

General

Critical communication installations demand high performance, high reliability, and expandable core equipment. Our SLM32 modular L-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 950-2150MHz high performance L-Band switching array (850-2450 extended version) that can be configured up to a 32x32 matrix. Wideband 20-3000MHz versions are also available (SLM32W).

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 SLM32X 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, BNC, and F-Type signal connector types
- Impedance 50 or 75 ohm
- Expandable in the field
- Redundant hot-swap power supplies
- Optional LNB redundant power supply
- Single or dual controllers (and control ports)
- Available with **Option X** display (SLM32X)
- 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 SLM32X
 Shown with **Option X** 10.1" display
 (6RU)



System SLM32
 Shown with standard 4.3" display

SLM32-001



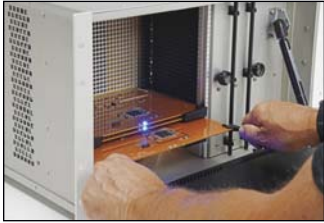
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Fan-Out Number Assignment

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

SLM32-ii00-xzc

The SLM32 (SLM32X) 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 dual), "z" is the system impedance (5 for 50 ohms, or 7 for 75 ohms) and "c" defines the I/O connectors (A for SMA, C for BNC, or F for F-Type).



Installing an output expansion switch blade

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

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

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

Auxiliary Redundant Supply
For LNB power or other capability

Fan-In Number Assignment

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

SLM32i-ii00-xzc

The SLM32i (SLM32Xi) 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 dual), "z" is the system impedance (5 for 50 ohms, or 7 for 75 ohms) and "c" defines the I/O connectors (A for SMA, C for BNC, or F for F-Type).

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

Forced Cooling
Dual monitored
cooling fans

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



System SLM32 Specifications

Array size Up to 32in x 32out non-blocking array
Switching technology Solid-state GaAs elements
Type of system Non-blocking full fan-out (or combiner)
Architecture Modular (single card for In or Out)

I/O Characteristics

Frequency range 950 - 2150MHz (850-2450MHz extended)
Impedance 50 ohm (75 optional)
Coupling AC
Gain Unity (0dB +/-1dB nominal)
Gain adjust +/-6dB min
Flatness <+/-2dB typ
Crosstalk isolation >60dB
Input return loss >14dB typ
Output return loss >14dB typ
-1dB compression +10dBm min
Noise Figure <20dB
Output IP3 >13dBm
Signal connector SMA, BNC or F-Type female

General Specifications

Switching speed <10mS
Power supply section Hot-Swap redundant supplies
Auxiliary supply Optional redundant LNB supply
Power supply monitoring Included
Ethernet port 10/100BaseT, SNMP, SNMP v1/v2 & TCP/IP
Redundant controllers Optional (hot swap)
Input and output cards Hot swap
Front panel display Touchscreen (4.3" or optional 10.1")
Configuration memory FLASH
Cooling Redundant fan assisted (monitored)
AC power requirements 90-264VAC, 47-440Hz, <220 Watts
Line protection Fuses @ power inputs
Weight <35 lbs
Size 10.47H x 15.50D x 19.00W (6RU)
Operating temp 0 to +60C
Non-operating temp -20 to +85C
Humidity 0 to 95% (NC @ +25C)
MTBF >65,000 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.