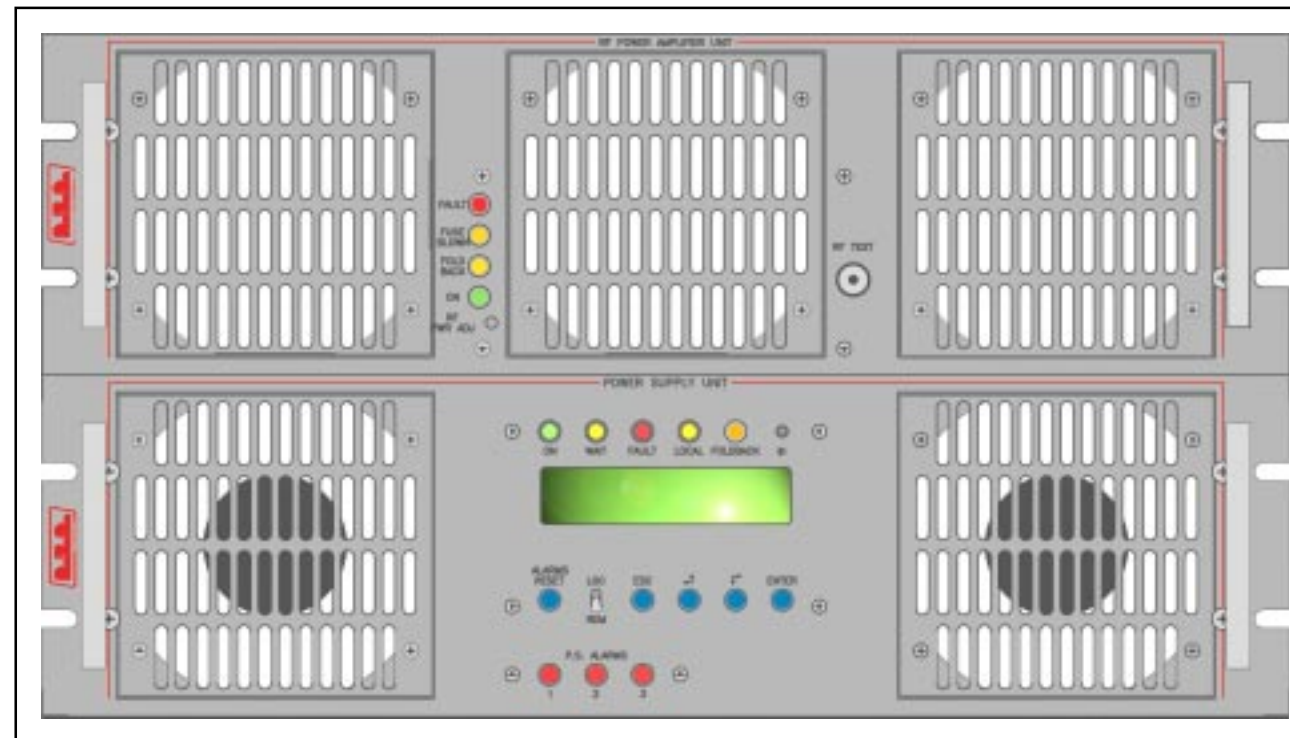


PJ2000M-C



User Manual Volume 2: Technical Appendix

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

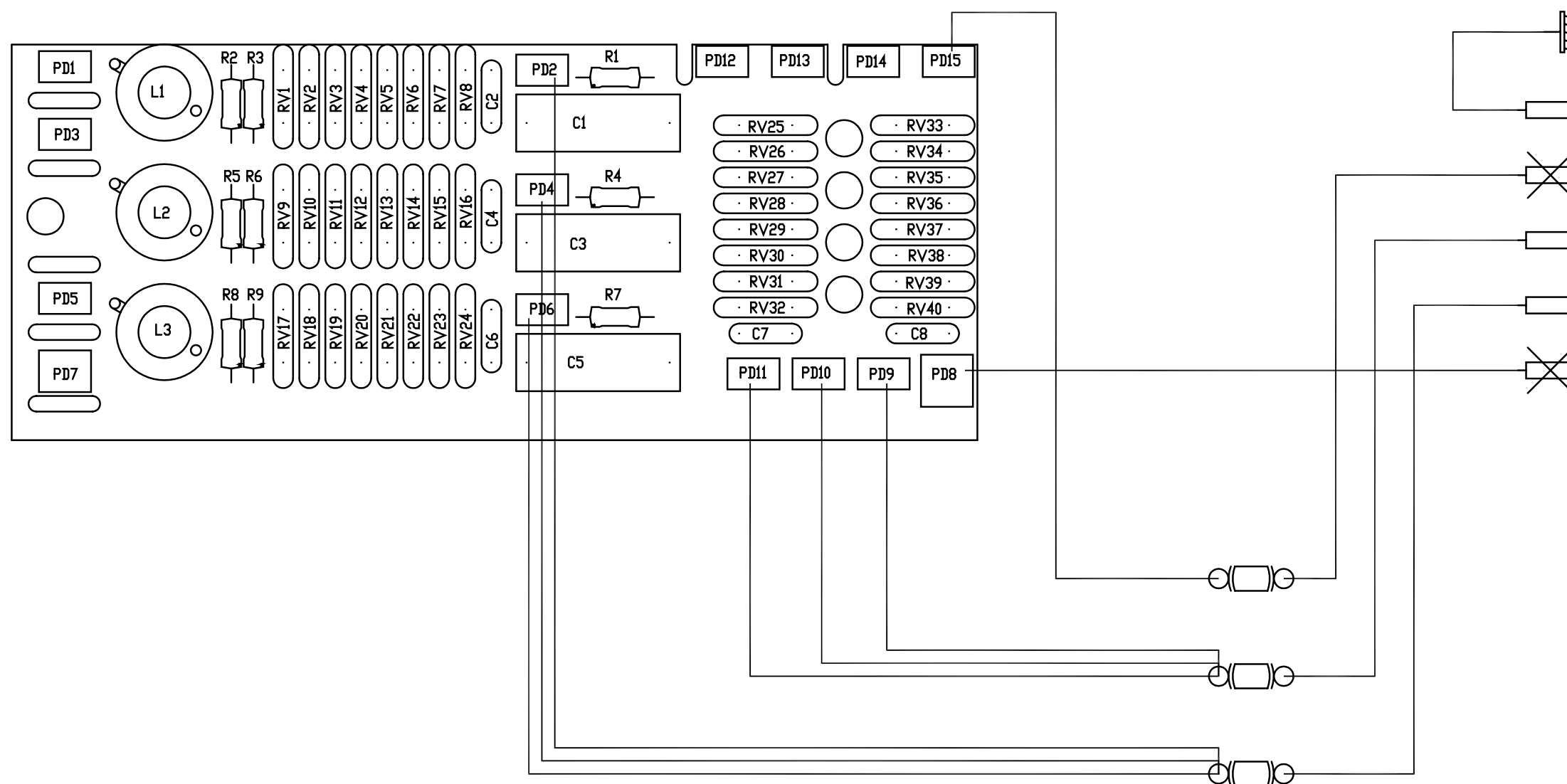
Questa parte del manuale contiene i dettagli tecnici riguardanti la costruzione delle singole schede componenti il PJ2000M-C. L'appendice è composta dalle seguenti sezioni:

This part of the manual contains the technical details about the different boards of the PJ2000M-C. This appendix is composed of the following sections:

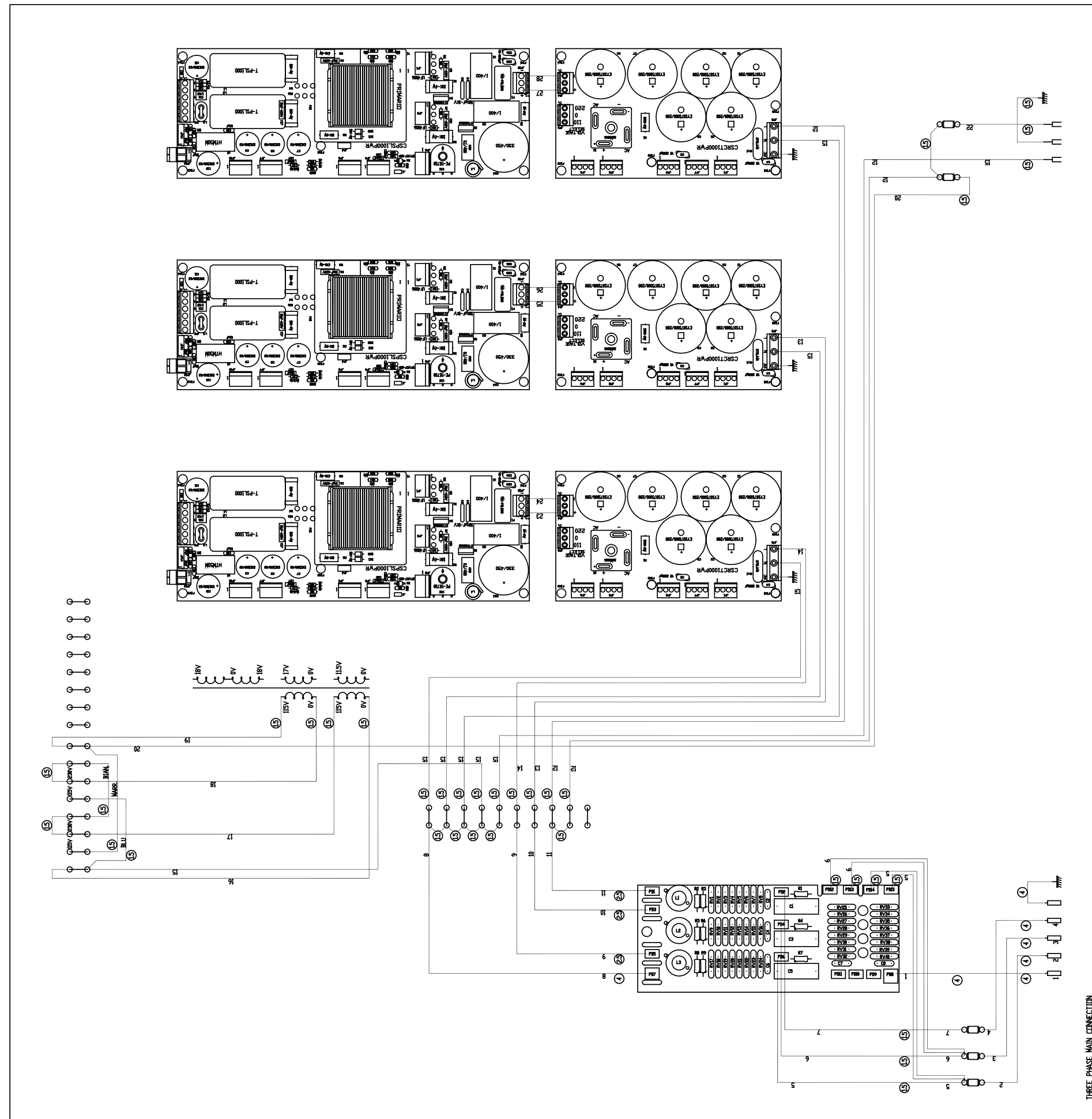
Description	RVR Code	Vers.Pages	
Wiring Diagrams	/	1.1	1
Fuse Board RF section	CSFUSRFPJ2K1	1.0	9
Bias & Measure board	CSMTPRTPJ2K1	1.0	12
LEDs board RF section	CSLEDRFPJ2K1	1.0	21
Varistors Board	CSSRGPRPJ2K1	1.0	23
LEDs board PS section	CSLEDPSPJ2K2	1.0	26
Pass-Through board	CSFILPSPJ2K1	1.0	28
Interface Power Supply & RF sect.	CSINPSPJ2K01	1.0	30
Input RF Power Meas circuit	CSDRCPIPJ2KM	1.0	34
RF Input Splitter	CSSPL8VIN-01	1.0	36
CPU & Protection Board	CSPROTPJ-HCL	1.0	39
PROT Interface	CSPROTFINT01	1.0	43
Power Supply	CPSL1000	1.0	46
Rectifier Board	CSRCT1000	1.0	52
Power Meter Board	CSPWRMTRHC5	1.0	54

Document History

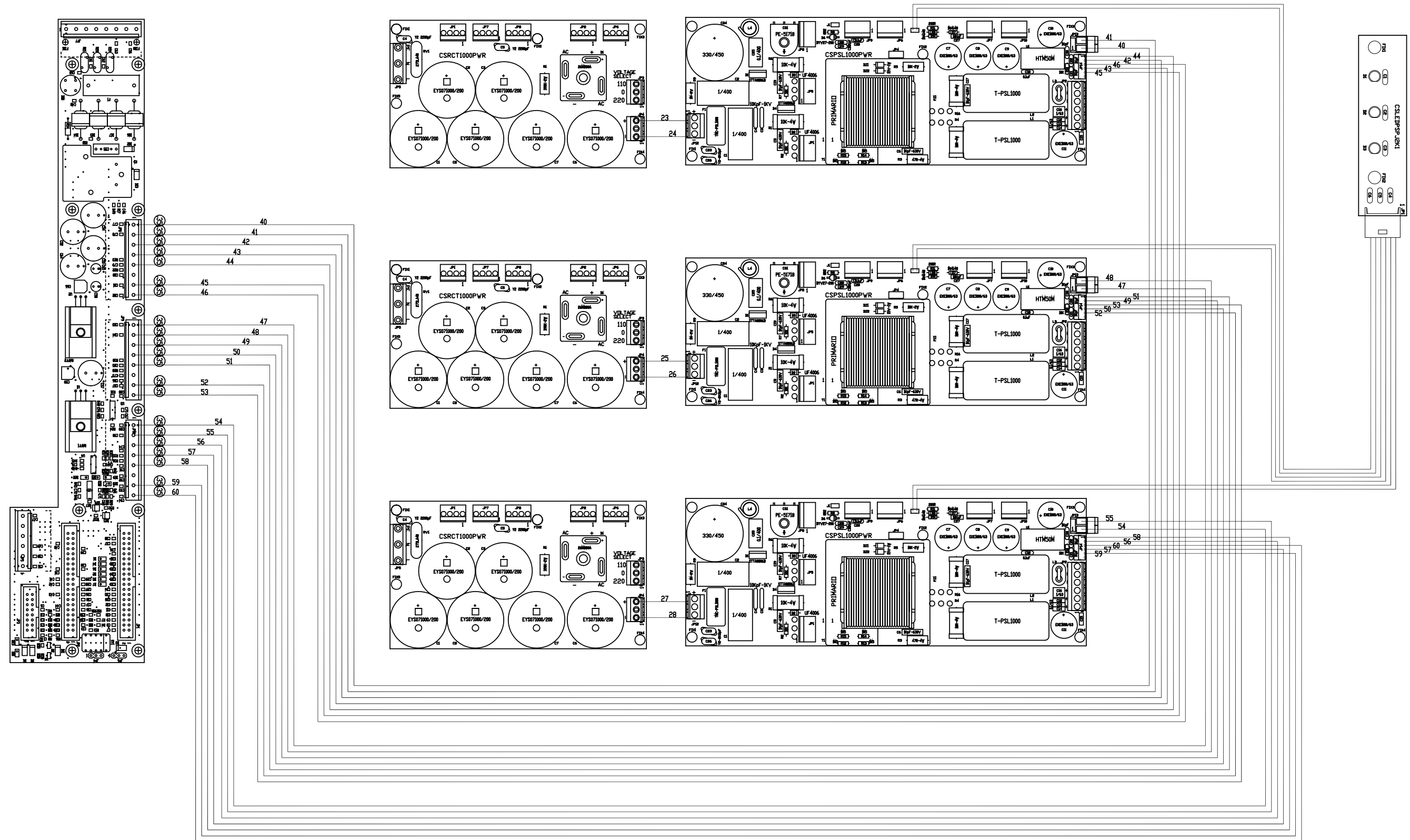
Date	Version	Reason	Editor
10/04/03	1.0	First Release in A3 Form at	J. Berti
09/12/03	1.1	Minor Corrections	J. Berti



