

NOTES: Unless otherwise noted:
 All capacitor values are stated in microfarads.
 All resistor values are stated in ohms.
 All inductance values are stated in microhenries.

PROPRIETARY DATA
 THE DATA DISCLOSED IN THIS DOCUMENT WAS ORIGINATED BY HARRIS CORP., RF COMMUNICATIONS, AND IS TO BE UTILIZED ONLY FOR THE SPECIFIC PURPOSES FOR WHICH IT WAS SUPPLIED. IT IS NOT TO BE REPRODUCED WITHOUT THE WRITTEN CONSENT OF RF COMMUNICATIONS.

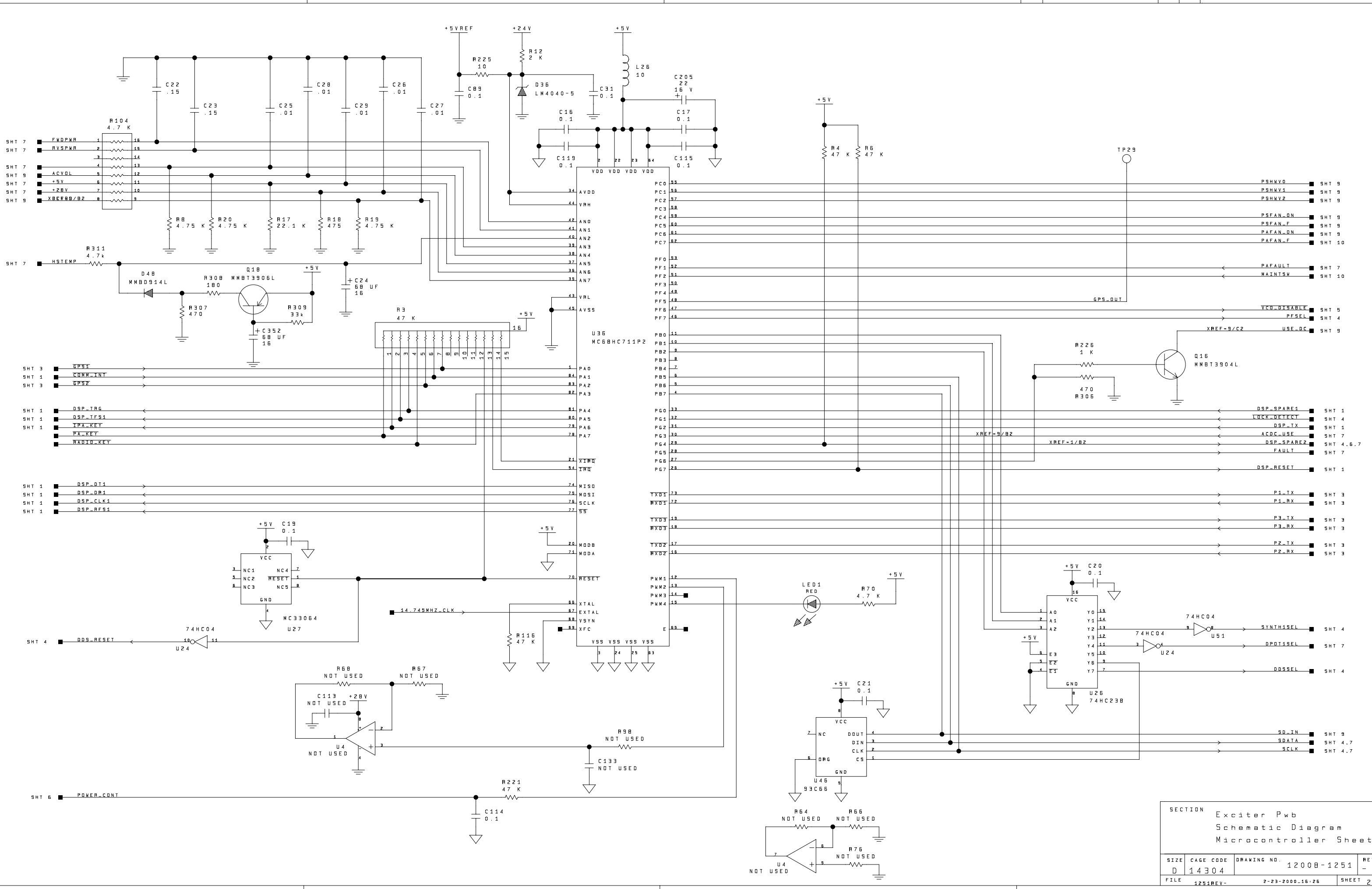
| QTY | ITEM NO. | CAGE CODE | SPECIFICATION | PART NUMBER | DESCRIPTION |
|-------------------------|----------|-----------|------------------|-------------|-------------|
| PARTS LIST | | | | | |
| DIMENSIONS IN INCHES | | | DATE 9/9/99 | | |
| TOLERANCES | | | CHK B. ROEDER | | |
| FRACTIONS ± 1/64 | | | ENGR D. FUCHS | | |
| ANGLES ± 1° | | | APVD J. LUNDBERG | | |
| DEC XX ± .02 XXX ± .005 | | | CONTR NO. | | |
| WFG SPEC | | | RLSE DATE | | |
| MATERIAL | | | APPROVAL | | |
| FINISH | | | APPROVED | | |

