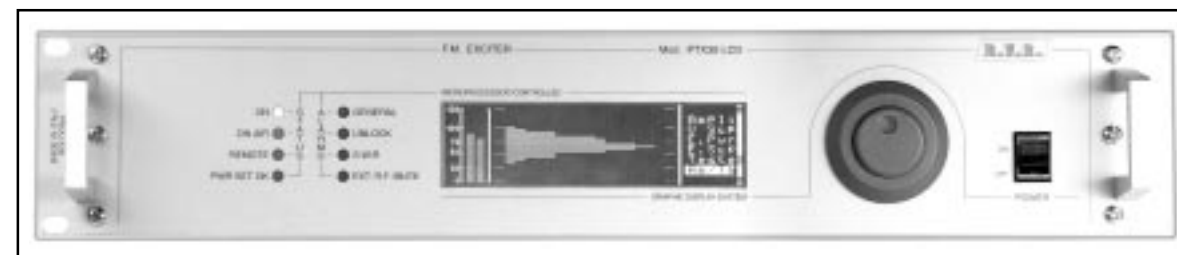

PTX LCD



User Manual

Volume 2: Technical Appendix

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

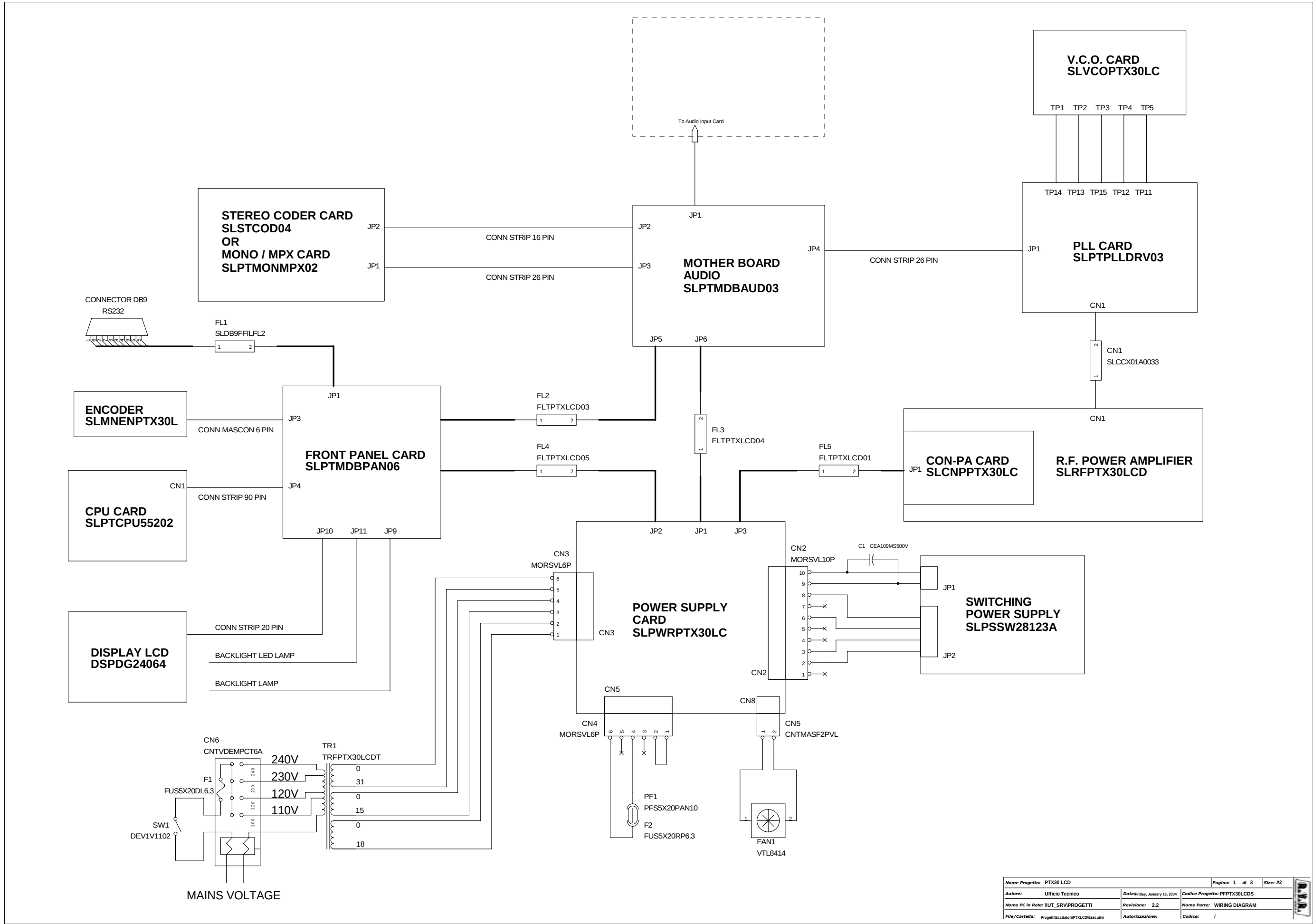
Questa parte del manuale contiene i dettagli tecnici riguardanti la costruzione delle singole schede componenti il PTX LCD. L'appendice è composta dalle seguenti sezioni:

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

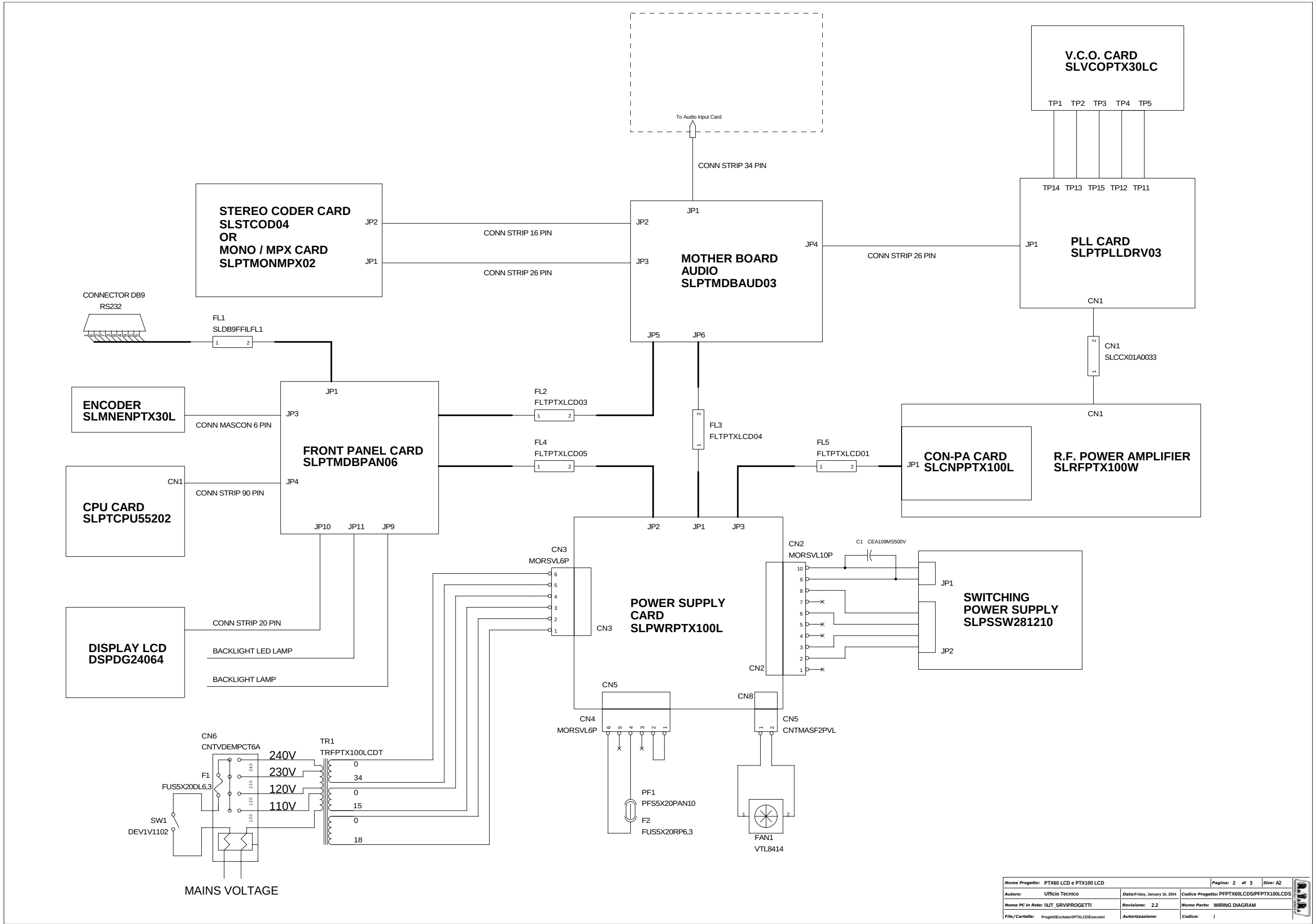
Description	RVR Code	Vers. Page	
Wiring Diagrams		2.2	1
BNC Connectors Card	SLPTAUSBNC04	2.0	5
Audio Input Card	SLPTAUDINP04	2.0	8
Audio Motherboard	SLPTMDBAUD03	2.0	11
Mono/MPX Coder Card	SLPTMONMPX02	2.0	13
Stereo Coder Card	SLSTCOD04	2.1	16
VCO Card	SLVCOPTX30LC	2.0	19
PLL & Driver Card	SLPTPLLDRV03	2.1	21
CPU Card	SLPTCPU55202	2.1	26
Main Panel Card	SLPTMDBPAN06	2.1	28
Power Supply	SLPWRPTX30LC	2.0	31
Switching Power Supply	SLPSSW28123A	2.1	36
External Remote Card vers 1.3	SLTELEM013	2.0	40
External Remote Card vers 2.0	SLTELEM002	2.0	42
30W Power Amp connector	SLCNPPTX30LC	2.0	44
60-100W Power Amp connector	SLCNPPTX100L	2.0	46
30W RF Power amplifier	SLRFPTX30LCD	2.1	48
60-100W RF Power amplifier	SLRFPTX100W	2.2	51
Digital Audio Input	AUINCO05	2.0	53
Audio Input Selector	RXAES	2.0	55
Digital Audio Input TRDSP	TRDSP	2.0	58
Optional 24Vsupply board	SLBATT24V	2.1	59

Document History

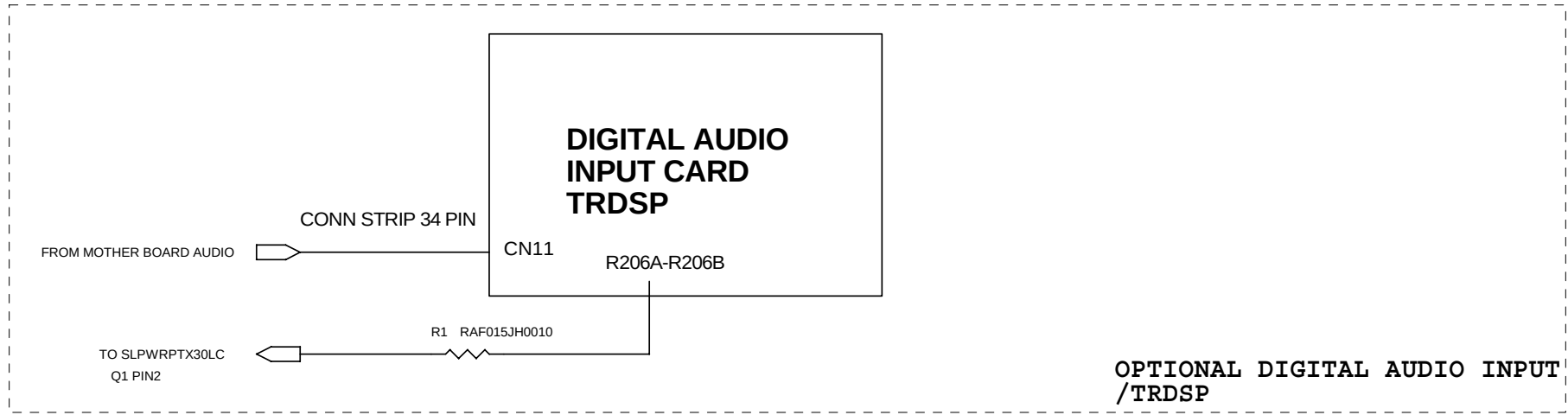
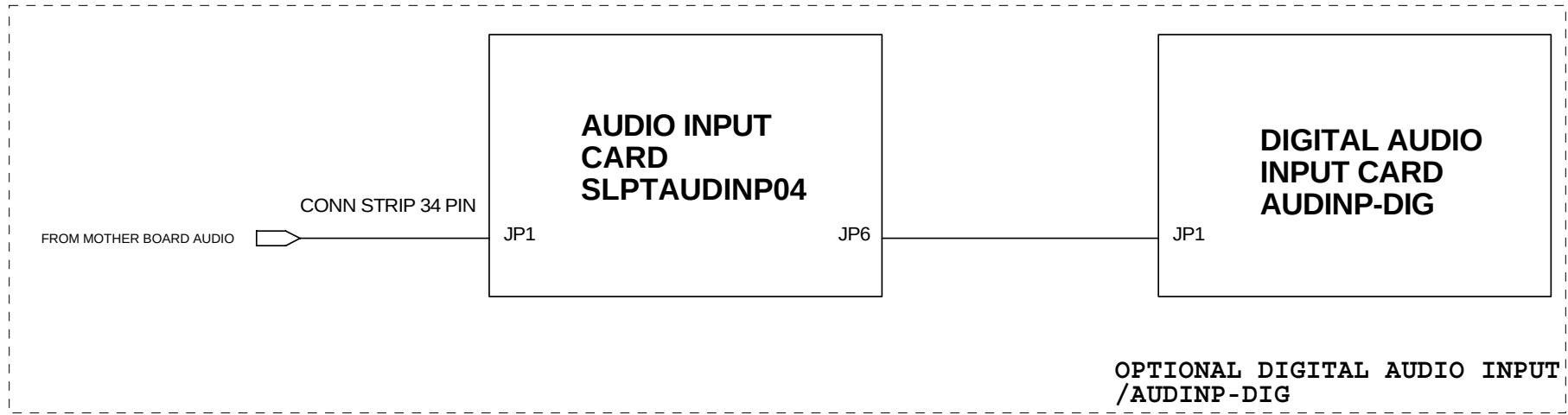
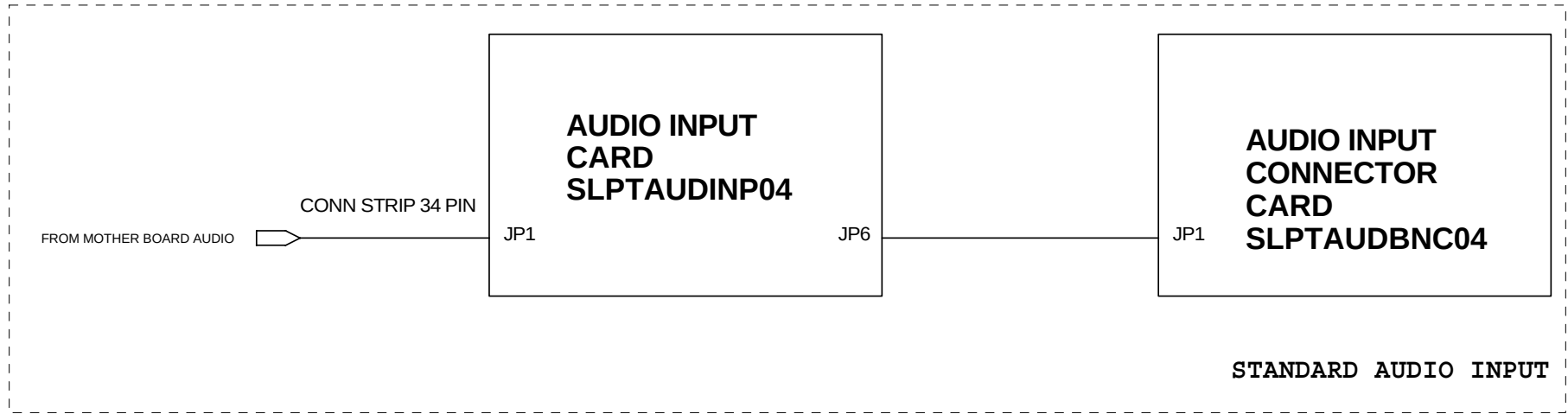
Date	Version	Reason	Editor
18/06/03	2.0	First Release in A3 Format	G. De Donno
29/09/03	2.1	Minor Corrections	J. Berti
23/01/04	2.2	Wiring Diagrams and Final Stage Updates	J. Berti
10/02/04	2.3	RF Power Amplifier Updates	J. Berti



Nome Progetto:	PTX30 LCD	Pagina:	1 di 3	Size:	A2
Autore:	Ufficio Tecnico	Data:	Friday, January 16, 2004	Codice Progetto:	PFPTX30LCDS
Nome PC in Rete:	UUT_SRVPROGETTI	Revisione:	2.2	Nome Parte:	WIRING DIAGRAM
File/Cartella:	Progetti\Eccellenti\PTX30LCD\Esecutivi	Autorizzazione:		Codice:	/



Nome Progetto: PTX60 LCD e PTX100 LCD		Pagina: 2 di 3	Size: A2
Autore: Ufficio Tecnico	Data: Friday, January 15, 2004	Codice Progetto: PFPTX60LCDSP/PTX100LCDSP	
Nome PC in Rete: \IUT_SRV\PROGETTI	Revisione: 2.2	Nome Parte: WIRING DIAGRAM	
File/Cartella: Progetti\Eccitatori\PTXLCD\Esecutivi	Autorizzazione:	Codice: /	

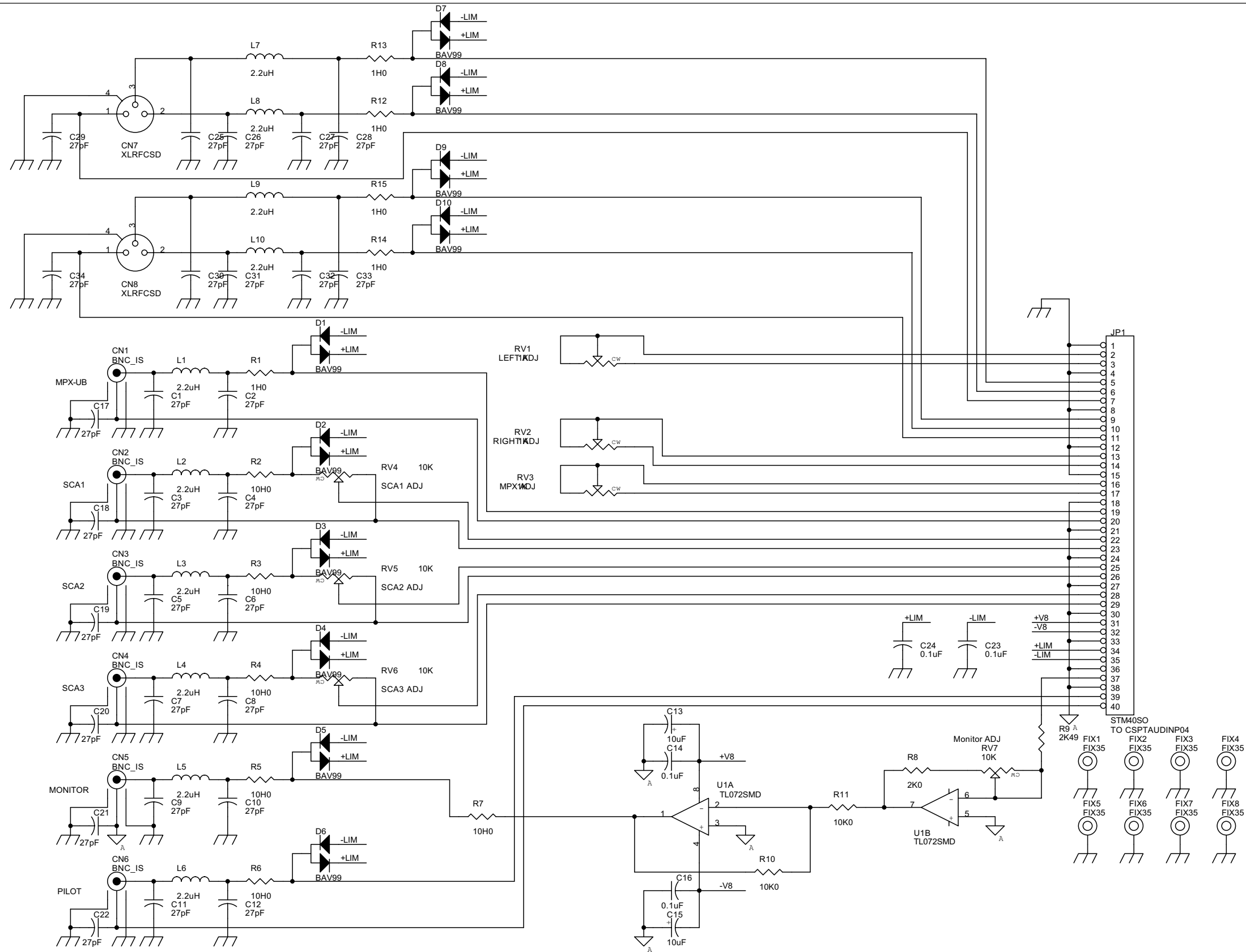


Nome Progetto: PTX-LCD		Pagina: 3 di 3	Size: A3
Autore: Ufficio Tecnico	Data: Friday, January 16, 2004	Codice Progetto: PPTX30LCDS/PPTX80LCDS/PPTX30LCDS	
Nome PC in Rete: \IUT_SRVIPROGETTI	Revisione: 2.2	Nome Parte: WIRING DIAGRAM	
File/Cartella: Progetti\Eccitatori\PTXLCD\Esecutivi	Autorizzazione:	Codice: /	

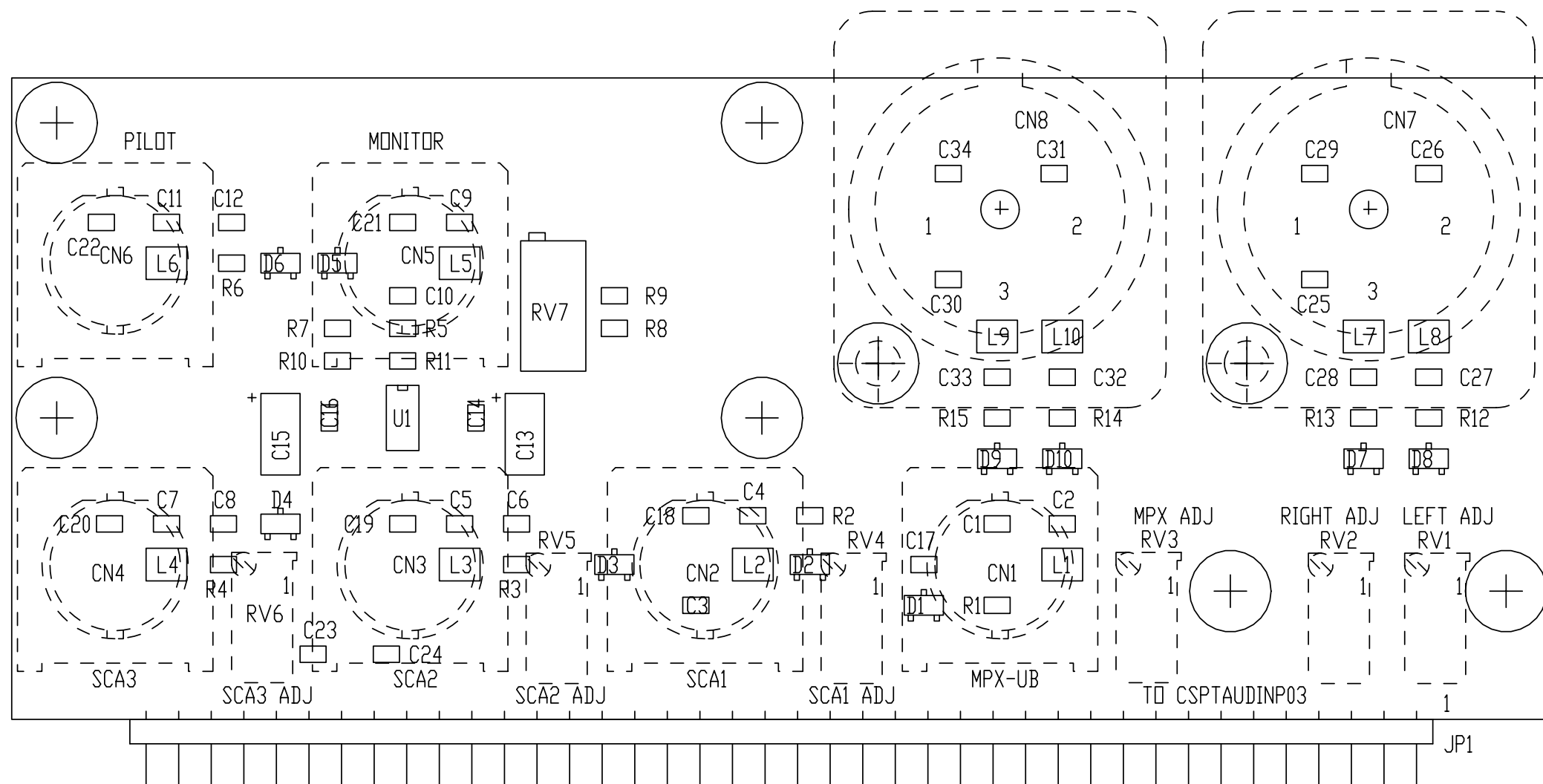


WIRING DIAGRAM - Bill Of Materials

Item	Quantity	Reference	Part
1	1	C1	CEA109MS500V
2	1	CN1	SLCCX01A0033
3	1	CN2	MORSVL10P
4	2	CN4,CN3	MORSVL6P
5	1	CN5	CNTMASF2PVL
6	1	CN6	CNTVDEMPCT6A
7	1	FAN1	VTL8414
8	1	FL1	SLDB9FFILFL1
9	1	FL2	FLTPTXLCD03
10	1	FL3	FLTPTXLCD04
11	1	FL4	FLTPTXLCD05
12	1	FL5	FLTPTXLCD01
13	1	F1	FUS5X20DL6,3
14	1	F2	FUS5X20RP6,3
15	1	PF1	PFS5X20PAN10
16	1	SW1	DEV1V1102
17	1	TR1	TRFPTX30LCDT
18	1	R1	RAF015JH0010 (only with TRDSP option)



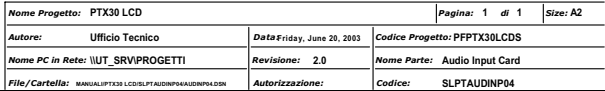
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Autore: Ufficio Tecnico	Data: 18/06/03	Codice Progetto: PFPTX30LCDS	
Nome PC in Rete: \\UT_SRV\PROGETTI	Revisione: 2.0	Nome Parte: BNC Connectors Card	
File/Cartella: MANUALE\PTX30 LCD\SLPTAUDBNC04\IUNCO04.DSN	Autorizzazione:	Codice: SLPTAUDBNC04	

