



BLUES30NV

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 BLUES30NV. L'appendice è composta dalle seguenti sezioni:

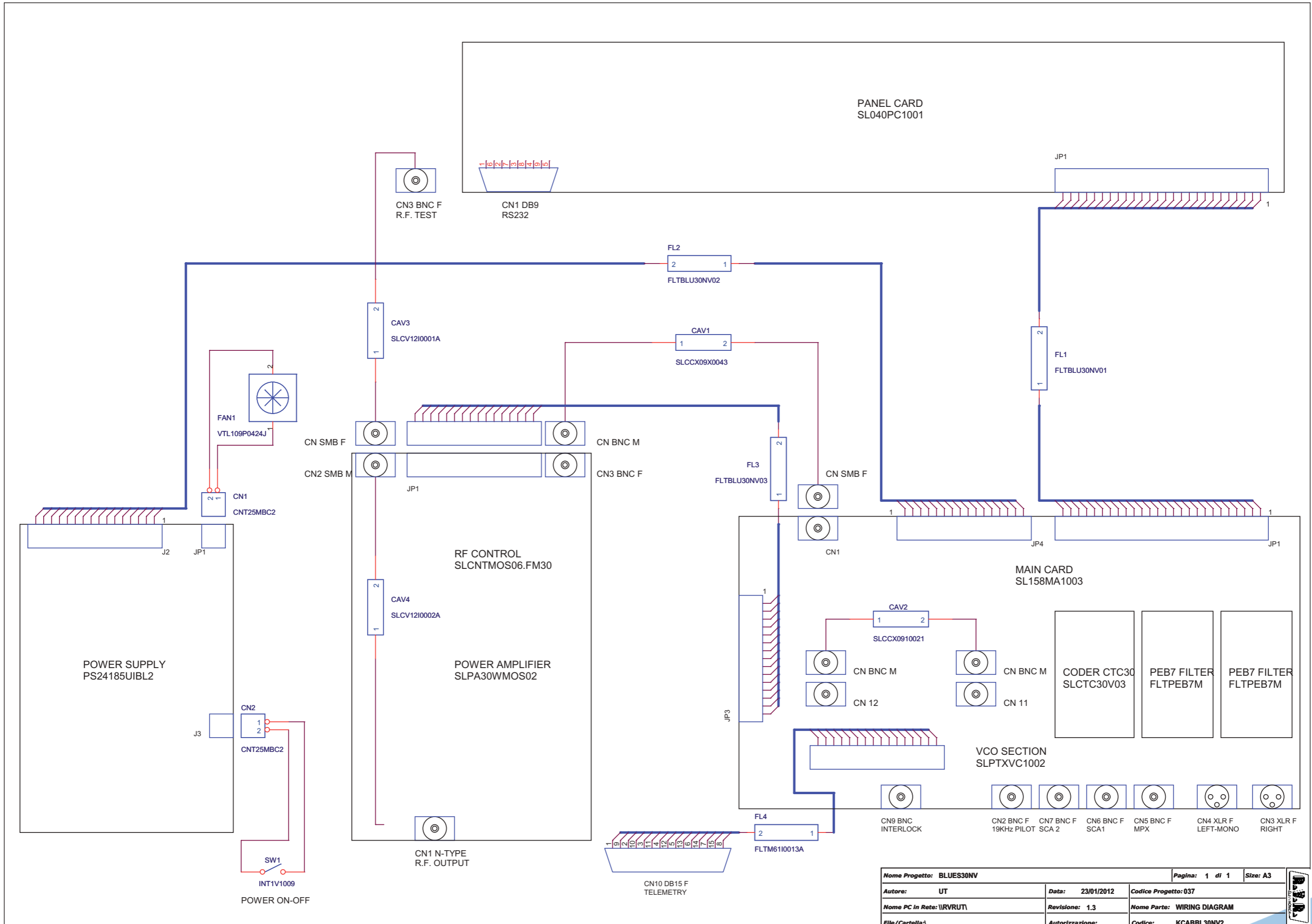
This part of the manual contains the technical details about the different boards of the BLUES30NV. This appendix is composed of the following sections:

Description	RVR Code	Vers.	Page
Wiring Diagrams	KCABB130NV2	1.3	1
Main Board	SL158MA1003	1.0	2
Stereo Coder Card	SLCTC30V03	1.1	10
Control Card	SLCNTMOS06.FM30	1.0	13
Power Amplifier	SLPA30WMOS02	1.1	15
VCO Section	SLVC0030R03V01	1.0	19
Panel Card	SL040PC1001	1.0	21
Power Supply	PS24185UIBL2	2.0	24

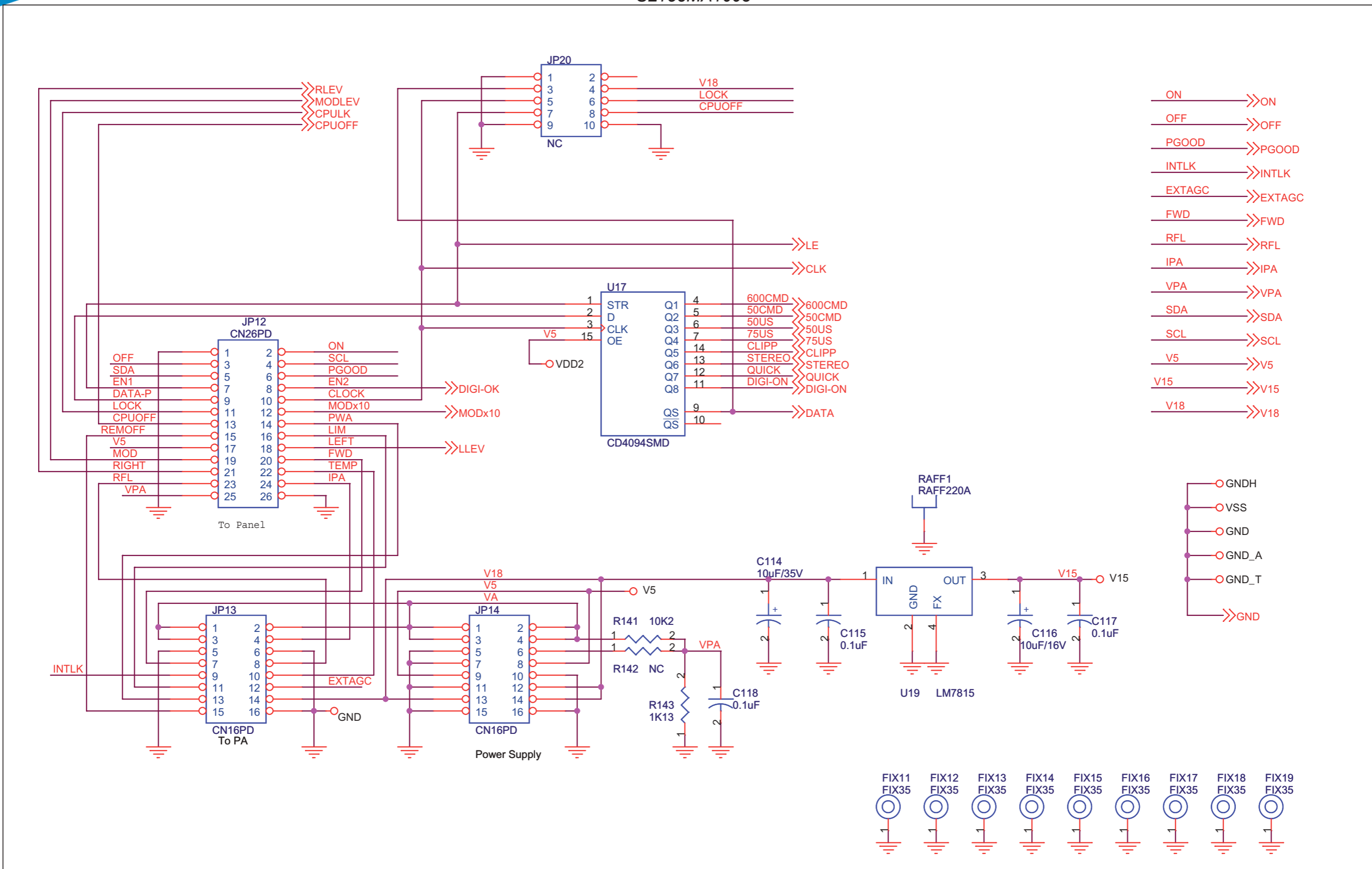
Document History

Date	Version	Reason	Code	Editor
08/10/2010	1.0	First Release (Version 2)	/	J.H. Berti
27/05/2014	1.1	Minor Upgrades	/	J.H. Berti

KCABBL30NV2



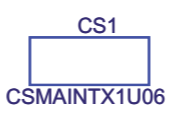
Nome Progetto: BLUES30NV		Pagina: 1 di 1		Size: A3
Autore: UT	Data: 23/01/2012	Codice Progetto: 037		
Nome PC in Rete: \\RVRUT\	Revisione: 1.3	Nome Parte: WIRING DIAGRAM		
File/ Cartella:	Autorizzazione:	Codice: KCABBL30NV2		

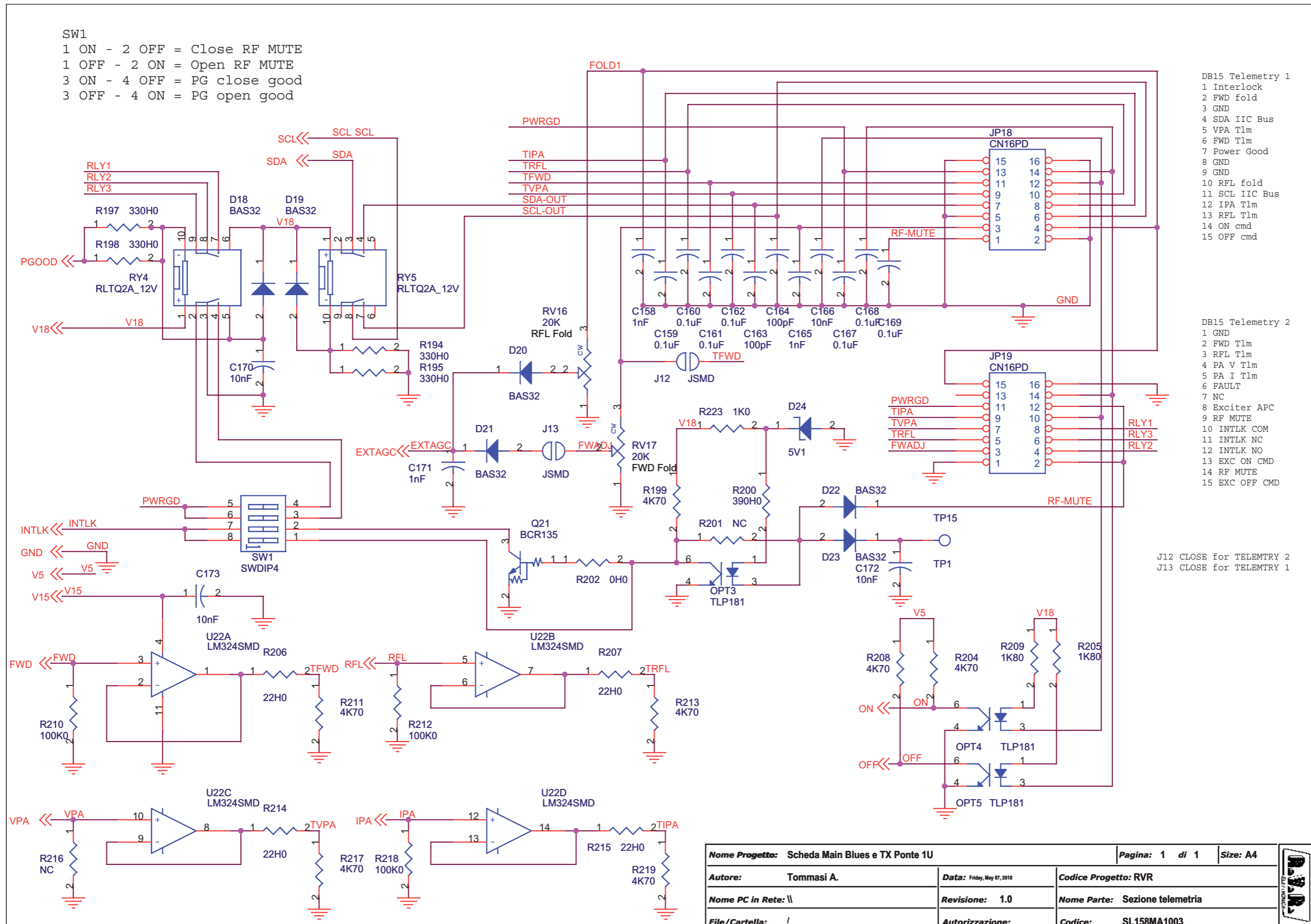


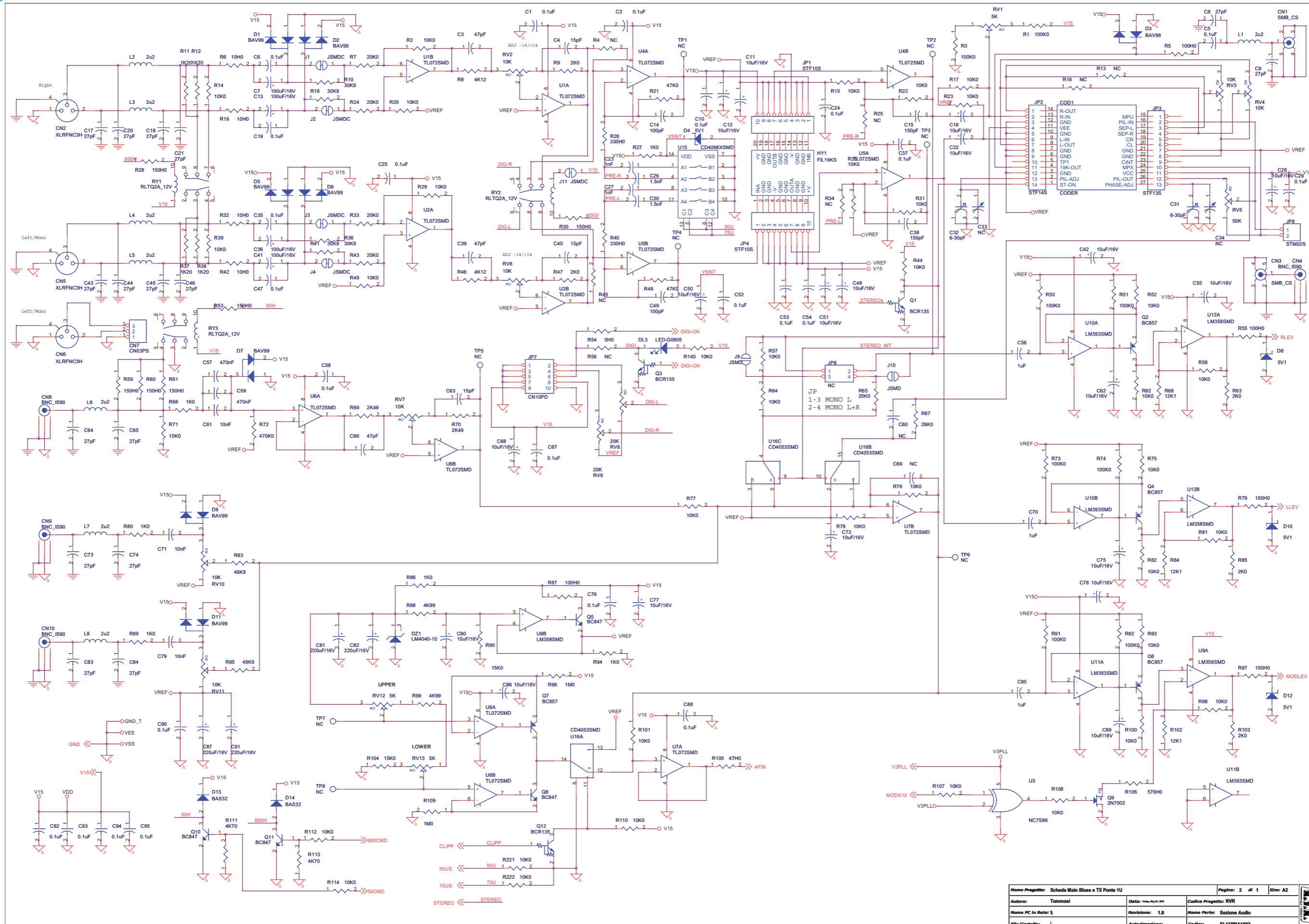
- ON >>> ON
- OFF >>> OFF
- PGOOD >>> PGOOD
- INTLK >>> INTLK
- EXTAGC >>> EXTAGC
- FWD >>> FWD
- RFL >>> RFL
- IPA >>> IPA
- VPA >>> VPA
- SDA >>> SDA
- SCL >>> SCL
- V5 >>> V5
- V15 >>> V15
- V18 >>> V18