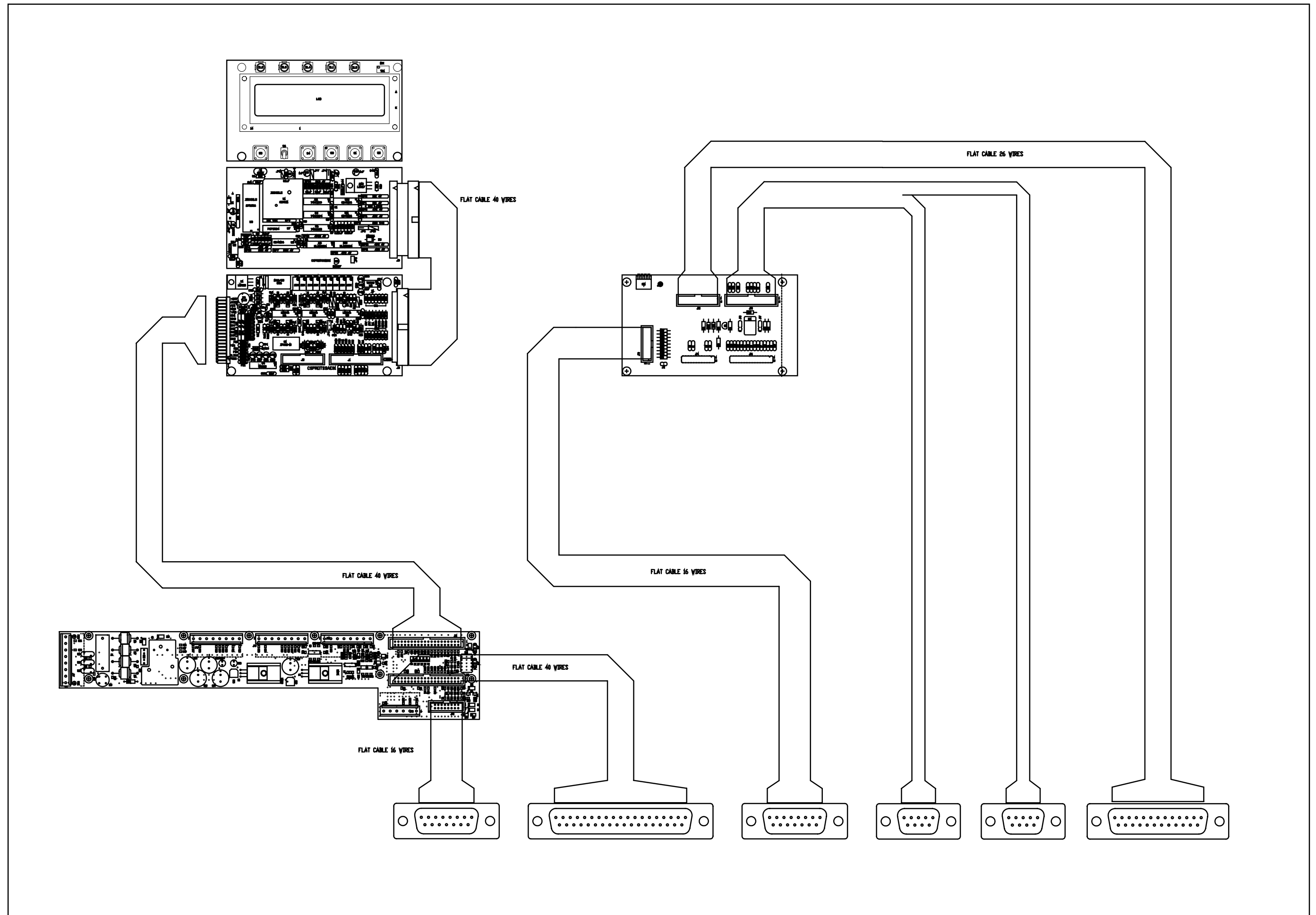
SINGLE PHASE MAIN CONNECTION

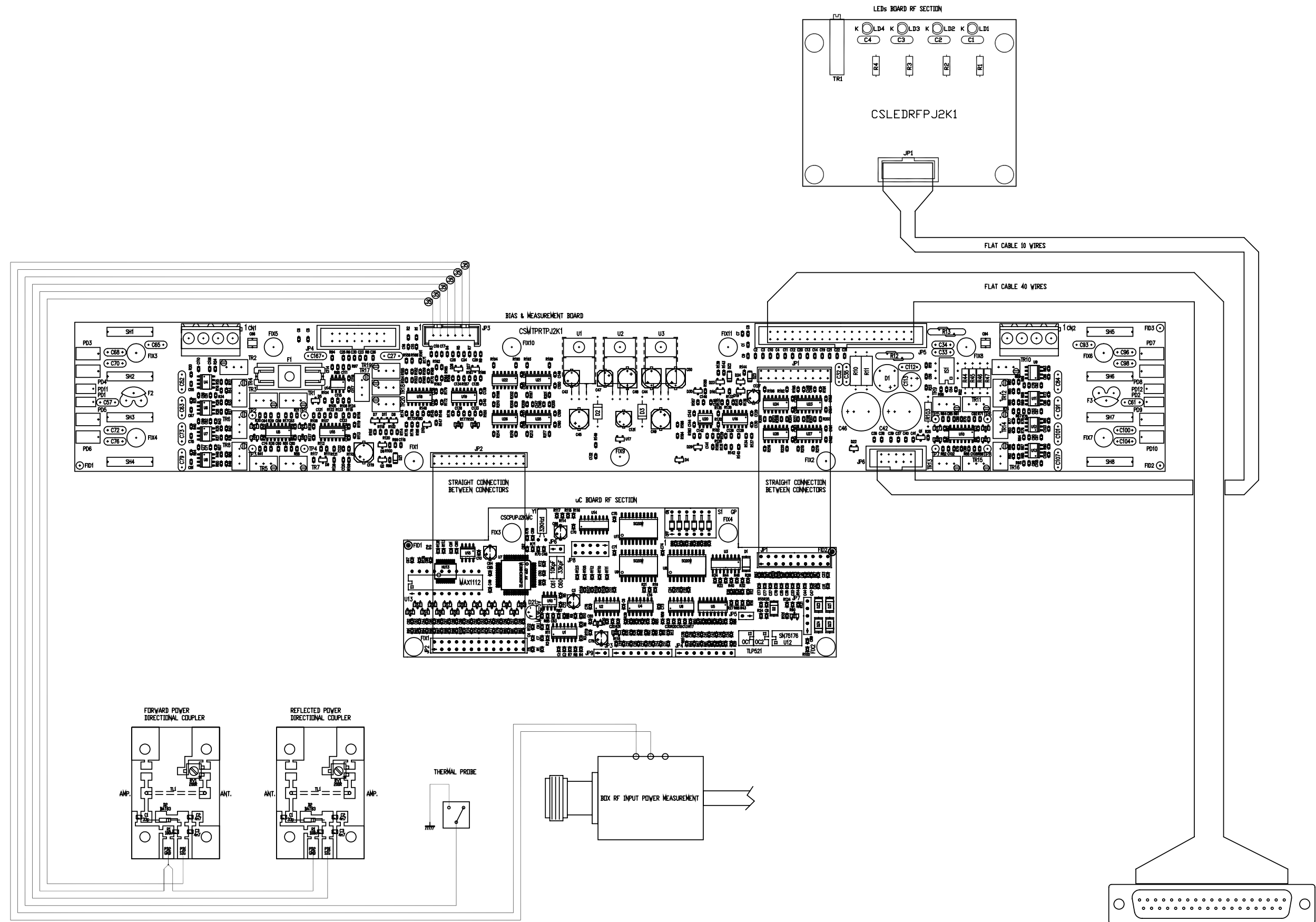


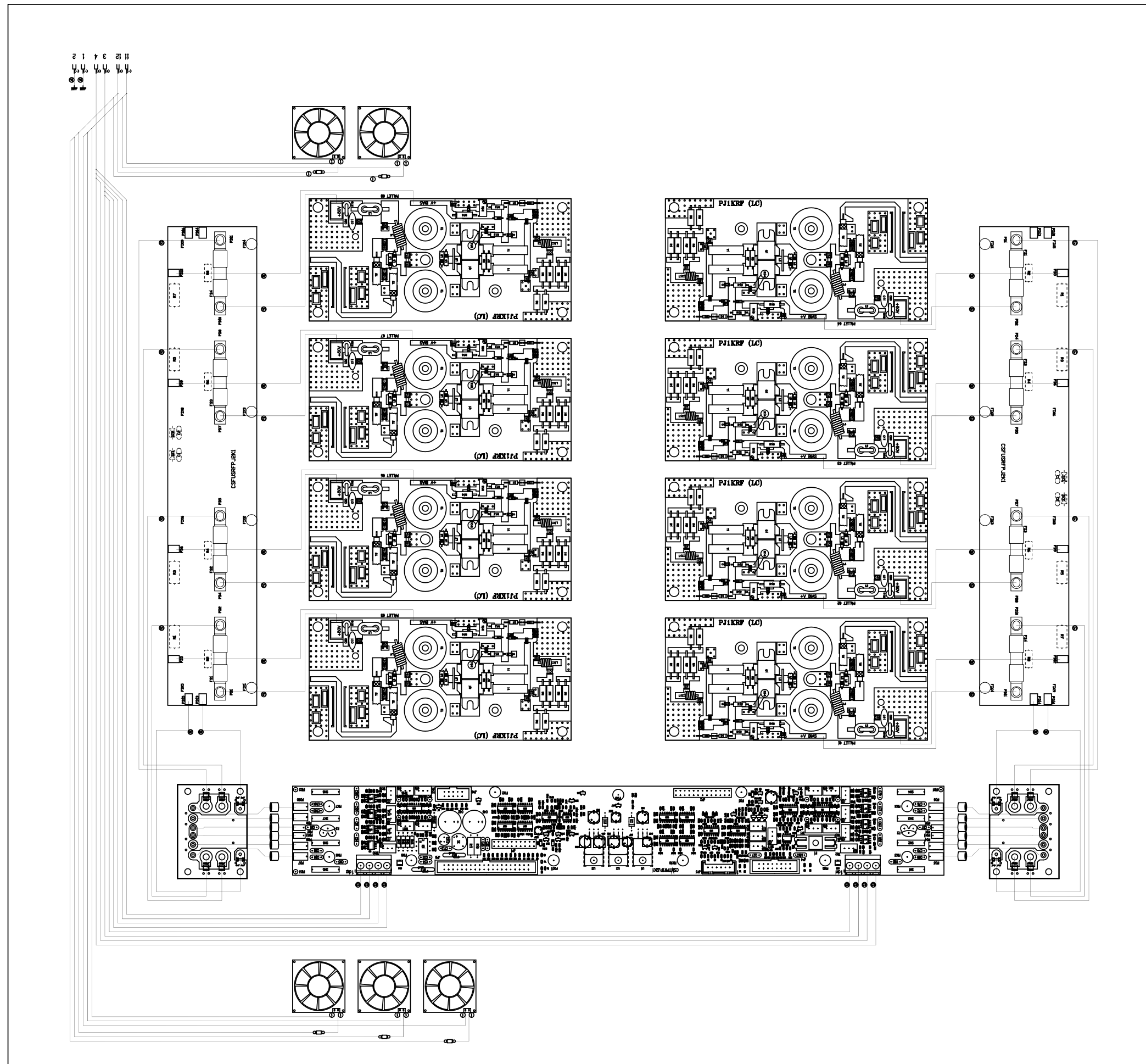








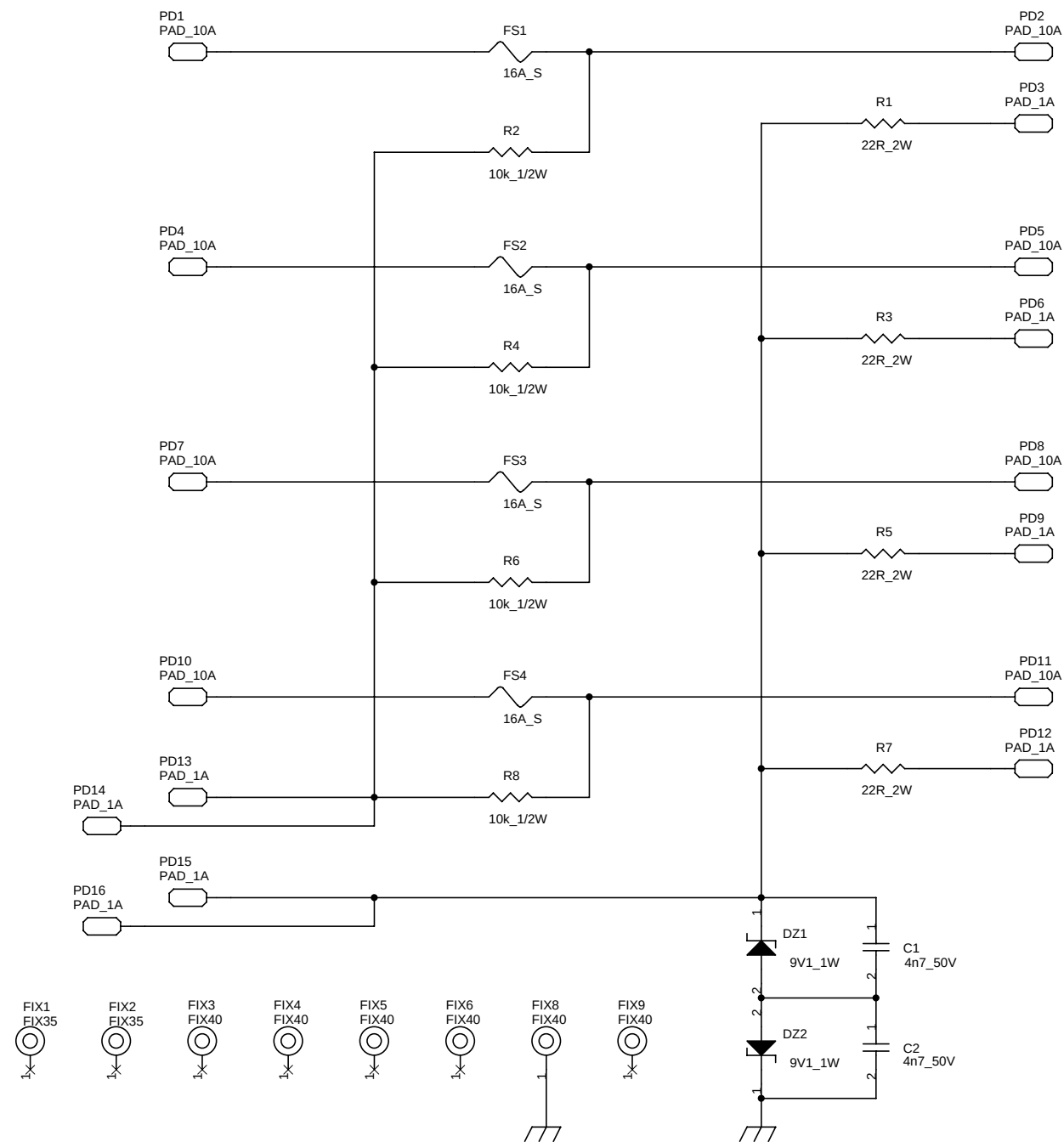






LATO	SERIGR.	LC	VISTO	LATO	SALDATURE
FILE :	RFPJ2K.PCB			REVISIONE:	
NOTE:					

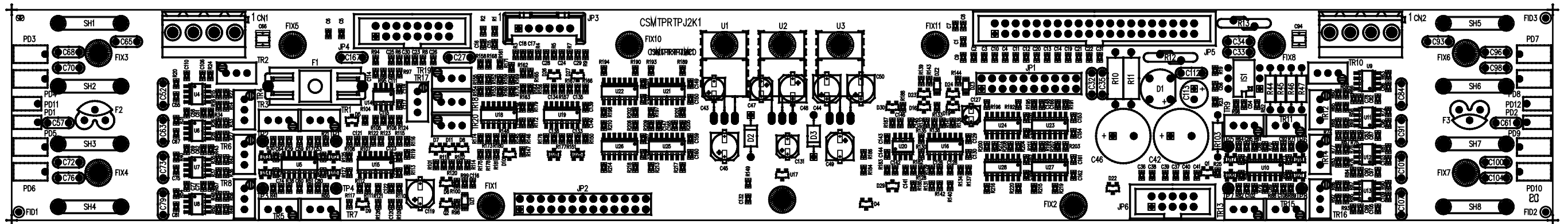
GP studio
TELEFONO 0535-46900



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Autore: Mauro Ucelli	Data: 26/02/02	Codice Progetto: <OrgAddr1>	
Nome PC in Rete: Mauro2	Revisione: 1.0	Nome Parte: Fuse board RF section	
File/Cartella: Fuse_2KW	Autorizzazione:	Codice: CSFUSRFPJ2K1	

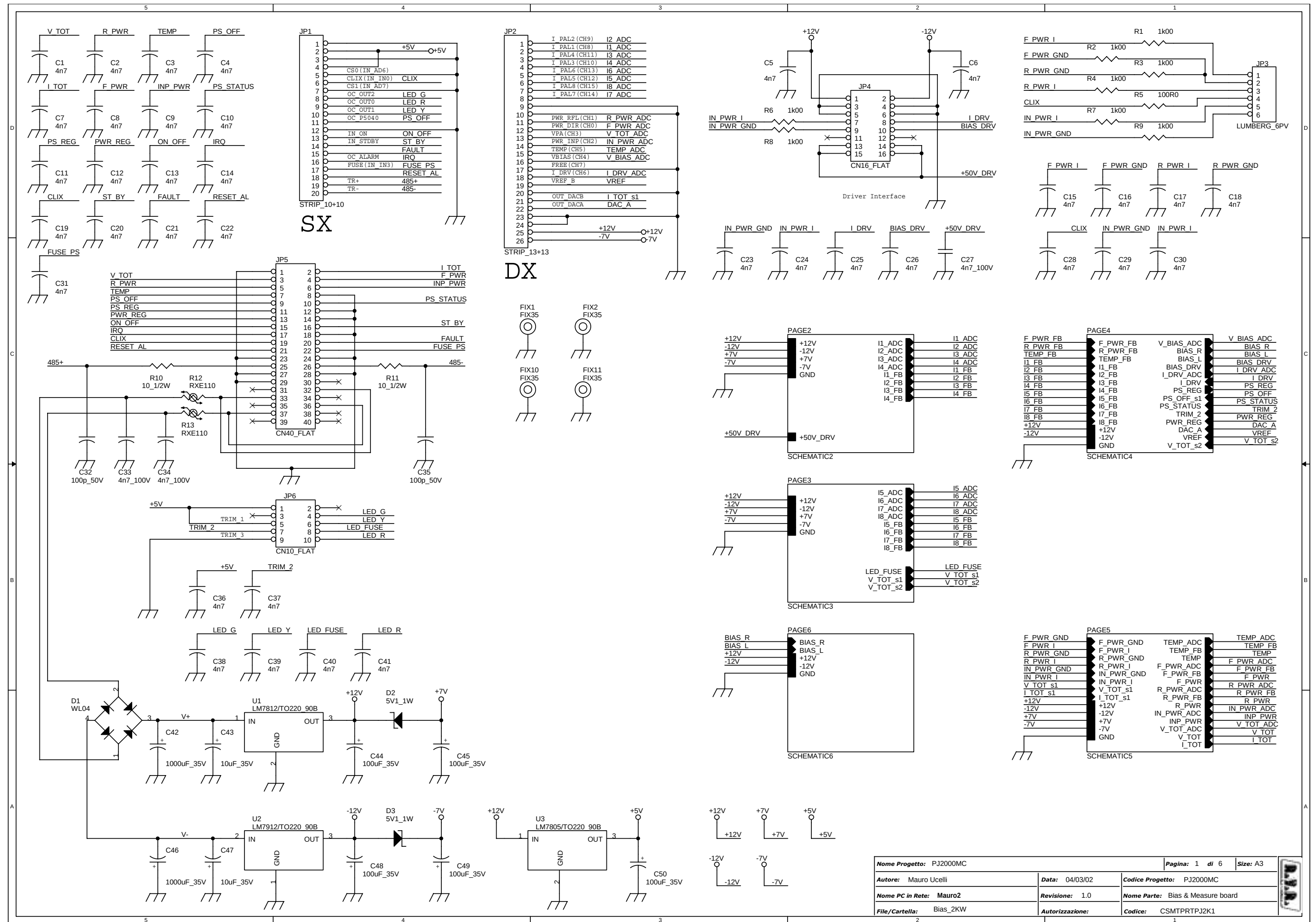
Fuse board RF section
 CSFUSRFPJ2K1
 Revision: 1.0
 PJ2000MC
 Mauro Ucelli
 26/02/02

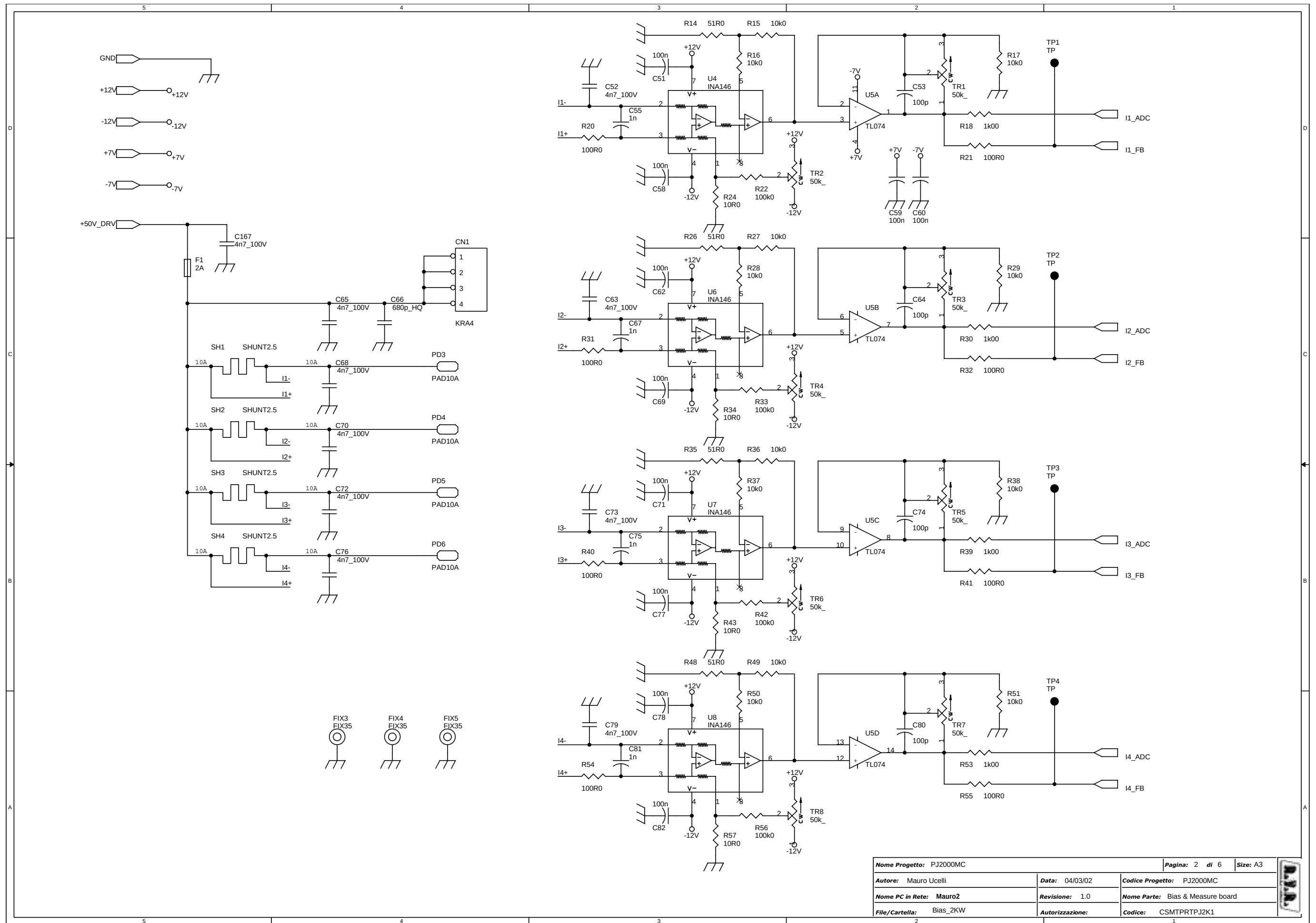
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1	2	C2,C1	4n7_50V	; Condensatore ceramico 4n7 almeno 50V
2	2	DZ2,DZ1	9V1_1W	; Diodo Zener 9V1 1W
3	2	FIX1,FIX2	FIX35	; Non è un componente
4	6	FIX3,FIX4,FIX5,FIX6,FIX8, FIX9	FIX40	; Non è un componente
5	4	FS1,FS2,FS3,FS4	16A_S	; Fusibile 16A con fissaggio su colonette
6	8	PD1,PD2,PD4,PD5,PD7,PD8, PD10,PD11	PAD_10A	; Non è un componente
7	8	PD3,PD6,PD9,PD12,PD13, PD14,PD15,PD16	PAD_1A	; Non è un componente
8	4	R1,R3,R5,R7	22R_2W	; Resistenza 22 Ohm 2W
9	4	R2,R4,R6,R8	10k_1/2W	; Resistenza 10k 1/2W

