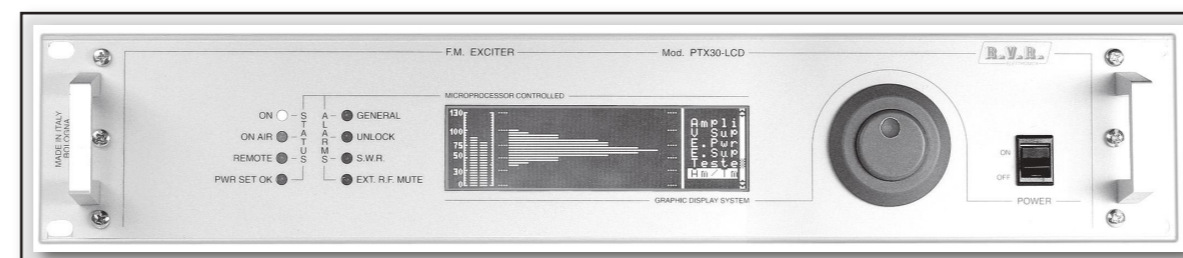


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# PTX LCD



## User Manual Volume 2: Technical Appendix

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

Questa parte del manuale contiene i dettagli tecnici riguardanti la costruzione delle singole schede componenti il PTX LCD. L'appendice è composta dalle seguenti sezioni:  
*This part of the manual contains the technical details about the different boards of the PTX LCD. This appendix is composed of the following sections:*

| <i>Description</i>             | <b>PTX30LCD</b> | <b>PTX60LCD&amp;PTX100LCD</b> | <i>Vers. Page</i> |    |
|--------------------------------|-----------------|-------------------------------|-------------------|----|
|                                | <i>RVR Code</i> | <i>RVR Code</i>               |                   |    |
| Digital Audio Input            | SLPTAUDBNC06    | SLPTAUDBNC06                  | 1.0               | 1  |
| Audio Input Card               | SLPTAUDINP05    | SLPTAUDINP05                  | 1.1               | 3  |
| Audio Motherboard              | SLPTMDBAUD03    | SLPTMDBAUD03                  | 3.1               | 6  |
| Stereo Coder Card              | SLSTCOD06       | SLSTCOD06                     | 1.2               | 8  |
| VCO Card                       | SLPTXVC1002     | SLPTXVC1002                   | 1.0               | 10 |
| PLL & Driver Card              | SLPTPLLDREV07   | SLPTPLLDREV07                 | 2.1               | 13 |
| CPU 8Bit Card                  | SLPTCPU55202    | SLPTCPU55202                  | 3.0               | 20 |
| Main Panel Card                | SLPTMDBPAN07    | SLPTMDBPAN07                  | 1.0               | 22 |
| Filter Card                    | SLDB9FFILFL2    | SLDB9FFILFL2                  | /                 | /  |
| Coder Card                     | SLCTC30V03      | SLCTC30V03                    | 1.1               | 25 |
| Power Supply 30W               | SLPWRPTX30LC    | /                             | 2.1               | 28 |
| Power Supply 60-100W           | /               | SLPWRPTX100L                  | 3.1               | 34 |
| Switching Power Supply 30W     | PSSW28123-1     | /                             | 2.1               | 39 |
| Switching Power Supply 60-100W | /               | PSSW281210                    | 2.2               | 43 |
| 30W Power Amp connector        | SLCNPPTX30LC    | /                             | 2.2               | 47 |
| 60-100W Power Amp connector    | /               | SLCNPPTX100L                  | 2.0               | 49 |
| 30W RF Power amplifier         | SLRFPTX30LCD    | /                             | 2.2               | 51 |
| 60-100W RF Power amplifier     | /               | SLPA150PTX01                  | 1.1               | 54 |
| Option Mono/MPX Coder Card     | SLPTMONMPX03    | SLPTMONMPX03                  | 1.1               | 56 |
| Option External Remote Card    | SLTELEM002      | SLTELEM002                    | 2.0               | 58 |
| Option Audio Input Selector    | RXAES           | RXAES                         | 2.0               | 60 |
| Option 24Vsupply board         | SLBATT24-001    | SLBATT24-001                  | 2.1               | 63 |

### Document History

| Date     | Version | Reason   | Code   | Editor     |
|----------|---------|--|--------|------------|
| 24/04/08 | 4.7     | Wiring Diagrams, CPU Interface, CPU 8Bit Card & Main Panel Card Upgraded | RM5207 | J.H. Berti |
| 30/06/11 | 4.8     | Major Manual Upgrades  | /      | J.H. Berti |

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

Questa parte del manuale contiene i dettagli tecnici riguardanti la costruzione delle singole schede componenti il PTX LCD. L'appendice è composta dalle seguenti sezioni:  
*This part of the manual contains the technical details about the different boards of the PTX LCD. This appendix is composed of the following sections:*

| <i>Description</i>             | <b>PTX30LCD.16B</b> |  | <b>PTX60LCD.16B&amp;PTX100LCD.16B</b> |  | <i>Vers. Page</i> |
|--------------------------------|---------------------|--|---------------------------------------|--|-------------------|
|                                | <i>RVR Code</i>     |  | <i>RVR Code</i>                       |  |                   |
| Digital Audio Input            | SLPTAUDBNC06        |  | SLPTAUDBNC06                          |  | 1.0 1             |
| Audio Input Card               | SLPTAUDINP05        |  | SLPTAUDINP05                          |  | 1.1 3             |
| Audio Motherboard              | SLPTMDBAUD03        |  | SLPTMDBAUD03                          |  | 3.1 6             |
| Stereo Coder Card              | SLSTCOD06           |  | SLSTCOD06                             |  | 1.2 8             |
| VCO Card                       | SLPTXVC1002         |  | SLPTXVC1002                           |  | 1.0 10            |
| PLL & Driver Card              | SLPTPLLDREV07       |  | SLPTPLLDREV07                         |  | 2.1 13            |
| CPU Interface Card             | SLCPU16V90-02       |  | SLCPU16V90-02                         |  | 2.3 16            |
| CPU 16Bit Card                 | SLCPU16V2R02        |  | SLCPU16V2R02                          |  | 1.4 18            |
| Main Panel Card                | SLPTMDBPAN07        |  | SLPTMDBPAN07                          |  | 1.0 22            |
| Filter Card                    | SLDB9FFILFL2        |  | SLDB9FFILFL2                          |  | / /               |
| Coder Card                     | SLCTC30V03          |  | SLCTC30V03                            |  | 1.1 25            |
| Power Supply 30W               | SLPWRPTX30LC        |  | /                                     |  | 2.1 28            |
| Power Supply 60-100W           | /                   |  | SLPWRPTX100L                          |  | 3.1 34            |
| Switching Power Supply 30W     | PSSW28123-1         |  | /                                     |  | 2.1 39            |
| Switching Power Supply 60-100W | /                   |  | PSSW281210                            |  | 2.2 43            |
| 30W Power Amp connector        | SLCNPPTX30LC        |  | /                                     |  | 2.2 47            |
| 60-100W Power Amp connector    | /                   |  | SLCNPPTX100L                          |  | 2.0 49            |
| 30W RF Power amplifier         | SLREPTX30LCD        |  | /                                     |  | 2.2 51            |
| 60-100W RF Power amplifier     | /                   |  | SLPA150PTX01                          |  | 1.1 54            |
| Option Mono/MPX Coder Card     | SLPTMONMPX03        |  | SLPTMONMPX03                          |  | 1.1 56            |
| Option External Remote Card    | SLTELEM002          |  | SLTELEM002                            |  | 2.0 58            |
| Option Audio Input Selector    | RXAES               |  | RXAES                                 |  | 2.0 60            |
| Option 24Vsupply board         | SLBATT24-001        |  | SLBATT24-001                          |  | 2.1 63            |

### Document History

| Date     | Version | Reason   | Code   | Editor     |
|----------|---------|--|--------|------------|
| 24/04/08 | 4.7     | Wiring Diagrams, CPU Interface, CPU 8Bit Card & Main Panel Card Upgraded | RM5207 | J.H. Berti |
| 30/06/11 | 4.8     | Major Manual Upgrades  | /      | J.H. Berti |

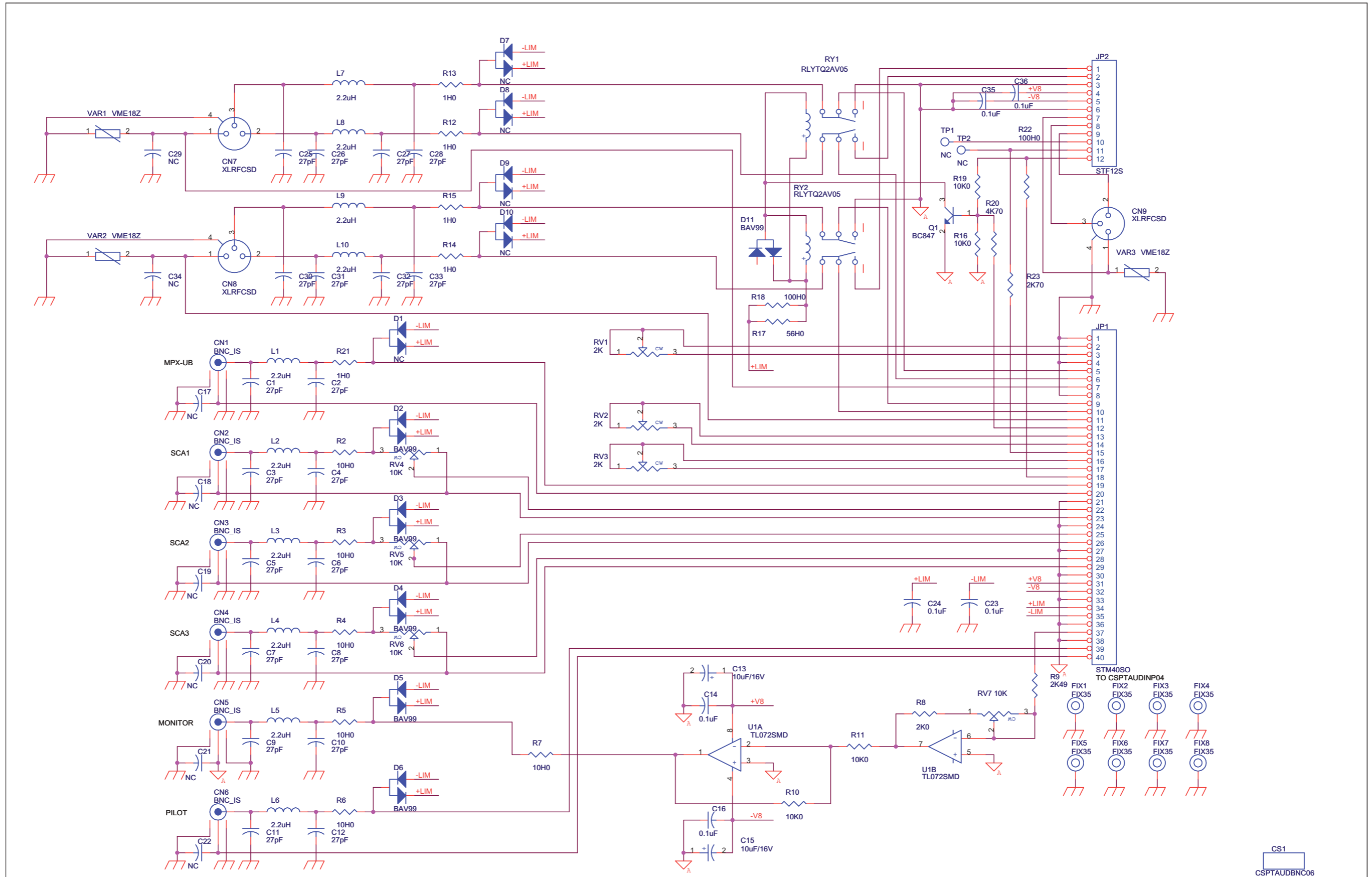
## Appendix A Piani di montaggio, schemi elettrici, liste componenti / *Component layouts, schematics, bills of material*

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

| <i>Description</i>             | <b>PTX30LCDDSP</b> |  | <b>PTX60LCDDSP&amp;PTX100LCDDSP</b> |  | <i>Vers. Page</i> |
|--------------------------------|--------------------|--|-------------------------------------|--|-------------------|
|                                | <i>RVR Code</i>    |  | <i>RVR Code</i>                     |  |                   |
| Digital Audio Input            | SLPTAUDBNC06       |  | SLPTAUDBNC06                        |  | 1.0 1             |
| Digital Audio Input TRDSP      | TRDSP4             |  | TRDSP4                              |  | / /               |
| Audio Motherboard              | SLPTMDBAUD03       |  | SLPTMDBAUD03                        |  | 3.1 6             |
| VCO Card                       | SLPTXVC1002        |  | SLPTXVC1002                         |  | 1.0 10            |
| PLL & Driver Card              | SLPTPLLDREV07      |  | SLPTPLLDREV07                       |  | 2.1 13            |
| CPU Interface Card             | SLCPU16V90-02      |  | SLCPU16V90-02                       |  | 2.3 16            |
| CPU 16Bit Card                 | SLCPU16V2R02       |  | SLCPU16V2R02                        |  | 1.4 18            |
| Main Panel Card                | SLPTMDBPAN07       |  | SLPTMDBPAN07                        |  | 1.0 22            |
| Filter Card                    | SLDB9FFILFL2       |  | SLDB9FFILFL2                        |  | / /               |
| Power Supply 30W               | SLPWRPTX30LC       |  | /                                   |  | 2.1 28            |
| Power Supply 60-100W           | /                  |  | SLPWRPTX100L                        |  | 3.1 34            |
| Switching Power Supply 30W     | PSSW28123-1        |  | /                                   |  | 2.1 39            |
| Switching Power Supply 60-100W | /                  |  | PSSW281210                          |  | 2.2 43            |
| 30W Power Amp connector        | SLCNPPTX30LC       |  | /                                   |  | 2.2 47            |
| 60-100W Power Amp connector    | /                  |  | SLCNPPTX100L                        |  | 2.0 49            |
| 30W RF Power amplifier         | SLRFPTX30LCD       |  | /                                   |  | 2.2 51            |
| 60-100W RF Power amplifier     | /                  |  | SLPA150PTX01                        |  | 1.1 54            |
| Option External Remote Card    | SLTELEM002         |  | SLTELEM002                          |  | 2.0 58            |
| Option Audio Input Selector    | RXAES              |  | RXAES                               |  | 2.0 60            |
| Option 24Vsupply board         | SLBATT24-001       |  | SLBATT24-001                        |  | 2.1 63            |

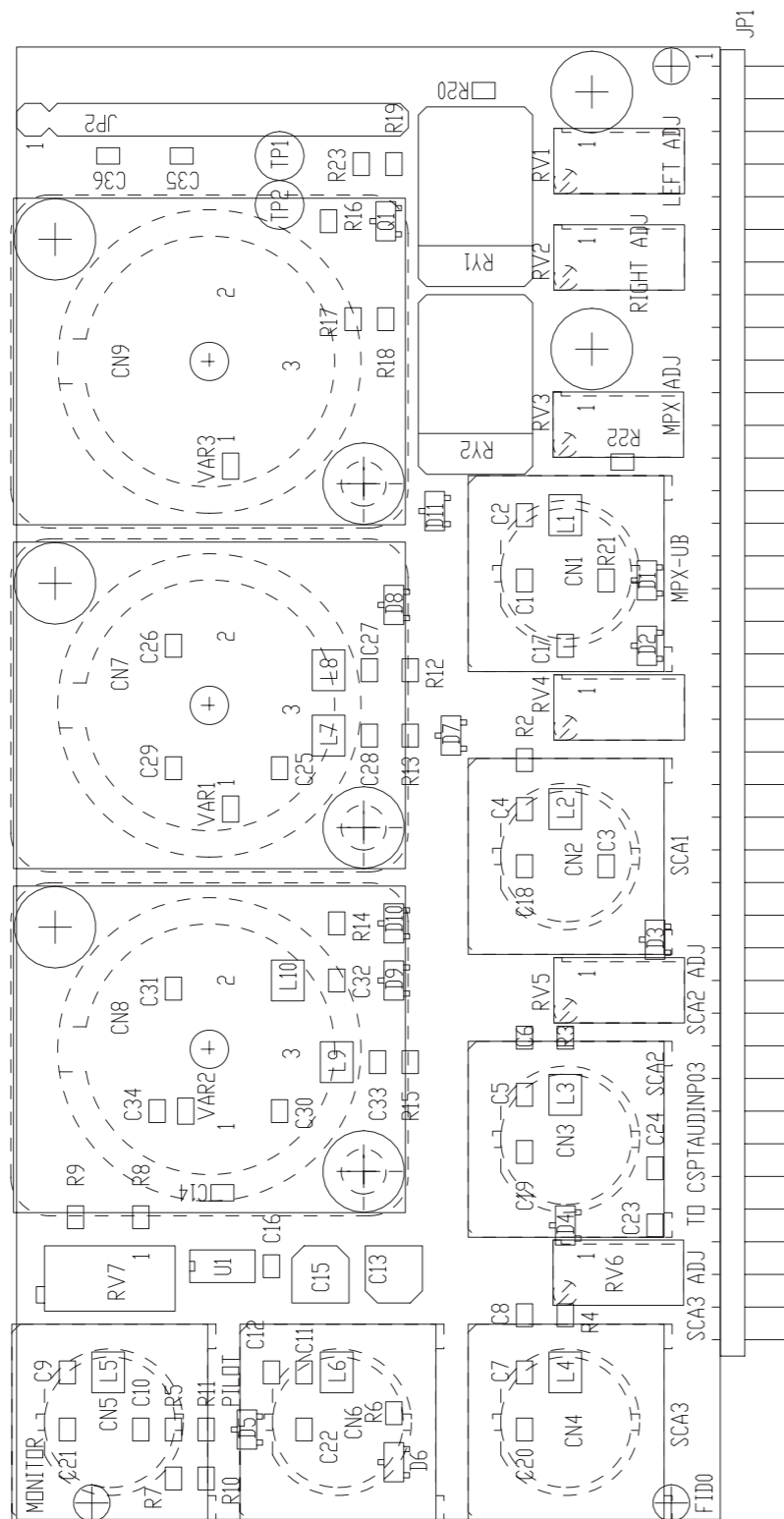
### Document History

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|----------|---------|--|--------|------------|
| 24/04/08 | 4.7     | Wiring Diagrams, CPU Interface, CPU 8Bit Card & Main Panel Card Upgraded | RM5207 | J.H. Berti |
| 30/06/11 | 4.8     | Major Manual Upgrades  | /      | J.H. Berti |



CS1  
CSPTAUDBNC06

|                            |                  |   |  |          |
|----------------------------|------------------|---|--|----------|
| Nome Progetto: PTX30 LCD   |                  | Pagina: 1 di 1                            |  | Size: A3 |
| Autore: Ufficio Tecnico    | Data: 14/12/2005 | Codice Progetto: _057                     |  |          |
| Nome PC in Rete: \\\UTSRV\ | Revisione: 1.0   | Nome Parte: SCHEDA CONNETTORI BNC,SCA MPX |  |          |
| File/Cartella: 1           | Autorizzazione:  | Codice: SLPTAUDBNC06                      |  |          |



SCHEDA CONNETTORI BNC, SCA, MPX e REGOLAZIONI Revised: 14/12/2005  
SLPTAUDBNC06 Revision: 1.0  
PTX30 LCD  
\_057

Ufficio Tecnico

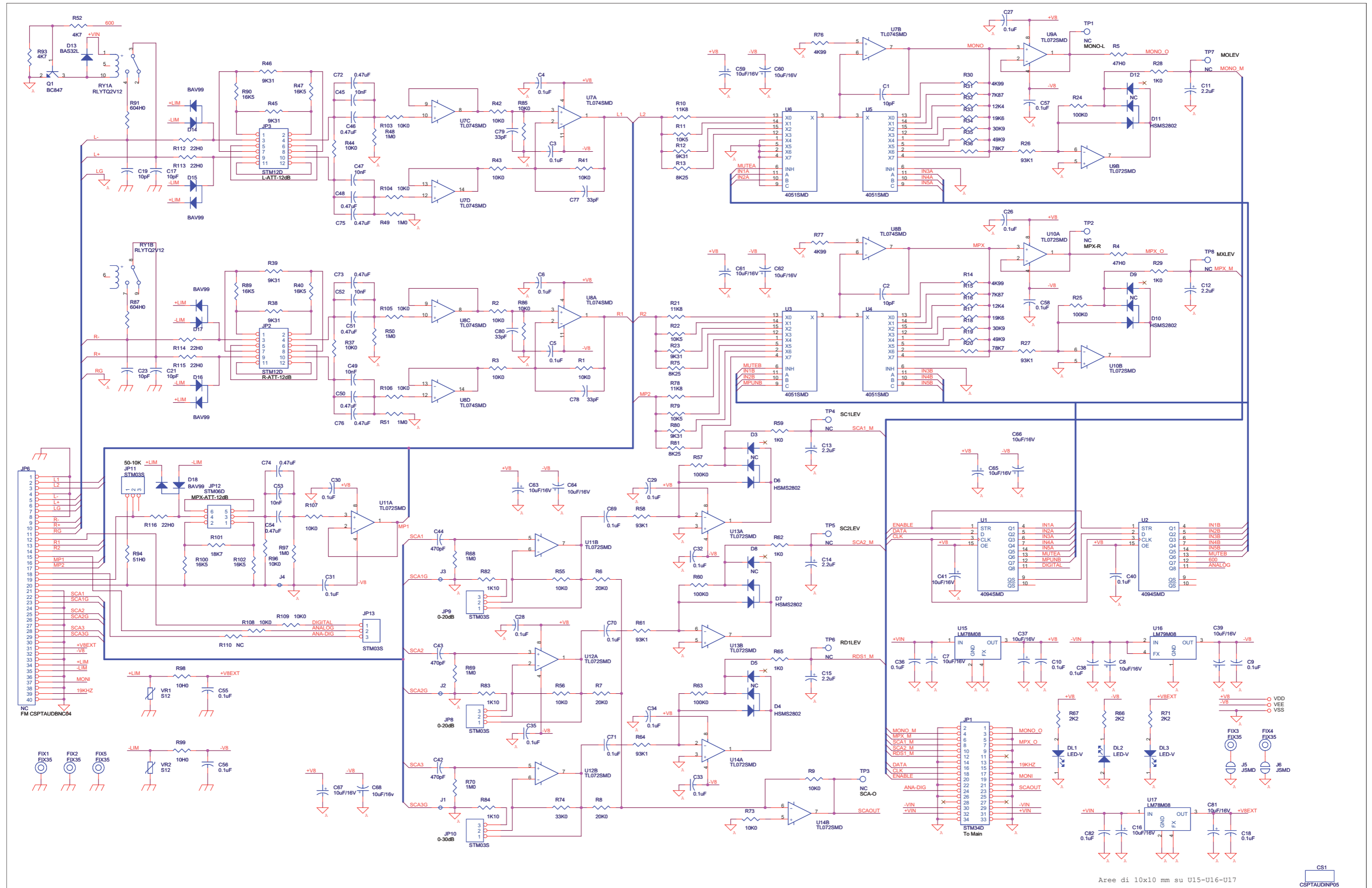
| Item | Quantity | Reference   | Part         | Description                  | Code         |
|------|----------|---|--------------|------------------------------|--------------|
| 1    | 6        | CN1, CN2, CN3, CN4, CN5, CN6  | BNC IS       | Connettore BNC metallico     | CNTBNCFCMSA  |
| 2    | 3        | CN7, CN8, CN9   | XLRFCSD      | Connettore XLR femm. cs      | CNTXLRFC3P   |
| 3    | 1        | CS1   | CSPTAUDBNC06 | Circuito stampato            | CSPTAUDBNC06 |
| 4    | 20       | C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C25, C26, C27, C28, C30, C31, C32, C33 | 27pF         | Cond. SMD 0805               | CCC085270JCC |
| 5    | 2        | C13, C15  | 10uF/16V     | Cond. Elett. SMD d. 4mm      | CES106A160   |
| 6    | 6        | C14, C16, C23, C24, C35, C36  | 0.1uF        | Cond. SMD 0805               | CCC085104KXC |
| 7    | 8        | C17, C18, C19, C20, C21, C22, C29, C34  | NC           | Cond. SMD 0805               |              |
| 8    | 5        | D1, D7, D8, D9, D10   | NC           | Doppio Diode SMD SOT23       |              |
| 9    | 6        | D2, D3, D4, D5, D6, D11   | BAV99        | Doppio Diode SMD SOT23       | DISBAV99     |
| 10   | 8        | FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8  | FIX35        | Foro fissaggio 3.5mm         |              |
| 11   | 1        | JP1   | STM40SO      | Strip maschio 40 pin a 90°   | CNTSTM40SAL  |
| 12   | 1        | JP2   | STF12S       | Strip femmina 12 pin tornita | CNTSTF12SDB  |
| 13   | 10       | L1, L2, L3, L4, L5, L6, L7, L8, L9, L10   | 2.2uH        | Induttanza SMD 3225 (1210)   | IMP2U2S120   |
| 14   | 1        | Q1  | BC847        | Trans. NPN SOT23             | TRNBC847     |
| 15   | 3        | RV1, RV2, RV3   | 2K           | Trimmer Rg V 3296W           | RVT3269WK002 |
| 16   | 3        | RV4, RV5, RV6   | 10K          | Trimmer Rg V 3296W           | RVT3269WK010 |
| 17   | 1        | RV7   | 10K          | Trimmer Rg H 3296X           | RVT3296XK010 |
| 18   | 2        | RY1, RY2  | RLYTQ2AV05   | Rele' TQ2 - 5V               | RLD2V05V05AM |
| 19   | 6        | R2, R3, R4, R5, R6, R7  | 10H0         | Res. SMD 0805                | RCH085F0010H |
| 20   | 1        | R8  | 2K0          | Res. SMD 0805 1%             | RCH085F0002K |
| 21   | 1        | R9  | 2K49         | Res. SMD 0805 1%             | RCH085F02K49 |
| 22   | 4        | R10, R11, R16, R19  | 10K0         | Res. SMD 0805 1%             | RCH085F0010K |
| 23   | 5        | R12, R13, R14, R15, R21   | 1H0          | Res. SMD 0805 1%             | RCH085F0001H |
| 24   | 1        | R17   | 56H0         | Res. SMD 0805 1%             | RCH085F0056H |
| 25   | 2        | R18, R22  | 100H0        | Res. SMD 0805 1%             | RCH085F0100H |
| 26   | 1        | R20   | 4K70         | Res. SMD 0805 1%             | RCH085F004K7 |
| 27   | 1        | R23   | 2K70         | Res. SMD 0805 1%             | RCH085F002K7 |
| 28   | 2        | TP1, TP2  | NC           | Test point                   |              |
| 29   | 1        | U1  | TL072SMD     | Dual Op. SMD SO8             | CILT072SMD   |
| 30   | 3        | VAR1, VAR2, VAR3  | VME18Z       | ESD SMD protector            | MOV018V085   |

Nota Quella a 12 pin non c'e'.

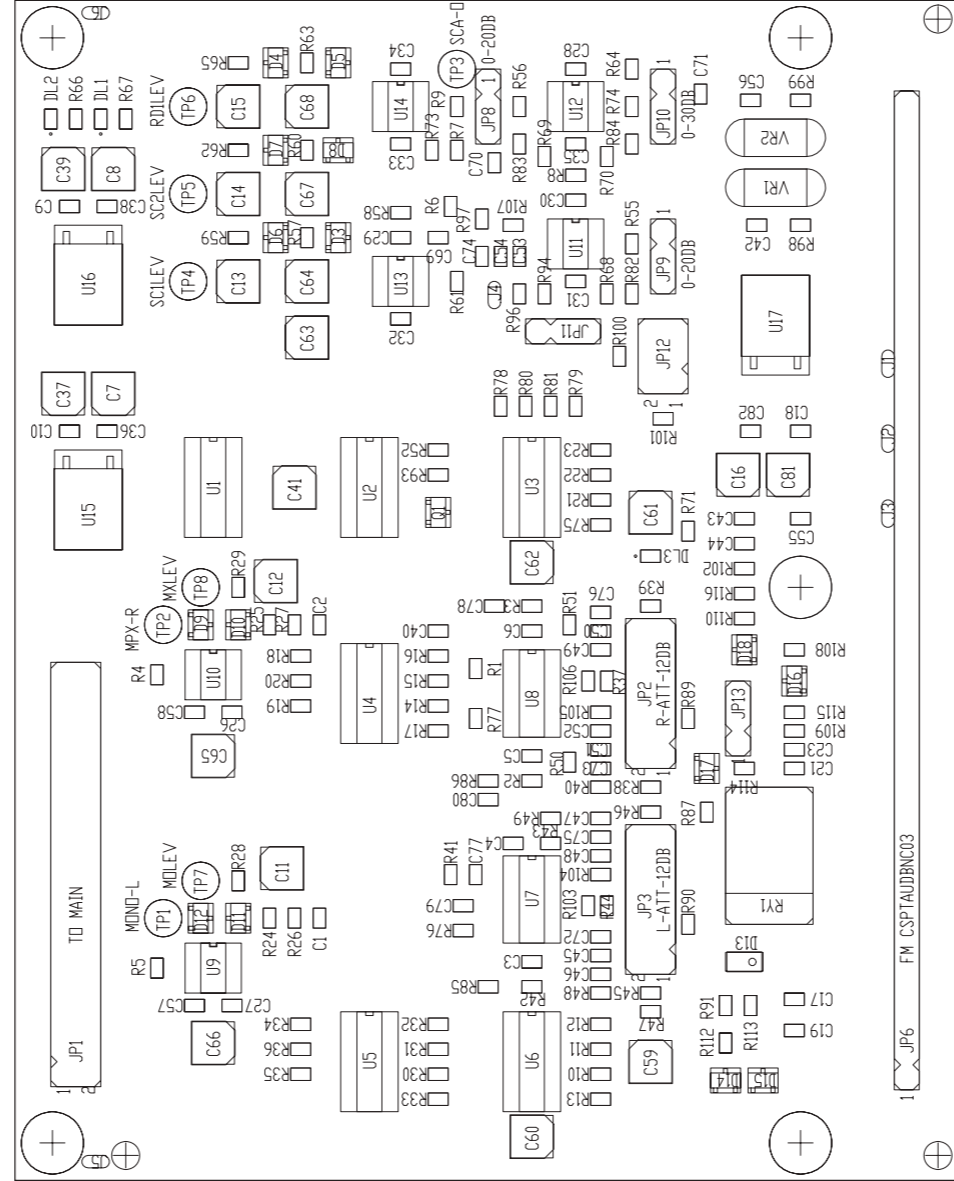
|   |                        |                                   |                              |            |          |
|---|------------------------|-----------------------------------|------------------------------|------------|----------|
| R.V.R. ELETTRONICA  | NOME PROGETTO: PTX-LCD | NOME PARTE: SCHEDA CONNETTORI BNC |                              |            |          |
|   | AUTORE: TOMMASI        | DATA: 14/12/2005                  | REVISIONE: 1.0               | SCALA: 2:1 | SIZE: A4 |
| ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UTSRV" |                        | CODICE PROGETTO: _057             | CODICE DISEGNO: SLPTAUDBNC06 |            |          |
| MATERIALE: <>   | TRATTAMENTO: <>        | PROFILO: <>                       | STATO: ESECUTIVO             |            |          |

# Audio Input Card

## SLPTAUDINP05



|                                   |                    |                   |                      |                              |
|-----------------------------------|--------------------|-------------------|----------------------|------------------------------|
| Nome Progetto: PTX - LCD          | Autore: Tommasi A. | Data: 2011/06/30  | Revisione: 1.1       | Nome Parte: Audio Input Card |
| Nome PC in Rete: UTRSVRVIRasciati | File/Cartella: /   | Autore/Revisione: | Codice Progetto: 057 | Codice: SLPTAUDINP05         |
| Pagina: 1 di 1                    |                    | Size: A2          |                      |                              |



NOME PROGETTO: PTX-LCD

NOME PARTE: SCHEDA INPUT

AUTORE: TOMMASI

DATA: 14/12/2005 | REVISIONE: 1.0 | SCALA: 1:1 | SIZE: A4 | PAGINA: 1 DI 1

ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UTSRV"

CODICE PROGETTO: \_057 | CODICE DISEGNO: SLPTAUDINP05

MATERIALE: <>

TRATTAMENTO: <>

PROFILO: <>

STATO: ESECUTIVO



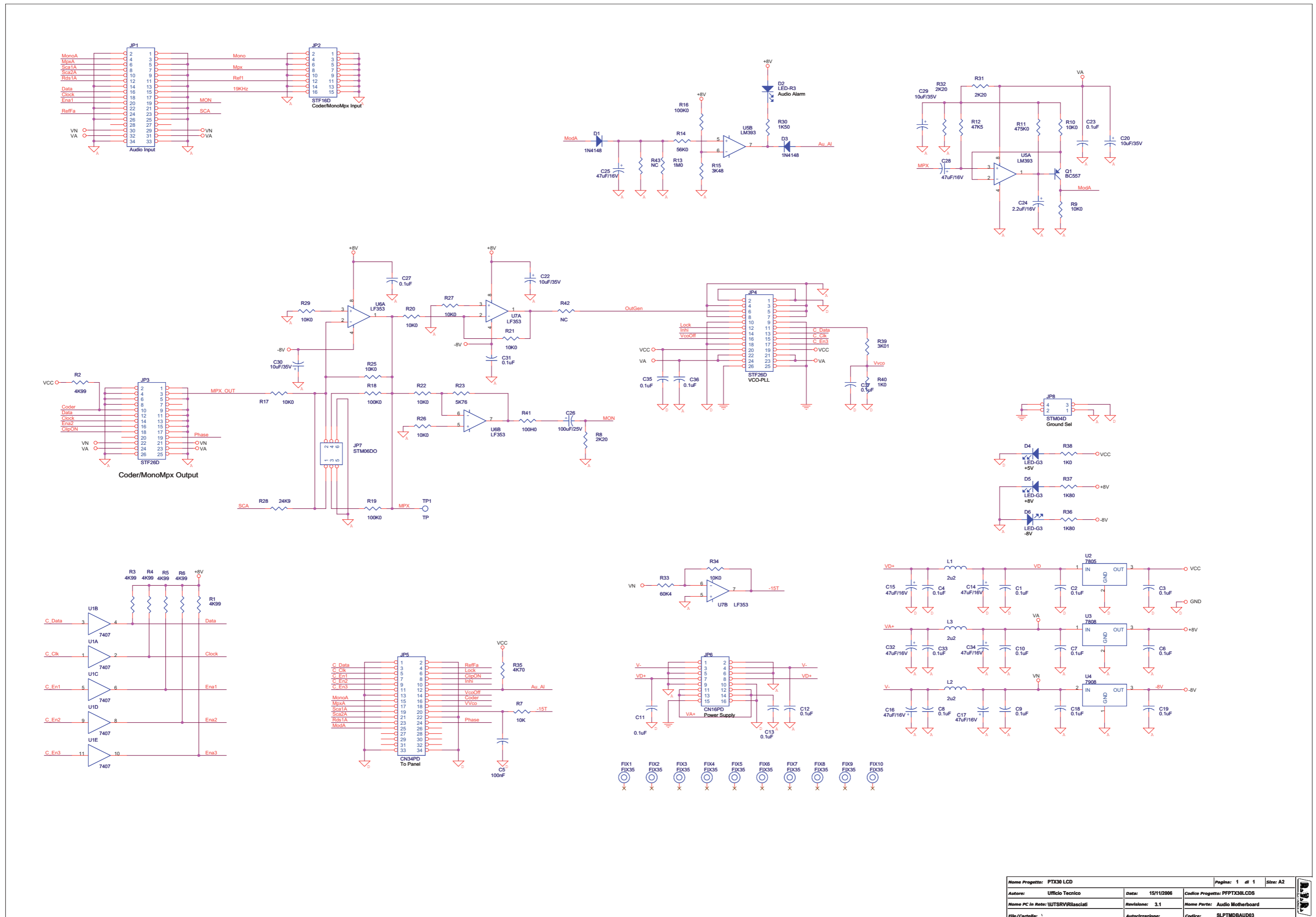
Audio Input Card Revised: 19/12/2006  
 SLPTAUDINP05 Revision: 1.1  
 PTX - LCD  
 \_057  
 Tommasi A.

| Item | Quantity | Reference   | Part         | Description                      | Code         |
|------|----------|---|--------------|----------------------------------|--------------|
| 1    | 1        | CS1   | CSPTAUDINP05 | Circuito stampato                | CSPTAUDINP04 |
| 2    | 6        | C1, C2, C17, C19, C21, C23  | 10pF         | Cond. SMD 0805                   | CCC085100JCC |
| 3    | 28       | C3, C4, C5, C6, C9, C10, C18, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C38, C40, C55, C56, C57, C58, C69, C70, C71, C82 | 0.1uF        | Cond. SMD 0805                   | CCC085104KXC |
| 4    | 17       | C7, C8, C16, C37, C39, C41, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C81   | 10uF         | Cond. Elett. SMD tant. size C    | CET106C160SM |
| 5    | 5        | C11, C12, C13, C14, C15   | 2.2uF        | Cond. Elett. SMD d. 4mm          | CES225A500   |
| 6    | 3        | C42, C43, C44   | 470pF        | Cond. SMD 0805                   | CCC085471JCC |
| 7    | 5        | C45, C47, C49, C52, C53   | 10nF         | Cond. SMD 0805                   | CCC085103KXC |
| 8    | 10       | C46, C48, C50, C51, C54, C72, C73, C74, C75, C76  | 0.47uF       | Cond. SMD 0805                   | CCC085474KXC |
| 9    | 4        | C77, C78, C79, C80  | 33pF         | Cond. SMD 0805                   | CCC085330JCC |
| 10   | 2        | DL1, DL2  | LED-V        | LED SMD 0805                     | LEDV0805     |
| 11   | 5        | D3, D5, D8, D9, D12   | NC           | Diode SMD SOT23                  |              |
| 12   | 5        | D4, D6, D7, D10, D11  | HSMS2802     | Doppio Diode SMD SOT23           | DISHSMS2802  |
| 13   | 1        | D13   | BAS32L       | MINIMELF SMD Diode               | DISBAS32MINI |
| 14   | 5        | D14, D15, D16, D17, D18   | BAV99        | Doppio Diode SMD SOT23           | DISBAV99     |
| 15   | 5        | FIX1, FIX2, FIX3, FIX4, FIX5  | FIX35        | Foro fissaggio 3.5mm             |              |
| 16   | 1        | JP1   | STM34D       | Strip maschio 17+17 pin          |              |
| 17   | 2        | JP2, JP3  | STM12D       | Strip maschio 12 pin doppia fila |              |
| 18   | 1        | JP6   | NC           | Strip femmina 40 pin             |              |
| 19   | 5        | JP8, JP9, JP10, JP11, JP13  | STM03S       | Strip maschio 3 pin              |              |
| 20   | 1        | JP12  | STM06D       | Strip maschio 3+3 pin            |              |
| 21   | 4        | J1, J2, J3, J4  | GNDCC        | Non e' un componente             |              |
| 22   | 2        | J5, J6  | JSMD         | Pad SMD a saldare                |              |
| 23   | 1        | Q1  | BC847        | Trans. NPN SOT23                 | TRNBC847     |
| 24   | 1        | RY1   | RLYTQ2V12    | Rele' TQ2                        | RLD2V12V05AM |
| 25   | 22       | R1, R2, R3, R9, R37, R41, R42, R43, R44, R55, R56, R73, R85, R86, R96, R103, R104, R105, R106, R107, R108, R109                       | 10K0         | Res. SMD 0805 1%                 | RCH085F0010K |
| 26   | 2        | R4, R5  | 47H0         | Res. SMD 0805 1%                 | RCH085F0047H |
| 27   | 3        | R6, R7, R8  | 20K0         | Res. SMD 0805 1%                 | RCH085F0020K |
| 28   | 3        | R10, R21, R78   | 11K8         | Res. SMD 0805 1%                 | RCH085F011K8 |
| 29   | 3        | R11, R22, R79   | 10K5         | Res. SMD 0805 1%                 | RCH085F010K5 |
| 30   | 7        | R12, R23, R38, R39, R45, R46, R80   | 9K31         | Res. SMD 0805 1%                 | RCH085F09K31 |
| 31   | 3        | R13, R75, R81   | 8K25         | Res. SMD 0805 1%                 | RCH085F08K25 |
| 32   | 4        | R14, R30, R76, R77  | 4K99         | Res. SMD 0805 1%                 | RCH085F04K99 |
| 33   | 2        | R15, R31  | 7K87         | Res. SMD 0805 1%                 | RCH085F07K87 |
| 34   | 2        | R16, R32  | 12K4         | Res. SMD 0805 1%                 | RCH085F012K4 |
| 35   | 2        | R17, R33  | 19K6         | Res. SMD 0805 1%                 | RCH085F019K6 |
| 36   | 2        | R18, R34  | 30K9         | Res. SMD 0805 1%                 | RCH085F030K9 |
| 37   | 2        | R19, R35  | 49K9         | Res. SMD 0805 1%                 | RCH085F049K9 |
| 38   | 2        | R20, R36  | 78K7         | Res. SMD 0805 1%                 | RCH085F078K7 |
| 39   | 5        | R24, R25, R57, R60, R63   | 100K0        | Res. SMD 0805 1%                 | RCH085F0100K |
| 40   | 5        | R26, R27, R58, R61, R64   | 93K1         | Res. SMD 0805 1%                 | RCH085F093K1 |
| 41   | 5        | R28, R29, R59, R62, R65   | 1K0          | Res. SMD 0805 1%                 | RCH085F0001K |
| 42   | 6        | R40, R47, R89, R90, R100, R102  | 16K5         | Res. SMD 0805 1%                 | RCH085F016K5 |
| 43   | 8        | R48, R49, R50, R51, R68, R69, R70, R97  | 1M0          | Res. SMD 0805 1%                 | RCH085F0001M |
| 44   | 2        | R52, R93  | 4K7          | Res. SMD 0805 1%                 | RCH085F004K7 |
| 45   | 2        | R66, R67  | 2K2          | Res. SMD 0805 1%                 | RCH085F002K2 |
| 46   | 1        | R74   | 33K0         | Res. SMD 0805 1%                 | RCH085F0033K |
| 47   | 3        | R82, R83, R84   | 1K10         | Res. SMD 0805 1%                 | RCH085F001K1 |
| 48   | 2        | R87, R91  | 604H0        | Res. SMD 0805 1%                 | RCH085F0604H |
| 49   | 1        | R94   | 51H0         | Res. SMD 0805 1%                 | RCH085F0051H |
| 50   | 2        | R98, R99  | 10H0         | Res. SMD 0805 1%                 | RCH085F0010H |
| 51   | 1        | R101  | 18K7         | Res. SMD 0805 1%                 | RCH085F018K7 |
| 52   | 5        | R112, R113, R114, R115, R116  | 22H0         | Res. SMD 0805 1%                 | RCH085F0022H |
| 53   | 1        | R110  | NC           | Res. SMD 0805 1%                 |              |
| 54   | 8        | TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8  | NC           | Test point                       |              |
| 55   | 2        | U1, U2  | 4094SMD      | Shift Reg. SMD SO16              | CID4049SMD   |
| 56   | 4        | U3, U4, U5, U6  | 4051SMD      | Analog Switch SMD SO16           | CID4051SMD   |
| 57   | 2        | U7, U8  | TL074SMD     | Quad Op. SMD SO14                | CILT074SMD   |
| 58   | 6        | U9, U10, U11, U12, U13, U14   | TL072SMD     | Dual Op. SMD SO8                 | CILT072SMD   |
| 59   | 2        | U15, U17  | LM78M08      | Stabilizzatore SMD DPAK          | CIL7808DPAK  |
| 60   | 1        | U16   | LM79M05      | Stabilizzatore SMD DPAK          | CIL7908DPAK  |
| 61   | 2        | VR1, VR2  | S12          | Varistor                         | MOV012V07    |

