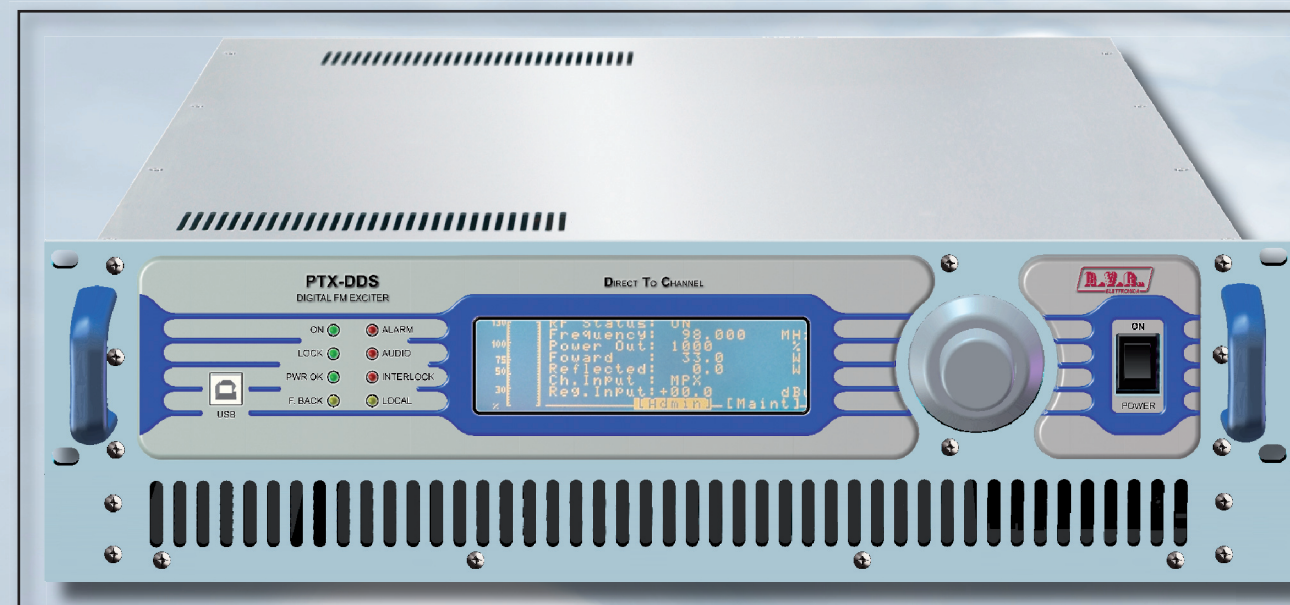




PTX1000DDS

TECHNICAL ANNEX
VOLUME 2



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

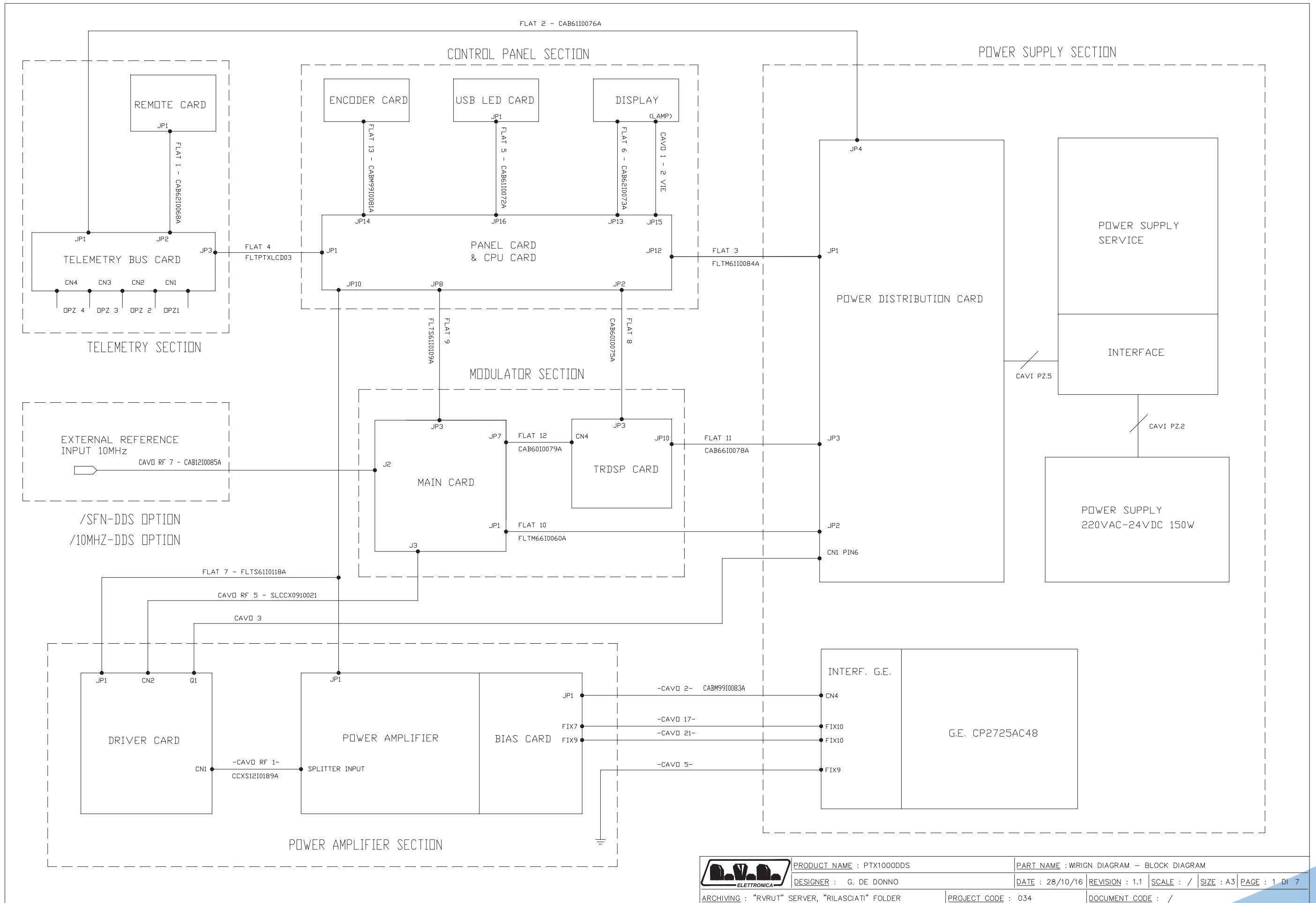
Questa parte del manuale contiene i dettagli tecnici riguardanti la costruzione delle singole schede componenti il PTX1000DDS. L'appendice è composta dalle seguenti sezioni:

This part of the manual contains the technical details about the different Cards of the PTX1000DDS. This appendix is composed of the following sections:

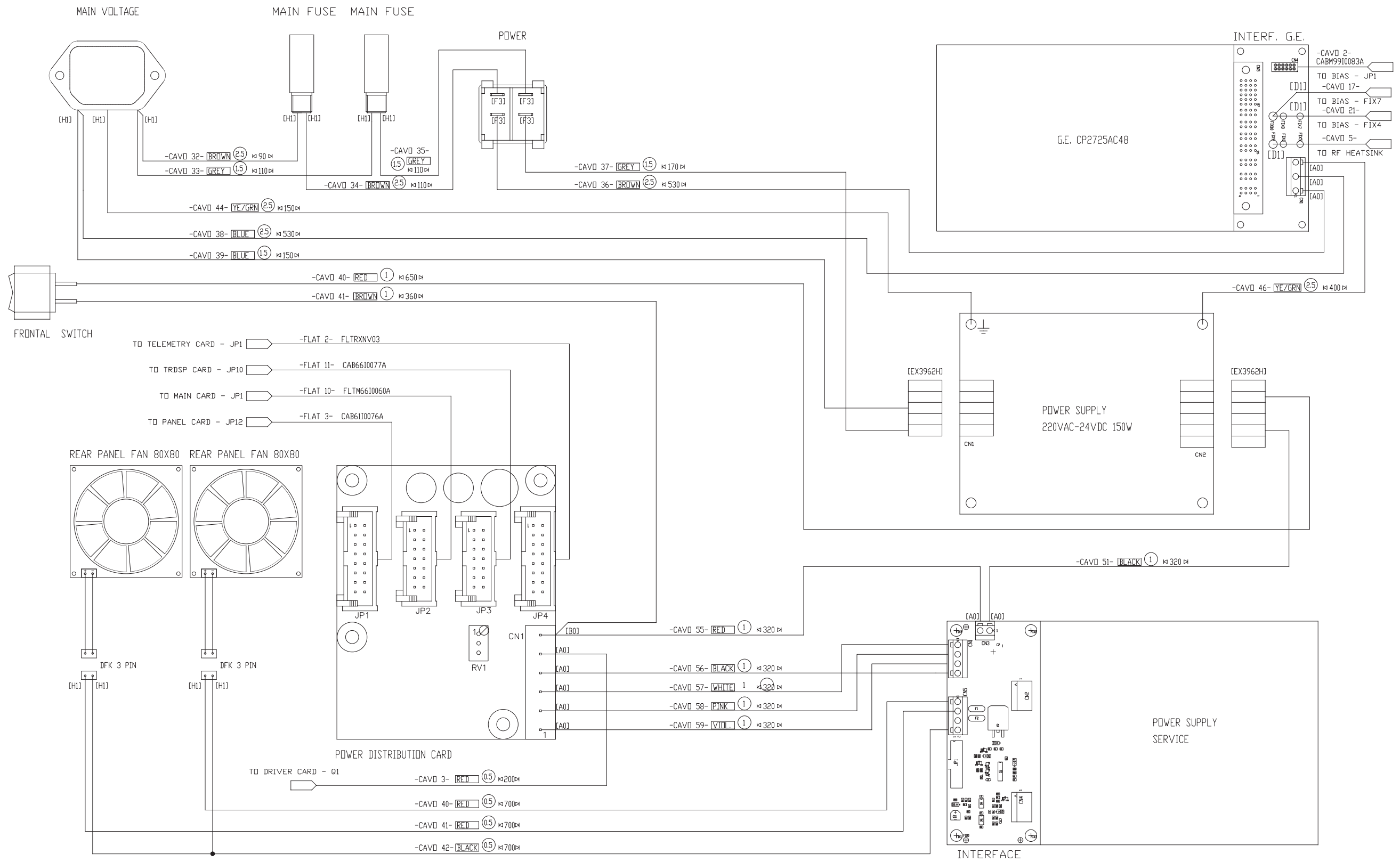
Description	RVR Code	Vers.	Page
Wiring Diagram	/	1.1	1
USB Connector Card	SL034IN1001	1.1	8
FM Modulator Card	SL174MD1001	1.2	10
Panel Card	SLPC0025R05V01	1.0	19
Power Supply Distribution Card	SL034PS1002	1.1	22
TLM Panel Distribution Card	SL034TL1001	1.3	24
Remote Interface Card	SL034IN2002	1.2	26
16-bit CPU Card	SL034CP1001	1.1	29
Splitter Card	SLSITEX500	1.0	32
Power Amplifier Card	SL237RF4001	1.0	34
Combiner Card	SLCM0374R01V01	1.0	37
Driver Card	SLDR0271R03V01	1.0	39
Low Pass Filter Card	SLLPFTEX2K5	1.2	42
Fuse Card	SLFUSTEX1K6LG	1.1	44
Filter Card	SL176F11001	1.1	46
BIAS Card	SLBI0447R01V01	1.0	48
Encoder Interface Card	SLBI0447R01V01	1.1	51
Thermal Probe Card	SL024MT1001	0.1	53
Directional Coupler Card	SLDC0375R01V01	1.1	55
Service and Fan Control Card	SLPS0449R01V01	1.0	58
RS232 Card	SL034TL2002	1.0	61
G.E. Power Amplifier Interface Card	SLIN0445R02V01	1.0	64
G.E. Power Amplifier	PSCP2725AC48	/	66
Power Amplifier	PSASP-150-24	/	71
Service Power Supply	PSL300-AUSDDS	1.0	72
TRDSP Card	TRDSP6	/	/

Document History

Date	Version	Reason	Code	Editor
29/11/2016	1.0	First Release	/	J.H. Berti

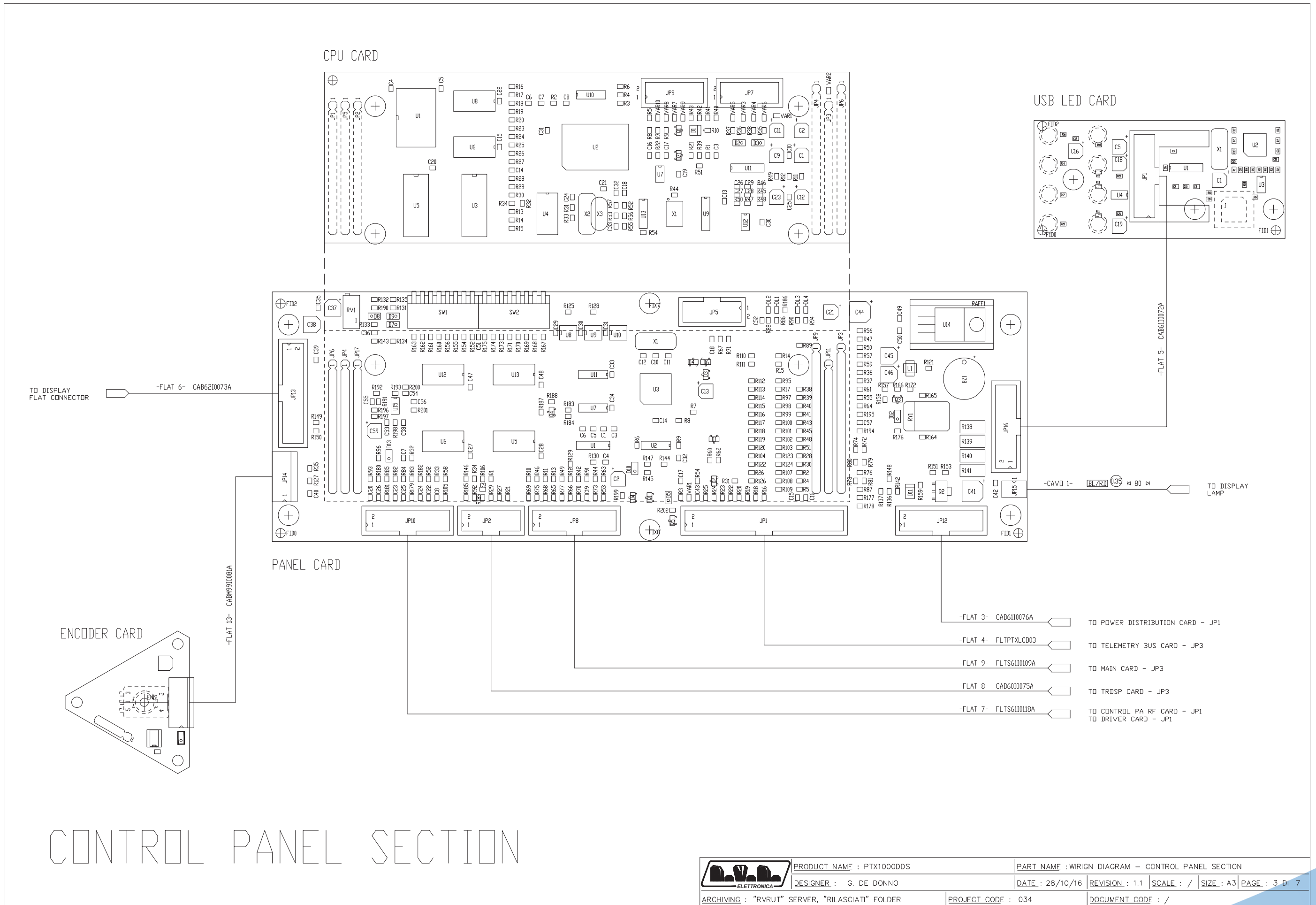


	PRODUCT NAME : PTX1000DDS	PART NAME : WIRIGN DIAGRAM - BLOCK DIAGRAM			
	DESIGNER : G. DE DONNO	DATE : 28/10/16	REVISION : 1.1	SCALE : /	SIZE : A3
ARCHIVING : "RVTRUT" SERVER, "RILASCIATI" FOLDER		PROJECT CODE : 034	DOCUMENT CODE : /		



POWER SUPPLY SECTION

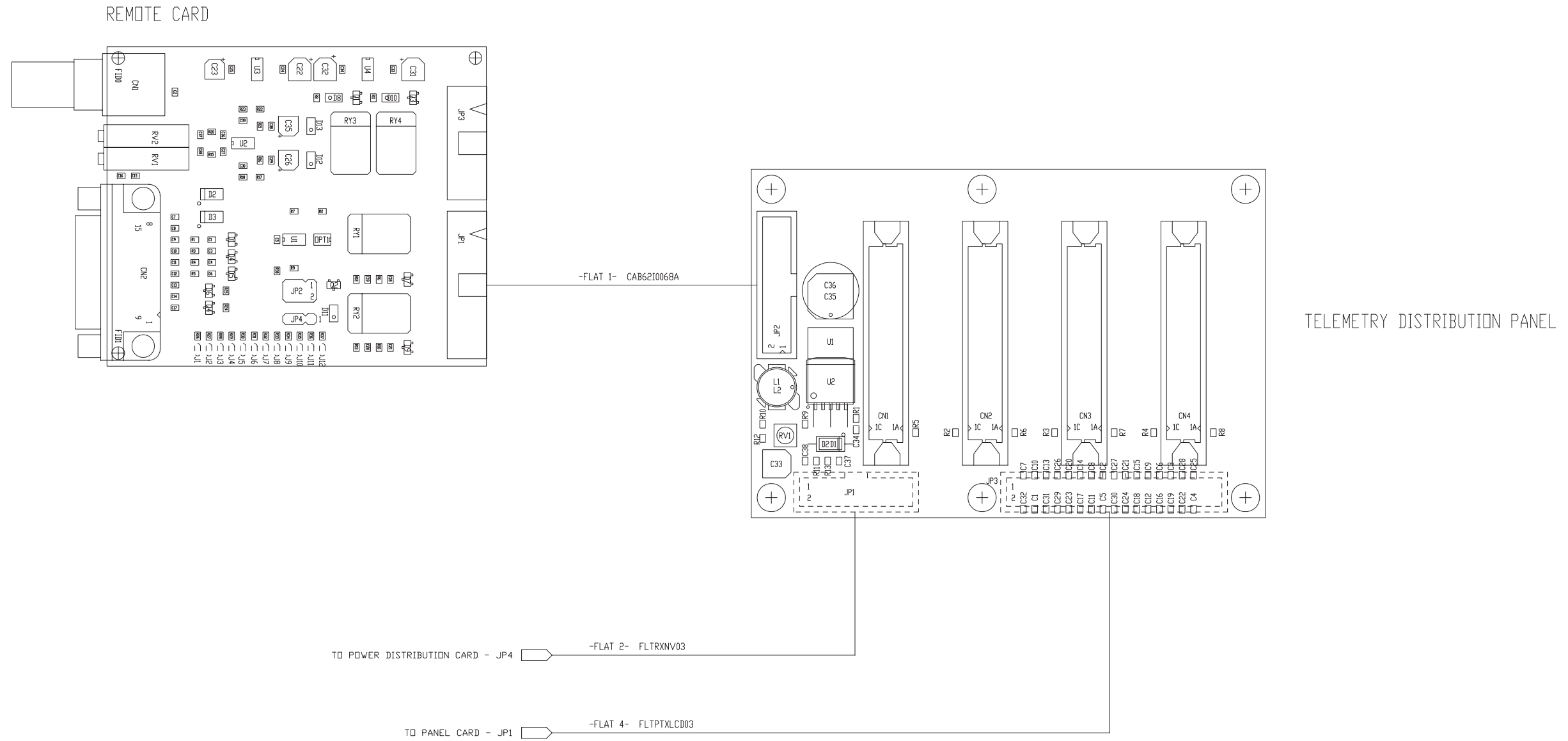
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	DESIGNER : G. DE DONNO	DATE : 28/10/16	REVISION : 1.1	SCALE : /	SIZE : A3	PAGE : 2 DI 7
	ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER	PROJECT CODE : 034	DOCUMENT CODE : /			



CONTROL PANEL SECTION

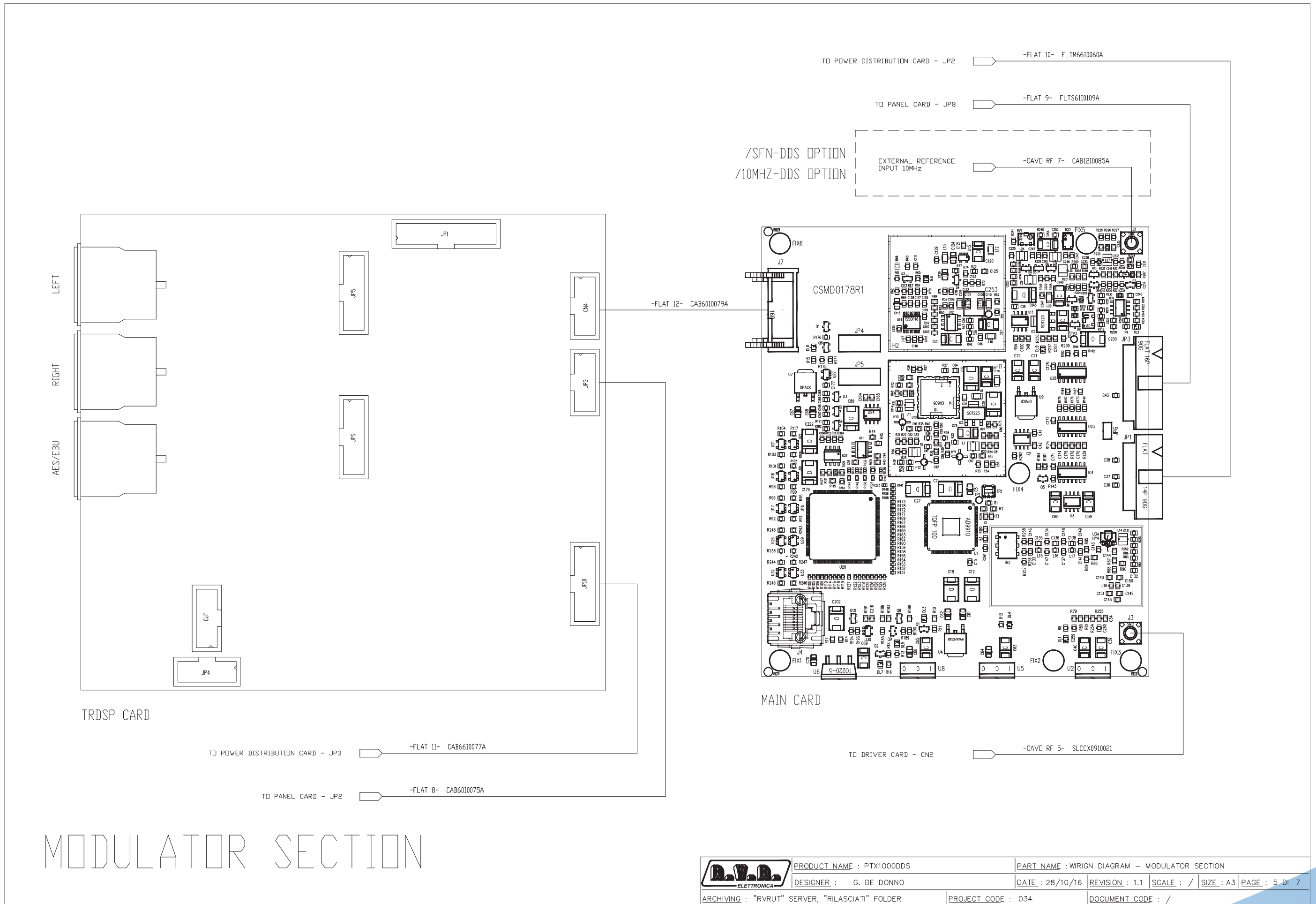
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ARCHIVING : "RVTRUT" SERVER, "RILASCIATI" FOLDER	PROJECT CODE : 034	DOCUMENT CODE : /			

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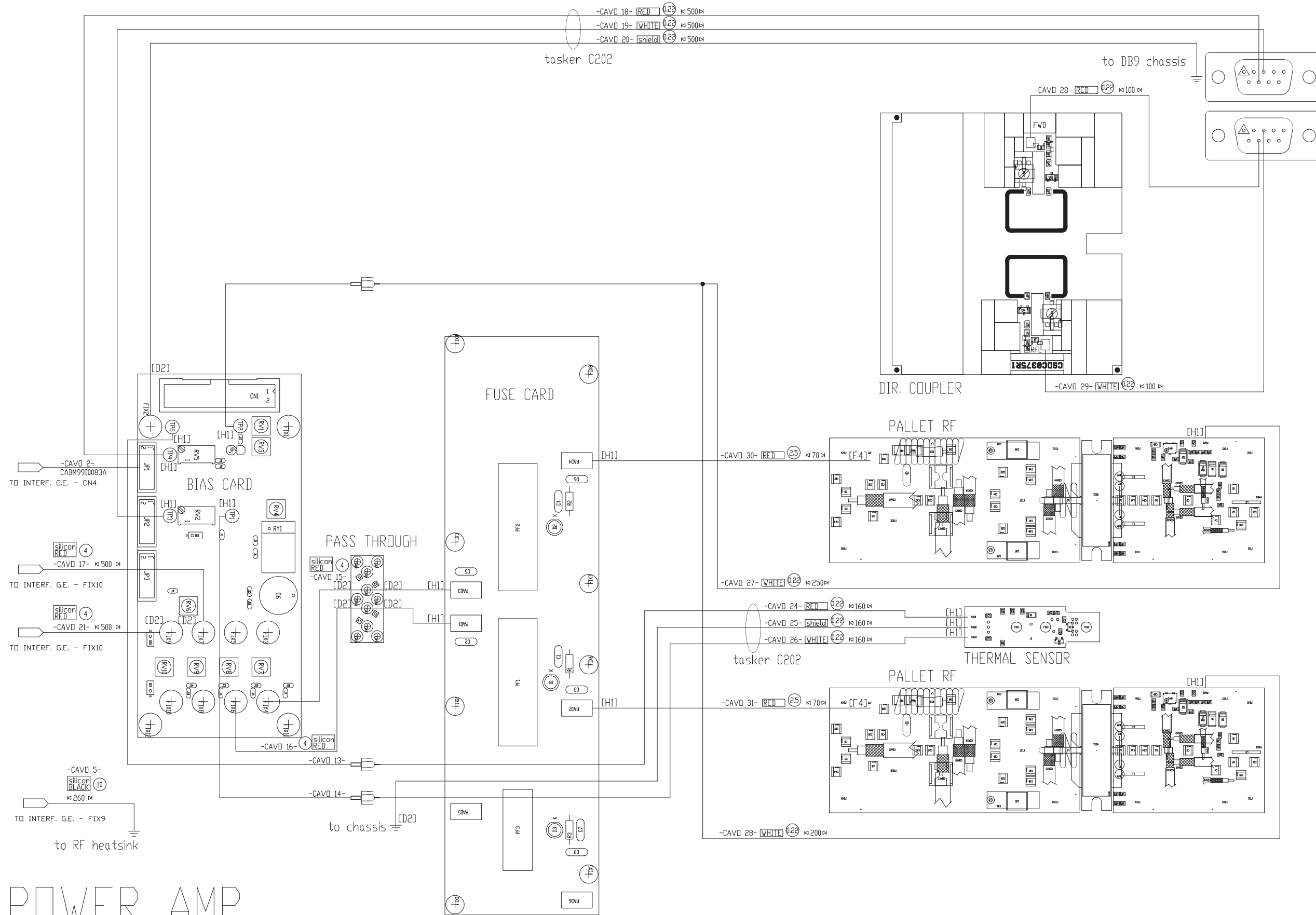


TELEMETRY SECTION

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ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER	PROJECT CODE : 034	DOCUMENT CODE : /			

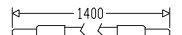
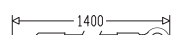
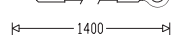



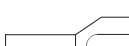
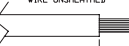
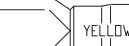


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ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER	PROJECT CODE : 034	DOCUMENT CODE : /			

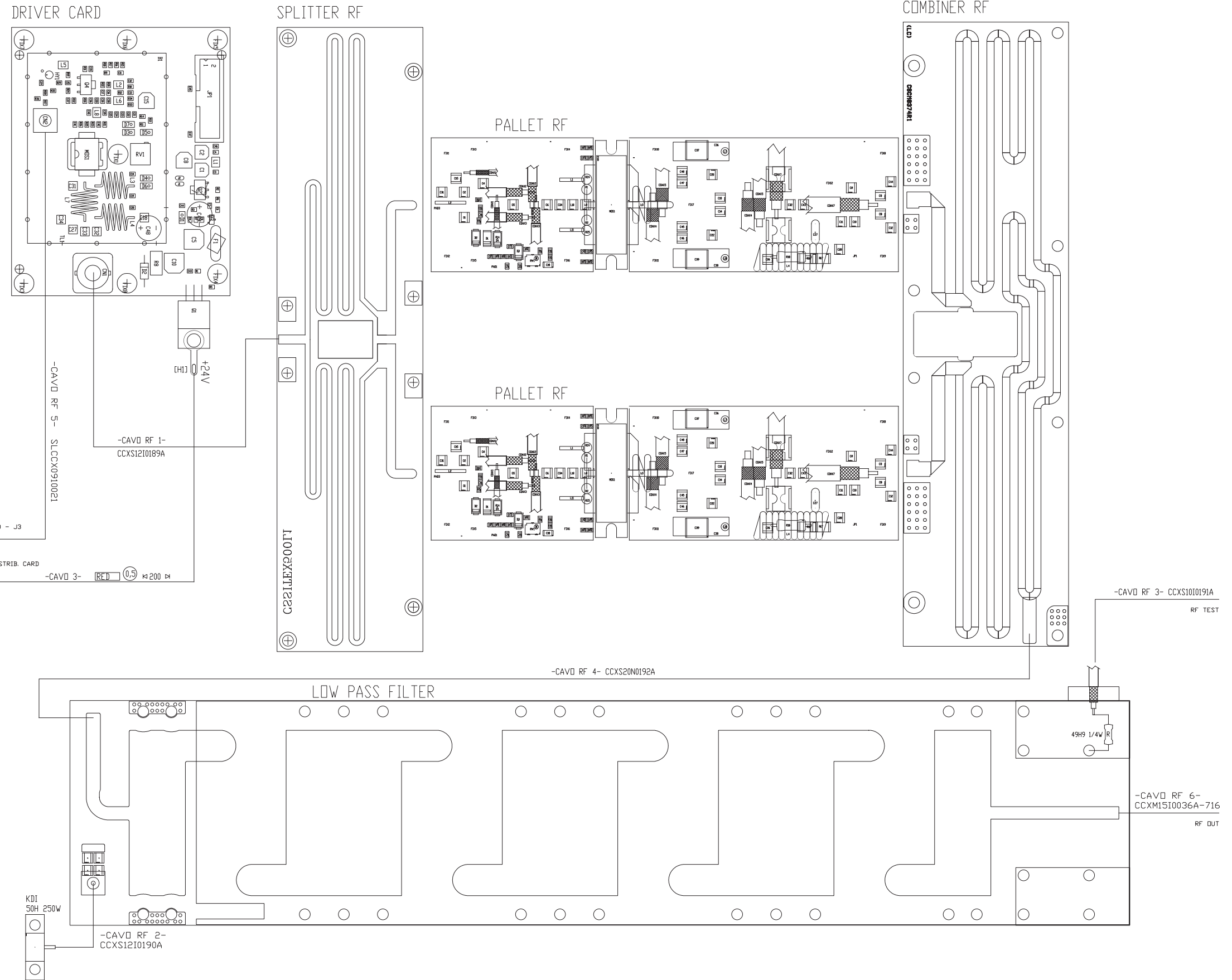


POWER AMP.
SECTION


	PRODUCT NAME : PTX1000DDS	PART NAME : WIRING DIAGRAM - POWER AMPLIFIER SECTION				
	DESIGNER : G. DE DONNO	DATE : 28/10/16	REVISION : 1.1	SCALE : /	SIZE : A3	PAGE : 6 DI 7
ARCHIVING : "RVTRUT" SERVER, "RILASCIATI" FOLDER	PROJECT CODE : 034	DOCUMENT CODE : /				

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

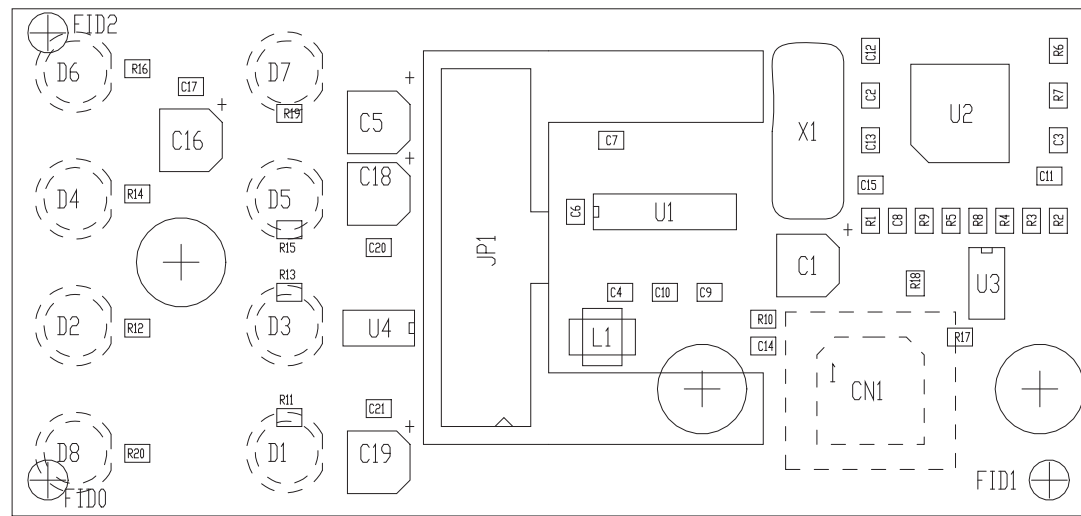
WIRE'S TERMINALS IDENTIFICATION	
REF.	TERMINAL TYPOLOGY
[A0]	BOOTLACE FERRULES (SINGLE WIRE) 
[B0]	BOOTLACE FERRULES (DOUBLE WIRE) 
[H1]	WIRE UNSHEATHED 
[F4]	FASTON FEMALE (ISOLATED) 
[D2]	
[D1]	



