TEX30-LCD

User Manual

Volume 2: Technical Appendix

Manufactured by R.V.R. ELETTRONICA **Italy**

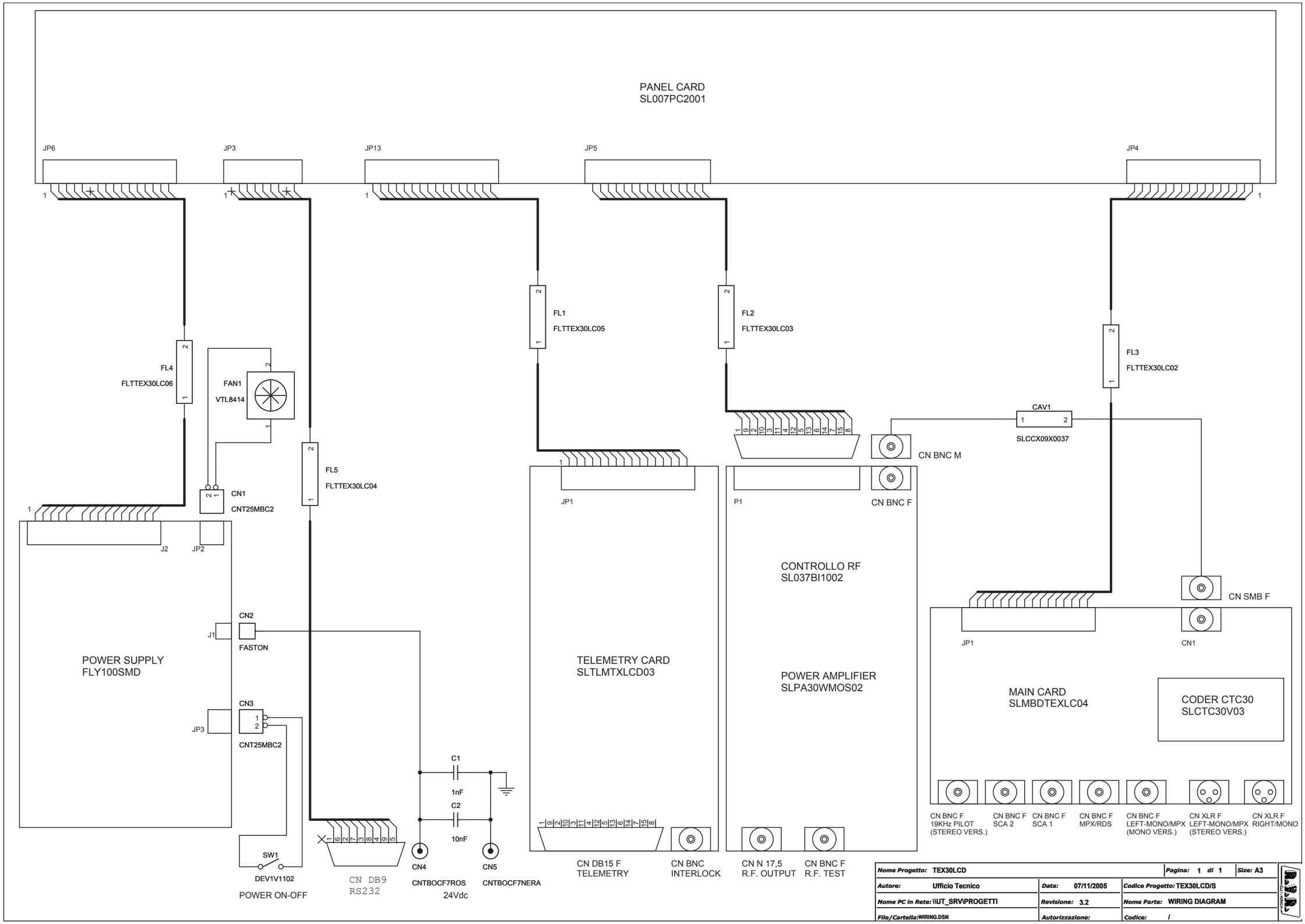
Appendix A Piani di montaggio, schemi elettrici, liste componenti / *Component layouts, schematics, bills of material*

Questa parte del manuale contiene i dettagli tecnici riguardanti la costruzione delle singole schede componenti il TEX30-LCD. L'appendice è composta dalle seguenti sezioni:

This part of the manual contains the technical details about the different boards of the TEX30-LCD. This appendix is composed of the following sections:

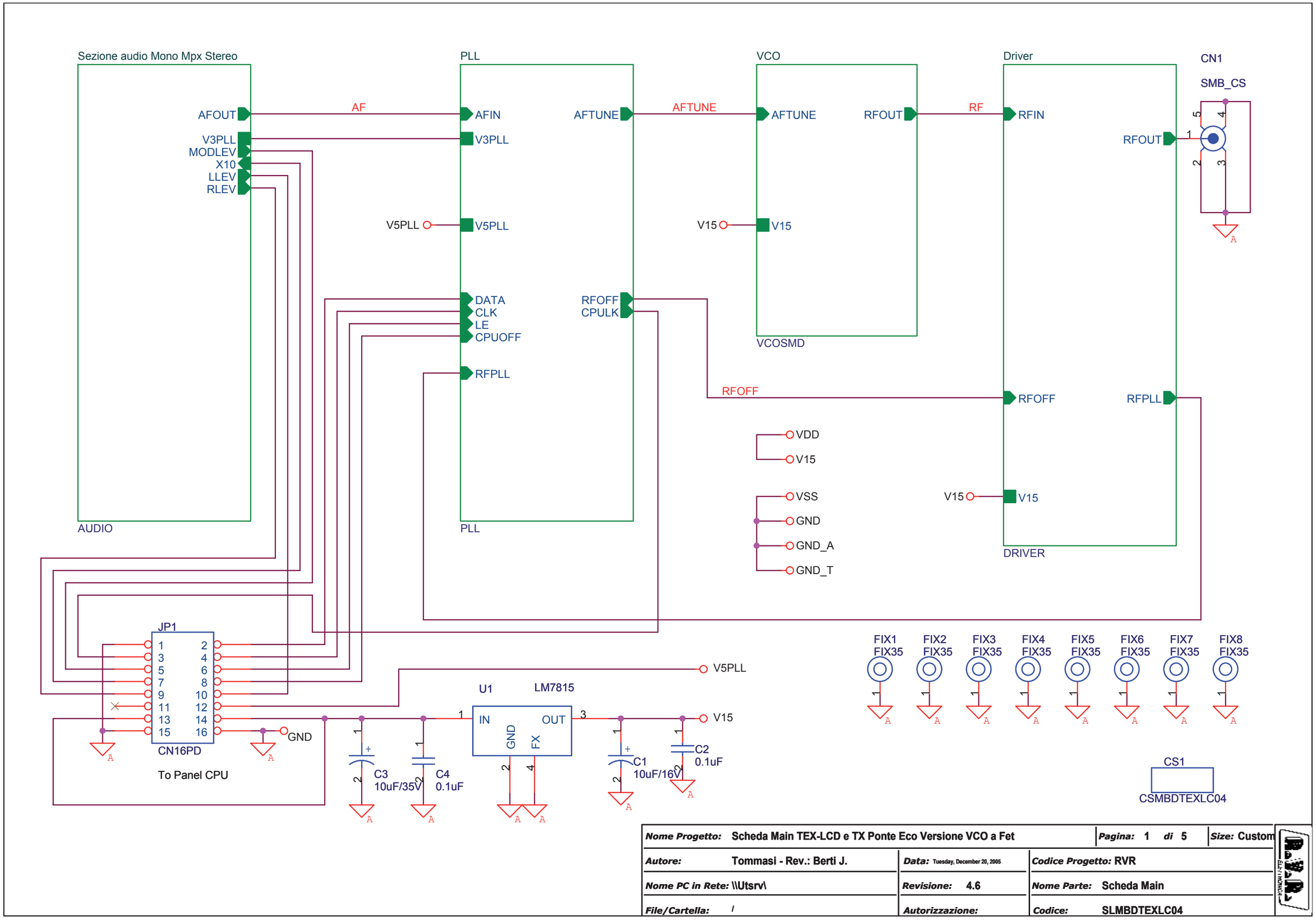
Document History

Date	Version	Reason	Code	Editor
16/03/05	2.4	Main Card Upgraded	N.D.	J.H. Berti
01/04/05	2.5	Wiring Diagram, Power Amplifier & Power Supply Upgraded, Control Card Added	N.D.	J.H. Berti
10/05/05	2.6	Wiring Diagram & Panel Card upgaded	N.D.	J.H. Berti
07/11/05	2.7	Wiring Diagram & Power Amplifier upgaded	RM42RVR05/RM1305	J.H. Berti
10/01/06	2.8	SL007PC2001A & SLMBDTEXLC04 upgraded	RM1405/RM2505	J.H. Berti

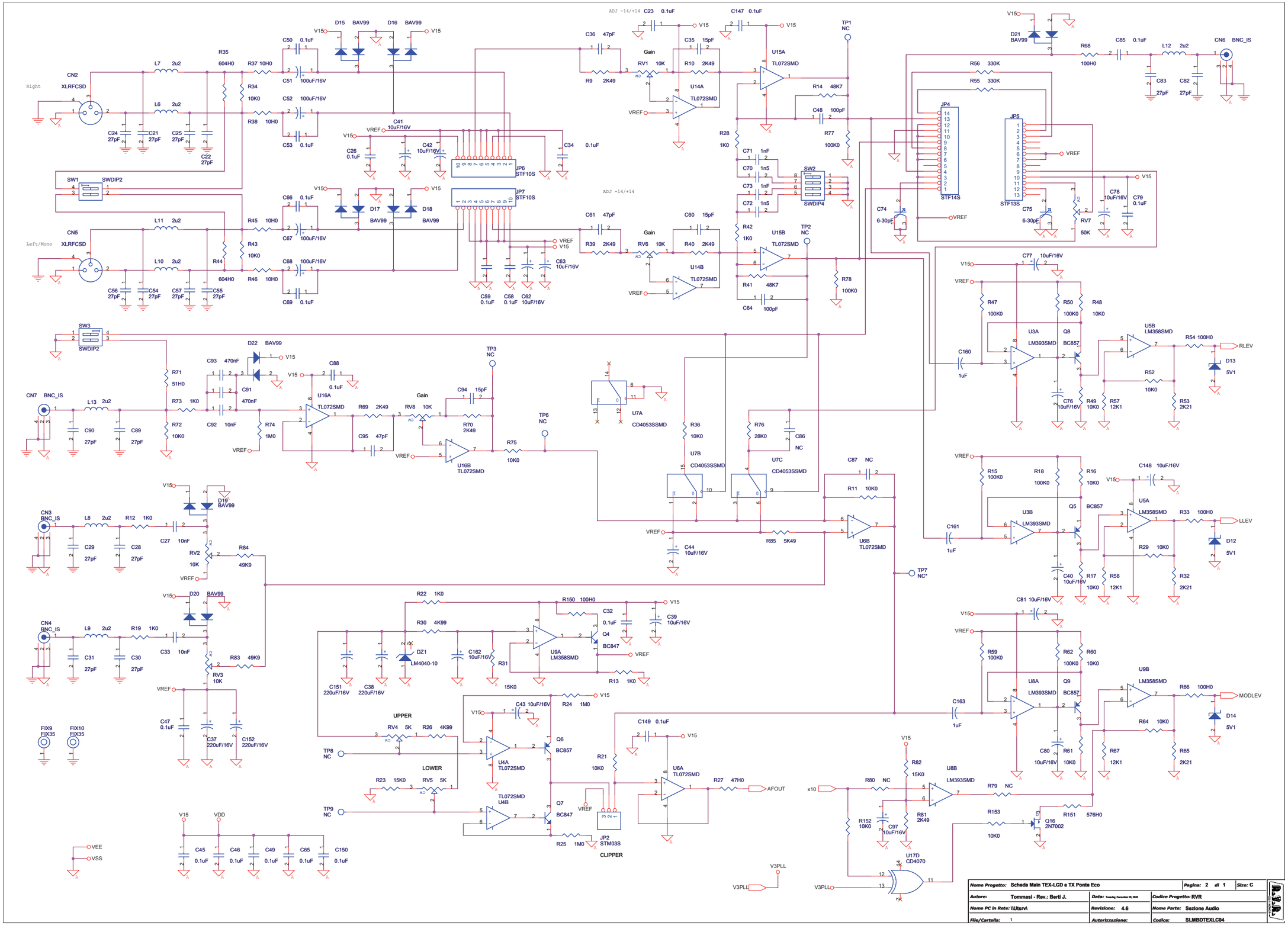

PANEL CARD
SL007PC2001
JP6
JP3
JP13
JP5
JP4
FL4
FLTTEX30LC06
FAN1
VTL8414
FL5
FLTTEX30LC04
FL1
FLTTEX30LC05
FL2
FLTTEX30LC03
FL3
FLTTEX30LC02
CAV1
SLCCX09X0037
CN BNC M
CN BNC F
CN1
CNT25MBC2
J2
JP2
CN2
FASTON
J1
POWER SUPPLY
FLY100SMD
CN3
CNT25MBC2
JP3
SW1
DEV1V1102
POWER ON-OFF
CN DB9
RS232
C1
1nF
C2
10nF
CN4
CNTBOCF7ROS
CN5
CNTBOCF7NERA
24Vdc
JP1
TELEMETRY CARD
SLTLMTXLCD03
CN DB15 F
TELEMETRY
CN BNC
INTERLOCK
P1
CONTROLLO RF
SL037BI1002
POWER AMPLIFIER
SLPA30WMOS02
CN N 17,5
R.F. OUTPUT
CN BNC F
R.F. TEST
CN SMB F
MAIN CARD
SLMBDTEXLC04
CODER CTC30
SLCTC30V03
CN BNC F
19KHz PILOT
(STEREO VERS.)
CN BNC F
SCA 2
CN BNC F
SCA 1
CN BNC F
MPX/RDS
CN BNC F
LEFT-MONO/MPX
(MONO VERS.)
CN XLR F
LEFT-MONO/MPX
(STEREO VERS.)
CN XLR F
RIGHT/MONO
Nome Progetto: TEX30LCD
Pagina: 1 di 1
Size: A3
Autore: Ufficio Tecnico
Data: 07/11/2005
Codice Progetto: TEX30LCD/S
Nome PC in Rete: \\UT_SRV\PROGETTI
Revisione: 3.2
Nome Parte: WIRING DIAGRAM
File/Cartella: WIRING.DSN
Autorizzazione:
Codice: /

