

CL1L, CL2L series, surface-mount thin film delay lines

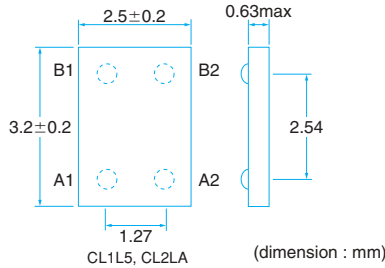


This series permits ultra-precision timing adjustment from 20 to 200 picoseconds with accuracy of \pm picoseconds for ultrahigh-speed signal processing applications.
Differential delay line: CL2L

RoHS compliant Completely lead free

SPECIFICATIONS

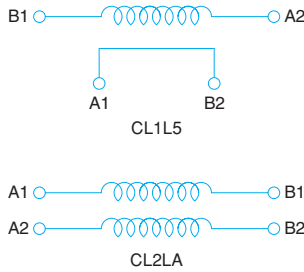
Mechanical



Electrical

Type	CL1L5	CL2LA
Time Delay	40~220ps(20ps step)	
Time Delay Tolerance	$\pm 10\%$	
Temp. coefficient of Td	$\pm 100\text{ppm}/^\circ\text{C}$	
Characteristic Impedance	$50\Omega \pm 10\%$	$100\Omega \pm 10\%$
DC Resistance	0.3 Ω (100ps or less) 3.0 Ω /ns max (100ps or more)	1.0 Ω Max.
Insertion loss	0.5dB or less (at 0.75GHz) 0.5dB or less (at 1.0GHz)	
Rated Current	100mA	
Rated Current	-40 $^\circ\text{C}$ ~85 $^\circ\text{C}$	

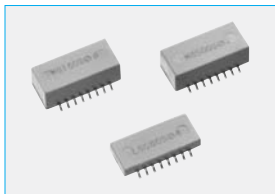
Equivalent circuit



PART NUMBER

CL 1L 5 A T 020 L T1 (-C)

- Given to RoHS compliant CL2LA series products
- Package(T1:100pcs, T5:500pcs, TA:1,000pcs)
- Serial code (L=CL1L5A, D=CL2LA)
- Time Delay (020=200ps)
- Termination type (T)
- Height code (A)
- Impedance (5=50 Ω , A=100 Ω)
- Number of elements (1L=CL1L5, 2L=CL2LA)
- Part Code, Number of elements



GL1L/GL2L series, SOP (small outline package) thin film differential delay lines

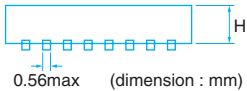
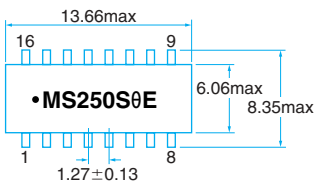


These delay lines offer the same excellent frequency performance as SIP delay lines but come in a gullwinged surface mount package. The differential SMT is useful for PECL application, and contains two identical transmission lines matched for the time delay. Featuring a stripline shielded construction, these parts offer very low EMI/RFI, and are ideal for high frequency/tight tolerance timing and deskew applications.

RoHS compliant

SPECIFICATIONS

Mechanical

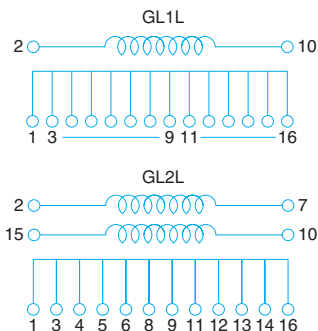


Time Delay	H	Code
0.1~1.0ns	2.37max	L
1.1~5.0ns	4.85max	M

Electrical

Type	GL1L	GL2L
Time Delay	0.1~5.0ns(0.1ns step)	0.1~3.0ns(0.1ns step) 3.5~4.5ns(0.5ns step)
Time Delay Tolerance	$\pm 0.05\text{ns}$	$\pm 0.05\text{ns}$ (0.1~2.9ns) -0.5/+0.1ns(3.0ns) $\pm 0.1\text{ns}$ (3.5~4.5ns)
Temp. coefficient of Td	0~150ppm/ $^\circ\text{C}$	
Characteristic Impedance	50 $\pm 5\Omega$	
Rise/fall time	200ps/ns	
Rated Current	100mA	
Characteristic Impedance	-25~85 $^\circ\text{C}$	

Equivalent circuit



PART NUMBER

GL1L 5 M S 250 S -T* (-C)

- Given to RoHS compliant products
- Package(T1:100pcs, T5:500pcs)
- Circuit : S(GL1L),D(GL2L)
- Time Delay : (250=2.50ns)
- Lead Frame
- Height code
- Impedance : (5=50 Ω)
- Part Code