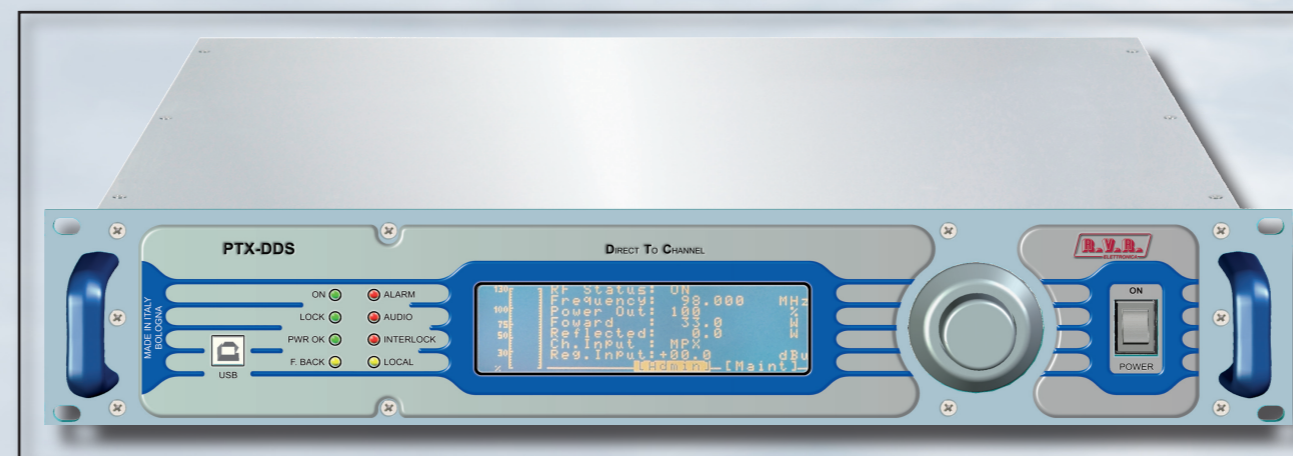




# PTX30DDS, PTX100DDS & PTX150DDS

TECHNICAL ANNEX  
VOLUME 2



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

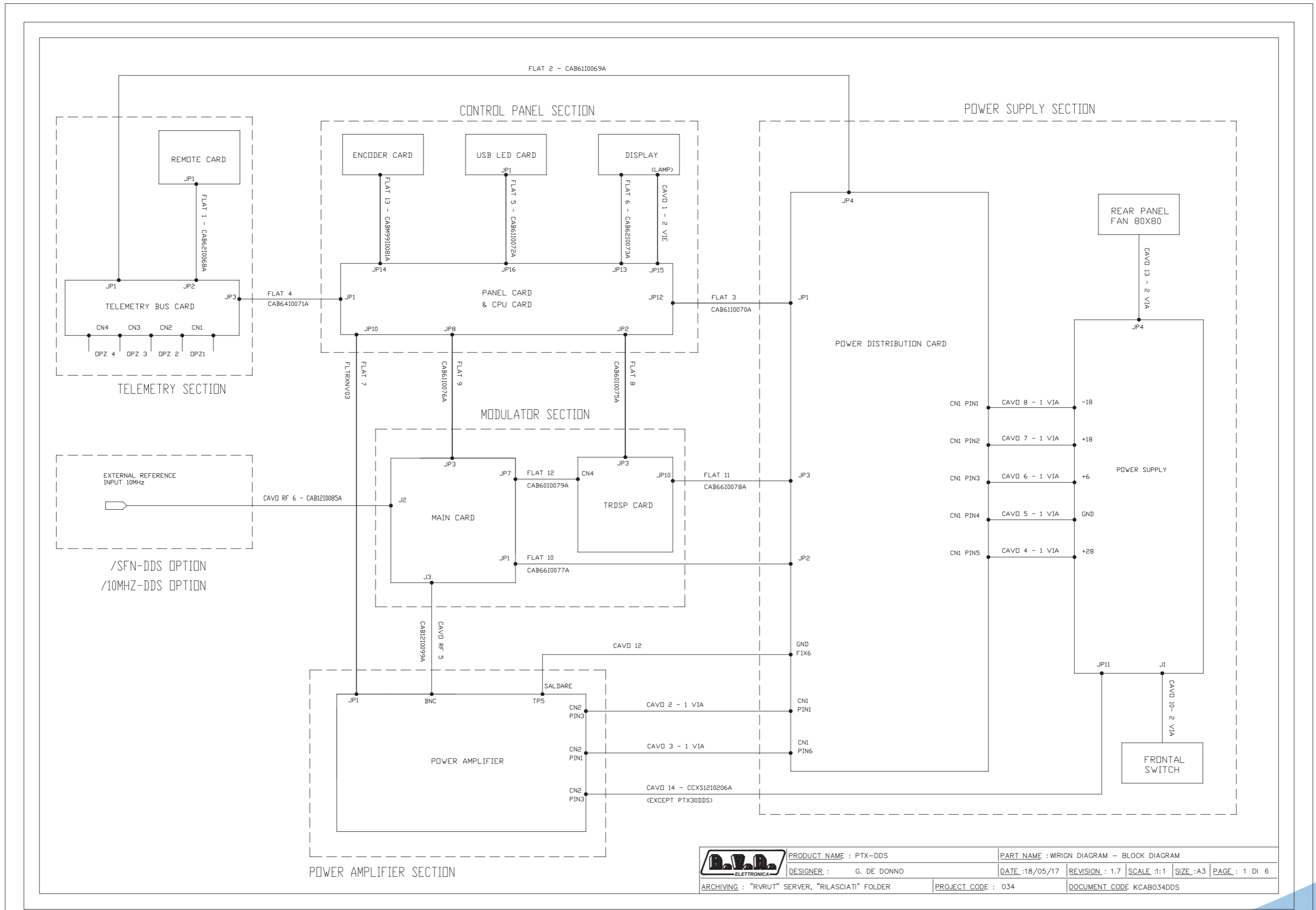
Questa parte del manuale contiene i dettagli tecnici riguardanti la costruzione delle singole schede componenti il PTX DDS. L'appendice è composta dalle seguenti sezioni:  
*This part of the manual contains the technical details about the different boards of the PTX DDS. This appendix is composed of the following sections:*

Description	PTX30DDS	PTX100/150LCD	Vers. Page	
	RVR Code	RVR Code		
Wiring Diagram	KCAB034DDS	KCAB034DDS	1.7	1
USB Connector Card	SL034IN1001	SL034IN1001	1.1	7
FM Modulator Card	SL174MD1001	SL174MD1001	1.2	9
Panel Card	SLPC0025R05V01	SLPC0025R05V01	1.0	18
Power Supply Distribution Card	SL034PS1002	SL034PS1002	1.1	21
TLM Panel Distribution Card	SL034TL1001	SL034TL1001	1.3	23
Remote Interface Card	SL034IN2002	SL034IN2002	1.2	25
16-bit CPU Card	SL034CP1001	SL034CP1001	1.1	28
30W Power Supply PA RF 50W 50V	SLPS0468R01V01	/	1.0	63
30W Power Amplifier Card	SLRF0408R03V01	/	1.1	31
100&150W Power Amplifier Card	/	SLPA150TEXR2	1.6	37
30W Control Card	SLCNTMOS07.FM50	/	1.1	34
100&150W Control Card	/	SLCNTMOS07.FM150	1.1	40
Power Supply Card	PSL300DDS	PSL300DDS	1.0	43
RS232 Card	SL034TL2002	SL034TL2002	1.0	52
Audio & RDS Card	TRDSP6	TRDSP6	1.0	65
/GPS-DDS (GPS Option)	SL034TL3001	SL034TL3001	1.1	55
/08DIG-DDS (Digital TLM Option)	SL034TL4002	SL034TL4002	1.0	57
/09DIG-DDS (SCMN+1 TLM Option)	SL034TL5002	SL034TL5002	1.0	60
/EXPRDS-DDS (RDS Option)	/	/	/	/
/SFN-DDS (SFN Option)	/	/	/	/
/10MHZ-DDS (10MHz Option)	/	/	/	/

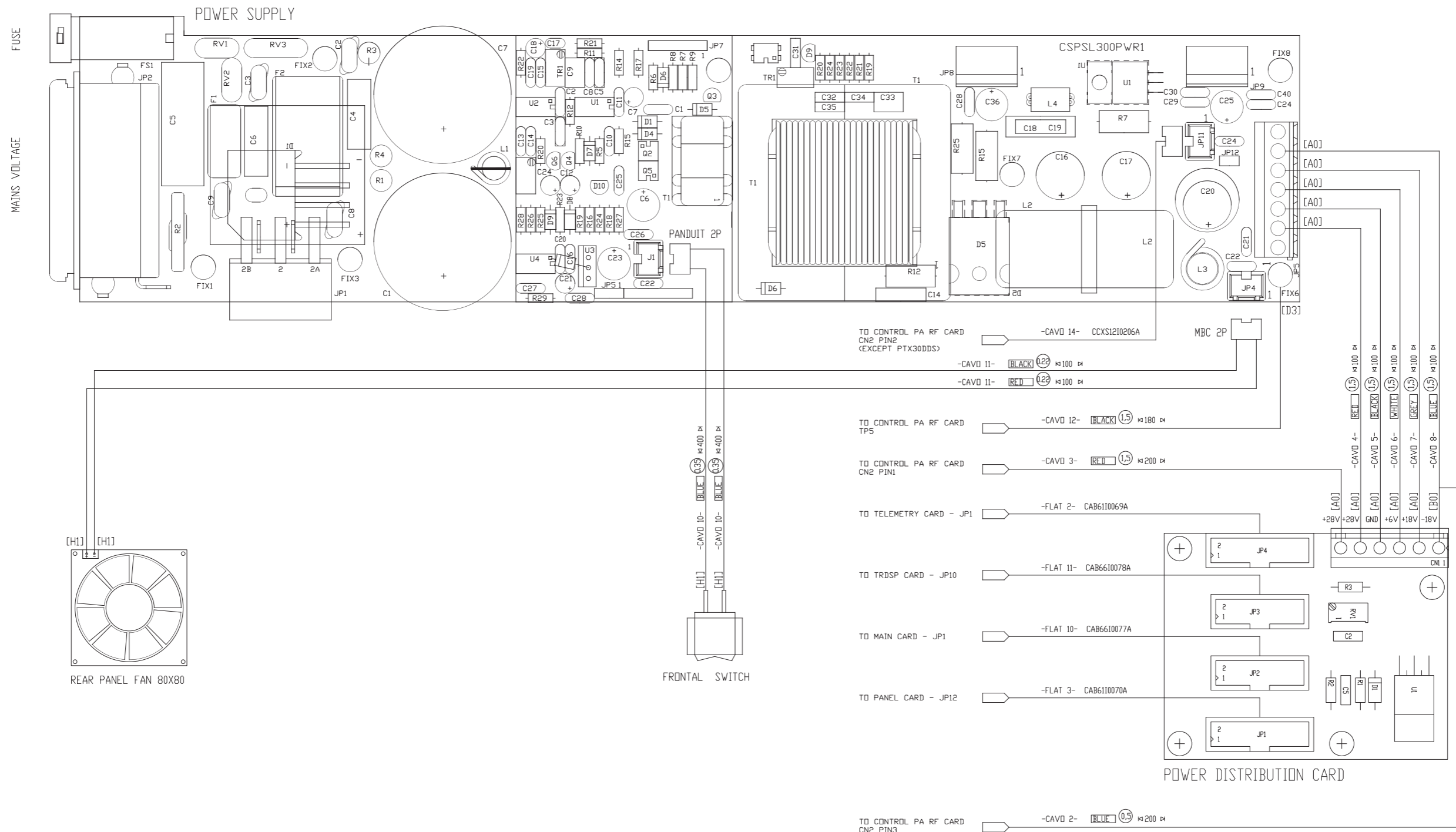
### Document History

Date	Version	Reason	Code	Editor
27/06/2006	1.0	First Edition	/	J.H. Berti
09/11/2006	1.1	KCAB034DDS, SL034MD1001 and SL034IN2002 Update	RM 5606	J.H. Berti
12/06/2007	1.2	SL034CP1001, SL034UP1001, SL034BI1001, SL034BI2001 and SL034TL1001 Update	RM 6406, 2307, 2607 & mGDD110607	J.H. Berti
27/11/2010	1.3	Major Upgrade	/	J.H. Berti
29/11/2013	1.4	/	/	J.H. Berti
18/09/2015	1.5	Minor Upgrade	/	J.H. Berti
05/02/2016	1.6	Major Upgrade	/	J.H. Berti
24/07/2018	1.7	Major Upgrade & TRDSP6 integration	/	J. H. Bertui

KCAB034DDS



	PRODUCT NAME : PTX-DDS	PART NAME : WRIGN DIAGRAM - BLOCK DIAGRAM			
	DESIGNER : G. DE DONNO	DATE : 18/05/17	REVISION : 1.7	SCALE : 1:1	SIZE : A3
ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER		PROJECT CODE : 034	DOCUMENT CODE KCAB034DDS		

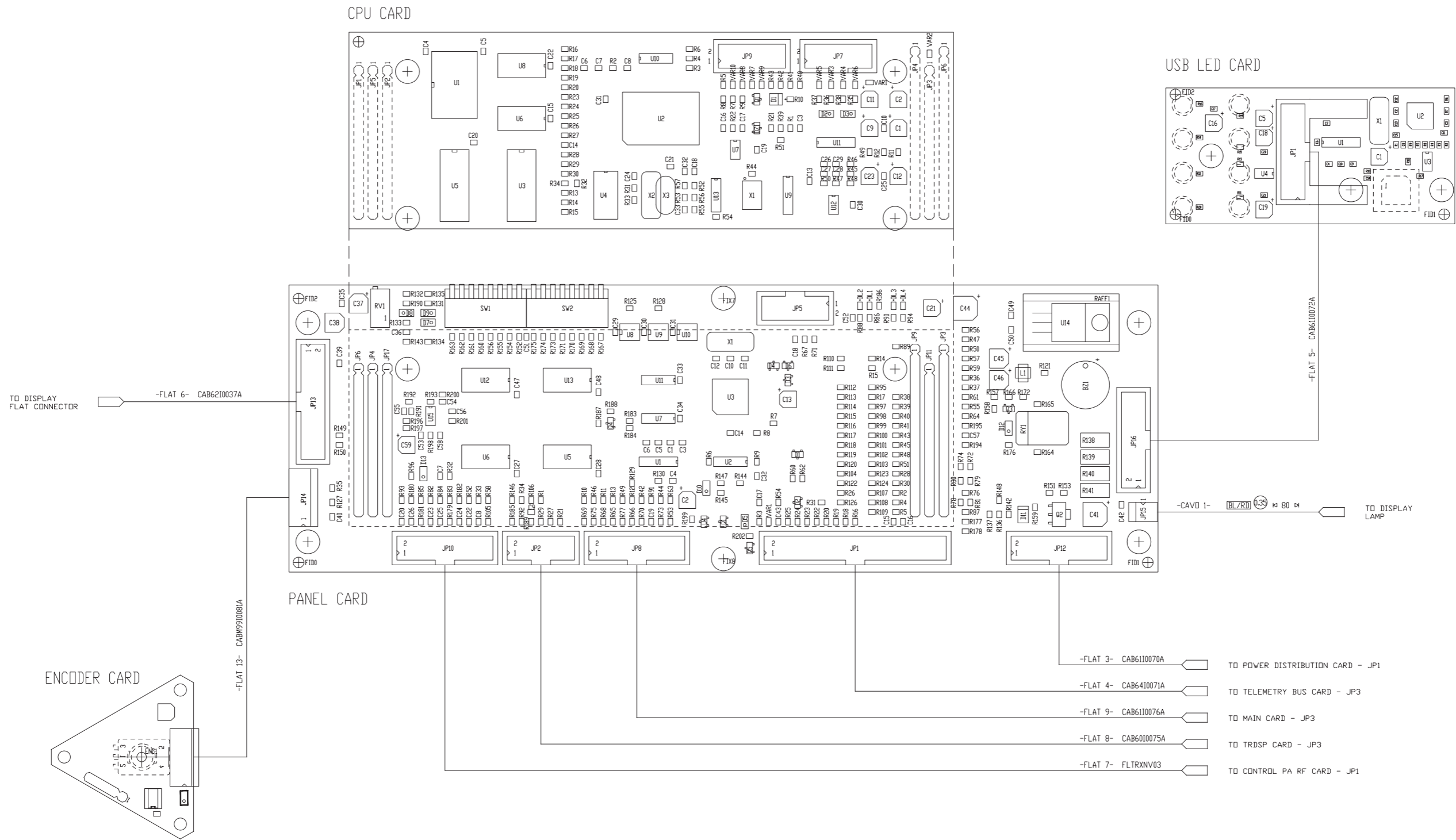


POWER SUPPLY SECTION

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	DESIGNER : G. DE DONNO	DATE :18/05/17	REVISION : 1.7	SCALE :1:1	SIZE :A3
ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER		PROJECT CODE : 034	DOCUMENT CODE KCAB034DDS		



KCAB034DDS

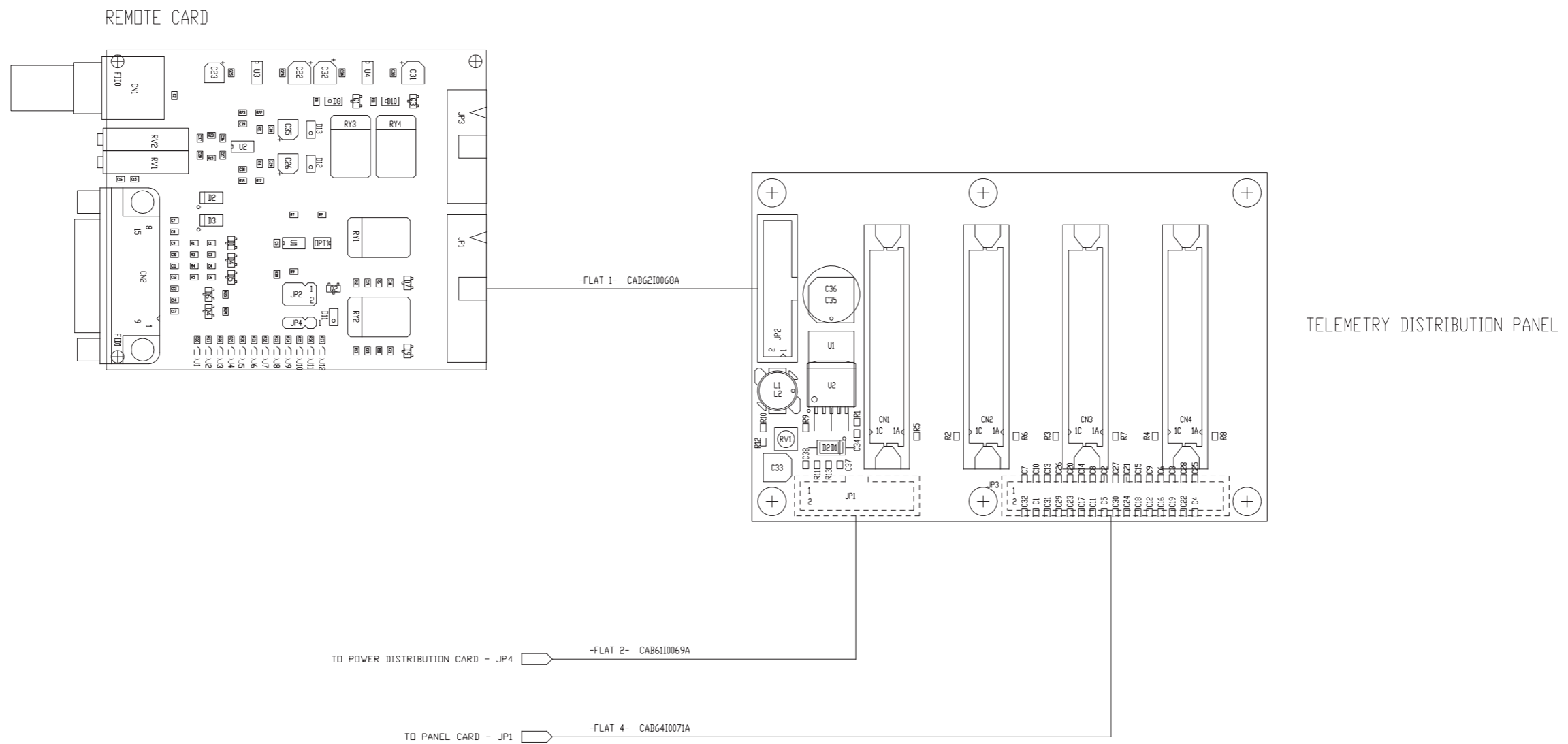


CONTROL PANEL SECTION



PRODUCT NAME : PTX-DDS	PART NAME : WIRIGN DIAGRAM - CONTROL PANEL SECTION
DESIGNER : G. DE DONNO	DATE : 18/05/17 REVISION : 1.7 SCALE : 1:1 SIZE : A3 PAGE : 3 DI 6
ARCHIVING : "RVTRUT" SERVER, "RILASCIATI" FOLDER	PROJECT CODE : 034 DOCUMENT CODE KCAB034DDS

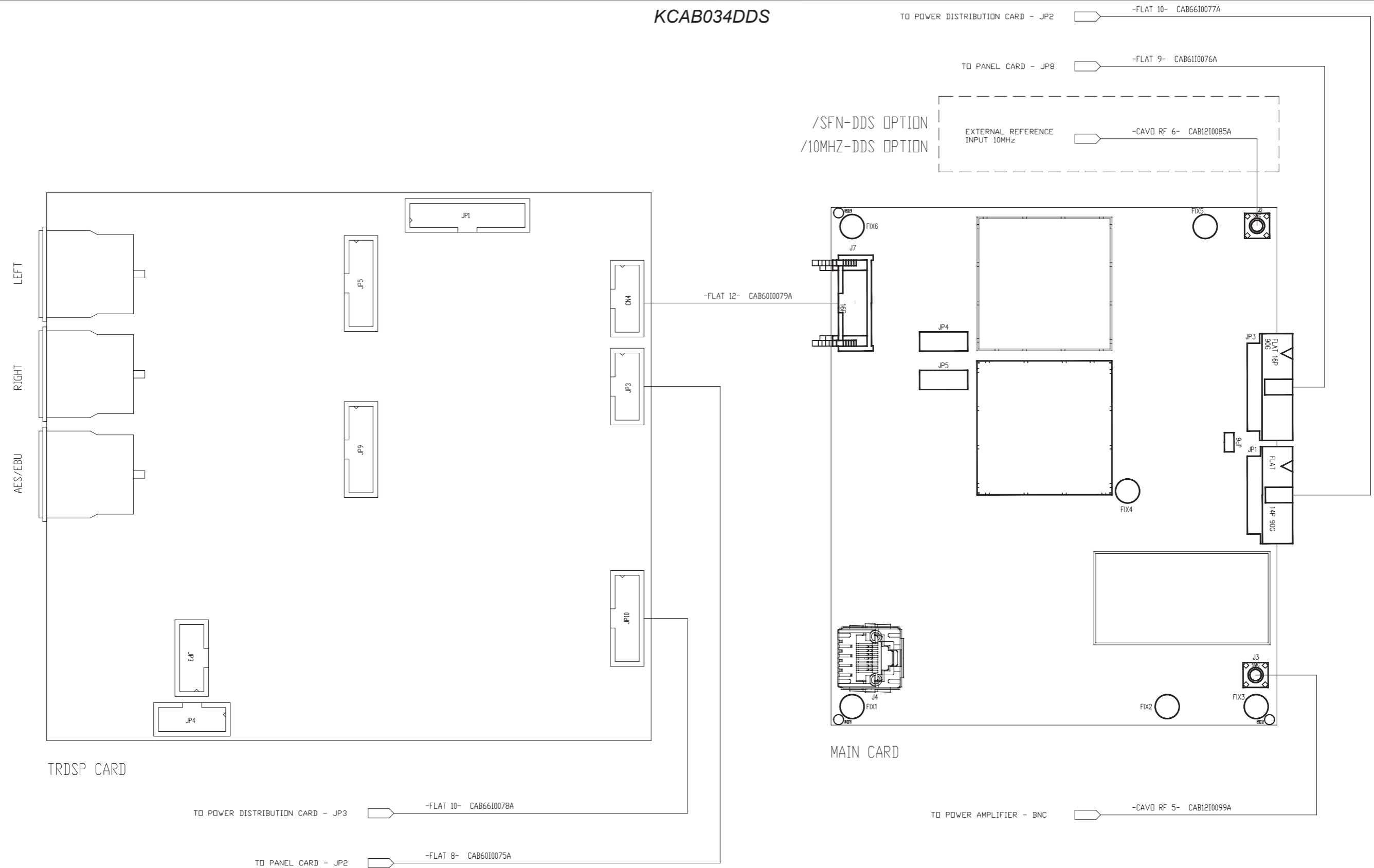
KCAB034DDS



TELEMETRY SECTION

	PRODUCT NAME : PTX-DDS	PART NAME : WIRING DIAGRAM - TELEMETRY SECTION			
	DESIGNER : G. DE DONNO	DATE : 18/05/17	REVISION : 1.7	SCALE : 1:1	SIZE : A3 PAGE : 4 DI 6
ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER		PROJECT CODE : 034	DOCUMENT CODE KCAB034DDS		

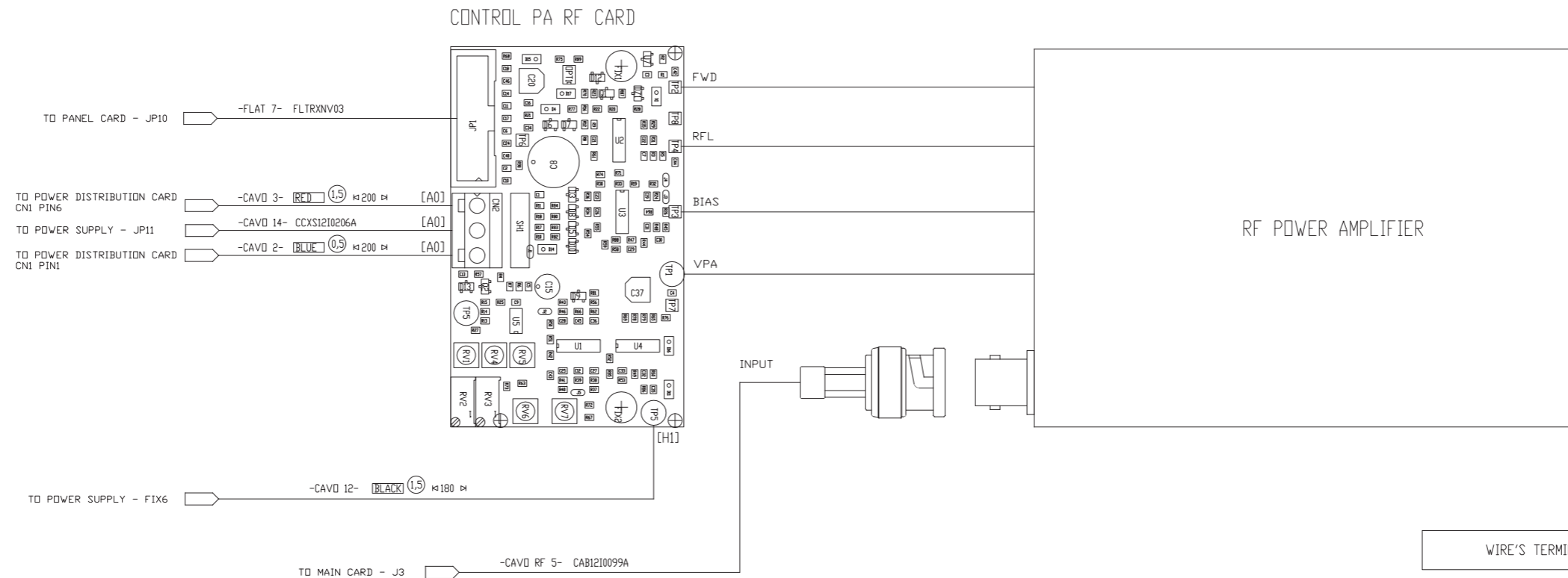
KCAB034DDS



MODULATOR SECTION



PRODUCT NAME : PTX-DDS	PART NAME : WIRIGN DIAGRAM - MODULATOR SECTION
DESIGNER : G. DE DONNO	DATE :18/05/17 REVISION : 1.7 SCALE :1:1 SIZE :A3 PAGE : 5 DI 6
ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER	PROJECT CODE : 034 DOCUMENT CODE KCAB034DDS