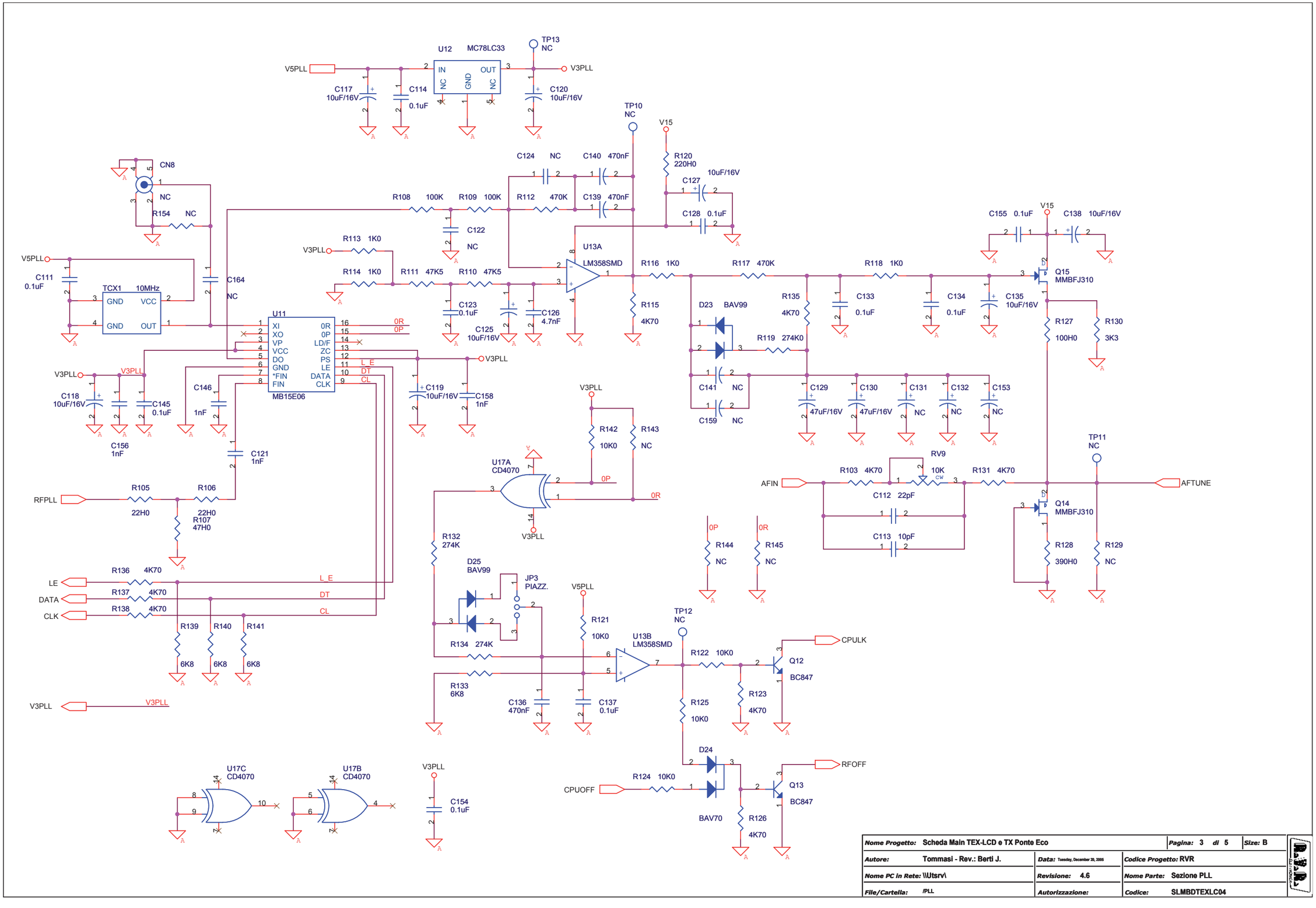
WIRING DIAGRAM - Bill Of Materials
TEX30LCD
Revisione 3.2 Data:07/11/2005

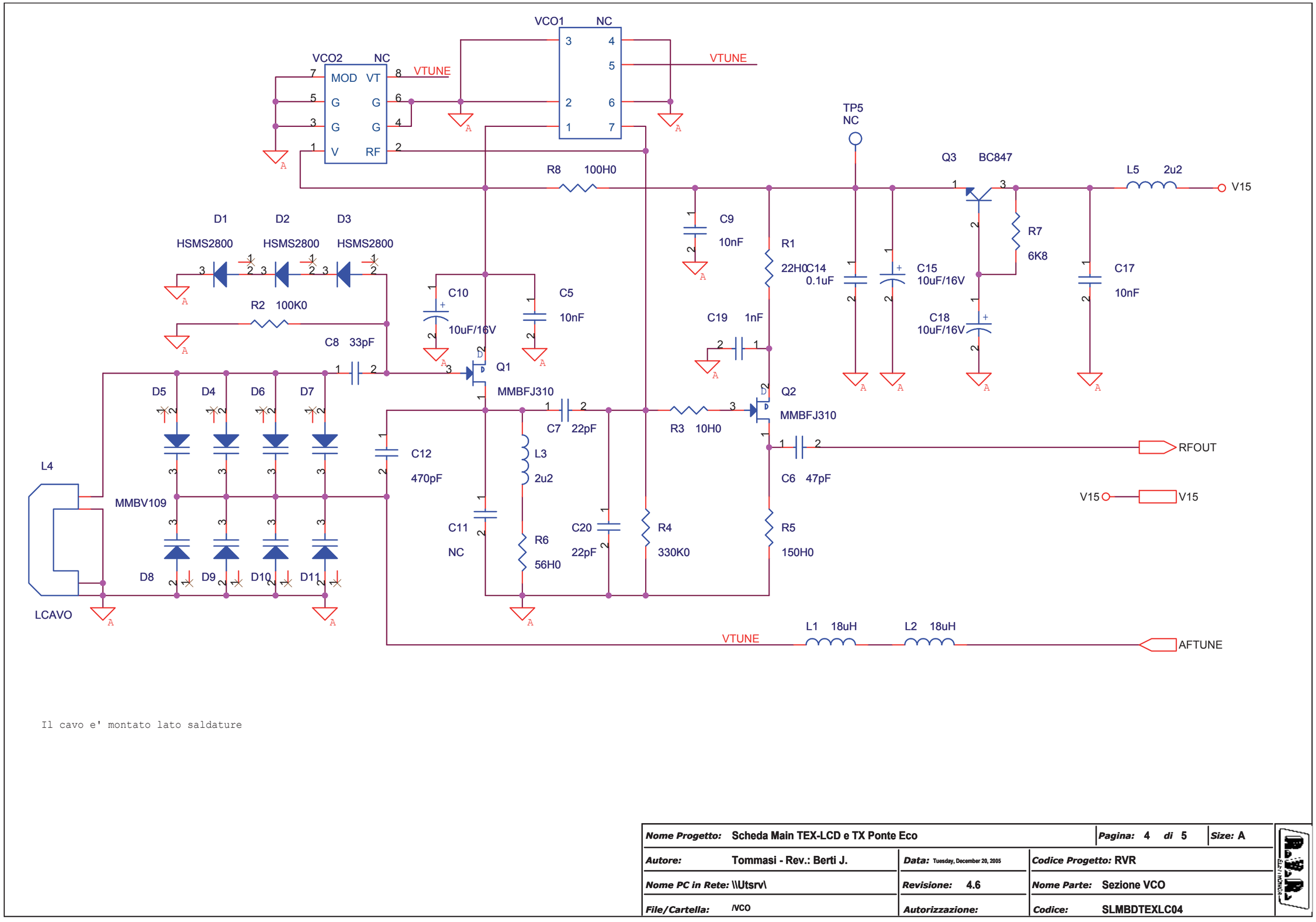
Item	Quantity	Reference	Part
1	1	CAV1	SLCCX09X0037
2	2	CN1,CN3	CNT25MBC2
3	1	CN2	FASTON
4	1	CN4	CNTBOCF7ROS
5	1	CN5	CNTBOCF7NERA
6	1	C1	1nF
7	1	C2	10nF
8	1	FAN1	VTL8414
9	1	FL1	FLTTEX30LC05
10	1	FL2	FLTTEX30LC03
11	1	FL3	FLTTEX30LC02
12	1	FL4	FLTTEX30LC06
13	1	FL5	FLTTEX30LC04
14	1	SW1	DEV1V1102



Nome Progetto:	Scheda Main TEX-LCD e TX Ponte Eco Versione VCO a Fet			**Pagina:** 1 di 5	**Size:** Custom
Autore:	Tommasi - Rev.: Berti J.	**Data:** Tuesday, December 20, 2005		**Codice Progetto:** RVR	
Nome PC in Rete:	\\Utsrv\	**Revisione:**	4.6	**Nome Parte:**	Scheda Main
File/Cartella:	/	**Autorizzazione:**		**Codice:**	SLMBDTEXLC04