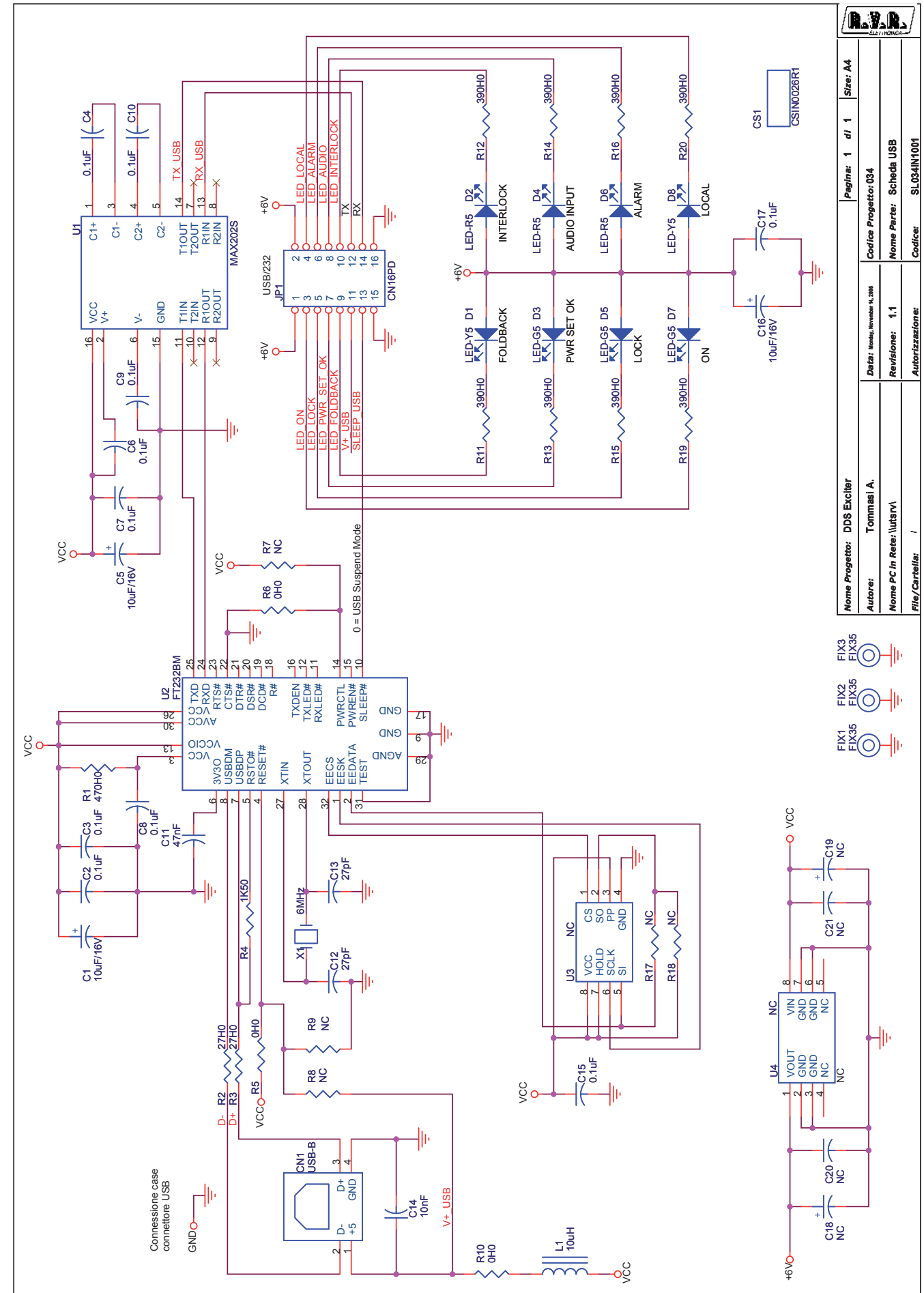
POWER AMP.
SECTION

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	DESIGNER : G. DE DONNO	DATE : 28/10/16 REVISION : 1.1 SCALE : / SIZE : A3 PAGE : 7 DI 7
ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER	PROJECT CODE : 034	DOCUMENT CODE : /

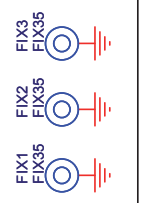
SL034IN1001



	NOME PROGETTO: DDS EXCITER	NOME PARTE: SCHEDA CONNETTORE USB
	AUTORE: FEDERICO THEI	DATA: 18/04/05 REVISIONE: 1.0 SCALA: 2:1 SIZE: A4 PAGINA: 1 DI 1
ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"	CODICE PROGETTO: 034	CODICE DISEGNO: SL034IN1001
MATERIALE: <>	TRATTAMENTO: <>	PROFILO: <>
		STATO: PROGETTUALE



Nome Progetto: DDS Exciter	Pagina: 1 di 1 Size: A4
Autore: Tommasi A.	Codice Progetto: 034
Nome PC in Rete: \ut_srv\	Nome Parte: Scheda USB
Revisione: 1.1	Codice: SL034IN1001
Autore/Revisione:	

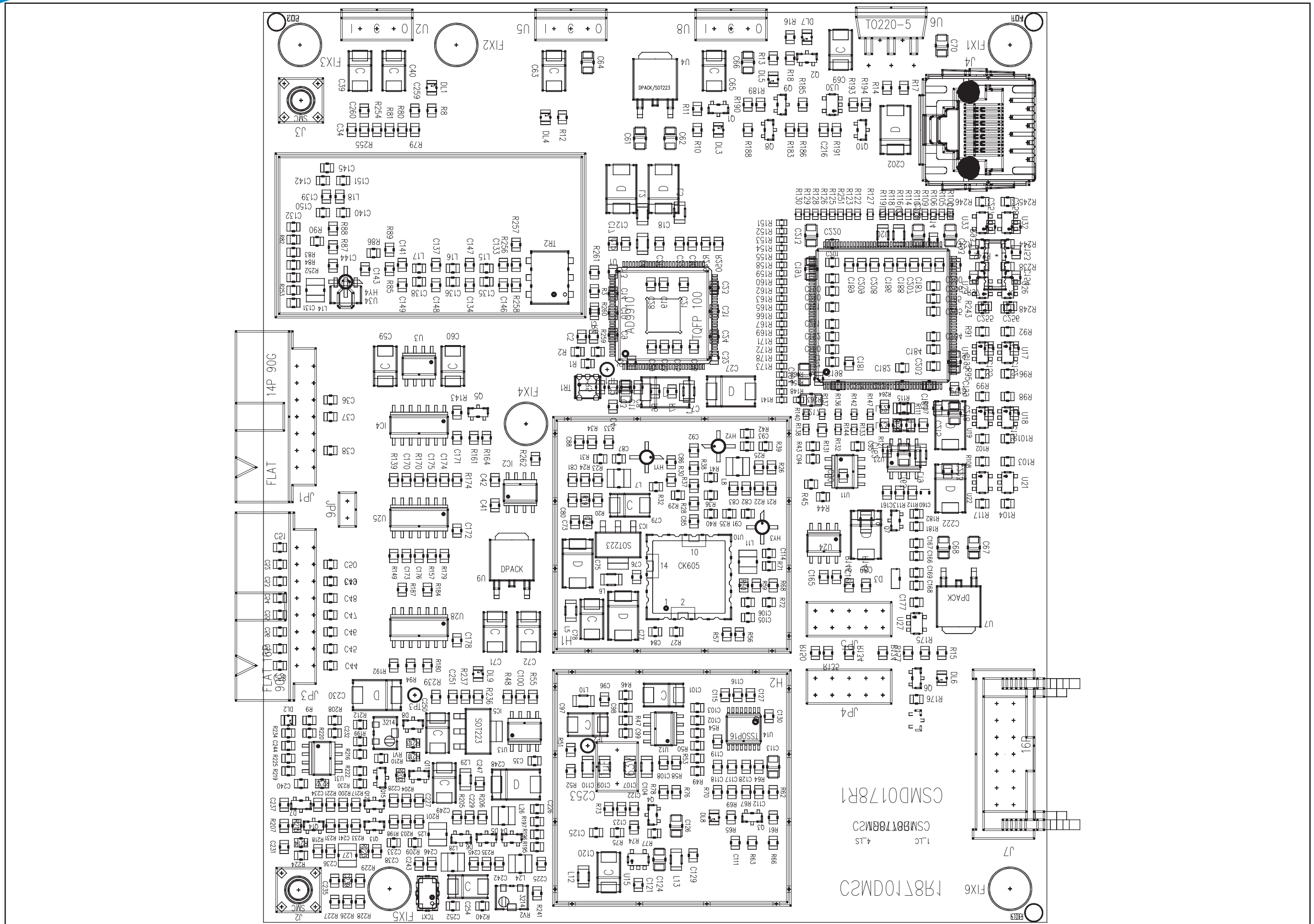


SL034IN1001

Scheda USB Revised: Friday, November 11, 2005
 SL034IN1001 Revision: 1.1
 DDS Exciter
 RVR034
 Tommasi A.

Item	Quantity	Reference	Part	Description
1	1	CN1	USB-B	Conn. Molex USB B 67265
2	1	CS1	CSIN0026R1	Circuito stampato
3	3	C1, C5, C16	10uF/16V	Cond. Elett. SMD d. 4mm
4	10	C2, C3, C4, C6, C7, C8, C9, C10, C15, C17	0,1uF	Cond. SMD 0805
5	1	C11	47nF	Cond. SMD 0805
6	2	C12, C13	27pF	Cond. SMD 0805
7	1	C14	10nF	Cond. SMD 0805
8	2	C18, C19	NC	Cond. Elett. SMD d. 4mm
9	2	C20, C21	NC	Cond. SMD 0805
10	2	D1, D8	LED-Y5	LED dia. 5mm
11	3	D2, D4, D6	LED-R5	LED dia. 5mm
12	3	D3, D5, D7	LED-G5	LED dia. 5mm
13	3	FIX1, FIX2, FIX3	FIX35	Foro fissaggio 3.5mm
14	1	JP1	CN16PD	Connettore 16 poli Flat cs
15	1	L1	10uH	Ind. verticale SMD dia. 4 p 4,8
16	1	R1	470H0	Res. SMD 0805
17	2	R2, R3	27H0	Res. SMD 0805
18	1	R4	1K50	Res. SMD 0805
19	3	R5, R6, R10	0H0	Res. SMD 0805
20	5	R7, R8, R9, R17, R18	NC	Res. SMD 0805
21	8	R11, R12, R13, R14, R15, R16, R19, R20	390H0	Res. SMD 0805
22	1	U1	MAX202S	RS232 Driver SMD SO16
23	1	U2	FT232BM	SMD USB to RS232 interface
24	1	U3	NC	Serial EEPROM SMD
25	1	U4	NC	Stabilizzatroe SMD SO8
26	1	X1	6MHz	Quarzo SMD HC49SMD

SL174MD1001



C5MD0178R1

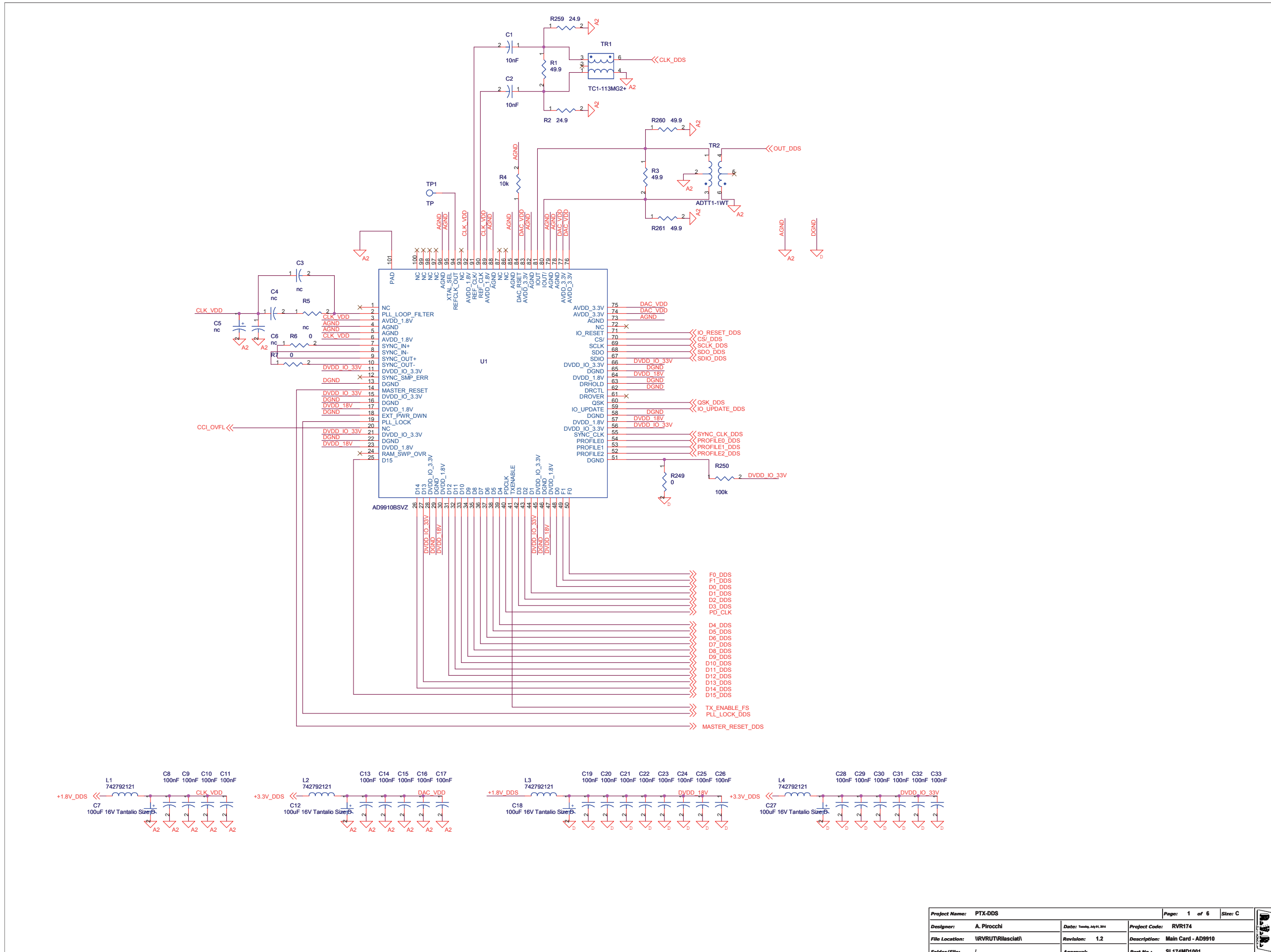
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4LS

1LC

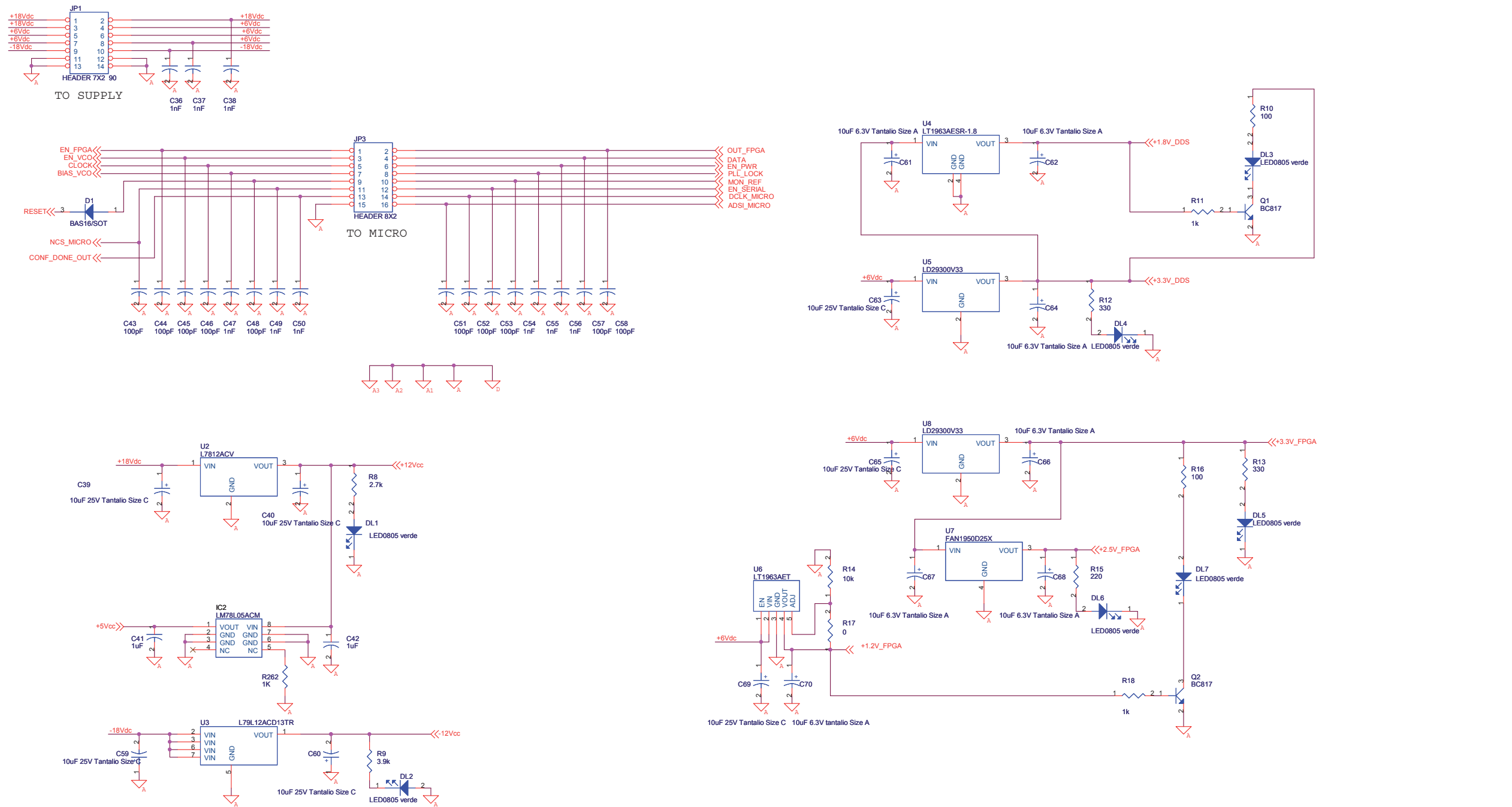
C5MT100M2

SL174MD1001



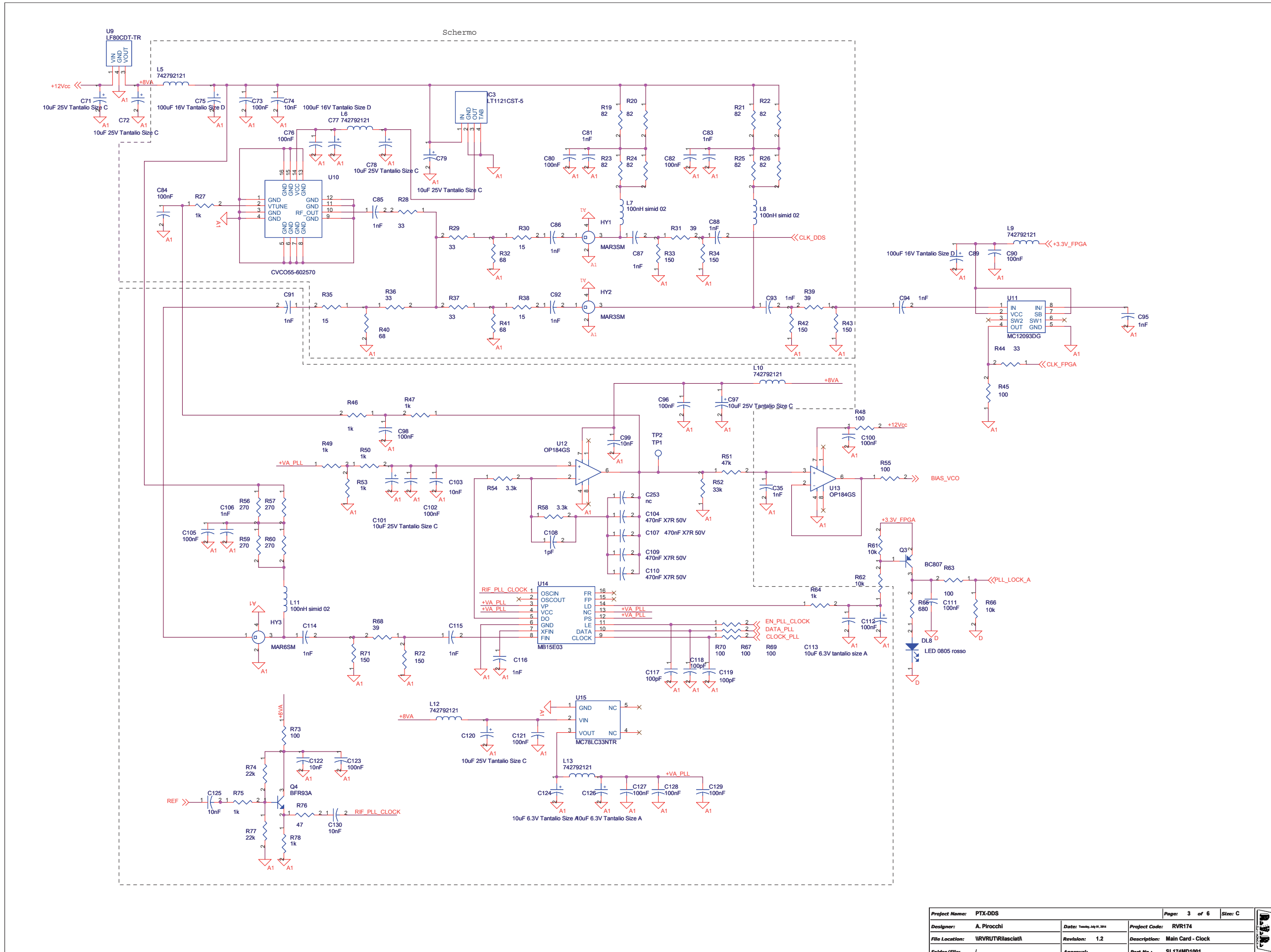
Project Name: PTX-DDS		Page: 1 of 6	Size: C
Designer: A. Pirocchi	Date: 19/09/2011	Project Code: RVR174	
File Location: WVRUTRilasciatl	Revision: 1.2	Description: Main Card - AD9910	
Folder/File: /	Approval:	Part No.: SL174MD1001	

SL174MD1001

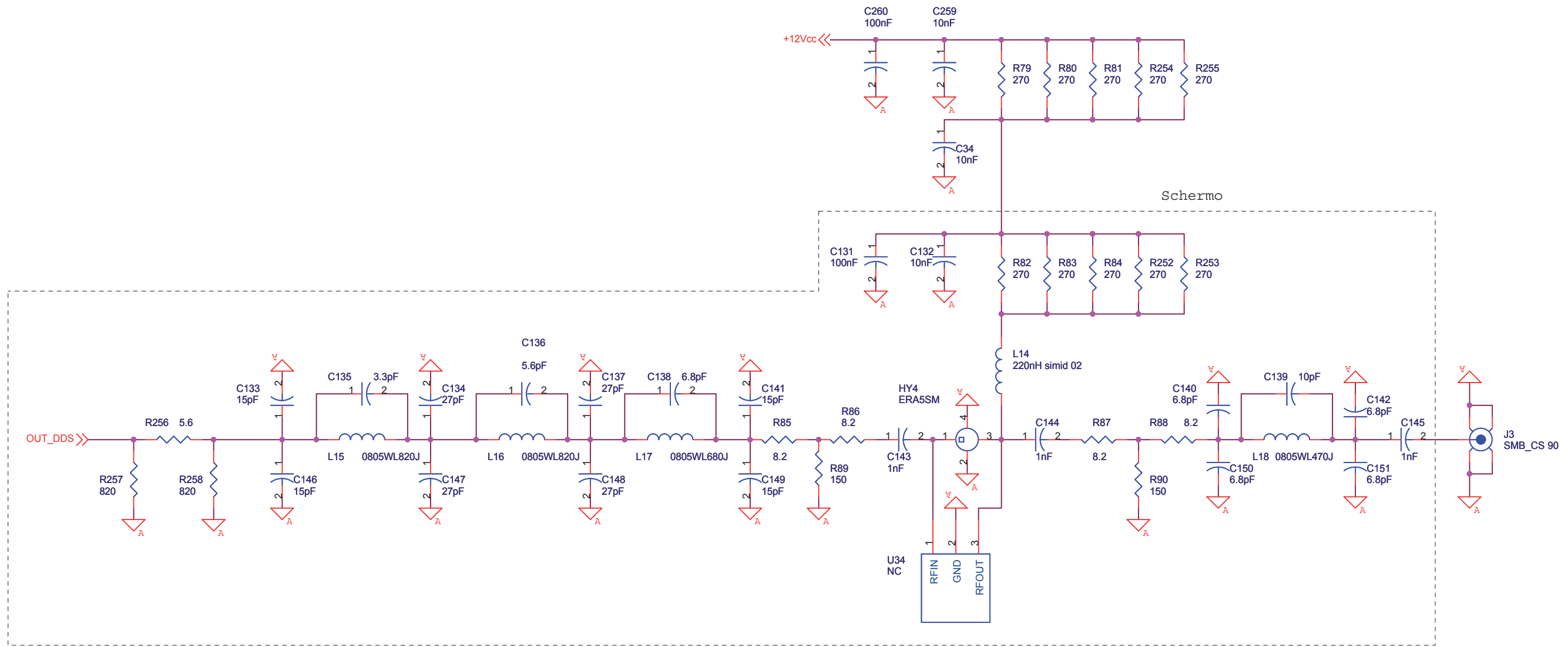


Project Name:	PTX-DDS	Page:	2 of 6	Size:	C
Designer:	A. Pirocchi	Date:	16/07/2016	Project Code:	RVR174
File Location:	WRVRUT\Rilasciat\	Revision:	1.2	Description:	Main Card - Alimentazione
Folder/File:	/	Approval:		Part No.:	SL174MD1001

SL174MD1001

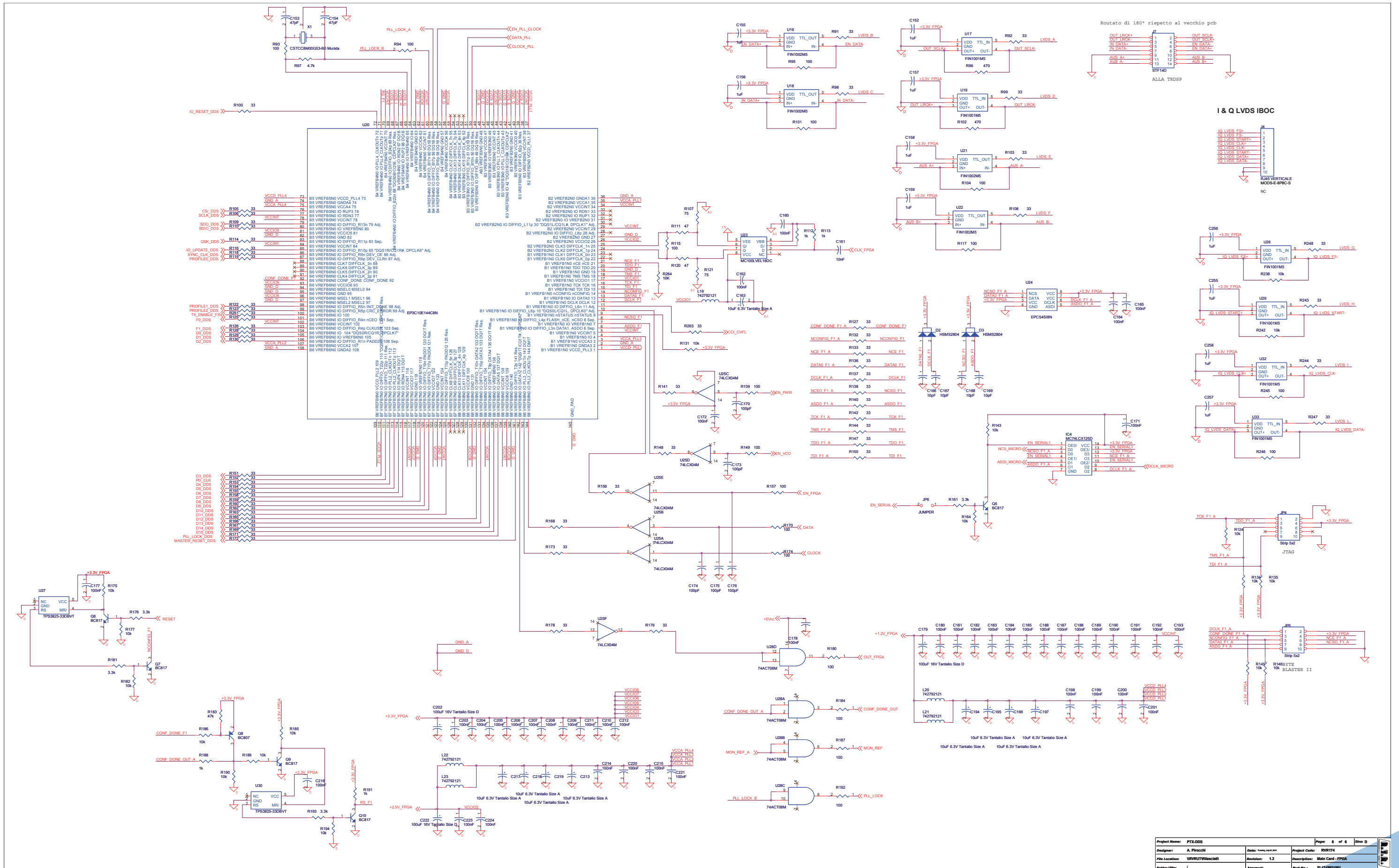


Project Name:	PTX-DDS	Page:	3 of 6	Size:	C
Designer:	A. Pirocchi	Date:	19/11/2014	Project Code:	RVR174
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Folder/File:	/	Approval:		Part No.:	SL174MD1001

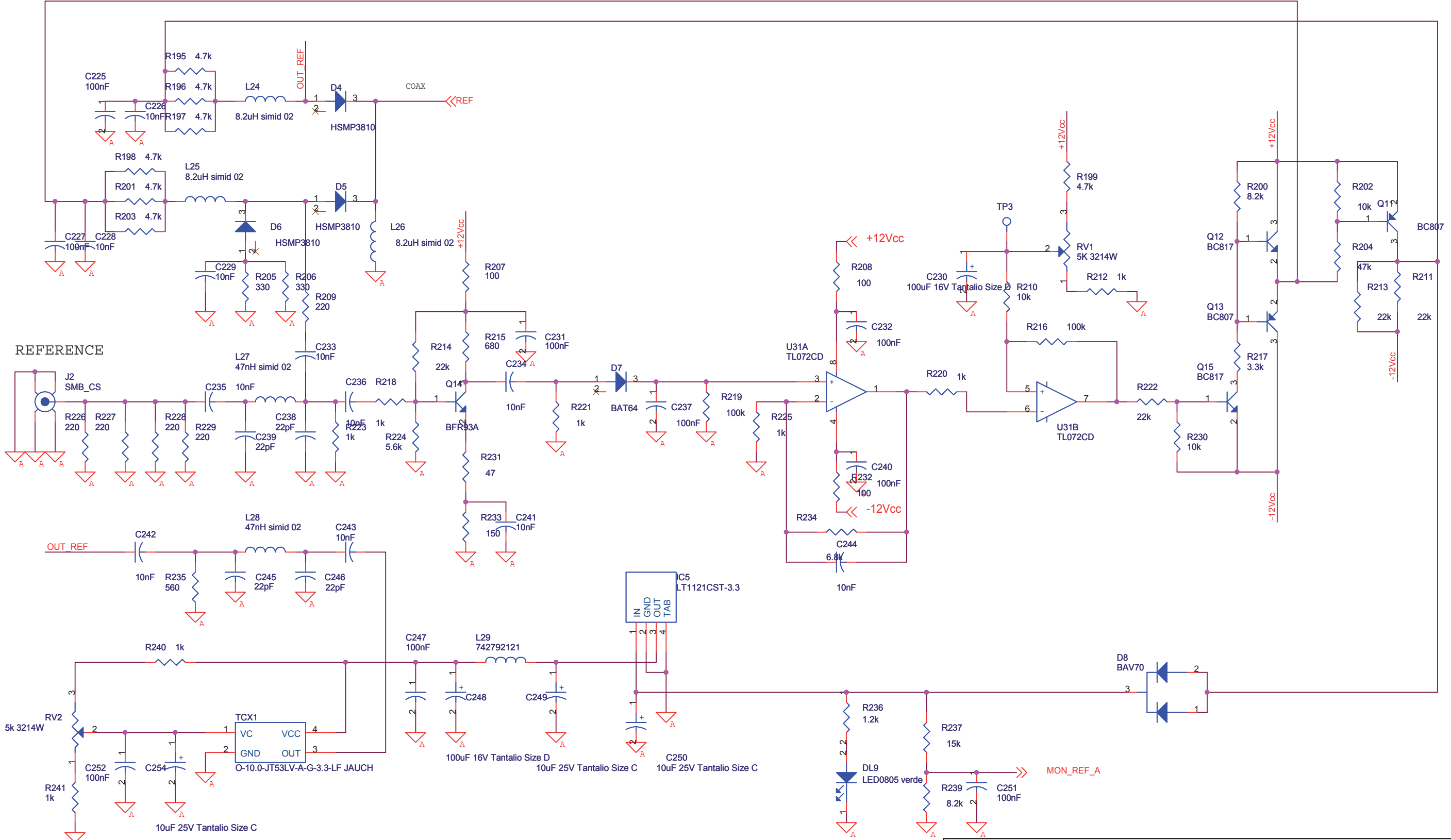


Project Name: PTX-DDS		Page: 4 of 6	Size: B
Designer: A. Pirocchi	Date: Tuesday, July 01, 2014	Project Code: RVR174	
File Location: \\RVRUT\Rilasciat\l	Revision: 1.2	Description: Main Card - Filtro	
Folder/File: /	Approval:	Part No.: SL174MD1001	

SL174MD1001



Project Name:	PTX-DDS	Date:	19/11/16	Page:	8 of 8	Sheet:	D
Designer:	A. Pirocchi	Revision:	1.2	Project Code:	RVR174		
File Location:	HW\RV\PTX\SL174	Appr:		Description:	Main Card - FPGA		
Folder/File:	/	Part No.:	SL174MD1001				



Project Name: PTX-DDS		Page: 6 of 6	Size: B
Designer: A. Pirocchi	Date: Tuesday, July 01, 2014	Project Code: RVR174	
File Location: \\RVR\UT\Relasciat\	Revision: 1.2	Description: Main Card - Riferimento	
Folder/File: /	Approval:	Part No.: SL174MD1001	