# POWER AMPLIFIER SECTION

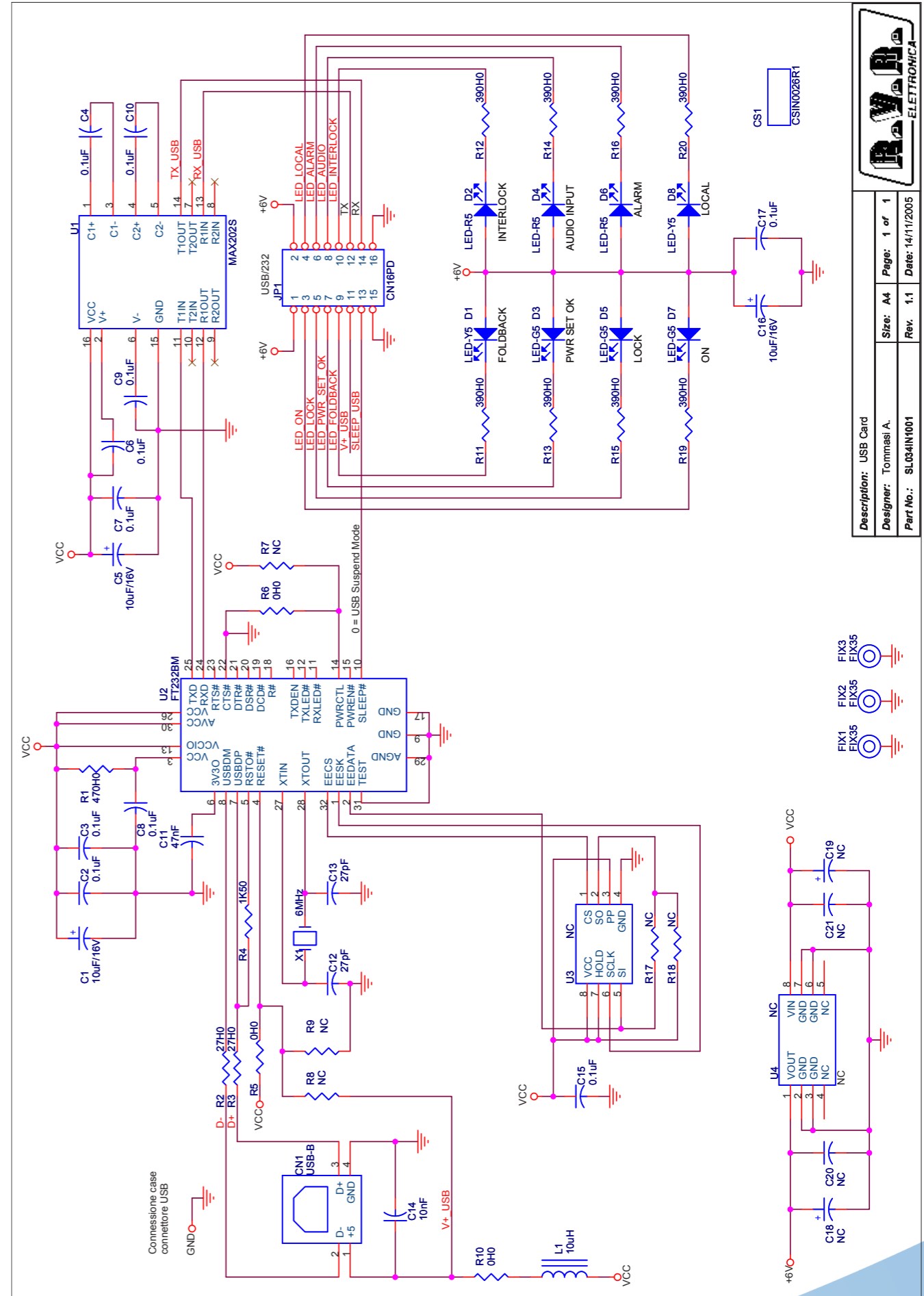
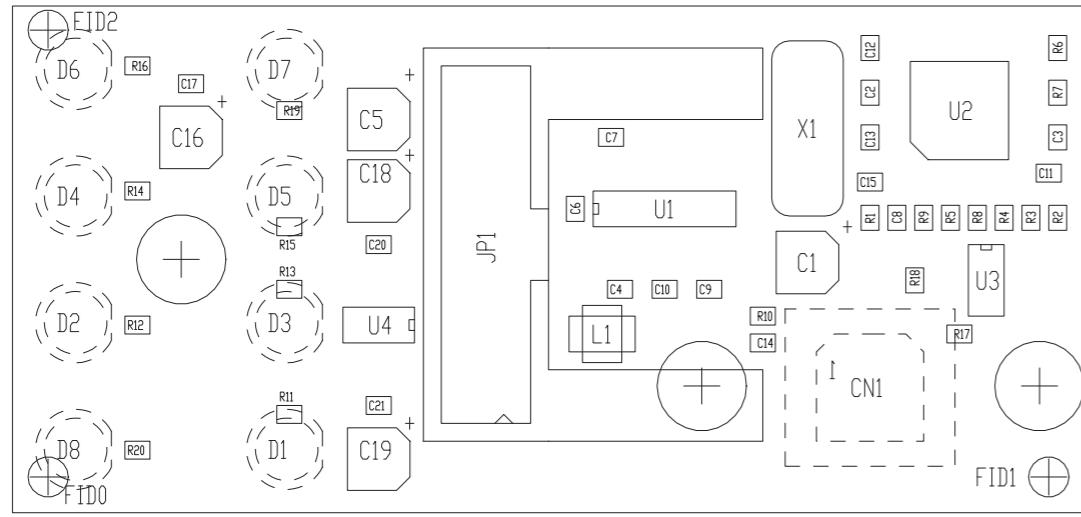
WIRE'S TERMINALS IDENTIFICATION	
TERMINAL IDENTIFIER	TERMINAL TYPOLOGY
[A0]	BOOTLACE FERRULES (SINGLE WIRE) 
[B0]	BOOTLACE FERRULES (DOUBLE WIRE) 
[H1]	WIRE UNSHEATHED 
[D3]	

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

	PRODUCT NAME : PTX-DDS	PART NAME : WIRIGN DIAGRAM - POWER AMPLIFIER SECTION
	DESIGNER : G. DE DONNO	DATE : 18/05/17 REVISION : 1.7 SCALE : 1:1 SIZE : A3 PAGE : 6 DI 6
ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER	PROJECT CODE : 034	DOCUMENT CODE KCAB034DDS



SL034IN1001



	PRODUCT NAME : DDS EXCITER	PART NAME : SCHEDA CONNETTORE USB				
	DESIGNER : FEDERICO THEI	DATE : 18/04/05	REVISION : 1.0	SCALE : 2:1	SIZE : A4	PAGE : 1 DI 1
ARCHIVING : 'RVRRUT' SERVER, 'RILASCIATI' FOLDER	PROJECT CODE : 034	DOCUMENT CODE : SL034IN1001				

Description: USB Card  
 Designer: Tommasi A.  
 Part No.: SL034IN1001

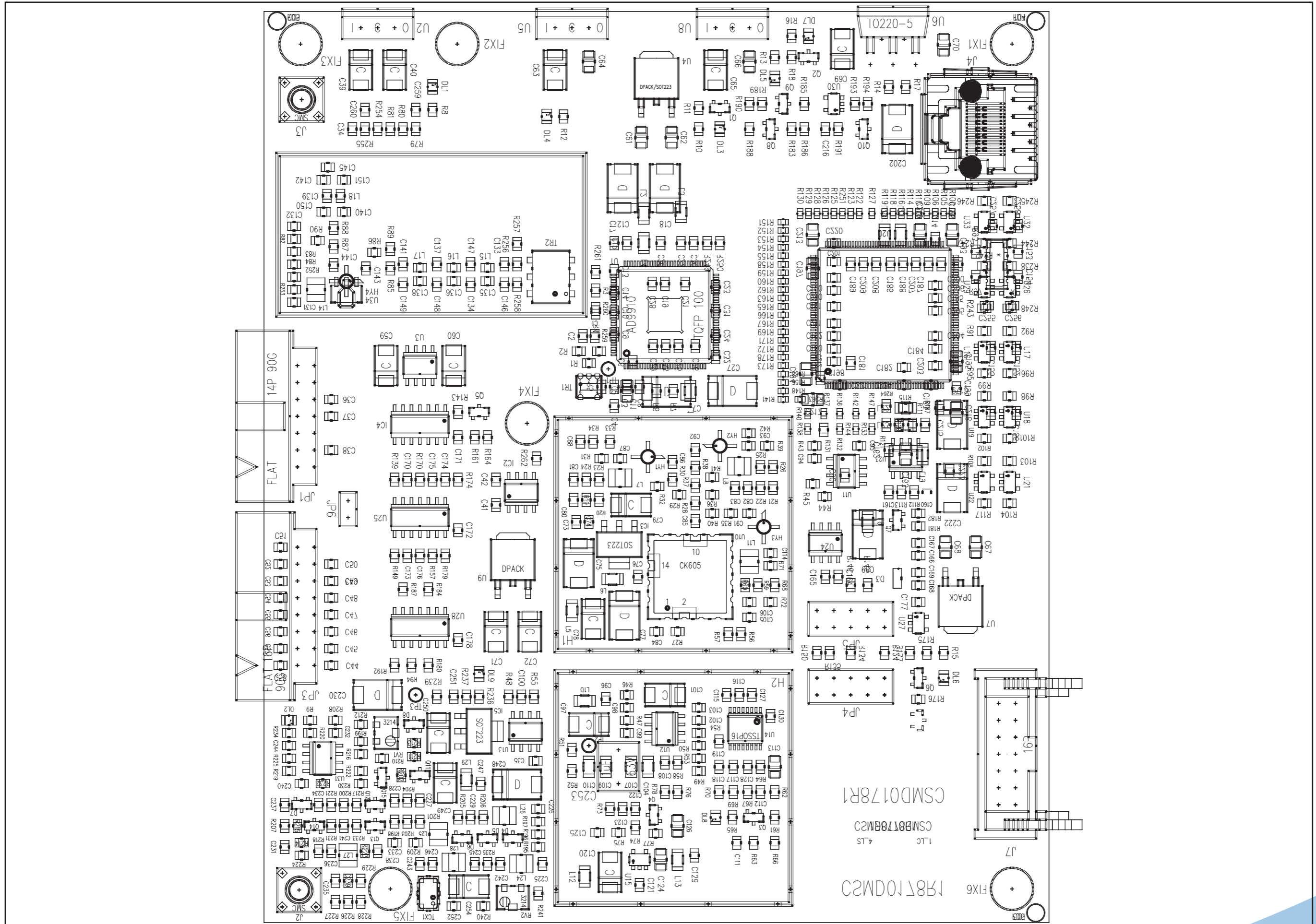
Size: A4  
 Page: 1 of 1  
 Rev. 1.1  
 Date: 14/11/2005

SL034IN1001

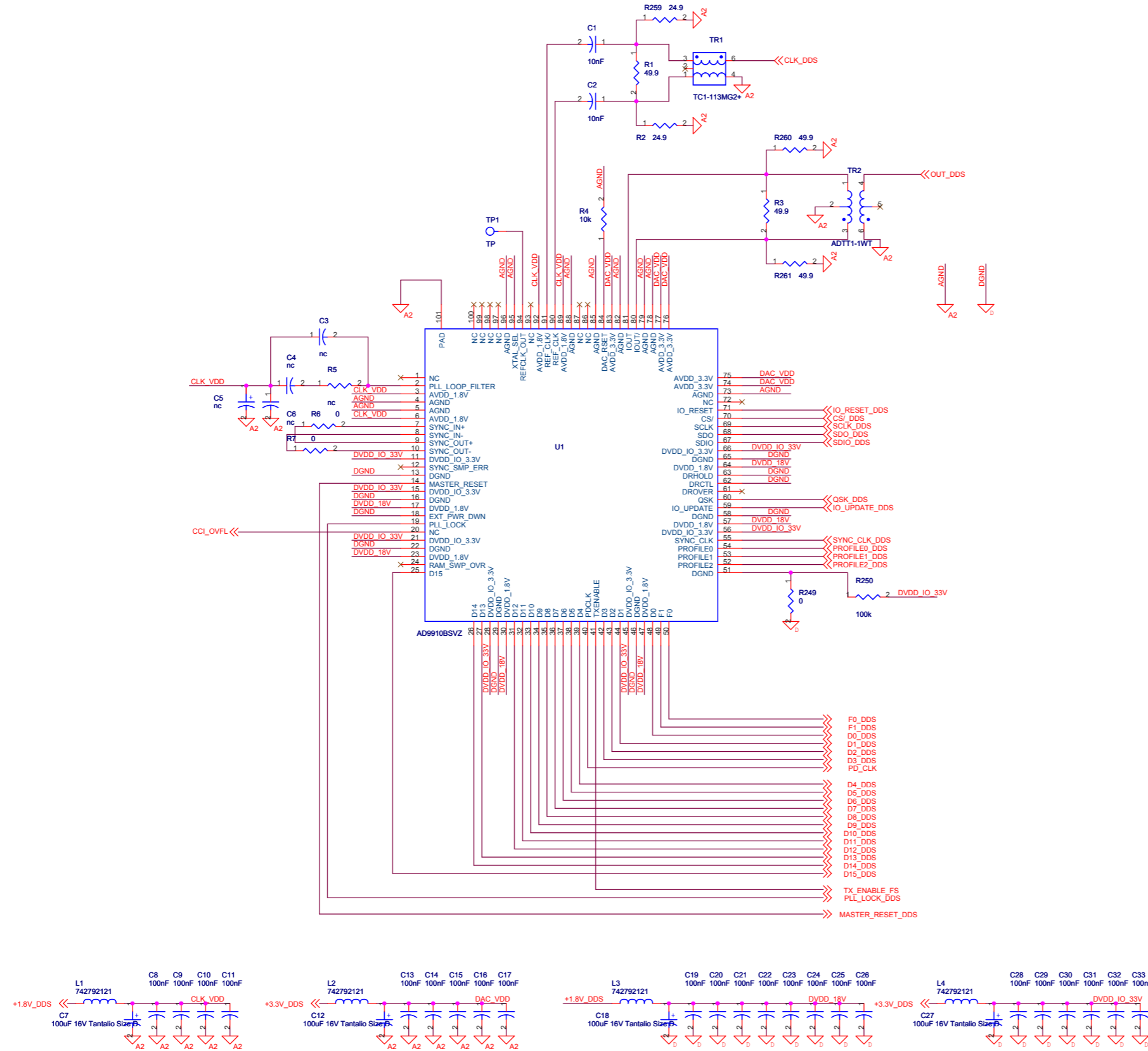
USB Card Revised: 14/11/2005  
 SL034IN1001 Revision: 1.1  
 DDS Exciter  
 RVR034  
 Tommasi A.

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.
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	Stabilizzatore SMD SO8
26	1	X1	6MHz	Quarzo SMD HC49SMD

**SL174MD1001**



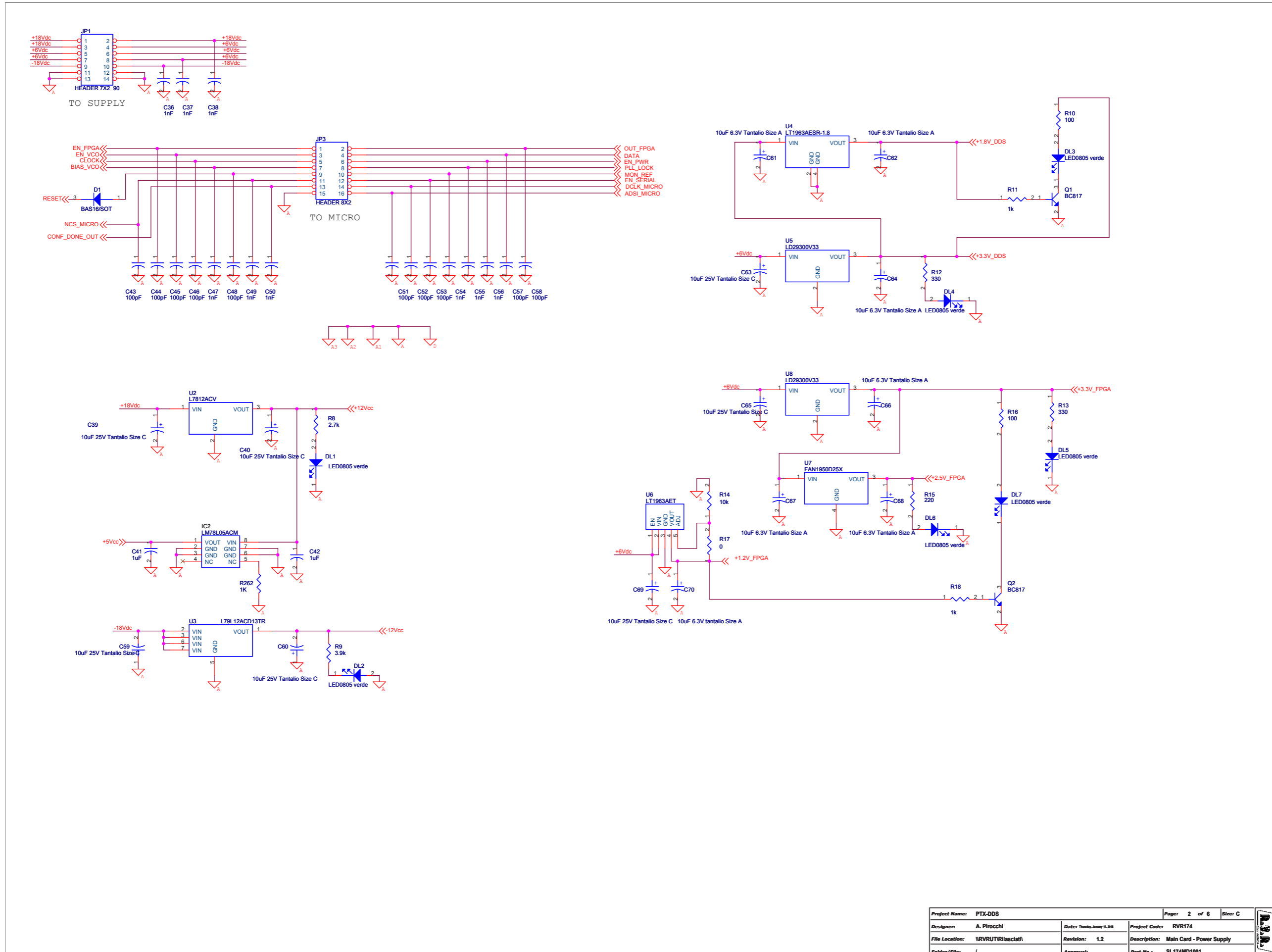
SL174MD1001



Project Name: PTX-DDS		Page: 1 of 6	Size: C
Designer: A. Pirocchi	Date: Thursday, January 11, 2018	Project Code: RVR174	
File Location: URVRUT/Rilasciati/	Revision: 1.2	Description: Main Card - AD9910	
Folder/File: /	Approval:	Part No.: SL174MD1001	

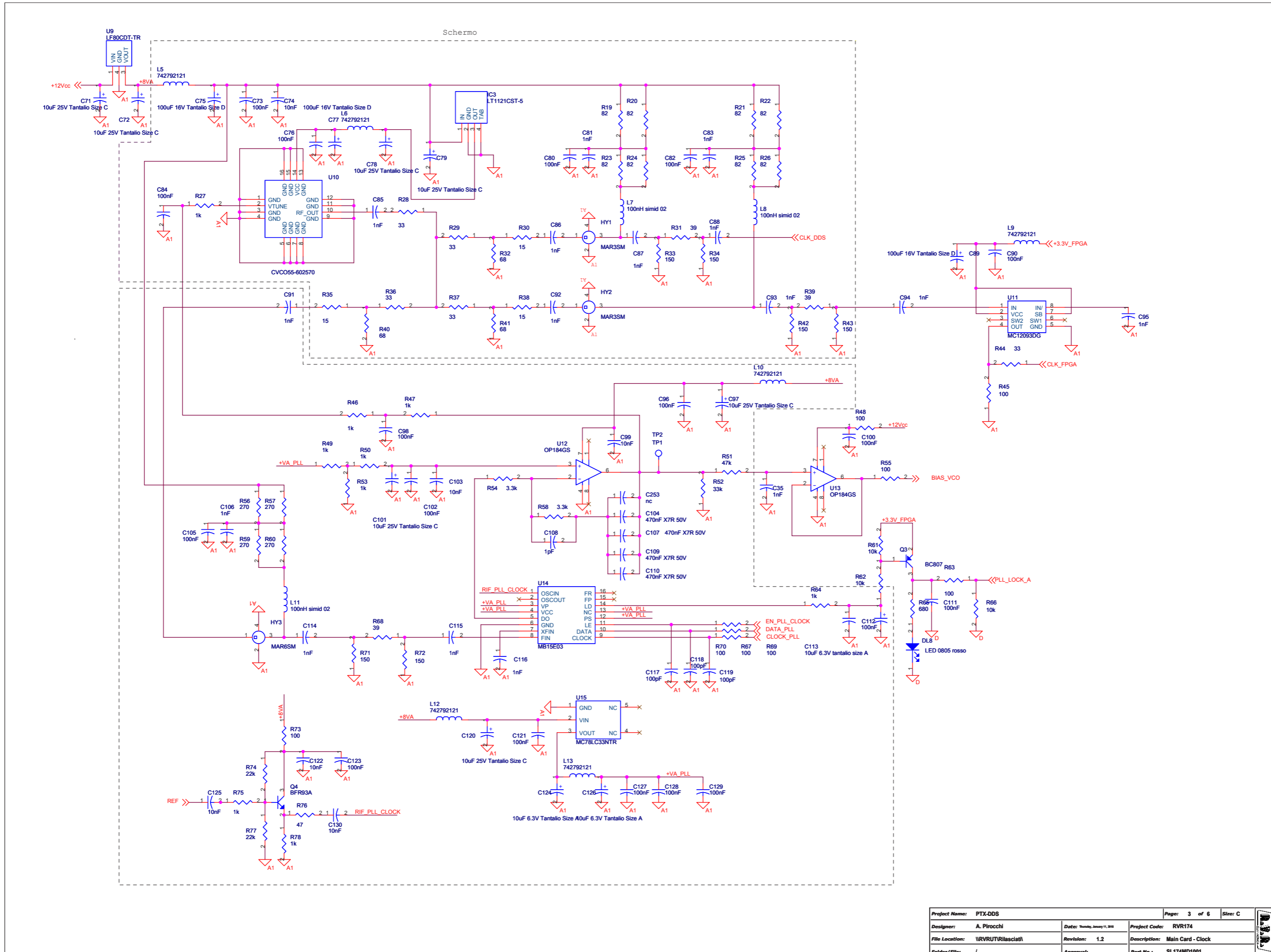


**SL174MD1001**

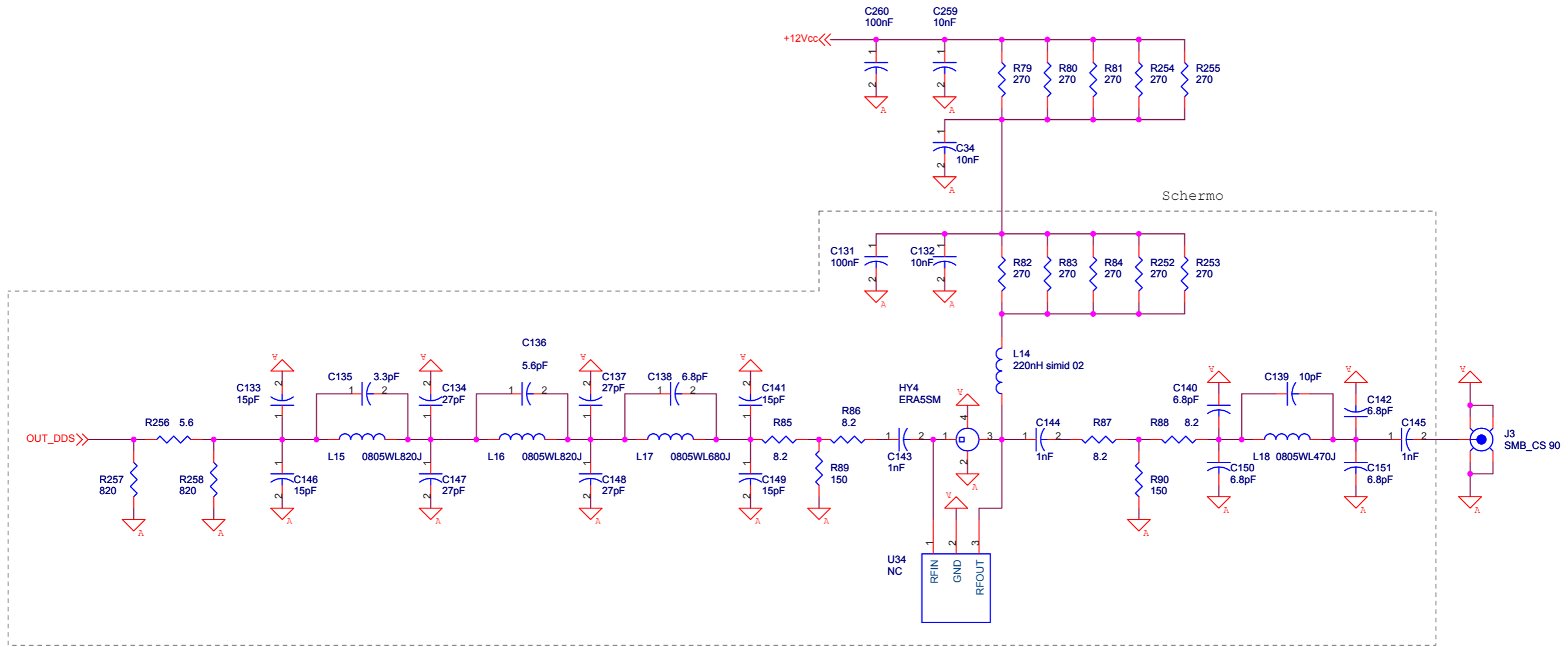


Project Name:	PTX-DDS	Page:	2 of 6	Size:	C
Designer:	A. Pirocchi	Date:	Thursday, January 11, 2018	Project Code:	RVR174
File Location:	WVRVUTIRilasciati	Revision:	1.2	Description:	Main Card - Power Supply
Folder/File:	/	Approval:		Part No.:	SL174MD1001

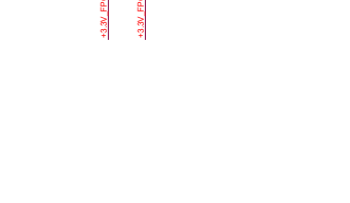
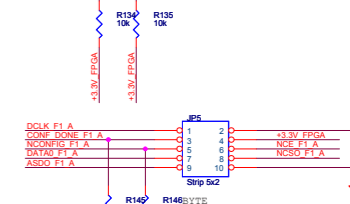
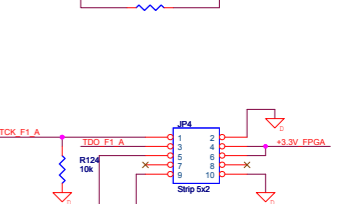
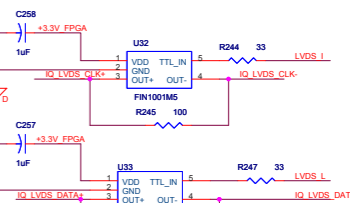
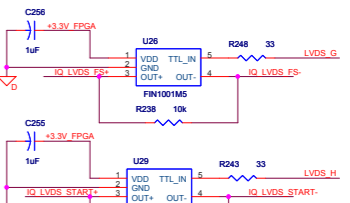
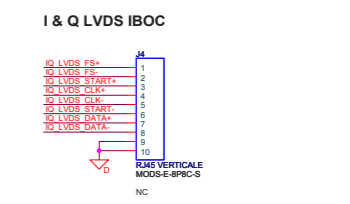
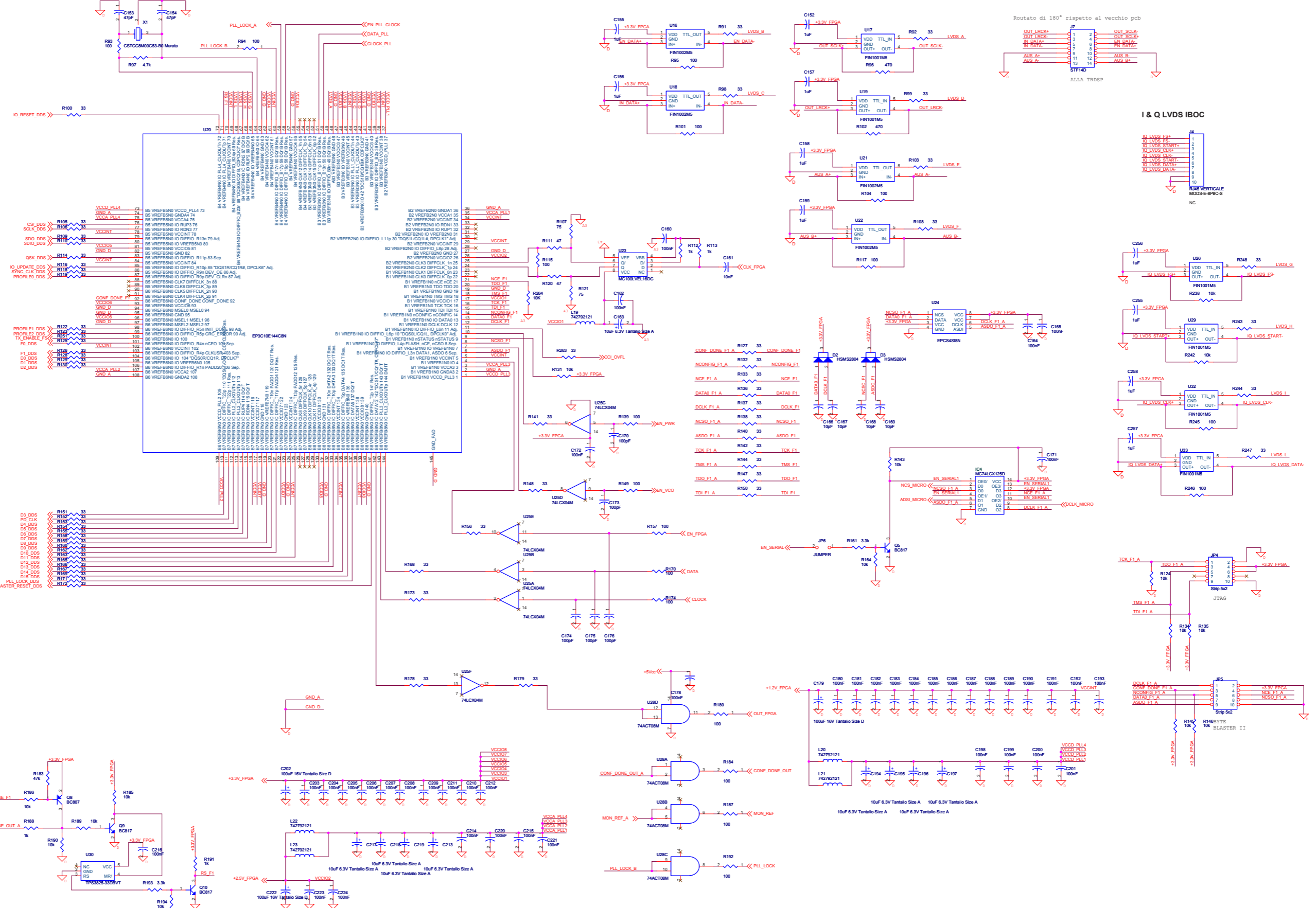
SL174MD1001