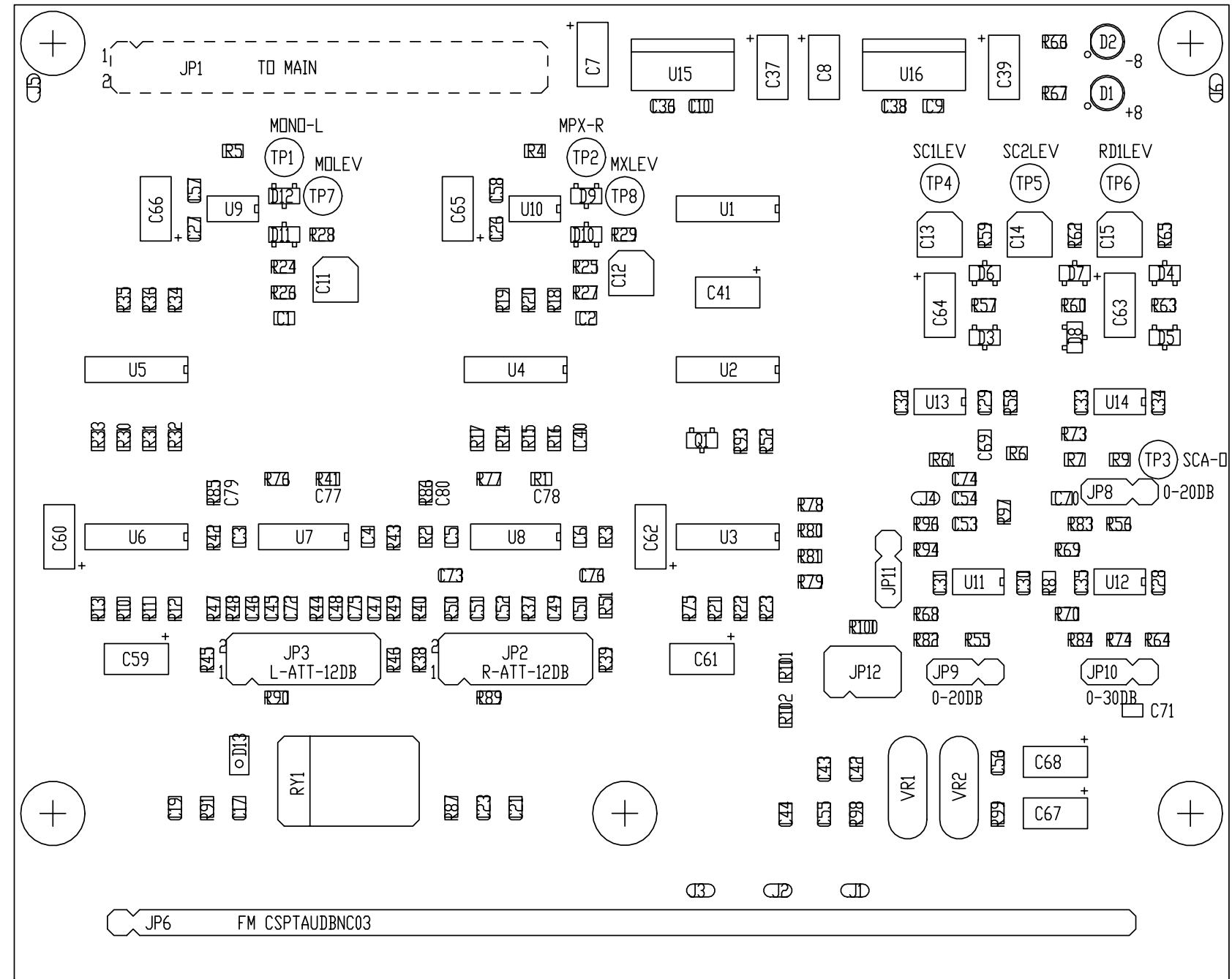


Nome Progetto: PTX30 LCD		Pagina: 1 di 1	Size: A3
Autore: Ufficio Tecnico		Data: 18/06/03	Codice Progetto: PFPTX30LCDS
Nome PC in Rete: \\UT_SRV\PROGETTI		Revisione: 2.0	Nome Parte: BNC Connectors Card
File/Cartella: MANUAL\PTX30 LCD\SLPTAUDBNC04\AUDBNC04.DWG		Autorizzazione:	Codice: SLPTAUDBNC04
Scala: /	Materiale: /	Trattamento: /	Profilo: /

BNC Connectors Card - Bill of materials

Item	Qty	Reference	Part
1	6	CN1,CN2,CN3,CN4,CN5,CN6	CNTBNCFCSDM
2	2	CN7,CN8	CNTXLRFC3P
3	28	C1,C2,C3,C4,C5,C6,C7,C8, C9,C10,C11,C12,C17,C18, C19,C20,C21,C22,C25,C26, C27,C28,C29,C30,C31,C32, C33,C34	27pF
4	2	C15,C13	10uF
5	4	C14,C16,C23,C24	0.1uF
6	10	D1,D2,D3,D4,D5,D6,D7,D8, D9,D10	DISBAV99
7	8	FIX1,FIX2,FIX3,FIX4,FIX5, FIX6,FIX7,FIX8	FIX35
8	1	JP1	STM40SO
9	10	L1,L2,L3,L4,L5,L6,L7,L8, L9,L10	2.2uH
10	3	RV1,RV2,RV3	1K
11	3	RV4,RV5,RV6	10K
12	5	R1,R12,R13,R14,R15	1H0
13	6	R2,R3,R4,R5,R6,R7	10H0
14	1	R8	2K0
15	1	R9	2K49
16	2	R10,R11	10K0
17	1	U1	TL072SMD
18	1	RV7	10K





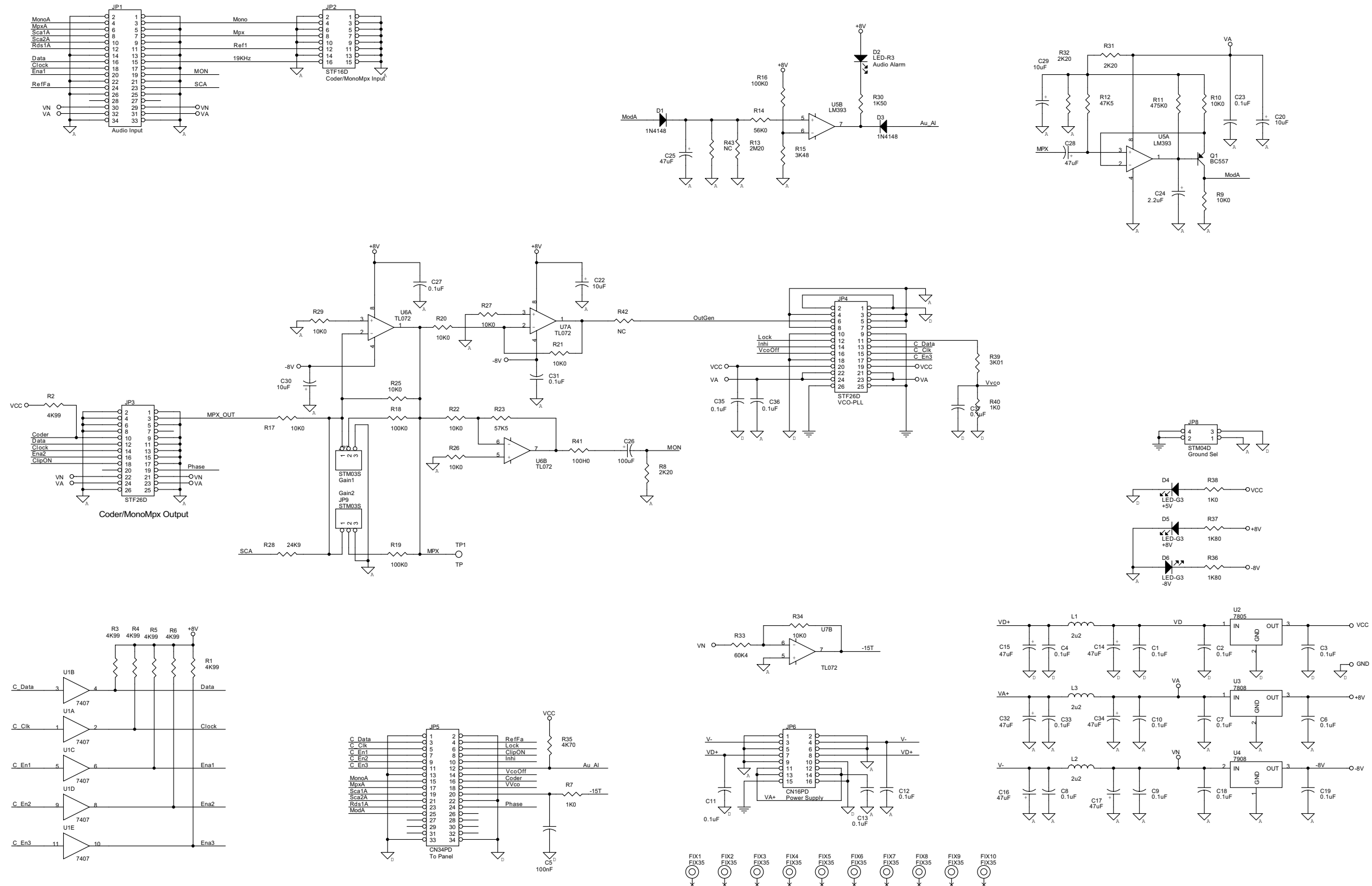
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Autore: Ufficio Tecnico		Data: 18/06/03	Codice Progetto: PFPTX30LCDS
Nome PC in Rete: \\UT_SRV\PROGETTI		Revisione: 2.0	Nome Parte: Audio Input Card
File/CartellaManual\PTX30 LCD\SLPTAUDINP04\lyaudinp04.dwg		Autorizzazione:	Codice: SLPTAUDINP04
Scala: 1:1	Materiale: /	Trattamento: /	Profilo: /



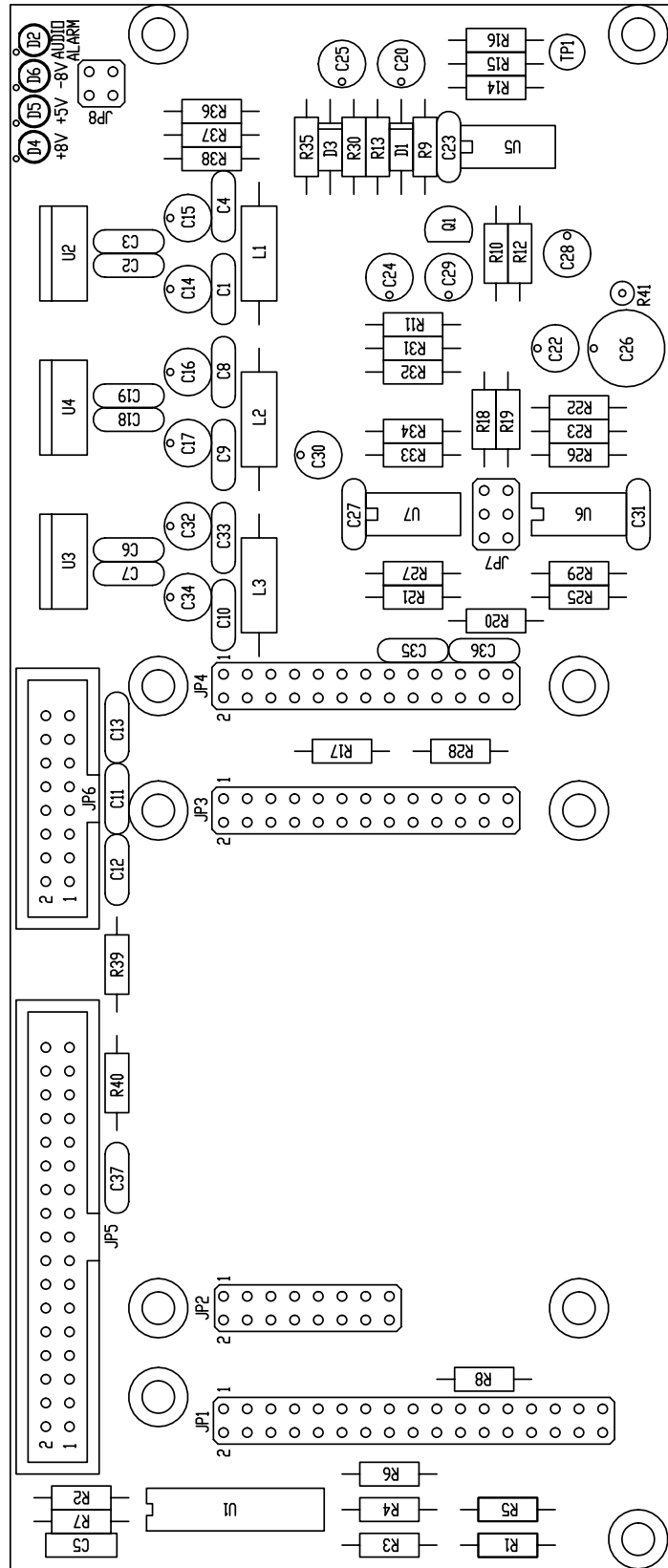
Audio Input Card - Bill of materials

Item	Qty	Reference	Part
1	6	C1,C2,C17,C19,C21,C23	10pF
2	26	C3,C4,C5,C6,C9,C10,C26, C27,C28,C29,C30,C31,C32, C33,C34,C35,C36,C38,C40, C55,C56,C57,C58,C69,C70, C71	0.1uF
3	15	C7,C8,C37,C39,C41,C59, C60,C61,C62,C63,C64,C65, C66,C67,C68	10uF
4	5	C11,C12,C13,C14,C15	2.2uF
5	3	C42,C43,C44	470pF
6	5	C45,C47,C49,C52,C53	10nF
7	10	C46,C48,C50,C51,C54,C72, C73,C74,C75,C76	0.47uF
8	2	D1,D2	LED-G3
9	5	D3,D5,D8,D9,D12	NC
10	5	D4,D6,D7,D10,D11	2802
11	1	D13	BAS32L
12	5	FIX1,FIX2,FIX3,FIX4,FIX5	FIX35
13	1	JP1	STM34D
14	2	JP2,JP3	STM12D
15	1	JP6	STF40S
16	4	JP8,JP9,JP10,JP11	STM03S
17	1	JP12	STM06D
18	4	J1,J2,J3,J4	GNDCC
19	2	J5,J6	JSMD
20	1	Q1	BC847
21	1	RY1	RLYTQ2V12
22	15	R1,R2,R3,R9,R37,R41,R42, R43,R44,R55,R56,R73,R85, R86,R96	10K0
23	2	R4,R5	47H0
24	3	R6,R7,R8	20K0
25	3	R10,R21,R78	11K8
26	3	R11,R22,R79	10K5
27	7	R12,R23,R38,R39,R45,R46, R80	9K31
28	3	R13,R75,R81	8K25
29	4	R14,R30,R76,R77	4K99
30	2	R15,R31	7K87
31	2	R16,R32	12K4
32	2	R17,R33	19K6
33	2	R18,R34	30K9
34	2	R19,R35	49K9
35	2	R20,R36	78K7
36	5	R24,R25,R57,R60,R63	100K0
37	5	R26,R27,R58,R61,R64	93K1
38	5	R28,R29,R59,R62,R65	1K0
39	6	R40,R47,R89,R90,R100, R102	16K5
40	5	R48,R49,R50,R51,R97	2M2
41	2	R52,R93	4K7
42	2	R66,R67	2K2
43	3	R68,R69,R70	1M0

44	1	R74	33K2
45	3	R82,R83,R84	1K10
46	2	R91,R87	604H0
47	1	R94	51H0
48	2	R98,R99	10H0
49	1	R101	18K7
50	8	TP1,TP2,TP3,TP4,TP5,TP6, TP7,TP8	TP
51	2	U1,U2	4094SMD
52	4	U3,U4,U5,U6	4051SMD
53	2	U8,U7	TL074SMD
54	6	U9,U10,U11,U12,U13,U14	TL072SMD
55	1	U15	7808
56	1	U16	7908
57	2	VR1,VR2	S12
58	4	C77,C78,C79,C80	33pF



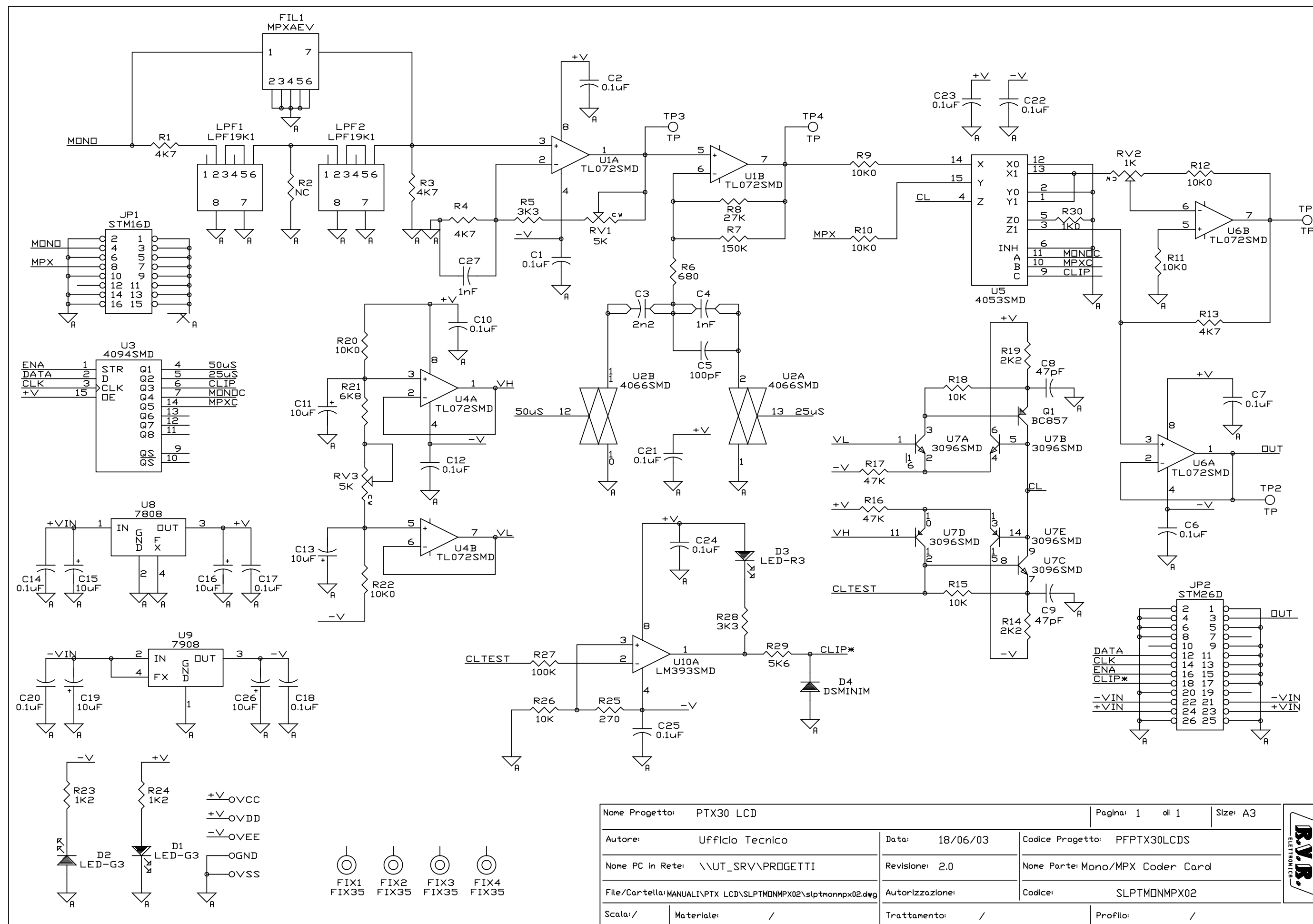
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Nome PC in Rete:	\\UT_SRV\PROGETTI	Revisione:	2.0
File/Cartella:	MANUAL\PTX30 LCD\PTX30LCD\AUDIO\PTX30LCD.DSN	Nome Parte:	Audio Motherboard
Autorizzazione:		Codice:	SLPTMDBAUD03

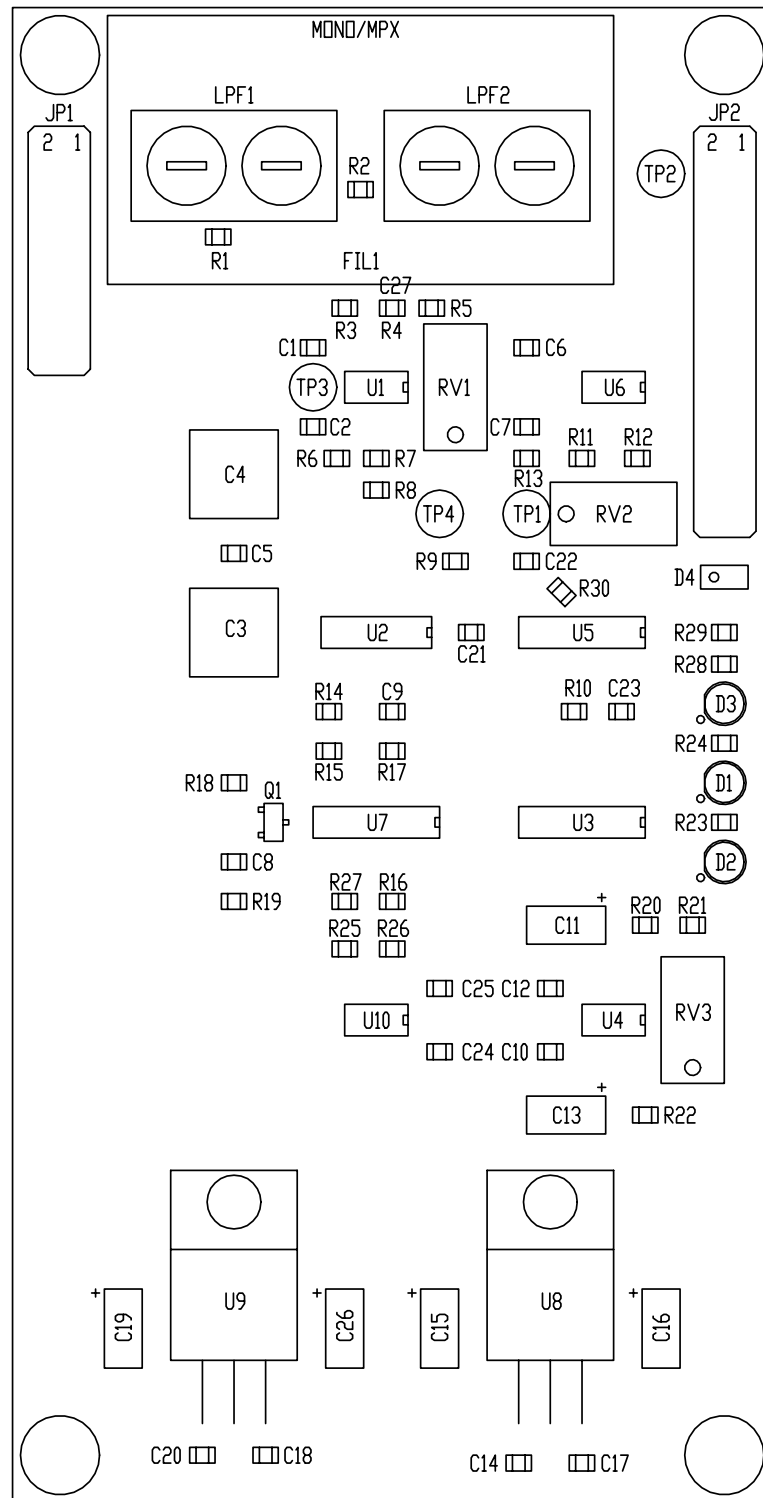


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Autore		Ufficio Tecnico		Data		18/06/03		Codice Progetto		PFPTX30LCD			
Nome PC in Rete		\\UT_SRV\PROGETTI		Revisione		2.0		Nome Parte		AUDIO MOTHERBOARD			
File/Cartella/Manuale/NCB/CD/SLPTMBAUD03\slptmbaud03.dwg				Autorizzazione				Codice		SLPTMBAUD03			
Scala/		Materiale		Trattamento		/		Profilo		/			

Audio Motherboard - Bill of materials

Item	Qty	Reference	Part
1	21	C1,C2,C3,C4,C6,C7,C8,C9,C10,C11,C12,C13,C18,C19,C23,C27,C31,C33,C35,C36,C37	0.1uF
2	1	C5	100nF
3	8	C14,C15,C16,C17,C25,C28,C32,C34	47uF
4	4	C20,C22,C29,C30	10uF
5	1	C24	2.2uF
6	1	C26	100uF
7	2	D1,D3	1N4148
8	1	D2	LED-R3
9	3	D4,D5,D6	LED-G3
10	10	FIX1,FIX2,FIX3,FIX4,FIX5,FIX6,FIX7,FIX8,FIX9,FIX10	FIX35
11	1	JP1	Audio Input
12	1	JP2	STF16D
13	2	JP4,JP3	STF26D
14	1	JP5	CN34PD
15	1	JP6	CN16PD
16	2	JP9,JP7	STM03S
17	1	JP8	STM04D
18	3	L1,L2,L3	2u2
19	1	Q1	BC557
20	6	R1,R2,R3,R4,R5,R6	4K99
21	3	R7,R38,R40	1K0
22	3	R8,R31,R32	2K20
23	11	R9,R10,R17,R20,R21,R22,R25,R26,R27,R29,R34	10K0
24	1	R11	475K0
25	1	R12	47K5
26	1	R13	2M20
27	1	R14	56K0
28	1	R15	3K48
29	3	R16,R18,R19	100K0
30	1	R28	24K9
31	1	R30	1K50
32	1	R33	60K4
33	1	R35	4K70
34	2	R36,R37	1K80
35	1	R39	3K01
36	1	R41	100H0
37	1	R43	NC
38	1	TP1	TP
39	1	U1	7407
40	1	U2	7805
41	1	U3	7808
42	1	U4	7908
43	1	U5	LM393
44	2	U6,U7	TL072
45	1	R42	NC
46	1	R23	57K5



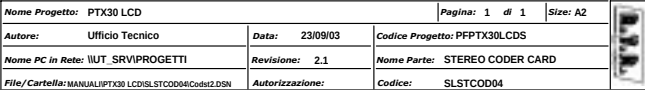


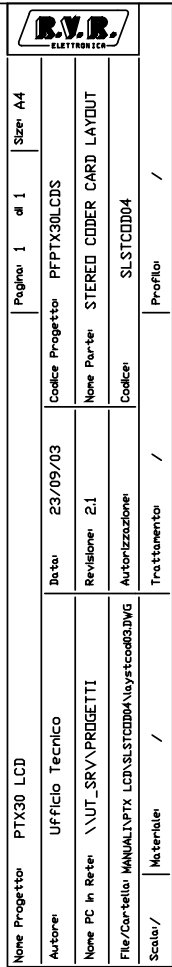
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Nome PC in Rete		\\UT_SRV\PROGETTI		Revisione		2.0		18/06/03		Nome Parte		Mono/MPX Coder Card													
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Scala/		/		Trattamento		/				Profilo		/													

