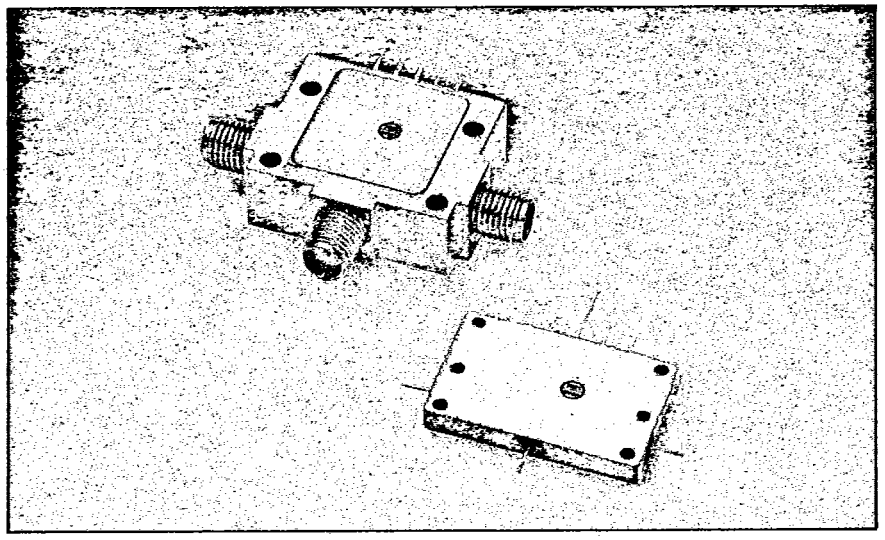
NEW ENGLAND MICROWAVE CORPORATION

1-18 GHZ LOW TRANSIENT SPDT SWITCHES MODELS 622M010/625M010



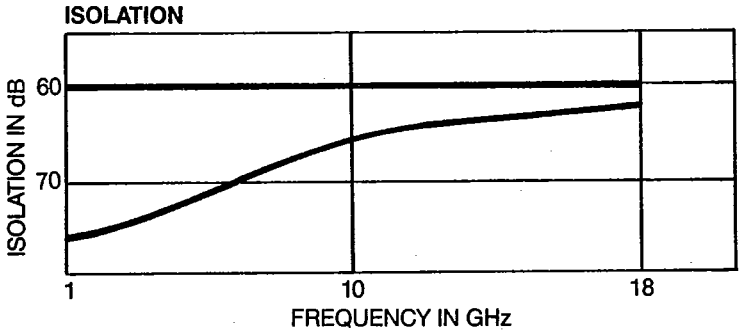
FEATURES

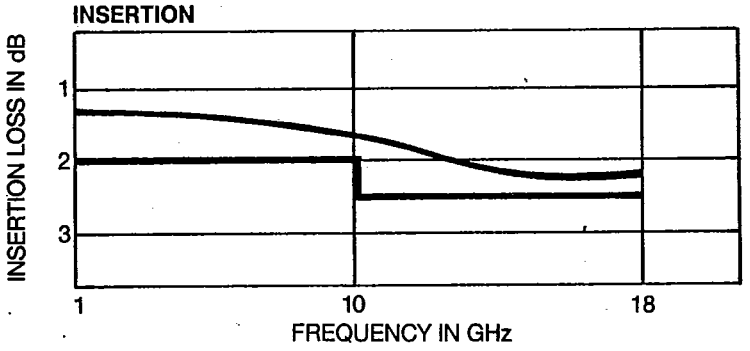
- 1-18 GHz Frequency Range in a Single Unit
- <50 MV Switching Transient (100 MHz Bandwidth)
- <5ns Rise and Fall Time
- +20 DBM Power Level
- Integral TTL Compatible Driver
- Up to 10 MHz Pulse Repetition Rate
- –55°C to +125°C Temperature Range
- MIL-STD-883 Screening Available

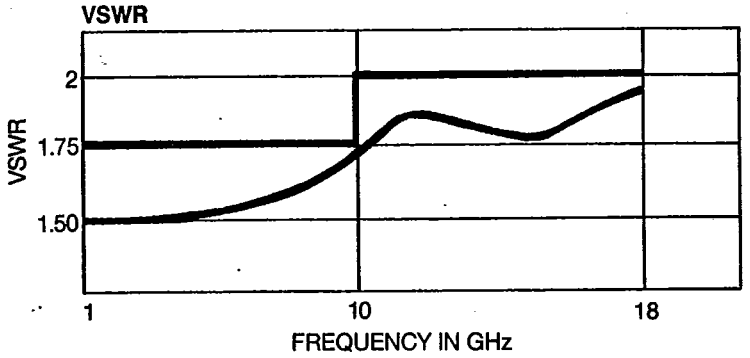
DESCRIPTION

New England Microwave's Low Transient SPDT Switches address a broad range of switching requirements, from 1 to 18 GHz. Designed for high reliability, NEM switches operate over the entire military temperature range of -55°C to +125°C. Because we control the entire manufacturing process, from the production of PIN diode wafers through final assembly and testing, you can be sure each switch will perform to exacting specifications.