Project Name:	PTX-DDS	Page:	3 of 6	Size:	C
Designer:	A. Pirocchi	Date:	Thursday, January 11, 2018	Project Code:	RVR174
File Location:	URVRUTRilasciatl	Revision:	1.2	Description:	Main Card - Clock
Folder/File:	/	Approval:		Part No.:	SL174MD1001

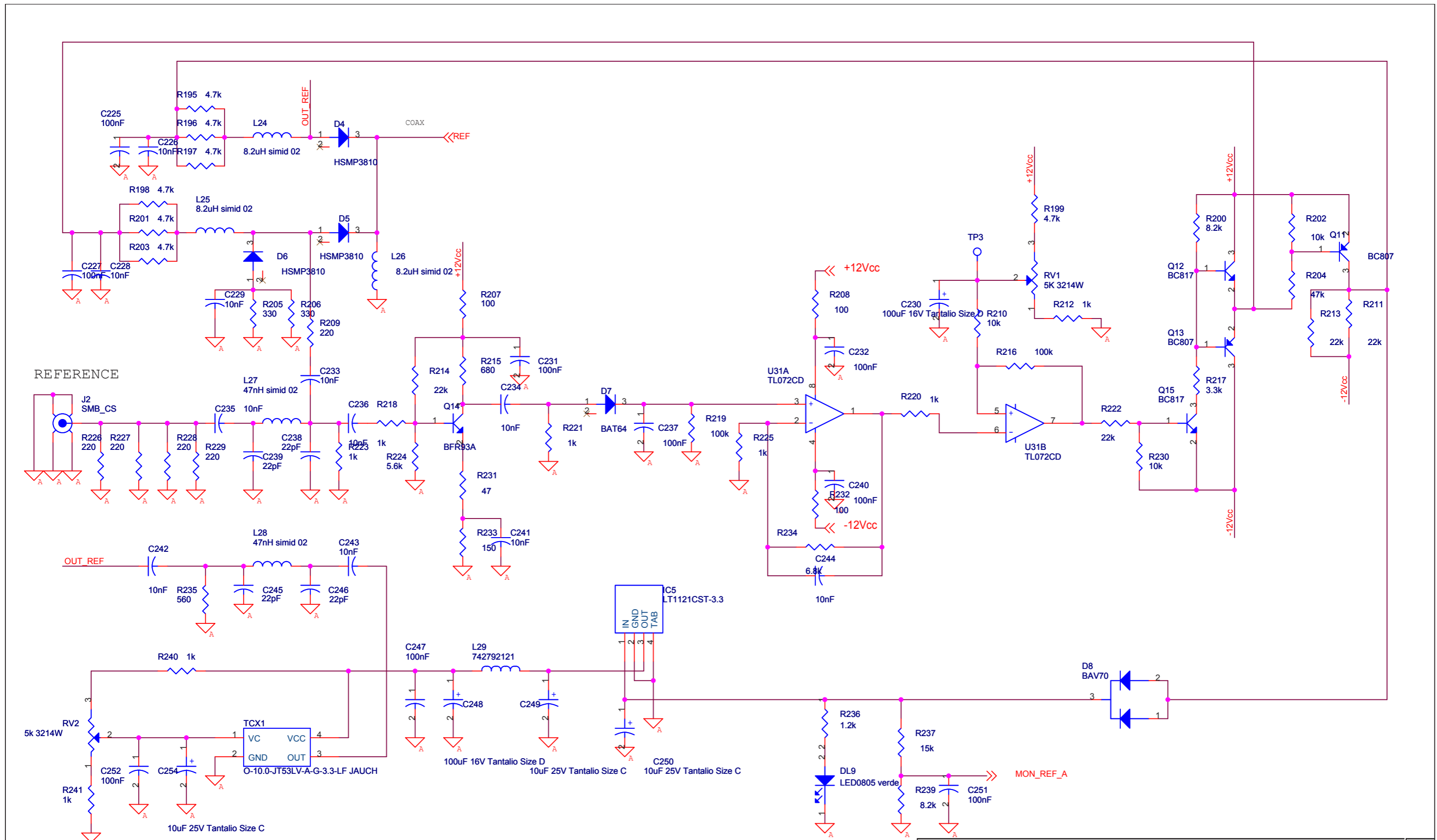


<b>Project Name:</b> PTX-DDS		<b>Page:</b> 4 of 6	<b>Size:</b> B
<b>Designer:</b> A. Pirocchi	<b>Date:</b> Thursday, January 11, 2018	<b>Project Code:</b> RVR174	
<b>File Location:</b> \\RVRUT\Rilasciat\	<b>Revision:</b> 1.2	<b>Description:</b> Main Card - Filter	
<b>Folder/File:</b> /	<b>Approval:</b>	<b>Part No.:</b> SL174MD1001	



Project Name:	PTX-DDS	Page:	8 of 8	Sheet:	D
Designer:	A. Pirocchi	Author:	Thomas, January 11, 2018	Project Code:	RVR174
File Location:	URVUTR\Bancalib	Revision:	1.2	Description:	Main Card - FPGA
Folder/File:	/	Approv:		Part No.:	SL174MD1001





Project Name: PTX-DDS		Page: 6 of 6	Size: B
Designer: A. Pirocchi	Date: Thursday, January 11, 2018	Project Code: RVR174	
File Location: \\RVRUTR\ilasciat\	Revision: 1.2	Description: Main Card - Reference	
Folder/File: /	Approval:	Part No.: SL174MD1001	

SL174MD1001

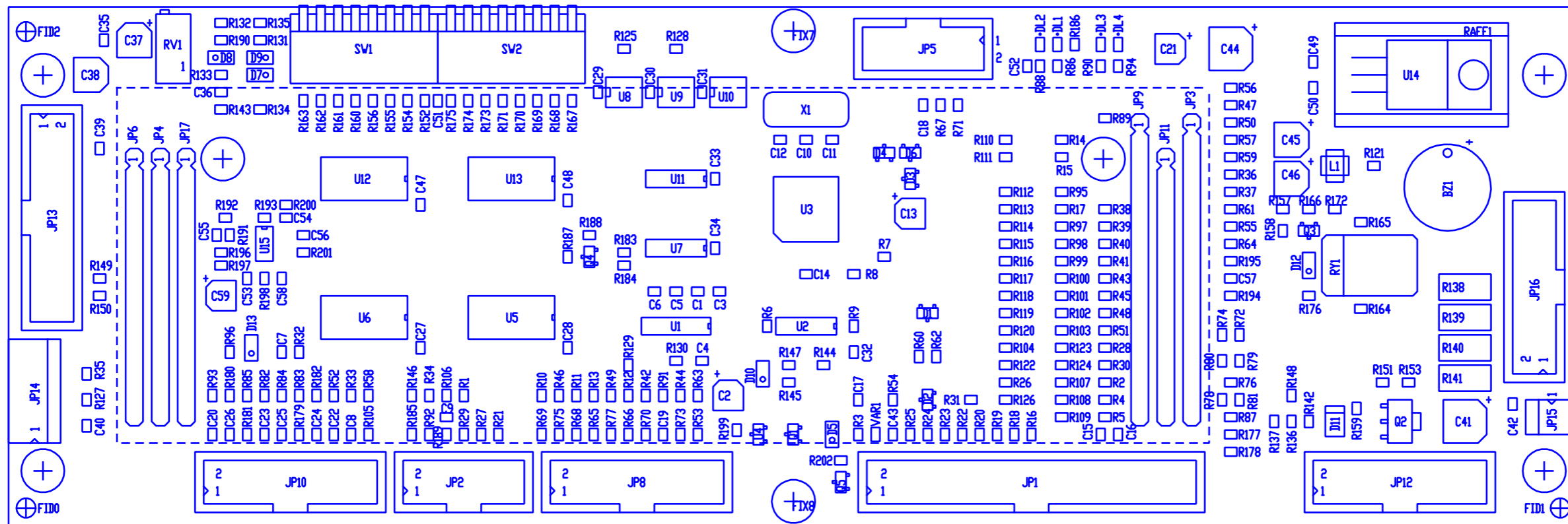
Main Card - SL174MD1001  
 Rev.1.2 Date: 01/07/2014  
 PTX-DDS Prg.174  
 A. Pirocchi

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

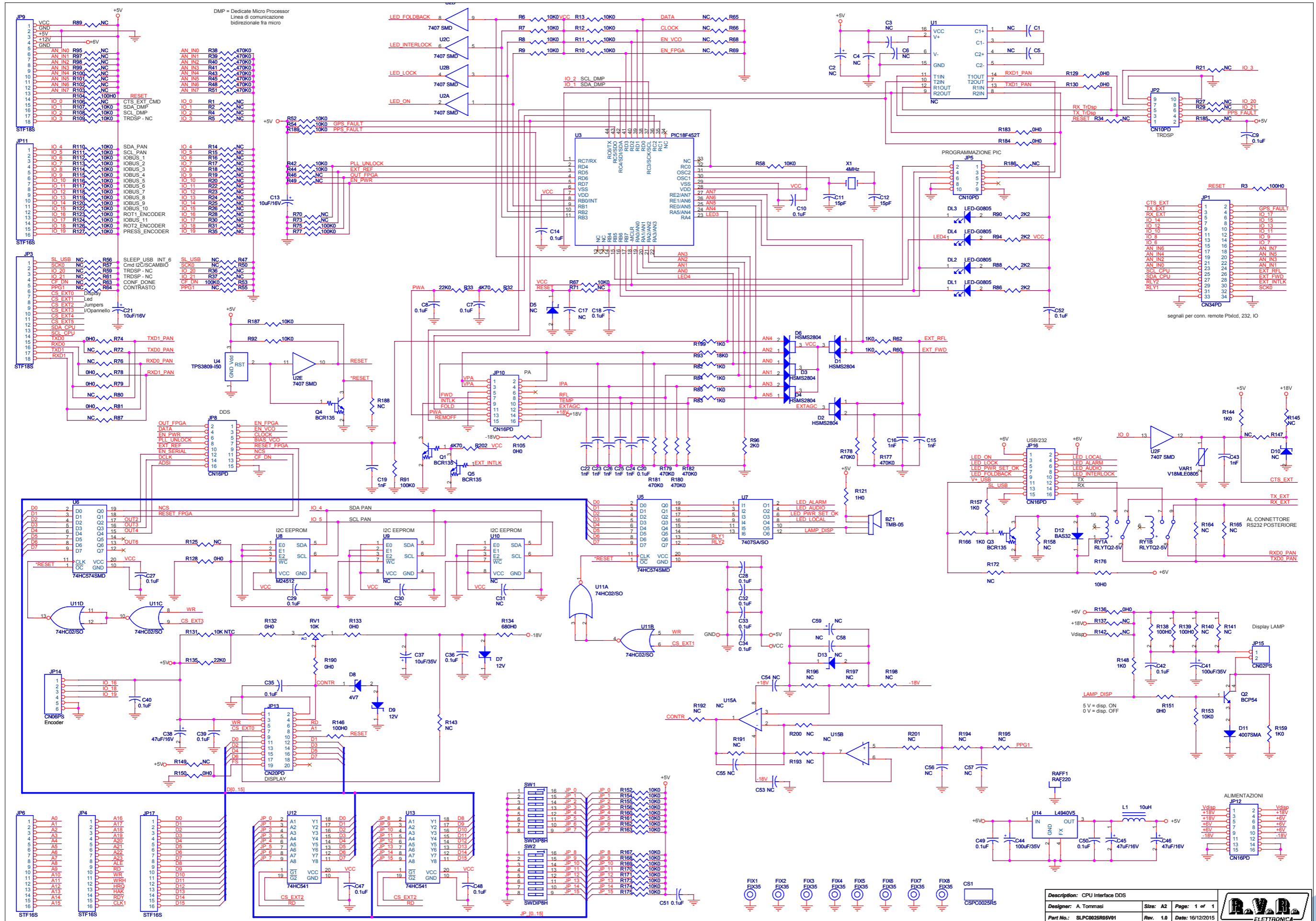
Item	Quantity	Reference	Part
92	1	R256	5.6
93	2	R257, R258	820
94	1	TCX1	O-10.0-JT53LV-A-G-3.3-LF JAUCH
95	2	TP1, TP3	TP
96	1	TP2	TP1
97	1	TR1	TC1-113MG2+
98	1	TR2	ADTT1-1WT
99	1	U1	AD9910BSVZ
100	1	U2	L7812ACV
101	1	U3	L79L12ACD13TR
102	1	U4	LT1963AESR-1.8
103	2	U5, U8	LD29300V33
104	1	U6	LT1963AET
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	EPCS4SI8N
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



	NOME PROGETTO: DDS EXCITER	NOME PARTE: PANEL CARD DDS
	AUTORE: A. TOMMASI	DATA: 16/12/15
ARCHIVIAZIONE ELETTRONICA: "RVRUT"	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	

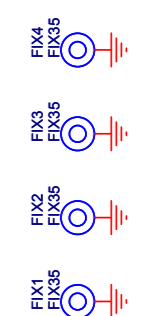
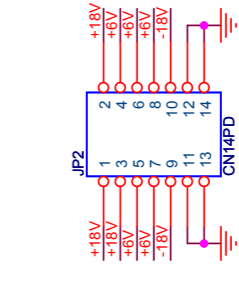
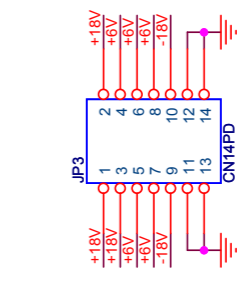
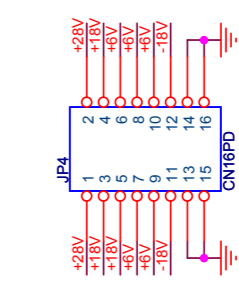
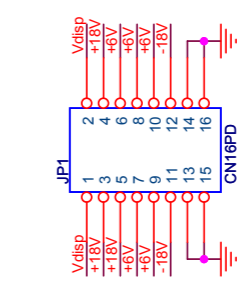
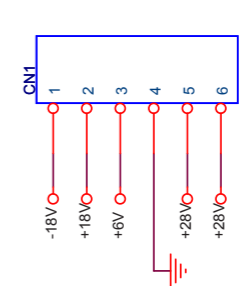
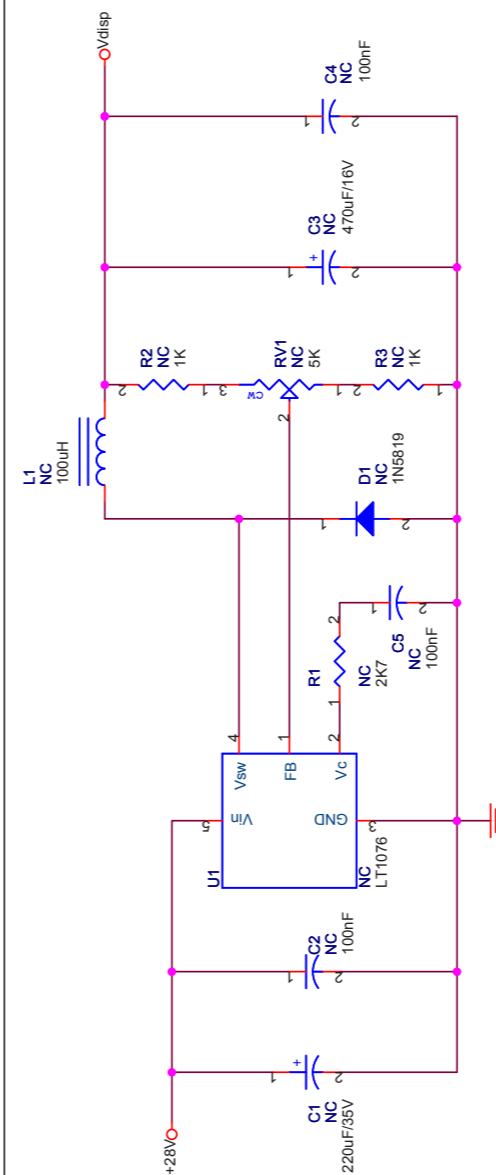
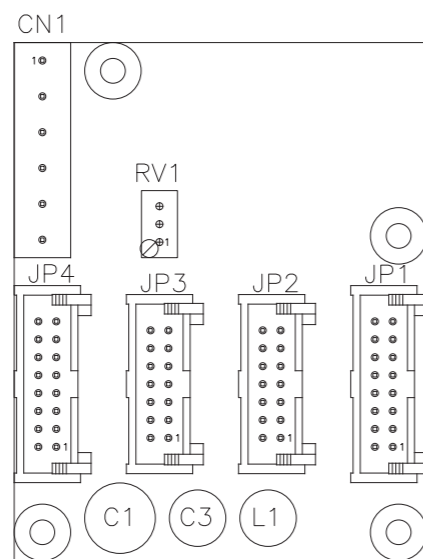
SLPC0025R05V01

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



Description: Power Supply Distribution Card	
Designer: Thei F.	Size: A4
Part No.: WUTSRV	Page: 1 of 1
	Rev. 1.1
	Date: 17/03/2006

	PRODUCT NAME : DDS EXCITER	PART NAME : Power Supply Distribution Card
	DESIGNER : FEDERICO THEI	DATE : 20/06/2006
ARCHIVING : 'RVRUT' SERVER, 'RILASCIATI' FOLDER	REVISION : 1.0	SCALE : 1:1
PROJECT CODE : 034	SIZE : A4	PAGE : 1 DI 1
	DOCUMENT CODE : <	

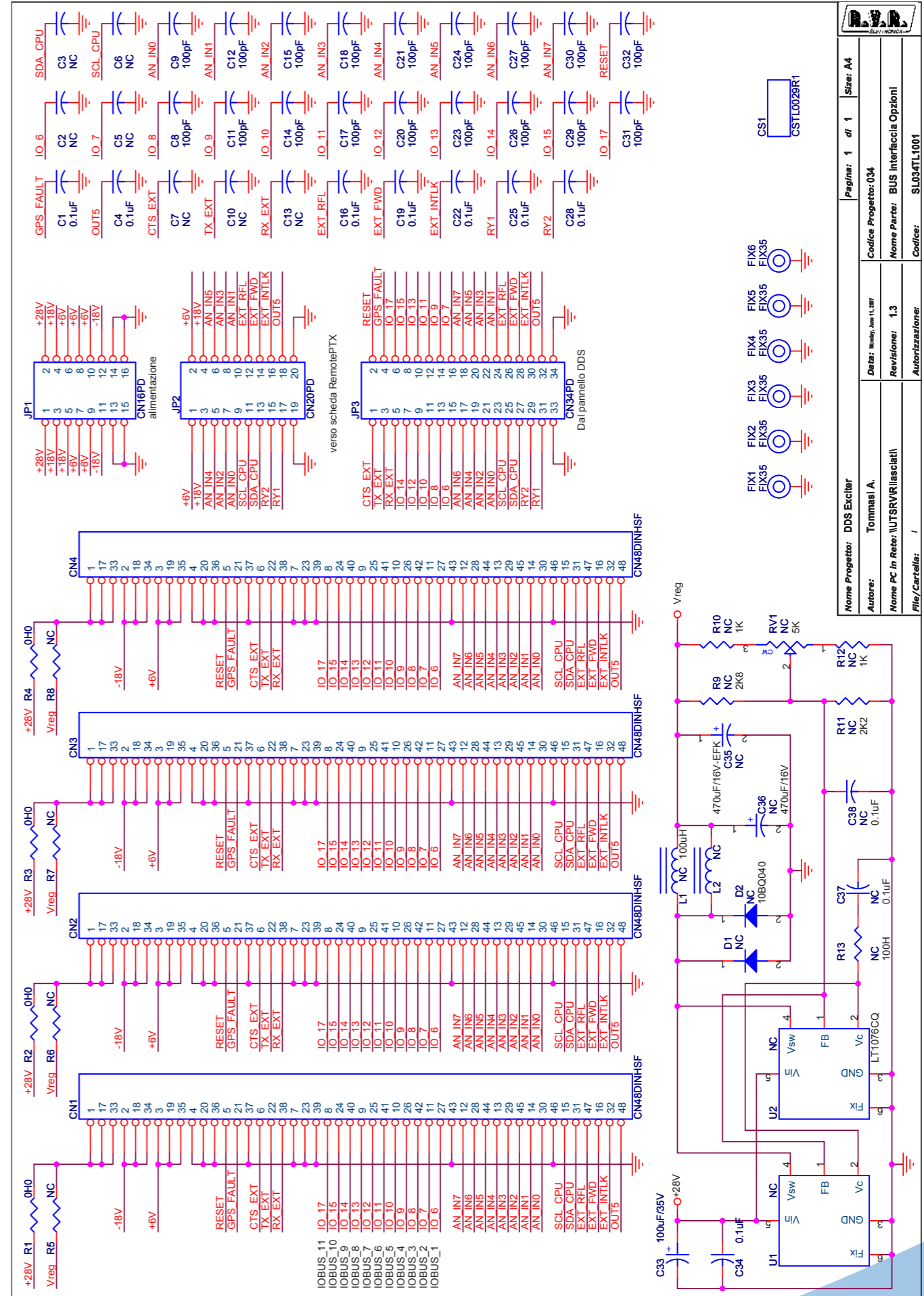
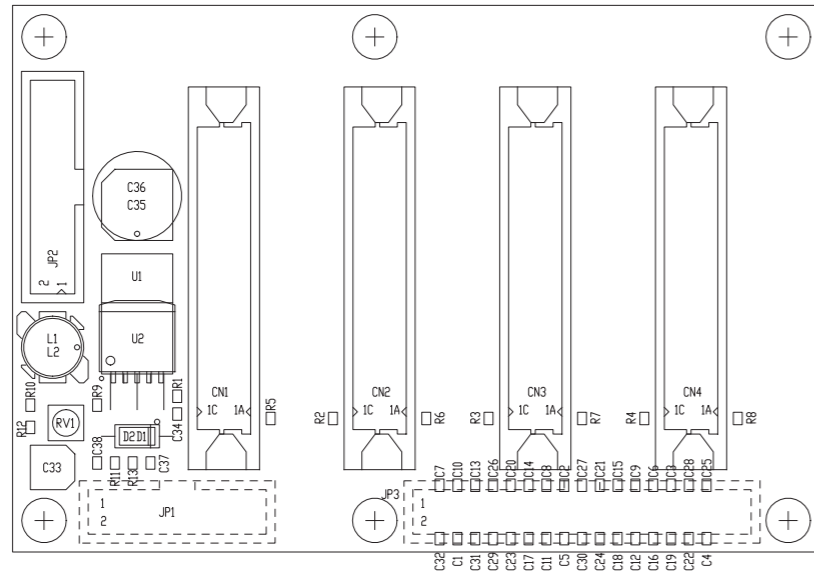
SL034PS1002

Revisione:1.1 Data: 17/03/2006

Power Supply Distribution Card

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	Diode 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



	PRODUCT NAME : DDS EXCITER	PART NAME : TLM PANEL DISTRIBUTION CARD
	DESIGNER : F. THEI	DATE : 20/06/2007 REVISION : 1.0 SCALE : 1:1 SIZE : A4 PAGE : 1 DI 1
ARCHIVING : 'RVTRUT' SERVER, 'RILASCIATI' FOLDER	PROJECT CODE : 034	DOCUMENT CODE : SL034TL1001

Nome Progetto: DDS Exciter	Autore: Tommasi A.
Data: 10/06/2007	Revisione: 1.3
Nome PC in Rete: LUTSRV1(lasciati)	File/Cartella: /
Nome Par: BUS Interfaccia Opzioni	Codice: SL034TL1001
Pagina: 1 di 1	Size: A4

SL034TL1001

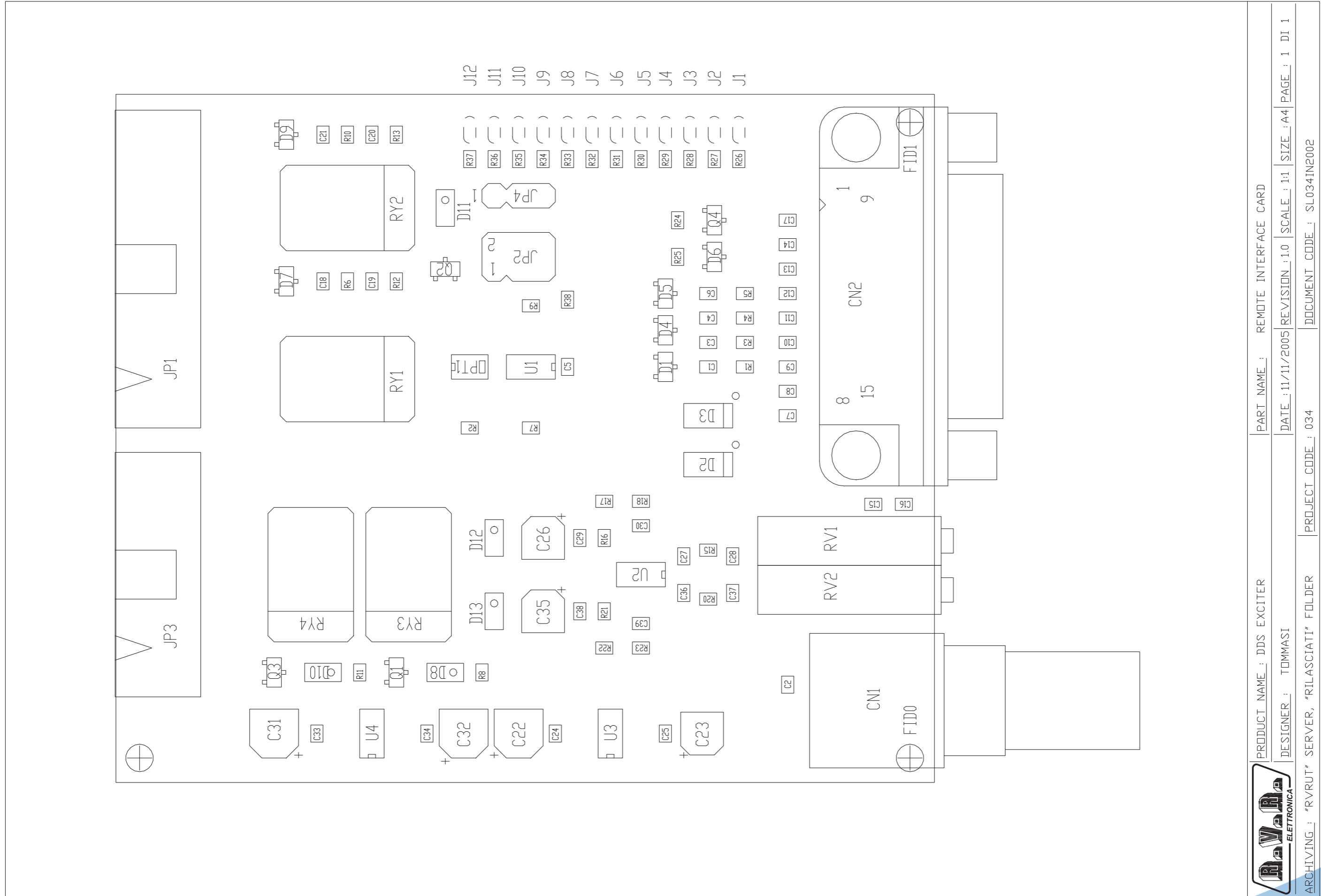
TLM Panel Distribution Card Revised: 11/06/2007  
 SL034TL1001 Revision: 1.3  
 DDS Exciter  
 034

