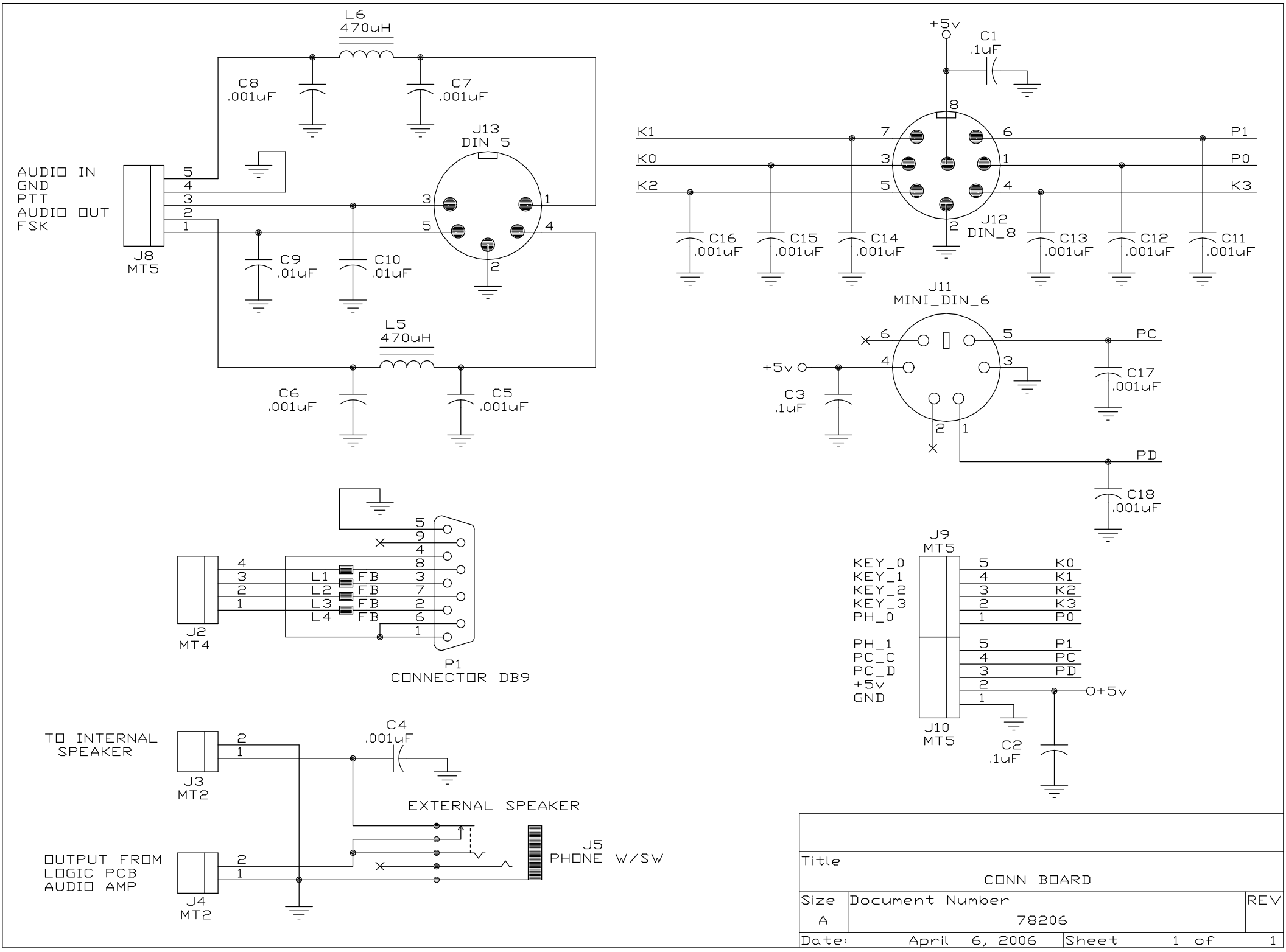
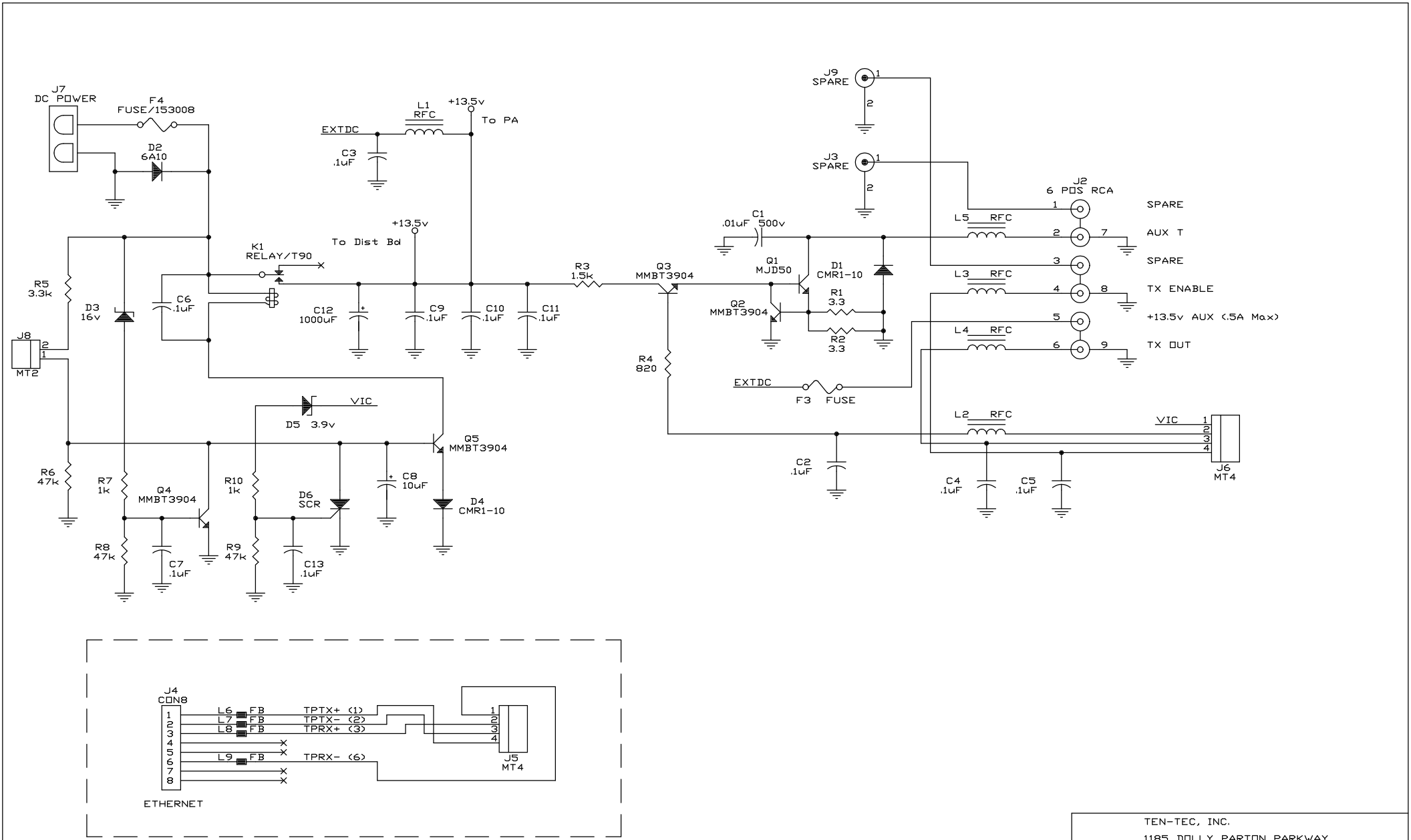
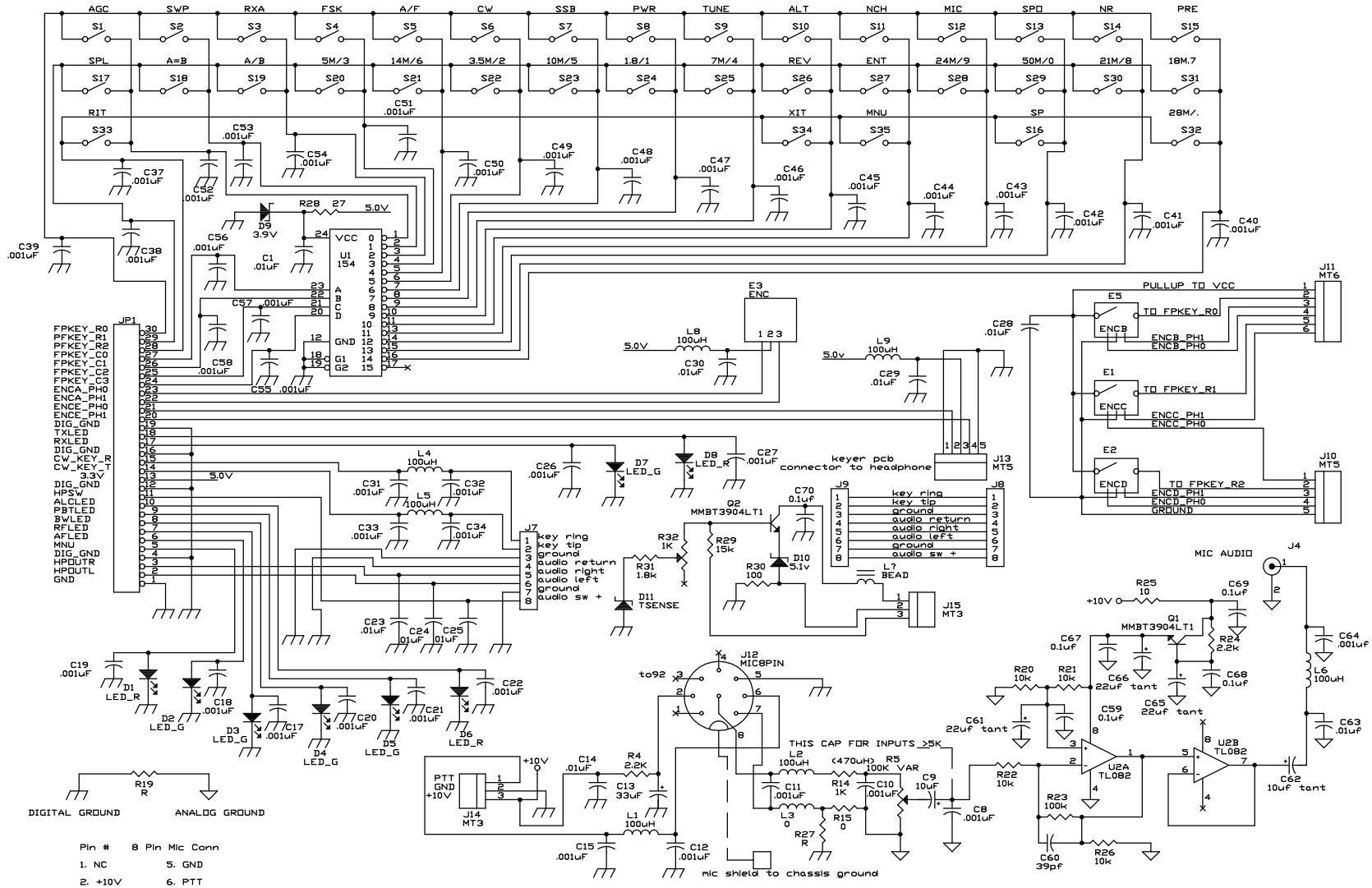


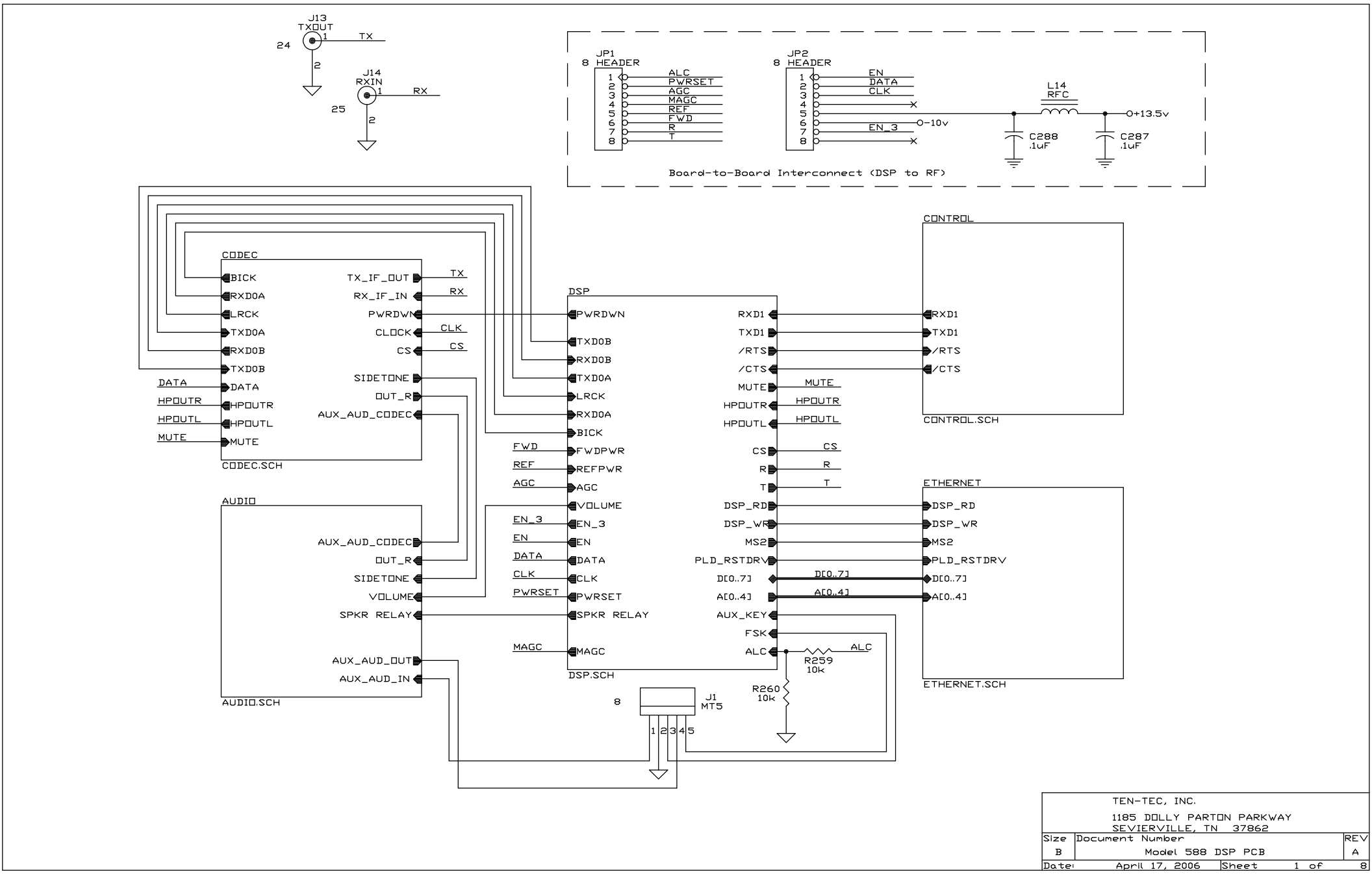
Title: CONN BOARD		
Size: A	Document Number: 78206	REV:
Date: April 6, 2006	Sheet 1 of 1	