Mono/MPX Coder Card - Bill of materials

Item	Reference	Part	Description
1	CS1	CS	Circuito stampato
2	JP1	STM16D	Strip M 2x2.54 16 pin.
3	LPF1	LPF19K1	
4	LPF2	LPF19K1	
5	FIL1	MPXAEV	
6	U1	TL072SMD	CI lin. TL072SMD SMD
7	U2	4066SMD	CI dig. 4066SMD SMD
8	U3	4094SMD	CI dig. 4094SMD SMD
9	U4	TL072SMD	CI lin. TL072SMD SMD
10	U5	4053SMD	CI dig. 4053SMD SMD
11	R1	4K7	Res. SMD 0805 al 5%
12	R2	33K	Res. SMD 0805 al 5%
13	R3	4K7	Res. SMD 0805 al 5%
14	R4	4K7	Res. SMD 0805 al 5%
15	R5	3K3	Res. SMD 0805 al 5%
16	RV1	5K	Trim. mult. 3296X rg V
17	C1	0.1uF	Cond. chip 0805
18	C2	0.1uF	Cond. chip 0805
19	R6	680	Res. SMD 0805 al 5%
20	R7	150K	Res. SMD 0805 al 5%
21	R8	27K	Res. SMD 0805 al 5%
22	R9	10K0	Res. SMD 0805 al 5%
23	C5	100pF	Cond. chip 0805
24	R10	10K0	Res. SMD 0805 al 5%
25	RV2	1K	Trim. mult. 3296X rg V
26	R11	10K0	Res. SMD 0805 al 5%
27	R12	10K0	Res. SMD 0805 al 5%
28	U6	TL072SMD	CI lin. TL072SMD SMD
29	Q1	BC857	Tr. SMD in SOT23 BC857
30	JP2	STM26D	Strip M 2x2.54 26 pin.
31	R20	10K0	Res. SMD 0805 al 1%
32	RV3	5K	Trim. mult. 3296X rg V
33	R22	10K0	Res. SMD 0805 al 1%
34	D1	LED-G3	Led Verde > 3mm
35	D2	LED-G3	Led Verde > 3mm
36	U10	LM393SMD	CI lin. LM393SMD SMD
37	D3	LED-R3	Led Rosso > 3mm
38	D4	DSMINIM	Diodo silicio Minimelf
39	U7	3096SMD	CI lin. 3096SMD SMD
40	R13	4K7	Res. SMD 0805 al 5%
41	R14	2K2	Res. SMD 0805 al 5%
42	R15	10K0	Res. SMD 0805 al 5%
43	R16	47K	Res. SMD 0805 al 5%
44	R17	47K	Res. SMD 0805 al 5%
45	R18	10K0	Res. SMD 0805 al 5%
46	R19	2K2	Res. SMD 0805 al 5%
47	R23	1K2	Res. SMD 0805 al 5%
48	R24	1K2	Res. SMD 0805 al 5%
49	R25	270	Res. SMD 0805 al 5%
50	R27	100K	Res. SMD 0805 al 5%
51	R26	10K0	Res. SMD 0805 al 5%
52	R29	5K6	Res. SMD 0805 al 5%
53	R28	3K3	Res. SMD 0805 al 5%
54	C23	0.1uF	Cond. chip 0805

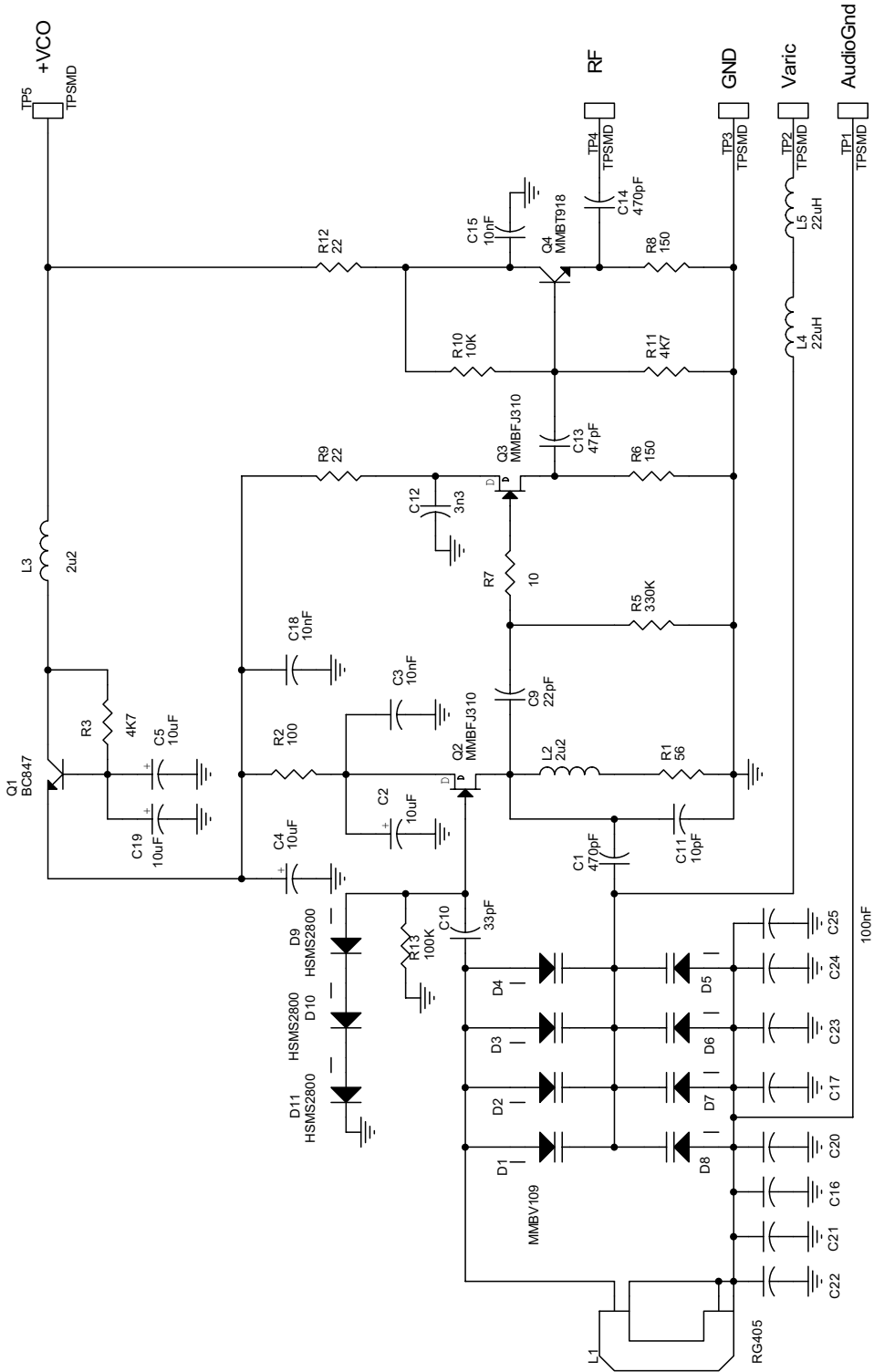
55	C22	0.1uF	Cond. chip 0805
56	C6	0.1uF	Cond. chip 0805
57	C7	0.1uF	Cond. chip 0805
58	C8	47pF	Cond. chip 0805
59	C9	47pF	Cond. chip 0805
60	C24	0.1uF	Cond. chip 0805
61	C25	0.1uF	Cond. chip 0805
62	C10	0.1uF	Cond. chip 0805
63	C12	0.1uF	Cond. chip 0805
64	C14	0.1uF	Cond. chip 0805
65	C17	0.1uF	Cond. chip 0805
66	C20	0.1uF	Cond. chip 0805
67	C18	0.1uF	Cond. chip 0805
68	C15	10uF	Cond. chip 0805
69	C16	10uF	Cond. chip 0805
70	C19	10uF	Cond. chip 0805
71	C26	10uF	Cond. chip 0805
72	C11	10uF	Cond. chip 0805
73	C13	10uF	Cond. chip 0805
74	C21	0.1uF	Cond. chip 0805
75	U9	7908	CI lin. 7908
76	U8	7808	CI lin. 7808
77	C4	1nF	Cond. pol. 1% p. 7mm
78	C3	2.2nF	Cond. pol. 1% p. 7mm
79	R21	6K8	Res. SMD 0805 al 5%
80	R30	1K0	Res. SMD 0805 al 1%
81	C27	1nF	Cond. chip 0805





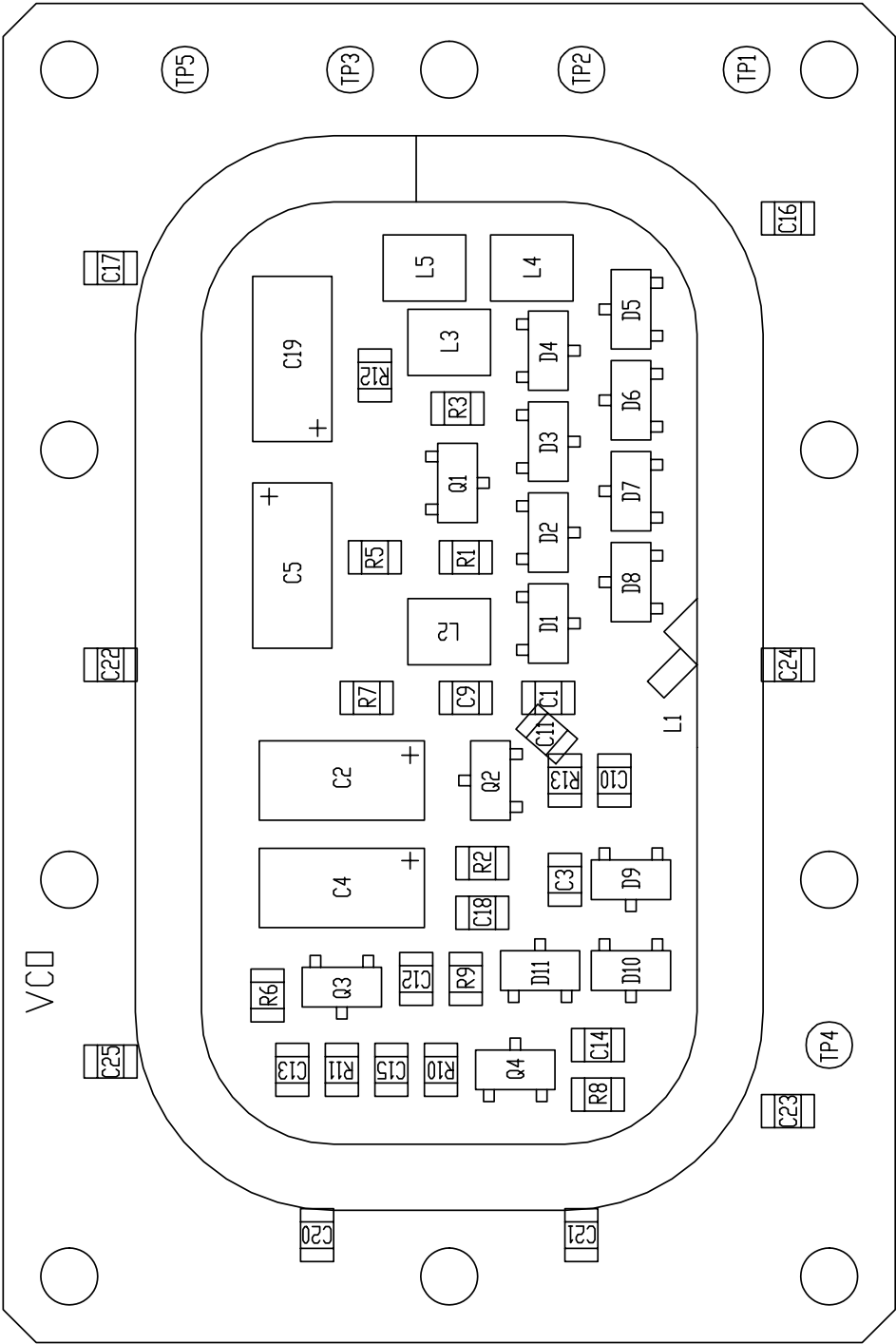
Item	Q.ty	Reference	Part
1	2	CLP1,CLP2	N.C.
2	1	COD1	CTC30-01
3	2	CX1,CX2	220uF
4	22	C1,C2,C5,C6,C11, C14,C15,C21,C22,C24, C25,C26,C27,C28,C29, C30,C37,C39,C40,C41, C46,C47	0.1uF
5	1	C3	100 uF
6	4	C7,C12,C43,C44	47pF
7	2	C8,C31	220pF
8	2	C9,C32	1nFP
9	2	C10,C33	2n2P
10	4	C16,C17,C42,C45	10uF
11	1	C18	CV20pF
12	1	C19	CV40pF
13	4	C4,C13,C20,C23	NC
14	2	C34,C36	100uF
15	2	C35,C38	47uF
16	1	D1	LED-R3
17	1	D2	1N4148
18	4	FIX1,FIX2,FIX3,FIX4	FIX35
19	1	FL1	FLTPB7E
20	1	JP1	STM26D
21	1	JP2	STM16D
22	1	JP3	CN16PD
23	1	Q1	BC327
24	34	R1,R2,R3,R4,R5,R6,R7, R8,R9,R10,R12,R13, R18,R19,R20,R27,R29, R30,R32,R34,R36,R37, R41,R42,R43,R46,R48, R50,R53,R57,R59,R63, R66,R67	10K
25	3	R11,R39,R40	TMV1K
26	2	R14,R65	22K
27	2	R15,R33	TMV10K
28	2	R16,R17	TMV50K
29	4	R21,R22,R52,R56,R68 R69	2K2
30	1	R28	475K
31	2	R31,R58	100K
32	1	R35	15K
33	2	R49,R38,R70	4K7
34	1	R44	3K3
35	1	R45	5K6
36	2	R54,R55	47K
37	1	R60	270
38	1	R61	180K
39	2	R62,R64	680
40	1	U1	4094
41	1	U2	7808

42	5	U4,U6,U8,U9,U12	TL072
43	1	U5	4066
44	2	U7,U10	4053
45	1	U11	LM393
46	1	U13	CA3096



L1 = Cavo schermato semirigido 17cm estremita' calza

Nome Progetto: PTX30 LCD		Pagina: 1	di 1	Size: A4
Autore:	Ufficio Tecnico	Data:	18/06/03	Codice Progetto: PFPTX30LCDS
Nome PC in Rete:	\\UT_SRV\PROGETTI	Revisione:	2.0	Nome Parte: VCO Card
File/Cartella:	MANUALPTX30LCD\UT\PTX30LCD\PTX30LCD	Autorizzazione:		Codice: SLVCOPTX30LC

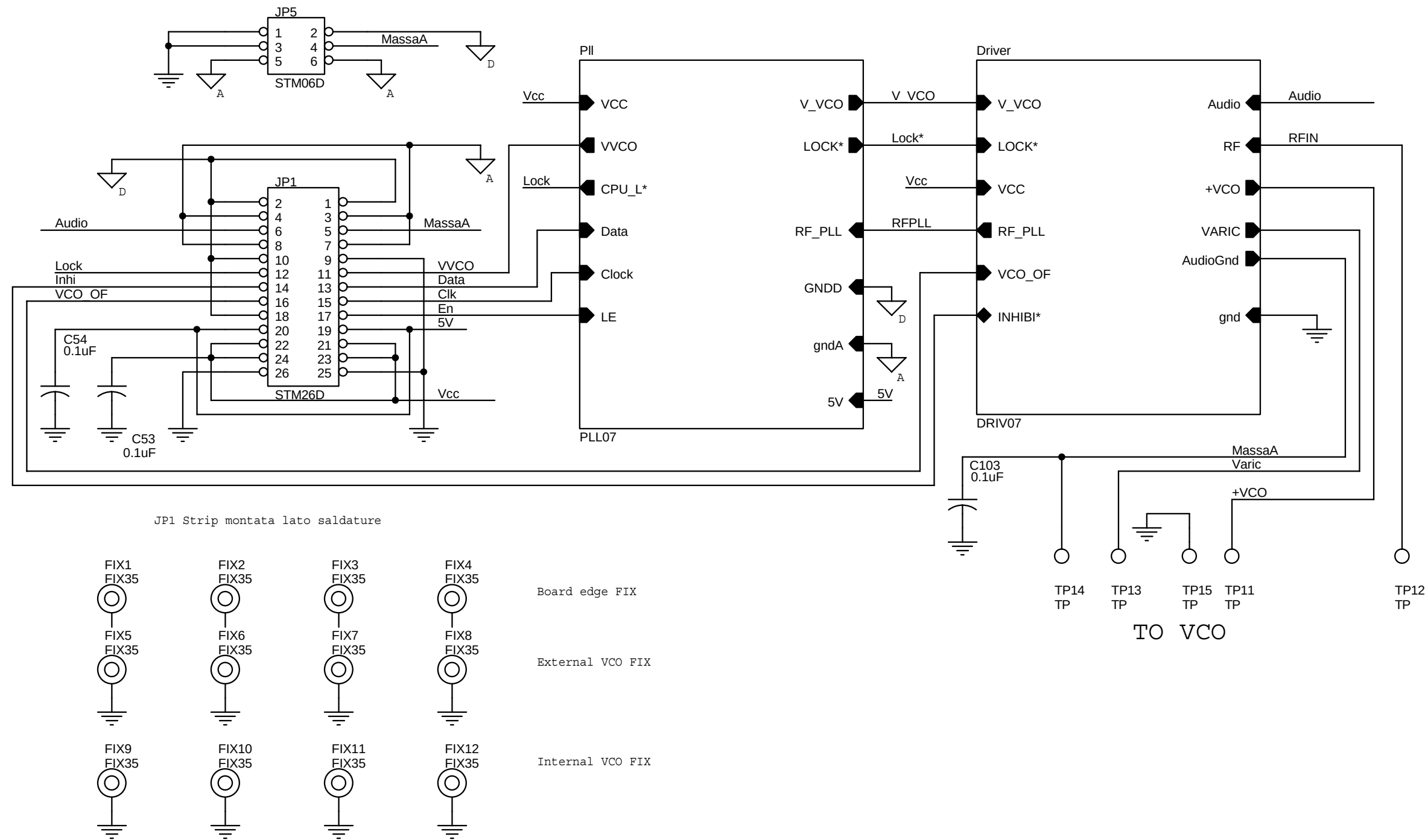


Nome Progetto: PTX30 LCD		Pagina: 1	di 1	Size: A4
Autore:	Ufficio Tecnico	Data:	18/06/03	Codice Progetto: PFPTX30LCDS
Nome PC in Rete:	\\UT_SRV\PROGETTI	Revisione:	2.0	Nome Parte: VCO CARD COMPONENT
File/Car-tella:	MANUALPTX30 LCD\SLVCOPTX30LCD\slvcoptx30lcd	Autorizzazione:		Codice: SLVCOPTX30LC
Schema:		Trattamento:	/	Profilo:

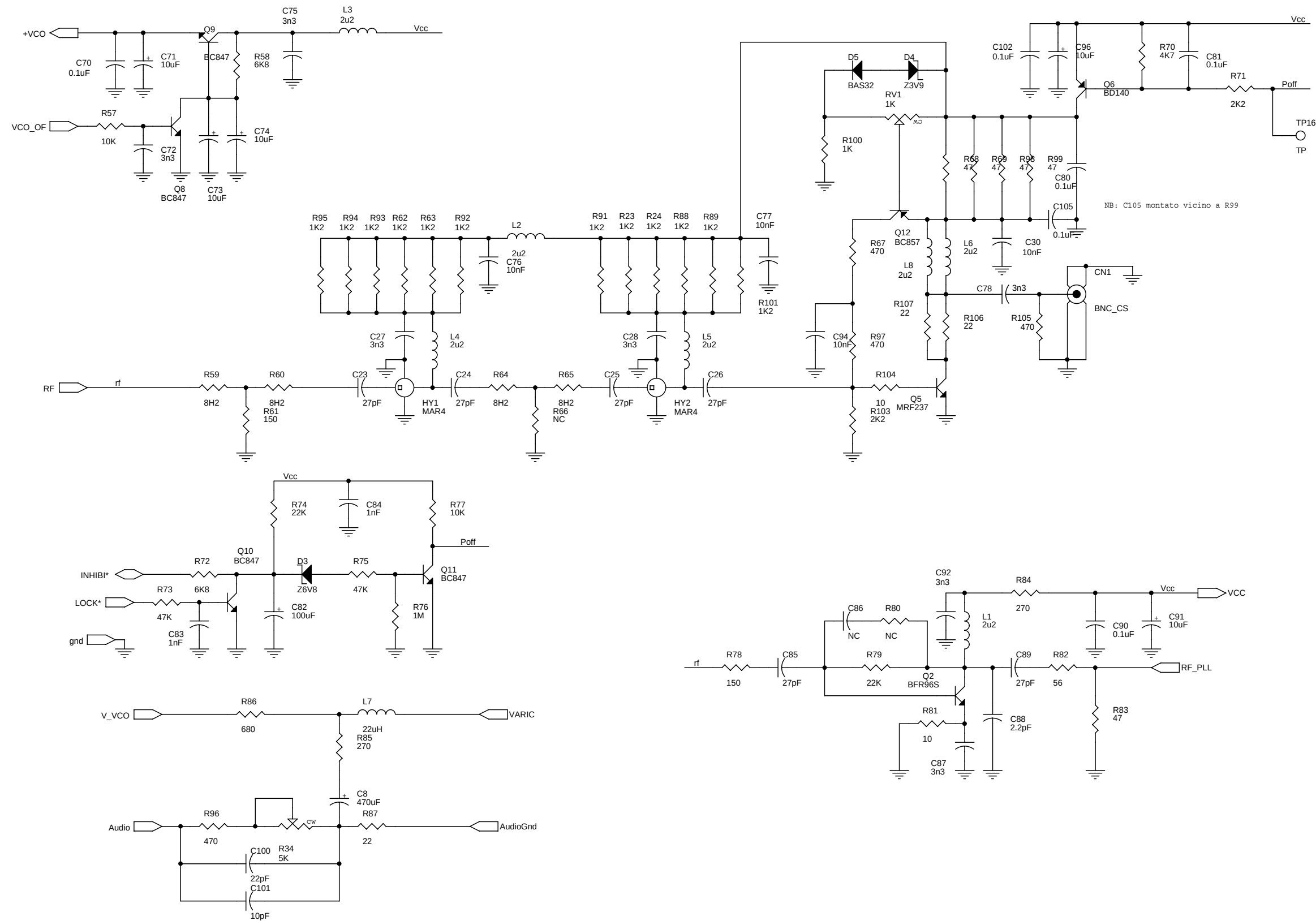
VCO Card - Bill of materials

Item	Reference	Part	Description
1	CS1	CS	Circuito stampato
2	C3	10nF	Cond. chip 0805
3	R2	100	Res. SMD 0805 al 1%
4	C4	10µF	Cond. el. SMD 16V
5	Q1	BC847	Tr. SMD in SOT23 BC847
6	L3	2.2uH	Impedenza SMD
7	Q2	MMBFJ310	FET SMD in SOT23 MMBFJ310
8	Q3	MMBFJ310	FET SMD in SOT23 MMBFJ310
9	R9	22	Res. SMD 0805 al 5%
10	C13	47pF	Cond. chip 0805
11	Q4	MMBT918	Tr. SMD in SOT23 MMBT918
12	R12	22	Res. SMD 0805 al 5%
13	R13	100K	Res. SMD 0805 al 5%
14	R7	10	Res. SMD 0805 al 5%
15	D11	HSMS2800	Diodo silicio HSMS2800
16	D10	HSMS2800	Diodo silicio HSMS2800
17	D9	HSMS2800	Diodo silicio HSMS2800
18	C9	22pF	Cond. chip 0805
19	L4	22uH	Impedenza SMD
20	L5	22uH	Impedenza SMD
21	C5	10uF	Cond. el. SMD 16V
22	C10	33pF	Cond. chip 0805
23	C18	10nF	Cond. chip 0805
24	C12	3.3nF	Cond. chip 0805
25	R5	330K	Res. SMD 0805 al 1%
26	R6	150	Res. SMD 0805 al 1%
27	R8	150	Res. SMD 0805 al 1%
28	C14	10nF	Cond. chip 0805
29	D2	MMBV109	Diodo Varicap SMD in SOT23
30	D1	MMBV109	Diodo Varicap SMD in SOT23
31	D3	MMBV109	Diodo Varicap SMD in SOT23
32	D4	MMBV109	Diodo Varicap SMD in SOT23
33	D8	MMBV109	Diodo Varicap SMD in SOT23
34	D7	MMBV109	Diodo Varicap SMD in SOT23
35	D6	MMBV109	Diodo Varicap SMD in SOT23
36	D5	MMBV109	Diodo Varicap SMD in SOT23
37	C2	10uF	Cond. tant. SMD 16V
38	C19	10uF	Cond. tant. SMD 16V
39	C15	10nF	Cond. chip 0805
40	C1	470pF	Cond. chip 0805
41	R11	4K7	Res. SMD 0805 al 5%
42	R10	10K	Res. SMD 0805 al 5%
43	R1	56	Res. SMD 0805 al 5%
44	R3	4K7	Res. SMD 0805 al 5%
45	L1	RG405	Induttanza cavo RG405
46	C22	100nF	Cond. chip 0805
47	C21	100nF	Cond. chip 0805
48	C16	100nF	Cond. chip 0805
49	C20	100nF	Cond. chip 0805
50	C17	100nF	Cond. chip 0805
51	C23	100nF	Cond. chip 0805
52	C24	100nF	Cond. chip 0805

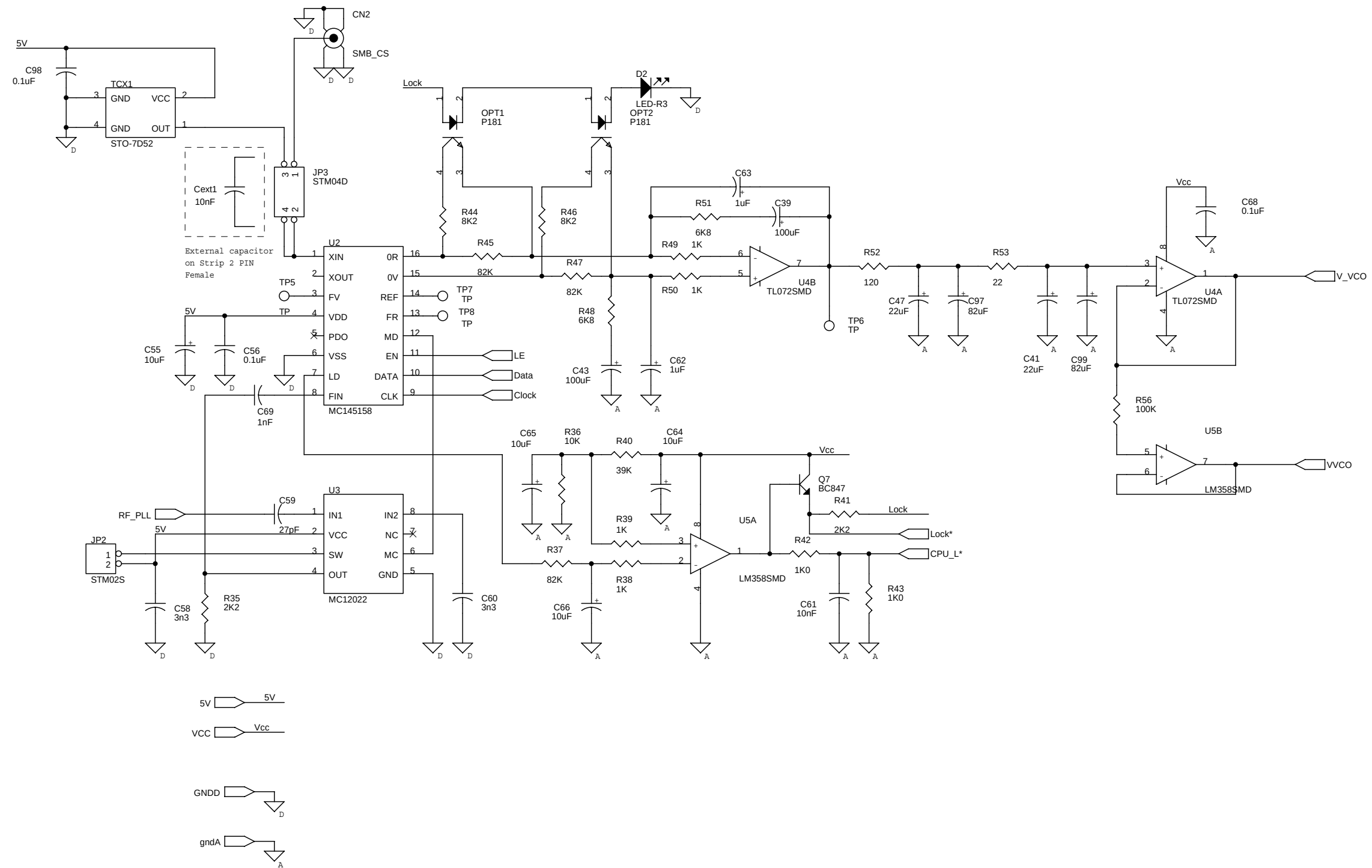
53	C25	100nF	Cond. chip 0805
54	L2	2.2uH	Impedenza SMD
55	C11	10pF	Cond. chip 0805