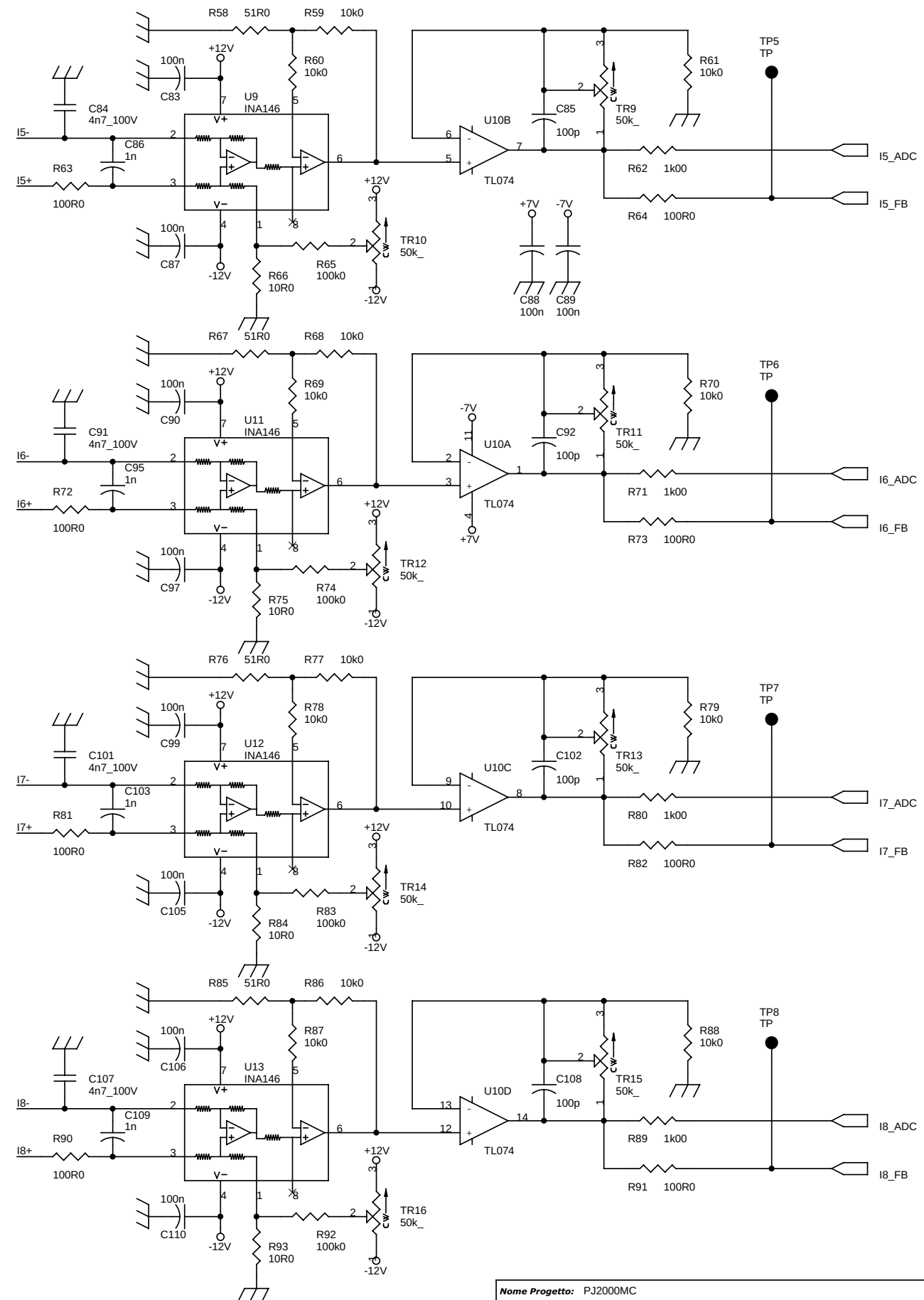


NOTA BENE: SPESSORE RAME 70u

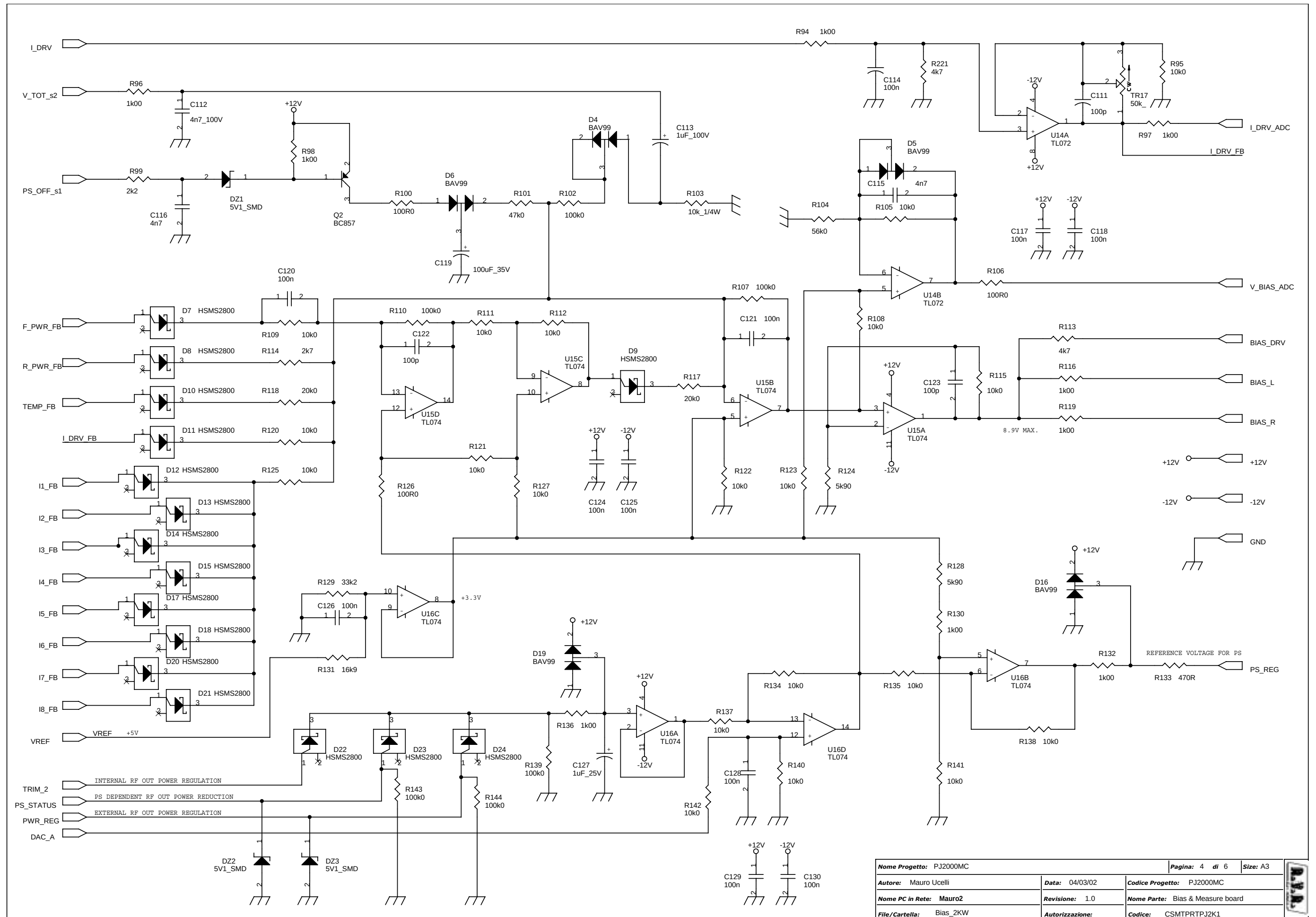
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SPECIFICHE DI FORATURA (IN MILS): VEDI TABELLA RELATIVA	MATERIALE: FR4	DATA: 17/05/2002	GP studio TELEFONO E FAX 0636 46900
LATO SODDISFACIMENTO: VEDI LATO COMPONENTI	MATERIALE: 1.6mm	DISEGNO: GP	
	RAME: 70u	SCALA: 1:1	
	N. LAYER: 2	FOGLIO: DI	

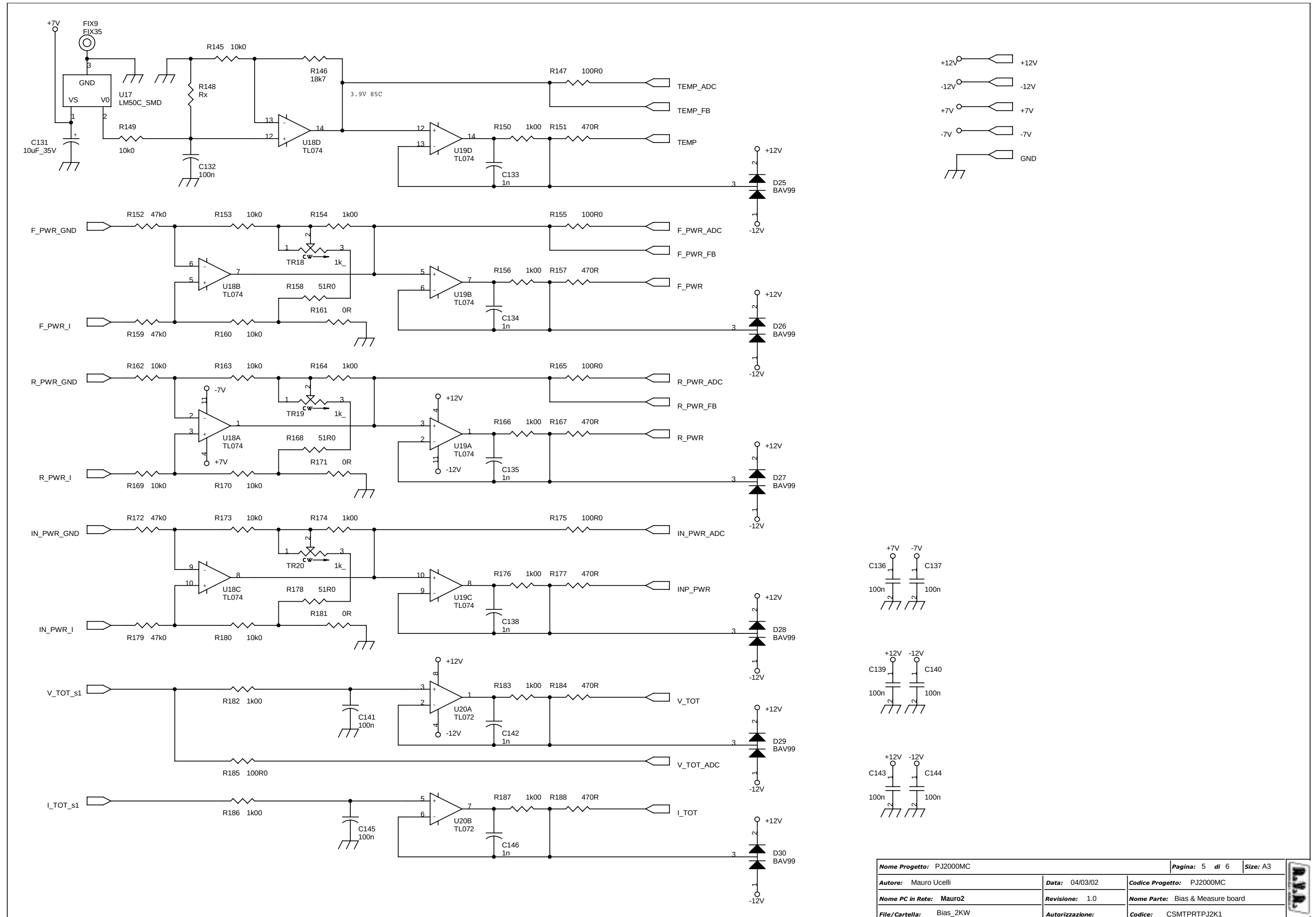


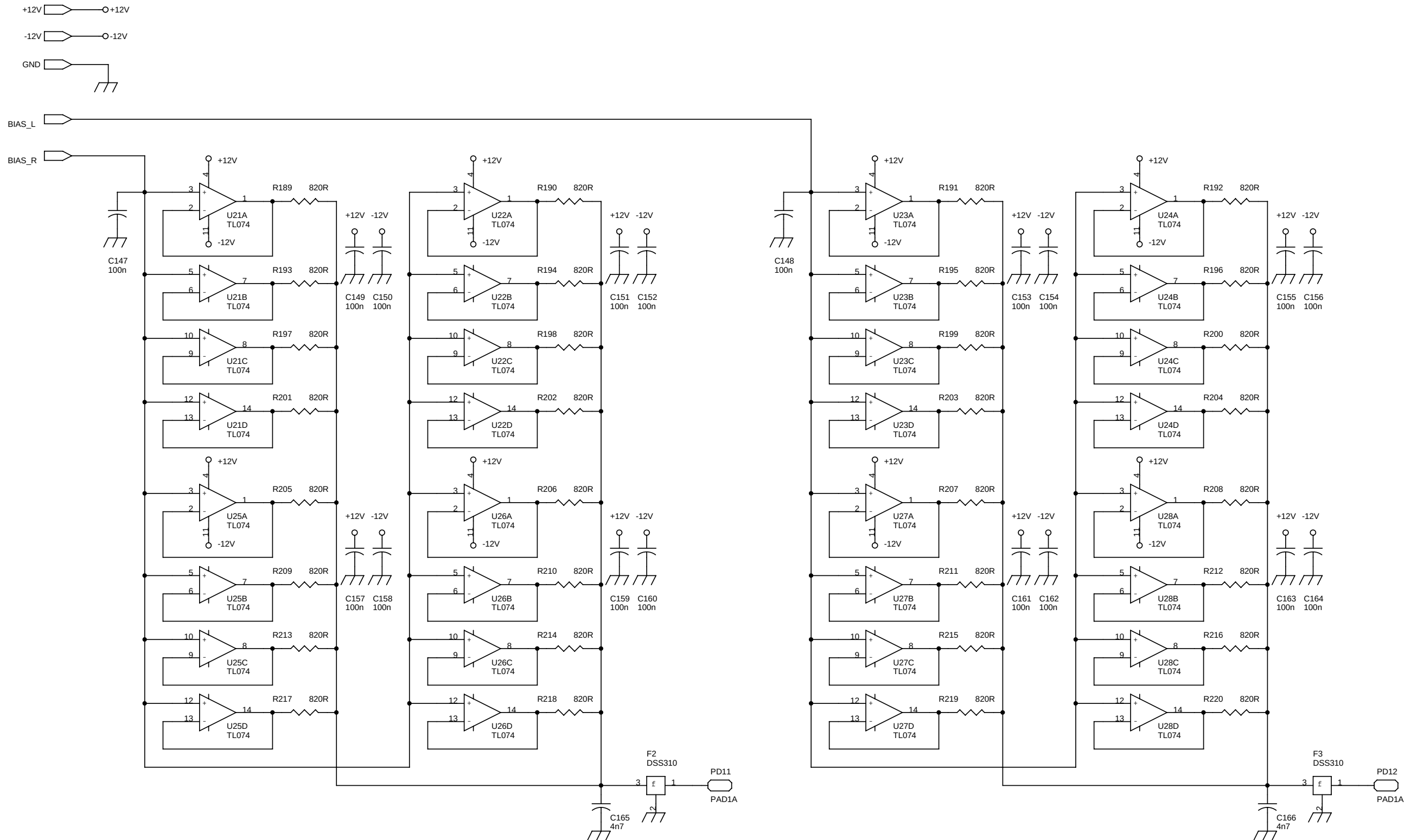




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Autore: Mauro Ucelli	Data: 04/03/02	Codice Progetto: PJ2000MC	
Nome PC in Rete: Mauro2	Revisione: 1.0	Nome Parte: Bias & Measure board	
File/Cartella: Bias_2KW	Autorizzazione:	Codice: CSMTPTJP2K1	







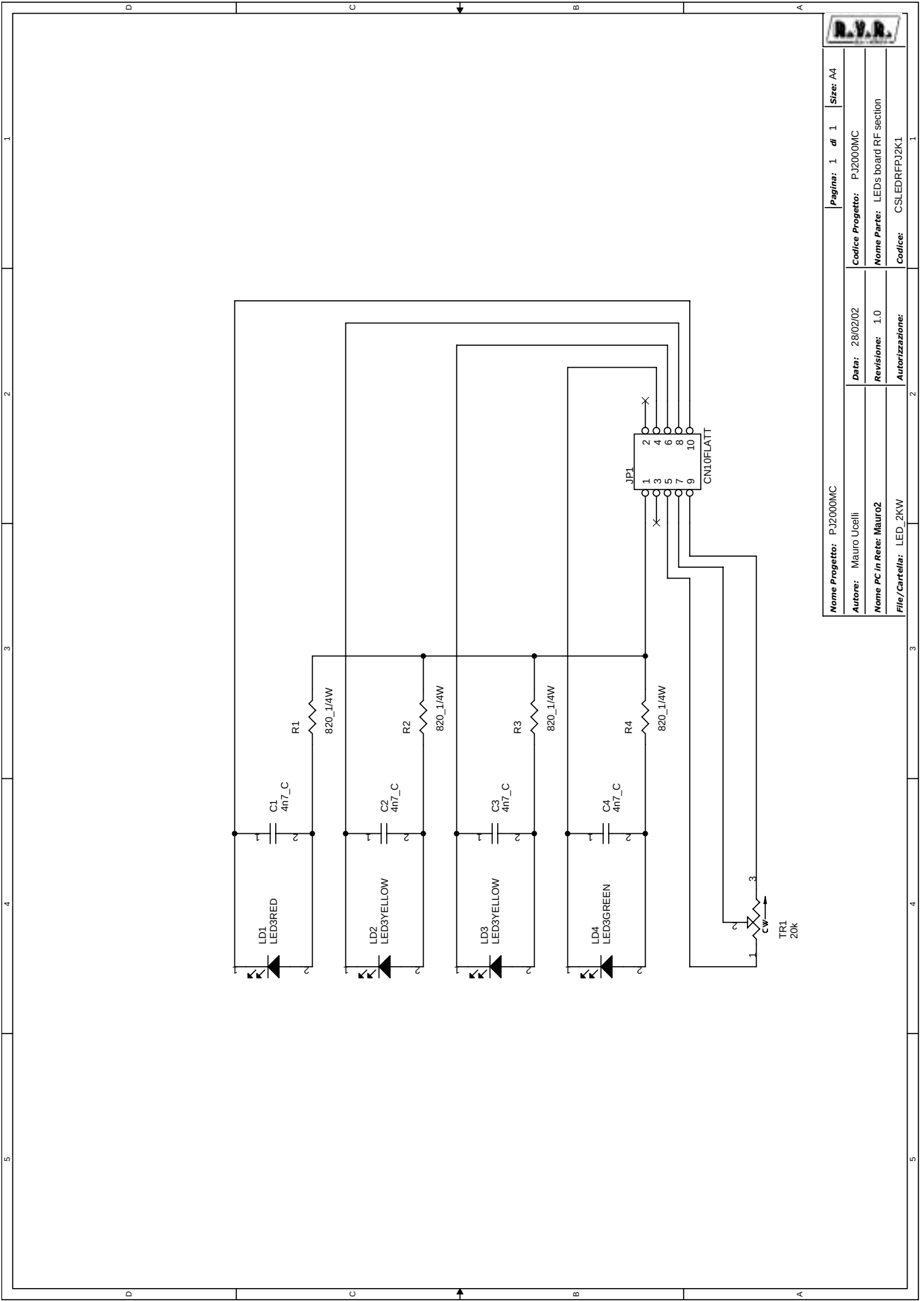
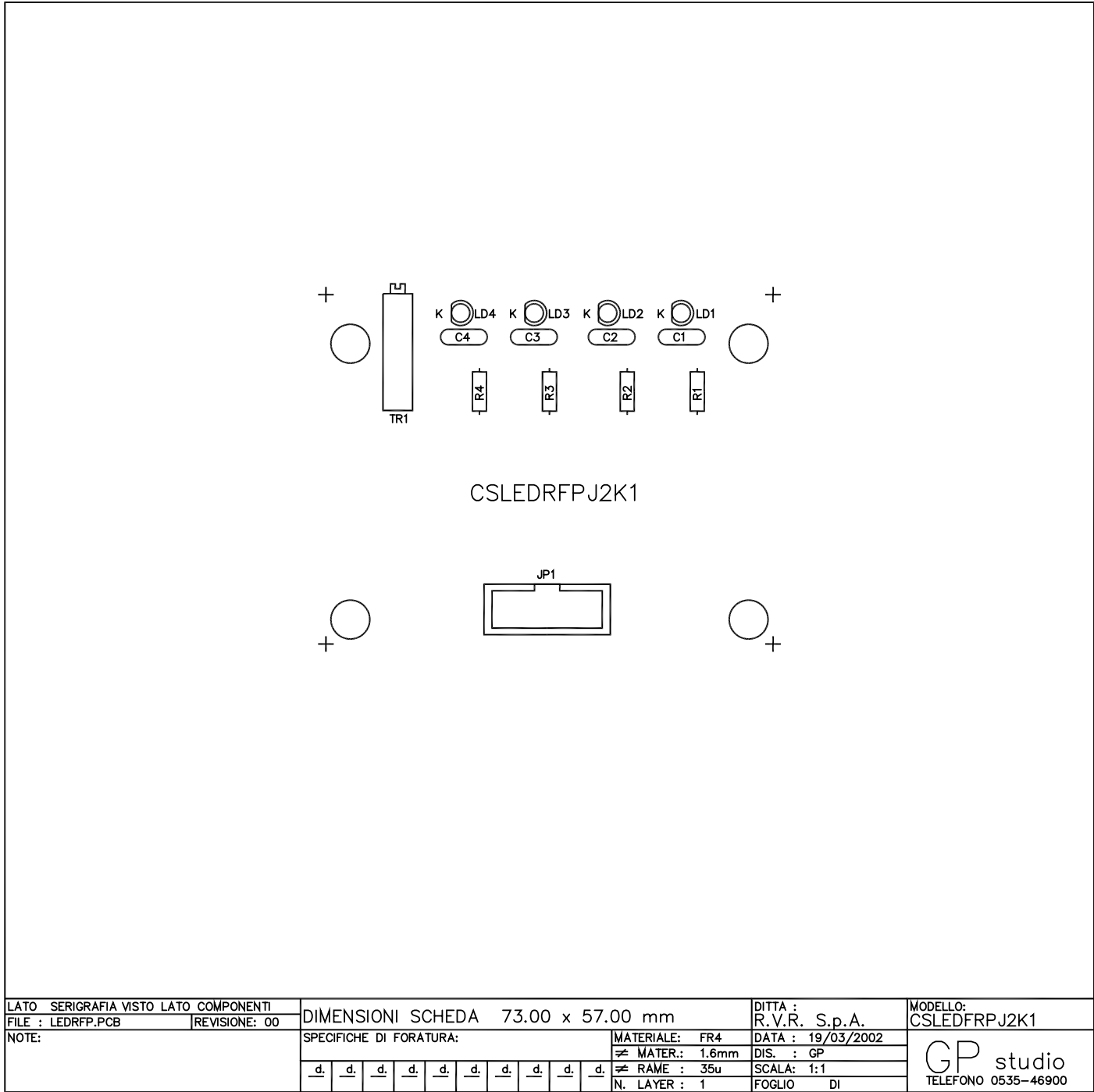
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Autore: Mauro Ucelli	Data: 04/03/02	Codice Progetto: PJ2000MC	
Nome PC in Rete: Mauro2	Revisione: 1.0	Nome Parte: Bias & Measure board	
File/Cartella: Bias_2KW	Autorizzazione:	Codice: CSMTPTPJ2K1	