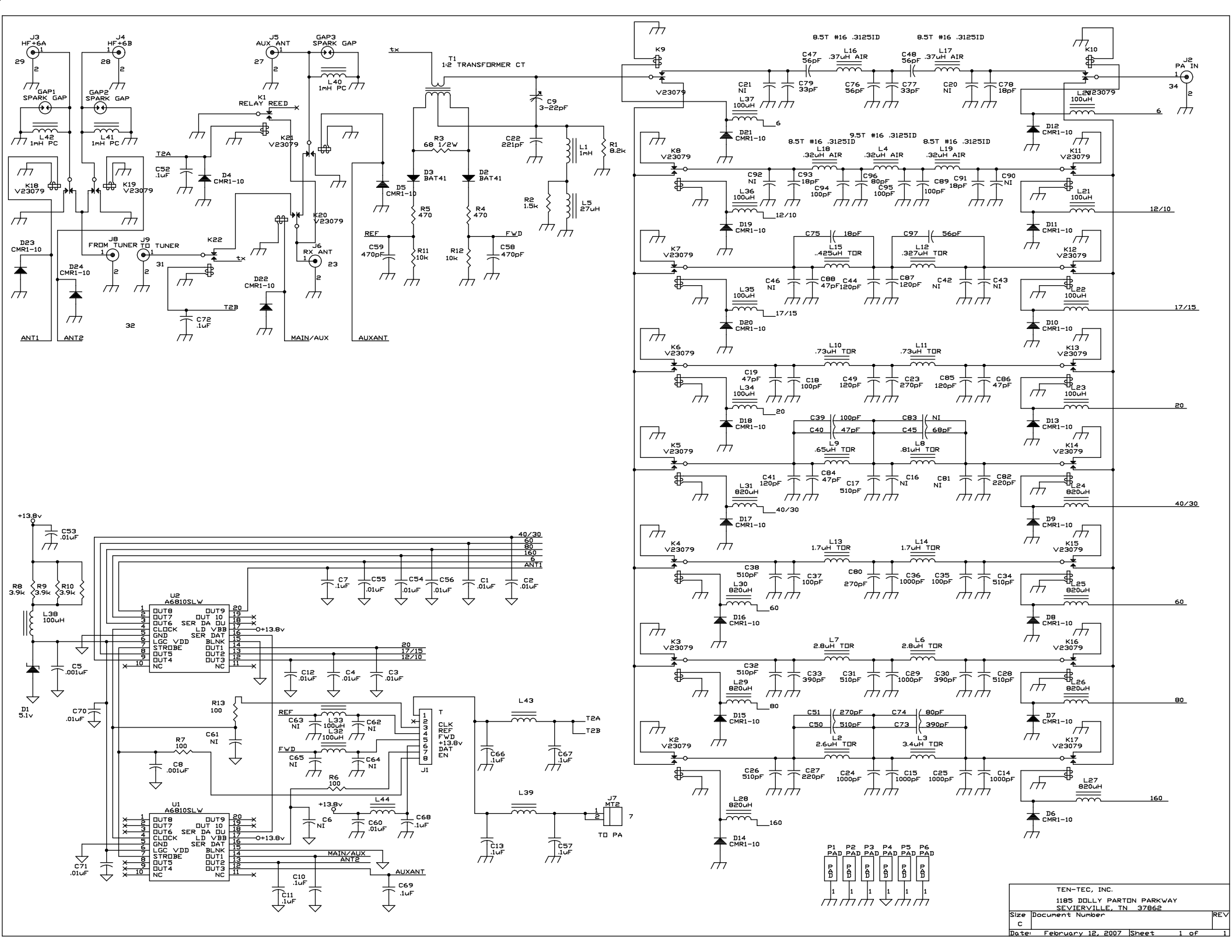
TEN-TEC, INC.		
1185 DOLLY PARTON PARKWAY SEVIERVILLE, TN 37862		
Size B	Document Number	REV
Date: February 12, 2007	Sheet 1 of 1	

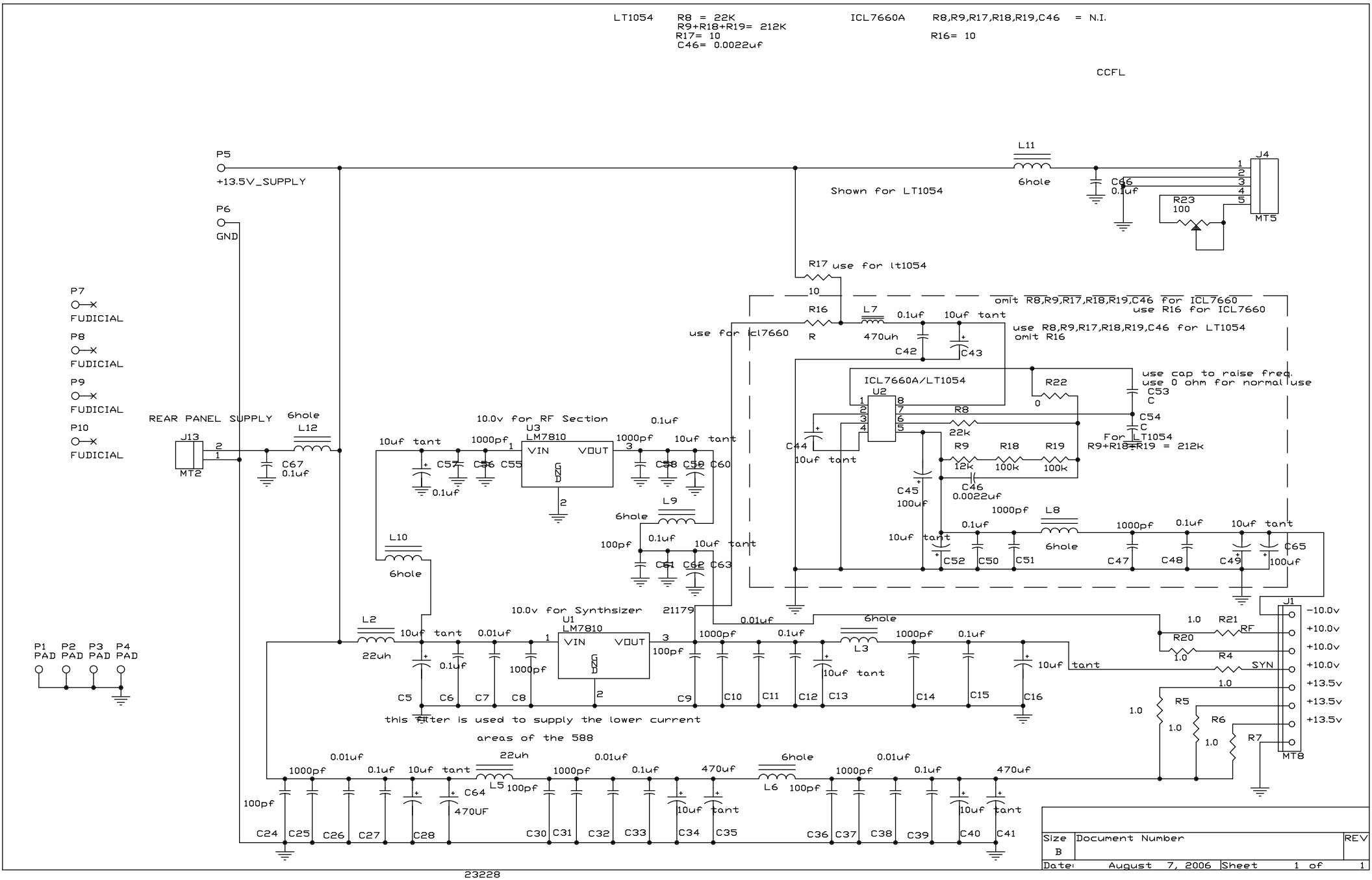


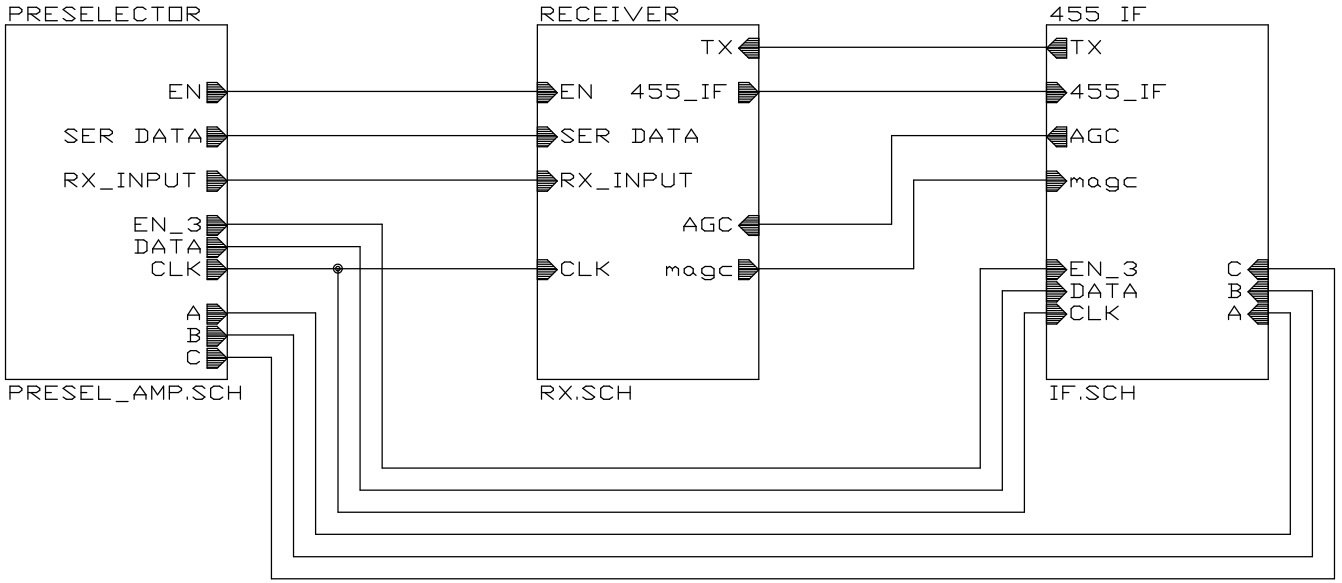
TEN-TEC, INC.		
1185 DOLLY PARTON PARKWAY SEVIERVILLE, TN 37862		
Size C	Document Number	REV
Date: February 16, 2007	Sheet of	



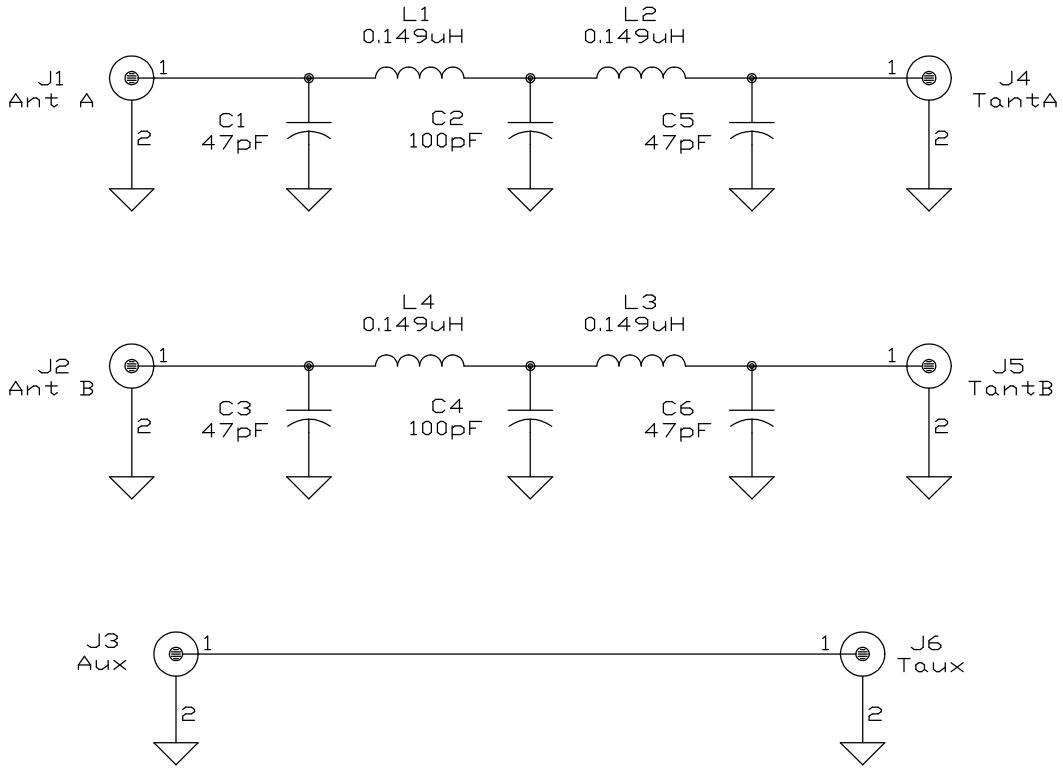
TEN-TEC, INC.		
1185 DOLLY PARTON PARKWAY SEVIERVILLE, TN 37862		
Size B	Document Number Model 588 DSP PCB	REV A
Date: April 17, 2006	Sheet 1 of 8	


