



# PJ300LCD

TECHNICAL ANNEX  
VOLUME 2



## 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 PJ300C-LCD. L'appendice è composta dalle seguenti sezioni:

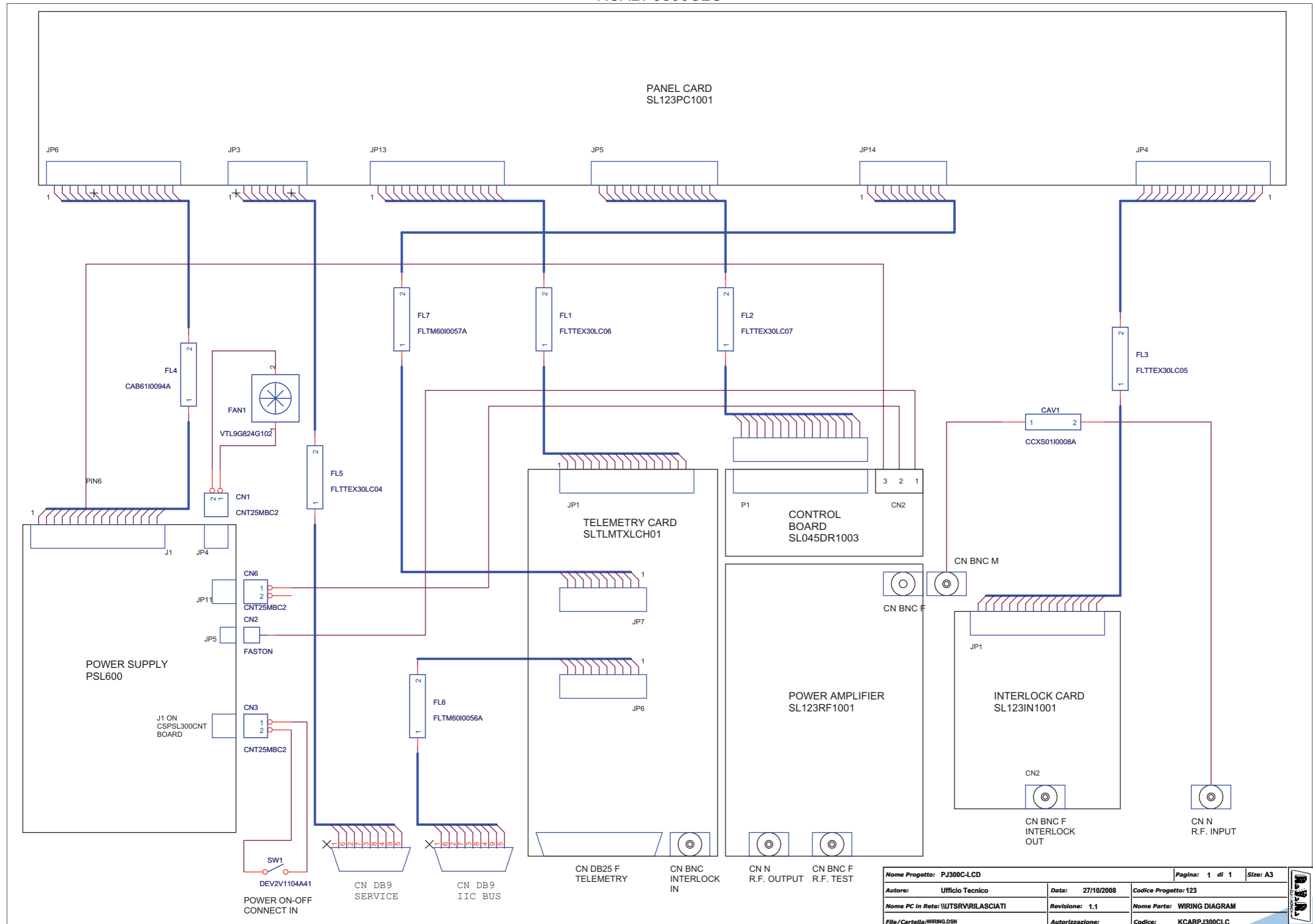
*This part of the manual contains the technical details about the different boards of the PJ300C-LCD. This appendix is composed of the following sections:*

| Description                | PJ300C-LCD   | Vers.Pages |    |
|----------------------------|--------------|------------|----|
|                            | RVR Code     |            |    |
| Wiring Diagrams            | KCABPJ300CLC | 1.1        | 1  |
| Interlock Output Interface | SL123IN1001  | 2.0        | 3  |
| Control Card               | SL045DR1003  | 1.2        | 5  |
| Power Amplifier            | SL123RF1001  | 2.1        | 8  |
| Panel Card                 | SL123PC2001  | 1.0        | 11 |
| Power Supply               | PSL600       | 1.0        | 14 |
| Telemetry Card             | SLTLMTXLCH01 | 1.0        | 26 |

### Document History

| Date       | Version | Reason         | Code | Editor     |
|------------|---------|----------------|------|------------|
| 15/12/2006 | 1.0     | First Release  | /    | J.H. Berti |
| 06/04/2012 | 1.1     | Minor Upgrades | /    | J.H. Berti |

KCABPJ300CLC



|                                      |                  |                            |          |
|--------------------------------------|------------------|----------------------------|----------|
| Nome Progetto: PJ300C-LCD            |                  | Pagina: 1 di 1             | Size: A3 |
| Autore: Ufficio Tecnico              | Data: 27/10/2008 | Codice Progetto: 123       |          |
| Nome PC in Rete: \\\UTSRVIRILASCIATI | Revisione: 1.1   | Nome Parte: WIRING DIAGRAM |          |
| File/Cartella: WIRING.DSN            | Autorizzazione:  | Codice: KCABPJ300CLC       |          |

KCABPJ300CLC

WIRING DIAGRAM Revised: Monday, October 27, 2008

KCABPJ300CLC Revision: 1.1

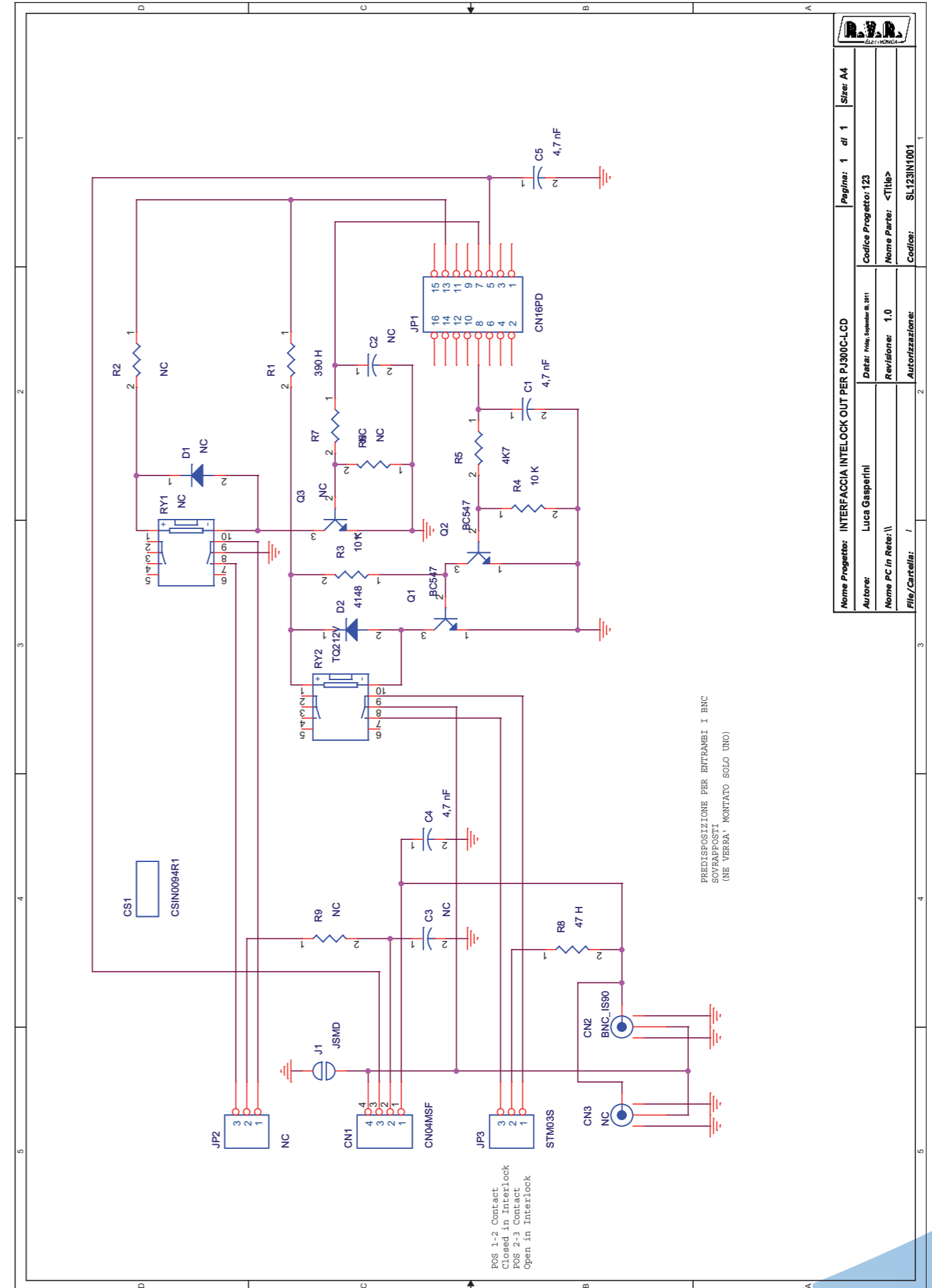
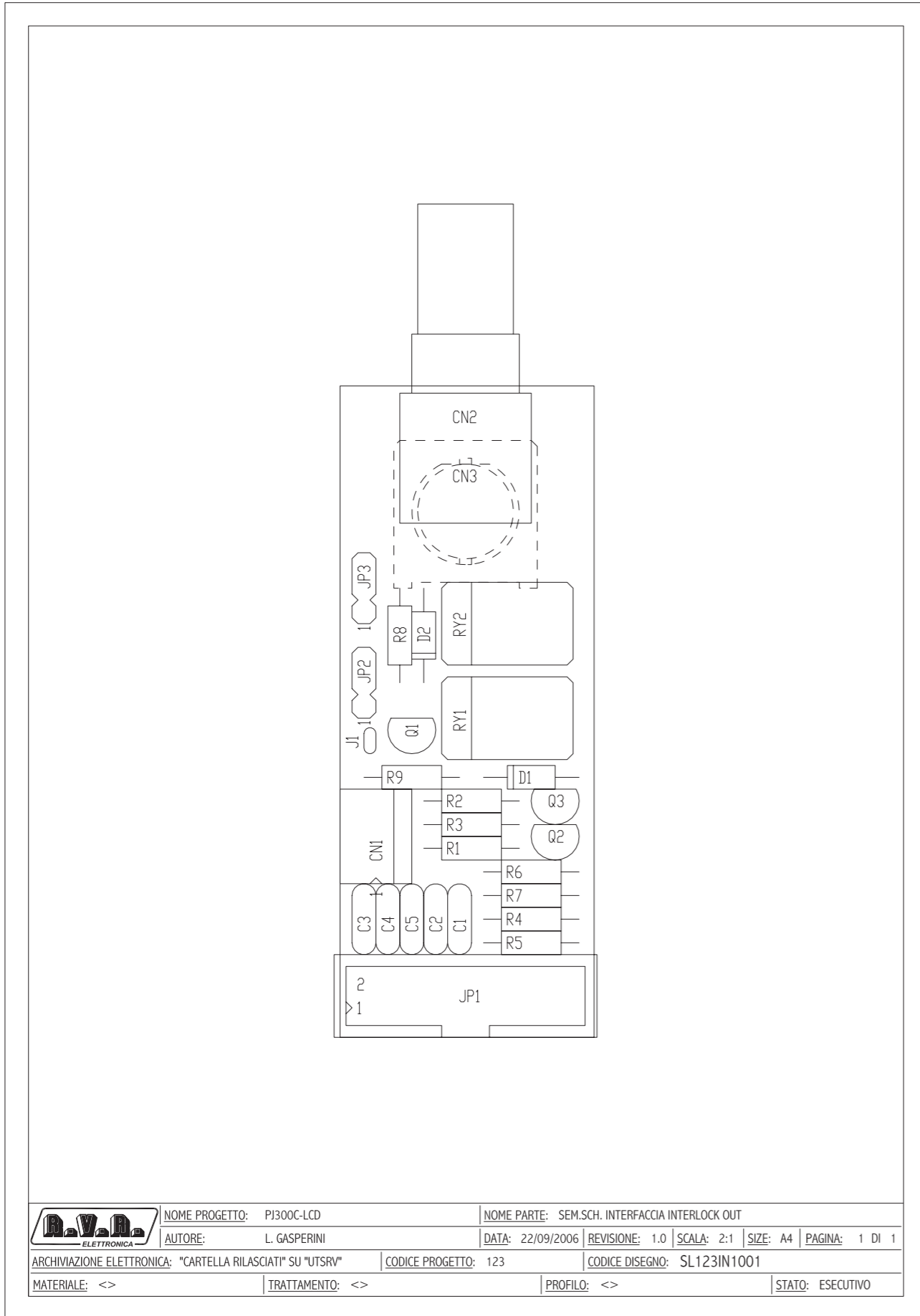
PJ300C-LCD

123

Ufficio Tecnico

| Item | Quantity | Reference     | Part         |
|------|----------|---------------|--------------|
| 1    | 1        | CAV1          | CCXS01I0008A |
| 2    | 3        | CN1, CN3, CN6 | CNT25MBC2    |
| 3    | 1        | CN2           | FASTON       |
| 4    | 1        | FAN1          | VTL9G824G102 |
| 5    | 1        | FL1           | FLTTEX30LC06 |
| 6    | 1        | FL2           | FLTTEX30LC07 |
| 7    | 1        | FL3           | FLTTEX30LC05 |
| 8    | 1        | FL4           | CAB61I0094A  |
| 9    | 1        | FL5           | FLTTEX30LC04 |
| 10   | 1        | FL6           | FLTM60I0056A |
| 11   | 1        | FL7           | FLTM60I0057A |
| 12   | 1        | SW1           | DEV2V1104A41 |

SL123IN1001



|                              |  |   |                      |             |
|------------------------------|--|---|----------------------|-------------|
| <b>R.V.R.</b><br>ELETTRONICA |  | Nome Progetto: INTERFACCIA INTELCOCK OUT PER PJ300C-LCD | Pagina: 1 di 1       | Size: A4    |
| Autore: Luca Gasperini       |  | Data: 22/09/2006  | Codice Progetto: 123 |             |
| Nome P.C. in Rete: \\        |  | Revisione: 1.0  | Nome Parte: <Title>  |             |
| File/Cartella: /             |  | Autore/Revisione:                                       | Codice:              | SL123IN1001 |

