MEMS FILTER

Selection Guide

南京舜特科通信技术有限公司

Sainty-Tech Communications Limited

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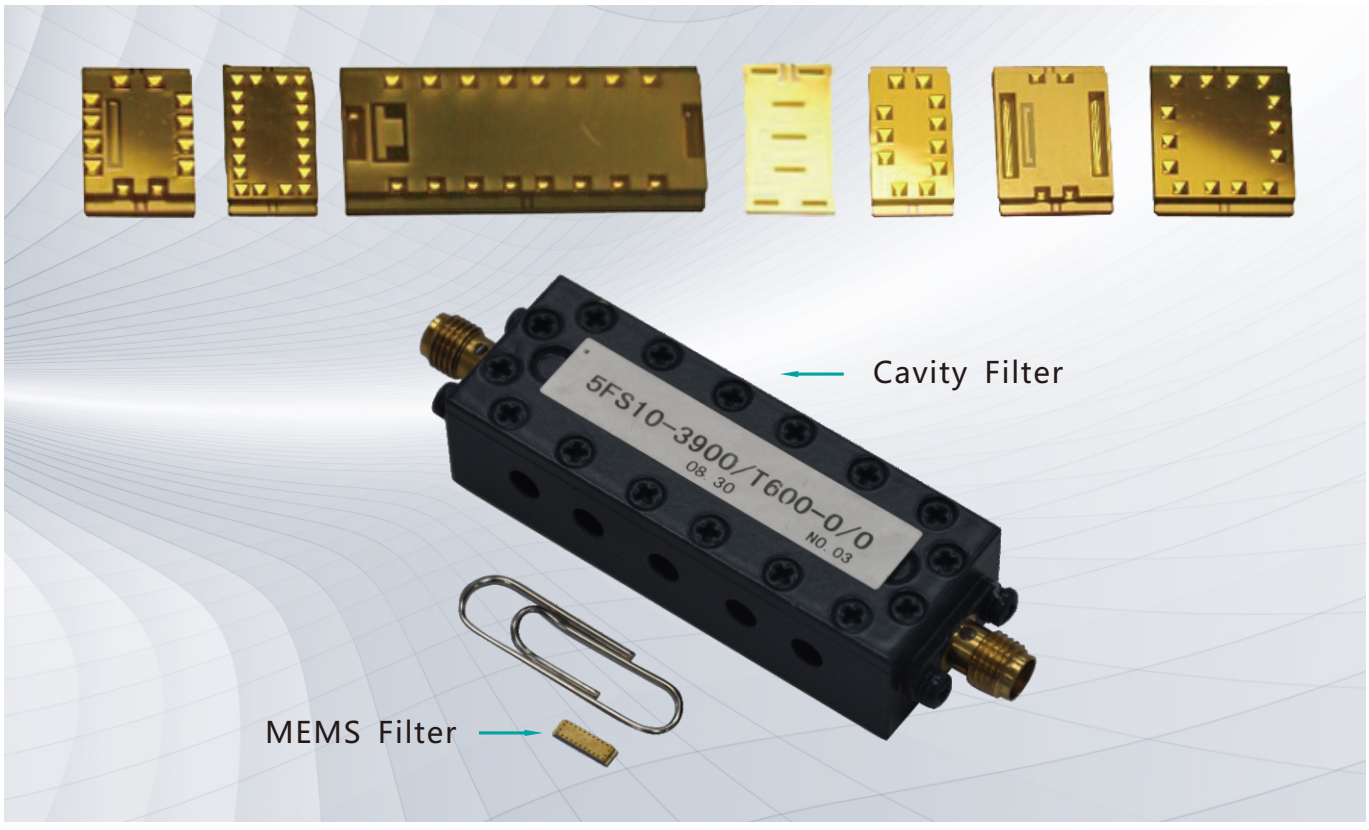
INTRODUCTION

Microelectromechanical systems (MEMS) (also written as micro-electro-mechanical, or Micro Electro Mechanical) is a technology of very small mechanical devices, and it merges at the nano-scale into nanoelectromechanical systems (NEMS) and nanotechnology. MEMS are made of components between 1 to 100 micrometers in size (i.e. 0.001 to 0.1 mm) and MEMS devices generally range in size from 20 micrometers (20 millionths of a meter) to a millimeter.

MEMS filter is a full-shielded Silicon cavity filter, which adopts ultra high accuracy MEMS processing, Silicon wafer bonding, and TSV. Frequency covers L to Ka Band, will extend to 40GHz or higher.

