
TOUCH30s



User Manual

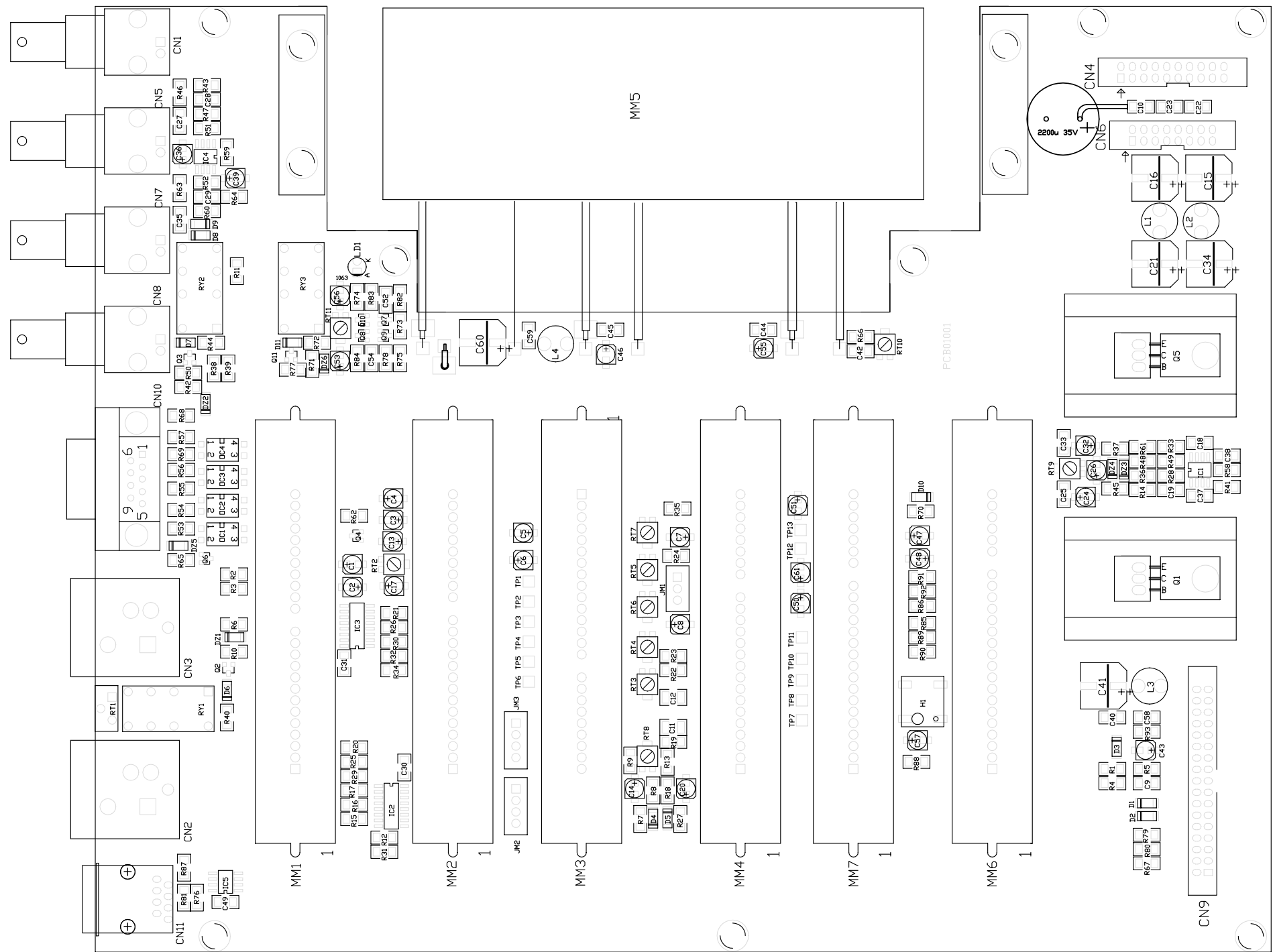
Volume 2: Technical appendix

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

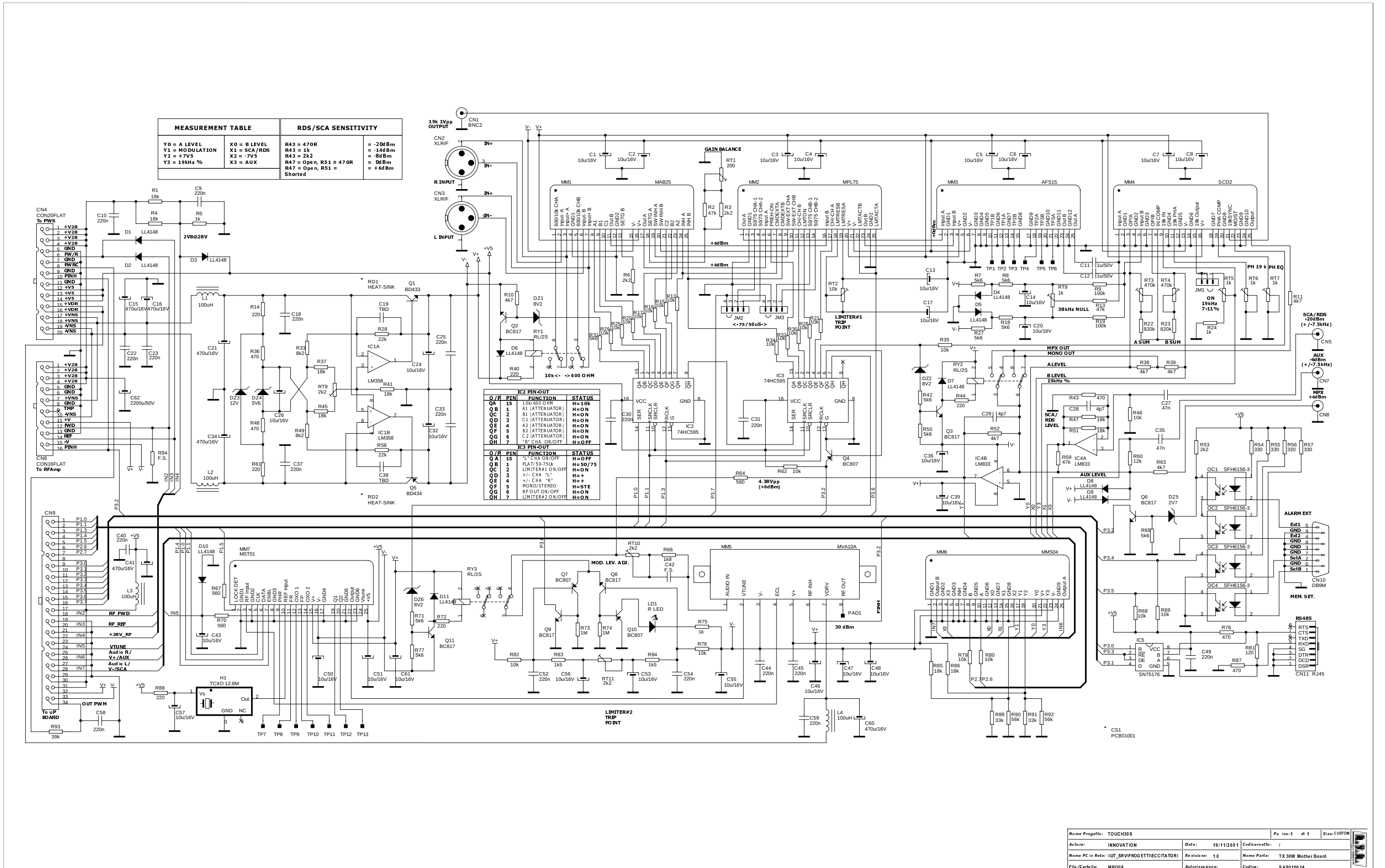
Questa parte del manuale contiene i dettagli tecnici riguardanti la costruzione delle singole schede componenti il TOUCH30S. L'appendice è composta dalle seguenti sezioni:

This part of the manual contains the technical details about the different boards of the TOUCH30S. This appendix is composed of the following sections:

Description	RVR Code	Vers. Pages	
Mother Board	SAS01001A	1.0	1
VCO and 1W Amplifier	SAS01013A	1.0	5
RF Power Amplifier 30W, L-P Filter	SAS01012A	1.0	7
Directional Coupler	SAS01010A	1.0	9
SMPS Power Supply	SAS01011A	1.0	11
Keyboard	SAS01008A	1.0	14
Logic Board and Display	SAS01008A	1.0	16
RS232 Interface	SAS01015A	1.0	20



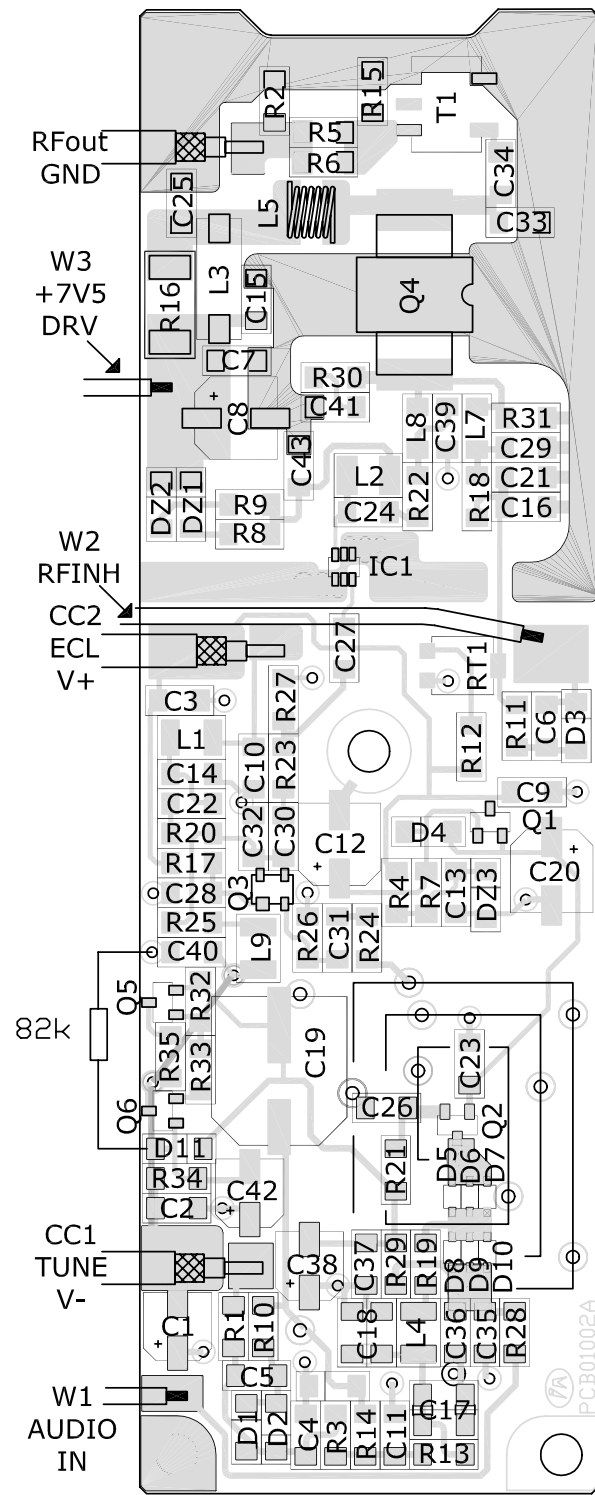
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	AUTORE: INNOVATION	DATA: 17/05/2001	REVISIONE: 1.0	SCALA: 1:1	SIZE: A3	PAGINA: 1 DI 1
CODICE PROGETTO: SAS01001A	CODICE DISEGNO: <>	ARCHIVIAZIONE ELETTRONICA: \\UT_SRV\PROGETTI\ECCTATORI				
MATERIALE: <>	TRATTAMENTO: <>	PROFILO: <>		STATO: <>		