SL174MD1001

Main Card - SL174MD1001
 Rev.1.2 Date: 01/07/2014
 PTX-DDS Prg.174
 A. Pirocchi

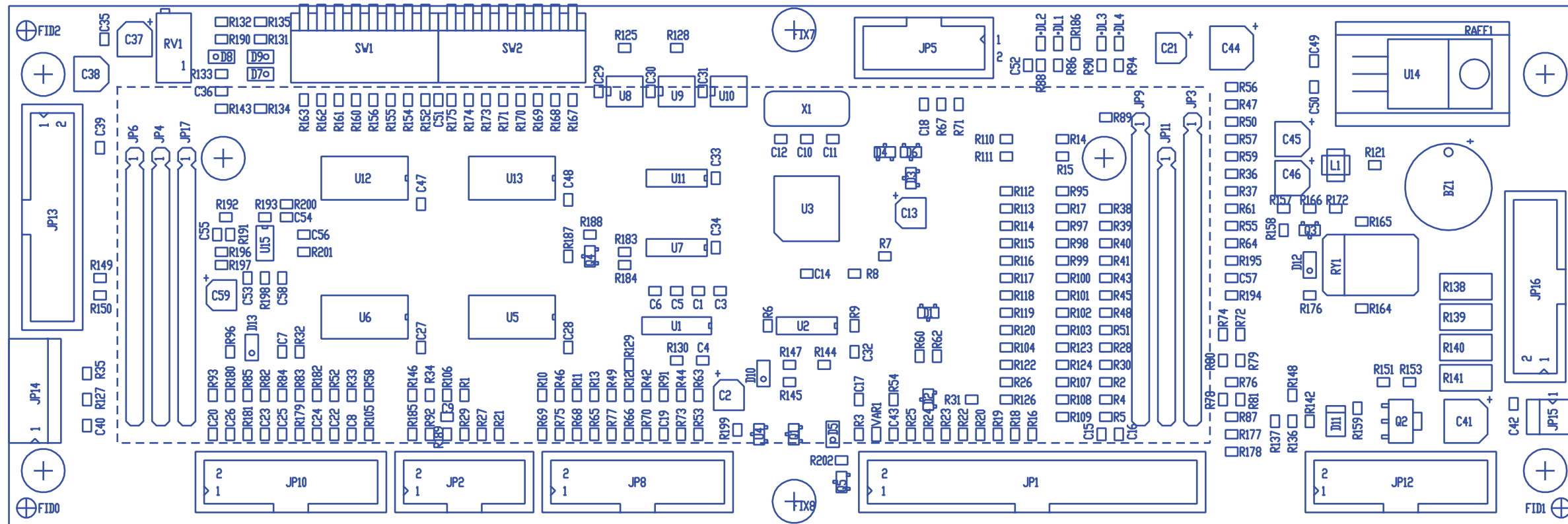
Item	Quantity	Reference	Part
1	23	C1, C2, C34, C74, C99, C103, C122, C125, C130, C132, C161, C226, C228, C229, C233, C234, C235, C236, C241, C242, C243, C244, C259	10nF X7R 50V
2	4	C3, C4, R5, C6	nc
3	1	C5	nc
4	95	C8, C9, C10, C11, C13, C14, C15, C16, C17, C19, C20, C21, C22, C23, C24, C25, C26, C28, C29, C30, C31, C32, C33, C73, C76, C80, C82, C84, C90, C96, C98, C100, C102, C105, C111, C112, C121, C123, C127, C128, C129, C131, C160, C162, C164, C165, C171, C172, C177, C178, C180, C181, C182, C183, C184, C185, C186, C187, C188, C189, C190, C191, C192, C193, C198, C199, C200, C201, C203, C204, C205, C206, C207, C208, C209, C210, C211, C212, C214, C215, C216, C220, C221, C223, C224, C225, C227, C231, C232, C237, C240, C247, C251, C252, C260	100nF X7R 50V
5	28	C35, C36, C37, C38, C47, C49, C50, C54, C55, C56, C81, C83, C85, C86, C87, C88, C91, C92, C93, C94, C95, C106, C114, C115, C116, C143, C144, C145	1nF COG 50V
6	17	C39, C40, C59, C60, C63, C65, C69, C71, C72, C78, C79, C97, C101, C120, C249, C250, C254	10uF 25V Tantalio Size C
7	12	C41, C42, C152, C155, C156, C157, C158, C159, C255, C256, C257, C258	1uF X7R 25V
8	18	C43, C44, C45, C46, C48, C51, C52, C53, C57, C58, C117, C118, C119, C170, C173, C174, C175, C176	100pF COG 50V
9	19	C61, C62, C64, C66, C67, C68, C70, C113, C124, C126, C163, C194, C195, C196, C197, C213, C217, C218, C219	10uF 6.3V Tantalio Size A
10	12	C7, C12, C18, C27, C75, C77, C89, C179, C202, C222, C230, C248	100uF 16V Tantalio Size D
11	4	C104, C107, C109, C110	470nF X7R 50V
12	1	C108	1pF COG 50V
13	4	C133, C141, C146, C149	15pF COG 50V
14	4	C134, C137, C147, C148	27pF COG 50V
15	1	C135	3.3pF COG 50V
16	1	C136	5.6pF COG 50V
17	5	C138, C140, C142, C150, C151	6.8pF COG 50V
18	5	C139, C166, C167, C168, C169	10pF COG 50V
19	2	C153, C154	47pF COG 50V
20	4	C238, C239, C245, C246	22pF COG 50V
21	1	C253	nc
22	8	DL1, DL2, DL3, DL4, DL5, DL6, DL7, DL9	LED0805 verde
23	1	DL8	LED 0805 rosso
24	1	D1	BAS16/SOT
25	2	D2, D3	HSMS2804
26	3	D4, D5, D6	HSMP3810
27	1	D7	BAT64
28	1	D8	BAV70
29	2	HY1, HY2	MAR3SM
30	1	HY3	MAR6SM
31	1	HY4	ERASSM
32	1	IC2	LM78L05ACM
33	1	IC3	LT1121CST-5
34	1	IC4	MC74LCX125D
35	1	IC5	LT1121CST-3.3
36	1	JP1	HEADER 7X2 90 con fermaflat
37	1	JP3	HEADER 8X2 90 con fermaflat
38	2	JP4, JP5	Strip 5x2
39	1	JP6	JUMPER
40	1	J2	SMB_CS 90
41	1	J3	SMB_CS 90

Item	Quantity	Reference	Part
42	1	J4	NC
43	1	J7	HEADER 5X2 con fermaflat
44	16	L1, L2, L3, L4, L5, L6, L9, L10, L12, L13, L19, L20, L21, L22, L23, L29	742792121
46	3	L7, L8, L11	100nH simid 02
47	1	L14	220nH simid 02
48	2	L15, L16	0805WL820J
49	1	L17	0805WL680J
59	1	L18	0805WL470J
51	3	L24, L25, L26	8.2uH simid 02
52	2	L27, L28	47nH simid 02
53	9	Q1, Q2, Q5, Q6, Q7, Q9, Q10, Q12, Q15	BC817
54	4	Q3, Q8, Q11, Q13	BC807
55	2	Q4, Q14	BFR93A
57	2	RV1, RV2	5k 3214W
58	4	R1, R3, R260, R261	49.9
59	2	R2, R259	24.9
60	27	R4, R14, R61, R62, R66, R124, R131, R134, R135, R143, R145, R146, R164, R175, R177, R182, R185, R186, R189, R190, R194, R202, R210, R230, R238, R242, R264	10K
	2	R96, R102	470
61	4	R6, R7, R17, R249	0
62	1	R8	2.7k
63	1	R9	3.9k
64	31	R10, R16, R45, R48, R55, R63, R67, R69, R70, R73, R93, R94, R95, R101, R104, R115, R117, R139, R149, R157, R170, R174, R180, R184, R187, R192, R207, R208, R232, R245, R246	100
65	24	R11, R18, R27, R46, R47, R49, R50, R53, R64, R75, R78, R112, R113, R188, R191, R212, R218, R220, R221, R223, R225, R240, R241, R262	1K
66	4	R12, R13, R205, R206	330
67	6	R15, R209, R226, R227, R228, R229	220
68	8	R19, R20, R21, R22, R23, R24, R25, R26	82
69	17	R28, R29, R36, R37, R44, R91, R92, R98, R99, R103, R108, R150, R179, R243, R244, R247, R248	33
70	3	R30, R35, R38	15
71	3	R31, R39, R68	39
72	3	R32, R40, R41	68
73	9	R33, R34, R42, R43, R71, R72, R89, R90, R233	150
74	3	R51, R183, R204	47k
75	1	R52	33k
76	7	R54, R58, R161, R176, R181, R193, R217	3.3k
77	14	R56, R57, R59, R60, R79, R80, R81, R82, R83, R84, R252, R253, R254, R255	270
78	2	R65, R215	680
79	6	R74, R77, R211, R213, R214, R222	22k
80	4	R76, R111, R120, R231	47
81	4	R85, R86, R87, R88	8.2
82	8	R97, R195, R196, R197, R198, R199, R201, R203	4.7k
83	50	R100, R105, R106, R109, R110, R114, R116, R118, R119, R122, R123, R125, R126, R127, R128, R129, R130, R132, R133, R136, R137, R138, R140, R141, R142, R144, R147, R148, R151, R152, R153, R154, R155, R156, R158, R159, R160, R162, R163, R165, R166, R167, R168, R169, R171, R172, R173, R178, R251, R263	33
84	2	R107, R121	75
85	3	R216, R219, R250	100k
86	1	R224	5.6k
87	1	R234	6.8k
88	1	R235	560
89	1	R236	1.2k
90	1	R237	15k
91	2	R239, R200	8.2k

SL174MD1001

Item	Quantity	Reference	Part
92	1	R256	5.6
93	2	R257, R258	820
94	1	TCX1	O-10.0-JT53LV-A-G-3.3-LF JAUCH
95	2	TP1, TP3	TP
96	1	TP2	TP1
97	1	TR1	TC1-113MG2+
98	1	TR2	ADTT1-1WT
99	1	U1	AD9910BSVZ
100	1	U2	L7812ACV
101	1	U3	L79L12ACD13TR
102	1	U4	LT1963AESR-1.8
103	2	U5, U8	LD29300V33
104	1	U6	LT1963AET
105	1	U7	FAN1950D25X
106	1	U9	LF80CDT-TR
107	1	U10	CVCO55-602570
108	1	U11	MC12093DG
109	2	U12, U13	OP184GS
110	1	U14	MB15E03
111	1	U15	MC78LC33NTR
112	4	U16, U18, U21, U22	FIN1002M5
113	6	U17, U19, U26, U29, U32, U33	FIN1001M5
114	1	U20	EP3C10E144C8N
115	1	U23	MC100LVEL16DC
116	1	U24	EPCS4S18N
117	1	U25	74LCX04M
118	2	U27, U30	TPS3825-33DBVT
119	1	U28	74ACT08M
120	1	U31	TL072CD
121	1	U34	NC
122	1	X1	CSTCC8M00G53-B0 Murata
128	1	CS	CSMD0178R1
129	2	Schermo + coperchio	BOXVCO110 + COBVCO110
130	1	Schermo + coperchio	SCHMD174

SLPC0025R05V01



NOME PROGETTO: DDS EXCITER

AUTORE: A. TOMMASI

ARCHIVIAZIONE ELETTRONICA: "RVRUT"

NOME PARTE: PANEL CARD DDS

DATA: 16/12/15

STATO: ESECUTIVO

REVISIONE: 1.0

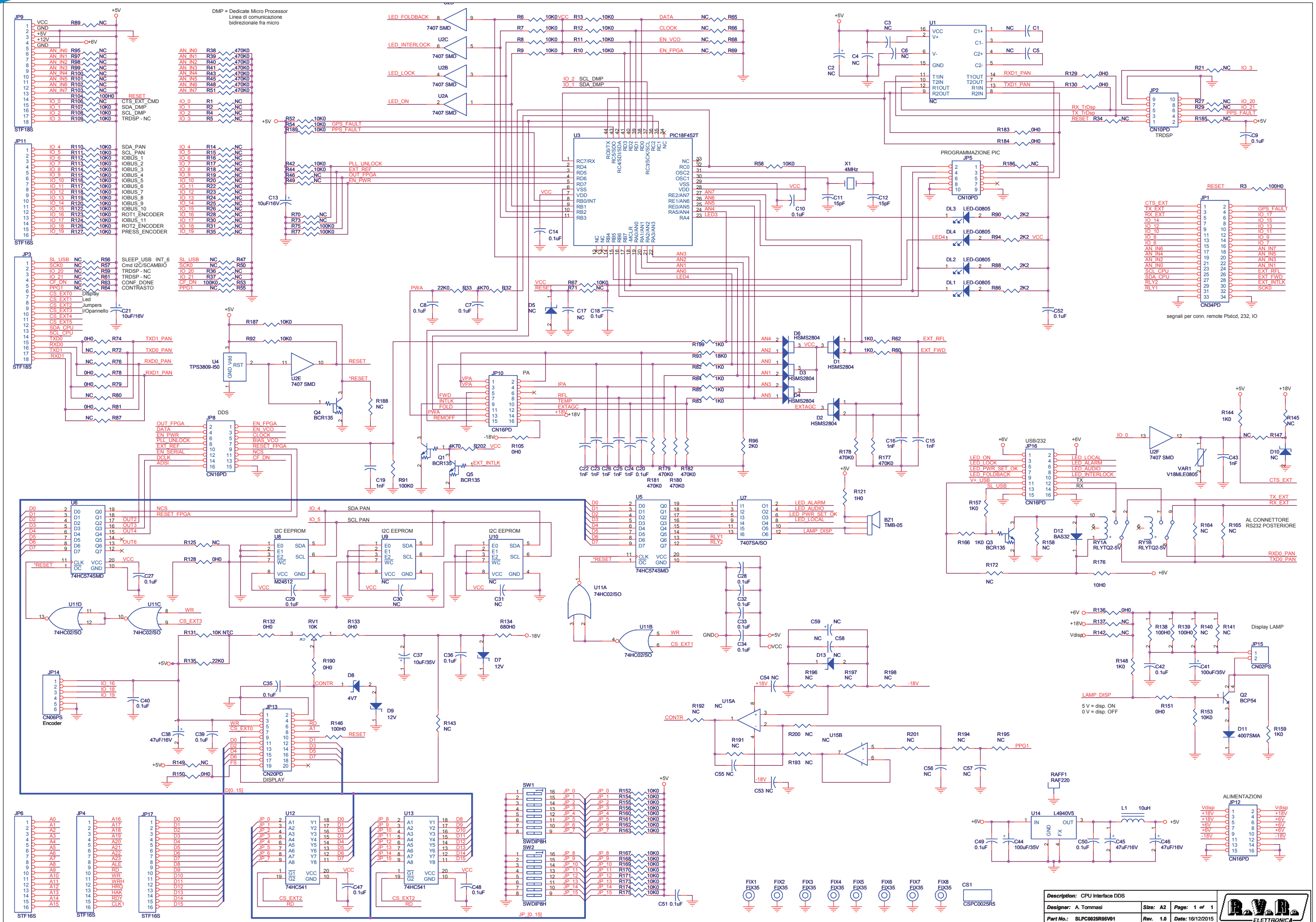
SCALA: 1:1

SIZE: A4

PAGINA: 1 DI 1

CODICE DISEGNO: SLPC0025R05V01

SLPC0025R05V01



Description: CPU Interface DDS		Designer: A. Tommasi		Size: A2		Page: 1 of 1	
Part No.: SLPC0025R05V01		Rev. 1.0		Date: 16/12/2015		R.V.R. ELETTRONICA	

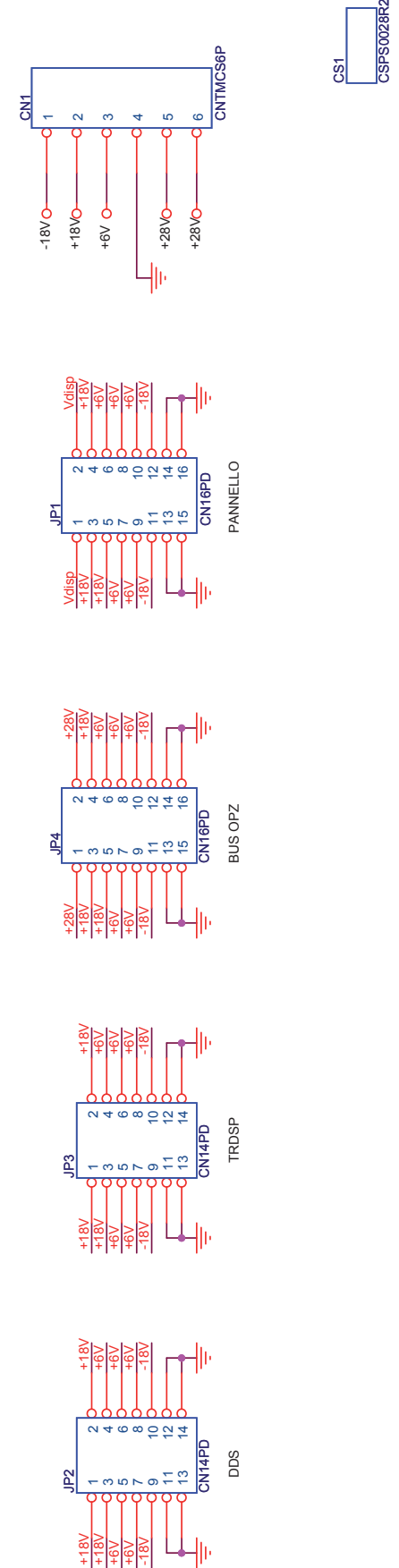
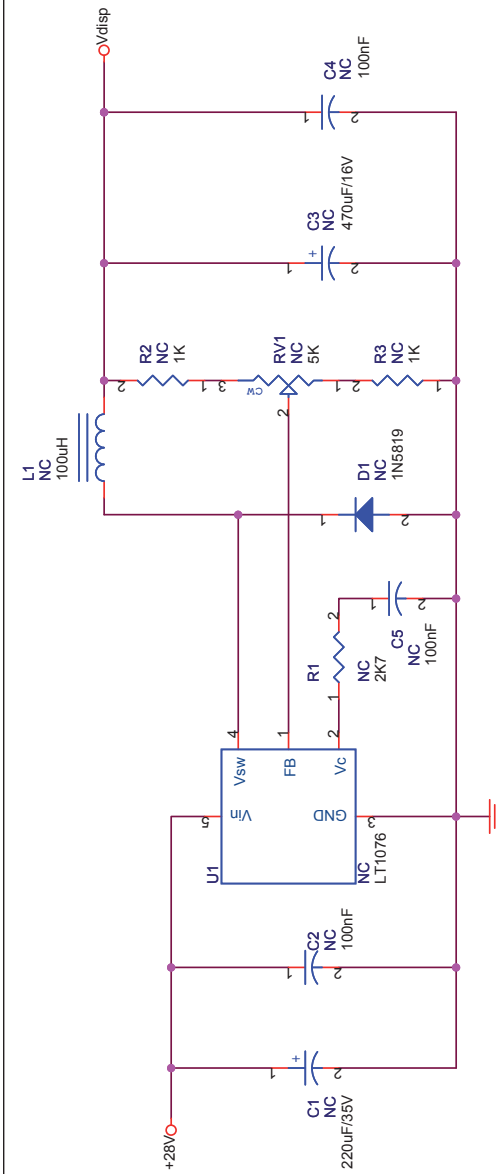
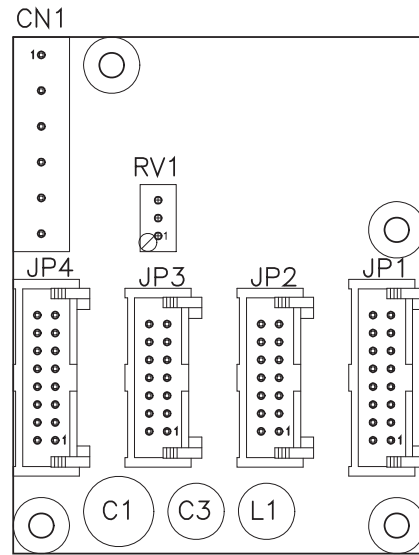
SLPC0025R05V01

CPU Interface Revised:16/12/2015
 SLPC0025R05V01 Revision: 1.0
 A. Tommasi

Item	Quantity	Reference	Part	Description
1	1	BZ1	TMB-05	Buzzer TMB-05
2	1	CS1	CSPC0025R5	Circuito stampato
3	24	C7,C8,C9,C10,C14,C18, C20,C27,C28,C29,C32,C33, C34,C35,C36,C39,C40,C42, C47,C48,C49,C50,C51,C52	0.1uF	Cond. SMD 0805
4	2	C13,C21	10uF/16V	Cond. Elett. SMD d. 4mm
5	2	C11,C12	15pF	Cond. SMD 0805
6	9	C15,C16,C19,C22,C23,C24, C25,C26,C43	1nF	Cond. SMD 0805
7	14	C17,C30,C31,C53,C54,C55, C56,C57,C58,C1,C3,C4,C5,C6	NC	Cond. SMD 0805
8	1	C37	10uF/35V	Cond. Elett. SMD d. 5mm
9	3	C38,C45,C46	47uF/16V	Cond. Elett. SMD d. 5mm
10	2	C41,C44	100uF/35V	Cond. Elett. SMD d. 6.3mm
11	2	C2,C59	NC	Cond. Elett. SMD d. 4mm
12	4	DL1,DL2,DL3,DL4	LED-G0805	LED SMD 0805
13	5	D1,D2,D3,D4,D6	HSMS2804	Doppio Diodo SMD SOT23
14	3	D5,D10,D13	NC	MINIMELF SMD Zener Diode
15	2	D7,D9	12V	MINIMELF SMD Zener Diode
16	1	D8	4V7	MINIMELF SMD Zener Diode
17	1	D11	4007SMA	Diodo SMD cont. SMA
18	1	D12	BAS32	MINIMELF SMD Diode
19	8	FIX1,FIX2,FIX3,FIX4,FIX5, FIX6,FIX7,FIX8	FIX35	Foro fissaggio 3.5mm
20	1	JP1	CN34PD	Connettore 34 poli Flat cs
21	2	JP2,JP5	CN10PD	Connettore 10 poli Flat cs
22	2	JP3,JP9	STF18S	Strip femmina 18 pin
23	4	JP4,JP6,JP11,JP17	STF16S	Strip femmina 16 pin
24	4	JP8,JP10,JP12,JP16	CN16PD	Connettore 16 poli Flat cs
25	1	JP13	CN20PD	Connettore 20 poli Flat cs
26	1	JP14	CN06PS	Connettore 6 poli Panduit
27	1	JP15	CN02PS	Connettore 2 poli Panduit
28	1	L1	10uH	Ind. verticale SMD dia. 4 p 4.8
29	4	Q1,Q3,Q4,Q5	BCR135	Trans./Res. NPN SOT23
30	1	Q2	BCP54	Trans. PNP SOT223
31	1	RAFF1	RAF220	Dissipatore TO220
32	1	RV1	10K	Trimmer Rg H 3296X
33	1	RY1	RLYTQ2-5V	Rele' TQ2
34	82	R1,R2,R4,R5,R14,R15,R16, R17,R18,R19,R20,R21,R22, R23,R24,R25,R26,R27,R28, R29,R30,R31,R34,R35,R36, R37,R46,R47,R49,R50,R55, R56,R57,R59,R61,R63,R64, R65,R66,R68,R69,R70,R71, R72,R73,R76,R80,R87,R89, R95,R97,R98,R99,R100, R101,R102,R103,R106,R125, R137,R142,R143,R145,R147, R149,R158,R164,R165,R172, R185,R186,R188,R191,R192, R193,R194,R195,R196,R197, R198,R200,R201	NC	Res. SMD 0805 1%
35	3	R3,R104,R146	100H0	Res. SMD 0805 1%
36	53	R6,R7,R8,R9,R10,R11,R12, R13,R42,R44,R52,R54,R58, R67,R92,R107,R108,R109,	10K0	Res. SMD 0805 1%

		R110,R111,R112,R113,R114, R115,R116,R117,R118,R119, R120,R122,R123,R124,R126, R127,R152,R153,R154,R155, R156,R160,R161,R162,R163, R167,R168,R169,R170,R171, R173,R174,R175,R187,R189		
37	2	R32,R202	4K70	Res. SMD 0805 1%
38	2	R33,R135	22K0	Res. SMD 0805 1%
39	14	R38,R39,R40,R41,R43,R45, R48,R51,R177,R178,R179, R180,R181,R182	470K0	Res. SMD 0805 1%
40	4	R53,R75,R77,R91	100K0	Res. SMD 0805 1%
41	12	R60,R62,R82,R83,R84,R85, R144,R148,R157,R159,R166, R199	1K0	Res. SMD 0805 1%
42	16	R74,R78,R79,R81,R105, R128,R129,R130,R132,R133, R136,R150,R151,R183,R184, R190	0H0	Res. SMD 0805 1%
43	4	R86,R88,R90,R94	2K2	Res. SMD 0805 1%
44	1	R93	18K0	Res. SMD 0805 1%
45	1	R96	2K0	Res. SMD 0805 1%
46	1	R121	1H0	Res. SMD 0805 1%
47	1	R131	10K NTC	Res. SMD 0805 1%
48	1	R134	680H0	Res. SMD 0805 1%
49	2	R138,R139	100H0	Res. SMD 2512 1%
50	2	R140,R141	NC	Res. SMD 2512 1%
51	1	R176	10H0	Res. SMD 0805 1%
52	2	SW1,SW2	SWDIP8H	Dip switch 8 vie orizz.
53	1	U1	NC	RS232 Driver SMD SO16
54	1	U2	7407 SMD	Hex buffer OC SMD SO14
55	1	U3	PIC18F452T	TQFP44 SMD Microprocessor
56	1	U4	TPS3809-I50	uP supply supervisor
57	2	U5,U6	74HC574SMD	Octal Latch SMD
58	1	U7	7407SA/SO	Hex buffer OC SMD SO14
59	1	U8	M24512	IIC Bus 512Kb EEPROM
60	2	U9,U10	NC	IIC Bus 512Kb EEPROM
61	1	U11	74HC02/SO	Quad NOR SMD SO14
62	2	U12,U13	74HC541	Octal buffer SMD
63	1	U14	L4940V5	Stabilizzatore TO220
64	1	U15	NC	Dual Op. SMD SO8
65	1	VAR1	V18MLE0805	ESD SMD protector
66	1	X1	4MHz	Quarzo SMD HC49SMD

SL034PS1002



	NOME PROGETTO: DDS EXCITER	NOME PARTE: SCHEDA DISTRIBUTORE ALIMENTAZIONI	
	AUTORE: \UTSRV	DATA: 20/06/2005	REVISIONE: 1.0
ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UTSRV"	CODICE PROGETTO: 034	CODICE DISEGNO: SL034PS1002	
MATERIALE: <>	TRATTAMENTO: <>	PROFILO: <>	STATO: PROGETTUALE

Nome Progetto: DDS Exciter		Pagina: 1 di 1		Size: A4	
Autore: Thi F.		Data: 17/03/2006		Codice Progetto: 034	
Nome PC in Rete: \UTSRV\		Revisione: 1.1		Nome Parte: Distributore alimentazioni	
File/Caratteri: *		Autorizzazione:		Codice: SL034PS1002	

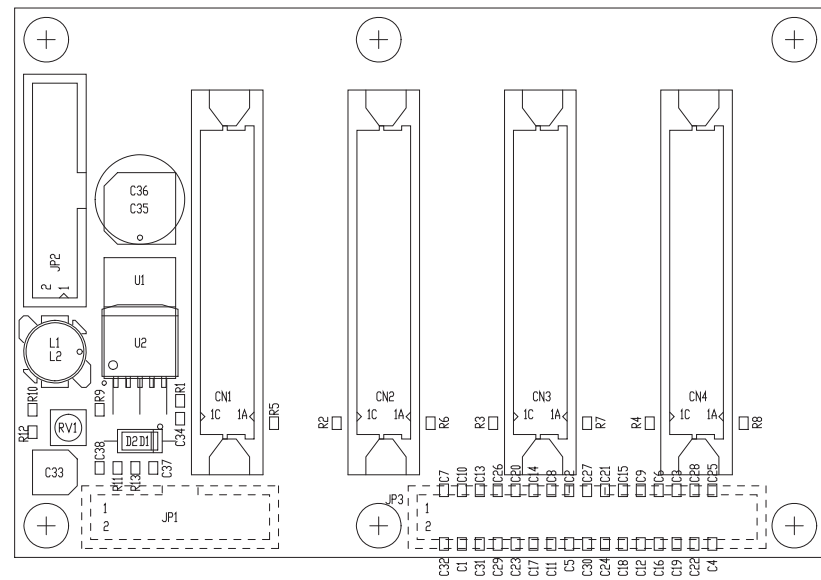


SL034PS1002

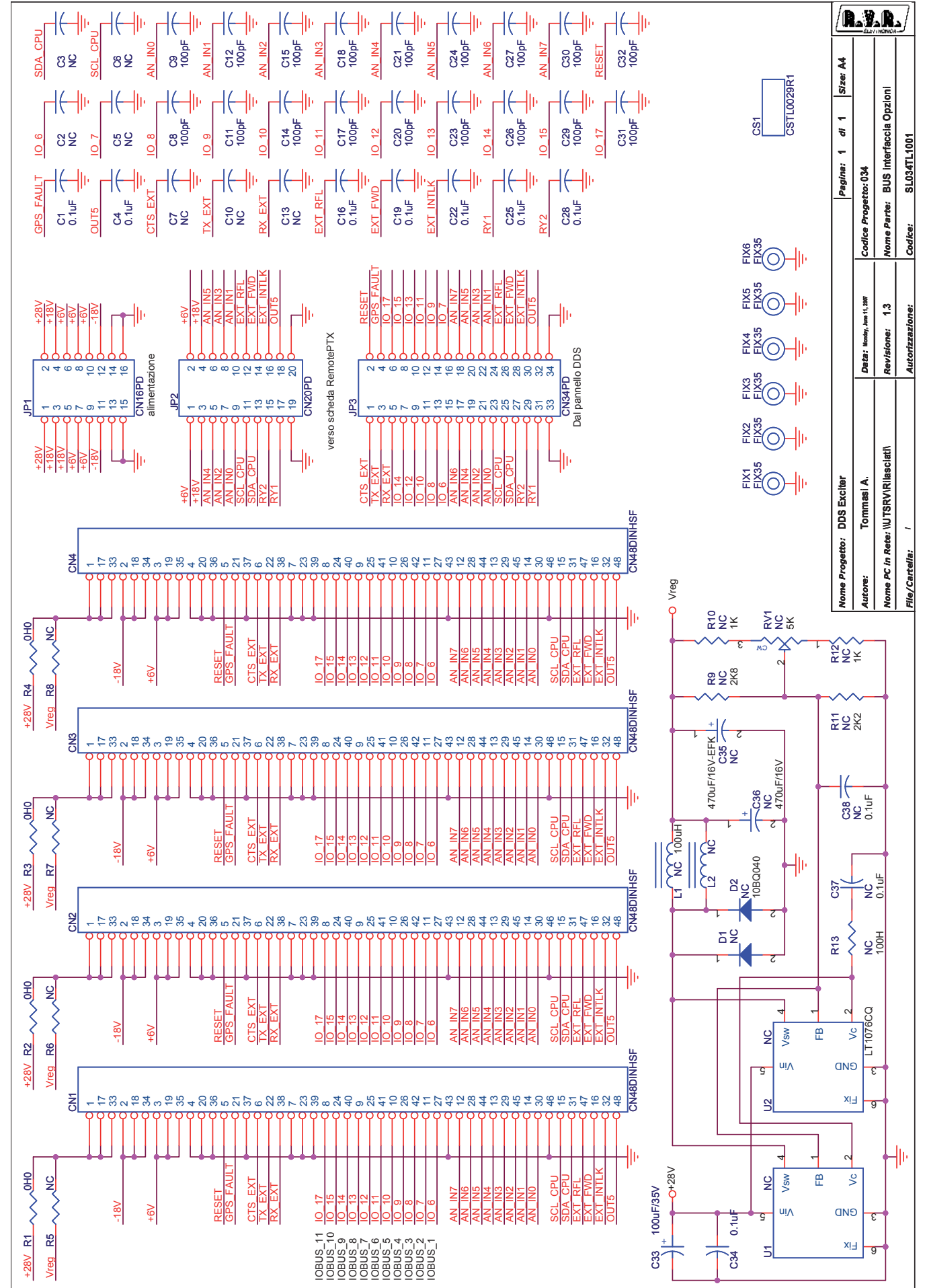
Revisione:1.1 Data: 17/03/2006
Scheda distribuzione alimentazioni

Item	Quantity	Reference	Part	Description
1	1	CN1	CNTMCS6P	Conn. Phoenix 6 poli
2	1	CS1	CSPS0028R2	Circuito stampato
3	1	C1	NC	Cond. Elettr. Dia 10 P5.08
4	3	C2, C4, C5	NC	Cond. Poliestere p 5mm
5	1	C3	NC	Cond. Elettr. Dia 8 P3
6	1	D1	NC	Diodo plastico DO41
7	4	FIX1, FIX2, FIX3, FIX4	FIX35	Foro fissaggio 3.5mm
8	2	JP4, JP1	CN16PD	Connettore 16 poli Flat cs
9	2	JP2, JP3	CN14PD	Connettore 14 poli Flat cs
10	1	L1	NC	Ind. verticale dia. 8 p 5
11	1	RV1	NC	Trimmer Rg V 3296W
12	1	R1	NC	Res. 1/4W 5%
13	2	R2, R3	NC	Res. 1/4W 5%
14	1	U1	NC	Regolatore switching

SL034TL1001



	NOME PROGETTO: DDS EXCITER	NOME PARTE: SCHEDA PANNELLO DISTRIBUZIONE TLM
	AUTORE: F. THEI	DATA: 20/06/2005 REVISIONE: 1.0 SCALA: 1:1 SIZE: A4 PAGINA: 1 DI 1
ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UTSRV"	CODICE PROGETTO: 034	CODICE DISEGNO: SL034TL1001
MATERIALE: <>	TRATTAMENTO: <>	PROFILO: <>
		STATO: PROGETTUALE



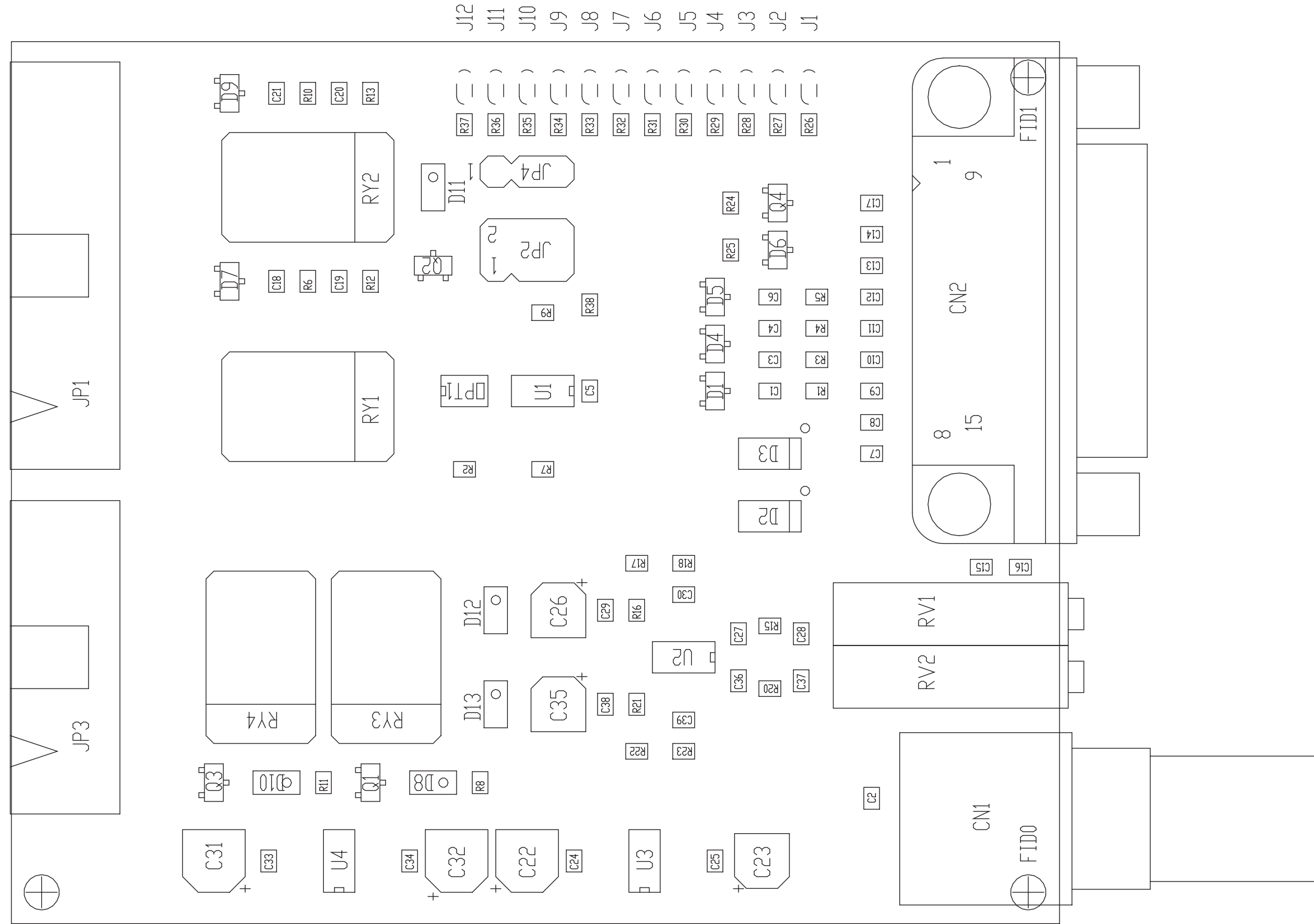
SL034TL1001

BUS interfaccia Opzioni Revised: 11/06/2007
 SL034TL1001 Revision: 1.3

DDS Exciter
 034

Tommasi A.

