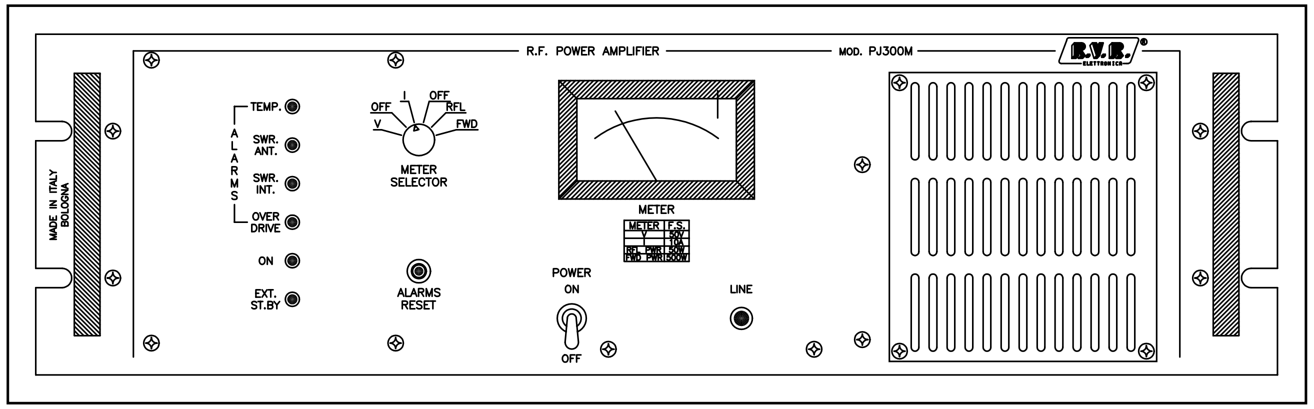
PJ300M


R.F. POWER AMPLIFIER
MOD. PJ300M
MADE IN ITALY BOLOGNA
TEMP.
SWR. ANT.
SWR. INT.
OVER DRIVE
ALARMS
ON
EXT. ST.BY
OFF
I
OFF
RFL
V
FWD
METER SELECTOR
ALARMS RESET
METER
POWER
ON
OFF
LINE

User Manual

Volume 2: Technical Appendix

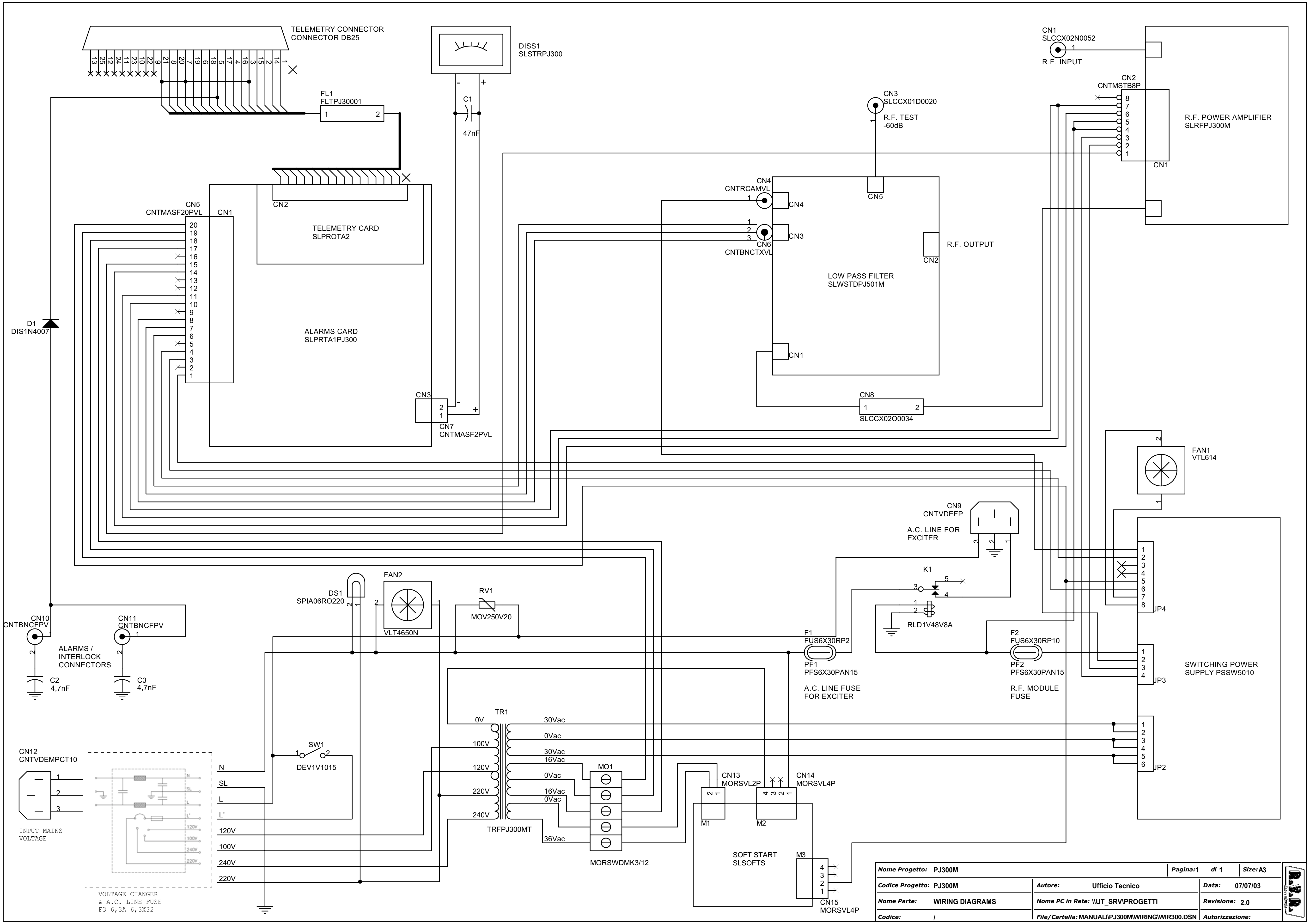
Manufactured by R.V.R. ELETTRONICA **Italy**

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

Questa parte del manuale contiene i dettagli tecnici riguardanti la costruzione delle singole schede componenti il PJ300M. L'appendice è composta dalle seguenti sezioni:

This part of the manual contains the technical details about the different boards of the PJ300M. This appendix is composed of the following sections:

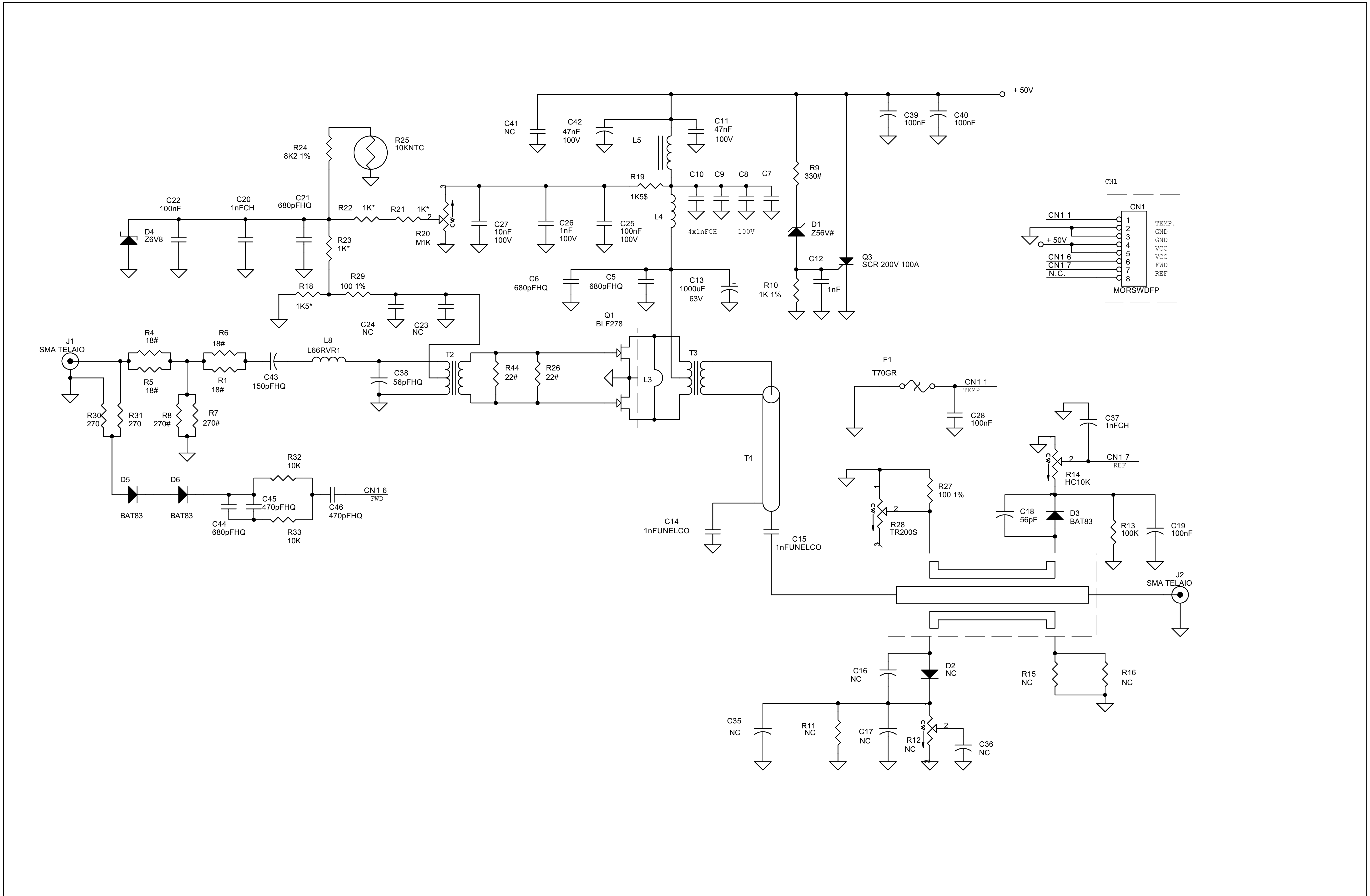
Description	RVR Code	Vers.	Page
Wiring Diagrams		2.0	1
R.F. Power Amplifier Module	SLRFPJ300M	2.0	3
Alarms Card	SLPRTA1PJ300	2.0	6
Telemetry Card	SLPROTA2	2.0	9
Directional Coupler Card	SLWSTDPJ501M	2.0	11
Switching Power Supply	PSSW5010	2.0	14
Soft Start Card	SLSOFTS	2.0	17


TELEMETRY CONNECTOR
CONNECTOR DB25
13 25 12 24 11 23 10 22 9 21 8 20 7 19 6 18 5 17 4 16 3 15 2 14 1
FL1
FLTPJ30001
1
2
DISS1
SLSTRPJ300
-
+
C1
47nF
CN2
TELEMETRY CARD
SLPROTA2
CN5
CNTMASF20PVL
CN1
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
ALARMS CARD
SLPRTA1PJ300
CN3
2
1
-
+
CN7
CNTMASF2PVL
D1
DIS1N4007
CN1
SLCCX02N0052
1
R.F. INPUT
CN2
CNTMSTB8P
8
7
6
5
4
3
2
1
CN1
R.F. POWER AMPLIFIER
SLRFPJ300M
CN3
SLCCX01D0020
1
R.F. TEST
-60dB
CN4
CNTRCAMVL
1
CN4
CN5
1
2
3
CN6
CNTBNCTXVL
CN3
R.F. OUTPUT
CN2
LOW PASS FILTER
SLWSTDPJ501M
CN1
CN8
1
2
SLCCX02O0034
FAN1
VTL614
2
1
CN9
CNTVDEFP
A.C. LINE FOR
EXCITER
3
2
1
K1
3
5
4
1
2
RLD1V48V8A
1
2
3
4
5
6
7
8
JP4
DS1
SPIA06RO220
2
1
FAN2
2
1
VLT4650N
RV1
MOV250V20
F1
FUS6X30RP2
PF1
PFS6X30PAN15
A.C. LINE FUSE
FOR EXCITER
F2
FUS6X30RP10
PF2
PFS6X30PAN15
R.F. MODULE
FUSE
1
2
3
4
JP3
SWITCHING POWER
SUPPLY PSSW5010
CN10
CNTBNCFPV
1
2
CN11
CNTBNCFPV
1
2
ALARMS /
INTERLOCK
CONNECTORS
C2
4,7nF
C3
4,7nF
TR1
0V
100V
120V
220V
240V
30Vac
0Vac
30Vac
16Vac
0Vac
16Vac
0Vac
36Vac
TRFPJ300MT
SW1
1
2
DEV1V1015
MO1
MORSWDMK3/12
CN13
MORSVL2P
2
1
M1
CN14
MORSVL4P
4
3
2
1
M2
SOFT START
SLSOFTS
M3
4
3
2
1
CN15
MORSVL4P
1
2
3
4
5
6
JP2
CN12
CNTVDEMPCT10
1
2
3
INPUT MAINS
VOLTAGE
N
SL
L
L'
120V
100V
240V
220V
VOLTAGE CHANGER
& A.C. LINE FUSE
F3 6,3A 6,3X32
N
SL
L
L'
120V
100V
240V
220V