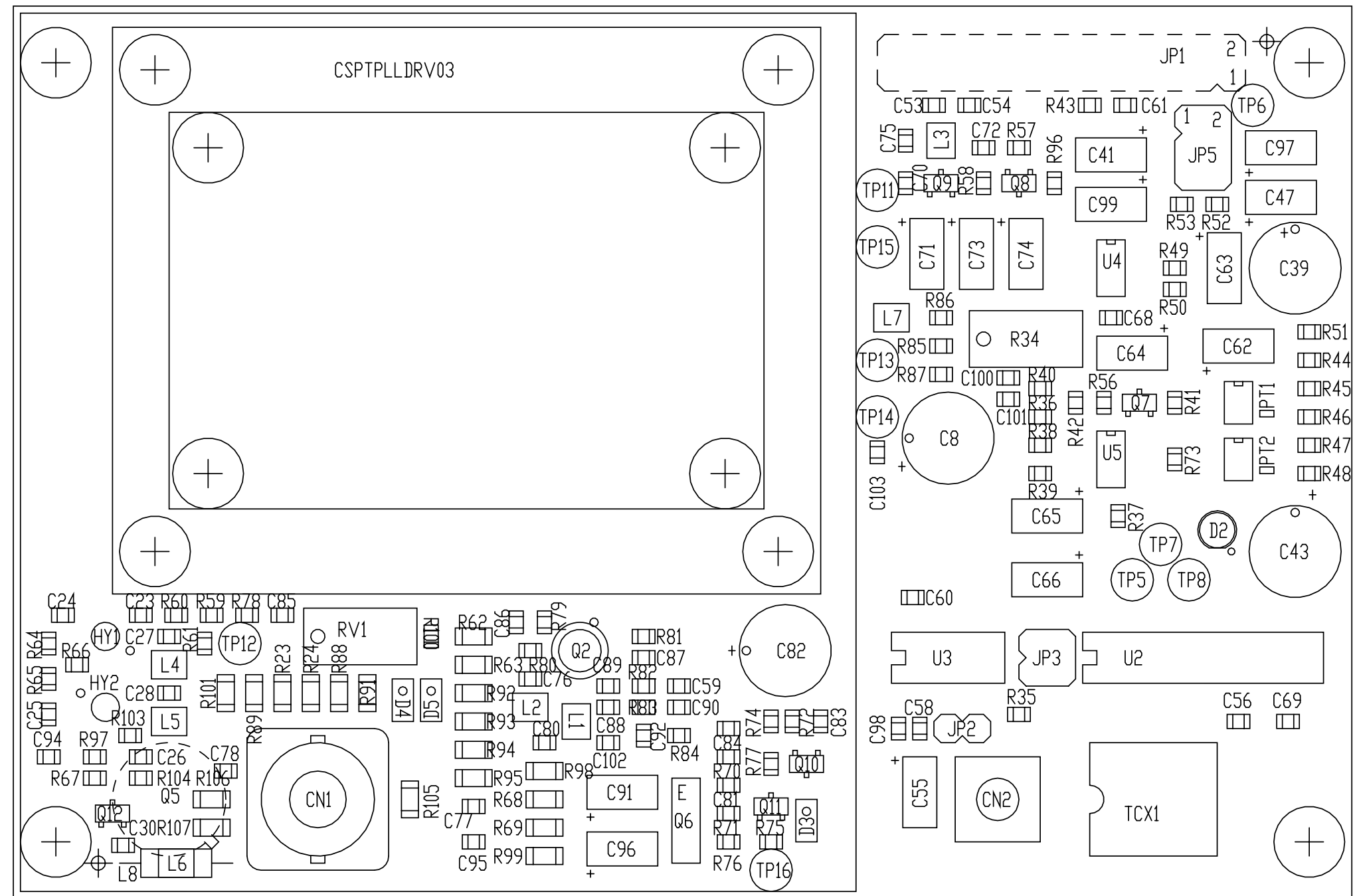
Nome Progetto: PTX LCD		Pagina: 1 di 3	Size: A4
Autore: TOMMASI A. - REV.: BERTI J.	Data: 23/09/03	Codice Progetto: I	
Nome PC in Rete: \\UT_SRV\PROGETTI	Revisione: 2.1	Nome Parte: PLL E DRIVER	
File/Cartella: Manuali\PTX30 LCD\SLPTPLLDV03\PLLDV07.DSN	Autorizzazione:	Codice: SLPTPLLDV03	



Nome Progetto: PTX LCD		Pagina: 2 di 3	Size: A3
Autore: TOMMASI A. - REV.: BERTI J.	Data: 23/09/03	Codice Progetto: I	
Nome PC in Rete: \IUT_SRV\PROGETTI	Revisione: 2.1	Nome Parte: DRIVER	
File/Cartella: Manuali\PTX30 LCD\SLPTLLDRV03\PLLDV07.DS	Autorizzazione:	Codice: SLPTLLDRV03	



Nome Progetto: PTX LCD		Pagina: 3 di 3	Size: A3
Autore: TOMMASI A. - REV.: BERTI J.	Data: 23/09/03	Codice Progetto: I	
Nome PC in Rete: \\\UT_SRV\PROGETTI	Revisione: 2.1	Nome Parte: PLL	
File/Cartella: Manual\PTX30 LCD\SLPTPLLDVR03\PLLDVR07.DSN	Autorizzazione:	Codice: SLPTPLLDVR03	



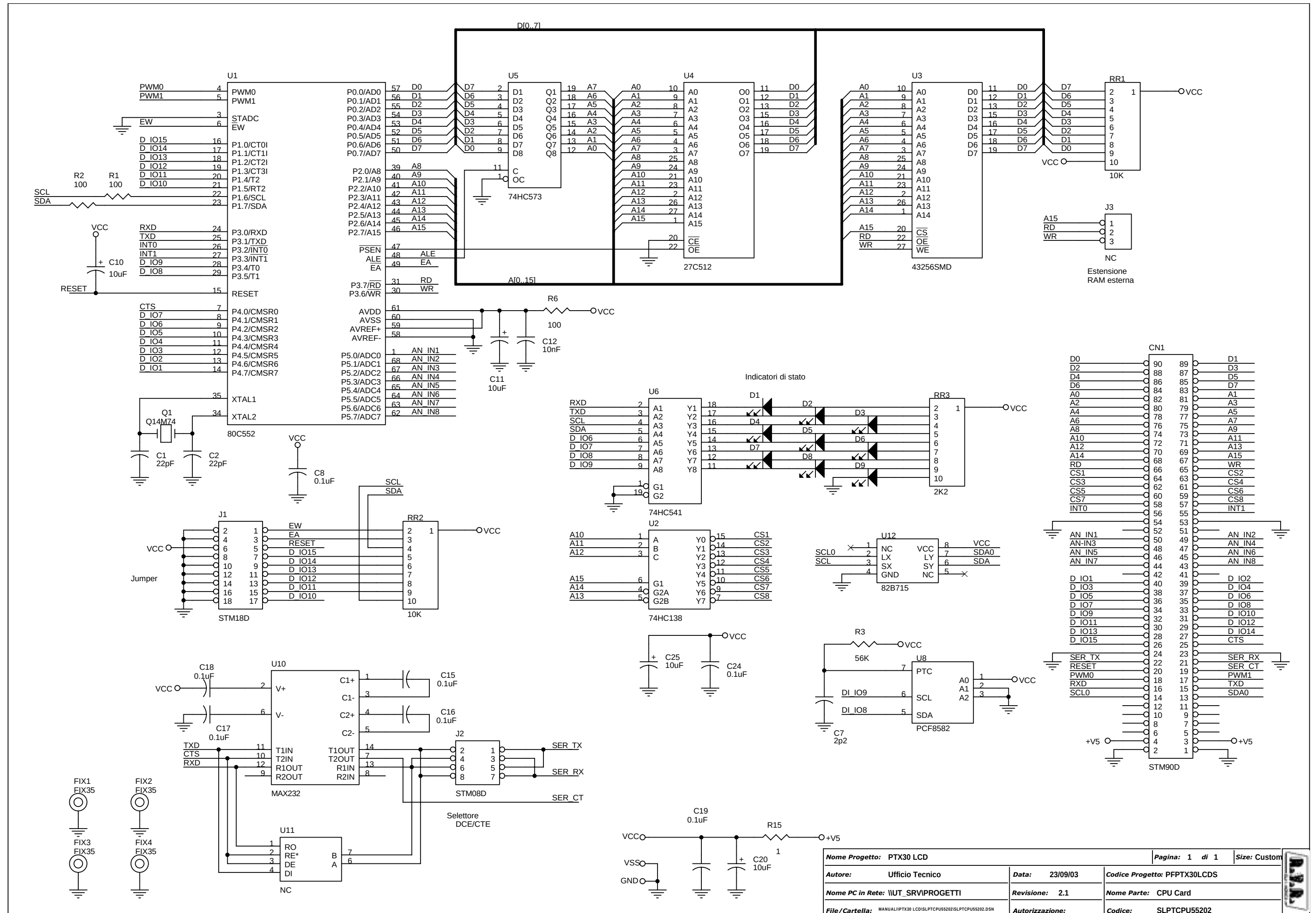
Nome Progetto: PTX30 LCD		Pagina: 1 di 1	Size: A3
Autore: Ufficio Tecnico		Data: 23/09/03	Codice Progetto: PFPTX30LCDS
Nome PC in Rete: \\UT_SRV\PROGETTI		Revisione: 2.1	Nome Parte: PLL & DRIVER CARD LAYOUT
File/Cartella: Manual\PTX30 LCD\SLPTPLLDV03\slptplldrv03.dwg		Autorizzazione:	Codice: SLPTPLLDV03
Scala: /	Materiale: /	Trattamento: /	Profilo: /

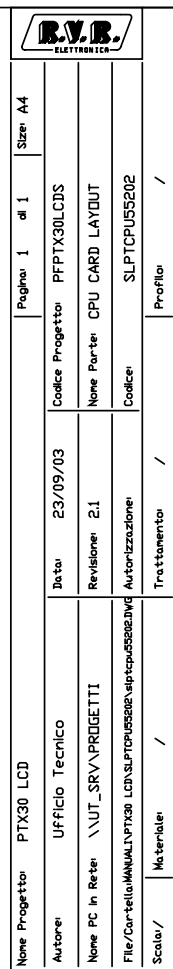


PLL & Driver Card - Bill of materials

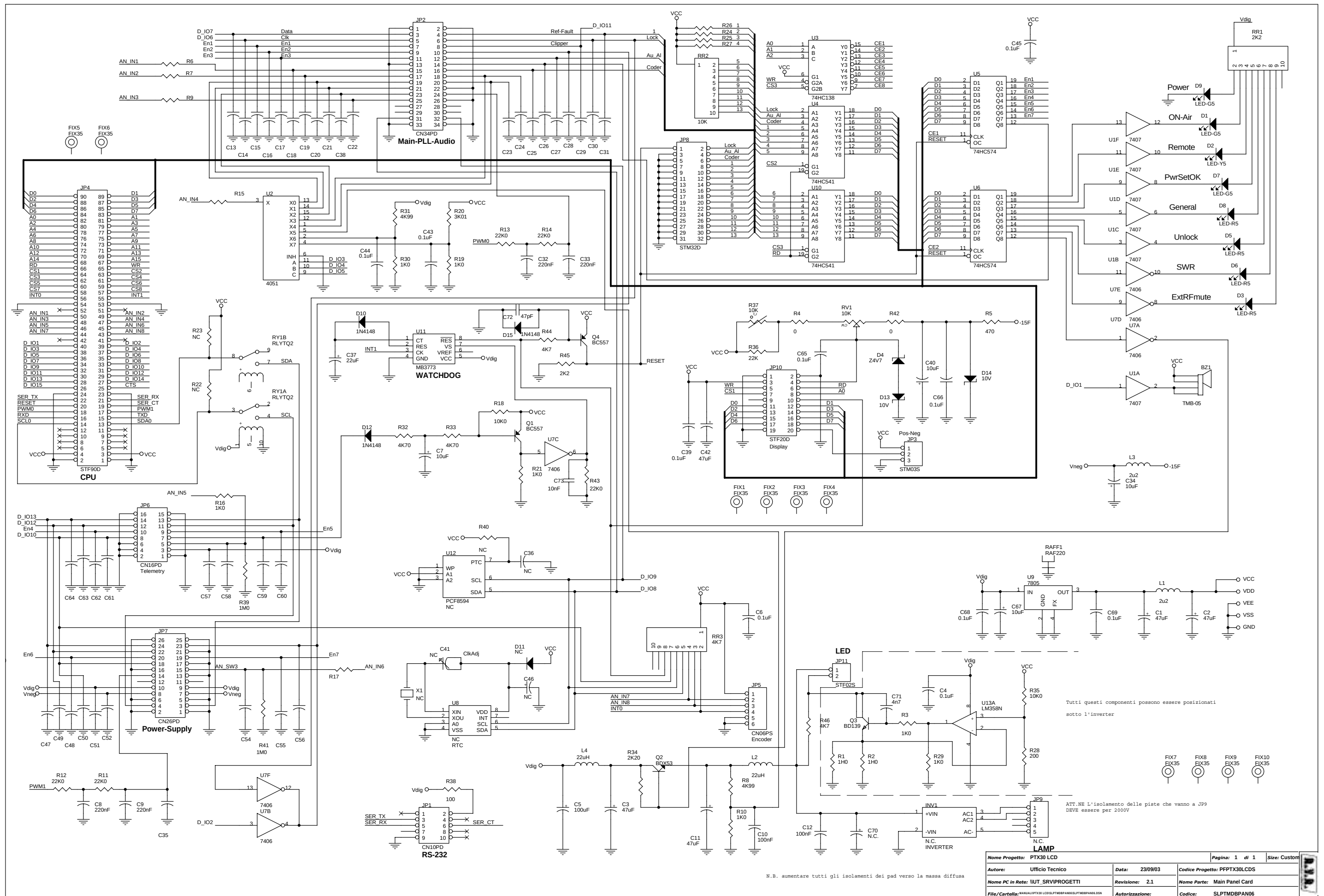
Item	Q.ty	Reference	Part
1	1	CN1	BNC_CS
2	1	CN2	SMB_CS
3	1	C8	470uF
4	7	C23,C24,C25,C26,C59,C85,C89	27pF
5	9	C27,C28,C58,C60,C72,C75,C78,C87,C92	3n3
6	6	C30,C61,C76,C77,C94,Cext1	10nF
7	3	C39,C43,C82	100uF
8	2	C41,C47	22uF
9	12	C53,C54,C56,C68,C70,C80,C81,C90,C98,C102,C103,C105	0.1uF
10	9	C55,C64,C65,C66,C71,C73,C74,C91,C96	10uF
11	2	C62,C63	1uF
12	3	C69,C83,C84	1nF
13	3	R66,R80,C86	NC
14	1	C88	2.2pF
15	2	C99,C97	82uF
16	1	C100	22pF
17	1	C101	10pF
18	1	D2	LED-R3
19	1	D3	Z6V8
20	1	D4	Z3V9
21	1	D5	BAS32
22	12	FIX1,FIX2,FIX3,FIX4,FIX5,FIX6,FIX7,FIX8,FIX9,FIX10,FIX11,FIX12	FIX35
23	2	HY1,HY2	MAR4
24	1	JP1	STM26D
25	1	JP2	STM02S
26	1	JP3	STM04D
27	1	JP5	STM06D
28	7	L1,L2,L3,L4,L5,L6,L8	2u2
29	1	L7	22uH
30	2	OPT1,OPT2	P181
31	1	Q2	BFR96S
32	1	Q5	MRF237
33	1	Q6	BD140
34	5	Q7,Q8,Q9,Q10,Q11	BC847
35	1	Q12	BC857
36	6	RV1,R38,R39,R49,R50,R100	1K
37	12	R23,R24,R62,R63,R88,R89,R91,R92,R93,R94,R95,R101	1K2
38	1	R34	5K
39	4	R35,R41,R71,R103	2K2
40	3	R36,R57,R77	10K
41	3	R37,R45,R47	82K
42	1	R40	39K
43	2	R43,R42	1K0
44	2	R44,R46	8K2
45	4	R48,R51,R58,R72	6K8

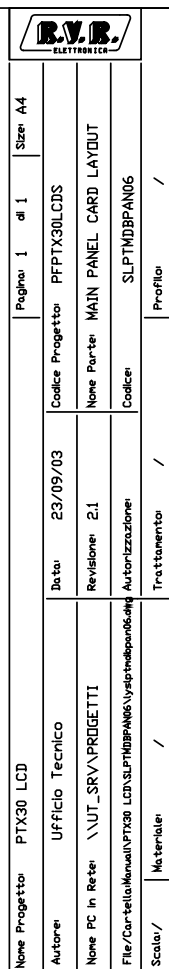
46	1	R52	120
47	4	R53,R87,R106,R107	22
48	1	R56	100K
49	4	R59,R60,R64,R65	8H2
50	2	R61,R78	150
51	4	R67,R96,R97,R105	470
52	5	R68,R69,R83,R98,R99	47
53	1	R70	4K7
54	2	R75,R73	47K
55	2	R79,R74	22K
56	1	R76	1M
57	2	R81,R104	10
58	1	R82	56
59	2	R84,R85	270
60	1	R86	680
61	1	TCX1	STO-7D52
62	10	TP5,TP6,TP7,TP8,TP11,TP12,TP13,TP14,TP15,TP16	TP
63	1	U2	MC145158
64	1	U3	MC12022
65	1	U4	TL072SMD
66	1	U5	LM358SMD





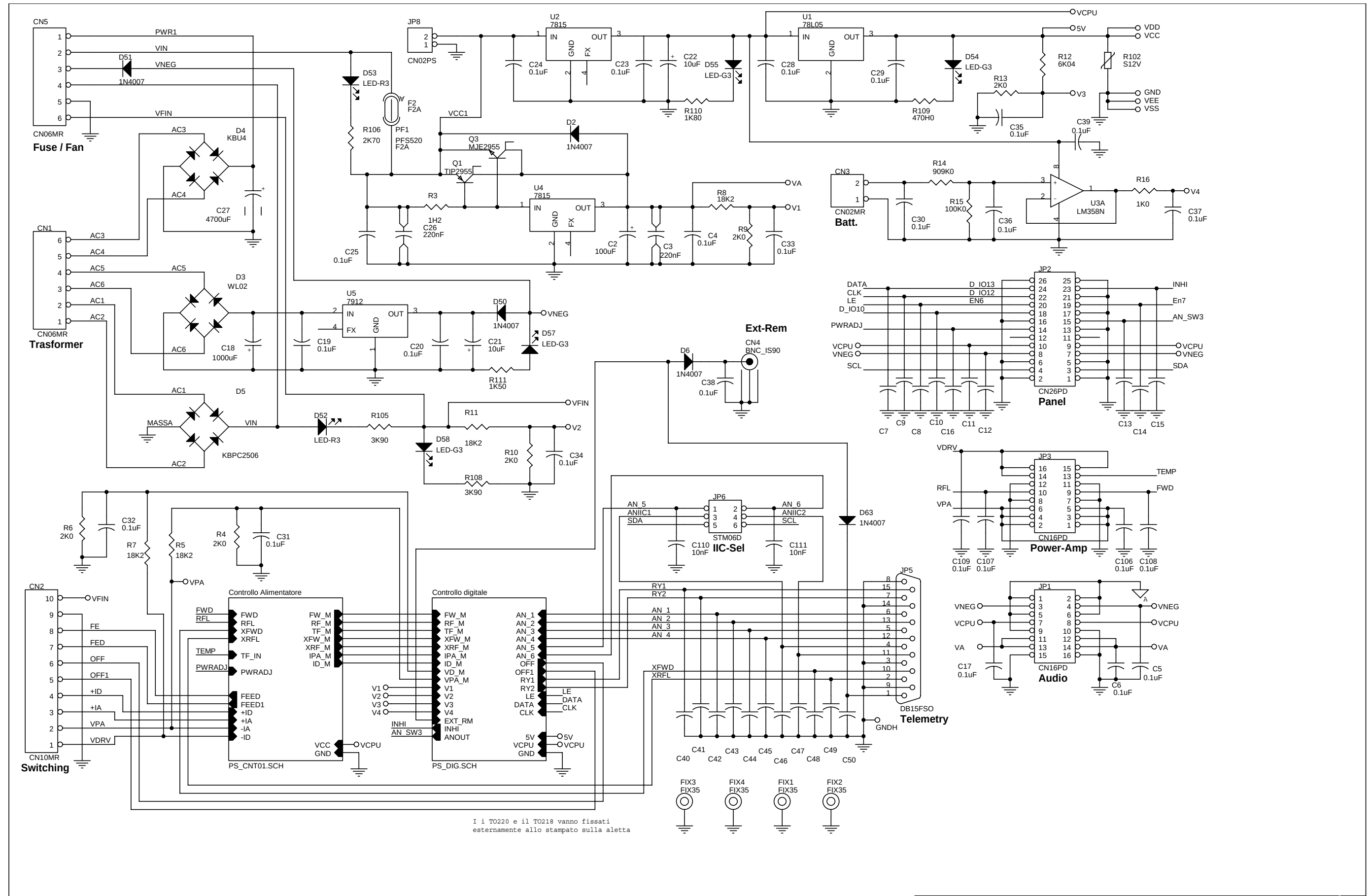
Item	Quantity	Reference	Part
1	1	CN1	STM90D
2	2	C1,C2	22pF
3	1	C7	2p2
4	7	C8,C15,C16,C17,C18,C19, C24	0.1uF
5	4	C10,C11,C20,C25	10uF
6	1	C12	10nF
7	9	D1,D2,D3,D4,D5,D6,D7,D8, D9	LED-R3
8	4	FIX1,FIX2,FIX3,FIX4	FIX35
9	1	J1	STM18D
10	1	J2	STM08D
11	2	U11,J3	NC
12	1	Q1	Q14M74
13	2	RR2,RR1	10K
14	1	RR3	2K2
15	3	R1,R2,R6	100
16	1	R3	56K
17	1	R15	1
18	1	U1	80C552
19	1	U2	74HC138
20	1	U3	43256SMD
21	1	U4	27C512
22	1	U5	74HC573
23	1	U6	74HC541
24	1	U8	PCF8582
25	1	U10	MAX232
26	1	U12	82B715



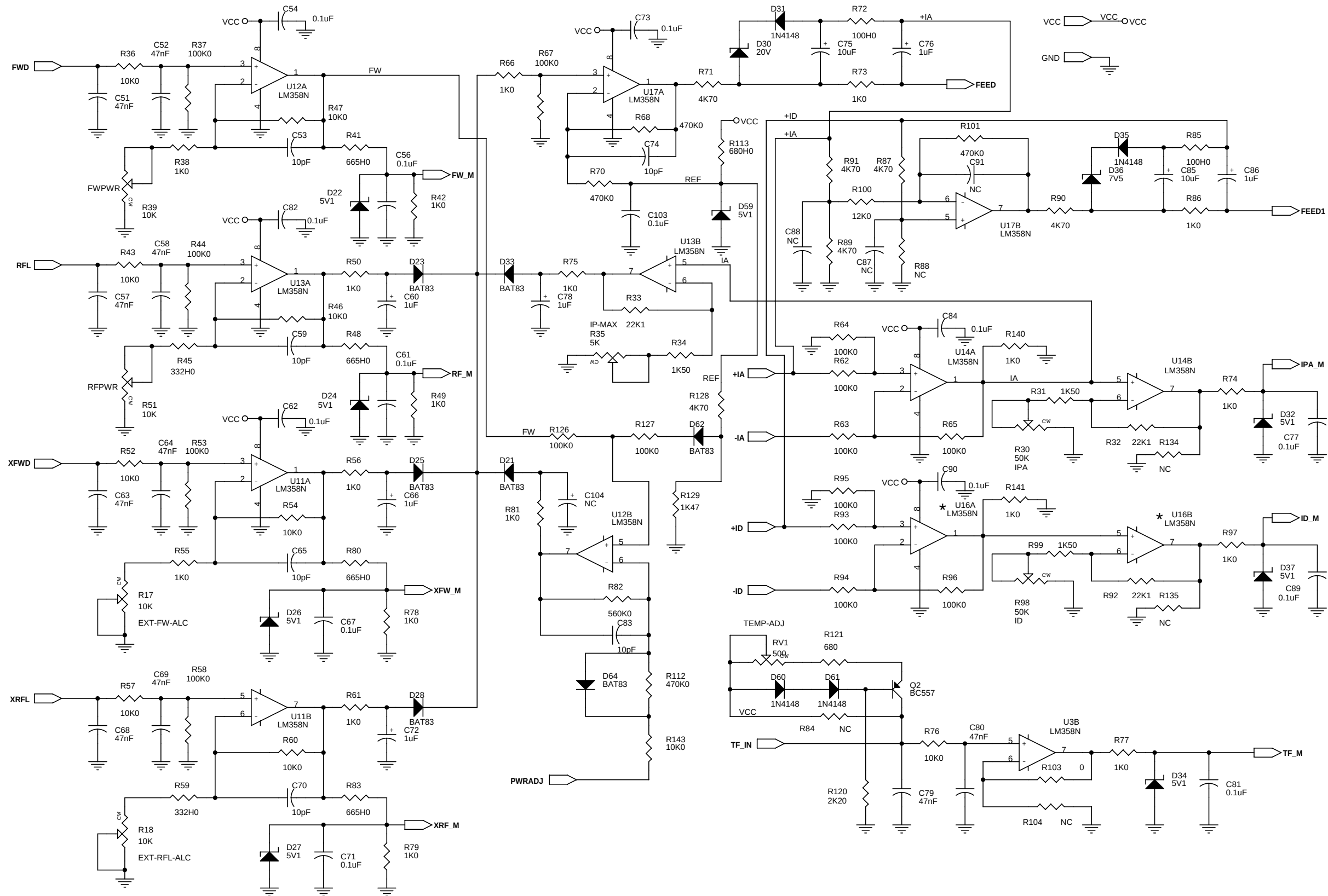


Item	Quantity	Reference	Part
1	1	BZ1	TMB-05
2	5	C1,C2,C3,C11,C42	47uF
3	10	C4,C6,C39,C43,C44,C45, C65,C66,C68,C69	0.1uF
4	1	C5	100uF
5	4	C7,C34,C40,C67	10uF
6	4	C8,C9,C32,C33	220nF
7	2	C10,C12	100nF
8	35	C13,C14,C15,C16,C17,C18, C19,C20,C21,C22,C23,C24, C25,C26,C27,C28,C29,C30, C31,C35,C38,C47,C48,C49, C50,C54,C55,C56,C58,C59, C60,C61,C62,C63,C64	100pF
9	13	X1,U8,D11,R22,R23,C36,C70, R40,C41,C46,INV1,JP9,JP9	NC
10	1	C37	22uF
11	4	C51,C52,C57,C73	10nF
12	1	C71	4n7
13	1	C72	47pF
14	3	D1,D7,D9	LED-G5
15	1	D2	LED-Y5
16	4	D3,D5,D6,D8	LED-R5
17	1	D4	Z4V7
18	3	D10,D12,D15	1N4148
19	2	D14,D13	10V
20	10	FIX1,FIX2,FIX3,FIX4, FIX5,FIX6,FIX7,FIX8, FIX9,FIX10	FIX35
21	1	JP1	CN10PD
22	1	JP2	CN34PD
23	1	JP3	STM03S
24	1	JP4	STF90D
25	1	JP5	CN06PS
26	1	JP6	CN16PD
27	1	JP7	CN26PD
28	1	JP8	STM32D
29	1	JP10	STF20D
30	1	JP11	STF02S
31	2	L3,L1	2u2
32	2	L4,L2	22uH
33	2	Q1,Q4	BC557
34	1	Q2	BDX53
35	1	Q3	BD139
36	1	RAFF1	RAF220
37	2	RR1,R45	2K2
38	7	RV1,RR2,R24,R25,R26,R27, R37	10K
39	3	RR3,R44,R46	4K7
40	1	RY1	RLYTQ2
41	2	R1,R2	1H0
42	12	R3,R6,R7,R9,R10,R15,R16, R17,R19,R21,R29,R30	1K0

