1260 VXI
SWITCHING CARD

1260-67
18GHz MICROWAVE
SWITCH CARD

PUBLICATION NO. 980673-061

RACAL INSTRUMENTS

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

http://www.racalinst.com

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E-Mail:	Helpdesk@racalinstruments.com	
Telephone:	+1 800 722 3262	(USA)
	+44(0) 8706 080134	(UK)
	+852 2405 5500	(Hong Kong)
Fax:	+1 949 859 7309	(USA)
	+44(0) 1628 662017	(UK)
	+852 2416 4335	(Hong Kong)

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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

Introduction

The 1260-67 is a High Frequency VXI Switch Module developed for the Racal 1260 Series of switch modules.

The 1260-67 is available configured from the factory and can be ordered with the Option-01T Switch Control Interface.

The following features are included in the 1260-67

- Available with 2, 4, or 6 1P6T microwave switches.
- > 18 GHz bandwidth.
- High-quality Narda relay switches.
- Occupies a single VXI slot
- Message-Based and Register-Based Interface Option available.

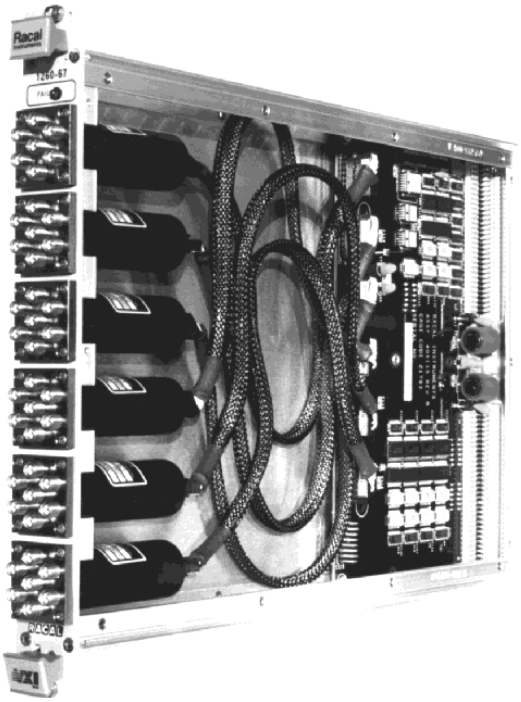

Figure 1-1, The 1260-67

Specifications

Maximum Cold Switching power	
DC - 100 MHz	490 Watts
100 MHz - 1 GHz	180 Watts
1 GHz - 10 GHz	60 Watts
10 GHz - 18 GHz	50 Watts
Insertion Loss (50Ω)	
DC - 3 GHz	< 0.2 dB
3 GHz - 8 GHz	< 0.3 dB
8 GHz - 12.4 GHz	< 0.4 dB
12.4 GHz - 18 GHz	< 0.5 dB
Bandwidth (50Ω)	> 18 GHz
Isolation (50Ω)	
DC - 3 GHz	> 85 dB
3 GHz - 8 GHz	> 75 dB
8 GHz - 12.4 GHz	> 60 dB
12.4 GHz - 18 GHz	> 60 dB
VSWR (50Ω)	
DC - 3 GHz	1.25:1
3 GHz - 8 GHz	1.3:1
8 GHz - 12.4 GHz	1.4:1
12.4 GHz - 18 GHz	1.5:1
Switching Time	< 15 ms
Shock	10g, 11 msec, ½ sine wave
Vibration	0.013” PK-PK, 5-55 Hz
Bench Handling	4 in, 45°
Temperature	
Operating	0 to +55 degrees Centigrade
Non-operating	-40 to +75 degrees Centigrade
Relative Humidity	85 +/- 5% non-condensing @ < 35 degrees Centigrade
Altitude	
Operating	10,000 feet
Non-operating	15,000 feet

Power requirements	5 VDC at 1.4 Amps W/Option 01T 5 VDC at 0.4 Amps WO/Option 01T 12 VDC at 365 mA per energized relay
Cooling Requirements	4.75 liter/sec @ .65mmH_2O at 35 Watts (See Power and Cooling Considerations in Chapter 3)
Dimensions	C-Size, Single Slot VXIbus Module
Module Weight	
w/ OPT 01T	3 Lbs 7 oz.
w/o OPT 01T	3 Lbs 2 oz
MTBF	295,376 Telcordia (Bellcore 6) 324,239 (MIL-STD-211 FN2) (Relays included)

Ordering Information

Listed below are part numbers for both the 1260-67 switch module. Each switch card uses standard SMA barrel connectors.

ITEM	DESCRIPTION	PART #
1260-67A Switch Module	1260-67A, 6 SP6T Switch, 18 GHz	407716-001
1260-67B Switch Module	1260-67B, 4 SP6T Switch, 18 GHz	407716-002
1260-67C Switch Module	1260-67C, 2 SP6T Switch, 18 GHz	407716-003
1260-67 Shipping Kit	Manual, Key Locks	407717
Replacement Switch	SP6T Microwave Switch	310284
Additional Manual	1260-67 User Manual	980673-061
Torque Wrench Bit	SMA Torque Wrench Bit	991017

Safety

Refer to the **"FOR YOUR SAFETY"** page preceding the Table of Contents. Follow all **NOTES, CAUTIONS,** and **WARNINGS** to ensure personnel safety and prevent damage to the instrument.

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 servicing, call 1-800-722-3262 or 1-949-859-8999 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 and enclose it with the instrument.

About MTBF

The 1260-67 MTBF is 295,376 Telcordia (Bellcore 6) or 324,239 (MIL-STD-211 FN2). Reliability figures include relays; however, many factors affect relay life expectancy.

1. Switched voltage
2. Switched current
3. Switched power
4. Maximum switching capacity
5. Maximum rated carrying current
6. Load type (resistive, inductive, capacitive)
7. Switching repetition rate
8. Ambient temperature

The most important factor is the maximum switching capacity, which is an interrelationship of maximum switching power, maximum switching voltage and maximum switching current. When a relay operates at a lower percentage of its maximum switching capacity, its life expectancy is longer. The maximum switching capacity specification is based on a resistive load, and must be further de-rated for inductive and capacitive loads.

The relay used on the 1260-67 module is Racal part no. 310284. The relay manufacturer's specifications for this relay are:

Life Expectancy 10^6 operations (Cold Switch Only)

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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.

Reshipment Instructions

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

Option 01T Installation

Installation of the Option 01T is described in the Installation and Setup section of the 1260A-Option 01T Users Manual, Publication No. 980806-999.

Module Installation

Installation of the 1260-67 Switching Module into a VXI mainframe, including the setting of switches SW1-1 through SW1-4, SW2, and SW3, is described in the Installation and Setup Section of the 1260A Option 01T Users Manual, Publication No. 980806-999.

Module Configuration

The 1260-67 module is available in three versions providing 2, 4, or 6 SP6T independent 18 GHz switches per module.

Front Panel Connectors

The 1260-67 SP6T 18 GHz switches utilize industry-standardized SMA barrel connectors. **Maximum connector engagement should not exceed 9 in.-lbs. torque**. It is highly recommended that a torque wrench (Ma-Com P/N 2098-5065-54 or equivalent) be used to torque the SMA connectors. A wrench bit (Racal Instrument P/N 991017) is available for use with the Ma-Com torque wrench. Physical switch placement on the module front panel is shown in **Figure 2-1**. Software assignments for each switch and relay are shown in **Figure 2-2.**

Switch Replacement

The 1260-67 module was designed with maximum reliability in mind and utilizes high-quality Narda relays to minimize failures. Should (a) relay(s) need to be replaced, this operation can be performed in the field with nothing more than a screwdriver. The procedure for replacing a switch is as follows:

1. Remove power from the chassis containing the 1260-67 module.
2. Remove the four mounting screws holding the switch in need of replacement. Set aside the screws and washers in a safe place.
3. Gently pull the switch from the front panel until the rear connector and cable assembly are clearly visible.
4. Disconnect the cable assembly from the old switch and plug the cable in to the new switch.
5. Gently push the switch and cable assembly back into the front bezel until the mounting flange of the switch is flush with the front panel.
6. Replace the four mounting screws with washers to secure the switch to the front panel.

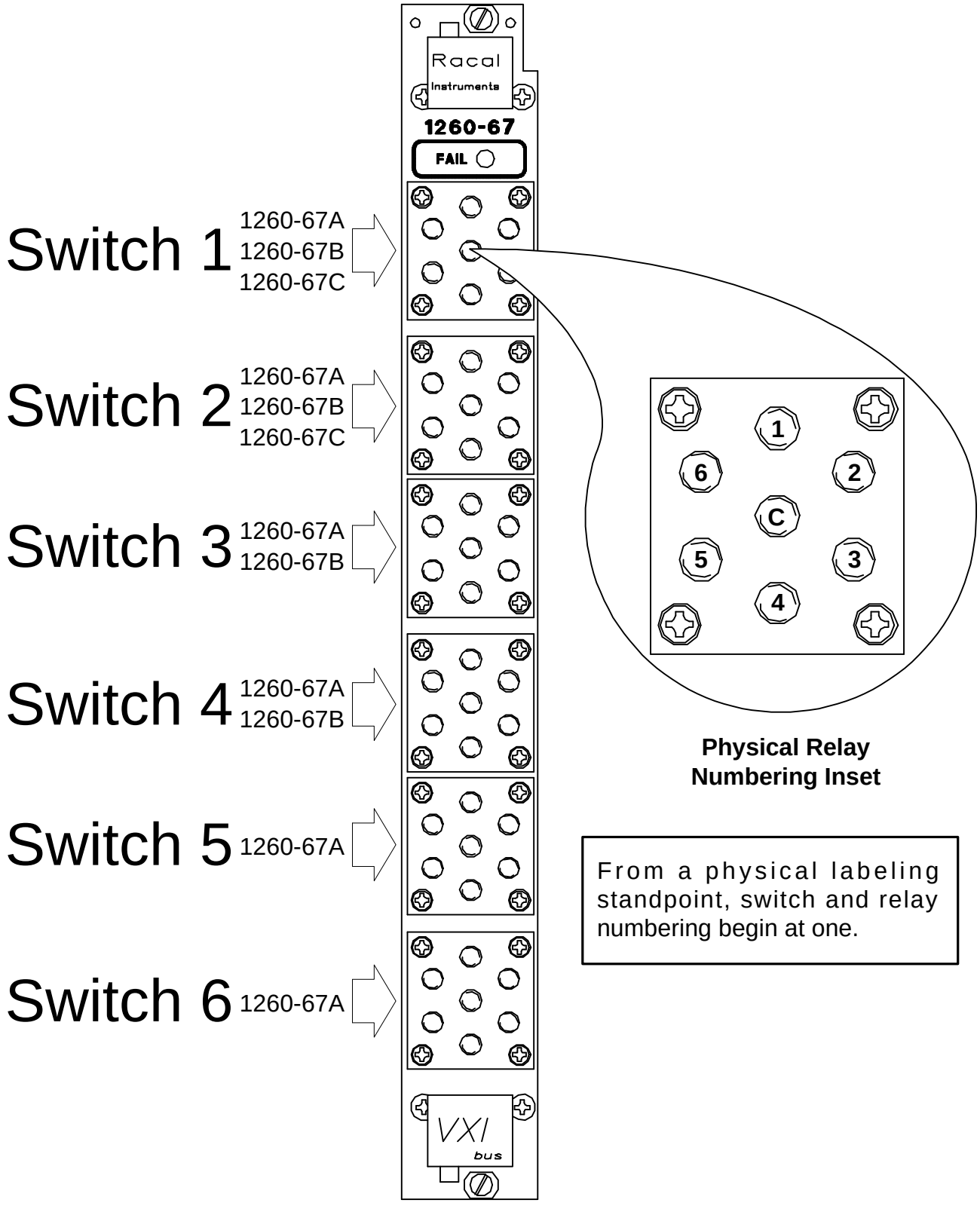

Figure 2-1 1260-67 Front Panel Physical Switch Layout, Front View

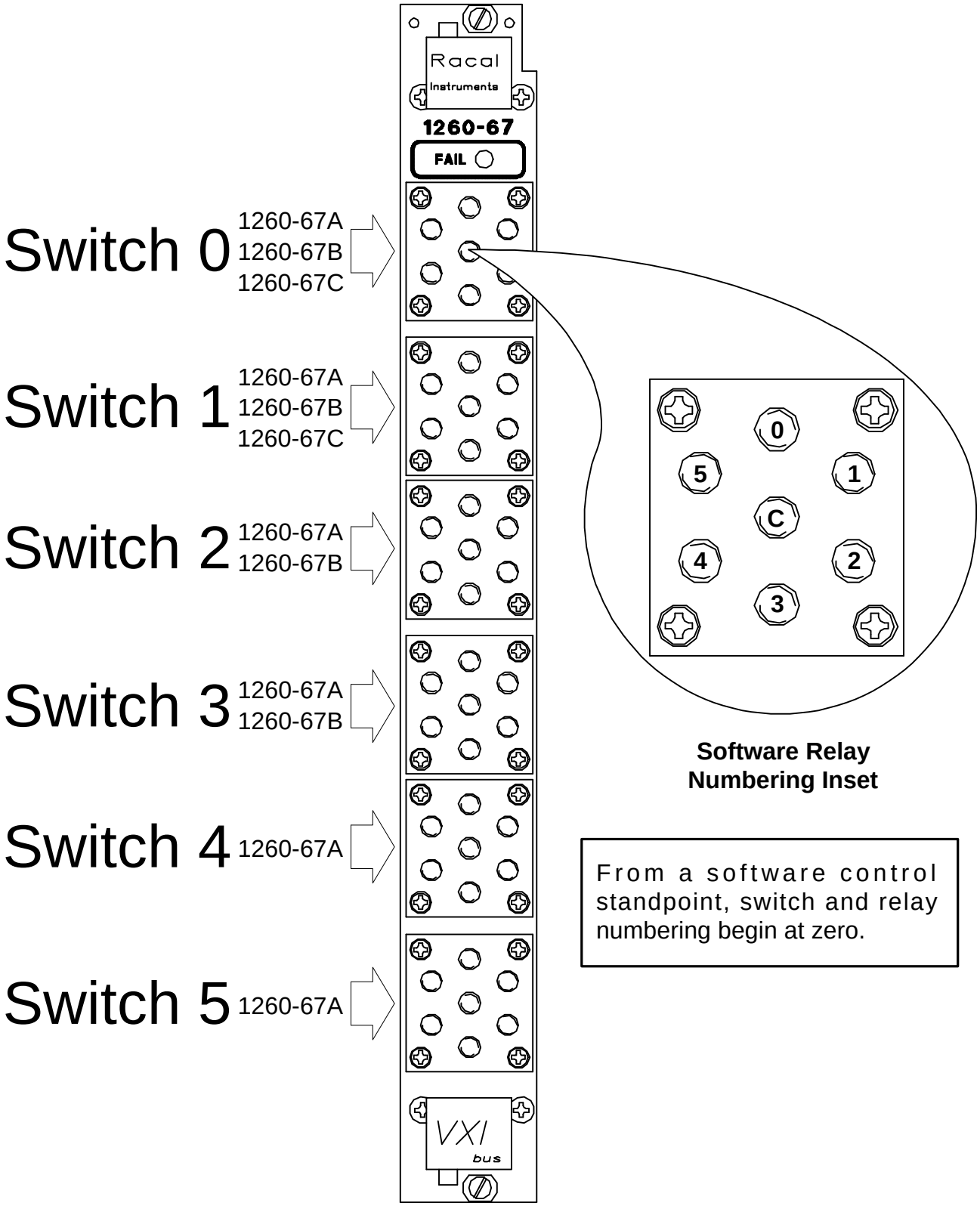

Figure 2-2 1260-67 Software Switch/Relay Mapping, Front View

Chapter 3
MODULE OPERATION

General Information

The 1260-67 may be operated either in *message-based mode* or in *register-based mode*.

When the *message-based mode* of operation is used, commands are sent to the 1260-01T command module. The 1260-01T command module interprets the commands, and operates the 1260-67 module by sending 8-bit bytes to control registers on the 1260-67 module.

As an example, if a module seven maps to the base address of 0x205001 and the control register controlling software switch 1, relay 1 is at an offset of 0x02 - bit 1, a conceptual view of the message-based mode of operation is shown in Figure 3-1 below.

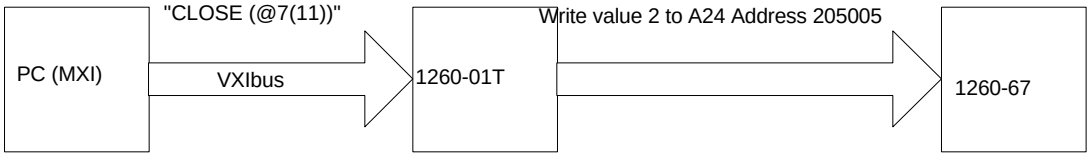

Figure 3-1, Message-Based Mode of Operation

When the *register-based mode* of operation is used, the user writes to the control register on the 1260-67 module directly. The 1260-01T command module does not monitor the operations, and does not track the state of the relays on the module in this mode.

A conceptual view of the register-based mode of operation is shown in Figure 3-2 below.

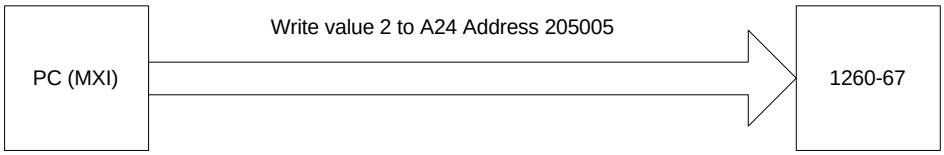

Figure 3-2, Register-Based Mode of Operation

Since the 1260-01T command module does not monitor the register-based mode of operation, it is advisable to select **either** the message-based or the register-based mode of operation, and continue to use the same mode throughout the application program.

In general, the message-based mode of operation is easier to use with utility programs, such as National Instruments VIC program. The message-based mode allows the user to send ASCII text commands to the 1260-01T and to read replies from the 1260-01T. In addition, there are a few features, such as a SCAN list, which are available only with the message-based mode of operation.

The register-based mode of operation provides a faster update of relay channels. This mode provides for relay operations in less than 4.5 microseconds (not counting software overhead inherent in I/O libraries such as VISA).