SL123IN1001

Scheda Interfaccia Interlock Out Revised: Thursday, July 27, 2006

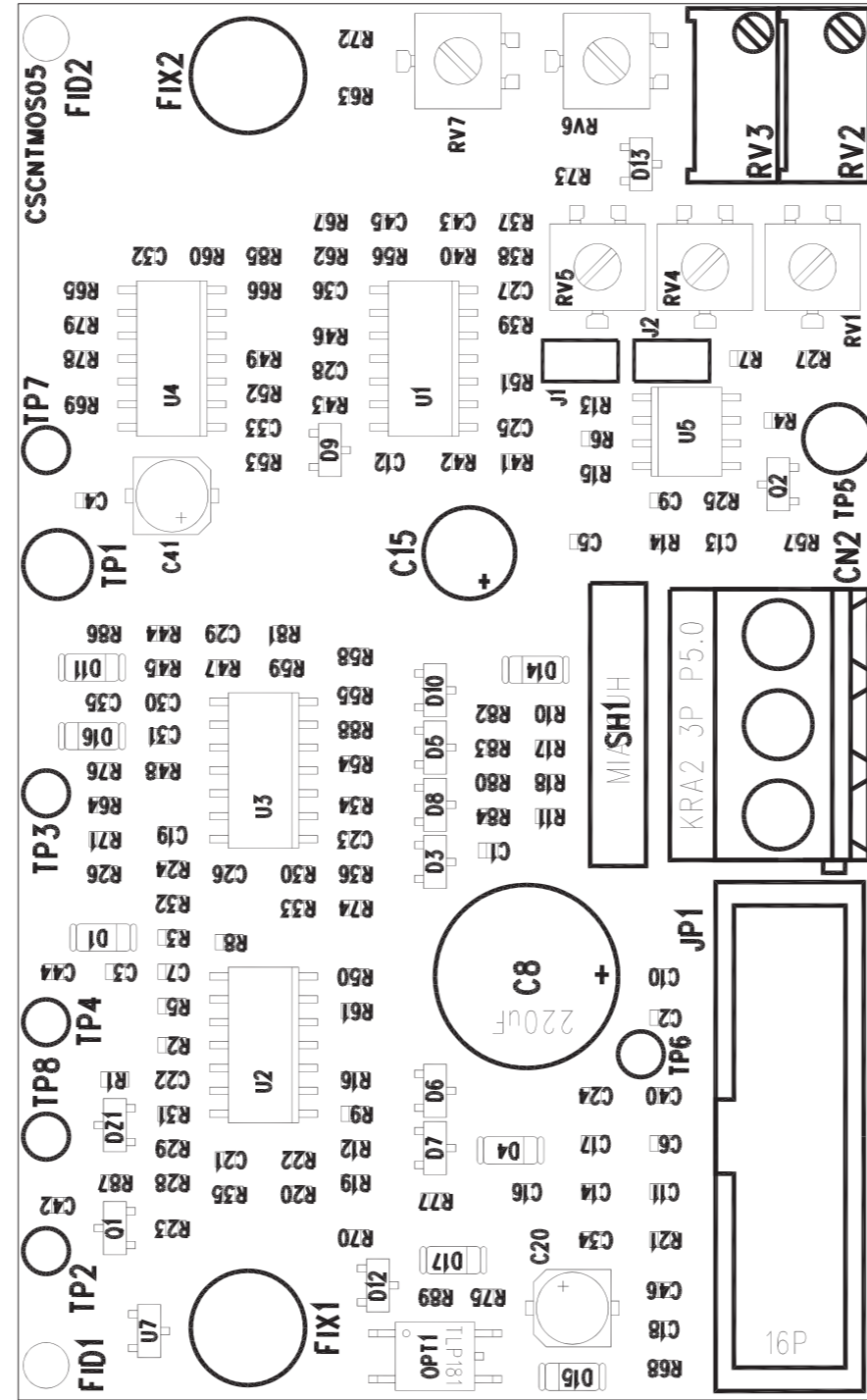
SL123IN1001 Revision: 1.0

INTERFACCIA INTELOCK OUT PER PJ300C-LCD

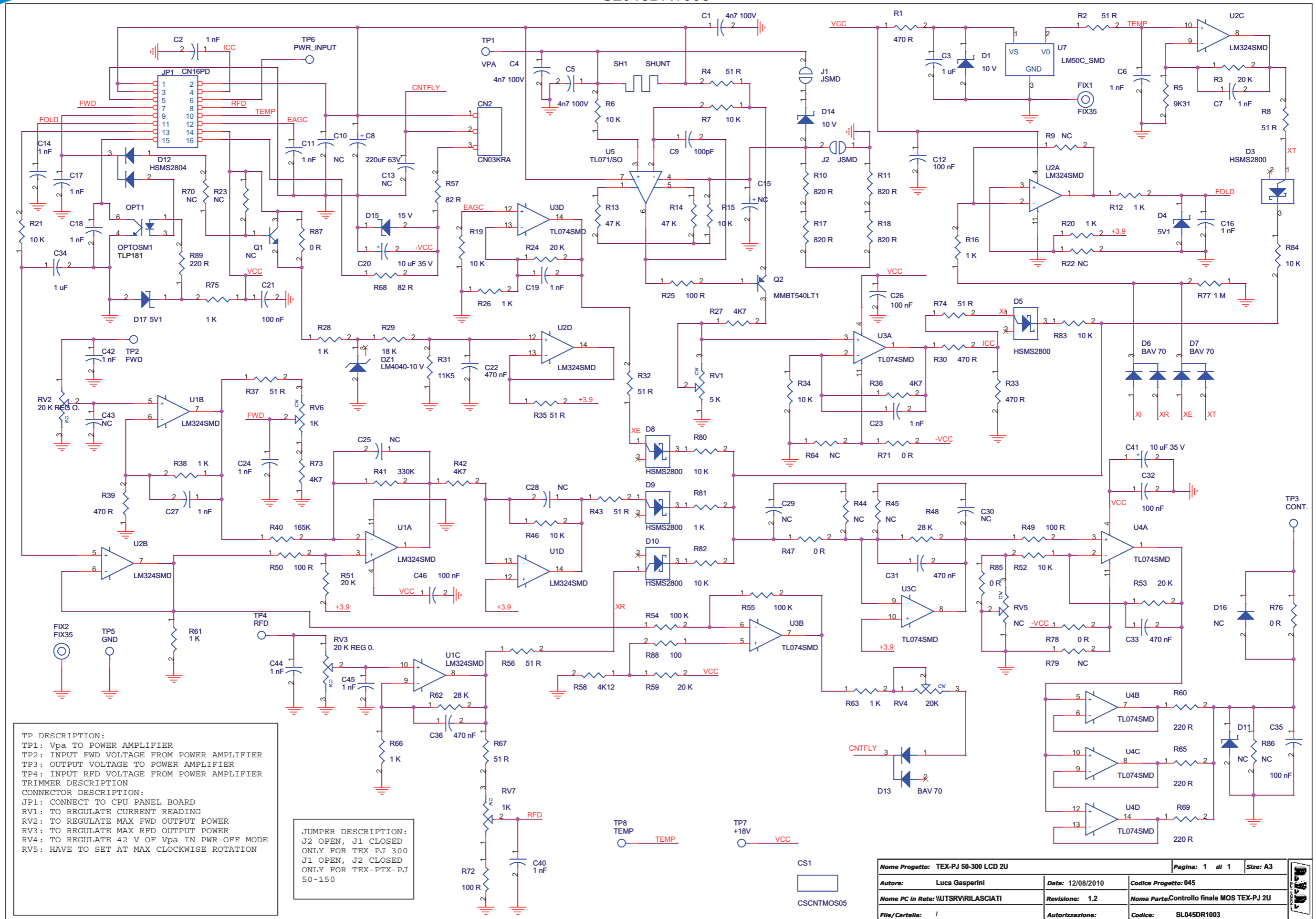
123

Luca Gasperini

| Item | Quantity | Reference                                     | Part       | {DESCRIPTION}               |
|------|----------|---|------------|-----------------------------|
| 1    | 1        | CN1   | CN04MSF    | STRIP M 4 PIN CNTSTM40SDA   |
| 2    | 1        | CN2   | BNC_IS90   | BNC 90 CNTBNCFCSMA          |
| 3    | 11       | RY1, D1, R2, JP2, C2, Q3, CN3, C3, R6, R7, R9 | NC         |                             |
| 4    | 1        | CS1   | CSIN0094R1 | CS CSIN0094R1               |
| 5    | 3        | C1, C4, C5                                    | 4,7 nF     | COND. CERAMICO CKM472KC600P |
| 6    | 1        | D2  | 4148       | DIODO SILICIO DIS1N4148     |
| 7    | 1        | JP1   | CN16PD     | CONN. 16 FLAT CS CNTMCS16A  |
| 8    | 1        | JP3   | STM03S     | STRIP M 3 PIN CNTSTM40SDA   |
| 9    | 1        | J1  | JSMC       |                             |
| 10   | 2        | Q1, Q2  | BC547      | NPN TRANSISTOR TRNBC547     |
| 11   | 1        | RY2   | TQ212V     | RELAY 12 V 2VV RLD2V12V05AM |
| 12   | 1        | R1  | 390 H      | RES 1/4 W RSM1/4F0390H      |
| 13   | 2        | R3, R4  | 10 K       | RES 1/4 W RSM1/4F0010K      |
| 14   | 1        | R5  | 4K7        | RES 1/4 W RSM1/4F004K7      |
| 15   | 1        | R8  | 47 H       | RES 1/4 W RSM1/4F0047H      |



|  |   |  |
|--|---|--|
|  | NOME PROGETTO: TEX300LCD                                    | NOME PARTE: SEM.SCH. CONTROLLO RF TEX50/150/300LCD |
|  | AUTORE: L. GASPERINI  | DATA: 09/07/07                                     |
|  | ARCHIVIAZIONE ELETTRONICA: "CARTELLA RILASCIATI" SU "UTSRV" | REVISIONE: 1.0                                     |
|  | MATERIALE: <>   | SCALA: 2:1   |
|  | TRATTAMENTO: <>   | SIZE: A4   |
|  |   | PAGINA: 1 DI 1                                     |
|  |   | CODICE PROGETTO: 045                               |
|  |   | CODICE DISEGNO: SL045DR1003                        |
|  |   | STATO: ESECUTIVO                                   |



TP DESCRIPTION:  
 TP1: Vpa TO POWER AMPLIFIER  
 TP2: INPUT FWD VOLTAGE FROM POWER AMPLIFIER  
 TP3: OUTPUT VOLTAGE TO POWER AMPLIFIER  
 TP4: INPUT RFD VOLTAGE FROM POWER AMPLIFIER  
 TRIMMER DESCRIPTION:  
 CONNECTOR DESCRIPTION:  
 JP1: CONNECT TO CPU PANEL BOARD  
 RV1: TO REGULATE CURRENT READING  
 RV2: TO REGULATE MAX FWD OUTPUT POWER  
 RV3: TO REGULATE MAX RFD OUTPUT POWER  
 RV4: TO REGULATE 42 V OF Vpa IN PWR-OFF MODE  
 RV5: HAVE TO SET AT MAX CLOCKWISE ROTATION

JUMPER DESCRIPTION:  
 J2 OPEN, J1 CLOSED  
 ONLY FOR TEX-PJ 300  
 J1 OPEN, J2 CLOSED  
 ONLY FOR TEX-PTX-PJ  
 50-150

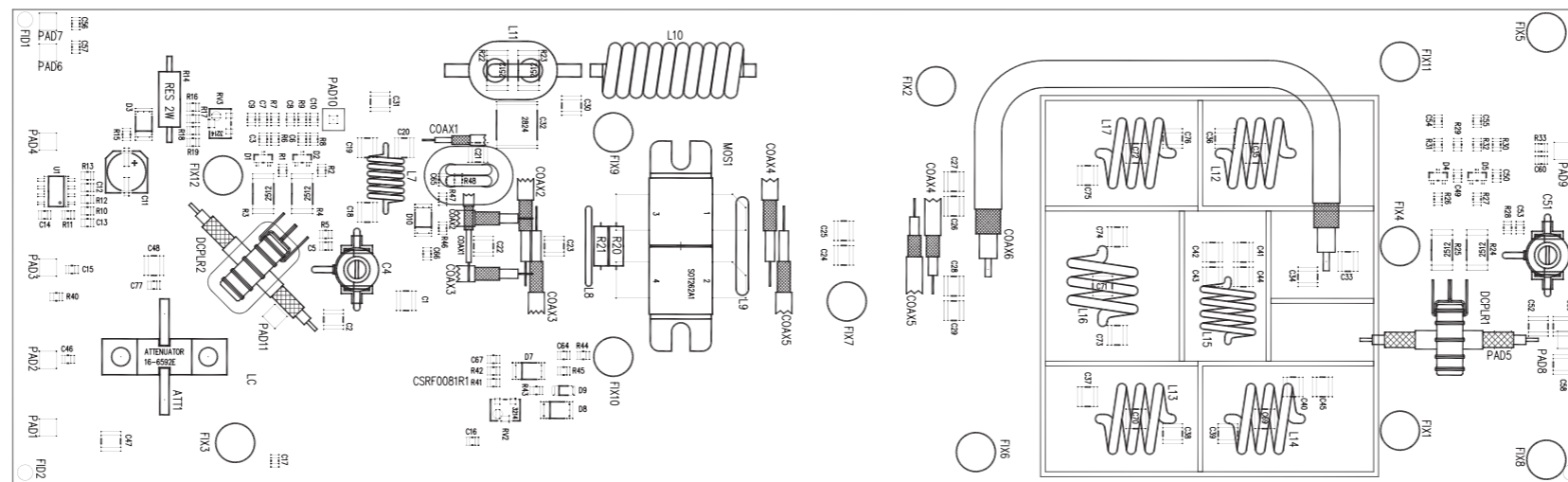
|                                     |                  |   |
|-------------------------------------|------------------|---|
| Nome Progetto: TEX-PJ 50-300 LCD 2U | Pagina: 1 di 1   | Size: A3                                  |
| Autore: Luca Gasperini              | Data: 12/08/2010 | Codice Progetto: 045                      |
| Nome PC in Rete: \WTSRV\RILASCIATI  | Revisione: 1.2   | Nome Parte/Controllo finale MOS TEX-PJ 2U |
| File/Cartella: /                    | Autorizzazione:  | Codice: SL045DR1003                       |



SL045DR1003

Controllo finale MOS TEX-PJ 2U Revised: 12/08/2010  
 SL045DR1003 Revision: 1.2  
 TEX-PJ 50-300 LCD 2U  
 045  
 Luca Gasperini