| SIZE | CAGE CODE | DRAWING NO. | REV |
|------|-----------|-------------|-----|
| D | 14304 | 12008-1251 | - |

| SCALE | WEIGHT | 1251REV- | SHEET | 10F 10 |
|-------|--------|----------|-------|--------|
| | | | | |

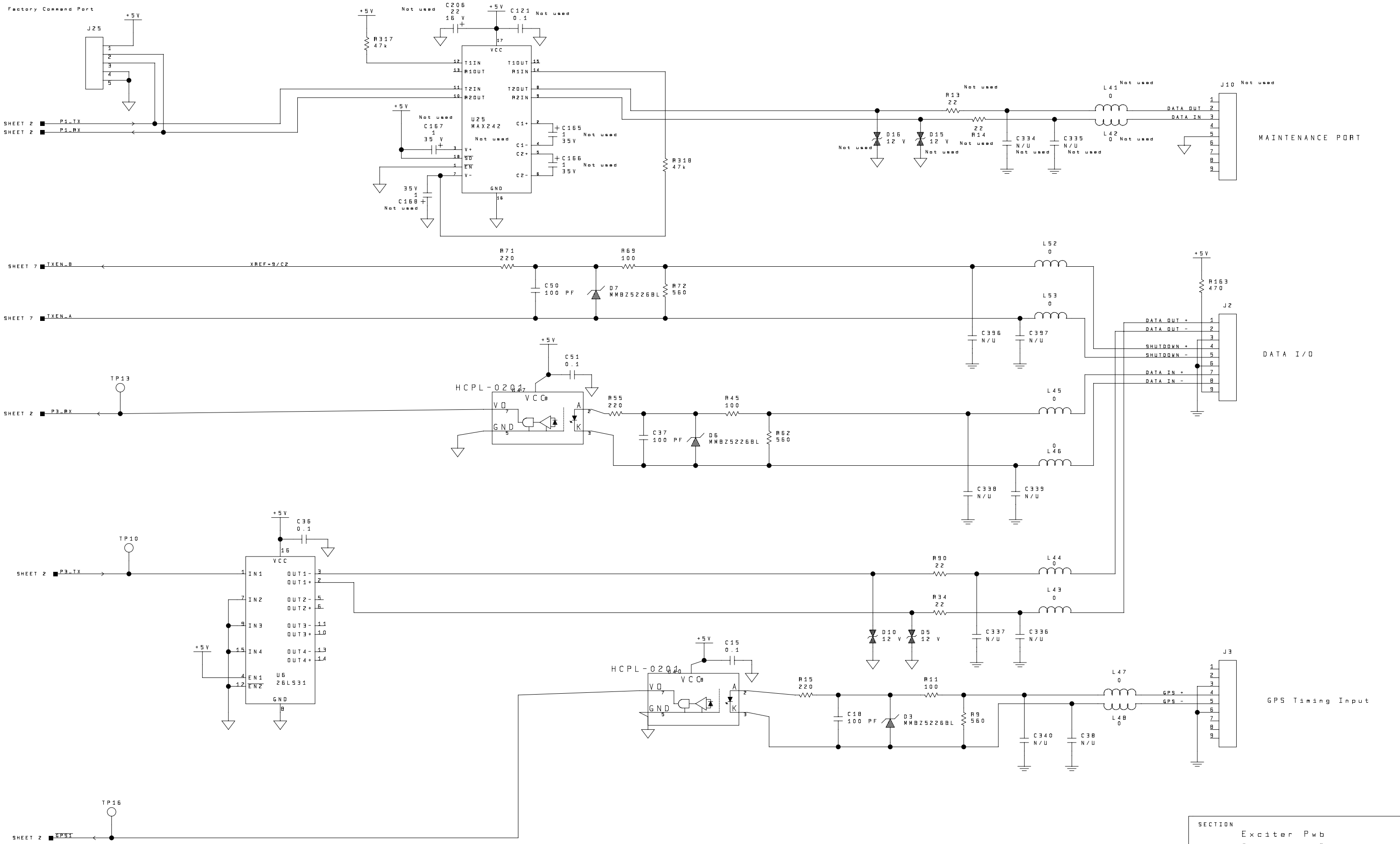


TITLE: Exciter Pwb Schematic Diagram DSP Sheet



SECTION Exciter Pwb
Schematic Diagram
Microcontroller Sheet

| SIZE | CAGE CODE | DRAWING NO. | REV |
|------|-----------------|-------------|-----|
| D | 14304 | 12008-1251 | - |
| FILE | 2-23-2000-16-26 | SHEET | 2 |



