2525 Shader Road, Orlando Florida 32804 USA
Phone: 407-298-2000 Fax: 407-293-2979
Website: mtronpti.com NYSE MKT: LGL

Specification for a 1000MHz Wide Band Filter
MtronPTI P/N: LF9833R

I. General & Electrical Requirements

Center Frequency Fo: 1000MHz

Bandwidth: 460MHz Minimum

Average Insertion Loss (IL): 1.0dB maximum

Passband Ripple pk-pk (770 to 1230MHz): 0.5dB max.

Passband Ripple pk-pk (750 to 1250MHz): 0.6dB max.

V.S.W.R: 1.5:1 dB max.

Attenuation[1]:

@Fo+/-330 MHz: 1.6dBc min.

@DC~450MHz: 32dBc min.

@1540~6250MHz: 32dBc min.

Time Delay at 800MHz: 2ns max. Relative to delay at 1GHz

Time Delay at 1200MHz: 2ns max. Relative to delay at 1GHz

Input Power: 2.0Watts Maximum

Z_{IN}/Z_{OUT}: 50Ω nominal

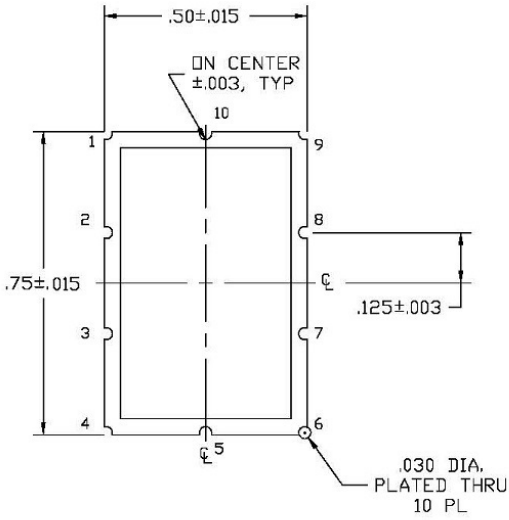
II. Environmental & Physical Requirements:

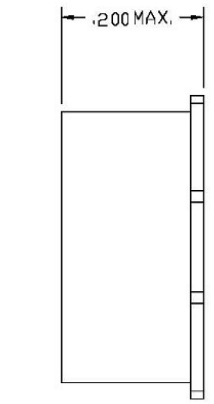
Temperature Range:

Operating: -40˚C to +100˚C [2]

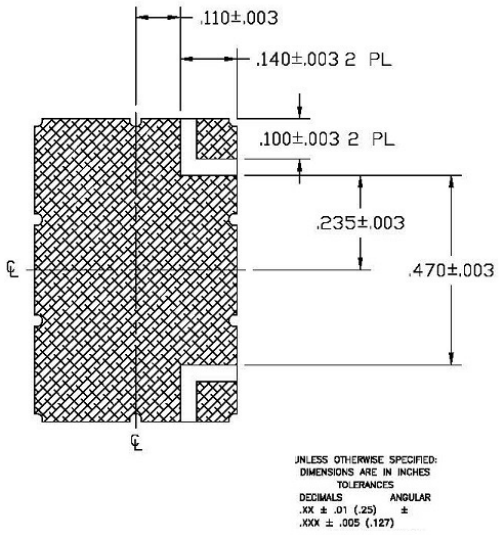
Storage: -55˚C to +125˚C

Moisture Sensitivity Level (MSL): 1





PIN #	FUNCTION
1	RF IN
2 & 3	GROUND
4	RF OUT
5 THRU 10	GROUND



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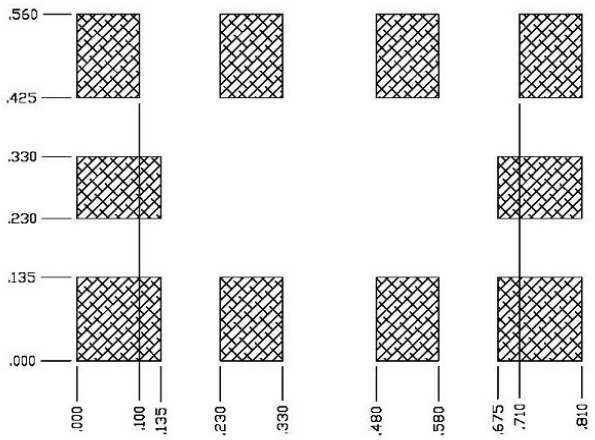


