

1260 VXI SWITCHING CARD

1260-51 400MHz RF MATRIX

Publication No. 980673-053

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The RACAL logo consists of the word "RACAL" in a bold, italicized, sans-serif font. Each letter is contained within a rectangular box, and the boxes are slightly offset to create a sense of depth and movement.

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2. Product model number
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RETURN of PRODUCT

Authorization is required from Racal Instruments before you send us your product for service or calibration. Call your nearest Racal Instruments support facility. A list is located on the last page of this manual. If you are unsure where to call, contact Racal Instruments, Inc. Customer Support Department in Irvine, California, USA at 1-800-722-3262 or 1-949-859-8999 or via fax at 1-949-859-7139. We can be reached at: helpdesk@racalstruments.com.

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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 instrument is configured to operate on the voltage at the power source. See Installation Section.
2. Ensure the proper fuse is in place for the power source to operate.
3. 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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Chapter 1

MODULE SPECIFICATION

General

The 1260-51 is a 400MHz RF Matrix designed to be software configurable. The 1260-51 can be configured as either six 2 X 6 matrices, or three 2 X 12 matrices, or one 2 X 36 matrix.

Module Specification

Maximum Switch Power	62.5VA, 30W
Maximum Switch Voltage	125VAC, 110VDC
Maximum Switch Current	0.5A AC, 0.5A DC
Characteristic Impedance	50 Ohms
Bandwidth (-3dB)	400MHz Typ. (2 X 6 Mode)
Insertion Loss	1 dB @ 100MHz
Crosstalk	< -40 dB @ 100MHz
Isolation	> 60 dB @ 100MHz
Path Resistance	< 1.5 Ohm
Thermal EMF	< 20 uV
Capacitance (any port to gnd)	< 200 pF
Temperature	
Operating	0°C to +55°C
Non-operating	-40°C to +75°C
Relative Humidity Condensing 30°C	95 +/-5% RH Non- 75+/-5%RH >30°C 45+/-5%RH >40°C

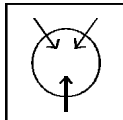
Altitude	10,000 ft (operating) 15,000 ft (non- operating)
Vibration	0.013" double amplitude, 5-55Hz
Shock, functional	30g, 11msec, 1/2 sine wave
Bench Handling	4 inch drop
Cooling:	
With Option 01S/T	
Airflow	2.0 liters/sec
Backpressure	0.2mm H ₂ O
Without Option 01	
Airflow	1.0 liters/sec
Backpressure	0.05mm H ₂ O
Power Requirement	
Without Option 01 installed	
+5V Static Current	0.4A
+5V Dynamic Current	0.075A
With Option 01 installed	
+5V Static Current	2.5A
+5V Dynamic Current	0.225A
+24V Static Current	6mA per energized relay, 72mA max
+24V Dynamic Current	0A
MTBF	>55,000 Hours (per MIL-HBK-217, ground benign, +30°C)

Chapter 2

INSTALLATION INSTRUCTIONS

Unpacking and Inspection

1. Before unpacking the switching module, check the exterior of the shipping carton for any signs of damage. All irregularities should be noted on the shipping bill and reported.
2. Remove the instrument from its carton, preserving the factory packaging as much as possible.
3. Inspect the switching module for any defect or damage. Immediately notify the carrier if any damage is apparent.
4. Have a qualified person check the instrument for safety before use.



CAUTION

ALWAYS PERFORM DISASSEMBLY, REPAIR AND CLEANING AT A STATIC SAFE WORKSTATION.

Reshipment Instructions

1. Use the original packing when returning the switching module to Racal Instruments for calibration or servicing. The original shipping carton and the instrument's plastic foam will provide the necessary support for safe reshipment.
2. If the original packing is unavailable, wrap the switching module in an ESD Shielding bag and use foam to surround and protect the instrument.
3. Reship in either the original or a new shipping carton.

Option 01 Installation

Installation of the Option 01 to the 1260-51 is described in the Installation Section of the 1260 Series VXIbus Switching Cards Manual, under the Option 01 Installation section.

Module Installation

Installation of the 1260-51 Switching Module into a VXIbus mainframe, including the setting of switches SW1-1 through SW1-4, SW2 and SW3, is described in the Installation section of the 1260 Series VXI Switching Cards Manual. Switches SW1-5 and SW1-6 must be configured in the OFF state.

MODULE SPECIFIC SYNTAX

Module Configuration

The 1260-51 consists of a 2X36 coaxial matrix that may be broken-up into 3-2X12 or 6-2X6 matrices

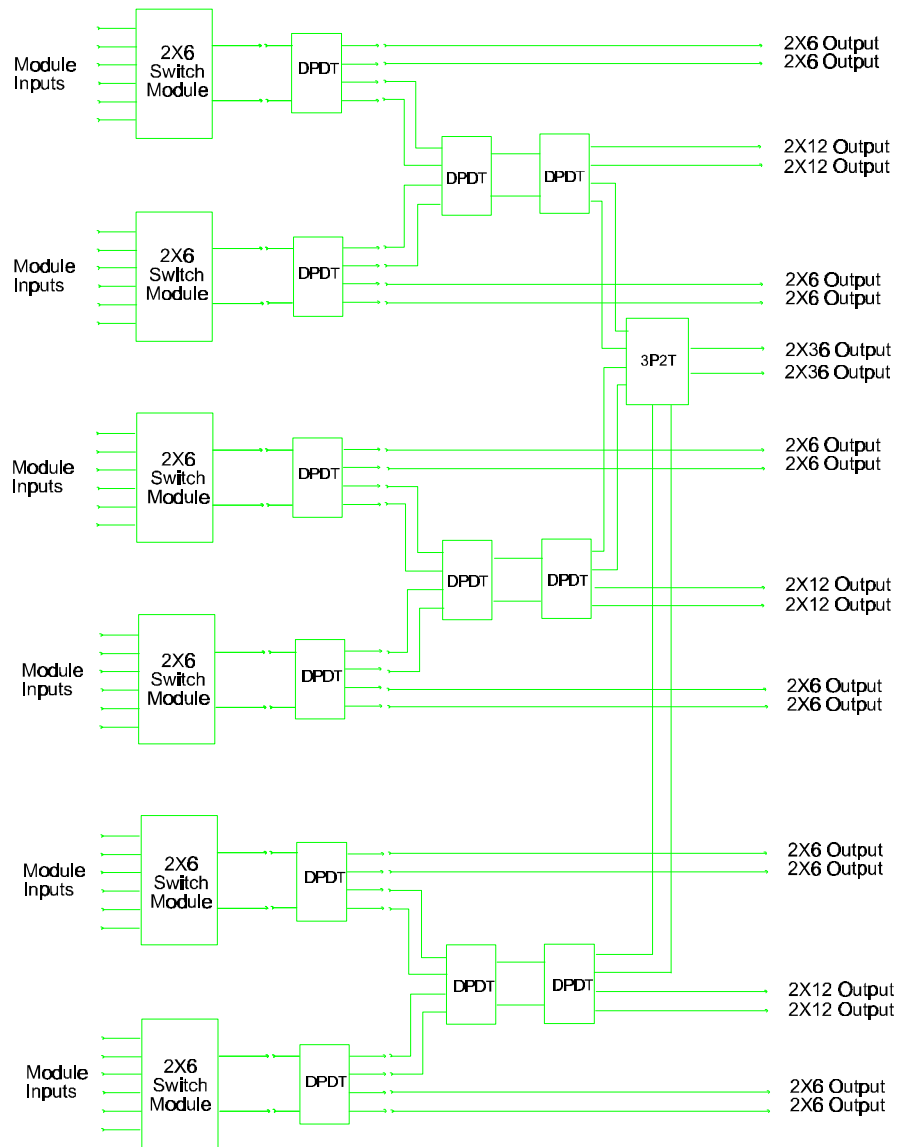


Figure 3-1, 1260-51 Block Diagram

Front Panel Connectors

The 1260-51 front panel. See **Figure 3-1**.

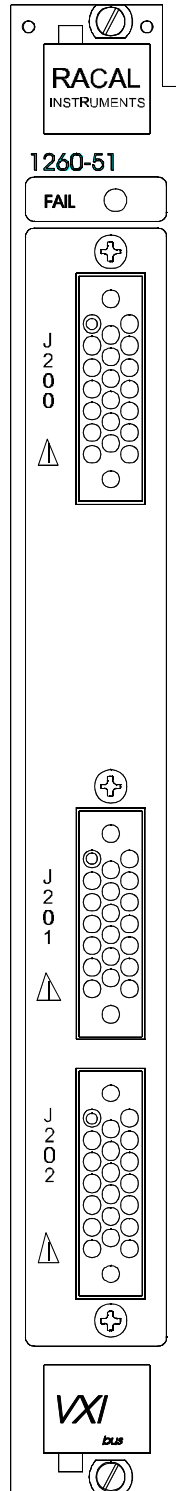


Figure 3-2, Front Panel Connectors

NOTE:

The <module address> used here is not the VXIbus defined Logical Address of the 1260 Series Master. It is unique to the 1260 Series and describes the switching module in relation to the Master. This address corresponds to the binary value of the switch setting of SW1 on the switching module PCB. Refer to the Installation Section of the 1260 Series VXI Switching Cards Manual, Part Number 980673-999, for more information.

Theory of Operation

The fundamental commands for the 1260-51 RF Matrix are the OPEN and CLOSE commands. The commands for 1260-51 differ in that users specify the input and output port rather than the relays. Then a unique path for the input-output, permanently stored in hardware, is established to make the path from input port to output port.

If a new path requested is in conflict with the other paths already made, all previous paths using that conflicting relay will be opened to make a new path. Furthermore, relays that were part of the previous paths will be opened to make them available for future usage.

Syntax

The Module Specific Syntax for the 1260-51 RF Multiplexer is as follows:

OPEN|CLOSE

<module address>.<4-digit I/O>[;<module address>.<4-digit I/O >]

Example:

```
OPEN <module#>.<starting I/O >-<ending I/O >  
CLOSE <module#>.<starting I/O >-<ending I/O >
```

OPEN/CLOSE will make the path for given input -output pairs. Often each path involves multiple relays and thus any previous path which uses relays requested by the new path will be destroyed to make the new path.

```
OPEN 1.0010
```

00: specify input channel

10: specify output channel

Multiple paths may be listed in a single line of instruction, but be

careful about implicit exclusion. The implicit exclusion means that if path *A* belongs to 2X6 matrix and path *B* belongs to 2X36 matrix, path *A* cannot coexist with path *B*. Thus the matrix of most recent path will prevail.

Examples:

CLOSE 1.0020, 0030 will cause only 0030 to be closed. (Same input channel cannot be directed to different output). CLOSE 1.0020, 0130 will cause both 0020 and 0130 to be closed. (Different inputs for different output; and these two paths belong to the same matrix configuration). CLOSE 1.0020, 0601 will cause only 0601 to be closed. (Apparently, input and output pair seem different from each other. But 0020 belongs to 2X12 matrix configuration and 0601 belongs to 2X6. Therefore, making 0601 will force 0020 to be opened because of conflicting matrix configuration.)

SCANLIST

<module#.<starting I/O >-<ending I/O >

Example:

After sending 'SCAN 1.0000-3550', issuing 'TRIGGER' command will close valid pairs of I/O channels in an increasing order.

PDATAOUT

<module address>; [<module address>]; [<module address>]...

PDATAOUT exactly same as any other 1260 modules.

EXCL

<module#>.<starting I/O >-<ending I/O >

All input-output channels specified in EXCL shall be closed in mutually exclusive manner. That is, only one I/O channel can be closed.

Without EXCL, two paths of the same matrix configuration can coexist. For example:

```
CL 1.0020
CL 1.0130 {two paths are connected}
```

```
EXCL 1.0-3550
CL 1.0020
CL 1.0130
(Only latest path is connected; 0130 in this case.)
```

Note: There is implicit exclusion built in the firmware for each different matrix configuration. For example, closing a path in 2x36 mode will destroy the other paths belong to 2x6 and 2x12.

PSETUP

<module address>[<module address>][<module address>]...

where <module address> is the switch card address.

<4-digit I/O > := <2-digit input port><2-digit output port>[,<2-digit input port><2-digit output port>]...

<2-digit input port> is the input port

<2-digit output port> is the output port.

Valid input port is 2 digit numeric between 00 and 35.

Valid output port is 00, 10, 20, 30, 40, 50 if input port is between 00 and, 05;

01, 11, 20, 30, 40, 50 if input port is between 06 and 11;
02, 12, 21, 30, 40, 50 if input port is between 12 and 17;
03, 13, 21, 31, 40, 50 if input port is between 18 and 23;
04, 14, 22, 32, 40, 50 if input port is between 24 and 29;
05, 15, 22, 32, 40, 50 if input port is between 30 and 35;

If these input pairs are incorrectly provided by a user, error (code 3) will be noted.

NOTE

The 1260-51 coaxial switching module is supported by the Option 01 operating systems at revision levels 31.1 and above.

Input-Output Channels

All valid input-output channels for 1260-51 modules are listed below:

1. One 2 X 36

input	output
0-35	40
0-35	50

2. Three 2 X 12

input	output
0-11	20
0-11	30
12-23	21
12-23	31
24-35	22
24-35	32

3. Six 2 X 6

input	output
0-5	00
0-5	10
6-11	01
6-11	11
12-17	02
12-17	12
18-23	03
18-23	13
24-29	04
24-29	14
30-35	05
30-35	15

Preceding 0 may be omitted.

Example:

CL 1.0010	is equivalent to	CL 1.10
CL 1.0000		CL 1.0
CL 1.0250		CL 1.250

1260-51 ID Bytes

The ID bytes for the 1260-51 are:

1260-51 1C hexadecimal (=28 decimal)

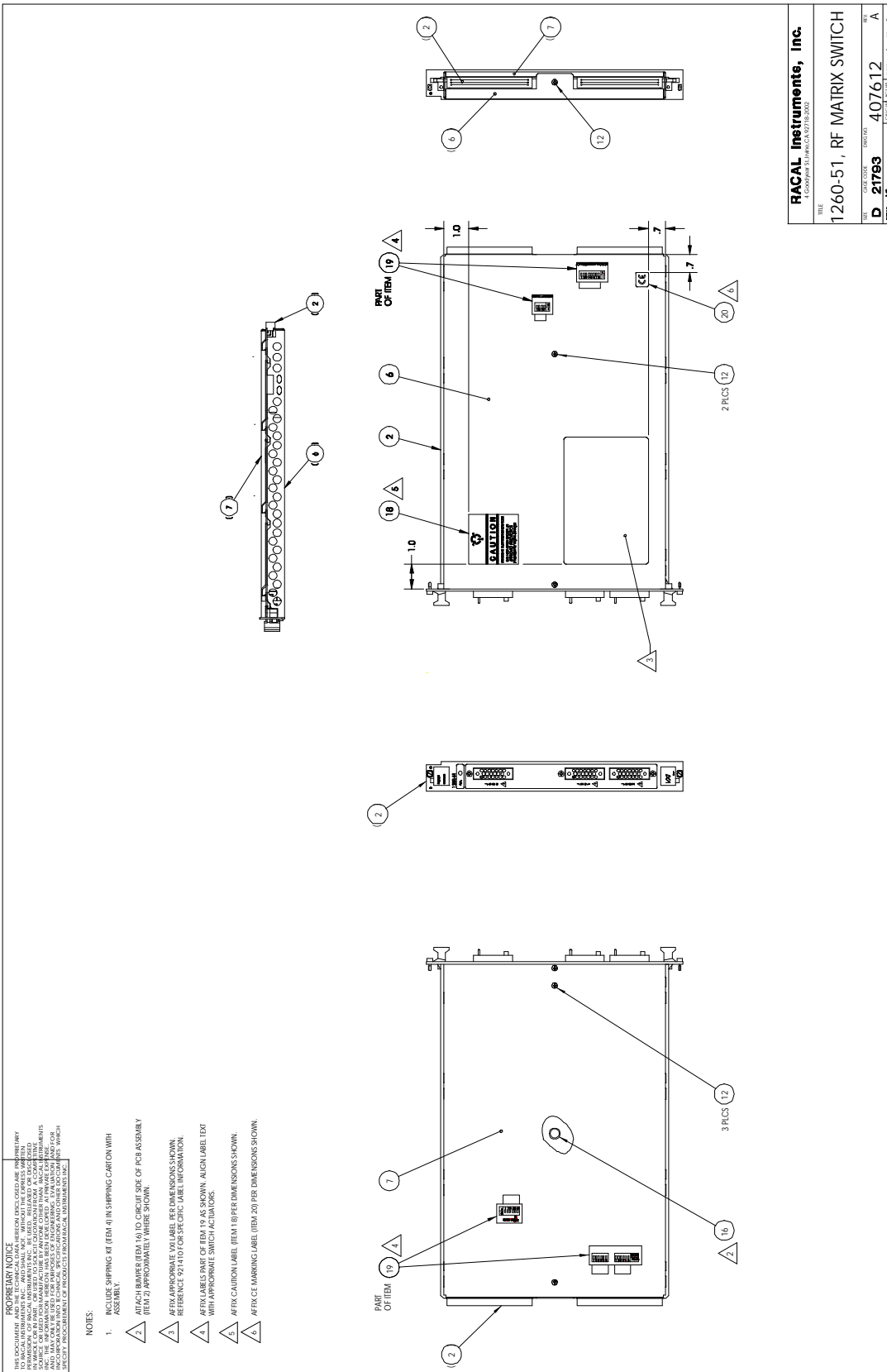
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Chapter 4

