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MODEL DD1 - 2
DUAL CHANNEL
TIMING GENERATOR
DATA SHEET 771

MODEL DD1-2

DUAL CHANNEL - TIMING GENERATOR

FEATURES:

Two channel independent pulse width controled/delayed pulses
Used with DD1 Delay/Divider module option allowing independently adjustment in separation and delay
Housed in a unit mounted to standard supply chassis

DESCRIPTION:

The DD1-2 is a high speed analog delay that produces two sets of pulses per channel when used with the DD1 option. See DD1 data sheet 734. The independent pulse widths can be adjusted as shown in figure 1 below using the DD1-2. Since each of these adjustments are made independently, this device affords extreme versatility in the timing and execution of electro-optic phenomena.

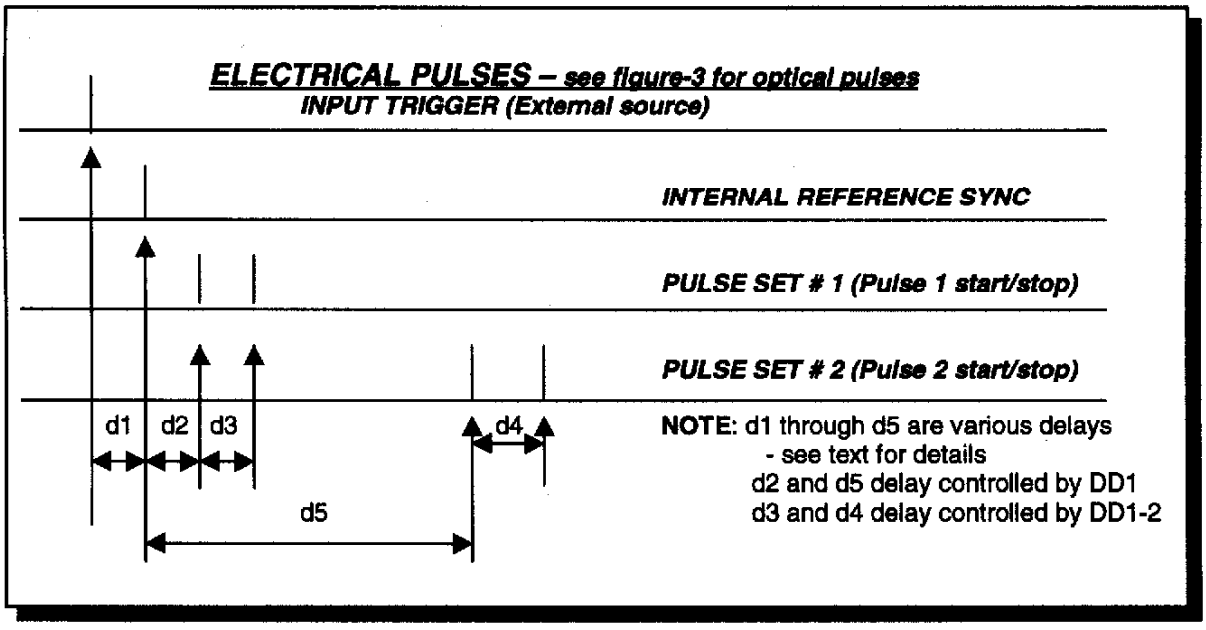
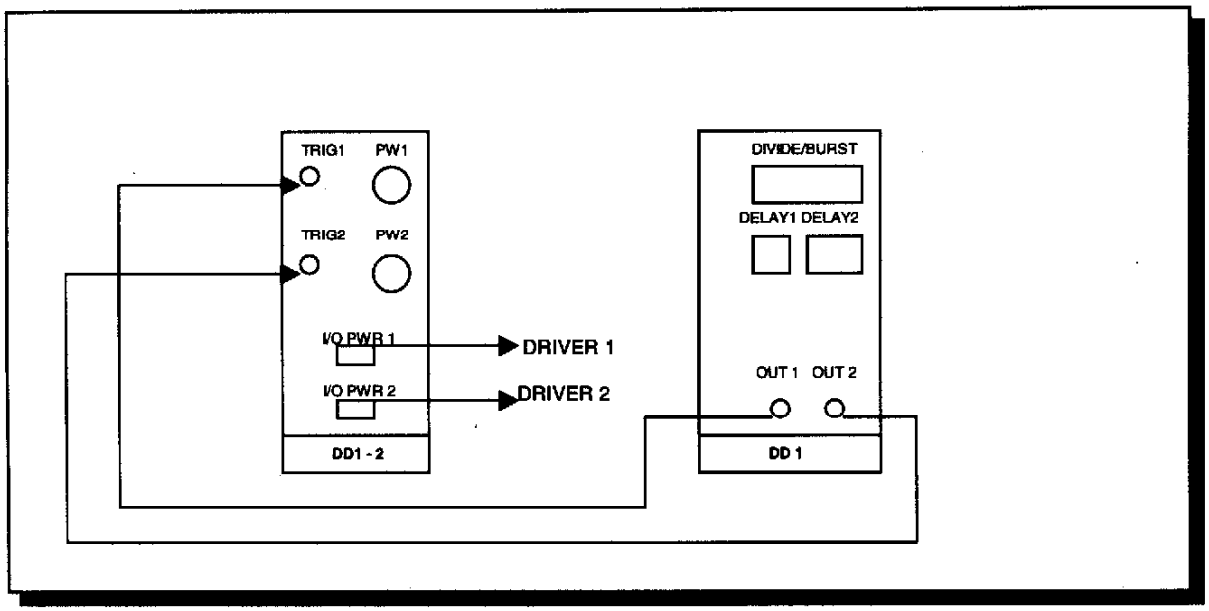