Factory Command Port

SHEET 2 P1_TX

SHEET 2 P1_RX

SHEET 7 TXEN-B

SHEET 7 TXEN-A

SHEET 2 P3_RX

SHEET 2 P3_TX

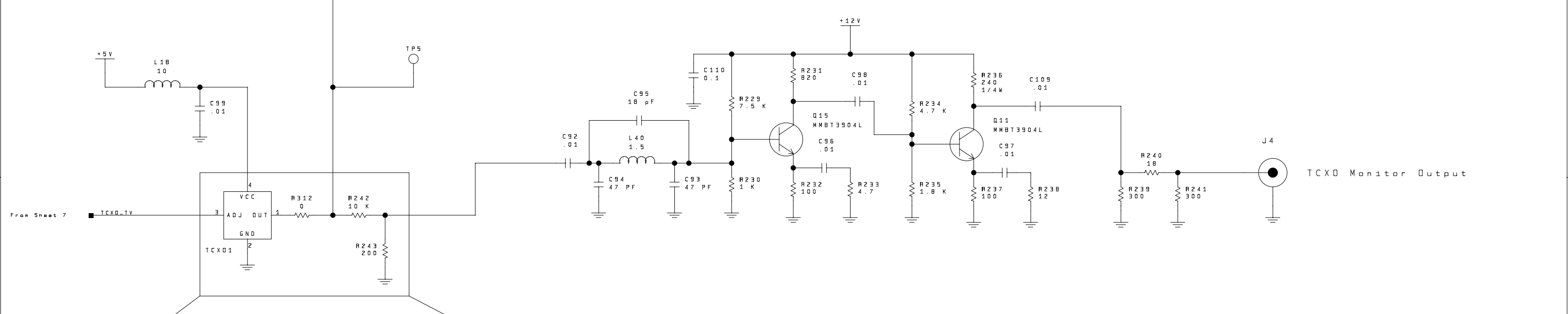
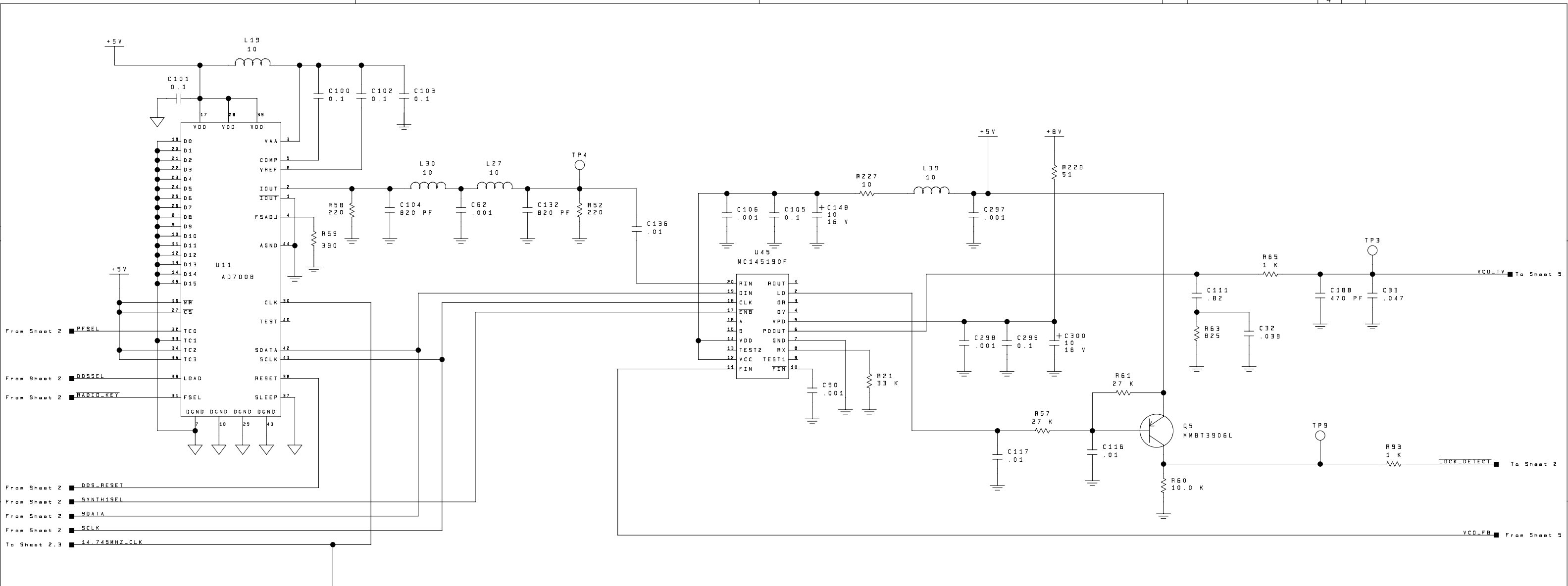
SHEET 2 GPS