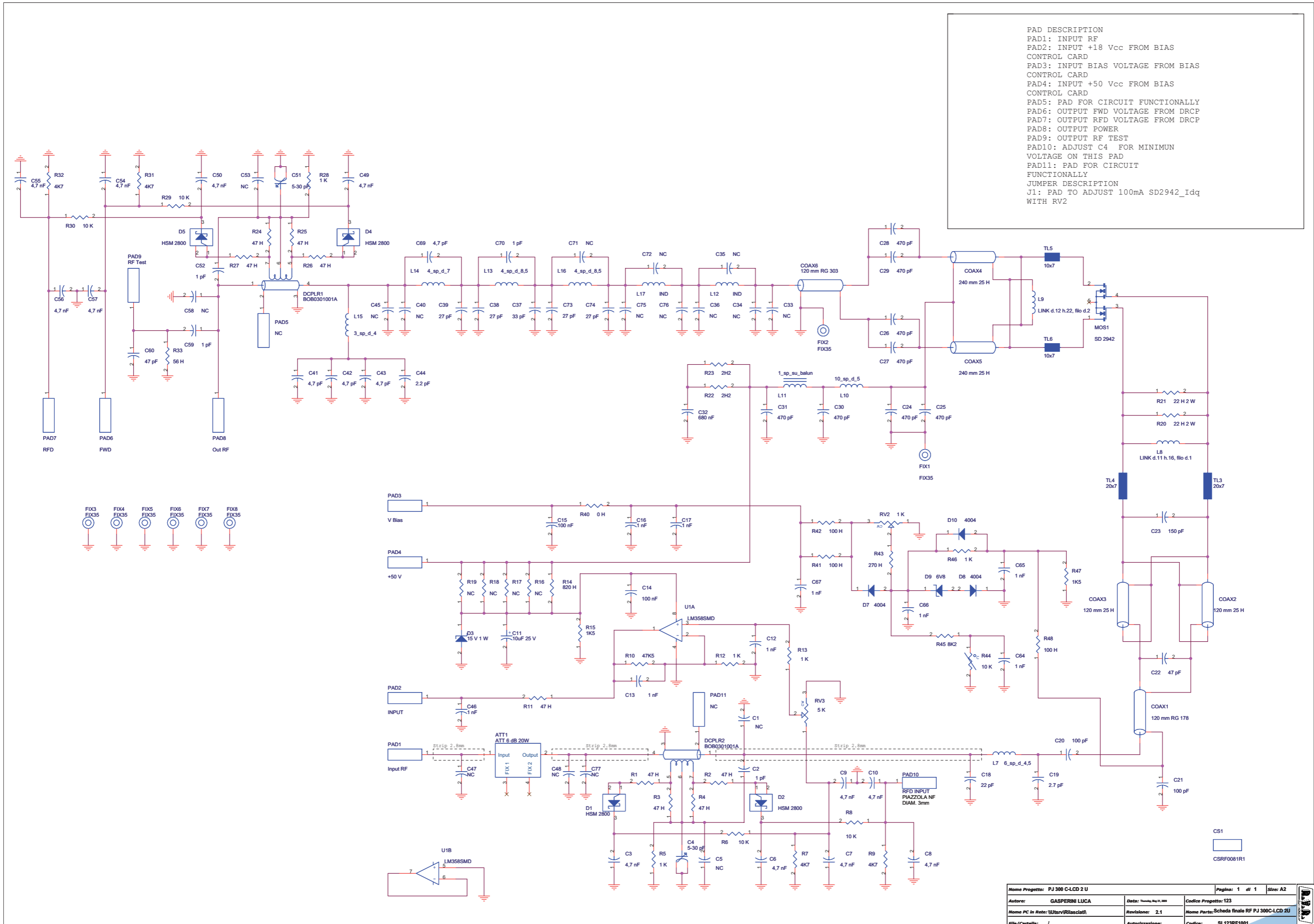
| Item | Quantity | Reference   | Part        | (DESCRIPTION)                           |
|------|----------|---|-------------|---|
| 1    | 1        | CN2   | CN03KRA     | Conn. tipo KRA a 3 poli MORSKRA3        |
| 2    | 1        | CS1   | CSCNTMOS05  | Circuito stampato CSCNTMOS05            |
| 3    | 3        | C1, C4, C5  | 4n7 100V    | Cond. SMD 0805 CCC085472KDX             |
| 4    | 16       | C2, C6, C7, C11, C14, C16, C17, C18, C19, C23, C24, C27, C40, C42, C44, C45 | 1 nF        | Cond. SMD 0805 CCC085102JNC             |
| 5    | 2        | C34, C3   | 1 uF        | Cond. SMD 0805 CCC085105KYC             |
| 6    | 1        | C8  | 220uF 63V   | Cond. Elettr. Dia 10 P5.08 CEA227MB630V |
| 7    | 1        | C9  | 100pF       | Cond. SMD 0805 CCC085101JCC             |
| 8    | 7        | C12, C21, C26, C32, C35, C46  | 100 nF      | Cond. SMD 0805 CCC085104KXC             |
| 9    | 6        | C13, C25, C28, C29, C30, C43, C10   | NC          | Cond. SMD 0805                          |
| 10   | 1        | C15   | NC          | Cond. Elettr. Dia 5 P2.54               |
| 11   | 2        | C20, C41  | 10 uF 35 V  | Cond. Elettr. SMD d. 4mm CES106B350     |
| 12   | 4        | C22, C31, C33, C36  | 470 nF      | Cond. SMD 0805 CCC085474KXB             |
| 13   | 1        | DZ1   | LM4040-10 V | Diodi Zener SMD SOT23 CILLM4040-10      |
| 14   | 2        | D1, D14   | 10 V        | MINIMELF SMD Zener Diode DIZ10VMINI     |
| 15   | 5        | D3, D5, D8, D9, D10   | HSM52800    | Diode Shottky SOT23 DISHMS2800          |
| 16   | 2        | D4, D17   | 5V1         | MINIMELF SMD Zener Diode DIZ5V1MINI     |
| 17   | 3        | D6, D7, D13   | BAV 70      | Doppio Diode SMD SOT23 DISBAV70         |
| 18   | 1        | D11   | NC          | MINIMELF SMD Zener Diode                |
| 19   | 1        | D12   | HSM52804    | Doppio Diode SMD SOT23 DISHMS2804       |
| 20   | 1        | D15   | 15 V        | MINIMELF SMD Zener Diode DIZ15VMINI     |
| 21   | 1        | D16   | NC          | MINIMELF SMD Diode                      |
| 22   | 2        | FIX1, FIX2  | FIX35       | Foro fissaggio 3.5mm                    |
| 23   | 1        | JP1   | NC          | Connettore 16 poli Flat cs              |
| 24   | 2        | J2, J1  | J5MD        | Pad SMD a saldare                       |
| 25   | 1        | OPT1  | OPTSM1      | Optoisolatore SMD SO6 LEDTLP181         |
| 26   | 1        | Q1  | NC          | Trans. NPN SOT23                        |
| 27   | 1        | Q2  | MMBT540LT1  | Trans. PNP SOT23 TRNMMBT5401            |
| 28   | 1        | RV1   | 5 K         | Trimmer SMD RVT4X4K0005V                |
| 29   | 1        | RV2, RV3  | 20 K REG V. | Trimmer Rg V 3296W RVT3296WK020         |
| 30   | 1        | U7  | LM50C SMD   | Temperature sensor CILLM50C             |
| 31   | 1        | RV4   | 20K         | Trimmer SMD RVT4X4K0020V                |
| 32   | 1        | RV5   | NC          | Trimmer SMD                             |
| 33   | 2        | RV6, RV7  | 1K          | Trimmer SMD RVT4X4K0001V                |
| 34   | 4        | R1, R30, R33, R39   | 470 R       | Res. SMD 0805 RCH085F0470H              |
| 35   | 10       | R2, R4, R8, R32, R35, R37, R43, R56, R67, R74                               | 51 R        | Res. SMD 0805 RCH085F0051H              |
| 36   | 5        | R3, R24, R51, R53, R59  | 20 K        | Res. SMD 0805 RCH085F0020K              |
| 37   | 1        | R5  | 9K31        | Res. SMD 0805 RCH085F09K31              |
| 38   | 12       | R6, R7, R15, R19, R21, R34, R46, R52, R80, R82, R83, R84                    | 10 K        | Res. SMD 0805 RCH085F0010K              |
| 39   | 9        | R9, R22, R23, R44, R45, R64, R70, R79, R86                                  | NC          | Res. SMD 0805                           |
| 40   | 4        | R10, R11, R17, R18  | 825 R       | Res. SMD 0805 RCH085F0825H              |
| 41   | 11       | R12, R16, R20, R26, R28, R38, R61, R63, R66, R75, R81                       | 1 K         | Res. SMD 0805 RCH085F0001K              |
| 42   | 2        | R13, R14  | 47 K        | Res. SMD 0805 RCH085F0047K              |
| 43   | 4        | R25, R49, R50, R72, R88   | 100 R       | Res. SMD 0805 RCH085F0100H              |
| 44   | 4        | R27, R36, R42, R73  | 4K7         | Res. SMD 0805 RCH085F004K7              |
| 45   | 1        | R29   | 18 K        | Res. SMD 0805 RCH085F0018K              |
| 46   | 1        | R31   | 11K5        | Res. SMD 0805 RCH085F011K5              |
| 47   | 1        | R40   | 165K        | Res. SMD 0805 RCH085F0165K              |
| 48   | 1        | R41   | 300K        | Res. SMD 0805 RCH085F0300K              |
| 49   | 2        | R48, R62  | 28 K        | Res. SMD 0805 RCH085F0028K              |
| 50   | 2        | R54, R55  | 100 K       | Res. SMD 0805 RCH085F0100K              |
| 51   | 2        | R88, R57  | 82 R        | Res. SMD 0805 RCH085F0082H              |
| 52   | 1        | R58   | 4K12        | Res. SMD 0805 RCH085F04K12              |
| 53   | 4        | R60, R65, R69, R89  | 220 R       | Res. SMD 0805 RCH085F0220H              |
| 54   | 6        | R47, R71, R76, R78, R85, R87  | 0 R         | Res. SMD 0805 RCH085F0000H              |
| 55   | 1        | R77   | 1 M         | Res. SMD 0805 RCH085F0001M              |
| 56   | 1        |   |             |   |
| 57   | 1        | SH1   | SHUNT       | Shunt passo 15.2mm fori 2mm RSH10A0H01  |
| 58   | 1        | TP1   | VPA         | Foro dia. 2mm                           |
| 59   | 1        | TP2   | FWD         | Foro dia. 1mm                           |
| 60   | 1        | TP3   | CONT.       | Foro dia. 1mm                           |
| 61   | 1        | TP4   | RFD         | Foro dia. 1mm                           |
| 62   | 1        | TP5   | GND         | Foro dia. 2mm                           |
| 63   | 1        | TP6   | PWR_INPUT   | Foro dia. 1mm                           |
| 64   | 1        | TP7   | +18V        | Foro dia. 1mm                           |
| 65   | 1        | TP8   | TEMP        | Foro dia. 1mm                           |
| 66   | 2        | U1, U2  | LM324SMD    | Quad Op. SMD SO14 CILLM324SMD           |
| 67   | 2        | U3, U4  | TL074SMD    | Quad Op. SMD SO14 CILTL074SMD           |
| 68   | 1        | U5  | TL071/SO    | Dual Op. SMD SO8 CILTL071SMD            |



|   |                           |                              |                  |
|---|---------------------------|------------------------------|------------------|
|   | NOME PROGETTO: PJ300C-LCD | NOME PARTE: SCHEDA FINALE RF |                  |
|   | AUTORE: L. GASPERINI      | DATA: 21/09/2006             | REVISIONE: 1.0   |
| ARCHIVIAZIONE ELETTRONICA: "CARTELLA RILASCIATI" SU "UTSRV" | CODICE PROGETTO: 123      | CODICE DISEGNO: SL123RF1001  | SCALA: 1:1       |
| MATERIALE: <>   | TRATTAMENTO: <>           | PROFILO: <>                  | STATO: ESECUTIVO |
|   |                           | SIZE: A3                     | PAGINA: 1 DI 1   |

SL123RF1001

PAD DESCRIPTION  
 PAD1: INPUT RF  
 PAD2: INPUT +18 Vcc FROM BIAS CONTROL CARD  
 PAD3: INPUT BIAS VOLTAGE FROM BIAS CONTROL CARD  
 PAD4: INPUT +50 Vcc FROM BIAS CONTROL CARD  
 PAD5: PAD FOR CIRCUIT FUNCTIONALLY  
 PAD6: OUTPUT FWD VOLTAGE FROM DRCP  
 PAD7: OUTPUT RFD VOLTAGE FROM DRCP  
 PAD8: OUTPUT POWER  
 PAD9: OUTPUT RF TEST  
 PAD10: ADJUST C4 FOR MINIMUM VOLTAGE ON THIS PAD  
 PAD11: PAD FOR CIRCUIT FUNCTIONALLY  
 JUMPER DESCRIPTION  
 J1: PAD TO ADJUST 100mA SD2942 Idq WITH RV2



|                                   |                 |  |
|-----------------------------------|-----------------|--|
| Nome Progetto: PJ 300 C-LCD 2 U   | Pagina: 1 di 1  | Size: A2                                       |
| Autore: GASPERINI LUCA            | Data: 12/04/12  | Codice Progetto: 123                           |
| Nome PC in Rete: WUtsrv\lucasiati | Revisione: 2,1  | Nome Percorso: Scheda finale RF PJ 300C-LCD 2U |
| File/Cartella: /                  | Autorizzazione: | Codice: SL123RF1001                            |

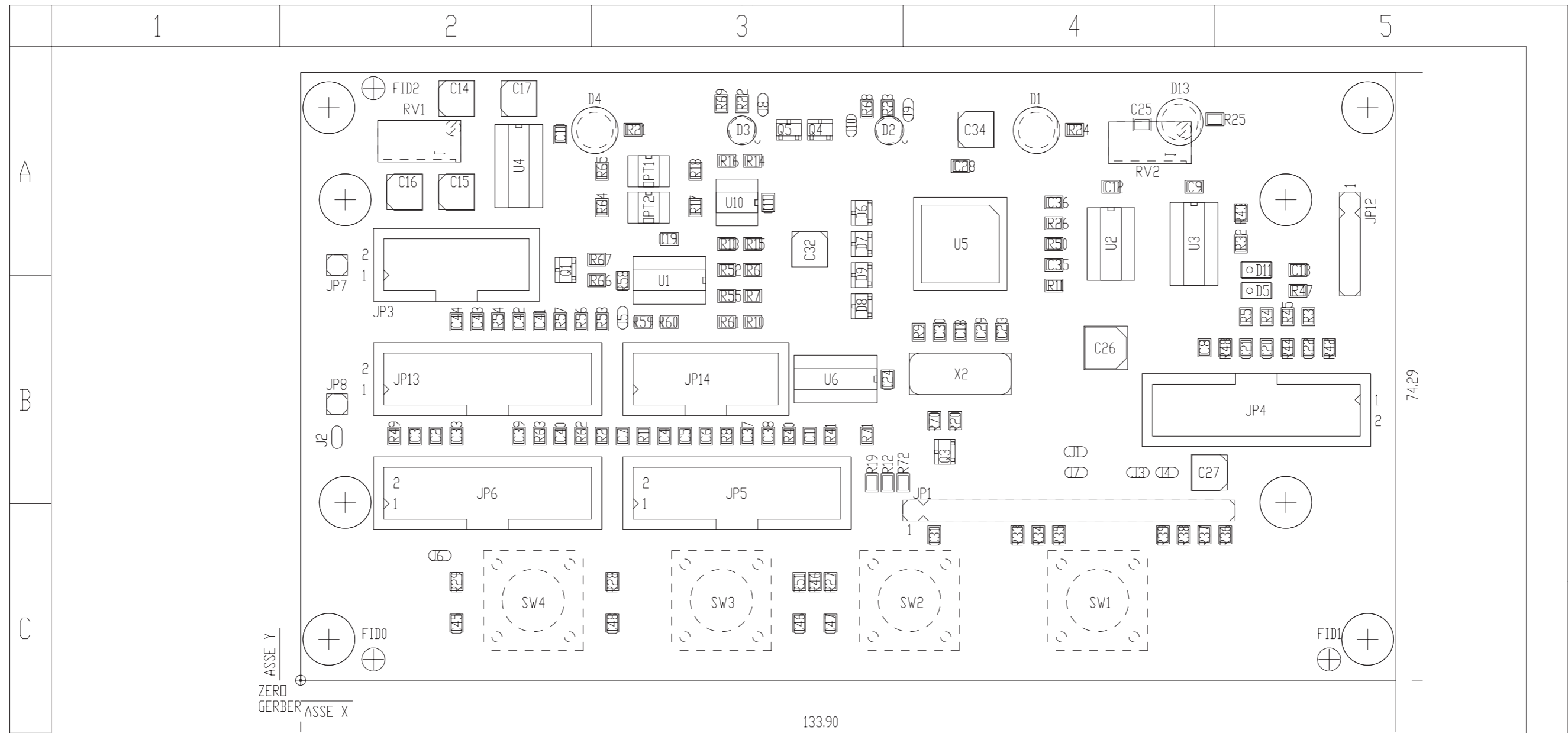
SL123RF1001

Scheda finale RF PJ 300C-LCD 2U Revised: 21/05/2009  
 SL123RF1001 Revision: 2.1  
 PJ 300 C-LCD 2 U  
 123  
 GASPERINI LUCA

