

Model 2058 Nanosecond Delay

Features

- Up to 63.5 ns output delay in 0.5 ns increments
- Typical ± 20 ps calibrated delay accuracy

Description

The Model 2058 Nanosecond Delay permits the delay of linear or logic signals up to 63.5 ns in 0.5 ns steps. Since the delays are accomplished by means of interconnected coaxial cables, no power is required for operation of the module.

Seven front panel toggle switches allow the selection of 0.5, 1, 2, 4, 8, 16 or 32 ns of delay time. These delays may be added in any combination. Delay times greater than 63.5 ns may be obtained by cascading several Nanosecond Delay units.

The Model 2058 is useful in aligning fast timing channels which operate coincidence circuits or time to amplitude converters. The high degree of accuracy in delay time selection is an aid to the calibration of such equipment.

Specifications

INPUTS

- INPUT – Accepts positive or negative Slow/Fast NIM logic or linear pulses, ± 600 volts maximum; $Z_{in} = 50 \Omega$; isolated front panel BNC connector.

OUTPUTS

- OUTPUT – Provides delayed pulse, amount of delay being equal to sum of DELAY IN switches; $Z_{out} = 50 \Omega$; isolated front panel BNC connector.

CONTROLS

- DELAY IN/OUT – Seven front panel toggle switches to select delay of 0.5, 1, 2, 4, 8, 16 or 32 ns; may be added in any combination up to 63.5 ns beyond minimum delay of 2.0 ns.

PERFORMANCE

- DELAY RANGE – 0.5 to 63.5 ns in 0.5 ns increments beyond minimum delay; switch selectable.
- MINIMUM DELAY – 2.0 ns (all switches in OUT position).
- DELAY ACCURACY – Typical ± 20 ps for each DELAY IN switch, ± 100 ps maximum.
- TEMPERATURE OPERATING RANGE – 0-50 °C.

CONNECTORS

- All connectors are front panel BNC type.

POWER

- No power required for operation.

PHYSICAL

- SIZE – Standard single-width NIM module 3.43 x 22.12 cm (1.35 x 8.71 in.) per DOE/ER-0457T.
- NET WEIGHT – 0.8 kg (1.7 lb).
- SHIPPING WEIGHT – 1.8 kg (4.0 lb).

ENVIRONMENTAL

- OPERATING TEMPERATURE – 0 to 50 °C.
- OPERATING HUMIDITY – 0 to 80% relative, non-condensing. Meets the environmental conditions specified by EN 61010, Installation Category I, Pollution Degree 2.

