

General

Critical communication installations demand high performance, high reliability, and expandable core equipment. Our SIM32 modular IF-Band matrix unit provides the system engineer with an uncompromising combination of these features in a cost effective 6RU package. The unit delivers a modular 30-250MHz high performance switching array (30-500MHz extended version) that can be configured up to a 32x32 matrix. Wideband 20-3000MHz versions are also available (SWM32).

Standard redundant hot-swap power supplies are included, plus our optional redundant system control interfaces (C3-Lite CPU) deliver the ultimate in system reliability for critical applications. Also, if a failure occurs, it will only affect a single channel. The SIM32X is the same but has a 10.1" display (**Option-X**) and additional front panel features.

Compact (6RU) and high performance, the unit provides a cost effective, flexible switching capacity for smaller installations. The unit can be configured from a small 4x4 and field expanded up 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 costs.

Complete control and status of the unit is available at either the lockable touchscreen, or the 10/100 interface(s). All input and output blades are hot-swappable for simple repair or system expansion.

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 or BNC signal connector types
- Impedance 50 or 75 ohm
- Expandable in the field
- Redundant hot-swap power supplies
- Single or dual controllers (and control ports)
- Available with **Option X** display (SIM32X)
- Choose between Fan-Out or Fan-In versions
- Menu driven touchscreen display & web browser
- Available with either single or dual CPUs (C3-Lite)
- 10/100 Ethernet control port(s)
- Includes TCP/IP, SNTP, SNMP v1/v2, IPv4 & IPv6
- Removable microSD card for secure environments
- Built-in continuous diagnostics
- Available in optional wideband versions
- Variable (programmable) gain
- International AC power input
- LabVIEW drivers and control software available



System SIM32X
 Shown with **Option X** 10.1" display
 (6RU)



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



System SIM32
 Shown with standard 4.3" display

SIM32-001

Fan-Out Number Assignment

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

SIM32-ii00-xzc

The SIM32 (SIM32X) 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" is 1 or 2 controllers (single or redundant), "z" is the system impedance (5 for 50 ohms, or 7 for 75 ohms) and "c" defines the I/O connectors (A for SMA or C for BNC).



Installing an output expansion switch blade

Signal Connectors
BNC or SMA available
(SMA shown)

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

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

Fan-In Number Assignment

The following format is used to define a standard Fan-IN (combining) switching system:

SIM32i-ii00-xzc

The SIM32i (SIM32Xi) 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" is 1 or 2 controllers (single or redundant), "z" is the system impedance (5 for 50 ohms, or 7 for 75 ohms) and "c" defines the I/O connectors (A for SMA or C for BNC).



System SIM32 Specifications

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

I/O Characteristics

Frequency range30 - 250MHz (30-500MHz extended)
Impedance50 or 75 ohm (specify)
CouplingAC
GainUnity (0dB +/-1dB nominal)
Flatness<+/-2.0dB typ (36MHz seg +/-0.25dB)
Fan-IN 50-90MHz +/-1.0dB
Fan-OUT 50-90MHz +/-0.5dB
Crosstalk isolation>65dB
Input return loss>20dB typ
Output return loss>20dB typ
-1dB compression+5dBm min
Noise Figure<17dB
Output IP315dBm typ
Signal connectorBNC or SMA female

General Specifications

Switching speed<10mS
Power supply sectionHot-Swap redundant supplies
Power supply monitoringIncluded
Ethernet port10/100BaseT, SNMP, SNMP v1/v2 & TCP/IP
Redundant controllersOptional (hot swap)
Input and output cardsHot swap
Front panel displayTouchscreen (4.3" or optional 10.1")
Configuration memoryFLASH
CoolingFan assisted (monitored)
AC power requirements90-264VAC, 47-440Hz, <220 Watts
Line protectionFuses @ power inputs
Weight<35 lbs
Size10.47H x 16.50D x 19.00W (6RU)
Operating temp0 to +50C
Non-operating temp-20 to +85C
Humidity0 to 95% (NC @ +25C)
MTBF>65,000 hours (estimated)
Warranty2 years
CertificationsCE EN61010

NOTE 1: If special, 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.