- GNDH
- VSS
- GND
- GND_A
- GND_T
- >>> GND

Nome Progetto: Scheda Main Blues e TX Ponte 1U		Pagina: 1 di 1	Size: A4
Autore: Tommasi	Data: Friday, May 07, 2010	Codice Progetto: RVR	
Nome PC in Rete: \	Revisione: 1.0	Nome Parte: Scheda Main	
File/Cartella: /	Autorizzazione:	Codice: SL158MA1003	

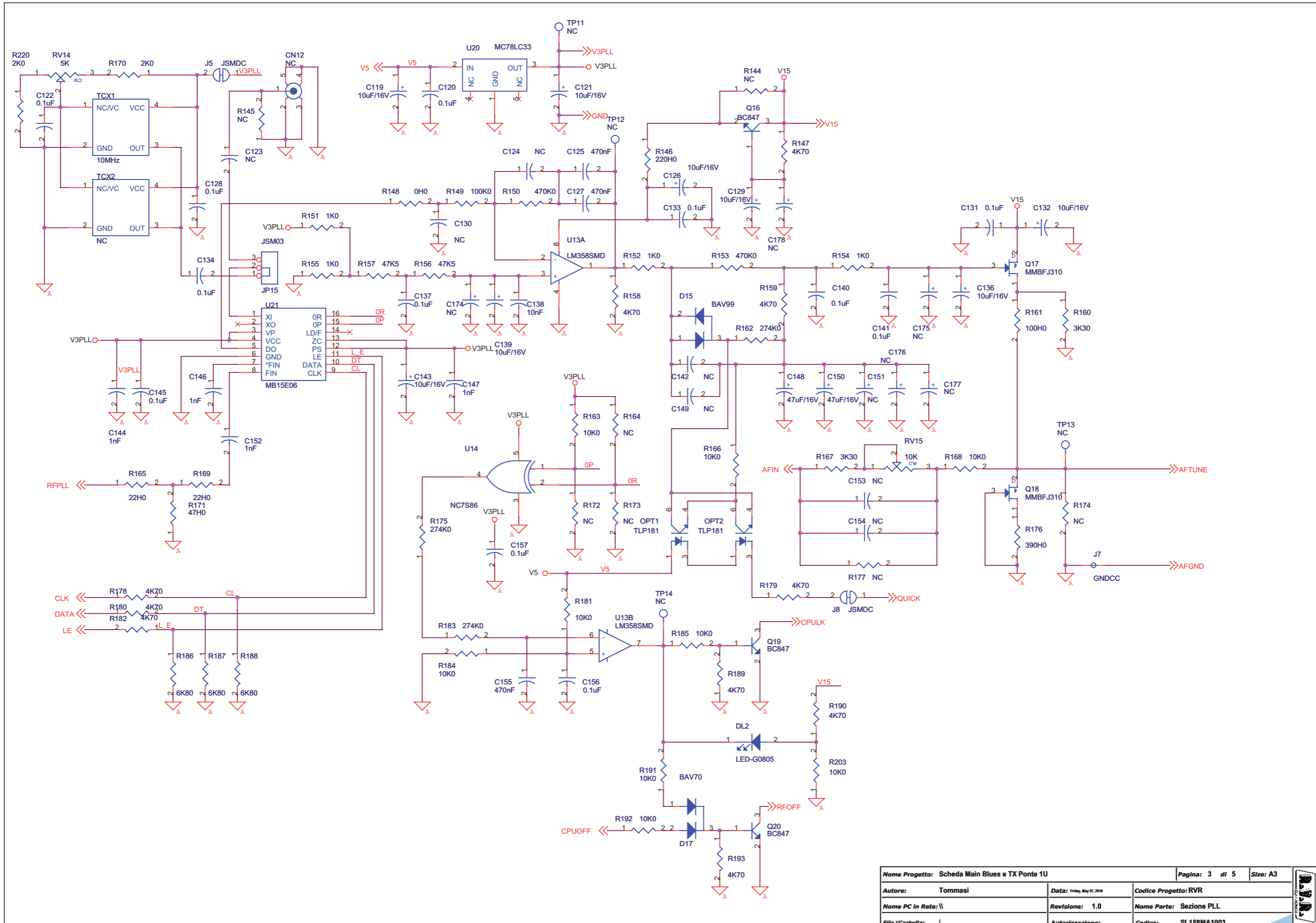




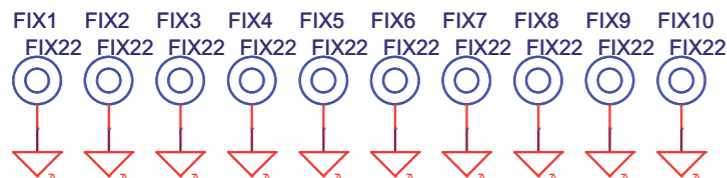
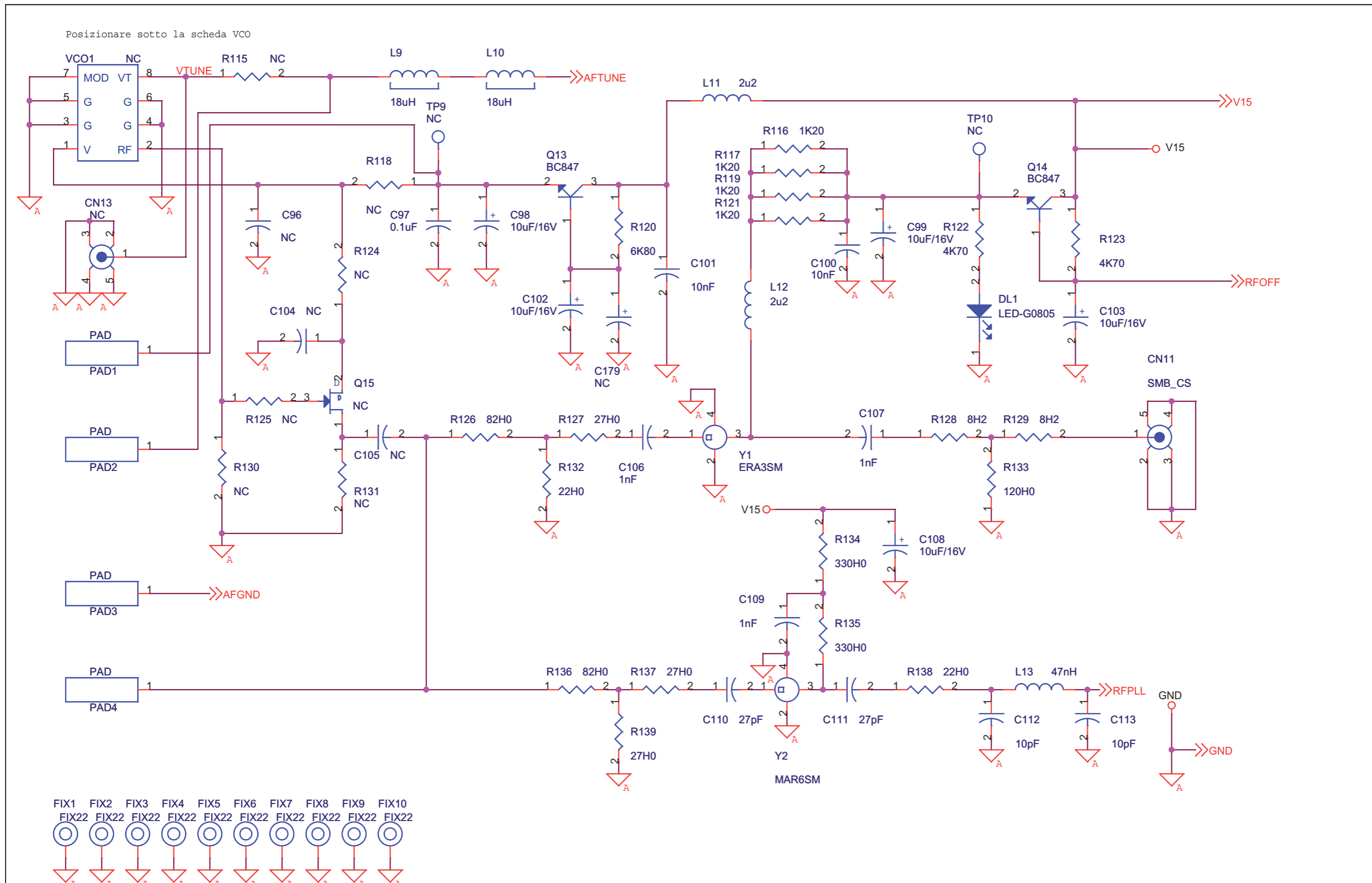


Nome Progetto:	Scheda Main Blues a TX Ponte 1U	Pagina:	2 di 1	Size:	A2
Autore:	Tommasi	Data:	1999.05.14.09	Codice Progetto:	RVR
Nome PC in Rete:	l	Revisione:	1.0	Nome Parte:	Sezione Audio
File/Cartella:	l	Autorizzazione:		Codice:	SL158MA1003

SL158MA1003

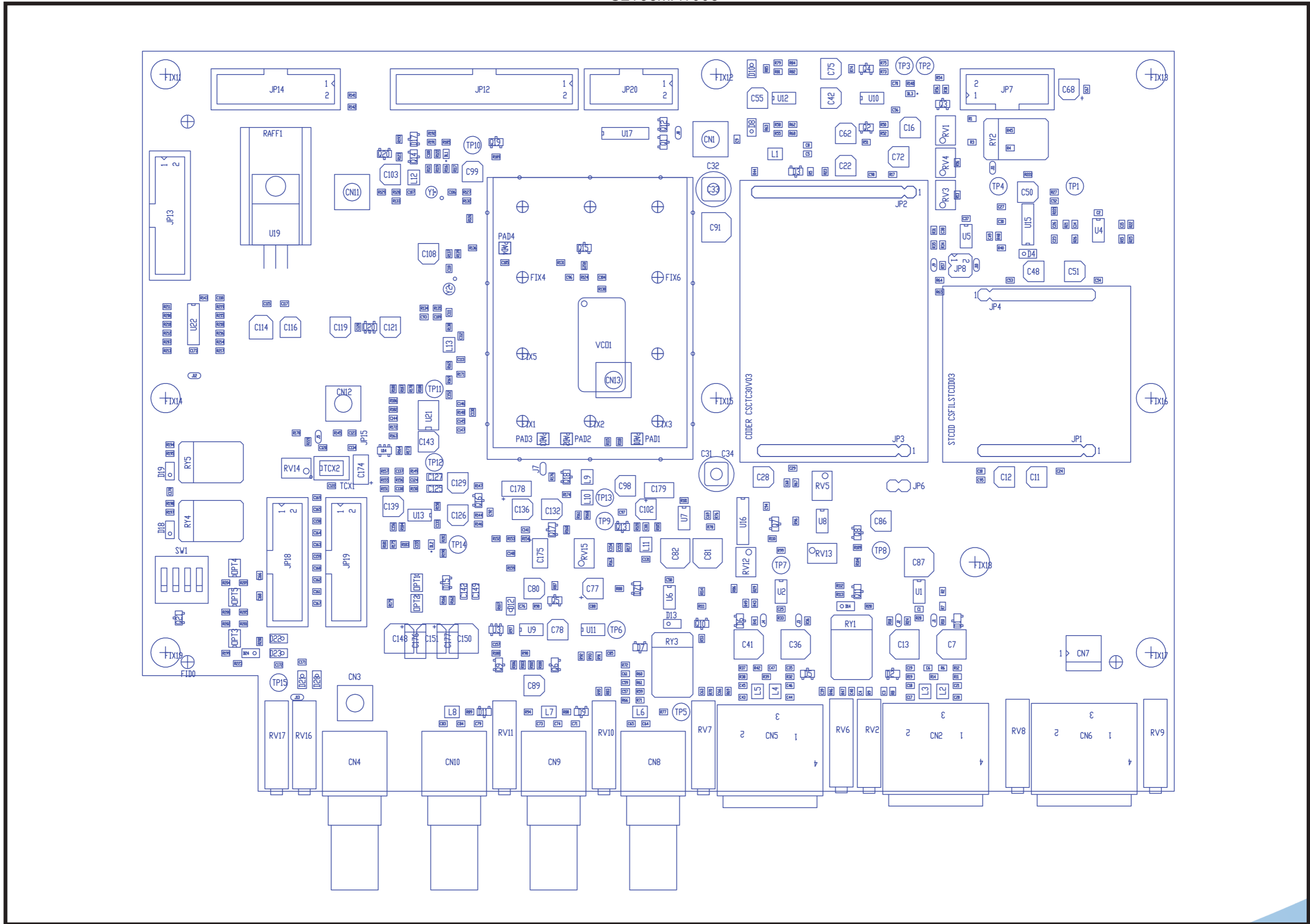


Nome Progetto: Scheda Main Blues e TX Ponte 1U		Pagina: 3 di 5	Size: A3
Autore: Tommasi	Data: Friday, May 07, 2010	Codice Progetto: RVR	
Nome PC in Rete: \	Revisione: 1.0	Nome Parte: Sezione PLL	
File/Cartella: /	Autorizzazione:	Codice: SL158MA1003	



Nome Progetto: Scheda Main Blues e TX Ponte 1U		Pagina: 5 di 5	Size: A4
Autore: Tommasi	Data: Friday, May 07, 2010	Codice Progetto: RVR	
Nome PC in Rete: \\	Revisione: 1.0	Nome Parte: Sezione Vco-Driver	
File/Cartella: /	Autorizzazione:	Codice: SL158MA1003	