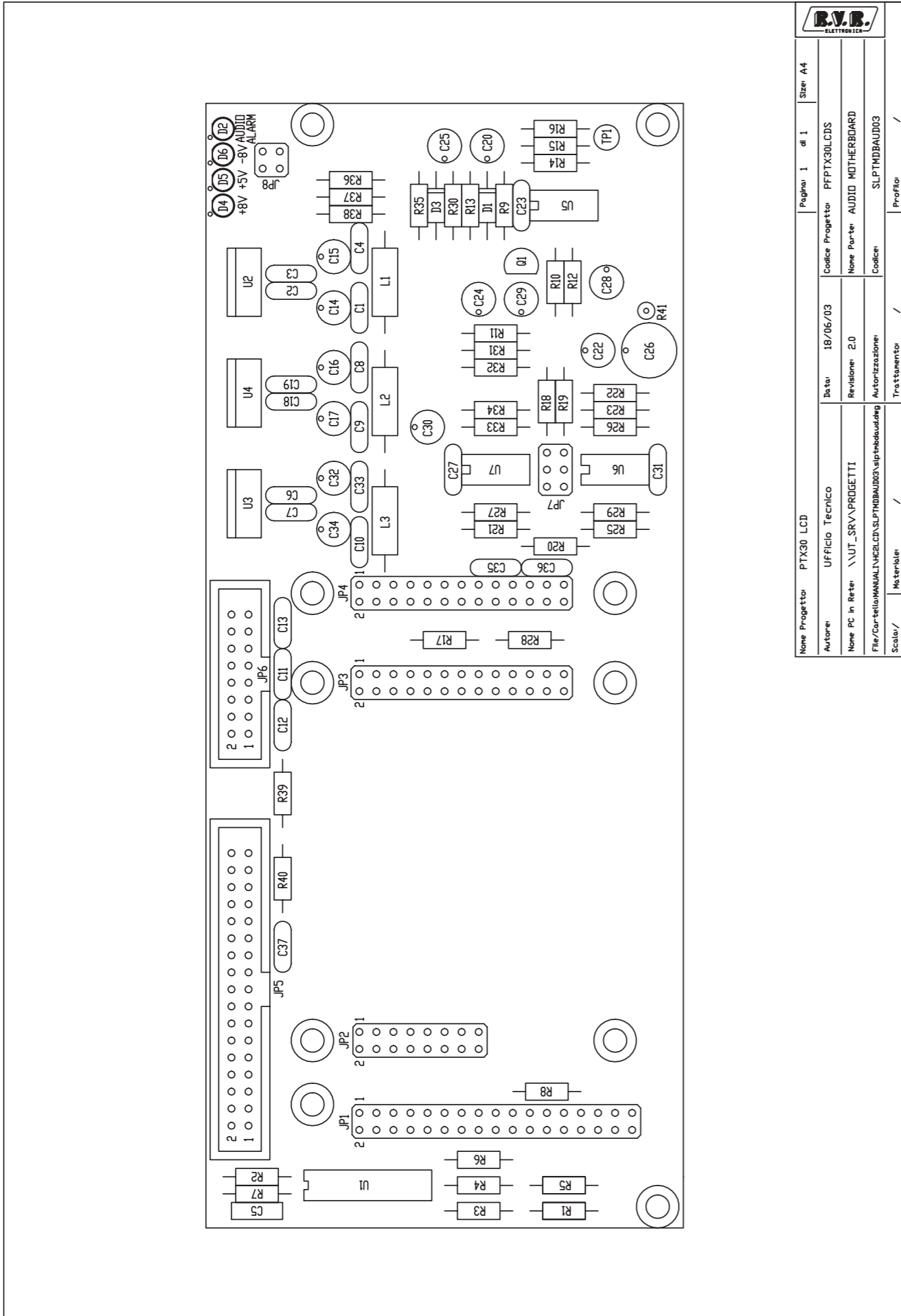
Nota 1

Nota 2

|               |   |
|---------------|---|
| <b>Nota 1</b> | Montati lato saldature  |
| <b>Nota 2</b> | Solo nel caso si utilizzi la scheda in coppia con la SLPTAUDBNC06 e la RXAES nella versione per T-System, R110 sarà da 1K0. (RM72/06) |



|                                   |                  |                               |                |          |
|-----------------------------------|------------------|-------------------------------|----------------|----------|
| Nome Progetto: PTX30 LCD          | data: 15/11/2006 | Codice Progetto: PFPTX30LCDS  | Pagina: 1 di 1 | Size: A2 |
| Autore: Ufficio Tecnico           | Revisione: 3.1   | Nome Parte: Audio Motherboard |                |          |
| Nome PC in Rete: WUTSRVIRIasciati | Autorizzazione:  | Codice: SLPTMDBAUD03          |                |          |
| File/Cartella: 1                  |                  |                               |                |          |

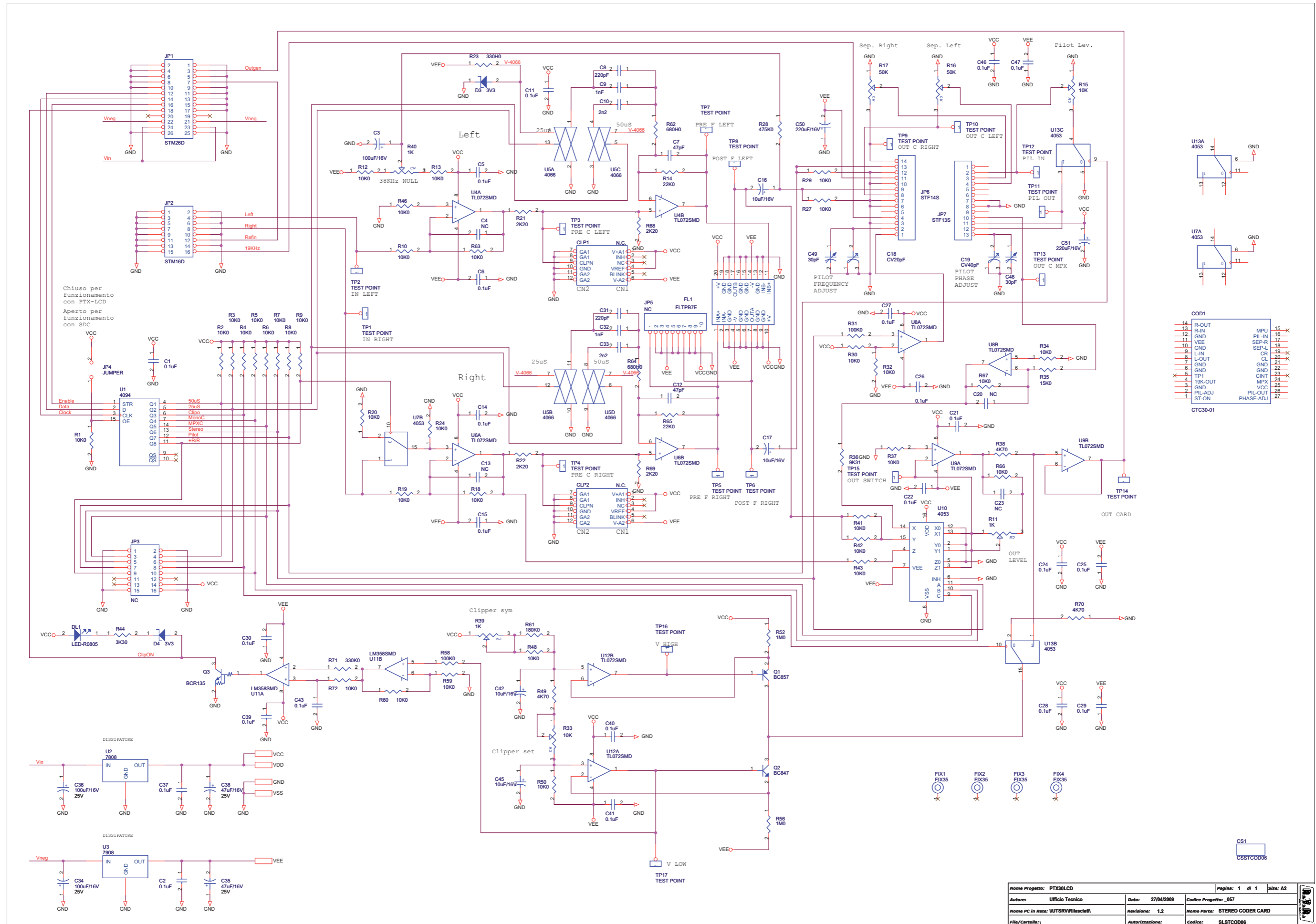


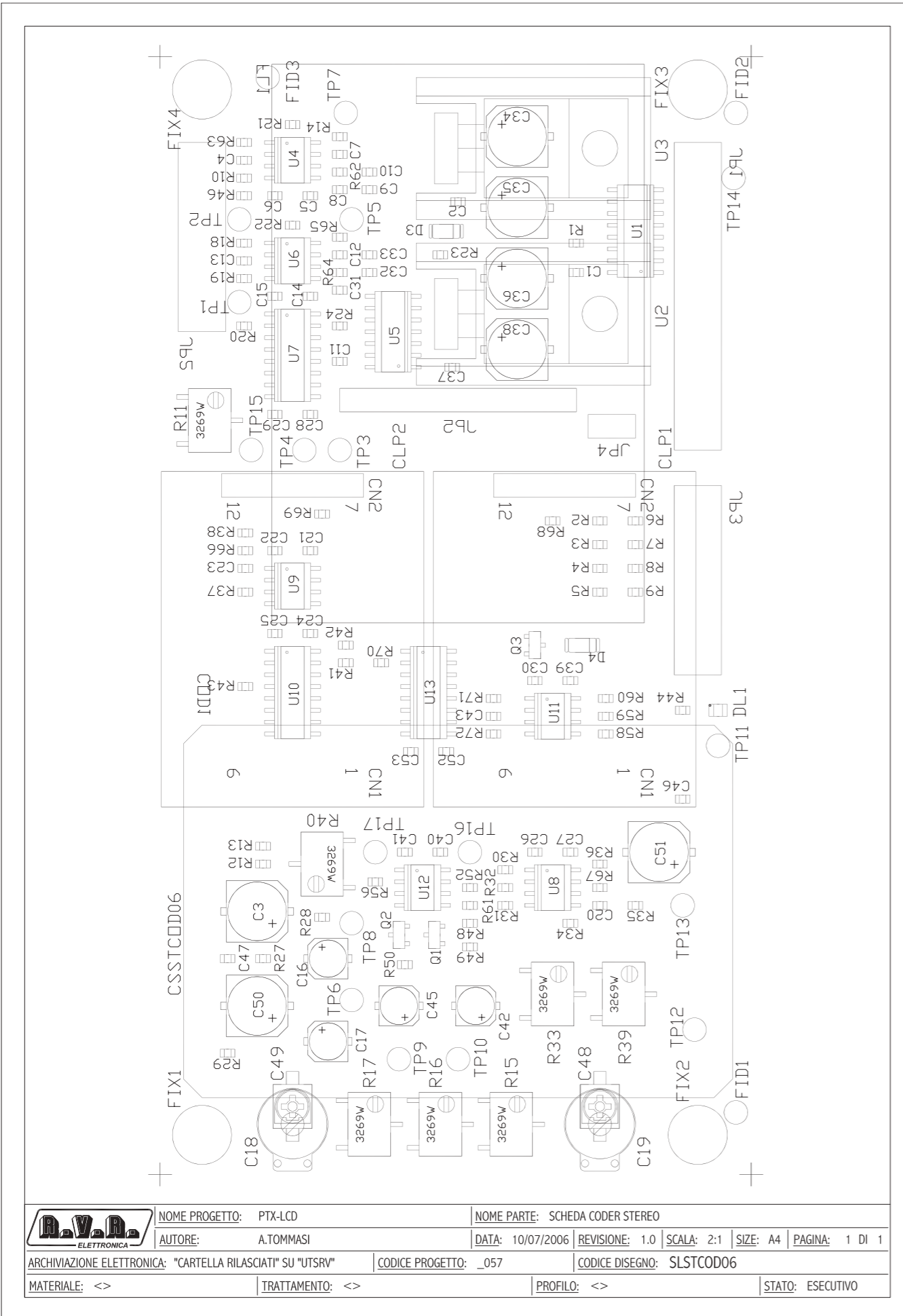
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|---|-------------------|---------------|----------|------------------|-------------------|
| R.V.R. ELETTRONICA                                      |                   | Pagina 1 di 1 |          | Size: A4         |                   |
| Nome Progetto:  | PTX30 LCD         | Data:         | 18/06/03 | Codice Progetto: | PFPTX30LCDS       |
| Autore:   | Ufficio Tecnico   | Revisione:    | 2.0      | Nome Parte:      | AUDIO MOTHERBOARD |
| Nome PC in Rete:  | \\UT_SRV\PROGETTI | Autore:       |          | Codice:          | SLPTMDBAUD03      |
| File/Cartella/MANUALI/PCB/SLPTMDBAUD03\slptmdbaud03.dwg |                   | Trattamento:  | /        | Profilo:         | /                 |
| Scala:  |                   | Materiale:    | /        |                  |                   |

Audio Motherboard Revised: 15/11/06  
SLPTMDBAUD03 Revision: 3.1  
PTX30 LCD  
PFPTX30LCDS  
Ufficio Tecnico

| Item | Quantity | Reference   | Part      | Description                          |
|------|----------|---|-----------|--------------------------------------|
| 1    | 21       | C1, C2, C3, C4, C6, C7, C8, C9, C10, C11, C12, C13, C18, C19, C23, C27, C31, C33, C35, C36, C37 | 0.1uF     | Cond. ceramico p 5mm CKM104KC600P    |
| 2    | 1        | C5  | 100nF     | Cond. Poliestere p 5mm CPE104JC630   |
| 3    | 8        | C14, C15, C16, C17, C25, C28, C32, C34  | 47uF/16V  | Cond. Elettr. Vert. CEA476MA250V     |
| 4    | 4        | C20, C22, C29, C30  | 10uF/35V  | Cond. Elettr. Vert. CEA106MA500V     |
| 5    | 1        | C24   | 2.2uF/16V | Cond. Elettr. Vert. CEA225MA500V     |
| 6    | 1        | C26   | 100uF/25V | Cond. Elettr. Vert. CEA107MA250V     |
| 7    | 2        | D1, D3  | 1N4148    | Diode in vetro DO35 DIS1N4148        |
| 8    | 1        | D2  | LED-R3    | LED dia. 3mm LEDR03                  |
| 9    | 3        | D4, D5, D6  | LED-G3    | LED dia. 3mm LEDV03                  |
| 10   | 10       | FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8, FIX9, FIX10                                     | FIX35     | Foro fissaggio 3.5mm                 |
| 11   | 1        | JP1   |           | Audio Input CNTSTF17DDB              |
| 12   | 1        | JP2   | STF16D    | Strip femmina 8+8 pin CNTSTF08DDB    |
| 13   | 2        | JP3, JP4  | STF26D    | Strip femmina 13+13 pin CNTSTF13DDB  |
| 14   | 1        | JP5   | CN34PD    | Connettore 34 poli Flat cs CNTMCS34A |
| 15   | 1        | JP6   | CN16PD    | Connettore 16 poli Flat cs CNTMCS16A |
| 16   | 1        | JP7   | STM06DO   | Strip maschio 3+3 pin CNTSTM40DDA    |
| 17   | 1        | JP8   | STM04D    | Strip maschio 2+2 pin CNTSTM40DDA    |
| 18   | 3        | L1, L2, L3  | 2u2       | Induttanza cilindrica IMP02U2A       |
| 19   | 1        | Q1  | BC557     | Trans. PNP TO92 TRNBC557             |
| 20   | 6        | R1, R2, R3, R4, R5, R6  | 4K99      | Res. 1/4W 1% RSM1/4F04K99            |
| 22   | 3        | R8, R31, R32  | 2K20      | Res. 1/4W 1% RSM1/4F002K2            |
| 23   | 12       | R7, R9, R10, R17, R20, R21, R22, R25, R26, R27, R29, R34  | 10K0      | Res. 1/4W 1% RSM1/4F0010K            |
| 24   | 1        | R11   | 475K0     | Res. 1/4W 1% RSM1/4F0475K            |
| 25   | 1        | R12   | 47K5      | Res. 1/4W 1% RSM1/4F047K5            |
| 26   | 1        | R13   | 1M0       | Res. 1/4W 1% RSM1/4F0001M            |
| 27   | 1        | R14   | 56K0      | Res. 1/4W 1% RSM1/4F0056K            |
| 28   | 1        | R15   | 3K48      | Res. 1/4W 1% RSM1/4F03K48            |
| 29   | 3        | R16, R18, R19   | 100K0     | Res. 1/4W 1% RSM1/4F0100K            |
| 30   | 1        | R23   | 5K76      | Res. 1/4W 1% RSM1/4F05K76            |
| 31   | 1        | R28   | 24K9      | Res. 1/4W 1% RSM1/4F024K9            |
| 32   | 1        | R30   | 1K50      | Res. 1/4W 1% RSM1/4F001K5            |
| 33   | 1        | R33   | 60K4      | Res. 1/4W 1% RSM1/4F060K4            |
| 34   | 1        | R35   | 4K70      | Res. 1/4W 1% RSM1/4F004K7            |
| 35   | 2        | R36, R37  | 1K80      | Res. 1/4W 1% RSM1/4F001K8            |
| 36   | 2        | R38, R40  | 1K0       | Res. 1/4W 1% RSM1/4F0001K            |
| 37   | 1        | R39   | 3K01      | Res. 1/4W 1% RSM1/4F03K01            |
| 38   | 1        | R41   | 100H0     | Res. 1/4W 1% RSM1/4F0100H            |
| 39   | 2        | R42, R43  | NC        | Res. 1/4W 1%                         |
| 40   | 1        | TP1   | TP        | Test point CNTSTM40SDA               |
| 41   | 1        | U1  | 7407      | CID7407                              |
| 42   | 1        | U2  | 7805      | Stabilizzatore TO220 CIL7805P        |
| 43   | 1        | U3  | 7808      | Stabilizzatore TO220 CIL7808P        |
| 44   | 1        | U4  | 7908      | Stabilizzatore TO220 CIL7908P        |
| 45   | 1        | U5  | LM393     | CILLM393                             |
| 46   | 2        | U6, U7  | LF353     | CILLF353                             |
| 47   | 1        | CS1   |           | CSPTMDBAUD03                         |

NOTE L.S. TAGLIO DI PISTA SU JP6 TRA IL PIN8 E IL PIN12  
UNIRE POI IL PIN8 E IL PIN7 CON UN PONTE DI STAGNO



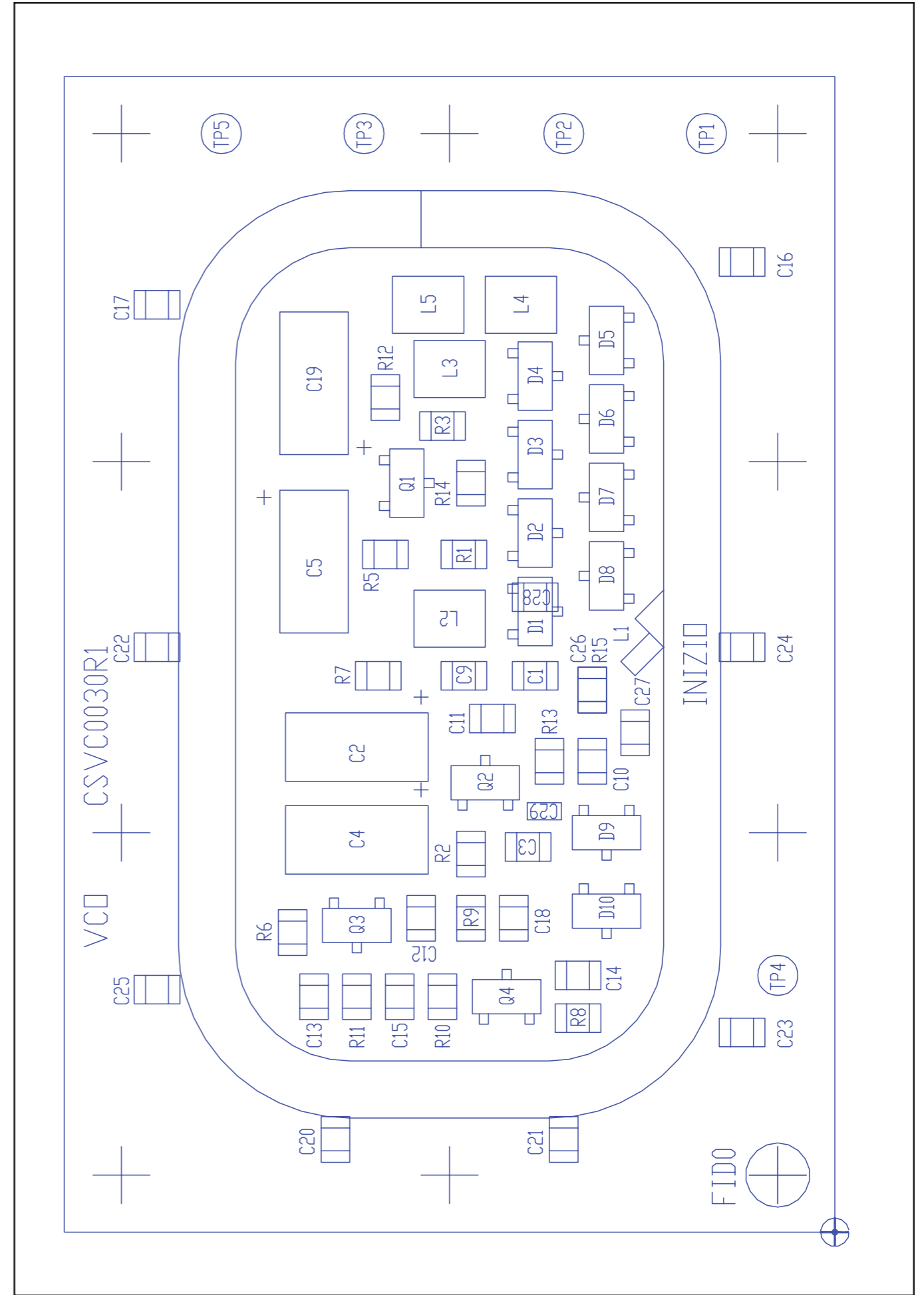
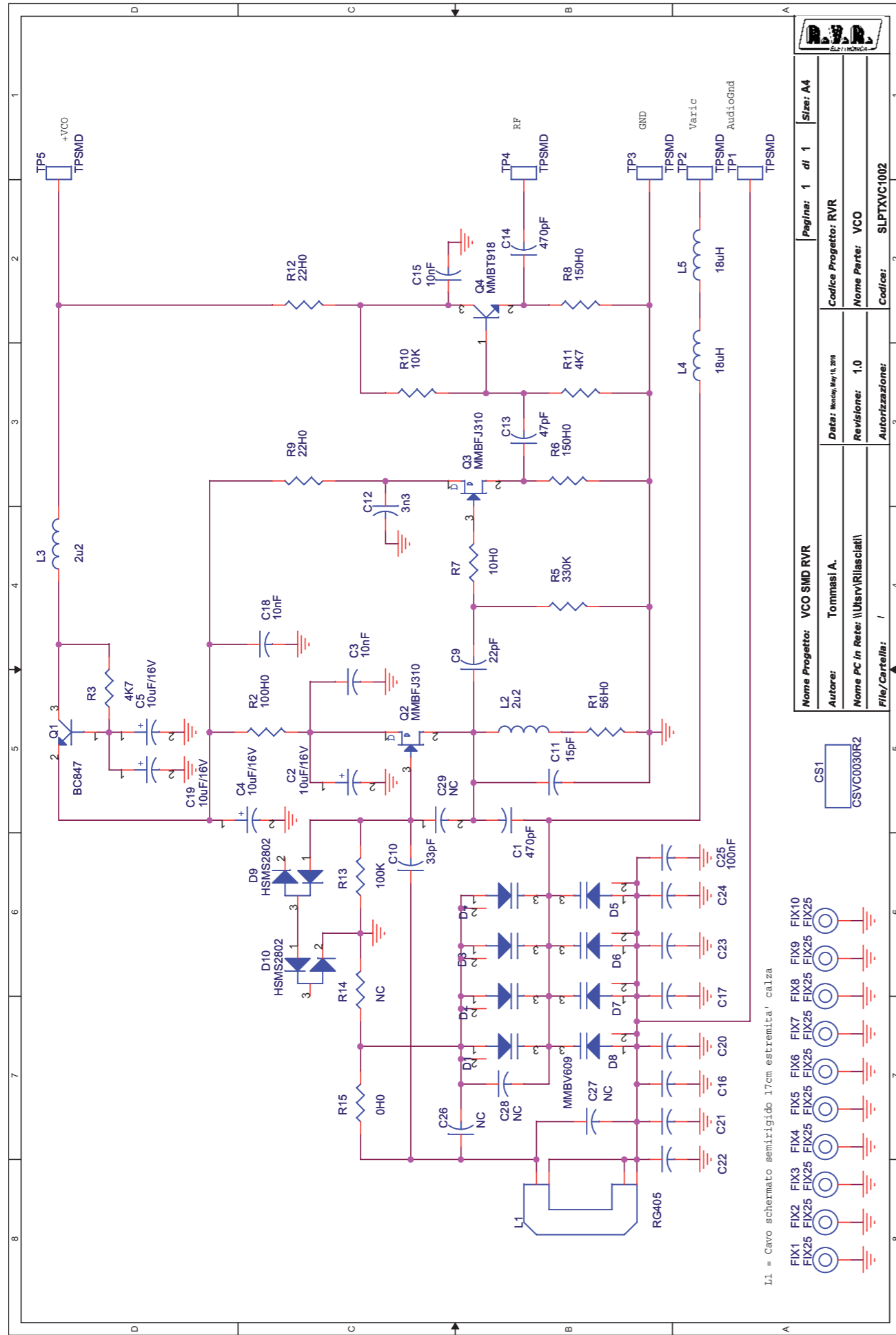


STEREO CODER CARD Revised: 27/04/2009  
 SLSTCOD06 Revision: 1.2  
 PTX30 LCD  
 \_057

| Item | Quantity | Reference  | Part      | Description                  | Code         |
|------|----------|--|-----------|------------------------------|--------------|
| 1    | 2        | CLP1,CLP2  | N.C.      | Scheda option                |              |
| 2    | 1        | COD1   | CTC30-01  | Coder stereo IRV30CT         | SLCTC30V03   |
| 3    | 1        | CS1  | CSSTCOD06 | Circuito stampato            | CSSTCOD06    |
| 4    | 23       | C1,C2,C5,C6,C11,C14,C15,<br>C21,C22,C24,C25,C26,C27,<br>C28,C29,C30,C37,C39,C40,<br>C41,C43,C46,C47  | 0.1uF     | Cond. ceramico 0603/0805     | CCC085104KXC |
| 5    | 3        | C3,C34,C36   | 100uF/16V | Cond. elett SMD dia 6mm      | CES107C160   |
| 6    | 4        | C4,C13,C20,C23   | NC        | Cond. ceramico 0603/0805     |              |
| 7    | 2        | C7,C12   | 47pF      | Cond. ceramico 0805          | CCC085470JCC |
| 8    | 2        | C8,C31   | 220pF     | Cond. ceramico 0805          | CCC085221JCC |
| 9    | 2        | C9,C32   | 1nF       | Cond. ceramico 0805 2%       | CCC085102GCC |
| 10   | 2        | C10,C33  | 2nF       | Cond. ceramico 0805 2%       | CCC085222GCC |
| 11   | 4        | C16,C17,C42,C45  | 10uF/16V  | Cond. elet. SMD dia 4mm      | CES106A160   |
| 12   | 1        | C18  | CV20pF    | Comp. ceramico dia. 7mm      | CVF220D07    |
| 13   | 1        | C19  | CV40pF    | Comp. ceramico dia. 7mm      | CVF400D07    |
| 14   | 2        | C35,C38  | 47uF/16V  | Cond. elettrolitico          | CES476C160   |
| 15   | 2        | C48,C49  | NC        | Comp. var. Murata TZB4B      |              |
| 16   | 2        | C50,C51  | 220uF/16V | Cond. elettrolitico          | CES227E160   |
| 17   | 1        | DL1  | LED-R0805 | LED SMD 0805                 | LEDR0805     |
| 18   | 2        | D3,D4  | 3V3       | MINIMELF SMD Zener Diode     | DI23V3MINI   |
| 19   | 4        | FIX1,FIX2,FIX3,FIX4  | FIX35     | Foro fissaggio 3.5mm         |              |
| 20   | 1        | FL1  | FLTPB7E   | Filtro Audio Stereo Positron | FLTPB7M x 2  |
| 21   | 1        | JP1  | STM26D    | Connettore 26 poli Flat cs   | CNTSTM13DDD  |
| 22   | 1        | JP2  | STM16D    | Connettore 16 poli Flat cs   | CNTSTM8DDD   |
| 23   | 1        | JP3  | NC        | Connettore 16 poli Flat cs   |              |
| 24   | 1        | JP4  | JUMPER    | Jumper 2 PIN                 |              |
| 25   | 1        | JP5  | NC        | Strip femmina 10 pin         |              |
| 26   | 1        | JP6  | STF14S    | Strip femmina 14 pin         | CNTSTF14SDB  |
| 27   | 1        | JP7  | STF13S    | Strip femmina 13 pin         | CNTSTF13SDB  |
| 28   | 1        | Q1   | BC857     | Trans. PNP SOT23             | TRNBC857     |
| 29   | 1        | Q2   | BC847     | Trans. NPN SOT23             | TRNBC847     |
| 30   | 1        | Q3   | BCR135    | Trans./Res. NPN SOT23        | TRNBCR135    |
| 31   | 35       | R1,R2,R3,R4,R5,R6,R7,R8,<br>R9,R10,R12,R13,R18,R19,<br>R20,R24,R27,R29,R30,R32,<br>R34,R36,R37,R41,R42,R43,<br>R46,R48,R50,R59,R60,R63,<br>R66,R67,R72 | 10K0      | Res.0805 1%                  | RCH085F0010K |
| 32   | 1        | R71  | 330K0     | Res.0805 1%                  | RCH085F0330K |
| 33   | 3        | R11,R39,R40  | 1K        | Trimmer Rg V 3269W SMD       | RVT3269WK001 |
| 34   | 2        | R14,R65  | 22K0      | Res.0805 1%                  | RCH085F0022K |
| 35   | 2        | R15,R33  | 10K       | Trimmer Rg V 3269W SMD       | RVT3269WK010 |
| 36   | 2        | R16,R17  | 50K       | Trimmer Rg V 3269W SMD       | RVT3269WK050 |
| 37   | 4        | R21,R22,R68,R69  | 2K20      | Res.0805 1%                  | RCH085F002K2 |
| 38   | 1        | R23  | 330H0     | Res.0805 1%                  | RCH085F0330H |
| 39   | 1        | R28  | 475K0     | Res.0805 1%                  | RCH085F0475K |
| 40   | 2        | R31,R58  | 100K0     | Res.0805 1%                  | RCH085F0100K |
| 41   | 1        | R35  | 15K0      | Res.0805 1%                  | RCH085F0015K |
| 42   | 1        | R36  | 9K31      | Res.0805 1%                  | RCH085F09K31 |
| 43   | 3        | R38,R49,R70  | 4K70      | Res.0805 1%                  | RCH085F004K7 |
| 44   | 1        | R44  | 3K30      | Res.0805 1%                  | RCH085F003K3 |
| 45   | 2        | R52,R56  | 1M0       | Res.0805 1%                  | RCH085F0001M |
| 46   | 1        | R61  | 180K0     | Res.0805 1%                  | RCH085F0180K |
| 47   | 2        | R62,R64  | 680H0     | Res.0805 1%                  | RCH085F0680H |
| 48   | 17       | TP1,TP2,TP3,TP4,TP5,TP6,<br>TP7,TP8,TP9,TP10,TP11,<br>TP12,TP13,TP14,TP15,TP16,<br>TP17  | NC        | TP1                          |              |
| 49   | 1        | U1   | CD4094    | Shift Reg. SMD               | CID4094SMD   |
| 50   | 1        | U2   | LM7808    | Integrato 7808               | CIL7808P     |
| 51   | 1        | U3   | LM7908    | Integrato 7908               | CIL7908P     |
| 52   | 5        | U4,U6,U8,U9,U12  | TL072SMD  | Dual Op. SO8                 | CILT072SMD   |
| 53   | 1        | U5   | CD4066    | Integrato SMD 4066           | CID4066SMD   |
| 54   | 3        | U7,U10,U13   | CD4053    | Analog Switch SMD SO16       | CID4053SMD   |
| 55   | 1        | U11  | LM358SMD  | Dual Comp. SMD SO8           | CILLM358SMD  |

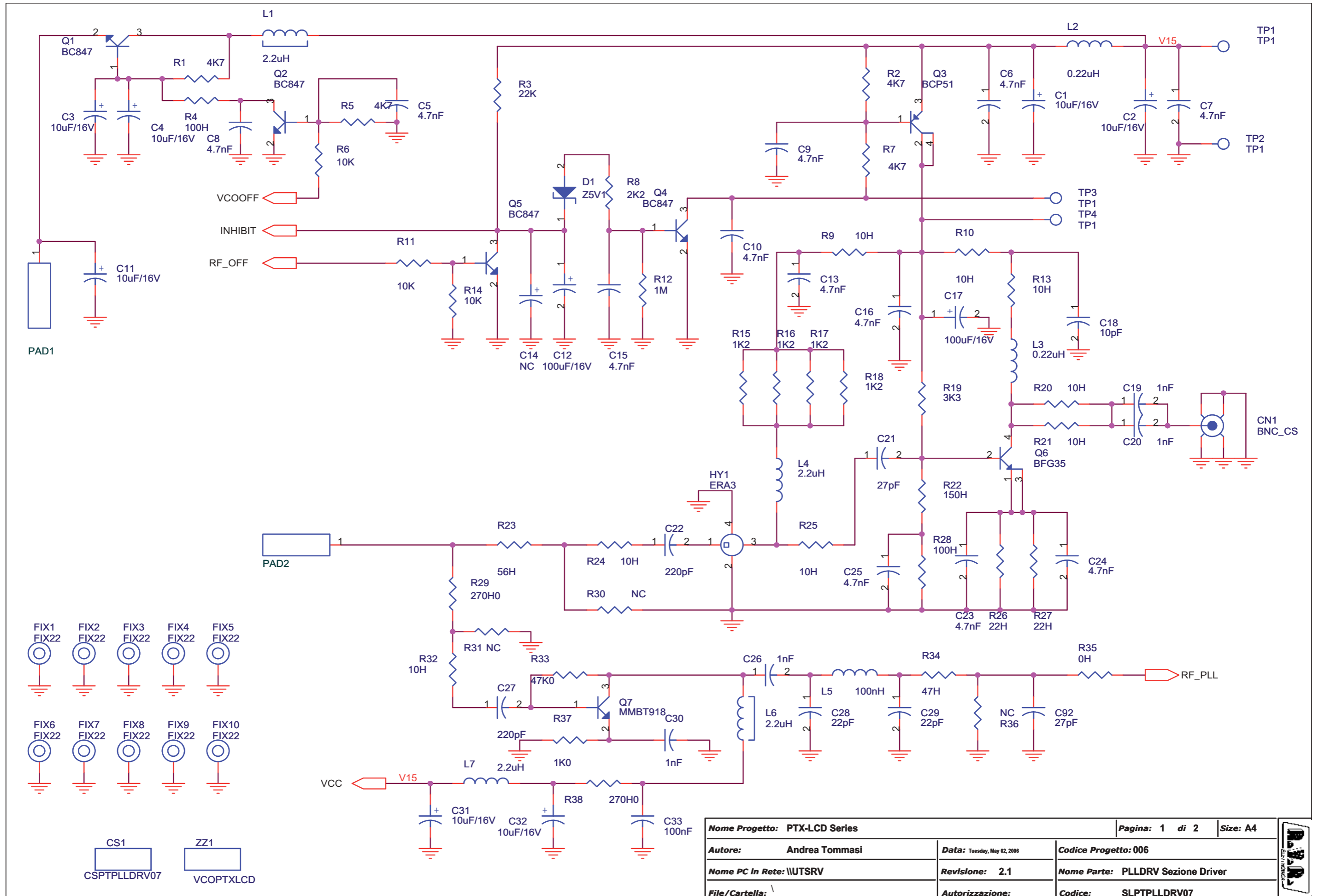


NOME PROGETTO: PTX-LCD  
 AUTORE: A.TOMMASI  
 ARCHIVIAZIONE ELETTRONICA: "CARTELLA RILASCIATI" SU "UTSRV"  
 MATERIALE: <>  
 TRATTAMENTO: <>  
 NOME PARTE: SCHEDE CODER STEREO  
 DATA: 10/07/2006  
 CODICE PROGETTO: \_057  
 REVISIONE: 1.0  
 CODICE DISEGNO: SLSTCOD06  
 SCALA: 2:1  
 SIZE: A4  
 PAGINA: 1 DI 1  
 PROFILO: <>  
 STATO: ESECUTIVO



VCO Revised: Monday, May 10, 2010  
SLPTXVC1002 Revision: 1.0  
VCO SMD RVR  
RVR  
Tommasi A.