DRAWINGS

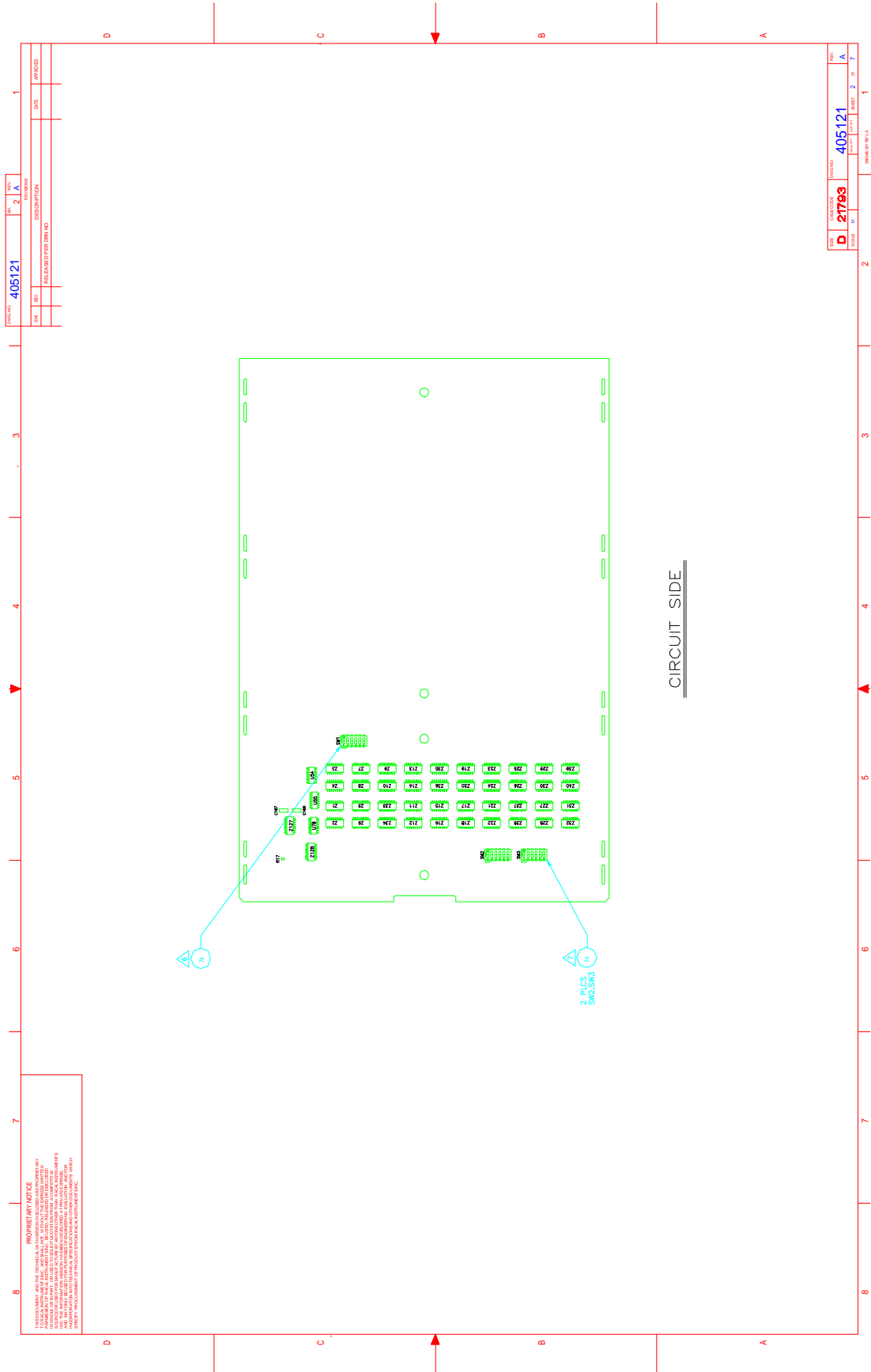
407612	Final Assy, 1260-51	4-3
405121	PCB Assy, 1260-51	4-4
435121	Schematic, 1260-51	4-5

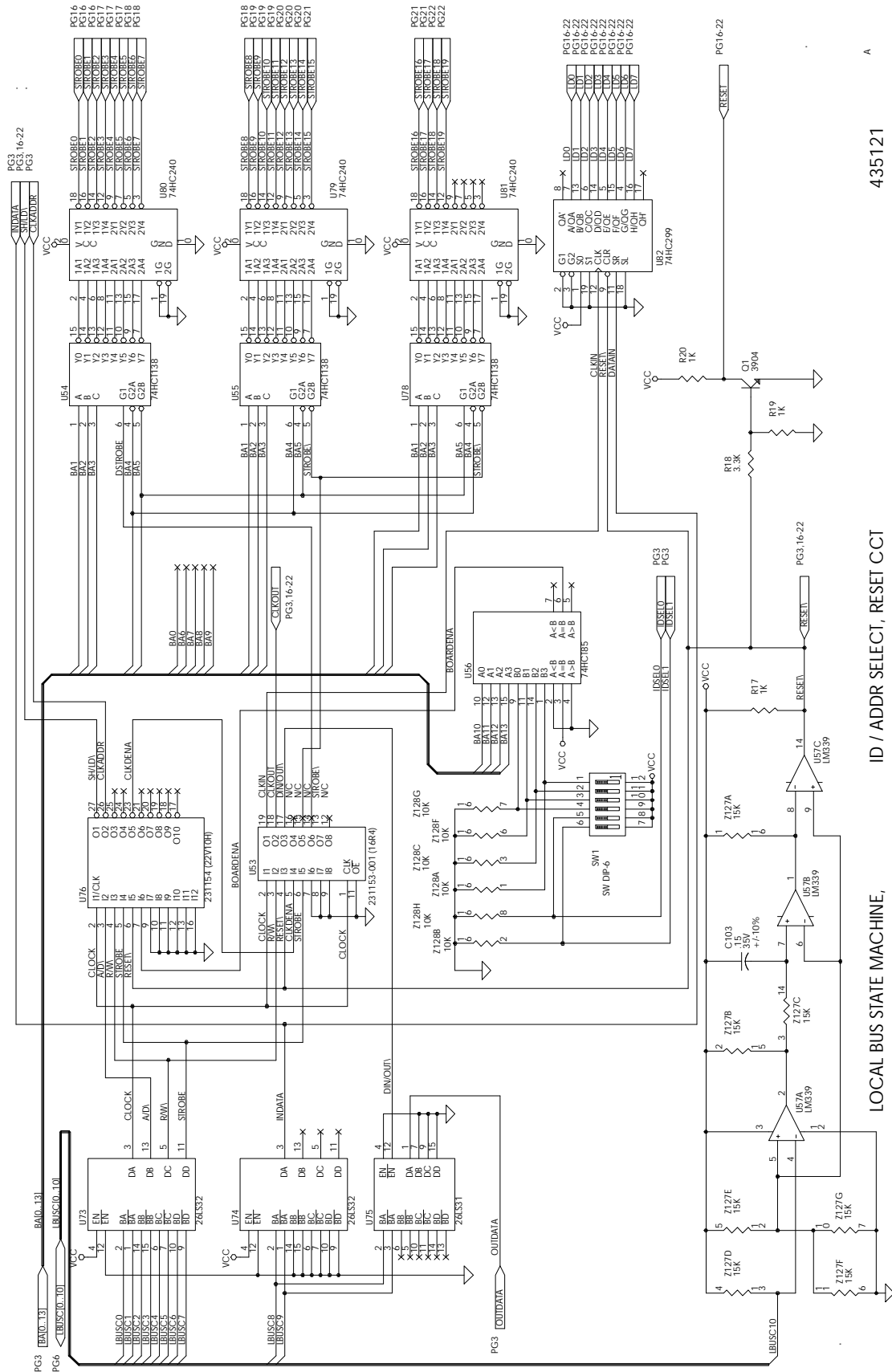
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- NOTES:**
1. INCLUDE SHIPPING KIT (ITEM 9) IN SHIPPING CARTON WITH ASSEMBLY.
 2. ATTACH BUMPER (ITEM 16) TO CIRCUIT SIDE OF PCB ASSEMBLY (ITEM 9) APPROXIMATELY WHERE SHOWN.
 3. AFIX APPROPRIATE VOLTAGE, RESISTANCE, CAPACITANCE, REFERENCE, OR TOLERANCE SPECIFIC LABEL INFORMATION.
 4. AFIX LABELS PART OF ITEM 19 AS SHOWN. ALIGN LABEL TEXT WITH APPROPRIATE SWITCH ACTUATORS.
 5. AFIX CAUTION LABEL (ITEM 18) PER DIMENSIONS SHOWN.
 6. AFIX CE MARKING LABEL (ITEM 20) PER DIMENSIONS SHOWN.

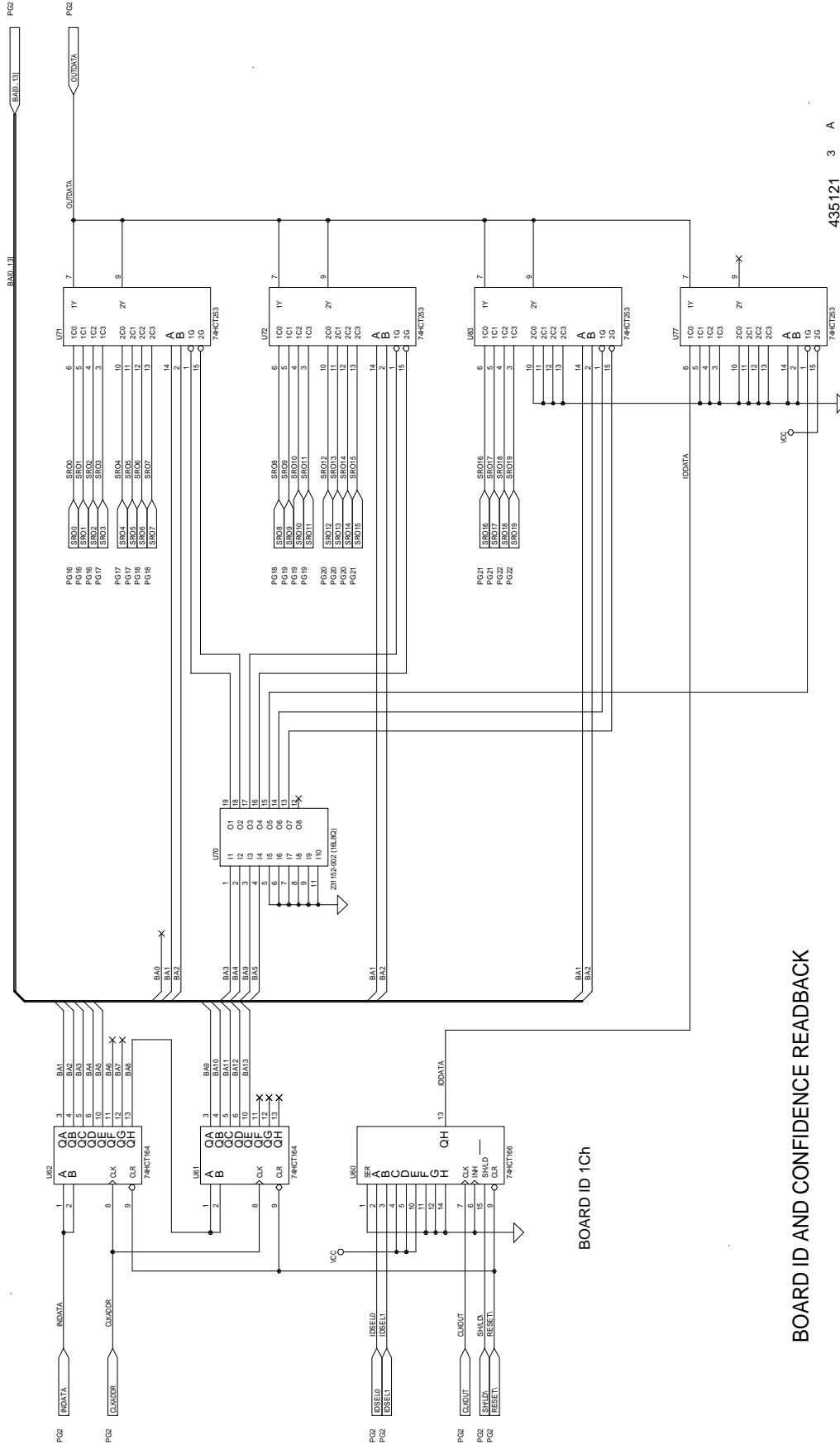
RACAL Instruments, Inc.	
4000 WILSON AVENUE, SANTA ANA, CA 92705	
TITLE: 1260-51, RF MATRIX SWITCH	
REV: A	DATE CODE: 407612
REV: A	DATE: 11/81
REV: A	REV: 1 OF 2