Item	Quantity	Reference	Part	Description
1	4	CN1, CN2, CN3, CN4	CN48DINH5F	Connettore F 48 poli DIN cs
2	1	CS1	CSTL0029R1	Circuito stampato
3	8	C1, C4, C16, C19, C22, C25, C28, C34	0.1uF	Cond. SMD 0805
4	18	C8, C9, C11, C12, C14, C15, C17, C18, C20, C21, C23, C24, C26, C27, C29, C30, C31, C32	100pF	Cond. SMD 0805
5	9	C2, C5, C3, C6, C7, C10, C13, C37, C38	NC	Cond. SMD 0805
6	1	C33	100uF/35V	Cond. Elett. SMD d. 6.3mm
7	1	C35	NC	Cond. Elett. SMD d. 10mm
8	1	C36	NC	Cond. Elett. Dia 13 P5.08
9	1	D1	NC	Diode plastico DO41
10	1	D2	NC	MELF SMD Diode
11	6	FIX1, FIX2, FIX3, FIX4, FIX5, FIX6	FIX35	Foro fissaggio 3.5mm
12	1	JP1	CN16PD	Connettore 16 poli Flat cs
13	1	JP2	CN20PD	Connettore 20 poli Flat cs
14	1	JP3	CN34PD	Connettore 34 poli Flat cs
15	1	L1	NC	Induttanza EPCOS B82464-A4 10mmx10mm
16	1	L2	NC	Ind. verticale dia. 8 p 5
17	1	RV1	NC	Trimmer SMD
18	4	R1, R2, R3, R4	0H0	Res. SMD 0805
19	9	R5, R6, R7, R8, R9, R10, R11, R12, R13	NC	Res. SMD 0805
20	1	U1	NC	Regolatore switching
21	1	U2	NC	Regolatore switching SMD



NOME PROGETTO: DDS EXCITER
AUTORE: TOMMASI

NOME PARTE: SCHEDA INTERFACCIA REMOTE
DATA: 11/11/2005 REVISIONE: 1.0 SCALA: 1:1 SIZE: A4 PAGINA: 1 DI 1

ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UTSRV" CODICE PROGETTO: 034

CODICE DISEGNO: SL034IN2002

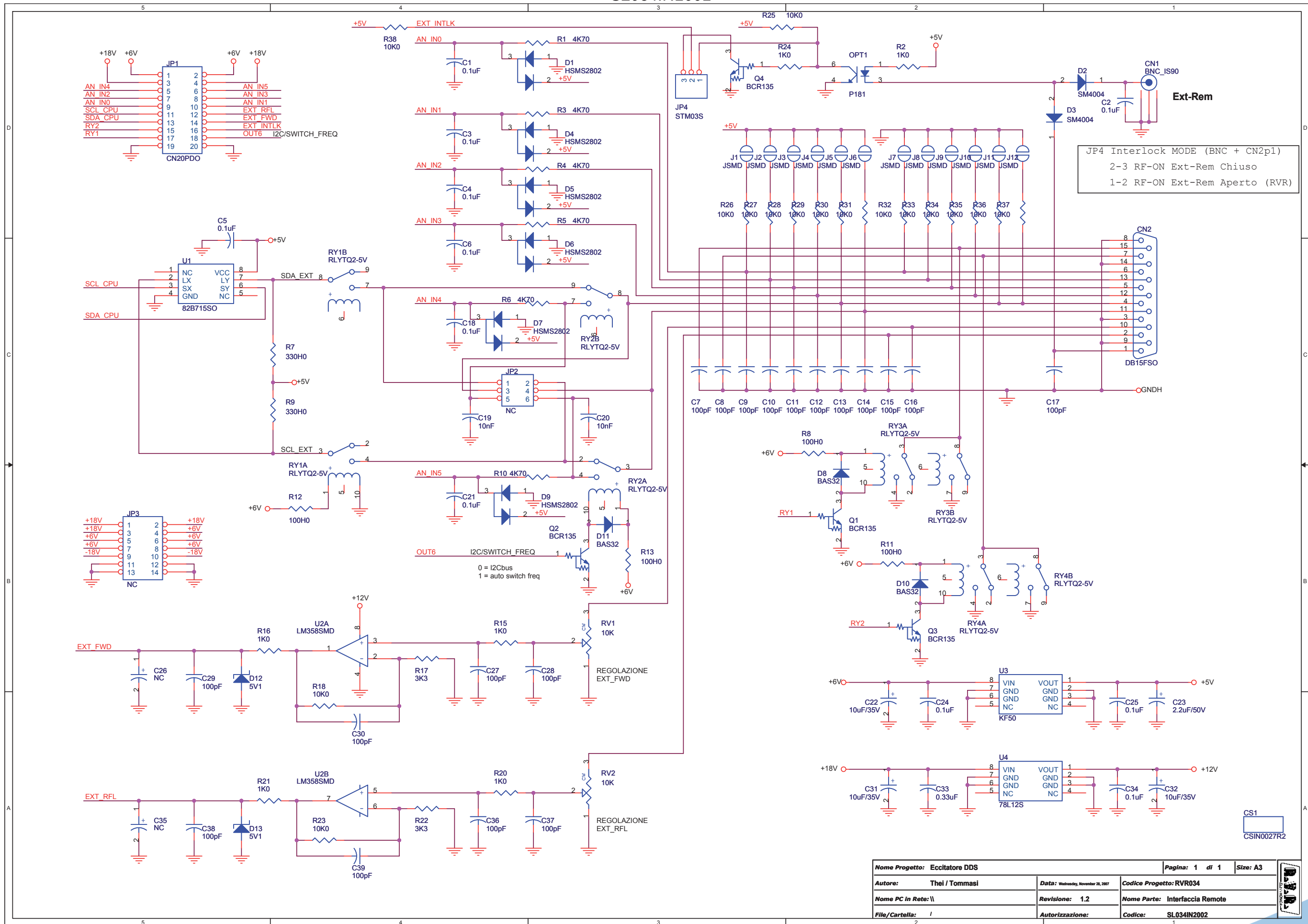
MATERIALE: <>

TRATTAMENTO: <>

PROFILO: <>

STATO: PROGETTUALE

SL034IN2002



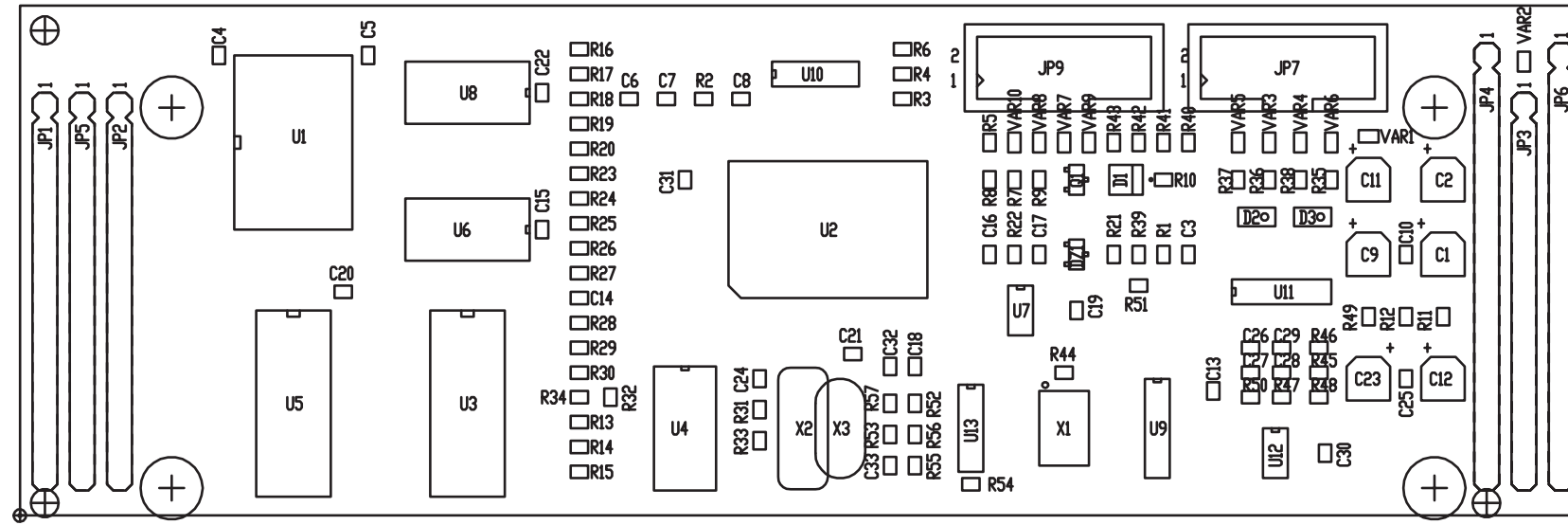
Nome Progetto: Eccitatore DDS		Pagina: 1 di 1		Size: A3
Autore: Thei / Tommasi	Data: Wednesday, November 28, 2007	Codice Progetto: RVR034		
Nome PC in Rete: \\	Revisione: 1.2	Nome Parte: Interfaccia Remota		
File/Cartella: /	Autorizzazione:	Codice: SL034IN2002		

SL034IN2002

Interfaccia Remote Revised: Monday, September 18, 2006
 SL034IN2002 Revision: 1.2
 Eccitatore DDS
 RVR034
 Thei / Tommasi

Item	Quantity	Reference	Part	Description
1	1	CN1	BNC_IS90	Connettore BNC metallico 90°
2	1	CN2	DB15FSO	Connettore DB15 femm. cs 90°
3	1	CS1	CSIN0027R2	Circuito stampato
4	11	C1,C2,C3,C4,C5,C6,C18, C21,C24,C25,C34	0.1uF	Cond. SMD 0805
5	19	C7,C8,C9,C10,C11,C12,C13, C14,C15,C16,C17,C27,C28, C29,C30,C36,C37,C38,C39	100pF	Cond. SMD 0805
6	2	C19,C20	10nF	Cond. SMD 0805
7	3	C22,C31,C32	10uF/35V	Cond. Elett. SMD d. 5mm
8	1	C23	2.2uF/50V	Cond. Elett. SMD d. 4mm
9	2	C26,C35	NC	Cond. Elett. SMD d. 4mm
10	1	C33	0.33uF	Cond. SMD 0805
11	6	D1,D4,D5,D6,D7,D9	HSMS2802	Doppio Diodo SMD SOT23
12	2	D2,D3	SM4004	MELF SMD Diode
13	3	D8,D10,D11	BAS32	MINIMELF SMD Diode
14	2	D12,D13	5V1	MINIMELF SMD Zener Diode
15	1	JP1	CN20PDO	Connettore 20 poli 90° Flat cs
16	1	JP2	NC	Strip maschio 3+3 pin
17	1	JP3	NC	Connettore 14 poli Flat cs a 90°
18	1	JP4	STM03S	Strip maschio 3 pin
19	12	J1,J2,J3,J4,J5,J6,J7,J8, J9,J10,J11,J12	JSMD	Pad SMD a saldare
20	1	OPT1	P181	Optoisolatore SMD SO6
21	4	Q1,Q2,Q3,Q4	BCR135	Trans./Res. NPN SOT23
22	2	RV1,RV2	10K	Trimmer Rg H 3006
23	4	RY1,RY2,RY3,RY4	RLYTQ2-5V	Rele' TQ2
24	6	R1,R3,R4,R5,R6,R10	4K70	Res. SMD 0805
25	6	R2,R15,R16,R20,R21,R24	1K0	Res. SMD 0805
26	2	R7,R9	330H0	Res. SMD 0805
27	4	R8,R11,R12,R13	100H0	Res. SMD 0805
28	2	R17,R22	3K3	Res. SMD 0805
29	16	R18,R23,R25,R26,R27,R28, R29,R30,R31,R32,R33,R34, R35,R36,R37,R38	10K0	Res. SMD 0805
30	1	U1	82B715SO	IIC Bus driver SMD SO8
31	1	U2	LM358SMD	Dual Op. SMD SO8
32	1	U3	KF50	Stabilizzatroe SMD SO8
33	1	U4	78L12S	Stabilizzatroe SMD SO8

SL034CP1001



NOME PROGETTO: PTX-LCD

AUTORE: A. TOMMASI

ARCHIVIAZIONE ELETTRONICA: \\VRUT\

MATERIALE: FR4-74 1.6mm Cu 35um 4 LAYER | TRATTAMENTO:

NOME PARTE: 16 BIT CPU CARD

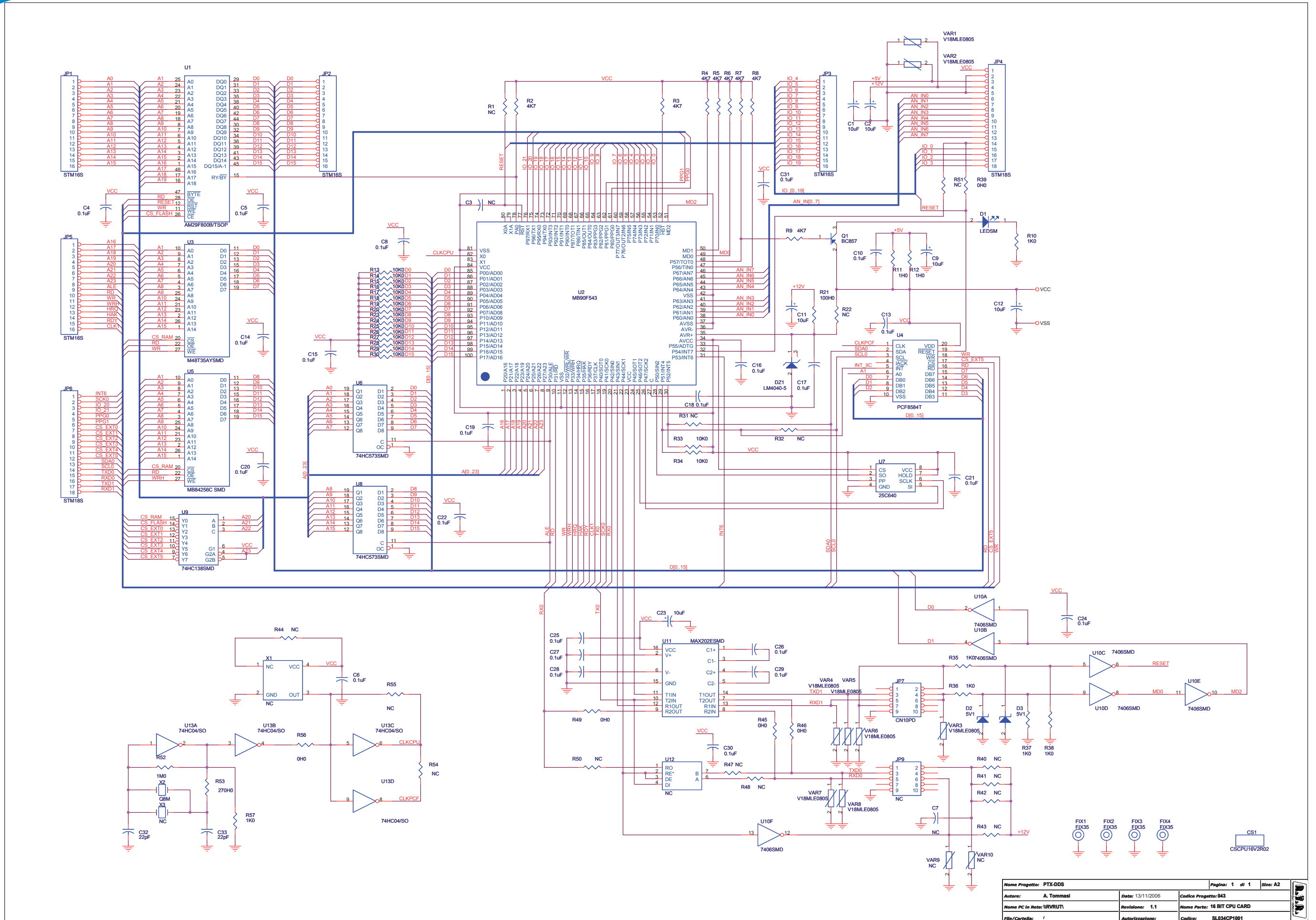
DATA: 12/02/2004 | REVISIONE: 2.1 | SCALA: 1:1 | SIZE: A4 | PAGINA: 1 DI 1

CODICE PROGETTO: RV021 | CODICE DISEGNO: SL034CP1001

PROFILO:

STATO: ESECUTIVO

SL034CP1001



Nome Progetto:	PTX-DDS	Pagina:	1 di 1	Size:	A2
Autore:	A. Tommasi	Data:	13/11/2006	Codice Progetto:	043
Nome PC in Rete:	VRVRUT1	Revisione:	1.1	Nome Parte:	16 BIT CPU CARD
File/Cartella:	1	Autofirma:		Codice:	SL034CP1001

SL034CP1001

16 BIT CPU CARD - SL034CP1001
Revision: 1.1 Date: 13/11/2006

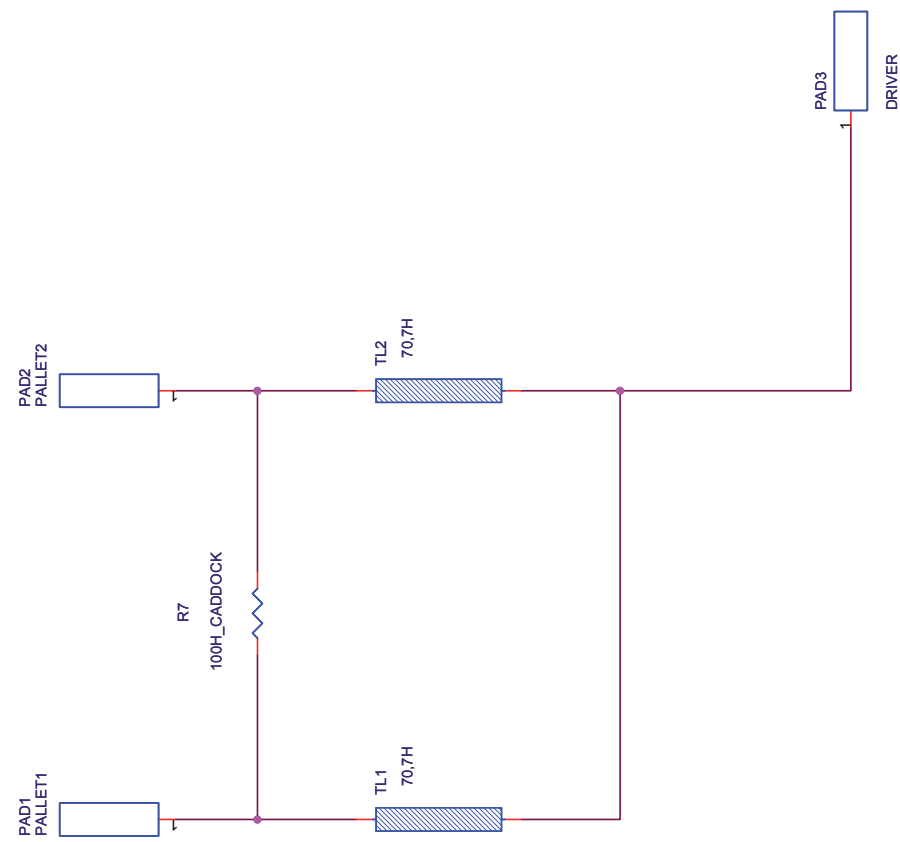
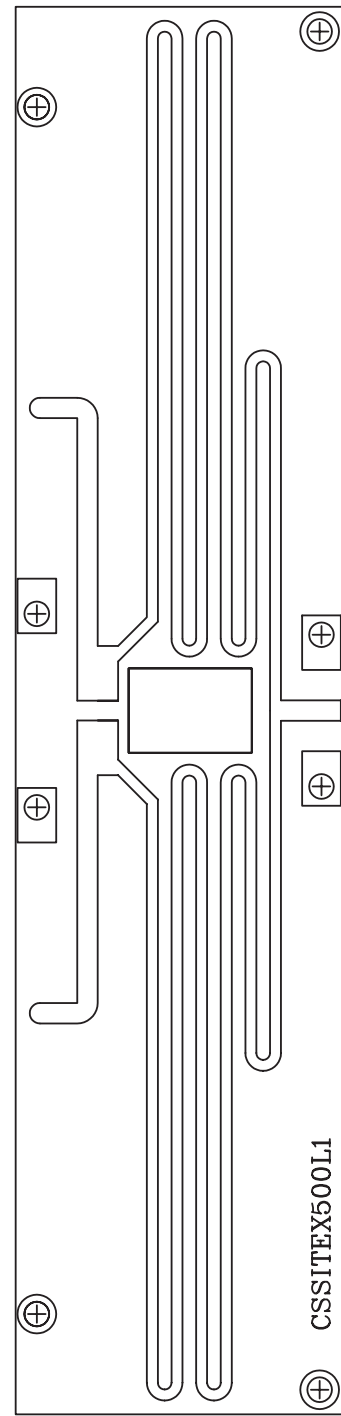
PTX-DDS

034

A. Tommasi

Item	Quantity	Reference	Part	Description
1	1	CS1	CSCPU16V2R02	Circuito stampato
2	6	C1, C2, C9, C11, C12, C23	10uF	Cond. Elett. SMD d. 4mm
3	2	C3, C7	NC	Cond. SMD 0805
4	23	C4, C5, C6, C8, C10, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C24, C25, C26, C27, C28, C29, C30, C31	0.1uF	Cond. SMD 0805
5	2	C32, C33	22pF	Cond. SMD 0805
6	1	DZ1	LM4040-5	Diodi Zener SMD SOT23
7	1	D1	LEDSM	LED SMD PLCC2
8	2	D2, D3	5V1	MINIMELF SMD Zener Diode
9	4	FIX1, FIX2, FIX3, FIX4	FIX35	Foro fissaggio
10	4	JP1, JP2, JP3, JP5	STM16S	Strip maschio 16 pin
11	2	JP4, JP6	STM18S	Strip maschio 18 pin
12	1	JP7	CN10PD	Connettore 10 poli Flat cs
13	1	JP9	NC	Connettore 10 poli Flat cs
14	1	Q1	BC857	Trans. PNP SOT23
15	15	R1, R22, R31, R32, R40, R41, R42, R43, R44, R47, R48, R50, R51, R54, R55	NC	Res. SMD 0805
16	8	R2, R3, R4, R5, R6, R7, R8, R9	4K7	Res. SMD 0805
17	6	R10, R35, R36, R37, R38, R57	1K0	Res. SMD 0805
18	2	R11, R12	1H0	Res. SMD 0805
19	18	R13, R14, R15, R16, R17, R18, R19, R20, R23, R24, R25, R26, R27, R28, R29, R30, R33, R34	10K0	Res. SMD 0805
20	1	R21	100H0	Res. SMD 0805
21	5	R39, R45, R46, R49, R56	0H0	Res. SMD 0805
22	1	R52	1M0	Res. SMD 0805
23	1	R53	270H0	Res. SMD 0805
24	1	U1	AM29F800B/TSOP	Flash Eprom SMD TSOP48
25	1	U2	MB90F543	QFP100 SMD Microprocessor
26	1	U3	M48T35AYSMD	RAM+RTC with Battery SMD
27	1	U4	PCF8584T	IIC Bus controller SMD
28	1	U5	MB84256C SMD	RAM+RTC with Battery SMD
29	2	U6, U8	74HC573SMD	Octal Latch SMD
30	1	U7	25C640	Serial EEPROM SMD
31	1	U9	74HC138SMD	8 line decoder SMD
32	1	U10	7406SMD	Hex inv OC SMD SO14
33	1	U11	MAX202ESMD	RS232 Driver SMD SO16
34	1	U12	NC	RS485 driver SMD SO8
35	1	U13	74HC04/SO	Hex Inv. SMD SO14
36	8	VAR1, VAR2, VAR3, VAR4, VAR5, VAR6, VAR7, VAR8	V18MLE0805	ESD SMD protector
37	2	VAR9, VAR10	NC	ESD SMD protector
38	1	X1	NC	Osc. quarzo SMD
39	1	X2	Q8M	Quarzo SMD HC49SMD
40	1	X3	NC	Quarzo HC18

SLSITEX500



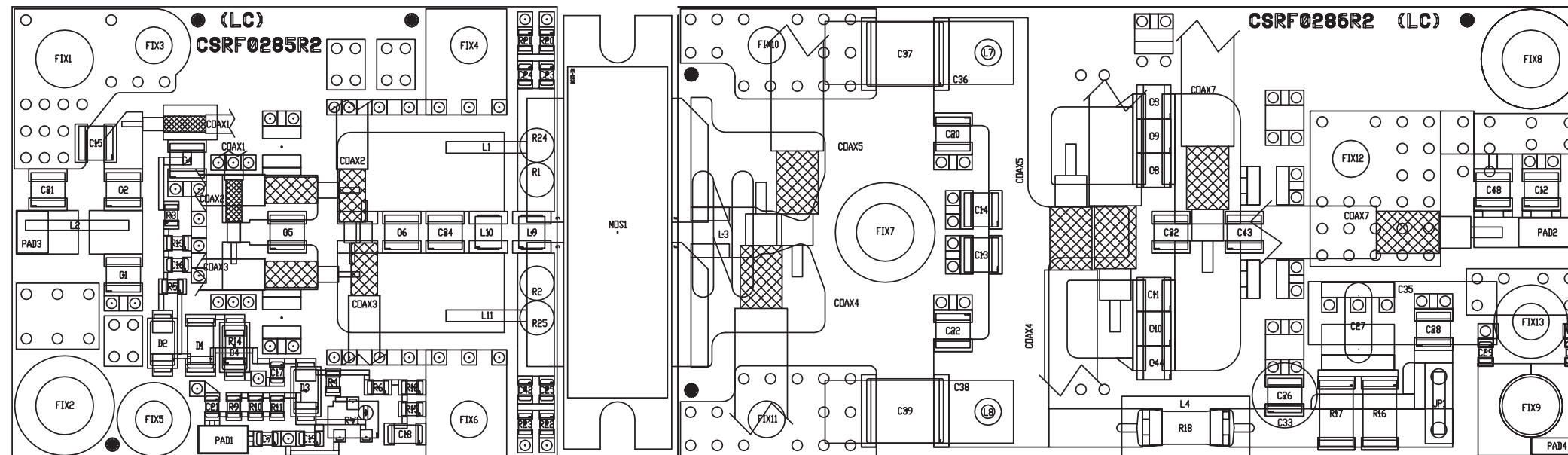
	NOME PROGETTO: TEX 500 EXCITER LCD	NOME PARTE: TABELLA INFORMATIVA C.S.SPLITTER VISTA LATO COMPONENTI			
	AUTORE: ENRICO PAOLINO	DATA: 12/01/2004	REVISIONE: 1.0	SCALA: 1:1	SIZE: A4
ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"		CODICE PROGETTO: TEX500L	CODICE DISEGNO: CSSITEX500L1		
MATERIALE: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

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

SLSITEX500

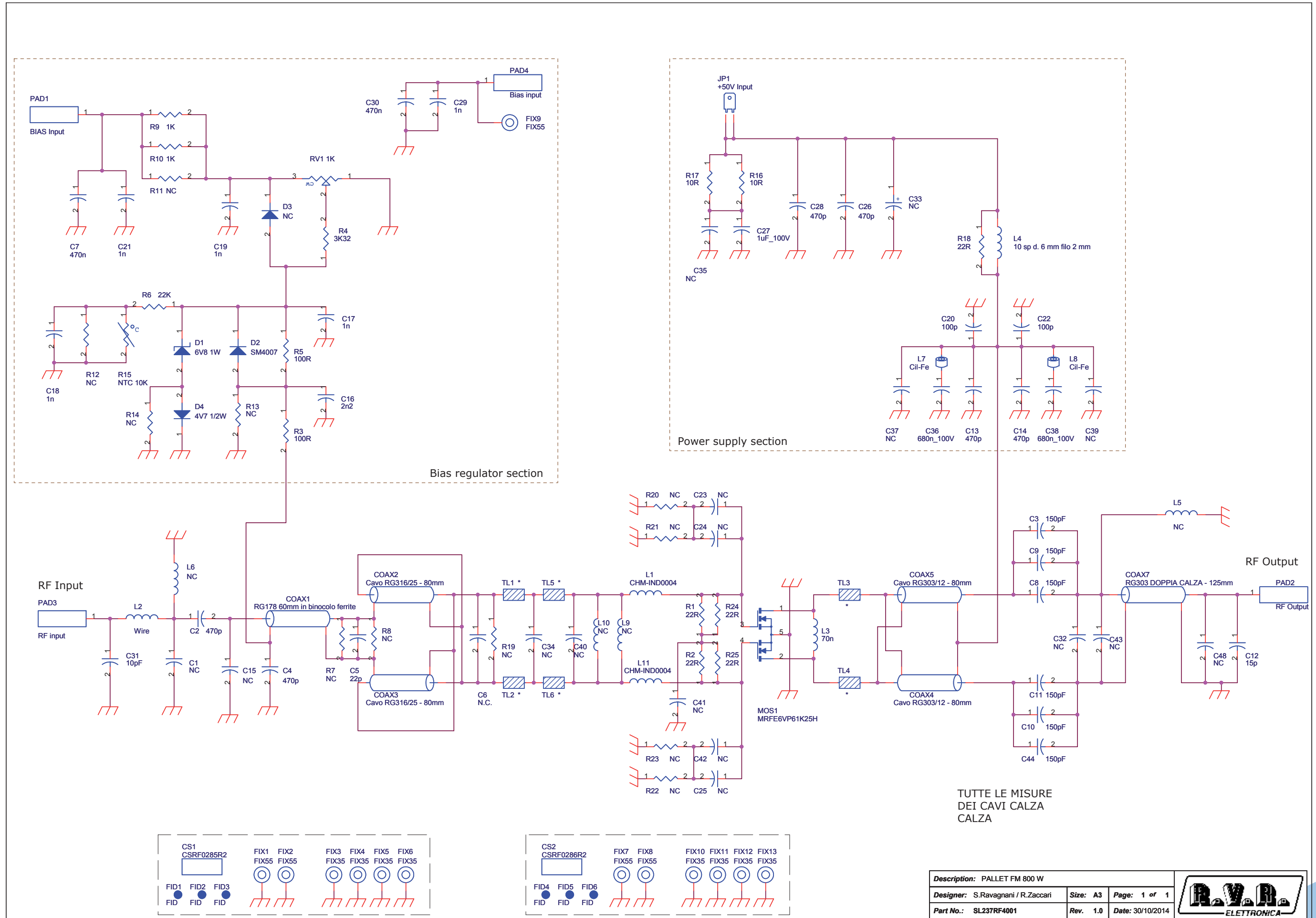
SPLITTER Revised: 05/04/04
 SLSITEX500L1 Revision: 1.0
 TEX500LCD
 12
 Gasperini Luca

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	



	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	PAGINA: 1 DI 1
ARCHIVIAZIONE ELETTRONICA: "CARTELLA RILASCIATI" SU "UTSRV"		CODICE PROGETTO: 237	CODICE DISEGNO: SL237RF4001			
MATERIALE: <>	TRATTAMENTO: <>	PROFILO: <>	STATO: ESECUTIVO			

SL237RF4001



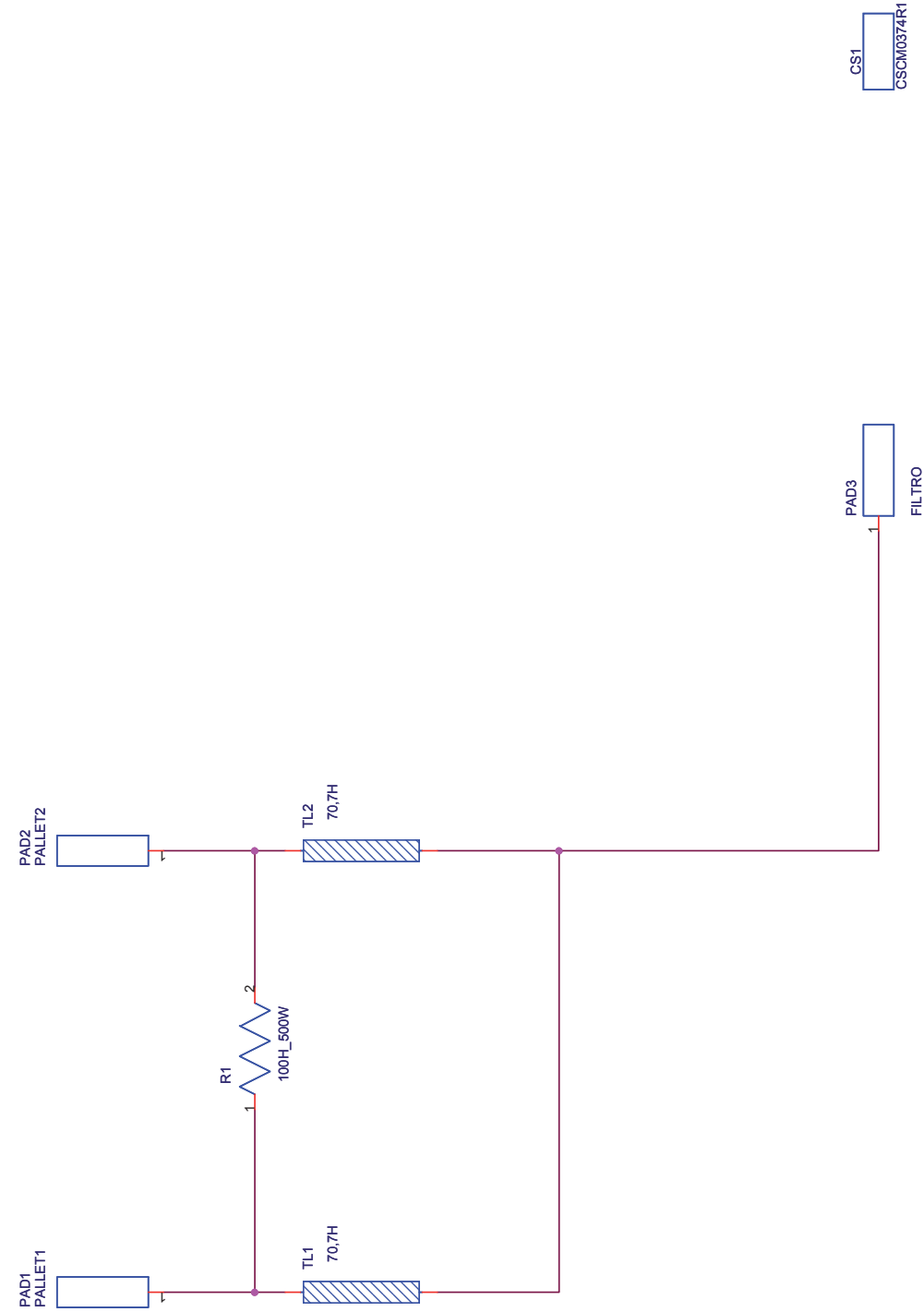
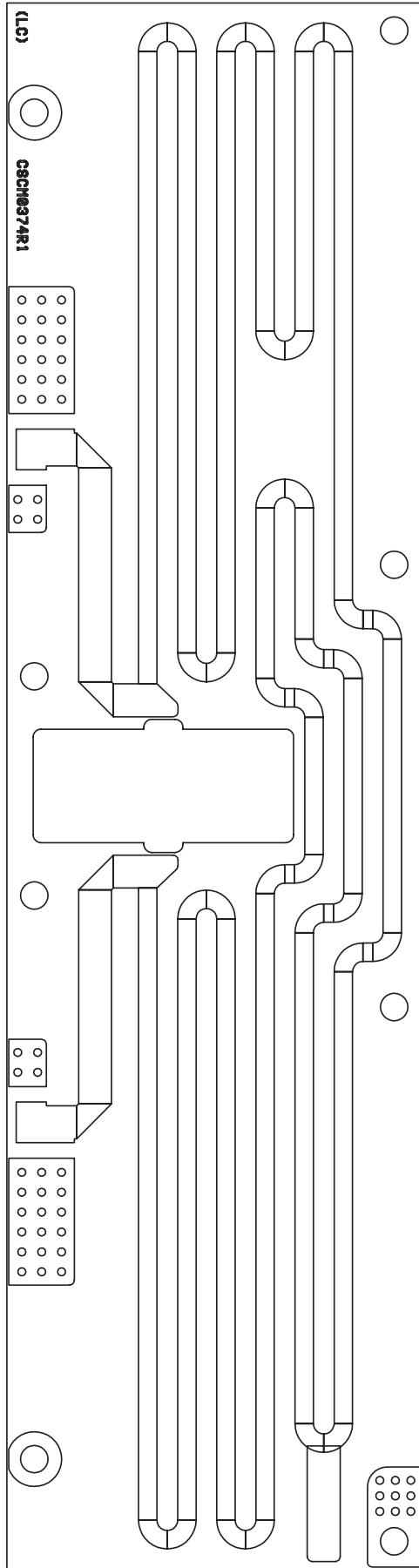
Description: PALLET FM 800 W			
Designer: S.Ravagnani / R.Zaccari	Size: A3	Page: 1 of 1	
Part No.: SL237RF4001	Rev. 1.0	Date: 30/10/2014	

