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INSTRUCTION MANUAL

7064R-S-1843

18BIT DUAL ADC MODULE

PUBLICATION NO. 980817-S-1843



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FOR YOUR SAFETY

Before undertaking any troubleshooting, maintenance or exploratory procedure, read carefully the **WARNINGS** and **CAUTION** notices.



This equipment contains voltage hazardous to human life and safety, and is capable of inflicting personal injury.



If this instrument is to be powered from the AC line (mains) through an autotransformer, ensure the common connector is connected to the neutral (earth pole) of the power supply.



Before operating the unit, ensure the conductor (green wire) is connected to the ground (earth) conductor of the power outlet. Do not use a two-conductor extension cord or a three-prong/two-prong adapter. This will defeat the protective feature of the third conductor in the power cord.



Maintenance and calibration procedures sometimes call for operation of the unit with power applied and protective covers removed. Read the procedures and heed warnings to avoid “live” circuit points.

Before operating this instrument:

1. Ensure the proper fuse is in place for the power source to operate.

2. Ensure all other devices connected to or in proximity to this instrument are properly grounded or connected to the protective third-wire earth ground.

If the instrument:

- fails to operate satisfactorily
- shows visible damage
- has been stored under unfavorable conditions
- has sustained stress

Do not operate until, performance is checked by qualified personnel.

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Table Of Contents

Chapter 1
GENERAL DESCRIPTION 1-1
Introduction 1-1
General Description 1-2
7064R-S-1843 Specifications 1-4
General 1-4
INPUT/OUTPUT Definitions 1-6
Chapter 2
INSTALLATION INSTRUCTIONS 2-1
Introduction 2-1
Unpacking and Inspection 2-1
Address Switch Settings for Configuration Control 2-1
7064R-S-1843 to VXIbus Main Frame Installation 2-2
Power-up Initialization 2-2
Configuration Defaults 2-3
Chapter 3
DRAWINGS 3-1
Chapter 4
PARTS LIST 4-1
Chapter 5
PRODUCT SUPPORT 5-1
Product Support 5-1
Reshipment Instructions 5-1
Support Offices 5-2

Appendix A
ADC MODULE DESCRIPTION A-1
Appendix B
MEMORY MAP B-1
Appendix C
ADC MODULE CALIBRATION C-1

List Of Figures

Figure 1-1, 7064R-S-1843 Front Panel labeled 6088 1-1
Figure 1-2, 7064R-S-1843 Register-Based Module 1-3
Figure 2-1, 7064R-S-1843 Logical Address Switch 2-4
Figure 2-2, ID register Jumpers 2-5
Figure 2-3, Device Type Register Jumpers 2-6

List Of Tables

Table 1-1, Functional Performance 1-4
Table 1-2, 7064R-S-1843 Module Power Requirements 1-4
Table 1-3, Cooling Requirements 1-5
Table 1-4, 7064R-S-1843 Mechanical Parameters 1-5
Table 1-5, 7064R-S-1843 Environmental Specifications 1-5
Table 1-6, EMC Specifications 1-5
Table 1-7, P1 / P2 Input / Output Descriptions 1-6
Table 1-8 Front Panel Input/Output Descriptions 1-6

Chapter 1

GENERAL DESCRIPTION

Introduction

This manual contains information on how to install and operate the 7064R-S-1843 in a VXIbus environment. It describes the function of the 7064R-S-1843 Register Based Dual 18 BIT ADC Module.



Figure 1-1, 7064R-S-1843 Front Panel labeled 6088

General Description

The 7064R-S-1843 is a register based Dual 18 BIT 1MHz ADC VXI Module.

The 7064R-S-1843 interface logic maps the internal registers of the ADC modules to the VXI A24 Address space. All transfers to and from the ADC models are full 32 bit data transfers, although bits D31-D24 are not used. Refer to the module address memory map in Appendix B for specific register information.

The VXI module is configured as two ADC modules referred to as Module “0” and Module “1”. Each of the ADC inputs are brought out to the VXI front panel as well as the module LED indicators.

An external front panel clock has been implemented to drive the CLK signals of each of the ADC modules. An internal clock can be generated by selecting one of the TTLTRG0-7 lines as the source of the clock. The clock signal will be active when the TTLTRG signal is asserted low.

Also, the ENABLE/RESET signal of each module can be connected to the VXI backplane signals TTLTRG0-7. The ENABLE/RESET signal will be active when the TTLTRG signal is asserted low.

Additional information regarding the specifics of the 7064R-S-1843 module are described in the following Appendices:

Appendix A ADC Module Description & Specifications.

Appendix B Software Interface – Memory Maps.

Appendix C Module Calibration Application Notes.

The 7064R-S-1843 supports 32-bit Data access and A16/A24 addressing space.

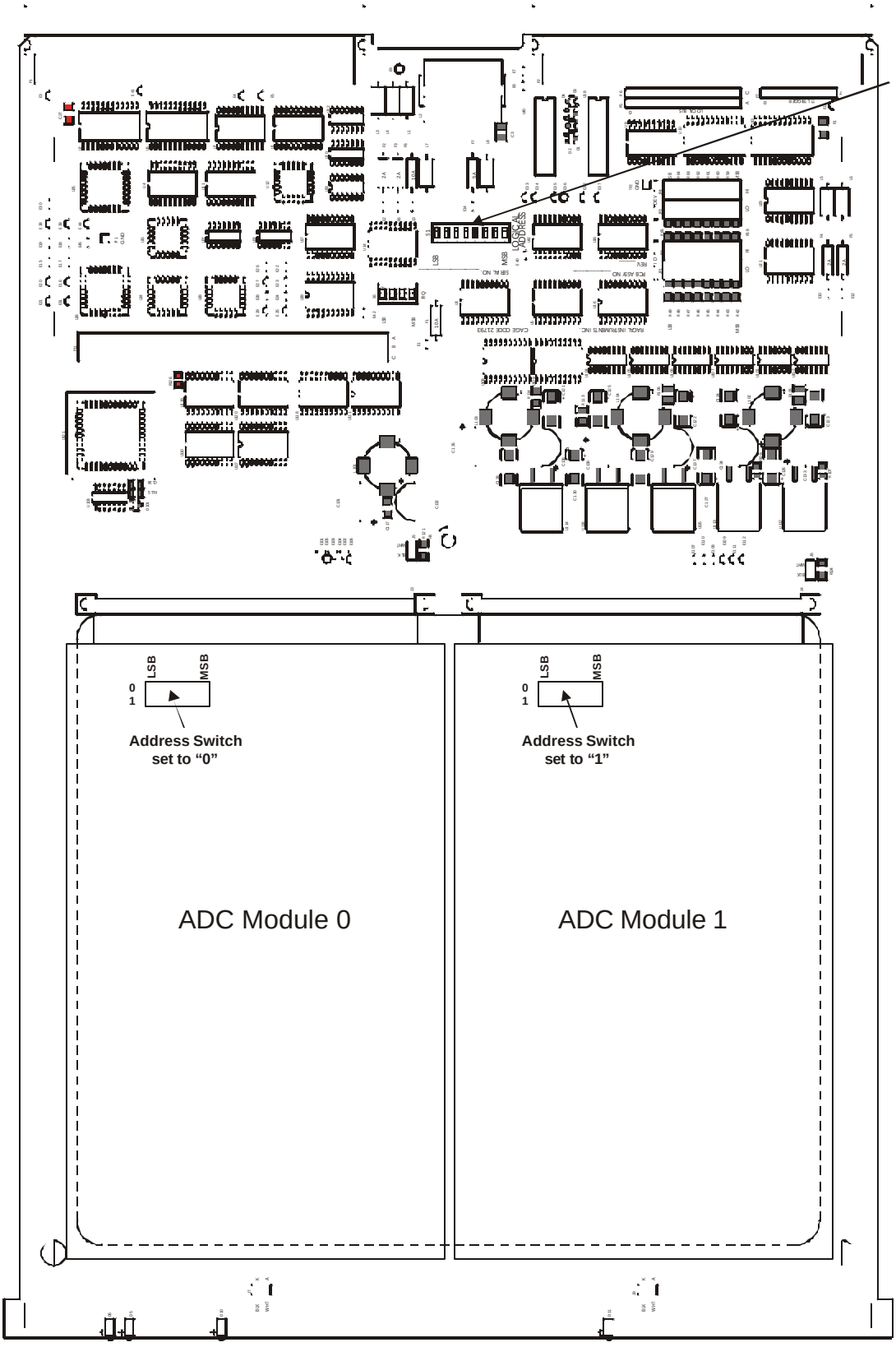


Figure 1-2, 7064R-S-1843 Register-Based Module

7064R-S-1843 Specifications

General

Refer to the ADC Module Specs in Appendix A for Module Specifications

Table 1-1, Functional Performance

Parameter	Specification
Modes of Operation	VXI Register Based Servant
Front panel connectors	6 SMB Connectors
Front panel controls	None
Front panel indicators	"FAIL" Red LED Indicator "ACCESS" Green LED Indicator Module “0” Green LED Indicator Module “1” Green LED Indicator
Rear panel connectors [1]	VXI P1/P2 (See VXIbus REV 1.4)
Rear panel controls	None
Rear panel indicators	None
Interface Characteristics Manufacturer ID no: Model No: Logical Addressing: Address Space: Data Transfer Bus: Device Class: Interrupt Levels:	VXIbus Interface 4091, Jumper Programmable 2044 (7FC hex) Static 1-254, Switch Selectable A16/A24 D32 support Register Based Slave Device None

Table 1-2, 7064R-S-1843 Module Power Requirements

Power Supply	Specification
+5V	1.5A
-5.2V	0mA
-2V	0mA
+24V	325mA
-24V	325mA
-12V	225mA

Table 1-3, Cooling Requirements

Parameter	Specification
Module Power	24 Watts
Minimum Airflow	2.0 Liters/sec at approx .25mm H_2O for a 10^oC Rise

Table 1-4, 7064R-S-1843 Mechanical Parameters

Parameter	Specification
Enclosure Style	VXI"C" SIZE - Module Enclosure
Enclosure Dimensions (in.)	14Lx 10.3W x l.2D
Module Weight	3.2lbs.

Table 1-5, 7064R-S-1843 Environmental Specifications

Parameter	Specification
Temperature, operating	0^0C to $+55^0C$
Temperature, non-operating	-40^0C to $+71^0C$
Relative Humidity	95 +/-5% RH non-condensing;75+/-5 %RH above 30^0C;45+/-5 %RH above 40^0C
Altitude, operating	10,000 ft
Altitude, non-operating	15,000 ft
Vibration	0.013" double amplitude, 5-55Hz
Shock, functional	30g, 11mSec, 1/2 sine wave
Bench handling	4 inch/45^0
Fungus resistance	Yes, fungus inert materials used.

Table 1-6, EMC Specifications

Parameter	Specification
Conducted Emissions	VXIbus Rev 1.4, B.8.7.3
Conducted Susceptibility	VXIbus Rev 1.4, B.8.7.4
Radiated Emissions (Closed Field)	VXIbus Rev 1.4, B.8.6.3
Radiated Susceptibility	VXIbus Rev 1.4, B.8.6.4

INPUT/OUTPUT Definitions

Unless otherwise specified all logic signals are TTL compatible; "-“, designates an active low signal

Notes:

1. Refer to VXIbus Rev 1.4 for details.

Table 1-7, P1 / P2 Input / Output Descriptions

I/O Signals	Connector	Type	Description
VXIbus Interface	P1/P2		See VXIbus REV 1.4 Specification

Table 1-8 Front Panel Input/Output Descriptions

I/O Signal	Connector	Type	Description
IN0 +	SMB	IN	Module 0 ADC Positive Input
IN0 -	SMB	IN	Module 0 ADC Negative Input
CLKIN0	SMB	IN	Clock input for Module 0
IN1 +	SMB	IN	Module 1 ADC Positive Input
IN1 -	SMB	IN	Module 1 ADC Negative Input
CLKIN1	SMB	IN	Clock input for Module 1

Chapter 2

INSTALLATION INSTRUCTIONS

Introduction

This section describes the unpacking, inspection, set-up and installation of the Model 7064R-S-1843 Register Based module in a C-size mainframe.

Unpacking and Inspection

1. Before unpacking the 7064R-S-1843 module, check the exterior of the shipping carton for any damage. If the shipping carton is damaged, inform the carrier immediately.

2. Remove the 7064R-S-1843 module and inspect it for damage. If any damage is apparent, inform the carrier immediately. Retain shipping carton and packing material for the carrier's inspection.

3. Verify that the pieces in the package you received contain the correct 7064R-S-1843 module option and the 7064R-S-1843 Users Manual. Notify Racal Instruments if the module appears damaged in any way. Do not attempt to install a damaged module into a VXI chassis.

4. The 7064R-S-1843 module is shipped in an anti-static bag to prevent electrostatic damage to the module. Do not remove the module from the anti-static bag unless it is in a static-controlled area.

Address Switch Settings for Configuration Control

The 7064R-S-1843 Register Based Module has an internal 8-position address dip switch, S1, used to determine the static configuration. It is located on the top of the module, accessible through the case.

In the ON position, the switch is set to logical 1, and in the OFF position to a logical 0.

The user can select any logical address from 1 to 254 for static configuration.

NOTE

Logical address 0 is not allowed. Logical address 255 is not allowed because it is used for modules that support dynamic configuration.