J3 HF+6A
J4 HF+6B
J5 AUX ANT
GAP3 SPARK GAP
GAP1 SPARK GAP
GAP2 SPARK GAP
L42 1mH PC
L41 1mH PC
L40 1mH PC
K1 RELAY REED
K21 V23079
T1 1:2 TRANSFORMER CT
tx
C9 3-22pF
C22 221pF
L1 1mH
R1 8.2k
R2 1.5k
L5 27uH
R3 68 1/2W
D3 BAT41
D2 BAT41
D5 CMR1-10
R5 470
R4 470
REF
FWD
C59 470pF
R11 10k
R12 10k
C58 470pF
T2A
T2B
C52 .1uF
C72 .1uF
D4 CMR1-10
K18 V23079
K19 V23079
K20 V23079
K22
J8 FROM TUNER
J9 TO TUNER
J6 RX ANT
D23 CMR1-10
D24 CMR1-10
D22 CMR1-10
ANT1
ANT2
MAIN/AUX
AUXANT
K9
K10
J2 PA IN
V23079
8.5T #16 .3125ID
9.5T #16 .3125ID
L16 .37uH AIR
L17 .37uH AIR
L18 .32uH AIR
L4 .32uH AIR
L19 .32uH AIR
C47 56pF
C48 56pF
C76 56pF
C77 33pF
C79 33pF
C78 18pF
C20 NI
C21 NI
L37 100uH
L20 100uH
D21 CMR1-10
D12 CMR1-10
K8 V23079
K11 V23079
C92 NI
C93 18pF
C94 100pF
C96 80pF
C95 100pF
C89 100pF
C91 18pF
C90 NI
L36 100uH
L21 100uH
D19 CMR1-10
D11 CMR1-10
K7 V23079
K12 V23079
C75 18pF
C97 56pF
L15 .425uH TDR
L12 .327uH TDR
C46 NI
C88 47pF
C44 120pF
C87 120pF
C42 NI
C43 NI
L35 100uH
L22 100uH
D20 CMR1-10
D10 CMR1-10
K6 V23079
K13 V23079
L10 .73uH TDR
L11 .73uH TDR
C19 47pF
C18 100pF
C49 120pF
C23 270pF
C85 120pF
C86 47pF
L34 100uH
L23 100uH
D18 CMR1-10
D13 CMR1-10
K5 V23079
K14 V23079
C39 100pF
C40 47pF
C83 NI
C45 68pF
L9 .65uH TDR
L8 .81uH TDR
C41 120pF
C84 47pF
C17 510pF
C16 NI
C81 NI
C82 220pF
L31 820uH
L24 820uH
D17 CMR1-10
D9 CMR1-10
K4 V23079
K15 V23079
L13 1.7uH TDR
L14 1.7uH TDR
C38 510pF
C37 100pF
C80 270pF
C36 1000pF
C35 100pF
C34 510pF
L30 820uH
L25 820uH
D16 CMR1-10
D8 CMR1-10
K3 V23079
K16 V23079
L7 2.8uH TDR
L6 2.8uH TDR
C32 510pF
C33 390pF
C31 510pF
C29 1000pF
C30 390pF
C28 510pF
L29 820uH
L26 820uH
D15 CMR1-10
D7 CMR1-10
K2 V23079
K17 V23079
C51 270pF
C74 80pF
C50 510pF
C73 390pF
L2 2.6uH TDR
L3 3.4uH TDR
C26 510pF
C27 220pF
C24 1000pF
C15 1000pF
C25 1000pF
C14 1000pF
L28 820uH
L27 820uH
D14 CMR1-10
D6 CMR1-10
40/30
60
80
160
6
ANT1
20
17/15
12/10
+13.8v
U2 A6810SLW
U1 A6810SLW
OUT8 OUT9 OUT7 OUT 10 OUT6 SER DA OU CLOCK LD VBB GND SER DAT LGC VDD BLNK STRDBE OUT1 OUT5 OUT2 OUT4 OUT3 NC
L38 100uH
L1
D1 5.1v
R8 3.9k
R9 3.9k
R10 3.9k
C53 .01uF
C5 .001uF
C70 .01uF
C71 .01uF
C7 .1uF
C55 .01uF
C54 .01uF
C56 .01uF
C1 .01uF
C2 .01uF
C12 .01uF
C4 .01uF
C3 .01uF
R13 100
C61 NI
R7 100
C8 .001uF
R6 100
C63 NI
L33 100uH
L32 100uH
C62 NI
C65 NI
C64 NI
J1
T
CLK
REF
FWD
+13.8v
DAT
EN
L43
L39
C66 .1uF
C67 .1uF
C13 .1uF
C57 .1uF
T2A
T2B
J7 MT2
TO PA
L44
C6 NI
C60 .01uF
C68 .1uF
C10 .1uF
C11 .1uF
C69 .1uF
MAIN/AUX
ANT2
AUXANT
P1 PAD
P2 PAD
P3 PAD
P4 PAD
P5 PAD
P6 PAD
TEN-TEC, INC.
1185 DOLLY PARTON PARKWAY
SEVIERVILLE, TN 37862
Size C
Document Number
REV
Date: February 12, 2007
Sheet 1 of 1

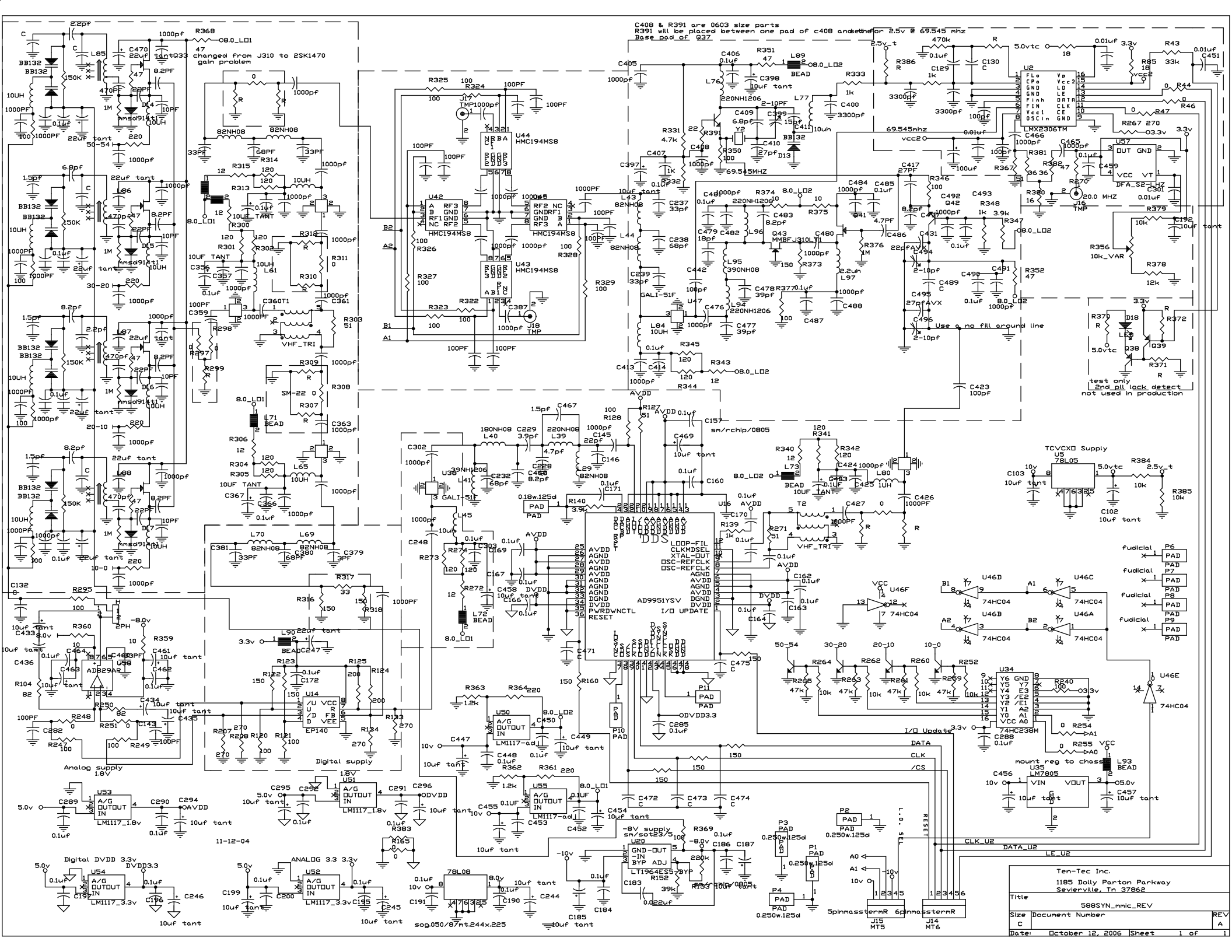

LT1054 R8 = 22K
R9+R18+R19= 212K
R17= 10
C46= 0.0022uf
ICL7660A R8,R9,R17,R18,R19,C46 = N.I.
R16= 10
CCFL
P5
+13.5V_SUPPLY
P6
GND
P7
FUDICIAL
P8
FUDICIAL
P9
FUDICIAL
P10
FUDICIAL
P1 PAD
P2 PAD
P3 PAD
P4 PAD
REAR PANEL SUPPLY
J13
MT2
6hole
L12
C67
0.1uf
L11
6hole
Shown for LT1054
C66
0.1uf
J4
MT5
R23
100
R17 use for lt1054
10
omit R8,R9,R17,R18,R19,C46 for ICL7660
use R16 for ICL7660
R16
R
use for icl7660
L7
470uh
0.1uf
10uf tant
C42
C43
use R8,R9,R17,R18,R19,C46 for LT1054
omit R16
ICL7660A/LT1054
U2
R22
0
use cap to raise freq.
use 0 ohm for normal use
C53
C
C54
C
For LT1054
R9+R18+R19 = 212k
R8
22k
C44
10uf tant
R9
12k
R18
100k
R19
100k
C45
100uf
C46
0.0022uf
10.0v for RF Section
U3
LM7810
VIN
VOUT
10uf tant
1000pf
0.1uf
C57
C56
C55
C58
C59
C60
L9
6hole
100pf
0.1uf
10uf tant
C61
C62
C63
L10
6hole
1000pf
L8
6hole
0.1uf
10uf tant
C52
C50
C51
1000pf
0.1uf
10uf tant
C47
C48
C49
C65
100uf
10.0v for Synthsizer
21179
U1
LM7810
VIN
VOUT
L2
22uh
10uf tant
0.01uf
0.1uf
1000pf
C5
C6
C7
C8
100pf
1000pf
0.1uf
6hole
L3
1000pf
0.1uf
10uf tant
10uf tant
C9
C10
C11
C12
C13
C14
C15
C16
this filter is used to supply the lower current
areas of the 588
J1
MT8
1.0
R21
RF
R20
1.0
R4
SYN
1.0
R5
1.0
R6
1.0
R7
1.0
1.0
-10.0v
+10.0v
+10.0v
+10.0v
+13.5v
+13.5v
+13.5v
0.01uf
1000pf
0.1uf
10uf tant
22uh
L5
100pf
C64
470UF
0.01uf
1000pf
0.1uf
470uf
6hole
L6
100pf
0.01uf
1000pf
0.1uf
470uf
C24
C25
C26
C27
C28
C30
C31
C32
C33
10uf tant
C34
C35
C36
C37
C38
C39
10uf tant
C40
C41
Size B
Document Number
REV
Date: August 7, 2006
Sheet 1 of 1
23228