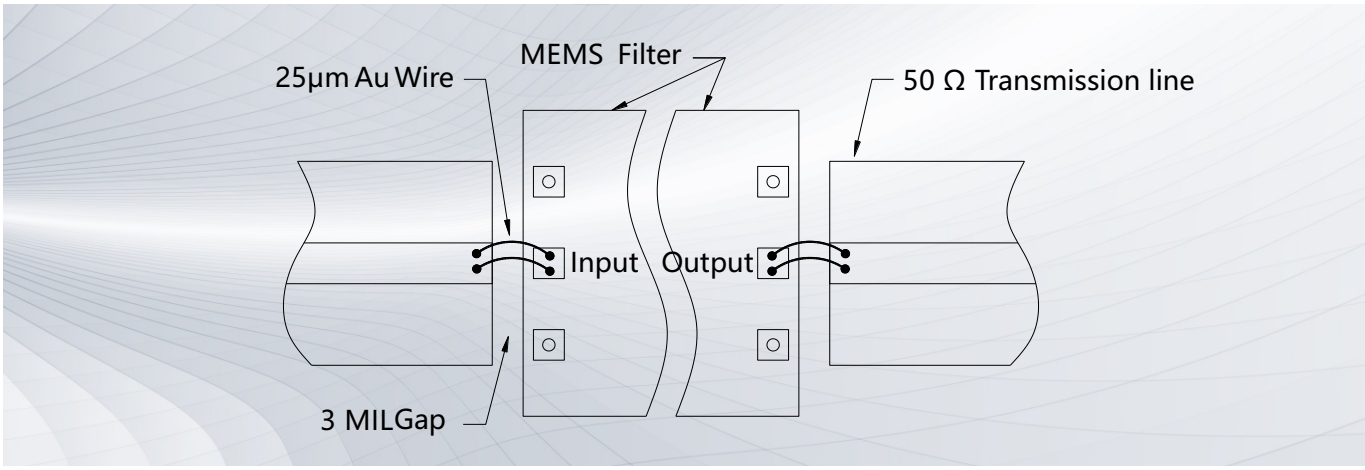
MEMS filters have very small size, which is a few hundredths of regular air cavity filter. It is a good replacement for regular air cavity filter from performance perspective because of its high Q-value and high rejection, so it is a new choice for multi-chip miniature module requirements. MEMS filters have excellent consistency from both unit to unit and lot to lot.

MEMS filters can be used in many applications, such as Microwave Telecommunications, 5G Communications, IoT, Radar, ECM, Aerospace, Navigation etc.



APPLICATION INSTRUCTIONS

1. Recommended Assembly Diagrams



2. The chip is back-metalized and can be die mounted with AuSn eutectic performs or with electrically conductive epoxy (for example ME8456).

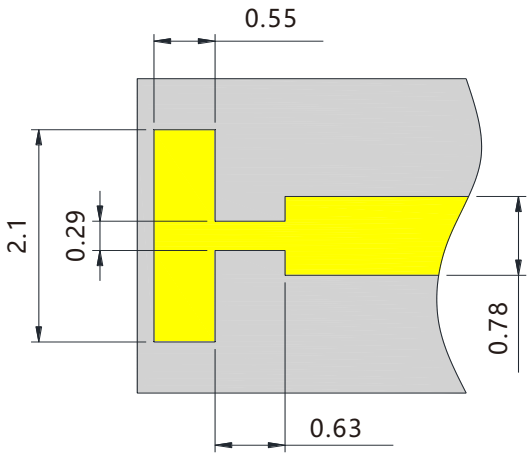
3. The die should be assembled on carriers like Kovar or Mu-Cu which have same Coefficient of thermal expansion. (2.9ppm/℃) with Silicon, thickness 0.2mm max.

4. Handle the chips in a clean environment. DO NOT attempt to clean the chip using liquid cleaning systems.

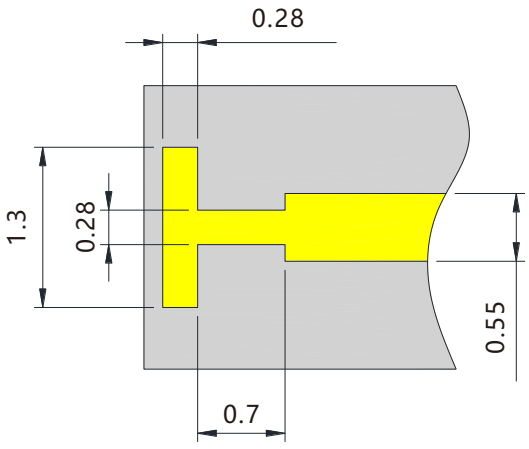
5. Handle the chip along the edges with a vacuum collet or with a sharp pair of bent tweezers.