SL158MA1003

Scheda Main Revised: Friday, May 07, 2010
 SL158MA1003 Revision: 1.0
 A. Tommasi
 Scheda Main Blues e TX Ponte 1U

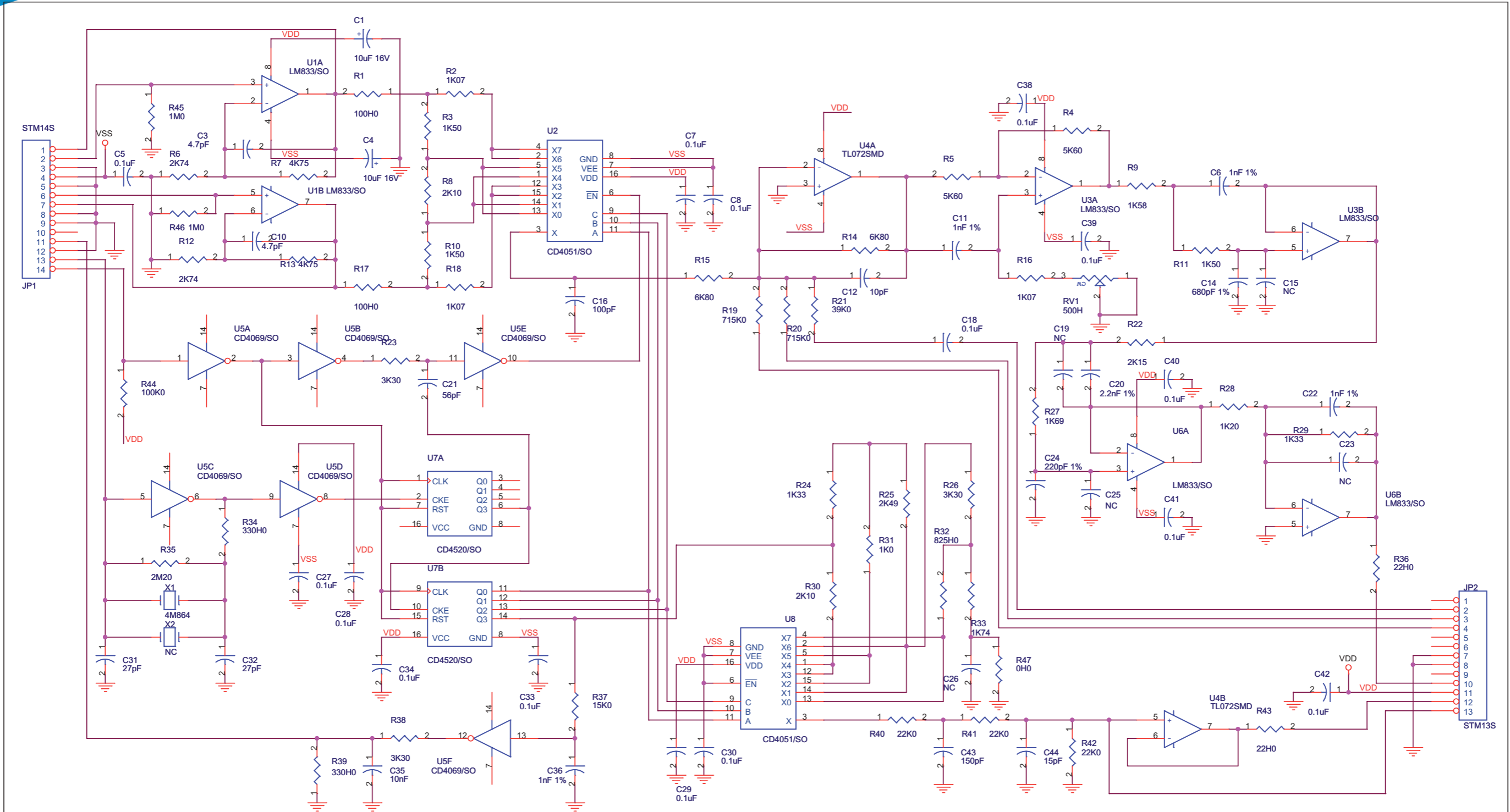
Item	Quantity	Reference	Part	Description	Code
1	3	CN1,CN3,CN11	SMB_CS	Connettore SMB cs	CNTSMBMCS
2	3	CN2,CN5,CN6	XLRFNC3H	Connettore XLR NC3 femm. cs 90°	CNTXLRFNC3A
3	4	CN4,CN8,CN9,CN10	BNC_IS90	Connettore BNC metallico 90°	CNTBNCFCMA
4	1	CN7	CN03PS	Connettore 3 poli Mascon	CNTMASM3PCS
5	2	CN12,CN13	NC	Connettore SMB cs	
6	1	COD1	CODER	Coder stereo IRV30CT	SLCTC30V03
7	1	CS1	CSMAINTX1U06	Circuito stampato	CSMAINTX1U06
8	47	C1,C2,C5,C6,C10,C19,C24,C25,C29,C35,C37,C47,C52,C53,C54,C58,C67,C76,C88,C90,C92,C93,C94,C95,C97,C115,C117,C118,C120,C122,C128,C131,C133,C134,C137,C140,C141,C145,C156,C157,C159,C160,C161,C162,C167,C168,C169	0.1uF	Cond. SMD 0805	CCC085104KXC
9	3	C3,C39,C66	47pF	Cond. SMD 0805	CCC085470JCC
10	3	C4,C40,C63	15pF	Cond. SMD 0805	CCC085150JCC
11	4	C7,C13,C36,C41	100uF/16V	Cond. Elett. SMD d. 6.3mm	CES107C160
12	18	C8,C9,C17,C18,C20,C21,C43,C44,C45,C46,C64,C65,C73,C74,C83,C84,C110,C111	27pF	Cond. SMD 0805	CCC085270JCC
13	33	C11,C12,C16,C22,C28,C42,C48,C50,C51,C55,C62,C68,C72,C75,C77,C78,C80,C86,C89,C98,C99,C102,C103,C108,C116,C119,C121,C126,C129,C132,C136,C139,C143	10uF/16V	Cond. Elett. SMD d. 4mm	CES106A160
14	4	C14,C49,C163,C164	100pF	Cond. SMD 0805	CCC085101JCC
15	2	C15,C38	150pF	Cond. SMD 0805	CCC085151JCC
16	2	C23,C27	1nF	Cond. SMD 0805 COG	CCC085102GCC
17	2	C26,C30	1.5nF	Cond. SMD 0805 COG	CCC085152GCC
18	2	C31,C32	6-30pF	Comp. ceramico dia. 7mm	CVC300D07
19	2	C33,C34	NC	Comp. var. Murata TZB4A	
20	3	C56,C70,C85	1uF	Cond. SMD 0805	CCC085105KYC
21	3	C57,C59,C155	470nF	Cond. SMD 0805	CCC085474KXC
22	10	C60,C69,C96,C104,C105,C123,C124,C130,C153,C154	NC	Cond. SMD 0805	
23	10	C61,C71,C79,C100,C101,C138,C166,C170,C172,C173	10nF	Cond. SMD 0805	CCC085103KXC
24	4	C81,C82,C87,C91	220uF/16V	Cond. Elett. SMD d. 6.3mm	CES227E160
25	10	C106,C107,C109,C144,C146,C147,C152,C158,C165,C171	1nF	Cond. SMD 0805	CCC085102JNC
26	2	C112,C113	10pF	Cond. SMD 0805	CCC085100JCC
27	1	C114	10uF/35V	Cond. Elett. SMD d. 5mm	CES106B350
28	2	C125,C127	470nF	Cond. SMD 1206	CCC126474KXC
29	2	C142,C149	NC	Cond. SMD 1206	
30	2	C148,C150	47uF/16V	Cond. Elett. SMD d. 6.3mm	CES476C160
31	1	C151	NC	Cond. Elett. SMD d. 6.3mm	
32	4	C174,C175,C178,C179	NC	Cond. Elett. SMD tant. size C	
33	2	C176,C177	NC	Cond. Elett. SMD tant. size D	
34	3	DL1,DL2,DL3	LED-G0805	LED SMD 0805	LEDV0805
35	1	DZ1	LM4040-10	Diodi Zener SMD SOT23	CILLM4040-10
36	9	D1,D2,D3,D5,D6,D7,D9,D11,D15	BAV99	Doppio Diodo SMD SOT23	DISBAV99
37	5	D4,D8,D10,D12,D24	5V1	MINIMELF SMD Zener Diode	DIZ5V1MINI
38	8	D13,D14,D18,D19,D20,D21,D22,D23	BAS32	MINIMELF SMD Diode	DISBAS32MINI
39	1	D17	BAV70	Doppio Diodo SMD SOT23	DISBAV70
40	10	FIX1,FIX2,FIX3,FIX4,FIX5,FIX6,FIX7,FIX8,FIX9,	FIX22	Foro fissaggio 2.2mm	

41	9	FIX11,FIX12,FIX13,FIX14, FIX15,FIX16,FIX17,FIX18, FIX19	FIX35	Foro fissaggio 3.5mm	
42	1	HY1	FIL19KS		FLTPEB7 x 2
43	2	JP1,JP4	STF10S	Strip femmina 10 pin	CNTSTF10SDA
44	1	JP2	STF14S	Strip femmina 14 pin	CNTSTF14SDB
45	1	JP3	STF13S	Strip femmina 13 pin	CNTSTF13SDB
46	1	JP6	STM02S	Strip maschio 2 pin	STRIP
47	1	JP7	CN10PD	Connettore 10 poli Flat cs	CNTMCS10A
48	1	JP8	NC	Strip maschio 2+2 pin	
49	1	JP12	CN26PD	Connettore 26 poli Flat cs	CNTMCS26A
50	4	JP13,JP14,JP18,JP19	CN16PD	Conn.M.C.S.Dritto 16P alette	CNTMCS16A
51	1	JP15	JSM03	Pad SMD a saldare a 2 pos.	
52	1	JP20	NC	Connettore 10 poli Flat cs con alette	
53	7	J1,J2,J3,J4,J5,J8,J11	JSMDC	Pad SMD a saldare chiuso	
54	1	J7	GNDC	Non e' un componente	
55	4	J9,J10,J12,J13	JSMDC	Pad SMD a saldare	
56	10	L1,L2,L3,L4,L5,L6,L7,L8, L11,L12	2u2	Induttanza SMD 3225 (1210)	IMP2U2S120
57	2	L9,L10	18uH	Induttanza SMD 3225 (1210) Schermata	IMP18US126S
58	1	L13	47nH	Induttanza SMD 3225 (1210)	IMP47NS120
59	5	OPT1,OPT2,OPT3,OPT4,OPT5	TLP181	Optoisolatore SMD SO6	LEDTLP181
60	4	PAD1,PAD2,PAD3,PAD4	PAD	Pad a saldare 2.5x2.5 mm	
61	4	Q1,Q3,Q12,Q21	BCR135	Trans./Res. NPN SOT23	TRNBCR135
62	4	Q2,Q4,Q6,Q7	BC857	Trans. PNP SOT23	TRNBC857
63	9	Q5,Q8,Q10,Q11,Q13,Q14, Q16,Q19,Q20	BC847	Trans. NPN SOT23	TRNBC847
64	1	Q9	2N7002	Trans. FET SOT23	TRN2N7002SMD
65	1	Q15	NC	Trans. FET SOT23	
66	2	Q17,Q18	MMBFJ310	Trans. FET SOT23	TRNMMBFJ310
67	1	RAFF1	RAFF220A	Dissipatore TO220 25x15 scasso	DSCTO220C25
68	4	RV1,RV12,RV13,RV14	5K	Trimmer Rg V 3269W SMD	RVT3269WK005
69	5	RV2,RV6,RV7,RV10,RV11	10K	Trimmer Rg H 3006	RVT3006PK010
70	3	RV3,RV4,RV15	10K	Trimmer Rg V 3269W SMD	RVT3269WK010
71	1	RV5	50K	Trimmer Rg V 3269W SMD	RVT3269WK050
72	4	RV8,RV9,RV16,RV17	20K	Trimmer Rg H 3006	RVT3006PK020
73	5	RY1,RY2,RY3,RY4,RY5	RLTQ2A_12V	Rele' TQ2	RLD2V12V05AM
74	12	R1,R3,R50,R51,R73,R74, R91,R92,R149,R210,R212, R218	100K0	Res. SMD 0805	RCH085F0100K
75	46	R2,R14,R15,R17,R20,R22, R23,R29,R31,R35,R39,R44, R49,R52,R57,R58,R62,R64, R71,R75,R76,R77,R78,R81, R82,R93,R98,R100,R101, R107,R108,R110,R112,R114, R140,R163,R166,R168,R181, R184,R185,R191,R192,R203, R221,R222	10K0	Res. SMD 0805	RCH085F0010K
76	23	R4,R13,R16,R25,R34,R45, R56,R115,R118,R124,R125, R130,R131,R142,R144,R145, R164,R172,R173,R174,R177, R201,R216	NC	Res. SMD 0805	
77	6	R5,R55,R79,R87,R97,R161	100H0	Res. SMD 0805	RCH085F0100H
78	4	R6,R19,R32,R42	10H0	Res. SMD 0805	RCH085F0010H
79	5	R7,R24,R33,R43,R65	20K0	Res. SMD 0805	RCH085F0020K
80	2	R8,R46	4K12	Res. SMD 0805	RCH085F04K12
81	7	R9,R47,R63,R85,R103,R170, R220	2K0	Res. SMD 0805	RCH085F0002K
82	4	R10,R18,R36,R41	30K9	Res. SMD 0805	RCH085F030K9
83	8	R11,R12,R37,R38,R116, R117,R119,R121	1K20	Res. SMD 0805	RCH085F001K2
84	2	R21,R48	47K0	Res. SMD 0805	RCH085F0047K
85	8	R26,R40,R134,R135,R194, R195,R197,R198	330H0	Res. SMD 0805	RCH085F0330H
86	11	R27,R66,R80,R86,R89,R94,	1K0	Res. SMD 0805	RCH085F0001K

