Model 3000-4320A
8(1x4) Multiplexers
90401351

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Warranty

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Regulatory compliance information

This product complies with the essential requirements of the following applicable European Directives, and carries the CE mark accordingly.

89/336/EEC and 73/23/EEC	EMC Directive and Low Voltage Directive
EN61010-1 (1993)	Electrical Safety
EN61326-1 (1997)	EMC – Emissions and Immunity
Manufacturer's Name:	**Manufacturer's Address**
Giga-tronics, Incorporated	4650 Norris Canyon Road San Ramon, California 94583 U.S.A.
Type of Equipment:	**Model Series Number**
Switching Module	3000-4320

Declaration of Conformity on file. Contact Giga-tronics at the following;

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Record of Changes to This Manual

Use the table below to maintain a permanent record of changes to this document. Corrected replacement pages are issued as Technical Publication Change Instructions (TPCI). When you are issued a TPCI, do the following:

1. Insert the TPCI at the front of the manual binder.
2. Remove the pages from the manual binder that are noted in the TPCI.
3. Replace the page(s) removed in the previous step with the corrected page(s).
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TPCI Number	TPCI Issue Date	Date Entered	Comments

Revision History			
Revision	**Description of Change**	**Chg Order #**	**Approved By**
	Initial Release		
A	Updated 6/02		
C	Reformatted 3/12		RCW

Contents

Chapter 1 **Introduction**

1.1 Safety and Manual Conventions

This manual contains conventions regarding safety and equipment usage as described below.

1.1.1 Product Reference

Throughout this manual, the term “Common Core Switching Platform, Series 8800” refers to all models of within the series, unless otherwise specified.

1.1.2 Personal Safety Alert

WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

1.1.3 Equipment Safety Alert

CAUTION: Indicates a situation which can damage or adversely affect the product or associated equipment.

1.1.4 Notes

Notes are denoted and used as follows:

NOTE: Highlights or amplifies an essential operating or maintenance procedure, practice, condition or statement.

1.1.5 Electrical Safety Precautions

Any servicing instructions are for use by service-trained personnel only. To avoid personal injury, do not perform any service unless you are qualified to do so.

For continued protections against fire hazard, replace the AC line fuse only with a fuse of the same current rating and type. Do not use repaired fuses or short circuited fuse holders.

Chapter 2 **Configuration Table**

PL 90401350

ASM 90401350

PL 85001350-006

ASM 85001350-006

SCH 85001350-006

PL = PARTS LIST, ASM = ASSEMBLY DRAWING, SCH = SCHEMATIC.

Chapter 3 **Functional Description**

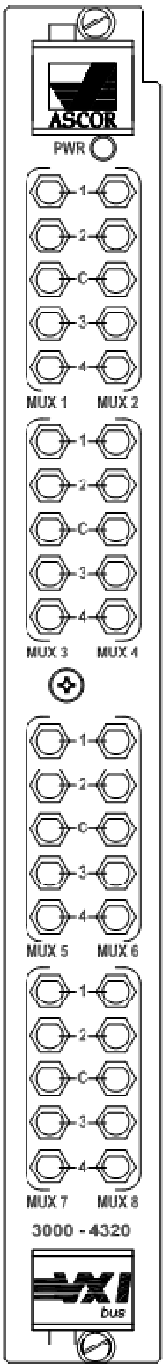
3.1 Introduction

The ASCOR VXI 3000-4320 consists of eight independent 1x4 matrixes. Each matrix has a minimum bandwidth of 1.3 GHz. This module can be used as a direct interchange for the Tektronix VXI module VX4320. Each relay is independently controlled and can be independently opened or closed under program control.

3.2 General Description

The 3000-4320 is a direct hardware replacement for the Tektronix VX4320. The same front panel connectors, the same signals come to the same pins, and the specifications are the same or better. No special cables or adapter are necessary. ASCOR also provides a software driver which will run both the VX4320 and the 3000-4320.

Chapter 4 **Front Panel**

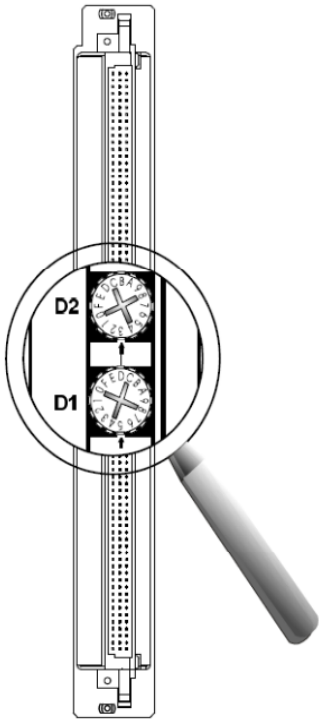


Chapter 5 Controls and Indicators

The following controls and indicators are provided to select and display the functions of the ASCOR 3000-4320 Module's operating environment.