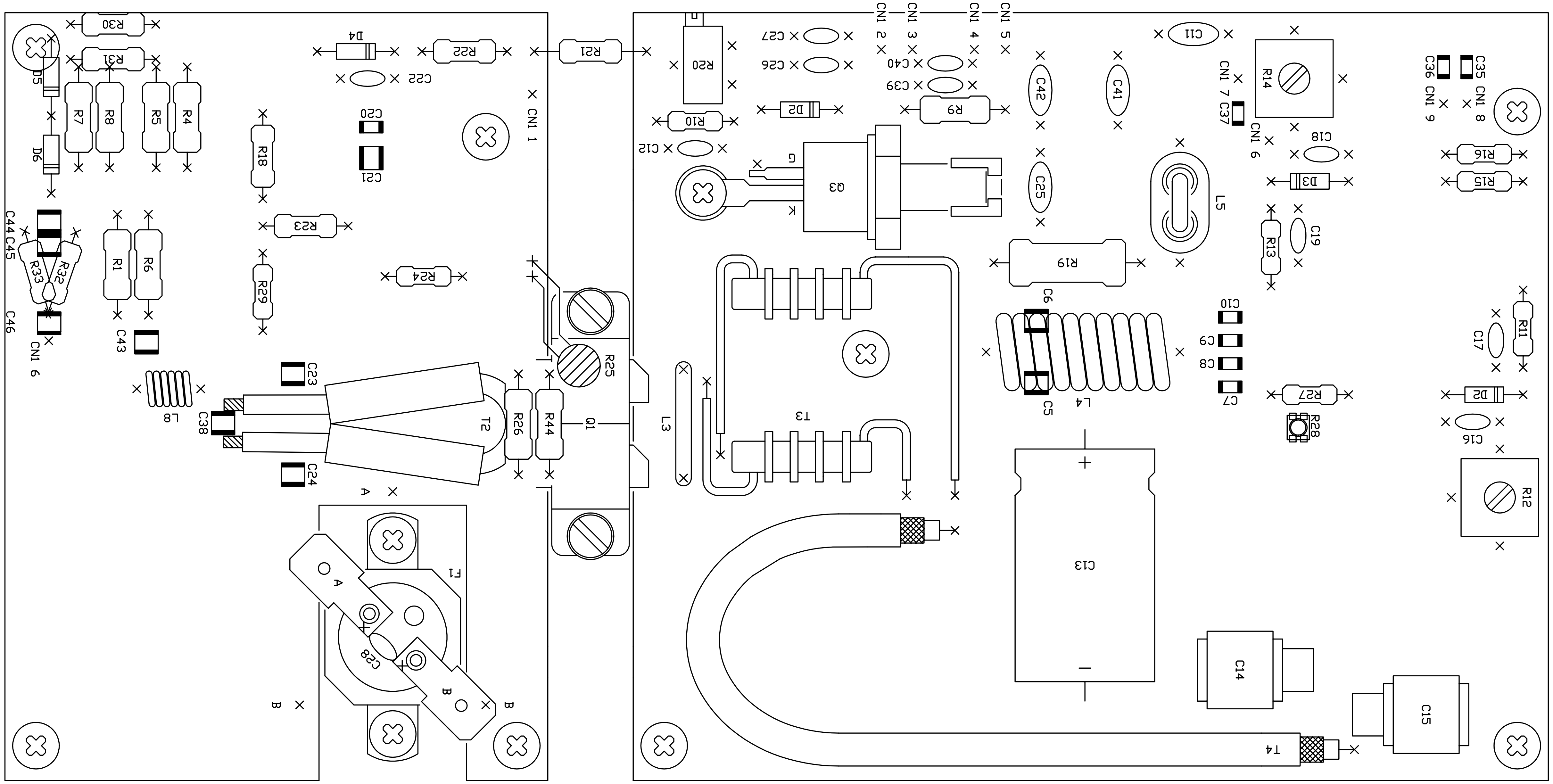
Nome Progetto:	PJ300M			*Pagina:* 1 *di* 1	*Size:* A3
Codice Progetto:	PJ300M	*Autore:*	Ufficio Tecnico	*Data:*	07/07/03
Nome Parte:	WIRING DIAGRAMS	*Nome PC in Rete:*	\\UT_SRV\PROGETTI	*Revisione:*	2.0
Codice:	/	*File/Cartella:*	MANUALI\PJ300M\WIRING\WIR300.DSN	*Autorizzazione:*	

WIRING DIAGRAMS - Bill Of Materials

Item	Quantity	Reference	Part
1	1	CN1	SLCCX02N0052
2	1	CN2	CNTMSTB8P
3	1	CN3	SLCCX01D0020
4	1	CN4	CNTRCAMVL
5	1	CN5	CNTMASF20PVL
6	1	CN6	CNTBNCTXVL
7	1	CN7	CNTMASF2PVL
8	1	CN8	SLCCX02O0034
9	1	CN9	CNTVDEFP
10	2	CN10,CN11	CNTBNCFPV
11	1	CN12	CNTVDEMPCT10
12	1	CN13	MORSVL2P
13	2	CN15,CN14	MORSVL4P
14	1	C1	47nF
15	2	C2,C3	4,7nF
16	1	DISS1	SLSTRPJ300
17	1	DS1	SPIA06RO220
18	1	D1	DIS1N4007
19	1	FAN1	VTL614
20	1	FAN2	VLT4650N
21	1	FL1	FLTPJ30001
22	1	F1	FUS6X30RP2
23	1	F2	FUS6X30RP10
24	1	K1	RLD1V48V8A
25	1	MO1	MORSWDMK3/12
26	2	PF2,PF1	PFS6X30PAN15
27	1	RV1	MOV250V20
28	1	SW1	DEV1V1015
29	1	TR1	TRFPJ300MT


+ 50V
C41
NC
C42
47nF
100V
L5
C11
47nF
100V
C39
100nF
C40
100nF
R24
8K2 1%
R25
10KNTC
R19
1K5$
C10
C9
C8
C7
R9
330#
CN1
C22
100nF
C20
1nFCH
C21
680pFHQ
R22
1K*
R21
1K*
R20
M1K
C27
10nF
100V
C26
1nF
100V
C25
100nF
100V
L4
4x1nFCH
100V
D1
Z56V#
CN1 1
CN1
1
2
3
4
5
6
7
8
TEMP.
GND
GND
VCC
VCC
FWD
REF
+ 50V
CN1 6
CN1 7
N.C.
MORSWDFP
D4
Z6V8
R23
1K*
C12
Q3
SCR 200V 100A
R29
100 1%
C6
680pFHQ
C5
680pFHQ
C13
1000uF
63V
R10
1K 1%
1nF
R18
1K5*
C24
NC
C23
NC
Q1
BLF278
J1
SMA TELAIO
R4
18#
R6
18#
L8
L66RVR1
T2
T3
F1
T70GR
CN1 1
TEMP
R5
18#
R1
18#
C43
150pFHQ
C38
56pFHQ
R44
22#
R26
22#
L3
C28
100nF
C37
1nFCH
R30
270
R31
270
R8
270#
R7
270#
CN1 7
REF
R14
HC10K
T4
R32
10K
R27
100 1%
D5
D6
CN1 6
FWD
C45
470pFHQ
C46
470pFHQ
BAT83
BAT83
C44
680pFHQ
R33
10K
C14
1nFUNELCO
C15
1nFUNELCO
R28
TR200S
C18
56pF
D3
BAT83
R13
100K
C19
100nF
J2
SMA TELAIO
C16
NC
D2
NC
R15
NC
R16
NC
C35
NC
R11
NC
C17
NC
R12
NC
C36
NC
CW
1
2
3

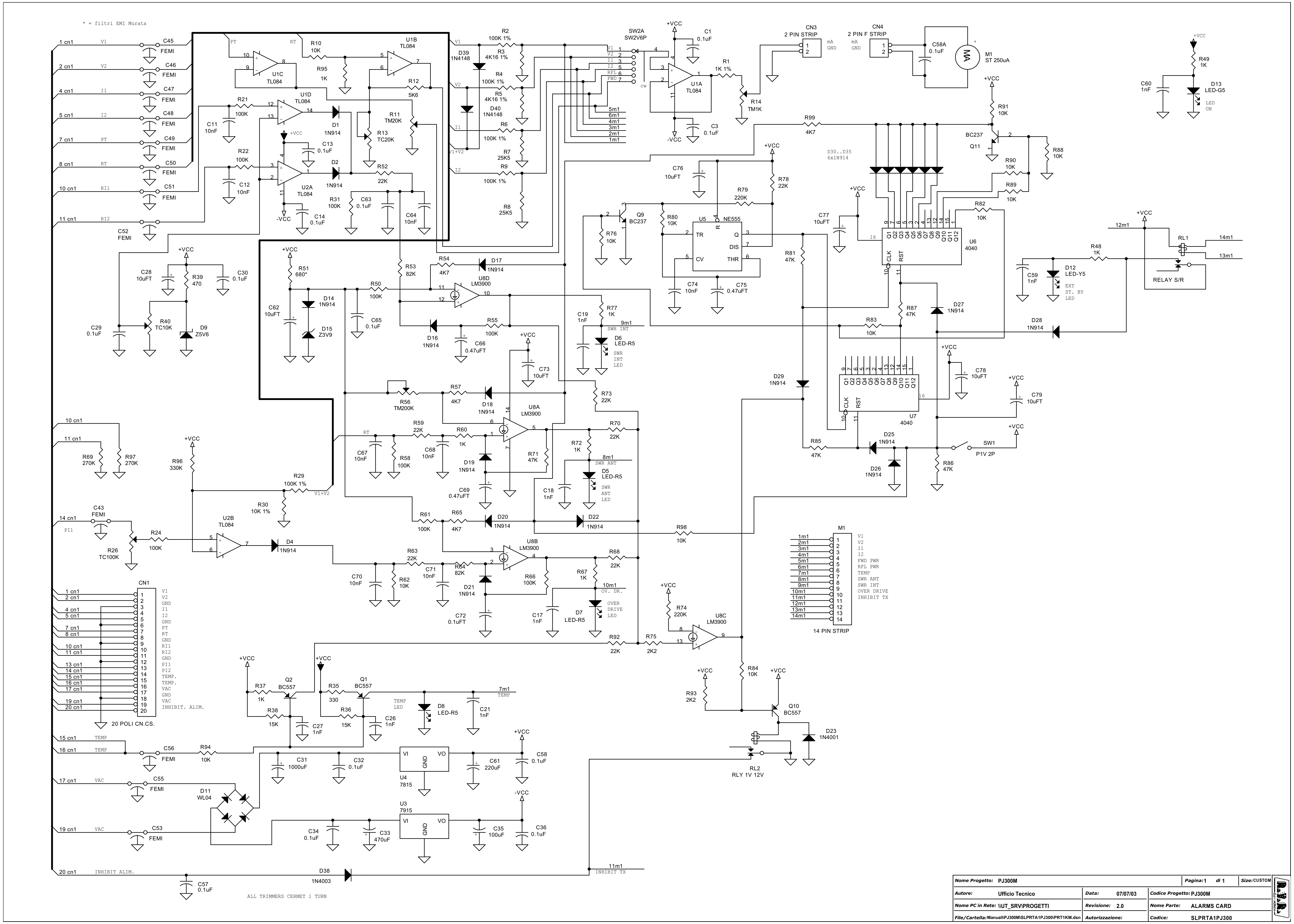
Nome Progetto:	PJ300M			Pagina:1 di 1	Size: A3
Autore:	Ufficio Tecnico	Data:	07/07/03	Codice Progetto:	PJ300M
Nome PC in Rete:	\\UT_SRV\PROGETTI	Revisione:	2.0	Nome Parte:	R.F. Power Amplifier Module
File/Cartella:	MANUALI\PJ300M\SLRFPJ300M\PJ301_1.DSN	Autorizzazione:		Codice:	SLRFPJ300M