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



SL034IN2002



PRODUCT NAME : DDS EXCITER  
 DESIGNER : TOMMASI  
 ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER

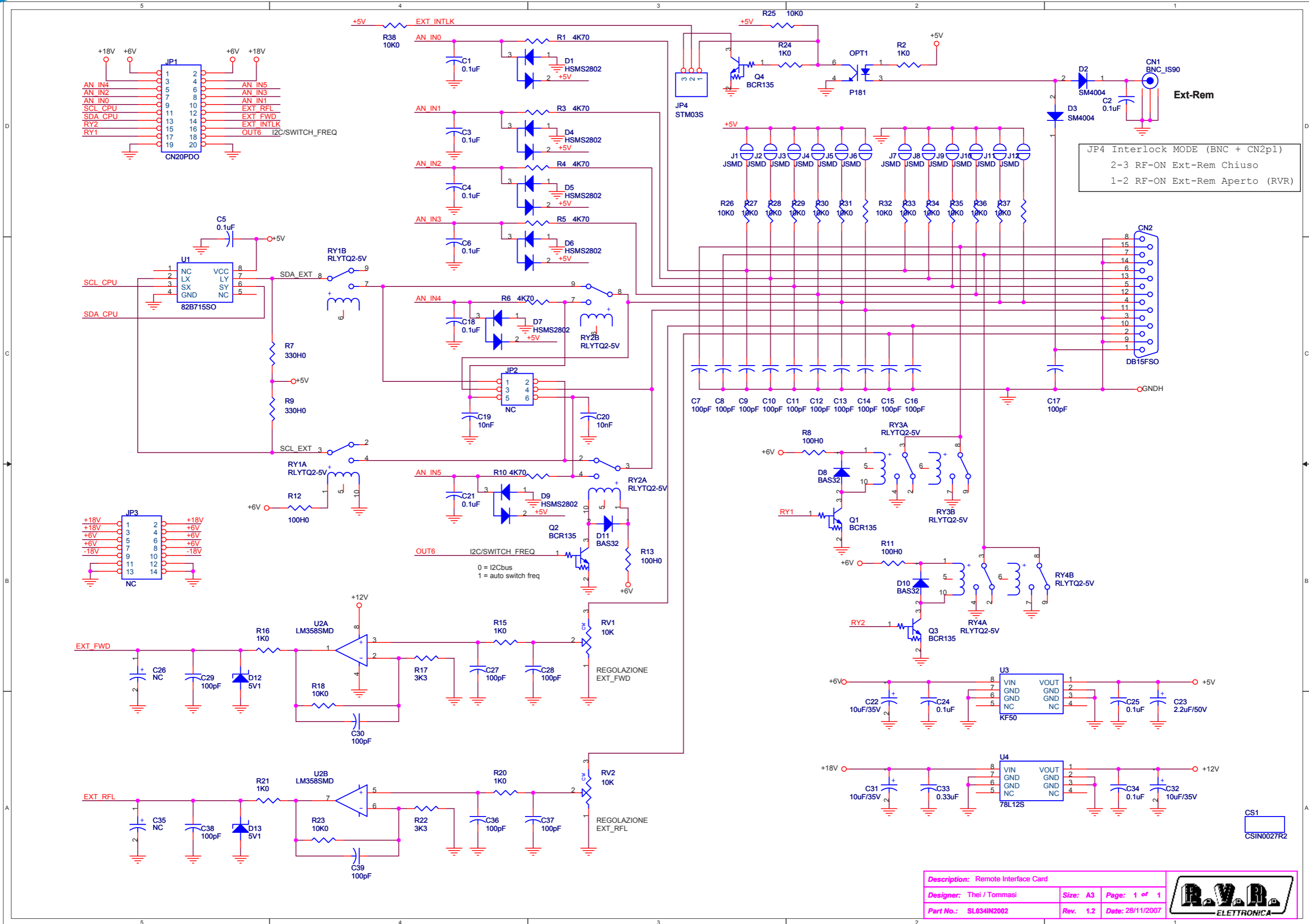
PART NAME : REMOTE INTERFACE CARD  
 DATE : 11/11/2005  
 REVISION : 1.0  
 SCALE : 1:1

SIZE : A4  
 PAGE : 1 DI 1

DOCUMENT CODE : SL034IN2002

PROJECT CODE : 034

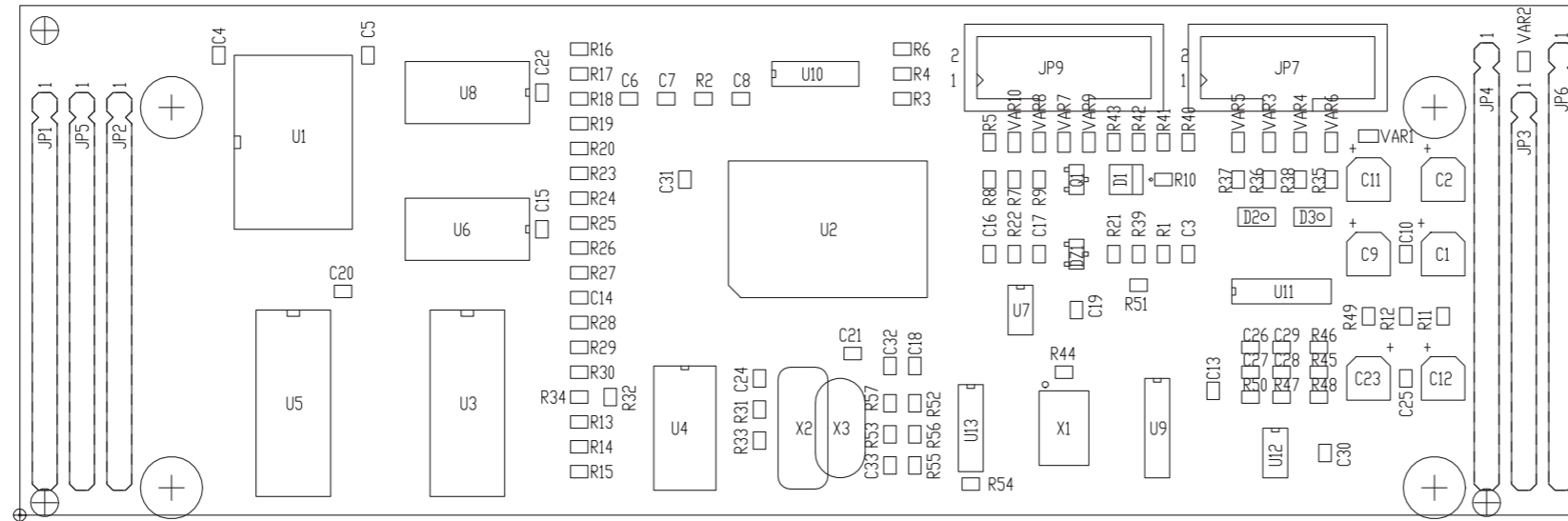
SL034IN2002



SL034IN2002

Remote Interface Card Revised: 28/11/2007  
 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



PRODUCT NAME : PTX-LCD

DESIGNER : A. TOMMASI

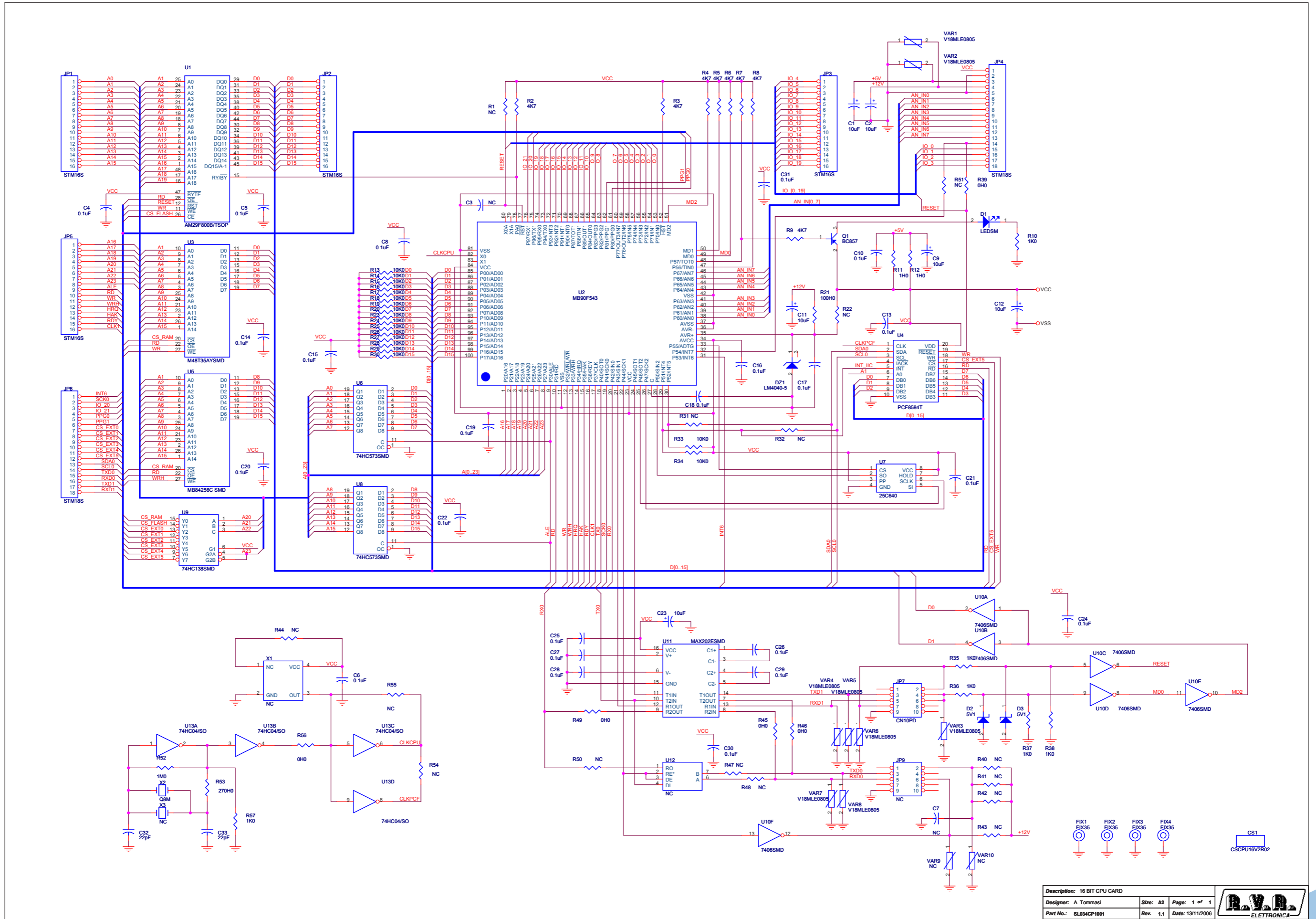
ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER

PART NAME : 16 BIT CPU CARD

DATE : 12/02/2004 REVISION : 2.1 SCALE : 1:1 SIZE : A4 PAGE : 1 DI 1

PROJECT CODE : RV021 DOCUMENT CODE : SL034CP1001

SL034CP1001



Description: 16 BIT CPU CARD			
Designer: A. Tommasi	Size: A2	Page: 1 of 1	
Part No.: SL034CP1001	Rev. 1.1	Date: 13/11/2006	

## SL034CP1001

16 BIT CPU CARD - SL034CP1001

Revision: 1.1 Date: 13/11/2006

PTX-DDS

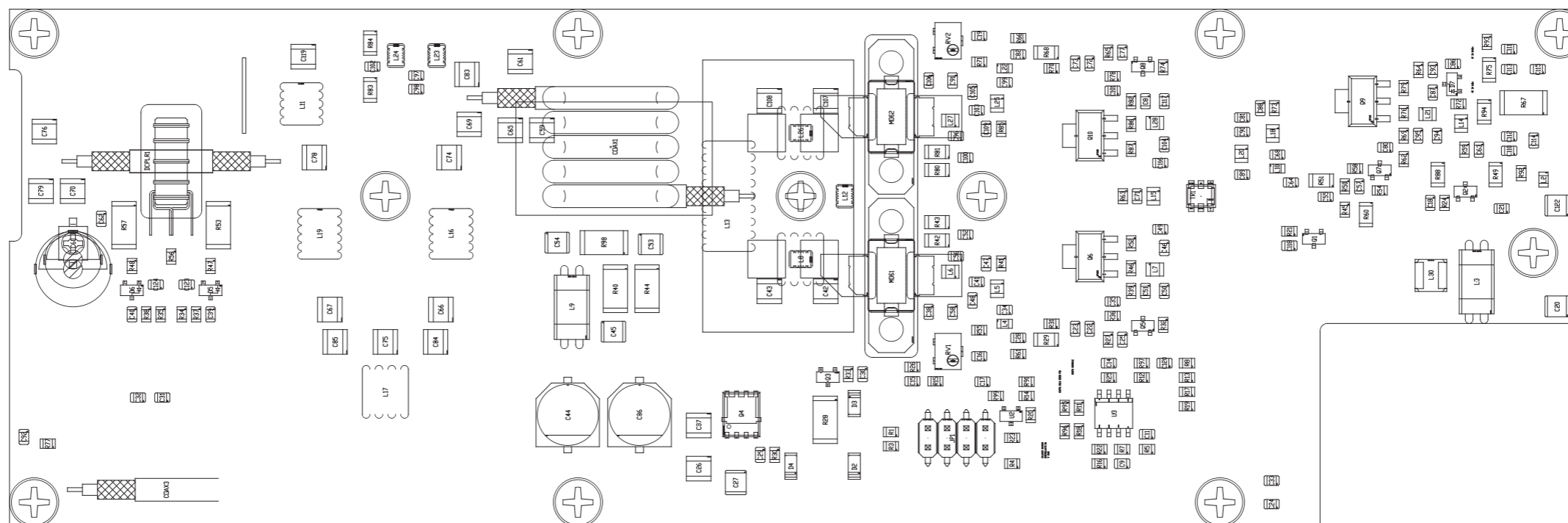
034

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



SLRF0408R03V01



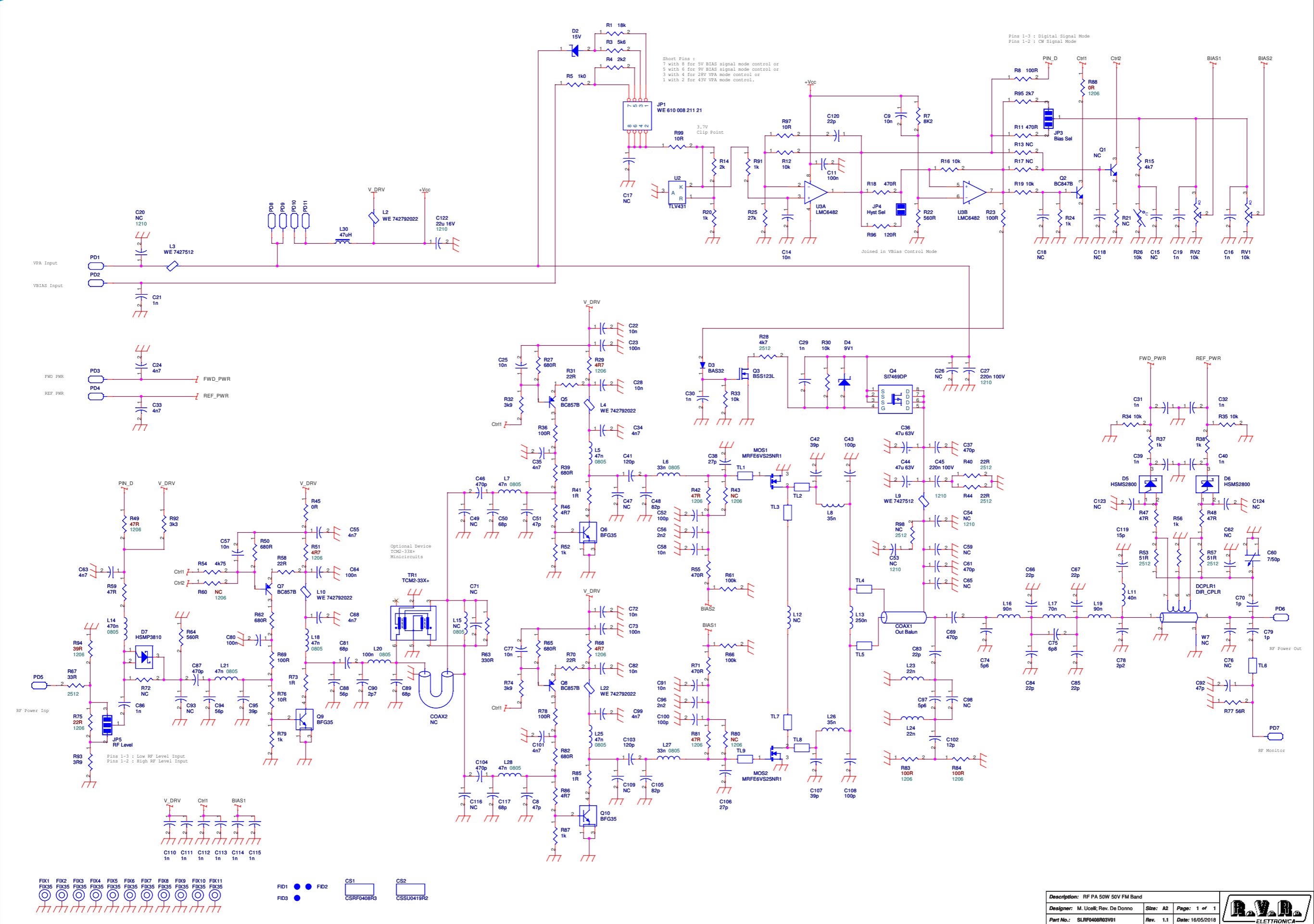
DESCRIPTION : RF PA 50W 50V FM BAND

PART CODE : SLRF0408R03V01

DESIGNER : M. UCELLI

DATE: 19/04/2017 | REVISION: 1.0 | SCALE: 1:1 | SIZE: A4 | PAGINA: 1 DI 1

SLRF0408R03V01

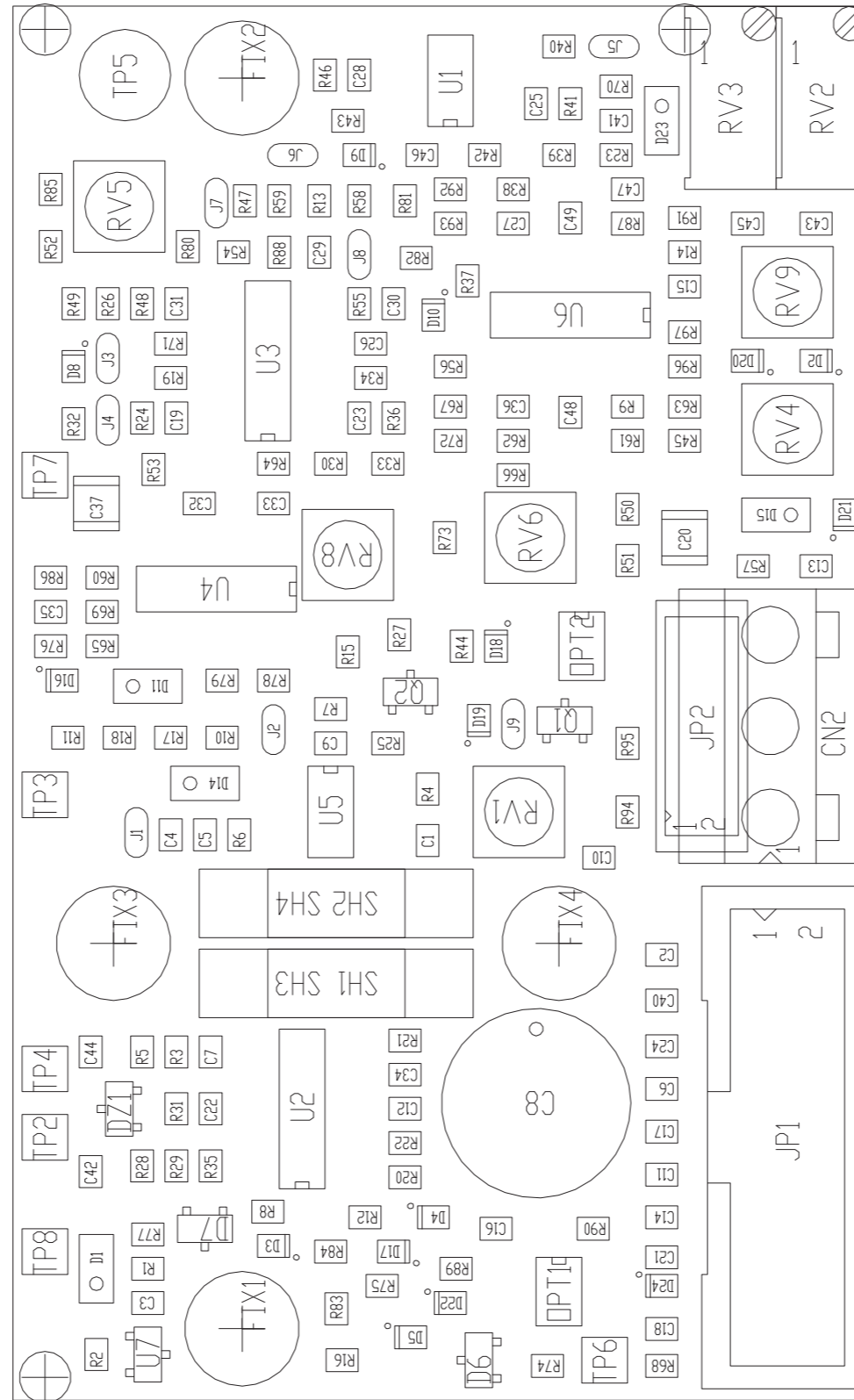


#### SLRF0408R03V01

RF PA 50W 50V FM Band  
SLRF0408R03V01  
Revision: 1.1  
M. Ucelli; rev. De Donno  
16/05/2018

Item	Quantity	Reference	Part	Description
1	1	COAX1	Out Balun	Coax Cable RG316 50-Ohm Length 125mm Shield to Shield
2	1	COAX2	NC	
3	1	CS1	CSRF0408R3	Circuito stampato PA
4	1	CS2	CSSU0419R2	Circuito stampato Balun RG316-50
7	1	C122	22u 16V	Capacitor SMD 1210 MLCC X7R 16V
8	3	C8,C51,C92	47p	Cond. SMD 0805 COG
9	11	C9,C14,C22,C25,C28,C57,C58,C72,C77,C82,C91	10n	SMD 0805 MLCC X7R
10	5	C11,C23,C64,C73,C80	100n	SMD 0805 MLCC X7R
13	13	C15,C17,C18,C47,C49,C62,C71,C93,C109,C116,C118,C123,C124	NC	Cond. SMD 0805 COG
14	16	C16,C19,C21,C29,C30,C31,C32,C39,C40,C86,C110,C111,C112,C113,C114,C115	1n	Cond. SMD 0805 COG
15	2	C27,C45	220n 100V	Capacitor SMD 1210 MLCC X7R 100V
16	9	C24,C33,C34,C35,C55,C63,C68,C99,C101	4n7	SMD 0805 MLCC X7R
17	4	C26,C59,C65,C76	NC	Cond. SMD 1212 HQ
18	2	C36,C44	47u 63V	Cond. Elett. SMD d. 8mm
19	3	C37,C61,C69	470p	Cond. SMD 1212 HQ
20	2	C38,C106	27p	Cond. SMD 0805 COG
21	2	C41,C103	120p	Cond. SMD 0805 COG
22	2	C42,C107	39p	Cond. SMD 1212 HQ
23	2	C43,C108	100p	Cond. SMD 1212 HQ
24	3	C46,C87,C104	470p	Cond. SMD 0805 COG
25	2	C48,C105	82p	Cond. SMD 0805 COG
26	4	C50,C81,C89,C117	68p	Cond. SMD 0805 COG
27	2	C52,C100	100p	Cond. SMD 0805 COG
28	3	C20,C53,C54	NC	Capacitor SMD 1210 MLCC X7R 100V
29	2	C56,C96	2n2	SMD 0805 MLCC X7R
30	1	C60	7/50p	Adj. Cap 7 / 50pF
31	5	C66,C67,C83,C84,C85	22p	Cond. SMD 1212 HQ
32	2	C70,C79	1p	Cond. SMD 1212 HQ
33	1	C74	5p6	Cond. SMD 1212 HQ
34	1	C75	6p8	Cond. SMD 1212 HQ
35	1	C78	2p2	Cond. SMD 1212 HQ
36	2	C88,C94	56p	Cond. SMD 0805 COG
37	1	C90	2p7	Cond. SMD 0805 COG
38	1	C95	39p	Cond. SMD 0805 COG
39	1	C97	5p6	SMD 0805 MLCC X7R
40	1	C98	NC	SMD 0805 MLCC X7R
41	1	C102	12p	SMD 0805 MLCC X7R
42	1	C119	15p	Cond. SMD 1212 HQ
43	1	C120	22p	Cond. SMD 0805 COG
44	1	DCPLR1	DIR_CPLR	Toroidal Directional Coupler
46	1	D2	15V	MINIMELF SMD Zener Diode
47	1	D3	BAS32	Minimelf Diode
48	1	D4	9V1	MINIMELF SMD Zener Diode
49	2	D5,D6	HSMS2800	Hot Carrier Schottky Diode
50	1	D7	HSMP3810	SOT23 Pin Diode
51	3	FID1,FID2,FID3	FID	Fiducial CS
52	11	FIX1,FIX2,FIX3,FIX4,FIX5,FIX6,FIX7,FIX8,FIX9,FIX10,FIX11	FIX35	
53	1	JP1	WE 610 008 211 21	2.54mm DUAL SMT PIN HEADER (4+4)
54	1	JP3	Bias Sel	
55	1	JP4	Hyst Sel	
56	1	JP5	RF Level	
58	4	L2,L4,L10,L22	WE 742792022	Ferrite Bead
59	2	L3,L9	WE 7427512	Ferrite Bead
60	6	L5,L7,L21,L25,L28,L18	47n	Induttanza SMD HQ 2012 Wirewound (0805)
61	2	L6,L27	33n	Induttanza SMD HQ 2012 Wirewound (0805)
62	2	L8,L26	35n	4 spire filo 1mm R.Arg avvolte su D.3.5 lungh 9 mm
63	1	L11	40n	4 spire filo 1mm R.Arg avvolte su D.4 lungh 5.5 mm
64	1	L12	NC	Induttanza cilindrica
65	1	L13	250n	15 spire filo 0.8mm R. Smaltato avvolte su D.3.5 in modo compatto
66	1	L14	470n	Induttanza SMD HQ 2012 Wirewound (0805)
67	1	L15	NC	Induttanza SMD HQ 2012 (0805)
68	2	L16,L19	90n	5 Spire Filo D. 1mm Rame Arg. avvolte su D. 6.5 lungh. 11 mm
69	1	L17	70n	4 Spire Filo D. 1mm Rame Arg. avvolte su D. 6.5 lungh. 6 mm

