

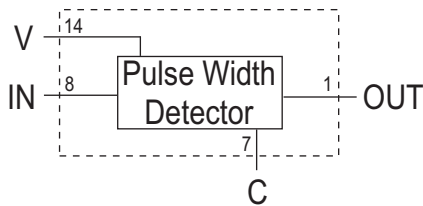
TTL Military Noise Filter Module (Thinny)

The TTL Military Noise Filter Modules (Thinny) 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.

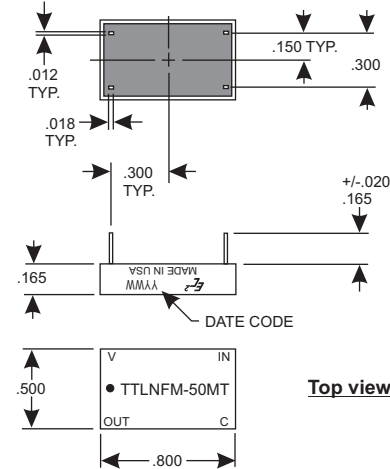
The MTBF on these modules, when calculated per MIL-HDBK-217, for a 50 deg.C ground fixed environment and with 50VDC applied, is in excess of 3.5 million hours. The temperature coefficient of delay is less than 800 ppm/deg.C over a temperature range of -55 to +100 deg. C. These modules are designed to operate over the full military temperature range of -55 to +125 deg. C.

The module is provided in a 14-pin DIP package, fully encapsulated in epoxy resin and is housed in a Diallyl Phthalate case, red in color. The case marking is applied by silkscreen using white epoxy paint. The 4 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)
TTLNFM-5MT	5	</= 4.0	>/= 6.0
TTLNFM-10MT	10	</= 9.0	>/= 11.0
TTLNFM-15MT	15	</= 14.0	>/= 16.0
TTLNFM-20MT	20	</= 19.0	>/= 21.0
TTLNFM-25MT	25	</= 24.0	>/= 26.0
TTLNFM-30MT	30	</= 29.0	>/= 31.0
TTLNFM-35MT	35	</= 34.0	>/= 36.0
TTLNFM-40MT	40	</= 39.0	>/= 41.0
TTLNFM-45MT	45	</= 43.5	>/= 46.5
TTLNFM-50MT	50	</= 48.5	>/= 51.5
TTLNFM-60MT	60	</= 58.0	>/= 62.0
TTLNFM-70MT	70	</= 68.0	>/= 72.0
TTLNFM-75MT	75	</= 73.0	>/= 77.0
TTLNFM-80MT	80	</= 78.0	>/= 82.0
TTLNFM-90MT	90	</= 88.0	>/= 92.0
TTLNFM-100MT	100	</= 98.0	>/= 102.0
TTLNFM-125MT	125	</= 123.0	>/= 127.0
TTLNFM-150MT	150	</= 147.0	>/= 153.0
TTLNFM-175MT	175	</= 172.0	>/= 178.0
TTLNFM-200MT	200	</= 196.0	>/= 204.0
TTLNFM-250MT	250	</= 245.0	>/= 255.0
TTLNFM-300MT	300	</= 294.0	>/= 306.0
TTLNFM-400MT	400	</= 392.0	>/= 408.0
TTLNFM-500MT	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 Vcc = +5VDC
 All measurements made with (1) TTL output load

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

Vcc Supply Voltage: 4.75 to 5.25VDC

Vcc Supply Current:

Constant "0" in = 60mA typical

Constant "1" in = 20mA typical

Logic "High" Input:

Voltage: 2.0VDC min. ; Vcc max.

Current: 2.4VDC = 50uA max. ; 5.5VDC = 1mA max.

Logic "Low" Input:

Voltage: 0.8 VDC max.

Current: -2.0mA max.

Logic "High" Voltage Out: 2.4VDC min.

Logic "Low" Voltage Out: 0.4VDC max.



engineered components company

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