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	Circuito stampato
6	1	CS2	CSRF0286R2	Circuito 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



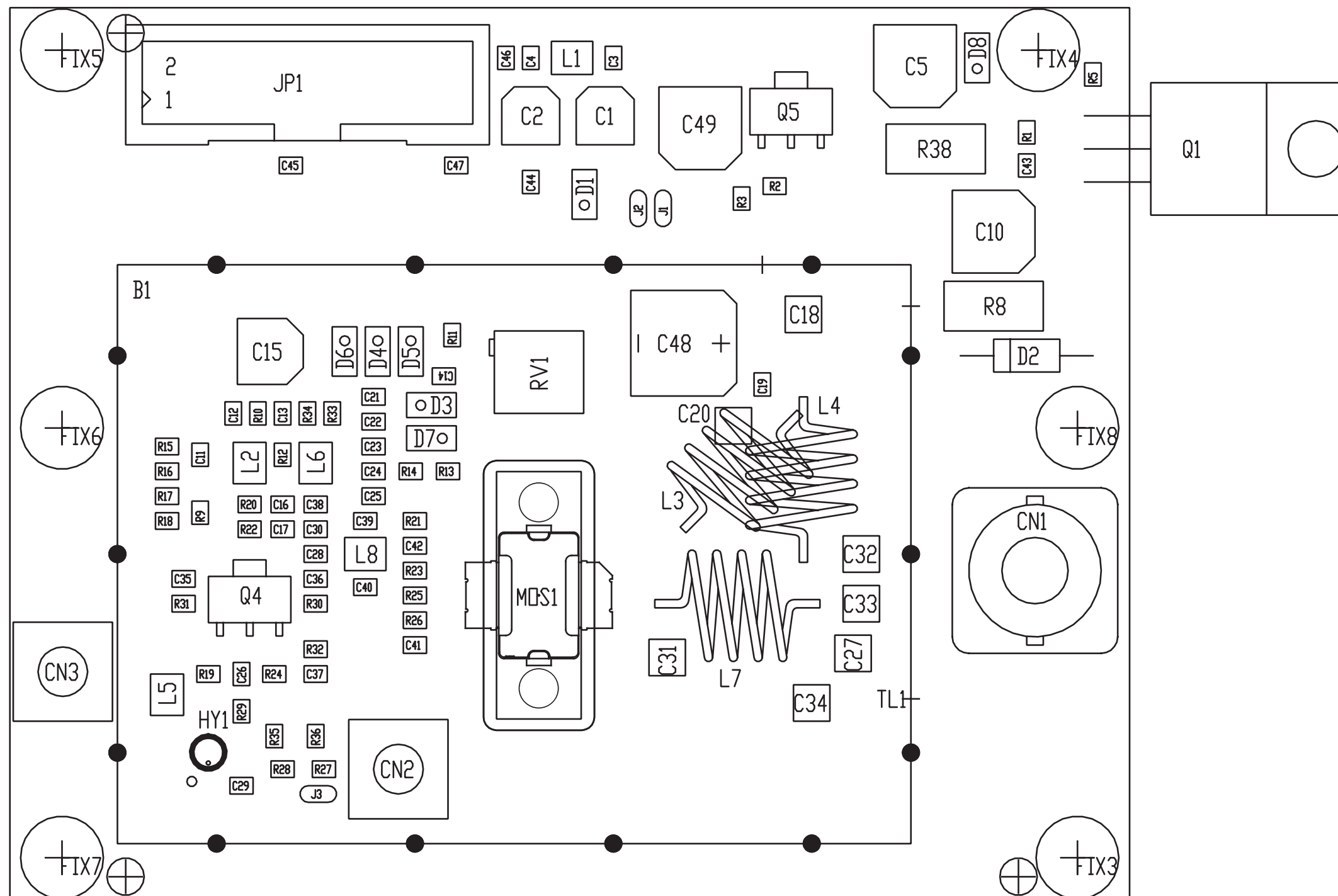
Nome Progetto: TEX/PJ 1600LIGHT		Pagina: 1 di 1		Size: A4
Autore: Gasparini Luca		Codice Progetto: 240		
Nome PC In Rete: \\RVRUTR\luca		Data: 20/11/2012		
File/Cartella: \		Revisione: 1.0		
		Nome Parte: COMBINER		
		Codice: SLCM0374R01V01		
		Autorizzazione:		

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

SLDR0271R03V01



NOME PROGETTO: TEX1002LCD

AUTORE: L. GASPERINI

ARCHIVIAZIONE ELETTRONICA: "RILASCIATI" SU "RVRUT"

MATERIALE: <

NOME PARTE: SCHEDA DRIVER 15W

DATA: 13/03/2015 REVISIONE: 1.2 SCALA: 2:1 SIZE: A4 PAGINA: 1 DI 1

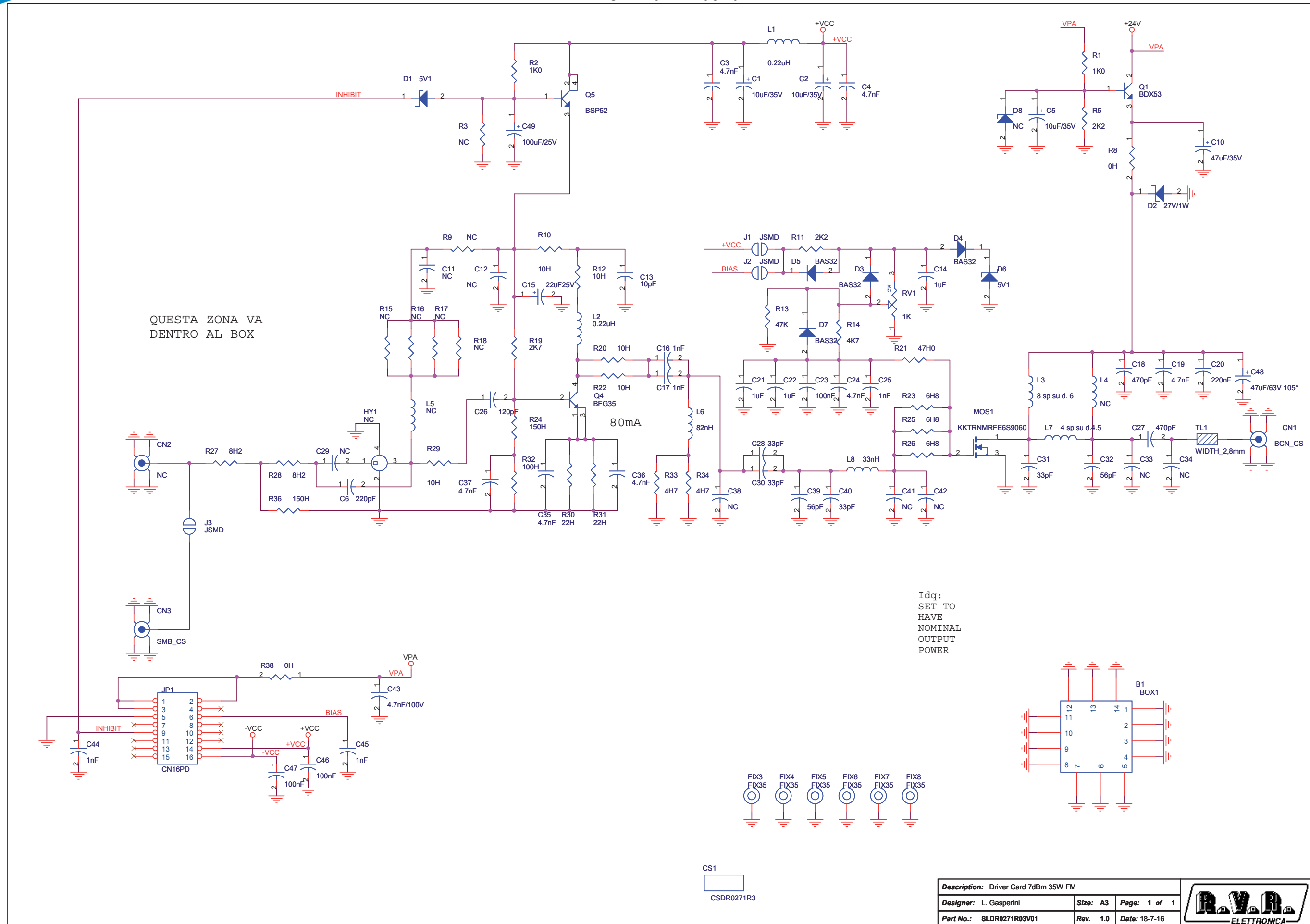
CODICE PROGETTO: 241

CODICE DISEGNO: SLDR0271R01V01

PROFILO: <

STATO: ESECUTIVO

SLDR0271R03V01



Description: Driver Card 7dBm 35W FM		
Designer: L. Gasperini	Size: A3	Page: 1 of 1
Part No.: SLD0271R03V01	Rev. 1.0	Date: 18-7-16

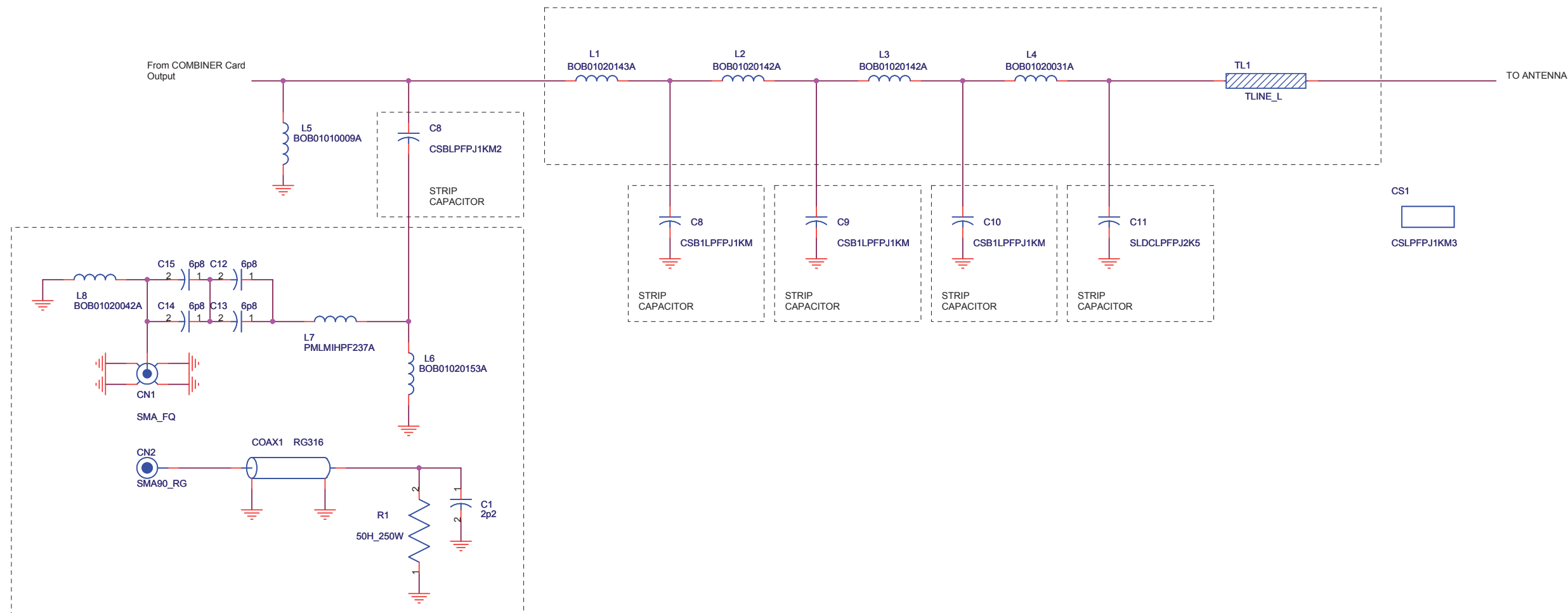
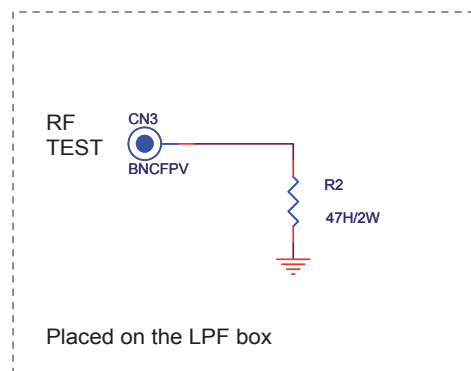


SLDR0271R03V01

Driver Card 7dBm 35W FM Revised: 18-7-16
SLDR0271R03V01 Revision: 1.0

L. Gasperini				
Item	Quantity	Reference	Part	{description}
1	1	B1	BOX1	
2	1	CN1	BCN_CS	Connettore BNC 10x10 cs
3	1	CN2	NC	Connettore SMB cs
4	1	CN3	SMB_CS	Connettore SMB cs
5	1	CS1	CSDR0271R3	Circuito stampato
6	2	C1, C2	10uF/35V	Cond. Elett. SMD d. 4mm
7	7	C3, C4, C19, C24, C35, C36, C37	4.7nF	Cond. SMD 0805
8	1	C5	10uF/35V	Cond. Elett. SMD d. 6.3mm
9	1	C6	220pF	Cond. SMD 0805
10	1	C10	47uF/35V	Cond. Elett. SMD d. 6.3mm
11	6	C11, C12, C29, C38, C41, C42	NC	Cond. SMD 0805
12	1	C13	10pF	Cond. SMD 0805
13	3	C14, C21, C22	1uF	Cond. SMD 0805
14	1	C15	22uF25V	Cond. Elett. SMD d. 5mm
15	5	C16, C17, C25, C44, C45	1nF	Cond. SMD 0805
16	2	C18, C27	470pF	Cond. SMD 1212 HQ
17	1	C20	220nF	Cond. SMD 1212
18	3	C23, C46, C47	100nF	Cond. SMD 0805
19	1	C26	120pF	Cond. SMD 0805
20	3	C28, C30, C40	33pF	Cond. SMD 0805
21	1	C31	33pF	Cond. SMD 1212 HQ
22	1	C32	56pF	Cond. SMD 1212 HQ
23	2	C33, C34	NC	Cond. SMD 1212 HQ
24	1	C39	56pF	Cond. SMD 0805
25	1	C43	4.7nF/100V	Cond. SMD 0805
26	1	C48	47uF/63V 105°	Cond. Elett. SMD d. 8mm
27	1	C49	100uF/25V	Cond. Elett. SMD d. 6.3mm
28	2	D1, D6	5V1	MINIMELF SMD Zener Diode
29	1	D2	27V/1W	1W Zener Diode
30	4	D3, D4, D5, D7	BAS32	MINIMELF SMD Diode
31	1	D8	NC	MINIMELF SMD Zener Diode
32	6	FIX3, FIX4, FIX5, FIX6, FIX7, FIX8	FIX35	Foro fissaggio 3.5mm
33	1	HY1	NC	Ibrido MAR/ERA
34	1	JP1	CN16PD	Conn.M.C.S.Dritto 16P alette
35	3	J1, J2, J3	JSMD	Pad SMD a saldare
36	2	L1, L2	0.22uH	Induttanza SMD 3225 (1210)
37	1	L3	8 sp su d. 6	Bobina avvolta in aria
38	1	L4	NC	Bobina avvolta in aria
39	1	L5	NC	Induttanza SMD 3225 (1210)
40	1	L6	82nH	Induttanza SMD 3225 (1210)
41	1	L7	4 sp su d.4.5	Bobina avvolta in aria
42	1	L8	33nH	Induttanza SMD 3225 (1210)
43	1	MOS1	MRFE6S9060NR1	
44	1	Q1	BDX53	Trans. NPN TO220
45	1	Q4	BFG35	Trans. NPN SOT223
46	1	Q5	BSP52	Trans. NPN SOT223
47	1	RV1	1K	Trimmer Rg H 3269P SMD
48	2	R1, R2	1K0	Res. SMD 0805 1%
49	6	R3, R9, R15, R16, R17, R18	NC	Res. SMD 0805 1%
50	2	R11, R5	2K2	Res. SMD 0805 1%
51	2	R38, R8	0H	Res. SMD 2512 1%
52	5	R10, R12, R20, R22, R29	10H	Res. SMD 0805 1%
53	1	R13	47K	Res. SMD 0805 1%
54	1	R14	4K7	Res. SMD 0805 1%
55	1	R19	2K7	Res. SMD 0805 1%
56	1	R21	47H0	Res. SMD 0805 1%
57	3	R23, R25, R26	6H8	Res. SMD 0805 1%
58	2	R36, R24	150H	Res. SMD 0805 1%
59	2	R28, R27	8H2	Res. SMD 0805 1%
60	2	R30, R31	22H	Res. SMD 0805 1%
61	1	R32	100H	Res. SMD 0805 1%
62	2	R33, R34	4H7	Res. SMD 0805 1%
63	1	TL1	WIDTH_2,8mm	Linea strip CS

SLLPFTEX2K5



Nome Progetto: TEX2500		Pagina: 1 di 1	Size: A3
Autore: Ufficio Tecnico	Data: 21/05/2013	Codice Progetto: 237	
Nome PC in Rete: \\Rvru\l\Relasciat\l	Revisione: 1.2	Nome Parte: Scheda Filtro FM Green Line	
File/Cartella: SLLPFTEX2K5.DSN	Autorizzazione:	Codice: SLLPFTEX2K5	

SLLPFTEX2K5

Scheda Filtro FM Green Line Revised: Tuesday, May 21, 2013

SLLPFTEX2K5 Revision: 1.2

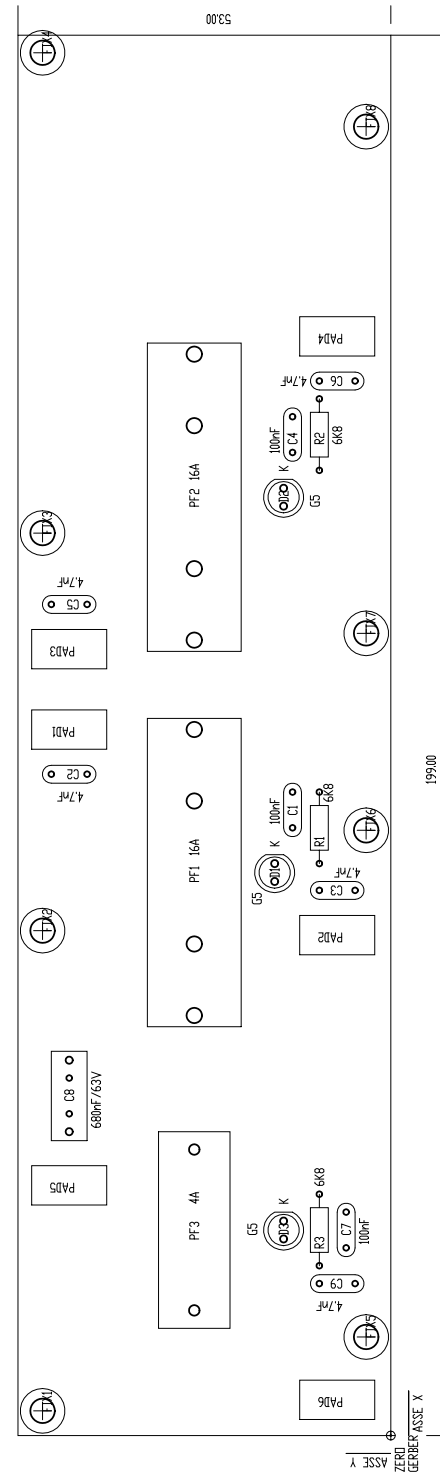
TEX2500

237

Ufficio Tecnico

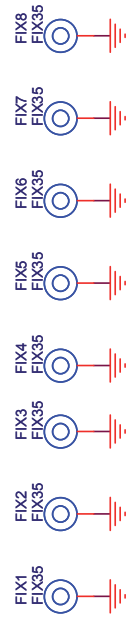
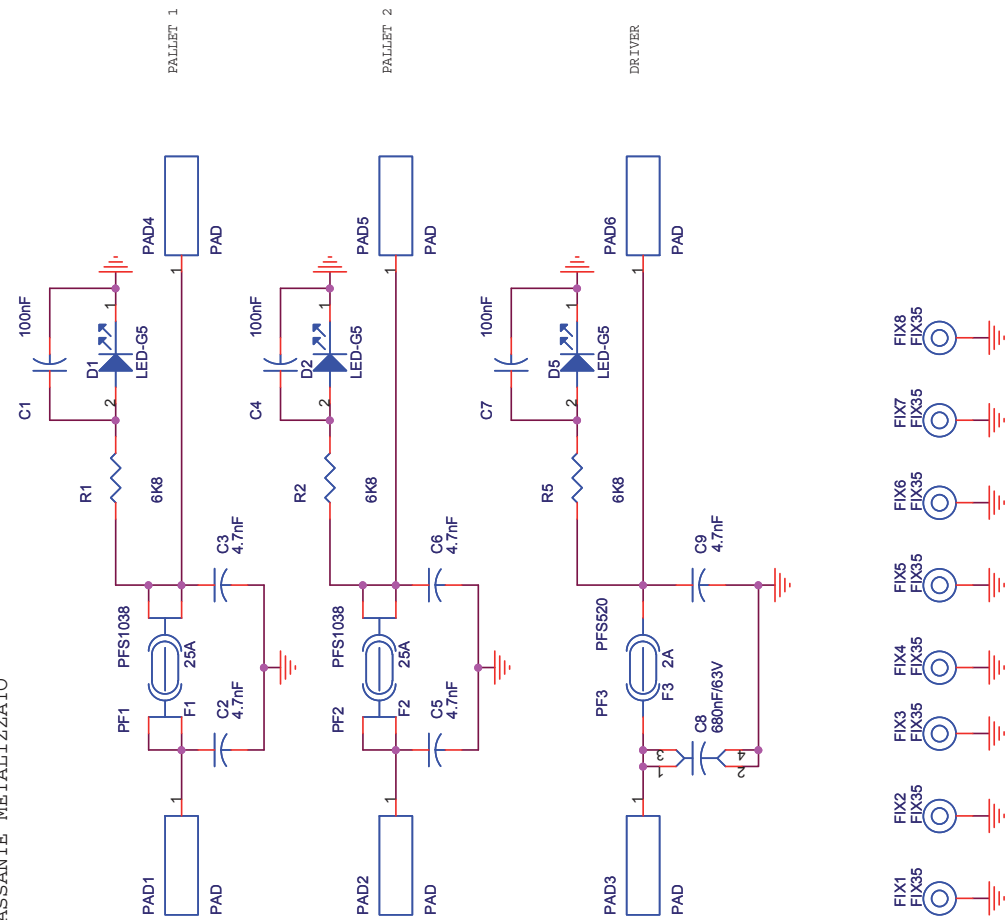
Item	Quantity	Reference	Part	Description
1	1	CN1	SMA_FQ	
2	1	CN2	SMA90_RG	
3	1	CN3	BNCFPV	
4	1	COAX1	RG316	
5	1	CS1	CSLPPFJ1KM3	
6	1	C1	2p2	
7	1	C8	CSBLPPFJ1KM2	
8	3	C8, C9, C10	CSB1LPPFJ1KM	
9	1	C11	SLDCLPPFJ2K5	
10	4	C12, C13, C14, C15	6p8	
11	1	L1	BOB01020143A	
12	2	L2, L3	BOB01020142A	
13	1	L4	BOB01020031A	
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	

SLFUSTEX1K6LG



199100

I FUSIBILI NON SONO PIU' 6x30 MA 10x38 E I COMPONENTI NON SONO PIU' A MONTAGGIO L.C. MA TRADIZIONALI, CIOE' CON FORO PASSANTE METALLIZZATO



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

Nome Progetto: TEX1600LIGHT	Pagina: 1 di 1	Size: A4
Autore: GASPERINI LUCA	Data: 04/04/2013	Codice Progetto: 240
Nome PC In Rete: \RVR\UTR\Iascid	Revisione: 1.1	Nome Parte: SCHEDA FUSE TEX1600LIGHT
File/Cartella:	Autore:	Codice: SLFUSTEX1K6LG

SLFUSTEX1K6LG

SCHEDA FUSE TEX500 Revised: 04/04/2013

SLFUSTEX1K6LG Revision: 1.1

TEX1600LIGHT

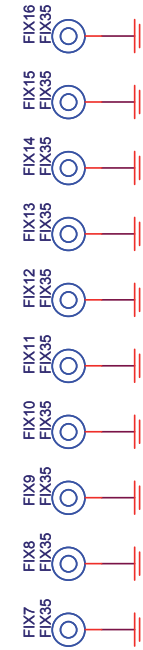
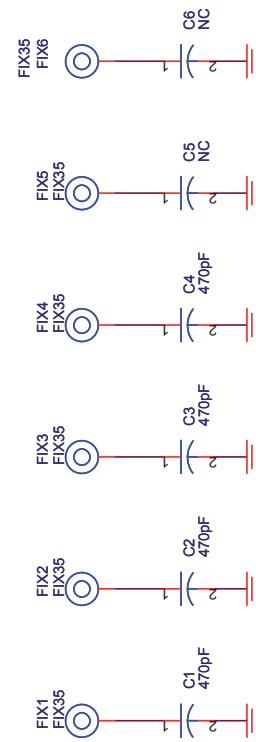
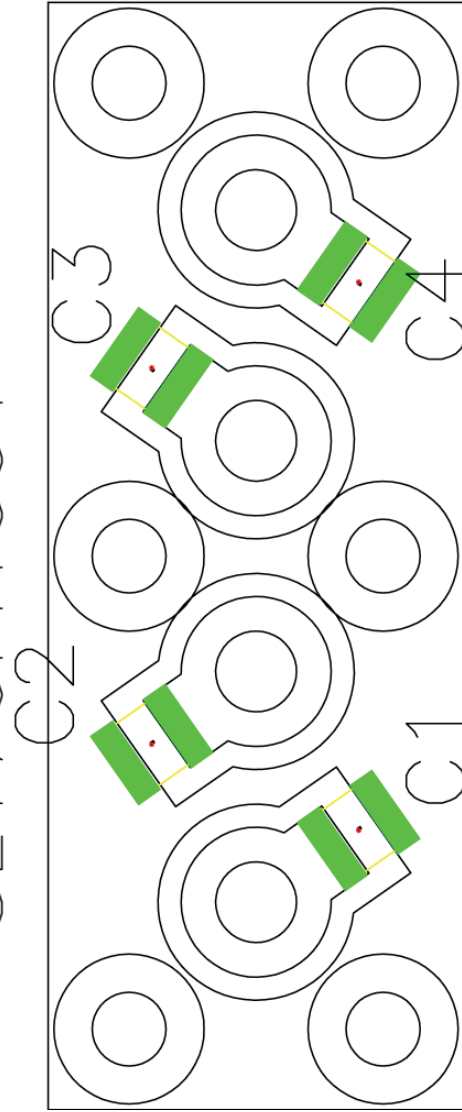
240

GASPERINI LUCA

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, D5	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, R5	6K8	Res. 1/4W

SL176FI1001

SL176FI1001

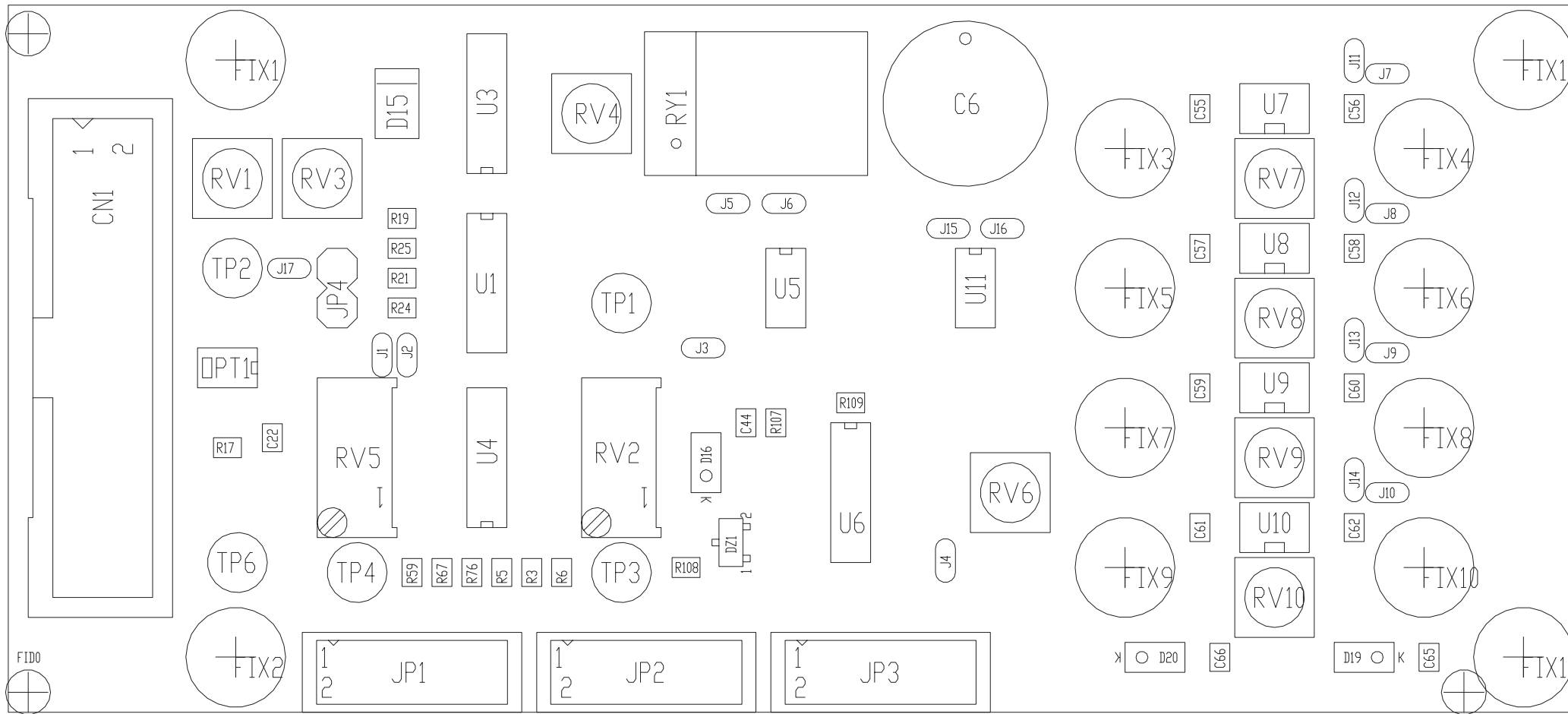
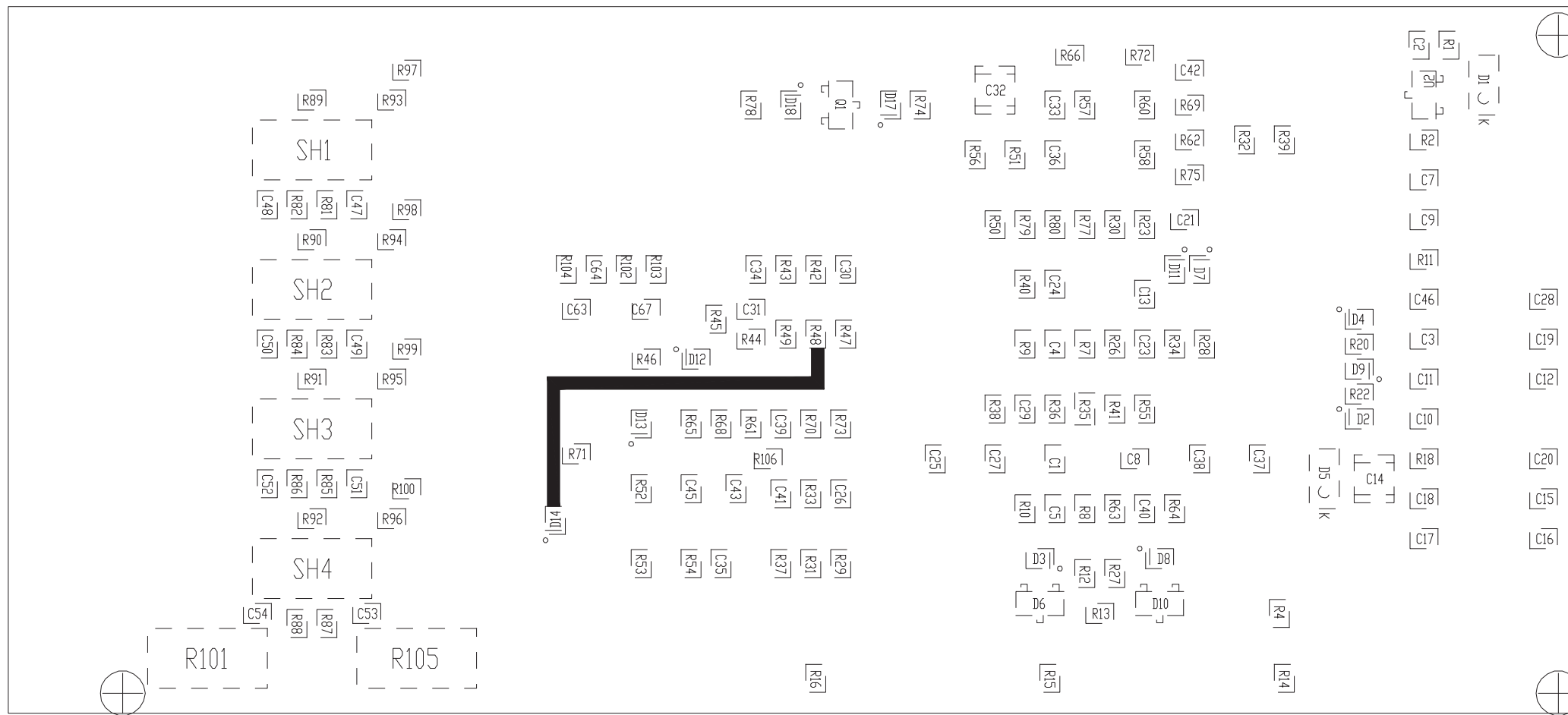