Bias & Measure board
CSMTPRTPJ2K1
Revision: 1.0
PJ2000MC
Mauro Ucelli
04/03/02

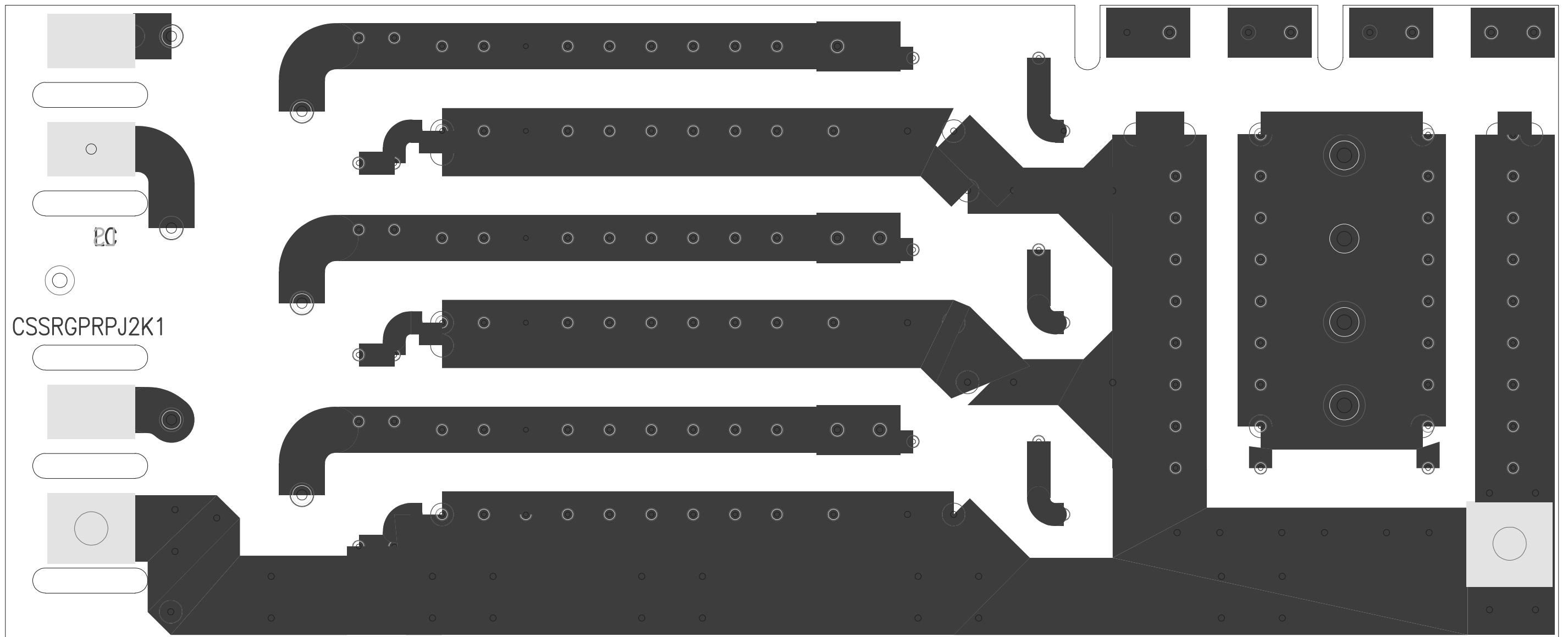
Item	Quantity	Reference	Part	Description					
1	2	CN2,CN1	KRA4	(KRA4):Mors. KRA 4poli passo 5.00mm	23	1	JP1	STRIP_10+10	(STRIP10X2):Strip 10+10 poli passo 2.54 Femmina
2	40	C1,C2,C3,C4,C5,C6,C7,C8,C9,C10,C11,C12,C13,C14,C15,C16,C17,C18,C19,C20,C21,C22,C23,C24,C25,C26,C28,C29,C30,C31,C36,C37,C38,C39,C40,C41,C115,C116,C165,C166	4n7	(0805/0603):Componente SMD size 0805 o 0603	24	1	JP2	STRIP_13+13	(STRIP13X2):Strip 13+13 poli passo 2.54 Femmina
3	25	C27,C33,C34,C52,C57,C61,C63,C65,C68,C70,C72,C73,C76,C79,C84,C91,C93,C96,C98,C100,C101,C104,C107,C112,C167	4n7_100V	(CCP5):Condesatore Ceramico passo 5.08	25	1	JP3	LUMBERG_6PV	(LUMBERG_6PV):Connettore tipo Lumberg 6 poli verticale
4	2	C32,C35	100p_50V	(CCP5):Condesatore Ceramico passo 5.08	26	1	JP4	CN16_FLAT	(FLAT16V):Conn. per Flat Cable 16pp Vert
5	2	C46,C42	1000uF_35V	(CEV_D13.2P5.08):Cond. Elet. Vert. diam. 13.2mm passo 5.08	27	1	JP5	CN40_FLAT	(FLAT40V):Conn. per Flat Cable 40pp Vert
6	3	C43,C47,C131	10uF_35V	(CES5X5.5):Cond. Elet. All. SMD diametro 5 altezza 5.5	28	1	JP6	CN10_FLAT	(FLAT10V):Conn. per Flat Cable 10pp Vert
7	6	C44,C45,C48,C49,C50,C119	100uF_35V	(CES6.3X8):Cond. Elet. All. SMD diametro 6.5 altezza 8	29	4	PD1,PD2,PD11,PD12	PAD1A	(PAD1A):Non è un componente
8	58	C51,C58,C59,C60,C62,C69,C71,C77,C78,C82,C83,C87,C88,C89,C90,C97,C99,C105,C106,C110,C114,C117,C118,C120,C121,C124,C125,C126,C128,C129,C130,C132,C136,C137,C139,C140,C141,C143,C144,C145,C147,C148,C149,C150,C151,C152,C153,C154,C155,C156,C157,C158,C159,C160,C161,C162,C163,C164	100n	(0805/0603):Componente SMD size 0805 o 0603	30	8	PD3,PD4,PD5,PD6,PD7,PD8,PD9,PD10	PAD10A	(PAD10A):Non è un componente
9	11	C53,C64,C74,C80,C85,C92,C102,C108,C111,C122,C123	100p	(0805/0603):Componente SMD size 0805 o 0603	31	1	Q1	BC847	(SOT-23):Transistor SMD
10	16	C54,C55,C56,C67,C75,C81,C86,C95,C103,C109,C133,C134,C135,C138,C142,C146	1n	(0805/0603):Componente SMD size 0805 o 0603	32	1	Q2	BC857	(SOT-23):Transistor SMD
11	2	C94,C66	680p_HQ	(CSMD_HQ):Chip HQ 680p	33	37	R1,R2,R3,R4,R6,R7,R8,R9,R18,R25,R30,R39,R53,R62,R71,R80,R89,R94,R96,R97,R98,R116,R119,R130,R132,R136,R150,R154,R156,R164,R166,R174,R176,R182,R183,R186,R187	1k00	(0805/0603):Componente SMD 1% size 0805 o 0603
12	1	C113	1uF_100V	(CEV_D6.6P2.54):Cond. Elet. Vert. diam. 6.5mm passo 2.54	34	25	R5,R20,R21,R31,R32,R40,R41,R54,R55,R63,R64,R72,R73,R81,R82,R90,R91,R100,R106,R126,R147,R155,R165,R175,R185	100R0	(0805/0603):Componente SMD 1% size 0805 o 0603
13	1	C127	1uF_25V	(CES4X5.5):Cond. Elet. All. SMD diametro 4 altezza 5.5	35	2	R11,R10	10_1/2W	(R1/2W):Resistenza 10 Ohm 1/2W
14	3	DZ1,DZ2,DZ3	5V1_SMD	(MINIMELF):Zener SMD 5V1	36	2	R12,R13	RXE110	(RXE110):PTC (Fusibile Autoripristinante)
15	1	D1	WL04	(WL04):Ponte diodi rettificatore circolare	37	11	R14,R26,R35,R48,R58,R67,R76,R85,R158,R168,R178	51R0	(0805/0603):Componente SMD 1% size 0805 o 0603
16	2	D3,D2	5V1_1W	(ZENER_1W):Diodo Zener 5V1 1W (come diodi rettificatori da 1A)	38	55	R15,R16,R17,R23,R27,R28,R29,R36,R37,R38,R49,R50,R51,R59,R60,R61,R68,R69,R70,R77,R78,R79,R86,R87,R88,R95,R105,R108,R109,R111,R112,R115,R120,R121,R122,R123,R125,R127,R134,R135,R137,R138,R140,R141,R142,R145,R149,R153,R160,R162,R163,R169,R170,R173,R180	10k0	(0805/0603):Componente SMD 1% size 0805 o 0603
17	11	D4,D5,D6,D16,D19,D25,D26,D27,D28,D29,D30	BAV99	(SOT-23):Diodo SMD SOT-23	39	15	R19,R22,R33,R42,R56,R65,R74,R83,R92,R102,R107,R110,R139,R143,R144	100k0	(0805/0603):Componente SMD 1% size 0805 o 0603
18	16	D7,D8,D9,D10,D11,D12,D13,D14,D15,D17,D18,D20,D21,D22,D23,D24	HSMS2800	(SOT-23):Diodo SMD SOT-23	40	8	R24,R34,R43,R57,R66,R75,R84,R93	10R0	(0805/0603):Componente SMD 1% size 0805 o 0603
19	11	FIX1,FIX2,FIX3,FIX4,FIX5,FIX6,FIX7,FIX8,FIX9,FIX10,FIX11	FIX35	(FIX35):Non è un componente	41	4	R44,R45,R46,R47	20k0_1/4W	(R1/4W):Resistenza 20K 1% 1/4W
20	1	F1	2A	(FHOLDER_C):Portafusibile a Clip per Fuse 5x20 2A da c.s.	42	1	R52	422R	(0805/0603):Componente SMD 1% size 0805 o 0603
21	2	F3,F2	DSS310	(DSS310):Filtro MURATA mod. DSS310	43	1	R99	2k2	(0805/0603):Componente SMD 1% size 0805 o 0603
22	1	IS1	4N25	(DIP6_L):Opto su zoccolo 8pins	44	5	R101,R152,R159,R172,R179	47k0	(0805/0603):Componente SMD 1% size 0805 o 0603
					45	1	R103	10k_1/4W	(R1/4W):Resistenza 10K 5% 1/4W
					46	1	R104	56k0	(0805/0603):Componente SMD 1% size 0805 o 0603
					47	2	R113,R221	4k7	(0805/0603):Componente SMD 1% size 0805 o 0603
					48	1	R114	2k7	(0805/0603):Componente SMD 1% size 0805 o 0603
					49	2	R117,R118	20k0	(0805/0603):Componente SMD 1% size 0805 o 0603
					50	2	R128,R124	5k90	(0805/0603):Componente SMD 1% size 0805 o 0603
					51	1	R129	33k2	(0805/0603):Componente SMD 1% size 0805 o 0603
					52	1	R131	16k9	(0805/0603):Componente SMD 1% size 0805 o 0603
					53	7	R133,R151,R157,R167,R177,R184,R188	470R	(0805/0603):Componente SMD 1% size 0805 o 0603
					54	1	R146	18k7	(0805/0603):Componente SMD 1% size 0805 o 0603
					55	1	R148	Rx	Non Installata
					56	3	R161,R171,R181	0R	(0805/0603):Componente SMD size 0805 o 0603

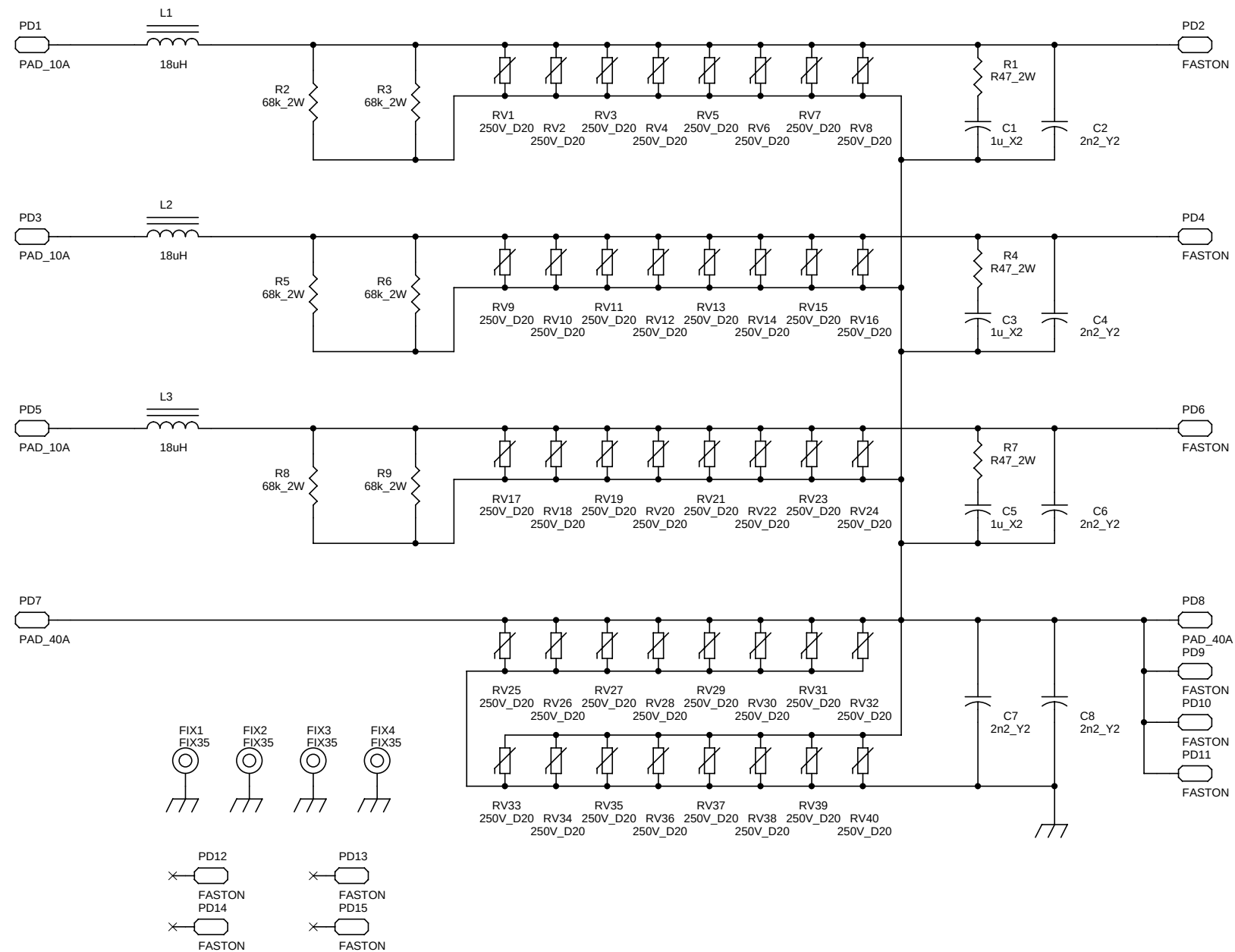
57	32	R189,R190,R191,R192,R193, R194,R195,R196,R197,R198, R199,R200,R201,R202,R203, R204,R205,R206,R207,R208, R209,R210,R211,R212,R213, R214,R215,R216,R217,R218, R219,R220	820R	(0805/0603):Componente SMD 5% size 0805
58	8	SH1,SH2,SH3,SH4,SH5,SH6, SH7,SH8	SHUNT2.5	(SHUNT_2.5):SHUNT (2.5W) p.15.2, larg. 3, fori diam. 1.9
59	8	TP1,TP2,TP3,TP4,TP5,TP6, TP7,TP8	TP	(TP2.54):Non è un componente
60	17	TR1,TR2,TR3,TR4,TR5,TR6, TR7,TR8,TR9,TR10,TR11, TR12,TR13,TR14,TR15,TR16, TR17	50k_	(TRIM87W):Trimmer resistivo multigiri reg. in testa
61	3	TR18,TR19,TR20	1k_	(TRIM87W):Trimmer resistivo multigiri reg. in testa
62	1	U1	LM7812/TO220_90B	(78XX/TO220_90BOT)
63	1	U2	LM7912/TO220_90B	(79XX/TO220_90BOT)
64	1	U3	LM7805/TO220_90B	(78XX/TO220_90BOT)
65	8	U4,U6,U7,U8,U9,U11,U12, U13	INA146	(SO-8):IC SMD 8pins
66	14	U5,U10,U15,U16,U18,U19, U21,U22,U23,U24,U25,U26, U27,U28	TL074	(TL074/SO14): IC SMD 14pins
67	2	U14,U20	TL072	(TL072/SO8):IC SMD 8pins
68	1	U17	LM50C_SMD	(SOT-23):IC Sonda termica LM50C SMD



LEDs board RF section
CSLEDRFPJ2K1
Revision: 1.0
PJ2000MC
Mauro Ucelli
28/02/02

Item	Quantity	Reference	Part	Description
1	4	C1,C2,C3,C4	4n7_C	; Condensatore ceramico 4n7 almeno 25V
2	1	JP1	CN10FLATT	; Connettore 10p per Flatt diritto
3	1	LD1	LED3RED	; Diodo LED 3mm Rosso
4	2	LD2,LD3	LED3YELLOW	; Diodo LED 3mm Giallo
5	1	LD4	LED3GREEN	; Diodo LED 3mm Verde
6	4	R1,R2,R3,R4	820_1/4W	; Resistenza 820 Ohm 1/4W
7	1	TR1	20k	; Trimmer multigiri 20k reg. di lato in conten. allungato (L623)

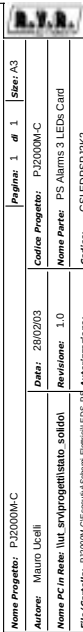
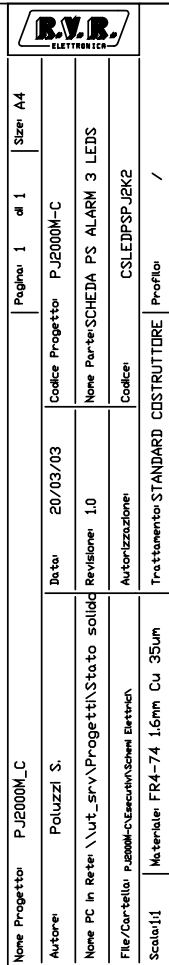




Nome Progetto: PJ2000MC		Pagina: 1 di 1	Size: A3
Autore: Mauro Ucelli	Data: 30/05/02	Codice Progetto: PJ2000MC	
Nome PC in Rete: Mauro2	Revisione: 1.0	Nome Parte: Varistors Board	
File/Cartella: Scaricatori	Autorizzazione:	Codice: CSSRGPRPJ2K1	

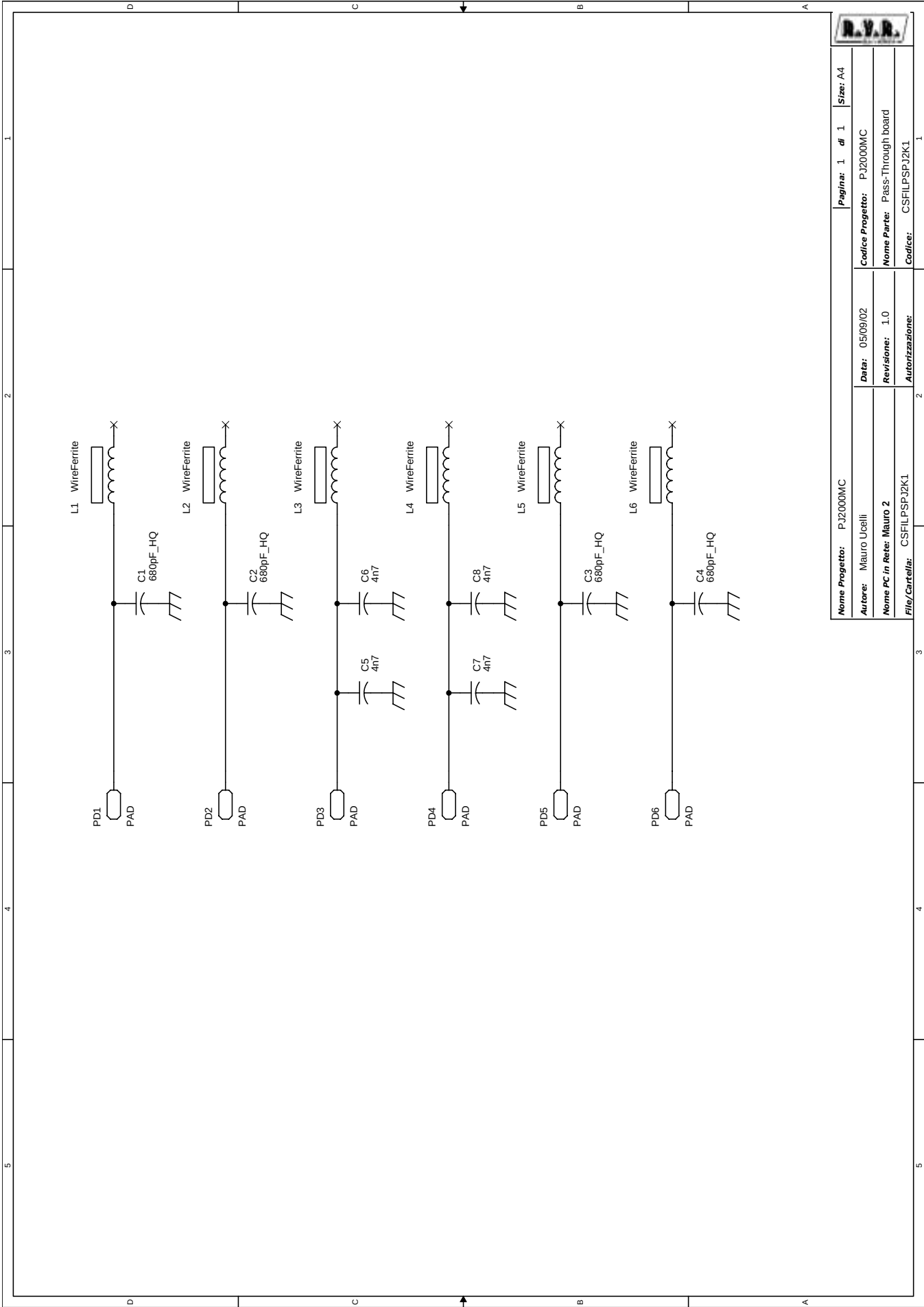
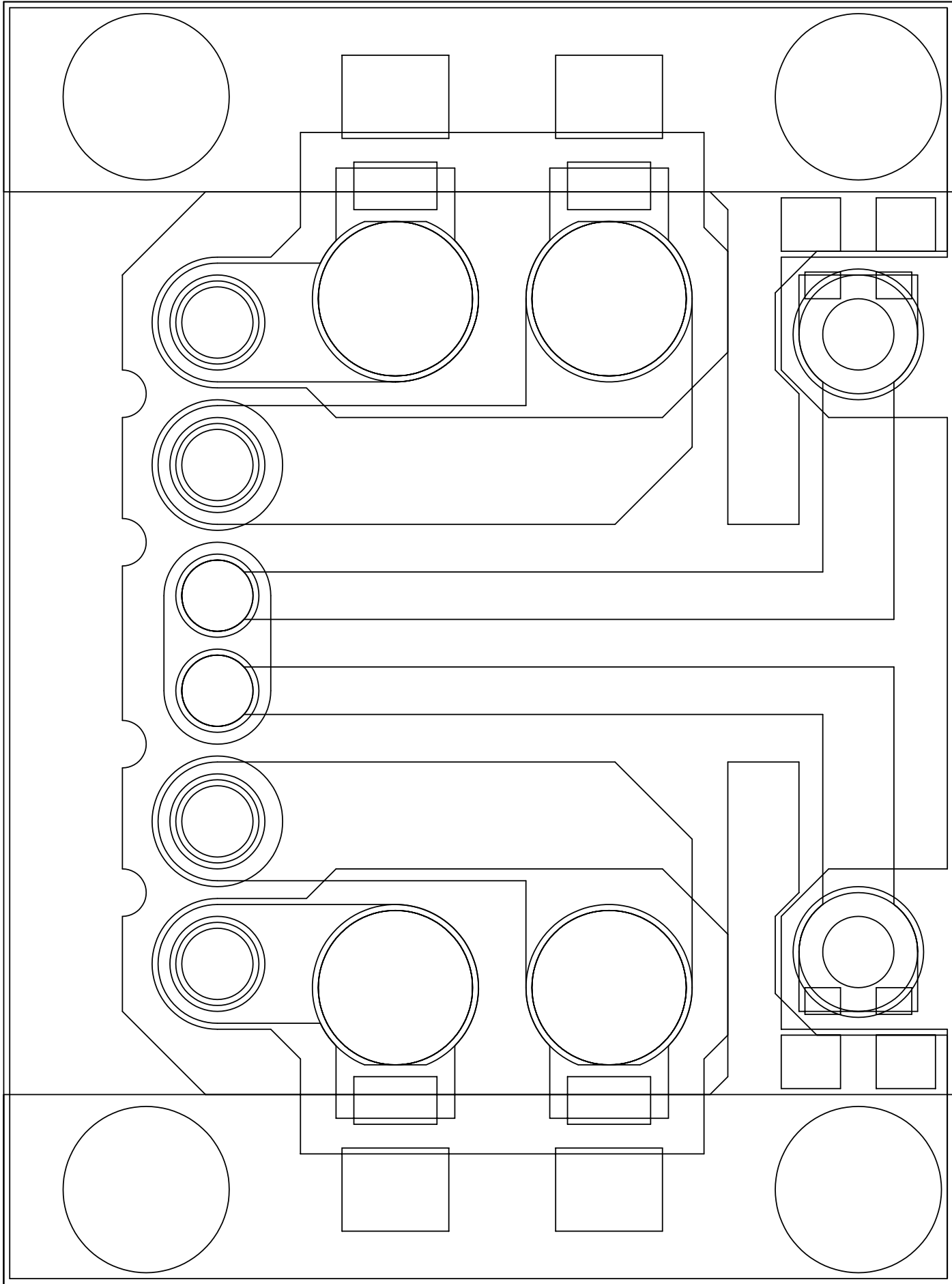
Varistors Board
Revision: 1.0
CSSRGPRPJ2K1
PJ2000MC
Mauro Ucelli
30/05/02