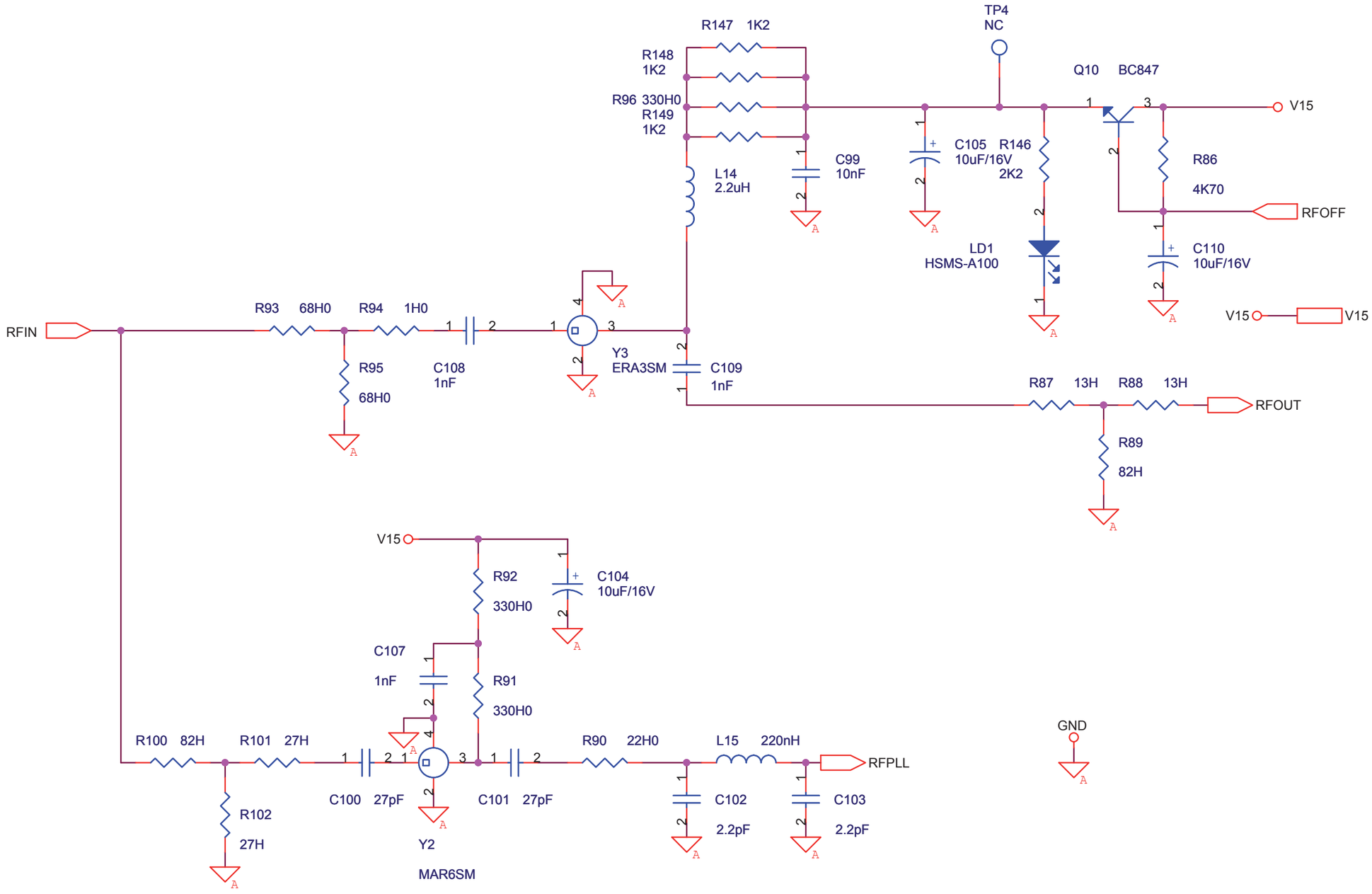

CN2 XLRFCSD Right
CN5 XLRFCSD Left/Mono
SW1 SWDIP2
SW2 SWDIP4
SW3 SWDIP2
JP4 STF14S
JP5 STF13S
JP6 STF10S
JP7 STF10S
JP2 STM03S CLIPPER
U15A TL072SMD
U15B TL072SMD
U14A TL072SMD
U14B TL072SMD
U16A TL072SMD
U16B TL072SMD
U4A TL072SMD
U4B TL072SMD
U6A TL072SMD
U7A CD4053SSMD
U7B CD4053SSMD
U7C CD4053SSMD
U6B TL072SMD
U3A LM393SMD
U3B LM393SMD
U8A LM393SMD
U8B LM393SMD
U5A LM358SMD
U5B LM358SMD
U9A LM358SMD
U9B LM358SMD
U17D CD4070
Q4 BC847
Q5 BC857
Q6 BC857
Q7 BC847
Q8 BC857
Q9 BC857
Q16 2N7002
DZ1 LM4040-10
D13 5V1
D12 5V1
D14 5V1
TP1 NC
TP2 NC
TP3 NC
TP6 NC
TP7 NC*
TP8 NC
TP9 NC
FIX9 FIX35
FIX10 FIX35
Gain
UPPER
LOWER
RLEV
LLEV
MODLEV
AFOUT
V3PLL
VREF
VEE
VSS
VDD
Nome Progetto: Scheda Main TEX-LCD e TX Ponte Eco
Pagina: 2 di 1
Size: C
Autore: Tommasi - Rev.: Berti J.
Data: Tuesday, December 26, 2006
Codice Progetto: RVR
Nome PC in Rete: \\Jtsrv\
Revisione: 4.6
Nome Parte: Sezione Audio
File/Cartella: \
Autorizzazione:
Codice: SLMBDTEXLC04


U12 MC78LC33
IN OUT GND NC NC
V5PLL
V3PLL
TP13 NC
C117 10uF/16V
C114 0.1uF
C120 10uF/16V
TP10 NC
V15
CN8
NC
R154 NC
C124 NC
C140 470nF
R120 220H0
C127 10uF/16V
C128 0.1uF
R108 100K
R109 100K
R112 470K
C139 470nF
C122 NC
R113 1K0
R114 1K0
R111 47K5
R110 47K5
U13A LM358SMD
R116 1K0
R117 470K
R118 1K0
C155 0.1uF
C138 10uF/16V
Q15 MMBFJ310
C111 0.1uF
TCX1 10MHz
GND VCC GND OUT
C164 NC
U11
XI XO VP VCC DO GND *FIN FIN
0R 0P LD/F ZC PS LE DATA CLK
L_E DT CL
MB15E06
C123 0.1uF
C125 10uF/16V
C126 4.7nF
R115 4K70
D23 BAV99
R135 4K70
R119 274K0
C133 0.1uF
C134 0.1uF
C135 10uF/16V
R127 100H0
R130 3K3
C118 10uF/16V
C145 0.1uF
C156 1nF
C146 1nF
C121 1nF
C119 10uF/16V
C158 1nF
C141 NC
C159 NC
C129 47uF/16V
C130 47uF/16V
C131 NC
C132 NC
C153 NC
R142 10K0
R143 NC
U17A CD4070
RV9
R103 4K70
10K CW
R131 4K70
TP11 NC
AFIN
AFTUNE
C112 22pF
C113 10pF
Q14 MMBFJ310
R128 390H0
R129 NC
R105 22H0
R106 22H0
R107 47H0
RFPLL
R144 NC
R145 NC
R132 274K
D25 BAV99
JP3 PIAZZ.
R134 274K
R133 6K8
C136 470nF
C137 0.1uF
R121 10K0
TP12 NC
U13B LM358SMD
R122 10K0
R125 10K0
R123 4K70
Q12 BC847
CPULK
D24
R124 10K0
CPUOFF
BAV70
R126 4K70
Q13 BC847
RFOFF
R136 4K70
R137 4K70
R138 4K70
LE
DATA
CLK
R139 6K8
R140 6K8
R141 6K8
U17C CD4070
U17B CD4070
C154 0.1uF
Nome Progetto: Scheda Main TEX-LCD e TX Ponte Eco
Pagina: 3 di 5
Size: B
Autore: Tommasi - Rev.: Berti J.
Data: Tuesday, December 20, 2005
Codice Progetto: RVR
Nome PC in Rete: \\Utsrv\
Revisione: 4.6
Nome Parte: Sezione PLL
File/Cartella: /PLL
Autorizzazione:
Codice: SLMBDTEXLC04

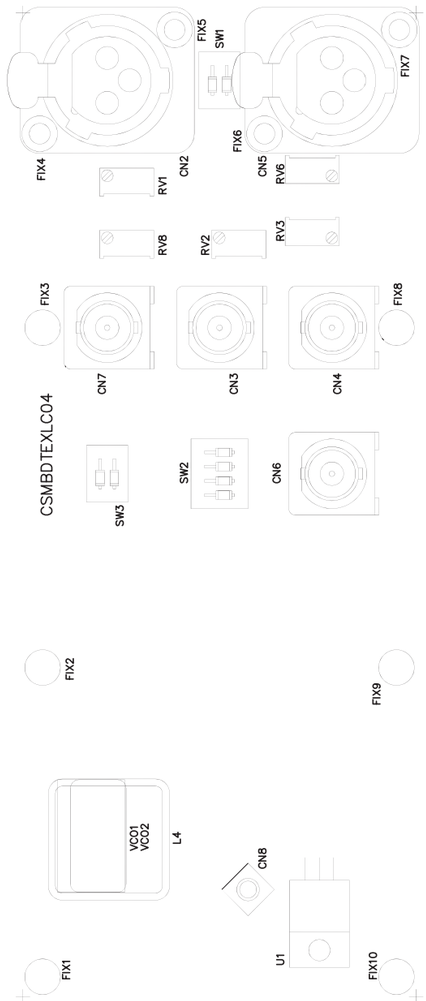


Il cavo e' montato lato saldature

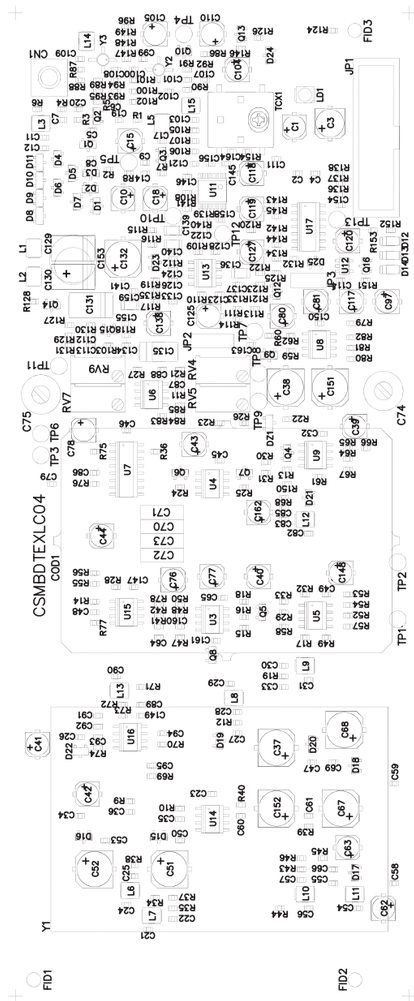
Nome Progetto:	Scheda Main TEX-LCD e TX Ponte Eco			**Pagina:** 4 di 5	**Size:** A
Autore:	Tommasi - Rev.: Berti J.	**Data:** Tuesday, December 20, 2005		**Codice Progetto:** RVR	
Nome PC in Rete:	\\Utsrv\	**Revisione:**	4.6	**Nome Parte:**	Sezione VCO
File/Cartella:	/VCO	**Autorizzazione:**		**Codice:**	SLMBDTEXLC04



Nome Progetto: Scheda Main TEX-LCD e TX Ponte Eco		**Pagina:** 5 di 5	**Size:** A
Autore: Tommasi - Rev.: Berti J.	**Data:** Tuesday, December 20, 2005	**Codice Progetto:** RVR	
Nome PC in Rete: \\Utsrv\	**Revisione:** 4.6	**Nome Parte:** Sezione Driver	
File/Cartella: \	**Autorizzazione:**	**Codice:** SLMBDTEXLC04	



Nome Progetto:	TEX30-LCD		Pagina: 1 di 2	Size: A4	
Autore:	Griptech	Data: 21/03/2005	Codice Progetto: 010		
Nome PC in Rete:	\\UT_SRV\PROGETTI	Revisione: 4.2	Nome Parte: LATO COMPONENTI – MAIN CARD		
File/Cartella:	SLMBDTEXLC04	Autorizzazione:	Codice: SLMBDTEXLC04		
Scala: 1:1	Materiale: FR4 1.6mm	Trattamento: RAME 35u	Profilo: /		



Nome Progetto:	TEX30-LCD		Pagina: 2 di 2	Size: A4	
Autore:	Griptech	Data: 21/03/2005	Codice Progetto: 010		
Nome PC in Rete:	\\UT_SRV\PROGETTI	Revisione: 4.2	Nome Parte: LATO SALDATURE – MAIN CARD		
File/Cartella:	SLMBDTEXLC04	Autorizzazione:	Codice: SLMBDTEXLC04		
Scala: 1:1	Materiale: FR4 1.6mm	Trattamento: RAME 35u	Profilo: /		

Scheda Main
SLMBDTEXLC04
Revision: 4.6 Date: 20/12/2005
Tommasi - Rev.: Berti J.

