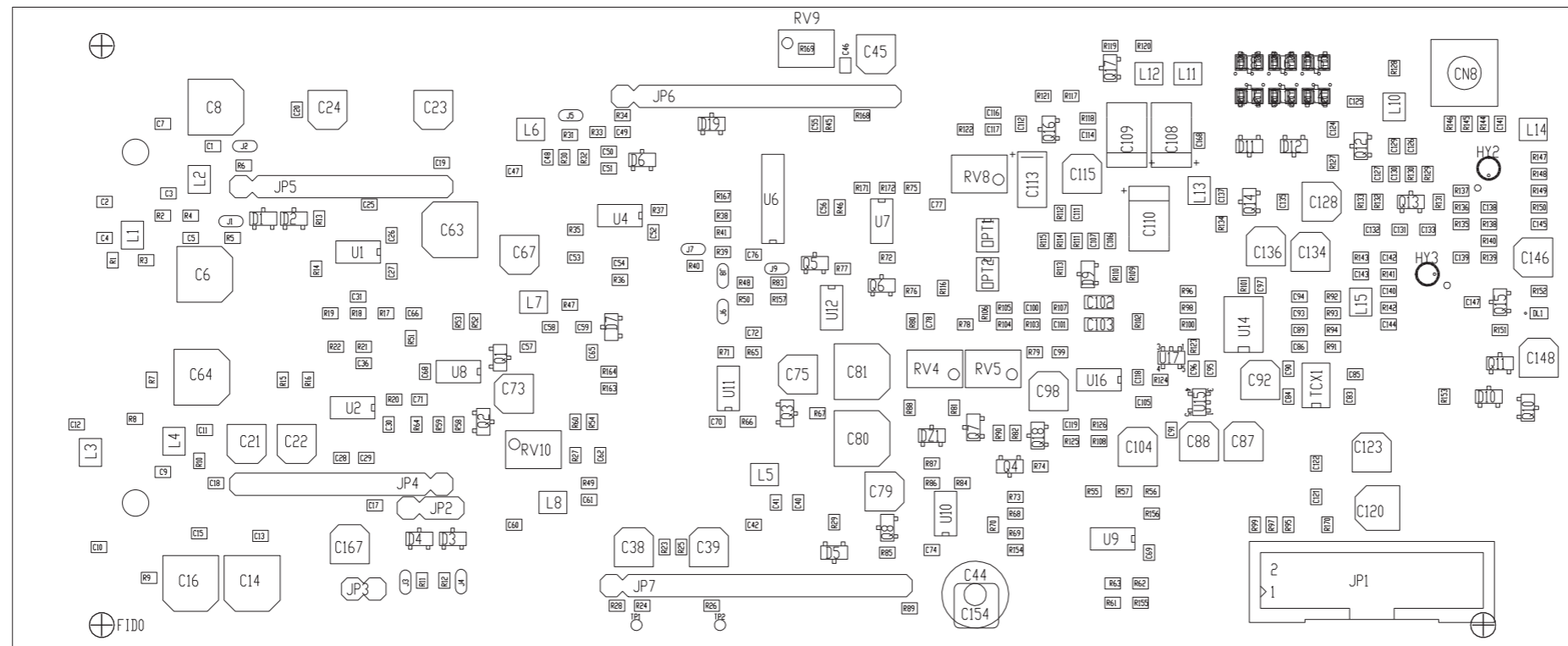
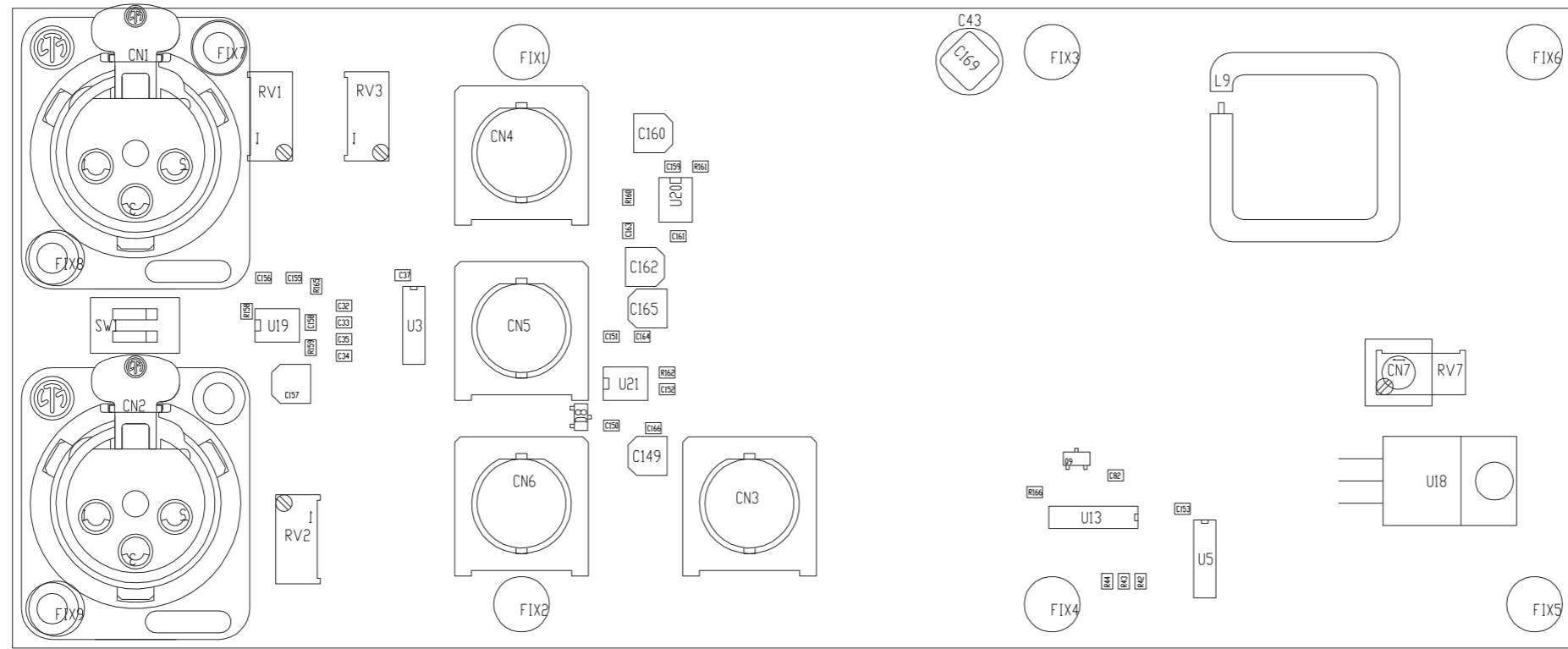
REF.	TERMINAL TYPOLOGY
[BA]	BOOTLACE FERRULES (SINGLE WIRE) AZURE Ø 1.9 WIRE 0.1+0.3 mmq
[BC]	BOOTLACE FERRULES (SINGLE WIRE) WHITE Ø 2.6 WIRE 0.3+0.5 mmq
[BG]	BOOTLACE FERRULES (SINGLE WIRE) BLUE Ø 4.2 WIRE 2.5 mmq
[ED]	UNINSULATED CRIMP RING TERMINAL Ø4.3 SCREW M4 WIRE 4+6 mmq INSULATE WITH HEAT SHRINK SLEEVE D5
[EE]	UNINSULATED CRIMP RING TERMINAL Ø5.3 SCREW M5 WIRE 4+6 mmq INSULATE WITH HEAT SHRINK SLEEVE D5
[LJG]	FASTON MALE 6.35 WIRE 0.25+1.5 mmq
[KG]	FASTON FEMALE (ISOLATED) 6.35 WIRE 0.25+1.5 mmq
[LA]	ANGLED FASTON FEMALE (90°) 6.3 WIRE 0.5+1 mmq
[NA]	WIRE UNSHEATHED 5
*	INSULATE WITH HEAT SHRINK SLEEVE
MBC	LUMBERG cod. 3114-2P pz.1 LUMBERG cod. 3111-01 pz.2
WR-WTB	Wurth WR-WTB series cod. 661002151922

	PRODUCT NAME :	TEX1003TFT	PART NAME :	WIRING DIAGRAM	
	DESIGNER :	G. De Donno	DATE :	15-03-22	
ARCHIVING :	'RVVUT' SERVER, 'RILASCIATI' FOLDER	PROJECT CODE :	252	DOCUMENT CODE :	/
		REVISION :	1.0	SCALE :	1:2
		SIZE :	A3	PAGE :	1 DI 3



	PRODUCT NAME :	TEX1003TFT	PART NAME :	WIRING DIAGRAM	
	DESIGNER :	G. De Donno	DATE :	15-03-22	
ARCHIVING :	'RVRUT' SERVER, 'RILASCIATI' FOLDER	PROJECT CODE :	252	DOCUMENT CODE :	/
			REVISION :	1.0	
			SCALE :	1:2	
			SIZE :	A3	
			PAGE :	2 DI 3	





PART NAME : MAIN BOARD

DATE : 18/08/21 REVISION : 1.0 SCALE : 1:1 SIZE : A4 PAGE : 1 DI 1

PROJECT CODE : 252 DOCUMENT CODE : SLMA0276R04V\*\*

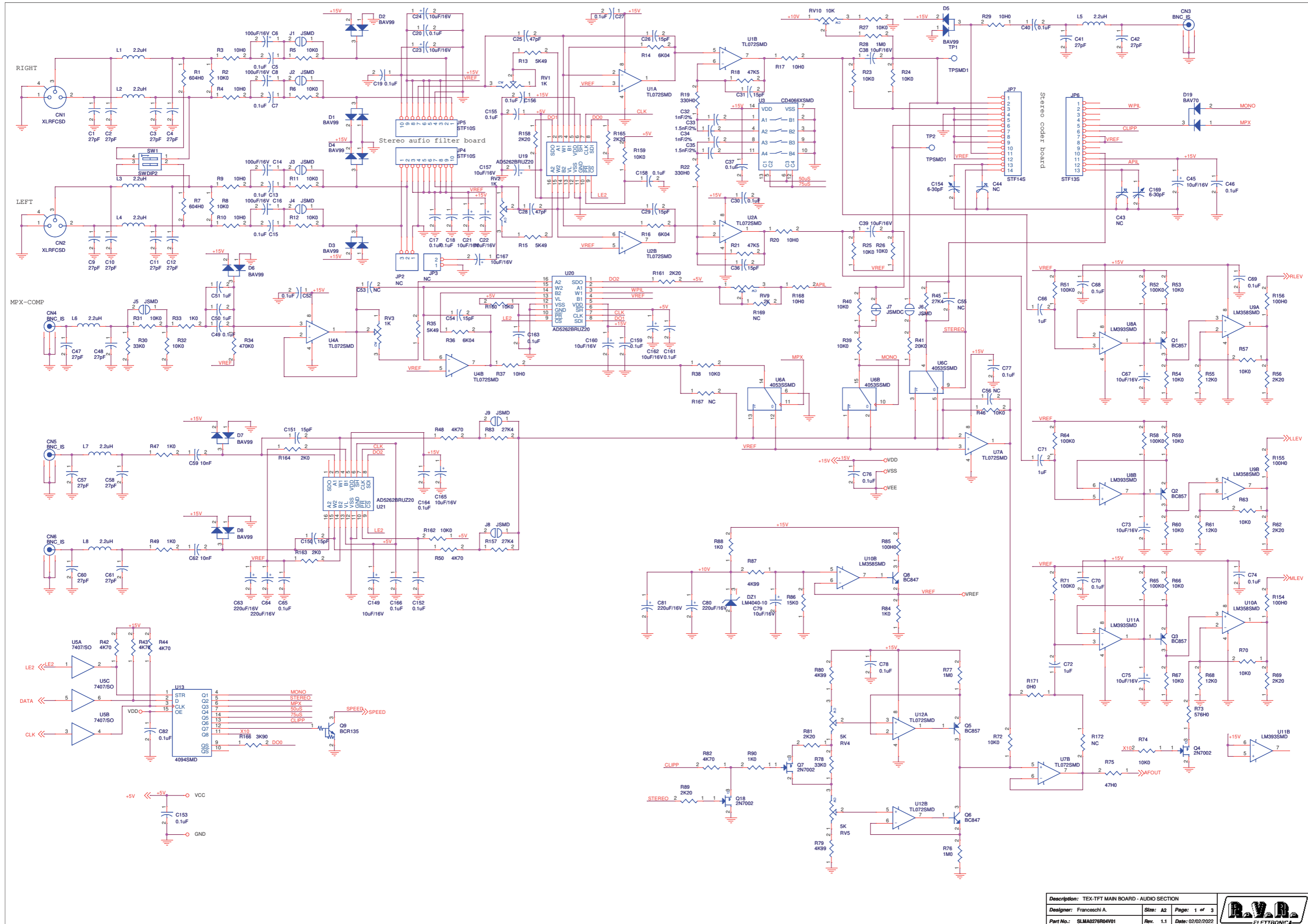
PRODUCT NAME : TEX-TFT

DESIGNER : FRANCESCHI A.

ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER



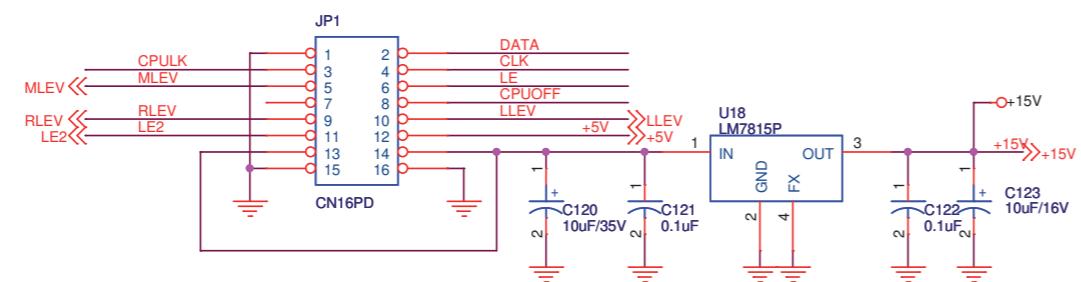
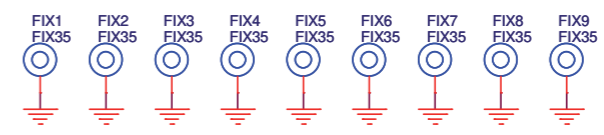
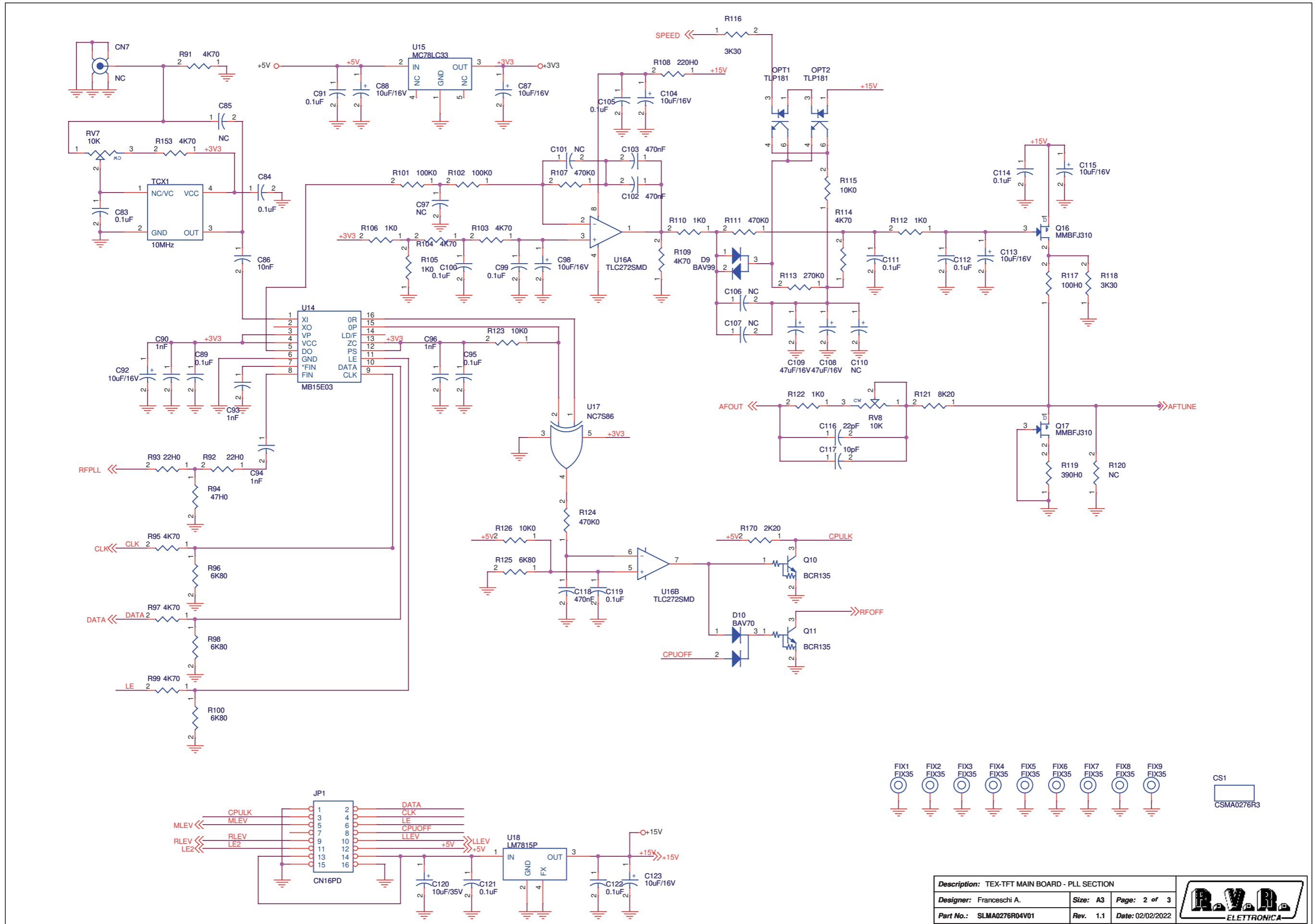
**SLMA0276R04V01**



Description: TEX-TFT MAIN BOARD - AUDIO SECTION			
Designer: Franceschi A.	Size: A2	Page: 1 of 3	
Part No.: SLMA0276R04V01	Rev. 1.1	Date: 02/02/2022	



SLMA0276R04V01

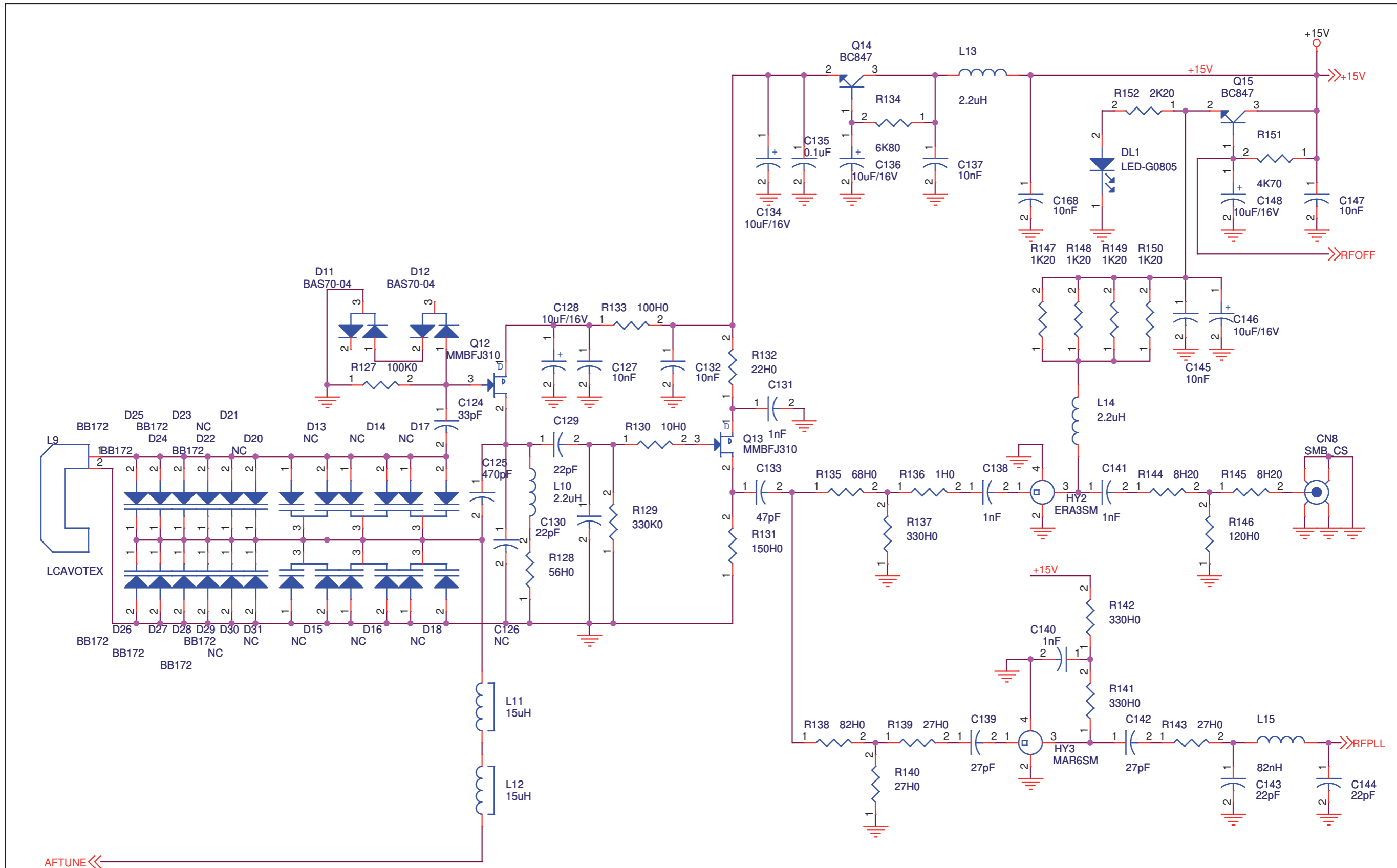


Description: TEX-TFT MAIN BOARD - PLL SECTION		
Designer: Franceschi A.	Size: A3	Page: 2 of 3
Part No.: SLMA0276R04V01	Rev. 1.1	Date: 02/02/2022





SLMA0276R04V01



AFTUNE <<

<b>Description:</b> TEX-TFT MAIN BOARD - VCO DRV SECTION		
<b>Designer:</b> Franceschi A.	<b>Size:</b> A4	<b>Page:</b> 3 of 3
<b>Part No.:</b> SLMA0276R04V01	<b>Rev.:</b> 1.1	<b>Date:</b> 02/02/2022

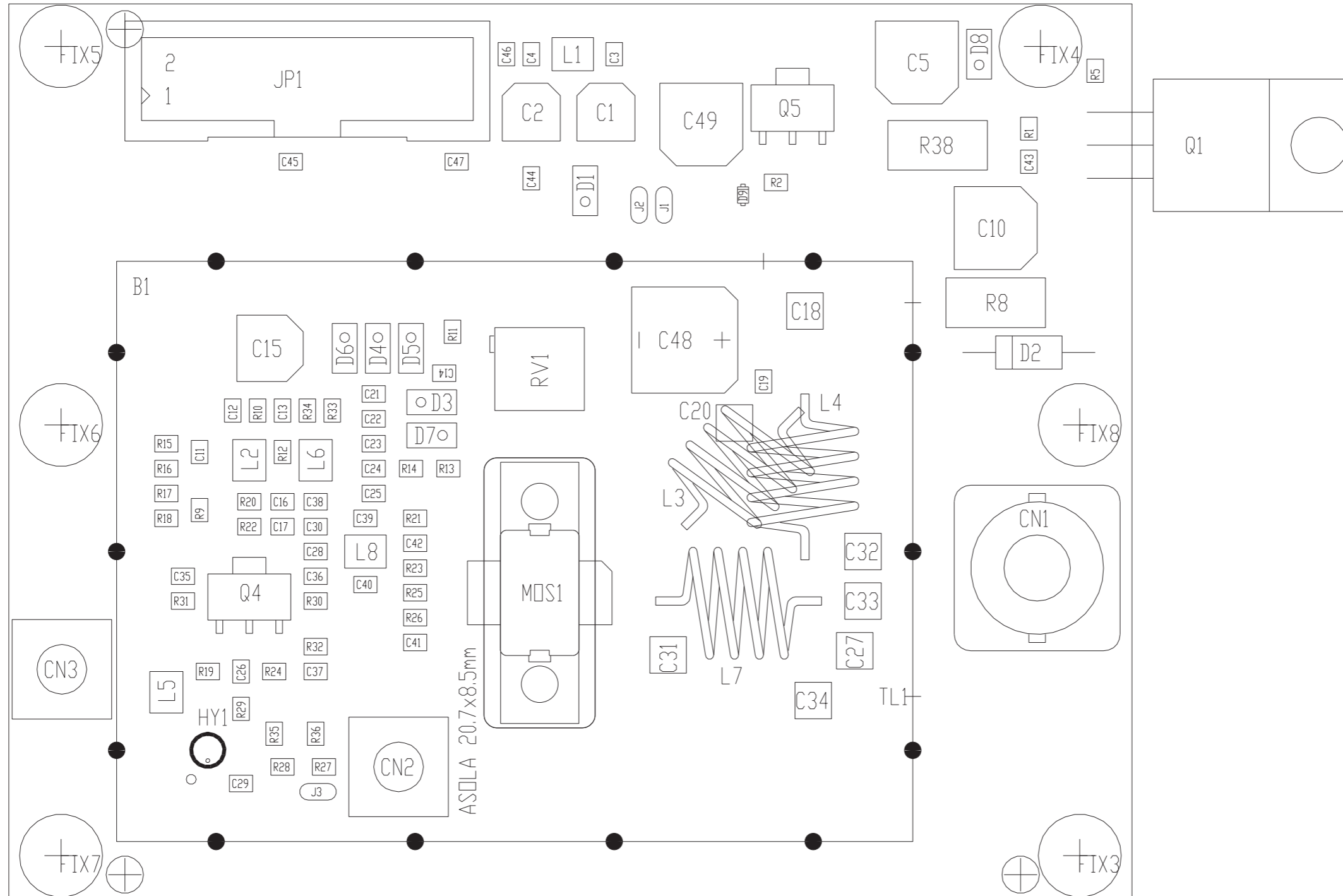


SLMA0276R04V01

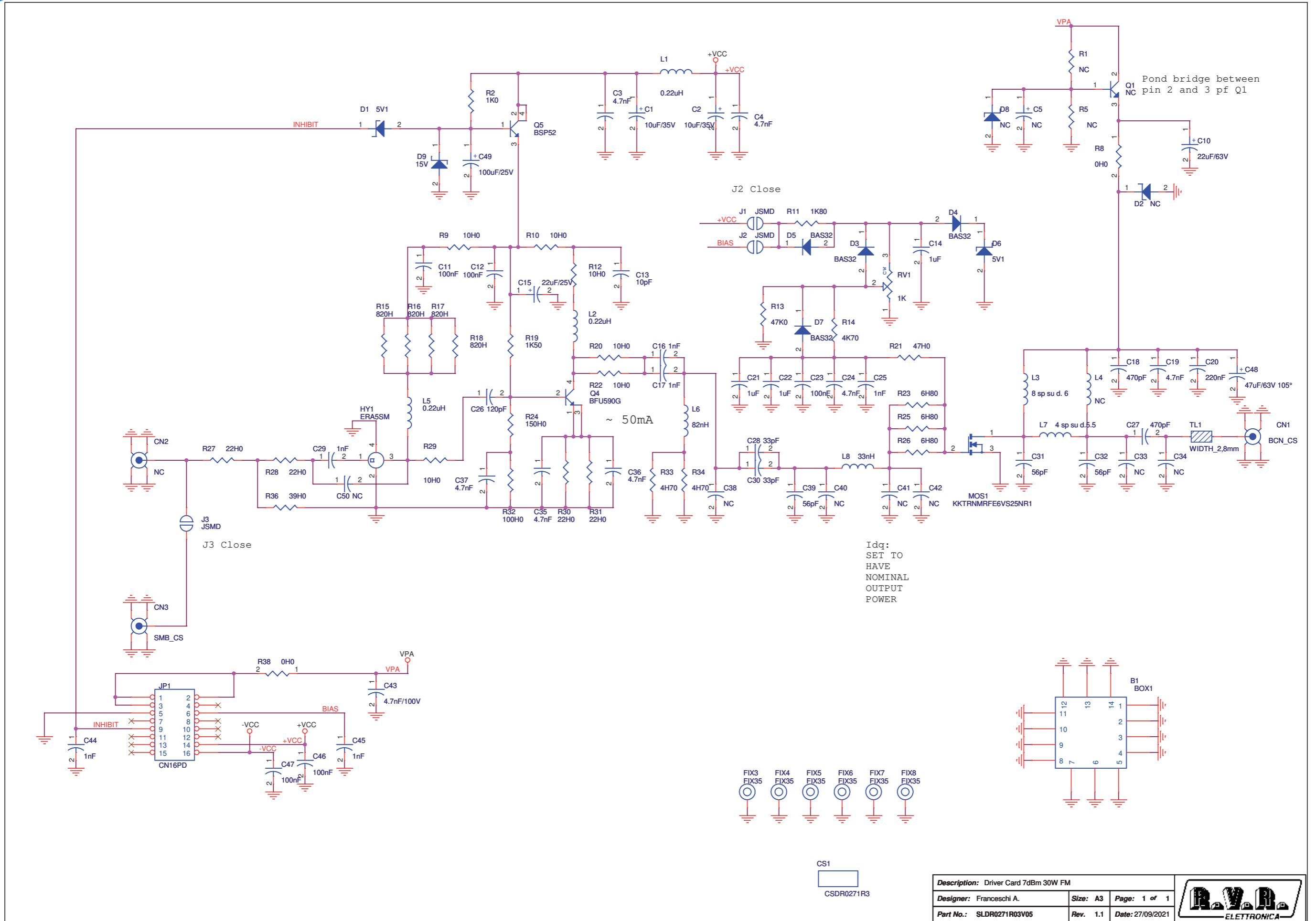
TEX-TFT MAIN BOARD Revised: 02/02/2022  
 SLMA0276R04V01 Revision: 1.1  
 Franceschi A.