NOTE

The 7064R-S-1843 Register Based Module is shipped with the logical address set for 2. Refer to the Resource Manager's manual for details about addressing methods.

7064R-S-1843 to VXIbus Main Frame Installation

The 7064R-S-1843 Register Based module is ready for operation when shipped. The address switch is set to 2.

To install the 7064R-S-1843 in a C-size VXI chassis, use the following instructions:

1. Ensure power is OFF.

2. Configure the interrupt daisy chain on the backplane to bypass empty slots, per VXIbus specifications.

3. Remove the front cover of the VXI chassis, and slide the 7064R-S-1843 into the appropriate slot with the LED's towards the top (or to the left when using a horizontal chassis).

NOTE:

There is no need to configure the VXI Backplane Slot used for the 7064R-S-1843 Register Based Module, since all BUSGRANT and IACK signal lines are passed to the next slot.

Power-up Initialization

Before turning on the VXIbus mainframe, make sure a Slot 0 with a Resource Manager is present. Upon power-up of the system, the 7064R-S-1843 goes through the following power-up sequence:

- The 7064R-S-1843 Register Based Module module has four

LED's on the front panel – FAIL, ACCESS, MOD 0 ON, and MOD 1 ON. The LED functions are:

- FAIL – On during a (user provided) self-test
  Off when the (user provided) self-test has successfully completed
- ACCESS – Blinks on when the VXIbus is accessing the 7064R-S-1843 Module
- MOD 0 ON – On during test activity using Module 0
- MOD 1 ON – On during test activity using Module 1

Configuration Defaults

The Logical address is determined by the Logical Address Switch S1. The default state of the Logical Address Switch is "2". The user can set the address to any unused Logical Address from 1-254.

The ID Register and the Device Type Register information is set by jumpers JP1/JP2 and JP3/JP4. The default state and the definitions of these registers are given in the following figures.

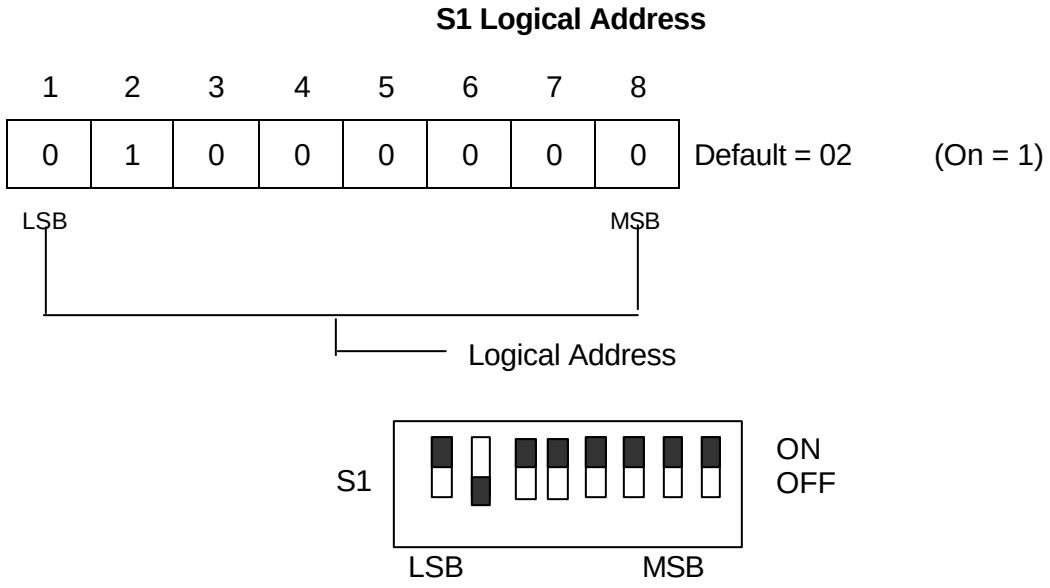
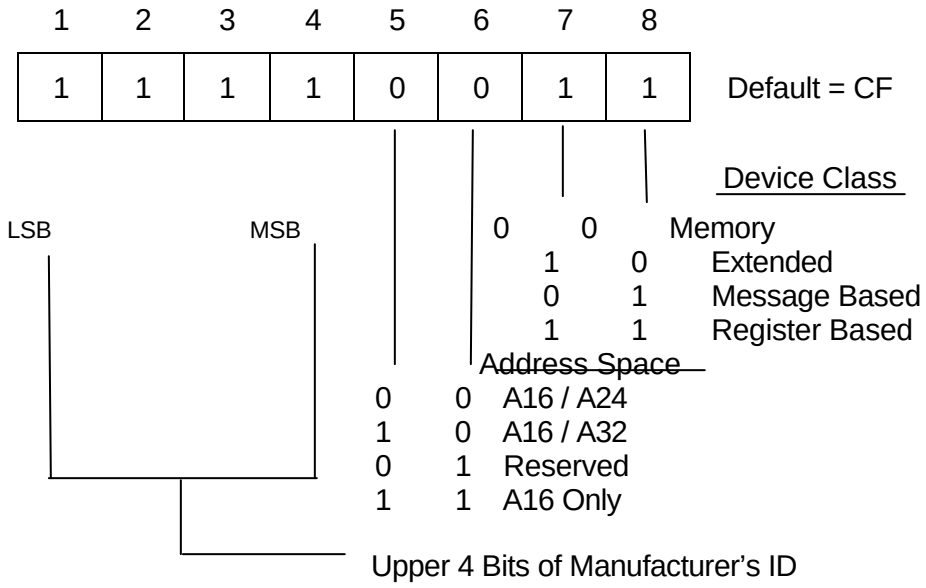
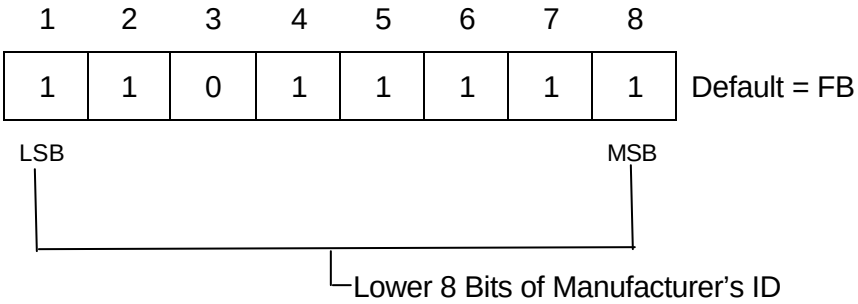


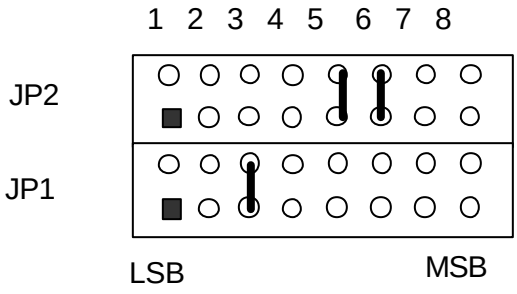
Figure 2-1, 7064R-S-1843 Logical Address Switch

JP2 ID Register (Upper Half)



JP1 ID Register (Lower Half)

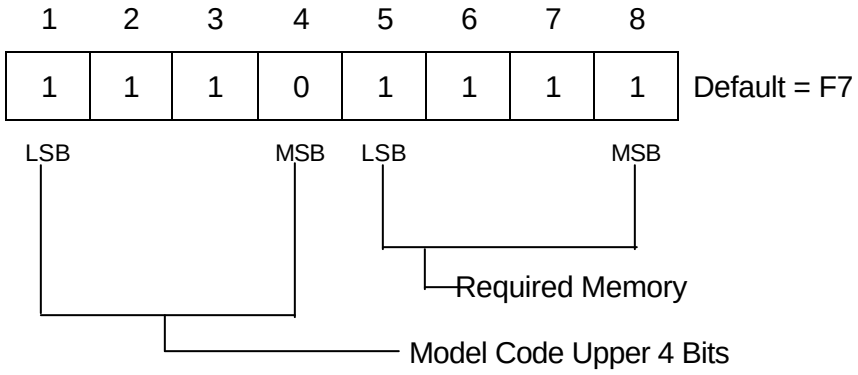




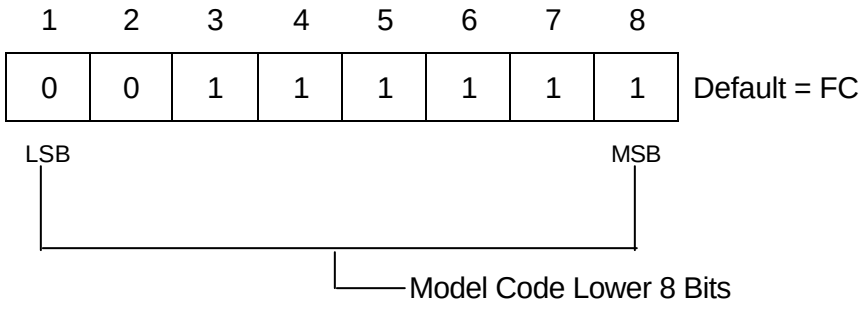
OPEN = 1
SHORT = 0

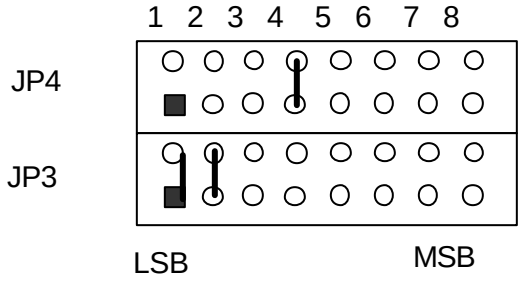
Figure 2-2, ID register Jumpers

JP4 Device Type Register (Upper Half)



JP3 Device Type Register (Lower Half)