MAINTENANCE PORT

DATA I/O

GPS Timing Input

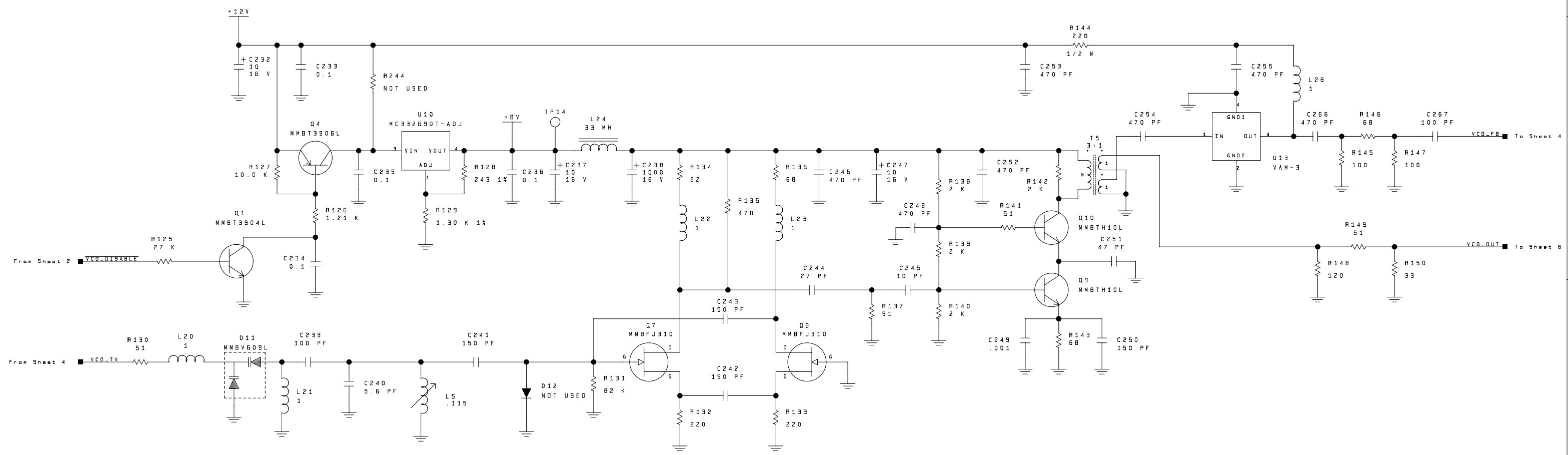
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|--------------------|-----------|-----------------|---------|
| SECTION | | | |
| Exciter Pwb | | | |
| Schematic Diagram | | | |
| Data and Timing IO | | | |
| SIZE | CAGE CODE | DRAWING NO. | REV |
| D | 14304 | 1200B-1251 | - |
| FILE | 1251REV- | 2-23-2000_16.26 | SHEET 3 |



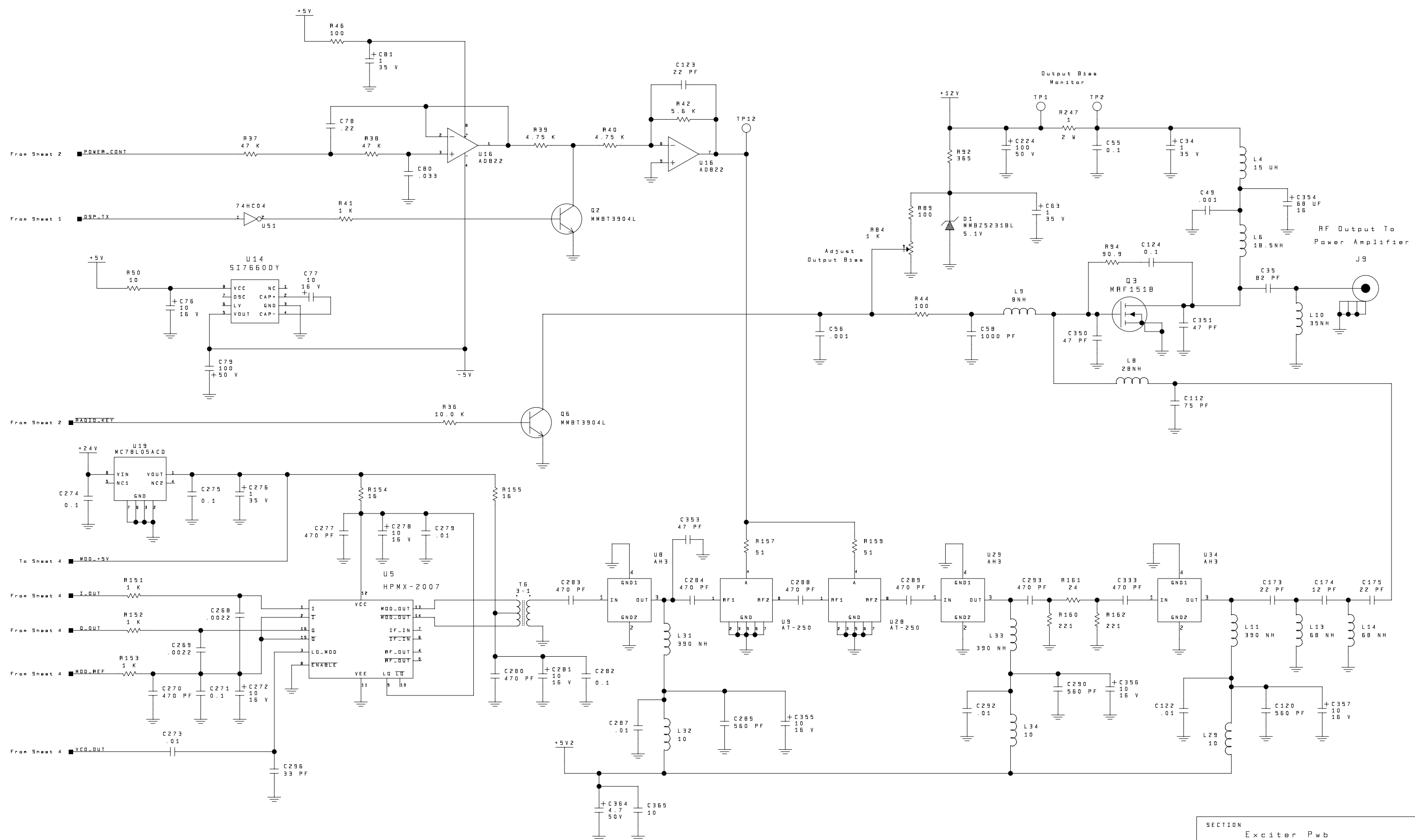
PC Board Layout Notice :