If this does not meet your exact specifications (we have a broad range of switches with built-in TTL compatible drivers), please call us. Chances are, we already have the right switch for your applications, or we will be able to design one with minimum additional costs.







Above curves represent typical performance of NEM switches in their respective bands.

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DETAILED SPECIFICATIONS

FREQUENCY

Insertion Loss 1-10 GHz 2.0 dB max
10-18 GHz 2.5 dB max

Isolation .1-18 GHz 60 dB min

VSWR

LOW LOSS STATE	
1-10 GHz	1.75:1
10-18 GHz	2.00:1

Switching Speed 50% TTL to 90% RF — 20ns max
50% TTL to 10% RF — 20ns max
Rise Time = 5ns max
Fall Time = 5ns max

Switching Transient 100 MV (0 to peak) in a DC to 100 MHz bandwidth

Logic TTL — One Unit Load

Control	RF
Vc	J1 - J2
L	IL
H	ISO

PRR 20 MHz

Power Supply +5 Volt @ 100 mA
-5 Volt @ 100 mA

At 10 MHz PRR +5 Volt @ 250 mA max
-5 Volt @ 250 mA max

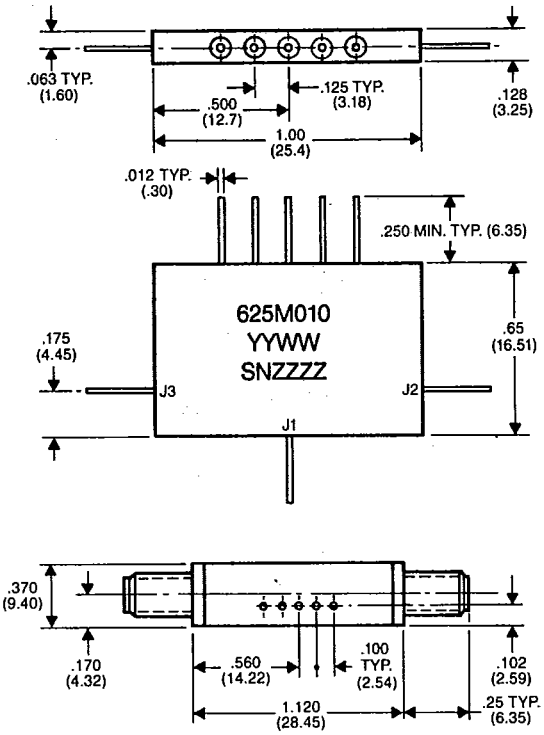
SCREENING

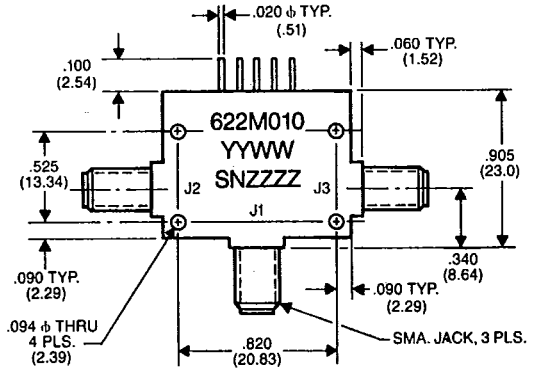
NEM routinely performs the following MIL-STD-883 screening procedures on all hybrid devices produced:

Internal Visual (Precap)	Method 2017
Stabilization Bake	Method 1008, Cond. B 24 hours
Temperature Cycling	Method 1010, Cond. B
Seal Test Gross Leak	Method 1014, Cond. C
Final Electrical	Per Applicable Document

Additional screening including full compliance with MIL-STD-883, Method 5008 is available at an additional cost.

Represented By:





PIN	CONNECTION
E1	-5V
E2	INPUT
E3	NC
E4	+5V
E5	GND
J1	RF COMMON
J1	RF
J3	RF