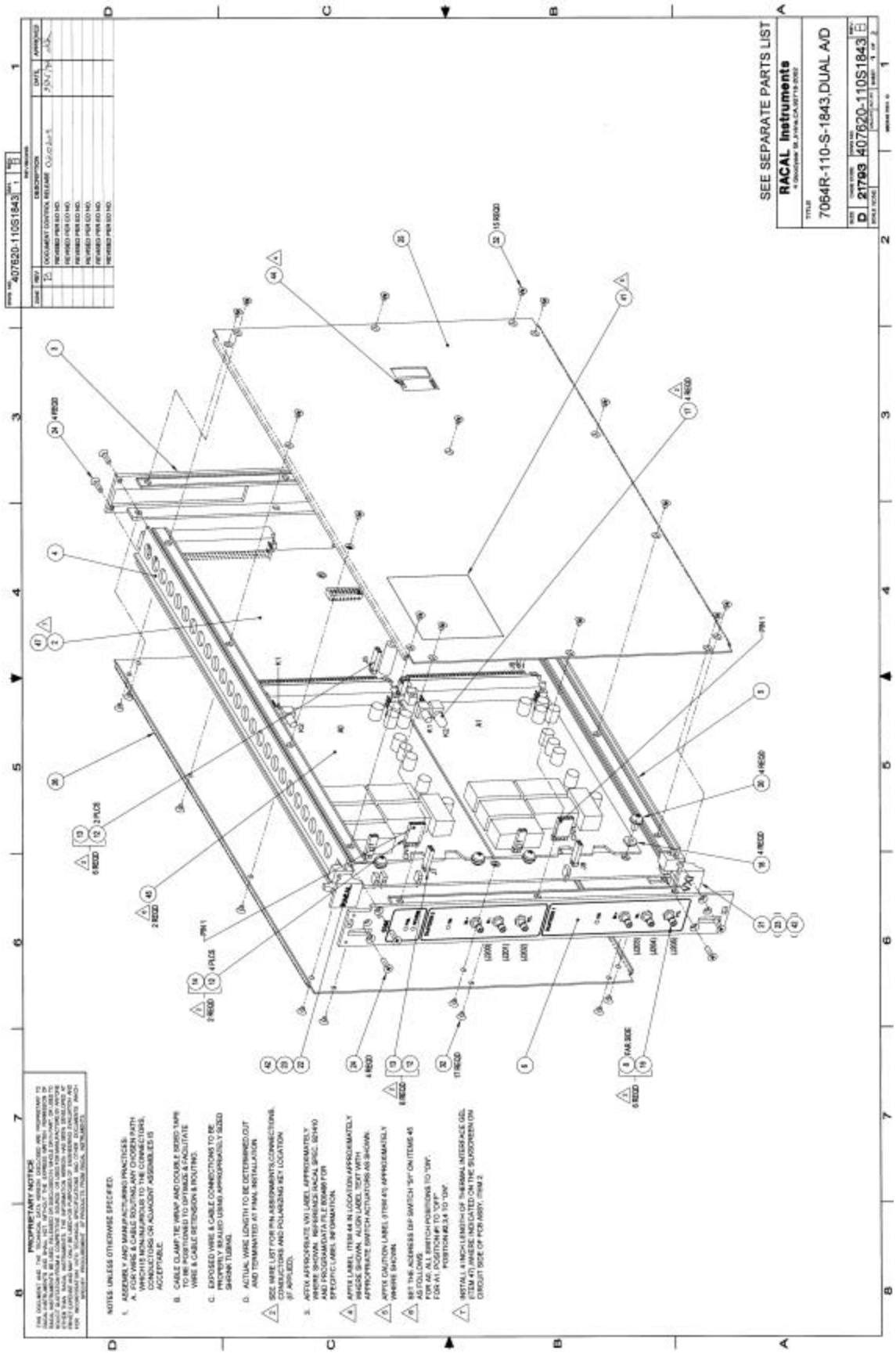
OPEN = 1
SHORT = 0

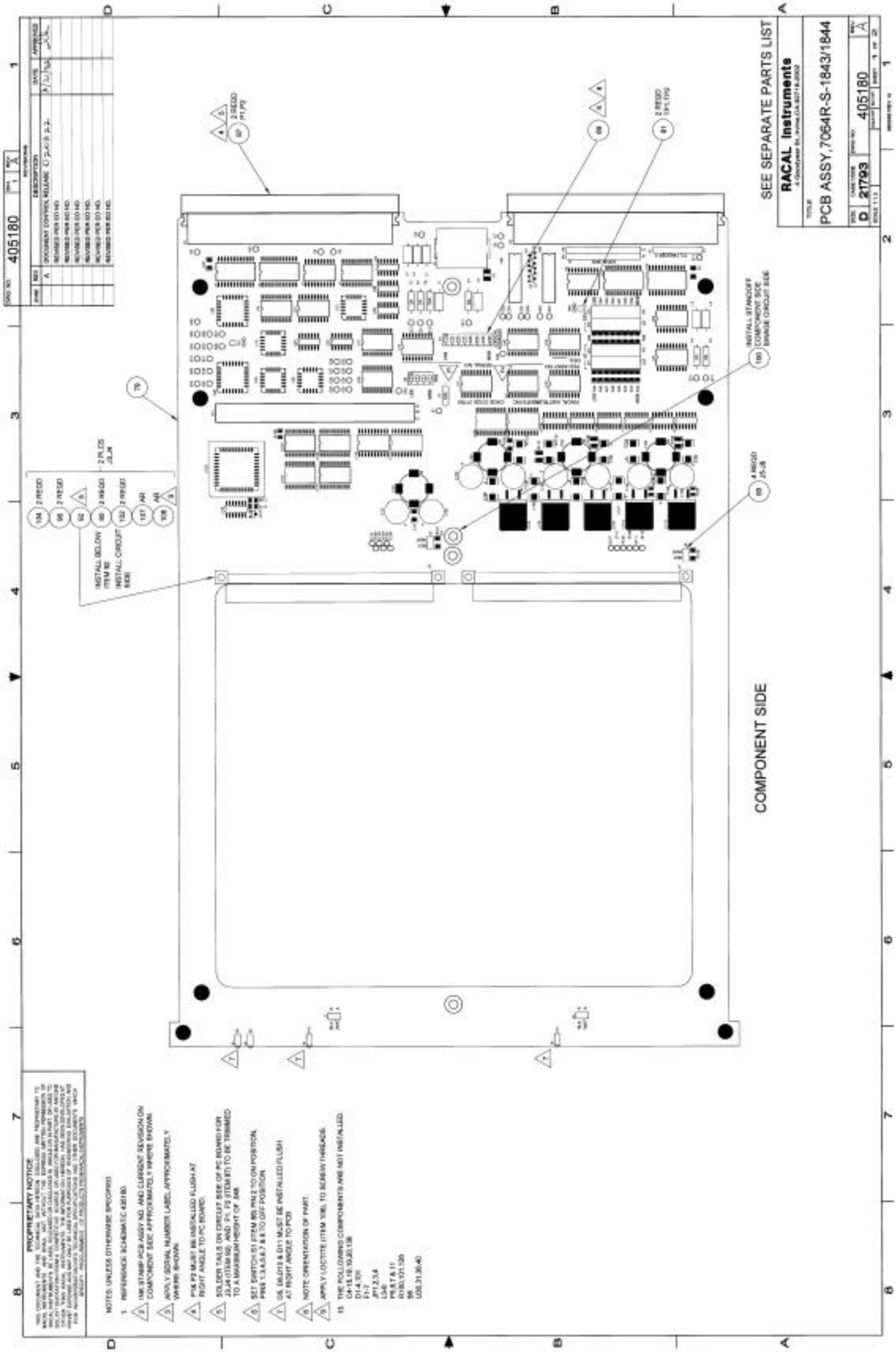
Figure 2-3, Device Type Register Jumpers

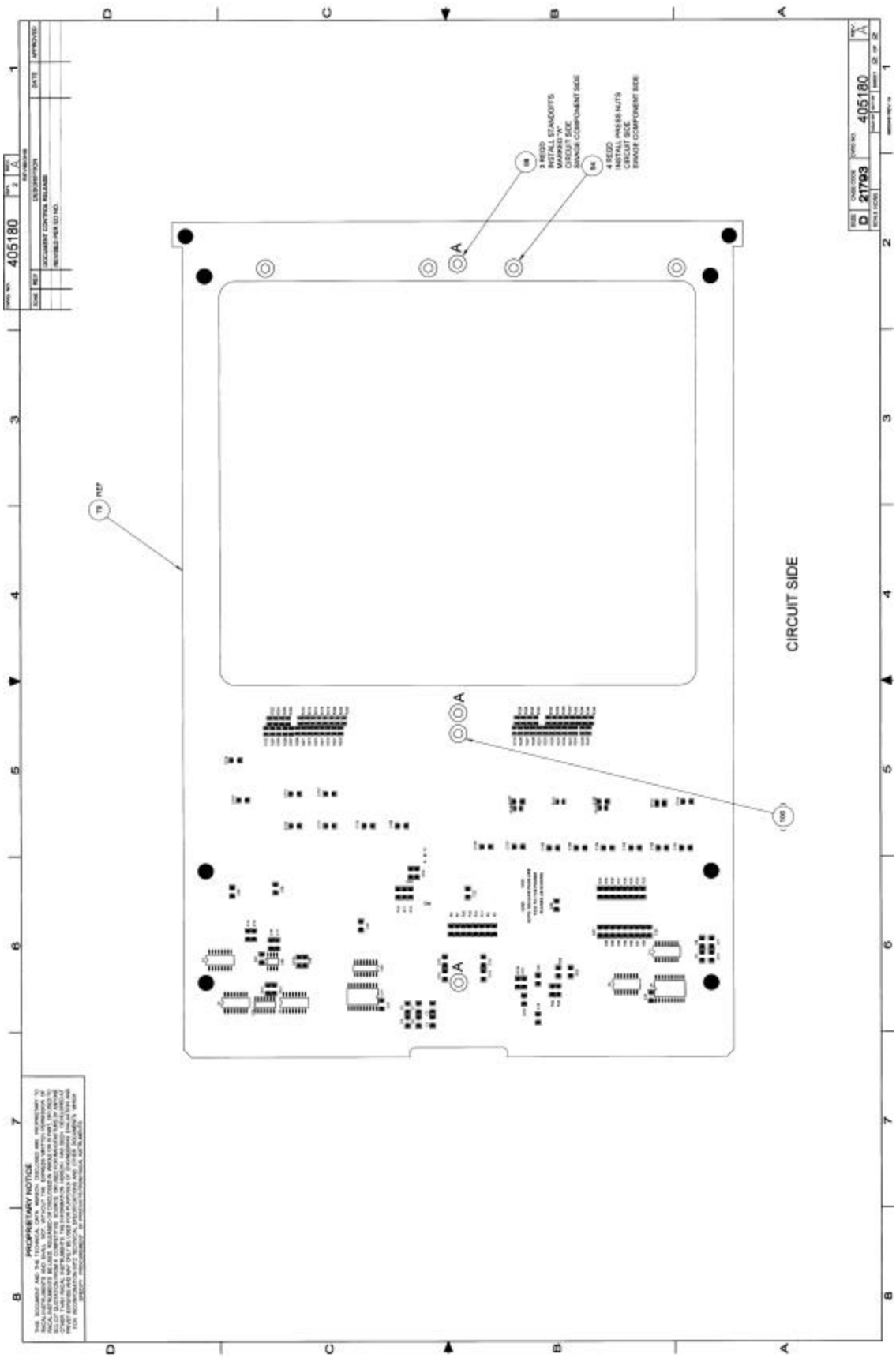
Chapter 3
DRAWINGS

407620-110S1843	Final Assy, 7064R-110S1843	3-3
405180	PCB Assy, S1843/S1844	3-4
435180	Schematic, 7064R-S1843/1844	3-6
	Wiring Diagram, 7064R-S1843	3-20

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SEE SEPARATE PARTS LIST
RACAL Instruments
7064R-110-S-1843,DUAL A/D
D 21793 407620-110S1843
407620-110S1843
PROPRIETARY NOTICE
NOTES: UNLESS OTHERWISE SPECIFIED:


SEE SEPARATE PARTS LIST
RACAL Instruments
PCB ASSY,7064R-S-1843/1844
405180
D 21793
COMPONENT SIDE


405180
405180
CIRCUIT SIDE
PROPRIETARY NOTICE

NOTES:

1. RESISTOR VALUES ARE IN OHMS, 1/8W, +/-5% UNLESS OTHERWISE SPECIFIED.
2. CAPACITOR VALUES ARE IN MICROFARADS, 50V, +/- 20% UNLESS OTHERWISE SPECIFIED.

⚠ REFER TO PCB ASSY (435180) FOR UNINSTALLED COMPONENTS.

⚠ THE CIRCUITRY ASSOCIATED WITH THE BARE BRD PROTOTYPE PCB ASSY 435180 IS SHOWN ON PAGES 2, 3, AND 10.

POINT	SIGNAL	SHEET
E1	+5V	3
E2	+12V	3
E3	ACFAIL-	2
E4	SERCLK	2
E5	SERDAT-	2
E6	-12V	3
E7	CLK10+	2
E8	CLK10-	2
E9	+5VSTDBY	2
E10	+24V	3
E11	SUMBUS	2
E12	-24V	3
E13	-5.2V	3
E14	-2V	3
E15	STATREGEN-	9
E16	PASSED	9
E17	READY	9
E18	DEVSTAT0	9
E19	DEVSTAT1	9
E20	DEVSTAT4	9
E21	DEVSTAT5	9
E22	CTRLREGEN-	9
E23	SRESET	9

POINT	SIGNAL	SHEET
E24	SYSFAILINH	9
E25	DEVCTRL2	9
E26	DEVCTRL3	9
E27	DEVCTRL4	9
E28	DEVCTRL5	9
E29	DEVCTRL6	9
E30	A24/A32EN	9
E31	USRSYSFAIL-	9
E32	ECLTRG0-	3
E33	ECLTRGIN0-	3
E34	ECLTRGIN0	3
E35	ECLTRGIN1-	3
E36	ECLTRGIN1	3
E37	ECLTRG1-	3
E38	MYDTACK-	6
E39	MYDTACK-	6
E40	IRQEN-	6
E41	BERR-	2
E42	INSTRST-	7
E43	CHASSIS	3
E44	RDEN-	6
E45	WREN-	6

MASTER SHEET

DEVICE TYPE	REFERENCE DESIGNATOR	POWER PINS VCC	GND	VEE
16L8Q-25 (231575-001)	U12	20	10	
16L8Q-25 (231575-002)	U15	20	10	
16L8Q-25 (231575-003)	U24	20	10	
16L8Q-25 (231575-004)	U28	20	10	
22V10H-25 (231576-001)	U25	28	14	
22V10H-25 (231576-002)	U26	28	14	
74FCT244	U1,U4,U7,U8,U9,U11	20	10	
74ACT245	U3,U5	20	10	
74ALS641-1	U31	20	10	
74FCT652	U2,U6,U10,U13	24	12	
74HCT02	U20	14	7	
74ACT04	U22	14	7	
74HCT08	U33	14	7	
74HCT138	U30	16	8	
74HCT244	U16,U18,U21,U23,U42 U117,U118	20	10	
74HCT273	U17,U108,U109,U110,U111	20	10	
74HCT32	U27	14	7	
74HCT688	U14,U29	20	10	
74HCT74	U32	14	7	
74S38	U19	14	7	
10H116	U40		1,16	8
10H123	U38		1,16	8
LM555C	U35	8	1	
74HCT14	U101,U102,U103	14	7	
74HCT688	U119,U120	20	10	
74HC151	U104,U105,U106,U107	16	8	
7064SLC44-10	U121	3,15 23,35	10,22 30,42	