SL158MA1003

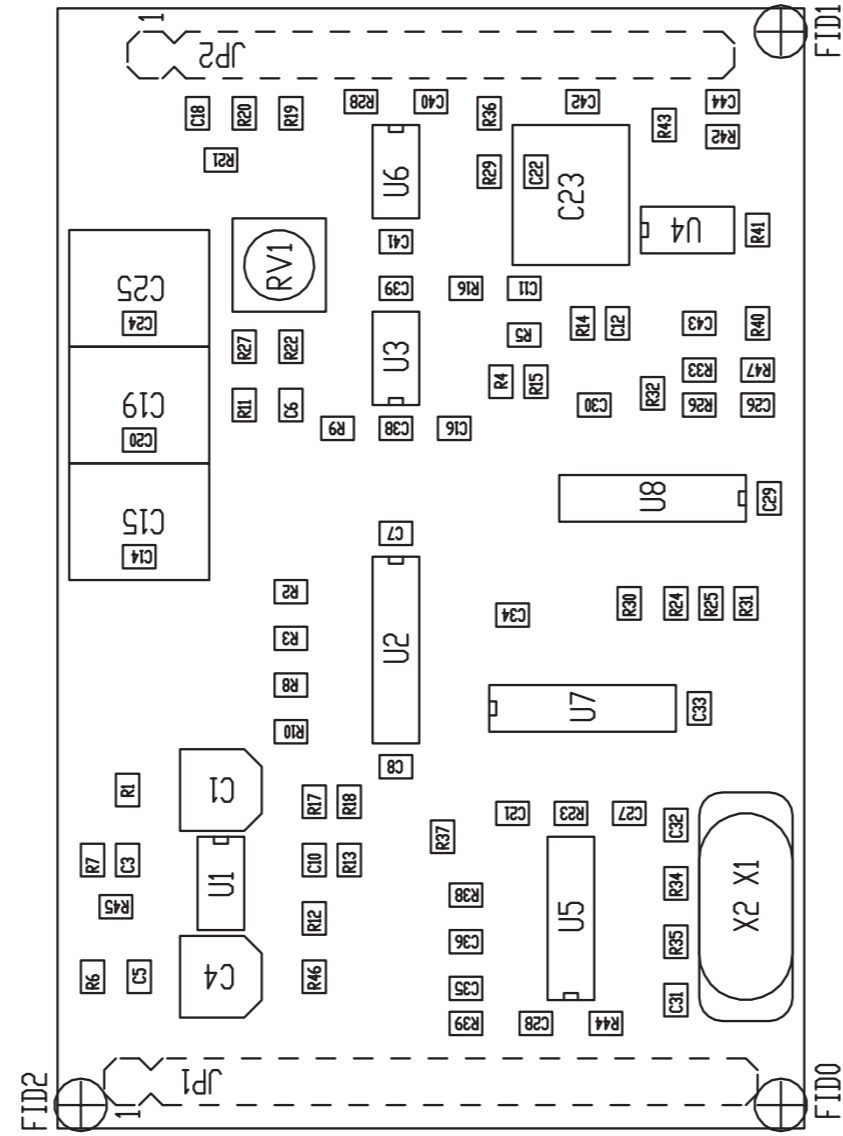
87	R151,R152,R154,R155,R223			
88	6 R28,R30,R53,R59,R60,R61	150H0	Res. SMD 0805	RCH085F0150H
89	3 R54,R148,R202	0H0	Res. SMD 0805	RCH085F0000H
90	1 R67	28K0	Res. SMD 0805	RCH085F0028K
91	3 R68,R84,R102	12K1	Res. SMD 0805	RCH085F012K1
92	2 R69,R70	2K49	Res. SMD 0805	RCH085F02K49
93	3 R72,R150,R153	470K0	Res. SMD 0805	RCH085F0470K
94	2 R83,R95	49K9	Res. SMD 0805	RCH085F049K9
95	2 R88,R99	4K99	Res. SMD 0805	RCH085F04K99
96	2 R90,R104	15K0	Res. SMD 0805	RCH085F0015K
97	2 R96,R109	1M0	Res. SMD 0805	RCH085F0001M
98	2 R105,R171	47H0	Res. SMD 0805	RCH085F0047H
99	1 R106	576H0	Res. SMD 0805	RCH085F0576H
100	21 R111,R113,R122,R123,R147, R158,R159,R178,R179,R180, R182,R189,R190,R193,R199, R204,R208,R211,R213,R217, R219	4K70	Res. SMD 0805	RCH085F004K7
101	4 R120,R186,R187,R188	6K80	Res. SMD 0805	RCH085F006K8
102	2 R126,R136	82H0	Res. SMD 0805	RCH085F0082H
103	3 R127,R137,R139	27H0	Res. SMD 0805	RCH085F0027H
104	2 R128,R129	8H2	Res. SMD 0805	RCH085F008H2
105	8 R132,R138,R165,R169,R206, R207,R214,R215	22H0	Res. SMD 0805	RCH085F0022H
106	1 R133	120H0	Res. SMD 0805	RCH085F0120H
107	1 R141	10K2	Res. SMD 0805	RCH085F010K2
108	1 R143	1K13	Res. SMD 0805	RCH085F01K13
109	1 R146	220H0	Res. SMD 0805	RCH085F0220H
110	2 R156,R157	47K5	Res. SMD 0805	RCH085F047K5
111	2 R160,R167	3K30	Res. SMD 0805	RCH085F003K3
112	3 R162,R175,R183	274K0	Res. SMD 0805	RCH085F0274K
113	2 R176,R200	390H0	Res. SMD 0805	RCH085F0390H
114	2 R205,R209	1K80	Res. SMD 0805	RCH085F001K8
115	1 SW1	SWDIP4	Dip switch 4 vie	DSW4V0
116	1 TCX1	10MHz	TCXO SMD 5x3.2mm	QRZ000010MMV
117	1 TCX2	NC	TCXO SMD 7x5.2mm	
118	14 TP1,TP2,TP3,TP4,TP5,TP6, TP7,TP8,TP9,TP10,TP11, TP12,TP13,TP14	NC	Test point	
119	1 TP15	TP1	Test point	
120	7 U1,U2,U4,U5,U6,U7,U8	TL072SMD	Dual Op. SMD SO8	CILTL072SMD
121	2 U3,U14	NC7S86	XOR Port	CIDNC7S86M5X
122	3 U9,U12,U13	LM358SMD	Dual Op. SMD SO8	CILLM358SMD
123	2 U10,U11	LM393SMD	Dual Comp. SMD SO8	CILLM393SMD
124	1 U15	CD4066XSMD	Analog Switch SMD SO14	CIDCD4066S
125	1 U16	CD4053SMD	Analog Switch SMD SO16	CIDCD4053S
126	1 U17	CD4094SMD	Shift Reg. SMD SO16	CIDCD4094S
127	1 U19	LM7815	Stabilizzatore TO220	CIL7815P
128	1 U20	MC78LC33	Stab. SMD SOT23-5	CIL78LC33
129	1 U21	MB15E06	Integrated PLL	CIDMB15E06
130	1 U22	LM324SMD	Quad Op. SMD SO14	CILLM324SMD
131	1 VCO1	NC	VCO SKY 8 pin FVC7MD	
132	1 Y1	ERA3SM	Ibrido MAR/ERA	MIBERA3-SM
132	1 Y2	MAR6SM	Ibrido MAR/ERA	MIBMAR6SMD

SLCTC30V03



CS1
CSCTC30V03

Nome Progetto: PTX-LCD		Pagina: 1 di 1		Size: A3
Autore: A. Tommasi	Data: 15/09/2005	Codice Progetto: 011		
Nome PC in Rete: \RVRUT\	Revisione: 1.1	Nome Parte: Coder Card		
File/Cartella:	Autorizzazione:	Codice: SLCTC30V03		



NOME PROGETTO: PTX-LCD	NOME PARTE: CODER CARD
AUTORE: A. TOMMASI	DATA: 08/04/2004
ARCHIVIAZIONE ELETTRONICA: \VRUT\	REVISIONE: 1.0
MATERIALE:	SCALA: 2:1
TRATTAMENTO:	SIZE: A4
PROFILO:	PAGINA: 1 DI 1
STATO: ESECUTIVO	CODICE DISEGNO: SLCTC30V03

SLCTC30V03

Coder Card Revised: Thursday, September 15, 2005
 SLCTC30V03 Revision: 1.1

PTX-LCD

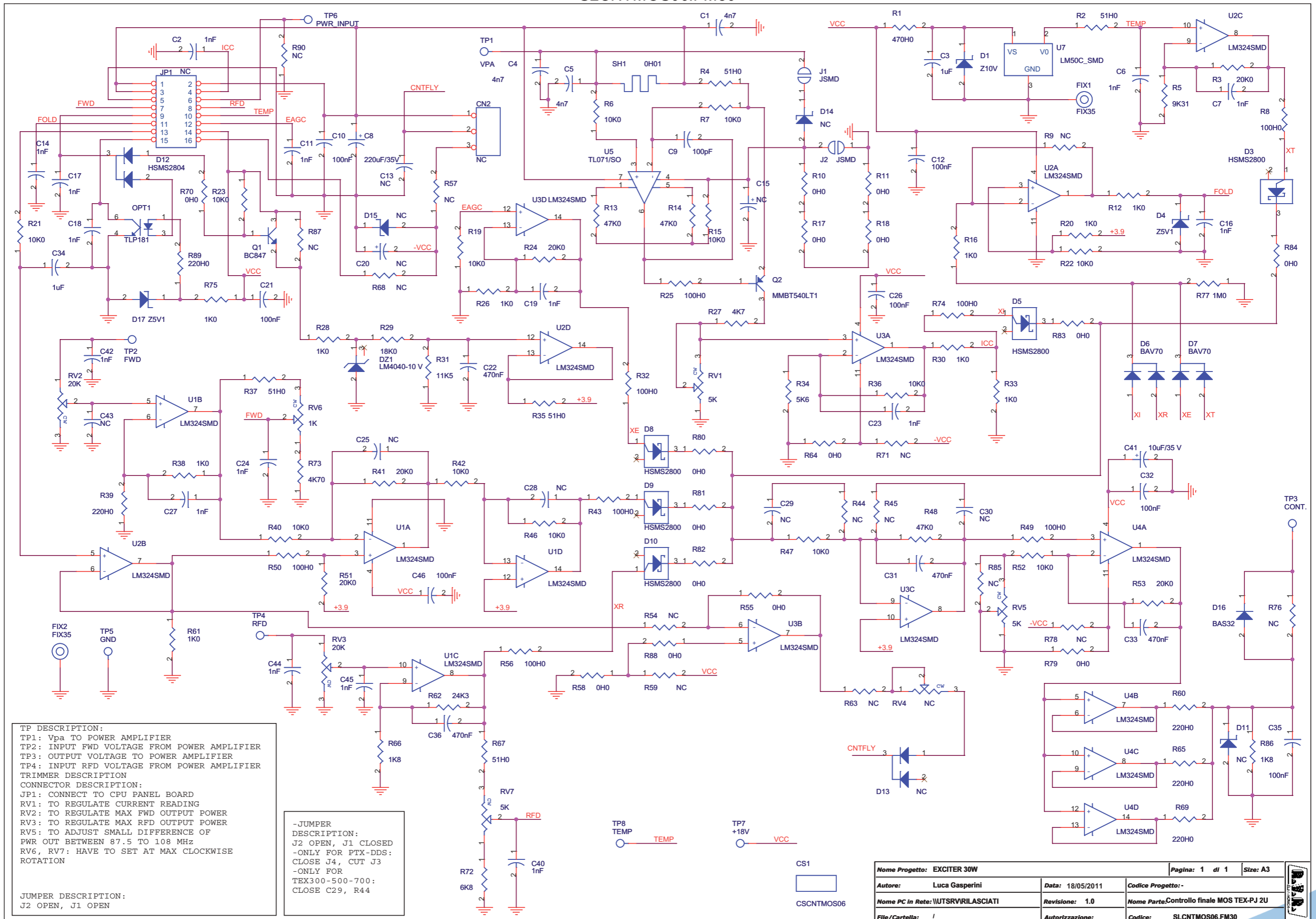
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A. Tommasi

Item	Q.ty	Reference	Part	Description	
1	1	CS1	CSCTC30V03	Circuito stampato	
2	2	C1, C4	10uF 16V	Cond. Elett. SMD d. 4mm	
3	2	C3, C10	4.7pF	Cond. SMD 0805	
4	15	C5, C7, C8, C18, C27, C28, C29, C30, C33, C34, C38, C39, C40, C41, C42	0.1uF	Cond. SMD 0805	
5	4	C6, C11, C22, C36	1nF 1%	Cond. SMD 0805 COG	Nota 1
6	1	C12	10pF	Cond. SMD 0805	
7	1	C14	680pF 1%	Cond. SMD 0805 COG	Nota 1
8	4	C15, C19, C23, C25	NC	Cond. Poliestere p 5mm (5*7mm)	
9	1	C16	100pF	Cond. SMD 0805	
10	1	C20	2.2nF 1%	Cond. SMD 0805 COG	Nota 1
11	1	C21	56pF	Cond. SMD 0805	
12	1	C24	220pF 1%	Cond. SMD 0805 COG	Nota 1
13	1	C26	NC	Cond. SMD 0805	
14	2	C31, C32	27pF	Cond. SMD 0805	
15	1	C35	10nF	Cond. SMD 0805	
16	1	C43	150pF	Cond. SMD 0805	
17	1	C44	15pF	Cond. SMD 0805	
18	1	JP1	STM14S	Strip maschio 14 pin	
19	1	JP2	STM13S	Strip maschio 13 pin	
20	1	RV1	500H	Trimmer SMD	
21	2	R1, R17	100H0	Res. SMD 0805	
22	3	R2, R16, R18	1K07	Res. SMD 0805	
23	3	R3, R10, R11	1K50	Res. SMD 0805	
24	2	R4, R5	5K60	Res. SMD 0805	
25	2	R6, R12	2K74	Res. SMD 0805	
26	2	R7, R13	4K75	Res. SMD 0805	
27	2	R8, R30	2K10	Res. SMD 0805	
28	1	R9	1K58	Res. SMD 0805	
29	2	R14, R15	6K80	Res. SMD 0805	
30	2	R19, R20	715K0	Res. SMD 0805	
31	1	R21	39K0	Res. SMD 0805	
32	1	R22	2K15	Res. SMD 0805	
33	3	R23, R26, R38	3K30	Res. SMD 0805	
34	2	R24, R29	1K33	Res. SMD 0805	
35	1	R25	2K49	Res. SMD 0805	
36	1	R27	1K69	Res. SMD 0805	
37	1	R28	1K20	Res. SMD 0805	
38	1	R31	1K0	Res. SMD 0805	
39	1	R32	825H0	Res. SMD 0805	
40	1	R33	1K74	Res. SMD 0805	
41	2	R34, R39	330H0	Res. SMD 0805	
42	1	R35	2M20	Res. SMD 0805	
43	2	R36, R43	22H0	Res. SMD 0805	
44	1	R37	15K0	Res. SMD 0805	
45	3	R40, R41, R42	22K0	Res. SMD 0805	
46	1	R44	100K0	Res. SMD 0805	
47	2	R45, R46	1M0	Res. SMD 0805	
48	1	R47	0H0	Res. SMD 0805	
49	3	U1, U3, U6	LM833/SO	Dual Op. SMD SO8	
50	2	U2, U8	CD4051/SO	Analog Switch SMD SO16	
51	1	U4	TL072SMD	Dual Op. SMD SO8	
52	1	U5	CD4069/SO	Hex inverter SO14	
53	1	U7	CD4520/SO	Dual binary counter	Nota 2
54	1	X1	4M864	Quarzo SMD HC49SMD	
55	1	X2	NC	Quarzo HC18	

Nota 1	Attenzione COG vanno bene anche al 2%
Nota 2	Non montare PHILIPS
	Tutte le resistenze vanno al 1%
	Tutti i condensatori dove il valore lo consente vogliono NP0

SLCNTMOS06.FM30



TP DESCRIPTION:
 TP1: Vpa TO POWER AMPLIFIER
 TP2: INPUT FWD VOLTAGE FROM POWER AMPLIFIER
 TP3: OUTPUT VOLTAGE TO POWER AMPLIFIER
 TP4: INPUT RFD VOLTAGE FROM POWER AMPLIFIER