FIGURE 1

Where from Figure 1:

d1 – fixed delay internal to the ***DD1*** electronics of approximently 30 nsec.. The ***DD1*** produces the internal *REFERENCE* from which delays **d2** and **d5** are derived.
d2 – internal delay (delay 1) as set by ***DD1*** (0 nsec to 99 nsec). This delay is referenced to the internal *REFERENCE*.
d3 – adjustable delay by **DD1-2** PW-1 control on its front panel with its adjustment of 10nsec to 100 nsec.
d4 – adjustable delay by **DD1-2** PW-2 control on its front panel with its adjustment of 10nsec to 100 nsec.
d5 - internal delay (delay 2) as set by ***DD1*** (0 nsec to 999 nsec). This delay is referenced to the internal *REFERENCE*.

Interconnection, see figure-2, between the DD1 and the DD1-2 is: OUT-1 of DD1 connects via BNC cable top TRIG-1 of DD1-2, and OUT-2 from DD1 connects via a BNC cable to TRIG-2 of DD1-2. PW-1 controls the optical pulse width of #1 driver, and PW-2 controls the optical pulse width of driver #2. The drivers, #1 and #2, connect directly to the DD1-2 by I/O PWR-1 and I/O PWR-2 respectively via the 9-pin "D" connectors. See figure-2 for pictorial of DD1 and DD1-2 connections.



Connections between DD1 and DD1-2 are shown in the block diagram below.

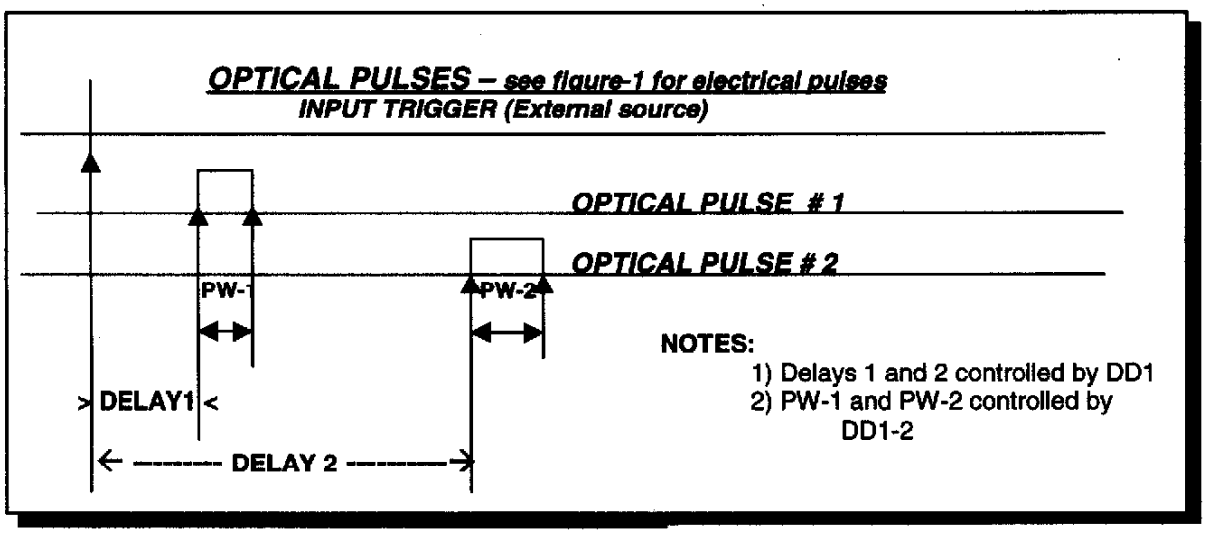
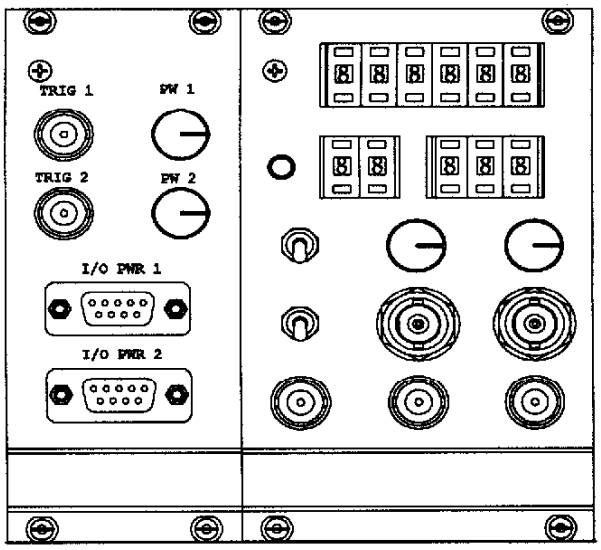