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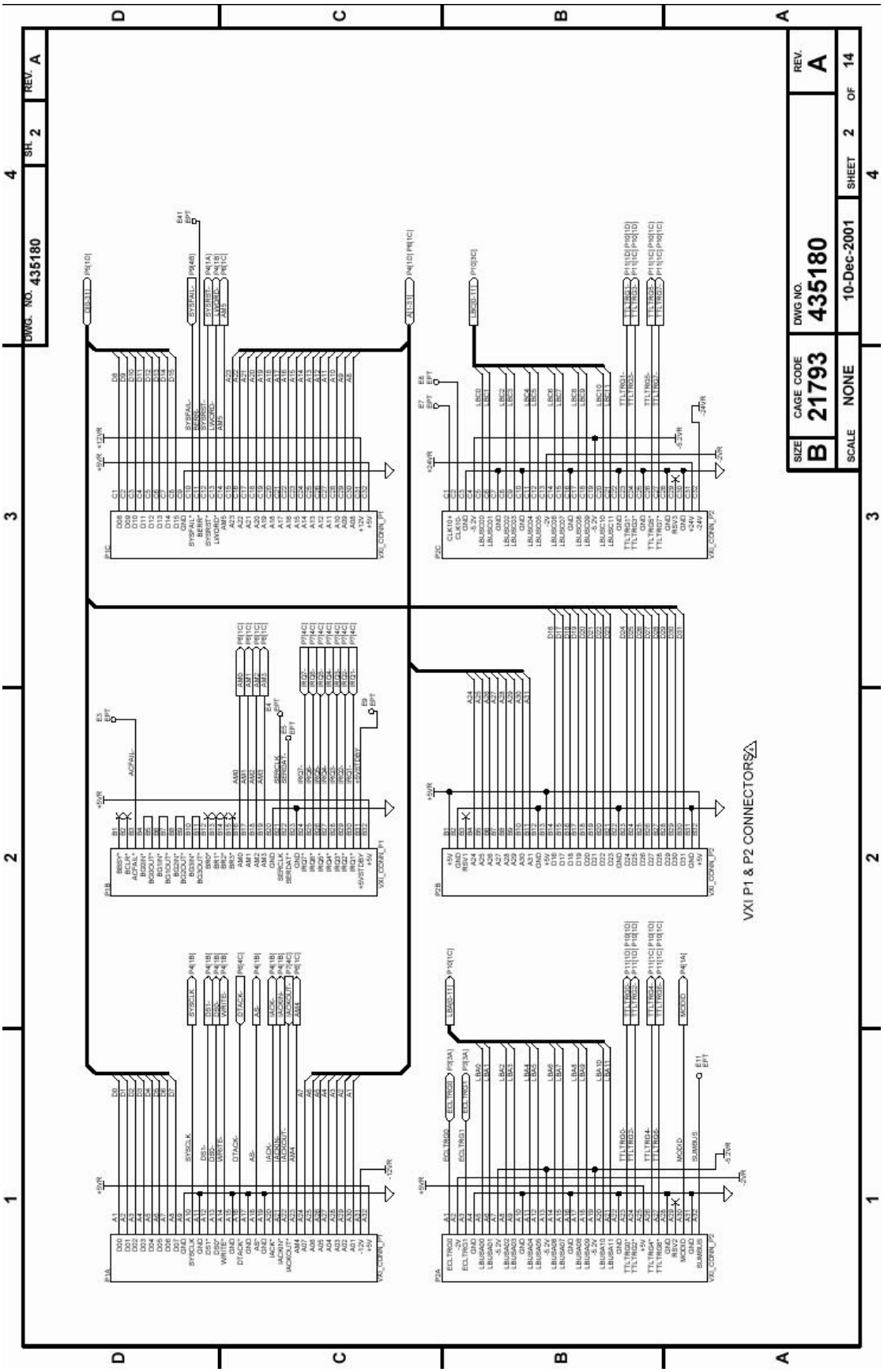
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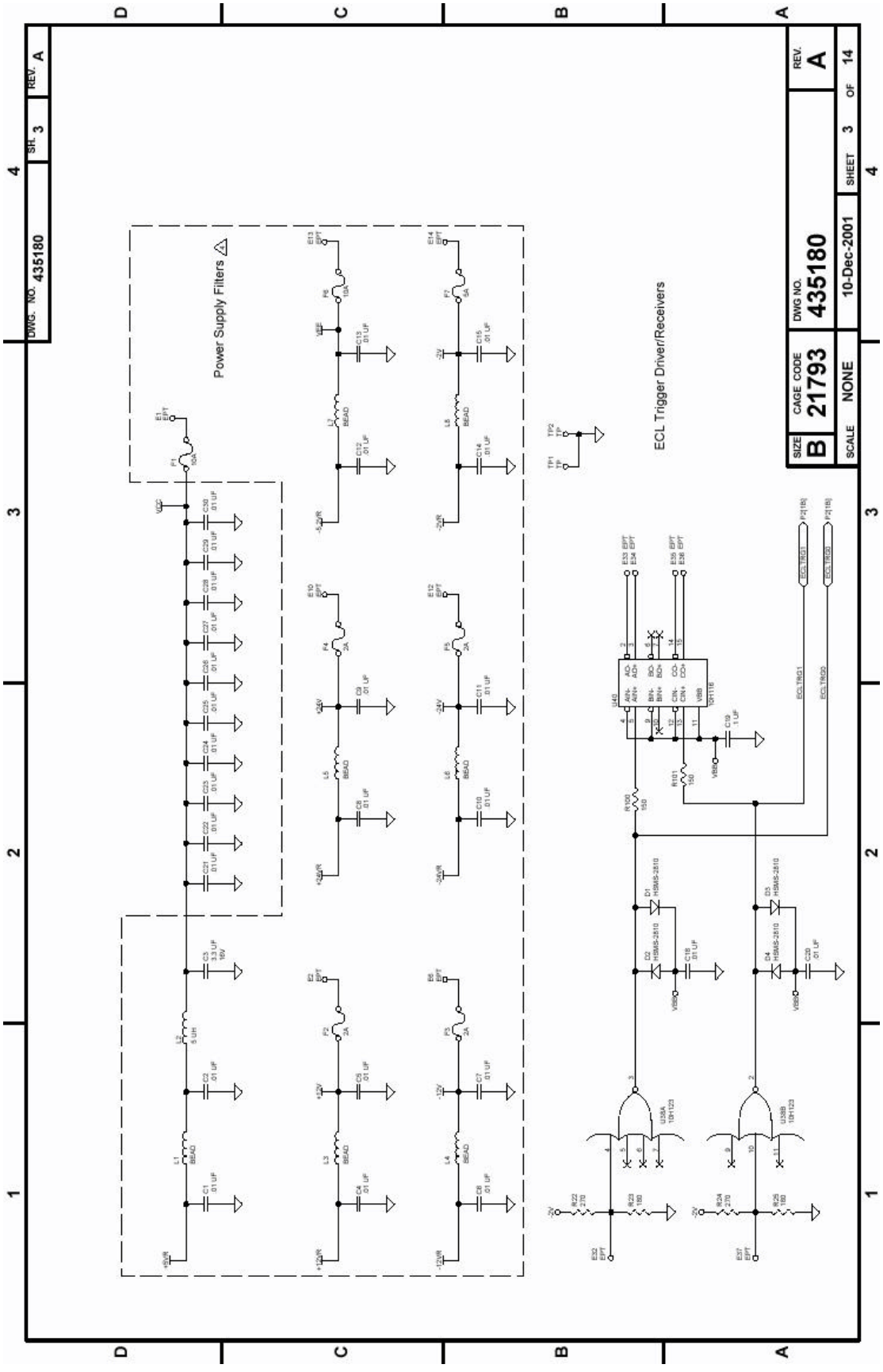
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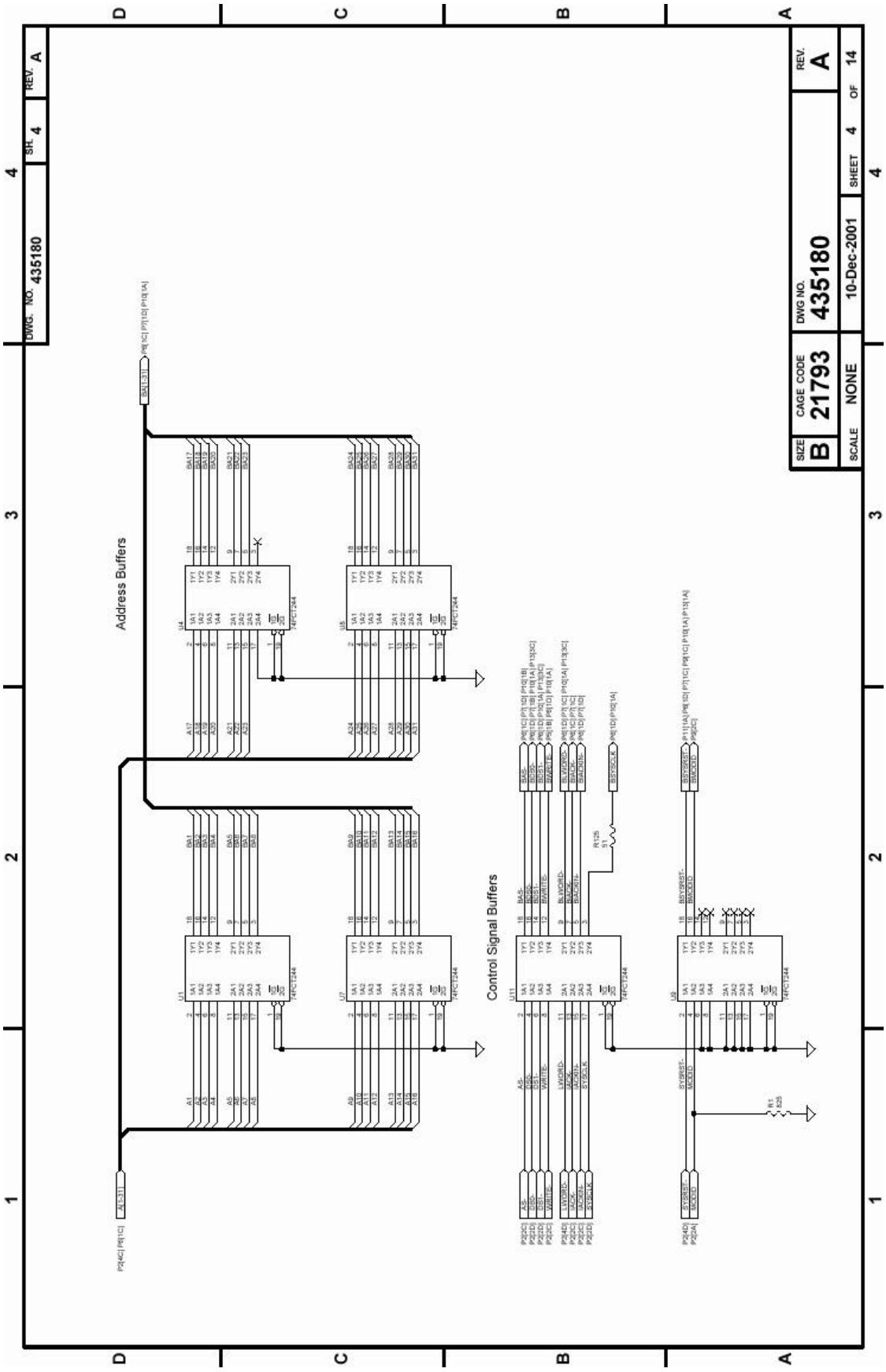
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SCHEMATIC, S-1843/1844

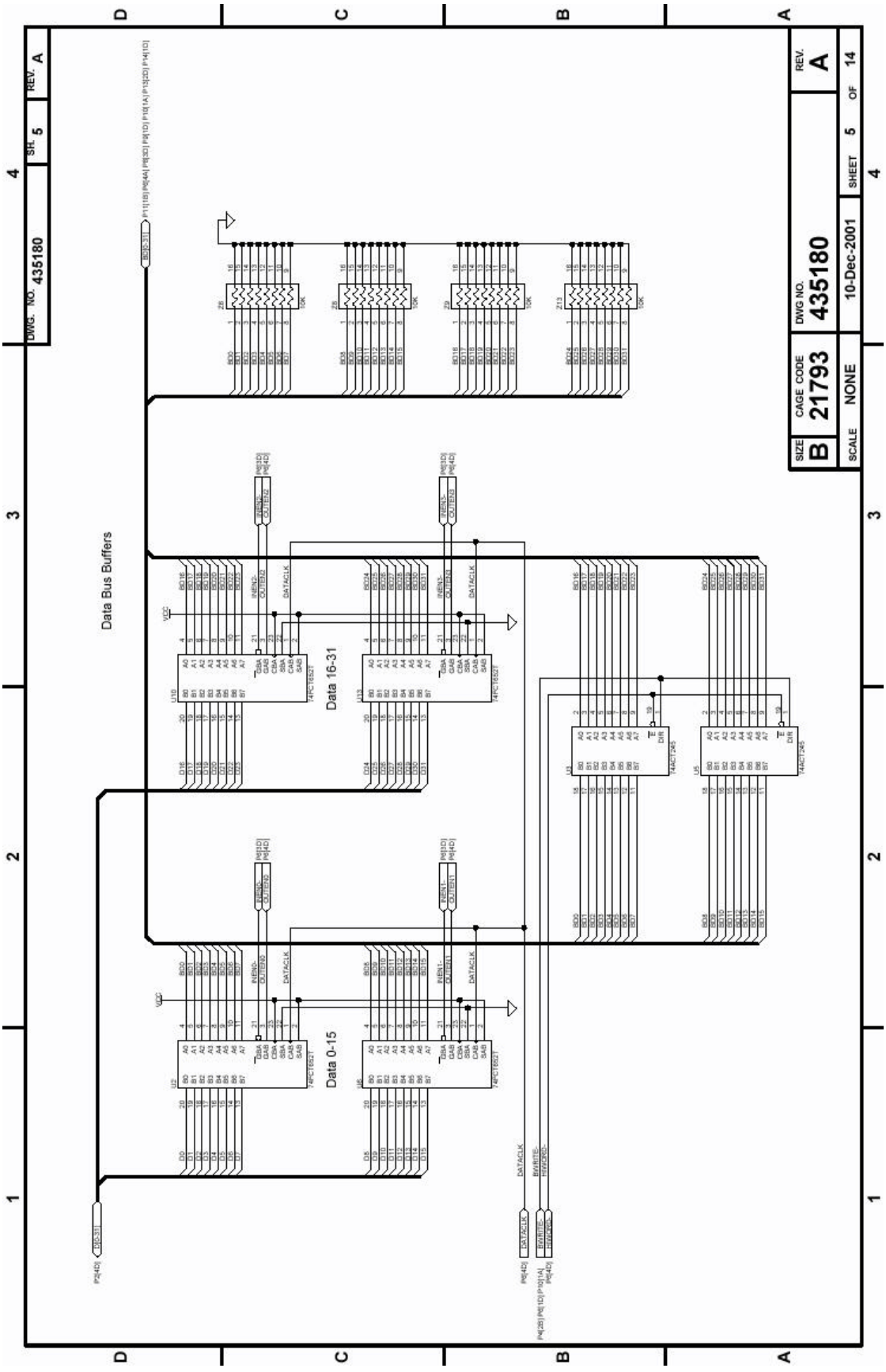
SIZE	CAGE CODE	DWG NO.	REV.
B	21793	435180	A