SUGGESTED LAND PATTERN
TOP SIDE

Cover material: 0.016+.002" Brass per ASTM B36 Alloy C26000 H02 or equivalent, plated with 0.2 mil copper undercoat and silver plate 0.3mil minimum final coat.

PCB material is Rogers 4350. Terminations are ENIG per IPC-4552.

Mechanical Shock: MIL-STD-202, Method 213, Condition C.

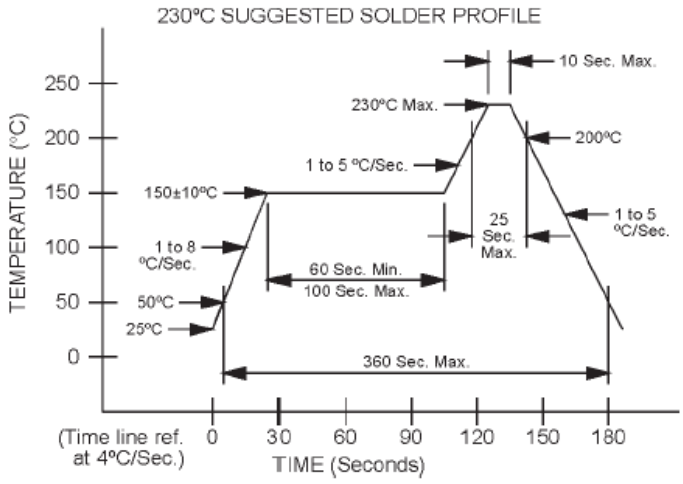
Performance Random Vibration: 50 to 1000MHz: 0.35g^2/Hz, 1000 to 2000Hz: 6dB/Octave roll off.

Overall: 23GRMS Min

Endurance Random Vibration: 50 to 1000MHz: 1.10 g^2/Hz, 1000 to 2000Hz: 6dB/Octave roll off.

Overall: 40GRMS Min

1. With respect to the average insertion loss over the frequency range of 770 MHz to 1230 MHz
2. Between +90 °C to +100 °C degradation of performance is acceptable



