

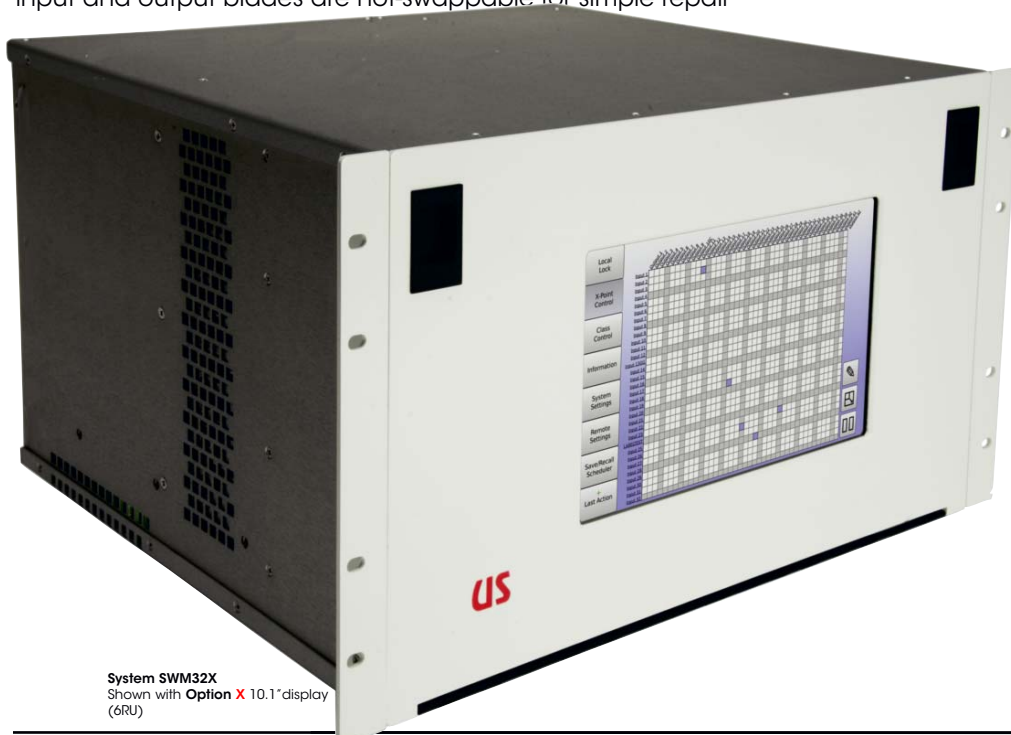
General

Critical communication installations demand high performance, high reliability, and expandable core equipment. Our SWM32 modular wideband matrix unit delivers an uncompromising combination of these features in a cost effective 6RU package. The unit delivers a modular 20-3000MHz high performance wideband switching array that can be configured up to a 32x32 matrix, and further expanded with additional hardware to 64x64, or even 128x128. It can route IF, P-Band, L-Band and S-Band signals all through the same unit.

Redundant hot-swap monitored power supplies are standard, plus our optional redundant system control interfaces (C3-Lite CPU) deliver the ultimate in system reliability for critical applications. Should a rare failure occurs or an input is damaged, it will only affect a single channel. The SWM32X is the same but has a 10.1" display (**Option-X**) and additional front panel features.

Compact (6RU) and high performance, it provides a cost effective, flexible switching capacity for smaller installations. The unit can be configured from a small 4x4 and field expandable to a 32x32 in single-channel increments while delivering a non-blocking (Fan-OUT) switch array, or a combiner type (Fan-IN) array. Configurations can be symmetrical (16x16) or asymmetrical (10x24, 9x32). Fixed reduced sized versions (not expandable) are also available to reduce overall cost (consult factory).

Comprehensive control and status of the unit is accessible at either the lockable touchscreen, the 10/100 interface(s) with web browser, or our RoutewarePRO software package. All input and output blades are hot-swappable for simple repair



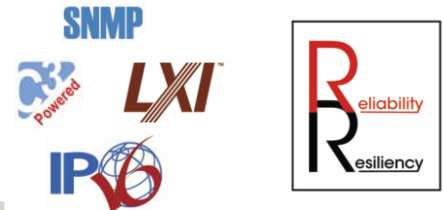
System SWM32X
 Shown with Option X 10.1" display
 (6RU)

Applications

- Communication installations
- Airborne surveillance systems
- Teleport and last mile installations
- Ground station and infrastructure facilities
- Receiver routing for transmit or receive