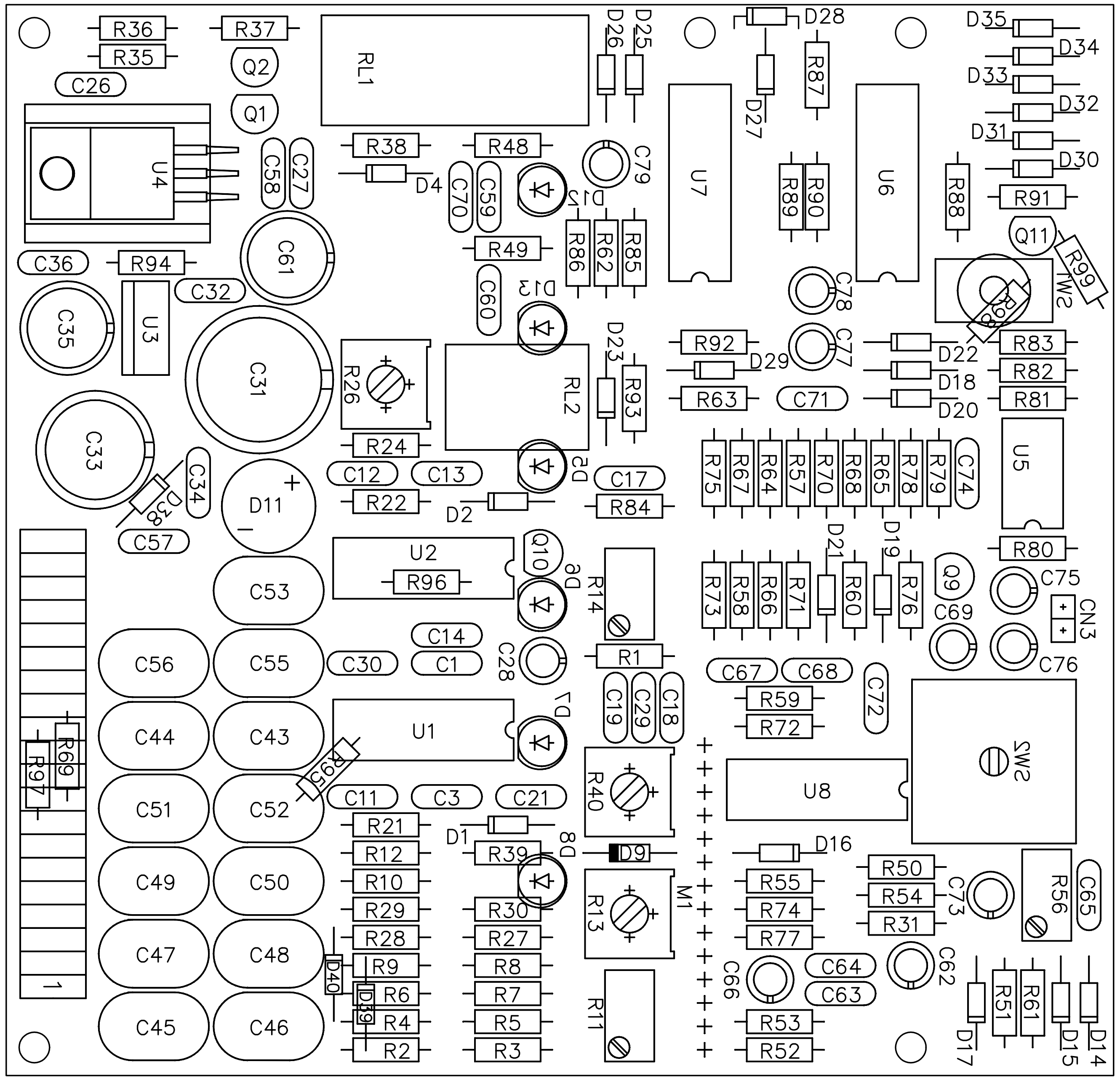

R30
R31
D5
D6
R7
R8
R5
R4
D4
R22
R21
C22
C20
C21
R18
R23
R24
R29
C44 C45
R33
R32
R1
R6
C46
CN1 6
C43
L8
C38
C23
C24
T2
R26
R44
Q1
R25
CN1 1
A
B
F1
C28
R20
C27
C26
CN1 2
CN1 3
CN1 4
CN1 5
C40
C39
R10
C12
D2
R9
G
K
Q3
L3
T3
T4
C42
C41
C25
R19
C6
L4
C5
C13
+
−
C14
C15
C11
R14
CN1 7
C37
CN1 6
C18
D3
L5
R13
C19
C10
C9
C8
C7
R27
R28
C36
C35
CN1 9
CN1 8
R16
R15
R11
C17
D2
C16
R12

Nome Progetto: PJ300M
Pagina: 1 di 1
Size: A3
Autore: Ufficio Tecnico
Data: 07/07/03
Codice Progetto: PJ300M
Nome PC in Rete: \\UT_SRV\PROGETTI
Revisione: 2.0
Nome Parte: R.F. Power Amplifier Module
File/Cartella: MANUALI\PJ300M\SLRFPJ300M\LYPJ3011.DWG
Autorizzazione:
Codice: SLRFPJ300M
Scala: /
Materiale: /
Trattamento: /
Profilo: /

R.F. Power Amplifier Module - Bill Of Materials

Item	Quantity	Reference	Part
1	1	CN1	MORSWDFP
2	4	C5,C6,C21,C44	680pFHQ
3	6	C7,C8,C9,C10,C20,C37	1nFCH
4	2	C11,C42	47nF
5	2	C12,C26	1nF
6	1	C13	1000uF
7	2	C15,C14	1nFUNELCO
8	12	D2,R11,R12,R15,R16,C16,C17,C23,C24,C35,C36,C41	NC
9	1	C18	56pF
10	6	C19,C22,C25,C28,C39,C40	100nF
11	1	C27	10nF
12	1	C38	56pFHQ
13	1	C43	150pFHQ
14	2	C45,C46	470pFHQ
15	1	D1	Z56V#
16	3	D3,D5,D6	BAT83
17	1	D4	Z6V8
18	1	F1	T70GR
19	2	J1,J2	SMA TELAIO
20	1	L3	L0510RVR
21	1	L4	L105RVR2
22	1	L5	POWER IND.
23	1	L8	L66RVR1
24	1	Q1	BLF278
25	1	Q3	SCR 200V 100A
26	4	R1,R4,R5,R6	18#
27	2	R8,R7	270#
28	1	R9	330#
29	1	R10	1K 1%
30	1	R13	100K
31	1	R14	HC10K
32	1	R18	1K5*
33	1	R19	1K5$
34	1	R20	M1K
35	3	R21,R22,R23	1K*
36	1	R24	8K2 1%
37	1	R25	10KNTC
38	2	R44,R26	22#
39	2	R27,R29	100 1%
40	1	R28	TR200S
41	2	R30,R31	270
42	2	R33,R32	10K
43	1	T2	RFTRANSF.
44	1	T3	RG188
45	1	T4	RG303


* = filtri EMI Murata
1 cn1
V1
C45
FEMI
2 cn1
V2
C46
4 cn1
I1
C47
5 cn1
I2
C48
7 cn1
PT
C49
8 cn1
RT
C50
10 cn1
RI1
C51
11 cn1
RI2
C52
U1C TL084
U1B TL084
U1D TL084
U2A TL084
R10 10K
R95 1K
R12 5K6
R21 100K
R22 100K
R11 TM20K
R13 TC20K
D1 1N914
D2 1N914
R52 22K
R31 100K
C63 0.1uF
C64 10nF
C13 0.1uF
C14 0.1uF
C11 10nF
C12 10nF
+VCC
-VCC
R2 100K 1%
R3 4K16 1%
R4 100K 1%
R5 4K16 1%
R6 100K 1%
R7 25K5
R8 25K5
R9 100K 1%
D39 1N4148
D40 1N4148
V1+V2
SW2A SW2V6P
FWD
RFL
CW
5m1
6m1
4m1
3m1
2m1
1m1
C1 0.1uF
C3 0.1uF
U1A TL084
R1 1K 1%
R14 TM1K
CN3 2 PIN STRIP
mA
GND
CN4 2 PIN F STRIP
C58A 0.1uF
MA
M1 ST 250uA
R49 1K
C60 1nF
D13 LED-G5
LED ON
R91 10K
BC237 Q11
R88 10K
R90 10K
R89 10K
R99 4K7
D30..D35 6x1N914
R82 10K
U6 4040
CLK
RST
R48 1K
12m1
RL1
14m1
13m1
RELAY S/R
C59 1nF
D12 LED-Y5
EXT ST. BY LED
D27 1N914
D28 1N914
R87 47K
R83 10K
C76 10uFT
R78 22K
R79 220K
Q9 BC237
R76 10K
R80 10K
U5 NE555
TR
Q
DIS
CV
THR
C74 10nF
C75 0.47uFT
C77 10uFT
R81 47K
C28 10uFT
R39 470
C30 0.1uF
C29 0.1uF
R40 TC10K
D9 Z5V6
R51 680*
C62 10uFT
D14 1N914
D15 Z3V9
R50 100K
C65 0.1uF
R54 4K7
D17 1N914
R53 82K
U8D LM3900
D16 1N914
R55 100K
C66 0.47uFT
C73 10uFT
C19 1nF
R77 1K
9m1
SWR INT
D6 LED-R5
SWR INT LED
R73 22K
D29 1N914
U7 4040
C78 10uFT
C79 10uFT
D25 1N914
D26 1N914
R85 47K
R86 47K
SW1 P1V 2P
R57 4K7
D18 1N914
R56 TM200K
U8A LM3900
R59 22K
R60 1K
R70 22K
C67 10nF
R58 100K
C68 10nF
D19 1N914
R71 47K
R72 1K
8m1
SWR ANT
D5 LED-R5
SWR ANT LED
C69 0.47uFT
C18 1nF
10 cn1
11 cn1
R69 270K
R97 270K
R96 330K
R29 100K 1%
R30 10K 1%
V1+V2
14 cn1
C43 FEMI
PI1
R26 TC100K
R24 100K
U2B TL084
D4 1N914
R61 100K
R65 4K7
D20 1N914
D22 1N914
R98 10K
U8B LM3900
R63 22K
R64 82K
R68 22K
C70 10nF
R62 10K
C71 10nF
D21 1N914
R66 100K
R67 1K
10m1
OV. DR.
OVER DRIVE LED
C72 0.1uFT
C17 1nF
D7 LED-R5
R74 220K
U8C LM3900
R92 22K
R75 2K2
M1
1m1
2m1
3m1
4m1
5m1
6m1
7m1
8m1
9m1
10m1
11m1
12m1
13m1
14m1
V1
V2
I1
I2
FWD PWR
RFL PWR
TEMP
SWR ANT
SWR INT
OVER DRIVE
INHIBIT TX
14 PIN STRIP
CN1
GND
PT
RT
RI1
RI2
PI1
PI2
TEMP.
VAC
INHIBIT. ALIM.
20 POLI CN.CS.
13 cn1
14 cn1
15 cn1
16 cn1
17 cn1
19 cn1
20 cn1
R37 1K
Q2 BC557
R38 15K
C27 1nF
R35 330
Q1 BC557
R36 15K
C26 1nF
TEMP LED
D8 LED-R5
C21 1nF
7m1
TEMP
R84 10K
R93 2K2
Q10 BC557
D23 1N4001
RL2 RLY 1V 12V
15 cn1
16 cn1
C56 FEMI
R94 10K
C31 1000uF
C32 0.1uF
U4 7815
VI
VO
GND
C61 220uF
C58 0.1uF
17 cn1
VAC
C55 FEMI
D11 WL04
U3 7915
C34 0.1uF
C33 470uF
C35 100uF
C36 0.1uF
19 cn1
C53 FEMI
20 cn1
INHIBIT ALIM.
C57 0.1uF
D38 1N4003
11m1
INHIBIT TX
ALL TRIMMERS CERMET 1 TURN
Nome Progetto: PJ300M
Pagina: 1 di 1
Size: CUSTOM
Autore: Ufficio Tecnico
Data: 07/07/03
Codice Progetto: PJ300M
Nome PC in Rete: \\UT_SRV\PROGETTI
Revisione: 2.0
Nome Parte: ALARMS CARD
File/Cartella: Manuali\PJ300M\SLPRTA1PJ300\PRT1KM.dsn
Autorizzazione:
Codice: SLPRTA1PJ300