Item	Quantity	Reference	Part	Description
1	3	C1,C3,C5	1u_X2	; Condensatore 1uF X2 275V
2	5	C2,C4,C6,C7,C8	2n2_Y2	; Condensatore 2n2 Y2 275V
3	4	FIX1,FIX2,FIX3,FIX4	FIX35	; Non è un componente
4	3	L1,L2,L3	18uH	; Induttanza su ferrite assiale 18uH
5	3	PD1,PD3,PD5	PAD_10A	; Non è un componente
6	10	PD2,PD4,PD6,PD9,PD10, PD11,PD12,PD13,PD14,PD15	FASTON	; Faston M da C.S. a due punte a saldare passo 5.08 per foro D 1.5
7	2	PD8,PD7	PAD_40A	; Non è un componente
8	40	RV1,RV2,RV3,RV4,RV5,RV6, RV7,RV8,RV9,RV10,RV11, RV12,RV13,RV14,RV15,RV16, RV17,RV18,RV19,RV20,RV21, RV22,RV23,RV24,RV25,RV26, RV27,RV28,RV29,RV30,RV31, RV32,RV33,RV34,RV35,RV36, RV37,RV38,RV39,RV40	250V_D20	; MOV 250V diametro 20mm
9	3	R1,R4,R7	R47_2W	; Resistenza 0.47 Ohm 2W
10	6	R2,R3,R5,R6,R8,R9	68k_2W	; Resistenza 68k 2W



PS Alarms 3 LEDs Card
 CSLEDPSPJ2K2
 Revision: 1.1
 PJ2000M-C
 Mauro Ucelli
 05/12/03

Item	Quantity	Reference	Part	Description
1	1	CN1	CN10PS	Connettore 10 poli Panduit
2	1	CN2	CN06PS	Connettore 6 poli Panduit
3	7	C1,C2,C3,C7,C8,C11,C12	100n	Cond. SMD 0805
4	11	C4,C5,C6,C9,C10,C16,C17,C18,C22,C23,C24	4n7	Cond. SMD 0805
5	4	C13,C14,C19,C20	100u35V	Cond. Elett. SMD d. 6.3mm
6	1	C15	10u35V	Cond. Elett. SMD d. 5mm
7	1	C21	10u35V	Cond. Elett. SMD d. 5mm
8	7	D1,D2,D4,D6,D7,D8,D10	BAS32	MINIMELF SMD Diode
9	4	D3,D5,D9,D11	4004	MELF SMD Diode
10	3	D12,D13,D14	LED5	LED Gialli dia. 5mm
11	4	FIX1,FIX2,FIX3,FIX4	FIX35	Foro fissaggio 3.5mm
12	2	F2,F1	RXE050	Fusibile autorip. 7mm
13	1	RV1	NC	Trimmer Rg V 3296W
14	3	R1,R5,R11	100k	Res. SMD 0805
15	11	R2,R3,R6,R7,R10,R12,R14,R17,R19,R21,R23	10k	Res. SMD 0805
16	3	R4,R13,R16	3k3	Res. SMD 0805
17	2	R9,R8	NC	Res. SMD 0805
18	1	R15	1k	Res. SMD 0805
19	3	R18,R20,R22	1k5	Res. SMD 0805
20	2	U2,U1	TL074	Quad op amp SMD SO14
21	1	U3	7812	Stabilizzatore SMD DPAK
22	1	U4	7912	Stabilizzatore SMD DPAK



Pagina: 1 di 1
Size: A4

Codice Progetto: PJ2000MC

Nome Parte: Pass-Through board

Codice: CSFILPSPJ2K1

Data: 05/09/02

Revisione: 1.0

Autore: Mauro Ucelli

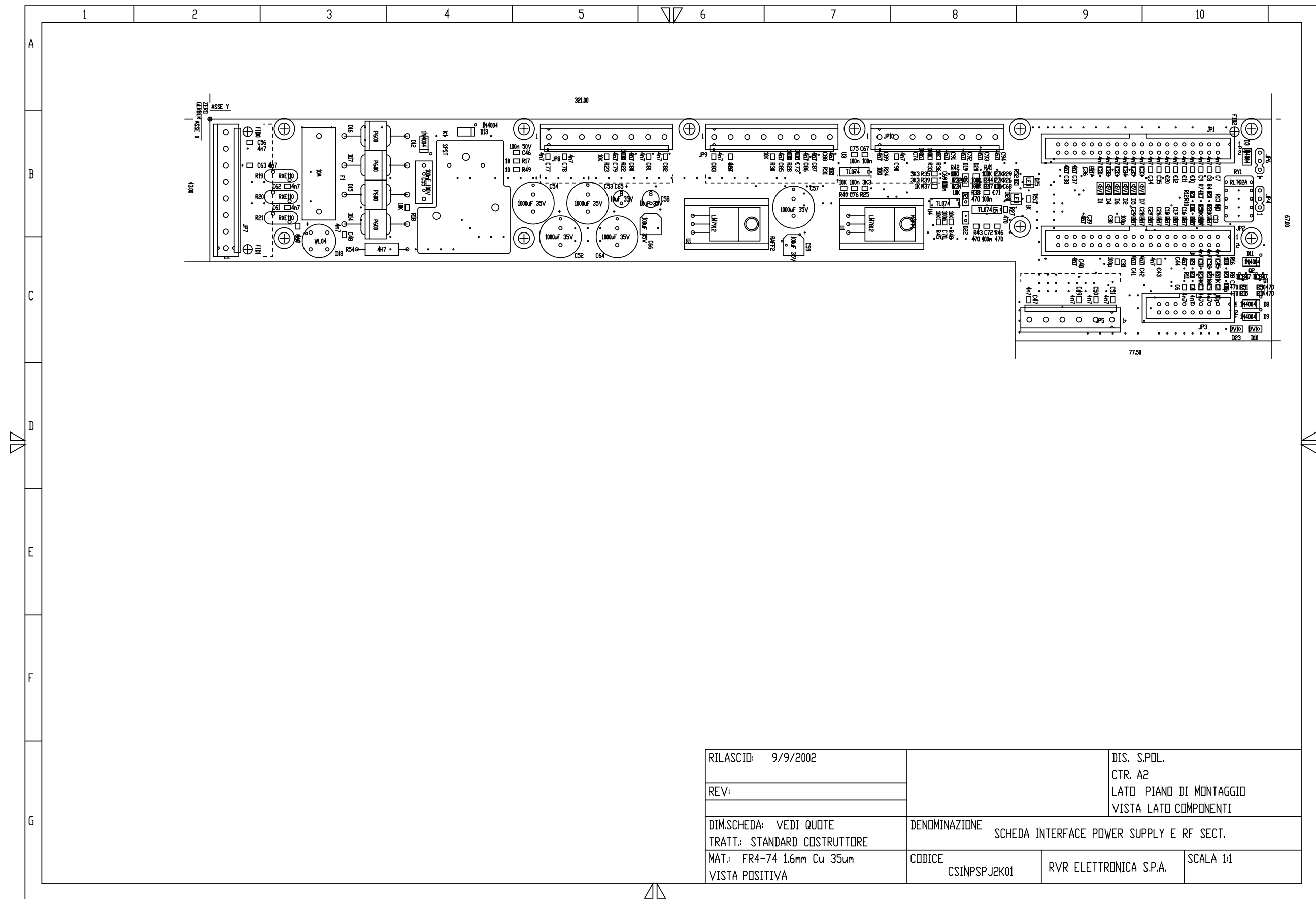
Nome PC in Rete: Mauro 2

File/Cartella: CSFILPSPJ2K1

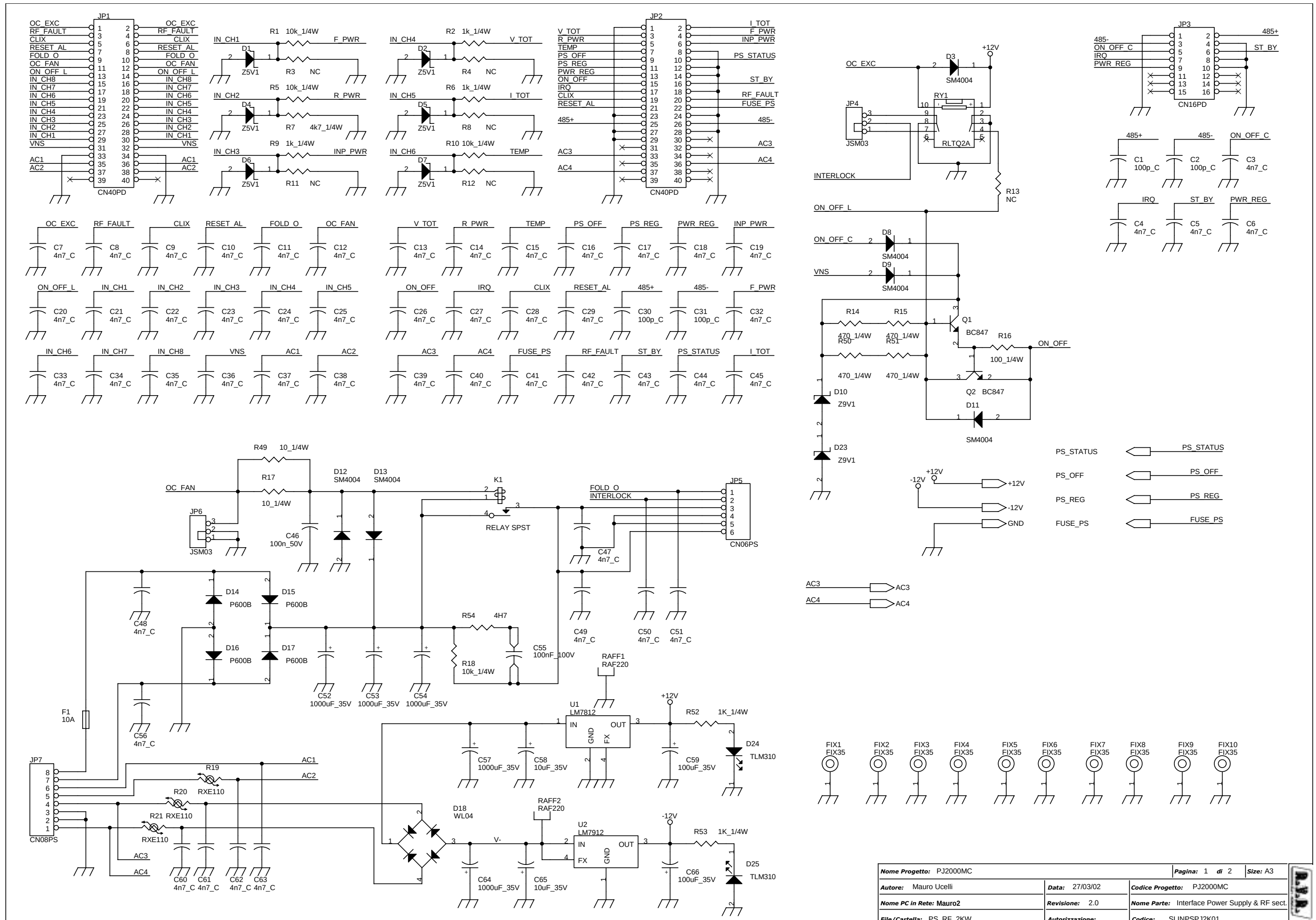
Nome Progetto: PJ2000MC

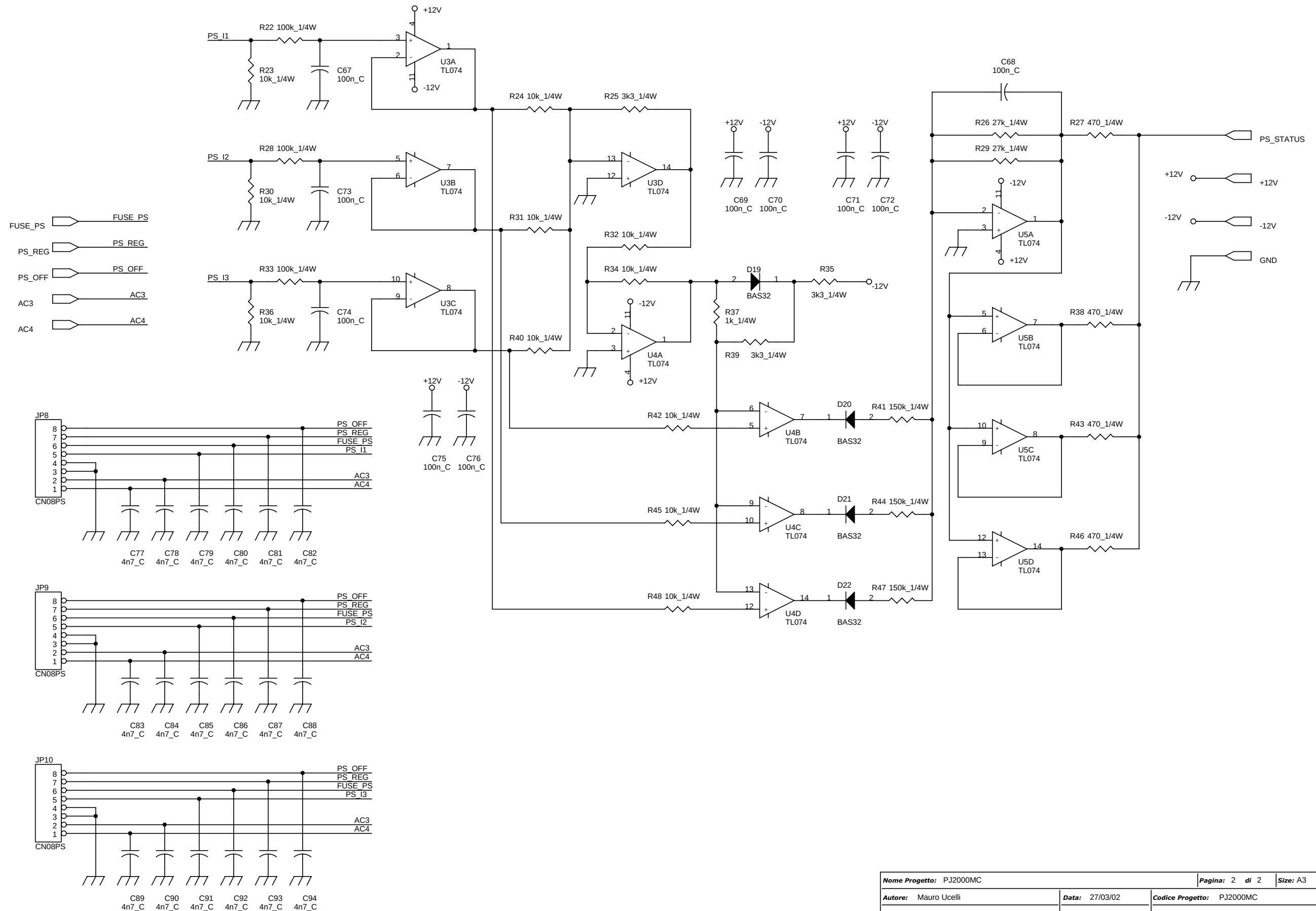
Pass-Through board
CSFILPSPJ2K1
Revision: 1.0
PJ2000MC
Mauro Ucelli
05/09/02

Item	Quantity	Reference	Part	Description
1	4	C1,C2,C3,C4	680pF_HQ	;Condensatore Chip HQ
2	4	C5,C6,C7,C8	4n7	;Condensatore SMD size 0805
3	6	L1,L2,L3,L4, L5,L6	WireFerrite	;Filo di rame arg. diam. 1mm lung. 20mm con tubetto in Ferrite



RILASCIO: 9/9/2002	DIS. S.POL. CTR. A2 LATO PIANO DI MONTAGGIO VISTA LATO COMPONENTI		
REV:			
DIM.SCHEDA: VEDI QUOTE TRATT.: STANDARD COSTRUTTORE	DENOMINAZIONE SCHEDA INTERFACE POWER SUPPLY E RF SECT.		
MAT.: FR4-74 1.6mm Cu 35um VISTA POSITIVA	CODICE CSINPSPJ2K01	RVR ELETTRONICA S.P.A.	SCALA 1:1



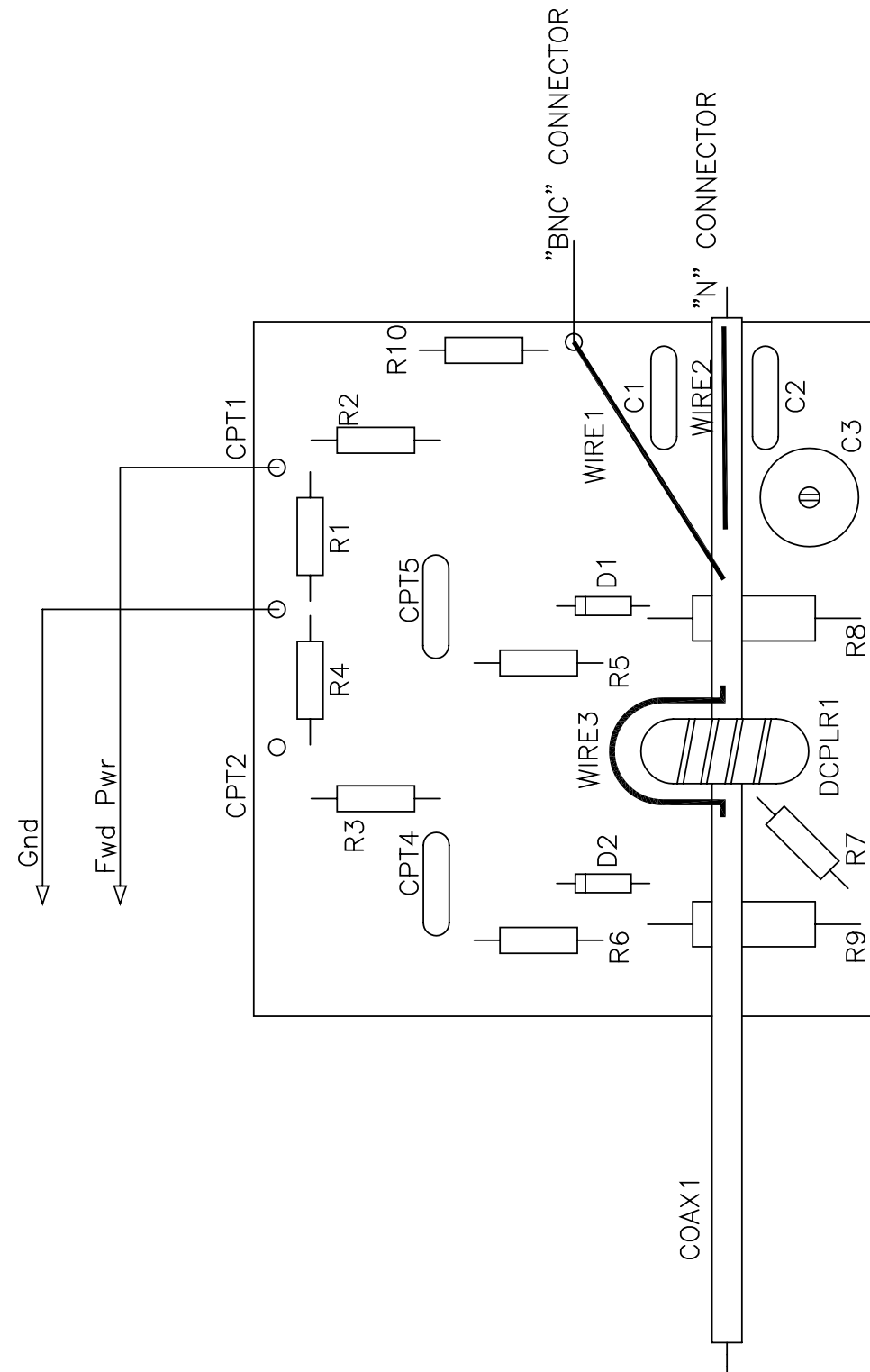


Nome Progetto: PJ2000MC		Pagina: 2 di 2	Size: A3
Autore: Mauro Ucelli		Data: 27/03/02	Codice Progetto: PJ2000MC
Nome PC in Rete: Mauro2		Revisione: 2.0	Nome Parte: Interface Power Supply & RF sect.
File/Cartella: PS RF 2KW		Autorizzazione:	Codice: SLINPSPJ2K01