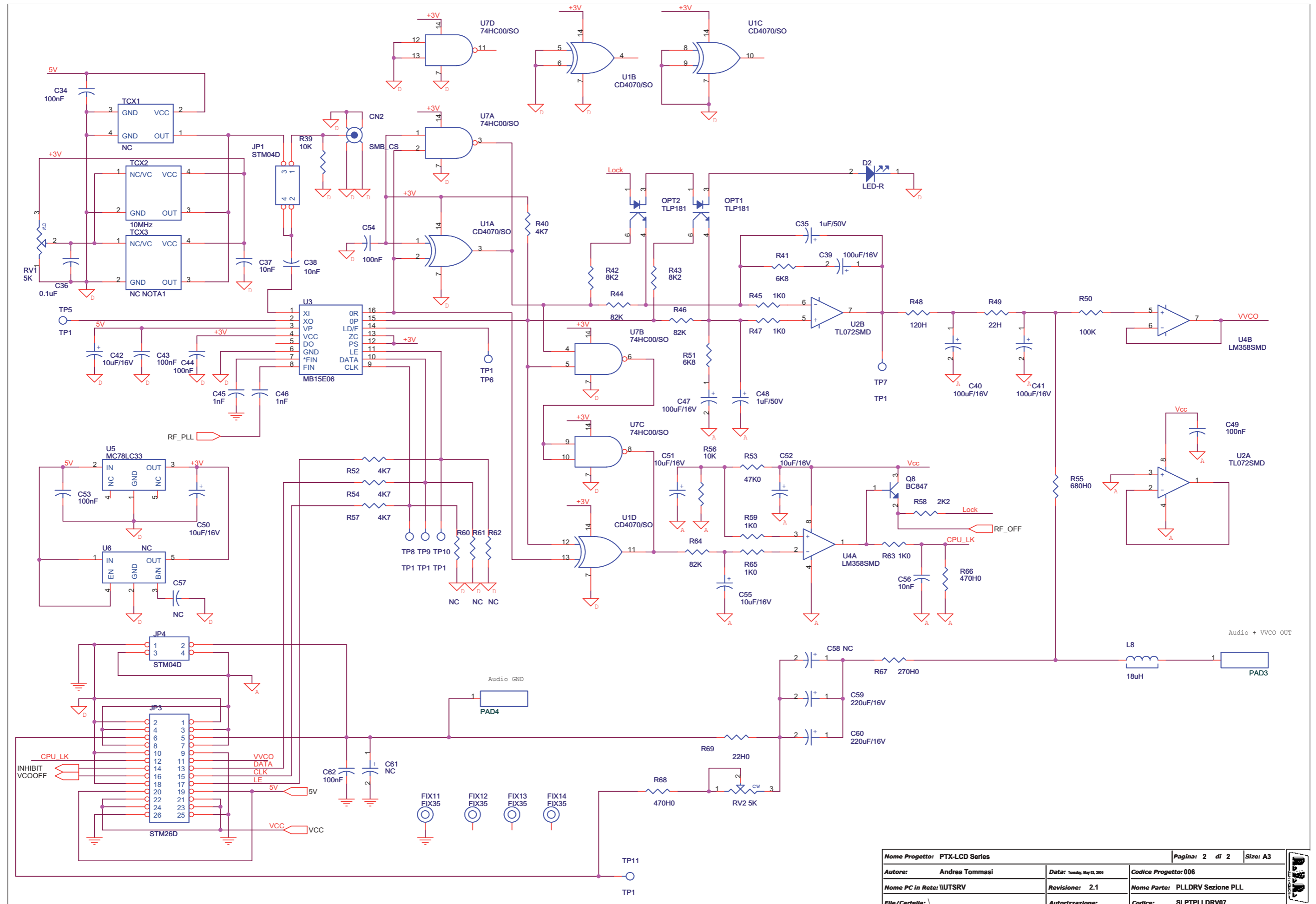
| Item | Quantity | Reference   | Part       | Description                   |
|------|----------|---|------------|-------------------------------|
| 1    | 1        | CS1   | CSVC0030R2 | Circuito stampato             |
| 2    | 2        | C1, C14   | 470pF      | Cond. SMD 0805                |
| 3    | 4        | C2, C4, C5, C19   | 10uF/16V   | Cond. Elett. SMD tant. size C |
| 4    | 3        | C3, C15, C18  | 10nF       | Cond. SMD 0805                |
| 5    | 1        | C9  | 22pF       | Cond. SMD 0805                |
| 6    | 1        | C10   | 33pF       | Cond. SMD 0805                |
| 7    | 1        | C11   | 15pF       | Cond. SMD 0805                |
| 8    | 1        | C12   | 3n3        | Cond. SMD 0805                |
| 9    | 1        | C13   | 47pF       | Cond. SMD 0805                |
| 10   | 8        | C16, C17, C20, C21, C22, C23, C24, C25                      | 100nF      | Cond. SMD 0805                |
| 11   | 3        | C26, C27, C28   | NC         | Cond. SMD 0805                |
| 12   | 1        | C29   | NC         | Cond. SMD 0603                |
| 13   | 4        | D1, D2, D7, D8  | MMBV609    | Diodo Varicap SMD SOT23       |
| 14   | 4        | D3, D4, D5, D6  | NC         | Diodo Varicap SMD SOT23       |
| 15   | 2        | D9, D10   | HSMS2802   | Doppio Diodo SMD SOT23        |
| 16   | 10       | FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8, FIX9, FIX10 | FIX25      | Foro fissaggio 2.5mm          |
| 17   | 1        | L1  | RG405      | Induttanza a cavo RG          |
| 18   | 2        | L2, L3  | 2u2        | Induttanza SMD 3225 (1210)    |
| 19   | 2        | L4, L5  | 18uH       | Induttanza SMD 3225 (1210)    |
| 20   | 1        | Q1  | BC847      | Trans. NPN SOT23              |
| 21   | 2        | Q2, Q3  | MMBFJ310   | Trans. FET SOT23              |
| 22   | 1        | Q4  | MMBT918    | Trans. NPN SOT23              |
| 23   | 1        | R1  | 56H0       | Res. SMD 0805                 |
| 24   | 1        | R2  | 100H0      | Res. SMD 0805                 |
| 25   | 2        | R3, R11   | 4K7        | Res. SMD 0805                 |
| 26   | 1        | R5  | 330K       | Res. SMD 0805                 |
| 27   | 2        | R6, R8  | 150H0      | Res. SMD 0805                 |
| 28   | 1        | R7  | 10H0       | Res. SMD 0805                 |
| 29   | 2        | R9, R12   | 22H0       | Res. SMD 0805                 |
| 30   | 1        | R10   | 10K        | Res. SMD 0805                 |
| 31   | 1        | R13   | 100K       | Res. SMD 0805                 |
| 32   | 1        | R14   | NC         | Res. SMD 0805                 |
| 33   | 1        | R15   | 0H0        | Res. SMD 0805                 |
| 34   | 5        | TP1, TP2, TP3, TP4, TP5                                     | TPSMD      | Piazzola SMD                  |



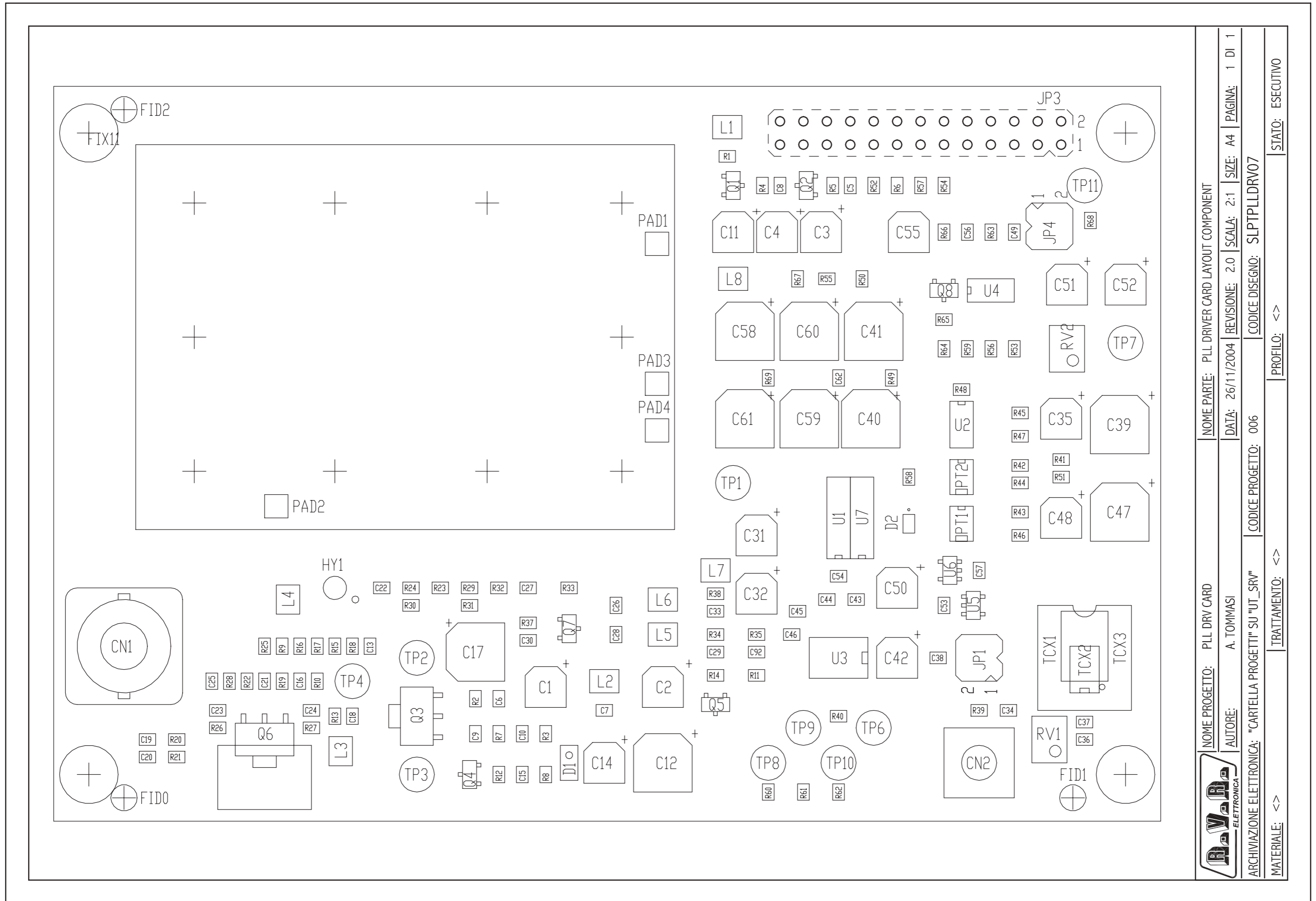
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| Nome Progetto: PTX-LCD Series |                             | Pagina: 1 di 2                    |  | Size: A4 |
| Autore: Andrea Tommasi        | Data: Tuesday, May 02, 2006 | Codice Progetto: 006              |  |          |
| Nome PC in Rete: \UTSRV       | Revisione: 2.1              | Nome Parte: PLLDRV Sezione Driver |  |          |
| File/Cartella: \              | Autorizzazione:             | Codice: SLPTPLLDREV07             |  |          |



PLL & Driver Card  
SLPTPLLDV07



|                               |                             |                                |          |
|-------------------------------|-----------------------------|--------------------------------|----------|
| Nome Progetto: PTX-LCD Series |                             | Pagina: 2 di 2                 | Size: A3 |
| Autore: Andrea Tommasi        | Data: Tuesday, May 02, 2006 | Codice Progetto: 006           |          |
| Nome PC in Rete: \WTSRV       | Revisione: 2.1              | Nome Parte: PLLDRV Sezione PLL |          |
| File/Cartella: \              | Autorizzazione:             | Codice: SLPTPLLDV07            |          |



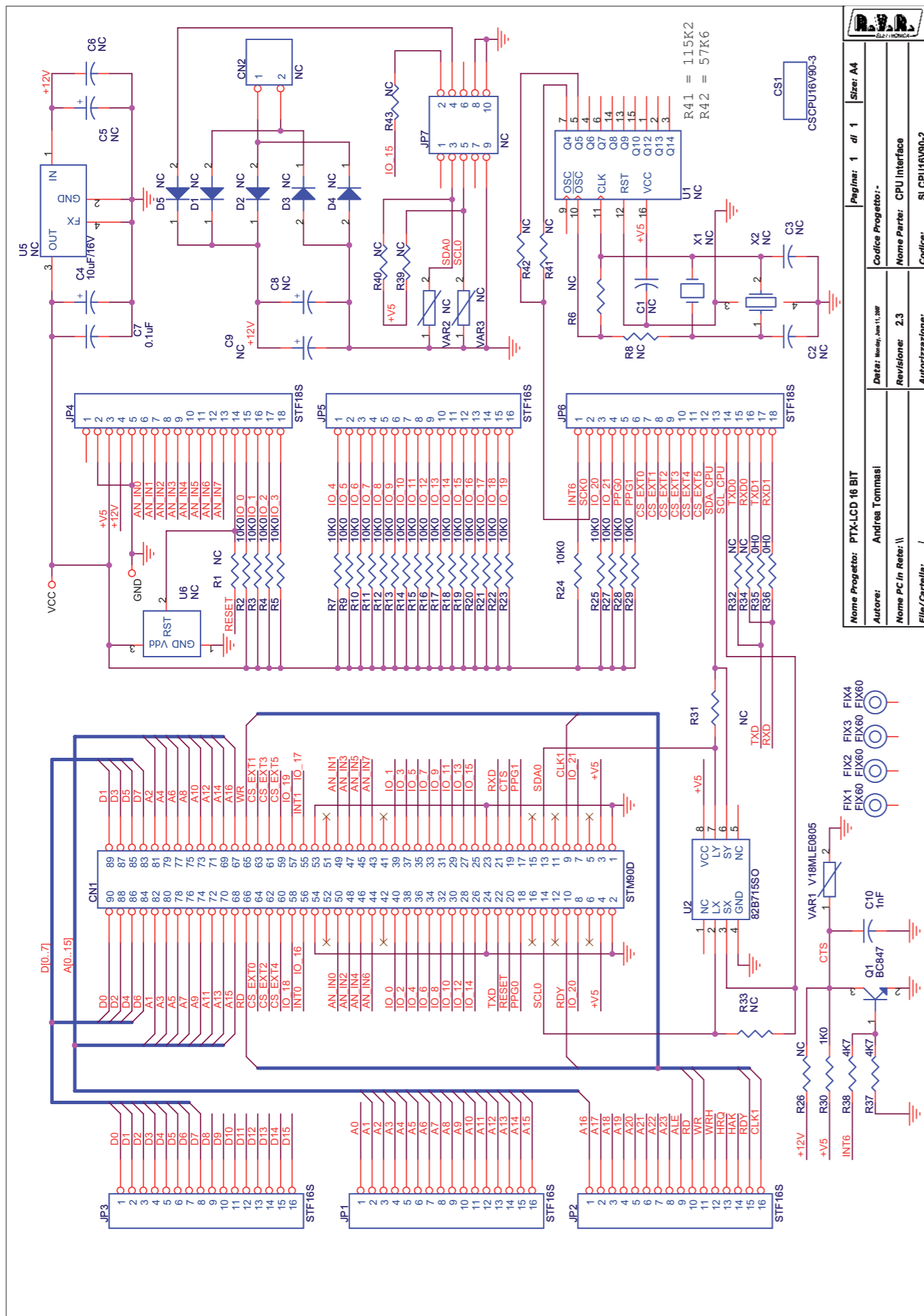
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| NOME PROGETTO: PLL DRY CARD                                | NOME PARTE: PLL DRIVER CARD LAYOUT COMPONENT |
| AUTORE: A. TOMMASI   | DATA: 26/11/2004                             |
| ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV" | REVISIONE: 2.0                               |
| MATERIALE: <>  | SCALA: 2:1                                   |
| TRATTAMENTO: <>  | SIZE: A4                                     |
| PROFILO: <>  | PAGINA: 1 DI 1                               |
| STATO: ESECUTIVO   | CODICE PROGETTO: 006                         |
|  | CODICE DISEGNO: SLPTPLLDREV07                |

PLLDV Sezione Driver Revised: 02/05/2006  
SLPTPLLDV07 Revision: 2.1  
PTX-LCD Series

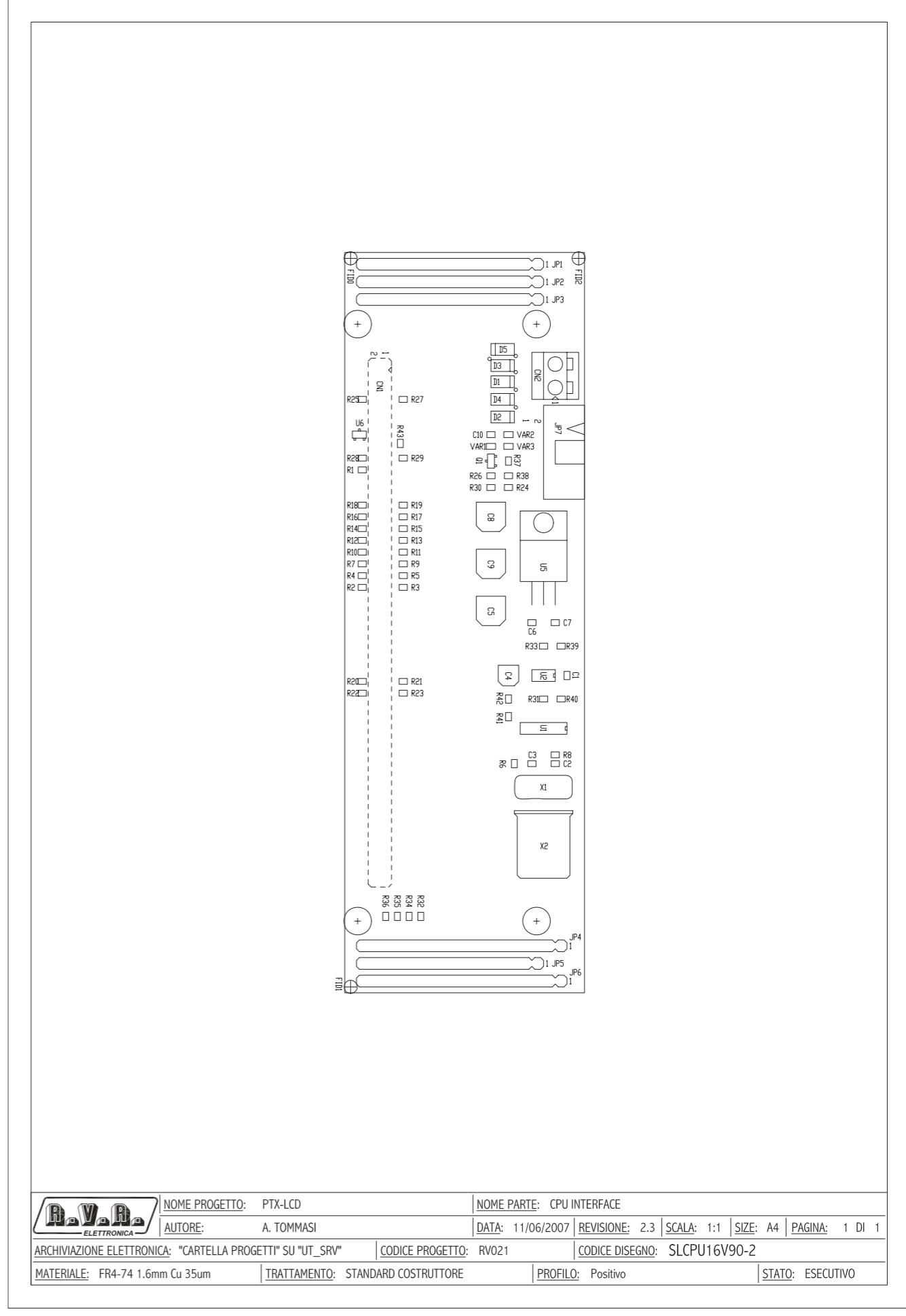
006  
Andrea Tommasi

| Item | Quantity | Reference   | Part        | Description                          |
|------|----------|---|-------------|--------------------------------------|
| 1    | 1        | CN1   | BNC_CS      | Connettore BNC 10x10 cs              |
| 2    | 1        | CN2   | SMB_CS      | Connettore SMB cs                    |
| 3    | 1        | CS1   | CSPTPLLDV07 | Circuito stampato                    |
| 4    | 12       | C1, C2, C3, C4, C11, C31, C32, C42, C50, C51, C52, C55      | 10uF/16V    | Cond. Elett. SMD d. 4mm              |
| 5    | 12       | C5, C6, C7, C8, C9, C10, C13, C15, C16, C23, C24, C25       | 4.7nF       | Cond. SMD 0805                       |
| 6    | 6        | C12, C17, C39, C40, C41, C47                                | 100uF/16V   | Cond. Elett. SMD d. 6.3mm            |
| 7    | 1        | C14   | NC          | Cond. Elett. SMD d. 4mm              |
| 8    | 1        | C18   | 10pF        | Cond. SMD 0805                       |
| 9    | 6        | C19, C20, C26, C30, C45, C46                                | 1nF         | Cond. SMD 0805                       |
| 10   | 2        | C21, C92  | 27pF        | Cond. SMD 0805                       |
| 11   | 2        | C22, C27  | 220pF       | Cond. SMD 0805                       |
| 12   | 2        | C28, C29  | 22pF        | Cond. SMD 0805                       |
| 13   | 9        | C33, C34, C36, C43, C44, C49, C53, C54, C62                 | 100nF       | Cond. SMD 0805                       |
| 14   | 2        | C35, C48  | 1uF/50V     | Cond. Elett. SMD d. 4mm              |
| 16   | 3        | C37, C38, C56   | 10nF        | Cond. SMD 0805                       |
| 17   | 1        | C57   | NC          | Cond. SMD 0805                       |
| 18   | 2        | C58, C61  | NC          | Cond. Elett. SMD d. 6.3mm            |
| 19   | 2        | C59, C60  | 220uF/16V   | Cond. Elett. SMD d. 6.3mm            |
| 20   | 1        | D1  | Z5V1        | MINIMELF SMD Zener Diode             |
| 21   | 1        | D2  | LED-R       | LED SMD 0805                         |
| 22   | 10       | FIX1, FIX2, FIX3, FIX4, FIX5, FIX6, FIX7, FIX8, FIX9, FIX10 | FIX22       | Foro fissaggio 2.2mm                 |
| 23   | 4        | FIX11, FIX12, FIX13, FIX14                                  | FIX35       | Foro fissaggio 3.5mm                 |
| 24   | 1        | HY1   | ERA3        | Ibrido MAR/ERA                       |
| 25   | 2        | JP1, JP4  | STM04D      | Strip maschio 2+2 pin                |
| 26   | 1        | JP3   | STM26D      | Strip maschio 13+13 pin              |
| 27   | 2        | L1, L6  | 2.2uH       | Induttanza SMD 3225 (1210) Schermata |
| 28   | 2        | L2, L3  | 0.22uH      | Induttanza SMD 3225 (1210)           |
| 29   | 2        | L4, L7  | 2.2uH       | Induttanza SMD 3225 (1210)           |
| 30   | 1        | L5  | 100nH       | Induttanza SMD 3225 (1210)           |
| 31   | 1        | L8  | 18uH        | Induttanza SMD 3225 (1210) Schermata |
| 32   | 2        | OPT1, OPT2  | TLP181      | Optoisolatore SMD SO6                |
| 33   | 4        | PAD1, PAD2, PAD3, PAD4                                      | PAD2525     | Pad a saldare 2.5x2.5 mm             |
| 34   | 5        | Q1, Q2, Q4, Q5, Q8  | BC847       | Trans. NPN SOT23                     |
| 35   | 1        | Q3  | BCP51       | Trans. PNP SOT223                    |
| 36   | 1        | Q6  | BFG35       | Trans. NPN SOT223                    |
| 37   | 1        | Q7  | MMBT918     | Trans. NPN SOT23                     |
| 38   | 1        | RV1   | 5K          | Trimm. multi SMD PVG5 Murata         |
| 39   | 1        | RV2   | 5K          | Trimm. multi SMD PVG5 Murata         |
| 40   | 8        | R1, R2, R5, R7, R40, R52, R54, R57                          | 4K7         | Res. SMD 0805                        |
| 41   | 1        | R3  | 22K         | Res. SMD 0805                        |
| 42   | 2        | R4, R28   | 100H        | Res. SMD 0805                        |
| 43   | 5        | R6, R11, R14, R39, R56                                      | 10K         | Res. SMD 0805                        |
| 44   | 2        | R8, R58   | 2K2         | Res. SMD 0805                        |
| 45   | 8        | R9, R10, R13, R20, R21, R24, R25, R32                       | 10H         | Res. SMD 0805                        |
| 46   | 1        | R12   | 1M          | Res. SMD 0805                        |
| 47   | 4        | R15, R16, R17, R18  | 1K2         | Res. SMD 0805                        |
| 48   | 1        | R19   | 3K3         | Res. SMD 0805                        |
| 49   | 1        | R22   | 150H        | Res. SMD 0805                        |
| 50   | 1        | R23   | 56H         | Res. SMD 0805                        |
| 51   | 3        | R26, R27, R49   | 22H         | Res. SMD 0805                        |
| 52   | 3        | R29, R38, R67   | 270H0       | Res. SMD 0805                        |
| 53   | 6        | R30, R31, R36, R60, R61, R62                                | NC          | Res. SMD 0805                        |
| 54   | 2        | R33, R53  | 47K0        | Res. SMD 0805                        |
| 55   | 1        | R34   | 47H         | Res. SMD 0805                        |
| 56   | 1        | R35   | 0H          | Res. SMD 0805                        |
| 57   | 6        | R37, R45, R47, R59, R63, R65                                | 1K0         | Res. SMD 0805                        |
| 58   | 2        | R41, R51  | 6K8         | Res. SMD 0805                        |
| 59   | 2        | R42, R43  | 8K2         | Res. SMD 0805                        |
| 60   | 3        | R44, R46, R64   | 82K         | Res. SMD 0805                        |
| 61   | 1        | R48   | 120H        | Res. SMD 0805                        |
| 62   | 1        | R50   | 100K        | Res. SMD 0805                        |
| 63   | 1        | R55   | 680H0       | Res. SMD 0805                        |
| 64   | 2        | R66, R68  | 470H0       | Res. SMD 0805                        |
| 65   | 1        | R69   | 22H0        | Res. SMD 0805                        |
| 66   | 1        | TCX1  | NC          | TCXO SMD                             |
| 67   | 1        | TCX2  | 10MHz       | TCXO SMD 50x32mm                     |
| 68   | 1        | TCX3  | NC NOTA1    | TCXO SMD 70x52mm                     |
| 69   | 11       | TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11     | NC          | Test point                           |
| 70   | 1        | U1  | CD4070/SO   | Quad XOR SMD SO14                    |
| 71   | 1        | U2  | TL072SMD    | Dual Op. SMD SO8                     |
| 72   | 1        | U3  | MB15E06     | Integrated PLL                       |
| 73   | 1        | U4  | LM358SMD    | Dual Op. SMD SO8                     |
| 74   | 1        | U5  | MC78LC33    | Stab. SMD SOT23-5                    |
| 75   | 1        | U6  | NC          | Stab. SMD SOT23-5                    |

| Item | Quantity | Reference | Part      | Description         |
|------|----------|-----------|-----------|---------------------|
| 76   | 1        | U7        | 74HC00/SO | Quad NAND SMD SO14  |
| 77   | 1        | ZZ1       | VCOPTXLCD | Mettere descrizione |



|                  |                |            |                       |                  |   |             |               |
|------------------|----------------|------------|-----------------------|------------------|---|-------------|---------------|
| Nome Progetto:   | PTX-LCD 16 BIT | Pagina:    | 1                     | di               | 1 | Size:       | A4            |
| Autore:          | Andrea Tommasi | Data:      | Monday, June 11, 2007 | Codice Progetto: |   | Nome Parte: | CPU Interface |
| Nome PC in Rete: | \\             | Revisione: | 2.3                   | Autore:          |   | Codice:     | SLCPU16V90-2  |
| File/Cartella:   | /              | Autore:    |                       |                  |   |             |               |



|                              |                                 |                  |                      |                 |              |
|------------------------------|---------------------------------|------------------|----------------------|-----------------|--------------|
| <b>R.V.R.</b><br>ELETTRONICA | NOME PROGETTO:                  | PTX-LCD          | NOME PARTE:          | CPU INTERFACE   |              |
|                              | AUTORE:                         | A. TOMMASI       | DATA:                | 11/06/2007      |              |
| ARCHIVIAZIONE ELETTRONICA:   | "CARTELLA PROGETTI" SU "UT_SRV" | CODICE PROGETTO: | RV021                | CODICE DISEGNO: | SLCPU16V90-2 |
| MATERIALE:                   | FR4-74 1.6mm Cu 35um            | TRATTAMENTO:     | STANDARD COSTRUTTORE | PROFILO:        | Positivo     |
|                              |                                 |                  |                      | STATO:          | ESECUTIVO    |

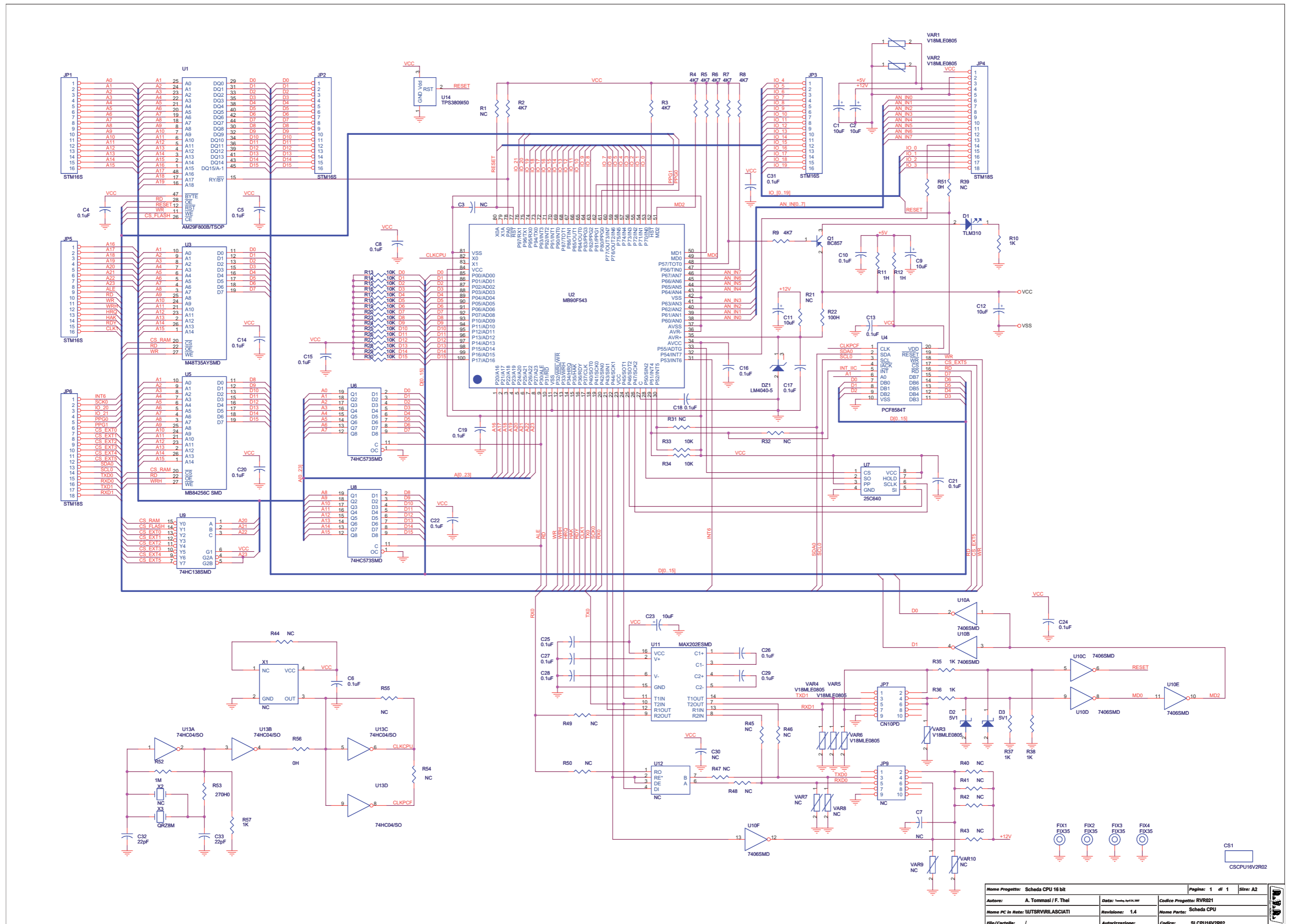
CPU Interface Revised: Monday, June 11, 2007  
SLCPU16V90-2 Revision: 2.3  
PTX-LCD 16 BIT

| Item | Quantity | Reference   | Part         | Description                      |
|------|----------|---|--------------|----------------------------------|
| 1    | 1        | CN1   | STM90D       | Strip maschio 45+45 pin          |
| 2    | 1        | CN2   | NC           | Conn. tipo KRA a 2 poli          |
| 3    | 1        | CS1   | CSCPU16V90-3 | Circuito stampato                |
| 4    | 4        | C1,C2,C3,C6   | NC           | Cond. SMD 0805                   |
| 5    | 1        | C4  | 10uF/16V     | Cond. Elett. SMD d. 4mm          |
| 6    | 3        | C5,C8,C9  | NC           | Cond. Elett. SMD d. 6.3mm        |
| 7    | 1        | C7  | 0.1uF        | Cond. SMD 0805                   |
| 8    | 1        | C10   | 1nF          | Cond. SMD 0805                   |
| 9    | 5        | D1,D2,D3,D4,D5  | NC           | MELF SMD Diode                   |
| 10   | 4        | FIX1,FIX2,FIX3,FIX4   | FIX60        | Foro fissaggio 6mm               |
| 11   | 4        | JP1,JP2,JP3,JP5   | STF16S       | Strip femmina 16 pin             |
| 12   | 2        | JP4,JP6   | STF18S       | Strip femmina 18 pin             |
| 13   | 1        | JP7   | NC           | Connettore 10 poli Flat cs a 90° |
| 14   | 1        | Q1  | BC847        | Trans. NPN SOT23                 |
| 15   | 13       | R1,R6,R8,R26,R31,R32,R33,<br>R34,R39,R40,R41,R42,R43  | NC           | Res. SMD 0805                    |
| 16   | 25       | R2,R3,R4,R5,R7,R9,R10,<br>R11,R12,R13,R14,R15,R16,<br>R17,R18,R19,R20,R21,R22,<br>R23,R24,R25,R27,R28,R29 | 10K0         | Res. SMD 0805                    |
| 17   | 1        | R30   | 1K0          | Res. SMD 0805                    |
| 18   | 2        | R35,R36   | 0H0          | Res. SMD 0805                    |
| 19   | 2        | R37,R38   | 4K7          | Res. SMD 0805                    |
| 20   | 1        | U1  | NC           | Divider SMD SO16                 |
| 21   | 1        | U2  | 82B715SO     | IIC Bus driver SMD SO8           |
| 22   | 1        | U5  | NC           | Stabilizzatore TO220             |
| 23   | 1        | U6  | NC           | uP supply supervisor             |
| 24   | 1        | VAR1  | V18MLE0805   | ESD SMD protector                |
| 25   | 2        | VAR2,VAR3   | NC           | ESD SMD protector                |
| 26   | 1        | X1  | NC           | Quarzo SMD HC49SMD               |
| 27   | 1        | X2  | NC           | Quarzo HC25 orizz.               |

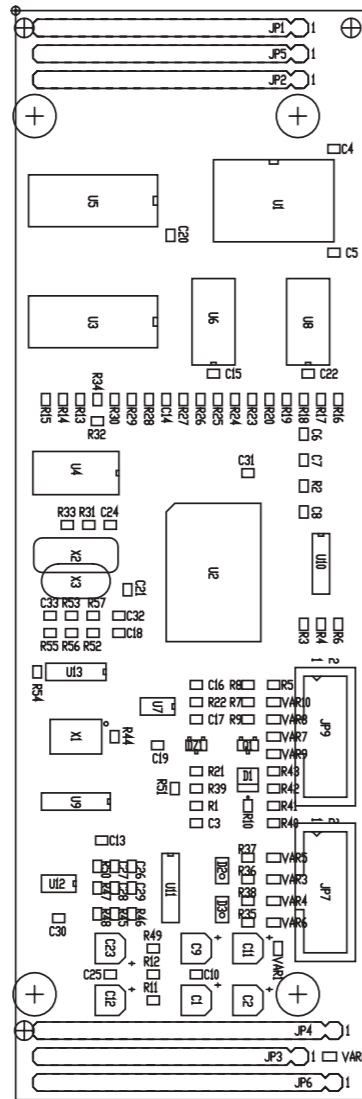
**Nota 1** Montata lato saldature

**Nota 2** Montate lato componenti

CPU 16Bit Card  
SLCPU16V2R02



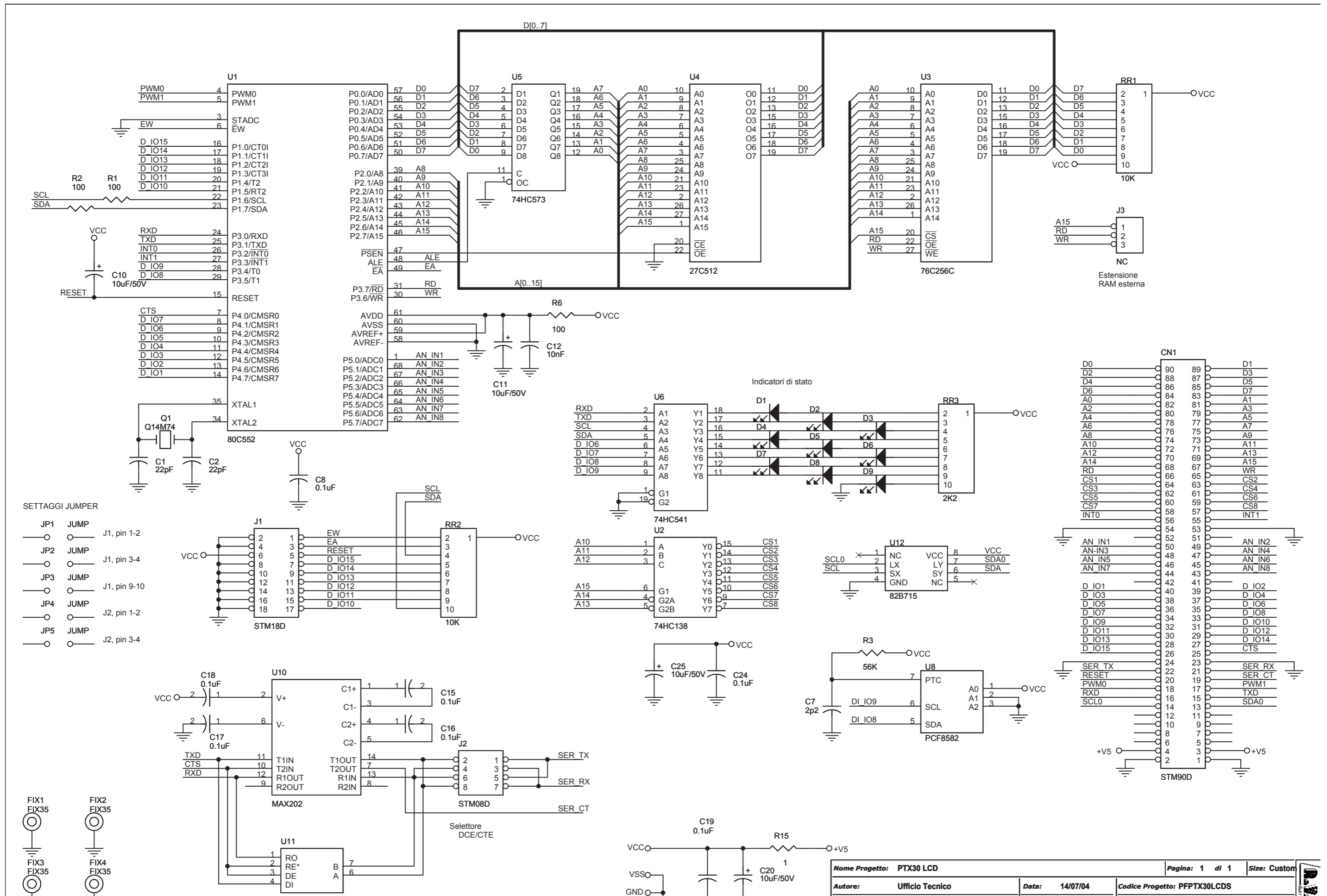
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|----------------------------------|------------------------------|---------------------|----------------------|-------------------------|
| Nome Progetto: Scheda CPU 16 bit | Autore: A. Tommasi / F. Thal | Data: 17/06/2011    | Revisione: 1.4       | Nome Parte: Scheda CPU  |
| Nome PC in Rete: IUTSRVIRLASCATI | File/Cartella: /             | Autore/Revisione: / | Codice: SLCPU16V2R02 | Codice Progetto: RVR021 |



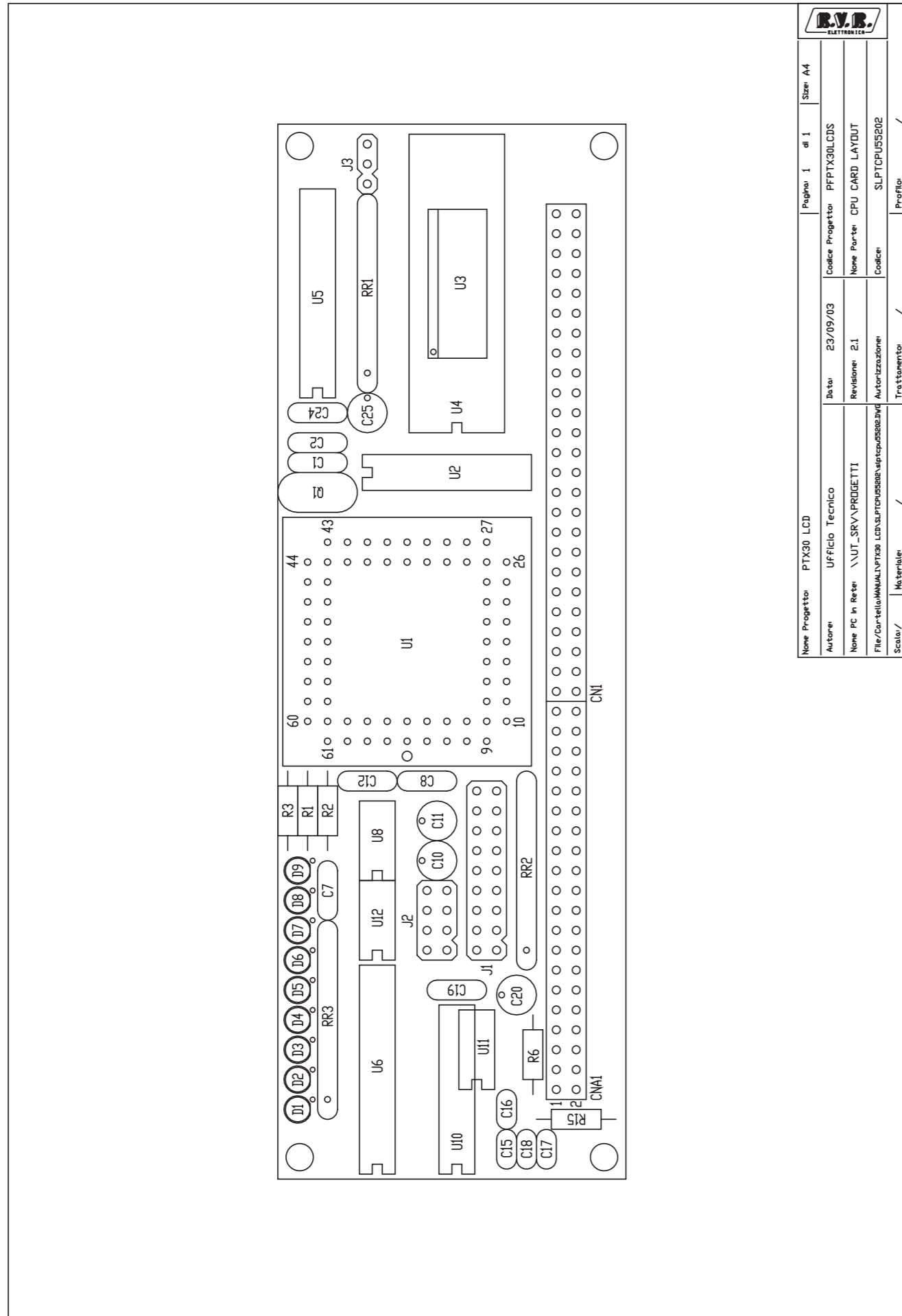
Scheda CPU Revised: 13/11/2006  
SLCPU16V2R02 Revision: 1.4  
Scheda CPU 16 bit  
RVR021  
A. Tommasi / F. Thei

| Item | Quantity | Reference  | Part           | PCB Footprint | Description                |
|------|----------|--|----------------|---------------|----------------------------|
| 1    | 1        | CS1  | CSCPU16V2R02   | CS            | Circuito stampato          |
| 2    | 6        | C1, C2, C9, C11, C12, C23  | 10uF           | CES4          | Cond. Elett. SMD d. 4mm    |
| 3    | 3        | C3, C7, C30  | NC             | CC0805/0603   | Cond. SMD 0805             |
| 4    | 22       | C4, C5, C6, C8, C10, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C24, C25, C26, C27, | 0.1uF          | CC0805/0603   | Cond. SMD 0805             |
| 5    | 2        | C32, C33   | 22pF           | CC0805/0603   | Cond. SMD 0805             |
| 6    | 1        | DZ1  | 5V             | SOT23         | Diode Zener SMD SOT23      |
| 7    | 1        | D1   | TLM310         | PLCC2         | LED SMD PLCC2              |
| 8    | 2        | D2, D3   | 5V1            | MINIMELF      | MINIMELF SMD Zener Diode   |
| 9    | 4        | FIX1, FIX2, FIX3, FIX4   | FIX35          | FIX35         | Foro fissaggio             |
| 10   | 4        | JP1, JP2, JP3, JP5   | STM16S         | STM16S        | Strip maschio 16 pin       |
| 11   | 2        | JP4, JP6   | STM18S         | STM18S        | Strip maschio 18 pin       |
| 12   | 1        | JP7  | CN10PD         | CN10PD        | Connettore 10 poli Flat cs |
| 13   | 1        | JP9  | NC             | CN10PD        | Connettore 10 poli Flat cs |
| 14   | 1        | Q1   | BC857          | SOT23         | Trans. PNP SOT23           |
| 15   | 18       | R1, R21, R31, R32, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R54, R55    | NC             | RS0805/0603   | Res. SMD 0805              |
| 16   | 8        | R2, R3, R4, R5, R6, R7, R8, R9   | 4K7            | RS0805/0603   | Res. SMD 0805              |
| 17   | 6        | R10, R35, R36, R37, R38, R57   | 1K             | RS0805/0603   | Res. SMD 0805              |
| 18   | 2        | R12, R11   | 1H             | RS0805/0603   | Res. SMD 0805              |
| 19   | 18       | R13, R14, R15, R16, R17, R18, R19, R20, R23, R24, R25, R26, R27, R28, R29, R30, R33, R34   | 10K            | RS0805/0603   | Res. SMD 0805              |
| 20   | 1        | R22  | 100H           | RS0805/0603   | Res. SMD 0805              |
| 21   | 2        | R56, R51   | 0H             | RS0805/0603   | Res. SMD 0805              |
| 22   | 1        | R52  | 1M             | RS0805/0603   | Res. SMD 0805              |
| 23   | 1        | R53  | 270H0          | RS0805/0603   | Res. SMD 0805              |
| 24   | 1        | U1   | AM29F800B/TSOP | TSOP48        | Flash Eeprom SMD TSOP48    |
| 25   | 1        | U2   | MB90F543       | QFP100        | QFP100 SMD Microprocessor  |
| 26   | 1        | U3   | M48T35AYSMD    | SO28          | RAM+RTC with Battery SMD   |
| 27   | 1        | U4   | PCF8584T       | SO20          | IIC Bus controller SMD     |
| 28   | 1        | U5   | MB84256C SMD   | SO28          | RAM+RTC with Battery SMD   |
| 29   | 2        | U6, U8   | 74HC573SMD     | SO20          | Octal Latch SMD            |
| 30   | 1        | U7   | 25C640         | SO8           | Serial EEPROM SMD          |
| 31   | 1        | U9   | 74HC138SMD     | SO16          | 8 line decoder SMD         |
| 32   | 1        | U10  | 7406SMD        | SO14          | Hex inv OC SMD SO14        |
| 33   | 1        | U11  | MAX202ESMD     | SO16          | RS232 Driver SMD SO16      |
| 34   | 1        | U12  | NC             | SO8           | RS485 driver SMD SO8       |
| 35   | 1        | U13  | 74HC04/SO      | SO14          | Hex Inv. SMD SO14          |
| 36   | 1        | U14  | TPS3809I50     | SOT23         | uP supply supervisor       |
| 37   | 6        | VAR1, VAR2, VAR3, VAR4, VAR5, VAR6   | V18MLE0805     | RS0805        | ESD SMD protector          |
| 38   | 4        | VAR7, VAR8, VAR9, VAR10  | NC             | RS0805        | ESD SMD protector          |
| 39   | 1        | X1   | NC             | XOSCIN92AT    | Osc. quarzo SMD            |
| 40   | 1        | X2   | NC             | QRZ49SM       | Quarzo SMD HC49SMD         |
| 41   | 1        | X3   | QRZ8M          | QRZ18         | Quarzo HC18                |

|  |                                     |                                  |                |
|--|-------------------------------------|----------------------------------|----------------|
| R.V.R. ELETTRONICA   | NOME PROGETTO: PTX-LCD              | NOME PARTE: SCHEDA CPU BUS 16BIT |                |
|  | AUTORE: S. Poluzzi - Rev.: Berti J. | DATA: 12/02/2004                 | REVISIONE: 2.1 |
| ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV" | CODICE PROGETTO: RV021              | CODICE DISEGNO: CSCPU16V2R02     | SCALA: 1:1     |
| MATERIALE: FR4-74 1.6mm Cu 35um 4 LAYER                    | TRATTAMENTO: STANDARD COSTRUTTORE   | PROFILO: Positivo                | STATO: <>      |
|  |                                     | SIZE: A4                         | PAGINA: 1 DI 1 |