R36
R37
R35
Q2
C26
Q1
RL1
D26
D25
D28
D27
R87
D35
D34
D33
D32
D31
D30
DIS1
U4
C58
C27
R38
R48
D4
C70
C59
D12
C79
U7
U6
R89
R90
R88
R91
Q11
R99
SW1
R98
C36
R94
C61
R49
R86
R62
R85
C78
C32
C35
U3
C60
D13
C31
R26
RL2
D23
R93
R92
D29
C77
D22
D18
D20
R83
R82
R81
R63
C71
C33
C34
D38
D11
R24
C12
C13
D5
C17
R84
R22
D2
R75
R67
R64
R57
R70
R68
R65
R78
R79
C74
U5
C57
U2
R96
Q10
D6
R14
D21
D19
R80
R73
R58
R66
R71
R60
R76
Q9
C75
C69
CN3
C53
C14
C28
R1
C76
C56
C55
C30
C1
C67
C68
C72
C19
C29
C18
R59
R72
CN1
R69
R97
C44
C43
U1
D7
R40
U8
SW2
R95
C51
C52
C11
C3
C21
R21
D1
D8
D9
D16
R12
R39
R10
R55
R50
C73
R56
C65
R29
R30
R13
M1
R74
R54
R28
R27
R77
R31
C49
C50
C47
C48
D40
R9
R8
C66
C64
C62
R6
R7
C63
R51
R61
D39
R4
R5
R11
R53
D17
D15
D14
C45
C46
R2
R3
R52
1

Nome Progetto: PJ300M

Pagina: 1 di 1

Size: A3

Autore: Ufficio Tecnico

Data: 07/07/03

Codice Progetto: PJ300M

Nome PC in Rete: \\UT_SRV\PROGETTI

Revisione: 2.0

Nome Parte: ALARMS CARD

File/Cartella: MANUALI\PJ300M\SLPRTA1PJ300\LPRT300.DWG

Autorizzazione:

Codice: SLPRTA1PJ300

Scala: /

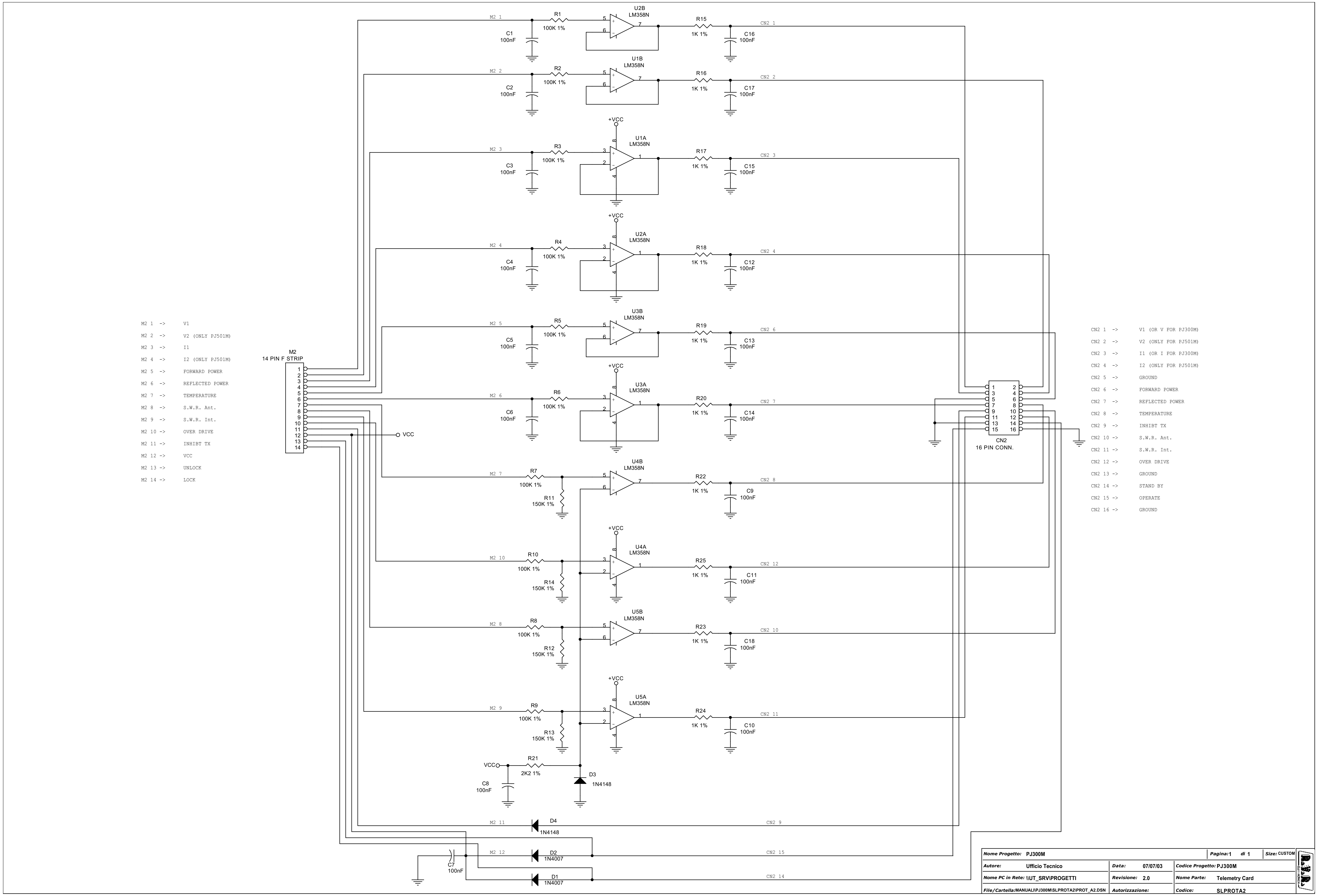
Materiale: /

Trattamento: /

Profilo: /

Alarms Card - Bill Of Materials

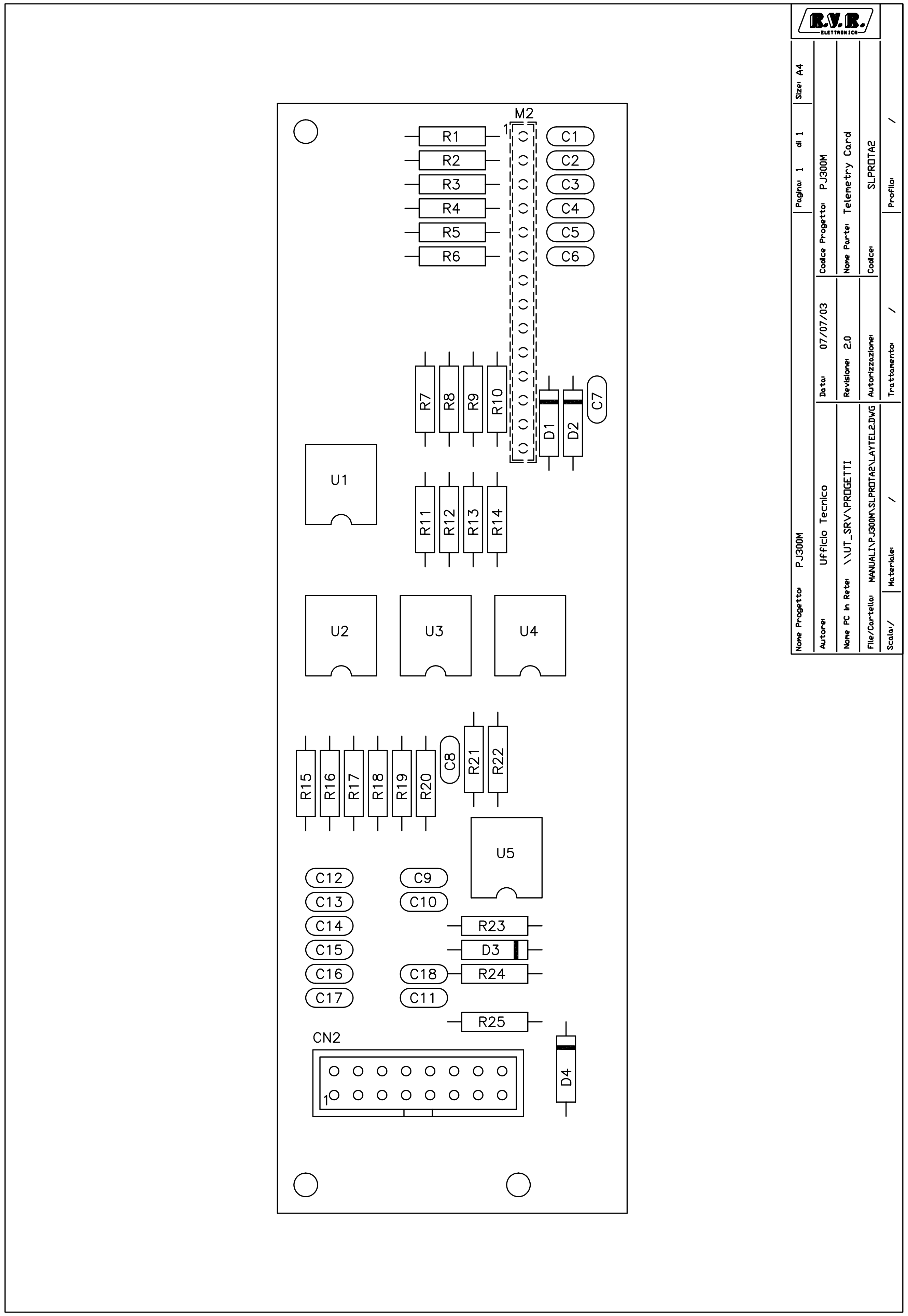
Item	Quantity	Reference	Part
1	1	CN1	20 POLI CN.CS.
2	1	CN3	2 PIN STRIP
3	1	CN4	2 PIN F STRIP
4	14	C1,C3,C13,C14,C29,C30,C32,C34,C36,C57,C58A,C58,C63,C65	0.1uF
5	8	C11,C12,C64,C67,C68,C70,C71,C74	10nF
6	8	C17,C18,C19,C21,C26,C27,C59,C60	1nF
7	7	C28,C62,C73,C76,C77,C78,C79	10uFT
8	1	C31	1000uF
9	1	C33	470uF
10	1	C35	100uF
11	12	C43,C45,C46,C47,C48,C49,C50,C51,C52,C53,C55,C56	FEMI
12	1	C61	220uF
13	3	C66,C69,C75	0.47uFT
14	1	C72	0.1uFT
15	22	D1,D2,D4,D14,D16,D17,D18,D19,D20,D21,D22,D25,D26,D27,D28,D29,D30,D31,D32,D33,D34,D35	1N914
16	4	D5,D6,D7,D8	LED-R5
17	1	D9	Z5V6
18	1	D11	WL04
19	1	D12	LED-Y5
20	1	D13	LED-G5
21	1	D15	Z3V9
22	1	D23	1N4001
23	1	D38	1N4003
24	2	D39,D40	1N4148
25	1	M1	14 PIN STRIP
26	1	M1	ST 250uA
27	3	Q1,Q2,Q10	BC557
28	2	Q11,Q9	BC237
29	1	RL1	RELAY S/R
30	1	RL2	RLY 1V 12V
31	1	R1	1K 1%
32	5	R2,R4,R6,R9,R29	100K 1%
33	2	R3,R5	4K16 1%
34	1	R7	25K5
35	1	R8	25K5
36	13	R10,R62,R76,R80,R82,R83,R84,R88,R89,R90,R91,R94,R98	10K
37	1	R11	TM20K
38	1	R12	5K6
39	1	R13	TC20K
40	1	R14	TM1K
41	9	R21,R22,R24,R31,R50,R55,R58,R61,R66	100K
42	1	R26	TC100K
43	1	R30	10K 1%
44	1	R35	330
45	2	R36,R38	15K
46	8	R37,R48,R49,R60,R67,R72,R77,R95	1K
47	1	R39	470
48	1	R40	TC10K
49	1	R51	680*
50	8	R52,R59,R63,R68,R70,R73,R78,R92	22K
51	2	R53,R64	82K
52	4	R54,R57,R65,R99	4K7
53	1	R56	TM200K
54	2	R97,R69	270K
55	5	R71,R81,R85,R86,R87	47K
56	2	R74,R79	220K
57	2	R93,R75	2K2
58	1	R96	330K
59	1	SW1	P1V 2P
60	1	SW2	SW2V6P
61	2	U1,U2	TL084
62	1	U3	7915
63	1	U4	7815
64	1	U5	NE555
65	2	U6,U7	4040
66	1	U8	LM3900