Consult the 1260-01T User's Manual for a comparison of the message-based and register-based modes of operation.

Operating The 1260-67 In Message-Based Mode

Channel Descriptors For The 1260-67 Module

The standard 1260-01T commands are used to operate the 1260-67 module. These commands are described in the 1260-01T User's Manual.

Each 1260-01T relay command uses a *channel descriptor* to select the relay(s) of interest. The syntax for a channel descriptor is the same for all 1260 series modules. In general, the following syntax is used to select a single channel:

```
(@ <module address> ( <channel> ) )
```

Where:

<module address> is the address of the 1260-67 module, as set by the logical address DIP switch SW1 on the 1260-67.

The module address is a number from 1 through 12, inclusive.

Set the module addresses for the 1260-67 and other 1260-Series modules so that no address is used by more than one 1260-Series module. For instructions on setting module

addresses for a 1260-Series module, see the label on the side panel of the module.

<channel>	is a concatenation of <switch><relay> where <switch> has a value of 0-5 (1260-67A), 0-3 (1260-67B), or 0-1 (1260-67C) and <relay> has a value of 0-5.

Multiple individual channels may be specified using the following channel descriptor syntax:

```
(@ <module address> ( <chan1> , <chan2> , . . ., <chanN> ))
```

The following examples illustrate the use of the channel descriptors for the 1260-67A:

`OPEN (@8(03))`	Open relay 3 in switch 0 on the 1260-67 located at module address 8.
`CLOSE (@7(21,34))`	Closes relay 1 in switch 2 and relay 4 in switch 3 at module address 7.

It is important to remember that the 1260-67 switch is mutually exclusive and is implemented as break-before-make to insure that at most 1 of 6 poles per switch is closed at a time. Message-based commands controlling inclusivity, therefore are not applicable to the 1260-67 module.

Reply To The MOD:LIST? Command

The 1260-01T returns a reply to the MOD:LIST? command. This reply is unique for each different 1260 series switch module. The syntax for the reply is:

<module address> : <module-specific identification string>

The <module-specific identification string> for the 1260-67 cards are:

1260-67A SIX 1x6 SWITCHING MODULE

1260-67B QUAD 1x6 SWITCHING MODULE

1260-67C DUAL 1x6 SWITCHING MODULE

So, for a 1260-67C whose <module address> is set to 8, the reply to this query would be:

8 : 1260-67C DUAL 1x6 SWITCHING MODULE

Operating The 1260-67 in Register-Based Mode

The 1260-67 may be operated by directly setting one of the six control registers on the 1260-67 module. The first control register on the module operates switch S1, the second operates S2, the third operates S3, the fourth operates S4, the fifth operates S5, and the sixth operates S6.

The control registers are located in the VXIbus A24 Address Space. The actual A24 address for a control register depends on:

1. The A24 Address Offset assigned to the 1260-01T module by the Resource Manager program. The Resource Manager program is provided by the VXIbus slot-0 controller vendor. The A24 Address Offset is placed into the "Offset Register" of the 1260-01T by the Resource Manager.

2. The <module address> of the 1260-67 module. This is set by the setting of the logical Address DIP switch SW1 on the 1260-67 to a value between 1 and 12 inclusive .

3. The control register on the 1260-67 to update. Each control register on the 1260-67 has a unique address.

The base A24 Address for the 1260-67 module may be calculated by:

(A24 Offset of the 1260-01T) + (1024 x Module Address of 1260-67).

The A24 Offset is usually expressed in hexadecimal. A typical value of 204000_{16} will be used in the examples which follow. So, a sample 1260-67 with a module address of 7 would have the base A24 Address computed as follows:

Base A24 Address of 1260-67 = $204000_{16} + (400_{16} \times 7_{10}) = 205C00_{16}$

The control registers for 1260 series modules are always on odd A24 addresses. The six control registers for the 1260-67 reside at the first six odd A24 addresses for the module:

(Base A24 Address of 1260-67) + 1 = Control Register 0

(Base A24 Address of 1260-67) + 3 = Control Register 1

(Base A24 Address of 1260-67) + 5 = Control Register 2

(Base A24 Address of 1260-67) + 7 = Control Register 3

(Base A24 Address of 1260-67) + 9 = Control Register 4

(Base A24 Address of 1260-67) + 11 = Control Register 5

So, for our example, the six control registers are located at:

205C01	Control Register 0, controls switch 1.
205C03	Control Register 1, controls switch 2.
205C05	Control Register 2, controls switch 3.
205C07	Control Register 3, controls switch 4.
205C09	Control Register 4, controls switch 5.
205C0B	Control Register 5, controls switch 6.

Each control register has eight bits that control which relay in the switch is closed. Tables 3-1 through 3-6 provide the control mapping for each switch. Unlike the message-based mode that guarantees break-before-make action, no such guarantee exists in the register-based mode of operation. It is the users responsibility, therefore, when using the register-based mode of operation, to implement this feature if needed.

Table 3-1 through **Table 3-6**, Control Register Mapping

Control Register 0

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Unused	Unused	Relay 6	Relay 5	Relay 4	Relay 3	Relay 2	Relay 1
-	-	Switch 1	Switch 1	Switch 1	Switch 1	Switch 1	Switch 1

Control Register 1

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Unused	Unused	Relay 6	Relay 5	Relay 4	Relay 3	Relay 2	Relay 1
-	-	Switch 2	Switch 2	Switch 2	Switch 2	Switch 2	Switch 2

Control Register 2

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Unused	Unused	Relay 6	Relay 5	Relay 4	Relay 3	Relay 2	Relay 1
-	-	Switch 3	Switch 3	Switch 3	Switch 3	Switch 3	Switch 3

Control Register 3

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Unused	Unused	Relay 6	Relay 5	Relay 4	Relay 3	Relay 2	Relay 1
-	-	Switch 4	Switch 4	Switch 4	Switch 4	Switch 4	Switch 4

Control Register 4

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Unused	Unused	Relay 6	Relay 5	Relay 4	Relay 3	Relay 2	Relay 1
-	-	Switch 5	Switch 5	Switch 5	Switch 5	Switch 5	Switch 5

Control Register 5

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Unused	Unused	Relay 6	Relay 5	Relay 4	Relay 3	Relay 2	Relay 1
-	-	Switch 6	Switch 6	Switch 6	Switch 6	Switch 6	Switch 6

Relays are closed when the corresponding control bit is set to 1 and are opened when the corresponding control bit is cleared to 0. Thus, if you write the value 0000 0100 binary = 4 decimal = 4 hexadecimal to Control Register 0, relay K3 will be closed, while the remaining relays will be open.

The present control register value may be read back by reading an 8-bit value from the control register address. **The value is inverted by the 1260-67 hardware.**

Visa I/O libraries can also be used to control the 1260-67. A short example follows.

1260-67 Example Code

```
#include <visa.h>

/* This example shows a 1260-01T at logical address 16 and a VXI/MXI */
/* interface */
#define RI1260_01_DESC  "VXI::16"

/* For a GPIB-VXI interface, and a logical address of 77 */
/* the descriptor would be:  "GPIB-VXI::77" */


/* this example shows a 1260-67 with module address 7 */
#define MOD_ADDR_22     7


void example_operate_1260_67(void)
{
      ViUInt8 creg_val;
      ViBusAddress creg0_addr;
      ViSession hdl1260;      /* VISA handle to the 1260-01T */
      ViSession hdlRM;        /* VISA handle to the resource manager */
      ViStatus error;         /* VISA error code */

      /* open the resource manager */
      /* this must be done once in application program */
      error = viOpenDefaultRM (&hdlRM);

      if (error < 0) {
            /* error handling code goes here */
      }

      /* get a handle for the 1260-01T */
      error = viOpen (hdlRM, RI1260_01_DESC, VI_NULL,VI_NULL, &hdl1260);
      if (error < 0) {
            /* error handling code goes here */
      }


      /* form the offset for control register 0 */
      /* note that the base A24 Address for the 1260-01T */
      /* is already accounted for by VISA calls viIn8() and */
      /* viOut8() */

            /* module address shifted 10 places = module address x 1024 */
      creg0_addr = (MOD_ADDR_22 << 10) + 1;
```

```
      error = viIn8 (hdl1260, VI_A24_SPACE, creg0_addr, &creg_val);
      if (error < 0) {
            /* error handling code goes here */
      }
      creg_val = (0x01); /* Close relay 1 */

      /* write the updated control register value */
      error = viOut8 (hdl1260, VI_A24_SPACE, creg0_addr, creg_val);
      if (error < 0) {
            /* error handling code goes here */
      }

      /* close the VISA session */
      error = viClose( hdl1260 );
      if (error < 0) {
            /* error handling code goes here */
      }
}
```

Power and Module Cooling Considerations

The 1260-67 is a high density, high power switch module. Because of this certain precautions should be applied when using the switch module.

Module Power Calculation

The maximum power dissipation of the module needs to be considered for each application. The module power can be divided into three power components. They are the logic circuitry, the relays and the channel paths.

Logic Power

The first component, logic power is one of two fixed values depending on whether or not an Option –01T is installed. For a 1260-67 with an Option-01T installed the logic power is approximately 7 Watts, and if no Option –01T is installed the logic power is approximately 2 Watts.

Relay Power

The second component, relay power, depends on the number of relays that are energized. Each switch has six poles driven by independent coils dissipating approximately 4.5 W each. In a typical microwave switch application, only one pole is active at a time. If this assumption is made in a 1260-67A with six switches, total coil dissipation is about 27 Watts in a typical situation. If the one active pole at time assumption is removed, such that all relays in all switches are closed, the total coil

dissipation jumps to 162 Watts! This is one reason why it is not recommended to depart from the break-before-make philosophy enforced in message-based operation while accessing the card in register-based operation.

Channel Power

The third component, channel power, is for all practical purposes negligible in a microwave cavity switch like those used in the 1260-67. Path lengths are extremely short in these type of switches and therefore do not exhibit significant resistive heating. Another factor that can result in thermal generation is dielectric losses at high frequencies. Similar to the resistive losses, high quality switches used in the 1260-67 module have minimized these losses as well. In short, channel losses for the purposes of thermal calculations can be ignored.

If the two dominant thermal generation factors are summed together, a typical application using a 1260-67 module would generate about 35 W of heat (logic power + relay power). To calculate the actual airflow requirements for 35 W, the following section addresses the actual calcuations.

Airflow Requirements

VXI Modules are specified to require a particular airflow to maintain a specific temperature rise. The air flow required and the resultant back pressure (pressure drop across the module) values determine a specific operating point that is plotted or compared against a VXI chassis cooling curve. If the operating point is below the chassis cooling curve, there is a high probability that the module will remain within its specified temperature rise. If the operating point lies above the chassis cooling curve the temperature rise may exceed the specified value.

The following procedure details how to calculate the cooling requirements for the 1260-67.

1. Determine the maximum temperature rise allowed across the module. This is typically 10 °C, but could be higher or lower depending the chassis ambient temperature, and the overall reliability requirements of the module.

2. Determine the required airflow to maintain the specified temperature rise of the module. This is calculated from the module power (calculated in previous section), the desired temperature rise, and the specific heat of air. For a given temperature rise the required air flow is:

   Airflow(liters/sec) = 0.83/Temp Rise(°C) x Module

Power (Watts)

As an example, for a 10 °C rise and a module power of 35 Watts: Airflow(liters/sec) = 0.83/10 °C x 35 Watts = 2.9 liters /sec

3. Determine the pressure drop across the module when the required airflow (liters/sec) is forced through the module. This can be determined by looking at pressure drop vs. airflow plot for the 1260-67 Module in Figure 3-4. Find the required airflow and then read the corresponding pressure in mm H_2O. For the case above, with an airflow of 4.7 liters/sec the pressure drop read from Figure 3-4 is 0.65 mm H_2O.

4. Plot the 1260-67 operating point (Pressure, Airflow) on the chassis cooling curve. If the module operating point lies under the chassis curve, the module should remain within the specified temperature. An example of a 1260-67 Module in a Racal 1261B VXI Chassis is shown in **Figure 3-4.** The chassis airflow plotted is for the worst case slot airflow. In the 1261B chassis, the 1260-67 could dissipate up to about 35 Watts in any slot without much concern for the temperature rise of 10 °C being exceeded. **Above 65 Watts, special considerations must be given to cooling. Either more air must be forced through the slot or a temperature rise greater than 10°C will occur.**

CAUTION

The required airflow may need to be increased or decreased depending on airflow distribution across the module, the ambient temperature and reliability issues. Consult the VXI specification for more details.

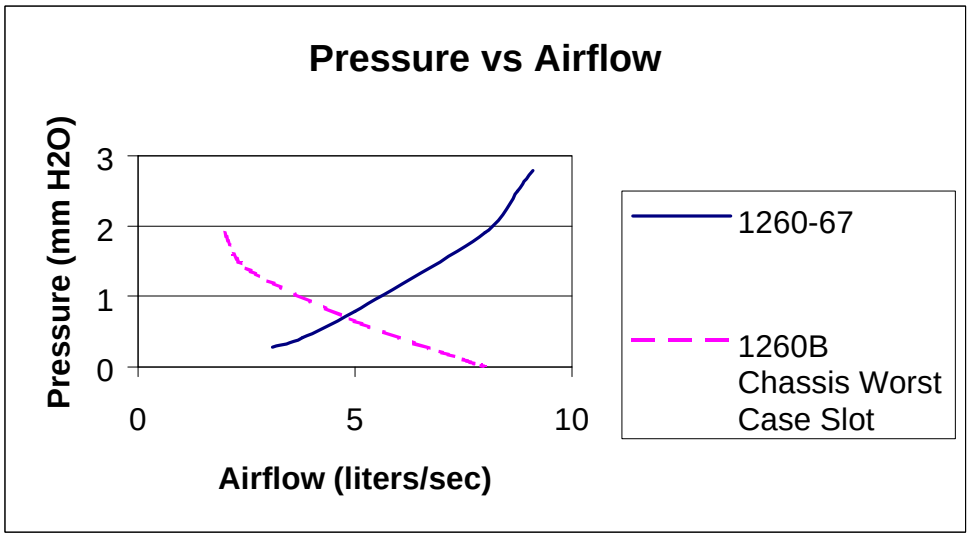

Figure 3-4, 1260-67/1261B Airflow Resistance Curves

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Chapter 4
DRAWINGS

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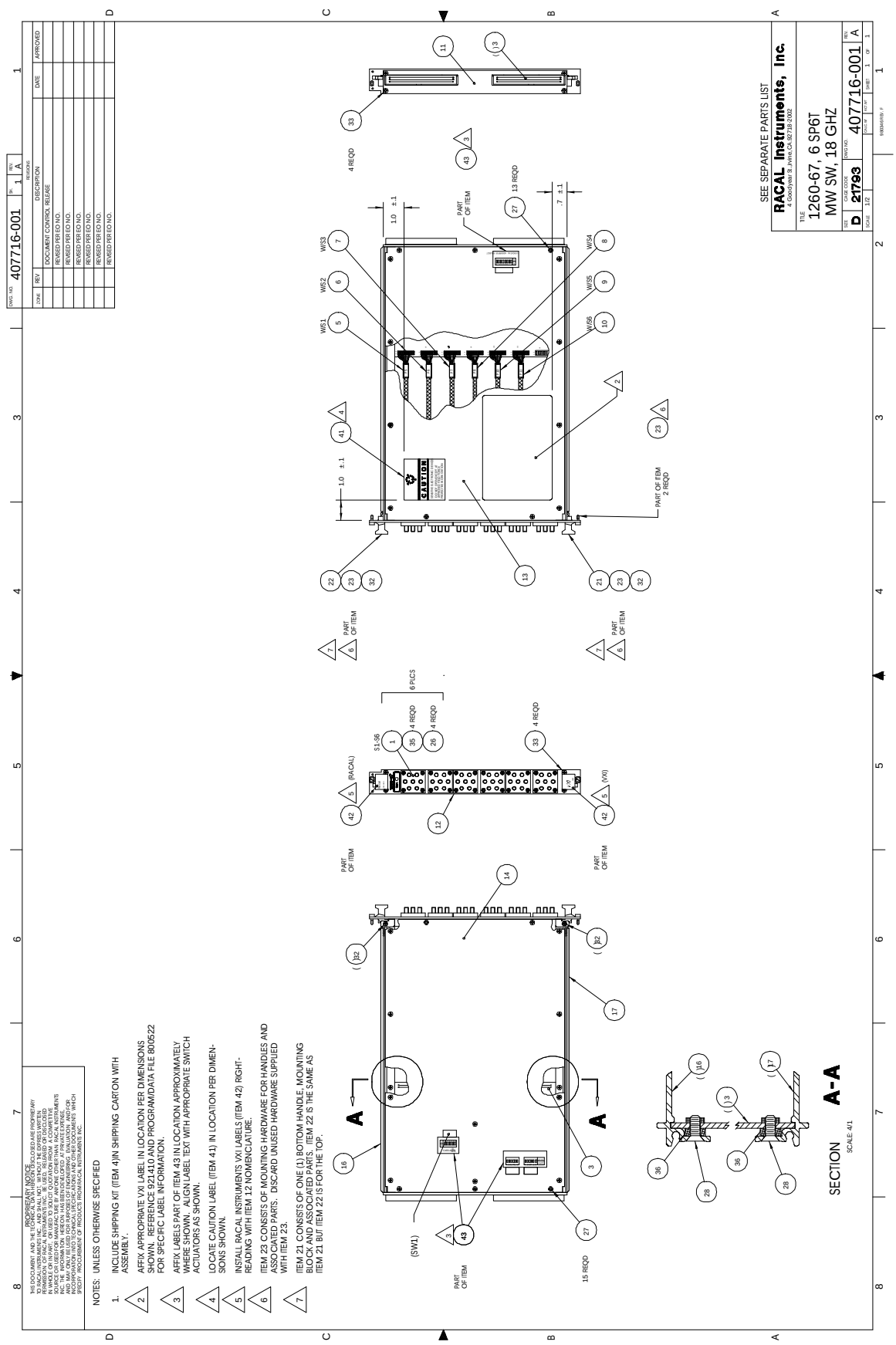
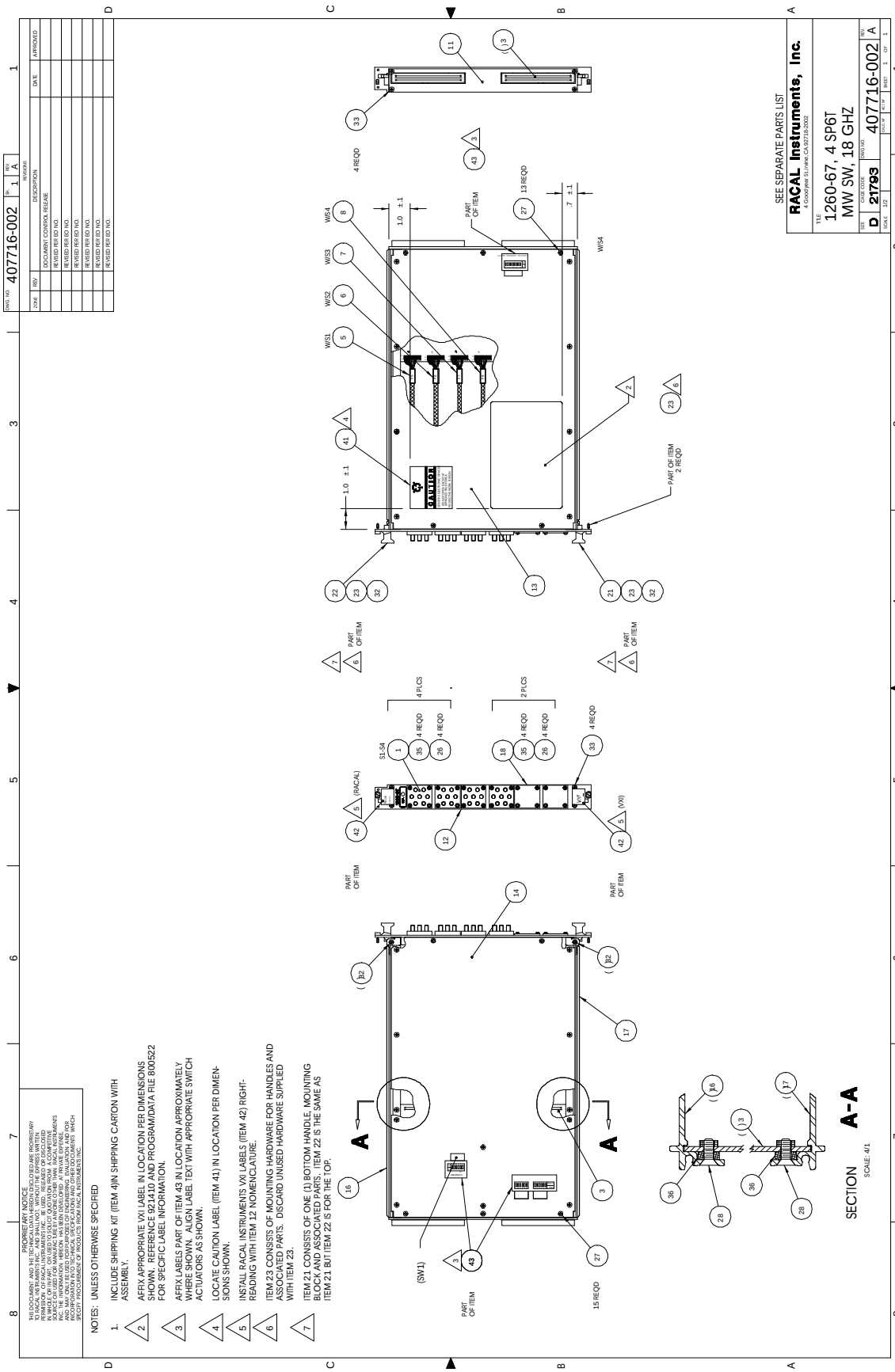