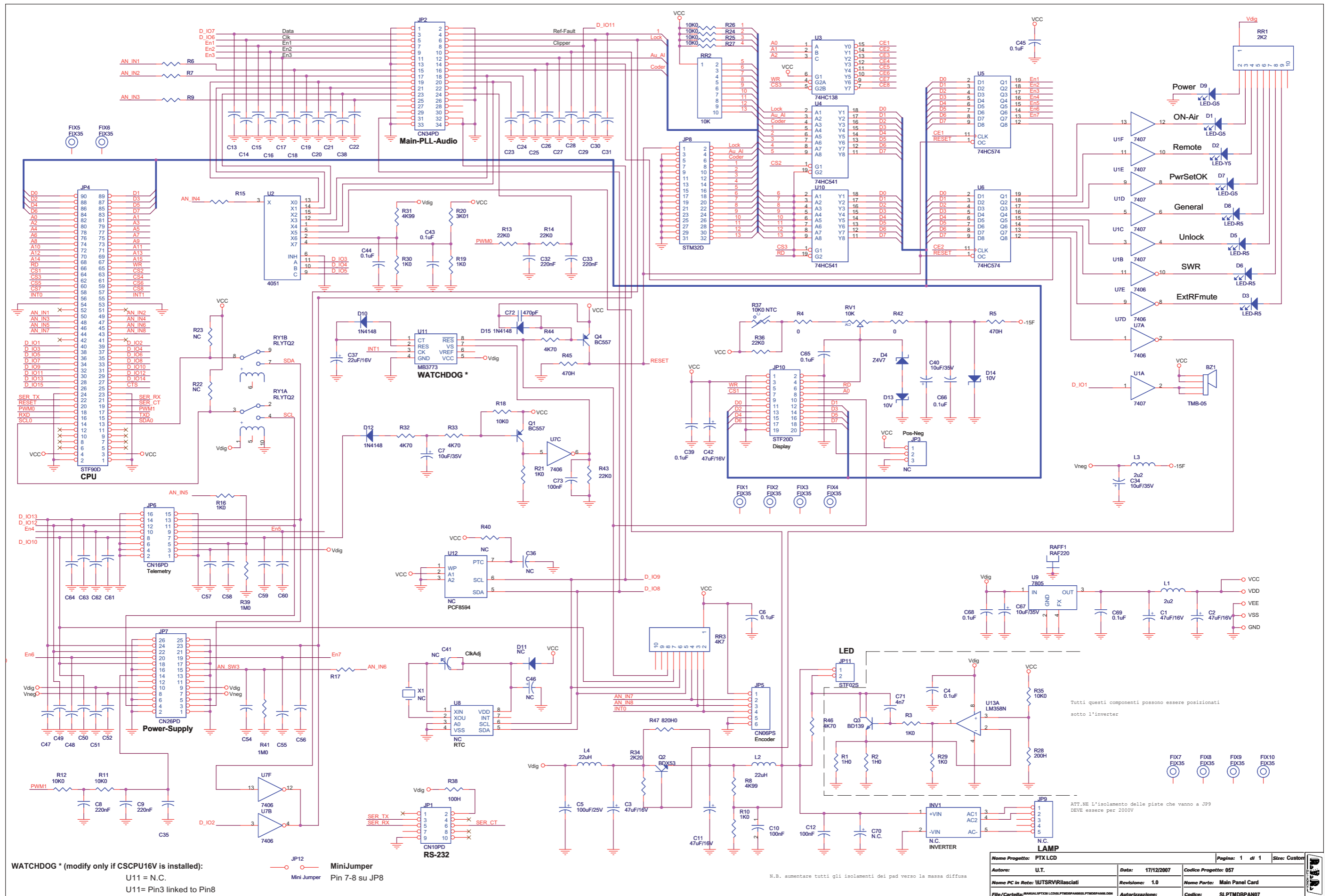


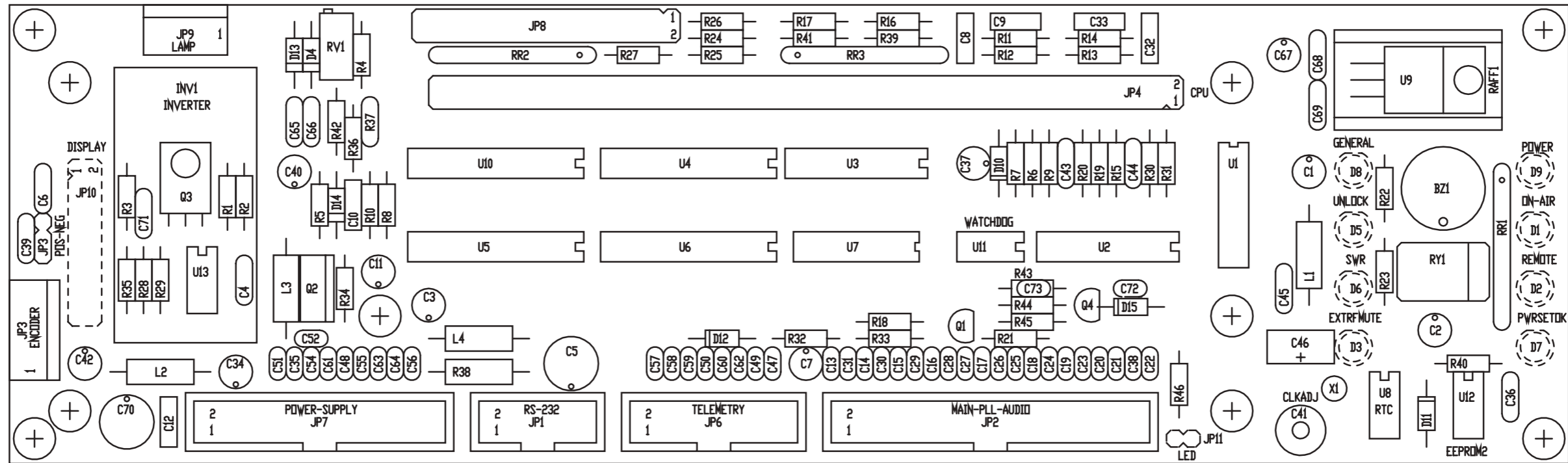
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| Nome Progetto: PTX30 LCD   |            | Pagina: 1 di 1               |                             | Size: A4 |
| Autore: Ufficio Tecnico  |            | Codice Progetto: PFPTX30LCD5 |                             |          |
| Nome PC in Rete: \\UT_SRV\PROGETTI                                   |            | Data: 23/09/03               | Nome Parte: CPU CARD LAYOUT |          |
| File/Cartella/Materiale: C:\ut\ut\progetti\cpu\cpu55202\cpu55202.dwg |            | Revisione: 2.1               | Codice: SLPTCPU55202        |          |
| Scala:   | Materiale: | Trattamento:                 | Profilo:                    |          |

CPU Card Revised: 14/07/04  
SLPTCPU55202 Revision: 3.0  
PTX30 LCD  
PFPTX30LCD5

| Item | Quantity | Reference                          | Part     | Description                      |
|------|----------|------------------------------------|----------|----------------------------------|
| 1    | 1        | CN1                                | STM90D   | Strip maschio 45+45 pin          |
| 2    | 2        | C1, C2                             | 22pF     | Cond. ceramico p 5mm             |
| 3    | 1        | C7                                 | 2p2      | Cond. ceramico p 5mm             |
| 4    | 3        | C8, C19, C24                       | 0.1uF    | Cond. ceramico p 5mm             |
| 5    | 4        | C10, C11, C20, C25                 | 10uF/50V | Cond. Elettr. Vert.              |
| 6    | 1        | C12                                | 10nF     | Cond. ceramico p 5mm             |
| 7    | 4        | C15, C16, C17, C18                 | 0.1uF    | Cond. ceramico multistrato p 5mm |
| 8    | 9        | D1, D2, D3, D4, D5, D6, D7, D8, D9 | LED-R3   | LED dia. 3mm                     |
| 9    | 4        | FIX1, FIX2, FIX3, FIX4             | FIX35    | Foro fissaggio 3.5mm             |
| 10   | 5        | JP1, JP2, JP3, JP4, JP5            | JUMP     | Mini jumper                      |
| 11   | 1        | J1                                 | STM18D   |                                  |
| 12   | 1        | J2                                 | STM08D   |                                  |
| 13   | 2        | J3, U11                            | NC       |                                  |
| 14   | 1        | Q1                                 | Q14M74   | Quarzo HC18                      |
| 15   | 2        | RR1, RR2                           | 10K      | Rete resistiva 9R                |
| 16   | 1        | RR3                                | 2K2      | Rete resistiva 9R                |
| 17   | 3        | R1, R2, R6                         | 100      | Res. 1/4W 5%                     |
| 18   | 1        | R3                                 | 56K      | Res. 1/4W 5%                     |
| 19   | 1        | R15                                | 1        | Res. 1/4W 5%                     |
| 20   | 1        | U1                                 | 80C552   |                                  |
| 21   | 1        | U2                                 | 74HC138  |                                  |
| 22   | 1        | U3                                 | 76C256C  |                                  |
| 23   | 1        | U4                                 | 27C512   |                                  |
| 24   | 1        | U5                                 | 74HC573  |                                  |
| 25   | 1        | U6                                 | 74HC541  |                                  |
| 26   | 1        | U8                                 | PCF8582  |                                  |
| 27   | 1        | U10                                | MAX202   |                                  |
| 28   | 1        | U12                                | 82B715   | IIC Bus driver DIP8              |

Note:  
Posizioni jumper PZ 3 su J1: 1-2; 3-4; 9-10  
Posizioni jumper PZ 2 su J2: 1-2; 3-4





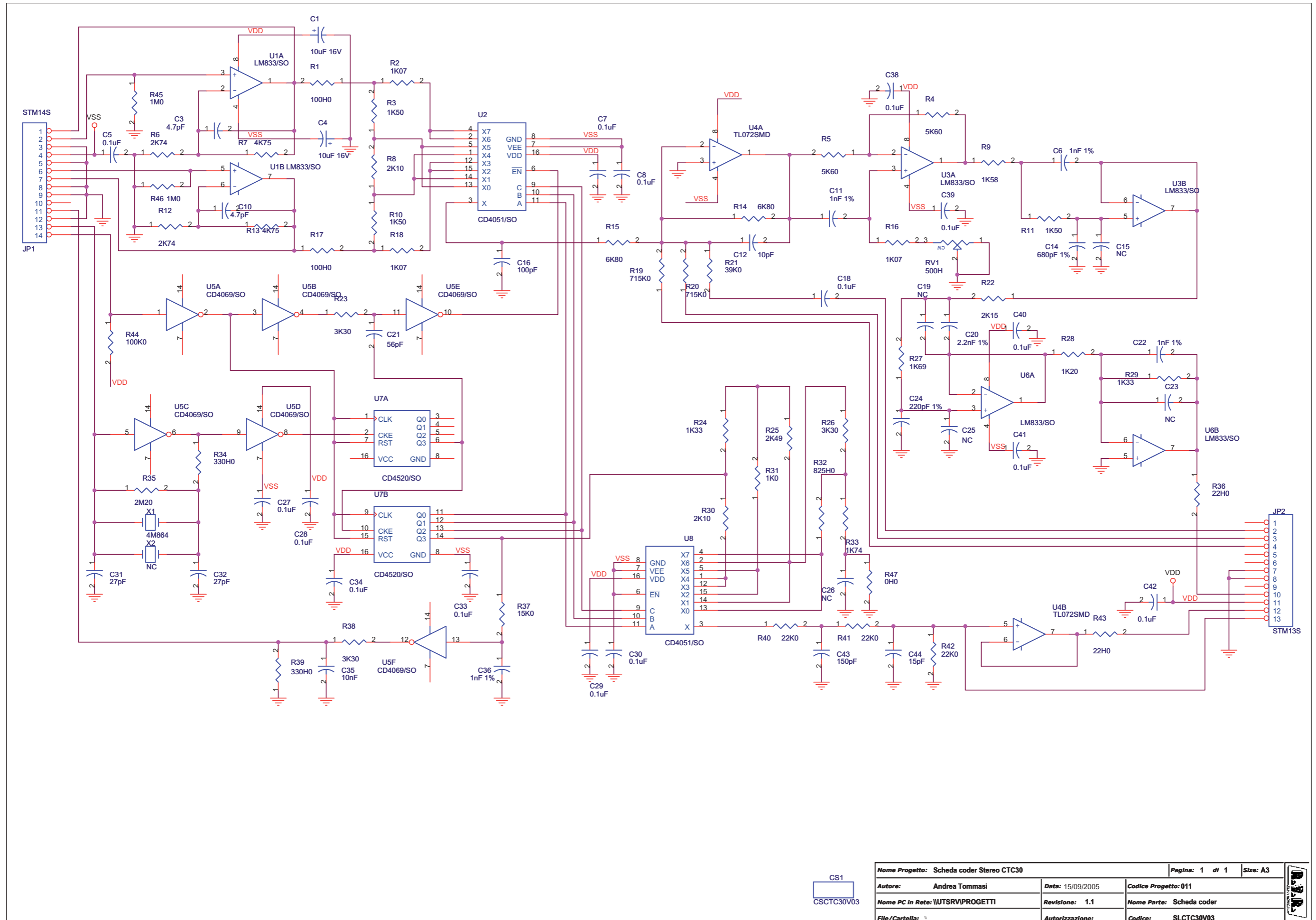
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| Nome Progetto: PTX30 LCD                                       |                 | Pagina: 1 di 1                     | Size: A4   |
| Autore: Ufficio Tecnico  | Data: 12/02/04  | Codice Progetto: PFPTX30LCDS       |            |
| Nome PC in Rete: \\UT_SRV\PROGETTI                             | Revisione: 2.2  | Nome Parte: MAIN PANEL CARD LAYOUT |            |
| File/Cartella: Manual\PTX30 LCD\SLPTMDBPAN06\sysptmdbpan06.dwg | Autorizzazione: | Codice: SLPTMDBPAN06               |            |
| Scala: /   | Materiale: /    | Trattamento: /                     | Profilo: / |



Main Panel Card Revised: 17/12/2007  
SLPTMDBPAN07 Revision: 1.0  
057 PTX-LCD

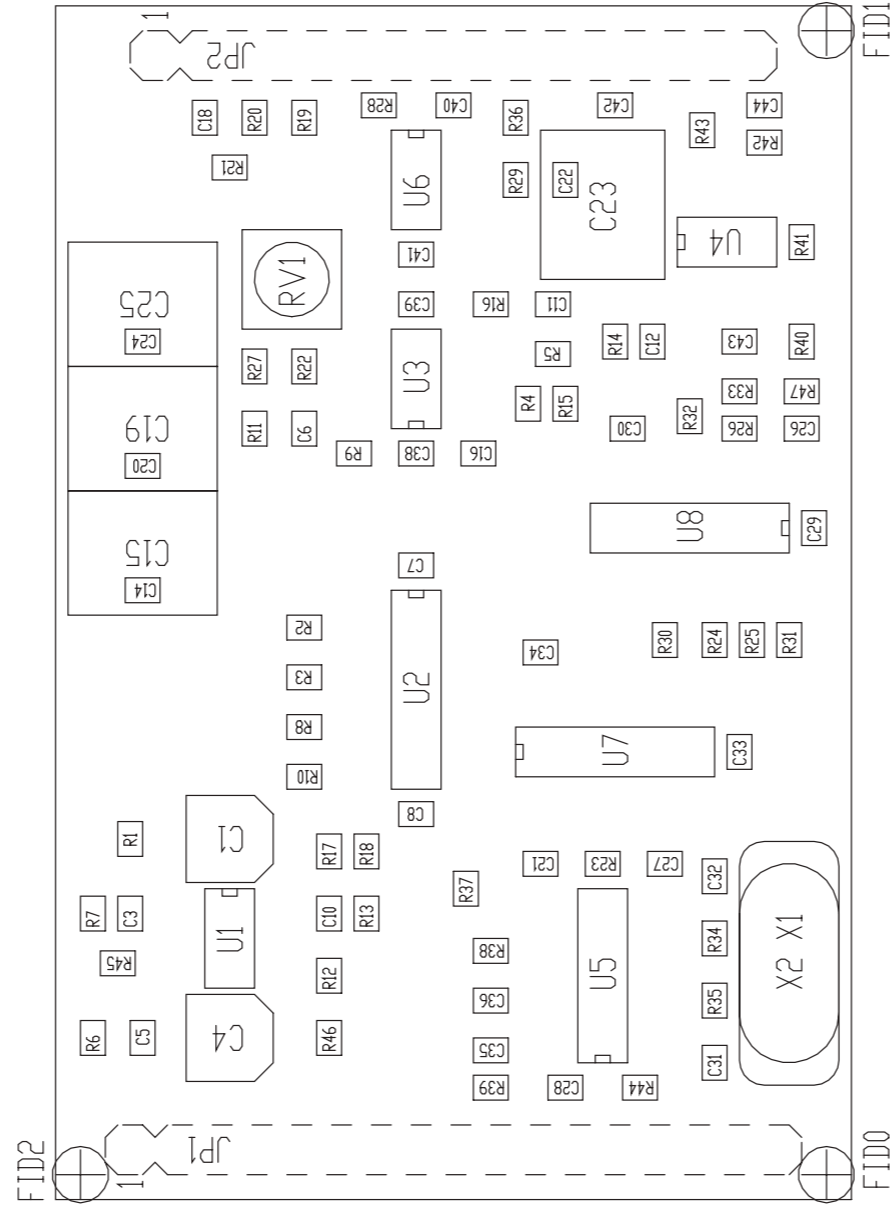
| Item | Quantity | Reference   | Part        | Description                |
|------|----------|---|-------------|----------------------------|
| 1    | 1        | BZ1   | TMB-05      | Buzzer TMB-05              |
| 2    | 5        | C1,C2,C3,C11,C42  | 47uF/16V    | Cond. Elettr. Vert.        |
| 3    | 10       | C4,C6,C39,C43,C44,C45,<br>C65,C66,C68,C69   | 0.1uF       | Cond. ceramico p 5mm       |
| 4    | 1        | C5  | 100uF/25V   | Cond. Elettr. Vert.        |
| 5    | 4        | C7,C34,C40,C67  | 10uF/35V    | Cond. Elettr. Vert.        |
| 6    | 4        | C8,C9,C32,C33   | 220nF       | Cond. Poliestere p 5mm     |
| 7    | 2        | C10,C12   | 100nF       | Cond. Poliestere p 5mm     |
| 8    | 35       | C13,C14,C15,C16,C17,C18,<br>C19,C20,C21,C22,C23,C24,<br>C25,C26,C27,C28,C29,C30,<br>C31,C35,C38,C47,C48,C49,<br>C50,C54,C55,C56,C58,C59,<br>C60,C61,C62,C63,C64 | 100pF       | Cond. ceramico p 5mm       |
| 9    | 1        | C36   | NC          |                            |
| 10   | 1        | C37   | 22uF/16V    | Cond. Elettr. Vert.        |
| 11   | 1        | C41   | NC          |                            |
| 12   | 4        | X1,U8,U12,C46   | NC          |                            |
| 13   | 3        | C51,C52,C57   | 10nF        | Cond. ceramico p 5mm       |
| 14   | 1        | C70   | N.C.        |                            |
| 15   | 1        | C71   | 4n7         | Cond. ceramico p 5mm       |
| 16   | 1        | C72   | 470pF       | Cond. ceramico p 5mm       |
| 17   | 1        | C73   | 100nF       | Cond. ceramico p 5mm       |
| 18   | 3        | D1,D7,D9  | LED-G5      | LED dia. 5mm               |
| 19   | 1        | D2  | LED-Y5      | LED dia. 5mm               |
| 20   | 4        | D3,D5,D6,D8   | LED-R5      | LED dia. 5mm               |
| 21   | 1        | D4  | Z4V7        | 1/2W Zener Diode           |
| 22   | 3        | D10,D12,D15   | 1N4148      | Diodo in vetro DO35        |
| 23   | 1        | D11   | NC          |                            |
| 24   | 2        | D13,D14   | 10V         | 1/2W Zener Diode           |
| 25   | 10       | FIX1,FIX2,FIX3,FIX4,FIX5,<br>FIX6,FIX7,FIX8,FIX9,<br>FIX10  | FIX35       | Foro fissaggio 3.5mm       |
| 26   | 1        | INV1  | N.C.        |                            |
| 27   | 1        | JP1   | CN10PD      | Connettore 10 poli Flat cs |
| 28   | 1        | JP2   | CN34PD      | Connettore 34 poli Flat cs |
| 29   | 1        | JP3   | NC          |                            |
| 30   | 1        | JP4   | STF90D      | Strip femmina 45+45 pin    |
| 31   | 1        | JP5   | CN06PS      | Connettore 6 poli Panduit  |
| 32   | 1        | JP6   | CN16PD      | Connettore 16 poli Flat cs |
| 33   | 1        | JP7   | CN26PD      | Connettore 26 poli Flat cs |
| 34   | 1        | JP8   | STM32D      | Strip maschio 2X16 pin     |
| 35   | 1        | JP9   | N.C.        |                            |
| 36   | 1        | JP10  | STF20D      | Strip femmina 10+10 pin    |
| 37   | 1        | JP11  | STF02S      | Strip femmina 2 pin        |
| 38   | 1        | JP12  | Mini Jumper |                            |
| 39   | 2        | L1,L3   | 2u2         | Induttanza cilindrica      |
| 40   | 2        | L2,L4   | 22uH        | Induttanza cilindrica      |
| 41   | 2        | Q1,Q4   | BC557       | Trans. PNP TO92            |
| 42   | 1        | Q2  | BDX53       | Trans. NPN TO220           |
| 43   | 1        | Q3  | BD139       | Trans. NPN TO126           |


|    |    |   |          |                      |
|----|----|---|----------|----------------------|
| 44 | 1  | RAFF1   | RAF220   | Dissipatore TO220    |
| 45 | 1  | RR1   | 2K2      | Rete resistiva 9R    |
| 46 | 1  | RR2   | 10K      | Rete resistiva 9R    |
| 47 | 1  | RR3   | 4K7      | Rete resistiva 9R    |
| 48 | 1  | RV1   | 10K      | Trimmer Rg H 3296X   |
| 49 | 1  | RY1   | RLYTQ2   | Rele' TQ2            |
| 50 | 2  | R1,R2   | 1H0      | Res. 1/4W 1%         |
| 51 | 12 | R3,R6,R7,R9,R10,R15,R16,<br>R17,R19,R21,R29,R30 | 1K0      | Res. 1/4W 1%         |
| 52 | 2  | R4,R42  | 0H0      | Res. 1/4W 1%         |
| 53 | 2  | R5,R45  | 470H     | Res. 1/4W 1%         |
| 54 | 2  | R8,R31  | 4K99     | Res. 1/4W 1%         |
| 55 | 8  | R11,R12,R18,R24,R25,R26,<br>R27,R35             | 10K0     | Res. 1/4W 1%         |
| 56 | 4  | R13,R14,R36,R43                                 | 22K0     | Res. 1/4W 1%         |
| 57 | 1  | R20   | 3K01     | Res. 1/4W 1%         |
| 58 | 3  | R22,R23,R40                                     | NC       |                      |
| 59 | 1  | R28   | 200H     | Res. 1/4W 1%         |
| 60 | 4  | R32,R33,R44,R46                                 | 4K70     | Res. 1/4W 1%         |
| 61 | 1  | R34   | 2K20     | Res. 1/4W 1%         |
| 62 | 1  | R37   | 10K0 NTC | Res. NTC             |
| 63 | 1  | R38   | 100H     | Res. 1/2W            |
| 64 | 2  | R39,R41   | 1M0      | Res. 1/4W 1%         |
| 65 | 1  | R47   | 820H0    | Res. 1/4W 1%         |
| 66 | 1  | U1  | SN7407   | Hex Buffer OC        |
| 67 | 1  | U2  | CD4051   | Analog MUX           |
| 68 | 1  | U3  | 74HC138  | Decoder 8            |
| 69 | 2  | U4,U10  | 74HC541  | Octal Buffer         |
| 70 | 2  | U5,U6   | 74HC574  | Octal Latch          |
| 71 | 1  | U7  | SN7406   | Hex Inv Buffer OC    |
| 72 | 1  | U9  | LM7805   | Stabilizzatore TO220 |
| 73 | 1  | U11   | MB3773   | Watchdog             |
| 74 | 1  | U13   | LM358N   | Dual OP Amp          |



CS1  
CSCTC30V03

|  |                  |                          |          |
|--|------------------|--------------------------|----------|
| Nome Progetto: Scheda coder Stereo CTC30 |                  | Pagina: 1 di 1           | Size: A3 |
| Autore: Andrea Tommasi                   | Data: 15/09/2005 | Codice Progetto: 011     |          |
| Nome PC In Rete: \UTSRV\PROGETTI         | Revisione: 1.1   | Nome Parte: Scheda coder |          |
| File/Cartella: *                         | Autorizzazione:  | Codice: SLCTC30V03       |          |



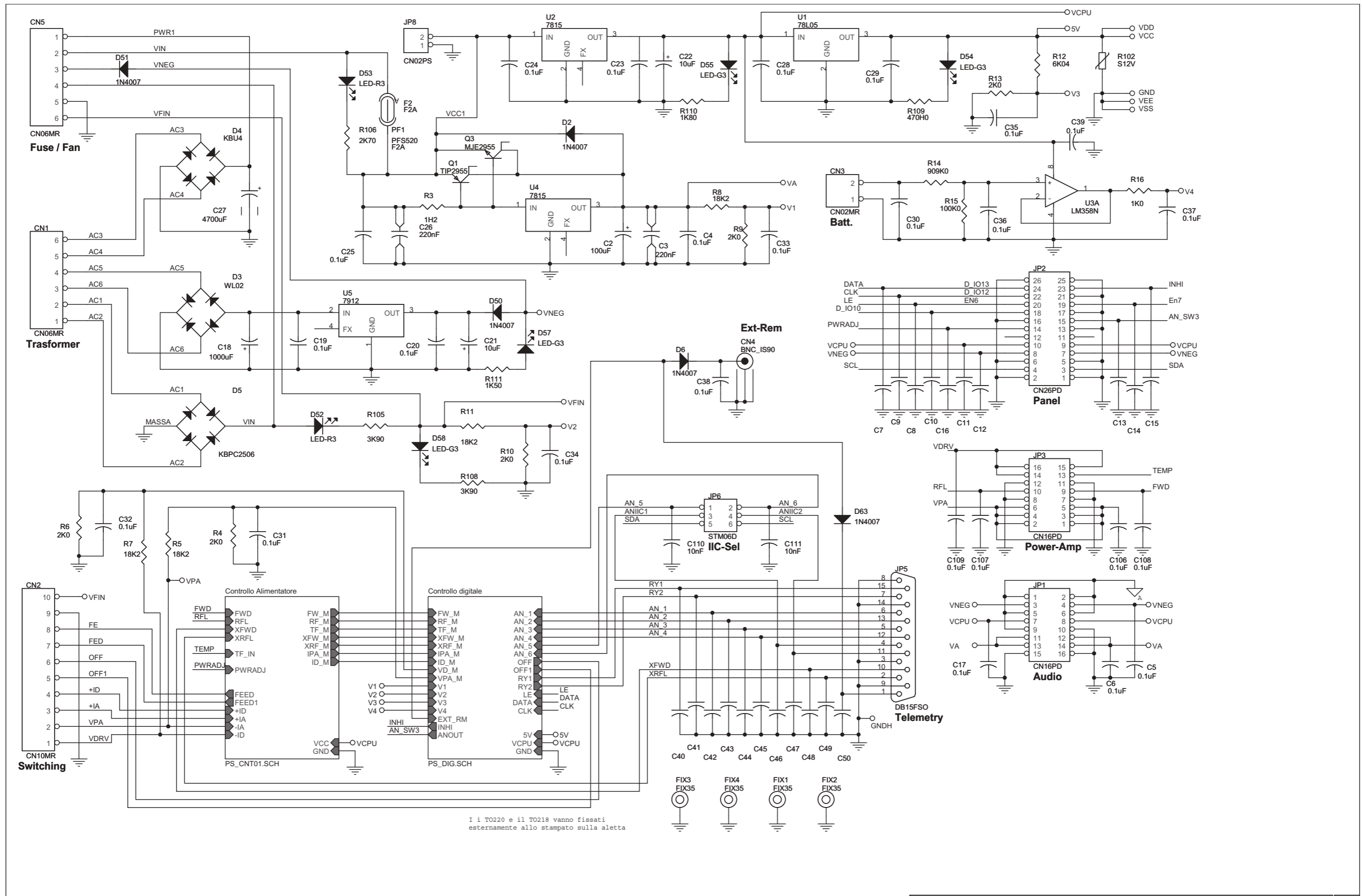
|   |  |                                       |
|---|--|---------------------------------------|
|  | NOME PROGETTO: SCHEDA CODER STEREO CTC30 | NOME PARTE: SCHEDA CODER STEREO CTC30 |
| ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV"                            | AUTORE: TOMMASI                          | DATA: 08/04/2004                      |
| MATERIALE: FR4-74 1.6mm Cu 35um   | TRATTAMENTO: STANDARD COSTRUTTORE        | REVISIONE: 1.0                        |
|   | PROFILO: /                               | SCALA: 2:1                            |
|   |  | SIZE: A4                              |
|   |  | PAGINA: 1 DI 1                        |
|   |  | STATO: ESECUTIVO                      |

Scheda coder Revised: Thursday, September 15, 2005  
SLCTC30V03 Revision: 1.1  
Scheda coder Stereo CTC30

11  
Andrea Tommasi

| Item | Q.ty | Reference  | Part       | Description                    |        |
|------|------|--|------------|--------------------------------|--------|
| 1    | 1    | CS1  | CSCTC30V03 | Circuito stampato              |        |
| 2    | 2    | C1, C4   | 10uF 16V   | Cond. Elett. SMD d. 4mm        |        |
| 3    | 2    | C3, C10  | 4.7pF      | Cond. SMD 0805                 |        |
| 4    | 15   | C5, C7, C8, C18, C27, C28, C29, C30, C33, C34, C38, C39, C40, C41, C42 | 0.1uF      | Cond. SMD 0805                 |        |
| 5    | 4    | C6, C11, C22, C36  | 1nF 1%     | Cond. SMD 0805 COG             | Nota 1 |
| 6    | 1    | C12  | 10pF       | Cond. SMD 0805                 |        |
| 7    | 1    | C14  | 680pF 1%   | Cond. SMD 0805 COG             | Nota 1 |
| 8    | 4    | C15, C19, C23, C25   | NC         | Cond. Poliestere p 5mm (5*7mm) |        |
| 9    | 1    | C16  | 100pF      | Cond. SMD 0805                 |        |
| 10   | 1    | C20  | 2.2nF 1%   | Cond. SMD 0805 COG             | Nota 1 |
| 11   | 1    | C21  | 56pF       | Cond. SMD 0805                 |        |
| 12   | 1    | C24  | 220pF 1%   | Cond. SMD 0805 COG             | Nota 1 |
| 13   | 1    | C26  | NC         | Cond. SMD 0805                 |        |
| 14   | 2    | C31, C32   | 27pF       | Cond. SMD 0805                 |        |
| 15   | 1    | C35  | 10nF       | Cond. SMD 0805                 |        |
| 16   | 1    | C43  | 150pF      | Cond. SMD 0805                 |        |
| 17   | 1    | C44  | 15pF       | Cond. SMD 0805                 |        |
| 18   | 1    | JP1  | STM14S     | Strip maschio 14 pin           |        |
| 19   | 1    | JP2  | STM13S     | Strip maschio 13 pin           |        |
| 20   | 1    | RV1  | 500H       | Trimmer SMD                    |        |
| 21   | 2    | R1, R17  | 100H0      | Res. SMD 0805                  |        |
| 22   | 3    | R2, R16, R18   | 1K07       | Res. SMD 0805                  |        |
| 23   | 3    | R3, R10, R11   | 1K50       | Res. SMD 0805                  |        |
| 24   | 2    | R4, R5   | 5K60       | Res. SMD 0805                  |        |
| 25   | 2    | R6, R12  | 2K74       | Res. SMD 0805                  |        |
| 26   | 2    | R7, R13  | 4K75       | Res. SMD 0805                  |        |
| 27   | 2    | R8, R30  | 2K10       | Res. SMD 0805                  |        |
| 28   | 1    | R9   | 1K58       | Res. SMD 0805                  |        |
| 29   | 2    | R14, R15   | 6K80       | Res. SMD 0805                  |        |
| 30   | 2    | R19, R20   | 715K0      | Res. SMD 0805                  |        |
| 31   | 1    | R21  | 39K0       | Res. SMD 0805                  |        |
| 32   | 1    | R22  | 2K15       | Res. SMD 0805                  |        |
| 33   | 3    | R23, R26, R38  | 3K30       | Res. SMD 0805                  |        |
| 34   | 2    | R24, R29   | 1K33       | Res. SMD 0805                  |        |
| 35   | 1    | R25  | 2K49       | Res. SMD 0805                  |        |
| 36   | 1    | R27  | 1K69       | Res. SMD 0805                  |        |
| 37   | 1    | R28  | 1K20       | Res. SMD 0805                  |        |
| 38   | 1    | R31  | 1K0        | Res. SMD 0805                  |        |
| 39   | 1    | R32  | 825H0      | Res. SMD 0805                  |        |
| 40   | 1    | R33  | 1K74       | Res. SMD 0805                  |        |
| 41   | 2    | R34, R39   | 330H0      | Res. SMD 0805                  |        |
| 42   | 1    | R35  | 2M20       | Res. SMD 0805                  |        |
| 43   | 2    | R36, R43   | 22H0       | Res. SMD 0805                  |        |
| 44   | 1    | R37  | 15K0       | Res. SMD 0805                  |        |
| 45   | 3    | R40, R41, R42  | 22K0       | Res. SMD 0805                  |        |
| 46   | 1    | R44  | 100K0      | Res. SMD 0805                  |        |
| 47   | 2    | R45, R46   | 1M0        | Res. SMD 0805                  |        |
| 48   | 1    | R47  | 0H0        | Res. SMD 0805                  |        |
| 49   | 3    | U1, U3, U6   | LM833/SO   | Dual Op. SMD SO8               |        |
| 50   | 2    | U2, U8   | CD4051/SO  | Analog Switch SMD SO16         |        |
| 51   | 1    | U4   | TL072SMD   | Dual Op. SMD SO8               |        |
| 52   | 1    | U5   | CD4069/SO  | Hex inverter SO14              |        |
| 53   | 1    | U7   | CD4520/SO  | Dual binary counter            | Nota 2 |
| 54   | 1    | X1   | 4M864      | Quarzo SMD HC49SMD             |        |
| 55   | 1    | X2   | NC         | Quarzo HC18                    |        |

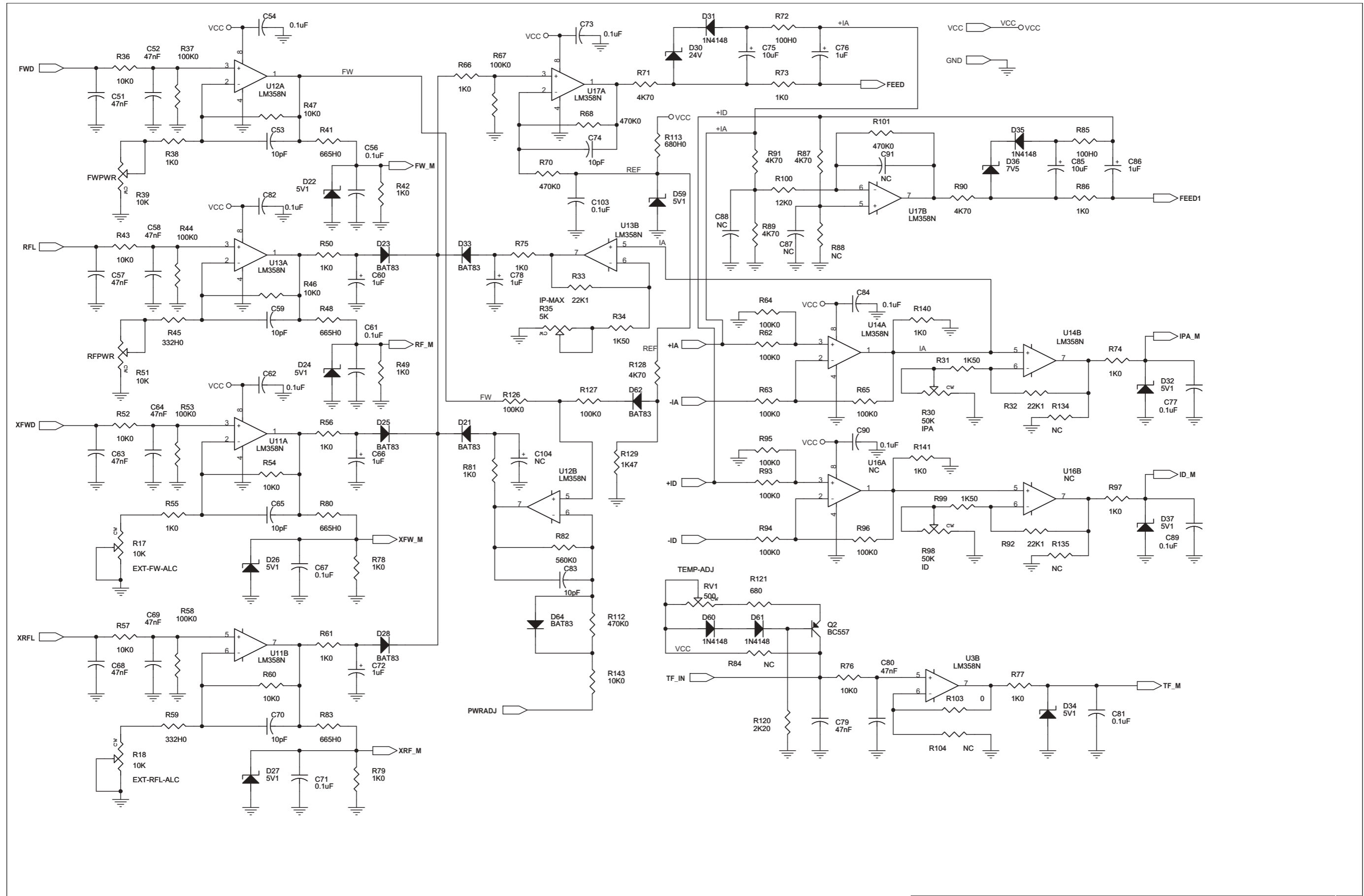
|               |  |
|---------------|--|
| <b>Nota 1</b> | Attenzione COG vanno bene anche al 2%                        |
| <b>Nota 2</b> | Non montare PHILIPS  |
|               | Tutte le resistenze vanno al 1%                              |
|               | Tutti i condensatori dove il valore lo consente vogliono NP0 |



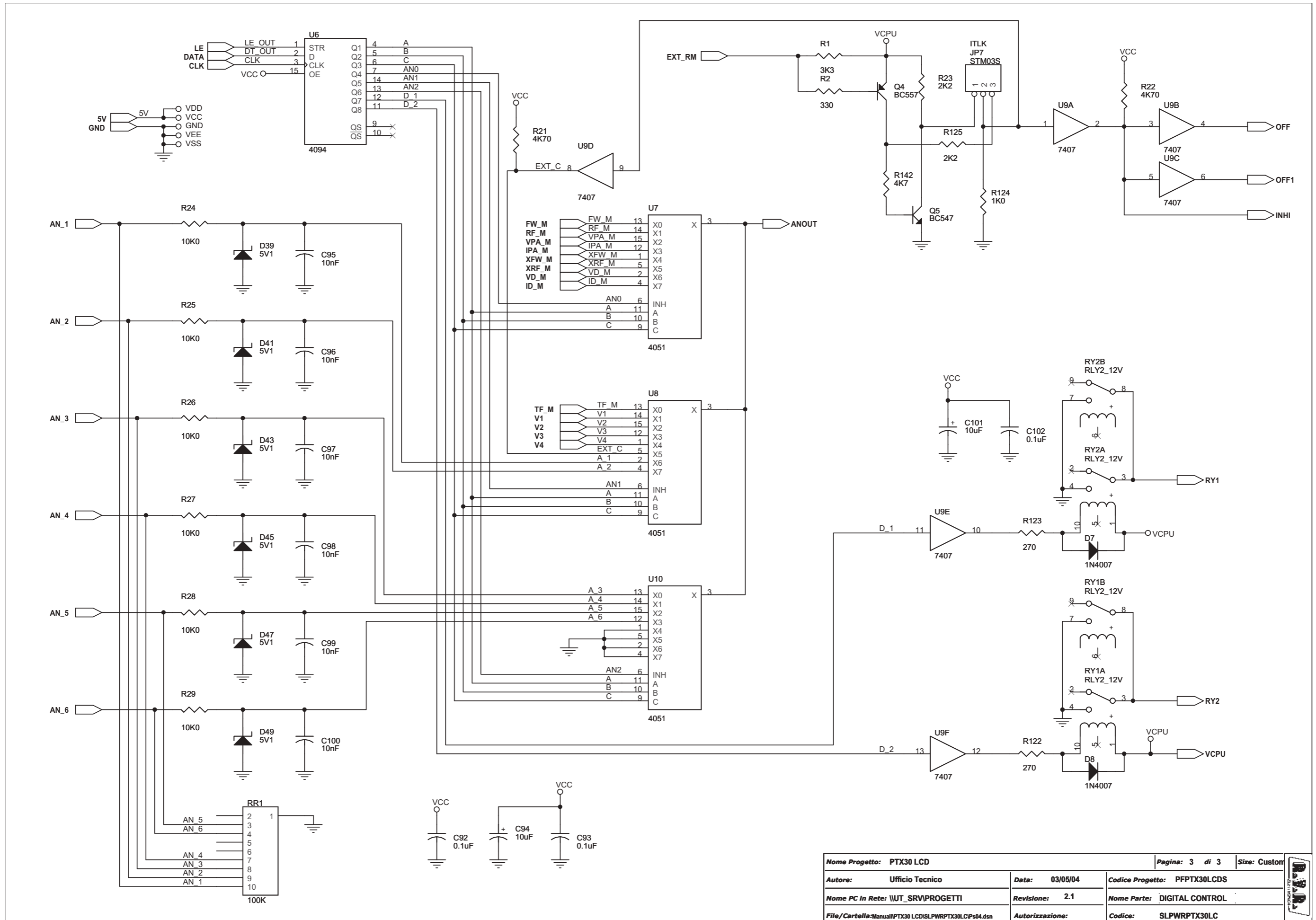
I i TO220 e il TO218 vanno fissati esternamente allo stampato sulla aletta

|  |                 |                               |  |          |
|--|-----------------|-------------------------------|--|----------|
| Nome Progetto: PTX30 LCD                               |                 | Pagina: 1 di 3                |  | Size: A3 |
| Autore: Ufficio Tecnico                                | Data: 03/05/04  | Codice Progetto: PFPPTX30LCDS |  |          |
| Nome PC in Rete: \UT_SRVVPROGETTI                      | Revisione: 2.1  | Nome Parte: POWER SUPPLY      |  |          |
| File/Cartella: Manuali\PTX30 LCD\SLPWRPTX30LC\Ps04.dsn | Autorizzazione: | Codice: SLPWRPTX30LC          |  |          |