M2 1
R1
100K 1%
C1
100nF
U2B
LM358N
R15
1K 1%
C16
100nF
CN2 1
M2 2
R2
100K 1%
C2
100nF
U1B
LM358N
R16
1K 1%
C17
100nF
CN2 2
+VCC
M2 3
R3
100K 1%
C3
100nF
U1A
LM358N
R17
1K 1%
C15
100nF
CN2 3
M2 4
R4
100K 1%
C4
100nF
U2A
LM358N
R18
1K 1%
C12
100nF
CN2 4
M2 5
R5
100K 1%
C5
100nF
U3B
LM358N
R19
1K 1%
C13
100nF
CN2 6
M2
14 PIN F STRIP
M2 6
R6
100K 1%
C6
100nF
U3A
LM358N
R20
1K 1%
C14
100nF
CN2 7
VCC
M2 7
R7
100K 1%
R11
150K 1%
U4B
LM358N
R22
1K 1%
C9
100nF
CN2 8
M2 10
R10
100K 1%
R14
150K 1%
U4A
LM358N
R25
1K 1%
C11
100nF
CN2 12
M2 8
R8
100K 1%
R12
150K 1%
U5B
LM358N
R23
1K 1%
C18
100nF
CN2 10
M2 9
R9
100K 1%
R13
150K 1%
U5A
LM358N
R24
1K 1%
C10
100nF
CN2 11
R21
2K2 1%
C8
100nF
D3
1N4148
M2 11
D4
1N4148
CN2 9
M2 12
C7
100nF
D2
1N4007
CN2 15
D1
1N4007
CN2 14
CN2
16 PIN CONN.

M2 1	->	V1
M2 2	->	V2 (ONLY PJ501M)
M2 3	->	I1
M2 4	->	I2 (ONLY PJ501M)
M2 5	->	FORWARD POWER
M2 6	->	REFLECTED POWER
M2 7	->	TEMPERATURE
M2 8	->	S.W.R. Ant.
M2 9	->	S.W.R. Int.
M2 10	->	OVER DRIVE
M2 11	->	INHIBT TX
M2 12	->	VCC
M2 13	->	UNLOCK
M2 14	->	LOCK

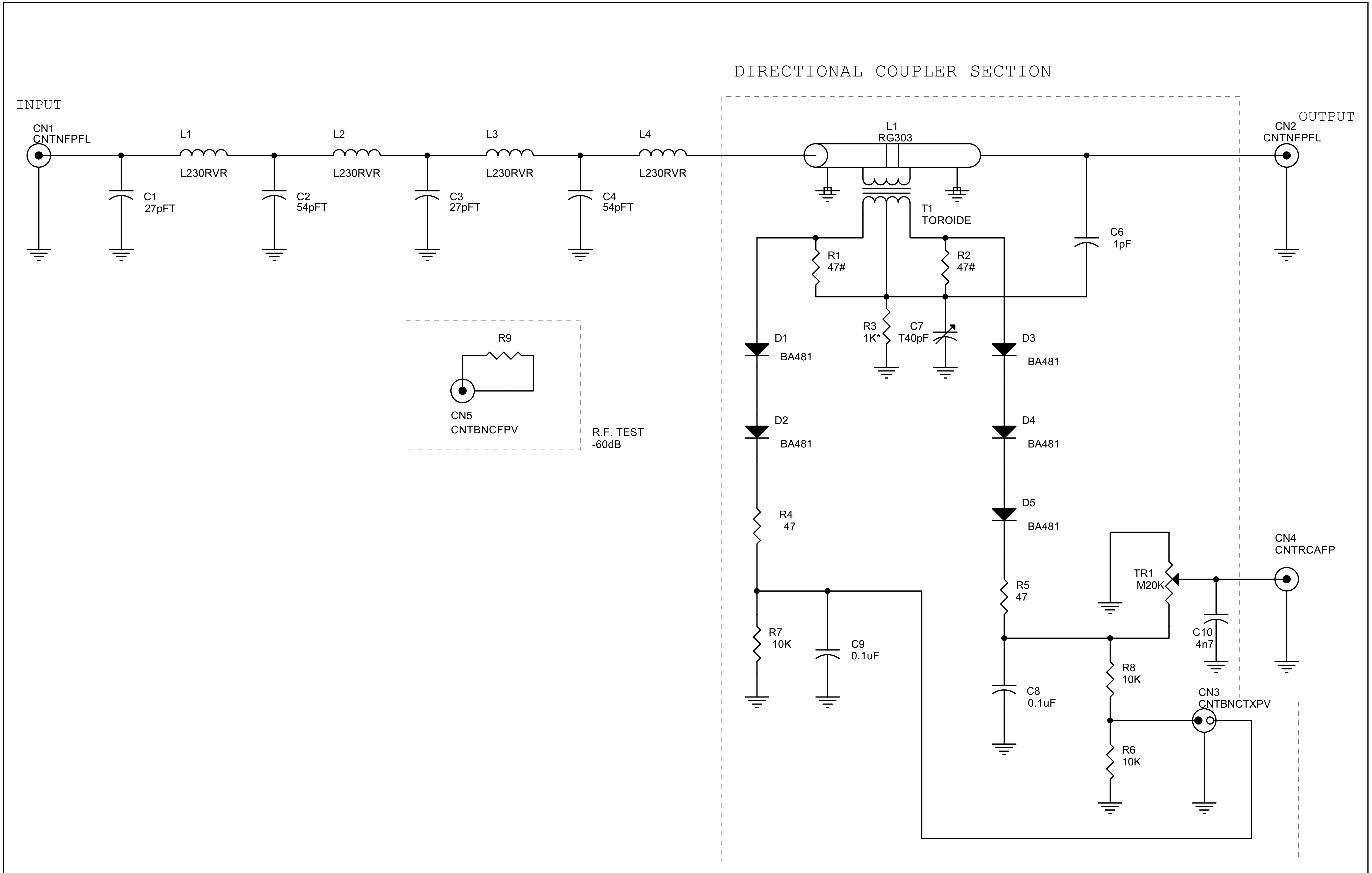
CN2 1	->	V1 (OR V FOR PJ300M)
CN2 2	->	V2 (ONLY FOR PJ501M)
CN2 3	->	I1 (OR I FOR PJ300M)
CN2 4	->	I2 (ONLY FOR PJ501M)
CN2 5	->	GROUND
CN2 6	->	FORWARD POWER
CN2 7	->	REFLECTED POWER
CN2 8	->	TEMPERATURE
CN2 9	->	INHIBT TX
CN2 10	->	S.W.R. Ant.
CN2 11	->	S.W.R. Int.
CN2 12	->	OVER DRIVE
CN2 13	->	GROUND
CN2 14	->	STAND BY
CN2 15	->	OPERATE
CN2 16	->	GROUND

Nome Progetto:	PJ300M	**Pagina:**	1 di 1	**Size:**	CUSTOM
Autore:	Ufficio Tecnico	**Data:**	07/07/03	**Codice Progetto:**	PJ300M
Nome PC in Rete:	\\UT_SRV\PROGETTI	**Revisione:**	2.0	**Nome Parte:**	Telemetry Card
File/Cartella:	MANUALI\PJ300M\SLPROTA2\PROT_A2.DSN	**Autorizzazione:**		**Codice:**	SLPROTA2

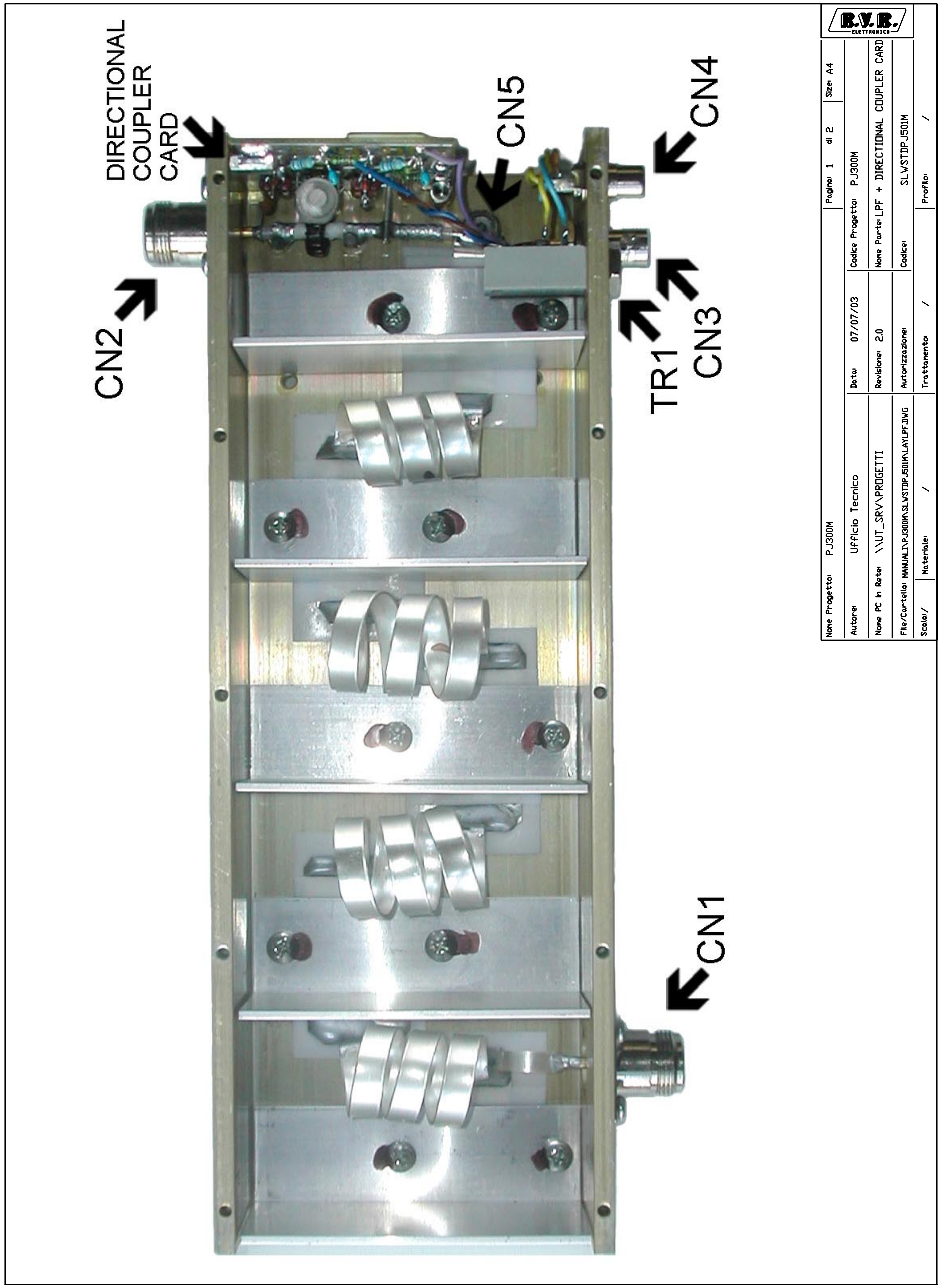

M2
1
R1
R2
R3
R4
R5
R6
C1
C2
C3
C4
C5
C6
R7
R8
R9
R10
D1
D2
C7
U1
R11
R12
R13
R14
U2
U3
U4
R15
R16
R17
R18
R19
R20
C8
R21
R22
U5
C12
C13
C14
C15
C16
C17
C9
C10
C18
C11
R23
D3
R24
R25
CN2
1
D4
R.V.R. ELETTRONICA
Nome Progetto: PJ300M
Autore: Ufficio Tecnico
Nome PC in Rete: \\UT_SRV\PROGETTI
File/Cartella: MANUALI\PJ300M\SLPROTA2\LAYTEL2.DWG
Scala: /
Materiale: /
Data: 07/07/03
Revisione: 2.0
Autorizzazione: /
Trattamento: /
Codice Progetto: PJ300M
Nome Parte: Telemetry Card
Codice: SLPROTA2
Profilo: /
Pagina: 1 di 1
Size: A4