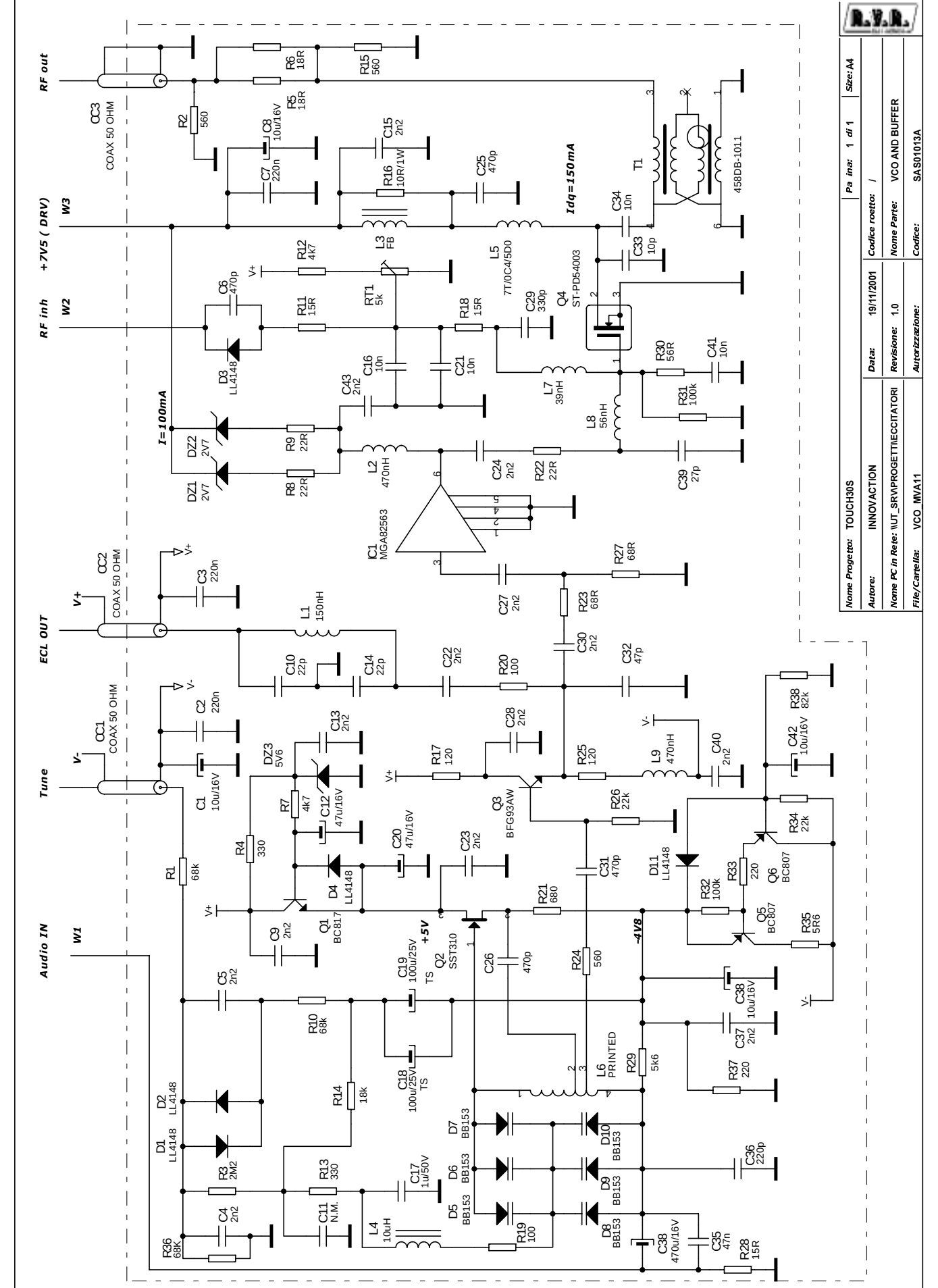
**MOTHER BOARD
SAS01001A Revision: 1.0**

It	Ref.	Description	Value	Qty	Code								
1	C29, C28	SMD MLCC 1206 50V +/- 0,25 pF NP0	4p7	2	MLS009C								
2	C27, C35	SMD MLCC 1206 50V +/-10% X7R	47n	2	MLS040C								
3	C9, C10, C18, C22, C23, C25, C30, C31, C33, C37, C40, C44, C45, C49, C52, C54, C58, C59	SMD MLCC 1206 50V +20/-80% Y5U	220n	18	MLS042C								
4	C11, C12	SMD MLCC 1210 50V 10% X7R	1u 50V	2									
5	C19, C38, C42		TBD	3									
6	C62	105° RADIAL ELECTROLYTIC CAPACITOR	2200u 25V	1									
7	C1, C2, C3, C4, C5, C6, C7, C8, C13, C14, C17, C20, C24, C26, C32, C36, C39, C43, C46, C47, C48, C50, C51, C53, C55, C56, C57, C61	105° SMD ELECTROLYTIC CAPACITOR	10u 16V	28	EAD002C								
8	C15, C16, C21, C34, C41, C60	105° SMD ELECTROLYTIC CAPACITOR	470u 16V	6	EAD007C								
9	R81	SMD CHIP RESISTOR 1206 1/8W 1%	120	1	RSD026C								
10	R14, R40, R44, R61, R72, R88	SMD CHIP RESISTOR 1206 1/8W 1%	220	6	RSD029C								
11	R54, R55, R56, R57	SMD CHIP RESISTOR 1206 1/8W 1%	330	4	RSD031C								
12	R36, R43, R48, R76, R87	SMD CHIP RESISTOR 1206 1/8W 1%	470	5	RSD033C								
13	R64, R67, R70	SMD CHIP RESISTOR 1206 1/8W 1%	560	3	RSD034C								
14	R9, R19	SMD CHIP RESISTOR 1206 1/8W 1%	100k	2	RSD061C								
15	R12, R15, R16, R17, R20, R21, R25, R26, R29, R30, R32, R34, R35, R46, R62, R68, R69, R79, R80, R83, R84	SMD CHIP RESISTOR 1206 1/8W 1%	10k	21	RSD049C								
16	R60	SMD CHIP RESISTOR 1206 1/8W 1%	12k	1	RSD050C								
17	R1, R4, R28, R37, R41, R45, R47, R51, R58, R85, R86	SMD CHIP RESISTOR 1206 1/8W 1%	18k	11	RSD052C								
18	R5, R24	SMD CHIP RESISTOR 1206 1/8W 1%	1k	2	RSD037C								
19	R66	SMD CHIP RESISTOR 1206 1/8W 1%	1k8	1	RSD040C								
20	R74, R73	SMD CHIP RESISTOR 1206 1/8W 1%	1M	2	RSD073C								
21	R22, R23	SMD CHIP RESISTOR 1206 1/8W 1%	220k	2	RSD065C								
22	R3, R6, R53, R75, R82, R78	SMD CHIP RESISTOR 1206 1/8W 1%	2k2	6	RSD041C								
23	R93	SMD CHIP RESISTOR 1206 1/8W 1%	39k	1	RSD056C								
24	R2, R13, R59	SMD CHIP RESISTOR 1206 1/8W 1%	47k	3	RSD057C								
25	R10, R11, R38, R39, R52, R63	SMD CHIP RESISTOR 1206 1/8W 1%	4k7	6	RSD045C								
26	R7, R8, R18, R27, R31, R42, R50, R65, R71, R77	SMD CHIP RESISTOR 1206 1/8W 1%	5k6	10	RSD046C								
27	R33, R49	SMD CHIP RESISTOR 1206 1/8W 1%	8k2	2	RSD048C								
28	R89, R90, R91, R92	SMD CHIP RESISTOR 1206 1/8W 1%	TBD	4									
29	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11	SMD DIODE	LL4148	11									
30	DZ1, DZ2, DZ6	SMD ZENER DIODE 0W4 +/-5% SOD80	8V2	3	ZMM012C								
31	DZ3	SMD ZENER DIODE 0W4 +/-5% SOD80	12V	1	ZMM015C								
32	DZ4	SMD ZENER DIODE 0W4 +/-5% SOD80	6V2	1	ZMM009C								
33	DZ5	SMD ZENER DIODE 0W4 +/-5% SOD80	2V7	1	ZMM002C								
34	LD1	ROUND LED DIODE 3 mm	Red	1									
35	IC1	IC SMD	LM358	1									
36	IC2, IC3	IC SMD	74HC595	2									
37	IC4	IC SMD	LM833	1									
38	IC5	IC SMD	SN75176	1									
39	OC1, OC2, OC3, OC4	SMD OPTOCOUPLER	SFH6156-3	4									

40	L1, L2, L3, L4	RADIAL FIXED POWER INDUCTOR	100uH 1A	4	
41	RY1, RY2, RY3	PBC RELAIS	12V 2C 1A	3	
42	H1	SMD TCXO	12.8 MHz	1	
43	MM1	AUDIO INPUT & ATTENUATOR MODULE	MAB25	1	SAS01002A
44	MM2	PRENFASIS E LIMITER MODULE	MPL75	1	SAS01003A
45	MM3	AUDIO FILTER MODULE	AFS15	1	SAS01004A
46	MM4	STEREO CODER MODULE	SCD2	1	SAS01005A
47	MM5	VCO E BUFFER MODULE	MVA11	1	SAS01013A
48	MM6	MEASUREMENT MODULE	MMS04	1	SAS01007A
49	MM7	PLL MODULE	MST01	1	SAS01006A
50	RT2,	SMD TRIMMER RESISTOR +/-20% 0,25W	10k	1	STR006B
51	RT3, RT4	SMD TRIMMER RESISTOR +/-20% 0,25W	500k	2	STR008B
52	RT5, RT6, RT7, RT8	SMD TRIMMER RESISTOR +/-20% 0,25W	1k	4	STR003B
53	RT9, RT10, RT11	SMD TRIMMER RESISTOR +/-20% 0,25W	2k	3	STR004B
54	RT1	ORIZZONTAL TRIMMER RESISTOR	200R	1	
55	Q2, Q3, Q6, Q8, Q9, Q11	TRANSISTOR SOT23	BC817	6	
56	Q4, Q7, Q10	TRANSISTOR SOT23	BC807	3	
57	Q1	TRANSISTOR SOT32	BD433	1	
58	Q5	TRANSISTOR SOT32	BD434	1	
59	JM1	BARSTRIP 3 PIN		1	
60	JM3, JM2	BARSTRIP 4 PIN		2	
61	JP1, JP2, JP3	JUMPER		3	
62	CN11	RJ45 FEMALE CONNECTOR 90° PCB MOUNTING	8 PIN	1	
63	CN1, CN5, CN7, CN8	BNC FEMALE CONNECTOR 90° PCB MOUNTING	BNC	4	
64	CN2, CN3	XLR FEMALE CONNECTOR 90° PCB MOUNTING	XLR	2	
65	CN10	DB9 MALE CONNECTOR 90° PCB MOUNTING	9 PIN	1	
66	CN4	IDC SOCKET CONNECTOR, P.2,54 MALE	20 PIN	1	IDC004C
67	CN6	IDC SOCKET CONNECTOR, P.2,54 MALE	16 PIN	1	IDC003C
68	CN9	IDC SOCKET CONNECTOR, P.2,54 MALE	34 PIN	1	IDC018C
69	CC1	PTFE COAX CABLE RG178 B/U 50 OHM	115 mm	1	
70	CC2	PTFE COAX CABLE RG178 B/U 50 OHM	320 mm	1	
71	CS1	Mother Board TX "Alien"	PCB01001	1	PCB01001