Item	Quantity	Reference	Part	Description
1	2	CN1, CN2	XLRFCSD	XLR fem. PCB conn.
2	4	CN3, CN4, CN5, CN6	BNC_IS	Metal BNC conn.
3	1	CN7	NC	SMB pcb conn.
4	1	CN8	SMB_CS	SMB pcb conn.
5	1	CS1	CSMA0276R3	Printed Circuit board
6	18	C1, C2, C3, C4, C9, C10, C11, C12, C41, C42, C47, C48, C57, C58, C60, C61, C139, C142	27pF	0805 SMD capacitor
7	49	C5, C7, C13, C15, C17, C18, C19, C20, C27, C30, C37, C40, C46, C49, C52, C65, C68, C69, 0.1uF C70, C74, C76, C77, C78, C82, C83, C84, C89, C91, C95, C99, C100, C105, C111, C112, C114, C119, C121, C122, C135, C152, C153, C155, C156, C158, C159, C161, C163, C164, C166		0805 SMD capacitor
8	4	C6, C8, C14, C16	100uF/16V	SMD electr. cap. 6.3mm
9	29	C21, C22, C23, C24, C38, C39, C45, C67, C73, C75, C79, C87, C88, C92, C98, C104, C115, 10uF/16V C123, C128, C134, C136, C146, C148, C149, C157, C160, C162, C165, C167		SMD electr. cap. 4mm
10	3	C25, C28, C133	47pF	0805 SMD capacitor
11	7	C26, C29, C31, C36, C54, C150, C151	15pF	0805 SMD capacitor
12	2	C32, C34	1nF/2%	0805 COG SMD capacitor
13	2	C33, C35	1.5nF/2%	0805 COG SMD capacitor
14	2	C43, C44	NC	Ceramic comp. dia. 7mm
15	5	C50, C51, C66, C71, C72	1uF	0805 SMD capacitor
16	9	C53, C55, C56, C85, C97, C101, C106, C107, C126	NC	0805 SMD capacitor
17	9	C59, C62, C86, C127, C132, C137, C145, C147, C168	10nF	0805 SMD capacitor
18	4	C63, C64, C80, C81	220uF/16V	SMD electr. cap. 6.3mm
19	8	C90, C93, C94, C96, C131, C138, C140, C141	1nF	0805 SMD capacitor
20	2	C102, C103	470nF	1206 SMD capacitor
21	2	C108, C109	47uF/16V	SMD tantalium cap. size D
22	1	C110	NC	SMD tantalium cap. size D
23	1	C113	10uF/16V	SMD tantalium cap. size C
24	5	C116, C129, C130, C143, C144	22pF	0805 SMD capacitor
25	1	C117	10pF	0805 SMD capacitor
26	1	C118	470nF	0805 SMD capacitor
27	1	C120	10uF/35V	SMD electr. cap. 5mm
28	1	C124	33pF	0805 SMD capacitor
29	1	C125	470pF	0805 SMD capacitor
30	2	C154, C169	6-30pF	Var. comp. Murata TZB4A
31	1	DL1	LED-G0805	Green LED SMD 0805
32	1	DZ1	LM4040-10	SMD SOT23 precision Zener
33	9	D1, D2, D3, D4, D5, D6, D7, D8, D9	BAV99	Dual diode SMD SOT23
34	2	D10, D19	BAV70	Dual diode SMD SOT23
35	2	D11, D12	BAS70-04	Dual diode SMD SOT23
36	6	D13, D14, D15, D16, D17, D18	NC	Dual diode Varicap SMD SOT23
37	4	D20, D21, D30, D31	NC	Varicap diode SOD323
38	8	D22, D23, D24, D25, D26, D27, D28, D29	BB172	Varicap diode SOD323
39	9	FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8, FIX9	FIX35	3.5mm Fixing hole
40	1	HY2	ERA3SM	Hybrid MAR/ERA
41	1	HY3	MAR6SM	Hybrid MAR/ERA
42	1	JP1	CN16PD	16 way pcb conn. with holder
43	1	JP2	NC	Male strip 3 pin
44	1	JP3	NC	Male strip 2 pin
45	2	JP4, JP5	STF10S	Female strip 10 pin
46	1	JP6	STF13S	Female strip 13 pin
47	1	JP7	STF14S	Female strip 14 pin
48	8	J1, J2, J3, J4, J5, J6, J8, J9	J5MD	2 pad SMD jumper
49	1	J7	J5MDC	2 pad SMD jumper closed
50	11	L1, L2, L3, L4, L5, L6, L7, L8, L10, L13, L14	2.2uH	SMD inductor 3225 (1210)
51	1	L9	LCAVOTEX	Inductor Cable for TEX
52	2	L11, L12	15uH	SMD inductor 3225 (1210) shielded
53	1	L15	82nH	SMD inductor 3225 (1210)
54	2	OPT1, OPT2	TLP181	Optocoupler SMD SO6
55	4	Q1, Q2, Q3, Q5	BC857	PNP trans. SOT23
56	3	Q4, Q7, Q18	2N7002	Trans. FET SOT23
57	4	Q6, Q8, Q14, Q15	BC847	NPN trans. SOT23
58	3	Q9, Q10, Q11	BCR135	Digital NPN trans. SOT23
59	4	Q12, Q13, Q16, Q17	MMBFJ310	Trans. FET SOT23
60	3	RV1, RV2, RV3	1K	Trimmer Rg V 3296W
61	2	RV4, RV5	5K	Trimmer Rg V 3269W SMD
62	1	RV7	10K	Trimmer Rg V 3296W
63	2	RV8, RV10	10K	Trimmer Rg V 3269W SMD
64	1	RV9	2K	Trimmer Rg V 3269W SMD

Item	Quantity	Reference	Part	Description
65	2	R1, R7	604H0	0805 SMD res.
66	34	R2, R5, R6, R8, R11, R12, R23, R24, R25, R26, R27, R31, R32, R38, R39, R40, R46, R53, R54, R57, R59, R60, R63, R66, R67, R70, R72, R74, R115, R123, R126, R159, R160, R162	10K0	0805 SMD res.
67	10	R3, R4, R9, R10, R17, R20, R29, R37, R130, R168	10H0	0805 SMD res.
68	3	R13, R15, R35	5K49	0805 SMD res.
69	3	R14, R16, R36	6K04	0805 SMD res.
70	2	R18, R21	47K5	0805 SMD res.
71	5	R19, R22, R137, R141, R142	330H0	0805 SMD res.
72	3	R28, R76, R77	1M0	0805 SMD res.
73	2	R30, R78	33K0	0805 SMD res.
74	11	R33, R47, R49, R84, R88, R90, R105, R106, R110, R112, R122	1K0	0805 SMD res.
75	4	R34, R107, R111, R124	470K0	0805 SMD res.
76	1	R41	20K0	0805 SMD res.
77	16	R42, R43, R44, R48, R50, R82, R91, R95, R97, R99, R103, R104, R109, R114, R151, R153	4K70	0805 SMD res.
78	3	R45, R83, R157	27K4	0805 SMD res.
79	9	R51, R52, R58, R64, R65, R71, R101, R102, R127	100K0	0805 SMD res.
80	3	R55, R61, R68	12K0	0805 SMD res.
81	10	R56, R62, R69, R81, R89, R152, R158, R161, R165, R170	2K20	0805 SMD res.
82	1	R73	576H0	0805 SMD res.
83	2	R75, R94	47H0	0805 SMD res.
84	3	R79, R80, R87	4K99	0805 SMD res.
85	6	R85, R117, R133, R154, R155, R156	100H0	0805 SMD res.
86	1	R86	15K0	0805 SMD res.
87	3	R92, R93, R132	22H0	0805 SMD res.
88	5	R96, R98, R100, R125, R134	6K80	0805 SMD res.
89	1	R108	220H0	0805 SMD res.
90	1	R113	270K0	0805 SMD res.
91	2	R116, R118	3K30	0805 SMD res.
92	1	R119	390H0	0805 SMD res.
93	4	R120, R167, R169, R172	NC	0805 SMD res.
94	1	R121	8K20	0805 SMD res.
95	1	R128	56H0	0805 SMD res.
96	1	R129	330K0	0805 SMD res.
97	1	R131	150H0	0805 SMD res.
98	1	R135	68H0	0805 SMD res.
99	1	R136	1H0	0805 SMD res.
100	1	R138	82H0	0805 SMD res.
101	3	R139, R140, R143	27H0	0805 SMD res.
102	2	R144, R145	8H20	0805 SMD res.
103	1	R146	120H0	0805 SMD res.
104	4	R147, R148, R149, R150	1K20	0805 SMD res.
105	2	R163, R164	2K0	0805 SMD res.
106	1	R166	3K90	0805 SMD res.
107	1	R171	0H0	0805 SMD res.
108	1	SW1	SWDIP2	2 ways switch slide dip
109	1	TCX1	10MHz	TCXO SMD 5x3.2mm
110	2	TP1, TP2	TPSMD1	Piazzola SMD d.1mm
111	5	U1, U2, U4, U7, U12	TL072SMD	Dual Op. SMD SO8
112	1	U3	CD4066XSMD	Analog Switch SMD SO14
113	1	U5	7407/SO	Hex buffer OC SMD SO14
114	1	U6	4053SSMD	Analog Switch SMD SO16
115	2	U8, U11	LM393SMD	Dual Comp. SMD SO8
116	2	U9, U10	LM358SMD	Dual Op. SMD SO8
117	1	U13	4094SMD	Shift Reg. SMD SO16
118	1	U14	MB15E03	Integrated PLL
119	1	U15	MC78LC33	Stab. SMD SOT23-5
120	1	U16	TLC272SMD	Dual Op. SMD SO8
121	1	U17	NC7586	XOR Port
122	1	U18	LM7815P	Voltage reg. TO220
123	3	U19, U20, U21	AD5262BRUZ20	Dual 256 pos. dig. pot.



PRODUCT NAME : TEX-TFT	PART NAME : DRIVER CARD 50V 30W 7DBM FM
DESIGNER : FRANCESCHI A.	DATE : 09/09/21
ARCHIVING : "RV/RUT" SERVER, "RILASCIATI" FOLDER	REVISION : 1.0
	SCALE : 2:1
	SIZE : A4
	PAGE : 1
	DI : 1
	DOCUMENT CODE : SLDR0271R03V05



<b>Description:</b> Driver Card 7dBm 30W FM		
<b>Designer:</b> Franceschi A.	<b>Size:</b> A3	<b>Page:</b> 1 of 1
<b>Part No.:</b> SLDR0271R03V05	<b>Rev.:</b> 1.1	<b>Date:</b> 27/09/2021



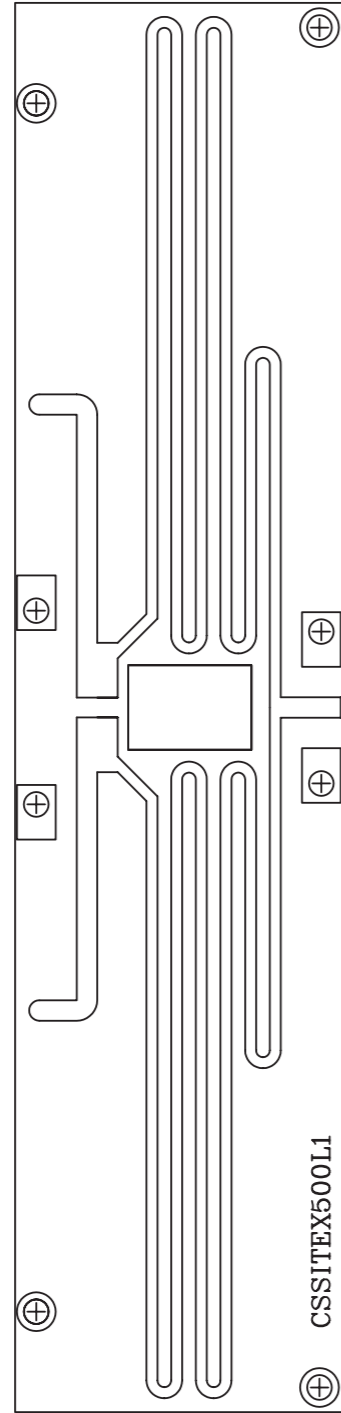


SLDR0271R03V05

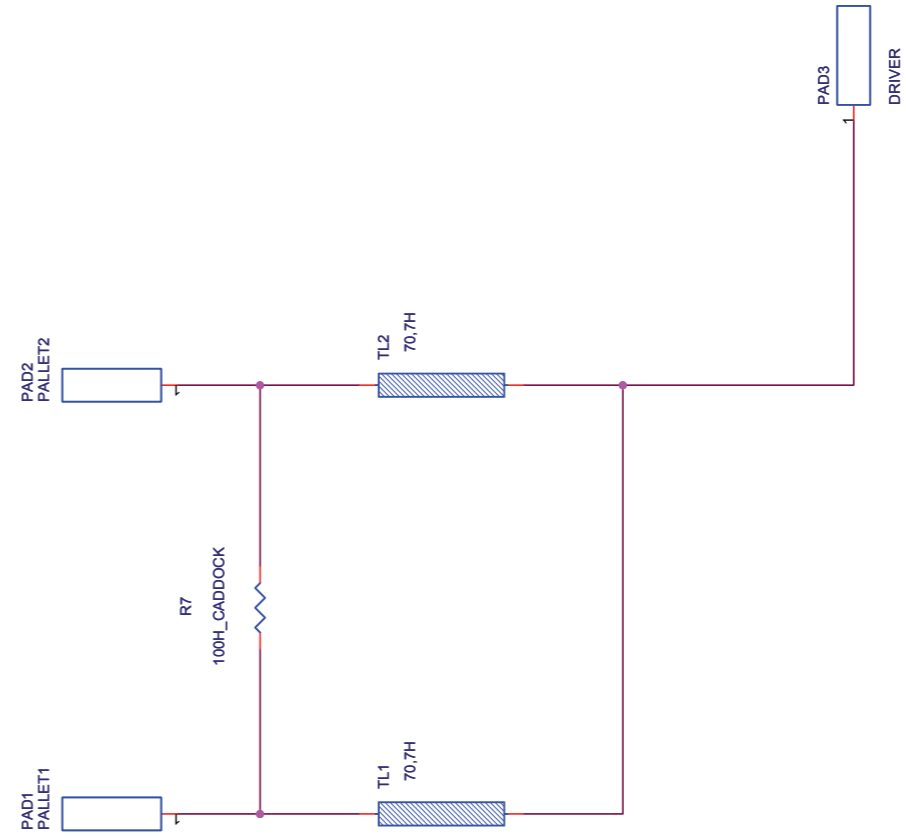
Driver Card 7dBm 30W FM Revised: 27/09/2021  
 SLDR0271R03V05 Revision: 1.1  
 Franceschi A.

Item	Quantity	Reference	Part	Description
1	1	B1	BOX1	Shielded box
2	1	CN1	BCN_CS	BNC conn. 10x10 PCB
3	1	CN2	NC	SMB pcb conn.
4	1	CN3	SMB_CS	SMB pcb conn.
5	1	CS1	CSDR0271R3	Printed Circuit board
6	2	C1, C2	10uF/35V	SMD electr. cap. 4mm
7	7	C3, C4, C19, C24, C35, C36, C37	4.7nF	0805 SMD capacitor
8	1	C5	NC	SMD electr. cap. 6.3mm
9	1	C10	22uF/63V	SMD electr. cap. 6.3mm
10	5	C11, C12, C23, C46, C47	100nF	0805 SMD capacitor
11	1	C13	10pF	0805 SMD capacitor
12	3	C14, C21, C22	1uF	0805 SMD capacitor
13	1	C15	22uF/25V	SMD electr. cap. 5mm
14	6	C16, C17, C25, C29, C44, C45	1nF	0805 SMD capacitor
15	2	C18, C27	470pF	1212 HQ SMD capacitor
16	1	C20	220nF	1210 SMD capacitor
17	1	C26	120pF	0805 SMD capacitor
18	2	C28, C30	33pF	0805 SMD capacitor
19	2	C31, C32	56pF	1212 HQ SMD capacitor
20	2	C33, C34	NC	1212 HQ SMD capacitor
21	5	C38, C40, C41, C42, C50	NC	
22	1	C39	56pF	0805 SMD capacitor
23	1	C43	4.7nF/100V	0805 SMD capacitor
24	1	C48	47uF/63V 105°	SMD electr. cap. 8mm
25	1	C49	100uF/25V	SMD electr. cap. 6.3mm
26	2	D1, D6	5V1	MINIMELF SMD Zener Diode
27	1	D2	NC	1W Zener Diode
28	4	D3, D4, D5, D7	BAS32	MINIMELF SMD Diode
29	1	D8	NC	MINIMELF SMD Zener Diode
30	1	D9	15V	SOD523 Zener Diode
31	6	FIX3, FIX4, FIX5, FIX6, FIX7, FIX8	FIX35	3.5mm Fixing hole
32	1	HY1	ERA5SM	Hybrid MAR/ERA
33	1	JP1	CN16PD	16 way pcb conn. with holder
34	3	J1, J2, J3	JSMD	2 pad SMD jumper
35	3	L1, L2, L5	0.22uH	SMD inductor 3225 (1210)
36	1	L3	8 sp su d. 6	Bobina avvolta in aria
37	1	L4	NC	Bobina avvolta in aria
38	1	L6	82nH	SMD inductor 3225 (1210)
39	1	L7	4 sp su d.5.5	Bobina avvolta in aria
40	1	L8	33nH	SMD inductor 3225 (1210)
41	1	MOS1	KKTRNMRFE6VS25NR1	RF POWER MOS
42	1	Q1	NC	NPN trans. TO220
43	1	Q4	BFU590G	NPN trans. SOT223
44	1	Q5	BSP52	NPN trans. SOT223
45	1	RV1	1K	Trimmer Rg H 3269P SMD
46	2	R1, R5	NC	0805 1% SMD res.

SLSITEX500L1



CSSITEX500L1



	NOME PROGETTO: TEX 500 EXCITER LCD	NOME PARTE: TABELLA INFORMATIVA C.S.SPLITTER VISTA LATO COMPONENTI			
	AUTORE: ENRICO PAOLINO	DATA: 12/01/2004	REVISIONE: 1.0	SCALA: 1:1	SIZE: A4
ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"		CODICE PROGETTO: TEX500L	CODICE DISEGNO: CSSITEX500L1		
MATERIALE: FR4	TRATTAMENTO: STAGNATURA E SOLDER	PROFILO: SP. 1,6 - RAME 35/35	STATO: ESECUTIVO		

Nome Progetto: TEX500LCD	Pagina: 1 di 1	Size: A4
Autore: Gasparini Luca	Codice Progetto: 012	
Nome PC in Rete: \UT_SRV\Progetti	Data: 05/04/04	
File/Cartella: TEX500\Esecutivi\Schemi Elettro\SLSITEX500L1	Revisione: 1.0	
	Nome Parte: SPLITTER	
	Codice: SLSITEX500L1	

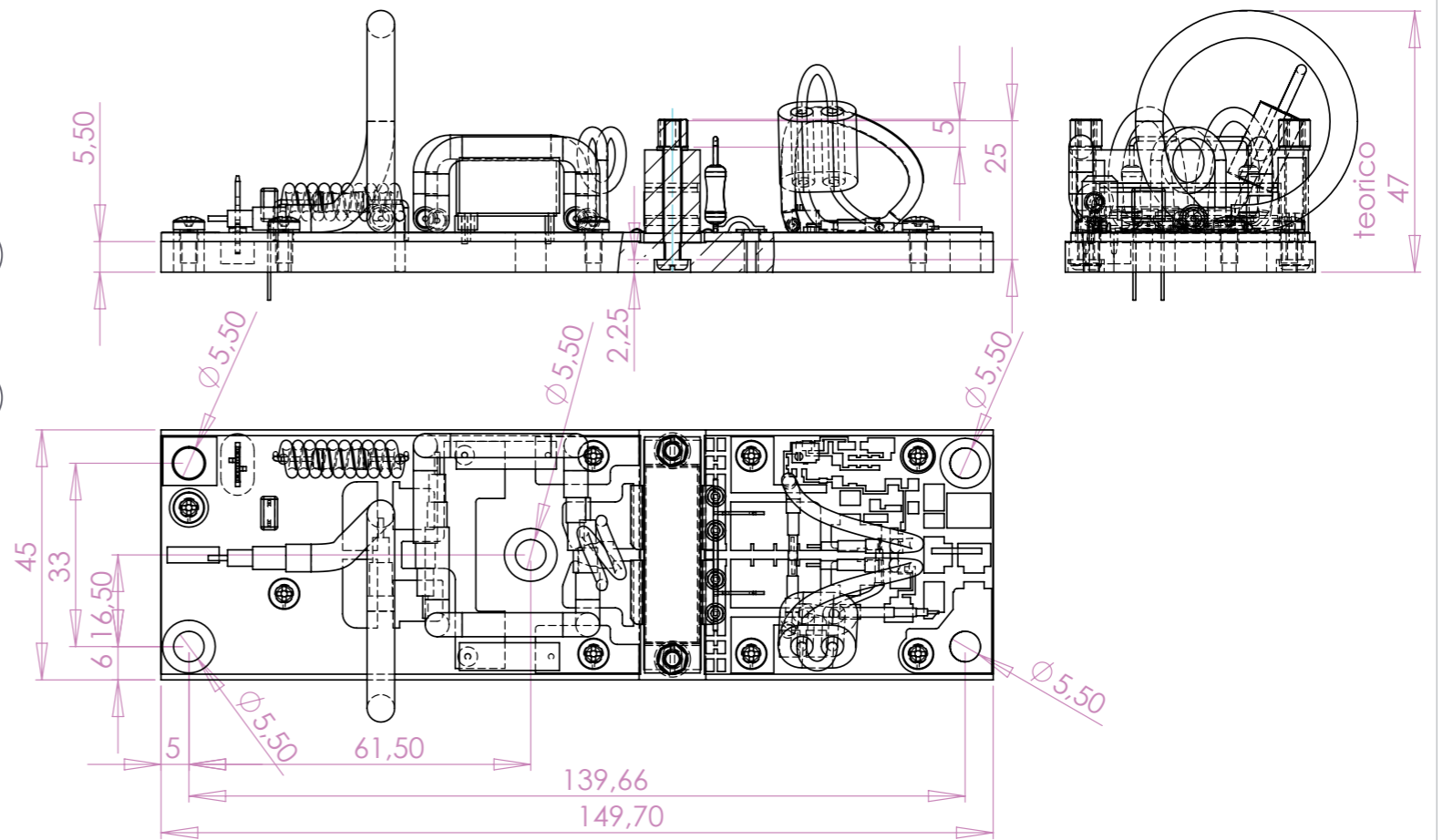
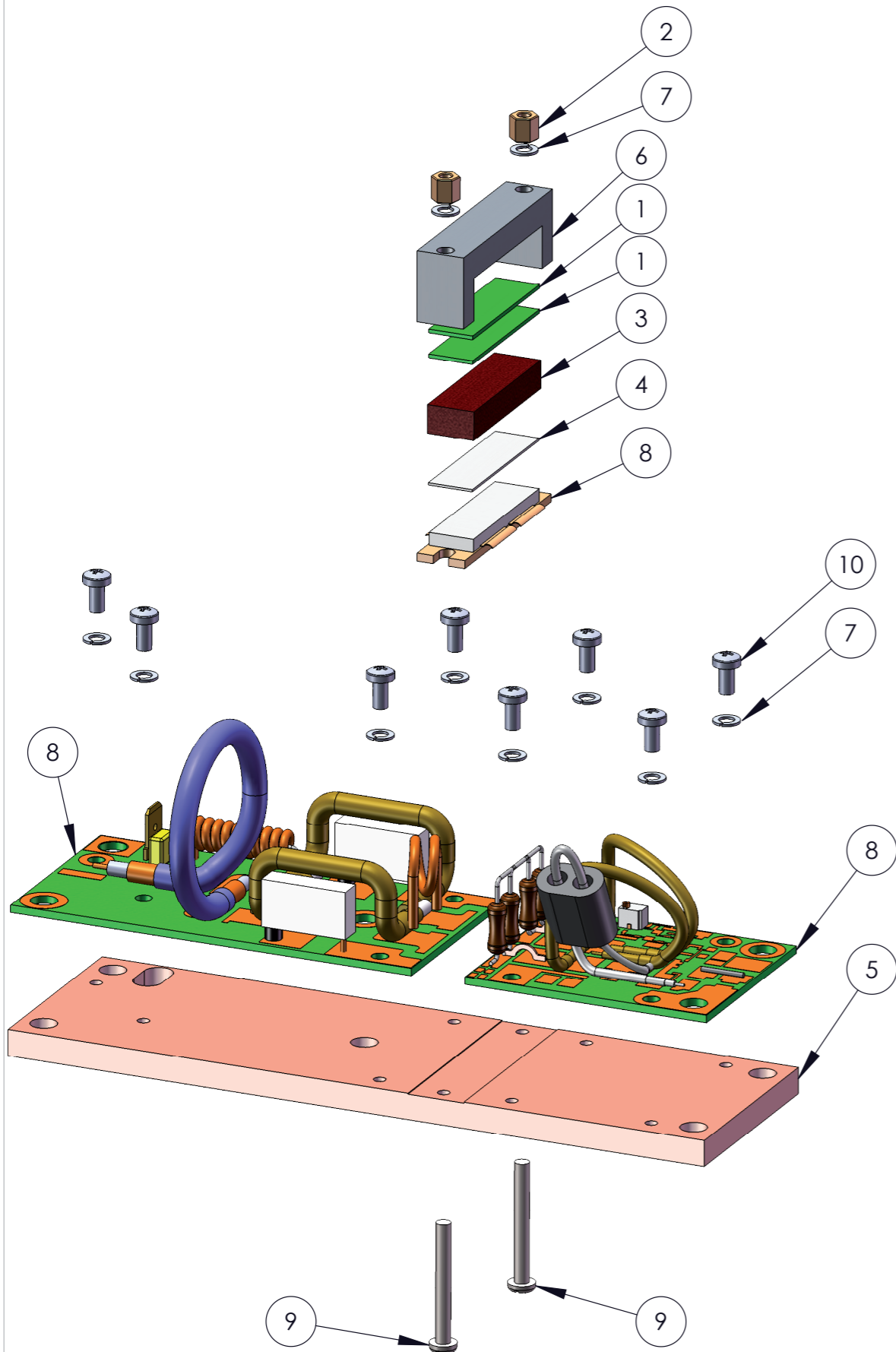
SLSITEX500L1

SPLITTER Revised: 05/04/04  
SLSITEX500L1 Revision: 1.0  
TEX500LCD  
12  
Gasperini Luca

Item	Quantity	Reference	Part	Description
1	1	PAD1	PALLET1	
2	1	PAD2	PALLET2	
3	1	PAD3	DRIVER	
4	1	R7	100H_CADDOCK	
5	2	TL1, TL2	70,7H	

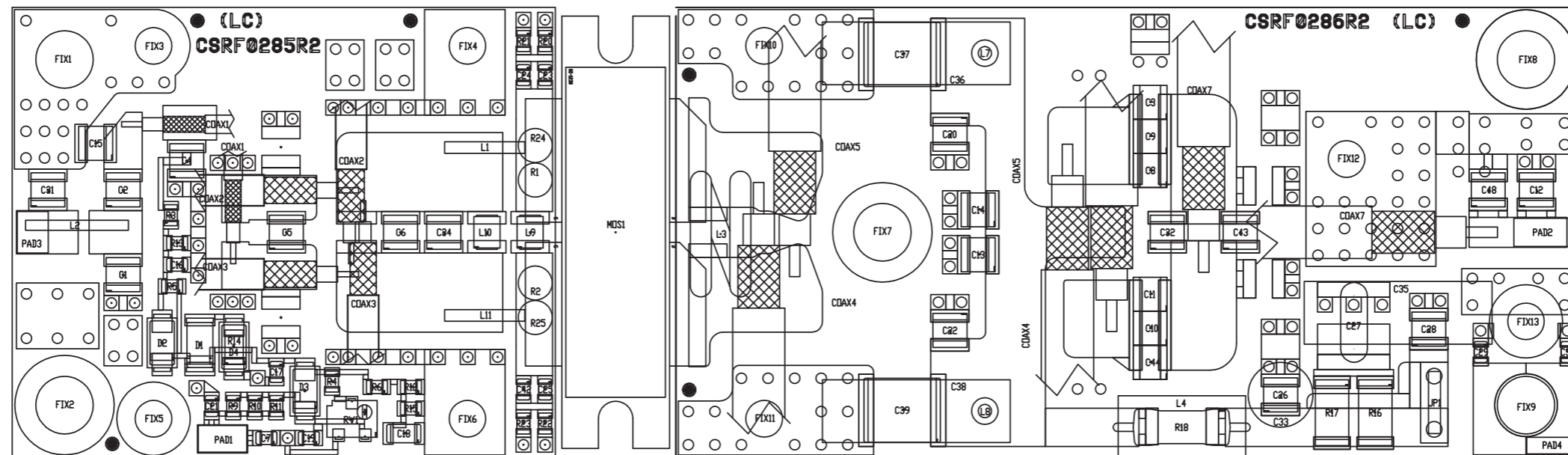
SL237RF4001


Nr	Num. parte	DESCRIZIONE	QTY.
1	CSRF0306R1	CIRC.STAMP. BLOCC. MOSFET 32X9.5	2
2	DM3FF05A05B05O	Dist.Esc. F-F M3 H5 BN3320	2
3	ISLSILR218_DXF	ISOL. IN SILICONE 32X10X6 RED	1
4	PMDIEFIN239A	ISOLANTE DIEL.TEFLON X MOSFET	1
5	PMDRFFIN237A	SUPPORTO FINALE 800W LDMOS FM/CU 45MM	1
6	PMFISFIN218A-C	Supporto x mosfet MRF6VP2600H	1
7	RNDISM03I	ROND.DIAM.MM.3 ELAS.SPAC.INOX BN672	10
8	SL237RF4001	SEM.SCH.PALLET AMP 800W FM LDMOS	1
9	VIBTA03M025I	VITE INOX BOMB. TAGLIO 3M25 BN652	2
10	VICCR03M006I	VITE INOX CIL.CROCE 3M6 BN660	8