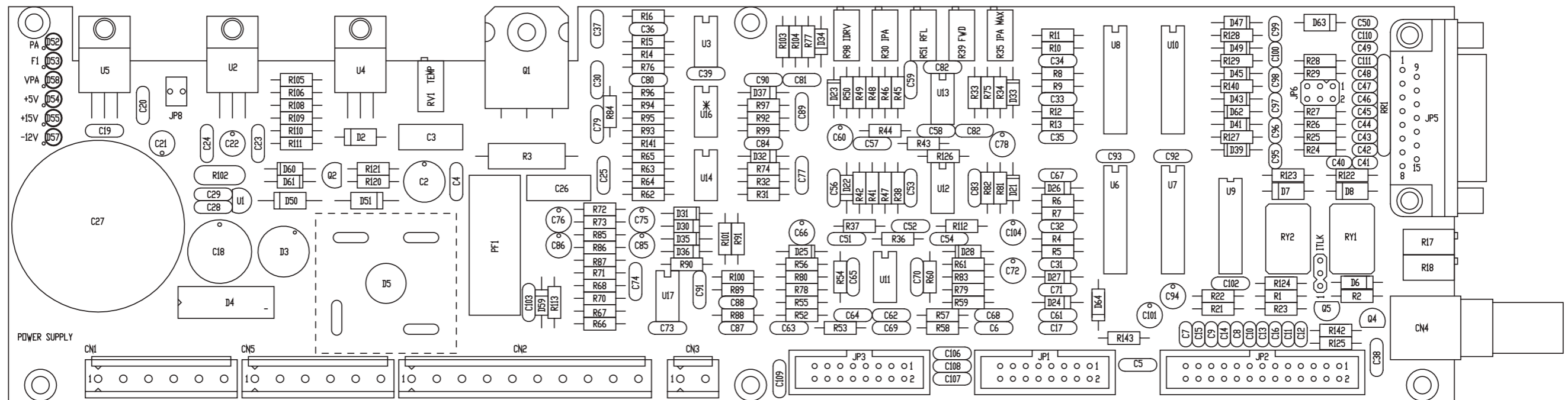




|                          |   |                 |          |                              |
|--------------------------|---|-----------------|----------|------------------------------|
| Nome Progetto: PTX30 LCD |   | Pagina: 2 di 3  |          | Size: A3                     |
| Autore:                  | Ufficio tecnico                         | Data:           | 03/05/04 | Codice Progetto: PFPTX30LCDS |
| Nome PC in Rete:         | \\UT_SRV\PROGETTI                       | Revisione:      | 2.1      | Nome Parte: CONTROL SUPPLY   |
| File/ Cartella:          | Manual\PTX30 LCD\SLPWRPTX30LC\CPs04.dsn | Autorizzazione: |          | Codice: SLPWRPTX30LC         |



|   |                 |                              |  |              |
|---|-----------------|------------------------------|--|--------------|
| Nome Progetto: PTX30 LCD                              |                 | Pagina: 3 di 3               |  | Size: Custom |
| Autore: Ufficio Tecnico                               | Data: 03/05/04  | Codice Progetto: PFPTX30LCDS |  |              |
| Nome PC in Rete: \\UT_SRV\PROGETTI                    | Revisione: 2.1  | Nome Parte: DIGITAL CONTROL  |  |              |
| File/Cartella: Manual\PTX30 LCD\SLPWRPTX30LC\Ps04.dsn | Autorizzazione: | Codice: SLPWRPTX30LC         |  |              |



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

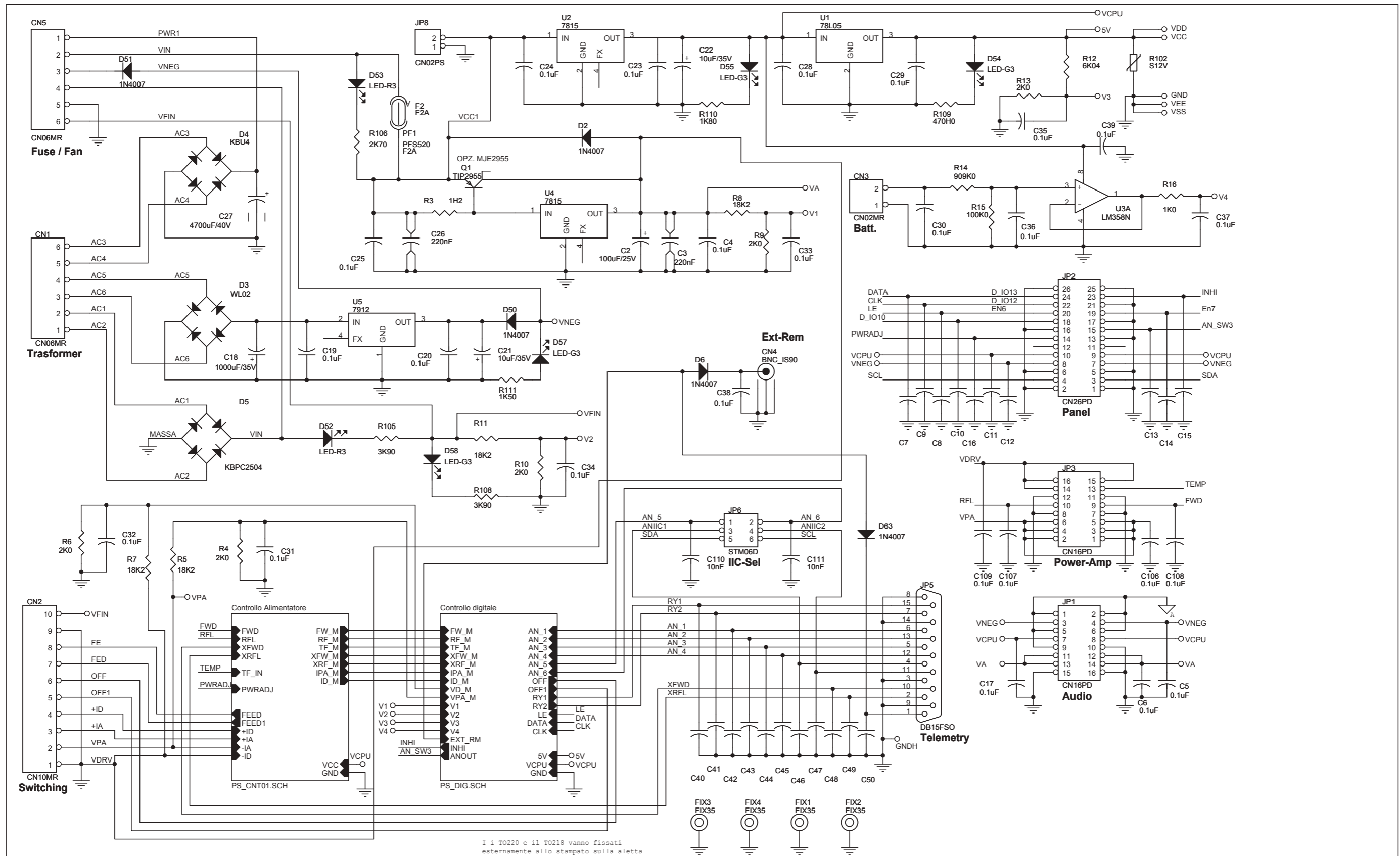
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|--|--------------|-----------------|-----------------------------------|
| Nome Progetto: PTX30 LCD                               |              | Pagina: 1 di 1  | Size: A3                          |
| Autore: Ufficio Tecnico                                |              | Data: 29/04/04  | Codice Progetto: PFPTX30LCDS      |
| Nome PC in Rete: \\UT_SRV\PROGETTI                     |              | Revisione: 2.1  | Nome Parte: POWER SUPPLY PTX30LCD |
| File/Cartella: MANUAL\PTX LCD\SLPWRPTX30LC\laypsup.DWG |              | Autorizzazione: | Codice: SLPWRPTX30LC              |
| Scala: /   | Materiale: / | Trattamento: /  | Profilo: /                        |



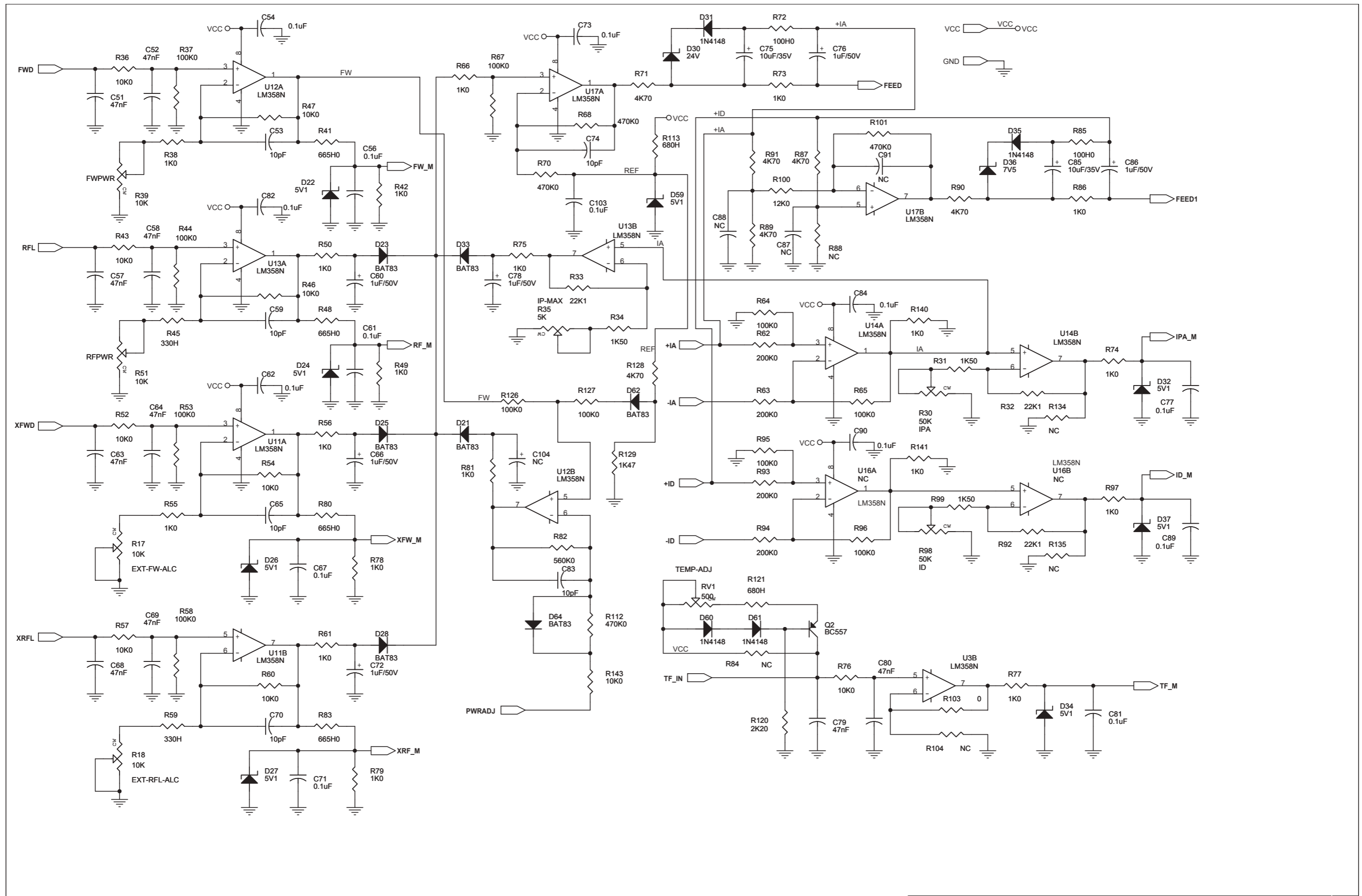
| Power supply - Bill of materials |      |  |          |
|----------------------------------|------|--|----------|
| Item                             | Q.ty | Reference  | Part     |
| 1                                | 2    | CN1,CN5  | CN06MR   |
| 2                                | 1    | CN2  | CN10MR   |
| 3                                | 1    | CN3  | CN02MR   |
| 4                                | 1    | CN4  | BNC_IS90 |
| 5                                | 1    | C2   | 100uF    |
| 6                                | 2    | C26,C3   | 220nF    |
| 7                                | 42   | C4,C5,C6,C17,C19,C20,C23,<br>C24,C25,C28,C29,C30,C31,<br>C32,C33,C34,C35,C36,C37,<br>C38,C39,C54,C56,C61,C62,<br>C67,C71,C73,C77,C81,C82,<br>C84,C89,C90,C92,C93,C102,<br>C103,C106,C107,C108,C109 | 0.1uF    |
| 8                                | 10   | C7,C8,C9,C10,C13,C14,C15,<br>C16,C46,C47   | 100pF    |
| 9                                | 19   | C11,C12,C40,C41,C42,C43,<br>C44,C45,C48,C49,C50,C95,<br>C96,C97,C98,C99,C100,<br>C110,C111   | 10nF     |
| 10                               | 1    | C18  | 1000uF   |
| 11                               | 6    | C21,C22,C75,C85,C94,C101   | 10uF     |
| 12                               | 1    | C27  | 4700uF   |
| 13                               | 10   | C51,C52,C57,C58,C63,C64,<br>C68,C69,C79,C80  | 47nF     |
| 14                               | 6    | C53,C59,C65,C70,C74,C83  | 10pF     |
| 15                               | 6    | C60,C66,C72,C76,C78,C86  | 1uF      |
| 16                               | 10   | R84,C87,R88,C88,C91,R104,<br>C104,R134,R135,U16  | NC       |
| 17                               | 7    | D2,D6,D7,D8,D50,D51,D63  | 1N4007   |
| 18                               | 1    | D3   | WL02     |
| 19                               | 1    | D4   | KBU4     |
| 20                               | 1    | D5   | KBPC2506 |
| 21                               | 7    | D21,D23,D25,D28,D33,D62,<br>D64  | BAT83    |
| 22                               | 14   | D22,D24,D26,D27,D32,D34,<br>D37,D39,D41,D43,D45,D47,<br>D49,D59  | 5V1      |
| 23                               | 1    | D30  | 24V      |
| 24                               | 4    | D31,D35,D60,D61  | 1N4148   |

|    |    |  |          |
|----|----|--|----------|
| 25 | 1  | D36  | 7V5      |
| 26 | 2  | D52,D53  | LED-R3   |
| 27 | 4  | D54,D55,D57,D58  | LED-G3   |
| 28 | 4  | FIX1,FIX2,FIX3,FIX4  | FIX35    |
| 29 | 1  | F2   | F2A      |
| 30 | 2  | JP1,JP3  | CN16PD   |
| 31 | 1  | JP2  | CN26PD   |
| 32 | 1  | JP5  | DB15FSO  |
| 33 | 1  | JP6  | STM06D   |
| 34 | 1  | JP7  | STM03S   |
| 35 | 1  | JP8  | CN02PS   |
| 36 | 1  | PF1  | PFS520   |
| 37 | 1  | Q1   | TIP2955  |
| 38 | 2  | Q4,Q2  | BC557    |
| 39 | 1  | Q3   | MJE2955  |
| 40 | 1  | Q5   | BC547    |
| 41 | 1  | RR1  | 100K     |
| 42 | 1  | RV1  | 500      |
| 43 | 2  | RY1,RY2  | RLY2_12V |
| 44 | 1  | R1   | 3K3      |
| 45 | 1  | R2   | 330      |
| 46 | 1  | R3   | 1H2      |
| 47 | 5  | R4,R6,R9,R10,R13   | 2K0      |
| 48 | 4  | R5,R7,R8,R11   | 18K2     |
| 49 | 1  | R12  | 6K04     |
| 50 | 1  | R14  | 909K0    |
| 51 | 16 | R15,R37,R44,R53,R58,R62,<br>R63,R64,R65,R67,R93,R94,<br>R95,R96,R126,R127                          | 100K0    |
| 52 | 21 | R16,R38,R42,R49,R50,R55,<br>R56,R61,R66,R73,R74,R75,<br>R77,R78,R79,R81,R86,R97,<br>R124,R140,R141 | 1K0      |
| 53 | 4  | R17,R18,R39,R51  | 10K      |
| 54 | 8  | R21,R22,R71,R87,R89,R90,<br>R91,R128   | 4K70     |
| 55 | 2  | R125,R23   | 2K2      |
| 56 | 16 | R24,R25,R26,R27,R28,R29,<br>R36,R43,R46,R47,R52,R54,<br>R57,R60,R76,R143                           | 10K0     |
| 57 | 2  | R98,R30  | 50K      |
| 58 | 4  | R31,R34,R99,R111   | 1K50     |
| 59 | 3  | R32,R33,R92  | 22K1     |
| 60 | 1  | R35  | 5K       |

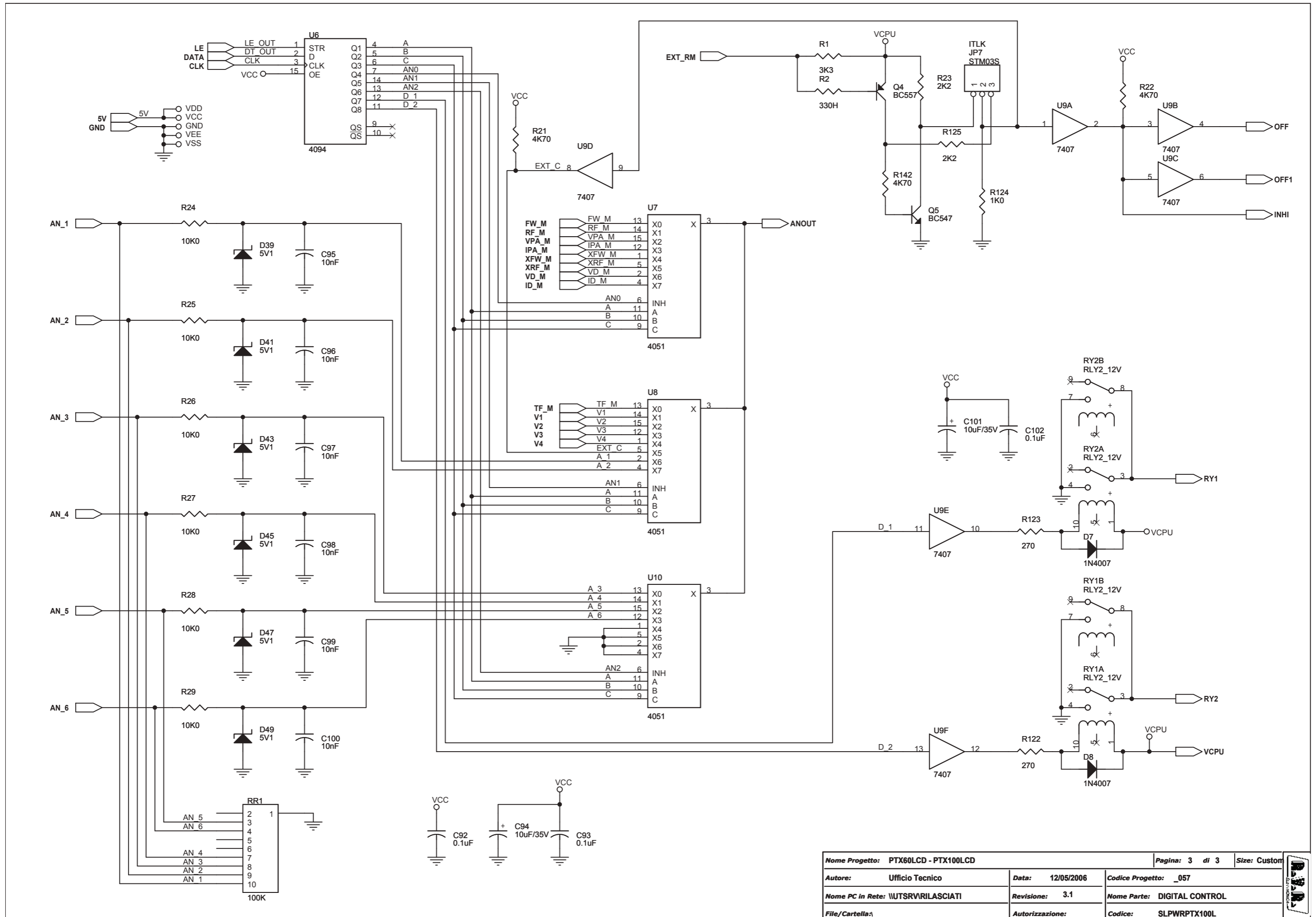
|    |   |                        |        |
|----|---|------------------------|--------|
| 61 | 4 | R41,R48,R80,R83        | 665H0  |
| 62 | 2 | R45,R59                | 332H0  |
| 63 | 4 | R68,R70,R101,R112      | 470K0  |
| 64 | 2 | R72,R85                | 100H0  |
| 65 | 1 | R82                    | 560K0  |
| 66 | 1 | R100                   | 12K0   |
| 67 | 1 | R102                   | S12V   |
| 68 | 1 | R103                   | 0      |
| 69 | 2 | R105,R108              | 3K90   |
| 70 | 1 | R106                   | 2K70   |
| 71 | 1 | R109                   | 470H0  |
| 72 | 1 | R110                   | 1K80   |
| 73 | 1 | R113                   | 680H0  |
| 74 | 1 | R120                   | 2K20   |
| 75 | 1 | R121                   | 680    |
| 76 | 2 | R123,R122              | 270    |
| 77 | 1 | R129                   | 1K47   |
| 78 | 1 | R142                   | 4K7    |
| 79 | 1 | U1                     | 78L05  |
| 80 | 2 | U4,U2                  | 7815   |
| 81 | 6 | U3,U11,U12,U13,U14,U17 | LM358N |
| 82 | 1 | U5                     | 7912   |
| 83 | 1 | U6                     | 4094   |
| 84 | 3 | U7,U8,U10              | 4051   |
| 85 | 1 | U9                     | 7407   |



|                                     |                  |                          |  |          |
|-------------------------------------|------------------|--------------------------|--|----------|
| Nome Progetto: PTX60LCD - PTX100LCD |                  | Pagina: 1 di 3           |  | Size: A3 |
| Autore: Ufficio Tecnico             | Data: 12/05/2006 | Codice Progetto: _057    |  |          |
| Nome PC in Rete: \UTSRV\RILASCIATI  | Revisione: 3.1   | Nome Parte: POWER SUPPLY |  |          |
| File/Cartella:                      | Autorizzazione:  | Codice: SLPWRPTX100L     |  |          |

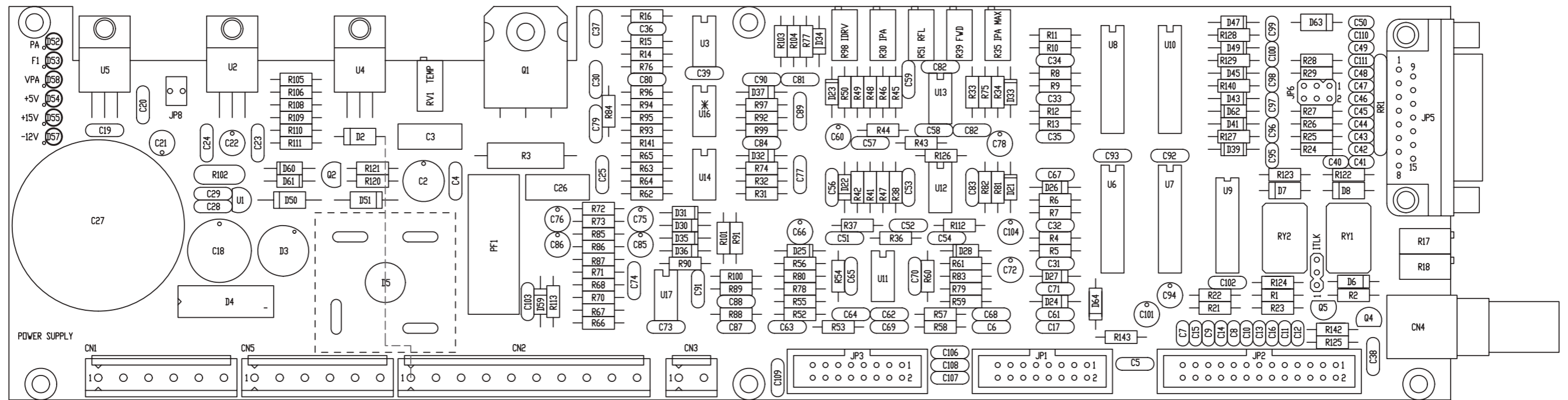


|                                     |                  |                            |          |
|-------------------------------------|------------------|----------------------------|----------|
| Nome Progetto: PTX60LCD - PTX100LCD |                  | Pagina: 2 di 3             | Size: A3 |
| Autore: Ufficio tecnico             | Data: 12/05/2006 | Codice Progetto: _057      |          |
| Nome PC in Rete: \UTSRV\IRLASCIAI   | Revisione: 3.1   | Nome Parte: CONTROL SUPPLY |          |
| File/Cartella:                      | Autorizzazione:  | Codice: SLPWRPTX100L       |          |



|                                     |                  |                             |              |
|-------------------------------------|------------------|-----------------------------|--------------|
| Nome Progetto: PTX60LCD - PTX100LCD |                  | Pagina: 3 di 3              | Size: Custom |
| Autore: Ufficio Tecnico             | Data: 12/05/2006 | Codice Progetto: _057       |              |
| Nome PC in Rete: \UTSRVIRILASCIATI  | Revisione: 3.1   | Nome Parte: DIGITAL CONTROL |              |
| File/Cartella:                      | Autorizzazione:  | Codice: SLPWRPTX100L        |              |





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

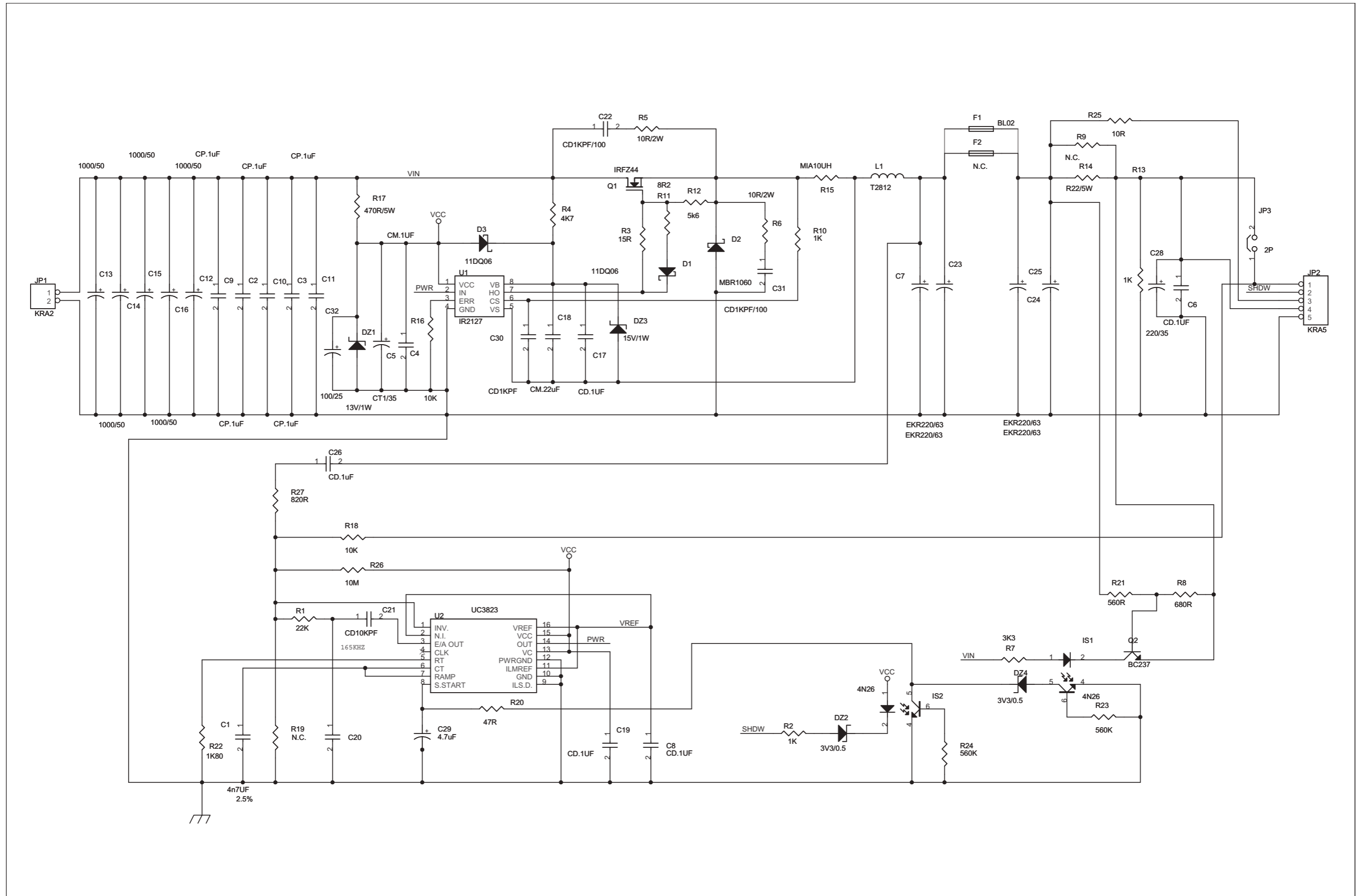
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|-------------------------------------|--------------|------------------|---------------------------------------|----------|--|
| Nome Progetto: PTX60LCD - PTX100LCD |              | Pagina: 1 di 1   |                                       | Size: A3 |  |
| Autore: Ufficio Tecnico             |              | Data: 12/05/2006 | Codice Progetto: _057                 |          |  |
| Nome PC in Rete: \\UTSRV\RILASCIATI |              | Revisione: 2.2   | Nome Parte: POWER SUPPLY PTX30/100LCD |          |  |
| File/Cartella:\                     |              | Autorizzazione:  | Codice: SLPWRPTX100L                  |          |  |
| Scala: /                            | Materiale: / | Trattamento: /   | Profilo: /                            |          |  |



POWER SUPPLY Revised: 12/05/2006  
 SLPWRPTX100L Revision: 3.1  
 PTX60LCD - PTX100LCD  
 \_057

| Item | Quantity | Reference   | Part       | Description                         |
|------|----------|---|------------|-------------------------------------|
| 1    | 2        | CN1, CN5  | CN06MR     | Connettore Lumberg KB p. 5mm 6 pin  |
| 2    | 1        | CN2   | CN10MR     | Connettore Lumberg KB p. 5mm 10 pin |
| 3    | 1        | CN3   | CN02MR     | Connettore Lumberg KB p. 5mm 2 pin  |
| 4    | 1        | CN4   | BNC_IS90   | Connettore BNC metallico 90°        |
| 5    | 1        | C2  | 100uF/25V  | Cond. Elettr. Vert.                 |
| 6    | 2        | C3, C26   | 220nF      | Cond. Poli. p 5/7.5/10mm            |
| 7    | 42       | C4, C5, C6, C17, C19, C20, C23, C24, C25, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C54, C56, C61, C62, C67, C71, C73, C77, C81, C82, C84, C89, C90, C92, C93, C102, C103, C106, C107, C108, C109 | 0.1uF      | Cond. ceramico p 5mm                |
| 8    | 10       | C7, C8, C9, C10, C13, C14, C15, C16, C46, C47   | 100pF      |                                     |
| 9    | 19       | C11, C12, C40, C41, C42, C43, C44, C45, C48, C49, C50, C95, C96, C97, C98, C99, C100, C110, C111  | 10nF       |                                     |
| 10   | 1        | C18   | 1000uF/35V |                                     |
| 11   | 6        | C21, C22, C75, C85, C94, C101   | 10uF/35V   | Cond. Elettr. Vert.                 |
| 12   | 1        | C27   | 4700uF/40V |                                     |
| 13   | 10       | C51, C52, C57, C58, C63, C64, C68, C69, C79, C80  | 47nF       | Cond. ceramico p 5mm                |
| 14   | 6        | C53, C59, C65, C70, C74, C83  | 10pF       | Cond. ceramico p 5mm                |
| 15   | 6        | C60, C66, C72, C76, C78, C86  | 1uF/50V    | Cond. Elettr. Vert.                 |
| 16   | 3        | C87, C88, C91   | NC         | Cond. ceramico p 5mm                |
| 17   | 1        | C104  | NC         | Cond. Elettr. Vert.                 |
| 18   | 5        | D2, D6, D7, D8, D63   | 1N4007     | Diode in vetro DO35                 |
| 19   | 1        | D3  | WL02       | Ponte diodi tondi W                 |
| 20   | 1        | D4  | KBU4       | Ponte diodi KBL/KBU                 |
| 21   | 1        | D5  | KBPC2504   | Ponte diodi KBPC                    |
| 22   | 7        | D21, D23, D25, D28, D33, D62, D64   | BAT83      | Diode Hot carrier DO35              |
| 23   | 14       | D22, D24, D26, D27, D32, D34, D37, D39, D41, D43, D45, D47, D49, D59  | 5V1        | 1/2W Zener Diode                    |
| 24   | 1        | D30   | 24V        | 1/2W Zener Diode                    |
| 25   | 2        | D31, D35  | 1N4148     | Diode in silicio DO35               |
| 26   | 1        | D36   | 7V5        | 1/2W Zener Diode                    |
| 27   | 2        | D50, D51  | 1N4007     | Diode silicio DO41                  |
| 28   | 2        | D52, D53  | LED-R3     | LED dia. 3mm                        |
| 29   | 4        | D54, D55, D57, D58  | LED-G3     | LED dia. 3mm                        |
| 30   | 2        | D60, D61  | 1N4148     |                                     |
| 31   | 4        | FIX1, FIX2, FIX3, FIX4  | FIX35      | Foro fissaggio 3.5mm                |
| 32   | 1        | F2  | F2A        | Fusibile rapido 5x20mm              |
| 33   | 2        | JP1, JP3  | CN16PD     | Connettore 16 poli Flat cs          |
| 34   | 1        | JP2   | CN26PD     | Connettore 26 poli Flat cs          |
| 35   | 1        | JP5   | DB15FSO    | Connettore DB15 femm. cs 90°        |
| 36   | 1        | JP6   | STM06D     | Strip maschio 3+3 pin               |
| 37   | 1        | JP7   | STM03S     | Strip maschio 3 pin                 |
| 38   | 1        | JP8   | CN02PS     | Connettore 2 poli Panduit           |
| 39   | 1        | PF1   | PFS520     | Portafusibile 5x20                  |
| 40   | 1        | Q1  | TIP2955    |                                     |
| 41   | 2        | Q2, Q4  | BC557      | Trans. PNP TO92                     |
| 42   | 1        | Q5  | BC547      | Trans. NPN TO92                     |
| 43   | 1        | RR1   | 100K       | Rete resistiva 9R                   |
| 44   | 1        | RV1   | 500        | Trimmer Rg H 3296X                  |
| 45   | 2        | RY1, RY2  | RLY2_12V   | Rele' TQ2                           |
| 46   | 1        | R1  | 3K3        | Res. 1/4W 5%                        |
| 47   | 1        | R2  | 330H       | Res. 1/4W 5%                        |
| 48   | 1        | R3  | 1H2        | Res. 2W 5%                          |
| 49   | 5        | R4, R6, R9, R10, R13  | 2K0        | Res. 1/4W 1%                        |
| 50   | 4        | R5, R7, R8, R11   | 18K2       | Res. 1/4W 1%                        |
| 51   | 1        | R12   | 6K04       | Res. 1/4W 1%                        |
| 52   | 1        | R14   | 909K0      | Res. 1/4W 1%                        |
| 53   | 12       | R15, R37, R44, R53, R58, R64, R65, R67, R95, R96, R126, R127  | 100K0      | Res. 1/4W 1%                        |
| 54   | 21       | R16, R38, R42, R49, R50, R55, R56, R61, R66, R73, R74, R75, R77, R78, R79, R81, R86, R97, R124, R140, R141  | 1K0        | Res. 1/4W 1%                        |
| 55   | 4        | R17, R18, R39, R51  | 10K        | Trimmer Rg H 3296X                  |
| 56   | 8        | R21, R22, R71, R87, R89, R90, R91, R128   | 4K70       | Res. 1/4W 1%                        |
| 57   | 2        | R23, R125   | 2K2        | Res. 1/4W 1%                        |
| 58   | 16       | R24, R25, R26, R27, R28, R29, R36, R43, R46, R47, R52, R54, R57, R60, R76, R143   | 10K0       | Res. 1/4W 1%                        |
| 59   | 2        | R30, R98  | 50K        | Trimmer Rg H 3296X                  |
| 60   | 4        | R31, R34, R99, R111   | 1K50       | Res. 1/4W 1%                        |
| 61   | 3        | R32, R33, R92   | 22K1       | Res. 1/4W 1%                        |
| 62   | 1        | R35   | 5K         | Trimmer Rg H 3296X                  |
| 63   | 4        | R41, R48, R80, R83  | 665H0      | Res. 1/4W 1%                        |
| 64   | 2        | R45, R59  | 330H       | Res. 1/4W 1%                        |
| 65   | 4        | R62, R63, R93, R94  | 200K0      | Res. 1/4W 1%                        |
| 66   | 4        | R68, R70, R101, R112  | 470K0      | Res. 1/4W 1%                        |
| 67   | 2        | R72, R85  | 100H0      | Res. 1/4W 1%                        |
| 68   | 1        | R82   | 560K0      | Res. 1/4W 1%                        |
| 69   | 5        | R84, R88, R104, R134, R135  | NC         | Res. 1/4W 1%                        |
| 70   | 1        | R100  | 12K0       | Res. 1/4W 1%                        |
| 71   | 1        | R102  | S12V       | Varistor                            |
| 72   | 1        | R103  | 0          | Res. 1/4W 1%                        |
| 73   | 2        | R105, R108  | 3K90       | Res. 1/4W 1%                        |
| 74   | 1        | R106  | 2K70       | Res. 1/4W 1%                        |
| 75   | 1        | R109  | 470H0      | Res. 1/4W 1%                        |
| 76   | 1        | R110  | 1K80       | Res. 1/4W 1%                        |
| 77   | 2        | R113, R121  | 680H       | Res. 1/4W 1%                        |

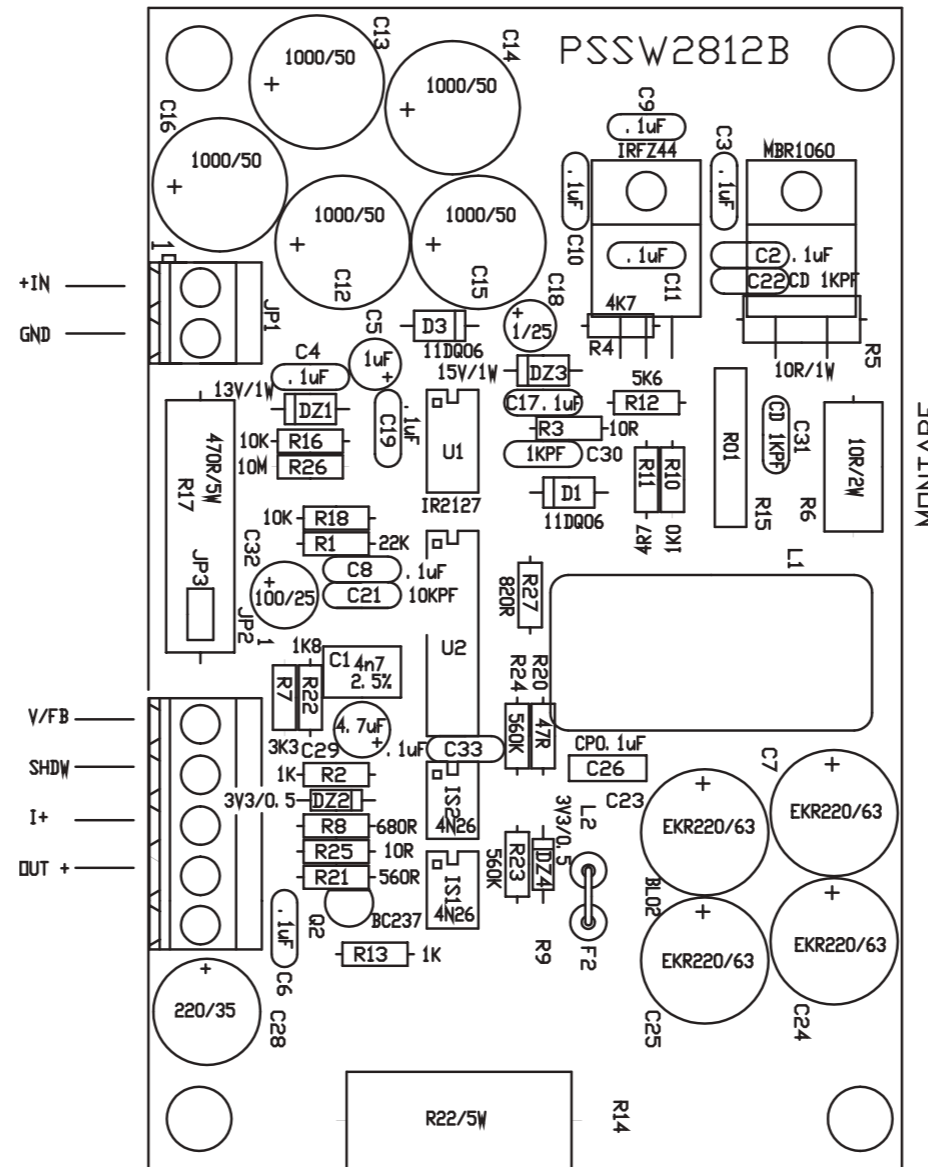
| Item | Quantity | Reference                   | Part   | Description          |
|------|----------|-----------------------------|--------|----------------------|
| 78   | 1        | R120                        | 2K20   | Res. 1/4W 1%         |
| 79   | 2        | R122, R123                  | 270    | Res. 1/4W 5%         |
| 80   | 1        | R129                        | 1K47   | Res. 1/4W 1%         |
| 81   | 1        | R142                        | 4K70   | Res. 1/4W 5%         |
| 82   | 1        | U1                          | 78L05  | Stabilizzatore TO92  |
| 83   | 2        | U2, U4                      | 78L15  | Stabilizzatore TO220 |
| 84   | 6        | U3, U11, U12, U13, U14, U17 | LM358N |                      |
| 85   | 1        | U5                          | 7912   | Stabilizzatore TO220 |
| 86   | 1        | U6                          | 4094   | Shift Reg. DIP16     |
| 87   | 3        | U7, U8, U10                 | 4051   |                      |
| 88   | 1        | U9                          | 7407   |                      |
| 89   | 1        | U16                         | NC     |                      |