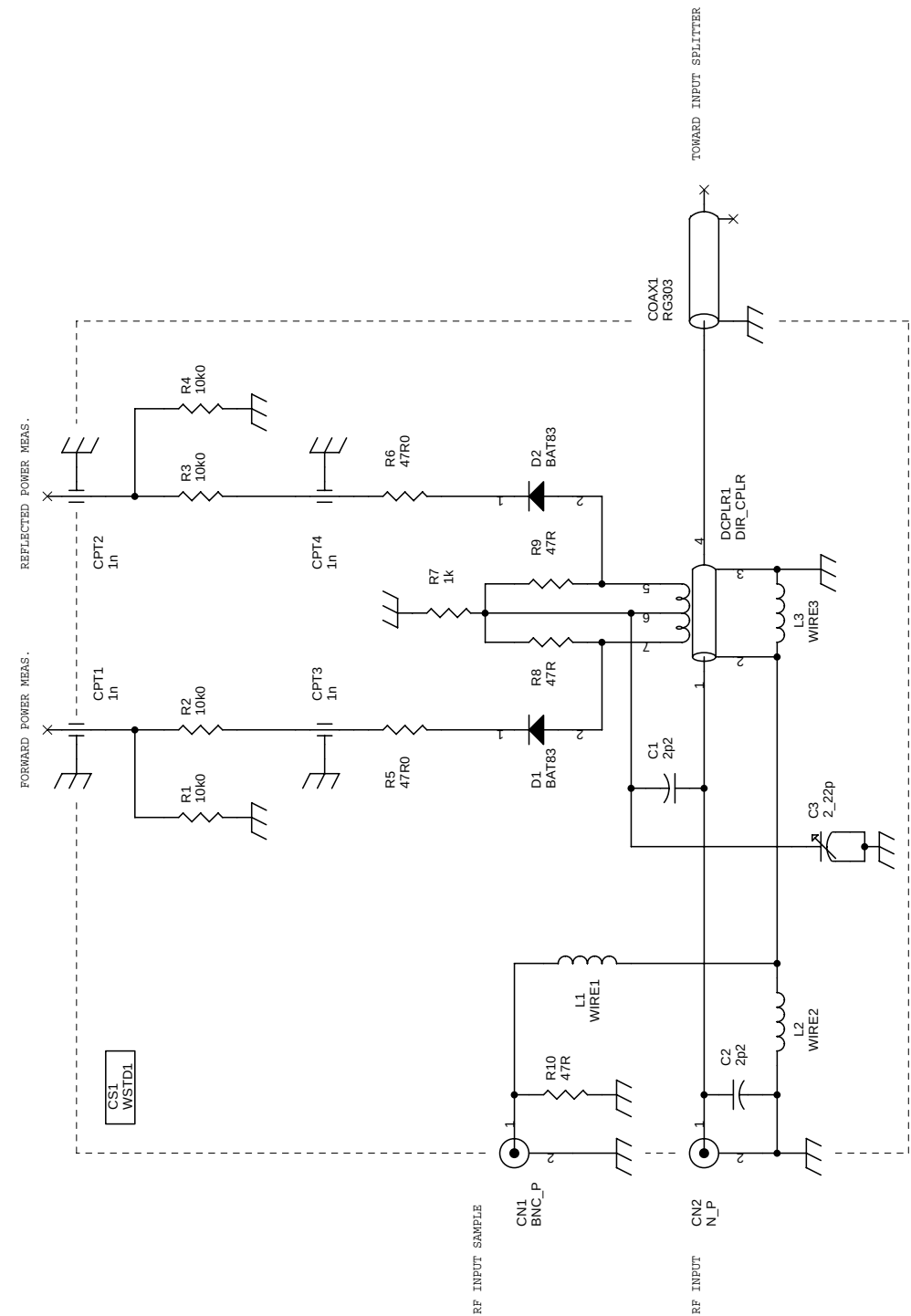
Interface Power Supply & RF sect.
SLINPSPJ2K01
Revision: 2.0
PJ2000MC
Mauro Ucelli
27/03/02

Item	Quantity	Reference	Part	Description
1	4	C1,C2,C30,C31	100p_C	Cond. SMD 0805
2	69	C3,C4,C5,C6,C7,C8,C9,C10,C11,C12,C13,C14,C15,C16,C17,C18,C19,C20,C21,C22,C23,C24,C25,C26,C27,C28,C29,C32,C33,C34,C35,C36,C37,C38,C39,C40,C41,C42,C43,C44,C45,C47,C48,C49,C50,C51,C56,C60,C61,C62,C63,C77,C78,C79,C80,C81,C82,C83,C84,C85,C86,C87,C88,C89,C90,C91,C92,C93,C94	4n7_C	Cond. SMD 0805
3	1	C46	100n_50V	Cond. SMD 0805
4	5	C52,C53,C54,C57,C64	1000uF_35V	Cond. Elet. Vert.
5	1	C55	100nF_100V	Cond. Poliestere
6	2	C58,C65	10uF_35V	Cond. Elet. Vert.
7	2	C66,C59	100uF_35V	Cond. Elet. SMD dia. 6
8	10	C67,C68,C69,C70,C71,C72,C73,C74,C75,C76	100n_C	Cond. SMD 0805
9	6	D1,D2,D4,D5,D6,D7	Z5V1	MINIMELF SMD Zener Diode
10	6	D3,D8,D9,D11,D12,D13	4004	Diodo silicio SMD MELF
11	2	D10,D23	Z9V1	MINIMELF SMD Zener Diode
12	4	D14,D15,D16,D17	P600	Diodi Siliscio 6A
13	1	D18	WL04	Ponte radd. 1A
14	4	D19,D20,D21,D22	BAS32	Diodo silicio SMD in vetro
15	2	D25,D24	TLM310	LED SMD PLCC2
16	10	FIX1,FIX2,FIX3,FIX4,FIX5,FIX6,FIX7,FIX8,FIX9,FIX10	FIX35	Fissaggio
17	1	F1	10A	Portafusibile CS 5x20
18	2	JP1,JP2	CN40PD	Conn. flat 40 poli
19	1	JP3	CN16PD	Conn. flat 16 poli
20	2	JP6,JP4	JSM03	Strip m. 3 pin
21	1	JP5	CN06PS	Conn. KB6 Lumberg
22	4	JP7,JP8,JP9,JP10	CN08PS	Conn. KB8 Lumberg
23	1	K1	RELAY SPST	Rele' 30A
24	2	Q2,Q1	BC847	Tr. NPN SMD SOT23
25	2	RAFF1,RAFF2	RAF220	Dissipatore TO220
26	1	RY1	RLTQ2A	Rele' TQ2
27	15	R1,R5,R10,R18,R23,R24,R30,R31,R32,R34,R36,R40,R42,R45,R48	10k_1/4W	Res. SMD 0805
28	4	R2,R6,R9,R37	1k_1/4W	Res. SMD 0805
29	6	R3,R4,R8,R11,R12,R13	NC	Res. 1/4W
30	1	R7	4k7_1/4W	Res. SMD 0805
31	8	R14,R15,R27,R38,R43,R46,R50,R51	470_1/4W	Res. SMD 0805
32	1	R16	100_1/4W	Res. SMD 0805
33	2	R49,R17	10_1/4W	Res. SMD 0805

34	3	R19,R20,R21	RXE110	Fusibile autor.
35	3	R22,R28,R33	100k_1/4W	Res. SMD 0805
36	3	R25,R35,R39	3k3_1/4W	Res. SMD 0805
37	2	R26,R29	27k_1/4W	Res. SMD 0805
38	3	R41,R44,R47	150k_1/4W	Res. SMD 0805
39	2	R52,R53	1K_1/4W	Res. 1/4W
40	1	R54	4H7	Res. 2W
41	1	U1	LM7812	Stab. pos. TO220
42	1	U2	LM7912	Stab. neg. TO220
43	3	U3,U4,U5	TL074	Quad op amp SMD SO14



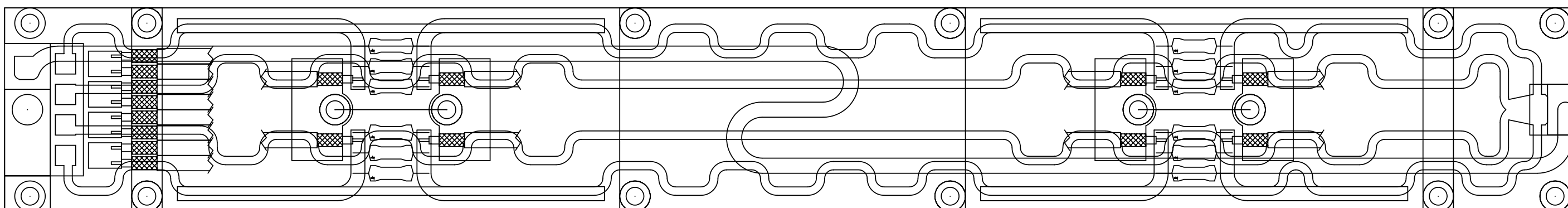
A.V.A. ELETTRONICA	NOME PROGETTO: PJ2000MC	NOME PARTE: Directional Coupler				
	AUTORE: Rev.: Berti J.	DATA: 09/12/2003	REVISIONE: 1.1	SCALA: 1:1	SIZE: A4	PAGINA: 1 DI 1
ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"		CODICE PROGETTO: /	CODICE DISEGNO: CSDRCPIPJ2KM			
MATERIALE: /	TRATTAMENTO: /	PROFILO: /	STATO: /			

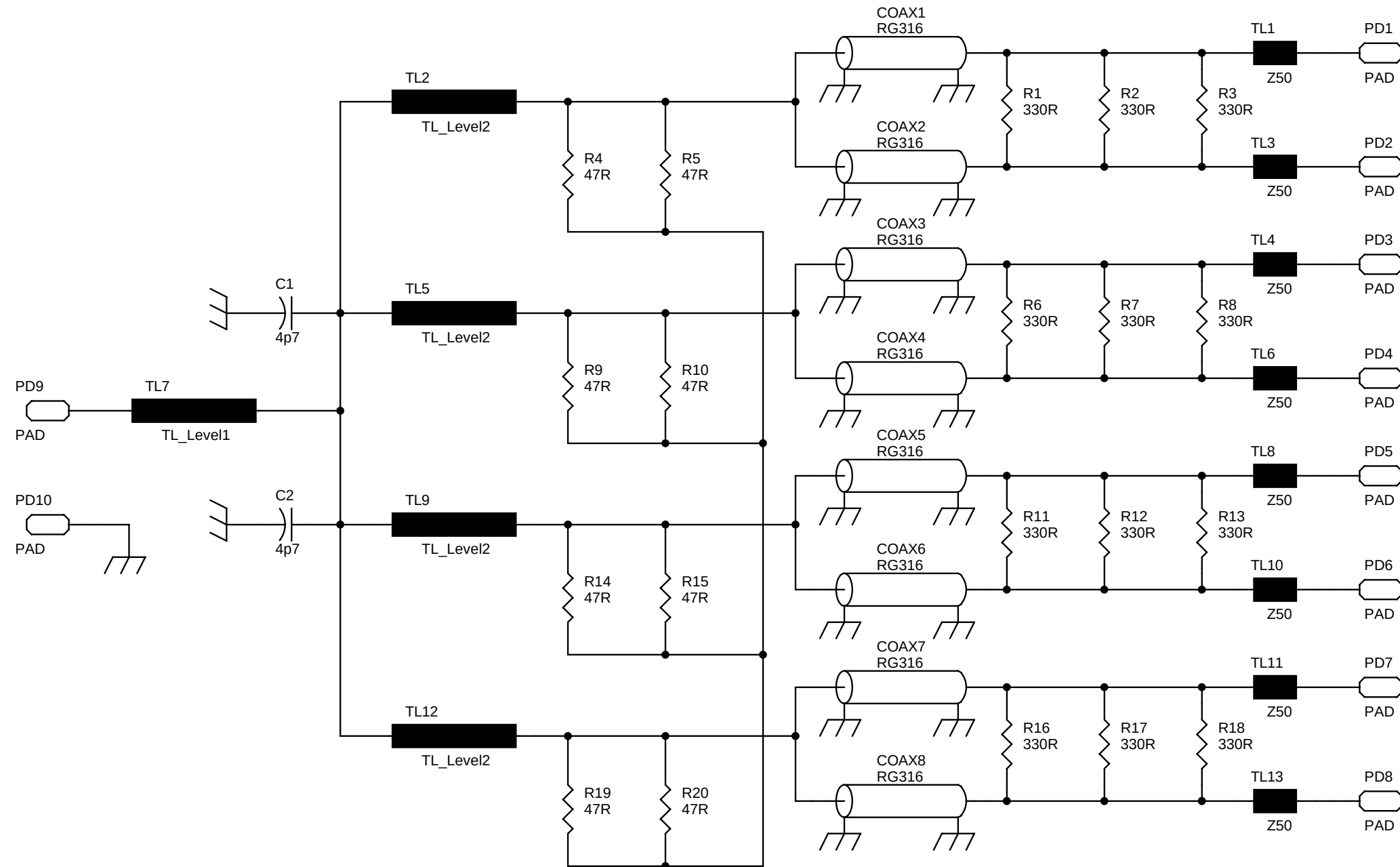


A.V.A. ELETTRONICA		Pagina: 1 di 1	Size: A4
Nome Progetto: PJ2000MC		Data: 08/01/03	Codice Progetto: PJ2000MC
Autore: Mauro Ucelli		Revisione: 1.0	Nome Parte: Input RF Power Meas. circuit
Nome PC in Rete: MAURO 2		Autore: Mauro Ucelli	Codice: SLDRCPIPJ2KM

Input RF Power Meas. circuit
SLDRCPJP2KM
Revision: 1.0
PJ2000MC
Mauro Ucelli
08/01/03

Item	Quantity	Reference	Part	Description
1	1	CN1	BNC_P	Conn. BNC da pannello
2	1	CN2	N_P	Conn. N da pannello
3	1	COAX1	RG303	Cavo coax
4	4	CPT1,CPT2,CPT3,CPT4	1n	Cond. passante
5	1	CS1	WSTD1	Circuito stampato
6	2	C2,C1	2p2	Cond. ceramico p 5mm
7	1	C3	2_22p	Comp. ceramico dia. 7mm
8	1	DCPLR1	DIR_CPLR	Accopp. direz.
9	2	D1,D2	BAT83	Diodi Hot carrier DO35
10	1	L1	WIRE1	Filo RA D.1 L.25
11	1	L2	WIRE2	Filo RA D.1.5 L.15
12	1	L3	WIRE3	Lama RA 4x14x0.5 piegata ad U
13	4	R1,R2,R3,R4	10k0	Res. 1/4W 1%
14	2	R5,R6	47R0	Res. 1/4W 1%
15	1	R7	1k	Res. 1/4W
16	2	R8,R9	47R	Res. 2W
17	1	R10	47R	Res. 1/4W





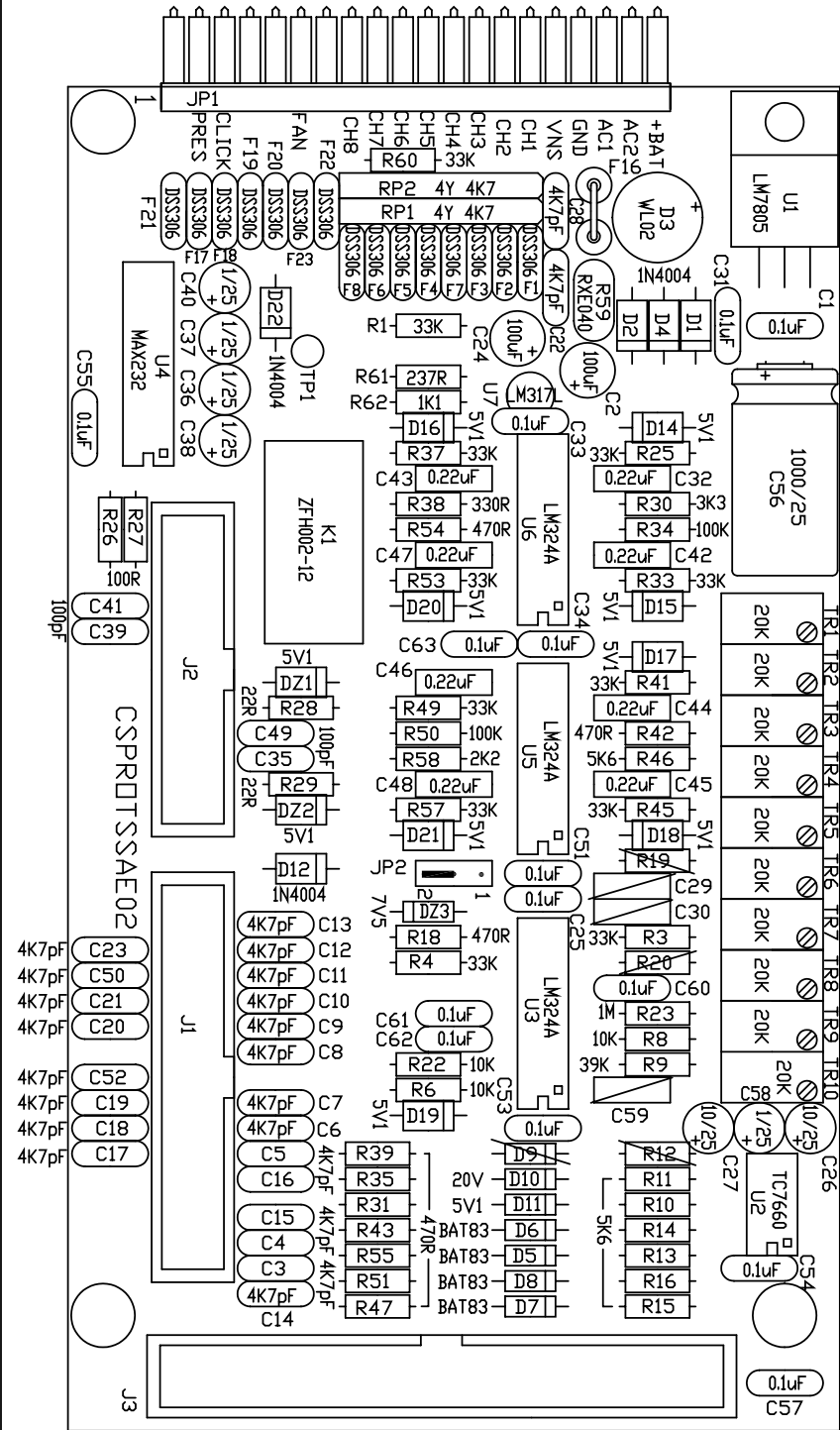
- CS1
CSSPLL1PJ2K
- CS2
CSSPLL2PJ2K
- CS3
CSSPLL3PJ2K
- CS4
CSSPLL4PJ2K
- CS5
CSSPLL5PJ2K

Nome Progetto: PJ2000MC		Pagina: 1 di 1	Size: A4
Autore: Mauro Ucelli	Data: 10/01/03	Codice Progetto: PJ2000MC	
Nome PC in Rete: Mauro 2	Revisione: 1.0	Nome Parte: RF input Splitter	
File/Cartella: SLSPL8VIN-01	Autorizzazione:	Codice: SLSPL8VIN-01	



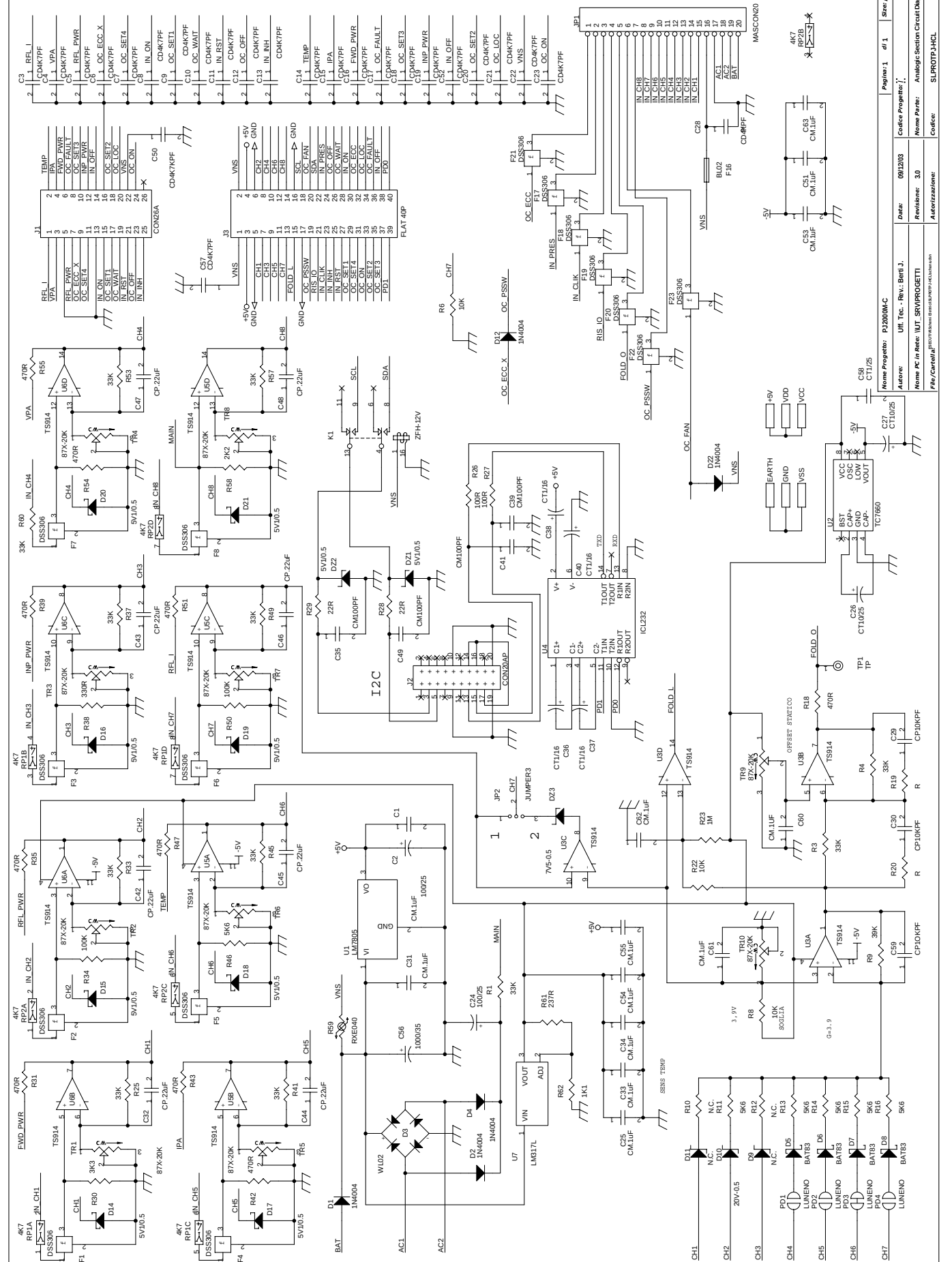
RF input Splitter
 SLSPL8VIN-01
 Revision: 1.0
 PJ2000MC
 Mauro Ucelli
 10/01/03