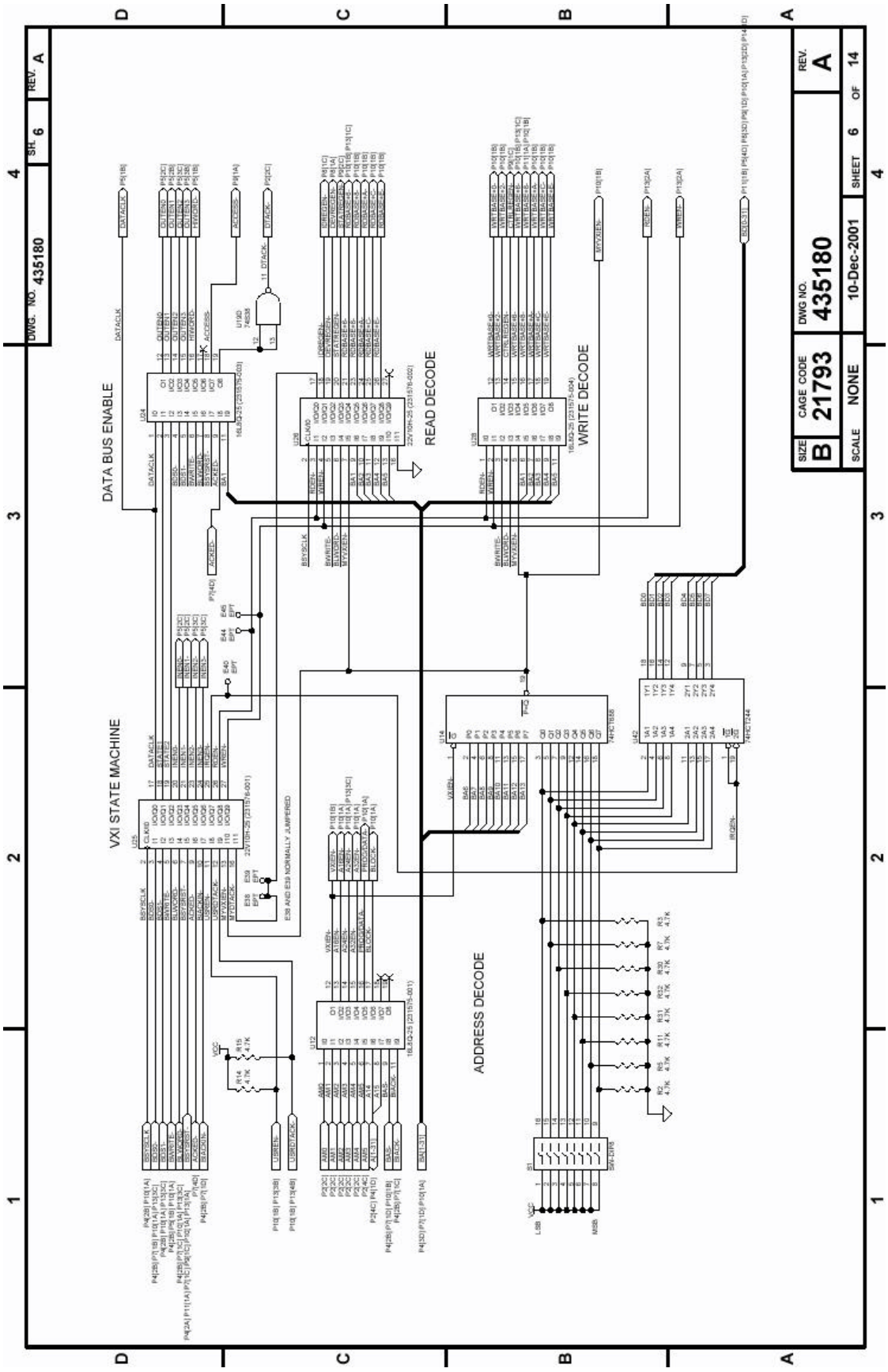
SCALE NONE | 10-Dec-2001 | SHEET 1 OF 14

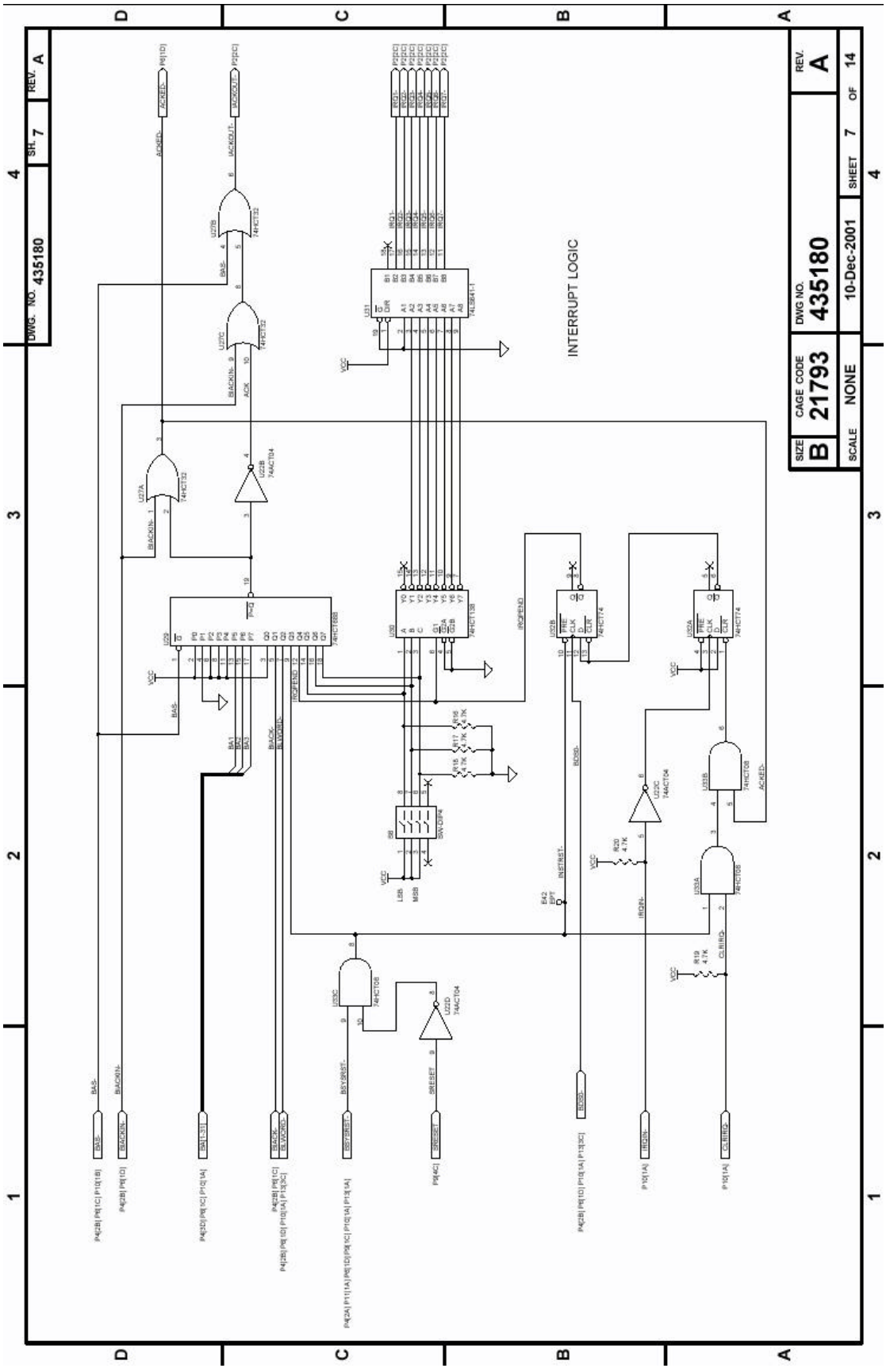

DWG. NO. 435180
SH. 2
REV. A
SIZE B
CAGE CODE 21793
DWG NO. 435180
REV. A
SCALE NONE
10-Dec-2001
SHEET 2 OF 14
VXI P1 & P2 CONNECTORS

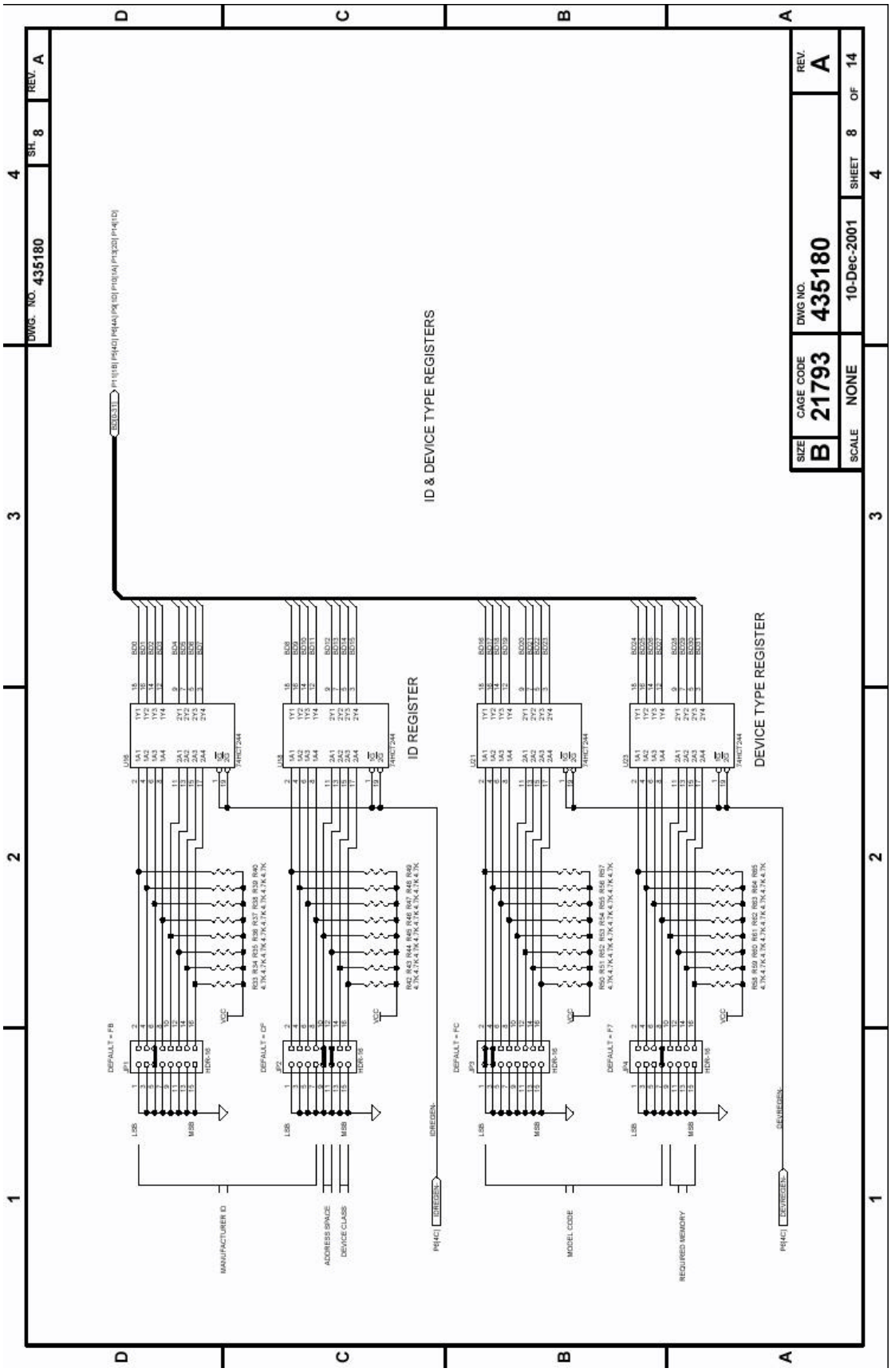

Power Supply Filters
ECL Trigger Driver/Receivers
DWG. NO. 435180
SH. 3
REV. A
SIZE B
CAGE CODE 21793
DWG NO. 435180
REV. A
SCALE NONE
10-Dec-2001
SHEET 3 OF 14