71	1	L20	100n	Induttanza SMD HQ 2012 Wirewound (0805)
72	2	L23,L24	22n	Coilcraft Square Air Core Inductor 0908SQ-22N
73	1	L30	47uH	PWR Ind WE 74404042470
74	2	MOS1,MOS2	MRFE6VS25NR1	Single LDMOS
75	11	PD1,PD2,PD3,PD4,PD5,PD6,PD7,PD8,PD9,PD10,PD11	PAD	Pad for connection
76	1	Q1	NC	Trans. NPN SOT23
77	1	Q2	BC847B	Trans. NPN SOT23
78	1	Q3	BSS123L	SOT23 NMOS
79	1	Q4	SI7469DP	Power PMOS
80	3	Q5,Q7,Q8	BC857B	Trans. PNP SOT23
81	3	Q6,Q9,Q10	BFG35	Trans. NPN SOT223
82	2	RV1,RV2	10k	Trimmer SMD
83	1	R1	18k	Res. SMD 0805
84	2	R61,R66	100k	Res. SMD 0805
85	1	R3	5k6	Res. SMD 0805
86	1	R4	2k2	Res. SMD 0805
87	1	R5	1k0	Res. SMD 0805
89	1	R7	8K2	Res. SMD 0805
90	5	R8,R23,R36,R69,R78	100R	Res. SMD 0805
92	7	R12,R16,R19,R30,R33,R34,R35	10k	Res. SMD 0805
93	4	R11,R18,R55,R71	470R	Res. SMD 0805
94	4	R13,R17,R21,R72	NC	Res. SMD 0805
95	1	R14	2k	Res. SMD 0805
96	1	R15	4k7	Res. SMD 0805
97	9	R20,R24,R37,R38,R52,R56,R79,R87,R91	1k	Res. SMD 0805
98	2	R22,R64	560R	Res. SMD 0805
99	1	R25	27k	Res. SMD 0805
100	1	R26	10k	Res. NTC SMD 0805
101	6	R27,R39,R50,R62,R65,R82	680R	Res. SMD 0805
102	1	R28	4k7	Res. SMD 2512
103	3	R29,R51,R68	4R7	Res. SMD 1206
104	3	R31,R58,R70	22R	Res. SMD 0805
105	2	R32,R74	3k9	Res. SMD 0805
106	2	R40,R44	22R	Res. SMD 2512 1%
107	3	R41,R73,R85	1R	Res. SMD 0805
108	3	R42,R49,R81	47R	Res. SMD 1206
109	3	R43,R60,R80	NC	Res. SMD 1206
110	1	R45	0R	Res. SMD 0805
111	2	R46,R86	4R7	Res. SMD 0805
112	3	R47,R48,R59	47R	Res. SMD 0805
113	2	R53,R57	51R	Res. SMD 2512 1%
114	1	R54	4k75	Res. SMD 0805
115	1	R63	330R	Res. SMD 0805
116	1	R67	33R	Res. SMD 2512 1%
117	1	R75	22R	Res. SMD 1206
118	3	R76,R97,R99	10R	Res. SMD 0805
119	1	R77	56R	Res. SMD 0805
120	2	R83,R84	100R	Res. SMD 1206
121	1	R88	0R	Res. SMD 1206
122	1	R92	3k3	Res. SMD 0805
123	1	R93	3R9	Res. SMD 0805
124	1	R94	39R	Res. SMD 1206
125	1	R95	2k7	Res. SMD 0805
126	1	R96	120R	Res. SMD 0805
127	1	R98	NC	Res. SMD 2512 1%
128	9	TL1,TL2,TL3,TL4,TL5,TL6,TL7,TL8,TL9	TLINE_S	Linea strip CS
129	1	TR1	TCM2-33X+	Minicircuits SMT RF Balun
131	1	U2	TLV431	Low Volt. Adj. Shunt Reg 1.24Vref SOT-23-3
132	1	U3	LMC6482	Rail to Rail Dual Op. SMD SO8
133	1	W7	NC	



PRODUCT NAME : <>

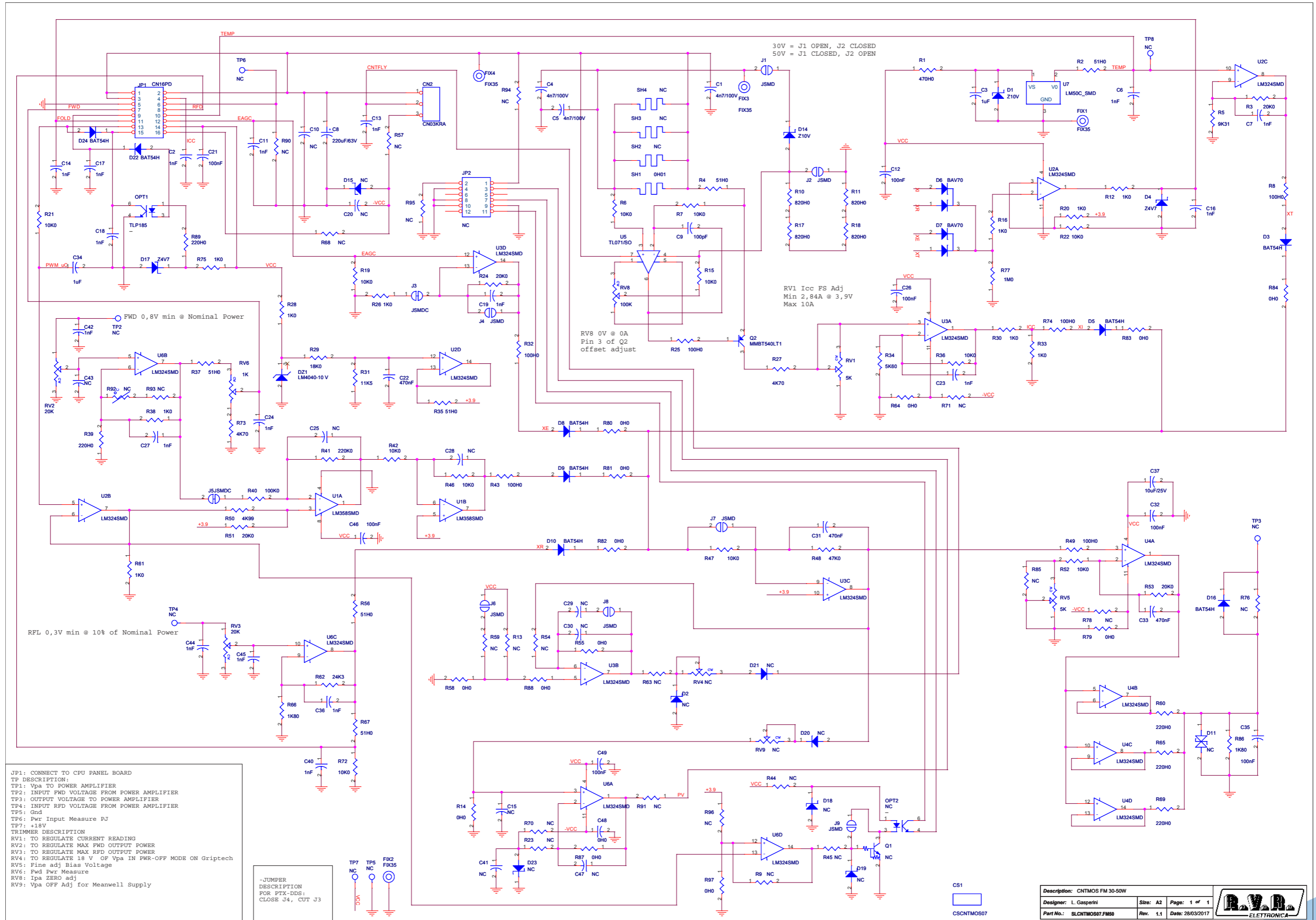
PART NAME : CNTMOS PA RF R:07

DESIGNER : L. GASPERINI

DATE : 18/05/16 REVISION : 1.0 SCALE : 1:1 SIZE : A4 PAGE : 1 DI 1

ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER

PROJECT CODE : <> DOCUMENT CODE : SLCNTMOS07



JP1: CONNECT TO CPU PANEL BOARD  
 TP DESCRIPTION:  
 TP1: Vpa TO POWER AMPLIFIER  
 TP2: INPUT PWD VOLTAGE FROM POWER AMPLIFIER  
 TP3: OUTPUT VOLTAGE TO POWER AMPLIFIER  
 TP4: INPUT RFD VOLTAGE FROM POWER AMPLIFIER  
 TP5: Gnd  
 TP6: Pwr Input Measure PJ  
 TP7: +18V  
 TRIMMER DESCRIPTION  
 RV1: TO REGULATE CURRENT READING  
 RV2: TO REGULATE MAX PWD OUTPUT POWER  
 RV3: TO REGULATE MAX RFD OUTPUT POWER  
 RV4: TO REGULATE 18 V OF Vpa IN PWR-OFF MODE ON Griptech  
 RV5: Fine adj Bias Voltage  
 RV6: Fwd Pwr Measure  
 RV8: Ipa ZERO adj  
 RV9: Vpa OFF Adj for Meanwell Supply

-JUMPER  
 DESCRIPTION  
 FOR PTX-DDS:  
 CLOSE J4, CUT J3

Description: CNTMOS FM 30-50W		Size: A2		Page: 1 of 1	
Designer: L. Gasperini		Rev. 1.1		Date: 28/03/2017	
Part No.: SLCNTMOS07.FM50					

## SLCNTMOS07.FM50

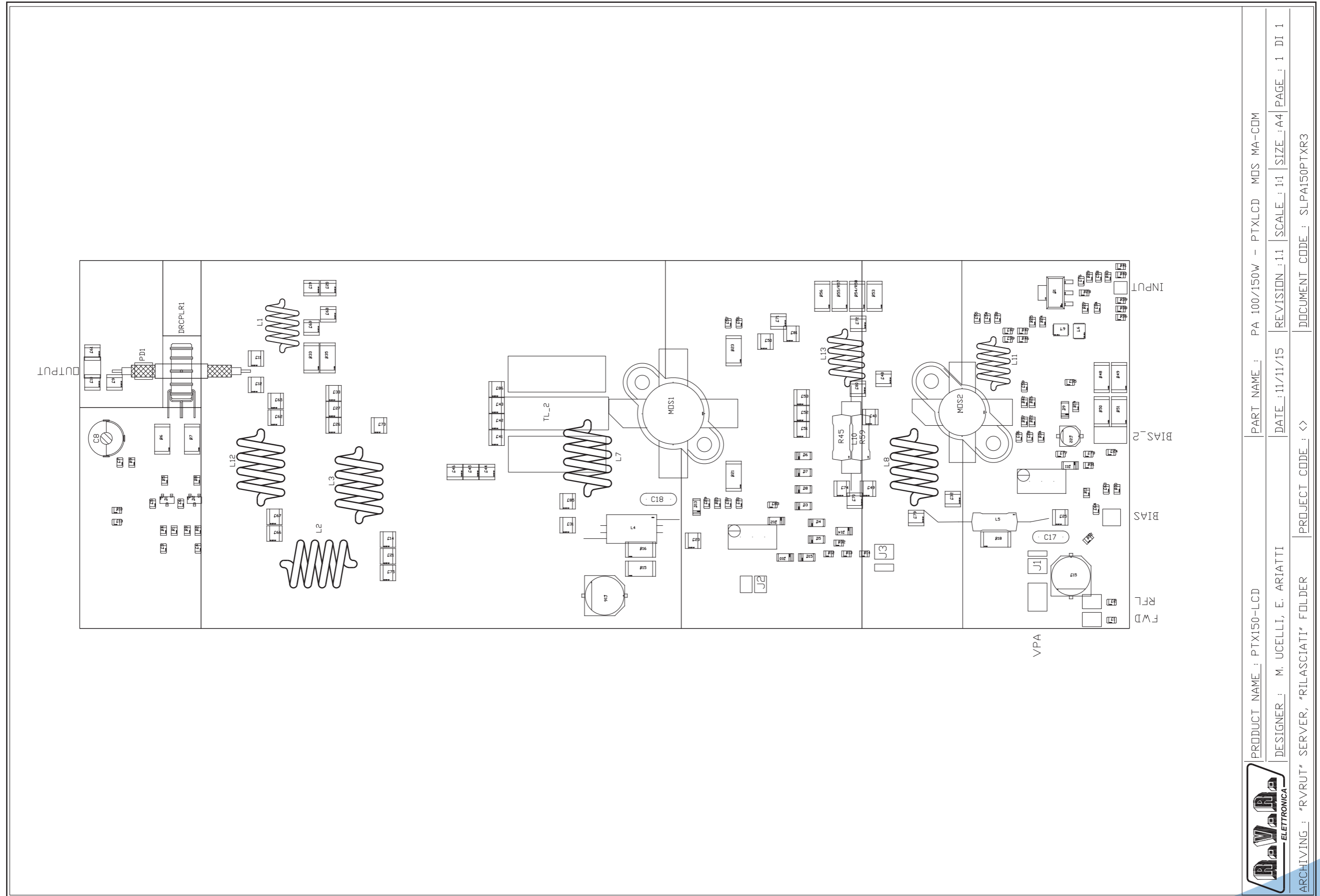
CNTMOS FM 30-50W Revised: 28/03/2017  
 SLCNTMOS07.FM50 Revision: 1.1  
 Luca Gasperini

Item	Quantity	Reference	Part	Description
1	1	CN2	CN03KRA	Conn. tipo KRA a 3 poli
2	1	CS1	CSCNTMOS07	Circuito stampato
3	3	C1, C4, C5	4n7/100V	Cond. SMD 0805
4	18	C2, C6, C7, C11, C13, C14, C16, C17, C18, C19, C23, C24, C27, C36, C40, C42, C44, C45	1nF	Cond. SMD 0805
5	2	C3, C34	1uF	Cond. SMD 0805
6	1	C8	220uF/63V	Cond. Elettr. Dia 10 P5.08
7	1	C9	100pF	Cond. SMD 0805
8	9	C10, C15, C25, C28, C29, C30, C41, C43, C47	NC	Cond. SMD 0805
9	7	C12, C21, C26, C32, C35, C46, C49	100nF	Cond. SMD 0805
10	1	C20	NC	Cond. SMD 1210
11	3	C22, C31, C33	470nF	Cond. SMD 0805
12	1	C37	10uF/25V	Cond. SMD 1210
13	1	C48	0H0	Cond. SMD 0805
14	1	DZ1	LM4040-10 V	Diodi Zener SMD SOT23
15	2	D1, D14	Z10V	MINIMELF SMD Zener Diode
16	3	D2, D18, D19	NC	SOD323 Zener Diode
17	8	D3, D5, D8, D9, D10, D16, D22, D24	BAT54H	SOD323 SMD Diode
18	2	D4, D17	Z4V7	SOD323 Zener Diode
19	2	D6, D7	BAV70	Doppio Diode SMD SOT23
20	1	D11	NC	Transzorbo SMA
21	2	D15, D23	NC	MINIMELF SMD Zener Diode
22	2	D20, D21	NC	SOD323 SMD Diode
23	4	FIX1, FIX2, FIX3, FIX4	FIX35	Foro fissaggio 3.5mm
24	1	JP1	CN16PD	Conn.M.C.S.Dritto 16P alette.
25	1	JP2	NC	Conn. 12 poli DF11 12pin p. 2mm
26	7	J1, J2, J4, J6, J7, J8, J9	JSMD	Pad SMD a saldare
27	2	J3, J5	JSMD	Pad SMD a saldare chiuso
28	1	OPT1	TLP185	Optocoupler SMD SO6
29	1	OPT2	NC	Optocoupler SMD SO6
30	1	Q1	NC	Trans./Res. NPN SOT23
31	1	Q2	MMBT540LT1	Trans. PNP SOT23
32	2	RV1, RV5	5K	Trimmer SMD
33	2	RV2, RV3	20K	Trimmer Rg V 3296W
34	2	RV4, RV9	NC	Trimmer SMD
35	1	RV6	1K	Trimmer SMD
36	1	RV8	100K	Trimmer SMD
37	1	R1	470H0	Res. SMD 0805 1%
38	6	R2, R4, R35, R37, R56, R67	51H0	Res. SMD 0805 1%
39	4	R3, R24, R51, R53	20K0	Res. SMD 0805 1%
40	1	R5	9K31	Res. SMD 0805 1%
41	12	R6, R7, R15, R19, R21, R22, R36, R42, R46, R47, R52, R72	10K0	Res. SMD 0805 1%
42	6	R8, R25, R32, R43, R49, R74	100H0	Res. SMD 0805 1%
43	21	R9, R13, R23, R44, R45, R54, R57, R59, R63, R68, R70, R71, R76, R78, R85, R90, R91, R93, R94, R95, R96	NC	Res. SMD 0805 1%
44	4	R10, R11, R17, R18	820H0	Res. SMD 0805 1%
45	10	R12, R16, R20, R26, R28, R30, R33, R38, R61, R75	1K0	Res. SMD 0805 1%
46	13	R14, R55, R58, R64, R79, R80, R81, R82, R83, R84, R87, R88, R97	0H0	Res. SMD 0805 1%
47	2	R27, R73	4K70	Res. SMD 0805 1%
48	1	R29	18K0	Res. SMD 0805 1%
49	1	R31	11K5	Res. SMD 0805 1%
50	1	R34	5K60	Res. SMD 0805 1%
51	5	R39, R60, R65, R69, R89	220H0	Res. SMD 0805 1%
52	1	R40	100K0	Res. SMD 0805 1%
53	1	R41	220K0	Res. SMD 0805 1%
54	1	R48	47K0	Res. SMD 0805 1%
55	1	R50	4K99	Res. SMD 0805 1%
56	1	R62	24K3	Res. SMD 0805 1%
57	2	R66, R86	1K80	Res. SMD 0805 1%
58	1	R77	1M0	Res. SMD 0805 1%
59	1	R92	NC	Res. NTC SMD 0805
60	1	SH2	NC	Shunt passo 15.2mm fori 2mm

Item	Quantity	Reference	Part	Description
61	1	SH1	0H01	Shunt passo 15.2mm fori 2mm
62	2	SH3, SH4	NC	Shunt SMD 2512
63	6	TP2, TP3, TP4, TP6, TP7, TP8	NC	Foro dia. 1mm
64	1	TP5	NC	Foro dia. 2mm
65	1	U1	LM358SMD	Dual Op. SMD SO8
66	4	U2, U3, U4, U6	LM324SMD	Quad Op. SMD SO14
67	1	U5	TL071/SO	Single Op. SMD SO8
68	1	U7	LM50C_SMD	Temperature sensor



SLPA150TEXR2

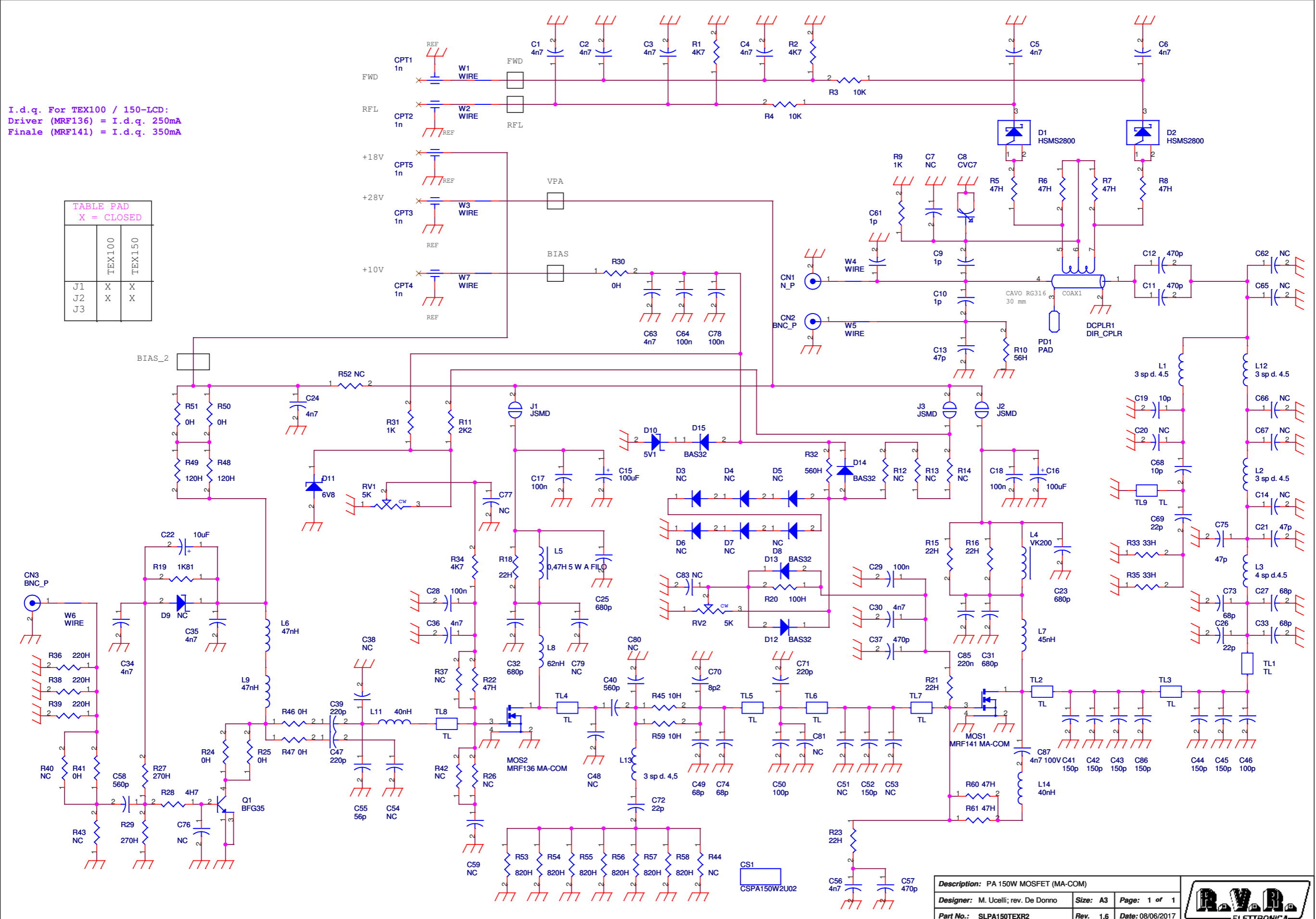


SLPA150TEXR2

I.d.q. For TEX100 / 150-LCD:  
 Driver (MRF136) = I.d.q. 250mA  
 Finale (MRF141) = I.d.q. 350mA

TABLE PAD  
X = CLOSED

	TEX100	TEX150
J1	X	X
J2	X	X
J3	X	X



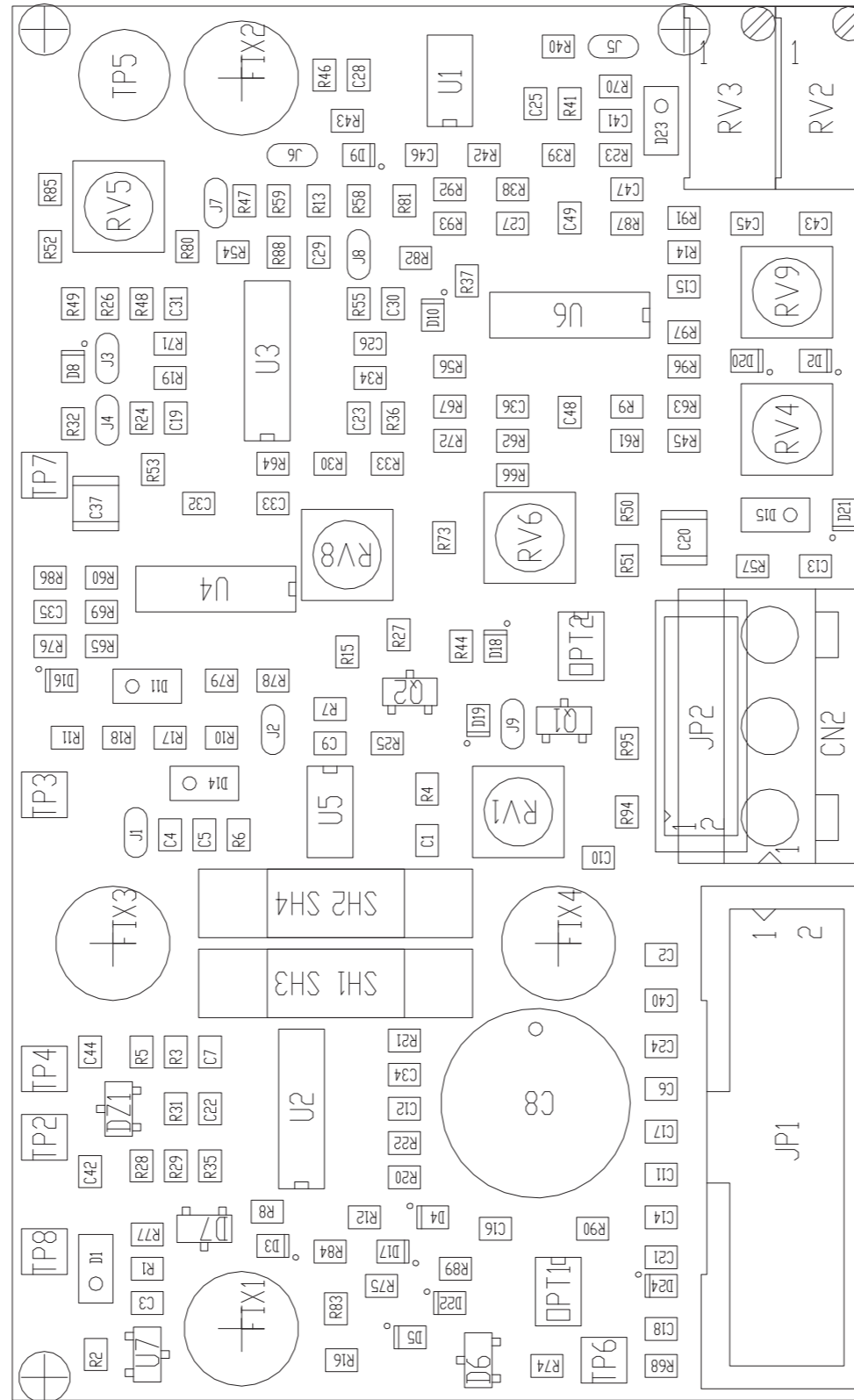
<b>Description:</b> PA 150W MOSFET (MA-COM)		
<b>Designer:</b> M. Ucelli; rev. De Donno	<b>Size:</b> A3	<b>Page:</b> 1 of 1
<b>Part No.:</b> SLPA150TEXR2	<b>Rev.:</b> 1.6	<b>Date:</b> 08/06/2017



SLPA150TEXR2

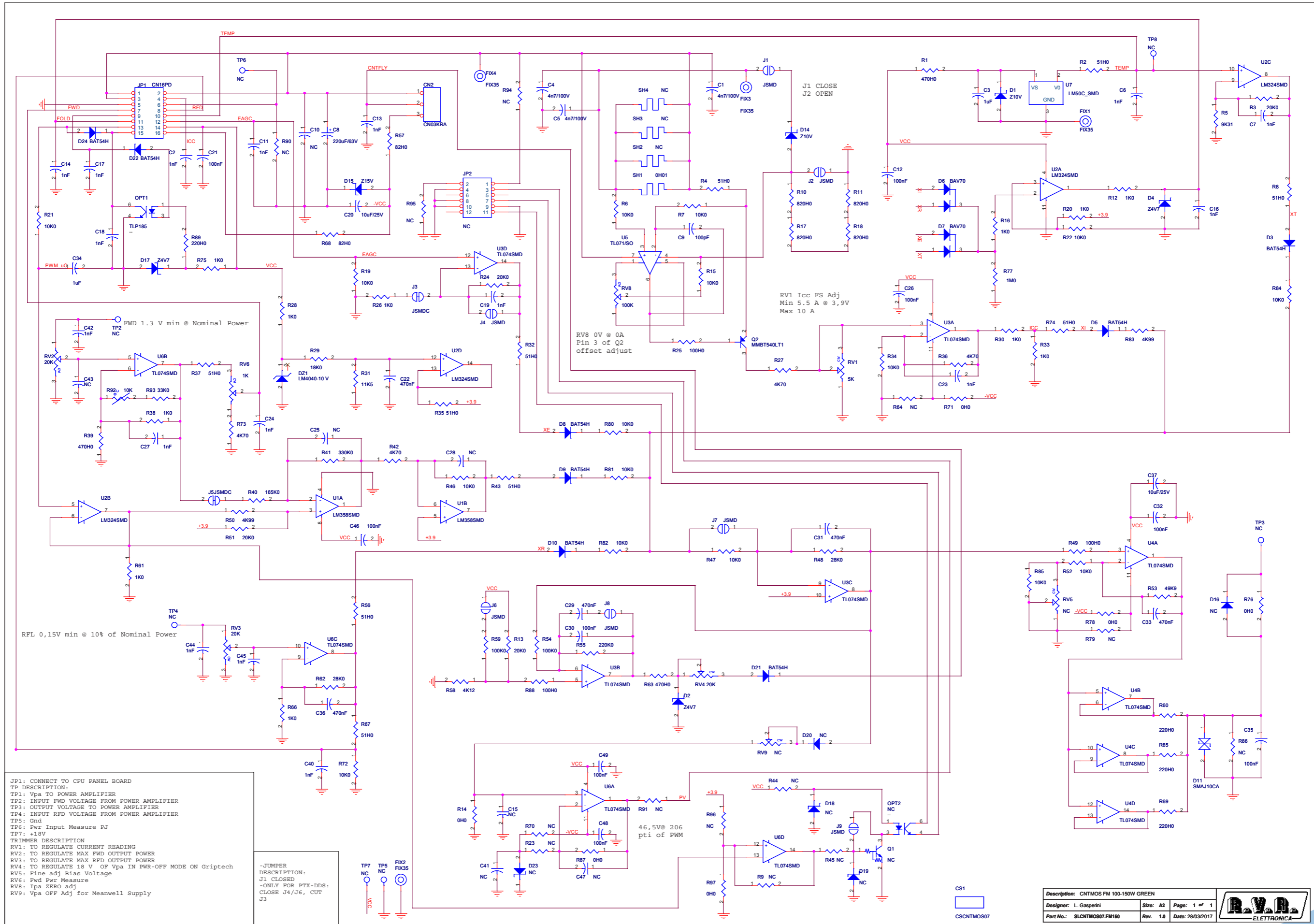
PA 150W MOSFET (MA-COM)  
 SLPA150TEXR2  
 08/06/2018 Rev. 1.6  
 M. Ucelli; rev. De Donno