5.1 VXI Logical Address

The Logical Address Switch is dual circular switches, D1 and D2 which are located at the rear of the module. The address can be set to any value between 1 and 255 (decimal) or 1 and FF (hexadecimal), (address 0 is reserved for the resource manager). However, the Module fully supports Dynamic Configuration as defined in ***Section F of the VXI specification,*** address 255 (FF) should be selected only if the Resource Manager also supports Dynamic Configuration.



5.2 LEDs

The following LEDs are visible at the Module's front panel to indicate the

status of the module's operation:

5.2.1 "BUS" LED

This green color LED is normally off and will flash on when the module is addressed by the system.

5.2.2 "PWR" LED

This red color LED is normally on when the Module is Powered up.

Chapter 6 Internal Settings

The following items are inside the module and can be reached by removing the side cover.

6.1 Fuse

The ASCOR VXI 3000-4320 uses a 5 Amp fuse in the +5 Volt line and a 5 A fuse in the +12 Volt line. If any fuse opens, remove the fault before replacing the fuse to avoid any other damage.

6.2 DIGITAL/ ANALOG GROUND CONNECTION

Digital Ground (DGND) and Analog Ground (AGND) are connected at the factory via the following connections:

J81-1 to J81-4

J81-2 to J81-3

6.3 VXI_{bus} Interrupt Level Selection

The VXIbus interrupt level is set with three bits in the “3Eh” register.

See the section on “A16 ADDRESS SPACE REGISTER DESCRIPTION”.

The interrupt level is factory set to “no interrupt”.

Chapter 7 **Specifications**

Configuration :	Eight independent 1x4 matrices
Relay Type :	Aromat RG2ET-5V and RG1ET-5V
Contact Ratings :	Switching Current (MAX) = 1A Switching Voltage (MAX) = 24V DC Switching Power (MAX) = 24W
Initial Resistance :	< 0.29 Ohms
VSWR :	< 1.09 @ 130 MHz < 1.98 @ 500 MHz < 2.34 @ 1.0 GHz < 2.38 @ 1.3 GHz
Bandwidth :	> 1.3 GHZ
Cross Talk :	> -46.17 dB @ 1.3 GHz
Insertion Loss :	< -1.25 @ 1.3 GHz
Propagation Delay :	< 2.57 ps
Operational Life :	5 X 10e6
VXI Compatibility :	Fully compatible with VXI Specification REV. 1.0 .
VXI Device Type :	VXI register based with ASCOR driver.
VXI Card Size :	C size, one slot wide.
Power Requirements :	5 volts @ 2.2 amps (max)
Temperature :	0°C to +50°C, operating -40°C to +85°C, storage
Humidity	< 95% R.H., non-condensing, 0°C to +30°C. < 75% R.H., non-condensing, +31°C to +40°C < 45% R.H., non-condensing, +41°C to +50°C
VXI Bus Radiated Emissions :	Complies with VXIbus Specification
VXI Bus Conducted Emissions :	Complies with VXIbus Specification.

Dimensions :	VXI C size ; 10.3in x 13.8in x 1.2in
Weight :	3 lbs.
Front Panel Connectors :	SMB Connectors Retconn #511-880-0630N

Chapter 9 **Register Map**

	REGISTER	REGISTER
	8000h	8000h
RELAY	16 BIT	32 BIT
K1	**0**	**0**
K2	**1**	**1**
K3	**2**	**2**
K4	**3**	**3**
K5	**4**	**4**
K6	**5**	**5**
K7	**6**	**6**
K8	**7**	**7**
K9	**8**	**8**
K10	**9**	**9**
K11	**10**	**10**
K12	**11**	**11**
K13	**12**	**12**
K14	**13**	**13**
K15	**14**	**14**
K16	**15**	**15**

Chapter 10 **Front Panel Pin List**

	MUX 1	MUX 2	MUX 3	MUX 4	MUX 5	MUX 6	MUX 7	MUX 8
INPUT	1	1	1	1	1	1	1	1
INPUT	2	2	2	2	2	2	2	2
COMMON	C	C	C	C	C	C	C	C
INPUT	3	3	3	3	3	3	3	3
INPUT	4	4	4	4	4	4	4	4

All SMA connector shields are connected to Analog Ground (AGND)