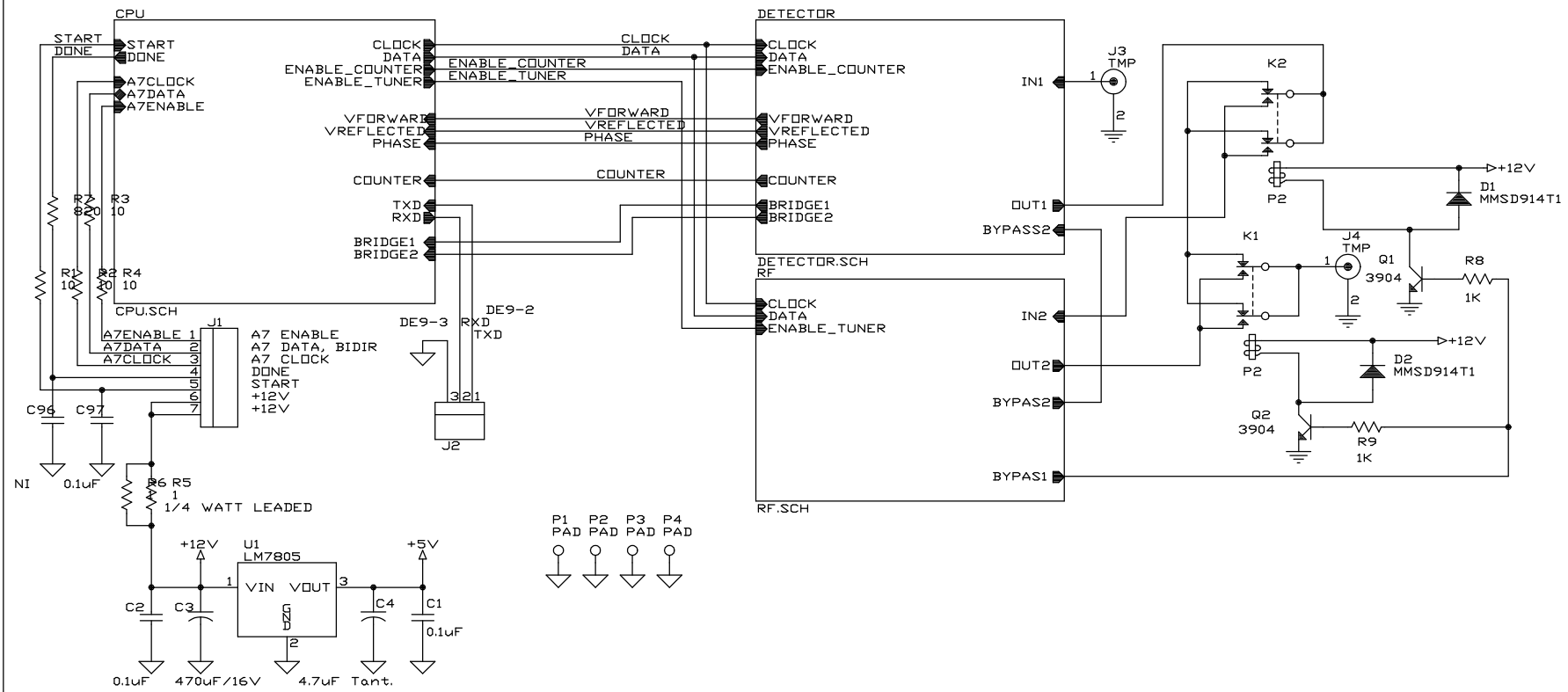


TEN-TEC, INC 1185 DOLLY PARTON PKY SEVIERVILLE, TN 37862		
Title 588		
Size A	Document Number	REV H
Date: July 6, 2006	Sheet 1 of 4	



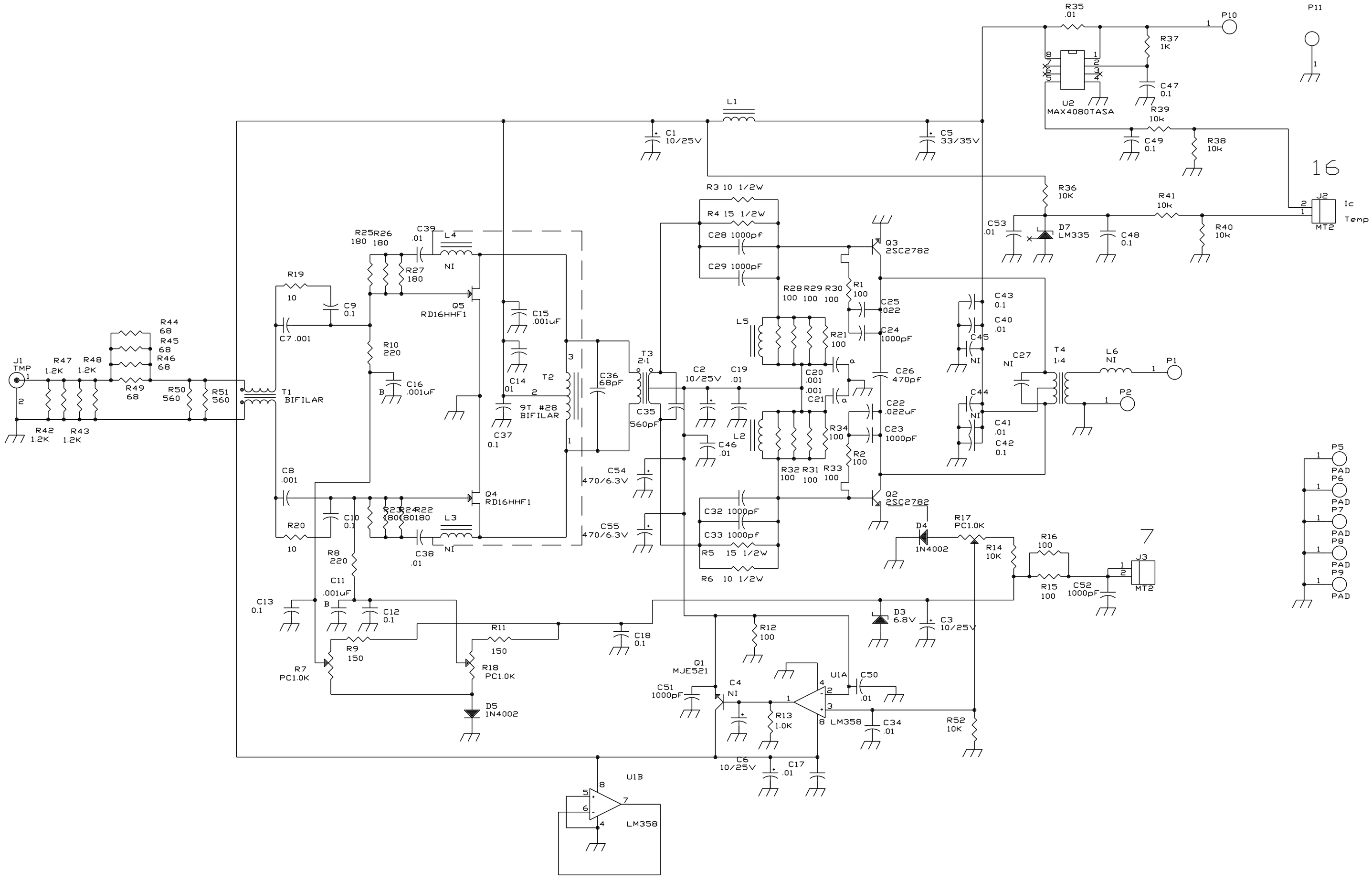
Size A	Document Number	REV
Date: January 2, 2007	Sheet 1 of 1	


C408 & R391 are 0603 size parts
R391 will be placed between one pad of c408 and the
Base pad of Q37
for 2.5v @ 69.545 mhz
Analog supply
1.8V
Digital supply
Digital DVDD 3.3v
ANALOG 3.3 3.3v
11-12-04
AD9951YSV
I/O UPDATE
LOOP-FIL
CLKMDSEL
XTAL-OUT
OSC-REFCLK
OSC-REFCLK
RESET
DATA
CLK
/CS
I/O Update
DATA_U2
CLK_U2
LE_U2
RESET
TCVCXO Supply
test only
2nd pll lock detect
not used in production
mount reg to chass
Ten-Tec Inc.
1185 Dolly Parton Parkway
Sevierville, Tn 37862
588SYN_mmic_REV
October 12, 2006

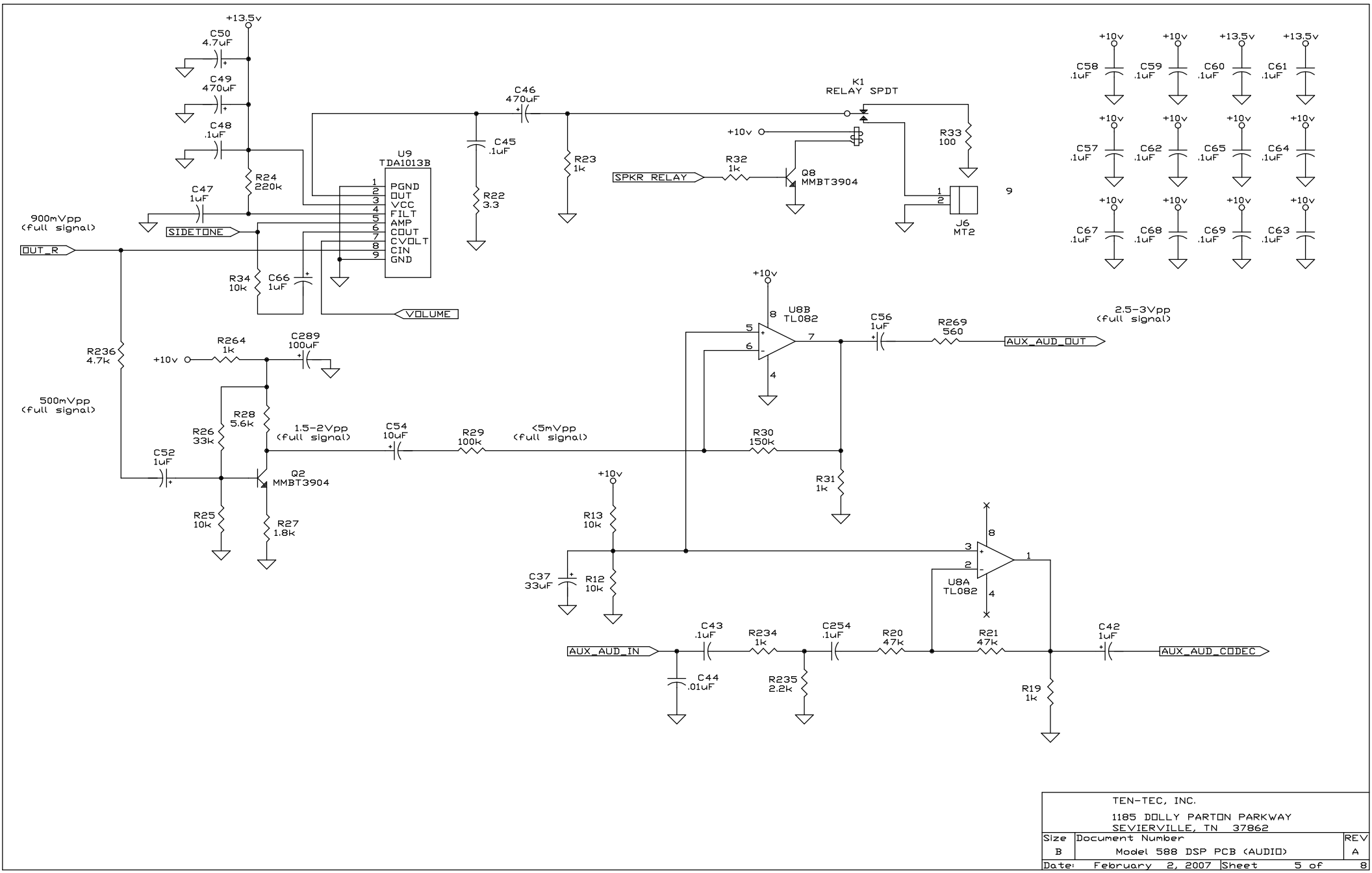


OPTIONAL SWITCH, FUSE
OPTIONAL LED

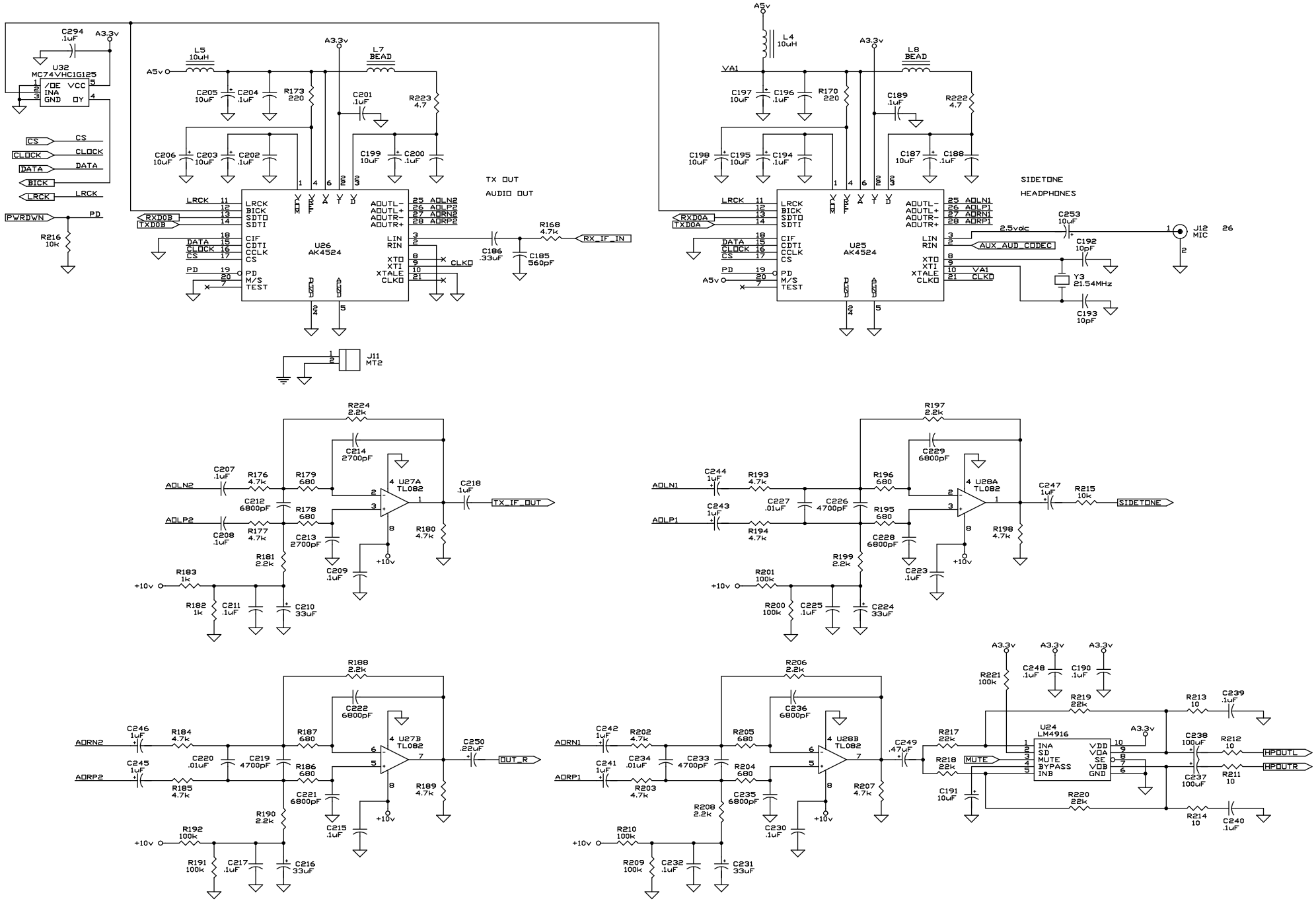
Size	Document Number	REV
B		
Date: December 9, 2004	Sheet 1 of 4	