TRIMMER DESCRIPTION:
 RV1: TO REGULATE CURRENT READING
 RV2: TO REGULATE MAX FWD OUTPUT POWER
 RV3: TO REGULATE MAX RFD OUTPUT POWER
 RV5: TO ADJUST SMALL DIFFERENCE OF PWR OUT BETWEEN 87.5 TO 108 MHz

CONNECTOR DESCRIPTION:
 JP1: CONNECT TO CPU PANEL BOARD

JUMPER DESCRIPTION:
 J2 OPEN, J1 OPEN

-JUMPER DESCRIPTION:
 J2 OPEN, J1 CLOSED
 -ONLY FOR PTX-DDS:
 CLOSE J4, CUT J3
 -ONLY FOR
 TEX300-500-700:
 CLOSE C29, R44

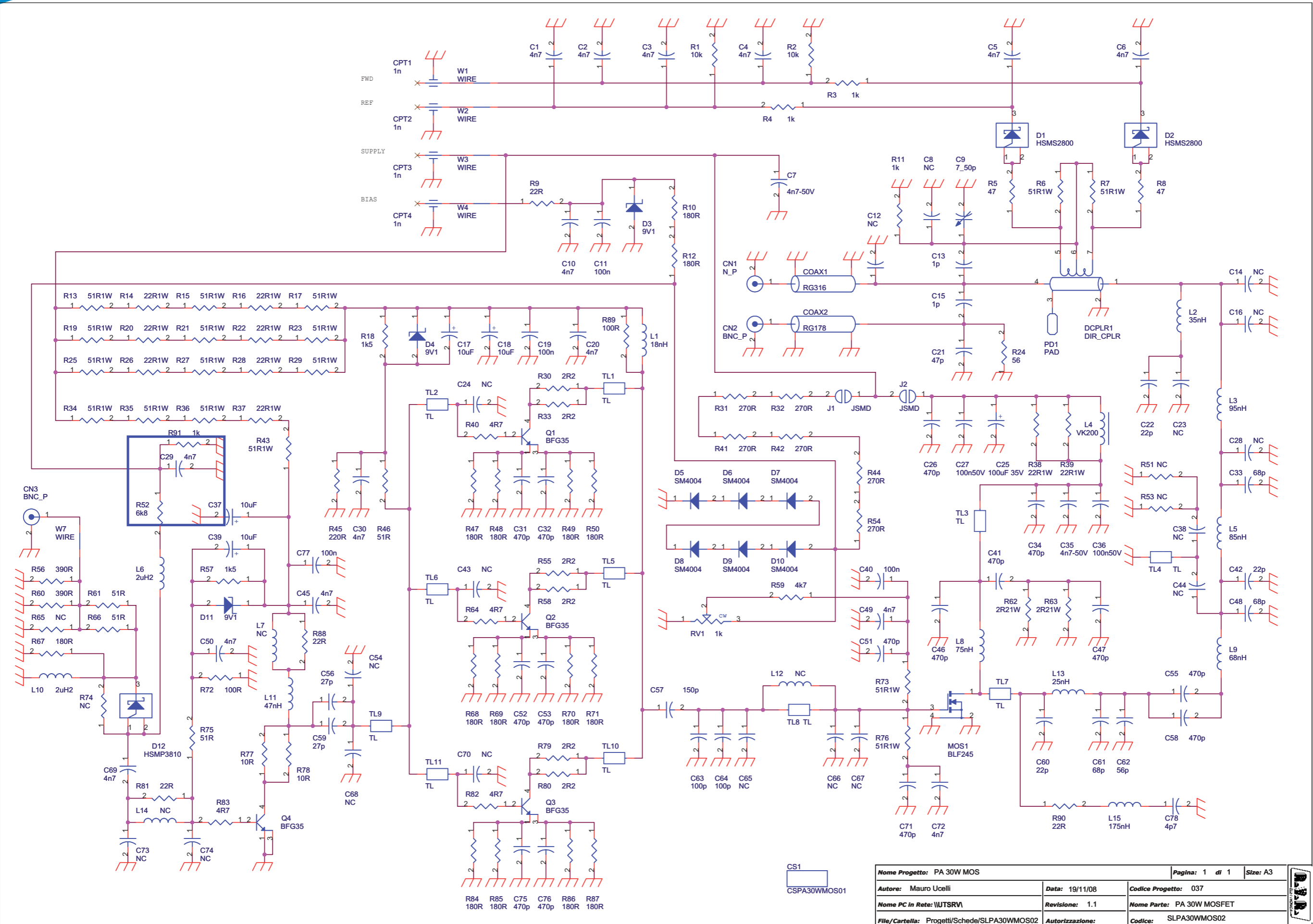
Nome Progetto: EXCITER 30W	Pagina: 1 di 1	Size: A3
Autore: Luca Gasperini	Data: 18/05/2011	Codice Progetto: -
Nome PC in Rete: \UTSRV\RILASCIATI	Revisione: 1.0	Nome Parte,Controllo finale MOS TEX-PJ 2U
File/Cartella: /	Autorizzazione:	Codice: SLCNTMOS06.FM30

SLCNTMOS06.FM30

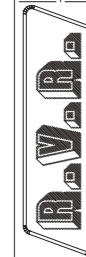
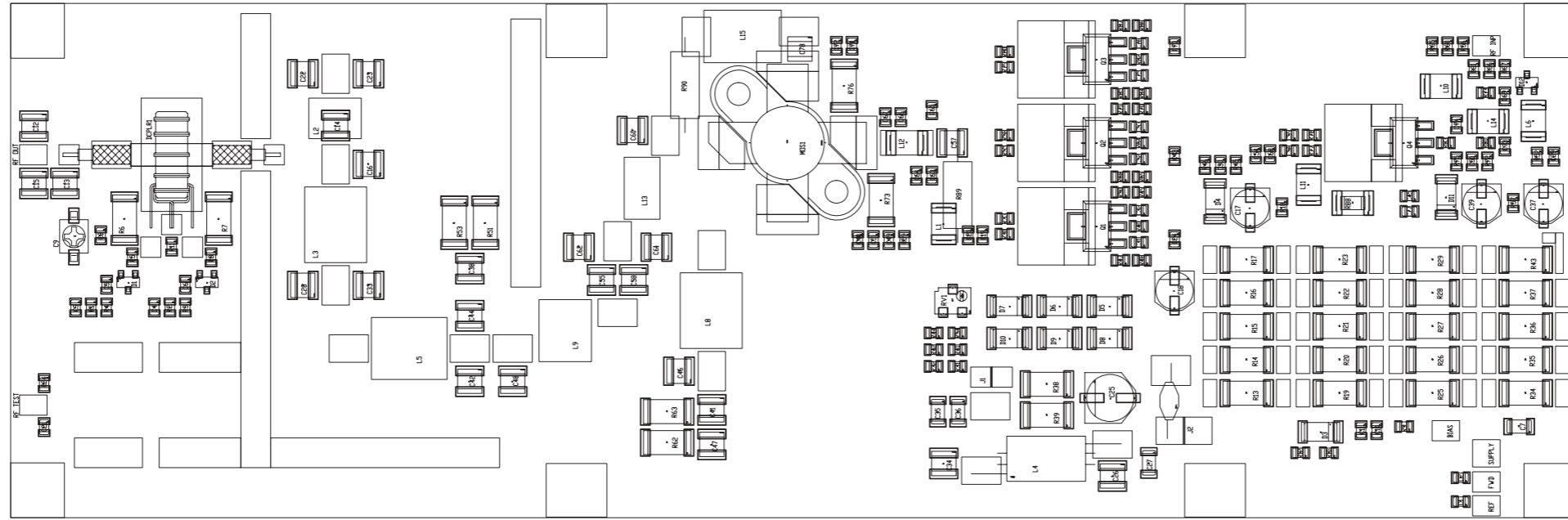
Controllo finale MOS TEX-PJ 2U Revised: Wednesday, May 18, 2011
 SLCNTMOS06.FM30 Revision: 1.0
 EXCITER 30W
 Luca Gasperini

Item	Quantity	Reference	Part	Description
1	1	CN2	NC	Conn. tipo KRA a 3 poli
2	1	CS1	CSCNTMOS06	Circuito stampato
3	3	C1, C4, C5	4n7	Cond. SMD 0805
4	16	C2, C6, C7, C11, 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/35V	Cond. Elettr. Dia 10 P5.08
7	1	C9	100pF	Cond. SMD 0805
8	7	C10, C12, C21, C26, C32, C35, C46	100nF	Cond. SMD 0805
9	6	C13, C25, C28, C29, C30, C43	NC	Cond. SMD 0805
10	1	C15	NC	Cond. Elettr. Dia 5 P2.54
11	1	C20	NC	Cond. Elettr. SMD d. 4mm
12	4	C22, C31, C33, C36	470nF	Cond. SMD 0805
13	1	C41	10uF/35 V	Cond. Elettr. SMD d. 4mm
14	1	DZ1	LM4040-10 V	Diodi Zener SMD SOT23
15	1	D1	Z10V	MINIMELF SMD Zener Diode
16	5	D3, D5, D8, D9, D10	HSMS2800	Diodo Schottky SOT23
17	2	D4, D17	Z5V1	MINIMELF SMD Zener Diode
18	2	D6, D7	BAV70	Doppio Diodo SMD SOT23
19	3	D11, D14, D15	NC	MINIMELF SMD Zener Diode
20	1	D12	HSMS2804	Doppio Diodo SMD SOT23
21	1	D13	NC	Doppio Diodo SMD SOT23
22	1	D16	BAS32	MINIMELF SMD Diode
23	2	FIX1, FIX2	FIX35	Foro fissaggio 3.5mm
24	1	JP1	NC	Connettore 16 poli Flat cs
25	2	J1, J2	JSMD	Pad SMD a saldare
26	1	OPT1	TLP181	Optoisolatore SMD SO6
27	1	Q1	BC847	Trans. NPN SOT23
28	1	Q2	MMBT540LT1	Trans. PNP SOT23
29	3	RV1, RV5, RV7	5K	Trimmer SMD
30	2	RV2, RV3	20K	Trimmer Rg V 3296W
31	1	RV4	NC	Trimmer SMD
32	1	RV6	1K	Trimmer SMD
33	1	R1	470H0	Res. SMD 0805
34	5	R2, R4, R35, R37, R67	51H0	Res. SMD 0805
35	5	R3, R24, R41, R51, R53	20K0	Res. SMD 0805
36	1	R5	9K31	Res. SMD 0805
37	13	R6, R7, R15, R19, R21, R22, R23, R36, R40, R42, R46, R47, R52	10K0	Res. SMD 0805
38	8	R8, R25, R32, R43, R49, R50, R56, R74	100H0	Res. SMD 0805
39	14	R9, R44, R45, R54, R57, R59, R63, R68, R71, R76, R78, R85, R87, R90	NC	Res. SMD 0805
40	15	R10, R11, R17, R18, R55, R58, R64, R70, R79, R80, R81, R82, R83, R84, R88	0H0	Res. SMD 0805
41	10	R12, R16, R20, R26, R28, R30, R33, R38, R61, R75	1K0	Res. SMD 0805
42	3	R13, R14, R48	47K0	Res. SMD 0805
43	2	R27, R73	4K70	Res. SMD 0805
44	1	R29	18K0	Res. SMD 0805
45	1	R31	11K5	Res. SMD 0805
46	1	R34	5K6	Res. SMD 0805
47	5	R39, R60, R65, R69, R89	220H0	Res. SMD 0805
48	1	R62	24K3	Res. SMD 0805
49	2	R66, R86	1K8	Res. SMD 0805
50	1	R72	6K8	Res. SMD 0805
51	1	R77	1M0	Res. SMD 0805
52	1	SH1	0H01	Shunt passo 15.2mm fori 2mm
53	1	TP1	VPA	Foro dia. 2mm
54	1	TP2	FWD	Foro dia. 1mm
55	1	TP3	CONT.	Foro dia. 1mm
56	1	TP4	RFD	Foro dia. 1mm
57	1	TP5	GND	Foro dia. 2mm
58	1	TP6	PWR_INPUT	Foro dia. 1mm
59	1	TP7	+18V	Foro dia. 1mm
60	1	TP8	TEMP	Foro dia. 1mm
61	4	U1, U2, U3, U4	LM324SMD	Quad Op. SMD SO14
62	1	U5	TL071/SO	Dual Op. SMD SO8
63	1	U7	LM50C_SMD	Temperature sensor

SLPA30WMOS02



Nome Progetto: PA 30W MOS		Pagina: 1 di 1		Size: A3
Autore: Mauro Ucelli	Data: 19/11/08	Codice Progetto: 037		
Nome PC in Rete: \NUTSRV\	Revisione: 1.1	Nome Parte: PA 30W MOSFET		
File/Cartella: Progetti\Schede\SLPA30WMOS02	Autorizzazione:	Codice: SLPA30WMOS02		



NOME PROGETTO: PA 30W MOS

NOME PARTE: PA 30W MOSFET

AUTORE: MAURO UCCELLI

DATA: 04/11/2005 | REVISIONE: 1.0 | SCALA: 1:1 | SIZE: A4 | PAGINA: 1 DI 1

ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"