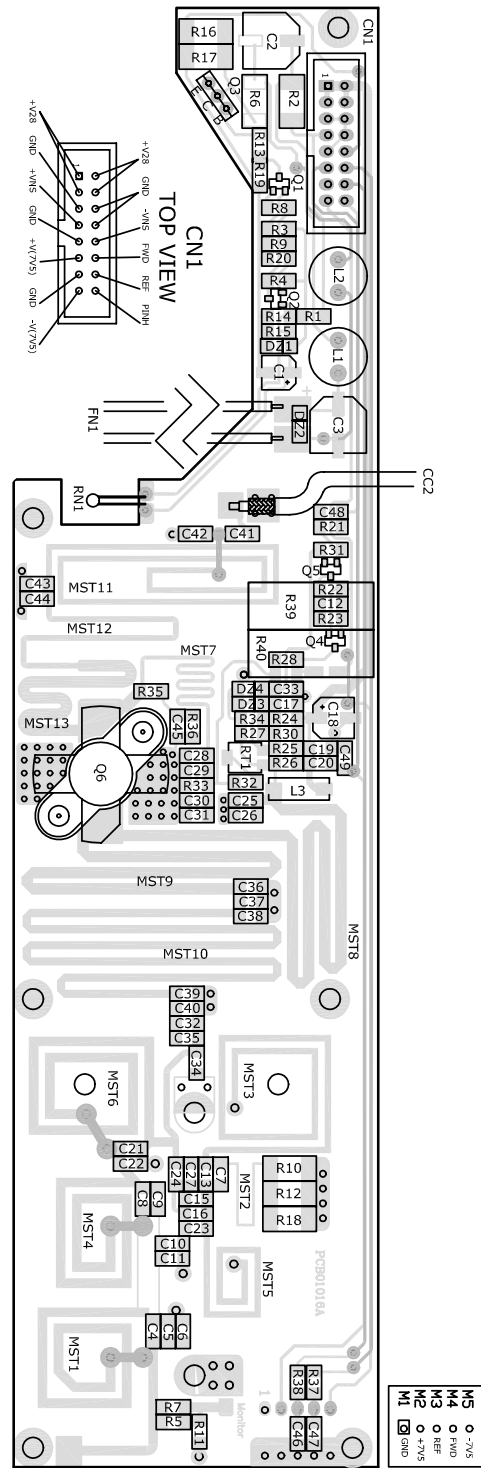
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MATERIALE: <>	TRATTAMENTO: <>	SCALA: 2:1
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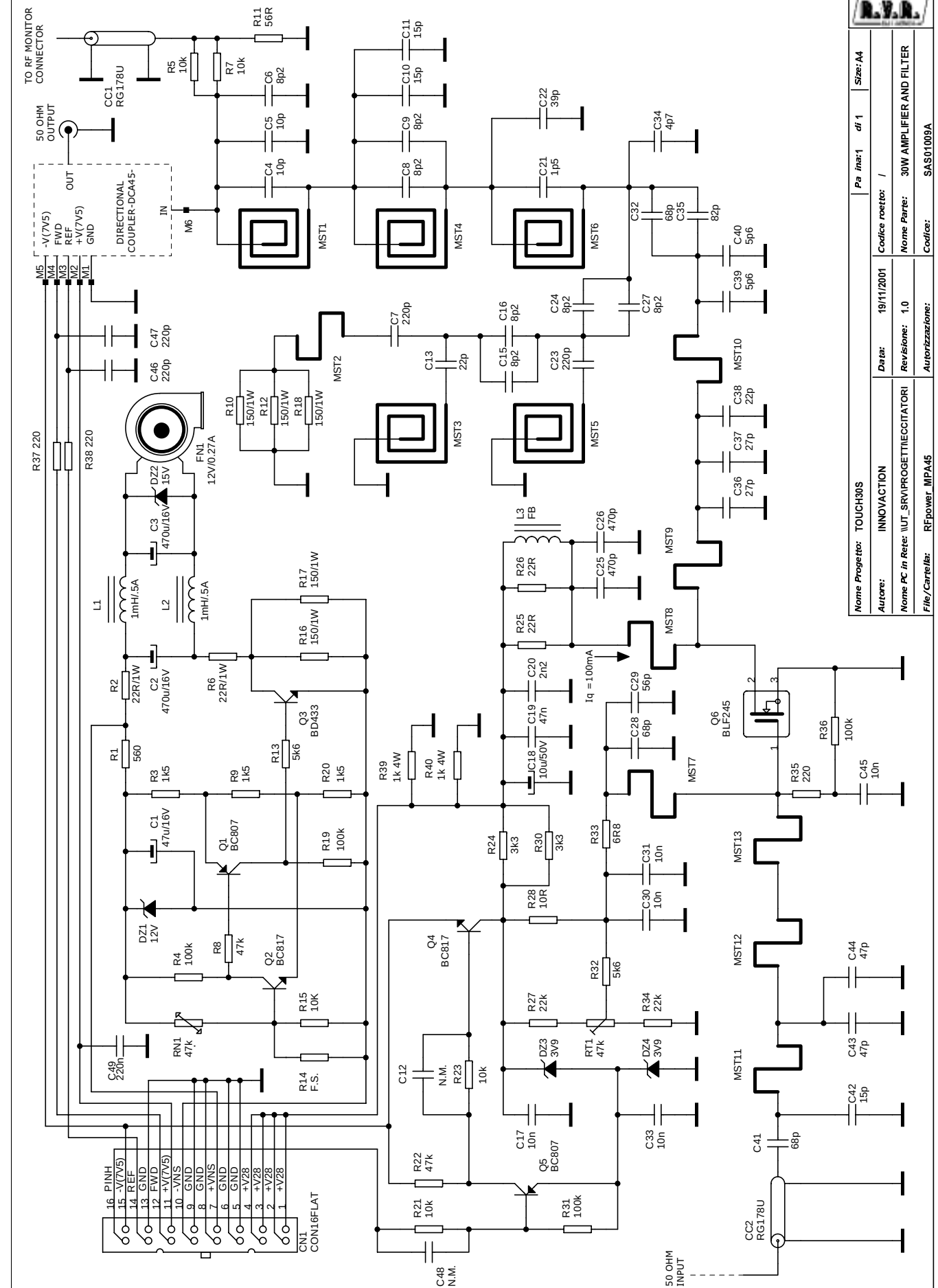
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	AUTORE: INNOVATION	Data: 19/11/2001	
NOME PC In Rete: \UT_SRV\PROGETTI\ECCECCITATORI	Revisione: 1.0	Codice roetto: /	
File/Carrello: VCO_MVA11	Autore: INNOVATION	Codice: SAS01013A	

**VCO AND BUFFER
SAS01013A Revision: 1.0**

It	Ref.	Description	Value	Qty	Code								
1	R22	SMD CHIP RESISTOR 1206 1/8W 1%	10	1	RSD021C								
2	R20, R23, R19	SMD CHIP RESISTOR 1206 1/8W 1%	100	3									
3	R31, R32	SMD CHIP RESISTOR 1206 1/8W 1%	100k	2	RSD061C								
4	R17, R25	SMD CHIP RESISTOR 1206 1/8W 1%	120	2									
5	R_add1, R11, R18,	SMD CHIP RESISTOR 1206 1/8W 1%	15R	3	RSD015C								
6	R5, R6	SMD CHIP RESISTOR 1206 1/8W 1%	18	2	RSD016C								
7	R14	SMD CHIP RESISTOR 1206 1/8W 1%	18k	1	RSD047C								
8	R9, R8	SMD CHIP RESISTOR 1206 1/8W 1%	22	2	RSD017C								
9	R_add3	SMD CHIP RESISTOR 1206 1/8W 1%	220	1									
10	R33	SMD CHIP RESISTOR 1206 1/8W 1%	220	1	RSD029C								
11	R34, R26	SMD CHIP RESISTOR 1206 1/8W 1%	22k	2	RSD053C								
12	R3	SMD CHIP RESISTOR 1206 1/8W 1%	2M2	1	RSD071C								
13	R_add2	SMD CHIP RESISTOR 1206 1/8W 1%	33	1									
14	R13, R4	SMD CHIP RESISTOR 1206 1/8W 1%	330	2	RSD031C								
15	R29	SMD CHIP RESISTOR 1206 1/8W 1%	3K3	1	RSD019C								
16	R7, R12	SMD CHIP RESISTOR 1206 1/8W 1%	4k7	2									
17	R30	SMD CHIP RESISTOR 1206 1/8W 1%	56	1	RSD022C								
18	R2, R15, R24	SMD CHIP RESISTOR 1206 1/8W 1%	560	3	RSD034C								
19	R35	SMD CHIP RESISTOR 1206 1/8W 1%	5R6	1									
20	R27	SMD CHIP RESISTOR 1206 1/8W 1%	68	1	RSD023C								
21	R21	SMD CHIP RESISTOR 1206 1/8W 1%	680	1	RSD035C								
22	R_add4	SMD CHIP RESISTOR 1206 1/8W 1%	68k	1									
23	R1, R10	SMD CHIP RESISTOR 1206 1/8W 1%	68k	2									
24	R16	SMD CHIP RESISTOR 2512 1W 5%	10R 1W	1									
25	R_add5	AXIAL RESISTOR 1/4W 1%	82k	1									
26	C1, C8, C38	105° SMD ELECTROLYTIC CAPACITOR	10u 16V	3	EAD002C								
27	C20, C12, C42	105° SMD ELECTROLYTIC CAPACITOR	47u 16V	3	EAD004C								
28	C_add1	105° RADIAL ELECTROLYTIC CAPACITOR	470u 16V	1									
29	C_add2, C19	AXIAL TANTALUM CAPACITOR	100u 25V	2									
30	C11, C18	SMD MLCC 1206	N.M.	2									
31	C_add3	SMD MLCC 1206 100V 2% NP0	10p	1									
32	C33	SMD MLCC 1206 100V 5% NP0	10p	1	MLS013C								
33	C36	SMD MLCC 1206 100V 5% NP0	220p	1	MLS024C								
34	C10, C14	SMD MLCC 1206 100V 5% NP0	22p	2	MLS0019C								
35	C39	SMD MLCC 1206 100V 5% NP0	27p	1	MLS0019C								
36	C29	SMD MLCC 1206 100V 5% NP0	330p	1	MLS031C								
37	C6, C25, C26, C31	SMD MLCC 1206 100V 5% NP0	470p	4	MLS033C								
38	C32	SMD MLCC 1206 100V 5% NP0	47p	1	MLS021C								
39	C35	SMD MLCC 1206 100V 5% NP0	TBD	1	MLS024C								
40	C2, C3, C4, C7	SMD MLCC 1206 50V +20/-80% 50V Y5U	220n	4	MLS042C								
41	C16, C21, C34, C41	SMD MLCC 1206 50V 10% 50V X7R	10n	4	MLS039C								
42	C_add4 (R28)	SMD MLCC 1206 50V 10% 50V X7R	47n	1									
43	C5, C9, C13, C15, C22, C23, C24, C27, C28, C30, C37, C40, C43	SMD MLCC 1206 50V 20% X7R	2n2	13	MLS037C								
44	C18	SMD MLCC 1210 50V 10% X7R	1u 50V	1									
45	D1, D2, D3, D4, D11	SMD DIODE	LL4148	5									
46	D5, D6, D7, D8, D9, D10	SMD VARICAP DIODE	BB153	6									
47	DZ2, DZ1	SMD ZENER DIODE 0W4 +/-5%	2V7	2	ZMM002C								
48	DZ3	SMD ZENER DIODE 0W4 +/-5%	5V6	1	ZMM008C								
49	IC1	SMD AMPLIFIER	MGA-82563	1									
50	L1	SMD FERRITE INDUCTOR 1210	150nH	1	IFM002C								
51	L2, L9	SMD FERRITE INDUCTOR 1210	470nH	2	IFM004C								
52	L3	SMD BEAD	FB	1									
53	L4	SMD FERRITE INDUCTOR 1210	10uH	1	IFM008C								
54	L5	AIR WOUND INDUCTOR	3T5/0C5/4D0	1									
55	L6	CHEMICAL ETCHED INDUCTOR		1	FCS01001-01								
56	L7	SMD FERRITE INDUCTOR 1210	33nH	1									
57	L8	SMD FERRITE INDUCTOR 1210	56nH	1									
58	Q1	TRANSISTOR SOT23	BC817	1									
59	Q2	TRANSISTOR SOT23	PMBFJ310	1									
60	Q3	TRANSISTOR SOT143	BFG93AW	1									
61	Q4	LDMOS RF TRANSISTOR	ST-PD54003	1									
62	Q5, Q6	TRANSISTOR SOT23	BC807	2									
63	RT1	SMD TRIMMER RESISTOR +/-20% 0,25W	5k	1	STR004B								
64	T1	SMD RF TRANSFORMER	458DB-1011	1									
65	W1, W2, W3	SILICONE INSULATED WIRE	mmq 0,35	2									
66	W4	SILICONE INSULATED WIRE	mmq 0,35	1									
67	CC1, CC2, CC3	PTFE COAX CABLE RG178 B/U 50 OHM	50R	3									
68	CS1	MAV11- VCO AND BUFFER CIRCUIT BOARD		1	PCB01002 A								