DWG NO 407716-001
REV A
DESCRIPTION
DOCUMENT CONTROL RELEASE
REVISED PER ECO NO.
APPROVED
PROPRIETARY NOTICE
NOTES: UNLESS OTHERWISE SPECIFIED
1. INCLUDE SHIPPING KIT (ITEM 4)IN SHIPPING CARTON WITH ASSEMBLY.
2 AFFIX APPROPRIATE VXI LABEL IN LOCATION PER DIMENSIONS SHOWN. REFERENCE 921410 AND PROGRAM/DATA FILE 800522 FOR SPECIFIC LABEL INFORMATION.
3 AFFIX LABELS PART OF ITEM 43 IN LOCATION APPROXIMATELY WHERE SHOWN. ALIGN LABEL TEXT WITH APPROPRIATE SWITCH ACTUATORS AS SHOWN.
4 LOCATE CAUTION LABEL (ITEM 41) IN LOCATION PER DIMENSIONS SHOWN.
5 INSTALL RACAL INSTRUMENTS VXI LABELS (ITEM 42) RIGHT-READING WITH ITEM 12 NOMENCLATURE.
6 ITEM 23 CONSISTS OF MOUNTING HARDWARE FOR HANDLES AND ASSOCIATED PARTS. DISCARD UNUSED HARDWARE SUPPLIED WITH ITEM 23.
7 ITEM 21 CONSISTS OF ONE (1) BOTTOM HANDLE MOUNTING BLOCK AND ASSOCIATED PARTS. ITEM 22 IS THE SAME AS ITEM 21 BUT ITEM 22 IS FOR THE TOP.
SECTION A-A
SCALE: 4/1
SEE SEPARATE PARTS LIST
RACAL Instruments, Inc.
4 Goodyear St Irvine, CA 92718-2002
1260-67, 6 SP6T
MW SW, 18 GHZ
SIZE D
CAGE CODE 21793
DWG NO 407716-001
REV A
SCALE 1/2
SHEET 1 OF 1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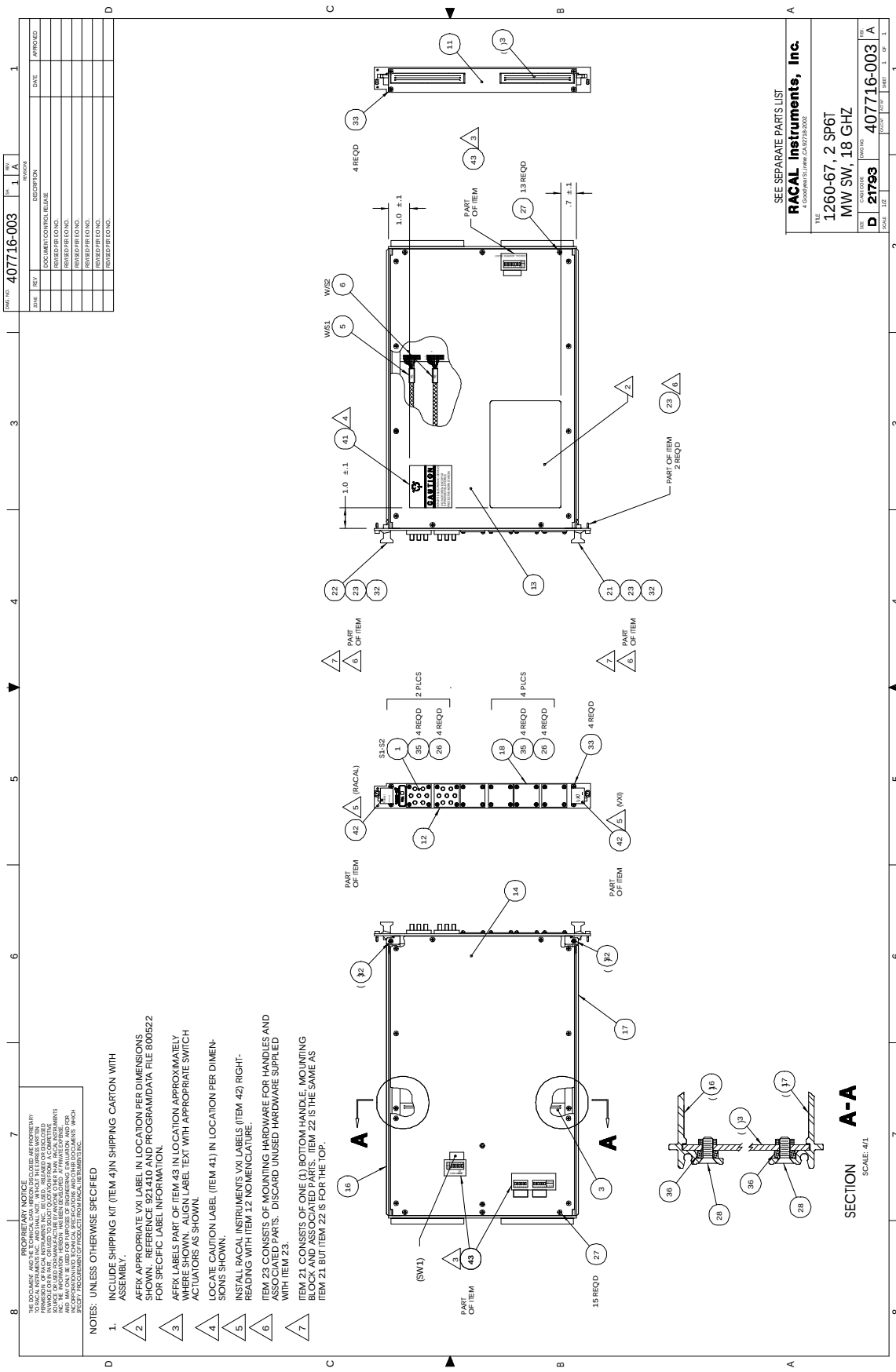
3 AFFIX LABELS PART OF ITEM 43 IN LOCATION APPROXIMATELY WHERE SHOWN. ALIGN LABEL TEXT WITH APPROPRIATE SWITCH ACTUATORS AS SHOWN.
4 LOCATE CAUTION LABEL (ITEM 41) IN LOCATION PER DIMENSIONS SHOWN.
5 INSTALL RACAL INSTRUMENTS VXI LABELS (ITEM 42) RIGHT-READING WITH ITEM 12 NOMENCLATURE.
6 ITEM 23 CONSISTS OF MOUNTING HARDWARE FOR HANDLES AND ASSOCIATED PARTS. DISCARD UNUSED HARDWARE SUPPLIED WITH ITEM 23.
7 ITEM 21 CONSISTS OF ONE (1) BOTTOM HANDLE, MOUNTING BLOCK AND ASSOCIATED PARTS. ITEM 22 IS THE SAME AS ITEM 21 BUT ITEM 22 IS FOR THE TOP.
DWG NO 407716-002 REV A
ZONE REV DESCRIPTION DATE APPROVED
DOCUMENT CONTROL RELEASE
REVISED PER EO NO.
SEE SEPARATE PARTS LIST
RACAL Instruments, Inc.
4 Goodyear St Irvine, CA 92718-3302
1260-67, 4 SP6T
MW SW, 18 GHZ
SIZE D CAGE CODE 21793 DWG NO 407716-002 REV A
SCALE 1/2 SHEET 1 OF 1
SECTION A-A
SCALE: 4/1


DWG NO. 407716-003
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REVISED PER EO NO.
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1260-67, 2 SP6T
MW SW, 18 GHZ
407716-003
SECTION A-A
SCALE: 4/1
NOTES: UNLESS OTHERWISE SPECIFIED
1. INCLUDE SHIPPING KIT (ITEM 4)N SHIPPING CARTON WITH ASSEMBLY.
2 AFFIX APPROPRIATE VXI LABEL IN LOCATION PER DIMENSIONS SHOWN. REFERENCE 921410 AND PROGRAM/DATA FILE 800522 FOR SPECIFIC LABEL INFORMATION.
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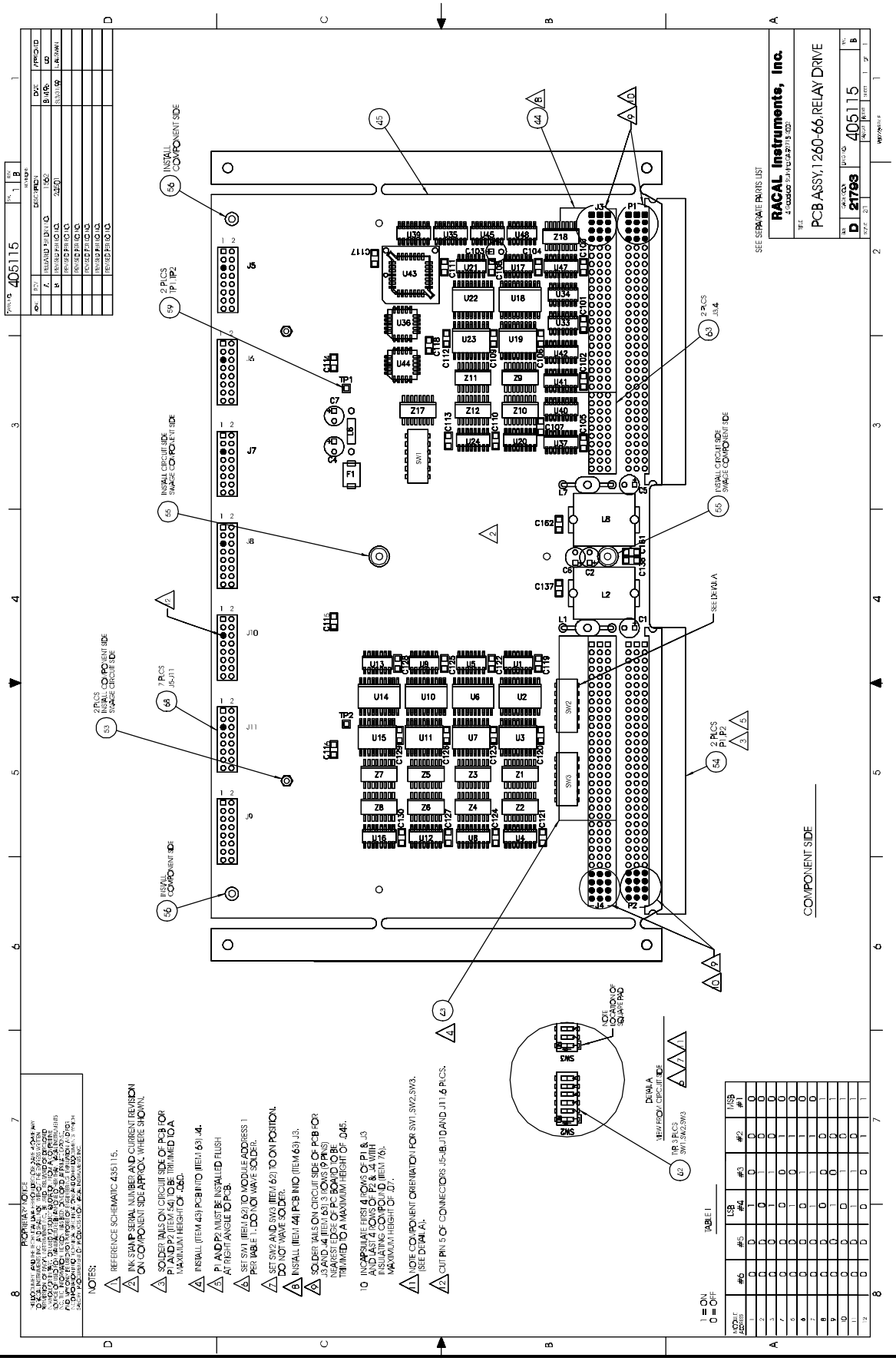
PROPRIETARY NOTICE
CAUTION

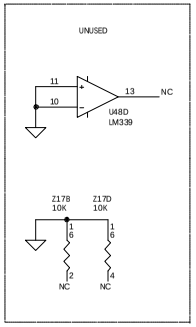

RACAL Instruments, Inc.
PCB ASSY, 1260-66, RELAY DRIVE
D 21793 405115 B
NOTES:
COMPONENT SIDE
DETAIL A
TABLE I

1. CAPACITOR VALUES ARE IN MICROFARADS, 50V, +/-20% UNLESS OTHERWISE SPECIFIED.

2. RESISTOR NETWORKS ARE IN OHMS.

REF. DES.	IC TYPE	+5V PIN NO.	GND PIN NO.
U48	LM339	3	12
U47	74HCT85	16	8
U45	74LS138	16	8
U44	231153 (16R4)	20	10
U43	231154 (22V10H)	28	14
U42	26LS31	16	8
U40,41	26LS32	16	8
U37,39	74HCT253	16	8
U36	231152-001 (16L8Q)	20	10
U4,8,12,16,20,24,35	74HCT166	16	8
U3,7,11,15,19,23	2803	NC	9
U2,6,10,14,18,22	74HCT273	20	10
U1,5,9,13,17,21,33,34	74HCT164	14	7
IC POWER AND GROUND CONNECTIONS			

HIGHEST REF. DES.
Z18
U48
TP2
SW3
P2
L8
J11
C162



CAD CURRENT REV. LTR
FOR SHEETS 1 THRU 10.
REVISION A.

