

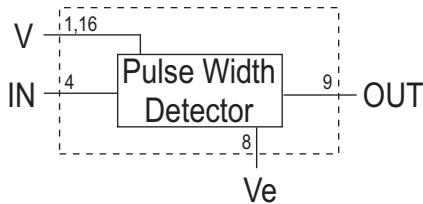
10K ECL Noise Filter Module

The 10K ECL Noise Filter Modules manufactured by Engineered Components Company are designed to filter or suppress input pulses below a specified suppress pulse width and to pass pulses above a specified pass pulse width. The operation of this module will eliminate unwanted shorter positive pulses from an input data stream and produce an output data stream consisting of only the longer positive pulses. The output of the module will remain "low" for any input pulse times shorter than the suppress time, and will change to a "high" for pulse times longer than the pass time.

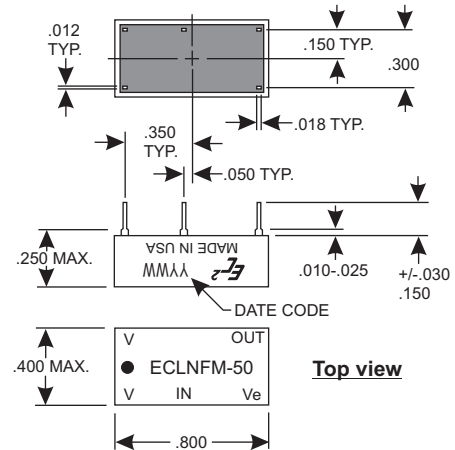
The MTBF on these modules, when calculated per MIL-HDBK-217, for a 50 deg.C ground fixed environment and with 50VDC applied, is in excess of 1.8 million hours. The temperature coefficient of delay is less than +/-200 ppm/deg.C over the operating temperature range of -30 to +85 deg. C.

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 5 copper leads are tin-lead plated and meet the solderability requirements of MIL-STD-202, Method 208.

BLOCK DIAGRAM



MECHANICAL DIAGRAM



Product Selection Table

| Part Number | Nominal Pass/Suppress (ns) | Suppress Pulse Width (ns) | Pass Pulse Width (ns) |
|-------------|----------------------------|---------------------------|-----------------------|
| ECLNFM-5 | 5 | </= 4.0 | >/= 6.0 |
| ECLNFM-10 | 10 | </= 9.0 | >/= 11.0 |
| ECLNFM-15 | 15 | </= 14.0 | >/= 16.0 |
| ECLNFM-20 | 20 | </= 19.0 | >/= 21.0 |
| ECLNFM-25 | 25 | </= 24.0 | >/= 26.0 |
| ECLNFM-30 | 30 | </= 29.0 | >/= 31.0 |
| ECLNFM-35 | 35 | </= 34.0 | >/= 36.0 |
| ECLNFM-40 | 40 | </= 39.0 | >/= 41.0 |
| ECLNFM-45 | 45 | </= 43.5 | >/= 46.5 |
| ECLNFM-50 | 50 | </= 48.5 | >/= 51.5 |
| ECLNFM-60 | 60 | </= 58.0 | >/= 62.0 |
| ECLNFM-70 | 70 | </= 68.0 | >/= 72.0 |
| ECLNFM-75 | 75 | </= 73.0 | >/= 77.0 |
| ECLNFM-80 | 80 | </= 78.0 | >/= 82.0 |
| ECLNFM-90 | 90 | </= 88.0 | >/= 92.0 |
| ECLNFM-100 | 100 | </= 98.0 | >/= 102.0 |
| ECLNFM-125 | 125 | </= 123.0 | >/= 127.0 |
| ECLNFM-150 | 150 | </= 147.0 | >/= 153.0 |
| ECLNFM-175 | 175 | </= 172.0 | >/= 178.0 |
| ECLNFM-200 | 200 | </= 196.0 | >/= 204.0 |
| ECLNFM-250 | 250 | </= 245.0 | >/= 255.0 |
| ECLNFM-300 | 300 | </= 294.0 | >/= 306.0 |
| ECLNFM-400 | 400 | </= 392.0 | >/= 408.0 |
| ECLNFM-500 | 500 | </= 490.0 | >/= 510.0 |

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: 55mA 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