6. Recommended to use T structure as below for bonding.

Rogers 5880，10mil



Rogers 4350，10mil



MEMS Filter

Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max. IL@ f0 (dB)	Min Attenuation (dB)	Size (mm)	Datasheet
SiMF2R5/1-9D2	2	3	3.8	≥40dB@1.4&3.6GHz	7×10.2×0.84	
SiMF3/2-10D2	2	4	3.8	≥40dB@0.8&5GHz	7×8.5×0.84	
SiMF2R5/R8-9D2	2.1	2.9	3.5	≥40dB@1.6&3.5GHz	7×10.2×0.84	
SiMF2R7/1-7D2	2.25	3.2	3	≥40dB@1.6&4GHz	7×10.5×0.84	
SiMF2R65/R3-6D2	2.38	2.9	3.5	≥40dB@1.95&3.4GHz	7×10.5×0.84	
SiMF3/1-7D1	2.5	3.5	2	≥40dB@1.8&4.3GHz	7×8.7×0.84	
SiMF3R2/1R4-9D2	2.5	3.9	2.5	≥40dB@1.9&4.7GHz	7×8.2×0.84	
SiMF2R7/R4-6D3	2.55	2.95	3.5	≥40dB@2.12&3.45GHz	7×9.4×0.84	
SiMF2R8/R4-6D3	2.6	3	2.5	≥40dB@2.1&3.4GHz	6.5×10.5×0.84	
SiMF2R9/R4-7D3	2.7	3.1	2.7	≥40dB@2.3&3.6GHz	7×9×0.84	
SiMF2R93/R5-6D2	2.7	3.15	2.2	≥40dB@2.2&3.6GHz	7×7.5×0.84	
SiMF3R1/R8-7D2	2.7	3.5	1.9	≥40dB@2.15&4GHz	7×9×0.84	
SiMF3R75/2R1-12D2	2.7	4.8	2.5	≥40dB@1.55&5.75GHz	10.4×7.1×0.84	
SiMF2R85/R3-7D4	2.75	2.95	2.8	≥40dB@2.3&3.4GHz	7×10×0.84	
SiMF3R4/1R3-7D3	2.8	4.1	1.5	≥40dB@2&5.2GHz	7×8×0.84	
SiMF3R5/1-8D2	3	4	1.8	≥40dB@2.55&4.5GHz	7×7.2×0.84	
SiMF4/2-8D3	3	5	1.2	≥40dB@2.0GHz&6.75GHz	7×7×0.84	
SiMF3R5/1-7D2	3	4	2.5	≥40dB@2.25&4.7GHz	7×8×0.84	
SiMF3R7/1R3-7D2	3.05	4.5	2	≥40dB@2.2&5.7GHz	7×7.5×0.84	
SiMF3R15/R16-4D3	3.07	3.23	3	≥40dB@2.6&3.8GHz	7×6.4×0.84	
SiMS3R3/R5-7D3	3.1	3.5	3	≥40dB@2.5&3.9GHz	9×9×0.42	
SiMF3R5/R8-8D2	3.1	3.9	2	≥40dB@2.65&4.4GHz	7×7.3×0.84	
SiMF3R3/R2-7D3	3.2	3.4	4	≥40dB@2.8&3.85GHz	7×8.2×0.84	
SiMF3R6/R4-7D3	3.4	3.8	4	≥40dB@2.9&4.2GHz	7×8×0.84	
SiMF3R8/R7-6E2	3.45	4.15	2	≥40dB@2.7&5.4GHz	7×5.5×0.84	
SiMF4/1-7D1	3.5	4.5	2.5	≥40dB@2.8&5.3GHz	7×7×0.84	
SiMF4R06/R8-7D2	3.66	4.46	2.8	≥40dB@3.1&5GHz	7×6.8×0.84	
SiMF4R05/R5-7D3	3.8	4.3	3.2	≥40dB@3.3&4.7GHz	7×7.3×0.84	
SiMF5/2R2-10D2	3.85	6.15	2	≥40dB@3.1&7.1GHz	7×5.5×0.84	
SiMF4R5/1-7D3	4	5	1.7	≥40dB@3.3&5.6GHz	7×6.3×0.84	
SiMF5/2R2-3	4	6	1.8	≥40dB@3.1&6.9GHz	7×5.60×0.84	
SiMF5/2R2-8D3	4	6	1.5	≥40dB@3&7.45GHz	7×5.6×0.84	