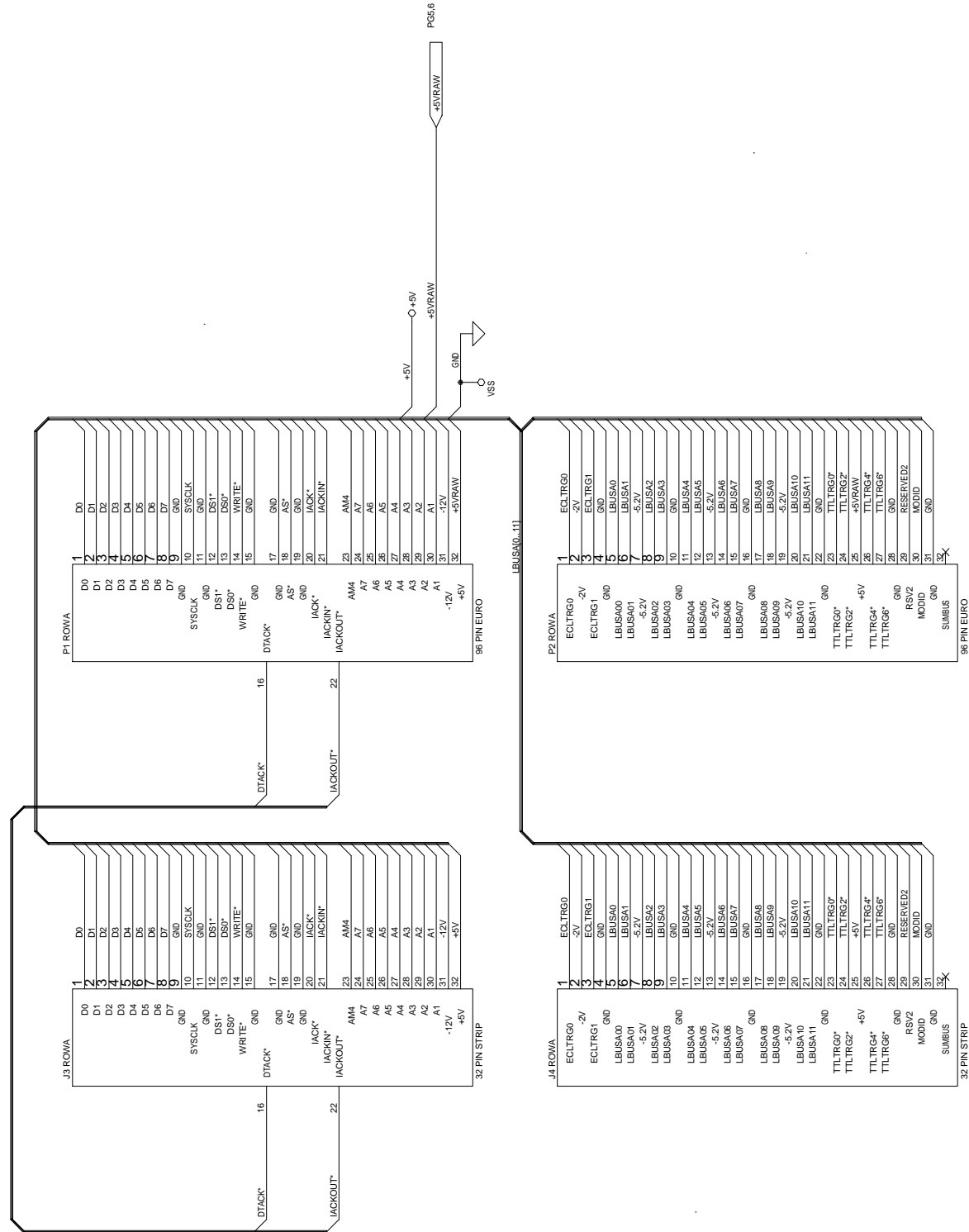


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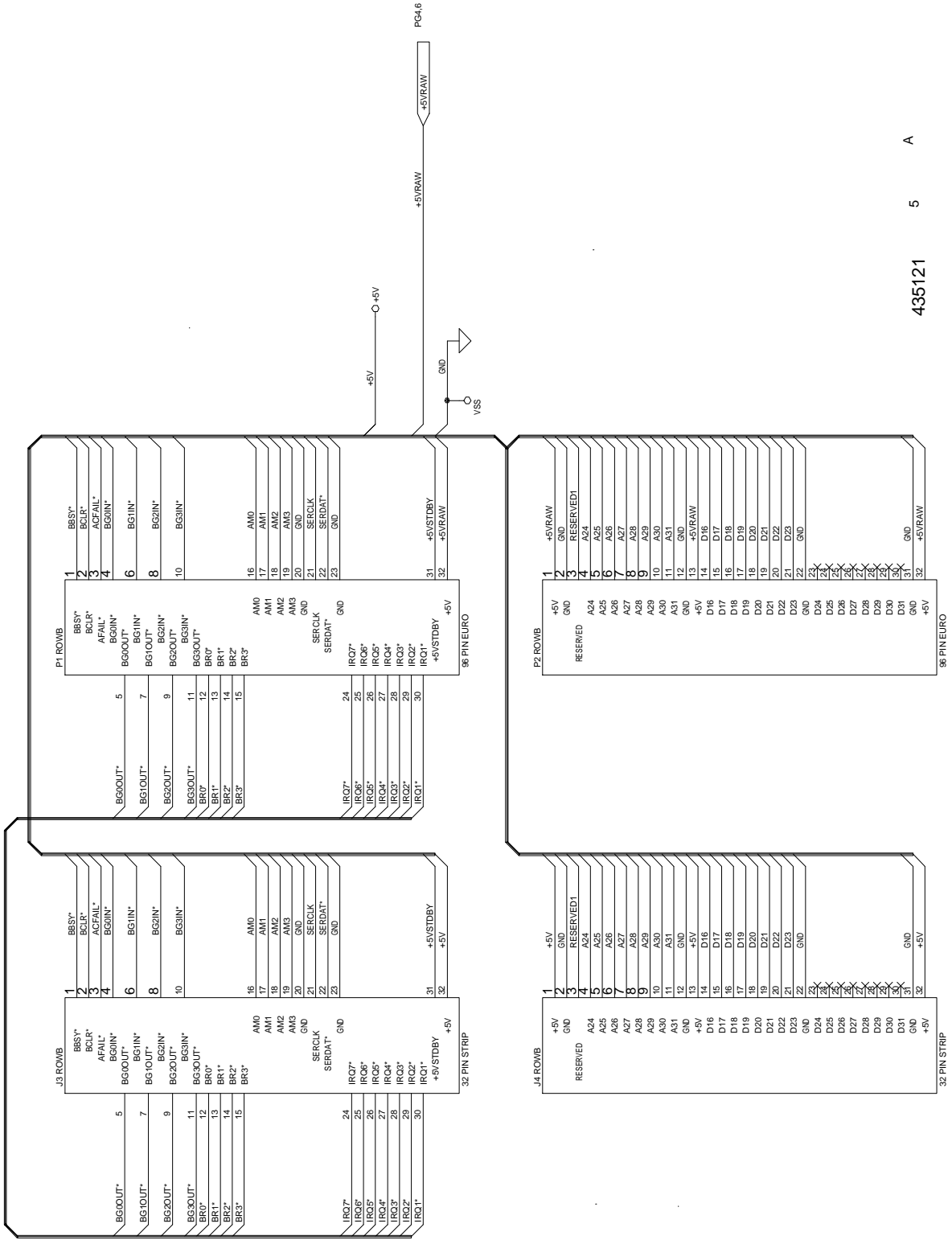
LOCAL BUS STATE MACHINE, ID / ADDR SELECT, RESET CCT



BOARD ID AND CONFIDENCE READBACK



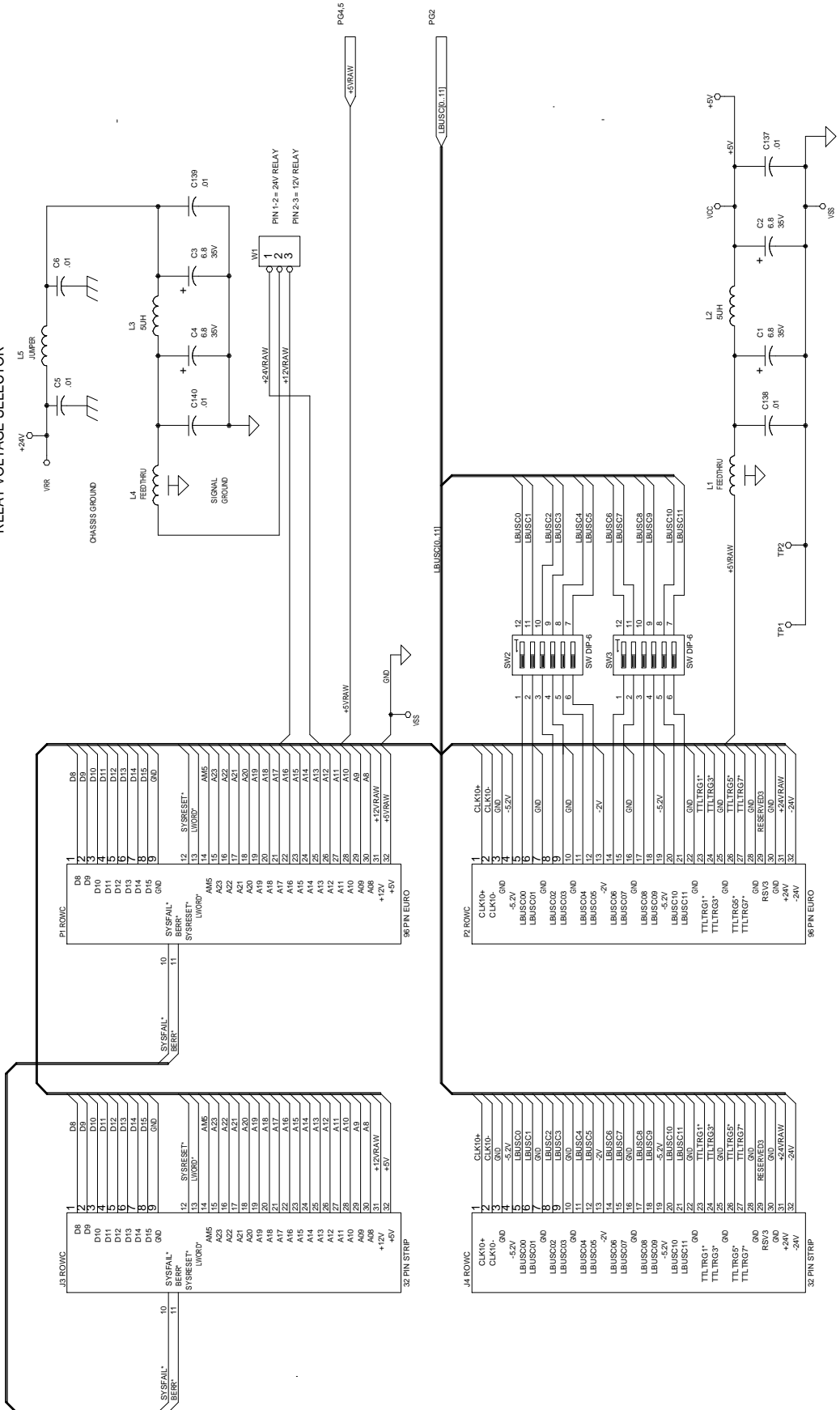
VXI / OPTION 01 CONNECTORS



435121 5 A

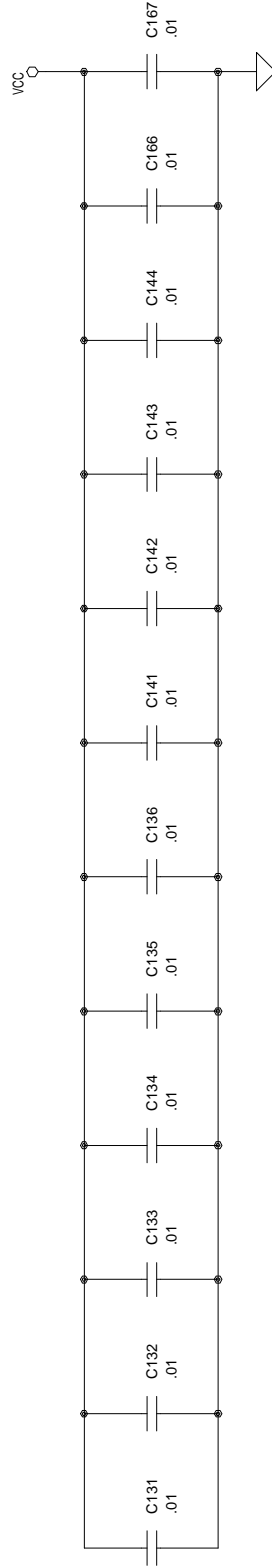
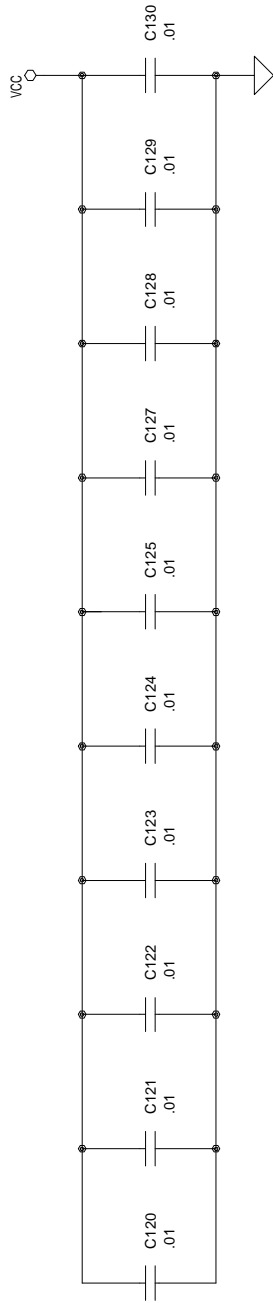
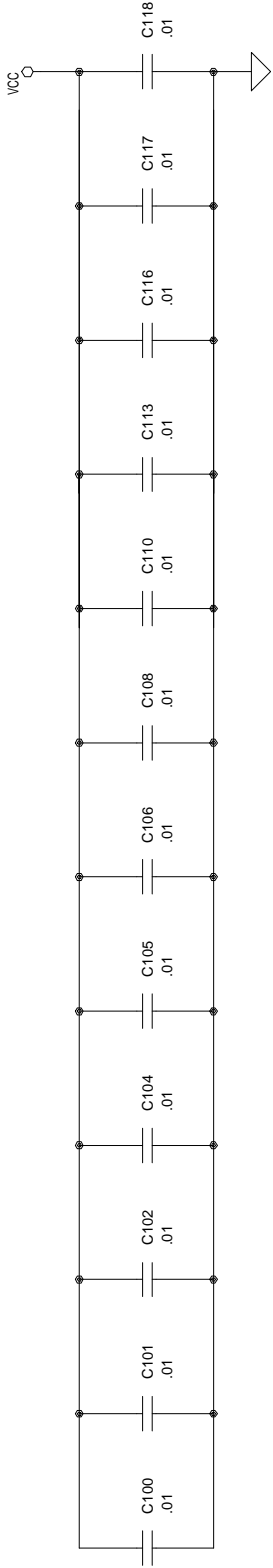
VXI / OPTION 01 CONNECTORS

RELAY VOLTAGE SELECTOR



VXI / OPTION 01 CONNECTORS

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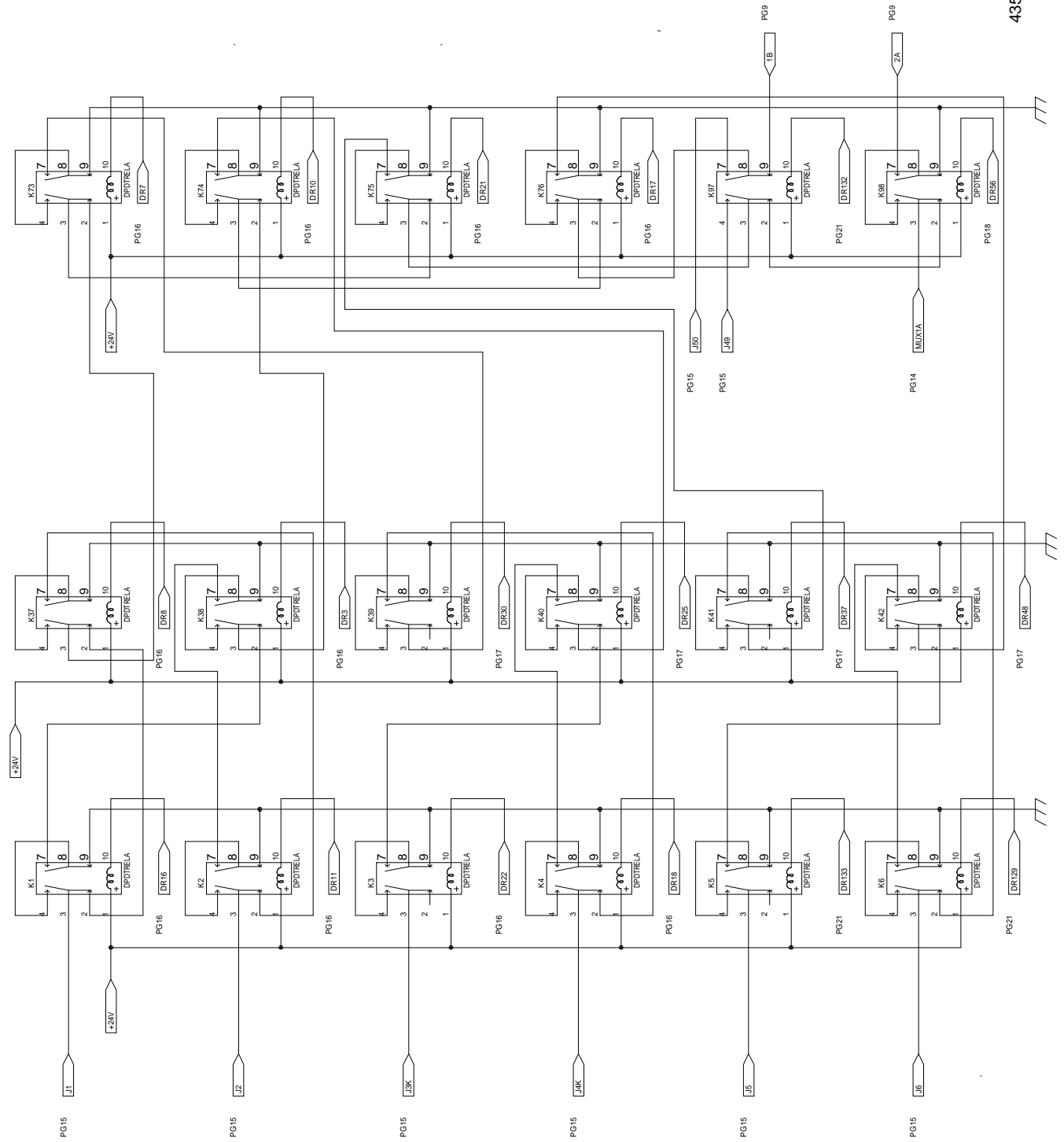