Item	Quantity	Reference	Part	Description
1	8	COAX1,COAX2,COAX3,COAX4, COAX5,COAX6,COAX7,COAX8	RG316	Cavo coax
2	1	CS1	CSSPLL1PJ2K	Circuito stampato
3	1	CS2	CSSPLL2PJ2K	Circuito stampato
4	1	CS3	CSSPLL3PJ2K	Circuito stampato
5	1	CS4	CSSPLL4PJ2K	Circuito stampato
6	1	CS5	CSSPLL5PJ2K	Circuito stampato
7	2	C2,C1	4p7	Cond. ceramico p 5mm
8	10	PD1,PD2,PD3,PD4,PD5,PD6, PD7,PD8,PD9,PD10	PAD	Non è un componente
9	12	R1,R2,R3,R6,R7,R8,R11, R12,R13,R16,R17,R18	330R	Res. 2W
10	8	R4,R5,R9,R10,R14,R15,R19, R20	47R	Res. 2W
11	8	TL1,TL3,TL4,TL6,TL8,TL10, TL11,TL13	Z50	Linea strip CS
12	4	TL2,TL5,TL9,TL12	TL_Level2	Linea strip CS
13	1	TL7	TL_Level1	Linea strip CS



Fwd Pwr
Fwd Rfl
Inp Pwr
Vpa
Ipa
Temp.
Int SWR
Mains
OFFSET
SOGLIA FOLBACK

None Progetto: PJ2000M-C		Pagina: 1	di 1	Size: A4
Autore:	Uff. Tec. - Rev: Berti J.	Data:	09/12/03	Codice Progetto: /
Nome PC in Rete:	\\UT_SRV\PROGETTI	Revisione:	3.0	Nome Parte: Analogic Section Component Layout
File/Cartella: ESECUTIVACS. e piani montaggioSLPROTPJ-HCLLAY_ANALVGS		Autorizzazione:		Codice: SLPROTPJ-HCL
Scala: 1:1	Materiale:	Trattamento:	/	Profilo: /



None Progetto: PJ2000M-C		Pagina: 1	di 1	Size: A3
Autore:	Uff. Tec. - Rev: Berti J.	Data:	09/12/03	Codice Progetto: /
Nome PC in Rete: \\UT_SRV\PROGETTI		Revisione:	3.0	Nome Parte: Analogic Section Circuit Diagram
File/Carrelli: ESECUTIVACS. e piani montaggioSLPROTPJ-HCLLAY_ANALVGS		Autorizzazione:		Codice: SLPROTPJ-HCL

CPU Analog Section
SLPROTPJ-HCL
Version: 3.0 Date: 04/09/03

Item	Q.ty	Reference	Part
1	13	C1,C25,C31,C33,C34,C51, C53,C54,C55,C60,C61,C62, C63	CM.1uF
2	2	C24,C2	100/25
3	23	C3,C4,C5,C6,C7,C8,C9,C10, C11,C12,C13,C14,C15,C16, C17,C18,C19,C20,C21,C22, C23,C52,C57	CD4K7PF
4	2	C26,C27	CT10/25
5	1	C28	CD4KPF
6	2	C29,C30	CP10KPF
7	8	C32,C42,C43,C44,C45,C46, C47,C48	CP.22uF
8	4	C35,C39,C41,C49	CM100PF
9	4	C36,C37,C38,C40	CT1/16
10	1	C50	CD4K7KPF
11	1	C56	1000/35
12	1	C58	CT1/25
13	1	C59	CP10KPF
14	10	DZ1,DZ2,D14,D15,D16,D17, D18,D19,D20,D21	5V1/0.5
15	1	DZ3	7V5-0.5
16	5	D1,D2,D4,D12,D22	1N4004
17	1	D3	WL02
18	4	D5,D6,D7,D8	BAT83
19	4	R10,R12,D9,D11	N.C.
20	1	D10	20V-0.5
21	15	F1,F2,F3,F4,F5,F6,F7,F8, F17,F18,F19,F20,F21,F22, F23	DSS306
22	1	F16	BL02
23	1	JP1	MASCON20
24	1	JP2	JUMPER3
25	1	J1	CON26A
26	1	J2	CON20AP
27	1	J3	FLAT 40P
28	1	K1	ZFH-12V
29	4	PD1,PD2,PD3,PD4	LUNENO
30	2	RP1,RP2	4K7
31	12	R1,R3,R4,R25,R33,R37,R41, R45,R49,R53,R57,R60	33K
32	3	R6,R8,R22	10K
33	1	R9	39K
34	6	R11,R13,R14,R15,R16,R46	5K6
35	10	R18,R31,R35,R39,R42,R43, R47,R51,R54,R55	470R
36	2	R19,R20	R
37	1	R23	1M
38	2	R26,R27	100R
39	2	R28,R29	22R
40	1	R30	3K3
41	2	R50,R34	100K
42	1	R38	330R

43	1	R58	2K2
44	1	R59	RXE040
45	1	R61	237R
46	1	R62	1K1
47	1	TP1	TP
48	10	TR1,TR2,TR3,TR4,TR5,TR6, TR7,TR8,TR9,TR10	87X-20K
49	1	U1	LM7805
50	1	U2	TC7660
51	3	U3,U5,U6	TS914
52	1	U4	ICL232
53	1	U7	LM317L

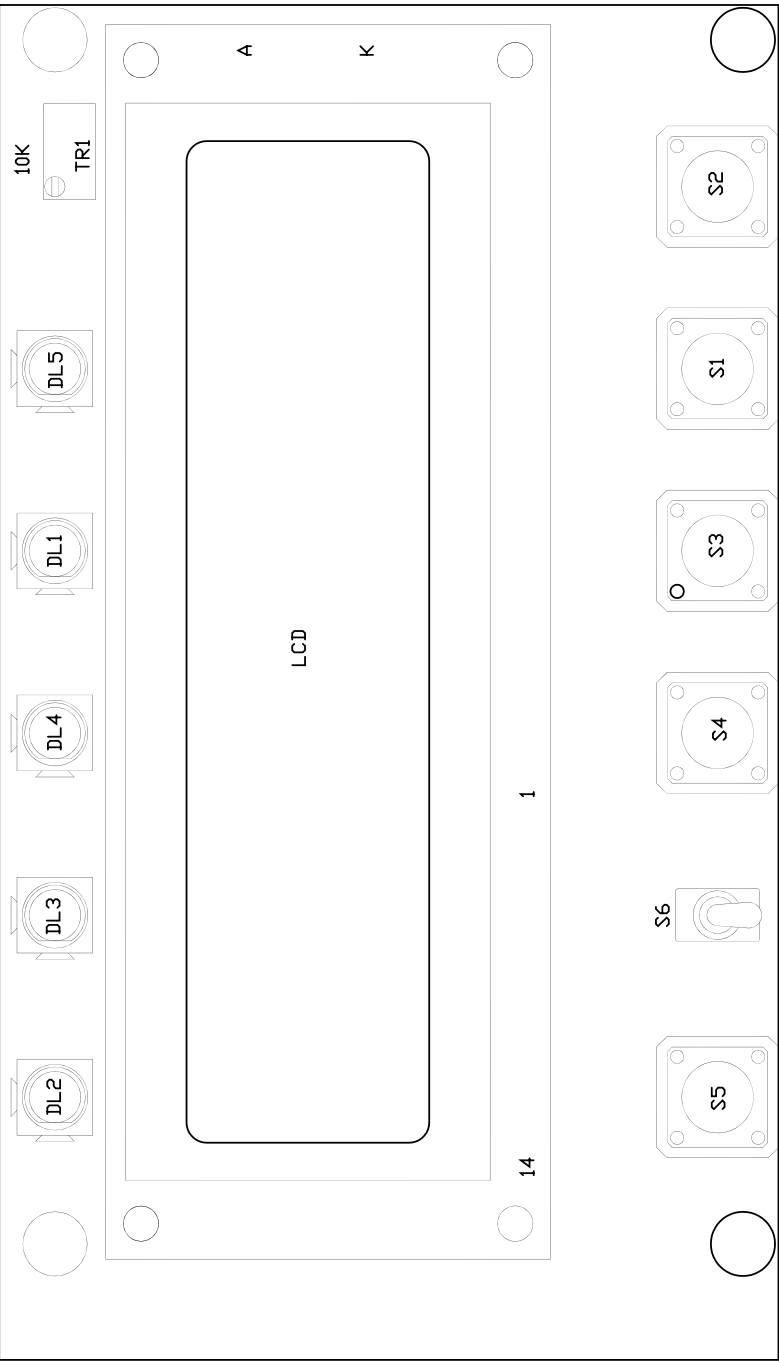


Rev. 1.1 - 09/12/03

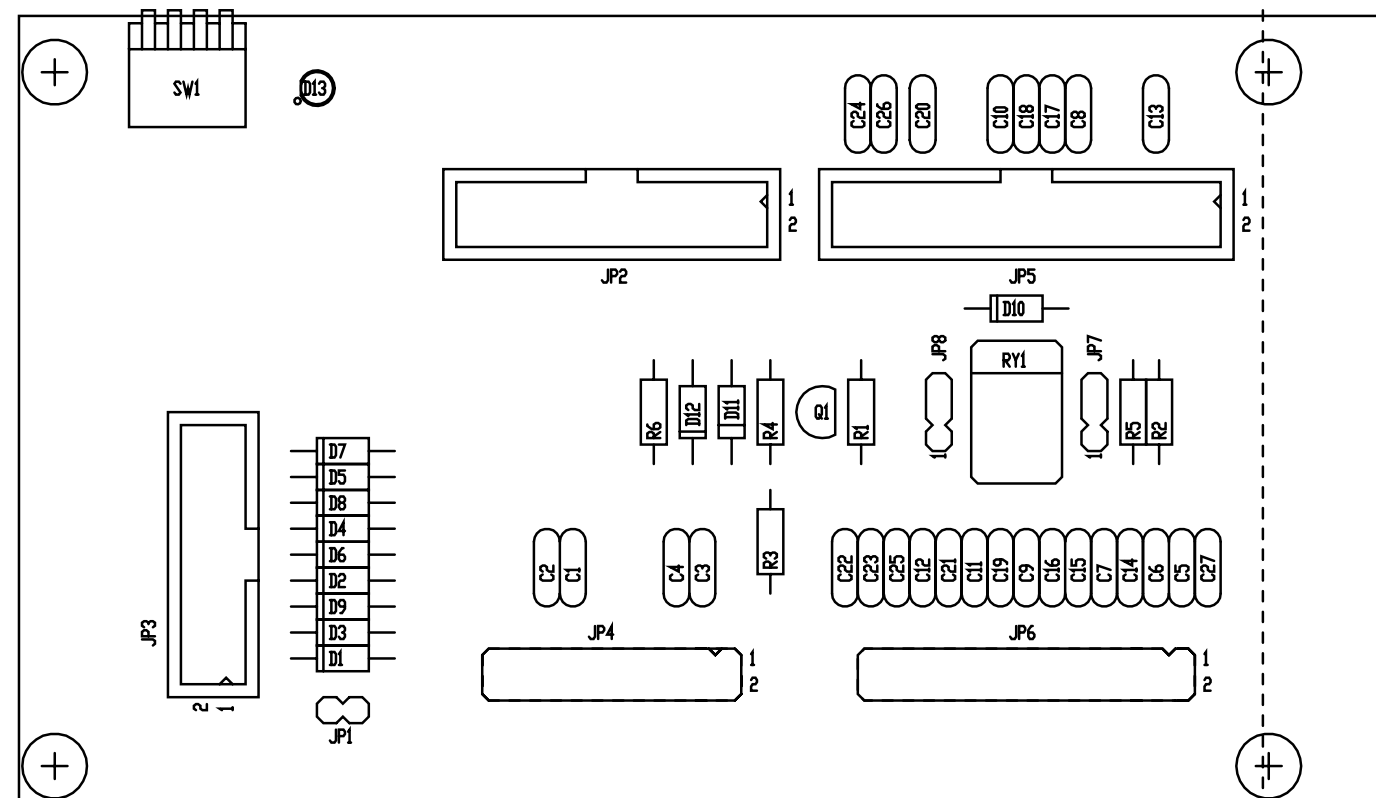
41 / 57

Scheda CPU
SLPROTPJ-HCL
Versione: 3.0

Item	Q.ty	Reference	Part
1	13	C1,C2,C3,C4,C5,C6,C7,C8,C35, C38,C39,C40,C43	CM.1UF
2	3	C10,C13,C34	CT1/16
3	13	C11,C12,C15,C16,C17,C18, C28,C29,C30,C31,C32,C33,C44	CP.22UF
4	8	C20,C21,C22,C23,C24,C25, C26,C27	CP.1UF
5	3	C36,C41,C42	CD1KPF
6	1	C37	CP.33UF
7	2	DL1,DL5	L5Y
8	2	DL2,DL3	L5G
9	1	DL4	L5R
10	1	D1	BAT84
11	1	D2	LM336-5.0V
12	1	D5	11DQ06
13	3	JP1,JP3,JP5	JUMP2
14	1	JP2	STRIP 14
15	4	JP4,JP6,JP7,JP10	JUMPER3
16	1	JP8	JUMPER
17	1	JP9	STRIP 2
18	1	J3	FLAT 40P
19	3	Q1,Q3,Q4	BC337
20	6	RP1,RP2,RP8,RP9,R15,R16	10K
21	3	RP3,RP7,RP15	2K2
22	4	RP4,RP5,RP6,R14	47K
23	4	R8,RP10,RP11,RP12	47R
24	2	RP13,R18	470R
25	1	RP14	3K3
26	1	R1	10M
27	1	R13	10R
28	5	S1,S2,S3,S4,S5	SW
29	1	S6	INT
30	1	TR1	87W-10K
31	1	U1	68HC11F1
32	1	U2	MB3773
33	1	U3	27C256
34	1	U4	74HC594
35	1	U5	74HC139
36	1	U6	74HC165
37	1	U7	PCF8584
38	3	U8,U11,U12	40106
39	2	U9,U10	ULN2004A
40	1	U13	LM317
41	1	Y1	CST-8MHZ

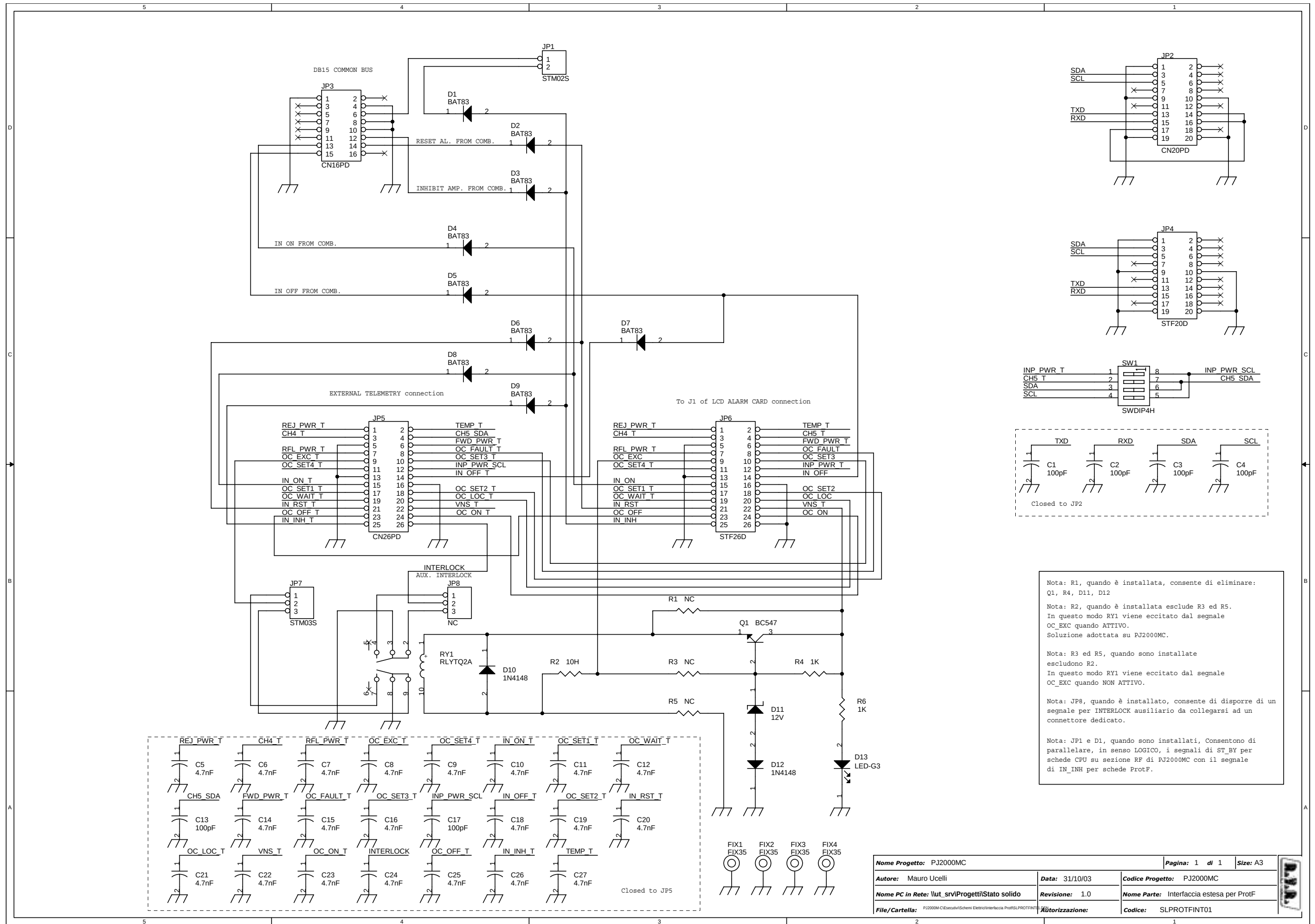


Nome Progetto: PJ2000M-C		Pagina: 1 di 1		Size: A4
Autore:	Ufficio Tecnico	Codice Progetto: /		SLPROTPJ-HCL
Nome PC in Rete:	\\UT_SRV\PROGETTI	Data:	09/12/03	
File/Cartella:	ESECUTIVI\CS. e Piani montaggio\SLPROTPJ-HCL	Revisione:	3.0	
Scala:	1:1	Autorizzazione:		
Materiale:		Trattamento:	/	Profilo:
				/



Nome Progetto: PJ2000M_C		Pagina: 1 di 1	Size: A4
Autore: Poluzzi S.	Data: 20/03/03	Codice Progetto: PJ2000M-C	
Nome PC in Rete: \\ut_srv\Progetti\Stato solido	Revisione: 1.0	Nome Parte: Scheda Interfaccia Estesa PROT	
File/Cartella: PJ2000M-C\Esecutivi\Schemi Elettrici\Interfaccia Prot	Autorizzazione:	Codice: CSPROTFIN01	
Scala: 1:1	Materiale: FR4-74 1.6mm Cu 35um	Trattamento: STANDARD COSTRUTTORE	Profilo: /





Nome Progetto: PJ2000MC		Pagina: 1 di 1	Size: A3
Autore: Mauro Ucelli	Data: 31/10/03	Codice Progetto: PJ2000MC	
Nome PC in Rete: \\ut_srv\Progetti\Stato solido	Revisione: 1.0	Nome Parte: Interfaccia estesa per ProtF	
File/Cartella: PJ2000M-C\Esecuti\Schemi Elettrici\Interfaccia ProtF\SLPROTFINT01	Autorizzazione:	Codice: SLPROTFINT01	

Interfaccia estesa per ProtF Revised: Friday, October 31, 2003

SLPROTFINT01 Revision: 1

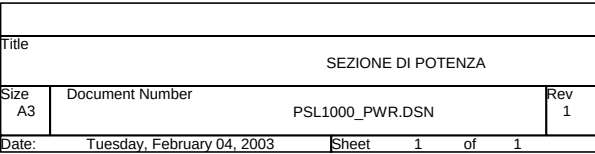
Interf. ProtF PJ2000

RVR

Tommasi / Ucelli

Item	Quantity	Reference	Part	Description	
1	6	C1, C2, C3, C4, C13, C17	100pF	Cond. ceramico p 5mm	
2	21	C5, C6, C7, C8, C9, C10, C11, C25, C26, C27	4.7nF	Cond. ceramico p 5mm	
3	9	D1, D2, D3, D4, D5, D6, D7, D8, D9	BAT83	Diodi Hot carrier DO35	
4	2	D12, D10	1N4148	Diodo in vetro DO35	
5	1	D11	12V	1/2W Zener Diode	
6	1	D13	LED-G3	LED VERDE dia. 3mm	
7	4	FIX1, FIX2, FIX3, FIX4	FIX35	Foro fissaggio 3.5mm	
8	1	JP1	STM02S	Strip maschio 2 pin	
9	1	JP2	CN20PD	Connettore 20 poli Flat cs	
10	1	JP3	CN16PD	Connettore 16 poli Flat cs	
11	1	JP4	STF20D	Strip femmina 10+10 pin	Nota 1
12	1	JP5	CN26PD	Connettore 26 poli Flat cs	
13	1	JP6	STF26D	Strip femmina 13+13 pin	Nota 1
14	1	JP7	STM03S	Strip maschio 3 pin	
15	1	JP8	NC	Strip maschio 3 pin	
16	1	Q1	BC547	Trans. NPN TO92	
17	1	RY1	RLYTQ2A	Rele' TQ2	
18	3	R1, R3, R5	NC	Res. 1/4W	
19	1	R2	10H	Res. 1/4W	