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Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max. IL@ f0 (dB)	Min Attenuation (dB)	Size (mm)	Datasheet
SiMF4R2/R2-5D4	4.15	4.35	4	≥40dB@3.7&4.85GHz	7×6.4×0.84	
SiMF4R35/R3-5D2	4.2	4.5	3.5	≥40dB@3.75&5.05GHz	7×6×0.84	
SiMF4R7/1-7D2	4.25	5.15	2.5	≥40dB@3.5&5.8GHz	7×6.5×0.84	
SiMF4R6/R4-5D3	4.4	4.8	3	≥40dB@3.9&5.15GHz	8×7.5×0.84	
SiMF5/1-7D1	4.5	5.5	3	≥40dB@3.7&6.2GHz	7×5.7×0.84	
SiMF5R25/1R5-8D2	4.5	6	1.5	≥40dB@3.8&6.8GHz	7×5.6×0.84	
SiMS4R62/R2-6D5	4.55	4.75	4	≥40dB@4&5.1GHz	9×9×0.42	
SiMS5/R4-7D3	4.9	5.2	2	≥40dB@3.4&6.3GHz	9×7×0.42	
SiMF5R55/1R1-2	5	6.1	2	≥40dB@4.1&6.7GHz	6.5×5.5×0.84	
SiMS6R5/3-9D2	5	8	0.8	≥40dB@2.5&9.3GHz	7.5×5.0×0.42	
SiMF7/4-10D1	5	9	0.9	≥40dB@3&10.5GHz	7×4.4×0.84	
SiMF7R25/4R5-9D1	5	9.5	2	≥40dB@3.2&11.2GHz	7×4.4×0.84	
SiMF5R15/R3-7D4	5.05	5.25	4.5	≥40dB@4.5&5.8GHz	7×6.5×0.84	
SiMF5R55/R7-7D3	5.2	5.8	4.5	≥40dB@4.5&6.3GHz	7×5.5×0.84	
SiMF5R7/1R1-8D2	5.2	6.3	2.5	≥40dB@4.5&6.95GHz	7×5.5×0.84	
SiMF5R4/R4-6E4	5.25	5.5	2.5	≥40dB@4.7&5.94GHz	7x6×0.84	
SiMF5R6/R6-7D2	5.3	5.9	2.3	≥40dB@4.7&6.35GHz	7×5.6×0.84	
SiMS5R6/R6-6D3	5.4	5.9	3	≥40dB@4.7&6.4GHz	6.5×6.5×0.42	
SiMF6R85/2R8-8D2	5.4	8.3	1.7	≥40dB@4.3&9.2GHz	6.5×4.5×0.84	
SiMF6R9/2R8-6D1	5.5	8.3	1.5	≥40dB@3.5&10.3GHz	6×4×0.84	
SiMF6R7/2R1-9D2	5.65	7.75	2	≥40dB@4.8&8.5GHz	7×4.2×0.84	
SiMS6/R6-6D3	5.7	6.3	2.5	≥40dB@5.2&6.75GHz	7×6.2×0.42	
SiMF7/2R2-7D2	5.9	8.3	1.6	≥40dB@4.7&9.2GHz	7×4.7×0.84	
SiMF9/6-7D2	6	12	1	≥30dB@3.0&14GHz	5.5×4.0×0.84	
SIMF6R2/R4-6E3	6	6.4	2	≥40dB@5.5&6.9GHz	6.5×5.1×0.84	
SiMF7R25/2R5-7D1	6	8.5	1.5	≥40dB@4.8&10.1GHz	7.0×4.2×0.84	
SiMF9/6-10D1	6	11.9	1	≥40dB@3.2&12.6GHz	7×3.7×0.84	
SiMF6R6/1R2-7D3	6	7.2	2	≥40dB@5.1&8GHz	7×4.6×0.84	
SiMF7/2R1-7D2	6	8	1.8	≥40dB@5.1&8.9GHz	7×4.6×0.84	
SiMF7R1/1R9-9D2	6.1	8	1.6	≥40dB@5.3&9GHz	7×4.2×0.84	
SiMS6R4/R4-6D3	6.3	6.5	2.2	≥40dB@5.8&7.2GHz	8×6×0.42	
SiMF6R6/R4-6E3	6.4	6.8	2.3	≥40dB@5.9&7.4GHz	6.6×4.9×0.84	

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Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max. IL@ f0 (dB)	Min Attenuation (dB)	Size (mm)	Datasheet
SiMF6R75/R5-7D3	6.5	7	2.7	≥40dB@5.9&7.55GHz	7×4.7×0.84	
SiMS8/3-9D2	6.5	9.5	1.8	≥40dB@4.0&11.6GHz	7.5×4.0×0.42	
SiMF6R85/R5-8D3	6.6	7.1	3	≥40dB@6&7.7GHz	7×4.9×0.84	
SiMF6R98/R65-6D3	6.65	7.3	3	≥40dB@6&8GHz	7×4.3×0.84	
SiMF7/R4-6E3	6.8	7.2	2.3	≥40dB@6.3&7.7GHz	6.6×4.7×0.84	
SiMF7R4/1R2-7D3	6.8	8	2	≥40dB@5.8&8.8GHz	7×4.6×0.84	
SiMF7R7/1R6-9D2	6.8	8.4	2.5	≥40dB@5.7&9.4GHz	7×4.5×0.84	
SiMF9/4-11D2	6.85	11	1.5	≥40dB@5.8&12.05GHz	7×3.6×0.84	
SiMF10R1/6R2-8D2	7	13	1.2	≥30dB@4.25&15GHz	7×3.5×0.84	
SiMF8R25/2R7-9D2	7	9.5	1.1	≥40dB@5.8&10.3GHz	7×3.4×0.84	
SiMF8R5/3-9D1	7	10	1.3	≥40dB@5.8&11.1GHz	7×3.2×0.84	
SiMF8R2/2R3-9D2	7.15	9.25	2	≥40dB@6.2&10GHz	7×3.6×0.84	
SiMS7R4/R4-6D4	7.2	7.6	2.5	≥40dB@6.7&8GHz	8.5×6.0×0.42	
SiMF8/1-7D3	7.4	8.6	2.6	≥40dB@6.6&9.5GHz	7×4×0.84	
SiMF8R4/2-6D2	7.4	9.4	1.5	≥40dB@5.8&10.6GHz	6.5×4×0.84	
SiMF8R7/2R5-7D2	7.5	9.95	1.6	≥40dB@6&11.05GHz	7×4.2×0.84	
SiMF8R2/1R2-8D3	7.5	8.8	1.7	≥40dB@6.7&9.7GHz	7×3.9×0.84	
SiMS7R8/R4-6D4	7.6	8	3	≥40dB@7.1&8.4GHz	8.5×6.0×0.42	
SiMF9/2R6-6D1	7.7	10.3	1.5	≥40dB@5.8&11.8GHz	6×3.2×0.84	
SiMF13/10-10D2	7.7	17.7	0.9	≥40dB@4GHz , ≥25dB@21GHz	7×3×0.84	
SiMF8R88/2R24-9D2	7.75	10	1.5	≥40dB@6.95&11.15GHz	8.5×3.3×0.84	
SiMF10/4R4-10D3	7.8	12.2	1.1	≥40dB@6.8&14GHz	7×4×0.84	
SiMF8R4/1R2-8D2	7.8	9	2.5	≥40dB@7&10GHz	7.6×3.9×0.84	
SiMF9/2R25-7D2	7.85	10.15	1.5	≥40dB@6.6&11.2GHz	7×4×0.84	
SiMF9/2R2-7D2	7.85	10.15	1.8	≥40dB@6.4&11.3GHz	7×4×0.84	
SiMF11R9/7-8D2	7.9	15.4	1	≥20dB@5.3&16.4GHz	7×3.5×0.84	
SiMF8R1/R5-3	7.9	8.4	2.8	≥40dB@7.2&9.1GHz	7×4.0×0.84	
SiMF9R1/2R2-8D2	8	10.2	2	≥40dB@6.8&11.3GHz	7×3.5×0.84	
SiMF9R2/2R4-7D1	8	10.4	2	≥40dB@6.9&11.6GHz	7×3.6×0.84	
SiMS9R25/2R5-9D1	8	10.5	1.5	≥40dB@6.45&12.05GHz	8.5×5.0×0.42	
SiMS10/4-11D2	8	12	2	≥40dB@6.4&13.5GHz	8×3.4×0.42	
SiMF9/2-8D2	8	10	2.5	≥40dB@6.9&10.9GHz	7×4×0.84	