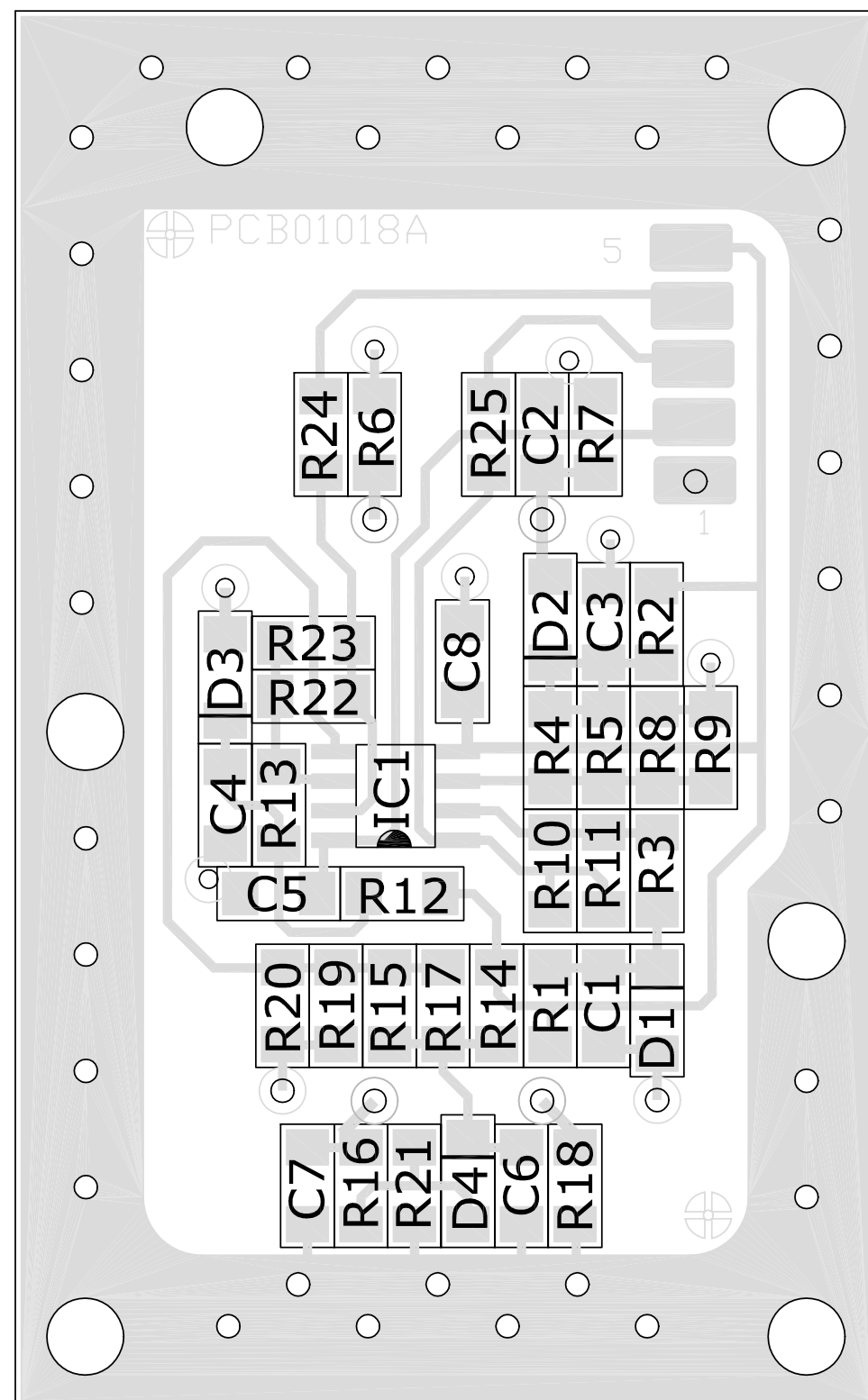
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MATERIALE: <>	TRATTAMENTO: <>	PROFILO: <>	STATO: <>		



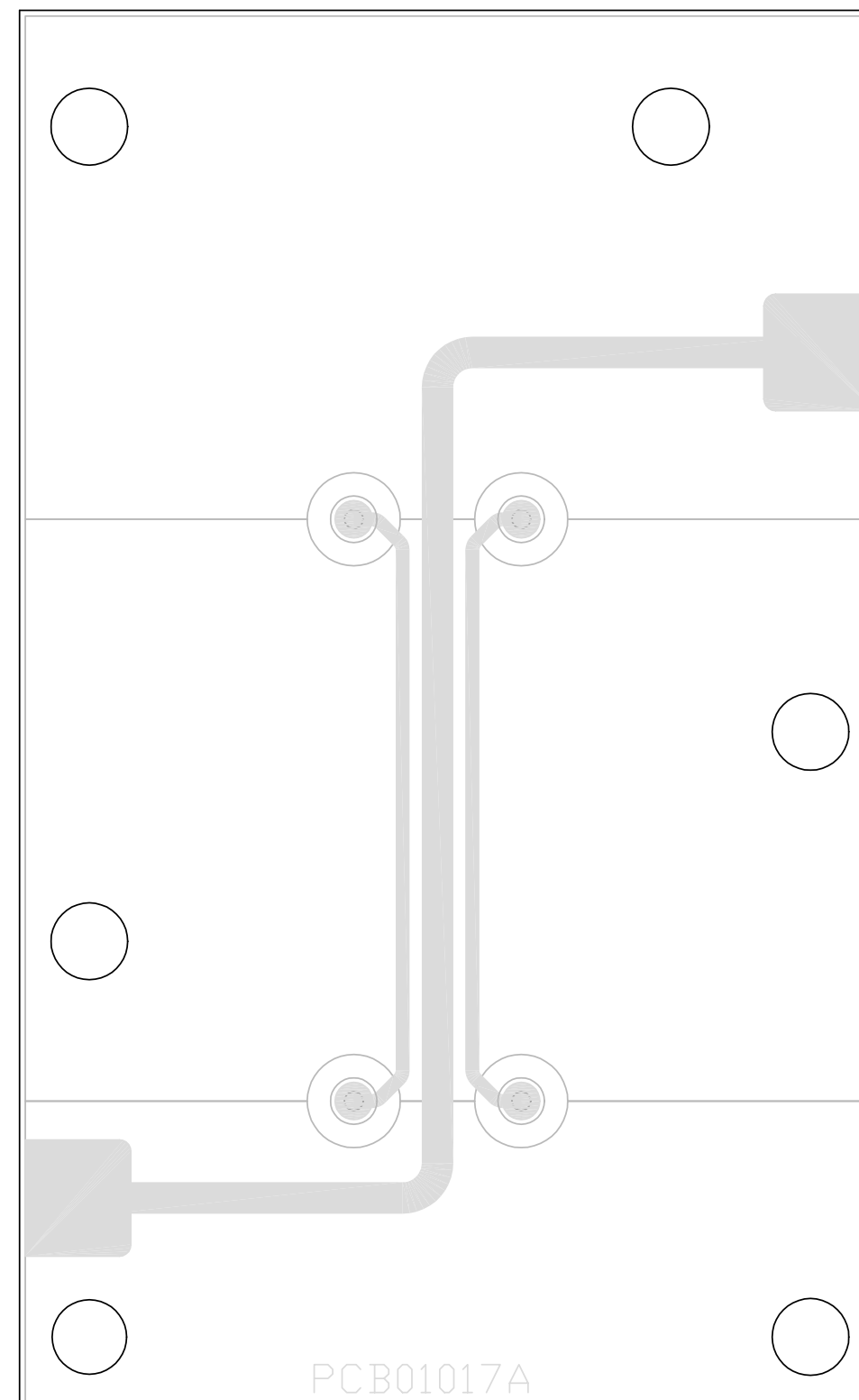
MPA45 RF 30W AMPLIFIER & LP FILTER
SAS01012A Revision: 1,0

It	Ref.	Description	Value	Qty	Code
1	R39, R40	METAL OXIDE AXIAL RESISTOR 4W	1k	2	APR001C
2	R1	SMD CHIP RESISTOR 1206 1/8W 1%	560	1	RSD034C
3	R11	SMD CHIP RESISTOR 1206 1/8W 1%	56R	1	RSD022C
4	R14	SMD CHIP RESISTOR 1206 1/8W 1%	F.S.	1	
5	R26, R25	SMD CHIP RESISTOR 1206 1/8W 1%	22R	2	RSD017C
6	R27, R34	SMD CHIP RESISTOR 1206 1/8W 1%	22k	2	RSD053C
7	R28	SMD CHIP RESISTOR 1206 1/8W 1%	10R	1	RSD013C
8	R3, R9, R20	SMD CHIP RESISTOR 1206 1/8W 1%	1k5	3	RSD039C
9	R30, R24	SMD CHIP RESISTOR 1206 1/8W 1%	3k3	2	RSD043C
10	R32, R13	SMD CHIP RESISTOR 1206 1/8W 1%	5k6	2	RSD046C
11	R33	SMD CHIP RESISTOR 1206 1/8W 1%	6R8	1	RSD011C
12	R35, R37, R38	SMD CHIP RESISTOR 1206 1/8W 1%	220	3	RSD029C
13	R4, R19, R31, R36	SMD CHIP RESISTOR 1206 1/8W 1%	100k	4	RSD061C
14			10k	5	RSD049C
	R5, R7, R21, R23, R15	SMD CHIP RESISTOR 1206 1/8W 1%			
15	R8, R22	SMD CHIP RESISTOR 1206 1/8W 1%	47k	2	RSD057C
16	R10, R12, R18, R16, R17	SMD CHIP RESISTOR 2512 1W 5%	150	5	RDP009C
17	R2, R6	SMD CHIP RESISTOR 2512 1W 5%	22R	2	RDP006C
18	C18	105° SMD ELECTROLYTIC CAPACITOR	10u 50V	1	EAD003C
19	C2, C3	105° SMD ELECTROLYTIC CAPACITOR	470u 16V	2	EAD007C
20	C1	105° SMD ELECTROLYTIC CAPACITOR	47u 16V	1	EAD004C
21	C12, C48	SMD MLCC 1206	N.M.	2	
22	C21	SMD MLCC 1206 100V +/- 0,25 pF NP0	1p5	1	MLS003C
23	C34	SMD MLCC 1206 100V +/- 0,25 pF NP0	4p7	1	MLS009C
24	C39, C40	SMD MLCC 1206 100V +/- 0,25 pF NP0	5p6	2	MLS010C
25	C8, C9, C15, C16, C24, C27, C6	SMD MLCC 1206 100V +/- 0,25 pF NP0	8p2	7	MLS012C
26	C4, C5	SMD MLCC 1206 100V 2% NP0	10p	2	MLS013C
27	C11, C10, C42	SMD MLCC 1206 100V 2% NP0	15p	3	MLS015C
28	C38, C13	SMD MLCC 1206 100V 2% NP0	22p	2	MLS017C
29	C36, C37	SMD MLCC 1206 100V 2% NP0	27p	2	MLS018C
30	C22	SMD MLCC 1206 100V 2% NP0	39p	1	MLS020C
31	C44, C43	SMD MLCC 1206 100V 2% NP0	47p	2	MLS021C
32	C29	SMD MLCC 1206 100V 2% NP0	56p	1	MLS022C
33	C28, C32, C41	SMD MLCC 1206 100V 2% NP0	68p	3	MLS023C
34	C35	SMD MLCC 1206 100V 2% NP0	82p	1	MLS024C
35	C7, C23, C46, C47	SMD MLCC 1206 100V 5% NP0	220p	4	MLS029C
36	C25, C26	SMD MLCC 1206 100V 5% NP0	470p	2	MLS033C
37	C49	SMD MLCC 1206 50V +20/-80% Y5V	220n	1	MLS042C
38	C17, C30, C31, C33, C45	SMD MLCC 1206 50V 10% X7R	10n	5	MLS039C
39	C20	SMD MLCC 1206 100V 10% X7R	2n2	1	MLS037C