ITEM	QUANTITY	REFERENCE	PART	DESCRIPTION
1	1	CN1	N_P	Conn. N da pannello
2	2	CN2,CN3	BNC_P	Conn. BNC da pannello
3	5	CPT1,CPT2,CPT3,CPT4,CPT5	1n	Cond. passante
4	1	CS1	CSPA150W2U02	Circuito stampato
5	13	C1,C2,C3,C4,C5,C6,C24,C30,C34,C35,C36,C56,C63	4n7	Cond. SMD 0805 COG
6	4	C7,C38,C54,C59	NC	Cond. SMD 0805 COG
7	1	C8	CVC7	Comp. ceramico dia. 7mm
8	3	C9,C10,C61	1p	Cond. SMD 1212 HQ
9	2	C11,C12	470p	Cond. SMD 1212 HQ
10	1	C13	47p	Cond. SMD 0805 COG
11	12	C14,C20,C48,C51,C53,C62,C65,C66,C67,C79,C80,C81	NC	Cond. SMD 1212 HQ
12	2	C15,C16	100uF	Cond. Elett. SMD d. 6.3mm
13	2	C17,C18	100n	Cond. ceramico multistrato p 5mm
14	2	C19,C68	10p	Cond. SMD 1212 HQ
15	2	C21,C75	47p	Cond. SMD 1212 HQ
16	1	C22	10uF	Cond. Elett. SMD d. 5mm
17	4	C23,C25,C31,C32	680p	Cond. SMD 1212 HQ
18	3	C26,C69,C72	22p	Cond. SMD 1212 HQ
19	5	C27,C33,C49,C73,C74	68p	Cond. SMD 1212 HQ
20	4	C28,C29,C64,C78	100n	Cond. SMD 0805 COG
21	2	C37,C57	470p	Cond. SMD 0805 COG
22	2	C39,C47	220p	Cond. SMD 0805 COG
23	1	C40	560p	Cond. SMD 1212 HQ
24	7	C41,C42,C43,C44,C45,C52,C86	150p	Cond. SMD 1212 HQ
25	2	C46,C50	100p	Cond. SMD 1212 HQ
26	1	C55	56p	Cond. SMD 0805 COG
27	1	C58	560p	Cond. SMD 0805 COG
28	1	C70	8p2	Cond. SMD 1212 HQ
29	1	C71	220p	Cond. SMD 1212 HQ
30	3	C76,C77,C83	NC	Cond. SMD 0805
31	1	C85	220n	Cond. SMD 1210 LowESR
32	1	C87	4n7 100V	Cond. ceramico p 5mm
33	1	DCPLR1	DIR_CPLR	BOB. SU NUCLEO KITFTR1010SP
34	2	D1,D2	HSMS2800	Diodo Hot Carrier SOT23
35	6	D3,D4,D5,D6,D7,D8	NC	MINIMELF SMD Diode
36	1	D9	NC	MINIMELF SMD Zener Diode
37	1	D10	5V1	MINIMELF SMD Zener Diode
38	1	D11	6V8	MINIMELF SMD Zener Diode
39	4	D12,D13,D14,D15	BAS32	MINIMELF SMD Diode
40	3	J1,J2,J3	JSMD	Pad SMD a saldare
41	1	L1	3 sp d. 4,5 pass.1	Induttanza cilindrica
42	2	L2,L12	3 sp d. 4,5 pass.5	Induttanza cilindrica
43	1	L3	4 sp d.4.5	Induttanza cilindrica
44	1	L4	VK200	Induttanza cilindrica VK200
45	1	L5	0,47H 5 W A FILO	Induttanza cilindrica VK200
46	2	L6,L9	47nH	Induttanza SMD 3225 (1210)
47	1	L7	45nH	Induttanza cilindrica
48	1	L8	62nH	Induttanza cilindrica
49	2	L11,L14	40nH	Induttanza cilindrica
50	1	L13	3 sp d. 4,5	Induttanza cilindrica
51	1	MOS1	MRF141 MA-COM	Power mosfet RF
52	1	MOS2	MRF136 MA-COM	Power mosfet RF
53	1	PD1	PAD	Pad SMD saldare
54	1	Q1	BFG35	Trans. NPN SOT223
55	2	RV1,RV2	5K	Trimmer Rg V 3296W
56	3	R1,R2,R34	4K7	Res. SMD 0805
57	2	R3,R4	10K	Res. SMD 0805
58	3	R5,R8,R22	47H	Res. SMD 0805
59	2	R6,R7	47H	Res. SMD 2512



PRODUCT NAME : <>	PART NAME : CNTMOS PA RF R.07
DESIGNER : L. GASPERINI	DATE : 18/05/16
ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER	REVISION : 1.0
PROJECT CODE : <>	SCALE : 1:1
DOCUMENT CODE : SLCNTMOS07	SIZE : A4
	PAGE : 1
	DI : 1

SLCNTMOS07.FM150



JP1: CONNECT TO CPU PANEL BOARD  
 TP DESCRIPTION:  
 TP1: Vpa TO POWER AMPLIFIER  
 TP2: INPUT PWD VOLTAGE FROM POWER AMPLIFIER  
 TP3: OUTPUT VOLTAGE TO POWER AMPLIFIER  
 TP4: INPUT RPD VOLTAGE FROM POWER AMPLIFIER  
 TP5: Gnd  
 TP6: Pwr Input Measure PJ  
 TP7: +18V  
 TRIMMER DESCRIPTION  
 RV1: TO REGULATE CURRENT READING  
 RV2: TO REGULATE MAX FWD OUTPUT POWER  
 RV3: TO REGULATE MAX RPD OUTPUT POWER  
 RV4: TO REGULATE 18 V OF Vpa IN PWR-OFF MODE ON Griptech  
 RV5: Fine adj Bias Voltage  
 RV6: Pwd Pwr Measure  
 RV8: Ipa ZERO adj  
 RV9: Vpa OFF Adj for Meanwell Supply

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

Description: CNTMOS FM 100-150W GREEN		
Designer: L. Gasperini	Size: A2 Page: 1 of 1	
Part No.: SLCNTMOS07.FM150	Rev. 1.0 Date: 28/03/2017	

SLCNTMOS07.FM150

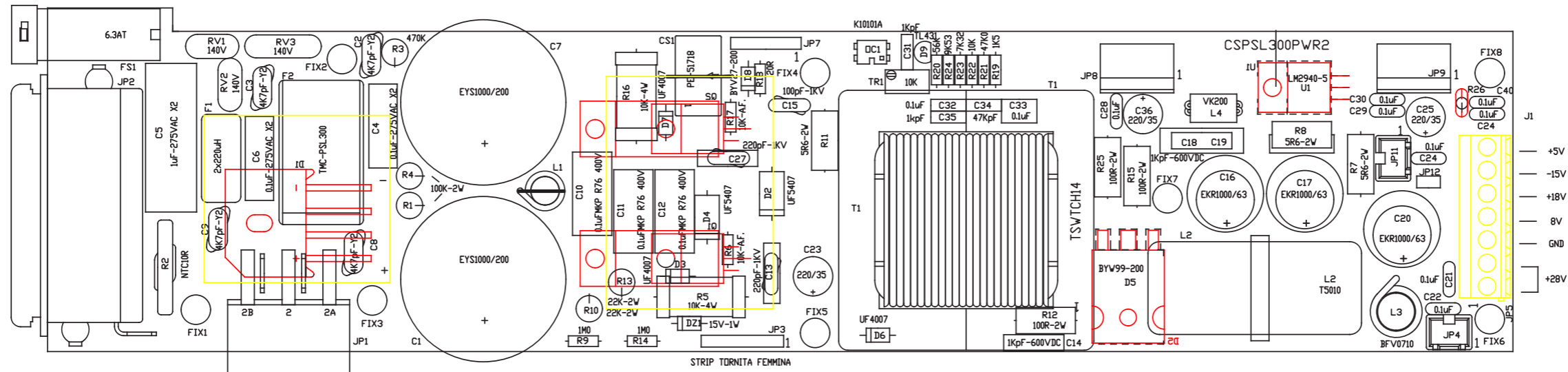
CNTMOS FM 100-150W GREEN Revised: 28/03/2017  
 SLCNTMOS07.FM150 Revision: 1.1  
 Luca Gasperini


Item	Quantity	Reference	Part	Description
1	1	CN2	CN03KRA	Conn. tipo KRA a 3 poli
2	1	CS1	CSCNTMOS07	Circuito stampato
3	3	C1, C4, C5	4n7/100V	Cond. SMD 0805
4	17	C2, C6, C7, C11, C13, C14, C16, C17, C18, C19, C23, C24, C27, C40, C42, C44, C45	1nF	Cond. SMD 0805
5	2	C3, C34	1uF	Cond. SMD 0805
6	1	C8	220uF/63V	Cond. Elettr. Dia 10 P5.08
7	1	C9	100pF	Cond. SMD 0805
8	7	C10, C15, C25, C28, C41, C43, C47	NC	Cond. SMD 0805
9	9	C12, C21, C26, C30, C32, C35, C46, C48, C49	100nF	Cond. SMD 0805
10	2	C20, C37	10uF/25V	Cond. SMD 1210
11	5	C22, C29, C31, C33, C36	470nF	Cond. SMD 0805
12	1	DZ1	LM4040-10 V	Diodi Zener SMD SOT23
13	2	D1, D14	Z10V	MINIMELF SMD Zener Diode
14	3	D2, D4, D17	Z4V7	SOD323 Zener Diode
15	8	D3, D5, D8, D9, D10, D21, D22, D24	BAT54H	SOD323 SMD Diode
16	2	D6, D7	BAV70	Doppio Diodo SMD SOT23
17	1	D11	SMAJ10CA	Tranzorb SMA
18	1	D15	Z15V	MINIMELF SMD Zener Diode
19	2	D16, D20	NC	SOD323 SMD Diode
20	2	D18, D19	NC	SOD323 Zener Diode
21	1	D23	NC	MINIMELF SMD Zener Diode
22	4	FIX1, FIX2, FIX3, FIX4	FIX35	Foro fissaggio 3.5mm
23	1	JP1	CN16PD	Conn.M.C.S.Dritto 16P alette.
24	1	JP2	NC	Conn. 12 poli DF11 12pin p. 2mm
25	7	J1, J2, J4, J6, J7, J8, J9	JSMD	Pad SMD a saldare
26	2	J3, J5	JSMDC	Pad SMD a saldare chiuso
27	1	OPT1	TLP185	Optocoupler SMD SO6
28	1	OPT2	NC	Optocoupler SMD SO6
29	1	Q1	NC	Trans./Res. NPN SOT23
30	1	Q2	MMBT540LT1	Trans. PNP SOT23
31	1	RV1	5K	Trimmer SMD
32	2	RV2, RV3	20K	Trimmer Rg V 3296W
33	1	RV4	20K	Trimmer SMD
34	2	RV5, RV9	NC	Trimmer SMD
35	1	RV6	1K	Trimmer SMD
36	1	RV8	100K	Trimmer SMD
37	3	R1, R39, R63	470H0	Res. SMD 0805 1%
38	10	R2, R4, R8, R32, R35, R37, R43, R56, R67, R74	51H0	Res. SMD 0805 1%
39	4	R3, R13, R24, R51	20K0	Res. SMD 0805 1%
40	1	R5	9K31	Res. SMD 0805 1%
41	16	R6, R7, R15, R19, R21, R22, R34, R46, R47, R52, R72, R80, R81, R82, R84, R85	10K0	Res. SMD 0805 1%
42	13	R9, R23, R44, R45, R64, R70, R79, R86, R90, R91, R94, R95, R96	NC	Res. SMD 0805 1%
43	4	R10, R11, R17, R18	820H0	Res. SMD 0805 1%
44	11	R12, R16, R20, R26, R28, R30, R33, R38, R61, R66, R75	1K0	Res. SMD 0805 1%
45	6	R14, R71, R76, R78, R87, R97	0H0	Res. SMD 0805 1%
46	3	R25, R49, R88	100H0	Res. SMD 0805 1%
47	4	R27, R36, R42, R73	4K70	Res. SMD 0805 1%
48	1	R29	18K0	Res. SMD 0805 1%
49	1	R31	11K5	Res. SMD 0805 1%
50	1	R40	165K0	Res. SMD 0805 1%
51	1	R41	330K0	Res. SMD 0805 1%
52	2	R48, R62	28K0	Res. SMD 0805 1%
53	2	R50, R83	4K99	Res. SMD 0805 1%
54	1	R53	49K9	Res. SMD 0805 1%
55	2	R54, R59	100K0	Res. SMD 0805 1%
56	1	R55	220K0	Res. SMD 0805 1%
57	2	R57, R68	82H0	Res. SMD 0805 1%
58	1	R58	4K12	Res. SMD 0805 1%
59	4	R60, R65, R69, R89	220H0	Res. SMD 0805 1%
60	1	R77	1M0	Res. SMD 0805 1%
61	1	R92	10K	Res. NTC SMD 0805
62	1	R93	33K0	Res. SMD 0805 1%

Item	Quantity	Reference	Part	Description
63	1	SH2	NC	Shunt passo 15.2mm fori 2mm
64	1	SH1	0H01	Shunt passo 15.2mm fori 2mm
65	2	SH3, SH4	NC	Shunt SMD 2512
66	6	TP2, TP3, TP4, TP6, TP7, TP8	NC	Foro dia. 1mm
67	1	TP5	NC	Foro dia. 2mm
68	1	U1	LM358SMD	Dual Op. SMD SO8
69	1	U2	LM324SMD	Quad Op. SMD SO14
70	3	U3, U4, U6	TL074SMD	Quad Op. SMD SO14
71	1	U5	TL071/SO	Single Op. SMD SO8
72	1	U7	LM50C_SMD	Temperature sensor

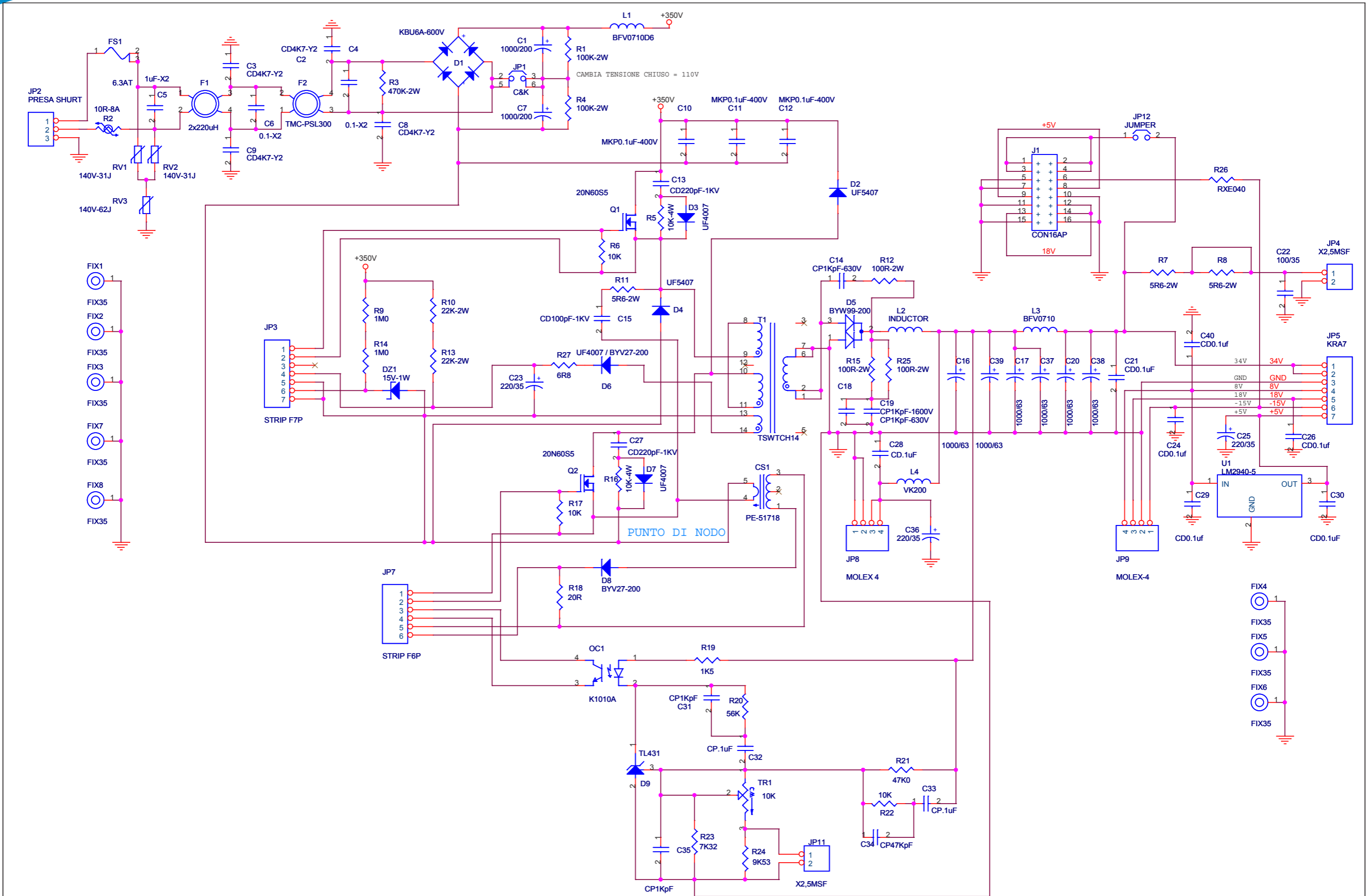


PSL300DDS



	PRODUCT NAME : <>	PART NAME : PSL300DDS (POWER SECTION)
	DESIGNER : TEKNIGHT	DATE 31/08/15
ARCHIVING : 'RVTRUT' SERVER, 'RILASCIATI' FOLDER   PROJECT CODE : <>		DOCUMENT CODE : PSL300DDS_PWR-2

PSL300DDS



Description: PSL300DDS (power section)		
Designer: Teknight	Size: A3	Page: 1 of 1
Part No.: PSL300DDS_PWR-2	Rev: 2.0	Date: 31/08/2015



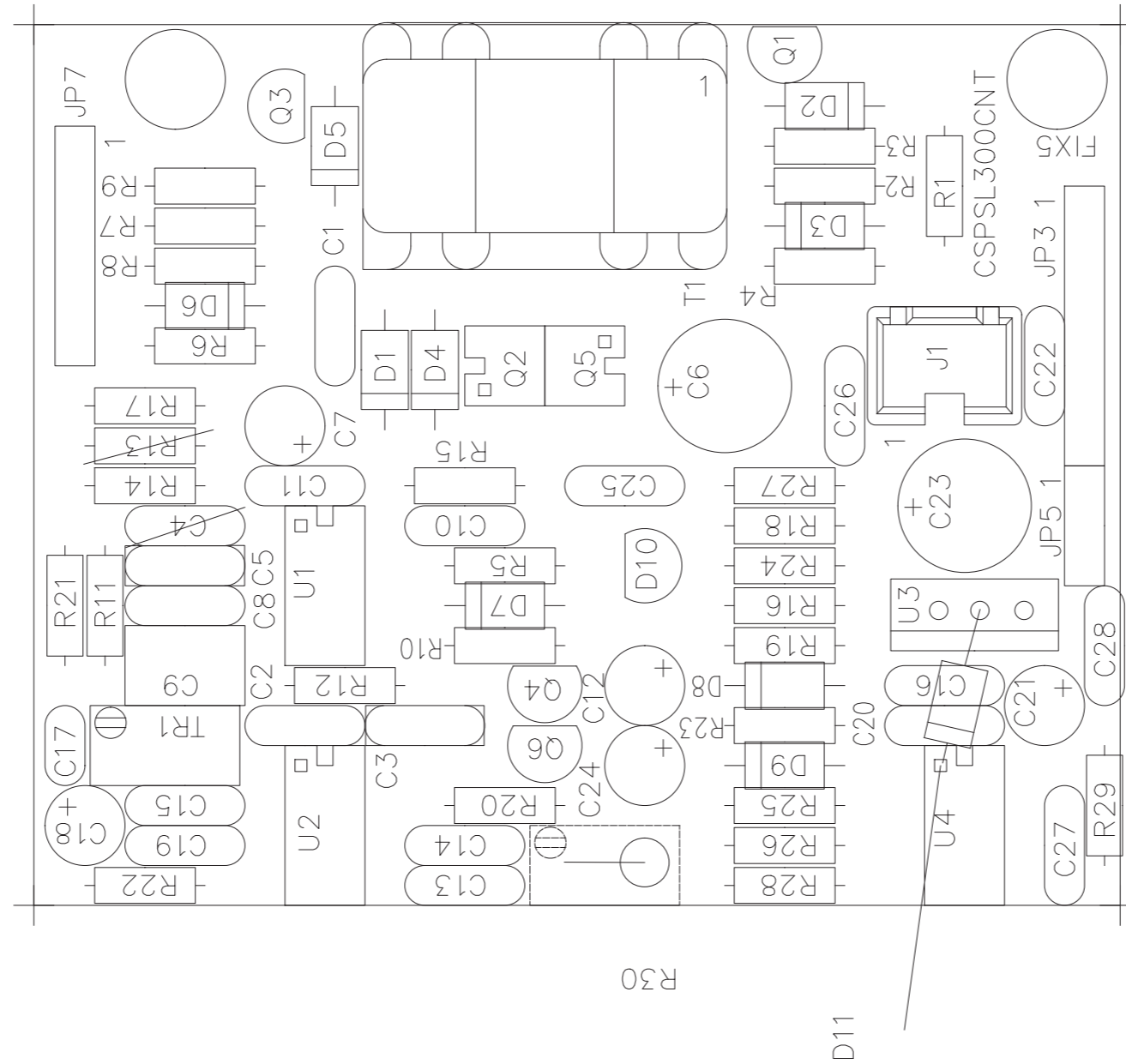
PSL300DDS

POWER PSL 300 DDS Revised: Monday, August 31, 2015  
 PSL300DDS\_PWR-2 Revision: 2  
 Teknight

Item	Quantity	Reference	Part
1	1	CS1	PE-51718
2	2	C1, C7	1000/200
3	4	C2, C3, C8, C9	CD4K7-Y2
4	2	C4, C6	0.1-X2
5	1	C5	1uF-X2
6	3	C10, C11, C12	MKP0.1uF-400V
7	2	C27, C13	CD220pF-1KV
8	2	C14, C18	CP1KpF-630V
9	1	C15	CD100pF-1KV
10	6	C16, C17, C20, C37, C38, C39	1000/63
11	1	C19	CP1KpF-1600V
12	6	C21, C24, C26, C29, C30, C40	CD0.1uf
13	1	C22	100/35
14	3	C23, C25, C36	220/35
15	1	C28	CD.1uF
16	2	C31, C35	CP1KpF
17	2	C32, C33	CP.1uF
18	1	C34	CP47KpF
19	1	DZ1	15V-1W
20	1	D1	KBU6A-600V
21	2	D4, D2	UF5407
22	2	D3, D7	UF4007
23	1	D5	BYW99-200
24	1	D6	UF4007 / BYV27-200
25	1	D8	BYV27-200
26	1	D9	TL431
27	8	FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8	FIX35
28	1	FS1	6.3AT
29	1	F1	2x220uH
30	1	F2	TMC-PSL300
31	1	JP1	C&K
32	1	JP2	PRESA SHURT
33	1	JP3	STRIP F7P
34	2	JP4, JP11	X2,5MSF
35	1	JP5	KRA7
36	1	JP7	STRIP F6P
37	1	JP8	MOLEX 4
38	1	JP9	MOLEX-4
39	1	JP12	JUMPER
40	1	J1	CON16AP
41	1	L1	BFV0710D6

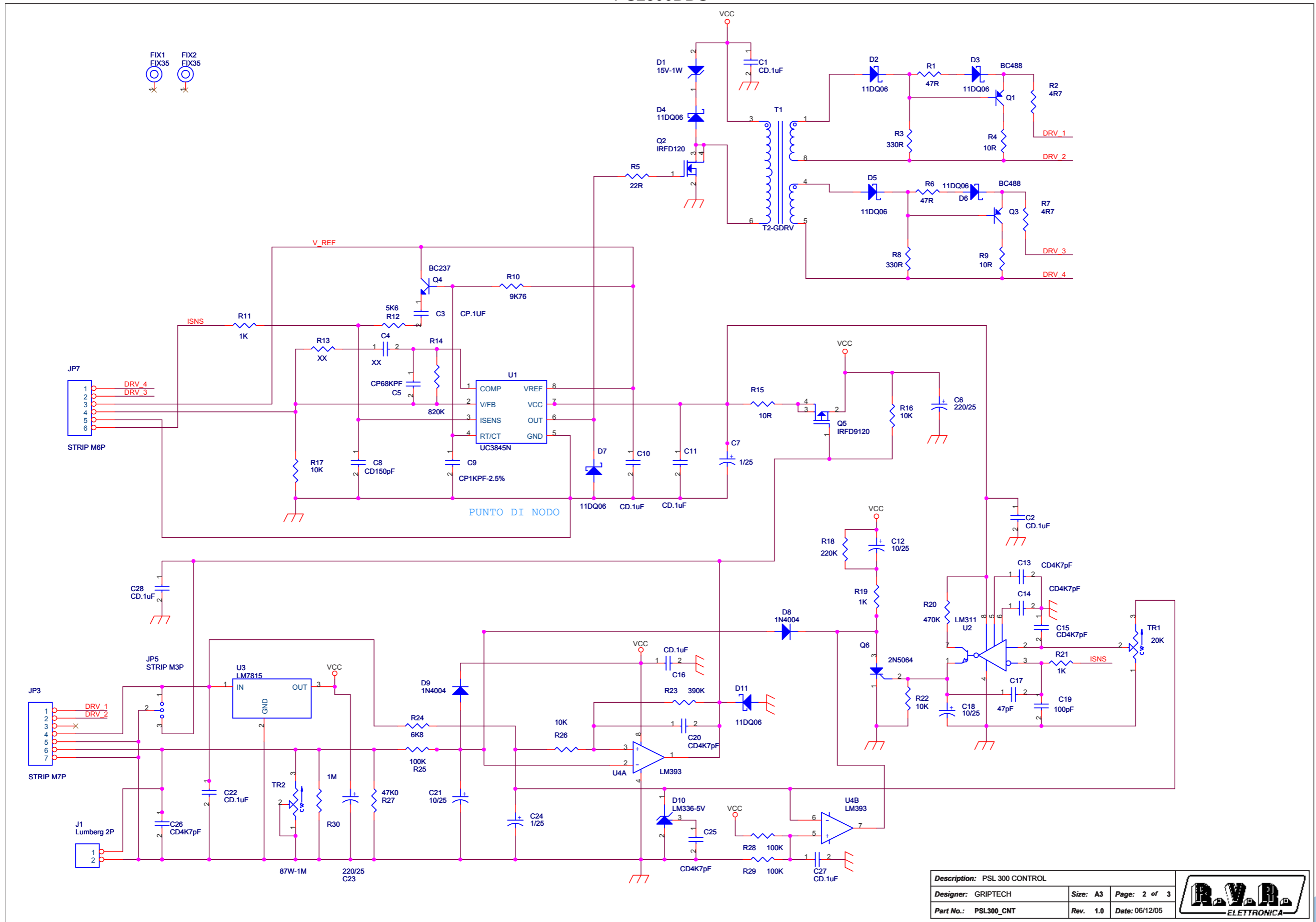
Item	Quantity	Reference	Part
42	1	L2	INDUCTOR
43	1	L3	BFV0710
44	1	L4	VK200
45	1	OC1	K1010A
46	2	Q2, Q1	20N60S5
47	2	RV1, RV2	140V-31J
48	1	RV3	140V-62J
49	2	R4, R1	100K-2W
50	1	R2	10R-8A
51	1	R3	470K-2W
52	2	R16, R5	10K-4W
53	4	TR1, R6, R17, R22	10K
54	3	R7, R8, R11	5R6-2W
55	2	R14, R9	1M0
56	2	R13, R10	22K-2W
57	3	R12, R15, R25	100R-2W
58	1	R18	20R
59	1	R19	1K5
60	1	R20	56K
61	1	R21	47K0
62	1	R23	7K32
63	1	R24	9K53
64	1	R26	RXE040
65	1	R27	6R8
66	1	T1	TSWTCH14
67	1	U1	LM2940-5