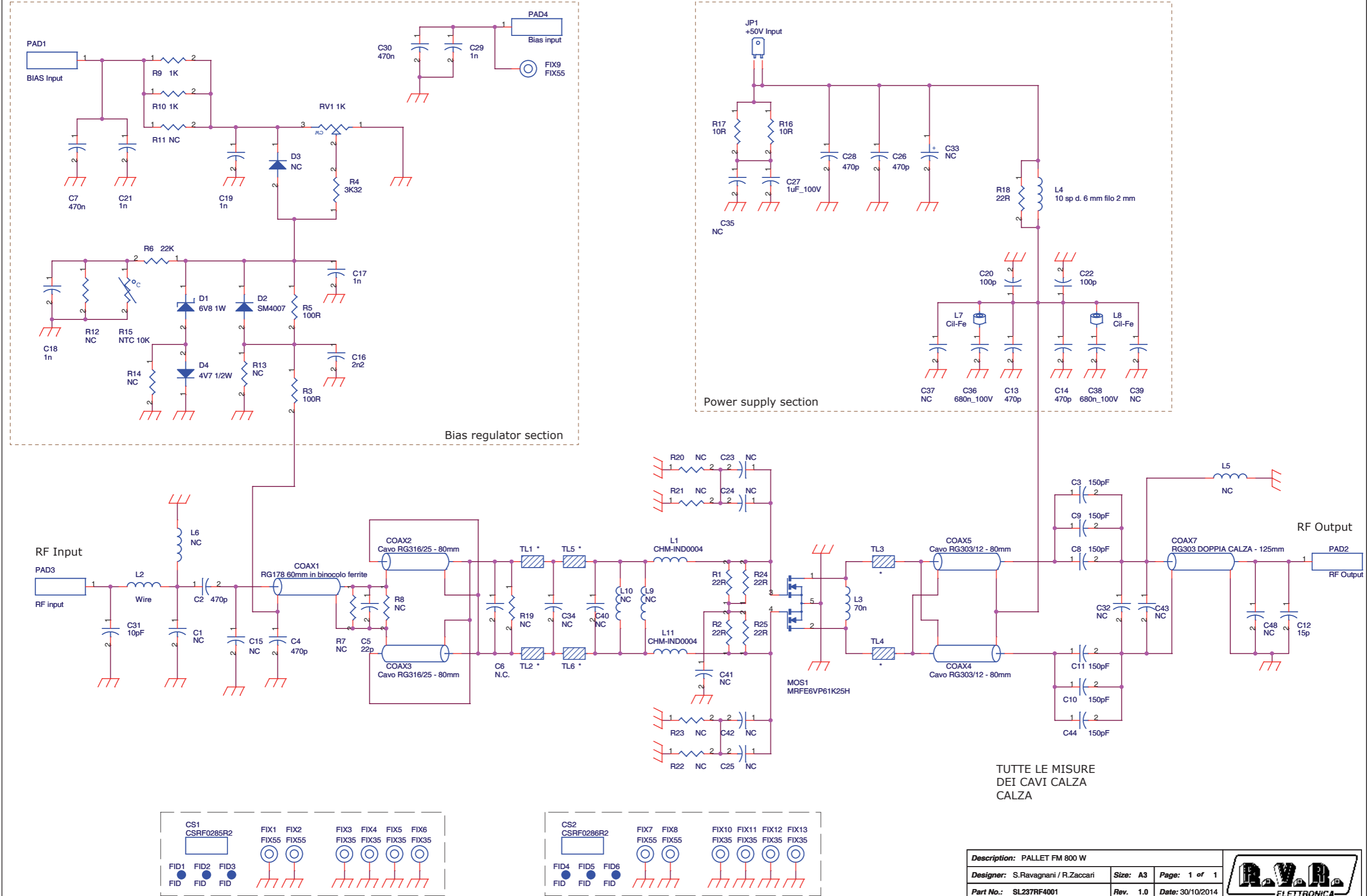


	PROFILE:	DESCRIPTION: BLOCCO PALLET MRF6VP61K25H/CU 45MM			
	MATERIAL:	CODE: KKFIN237L	AUTHOR: UT2		
GENERAL TOLERANCE UNI ISO 2768-f	TREATMENT:	DATE: 28/07/2021	PROJECT N°: 237	TYPE:	PAGE: 1/1
		SCALE: 1:1	FORMAT: A3		





	NOME PROGETTO: EXCITER HIGH EFFICIENTY	NOME PARTE: PALLET FM 800 W			
	AUTORE: ZACCARI / DE DONNO	DATA: 07/11/2014	REVISIONE: 1.0	SCALA: 2:1	SIZE: A3
ARCHIVIAZIONE ELETTRONICA: "CARTELLA RILASCIATI" SU "UTSRV"	CODICE PROGETTO: 237		CODICE DISEGNO: SL237RF4001		
MATERIALE: <>	TRATTAMENTO: <>	PROFILO: <>	STATO: ESECUTIVO		



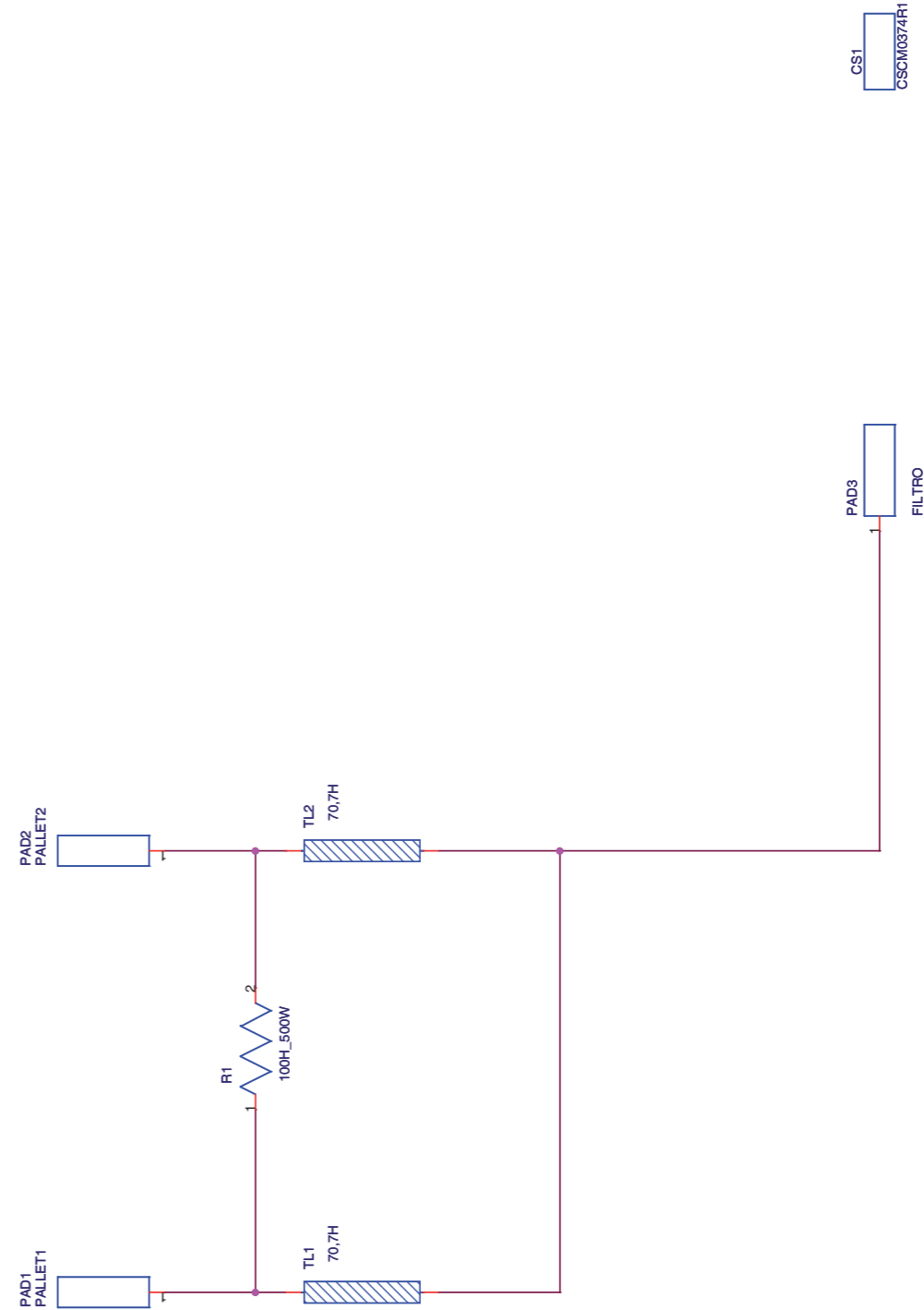
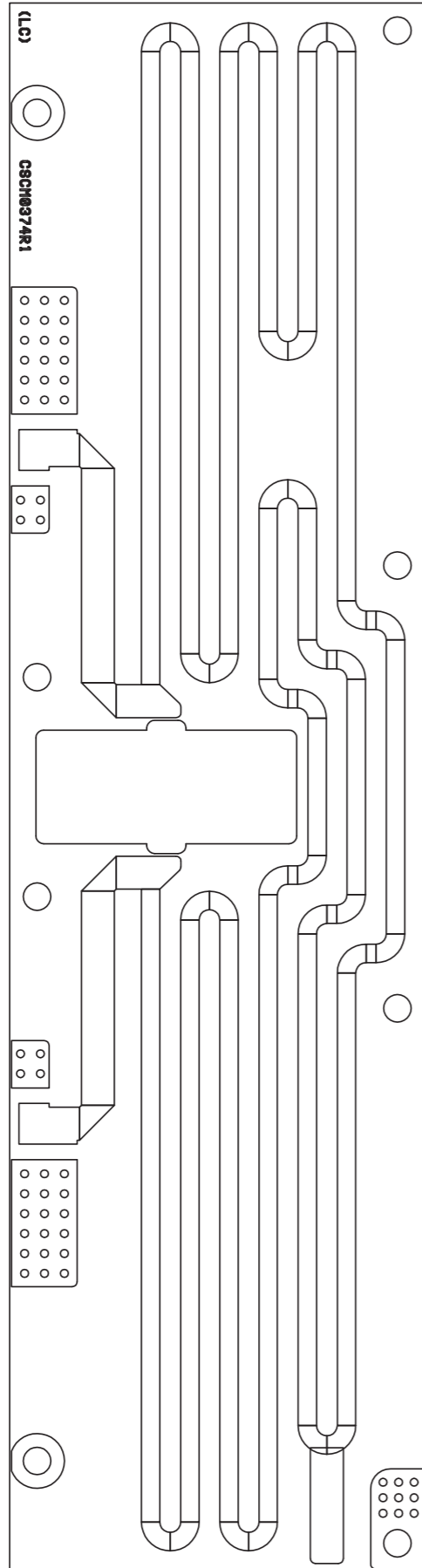
Description: PALLET FM 800 W			
Designer: S.Ravagnani / R.Zaccari	Size: A3	Page: 1 of 1	
Part No.: SL237RF4001	Rev. 1.0	Date: 30/10/2014	

SL237RF4001

PALLET FM 800 W Revised: 30/10/2014  
 SL237RF4001 Revision: 1.0  
 S.Ravagnani / R.Zaccari

Item	Quantity	Reference	Part	(description)
1	1	COAX1	RG178 60mm in binocolo ferrite	Cavo RG178 60mm calza/calza in binocolo ferrite (73mm tot.)
2	2	COAX2, COAX3	Cavo RG316/25 - 80mm	Cavo RG316/25 80mm calza/calza (91mm tot.)
3	2	COAX5, COAX4	Cavo RG303/12 - 80mm	Cavo RG303/12 80mm calza/calza (98mm tot.)
4	1	COAX7	RG142 DOPPIA CALZA - 125mm	Cavo RG142 125mm calza/calza (147mm tot.) Vedi Info COAX7.pdf
5	1	CS1	CSRF0285R2	Ciruito stampato
6	1	CS2	CSRF0286R2	Ciruito stampato
7	3	C1, C23, C25	NC	Cond. SMD 0805
8	2	C2, C4	470p	Cond. SMD 1212 HQ
9	4	C13, C14, C26, C28	470p	Cond. SMD 1212 HQ
10	1	C30	470n	Cond. SMD 0805
11	1	C5	22p	Cond. SMD 1212 HQ
12	1	C6	NC	Cond. SMD 1212 HQ
13	2	C7	470n	Cond. SMD 0805
14	6	C3, C44, C8, C9, C10, C11	150pF	Cond. SMD 1212 HQ
15	1	C12	15p	Cond. SMD 1212 HQ
16	6	C15, C32, C34, C40, C43, C48	NC	Cond. SMD 1212 HQ
17	1	C16	2n2	Cond. SMD 0805 COG
18	3	C17, C19, C21	1n	Cond. SMD 0805
19	1	C18	1n	Cond. SMD 1206
20	2	C22, C20	100p	Cond. SMD 1212 HQ
21	2	C42, C24	NC	Cond. SMD 0805
22	1	C27	1uF 100V	Cond. multistrato p 5mm
23	1	C31	10pF	Cond. SMD 1212 HQ
24	1	C29	1n	Cond. SMD 0805
25	3	C36, C38	680n 100V	Cond. Poliestere p 10mm
26	2	C37, C39	NC	Cond. Poliestere p 15mm
27	1	C41	NC	Cond. multistrato p 5mm
28	1	D1	6V8 1W	MELF SMD Zener Diode
29	1	D2	SM4007	Diode SMD cont. SMA
30	1	D3	NC	Diode SMD cont. SMA
31	1	D4	4V7 1/2W	MELF SMD Zener Diode
32	6	FID1, FID2, FID3, FID4, FID5, FID6	FID	Fiducial CS
33	5	FIX1, FIX2, FIX7, FIX8, FIX9	FIX55	Foro fissaggio 5.5mm
34	8	FIX3, FIX4, FIX5, FIX6, FIX10, FIX11, FIX12, FIX13	FIX35	Foro fissaggio 3.5mm
35	1	JP1	+50V Input	Faston da CS p. 5.08
36	2	L11, L1	CHM-IND0004	Printed link on copper
37	1	L2	Wire	Filo R. Arg. 1mm lung. 10mm
38	1	L3	70n	1.5 Spire Filo R. Arg. 2mm Avvolte su 8mm Lung. 8 Alt. 5mm da PCB
39	1	L4	10 sp d. 6 mm filo 2 mm	10spire filo R. Small. 2mm Avvolte su 6mm includente R18 all'interno
40	2	L5, L9	NC	
41	1	L6	NC	
42	2	L7, L8	Cil-Fe	Cilindretto di ferrite
43	1	L10	NC	Ind. SMD 1008
44	1	MOS1	MRFE6VP61K25H	PP Power mosfet RF
45	2	PAD4, PAD1	BIAS Input	
46	1	PAD2	RF Output	
47	1	PAD3	RF input	
48	1	RV1	1K	Trimm. multi SMD PVG5 Murata
49	4	R1, R2, R24, R25	22R	Res. 2W
50	3	R7, R8, R19	NC	Res. 2W
51	2	R3, R5	100R	Res. SMD 0805 1%
52	1	R4	3K32	Res. SMD 0805 1%
53	1	R6	22K	Res. SMD 0805 1%
54	2	R10, R9	1K	Res. SMD 0805 1%
55	3	R11, R12, R13	NC	Res. SMD 0805 1%
56	1	R14	NC	Res. SMD 1206 1%
57	1	R15	NTC 10K	Res. NTC SMD 0805
58	2	R17, R16	10R	Res. SMD 2512 5%
59	1	R18	22R	Res. 2W
60	4	R20, R21, R22, R23	NC	Res. SMD 0805 1%
61	6	TL1, TL2, TL3, TL4, TL5, TL6	*	Linea strip CS
62	1		Ferrite balun	Ferrite balun

SLCM0374R01V01



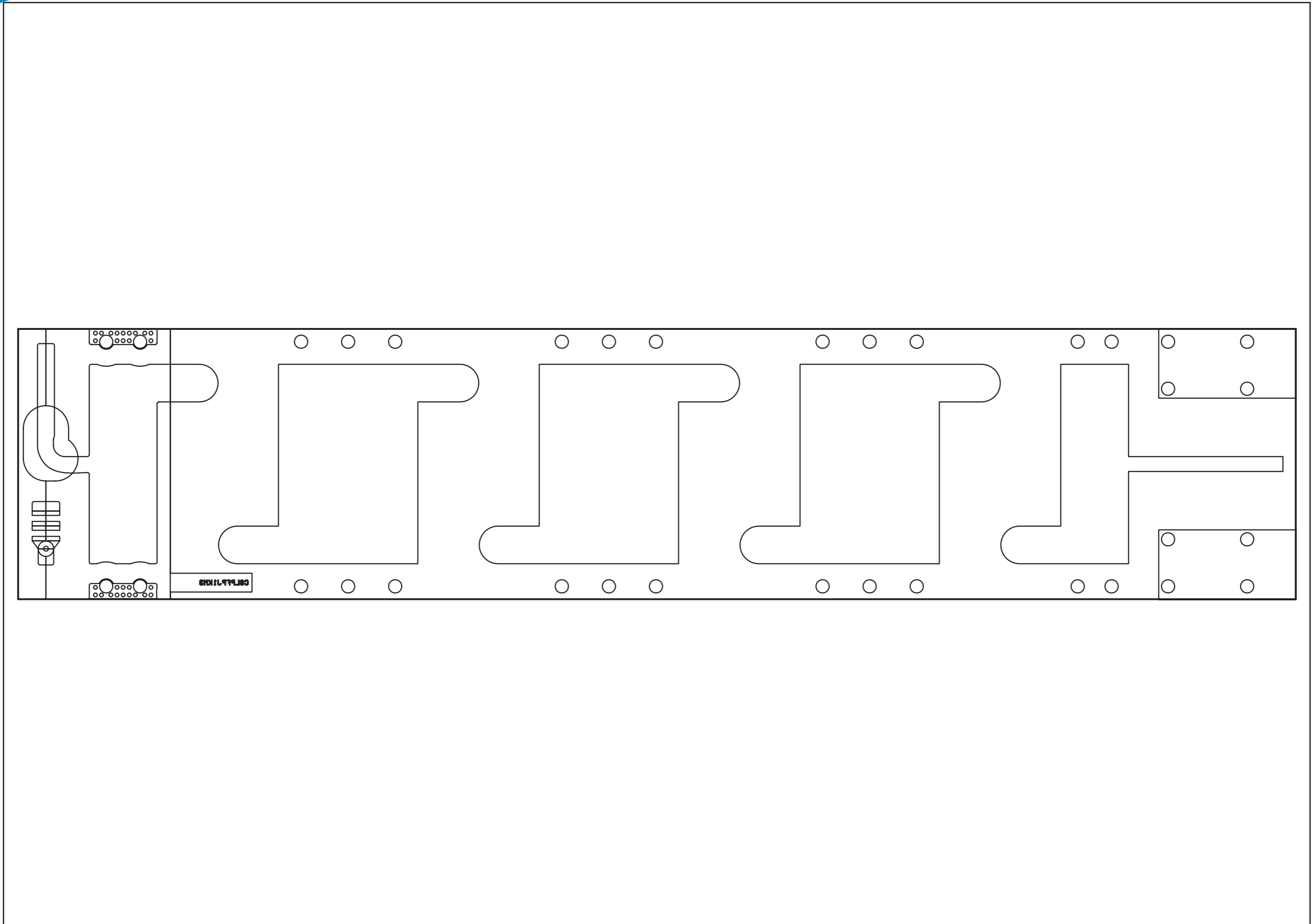
Nome Progetto: TEX/PJ 1600LIGHT		Pagina: 1 di 1		Size: A4	
Autore: Gasparini Luca		Codice Progetto: 240			
Nome PC in Rete: \RVR\UTR\lascisti		Data: 20/11/2012			
File/Cartella: \		Revisione: 1.0		Nome Parte: COMBINER	
		Autorizzazione:		Codice: SLCM0374R01V01	



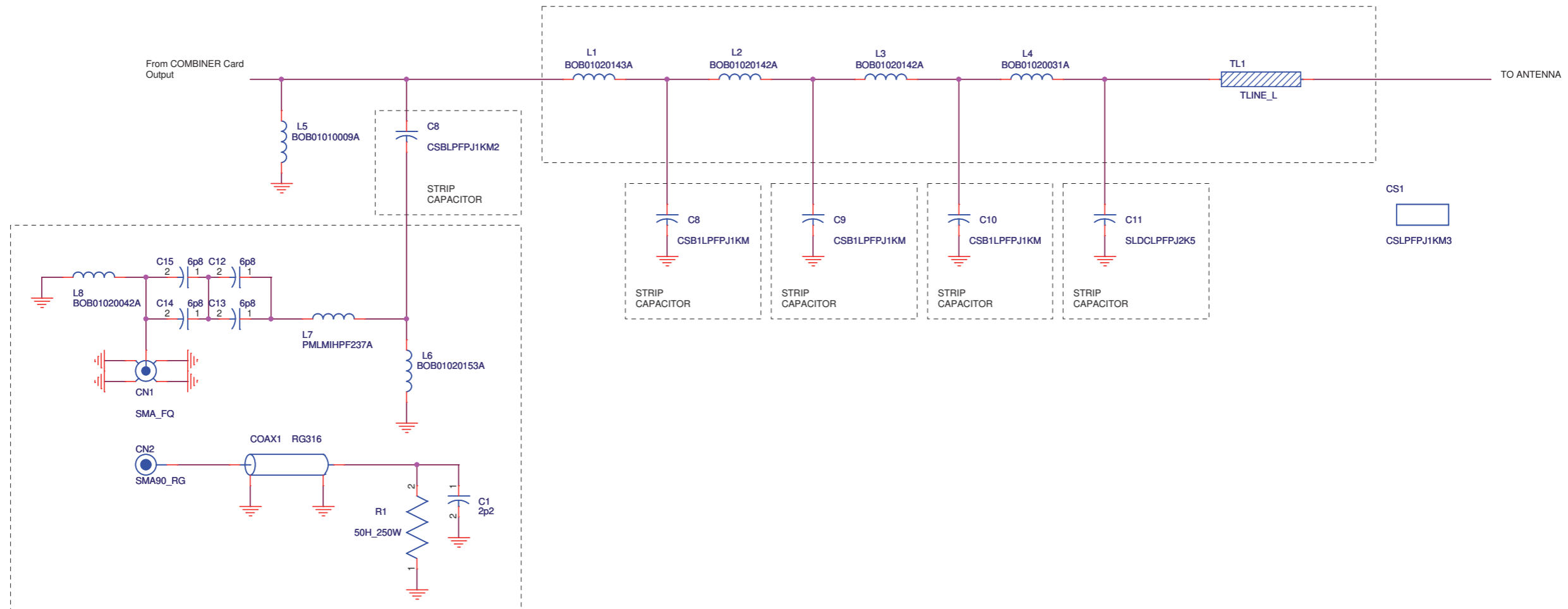
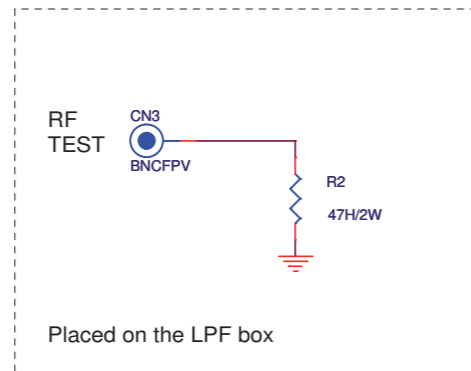
SLCM0374R01V01

COMBINER Revised: 20/11/2012  
 SLCM0374R01V01 Revision: 1.0  
 TEX/PJ 1600LIGHT  
 240  
 Gasperini Luca

Item	Quantity	Reference	Part	Description
1	1	PAD1	PALLET1	
2	1	PAD2	PALLET2	
3	1	PAD3	FILTRO	
4	1	R1	100H_500W	Resistenza KDI 2 fix
5	2	TL1, TL2	70,7H	Linea strip CS
6	1	CS1	CSCM0374R1	Circuito Stampato



SLLPFTEX2K5



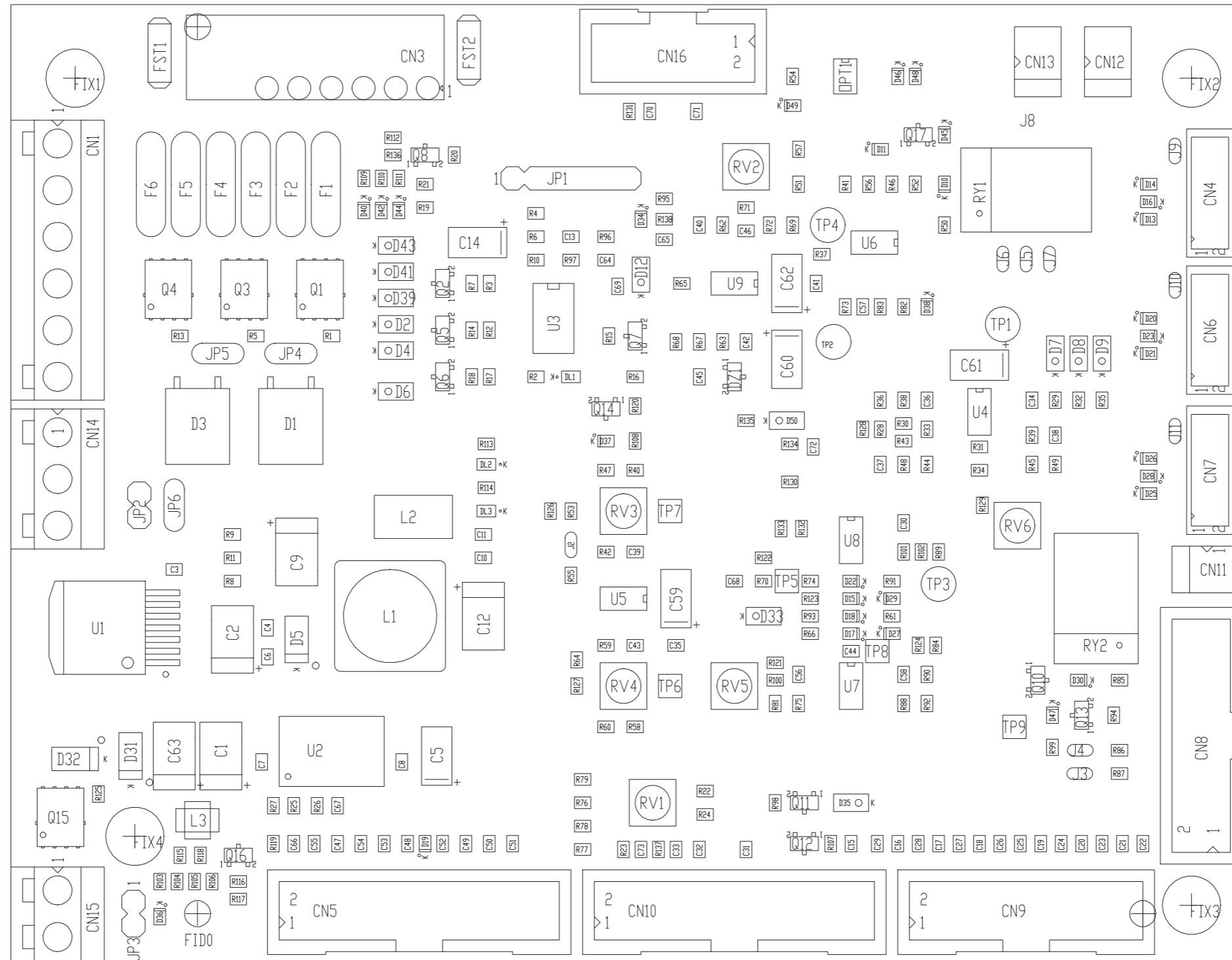
Description: Low Pass Filter		
Designer: Franceschi A.	Size: A3	Page: 1 of 1
Part No.: SLLPFTEX2K5	Rev. 1.2	Date: 21/05/2013



SLLPFTEX2K5

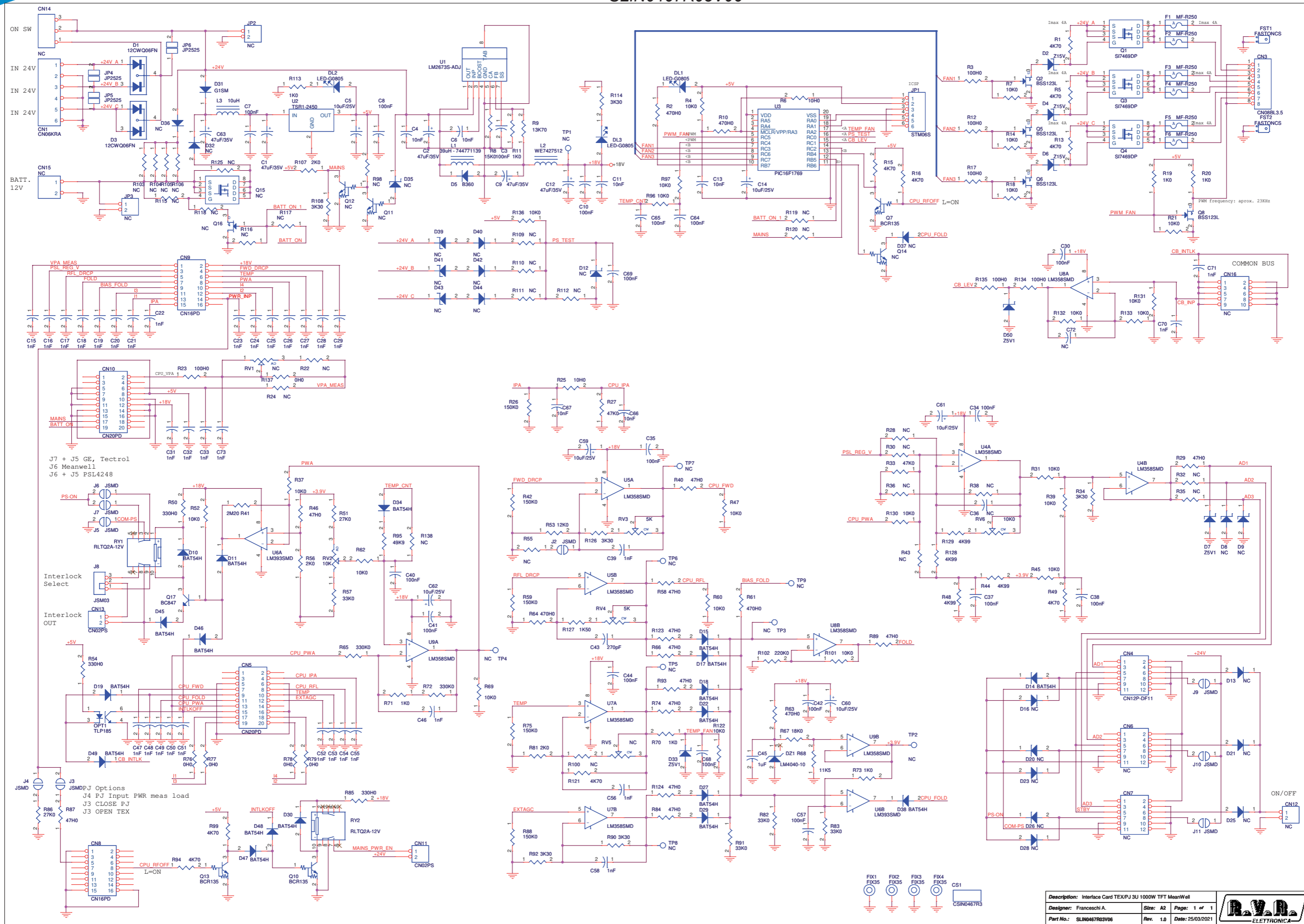
Low Pass Filter Revised: Tuesday, May 21, 2013  
 SLLPFTEX2K5 Revision: 1.2  
 Franceschi A.