40	C19	SMD MLCC 1206 50V 10% X7R	47n	1	MLS040C
41	DZ1	SMD ZENER DIODE 0W4 +/-5% SOD80	12V	1	ZMM015C
42	DZ2	SMD ZENER DIODE 0W4 +/-5% SOD80	15V	1	ZMM016C
43	DZ4, DZ3	SMD ZENER DIODE 0W4 +/-5% SOD80	3V9	2	ZMM005C
44	Q1, Q5	TRANSISTOR SOT23	BC807	2	
45	Q3	TRANSISTOR SOT32	BD433	1	
46	Q4, Q2	TRANSISTOR SOT23	BC817	2	
47	Q6	RF MOSFET	BLF245	1	
48	L1, L2	RADIAL FIXED POWER INDUCTOR	1000uH 310mA	2	
49	L3	SMD FERRITE BEAD	FB	1	
50	RN1	NTC RESISTOR	47k	1	
51	RT1	SMD TRIMMER RESISTOR +/-20% 0,25W	50k	1	STR007B
52	FN1	FAN	12V/0.20A	1	
53	CC1	PTFE COAX CABLE RG178 B/U 50 OHM	410 mm	1	
54	CN1	IDC SOCKET CONNECTOR, P.2,54 MALE	16 PIN	1	IDC003C
55	CS1	CIRCUIT BOARD		1	PCB01016



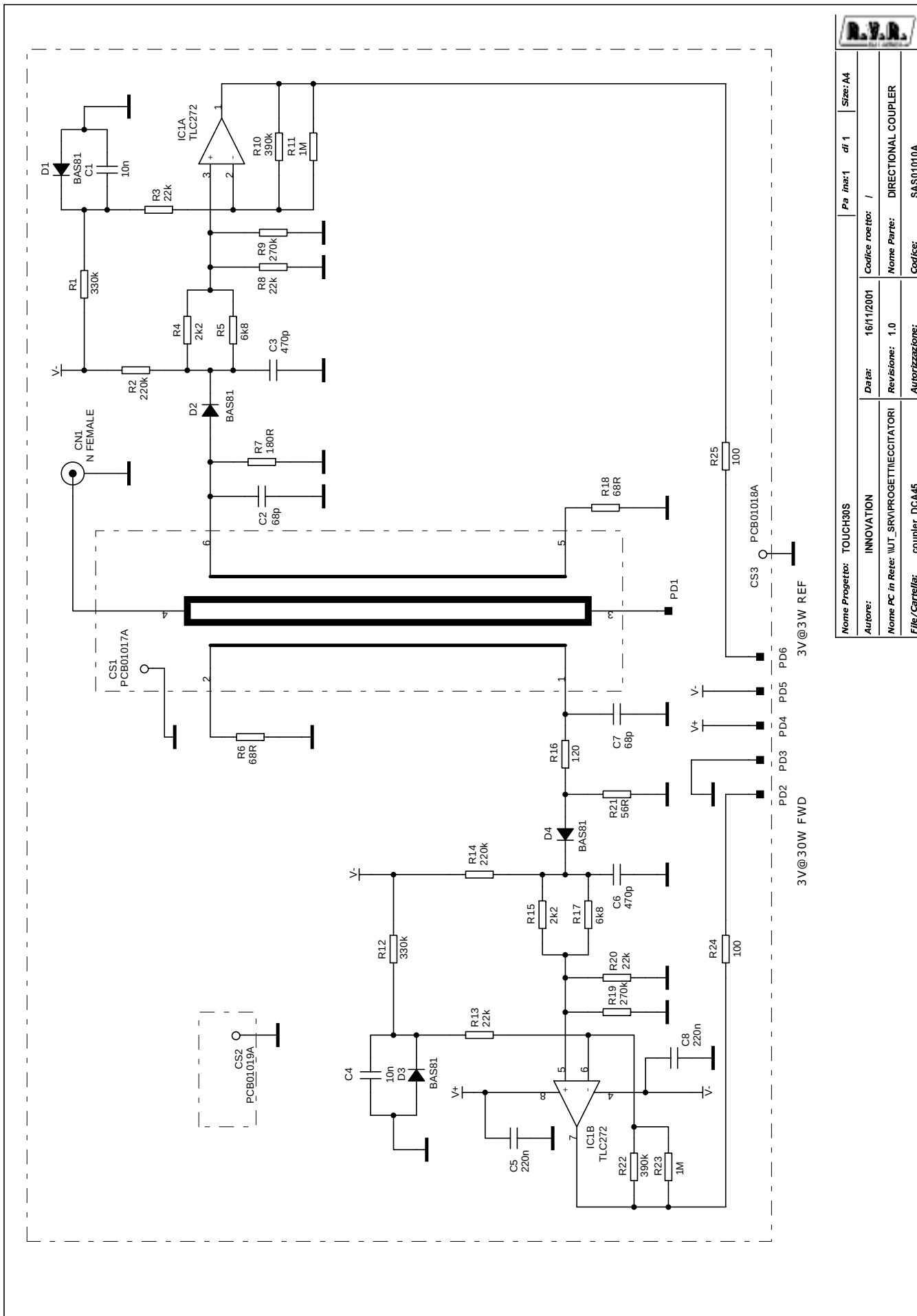
	NOME PROGETTO: TOUCH30S	NOME PARTE: Directional Coupler DCA45 lato componenti			
	AUTORE: INNOVATION	DATA: 01/06/2001	REVISIONE: 1.0	SCALA: 4:1	SIZE: A4
CODICE PROGETTO: SAS01010A	CODICE DISEGNO: <>	ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"			
MATERIALE: <>	TRATTAMENTO: <>	PROFILO: <>	STATO: <>		



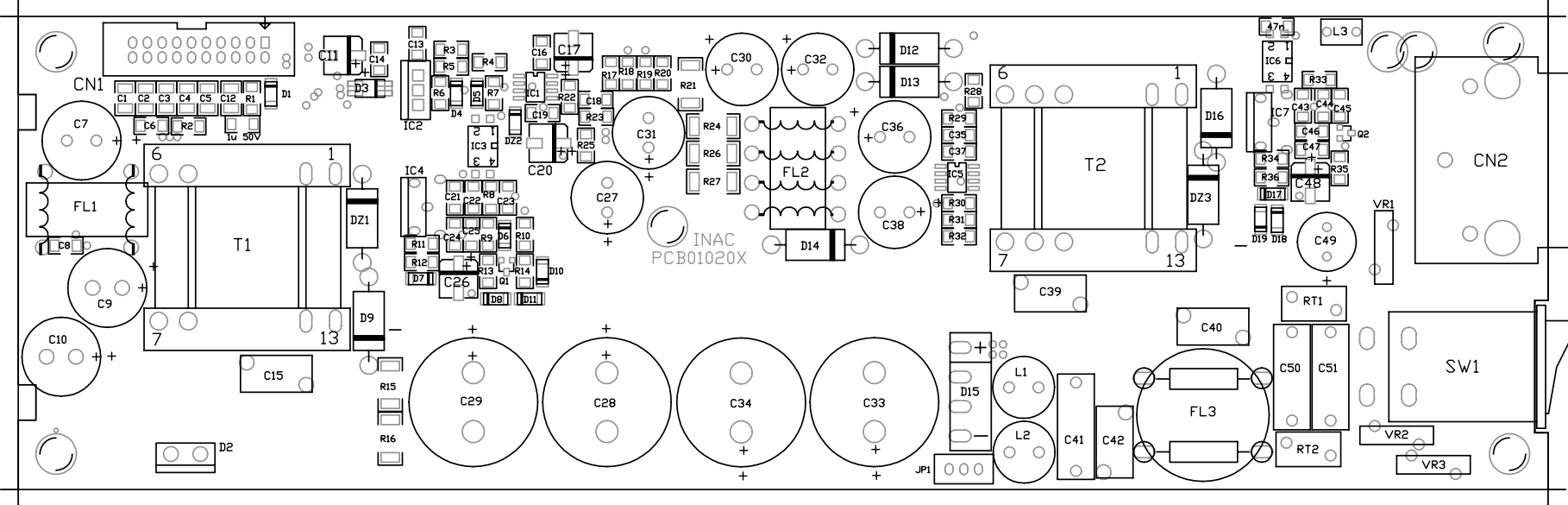
	NOME PROGETTO: TOUCH30S	NOME PARTE: Directional Coupler DCA45 lato saldature			
	AUTORE: INNOVATION	DATA: 01/06/2001	REVISIONE: 1.0	SCALA: 4:1	SIZE: A4
CODICE PROGETTO: SAS01010A	CODICE DISEGNO: <>	ARCHIVIAZIONE ELETTRONICA: \\UT_SRV\PROGETTI\ECCITATORI			
MATERIALE: <>	TRATTAMENTO: <>	PROFILO: <>	STATO: <>		

