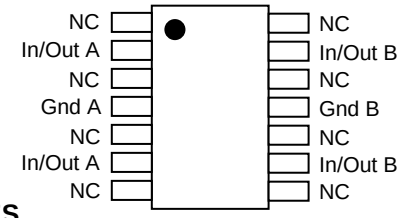
DUAL FIXED SUB-NS DELAY LINE
T_R < 1ns
(SERIES 2025 & 2026)

FEATURES

- Fast rise time for high frequency applications
- Ideal for differential signaling
- Delays available from 50ps to 800ps
- Surface-mount device
- Epoxy encapsulated
- Meets or exceeds MIL-D-23859C

IDEAL SUBSTITUTE FOR COAXIAL CABLES

PACKAGE/PINOUT



2025-xx
2026-xx
xx = Delay (T_D)

FUNCTIONAL DESCRIPTION

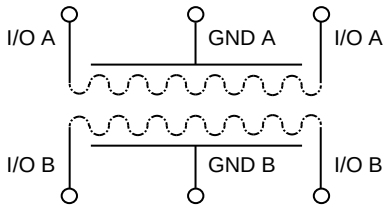
The 2025- and 2026-series devices are fixed, dual, single-input, single-output, passive delay lines. The signal input (In) on each line is reproduced at the output (Out), shifted by a time (T_D) given by the device dash number. The characteristic impedance of the lines is nominally 50 ohms. The rise time (T_R) of the lines is less than 1ns, resulting in a 3dB bandwidth in excess of 700MHz. Each line is bidirectional – either pin can be used as the input, and the other as the output.

PIN DESCRIPTIONS

In/Out	Signal In/Out
Gnd	Signal Ground

SERIES SPECIFICATIONS

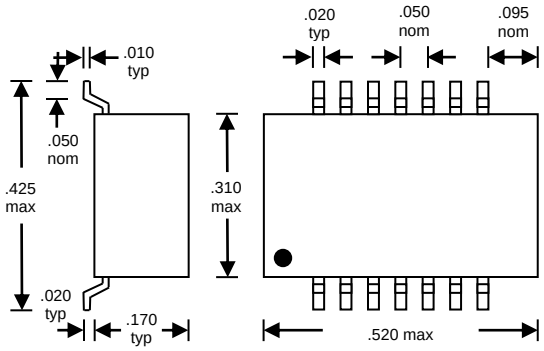
- **Tolerance:** 3% or 10ps
- **Bandwidth:** >700MHz
- **Ripple in pass-band:** Approx. 0.2dB
- **Dielectric breakdown:** >500 Vdc
- **Operating temperature:** -65°C to +125°C
- **Temperature coefficient:** <100 PPM/°C



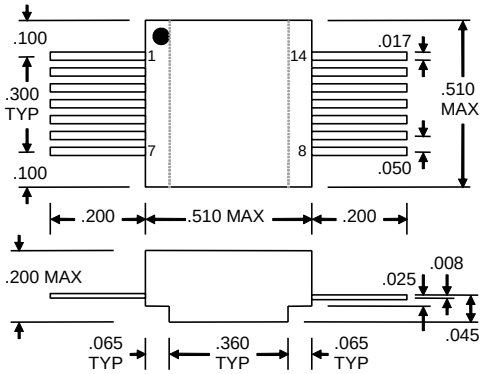
Functional Diagram

DASH NUMBER SPECIFICATIONS

Part Number	Part Number	Delay/Line (ps)	Imped. (Ω)
2025-50	2026-50	50	50
2025-100	2026-100	100	50
2025-150	2026-150	150	50
2025-200	2026-200	200	50
2025-250	2026-250	250	50
2025-300	2026-300	300	50
2025-350	2026-350	350	50
2025-400	2026-400	400	50
2025-450	2026-450	450	50
	2026-500	500	50
	2026-600	600	50
	2026-700	700	50
	2026-750	750	50
	2026-800	800	50



Package Dimensions (2025)



Package Dimensions (2026)

PASSIVE DELAY LINE TEST SPECIFICATIONS

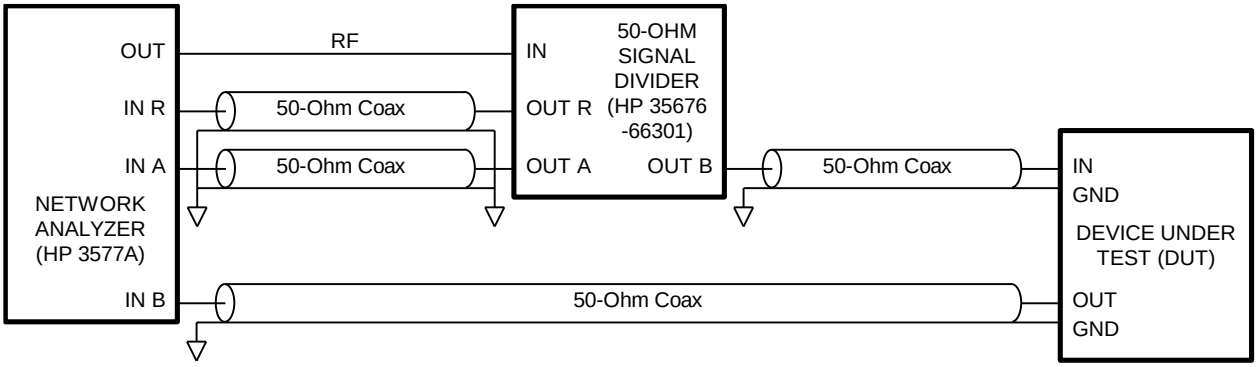
TEST CONDITIONS

INPUT:
Ambient Temperature: 25ºC ± 3ºC
Source Amplitude: 0dBm typical
Source Impedance: 50Ω nominal
Input Frequency: 27.777778MHz

OUTPUT:
Z_{load}: 50Ω nominal

Network analyzer is used in phase measurement mode, normalized with a wire jumper between input and output of DUT test socket. Delay is related to phase lag with proportionality constant of 100ps/deg.

NOTE: The above conditions are for test only and do not in any way restrict the operation of the device.



Test Setup