Item	Quantity	Reference	Part	Description
1	1	CN1	SMA_FQ	
2	1	CN2	SMA90_RG	
3	1	CN3	BNCFPV	
4	1	COAX1	RG316	
5	1	CS1	CSLPPFJ1KM3	
6	1	C1	2p2	
7	1	C8	CSBLPPFJ1KM2	
8	3	C8, C9, C10	CSB1LPPFJ1KM	
9	1	C11	SLDCLPPFJ2K5	
10	4	C12, C13, C14, C15	6p8	
11	1	L1	BOB01020143A	
12	2	L2, L3	BOB01020142A	
13	1	L4	BOB01020031A	
14	1	L5	BOB01010009A	
15	1	L6	BOB01020153A	
16	1	L7	PMLMIHPF237A	
17	1	L8	BOB01020042A	
18	1	R1	50H_250W	
19	1	R2	47H/2W	
20	1	TL1	TLINE_L	



	PRODUCT NAME : TEX/PJ 3U	PART NAME : Interface Card TEX/PJ 3U
	DESIGNER : FRANCESCHI A.	DATE 01/07/20   REVIS. : 1.0   SCALE 2:1   SIZE A3   PAGE : 1 DI 1
ARCHIVING : 'RVRT' SERVER, 'RILASCIATI' FOLDER   PROJECT CODE : <		DOCUMENT CODE : SLIN0467R03V**





Description: Interface Card TEX/PJ 3U 1000W TFT MeanWell			
Designer: Franceschi A.	Size: A2	Page: 1 of 1	
Part No.: SLIN0467R03V06	Rev. 1.0	Date: 25/03/2021	

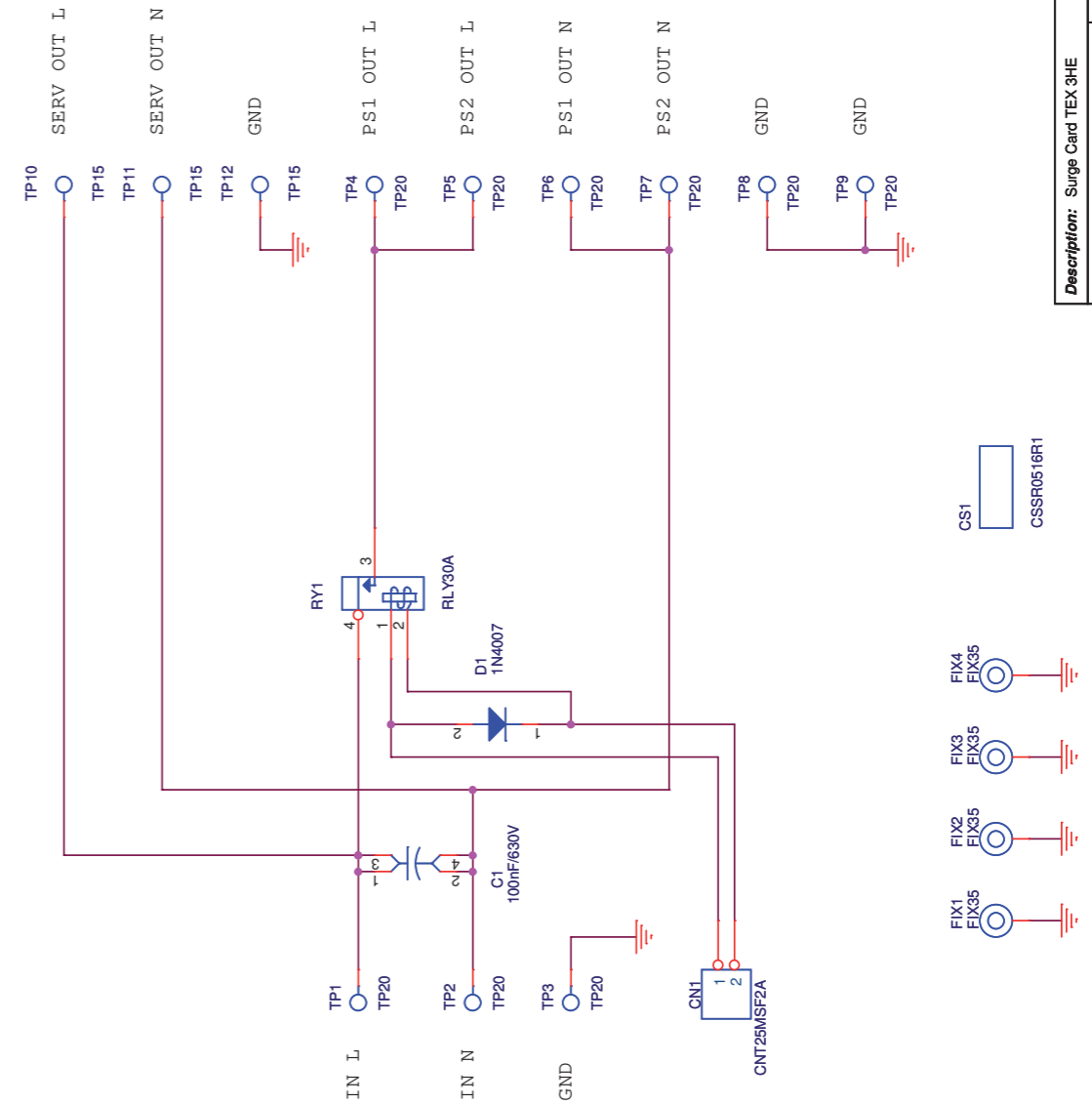
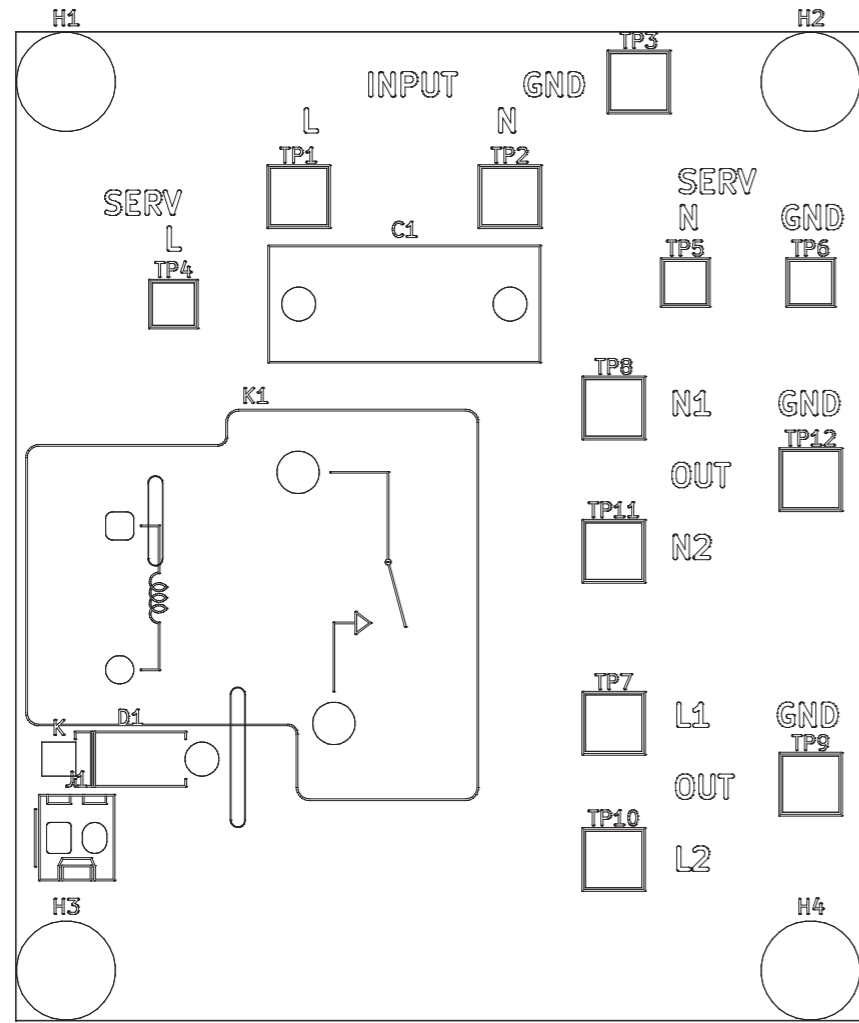
SLIN0467R03V06

Interface Card TEX/PJ 3U 1000W TFT MeanWell Revised: Thursday, March 25, 2021  
 SLIN0467R03V06 Revision: 1.0  
 Franceschi A.

Item	Quantity	Reference	Part	Description
1	1	CN1	CN06KRA	KRA conn. 6 way
2	1	CN3	CN08BL3.5	Weidm conn. BL 8 way 3.5mm
3	1	CN4	CN12P-DF11	12 way DF11 conn. 12pin p. 2mm
4	2	CN5,CN10	CN20PD	20 way pcb conn.
5	2	CN6,CN7	NC	12 way DF11 conn. 12pin p. 2mm
6	2	CN8,CN9	CN16PD	16 way pcb conn. with holder
7	2	CN11,CN13	CN02PS	Conn. 2 poli WR-WTB
8	1	CN12	NC	Conn. 2 poli WR-WTB
9	1	CN14	NC	KRA conn. 3 way
10	1	CN15	NC	KRA Conn. a 2 poli
11	1	CN16	NC	10 way pcb conn. with holder
12	1	CS1	CSIN0467R3	Printed Circuit board
13	5	C1,C2,C9,C12,C63	47uF/35V	SMD tantalum cap. size D
14	18	C3,C7,C8,C10,C30,C34,C35,C37,C38,C40,C41,C42,C44,C57,C64,C65,C68,C69	100nF	0805 SMD capacitor
15	6	C4,C6,C11,C13,C66,C67	10nF	0805 SMD capacitor
16	6	C5,C14,C59,C60,C61,C62	10uF/25V	SMD tantalum cap. size C
17	34	C15,C16,C17,C18,C19,C20,C21,C22,C23,C24,C25,C26,C27,C28,C29,C31,C32,C33,C39,C4 6,C47,C48,C49,C50,C51,C52,C53,C54,C55,C56,C58,C70,C71,C73	1nF	0805 SMD capacitor
18	2	C36,C72	NC	0805 SMD capacitor
19	1	C43	270pF	0805 SMD capacitor
20	1	C45	1uF	0805 SMD capacitor
21	3	DL1,DL2,DL3	LED-G0805	Green LED SMD 0805
22	1	DZ1	LM4040-10	SMD SOT23 precision Zener
23	2	D1,D3	12CWQ06FN	Dual diode schottky SMD DPAK
24	3	D2,D4,D6	Z15V	MINIMELF SMD Zener Diode
25	1	D5	B360	MELF SMD Diode
26	3	D7,D33,D50	Z5V1	MINIMELF SMD Zener Diode
27	7	D8,D9,D12,D35,D39,D41,D43	NC	MINIMELF SMD Zener Diode
28	18	D10,D11,D14,D15,D17,D18,D19,D22,D27,D29,D30,D34,D38,D45,D46,D47,D48,D49	BAT54H	SOD323 SMD Diode
29	13	D13,D16,D20,D21,D23,D25,D26,D28,D36,D37,D40,D42,D44	NC	SOD323 SMD Diode
30	1	D31	G15M	MELF SMD Diode
31	1	D32	NC	MELF SMD Diode
32	4	FIX1,FIX2,FIX3,FIX4	FIX35	3.5mm Fixing hole
33	2	FST1,FST2	FASTONCS	PCB faston p. 5.08
34	6	F1,F2,F3,F4,F5,F6	MF-R250	self-res. fuse RXE p5,1mm
35	1	JP1	STM06S	Male strip 6 pin
36	2	JP2,JP3	NC	Female strip 2 pin
37	3	JP4,JP5,JP6	JP2525	Solder PAD
38	9	J2,J3,J4,J5,J6,J7,J9,J10,J11	J5MD	2 pad SMD jumper
39	1	J8	J5M03	3 pad SMD jumper half closed
40	1	L1	39uH - 744771139	Shielded power inductor
41	1	L2	WE7427512	Power ferrite bead
42	1	L3	10uH	SMD Vertical Ind. dia. 4 p 4.8
43	1	OPT1	TLP185	Optocoupler SMD SO6
44	3	Q1,Q3,Q4	SI7469DP	P-Channel 80-V (D-S) MOSFET
45	4	Q2,Q5,Q6,Q8	BSS123L	Trans. FET SOT23
46	3	Q7,Q10,Q13	BCR135	Digital NPN trans. SOT23
47	3	Q11,Q12,Q14	NC	Digital NPN trans. SOT23
48	1	Q15	NC	P-Channel 80-V (D-S) MOSFET
49	1	Q16	NC	Trans. FET SOT23
50	1	Q17	BC847	NPN trans. SOT23
51	2	RV1,RV5	NC	Trimmer SMD V 3314
52	1	RV2,RV6	10K	Trimmer SMD V 3314
53	2	RV3,RV4	5K	Trimmer SMD V 3314
55	2	RY1,RV2	RLTQ2A-12V	TQ2 relay
56	9	R1,R5,R13,R15,R16,R49,R94,R99,R121	4K70	0805 1% SMD res.
57	5	R2,R10,R61,R63,R64	470H0	0805 1% SMD res.
58	6	R3,R12,R17,R23,R134,R135	100H0	0805 1% SMD res.
59	23	R4,R7,R14,R18,R21,R31,R37,R39,R45,R47,R52,R60,R62,R69,R96,R97,R101,R122,R130,R10K0 131,R132,R133,R136	0805 1% SMD res.	
60	2	R6,R25	10H0	0805 1% SMD res.
61	1	R8	15K0	0805 1% SMD res.
62	1	R9	13K70	0805 1% SMD res.
63	7	R11,R19,R20,R70,R71,R73,R113	1K0	0805 1% SMD res.
64	28	R22,R24,R28,R30,R32,R35,R36,R38,R43,R55,R98,R100,R103,R104,R105,R106,R109,R11 NC 0,R111,R112,R115,R116,R117,R118,R119,R120,R125,R138	0805 1% SMD res.	
65	5	R26,R42,R59,R75,R88	150K0	0805 1% SMD res.

66	2	R27,R33	47K0	0805 1% SMD res.
67	12	R29,R40,R46,R58,R66,R74,R84,R87,R89,R93,R123,R84,R87,R89,R93,R123,R124	47H0	0805 1% SMD res.
68	6	R34,R90,R92,R108,R114,R126	3K30	0805 1% SMD res.
69	1	R41	2M20	0805 1% SMD res.
70	4	R44,R48,R128,R129	4K99	0805 1% SMD res.
71	3	R50,R54,R85	330H0	0805 1% SMD res.
72	2	R51,R86	27K0	0805 1% SMD res.
73	1	R53	12K0	0805 1% SMD res.
74	3	R56,R81,R107	2K0	0805 1% SMD res.
75	4	R57,R82,R83,R91	33K0	0805 1% SMD res.
76	2	R65,R72	330K0	0805 1% SMD res.
77	1	R67	18K0	0805 1% SMD res.
78	1	R68	11K5	0805 1% SMD res.
79	5	R76,R77,R78,R79,R137	0H0	0805 1% SMD res.
80	1	R95	49K9	0805 1% SMD res.
81	1	R102	220K0	0805 1% SMD res.
82	1	R127	1K50	0805 1% SMD res.
83	9	TP1,TP2,TP3,TP4,TP5,TP6,TP7,TP8,TP9	NC	Test point
84	1	U1	LM2673S-ADJ	SMD Switching regulator
85	1	U2	TSR1-2450	Switch. voltage reg. SIP3
86	1	U3	PIC16F1769	SSOP 8bit microcontroller
87	5	U4,U5,U7,U8,U9	LM358SMD	Dual Op. SMD SO8
88	1	U6	LM393SMD	Dual Comp. SMD SO8

SLSR0516R01V01



Description: Surge Card TEX 3HE	
Designer: Tommasi A.	Size: A4
Part No.: SLSR0516R01V01	Page: 1 of 1
	Rev. 1.0
	Date: 10/02/2022

	PRODUCT NAME : TEX1003TFT	PART NAME : SURGE CARD				
	DESIGNER : A. TOMMASI	DATE : 04/03/21	REVISION : 1.0	SCALE : 2:1	SIZE : A4	PAGE : 1 DI 1
ARCHIVING : "RVVUT" SERVER, "RILASCIATI" FOLDER	PROJECT CODE : 252	DOCUMENT CODE : SLSR0516R01V01				

SLSR0516R01V01

Surge Card TEX 3HE Revised: 10/02/2022  
 SLSR0516R01V01 Revision: 1.0  
 Tommasi A.

Item	Quantity	Reference	Part	Description
1	1	CN1	CNT25MSF2A	2 way MSF 90° Series conn.
2	1	CS1	CSSR0516R1	Printed Circuit board
3	1	C1	100nF/630V	Polyester cap. 15mm or 22mm
4	1	D1	1N4007	Plastic diode DO41
5	4	FIX1, FIX2, FIX3, FIX4	FIX35	3.5mm Fixing hole
6	1	RY1	RLY30A	relay 30A NO
7	9	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9	TP20	TP Hole dia. 2mm
8	3	TP10, TP11, TP12	TP15	TP Hole dia. 1.5mm



2000W Single Output Power Supply

RSP-2000 series



- Features :
  - Universal AC input / Full range
  - Built-in 5V/0.3A, 12V/0.8A auxiliary power
  - Built-in active PFC function, PF>0.97
  - Protections: Short circuit / Overload / Over voltage / Over temperature
  - Forced air cooling by built-in DC fan with fan speed control
  - Output voltage can be trimmed between 40~115% of the rated output voltage
  - High Power density 21.4W/inch<sup>3</sup>
  - 1U low profile 41mm
  - Active current sharing up to 8000W(3+1)
  - Built-in remote ON-OFF control
  - Built-in remote sense function
  - DC OK signal, OTP alarm signal
  - 5 years warranty



SPECIFICATION

MODEL	RSP-2000-12	RSP-2000-24	RSP-2000-48		
OUTPUT	DC VOLTAGE	12V	24V	48V	
	RATED CURRENT	100A	80A	42A	
	CURRENT RANGE	0 ~ 100A	0 ~ 80A	0 ~ 42A	
	RATED POWER	1200W	1920W	2016W	
	RIPPLE & NOISE (max.) Note.2	150mVp-p	200mVp-p	300mVp-p	
	VOLTAGE ADJ. RANGE	10.5 ~ 14V	21 ~ 28V	42 ~ 56V	
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%	
	LINE REGULATION	±1.0%	±0.5%	±0.5%	
	LOAD REGULATION	±1.0%	±0.5%	±0.5%	
	SETUP, RISE TIME	1500ms, 60ms/230VAC at full load			
HOLD UP TIME (Typ.)	16ms/230VAC at 75% load	10ms/230VAC at full load			
INPUT	VOLTAGE RANGE Note.5	90 ~ 264VAC	127 ~ 370VDC		
	FREQUENCY RANGE	47 ~ 63Hz			
	POWER FACTOR (Typ.)	0.97/230VAC at full load			
	EFFICIENCY (Typ.)	87%	90.5%	92%	
	AC CURRENT (Typ.) Note.5	13A/115VAC	7A/230VAC	16A/115VAC	10A/230VAC
	INRUSH CURRENT (Typ.)	COLD START 50A			
LEAKAGE CURRENT	<2mA / 240VAC				
PROTECTION	OVERLOAD	105 ~ 125% rated output power Protection type : Constant current limiting, unit will shut down o/p voltage after 5 sec. re-power on to recover			
	OVER VOLTAGE	14.7 ~ 17.5V	29.5 ~ 35V	57.6 ~ 67.2V	
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down			
FUNCTION	AUXILIARY POWER	5V @ 0.3A, 12V @ 0.8A			
	REMOTE ON/OFF CONTROL	By electrical signal or dry contact Power ON:open Power OFF:short, refer to function manual			
	REMOTE SENSE	Compensate voltage drop on the load wiring up to 0.5V, refer to function manual			
	DC OK SIGNAL	The isolated TTL signal out, refer to function manual			
ENVIRONMENT	OUTPUT VOLTAGE TRIM	Adjustment of output voltage, possible between 40 ~ 115% of rated output, refer to function manual			
	WORKING TEMP.	-35 ~ +70°C (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes			
	SAFETY & EMC (Note 4)	UL60950-1, TUV EN60950-1 approved			
OTHERS	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH			
	EMC EMISSION	Compliance to EN55022 (CISPR22) Conduction Class B, Radiation Class A; EN61000-3-2,-3			
NOTE	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), heavy industry level, criteria A			
	MTBF	46.3K hrs min. MIL-HDBK-217F (25°C)			
NOTE	DIMENSION	295*127*41mm (L*W*H)			
	PACKING	1.95Kg; 6pcs/12.7Kg/1.15CUFT			

File Name:RSP-2000-SPEC 2013-11-01

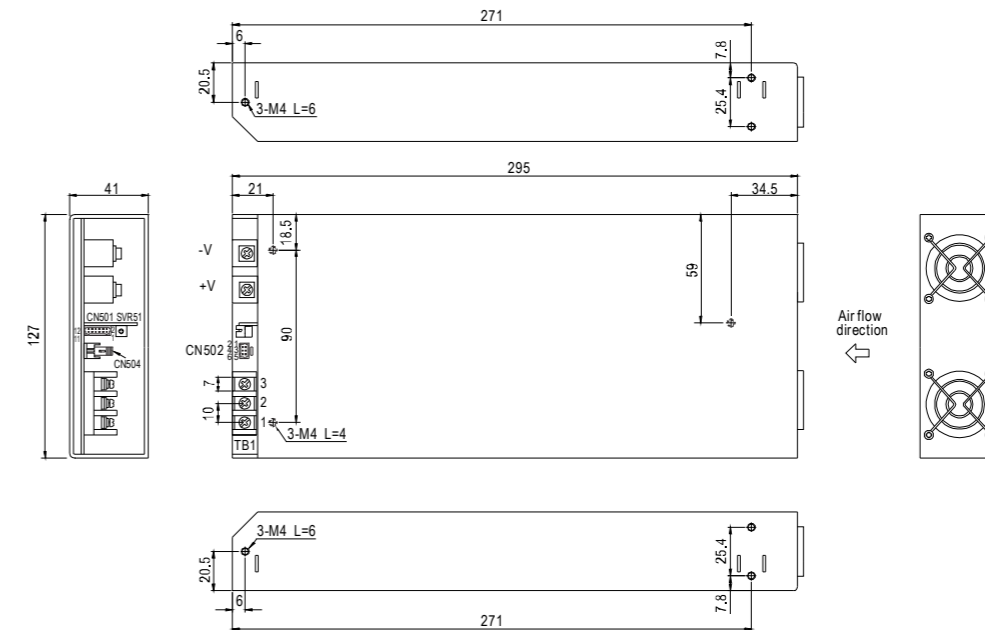


2000W Single Output Power Supply

RSP-2000 series

Mechanical Specification

Case No. 952D Unit:mm



AC Input Terminal Pin No. Assignment

Pin No.	Assignment
1	AC/N
2	AC/L
3	FG

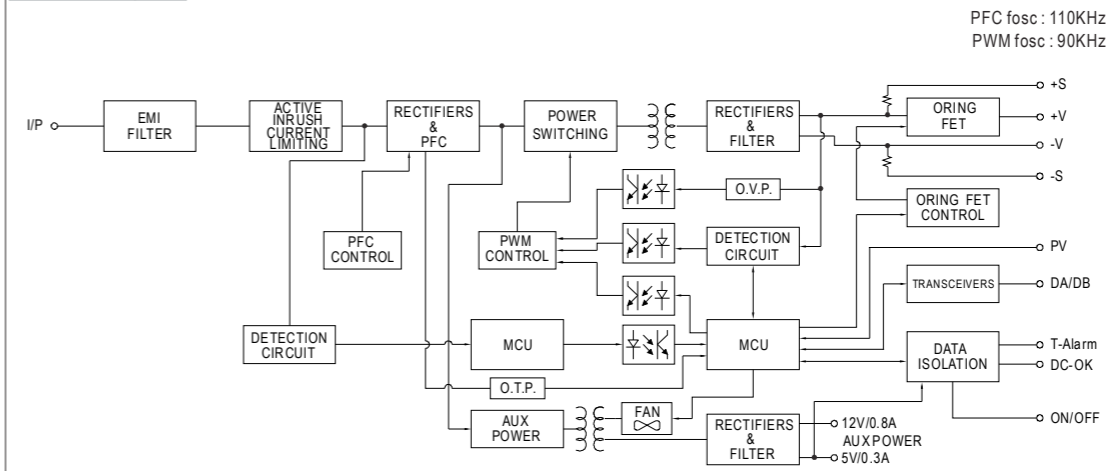
Control Pin No. Assignment (CN501) : HRS DF11-12DP-2DS or equivalent

Pin No.	Assignment	Pin No.	Assignment	Pin No.	Assignment	Mating Housing	Terminal
1	+S	5	DC-OK	9	GND-AUX	HRS DF11-12DS or equivalent	HRS DF11-12DS or equivalent
2	-S	6	T-ALARM	10	GND-AUX		
3	PV	7	ON/OFF	11	+5V-AUX		
4	GND	8	GND-AUX	12	+12V-AUX		

Control Pin No. Assignment (CN502) : HRS DF11-6DP-2DSA or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2	DA	HRS DF11-6DS or equivalent	HRS DF11-12DS or equivalent
3,4	DB		
5,6	GND		

Block Diagram



PFC fosc : 110KHz  
PWM fosc : 90KHz

File Name:RSP-2000-SPEC 2013-11-01





2000W Single Output Power Supply

RSP-2000 series

Function Description of CN501

Pin No.	Function	Description
1	+S	Positive sensing. The +S signal should be connected to the positive terminal of the load. The +S and -S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.5V.
2	-S	Negative sensing. The -S signal should be connected to the negative terminal of the load. The -S and +S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.5V.
3	PV	Connection for output voltage trimming. The voltage can be trimmed within its defined range. (Note.1)
4	GND	This pin connect to the negative terminal(-V).
5	DC-OK	High (4.5 ~ 5.5V) : When the $V_{out} \leq 80\% \pm 6\%$ . Low (0 ~ 0.5V) : When $V_{out} \geq 80\% \pm 6\%$ . The maximum sourcing current is 10mA and only for output. (Note.2)
6	T-ALARM	High (4.5 ~ 5.5V) : When the internal temperature (TSW1 or TSW2 open) exceeds the limit of temperature alarm. Low (0 ~ 0.5V) : When the internal temperature (TSW1 or TSW2 short) under the limit temperature. (Note.2)
7	ON/OFF	The unit can turn the output on and off by electrical signal or dry contact between ON/OFF and +5V-AUX. (Note.2) Short (4.5 ~ 5.5V) : Power OFF ; Open (0 ~ 0.5V) : Power ON ; The maximum input voltage is 5.5V.
8,9,10	GND-AUX	Auxiliary voltage output GND. The signal return is isolated from the output terminals (+V & -V).
11	+5V-AUX	Auxiliary voltage output, 4.5~5.5V, referenced to GND-AUX (pin ). The maximum load current is 0.3A. This output has the built-in "Oring diodes" and is not controlled by the remote ON/OFF control.
12	+12V-AUX	Auxiliary voltage output, 10.6~13.2V, referenced to GND-AUX (pin ). The maximum load current is 0.8A. This output has the built-in "Oring diodes" and is not controlled by the remote ON/OFF control.

Note1: Non-isolated signal, referenced to the output terminals (-V).  
Note2: Isolated signal, referenced to GND-AUX.

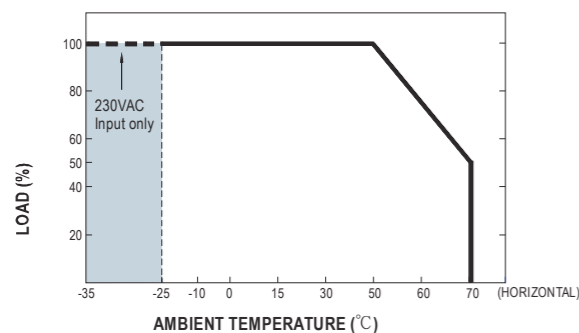
Function Description of CN502

Pin No.	Function	Description
1,2	DA	Differential digital signal for parallel control.
3,4	DB	Differential digital signal for parallel control.
5,6	GND	These pins connect to the negative terminal (-V).

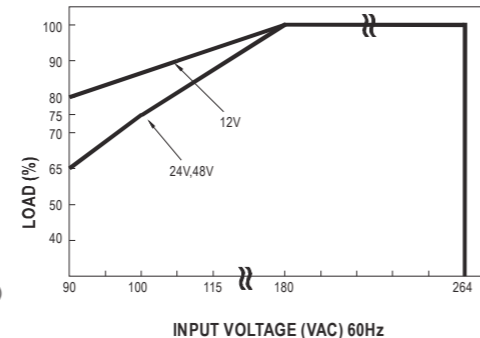
Function Description of CN504

Pin No.	Function	Description
1,2	Terminal resistance	CN504 is the selector of terminal resistor that is designed for DA/DB signals and parallel control function.