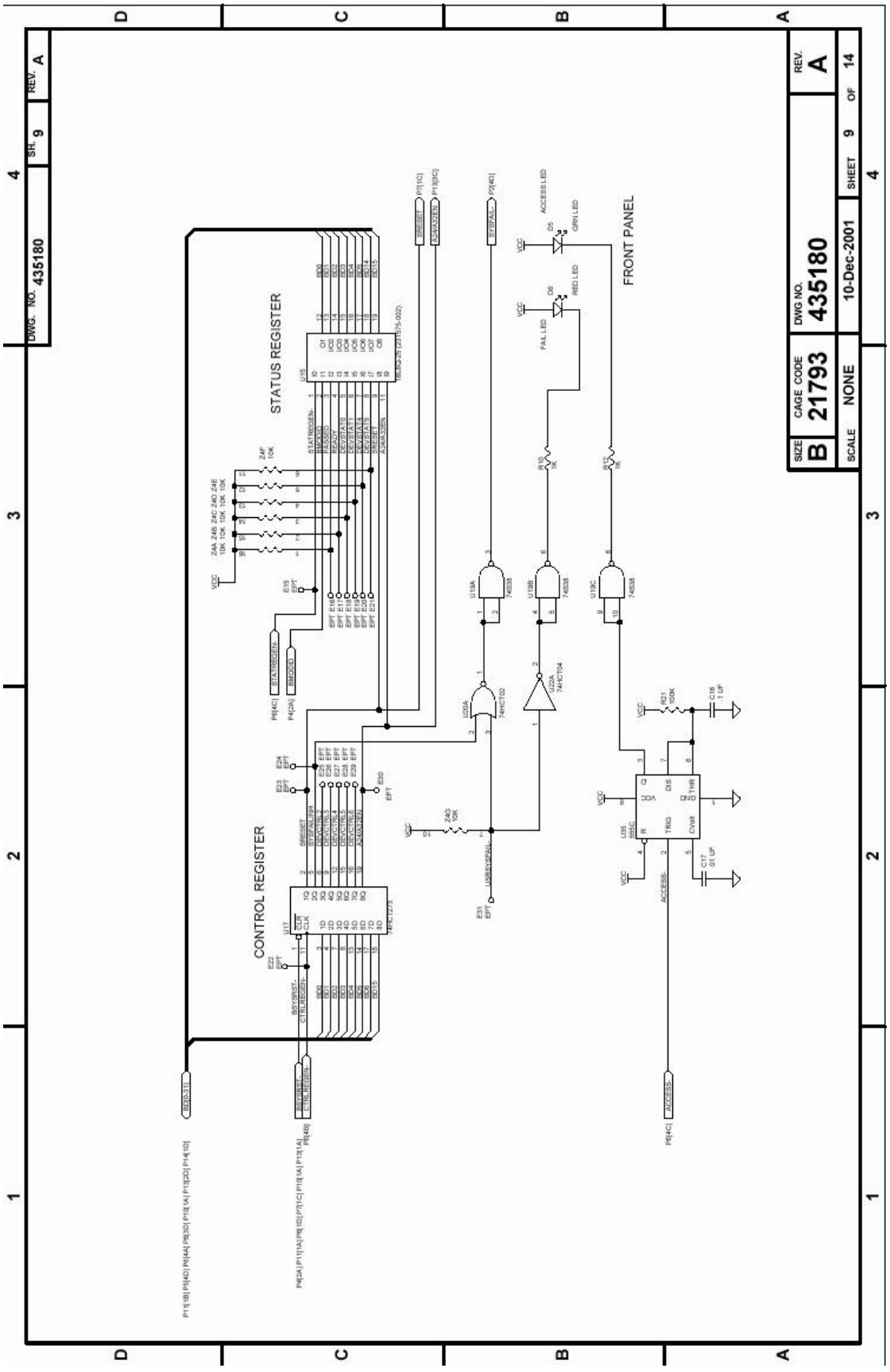

Address Buffers
Control Signal Buffers
DWG. NO. 435180
SH. 4
REV. A
SIZE B
CAGE CODE 21793
DWG NO. 435180
REV. A
SCALE NONE
10-Dec-2001
SHEET 4 OF 14

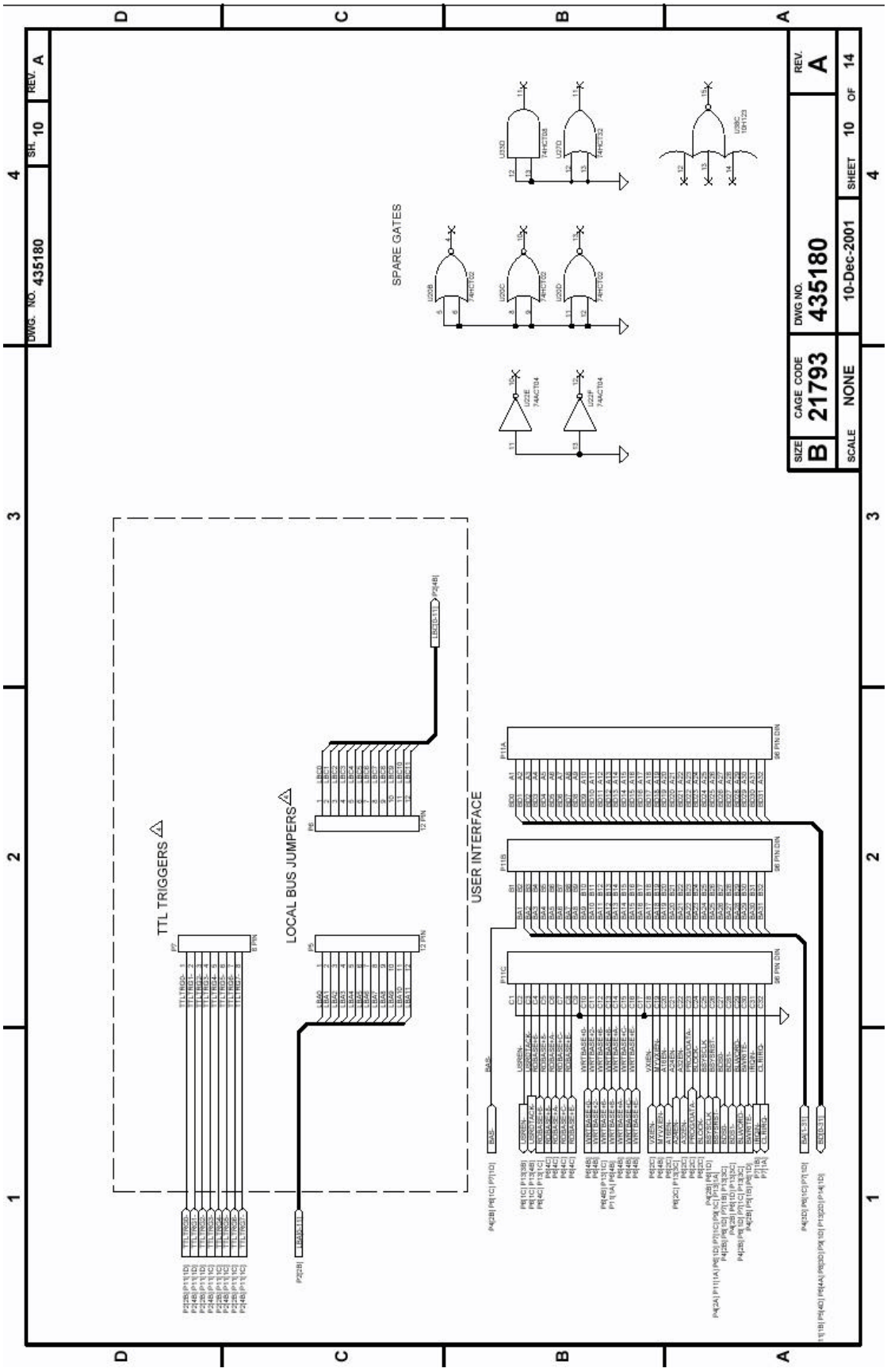

Data Bus Buffers
Data 16-31
Data 0-15
DWG. NO. 435180
SH. 5
REV. A
SIZE B
CAGE CODE 21793
DWG NO. 435180
REV. A
SCALE NONE
10-Dec-2001
SHEET 5 OF 14

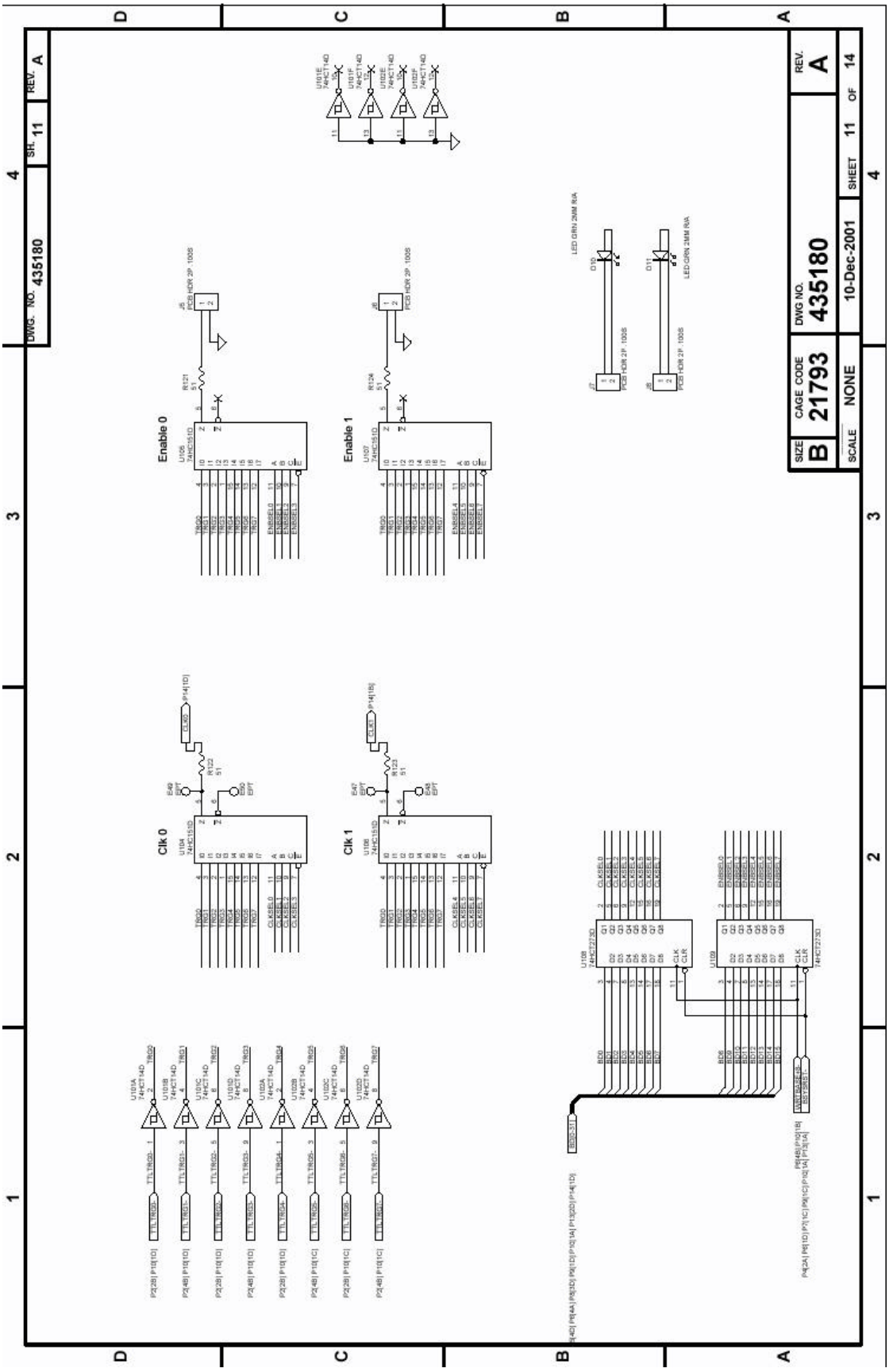

DWG. NO. 435180
SH. 6
REV. A
SIZE B
CAGE CODE 21793
DWG NO. 435180
REV. A
SCALE NONE
10-Dec-2001
SHEET 6 OF 14
DATA BUS ENABLE
VXI STATE MACHINE
READ DECODE
WRITE DECODE
ADDRESS DECODE