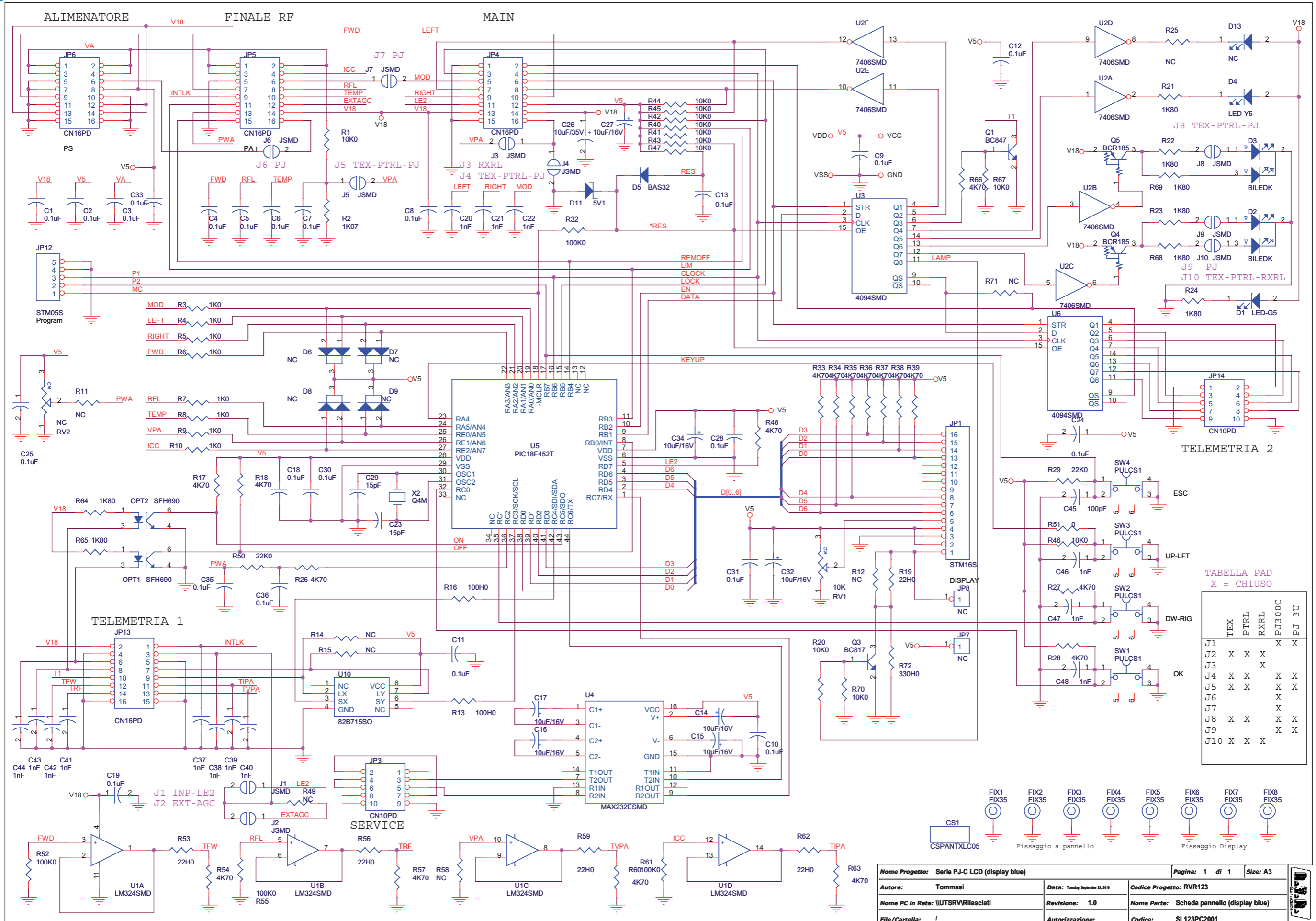
| Item | Quantity | Reference   | Part                     | (description)                        |
|------|----------|---|--------------------------|--------------------------------------|
| 1    | 1        | ATT1  | ATT 6 dB 20W             | RAT06DB050W                          |
| 2    | 1        | COAX1   | 120 mm RG 178            | Cavo coax CAVRG178                   |
| 3    | 2        | COAX3, COAX2  | 120 mm 25 H              | Cavo coax CAVRG316/25                |
| 4    | 2        | COAX4, COAX5  | 240 mm 25 H              | Cavo coax CAVRG316/25                |
| 5    | 1        | COAX6   | 120 mm RG 303            | Cavo coax CAVRG3003                  |
| 6    | 1        | CS1   | CSR0081R1                | Circuito stampato CSR0081R1          |
| 7    | 14       | C1, C33, C34, C35, C36, C40, C45, C47, C48, C58, C71, C72, C75, C76 | NC                       | Cond. SMD 1212 HQ                    |
| 8    | 4        | C2, C52, C59, C70   | 1 pF                     | Cond. SMD 1212 HQ CHQ010CA501        |
| 9    | 12       | C3, C6, C7, C8, C9, C10, C49, C50, C54, C55, C56, C57               | 4,7 nF                   | Cond. SMD 0805 CCC085472KXC          |
| 10   | 2        | C4, C51   | 5-30 pF                  | Comp. ceramico dia. 7mm CVC300D07    |
| 11   | 3        | C5, C53, C77  | NC                       | Cond. SMD 0805                       |
| 12   | 1        | C11   | 10uF 25 V                | Cond. Elett. SMD d. 6.3mm CES106B350 |
| 13   | 9        | C12, C13, C16, C17, C46, C64, C65, C66, C67                         | 1 nF                     | Cond. SMD 0805 CCC085102JNC          |
| 14   | 2        | C14, C15  | 100 nF                   | Cond. SMD 0805 CCC085104KXC          |
| 15   | 1        | C18   | 22 pF                    | Cond. SMD 1212 HQ CHQ220JA501        |
| 16   | 1        | C19   | 2.7 pF                   | Comp. Ceramico p.5mm CKM2,7KC600C    |
| 17   | 2        | C21, C20  | 100 pF                   | Cond. SMD 1212 HQ CHQ101JA501        |
| 18   | 1        | C22   | 47 pF                    | Cond. SMD 1212 HQ CHQ470JA501        |
| 19   | 1        | C23   | 150 pF                   | Cond. SMD 1212 HQ CHQ151JA301        |
| 20   | 8        | C24, C25, C26, C27, C28, C29, C30, C31                              | 470 pF                   | Cond. SMD 1212 HQ CHQ471JA201        |
| 21   | 1        | C32   | 680 nF                   | Cond. SMD 2824 CPE684K101O           |
| 22   | 1        | C37   | 33 pF                    | Cond. SMD 1212 HQ CHQ330JA501        |
| 23   | 4        | C38, C39, C73, C74  | 27 pF                    | Cond. SMD 1212 HQ CHQ270JA501        |
| 24   | 4        | C41, C42, C43, C69  | 4,7 pF                   | Cond. SMD 1212 HQ CHQ470JA501        |
|      | 1        | C44   | 2.2 pF                   | Cond. SMD 1212 HQ CHQ220JA501        |
| 25   | 1        | C60   | 47 pF                    | Cond. SMD 0805 CCC085470JCC          |
| 26   | 2        | DCPLR1, DCPLR2  | BOB0301001A              | Accopp. direz. BOB0301001A           |
| 27   | 4        | D1, D2, D4, D5  | HSM 2800                 | DISHSMS2800                          |
| 28   | 1        | D3  | 15 V                     | MELF SMD Zener Diode DIZ15VMELF      |
| 29   | 3        | D7, D8, D10   | 4004                     | MELF SMD Diode DIS4004MELF           |
| 30   | 1        | D9  | 6V8                      | MINIMELF SMD Zener Diode DIZ6V8MINI  |
| 31   | 8        | FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8                      | FIX35                    | Foro fissaggio 3.5mm                 |
| 32   | 1        | L7  | 6_sp_d_4,5               | Induttanza cilindrica BOB01010006A   |
| 33   | 1        | L8  | LINK d.11 h.16, filo d.1 | Induttanza cilindrica BOB01020079A   |
| 34   | 1        | L9  | LINK d.12 h.22, filo d.2 | Induttanza cilindrica BOB01020076A   |
| 35   | 1        | L10   | 10_sp_d_5                | Induttanza cilindrica BOB01010005A   |
| 36   | 1        | L11   | 1_sp_su_balun            | BOB02020001A                         |
| 37   | 2        | L17, L12  | NC                       | Induttanza cilindrica                |
| 38   | 2        | L13, L16  | 4_sp_d_8,5               | Induttanza cilindrica BOB01020082A   |
| 39   | 1        | L14   | 4_sp_d_7                 | Induttanza cilindrica BOB01020083A   |
| 40   | 1        | L15   | 3_sp_d_4                 | Induttanza cilindrica BOB01020001B   |
| 41   | 1        | MOS1  | SD 2942                  | PP Power mosfet RF TRNSD2942         |
| 42   | 1        | PAD1  | Input RF                 |                                      |
| 43   | 1        | PAD2  | INPUT                    |                                      |
| 44   | 1        | PAD3  | V Bias                   |                                      |
| 45   | 1        | PAD4  | +50 V                    |                                      |
| 46   | 2        | PAD11, PAD5   | NC                       |                                      |
| 47   | 1        | PAD6  | FWD                      |                                      |
| 48   | 1        | PAD7  | RFD                      |                                      |
| 49   | 1        | PAD8  | Out RF                   |                                      |
| 50   | 1        | PAD9  | RF Test                  |                                      |
| 51   | 1        | PAD10   | RFD INPUT                |                                      |
| 52   | 1        | RV2   | 1 K                      | Trimmer SMD RVTMLK0001VS             |
| 53   | 1        | RV3   | 5 K                      | Trimmer SMD RVTMLK0005VS             |
| 54   | 5        | R1, R2, R11, R26, R27   | 47 H                     | Res. SMD 0805 1% RCH085F0047H        |
| 55   | 4        | R3, R4, R24, R25  | 47 H                     | Res. SMD 2512 1% RCH252J0047H        |
| 56   | 5        | R5, R12, R13, R28, R46  | 1 K                      | Res. SMD 0805 1% RCH085F0001K        |
| 57   | 4        | R6, R8, R29, R30  | 10 K                     | Res. SMD 0805 1% RCH085F0010K        |
| 58   | 4        | R7, R9, R31, R32  | 4K7                      | Res. SMD 0805 1% RCH085F04K75        |
| 59   | 1        | R10   | 47K5                     | Res. SMD 0805 1% RCH085F047K5        |
| 60   | 1        | R14   | 820 H                    | Res. 2W RSM002J0820H                 |
| 61   | 2        | R15, R47  | 1K5                      | Res. SMD 0805 1% RCH085F001K5        |

| Item | Quantity | Reference          | Part     | (description)                  |
|------|----------|--------------------|----------|--------------------------------|
| 62   | 4        | R16, R17, R18, R19 | NC       | Res. SMD 0805 1%               |
| 63   | 2        | R20, R21           | 22 H 2 W | Res. 2W 1% RSM002J0022H        |
| 64   | 2        | R22, R23           | 2H2      | Res. SMD 2512 1% RCH252J002H2  |
| 65   | 1        | R33                | 56 H     | Res. SMD 0805 1% RCH085F0056H  |
| 66   | 1        | R40                | 0 H      | Res. SMD 0805 1% RCH085F0000H  |
| 67   | 3        | R41, R42, R48      | 100 H    | Res. SMD 0805 1% RCH085F0100H  |
| 68   | 1        | R43                | 270 H    | Res. SMD 0805 1% RCH085F0270H  |
| 69   | 1        | R44                | 10 K     | Res. SMD 0805 NTC RNTC085K103K |
| 70   | 1        | R45                | 8K2      | Res. SMD 0805 1% RCH085F008K2  |
| 71   | 2        | TL3, TL4           | 20x7     | Linea strip CS                 |
| 72   | 2        | TL5, TL6           | 10x7     | Linea strip CS                 |
| 73   | 1        | U1                 | LM358SMD | Dual Op. SMD SO8 CILLM358SMD   |

SL123PC2001



|                             |                    |                        |                         |
|-----------------------------|--------------------|------------------------|-------------------------|
| DATA RILASCIO: 16/3/06      |                    |                        | DIS. S.POL.             |
| REV:                        |                    |                        | CTR. A2                 |
|                             |                    |                        | LATO PIANO DI MONTAGGIO |
|                             |                    |                        | VISTA LATO COMPONENTI   |
| DIM.SCHEDA: VEDI QUOTE      | DENOMINAZIONE      |                        |                         |
| TRATT: STANDARD COSTRUTTORE | SCHEDA PANEL BOARD |                        |                         |
| MAT: FR4-74 1.6mm Cu 35um   | CODICE             | RVR ELETTRONICA S.P.A. | SCALA 1:1               |
| VISTA POSITIVA              | CSPANTXLC005       |                        |                         |