DIRECTIONAL COUPLER
SAS01010A Revision: 1,0

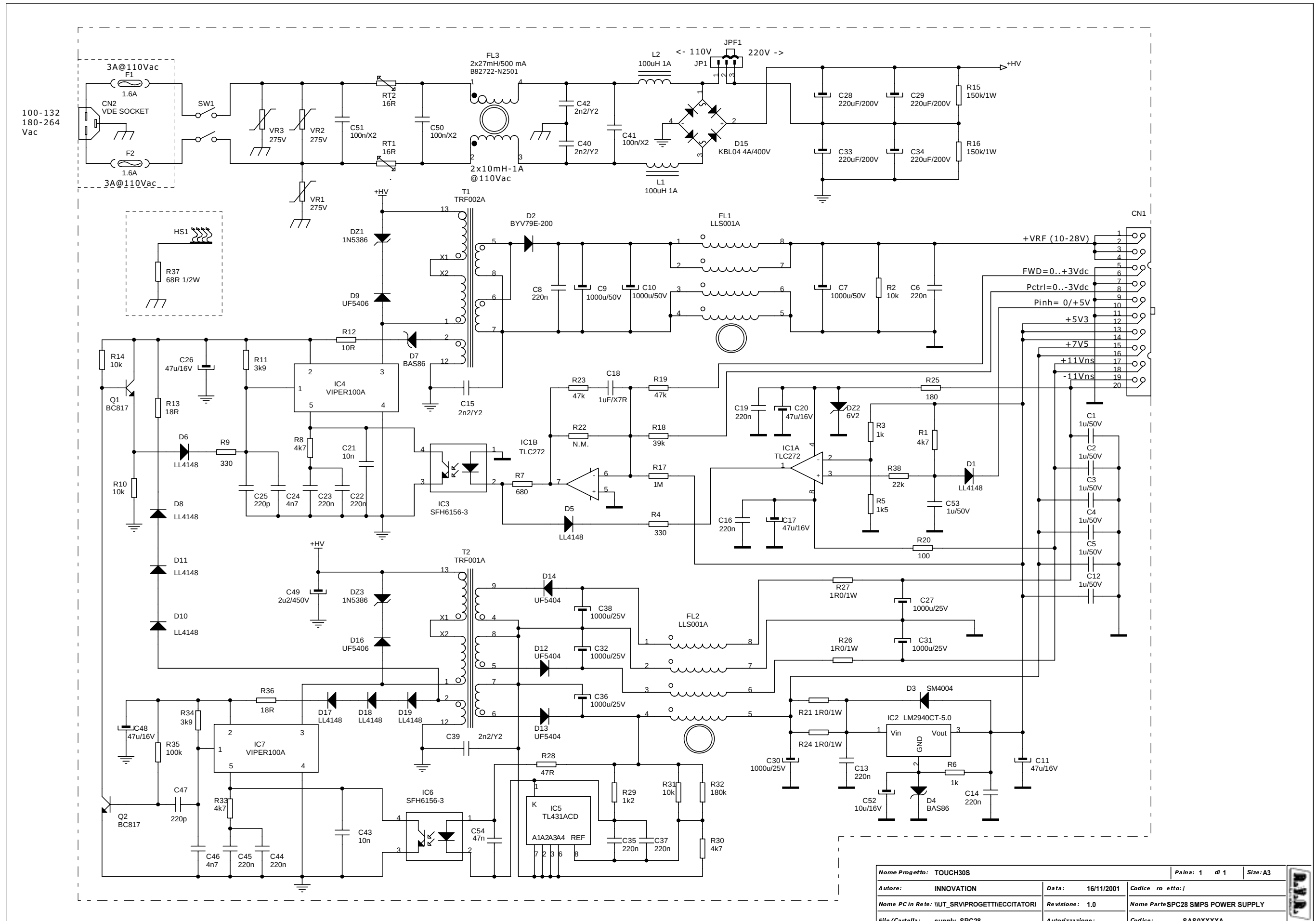
It	Ref.	Description	Value	Qty	Code
1	R1,R2,R12, R14	SMD CHIP RESISTOR 1206 1/8W 1%	220k	4	RSD065C
2	R3,R8,R13, R20	SMD CHIP RESISTOR 1206 1/8W 1%	22k	4	RSD053C
3	R15,R4	SMD CHIP RESISTOR 1206 1/8W 1%	2k2	2	RSD041C
4	R17,R5	SMD CHIP RESISTOR 1206 1/8W 1%	6k8	2	RSD047C
5	R18,R6	SMD CHIP RESISTOR 1206 1/8W 1%	68R	2	RSD023C
6	R7	SMD CHIP RESISTOR 1206 1/8W 1%	180R	1	RSD028C
7	R19,R9	SMD CHIP RESISTOR 1206 1/8W 1%	270k	2	RSD066C
8	R22,R10	SMD CHIP RESISTOR 1206 1/8W 1%	390k	2	RSD068C
9	R23,R11	SMD CHIP RESISTOR 1206 1/8W 1%	1M	2	RSD073C
10	R16	SMD CHIP RESISTOR 1206 1/8W 1%	120	1	RSD026C
11	R21	SMD CHIP RESISTOR 1206 1/8W 1%	56R	1	RSD022C
12	R25,R24	SMD CHIP RESISTOR 1206 1/8W 1%	100	2	RSD025C
13	C4,C1	SMD MLCC 1206 50V 10% 50V X7R	10n	2	MLS039C
14	C7,C2	SMD MLCC 1206 100V 2% NP0	68p	2	MLS023C
15	C3,C6	SMD MLCC 1206 100V 5% NP0	470p	2	MLS033C
16	C8,C5	SMD MLCC 1206 50V +20/-80% 50V Y5U	220n	2	MLS042C
17	D1,D2,D3,D4	SMD SCHOTTKY DIODE SOD80	BAS81	4	
18	IC1	IC SMD	TLC272	1	
19		FLAT CABLE 5 WAYS		1	
20		DIRECTIONAL COUPLER AMPLIFIER (LINE)		1	PCB0101 7A
21	CS1			1	PCB0101 8A
22	CS2	REF & FWD DIRECTIONAL COUPLER DIRECTIONAL COUPLER AMPLIFIER (SPACER PLANE)		1	PCB0101 9A



Nome Progetto:	TOUCH30S	Pa. Iniz:	1	di 1	Size:	A4
Autore:	INNOVATION	Codice rev:	/			
Nome PC in Rete:	\\UT_SRV\PROGETTISTORI	Data:	16/11/2001	Nome Parte:	DIRECTIONAL COUPLER	
File/Carrello:	coupler_DCA45	Revisione:	1.0	Codice:	SAS01010A	
		Autore:				



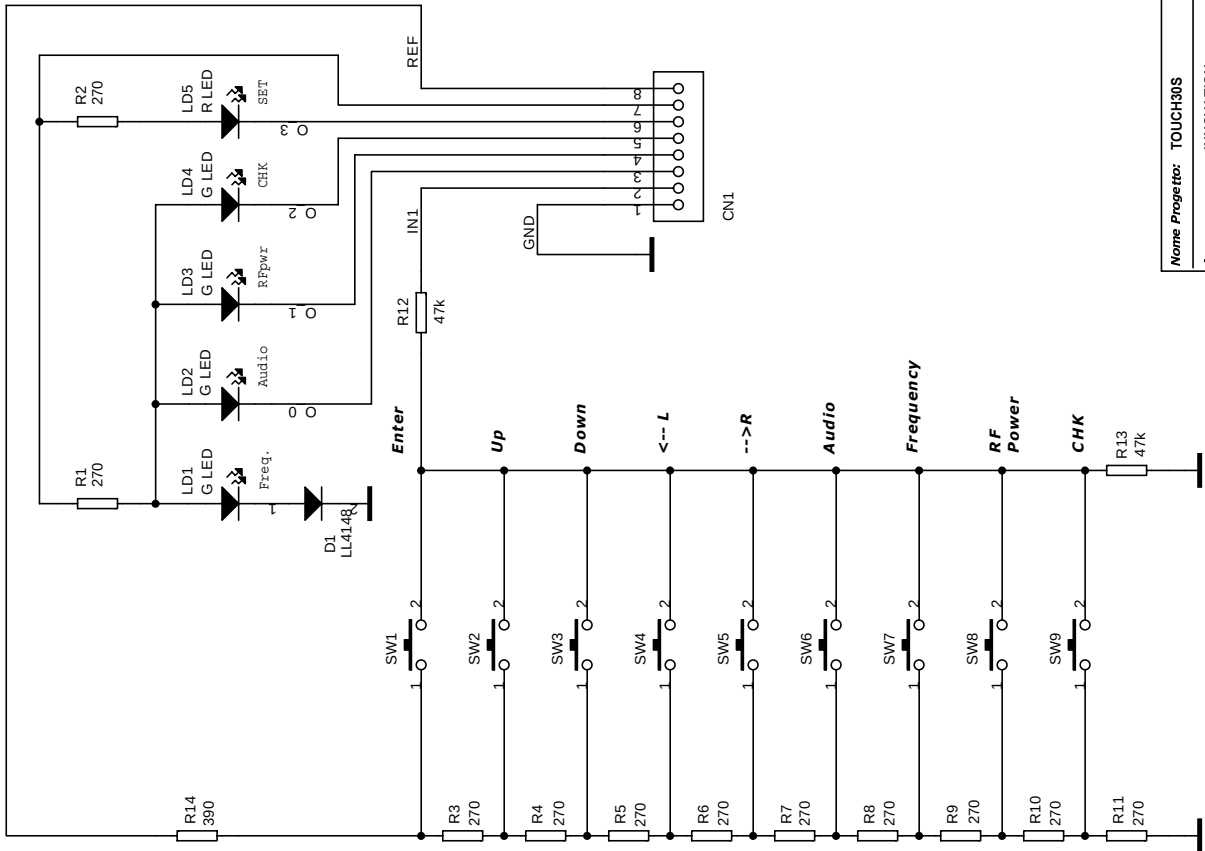
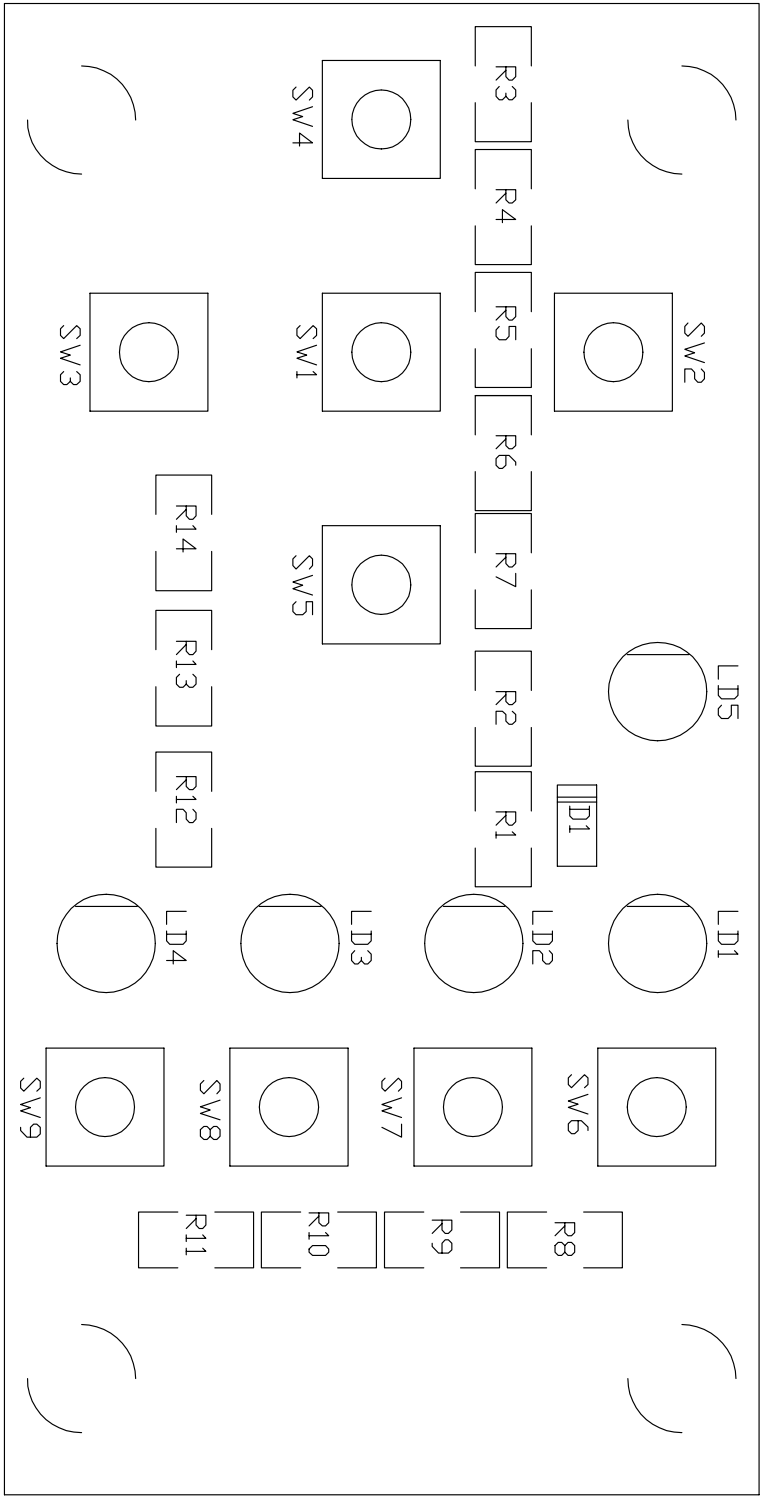
	NOME PROGETTO: TOUCH30S	NOME PARTE: Power Supply SPC28				
	AUTORE: INNOVATION	DATA: 16/07/2001	REVISIONE: 1.0	SCALA: 1:1	SIZE: A3	PAGINA: 1 DI 1
CODICE PROGETTO: SAS01011A	CODICE DISEGNO: <>	ARCHIVIAZIONE ELETTRONICA: \\UT_SRV\PROGETTI\ECCTATORI				
MATERIALE: <>	TRATTAMENTO: <>	PROFILO: <>		STATO: <>		