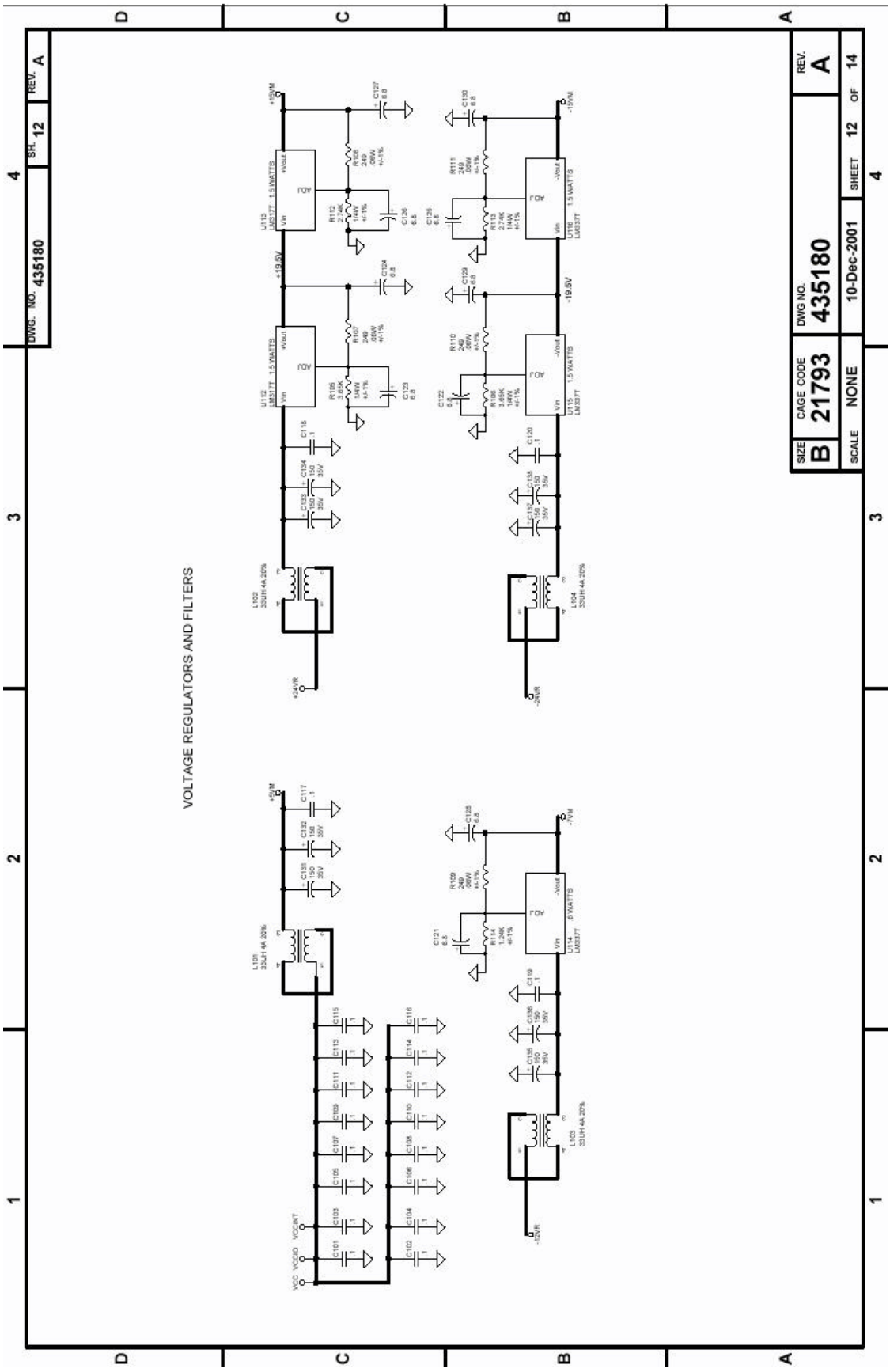

INTERRUPT LOGIC
DWG. NO. 435180
SH. 7
REV. A
SIZE B
CAGE CODE 21793
DWG NO. 435180
REV. A
SCALE NONE
10-Dec-2001
SHEET 7 OF 14

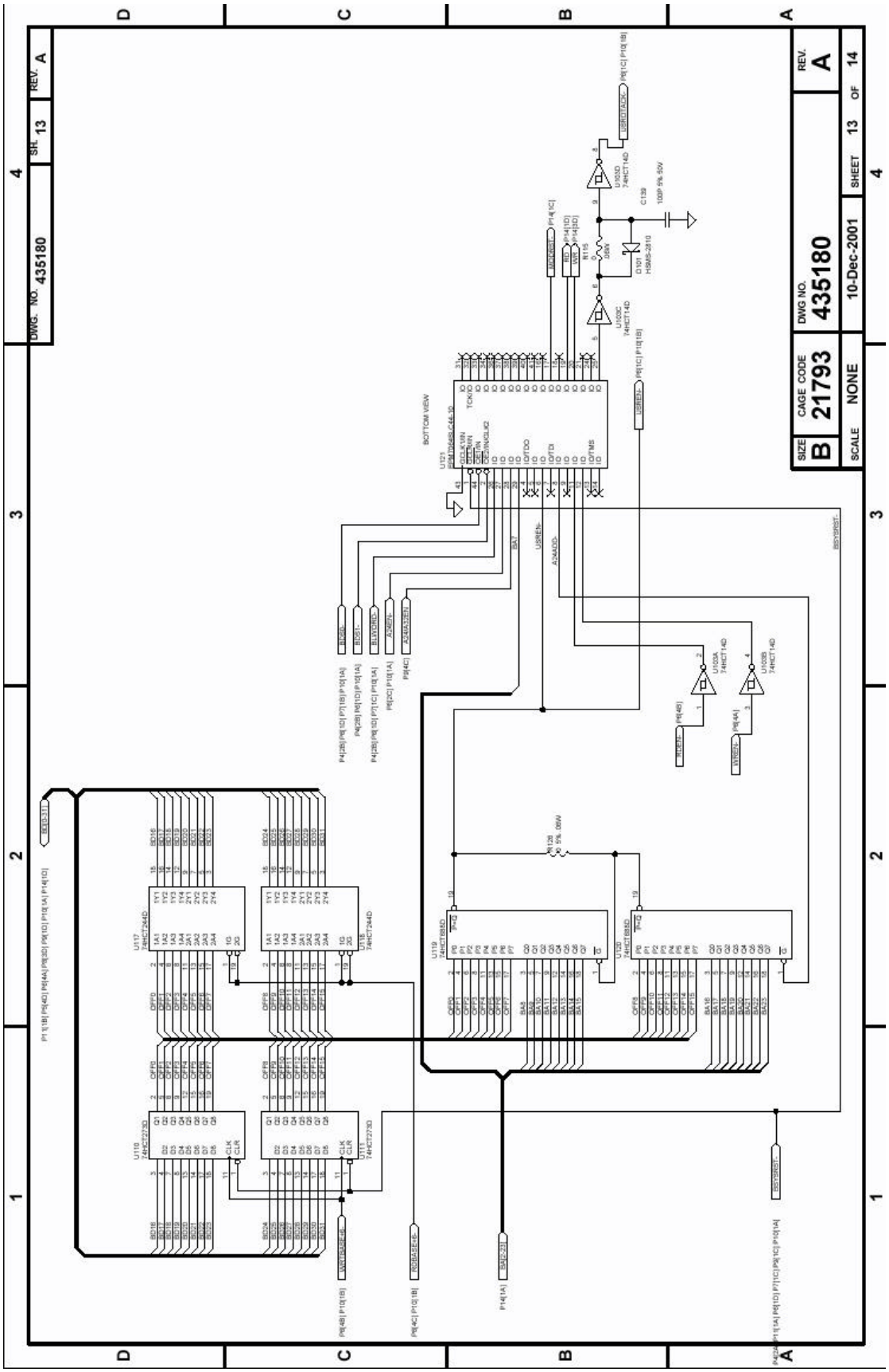

ID & DEVICE TYPE REGISTERS
ID REGISTER
DEVICE TYPE REGISTER
DWG. NO. 435180
SH. 8
REV. A
SIZE B
CAGE CODE 21793
DWG NO. 435180
REV. A
SCALE NONE
10-Dec-2001
SHEET 8 OF 14
MANUFACTURER ID
ADDRESS SPACE
DEVICE CLASS
MODEL CODE
REQUIRED MEMORY

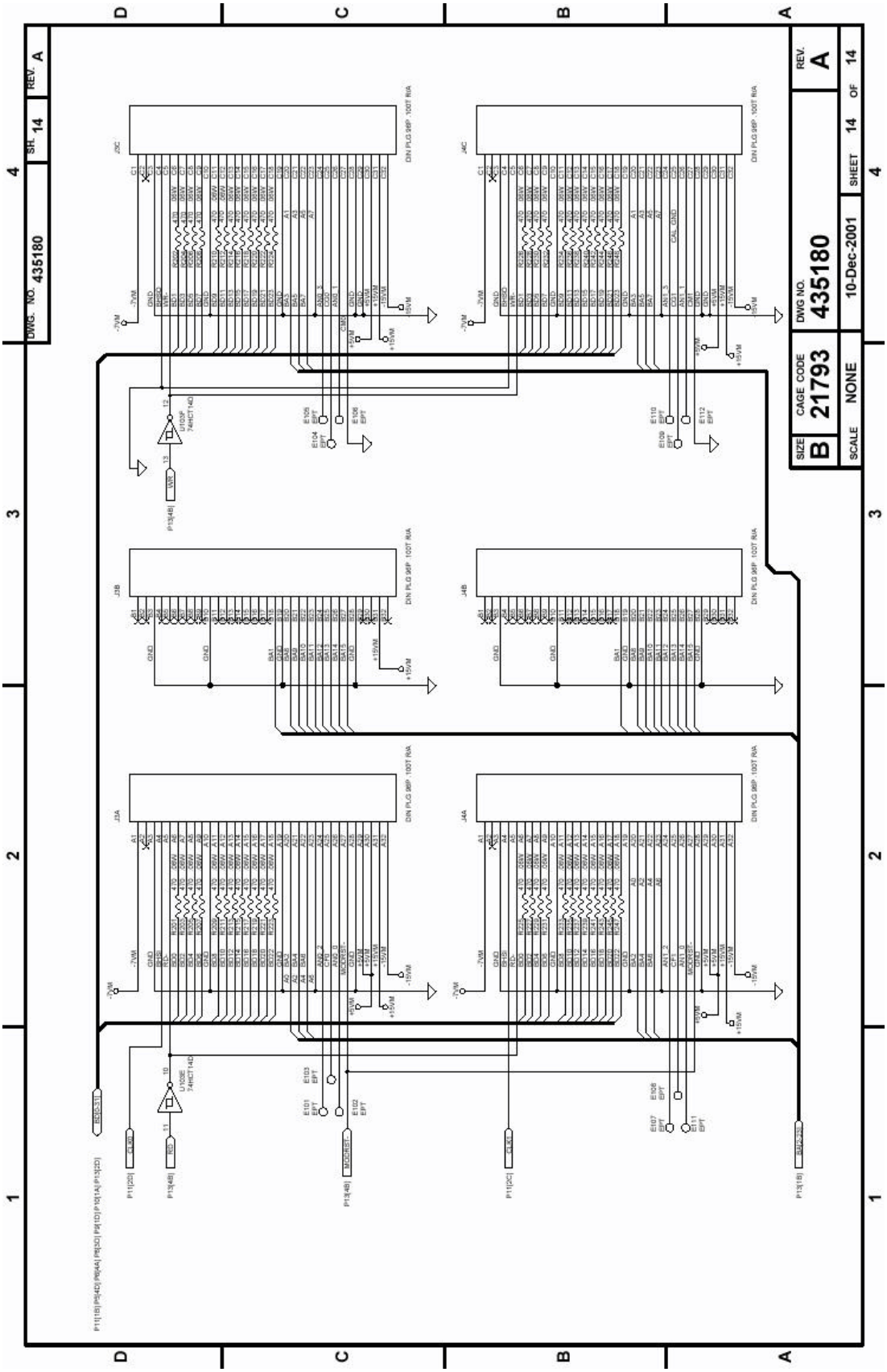

STATUS REGISTER
CONTROL REGISTER
FRONT PANEL
ACCESS LED
GRN LED
FAIL LED
RED LED
DWG. NO. 435180
SH. 9
REV. A
SIZE B
CAGE CODE 21793
DWG NO. 435180
REV. A
SCALE NONE
10-Dec-2001
SHEET 9 OF 14