The parts shown in the Box above must be kept physically close to each other for the circuit to work correctly

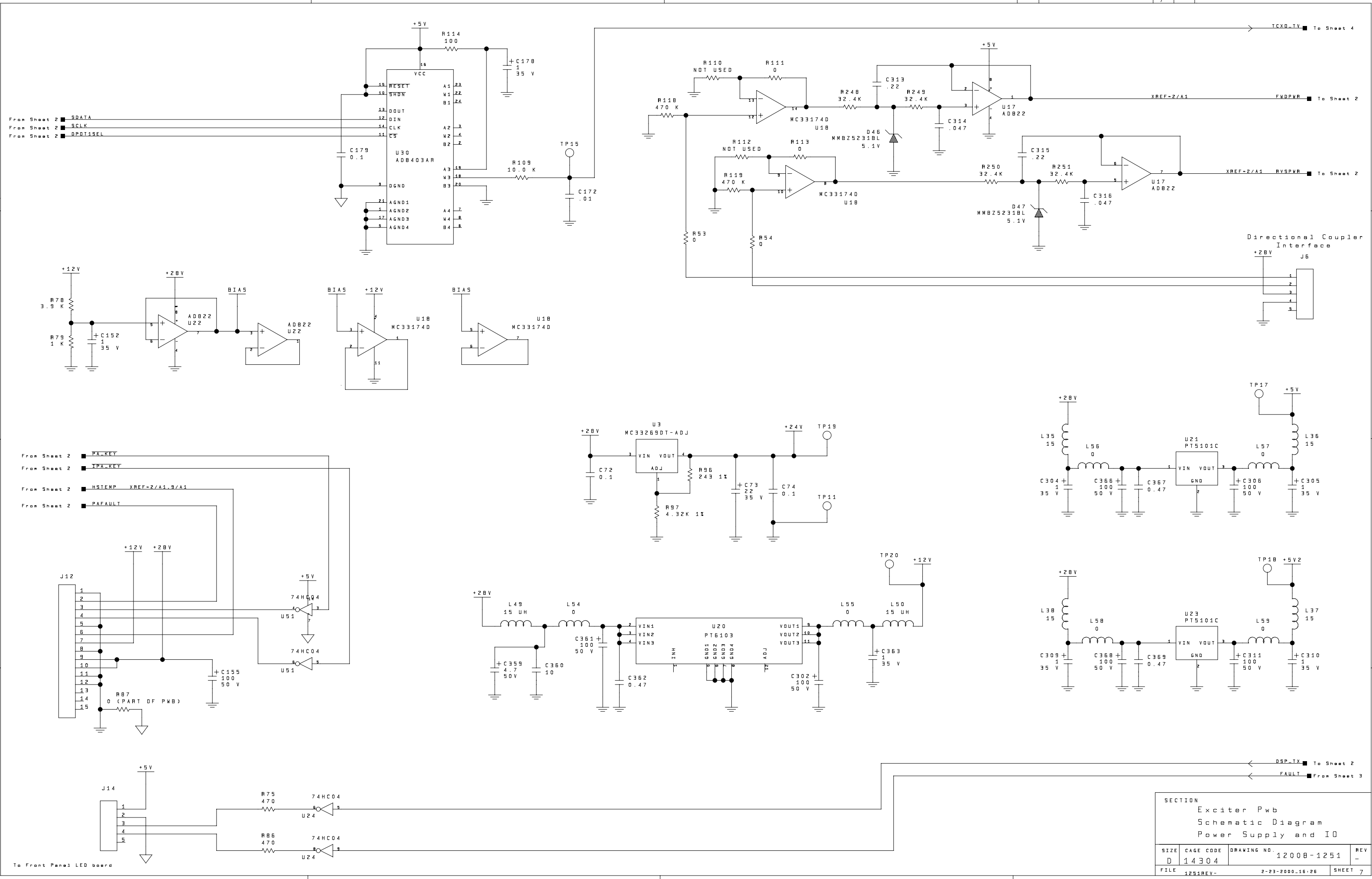
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| SECTION | | | |
| Exciter Pwb | | | |
| Schematic Diagram | | | |
| Frequency Generation | | | |
| SIZE | CAGE CODE | DRAWING NO. | REV |
| D | 14304 | 12008-1251 | - |
| FILE | 1251REV- | 2-23-2000-16-26 | SHEET 4 |



| | | | |
|--------------------|-----------|-----------------|---------|
| SECTION | | | |
| Exciter Pwb | | | |
| Schematic Diagram | | | |
| VCD and Buffer Amp | | | |
| SIZE | CAGE CODE | DRAWING NO. | REV |
| D | 14304 | 12008-1251 | - |
| FILE | 1251REV- | 2-23-2000-16-26 | SHEET 5 |



| SECTION | | | |
|---|-----------|-----------------|---------|
| Exciter Pwb Schematic Diagram RF Output Stage | | | |
| SIZE | CAGE CODE | DRAWING NO. | REV |
| D | 14304 | 12008-1251 | - |
| FILE | 1251REV- | 2-23-2000-16-26 | SHEET 6 |



