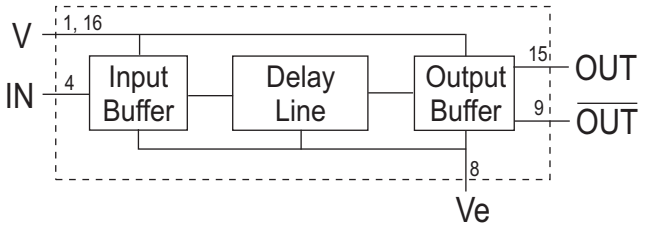
10K ECL Logic Delay Line

The 10K ECL Logic Delay Lines manufactured by Engineered Components Company are designed to provide an output waveform that reproduces the input waveform after a set amount of delay time has elapsed. These delay lines are non-inverting. The delay times are calibrated to the listed tolerances on the rising edge delays.

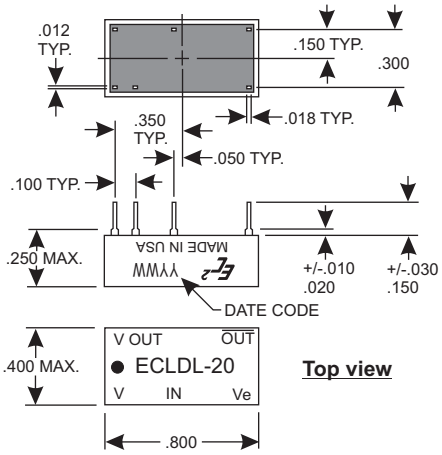
The MTBF on these modules, when calculated per MIL-HDBK-217, for a 50 deg.C ground fixed environment and with 50VDC applied, is in excess of 3 million hours. The temperature coefficient of delay is less than +/-500 ppm/deg.C over the operating temperature range of -30 to +85 deg. C.

The module is provided in a 16-pin DIP package, fully encapsulated in epoxy resin and is housed in a Diallyl Phthalate case, blue in color. The case marking is applied by silkscreen using white epoxy paint. The 6 copper leads are tin-lead plated and meet the solderability requirements of MIL-STD-202, Method 208.

BLOCK DIAGRAM



MECHANICAL DIAGRAM



Top view

Product Selection Table

Part Number	Max. Rise Time (in ns)	Output Delay & Tolerance (in ns)
ECLDL-2	2	2.0+/-0.3
ECLDL-3	2	3.0+/-0.4
ECLDL-4	3	4.0+/-0.5
ECLDL-5	3	5.0+/-1.0
ECLDL-6	3	6.0+/-1.0
ECLDL-7	3	7.0+/-1.0
ECLDL-8	3	8.0+/-1.0
ECLDL-9	3	9.0+/-1.0
ECLDL-10	4	10.0+/-1.0
ECLDL-11	4	11.0+/-1.0
ECLDL-12	4	12.0+/-1.0
ECLDL-13	4	13.0+/-1.0
ECLDL-14	4	14.0+/-1.0
ECLDL-15	5	15.0+/-1.0
ECLDL-16	5	16.0+/-1.0
ECLDL-17	5	17.0+/-1.0
ECLDL-18	5	18.0+/-1.0
ECLDL-19	5	19.0+/-1.0
ECLDL-20	5	20.0+/-1.0
ECLDL-21	6	21.0+/-1.0
ECLDL-22	6	22.0+/-1.0
ECLDL-23	6	23.0+/-1.0
ECLDL-24	6	24.0+/-1.0
ECLDL-25	6	25.0+/-1.0
ECLDL-30	7	30.0+/-1.5
ECLDL-35	7	35.0+/-1.5
ECLDL-40	8	40.0+/-1.5
ECLDL-45	8	45.0+/-2.0

Product Selection Table (Cont.)

Part Number	Max. Rise Time (in ns)	Output Delay & Tolerance (in ns)
ECLDL-50	9	50.0+/-2.0
ECLDL-55	9	55.0+/-2.0
ECLDL-60	10	60.0+/-2.0
ECLDL-65	10	65.0+/-2.5
ECLDL-70	11	70.0+/-2.5
ECLDL-75	12	75.0+/-2.5
ECLDL-80	12	80.0+/-2.5
ECLDL-85	13	85.0+/-3.0
ECLDL-90	13	90.0+/-3.0
ECLDL-95	15	95.0+/-3.0
ECLDL-100	15	100.0+/-3.0
ECLDL-125	18	125.0+/-4.0
ECLDL-150	20	150.0+/-4.5
ECLDL-175	23	175.0+/-5.0
ECLDL-200	25	200.0+/-6.0
ECLDL-225	25	225.0+/-7.0
ECLDL-250	25	250.0+/-8.0
ECLDL-275	25	275.0+/-9.0
ECLDL-300	30	300.0+/-10.0
ECLDL-350	30	350.0+/-11.0
ECLDL-400	30	400.0+/-12.0
ECLDL-450	30	450.0+/-14.0
ECLDL-500	30	500.0+/-15.0
ECLDL-600	30	600.0+/-18.0
ECLDL-700	30	700.0+/-20.0
ECLDL-800	30	800.0+/-22.0
ECLDL-900	30	900.0+/-24.0
ECLDL-1000	30	1000.0+/-26.0

Special modules can often be manufactured to provide for customer specific applications.

Operating Specifications:

All measurements made at 25 deg. C
All measurements made with Vee = -5.2VDC, Vcc = 0VDC
All measurements made with (1) 10K ECL output load
All measurements made with a 100 ohm pulldown resistor to -2VDC at the input and output

Operating Temperature: -30 to +85 deg. C
Storage Temperature: -55 to +125 deg. C

Vee Supply Voltage: -5.2 +/-5% VDC
Vee Supply Current: 40mA typical
Logic "High" Input:
Voltage: -0.98VDC min.
Current: 265uA max.
Logic "Low" Input:
Voltage: -1.63VDC max.
Current: 0.5uA min.
Logic "High" Voltage Out: -0.96VDC min.
Logic "Low" Voltage Out: -1.65VDC max.

engineered components company
A Division of Cornucopia Tool & Plastics, Inc. PO Box 1915, 448 Sherwood Rd., Paso Robles CA 93447
Phone: 805-369-0034
Fax: 805-369-0033
Web: www.ec2.com