DECOUPLING CAPACITORS

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7

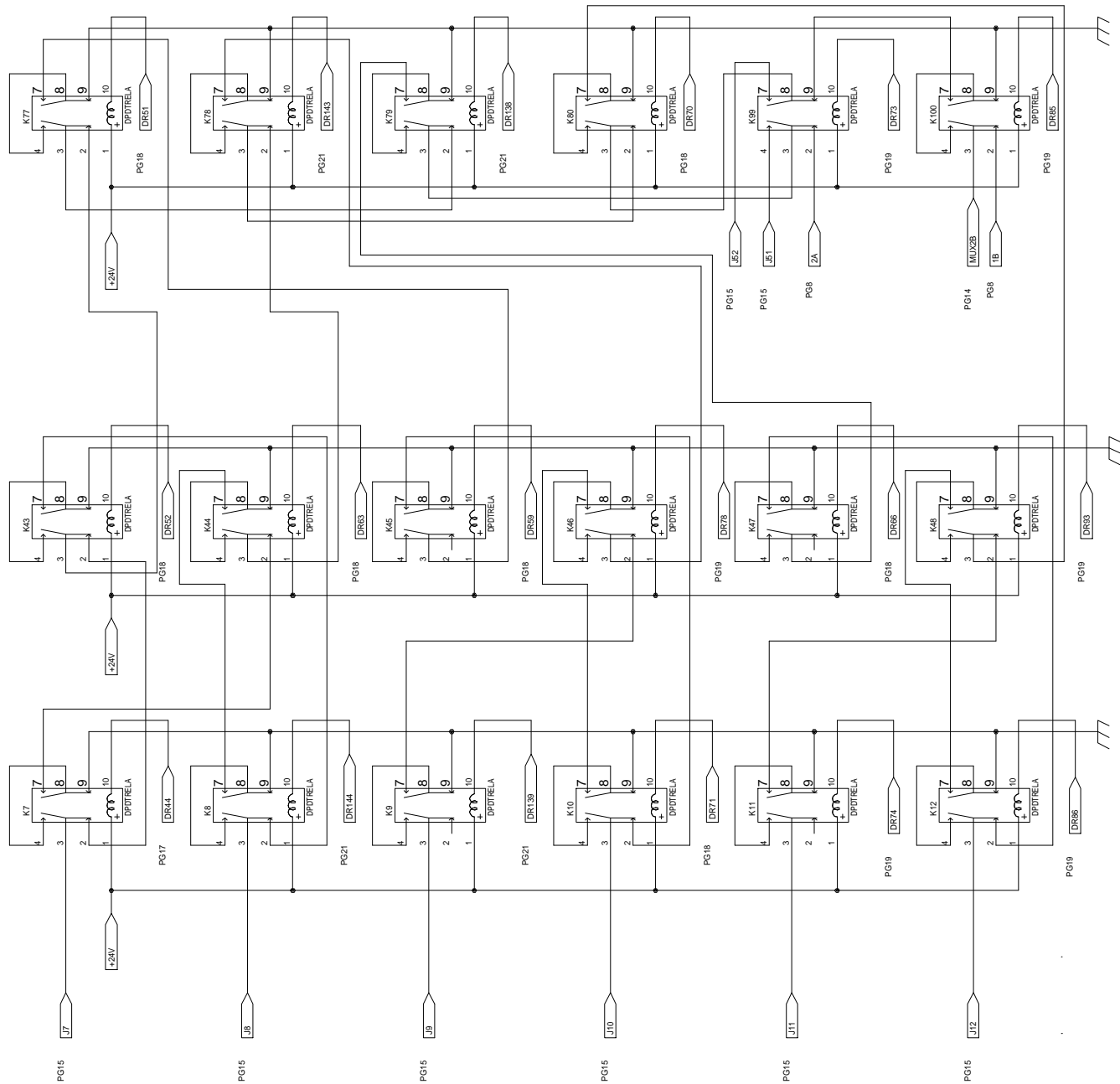
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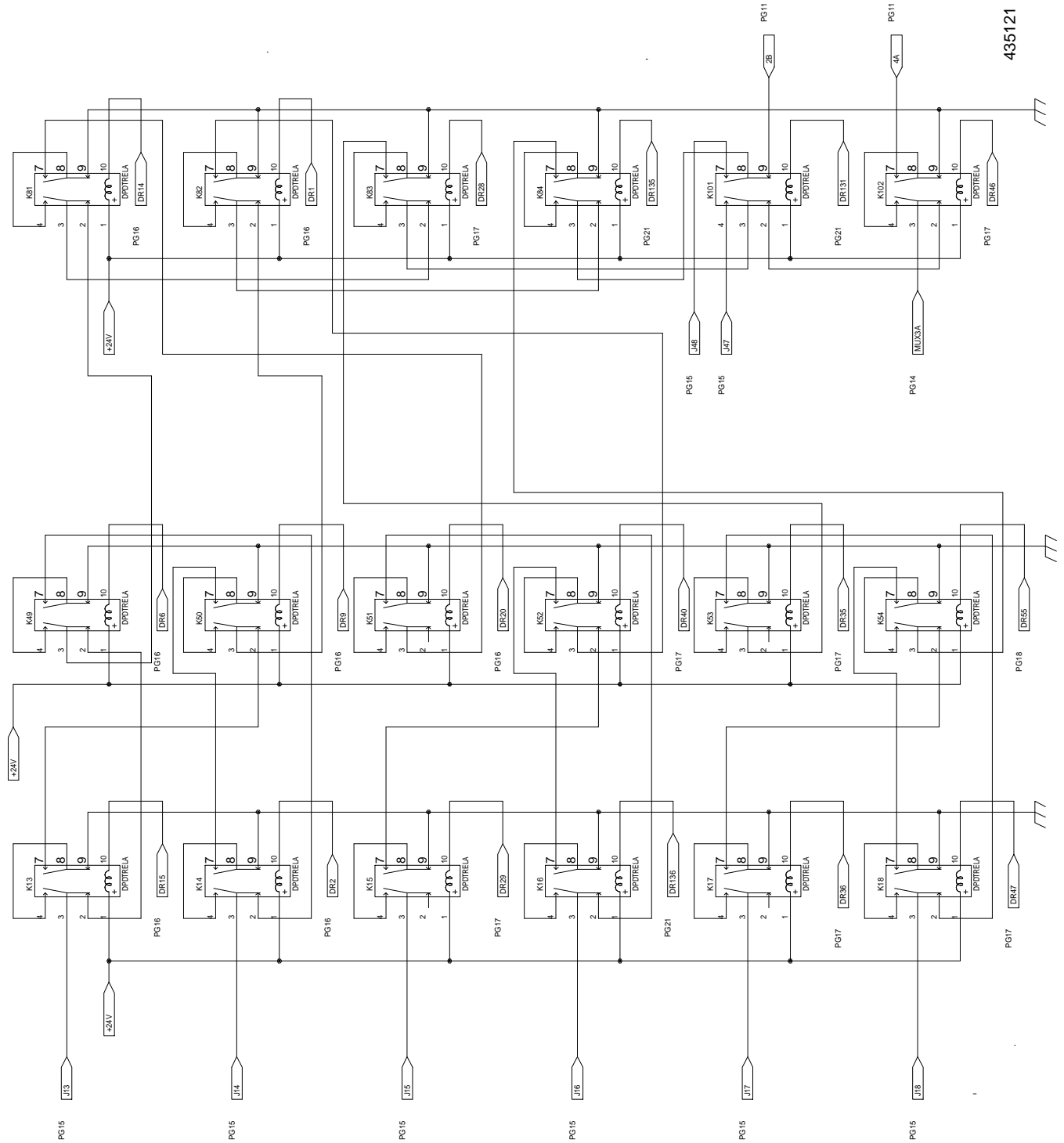


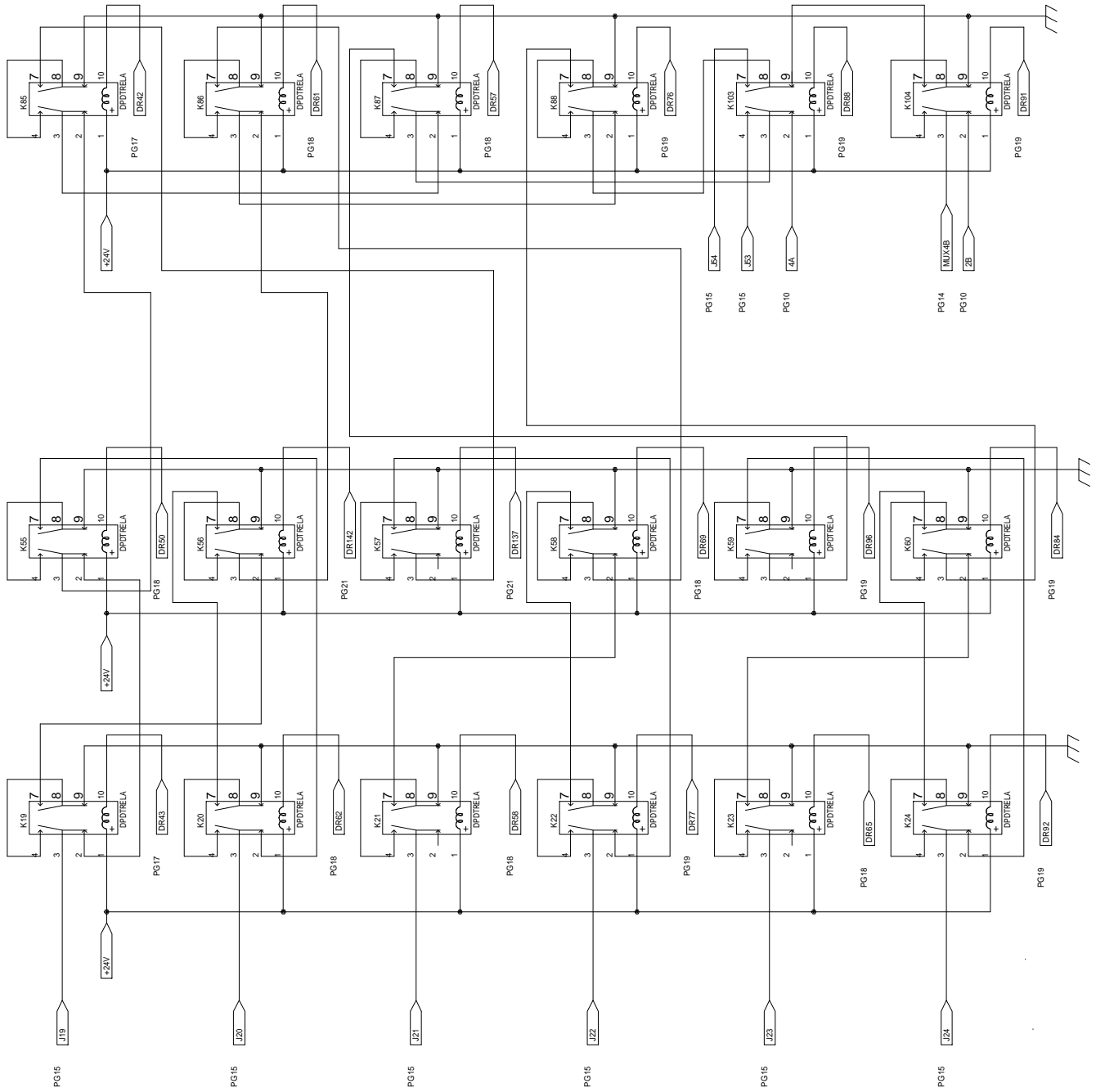
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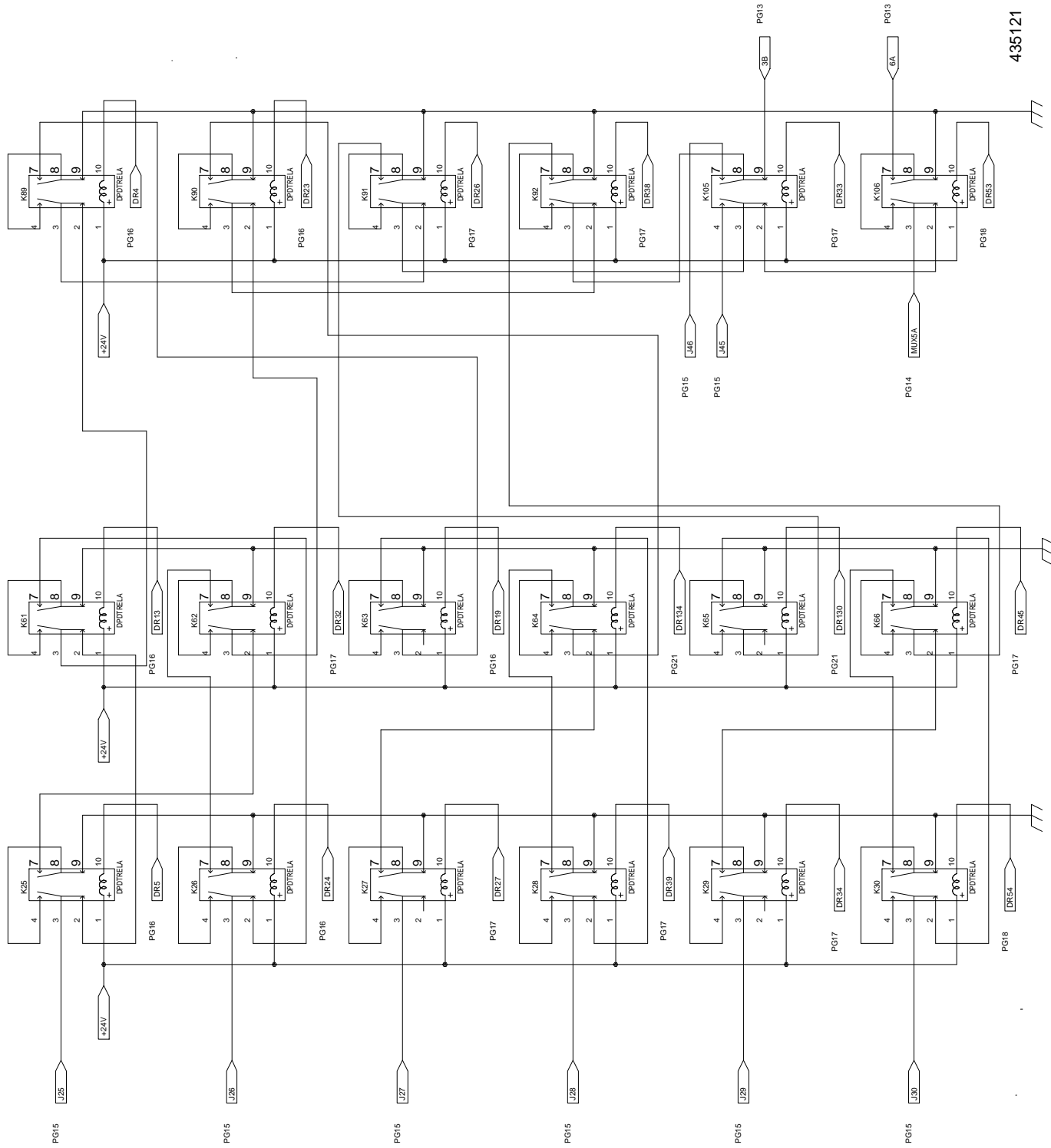
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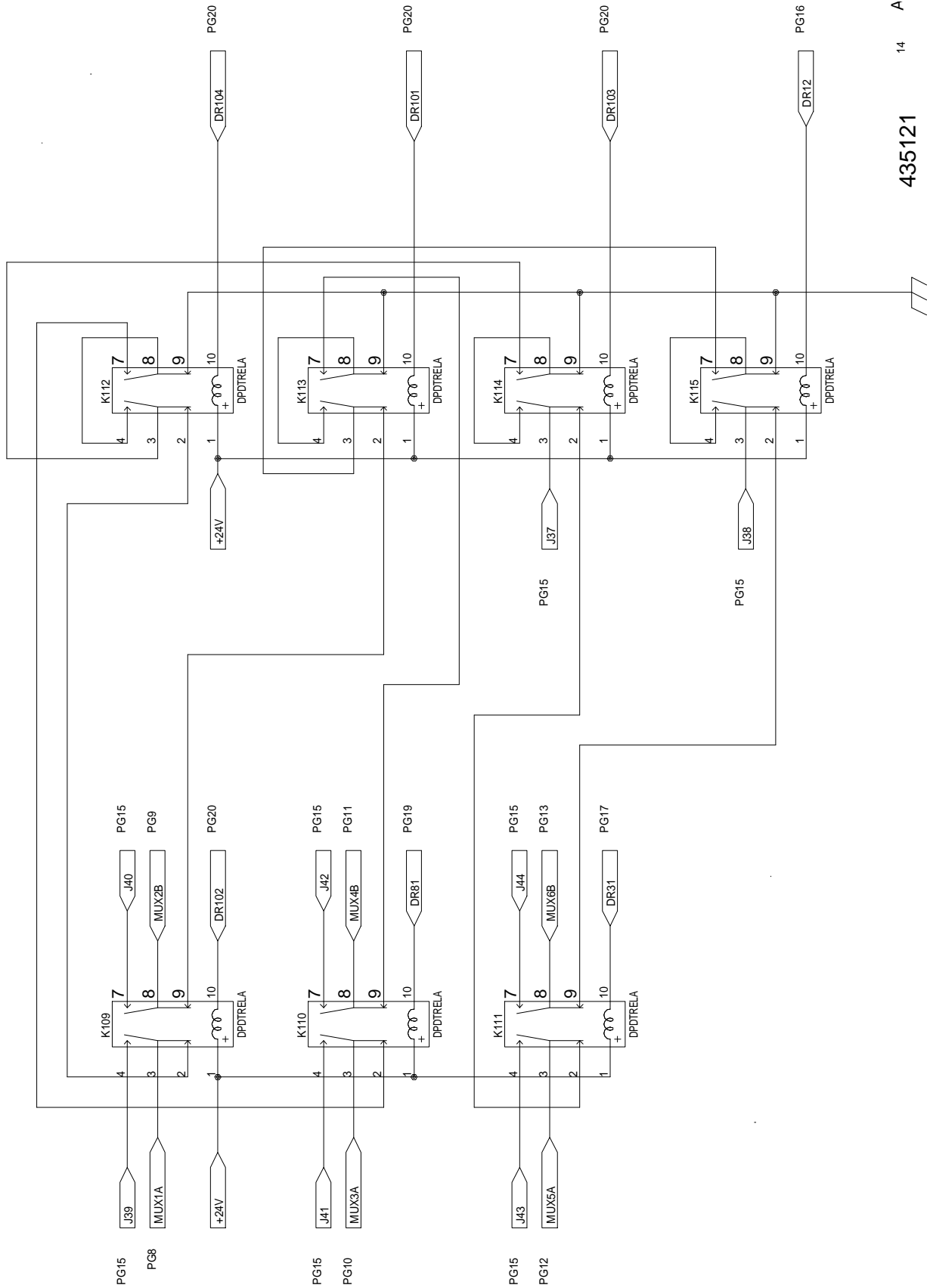