From Sheet 2 ■ SDATA
 From Sheet 2 ■ SCLK
 From Sheet 2 ■ DPOT15EL

From Sheet 2 ■ PA_KEY
 From Sheet 2 ■ IPA_KEY
 From Sheet 2 ■ HSIENP XREF-2/A1.9/A1
 From Sheet 2 ■ PAFault

To Front Panel LED board

| | | | |
|---------------------|-----------|-----------------|---------|
| SECTION | | | |
| Exciter Pwb | | | |
| Schematic Diagram | | | |
| Power Supply and IO | | | |
| SIZE | CAGE CODE | DRAWING NO. | REV |
| D | 14304 | 12008-1251 | - |
| FILE | 1251REV- | 2-23-2000-16.26 | SHEET 7 |

TCXD-TV To Sheet 4

XREF-2/A1 EWDPWR To Sheet 2

XREF-2/A1 RVSPWR To Sheet 2

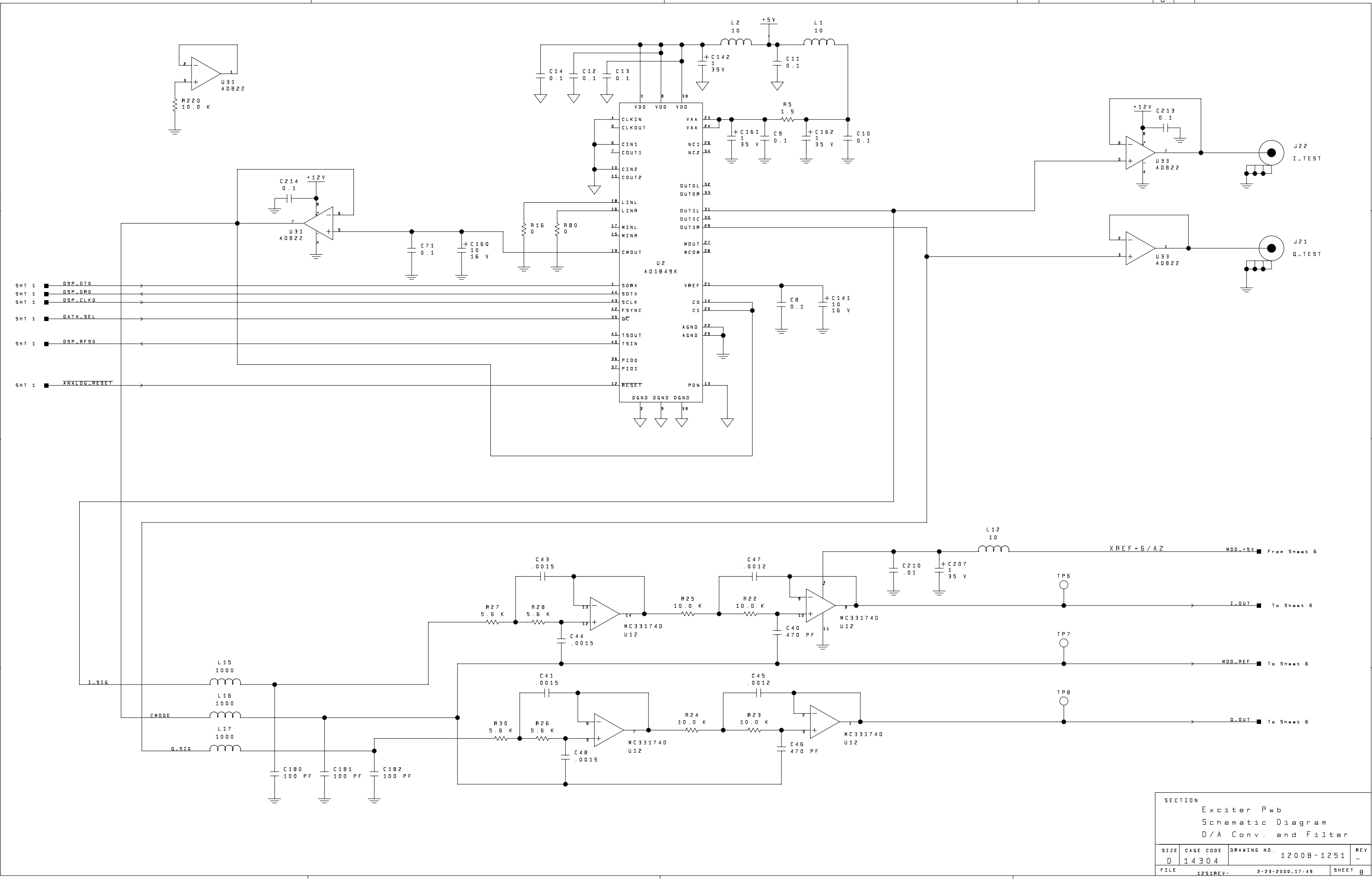
Directional Coupler Interface J6

TP17 +5V

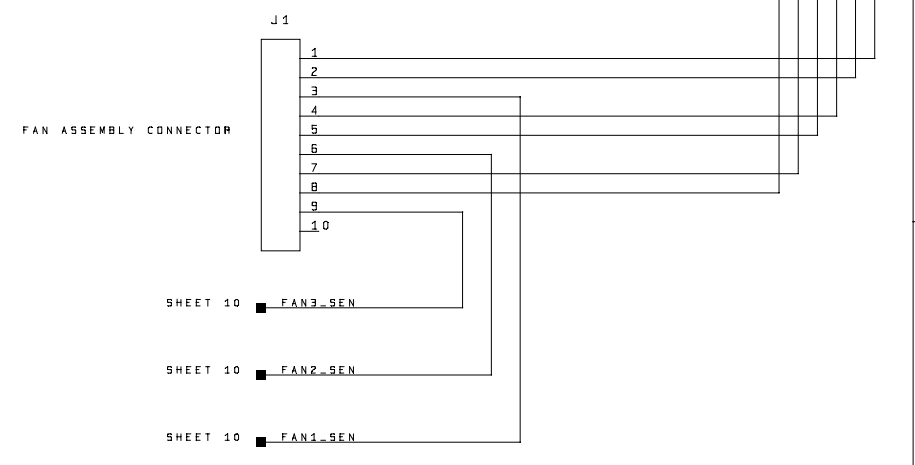
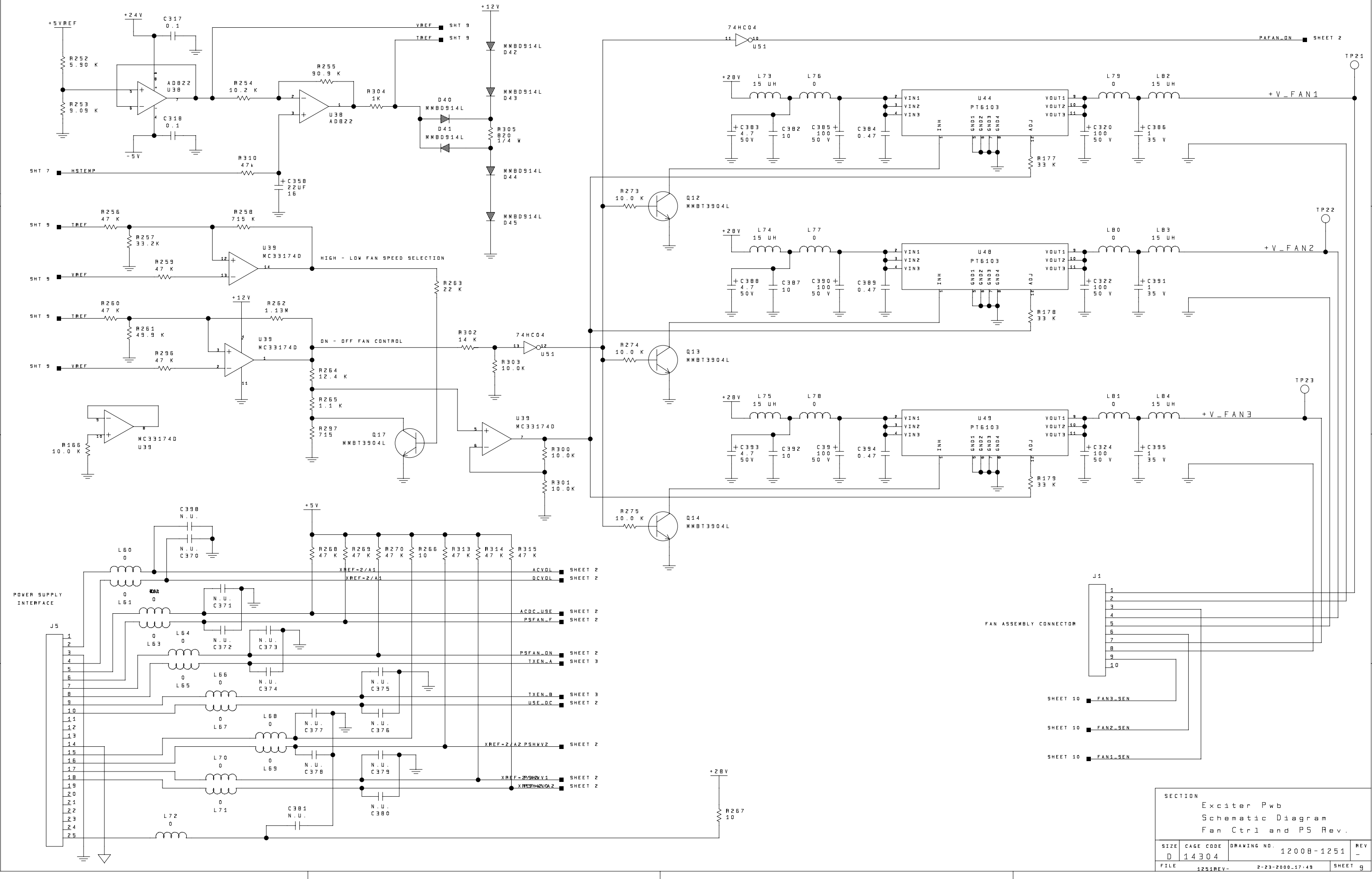
TP18 +5V2