43	2	R4,R42	0
44	1	R5	470
45	2	R8,R31	4K99
46	5	R11,R12,R13,R14,R43	22K0
47	2	R18,R35	10K0
48	1	R20	3K01
49	1	R28	200
50	2	R32,R33	4K70
51	1	R34	2K20
52	1	R36	22K
53	1	R38	100
54	2	R41,R39	1M0
55	1	U1	7407
56	1	U2	4051
57	1	U3	74HC138
58	2	U4,U10	74HC541
59	2	U5,U6	74HC574
60	1	U7	7406
61	1	U9	7805
62	1	U11	MB3773
63	1	U12	PCF8594
64	1	U13	LM358N



Nome Progetto: PTX30 LCD		Pagina: 1 di 3	Size: A3
Autore:	Ufficio Tecnico	Data:	18/06/03
Nome PC in Rete:	IUT_SRVIPROGETTI	Revisione:	2.0
File/ Cartella:	Manuali\PTX30 LCD\SLPWRPTX30LCD\P04.dsn	Nome Parte:	POWER SUPPLY PTPWRSUP04
		Autorizzazione:	Codice:
		SLPWRPTX30LC	

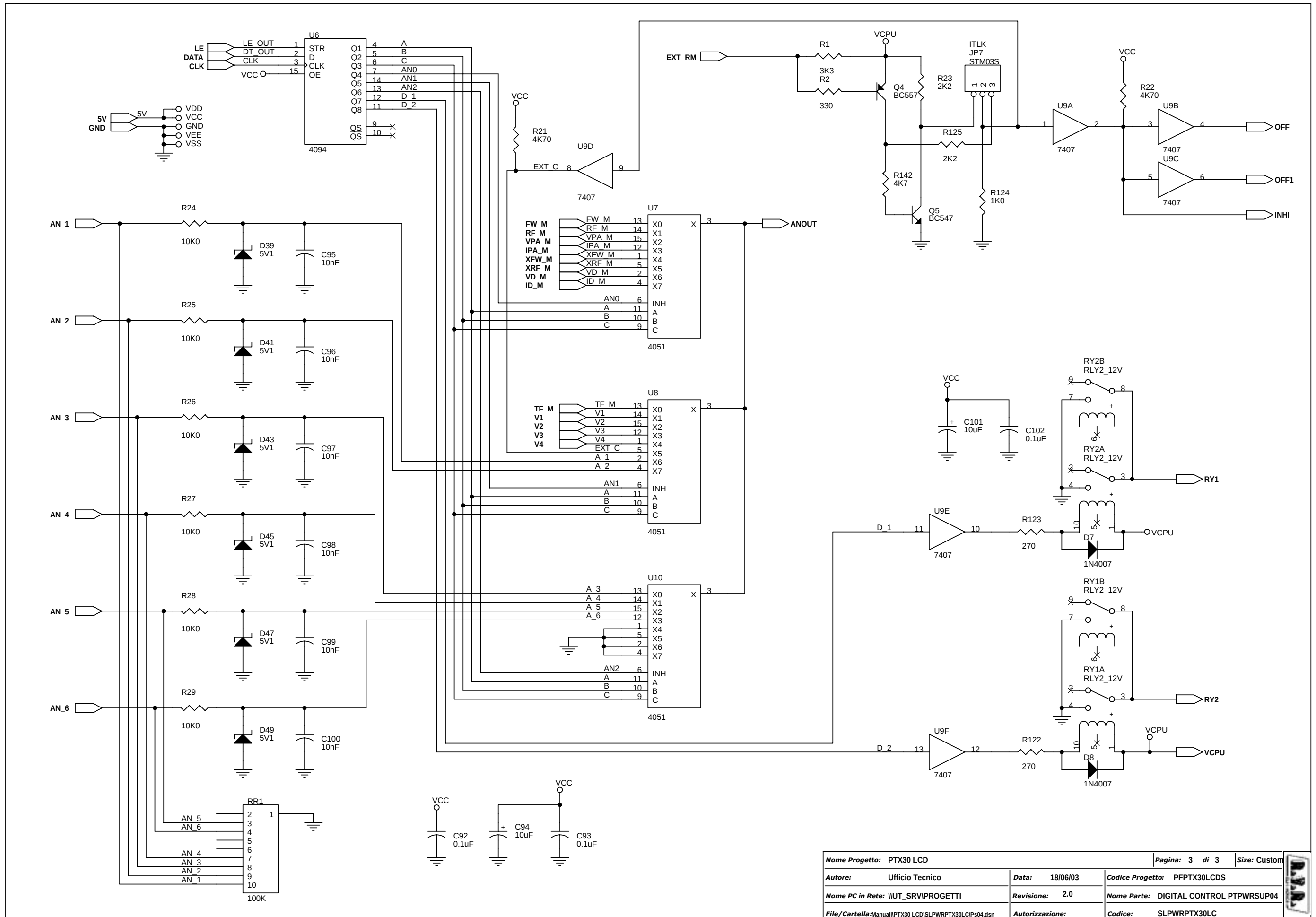


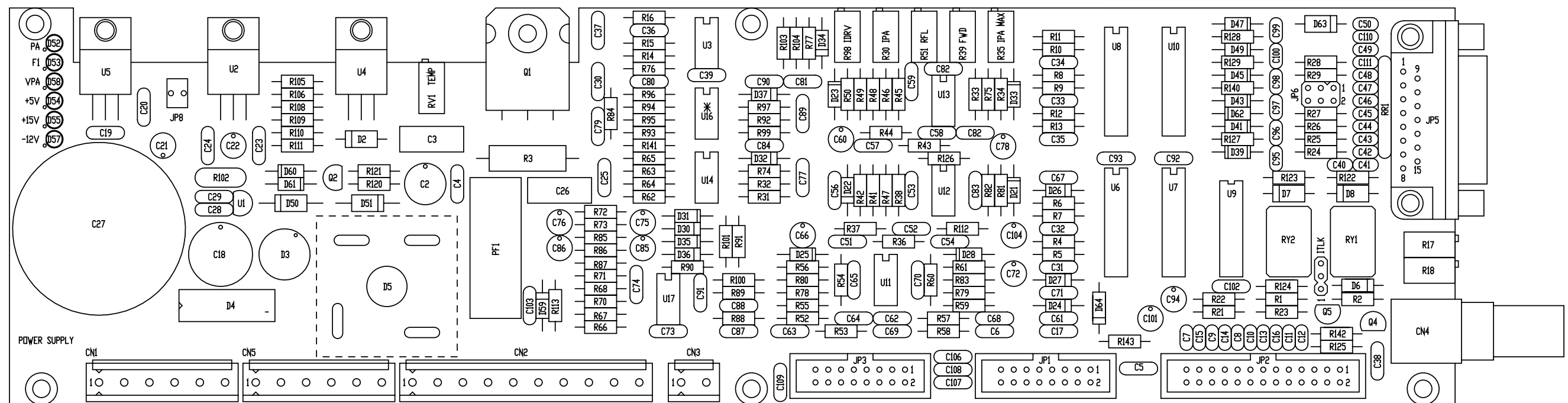
* N.B.:

U16 = N.C. (IN PTX30 LCD VERSION)

U16 = LM358N (IN PTX60 LCD - PTX100 LCD VERSIONS)

Nome Progetto: PTX30 LCD		Pagina: 2 di 3	Size: A3
Autore:	Ufficio tecnico	Data:	18/06/03
Nome PC in Rete:	\\UT_SRV\PROGETTI	Revisione:	2.0
File/ Cartella	Manual\PTX30 LCD\SLPWRPTX30LCD\Ps04.dsn	Autorizzazione:	
		Codice Progetto:	PFPTX30LCDS
		Nome Parte:	CONTROL SUPPLY PTPWRSUP04
		Codice:	SLPWRPTX30LC





* N.B.:
U16 = N.C.

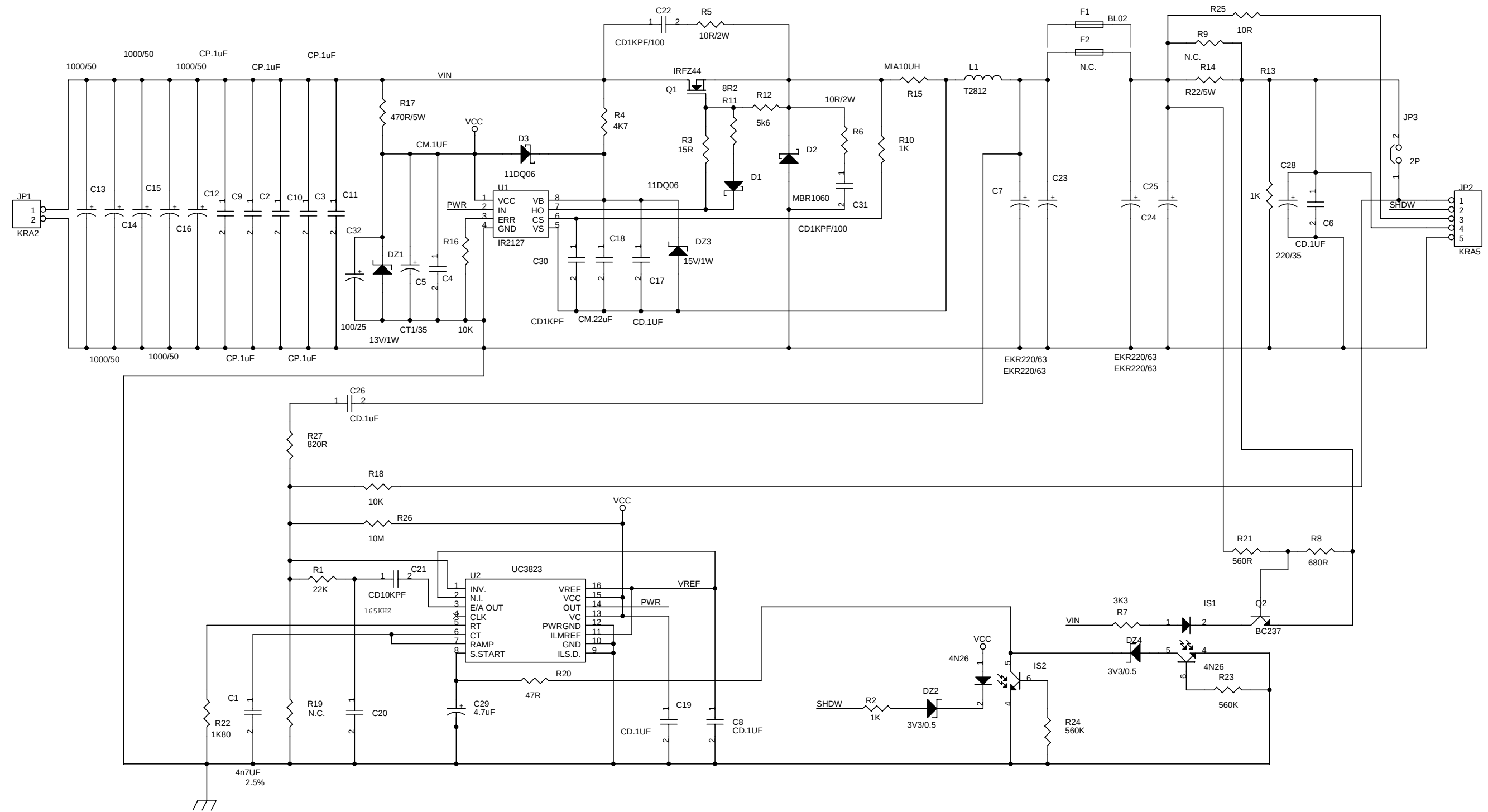
Nome Progetto: PTX30 LCD		Pagina: 1 di 1		Size: A3
Autore: Ufficio Tecnico		Data: 18/06/03	Codice Progetto: PFPTX30LCDS	
Nome PC in Rete: \\UT_SRV\PROGETTI		Revisione: 2.0	Nome Parte: POWER SUPPLY SLPWRPTX30LC	
File/Cartella:MANUALI\PTX LCD\SLPWRPTX30LC\laypsup.DWG		Autorizzazione:	Codice: SLPWRPTX30LC	
Scala: /	Materiale: /	Trattamento: /	Profilo: /	



Power supply - Bill of materials

Item	Q.ty	Reference	Part
1	2	CN1,CN5	CN06MR
2	1	CN2	CN10MR
3	1	CN3	CN02MR
4	1	CN4	BNC_IS90
5	1	C2	100uF
6	2	C26,C3	220nF
7	42	C4,C5,C6,C17,C19,C20,C23,C24,C25,C28,C29,C30,C31,C32,C33,C34,C35,C36,C37,C38,C39,C54,C56,C61,C62,C67,C71,C73,C77,C81,C82,C84,C89,C90,C92,C93,C102,C103,C106,C107,C108,C109	0.1uF
8	10	C7,C8,C9,C10,C13,C14,C15,C16,C46,C47	100pF
9	19	C11,C12,C40,C41,C42,C43,C44,C45,C48,C49,C50,C95,C96,C97,C98,C99,C100,C110,C111	10nF
10	1	C18	1000uF
11	6	C21,C22,C75,C85,C94,C101	10uF
12	1	C27	4700uF
13	10	C51,C52,C57,C58,C63,C64,C68,C69,C79,C80	47nF
14	6	C53,C59,C65,C70,C74,C83	10pF
15	6	C60,C66,C72,C76,C78,C86	1uF
16	9	R84,C87,R88,C88,C91,R104,C104,R134,R135	NC
17	7	D2,D6,D7,D8,D50,D51,D63	1N4007
18	1	D3	WL02
19	1	D4	KBU4
20	1	D5	KBPC2506
21	7	D21,D23,D25,D28,D33,D62,D64	BAT83
22	14	D22,D24,D26,D27,D32,D34,D37,D39,D41,D43,D45,D47,D49,D59	5V1
23	1	D30	20V
24	4	D31,D35,D60,D61	1N4148
25	1	D36	7V5
26	2	D52,D53	LED-R3
27	4	D54,D55,D57,D58	LED-G3
28	4	FIX1,FIX2,FIX3,FIX4	FIX35
29	1	F2	F2A
30	2	JP1,JP3	CN16PD
31	1	JP2	CN26PD
32	1	JP5	DB15FSO
33	1	JP6	STM06D
34	1	JP7	STM03S
35	1	JP8	CN02PS
36	1	PF1	PFS520
37	1	Q1	TIP2955
38	2	Q4,Q2	BC557

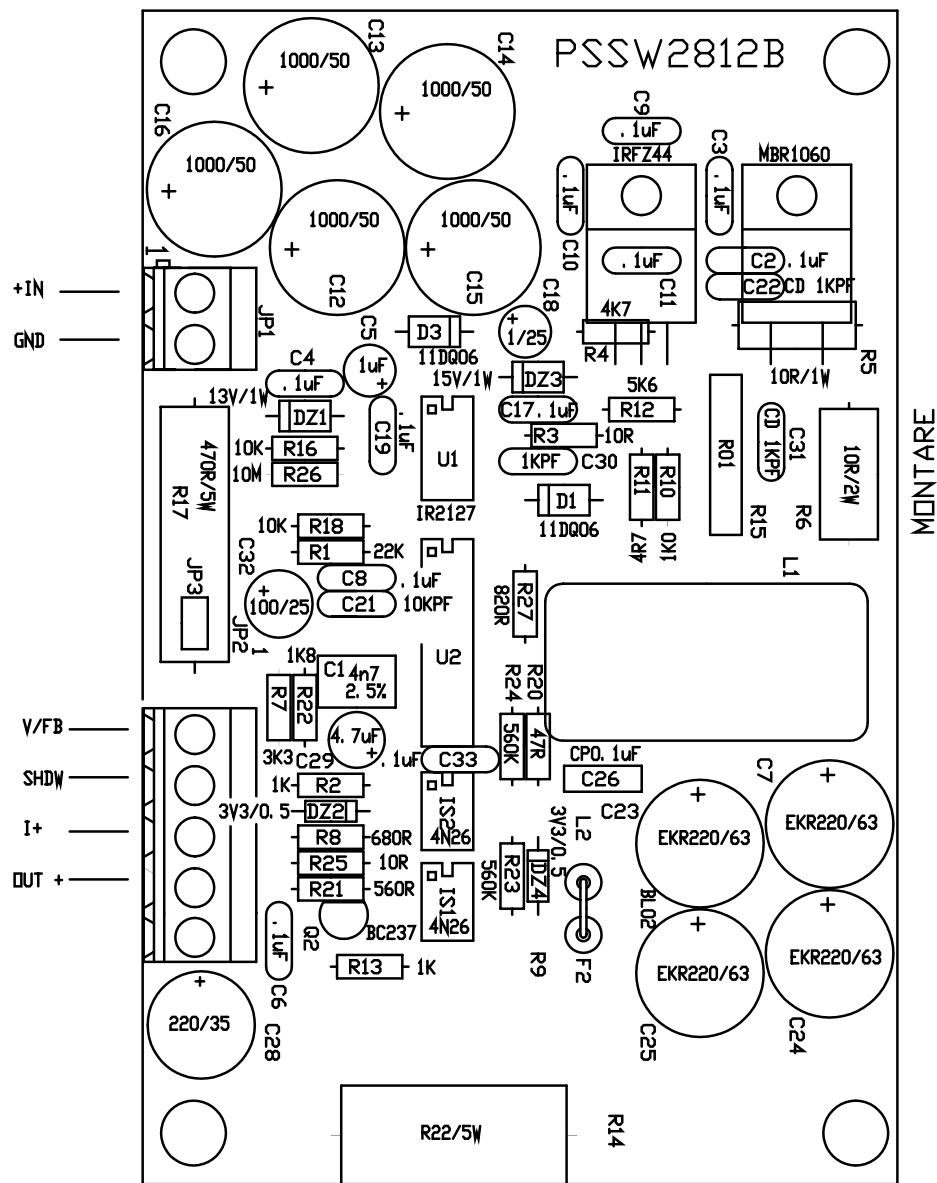
39	1	Q3	MJE2955
40	1	Q5	BC547
41	1	RR1	100K
42	1	RV1	500
43	2	RY1,RY2	RLY2_12V
44	1	R1	3K3
45	1	R2	330
46	1	R3	1H2
47	5	R4,R6,R9,R10,R13	2K0
48	4	R5,R7,R8,R11	18K2
49	1	R12	6K04
50	1	R14	909K0
51	16	R15,R37,R44,R53,R58,R62,R63,R64,R65,R67,R93,R94,R95,R96,R126,R127	100K0
52	21	R16,R38,R42,R49,R50,R55,R56,R61,R66,R73,R74,R75,R77,R78,R79,R81,R86,R97,R124,R140,R141	1K0
53	4	R17,R18,R39,R51	10K
54	8	R21,R22,R71,R87,R89,R90,R91,R128	4K70
55	2	R125,R23	2K2
56	16	R24,R25,R26,R27,R28,R29,R36,R43,R46,R47,R52,R54,R57,R60,R76,R143	10K0
57	2	R98,R30	50K
58	4	R31,R34,R99,R111	1K50
59	3	R32,R33,R92	22K1
60	1	R35	5K
61	4	R41,R48,R80,R83	665H0
62	2	R45,R59	332H0
63	4	R68,R70,R101,R112	470K0
64	2	R72,R85	100H0
65	1	R82	560K0
66	1	R100	12K0
67	1	R102	S12V
68	1	R103	0
69	2	R105,R108	3K90
70	1	R106	2K70
71	1	R109	470H0
72	1	R110	1K80
73	1	R113	680H0
74	1	R120	2K20
75	1	R121	680
76	2	R123,R122	270
77	1	R129	1K47
78	1	R142	4K7
79	1	U1	78L05
80	2	U4,U2	7815
81	7	U3,U11,U12,U13,U14,U16,U17	LM358N
82	1	U5	7912
83	1	U6	4094
84	3	U7,U8,U10	4051
85	1	U9	7407



MODIFICATIONS FOR PTX60LCD & PTX100 LCD VERSION:
 D2=MBR1660
 R9=R22/5W
 R14=R1/10W
 U1=IR2125

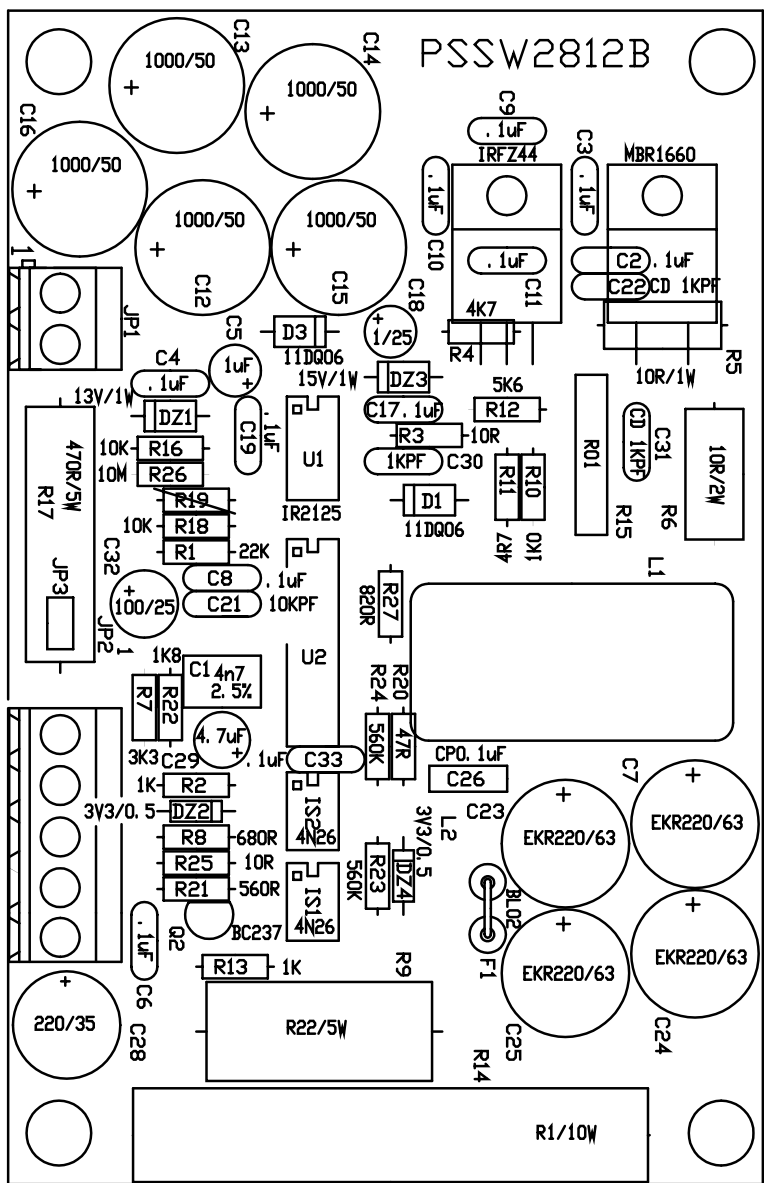
Nome Progetto: PTX30 LCD		Pagina: 1 di 1	Size: A3
Autore: Ufficio Tecnico	Data: 23/09/03	Codice Progetto: PFPTX30LCDS	
Nome PC in Rete: \IUT_SRV\PROGETTI	Revisione: 2.1	Nome Parte: SWITCHING POWER SUPPLY	
File/Cartella: MANUAL\PTX30 LCD\SLPSSW28123A\PS2812.DSN	Autorizzazione:	Codice: SLPSSW28123A	