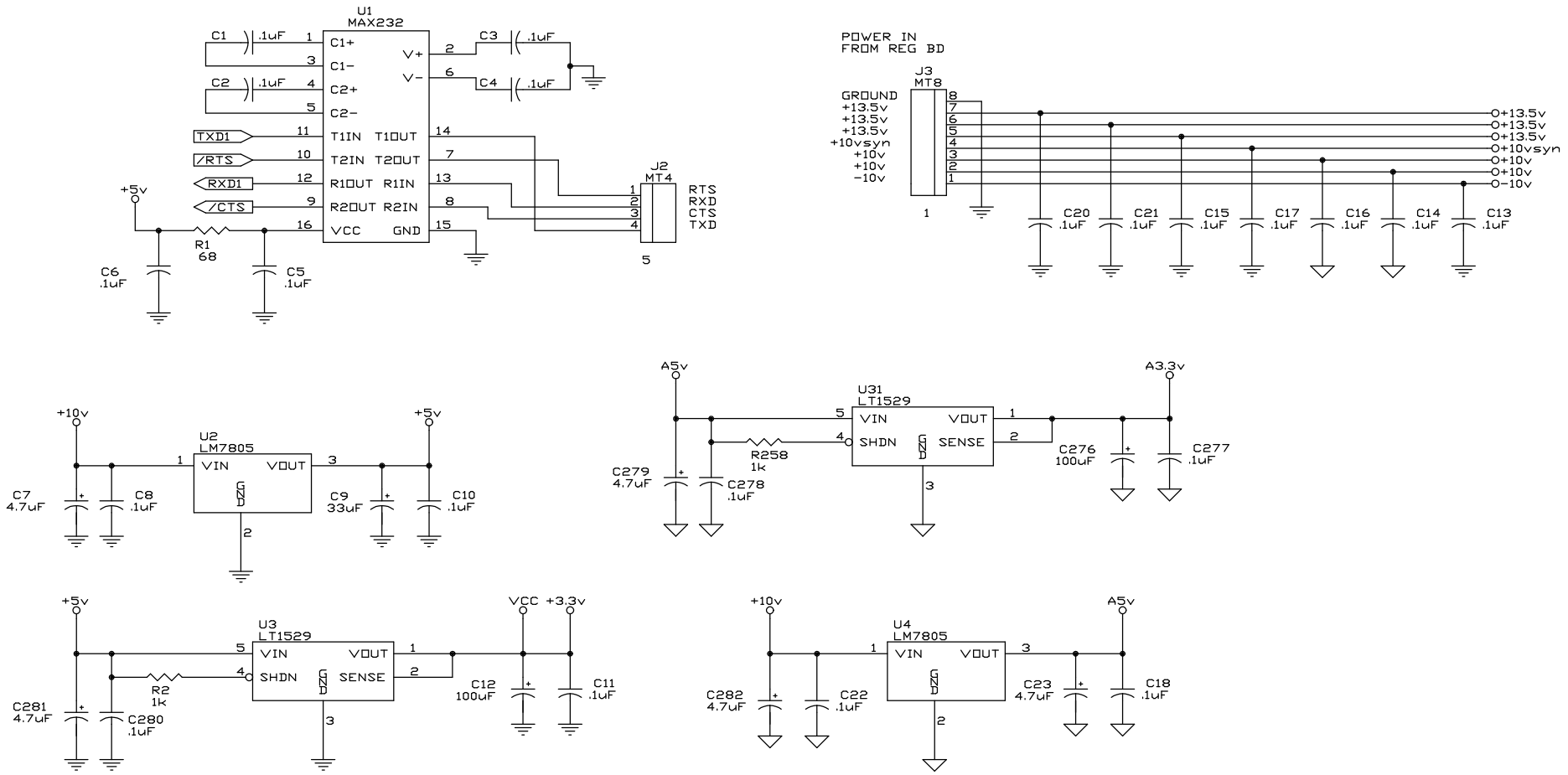
Ten-Tec, Inc. 1185 Dolly Parton Pkwy. Sevierville, TN 37862		
Title: HF + 6M		
Size: C	Document Number: 78289	REV: D
Date: August 9, 2007	Sheet 1 of 1	



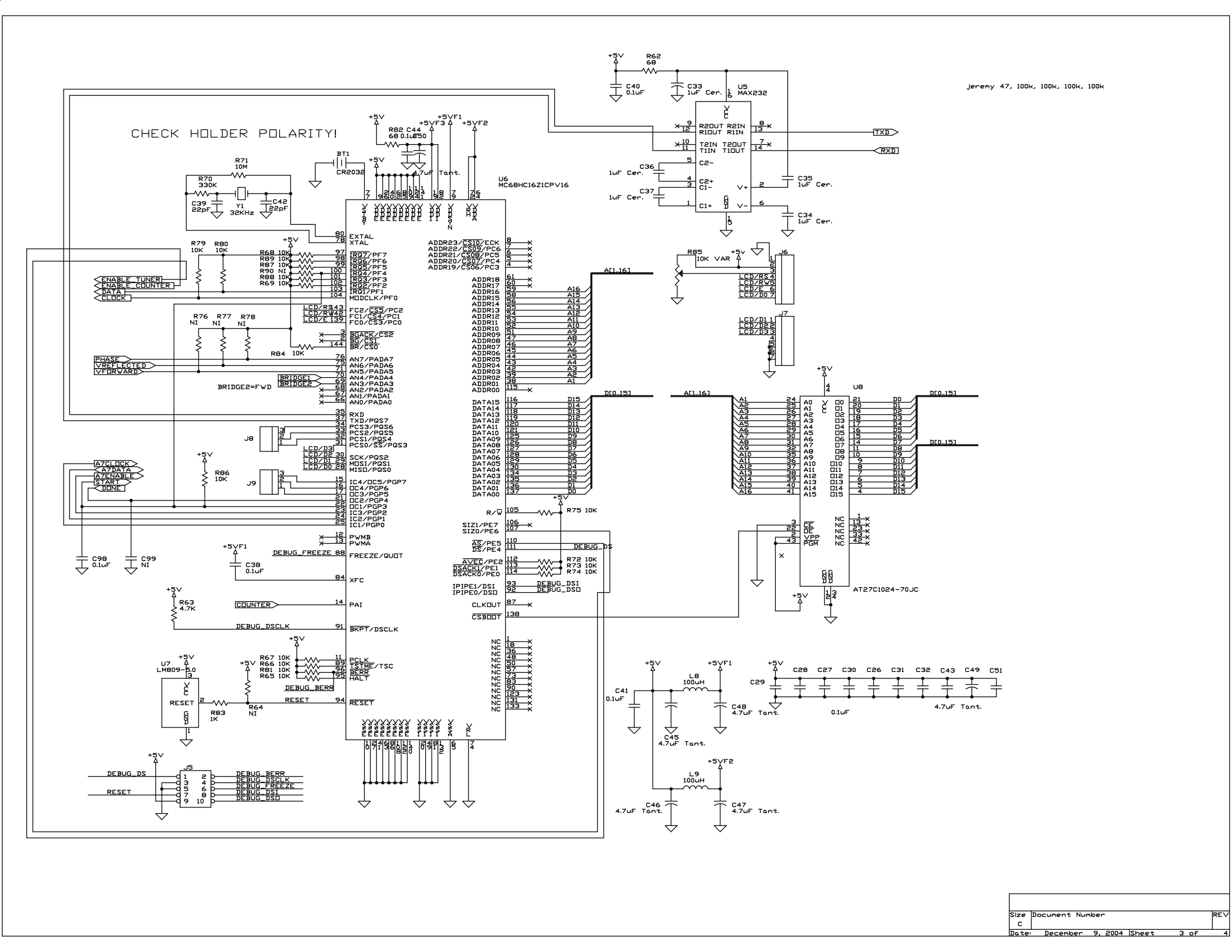
TEN-TEC, INC. 1185 DOLLY PARTON PARKWAY SEVIERVILLE, TN 37862		
Size B	Document Number Model 588 DSP PCB (AUDIO)	REV A
Date: February 2, 2007	Sheet 5 of 8	



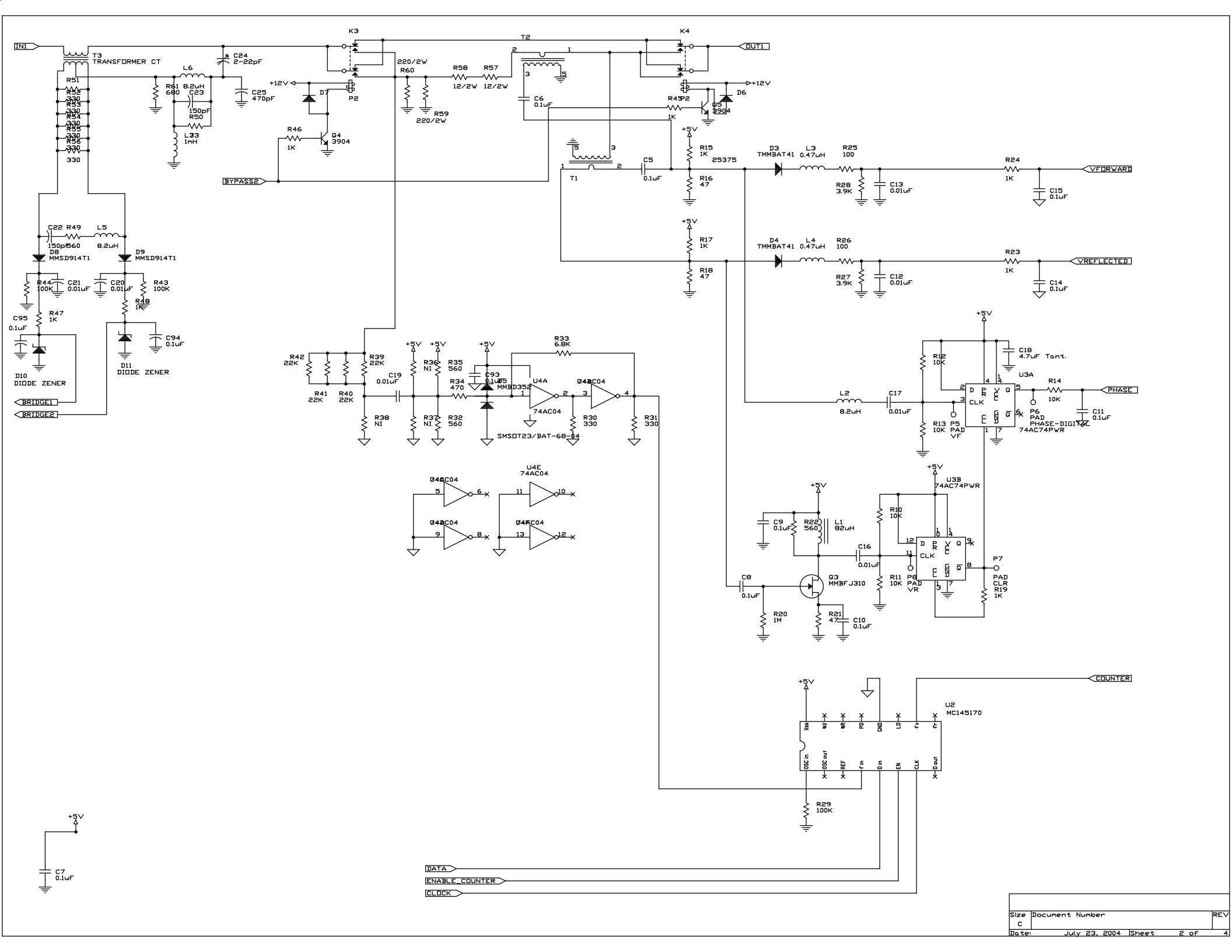
TEN-TEC, INC.		
1185 DOLLY PARTON PARKWAY SEVIERVILLE, TN 37862		
Size	Document Number	REV
C	Model 588 DSP PCB (CODEC)	A
Date: January 9, 2007	Sheet 4 of 8	