**SPC28 - POWER SUPPLY
PCB01020A REVISION: A**

It	Ref.	DESCRIPTION	Value	Qty	Code				
1	R20	SMD CHIP RESISTOR 1206 1/8W 1%	100	1		38 D7, D4	SCHOTTKY BARRIER DIODE	BAS86	2
2	R35	SMD CHIP RESISTOR 1206 1/8W 1%	100k	1		39 D3	SMD SI-RECTIFIER DIODE	SM4004	1
3	R2, R10, R14, R31	SMD CHIP RESISTOR 1206 1/8W 1%	10k	4		40 D1, D6, D8, D5, D10, D11, D17, D18, D19	SMD DIODE	LL4148	9
4	R12	SMD CHIP RESISTOR 1206 1/8W 1%	10R	1		41 DZ2	SMD ZENER DIODE 0W4 +/-5% SOD80	6V2	1
5	R25	SMD CHIP RESISTOR 1206 1/8W 1%	180	1		42 D12, D13, D14	ULTRAFAST SWITCHING SI-RECTIFIER DIODE 400V 3A	UF5404	3
6	R32	SMD CHIP RESISTOR 1206 1/8W 1%	180k	1		43 D9, D16	ULTRAFAST SWITCHING SI-RECTIFIER DIODE 600V 3A	UF5406	2
7	R36, R13	SMD CHIP RESISTOR 1206 1/8W 1%	18R	2		44 DZ1, DZ3	ZENER DIODE 180V 5W	1N5386	2
8	R3, R6	SMD CHIP RESISTOR 1206 1/8W 1%	1k	2		45 FL1	TOROID R20/7 N30		1 LLS001A
9	R29	SMD CHIP RESISTOR 1206 1/8W 1%	1k2	1		46 FL2	TOROID R20/7 N30		1 LLS001A
10	R5	SMD CHIP RESISTOR 1206 1/8W 1%	1k5	1		47 T1	SMPS 60W TRANSFORMER	TRF002A	1
11	R17	SMD CHIP RESISTOR 1206 1/8W 1%	1M	2		48 T2	SMPS 30W TRANSFORMER	TRF001A	1
12	R4, R9	SMD CHIP RESISTOR 1206 1/8W 1%	330	2		49 IC1	IC SMD	TLC272	1
13	R18	SMD CHIP RESISTOR 1206 1/8W 1%	39k	1		50 IC2	VOLTAGE REGULATOR	LM2940CT-5.0	1
14	R11, R34	SMD CHIP RESISTOR 1206 1/8W 1%	3k9	2		51 IC4, IC7	IC VIPER100A	VIPER100A	2
15	R19, R23	SMD CHIP RESISTOR 1206 1/8W 1%	47k	2		52 IC5	IC SMD	TL1431ACD	1
16	R28	SMD CHIP RESISTOR 1206 1/8W 1%	47R	1		53 IC6, IC3	SMD OPTOCOUPLER	SFH6156A-3	2
17	R1, R8, R30, R33	SMD CHIP RESISTOR 1206 1/8W 1%	4k7	4		54 L1, L2	RADIAL FIXED POWER INDUCTOR	100uH 1A	2
18	R7	SMD CHIP RESISTOR 1206 1/8W 1%	680	1		55 Q2, Q1	TRANSISTOR SOT23	BC807	2
19	R22	SMD CHIP RESISTOR 1206 1/8W 1%	N.M.	2		56 JP1	MALE BAR STRIP	3 pin	1
20	R16, R15	SMD CHIP RESISTOR 2512 1W 5%	150k 1W	2		57 JPF1	JUMPER	jumper	1
21	R21, R24, R26, R27	SMD CHIP RESISTOR 2512 1W 5%	1R 1W	4		58 CN1	IDC SOCKET CONNECTOR, P.2,54 MALE	20 PIN	1
22	Radd1	AXIAL RESISTOR 1/8W 5%	22k	1		59 CS2	INSULATOR CIRCUIT	PCB01048	1
23	Radd2	AXIAL RESISTOR 1/2W 5%	68R	1		60 CS1	POWER SUPPLY CIRCUIT	PCB01020	1 PCB01020
24	C27, C30, C31, C32, C36, C38	105° ELECTROLYTIC RADIAL CAPACITOR	1000uF 25V	6		61 CN2	VDE 90° PCB MOUNTING POWER ENTRY FUSEHOLDER		1
25	C49	105° ELECTROLYTIC RADIAL CAPACITOR	2u2 450V	1		62 F1, F2	FUSE 5x20 1,6A	1,6A	2
26	C7, C9, C10	105° ELECTROLYTIC RADIAL CAPACITOR	1000uF 50V	3		63 FS3	INSULATION COVER FOR POWER ENTRY		
27	Cadd3	105° ELECTROLYTIC RADIAL CAPACITOR	10u 16V	1		64 VR1, VR2, VR3	VARISTOR 275V SIOV	275V	3
28	C28, C29, C33, C34	105° ELECTROLYTIC SNAP-IN CAPACITOR	220uF 200V	4		65 C41, C50, C51	X2 FILM CAPACITOR 275V	100n X2	3
29	C11, C17, C20, C26, C48	105° SMD ELECTROLYTIC CAPACITOR	47uF 16V	5		66 C15, C39, C40, C42	Y1 CERAMIC CAPACITOR	2n2 Y1	4
30	C47, C25	SMD MLCC 1206 100V 5% NP0	220p	2		67 RT1, RT2	INRUSH CURRENT SOPPRESSION NTC	16R	2
31	C6, C8, C13, C14, C16, C19, C22, C23, C35, C37, C44, C45	SMD MLCC 1206 50V +20/-80% 50V Y5U	220n	12		68 SW1	90° PCB MOUNTING BIPOLAR ROCKER SWITCH		1
32	C21, C43	SMD MLCC 1206 50V 10% 50V X7R	10n	2		69 FL3	CURRENT COMPENSATED RING CORE DOUBLE CHOKES	2x27mH 500 mA	1
33	C24, C46	SMD MLCC 1206 50V 10% 50V X7R	4n7	2					
34	Cadd2	SMD MLCC 1206 50V 10% 50V X7R	47n	1					
35	Cadd1, C1, C2, C3, C4, C5, C12, C18	SMD MLCC 1210 50V 10% 50V X7R	1uF 50V	8					
36	D15	DIODE BRIDGE KBL04	4A 400V	1					
37	D2	RECTIFIER, ULTRAFST, RUGGED DIODE	BYV79E-200	1					

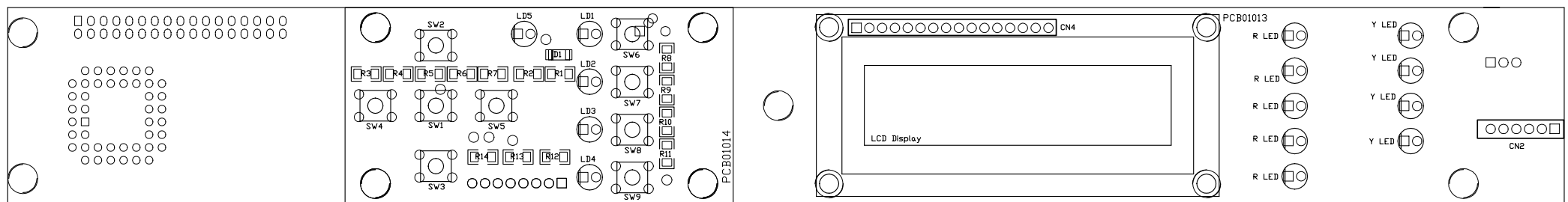
	NOME PROGETTO: TOUCH30S		NOME PARTE: Keyboard MPR5101			
	AUTORE:	INNOVATION	DATA: 17/05/2001	REVISIONE: 1.0	SCALA: 3:1	SIZE: A4
	CODICE PROGETTO: SAS01008A	CODICE DISEGNO: <>	ARCHIVIAZIONE ELETTRONICA: \\UT_SRV\PROGETTI\ECCITATORI			
	MATERIALE: <>	TRATTAMENTO: <>	PROFILO: <>	STATO: <>		



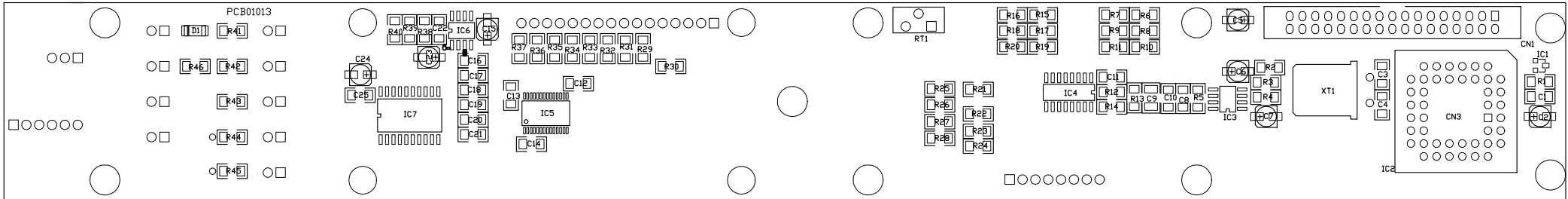
Nome Progetto: TOUCH30S		Pa	Ina1	di 1	Size: A4
Autore:	INNOVATION	Data:	19/11/2001	Codice reattor:	/
Nome PC in Rete: \\UT_SRV\PROGETTI\ECCITATORI	Revisione:	1.0	Nome Parte:	KEYBOARD	
File/Cartella:	KEY51	Autore:		Codice:	SAS01008A

KEYBOARD
SAS01008A REVISION: 1,0

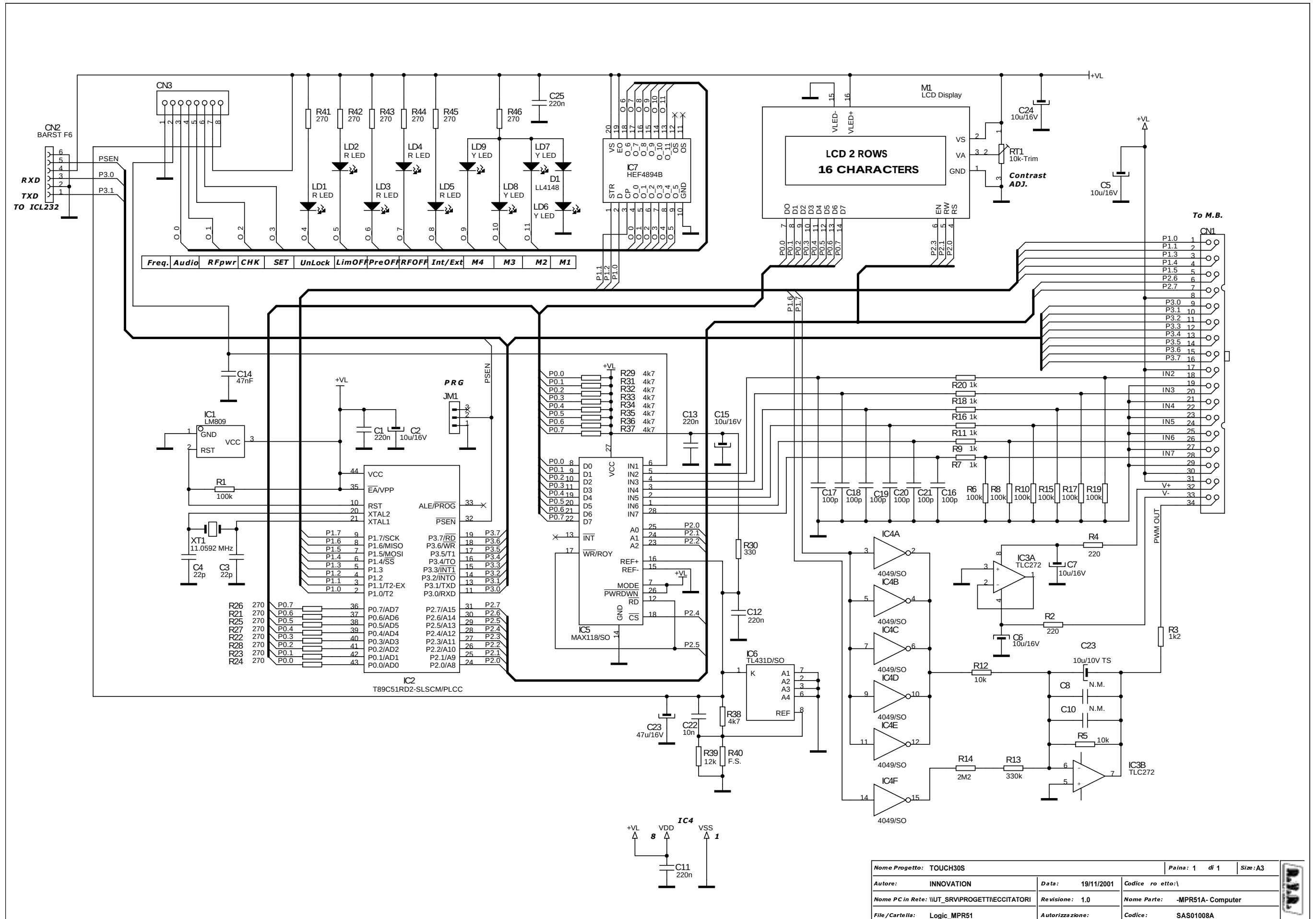
It	Ref.	Description	Value	Qty	Code
1	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11	SMD CHIP RESISTOR 1206 1/8W 1%	270	11	RSD030C
2	R13,R12	SMD CHIP RESISTOR 1206 1/8W 1%	47k	2	RSD057C
3	R14	SMD CHIP RESISTOR 1206 1/8W 1%	390R	1	RSD039C
4	D1	SMD DIODE	LL4148	1	
5	LD1,LD2,L D3,LD4	ROUND LED DIODE 3 mm	GREEN	4	
6	LD5	ROUND LED DIODE 3 mm	RED	1	
7	SW1, SW2, SW3, SW4, SW5, SW6, SW7, SW8, SW9	TACT SWITCH	B 6818	9	
8	CN1	MALE BAR STRIP	8 PIN	1	
9	CS1	KEYBOARD CIRCUIT		1	PCB01014