VERSIONE 3A
PTX30 LCD



SLPSSW28123A

VERSIONE 10A
PTX60 LCD & PTX100 LCD



SLPSSW281210

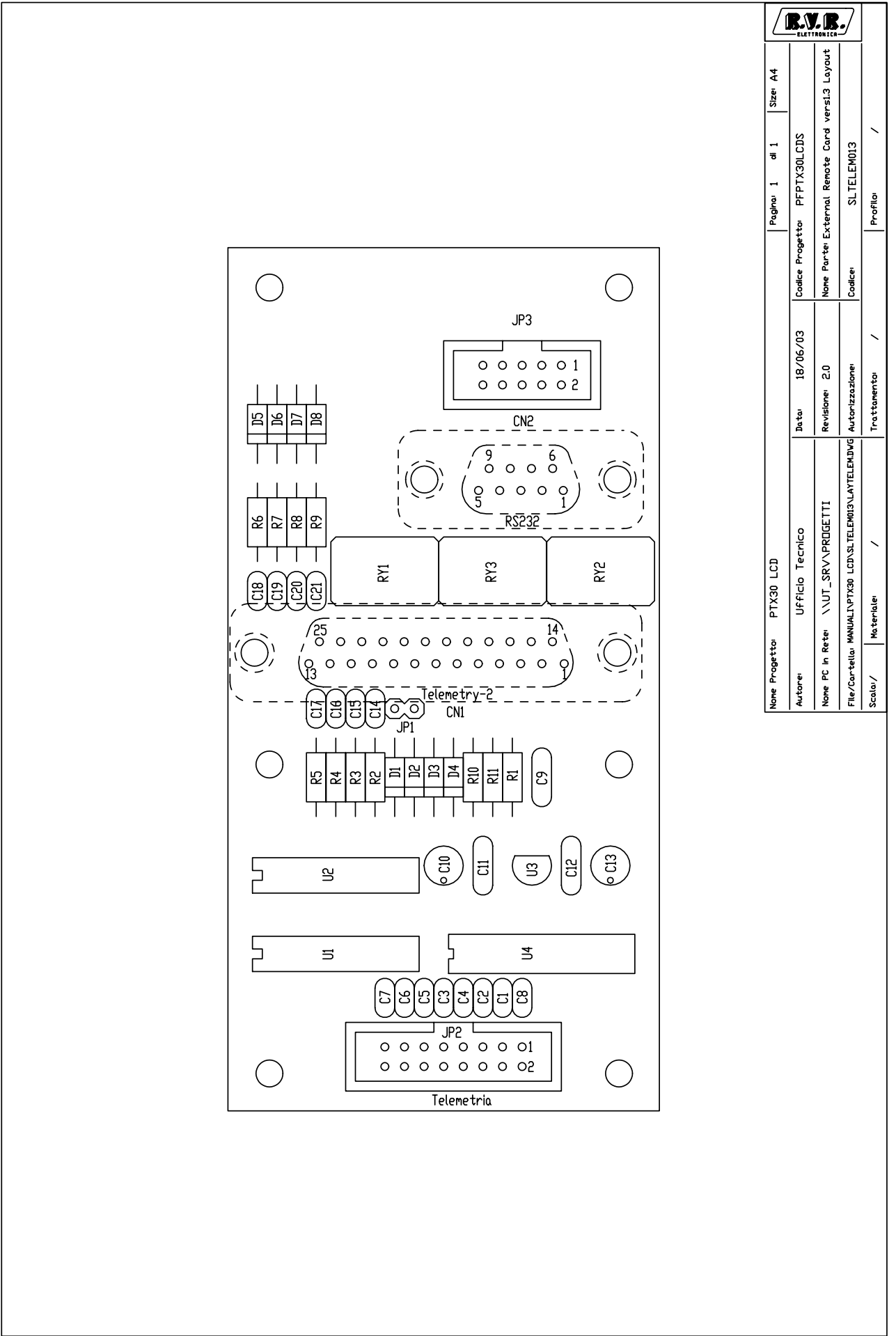
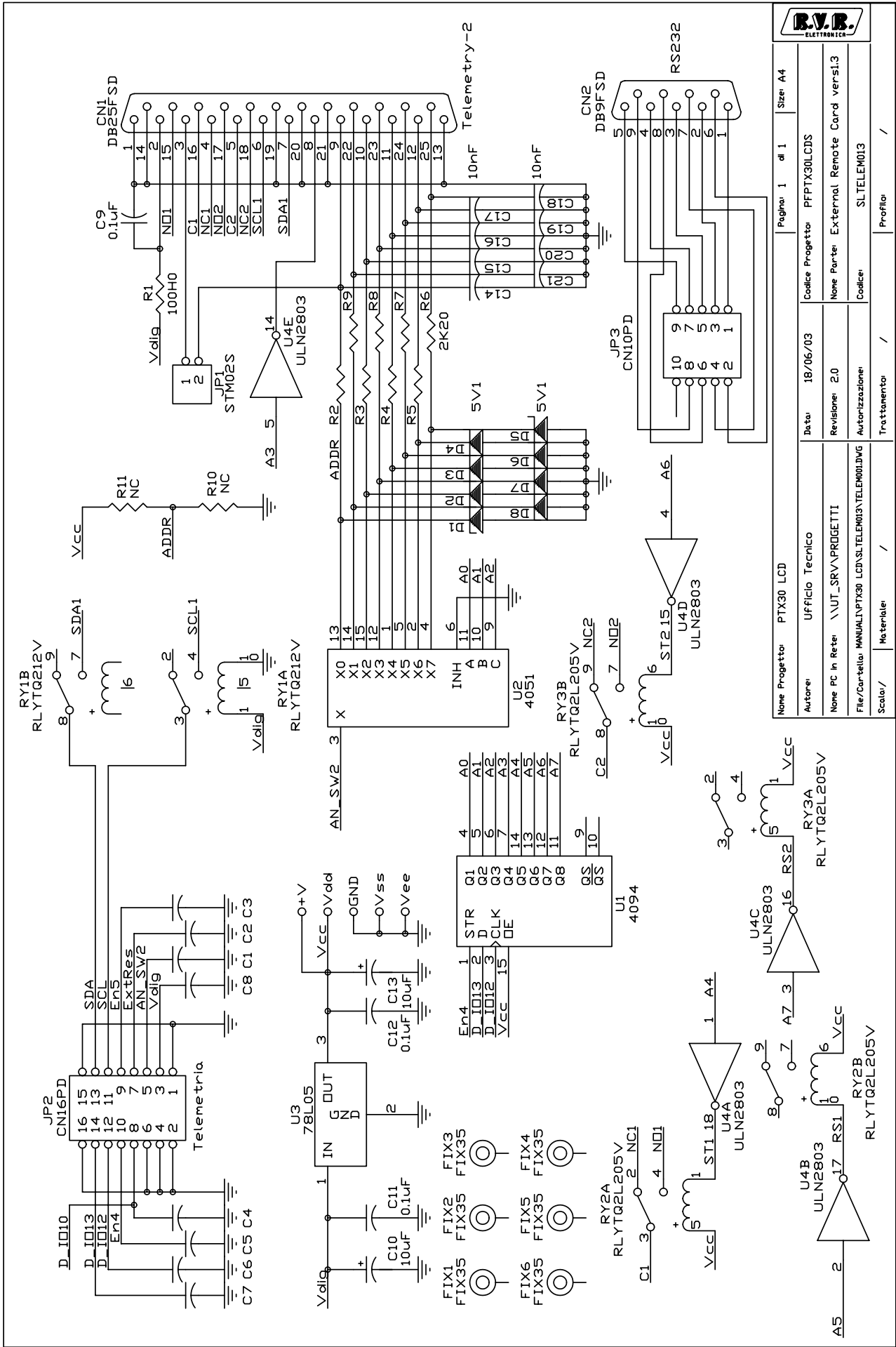
Nome Progetto: PTX30_LCD		Pagina: 1 di 1		Size: A4	
Autore: Ufficio Tecnico		Data: 23/09/03	Codice Progetto: PFTX30LCDS		
Nome PC in Rete: \\UT_SRV\PROGETTI		Revisione: 2.1	Nome Parte: SWITCHING POWER SUPPLY LAYOUT		
File/Cartella: MANUAL\PTX30_LCD\SLPSSW28123A\SSW2812B.DWG		Autorizzazione:	Codice: SLPSSW28123A		
Scala: /	Materiale: /	Trattamento: /	Profilo: /		

Scheda Madre Power Supply
PSSW 28123A

Item	Q.ty	Reference	Part
1	1	C1	4n7UF
2	5	C2,C3,C9,C10,C11	CP.1uF
3	1	C4	CM.1UF
4	1	C5	CT1/35
5	5	C6,C8,C17,C19,C26	CD.1uF
6	4	C7,C23,C24,C25	EKR220/63
7	5	C12,C13,C14,C15,C16	1000/50
8	1	C18	CM.22uF
9	1	C20	CAP NP
10	1	C21	CD10KPF
11	2	C22,C31	CD1KPF/100
12	1	C28	220/35
13	1	C29	4.7uF
14	1	C30	CD1KPF
15	1	C32	100/25
16	1	DZ1	13V/1W
17	2	DZ2,DZ4	3V3/0.5
18	1	DZ3	15V/1W
19	2	D1,D3	11DQ06
20	1	D2	MBR1060
21	1	F1	BL02
22	3	F2,R9,R19	N.C.
23	2	IS2,IS1	4N26
24	1	JP1	KRA2
25	1	JP2	KRA5
26	1	JP3	2P
27	1	L1	T2812
28	1	Q1	IRFZ44
29	1	Q2	BC237
30	1	R1	22K
31	3	R2,R10,R13	1K
32	2	R25,R3	10R
33	1	R4	4K7
34	2	R5,R6	10R/2W
35	1	R7	3K3
36	1	R8	680R
37	1	R11	4R7
38	1	R12	5k6
39	1	R14	R22/5W
40	1	R15	MIA10UH
41	2	R16,R18	10K
42	1	R17	470R/5W
43	1	R20	47R
44	1	R21	560R
45	1	R22	1K80
46	2	R23,R24	560K
47	1	R26	10M
48	1	R27	820R
49	1	U1	IR2127
50	1	U2	UC3823
51	1	C1	4n7UF

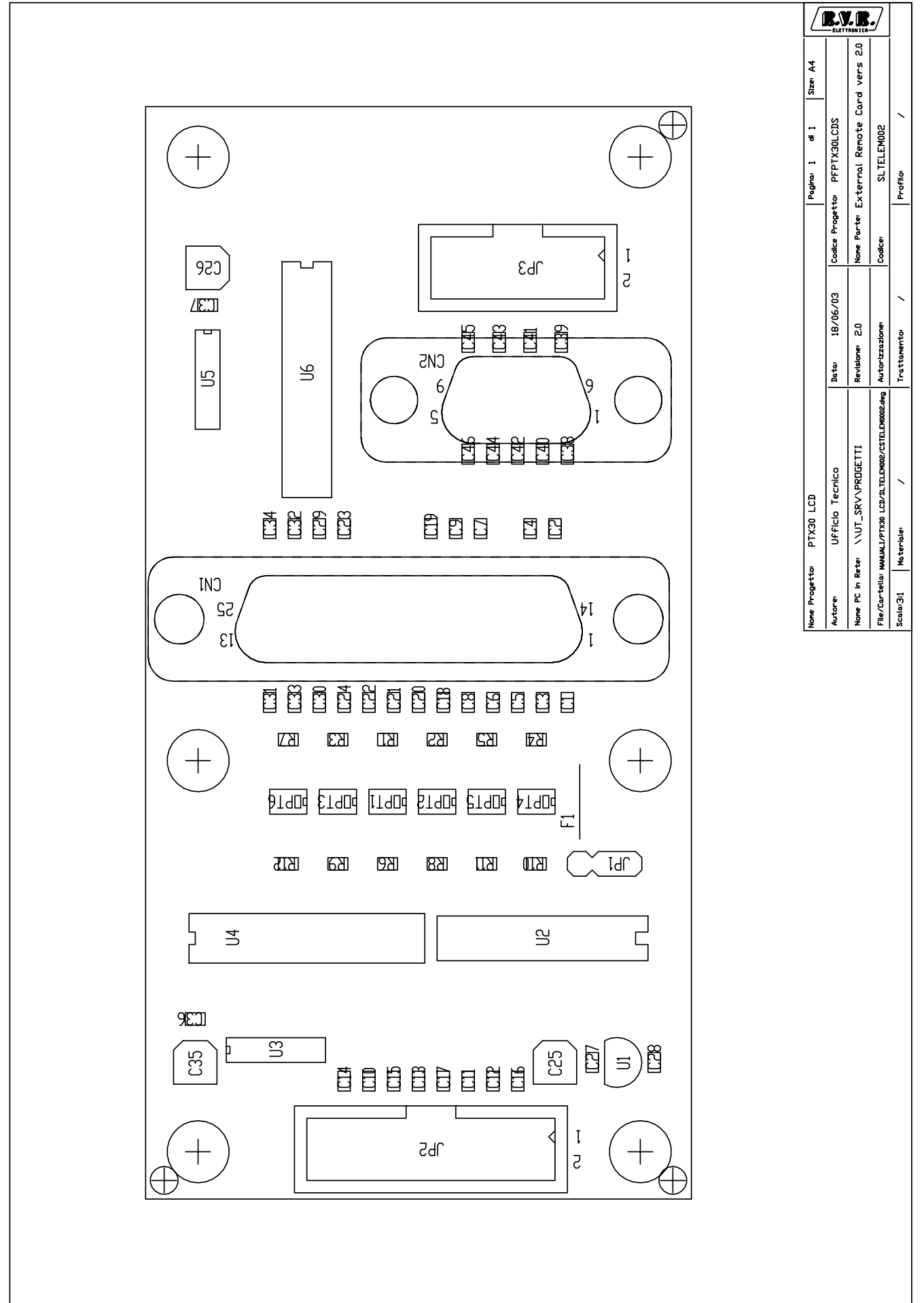
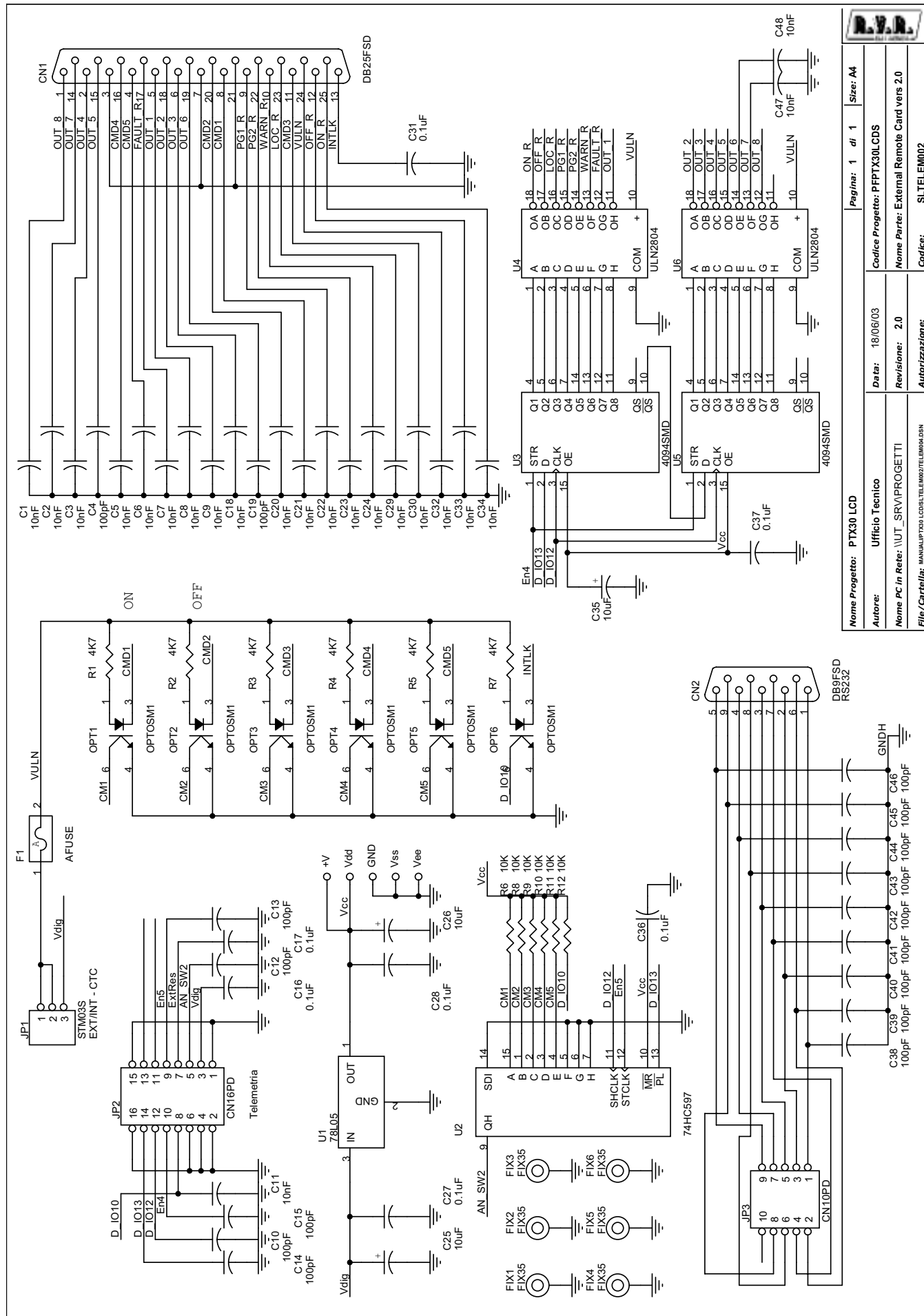
52	5	C2,C3,C9,C10,C11	CP.1uF
53	1	C4	CM.1UF
54	1	C5	CT1/35
55	5	C6,C8,C17,C19,C26	CD.1uF
56	4	C7,C23,C24,C25	EKR220/63
57	5	C12,C13,C14,C15,C16	1000/50
58	1	C18	CM.22uF
59	1	C20	CAP NP
60	1	C21	CD10KPF
61	2	C22,C31	CD1KPF/100
62	1	C28	220/35
63	1	C29	4.7uF
64	1	C30	CD1KPF
65	1	C32	100/25
66	1	DZ1	13V/1W
67	2	DZ2,DZ4	3V3/0.5
68	1	DZ3	15V/1W
69	2	D1,D3	11DQ06
70	1	D2	MBR1060
71	1	F1	BL02
72	1	F2	N.C.
73	2	IS1,IS2	4N26
74	1	JP1	KRA2
75	1	JP2	KRA5
76	1	JP3	2P
77	1	L1	T2812
78	1	Q1	IRFZ44
79	1	Q2	BC237
80	1	R1	22K
81	3	R2,R10,R13	1K
82	2	R3,R25	10R
83	1	R4	4K7
84	2	R5,R6	10R/2W
85	1	R7	3K3
86	1	R8	680R
87	2	R9,R14	R22/5W
88	1	R11	4R7
89	1	R12	5k6
90	1	R15	MIA10UH
91	2	R16,R18	10K
92	1	R17	470R/5W
93	1	R19	2K2
94	1	R20	47R
95	1	R21	560R
96	1	R22	1K80
97	2	R23,R24	560K
98	1	R26	10M
99	1	R27	820R
100	1	U1	IR2125
101	1	U2	UC3823
102	1	C1	4n7UF
103	5	C2,C3,C9,C10,C11	CP.1uF
104	1	C4	CM.1UF
105	1	C5	CT1/35
106	5	C6,C8,C17,C19,C26	CD.1uF
107	4	C7,C23,C24,C25	EKR220/63
108	5	C12,C13,C14,C15,C16	1000/50
109	1	C18	CM.22uF

110	1	C20	CAP NP
111	1	C21	CD10KPF
112	2	C22,C31	CD1KPF/100
113	1	C28	220/35
114	1	C29	4.7uF
115	1	C30	CD1KPF
116	1	C32	100/25
117	1	DZ1	13V/1W
118	2	DZ2,DZ4	3V3/0.5
119	1	DZ3	15V/1W
120	2	D3,D1	11DQ06
121	1	D2	MBR1660
122	1	F1	BL02
123	2	R19,F2	N.C.
124	2	IS1,IS2	4N26
125	1	JP1	KRA2
126	1	JP2	KRA5/6
127	1	JP3	2P
128	1	L1	T2812
129	1	Q1	IRFZ44
130	1	Q2	BC237
131	1	R1	22K
132	3	R2,R10,R13	1K
133	2	R3,R25	10R
134	1	R4	4K7
135	2	R5,R6	10R/2W
136	1	R7	3K3
137	1	R8	680R
138	1	R9	R22/5W
139	1	R11	4R7
140	1	R12	5k6
141	1	R14	R1/10W
142	1	R15	MIA10UH
143	2	R16,R18	10K
144	1	R17	470R/5W
145	1	R20	47R
146	1	R21	560R
147	1	R22	1K80
148	2	R23,R24	560K
149	1	R26	10M
150	1	R27	820R
151	1	U1	IR2125
152	1	U2	UC3823



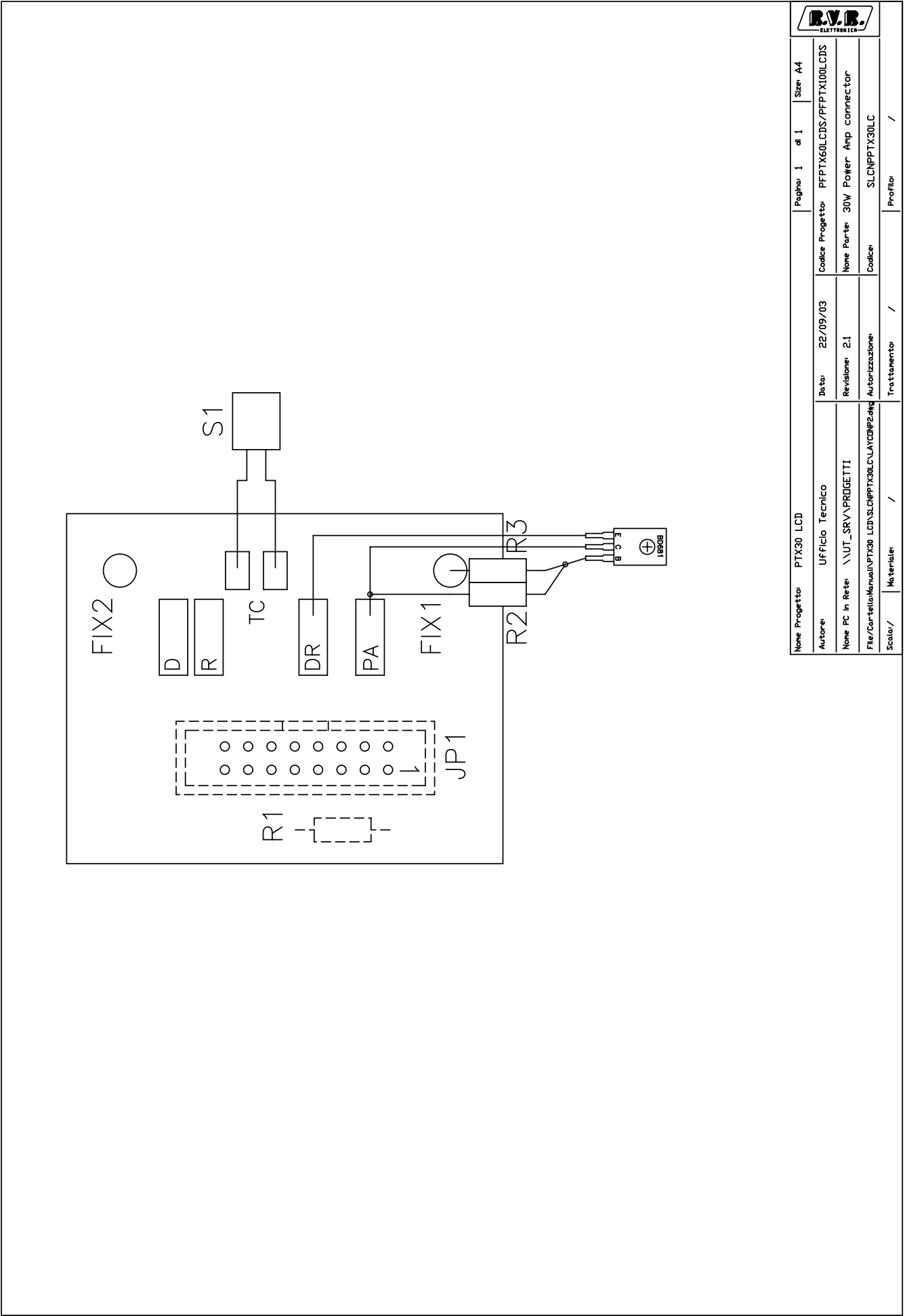
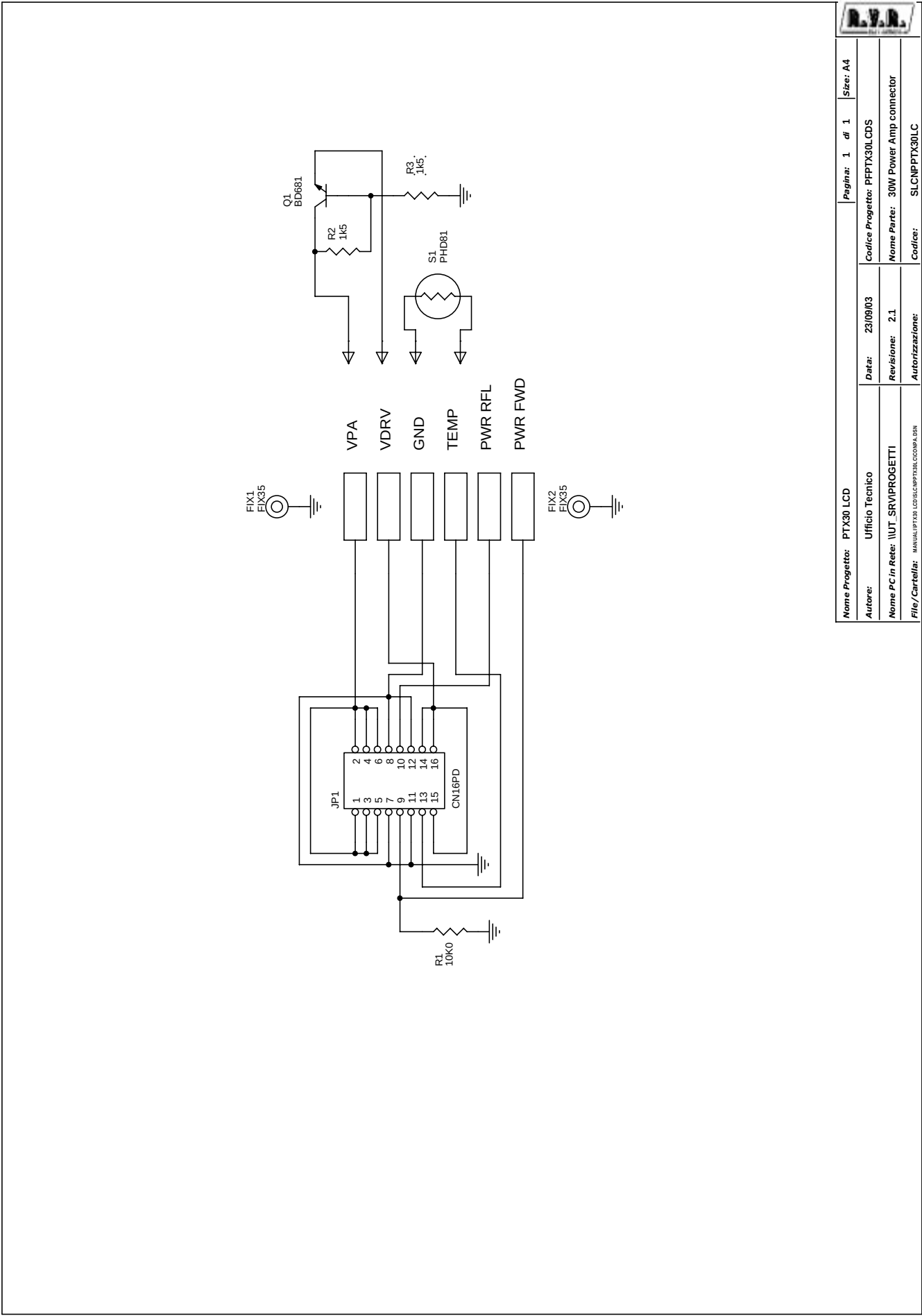
Telemetry card vers 1.3 - Bill of materials

Item	Reference	Part	Description
1	CS1	CS	Circuito stampato
2	C1	100pF	Cond. ceramico p. 2.54mm
3	C2	100pF	Cond. ceramico p. 2.54mm
4	C3	100pF	Cond. ceramico p. 2.54mm
5	C4	100pF	Cond. ceramico p. 2.54mm
6	C5	100pF	Cond. ceramico p. 2.54mm
7	C6	100pF	Cond. ceramico p. 2.54mm
8	C7	100pF	Cond. ceramico p. 2.54mm
9	C8	10nF	Cond. ceramico p. 2.54mm
10	U1	4094	CI digitale
11	U2	4051	CI digitale
12	R1	100H0	Res. 1/4 W 1%
13	JP1	STM02S	Strip M 2.54 2 pin.
14	JP2	CN16PD	Conn. M cs 2x2.54mm a 16 p.
15	C10	10uF	Cond. el. ver. 16V p. 2.5mm
16	C9	0.1uF	Cond. ceramico p. 5mm
17	C11	0.1uF	Cond. ceramico p. 5mm
18	C12	0.1uF	Cond. ceramico p. 5mm
19	C13	10uF	Cond. el. ver. 16V p. 2.5mm
20	RY1	RLYTQ212V	Rele' con bobina a 2V V
21	RY2	RLYTQ2L205V	Rele' con bobina a 5V V
22	RY3	RLYTQ2L205V	Rele' con bobina a 5V V
23	D1	5V1	Diodo Zener 1/2 W
24	D2	5V1	Diodo Zener 1/2 W
25	D3	5V1	Diodo Zener 1/2 W
26	D4	5V1	Diodo Zener 1/2 W
27	D5	5V1	Diodo Zener 1/2 W
28	D6	5V1	Diodo Zener 1/2 W
29	D7	5V1	Diodo Zener 1/2 W
30	D8	5V1	Diodo Zener 1/2 W
31	R2	2K20	Res. 1/4 W 1%
32	R3	2K20	Res. 1/4 W 1%
33	R4	2K20	Res. 1/4 W 1%
34	R5	2K20	Res. 1/4 W 1%
35	R6	2K20	Res. 1/4 W 1%
36	R7	2K20	Res. 1/4 W 1%
37	R8	2K20	Res. 1/4 W 1%
38	R9	2K20	Res. 1/4 W 1%
39	C14	10nF	Cond. ceramico p. 2.54mm
40	C16	10nF	Cond. ceramico p. 2.54mm
41	C17	10nF	Cond. ceramico p. 2.54mm
42	C18	10nF	Cond. ceramico p. 2.54mm
43	C19	10nF	Cond. ceramico p. 2.54mm
44	C20	10nF	Cond. ceramico p. 2.54mm
45	C21	10nF	Cond. ceramico p. 2.54mm
46	R10	NC	Non connesso
47	R11	NC	Non connesso
48	JP3	CN10PD	Conn. M cs 2x2.54mm a 10 p.
49	U4	ULN2803	CI digitale
50	CN1	DB25FSD	Conn. DB25 F stampato a 90°
51	CN2	DB9FSD	Conn. DB9F SD
52	C15	10nF	Cond. ceramico p. 2.54mm
53	U3	78L05	CI lineare