CODICE PROGETTO: 037

CODICE DISEGNO: SLPA30WMOS02

MATERIALE: <>

TRATTAMENTO: <>

PROFILO: <>

STATO: ESECUTIVO

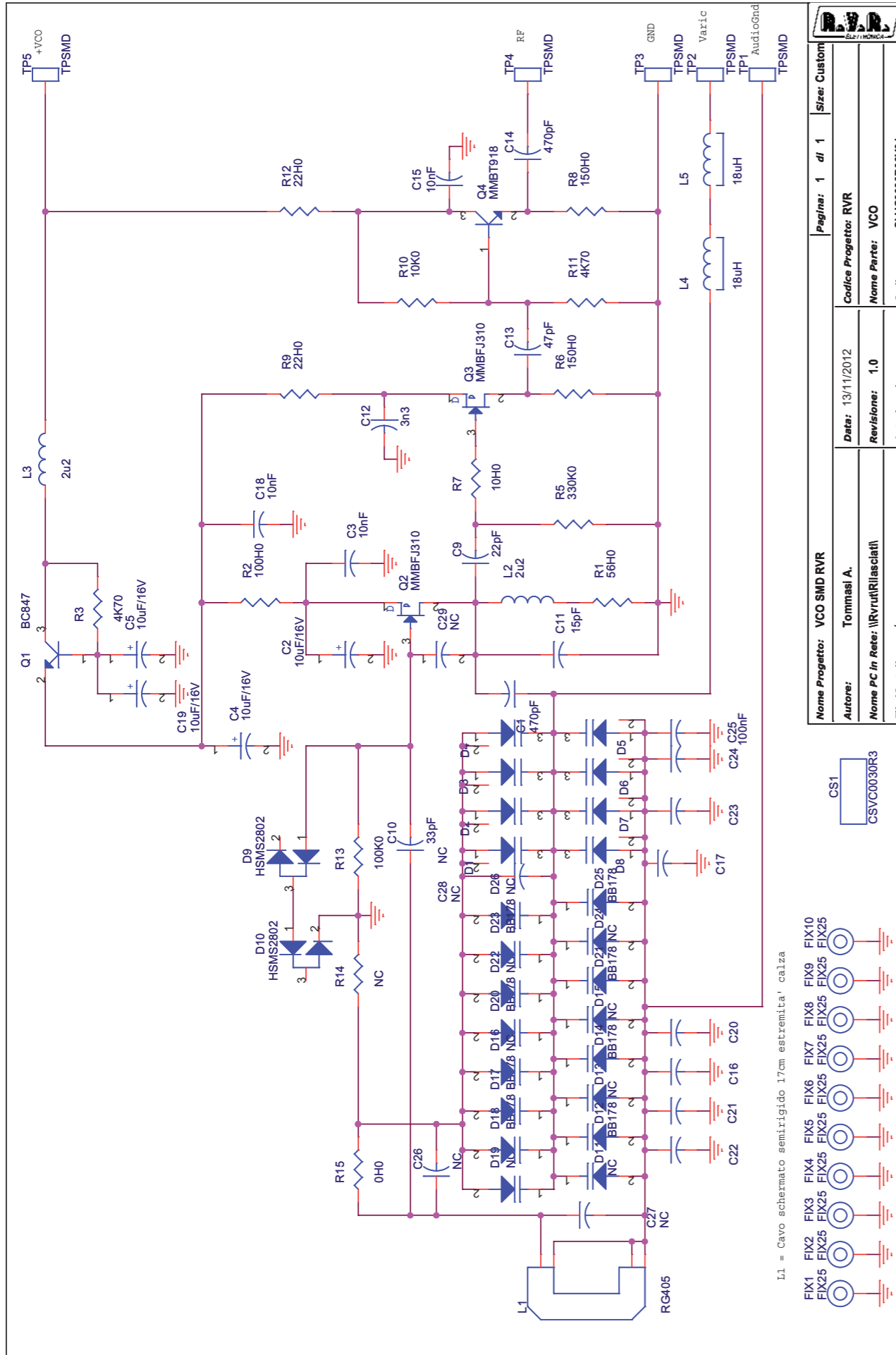
SLPA30WMOS02

PA 30W MOSFET
SLPA30WMOS02
Revision: 1.1
PA 30W MOS
Cod: 037
Mauro Ucelli
19/11/2008

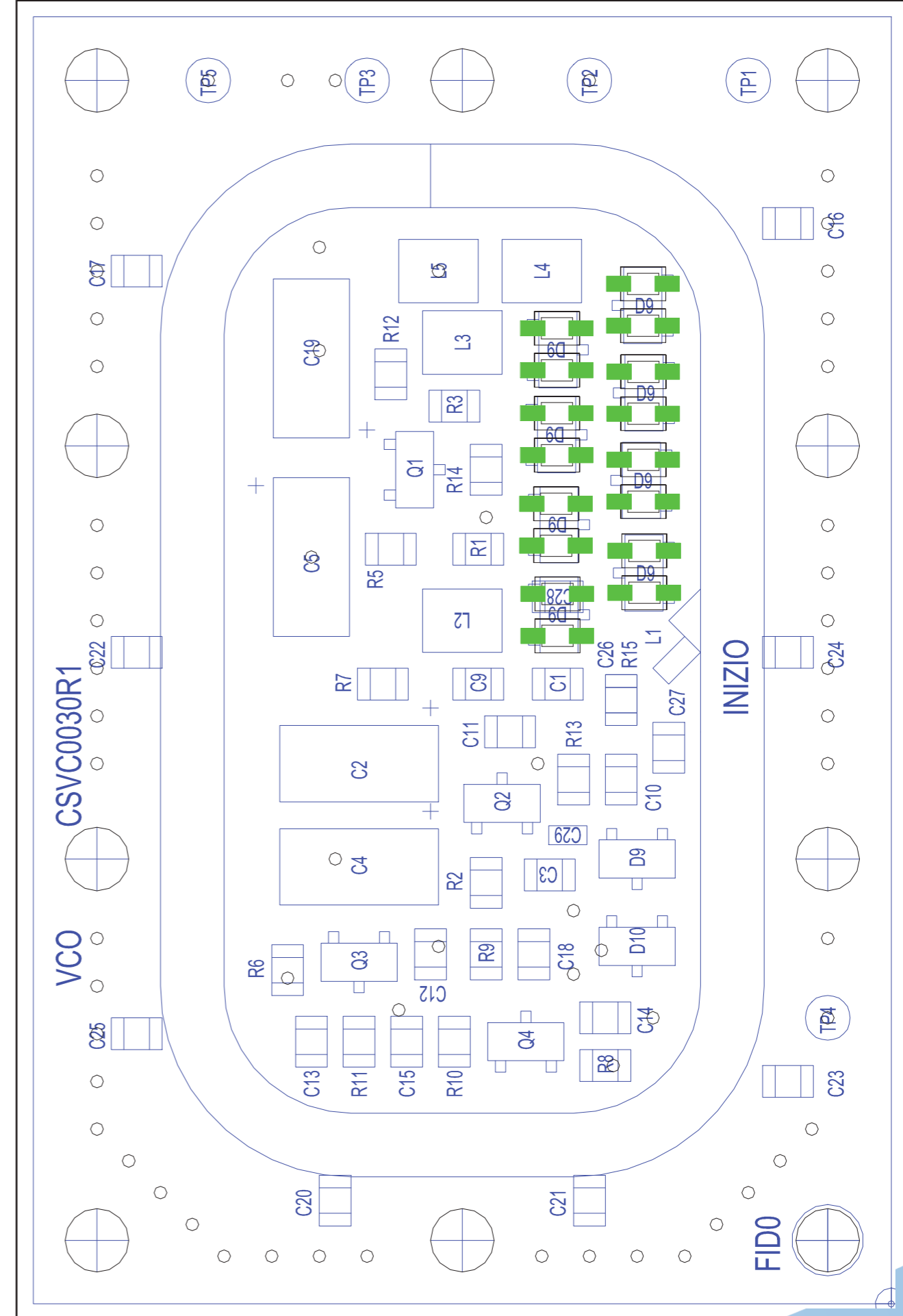
Item	Quantity	Reference	Part	Description
1	1	CN1	N_P	Conn. N da pannello
2	2	CN3,CN2	BNC_P	Conn. BNC da pannello
3	1	COAX1	RG316	Cavo coax
4	1	COAX2	RG178	Cavo coax
5	4	CPT1,CPT2,CPT3,CPT4	1n	Cond. passante
6	1	CS1	CSPA30WMOS01	Circuito stampato
7	15	C1,C2,C3,C4,C5,C6,C10, C20,C29,C30,C45,C49,C50, C69,C72	4n7	Cond. SMD 0805
8	2	C35,C7	4n7-50V	Cond. SMD 1206
9	8	C8,C54,C65,C66,C67,C68, C73,C74	NC	Cond. SMD 0805 COG
10	1	C9	7_50p	Comp. var. Murata TZB4
11	4	C11,C19,C40,C77	100n	Cond. SMD 0805
12	10	C12,C14,C16,C23,C24,C28, C38,C43,C44,C70	NC	Cond. SMD 1212 HQ
13	2	C15,C13	1p	Cond. SMD 1212 HQ
14	4	C17,C18,C37,C39	10uF	Cond. Elett. SMD d. 5mm
15	1	C21	47p	Cond. SMD 0805 COG
16	2	C42,C22	22p	Cond. SMD 1212 HQ
17	1	C25	100uF 35V	Cond. Elett. SMD d. 6.3mm
18	7	C26,C34,C41,C46,C47,C55, C58	470p	Cond. SMD 1212 HQ
19	2	C36,C27	100n50V	Cond. SMD 1206
20	8	C31,C32,C51,C52,C53,C71, C75,C76	470p	Cond. SMD 0805 COG
21	3	C33,C48,C61	68p	Cond. SMD 1212 HQ
22	2	C56,C59	27p	Cond. SMD 0805
23	1	C57	150p	Cond. SMD 1212 HQ
24	1	C60	22p	Cond. SMD 1212 HQ
25	1	C62	56p	Cond. SMD 1212 HQ
26	2	C63,C64	100p	Cond. SMD 0805 COG
27	1	C78	4p7	Cond. SMD 1212 HQ
28	1	DCPLR1	DIR_CPLR	Accopp. direz.
29	2	D2,D1	HSMS2800	
30	3	D3,D4,D11	9V1	MELF SMD Zener Diode
31	6	D5,D6,D7,D8,D9,D10	SM4004	MELF SMD Diode
32	1	D12	HSMP3810	Diodo Schottky SOT23
33	2	J1,J2	JSMD	Pad SMD a saldare
34	1	L1	18nH	Induttanza cilindrica
35	1	L2	35nH	Induttanza cilindrica
36	1	L3	95nH	Induttanza cilindrica
37	1	L4	VK200	Induttanza cilindrica VK200
38	1	L5	85nH	Induttanza cilindrica
39	2	L6,L10	2uH2	Induttanza SMD 3225 (1812)
40	3	L7,L12,L14	NC	Induttanza SMD 3225 (1210)
41	1	L8	75nH	Induttanza cilindrica
42	1	L9	68nH	Induttanza cilindrica
43	1	L11	47nH	Induttanza SMD 3225 (1210)
44	1	L13	25nH	Induttanza cilindrica
45	1	L15	175nH	Induttanza cilindrica
46	1	MOS1	BLF245	Power mosfet RF

47	1	PD1	PAD	
48	4	Q1,Q2,Q3,Q4	BFG35	Trans. NPN SOT223
49	1	RV1	1k	Trimm. multi SMD PVG5 Murata
50	2	R1,R2	10k	Res. SMD 0805
51	4	R3,R4,R11,R91	1k	Res. SMD 0805
52	2	R5,R8		47 Res. SMD 0805
53	17	R6,R7,R13,R15,R17,R19, R21,R23,R25,R27,R29,R34, R35,R36,R43,R73,R76	51R1W	Res. SMD 2512
54	2	R9,R81	22R	Res. SMD 0805
55	15	R10,R12,R47,R48,R49,R50, R67,R68,R69,R70,R71,R84, R85,R86,R87	180R	Res. SMD 0805
56	9	R14,R16,R20,R22,R26,R28, R37,R38,R39	22R1W	Res. SMD 2512
57	2	R57,R18	1k5	Res. SMD 0805
58	1	R24		56 Res. SMD 0805
59	6	R30,R33,R55,R58,R79,R80	2R2	Res. SMD 0805
60	6	R31,R32,R41,R42,R44,R54	270R	Res. SMD 0805
61	4	R40,R64,R82,R83	4R7	Res. SMD 0805
62	1	R45	220R	Res. SMD 0805
63	4	R46,R61,R66,R75	51R	Res. SMD 0805
64	2	R51,R53	NC	Res. SMD 2512
65	1	R52	6k8	Res. SMD 0805
66	2	R60,R56	390R	Res. SMD 0805
67	1	R59	4k7	Res. SMD 0805
68	2	R63,R62	2R21W	Res. SMD 2512
69	2	R65,R74	NC	Res. SMD 0805
70	1	R72	100R	Res. SMD 0805
71	2	R78,R77	10R	Res. SMD 0805
72	1	R88	22R	Res. SMD 2010
73	1	R89	100R	Res. 2W tradizionale
74	1	R90	22R	Res. 2W tradizionale
75	11	TL1,TL2,TL3,TL4,TL5,TL6, TL7,TL8,TL9,TL10,TL11	TL	Linea strip CS
75	5	W1,W2,W3,W4,W7	WIRE	Filo a saldare

SLVC0030R03V01



Nome Progetto: VCO SMD RVR	Pagina: 1 di 1	Size: Custom
Autore: Tommasi A.	Data: 13/11/2012	Codice Progetto: RVR
Nome PC in Rete: \RVR\ut\l\asciati\	Revisione: 1.0	Nome Parte: VCO
File/Cartella: /	Autorizzazione:	Codice: SLVC0030R03V01



SLVC0030R03V01

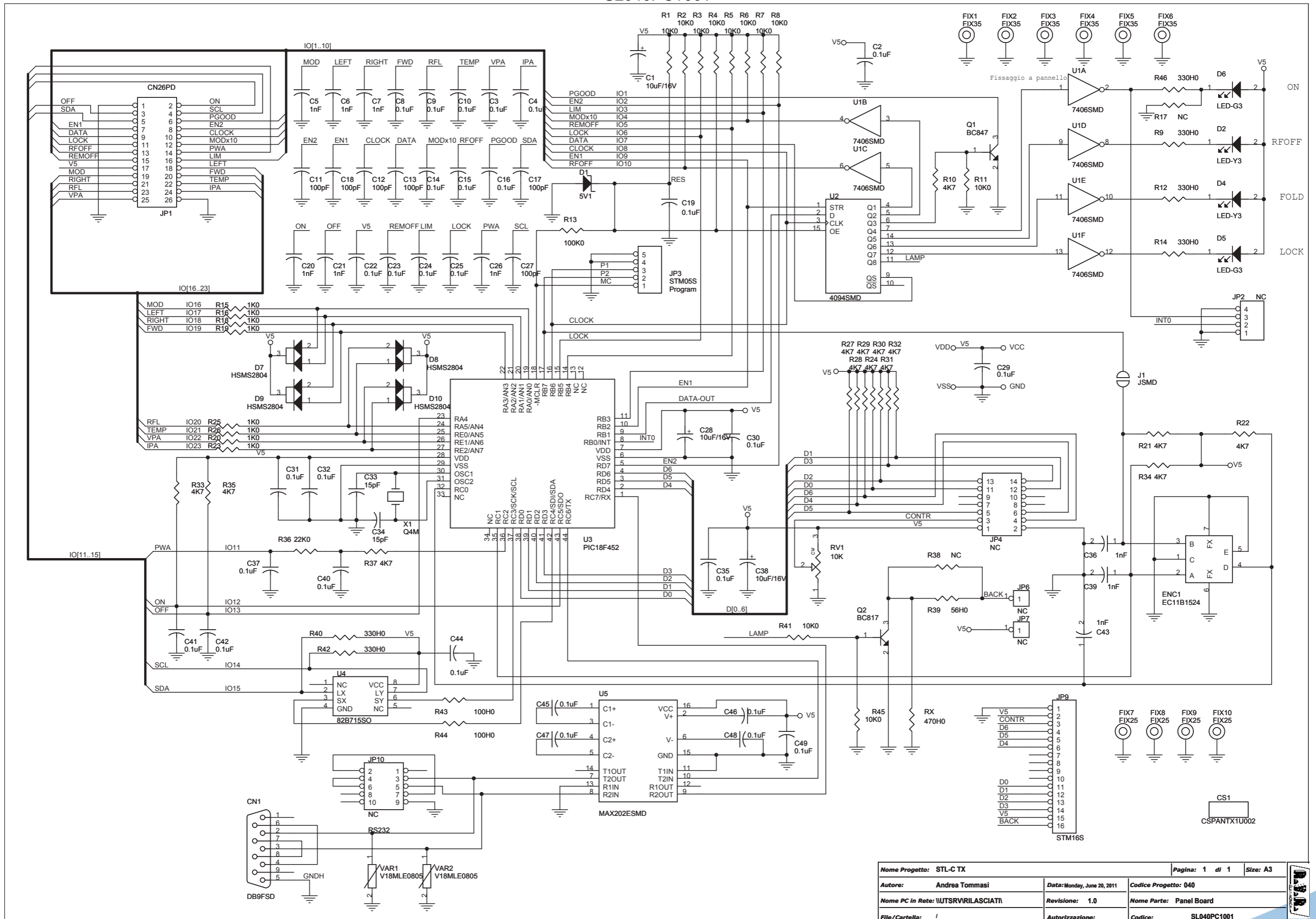
VCO Revised: Tuesday, November 13, 2012
SLVC0030R03V01 Revision: 1.0