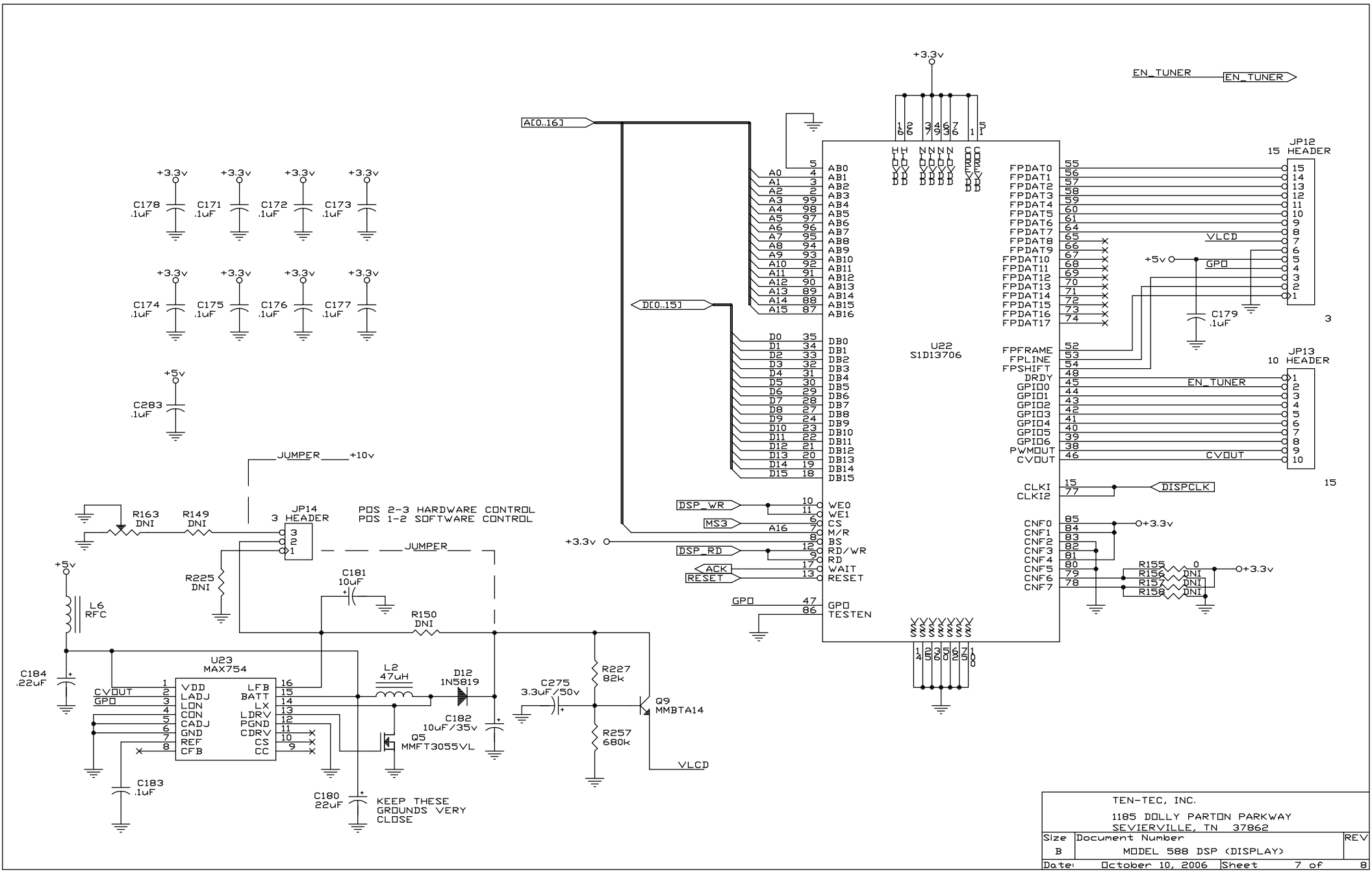
TEN-TEC, INC.		
1185 DOLLY PARTON PARKWAY SEVIERVILLE, TN 37862		
Size B	Document Number Model 588 DSP PCB (CONTROL)	REV A
Date: November 10, 2005	Sheet 2 of 8	

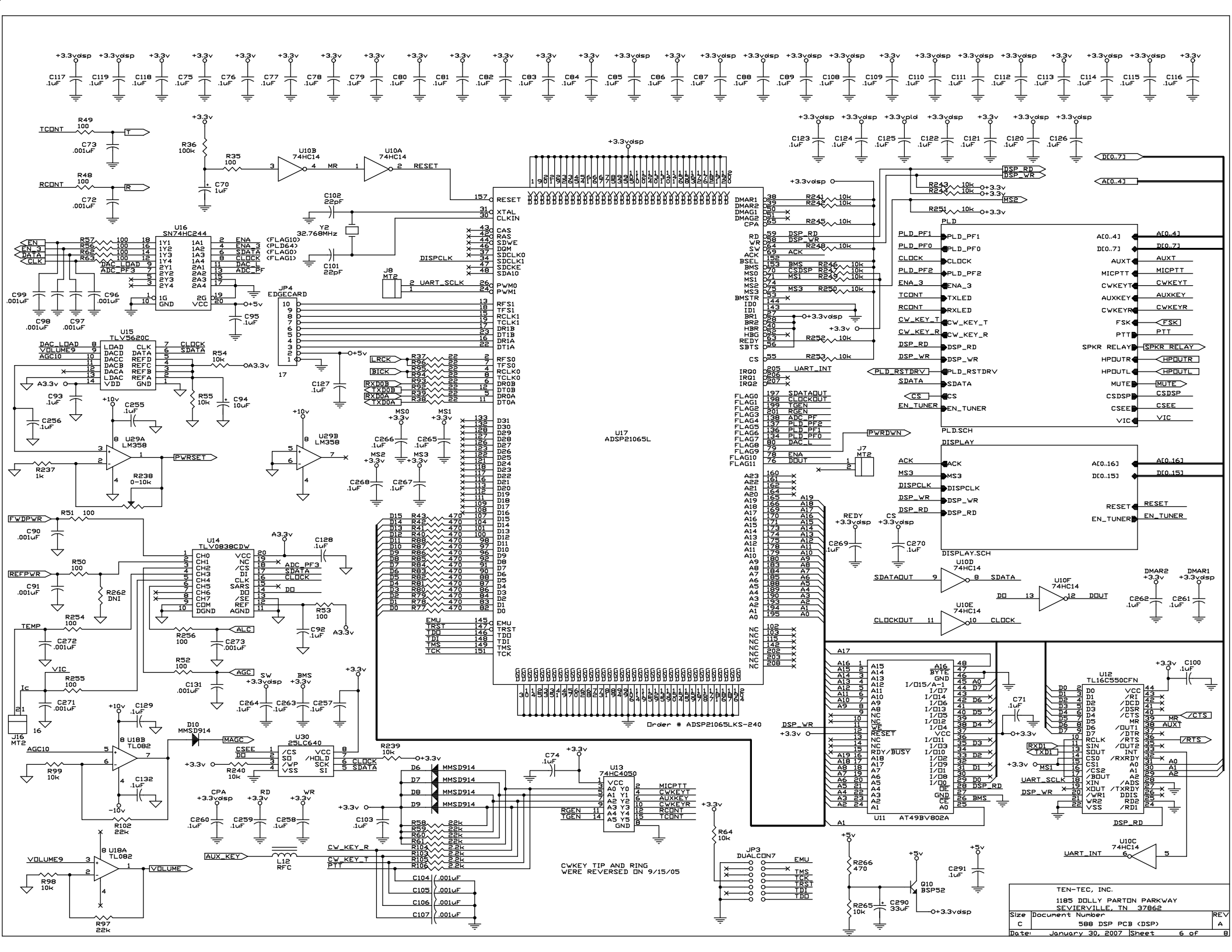


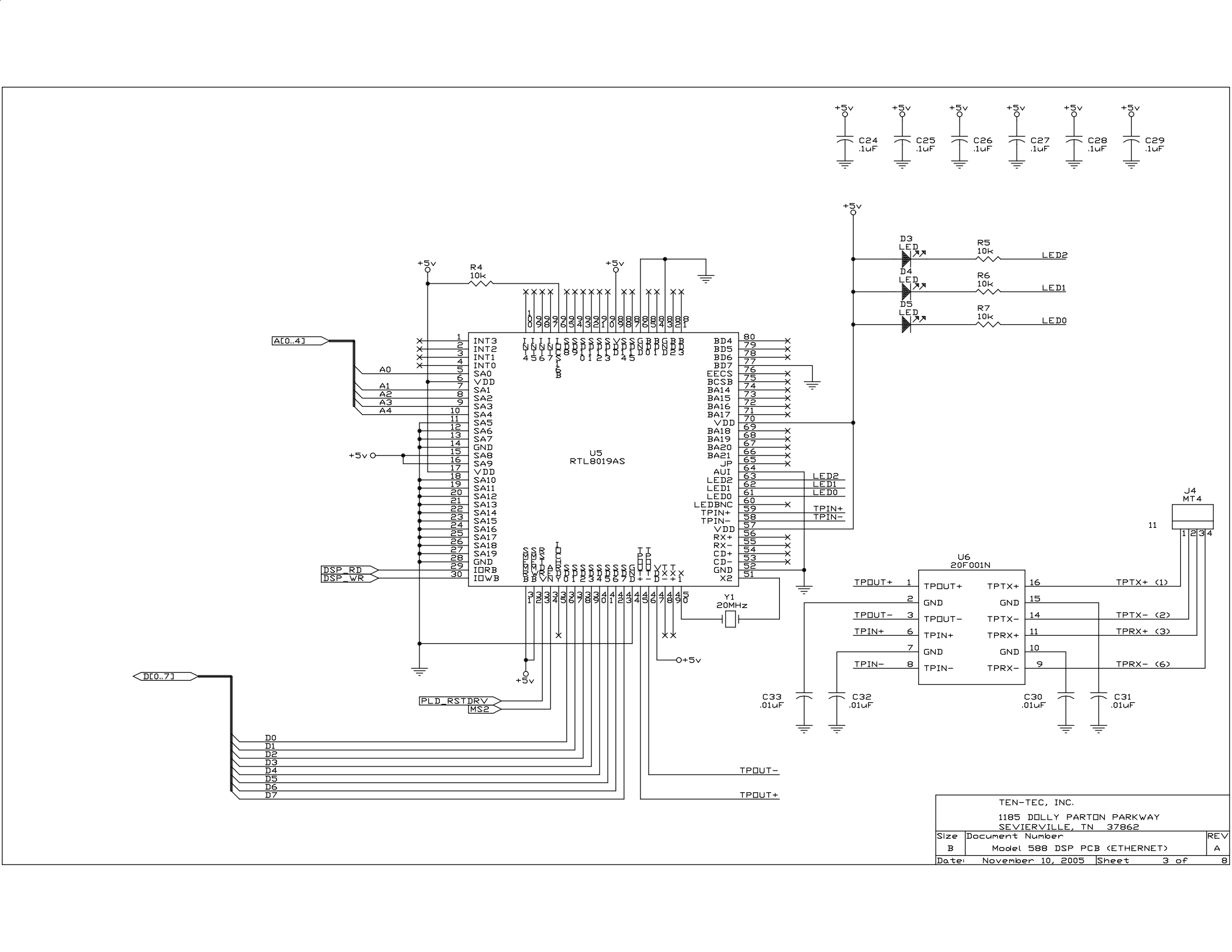
Size	Document Number	REV
C		
Date: December 9, 2004	Sheet 3 of 4	