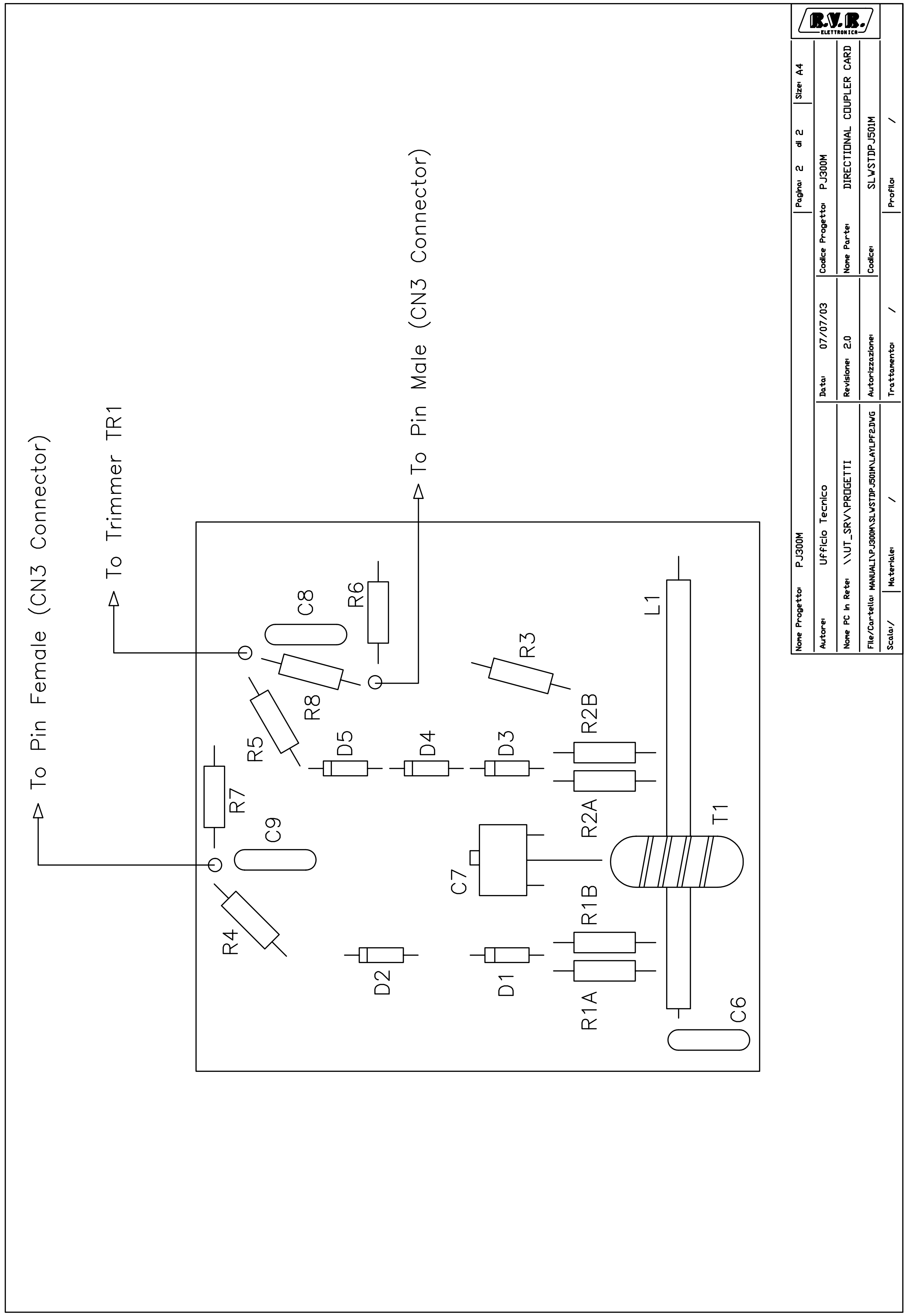
Telemetry Card - Bill Of Materials

Item	Quantity	Reference	Part
1	2	D1,D2	1N4007
2	1	CN2	16 PIN CONN.
3	18	C1,C2,C3,C4,C5,C6,C7,C8, C9,C10,C11,C12,C13,C14, C15,C16,C17,C18	100nF
4	2	D3,D4	1N4148
5	1	M2	14 PIN F STRIP
6	10	R1,R2,R3,R4,R5,R6,R7,R8, R9,R10	100K 1%
7	4	R11,R12,R13,R14	150K 1%
8	10	R15,R16,R17,R18,R19,R20, R22,R23,R24,R25	1K 1%
9	1	R21	2K2 1%
10	5	U1,U2,U3,U4,U5	LM358N


DIRECTIONAL COUPLER SECTION
INPUT
CN1
CNTNFPFL
L1
L230RVR
L2
L230RVR
L3
L230RVR
L4
L230RVR
C1
27pFT
C2
54pFT
C3
27pFT
C4
54pFT
L1
RG303
T1
TOROIDE
OUTPUT
CN2
CNTNFPFL
C6
1pF
R1
47#
R2
47#
R3
1K*
C7
T40pF
D1
BA481
D2
BA481
D3
BA481
D4
BA481
D5
BA481
R9
CN5
CNTBNCFPV
R.F. TEST
-60dB
R4
47
R5
47
R7
10K
C9
0.1uF
TR1
M20K
CN4
CNTRCAFP
C10
4n7
R8
10K
C8
0.1uF
CN3
CNTBNCTXPV
R6
10K

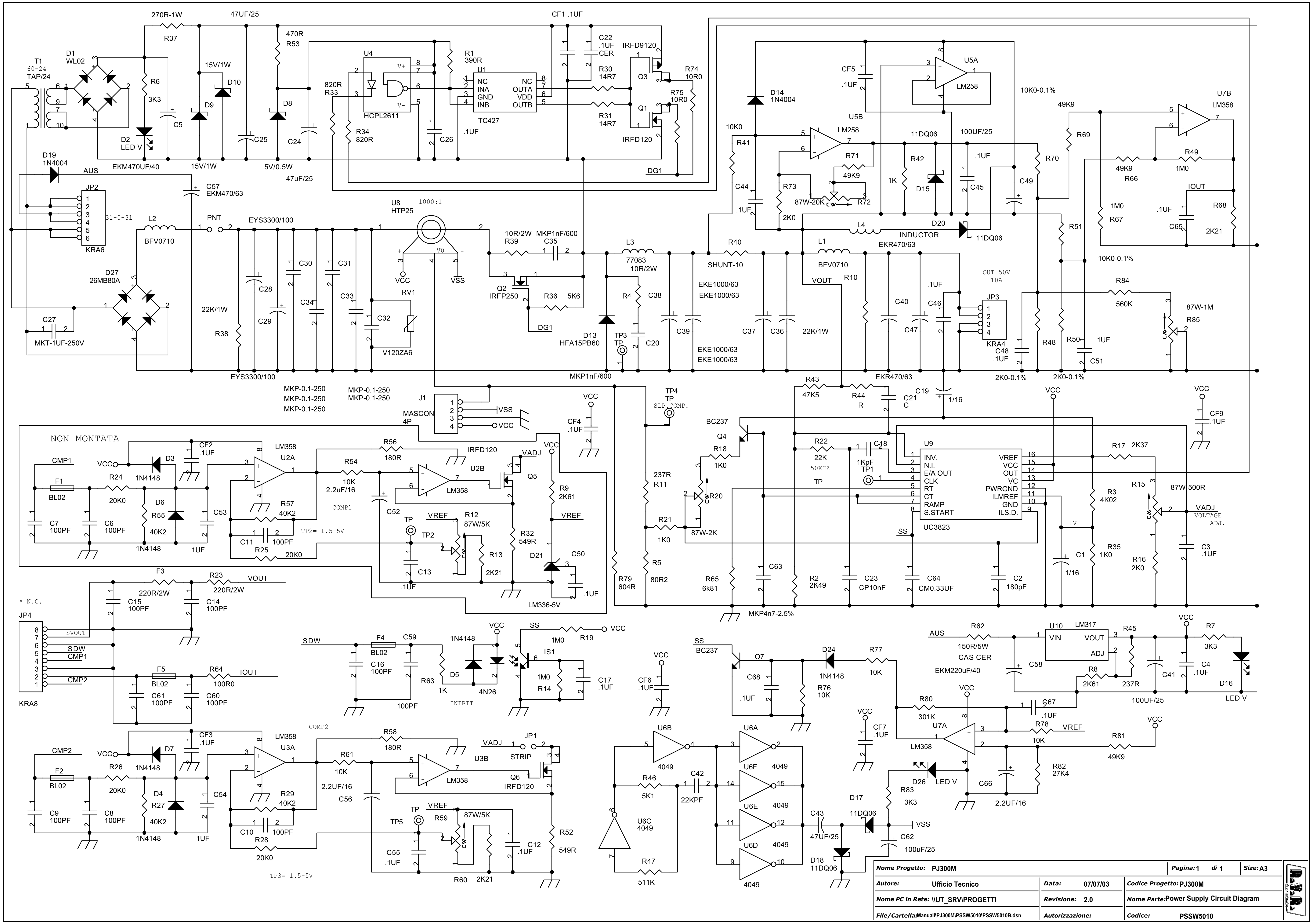
Nome Progetto: PJ300M				*Pagina:*1 di 1	*Size:* A4
Codice Progetto: PJ300M	*Autore:*	Ufficio Tecnico		*Data:*	07/07/03
Nome Parte: LPF & DIRECTIONAL COUPLER	*Nome PC in Rete:*	\\UT_SRV\PROGETTI		*Revisione:*	2.0
Codice: SLWSTDPJ501M	*File/Cartella:*	Manuali\PJ300M\SLWSTDPJ501M\LPF.dsn		*Autorizzazione:*	