PSL300DDS



	PRODUCT NAME : PTX-DDS	PART NAME : Control Card
DESIGNER : U.T. - rev.: J. Berti	DATE : 05/12/05	REVISION : 1.0
ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER	PROJECT CODE : 034	DOCUMENT CODE : PSL300DDS
	SCALE : 2:1	SIZE : A4
	PAGE : 2	DI : 3

PSL300DDS



Description: PSL 300 CONTROL		
Designer: GRIPTECH	Size: A3	Page: 2 of 3
Part No.: PSL300_CNT	Rev. 1.0	Date: 06/12/05



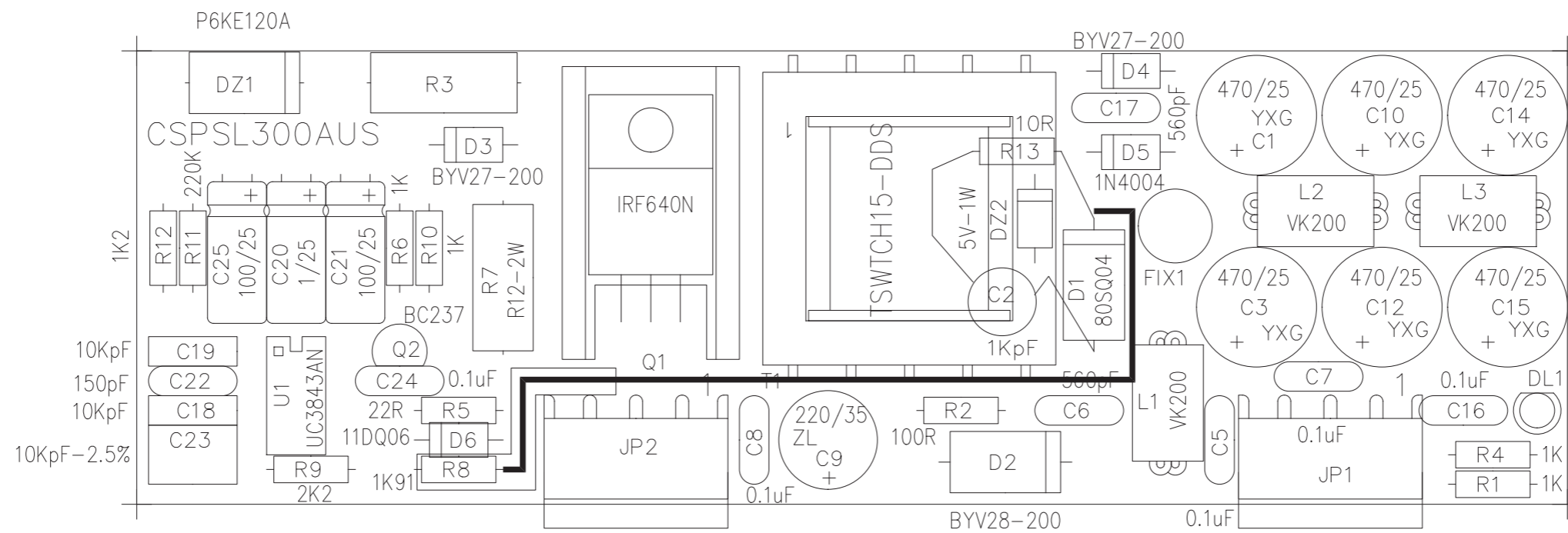
PSL300DDS

PSL300DDS  
 PSL 300 CONTROL  
 Revised: 06/12/2005  
 Revision: 1.0  
 U.T. - REV.: J.BERTI

Item	Quantity	Reference	Part
1	8	C1, C2, C10, C11, C16, C22, C27, C28	CD.1uF
2	1	C3	CP.1UF
3	2	C4, R13	XX
4	1	C5	CP68KPF
5	2	C6, C23	220/25
6	2	C7, C24	1/25
7	1	C8	CD150pF
8	1	C9	CP1KPF-2.5%
9	3	C12, C18, C21	10/25
10	6	C13, C14, C15, C20, C25, C26	CD4K7pF
11	1	C17	47pF
12	1	C19	100pF
13	1	D1	15V-1W
14	7	D2, D3, D4, D5, D6, D7, D11	11DQ06
15	2	D8, D9	1N4004
16	1	D10	LM336-5V
17	2	FIX1, FIX2	FIX35
18	1	JP3	STRIP M7P
19	1	JP5	STRIP M3P
20	1	JP7	STRIP M6P
21	1	J1	Lumberg 2P
22	2	Q1, Q3	BC488
23	1	Q2	IRFD120
24	1	Q4	BC237
25	1	Q5	IRFD9120
26	1	Q6	2N5064
27	2	R1, R6	47R
28	2	R2, R7	4R7
29	2	R3, R8	330R
30	3	R4, R9, R15	10R
31	1	R5	22R
32	1	R10	9K76
33	3	R11, R19, R21	1K
34	1	R12	5K6
35	1	R14	820K
36	4	R16, R17, R22, R26	10K
37	1	R18	220K
38	1	R20	470K
39	1	R23	390K
40	1	R24	6K8
41	3	R25, R28, R29	100K
42	1	R27	47K0
43	1	R30	1M
44	1	TR1	20K
45	1	TR2	87W-1M
46	1	T1	T2-GDRV
47	1	U1	UC3845N
48	1	U2	LM311
49	1	U3	LM7815
50	1	U4	LM393

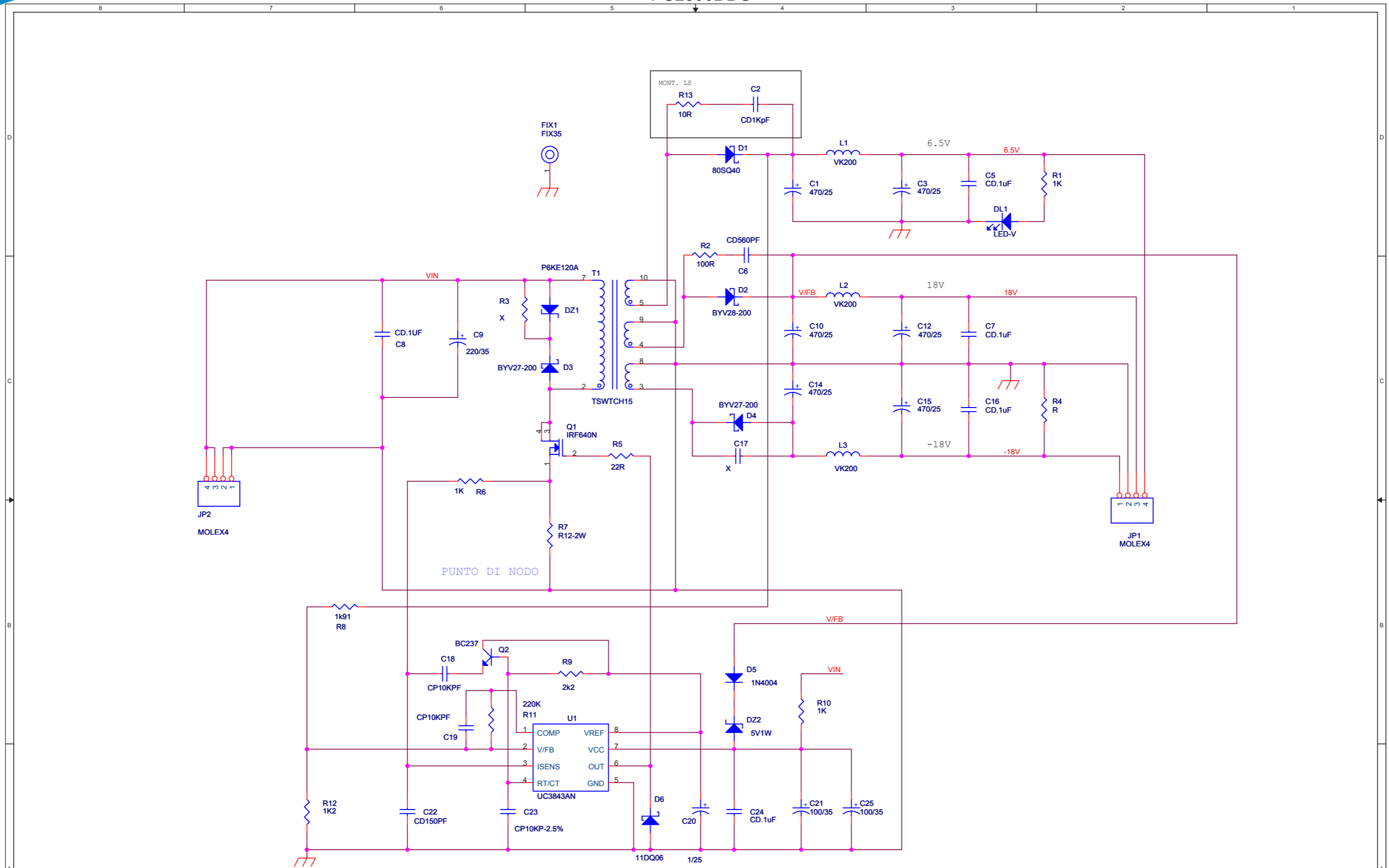


PSL300DDS



ARCHIVE:	X:\WORKDWG\
TITLE	PSL300 AUXILIARY POWER SUPPLY
DOCUMENT NUMBER	PSL300_AUS_DDS_MNT_R2. DWG REV 2
DATE:	07/11/2008

PSL300DDS

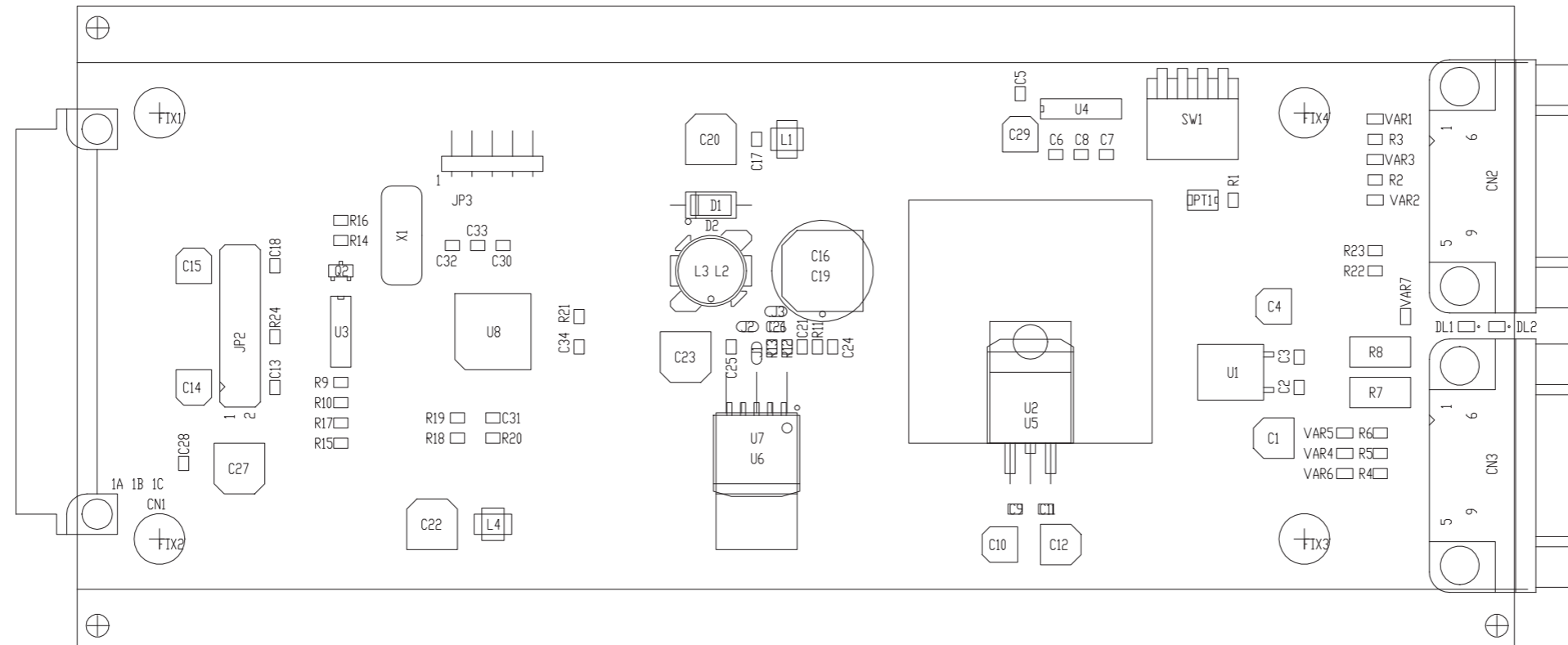


Description: POWER SUPPLY +18V 6.5V -18V			
Designer: GRIPTECH	Size: A3	Page: 1 of 1	
Part No.: <Doc>	Rev. 2	Date: 24/11/06	

PSL300DDS

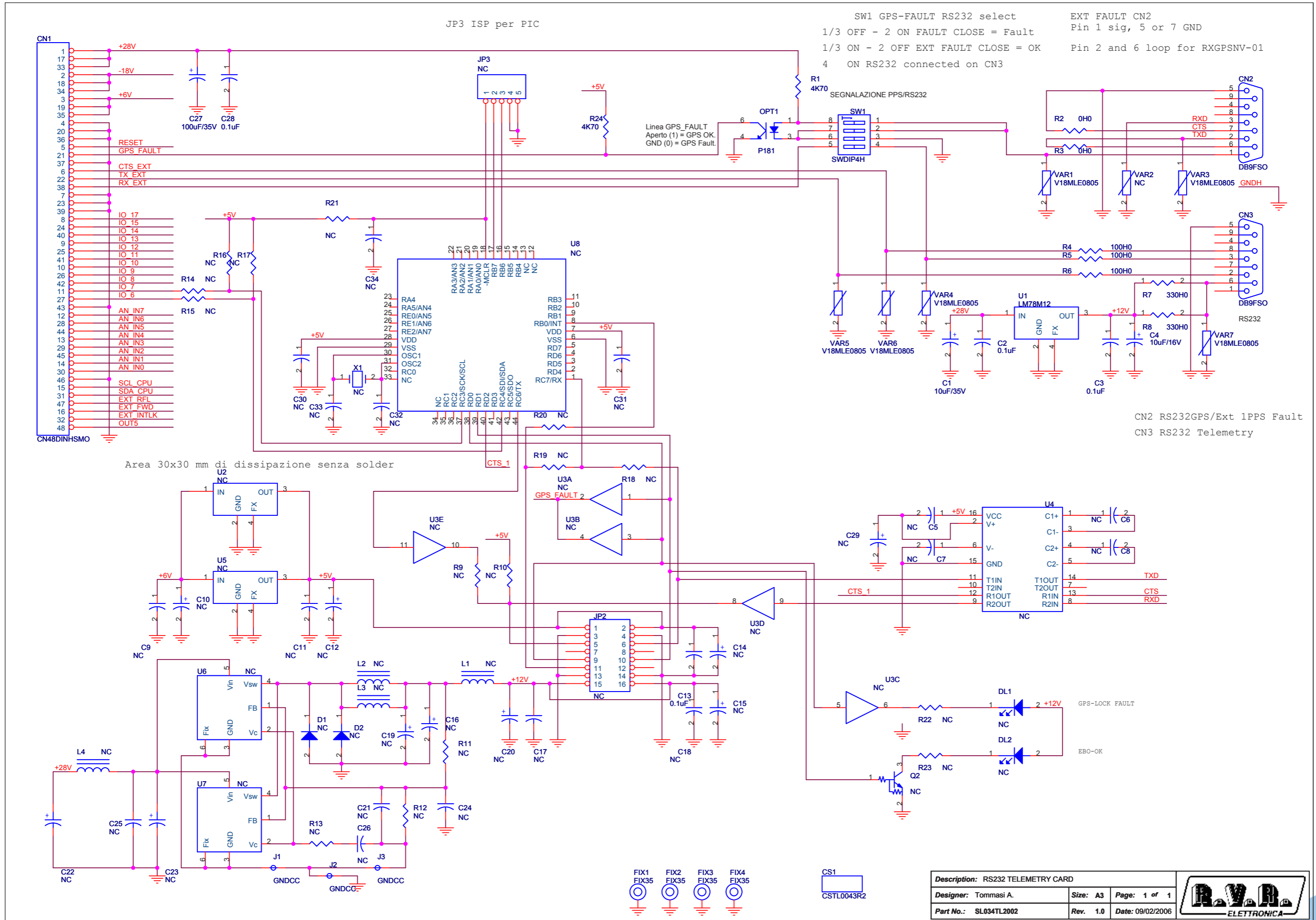
PSL300DDS  
 POWER SUPPLY +18V 6.5V -18V  
 Revised: 24/11/2006  
 Revision: 2.0  
 U.T. - REV.: J.BERTI

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	220/35
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	1k91
31	1	R9	2k2
32	1	R11	220K
33	1	R12	1K2
34	1	R13	10R
35	1	T1	TSWTCH15
36	1	U1	UC3843AN



	PRODUCT NAME : PTX-DDS	PART NAME : RS232 TELEMETRY CARD
	DESIGNER : TOMMASI	DATE : 09/02/2006
	ARCHIVING : "RV/UT" SERVER, "RILASCIATI" FOLDER	REVISION : 1.0
		SCALE : 1:1
		SIZE : A4
		PAGE : 1
		DI : 1
		DOCUMENT CODE : SL034TL2002

SL034TL2002



SL034TL2002

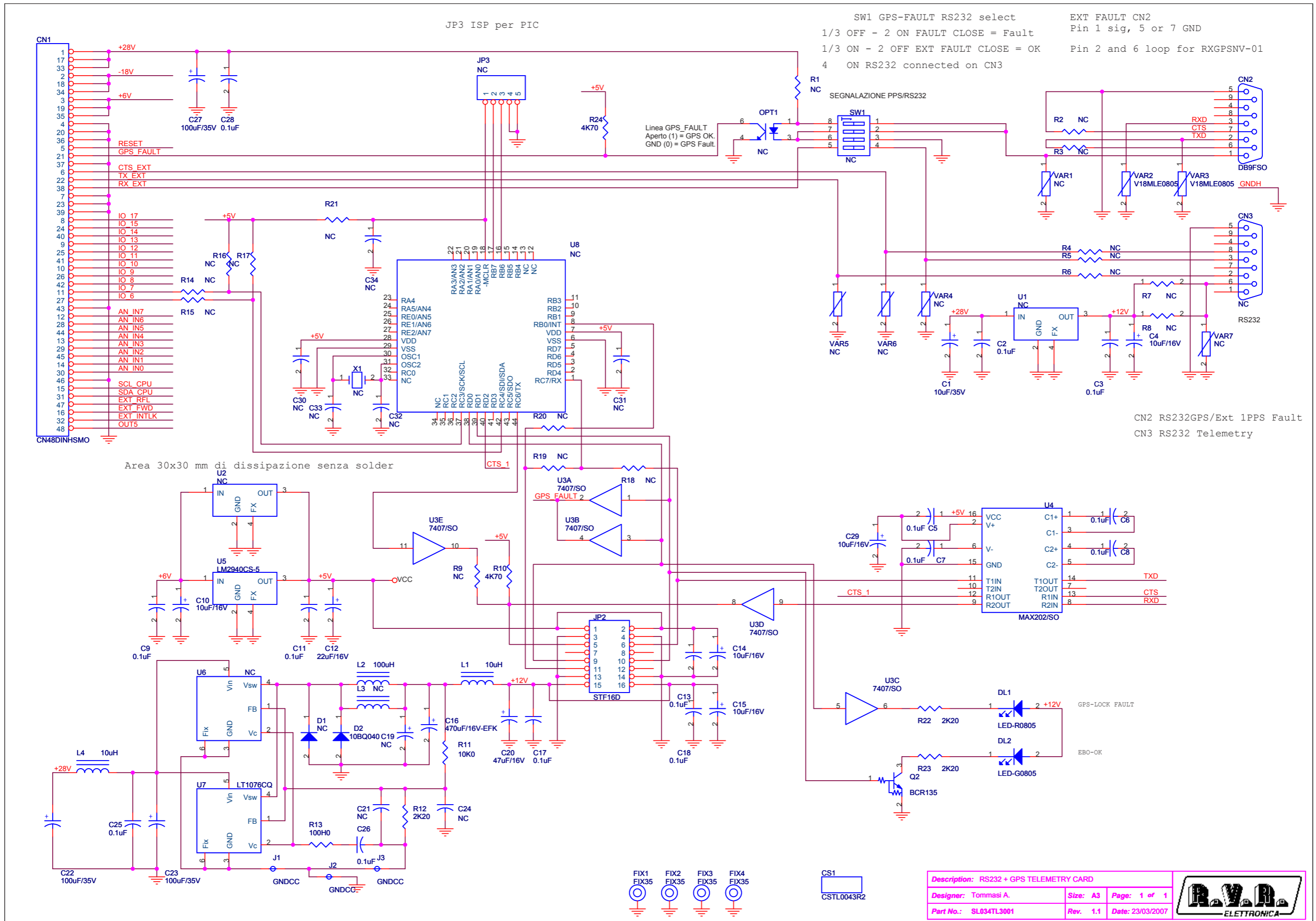
Tabella 1

RS232 TELEMETRY CARD Revised: 09/02/2006  
 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. Elett. 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



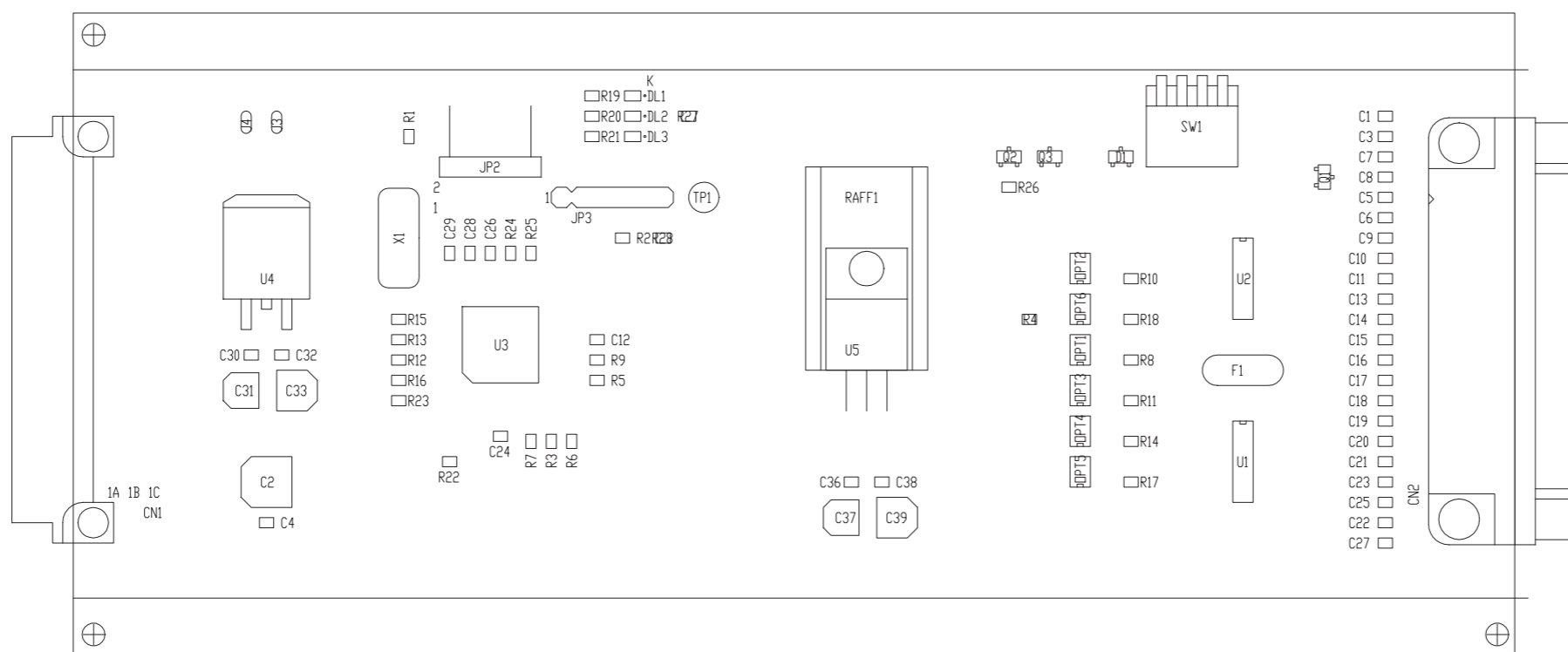
**SL034TL3001**



SL034TL3001

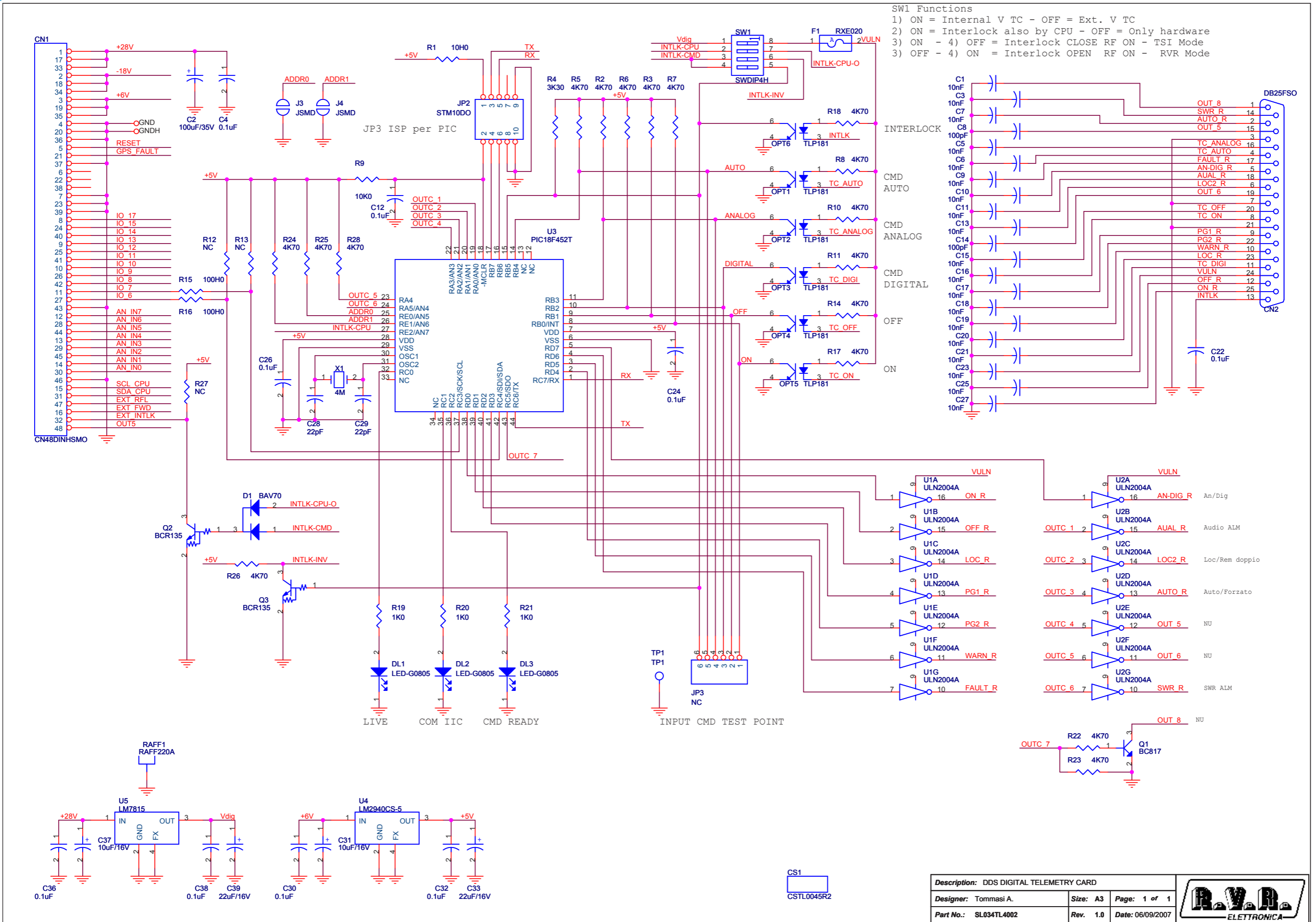
RS232 + GPS TELEMETRY CARD - Revised: 23/03/2007  
 SL034TL3001 Revision: 1.1  
 DDS Exciter  
 RVR034  
 Tommasi A.