CAD FILENAMES

5115P1.SCH
5115P2.SCH
5115P3.SCH
5115P4.SCH
5115P5.SCH
5115P6.SCH
5115P7.SCH
5115P8.SCH
5115P9.SCH
5115P10.SCH

DRAWN WITH ORCAD/SDT.III V3.10

***	REF	REF	405115	1260-66C
***	REF	REF	405115	1260-66B
***	REF	REF	405115	1260-66A

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RACAL Instruments, Inc.
4 Goodyear St., Irvine, Ca 92718-2002

TITLE
SCHEM.,1260-66 RELAY DRIVE

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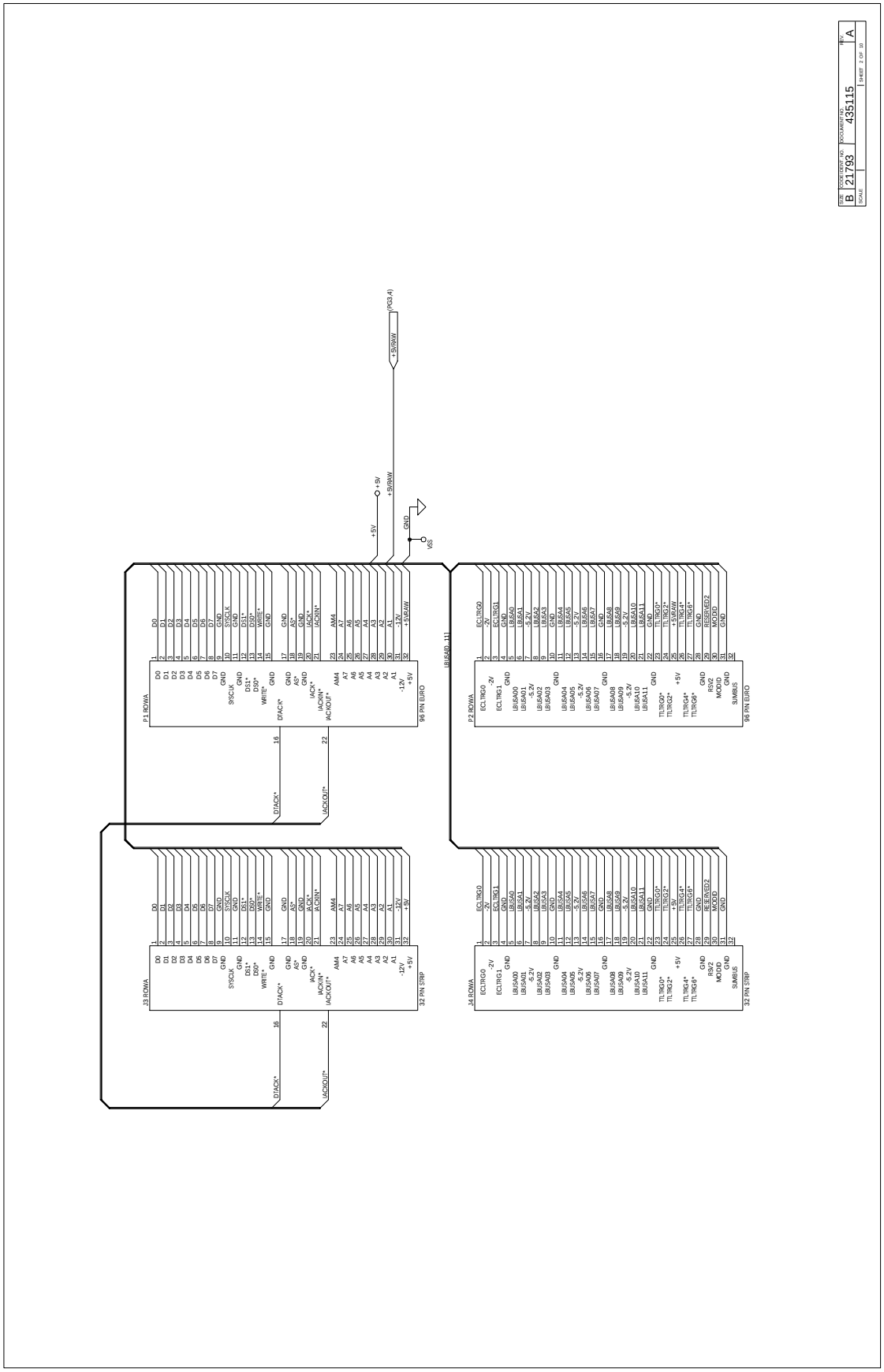
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DOCUMENT NO 21793
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P1 ROW/A
P2 ROW/A
J3 ROW/A
J4 ROW/A
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32 PIN STRIP
+5V
+5V/R/W
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VSS
D/TACK*
IACKOUT*
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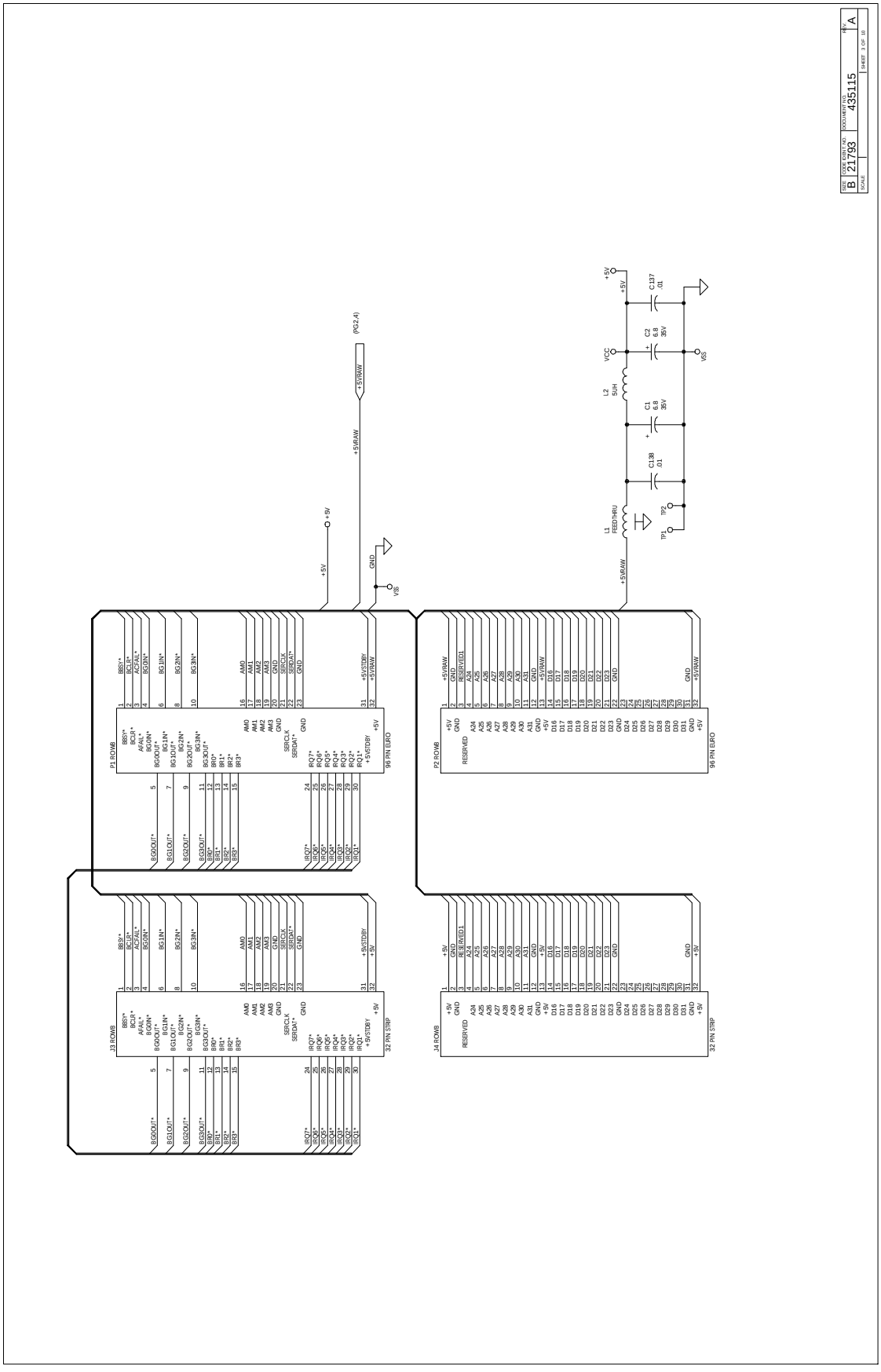
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J3 ROW8
J4 ROW8
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32 PIN STRIP
+5VRAW
+5V
GND
VCC
VSS
L1
FEEDTHRU
L2
5UH
C1
6.8
35V
C2
6.8
35V
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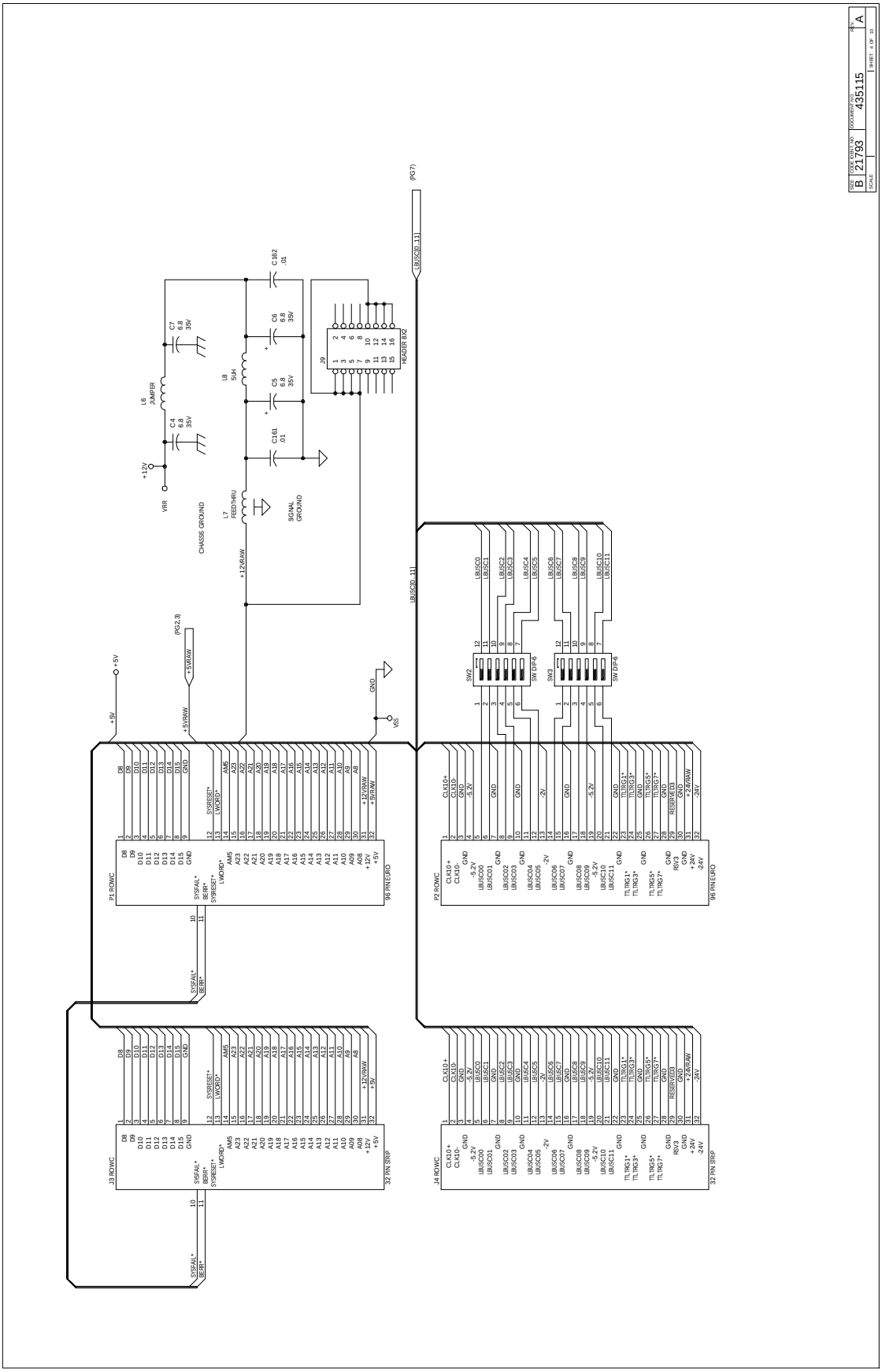
C137
.01
TP1
TP2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+12V
VRR
CHASSIS GROUND
L6 JUMPER
C4 68 35V
C7 68 35V
L7 FERRITHRU
+12VRAW
L8 5UH
C5 6.8 35V
C6 6.8 35V
C162 .01
C161 .01
SIGNAL GROUND
J9 HEADER 8X2
(PG2,3)
+5VRAW
+5V
GND
VSS
SW2 SW DIP-8
SW3 SW DIP-8
P1 RCWC
P2 RCWC
J3 RCWC
J4 RCWC
96 PIN EURO
32 PIN SRIP
SYSFAIL*
BERR*
SYSRESET*
LWORD*