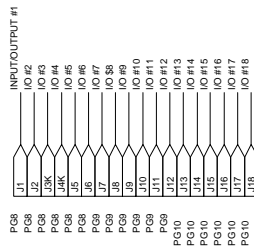




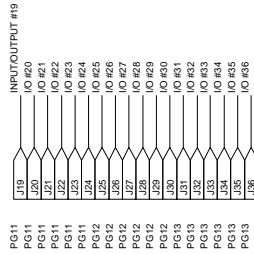
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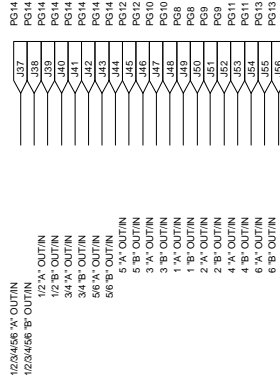
CH8B



TO J201
F/PANEL



TO J202
F/PANEL



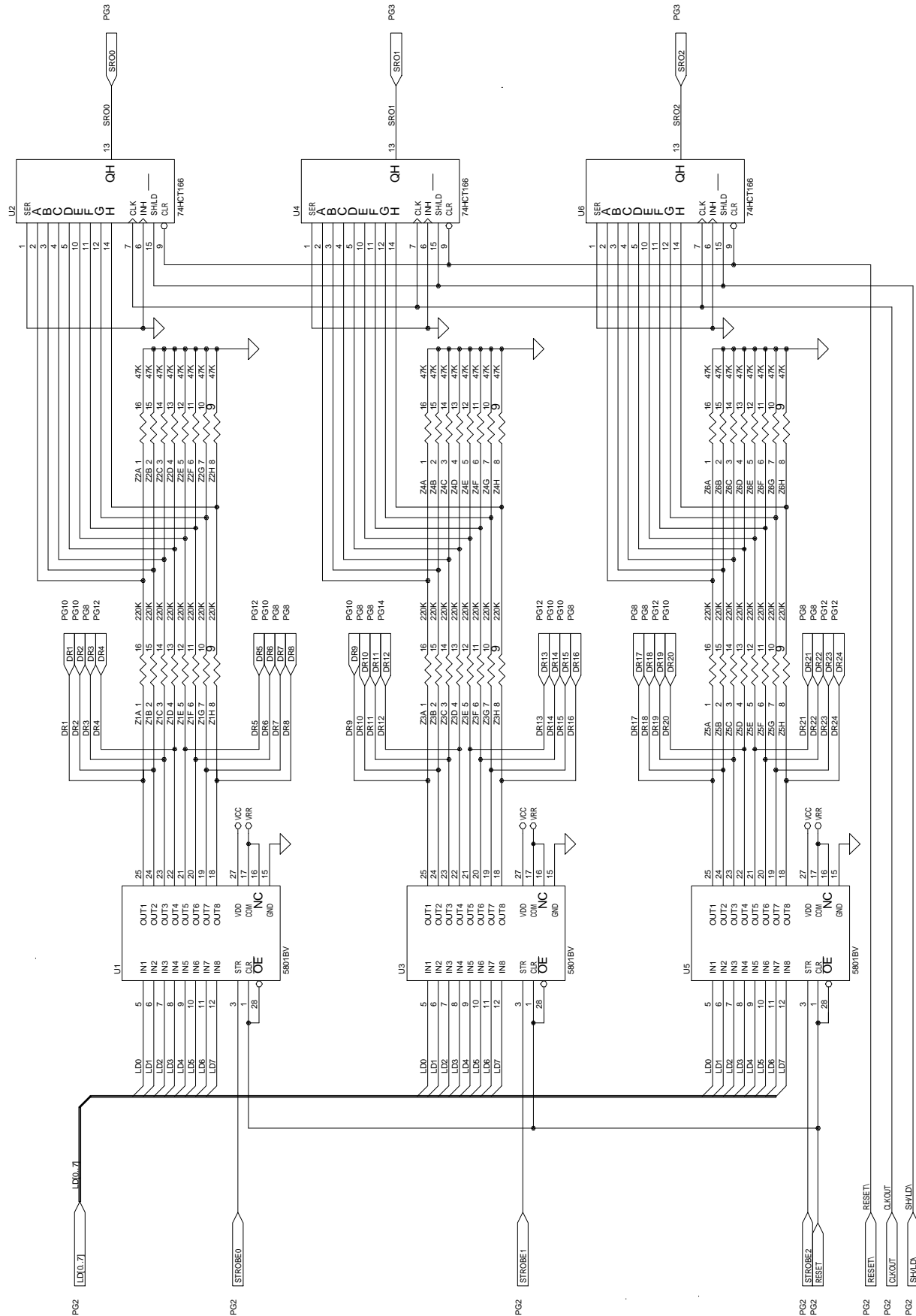
TO J200
F/PANEL

FRONT PANEL CONNECTORS

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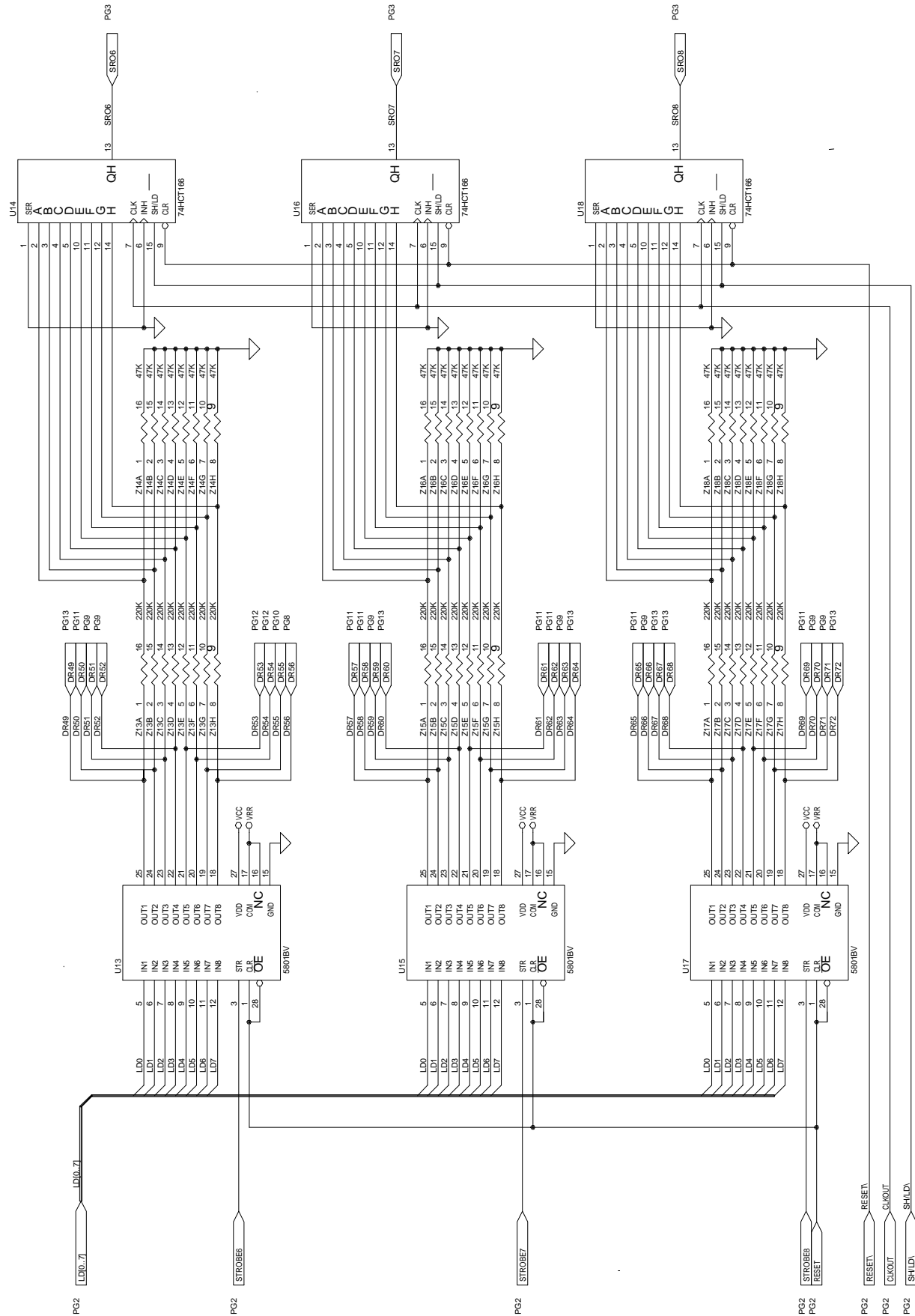
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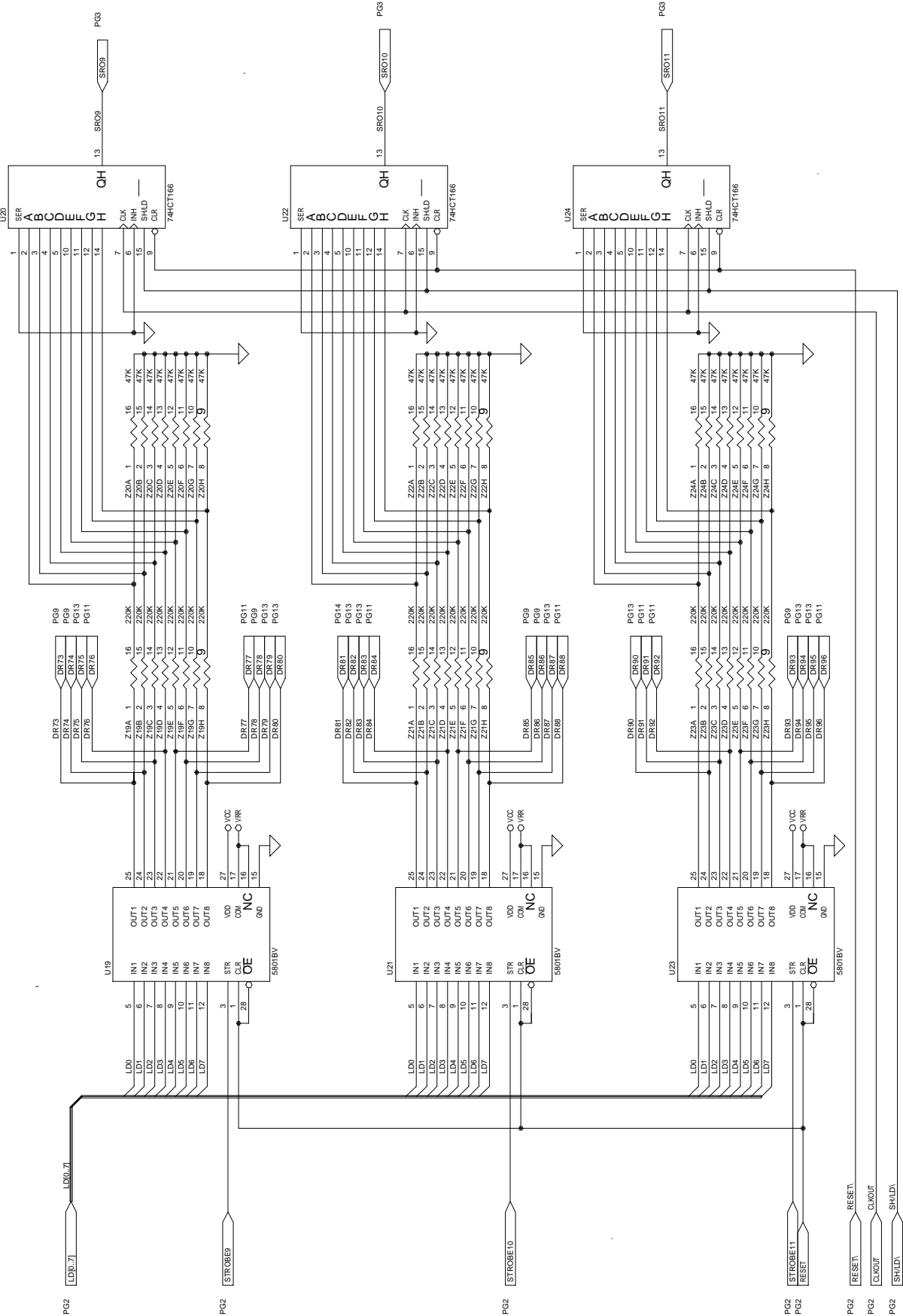