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SiMF9R5/3-8D2	8	11	3.3	≥40dB@6.9&12.3GHz	7×3.5×0.84	
SiMF10/4-9D1	8	12	1	≥40dB@6.8&13.6GHz	7×3.2×0.84	
SiMF8R55/1R1-10D3	8	9.1	2.7	≥40dB@7.4&9.8GHz	8×4×0.84	
SiMF8R75/1R5-8D3	8.1	9.6	2.5	≥40dB@7.3&10.5GHz	7×5.5×0.84	
SiMS8R2/R35-6D3	8.1	8.4	3.5	≥40dB@7.6&8.85GHz	9.5×6.8×0.42	
SiMF8R3/R4-6E3	8.15	8.4	3.5	≥40dB@7.3&9.05GHz	7×4.0×0.84	
SiMF9R45/2R4-2	8.25	10.65	2	≥40dB@7&12GHz	7×3.6×0.84	
SiMF8R4/R1-4E3	8.38	8.42	3.5	≥40dB@7.9&9GHz	7×4×0.84	
SiMF8R9/1-7D3	8.4	9.4	2.5	≥40dB@7.5&10.2GHz	7×4.3×0.84	
SiMF9/1R2-7D4	8.4	9.6	2	≥40dB@7.4&10.3GHz	7×3.9×0.84	
SiMS8R6/R4-6D4	8.4	8.8	3.5	≥40dB@7.8&9.25GHz	8.5×5.5×0.42	
SiMF9R5/2-6D2	8.45	10.45	1.4	≥40dB@6.7&12.05GHz	7×3.6×0.84	
SiMF9R15/1R3-8D3	8.5	9.8	3	≥40dB@7.8&10.6GHz	8×4×0.84	
SiMS10/3-9D2	8.5	11.5	1.5	≥40dB@5.8&13.3GHz	7.5×3.5×0.42	
SiMF8R8/R4-7D4	8.6	9	2.5	≥40dB@7.85&9.8GHz	7.7×4.1×0.84	
SiMF9/R8-6E3	8.6	9.4	2	≥40dB@8&10.1GHz	7×4.2×0.84	
SiMF10R54/4R18-3	8.6	12.5	1.5	≥40dB@6&14.2GHz	7×4.5×0.84	
SiMF8R8/R1-4E3	8.78	8.82	3.5	≥40dB@8.4&9.3GHz	7×4×0.84	
SiMS9/R4-6D4	8.8	9.2	3.5	≥40dB@8.1&9.7GHz	8.5×5.5×0.42	
SiMF12R5/7-11D2	8.8	16	1.5	≥40dB@7.1&17.5GHz	7×3×0.84	
SiMS9R17/R55-6D3	8.9	9.45	2.5	≥40dB@7.7&12GHz	8.5×6×0.42	
SiMF9R35/R7-6D1	9	9.7	2.5	≥40dB@8.0&10.4GHz	6.5×3.6×0.84	
SiMF9R4/R7-6E3	9	9.7	2	≥40dB@8.4&10.4GHz	7×3.0×0.84	
SiMF9R5/1-5D2	9	10	1.4	≥40dB@7.4&11.2GHz	5.5×3.2×0.84	
SiMS9R6/1R2-8D3	9	10.2	3.4	≥40dB@8.2&10.95GHz	9×4.5×0.42	
SiMF11R5/5-11D1	9	14	1	≥40dB@5.4&16.7GHz	7×3×0.84	
SiMF9R35/R4-6E3	9.15	9.55	3.5	≥40dB@8.65&10.1GHz	7×3.8×0.84	
SiMF9R2/R1-4E4	9.18	9.22	3.5	≥40dB@8.6&9.8GHz	7×3.8×0.84	
SiMF9R8/1R2-8D3	9.2	10.4	2.5	≥40dB@8.15&11.3GHz	7×3.2×0.84	
SiMS10/1R6-8D2	9.25	10.75	2.5	≥40dB@8.4&11.7GHz	9.0×4.4×0.42	
SiMF9R55/R4-4E3	9.4	9.7	3	≥40dB@8.0&12.05GHz	7×4×0.84	
SiMS9R65/R6-6D3	9.4	9.9	2.5	≥40dB@8.4&12GHz	8.5×6×0.42	