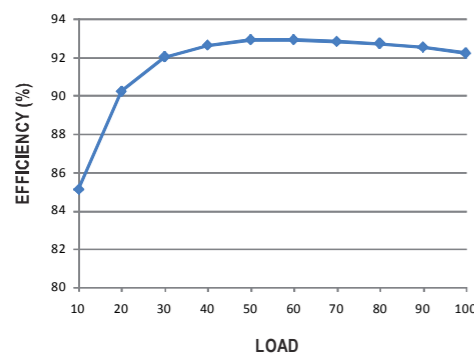
Derating Curve



Static Characteristics



EFFICIENCY vs LOAD (48V Model)



DERATING LOAD(%) VS INPUT VOLTAGE

MODEL	INPUT/VOLTAGE	180VAC	115VAC	100VAC	90VAC
RSP-2000-12		100%	95%	90%	80%
RSP-2000-24		100%	80%	75%	65%
RSP-2000-48		100%	80%	75%	65%

File Name:RSP-2000-SPEC 2013-11-01



2000W Single Output Power Supply

RSP-2000 series

Function Manual

1. Remote ON/OFF Control

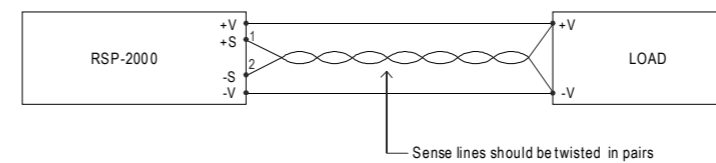
The PSU can be turned ON/OFF together or separately by using the "Remote ON/OFF" function.



Between ON/OFF and +5V-AUX	PSU Output
SW Open	ON
SW Short	OFF

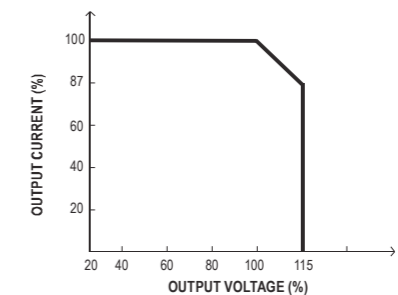
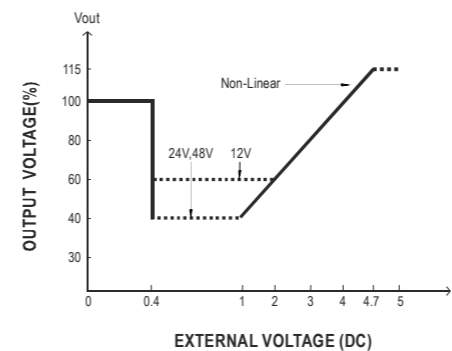
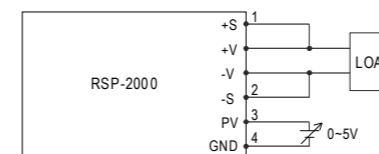
2. Remote Sense

The remote sense compensates voltage drop on the load wiring up to 0.5V.



3. Output Voltage Trimming

- (1) Output voltage can be trimmed between 40~115% of its rated value by the following method.
- (2) +S & +V, -S & -V also need to be connected on CN501.



MODEL	PV / VOLTAGE	<0.4V	1V	2V	3V	4V	4.7V
RSP-2000-12		100%	60%	60%	80%	100%	115%
RSP-2000-24		100%	40%	60%	80%	100%	115%
RSP-2000-48		100%	40%	60%	80%	100%	115%

4. Front Panel Indicators & Corresponding Signal at Function Pins

Function	LED	Description	* Signal	PSU Output
DC-OK	GREEN	When output voltage $\geq 80\% \pm 5\%$ of $V_o$ rated.	0 ~ 0.5V	ON
DC-NG	RED	When output voltage $\leq 80\% \pm 5\%$ of $V_o$ rated.	4.5 ~ 5.5V	ON
T-OK	GREEN	When the internal temperature (TSW1 & TSW2 short) is within safe limit	0 ~ 0.5V	ON
T-ALARM	RED	When the internal temperature (TSW1 or TSW2 open) exceeds the limit of temperature alarm	4.5 ~ 5.5V	OFF

\*Signal between function pin and "GND-AUX".

File Name:RSP-2000-SPEC 2013-11-01



2000W Single Output Power Supply

### RSP-2000 series

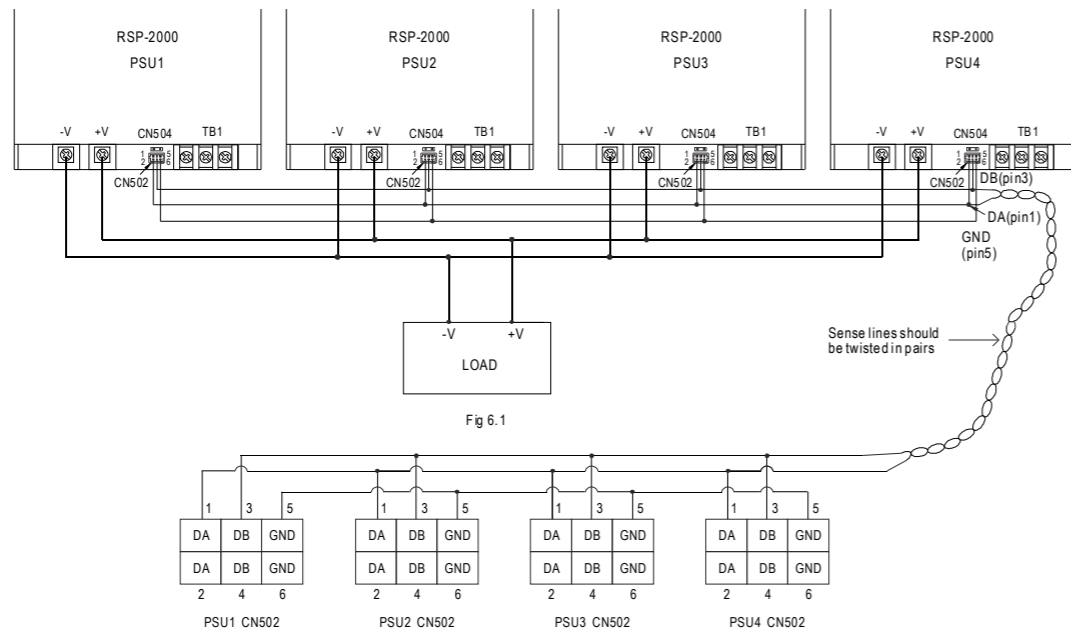
#### 5. Current Sharing with Remote Sensing

RSP-2000 has the built-in active current sharing function and can be connected in parallel to provide higher output power :

- (1) Parallel operation is available by connecting the units shown as below.  
(DA, DB and GND are connected mutually in parallel).
- (2) Difference of output voltages among parallel units should be less than 0.2V.
- (3) The total output current must not exceed the value determined by the following equation.  
(output current at parallel operation)=(Rated current per unit)×(Number of unit)×0.9
- (4) In parallel operation 4 units is the maximum, please consult the manufacturer for applications of more connecting in parallel.
- (5) The power supplies should be paralleled using short and large diameter wiring and then connected to the load.
- (6) Under parallel operation, the minimum output load should be greater than 5% of total output load.
- (7) Under parallel operation ripple of the output voltage may be higher than the SPEC at light load condition. It will go back to normal ripple level once the output load is more than 5%.
- (8) CN502/CN504 Function pin connection

Parallel	PSU1		PSU2		PSU3		PSU4	
	CN502	CN504	CN502	CN504	CN502	CN504	CN502	CN504
1 unit	X	V	—	—	—	—	—	—
2 unit	V	V	V	V	—	—	—	—
3 unit	V	V	V	X	V	V	—	—
4 unit	V	V	V	X	V	X	V	V

※ V is CN502/CN504 connected to plug pin, X is CN502/CN504 not connected to plug pin.



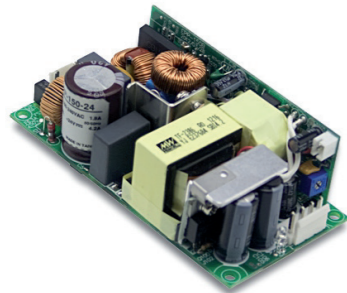
File Name:RSP-2000-SPEC 2013-11-01

PSSWEPP15024



150W Single Output with PFC Function

## EPP-150 series



- Features :
  - 4"x2" Compact size
  - Universal AC input / Full range
  - Built-in active PFC function
  - High efficiency up to 93%
  - Protections: Short circuit / Overload / Over voltage/ Over temperature
  - 100W free air convection, 150W with 20CFM forced air
  - LED indicator for power on
  - No load power consumption<0.5W
  - Built-in 12V/0.3A auxiliary output
  - 3 years warranty



### SPECIFICATION

MODEL	EPP-150-12	EPP-150-15	EPP-150-24	EPP-150-27	EPP-150-48	
OUTPUT	DC VOLTAGE	12V	15V	24V	27V	48V
	RATED CURRENT (convection)	8.4A	6.7A	4.2A	3.71A	2.1A
	RATED CURRENT (20CFM FAN)	12.5A	10A	6.25A	5.56A	3.125A
	CURRENT RANGE (convection)	0 ~ 8.4A	0 ~ 6.7A	0 ~ 4.2A	0 ~ 3.71A	0 ~ 2.1A
	CURRENT RANGE (20CFM FAN)	0 ~ 12.5A	0 ~ 10A	0 ~ 6.25A	0 ~ 5.56A	0 ~ 3.125A
	RATED POWER (convection)	100.8W	100.5W	100.8W	100.17W	100.8W
	RATED POWER (20CFM FAN)	150W	150W	150W	150.12W	150W
	RIPPLE & NOISE (max.) Note.2	130mVp-p	150mVp-p	240mVp-p	240mVp-p	300mVp-p
	VOLTAGE ADJ. RANGE	11.76 ~ 12.6V	14.7 ~ 15.75V	23.52 ~ 25.2V	26.46 ~ 28.35V	47.04 ~ 50.4V
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%
LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
SETUP, RISE TIME	1000ms, 30ms/230VAC		2000ms, 30ms/115VAC at full load			
HOLD UP TIME (Typ.)	16ms/230VAC		16ms/115VAC at full load			
INPUT	VOLTAGE RANGE Note.5	90 ~ 264VAC	127 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz				
	POWER FACTOR (Typ.)	PF>0.95/230VAC		PF>0.98/115VAC at full load		
	EFFICIENCY (Typ.)	91.5%	92%	93%	92%	92%
	AC CURRENT (Typ.)	1.8A/115VAC	1 A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 70A/230VAC				
	LEAKAGE CURRENT	<2mA/240VAC				
PROTECTION	OVER LOAD	105 ~ 145% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed				
	OVER VOLTAGE	13.2 ~ 15.6V	16.83 ~ 19.5V	27.7 ~ 31.5V	30.2 ~ 34.05V	51.3 ~ 62.7V
	OVER TEMPERATURE	Protection type : Shut down o/p voltage, re-power on to recover				
FUNCTION	AUXILIARY POWER(AUX)	12V@0.3A for driving a fan, tolerance ± 10% at main output 100% load				
	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")				
ENVIRONMENT	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 45°C)				
SAFETY & EMC (Note 4)	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				
	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved				
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC				
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC/ 500VDC / 25°C / 70% RH				
OTHERS	EMC EMISSION	Compliance to EN55022 (CISPR22) Class B, EN61000-3-2,-3				
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, heavy industry level, criteria A				
	MTBF	207.1Khrs min. MIL-HDBK-217F (25°C)				
NOTE	DIMENSION	101.6*50.8*29mm (L*W*H)				
	PACKING	0.2Kg; 72pcs/15.4Kg/0.82CUFT				

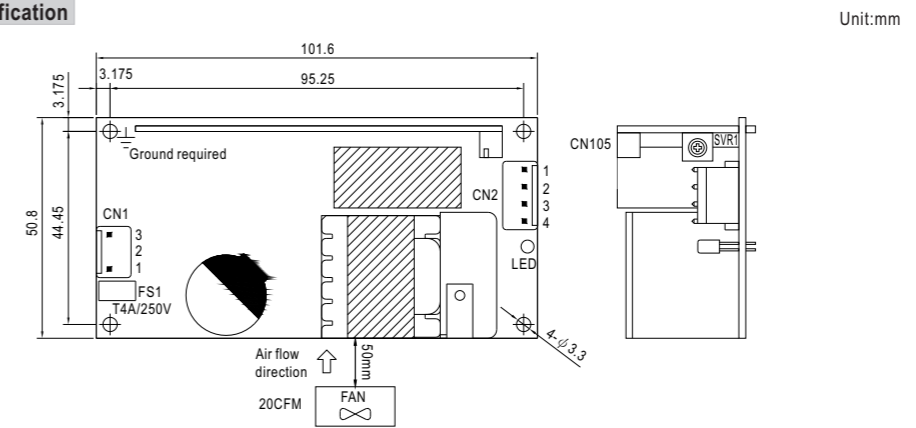
File Name:EPP-150-SPEC 2016-06-11



150W Single Output with PFC Function

## EPP-150 series

### Mechanical Specification



AC Input Connector (CN1) : JST B3P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	No Pin		
3	AC/N		

DC Output Connector (CN2) : JST B4P-VH or equivalent

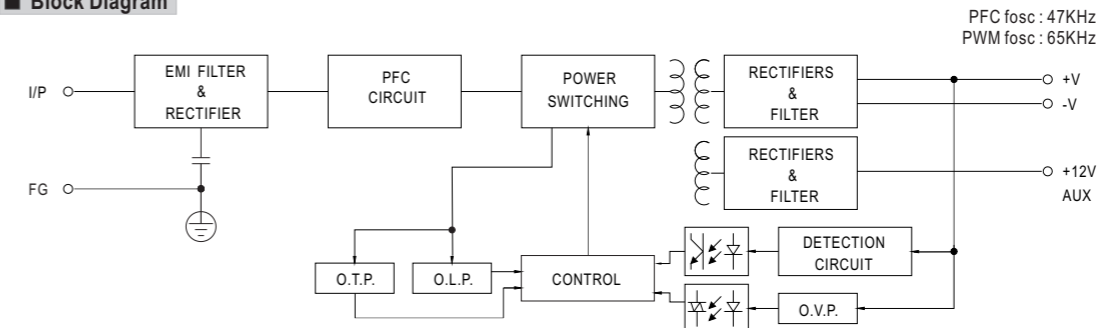
Pin No.	Assignment	Mating Housing	Terminal
1,2	DC COM	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3,4	+V		

FAN Connector(CN105) : JST B\*YB-PH-K-S or equivalent

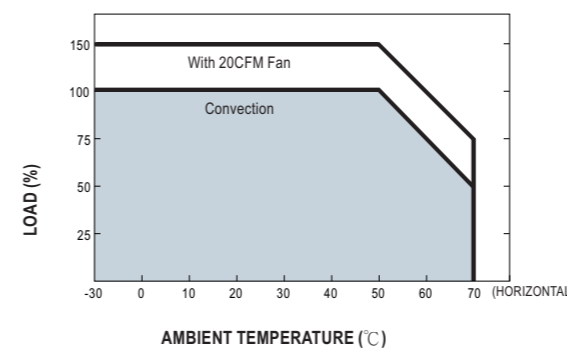
Pin No.	Assignment	Mating Housing	Terminal
1	+12V	JST PHR-γ or equivalent	JST SPH-...YT-P...S or equivalent
2	DC COM		

⊕: Grounding required

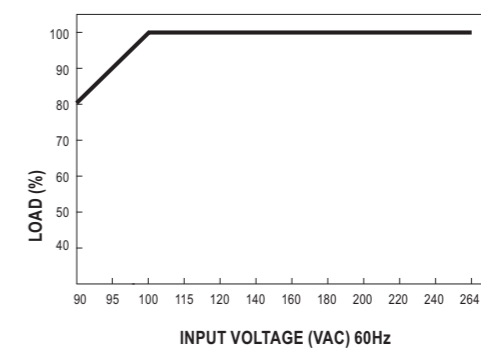
### Block Diagram



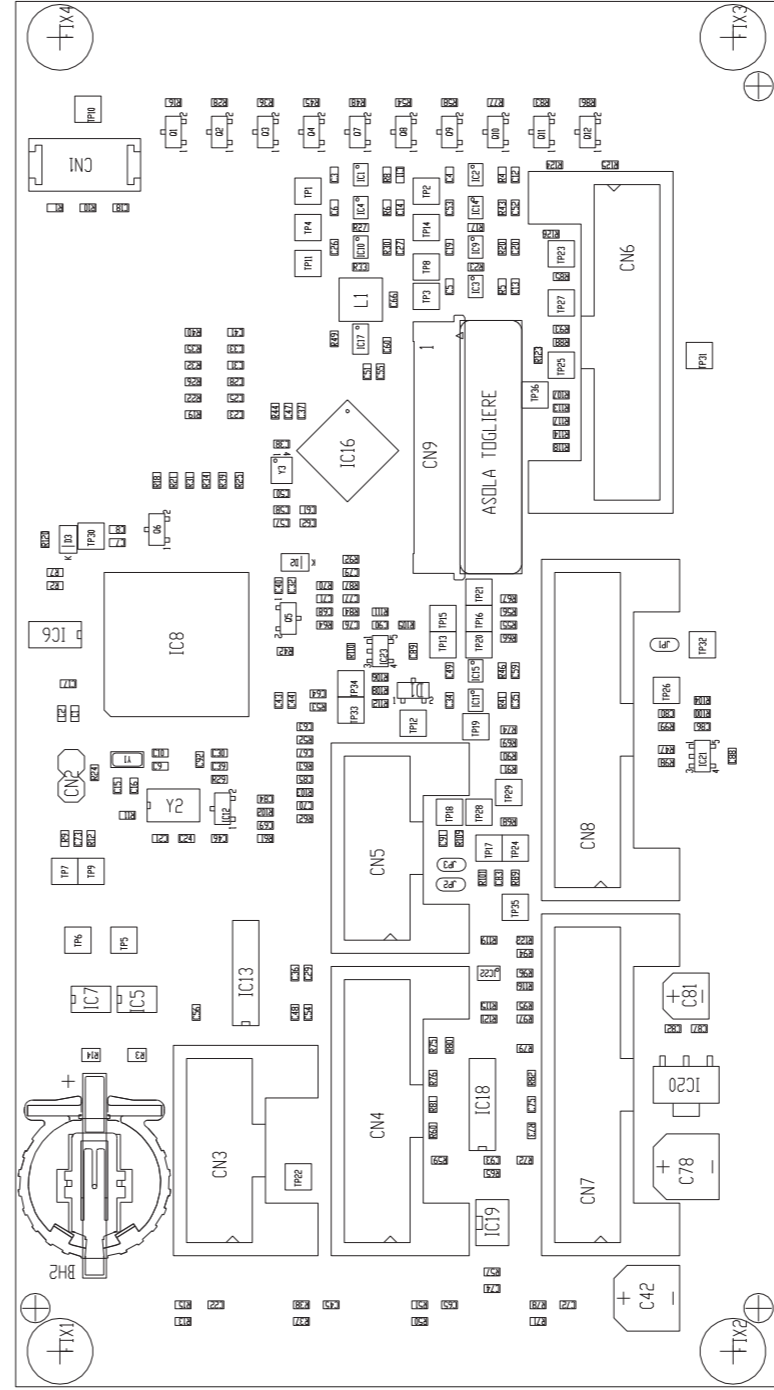
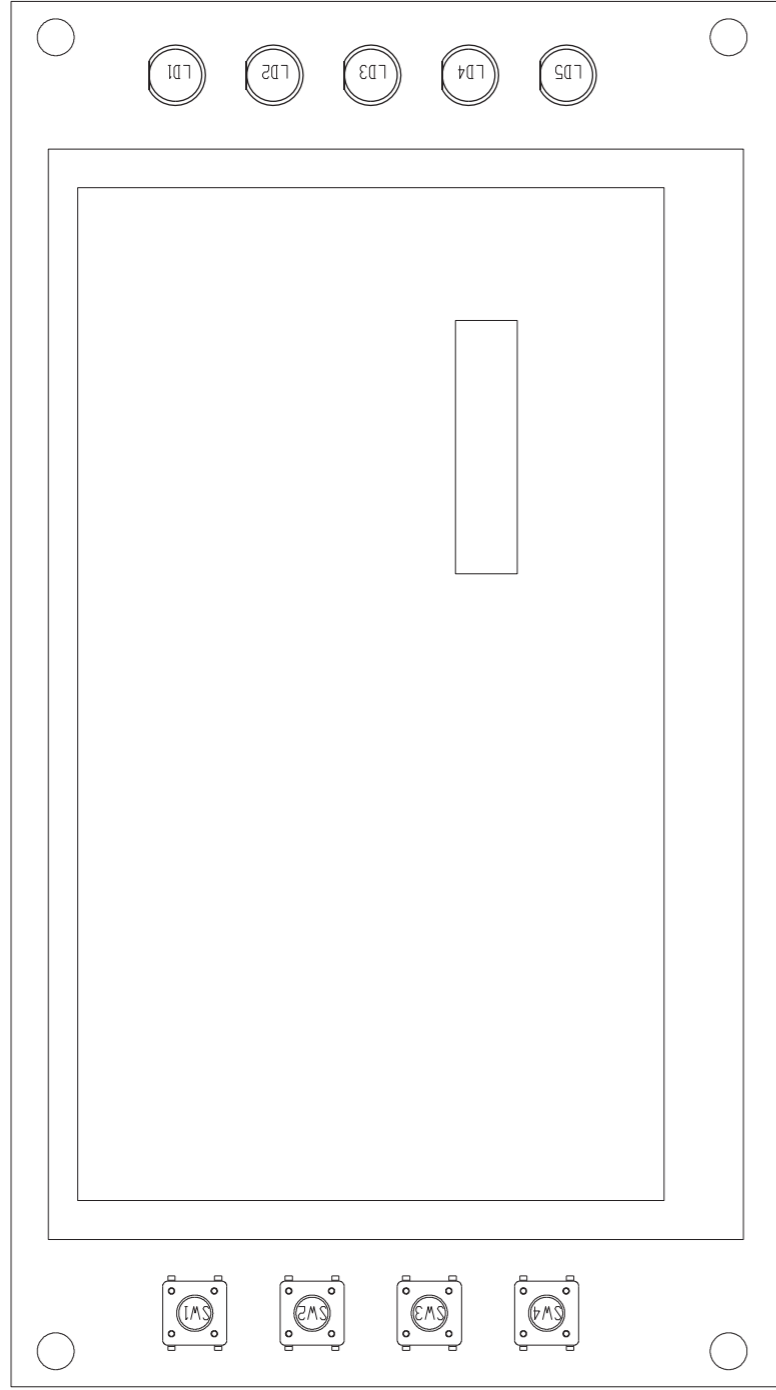
### Output Derating



### Output Derating VS Input Voltage



File Name:EPP-150-SPEC 2016-06-11



PRODUCT NAME : TEX-TFT PART NAME : Touch Screen Panel Card

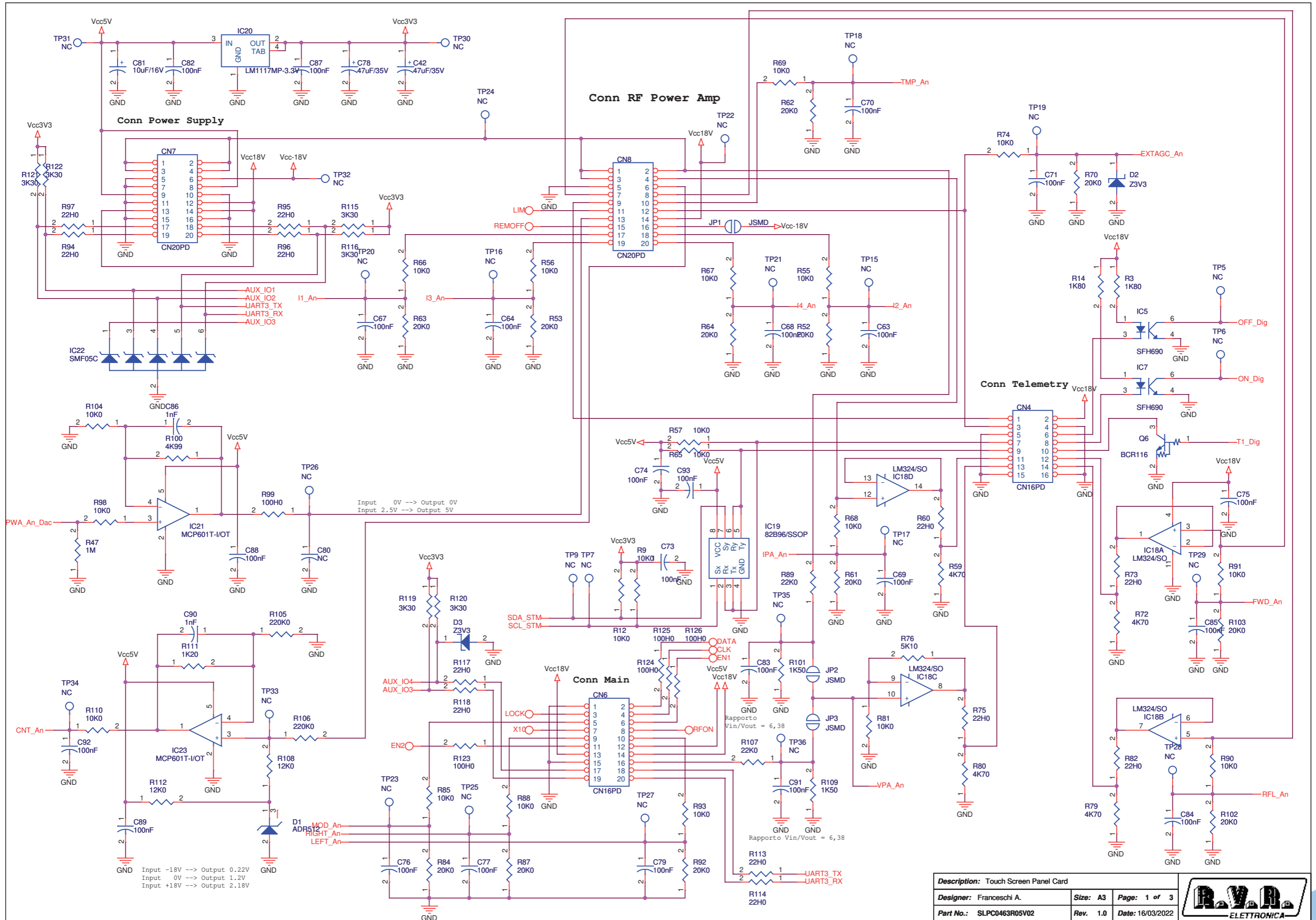
DESIGNER : FRANCESCHI A.