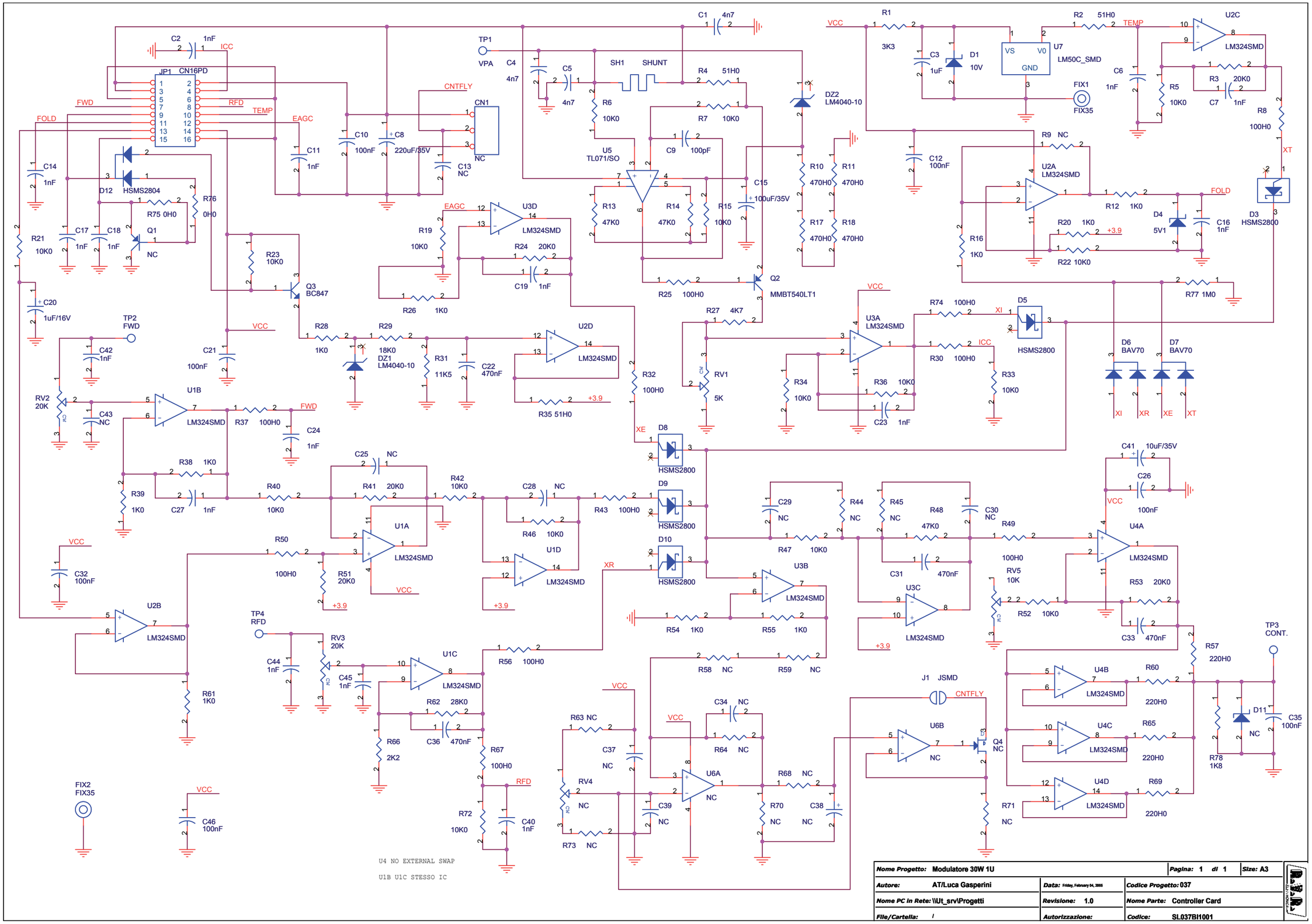
Item	Quantity	Reference	Part	Description
1	1	CN1	SMB_CS	Connettore SMB cs
2	2	CN2,CN5	XLRFCSD	Connettore XLR femm. cs
3	4	CN3,CN4,CN6,CN7	BNC_IS	Connettore BNC metallico
4	1	CN8	NC	Connettore SMB cs
5	1	CS1	CSMBDTEXLC04	Circuito stampato
6	30	C1,C10,C15,C18,C39,C40, C41,C42,C43,C44,C62,C63, C76,C77,C78,C80,C81,C97, C104,C105,C110,C117,C118, C119,C120,C125,C127,C138, C148,C162	10uF/16V	Cond. Elett. SMD d. 4mm
7	34	C2,C4,C14,C23,C26,C32, C34,C45,C46,C47,C49,C50, C53,C58,C59,C65,C66,C69, C79,C85,C88,C111,C114, C123,C128,C133,C134,C137, C145,C147,C149,C150,C154, C155	0.1uF	Cond. SMD 0805
8	1	C3	10uF/35V	Cond. Elett. SMD d. 4mm
9	7	C5,C9,C17,C27,C33,C92, C99	10nF	Cond. SMD 0805
10	4	C6,C36,C61,C95	47pF	Cond. SMD 0805
11	3	C7,C20,C112	22pF	Cond. SMD 0805
12	1	C8	33pF	Cond. SMD 0805
13	6	C11,C86,C87,C122,C124, C164	NC	Cond. SMD 0805
14	1	C12	470pF	Cond. SMD 0805
15	8	C19,C107,C108,C109,C121, C146,C156,C158	1nF	Cond. SMD 0805
16	18	C21,C22,C24,C25,C28,C29,	27pF	Cond. SMD 0805
36	8	D4,D5,D6,D7,D8,D9,D10, D11	MMBV109	Diodo Varicap SMD SOT23
37	3	D12,D13,D14	5V1	MINIMELF SMD Zener Diode
38	10	D15,D16,D17,D18,D19,D20, D21,D22,D23,D25	BAV99	Doppio Diodo SMD SOT23
39	1	D24	BAV70	Doppio Diodo SMD SOT23
40	10	FIX1,FIX2,FIX3,FIX4,FIX5, FIX6,FIX7,FIX8,FIX9, FIX10	FIX35	Foro fissaggio 3.5mm
41	1	JP1	CN16PD	Connettore 16 poli Flat cs
42	1	JP2	STM03S	Strip maschio 3 pin
43	1	JP3	PIAZZ.	Jumper SMD
44	1	JP4	STF14S	Strip femmina 14 pin
45	1	JP5	STF13S	Strip femmina 13 pin
46	2	JP6,JP7	STF10S	Strip femmina 10 pin
47	1	LD1	HSMS-A100	LED dia. 5mm
48	2	L1,L2	18uH	Induttanza SMD 1210 scherm.
49	10	L3,L5,L6,L7,L8,L9,L10, L11,L12,L13	2u2	Induttanza SMD 3225 (1210)
50	1	L4	LCAVO	Induttanza a cavo RG
51	1	L14	2.2uH	Induttanza SMD 3225 (1210)
52	1	L15	220nH	Induttanza SMD 3225 (1210)
53	4	Q1,Q2,Q14,Q15	MMBFJ310	Trans. FET SOT23
54	6	Q3,Q4,Q7,Q10,Q12,Q13	BC847	Trans. NPN SOT23
55	4	Q5,Q6,Q8,Q9	BC857	Trans. PNP SOT23
56	1	Q16	2N7002	Trans. FET SOT23
57	5	RV1,RV2,RV3,RV6,RV8	10K	Trimmer Rg H 3296X
58	2	RV4,RV5	5K	Trimmer Rg V 3296W
59	1	RV7	50K	Trimmer Rg V 3296W
60	1	RV9	10K	Trimmer Rg V 3296W
61	4	R1,R90,R105,R106	22H0	Res. SMD 0805
62	9	R2,R15,R18,R47,R50,R59, R62,R77,R78	100K0	Res. SMD 0805
63	5	R3,R37,R38,R45,R46	10H0	Res. SMD 0805
64	1	R4	330K0	Res. SMD 0805
65	1	R5	150H0	Res. SMD 0805
66	1	R6	56H0	Res. SMD 0805
83	7	R79,R80,R129,R143,R144, R145,R154	NC	Res. SMD 0805
84	2	R83,R84	49K9	Res. SMD 0805
85	1	R85	5K49	Res. SMD 0805
86	10	R86,R103,R115,R123,R126, R131,R135,R136,R137,R138	4K70	Res. SMD 0805
87	2	R87,R88	13H	Res. SMD 0805
88	2	R89,R100	82H	Res. SMD 0805
89	3	R91,R92,R96	330H0	Res. SMD 0805
90	2	R93,R95	68H0	Res. SMD 0805
91	1	R94	1H0	Res. SMD 0805
92	2	R101,R102	27H	Res. SMD 0805
93	2	R108,R109	100K	Res. SMD 0805
94	2	R110,R111	47K5	Res. SMD 0805
95	2	R112,R117	470K	Res. SMD 0805
96	1	R119	274K0	Res. SMD 0805
97	1	R120	220H0	Res. SMD 0805
98	1	R128	390H0	Res. SMD 0805
99	1	R130	3K3	Res. SMD 0805
100	2	R132,R134	274K	Res. SMD 0805
101	1	R146	2K2	Res. SMD 0805
102	3	R147,R148,R149	1K2	Res. SMD 0805
103	1	R150	100H0	Res. SMD 0805
104	1	R151	576H0	Res. SMD 0805
105	2	R152,R153	10K0	Res. SMD 0805
106	2	SW1,SW3	SWDIP2	Dip switch 2 vie
107	1	SW2	SWDIP4	Dip switch 4 vie
108	1	TCX1	10MHz	TCXO SMD
109	12	TP1,TP2,TP3,TP4,TP5,TP6, TP8,TP9,TP10,TP11,TP12, TP13	NC	Test point
110	1	TP7	NC*	Test point
111	1	U1	LM7815	Stabilizzatore TO220
112	2	U3,U8	LM393SMD	Dual Comp. SMD SO8
113	5	U4,U6,U14,U15,U16	TL072SMD	Dual Op. SMD SO8
114	3	U5,U9,U13	LM358SMD	Dual Op. SMD SO8

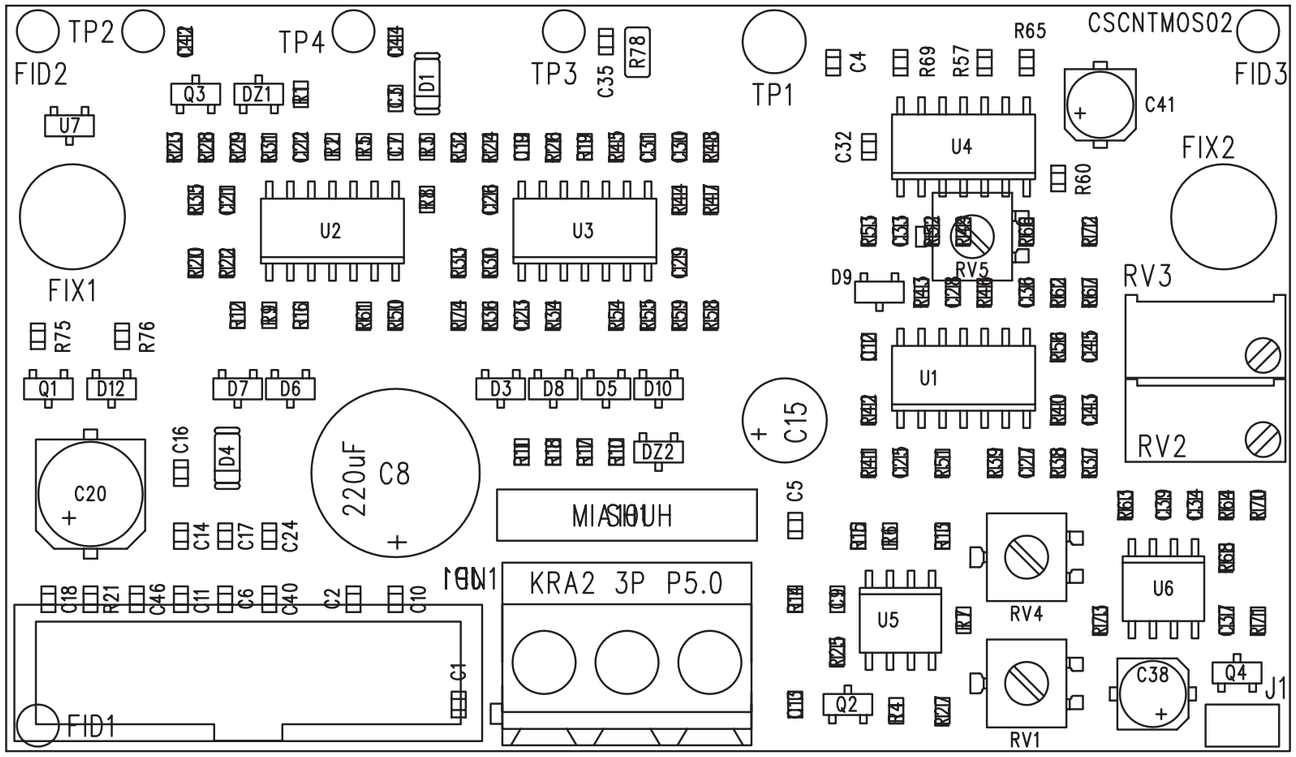
Scheda Main
SLMBDTEXLC04
Revision: 4.6 Date: 20/12/2005
Tommasi - Rev.: Berti J.

Item	Quantity	Reference	Part	Description
1	1	CN1	SMB_CS	Connettore SMB cs
2	2	CN2,CN5	XLRFCSD	Connettore XLR femm. cs
3	4	CN3,CN4,CN6,CN7	BNC_IS	Connettore BNC metallico
4	1	CN8	NC	Connettore SMB cs
5	1	CS1	CSMBDTEXLC04	Circuito stampato
6	30	C1,C10,C15,C18,C39,C40, C41,C42,C43,C44,C62,C63, C76,C77,C78,C80,C81,C97, C104,C105,C110,C117,C118, C119,C120,C125,C127,C138, C148,C162	10uF/16V	Cond. Elett. SMD d. 4mm
7	34	C2,C4,C14,C23,C26,C32, C34,C45,C46,C47,C49,C50, C53,C58,C59,C65,C66,C69, C79,C85,C88,C111,C114, C123,C128,C133,C134,C137, C145,C147,C149,C150,C154, C155	0.1uF	Cond. SMD 0805
8	1	C3	10uF/35V	Cond. Elett. SMD d. 4mm
9	7	C5,C9,C17,C27,C33,C92, C99	10nF	Cond. SMD 0805
10	4	C6,C36,C61,C95	47pF	Cond. SMD 0805
11	3	C7,C20,C112	22pF	Cond. SMD 0805
12	1	C8	33pF	Cond. SMD 0805
13	6	C11,C86,C87,C122,C124,	NC	Cond. SMD 0805

