

General

The G2S1600CE is part of the G2 family of switching products providing 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 rack mounted area. Powerful and streamlined multiprocessor control features (C710 control CPU/Interface) allow the user to smoothly integrate the G2S1600CE to fit a multitude of applications. Dual CPU/Interface cards can be installed for applications needing redundant controllers.

Different types of function modules from the G2 product line may be installed for various switching and processing functions depending on your application. Solid-state, digital, fiber optic 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 or larger.

Designed to be the most flexible switching system on the market, the G2S1600CE mainframe delivers just that. It is our family of 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

G2S1600CE-D200

This specifies the G2S1600CE mainframe with dual (redundant) -200 type power supply sections and includes the standard front panel control and display.



Rear view of the G2S1600CE with various switching modules installed, and two plug-in CPU's.



Applications

The advanced and sophisticated features of the G2S1600CE, 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 switching and ATE test systems

Features

- Sixteen position module bay for G2 plug-ins
- Front panel LED back-lit keypad controls
- High contrast vacuum-fluorescent display
- Accepts up to two of the advanced C710 controller cards
- Various remote interface choices
- Rugged 8RU high aluminum chassis (14.00")
- International AC power range w/power factored supplies
- Dual AC inputs
- Hot-swap self-monitoring plug-in power supplies (optional)
- Rack mount design (19 inch)
- Built-in chassis slide mounting (slides not included)



G2S1600CE Mainframe

The G2S1600CE mainframe/controller is equipped with cool-running switching power supplies and user friendly front panel display and controls. The unit also accepts the C710 multi-purpose CPU and interface card in the rear to provide main system control functions and remote user control interfaces. All standard interfaces are available, Ethernet, Serial (RS-232C, RS-422A, RS-485) and GPIB (IEEE-488). In addition to these standard interfaces, each also includes 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 G2S1600CE 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 Smart-Supplies where they monitor themselves and report problems to the installed control CPU. The power supply installs through the hinged front panel and is available in a redundant configuration for critical applications.

LabVIEW drivers are available upon request. To order a complete system including the G2S1600CE, CPU/Interface card (Series C710) 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.

G2S1600CE Specifications

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| Size..... | 14.00"H x 19.00"W x 20.00"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, <330W (each) |
| AC connector..... | Dual AC inputs (independent) |
| Power cord..... | Dual 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 sixteen single height modules may be installed |
| Control type | G2 compatible |
| Cooling..... | Quad fan assisted |
| Venting..... | Vents located on side of unit |
| Supply capacity..... | 330 watts |
| Supply type..... | Hot-swap PFC switching supplies |

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| Weight..... | 25lbs |
| Operating temp..... | 0 to +65C |
| Non-operating temp..... | -20 to +75C |
| Humidity | 0 to 95% (non-condensing @ +25C) |
| Mounting..... | RETMA slots (EIA), 8RU high |
| Chassis finish | Black texture paint & gold iridite |
| Handles..... | Black anodized |
| MTBF..... | >115,000 hours per MIL-STD-217E, N1 |
| Certifications..... | CE EN61010 |

Power Supply Types

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|---------|---|
| ■ -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 |

(CPU / Interface card must be ordered separately - see below)

Series C710 CPU / Interface Cards

The G2S1600CE accepts the C710 CPU/interface cards for controlling the system from a remote computer. Choose the interface type for your requirement. Setup parameters such as baud rate or GPIB address are modified via the front panel controls. See the Series C710 data sheet for detailed information on the interface card types.

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| ■ C710-E10 | Ethernet only with TCP/IP |
| ■ C710-S3 | Ethernet & Serial (RS-232C, RS-422A or RS-485) |
| ■ C710-488 | Ethernet & GPIB port (IEEE-488) |