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Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max. IL@ f0 (dB)	Min Attenuation (dB)	Size (mm)	Datasheet
SiMF9R9/1R1-6E3	9.4	10.5	1.5	≥40dB@8.5&11.4GHz	6.5×4×0.84	
SiMF11R5/4-9D1	9.4	13.5	1.3	≥40dB@7.8&15.8GHz	7×3.5×0.84	
SiMS10R5/2-10D2	9.5	11.5	2.5	≥40dB@8.7&12.3GHz	10.5×4.0×0.42	
SiMF10R2/1-8D2	9.7	10.7	2.5	≥40dB@8.8&11.5GHz	7.5×3.9×0.84	
SiMS10R5/1R8-10D2	9.7	11.2	2.5	≥40dB@9.0&12.1GHz	10.5×4.4×0.42	
SiMF11/2R5-7D1	9.75	12.25	2	≥40dB@8.68&13.38GHz	7.0×3.2×0.84	
SiMF11/2R2-7D2	9.8	12	1.5	≥40dB@8.2&13.2GHz	7×3.6×0.84	
SiMF11/2R4-8D2	9.8	12.2	2.2	≥40dB@8.7&13.5GHz	7×3×0.84	
SiMF10R96/2R16-7D2	9.8	12.2	2	≥40dB@8.2&13.1GHz	7×3.5×0.84	
SiMF11R5/3-7D2	9.9	13.1	1.3	≥40dB@8.3&14.4GHz	7×3.5×0.84	
SiMF10/R1-4E4	9.98	10.02	4	≥40dB@9.5&10.6GHz	7×3.5×0.84	
SiMF10R6/1R2-8D3	10	11.2	2.5	≥40dB@9&12.05GHz	7×3.2×0.84	
SiMF12/4-9D2	10	14	3.8	≥40dB@8.2&15.8GHz	7×3.2×0.84	
SiMF14/8-10D1	10	18	1	≥40dB@6.5&20.5GHz	7×3×0.84	
SiMS10R35/R7-5D3	10	10.7	2.3	≥40dB@9.1&14GHz	7×3.5×0.42	
SiMS11/2R1-8D2	10	12	1.6	≥40dB@8.8&13.2GHz	8.0×4.0×0.42	
SiMF11R8/3R5-2	10.05	13.55	2	≥40dB@8.5&15GHz	7×3.8×0.84	
SiMF10R5/1-6E2	10.1	11	2	≥40dB@9.4&11.6GHz	7×3.6×0.84	
SiMF10R72/1R16-8D3	10.1	11.5	2.5	≥40dB@9.3&12.2GHz	8×4×0.84	
SiMF14R4/8-10D2	10.4	18.4	1	≥35dB@6.5&23GHz	7×3×0.84	
SiMS11R75/2R5-9D2	10.5	13	1.2	≥40dB@7.5&14.7GHz	8.5×3×0.42	
SiMS11R2/1-4D2	10.7	11.7	1.6	≥40dB@9.2&13.2GHz	5.5×4.0×0.42	
SiMS11R85/2R3-7D1	10.7	13	1.2	≥40dB@8&14.3GHz	7.0×3.1×0.42	
SiMF11R4/1R2-8D3	10.8	12	3	≥30dB@9.8&12.85GHz	7×3.2×0.84	
SiMS11R65/1R7-10D2	10.8	12.5	2.3	≥40dB@9.8&13.6GHz	10.5×4.4×0.42	
SiMF11R5/1-6E2	10.9	12	2	≥40dB@9.6&13.15GHz	7×3.2×0.84	
SiMF12/2R2-7D2	10.9	13.1	1.6	≥40dB@9.4&14.2GHz	7×3.4×0.84	
SiMF12R15/2R5-8D2	10.9	13.4	2	≥40dB@9.7&14.4GHz	7×3.8×0.84	
SiMF11R5/1-8D3	11	12	2.5	≥40dB@10.1&13.0GHz	8×4×0.84	
SiMF12R5/3-8D2	11	14	2	≥40dB@9.6&15.5GHz	7×3.2×0.84	
SiMS11R7/R12-8D3	11.35	11.8	4.5	≥40dB@10.7&12.35GHz	11×4.5×0.42	
SiMS11R6/R4-8D3	11.4	11.8	4	≥40dB@10.7&12.4GHz	11×4.5×0.42	