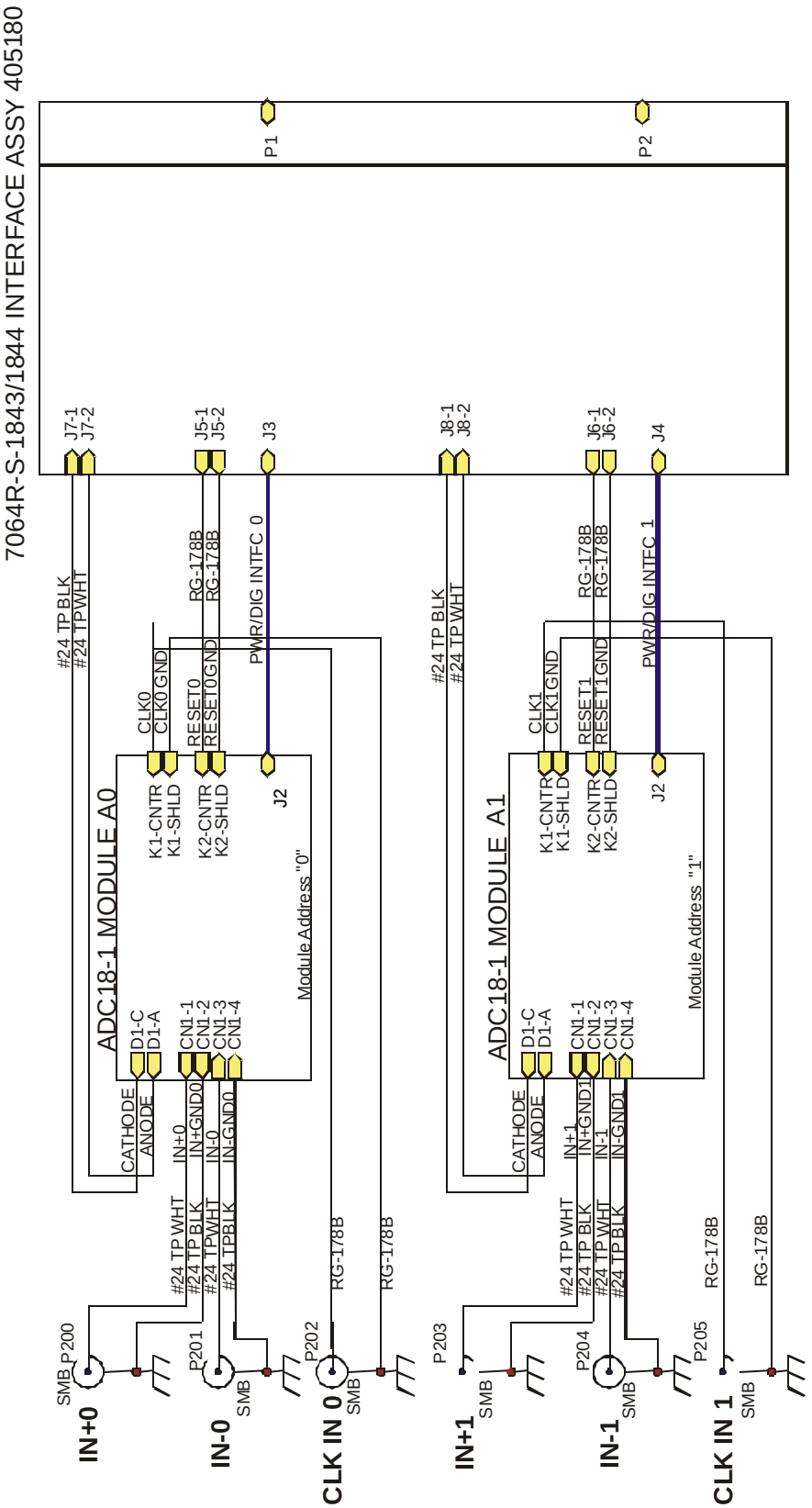

SPARE GATES
TTL TRIGGERS
LOCAL BUS JUMPERS
USER INTERFACE
DWG. NO. 435180
SH. 10
REV. A
SIZE B
CAGE CODE 21793
DWG NO. 435180
REV. A
SCALE NONE
10-Dec-2001
SHEET 10 OF 14


DWG. NO. 435180
SH. 11
REV. A
SIZE B
CAGE CODE 21793
DWG NO. 435180
REV. A
SCALE NONE
10-Dec-2001
SHEET 11 OF 14
Enable 0
Enable 1
Clk 0
Clk 1
LED GRN 2MM R/A
PCB HDR 2P .100S


VOLTAGE REGULATORS AND FILTERS
DWG. NO. 435180
SH. 12
REV. A
SIZE B
CAGE CODE 21793
DWG NO. 435180
REV. A
SCALE NONE
10-Dec-2001
SHEET 12 OF 14


SIZE B
CAGE CODE 21793
DWG NO. 435180
REV. A
SCALE NONE
10-Dec-2001
SHEET 13 OF 14
DWG. NO. 435180
SH. 13
REV. A


DWG. NO. 435180
SH. 14
REV. A
SIZE B
CAGE CODE 21793
DWG NO. 435180
REV. A
SCALE NONE
10-Dec-2001
SHEET 14 OF 14



S1843 DUAL 18 BIT ADC WIRING DIAGRAM

Chapter 4
PARTS LIST

407620-110S1843, Final Assembly, 7064R-110S1843 4-3

405180, PCB Assy, S1843/1844 4-4

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RACAL INSTRUMENTS INC. PAOE 1
Product Structure Report 2/25/02
By Assembly/Balloon No-

Assembly: 407620-11081843
EA 7064R-110-S-1843,DUAL A/D Rev Date: 3/25/02 Revision: B

#	Component	Description	U/N	Qty Reqd	Engineer Txt
1	SP-152-CA	1260 CARD PAK	EA	1.00000	
2	405180	PCB ASSY, 7064R-S-1843/1844	EA	1.00000	
3	455781	PANBL,REAR, SINGLE	EA	1.00000	
4	455784-001	PANBL,TOP,VXI	EA	1 00000	
5	455734-002	PANEL, BOTTOM, VXI	EA	1.00000	
6	456975	FRONT PANEL,S-1843	EA	1.00000	
7	500254	CACX-BRD-02C--G-1STR	FT	.00001	
8	600026	TRMSDR-RNG-10S1H - 070	EA	6.00000	
9	500122	WRTEF-STR24G-TWTPRN	EA	.00001	
12	602199-001	CONTACT,CRIMP,RBCPT, 28-22GA	EA	20.00000	
13	602193-002	CON-CAB-RCP002C.100S	EA	6.00000	
14	602192-004	CON-CAB-RCP004C.100S	EA	2.00000	
16	602532	CON-CXL-ECP-001S.	EA	6.00000	
17	602533	CON-CXL-PLG-001C.	EA	4.00000	
13	610935	W2H006.141X.320X.050	EA	4.00000	
20	616255	S3M-PPANH006-32X.312	EA	4.00000	
21	611264	HANDLB-EXT-BOT	EA	1.00000	
22	611265	HANDLE-EXT-TOP	EA	1.00000	
23	611266	MOUNTING HDW, HANDLE	EA	.50000	
24	616430	S1F-PFL3H004- X.375	EA	8.00000	
25	456977	COVER,RGT,7064R-S1843/1344	EA	1.00000	
26	456978	COVER,LFT, 7064R-S1843/1844	EA	1.00000	
22	615539	S1M-PFL1H004-40X. 125	EA	32.00000	
41	921059	LABEL-CAUTION-STATIC	EA	1.00000	
42	921148-001	LABEL SET,VXI	EA	1.00000	
44	921311	LABBL,LOGICAL ADDR,LSB/1	EA	1.00000	
45	921734-001	MOLULE,ADC, 18 BIT, 1MHZ	EA	2.00000	A0, Al
46	980817-8-1843	MANUAL, 7064R-110-S-1843	EA	1.00000	
47	921644	THERMAL, ITFC,4 .6X25MM;ROLL	EA	.00001	

RACAL INSTRUMENTS INC. PAGE 1
Product Structure Report
By Assembly/Balloon No.

Assembly: 405180
EA PCB ASSY 7064R-S-1843/1844 Rev Date: 3/21/02 Revision: A

#	Component	Description	U/M	Qty Reqd	Engineer Txt
1	050000-000	RSCH1-000. 00H . 06W005	EA	1.00000	R115
2	050000-471	RSCB1-470. 00H.06W005	EA	48.00000	R201-R248
3	050038	RSCH1- 825.00H. 12w005	EA	1.00000	R1
4	050039	RSCH2-001.24K.12W001	EA	1.00000	R114
6	050222	RSCH1-249.00H.06W001	EA	5.00000	R107-R111
7	050223	RSCH2-003 .65K.25W001	EA	2.00000	R105, R106
8	050224	RSCH2-002.74K.25W001	EA	2.00000	R112, R113
9	080116	RSNW2-010. 000K16P08R	EA	5.00000	Z4, 6, 8, 9, 13
11	R-20-5784	RSCE1-180 .00H.12W005	EA	2.00000	R23, R25
12	8-20-5786	RSCH1-270. 00H. 12W005	EA	2.00000	R22, R24
13	R-20-5792	RSCH2-001.00K.12W005	EA	2.00000	R10, R12
14	R-20-5799	RSCS2-004.70K.12W005	EA	47.00000	R2, 3, 5, 7, 11, 14-20, 30-40, 42-65
15	8-20-5813	RSCH2-100 .00K. 12W005	EA	1.00000	R21
16	R-20-5814	RSCH1-051.00E.12W005	EA	5.00000	R121-R125
17	110236	CPCH3-0003 .3U0016V20	EA	1.00000	C3
18	110253	CPAE3-0150 .0U0035V20L0W ESR	EA	8.00000	C131-C138
19	110262	CPTA3-0006. 8U0050V20	EA	10.00000	C121-C130
21	R-21-1801	CPCH2-0010. 0N0050V20	EA	13.00000	C1-2, 17, 21-30
22	R-21-1802	CPCH2-0100. 0N0050V20	EA	21.00000	C16, C101-120
26	210120	DILED-002.2V02. 0MA	EA	1.00000	D6
27	210121	DILED-002. 2V02. 0MA	EA	3.00000	D5, D10, D11
30	230984	ICDIG-74ACT245-TRAN	EA	2.00000	U3, U5
33	231126	ICDIG-74S38 NAND	EA	1.00000	U19
35	231130	ICDIG-74HCT273—FLOP	EA	5.00000	U17, U108-U111
37	231132	ICDIG-74HC151---MPLX	EA	4.00000	U104 - 107
39	231236	ICDIG-74H0T244-BUFP	EA	7.00000	U16, 18, 21, 23, 42, 117, 118
41	231380	ICDIG-74ACT04---SOIC	EA	1.00000	U22
43	231398	ICDIG-74HCT08-AND-SOIC	EA	1.00000	U33
45	231433	ICDIG-74HCT02---SOIC	EA	1.00000	U20
46	231434	ICDIG-74HCT32---SOIC	EA	1.00000	U27
48	231436	ICDIG-74HCT74---SOIC	EA	1.00000	U32
52	231470	ICDIG-74HCT688--SOIC	EA	4.00000	U14, U29, U119, U120
54	231497	ICLIN-555C----------SOIO	EA	1.00000	U35
56	231570	ICPIG-74FCT652T-SOIC	EA	4.00000	U2, 6, 10, 13
59	231574	ICDIG-74FCT244—SOIC	EA	6.00000	U1, 4, 7 - 9, 11
61	231575-001	ICPLA-16L8Q-25-U12-PLCCP	EA	1.00000	U12
62	231575-002	ICPLA-16L8Q-25-ULS-PLCCP	EA	1.00000	U15
63	231575-003	ICPLA-16L8Q-25-U24-PLCCP	EA	1.00000	U24
64	231575-004	ICPLA-16L8Q-25-U28-PLCCP	EA	1.00000	U28
66	231576-001	ICPLA-22V10E-25-U25-PLCCP	EA	1.00000	U25
67	231576-002	ICPLA-22V10H-25-U26-PLCCP	EA	1.00000	U26
69	231616	ICDIG-74HCT14--SOIC SCHMITT	EA	3.00000	U101, 102, 103
71	231660	ICLIN-LM317-D2PAK POS PEG	EA	2.00000	U112, U113
72	231661	ICLIN-LM337-D2PAK NEG REG	EA	3.00000	U114-U116
73	231667-001	ICPLA-7064SLC-10-U121-PLCCP	EA	1.00000	U121
75	300122	TRANSFORMER, 33UH, PARALW	EA	4.00000	L101-L104

77	310193	CKPL-SH005. 00U10. 1%I	EA	1.00000	L2
79	415180	POE, 7064R-S-1843/1844	EA	1.00000	
80	456979	SPACER, DIN CONN MTG	EA	2.00000	

RACAL INSTRUMENTS INC. PAGE 2
Product Structure Report
By Assembly/Balloon No.

Assembly: 405180
EA PCB ASSY 7064R-S-1843/1844 Rev Date: 3/21/02 Revision: A

#	Component	Description	U/M	Qty Reqd	Engineer Txt
81	601197	POST-TEST- .025 SQ	EA	2.00000	TP1 , TP2
33	601208-010	CON-PCB-PLG02SD. 100S	EA	4.00000	J5-J8
87	601675-001	CON-PCB-PLG096P. 100D	EA	2.00000	P1, P2
89	601699	SWITCH,DIP-8 POS	EA	1.00000	S1
92	602534	CON-PCB-RCP096S 100T	EA	2.00000	J2 J4
94	610533	NP006-325P0.060- .125	EA	4.00000	
96	610872	WASH FL NAS620C4L	EA	4.00000	
98	611258-001	STS04T.062P.170L.218	EA	3.00000	
100	611263	STS04B.062P.775L.218	EA	1.00000	
102	616206	S1MPPAN-M2. 5X0. 45X14	EA	4.00000	
104	617041	NT1HEXM2.5-0.50-STL	EA	4.00000	
106	921505	BEAD, FERRITE, LEADED	EA	1.00000	L1
107	921279	LOCQUIC,PRIMER T	EA	.00001	
108	920962	LOCTITE-242-MED STR	EA	.00001	

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Chapter 5
PRODUCT SUPPORT

Product Support

Racal Instruments has a complete Service and Parts Department. If you need technical assistance or should it be necessary to return your product for repair or calibration, call 1-800-722-3262 or 949-859-8999 and ask for Customer Support. You may also contact Customer Support via E-Mail at:

helpdesk@racalate.com

If parts are required to repair the product at your facility, call 1-800-722-3262 or 1-949-859-8999 and ask for the Parts Department.

When sending your instrument in for repair, complete the form in the back of this manual

Reshipment Instructions

Use the original packing material when returning the switching module to Racal Instruments for calibration or servicing. The original shipping carton and internal packing will provide the necessary support for safe reshipment.

If the original packing material is unavailable, wrap the switching module in ESD barrier material and use foam to surround and protect the instrument.

Re-ship in either the original or a new shipping carton.

Support Offices

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