RELAY DRIVERS 1 - 24

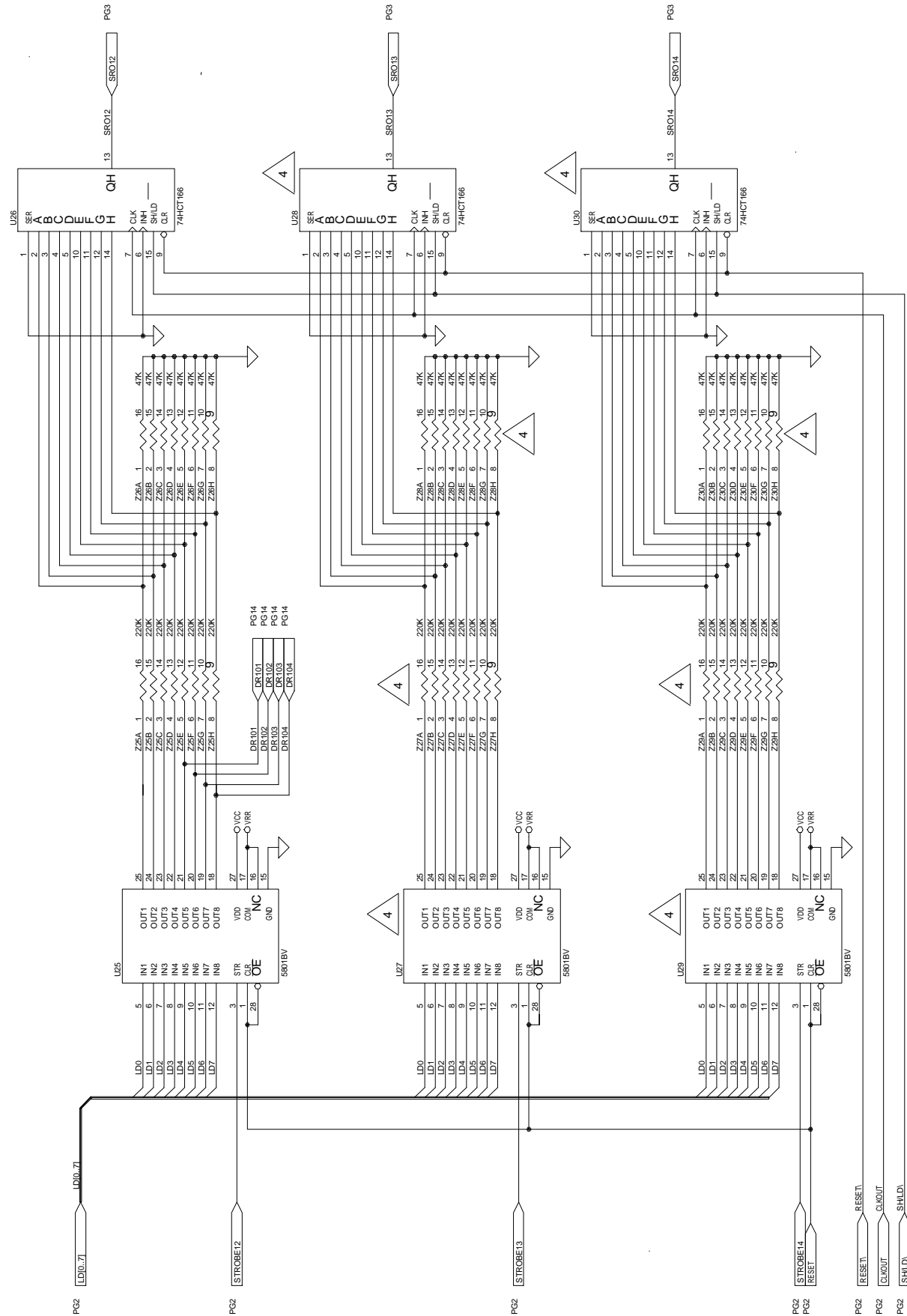
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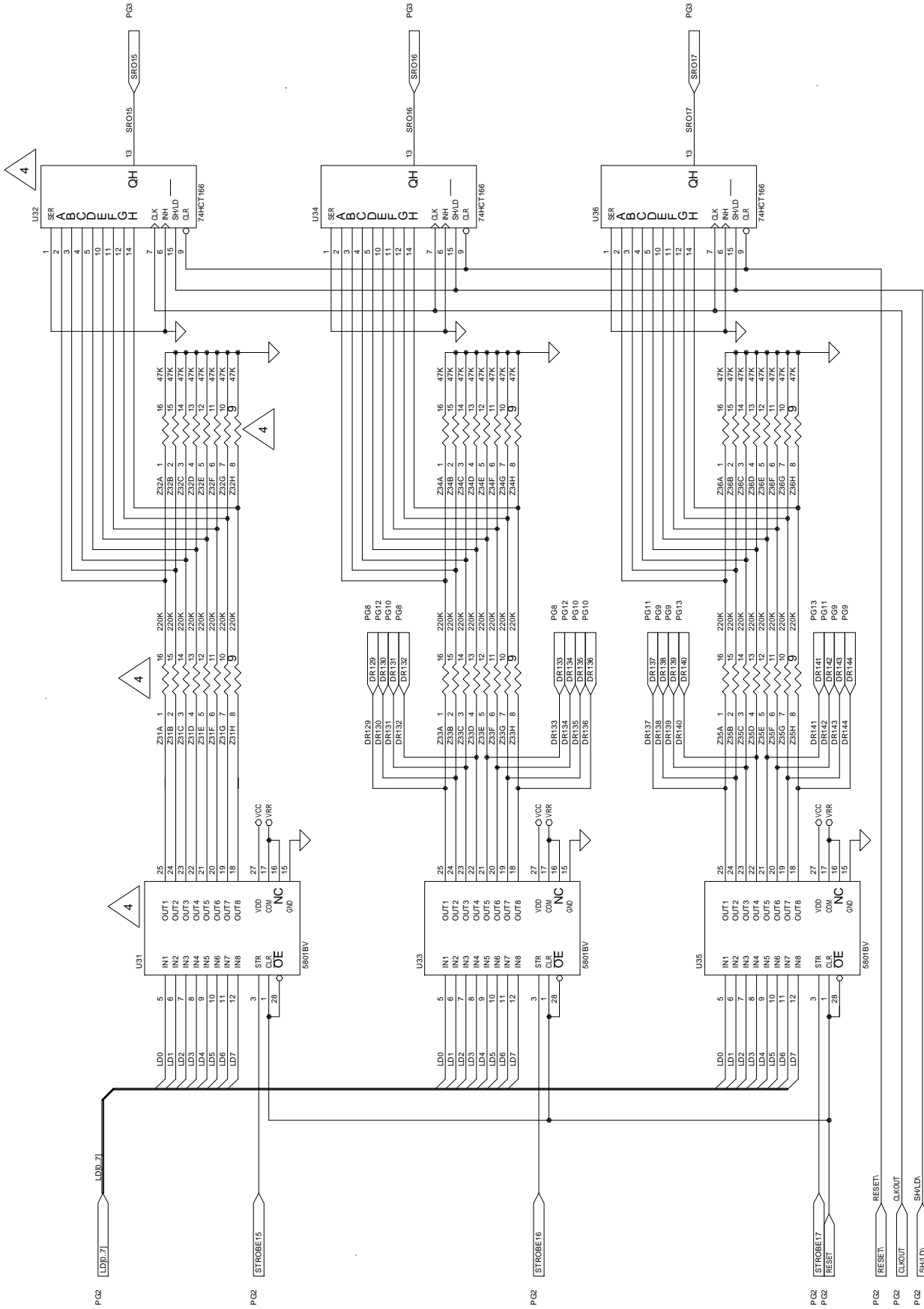
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Drawings 4-24

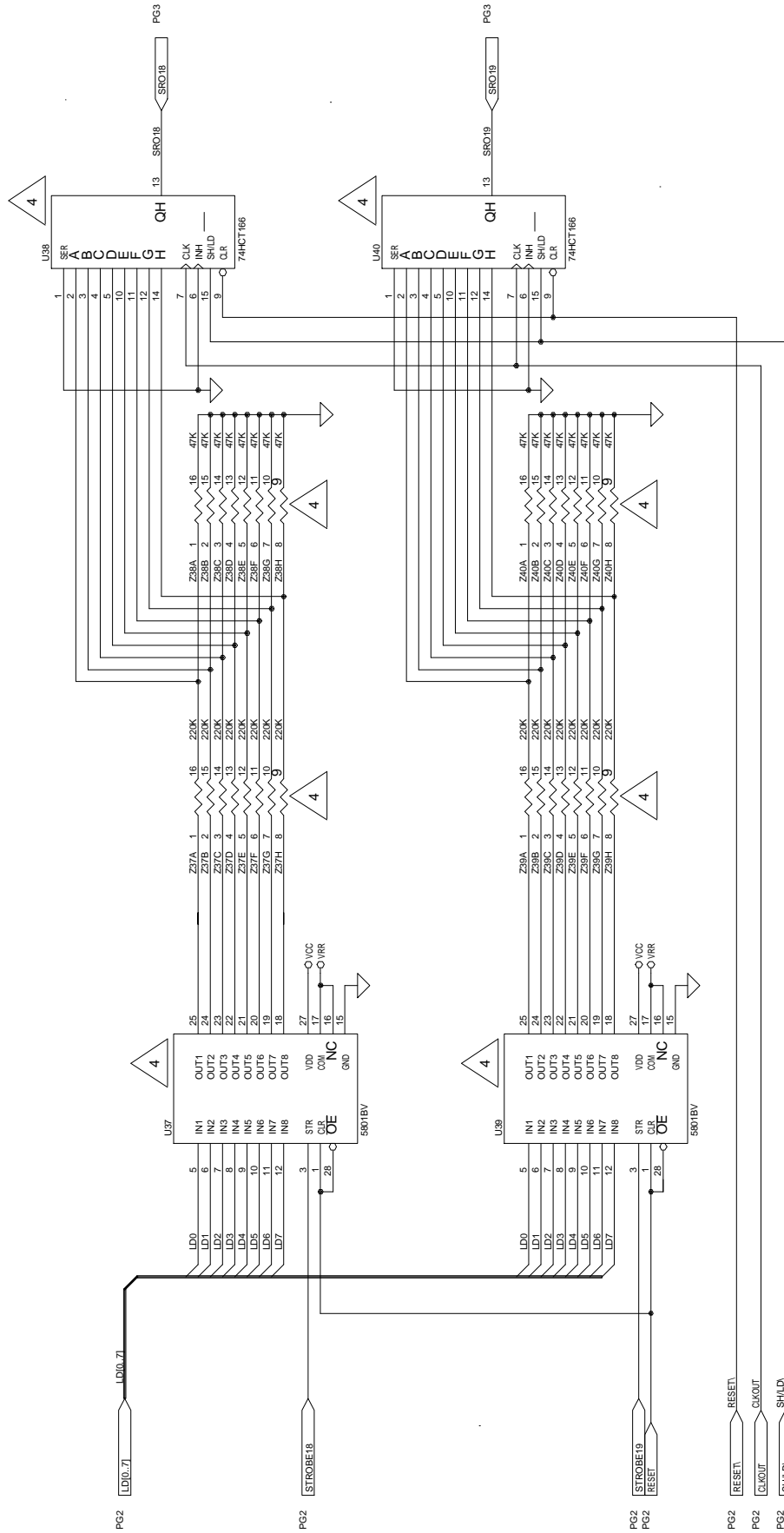




RELAY DRIVERS 121 - 144

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435121 22 A

RELAY DRIVERS 145 - 158

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Chapter 5

PARTS LIST

407612	Final ASSY, 1260-51	5-3
405121	PCB ASSY, 1260-51	5-4
407613	Shipping Kit, 1260-51	5-7
	List of Suppliers	5-8

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ENGINEERING PARTS LIST

REF DESIG	RACAL INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
(2)1	405121	PCB ASSY, 1260-51	21793	405121
(4)1	407613	SHIP KIT, 1260-51	21793	407613
(6)1	456238-002	PANEL, RIGHT, 1260-35	21793	456238-002
(7)1	456239-002	PANEL, LEFT, 1260-35	21793	456239-002
(12)6	616414	SCREW, PFL, M3X.50X5		
(16)1	920927	BUMPER, ADHESIVE BACK	53387	SJ-5003BUMPON
(18)1	921059	LABEL, CAUTION, STATIC	21793	921059
(19)1	921309	LABEL, VXI SWITCH ID	21793	921309
(20)1	921423	LABEL, CE-96	21793	921423

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO	REV
1260-51, RF MATRIX SWITCH	A	21793	407612	A
	DRN			SHEET 1 of 1

ENGINEERING PARTS LIST

REF DESIG	RACAL – INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
C1-C4	110126	CAP, TANTA, 6.8UF, 35V, 20 PERCENT	05397	T355F685M035A5
C5	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C6	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C100-C102	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C103	130198	CAP, CHIP, 150NF, 35V, 10PCT	04222	TAJA1S4K03SR
C104-C106	R-21-1801	OAF, CHIP, 10 NF	95275	VJ1206Y103MF
C108	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C110	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C113	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C116-C118	R-21-1801	OAF, CHIP, 10 NF	95275	VJ1206Y103MF
C120-C125	R-21-1801	OAF, CHIP, 10 NF	95275	VJ1206Y103MF
C127-C144	R-21-1801	OAF, CHIP, 10 NF	95275	VJ1206Y103MF
C166	R-21-1801	OAF, CHIP, 10 NF	95275	VJ1206Y103MF
C167	R-21-1801	OAF, CHIP, 10 NF	95275	VJ1206Y103MF
J1	455520	COAX TERMINAL, FOB MOUNT	21793	455520
J2	455520	COAX TERMINAL, FOB MOUNT	21793	455520
J3	601925	CONNECTOR, FOB, RECEPT, 3 ROW, 96P	52072	618008
J3K	455520	COAX TERMINAL, FOB MOUNT	21793	455520
J4	601925	CONNECTOR, FOB, RECEPT, 3 ROW, 96P	52072	618008
J4K	455520	COAX TERMINAL, FOB MOUNT	21793	455520
J5-J56	455520	COAX TERMINAL, FOB MOUNT	21793	455520
J200	602221-020	CONNECTOR, COAXIAL, RECEPT, 20 POSITION, 3 ROW	09922	MSD2ORM-58
J201	602221-020	CONNECTOR, COAXIAL, RECEPT, 20 POSITION, 3 ROW	09922	MSD2ORM-58
J202	602221-020	CONNECTOR, COAXIAL, RECEPT, 20 POSITION, 3 ROW	09922	MSD2ORM-58
K1-K115	310197	RELAY, 2 FORM C	61529	TQ2E-24V
L1	100164	OAF, FEED-THRU,800PF, SOV	00779	842448-2
L2	310193	CHOKE, SHIELDED, 5UH	91637	IH-5-5-10
L3	310193	CHOKE, SHIELDED, 5UH	91637	IH-5-5-10
L4	100164	OAF, FEED-THROU, 800PF, SOV	00779	842448-2
L5	600245	JUMPER, INSULATED	55210	L-2007-1LP
P1	601675	CONNECTOR, EUROCARD TYPE C, 96-PIN	00779	532505-1
P2	601675	CONNECTOR, EUROCARD TYPE C, 96-PIN	00779	532505-1
Q1	200320	TRANSISTOR, NPN	04713	MMBT3904
R17	050000-102	RES, CHIP, 1K, .06W, SPOT	91637	CRCW-08OSSERIES
R18	050000-332	RES, CHIP, 3.3K, .06W, SPOT	91637	CRCW08OSSERIES
R19	050000-102	RES, CHIP, 1K, .06W, SPOT	91637	CRCW-08OSSERIES
R20	050000-102	RES, CHIP, 1K, .06W, SPOT	91637	CRCW-08OSSERIES
SW1-SW3	601969	SWITCH, DIP 6 POS, LOW PROFILE	65832	K4065
TP1	601197	POST, TEST, .025 SQ	00779	6-87022-6
TP2	601197	POST, TEST, .025 SQ	00779	6-87022-6
U1	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MICS801BV
U2	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U3	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MICS801BV