MtronPTI
...when timing matters

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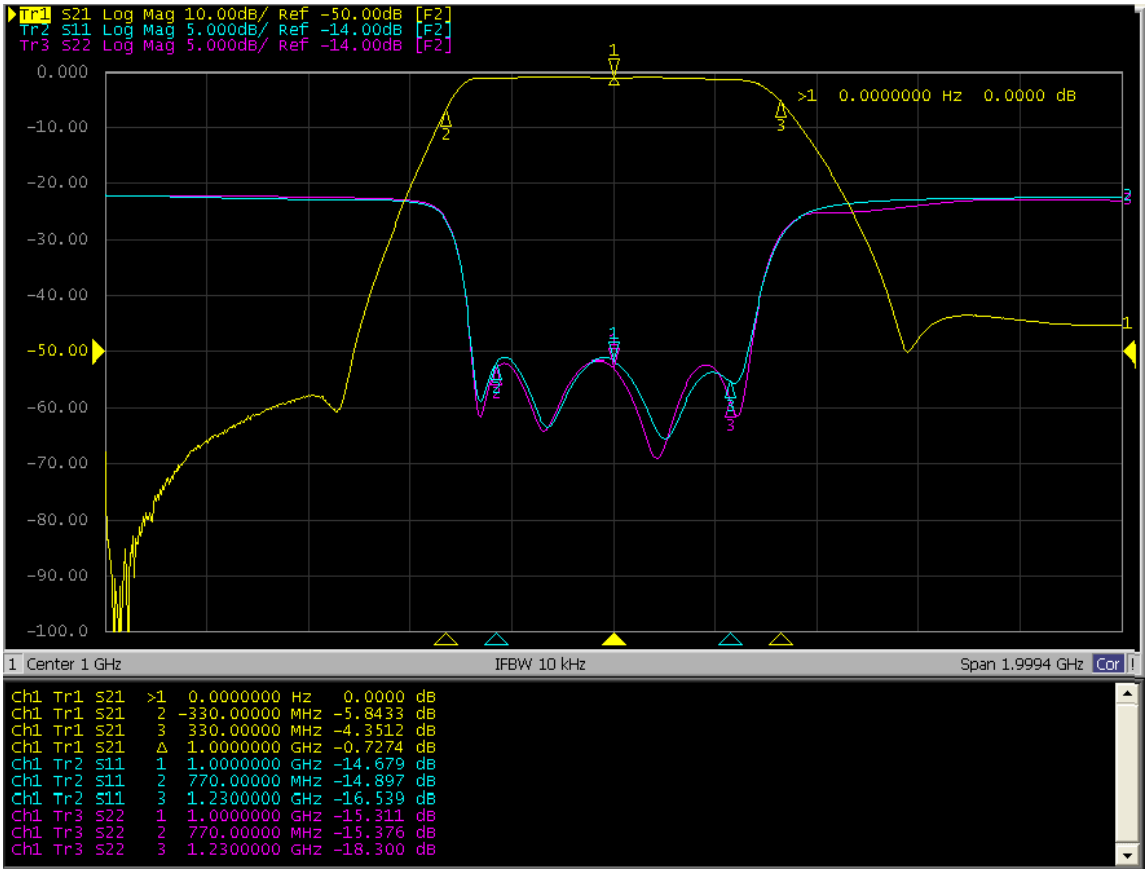
Recommended Reflow Profile

111. Simulations



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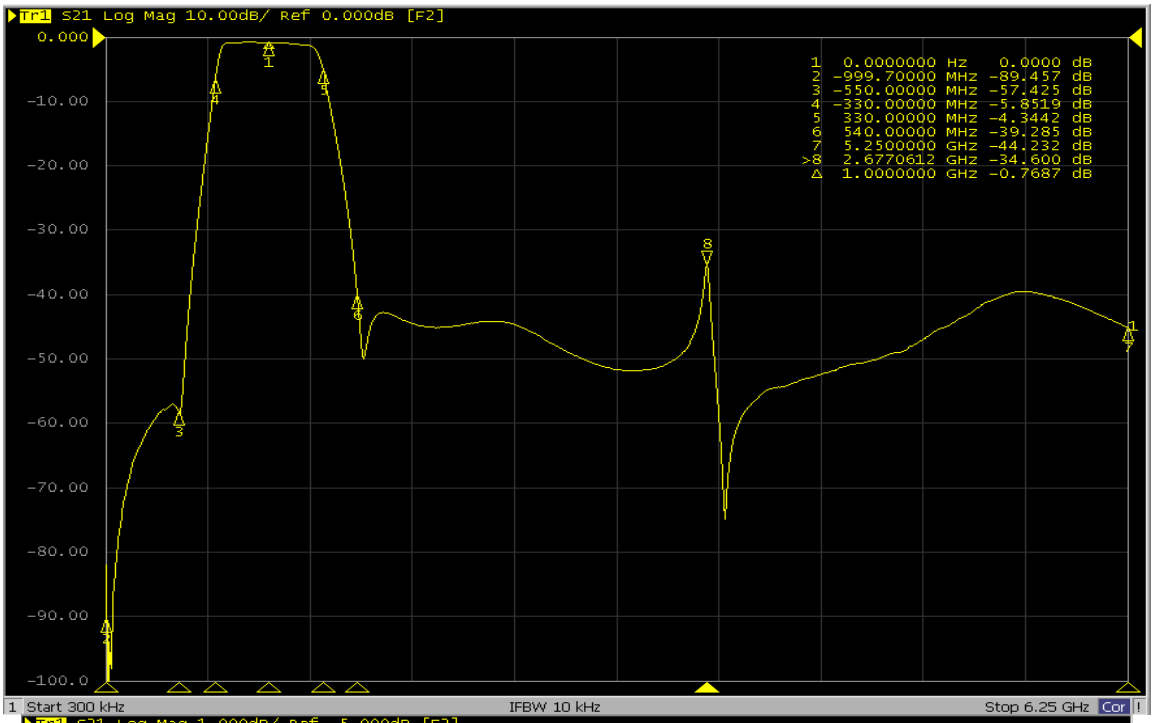