Control Card

SL037BI1001

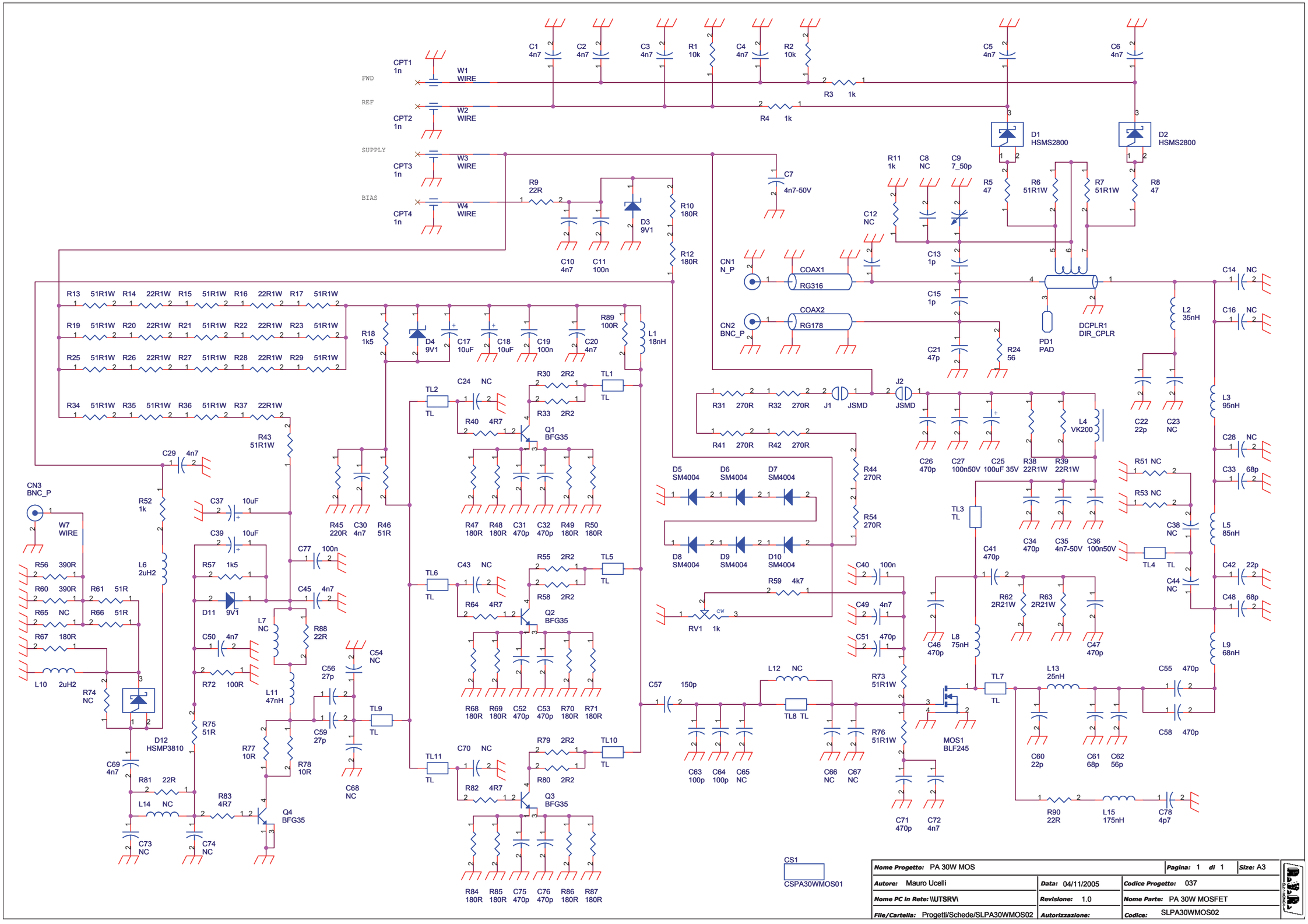




Nome Progetto:	MODULATORE 30W 1U				Pagina: 1	di 1	Size: A4
Autore:	Ufficio Tecnico		Data: 04/02/2005		Codice Progetto: 037		
Nome PC in Rete:	\\UT_SRV\PROGETTI		Revisione: 1.0		Nome Parte: CONTROLLER CARD		
File/Cartella:	\\UT_SRV\PROGETTI		Autorizzazione:		Codice: SL037BI1001		
Scala: 2:1	Materiale: /		Trattamento: /		Profilo: /		

Revised: 04/02/2005
Revision: 1.0
Controllo finale MOS
CSCNTMOS02
AT/Luca Gasperini

Item	Quantity	Reference	Part	Description
1	1	CN1	NC	Conn. tipo KRA a 3 poli
2	3	C1, C4, C5	4n7	Cond. SMD 0805
3	16	C2, C6, C7, C11, C14, C16, C17, C18, C19, C23, C24, C27, C40, C42, C44, C45	1nF	Cond. SMD 0805
4	1	C3	1uF	Cond. SMD 0805
5	1	C8	220uF/35V	Cond. Elettr. Dia 10 P5.08
6	1	C9	100pF	Cond. SMD 0805
7	7	C10, C12, C21, C26, C32, C35, C46	100nF	Cond. SMD 0805
8	9	C13, C25, C28, C29, C30, C34, C37, C39, C43	NC	Cond. SMD 0805
9	1	C15	100uF/35V	Cond. Elettr. Dia 5 P2.54
10	1	C20	1uF/16V	Cond. Elett. SMD d. 6.3mm
11	4	C22, C31, C33, C36	470nF	Cond. SMD 0805
12	1	C38	NC	Cond. Elett. SMD d. 4mm
13	1	C41	10uF/35V	Cond. Elett. SMD d. 4mm
14	2	DZ1, DZ2	LM4040-10	Diodi Zener SMD SOT23
15	1	D1	10V	MINIMELF SMD Zener Diode
16	5	D3, D5, D8, D9, D10	HSMS2800	Diodo Shottky SOT23
17	1	D4	5V1	MINIMELF SMD Zener Diode
18	2	D6, D7	BAV70	Doppio Diodo SMD SOT23
19	1	D11	NC	MINIMELF SMD Zener Diode
20	1	D12	HSMS2804	Doppio Diodo SMD SOT23
21	2	FIX1, FIX2	FIX35	Foro fissaggio 3.5mm
22	1	JP1	CN16PD	Connettore 16 poli Flat cs
23	1	J1	JSMD	Pad SMD a saldare
24	1	Q1	NC	Trans. PNP SOT23
25	1	Q2	MMBT540LT1	Trans. PNP SOT23
26	1	Q3	BC847	Trans. NPN SOT23
27	1	Q4	NC	Trans. FET SOT23
28	1	RV1	5K	Trimmer SMD
29	2	RV2, RV3	20K	Trimmer Rg V 3296W
30	1	RV4	NC	Trimmer SMD
31	1	RV5	10K	Trimmer SMD
32	1	R1	3K3	Res. SMD 0805
33	3	R2, R4, R35	51H0	Res. SMD 0805
34	5	R3, R24, R41, R51, R53	20K0	Res. SMD 0805
35	17	R5, R6, R7, R15, R19, R21, R22, R23, R33, R34, R36, R40, R42, R46, R47, R52, R72	10K0	Res. SMD 0805
36	10	R8, R25, R30, R32, R37, R43, R49, R50, R56, R67	100H0	Res. SMD 0805
37	11	R9, R44, R45, R58, R59, R63, R64, R68, R70, R71, R73	NC	Res. SMD 0805
38	4	R10, R11, R17, R18	470H0	Res. SMD 0805
39	10	R12, R16, R20, R26, R28, R38, R39, R54, R55, R61	1K0	Res. SMD 0805
40	3	R13, R14, R48	47K0	Res. SMD 0805
41	1	R27	4K7	Res. SMD 0805
42	1	R29	18K0	Res. SMD 0805
43	1	R31	11K5	Res. SMD 0805
44	4	R57, R60, R65, R69	220H0	Res. SMD 0805
45	1	R62	28K0	Res. SMD 0805
46	1	R66	2K2	Res. SMD 0805
47	1	R74	100H0	Res. SMD 0805
48	1	R75	0H0	Res. SMD 0805
49	1	R76	0H0	Res. SMD 0805
50	1	R77	1M0	Res. SMD 0805
51	1	R78	1K8	Res. SMD 1206
52	1	SH1	SHUNT	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	4	U1, U2, U3, U4	LM324SMD	Quad Op. SMD SO14
58	1	U5	TL071/SO	Dual Op. SMD SO8
59	1	U6	NC	Dual Op. SMD SO8
60	1	U7	LM50C_SMD	Temperature sensor


CPT1 1n
W1 WIRE
FWD
REF
CPT2 1n
W2 WIRE
SUPPLY
CPT3 1n
W3 WIRE
BIAS
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W4 WIRE
C1 4n7
C2 4n7
C3 4n7
R1 10k
C4 4n7
R2 10k
R3 1k
R4 1k
C5 4n7
C6 4n7
D1 HSMS2800
D2 HSMS2800
R5 47
R6 51R1W
R7 51R1W
R8 47
R9 22R
C7 4n7-50V
R10 180R
R12 180R
C10 4n7
C11 100n
D3 9V1
R11 1k
C8 NC
C9 7_50p
C12 NC
C13 1p
C15 1p
C21 47p
R24 56
CN1 N_P
COAX1 RG316
CN2 BNC_P
COAX2 RG178
PD1 PAD
DCPLR1 DIR_CPLR
C14 NC
C16 NC
L2 35nH
L3 95nH
C22 22p
C23 NC
C28 NC
C33 68p
C48 68p
L5 85nH
C42 22p
C44 NC
L9 68nH
R51 NC
R53 NC
C38 NC
TL4 TL
R13 51R1W R14 22R1W R15 51R1W R16 22R1W R17 51R1W
R19 51R1W R20 22R1W R21 51R1W R22 22R1W R23 51R1W
R25 51R1W R26 22R1W R27 51R1W R28 22R1W R29 51R1W
R34 51R1W R35 51R1W R36 51R1W R37 22R1W
R43 51R1W
R18 1k5
D4 9V1
C17 10uF
C18 10uF
C19 100n
C20 4n7
R89 100R
L1 18nH
TL2 TL
C24 NC
R30 2R2
TL1 TL
R33 2R2
R40 4R7
Q1 BFG35
R45 220R
C30 4n7
R46 51R
R47 180R
R48 180R
C31 470p
C32 470p
R49 180R
R50 180R
R31 270R
R32 270R
J1 JSMD
J2 JSMD
R41 270R
R42 270R
D5 SM4004
D6 SM4004
D7 SM4004
D8 SM4004
D9 SM4004
D10 SM4004
R44 270R
R54 270R
R59 4k7
RV1 1k
C40 100n
C49 4n7
C51 470p
C26 470p
C27 100n50V
C25 100uF 35V
R38 22R1W
R39 22R1W
L4 VK200
TL3 TL
C41 470p
C34 470p
C35 4n7-50V
C36 100n50V
R62 2R21W
R63 2R21W
C46 470p
L8 75nH
C47 470p
CN3 BNC_P
W7 WIRE
R56 390R
R60 390R
R61 51R
R65 NC
R66 51R
R67 180R
L10 2uH2
L6 2uH2
C29 4n7
R52 1k
C37 10uF
C39 10uF
R57 1k5
D11 9V1
C77 100n
C45 4n7
L7 NC
R88 22R
C50 4n7
R72 100R
L11 47nH
C56 27p
C54 NC
C59 27p
TL9 TL
C68 NC
R74 NC
D12 HSMP3810
R75 51R
R77 10R
R78 10R
C69 4n7
R81 22R
L14 NC
R83 4R7
Q4 BFG35
C73 NC
C74 NC
TL6 TL
C43 NC
R55 2R2
TL5 TL
R58 2R2
R64 4R7
Q2 BFG35
R68 180R
R69 180R
C52 470p
C53 470p
R70 180R
R71 180R
TL11 TL
C70 NC
R79 2R2
TL10 TL
R80 2R2
R82 4R7
Q3 BFG35
R84 180R
R85 180R
C75 470p
C76 470p
R86 180R
R87 180R
C57 150p
L12 NC
TL8 TL
C63 100p
C64 100p
C65 NC
C66 NC
C67 NC
R73 51R1W
R76 51R1W
C71 470p
C72 4n7
MOS1 BLF245
C40 100n
C60 22p
C61 68p
C62 56p
L13 25nH
C55 470p
C58 470p
R90 22R
L15 175nH
C78 4p7
CS1
CSPA30WMOS01
Nome Progetto: PA 30W MOS
Pagina: 1 di 1
Size: A3
Autore: Mauro Ucelli
Data: 04/11/2005
Codice Progetto: 037
Nome PC in Rete: \\UTSRV\
Revisione: 1.0
Nome Parte: PA 30W MOSFET
File/Cartella: Progetti/Schede/SLPA30WMOS02
Autorizzazione:
Codice: SLPA30WMOS02

NOME PARTE: PA 30W MOSFET

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

CODICE PROGETTO: 037 | CODICE DISEGNO: SLPA30WMOS02

PROFILO: <> | STATO: ESECUTIVO

NOME PROGETTO: PA 30W MOS

AUTORE: MAURO UCELLI

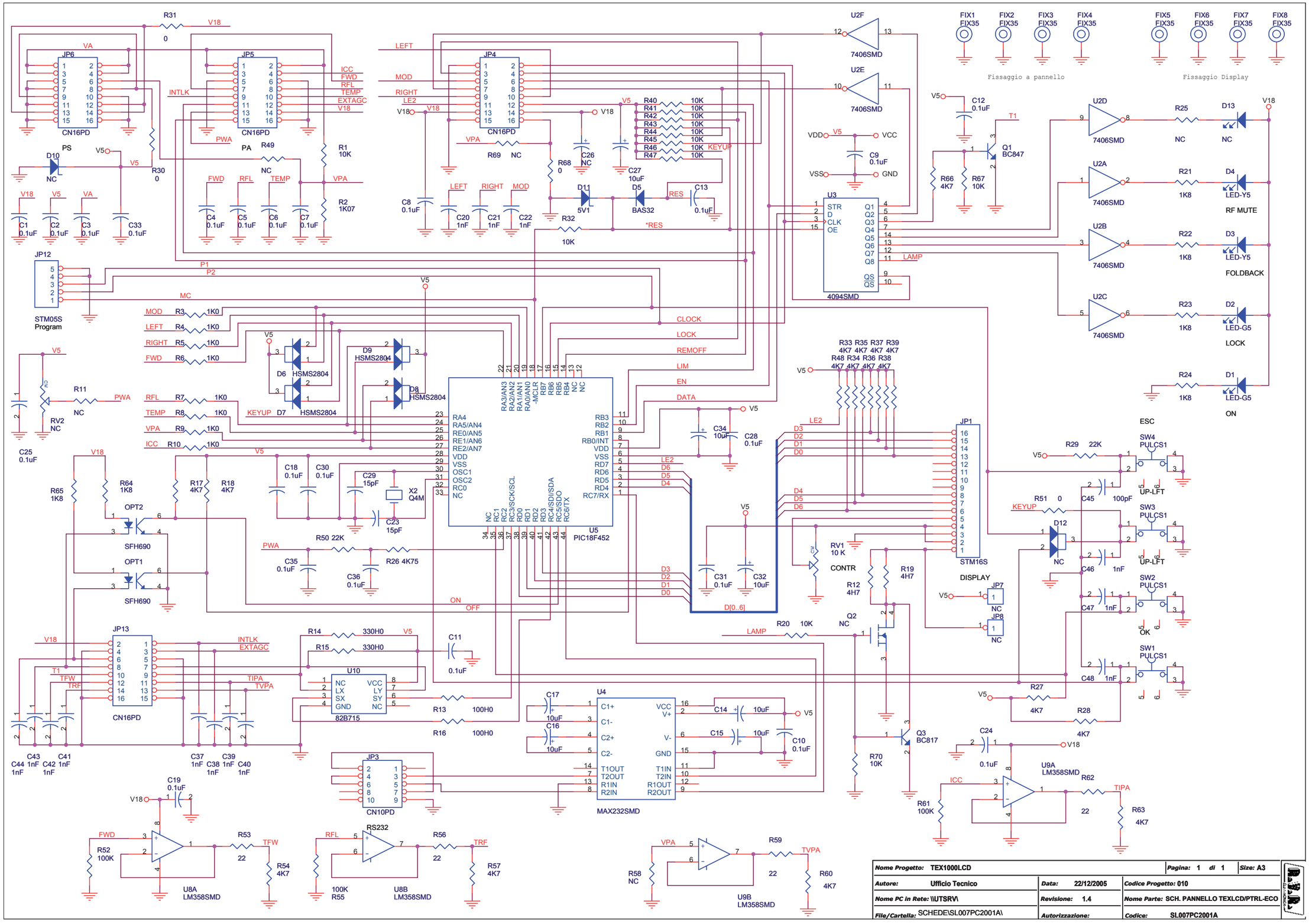
ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"