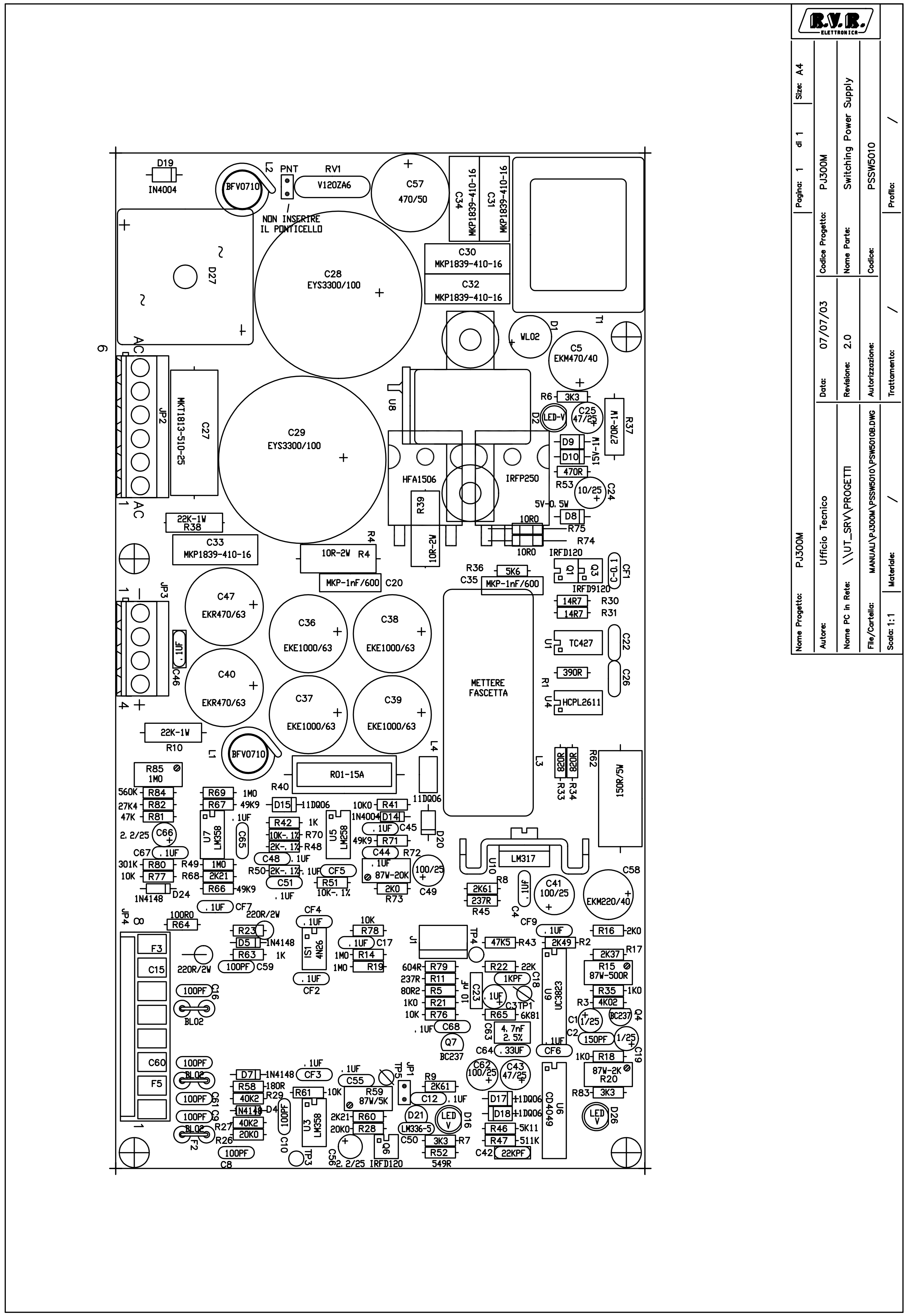

DIRECTIONAL COUPLER CARD
CN5
CN4
CN2
TR1
CN3
CN1
Nome Progetto: PJ300M
Autore: Ufficio Tecnico
Nome PC in Rete: \\UT_SRV\PROGETTI
File/Cartella: MANUALI\PJ300M\SLWSTDPJ501M\LAYLPF.DWG
Scala: /
Materiale: /
Data: 07/07/03
Revisione: 2.0
Autorizzazione:
Trattamento: /
Codice Progetto: PJ300M
Nome Parte: LPF + DIRECTIONAL COUPLER CARD
Codice: SLWSTDPJ501M
Profilo: /
Pagina: 1 di 2
Size: A4


To Pin Female (CN3 Connector)
To Trimmer TR1
To Pin Male (CN3 Connector)
C8
R6
R3
L1
R8
R5
D5
D4
D3
R2B
R7
C9
R2A
T1
C7
R4
R1B
D2
D1
R1A
C6
Nome Progetto: PJ300M
Autore: Ufficio Tecnico
Nome PC in Rete: \\UT_SRV\PROGETTI
File/Cartella: MANUALI\PJ300M\SLWSTDPJ501M\LAYLPF2.DWG
Scala: /
Materiale: /
Data: 07/07/03
Revisione: 2.0
Autorizzazione:
Trattamento: /
Codice Progetto: PJ300M
Nome Parte: DIRECTIONAL COUPLER CARD
Codice: SLWSTDPJ501M
Profilo: /
Pagina: 2 di 2
Size: A4

Directional Coupler Card - Bill Of Materials

Item	Quantity	Reference	Part
1	2	CN1,CN2	CNTNFPFL
2	1	CN3	CNTBNCTXPV
3	1	CN4	CNTRCAFP
4	1	CN5	CNTBNCFPV
5	2	C1,C3	27pFT
6	2	C2,C4	54pFT
7	1	C6	1pF
8	1	C7	T40pF
9	2	C9,C8	0.1uF
10	1	C10	4n7
11	5	D1,D2,D3,D4,D5	BA481
12	1	L1	RG303
13	4	L1,L2,L3,L4	L230RVR
14	2	R2,R1	47#
15	1	R3	1K*
16	1	R4	47
17	1	R5	47
18	3	R6,R8,R9	10K
19	1	R7	10K
20	1	TR1	M20K
21	1	T1	TOROIDE

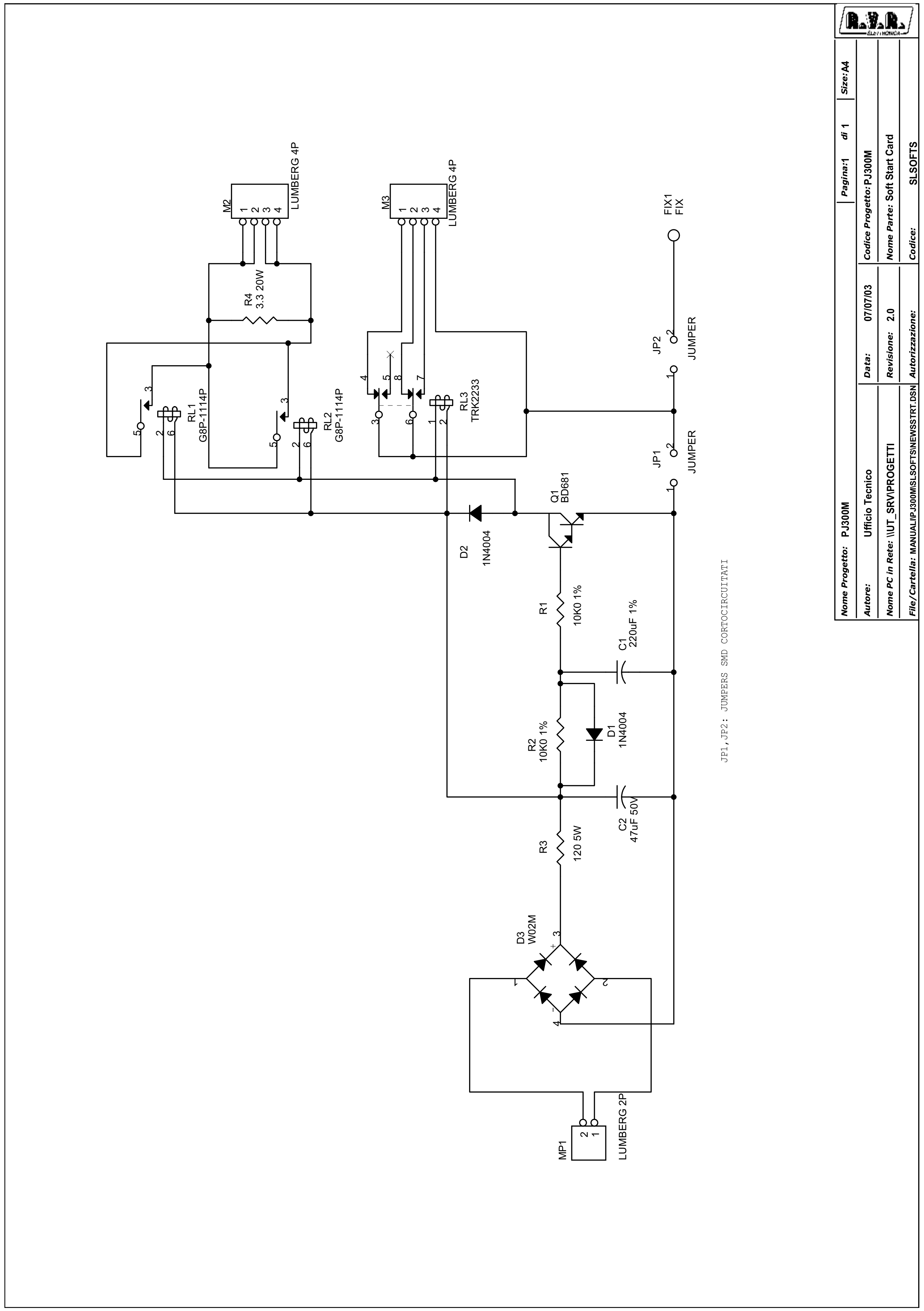

T1
60-24
TAP/24
D1
WL02
270R-1W
R37
47UF/25
470R
R53
R6
3K3
C5
15V/1W
D10
D9
D8
C25
C24
U4
HCPL2611
820R
R33
R34
820R
C26
R1
390R
U1
TC427
NC
INA
GND
INB
OUTA
VDD
OUTB
.1UF
CF1 .1UF
C22
.1UF
CER
IRFD9120
Q3
R30
14R7
R31
14R7
Q1
IRFD120
R74
10R0
R75
10R0
DG1
D2
LED V
D19
1N4004
AUS
EKM470UF/40
15V/1W
5V/0.5W
47uF/25
C57
EKM470/63
JP2
KRA6
31-0-31
L2
BFV0710
PNT
EYS3300/100
U8
HTP25
1000:1
VCC
VSS
V0
RV1
V120ZA6
C28
C29
C30
C31
C32
C33
C34
22K/1W
R38
EYS3300/100
MKP-0.1-250
D27
26MB80A
C27
MKT-1UF-250V
10R/2W
R39
MKP1nF/600
C35
Q2
IRFP250
R36
5K6
L3
77083
10R/2W
R4
C38
D13
HFA15PB60
TP3
TP
C20
C39
MKP1nF/600
R40
SHUNT-10
EKE1000/63
C37
C36
22K/1W
VOUT
R10
L1
BFV0710
EKR470/63
C40
C46
C47
.1UF
JP3
KRA4
C48
.1UF
OUT 50V
10A
D14
1N4004
10K0
R41
C44
.1UF
R73
2K0
87W-20K
R72
CF5
.1UF
U5A
LM258
U5B
LM258
R71
49K9
11DQ06
R42
1K
D15
C45
100UF/25
.1UF
C49
L4
INDUCTOR
D20
11DQ06
R70
10K0-0.1%
49K9
R69
U7B
LM358
R66
49K9
R49
1M0
IOUT
1M0
R67
.1UF
C65
R68
2K21
R51
10K0-0.1%
R84
560K
87W-1M
R85
R48
R50
.1UF
C51
2K0-0.1%
2K0-0.1%
J1
MASCON
4P
VSS
VCC
TP4
TP
SLP.COMP.
CF4
.1UF
R43
47K5
R44
R
C21
C
C19
1/16
BC237
Q4
R18
1K0
237R
R11
R21
1K0
R20
87W-2K
R22
22K
50KHZ
C18
1KpF
TP1
TP
U9
UC3823
INV.
N.I.
E/A OUT
CLK
RT
CT
RAMP
S.START
VREF
OUT
VC
PWRGND
ILMREF
ILS.D.
SS
R17
2K37
R15
87W-500R
R3
4K02
VADJ
VOLTAGE
ADJ.
1V
CF9
.1UF
R35
1K0
C1
1/16
R16
2K0
C3
.1UF
R79
604R
R5
80R2
R65
6k81
C63
MKP4n7-2.5%
R2
2K49
C23
CP10nF
C64
CM0.33UF
C2
180pF
NON MONTATA
CMP1
F1
BL02
C7
100PF
C6
100PF
R24
20K0
1N4148
D3
CF2
.1UF
D6
R55
40K2
1N4148
1UF
C53
LM358
U2A
R57
40K2
C11
100PF
R25
20K0
TP2= 1.5-5V
R54
10K
2.2uF/16
C52
R56
180R
U2B
LM358
COMP1
IRFD120
Q5
R9
2K61
VREF
R12
87W/5K
TP2
C13
.1UF
R13
2K21
R32
549R
D21
C50
.1UF
LM336-5V
*=N.C.
JP4
KRA8
SVOUT
SDW
CMP1
CMP2
F3
220R/2W
R23
220R/2W
VOUT
C15
100PF
C14
100PF
F5
BL02
R64
100R0
IOUT
C61
100PF
C60
100PF
SDW
F4
BL02
C59
C16
100PF
R63
1K
100PF
1N4148
D5
4N26
INIBIT
IS1
R19
1M0
R14
C17
.1UF
CF6
.1UF
BC237
Q7
C68
.1UF
D24
1N4148
R77
10K
R76
10K
AUS
R62
150R/5W
CAS CER
EKM220uF/40
C58
U10
LM317
VIN
VOUT
ADJ
R45
R8
2K61
237R
C41
C4
.1UF
R7
3K3
D16
LED V
C67
.1UF
100UF/25
R80
301K
U7A
LM358
R78
10K
R81
49K9
CF7
.1UF
D26
LED V
R83
3K3
C66
2.2UF/16
R82
27K4
CMP2
F2
BL02
C9
100PF
C8
100PF
R26
20K0
D7
1N4148
CF3
.1UF
D4
R27
40K2
1N4148
1UF
C54
LM358
U3A
R29
40K2
C10
100PF
R28
20K0
TP3= 1.5-5V
COMP2
R61
10K
2.2UF/16
C56
R58
180R
U3B
LM358
JP1
STRIP
Q6
IRFD120
TP5
R59
87W/5K
C55
.1UF
R60
2K21
C12
.1UF
R52
549R
U6B
4049
R46
5K1
C42
22KPF
U6C
4049
R47
511K
U6A
U6F
U6E
U6D
4049
C43
47UF/25
D17
11DQ06
VSS
C62
100uF/25
D18
11DQ06
Nome Progetto: PJ300M
Pagina: 1 di 1
Size: A3
Autore: Ufficio Tecnico
Data: 07/07/03
Codice Progetto: PJ300M
Nome PC in Rete: \\UT_SRV\PROGETTI
Revisione: 2.0
Nome Parte: Power Supply Circuit Diagram
File/Cartella: Manuali\PJ300M\PSSW5010\PSSW5010B.dsn
Autorizzazione:
Codice: PSSW5010