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

3A VERSION

PTX30 LCD



|   |                 |   |            |
|---|-----------------|---|------------|
| Nome Progetto: PTX30 LCD                                    |                 | Pagina: 1 di 1                            | Size: A4   |
| Autore: Ufficio Tecnico                                     | Data: 28/04/04  | Codice Progetto: PFPTX30LCDS              |            |
| Nome PC in Rete: \\UT_SRV\PROGETTI                          | Revisione: 2.2  | Nome Parte: SWITCHING POWER SUPPLY LAYOUT |            |
| File/Cartella: MANUAL\PTX30 LCD\SLPSSW28123A\PSSW28123A.DWG | Autorizzazione: | Codice: SLPSSW28123A                      |            |
| Scala: /  | Materiale: /    | Trattamento: /                            | Profilo: / |

PSSW28123-1

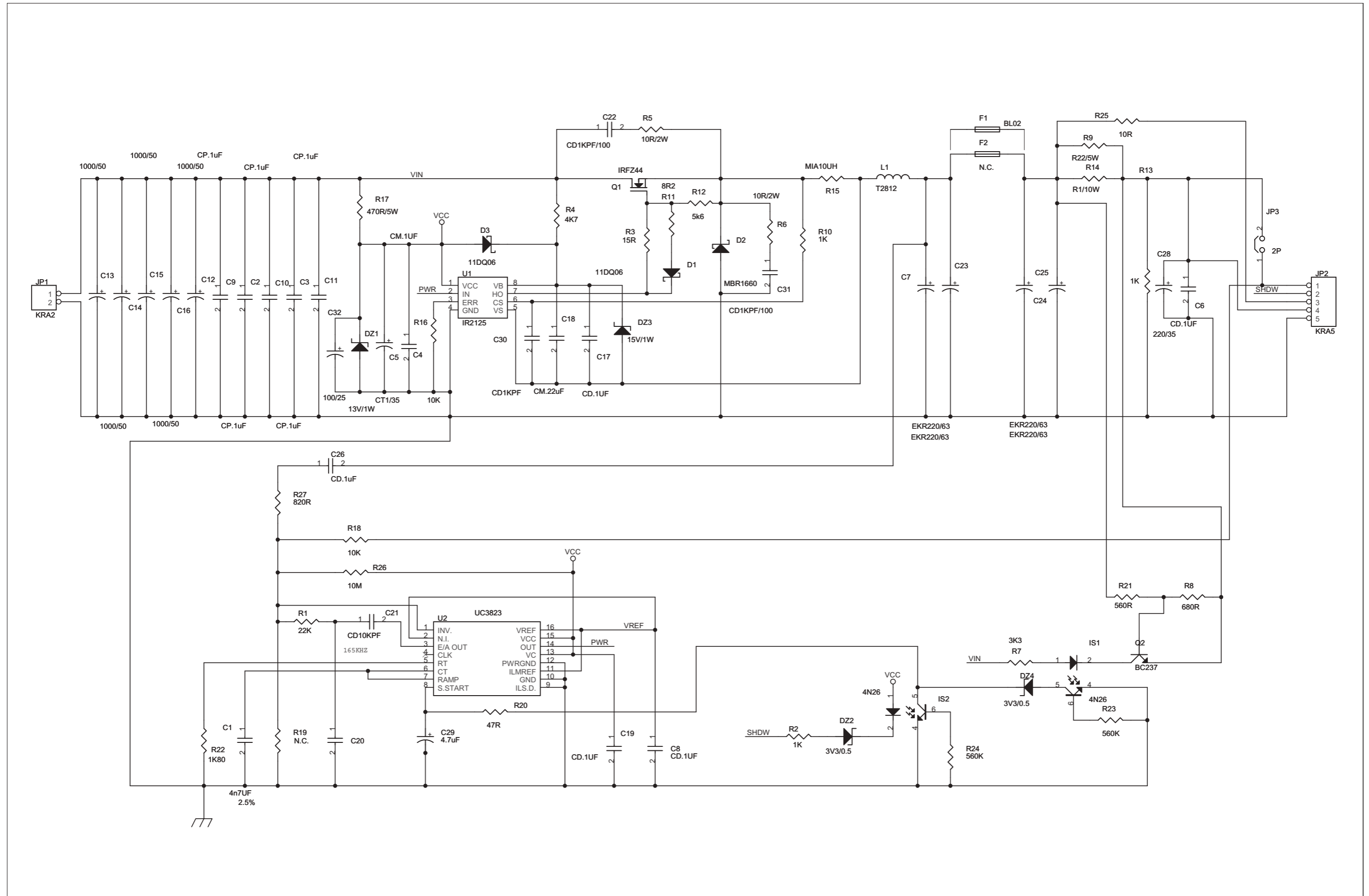
| Scheda Madre Power Supply |      |                     |            |
|---------------------------|------|---------------------|------------|
| PSSW 28123A               |      |                     |            |
| Item                      | Q.ty | Reference           | Part       |
| 1                         | 1    | C1                  | 4n7UF      |
| 2                         | 5    | C2,C3,C9,C10,C11    | CP.1uF     |
| 3                         | 1    | C4                  | CM.1UF     |
| 4                         | 1    | C5                  | CT1/35     |
| 5                         | 5    | C6,C8,C17,C19,C26   | CD.1uF     |
| 6                         | 4    | C7,C23,C24,C25      | EKR220/63  |
| 7                         | 5    | C12,C13,C14,C15,C16 | 1000/50    |
| 8                         | 1    | C18                 | CM.22uF    |
| 9                         | 1    | C20                 | CAP NP     |
| 10                        | 1    | C21                 | CD10KPF    |
| 11                        | 2    | C22,C31             | CD1KPF/100 |
| 12                        | 1    | C28                 | 220/35     |
| 13                        | 1    | C29                 | 4.7uF      |
| 14                        | 1    | C30                 | CD1KPF     |
| 15                        | 1    | C32                 | 100/25     |
| 16                        | 1    | DZ1                 | 13V/1W     |
| 17                        | 2    | DZ2,DZ4             | 3V3/0.5    |
| 18                        | 1    | DZ3                 | 15V/1W     |
| 19                        | 2    | D1,D3               | 11DQ06     |
| 20                        | 1    | D2                  | MBR1060    |
| 21                        | 1    | F1                  | BL02       |
| 22                        | 3    | F2,R9,R19           | N.C.       |
| 23                        | 2    | IS2,IS1             | 4N26       |
| 24                        | 1    | JP1                 | KRA2       |
| 25                        | 1    | JP2                 | KRA5       |
| 26                        | 1    | JP3                 | 2P         |
| 27                        | 1    | L1                  | T2812      |
| 28                        | 1    | Q1                  | IRFZ44     |
| 29                        | 1    | Q2                  | BC237      |
| 30                        | 1    | R1                  | 22K        |
| 31                        | 3    | R2,R10,R13          | 1K         |
| 32                        | 2    | R25,R3              | 10R        |
| 33                        | 1    | R4                  | 4K7        |
| 34                        | 2    | R5,R6               | 10R/2W     |
| 35                        | 1    | R7                  | 3K3        |
| 36                        | 1    | R8                  | 680R       |
| 37                        | 1    | R11                 | 4R7        |
| 38                        | 1    | R12                 | 5k6        |

|    |   |                     |            |
|----|---|---------------------|------------|
| 39 | 1 | R14                 | R22/5W     |
| 40 | 1 | R15                 | MIA10UH    |
| 41 | 2 | R16,R18             | 10K        |
| 42 | 1 | R17                 | 470R/5W    |
| 43 | 1 | R20                 | 47R        |
| 44 | 1 | R21                 | 560R       |
| 45 | 1 | R22                 | 1K80       |
| 46 | 2 | R23,R24             | 560K       |
| 47 | 1 | R26                 | 10M        |
| 48 | 1 | R27                 | 820R       |
| 49 | 1 | U1                  | IR2127     |
| 50 | 1 | U2                  | UC3823     |
| 51 | 1 | C1                  | 4n7UF      |
| 52 | 5 | C2,C3,C9,C10,C11    | CP.1uF     |
| 53 | 1 | C4                  | CM.1UF     |
| 54 | 1 | C5                  | CT1/35     |
| 55 | 5 | C6,C8,C17,C19,C26   | CD.1uF     |
| 56 | 4 | C7,C23,C24,C25      | EKR220/63  |
| 57 | 5 | C12,C13,C14,C15,C16 | 1000/50    |
| 58 | 1 | C18                 | CM.22uF    |
| 59 | 1 | C20                 | CAP NP     |
| 60 | 1 | C21                 | CD10KPF    |
| 61 | 2 | C22,C31             | CD1KPF/100 |
| 62 | 1 | C28                 | 220/35     |
| 63 | 1 | C29                 | 4.7uF      |
| 64 | 1 | C30                 | CD1KPF     |
| 65 | 1 | C32                 | 100/25     |
| 66 | 1 | DZ1                 | 13V/1W     |
| 67 | 2 | DZ2,DZ4             | 3V3/0.5    |
| 68 | 1 | DZ3                 | 15V/1W     |
| 69 | 2 | D1,D3               | 11DQ06     |
| 70 | 1 | D2                  | MBR1060    |
| 71 | 1 | F1                  | BL02       |
| 72 | 1 | F2                  | N.C.       |
| 73 | 2 | IS1,IS2             | 4N26       |
| 74 | 1 | JP1                 | KRA2       |
| 75 | 1 | JP2                 | KRA5       |
| 76 | 1 | JP3                 | 2P         |
| 77 | 1 | L1                  | T2812      |
| 78 | 1 | Q1                  | IRFZ44     |
| 79 | 1 | Q2                  | BC237      |
| 80 | 1 | R1                  | 22K        |
| 81 | 3 | R2,R10,R13          | 1K         |
| 82 | 2 | R3,R25              | 10R        |

PSSW28123-1

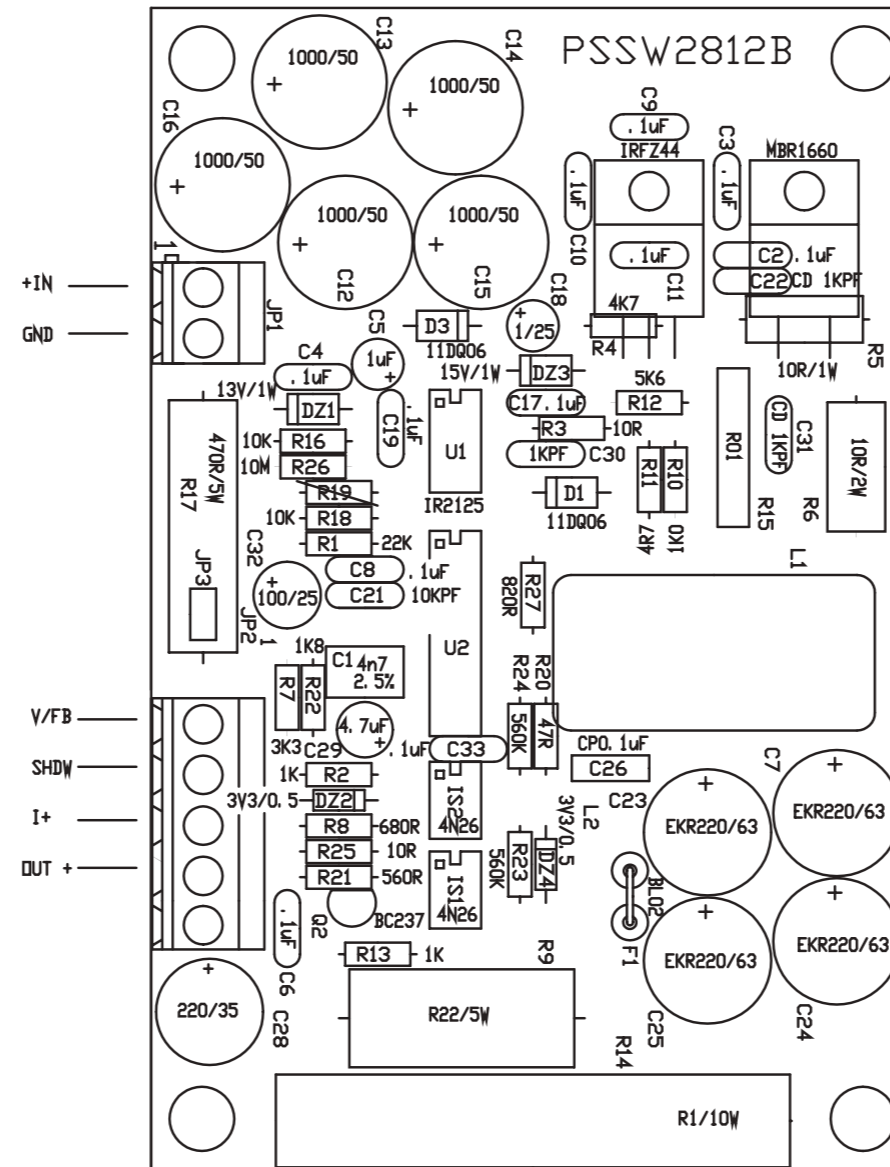
|     |   |                     |            |
|-----|---|---------------------|------------|
| 83  | 1 | R4                  | 4K7        |
| 84  | 2 | R5,R6               | 10R/2W     |
| 85  | 1 | R7                  | 3K3        |
| 86  | 1 | R8                  | 680R       |
| 87  | 2 | R9,R14              | R22/5W     |
| 88  | 1 | R11                 | 4R7        |
| 89  | 1 | R12                 | 5k6        |
| 90  | 1 | R15                 | MIA10UH    |
| 91  | 2 | R16,R18             | 10K        |
| 92  | 1 | R17                 | 470R/5W    |
| 93  | 1 | R19                 | 2K2        |
| 94  | 1 | R20                 | 47R        |
| 95  | 1 | R21                 | 560R       |
| 96  | 1 | R22                 | 1K80       |
| 97  | 2 | R23,R24             | 560K       |
| 98  | 1 | R26                 | 10M        |
| 99  | 1 | R27                 | 820R       |
| 100 | 1 | U1                  | IR2125     |
| 101 | 1 | U2                  | UC3823     |
| 102 | 1 | C1                  | 4n7UF      |
| 103 | 5 | C2,C3,C9,C10,C11    | CP.1uF     |
| 104 | 1 | C4                  | CM.1UF     |
| 105 | 1 | C5                  | CT1/35     |
| 106 | 5 | C6,C8,C17,C19,C26   | CD.1uF     |
| 107 | 4 | C7,C23,C24,C25      | EKR220/63  |
| 108 | 5 | C12,C13,C14,C15,C16 | 1000/50    |
| 109 | 1 | C18                 | CM.22uF    |
| 110 | 1 | C20                 | CAP NP     |
| 111 | 1 | C21                 | CD10KPF    |
| 112 | 2 | C22,C31             | CD1KPF/100 |
| 113 | 1 | C28                 | 220/35     |
| 114 | 1 | C29                 | 4.7uF      |
| 115 | 1 | C30                 | CD1KPF     |
| 116 | 1 | C32                 | 100/25     |
| 117 | 1 | DZ1                 | 13V/1W     |
| 118 | 2 | DZ2,DZ4             | 3V3/0.5    |
| 119 | 1 | DZ3                 | 15V/1W     |
| 120 | 2 | D3,D1               | 11DQ06     |
| 121 | 1 | D2                  | MBR1060    |
| 122 | 1 | F1                  | BL02       |
| 123 | 2 | R19,F2              | N.C.       |
| 124 | 2 | IS1,IS2             | 4N26       |
| 125 | 1 | JP1                 | KRA2       |
| 126 | 1 | JP2                 | KRA5/6     |

|     |   |            |         |
|-----|---|------------|---------|
| 127 | 1 | JP3        | 2P      |
| 128 | 1 | L1         | T2812   |
| 129 | 1 | Q1         | IRFZ44  |
| 130 | 1 | Q2         | BC237   |
| 131 | 1 | R1         | 22K     |
| 132 | 3 | R2,R10,R13 | 1K      |
| 133 | 2 | R3,R25     | 10R     |
| 134 | 1 | R4         | 4K7     |
| 135 | 2 | R5,R6      | 10R/2W  |
| 136 | 1 | R7         | 3K3     |
| 137 | 1 | R8         | 680R    |
| 138 | 1 | R9         | R22/5W  |
| 139 | 1 | R11        | 4R7     |
| 140 | 1 | R12        | 5k6     |
| 141 | 1 | R14        | R1/10W  |
| 142 | 1 | R15        | MIA10UH |
| 143 | 2 | R16,R18    | 10K     |
| 144 | 1 | R17        | 470R/5W |
| 145 | 1 | R20        | 47R     |
| 146 | 1 | R21        | 560R    |
| 147 | 1 | R22        | 1K80    |
| 148 | 2 | R23,R24    | 560K    |
| 149 | 1 | R26        | 10M     |
| 150 | 1 | R27        | 820R    |
| 151 | 1 | U1         | IR2127  |
| 152 | 1 | U2         | UC3823  |



|   |                 |                                    |          |
|---|-----------------|------------------------------------|----------|
| Nome Progetto: PTX60LCD - PTX100LCD                         |                 | Pagina: 1 di 1                     | Size: A3 |
| Autore: Ufficio Tecnico                                     | Data: 28/04/04  | Codice Progetto: PFPTX100LCS       |          |
| Nome PC in Rete: \\UT_SRV\PROGETTI                          | Revisione: 2.2  | Nome Parte: SWITCHING POWER SUPPLY |          |
| File/Cartella: \\MANUAL\PTX30 LCD\SLPSSW281210\PS281210.DSN | Autorizzazione: | Codice: SLPSSW281210               |          |

10A VERSION  
PTX60 LCD & PTX100 LCD



|  |                 |   |            |
|--|-----------------|---|------------|
| Nome Progetto: PTX60LCD - PTX100LCD                          |                 | Pagina: 1 di 1                            | Size: A4   |
| Autore: Ufficio Tecnico                                      | Data: 28/04/04  | Codice Progetto: PFPTX100LCDS             |            |
| Nome PC in Rete: \\UT_SRV\PROGETTI                           | Revisione: 2.2  | Nome Parte: SWITCHING POWER SUPPLY LAYOUT |            |
| File/Cartella: MANUALI\PTX30 LCD\SLPSSW281210\PSSW281210.DWG | Autorizzazione: | Codice: SLPSSW281210                      |            |
| Scala: /   | Materiale: /    | Trattamento: /                            | Profilo: / |





PSSW281210

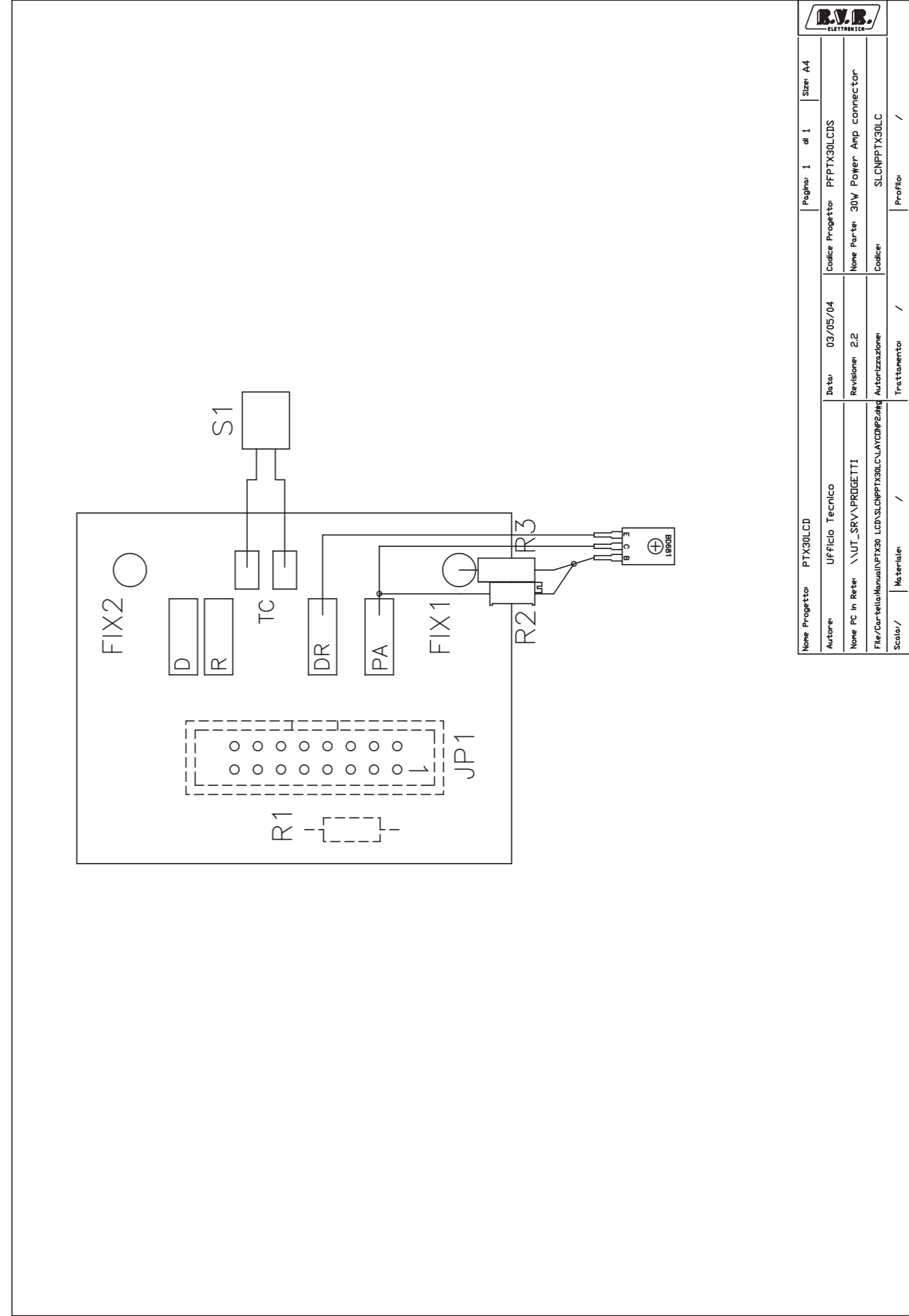
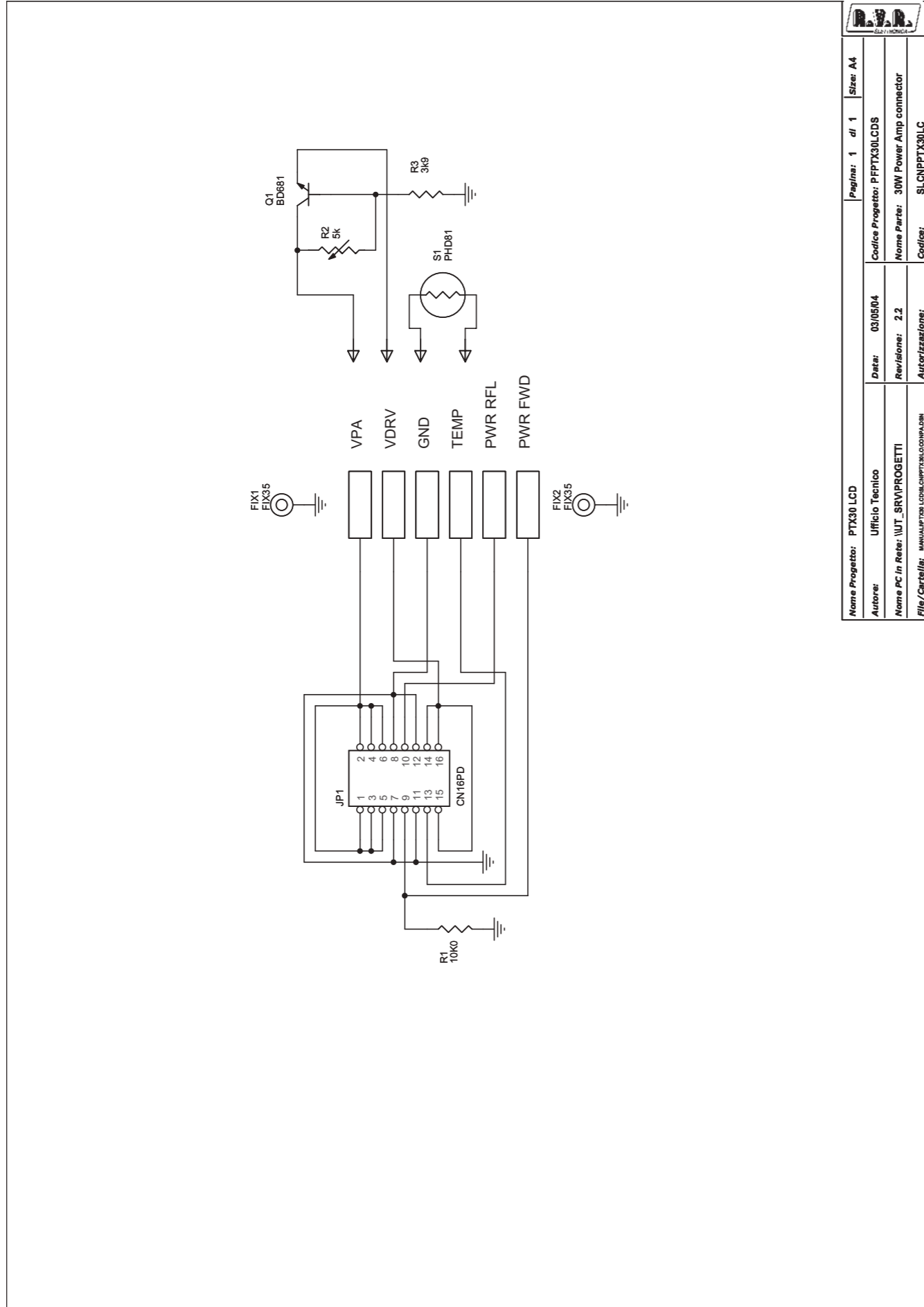
| Scheda Madre Power Supply |      |                     |            |
|---------------------------|------|---------------------|------------|
| PSSW 281210               |      |                     |            |
| Item                      | Q.ty | Reference           | Part       |
| 1                         | 1    | C1                  | 4n7UF      |
| 2                         | 5    | C2,C3,C9,C10,C11    | CP.1uF     |
| 3                         | 1    | C4                  | CM.1UF     |
| 4                         | 1    | C5                  | CT1/35     |
| 5                         | 5    | C6,C8,C17,C19,C26   | CD.1uF     |
| 6                         | 4    | C7,C23,C24,C25      | EKR220/63  |
| 7                         | 5    | C12,C13,C14,C15,C16 | 1000/50    |
| 8                         | 1    | C18                 | CM.22uF    |
| 9                         | 1    | C20                 | CAP NP     |
| 10                        | 1    | C21                 | CD10KPF    |
| 11                        | 2    | C22,C31             | CD1KPF/100 |
| 12                        | 1    | C28                 | 220/35     |
| 13                        | 1    | C29                 | 4.7uF      |
| 14                        | 1    | C30                 | CD1KPF     |
| 15                        | 1    | C32                 | 100/25     |
| 16                        | 1    | DZ1                 | 13V/1W     |
| 17                        | 2    | DZ2,DZ4             | 3V3/0.5    |
| 18                        | 1    | DZ3                 | 15V/1W     |
| 19                        | 2    | D1,D3               | 11DQ06     |
| 20                        | 1    | D2                  | MBR1660    |
| 21                        | 1    | F1                  | BL02       |
| 22                        | 3    | F2,R9,R19           | N.C.       |
| 23                        | 2    | IS2,IS1             | 4N26       |
| 24                        | 1    | JP1                 | KRA2       |
| 25                        | 1    | JP2                 | KRA5       |
| 26                        | 1    | JP3                 | 2P         |
| 27                        | 1    | L1                  | T2812      |
| 28                        | 1    | Q1                  | IRFZ44     |
| 29                        | 1    | Q2                  | BC237      |
| 30                        | 1    | R1                  | 22K        |
| 31                        | 3    | R2,R10,R13          | 1K         |
| 32                        | 2    | R25,R3              | 10R        |
| 33                        | 1    | R4                  | 4K7        |
| 34                        | 2    | R5,R6               | 10R/2W     |
| 35                        | 1    | R7                  | 3K3        |
| 36                        | 1    | R8                  | 680R       |
| 37                        | 1    | R9                  | R22/5W     |
| 38                        | 1    | R11                 | 4R7        |

|    |   |                     |            |
|----|---|---------------------|------------|
| 39 | 1 | R12                 | 5k6        |
| 40 | 1 | R14                 | R1/10W     |
| 41 | 1 | R15                 | MIA10UH    |
| 42 | 2 | R16,R18             | 10K        |
| 43 | 1 | R17                 | 470R/5W    |
| 44 | 1 | R20                 | 47R        |
| 45 | 1 | R21                 | 560R       |
| 46 | 1 | R22                 | 1K80       |
| 47 | 2 | R23,R24             | 560K       |
| 48 | 1 | R26                 | 10M        |
| 49 | 1 | R27                 | 820R       |
| 50 | 1 | U1                  | IR2127     |
| 51 | 1 | U2                  | UC3823     |
| 52 | 1 | C1                  | 4n7UF      |
| 53 | 5 | C2,C3,C9,C10,C11    | CP.1uF     |
| 54 | 1 | C4                  | CM.1UF     |
| 55 | 1 | C5                  | CT1/35     |
| 56 | 5 | C6,C8,C17,C19,C26   | CD.1uF     |
| 57 | 4 | C7,C23,C24,C25      | EKR220/63  |
| 58 | 5 | C12,C13,C14,C15,C16 | 1000/50    |
| 59 | 1 | C18                 | CM.22uF    |
| 60 | 1 | C20                 | CAP NP     |
| 61 | 1 | C21                 | CD10KPF    |
| 62 | 2 | C22,C31             | CD1KPF/100 |
| 63 | 1 | C28                 | 220/35     |
| 64 | 1 | C29                 | 4.7uF      |
| 65 | 1 | C30                 | CD1KPF     |
| 66 | 1 | C32                 | 100/25     |
| 67 | 1 | DZ1                 | 13V/1W     |
| 68 | 2 | DZ2,DZ4             | 3V3/0.5    |
| 69 | 1 | DZ3                 | 15V/1W     |
| 70 | 2 | D1,D3               | 11DQ06     |
| 71 | 1 | D2                  | MBR1060    |
| 72 | 1 | F1                  | BL02       |
| 73 | 1 | F2                  | N.C.       |
| 74 | 2 | IS1,IS2             | 4N26       |
| 75 | 1 | JP1                 | KRA2       |
| 76 | 1 | JP2                 | KRA5       |
| 77 | 1 | JP3                 | 2P         |
| 78 | 1 | L1                  | T2812      |
| 79 | 1 | Q1                  | IRFZ44     |
| 80 | 1 | Q2                  | BC237      |
| 81 | 1 | R1                  | 22K        |
| 82 | 3 | R2,R10,R13          | 1K         |

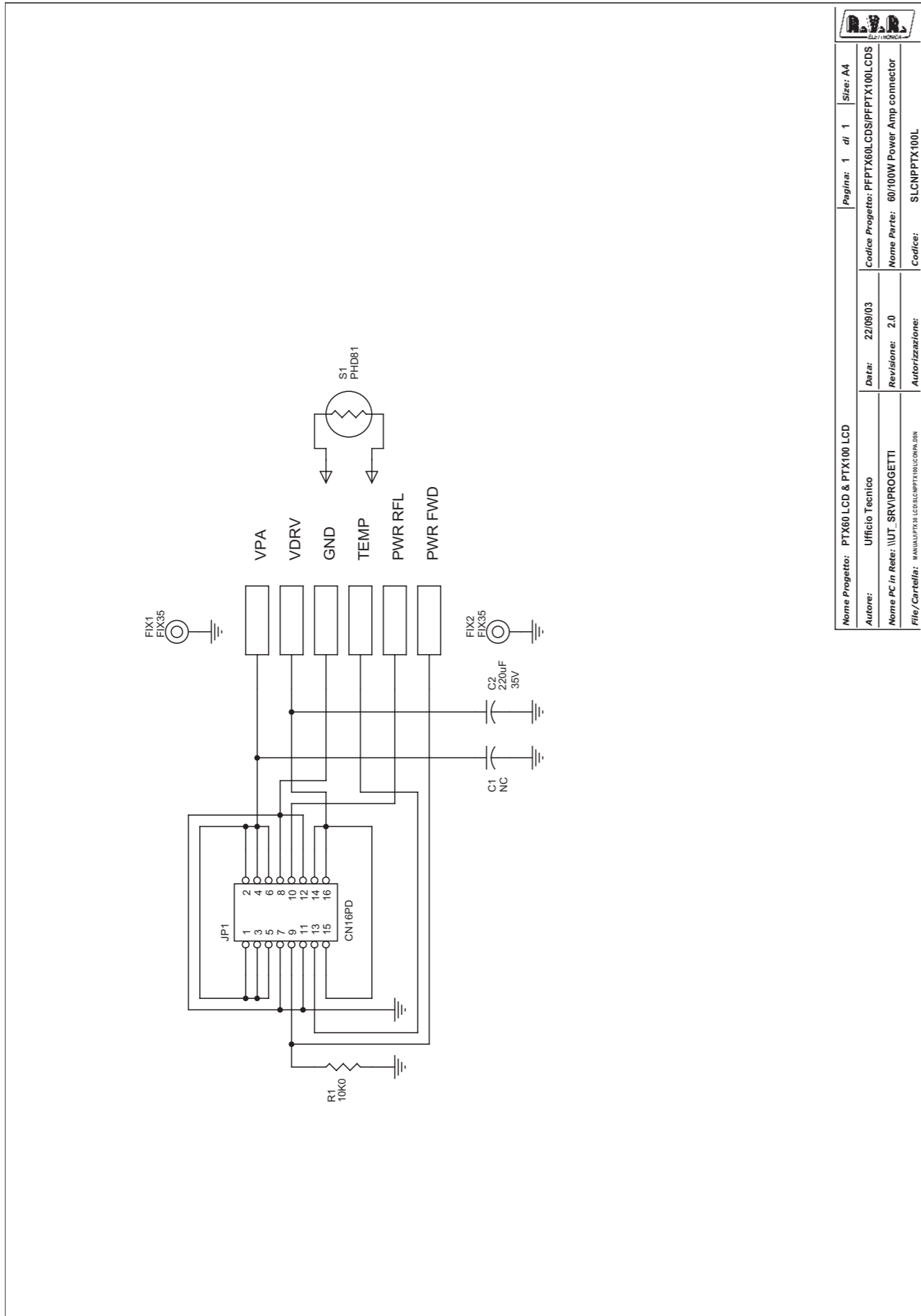
**PSSW281210**

|     |   |                     |            |
|-----|---|---------------------|------------|
| 83  | 2 | R3,R25              | 10R        |
| 84  | 1 | R4                  | 4K7        |
| 85  | 2 | R5,R6               | 10R/2W     |
| 86  | 1 | R7                  | 3K3        |
| 87  | 1 | R8                  | 680R       |
| 88  | 2 | R9,R14              | R22/5W     |
| 89  | 1 | R11                 | 4R7        |
| 90  | 1 | R12                 | 5k6        |
| 91  | 1 | R15                 | MIA10UH    |
| 92  | 2 | R16,R18             | 10K        |
| 93  | 1 | R17                 | 470R/5W    |
| 94  | 1 | R19                 | 2K2        |
| 95  | 1 | R20                 | 47R        |
| 96  | 1 | R21                 | 560R       |
| 97  | 1 | R22                 | 1K80       |
| 98  | 2 | R23,R24             | 560K       |
| 99  | 1 | R26                 | 10M        |
| 100 | 1 | R27                 | 820R       |
| 101 | 1 | U1                  | IR2125     |
| 102 | 1 | U2                  | UC3823     |
| 103 | 1 | C1                  | 4n7UF      |
| 104 | 5 | C2,C3,C9,C10,C11    | CP.1uF     |
| 105 | 1 | C4                  | CM.1UF     |
| 106 | 1 | C5                  | CT1/35     |
| 107 | 5 | C6,C8,C17,C19,C26   | CD.1uF     |
| 108 | 4 | C7,C23,C24,C25      | EKR220/63  |
| 109 | 5 | C12,C13,C14,C15,C16 | 1000/50    |
| 110 | 1 | C18                 | CM.22uF    |
| 111 | 1 | C20                 | CAP NP     |
| 112 | 1 | C21                 | CD10KPF    |
| 113 | 2 | C22,C31             | CD1KPF/100 |
| 114 | 1 | C28                 | 220/35     |
| 115 | 1 | C29                 | 4.7uF      |
| 116 | 1 | C30                 | CD1KPF     |
| 117 | 1 | C32                 | 100/25     |
| 118 | 1 | DZ1                 | 13V/1W     |
| 119 | 2 | DZ2,DZ4             | 3V3/0.5    |
| 120 | 1 | DZ3                 | 15V/1W     |
| 121 | 2 | D3,D1               | 11DQ06     |
| 122 | 1 | D2                  | MBR1660    |
| 123 | 1 | F1                  | BL02       |
| 124 | 2 | R19,F2              | N.C.       |
| 125 | 2 | IS1,IS2             | 4N26       |
| 126 | 1 | JP1                 | KRA2       |

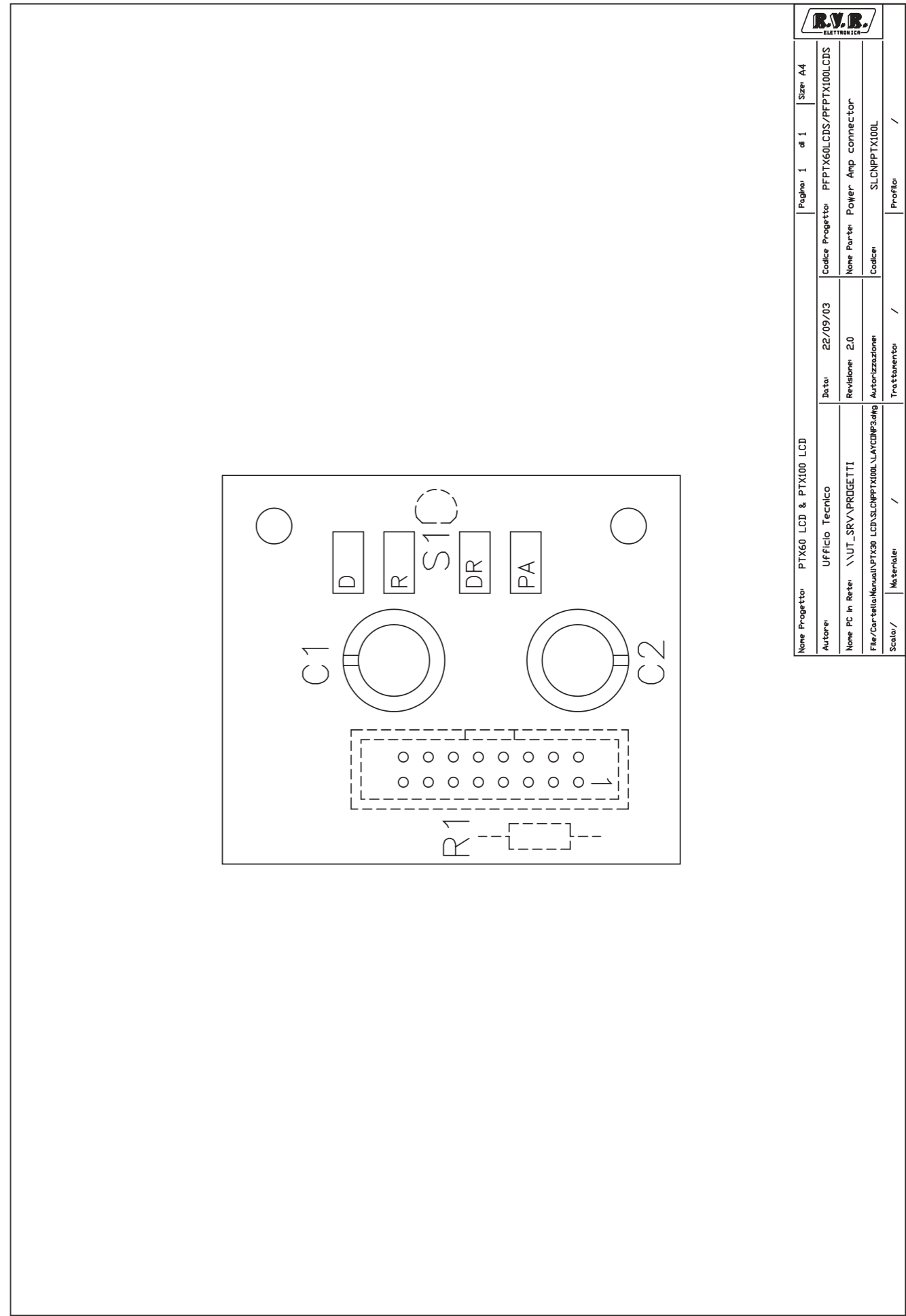
|     |   |            |         |
|-----|---|------------|---------|
| 127 | 1 | JP2        | KRA5/6  |
| 128 | 1 | JP3        | 2P      |
| 129 | 1 | L1         | T2812   |
| 130 | 1 | Q1         | IRFZ44  |
| 131 | 1 | Q2         | BC237   |
| 132 | 1 | R1         | 22K     |
| 133 | 3 | R2,R10,R13 | 1K      |
| 134 | 2 | R3,R25     | 10R     |
| 135 | 1 | R4         | 4K7     |
| 136 | 2 | R5,R6      | 10R/2W  |
| 137 | 1 | R7         | 3K3     |
| 138 | 1 | R8         | 680R    |
| 139 | 1 | R9         | R22/5W  |
| 140 | 1 | R11        | 4R7     |
| 141 | 1 | R12        | 5k6     |
| 142 | 1 | R14        | R1/10W  |
| 143 | 1 | R15        | MIA10UH |
| 144 | 2 | R16,R18    | 10K     |
| 145 | 1 | R17        | 470R/5W |
| 146 | 1 | R20        | 47R     |
| 147 | 1 | R21        | 560R    |
| 148 | 1 | R22        | 1K80    |
| 149 | 2 | R23,R24    | 560K    |
| 150 | 1 | R26        | 10M     |
| 151 | 1 | R27        | 820R    |
| 152 | 1 | U1         | IR2125  |
| 153 | 1 | U2         | UC3823  |



| Power Amp connector - Bill of materials |     |           |        |                      |
|---|-----|-----------|--------|----------------------|
| Item                                    | Qty | Reference | Part   | DESCRIPTION          |
| 1                                       | 1   | R1        | 10K0   | RESISTOR 1/4W 1%     |
| 2                                       | 2   | R2        | 5K     | TRIMMER 3296W        |
| 3                                       | 1   | R3        | 1K5    | RESISTOR 1/4W 1%     |
| 4                                       | 1   | JP1       | CN16PD | CONN. M 2*8 P 2.54   |
| 5                                       | 1   | Q1        | BD681  | NPN POWER TRANSISTOR |
| 6                                       | 1   | S1        | PHD81  | SILICON TEMP. SENSOR |



