

## General

The G2S400CE is part of the G2 family of products. The unit provides the systems engineer with one of the best integrated solutions for controlling and packaging a large variety of switching modules and cards in a small 2RU rack mounted area. Powerful and streamlined multiprocessor control features built into the unit allow the user to smoothly integrate the G2S400CE to fit a multitude of applications.

Different types of modules from the G2 product line may be installed for various switching and processing functions depending on your application. Solid-state, digital and relay-based switching modules may be installed within seconds. A selection of plug-in modules cover a frequency range of DC to 40GHz, and switching configurations from 1x2 to 64x64. Fiber optic products are now available too.

Designed to be the most flexible switching system on the market, the G2S400CE product delivers just that. It is part of the family of the next generation of switching systems to meet today's and tomorrow's needs for high performance and cost effective switching solutions of signals ranging from DC to 40GHz.

## Example Model Number

### G2S400CE-D200-5

This specifies the G2S400CE mainframe with dual (redundant) -200 type power supply sections and includes the standard front panel control and display, plus the standard GPIB interface port, combo serial port (RS-232C, RS-422A and RS-485), **US-Link** port, and Ethernet port with TCP/IP.

Includes  
**TCP/IP**

## Applications

The advanced and sophisticated features of the G2S400CE, allows it to be used in numerous applications:

- Switch signals with frequencies DC to 40GHz
- Video signal routing including CCTV or RGB (+HVS)
- HF receive antenna switching
- Airborne surveillance systems
- Radar X-Y-Z data switching
- NTSC, PAL, SECAM signal routing
- ATE test stations
- Production studios or security systems
- Instrumentation
- Precision audio routing
- Fiber optic signal routing

## Features

- Four position module bay for G2 plug-ins
- Front panel LED back-lit keypad controls
- High contrast vacuum-fluorescent display
- Built-in remote interfaces and plug-in CPU
- Various remote interface choices included
- Includes Ethernet with TCP/IP
- Command set is 488.2 compliant
- Rugged 2RU high aluminum chassis (3.50")
- International AC power range
- Self-monitoring plug-in power supplies
- Rack mount design (19 inch)
- Built-in chassis slide mounting (slides not included)
- Certified CE EN61010 (LVD)



Front view with hinged front panel open exposing dual (redundant) plug-in power supplies and plug-in CPU.

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## G2S400CE Mainframe

The G2S400CE mainframe/controller is equipped with cool-running switching power supplies and user friendly front panel display and controls. The unit also has a built-in control CPU which installs behind the front panel assembly and provides remote control to any modules installed within the four slot module bay. All standard interfaces are included, RS-232C, RS-422A, multi-drop RS-485 and GPIB (IEEE-488), plus Ethernet 10baseT that includes TCP/IP. In addition to these standard interfaces is an **US-Link** port to link to remote control panel assemblies.

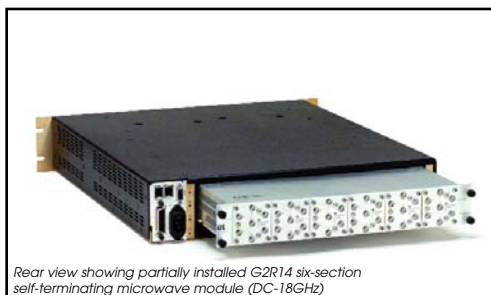
System control options and switching configurations are stored in non-volatile memory (Lithium-backed RAM). Up to 199 different switching configurations may be stored in memory and may be recalled with a single command. This greatly simplifies control of commonly used configurations. For power up conditions, the system may be set to recall the last configuration since power down, or to completely clear all crosspoint connections.

The G2S400CE mainframe is available with different power supply configurations to match the type of module series being installed into the module bay. The first digit of the suffix number is used to define the power supply configuration. The power supplies are monitored and report problems to the user via the front panel and the remote interface. The power supply installs through the front panel and is available in a redundant configuration for critical applications. Only one power supply assembly is needed for full operation.

LabVIEW VISA drivers can be downloaded from our website. To order a complete system including the G2S400CE and switching modules, contact the factory for a system model number. This number defines a certain group of modules and assemblies including quantity and type. The system will be shipped fully assembled, tested and will also include an operations and programming manual.



Rear view with no modules installed (notice serial, GPIB, US-Link and Ethernet ports)



Rear view showing partially installed G2R14 six-section self-terminating microwave module (DC-18GHz)



Rear view showing fully installed G2R14 module and one empty module slot

### G2S400CE Specifications

Size	3.50"H x 19.00"W x 20.50"D
Local control	24 position LED illuminated keypad Display 4x20 vacuum fluorescent
Power switch	LED illuminated (front panel)
AC power	90-264VAC, 47 to 440Hz, <100W
Power cord	Belden 17250 supplied (115VAC)
Front panel color	FED-STD-595B #26440 (light gray)
Front panel thickness	1/8" (std), 3/16" optional
Mounting	Chassis-Trak® mounting provided
Capacity	Up to four single height modules may be installed
Module control type	G2 compatible
Cooling	Triple variable fan assisted
Venting	Vents located on sides of unit
Supply capacity	100 watts
Supply type	Hot-swap plug-in supplies

Universal Switching's policy is one of continuous development, and consequently the company reserves the right to vary from the descriptions and specifications shown in this publication.

Weight	18lbs
Operating temp	0 to +65C
Non-operating temp	-20 to +75C
Humidity	0 to 95% (non-condensing @ +25C)
Mounting	RETMA slots (EIA), 2RU high
Chassis finish	Black texture paint & gold iridite
Handles	Black anodized
MTBF	>125,000 hours per MIL-STD-217E, N1
Certifications	CE EN61010 LVD

### Power Supply Types

■ -100	Standard supplies: +5V logic and +/-15V analog
■ -200	Standard supplies: +5V logic and +/-5V analog
■ -207	Standard supplies: +5V logic and +7/-5V analog
■ -600	Standard supplies: +5V logic and +15V analog
■ -D100	Redundant supplies: +5V logic and +/-15V analog
■ -D200	Redundant supplies: +5V logic and +/-5V analog
■ -D207	Redundant supplies: +5V logic and +7/-5V analog
■ -D600	Redundant supplies: +5V logic and +15V analog

### Remote Interface Types

■ -5	GPIB, RS-232C/422A/485 and Ethernet (TCP/IP)
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**NOTE:** The -1 version does not have Ethernet and is available only for reorders.