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General

This "H" version of the G2S32 solid-state, fully analog switching module is offered for applications requiring high quality video signal routing and distribution for signals ranging from DC to 75MHz. It is very similar to the non "H" version with exception that it contains higher signal level capacity output amplifiers. The higher signal level is achieved, but it has a lower frequency range. This makes it suitable for routing "higher" amplitude signal types, analog routing of TTL level signals and other similar signals .

The module may be configured for a maximum of 64 inputs and 64 outputs. The switching array is of "fixed" size and may not be expanded in the field without additional external equipment. This provides the most cost effective packaging solution. It is available with a varied number of inputs and outputs (increments of eight).

The switching array is non-blocking with full fanout allowing the user to connect any input to one, many, or up to all outputs at any given time. No input loading or impedance mismatches are presented to the user due to the architecture of the switching array, and the use of internal signal division and high performance buffers / amplifiers.

The suffix of the model number specifies some unique features or additional performance specifications. The module must be installed into any G2 type mainframe controller,. It also requires that the mainframe be equipped with the -100 or -D100 type power supply configuration. Optionally, the unit can be ordered to work with the -200 or -D200 power supplies too. See the model number chart.

Applications

- Airborne surveillance systems
- Flight simulators or situation rooms
- Switch signals with frequencies DC to 75MHz (min)
- TTL, PCM or other telemetry applications

Features

- Compact solid-state switching elements
- High output signal level configuration
- Wide analog video bandwidth
- True non-blocking configuration with full fanout
- Unity gain signal path
- Rugged aluminum shielded enclosure
- Hot-swap module technology
- Embedded control and status CPU
- High reliability and long useful life
- Available in 50 or 75 ohm versions

Model G2S32H-6432-17

G2S32H-001

7671 North San Fernando Road | Burbank CA 91505 USA
Phn: +1 818-381-5111   Fax: +1 818-252-4846   Email: sales@uswi.com   Web: uswi.com

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Configurations

Switching array size is specified by the middle four digits. The first two digits of these four specifies the total number of I/O connectors (in+out), while the second two specifies the number of outputs. For any special configurations, please consult the factory.

Model Number	Array Size	Slots
G2S32H-1608-17	8 in x 8 out	1
G2S32H-2416-17	8 in x 16 out	2
G2S32H-3224-17	8 in x 24 out	3
G2S32H-4032-17	8 in x 32 out	4
G2S32H-4840-17	8 in x 40 out	5
G2S32H-5648-17	8 in x 48 out	6
G2S32H-6456-17	8 in x 56 out	7
G2S32H-7264-17	8 in x 64 out	8
G2S32H-2408-17	16 in x 8 out	2
G2S32H-3216-17	16 in x 16 out	2
G2S32H-4024-17	16 in x 24 out	3
G2S32H-4832-17	16 in x 32 out	4
G2S32H-5640-17	16 in x 40 out	5
G2S32H-6448-17	16 in x 48 out	6
G2S32H-7256-17	16 in x 56 out	7
G2S32H-8064-17	16 in x 64 out	8
G2S32H-3208-17	24 in x 8 out	3
G2S32H-4016-17	24 in x 16 out	3
G2S32H-4824-17	24 in x 24 out	3
G2S32H-5632-17	24 in x 32 out	4
G2S32H-6440-17	24 in x 40 out	5
G2S32H-7248-17	24 in x 48 out	6
G2S32H-8056-17	24 in x 56 out	7
G2S32H-8864-17	24 in x 64 out	8
G2S32H-4008-17	32 in x 8 out	4
G2S32H-4816-17	32 in x 16 out	4
G2S32H-5624-17	32 in x 24 out	4
G2S32H-6432-17	32 in x 32 out	4
G2S32H-7240-17	32 in x 40 out	5
G2S32H-8048-17	32 in x 48 out	6
G2S32H-8856-17	32 in x 56 out	7
G2S32H-9664-17	32 in x 64 out	8

Model Number	Array Size	Slots
G2S32H-4808-17	40 in x 8 out	5
G2S32H-5616-17	40 in x 16 out	5
G2S32H-6424-17	40 in x 24 out	5
G2S32H-7232-17	40 in x 32 out	5
G2S32H-8040-17	40 in x 40 out	5
G2S32H-8848-17	40 in x 48 out	6
G2S32H-9656-17	40 in x 56 out	7
G2S32H-10464-17	40 in x 64 out	8
G2S32H-5608-17	48 in x 8 out	6
G2S32H-6416-17	48 in x 16 out	6
G2S32H-7224-17	48 in x 24 out	6
G2S32H-8032-17	48 in x 32 out	6
G2S32H-8840-17	48 in x 40 out	6
G2S32H-9648-17	48 in x 48 out	6
G2S32H-10456-17	48 in x 56 out	7
G2S32H-11264-17	48 in x 64 out	8
G2S32H-6408-17	56 in x 8 out	7
G2S32H-7216-17	56 in x 16 out	7
G2S32H-8024-17	56 in x 24 out	7
G2S32H-8832-17	56 in x 32 out	7
G2S32H-9640-17	56 in x 40 out	7
G2S32H-10448-17	56 in x 48 out	7
G2S32H-11256-17	56 in x 56 out	7
G2S32H-12064-17	56 in x 64 out	8
G2S32H-7208-17	64 in x 8 out	8
G2S32H-8016-17	64 in x 16 out	8
G2S32H-8824-17	64 in x 24 out	8
G2S32H-9632-17	64 in x 32 out	8
G2S32H-10440-17	64 in x 40 out	8
G2S32H-11248-17	64 in x 48 out	8
G2S32H-12056-17	64 in x 56 out	8
G2S32H-12864-17	64 in x 64 out	8

NOTE: The last digit in the model number specifies both the input and output impedance (7=75 ohm, 5=50 ohm). The next to last digit specifies the power supply configuration needed to power the module: 1 is -100 (standard) 2 is -200 (special).

(Consult the factory for specials or other configuration types)

Signal Specifications

Switching elements . . . . . .Solid-State
Number of inputs . . . . .8, 16, 24, 32, 40, 48, 56 or 64
Number of outputs . . . . . . .8, 16, 24, 32, 40, 48, 56 or 64
Type of array . . . . .Non-blocking, unity gain
Signal type . . . . .Single-ended analog
Frequency range . . . . .DC-75MHz (min)
Crosstalk isolation . . . .>60dB @ 10MHz
Coupling . . . . .DC coupled
Signal connectors . . . . . . .BNC (impedance matched)
Input impedance . . . . .50 or 75 ohm
Output impedance . . . . . .50 or 75 ohm
Input VSWR . . . .<1.2 : 1
Output signal level . . . .+/-5.5VDC
Max input voltage . . . .+/-5.5 volts (no damage)
DC offset . . . .<50mV
Switching speed . . . .<250uS (plus control time)

General Specifications

Module size . . . . .See table above
Control type . . . . .G2 compatible
Sparing . . . . .Hot-swappable
Construction . . . . .Shielded aluminum case
DC power . . . .-100 or -D100 configuration
                                         +5V (digital), +/-15V (analog)
Weight . . . .<3.5lbs (64x64)
Operating temp . . . . .0 to +70C
Non-operating temp . . . . .-20 to +85C
Humidity . . . . .0 to 95% (NC @ +25C)
MTBF . . . .>150,000 hours
                                         (per MIL-HDBK-217F, N1
                                         ground benign @ +25C)