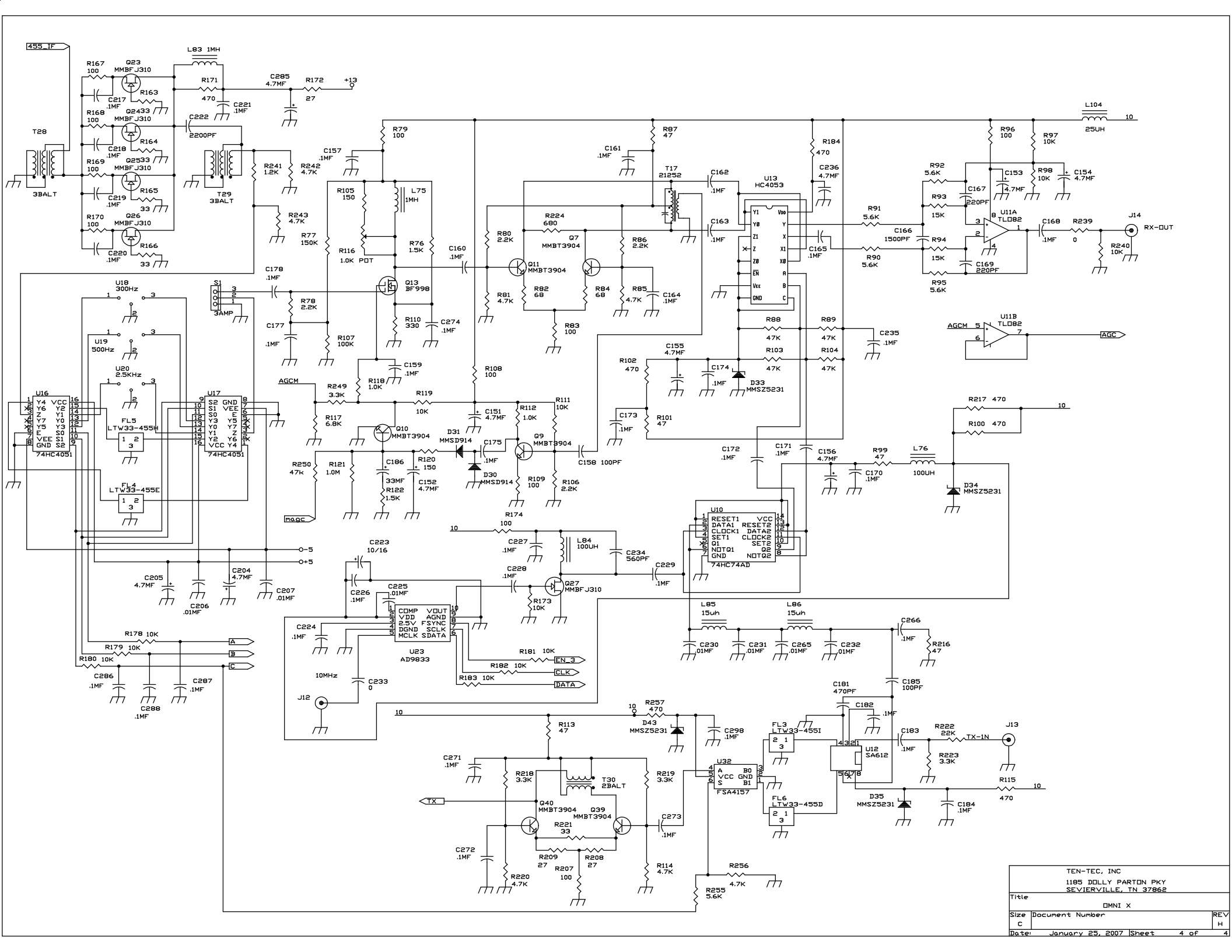


Size	Document Number	REV
C		
Date: July 23, 2004	Sheet 2 of 4	

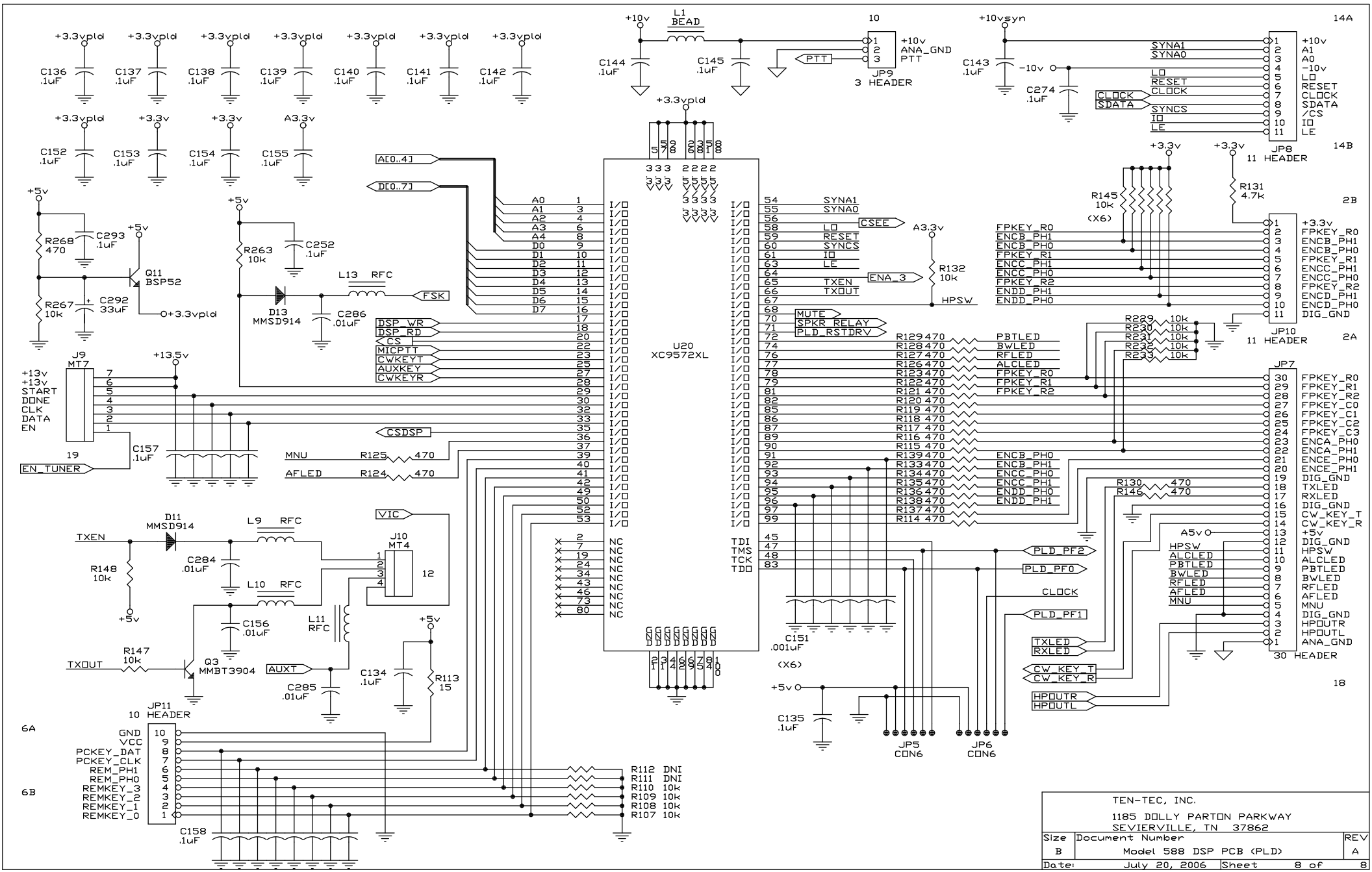

+3.3v
EN_TUNER
A[0..16]
D[0..15]
U22
S1D13706
JP12
15 HEADER
JP13
10 HEADER
VLCD
+5v
GPO
C179
.1uF
DISPCLK
CVOUT
C178 .1uF
C171 .1uF
C172 .1uF
C173 .1uF
C174 .1uF
C175 .1uF
C176 .1uF
C177 .1uF
C283 .1uF
JUMPER
+10v
JP14
3 HEADER
POS 2-3 HARDWARE CONTROL
POS 1-2 SOFTWARE CONTROL
R163 DNI
R149 DNI
R225 DNI
C181 10uF
R150 DNI
L6 RFC
C184 .22uF
U23
MAX754
L2 47uH
D12 1N5819
C182 10uF/35v
Q5 MMFT3055VL
C275 3.3uF/50v
R227 82k
R257 680k
Q9 MMBTA14
C183 .1uF
C180 22uF
KEEP THESE GROUNDS VERY CLOSE
DSP_WR
MS3
DSP_RD
ACK
RESET
R155 0
R156 DNI
R157 DNI
R158 DNI
TEN-TEC, INC.
1185 DOLLY PARTON PARKWAY
SEVIERVILLE, TN 37862
Size B
Document Number
MODEL 588 DSP (DISPLAY)
REV
Date: October 10, 2006
Sheet 7 of 8


U17
ADSP21065L
U16
SN74HC244
U15
TLV5620C
U14
TLV0838CDW
U29A
LM358
U29B
LM358
U18A
TL082
U18B
TL082
U30
25LC640
U13
74HC4050
U11
AT49BV802A
U12
TL16C550CFN
U10A
74HC14
U10B
74HC14
U10C
74HC14
U10D
74HC14
U10E
74HC14
U10F
74HC14
JP4
EDGECARD
JP3
DUALCON7
J7
MT2
J8
MT2
J16
MT2
Y2
32.768MHz
PLD
PLD.SCH
DISPLAY
DISPLAY.SCH
Order # ADSP21065LKS-240
CWKEY TIP AND RING
WERE REVERSED ON 9/15/05
TEN-TEC, INC.
1185 DOLLY PARTON PARKWAY
SEVIERVILLE, TN 37862
Size C
Document Number
588 DSP PCB (DSP)
REV A
Date: January 30, 2007
Sheet 6 of 8