A. Tommasi
VCO SMD RVR
RVR

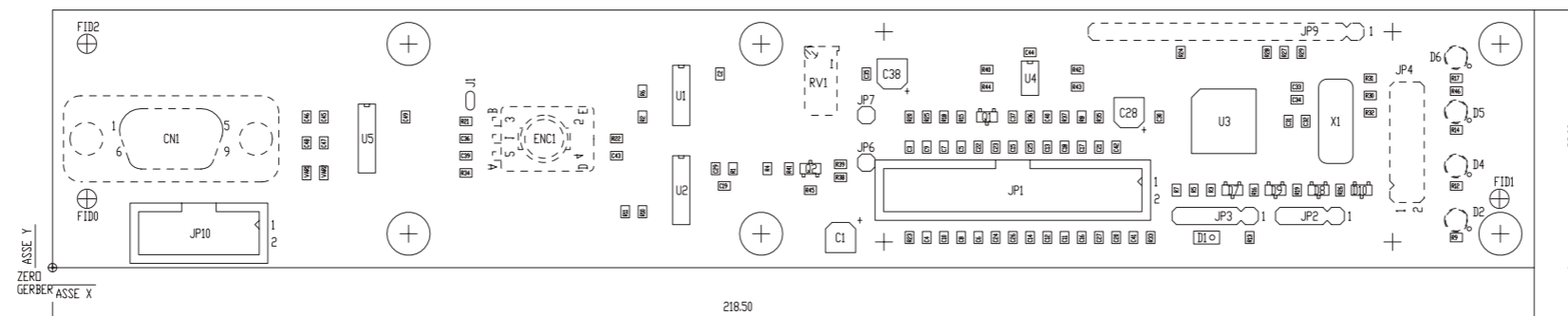
Tommasi A.

Item	Quantity	Reference	Part	Description	Code
1	1	CS1	CSVC0030R3	Circuito stampato	CSVC0030R3
2	2	C1,C14	470pF	Cond. SMD 0805	CCC085471JCC
3	4	C2,C4,C5,C19	10uF/16V	Cond. Elett. SMD tant. size C	CET106C160SM
4	3	C3,C15,C18	10nF	Cond. SMD 0805	CCC085103KXC
5	1	C9	22pF	Cond. SMD 0805	CCC085220JCC
6	1	C10	33pF	Cond. SMD 0805	CCC085330JCC
7	1	C11	15pF	Cond. SMD 0805	CCC085150JCC
8	1	C12	3n3	Cond. SMD 0805	CCC085332KXC
9	1	C13	47pF	Cond. SMD 0805	CCC085470JCC
10	8	C16,C17,C20,C21,C22,C23, C24,C25	100nF	Cond. SMD 0805	CCC063104KXC
11	3	C26,C27,C28	NC	Cond. SMD 0805	
12	1	C29	NC	Cond. SMD 0603	
13	8	D1,D2,D3,D4,D5,D6,D7,D8	NC	Diodo Varicap SMD SOT23	
14	2	D9,D10	HSMS2802	Doppio Diodo SMD SOT23	DISHSMS2802
15	8	D11,D13,D15,D16,D19,D22, D24,D26	NC	Diodo varicap SOD323	
16	8	D12,D14,D17,D18,D20,D21, D23,D25	BB178	Diodo varicap SOD323	DIVBB178
17	10	FIX1,FIX2,FIX3,FIX4,FIX5, FIX6,FIX7,FIX8,FIX9, FIX10	FIX25	Foro fissaggio 2.5mm	
18	1	L1	RG405	Induttanza a cavo RG	CAVRG405
19	2	L2,L3	2u2	Induttanza SMD 3225 (1210)	IMP2U2S126S
20	2	L4,L5	18uH	Induttanza SMD 3225 (1210) Schermata	IMP18US126S
21	1	Q1	BC847	Trans. NPN SOT23	TRNBC847
22	2	Q2,Q3	MMBFJ310	Trans. FET SOT23	TRNMMBFJ310
23	1	Q4	MMBT918	Trans. NPN SOT23	TRNMMBT918
24	1	R1	56H0	Res. SMD 0805 1%	RCH085F0056H
25	1	R2	100H0	Res. SMD 0805 1%	RCH085F0100H
26	2	R3,R11	4K70	Res. SMD 0805 1%	RCH085F004K7
27	1	R5	330K0	Res. SMD 0805 1%	RCH085F0330K
28	2	R6,R8	150H0	Res. SMD 0805 1%	RCH085F0150H
29	1	R7	10H0	Res. SMD 0805 1%	RCH085F0010H
30	2	R9,R12	22H0	Res. SMD 0805 1%	RCH085F0022H
31	1	R10	10K0	Res. SMD 0805 1%	RCH085F0010K
32	1	R13	100K0	Res. SMD 0805 1%	RCH085F0100K
33	1	R14	NC	Res. SMD 0805 1%	
34	1	R15	OH0	Res. SMD 0805 1%	RCH085F0000H
35	5	TP1,TP2,TP3,TP4,TP5	TPSMD	Piazzola SMD	

SL040PC1001



Nome Progetto: STL-C TX		Pagina: 1 di 1		Size: A3	
Autore: Andrea Tommasi		Data: Monday, June 20, 2011		Codice Progetto: 040	
Nome PC in Rete: IUTSRVIRILASCIATI		Revisione: 1.0		Nome Parte: Panel Board	
File/Cartella: /		Autorizzazione:		Codice: SL040PC1001	



RILASCIO: 22/11/04			DIS. S.POL.
REV:			CTR. A2
			LATO PIANO DI MONTAGGIO
			VISTA LATO COMPONENTI
DIM.SCHEDA: VEDI QUOTE	DENOMINAZIONE SCHEDA PANEL BOARD		
TRATT.: STANDARD COSTRUTTORE			
MAT.: FR4-74 1.6mm Cu35um	CODICE CSPANTX1U002	RVR ELETTRONICA S.P.A.	SCALA 1:1
VISTA POSITIVA			

SL040PC1001

Panel Board - SL040PC1001
06/03/2006 Revision: 1.0
STL-C TX
40

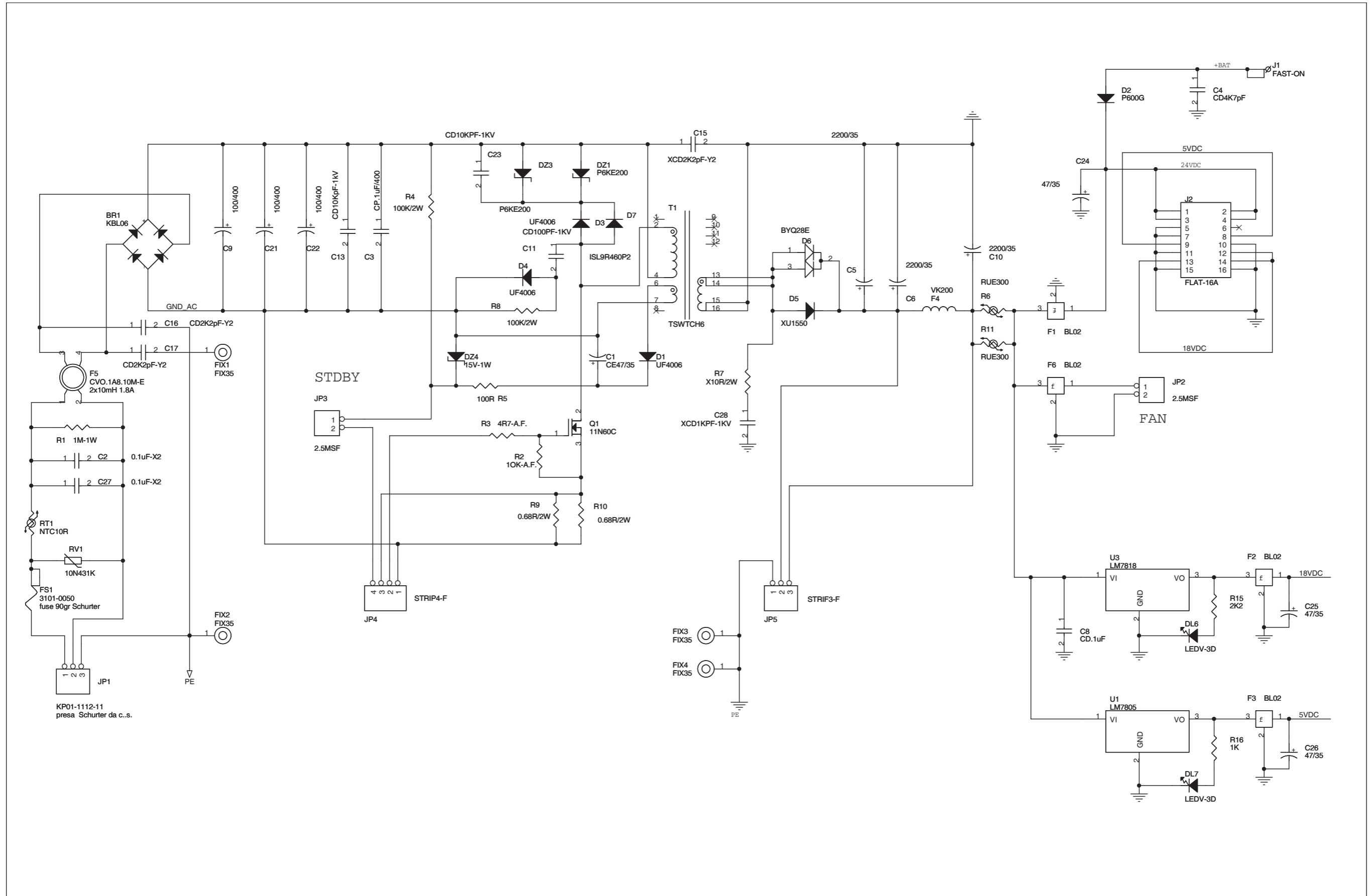
Andrea Tommasi

Item	Quantity	Reference	Part	Description	Code
1	1	CN1	DB9FSD	Connettore DB9 femm. cs	CNTDB9FCS1
2	1	CS1	CSPANTX1U002	Circuito stampato	CSPANTX1U002
3	3	C1, C28, C38	10uF/16V	Cond. Elett. SMD d. 4mm	CES106A160
4	29	C2, C3, C4, C8, C9, C10, C14, C15, C16, C19, C22, C23, C24, C25, C29, C30, C31, C32, C35, C37, C40, C41, C42, C44, C45, C46, C47, C48, C49	0.1uF	Cond. SMD 0805	CCC085104KXC
5	9	C5, C6, C7, C20, C21, C26, C36, C39, C43	1nF	Cond. SMD 0805	CCC085102JNC
6	6	C11, C12, C13, C17, C18, C27	100pF	Cond. SMD 0805	CCC085101JCC
7	2	C33, C34	15pF	Cond. SMD 0805	CCC085150JCC
8	1	D1	MINIMELF SMD Zener Diode	5V1	DIZ5V1MINI
9	2	D2, D4	LED-Y3	LED dia. 3mm	LEDG03
10	2	D5, D6	LED-G3	LED dia. 3mm	LEDV03
11	4	D7, D8, D9, D10	HSMS2804	Doppio Diode SMD SOT23	DISHSMS2804
12	1	ENC1	EC11B1524	Incremental encoder ALPS EC11	CMMRALPS
13	6	FIX1, FIX2, FIX3, FIX4, FIX5, FIX6	FIX35	Foro fissaggio	
14	4	FIX7, FIX8, FIX9, FIX10	FIX25	Foro fissaggio 2.5mm	NOTA 2
15	1	JP1	CN26PD	Connettore 26 poli Flat cs	CNTMCS26A
16	1	JP2	NC	Strip maschio 4 pin	
17	1	JP3	STM05S	Strip maschio 5 pin	NOTA 1
18	1	JP4	NC	Strip maschio 14 pin doppia fila	
19	2	JP6, JP7	NC	Strip femmina 1 pin	
20	1	JP9	STM16S	Strip maschio 16 pin	NOTA 1
21	1	JP10	NC	Connettore 10 poli Flat cs	
22	1	J1	J5MD	Pad SMD a saldare	
23	1	Q1	BC847	Trans. NPN SOT23	TRNBC847
24	1	Q2	BC817	Trans. NPN SOT23	TRNBC817
25	1	RV1	10K	Trimmer Rg V 3296W	RVT3296WK010
26	1	RX NOTA3	470H0	Res. SMD 0805	RCH085F0470H
27	11	R1, R2, R3, R4, R5, R6, R7, R8, R11, R41, R45	10K0	Res. SMD 0805	RCH085F0010K
28	1	R13	100K0	Res. SMD 0805	RCH085F0100K
29	6	R9, R12, R14, R40, R42, R46	330H0	Res. SMD 0805	RCH085F0330H
30	14	R10, R21, R22, R24, R27, R28, R29, R30, R31, R32, R33, R34, R35, R37	4K7	Res. SMD 0805	RCH085F004K7
31	8	R15, R16, R18, R19, R20, R23, R25, R26	1K0	Res. SMD 0805	RCH085F0001K
32	2	R17, R38	NC	Res. SMD 0805	
33	1	R36	22K0	Res. SMD 0805	RCH085F0022K
34	1	R39	56H0	Res. SMD 0805	RCH085F0056H
35	2	R43, R44	100H0	Res. SMD 0805	RCH085F0100H
36	1	U1	7406SMD	Hex inv OC SMD SO14	CID7406S
37	1	U2	4094SMD	Shift Reg. SMD SO16	CIDCD4094S
38	1	U3	PIC18F452	TQFP44 SMD Microprocessor	CIDPIC18F452
39	1	U4	82B715SO	IIC Bus driver SMD SO8	CID82B715S
40	1	U5	MAX202ESMD	RS232 Driver SMD SO16	CIDMX202ESDS
41	2	VAR1, VAR2	V18MLE0805	ESD SMD protector	MOV018V085
42	1	X1	Q4M	Quarzo SMD HC49SMD	QRZ000004MC