MEMS Filter

Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max. IL@ f0 (dB)	Min Attenuation (dB)	Size (mm)	Datasheet
SiMF12R75/2R6-8D2	11.4	14	2.5	≥40dB@10&15.2GHz	7×3.3×0.84	
SiMF12R5/R7-8D3	11.6	13.1	2.5	≥40dB@10.7&13.85GHz	8×3×0.84	
SiMF13/2R8-6D1	11.6	14.4	1.6	≥40dB@9.5&16.1GHz	6×2.3×0.84	
SiMS12R25/1R1-4D2	11.7	12.8	1.6	≥40dB10.1&14.4GHz	5.5×4.0×0.42	
SiMF12R65/2R1-7D2	11.75	13.65	3	≥40dB@10&14.9GHz	7×4×0.84	
SiMF13/2R5-7D1	11.75	14.25	1.9	≥40dB@10.2&15.7GHz	7×2.9×0.84	
SiMF13R5/3R4-8D2	11.8	15.2	1.5	≥40dB@10.2&16.6GHz	7×2.7×0.84	
SiMS15R65/7R3-9D1	11.9	19.5	1.5	≥40dB@8.25&21.9GHz	6.5×3.0×0.42	
SiMF12R5/1-7D2	12	13	3.5	≥40dB@11&14.1GHz	7×3.5×0.84	
SiMF14R1/4R2-7D2	12	16.5	1.5	≥40dB@9.5&18GHz	7×4×0.84	
SiMF15R25/6R5-8D1	12	18.5	1.3	≥40dB@9.2&20GHz	7×2.8×0.84	
SiMS13R1/2R2-8D2	12	14.2	2	≥40dB@10.4&15.6GHz	8×4×0.42	
SiMF13R2/2-3	12.05	14.3	2.5	≥40@10.65&15.6GHz	7×4×0.84	
SiMS12R45/R4-8D4	12.25	12.65	4.7	≥40dB@11.7&13.1GHz	11.5×4.5×0.42	
SiMS13/1-4D2	12.5	13.5	1.8	≥40dB@10.8&15GHz	5.5×3.5×0.42	
SiMF14/2R2-7D2	12.9	15.1	2	≥40dB@11.2&16.3GHz	7×3×0.84	
SiMF14R5/3-7D2	12.9	16	1.4	≥40dB@11&17.4GHz	7×3×0.84	
SiMF13R5/1-4	13	14	2.5	≥40dB@12.0&14.8GHz	7×3.2×0.84	
SiMF13R5/R9-3	13.05	13.95	2.5	≥40dB@11.75&15GHz	7×3.4×0.84	
SiMF13R5/R6-6E4	13.2	13.8	4	≥40dB@12.5&14.5GHz	7×3×0.84	
SiMF13R62/R84-3	13.2	14.04	3	≥40dB@11.9&14.85GHz	7×3.4×0.84	
SiMF14R3/2R2-2	13.2	15.4	1.8	≥40dB@11.3&16.4GHz	7×3.5×0.84	
SiMS14R05/1R1-6D2	13.5	14.6	2.5	≥40dB@12&15.7GHz	7×3.5×0.42	
SiMS14R1/1-4D2	13.6	14.6	2	≥40dB12.1&16.5GHz	5.5×3.5×0.42	
SiMF14R75/2R3-2	13.6	15.9	2	≥40dB@12.3GHz&17.25GHz	6.5×3.5×0.84	
SiMS14R9/2R2-8D2	13.72	16	1.9	≥40dB@12.5&17.3GHz	9×3.5×0.42	
SiMF14R25/R7-8D3	14	15.5	2.7	≥40dB@13&16.5GHz	8×3×0.84	
SiMS15/2R1-8D2	14	16	2	≥40dB@12.8&17GHz	9.0×3.2×0.42	
SiMF16/4-8D2	14	18	1	≥40dB@12&19.7GHz	7×2.7×0.84	
SiMF15R5/3-8D2	14	17	1.8	≥40dB@12.6&18.4GHz	7.0×3.7×0.84	
SiMS14R2/R1-4E4	14.1	14.25	4	≥40dB@13.4&15GHz	7.8×2.9×0.42	
SiMS14R7/R4-6S3	14.5	14.9	3.5	≥40dB@13.9&15.6GHz	7.5×3.5×0.42	