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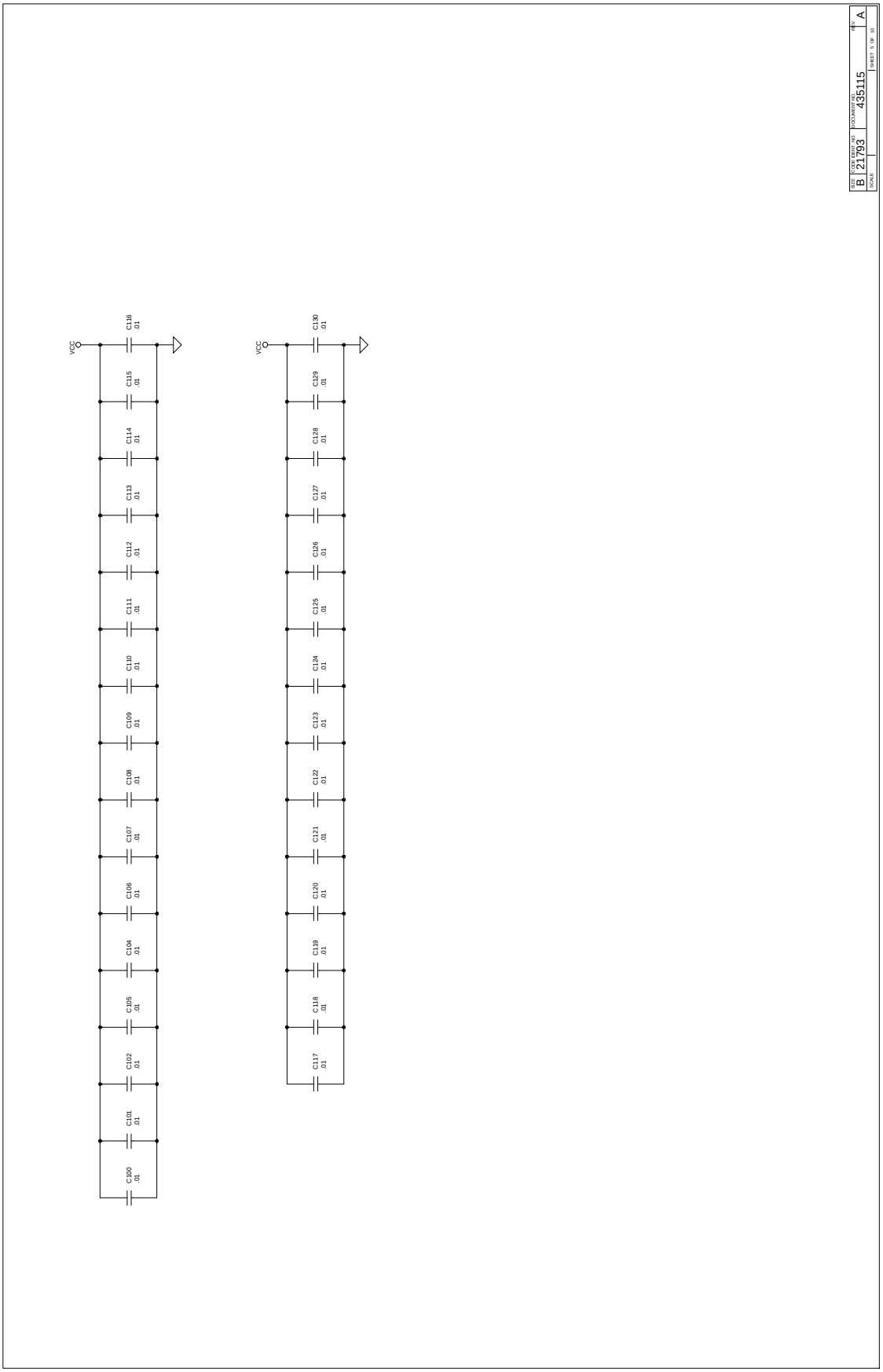
+5VRAW
+5V
-5.2V
-2V
-24V
+24VRAW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C105 .01
C104 .01
C106 .01
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C112 .01
C113 .01
C114 .01
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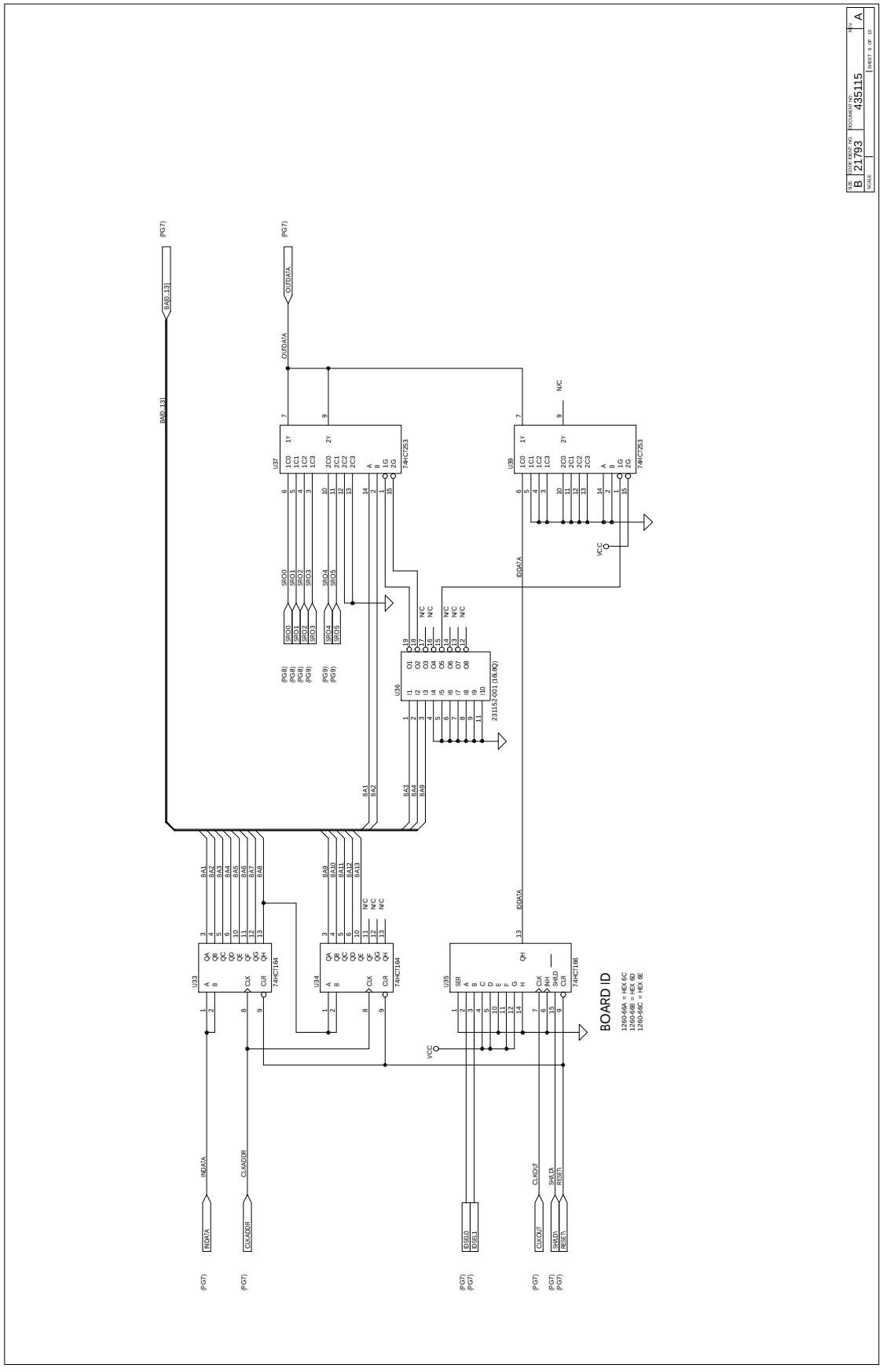
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DOCUMENT NO 435115
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SHEET 6 OF 10
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1260-66B = HEX 6D
1260-66C = HEX 6E
BA[0..13]
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IDATA
VCC
U33
U34
U35
U36
U37
U39
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74HCT166
74HCT253
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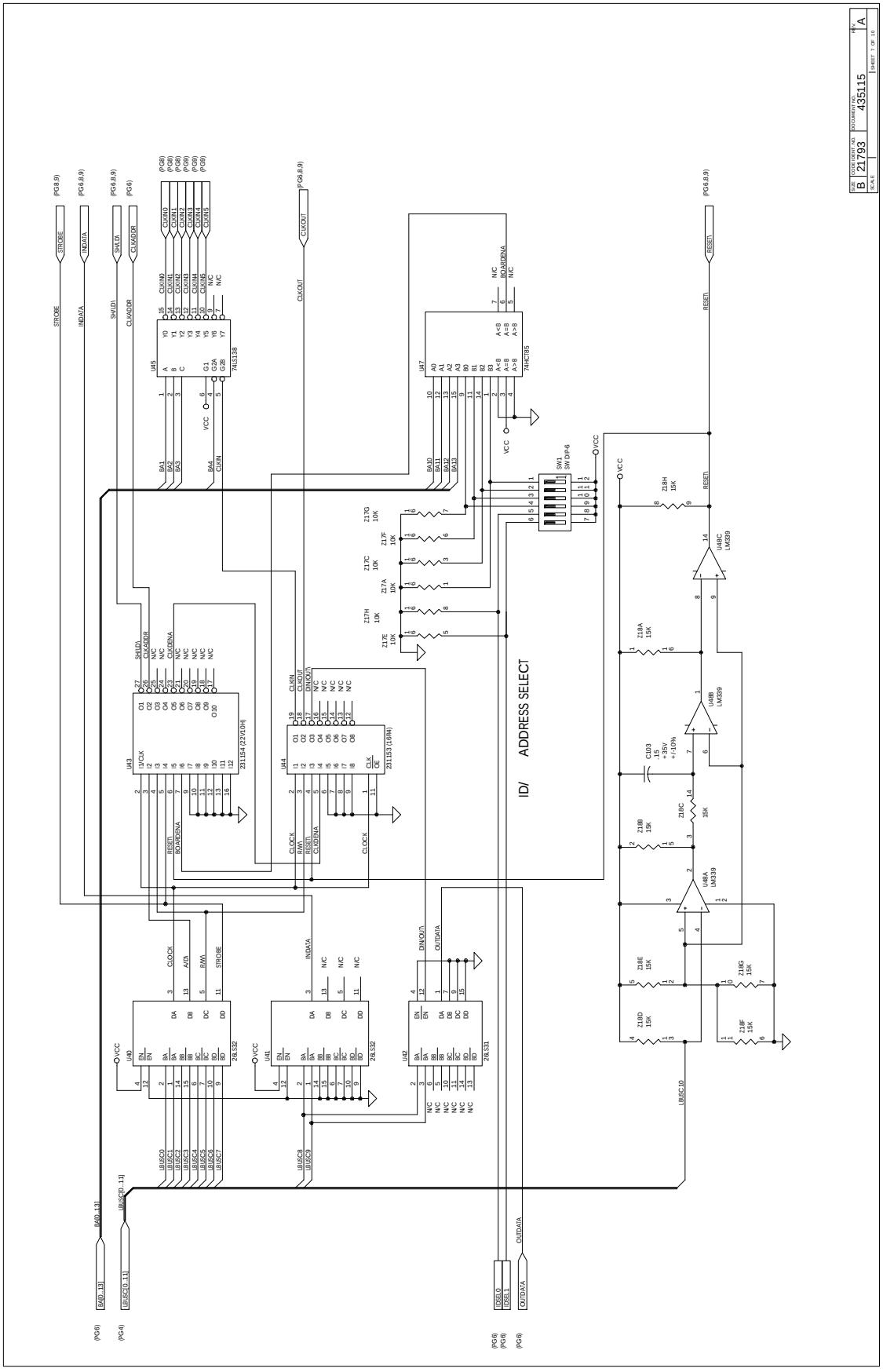
CLKOUT
SHLD\
RESET\
DSEL0
DSEL1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SHEET 7 OF 10
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RESET\
CLKOUT
OUTDATA
VCC
SW1 SW DIP-6
U43 231154 (27V10H)
U44 231153 (16R4)
U45 74LS138
U47 74HC85
U40 26LS32
U41 26LS32
U42 26LS31
U46A LM339
U46B LM339
U46C LM339
U46D LM339
C103 .15 +35V +/-10%
Z16C 15K
Z18A 15K
Z18B 15K
Z18D 15K
Z18E 15K
Z18F 15K
Z18G 15K
Z18H 15K
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Z17B 10K
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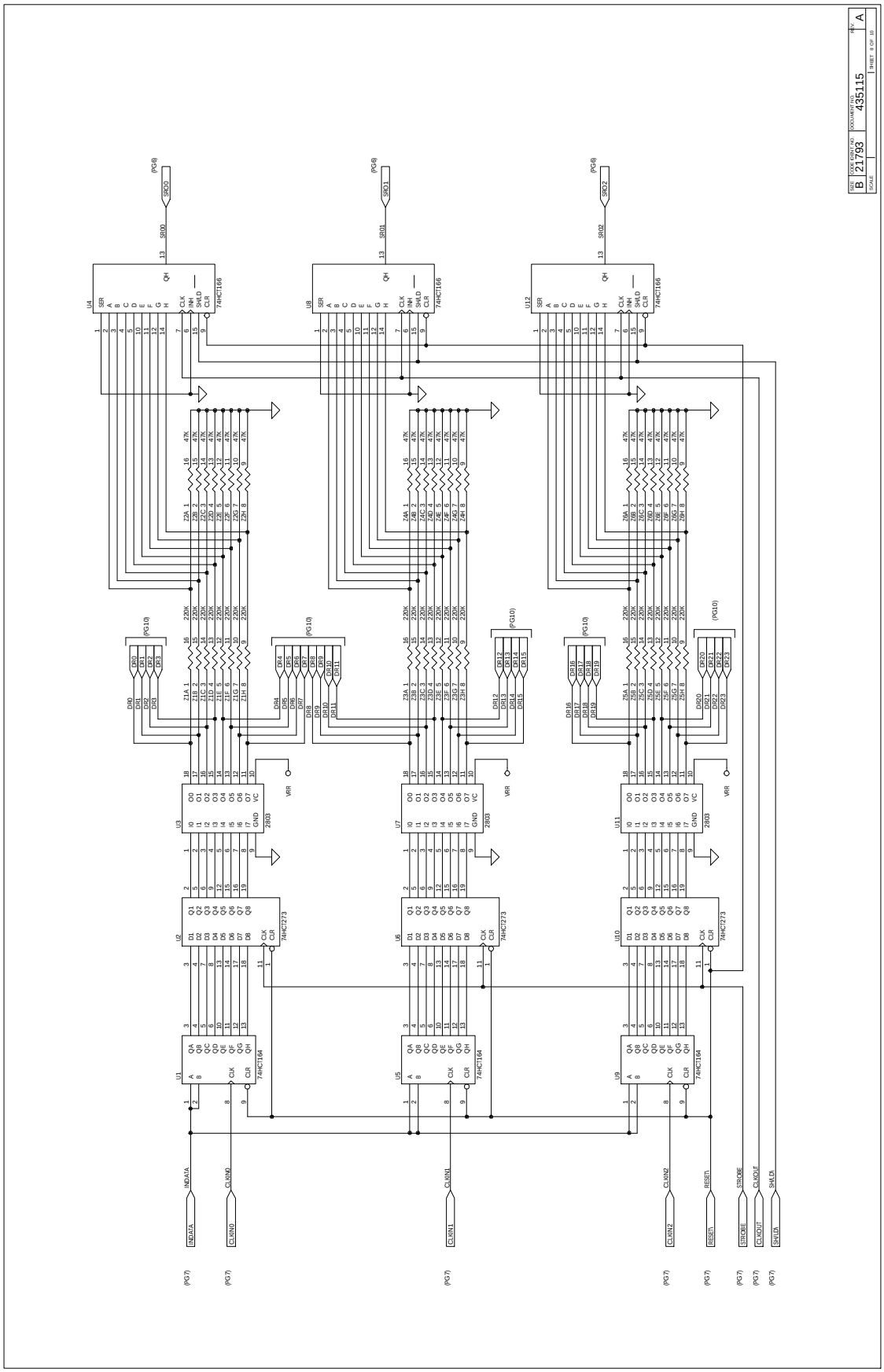
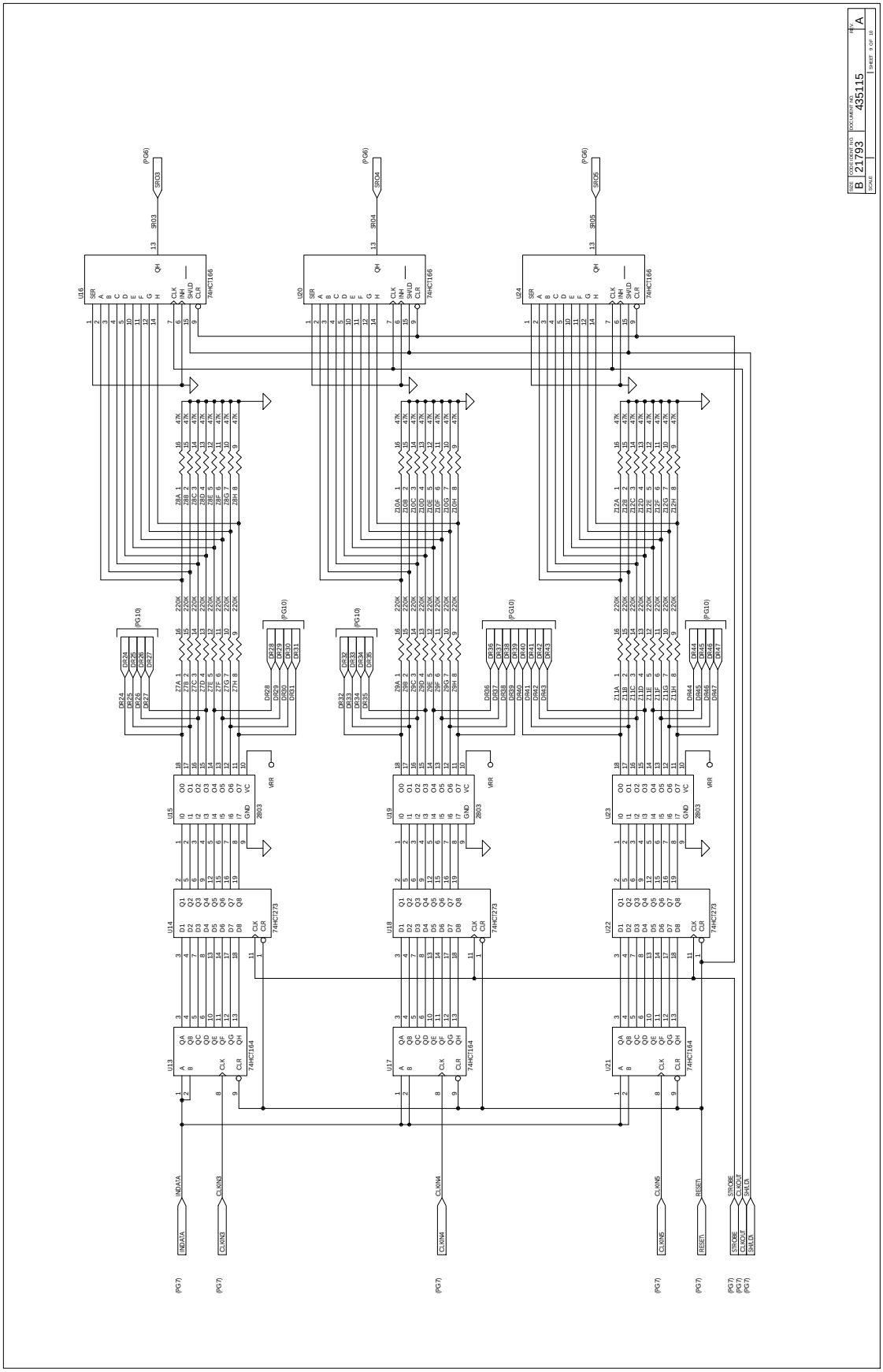
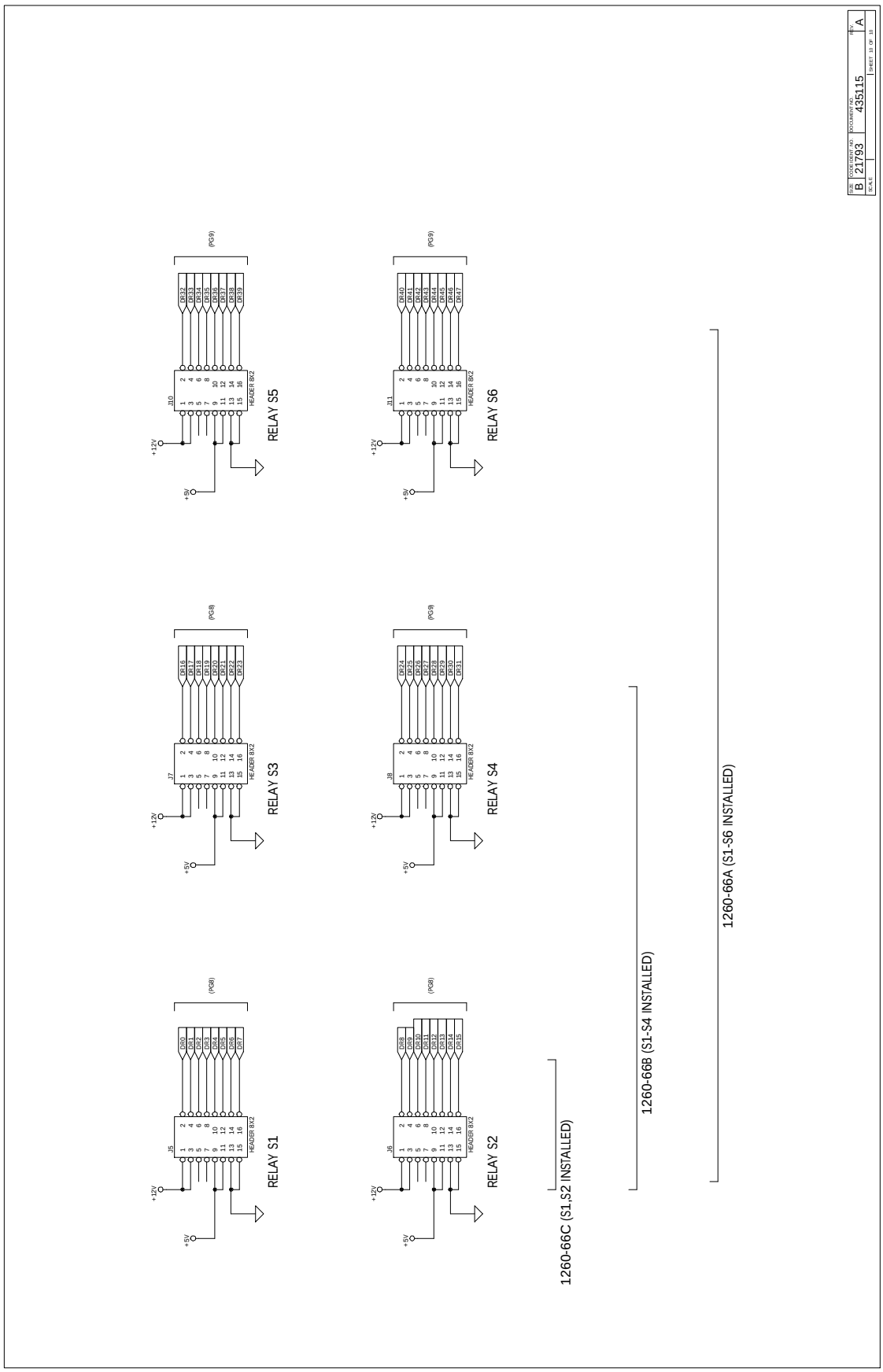
BA[0..13]
DB[0..1]