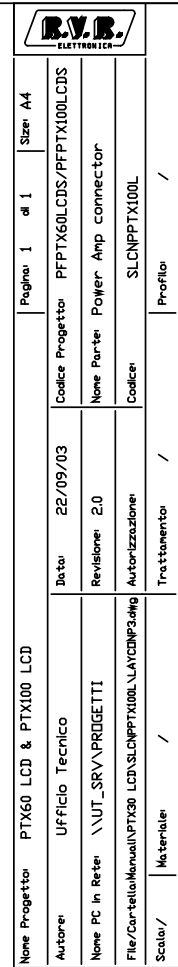
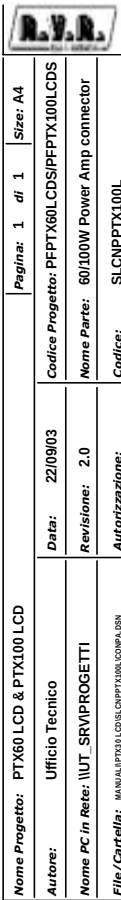
External Remote Card vers 2.0 - Bill of materials

Item	Quantity	Reference	Part	Description
1	1	CN1	DB25FSD	Connettore DB25 femm. cs
2	1	CN2	DB9FSD	Connettore DB9 femm. cs
3	22	C1,C2,C3,C5,C6,C7,C8,C9, C11,C18,C20,C21,C22,C23, C24,C29,C30,C32,C33,C34, C47,C48	10nF	Cond. SMD 0805
4	16	C4,C10,C12,C13,C14,C15, C19,C38,C39,C40,C41,C42, C43,C44,C45,C46	100pF	Cond. SMD 0805
5	7	C16,C17,C27,C28,C31,C36, C37	0.1uF	Cond. SMD 0805
6	3	C25,C26,C35	10uF	Cond. Elett. SMD d. 4mm
7	6	FIX1,FIX2,FIX3,FIX4,FIX5, FIX6	FIX35	Foro fissaggio 3.5mm
8	1	F1	AFUSE	Fusibile autorip. 7mm
9	1	JP1	STM03S	Strip maschio 3 pin
10	1	JP2	CN16PD	Connettore 16 poli Flat cs
11	1	JP3	CN10PD	Connettore 10 poli Flat cs
12	6	OPT1,OPT2,OPT3,OPT4,OPT5, OPT6	OPTOSM1	Optoisolatore SMD SO6
13	6	R1,R2,R3,R4,R5,R7	4K7	Res. SMD 0805
14	6	R6,R8,R9,R10,R11,R12	10K	Res. SMD 0805
15	1	U1	78L05	Stabilizzatore TO92
16	1	U2	74HC597	Shift Reg. DIP16
17	2	U5,U3	4094SMD	Shift Reg. SMD SO16
18	2	U6,U4	ULN2804	Octal Inv. Driver DIP18



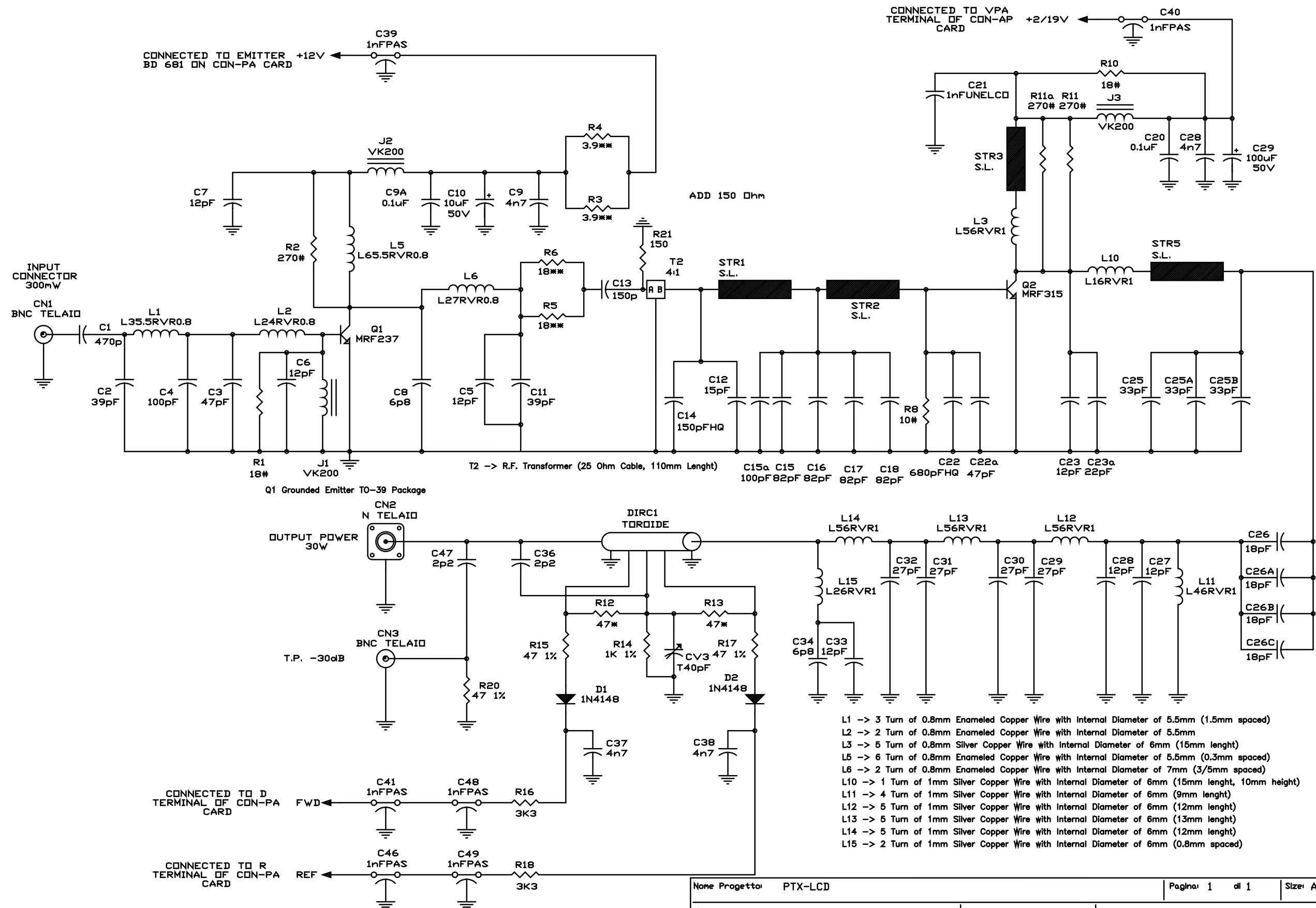
Power Amp connector - Bill of materials

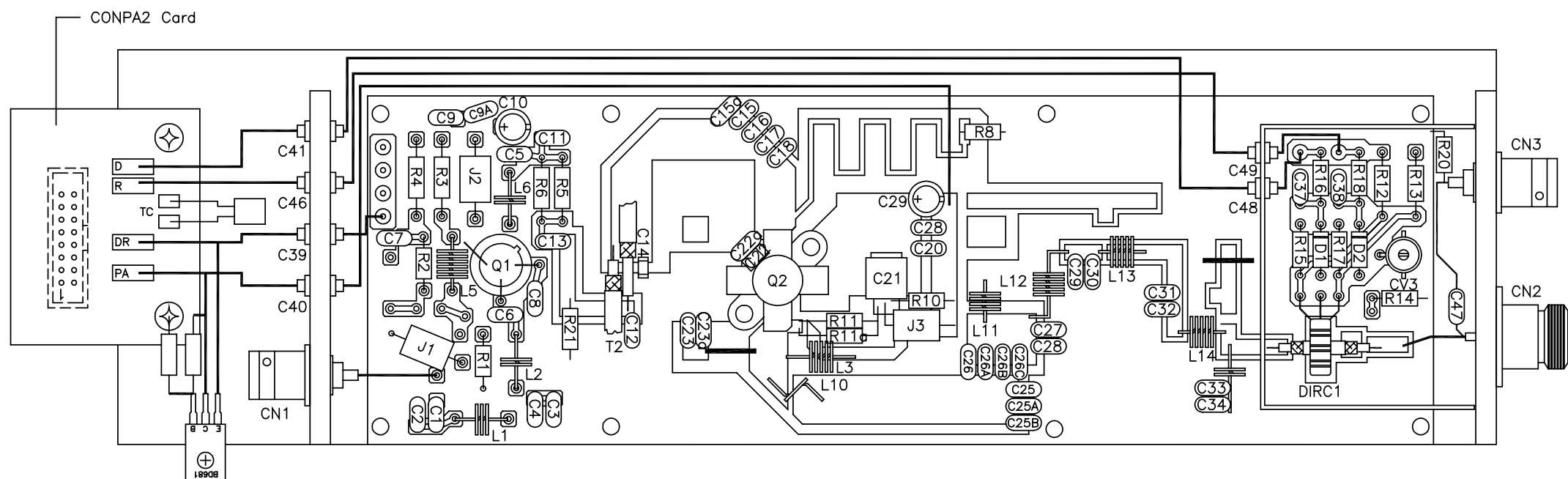
Item	Qty	Reference	Part	DESCRIPTION
1	1	R1	10K0	RESISTOR 1/4W 1%
2	2	R2,R3	1K5	RESISTOR 1/4W 1%
4	1	JP1	CN16PD	CONN. M 2*8 P 2.54
5	1	Q1	BD681	NPN POWER TRANSISTOR
6	1	S1	PHD81	SILICON TEMP. SENSOR



Power Amp connector - Bill of materials

Item	Qty	Reference	Part	DESCRIPTION
1	1	R1	10K0	RESISTOR 1/4W 1%
2	1	C2	220uF	ELECTR. CAPACITOR
3	1	JP1	CN16PD	CONN. M 2*8 P 2.54
4	1	S1	PHD81	SILICON TEMP. SENSOR
5	1	C1	NC	NON CONNESSO



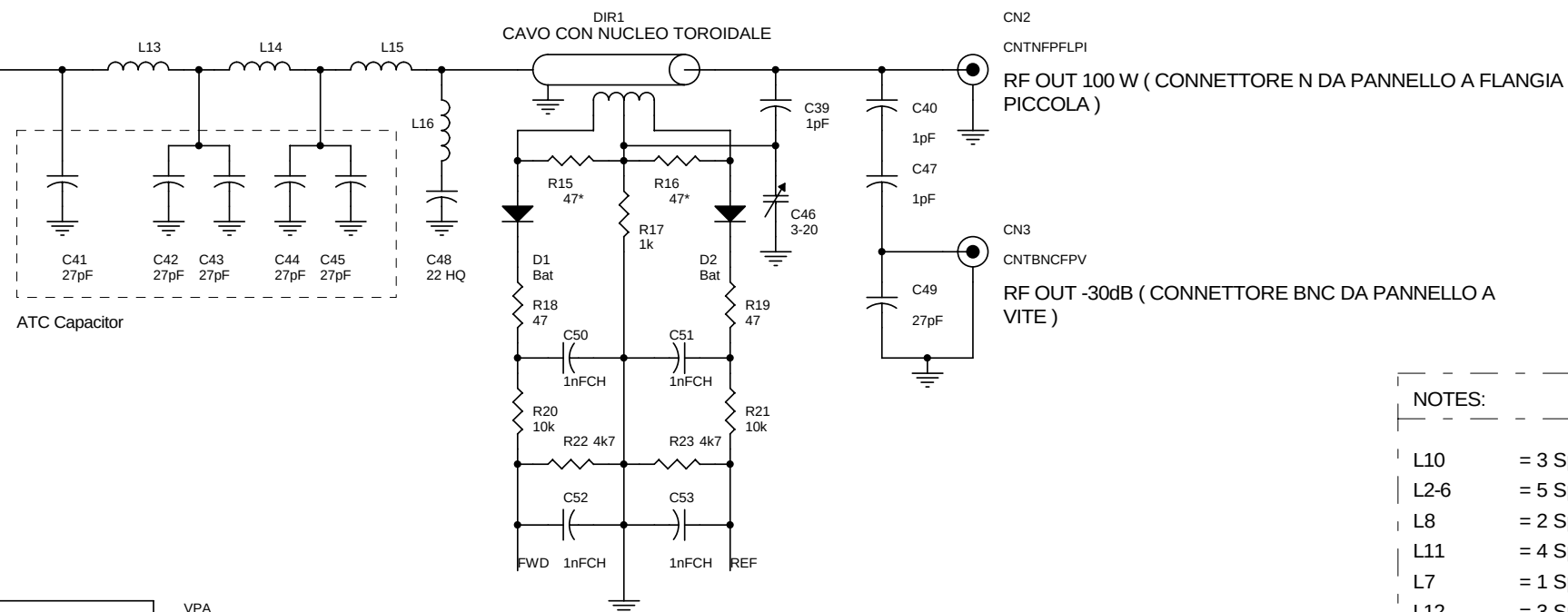
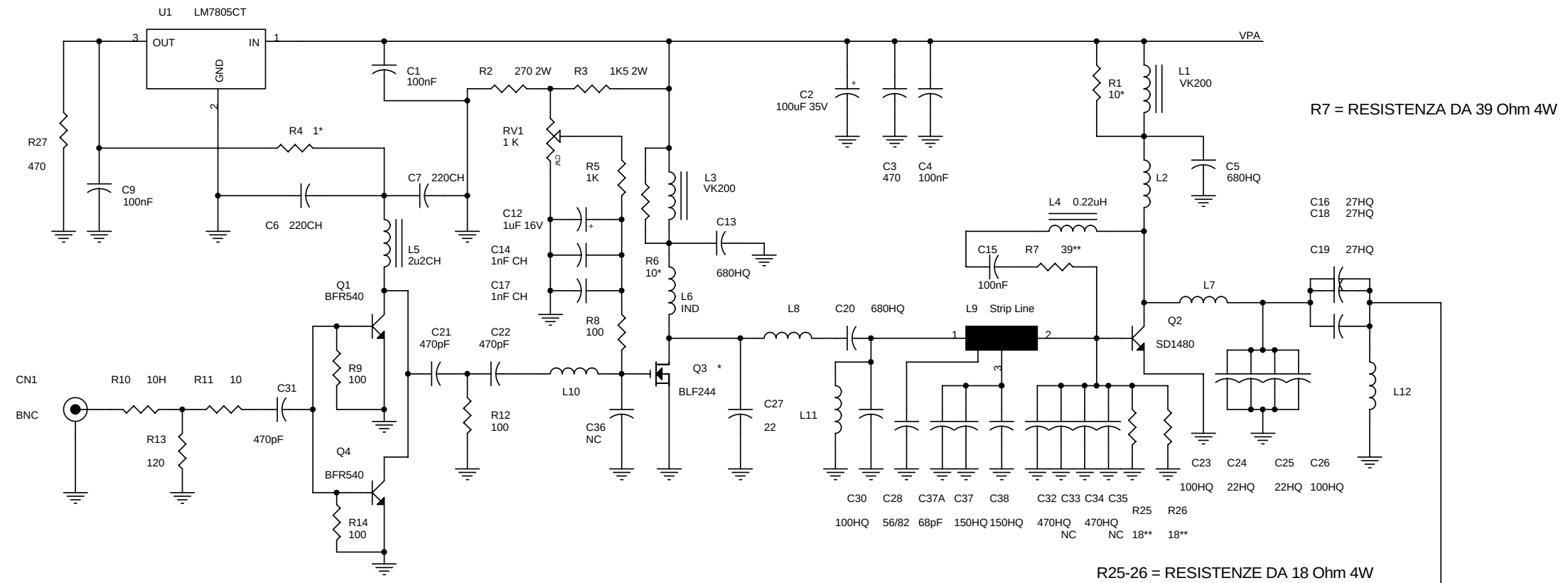


Nome Progetto: PTX30 LCD		Pagina: 1 di 1		Size: A3
Autore: Ufficio Tecnico		Data: 22/09/03	Codice Progetto: PFPTX30LCDS	
Nome PC in Rete: \\UT_SRV\PROGETTI		Revisione: 2.1	Nome Parte: 30W R.F. Power Amplifier Layout	
File/Cartella: \MANUALI\PTX LCD\SLRFPTX30LCD\layfin30.dwg		Autorizzazione:	Codice: SLRFPTX30LCD	
Scala: /	Materiale: /	Trattamento: /	Profilo: /	

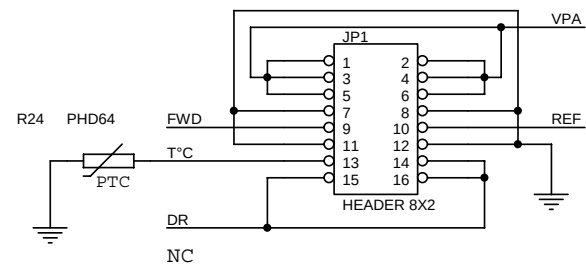


30W RF POWER AMPLIFIER
SLRFPTX30LCD
Version:2,1
23/09/03

Item	Qty	Reference	Part
1	2	CN1,CN3	BNC TELAIO
2	1	CN2	N TELAIO
3	1	CV3	T40pF
4	4	C9,C28,C37,C38	4n7
5	2	C2,C11	39pF
6	1	C3,C22A	47pF
7	1	C4,C15A	100pF
8	7	C5,C6,C7,C23,C27,C28,C33	12pF
9	2	C8,C34	6p8
10	2	C20,C9A	0.1uF
11	1	C10	10uF
12	1	C12	15pF
13	1	C14	150pFHQ
14	4	C15,C16,C17,C18	82pF
15	1	C21	1nFUNELCO
16	1	C22	680pFHQ
17	3	C25B,C25A,C25	33pF
18	4	C26C,C26B,C26A,C26	18pF
19	4	C29,C30,C31,C32	27pF
20	2	C36,C47	2p2
21	6	C39,C40,C41,C46,C48,C49	1nFPAS
22	1	DIRC1	TOROIDE
23	2	D1,D2	1N4148
24	3	J1,J2,J3	VK200
25	1	L1	L35.5RVR0.8
26	1	L2	L24RVR0.8
27	4	L3,L12,L13,L14	L56RVR1
28	1	L5	L65.5RVR0.8
29	1	L6	L27RVR0.8
30	1	L10	L16RVR1
31	1	L11	L46RVR1
32	1	L15	L26RVR1
33	1	Q1	MRF315
34	1	Q2	BLW86
35	2	R1,R10	18#
36	2	R2,R11,R11A	270#
37	2	R4,R3	3.9**
38	2	R6,R5	18**
39	2	R13,R12	47*
40	1	R14	1K 1%
41	3	R15,R17,R20	47 1%
42	2	R16,R18	3K3
43	4	STR1,STR2,STR3,STR5	S.L.
44	1	T2	04,01
45	1	C1	470p
46	1	C13	150p
47	1	C23A	22pF
48	1	R8	10#
49	1	R21	150



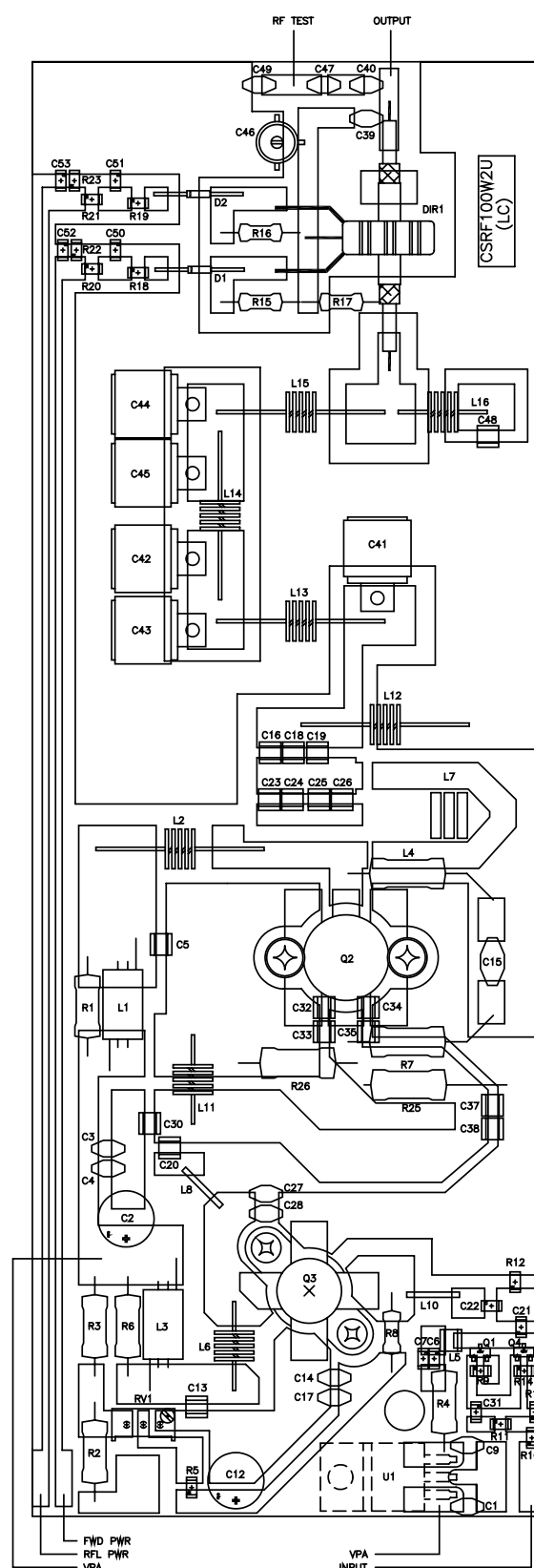
- NOTES:**
- L10 = 3 Sp di filo arg. 1mm su aria di 4.5mm
 - L2-6 = 5 Sp di filo arg. 1mm su aria 7mm
 - L8 = 2 Sp di filo arg. 1mm
 - L11 = 4 Sp di filo arg. 1mm su aria di 7mm
 - L7 = 1 Sp a U di filo arg. 1mm H=12 x L=9mm
 - L12 = 3 Sp di filo arg. 1.5mm su aria 7mm
 - L13-14-15 = 4 Sp di filo arg. 1.5mm su aria 8mm
 - L16 = 4 Sp di filo 1mm su aria di 5mm
 - R* =ANTIINDUTTIVE DA 2W



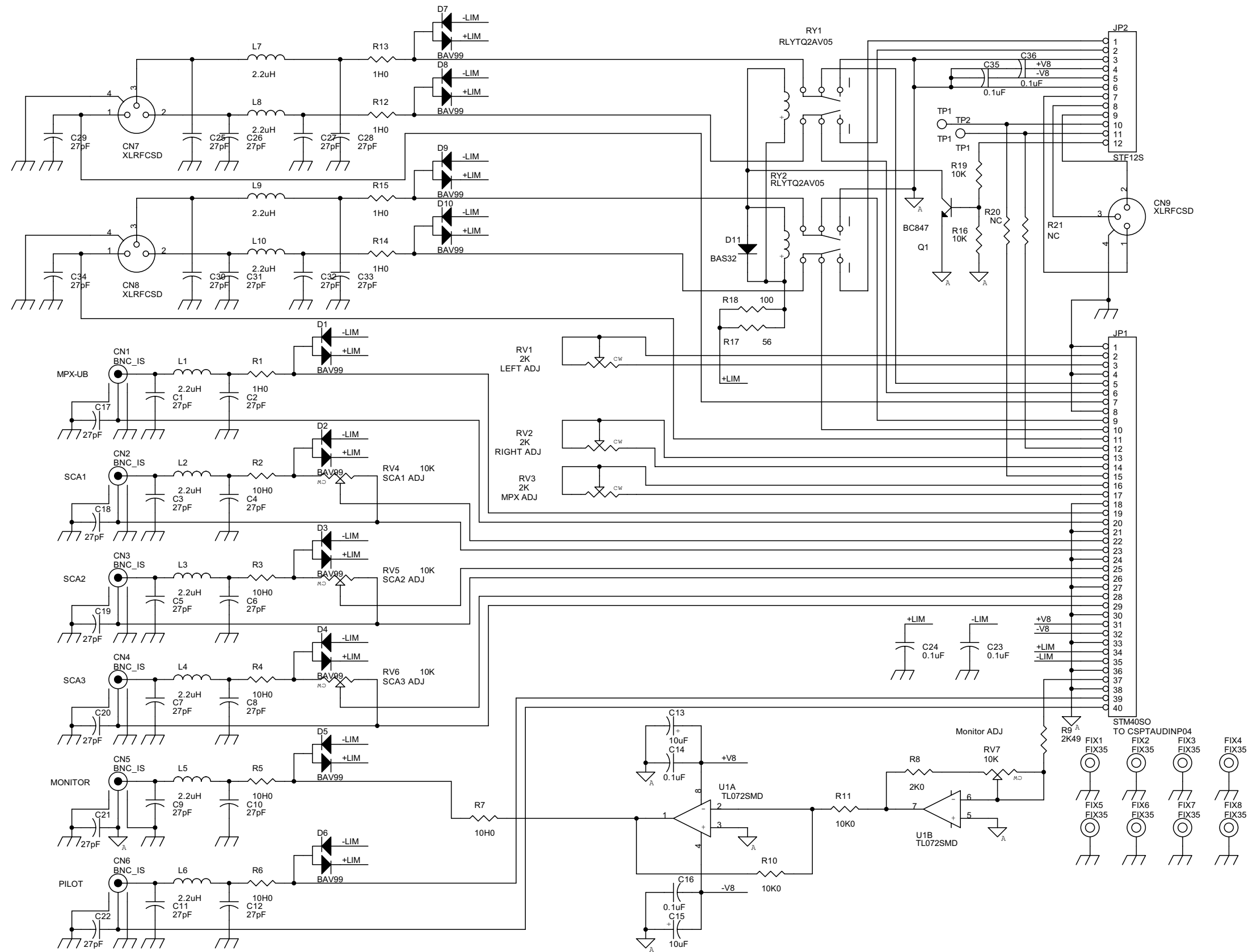
* NB: Q3 can mount also an BLF245

Nome Progetto: PTX60 LCD & PTX100 LCD		Pagina: 1 di 1	Size: A3
Autore: Ufficio Tecnico	Data: 10/02/04	Codice Progetto: PFPTX60LCDS/PFPTX100LCDS	
Nome PC in Rete: IUT_SRV/PROGETTI	Revisione: 2.2	Nome Parte: 60-100W RF Power amplifier	
File/Cartella: MANUALPTX30 LCD/SLRPTX100WFINALE.DSN	Autorizzazione:	Codice: SLRPTX100W	

