# Phillips Scientific

# Dual NanoSecond Delay Module

NIM MODEL
792

## **FEATURES**

- \* Two Independent Delay Sections
- \* Total Delay of 127nSec in .5nSec Steps
- \* Monoticity is Guaranteed for Each Section
- \* Both Lemo and BNC Connectors
- \* Available in CAMAC Packaging Model 7192

### **DESCRIPTION**

The Model 792 uses coaxial cable to provide an accurate and stable means of generating delays to 127nSec in a single width NIM module. Since coaxial cable is employed, no power is required and both linear or logic signals may be delayed with excellent fidelity. The configuration of two identical channels allows two signals to be delayed independently, often necessary for coincidence applications. Each channel has seven switches which select the calibrated delays of .5,1,2,4,8,16 and 32nSec. The total delay is equal to the sum of the switch settings.

#### GENERAL PERFORMANCE

#### Input and Output Characteristics:

50 ohm impedance throughout; Accepts signals to  $\pm 350$  Volts; Input and output ports are interchangeable; LEMO and BNC connectors on both ports.

#### **Delay Controls:**

Seven toggle switches per channel select .5,1,2,4,8,16 and 32nSec. The delay equals the sum of the switch settings.

#### Delay Range:

Selectable from 0 to 63.5nSec in .5nSec steps; 127nSec with both channels cascaded.

#### Delay Accuracy:

Better than  $\pm 50$ pSec or  $\pm .5\%$ , whichever is greater, for each delay switch inserted.

#### Insertion Delay:

 $1.9nSec, \pm 100pSec$  per section, with all switches in the OUT position.

#### Risetime and Falltime:

 $tr = tf \le .7nSec + (20pSec \ X \ delay \ setting), from 10% to 90%.$ 

#### Maximum VSWR:

1.02: 1 to IOOMHz 1.05: 1 to 250MHz 1.10: 1 to 500MHz

#### **Maximum Attenuation:**

Loss  $db \le (.1 \ db \ X \ \# \ of \ switches \ IN) + (.03 \ db \ X \ delay \ setting) @ 100MHz.$ 

#### Operating Temperature:

-20 °C to +85 °C ambient.

#### Packaging:

Standard single width NIM module in accordance with TID-20893 (Rev).

7/96

