

General

This solid-state, fully analog switching module is offered for applications requiring high fidelity video signal routing and distribution for signals ranging from DC to 160MHz. The module may be configured for a maximum of 64 inputs and 64 outputs. The module may be configured for a maximum of 32 inputs and 32 outputs with 160MHz or up to a 64 input by 64 output with reduced bandwidth.

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 -200 or -D200 type power supply configuration.

Applications

- Airborne surveillance systems
- RGB video routing and distribution
- Flight simulators or situation rooms
- Switch signals with frequencies DC to 160MHz
- Training, conference or security centers

Features

- Compact solid-state switching elements
- High performance video 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



Model G2S33-6432-27

G2

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	Model Number	Array Size	Slots
G2S33-1608-27	8 in x 8 out	1	G2S33-4808-27	40 in x 8 out **	5
G2S33-2416-27	8 in x 16 out	2	G2S33-5616-27	40 in x 16 out **	5
G2S33-3224-27	8 in x 24 out	3	G2S33-6424-27	40 in x 24 out **	5
G2S33-4032-27	8 in x 32 out	4	G2S33-7232-27	40 in x 32 out **	5
G2S33-4840-27	8 in x 40 out **	5	G2S33-8040-27	40 in x 40 out **	5
G2S33-5648-27	8 in x 48 out **	6	G2S33-8848-27	40 in x 48 out **	6
G2S33-6456-27	8 in x 56 out **	7	G2S33-9656-27	40 in x 56 out **	7
G2S33-7264-27	8 in x 64 out **	8	G2S33-10464-27	40 in x 64 out **	8
G2S33-2408-27	16 in x 8 out	2	G2S33-5608-27	48 in x 8 out **	6
G2S33-3216-27	16 in x 16 out	2	G2S33-6416-27	48 in x 16 out **	6
G2S33-4024-27	16 in x 24 out	3	G2S33-7224-27	48 in x 24 out **	6
G2S33-4832-27	16 in x 32 out	4	G2S33-8032-27	48 in x 32 out **	6
G2S33-5640-27	16 in x 40 out **	5	G2S33-8840-27	48 in x 40 out **	6
G2S33-6448-27	16 in x 48 out **	6	G2S33-9648-27	48 in x 48 out **	6
G2S33-7256-27	16 in x 56 out **	7	G2S33-10456-27	48 in x 56 out **	7
G2S33-8064-27	16 in x 64 out **	8	G2S33-11264-27	48 in x 64 out **	8
G2S33-3208-27	24 in x 8 out	3	G2S33-6408-27	56 in x 8 out **	7
G2S33-4016-27	24 in x 16 out	3	G2S33-7216-27	56 in x 16 out **	7
G2S33-4824-27	24 in x 24 out	3	G2S33-8024-27	56 in x 24 out **	7
G2S33-5632-27	24 in x 32 out	4	G2S33-8832-27	56 in x 32 out **	7
G2S33-6440-27	24 in x 40 out **	5	G2S33-9640-27	56 in x 40 out **	7
G2S33-7248-27	24 in x 48 out **	6	G2S33-10448-27	56 in x 48 out **	7
G2S33-8056-27	24 in x 56 out **	7	G2S33-11256-27	56 in x 56 out **	7
G2S33-8864-27	24 in x 64 out **	8	G2S33-12064-27	56 in x 64 out **	8
G2S33-4008-27	32 in x 8 out	4	G2S33-7208-27	64 in x 8 out **	8
G2S33-4816-27	32 in x 16 out	4	G2S33-8016-27	64 in x 16 out **	8
G2S33-5624-27	32 in x 24 out	4	G2S33-8824-27	64 in x 24 out **	8
G2S33-6432-27	32 in x 32 out	4	G2S33-9632-27	64 in x 32 out **	8
G2S33-7240-27	32 in x 40 out **	5	G2S33-10440-27	64 in x 40 out **	8
G2S33-8048-27	32 in x 48 out **	6	G2S33-11248-27	64 in x 48 out **	8
G2S33-8856-27	32 in x 56 out **	7	G2S33-12056-27	64 in x 56 out **	8
G2S33-9664-27	32 in x 64 out **	8	G2S33-12864-27	64 in x 64 out **	8

NOTE: Models with ** are with a reduced frequency response.

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-160MHz
Crosstalk isolation	.....>40dB @ 125MHz
Coupling	.....DC coupled
Signal connectors	.....BNC (75 ohm)
Input impedance	.....75 ohm
Output impedance	.....75 ohm
Input VSWR	.....<1.2 : 1
Output signal level	.....+/-1.5VDC
Max input voltage	.....+/-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	.....-200 or -D200 configuration +5V (digital), +/-5V (analog)
Weight	.....<1.5lbs
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)

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.