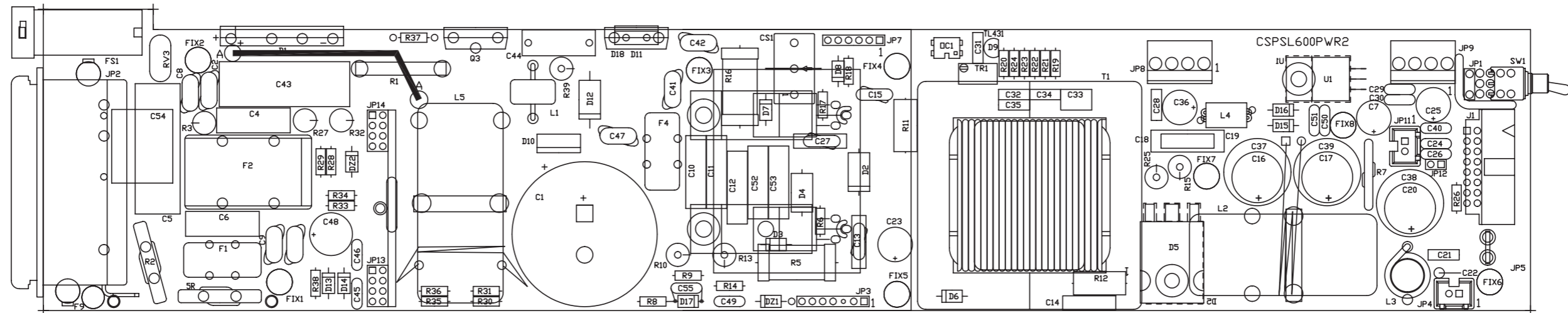


|  |                                   |  |
|--|-----------------------------------|--|
| Nome Progetto: Serie PJ-C LCD (display blue) | Pagina: 1 di 1                    | Size: A3                                   |
| Autore: Tommasi                              | Data: Tuesday, September 28, 2010 | Codice Progetto: RVR123                    |
| Nome PC in Rete: \UTSRV\Rilasciati           | Revisione: 1.0                    | Nome Parte: Scheda pannello (display blue) |
| File/Cartella: /                             | Autorizzazione:                   | Codice: SL123PC2001                        |

SL123PC2001

Scheda pannello serie PJ-C LCD - SL123PC2001  
 28/09/2010 Revision: 1.0  
 Serie PJ-C LCD  
 RVR123  
 Tommasi

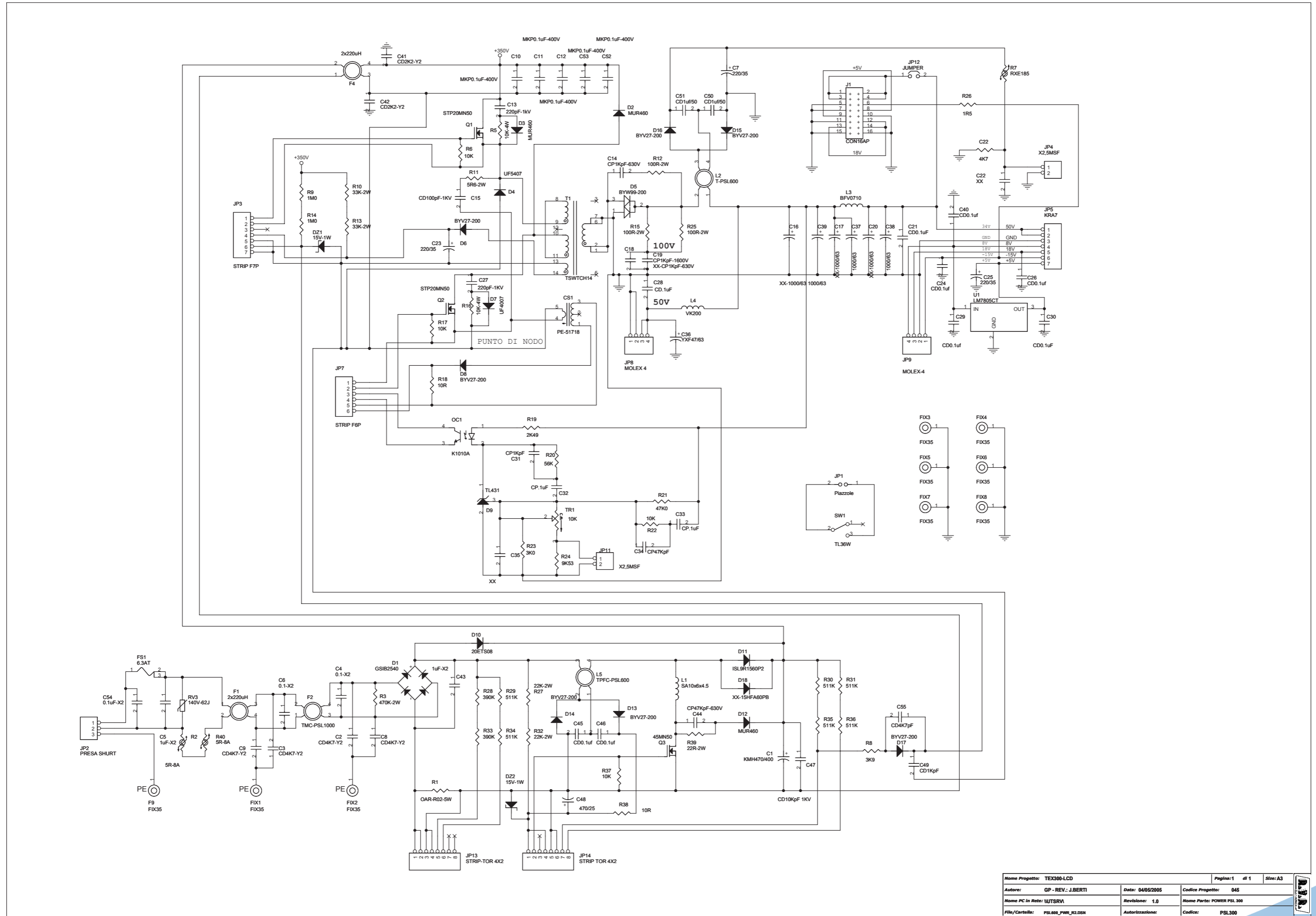
| Item | Quantity | Reference  | Part        | Description                    | Code            |
|------|----------|--|-------------|--------------------------------|-----------------|
| 1    | 1        | CS1  | CSPANTXLC05 | Circuito stampato              | CSPANTXLC05     |
| 2    | 23       | C1,C2,C3,C4,C5,C6,C7,C8,<br>C9,C10,C11,C12,C13,C18,<br>C19,C24,C25,C28,C30,C31,<br>C33,C35,C36 | 0.1uF       | Cond. SMD 0805                 | CCC085104KXC    |
| 3    | 7        | C14,C15,C16,C17,C27,C32,<br>C34  | 10uF/16V    | Cond. Elett. SMD d. 4mm        | CES106A160      |
| 4    | 14       | C20,C21,C22,C37,C38,C39,<br>C40,C41,C42,C43,C44,C46,<br>C47,C48                                | 1nF         | Cond. SMD 0805                 | CCC085102KXC    |
| 5    | 2        | C23,C29  | 15pF        | Cond. SMD 0805                 | CCC085150JCC    |
| 6    | 1        | C26  | 10uF/35V    | Cond. Elett. SMD d. 5mm        | CES106B350      |
| 7    | 1        | C45  | 100pF       | Cond. SMD 0805                 | CCC085101JCC    |
| 8    | 1        | D1   | LED-G5      | LED Verde dia. 5mm             | LEDV05          |
| 9    | 2        | D2,D3  | BILEDK      | Doppio led V-R 5mm Catodo com. | LEDB05          |
| 10   | 1        | D4   | LED-Y5      | LED Giallo dia. 5mm            | LEDG05          |
| 11   | 1        | D5   | BAS32       | MINIMELF SMD Diode             | DISBAS32MINI    |
| 12   | 4        | D6,D7,D8,D9  | NC          | Doppio Diodo SMD SOT23         |                 |
| 13   | 1        | D11  | 5V1         | MINIMELF SMD Zener Diode       | DIZ5V1MINI      |
| 14   | 1        | D13  | NC          | LED Giallo dia. 5mm            |                 |
| 15   | 8        | FIX1, FIX2, FIX3, FIX4, FIX5,<br>FIX6, FIX7, FIX8  | FIX35       | Foro fissaggio 3.5mm           |                 |
| 16   | 1        | JP1  | STM16S      | Strip maschio 16 pin           | Stecca tagliata |
| 17   | 2        | JP3, JP14  | CN10PD      | Connettore 10 poli Flat cs     | CNTMCS10A       |
| 18   | 4        | JP4, JP5, JP6, JP13  | CN16PD      | Connettore 16 poli Flat cs     | CNTMCS16A       |
| 19   | 2        | JP7, JP8   | NC          |                                |                 |
| 20   | 1        | JP12   | STM05S      | Strip maschio 5 pin            | Stecca tagliata |
| 21   | 10       | J1, J2, J3, J4, J5, J6, J7, J8,<br>J9, J10   | JSMD        | Pad SMD a saldare              |                 |
| 22   | 2        | OPT1, OPT2   | TLP181      | Optoisolatore SMD SO6          | LEDTLP181       |
| 23   | 1        | Q1   | BC847       | Trans. NPN SOT23               | TRNBC847        |
| 24   | 1        | Q3   | BC817       | Trans. NPN SOT23               | TRNBC817        |
| 25   | 2        | Q4, Q5   | BCR185      | Trans./Res. PNP SOT23          | TRNBCR185       |
| 26   | 1        | RV1  | 10K         | Trimmer Rg O 3386X             | RVT3386XK010    |
| 27   | 1        | RV2  | NC          | Trimmer Rg V 3296W             |                 |
| 28   | 12       | R1, R20, R40, R41, R42, R43,<br>R44, R45, R46, R47, R67, R70                                   | 10K0        | Res. SMD 0805 1%               | RCH085F0010K    |
| 29   | 1        | R2   | 1K07        | Res. SMD 0805 1%               | RCH085F01K07    |
| 30   | 8        | R3, R4, R5, R6, R7, R8, R9, R10  | 1K0         | Res. SMD 0805 1%               | RCH085F0001K    |
| 31   | 8        | R11, R12, R14, R15, R25,<br>R49, R58, R71  | NC          | Res. SMD 0805 1%               |                 |
| 33   | 2        | R13, R16   | 100H0       | Res. SMD 0805 1%               | RCH085F0100H    |
| 34   | 1        | R72  | 330H0       | Res. SMD 0805 1%               | RCH085F0330H    |
| 35   | 18       | R17, R18, R26, R27, R28, R33,<br>R34, R35, R36, R37, R38, R39,<br>R48, R54, R57, R60, R63, R66 | 4K70        | Res. SMD 0805 1%               | RCH085F004K7    |
| 36   | 8        | R21, R22, R23, R24, R64, R65,<br>R68, R69  | 1K80        | Res. SMD 0805 1%               | RCH085F001K8    |
| 37   | 2        | R29, R50   | 22K0        | Res. SMD 0805 1%               | RCH085F0022K    |
| 38   | 4        | R32, R52, R55, R61   | 100K0       | Res. SMD 0805 1%               | RCH085F0100K    |
| 39   | 1        | R51  | 0H0         | Res. SMD 0805 1%               | RCH085F0000H    |
| 40   | 5        | R19, R53, R56, R59, R62  | 22H0        | Res. SMD 0805 1%               | RCH085F0022H    |
| 41   | 4        | SW1, SW2, SW3, SW4   | PULCS1      | Pulsante cs                    | PLC1V1M000M     |
| 42   | 1        | U1   | LM324SMD    | Quad Op. SMD SO14              | CILLM324SMD     |
| 43   | 1        | U2   | 7406SMD     | Hex inv OC SMD SO14            | CID7406SMD      |
| 44   | 2        | U3, U6   | 4094SMD     | Shift Reg. SMD SO16            | CIDCD4094SMD    |
| 45   | 1        | U4   | MAX232ESMD  | RS232 Driver SMD SO16          | CIDMX232CSES    |
| 46   | 1        | U5   | PIC18F452T  | TQFP44 SMD Microprocessor      | CIDPIC18F452    |
| 47   | 1        | U10  | 82B715SO    | IIC Bus driver SMD SO8         | CID82B715S      |
| 48   | 1        | X2   | Q4M         | Quarzo SMD HC49SMD             | QRZ000004MC     |



|  |                               |  |
|--|-------------------------------|--|
|  | NOME PROGETTO: TEX300-LCD     | NOME PARTE: Main Card  |
|  | AUTORE: U.T. - rev.: J. Berti | DATA: 05/04/2006   REVISIONE: 1.0   SCALA: 1:1   SIZE: A3   PAGINA: 1 DI 1 |
| ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV" | CODICE PROGETTO: 045          | CODICE DISEGNO: PSL600   |
| MATERIALE: /   | TRATTAMENTO: /                | PROFILO: /   |
|  |                               | STATO: /   |



PSL600



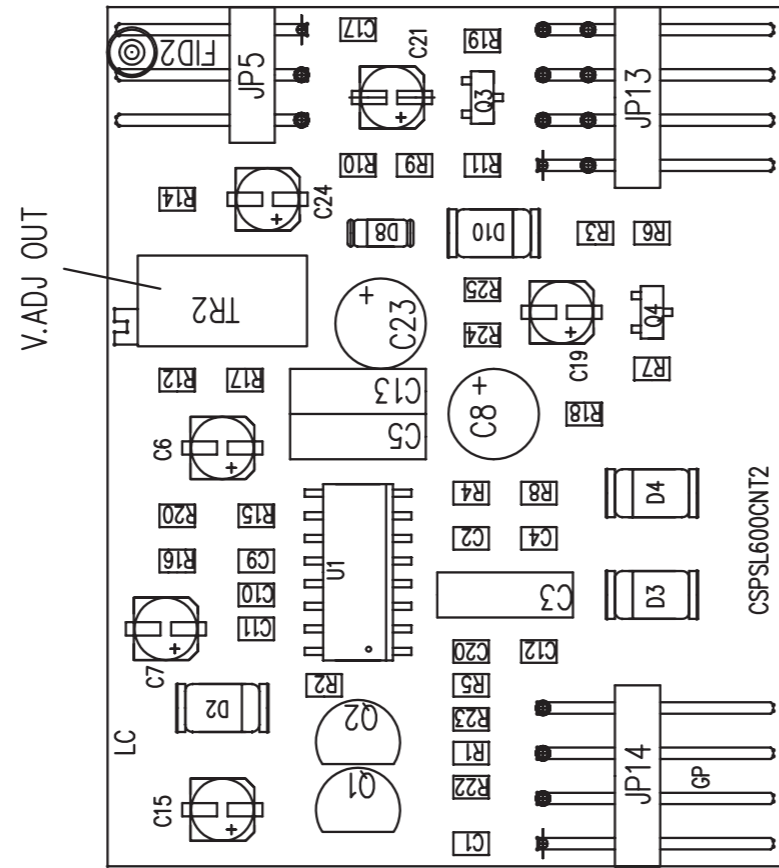
|                  |                    |            |            |                  |               |
|------------------|--------------------|------------|------------|------------------|---------------|
| Nome Progetto:   | TEX300-LCD         | Pagina:    | 1 di 1     | Scale:           | A3            |
| Autore:          | GP - REV.: J.BERTI | Data:      | 04/05/2005 | Codice Progetto: | 045           |
| Nome PC in Rete: | WJTSRVA            | Revisione: | 1.0        | Nome Parte:      | POWER PSL 300 |
| File/Cartella:   | PSL600_PWR_R2.DSN  | Autore:    |            | Codice:          | PSL300        |

PSL600

Revised: Thursday, October 12, 2006  
Revision:

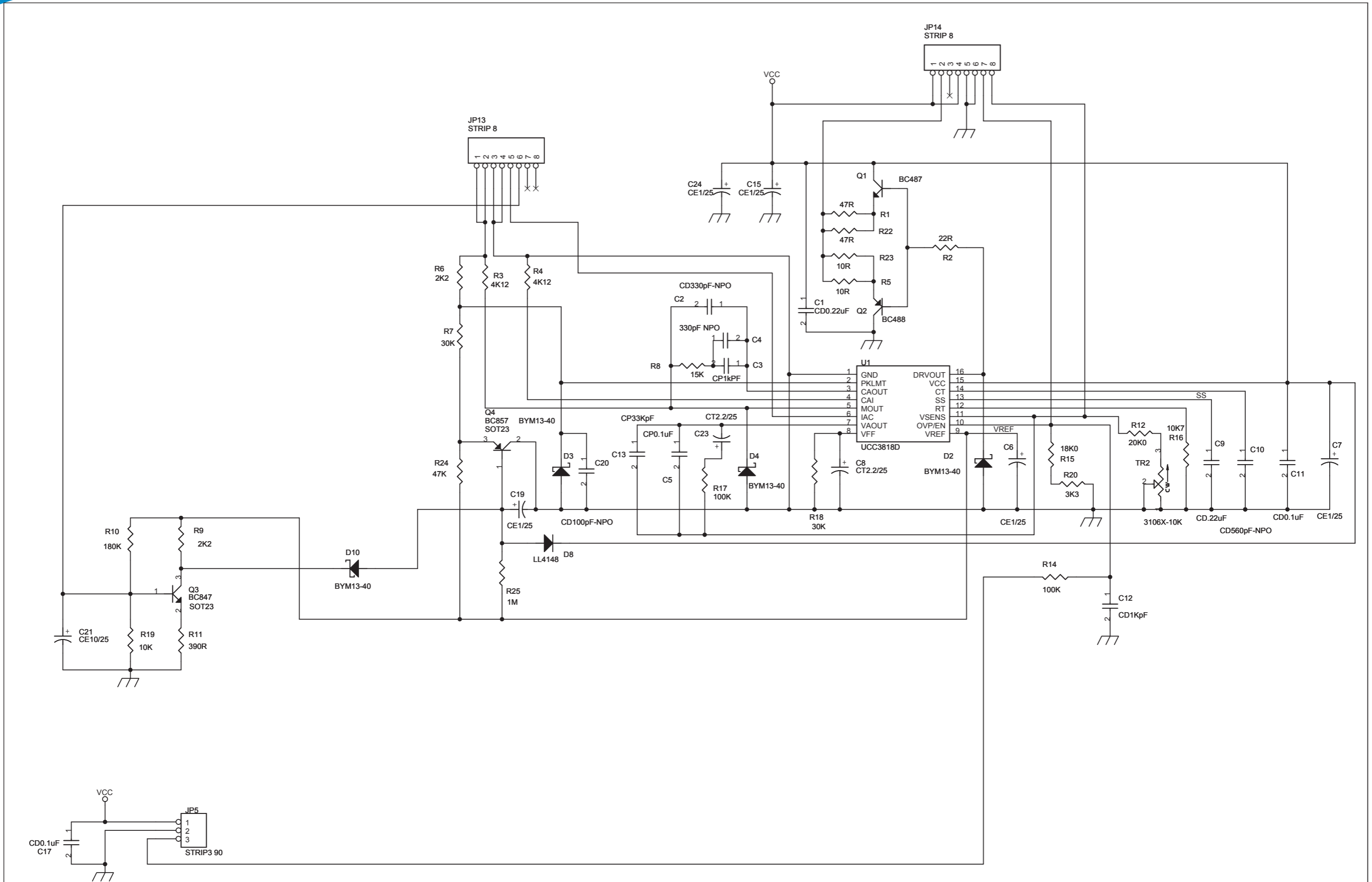
| Item | Quantity | Reference  | Part           |
|------|----------|--|----------------|
| 1    | 1        | CS1  | PE-51718       |
| 2    | 1        | C1   | KMH470/400     |
| 3    | 4        | C2, C3, C8, C9                                     | CD4K7-Y2       |
| 4    | 2        | C4, C6   | 0.1-X2         |
| 5    | 2        | C5, C43  | 1uF-X2         |
| 6    | 3        | C7, C23, C25                                       | 220/35         |
| 7    | 5        | C10, C11, C12, C52, C53                            | MKP0.1uF-400V  |
| 8    | 2        | C13, C27   | 220pF-1KV      |
| 9    | 1        | C14  | CP1KpF-630V    |
| 10   | 1        | C15  | CD100pF-1KV    |
| 11   | 3        | C16, C17, C20                                      | XX-1000/63     |
| 12   | 1        | C18  | XX-CP1KpF-630V |
| 13   | 1        | C19  | CP1KpF-1600V   |
| 14   | 8        | C21, C24, C26, C29, C30, C40, C45, C46             | CD0.1uf        |
| 15   | 1        | C22  | 4K7            |
| 16   | 2        | C22, C35   | XX             |
| 17   | 1        | C28  | CD.1uF         |
| 18   | 1        | C31  | CP1KpF         |
| 19   | 2        | C32, C33   | CP.1uF         |
| 20   | 1        | C34  | CP47KpF        |
| 21   | 1        | C36  | YXF47/63       |
| 22   | 3        | C37, C38, C39                                      | 1000/63        |
| 23   | 2        | C41, C42   | CD2K2-Y2       |
| 24   | 1        | C44  | CP47KpF-630V   |
| 25   | 1        | C47  | CD10KpF 1KV    |
| 26   | 1        | C48  | 470/25         |
| 27   | 1        | C49  | CD1KpF         |
| 28   | 2        | C50, C51   | CD1uf/50       |
| 29   | 1        | C54  | 0.1uF-X2       |
| 30   | 1        | C55  | CD4K7pF        |
| 31   | 2        | DZ1, DZ2   | 15V-1W         |
| 32   | 1        | D1   | GSIB2540       |
| 33   | 3        | D2, D3, D12  | MUR460         |
| 34   | 1        | D4   | UF5407         |
| 35   | 1        | D5   | BYW99-200      |
| 36   | 7        | D6, D8, D13, D14, D15, D16, D17                    | BYV27-200      |
| 37   | 1        | D7   | UF4007         |
| 38   | 1        | D9   | TL431          |
| 39   | 1        | D10  | 20ETS08        |
| 40   | 1        | D11  | ISL9R1560P2    |
| 41   | 1        | D18  | XX-15HFA60PB   |
| 42   | 9        | FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8, F9 | FIX35          |
| 43   | 1        | FS1  | 6.3AT          |
| 44   | 2        | F1, F4   | 2x220uH        |
| 45   | 1        | F2   | TMC-PSL1000    |
| 46   | 1        | JP1  | Piazzole       |
| 47   | 1        | JP2  | PRESA SHURT    |
| 48   | 1        | JP3  | STRIP F7P      |
| 49   | 2        | JP4, JP11  | X2,5MSF        |
| 50   | 1        | JP5  | KRA7           |
| 51   | 1        | JP7  | STRIP F6P      |
| 52   | 1        | JP8  | MOLEX 4        |
| 53   | 1        | JP9  | MOLEX-4        |
| 54   | 1        | JP12   | JUMPER         |
| 55   | 1        | JP13   | STRIP-TOR 4X2  |
| 56   | 1        | JP14   | STRIP TOR 4X2  |
| 57   | 1        | J1   | CON16AP        |
| 58   | 1        | L1   | SA10x6x4.5     |
| 59   | 1        | L2   | T-PSL600       |
| 60   | 1        | L3   | BFV0710        |
| 61   | 1        | L4   | VK200          |

| Item | Quantity | Reference                    | Part        |
|------|----------|------------------------------|-------------|
| 62   | 1        | L5                           | TPFC-PSL600 |
| 63   | 1        | OC1                          | K1010A      |
| 64   | 2        | Q1, Q2                       | STP20MN50   |
| 65   | 1        | Q3                           | 45MN50      |
| 66   | 1        | RV3                          | 140V-62J    |
| 67   | 1        | R1                           | OAR-R02-5W  |
| 68   | 2        | R2, R40                      | 5R-8A       |
| 69   | 1        | R3                           | 470K-2W     |
| 70   | 2        | R5, R16                      | 10K-4W      |
| 71   | 5        | TR1, R6, R17, R22, R37       | 10K         |
| 72   | 1        | R7                           | RXE185      |
| 73   | 1        | R8                           | 3K9         |
| 74   | 2        | R9, R14                      | 1M0         |
| 75   | 2        | R10, R13                     | 33K-2W      |
| 76   | 1        | R11                          | 5R6-2W      |
| 77   | 3        | R12, R15, R25                | 100R-2W     |
| 78   | 2        | R18, R38                     | 10R         |
| 79   | 1        | R19                          | 2K49        |
| 80   | 1        | R20                          | 56K         |
| 81   | 1        | R21                          | 47K0        |
| 82   | 1        | R23                          | 3K0         |
| 83   | 1        | R24                          | 9K53        |
| 84   | 1        | R26                          | 1R5         |
| 85   | 2        | R27, R32                     | 22K-2W      |
| 86   | 2        | R28, R33                     | 390K        |
| 87   | 6        | R29, R30, R31, R34, R35, R36 | 511K        |
| 88   | 1        | R39                          | 22R-2W      |
| 89   | 1        | SW1                          | TL36W       |
| 90   | 1        | T1                           | TSWTCH14    |
| 91   | 1        | U1                           | LM7805CT    |



|  |                               |                          |
|--|-------------------------------|--------------------------|
|  | NOME PROGETTO: TEX300LCD      | NOME PARTE: Control Card |
|  | AUTORE: U.T. - rev.: J. Berti | DATA: 23/03/2006         |
| ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV" | REVISIONE: 1.0                | SCALA: 2:1               |
|  | CODICE PROGETTO: 045          | SIZE: A4                 |
|  |                               | PAGINA: 1 DI 1           |
| MATERIALE: /   | TRATTAMENTO: /                | STATO: /                 |
|  | PROFILO: /                    | CODICE DISEGNO: PSL600   |

PSL600



|                                  |                  |                                 |          |
|----------------------------------|------------------|---------------------------------|----------|
| Nome Progetto: TEX300-LCD        |                  | Pagina: 1 di 1                  | Size: A3 |
| Autore: GP - REV.: J.BERTI       | Data: 24/06/2006 | Codice Progetto: 045            |          |
| Nome PC in Rete: \WTSRV\         | Revisione: 1.0   | Nome Parte: PFC CONTROL PSL 600 |          |
| File/Cartella: PSL600_CNT_R1.DSN | Autorizzazione:  | Codice: PSL300                  |          |

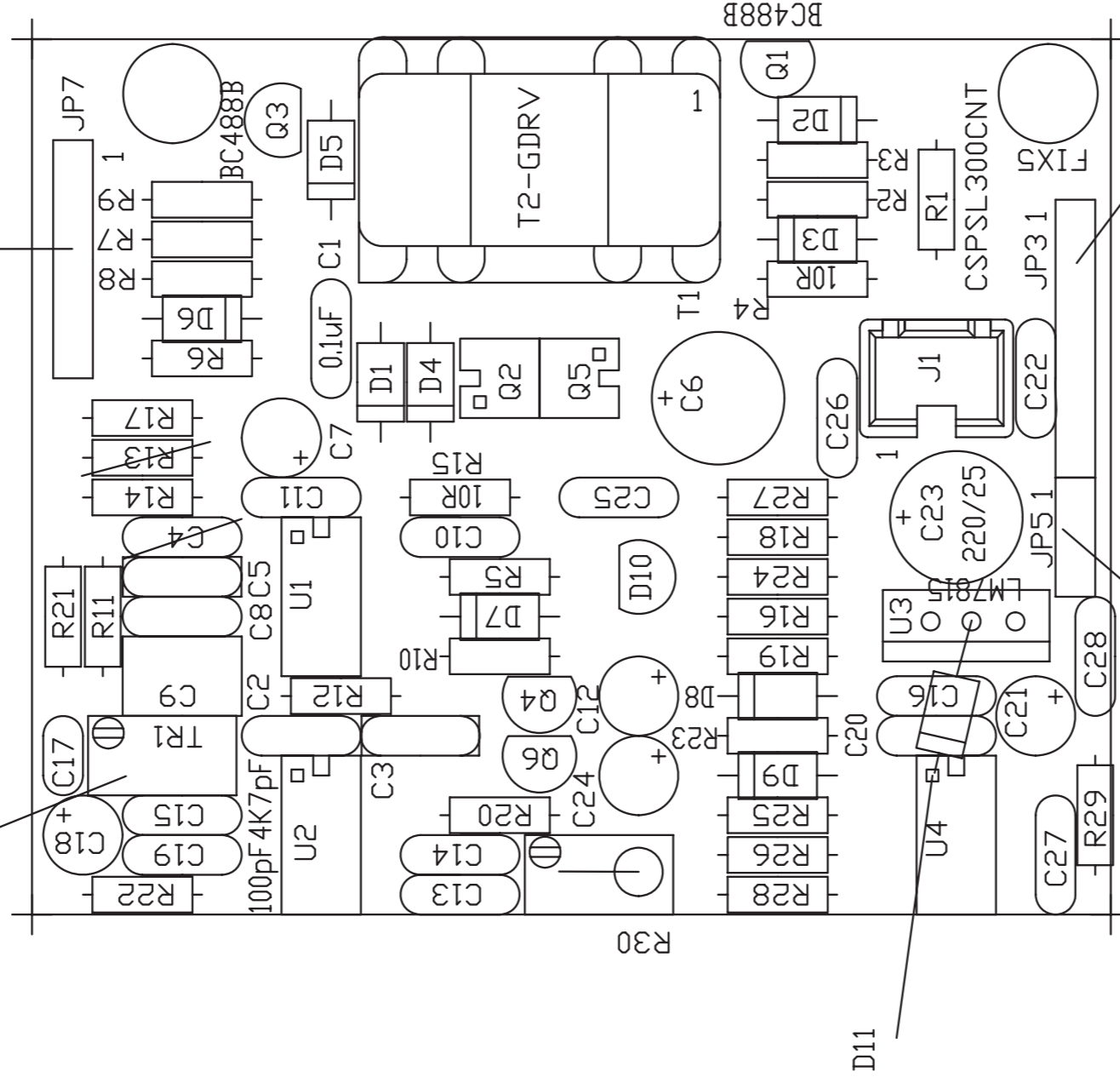
PSL600

Revised: Thursday, October 12, 2006  
Revision:

| Item | Quantity | Reference             | Part        |
|------|----------|-----------------------|-------------|
| 1    | 1        | C1                    | CD0.22uF    |
| 2    | 1        | C2                    | CD330pF-NPO |
| 3    | 1        | C3                    | CP1kPF      |
| 4    | 1        | C4                    | 330pF NPO   |
| 5    | 1        | C5                    | CP0.1uF     |
| 6    | 5        | C6, C7, C15, C19, C24 | CE1/25      |
| 7    | 2        | C8, C23               | CT2.2/25    |
| 8    | 1        | C9                    | CD.22uF     |
| 9    | 1        | C10                   | CD560pF-NPO |
| 10   | 2        | C11, C17              | CD0.1uF     |
| 11   | 1        | C12                   | CD1KpF      |
| 12   | 1        | C13                   | CP33KpF     |
| 13   | 1        | C20                   | CD100pF-NPO |
| 14   | 1        | C21                   | CE10/25     |
| 15   | 4        | D2, D3, D4, D10       | BYM13-40    |
| 16   | 1        | D8                    | LL4148      |
| 17   | 1        | JP5                   | STRIP3 90   |
| 18   | 2        | JP13, JP14            | STRIP 8     |
| 19   | 1        | Q1                    | BC487       |
| 20   | 1        | Q2                    | BC488       |
| 21   | 1        | Q3                    | BC847       |
| 22   | 1        | Q4                    | BC857       |
| 23   | 2        | R1, R22               | 47R         |
| 24   | 1        | R2                    | 22R         |
| 25   | 2        | R3, R4                | 4K12        |
| 26   | 2        | R5, R23               | 10R         |
| 27   | 2        | R6, R9                | 2K2         |
| 28   | 2        | R7, R18               | 30K         |
| 29   | 1        | R8                    | 15K         |
| 30   | 1        | R10                   | 180K        |
| 31   | 1        | R11                   | 390R        |
| 32   | 1        | R12                   | 20K0        |
| 33   | 2        | R14, R17              | 100K        |
| 34   | 1        | R15                   | 18K0        |
| 35   | 1        | R16                   | 10K7        |
| 36   | 1        | R19                   | 10K         |
| 37   | 1        | R20                   | 3K3         |
| 38   | 1        | R24                   | 47K         |
| 39   | 1        | R25                   | 1M          |
| 40   | 1        | TR2                   | 3106X-10K   |
| 41   | 1        | U1                    | UCC3818D    |