SIZE
B
DOCUMENT NO
21793
REV
A
SCALE
SHEET 10 OF 10
435115
RELAY S1
RELAY S2
RELAY S3
RELAY S4
RELAY S5
RELAY S6
+12V
+5V
HEADER 8X2
1260-66C (S1,S2 INSTALLED)
1260-66B (S1-S4 INSTALLED)
1260-66A (S1-S6 INSTALLED)

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
		DOCUMENT CONTROL RELEASE		
		REVISED PER EO NO.		
		REVISED PER EO NO.		
		REVISED PER EO NO.		

NOTES: UNLESS OTHERWISE SPECIFIED.

1. SEE "TABLE I - WIRE LIST" FOR CONTACT ASSIGNMENTS AND CONNECTIONS.
2. TERMINATE BRAIDED SLEEVING (ITEM 14) AT BOTH ENDS WITH YELLOW SHRINK TUBING MARKED WITH REF DES APPROX. WHERE SHOWN. SEE NOTE 3 FOR MARKING DETAILS.
3. MARK J- OR P-- PER "TABLE II - REF DES" ON YELLOW SHRINK TUBING (ITEM 13) APPROX. WHERE SHOWN.
4. PLACE CLEAR SHRINK TUBING (ITEM 12) OVER MARKING ON YELLOW SHRINK TUBING (ITEM 13).
5. INSTALL POLARIZATION PLUG (ITEM 4) FROM FRONT SIDE OF CONNECTOR (ITEM 3) INTO POSITION NO. 5 AS INDICATED.
6. ALL UNUSED CONTACT POSITIONS TO BE FILLED WITH CONTACTS (ITEM 2) WITH EXCEPTION OF POSITION NO. 5.
7. PACKAGE AND IDENTIFY WITH RACAL INSTRUMENTS PART NUMBER AND CURRENT REVISION LETTER CORRESPONDING TO RESPECTIVE REF. DES. PER TABLE II.

TABLE II - REF DES (3, 7)

CONFIG.	RELAY SIDE (J-)	PCB SIDE (P--)
407718-001	J1	P5
407718-002	J2	P6
407718-003	J3	P7
407718-004	J4	P8
407718-005	J5	P10
407718-006	J6	P11

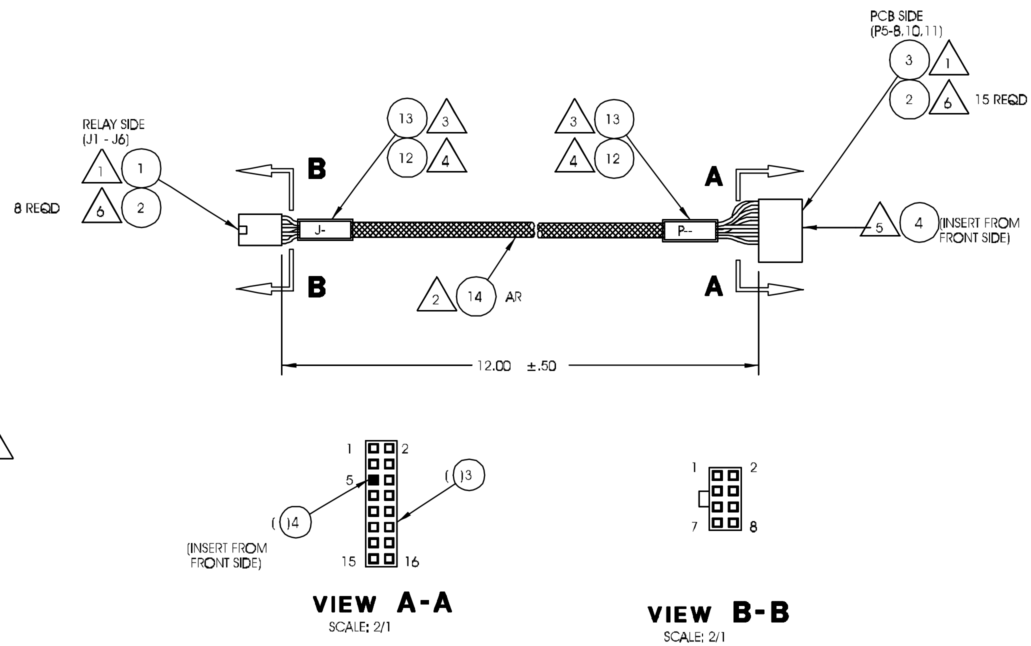

TABLE I - WIRE LIST (1)

WIRE #	RELAY SIDE (J-)	PCB SIDE (P--)	WIRE TYPE PART NO.	REFERENCE
1	PIN 2	PIN 1	24AWG ORG 524333	+12V
2	PIN 1	PIN 2	24AWG WHT 524999	CONTACT COIL 1
3	PIN 3	PIN 4	24AWG WHT 524999	CONTACT COIL 2
4	PIN 5	PIN 6	24AWG WHT 524999	CONTACT COIL 3
5	PIN 7	PIN 8	24AWG WHT 524999	CONTACT COIL 4
6	PIN 8	PIN 10	24AWG WHT 524999	CONTACT COIL 5
7	PIN 6	PIN 12	24AWG WHT 524999	CONTACT COIL 6

SEE SEPARATE PARTS LIST

RACAL Instruments, Inc.
4 Goodyear St.,Irvine,CA.92718-2002

TITLE: CABLE ASSY,1260-67

SIZE: C | CAGE CODE: 21793 | DWG NO: 407718 -001/-006 | REV: A
SCALE: 1/1 | SHEET 1 OF 1

DWG. NO. 407718-001/-006 | SH. 1 | REV. A

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Chapter 5
PARTS LIST

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RACAL INSTRUMENTS INC

Assembly 407716-001 1260-67A,6 SP6T M/w SW,18GHZ-D Date 10/11/99 Revision A

#	Component	Description	U/M	Qty Reqd	REF
1	310284	RLEM-1P6T12V0033	EA	6.00000	S1-S6
3	405115	PCB ASSY, 1260-66 RELAY DRIVE	EA	1.00000	
4	407717	SHIPPING KIT,1260-67 B&T	EA	1.00000	
5	407718-001	CABLE ASSY, 1260-67, #1	EA	1.00000	
6	407718-002	CABLE ASSY, 1260-67, #2	EA	1.00000	
7	407718-003	CABLE ASSY, 1260-67, #3	EA	1.00000	
8	407718-004	CABLE ASSY, 1260-67, #4	EA	1.00000	
9	407718-005	CABLE ASSY, 1260-67, #5	EA	1.00000	
10	407718-006	CABLE ASSY, 1260-67, #6	EA	1.00000	
11	455781	PANEL, REAR, SINGLE	EA	1.00000	
12	456803	PANEL ASSY, FRONT, 1260-67	EA	1.00000	
13	456804	COVER, SIDE,RIGHT, 1260-67	EA	1.00000	
14	456805	COVER, SIDE,LEFT, 1260-67	EA	1.00000	
16	456806-001	PANEL,TOP, 1260-67	EA	1.00000	
17	456806-002	PANEL,BOTTOM, 1260-67	EA	1.00000	
21	611264	HAN DLE-EXT-BOT	EA	1.00000	
22	611265	HAN DLE-EXT-TOP	EA	1.00000	
23	611266	MOUNTING HDW, HANDLE	EA	.50000	
26	615014	S1M-PPANH002-S6X.250	EA	24.00000	w/ITEM 1
27	615539	S1M-PFL1H004-40X. 125	EA	28.00000	
28	615542	S1M-PFL1H004-40X. 312	EA	2.00000	
32	616405	S1MPFL9-M2. 5x0. 45x12	EA	2.00000	
33	616480	S1F-PFL8HOO4- x. 375	EA	8.00000	
35	617126	W1S002. 165D. 01ST. 088	EA	24.00000	w/ITEM 1
36	617168	W2F004.250D.100T.128NY-NT	EA	2.00000	
41	921059	LABEL-CAUTION-STATIC	EA	1.00000	
42	921148-001	LABEL SET,VXI	EA	1.00000	
43	921309	LABEL, VXI SWTCH IDENT.	EA	1.00000	
49	SP-152-CA	1260 CARD PAK	EA	1.00000	SHIP CARTON

RACAL INSTRUMENTS INC.

Assembly 407716-002 1260-67B,4 SP6T M/w SW,18GHZ-D Date 10/11/99 Revision A

#	Component	Description	U/M	Qty Regd	REF
1	310284	RLEM-1P6T12V0033	EA	4.00000	S1-S4
3	405115	PCB ASSY, 1260-66 RELAY DRIVE	EA	1.00000	
4	407717	SHIPPING KIT,1260-67 B&T	EA	1.00000	
5	407718-001	CABLE ASSY, 1260-67, #1	EA	1.00000	
6	407718-002	CABLE ASSY, 1260-67, #2	EA	1.00000	
7	407718-003	CABLE ASSY, 1260-67, #3	EA	1.00000	
8	407718-004	CABLE ASSY, 1260-67, #4	EA	1.00000	
11	455781	PANEL, REAR, SINGLE	EA	1.00000	
12	456803	PANEL ASSY, FRONT, 1260-67	EA	1.00000	
13	456804	COVER, SIDE, RIGHT, 1260-67	EA	1.00000	
14	456805	COVER, SIDE, LEFT, 1260-67	EA	1.00000	
16	456806-001	PANEL,TOP, 1260-67	EA	1.00000	
17	456806-002	PANEL,BOTTOM, 1260-67	EA	1.00000	
18	456812	BLANKING PLATE, 1260-67	EA	2.00000	S5-S6
21	611264	HANDLE-EXT-BOT	EA	1.00000	
22	611265	HANDLE-EXT-TOP	EA	1.00000	
23	611266	MOUNTING HDW, HANDLE	EA	.50000	
26	615014	S1M-PPANH002-56X.250	EA	24.00000	w/ITEM 1&18
27	615539	S1M-PFL1H004-40X. 125	EA	28.00000	
28	615542	S1M-PFL1H004-40X.312	EA	2.00000	
32	616405	S1MPFL9-M2. 5x0. 45x12	EA	2.00000	
33	616480	51F-PFL8H004- x. 375	EA	8.00000	
35	617126	W1S002. 165D. 01ST. 088	EA	24.00000	w/ITEM 1&18
36	617168	W2F004. 250D. 100T 128NY-NT	EA	2.00000	
41	921059	LABEL-CAUTION-STATIC	EA	1.00000	
42	921148-001	LABEL SET,VXI	EA	1.00000	
43	921309	LABEL, VXI SWTCH IDENT.	EA	1.00000	
49	SP-1 52-CA	1260 CARD PAK	EA	1.00000	SHIP CARTON

RACAL INSTRUMENTS INC.

Assembly 407716-003 1260-67C,2 SP6T M/w SW,18GHZ-D Date 10/11/99 Revision A

#	Component	Description	U/M	Qty Reqd	REF
1	310284	RLEM-1P6T12V0033	EA	2.00000	S1-S2
3	405115	PCB ASSY, 1260-66 RELAY DRIVE	EA	1.00000	
4	407717	SHIPPING KIT, 1260-67 B&T	EA	1.00000	
5	407718-001	CABLE ASSY, 1260-67, #1	EA	1.00000	
6	407718-002	CABLE ASSY, 1260-67, #2	EA	1.00000	
11	455781	PANEL, REAR, SINGLE	EA	1.00000	
12	456803	PANEL ASSY, FRONT, 1260-67	EA	1.00000	
13	456804	COVER, SIDE,RIGHT, 1260-67	EA	1.00000	
14	4568 OS	COVER, SIDE, LEFT, 1260-67	EA	1.00000	
16	456806-001	PANEL, TOP, 1260-67	EA	1.00000	
17	456806-002	PANEL,BOTTOM, 1260-67	EA	1.00000	
18	456812	BLANKING PLATE, 1260-67	EA	4.00000	S3-S6
21	611264	HAN DLE-EXT-BOT	EA	1.00000	
22	611265	HAN DLE-EXT-TOP	EA	1.00000	
23	611266	MOUNTING HDW, HANDLE	EA	.50000	
26	615014	S1M-PPANH002-56X.250	EA	24.00000	w/ITEM 1&18
27	615539	S1M-PFL1H004-40X.125	EA	28.00000	
28	615542	S1M-PFL1H004-40X.312	EA	2.00000	
32	616405	S1MPFL9-M2.5x0 45x12	EA	2.00000	
33	616480	S1F-PFL8H004- x.375	EA	8.00000	
35	617126	W1S002. 165D.015T. 088	EA	24.00000	w/ITEM 1&18
36	617168	W2F004. 250D. 100T. 128NY-NT	EA	2.00000	
41	921059	LABEL-CAUTION-STATIC	EA	1.00000	
42	921148-001	LABEL SET,VXI	EA	1.00000	
43	921309	LABEL, VXI SWTCH IDENT.	EA	1.00000	
49	SP-1 52-CA	1260 CARD PAK	EA	1.00000	SHIP CARTON

405115 - PCB ASSY, 1260-66 RELAY DRIVE

REF DESIG	RACAL INST P/N	DESCRIPTION	FSC	MANUFACTURER'S P/N
C1	110126	CAP, TANTA, 6.8UF, 35V, 20 PERCENT	05397	T355F685M035A5
C2	110126	CAP, TANTA, 6.8UF, 35V, 20 PERCENT	05397	T355F685M035A5
C4-C7	110126	CAP, TANTA, 6.8UF, 35V, 20 PERCENT	05397	T355F685M035A5
C100-C102	R-21-1801	CAP, CHIP, 10 NF	95275	VJ12O6Y1O3MF
C103	110165	CAP, TANTA, .15 MF, 35V, 1OPCT	05397	T355A154K035A5
C104-C130	R-21-1801	CAP, CHIP, 10 NF	95275	VJ12O6Y1O3MF
C137	R-21-1801	CAP, CHIP, 10 NF	95275	VJ12O6Y1O3MF
C138	R-21-1801	CAP, CHIP, 10 NF	95275	VJ1206Y103MF
C161	R-21-1801	CAP, CHIP, 10 NF	95275	VJ12O6Y1O3MF
C162	R-21-1801	CAP, CHIP, 10 NF	95275	VJ12O6Y1O3MF
J3	601925	CONNECTOR, PCB, RECEPT, 3 ROW, 96P	52072	618008
J4	601.925	CONNECTOR, PCB, RECEPT, 3 ROW, 96P	52072	618008
J5-J11	601731	CONNECTOR, PCB, PLUG, 16-PIN	52072	CA-D16-23B-43
L1	100164	CAP, FEED-THRU,8OOPF, 50V	00779	842448-2
L2	310193	CHOKE, SHIELDED, SUH	91637	IH-5-5-10
L6	600245	JUMPER, INSULATED	52210	L-2007-1
L7	100164	CAP, FEED-THRU,8OOPF, 50V	00779	842448-2
L8	310193	CHOKE, SHIELDED, 50H	91637	IH-5-5-10
P1	601675-001	CONNECTOR, EUROCARD, 96 PIN MOD.	21793	601675-001
P2	601675-001	CONNECTOR, EUROCARD, 96 PIN MOD.	21793	601675-001
SW1	601969	SWITCH, DIP 6 POS, LOW PROFILE	65832	K4065
SW2	601969	SWITCH, DIP 6 POS, LOW PROFILE	65832	K4065
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	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U2	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U3	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U4	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U5	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U6	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U7	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U8	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U9	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U10	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U11	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U12	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U13	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U14	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U15	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U16	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U17	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U18	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U19	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U20	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U21	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U22	231130	IC, DIGITAL, FLIP FLOP	18324	PC74HC273
U23	231098	IC, SOIC TRANSISTOR	56289	ULN-2803LW
U24	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U33	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U34	231131	IC, DIGITAL, SHIFT REGISTER	18324	PC74HCT164D
U35	231120	IC, 8-BIT, PARALLEL/SERIAL OUT S.R.	18324	74HCT166D
U36	231152-001	IC, DIGITAL 16L8, PAL	21793	231152-001
U37	231147	IC, MULTIPLEXER	04713	74HC253D
U39	231147	IC, MULTIPLEXER	04713	74HC253D
U40	231096	IC, QUAD DIFF RECEIVER	01295	AM2 6L53 2ACD
U41	231096	IC, QUAD DIFF RECEIVER	01295	AM2 6LS32ACD
U42	231125	IC, DIGITAL, LINE DRIVER	27014	D526L531MN
U43	231154	IC, PROGRAMMED PLA	21793	231154

405115 - PCB ASSY, 1260-66 RELAY DRIVE Cont.

U44	231153	IC, PROGRAMMED PLA	21793	231153
U45	231094	IC, DEMUX DECODER	18324	N74L5138DI
U48	231093	IC, QUAD COMPARATOR	04713	LM339D
Z1	080119	RES NETWORK, 220K	91637	SOMC-1603-224KI
Z2	080117	RES NETWORK, 16P8R, 47K	73138	628-AL-473J
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	73138	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
Z17	080120	RES NETWORK, 10K	11236	767-161R1OK
Z18	080114	RES NETWORK, 16P8R, 15K	73138	628-AL-153J
Z23	080119	RES NETWORK, 220K	91637	SOMC-1603-224K
{43} 1	401951	PCB ASSY., LBUS JUMPER	21793	401951
{44} 1	401951-003	PCB ASSY., P3 JUMPER	21793	401951-003
{45} 1	415115	PCB, 1260-66 RELAY DRIVE (UNLOADED)	21793	415115
{53} 2	611260	STANOFF, SWG, 4-40 X 1.138L	51506	S1O7SHB1OS-1.138L
{55} 2	611367	STANDOFF, ROUND SWAGE, M3XO.5X4.3	06540	21003B-B-0350-28(L4.3l
{56} 2	610112	NUT, PRESS, 4-40	46384	KF2-440
{76} A/R	920450	ADHESIVE/SEALANT	01139	RTV-108

RACAL INSTRUMENTS INC.

Assembly 407718-001 CABLE ASSY, 1260-67, #1 Date 10/25/99 Revision A

#	Component	Description	U/H	Qty Reqd	REF
1	602372-008	CON-CAB-RCP008C. 1000D-KEYED	EA	1.00000	J1
2	602199-001	CONTACT, CRIMP, RECPT, 28-22GA	EA	23.00000	
3	602094-016	CON-CAB-RCP016C. 100D	EA	1.00000	P5
4	602094-900	POLARIZATION PLUG	EA	1.00000	
7	524333	WRTEF-STR24G-3-3-3 ORG	FT	.00001	
8	524999	WRTEF-STR24G-9-9-9 WHT	FT	.00001	
12	500056	TBGSRK-POF. 187 ID-CLEAR	FT	.00001	
13	H23053/5-105-4	TBGSRK-POF. 187 ID-YELLOW	FT	.00001	
14	GRP-110-1/8	TBGWOV-POY. 093 ID-BLACK	EA	.00001	

RACAL INSTRUMENTS INC.