Project Name: TEX2000	Page: 1 of 1	Size: A4
Designer: Luca Gasparini	Project Code: 176	
Date: Friday, November 11, 2016	Description: Passaparte	
File Location: \	Revision: 1.1	
Folder/File: /	Approval:	Part No.: SL176FI1001

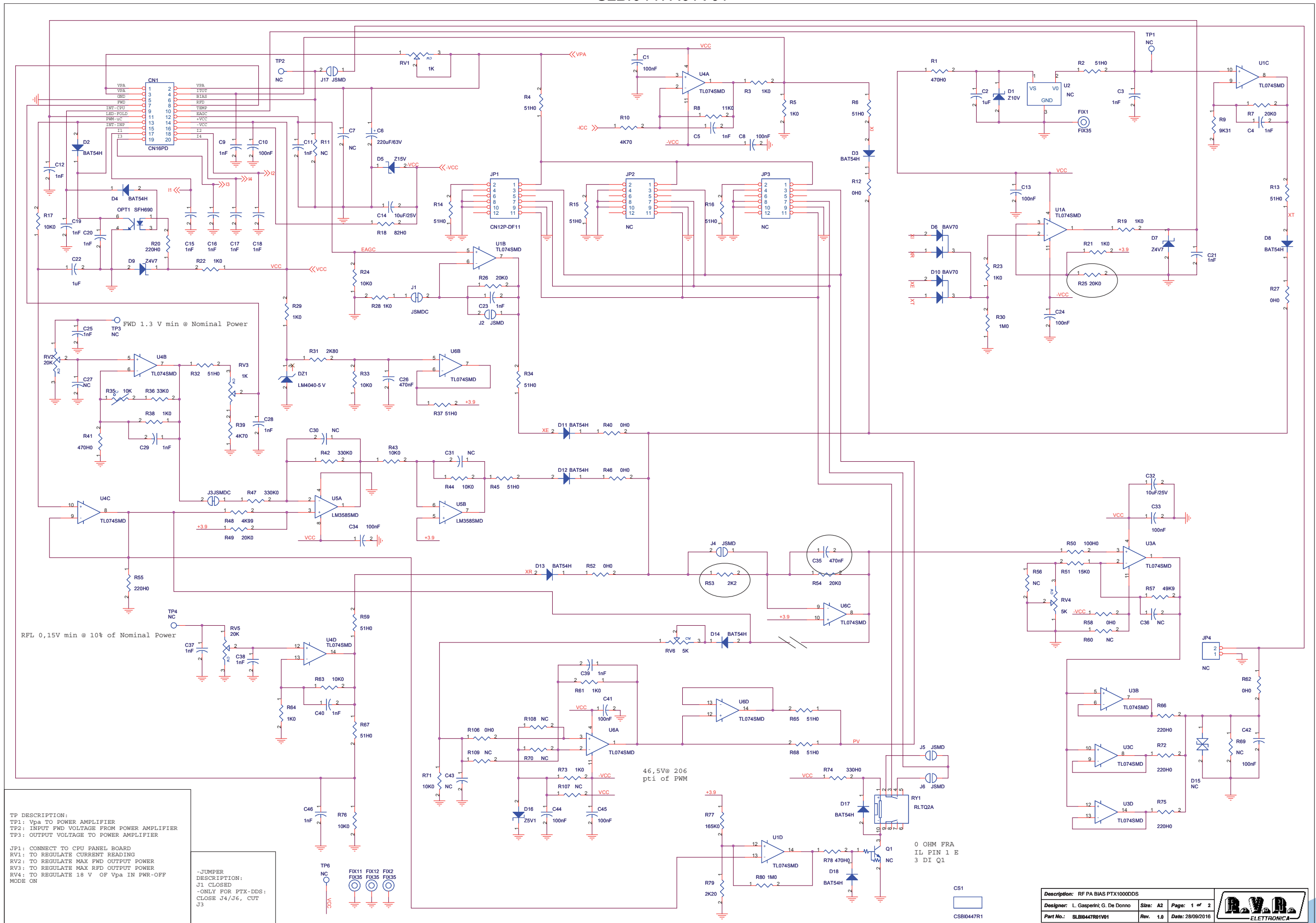
SL176FI1001

Passaparete Revised: 13/11/2015
 SL176FI1001 Revision: 1.1
 TEX2000
 Luca Gasperini

Item	Quantity	Reference	Part
1	1	CS1	CSPAS1Circuito stampato
2	4	C1, C2, C3, C4	470pF Cond. SMD 1212 HQ
3	16	FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8, FIX9, FIX10, FIX11, FIX12, FIX13, FIX14, FIX15, FIX16	FIX35 Foro fissaggio 3.5mm
3	2	C5, C6	NC



PRODUCT NAME : PTX1000DDS	PART NAME : BIAS CARD PTX1000DDS
DESIGNER : L. GASPERINI	DATE : 31/08/16
ARCHIVING : "RV" SERVER, "RILASCIATI" FOLDER	REVISION : 1.0
	SCALE : 2:1
	SIZE : A4
	PAGE : 1
	DI : 1
	DOCUMENT CODE : SLBI0447R01V01
	PROJECT CODE : <



TP DESCRIPTION:
 TP1: Vpa TO POWER AMPLIFIER
 TP2: INPUT FWD VOLTAGE FROM POWER AMPLIFIER
 TP3: OUTPUT VOLTAGE TO POWER AMPLIFIER

JP1: CONNECT TO CPU PANEL BOARD
 RV1: TO REGULATE CURRENT READING
 RV2: TO REGULATE MAX FWD OUTPUT POWER
 RV3: TO REGULATE MAX FWD OUTPUT POWER
 RV4: TO REGULATE 18 V OF Vpa IN PWR-OFF MODE ON

-JUMPER
 DESCRIPTION:
 J1 CLOSED
 -ONLY FOR PTX-DDS:
 CLOSE J4/J6, CUT
 J3

Description: RF PA BIAS PTX1000DDS			
Designer: L. Gasperini, G. De Donno	Size: A2	Page: 1 of 2	
Part No.: SLBI0447R01V01	Rev. 1.0	Date: 28/09/2016	

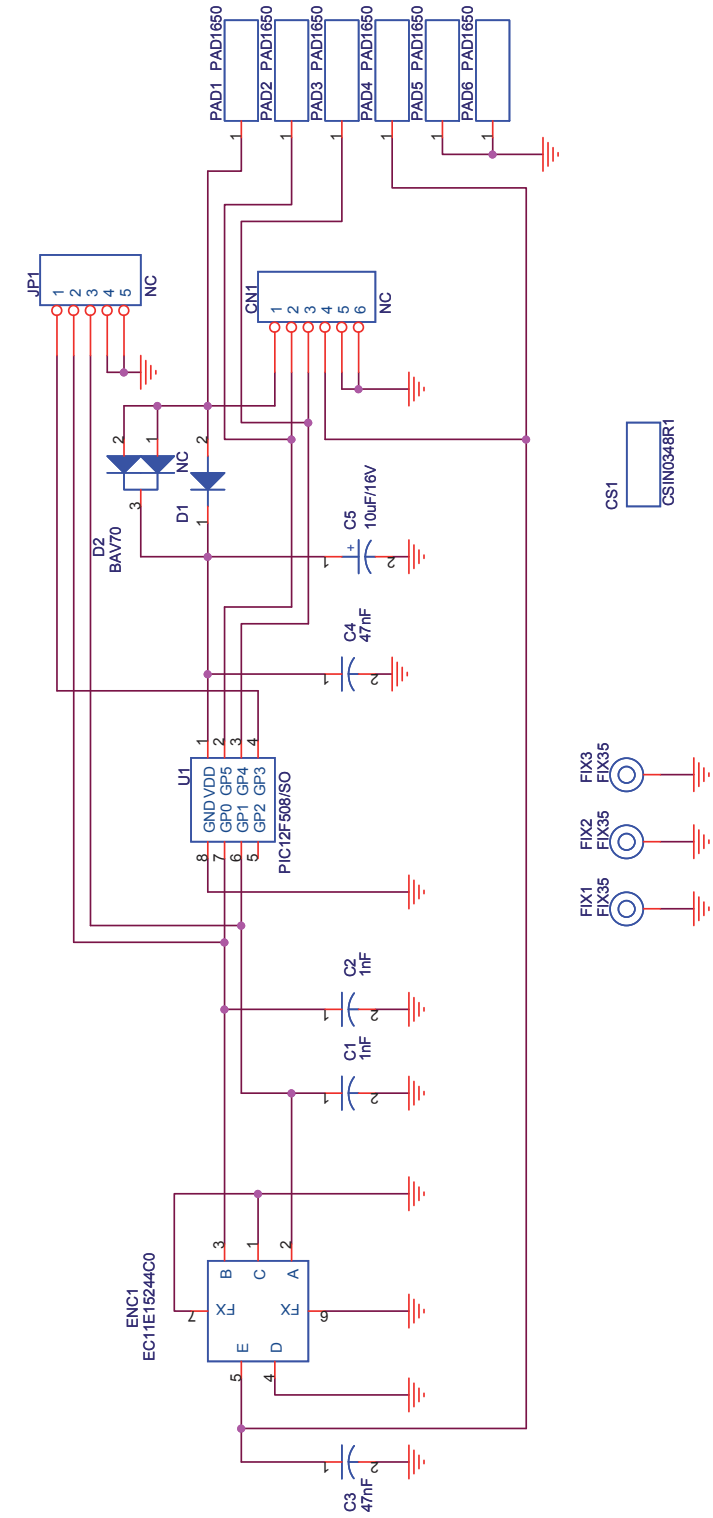
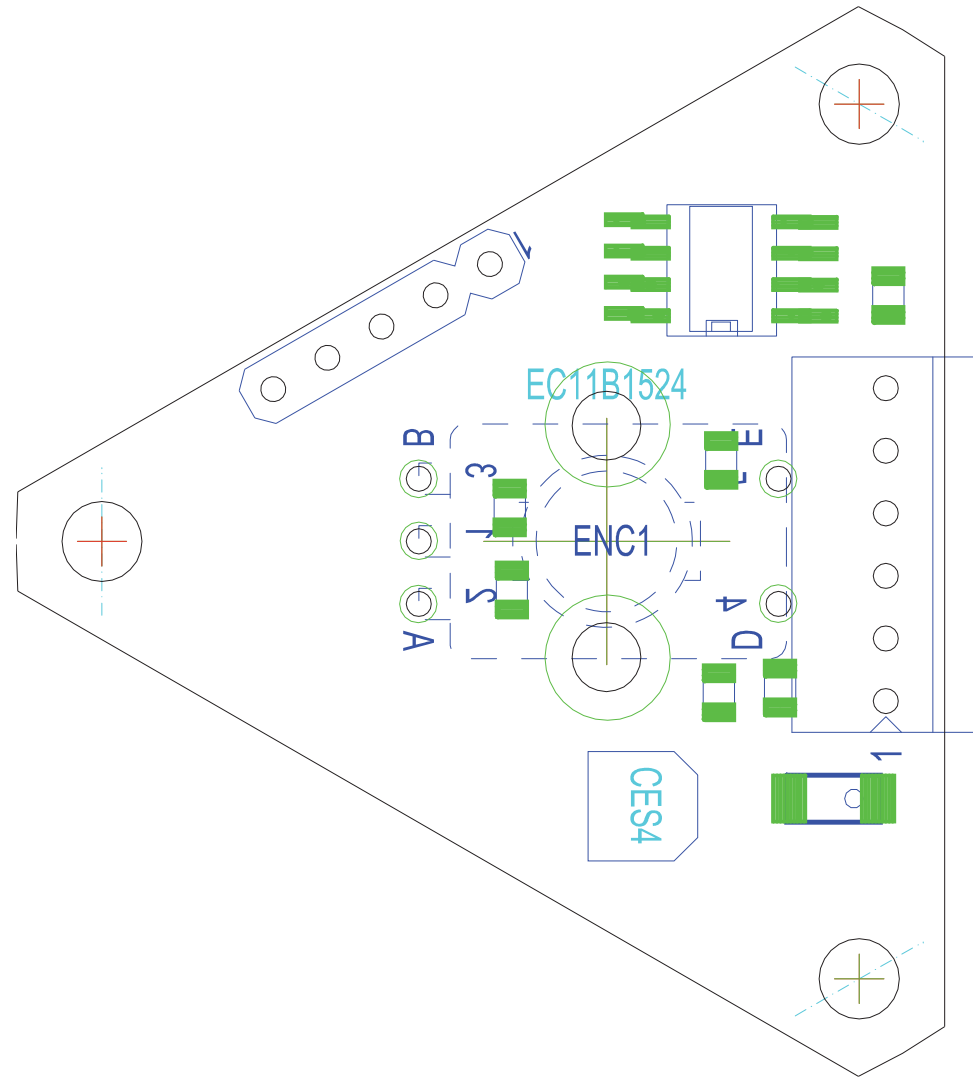
SLBI0447R01V01

RF PA BIAS PTX1000DDS Revised: 28/09/2016
 SLBI0447R01V01 Revision: 1.0
 L. Gasperini; G. De Donno

Item	Quantity	Reference	Part	(description)
1	1	CN1	CN16PD	Conn. 20 poli Flat cs
2	1	CS1	CSBI0447R1	Circuito stampato
3	18	C1, C8, C10, C13, C24, C33, C34, C41, C42, C44, C45, C55, C56, C57, C58, C63, C64, C67	100nF	Cond. SMD 0805
4	4	C2, C22, C65, C66	1uF	Cond. SMD 0805
5	22	C3, C4, C5, C9, C11, C12, C15, C16, C17, C18, C19, C20, C21, C23, C25, C28, C29, C37, C38, C39, C40, C46	1nF	Cond. SMD 0805
6	1	C6	220uF/63V	Cond. Elettr. Dia 10 P5.08
7	14	C7, C27, C30, C31, C36, C43, C51, C52, C53, C54, C59, C60, C61, C62	NC	Cond. SMD 0805
8	2	C32, C14	10uF/25V	Cond. SMD 1210
9	2	C35, C26	470nF	Cond. SMD 0805
10	4	C47, C48, C49, C50	4n7/100V	Cond. SMD 0805
11	1	DZ1	LM4040-5 V	Diodi Zener SMD SOT23
12	1	D1	Z10V	MINIMELF SMD Zener Diode
13	10	D2, D3, D4, D8, D11, D12, D13, D14, D17, D18	BAT54H	SOD323 SMD Diode
14	1	D5	Z15V	MINIMELF SMD Zener Diode
15	2	D6, D10	BAV70	Doppio Diodo SMD SOT23
16	2	D7, D9	Z4V7	SOD323 Zener Diode
17	1	D15	NC	Tranzorb SMA
18	3	D16, D19, D20	Z5V1	MINIMELF SMD Zener Diode
19	12	FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8, FIX9, FIX10, FIX11, FIX12	FIX35	Foro fissaggio 3.5mm
20	1	JP1	CN12P-DF11	Conn. 12 poli DF11 12pin p. 2mm
21	2	JP3, JP2	NC	Conn. 12 poli DF11 12pin p. 2mm
22	1	JP4	NC	Female strip 2 pin
23	2	J3, J1	JSMDC	Pad SMD a saldare chiuso
24	15	J2, J4, J5, J6, J7, J8, J9, J10, J11, J12, J13, J14, J15, J16, J17	JSMDC	Pad SMD a saldare
25	1	OPT1	SFH690	Optocoupler SMD SO6
26	1	Q1	NC	Trans./Res. NPN SOT23
27	2	RV3, RV1	1K	Trimmer SMD
28	2	RV5, RV2	20K	Trimmer Rg V 3296W
29	2	RV4, RV6	5K	Trimmer SMD
30	2	RV7, RV8	100H	Trimmer SMD
31	2	RV9, RV10	NC	Trimmer SMD
32	1	RY1	RLTQ2A	Rele' TQ2
33	3	R1, R41, R78	470H0	Res. SMD 0805 1%
34	15	R2, R4, R6, R13, R14, R15, R16, R32, R34, R37, R45, R59, R65, R67, R68	51H0	Res. SMD 0805 1%
35	12	R3, R5, R19, R21, R22, R23, R28, R29, R38, R61, R64, R73	1K0	Res. SMD 0805 1%
36	5	R7, R25, R26, R49, R54	20K0	Res. SMD 0805 1%
37	1	R8	11K0	Res. SMD 0805 1%
38	1	R9	9K31	Res. SMD 0805 1%
39	2	R39, R10	4K70	Res. SMD 0805 1%
40	18	R11, R56, R60, R69, R70, R85, R86, R87, R88, R91, R92, R95, R96, R99, R100, R107, R108, R109	NC	Res. SMD 0805 1%
41	8	R12, R27, R40, R46, R52, R58, R62, R106	0H0	Res. SMD 0805 1%
42	12	R17, R24, R33, R43, R44, R63, R71, R76, R97, R98, R103, R104	10K0	Res. SMD 0805 1%
43	1	R18	82H0	Res. SMD 0805 1%
44	5	R20, R55, R66, R72, R75	220H0	Res. SMD 0805 1%
45	2	R80, R30	1M0	Res. SMD 0805 1%
46	1	R31	2K80	Res. SMD 0805 1%
47	1	R35	10K	Res. NTC SMD 0805
48	1	R36	33K0	Res. SMD 0805 1%
49	2	R47, R42	330K0	Res. SMD 0805 1%
50	2	R102, R48	4K99	Res. SMD 0805 1%
51	1	R50	100H0	Res. SMD 0805 1%
52	1	R51	15K0	Res. SMD 0805 1%
53	1	R53	2K2	Res. SMD 0805 1%
54	1	R57	49K9	Res. SMD 0805 1%
55	1	R74	330H0	Res. SMD 0805 1%
56	1	R77	165K0	Res. SMD 0805 1%
57	1	R79	2K20	Res. SMD 0805 1%
58	4	R81, R82, R83, R84	10H0	Res. SMD 0805 1%
59	2	R90, R89	68H0	Res. SMD 0805 1%
60	2	R93, R94	47H0	Res. SMD 0805 1%
61	2	R105, R101	560H0	Res. SMD 2512 1%
62	2	SH2, SH1	0.002H	Shunt SMD 2512
63	2	SH4, SH3	NC	Shunt SMD 2512

Item	Quantity	Reference	Part	(description)
64	5	TP1, TP2, TP3, TP4, TP6	NC	Foro dia. 1mm
65	4	U1, U3, U4, U6	TL074SMD	Quad Op. SMD SO14
66	1	U2	NC	Temperature sensor
67	1	U5	LM358SMD	Dual Op. SMD SO8
68	2	U8, U7	CS70P	High side current sense
69	2	U9, U10	NC	High side current sense
70	1	U11	TL072SMD	Dual Op. SMD SO8

SLBI0447R01V01



FID1 FID2 FID3
FID FID FID

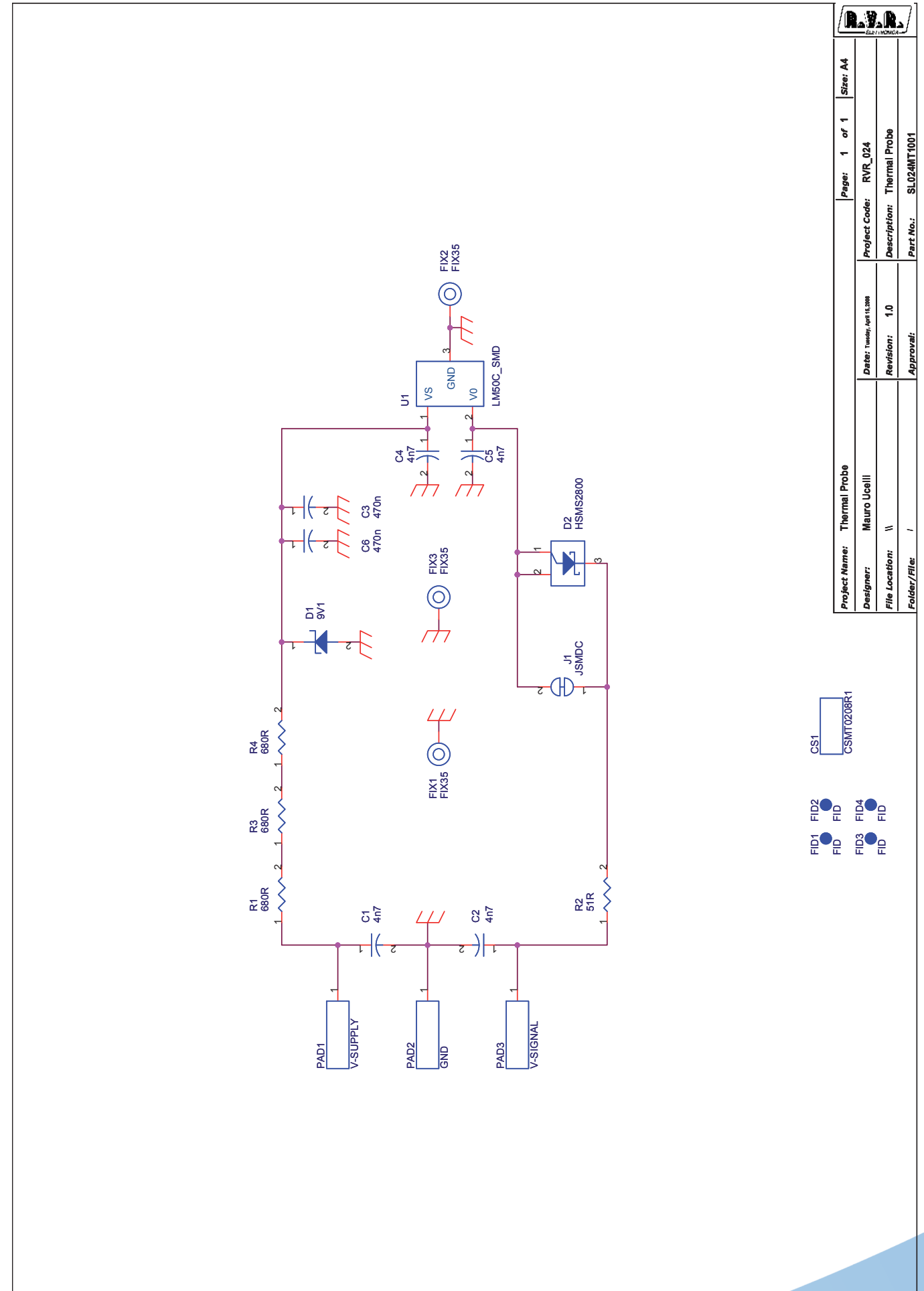
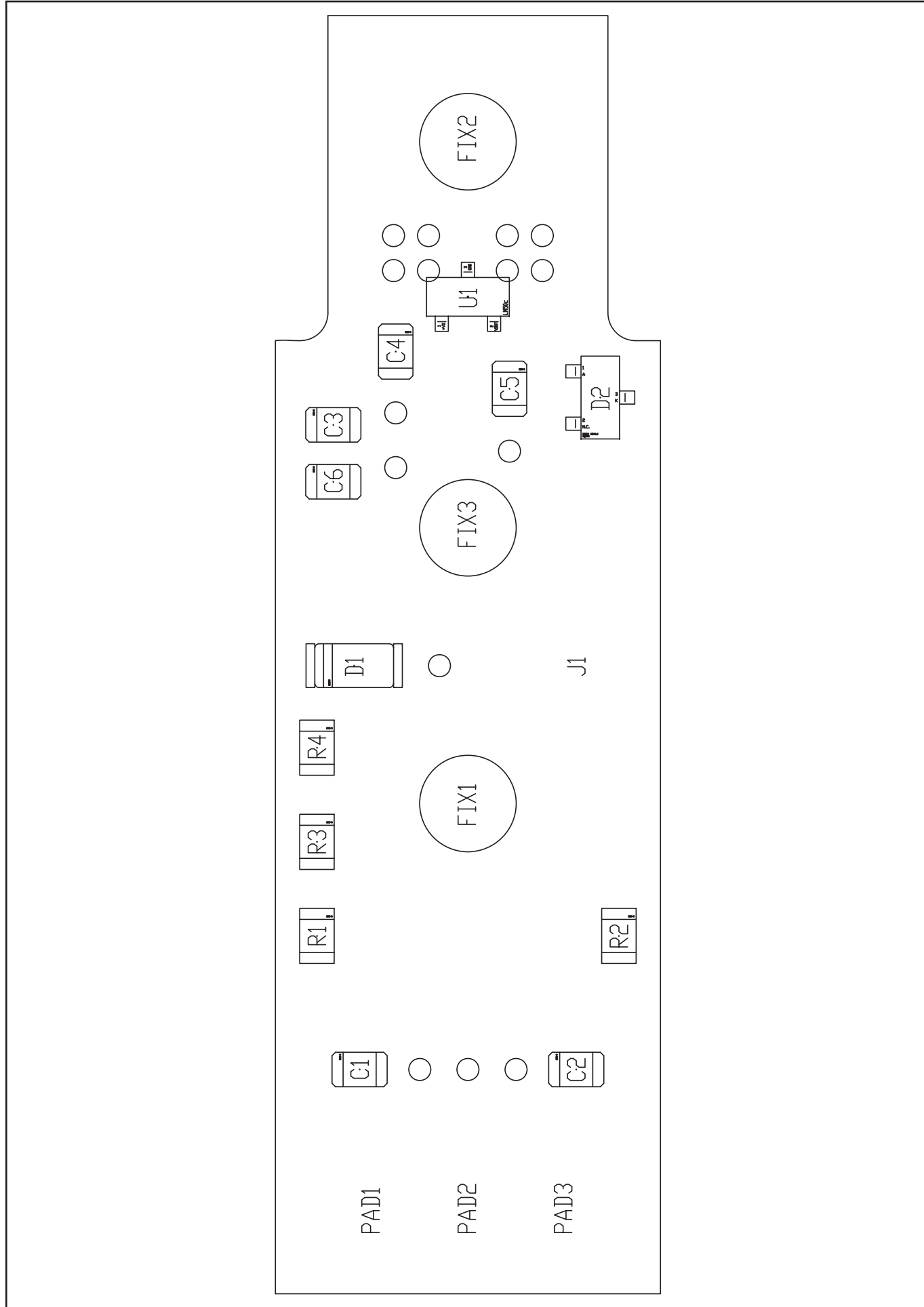
Project Name: Encoder Alps to GrayHill		Page: 1 of 1	Size: A4
Designer: Tommasi A.	Date: November, January 15, 2012	Project Code: RVR	
File Location: \	Revision: 1,1	Description: Interfaccia Encoder Alps	
Folder/File: /	Approval:	Part No.: SLI0548R01V01	

SLBI0447R01V01

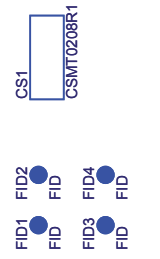
Interfaccia Encoder Alps Revised: Wednesday, January 18, 2012
 SLIN0348R01V01 Revision: 1.1
 A. Tommasi
 Encoder Alps to GrayHill
 RVR

Item	Quantity	Reference	Part	Description
1	1	CN1	NC	Connettore 6 poli Mascon
2	1	CS1	CSIN0348R1	Circuito stampato
3	2	C1,C2	1nF	Cond. SMD 0805
4	2	C3,C4	47nF	Cond. SMD 0805
5	1	C5	10uF/16V	Cond. Elett. SMD d. 4mm
6	1	D1	NC	MINIMELF SMD Diode
7	1	D2	BAV70	Doppio Diodo SMD SOT23
8	1	ENC1	EC11E15244C0	Incremental encoder ALPS EC11
9	3	FID1,FID2,FID3	FID	
10	3	FIX1,FIX2,FIX3	FIX35	Foro fissaggio 3.5mm
11	1	JP1	NC	Strip maschio 5 pin
12	6	PAD1,PAD2,PAD3,PAD4,PAD5, PAD6	PAD1650	Pad SMD saldare 1,6x5 mm
13	1	U1	PIC12F508/SO	PIC Microprocessor SMD

SL024MT1001



Project Name: Thermal Probe		Page: 1 of 1	Size: A4
Designer: Mauro Ucelli	Date: 1/11/2016	Project Code: RVR_024	
File Location: \	Revision: 1.0	Description: Thermal Probe	
Folder/File: /	Approval:	Part No.: SL024MT1001	

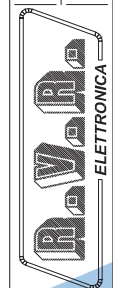
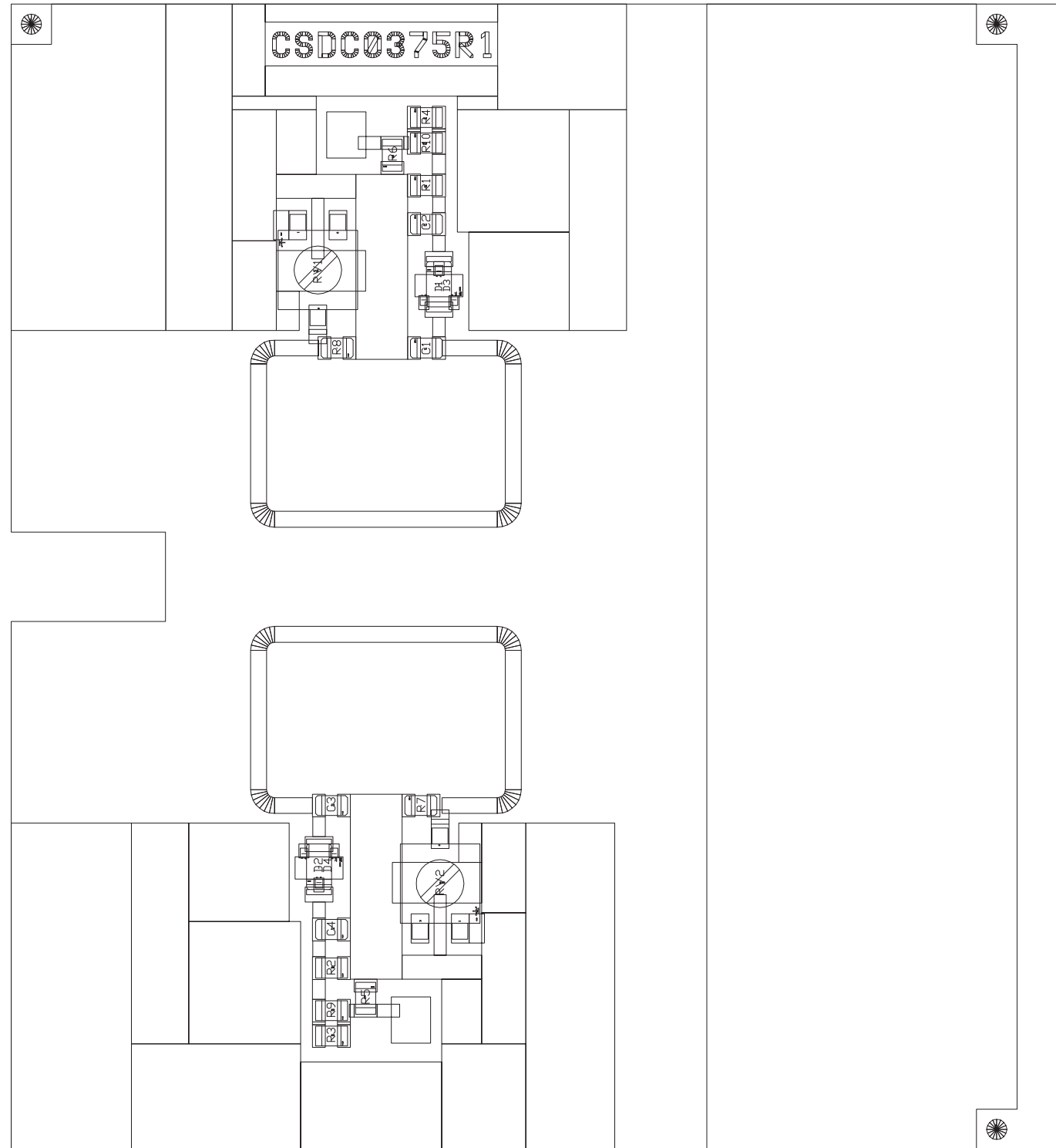


SL024MT1001

Thermal Probe
Revision: 0.1
Thermal Probe
Mauro Ucelli
08/04/08

tem	Quantity	Reference	Part	Description
1	4	C1,C2,C4,C5	4n7	Cond. SMD 0805
2	2	C3,C6	470n	Cond. SMD 0805
3	1	D1	9V1	MINIMELF SMD Zener Diode
4	1	D2	HSMS2800	Diodo Shottky SOT23
5	3	FIX1,FIX2,FIX3	FIX35	Foro fissaggio 3.5mm
6	1	J1	JSMDC	Pad SMD a saldare chiuso
7	1	PAD1	V-SUPPLY	
8	1	PAD2	GND	
9	1	PAD3	V-SIGNAL	
10	3	R1,R3,R4	680R	Res. SMD 0805
11	1	R2	51R	Res. SMD 0805
12	1	U1	LM50C_SMD	Temperature sensor
13	1	CS1	CSMT0208R1	Circuito stampato

SLDC0375R01V01



NOME PROGETTO: TEX-LCD GREEN LINE

AUTORE: L. GASPERINI

ARCHIVIAZIONE ELETTRONICA: "CARTELLA RILASCIATI" SU "RVRUT"

MATERIALE: <>

NOME PARTE: DIRECTIONAL COUPLER

DATA: 27/06/2014

REVISIONE: 1.1

SCALA: 1:1

SIZE: A4

PAGINA: 1 DI 1

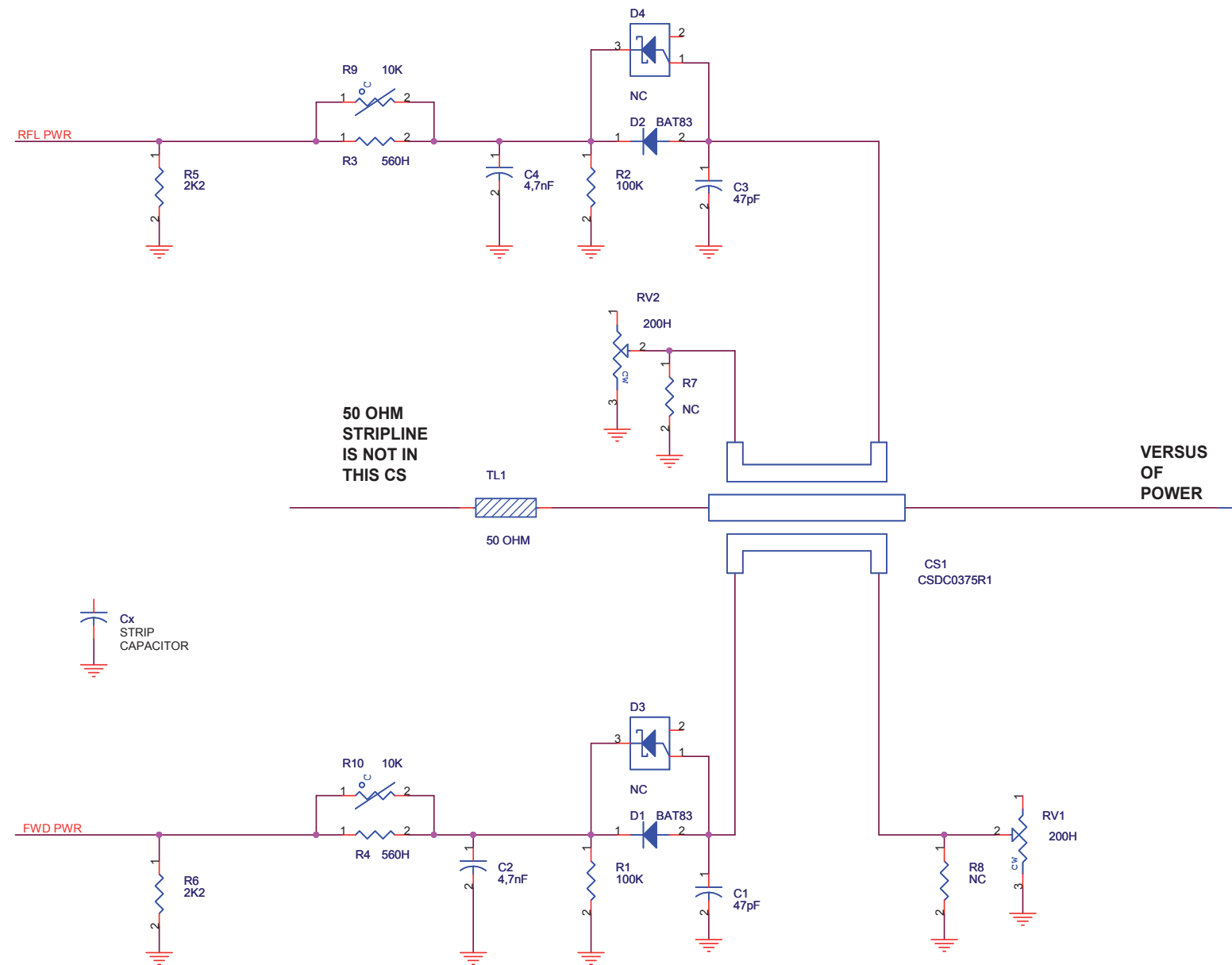
CODICE PROGETTO: 237

CODICE DISEGNO: SLDC0375R01V01

PROFILO: <>

STATO: ESECUTIVO

SLDC0375R01V01



Description: Directional Coupler			
Designer: L. Gasperini	Size: A3	Page: 1 of 1	
Part No.: SLDC0375R01V01	Rev. 1.1	Date: 27/06/2014	

