

Model 7800-7

Nanosecond Delay Box

Features:

- Aligns fast timing channels
- 50 Ohm calibrated cable delay for analog or logic signals
- 0 to 63.5 ns delay settable in 0.5 ns increments
- Accuracy typically ± 20 ps

Description:

The Model 7800-7 is a fully dc-coupled delay box containing 50 Ohm calibrated cable delays. Front panel toggle switches allow the selection of 0,5, 1, 2, 4, 8, 16, and 32 ns of delay time. Any combination of delay times can be added to a total of 63,5 ns. Any number of 7800-7 delay boxes can be cascaded to obtain precise delays of longer duration. No power is required for the operation of the box.

The Model 7800-7 can be used to align timing channels incorporating coincidence circuits or Time-to-Amplitude Converters. Optimum selection of this external delay provides - for example - full compensation for timing delays in different channels due to rise time variations and propagation delays of different detectors and electronics.

Specifications:

INPUTS

INPUT - Accepts positive or negative linear pulses or logic pulses, $Z_{in} = 50$ Ohms, dc coupled; front panel Lemo connector.

OUTPUTS

OUTPUTS - Equivalent to the input pulse, delayed by the sum of the selected delay switches. $Z_{out} = 50$ Ohms, dc coupled.

CONTROLS

Delay IN/OUT - seven frontpanel toggle switches. Selectable delay range 0.5 to 63.5.

CONNECTORS

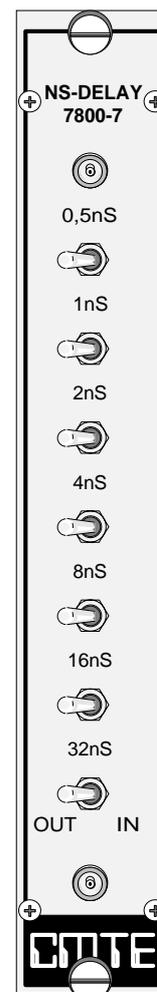
All connectors are front panel LEMO Serie 00 type ERN.00.250.CTL, BNC or other connectors on request.

PERFORMANCE

DELAY RANGE - 0.5 to 63.5 ns, toggle switch selectable in 0.5 ns increments.
MINIMUM DELAY - 1 ns when all switches are in the OUT position.
DELAY ACCURACY - ± 18.5 ps typical for each delay position, 95 ps max. measured with a test pulse of $t_r = 0.2$ ns at room temperature.
TEMPERATURE RANGE - 0 to $+50^\circ\text{C}$

PHYSICAL

SIZE - Single width NIM module 3,43 X 22,12 cm (1.35 X 8.71 inches) per TID-20893 (rev.)
NET WEIGHT - 0.6 kg (1.5 lbs.)
SHIPPING WEIGHT - 2.0 kg (4.4 lbs.)



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