

# GX6021



## 20 CHANNEL RF MULTIPLEXER/SCANNER PXI CARD

- High density PXI RF multiplexer
- Four groups of 1x4 multiplexer scanners
- Groups may be daisy-chained
- > 300 MHz bandwidth
- 3U PXI Instrument
- PXI hybrid slot compatible



## DESCRIPTION

The GX6021 is a high-density 3U PXI switching card that provides 200 MHz bandwidth and offers four groups of 1x4 multiplexer scanners.

## FEATURES

In each multiplexer group of the GX6021, each channel can be connected to any of the other four channels in its group. Additional relays connect adjacent groups. Using these additional relays, larger groups can be formed such as 2 x 1:9, or 1 x 1:19. The GX6021 groups can be software configured to provide switch paths that maintain 300 MHz bandwidth.

## PROGRAMMING AND SOFTWARE

The board is supplied with the GXSW library, a software package that includes a virtual instrument panel, and a Windows 32/64-bit DLL driver library and documentation. The virtual panel can be used to interactively program and control the instrument from a window that displays the instrument's current settings and status. In addition, interface files are provided to support access to programming tools and languages such as ATEasy, LabView, LabView/Real-Time, C/C++, Microsoft Visual Basic®, Delphi, and Pascal. An On-Line help file and PDF User's Guide provides documentation that includes instructions for installing, using and programming the board.

A separate software package - [GtLinux](#) - provides support for Linux 32/64 operating systems.

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## SPECIFICATIONS

Matrix Configuration	Four 1 x 4 multiplexers
Number of channels	20
<b>RELAY SPECIFICATION</b>	
Contact Resistance	< 0.2
Switching Voltage	200 V <sub>DC</sub> (max) resistive load
Switching Current	0.5 A (max) resistive load
Operate Time	6 ms (max)
Release Time	3 ms (max)
<b>RF SPECIFICATION</b>	
Impedance	50
Bandwidth	> 300 MHz (-3 dB)
Insertion Loss	<0.7 dB at 100 MHz
Crosstalk Across Groups (50 ohm Terminator)	10 MHz < -40 dB 100 MHz < -40 dB 200 MHz < -35 dB
Isolation Between Channels (50 ohm Terminator)	10 MHz < -40 dB 100 MHz < -40 dB 200 MHz < -35 dB
VSWR (50 Ohms Terminator)	1.2:1 at 100 MHz
<b>POWER REQUIREMENTS</b>	
Power Consumption +3.3 V +5 V	100 mA (max) 1 A
Operating Voltage	+5 VDC
<b>ENVIRONMENTAL</b>	
Operating Temperature	0 °C to +50 °C
Storage Temperature	-20 °C to +70 °C
Vibration	5 G at 500 Hz

Shock 1/2 Sine	5 G for 6 mS
<b>PHYSICAL</b>	
Size	3U PXI
Weight	1.1 lbs

Note: Specifications are subject to change without notice

## ORDERING INFORMATION

<b>GX6021</b>	RF multiplexer, 4 Groups of 1 x 4, 300MHz Bandwidth (500MHz within each group)
<b>ACCESSORY</b>	
<b>GT96402</b>	Replacement Relay for GX6021 and GT6041
<b>GX96403</b>	Mating Coax Connector and 20 Coax Pins
<b>GX96404</b>	Mating Coax Connector and 20 Coax Pins Crimped (One End) to 3 Foot Wires (aka GT96404)
<b>GX96405</b>	Mating Coax Connector and 20 Coax Pins Crimped (Both Ends) to 3 Foot Wires
<b>GX96404-60</b>	Mating Coax Connector with 20 Coax Pins Crimped (One End) to 5 Foot Wires
<b>GX96405-60</b>	Mating Coax Connector and 20 Coax Pins Crimped (Both Ends) to 5 Foot Wires
<b>GT96406</b>	Mating Coax Connector with 20 Coax Pins Crimped to 3 Foot Wires with BNC Connectors
<b>GX96407</b>	MMS Pin Extraction Tool
<b>GX96408</b>	Burndy Pin Extraction Tool
<b>GX96409</b>	Mating Coax Connector, No Pins
<b>GX96410</b>	Coax Connector Pin for GX96409, package of 20
<b>GX96411</b>	One 3 Foot Coax Wire with a Coax Pin Crimped on One End
<b>GX96412</b>	One 3 Foot Coax Wire with a Coax Pin Crimped on One End and BNC on Other End