SLDC0375R01V01

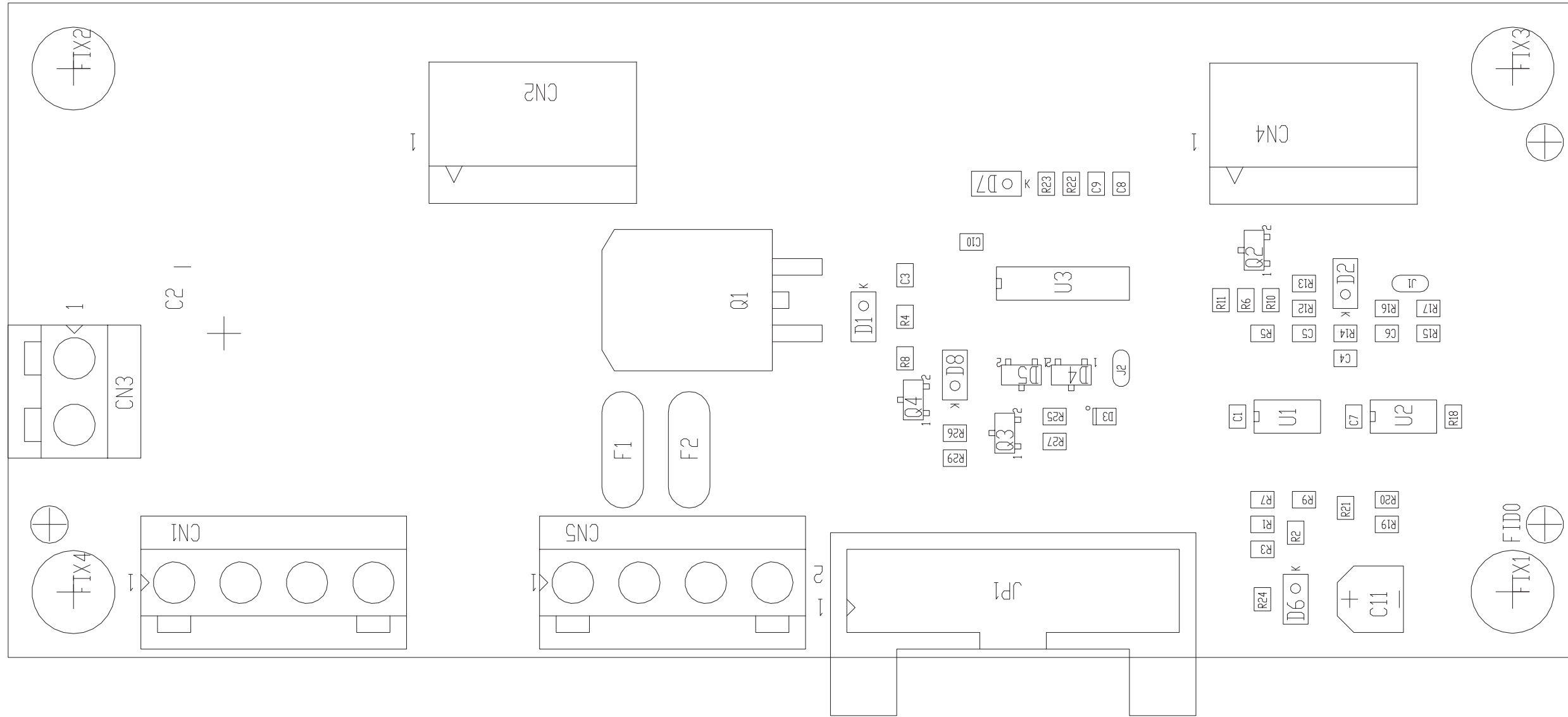
DIRECTIONAL COUPLER Revised: 27/06/2014

SLDC0375R01V01 Revision: 1.1

L. Gasperini

Item	Quantity	Reference	Part	{description}
1	1	CS1	CSDC0375R1	
2	1	Cx	27pFTFL	
3	2	C3, C1	47pF	Cond. SMD 0805
4	2	C2, C4	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

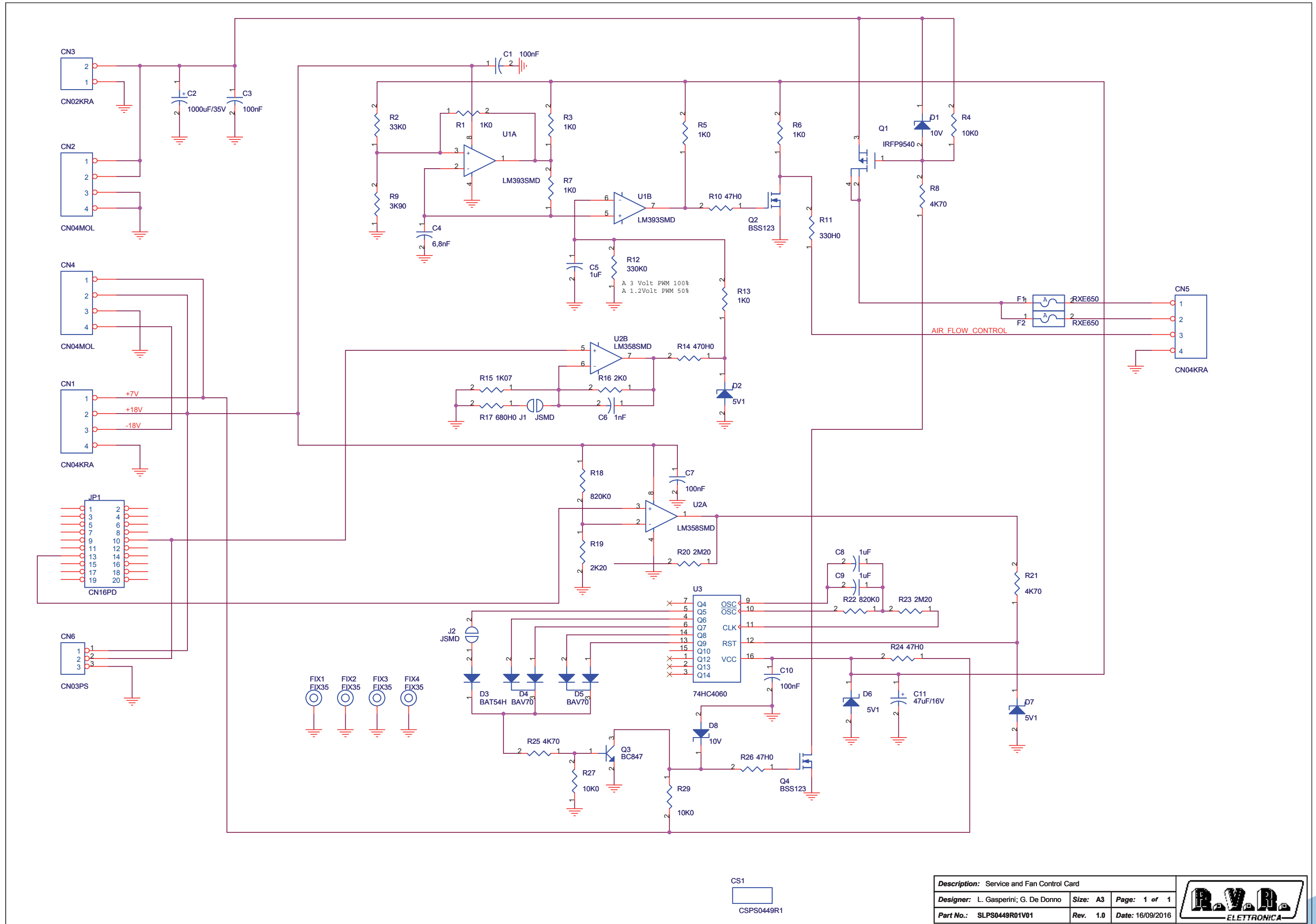
SLPS0449R01V01



PRODUCT NAME : PTX1000DDS	PART NAME : SERVICE AND FAN CONTROL CARD
DESIGNER : L. GASPERINI	DATE : 16/09/16
ARCHIVING : "RV RUT" SERVER, "RILASCIATI" FOLDER	REVISION : 1.0
	SCALE : 2:1
	SIZE : A4
	PAGE : 1
	DI : 1
	DOCUMENT CODE : SLPS0449R01V01
	PROJECT CODE : 034



SLPS0449R01V01



CS1
CSPS0449R1

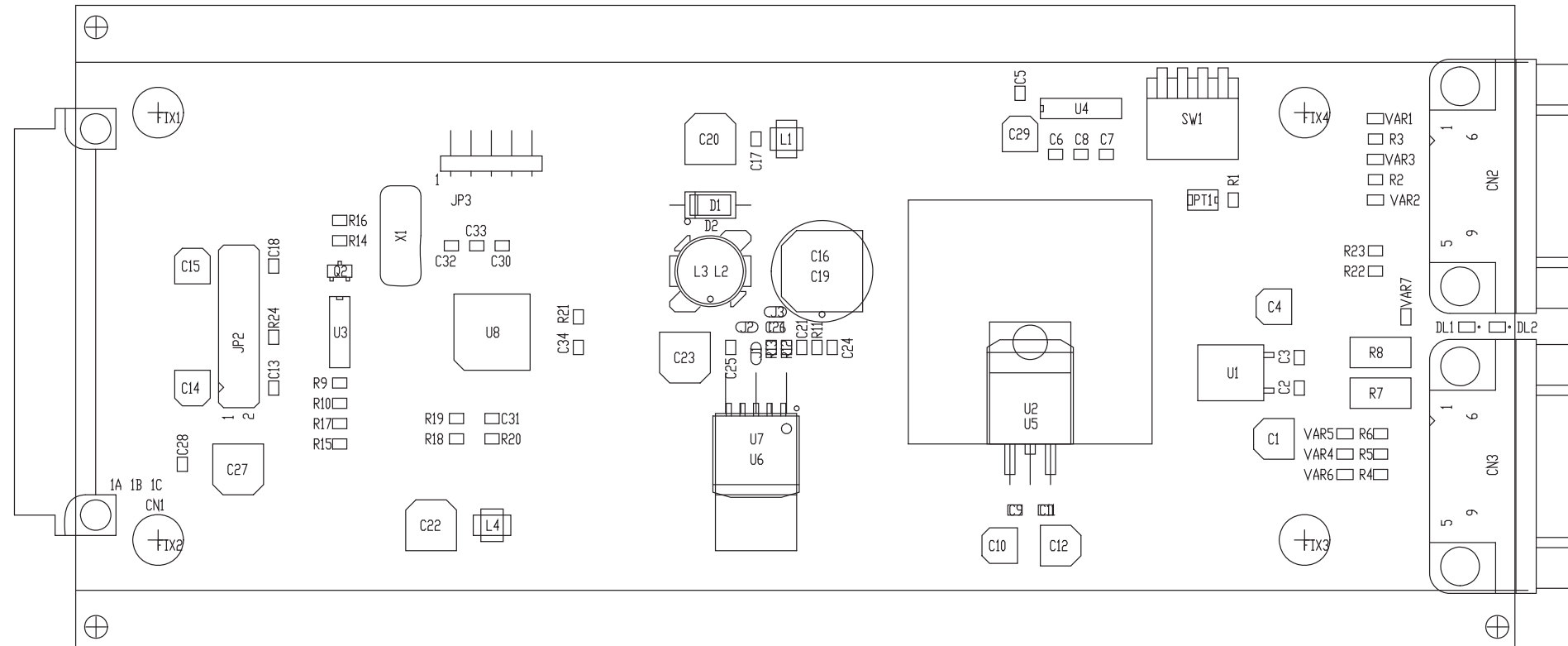
Description: Service and Fan Control Card		
Designer: L. Gasperini; G. De Donno	Size: A3	Page: 1 of 1
Part No.: SLPS0449R01V01	Rev. 1.0	Date: 16/09/2016



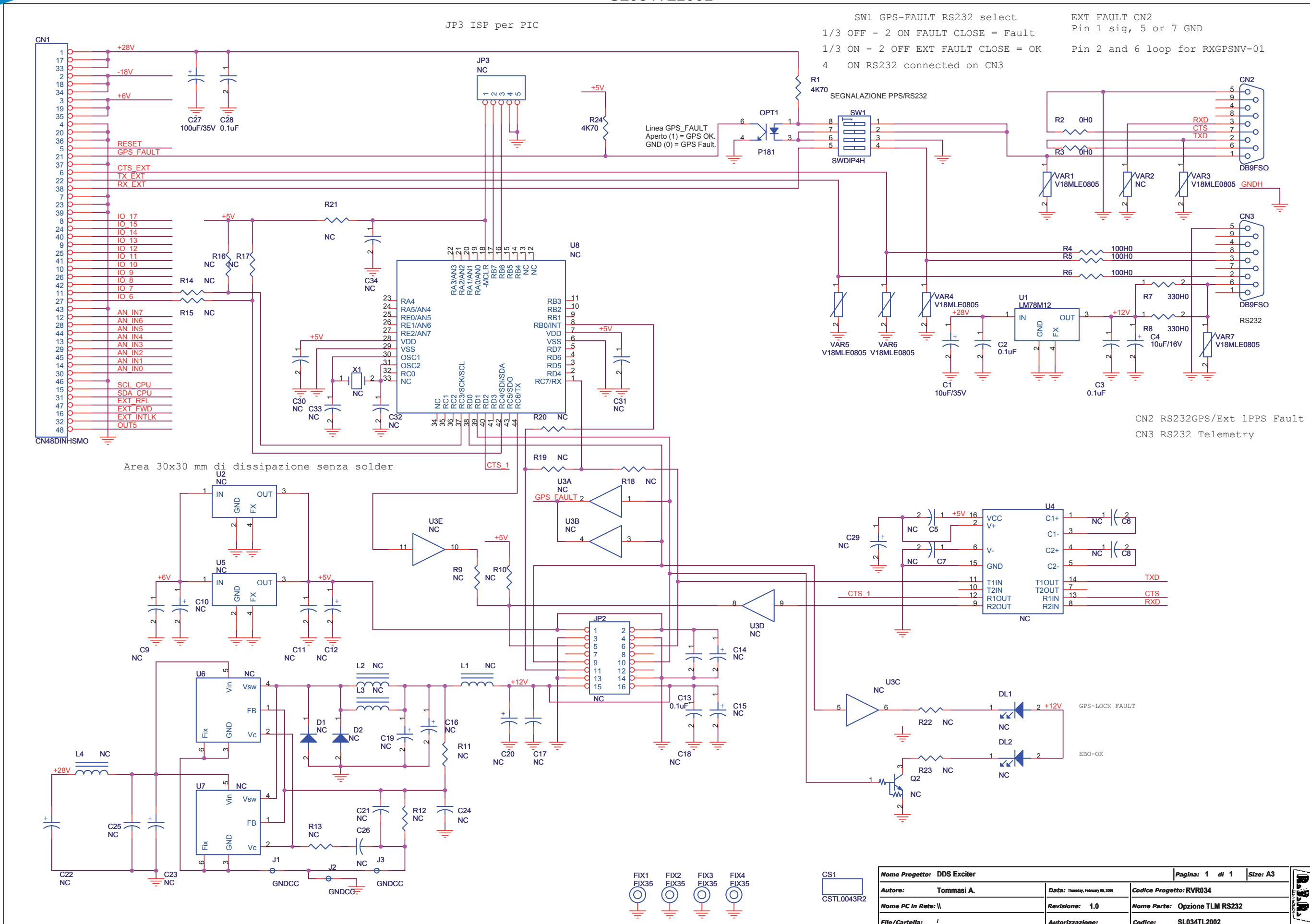
SLPS0449R01V01

Service and Fan Control Card Revised: 16/09/2016
 SLPS0449R01V01 Revision: 1.0
 L. Gasperini; G. De Donno

Item	Quantity	Reference	Part	{description}
1	2	CN1, CN5	CN04KRA	Conn. tipo KRA a 4 poli
2	2	CN4, CN2	CN04MOL	Conn. Molex 41662-04 p. 3.96mm
3	1	CN3	CN02KRA	Conn. tipo KRA a 2 poli
4	1	CN6	CN03PS	Conn. 3 poli Mascon
5	1	CS1	CSPS0449R1	Circuito stampato
6	4	C1, C3, C7, C10	100nF	Cond. SMD 0805
7	1	C2	1000uF/35V	Cond. Elettr. Dia 13 P5.08
8	1	C4	6,8nF	Cond. SMD 0805
9	3	C5, C8, C9	1uF	Cond. SMD 0805
10	1	C6	1nF	Cond. SMD 0805
11	1	C11	47uF/16V	Cond. Elett. SMD d. 5mm
12	2	D8, D1	10V	MINIMELF SMD Zener Diode
13	3	D2, D6, D7	5V1	MINIMELF SMD Zener Diode
14	1	D3	BAT54H	SOD323 SMD Diode
15	2	D4, D5	BAV70	Doppio Diodo SMD SOT23
16	4	FIX1, FIX2, FIX3, FIX4	FIX35	Foro fissaggio 3.5mm
17	2	F2, F1	RXE650	Fusibile autorip. RUE p5mm
18	1	JP1	CN16PD	Conn. 16 poli Flat cs
19	2	J1, J2	JSMD	Pad SMD a saldare
20	1	Q1	IRFP9540	Trans. FET P D2PAK
21	2	Q4, Q2	BSS123	Trans. FET SOT23
22	1	Q3	BC847	Trans. NPN SOT23
23	6	R1, R3, R5, R6, R7, R13	1K0	Res. SMD 0805 1%
24	1	R2	33K0	Res. SMD 0805 1%
25	3	R4, R27, R29	10K0	Res. SMD 0805 1%
26	3	R8, R21, R25	4K70	Res. SMD 0805 1%
27	1	R9	3K90	Res. SMD 0805 1%
28	3	R10, R24, R26	47H0	Res. SMD 0805 1%
29	1	R11	330H0	Res. SMD 0805 1%
30	1	R12	330K0	Res. SMD 0805 1%
31	1	R14	470H0	Res. SMD 0805 1%
32	1	R15	1K07	Res. SMD 0805 1%
33	1	R16	2K0	Res. SMD 0805 1%
34	1	R17	680H0	Res. SMD 0805 1%
35	2	R22, R18	820K0	Res. SMD 0805 1%
36	1	R19	2K20	Res. SMD 0805 1%
37	2	R20, R23	2M20	Res. SMD 0805 1%
38	1	U1	LM393SMD	Dual Comp. SMD SO8
39	1	U2	LM358SMD	Dual Op. SMD SO8
40	1	U3	74HC4060	Divider SMD SO16



NOME PROGETTO: PTX-DDS	NOME PARTE: SCHEDA OPZIONE TELEMETRIA RS232
AUTORE: TOMMASI	DATA: 09/02/2006
ARCHIVIAZIONE ELETTRONICA: "CARTELLA RILASCIATI" SU "UTSRV"	REVISIONE: 1.0
MATERIALE: <>	SCALA: 1:1
TRATTAMENTO: <>	SIZE: A4
PROFILO: <>	PAGINA: 1 DI 1
STATO: ESECUTIVO	CODICE DISEGNO: SL034TL2002



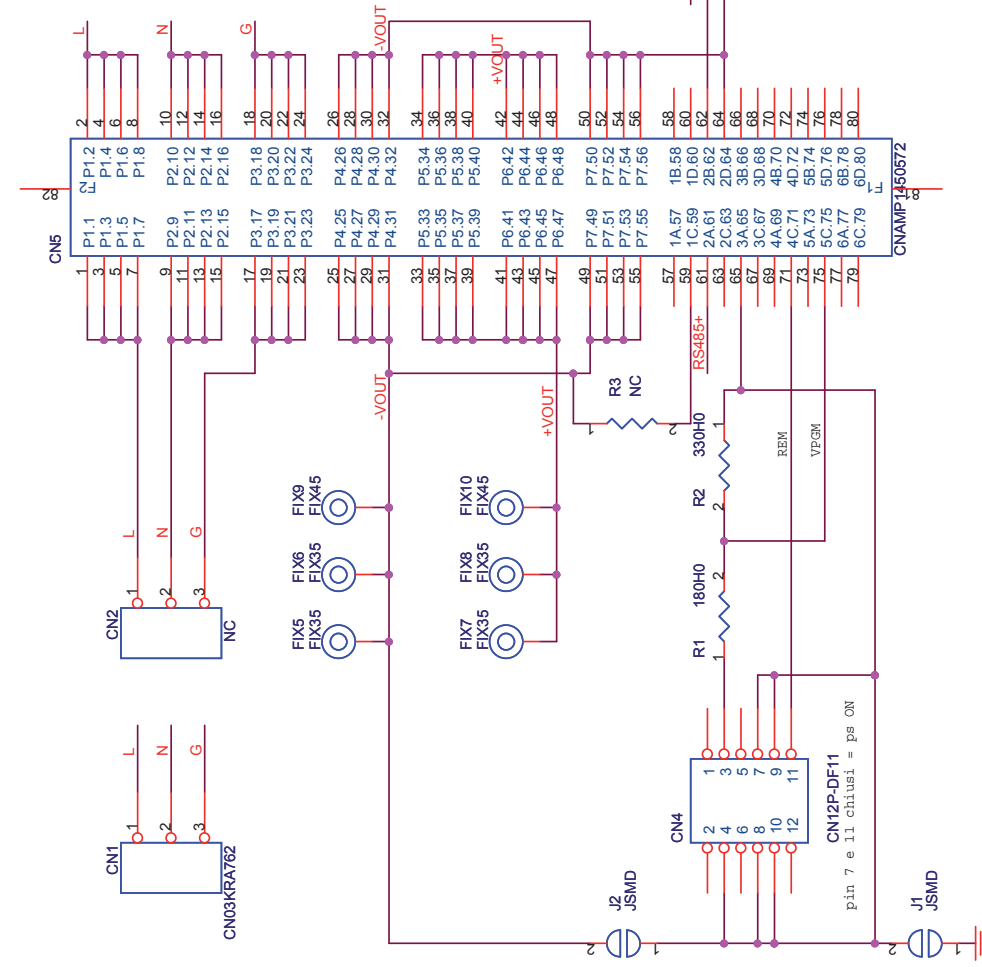
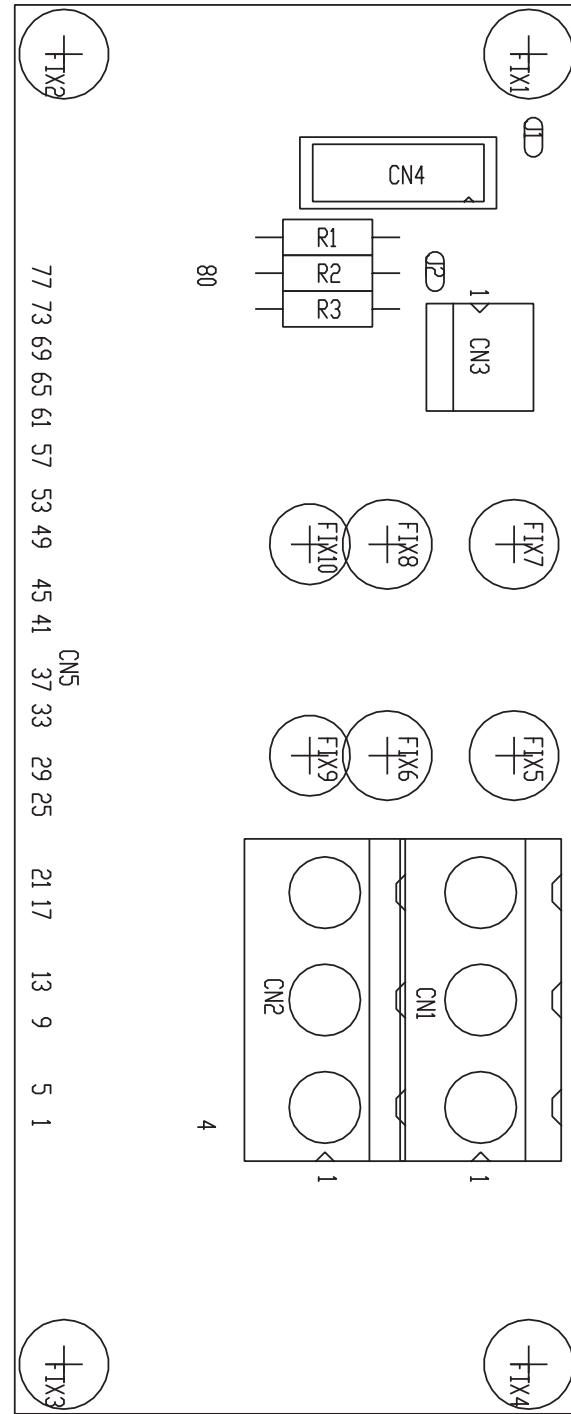
SL034TL2002

Tabella 1

Opzione TLM RS232 Revised: Thursday, February 09, 2006
 SL034TL2002 Revision: 1.0
 DDS Exciter
 RVR034
 Tommasi A.

Item	Quantity	Reference	Part	Description
1	1	CN1	CN48DINHSMO	Connettore M 48 poli DIN cs 90 gradi
2	2	CN2,CN3	DB9FSO	Connettore DB9 femm. cs 90°
3	1	CS1	CSTL0043R2	Circuito stampato
4	1	C1	10uF/35V	Cond. Elett. SMD d. 5mm
5	4	C2,C3,C13,C28	0.1uF	Cond. SMD 0805
6	1	C4	10uF/16V	Cond. Elett. SMD d. 4mm
7	17	C5,C6,C7,C8,C9,C11,C17, C18,C21,C24,C25,C26,C30, C31,C32,C33,C34	NC	Cond. SMD 0805
8	4	C10,C14,C15,C29	NC	Cond. Elett. SMD d. 4mm
9	1	C12	NC	Cond. Elett. SMD d. 5mm
10	1	C16	NC	Cond. Elett. SMD d. 10mm
11	1	C19	NC	Cond. Elettr. Dia 13 P5.08
12	3	C20,C22,C23	NC	Cond. Elett. SMD d. 6.3mm
13	1	C27	100uF/35V	Cond. Elett. SMD d. 6.3mm
14	2	DL1,DL2	NC	LED SMD 0805
15	1	D1	NC	Diode plastico DO41
16	1	D2	NC	MELF SMD Diode
17	4	FIX1, FIX2, FIX3, FIX4	FIX35	Foro fissaggio 3.5mm
18	1	JP2	NC	Strip femmina 8+8 pin
19	1	JP3	NC	Strip maschio 5 pin a 90°
20	3	J1,J2,J3	GNDCC	Non e' un componente
21	2	L1,L4	NC	Ind. verticale SMD dia. 4 p 4.8
22	1	L2	NC	Induttanza EPCOS B82464-A4 10mmx10mm
23	1	L3	NC	Ind. verticale dia. 8 p 5
24	1	OPT1	P181	Optoisolatore SMD SO6
25	1	Q2	NC	Trans./Res. NPN SOT23
26	2	R1,R24	4K70	Res. SMD 0805 1%
27	2	R2,R3	0H0	Res. SMD 0805 1%
28	3	R4,R5,R6	100H0	Res. SMD 0805 1%
29	2	R7,R8	330H0	Res. SMD 2512 1%
30	15	R9,R10,R11,R12,R13,R14, R15,R16,R17,R18,R19,R20, R21,R22,R23	NC	Res. SMD 0805 1%
31	1	SW1	SWDIP4H	Dip switch 4 vie orizz.
32	1	U1	LM78M12	Stabilizzatore SMD DPAK
33	1	U2	NC	Stabilizzatore TO220
34	1	U3	NC	Hex buffer OC SMD SO14
35	1	U4	NC	RS232 Driver SMD SO16
36	1	U5	NC	Stabilizzatore SMD D2PAK
37	1	U6	NC	Regolatore switching
38	1	U7	NC	Regolatore switching SMD
39	1	U8	NC	TQFP44 SMD Microprocessor
40	6	VAR1,VAR3,VAR4,VAR5,VAR6, VAR7	V18MLE0805	ESD SMD protector
41	1	VAR2	NC	ESD SMD protector
42	1	X1	NC	Quarzo SMD HC49SMD

SLIN0445R02V01



Description: PS GE Interface	Size: A4	Page: 1 of 1
Designer: Tommasi A.	Rev: 1.0	Date: 01/08/2016
Part No.: SLIN0445R02V01		

	PRODUCT NAME : PTX1000DDS	PART NAME : PS G.E. INTERFACE				
	DESIGNER : A. TOMMASI	DATE : 01/08/16	REVISION : 1.0	SCALE : 1:1	SIZE : A4	PAGE : 1 DI 1
ARCHIVING : 'RVVRUT' SERVER, 'RILASCIATI' FOLDER	PROJECT CODE : 034	DOCUMENT CODE : SLIN0445R02V01				

SLIN0445R02V01

PS GE Interface Revised: Monday, August 01, 2016
 SLIN0445R02V01 Revision: 1.0
 A. Tommasi

Tommasi A.

Item	Quantity	Reference	Part	Description
1	1	CN1	CN03KRA762	Conn. tipo KRA a 3 poli p 7.62mm
2	1	CN2	NC	Conn. tipo KRA a 3 poli p 7.62mm
3	1	CN3	NC	Conn. 3 poli Mascon
4	1	CN4	CN12P-DF11	Conn. 12 poli DF11 12pin p. 2mm
5	1	CN5	CNAMP1450572	Conn. AMP 1450572-1
6	1	CS1	CSIN0445R2	Circuito stampato
7	8	FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8	FIX35	Foro fissaggio 3.5mm
8	2	FIX9, FIX10	FIX45	Foro fissaggio 4.5mm
9	2	J1, J2	JSMD	Pad SMD a saldare
10	1	R1	180H0	Res. 1/4W
11	1	R2	330H0	Res. 1/4W
12	1	R3	NC	Res. 1/4W

PSCP2725AC48

GE

Data Sheet

CP2725AC48TEZ-FB Compact Power Line High Efficiency Rectifier

Input: 100-120/220-240 Vac; Output: 2725W¹ @ 52Vdc; 5 Vdc @ 4W



Features

- Efficiency 95%
- Compact 1RU form factor providing 30 W/in³
- 2725W @ 52V from nominal 220 – 240Vac
- 1200W from nominal 100 – 120Vac (for V_o > 42Vdc)
- Output voltage programmable from 18V – 53Vdc
- PMBus compliant dual I²C and RS485 serial busses
- Power factor correction (meets EN/IEC 61000-3-2 and EN 60555-2 requirements)
- Output overvoltage and overload protection
- AC Input overvoltage and undervoltage protection
- Over-temperature warning and protection
- Redundant, parallel operation with active load sharing
- Redundant +5V Aux power
- Remote ON/OFF
- Hot insertion/removal (hot plug)
- Four front panel LED indicators
- UL* Recognized to UL60950-1, CAN/ CSA† C22.2 No. 60950-1, and VDE‡ 0805-1 Licensed to IEC60950-1
- CE mark meets 2006/95/EC directive§
- Internally controlled Variable-speed fan
- RoHS 6 compliant
- Special Foldback Curve

Applications

- Wide band power amplifiers

Description

The CP2725AC48TEZ-FB Rectifier has an extremely wide programmable output voltage capability and fold-back current limiting features. High-density front-to-back airflow is designed for minimal space utilization and is highly expandable for future growth. This custom rectifier incorporates both RS485 and dual-redundant I²C communications busses that allow it to be used in a broad range of applications. Feature set flexibility makes this rectifier an excellent choice for a set of applications requiring operation over a wide output voltage range.

* UL is a registered trademark of Underwriters Laboratories, Inc.
 † CSA is a registered trademark of Canadian Standards Association.
 ‡ VDE is a trademark of Verband Deutscher Elektrotechniker e.V.
 § This product is intended for integration into end-user equipment. All the required procedures for CE marking of end-user equipment should be followed. (The CE mark is placed on selected products.)
 ** ISO is a registered trademark of the International Organization of Standards.

¹ High line operation. The unit current limits below 52V and therefore the available output power below 52V operation is reduced.



January 7, 2013

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Data Sheet

CP2725AC48TEZ-FB Rectifier

Input: 100-120/220-240 Vac; Output: 2725W¹ @ 52Vdc; 5 Vdc @ 4W

Electrical Specifications

Input					
Parameter	Min	Typ	Max	Units	Notes
Startup Input Voltage Low-line Operation High-line Operation			90 200		
Operating Voltage Range Low-line Configuration High-line Configuration	90 200	100, 110, 120 220 - 240	140 265	Vac	
Surges (no damage)	305				
Input Frequency	47		66	Hz	
Input Current			12 13.5	A	At 110 Vac At 240 Vac
Inrush Transient		25	30	Apk	Measured at 25°C for all line conditions; does not include X-Capacitors charging.
Input Leakage Current		2.5	3.5	mA	Measured at 265Vac, 60Hz
Power Factor	0.96	0.98			From 50% to 100% (2725W @ HL, 1200W @ LL) load
Efficiency ²	20 – 90% of FL	93	95	%	With or'ing function, aux 5V output, dual/redundant I ² C and RS485 communications and POE isolation
	>38V	85		%	>20% load Test condition: input; 240Vac, 60hz, output; 52Vdc
Holdup		20		ms	48Vdc, Measurement starts at zero crossing of the ac voltage, and voltage decayed to 40V.
		30			← For loads below 1200W.
Ride thru	1/2	1		cycle	Tested at nominal 115V and 230V . Complies to CISPR24 standards
Power Fail Warning ³	3	5		ms	Alarm issued via PFW signal going LO 5 ms prior to the main output decaying below 40Vdc.

Main Output					
Parameter	Min	Typ	Max	Units	Notes
Output Power	1200 2725			W	Above 52Vdc from nominal 90-120Vac upto 55°C. Above 52Vdc from nominal 200-265Vac upto 55°C
Default Set point		48		Vdc	Output floats with respect to frame ground.
Overall Regulation ⁴	-1 -2		+1 +2	%	0 – 45C, minimum load 2.5A > 45C
Output Voltage Set Range	18		53	Vdc	Analog margining and RS485
	18		53	Vdc	Set by I ² C
Output current	1		23	A	1200W @ 52V @ 90-120Vac.
	1		52.4		2725W @ 52V @ 200-240Vac.

² At 52Vdc, 240Vrms and 25°C.
³ Internal protection circuits may override the PFW signal and may trigger an immediate shutdown.
⁴ Includes all variations due to specified load range, drift, and environmental conditions.