MONTARE LATO SALDATURE  
STRIP 6 POLI 16 mm

ANTI ORARIO ABBASSA LIMITAZIONE



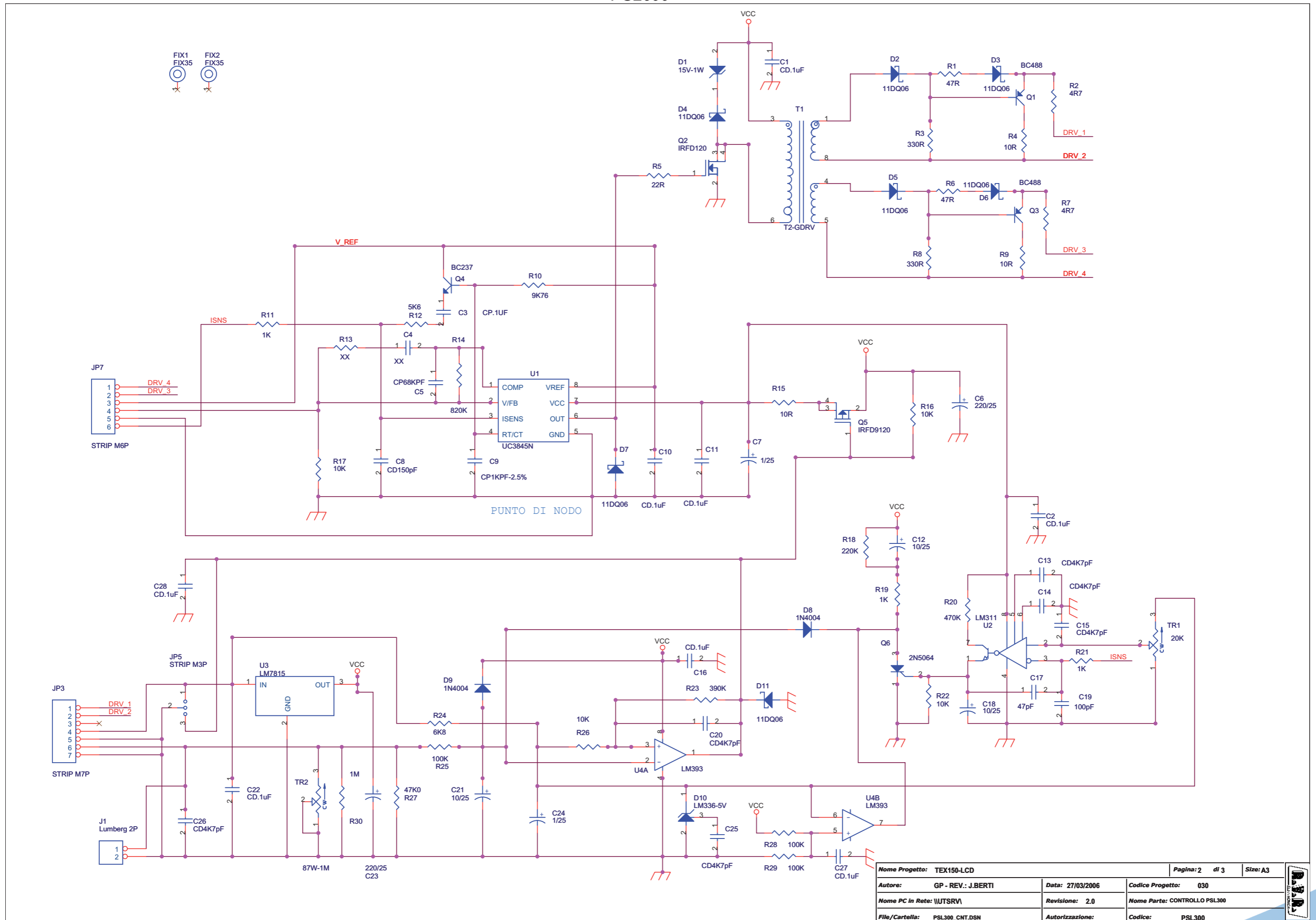
MONTARE LATO SALDATURE  
STRIP 7 POLI 16 mm

MONTARE LATO COMPONENTI  
STRIP 3 POLI 6mm

LAVARE STRIP

|  |                          |                          |
|--|--------------------------|--------------------------|
|  | NOME PROGETTO: TEX150LCD | NOME PARTE: Control Card |
| AUTORE: U.T. - rev.: J. Berti                              | DATA: 27/03/2006         | REVISIONE: 2.0           |
| ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRY" | SCALA: 2:1               | SIZE: A4                 |
| MATERIALE: /   | CODICE PROGETTO: 030     | PAGINA: 2 DI 3           |
| TRATTAMENTO: /   | CODICE DISEGNO: PSL300   | STATO: /                 |
|  | PROFILO: /               |                          |

PSL600



|                  |                    |                 |            |                  |                  |
|------------------|--------------------|-----------------|------------|------------------|------------------|
| Nome Progetto:   | TEX150-LCD         | Pagina:         | 2 di 3     | Size:            | A3               |
| Autore:          | GP - REV.: J.BERTI | Data:           | 27/03/2006 | Codice Progetto: | 030              |
| Nome PC in Rete: | \\UTSRV\           | Revisione:      | 2.0        | Nome Parte:      | CONTROLLO PSL300 |
| File/Cartella:   | PSL300_CNT.DSN     | Autorizzazione: |            | Codice:          | PSL300           |

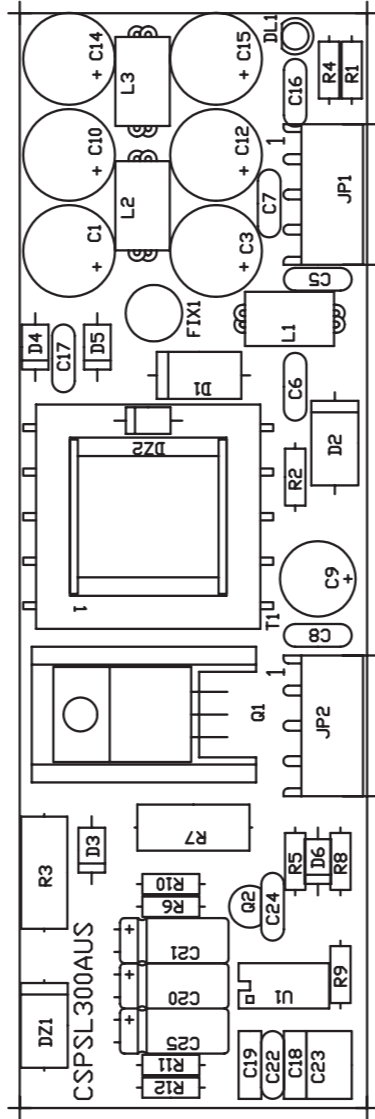
PSL600

PSL300  
 POWER SUPPLY +18V1.5A 8V1A 15V 0.2A  
 Revised: 27/03/2006  
 Revision: 2.0

| Item | Quantity | Reference              | Part        |
|------|----------|------------------------|-------------|
| 1    | 8        | C1C2C10C11C16C22C27C28 | CD.1uF      |
| 2    | 1        | C3                     | CP.1UF      |
| 3    | 2        | C4R13                  | XX          |
| 4    | 1        | C5                     | CP68KPF     |
| 5    | 2        | C6C23                  | 220/25      |
| 6    | 2        | C7C24                  | 1/25        |
| 7    | 1        | C8                     | CD150pF     |
| 8    | 1        | C9                     | CP1KPF-2.5% |
| 9    | 3        | C12C18C21              | 10/25       |
| 10   | 6        | C13C14C15C20C25C26     | CD4K7pF     |
| 11   | 1        | C17                    | 47pF        |
| 12   | 1        | C19                    | 100pF       |
| 13   | 1        | D1                     | 15V-1W      |
| 14   | 7        | D2D3D4D5D6D7D11        | 11DQ06      |
| 15   | 2        | D8D9                   | 1N4004      |
| 16   | 1        | D10                    | LM336-5V    |
| 17   | 2        | FIX1FIX2               | FIX35       |
| 18   | 1        | JP3                    | STRIP M7P   |
| 19   | 1        | JP5                    | STRIP M3P   |
| 20   | 1        | JP7                    | STRIP M6P   |
| 21   | 1        | J1                     | Lumberg 2P  |
| 22   | 2        | Q3Q1                   | BC488       |
| 23   | 1        | Q2                     | IRFD120     |
| 24   | 1        | Q4                     | BC237       |
| 25   | 1        | Q5                     | IRFD9120    |
| 26   | 1        | Q6                     | 2N5064      |
| 27   | 2        | R1R6                   | 47R         |
| 28   | 2        | R2R7                   | 4R7         |
| 29   | 2        | R3R8                   | 330R        |
| 30   | 3        | R4R9R15                | 10R         |
| 31   | 1        | R5                     | 22R         |
| 32   | 1        | R10                    | 9K76        |
| 33   | 3        | R11R19R21              | 1K          |
| 34   | 1        | R12                    | 5K6         |
| 35   | 1        | R14                    | 820K        |
| 36   | 4        | R16R17R22R26           | 10K         |
| 37   | 1        | R18                    | 220K        |
| 38   | 1        | R20                    | 470K        |
| 39   | 1        | R23                    | 390K        |
| 40   | 1        | R24                    | 6K8         |
| 41   | 3        | R25R28R29              | 100K        |
| 42   | 1        | R27                    | 47K0        |
| 43   | 1        | R30                    | 1M          |
| 44   | 1        | TR1                    | 20K         |
| 45   | 1        | TR2                    | 87W-1M      |
| 46   | 1        | T1                     | T2-GDRV     |
| 47   | 1        | U1                     | UC3845N     |
| 48   | 1        | U2                     | LM311       |
| 49   | 1        | U3                     | LM7815      |
| 50   | 1        | U4                     | LM393       |

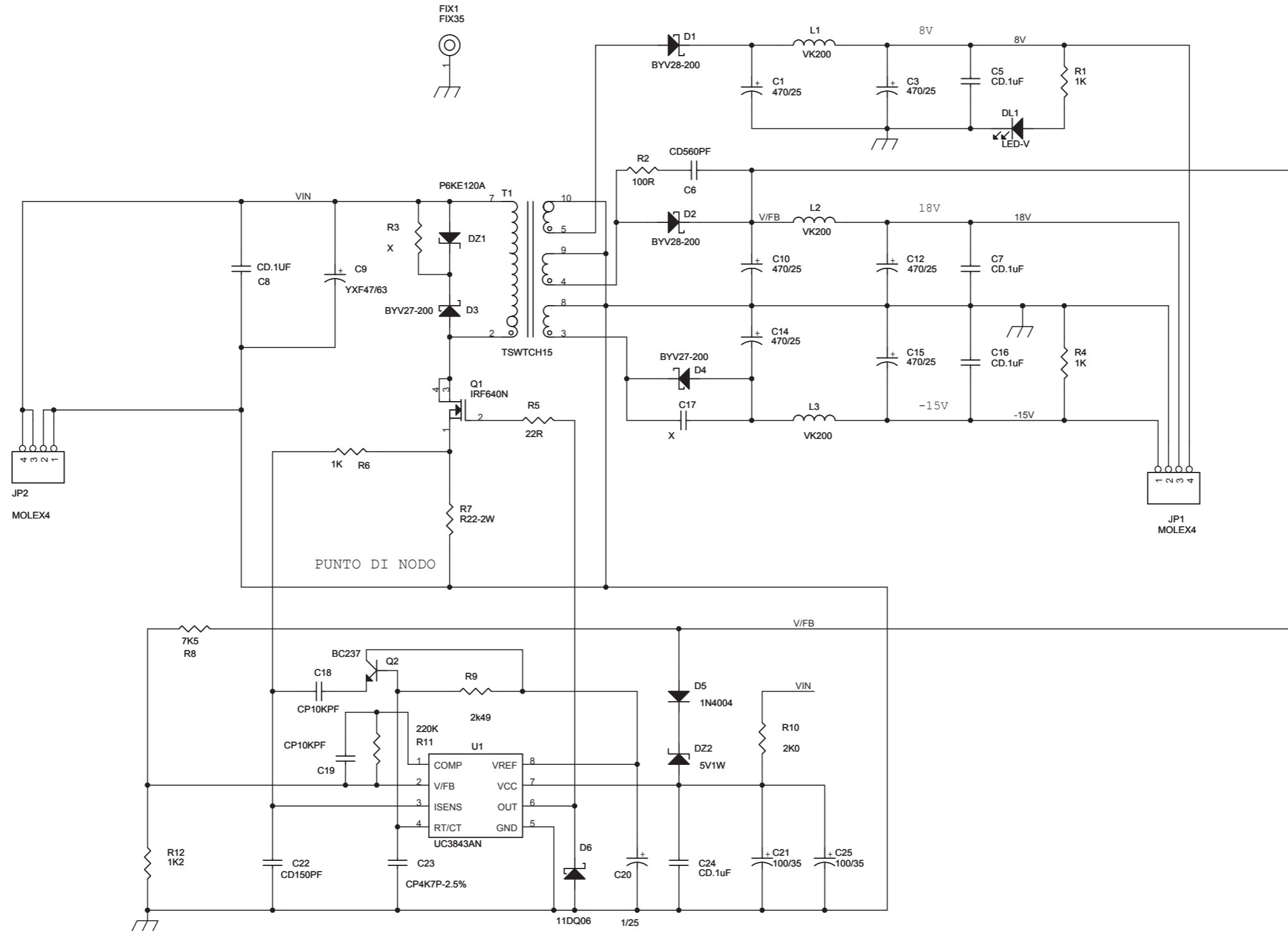


PSL600



|  |                          |   |
|--|--------------------------|---|
|  | NOME PROGETTO: TEX300LCD | NOME PARTE: Auxiliary Power Supply Card |
| AUTORE: U.T. - rev.: J. Berti                              | DATA: 21/03/2006         | REVISIONE: 1.0                          |
| ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV" | CODICE PROGETTO: 045     | CODICE DISEGNO: PSL600                  |
| MATERIALE: /   | TRATTAMENTO: /           | PROFILO: /                              |
|  |                          | STATO: /                                |
|  |                          | SCALE: 2:1                              |
|  |                          | SIZE: A4                                |
|  |                          | PAGINA: 1 DI 1                          |

