

SI-9332 HF SWITCH MATRIX



MEETING TODAY'S CHALLENGES TO PROVIDE A SECURE FUTURE

The SI-9332 is a non-blocking 32 x 32 HF switch matrix that allows up to 32 HF inputs in the 0.5 to 30 MHz range to be connected to 32 outputs. It has many applications including the connection of antenna inputs to receivers. The SI-9332 design represents a step forward in design for size, weight and power (SWaP) for an HF switch matrix. It is housed in a 1U rack-mountable chassis that weighs 18 pounds (8.2 kg). The unit provides near unity (0 dB) gain so that it is virtually transparent in system operations.

The SI-9332's RF input circuitry provides protection from high-voltage transients and nearby lightning strikes. The RF output power is automatically attenuated when very large RF inputs are applied allowing operations with RF inputs of up to 2 watts (+33 dBm). Continuous protection is provided for RF levels of up to 10 watts (+40 dBm). Recovery from overload is automatic.

All switching is fully electronic. By eliminating the use of mechanical relays, the SI-9332 design greatly increases system reliability and provides resistance to vibration. The SI-9332 provides compensatory signal amplification, sensing of signal path continuity and gain levels, and setting of status registers to indicate error conditions. If a failure occurs, diagnostics can be initiated to quickly localize the fault.

- 32 x 32 non-blocking full matrix switch
- 0.5 MHz to 30 MHz frequency range
- Exceptionally small size and weight
- 10/100 Base-T Ethernet interface
- Excellent intermodulation, noise figure, and internal spur performance



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One SI-9332 HF Switch and four SI-8728A narrowband tuners provides the basis for a highly scalable receiver network when combined with instances of the Sceptre client/server application and graphical user interface.



SI-9332 32 x 32 HF Switch Matrix rear panel view

RF PERFORMANCE

PARAMETER	DESCRIPTION
Frequency range	0.5 MHz to 30 MHz
Gain	0 dB \pm 1 dB
Noise figure	10 dB maximum
Isolation	
Input to input	50 dB
Output to output	50 dB
Output to input	50 dB

RF INPUT

PARAMETER	DESCRIPTION
Maximum power level for operations	2 watts (+33 dBm)
Input protection	
Continuous	10 watts (+40 dBm)
Pulse	2 kVolts, 1.6 microsecond rise, 50 microsecond duration
Control interfaces	10/100 BASE-T Ethernet and RS-232

SWAP

PARAMETER	DESCRIPTION
Size (HxWxD)	1U rackmount 1.75 x 19.00 x 19.50 inches (4.45 x 48.30 x 49.50 cm)
Weight	Less than 18 lbs. (8.2 kg)
Power requirements	100-250 Vac, 50-60 Hz, Less than 130 watts

ENVIRONMENT

PARAMETER	DESCRIPTION
Operating temperature	-20°C to +60°C (-4°F to 140°F) free air ambient at sea level
Thermal shock	10°C per minute (18°F per minute)
Humidity (operating)	0 - 95% non-condensing
EMI/EMC	Designed to meet MIL-STD-461

Airborne & Intelligence Systems

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