Assembly 407718-002 CABLE ASSY, 1260-67, #2 Date 10/25/99 Revision A

#	Component	Description	U/H	Qty Reqd	REF
1	602372-008	CON-CAB-RCP008C. 1000D-KEYED	EA	1.00000	J2
2	602199-001	CONTACT, CRIMP, RECPT, 28-22GA	EA	23.00000	
3	602094-016	CON-CAB-RCP016C. 100D	EA	1.00000	P6
4	602094-900	POLARIZATION PLUG	EA	1.00000	
7	524333	WRTEF-STR24G-3-3-3 ORG	FT	.00001	
8	524999	WRTEF-STR24G-9-9-9 WHT	FT	.00001	
12	500056	TBGSRK-POF. 187 ID-CLEAR	FT	.00001	
13	H23053/5-105-4	TBGSRK-POF. 187 ID-YELLOW	FT	.00001	
14	GRP-110-1/8	TBGWOV-POY. 093 ID-BLACK	EA	.00001	

RACAL INSTRUMENTS INC.

Assembly 407718-003 CABLE ASSY, 1260-67, #3 Date 10/25/99 Revision A

#	Component	Description	U/H	Qty Reqd	REF
1	602372-008	CON-CAB-RCP008C. 1000D-KEYED	EA	1.00000	J3
2	602199-001	CONTACT, CRIMP, RECPT, 28-22GA	EA	23.00000	
3	602094-016	CON-CAB-RCP016C. 100D	EA	1.00000	P7
4	602094-900	POLARIZATION PLUG	EA	1.00000	
7	524333	WRTEF-STR24G-3-3-3 ORG	FT	.00001	
8	524999	WRTEF-STR24G-9-9-9 WHT	FT	.00001	
12	500056	TBGSRK-POF. 187 ID-CLEAR	FT	.00001	
13	H23053/5-105-4	TBGSRK-POF. 187 ID-YELLOW	FT	.00001	
14	GRP-110-1/8	TBGWOV-POY. 093 ID-BLACK	EA	.00001	

RACAL INSTRUMENTS INC.

Assembly 407718-004 CABLE ASSY, 1260-67, #4 Date 10/25/99 Revision A

#	Component	Description	U/H	Qty Reqd	REF
1	602372-008	CON-CAB-RCP008C. 1000D-KEYED	EA	1.00000	J4
2	602199-001	CONTACT, CRIMP, RECPT, 28-22GA	EA	23.00000	
3	602094-016	CON-CAB-RCP016C. 100D	EA	1.00000	P8
4	602094-900	POLARIZATION PLUG	EA	1.00000	
7	524333	WRTEF-STR24G-3-3-3 ORG	FT	.00001	
8	524999	WRTEF-STR24G-9-9-9 WHT	FT	.00001	
12	500056	TBGSRK-POF. 187 ID-CLEAR	FT	.00001	
13	H23053/5-105-4	TBGSRK-POF. 187 ID-YELLOW	FT	.00001	
14	GRP-110-1/8	TBGWOV-POY. 093 ID-BLACK	EA	.00001	

RACAL INSTRUMENTS INC.

Assembly 407718-005 CABLE ASSY, 1260-67, #5 Date 10/25/99 Revision A

#	Component	Description	U/H	Qty Reqd	REF
1	602372-008	CON-CAB-RCP008C. 1000D-KEYED	EA	1.00000	J5
2	602199-001	CONTACT, CRIMP, RECPT, 28-22GA	EA	23.00000	
3	602094-016	CON-CAB-RCP016C. 100D	EA	1.00000	P10
4	602094-900	POLARIZATION PLUG	EA	1.00000	
7	524333	WRTEF-STR24G-3-3-3 ORG	FT	.00001	
8	524999	WRTEF-STR24G-9-9-9 WHT	FT	.00001	
12	500056	TBGSRK-POF. 187 ID-CLEAR	FT	.00001	
13	H23053/5-105-4	TBGSRK-POF. 187 ID-YELLOW	FT	.00001	
14	GRP-110-1/8	TBGWOV-POY. 093 ID-BLACK	EA	.00001	

RACAL INSTRUMENTS INC.

Assembly 407718-006 CABLE ASSY, 1260-67, #6 Date 10/25/99 Revision A

#	Component	Description	U/H	Qty Reqd	REF
1	602372-008	CON-CAB-RCP008C. 1000D-KEYED	EA	1.00000	J6
2	602199-001	CONTACT, CRIMP, RECPT, 28-22GA	EA	23.00000	
3	602094-016	CON-CAB-RCP016C. 100D	EA	1.00000	P11
4	602094-900	POLARIZATION PLUG	EA	1.00000	
7	524333	WRTEF-STR24G-3-3-3 ORG	FT	.00001	
8	524999	WRTEF-STR24G-9-9-9 WHT	FT	.00001	
12	500056	TBGSRK-POF. 187 ID-CLEAR	FT	.00001	
13	H23053/5-105-4	TBGSRK-POF. 187 ID-YELLOW	FT	.00001	
14	GRP-110-1/8	TBGWOV-POY. 093 ID-BLACK	EA	.00001	

RACAL INSTRUMENTS INC.

Assembly 407717 SHIPPING KIT, 1260-67 Date 8/16/99 Revision A

#	Component	Description	U/H	Qty Reqd	REF
1	455540	KEY, LOCKOUT, TTL AC	EA	2.00000	
2	455541	KEY, LOCKOUT, TTL, C	EA	2.00000	
3	455542	KEY, LOCKOUT, TTL, A	EA	2.00000	
4	615013	S1M-PPANH002-56X.188	EA	4.00000	
5	980673-061	MANUA, 1260-67 MODULE	EA	1.00000	

Chapter 6

OPTIONAL ASSEMBLIES

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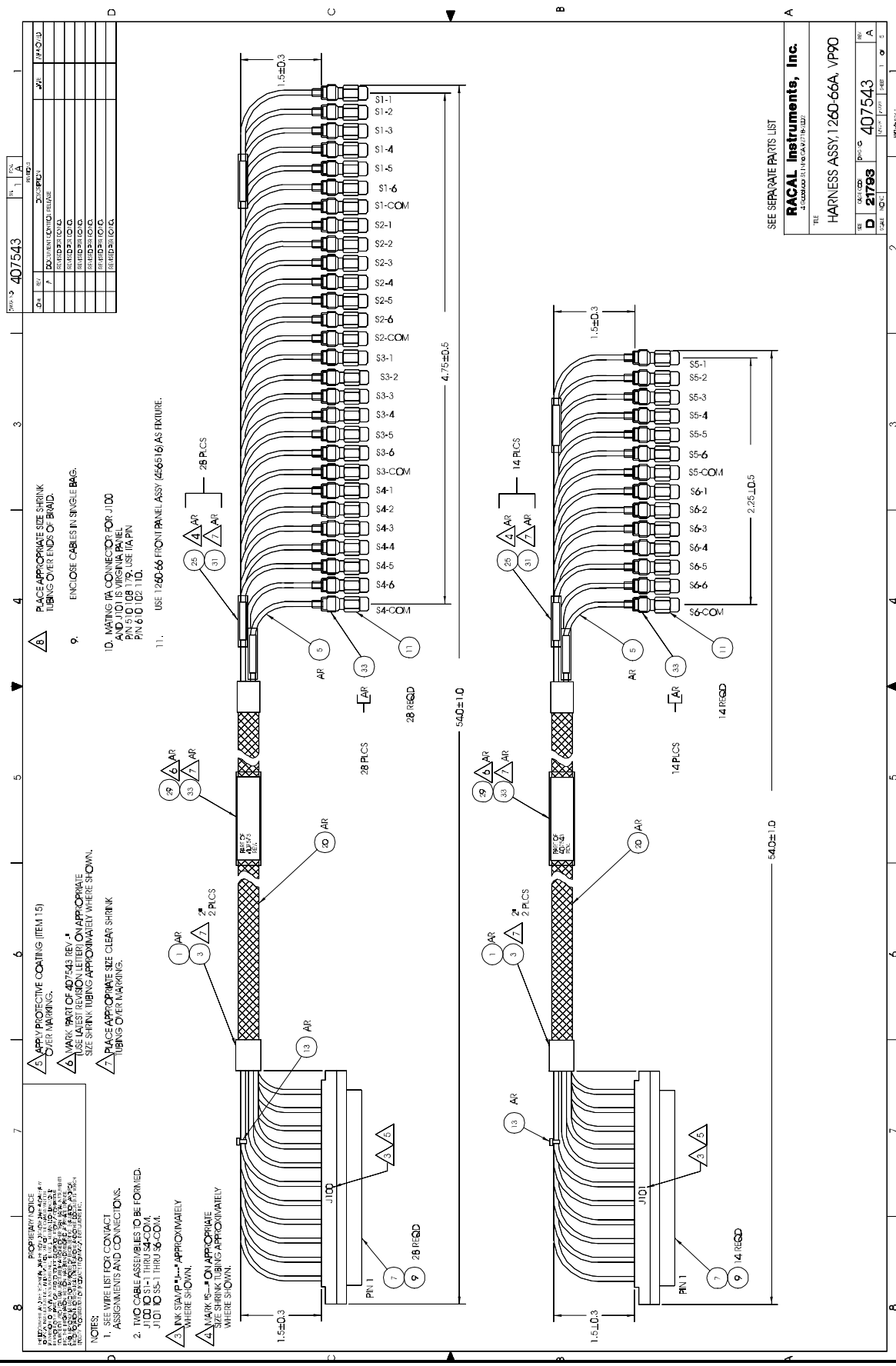
RACAL Instruments, Inc.
HARNESS ASSY, 1260-66A, VP90
407543
SEE SEPARATE PARTS LIST
J1D
J1D1
S1-1
S1-2
S1-3
S1-4
S1-5
S1-6
S1-COM
S2-1
S2-2
S2-3
S2-4
S2-5
S2-6
S2-COM
S3-1
S3-2
S3-3
S3-4
S3-5
S3-6
S3-COM
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S4-2
S4-3
S4-4
S4-5
S4-6
S4-COM
S5-1
S5-2
S5-3
S5-4
S5-5
S5-6
S5-COM
S6-1
S6-2
S6-3
S6-4
S6-5
S6-6
S6-COM
28 PLCS
14 PLCS
28 REQD
14 REQD
PIN 1
540±1.0
4.75±0.5
2.25±0.5
1.5±0.3

RACAL INSTRUMENTS INC.

Assembly 407543 HARNESS Assy, 1260-66A, VP90 Rev Date 3/03/99 Revision A

#	Component	Description	U/M	Qty Reqd	Ref
1	500005	TIE CORD NYLON	FT	.00001	
3	500017	TBGSRK-POF. 500 ID-BLACK	FT	.00001	
5	500317	CACX-SHD-01C2 8G-1STR	FT	.00001	
7	602201-010	CON-RCV-PLGO32C. ---D-VP9O	EA	2.00000	J100, 101
9	602201-908	CONTACT,COAX, 20GHZ, 5F142,VP	EA	42.00000	W/J100, 101
11	602231	CON-CXL-PLGOO1C.	EA	42.00000	S1-6
13	610777	TIE-CA-LKG- .062-. 750	EA	.00001	
15	910541	POLYURETHANE CONFORMAL COAT	EA	.00001	
20	GRP-110-1/2	TBGWOV-POY. 2501D-BLACK	FT	.00001	
25	M23053/5-104-4	TBGSRK-POF. 131D-YELLOW	FT	.00001	
29	M23053/5-109-4	TBGSRK- POF .7501 D-YELLOW	FT	.00001	
31	M23053/5-204-C	TBGSRK-POF. 1251D-CLEAR	FT	.00001	
33	M23053/5-209-C	TBGSRK-POF. 750 ID-CLEAR	FT	.00001	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
	BLK AA (J1OO)	Uxx-SLOT yy (S1-S4)	CABLE	407543		SYSTEM WIRE LIST
	BLK AA (J101)	Uxx-SLOT yy (S5,S6)	CABLE	407543		

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, 1260-66A, VP9O	A	21793	407543	A
	DRN		SHEET 2 of 5	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
1	J100-1 602201-908	S1-1 (602231)	COAX	500317	54"	S1-1
2	J100-2 602201-908	S1-2 (602231)	COAX	500317	54"	S1-2
3	J100-3 602201-908	S1-3 (602231)	COAX	500317	54"	S1-3
4	J100-4 602201-908	S1-4 (602231)	COAX	500317	54"	S1-4
5	J100-5 602201-908	S1-5 (602231)	COAX	500317	54"	S1-5
6	J100-6 602201-908	S1-6 (602231)	COAX	500317	54"	S1-6
7	J100-7 602201-908	S1-COM (602231)	COAX	500317	54"	S1-COM
8	J100-8 NO CONNECT					
9	J100-9 602201-908	S2-1 (602231)	COAX	500317	54"	S2-1
10	J100-10 602201-908	S2-2 (602231)	COAX	500317	54"	S2-2
11	J100-11 602201-908	S2-3 (602231)	COAX	500317	54"	S2-3
12	J100-12 602201-908	S2-4 (602231)	COAX	500317	54"	S2-4
13	J100-13 602201-908	S2-5 (602231)	COAX	500317	54"	S2-5
14	J100-14 602201-908	S2-6 (602231)	COAX	500317	54"	S2-6
15	J100-15 602201-908	S2-COM (602231)	COAX	500317	54"	S2-COM
16	J100-16 NO CONNECT					
17	J100-17 602201-908	S3-1 (602231)	COAX	500317	54"	S3-1
18	J100-18 602201-908	S3-2 (602231)	COAX	500317	54"	S3-2
19	J100-19 602201-908	S3-3 (602231)	COAX	500317	54"	S3-3
20	J100-20 602201-908	S3-4 (602231)	COAX	500317	54"	S3-4
21	J100-21 602201-908	S3-5 (602231)	COAX	500317	54"	S3-5
22	J100-22 602201-908	S3-6 (602231)	COAX	500317	54"	S3-6
23	J100-23 602201-908	S3-COM (602231)	COAX	500317	54"	S3-COM
24	J100-24 NO CONNECT					
25	J100-25 602201-908	S4-1 (602231)	COAX	500317	54"	S4-1

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-66A, VP9O	A	21793	407543	A
	DRN		SHEET 3 of 5	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
26	J100-26 602201-908	S4-2 (602231)	COAX	500317	54"	S4-2
27	J100-27 602201-908	S4-3 (602231)	COAX	500317	54"	S4-3
28	J100-28 602201-908	S4-4 (602231)	COAX	500317	54"	S4-4
29	J100-29 602201-908	S4-5 (602231)	COAX	500317	54"	S4-5
30	J100-30 602201-908	S4-6 (602231)	COAX	500317	54"	S4-6
31	J100-31 602201-908	S4-COM (602231)	COAX	500317	54"	S4-COM
32	J100-32 NO CONNECT					
33	J101-1 602201-908	S5-1 (602231)	COAX	500317	54"	S5-1
34	J101-2 602201-908	S5-2 (602231)	COAX	500317	54"	S5-2
35	J101-3 602201-908	S5-3 (602231)	COAX	500317	54"	S5-3
36	J1014 602201-908	S5-4 (602231)	COAX	500317	54"	S5-4
37	J101-S 602201-908	S5-5 (602231)	COAX	500317	54"	S5-5
38	J101-6 602201-908	S5-6 (602231)	COAX	500317	54"	S5-6
39	J101-7 602201-908	S5-COM (602231)	COAX	500317	54"	S5-COM
40	J101-8 NO CONNECT					
41	J101-9 602201-908	S6-1 (602231)	COAX	500317	54"	S6-1
42	J101-10 602201-908	S6-2 (602231)	COAX	500317	54"	S6-2
43	J101-11 602201-908	S6-3 (602231)	COAX	500317	54"	S6-3
44	J1O1-12 602201-908	S6-4 (602231)	COAX	500317	54"	S6-4
45	J101-13 602201-908	S6-5 (602231)	COAX	500317	54"	S6-5
46	J101-14 602201-908	S6-6 (602231)	COAX	500317	54"	S6-6
47	J101-15 602201-908	S6-COM (602231)	COAX	500317	54"	S6-COM
48	J101-16 NO CONNECT					
49	J101-17 NO CONNECT					

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

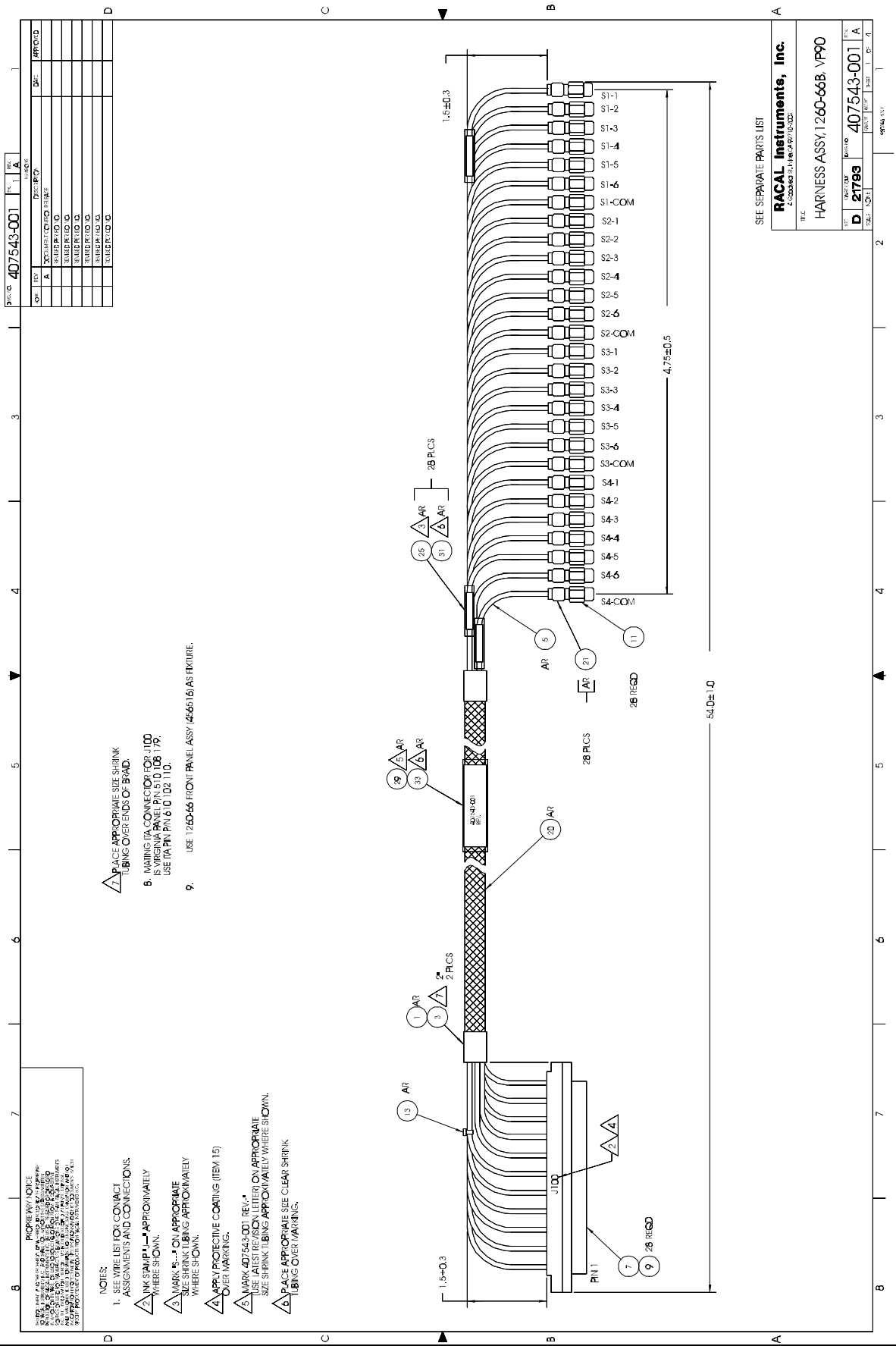
DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-66A, VP9O	A	21793	407543	A
	DRN		SHEET 4 of 5	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
50	3101-18 NO CONNECT					
51	3101-19 NO CONNECT					
52	3101-20 NO CONNECT					
53	3101-21 NO CONNECT					
54	3101-22 NO CONNECT					
55	3101-23 NO CONNECT					
56	3101-24 NO CONNECT					
57	3101-25 NO CONNECT					
58	3101-26 NO CONNECT					
59	3101-27 NO CONNECT					
60	3101-28 NO CONNECT					
61	3101-29 NO CONNECT					
62	3101-30 NO CONNECT					
63	3101-31 NO CONNECT					
64	3101-32 NO CONNECT					