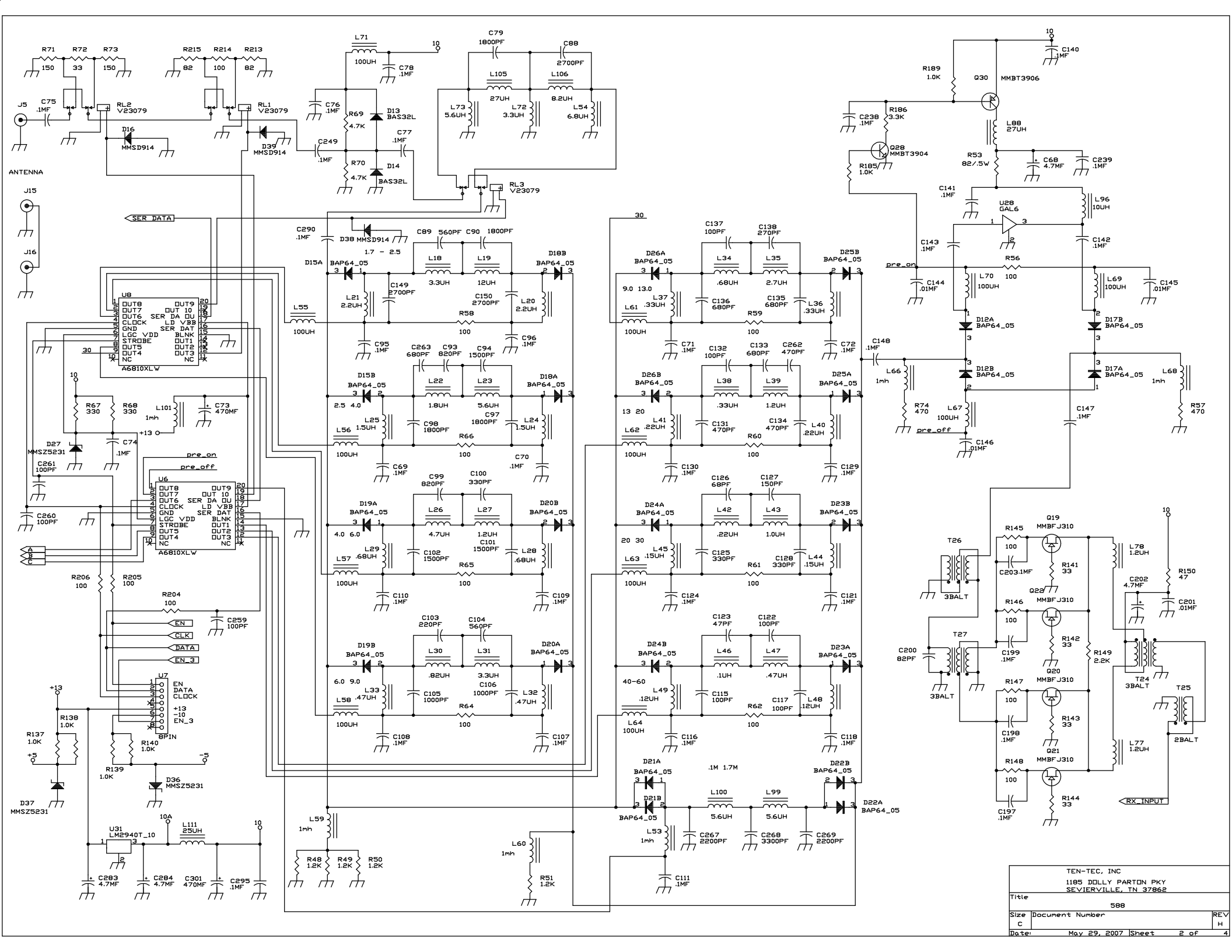

C24 .1uF
C25 .1uF
C26 .1uF
C27 .1uF
C28 .1uF
C29 .1uF
D3 LED
D4 LED
D5 LED
R5 10k
R6 10k
R7 10k
LED2
LED1
LED0
R4 10k
A[0..4]
A0
A1
A2
A3
A4
U5
RTL8019AS
INT3
INT2
INT1
INT0
SA0
SA1
SA2
SA3
SA4
SA5
SA6
SA7
SA8
SA9
SA10
SA11
SA12
SA13
SA14
SA15
SA16
SA17
SA18
SA19
GND
VDD
IORB
IOWB
BD4
BD5
BD6
BD7
EECS
BCSB
BA14
BA15
BA16
BA17
BA18
BA19
BA20
BA21
JP
AUI
LED2
LED1
LED0
LEDBNC
TPIN+
TPIN-
RX+
RX-
CD+
CD-
X2
DSP_RD
DSP_WR
Y1
20MHz
U6
20F001N
TPOUT+
GND
TPOUT-
TPIN+
GND
TPIN-
TPTX+
GND
TPTX-
TPRX+
GND
TPRX-
TPTX+ (1)
TPTX- (2)
TPRX+ (3)
TPRX- (6)
J4
MT4
C33 .01uF
C32 .01uF
C30 .01uF
C31 .01uF
D[0..7]
D0
D1
D2
D3
D4
D5
D6
D7
PLD_RSTDRV
MS2
TPOUT-
TPOUT+
TEN-TEC, INC.
1185 DOLLY PARTON PARKWAY
SEVIERVILLE, TN 37862
Size B
Document Number
Model 588 DSP PCB (ETHERNET)
REV A
Date: November 10, 2005
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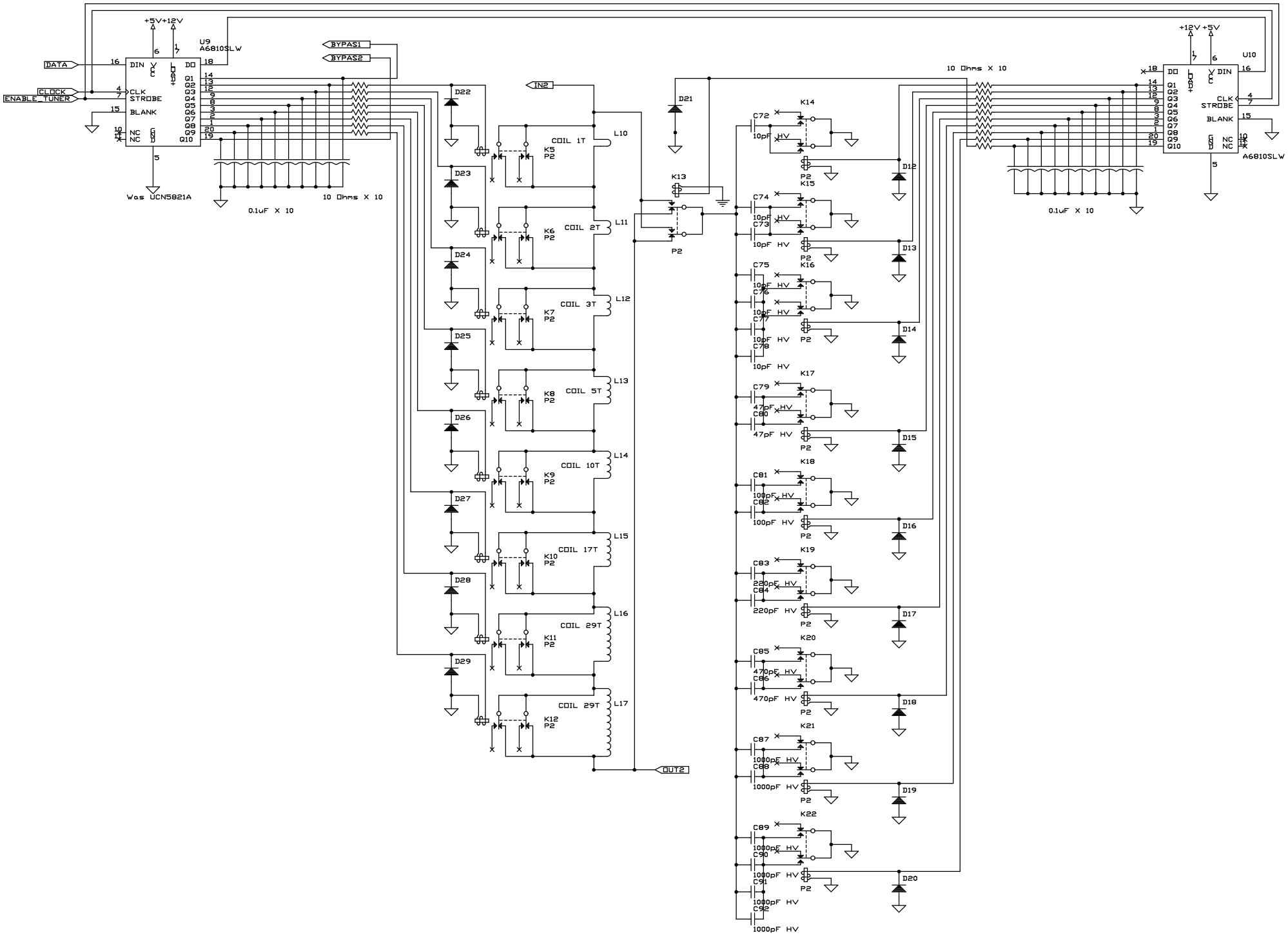


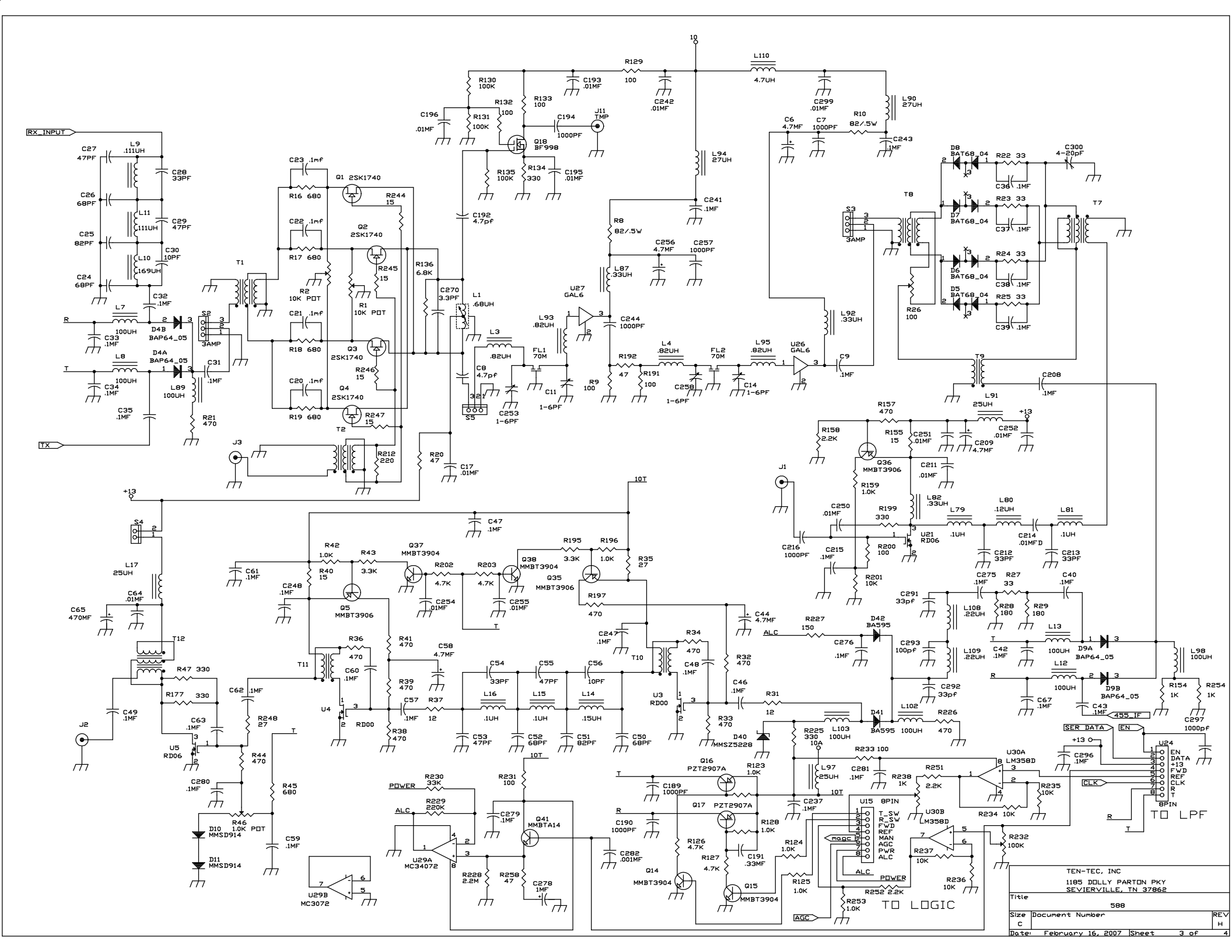
TEN-TEC, INC		
1185 DOLLY PARTON PKY SEVIERVILLE, TN 37862		
Title	OMNI X	
Size C	Document Number	REV H
Date: January 25, 2007	Sheet 4 of 4	



TEN-TEC, INC.		
1185 DOLLY PARTON PARKWAY SEVIERVILLE, TN 37862		
Size B	Document Number Model 588 DSP PCB (PLD)	REV A
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R71 150
R72 33
R73 150
R215 82
R214 100
R213 82
J5
C75 .1MF
RL2 V23079
RL1 V23079
D16 MMSD914
D39 MMSD914
ANTENNA
L71 100UH
C78 .1MF
C76 .1MF
R69 4.7K
D13 BAS32L
C249 .1MF
R70 4.7K
D14 BAS32L
C77 .1MF
C79 1800PF
C88 2700PF
L105 27UH
L106 8.2UH
L73 5.6UH
L72 3.3UH
L54 6.8UH
RL3 V23079
J15
J16
SER DATA
C290 .1MF
D38 MMSD914
1.7 - 2.5
C89 560PF
C90 1800PF
D15A BAP64_05
L18 3.3UH
L19 12UH
D18B BAP64_05
L21 2.2UH
C149 2700PF
C150 2700PF
L20 2.2UH
L55 100UH
R58 100
C95 .1MF
C96 .1MF
U8
A6810XLW
C263 680PF
C93 820PF
C94 1500PF
D15B BAP64_05
L22 1.8UH
L23 5.6UH
D18A BAP64_05
2.5 4.0
L25 1.5UH
C98 1800PF
C97 1800PF
L24 1.5UH
L56 100UH
R66 100
C69 .1MF
C70 .1MF
R67 330
R68 330
L101 1mh
C73 470MF
D27 MMSZ5231
C74 .1MF
C261 100PF
pre_on
pre_off
U6
A6810XLW
C260 100PF
C99 820PF
C100 330PF
D19A BAP64_05
L26 4.7UH
L27 1.2UH
D20B BAP64_05
4.0 6.0
L29 .68UH
C102 1500PF
C101 1500PF
L28 .68UH
L57 100UH
R65 100
C110 .1MF
C109 .1MF
R206 100
R205 100
R204 100
C259 100PF
EN
CLK
DATA
EN_3
C103 220PF
C104 560PF
D19B BAP64_05
L30 .82UH
L31 3.3UH
D20A BAP64_05
6.0 9.0
L33 .47UH
C105 1000PF
C106 1000PF
L32 .47UH
L58 100UH
R64 100
C108 .1MF
C107 .1MF
U7
8PIN
R138 1.0K
R137 1.0K
R140 1.0K
R139 1.0K
D37 MMSZ5231
D36 MMSZ5231
U31 LM2940T_10
L111 25UH
C283 4.7MF
C284 4.7MF
C301 470MF
C295 .1MF
L59 1mh
R48 1.2K
R49 1.2K
R50 1.2K
L60 1mh
R51 1.2K
30
C137 100PF
C138 270PF
D26A BAP64_05
L34 .68UH
L35 2.7UH
D25B BAP64_05
9.0 13.0
L37 .33UH
C136 680PF
C135 680PF
L36 .33UH
L61 100UH
R59 100
C71 .1MF
C72 .1MF
C132 100PF
C133 680PF
C262 470PF
D26B BAP64_05
L38 .33UH
L39 1.2UH
D25A BAP64_05
13 20
L41 .22UH
C131 470PF
C134 470PF
L40 .22UH
L62 100UH
R60 100
C130 .1MF
C129 .1MF
C126 68PF
C127 150PF
D24A BAP64_05
L42 .22UH
L43 1.0UH
D23B BAP64_05
20 30
L45 .15UH
C125 330PF
C128 330PF
L44 .15UH
L63 100UH
R61 100
C124 .1MF
C121 .1MF
C123 47PF
C122 100PF
D24B BAP64_05
L46 .1UH
L47 .47UH
D23A BAP64_05
40-60
L49 .12UH
C115 100PF
C117 100PF
L48 .12UH
L64 100UH
R62 100
C116 .1MF
C118 .1MF
D21A BAP64_05
.1M 1.7M
D22B BAP64_05
D21B BAP64_05
L100 5.6UH
L99 5.6UH
D22A BAP64_05
L53 1mh
C267 2200PF
C268 3300PF
C269 2200PF
C111 .1MF
10
C140 .1MF
R189 1.0K
Q30 MMBT3906
C238 .1MF
R186 3.3K
Q28 MMBT3904
R185 1.0K
L88 27UH
R53 82/.5W
C68 4.7MF
C239 .1MF
C141 .1MF
U28 GAL6
L96 10UH
C143 .1MF
C142 .1MF
pre_on
R56 100
C144 .01MF
L70 100UH
L69 100UH
C145 .01MF
D12A BAP64_05
D17B BAP64_05
C148 .1MF
L66 1mh
D12B BAP64_05
D17A BAP64_05
L68 1mh
R74 470
L67 100UH
R57 470
pre_off
C146 .01MF
C147 .1MF
T26
3BALT
R145 100
Q19 MMBFJ310
L78 1.2UH
C203 .1MF
R141 33
Q22
C202 4.7MF
C201 .01MF
R150 47
R146 100
Q20 MMBFJ310
T27
C200 82PF
C199 .1MF
R142 33
R149 2.2K
T24 3BALT
R147 100
Q21 MMBFJ310
T25 2BALT
C198 .1MF
R143 33
L77 1.2UH
R148 100
C197 .1MF
R144 33
RX_INPUT
TEN-TEC, INC
1185 DOLLY PARTON PKY
SEVIERVILLE, TN 37862
Title
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+5V
+12V
U9
A6810SLW
DATA
CLOCK
ENABLE_TUNER
DIN
CLK
STROBE
BLANK
DO
NC
Was UCN5821A
BYPAS1
BYPAS2
0.1uF X 10
10 Ohms X 10
IN2
OUT2
D21
K13
P2
D22
D23
D24
D25
D26
D27
D28
D29
COIL 1T
COIL 2T
COIL 3T
COIL 5T
COIL 10T
COIL 17T
COIL 29T
COIL 29T
L10
L11
L12
L13
L14
L15
L16
L17
K5
K6
K7
K8
K9
K10
K11
K12
K14
K15
K16
K17
K18
K19
K20
K21
K22
C72
C73
C74
C75
C76
C77
C78
C79
C80
C81
C82
C83
C84
C85
C86
C87
C88
C89
C90
C91
C92
10pF HV
47pF HV
100pF HV
220pF HV
470pF HV
1000pF HV
D12
D13
D14
D15
D16
D17
D18
D19
D20
U10
Size
C
Document Number
REV
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RX_INPUT
TX
TO LPF
TO LOGIC
TEN-TEC, INC
1185 DOLLY PARTON PKY
SEVIERVILLE, TN 37862
Title
588
Size C
Document Number
REV H
Date: February 16, 2007
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