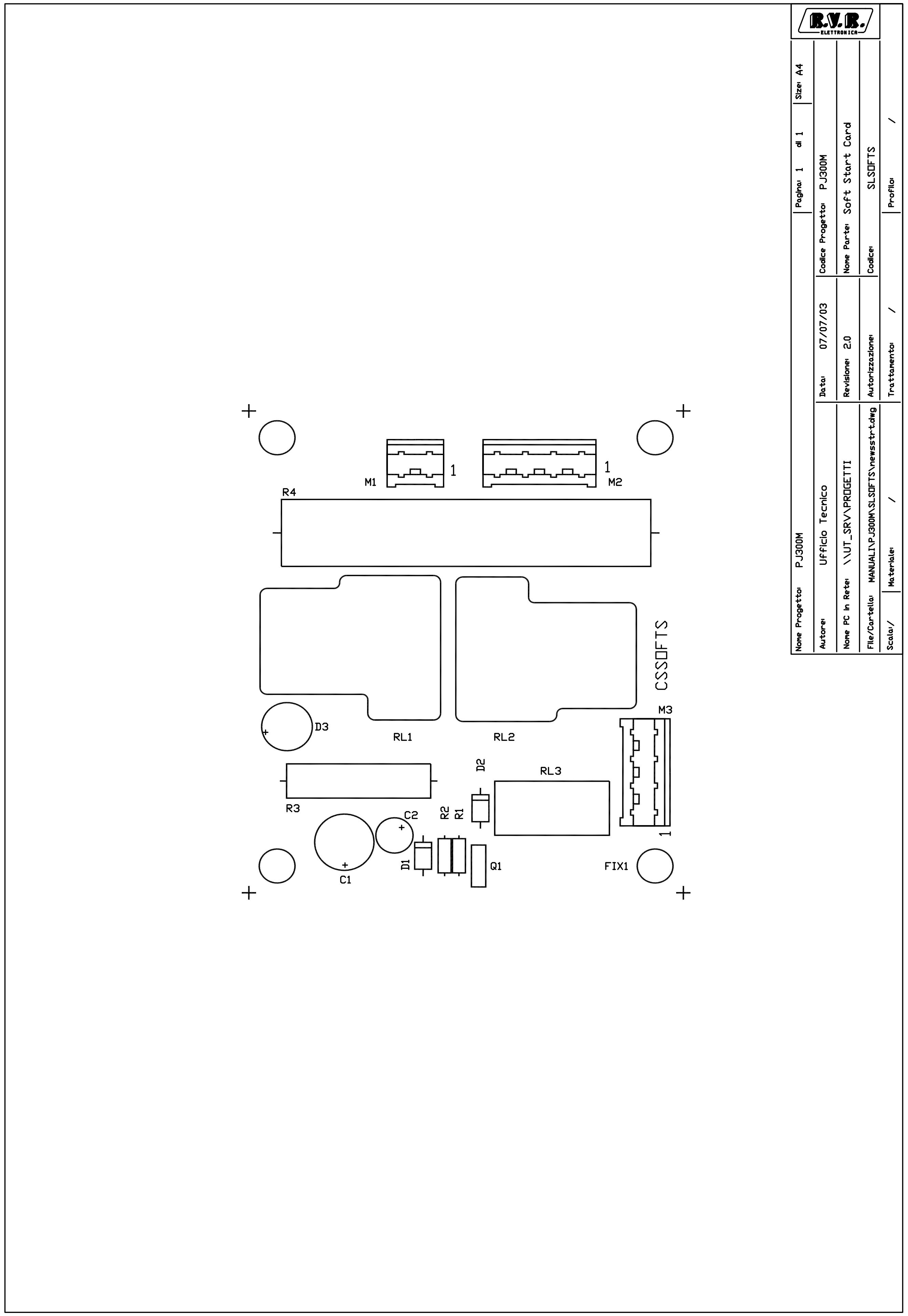

Pagina: 1 di 1
Size: A4
Nome Progetto: PJ300M
Codice Progetto: PJ300M
Autore: Ufficio Tecnico
Data: 07/07/03
Nome Parte: Switching Power Supply
Nome PC in Rete: \\UT_SRV\PROGETTI
Revisione: 2.0
Codice: PSSW5010
File/Cartella: MANUALI\PJ300M\PSSW5010\PSW5010B.DWG
Autorizzazione: /
Profilo: /
Scala: 1:1
Trattamento: /
Materiale: /
NON INSERIRE IL PONTICELLO
METTERE FASCETTA

Switching Power Supply - Bill Of Materials

Item	Quantity	Reference	Part
1	25	CF1,CF2,CF3,C3,CF4,C4, CF5,CF6,CF7,CF9,C12,C13, C17,C22,C26,C44,C45,C46, C48,C50,C51,C55,C65,C67, C68	.1UF
2	2	C19,C1	1/16
3	1	C2	180pF
4	1	C5	EKM470UF/40
5	12	C6,C7,C8,C9,C10,C11,C14, C15,C16,C59,C60,C61	100PF
6	1	C18	1KpF
7	2	C35,C20	MKP1nF/600
8	1	C21	C
9	1	C23	CP10nF
10	3	C24,C25,C43	47UF/25
11	1	C27	MKT-1UF-250V
12	2	C28,C29	EYS3300/100
13	5	C30,C31,C32,C33,C34	MKP-0.1-250
14	4	C36,C37,C38,C39	EKE1000/63
15	2	C40,C47	EKR470/63
16	3	C41,C49,C62	100uF/25
17	1	C42	22KPF
18	3	C52,C56,C66	2.2UF/16
19	2	C54,C53	1UF
20	1	C57	EKM470/63
21	1	C58	EKM220uF/40
22	1	C63	MKP4n7-2.5%
23	1	C64	CM0.33UF
24	1	D1	WL02
25	3	D2,D16,D26	LED V
26	6	D3,D4,D5,D6,D7,D24	1N4148
27	1	D8	5V/0.5W
28	2	D9,D10	15V/1W
29	1	D13	HFA15PB60
30	2	D19,D14	1N4004
31	4	D15,D17,D18,D20	11DQ06
32	1	D21	LM336-5V
33	1	D27	26MB80A
34	4	F1,F2,F4,F5	BL02
35	2	R23,F3	220R/2W
36	1	IS1	4N26
37	1	JP1	STRIP
38	1	JP2	KRA6
39	1	JP3	KRA4
40	1	JP4	KRA8
41	1	J1	MASCON
42	2	L2,L1	BFV0710
43	1	L3	77083
44	1	L4	INDUCTOR
45	1	PNT	
46	3	Q1,Q5,Q6	IRFD120
47	1	Q2	IRFP250

48	1	Q3	IRFD9120
49	2	Q7,Q4	BC237
50	1	RV1	V120ZA6
51	1	R1	390R
52	1	R2	2K49
53	1	R3	4K02
54	2	R39,R4	10R/2W
55	1	R5	80R2
56	3	R6,R7,R83	3K3
57	2	R8,R9	2K61
58	2	R10,R38	22K/1W
59	2	R45,R11	237R
60	2	R12,R59	87W/5K
61	3	R13,R60,R68	2K21
62	4	R14,R19,R49,R67	1M0
63	1	R15	87W-500R
64	2	R16,R73	2K0
65	1	R17	2K37
66	3	R18,R21,R35	1K0
67	1	R20	87W-2K
68	1	R22	22K
69	4	R24,R25,R26,R28	20K0
70	4	R27,R29,R55,R57	40K2
71	2	R30,R31	14R7
72	2	R32,R52	549R
73	2	R34,R33	820R
74	1	R36	5K6
75	1	R37	270R-1W
76	1	R40	SHUNT-10
77	1	R41	10K0
78	2	R63,R42	1K
79	1	R43	47K5
80	1	R44	R
81	1	R46	5K1
82	1	R47	511K
83	2	R48,R50	2K0-0.1%
84	2	R70,R51	10K0-0.1%
85	1	R53	470R
86	5	R54,R61,R76,R77,R78	10K
87	2	R58,R56	180R
88	1	R62	150R/5W
89	1	R64	100R0
90	1	R65	6k81
91	4	R66,R69,R71,R81	49K9
92	1	R72	87W-20K
93	2	R74,R75	10R0
94	1	R79	604R
95	1	R80	301K
96	1	R82	27K4
97	1	R84	560K
98	1	R85	87W-1M
99	5	TP1,TP2,TP3,TP4,TP5	TP
100	1	T1	TAP/24
101	1	U1	TC427
102	3	U2,U3,U7	LM358
103	1	U4	HCPL2611
104	1	U5	LM258
105	1	U6	4049
106	1	U8	HTP25
107	1	U9	UC3823
108	1	U10	LM317


M2
LUMBERG 4P
R4 3.3 20W
M3
LUMBERG 4P
FIX1 FIX
JP2 JUMPER
JP1 JUMPER
RL1 G8P-1114P
RL2 G8P-1114P
RL3 TRK2233
Q1 BD681
D2 1N4004
R1 10K0 1%
C1 220uF 1%
R2 10K0 1%
D1 1N4004
C2 47uF 50V
R3 120 5W
D3 W02M
MP1 LUMBERG 2P
JP1,JP2: JUMPERS SMD CORTOCIRCUITATI
Nome Progetto: PJ300M
Autore: Ufficio Tecnico
Nome PC in Rete: \\UT_SRV\PROGETTI
File/Cartella: MANUALI\PJ300M\SLSOFTS\NEWSSTRT.DSN
Data: 07/07/03
Revisione: 2.0
Autorizzazione:
Codice Progetto: PJ300M
Nome Parte: Soft Start Card
Codice: SLSOFTS
Pagina:1 di 1
Size: A4


M1
M2
R4
RL1
RL2
RL3
M3
D3
R3
D2
C2
R2
R1
C1
D1
Q1
FIX1
CSSOFTS
Nome Progetto: PJ300M
Autore: Ufficio Tecnico
Nome PC in Rete: \\UT_SRV\PROGETTI
File/Cartella: MANUALI\PJ300M\SLSOFTS\newsstrt.dwg
Scala: /
Materiale: /
Data: 07/07/03
Revisione: 2.0
Autorizzazione: /
Trattamento: /
Codice Progetto: PJ300M
Nome Parte: Soft Start Card
Codice: SLSOFTS
Profilo: /
Pagina: 1 di 1
Size: A4

Soft Start Card - Bill Of Materials

Item	Quantity	Reference	Part
1	2	D2, D1	1N4004
2	1	FIX1	FIX
3	2	M3,M2	LUMBERG 4P
4	2	RL2,RL1	G8P-1114P
5	2	R1,R2	10K0 1%
6	1	R4	3.3 20W
7	1	C1	220uF 1%
8	1	C2	47uF 50V
9	1	D3	W02M
10	2	JP1,JP2	JUMPER
11	1	MP1	LUMBERG 2P
12	1	Q1	BD681
13	1	RL3	TRK2233
14	1	R3	120 5W