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-66A, VP9O	A	21793	407543	A
	DRN		SHEET 5 of 5	


SEE SEPARATE PARTS LIST
RACAL Instruments, Inc.
HARNESS ASSY, 1260-66B, VPP0
D 21793
407543-001
A
S1-1
S1-2
S1-3
S1-4
S1-5
S1-6
S1-COM
S2-1
S2-2
S2-3
S2-4
S2-5
S2-6
S2-COM
S3-1
S3-2
S3-3
S3-4
S3-5
S3-6
S3-COM
S4-1
S4-2
S4-3
S4-4
S4-5
S4-6
S4-COM
28 PLCS
28 REQD
4.75±0.5
54.0±1.0
1.5±0.3
J1DD
PIN 1
NOTES:
1. SEE WIRE LIST FOR CONTACT ASSIGNMENTS AND CONNECTIONS.
2 INK STAMP "-" APPROXIMATELY WHERE SHOWN.
3 MARK "S-" ON APPROPRIATE SIZE SHRINK TUBING APPROXIMATELY WHERE SHOWN.
4 APPLY PROTECTIVE COATING (ITEM 15) OVER MARKING.
5 MARK 407543-001 REV.-" USE LATEST REVISION LETTER) ON APPROPRIATE SIZE SHRINK TUBING APPROXIMATELY WHERE SHOWN.
6 PLACE APPROPRIATE SIZE CLEAR SHRINK TUBING OVER MARKING.
7 PLACE APPROPRIATE SIZE SHRINK TUBING OVER ENDS OF BRAID.
8. MATING ITA CONNECTOR FOR J1DD IS VIRGINIA PANEL P/N 510 108 179; USE ITA PIN P/N 610 102 110.
9. USE 1260-66 FRONT PANEL ASSY (456516) AS FIXTURE.

RACAL INSTRUMENTS INC.

Assembly 407543-001 HARNESS Assy, 1260-66B, VP90 Rev Date 2/18/99 Revision A

#	Component	Description	U/M	Oty Reqd	Ref
1	500005	TIE CORD NYLON	FT	.00001	
3	500017	TBGSRK-POF. 500ID-BLACK	FT	.00001	
5	500317	CACX-SHD-01C28G-1STR	FT	.00001	
7	602201-010	CON-RCV-PLG032C. ---D-VP9O	EA	1.00000	J100
9	602201-908	CONTACT, COAX, 20GHZ, SF142,VP	EA	28.00000	w/J100
11	602231	CON-CXL-PLG001C.	EA	28.00000	S1-4
13	610777	TIE-CA-LKG-.062-. 750	EA	.00001	
15	910541	POLYURETHANE CONFORMAL COAT	EA	.00001	
20	GRP-110-1/2	TBGWOV-POY. 250ID-BLACK	FT	.00001	
21	M23053/5-207-C	TBGSRK-POF. 375ID-CLEAR	EA	.00001	
25	M23053/5-104-4	TBGSRK-POF. 13ID-YELLOW	FT	.00001	
29	M23053/5-109-4	TBGSRK-POF. 750ID-YELLOW	FT	.00001	
31	M23053/5-204-C	TBGSRK-POF. 125ID-CLEAR	FT	.00001	
33	M23053/5-209-C	TBGSRK-POF. 750ID-CLEAR	FT	.00001	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
	BLK AA (J100)	Uxx-SLOT yy (S1-S4)	CABLE	407543- 001		SYSTEM WIRE LIST

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, 1260-66B, VP9O	A	21793	407543-001	A
	DRN		SHEET 2 of 4	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART	WIRE LEN	REFERENCE
1	J100-1 602201-908	S1-1 (602231)	COAX	500317	54"	S1-1
2	J100-2 602201-908	S1-2 (602231)	COAX	500317	54"	S1-2
3	J100-3 602201-908	S1-3 (602231)	COAX	500317	54"	S1-3
4	J100-4 602201-908	S1-4 (602231)	COAX	500317	54"	S1-4
5	J100-5 602201-908	S1-5 (602231)	COAX	500317	54"	S1-5
6	J100-6 602201-908	S1-6 (602231)	COAX	500317	54"	S1-6
7	J100-7 602201-908	S1-COM (602231)	COAX	500317	54"	S1-COM
8	J100-8 NO CONNECT					
9	J100-9 602201-908	S2-1 (602231)	COAX	500317	54"	S2-1
10	J100-10 602201-908	S2-2 (602231)	COAX	500317	54"	S2-2
11	J100-11 602201-908	S2-3 (602231)	COAX	500317	54"	S2-3
12	J100-12 602201-908	S2-4 (602231)	COAX	500317	54"	S24
13	J100-13 602201-908	S2-5 (602231)	COAX	500317	54"	S2-S
14	J100-14 602201-908	S2-6 (602231)	COAX	500317	54"	S2-6
15	J100-15 602201-908	S2-COM (602231)	COAX	500317	54"	S2-COM
16	J100-16 NO CONNECT					
17	J100-17 602201-908	S3-1 (602231)	COAX	500317	54"	S3-1
18	J100-18 602201-908	S3-2 (602231)	COAX	500317	54"	S3-2
19	J100-19 602201-908	S3-3 (602231)	COAX	500317	54"	S3-3
20	J100-20 602201-908	S3-4 (602231)	COAX	500317	54"	S3-4
21	J100-21 602201-908	S3-5 (602231)	COAX	500317	54"	S3-5
22	J100-22 602201-908	S3-6 (602231)	COAX	500317	54"	S3-6
23	J100-23 602201-908	S3-COM (602231)	COAX	500317	54"	S3-COM
24	J100-24 NO CONNECT					
25	J100-25 602201-908	S4-1 (602231)	COAX	500317	54"	S4-1

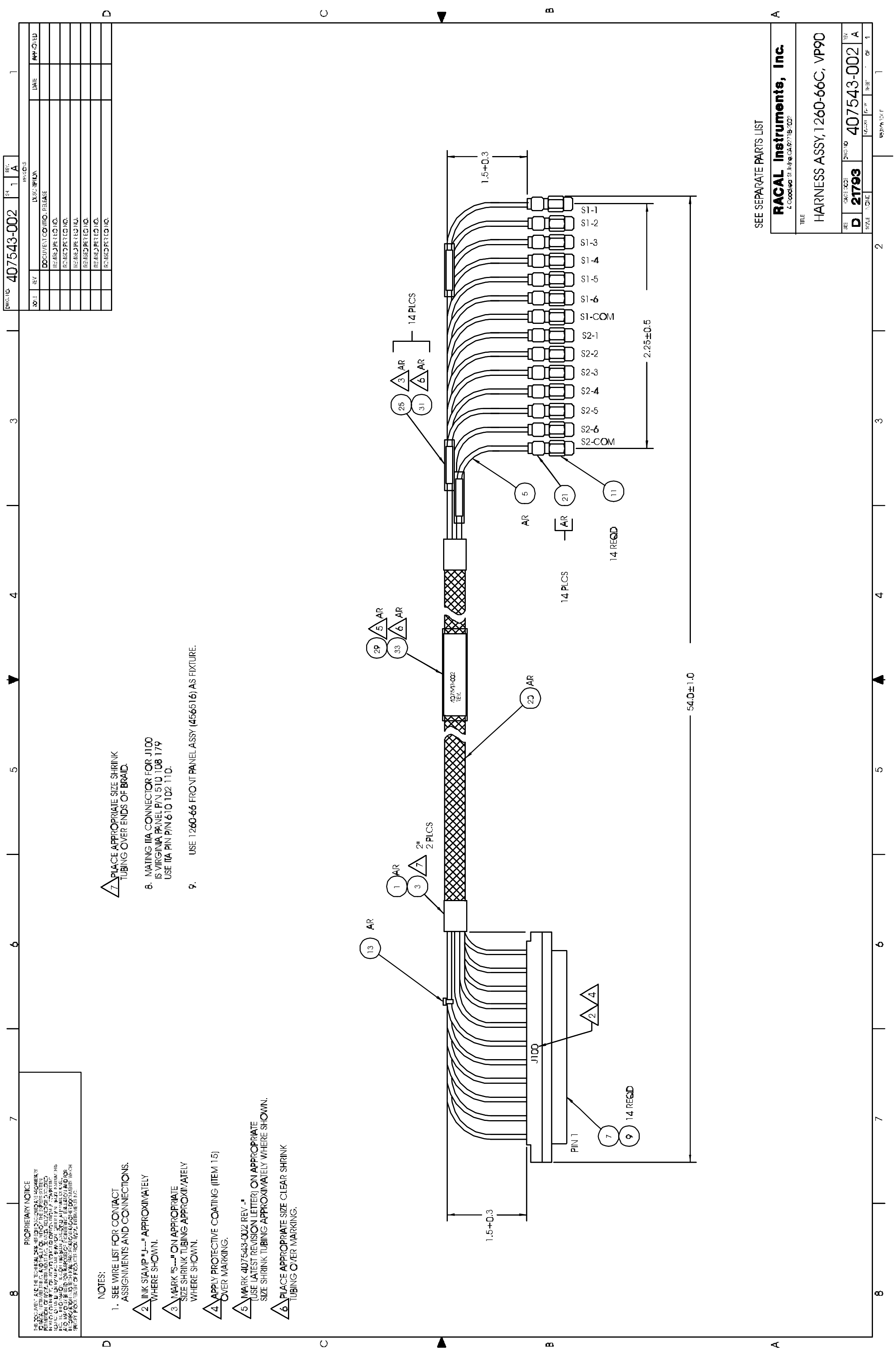
RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-66B, VP9O	A	21793	407543-001	A
	DRN		SHEET 3 of 4	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
26	J100-26 602201-908	S4-2 (602231)	COAX	500317	54"	S4-2
27	J100-27 602201-908	S4-3 (602231)	COAX	500317	54"	S4-3
28	J100-28 602201-908	S4-4 (602231)	COAX	500317	54"	S4-4
29	J100-29 602201-908	S4-5 (602231)	COAX	500317	54"	S4-5
30	J100-30 602201-908	S4-6 (602231)	COAX	500317	54"	S4-6
31	J100-31 602201-908	S4-COM (602231)	COAX	500317	54"	S4-COM
32	J100-32 NO CONNECT					

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718				
DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-66B, VP9O	A	21793	407543-001	A
	DRN		SHEET 4 of 4	


PROPRIETARY NOTICE
NOTES:
1. SEE WIRE LIST FOR CONTACT ASSIGNMENTS AND CONNECTIONS.
2 INK STAMP "J---" APPROXIMATELY WHERE SHOWN.
3 MARK "S---" ON APPROPRIATE SIZE SHRINK TUBING APPROXIMATELY WHERE SHOWN.
4 APPLY PROTECTIVE COATING (ITEM 15) OVER MARKING.
5 MARK 407543-002 REV -" (USE LATEST REVISION LETTER) ON APPROPRIATE SIZE SHRINK TUBING APPROXIMATELY WHERE SHOWN.
6 PLACE APPROPRIATE SIZE CLEAR SHRINK TUBING OVER MARKING.
7 PLACE APPROPRIATE SIZE SHRINK TUBING OVER ENDS OF BRAID.
8. MATING ITA CONNECTOR FOR J100 IS VIRGINIA PANEL P/N 510 108 179 USE ITA PIN P/N 610 102 110.
9. USE 1260-66 FRONT PANEL ASSY (456516) AS FIXTURE.
DWG NO. 407543-002 SH 1 REV A
REVISIONS
ZONE
REV
DESCRIPTION
DATE
APPROVED
DOCUMENT CONTROL RELEASE
J100
PIN 1
14 REQD
14 PLCS
2" 2 PLCS
AR
1.5±0.3
54.0±1.0
2.25±0.5
S1-1
S1-2
S1-3
S1-4
S1-5
S1-6
S1-COM
S2-1
S2-2
S2-3
S2-4
S2-5
S2-6
S2-COM
SEE SEPARATE PARTS LIST
RACAL Instruments, Inc.
TITLE
HARNESS ASSY, 1260-66C, VP90
D
21793
407543-002
A

RACAL INSTRUMENTS INC.

Assembly 407543-002 HARNESS Assy, 1260-66C, VP90 Rev Date 2/18/99 Revision A

#	Component	Description	U/M	Qty Reqd	Ref
1	5000 OS	TIE CORD NYLON	FT	.00001	
3	500017	TBGSRK-POF. 500ID-BLACK	FT	.00001	
5	500317	CACX-SHD-01C28G-1STR	FT	.00001	
7	602201-010	CON-RCV-PLG032C. ---D-VP90	EA	1.00000	J100
9	602201-908	CONTACT, COAX, 20GHZ, SF142,VP	EA	14.00000	W/J100
11	602231	CON-CXL-PLG001C.	EA	14.00000	S1-2
13	610777	TIE-CA-LKG-. 062-. 750	EA	.00001	
15	910541	POLYURETHANE CONFORMAL COAT	EA	.00001	
20	GRP-110-1/2	TBGWOV-POY. 250ID-BLACK	FT	.00001	
21	M23053/5-207-C	TBGSRK-POF. 375ID-CLEAR	EA	.00001	
25	M23053/5-104-4	TBGSRK-POF. 13ID-YELLOW	FT	.00001	
29	M23053/5-109-4	TBGSRK-POF. 750ID-YELLOW	FT	.00001	
31	M23053/5-204-C	TBGSPK-POF. 125ID-CLEAR	FT	.00001	
33	M23053/5-209-C	TBGSRK-POF . 750ID-CLEAR	FT	.00001	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
	BLK AA (3100)	Uxx-SLOT yy (S1-S2)	CABLE	407543-002		SYSTEM WIRE UST

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, 1260-66C, VP9O	A	21793	407543-002	A
	DRN		SHEET 2 of 4	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
1	J100-1 602201-908	S1-1 (602231)	COAX	500317	54"	S1-1
2	J100-2 602201-908	S1-2 (602231)	COAX	500317	54"	S1-2
3	J100-3 602201-908	S1-3 (602231)	COAX	500317	54"	S1-3
4	J100-4 602201-908	S1-4 (602231)	COAX	500317	54"	S1-4
S	J100-5 602201-908	S1-5 (602231)	COAX	500317	54"	S1-5
6	J100-6 602201-908	S1-6 (602231)	COAX	500317	54"	S1-6
7	J100-7 602201-908	S1-COM (602231)	COAX	500317	54"	S1-COM
8	J100-8 NO CONNECT					
9	J100-9 602201-908	S2-1 (602231)	COAX	500317	54"	S2-1
10	J100-10 602201-908	S2-2 (602231)	COAX	500317	54"	S2-2
11	J100-11 602201-908	S2-3 (602231)	COAX	500317	54"	S2-3
12	J100-12 602201-908	S2-4 (602231)	COAX	500317	54"	S2-4
13	J100-13 602201-908	S2-S (602231)	COAX	500317	54"	S2-5
14	J100-14 602201-908	S2-6 (602231)	COAX	500317	54”	S2-6
15	J100-15 602201-908	S2-COM (602231)	COAX	500317	54"	S2-COM
16	J100-16 NO CONNECT					
17	J100-17 NO CONNECT					
18	J100-18 NO CONNECT					
19	J100-19 NO CONNECT					
20	J100-20 NO CONNECT					
21	J100-21 NO CONNECT					
22	J100-22 NO CONNECT					
23	J100-23 NO CONNECT					
24	J100-24 NO CONNECT					
25	J100-25 NO CONNECT					

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

DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-66C, VP9O	A	21793	407543-002	A
	DRN		SHEET 3 of 4	

ENGINEERING WIRE LIST

WIRE	FROM	TO	TYPE	PART #	WIRE LEN	REFERENCE
26	J100-26 NO CONNECT					
27	J100-27 NO CONNECT					
28	J100-28 NO CONNECT					
29	J100-29 NO CONNECT					
30	J100-30 NO CONNECT					
31	J100-31 NO CONNECT					
32	J100-32 NO CONNECT					

RACAL Instruments, Inc., 4 Goodyear St., Irvine, CA 92718				
DOCUMENT TITLE	SIZE	CODE NO.	DOCUMENT NO.	REV
HARNESS ASSEMBLY, 1260-66C, VP9O	A	21793	407543-002	A
	DRN		SHEET 4 of 4	

Chapter 7

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 closes to your facility, refer to the Support Offices section on the following page.

Reshipment Instructions

Use the original packing material when returning the 1260-67 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