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ENGINEERING PARTS LIST

U4	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U5	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MIC5801BV
U6	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U7	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MICS801BV
U8	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U9	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MICS801BV
U10	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U11	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MICS801BV
U12	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U13	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MICS801BV
U14	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U15	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MICS801BV
U16	231120	IC, 8 BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U17	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MICS801BV
U18	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U19	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MICS801BV
U20	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U21	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MIC5801BV
U22	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U23	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MIC5801BV
U24	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U25	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MICS801BV
U26	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U33	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MICS801BV
U34	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U35	231555	IC, BIT PARALLEL-INPUT LATCHED DRIVERS	60496	MICS801BV
U36	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U53	231153-001	IC, PROGRAMMED, PAL	21793	231153-001
U54	231445	IC, 3-TO-8 LINE DECODER/MUX	18324	74HCT138D
U55	231445	IC, 3-TO-8 LINE DECODER/MUX	18324	74HCT138D
U56	231135	IC, DIGITAL, 4-BIT COMPARATOR	18324	PC74HCT85D
U57	231093	IC, QUAD COMPARATOR	04713	LM339D
U60	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U61	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U62	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U70	231152-002	IC, PROGRAMMED, PAL	21793	231152-002
U71	231147	IC, MULTIPLEXER	04713	74HC253D
U72	231147	IC, MULTIPLEXER	04713	74HC253D
U73	231096	IC, QUAD DIFF RECEIVER	01295	AM26LS32ACD
U74	231096	IC, QUAD DIFF RECEIVER	01295	AM26LS32ACD
U75	231125	IC, DIGITAL, LINE DRIVER	27014	D526LS31MN
U76	231154	IC, PROGRAMMED PAL	21793	231154
U77	231147	IC, MULTIPLEXER	04713	74HC253D

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U78	231445	IC, 3-TO-8 LINE DECODER/MUX	18324	74HCT13 SD
U79	231096	IC, QUAD DIFF RECEIVER	01295	BcN26L532ACD
U80	231091	IC, OCTAL BUFFER	18324	74HC240D
U81	231091	IC, OCTAL BUFFER	18324	74HC240D
U82	231119	IC, SHIFT REGISTER	18324	74HCT299D
U83	231147	IC, MULTIPLEXER	04713	74HC253D
Z1	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z2	080117	RES NETWORK, 16P8R, 47K	73138	625-AL-473J
Z3	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z4	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z5	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z6	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z7	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z8	080117	RES NETWORK, 16P8R, 47K	3138	628-AL-473J
Z9	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z10	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z11	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z12	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z13	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z14	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z15	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z16	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z17	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z18	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z19	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z20	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z21	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z22	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z23	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z24	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z25	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z26	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z33	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z34	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z35	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
Z36	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
Z127	080114	RES NETWORK, 16P8R, 15K	73138	628-AL-153J
Z128	080120	RES NETWORK, 10K	11236	767-161R10K
(56)56	602221-901	CONNECTOR, SUBMIN COAX, RECEIPT 1 COND.	09922	RCDX60-16D28
(57)1	401951	PCB ASSY., LBUS JUMPER	21793	401951
(58)1	401951-003	PCB ASSY., P3 JUMPER	21793	401951-003
(59)1	415121	PCB, 1260-51 (UNLOADED)	21793	415121
(62)1	456123-005	PANEL, FRONT, 1260-51	21793	456123-005

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(63)1	456124	BRACKET, CONNECTOR MOUNTING	21793	456124
(64)A/R	500022	WIRE, BARE COPPER/TIN, 22 GA	21793	500022
(76)1	611264	HANDLE, EXTRACTOR, BOTTOM	62559	20817-327
(77)1	611265	HANDLE, EXTRACTOR, TOP	62559	20817-328
(78)0.5	611266	MOUNTING HARDWARE, HANDLE	62559	21100-745
(79)2	611367	STANDOFF, ROUND SWAGE, M3X0.5X4.3	06540	21003B-B0350-28 (L4 .3)
(80)1	611366	STANDOFF, ROUND SWAGE, M3X0.5X19	06540	21017-B-0350-28
(81)3	615541	SCREW, PFH, 4-40X.250		
(82)2	616405	SCREW, PFH, M2.5-.45 X 12		
(85)1	921148-001	LABEL SET VXI	21793	921148-001

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ENGINEERING PARTS LIST

REF DESIG	RACAL - INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
(1)2	455540	KEY, LOCKOUT, TTL, A/C	21793	455540
(2)2	455541-	KEY, LOCKOUT, TTL, A/C	21793	455541
(3)2	455542	KEY, LOCKOUT, TTL, A/C	21793	455542
(4)3	615013	SCREW, PPF, 2-56 x .188	-	
(5)1	980673-053	MANUAL, 1260-51 MODULE	121793	1980673-053

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Shipping Kit,1260-51	A	21793	407613	A
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FSC	SUPPLIER
00779	AMP, INC. HARRISBURG, PA
01295	TEXAS INSTRUMENTS, INC. DALLAS, TX
04222	AEROVOX CORP. (HI-Q DIV.) MYRTLE BEACH, SC
04713	MOTOROLA, INC. (SEMICONDUCTOR PRODUCTS DIV). ST. PAUL, MN
05397	UNION CARBIDE CORP. (MATERIALS SYSTEM DIV.), CLEVELAND, OH
06540	AMATOM ELECTRONIC HARDWARE NEW ROCHELLE, NY
09922	BURNDY CORPORATION NORWALK, CT
11236	CTS OF BERNE, INC. BERNE, IN
18324	SIGNETICS, INC. SUNNYVALE, CA
21793	RACAL INSTRUMENTS, INC. IRVINE, CA
27014	NATIONAL SEMICONDUCTOR, CORP. SANTA CLARA, CA
52072	CIRCUIT ASSY. CORP. COSTA MESA, CA
53387	THREE M (3M) CO. ST. PAUL, MN
55210	GETTIG ENGRG. & MFG. SPRING MILLS, PA
60496	MICREL INC. SUNNYVALE, CA
61529	AROMAT CORP. CUPERTINO, CA
62559	SCHROFF, INC. WARWICK RI
65832	AMERICAN RESEARCH & ENGINEERING ELGIN, IL
73138	BECKMAN INSTRUMENTS FULLERTON, CA
91637	DALE ELECTRONICIS. INC. COLUMBUS, NE
95275	VITRAMON, INC. BRIDGEPORT, CT

Chapter 6
WIRE LIST

405121

1260-51 RF Matrix

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ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
1	J200-A	J37	RG-	500254		1/2/3/4/5/6 "A" OUTPUT
	602221-901		178			
2	J200-C	J38	RG-	500254		1/2/3/4/5/6 "B" OUTPUT
	602221-901		178			
3	J200-D	J39	RG-	500254		1/2 "A" OUTPUT
	602221-901		178			
4	J200-B	J40	RG-	500254		112 "B" OUTPUT
	602221-901		178			
5	J200-F	J41	RG-	500254		3/4 "A" OUTPUT
	602221-901		178			
6	J200-H	J42	RG-	500254		3/4 "B" OUTPUT
	602221-901		178			
7	J200-E	J43	RG-	500254		5/6 "A" OUTPUT
	602221-901		178			
8	J200-K	J44	RG-	500254		5/6 "B" OUTPUT
	602221-901		178			
9	J200-L	J49	RG-	500254		1 "A" OUTPUT
	602221-901		178			
10	J200-J	J50	RG-	500254		1 "B" OUTPUT
	602221-901		178			
11	J200-N	J51	RG-	500254		2 "A" OUTPUT
	602221-901		178			
12	J200-P	J52	RG-	500254		2 "B" OUTPUT
	602221-901		178			
13	J200-M	J47	RG-	500254		3 "A" OUTPUT
	602221-901		178			
14	J200-S	J48	RG-	500254		3 "B" OUTPUT
	602221-901		178			
15	J200-T	J53	RG-	500254		4 "A" OUTPUT
	602221-901		178			
16	J200-R	J54	RG-	500254		4 "B" OUTPUT
	602221-901		178			
17	J200-V	J45	RG-	500254		5 "A" OUTPUT
	602221-901		178			
18	J200-W	J46	RG-	500254		5 "B" OUTPUT
	602221-901		178			
19	J200-U	J55	RG-	500254		6 "A" OUTPUT
	602221-901		178			
20	J200-X	J56	RG-	500254		6 "B" OUTPUT
	602221-901		178			
21	J201-A	J1	RG-	500254		INPUT #1
	602221-901		178			
22	J201-B	J2	RG-	500254		INPUT #2
	602221-901		178			
23	J201-C	J3K	RG-	500254		INPUT #3
	602221-901		178			
24	J201-D	J4K	RG-	500254		INPUT #4
	602221-901		178			

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ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
25	J201-E	J5	RG-	500254		INPUT #5
	602221-901		178			
26	J201-F	J6	RG-	500254		INPUT #6
	602221-901		178			
27	J201-H	J7	RG-	500254		INPUT #7
	602221-901		178			
28	J201-J	J8	RG-	500254		INPUT #8
	602221-901		178			
29	J201-K	J9	RG-	500254		INPUT #9
	602221-901		179			
30	J201-L	J10	RG-	500254		INPUT #10
	602221-901		178			
31	J201-M	J11	RG-	500254		INPUT #11
	602221-901		178			
32	J201-N	J12	RG-	500254		INPUT #12
	602221-901		179			
33	J201-P	J13	RG-	500254		INPUT #13
	602221-901		178			
34	J201-R	J14	RG-	500254		INPUT #14
	602221-901		178			
35	J201-S	J15	RG-	500254		INPUT #15
	602221-901		178			
36	J201-T	J16	RG-	500254		INPUT #16
	602221-901		178			
37	J201-U	J17	RG-	500254		INPUT #17
	602221-901		178			
38	J201-V	J18	RG-	500254		INPUT #18
	602221-901		178			
39	J202-A	J19	RG-	500254		INPUT #19
	602221-901		178			
40	J202-B	J20	RG-	500254		INPUT #20
	602221-901		178			
41	J202-C	J21	RG-	500254		INPUT #21
	602221-901		178			
42	J202-D	J22	RG-	500254		INPUT #22
	602221-901		178			
43	J202-E	J23	RG-	500254		INPUT #23
	602221-901		178			
44	J202-F	J24	RG-	500254		INPUT #24
	602221-901		178			
45	J202-H	J25	RG-	500254		INPUT #25
	602221-901		178			
46	J202-J	J26	RG-	500254		INPUT #26
	602221-901		178			
47	J202-K	J27	RG-	500254		INPUT #27
	602221-901		178			
48	J202-L	J28	RG-	500254		INPUT #28
	602221-901		178			
49	J202-M	J29	RG-	500254		INPUT #29
	602221-901		178			

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ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
50	J202-N	J30	RG-	500254		INPUT #30
	602221-901		178			
51	J202-P	J31	RG-	500254		INPUT #31
	602221-901		178			
52	J202-R	J32	RG-	500254		INPUT #32
	602221-901		178			
53	J202-S	J33	RG-	500254		INPUT #33
	602221-901		178			
54	J202-T	J34	RG-	500254		INPUT #34
	602221-901		178			
55	J202-U	J35	RG-	500254		INPUT #35
	602221-901		178			
56	J202-V	J36	RG-	500254		INPUT #36
	602221-901		178			
RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718						
DOCUMENT TITLE		SIZE	CODE NO.	DOCUMENT NO.	REV	
1260-51 RF MATRIX		A	21793	405121	A	
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Chapter 7

OPTIONAL HARNESS ASSEMBLIES

The following harness assemblies are used to connect Racal Instruments Model 1260-51 to Freedom Series Test Receiver Interfaces.

Each harness documentation consists of an assembly drawing, parts list, system wire list and wire list.

407555 Virginia Panel, Inc. Series VP90 Interface Harness

407556 TTI Testron, Inc. Interface Harness
(TTI Receiver must be above chassis)

For more information on Racal Instruments complete line of Test Receivers Interface solution, contact your Sales Representative.

ENGINEERING PARTS LIST

#	Component	Description	U/M	Qty Reqd	Ref
1	602220-020	CON-CXL-PLG020C.	EA	3.00000	J200-J202
2	602220-900	CON-CXL-PLG001C.	EA	56.00000	w/J200-J202
3	611376	JACKSCREW, SHORT TURN, GMCT	EA	3.00000	w/J200-J202
4	602201-008	CON-RCV-PLGO19C. ---S-VP90	EA	3.00000	J100-J102
5	602201-807	PATCHCORD,MINICOAX, 50OHM, 60"	EA	56.00000	w/J100-J102
6	500295	CACX-SHD-0 1C2 6G-1STR50OHM	FT	.00001	
7	610777	TIE-CA-LKG-. 062-. 750	EA	.00001	
8	910541	POLYURETHANE CONFORMAL COAT	EA	.00001	
9	GRP-110-1/2	TBGWOV-POY. 250 ID-BLACK	FT	.00001	
10	GRP-110-3/4	TBGWOV-POY. 500 ID-BLACK	FT	.00001	
11	M23053/5-110-4	TBGSRK-POF1. 00I D-YELLOW	FT	.00001	
12	500202	TBGSRK-POF1. 00I D-CLEAR	FT	.00001	
13	M23053/4-205-0	TBGSRK-POF. 950 ID-BLACK	FT	.00001	
14	M23053/5-109-4	TBGSRK-POF. 750 ID-YELLOW	FT	.00001	
15	M23053/5-209-C	TBGSRK-POF. 750 ID-CLEAR	FT	.00001	

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718				
DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-51, VP-90	A	21793	407555	A
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ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
	BLK AA (J100)	Uxx-SLOT yy (J200)	CABLE	407555		SYSTEM WIRE LIST
	BLK AA (J101)	Uxx-SLOT yy (J200,J201)	CABLE	407555		
	BLK AA (J102)	Uxx-SLOT yy (J201,J202)	CABLE	407555		

This system wirelist serves as a template for incorporating this harness assembly into the overall system wirelist. It does not in any way affect the fabrication of this harness assembly.

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718				
DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-51, VP-90	A	21793	407555	A
	DRN		SHEET 2 of 5	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
1	J100-1 (602201-008)	J200-A 602220-900	COAX	602201-807	54"	1/2/3/4/5/6 "A" IN
2	J100-2 (602201-008)	J200-B 602220-900	COAX	602201-807	54"	1/2 "B" IN
3	J100-3 (602201-008)	J200-C 602220-900	COAX	602201-807	54"	1/2/3/4/5/6 "B" IN
4	J100-4 (602201-008)	J200-D 602220-900	COAX	602201-807	54"	112 "A" IN
5	J100-5 (602201-008)	J200-E 602220-900	COAX	602201-807	54"	5/6 "A" IN
6	J100-6 (602201-008)	J200-F 602220-900	COAX	602201-807	54"	3/4 "A" IN
7	J100-7 (602201-008)	J200-H 602220-900	COAX	602201-807	54"	3/4 "B" IN
8	J100-8 (602201-008)	J200-3 602220-900	COAX	602201-807	54"	1 "B" IN
9	J100-9 (602201-008)	J200-K 602220-900	COAX	602201-807	54"	5/6 "B" IN
10	J100-10 (602201-008)	J200-L 602220-900	COAX	602201-807	54"	1 "A" IN
11	J100-11 (602201-008)	J200-M 602220-900	COAX	602201-807	54"	3 "A" IN
12	J100-12 (602201-008)	J200-N 602220-900	COAX	602201-807	54"	2 "A" IN
13	J100-13 (602201-008)	J200-P 602220-900	COAX	602201-807	54"	2 "B" IN
14	J100-14 (602201-008)	J200-R 602220-900	COAX	602201-807	54"	4 "B" IN
15	J100-15 (602201-008)	J200-S 602220-900	COAX	602201-807	54"	3 "B" IN
16	J100-16 NO CONNECT	J200-T 60220-900	COAX	602201-807	54"	4 "A" IN
17	J100-17 NO CONNECT	J200-U 60220-900	COAX	602201-807	54"	6 "A" IN
18	J100-18 NO CONNECT	J200-V 60220-900	COAX	602201-807	54"	5 "A" IN
19	J10019 NO CONNECT	J200-W 60220-900	COAX	602201-807	54"	5 "B" IN
20	J101-1 (602201-008)	J200-X 602220-900	COAX	602201-807	54"	6 "B" IN
21	J101-2 (602201-008)	J201-A 602220-900	COAX	602201-807	54"	OUTPUT #1
22	J101-3 (602201-008)	J201-B 602220-900	COAX	602201-807	54"	OUTPUT #2
23	J101-4 (602201-008)	J201-C 602220-900	COAX	602201-807	54"	OUTPUT #3
24	J101-5 (602201-008)	J201-D 602220-900	COAX	602201-807	54"	OUTPUT #4
RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718						
DOCUMENT TITLE			SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-51, VP-90			A	21793	407555	A
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ENGINEERING WIRE LIST