DATE : 16/03/22 REVISION : 1.0 SCALE : 1:1 SIZE : A4 PAGE : 1 DI 1

ARCHIVING : "RVTRUT" SERVER, "RILASCIATI" FOLDER PROJECT CODE : 252

DOCUMENT CODE : SLPC0463R05V\*\*

**SLPC0463R05V02**

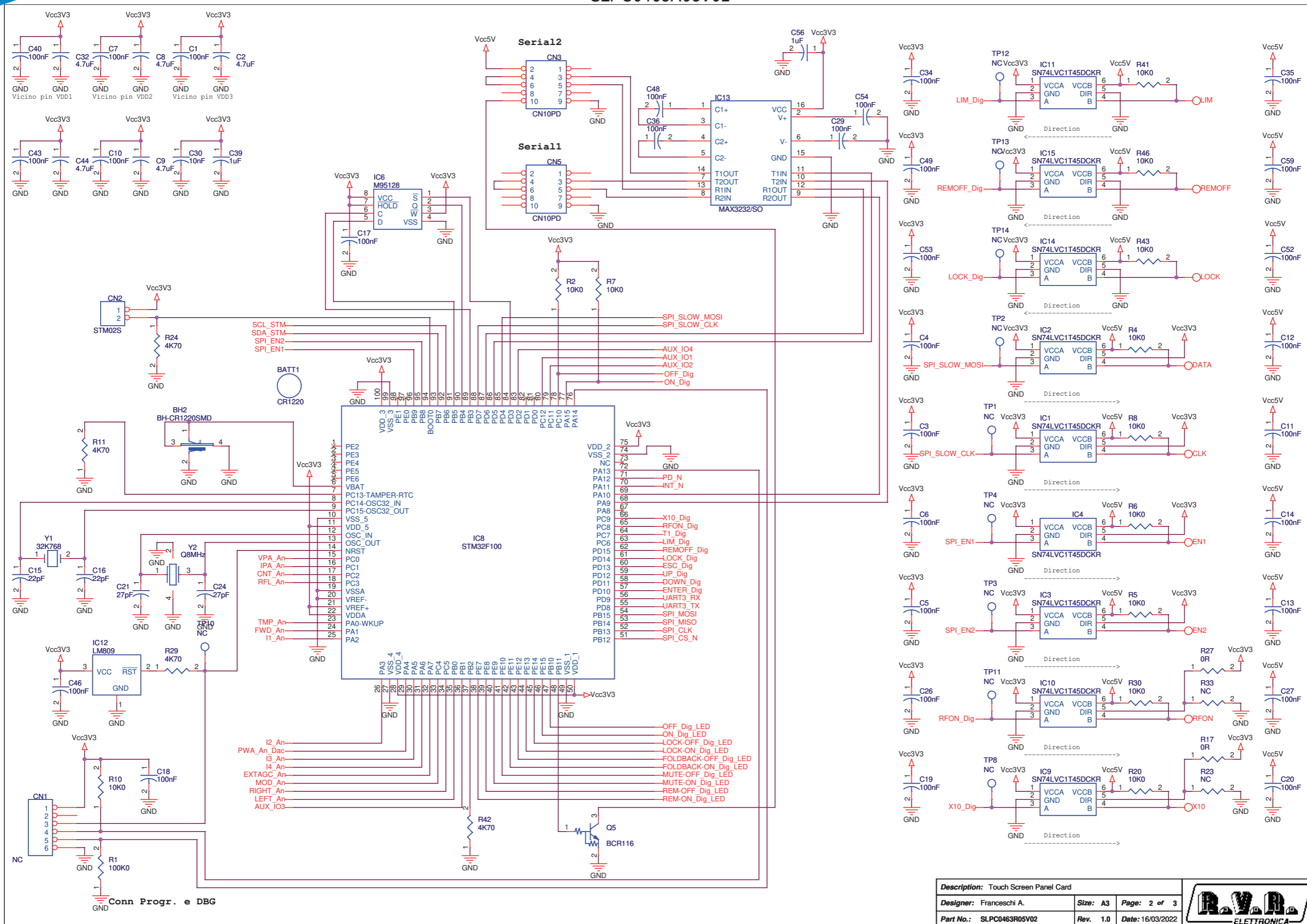


<b>Description:</b> Touch Screen Panel Card			
<b>Designer:</b> Franceschi A.	<b>Size:</b> A3	<b>Page:</b> 1 of 3	
<b>Part No.:</b> SLPC0463R05V02	<b>Rev.</b> 1.0	<b>Date:</b> 16/03/2022	

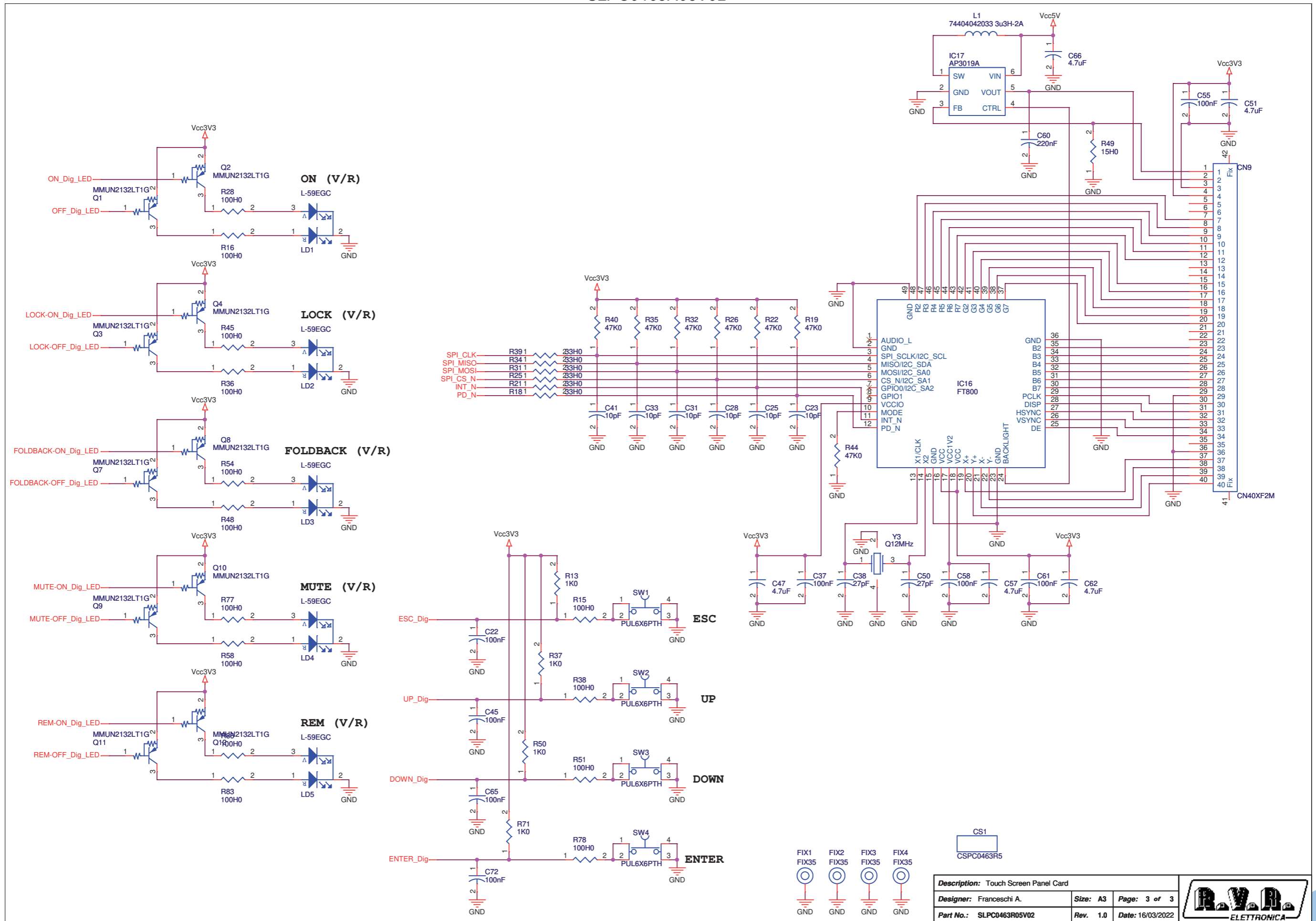




SLPC0463R05V02



SLPC0463R05V02



<b>Description:</b> Touch Screen Panel Card		
<b>Designer:</b> Franceschi A.	<b>Size:</b> A3	<b>Page:</b> 3 of 3
<b>Part No.:</b> SLPC0463R05V02	<b>Rev.:</b> 1.0	<b>Date:</b> 16/03/2022



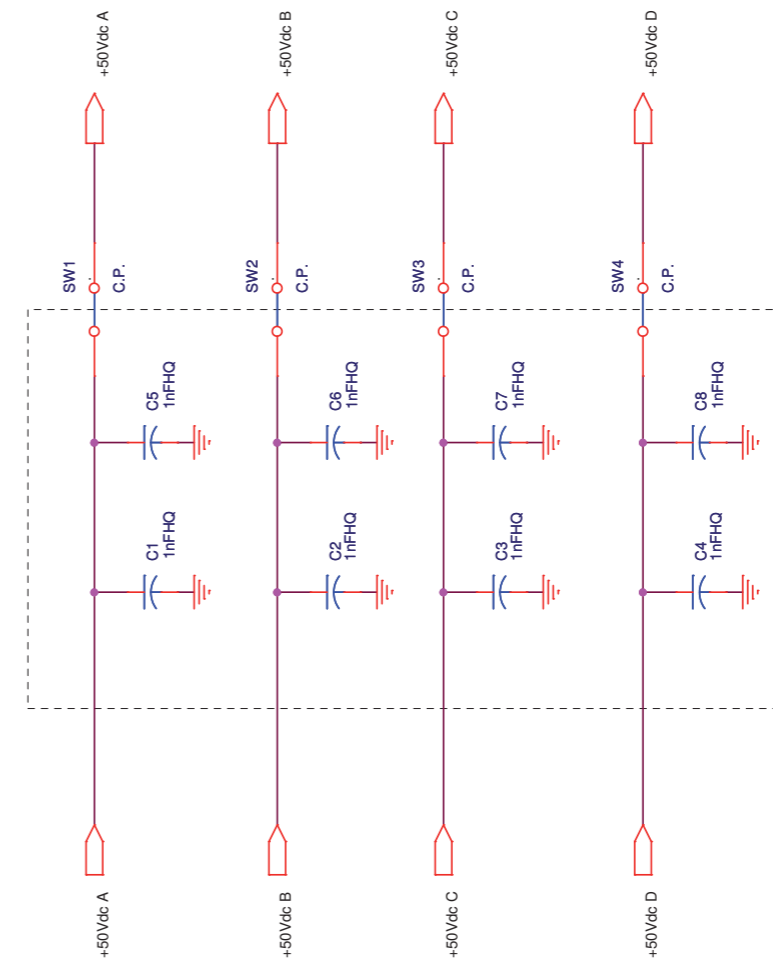
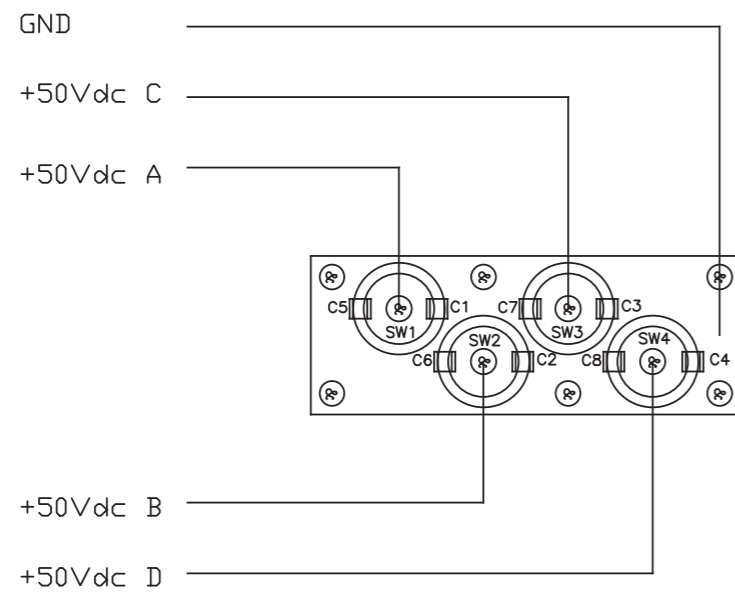
SLPC0463R05V02

Touch Screen Panel Card TEX 3HE Revised: 16/03/2022  
 SLPC0463R05V02 Revision: 1.0  
 Franceschi A.

Item	Quantity	Reference	Part	Description
1	1	BATT1	CR1220	CR1220 Lithium Battery
2	1	BH2	BH-CR1220SMD	CR1220 SMD Battery holder
3	1	CN1	NC	6 way PTH Micromatch connector
4	1	CN2	STM02S	Male strip 2 pin
5	2	CN3, CN5	CN10PD	10 way pcb conn.
6	2	CN4, CN6	CN16PD	16 way pcb conn.
7	2	CN7, CN8	CN20PD	20 way pcb conn.
8	1	CN9	CN40XF2M	40 way ZIF conn. pitch 0,5mm
9	1	CS1	CSPC0463R5	Printed Circuit board
10	61	C1, C3, C4, C5, C6, C7, C10, C11, C12, C13, C14, C17, C18, C19, C20, C22, C26, C27, C29, C34, C35, C36, C37, C40, C43, C45, C46, C48, C49, C52, C53, C54, C55, C58, C59, C61, C63, C64, C65, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C79, C82, C83, C84, C85, C87, C88, C89, C91, C92, C93	100nF	0603 SMD capacitor
11	10	C2, C8, C9, C32, C44, C47, C51, C57, C62, C66	4.7uF	0603 SMD capacitor
12	2	C15, C16	22pF	0603 SMD capacitor
13	4	C21, C24, C38, C50	27pF	0603 SMD capacitor
14	6	C23, C25, C28, C31, C33, C41	10pF	0603 SMD capacitor
15	1	C30	10nF	0603 SMD capacitor
16	2	C39, C56	1uF	0603 SMD capacitor
17	2	C42, C78	47uF/35V	SMD electr. cap. 6.3mm
18	1	C60	220nF	0603 SMD capacitor
19	1	C80	NC	0603 SMD capacitor
20	1	C81	10uF/16V	SMD electr. cap. 4mm
21	2	C86, C90	1nF	0603 SMD capacitor
22	1	D1	ADR512	SMD SOT23 precision Zener
23	2	D2, D3	Z3V3	SOD123F Zener Diode
24	4	FIX1, FIX2, FIX3, FIX4	FIX35	3.5mm Fixing hole
25	9	IC1, IC2, IC3, IC4, IC9, IC10, IC11, IC14, IC15	SN74LVC1T45DCKR	Bidirect. level translator
26	2	IC5, IC7	SFH690	Optocoupler SMD SO6
27	1	IC6	M95128	SMD Serial EEPROM
28	1	IC8	STM32F100	STM32F100 Microcontroller
29	1	IC12	LM809-2.93	uC supervisor
30	1	IC13	MAX3232/SO	SO16 RS232 driver
31	1	IC16	FT800	Display controller
32	1	IC17	AP3019A	Switching LED driver
33	1	IC18	LM324/SO	Quad Op. SMD SO14
34	1	IC19	82B96/SSOP	SMD IIC Bus driver
35	1	IC20	LM1117MP-3.3V	Voltage reg. SMD SOT223
36	2	IC21, IC23	MCP601T-I/OT	Single Op Amp SOT23-5
37	1	IC22	SMF05C	TVS Diode array
38	3	JP1, JP2, JP3	JSMD	2 pad SMD jumper
39	5	LD1, LD2, LD3, LD4, LD5	L-59EGC	Two-color led common Cathode 5mm
40	1	L1	74404042033 3u3H-2A	WE LQS40 series inductor
41	10	Q1, Q2, Q3, Q4, Q7, Q8, Q9, Q10, Q11, Q12	MMUN2132LT1G	Digital PNP trans. SOT23
42	2	Q5, Q6	BCR116	Digital NPN trans. SOT23
43	1	R1	100K0	0603 SMD res.

Item	Quantity	Reference	Part	Description
44	32	R2, R4, R5, R6, R7, R8, R9, R10, R12, R20, R30, R41, R43, R46, R55, R56, R57, R65, R66, R67, R68, R69, R74, R81, R85, R88, R90, R91, R93, R98, R104, R110	10K0	0603 SMD res.
45	2	R3, R14	1K80	0805 SMD res.
46	8	R11, R24, R29, R42, R59, R72, R79, R80	4K70	0603 SMD res.
47	4	R13, R37, R50, R71	1K0	0603 SMD res.
48	19	R15, R16, R28, R36, R38, R45, R48, R51, R54, R58, R77, R78, R83, R86, R99, R123, R124, R125, R126	100H0	0603 SMD res.
49	2	R17, R27	0R	0603 SMD res.
50	6	R18, R21, R25, R31, R34, R39	33H0	0603 SMD res.
51	7	R19, R22, R26, R32, R35, R40, R44	47K0	0603 SMD res.
52	2	R23, R33	NC	0603 SMD res.
53	1	R47	1M	0603 SMD res.
54	1	R49	15H0	0603 SMD res.
55	12	R52, R53, R61, R62, R63, R64, R70, R84, R87, R92, R102, R103	20K0	0603 SMD res.
56	12	R60, R73, R75, R82, R94, R95, R96, R97, R113, R114, R117, R118	22H0	0603 SMD res.
57	1	R76	5K10	0603 SMD res.
58	2	R89, R107	22K0	0603 SMD res.
59	1	R100	4K99	0603 SMD res.
60	2	R101, R109	1K50	0603 SMD res.
61	2	R105, R106	220K0	0603 SMD res.
62	2	R108, R112	12K0	0603 SMD res.
63	1	R111	1K20	0603 SMD res.
64	6	R115, R116, R119, R120, R121, R122	3K30	0603 SMD res.
65	4	SW1, SW2, SW3, SW4	PUL6X6PTH	PCB PTH pushbutton
66	36	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP24, TP25, TP26, TP27, TP28, TP29, TP30, TP31, TP32, TP33, TP34, TP35, TP36	NC	Test point
67	1	Y1	32K768	SMD Crystal 3.2x1.5 mm
68	1	Y2	Q8MHz	SMD Crystal NX5032SA
69	1	Y3	Q12MHz	SMD Crystal 2x2.5 mm

SLFILPJ1KM



Description: Passthrough Card	Size: A4	Page: 1 of 1	Date: 17/06/2013
Designer: Franceschi A.	Rev: 2.1		
Part No.: SLFILPJ1KM			

	PRODUCT NAME : TEX-TFT	PART NAME : PASSTHROUGH CARD
DESIGNER : FRANCESCHI A.	DATE : 17/06/13	REVISION : 1.0   SCALE : 1:1   SIZE : A4   PAGE : 1 DI 1
ARCHIVING : 'RVRUT' SERVER, 'RILASCIATI' FOLDER	PROJECT CODE : 252	DOCUMENT CODE : SLFILPJ1KM

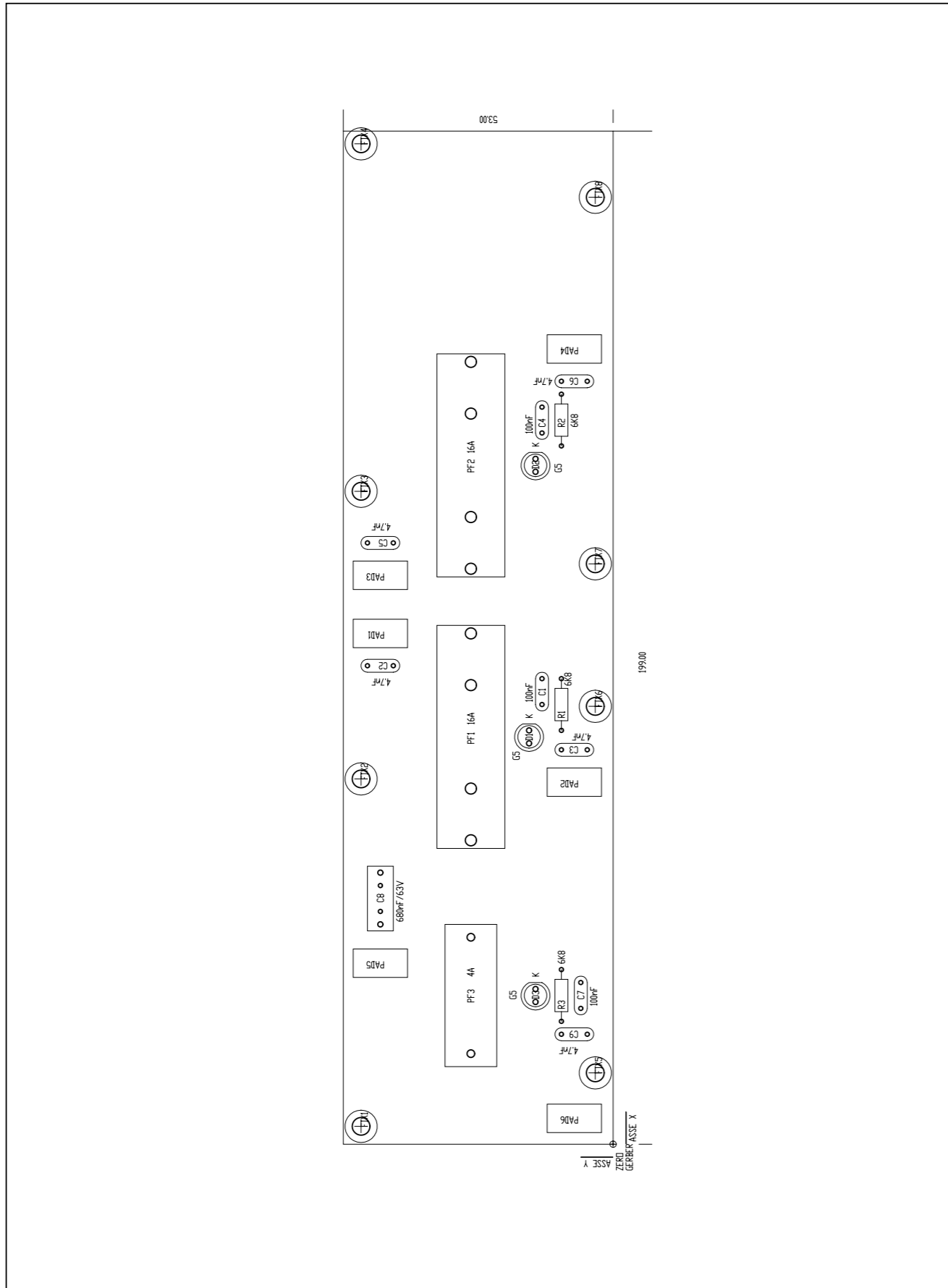
SLFILPJ1KM

Passthrough Card Revised: 17/06/2013  
 SLFILPJ1KM Revision: 2.1  
 Franceschi A.

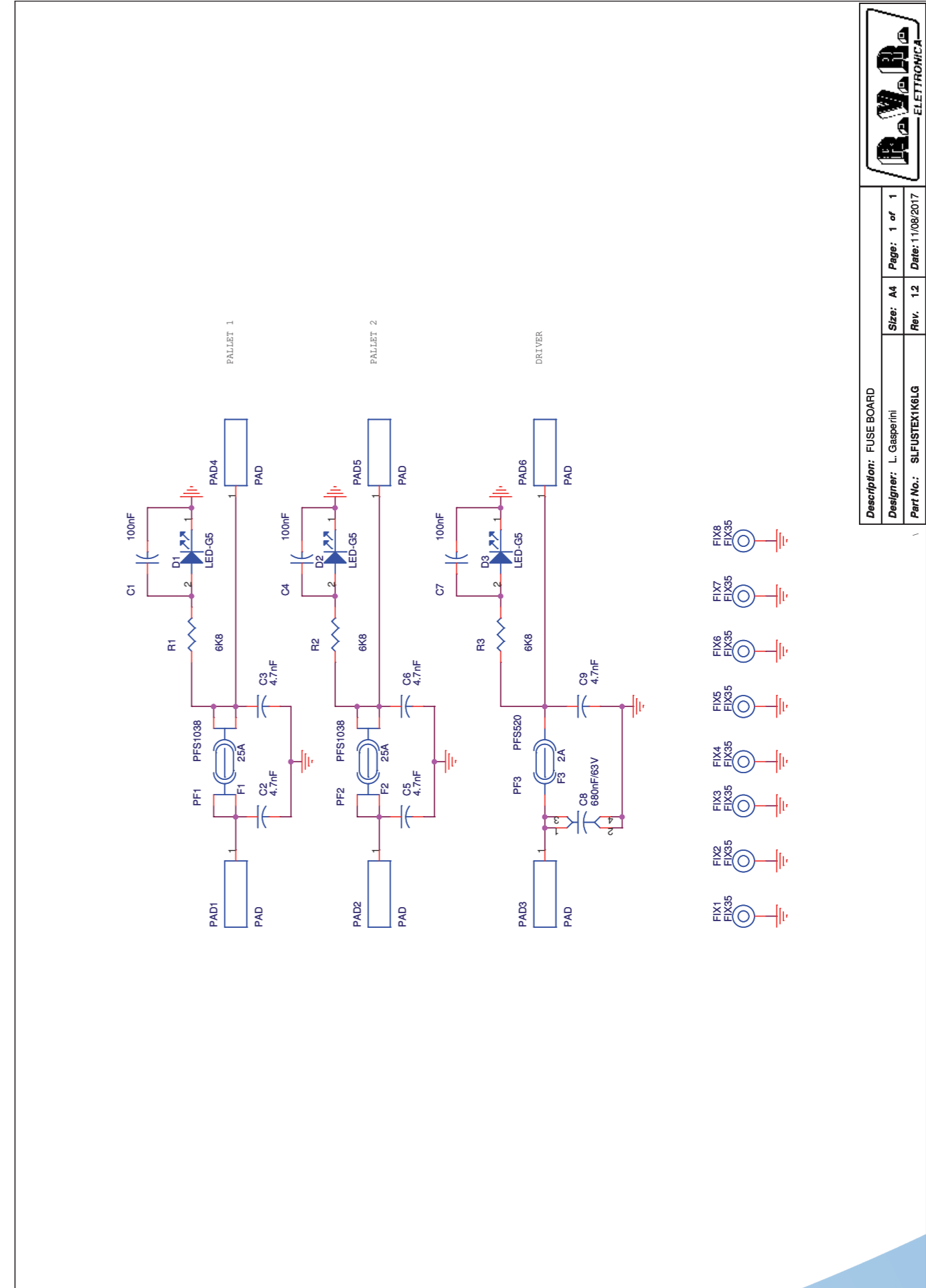
Item	Quantity	Reference	Part
1	8	C1, C2, C3, C4, C5, C6, C7, C8	1nFHQ
2	4	SW1, SW2, SW3, SW4	C.P.



SLFUSTEX1K6LG



<b>R.V.R.</b> ELETTRONICA	NOME PROGETTO: TEX500LCD	NOME PARTE: SCHEDA FUSE
AUTORE: LUCA GASPERINI	DATA: 05/04/2004	REVISIONE: 1.0
ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"	CODICE PROGETTO: 012	SCALA: 1:1
MATERIALE: <>	TRATTAMENTO: <>	STATO: ESECUTIVO
		PROFILO: <>
		SCALA: 1:1
		SIZE: A4
		PAGINA: 1 DI 1
		CODICE DISEGNO: SLFUSTX500-1



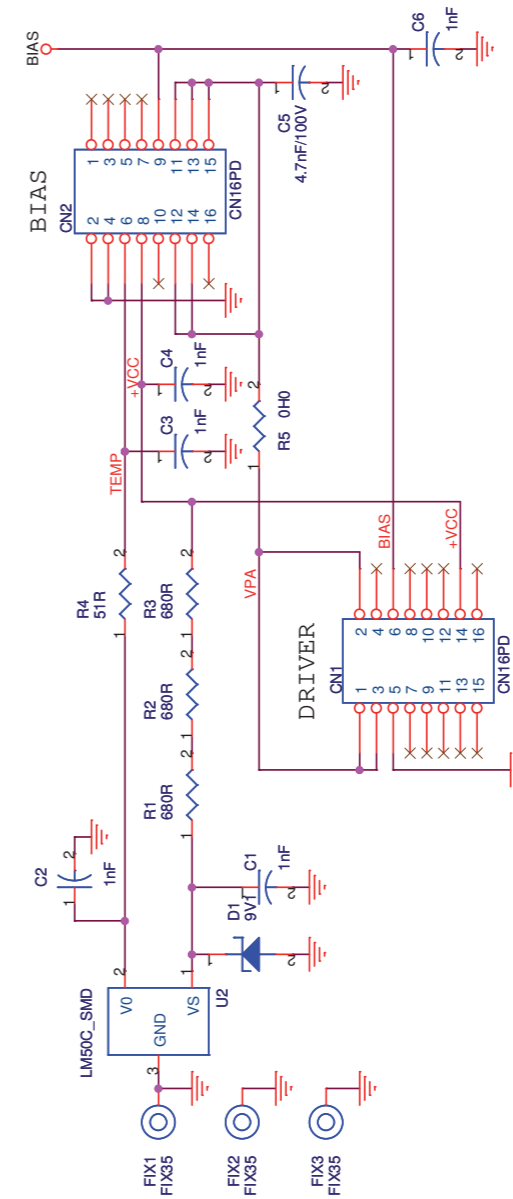
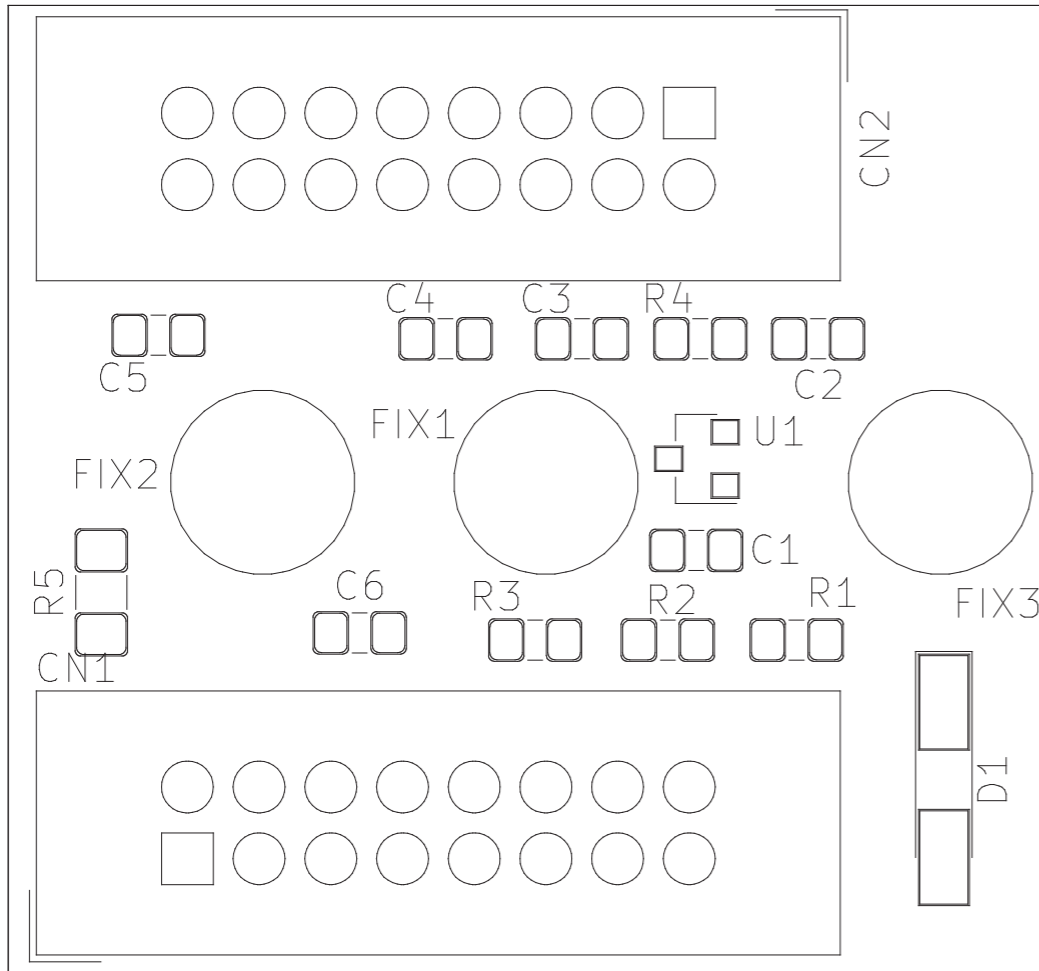
Description: FUSE BOARD	
Designer: L. Gasperini	Size: A4
Part No.: SLFUSTEX1K6LG	Page: 1 of 1
	Rev. 1.2
	Date: 11/06/2017

SLFUSTEX1K6LG

FUSE BOARD Revised: 11/08/2017  
 SLFUSTEX1K6LG Revision: 1.2  
 L. Gasperini

Item	Quantity	Reference	Part	Description
1	3	C1, C4, C7	100nF	Cond. ceramico multistrato p 5mm
2	5	C2, C3, C5, C6, C9	4.7nF	Cond. ceramico p 5mm
3	1	C8	680nF/63V	Cond. Poli. p 5/7.5/10mm
4	3	D1, D2, D3	LED-G5	LED Verde dia. 5mm
5	8	FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8	FIX35	Foro fissaggio 3.5mm
6	2	F1, F2	25A	Fusibile rapido 10x38mm
7	1	F3	2A	Fusibile rapido 5x20mm
8	6	PAD7, PAD8, PAD9, PAD10, PAD11, PAD12	PAD	Pad a saldare 5x10 mm
9	2	PF2, PF1	PFS1038	Portafusibile 10x38
10	1	PF3	PFS520	Portafusibile 5x20
11	3	R1, R2, R3	6K8	Res. 1/4W

