

GT6416 SERIES



SWITCH MATRIX ISA CARD

- High density switching
- Built in 12-bit, 300 K sample / s A/D
- Extensive built-in self-test
- Groups can be connected to form up to 2 x 64 or 8 x 16 switch matrix
- Four individual range groups allow multiple configurations
- Pairs of groups can be software-configured for differential switching
- DISCONTINUED - SEE DETAILS BELOW



*****PRODUCT AVAILABILITY*****

This product has been discontinued.

The initial release of this product was approximately 1990.

Please contact the factory for availability and alternate product offerings.

Please review the GX6xxx Series for the latest product alternatives.

DESCRIPTION

The GT6416 Series armature relay switch matrix are ISA-based PC boards that provide either differential or single-ended input capability and are configurable via software commands. The GT6416A-SM has four groups of 1 x 16 switch matrix, and the GT6416B-SM has four groups of 2 x 16 switch matrix.

FEATURES

The GT6416-SM Series consists of up to four switching groups - A through D - that support switching of any of two rows to any of 16 columns. Each switching group can connect to an adjacent group via "jumpers" (either horizontally or vertically). In addition, groups A and B and groups C and D can be configured as a 2 x 16 differential switch matrix via software commands. Typical configurations include:

- Four groups of 1 x 16 (GT6416A-SM)
- Four groups of 2 x 16 (GT6416B-SM)
- Two groups of 4 x 16 Single-ended
- One group of 2 x 64 Single-ended
- One group of 2 x 32 Single-ended

Mixed configurations of single-ended and differential switching can be used simultaneously. The GT6416 Series has a built-in 12-bit, 300 kHz A/D converter. The converter can be connected by software commands to each one of the switching groups, allowing differential or single-ended measurements to be performed. An optional self-test connector can be attached externally enabling a complete self-test of the GT6416.

PROGRAMMING AND SOFTWARE

The board is supplied a 32-bit DLL driver. Various interface files provide access to the DLL from programming tools and languages such as ATEasy, LabVIEW, C/C++, Microsoft Visual Basic®, Delphi, and more. The available virtual panel can be used to interactively adjust and control the instrument from a window that displays the current instrument settings and measurements.

On-Line help file and PDF User's Guide provides documentation that includes instructions for installing, using and programming the board.

APPLICATIONS

- Automatic Test Equipment (ATE)
- Data acquisition systems
- Process control systems
- Hi-density switching systems



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SPECIFICATIONS

CONTACT SPECIFICATIONS	
Relay Contact Resistance	<0.2
CONTACT LIFE RATING	
At Low Level	5 x 10 ⁶ (typ)
At 28 VDC @ 0.5 A	5 x 10 ⁶ (typ)
Switchable Voltage, Maximum	200 VDC
Switchable Current	0.5 A (max)
Contact Carry Current	1.2 A (max)
Operate Time	500 μ s (max)
Release Time	250 μ s (max)
POWER REQUIREMENTS	
Operating Voltage	+5 VDC; 600 mA
Power Consumption	1.1 A (max) (typ)
TEMPERATURE	
Operating	0 °C to +40 °C
Storage	10 °C to +70 °C
Vibration	5 G at 500 Hz
Shock ½ Sine	5 G for 6 ms
Size, Full Size ISA Slot	13.25" x 4.875"
Weight	510 g

Note: Specifications are subject to change without notice

ORDERING INFORMATION

GT6416B	4X2:16 Switch Matrix, with Mating Connector (Replaces GT416B-SM)
ACCESSORY	
GT96002	Connector, D-Type 78-Pin Male with Crimp Pins
GT97103	1 ft Harness, 78-Pin Male Connector on One End, Loose Wired (Numbered) Other End
GT97104	1 foot Harness, 78-Pin Male Connector on Both Ends
GT97102	3 ft Harness, 78-Pin Male Connector on One End, Loose Wired (Numbered) Other End
GT96107	3 Feet Harness, 78-Pin Male Connector on Both Ends
GX96106	6 ft. Harness, 78 Pin Male Connector on Both Ends
GT96303	Self-Test Adapter for GT6416 and GX6616
GT96302	Replacement Relay for GT6416 and GX6616
GT96078	78-Pin Connector to Screw Terminal Interface