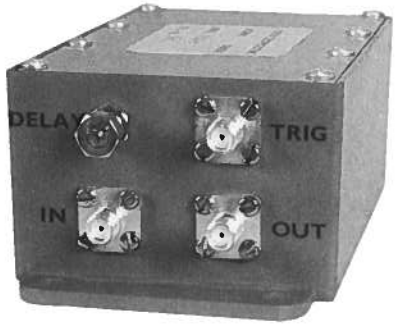
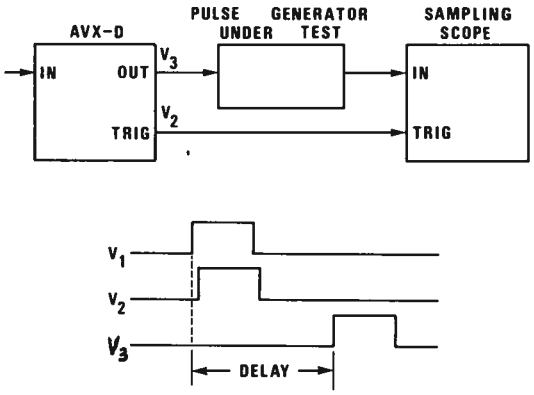
AVTECH

AVX-D
ANALOG DELAY GENERATOR
30 TO 150 NANOSECONDS





When displaying the fast narrow output pulses of subnanosecond rise time pulse generators using a sampling scope, the scope time base must normally be triggered in advance of the application of the pulse to the vertical amplifier. This advance trigger interval is normally in the range of 10 to 100 nsec and is commonly attained using cumbersome delay lines. Model AVX-D provides variable advance triggering as shown above. An input trigger pulse V_1 is split into an output trigger pulse V_2 (delayed 30 nsec with respect to V_1) and an output pulse V_3. The delay between the leading edge of V_1 and V_3 is continuously variable over the range of 30 to 150 nsec by means of a one turn control. Output pulse V_3 triggers the pulse source under test. To produce a jitter-free display, the delay of the AVX-D unit is adjusted to account for the propagation delay through the pulse generator under test and for the settings on the sampling scope. Model AVX-D also finds widespread application as a general purpose analog delay generator.

All signals are TTL compatible and the V_2 and V_3 outputs will drive loads as low as 50 ohms. The V_3 output pulse width is fixed at 200 nsec while the pulse width at the V_2 output equals the input pulse width V_1. Model AVX-D operates in the PRF range of 0 to 1.0 MHz and requires either a +15 VDC bias supply (module format, see above) or a 110/220 volt, 50-60 Hz supply (-PS option). For delays in the range of 150 nsec to 10 usec see Model AVX-D-2. Contact Avtech for your special requirements such as DC voltage controlled delays.

Delay range:	30 to 150 nsec
PRF range:	0 to 1.0 MHz
Jitter:	± 10 psec
Input PW:	50 to 500 nsec
Output PW:	200 nsec
Trig PW:	Equals input PW
Signal amplitudes:	TTL levels (will drive 50 ohm loads)
Power requirement Modules: -PS:	 +15 volts 150 mA 110/220V, 50-60 Hz
Connectors Modules: -PS:	 SMA BNC
Dimensions (in) Modules: -PS:	 1.71 x 2.63 x 4.75 4 x 6 x 8
Chassis material Modules: -PS:	 Cast aluminum, blue enamel 20 ga steel, blue enamel with brushed Al front panel

ED OPTION: For units with the electronic delay option, the delay is controlled by 0 to +10V applied to the DELAY solder terminal ($R_{IN} > 10K$).