SLIN0501R01V01



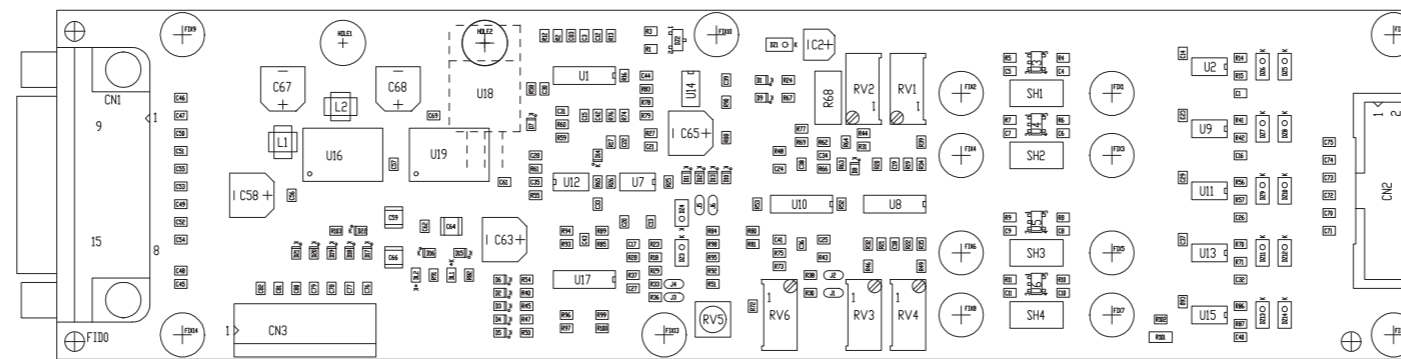
CS1  
CSIN0501R1


Description: Driver Interface & Temp Sensor	
Designer: A.Franceschi	Size: A4
Part No.: SLIN0501R01V01	Page: 1 of 1
Rev. 1.0	Date: 09/09/2019

SLIN0501R01V01

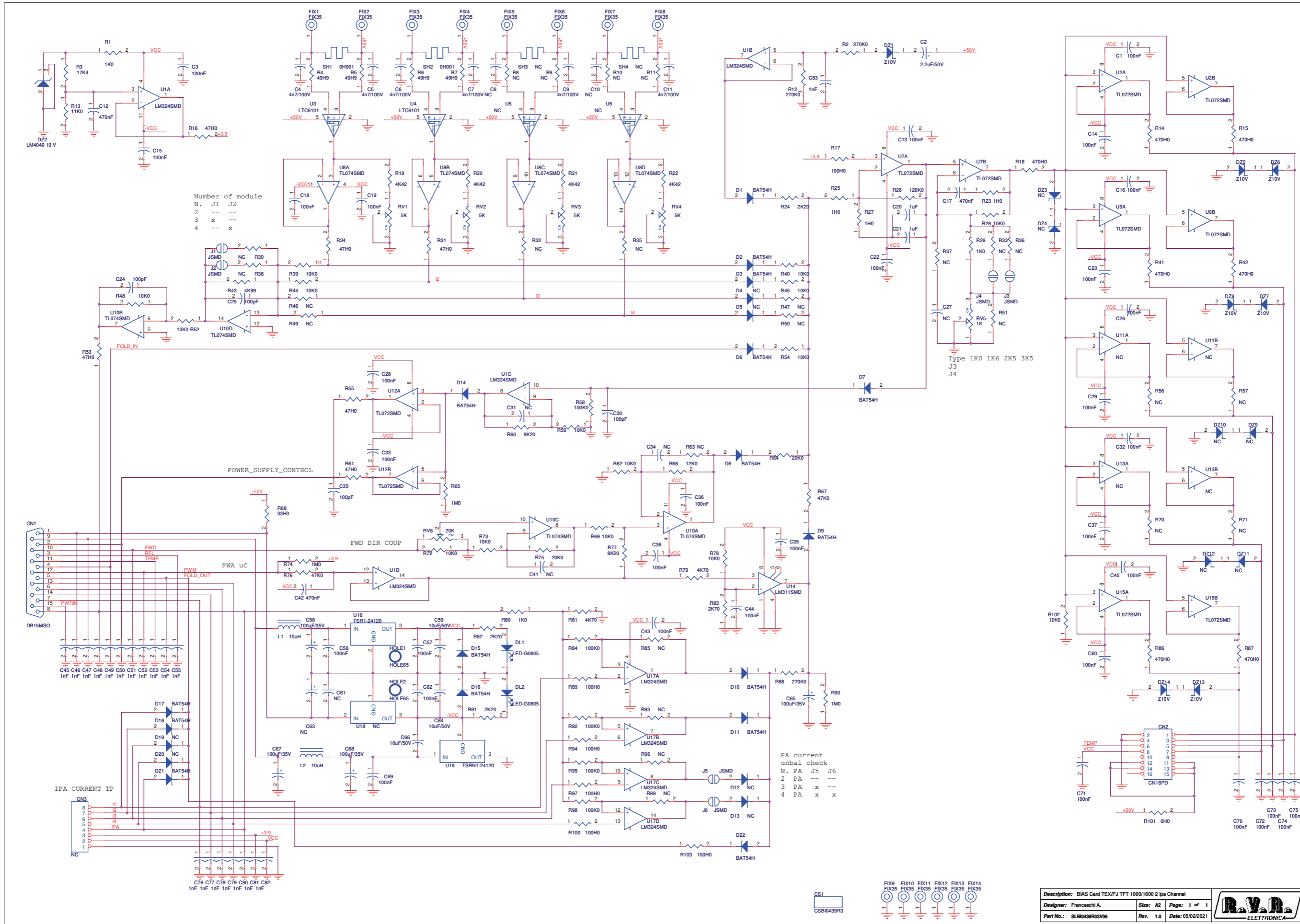
Driver interface & Temp Sensor Revised: Monday, September 09, 2019  
 SLIN0501R01V01 Revision: 1.0  
 A.Franceschi

Item	Quantity	Reference	Part	Description
1	2	CN1, CN2	CN16PD	16 way pcb conn. with holder
2	1	CS1	CSIN0501R1	Printed Circuit board
3	5	C1, C2, C3, C4, C6	1nF	0805 SMD capacitor
4	1	C5	4.7nF/100V	0805 SMD capacitor
5	1	D1	9V1	MINIMELF SMD Zener Diode
6	3	FIX1, FIX2, FIX3	FIX35	3.5mm Fixing hole
7	3	R1, R2, R3	680R	0805 SMD res.
8	1	R4	51R	0805 SMD res.
9	1	R5	0H0	1206 SMD res.
10	1	U2	LM50C_SMD	Temperature sensor



	PRODUCT NAME : TEX-LCD	PART NAME : BIAS CARD				
	DESIGNER : FRANCESCHI A.	DATE 05/10/20	REVIS. : 1.0	SCALE 1:1	SIZE A3	PAGE :1 DI 1
ARCHIVING : 'RVRUT' SERVER, 'RILASCIATI' FOLDER		PROJECT CODE : 249	DOCUMENT CODE : SLBI0439R03V**			

SLB10439R03V06





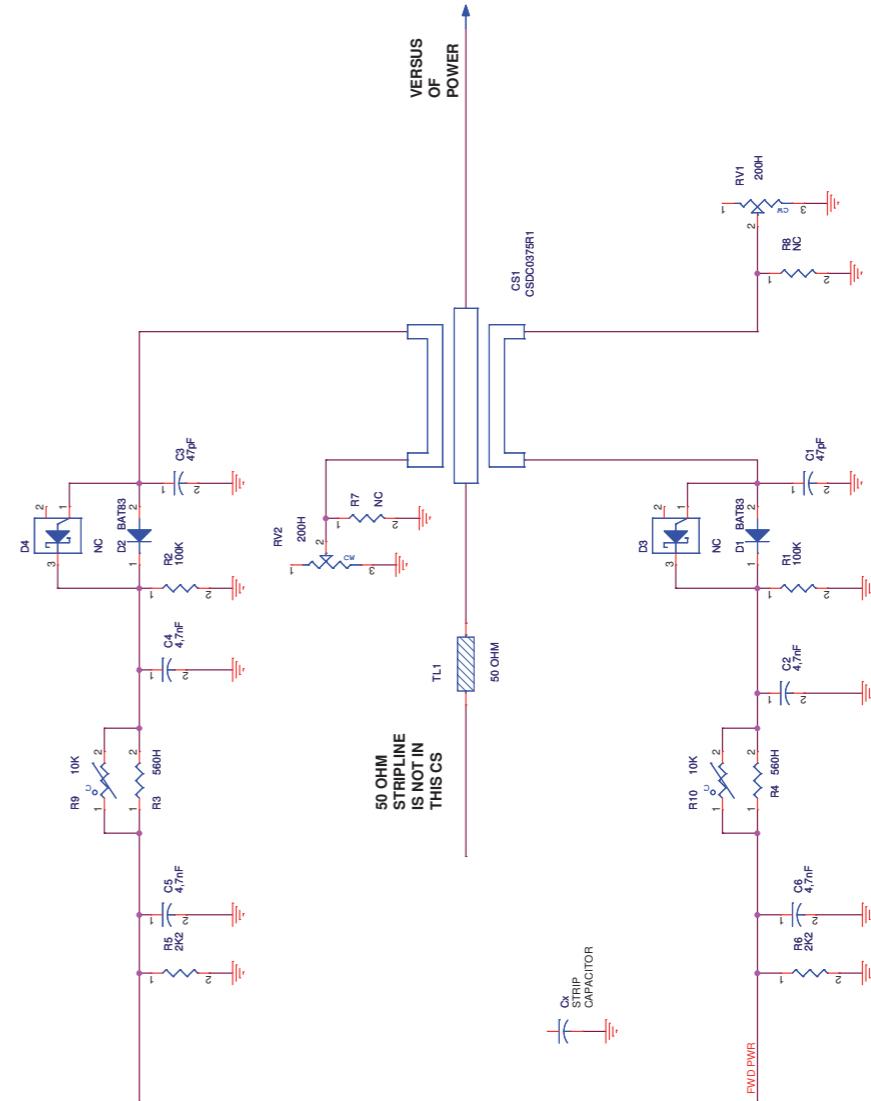
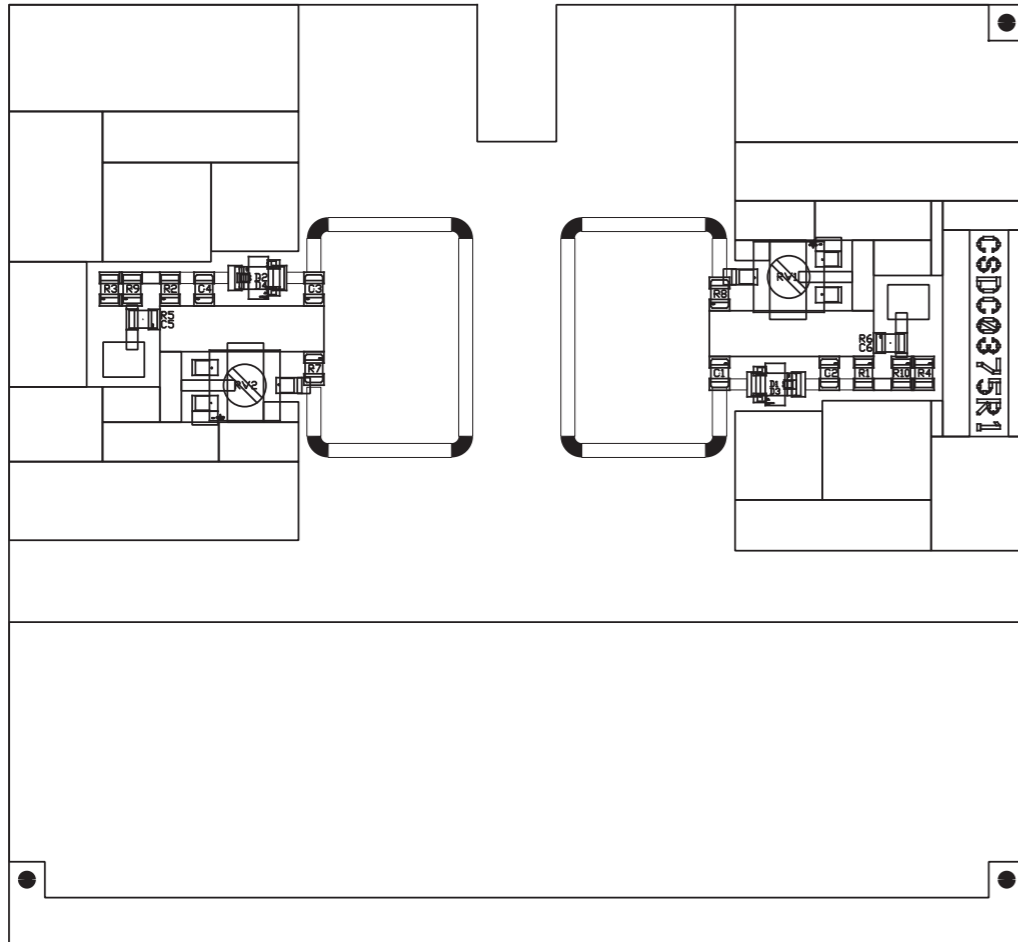
SLBI0439R03V06

BIAS Card TEX/PJ TFT 1000/1600 2 Ipa Channel Revised: 05/02/2021  
 SLBI0439R03V06 Revision: 1.0  
 Franceschi A.

Item	Quantity	Reference	Part	Description
1	1	CN1	DB15MSO	Conn. DB15 mas. cs 90°
2	1	CN2	CN16PD	Conn.M.C.S.Dritto 16P alette.
3	1	CN3	NC	Conn. 8 poli WR-WTB
4	1	CS1	CSBI0439R3	Circuito stampato
5	33	C1, C3, C13, C14, C15, C16, C18, C19, C22, C23, C26, C28, C29, C32, C33, C36, C37, C38, C39, C40, C43, C44, C56, C57, C60, C62, C69, C70, C71, C72, C73, C74, C75	100nF	Cond. SMD 0805
6	1	C2	2,2uF/50V	Cond. Elett. SMD d. 4mm
7	6	C4, C5, C6, C7, C9, C11	4n7/100V	Cond. SMD 0805
8	7	C8, C10, C27, C31, C34, C41, C61	NC	Cond. SMD 0805
9	3	C12, C17, C42	470nF	Cond. SMD 0805
10	2	C20, C21	1uF	Cond. SMD 0805
11	4	C24, C25, C30, C35	100pF	Cond. SMD 0805
12	19	C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C76, C77, C78, C79, C80, C81, C82, C83	1nF	Cond. SMD 0805
13	4	C58, C65, C67, C68	100uF/35V	Cond. Elett. SMD d. 6.3mm
14	3	C59, C64, C66	10uF/50V	Cond. SMD 1210
15	1	C63	NC	Cond. Elett. SMD d. 6.3mm
16	2	D11, D12	LED-G0805	LED Verde SMD 0805
17	7	DZ1, DZ5, DZ6, DZ7, DZ8, DZ13, DZ14	Z10V	MINIMELF SMD Zener Diode
18	1	DZ2	LM4040 10 V	SMD SOT23 precision Zener
19	6	DZ3, DZ4, DZ9, DZ10, DZ11, DZ12	NC	MINIMELF SMD Zener Diode
20	16	D1, D2, D3, D6, D7, D8, D9, D10, D11, D14, D15, D16, D17, D18, D21, D22	BAT54H	SOD323 SMD Diode
21	6	D4, D5, D12, D13, D19, D20	NC	SOD323 SMD Diode
22	14	FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8, FIX9, FIX10, FIX11, FIX12, FIX13, FIX14	FIX35	Foro fissaggio 3.5mm
23	2	HOLE1, HOLE2	HOLE65	Foro da 6.5mm
24	4	J1, J2, J5, J6	J5MD	Jumper a saldare
25	2	J3, J4	J5MD	Pad SMD a saldare
26	2	L1, L2	10uH	Ind. verticale SMD dia. 4 p 4.8
27	4	RV1, RV2, RV3, RV4	5K	Trimmer Rg V 3296W
28	1	RV5	1K	Trimmer SMD V 3314
29	1	RV6	20K	Trimmer Rg V 3296W
30	3	R1, R29, R80	1K0	Res. SMD 0805 1%
31	3	R2, R12, R88	270K0	Res. SMD 0805 1%
32	1	R3	17K4	Res. SMD 0805 1%
33	4	R4, R5, R6, R7	49H9	Res. SMD 0805 1%
34	25	R8, R9, R10, R11, R30, R32, R33, R35, R36, R37, R38, R47, R46, R49, R50, R51, R56, R57, R63, R70, R71, R85, R93, R96, R99	NC	Res. SMD 0805 1%
35	1	R13	11K0	Res. SMD 0805 1%
36	7	R14, R15, R18, R41, R42, R86, R87	470H0	Res. SMD 0805 1%
37	6	R16, R31, R34, R53, R55, R61	47H0	Res. SMD 0805 1%
38	6	R17, R89, R94, R97, R100, R103	100H0	Res. SMD 0805 1%
39	4	R19, R20, R21, R22	4K42	Res. SMD 0805 1%
40	3	R23, R25, R27	1H0	Res. SMD 0805 1%
41	3	R24, R82, R91	2K20	Res. SMD 0805 1%
42	1	R26	120K0	Res. SMD 0805 1%
43	15	R28, R39, R40, R44, R45, R48, R52, R54, R59, R62, R69, R72, R73, R78, R102	10K0	Res. SMD 0805 1%
44	1	R43	4K99	Res. SMD 0805 1%
45	5	R58, R84, R92, R95, R98	100K0	Res. SMD 0805 1%
46	2	R60, R77	8K20	Res. SMD 0805 1%
47	2	R64, R75	20K0	Res. SMD 0805 1%
48	3	R65, R74, R90	1M0	Res. SMD 0805 1%
49	1	R66	12K0	Res. SMD 0805 1%
50	2	R67, R76	47K0	Res. SMD 0805 1%
51	1	R68	33H0	Res. SMD 2512 1%
52	2	R79, R81	4K70	Res. SMD 0805 1%
53	1	R83	2K70	Res. SMD 0805 1%
54	1	R101	0H0	Res. SMD 1206
55	2	SH1, SH2	0H001	Shunt SMD 2512
56	2	SH3, SH4	NC	Shunt SMD 2512
57	2	U1, U17	LM324SMD	Quad Op. SMD SO14
58	5	U2, U7, U9, U12, U15	TL072SMD	Dual Op. SMD SO8
59	2	U3, U4	LTC6101	High side current sense
60	2	U5, U6	NC	High side current sense
61	2	U8, U10	TL074SMD	Quad Op. SMD SO14

Item	Quantity	Reference	Part	Description
62	2	U11, U13	NC	Dual Op. SMD SO8
63	1	U14	LM311SMD	Comp. SMD SO8
64	1	U16	TSR1-24120	Switching SIP3 regulator
65	1	U18	NC	Stabilizzatore TO220
66	1	U19	TSRN1-24120	Switching SIP3 regulator

SLDC0375R01V01



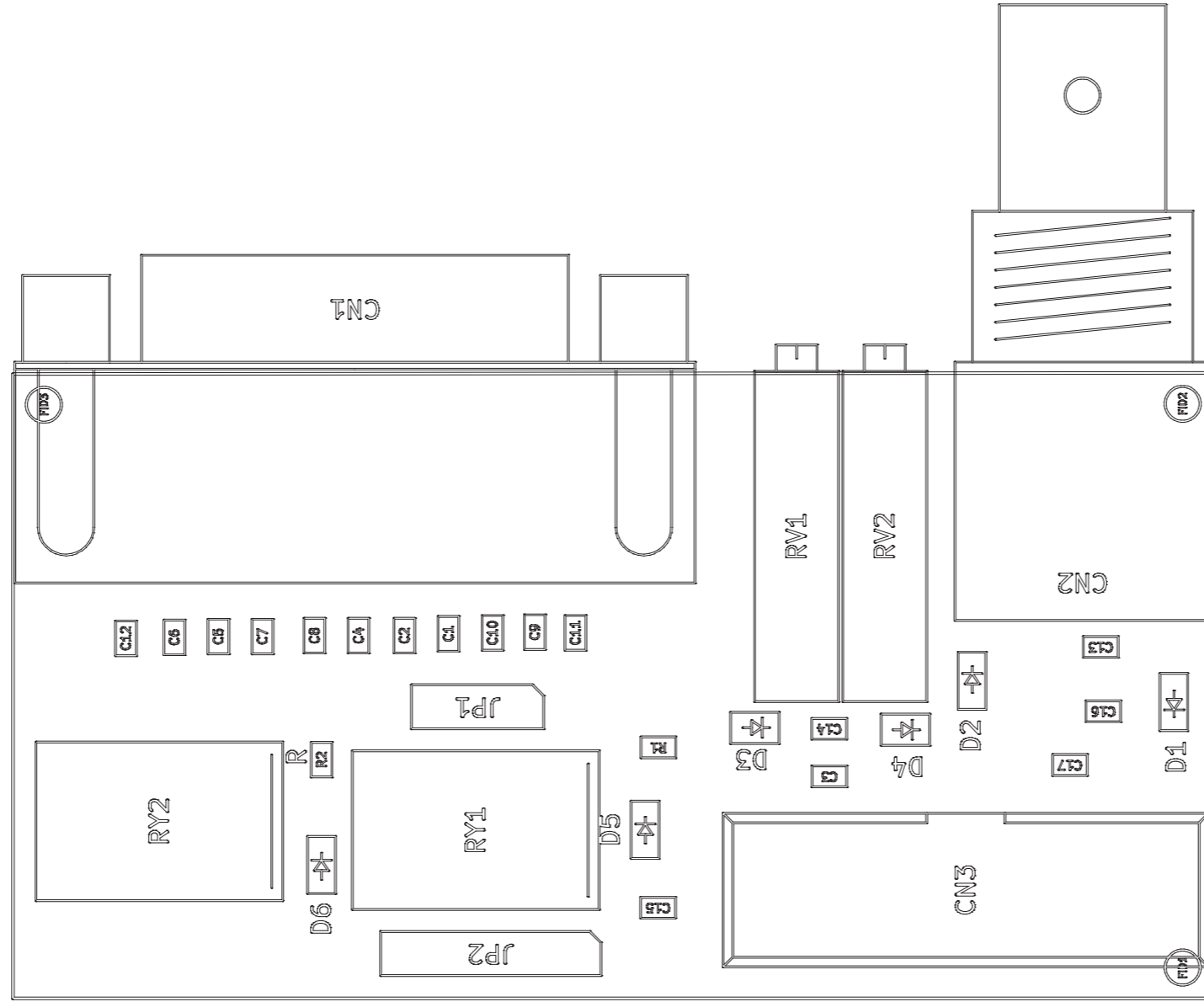
Description: Directional Coupler		Size: A3	Page: 1 of 1
Designer: Franceschi A.		Rev: 1.2	Date: 03/10/2019
Part No.: SLDC0375R01V01		ELETTRONICA	

	PRODUCT NAME : TEX-LCD GREEN LINE	PART NAME : DIRECTIONAL COUPLER
DESIGNER : FRANCESCHI A.	DATE : 03/10/19	REVISION : 1.2
ARCHIVING : 'RVTRUT' SERVER, 'RILASCIATI' FOLDER	PROJECT_CODE : <>	DOCUMENT_CODE : SLDC0375R01V**
		SCALE : 2:1
		SIZE : A4
		PAGE : 1 DI 1

SLDC0375R01V01

DIRECTIONAL COUPLER Revised: 03/10/2019  
 SLDC0375R01V01 Revision: 1.2  
 Franceschi A.

Item	Quantity	Reference	Part	{description}
1	1	CS1	CSDC0375R1	
2	1	Cx	27pFTFL	
3	2	C3, C1	47pF	Cond. SMD 0805
4	4	C2, C4, C5, C6	4,7nF	Cond. SMD 0805
5	2	D3, D4	NC	
6	2	D1, D2	BAT83	MINIMELF Diode
7	2	RV2, RV1	200H	Trimmer SMD
8	2	R1, R2	100K	Res. SMD 0805
9	2	R3, R4	560H	Res. SMD 0805
10	2	R5, R6	2K2	Res. SMD 0805
11	2	R9, R10	10K	Res. NTC SMD 0805
12	2	R7, R8	NC	Res. SMD 0805
13	1	TL1	50 OHM	Linea strip CS



PRODUCT NAME : TEX-TFT

DESIGNER : FRANCESCHI A.

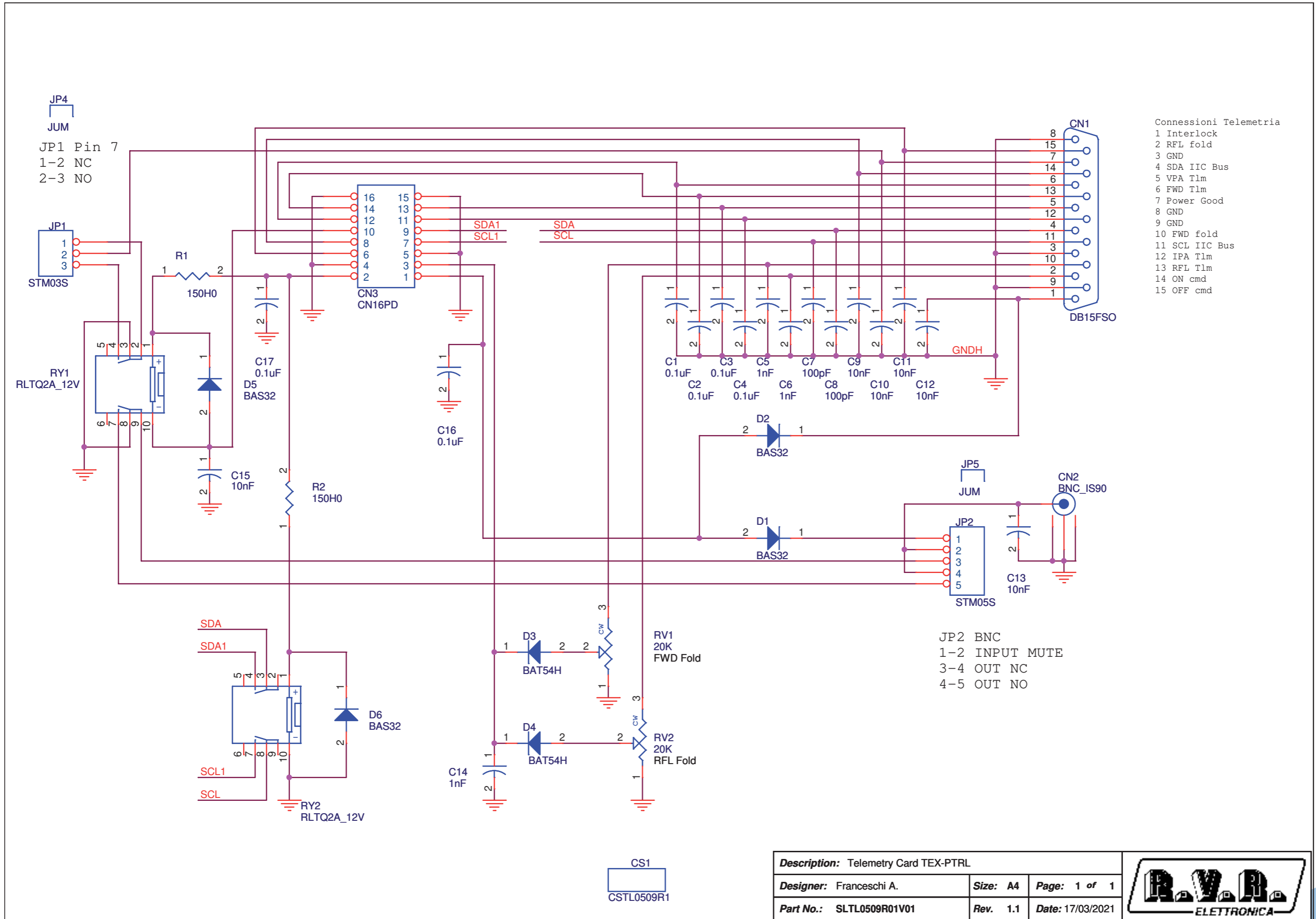
ARCHIVING : 'RVRUT' SERVER, 'RILASCIATI' FOLDER

PART NAME : TELEMETRY CARD

DATE : 22/06/20 | REVISION : 1.0 | SCALE : 2:1 | SIZE : A4 | PAGE : 1 DI 1

PROJECT CODE : <> | DOCUMENT CODE : SLTL0509R01V\*\*

SLTL0509R01V01



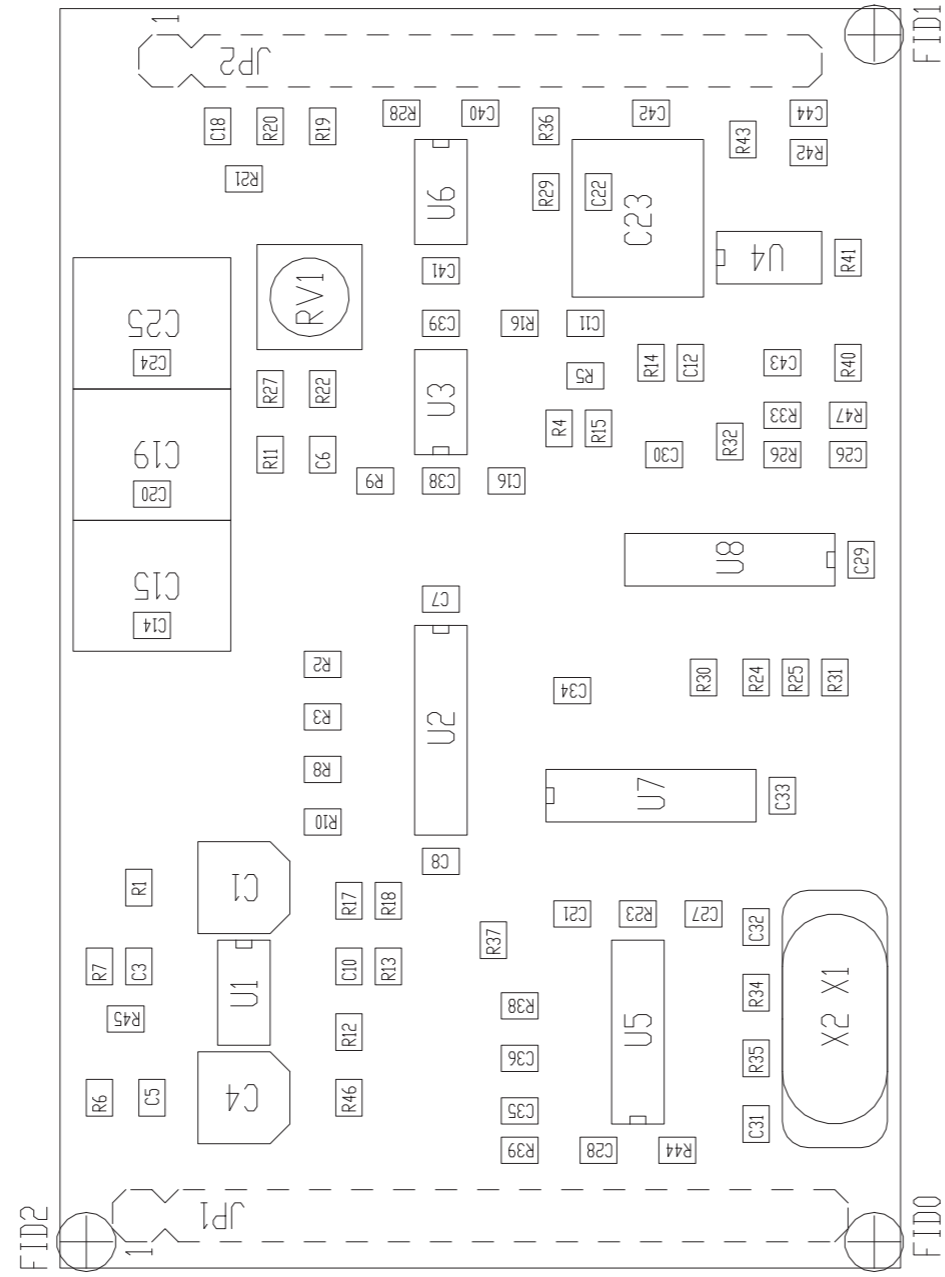
SLTL0509R01V01

Telemetry Card TEX-PTRL Revised: 17/03/2021  
 SLTL0509R01V01 Revision: 1.1  
 Franceschi A.