MATERIALE: <> | TRATTAMENTO: <>

R.V.R. ELETTRONICA

PA 30W MOSFET
SLPA30WMOS02
Revision: 1.0
PA 30W MOS
Cod: 037
Mauro Ucelli
04/11/2005

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 Shottky 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,R52	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	2	R60,R56	390R	Res. SMD 0805
66	1	R59	4k7	Res. SMD 0805
67	2	R63,R62	2R21W	Res. SMD 2512
68	2	R65,R74	NC	Res. SMD 0805
69	1	R72	100R	Res. SMD 0805
70	2	R78,R77	10R	Res. SMD 0805
71	1	R88	22R	Res. SMD 2010
72	1	R89	100R	Res. 2W tradizionale
73	1	R90	22R	Res. 2W tradizionale
74	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


R31 0 V18
JP6 JP5 JP4 CN16PD
VA INTLK PWA PA LEFT MOD RIGHT LE2 VPA
ICC FWD RFL TEMP EXTAGC V18
R1 10K R2 1K07 R30 0 R49 NC R68 0 R69 NC
D10 NC PS D11 5V1 D5 BAS32 RES *RES
C1 C2 C3 C33 C4 C5 C6 C7 C8 C20 C21 C22 C26 NC C27 10uF C13 0.1uF
R40 R41 R42 R43 R44 R45 R46 R47 10K KEYUP R32 10K
U2F U2E 7406SMD
FIX1 FIX2 FIX3 FIX4 FIX5 FIX6 FIX7 FIX8 FIX35
Fissaggio a pannello
Fissaggio Display
VDD VCC VSS GND C9 0.1uF C12 0.1uF T1 Q1 BC847 R66 4K7 R67 10K
U3 4094SMD STR D CLK OE Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 QS QS LAMP
U2D U2A U2B U2C R25 R21 R22 R23 D13 D4 D3 D2 NC 1K8 LED-Y5 LED-G5
RF MUTE FOLDBACK LOCK
R24 D1 ESC ON
JP12 STM05S Program P1 P2 MC
MOD LEFT RIGHT FWD RFL TEMP VPA ICC KEYUP R3 R4 R5 R6 R7 R8 R9 R10 1K0
D6 D7 D8 D9 HSMS2804
R11 RV2 NC PWA C25 0.1uF
R64 R65 R17 R18 4K7 1K8 OPT2 OPT1 SFH690
C18 C30 C29 15pF X2 Q4M C23 15pF
R50 22K R26 4K75 C35 C36 0.1uF
U5 PIC18F452
RA4 RA5/AN4 RE0/AN5 RE1/AN6 RE2/AN7 VDD VSS OSC1 OSC2 RC0 NC
RB3 RB2 RB1 RB0/INT VDD VSS RD7 RD6 RD5 RD4 RC7/RX
CLOCK LOCK REMOFF LIM EN DATA
C34 10uF C28 0.1uF C31 0.1uF C32 10uF
R33 R35 R37 R39 R48 R34 R36 R38 4K7
D3 D2 D1 D0 D4 D5 D6 D[0..6]
JP1 STM16S DISPLAY
RV1 10 K CONTR R12 4H7 R19 4H7
R29 22K SW4 PULCS1 UP-LFT
R51 0 C45 100pF D12 NC KEYUP
SW3 SW2 SW1 OK C46 C47 C48 1nF
JP7 JP8 NC
R20 10K Q2 NC LAMP
R27 4K7 R28 4K7 Q3 BC817 R70 10K
C24 0.1uF U9A LM358SMD R62 22 R63 4K7 R61 100K ICC TIPA
JP13 CN16PD INTLK EXTAGC T1 TFW TRF TIPA TVPA
C43 C44 C42 C41 C37 C38 C39 C40 1nF
R14 R15 330H0 C11 0.1uF U10 82B715 NC LX SX GND VCC LY SY NC
R13 R16 100H0
C17 C16 10uF U4 MAX232SMD C1+ C1- C2+ C2- V+ V- GND T1OUT T2OUT R1IN R2IN VCC T1IN T2IN R1OUT R2OUT
C14 C15 C10 0.1uF
JP3 CN10PD
C19 0.1uF U8A LM358SMD FWD R52 100K R53 22 R54 4K7 TFW
RS232 RFL R56 22 R57 4K7 TRF 100K R55 U8B LM358SMD
VPA R58 NC R59 22 R60 4K7 TVPA U9B LM358SMD
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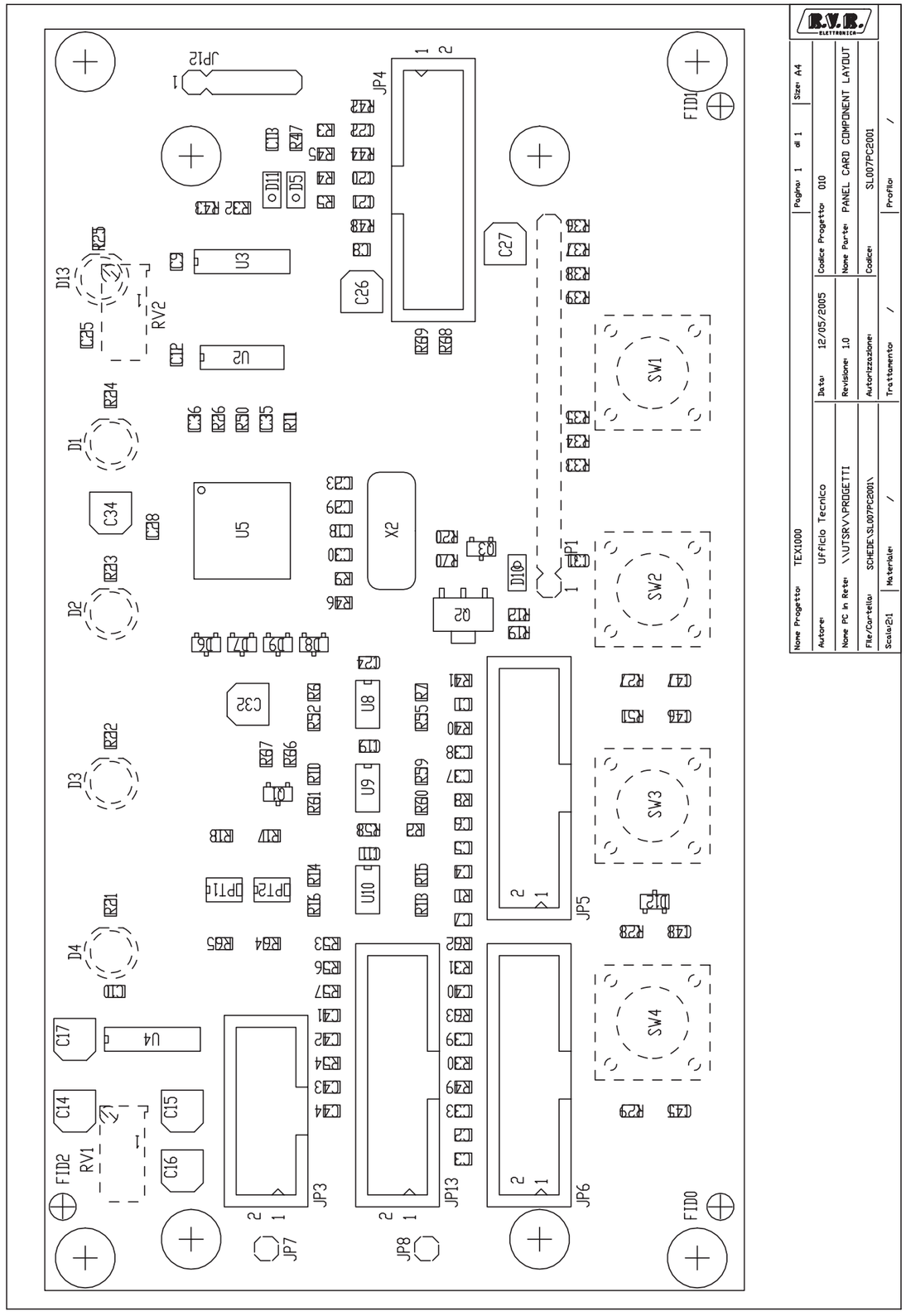
Pagina: 1 di 1
Size: A3
Autore: Ufficio Tecnico
Data: 22/12/2005
Codice Progetto: 010
Nome PC in Rete: \\UTSRV\
Revisione: 1.4
Nome Parte: SCH. PANNELLO TEXLCD/PTRL-ECO
File/Cartella: SCHEDE\SL007PC2001A\
Autorizzazione:
Codice: SL007PC2001A



SCH. PANNELLO TEXLCD/PTRL-ECO
SL007PC2001A Revision: 1.4
DATA: 22/12/2005

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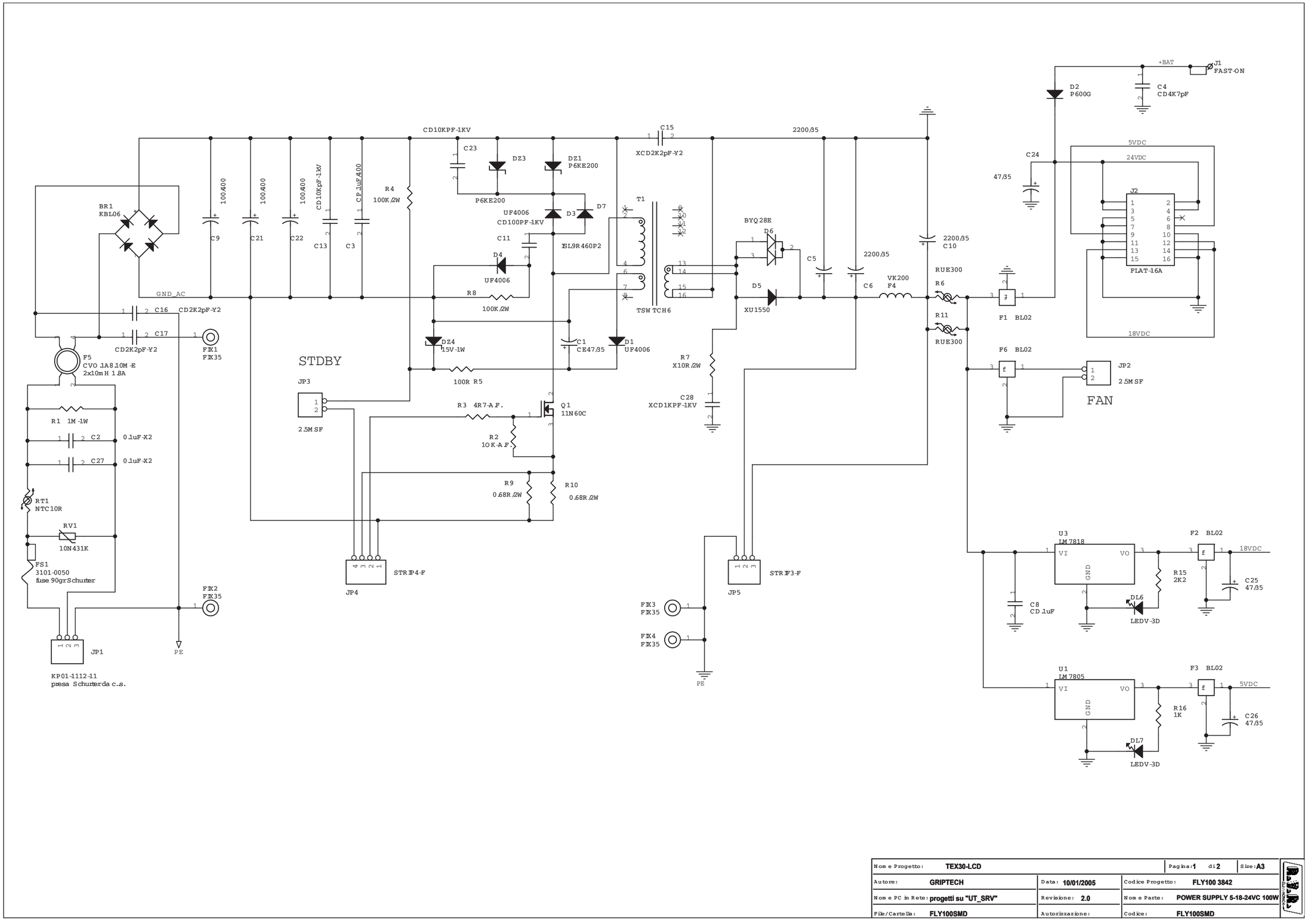
1	23	C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C18, C19, C24, C25, C28, C30, C31, C33, C35, C36	0.1uF	
2	1	C45	100pF	
3	7	C14, C15, C16, C17, C27, C32, C34	10uF	
4	14	C20, C21, C22, C37, C38, C39, C40, C41, C42, C43, C44, C46, C47, C48	1nF	
5	2	C23, C29	15pF	
6	13	RV2, Q2, JP7, JP8, D10, R11, D12, D13, R25, C26, R49, R69	NC	
7	2	D2, D1	LED-G5	**Nota 1**
8	2	D4, D3	LED-Y5	**Nota 1**
9	1	D5	BAS32	
10	4	D6, D7, D8, D9	HSMS2804	
11	1	D11	5V1	
12	8	FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8	FIX35	
13	1	JP1	STM16S	**Nota 2**
14	1	JP3	CN10PD	
15	4	JP4, JP5, JP6, JP13	CN16PD	
16	1	JP12	STM05S	
17	2	OPT2, OPT1	SFH690	
18	1	Q1	BC847	
19	1	Q3	BC817	
20	1	RV1	10 K	**Nota 1**
21	13	R1, R20, R32, R40, R41, R42, R43, R44, R45, R46, R47, R67, R70	10K	
22	1	R2	1K07	
23	8	R3, R4, R5, R6, R7, R8, R9, R10	1K0	
24	2	R19, R12	4H7	
25	2	R13, R16	100H0	
26	2	R14, R15	330H0	
27	17	R17, R18, R27, R28, R33, R34, R35, R36, R37, R38, R39, R48, R54, R57, R60, R63, R66	4K7	
28	6	R21, R22, R23, R24, R64, R65	1K8	
29	1	R26	4K75	
30	4	R30, R31, R51, R68	0	
31	2	R29, R50	22K	
32	3	R52, R55, R61	100K	
33	4	R53, R56, R59, R62	22	
34	4	SW1, SW2, SW3, SW4	PULCS1	**Nota 1**
35	1	U2	7406SMD	
36	1	U3	4094SMD	
37	1	U4	MAX232SMD	
38	1	U5	PIC18F452	
39	2	U9, U8	LM358SMD	
40	1	U10	82B715	
41	1	X2	Q4M	