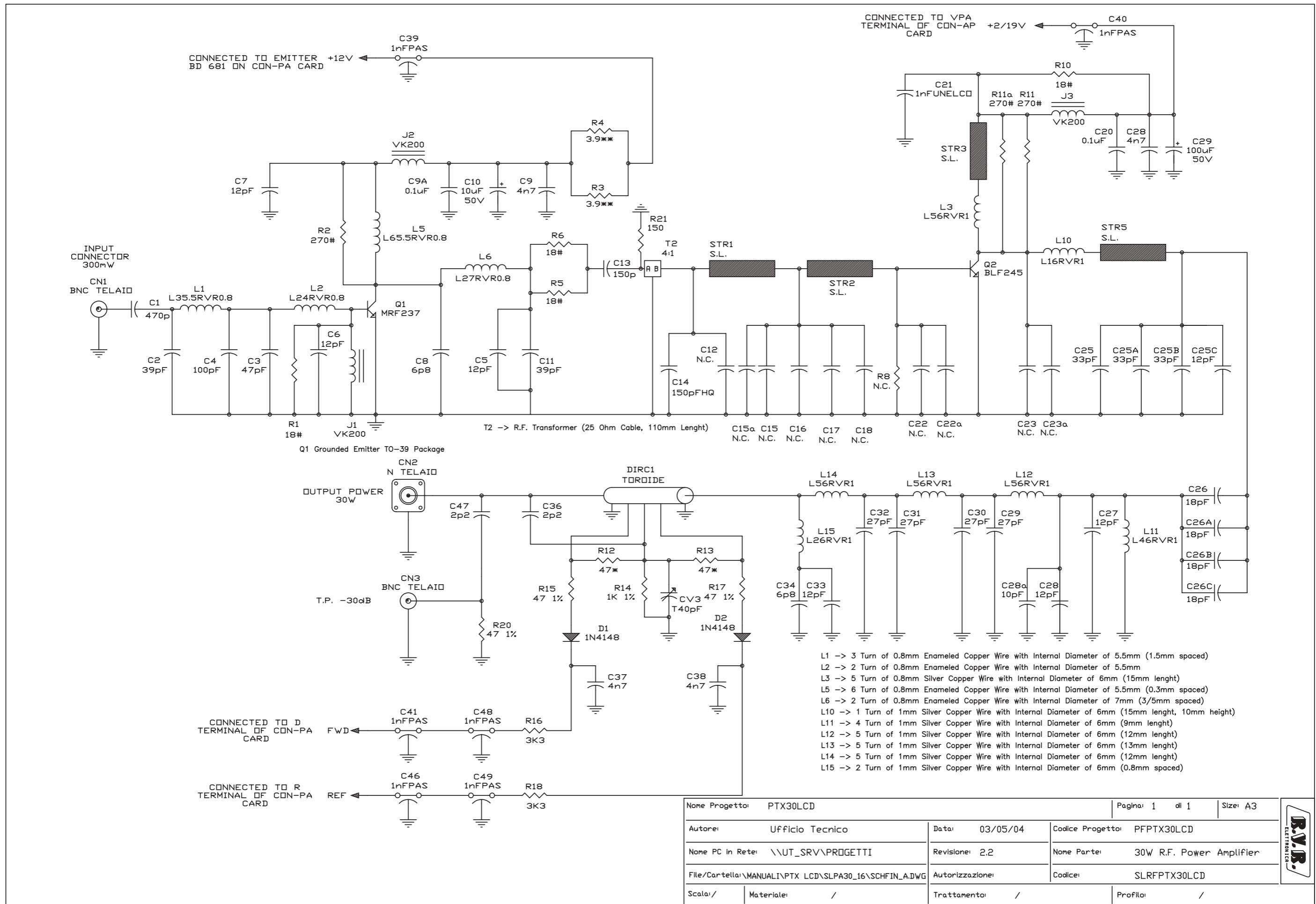
|  |  |   |  |
|--|--|---|--|
|  |  | Pagina: 1 di 1 Size: A4                   |  |
| Nome Progetto: PTX60 LCD & PTX100 LCD                  |  | Codice Progetto: PFPTX60LCDSPFFPTX100LCDS |  |
| Autore: Ufficio Tecnico                                |  | Data: 22/09/03                            |  |
| Nome PC in Rete: \\\UT_SRV\PROGETTI                    |  | Revisione: 2.0                            |  |
| File/Cartella: \MANUALPTX30 LCD\SLCNPPTX100LCD\ENL.DSN |  | Autorizzazione:                           |  |
|  |  | Nome Parte: 60/100W Power Amp connector   |  |
|  |  | Codice: SLCNPPTX100L                      |  |

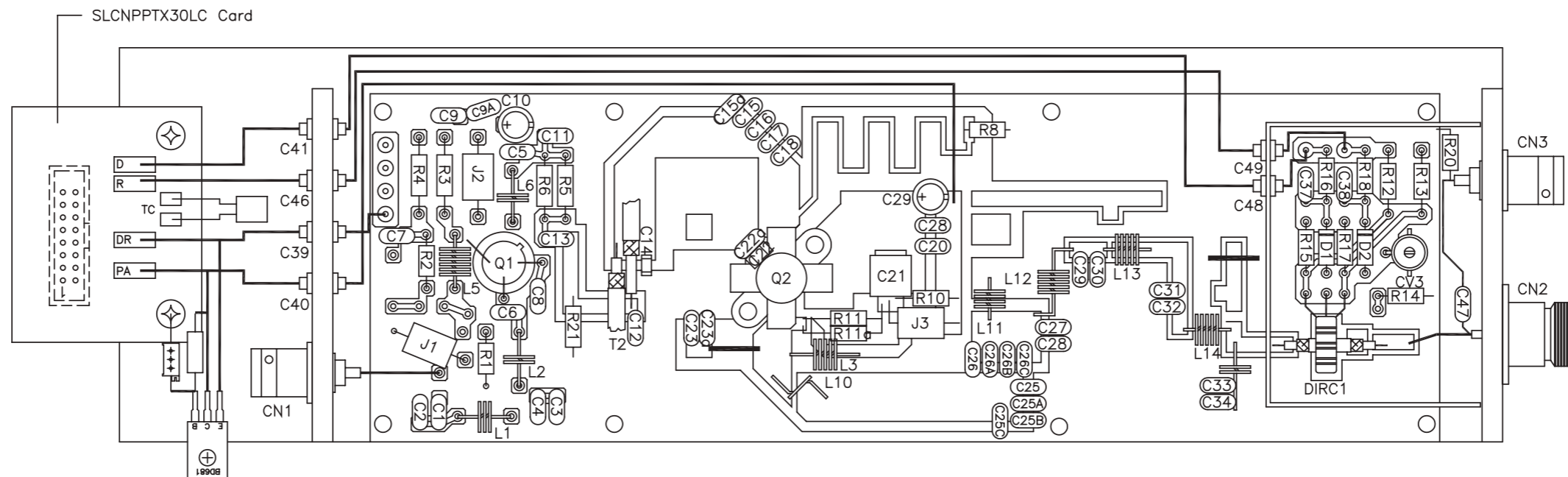


|  |  |   |  |
|--|--|---|--|
|  |  | Pagina: 1 di 1 Size: A4                   |  |
| Nome Progetto: PTX60 LCD & PTX100 LCD                  |  | Codice Progetto: PFPTX60LCDSPFFPTX100LCDS |  |
| Autore: Ufficio Tecnico                                |  | Data: 22/09/03                            |  |
| Nome PC in Rete: \\\UT_SRV\PROGETTI                    |  | Revisione: 2.0                            |  |
| File/Cartella: \MANUALPTX30 LCD\SLCNPPTX100LCD\ENL.DSN |  | Autorizzazione:                           |  |
|  |  | Nome Parte: Power Amp connector           |  |
|  |  | Codice: SLCNPPTX100L                      |  |
| Scala: /   |  | Trattamento: /                            |  |
| Materiale: /   |  | Profilo: /                                |  |

SLCNPPTX100LC

| Power Amp connector     |     |           |               |                      |
|-------------------------|-----|-----------|---------------|----------------------|
| SLCNPPTX100L            |     |           |               |                      |
| Date: 14/07/04 Rev.:3.0 |     |           |               |                      |
|                         |     |           |               |                      |
| Item                    | Qty | Reference | Part          | DESCRIPTION          |
|                         |     |           |               |                      |
| 1                       | 1   | R1        | 10K0          | RESISTOR 1/4W 1%     |
| 2                       | 1   | C2        | 220uF/<br>35V | ELECTR. CAPACITOR    |
| 3                       | 1   | JP1       | CN16PD        | CONN. M 2*8 P 2.54   |
| 4                       | 1   | S1        | PHD81         | SILICON TEMP. SENSOR |
| 5                       | 1   | C1        | NC            | NON CONNESSO         |





|   |              |                 |   |          |
|---|--------------|-----------------|---|----------|
| Nome Progetto: PTX30 LCD                                |              | Pagina: 1 di 1  |   | Size: A3 |
| Autore: Ufficio Tecnico                                 |              | Data: 03/05/04  | Codice Progetto: PFPTX30LCDS                |          |
| Nome PC in Rete: \\UT_SRV\PROGETTI                      |              | Revisione: 2.2  | Nome Parte: 30W R.F. Power Amplifier Layout |          |
| File/Cartella:MANUALI\PTX LCD\SLRFPTX30LCD\layfin30.dwg |              | Autorizzazione: | Codice: SLRFPTX30LCD                        |          |
| Scala: /  | Materiale: / | Trattamento: /  | Profilo: /                                  |          |

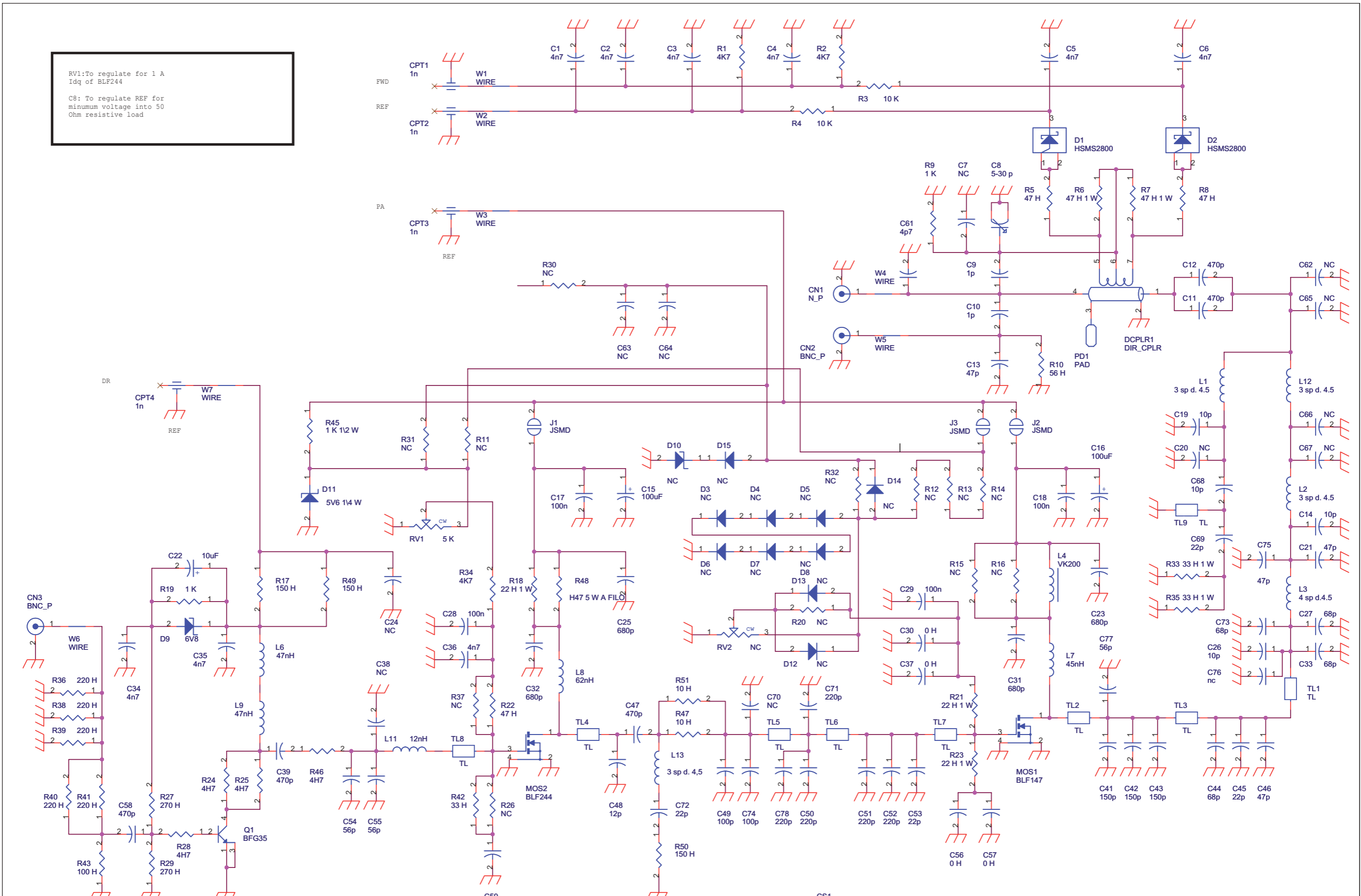




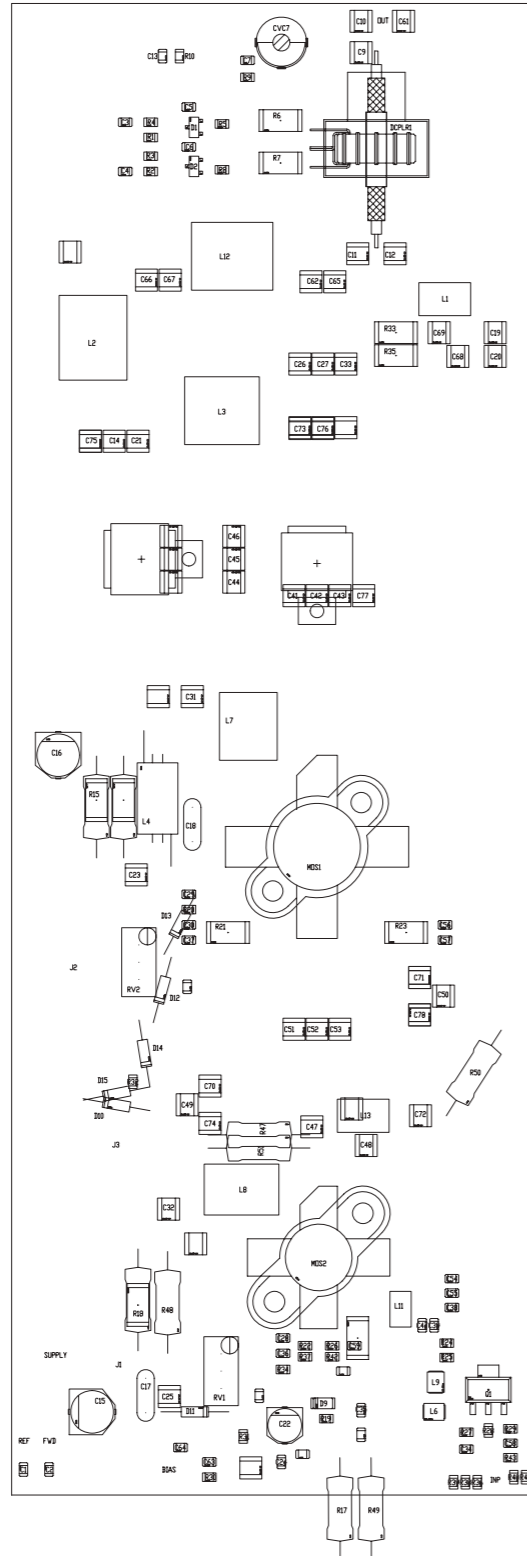
| 30W RF POWER AMPLIFIER |     |                         |             |
|------------------------|-----|-------------------------|-------------|
| SLRFPTX30LCD           |     |                         |             |
| Version:2,2            |     |                         |             |
| 5/3/2004               |     |                         |             |
| Item                   | Qty | Reference               | Part        |
| 1                      | 2   | CN1,CN3                 | BNC TELAIO  |
| 2                      | 1   | CN2                     | N TELAIO    |
| 3                      | 1   | CV3                     | T40pF       |
| 4                      | 4   | C9,C28,C37,C38          | 4n7         |
| 5                      | 2   | C2,C11                  | 39pF        |
| 6                      | 1   | C3                      | 47pF        |
| 7                      | 1   | C4                      | 100pF       |
| 8                      | 6   | C5,C6,C7,C27,C28,C33    | 12pF        |
| 9                      | 2   | C8,C34                  | 6p8         |
| 10                     | 2   | C20,C9A                 | 0.1uF       |
| 11                     | 1   | C10                     | 10uF        |
| 12                     | 1   | C14                     | 150pFHQ     |
| 13                     | 1   | C21                     | 1nFUNELCO   |
| 14                     | 1   | C22                     | 680pFHQ     |
| 15                     | 1   | C25C                    | 12pF        |
| 16                     | 3   | C25B,C25A,C25           | 33pF        |
| 17                     | 4   | C26C,C26B,C26A,C26      | 18pF        |
| 18                     | 4   | C29,C30,C31,C32         | 27pF        |
| 19                     | 2   | C36,C47                 | 2p2         |
| 20                     | 6   | C39,C40,C41,C46,C48,C49 | 1nFPAS      |
| 21                     | 1   | DIRC1                   | TOROIDE     |
| 22                     | 2   | D1,D2                   | 1N4148      |
| 23                     | 3   | J1,J2,J3                | VK200       |
| 24                     | 1   | L1                      | L35.5RVR0.8 |
| 25                     | 1   | L2                      | L24RVR0.8   |
| 26                     | 4   | L3,L12,L13,L14          | L56RVR1     |
| 27                     | 1   | L5                      | L65.5RVR0.8 |
| 28                     | 1   | L6                      | L27RVR0.8   |
| 29                     | 1   | L10                     | L16RVR1     |
| 30                     | 1   | L11                     | L46RVR1     |
| 31                     | 1   | L15                     | L26RVR1     |
| 32                     | 1   | Q1                      | MRF237      |
| 33                     | 1   | Q2                      | BLF245      |
| 34                     | 2   | R1,R10                  | 18#         |
| 35                     | 2   | R2,R11,R11A             | 270#        |
| 36                     | 2   | R4,R3                   | 3.9**       |

|    |    |   |       |
|----|----|---|-------|
| 37 | 2  | R6,R5   | 18#   |
| 38 | 2  | R13,R12   | 47*   |
| 39 | 1  | R14   | 1K 1% |
| 40 | 3  | R15,R17,R20                                       | 47 1% |
| 41 | 2  | R16,R18   | 3K3   |
| 42 | 4  | STR1,STR2,STR3,STR5                               | S.L.  |
| 43 | 1  | T2  | 04,01 |
| 44 | 1  | C1  | 470p  |
| 45 | 1  | C13   | 150p  |
| 46 | 12 | R8,C12,C15,C15A,C16,C17,<br>C18,C22,C22A,C23,C23A | N.C.  |
| 47 | 1  | R21   | 150   |

RV1: To regulate for 1 A Idq of BLF244  
C8: To regulate REF for minimum voltage into 50 Ohm resistive load



|   |                  |  |          |
|---|------------------|--|----------|
| Nome Progetto: PA 100W MOSFET PER PTX-LCD |                  | Pagina: 1 di 1                         | Size: A3 |
| Autore: Luca Gasperini                    | Data: 25/07/2006 | Codice Progetto: _057                  |          |
| Nome PC in Rete: \UTSRV\riasciati         | Revisione: 1.1   | Nome Parte: PA 100W MOSFET PER PTX-LCD |          |
| File/ Cartella: \                         | Autorizzazione:  | Codice: SLPA150PTX01                   |          |



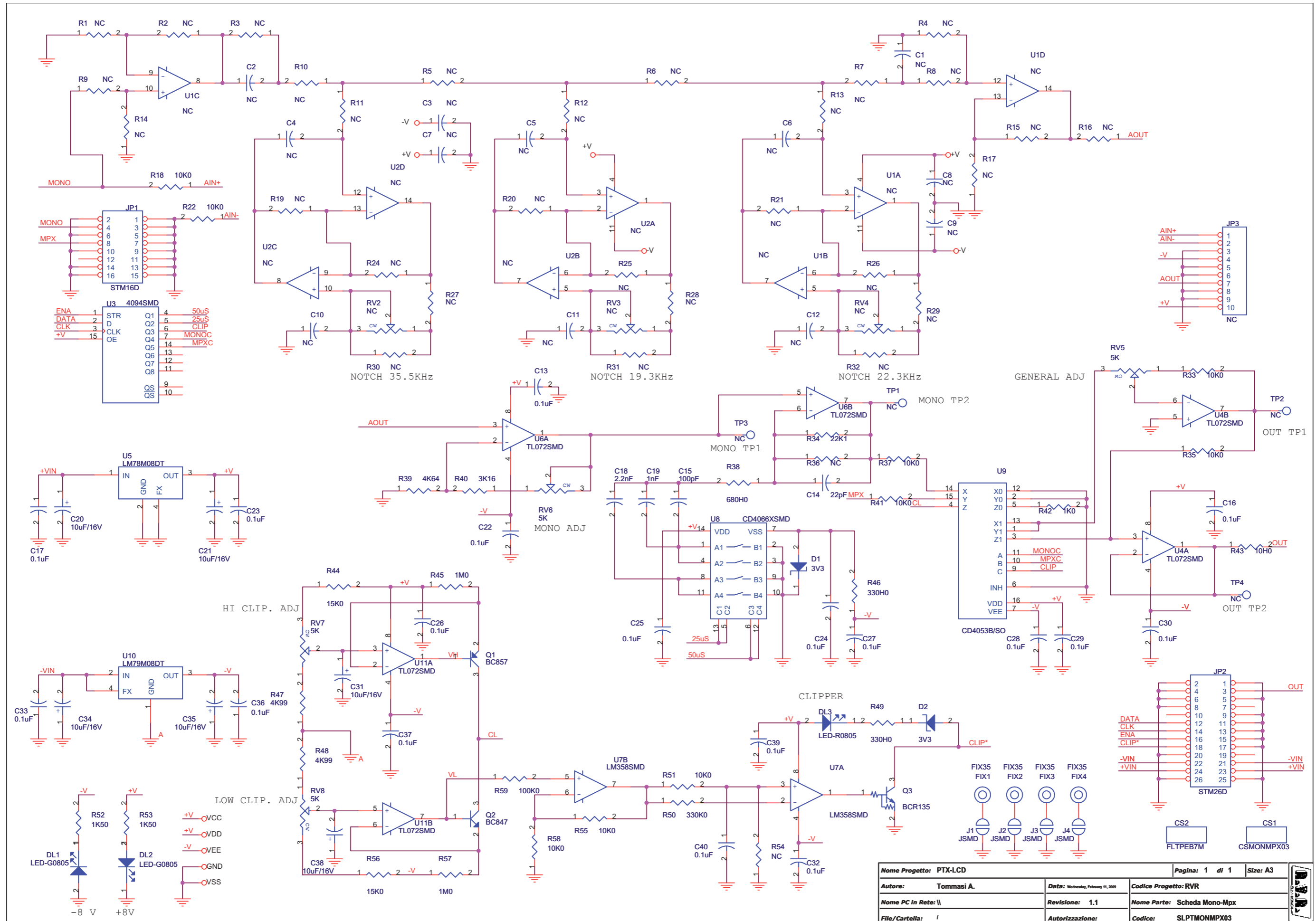
PA 100W MOSFET PER PTX-LCD  
25/07/2006 Revision: 1.1  
SLPA150PTX01  
\_057

Luca Gasperini

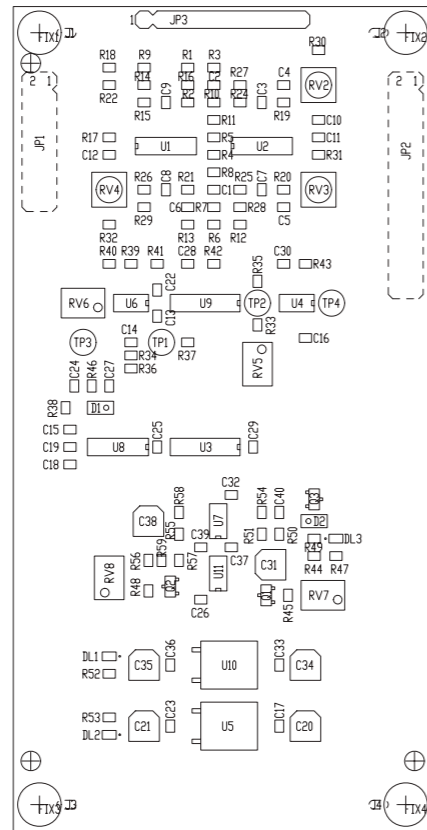
| Item | Quantity | Reference  | Part           | {description}                    | Codice AS400 |
|------|----------|--|----------------|----------------------------------|--------------|
| 1    | 1        | CN1  | N_P            | Conn. N da pannello              | CNTNFPFLPI   |
| 2    | 2        | CN3, CN2   | BNC_P          | Conn. BNC da pannello            | CNTBNCFPV    |
| 3    | 4        | CPT1, CPT2, CPT3, CPT4                           | 1n             | Cond. passante                   | PASSANTE     |
| 4    | 1        | CS1  | CSPA150W2U01   | Circuito stampato                | CSPA150W2U01 |
| 5    | 10       | C1, C2, C3, C4, C5, C6, C34, C35, C36, C59       | 4n7            | Cond. SMD 0805 COG               | CCC085472KXC |
| 6    | 5        | C7, C24, C38, C63, C64                           | NC             | Cond. SMD 0805 COG               |              |
| 7    | 1        | C8   | 5-30 p         | Comp. ceramico dia. 7mm          | CVC300D07    |
| 8    | 2        | C10, C9  | 1p             | Cond. SMD 1212 HQ                | CHQ010CA501  |
| 9    | 3        | C11, C12, C47                                    | 470p           | Cond. SMD 1212 HQ                | CHQ471JA201  |
| 10   | 1        | C13  | 47p            | Cond. SMD 0805 COG               | CCC085470JCC |
| 11   | 4        | C14, C19, C26, C68                               | 10p            | Cond. SMD 1212 HQ                | CHQ100CA501  |
| 12   | 2        | C16, C15   | 100uF          | Cond. Elett. SMD d. 6.3mm        | CES107E350   |
| 13   | 2        | C18, C17   | 100n           | Cond. ceramico multistrato p 5mm | CMS104MC500  |
| 14   | 7        | C20, C62, C65, C66, C67, C70, C76                | NC             | Cond. SMD 1212 HQ                |              |
| 15   | 3        | C21, C46, C75                                    | 47p            | Cond. SMD 1212 HQ                | CHQ470JA501  |
| 16   | 1        | C22  | 10uF           | Cond. Elett. SMD d. 5mm          | CES106B350   |
| 17   | 4        | C23, C25, C31, C32                               | 680p           | Cond. SMD 1212 HQ                | CHQ681JA101  |
| 18   | 4        | C27, C33, C44, C73                               | 68p            | Cond. SMD 1212 HQ                | CHQ680JA501  |
| 19   | 2        | C28, C29   | 100n           | Cond. SMD 0805 COG               | CCC085104KXC |
| 20   | 4        | C30, C37, C56, C57                               | 0 H            | Cond. SMD 0805 COG               | RCH085F0000H |
| 21   | 1        | C39  | 470p           | Cond. ceramico multistrato p 5mm | CKM471KC600P |
| 22   | 3        | C41, C42, C43                                    | 150p           | Cond. SMD 1212 HQ                | CHQ151JA301  |
| 23   | 4        | C45, C53, C69, C72                               | 22p            | Cond. SMD 1212 HQ                | CHQ220JA501  |
| 24   | 1        | C48  | 12p            | Cond. SMD 1212 HQ                | CHQ120JA501  |
| 25   | 2        | C49, C74   | 100p           | Cond. SMD 1212 HQ                | CHQ101JA501  |
| 26   | 5        | C50, C51, C52, C71, C78                          | 220p           | Cond. SMD 1212 HQ                | CHQ221JA201  |
| 27   | 2        | C54, C55   | 56p            | Cond. SMD 0805 COG               | CCC085560JCC |
| 28   | 1        | C58  | 470p           | Cond. SMD 0805 COG               | CCC085471JCC |
| 29   | 1        | C61  | 4p7            | Cond. SMD 1212 HQ                | CHQ4P7CA501  |
| 30   | 1        | C77  | 56p            | Cond. SMD 1212 HQ                | CHQ560JA501  |
| 31   | 1        | DCPLR1   | DIR_CPLR       | Accopp. direz.                   | BOB0301001A  |
| 32   | 2        | D1, D2   | HSMS2800       |                                  | DISHSMS2800  |
| 33   | 6        | D3, D4, D5, D6, D7, D8                           | NC             | MINIMELF SMD Diode               |              |
| 34   | 1        | D9   | 6V8            | MINIMELF SMD Zener Diode         | DIZ6V8MINI   |
| 35   | 1        | D10  | NC             | 1/2W Zener Diode                 |              |
| 36   | 1        | D11  | 5V6 1/4 W      | 1/2W Zener Diode                 | DIZ5V61/2W   |
| 37   | 4        | D12, D13, D14, D15                               | NC             | Diode in vetro DO35              |              |
| 38   | 3        | J1, J2, J3                                       | JSMD           | Pad SMD a saldare                |              |
| 39   | 1        | L1   | 3 sp d. 4.5    | Induttanza cilindrica            | BOB01020093A |
| 40   | 3        | L2, L12  | 3 sp d. 4.5    | Induttanza cilindrica            | BOB01020052A |
| 41   | 1        | L3   | 4 sp d.4.5     | Induttanza cilindrica            | IMPVK00A     |
| 42   | 1        | L4   | VK200          | Induttanza cilindrica VK200      | IMP47NS120   |
| 43   | 2        | L9, L6   | 47nH           | Induttanza SMD 3225 (1210)       | IMP470NS120  |
| 44   | 1        | L7   | 45nH           | Induttanza cilindrica            | BOB01020054A |
| 45   | 1        | L8   | 62nH           | Induttanza cilindrica            | BOB01020055A |
| 46   | 1        | L11  | 12nH           | Induttanza cilindrica            | BOB01010013A |
| 47   | 1        | L13  | 3 sp d. 4.5    | Induttanza cilindrica            | BOB01020053A |
| 48   | 1        | MOS1   | BLF147         | Power mosfet RF                  | TRNBLF147    |
| 49   | 1        | MOS2   | BLF244         | Power mosfet RF                  | TRNBLF244    |
| 50   | 1        | PD1  | PAD            |                                  |              |
| 51   | 1        | Q1   | BFG35          | Trans. NPN SOT223                | TRNBFG35     |
| 52   | 1        | RV1  | 5 K            | Trimmer Rg V 3296W               | RVT3296WK005 |
| 53   | 1        | RV2  | NC             | Trimmer Rg V 3296W               |              |
| 54   | 3        | R1, R2, R34                                      | 4K7            | Res. SMD 0805                    | RCH085F004K7 |
| 55   | 2        | R3, R4   | 10 K           | Res. SMD 0805                    | RCH085F0010K |
| 56   | 3        | R5, R8, R22                                      | 47 H           | Res. SMD 0805                    | RCH085F0047H |
| 57   | 2        | R7, R6   | 47 H 1 W       | Res. SMD 2512 1%                 | RCH252J0047H |
| 58   | 2        | R9, R19  | 1 K            | Res. SMD 0805                    | RCH085F0001K |
| 59   | 1        | R10  | 56 H           | Res. SMD 0805                    | RCH085F0056H |
| 60   | 10       | R11, R12, R13, R14, R20, R26, R30, R31, R32, R37 | NC             | Res. SMD 0805                    |              |
| 61   | 2        | R16, R15   | NC             | Res. SMD 2512 1%                 |              |
| 62   | 3        | R17, R49, R50                                    | 150 H          | Res. 2W                          | RSM002J0150H |
| 63   | 3        | R18, R21, R23                                    | 22 H 1 W       | Res. SMD 2512 1%                 | RCH252J0022H |
| 64   | 3        | R24, R25, R28                                    | 4H7            | Res. SMD 0805                    | RCH085F004H7 |
| 65   | 2        | R27, R29   | 270 H          | Res. SMD 0805                    | RCH085F0270H |
| 66   | 2        | R33, R35   | 33 H 1 W       | Res. SMD 2512 1%                 | RCH252J0033H |
| 67   | 5        | R36, R38, R39, R40, R41                          | 220 H          | Res. SMD 0805                    | RCH085F0220H |
| 68   | 1        | R42  | 33 H           | Res. SMD 0805                    | RCH085F0033H |
| 69   | 1        | R43  | 100 H          | Res. SMD 0805                    | RCH085F0100H |
| 70   | 1        | R45  | 1 K 1/2 W      | Res. 1/2W                        | RSC1/2J0001K |
| 71   | 1        | R46  | 4H7            | Res. 1/4W                        | RSM1/4F004H7 |
| 72   | 2        | R47, R51   | 10 H           | Res. 2W                          | RSM002J0010H |
| 73   | 1        | R48  | H47 5 W A FILO | Res. 5W                          | RAF005J00H47 |
| 74   | 9        | TL1, TL2, TL3, TL4, TL5, TL6, TL7, TL8, TL9      | TL             | Linea strip CS                   |              |
| 75   | 7        | W1, W2, W3, W4, W5, W6, W7                       | WIRE           | Filo a saldare                   |              |



|                            |                                  |                  |                            |
|----------------------------|----------------------------------|------------------|----------------------------|
| NOME PROGETTO:             | PTX-LCD                          | NOME PARTE:      | PA 100W MOSFET PER PTX-LCD |
| AUTORE:                    | L. GASPERINI                     | DATA:            | 25/07/2006                 |
| REVISIONE:                 | 1.                               | SCALA:           | 1:1                        |
| SIZE:                      | A4                               | PAGINA:          | 1 DI 1                     |
| ARCHIVIAZIONE ELETTRONICA: | "CARTELLA RILASCIATI" SU "UTSRV" | CODICE PROGETTO: | _057                       |
| CODICE DISEGNO:            | SLPA150PTX01                     |                  |                            |
| MATERIALE:                 | <>                               | TRATTAMENTO:     | <>                         |
| PROFILO:                   | <>                               | STATO:           | ESECUTIVO                  |



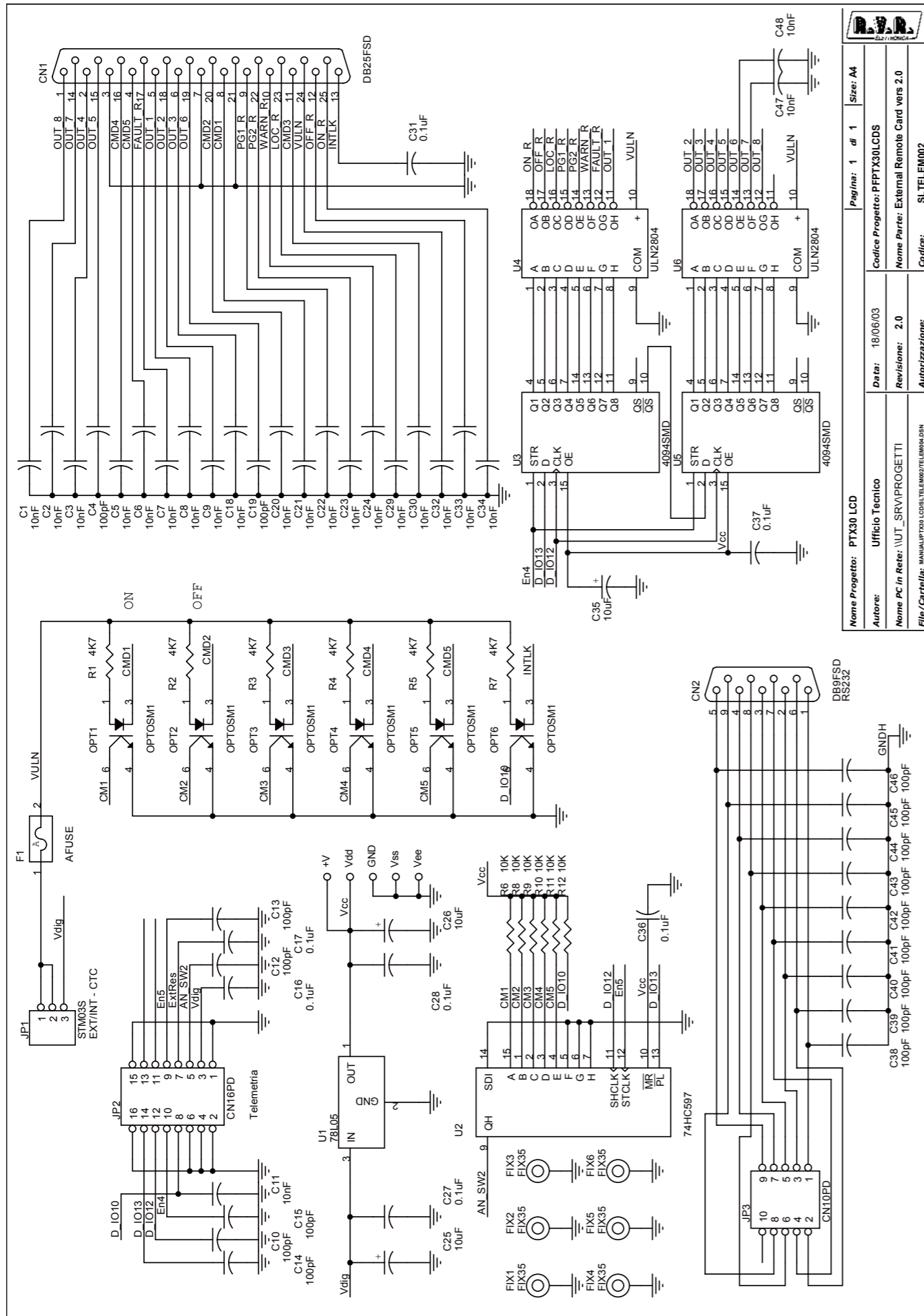
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| Nome Progetto: PTX-LCD |  | Pagina: 1 di 1                     |  | Size: A3                    |  |
| Autore: Tommasi A.     |  | Data: Wednesday, February 11, 2009 |  | Codice Progetto: RVR        |  |
| Nome PC in Rete: \\    |  | Revisione: 1.1                     |  | Nome Parte: Scheda Mono-Mpx |  |
| File/Cartella: /       |  | Autorizzazione:                    |  | Codice: SLPTMONMPX03        |  |



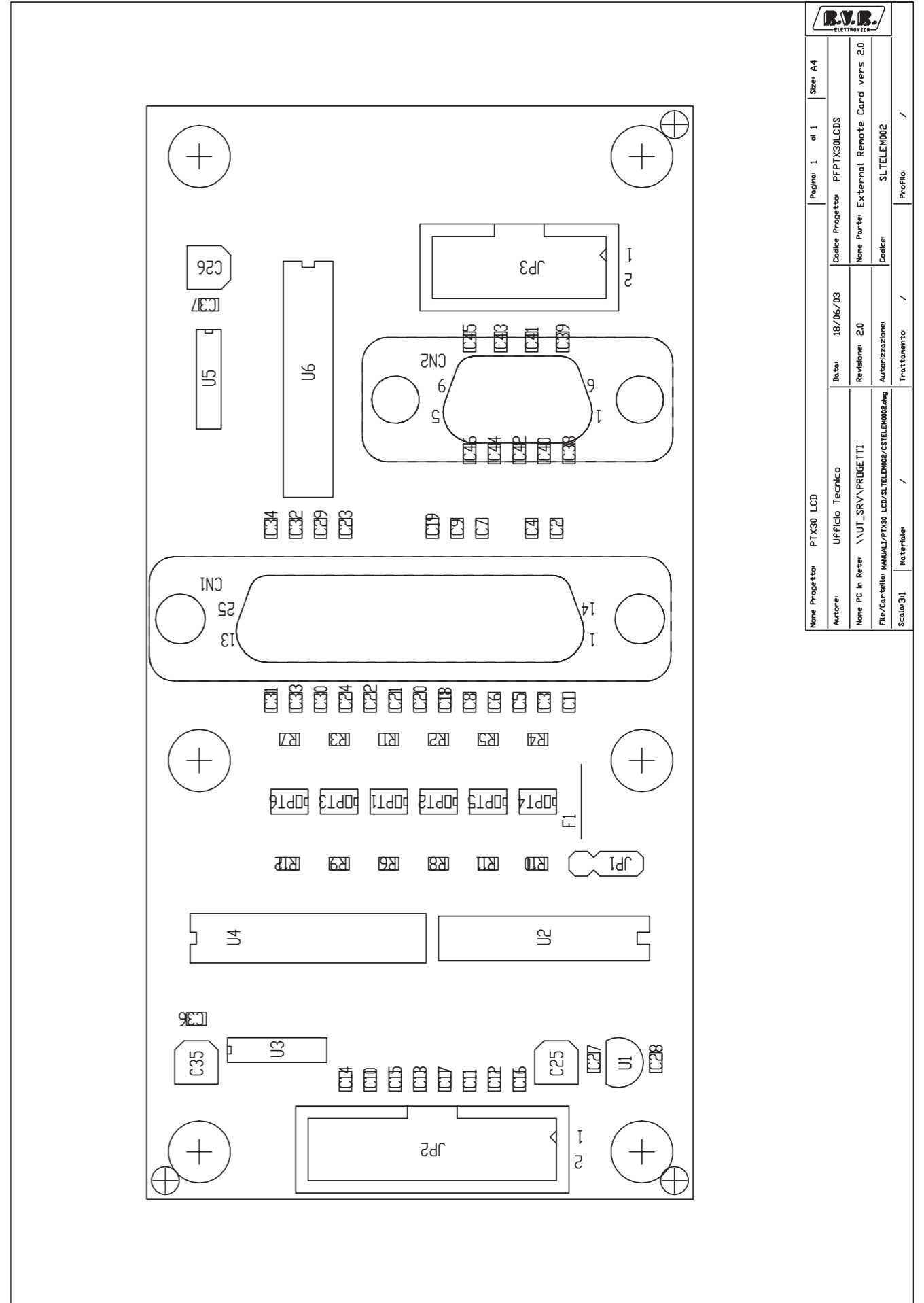
Scheda Mono-Mpx Revised: 11/02/2009  
SLPTMONMPX03 Revision: 1.1  
Tommasi A.