	NOME PROGETTO: TOUCH30S		NOME PARTE: Logic Board MPR51- vista frontale			
	AUTORE:	INNOVATION	DATA: 17/05/2001	REVISIONE: 1.0	SCALA: 1:1	SIZE: A3
CODICE PROGETTO: SAS01008A	CODICE DISEGNO: <>		ARCHIVIAZIONE ELETTRONICA: \\UT_SRV\PROGETTI\ECCITATORI			
MATERIALE: <>	TRATTAMENTO: <>		PROFILO: <>		STATO: <>	



	NOME PROGETTO: TOUCH30S	NOME PARTE: Logic Board MPR51- vista posteriore				
	AUTORE: INNOVATION	DATA: 17/05/2001	REVISIONE: 1.0	SCALA: 1:1	SIZE: A3	PAGINA: 2 DI 2
CODICE PROGETTO: SAS01008A	CODICE DISEGNO: <>	ARCHIVIAZIONE ELETTRONICA: \\UT_SRV\PROGETTI\ECCTATORI				
MATERIALE: <>	TRATTAMENTO: <>	PROFILO: <>		STATO: <>		

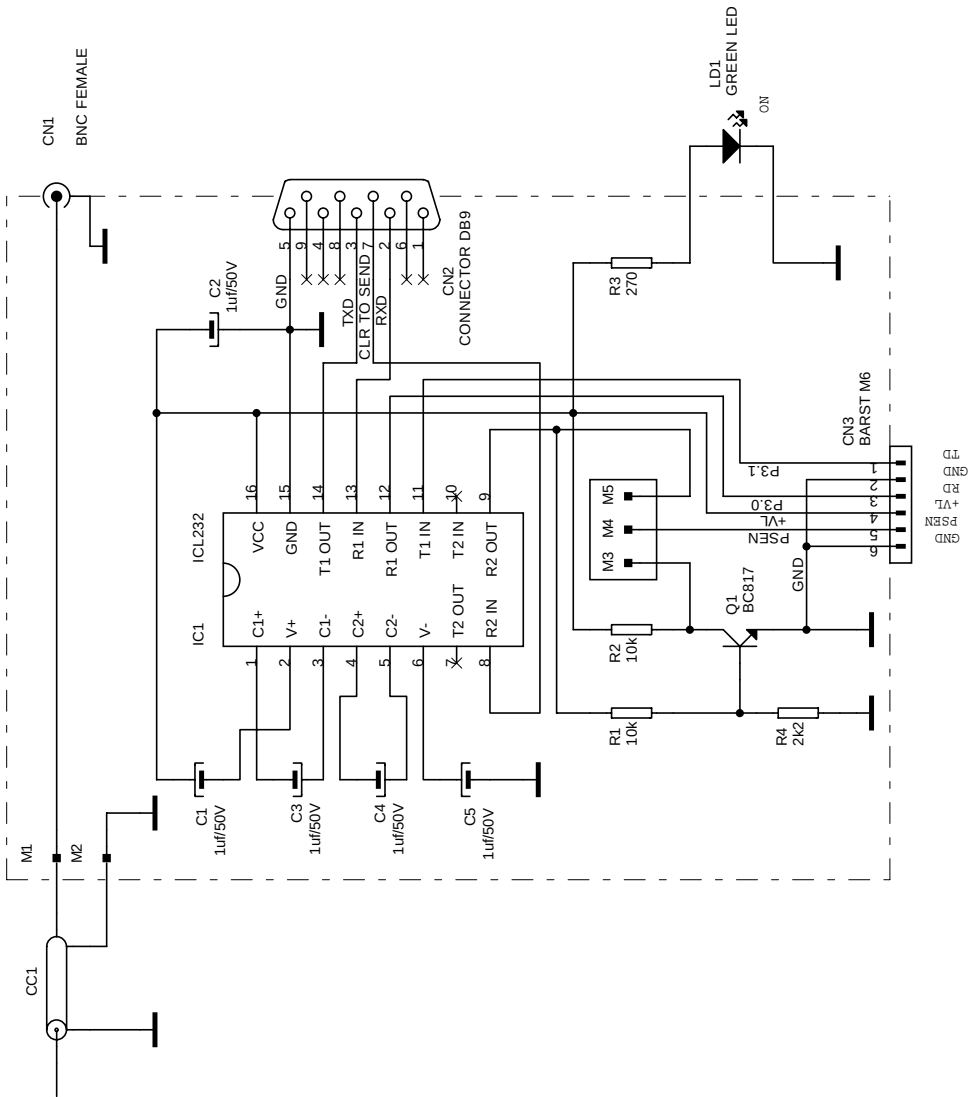


uPROCESSOR CONTROLLER
SAS01008A **Revision: 1,0**

It	Ref.	Description	Value	Qty	Code
1	R2,R4	SMD CHIP RESISTOR 1206 1/8W 1%	220	2	RSD029C
2	R21,R22, R23,R24, R25,R26, R27,R28, R41,R42, R43,R44, R45,R46	SMD CHIP RESISTOR 1206 1/8W 1%	270	14	RSD030C
3	R30	SMD CHIP RESISTOR 1206 1/8W 1%	330	1	RSD025C
4	R1,R6, R8, R10, R15,R17, R19	SMD CHIP RESISTOR 1206 1/8W 1%	100k	7	RSD061C
5	R5,R12	SMD CHIP RESISTOR 1206 1/8W 1%	10k	2	RSD049C
6	R39	SMD CHIP RESISTOR 1206 1/8W 1%	12k	1	RSD050C
7	R7,R9, R11,R16, R18,R20	SMD CHIP RESISTOR 1206 1/8W 1%	1k	6	RSD037C
8	R3	SMD CHIP RESISTOR 1206 1/8W 1%	1K2	1	RSD033C
9	R14	SMD CHIP RESISTOR 1206 1/8W 1%	2M2	1	RSD063C
10	R13	SMD CHIP RESISTOR 1206 1/8W 1%	330K	1	RSD049C
11	R29,R31, R32,R33, R34,R35, R36,R37, R38	SMD CHIP RESISTOR 1206 1/8W 1%	4k7	9	RSD045C
12	R40	SMD CHIP RESISTOR 1206 1/8W 1%	N.M.	1	
13	C23	105° RADIAL ELECTROLYTIC CAPACITOR	47u 25V	1	
14	C2,C5, C6,C7, C15,C24	105° SMD ELECTROLYTIC CAPACITOR	10u 16V	6	EAD002C
15	C8,C10	SMD MLCC 1206	N.M.	2	
16	C3,C4	SMD MLCC 1206 100V 2% NP0	22p	2	MLS017C
17	C16,C17, C18,C19, C20,C21	SMD MLCC 1206 100V 5% NP0	100p	6	MLS025C
18	C1,C11, C12,C13, C25	SMD MLCC 1206 50V +20/-80% 50V Y5U	220n	5	MLS042C
19	C14	SMD MLCC 1206 50V 10% 50V X7R	47n	1	MLS040C
20	C22	SMD MLCC 1206 50V 10% 50V X7R	10n	1	MLS039C
21	C9	SMD TANTALUM CAPACITOR CASE B 20%	10u 10V	1	
22	D1	SMD DIODE	LL4148	1	
23	LD1,LD2,L D3,LD4,L D5	ROUND LED DIODE 3 mm	RED	5	
24	LD6,LD7,L D8,LD9	ROUND LED DIODE 3 mm	YELLOW	4	
25	IC1	MICROPROCESSOR RESET CIRCUIT SOT23-3	LM810M3- 4.38	1	
26	IC2	uPROCESSOR	T89C51RD2- SLSCM	1	

27	IC3	IC SMD	TLC272	1	
28	IC4	IC SMD	4049	1	
29	IC5	IC SMD	MAX118CAI	1	
30	IC6	IC SMD	TL1431ACD	1	
31	IC7	IC SMD	HEF4894B	1	
32	RT1	VERTICAL TRIMMER RESISTOR +/-20% 0,25W	10k	1	
33	XT1	QUARZ	11.0592 MHz	1	
34	CN1	IDC SOCKET CONNECTOR, P.2,54 MALE	34 PIN	1	IDC006C
35	CN2	FEMALE BAR STRIP	6 PIN	1	
36	CN3	PLCC SOCKET CONNECTOR	44 PIN	1	
37	CN4	MALE BAR STRIP	16 PIN	1	
38	MM1	LCD MODULE 16 X 2 CHR	LCD Display	1	
39	MM2	KEYBOARD KEY51 MODULE		1	
40	CS1	uP CONTROLLER CIRCUIT BOARD		1	PCB0101 3

	NOME PROGETTO: TOUCH30S		NOME PARTE: RS 232 Interface MIB232			
	AUTORE: INNOVATION		DATA: 12/06/2001	REVISIONE: 1.0	SCALA: 2:1	SIZE: A4
	CODICE PROGETTO: SAS01015A		CODICE DISEGNO: <>		ARCHIVIAZIONE ELETTRONICA: \\UT_SRV\PROGETTI\ECCITATORI	
	MATERIALE: <>		TRATTAMENTO: <>		PROFILO: <>	STATO: <>



Nome Progetto: TOUCH30S		Pa Ina: 1	di 1	Size: A4
Autore: INNOVATION		Codice reo: 1		
Data: 19/11/2001		Nome Parte: RS232 INTERFACE		
Revisione: 1.0		Codice: SAS01015A		
File/Carrello: RS232 MIB232		Autore: INNOVATION		

RS232 INTERFACE & RF MONITOR
SAS01015A REVISION: 1,0

It	Ref.	Description	Value	Qty	Code
1	R1,R2	SMD CHIP RESISTOR 1206 1/8W 1%	10K	2	RSD049C
2	R3	SMD CHIP RESISTOR 1206 1/8W 1%	270R	1	
3	R4	SMD CHIP RESISTOR 1206 1/8W 1%	2K2	2	RSD041C
4	C1,C2, C3,C4,C5	105° SMD ELECTROLYTIC CAPACITOR	1u 50V	5	EAD008C
5	IC1	IC SMD	ICL232CBE	1	
6	Q1	TRANSISTOR SOT23	BC817	1	
7	LD1	ROUND LED DIODE 3 mm	green	1	
8	CN1	DB9 MALE CONNECTOR 90° PCB MOUNTING	9 PIN	1	
9	CN2	BNC FEMALE CONNECTOR 90° PCB MOUNTING	BNC	1	
10	CN3	90° MALE BAR STRIP	6 PIN	1	
11	CS1	RS 232 Interface & RF Monitor Circuit	PCB01015	1	PCB01015