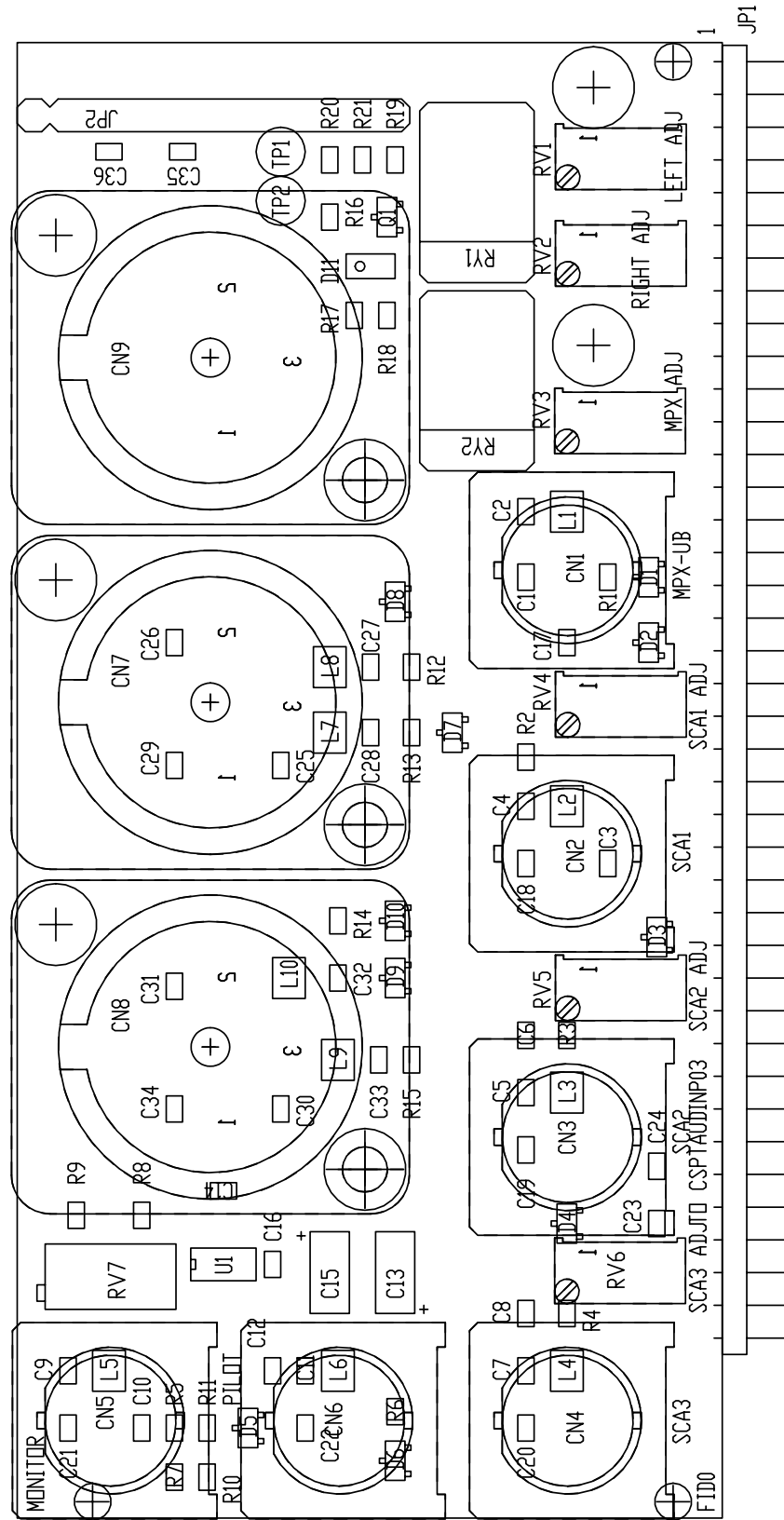
Item	Quantity	Reference	Part
1	2	CN1,CN3	CNTBNCFPV
2	1	CN2	CNTNFPFLPI
3	4	C1,C4,C9,C15	100nF
4	1	C2	100uF 35V
5	2	C3,R27	470
6	3	C5,C13,C20	680HQ
7	2	C7,C6	220CH
8	1	C12	1uF 16V
9	2	C17,C14	1nF CH
10	5	C41,C42,C43,C44,C45	27pF
11	3	C16,C18,C19	27HQ
12	3	C21,C22,C31	470pF
13	3	C23,C26,C30	100HQ
14	2	C24,C25	22HQ
15	1	C27	22
16	1	C28	56/82
17	2	C32,C34	470HQ
18	3	C33,C35,C36	NC
19	2	C37,C38	150HQ
20	1	C37A	68pF
21	3	C39,C40,C47	1pF
22	1	C46	3
-20			
23	1	C48	22 HQ
24	1	C49	27pF
25	4	C50,C51,C52,C53	1nFCH
26	1	DIR1	TRANSMISSION LINE
27	2	D1,D2	Bat
28	1	JP1	HEADER 8X2
29	2	L1,L3	VK200
30	11	L2,L6,L7,L8,L10,L11,L12, L13,L14,L15,L16	IND
31	1	L4	0.22uH
32	1	L5	2u2CH
33	1	L9	Strip Line
34	2	Q1,Q4	BFR540
35	1	Q2	SD1480
36	1	Q3	BLF244
37	1	RV1	1 K
38	2	R1,R6	10*
39	1	R2	270 2W
40	1	R3	1K5 2W
41	1	R4	1*
42	2	R17,R5	1K
43	1	R7	39**
44	4	R8,R9,R12,R14	100
45	1	R10	10H
46	1	R11	10
47	1	R13	120
48	2	R15,R16	47*
49	2	R18,R19	47
50	2	R20,R21	10k
51	2	R22,R23	4k7
52	1	R24	PHD64
53	2	R25,R26	18**
54	1	U1	LM7805CT



Nome Progetto: PTX30 LCD		Pagina 1 di 1		Size: A4
Autore:	Ufficio Tecnico	Data:	10/02/04	Codice Progetto: PFTTX30LCDS
Nome PC in Rete:	\\UT_SRV\PROGETTI	Revisione:	2.2	Nome Parte: 60-100W RF Power amplifier
File/Carrello:	MANUAL\PTX30_LCD\SLRPTX100W\LAYOUT.DWG	Autore:	Autore	Codice: SLRPTX100W
Scala:	1/	Trattamento:	1/	Profilo:



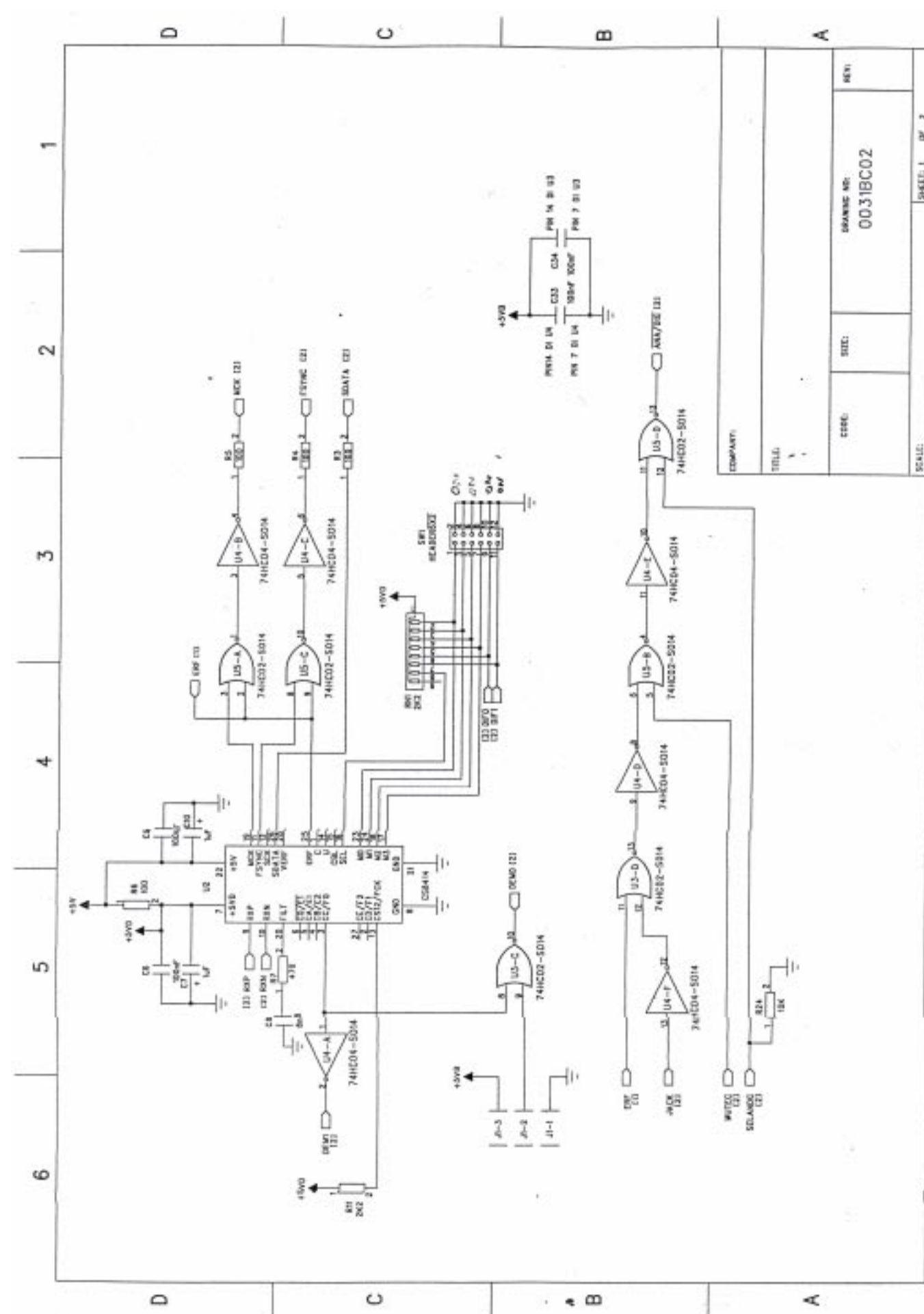
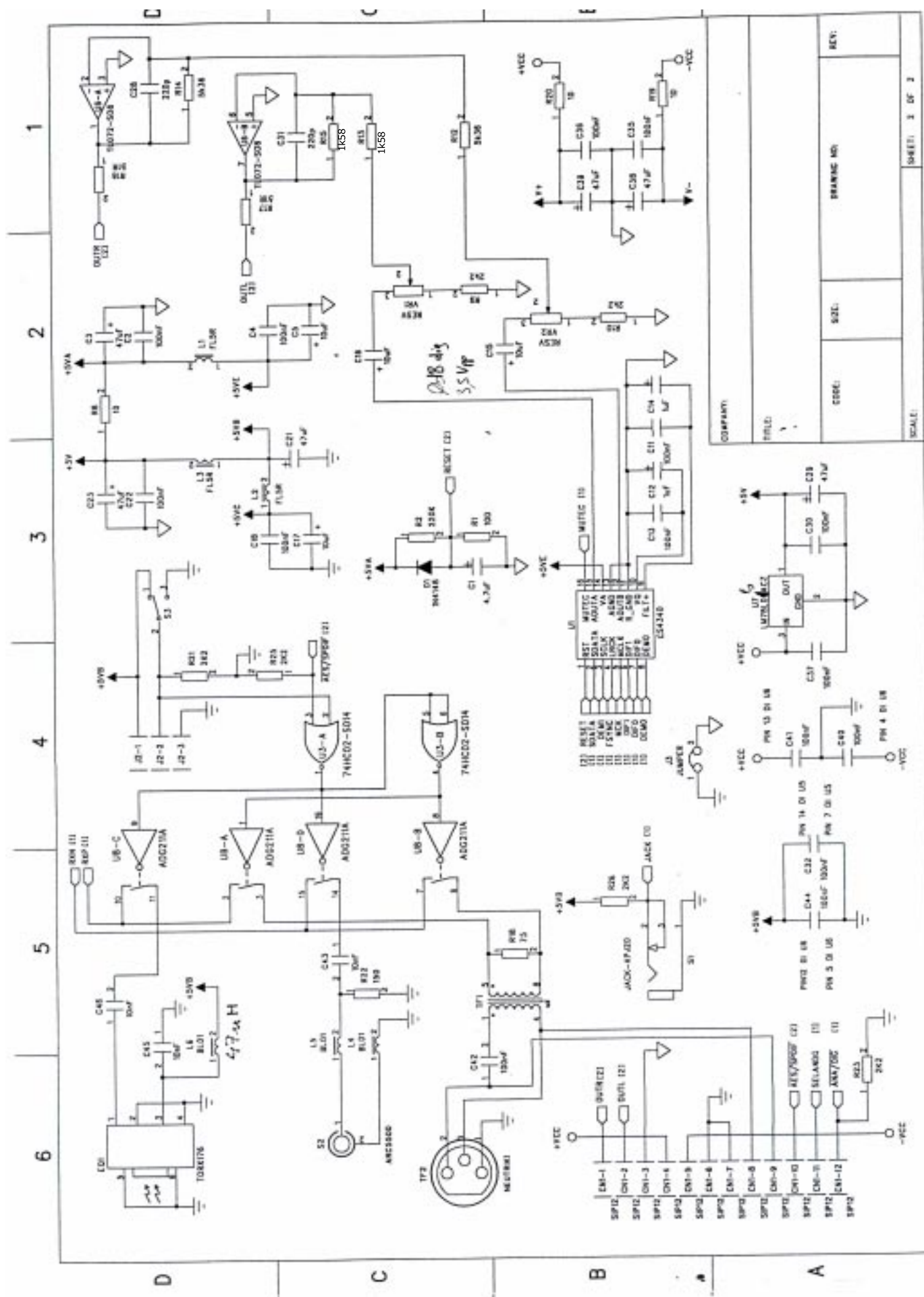
Nome Progetto: PTX30 LCD		Pagina: 1 di 1	Size: A3
Autore:	Ufficio Tecnico	Data:	18/06/03
Nome PC in Rete:	\\UT_SRV\PROGETTI	Revisione:	2.0
File/Cartella:	MANUAL\PTX LCD\OPTION AUDIOP-DIGI\AUC05.DSN	Autorizzazione:	
Codice Progetto: PFPTX30LCDS		Nome Parte: SCHEMA CONNETTORI BNC, SCA, MPX e REGOLAZIONI	
		Codice: SLPTAUDBNC05	

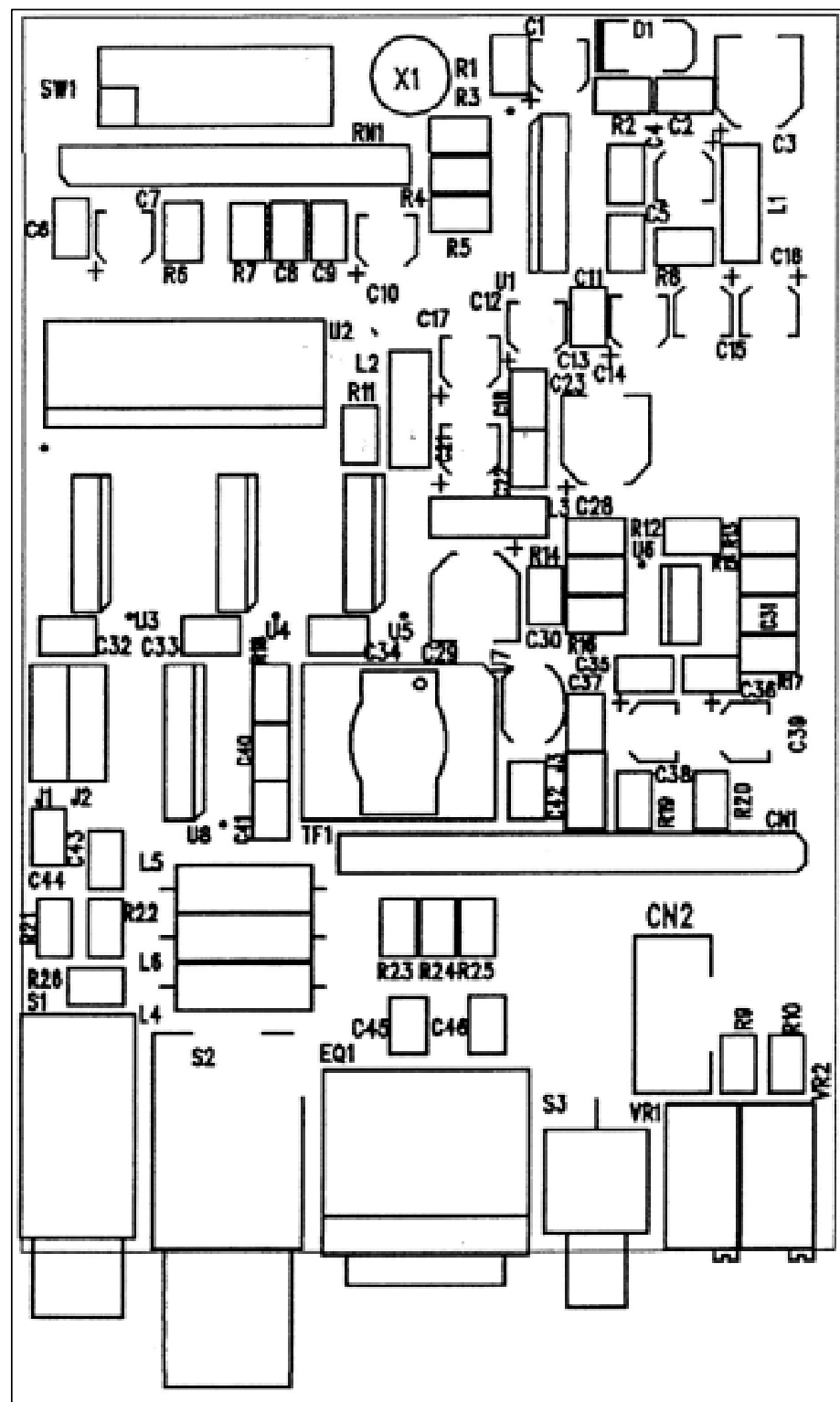


Nome Progetto		PTX30 LCD		Pagina		di		1		Size		A4	
Autore		Ufficio Tecnico		Data		18/06/03		Codice Progetto		PFTX30LCD			
Nome PC in Rete		\\UT_SRV\PROGETTI		Revisione		2.0		Nome Parte		SCHEMA COMPONENTI BNC, SCAMPX e REGOLAZIONI			
File/Carrello		MANUALI\PTX LCD\OPTION AUDIOP-DIG-VV00BNC.DWG		Autorizzazione				Codice		CSPTAUDBNC05			
Scala		2:1		Materiale		/		Trattamento		/		Profilo	

Digital Audio Input - Bill of materials

Item	Q.ty	Reference	Part
1	6	CN1,CN2,CN3,CN4,CN5,CN6	BNC_IS
2	3	CN7,CN8,CN9	XLRFCSD
3	28	C1,C2,C3,C4,C5,C6,C7,C8,C9,C10,C11,C12,C17,C18,C19,C20,C21,C22,C25,C26,C27,C28,C29,C30,C31,C32,C33,C34	27pF
4	2	C15,C13	10uF
5	6	C14,C16,C23,C24,C35,C36	0.1uF
6	10	D1,D2,D3,D4,D5,D6,D7,D8,D9,D10	BAV99
7	1	D11	BAS32
8	8	FIX1,FIX2,FIX3,FIX4,FIX5,FIX6,FIX7,FIX8	FIX35
9	1	JP1	STM40SO
10	1	JP2	STF12S
11	10	L1,L2,L3,L4,L5,L6,L7,L8,L9,L10	2.2uH
12	1	Q1	BC847
13	3	RV1,RV2,RV3	2K
14	6	RV4,RV5,RV6,RV7,R16,R19	10K
15	2	RY1,RY2	RLYTQ2AV05
16	5	R1,R12,R13,R14,R15	1H0
17	6	R2,R3,R4,R5,R6,R7	10H0
18	1	R8	2K0
19	1	R9	2K49
20	2	R11,R10	10K0
21	1	R18	100
22	2	R21,R20	NC
23	2	TP2,TP1	TP1
24	1	U1	TL072SMD
21	1	R17	56





R.V.R. ELETTRONICA		Nome Progetto		PTX30 LCD		Autore		Ufficio Tecnico		Data		Codice Progetto		Nome Parte		Codice		Profilo	
Pagina	1	di	1	Size	A4	Nome PC in Rete	\\UT_SRV\PROGETTI	Revisione	2.0	Autore	18/06/03	Codice	PFPTX30LCDS	Nome Parte	DIGITAL AUDIO INPUT	Codice	CSRXAES	Profilo	/
File/Carrello	MANUAL\PTX30 LCD\PTX30 AUDIO-DIG\AES.DWG																		
Scala	2:1	Materiale																	

Audio Input Selector - Bill of materials

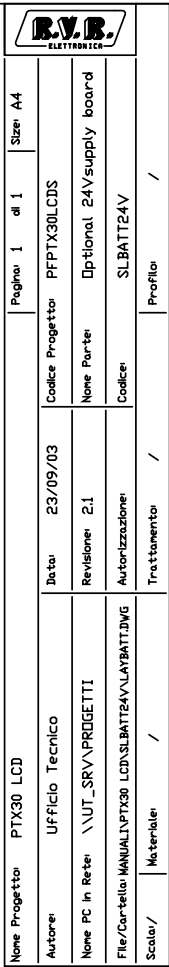
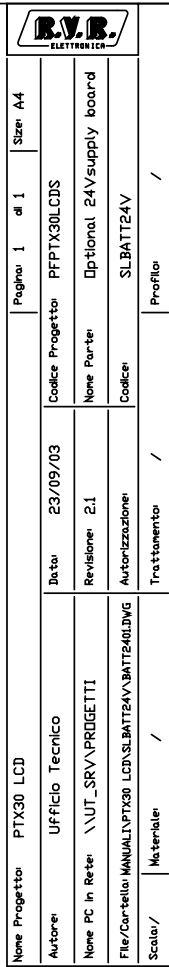
	Name	Logie	Gates	VALUE	Part Type
1	C6	CAP	1	100nF	C0805
2	C7	CAP	1	1uF	AECAP
3	C8	CAP	1	6n8	C0805
4	C9	CAP	1	100nF	C0805
5	C10	CAP	1	1uF	AECAP
6	C33	CAP	1	100nF	C0805
7	C34	CAP	1	100nF	C0805
8	J1	CON	3		HEADER03
9	R3	RES	1	-100	R0805
10	R4	RES	1	100	R0805
11	RS	RES	1	100	R0805
12	R6	RFS	1	100	R0805
13	R7	RES	1	470	R0805
14	R11	RES	1	2K2	R0805
15	R24	RES	1	10K	R0805
16	RN1	RES	1	2K2	RN9A
17	SW1	UND	1		HEADER\6X2
18	U2	UND	1		CS8414
19	U3	TTL	4		74HC02-S01
20	U4	TTL	6		74HC04-S01
21	U5	TTL	4		74HC02-S01
22	C1	CAP	1	4.7uF	AECAP
23	C2	CAP	1	100nF	C0805
24	C3	CAP	1	47uF	AECAP
25	C4	CAP	1	100nF	C0805
26	C5	CAP	1	10uF	AECAP
27	C11	CAP	1	100nF	C0805 10
28	C12	CAP	1	1uF	AECAP 1u
29	C13	CAP	1	100nF	C0805 10
30	C14	CAP	1	1uF	AECAP 1u
31	C15	CAP	1	10uF	AECAP 10
32	C16	CAP	1	10uF	AECAP 10
33	C17	CAP	1	10uF	AECAP 10
34	C18	CAP	1	100nF	C0805 10
35	C19	CAP	1	220p	C0805 22
36	C20	CAP	1	220p	C0805 22
37	C21	CAP	1	47uF	AECAP 47
38	C22	CAP	1	100nF	C0805 10
39	C23	CAP	1	47UF	AECAP 47
40	C24	CAP	1	220P	C0805 22
41	C25	CAP	1	220p	C0805 22
42	C26	CAP	1	220p	C0805 22
43	C27	CAP	1	220p	C0805 22
44	C28	CAP	1	220p	C0805
45	C29	CAP	1	47uF	AECAP
46	C39	CAP	1	100nF	C0805
47	C31	CAP	1	220p	C0805
48	C32	CAP	1	100nF	C0805
49	C35	CAP	1	100nF	C0805
50	C36	CAP	1	100nF	C0805
51	C37	CAP	1	100nF	C0805
52	C38	CAP	1	47uF	AECAP
53	C39	CAP	1	47uF	AECAP

54	C40	CAP	1	100nF	C0805
55	C41	CAP	1	100nF	C0805
56	C42	CAP	1	100nF	C0805
57	C43	CAP	1	10nf	C0805
58	C44	CALD	1	100nF	C0805
59	C45	CAP	1	10nF	C0805
60	C46	CAP	1	10nF	C0805
61	CN1	CON	12		SIP12
62	D1	DIO	1	1N4148	MLL345
63	EQ1	UND	1		TORX176
64	J2	CON	3		HEADER03
64	J3	JUM	1		JUMPER
65	L1	IND	1	FLSR	RM77
66	L2	IND	1	FL5R	RM77
67	L3	IND	1	FLSR	RM77
68	L4	IND	1		BLO1
69	L5	IND	1		BLO1
70	L6	IND	1		BLO1
71	R1	RES	1	100	R0805
72	R2	RES	1	220K	R0805
73	R8	RES	1	10	R0805
74	R9	RES	1	3K32	R0805
75	R10	RES	1	3K32	R0805
76	R12	RES	1	1K58	R0805
77	R13	RES	1	1K58	R0805
78	R14	RES	1	3K32	R0805
79	R15	RES	1	3K32	R0805
80	R16	RES	1	10K	R0805
81	R17	RES	1	10K	R0805
82	R18	RES	1	75	R0805
83	R19	RES	1	10	R0805
84	R20	RES	1	10	R0805
85	R21	RES	1	2K2	R0805
86	R22	RES	1	150	R0805
87	R23	RES	1	2K2	R0805
88	R25	RES	1	2K2	R0805
89	R26	RES	1	2K2	R0805
90	S1	UND	1		JACK-APJ20
91	S2	UND	1		ARC5500
92	TF1	UND	1		TRASF-DIG_
93	TF2	UND	1		NEUTRIK1
94	UI	UND	1		C54340
95	U3	TTL	4		74HCO2-S01
96	U6	ANA	2		TL072-S08
97	U7	ANA	1		LM78L08ACZ
98	U8	CMO	4		ADG211AVR



Nome Progetto: PTX30 LCD		Pagina: 1 di 1		Size: A3	
Autore: Ufficio Tecnico		Data: 18/06/03	Codice Progetto: PFPTX30LCDS		
Nome PC in Rete: \\UT_SRV\PROGETTI		Revisione: 2.0	Nome Parte: Digital Audio Input TRDSP		
File/Cartella: MANUAL\PTX30 LCD\TRDSP\TRDSP.DWG		Autorizzazione:	Codice: TRDSP		
Scala: /	Materiale: /	Trattamento: /	Profilo: /		





Optional 24Vsupply board - Bill of material

Item	Reference	Part	Description
1	CS1	CS	Circuito stampato
2	INV1	INV2415	--- --
3	CN1	CN06MR	Conn. morsetto 06 pin F c.s.
4	RLY1	RLYRKS11	Rele' con bobina a V
5	C1	0.1µF	Cond. ceramico p. 5mm
6	C2	0.1µF	Cond. ceramico p. 5mm
7	C3	0.1µF	Cond. ceramico p. 5mm
8	C4	0.1µF	Cond. ceramico p. 5mm
9	C5	0.1µF	Cond. ceramico p. 5mm
10	C6	0.1µF	Cond. ceramico p. 5mm
11	R1	4K70	Res. 1/4 W 1%
12	C7	0.1µF	Cond. ceramico p. 5mm
13	Q1	BC547	Tr. in TO 92
14	C8	100nF	Cond. poliestere p. 5mm
15	C9	220µF	Cond. el. ver. 16V p. 2.5mm
16	R2	4K70	Res. 1/4 W 1%
17	C10	100nF	Cond. poliestere p. 5mm
18	C11	220µF	Cond. el. ver. 16V p. 2.5mm
19	C12	100nF	Cond. poliestere p. 5mm
20	L1	100µH	Impedenza
21	C13	100nF	Cond. poliestere p. 5mm
22	D1	1N4005	Diodo silicio
23	C14	100µF	Cond. el. ver. 25V p. 2.5mm
24	C15	0.1µF	Cond. ceramico p. 5mm
25	CN2	CN02MR	Conn. morsetto 02 pin F c.s.
26	U1	LM7915	3-Terminal negative regulator
27	C16	220µF	Cond. el. ver. 16V p. 2.5mm
28	C17	220µF	Cond. el. ver. 16V p. 2.5mm
29	C18	220µF	Cond. el. ver. 16V p. 2.5mm
30	C19	220µF	Cond. el. ver. 16V p. 2.5mm
31	C20	100nF	Cond. poliestere p. 5mm
32	C21	220µF	Cond. el. ver. 16V p. 2.5mm
33	Q2	TIP120	Tr. in TO 92