| Item | Quantity | Reference  | Part       | Description                  | Code         |
|------|----------|--|------------|------------------------------|--------------|
| 1    | 1        | CS1  | CSMONMPX03 | Circuito stampato            | CSPTMONMPX03 |
| 2    | 1        | CS2  | FLTPEB7M   | Circuito filtro audio 15 Khz | FLTPEB7M     |
| 3    | 8        | C1,C2,C4,C5,C6,C10,C11,C12   | NC         | Cond. SMD 0805 COG           |              |
| 4    | 4        | C3,C7,C8,C9  | NC         | Cond. SMD 0805               |              |
| 5    | 18       | C13,C16,C17,C22,C23,C24,C25,C26,C27,C28,C29,C30,C32,C33,C36,C37,C39,C40  | 0.1uF      | Cond. SMD 0805               | CCC085104KXC |
| 6    | 1        | C14  | 22pF       | Cond. SMD 0805 COG           | CCC085220JCC |
| 7    | 1        | C15  | 100pF      | Cond. SMD 0805 COG           | CCC085101JCC |
| 8    | 1        | C18  | 2.2nF      | Cond. SMD 0805 COG           | CCC085222GCC |
| 9    | 1        | C19  | 1nF        | Cond. SMD 0805 COG           | CCC085102GCC |
| 10   | 6        | C20,C21,C31,C34,C35,C38  | 10uF/16V   | Cond. Elett. SMD d. 4mm      | CES106A160   |
| 11   | 2        | DL1,DL2  | LED-G0805  | LED SMD 0805                 | LEDV0805     |
| 12   | 1        | DL3  | LED-R0805  | LED SMD 0805                 | LEDRO805     |
| 13   | 2        | D1,D2  | 3V3        | MINIMELF SMD Zener Diode     | DIZ3V3MINI   |
| 14   | 4        | FIX1,FIX2,FIX3,FIX4  | FIX35      | Foro fissaggio 3.5mm         |              |
| 15   | 1        | JP1  | STM16D     | Strip maschio 8+8 pin        | CNTSTM08DDD  |
| 16   | 1        | JP2  | STM26D     | Strip maschio 13+13 pin      | CNTSTM13DDD  |
| 17   | 1        | JP3  | NC         | Strip maschio 10 pin         |              |
| 18   | 4        | J1,J2,J3,J4  | JSMD       | Pad SMD a saldare            |              |
| 19   | 1        | Q1   | BC857      | Trans. PNP SOT23             | TRNBC857     |
| 20   | 1        | Q2   | BC847      | Trans. NPN SOT23             | TRNBC847     |
| 21   | 1        | Q3   | BCR135     | Trans./Res. NPN SOT23        | TRNBCR135    |
| 22   | 3        | RV2,RV3,RV4  | NC         | Trimmer SMD                  |              |
| 23   | 4        | RV5,RV6,RV7,RV8  | 5K         | Trimmer Rg V 3269W SMD       | RVT3269WK005 |
| 24   | 31       | R1,R2,R3,R4,R5,R6,R7,R8,R9,R10,R11,R12,R13,R14,R15,R16,R17,R19,R20,R21,R24,R25,R26,R27,R28,R29,R30,R31,R32,R36,R54 | NC         | Res. SMD 0805                |              |
| 25   | 9        | R18,R22,R33,R35,R37,R41,R51,R55,R58  | 10K0       | Res. SMD 0805                | RCH085F0010K |
| 26   | 1        | R50  | 330K0      | Res. SMD 0805                | RCH085F0330K |
| 27   | 1        | R34  | 22K1       | Res. SMD 0805                | RCH085F022K1 |
| 28   | 1        | R38  | 680H0      | Res. SMD 0805                | RCH085F0680H |
| 29   | 1        | R39  | 4K64       | Res. SMD 0805                | RCH085F04K64 |
| 30   | 1        | R40  | 3K16       | Res. SMD 0805                | RCH085F03K16 |
| 31   | 1        | R42  | 1K0        | Res. SMD 0805                | RCH085F0001K |
| 32   | 1        | R43  | 10H0       | Res. SMD 0805                | RCH085F0010H |
| 33   | 2        | R44,R56  | 15K0       | Res. SMD 0805                | RCH085F0015K |
| 34   | 2        | R45,R57  | 1M0        | Res. SMD 0805                | RCH085F0001M |
| 35   | 2        | R46,R49  | 330H0      | Res. SMD 0805                | RCH085F0330H |
| 36   | 2        | R47,R48  | 4K99       | Res. SMD 0805                | RCH085F04K99 |
| 37   | 2        | R52,R53  | 1K50       | Res. SMD 0805                | RCH085F001K5 |
| 38   | 1        | R59  | 100K0      | Res. SMD 0805                | RCH085F0100K |
| 39   | 4        | TP1,TP2,TP3,TP4  | NC         | Test point                   |              |
| 40   | 2        | U1,U2  | NC         | Quad Op. SMD SO14            |              |
| 41   | 1        | U3   | 4094SMD    | Integrato Idig. 4094 SMD     | CID4094SMD   |
| 42   | 3        | U4,U6,U11  | TL072SMD   | Integrato lin. TL072 SMD     | CILT072SMD   |
| 43   | 1        | U5   | 78M08DT    | Stabilizzatore SMD DPAK      | CIL78M08DPAK |
| 44   | 1        | U7   | LM358SMD   | Dual Op. SMD SO8             | CILLM358SMD  |
| 45   | 1        | U8   | CD4066XSMD | Analog Switch SMD SO14       | CID4066SMD   |
| 46   | 1        | U9   | CD4053B/SO | Analog Switch SMD SO16       | CID4053SMD   |
| 47   | 1        | U10  | 79M08DT    | Stabilizzatore SMD DPAK      | CIL79M08DPAK |

|   |                        |                              |                  |            |          |                |
|---|------------------------|------------------------------|------------------|------------|----------|----------------|
| R.V.R. ELETTRONICA  | NOME PROGETTO: PTX-LCD | NOME PARTE: SCHEDA MONO/MPX  |                  |            |          |                |
|   | AUTORE: A. TOMMASI     | DATA: 10/07/2006             | REVISIONE: 1.0   | SCALA: 1:1 | SIZE: A4 | PAGINA: 1 DI 1 |
| ARCHIVIAZIONE ELETTRONICA: "CARTELLA RILASCIATI" SU "UTSRV" | CODICE PROGETTO: _057  | CODICE DISEGNO: SLPTMONMPX03 |                  |            |          |                |
| MATERIALE: <>   | TRATTAMENTO: <>        | PROFILO: <>                  | STATO: ESECUTIVO |            |          |                |

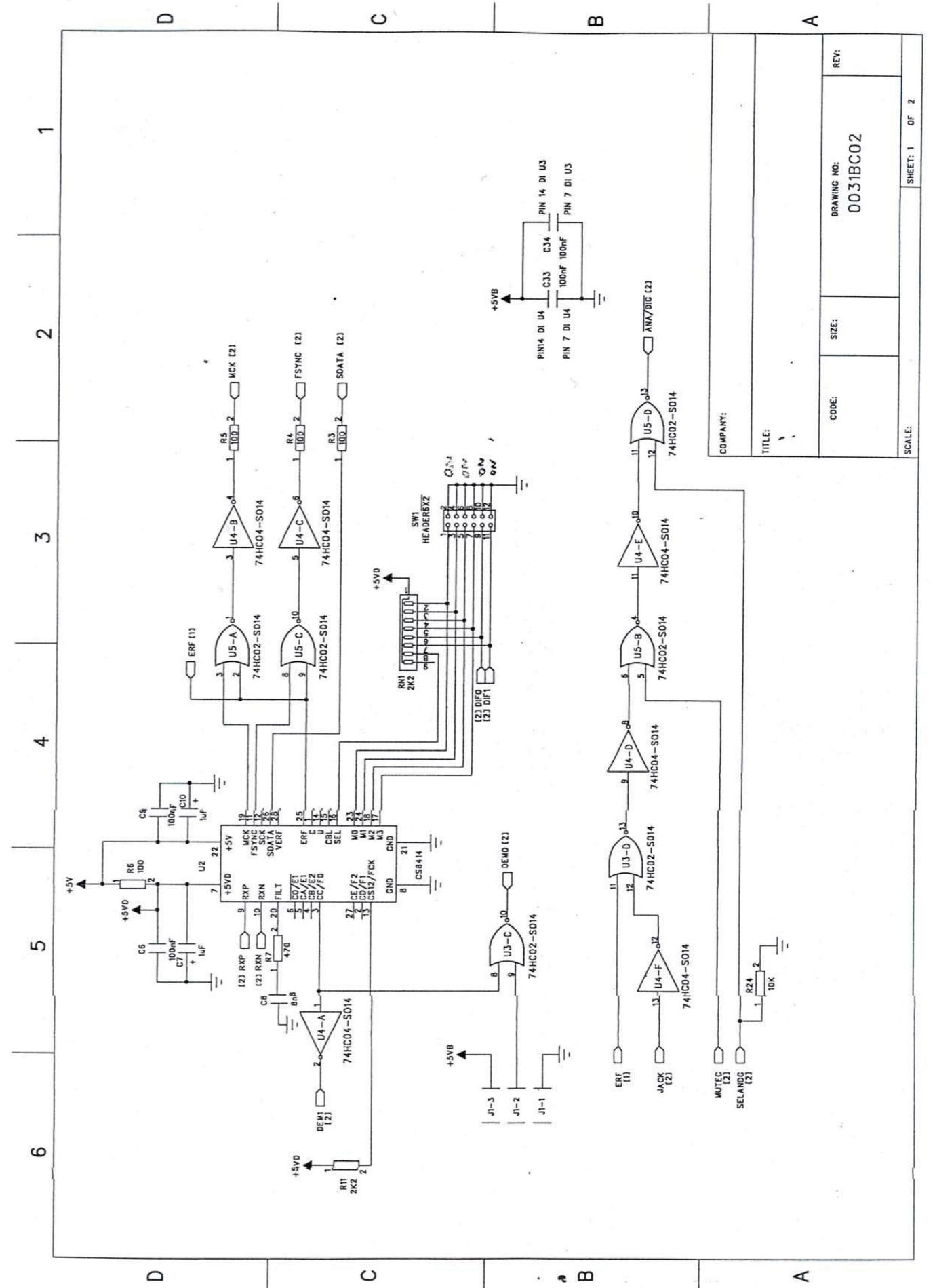
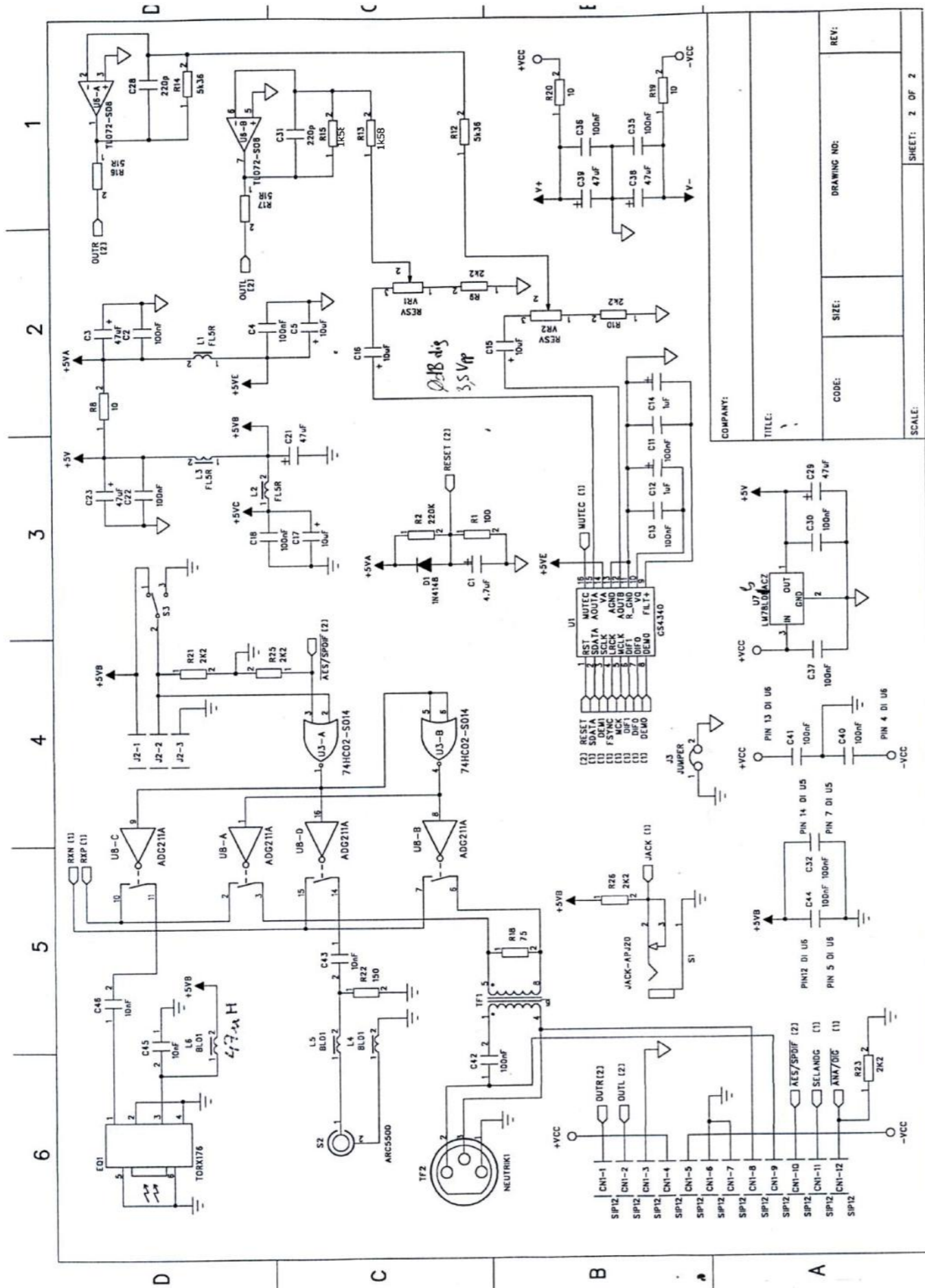


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|--|-----------------|---|----------|
| Nome Progetto: PTX30 LCD                                   | Pagina: 1       | di 1                                      | Size: A4 |
| Autore: Ufficio Tecnico                                    | Data: 18/06/03  | Codice Progetto: PPTX30LCDS               |          |
| Nome PC in Rete: \\\UT_SRV\PROGETTI                        | Revisione: 2.0  | Nome Parte: External Remote Card vers 2.0 |          |
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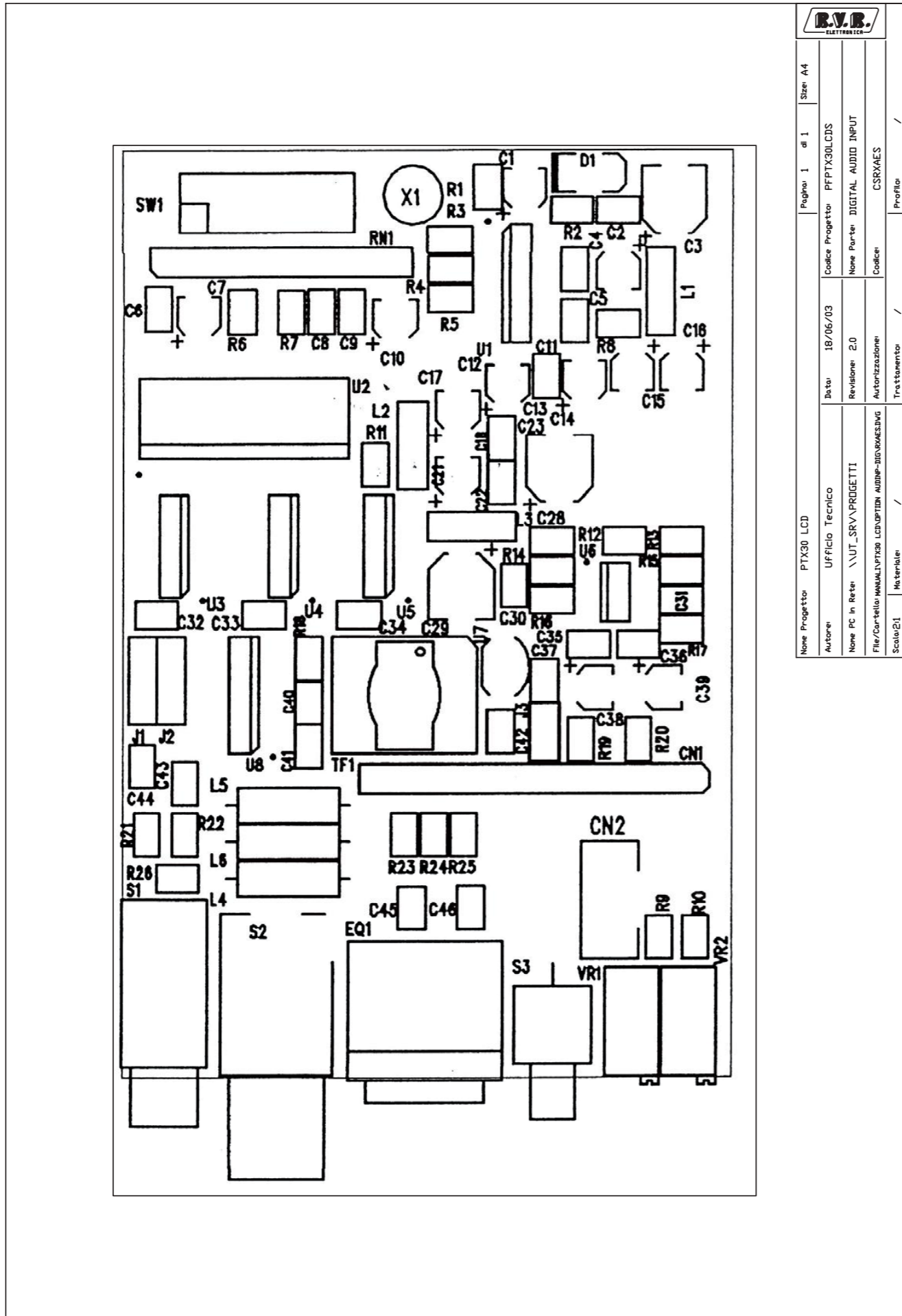


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|--|-----------------|---|----------|
| Nome Progetto: PTX30 LCD                                   | Pagina: 1       | di 1                                      | Size: A4 |
| Autore: Ufficio Tecnico                                    | Data: 18/06/03  | Codice Progetto: PPTX30LCDS               |          |
| Nome PC in Rete: \\\UT_SRV\PROGETTI                        | Revisione: 2.0  | Nome Parte: External Remote Card vers 2.0 |          |
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| Scala: 3:1   | Materiale:      | Trattamento:                              | Profilo: |

| External Remote Card Revised: 14/07/04 |          |  |         |                            |
|--|----------|--|---------|----------------------------|
| SLTELEM002 Revision: 3.0               |          |  |         |                            |
| PTX30 LCD                              |          |  |         |                            |
| Item                                   | Quantity | Reference  | Part    | Description                |
| 1                                      | 1        | CN1  | DB25FSD | Connettore DB25 femm. cs   |
| 2                                      | 1        | CN2  | DB9FSD  | Connettore DB9 femm. cs    |
| 3                                      | 22       | C1, C2, C3, C5, C6, C7, C8, C9, C11, C18, C20, C21, C22, C23, C24, C29, C30, C32, C33, C34, C47, C48 | 10nF    | Cond. SMD 0805             |
| 4                                      | 16       | C4, C10, C12, C13, C14, C15, C19, C38, C39, C40, C41, C42, C43, C44, C45, C46                        | 100pF   | Cond. SMD 0805             |
| 5                                      | 7        | C16, C17, C27, C28, C31, C36, C37  | 0.1uF   | Cond. SMD 0805             |
| 6                                      | 3        | C25, C26, C35  | 10uF    | Cond. Elett. SMD d. 4mm    |
| 7                                      | 6        | FIX1, FIX2, FIX3, FIX4, FIX5, FIX6   | FIX35   | Foro fissaggio 3.5mm       |
| 8                                      | 1        | F1   | AFUSE   | Fusibile autorip. 7mm      |
| 9                                      | 1        | JP1  | STM03S  | Strip maschio 3 pin        |
| 10                                     | 1        | JP2  | CN16PD  | Connettore 16 poli Flat cs |
| 11                                     | 1        | JP3  | CN10PD  | Connettore 10 poli Flat cs |
| 12                                     | 6        | OPT1, OPT2, OPT3, OPT4, OPT5, OPT6   | OPTOSM1 | Optoisolatore SMD SO6      |
| 13                                     | 6        | R1, R2, R3, R4, R5, R7   | 4K7     | Res. SMD 0805              |
| 14                                     | 6        | R6, R8, R9, R10, R11, R12  | 10K     | Res. SMD 0805              |
| 15                                     | 1        | U1   | 78L05   | Stabilizzatore TO92        |
| 16                                     | 1        | U2   | 74HC597 | Shift Reg. DIP16           |
| 17                                     | 2        | U3, U5   | 4094SMD | Shift Reg. SMD SO16        |
| 18                                     | 2        | U4, U6   | ULN2804 | Octal Inv. Driver DIP18    |







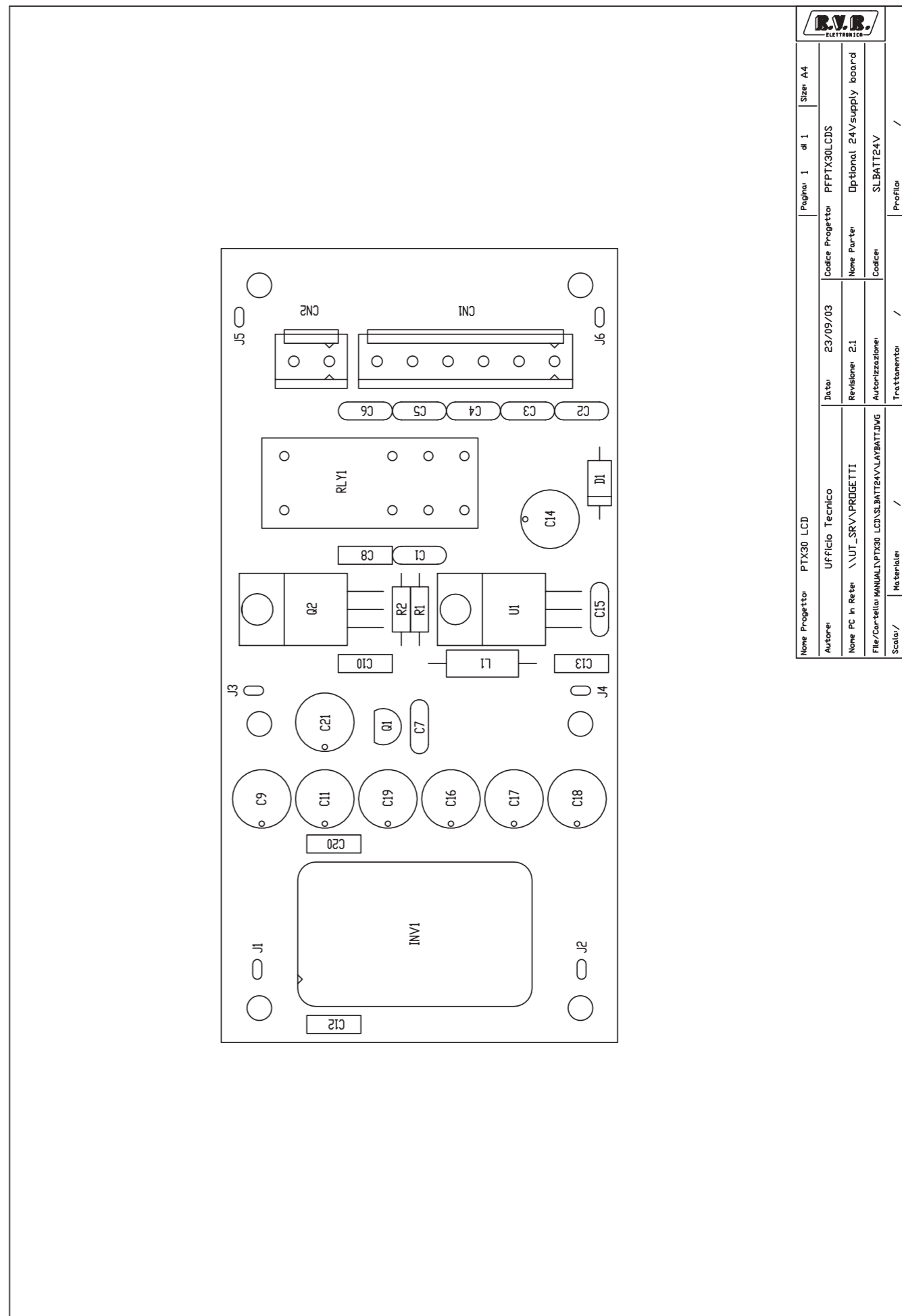
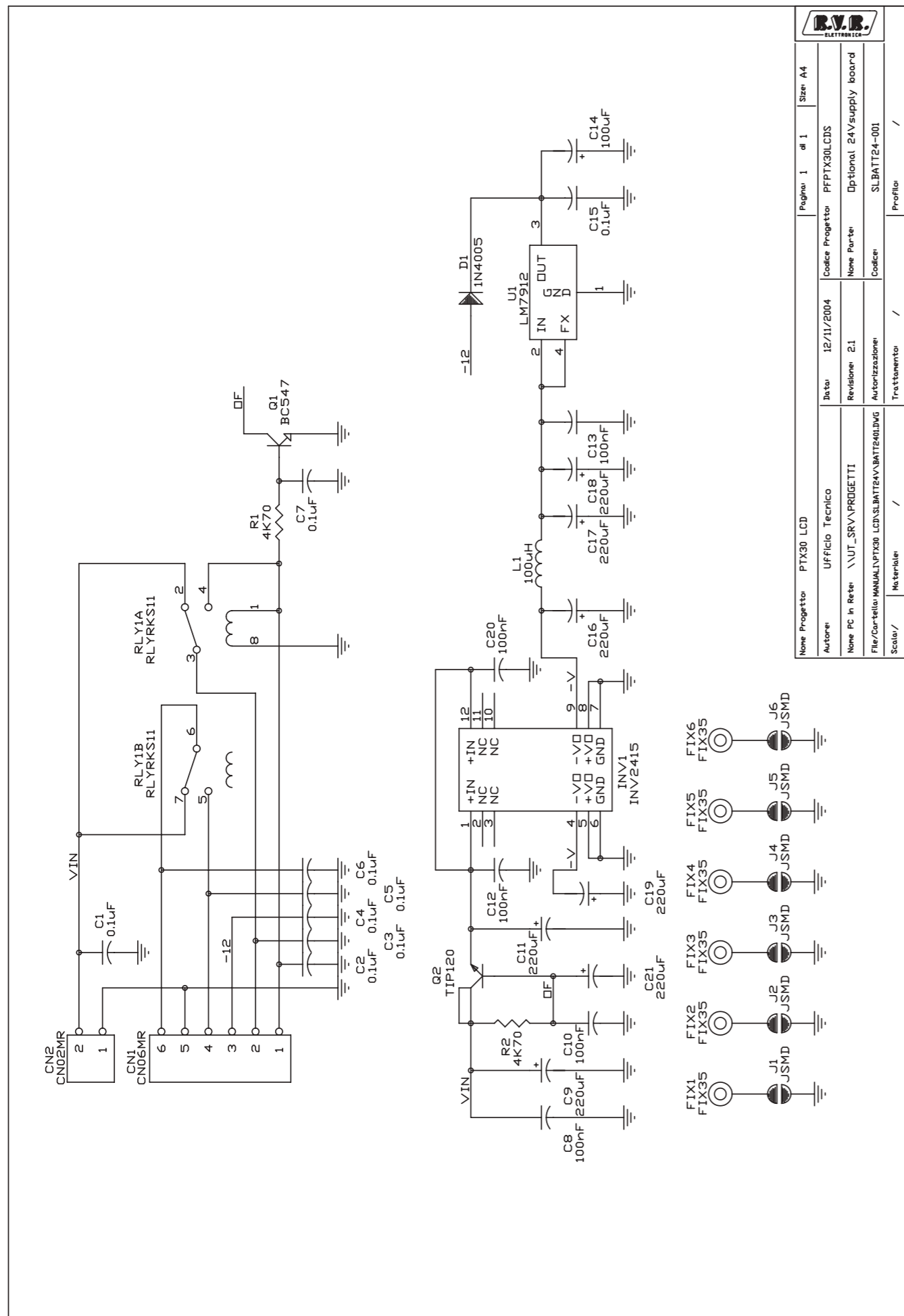
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| Nome Progetto: PTX30 LCD                                |  | Pagina: 1 di 1  |  | Size: A4                        |  |
| Autore: Ufficio Tecnico                                 |  | Data: 18/06/03  |  | Codice Progetto: PFPTX30LCDS    |  |
| Nome PC in Rete: \AUT_SRV\PROGETTI                      |  | Revisione: 2.0  |  | Nome Parte: DIGITAL AUDIO INPUT |  |
| File/Cartella: MANULPTX30 LCD\PTIDN AUDIP-300\RXAES.DWG |  | Autorizzazione: |  | Codice: CSRXAES                 |  |
| Scala: 2:1  |  | Materiale:      |  | Trattamento:                    |  |
|   |  |                 |  | Profilo:                        |  |

| Audio Input Selector - Bill of materials |      |       |        |       |            |  |
|--|------|-------|--------|-------|------------|--|
|  | Name | Logie | Ga-tes | VALUE | Part Type  |  |
| 1  | C6   | CAP   | 1      | 100nF | C0805      |  |
| 2  | C7   | CAP   | 1      | 1uF   | AECAP      |  |
| 3  | C8   | CAP   | 1      | 6n8   | C0805      |  |
| 4  | C9   | CAP   | 1      | 100nF | C0805      |  |
| 5  | C10  | CAP   | 1      | 1uF   | AECAP      |  |
| 6  | C33  | CAP   | 1      | 100nF | C0805      |  |
| 7  | C34  | CAP   | 1      | 100nF | C0805      |  |
| 8  | J1   | CON   | 3      |       | HEADER03   |  |
| 9  | R3   | RES   | 1      | -100  | R0805      |  |
| 10                                       | R4   | RES   | 1      | 100   | R0805      |  |
| 11                                       | RS   | RES   | 1      | 100   | R0805      |  |
| 12                                       | R6   | RFS   | 1      | 100   | R0805      |  |
| 13                                       | R7   | RES   | 1      | 470   | R0805      |  |
| 14                                       | R11  | RES   | 1      | 2K2   | R0805      |  |
| 15                                       | R24  | RES   | 1      | 10K   | R0805      |  |
| 16                                       | RN1  | RES   | 1      | 2K2   | RN9A       |  |
| 17                                       | SW1  | UND   | 1      |       | HEADER\6X2 |  |
| 18                                       | U2   | UND   | 1      |       | CS8414     |  |
| 19                                       | U3   | TTL   | 4      |       | 74HC02-S01 |  |
| 20                                       | U4   | TTL   | 6      |       | 74HC04-S0I |  |
| 21                                       | U5   | TTL   | 4      |       | 74HC02-S0I |  |
| 22                                       | C1   | CAP   | 1      | 4.7uF | AECAP      |  |
| 23                                       | C2   | CAP   | 1      | 100nF | C0805      |  |
| 24                                       | C3   | CAP   | 1      | 47uF  | AECAP      |  |
| 25                                       | C4   | CAP   | 1      | 100nF | C0805      |  |
| 26                                       | C5   | CAP   | 1      | 10uF  | AECAP      |  |
| 27                                       | C11  | CAP   | 1      | 100nF | C0805 10   |  |
| 28                                       | C12  | CAP   | 1      | 1uF   | AECAP 1u   |  |
| 29                                       | C13  | CAP   | 1      | 100nF | C0805 10   |  |
| 30                                       | C14  | CAP   | 1      | 1uF   | AECAP 1u   |  |
| 31                                       | C15  | CAP   | 1      | 10uF  | AECAP 10   |  |
| 32                                       | C16  | CAP   | 1      | 10uF  | AECAP 10   |  |
| 33                                       | C17  | CAP   | 1      | 10uF  | AECAP 10   |  |
| 34                                       | C18  | CAP   | 1      | 100nF | C0805 10   |  |
| 35                                       | C19  | CAP   | 1      | 220p  | C0805 22   |  |
| 36                                       | C20  | CAP   | 1      | 220p  | C0805 22   |  |
| 37                                       | C21  | CAP   | 1      | 47uF  | AECAP 47   |  |

RXAES

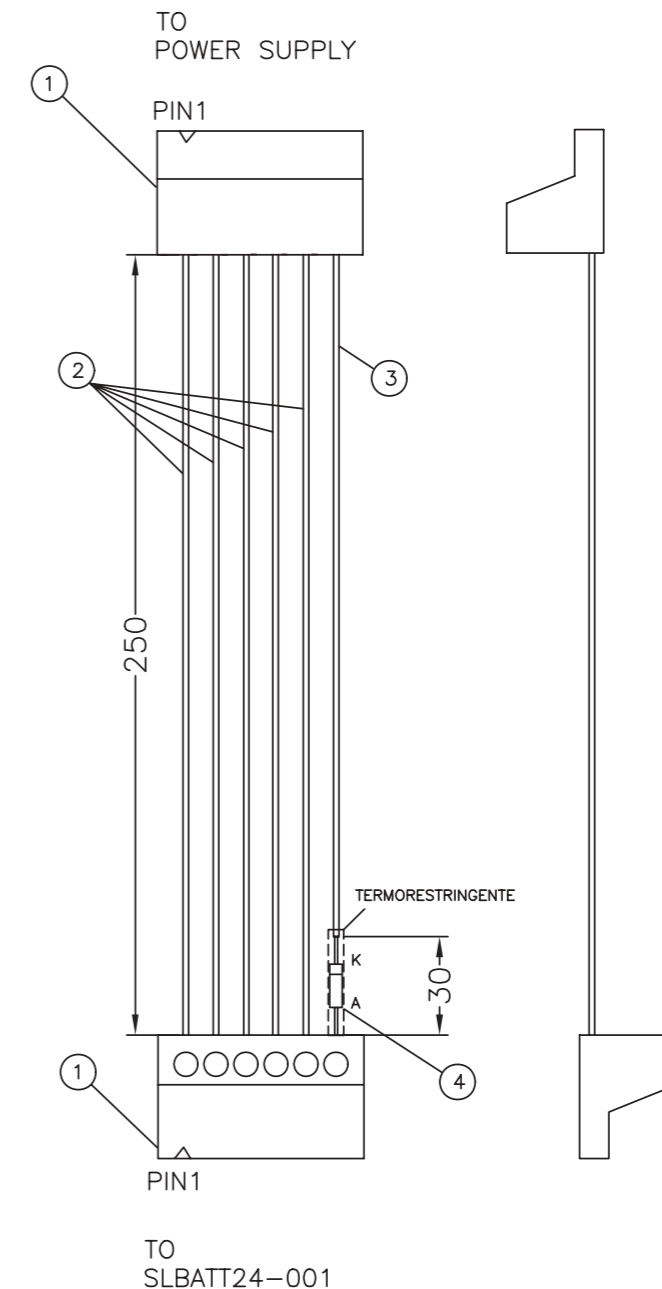
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|----|-----|------|----|--------|----------|
| 38 | C22 | CAP  | 1  | 100nF  | C0805 10 |
| 39 | C23 | CAP  | 1  | 47UF   | AECAP 47 |
| 40 | C24 | CAP  | 1  | 220P   | C0805 22 |
| 41 | C25 | CAP  | 1  | 220p   | C0805 22 |
| 42 | C26 | CAP  | 1  | 220p   | C0805 22 |
| 43 | C27 | CAP  | 1  | 220p   | C0805 22 |
| 44 | C28 | CAP  | 1  | 220p   | C0805    |
| 45 | C29 | CAP  | 1  | 47uF   | AECAP    |
| 46 | C39 | CAP  | 1  | 100nF  | C0805    |
| 47 | C31 | CAP  | 1  | 220p   | C0805    |
| 48 | C32 | CAP  | 1  | 100nF  | C0805    |
| 49 | C35 | CAP  | 1  | 100nF  | C0805    |
| 50 | C36 | CAP  | 1  | 100nF  | C0805    |
| 51 | C37 | CAP  | 1  | 100nF  | C0805    |
| 52 | C38 | CAP  | 1  | 47uF   | AECAP    |
| 53 | C39 | CAP  | 1  | 47uF   | AECAP    |
| 54 | C40 | CAP  | 1  | 100nF  | C0805    |
| 55 | C41 | CAP  | 1  | 100nF  | C0805    |
| 56 | C42 | CAP  | 1  | 100nF  | C0805    |
| 57 | C43 | CAP  | 1  | 10nf   | C0805    |
| 58 | C44 | CALD | 1  | 100nF  | C0805    |
| 59 | C45 | CAP  | 1  | 10nF   | C0805    |
| 60 | C46 | CAP  | 1  | 10nF   | CO805    |
| 61 | CN1 | CON  | 12 |        | SIP12    |
| 62 | D1  | DIO  | 1  | 1N4148 | MLL345   |
| 63 | EQ1 | UND  | 1  |        | TORX176  |
| 64 | J2  | CON  | 3  |        | HEADER03 |
| 64 | J3  | JUM  | 1  |        | JUMPER   |
| 65 | L1  | IND  | 1  | FLSR   | RM77     |
| 66 | L2  | IND  | 1  | FL5R   | RM77     |
| 67 | L3  | IND  | 1  | FLSR   | RM77     |
| 68 | L4  | IND  | 1  |        | BLO1     |
| 69 | L5  | IND  | 1  |        | BLO1     |
| 70 | L6  | IND  | 1  |        | BLO1     |
| 71 | R1  | RES  | 1  | 100    | R0805    |
| 72 | R2  | RES  | 1  | 220K   | R0805    |
| 73 | R8  | RES  | 1  | 10     | R0805    |
| 74 | R9  | RES  | 1  | 3K32   | R0805    |
| 75 | R10 | RES  | 1  | 3K32   | R0805    |
| 76 | R12 | RES  | 1  | 1K58   | R0805    |
| 77 | R13 | RES  | 1  | 1K58   | R0805    |
| 78 | R14 | RES  | 1  | 3K32   | R0805    |
| 79 | R15 | RES  | 1  | 3K32   | R0805    |
| 80 | R16 | RES  | 1  | 10K    | R0805    |

|    |     |     |   |     |            |
|----|-----|-----|---|-----|------------|
| 81 | R17 | RES | 1 | 10K | R0805      |
| 82 | R18 | RES | 1 | 75  | R0805      |
| 83 | R1g | RES | 1 | 10  | R0805      |
| 84 | R20 | RES | 1 | 10  | R0805      |
| 85 | R21 | RES | 1 | 2K2 | R0805      |
| 86 | R22 | RES | 1 | 150 | R0805      |
| 87 | R23 | RES | 1 | 2K2 | R0805      |
| 88 | R25 | RES | 1 | 2K2 | R0805      |
| 89 | R26 | RES | 1 | 2K2 | R0805      |
| 90 | S1  | UND | 1 |     | JACK-APJ20 |
| 91 | S2  | UND | 1 |     | ARC5500    |
| 92 | TF1 | UND | 1 |     | TRASF-DIG_ |
| 93 | TF2 | UND | 1 |     | NEUTRIK1   |
| 94 | UI  | UND | 1 |     | C54340     |
| 95 | U3  | TTL | 4 |     | 74HCO2-S01 |
| 96 | U6  | ANA | 2 |     | TL072-S08  |
| 97 | U7  | ANA | 1 |     | LM78L08ACZ |
| 98 | U8  | CMO | 4 |     | ADG211AVR  |



| Optional 24Vsupply board - Bill of material |           |              |                               |
|---|-----------|--------------|-------------------------------|
| SLBATT24-001                                |           |              |                               |
| REV. 2.1 11/12/2004                         |           |              |                               |
| Item  | Reference | Part         | Description                   |
| 1   | CS1       | CSBATT24-001 | Circuito stampato             |
| 2   | INV1      | INV2415      | Modulo ibrido in RF           |
| 3   | CN1       | CN06MR       | Conn. morsetto 06 pin F c.s.  |
| 4   | RLY1      | RLYRKS11     | Rele' con bobina 2V 24V       |
| 5   | C1        | 0.1µF        | Cond. ceramico p. 5mm         |
| 6   | C2        | 0.1µF        | Cond. ceramico p. 5mm         |
| 7   | C3        | 0.1µF        | Cond. ceramico p. 5mm         |
| 8   | C4        | 0.1µF        | Cond. ceramico p. 5mm         |
| 9   | C5        | 0.1µF        | Cond. ceramico p. 5mm         |
| 10  | C6        | 0.1µF        | Cond. ceramico p. 5mm         |
| 11  | R1        | 4K70         | Res. 1/4 W 1%                 |
| 12  | C7        | 0.1µF        | Cond. ceramico p. 5mm         |
| 13  | Q1        | BC547        | Tr. in TO 92                  |
| 14  | C8        | 100nF        | Cond. poliestere p. 5mm       |
| 15  | C9        | 220µF        | Cond. el. ver. 16V p. 2.5mm   |
| 16  | R2        | 4K70         | Res. 1/4 W 1%                 |
| 17  | C10       | 100nF        | Cond. poliestere p. 5mm       |
| 18  | C11       | 220µF        | Cond. el. ver. 16V p. 2.5mm   |
| 19  | C12       | 100nF        | Cond. poliestere p. 5mm       |
| 20  | L1        | 100µH        | Impedenza                     |
| 21  | C13       | 100nF        | Cond. poliestere p. 5mm       |
| 22  | D1        | 1N4005       | Diodo silicio                 |
| 23  | C14       | 100µF        | Cond. el. ver. 25V p. 2.5mm   |
| 24  | C15       | 0.1µF        | Cond. ceramico p. 5mm         |
| 25  | CN2       | CN02MR       | Conn. morsetto 02 pin F c.s.  |
| 26  | U1        | LM7912       | 3-Terminal negative regulator |
| 27  | C16       | 220µF        | Cond. el. ver. 16V p. 2.5mm   |
| 28  | C17       | 220µF        | Cond. el. ver. 16V p. 2.5mm   |
| 29  | C18       | 220µF        | Cond. el. ver. 16V p. 2.5mm   |
| 30  | C19       | 220µF        | Cond. el. ver. 16V p. 2.5mm   |
| 31  | C20       | 100nF        | Cond. poliestere p. 5mm       |
| 32  | C21       | 220µF        | Cond. el. ver. 16V p. 2.5mm   |
| 33  | Q2        | TIP120       | Tr. in TO 92                  |

| ID: CAB9910039A |            |                                   |    | COMMENTI |                               |
|-----------------|------------|-----------------------------------|----|----------|-------------------------------|
| REF.            | COMPONENTE | DESCRIZIONE                       | UM | Q.TA'    | CABLAGGIO OPZIONE 24V PTX-LCD |
| 1               | CNTFVL6P   | CONN. FEMM. VOLANTE 6 VIE PHOENIX | PZ | 2        |                               |
| 2               | <NO CODE>  | CAVO 2,5MM LUNGHEZZA 250MM        | PZ | 5        |                               |
| 3               | <NO CODE>  | CAVO 2,5MM LUNGHEZZA 220MM        | PZ | 1        |                               |
| 4               | DIS80SQ045 | DIODO SCHOTTKY 8A DO-204AR        | PZ | 1        |                               |



|  |                        |  |
|--|------------------------|--|
|  | NOME PROGETTO: PTX-LCD | NOME PARTE: CABLAGGIO OPZIONE BATTERIA 24V |
| AUTORE: UFFICIO TECNICO                                    | DATA: 24/10/2005       | REVISIONE: 1.0                             |
| ARCHIVIAZIONE ELETTRONICA: "CARTELLA PROGETTI" SU "UT_SRV" | CODICE PROGETTO: 800   | CODICE DISEGNO: CAB9910039A                |
| MATERIALE: <>  | TRATTAMENTO: <>        | PROFILO: <>                                |
|  |                        | STATO: ESECUTIVO                           |