Item	Quantity	Reference	Part	Description
1	1	CN1	DB15FSO	DB15 fem. PCB 90° conn.
2	1	CN2	BNC_IS90	Metal BNC conn. 90°
3	1	CN3	CN16PD	16 way pcb conn. with holder
4	1	CS1	CSTL0509R1	Printed Circuit board
5	6	C1, C2, C3, C4, C16, C17	0.1uF	0805 SMD capacitor
6	3	C5, C6, C14	1nF	0805 SMD capacitor
7	2	C7, C8	100pF	0805 SMD capacitor
8	6	C9, C10, C11, C12, C13, C15	10nF	0805 SMD capacitor
9	4	D1, D2, D5, D6	BAS32	MINIMELF SMD Diode
10	2	D3, D4	BAT54H	SOD123F SMD Diode
11	1	JP1	STM03S	Male strip 3 pin
12	1	JP2	STM05S	Male strip 5 pin
13	2	JP4, JP5	JUM	Jumper
14	2	RV1, RV2	20K	Trimmer Rg H 3006
15	2	RY1, RY2	RLTQ2A_12V	TQ2 relay
16	2	R1, R2	150H0	0805 SMD res.



SLCTC30V03V01



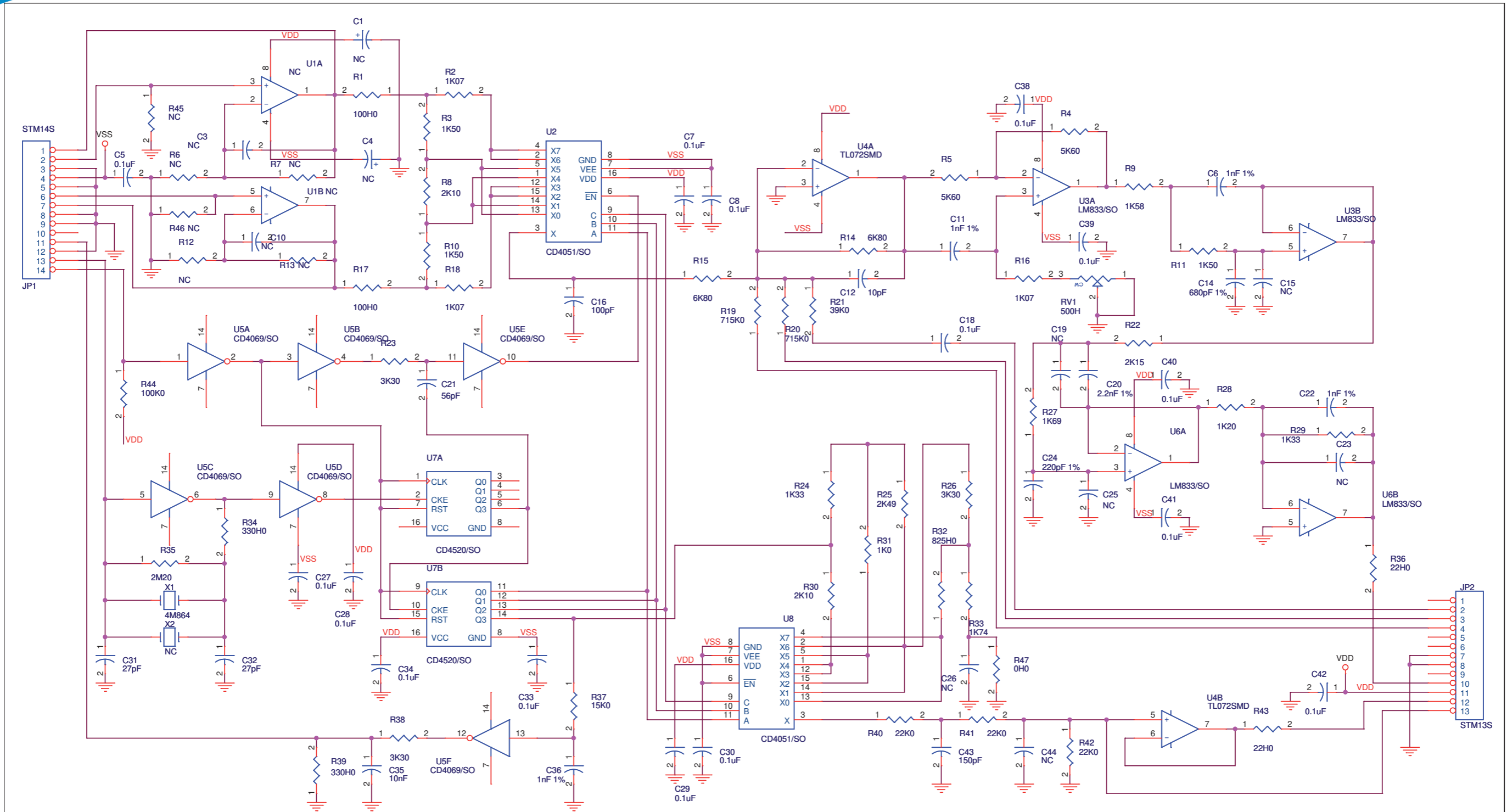
PRODUCT NAME : SERED CODER  
 DESIGNER : FRANCESCHI A.  
 ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER

PART NAME : CTC30 CODER CARD  
 DATE : 26/01/15  
 REVISION : 1.0  
 SCALE : 2:1

SIZE : A4  
 PAGE : 1  
 DI : 1

DOCUMENT CODE : SLCTC30V03V\*\*

SLCTC30V03V01



CS1  
CSCTC30V03

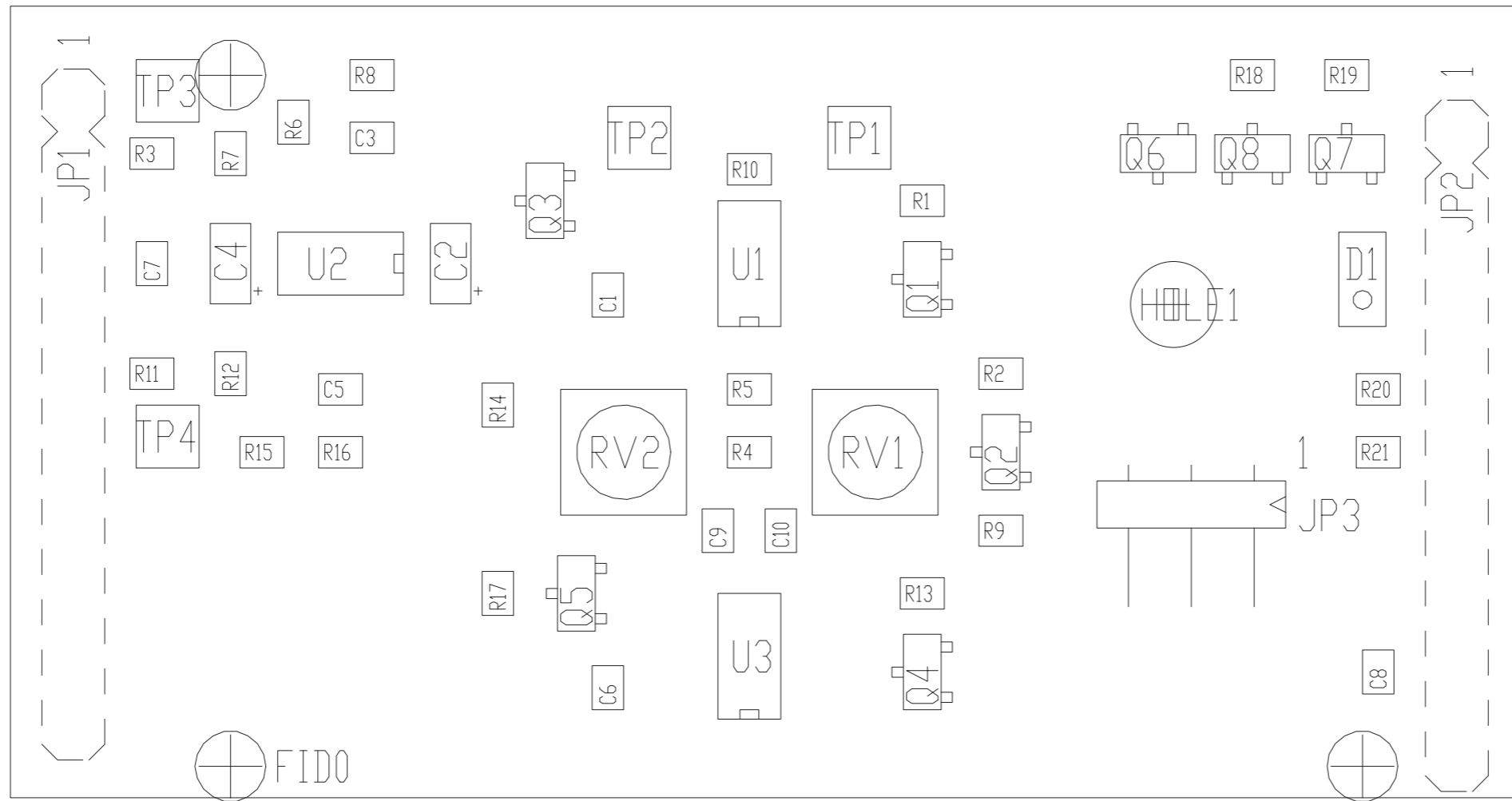
Description: Coder Card			
Designer: Franceschi A.	Size: A3	Page: 1 of 1	
Part No.: SLCTC30V03V01	Rev. 1.1	Date: 26/01/2015	

SLCTC30V03V01

Coder Card Revised: 26/01/2015  
 SLCTC30V03V01 Revision: 1.1  
 Franceschi A.

Item	Quantity	Reference	Part	Description
1	1	C51	CSCTC30V03	Circuito stampato
2	2	C1,C4	NC	Cond. Elett. SMD d. 4mm
3	3	C3,C10,C26	NC	Cond. SMD 0805
4	15	C5,C7,C8,C18,C27,C28,C29, C30,C33,C34,C38,C39,C40, C41,C42	0.1uF	Cond. SMD 0805
5	4	C6,C11,C22,C36	1nF 1%	Cond. SMD 0805 COG
6	1	C12	10pF	Cond. SMD 0805
7	1	C14	680pF 1%	Cond. SMD 0805 COG
8	4	C15,C19,C23,C25	NC	Cond. Poliestere p 5mm (5*7mm)
9	1	C16	100pF	Cond. SMD 0805
10	1	C20	2.2nF 1%	Cond. SMD 0805 COG
11	1	C21	56pF	Cond. SMD 0805
12	1	C24	220pF 1%	Cond. SMD 0805 COG
13	2	C31,C32	27pF	Cond. SMD 0805
14	1	C35	10nF	Cond. SMD 0805
15	1	C43	150pF	Cond. SMD 0805
16	1	C44	NC	Cond. SMD 0805
17	1	JP1	STM14S	Strip maschio 14 pin
18	1	JP2	STM13S	Strip maschio 13 pin
19	1	RV1	500H	Trimmer SMD
20	2	R1,R17	100H0	Res. SMD 0805
21	3	R2,R16,R18	1K07	Res. SMD 0805
22	3	R3,R10,R11	1K50	Res. SMD 0805
23	2	R4,R5	5K60	Res. SMD 0805
24	6	R6,R7,R12,R13,R45,R46	NC	Res. SMD 0805
25	2	R8,R30	2K10	Res. SMD 0805
26	1	R9	1K58	Res. SMD 0805
27	2	R14,R15	6K80	Res. SMD 0805
28	2	R19,R20	715K0	Res. SMD 0805
29	1	R21	39K0	Res. SMD 0805
30	1	R22	2K15	Res. SMD 0805
31	3	R23,R26,R38	3K30	Res. SMD 0805
32	2	R24,R29	1K33	Res. SMD 0805
33	1	R25	2K49	Res. SMD 0805
34	1	R27	1K69	Res. SMD 0805
35	1	R28	1K20	Res. SMD 0805
36	1	R31	1K0	Res. SMD 0805
37	1	R32	825H0	Res. SMD 0805
38	1	R33	1K74	Res. SMD 0805
39	2	R34,R39	330H0	Res. SMD 0805
40	1	R35	2M20	Res. SMD 0805
41	2	R36,R43	22H0	Res. SMD 0805
42	1	R37	15K0	Res. SMD 0805

43	3	R40,R41,R42	22K0	Res. SMD 0805
44	1	R44	100K0	Res. SMD 0805
45	1	R47	0H0	Res. SMD 0805
46	1	U1	NC	Dual Op. SMD SO8
47	2	U2,U8	CD4051/SO	Analog Switch SMD SO16
48	2	U3,U6	LM833/SO	Dual Op. SMD SO8
49	1	U4	TL072SMD	Dual Op. SMD SO8
50	1	U5	CD4069/SO	Hex inverter SO14
51	1	U7	CD4520/SO	Dual binary counter
52	1	X1	4M864	Quarzo SMD HC49SMD
53	1	X2	NC	Quarzo HC18



PRODUCT NAME : TEX-TFT

PART NAME : L/R Clipper for Stereo Coder

DESIGNER : FRANCESCHI A.

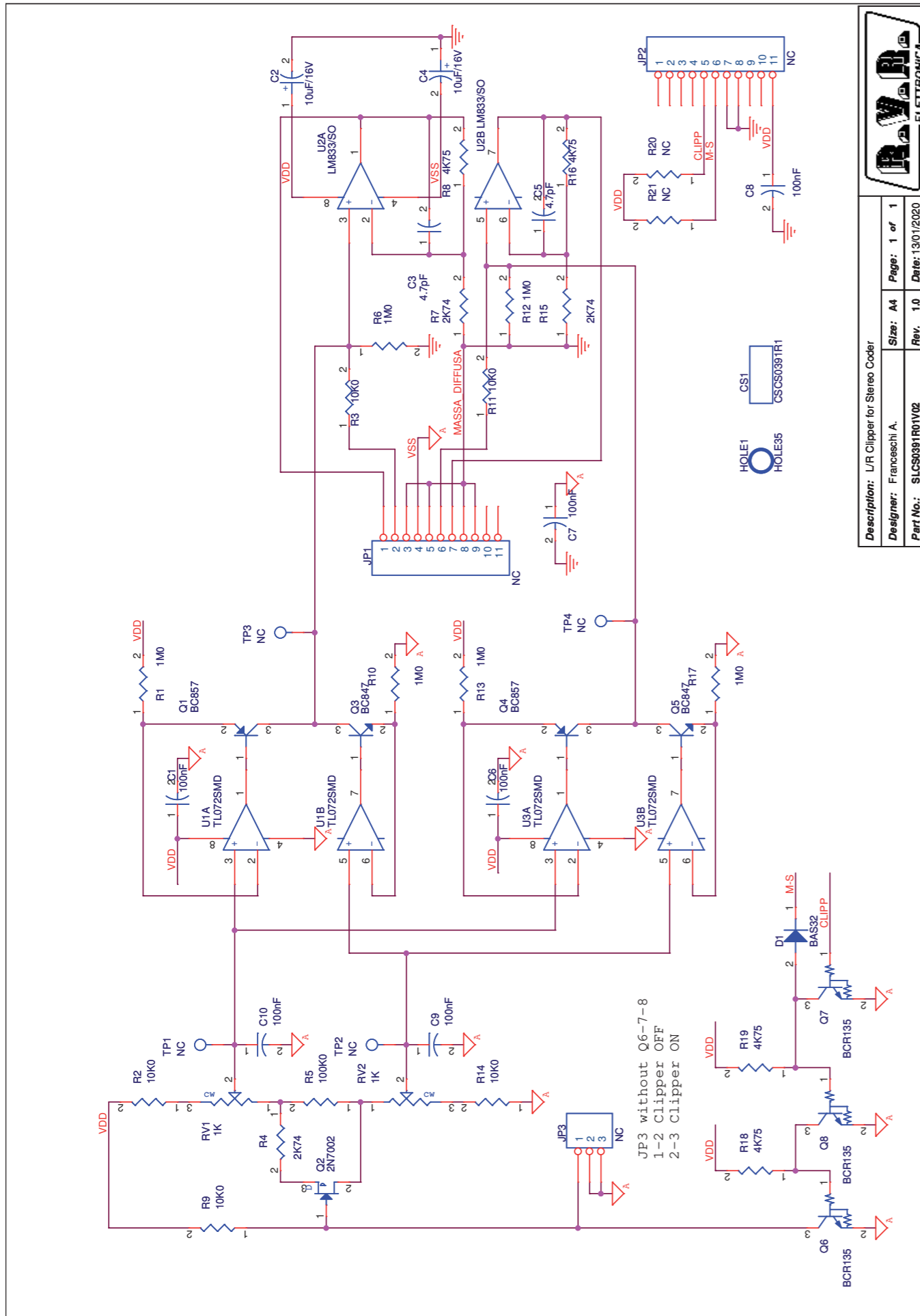
DATE : 13/01/20 REVISION : 1.0 SCALE : 1:1 SIZE : A4 PAGE : 1 DI 1

ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER

PROJECT CODE : 252 DOCUMENT CODE : SLCS0391R01V\*\*



SLCS0391R01V02

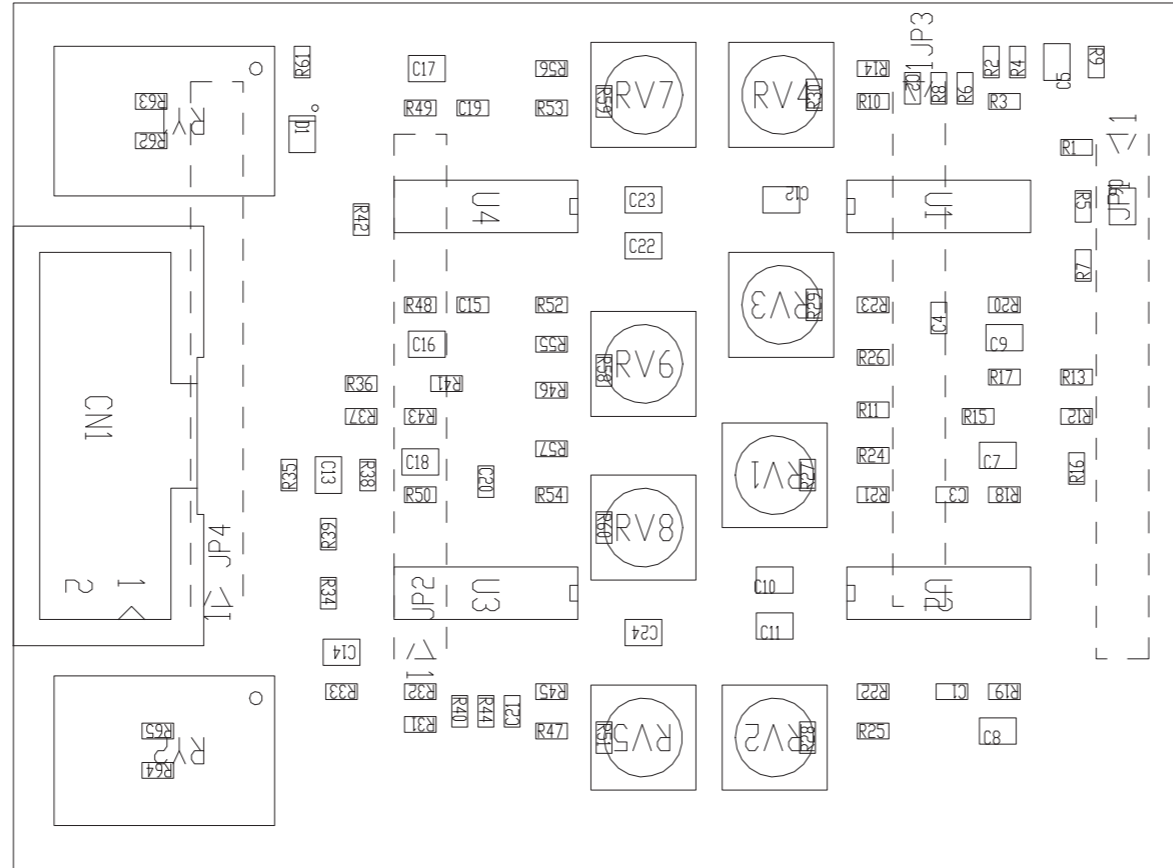


**Description:** L/R Clipper for Stereo Coder  
**Designer:** Franceschi A.  
**Part No.:** SLCS0391R01V02  
**Size:** A4  
**Page:** 1 of 1  
**Rev.:** 1.0  
**Date:** 13/01/2020

L/R Clipper for Stereo Coder Revised: Monday, Jan 13, 2020  
 SLCS0391R01V02 Revision: 1.0  
 Franceschi A.

Item	Quantity	Reference	Part	Description
1	1	CS1	CSCS0391R1	Circuito stampato
2	6	C1,C6,C7,C8,C9,C10	100nF	Cond. SMD 0805
3	2	C2,C4	10uF/16V	Cond. Elett. SMD tant. size A
4	2	C3,C5	4.7pF	Cond. SMD 0805
5	1	D1	BAS32	MINIMELF SMD Diode
6	1	HOLE1	HOLE35	Foro da 3.5mm
7	2	JP1,JP2	NC	Strip maschio 11 pin
8	1	JP3	NC	Strip maschio 3 pin a 90°
9	2	Q1,Q4	BC857	Trans. PNP SOT23
10	1	Q2	2N7002	Trans. FET SOT23
11	2	Q3,Q5	BC847	Trans. NPN SOT23
12	3	Q6,Q7,Q8	BCR135	Trans./Res. NPN SOT23
13	2	RV1,RV2	1K	Trimmer SMD
14	6	R1,R6,R10,R12,R13,R17	1M0	Res. SMD 0805
15	5	R2,R3,R9,R11,R14	10K0	Res. SMD 0805
16	3	R4,R7,R15	2K74	Res. SMD 0805
17	1	R5	100K0	Res. SMD 0805
18	4	R8,R16,R18,R19	4K75	Res. SMD 0805
19	2	R20,R21	NC	Res. SMD 0805
20	4	TP1,TP2,TP3,TP4	NC	Test point
21	2	U1,U3	TL072SMD	Dual Op. SMD SO8
22	1	U2	LM833/SO	Dual Op. SMD SO8

SLAU0469R01V04



PRODUCT NAME : TEX-LCD

DESIGNER : FRANCESCHI A.

ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER

PART NAME : AUDID FILTER 15KHZ

DATE : 03/05/17

PROJECT CODE : 057

REVISION : 1.0

SCALE : 2:1

SIZE : A4

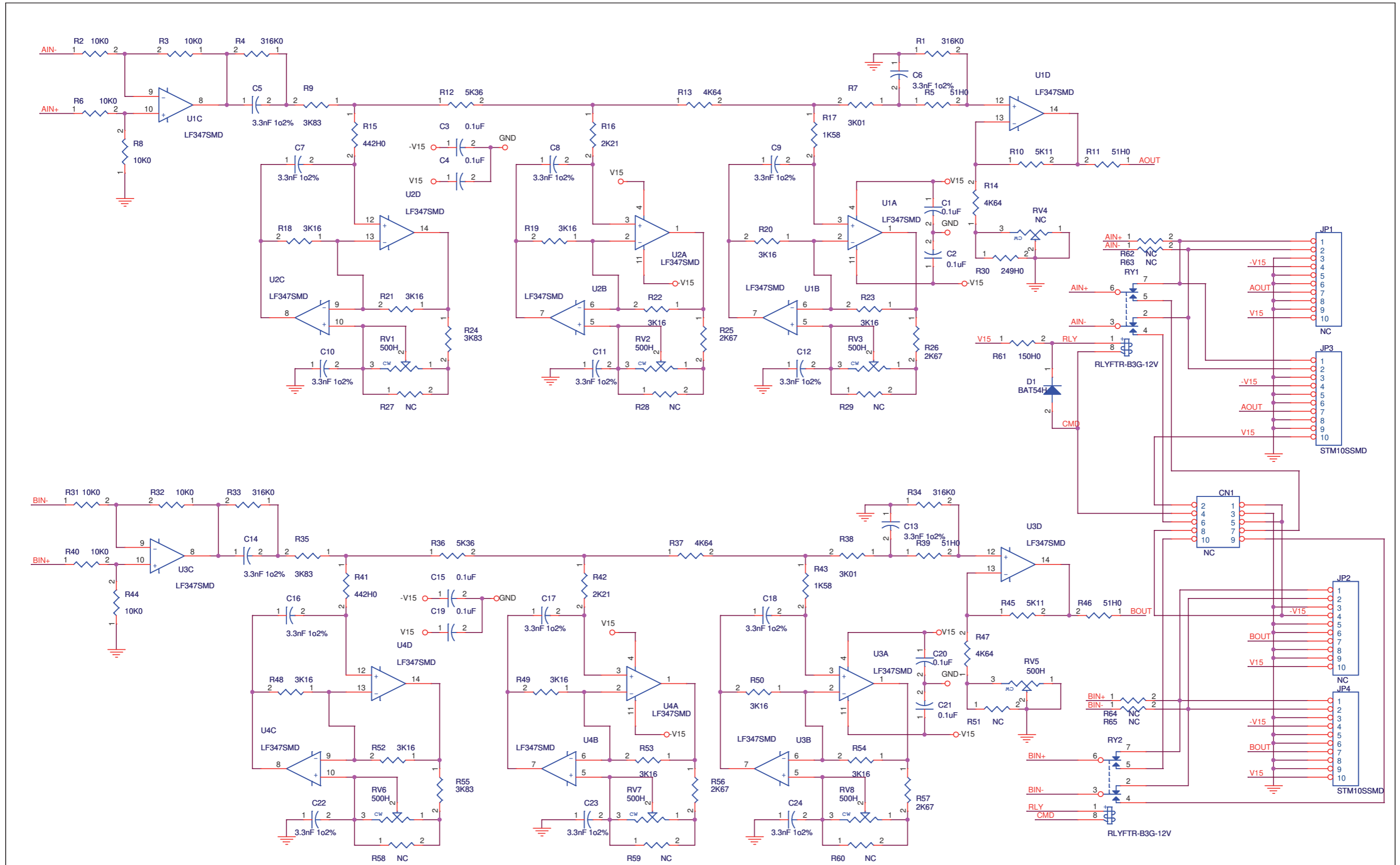
PAGE : 1

DI : 1

DOCUMENT CODE : SLAU0469R01V\*\*



SLAU0469R01V04



CS1  
CSAU0469R1

Description: Audio Filter 15Khz TFT w AES-EBU			
Designer: Franceschi A.	Size: A3	Page: 1 of 1	
Part No.: SLAU0469R01V04	Rev. 1.0	Date: 03/04/2018	

SLAU0469R01V04

Audio Filter 15Khz TFT w AES-EBU Revised: 03/04/2018  
 SLAU0469R01V04 Revision: 1.0  
 Franceschi A.

Item	Quantity	Reference	Part	Description
1	1	CN1	NC	Conn. 10 poli Flat cs
2	1	CS1	CSAU0469R1	Circuito stampato
3	8	C1, C2, C3, C4, C15, C19, C20, C21	0.1uF	Cond. SMD 0603
4	16	C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C16, C17, C18, C22, C23, C24	3.3nF 1o2%	Cond. SMD 0805 COG
5	1	D1	BAT54H	SOD323 SMD Diode
6	2	JP1, JP2	NC	Male strip 10 pin SMD
7	2	JP3, JP4	STM10SSMD	Male strip 10 pin SMD
8	7	RV1, RV2, RV3, RV5, RV6, RV7, RV8	500H	Trimmer SMD V 3314
9	1	RV4	NC	Trimmer SMD V 3314
10	2	RY1, RY2	RLYFTR-B3G-12V	Rele' FTR-B3G
11	4	R1, R4, R33, R34	316K0	Res. SMD 0603
12	8	R2, R3, R6, R8, R31, R32, R40, R44	10K0	Res. SMD 0603
13	4	R5, R11, R39, R46	51H0	Res. SMD 0603
14	2	R7, R38	3K01	Res. SMD 0603
15	4	R9, R24, R35, R55	3K83	Res. SMD 0603
16	2	R10, R45	5K11	Res. SMD 0603
17	2	R12, R36	5K36	Res. SMD 0603
18	4	R13, R14, R37, R47	4K64	Res. SMD 0603
19	2	R15, R41	442H0	Res. SMD 0603
20	2	R16, R42	2K21	Res. SMD 0603
21	2	R17, R43	1K58	Res. SMD 0603
22	12	R18, R19, R20, R21, R22, R23, R48, R49, R50, R52, R53, R54	3K16	Res. SMD 0603
23	4	R25, R26, R56, R57	2K67	Res. SMD 0603
24	11	R27, R28, R29, R51, R58, R59, R60, R62, R63, R64, R65	NC	Res. SMD 0603
25	1	R30	249H0	Res. SMD 0603
26	1	R61	150H0	Res. SMD 0603
27	4	U1, U2, U3, U4	LF347SMD	Quad Op. SMD SO14