25	J101-6 (602201-008)	J201-D 602220-900	COAX	602201-807	54"	OUTPUT #5
26	J101-7 (602201-008)	J201-F 602220-900	COAX	602201-807	54"	OUTPUT #6
27	J101-8 (602201-008)	J201-H 602220-900	COAX	602201-807	54"	OUTPUT #7
28	J101-9 (602201-008)	J201-J 602220-900	COAX	602201-807	54"	OUTPUT #8
29	J101-10 (602201-008)	J201-K 602220-900	COAX	602201-807	54"	OUTPUT #9
30	J101-11 (602201-008)	J201-L 602220-900	COAX	602201-807	54"	OUTPUT #10
31	J101-12 (602201-008)	J201-M 602220-900	COAX	602201-807	54"	OUTPUT #11
32	J101-13 (602201-008)	J201-N 602220-900	COAX	602201-807	54"	OUTPUT #12
33	J101-14 (602201-008)	J201-P 602220-900	COAX	602201-807	54"	OUTPUT #13
34	J101-15 (602201-008)	J201-R 602220-900	COAX	602201-807	54"	OUTPUT #14
35	J101-16 NO CONNECT	J201-S 602220-900	COAX	602201-807	54"	OUTPUT #15
36	J101-17 NO CONNECT	J201-T 602220-900	COAX	602201-807	54"	OUTPUT #16
37	J101-18 NO CONNECT	J201-U 602220-900	COAX	602201-807	54"	OUTPUT #17
38	J101-19 NO CONNECT	J201-V 602220-900	COAX	602201-807	54"	OUTPUT #18
39	J102-1 (602201-008)	J201-W 602220-900	COAX	602201-807	54"	OUTPUT #19
40	J102-2 (602201-008)	J201-X 602220-900	COAX	602201-807	54"	OUTPUT #20
41	J102-3 (602201-008)	J202-A 602220-900	COAX	602201-807	54"	OUTPUT #21
42	J102-4 (602201-008)	J202-B 602220-900	COAX	602201-807	54"	OUTPUT #22
43	J102-5 (602201-008)	J202-C 602220-900	COAX	602201-807	54"	OUTPUT #23
44	J102-6 (602201-008)	J202-D 602220-900	COAX	602201-807	54"	OUTPUT #24
45	J102-7 (602201-008)	J202-E 602220-900	COAX	602201-807	54"	OUTPUT #25
46	J102-8 (602201-008)	J202-F 602220-900	COAX	602201-807	54"	OUTPUT #26
47	J102-9 (602201-008)	J202-H 602220-900	COAX	602201-807	54"	OUTPUT #27
48	J102-10 (602201-008)	J202-J 602220-900	COAX	602201-807	54"	OUTPUT #28

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-51, VP-90	A	21793	407555	A
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ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
49	J102-11 (602201-008)	J202-K 602220-900	COAX	602201-807	54"	OUTPUT #29
50	J102-12 (602201-008)	J202-L 602220-900	COAX	602201-807	54"	OUTPUT #30
51	J102-13 (602201-008)	J202-M 602220-900	COAX	602201-807	54"	OUTPUT #31
52	J102-14 (602201-008)	J202-N 602220-900	COAX	602201-807	54"	OUTPUT #32
53	J102-15 (602201-008)	J202-P 602220-900	COAX	602201-807	54"	OUTPUT #33
54	J102-16 NO CONNECT	J202-R 602220-900	COAX	602201-807	54"	OUTPUT #34
55	J102-17 NO CONNECT	J202-S 602220-900	COAX	602201-807	54"	OUTPUT #35
56	J102-18 NO CONNECT	J202-T 602220-900	COAX	602201-	54"	OUTPUT #36

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718				
DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-51, VP-90	A	21793	407555	A
	DRN		SHEET 5 of 5	

ENGINEERING PARTS LIST

#	Component	Description	U/N	Qty Regd	Ref	
1	602220-020	CON-CXL-PLG020C.	EA	3.00000	J200-J202	
2	602220-900	CON-CXL-PLG001C.	EA	56.00000	w/J200-J202	
3	611376	JACKSCREW, SHORT TURN, GMCT	EA	3.00000	W/J200-J202	
4	500295	CACX-SHD-01C2 6G-1STR50OHM	FT	.00001	J100-J155	
5	602196-900	CONTACT, COAX,MINI, TTI/VP90	EA	56.00000	W/J100-J155	
6	610777	TIE-CA-LKG-. 062-. 750	EA	.00001		
7	GRP-110-1/2	TBGWOV- POY. 250 1D-BLACK	FT	.00001		
8	GRP-110-3/4	TBGWOV-POY. 500 ID-BLACK	FT	.00001		
9	M23053/5-110-4	TBGSRK-POF1 . 00 ID-YELLOW	FT	.00001		
10	500202	TBGSRK-POF1 . 00 ID-CLEAR	FT	.00001		
11	M23053/4-205-0	TBGSRK-POF. 950 ID-BLACK	FT	.00001		
12	M23053/5-105-4	TBGSRK- POF. 187 1D-YELLOW	FT	.00001		
13	500056	TBGSRK-POF. 187 ID-CLEAR	FT	.00001		
14	M23053/5-109-4	TBGSRK-POF. 750 ID-YELLOW	FT	.00001		
15	M23053/5-209-C	TBGSRK- POF .750 ID-CLEAR	FT	.00001		
16	M23053/5-109-0	TBGSRK- POF. 750 ID-BLACK	FT	.00001		
RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718						
DOCUMENT TITLE			SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-51, TTI			A	21793	407556	A
			DRN		SHEET 1 of 7	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
	BLK AAx PN 01 (J100)	Uxx-SLOT yy (J200)	CABLE	407556		SYSTEM WIRE LIST
	BLK AAx PN 02 (J101)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 03 (J102)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 04 (J103)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 05 (J104)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 06 (J105)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 07 (J106)	Uxx-SLOTyy (J200)	CABLE	407556		
	BLK AAx PN 08 (J107)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 09 (J108)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 10 (J109)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 11 (J100)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 12 (J111)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 13 (J112)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 14 (J113)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 15 (J114)	Uxx-SLOTyy (J200)	CABLE	407556		
	BLK AAx PN 16 (J115)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 17 (J116)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN 18 (J117)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK AAx PN19 (J118)	Uxx-SLOTyy (J200)	CABLE	407556		
	BLK AAx PN 20 (J119)	Uxx-SLOT yy (J200)	CABLE	407556		
	BLK Aax PN 21 (J120)	Uxx-SLOTyy (J201)	CABLE	407556		
	BLK AAx PN 22 (J121)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 23 (J122)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 24 (J123)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 25 (J124)	Uxx-SLOT yy (J201)	CABLE	407556		

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-51, TTI	A	21793	407556	A
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ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
	BLK AAx PN 26 (J125)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 27 (J126)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 28 (J127)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 29 (J128)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 30 (J129)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 31 (J130)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 32 (J131)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLKAAxPN33 (J132)	Uxx-SLOTyy (J201)	CABLE	407556		
	BLK AAx PN 34 (J133)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 35 (J134)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 36 (J135)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 37 (J136)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 38 (J137)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 39 (J138)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 40 (J139)	Uxx-SLOT yy (J201)	CABLE	407556		
	BLK AAx PN 41 (J140)	Uxx-SLOT yy (J202)	CABLE	407556		
	BLK AAx PN 42 (J141)	Uxx-SLOT yy (J202)	CABLE	407556		
	BLK AAx PN 43 (J142)	Uxx-SLOT yy (J202)	CABLE	407556		
	BLK AAx PN 44 (J143)	Uxx-SLOT yy (J202)	CABLE	407556		
	BLK AAx PN 45 (J144)	Uxx-SLOT yy (J202)	CABLE	407556		
	BLK AAx PN 46 (J145)	Uxx-SLOT yy (J202)	CABLE	407556		
	BLK AAx PN 47 (J146)	Uxx-SLOT yy (J202)	CABLE	407556		
	BLK AAx PN48 (J147)	Uxx-SLOTyy (J202)	CABLE	407556		
	BLK AAx PN 49 (J148)	Uxx-SLOT yy (J202)	CABLE	407556		
	BLK AAx PN 50 (J149)	Uxx-SLOT yy (J202)	CABLE	407556		

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718

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HARNESS ASSEMBLY, 1260-51, TTI	A	21793	407556	A
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ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
	BLK AAx PN 51 (J150)	Uxx-SLOT yy (J202)	CABLE	407556		
	BLK AAx PN 52 (J151)	Uxx-SLOT yy (J202)	CABLE	407556		
	BLK AAx PN 53 (J152)	Uxx-SLOT yy (J202)	CABLE	407556		
	BLK AAx PN 54 (J153)	Uxx-SLOT yy (J202)	CABLE	407556		
	BLK AAx PN 55 (J154)	Uxx-SLOT yy (J202)	CABLE	407556		
	BLK AAx PN 56 (J155)	Uxx-SLOT yy (J202)	CABLE	407556		

This system wirelist serves as a template for incorporating this harness assembly into the overall system wirelist. It does not in any way affect the fabrication of this harness assembly.

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718				
DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-51, TTI	A	21793	407556	A
	DRN		SHEET 4 of 7	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
1	J100 602196-900	J200-A 602220-900	COAX	500295	40"	1/2/3/4/5/6 "A" IN
2	J101 602196-900	J200-B 602220-900	COAX	500295	40"	1/2"B"IN
3	J102 602196-900	J200-C 602220-900	COAX	500295	40"	1/2/3/4/5/6 "B" IN
4	J103 602196-900	J200-D 602220-900	COAX	500295	40"	1/2 "A" IN
5	J104 602196-900	J200-E 602220-900	COAX	500295	40"	5/6 "A" IN
6	J105 602196-900	J200-F 602220-900	COAX	500295	40"	3/4 "A" IN
7	J106 602196-900	J200-H 602220-900	COAX	500295	40"	314 "B" IN
8	J107 602196-900	J200-J 602220-900	COAX	500295	40"	1 "B" IN
9	J108 602196-900	J200-K 602220-900	COAX	500295	40"	5/6"B"IN
10	J109 602196-900	J200-L 602220-900	COAX	500295	40"	1 "A" IN
11	J110 602196-900	J200-M 602220-900	COAX	500295	40"	3"A"IN
12	J111 602196-900	J200-N 602220-900	COAX	500295	40"	2"A"IN
13	J112 602196-900	J200-P 602220-900	COAX	500295	40"	2"B"IN
14	J113 602196-900	J200-R 602220-900	COAX	500295	40"	4"B" IN
15	J114 602196-900	J200-S 602220-900	COAX	500295	40"	3 "B" IN
16	J115 602196-900	J200-T 602220-900	COAX	500295	40"	4"A"IN
17	J116 602196-900	J200-U 602220-900	COAX	500295	40"	6"A"IN
18	J117 602196-900	J200-V 602220-900	COAX	500295	40"	5"A"IN
19	J118 602196-900	J200-W 602220-900	COAX	500295	40"	5 "B" IN
20	J119 602196-900	J200-X 602220-900	COAX	500295	40"	6"B"IN
21	J120 602196-900	J201-A 602220-900	COAX	500295	40"	OUTPUT#1
22	J121 602196-900	J201-B 602220-900	COAX	500295	40"	OUTPUT#2
23	J122 602196-900	J201-C 602220-900	COAX	500295	40"	OUTPUT #3
24	J123 602196-900	J201-D 602220-900	COAX	500295	40"	OUTPUT#4

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718

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HARNESS ASSEMBLY, 1260-51, TTI	A	21793	407556	A
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ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
25	J124 602196-900	J201-E 602220-900	COAX	500295	40"	OUTPUT #5
26	J125 602196-900	J201-F 602220-900	COAX	500295	40"	OUTPUT #6
27	J126 602196-900	J201-H 60222()-900	COAX	500295	40"	OUTPUT #7
28	J127 602196-900	J2014 602220-900	COAX	500295	40"	OUTPUT #8
29	J128 602196-900	J201-K 602220-900	COAX	500295	40"	OUTPUT #9
30	J129 602196-900	J201-L 602220-900	COAX	500295	40"	OUTPUT#10
31	J130 602196-900	J201-M 602220-900	COAX	500295	40"	OUTPUT#11
32	J131 602196-900	J201-N 602220-900	COAX	500295	40"	OUTPUT#12
33	J132 602196-900	J201-P 602220-900	COAX	500295	40"	OUTPUT #13
34	J133 602196-900	J201-R 602220-900	COAX	500295	40"	OUTPUT#14
35	J134 602196-900	J201-S 602220-900	COAX	500295	40"	OUTPUT #15
36	J135 602196-900	J201-T 602220-900	COAX	500295	40"	OUTPUT#16
37	J136 602196-900	J201-U 602220-900	COAX	500295	40"	OUTPUT#17
38	J137 602196-900	J201-V 602220-900	COAX	500295	40"	OUTPUT#18
39	J138 602196-900	J202-A 602220-900	COAX	500295	40"	OUTPUT #19
40	J139 602196-900	J202-B 602220-900	COAX	500295	40"	OUTPUT #20
41	J140 602196-900	J202-C 602220-900	COAX	500295	40"	OUTPUT #21
42	J141 602196-900	J202-D 602220-900	COAX	500295	40"	OUTPUT #22
43	J142 602196-900	J202-E 602220-900	COAX	500295	40"	OUTPUT #23
44	J143 602196-900	J202-F 602220-900	COAX	500295	40"	OUTPUT #24
45	J144 602196-900	J202-H 602220-900	COAX	500295	40"	OUTPUT #25
46	J145 602196-900	J202-3 602220-900	COAX	500295	40"	OUTPUT #26
47	J146 602196-900	J202-K 602220-900	COAX	500295	40"	OUTPUT #27
48	J147 602196-900	J202-L 602220-900	COAX	500295	40"	OUTPUT #28

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-51, TTI	A	21793	407556	A
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ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
49	J148 602196-900	J202-M 602220-900	COAX	500295	40"	OUTPUT #29
50	J149 602196-900	J202-N 602220-900	COAX	500295	40"	OUTPUT #30
51	J150 602196-900	J202-P 602220-900	COAX	500295	40"	OUTPUT #31
52	J151 602196-900	J202-R 602220-900	COAX	500295	40"	OUTPUT #32
53	J152 602196-900	J202-S 602220-900	COAX	500295	40"	OUTPUT#33
54	J153 602196-900	J202-T 602220-900	COAX	500295	40"	OUTPUT#34
55	J154 602196-900	J202-U 602220-900	COAX	500295	40"	OUTPUT #35
56	J155 602196-900	J202-V 602220-900	COAX	500295	40"	OUTPUT #36

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718				
DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-51, TTI	A	21793	407556	A
	DRN		SHEET 7 of 7	

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Chapter 8

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. If parts are required to repair the product at your facility, call 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.

For worldwide support and the office closest to your facility, refer to the Support Offices section on the following page.

Reshipment Instructions

Use the original packing material when returning the 1260-51 to Racal Instruments for calibration or servicing. The original shipping crate and associated packaging material will provide the necessary protection for safe reshipment.

If the original packing material is unavailable, contact Racal Instruments Customer Service for information.

Support Offices

Racal Instruments, Inc.

4 Goodyear St., Irvine, CA 92618-2002
Tel: (800) 722-3262, FAX: (949) 859-7309

Racal Instruments, Ltd.

480 Bath Road, Slough, Berkshire, SL1 6BE, United Kingdom
Tel: +44 (0) 8706 080134; FAX: +44 (0) 1753 791290

Racal Systems Electronique S.A.

18 Avenue Dutartre, 78150 LeChesnay, France
Tel: +33 (1) 3923 2222; FAX: +33 (1) 3923 2225

Racal Systems Elettronica s.r.l.

Strada 2-Palazzo C4, 20090 Milanofiori Assago, Milan, Italy
Tel: +39 (02) 5750 1796; FAX +39 (02) 5750 1828

Racal Elektronik System GmbH.

Frankenforster Strasse 21, 51427 Bergisch Gladbach, Germany
Tel:+49 2204 92220; FAX: +49 2204 21491

Racal Australia Pty. Ltd.

3 Powells Road, Brookvale, NSW 2100, Australia
Tel: +61 (2) 9936 7000, FAX: +61 (2) 9936 7036

Racal Electronics Pte. Ltd.

26 Ayer Rajah Crescent, 04-06/07 Ayer Rajah Industrial Estate,
Singapore 0513.
Tel: +65 7792200, FAX: +65 7785400

Racal Instruments, Ltd.

Unit 5, 25F., Mega Trade Center, No 1, Mei Wan Road, Tsuen
Wan, Hong Kong, PRC
Tel: +852 2405 5500, FAX: +852 2416 4335