Item	Quantity	Reference	Part	Description
1	1	CN1	CN48DINHSMO	Connettore M 48 poli DIN cs 90 gradi
2	1	CN2	DB9FSO	Connettore DB9 femm. cs 90°
3	1	CN3	NC	Connettore DB9 femm. cs 90°
4	1	CS1	CSTL0043R2	Circuito stampato
5	1	C1	10uF/35V	Cond. Elett. SMD d. 5mm
6	14	C2,C3,C5,C6,C7,C8,C9,C11, C13,C17,C18,C25, C26,C28	0.1uF	Cond. SMD 0805
7	5	C4,C10,C14,C15,C29	10uF/16V	Cond. Elett. SMD d. 4mm
8	1	C12	22uF/16V	Cond. Elett. SMD d. 5mm
9	1	C16	470uF/16V-EFK	Cond. Elett. SMD d. 10mm
10	1	C19	NC	Cond. Elettr. Dia 13 P5.08
11	1	C20	47uF/16V	Cond. Elett. SMD d. 6.3mm
12	3	C22,C23,C27	100uF/35V	Cond. Elett. SMD d. 6.3mm
13	7	C21,C24,C30,C31,C32,C33,C34	NC	Cond. SMD 0805
14	1	DL1	LED-R0805	LED SMD 0805
15	1	DL2	LED-G0805	LED SMD 0805
16	1	D1	NC	Diode plastico DO41
17	1	D2	10BQ040	MELF SMD Diode
18	4	FIX1, FIX2, FIX3, FIX4	FIX35	Foro fissaggio 3.5mm
19	1	JP2	STF16D	Strip femmina 8+8 pin
20	1	JP3	NC	Strip maschio 5 pin a 90°
21	3	J1, J2, J3	GNDCC	Non e' un componente
22	2	L1, L4	10uH	Ind. verticale SMD dia. 4 p 4.8
23	1	L2	100uH	Induttanza EPCOS B82464-A4 10mmx10mm
24	1	L3	NC	Ind. verticale dia. 8 p 5
25	1	OPT1	NC	Optoisolatore SMD SO6
26	1	Q2	BCR135	Trans./Res. NPN SOT23
27	15	R1,R2,R3,R4,R5,R6,R9,R14, R15,R16,R17,R18,R19,R20, R21	NC	Res. SMD 0805 1%
28	2	R7,R8	NC	Res. SMD 2512 1%
29	2	R10,R24	4K70	Res. SMD 0805 1%
30	1	R11	10K0	Res. SMD 0805 1%
31	3	R12,R22,R23	2K20	Res. SMD 0805 1%
32	1	R13	100H0	Res. SMD 0805 1%
33	1	SW1	NC	Dip switch 4 vie orizz.
34	1	U1	NC	Stabilizzatore SMD DPAK
35	1	U2	NC	Stabilizzatore TO220
36	1	U3	7407/SO	Hex buffer OC SMD SO14
37	1	U4	MAX202/SO	RS232 Driver SMD SO16
38	1	U5	LM2940CS-5	Stabilizzatore SMD D2PAK
39	1	U6	NC	Regolatore switching
40	1	U7	LT1076CQ	Regolatore switching SMD
41	1	U8	NC	TQFP44 SMD Microprocessor
42	5	VAR1,VAR4,VAR5,VAR6,VAR7	NC	ESD SMD protector
43	2	VAR2,VAR3	V18MLE0805	ESD SMD protector
44	1	X1	NC	Quarzo SMD HC49SMD



	PRODUCT NAME : DDS EXCITER	PART NAME : DDS DIGITAL TELEMETRY CARD
	DESIGNER : A. TOMMASI	DATE : 06/09/2006
	ARCHIVING : "RVRUT" SERVER, "RILASCIATI" FOLDER	PROJECT CODE : 034
		DOCUMENT CODE : SL034TL4002
		REVISION : 1.0
		SCALE : 1:1
		SIZE : A4
		PAGE : 1
		DI : 1

SL034TL4002



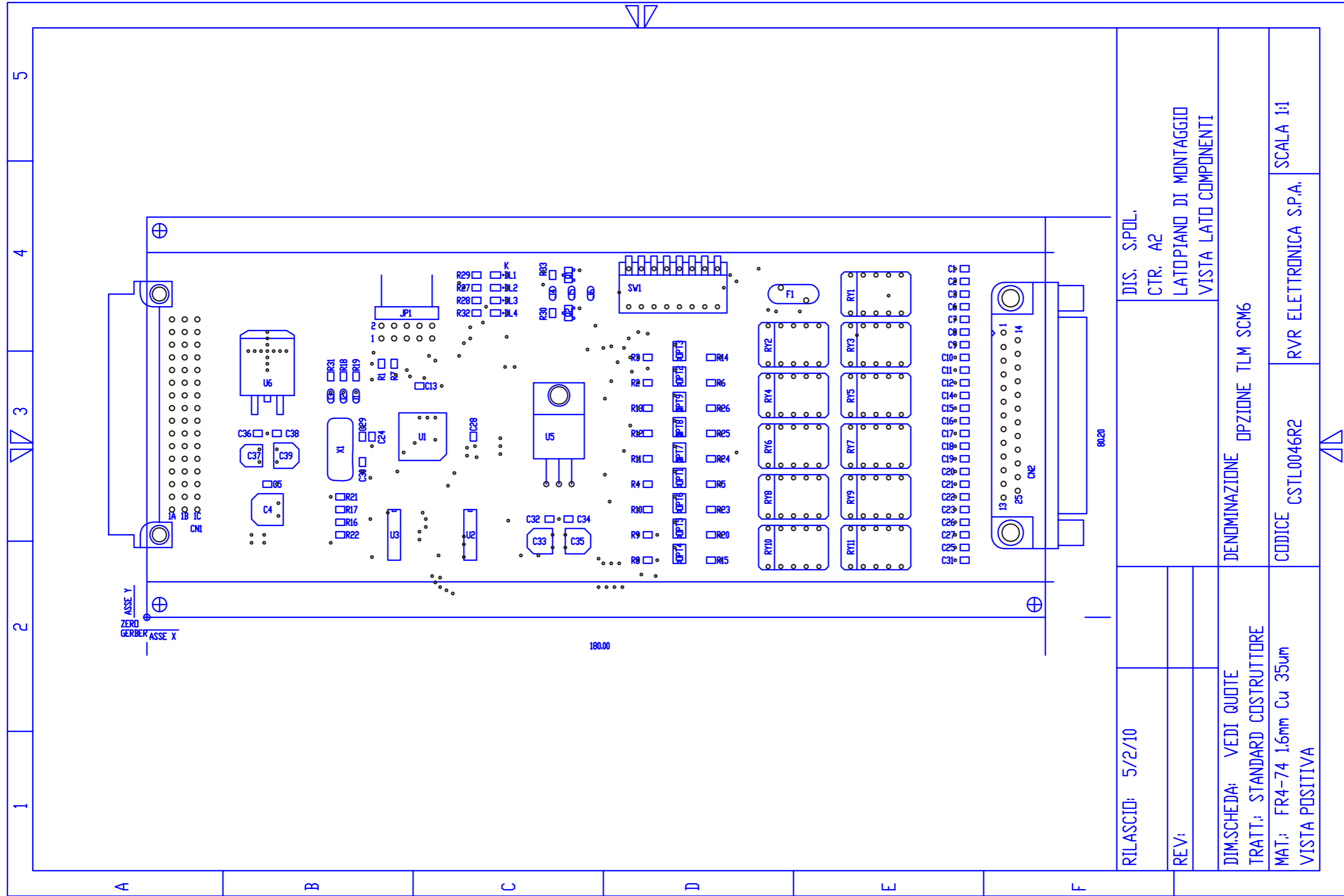
Description: DDS DIGITAL TELEMTRY CARD		
Designer: Tommasi A.	Size: A3	Page: 1 of 1
Part No.: SL034TL4002	Rev. 1.0	Date: 06/09/2007



SL034TL4002

DDS DIGITAL TELEMETRY CARD Revised: 06/09/2007  
 SL034TL4002 Revision: 1.0  
 A. Tommasi  
 DDS Exciter  
 RVR034

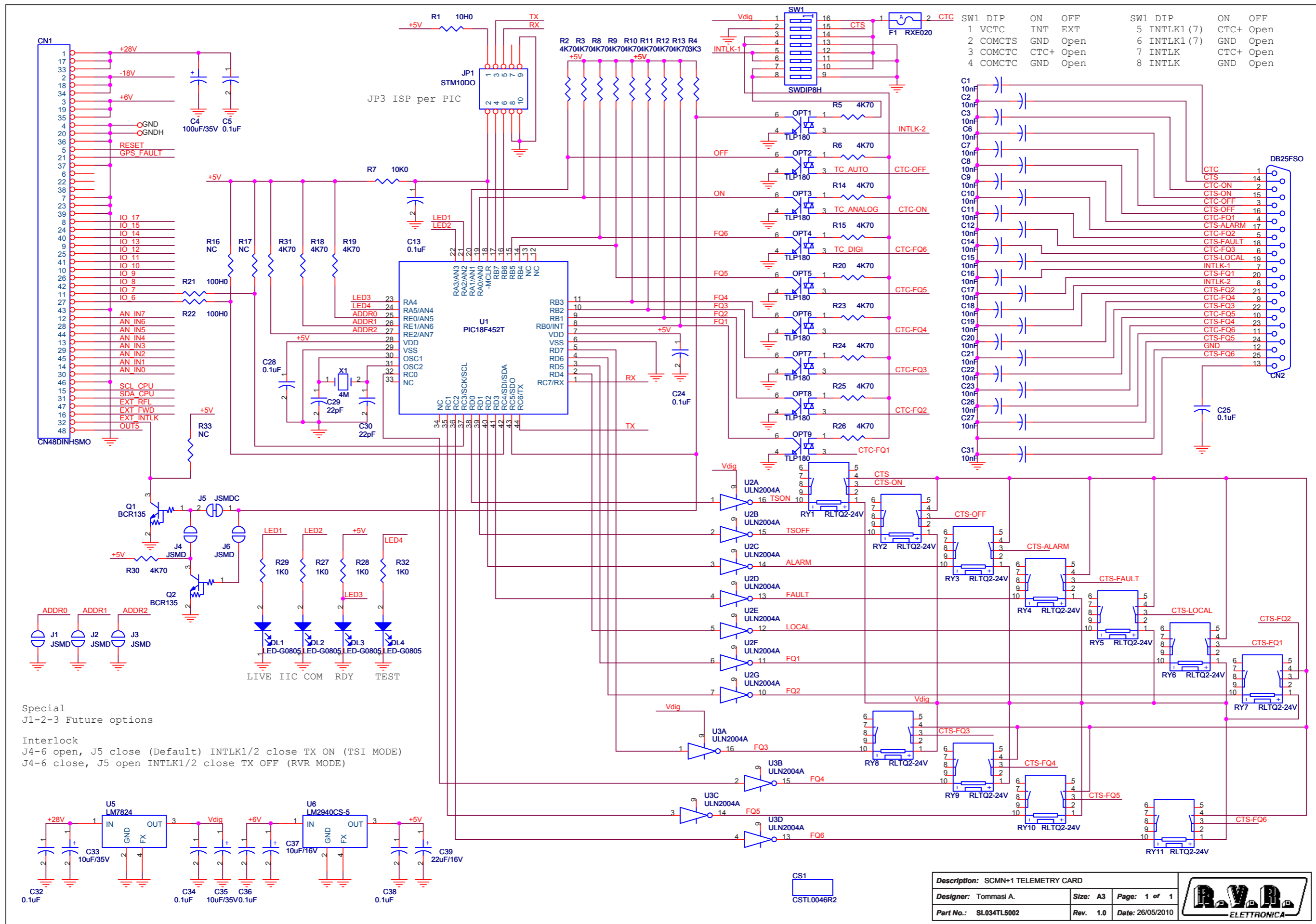
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1	1	CN1	CN48DINHSMO	Connettore M 48 poli DIN cs 90 gradi
2	1	CN2	DB25F50	Connettore DB25 femm. cs 90°
3	1	CS1	CSTL0045R2	Circuito stampato
4	19	C1,C3,C5,C6,C7,C9,C10, C11,C13,C15,C16,C17,C18, C19,C20,C21,C23,C25,C27	10nF	Cond. SMD 0805
5	1	C2	100uF/35V	Cond. Elett. SMD d. 6.3mm
6	9	C4,C12,C22,C24,C26,C30, C32,C36,C38	0.1uF	Cond. SMD 0805
7	2	C8,C14	100pF	Cond. SMD 0805
8	2	C28,C29	22pF	Cond. SMD 0805
9	2	C31,C37	10uF/16V	Cond. Elett. SMD d. 4mm
10	2	C33,C39	22uF/16V	Cond. Elett. SMD d. 5mm
11	3	DL1,DL2,DL3	LED-G0805	LED SMD 0805
12	1	D1	BAV70	Doppio Diodo SMD SOT23
13	1	F1	RXE020	Fusibile autorip. 7mm
14	1	JP2	STM10DO	Strip maschio 10 pin doppia fila 90
15	1	JP3	NC	Strip maschio 6 pin
16	2	J3,J4	JSMD	Pad SMD a saldare
17	6	OPT1,OPT2,OPT3,OPT4,OPT5, OPT6	TLP181	Optoisolatore SMD SO6
18	1	Q1	BC817	Trans. NPN SOT23
19	2	Q2,Q3	BCR135	Trans./Res. NPN SOT23
20	1	RAFF1	NC	Dissipatore TO220 25x15 scasso
21	1	R1	10H0	Res. SMD 0805 1%
22	17	R2,R3,R5,R6,R7,R8,R10, R11,R14,R17,R18,R22,R23, R24,R25,R26,R28	4K70	Res. SMD 0805 1%
23	1	R4	3K30	Res. SMD 0805 1%
24	1	R9	10K0	Res. SMD 0805 1%
25	3	R12,R13,R27	NC	Res. SMD 0805 1%
26	2	R15,R16	100H0	Res. SMD 0805 1%
27	3	R19,R20,R21	1K0	Res. SMD 0805 1%
28	1	SW1	SWDIP4H	
29	1	TP1	NC	Test point
30	2	U1,U2	ULN2004A	Seven Inv. Buffer OC
31	1	U3	PIC18F452T	TQFP44 SMD Microprocessor
32	1	U4	LM2940CS-5	Stabilizzatore SMD D2PAK
33	1	U5	LM7815	Stabilizzatore TO220
34	1	X1	4M	Quarzo SMD HC49SMD



RILASCIID: 5/2/10	DIS. S.POL. CTR. A2 LATOPIANO DI MONTAGGIO VISTA LATO COMPONENTI
REV:	
DIM.SCHEDA: VEDI QUOTE TRATT.: STANDARD COSTRUTTORE	DENOMINAZIONE OPZIONE TLM SCM6
MAT.: FR4-74 1.6mm Cu 35um VISTA POSITIVA	CODICE CSTL0046R2
	RVR ELETTRONICA S.P.A. SCALA 1:1



SL034TL5002



Special  
J1-2-3 Future options

Interlock  
J4-6 open, J5 close (Default) INTLK1/2 close TX ON (TSI MODE)  
J4-6 close, J5 open INTLK1/2 close TX OFF (RVR MODE)

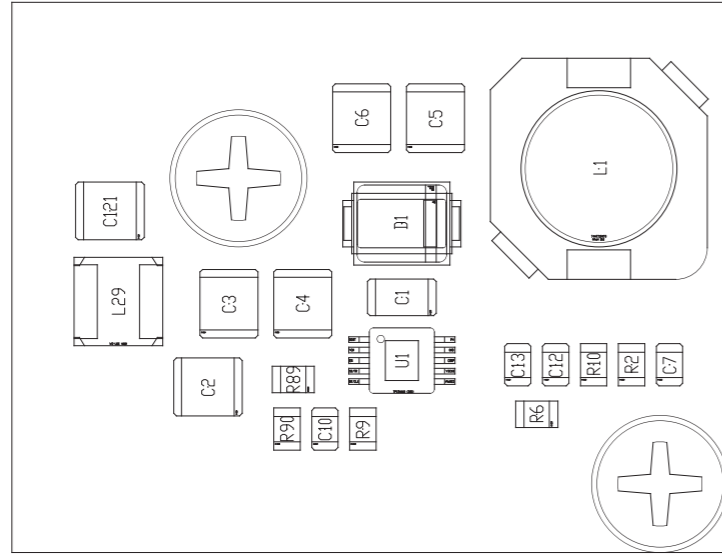
Description: SCMN+1 TELEMETRY CARD		
Designer: Tommasi A.	Size: A3	Page: 1 of 1
Part No.: SL034TL5002	Rev. 1.0	Date: 26/05/2010

SL034TL5002

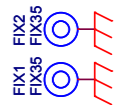
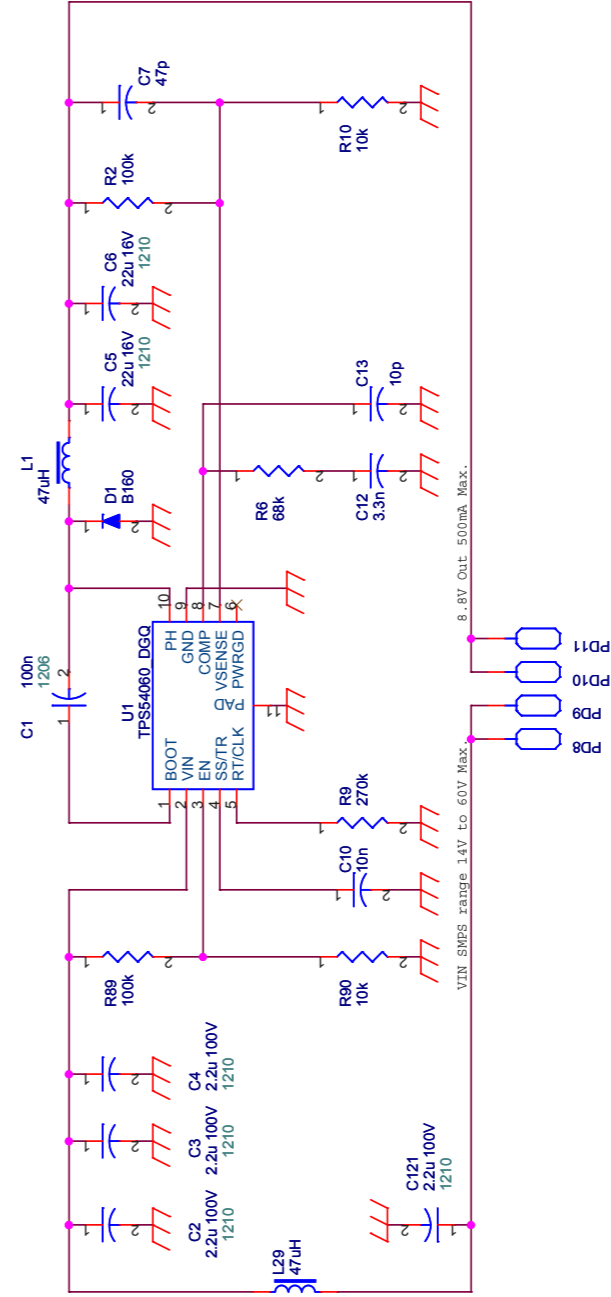
SCMN+1 TELEMETRY CARD Revised: 26/05/2010  
 SL034TL5002 Revision: 1.0  
 A. Tommasi  
 DDS Exciter  
 RVR034

Item	Quantity	Reference	Part	Description	Code
1	1	CN1	CN48DINHSMO	Connettore M 48 poli DIN cs 90 gradi	CNT48MCSA
2	1	CN2	DB25FSO	Connettore DB25 femm. cs 90°	CNTDB25FCSA
3	1	CS1	CSTL0046R2	Circuito stampato	CSTL0046R1
4	23	C1,C2,C3,C6,C7,C8,C9,C10, C11,C12,C14,C15,C16,C17, C18,C19,C20,C21,C22,C23, C26,C27,C31	10nF	Cond. SMD 0805	CCC085103KXC
5	1	C4	100uF/35V	Cond. Elett. SMD d. 6.3mm	CES107C160
6	9	C5,C13,C24,C25,C28,C32, C34,C36,C38	0.1uF	Cond. SMD 0805	CCC085104KXC
7	2	C29,C30	22pF	Cond. SMD 0805	CCC085220JCC
8	2	C33,C35	10uF/35V	Cond. Elett. SMD d. 5mm	CES106A350
9	1	C37	10uF/16V	Cond. Elett. SMD d. 4mm	CES106A160
10	1	C39	22uF/16V	Cond. Elett. SMD d. 5mm	CES226B160
11	4	DL1,DL2,DL3,DL4	LED-G0805	LED SMD 0805	LEDV0805
12	1	F1	RXE020	Fusibile autorip. 7mm	FUSAUTRX020
13	1	JP1	STM10DO	Strip maschio 10 pin doppia fila 90	CNTSTM40DAA
14	5	J1,J2,J3,J4,J6	JSMDC	Pad SMD a saldare	
15	1	J5	JSMDC	Pad SMD a saldare chiuso	
16	9	OPT1,OPT2,OPT3,OPT4,OPT5, OPT6,OPT7,OPT8,OPT9	TLP180	Optoisolatore SMD SO6	LEDTLP181
17	2	Q1,Q2	BCR135	Trans./Res. NPN SOT23	TRNBBCR135
18	11	RY1,RY2,RY3,RY4,RY5,RY6, RY7,RY8,RY9,RY10,RY11	RLTQ2-24V	Rele' TQ2	RLD2V24V05AM
19	1	R1	10H0	Res. SMD 0805 1%	RCH085F0010H
20	21	R2,R3,R5,R6,R8,R9,R10, R11,R12,R13,R14,R15,R18, R19,R20,R23,R24,R25,R26, R30,R31	4K70	Res. SMD 0805 1%	RCH085F004K7
21	1	R4	3K3	Res. SMD 0805 1%	RCH085F003K3
22	1	R7	10K0	Res. SMD 0805 1%	RCH085F0010K
23	3	R16,R17,R33	NC	Res. SMD 0805 1%	
24	2	R21,R22	100H0	Res. SMD 0805 1%	RCH085F0100H
25	4	R27,R28,R29,R32	1K0	Res. SMD 0805 1%	RCH085F0001K
26	1	SW1	SWDIP8H	Dip switch 8 vie Pianof.	DSW8V
27	1	U1	PIC18F452T	TQFP44 SMD Microprocessor	CIDPIC18F452
28	2	U2,U3	ULN2004A	Seven Inv. Buffer OC	CIDULN2004AS
29	1	U5	LM7824	Stabilizzatore TO220	CIL7824P
30	1	U6	LM2940CS-5	Stabilizzatore SMD D2PAK	CILLM2940CS5
31	1	X1	4M	Quarzo SMD HC49SMD	QRZ000004MC

SLPS0468R01V01



DESCRIPTION : POWER SUPPLY PA RF 50W 50V	PART CODE : SLPS0468R01V01
DESIGNER : M. UCELLI	DATE: 19/04/2017   REVISION: 1.0   SCALE: 3:1   SIZE: A4   PAGINA: 1 DI 1



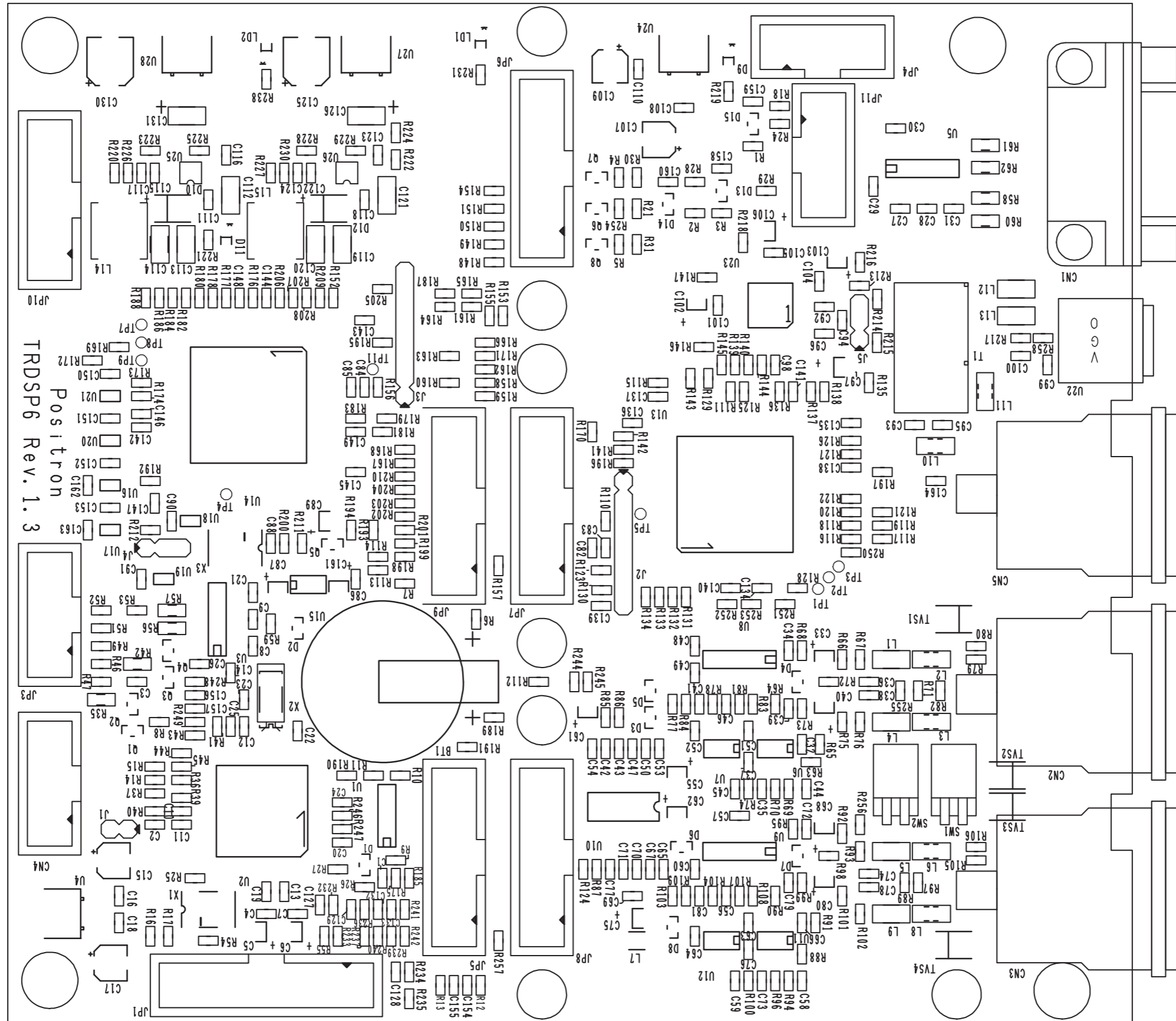
Description: POWER SUPPLY PA RF 50W 50V	
Designer: Mauro Ucelli	Size: A4
Part No.: SLPS0468R01V01	Page: 1 of 1
Rev. 1.0	Date: 19/04/2017

SLPS0468R01V01

POWER SUPPLY PA RF 50W 50V  
 SLPS0468R01V01  
 Revision: 1.0  
 Mauro Ucelli  
 19/04/2017

Item	Quantity	Reference	Part	Description
3	1	CS1	CSPS0468R1	Circuito stampato PA
5	1	C1	100n	Cond. SMD 1206
6	4	C2,C3,C4,C121	2.2u 100V	Capacitor SMD 1210 MLCC X7R 100V
7	2	C5,C6	22u 16V	Capacitor SMD 1210 MLCC X7R 16V
8	1	C7	47p	Cond. SMD 0805 COG
9	1	C10	10n	SMD 0805 MLCC X7R
11	1	C12	3.3n	SMD 0805 MLCC X7R
12	1	C13	10p	Cond. SMD 0805 COG
45	1	D1	B160	SMA Size SCHOTTKY Diode
51	4	FID4,FID5,FID6,FID7	FID	Fiducial CS
52	2	FIX1,FIX2	FIX35	
57	1	L1	47uH	PWR Ind Wurth E 7447713470
73	1	L29	47uH	PWR Ind WE 74404042470
75	4	PD8,PD9,PD10,PD11	PAD	Pad for connection
84	2	R2,R89	100k	Res. SMD 0805
88	1	R6	68k	Res. SMD 0805
91	1	R9	270k	Res. SMD 0805
92	2	R10,R90	10k	Res. SMD 0805
130	1	U1	TPS54060_DGQ	Step-Down DC2DC Converter

**TRDSP6**



TRDSP6

