



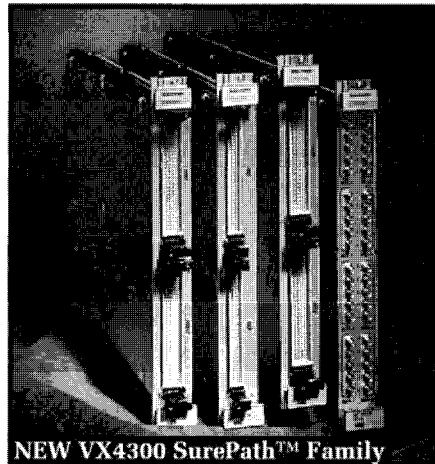
# Switching/Scanning

SWITCHING/SCANNING

*New VXI  
general purpose  
relay switching  
and scanning  
crosspoint  
matrix, and RF  
switching for all  
automatic test  
system and  
manufacturing  
test applications.*

## **New** VXI SWITCHING

- Relay Switching in SPST, SPDT, DPST, DPDT Configurations
- Relay Scanners Offer 1 Wire, 2 Wire, and 4 Wire Configurations up to 240 Channels Per Module
- Relay Matrix with 256 and 128 Cross Points, Latching and Non-latching Configurations
- 1.3 GHz RF Multiplexer Offers Eight One x Four Muxes in a Single Slot
- Relay Drivers/Solenoid Controllers to 50 V DC and 300 mA



*This VXI Interface and Slave Controller is installed on the first switch module. Additional modules are controlled from the Local Bus.*

## Switching

This year, Tektronix is introducing a new switching family architecture to our broad line of VXI switching products. The new SurePath™ switching family illustrates Tektronix' continued commitment to achieving greater levels of performance while driving the price of VXI below comparable GPIB rack and stack installations.

The initial introduction consists of four switching products:

- VX4320 1.3 GHz RF Mux usable to 2 GHz
- VX4330 120-CH Scanner/Mux
- VX4350 64 CH Relay Switching Module
- VX4380 256 Crosspoint Relay Matrix

## LOWER COST LOCAL BUS COMMUNICATIONS

All relay modules are controlled via the Local Bus on the VXI chassis backplane by a VXI Interface and Slave Control daughter board. Only a single daughter board is required to control a full chassis of these new relay switching modules.

## LOW NOISE MODE

A unique feature of the new family of switching modules is that the VXI interface and relay controller daughter board goes to a quiescent mode when not actively in use. This mode greatly lowers the risk that digital noise within your VXI system can disturb low level measurements.

## IEEE-488.2/SCPI

Tektronix proves its commitment to open architecture and ease of use through the implementation of IEEE-488.2 commands and formats and SCPI programming structures. IEEE-488.2 and SCPI give the user an English language command set that self-documents the switching subsystem program.

## VXIplug&play FRONT PANELS

Tektronix, a founding member of the VXIplug&play alliance, is committed to wide spread availability of VXIplug&play soft front panels. There are easy to use soft front panels that enable the user to control each of these modules virtually right out of the box.

## BACKWARD COMPATIBLE

The SurePath™ family can be used to control the VX4372 2-wire and VX4374 4-wire scanner slave modules. The VX4372 and VX4374 are lower cost/channel density modules that allow the user to tailor the switching configuration to the needs of the UUT.

## EXPANDING ARCHITECTURE

The initial introduction of four SurePath™ switching modules is just the beginning. More switching modules are on the drawing board. New Tektronix non-switching modules will also implement the local bus control design for applications that will benefit from VXI switching.

## LATCHING RELAY DESIGN

Thermal EMF errors can be caused by relay contact heating as a result of leaving the relay coil energized for extended periods. Tektronix' SurePath™ family uses latching relays that are pulsed on or off. Not only do latching relays contribute to lower thermal EMF errors, but they will reduce overall chassis power consumption and, in the event of a VXI chassis AC fail signal, the user can choose to open all relays, maintain their present state or open all relays when power is reapplied. This allows the user to select the option that will most likely reduce the risk of damage to the UUT.

## INTERNATIONAL REGULATORY APPROVALS

Reduce your test system design risk by selecting VXI components that have been rigorously tested and certified. Don't jeopardize your system design with susceptible or radiating modules. A unique Tektronix shield and electrical design have allowed all members of the new family of switching modules to achieve:

- IEC 1010 Certification
- UL 1244/3111 Listing
- EC92 Compliance

For product detail, request a VXI Catalog by completing the business reply card in the back of this catalog.

## APPLICATIONS

- RF MUX
- Scanner/MUX
- Relay Switch
- MATRIX

# Switching/Scanning



## VX4320

- 1.3 GHz 3 dBpt usable to 2 GHz
- Eight groups of 1 x 4 muxes
- Each mux utilizes a tree configuration for outstanding RF characteristics
- Low Insertion Loss
- Excellent VSWR
- High Crosstalk Isolation

## VX4330

- Software configurable maximums:
- 120 CH 2-wire scanner multiplexer
  - 1X240 1-wire
  - 1X60 4-wire
  - Simultaneously and multiple 1-wire, 2-wire,
  - 4-wire configurations
  - 10 MHz 3 dBpt
  - 2 A continuous switching
  - 220 V AC or DC switching

## VX4350

- Low cost, high density
- 64 CH SPST or SPDT switches
- Each switch individually controlled
- 2 A continuous
- 220 V AC or DC switching

## VX4380

- 256 crosspoints
- Configure a single module as 2-wire or 4-wire
- No unique modules; each VX4380 can be configured as a 16 x 16 or 8 x 32 or 4 x 65
- Create large matrices by easily joining modules in either the X or Y dimensions

## VXI SWITCHING/SCANNING SELECTION GUIDE

Relay Switch	VX4350 64-CH	VX4353 32-CH	VX4355 24-CH	VX4356 20-CH	VX4357 32-CH	VX4363 32-CH	VX4365 24-CH	VX4366 20-CH	VX4367 32-CH
SPST	X	X				X			
SPDT	X		X		X		X		X
DPST			X				X		
DPDT				X				X	
Volts DC max	220	48	48	48	48	220	220	220	220
Volts AC max	260	250	250	250	250	250	250	250	250
Switching I <sub>max</sub>	2	5	5	5	5	2	2	2	2
Max Power VDC	50	90	90	90	90	60	60	60	60
Max VA	125	1,000	1,000	1,000	1,000	125	125	125	125
Scanner	VX4330	VX4332	VX4334	VX4372	VX4374				
Description	120-CH	40-CH	48-CH	24-CH	24-CH				
1-wire	X								
2-wire	X	X		X					
4-wire	X		X		X				
Volts DC max	220	200	200	200	200				
Volts AC max	260	120	120	120	120				
Switching I <sub>max</sub>	2	0.5	0.5	0.5	0.5				
Max Power VDC	60	10	10	10	10				
Max VA	125	10	10	10	10				
Matrix	VX4380 18X18-4X64	VX4385 8-18-4X32	VX4386 8X18-4-32						
X Cross points	268	128	128						
Expandable	yes	yes	yes						
Latching	X		X						
VoIt DC max	220	110	110						
Volts AC max	250	120	120						
Switching I <sub>max</sub>	2	1	1						
Max Power VDC	60	30	30						
Max VA	125	60	60						
Relay Control	73A-308								
Open Collector	X								
TTL Compatible									
No. of Channels	80								
RF Max	VX4320								
3 dB Point	1.3 GHz								
Typical	8 dB @ 2 GHz								
Configuration	8 Groups of 1x4 RF Muxes								

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