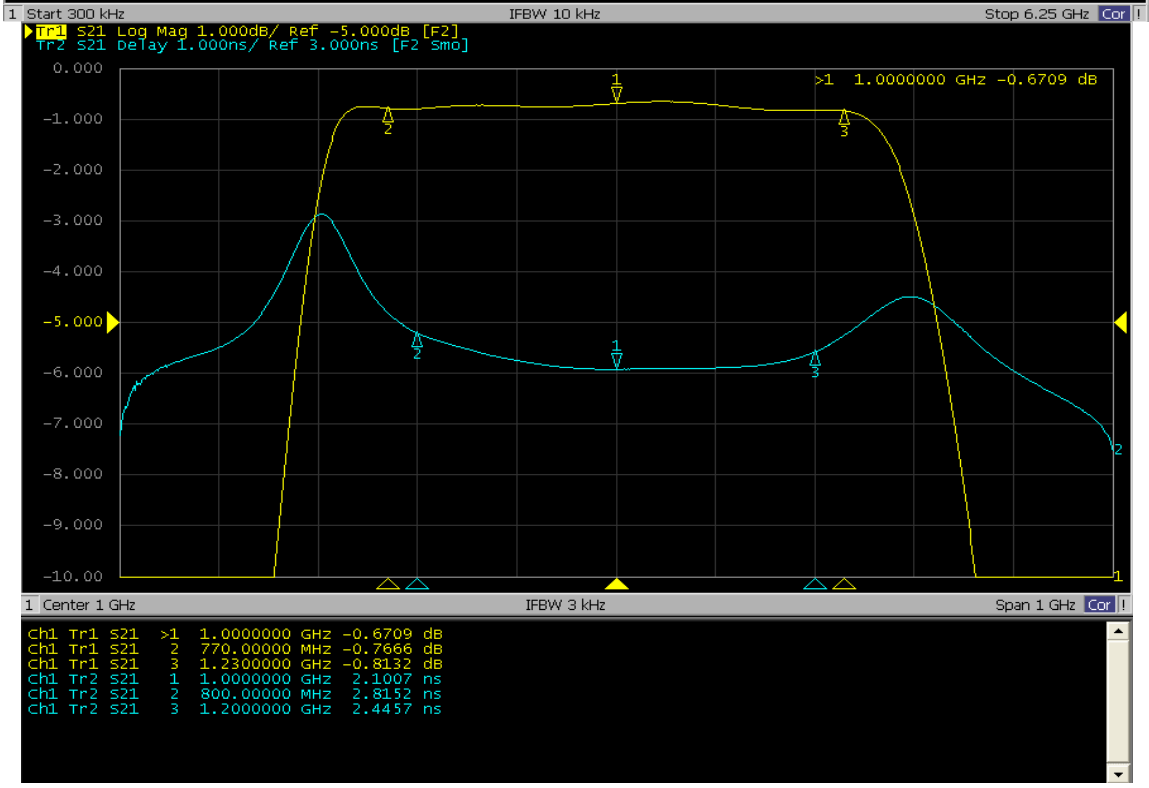

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1V: Datasheet Revision:

07-11-18	**F**	**DPD**	**Input Power changed from 1.5W to 2.0Watts Maximum**
06-04-18	**E**	**DPD**	**Materials, Outline updated and MSL added**
05-22-18	**D**	**DPD**	**Material details added**
05-09-18	**C**	**DPD**	**Outline updated.**
05-02-18	**B**	**DPD**	**Storage temperature and tolerances added.**
04-30-18	**A**	**DPD**	**Original Draft.**