Universal Switching Corporation

Specification Sheet SWM24-001
High Performance 20-6000MHz Wideband Matrix
Sizes 24x24, and 16x32 Switching Array
System SWM24(i) & SGM24 Fan-OUT or Fan-IN Types - 2RU

March 2024

General

Today's communication installations demand dependable and high performance equipment at an affordable price. Compact and feature loaded, our System SWM24 and SGM24 wideband matrix units provide an uncompromising combination of high performance and high reliability switching coupled together for up to 20-6000MHz performance. Standard hot-swap redundant power supplies deliver the ultimate in system reliability for critical applications.

Delivering a maximum of 48 I/O ports, the unit provides cost effective switching capacity for smaller installations. The SWM24 is a distributive non-blocking (Fan-OUT) design that can be ordered in a 24x24 array size or 16x32 for signals 20-3000MHz. Our SGM24 is the same but has increased frequency capability and covers from 20-6000MHz. The SWM24i combiner version (Fan-IN) can be ordered as a 32x16 or 24x24 configuration.

Complete control and status of the unit is available at the built-in web browser, front panel, or via the included RouteWarePRO software package.

Applications

- Ground station and infrastructure facilities
- Communication installations
- ENG trucks and vans
- Airborne surveillance systems
- Teleport and last mile installations
- SatCom receiver routing for transmit or receive

Features

- High reliability Gen-5 GaAs switch technology
- SMA or BNC signal connector types
- Impedance 50 ohm
- Redundant hot-swap power supplies
- Available in distributive Fan-OUT or Fan-IN (combiner)
- Ethernet control port (10/100/1000)
- Multi-serial port (RS-232C/422A/485)
- Built-in scheduler for automated actions
- SNMP v1/v2C/v3, TCP/IP, SNTP and web browser
- Built-in diagnostics
- Alarm port (hard contact)
- Variable (programmable) gain
- International AC power input
- RouteWarePRO software is included (single license)
- LabVIEW drivers available

Model	Size	Freq	Type	Conn	Dual PS
SWM24-4824-5A	24 in, 24 out	20-3000MHz	Fan-OUT	SMA	Yes
SWM24-4824-5B	24 in, 24 out	20-3000MHz	Fan-OUT	BNC	Yes
SWM24-4832-5A	16 in, 32 out	20-3000MHz	Fan-OUT	SMA	Yes
SWM24-4832-5B	16 in, 32 out	20-3000MHz	Fan-OUT	BNC	Yes
SGM24-4824-5A	24 in, 24 out	20-6000MHz	Fan-OUT	SMA	Yes
SGM24-4832-5A	16 in, 32 out	20-6000MHz	Fan-OUT	SMA	Yes
SWM24i-4824-5A	24 in, 24 out	20-3000MHz	Fan-IN	SMA	Yes
SWM24i-4824-5B	24 in, 24 out	20-3000MHz	Fan-IN	BNC	Yes
SWM24i-4832-5A	32 in, 16 out	20-3000MHz	Fan-IN	SMA	Yes
SWM24i-4832-5B	32 in, 16 out	20-3000MHz	Fan-IN	BNC	Yes

SNMP
LXI
IPV6

ROUTEWARE PRO 5.0

Download our Monitor & Control software **RouteWarePRO** for a FREE 30-day trial today!

Reliability Resiliency

Made in the USA
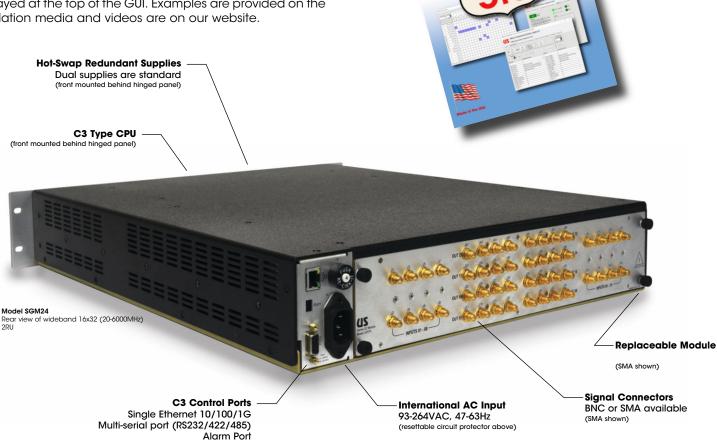

Model SGM24
Wideband 16x32 (20-6000MHz)
2RU

SWM24-001

System Control Software - INCLUDED

The SWM24 and SGM24 units come with our RouteWarePRO control software package that will get you up and running.fast! Within minutes, you can install the software and start controlling your system remotely.

The user can customize the GUI on the fly with screen colors, input and output channel designations, panel names and labels can be easily added or changed too, or even the title displayed at the top of the GUI. Examples are provided on the installation media and videos are on our website.

Hot-Swap Redundant Supplies
Dual supplies are standard
(front mounted behind hinged panel)

C3 Type CPU
(front mounted behind hinged panel)

Model SGM24
Rear view of wideband 16x32 (20-6000MHz)
2RU

Replaceable Module
(SMA shown)

C3 Control Ports
Single Ethernet 10/100/1G
Multi-serial port (RS232/422/485)
Alarm Port

International AC Input
93-264VAC, 47-63Hz
(resettable circuit protector above)

Signal Connectors
BNC or SMA available
(SMA shown)

System Specifications

Array size . . . . .See model table
Switching technology . . . . . . .Solid-state GaAs elements
Type of system . . . . .Non-blocking Fan-OUT, or Fan-IN
Architecture . . . . .Fixed size
Signal connector location . . .Rear panel

I/O Characteristics *
Frequency range . . . . .20 - 3000MHz (SWM24)
                    20 - 6000MHz (SGM24)
Impedance . . . . .50 ohm
Coupling . . . . .AC
Gain . . . . .Unity (nominal)
Programmable gain . . . . .Contact factory
Flatness . . . .<+/-3.0dB, +/-0.35dB 40MHz segment
Isolation . . . .>60dB (I/I, O/O, I/O): SWM24
                    >48dB (I/I, O/O, I/O): SGM24
Input return loss . . . .>10dB typ
Output return loss . . . .>10dB typ
-1dB compression . . . .>0dBm min
Noise Figure . . . .<20dB @ max gain typ
Output IP3 . . . .>5dBm typ

General Specifications

Switching speed . . . .<10mS
Power supply section . . . . .Redundant, hot-swap
Power supply monitoring . . . .Included
Ethernet port . . . . .10/100/1G, SNMP v1/v2C/v3 and TCP/IP
Serial port RS232C/422A/485 (DE9)
Status LED's . . . . .Front panel
Front panel display . . . . .Touchscreen control
Configuration memory . . . . . .FLASH
Cooling . . . . .Dual fan assisted
AC power requirements . . . . .90-264VAC, 47-63Hz, <160 Watts
Line protection . . . . .Circuit protector
Weight . . . .<24 lbs
Size . . . . .3.47H x 23.50D x 19.00W (2RU)
Operating temp . . . . .0 to +50C
Non-operating temp . . . .-20 to +85C
Humidity . . . . .0 to 95% (NC @ +25C)
MTBF . . . .>130,000 hours (estimated)
Warranty . . . . .2 years
Certifications . . . . .CE EN61010

*   NOTE 1: If special or unique performance or features are required, the base model number is used plus a unique 5-digit suffix.

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