



# 9611

## Switch & Distribution Unit

### **KEY FEATURES**

- Automatic Selection of Redundant Signal Inputs
- · Twelve Signal Outputs
- · Flexible Signal Configuration
- · RS-232/422 Control Port
- Up To 32 Units On One Common Control Port

Symmetricom's 9611 Switch & Distribution Unit is an intelligent switching, monitoring and distribution system, packaged in a 1U rack mount chasis. It includes a dual input A-B switch that provides a powerful redundant capability.

The internal microprocessor can be set up to switch on a number of critera (i.e., voltage level and period detection). Internally, the unit can be configured to direct selected signals to up to twelve independently buffered outputs. Each output can be set for internal monitoring of the output signals. In addition, each output system can be set up as a signal monitor. Any single-ended type signal can be connected to any output line and that line can be configured to simply monitor the signal. The input signal can be connected to any output buffer for additional distribution of the input signal.

The internal microprocessor is controlled, configured and monitored by means of an RS-232 input/output port. Switch status as well as output status is reported on the front panel for immediate feedback of information to the operator as well as via the RS-232 port. A second connector on the rear panel allows up to thirty-two units to be daisy-chained and controlled via a single serial port on the computer.

This universal and highly versatile instrument is unequalled in the industry. No other low cost system offers these capabilities in a single product.



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## 9611 Specifications

## **ELECTRICAL SPECIFICATIONS**

• Output levels: 0-6 volts p-p, DC-10 MHz

0-6 volts p-p, DC-10 MHz Non-operating:  $-40^{\circ}$  C to  $+70^{\circ}$  C (3 volts p-p above 5 MHz) • Humidity (non-condensing)

• Temperature

Altitude

Operating:

Non-operating:

**ENVIRONMENTAL & PHYSICAL SPECIFICATIONS** 

0° C to 50° C

10% to 90%

~7.5 lbs. (3.37 Kg)

5% to 95%

• Output impedance:  $10\Omega$ ,  $50\Omega$  or  $600\Omega$  Operating:

(selectable)
• Input levels: 0-6 volts p-p, DC-10 MHz

• Input impedance:  $50\Omega$  or 1K, selectable Operating: 0 to 25,000° • Time period selection Non-operating: 0 to 40,000°

Range: 300 ns to 100 seconds in decade steps • Power requirements

• Distortion: Total harmonic at 10 MHz, 3 V P-P into  $50 \Omega$  AC input: 120 or 230 V AC, <10 W Less than 0.5 %

Less than 0.5%

• Dimensions

Spurs less than 60 dBc above 1KHz

Height: 1U (~1.73") (4.39 cm)

• Phase noise (-dBVrms/ $\div$ Hz): At 10MHz, 3 V P-P into  $50\Omega$  when using channel Width: 19" [48.26 cm] A or B as input Depth: 13" [32.02 cm]

A or B as input
Less than 102 @ 1Hz
Less than 125 @ 10Hz
Less than 140 @ 100Hz
Less than 145 @ 1KHz
Less than 150 @ 10KHz
Less than 160 @ 100KHz

• Crosstalk: Channel B into Channel A, less than 40dB at

10MHz.

• Reverse isolation: Channel 1 through 12 to any other channels 1

through 12, less than 60dB at 10MHz.

Spurs less than -120 dB @ 1KHz

• Hum noise levels: Less than -70dB

Working Diagram



Rear View



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