Features

- High reliability GaAs switch technology
- SMA, BNC, and F-Type signal connector types
- Impedance 50 or 75 ohm
- Expandable in the field to 32x32
- Redundant hot-swap power supplies
- Option "L" adds LNB redundant power & features
- Single or dual controllers (and 10/100 ports)
- Available with **Option-X** display (SWM32X)
- Choose between Fan-OUT or Fan-IN versions
- Menu driven touchscreen display & web browser
- Hinged front and rear access (illuminated)
- 10/100 Ethernet control port(s)
- Includes TCP/IP, SNTP, SNMP v1/2, IPv4/6
- Removable microSD card for secure environments
- Supports expansion to 64x64 with additional hardware
- Built-in continuous diagnostics
- Variable gain
- International AC power input
- LabVIEW drivers and control software available



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



System SWM32
 Shown with standard 4.3" display

SWM32-001

Fan-OUT Number Assignment

The following format is used to define a standard Fan-OUT (signal distributive) system configuration:

SWM32-ii00xzc(L)

The SWM32 (SWM32X for 10.1" screen **Option-X**) is the base model number for the Fan-OUT version of the system followed by "ii" defining the number of inputs (04 to 32) followed by "00" defining the number of outputs (04 to 32). The final suffix is defined where "x" defines 1 or 2 controllers (single or dual), "z" is the system impedance (5=50 ohms, or 7=75 ohms) and "c" defines the I/O connectors (A=SMA, C=BNC, or F=F-Type). Optional "L" suffix adds redundant LNB supply, LNB current monitor, and control of 22kHz tone & 0/13/18V.

Fan-IN Number Assignment

The following format is used to define a standard Fan-IN (signal combiner) system configuration:

SWM32i-ii00xzc

The SWM32i (SWM32Xi for 10.1" screen **Option-X**) is the base model number for the Fan-IN (combiner) version of the system followed by "ii" defining the number of inputs (04 to 32) followed by "00" defining the number of outputs (04 to 32). The final suffix is defined where "x" defines 1 or 2 controllers (single or dual), "z" is the system impedance (5=50 ohms, or 7=75 ohms) and "c" defines the I/O connectors (A=SMA, C=BNC, or F=F-Type).



Installing an output expansion switch blade

Maintenance Tools
Cable & expansion tool storage behind access panels

Built-in Rack Mount
6RU removable flanges and chassis slide mounting

Signal Connectors
BNC, SMA or F-Type available (SMA shown)

C3-lite Hot-Swap CPUs
Single or Dual
10/100 and uSD slot

Hot-Swap Redundant Supplies
Dual supplies are standard (fiber supply pull straps shown)

Option "L" Adds Auxillary Redundant Supply
For LNB power or FiberSTIK capability

10-32 Ground Stud

Removable Feet
(remove for rack mounting)

Forced Cooling
Redundant monitored cooling fans

Individual Blades
Up to 32 input blades (behind hinged panel)

System SWM32 Specifications

Array sizeUp to 32in x 32out array
Switching technologySolid-state GaAs elements
Type of systemNon-blocking full fan-out (or combiner)
ArchitectureModular (single card per In/Out)

I/O Characteristics

Frequency range20 - 3000MHz
Impedance50 ohm
Signal couplingAC
GainUnity (0dB +/-1dB nominal)
Gain adjust-10dB to +20dB
Flatness<+/-3.0dB typ (<0.5dB per 40MHz segment)
Isolation>60dB (I/I, O/O, I/O)
Input return loss>20dB typ
Output return loss>14dB typ
-1 dB compression>+5dBm
Noise Figure<20dB @ unity, <10dB @ max gain
Output IP3>16dBm
Signal connectorSMA, BNC or F-Type female
Option "L"Adds redundant LNB supply & features

General Specifications

Switching speed<10ms
Power supply sectionHot-Swap redundant supplies
Auxillary supplyOptional redundant LNB supply (Fan-OUT)
Power supply monitoringIncluded
Ethernet port10/100, SNMP, SNMP v1/2 & TCP/IP, IPV4/6
Redundant controllersOptional (hot swap)
Input and output cardsHot swap
Front panel displayTouchscreen (4.3" or optional 10.1")
Configuration memoryFLASH
High security featuremicroSD slot for removable memory
CoolingRedundant fan assisted (monitored)
AC power requirements90-264VAC, 47-440Hz, <220 Watts
Line protectionFuses @ power inputs (spares included)
Weight<40 lbs
Size10.47H x 15.50D x 19.00W (6RU)
Operating temp0 to +60C
Non-operating temp-20 to +85C
Humidity0 to 95% (NC @ +25C)
MTBF>120,500 hours (estimated)
Warranty2 years, up to 7-Years extended
CertificationsCE EN61010

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