SEZIONE DI POTENZA

PSL1000_PWR

Revision 1,0

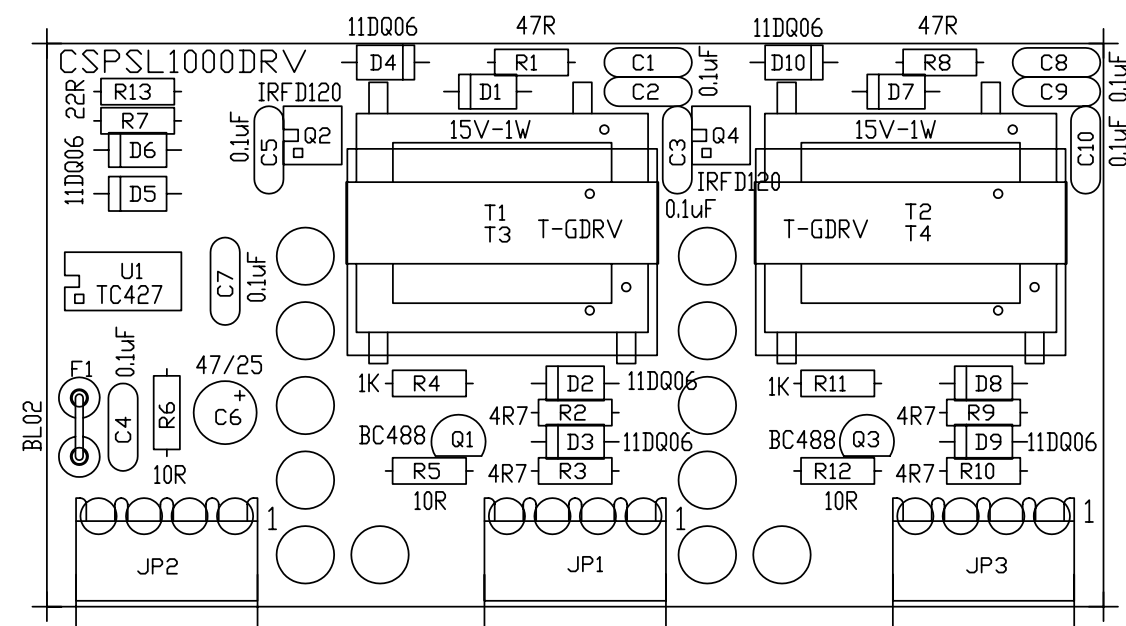
PJ2000MC

Griptech

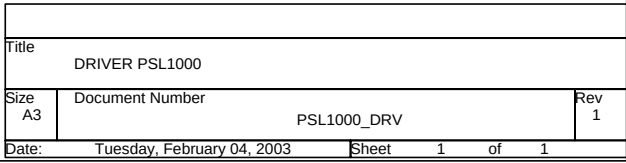
04/02/03

Item	Quantity	Reference	Part
1	1	CS1	PE-51718
2	2	C2,C1	CP1/400
3	2	C4,C3	CD10KpF-1KV
4	4	C5,C6,C17,C19	CP1KpF-630
5	5	C7,C8,C9,C10,C11	EKE1000/63
6	5	C12,C13,C14,C15,C18	CP.1uF
7	1	C16	CP1uF
8	1	C20	CD.1uF
9	4	C21,C22,C29,C30	CD1KpF
10	2	C26,C23	Y2K2pF
11	1	C24	330/450
12	1	C25	CP.1uF/400
13	1	C27	CP10KpF
14	1	C28	1KpF
15	1	C31	100pF-1kV
16	2	DZ1,DZ2	15V 1W
17	2	D4,D1	STTA0860
18	2	D5,D2	UF4007
19	1	D3	HFA50PA
20	1	D6	BYV27-200
21	3	D7,D8,D9	1N4148
22	1	D10	60APU04
23	4	FIX1,FIX2,FIX3,FIX4	FIX35
24	1	F1	T94-26
25	7	JP1,JP5,JP6,JP7,JP8,JP9,JP10	MOLEX5.08/2
26	1	JP2	KRA6
27	1	JP4	PIAZZOLE
28	1	JP12	KRA3/2
29	1	JP13	KB2
30	1	JP14	MASCON
31	1	J1	JUMP 2P
32	2	L1,L2	77439
33	1	L3	BFVC1025
34	1	L4	BFV0712D8
35	1	PZ1	PIAZZOLA
36	2	Q1,Q2	STW45NM50
37	2	R1,R6	10K-4W
38	3	R2,R7,R10	10K
39	1	R3	47R-2W
40	2	R16,R4	18R-4W
41	1	R5	10K/2W
42	1	R8	6R8
43	1	R9	1M/2W
44	1	R11	200R
45	4	R12,R13,R14,R15	1M5-1%
46	1	R17	5R6-2W
47	1	T1	TSWTCH9
48	1	U1	HTP50M

PIANO DI MONTAGGIO SEZIONE DRIVER



ARCHIVIO: X:\WORKDWG\		
TITLE PIANO DI MONTAGGIO SEZIONE DRIVER		
DOCUMENT NUMBER	PSL1000DRV. DWG	REV
DATE:	1LUGLIO 2002	



POWER SUPPLY CONTROL

PSL1000_CNT

Revision 1,0

PJ2000MC

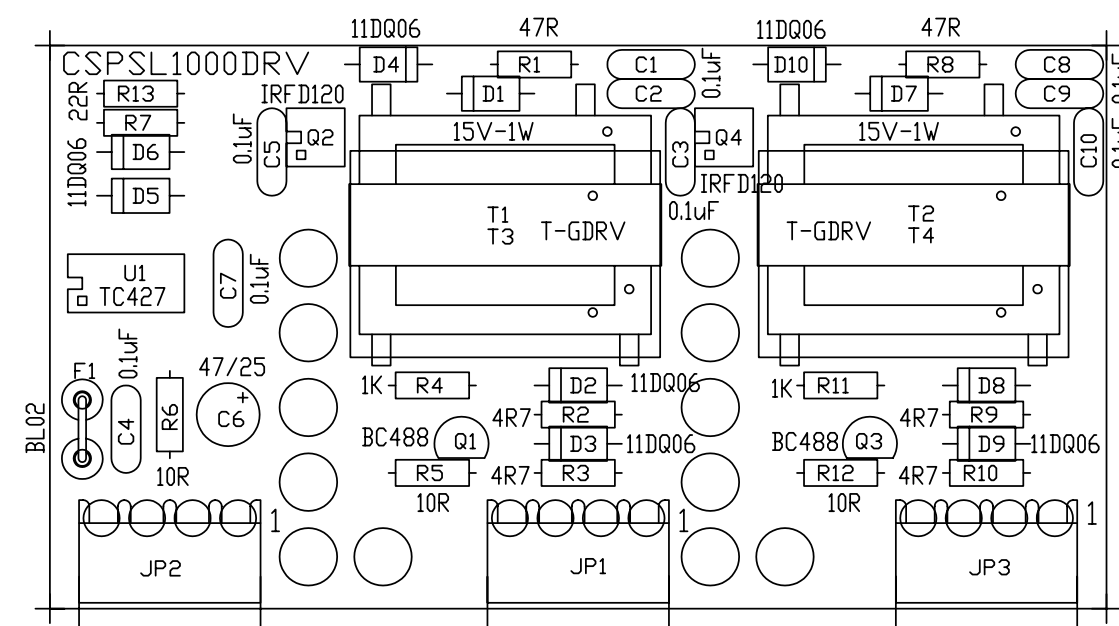
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04/02/03

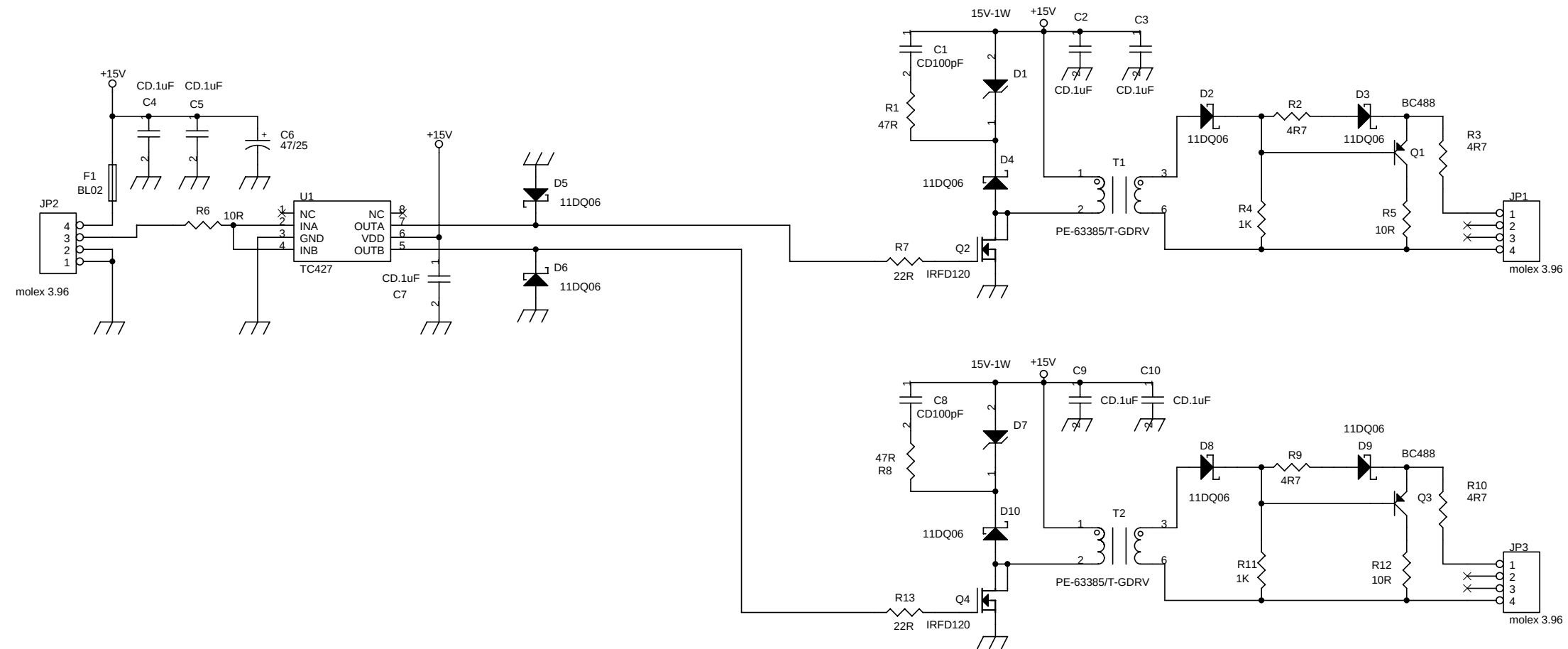
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1	13	C1,C2,C3,C4,C7,C9,C12,C13,C18,C20,C22,C27,C30	CD.1UF
2	1	C5	CP1KpF-2.5%
3	4	C6,C24,C25,C26	CD100PF
4	1	C8	CD150pF
5	1	C10	CP47KpF
6	1	C11	CP10KpF
7	1	C14	CP47nF
8	2	C29,C15	gen-25
9	1	C16	CT1/25
10	1	C17	100UF/25
11	1	C19	1000/35
12	1	C21	CD10KpF
13	1	C23	2.2UF/25
14	1	C28	22/25
15	1	DL1	D3R
16	1	DZ1	5V1-0.5W
17	11	D1,D2,D3,D7,D8,D9,D11,D12,D13,D14,D15	1N4148
18	2	D5,D4	1N4004
19	1	D6	LED D3
20	1	D10	11DQ06
21	1	F1	DSS306
22	1	F2	BL02
23	1	IS2	4N26
24	4	JP6,JP7,JP9,JP10	MOLEX4-5.08
25	1	J2	JUMP 2P
26	1	Q1	BC237
27	1	Q2	IRFD120
28	5	R1,R3,R5,R10,R25	1K
29	1	R2	470R
30	6	R4,R8,R24,R30,R34,R41	10K
31	2	R6,R40	5K6
32	2	R7,R37	47K5
33	1	R9	2K37
34	2	R26,R11	820K
35	1	R12	1K2
36	5	R13,R23,R31,R36,R38	20K0
37	1	R14	1K47
38	1	R15	2K0
39	1	R16	75K
40	1	R17	200R
41	2	R19,R18	RXE040
42	1	R20	3K3
43	1	R21	237R
44	1	R22	2K61
45	1	R27	22R
46	1	R28	100R
47	1	R29	180R
48	2	R32,R33	40K2
49	1	R35	820R

50	1	R39	1M
51	1	R42	124K
52	1	TP1	TP
53	1	TR1	3106X-20K
54	1	TR2	3106X-500R
55	1	TR3	3106X-2K
56	2	TR5,TR4	3106X-10K
57	1	U1	UC3846
58	1	U2	LM317
59	2	U4,U3	LM258

PIANO DI MONTAGGIO SEZIONE DRIVER



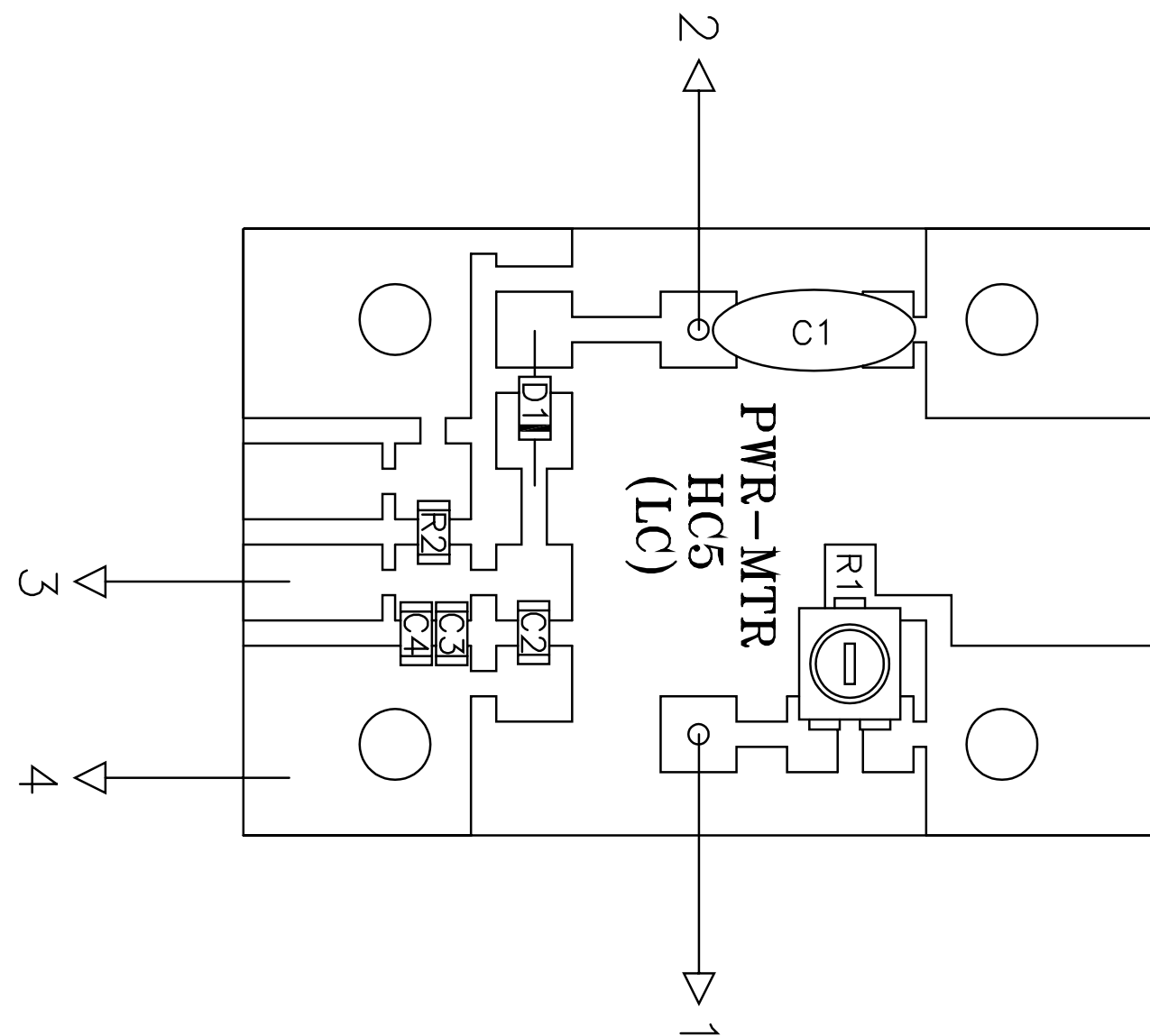
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DOCUMENT NUMBER	PSL1000DRV. DWG	REV
DATE:	1LUGLIO 2002	



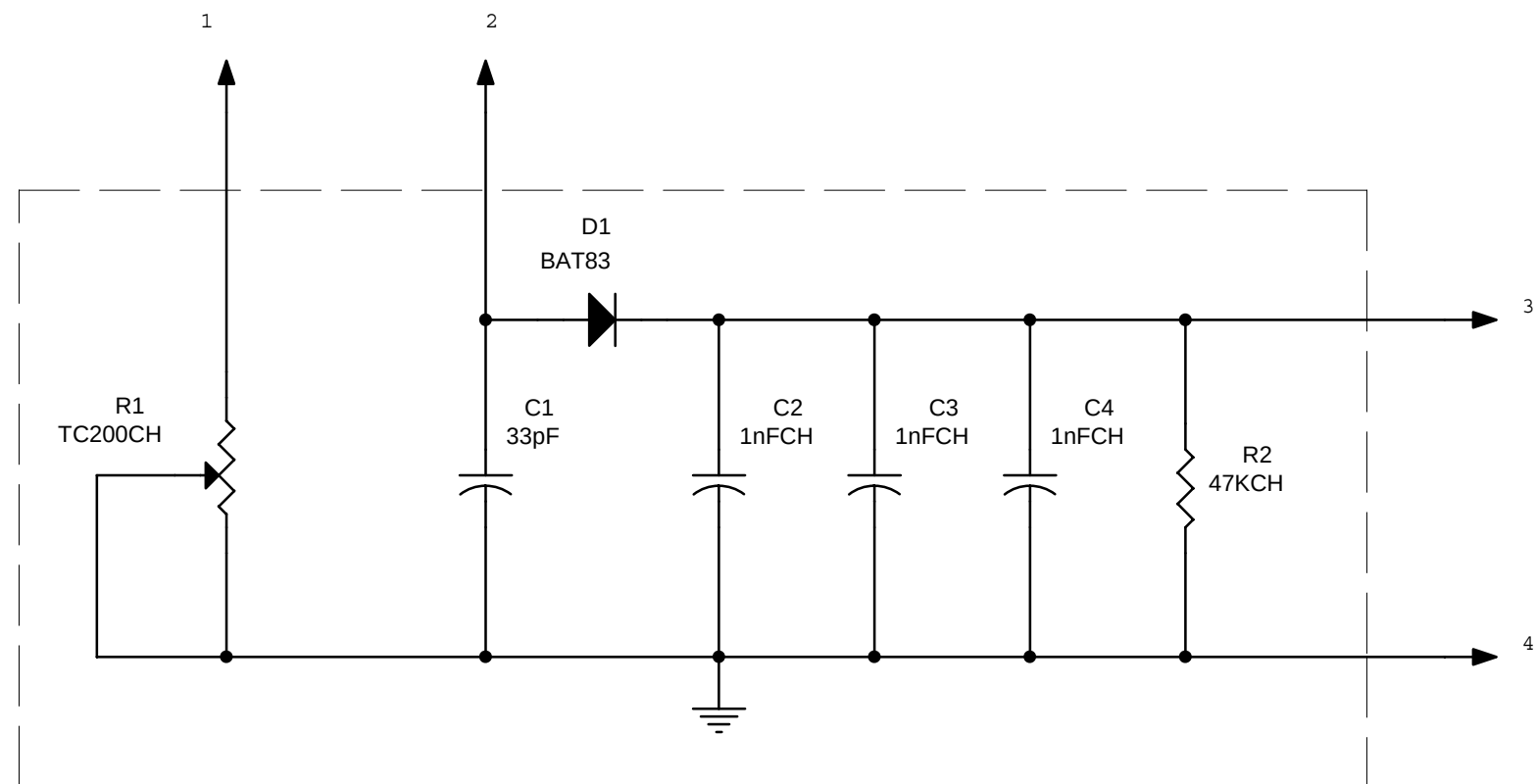
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DRIVER PSL1000		
Size	Document Number	Rev
A3	PSL1000_DRV	1
Date:	Tuesday, February 04, 2003	Sheet 1 of 1

DRIVER PSL1000
 PSL1000_DRV
 Revision 1,0
 PJ2000MC
 Griptech
 04/02/03

Item	Quantity	Reference	Part
1	2	C1,C8	CD100pF
2	7	C2,C3,C4,C5,C7,C9,C10	CD.1uF
3	1	C6	47/25
4	2	D7,D1	15V-1W
5	8	D2,D3,D4,D5,D6,D8,D9,D10	11DQ06
6	1	F1	BL02
7	3	JP1,JP2,JP3	molex 3.96
8	2	Q3,Q1	BC488
9	2	Q4,Q2	IRFD120
10	2	R1,R8	47R
11	4	R2,R3,R9,R10	4R7
12	2	R4,R11	1K
13	3	R5,R6,R12	10R
14	2	R7,R13	22R
15	2	T1,T2	PE-63385/T-GDRV
16	1	U1	TC427



Nome Progetto: PJ2000M-C			Pagina: 1 di 1		Size: A4
Autore: Ufficio Tecnico		Data: 10/12/03	Codice Progetto: /		
Nome PC in Rete: \\UT_SRV\PROGETTI		Revisione: 2.0	Nome Parte: POWER METER CARD		
File/Cartella: ESECUTIVI\C.S. e Piani di montaggio\METER\LAYOUT\		Autore/Modificatore: /	Codice: SLPWRMTRHC5		
Scala: /	Materiale: /	Trattamento: /	Profilo: /		



Nome Progetto: PJ2000M-C		Pagina: 1 di 1	Size: A
Autore: Ufficio Tecnico	Data: 10/12/03	Codice Progetto: I	
Nome PC in Rete: \\UT_SRV\PROGETTI	Revisione: 2.0	Nome Parte: POWER METER CARD	
File/Cartella: stato solido\PJ2000M-C\Esecutivi\Schemi Elettrici\METER	Autorizzazione:	Codice: SLPWRMTRHC5	



POWER METER CARD - Bill Of Materials

Item	Q.ty	Reference	Part	DESCRIPTION
1	1	R2	47KCH	CHIP RESISTOR
2	1	R1	TC200CH	TRIM. REG. VERT. CERMET SMD
3	1	C1	33PF	CERAMIC CAPACITOR NP0
4	3	C2,C3,C4	1NFCH	CERAMIC CHIP CAPACITOR
5	1	D1	BAT83	HOT CARRIER DIODE