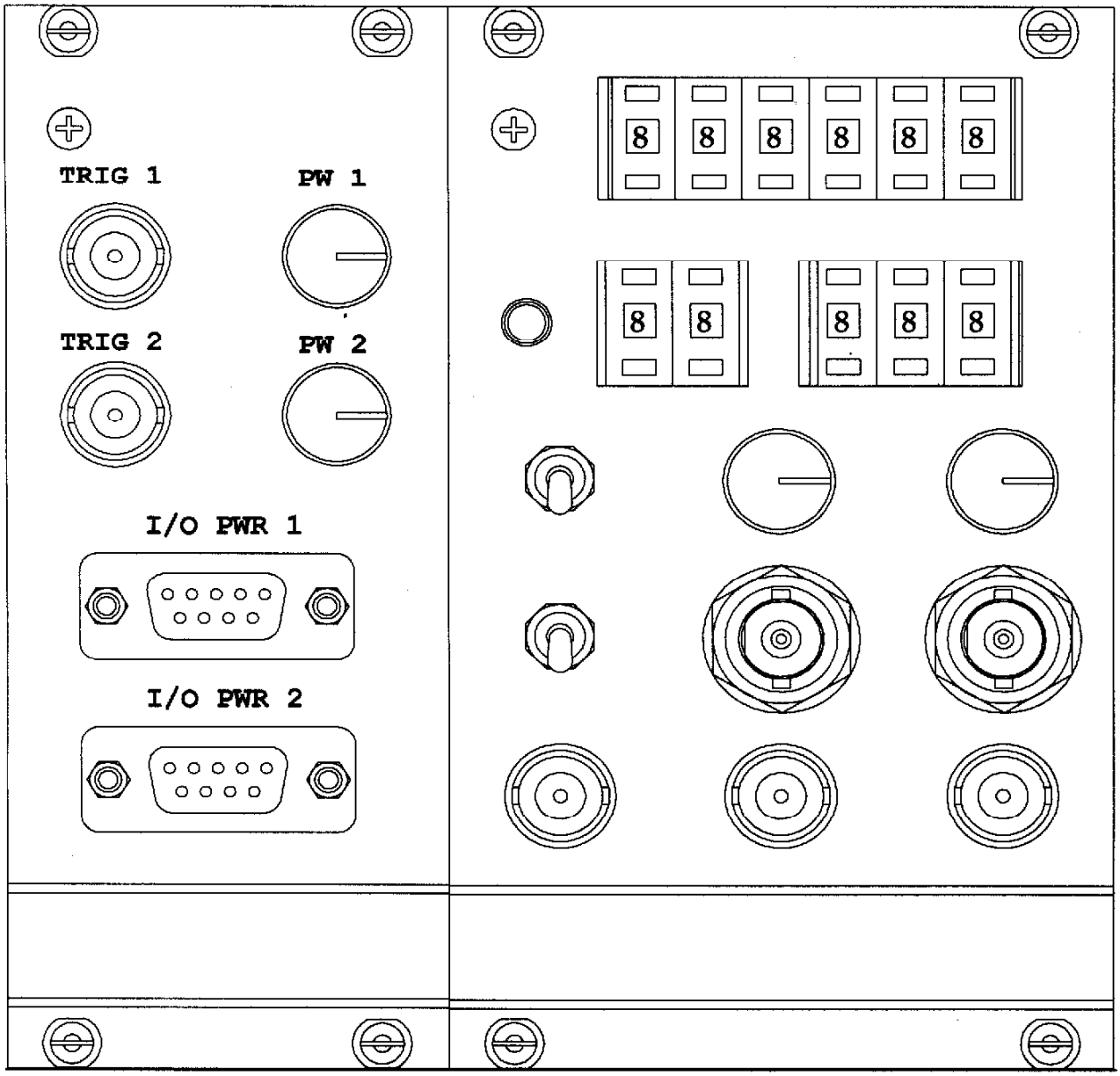
FIGURE 2

FIGURE 3



DELAY 1: ~ 30 nsec + DELAY-1 set on DD1
DELAY 2: ~ 30 nsec + DELAY-2 SET ON DD1
PW-1: Optical pulse width set on DD1-2
PW-2: Optical pulse width set on DD1-2

DD1-2 / DD1 combination >>>



DIVIDER DELAY
WITH DD1 -002
OPTION