PSL600



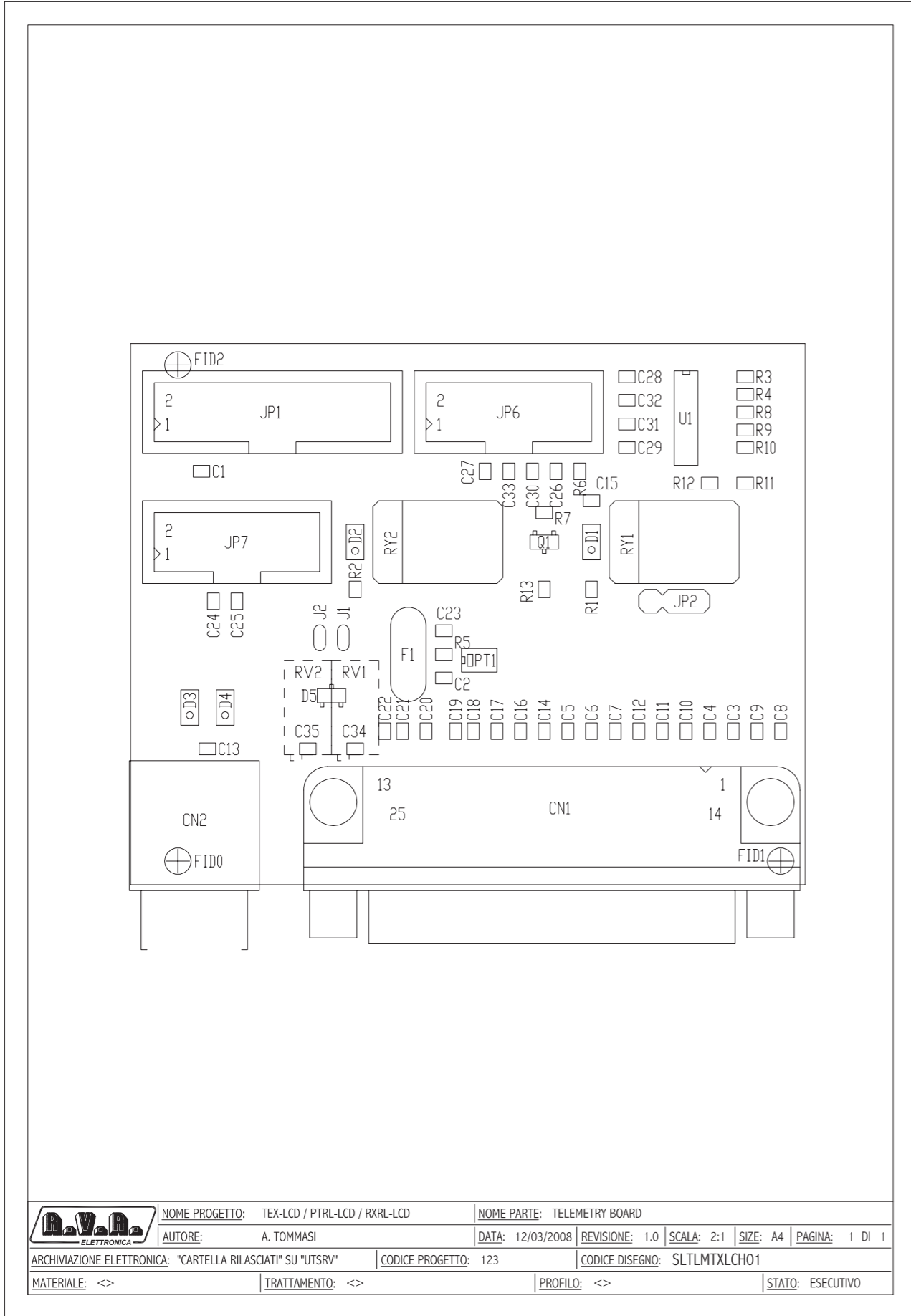
|                               |                  |  |          |
|-------------------------------|------------------|--|----------|
| Nome Progetto: TEX300-LCD     |                  | Pagina: 1 di 1                                 | Size: A3 |
| Autore: GP - REV.: J.BERTI    | Data: 24/03/2006 | Codice Progetto: 045                           |          |
| Nome PC in Rete: IUTSRV\      | Revisione: 1.0   | Nome Parte: POWER SUPPLY +18V1A 5V0.5A 15V 0.2 |          |
| File/Cartella: PSL600_AUS.DSN | Autorizzazione:  | Codice: PSL600                                 |          |

PSL600

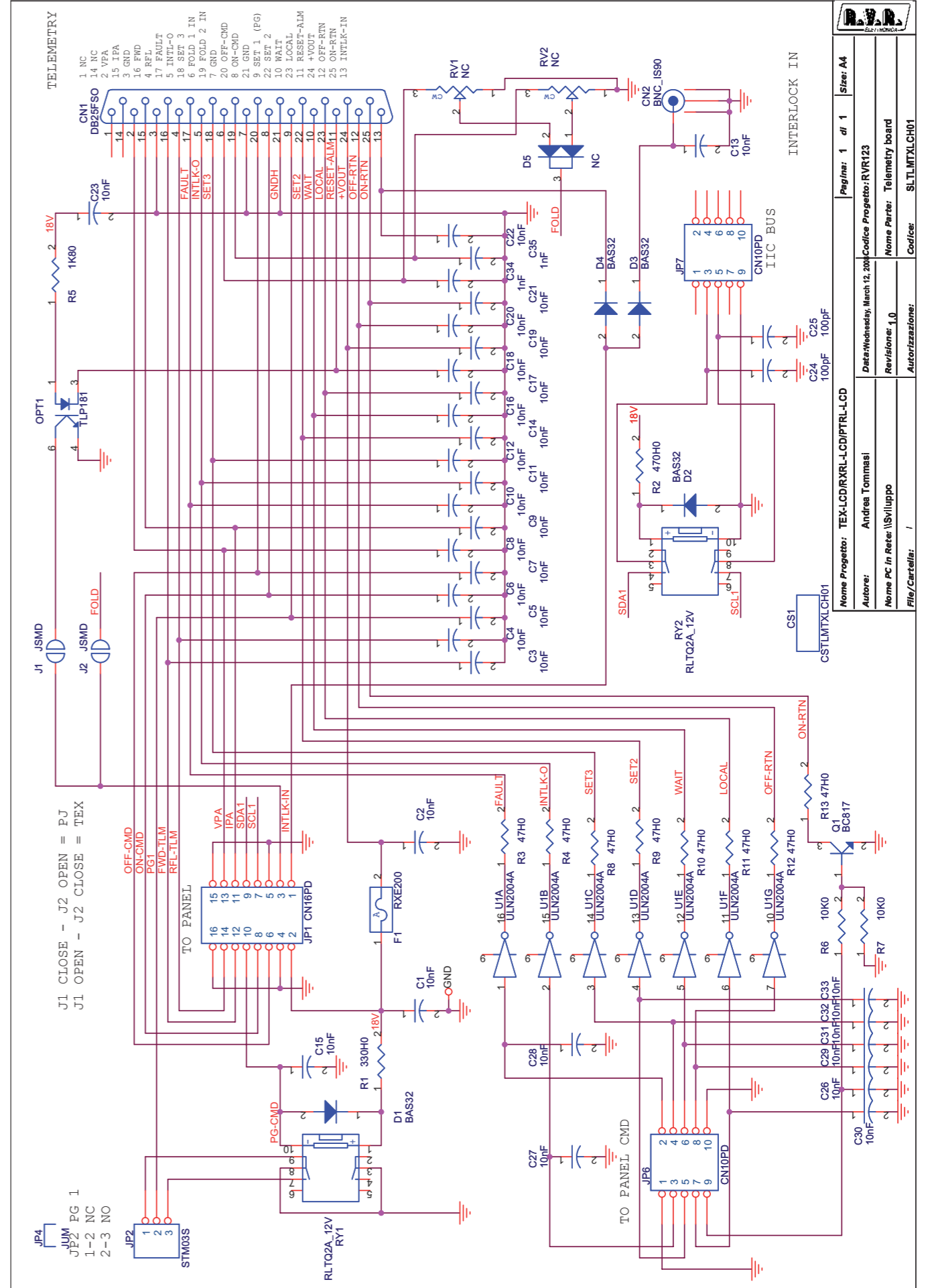
Revised: Friday, October 13, 2006  
Revision:

| Item | Quantity | Reference                  | Part        |
|------|----------|----------------------------|-------------|
| 1    | 6        | C1, C3, C10, C12, C14, C15 | 470/25      |
| 2    | 5        | C5, C7, C8, C16, C24       | CD.1uF      |
| 3    | 1        | C6                         | CD560PF     |
| 4    | 1        | C9                         | YXF47/63    |
| 5    | 2        | R3, C17                    | X           |
| 6    | 2        | C18, C19                   | CP10KPF     |
| 7    | 1        | C20                        | 25-gen      |
| 8    | 2        | C21, C25                   | 100/35      |
| 9    | 1        | C22                        | CD150PF     |
| 10   | 1        | C23                        | CP4K7P-2.5% |
| 11   | 1        | DL1                        | LED-V       |
| 12   | 1        | DZ1                        | P6KE120A    |
| 13   | 1        | DZ2                        | 5V1W        |
| 14   | 2        | D1, D2                     | BYV28-200   |
| 15   | 2        | D3, D4                     | BYV27-200   |
| 16   | 1        | D5                         | 1N4004      |
| 17   | 1        | D6                         | 11DQ06      |
| 18   | 1        | FIX1                       | FIX35       |
| 19   | 2        | JP1, JP2                   | MOLEX4      |
| 20   | 3        | L1, L2, L3                 | VK200       |
| 21   | 1        | Q1                         | IRF640N     |
| 22   | 1        | Q2                         | BC237       |
| 23   | 3        | R1, R4, R6                 | 1K          |
| 24   | 1        | R2                         | 100R        |
| 25   | 1        | R5                         | 22R         |
| 26   | 1        | R7                         | R22-2W      |
| 27   | 1        | R8                         | 7K5         |
| 28   | 1        | R9                         | 2k49        |
| 29   | 1        | R10                        | 2K0         |
| 30   | 1        | R11                        | 220K        |
| 31   | 1        | R12                        | 1K2         |
| 32   | 1        | T1                         | TSWTCH15    |
| 33   | 1        | U1                         | UC3843AN    |

SLTLMTXLCH01



|   |  |                              |
|---|--|------------------------------|
|   | NOME PROGETTO: TEX-LCD / PTRL-LCD / RXRL-LCD | NOME PARTE: TELEMETRY BOARD  |
|   | AUTORE: A. TOMMASI                           | DATA: 12/03/2008             |
| ARCHIVIAZIONE ELETTRONICA: "CARTELLA RILASCIATI" SU "UTSRV" | CODICE PROGETTO: 123                         | CODICE DISEGNO: SLTLMTXLCH01 |
| MATERIALE: <>   | TRATTAMENTO: <>                              | PROFILO: <>                  |
|   |  | STATO: ESECUTIVO             |



|  |                                 |                             |
|--|---------------------------------|-----------------------------|
| Nome Progetto: TEX-LCD/RXRL-LCD/PTRL-LCD | Pagina: 1 di 1                  | Size: A4                    |
| Autore: Andrea Tommasi                   | Data: Wednesday, March 12, 2008 | Codice Progetto: RVR123     |
| Nome PC in Rete: USV/Illuppo             | Revisione: 1.0                  | Nome Parte: Telemetry board |
| File/Cartella: /                         | Autorizzazione:                 | Codice: SLTLMTXLCH01        |

SLTLMTXLCH01

Telemetry board Revised: March, June 12, 2008  
 SLTLMTXLCH01 Revision: 1.0  
 TEX-LCD/RXRL-LCD/PTRL-LCD  
 RVR123  
 Andrea Tommasi

| Item | Quantity | Reference  | Part         | Description                  |
|------|----------|--|--------------|------------------------------|
| 1    | 1        | CN1  | DB25FSO      | Connettore DB25 femm. cs 90° |
| 2    | 1        | CN2  | BNC_IS90     | Connettore BNC metallico 90° |
| 3    | 1        | CS1  | CSTLMTXLCH01 | Circuito stampato            |
| 4    | 31       | C1,C2,C3,C4,C5,C6,C7,C8,<br>C9,C10,C11,C12,C13,C14,<br>C15,C16,C17,C18,C19,C20,<br>C21,C22,C23,C26,C27,C28,<br>C29,C30,C31,C32,C33 | 10nF         | Cond. SMD 0805               |
| 5    | 2        | C24,C25  | 100pF        | Cond. SMD 0805               |
| 6    | 2        | C34,C35  | 1nF          | Cond. SMD 0805               |
| 7    | 4        | D1,D2,D3,D4  | BAS32        | MINIMELF SMD Diode           |
| 8    | 1        | D5   | NC           | Doppio Diodo SMD SOT23       |
| 9    | 1        | F1   | RXE200       | Fusibile autorip. 7mm        |
| 10   | 1        | JP1  | CN16PD       | Connettore 16 poli Flat cs   |
| 11   | 1        | JP2  | STM03S       | Strip maschio 3 pin          |
| 12   | 1        | JP4  | JUM          | Ponticello Jumper            |
| 13   | 2        | JP6,JP7  | CN10PD       | Connettore 10 poli Flat cs   |
| 14   | 2        | J1,J2  | JSMD         | Pad SMD a saldare            |
| 15   | 1        | OPT1   | TLP181       | Optoisolatore SMD SO6        |
| 16   | 1        | Q1   | BC817        | Trans. NPN SOT23             |
| 17   | 2        | RV1,RV2  | NC           | Trimmer Rg H 3296X           |
| 18   | 2        | RY1,RY2  | RLTQ2A_12V   | Rele' TQ2                    |
| 19   | 1        | R1   | 330H0        | Res. SMD 0805 1%             |
| 20   | 1        | R2   | 470H0        | Res. SMD 0805 1%             |
| 21   | 8        | R3,R4,R8,R9,R10,R11,R12,<br>R13  | 47H0         | Res. SMD 0805 1%             |
| 22   | 1        | R5   | 1K80         | Res. SMD 0805 1%             |
| 23   | 2        | R6,R7  | 10K0         | Res. SMD 0805 1%             |
| 24   | 1        | U1   | ULN2004A     | Seven Inv. Buffer OC         |