DSP-TX To Sheet 2

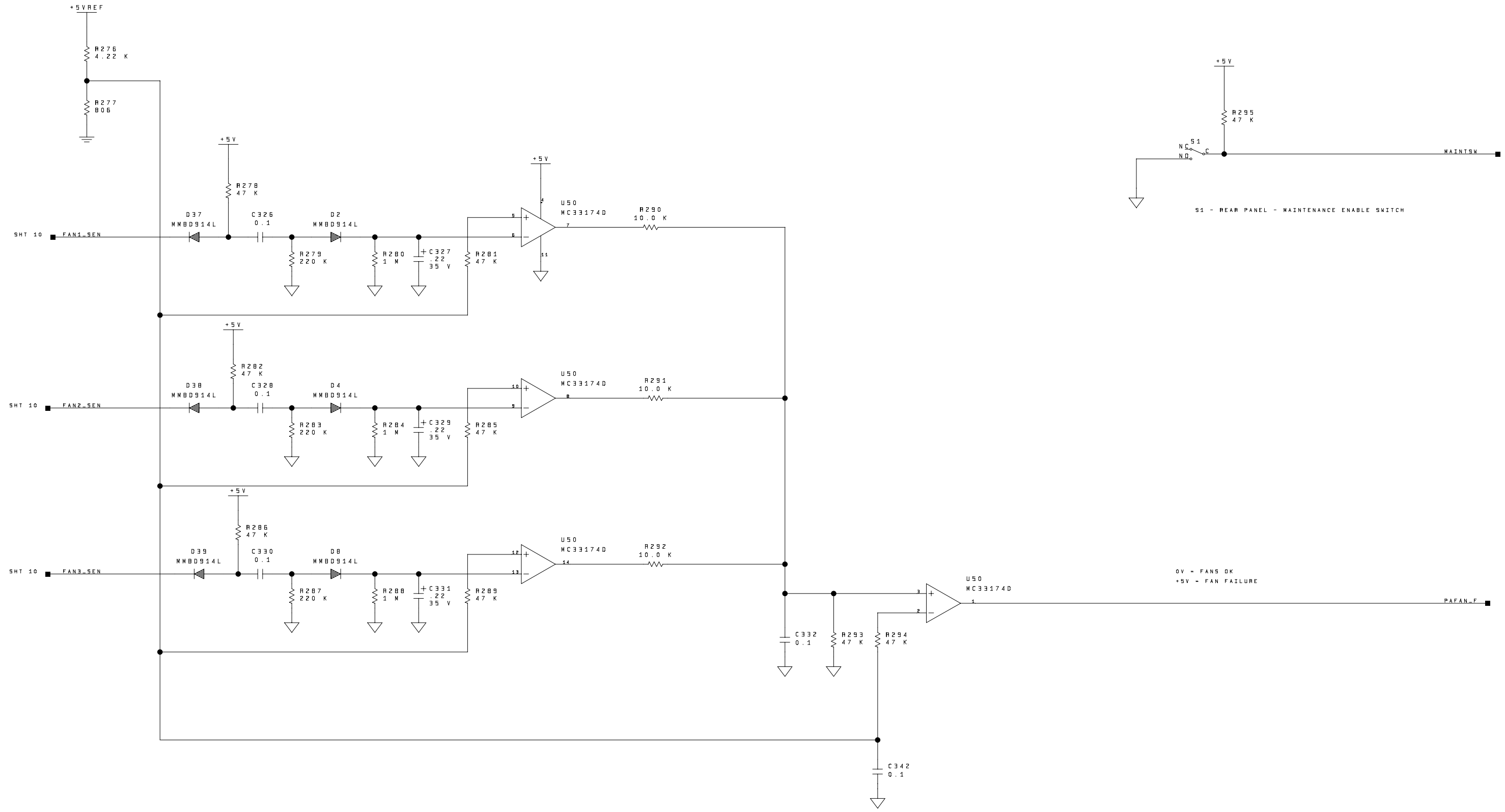
FAULT From Sheet 3



| | | | |
|----------------------|-----------|-----------------|---------|
| SECTION | | | |
| Exciter Pwb | | | |
| Schematic Diagram | | | |
| D/A Conv. and Filter | | | |
| SIZE | CAGE CODE | DRAWING NO. | REV |
| D | 14304 | 12008-1251 | - |
| FILE | 1251REV- | 2-23-2000_17.48 | SHEET B |



| | | | |
|----------------------|-----------|-----------------|---------|
| SECTION | | | |
| Exciter Pwb | | | |
| Schematic Diagram | | | |
| Fan Ctrl and PS Rev. | | | |
| SIZE | CAGE CODE | DRAWING NO. | REV |
| D | 14304 | 12008-1251 | - |
| FILE | 1251REV- | 2-23-2000_17.49 | SHEET 9 |



0V = FANS OK
+5V = FAN FAILURE

S1 - REAR PANEL - MAINTENANCE ENABLE SWITCH

| | | | |
|-------------------|-----------|-----------------|----------|
| SECTION | | | |
| Exciter Pwb | | | |
| Schematic Diagram | | | |
| Fan Fail Detect | | | |
| SIZE | CAGE CODE | DRAWING NO. | REV |
| D | 14304 | 12008-1251 | - |
| FILE | 1251REV- | 2-23-2000_17.49 | SHEET 10 |