Nota 1 Montare lato saldature



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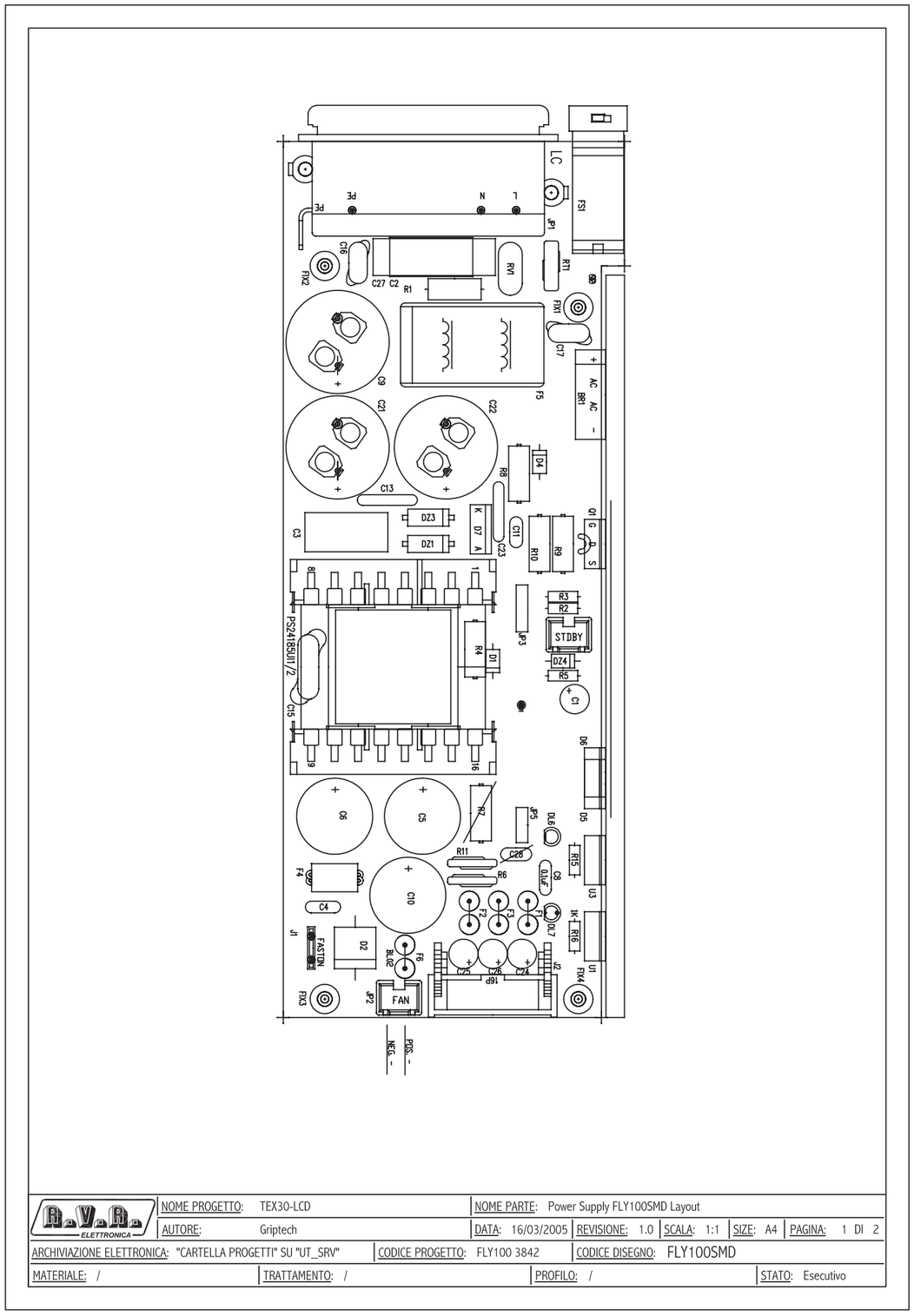
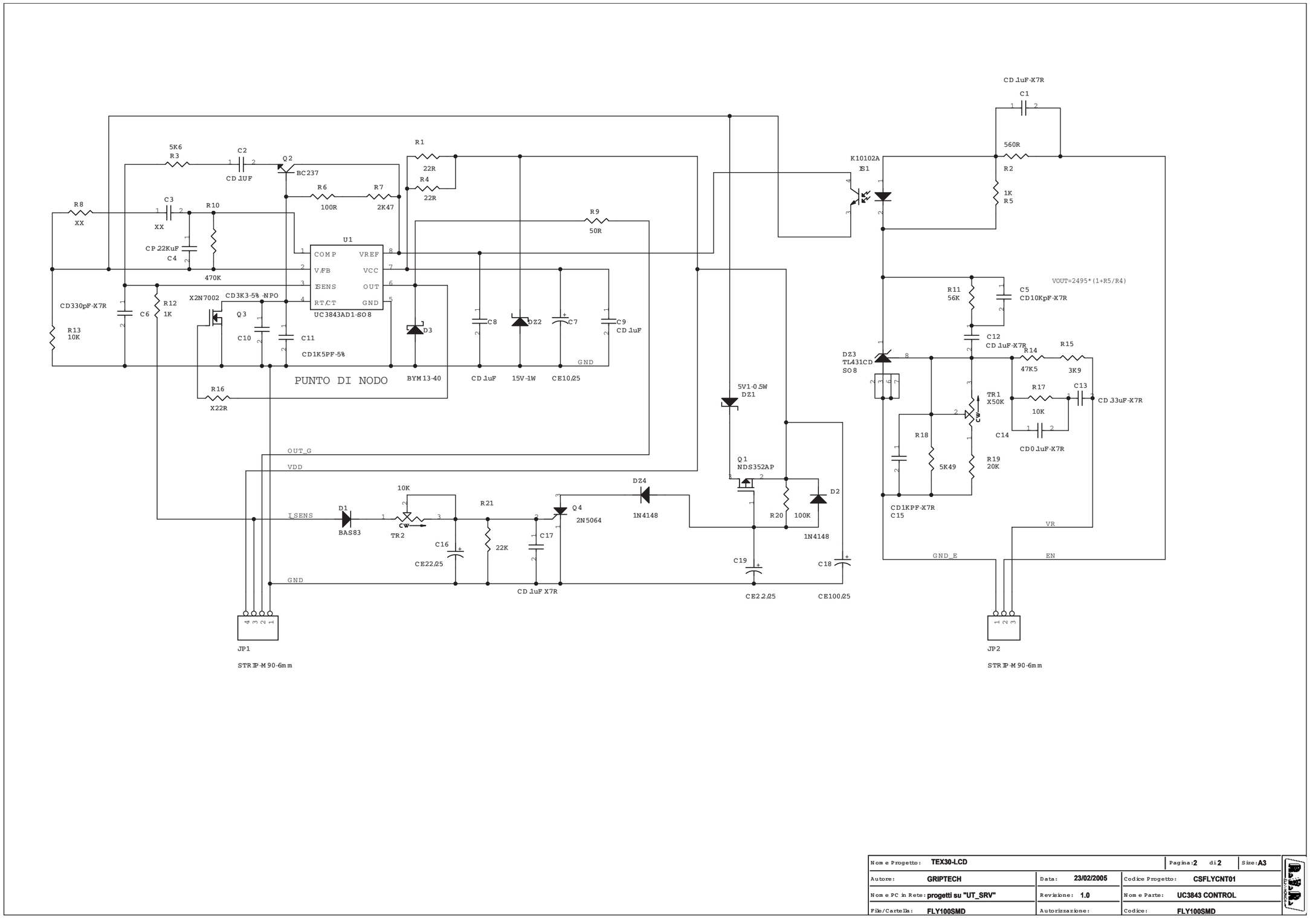
Autore:	GRIPTECH	Data: 10/01/2005		Codice Progetto:	FLY100 3842
Nome PC in Rete:	progetti su "UT_SRV"	Revisione: 2.0		Nome Parte:	POWER SUPPLY 5-18-24VC 100W
File/Cartella:	FLY100SMD	Autorizzazione:		Codice:	FLY100SMD



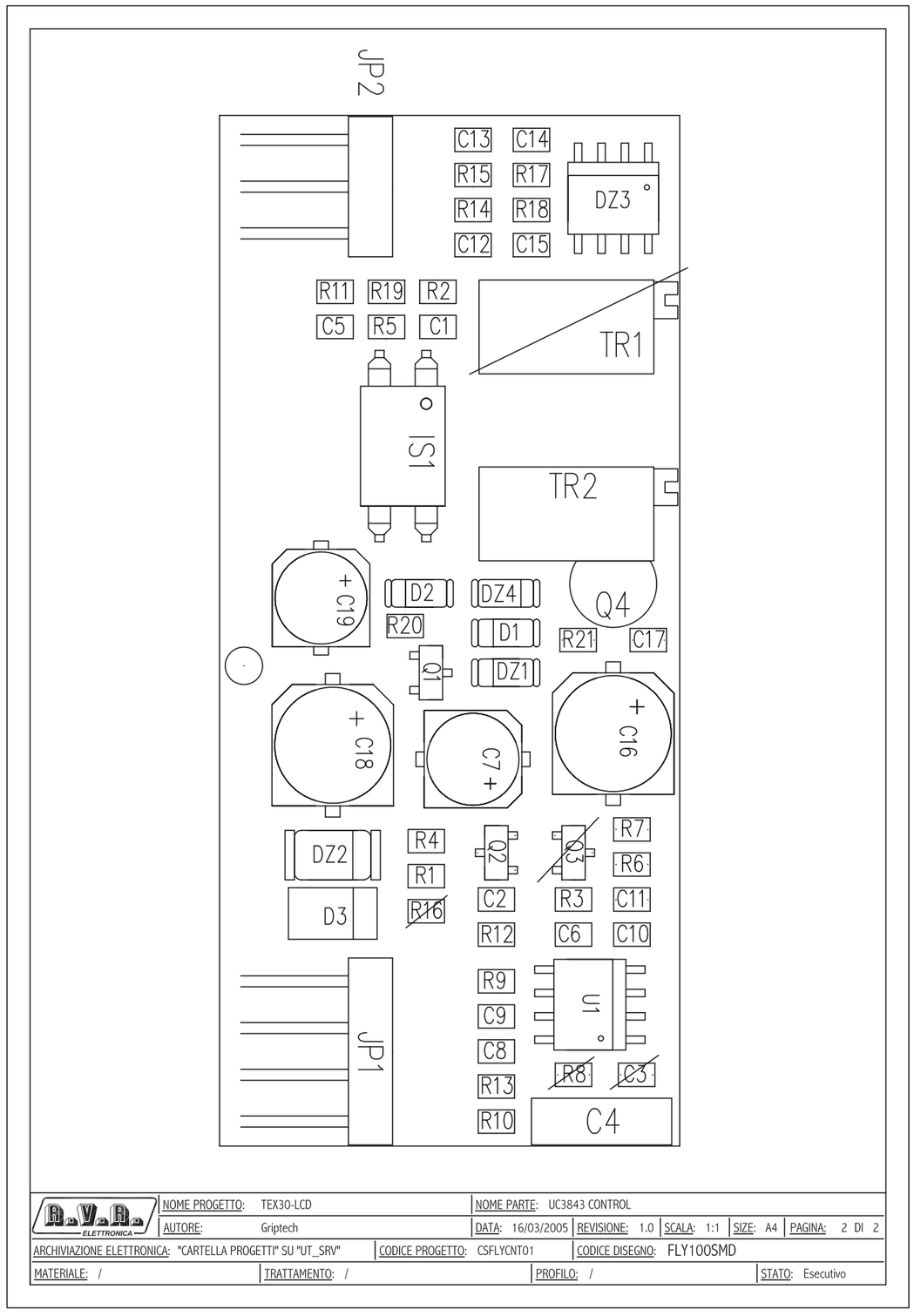
R.V.R. ELETTRONICA	NOME PROGETTO: TEX30-LCD	NOME PARTE: Power Supply FLY100SMD Layout	
	AUTORE: Griptech	DATA: 16/03/2005 | REVISIONE: 1.0 | SCALA: 1:1 | SIZE: A4 | PAGINA: 1 DI 2	
ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"	CODICE PROGETTO: FLY100 3842	CODICE DISEGNO: FLY100SMD	
MATERIALE: /	TRATTAMENTO: /	PROFILO: /	STATO: Esecutivo