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Data Sheet

CP2725AC48TEZ-FB Rectifier

Input: 100-120/220-240 Vac; Output: 2725W¹ @ 52Vdc; 5 Vdc @ 4W

Electrical Specifications (continued)

Main Output (continued)					
Parameter	Min	Typ	Max	Units	Notes
Current Share	V _o > 42V V _o < 42V	-5 -10	5 10	%FL	Compared to the average output current delivered by a set of Rectifiers. Loads > 50% FL
Output Ripple RMS (5Hz to 20MHz) Peak-to-Peak (5Hz to 20MHz)		60	100 500	mVrms mVp-p	Measured with 20MHz bandwidth under any condition of loading. Minimum load is 1A.
External Bulk Load Capacitance	0		5,000	μF	External capacitance can be increased but the rectifier will not meet its turn-ON rise time requirement.
Turn-On Delay Rise Time - Standard (PMBus) -Telecom (RS-485) ⁵ Overshoot		5 100 5		s ms s %	Monotonic Turn_On from 30% to 100% of Vnom above -5°C operation. Monotonic Turn_On from 60% to 100% of Vnom below -5°C operation.
Load Step Response ΔI ΔV Response Time		2.0 2	50	%FL Vdc ms	ΔI/Δt slew rate 1A/μs. Settling time to within regulation requirements. Minimum load of 2.5 amperes required.
Power Limit - high line	2725			W	Down to 51Vdc
Power limit - low line	1200			W	
The overload current limit threshold should be set ≈ 5% above the load envelope shown here					
Permissible Load Boundary	Contract terms are for supporting all loads inside the load map. The customer will develop a control interface which maintains the operating voltage and current so as to not exceed the load map.				
	<p>The graph plots Voltage (Vdc) on the y-axis (15 to 55) against Load Boundary (Amps) on the x-axis (10.0 to 55.0). A solid red line represents the 'High Line Capacity Capability V-A curve - RED', and a dashed blue line represents the 'Low Line Capacity Capability V-A curve - BLUE'. A dashed blue line also indicates the '1200W power limit'. The red curve starts at ~53V for 10A, remains flat until ~22A, then drops to ~45V at 55A. The blue curve starts at ~18V for 10A, remains flat until ~20A, then rises to ~45V at 55A.</p>				
System Power Up	Units should be able to be plugged in one at a time and guarantee system start up. Units should stay in current limit for approximately 20 seconds to guarantee restart.				

⁵ Below -5°C, the rise time is approximately 5 minutes to protect the bulk capacitors.

GE

Data Sheet

CP2725AC48TEZ-FB Rectifier

Input: 100-120/220-240 Vac; Output: 2725W¹ @ 52Vdc; 5 Vdc @ 4W

Electrical Specifications (continued)

Main Output (continued)					
Over-voltage	Delayed Latchoff		60	Vdc	200msec delayed shutdown to be implemented. Instantaneous shutdown above this point.
	Immediate Latchoff		65	Vdc	Three restart attempts may be implemented within a one minute window prior to a latched shutdown
Over-temperature Warning		5		°C	Implemented prior to commencement of an OT shutdown
Shutdown		20		°C	Below the maximum rating of the device being protected
Auto-recoverable	Temperature hysteresis of approximately 10°C provided between shutdown and restart.				
Overcurrent events that exceed the envelope by 5% will hiccup continuously at a frequency of approximately once every 20 seconds. For voltage set-points below 42V, a tracking Under Voltage shutdown occurs at 2 volts below set-point. UV must exhibit for more than 1 second before shutdown. UV shutdown will exhibit the same 20 second hiccup behavior.					

Electrical Specifications (continued)

Auxiliary Output					
Parameter	Min	Typ	Max	Units	Notes
Output Voltage Setpoint		5		Vdc	
Output Current	0.005		0.75	A	
Overall Regulation	-10		+5	%	Within ±5% when load is < 0.5A.
Ripple and Noise		50	100	mVpk-pk	20MHz bandwidth
Over-voltage Clamp			7	Vdc	
Over-current Limit	110		175	%FL	

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Data Sheet

CP2725AC48TEZ-FB Rectifier

Input: 100-120/220-240 Vac; Output: 2725W¹ @ 52Vdc; 5 Vdc @ 4W

Environmental, EMC, Reliability Specifications					
Environmental					
Parameter	Min	Typ	Max	Units	Notes
Ambient Temperature Operating Derating	-40 ⁶	1	55 2	°C	Air inlet from sea level to 5,000 feet. Per 1,000 feet above 5,000 feet.
Storage Temperature	-40		85	°C	
Humidity	5		95	%	Relative humidity, non-condensing
Altitude	-60 -200		4000 13000	m ft	For operation above 2500m (5000 ft.), maximum operating temperature is derated by 2°C per 305m (1000 ft.).
Shock and Vibration					IPC9592 sections 5.2.8 – 5.2.13
Earthquake Rating	4			Zone	Per Telcordia GR-63-CORE, all floors, when installed in CP Shelf.
Acoustic Noise		55		dBA	Noise is proportional to fan speed, load and ambient temperature.
Harmonic Emissions	Per EN/IEC61000-3-2				
Radiated Emissions ⁷	Exceeds FCC and CISPR22 (EN55022) - Class A by a 6dB margin				
Conducted Emissions - ac	Exceeds FCC and CISPR22 (EN55022) Class A Telcordia GR-1089-CORE - Class A by a 6dB margin				
ESD	Error free per EN/IEC 61000-4-2 Level 3 (6 kV contact discharge, 8 kV air discharge).				
Radiated Immunity	Error free per EN/IEC 61000-4-3 Level 3 (10 V/m).				
Electrical Fast Transient Burst	Error free per EN/IEC 61000-4-4 Level 3 (2 kV, 5 kHz repetition rate)				
Lightning Surge, Error Free Damage Free	EN/IEC61000-4-5 Level 4 (4 kV common mode, 2 kV differential mode). ANSI C62.41 Level A3 (6 kV common and differential mode)				
Line sags and interruptions	IPC9592A issued May 2010; 1 cycle interruption or 25% sag (115V, 230V – nominal for UUT) for 2 seconds the output shall stay above 40Vdc at full load. [Note: An input sag below 80V may cause an immediate shutdown.]				
Conducted Immunity	Error free per EN/IEC 61000-4-6 Level 3 (10Vrms).				
Reliability (calculated)		450,000		Hours	At ambient of 25°C at full load per Telcordia SR-332, issue 2, Reliability Prediction for Electronic Equipment, Method I Case III.
Isolation Input-Chassis/Signals Input - Output Output-Chassis Output-Chassis/Signals	1500 3000 500 2250			Vrms Vrms Vdc Vdc	Per EN60950. Consult factory for testing to this requirement Internal Lineage standard, GR_947 POE compliant Rectifier, Per IEEE802.3.
Service Life		10		Years	25°C ambient, full load excluding fans.

⁶ Designed to start and work at an ambient as low as -40°C, but may not meet operational limits until above -5°C
⁷ Radiated emissions compliance was met using a Lineage Power shelf. This shelf includes output common and differential mode capacitors that assist in meeting compliance.

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Data Sheet

CP2725AC48TEZ-FB Rectifier

Input: 100-120/220-240 Vac; Output: 2725W¹ @ 52Vdc; 5 Vdc @ 4W

Status and Control

The Rectifier provides three means for monitor/control: analog RS485 or I²C.

Details of analog controls are provided in this Technical Requirements under Signal Definitions. GE Energy will provide separate application notes on the RS485 and I²C protocol for users to interface to the CPL RECTIFIERS. Contact your local GE Energy representative for details.

Hot Plug

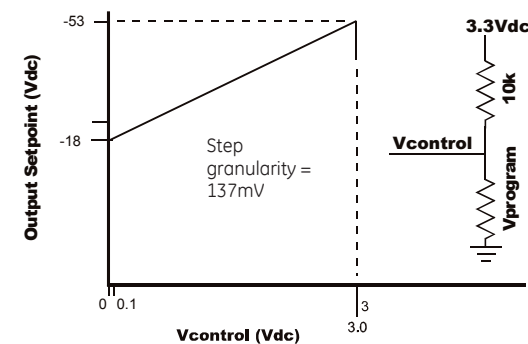
The Rectifier is designed to accommodate rapid extraction and reinsertion into either RS485 or I²C based protocol configurations as set by the *protocol* pin. The protocol state of the Rectifier shall reset immediately after disengagement from the mating connector and the Rectifier will configure itself to the state set by the *protocol* pin upon reinsertion.

Control Definitions

All signals are referenced to Logic_GRD unless otherwise noted. See the Signal Definitions Table at the end of this document for further description of all the signals.

Input Signals

Margining: Set point of the Rectifier can be changed via this input pin. Programming can be either a voltage source or a resistance divider. The margining pin is connected to 3.3Vdc via a 10kΩ resistor inside the Rectifier. See graphs below.



An open circuit on this pin reverts the voltage level back to the original setting of 48V

Software commanded margining overrides the hardware set point indefinitely or until the default setting is reinstated for example if input power and bias power have been removed from the module.

Module Present Signal: This signal has dual functionality. It can be used to alert the system when a module is inserted. A 500Ω resistor is present in series between this signal and Logic_GRD. An external pull-up should not raise the voltage on the pin above 0.25Vdc. Above 1Vdc, the write_protect feature of the EEPROM is enabled.

Protocol Select: Establishes the communications mode of the rectifier, between analog/I²C and RS485 modes. For RS485, connect 10kΩ pull-down resistor to 54_OUT(-DC).

Enable: On/Off control when I²C communications are utilized as configured by the Protocol pin. This pin must be pulled low to turn ON the rectifier. The rectifier will turn OFF if either the Enable or the ON/OFF pin is released. This signal is referenced to Logic_GRD. This function is not supported in RS485 mode.

ON/OFF: This is a short pin utilized for hot-plug applications to ensure that the rectifier turns OFF before the power pins are disengaged. It also ensures that the rectifier turns ON only after the power pins have been engaged. Must be connected to V_OUT (-DC).

Output Signals

Power Capacity: A HI on this pin indicates that the rectifier delivers high line rated output power; a LO indicates that the rectifier is connected to low line configured for 1200W operation.

Power Fail Warning: This signal is HI when the main output is being delivered and goes LO for the duration listed in this data sheet prior to the output decaying below the voltage level listed in this data sheet.

Alert #: I²C interrupt signal.

Fault: This signal goes LO for any failure that requires Rectifier replacement. Some of these faults may be due to:

- Fan failure, OT shutdown, OV shutdown, Internal fault

RS485 mode default: When the unit is powered ON in RS-485 mode the default operational state is powered ON. An RS-485 mode unit shall go to remote standby for any of the following conditions: Interlock Open, or loss of AC.

RS485 mode rise time: When the unit is powered ON in RS485 mode the rise time defaults to load current walk-in. The rise time can be configured to be rapid turn-ON independent of the load profile.

Fan Speed Control: The fan speed can be instructed to turn faster than what is required by the power supply using either the RS485 or I²C protocols. The RS485 command for this feature is:

Name	Cmd	Data Bytes	Type	Notes
Min_speed	3Bh	01h	Uchar	00h: 0% default 64h: 100%

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Data Sheet

CP2725AC48TEZ-FB Rectifier

Input: 100-120/220-240 Vac; Output: 2725W¹ @ 52Vdc; 5 Vdc @ 4W

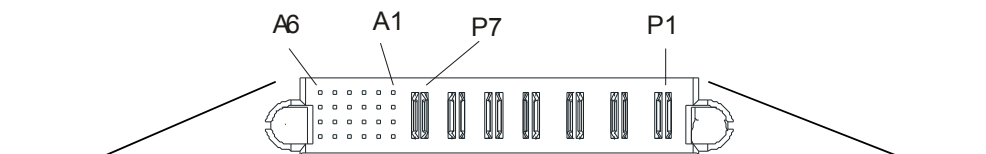
Alarm Table

Condition	Power Supply LED State				Monitoring Signals (Referenced to Logic_GRD)			
	AC OK Green	DC OK Green	Service Amber	Fault Red	Fault	OTW	PFW	Module Present
OK	1	1	0	0	HI	HI	HI	LO
Thermal Alarm (5C before shutdown)	1	1	1	0	HI	LO	HI	LO
Thermal Shutdown	1	0	1	1	LO	LO	LO	LO
Defective Fan	1	0	0	1	LO	HI	LO	LO
Blown AC Fuse in Unit	1	0	0	1	LO	HI	LO	LO
No AC <15mS (single unit)	0	1	0	0	HI	HI	LO ³	LO
AC Present but not within limits	Blinks	0	0	0	HI	HI	LO	LO
AC not present ¹	0	0	0	0	HI	HI	LO	LO
Boost Stage Failure	1	0	0	1	LO	HI	LO	LO
Over Voltage Latched Shutdown	1	0	0	1	LO	HI	LO	LO
Over Current	1	Blinks	0	0	HI	HI	LO	LO
Non-catastrophic Internal Failure ²	1	1	0	1	LO	HI	HI	LO
1 Missing Module								HI ⁴
Standby (remote)	1	0	0	0	HI	HI	LO	LO
Service Request (PMBus mode)	1	1	Blinks	0	HI	HI	HI	LO
Communications Fault (RS485 mode)	1	1	0	Blinks	HI	HI	HI	LO

¹ This signal is correct if the Rectifier is back biased from other Rectifiers in the shelf.
² Any detectable fault condition that does not result in the power supply shutting down. For example, ORing FET failure, boost section out of regulation, etc.
³ Signal transition from HI to LO is output load dependent
⁴ Signal must be pulled HI external to the module

Output Connector

Mating Connector: right angle PWB mate – all pins: AMP 1450572-1, right angle PWB mate except pass-thru input power: AMP 6450378-1



Manufacturer part numbers: FCI 51939-568

	SIGNAL						OUTPUT POWER				INPUT POWER		
	6	5	4	3	2	1	P7	P6	P5	P4	P3	P2	P1
A	SCL_0	MOD_PRES	PFW	LOGIC_GRD	RS_485+	UNIT_ADDR					EARTH (GND)	LINE-2 (Neutral)	LINE-1 (HOT)
B	SCL_1	OTW	Alert#_0	Alert#_1	RS_485-	8V_INT	V_OUT (-)	V_OUT (+)	V_OUT (+)	V_OUT (-)			
C	SDA_0	Margin	Enable	Reset	Ishare	Protocol							
D	SDA_1	Fault	5VA	Power_Cap	ON/OFF	SHELF_ADDR							

Note: Connector is viewed from the rear positioned inside the rectifier
Signal pins columns 1 and 2 are referenced to V_OUT(-)
Signal pins columns 3 through 6 are referenced to Logic GRD
Last to make-first to break shortest pin
Earth First make-last to break longest pin implemented in the mating connector

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Data Sheet

CP2725AC48TEZ-FB Rectifier

Input: 100-120/220-240 Vac; Output: 2725W¹ @ 52Vdc; 5 Vdc @ 4W

Signal Definitions

All hardware alarm signals (Fault, PFW, OTW, Power Capacity) are open drain FETs. These signals should be pulled HI to either 3.3V or 5V. Maximum sink current 5mA. An active LO signal (< 0.4Vdc) state. All signals are referenced to Logic GRD unless otherwise stated. Contact your Lineage Power representative for more details.

Function	Label	Type	Description
Output Enable	Enable	Input	If shorted to LOGIC_GRD, the Rectifier output is enabled when using I ² C mode of operation. May also be toggled to reset a latched OFF Rectifier. Function not available in RS485 mode.
Power Fail Warning	PFW	Output	An open drain FET; normally HI, indicating output power is present. Changes to LO at least 5msec before the output voltage decays below 40Vdc.
I ² C Interrupt	Alert#_0 Alert#_1	Output	Interrupt signal via I ² C lines indicating that service is requested from the host controller. This signal pin is pulled up to 3.3V via a 10kΩ resistor and switches to active LO when an interrupt occurs.
Rectifier Fault	Fault	Output	Indicates that an internal fault exists. An open drain FET; normally HI, changes to LO.
Module Present	MOD_PRES	Output	Short pin, see Status and Control description for further information on this signal.
ON/OFF	ON/OFF	Input	Short pin, connects last and breaks first; used to activate and deactivate output during hot-insertion and extraction, respectively. Ref: Vout (-)
Protocol select	Protocol	Input	See Status and Control description for further information on this signal. Ref: Vout (-).
Margining	Margin	Input	Allows changing of output voltage through an analog voltage input or via resistor divider.
Over-Temperature Warning	OTW	Output	An open drain FET; normally HI, changes to LO approximately 5°C prior to thermal shutdown.
Power Capacity	POWER_CAP	Output	Open drain FET; Used to indicate Rectifier operation mode; HI indicates 2725W operation and LO indicates 1200W operation.
Rectifier address	Unit_addr	Input	Voltage level addressing of Rectifiers within a single shelf. Ref: Vout (-).
Shelf Address	Shelf_addr	Input	Voltage level addressing of Rectifiers within multiple shelves. Ref: Vout (-).
Back bias	8V_INT	Bi-direct	Diode OR'ed 8Vdc drain; used to back bias microprocessors and DSP of failed Rectifier from operating Rectifiers. Ref: Vout (-).
Mux Reset	Reset	Input	Resets the I ² C lines to I ² C line 0.
Standby power	5VA	Output	5V at 0.75A provided for external use by either adjacent power supplies or the using system.
Current Share	Ishare	Bi-direct	A single wire interface between each of the power unit forces them to share the load current. Ref: Vout (-).
I ² C Line 0	SCL_0, SDA_0	Input	I ² C line 0.
I ² C Line 1	SCL_1, SDA_1	Input	I ² C line 1.
I ² C Interrupt	Alert#_0, Alert#_1	Output	Goes active LO
RS485 Line	RS_485+ RS_485-	Bi-direct	RS485 line.

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Data Sheet

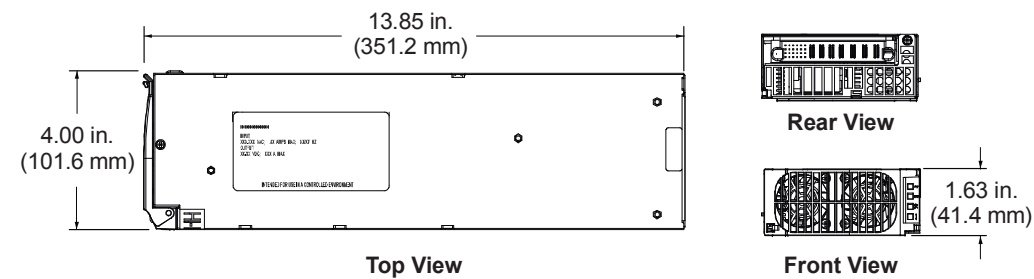
CP2725AC48TEZ-FB Rectifier

Input: 100-120/220-240 Vac; Output: 2725W¹ @ 52Vdc; 5 Vdc @ 4W

Front Panel LEDs

	Analog Mode	I ² C Mode	RS485 Mode
<input type="checkbox"/> ~	←	ON: Input ok Blinking: Input out of limits	→
<input type="checkbox"/> ≡	←	ON: Output ok Blinking: Overload	→
<input type="checkbox"/> ✖	ON: Over-temperature Warning	ON: Over-temperature Warning Blinking: Service	ON: Over-temperature Warning
<input type="checkbox"/> !	←	ON: Fault	ON: Fault Blinking: Not communicating

Dimensions



Faceplate color shall be dark grey with a green hinge.

Physical

Packaged weight	5.4/2.45 lbs/kgs
Unpacked weight	4.8/2.18 lbs/kgs
Heat release	100 Watts or 341 BTUs @ 80% load, 153 Watts or 522 BTUs @ 100% load

Ordering Information

Item	Description	Comcode
CP2725AC48TEZ-FB	48Vdc @ 52.4A, 5Vdc @ 0.75A, RoHS 6/6	150030225

Contact Us

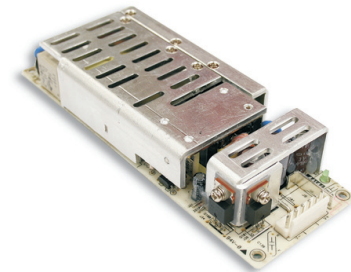
For more information, call us at
 USA/Canada:
+1 888 546 3243, or +1 972 244 9288
 Asia-Pacific:
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PSASP-150-24

150W Single Output with PFC Function

ASP-150 series



- Features :
 - Universal AC input / Full range
 - Built-in active PFC function, PF>0.95
 - Protections: Short circuit / Overload / Over voltage / Over temperature
 - Cooling by free air convection
 - High power density 8.4w/in³
 - 100% full load burn-in test
 - No load power consumption<1W@240VAC
 - ZCS/ZVS technology to reduce power dissipation



SPECIFICATION

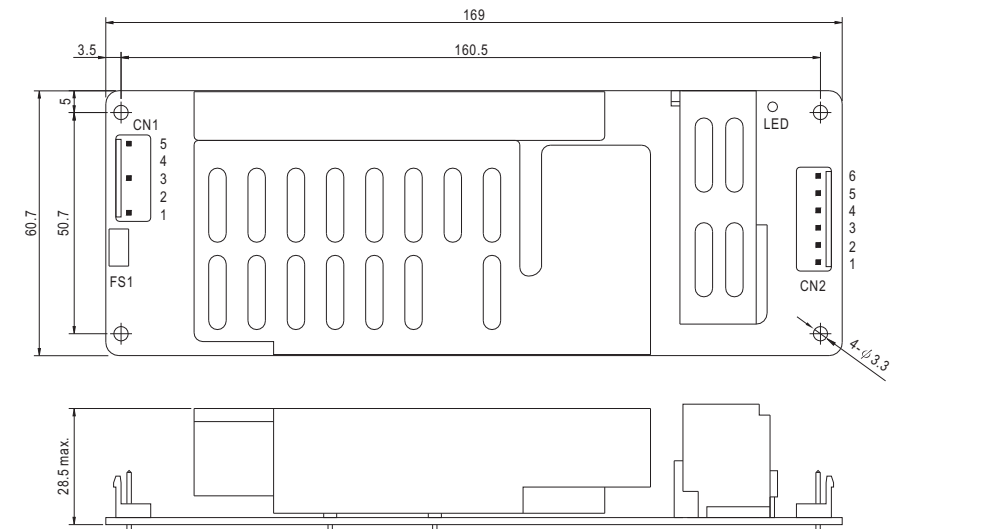
MODEL	ASP-150-12	ASP-150-15	ASP-150-20	ASP-150-24	ASP-150-48	
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	48V
	RATED CURRENT	11A	9.5A	7.5A	6.3A	3.2A
	CURRENT RANGE	0 ~ 11A	0 ~ 9.5A	0 ~ 7.5A	0 ~ 6.3A	0 ~ 3.2A
	RATED POWER	132W	142.5W	150W	151.2W	153.6W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	180mVp-p	200mVp-p	240mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	11 ~ 13.2V	14 ~ 17V	17 ~ 22V	22 ~ 27V	45.6 ~ 52.8V
	Fixed output by customer choose					
	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%	±0.5%	±0.5%	±0.5%
INPUT	SETUP, RISE TIME	3000ms, 80ms at full load				
	HOLD UP TIME (Typ.)	50ms/230VAC 16ms/115VAC at full load				
	VOLTAGE RANGE	90 ~ 264VAC	127 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz				
	POWER FACTOR (Typ.)	PF ≥ 0.95/230VAC		PF ≥ 0.98/115VAC at full load		
	EFFICIENCY (Typ.)	88%	88%	90%	90%	89%
	AC CURRENT (Typ.)	2A/115VAC 1A/230VAC				
	INRUSH CURRENT (Typ.)	COLD START 80A/230VAC				
	LEAKAGE CURRENT	<2mA / 240VAC				
	PROTECTION	OVERLOAD	105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed			
OVER VOLTAGE		13.7 ~ 16.2V	17.5 ~ 20.25V	22.5 ~ 28V	27.5 ~ 32.4V	53.3 ~ 64.8V
OVER TEMPERATURE		90°C ±15°C (RTH2) Detect on heatsink of power transistor Protection type : Shut down o/p voltage, re-power on to recover				
ENVIRONMENT	WORKING TEMP.	-20 ~ +60°C (Refer to output load derating curve)				
	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.05%/°C (0 ~ 50°C)				
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, Period for 60min.each along X, Y, Z axes				
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL60950-1, CB(IEC60950-1) Approved				
	WITHSTAND VOLTAGE	I/P-O/P:4.25KVDC I/P-FG:1.5KVAC O/P-FG:0.5KVAC				
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC				
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B				
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3				
OTHERS	EMM IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, Light industry level, criteria A				
	MTBF	149.3Khrs min. MIL-HDBK-217F (25°C)				
	DIMENSION	169*60.7*28.5mm (L*W*H)				
NOTE	PACKING	0.32Kg; 48pcs/15.8Kg/0.79CUFT				
	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.					

MeanWell Direct
Tel: +44 (0)118 970 3858 E-mail: sales@meanwelldirect.co.uk

150W Single Output with PFC Function

ASP-150 series

■ Mechanical Specification



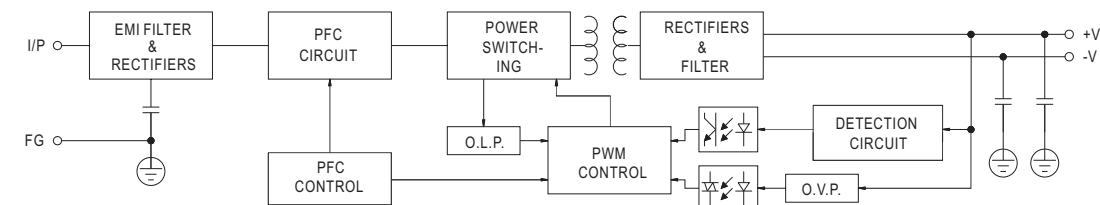
AC Input Connector (CN1) : JST B5P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2,4	No Pin		
3	AC/N		
5	FG ⊥		

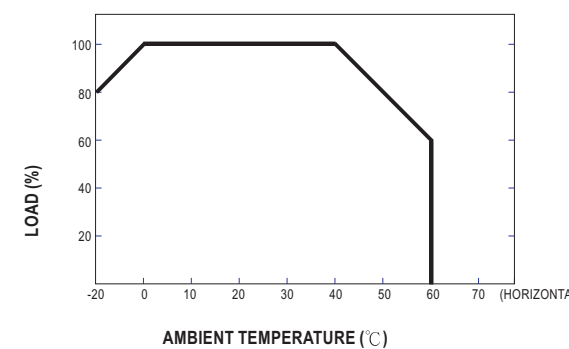
DC Output Connector (CN2) : JST B6P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2,3	-V	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
4,5,6	+V		

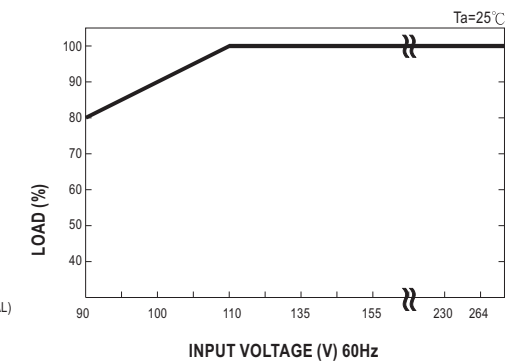
■ Block Diagram



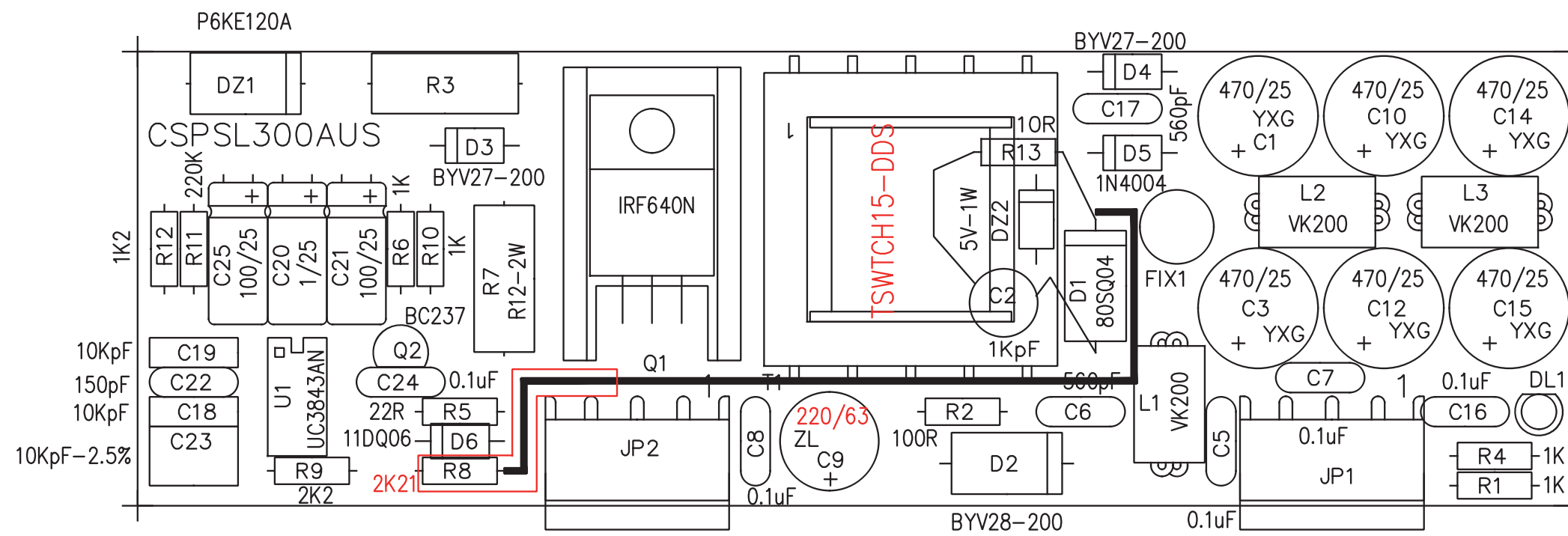
■ Derating Curve



■ Output Derating VS Input Voltage

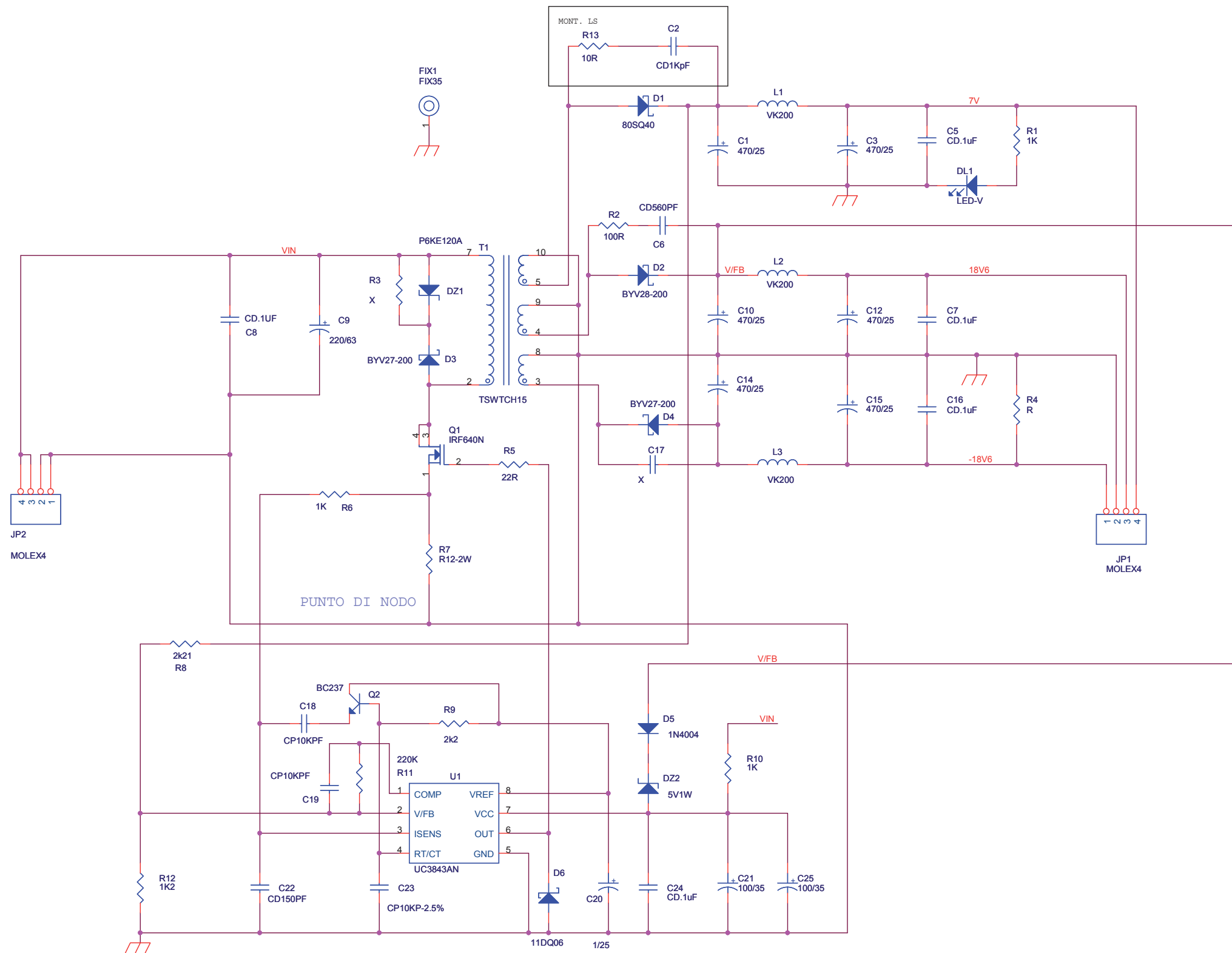


MeanWell Direct
Tel: +44 (0)118 970 3858 E-mail: sales@meanwelldirect.co.uk



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TITLE PSL300 ALIMENT. AUSIL. PTX1000DDS	
DOCUMENT NUMBER	PSL300-AUSDDS. DWG REV 1.0
DATE:	20/10/2016

PSL300-AUSDDS



Description: POWER SUPPLY +18.6V 7V -18.6V		
Designer: GRIPTECH	Size: A3	Page: 1 of 1
Part No.: PSL300-AUSDDS	Rev.: 1.0	Date: 20/10/2016



PSL300-AUSDDS

POWER SUPPLY +18.6 7V -18.6 PSL300-AUSDDS
 Rev.1.0 20/10/2016
 GRIPTECH

Item	Quantity	Reference	Part
1	6	C1, C3, C10, C12, C14, C15	470/25
2	1	C2	CD1KpF
3	5	C5, C7, C8, C16, C24	CD.1uF
4	1	C6	CD560PF
5	1	C9	220/63
6	2	R3, C17	X
7	2	C18, C19	CP10KPF
8	1	C20	25-gen
9	2	C21, C25	100/35
10	1	C22	CD150PF
11	1	C23	CP10KP-2.5%
12	1	DL1	LED-V
13	1	DZ1	P6KE120A
14	1	DZ2	5V1W
15	1	D1	80SQ40
16	1	D2	BYV28-200
17	2	D3, D4	BYV27-200
18	1	D5	1N4004
19	1	D6	11DQ06
20	1	FIX1	FIX35
21	2	JP1, JP2	MOLEX4
22	3	L1, L2, L3	VK200
23	1	Q1	IRF640N
24	1	Q2	BC237
25	3	R1, R6, R10	1K
26	1	R2	100R
27	1	R4	R
28	1	R5	22R
29	1	R7	R12-2W
30	1	R8	2k21
31	1	R9	2k2
32	1	R11	220K
33	1	R12	1K2
34	1	R13	10R
35	1	T1	TSWTCH15
36	1	U1	UC3843AN