NOTA 1 Spezzoni strip maschio, la 16 pin per collegare il display

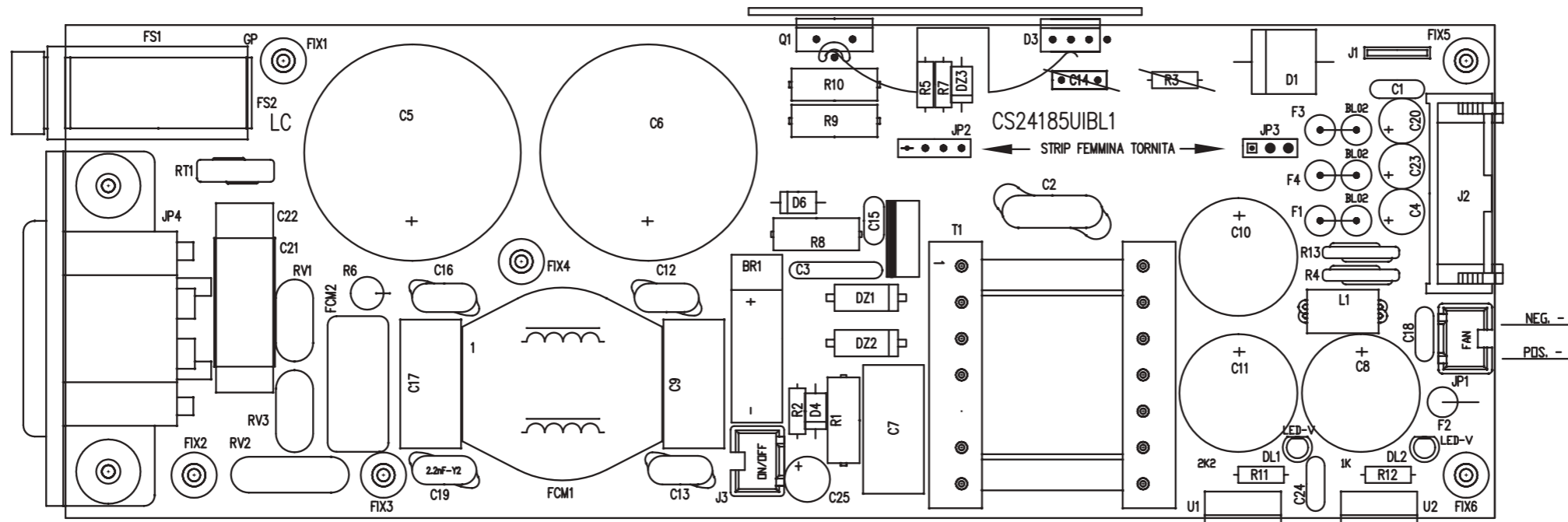
NOTA 2 Fissare il display con 2 torrette isolate DSTPH6X2.9 montate dalla parte opposta della strip
Il display dovrebbe essere quello BLU APEX RC162051BNHDWB-V1 oppure SDEC (Mectronic) SSC2P16DLNW-E

NOTA 3 Montata a mano sotto il CS vedi foto "Modifica02"



KP01-1112-11
presa Schurter da c.s.

Nome Progetto: BLUES30NV	Pagina:1 di 2	Size: A3
Autore: GRIPTECH	Data: 10/01/2005	Codice Progetto: FLY100 3842
Nome PC in Rete: progetti su "UT_SRV"	Revisione: 2.0	Nome Parte: POWER SUPPLY 5-18-24VC 100W
File/Cartella: PS24185UIBL2	Autorizzazione:	Codice: PS24185UIBL2



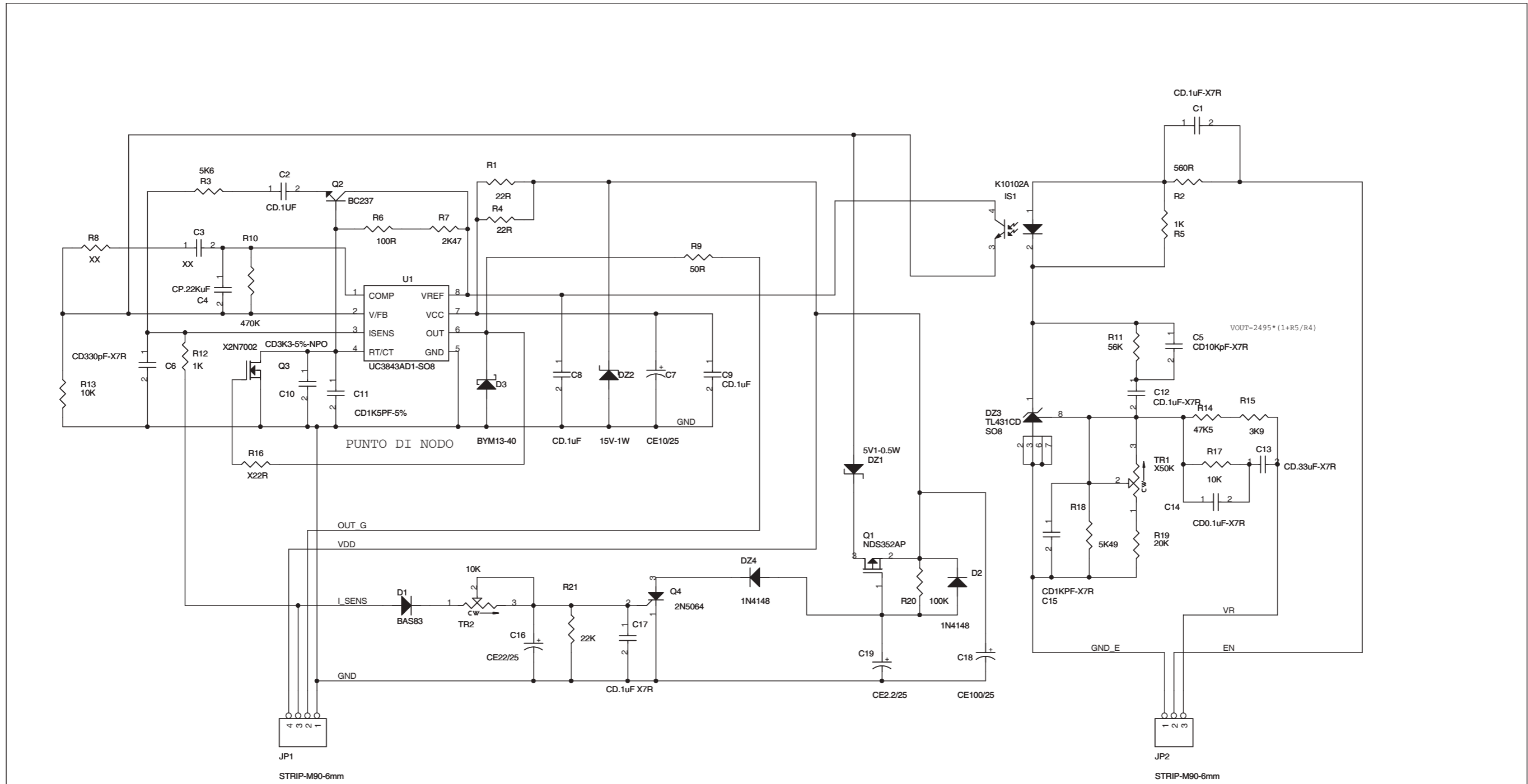
NOME PROGETTO: BLUES30NV	NOME PARTE: Power Supply Layout
AUTORE: Griptech	DATA: 16/03/2005
ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"	REVISIONE: 1.0
MATERIALE: /	SCALA: 1:1
TRATTAMENTO: /	SIZE: A4
PROFILO: /	PAGINA: 1 DI 2
STATO: /	CODICE DISEGNO: PS24185UIBL2

PS24185UIBL2

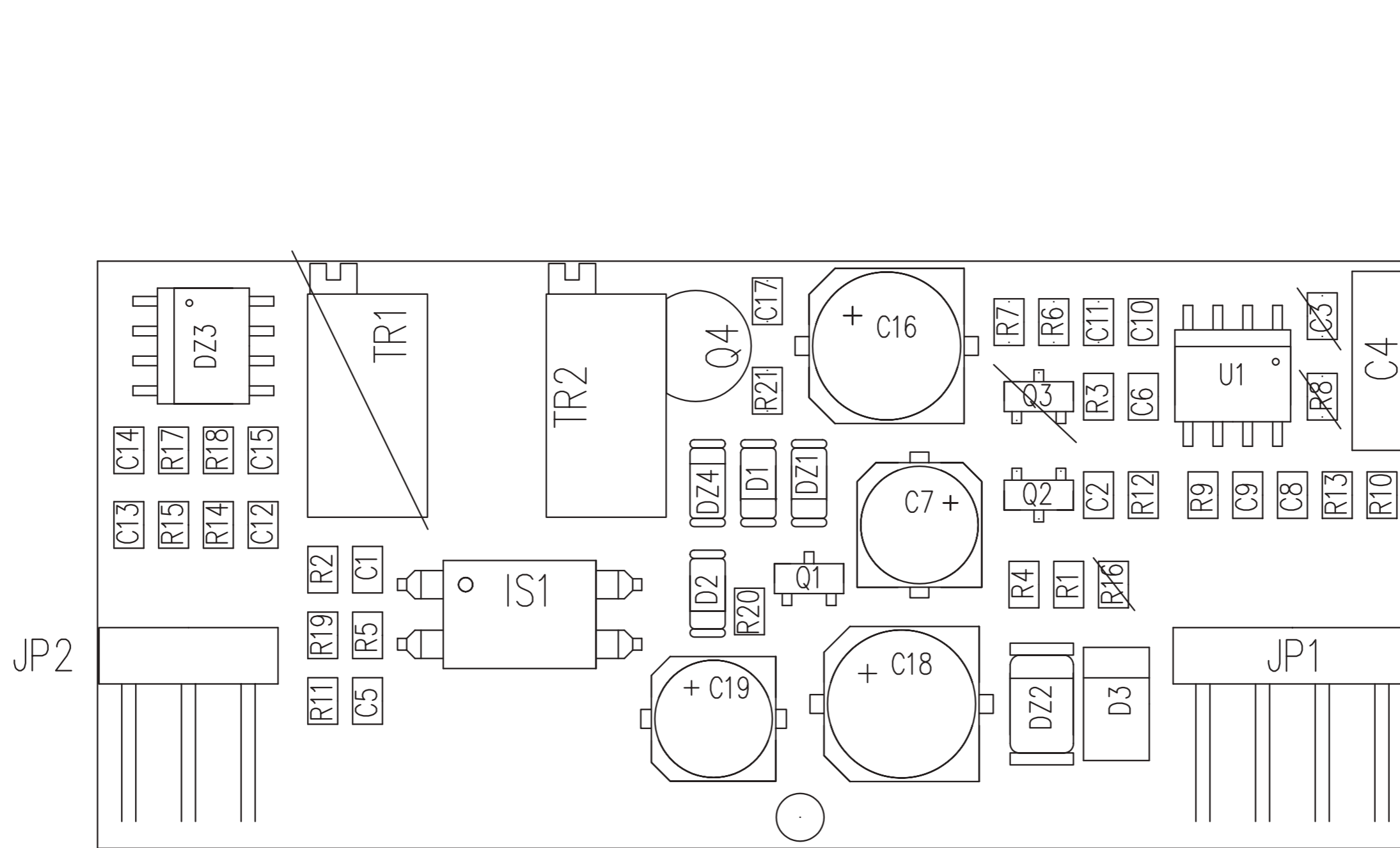
Revised: Wednesday, March 16, 2005

Revision:

Item	Quantity	Reference	Part
1	1	BR1	KBL06
2	2	C2, C27	0.1uF-X2
3	1	C3	CP.1uF/400
4	1	C4	CD4K7pF
5	3	C5, C6, C10	2200/35
6	1	C8	CD.1uF
7	3	C9, C21, C22	100/400
8	1	C11	CD100PF-1KV
9	2	C13, C23	CD10KPF-1KV
10	1	C15	XCD2K2pF-Y2
11	2	C16, C17	CD2K2pF-Y2
12	3	C24, C25, C26	47/35
13	1	C28	XCD1KPF-1KV
14	2	DL6, DL7	LEDV-3D
15	2	DZ1, DZ3	P6KE200
16	1	DZ4	15V-1W
17	3	D1, D3, D4	UF4006
18	1	D2	P600G
19	1	D5	XU1550
20	1	D6	BYQ28E
21	1	D7	ISL9R460P2
22	1	FS1	3101-0050
23	4	F1, F2, F3, F6	BL02
24	1	F5	CVO.1A8.10M-E
25	1	JP1	KP01-1112-11
26	2	JP2, JP3	2.5MSF
27	1	J1	FAST-ON
28	1	J2	FLAT-16A
29	1	RT1	NTC10R
30	1	RV1	10N431K
31	1	R1	1M-1W
32	1	R2	10K-A.F.
33	1	R3	4R7-A.F.
34	2	R4, R8	100K/2W
35	1	R5	100R
36	1	R7	X10R/2W
37	2	R9, R10	0.68R/2W
38	1	R15	2K2
39	1	R16	1K
40	1	T1	TSWTCH6
41	1	U1	LM7805
42	1	U3	LM7818



Nome Progetto: BLUES30NV	Data: 23/02/2005	Codice Progetto: CSFLYCNT01
Autore: GRIPTECH	Revisione: 1.0	Nome Parte: UC3843 CONTROL
Nome PC in Rete: progetti su "UT_SRV"	Autorizzazione:	Codice: PS24185UIBL2
File/Cartella: PS24185UIBL2		



	NOME PROGETTO: BLUES30NV	NOME PARTE: UC3843 CONTROL
AUTORE: Griptech	DATA: 16/03/2005	REVISIONE: 1.0
ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"	SCALA: 1:1	SIZE: A4
MATERIALE: /	CODICE PROGETTO: CSFLYCNTO1	PAGINA: 2 DI 2
TRATTAMENTO: /	CODICE DISEGNO: PS24185UIBL2	STATO: /
PROFILO: /		

PS24185UIBL2

Revised: Wednesday, March 16, 2005
Revision:

Item	Quantity	Reference	Part
1	2	C1, C12	CD.1uF-X7R
2	3	C2, C8, C9	CD.1uF
3	2	C3, R8	XX
4	1	C4	CP.22KuF
5	1	C5	CD10KpF-X7R
6	1	C6	CD330pF-X7R
7	1	C7	CE10/25
8	1	C10	CD3K3-5%-NPO
9	1	C11	CD1K5PF-5%
10	1	C13	CD.33uF-X7R
11	1	C14	CD0.1uF-X7R
12	1	C15	CD1KPF-X7R
13	1	C16	CE22/25
14	1	C17	CD.1uF X7R
15	1	C18	CE100/25
16	1	C19	CE2.2/25
17	1	DZ1	5V1-0.5W
18	1	DZ2	15V-1W
19	1	DZ3	TL431CD
20	2	D2, DZ4	1N4148
21	1	D1	BAS83
22	1	D3	BYM13-40
23	1	IS1	K10102A
24	2	JP1, JP2	STRIP-M90-6mm
25	1	Q1	NDS352AP
26	1	Q2	BC237
27	1	Q3	X2N7002
28	1	Q4	2N5064
29	2	R1, R4	22R
30	1	R2	560R
31	1	R3	5K6
32	2	R5, R12	1K
33	1	R6	100R
34	1	R7	2K47
35	1	R9	50R
36	1	R10	470K
37	1	R11	56K
38	3	TR2, R13, R17	10K
39	1	R14	47K5
40	1	R15	3K9
41	1	R16	X22R
42	1	R18	5K49
43	1	R19	20K
44	1	R20	100K
45	1	R21	22K
46	1	TR1	X50K
47	1	U1	UC3843AD1-SO8