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

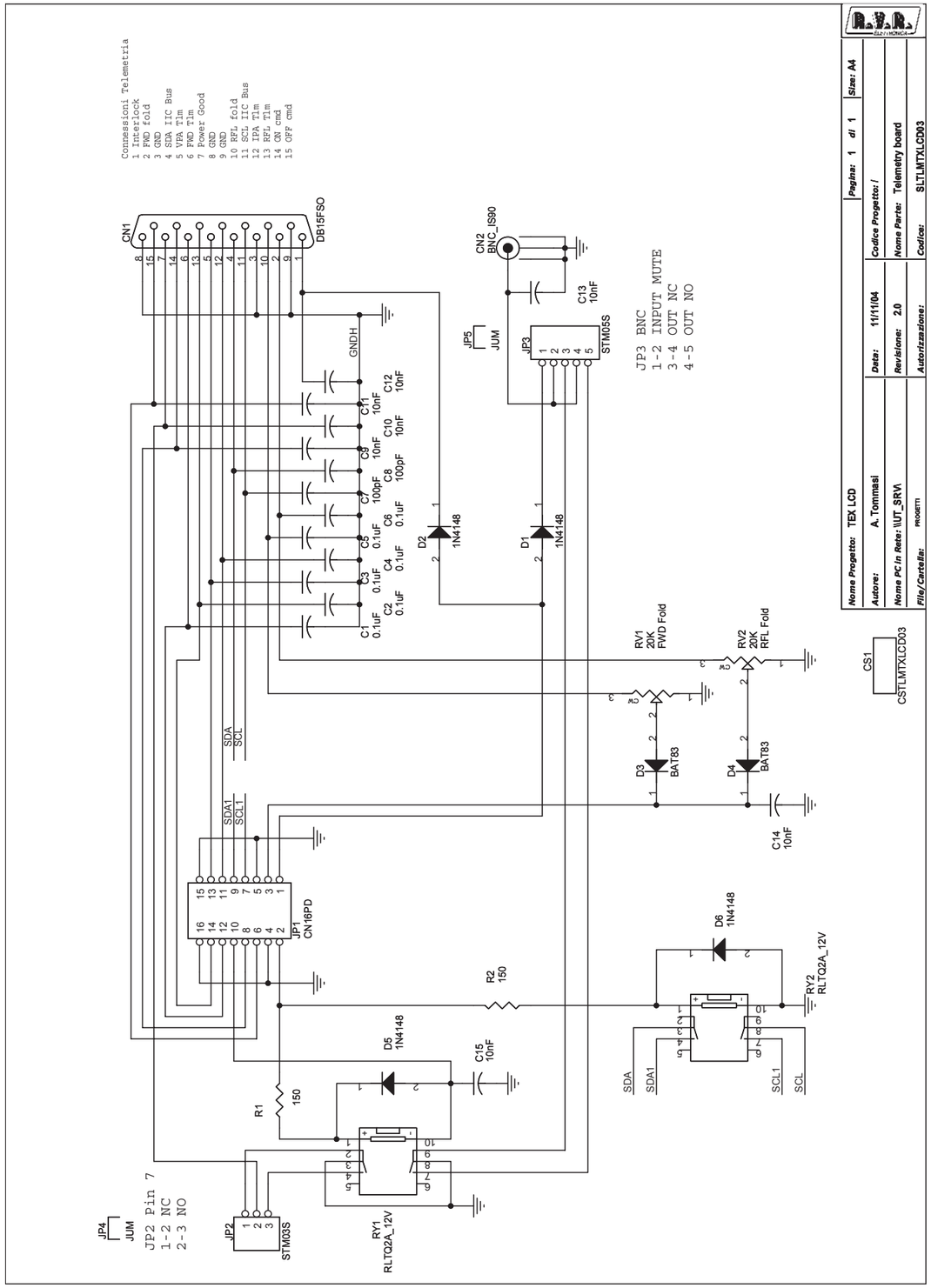


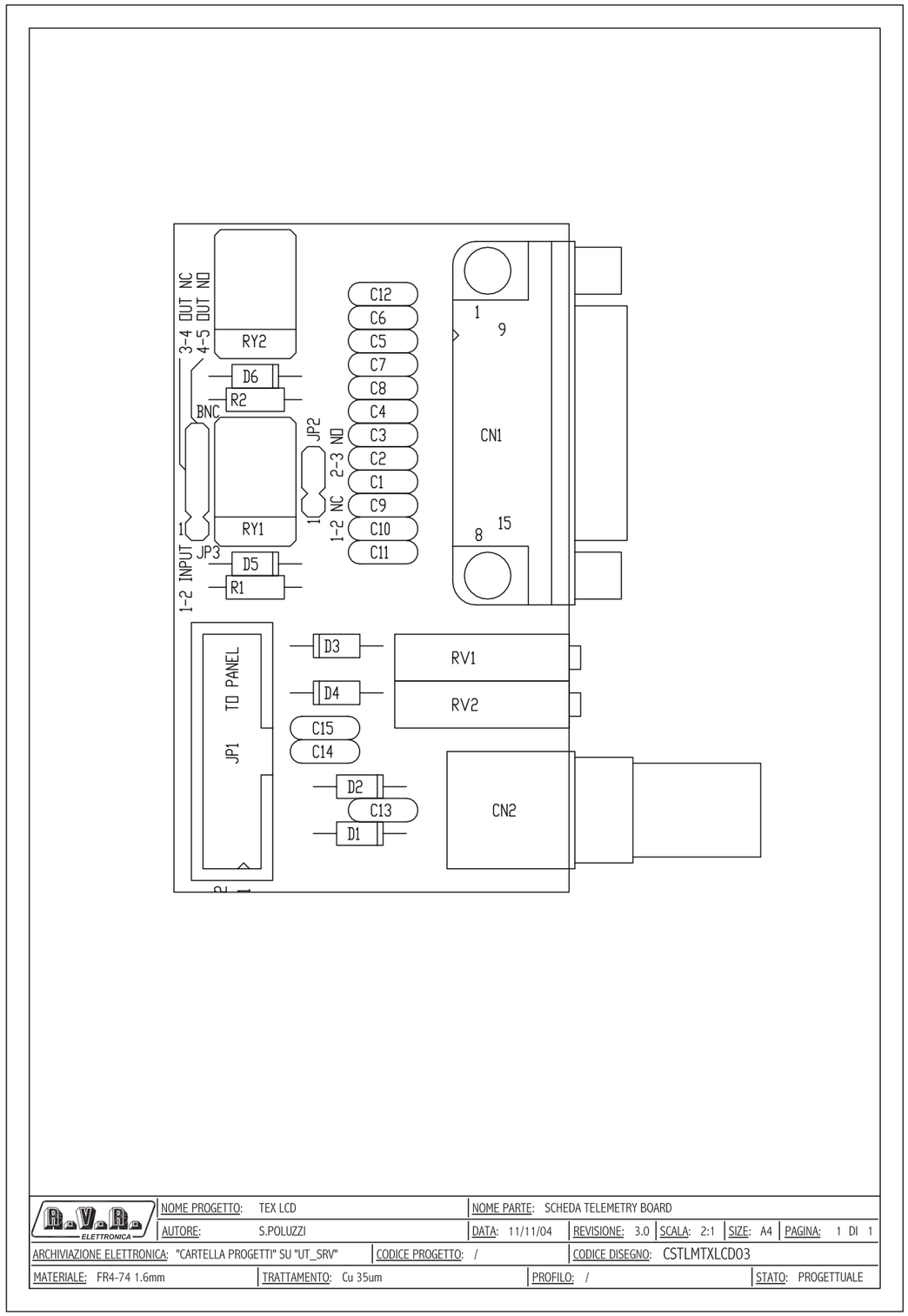
Nome Progetto: TEX30-LCD			Pagina: 2 di 2 Size: A3
Autore: GRIPTECH	Data: 23/02/2005	Codice Progetto: CSFLYCNT01	
Nome PC in Rete: progetti su "UT_SRV"	Revisione: 1.0	Nome Parte: UC3843 CONTROL	
File/Cartella: FLY100SMD	Autorizzazione:	Codice: FLY100SMD	



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


Connessioni Telemetria
1 Interlock
2 FWD fold
3 GND
4 SDA IIC Bus
5 VFA Tlm
6 FWD Tlm
7 Power Good
8 GND
9 GND
10 RFL fold
11 SCL IIC Bus
12 IPA Tlm
13 RFL Tlm
14 ON cmd
15 OFF cmd
CN1
DB15FSO
CN2
BNC_IS90
C13
10nF
JP5
JUM
JP3
STM05S
JP3 BNC
1-2 INPUT MUTE
3-4 OUT NC
4-5 OUT NO
GNDH
C11
10nF
C12
10nF
C9
10nF
C10
10nF
C7
100pF
C8
100pF
C5
0.1uF
C6
0.1uF
C3
0.1uF
C4
0.1uF
C1
0.1uF
C2
0.1uF
D2
1N4148
D1
1N4148
RV1
20K
FWD Fold
RV2
20K
RFL Fold
D3
BAT83
D4
BAT83
C14
10nF
SDA
SCL
SDA1
SCL1
JP1
CN16PD
D6
1N4148
RY2
RLTQ2A_12V
R2
150
D5
1N4148
C15
10nF
R1
150
JP4
JUM
JP2 Pin 7
1-2 NC
2-3 NO
JP2
STM03S
RY1
RLTQ2A_12V
CS1
CSTLMTXLCD03
Nome Progetto: TEX LCD
Autore: A.Tommasi
Nome PC in Rete: \UT_SRV\
File/Cartella: mioserm
Data: 11/11/04
Revisione: 2.0
Autorizzazione:
Codice Progetto: /
Nome Parte: Telemetry board
Codice: SLTLMTXLCD03
Pagina: 1 di 1
Size: A4


3-4 OUT NC
4-5 OUT NO
RY2
D6
R2
BNC
JP2
2-3 NO
1-2 NC
RY1
JP3
D5
R1
1-2 INPUT
C12
C6
C5
C7
C8
C4
C3
C2
C1
C9
C10
C11
1
9
CN1
15
8
TO PANEL
JP1
D3
D4
C15
C14
D2
C13
D1
RV1
RV2
CN2
NOME PROGETTO: TEX LCD
NOME PARTE: SCHEDA TELEMETRY BOARD
AUTORE: S.POLUZZI
DATA: 11/11/04
REVISIONE: 3.0
SCALA: 2:1
SIZE: A4
PAGINA: 1 DI 1
ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"
CODICE PROGETTO: /
CODICE DISEGNO: CSTLMTXLCD03
MATERIALE: FR4-74 1.6mm
TRATTAMENTO: Cu 35um
PROFILO: /
STATO: PROGETTUALE

Telemetry board Revised: Wednesday, February 25, 2004
SLTLMTXLCD03 Revision: 02
TEX-LCD/RXRL-LCD/PTRL-LCD
RVR0
Andrea Tommasi

Item	Quantity	Reference	Part	Description	
1	1	CN1	DB15FSO	Connettore DB15 femm. cs 90°	
2	1	CN2	BNC_IS90	Connettore BNC metallico 90°	
3	1	CS1	CSTLMTXLCD02	Circuito stampato	
4	6	C1, C2, C3, C4, C5, C6	0.1uF	Cond. ceramico p 5mm	
5	2	C7, C8	100pF	Cond. ceramico p 5mm	
6	7	C9, C10, C11, C12, C13, C14, C15	10nF	Cond. ceramico p 5mm	
7	4	D1, D2, D5, D6	1N4148	Diodo in vetro DO35	
8	2	D3, D4	BAT83	Diodi Hot carrier DO35	
9	1	JP1	CN16PD	Connettore 16 poli Flat cs	
10	1	JP2	STM03S	Strip maschio 3 pin	
11	1	JP3	STM05S	Strip maschio 5 pin	
12	2	JP4, JP5	JUM	Ponticello Jumper	**Nota 1**
13	2	RV1, RV2	20K	Trimmer Rg H 3006	
14	2	RY2, RY1	RLTQ2A_12V	Rele' TQ2	
15	2	R1, R2	150	Res. 1/4W	

Nota 1 Inserire i jumper in posizione:
2-3 in JP2
1-2 in JP3