MEMS Filter

Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max. IL@ f0 (dB)	Min Attenuation (dB)	Size (mm)	Datasheet
SiMF14R95/R7-6D4	14.6	15.6	2.4	≥40dB@13.4&16.4GHz	7×3×0.84	
SiMS15R2/1-6D2	14.7	15.8	2	≥40dB@13.4&16.75GHz	8×3.8×0.42	
SiMS15R35/1R3-6D2	14.7	16	2	≥40dB@13.3&17GHz	7.5×3.6×0.42	
SiMF17R5/5R7-7D2	14.7	20.3	2	≥40dB@11.5&24GHz	7×2.3×0.84	
SiMF15R05/R5-6E3	14.8	15.3	3	≥40dB@14&16.1GHz	7×3×0.84	
SiMF16R4/3R2-8D2	14.8	18.1	2.6	≥40dB@13.3&19.5GHz	7×2.4×0.84	
SiMF16R85/3R2-3	15.05	18.5	2.3	≥40dB@12.8&19.7GHz	7×4×0.84	
SiMF16R6/2R8-7D3	15.2	18	2.5	≥40dB@13.8&20GHz	7×3×0.84	
SiMS15R55/R6-6S3	15.25	15.85	3.5	≥40dB@14.7&16.6GHz	7.5×3.5×0.42	
SiMS15R7/R6-6S3	15.4	16.1	3.2	≥40dB@14.7&17.25GHz	7.5×3.5×0.42	
SiMF16R75/2R5-7D2	15.4	18.2	1.8	≥40dB@13.5&19.5GHz	7.0×3.0×0.84	
SiMS16R6/2-8D3	15.6	17.6	2	≥40dB@14.3&18.8GHz	9.0×3.5×0.42	
SiMF16R95/2R7-2	15.6	18.3	2	≥40dB@14.1&19.8GHz	6.5×3.5×0.84	
SiMF16/R4-4E4	15.8	16.3	4	≥40dB@15&17.1GHz	7×3×0.84	
SiMF17/2R4-7D2	15.8	18.2	2	≥40dB@13.7&19.6GHz	7×2.5×0.84	
SiMS16R65/1R3-6D2	16	17.3	2	≥40dB@14.3&18.4GHz	7.5×3.6×0.42	
SiMF16R5/1-7D3	16.1	16.9	3.5	≥40dB@15&17.9GHz	7×3×0.84	
SiMS17/1R5-12D2	16.25	17.75	3.3	≥40dB@15.3&18.8GHz	13.5×4×0.42	
SiMS18R75/4R5-8D1	16.5	21	1.5	≥40dB@13.5&24GHz	7×2.4×0.42	
SiMF17R2/1R2-6D3	16.6	17.8	2.5	≥40dB@15.5&19.1GHz	7×2.7×0.84	
SiMF17R5/1-7D3	17	18	3.2	≥40dB@15.6&18.9GHz	7×3.0×0.84	
SiMF18/1R4-6D2	17.1	18.8	2	≥40dB@15.5&19.95GHz	6.8×2.4×0.84	
SiMF18R75/2R5-6D2	17.5	20	1.6	≥40dB@15&21.6GHz	7×3.5×0.84	
SiMS19R5/5-8D1	17.5	22	1.5	≥40dB@14&25GHz	7×2.4×0.42	
SiMS20R4/5R2-8D1	17.8	23	2.5	≥40dB@15&27GHz	7×2.4×0.42	
SiMS18R5/1-6S3	18	19	2.5	≥40dB@17.1GHz&21.5GHz	7.5×3.0×0.42	
SiMS20/1R4-6D2	19.3	20.6	2.5	≥40dB@17.65&22.15GHz	9×3.5×0.42	
SiMS20R35/1R9-8D2	19.4	21.3	2.5	≥40dB@18&22.5GHz	8.0×3.5×0.42	
SiMF21/2-7D2	20	22	2	≥40dB@18.2GHz&23.3GHz	7×2.5×0.84	
SiMS20R7/1-6S3	20.2	21.2	2.6	≥40@19.4GHz&23.1GHz	7.5×2.5×0.42	
SiMS21R8/1R2-8D3	21.2	22.4	3.5	≥40dB@19.8&23.3GHz	9.5×3.5×0.42	
SiMF22R6/2-6D2	21.4	23.7	2	≥40dB@19.4GHz&25.2GHz	7×2.5×0.84	

MEMS Filter

Part Number	Low Freq. (GHz)	High Freq. (GHz)	Max. IL@ f0 (dB)	Min Attenuation (dB)	Size (mm)	Datasheet
SiMF22/1-6E3	21.5	22.5	3	≥40dB@19.7GHz&24.4GHz	4.5×2.7×0.84	
SiMS23/3-6D2	21.6	24.9	2	≥40dB@18.6&28.8GHz	7×2.5×0.42	
SiMS24R3/4R7-8D2	21.7	27	1.5	≥40dB@18.8&29.9GHz	7×2.4×0.42	
SiMS22/R4-6S4	21.8	22.2	4	≥30dB@21.2GHz&23GHz	8×3×0.42	
SiMS22R4/1R2-5P2	21.8	23	2.5	≥40dB@20.2&25GHz	8.5×3.4×0.42	
SiMF22R7/1R5-6D2	21.85	23.6	2	≥40dB@19.75&24.95GHz	6.8×2.1×0.84	
SiMF22R6/1R6-7D2	21.9	23.3	3	≥40dB@20GHz&25.8GHz	7×2.5×0.84	
SiMF23R35/1R5-3	22.8	24	3.5	≥40@20.6GHz&25.4GHz	7×4.0×0.84	
SiMS25/4-6P2	23.1	27.3	1.5	≥40dB@21.3&30.2GHz	9.5×3.5×0.42	
SiMS23R9/1-5P2	23.4	24.4	1.6	≥40dB@21.5GHz&25.6GHz	9.0×3.0×0.42	
SiMF24R6/1R6-6D2	23.5	25.7	2	≥40dB@21.4&26.65GHz	6.8×2.1×0.84	
SiMF24R3/R1-6E5	24.35	24.9	4	≥30dB@23.45GHz&26.55GHz	5×3×0.84	
SiMF25R37/R4-4W3	25.17	25.57	3.5	≥40dB@24.2&26.7GHz	9.2×3.5×0.84	
SiMF28R5/5-5W2	25.6	31	1.1	≥20dB@23.5GHz&37GHz	9.6×3.6×0.84	
SiMF26R05/R4-4W3	25.85	26.25	2.5	≥40dB@24.6&28GHz	9.2×4.0×0.84	
SiMF27R45/3R1-5W1	25.9	29	0.9	≥40@20.85GHz&31.3GHz	6×4×0.84	
SiMS28/2R2-8D3	26.45	29.5	2.6	≥40dB@23.5&32.5GHz	8×2.3×0.42	
SiMS29/4-5W2	27.1	31.2	1.4	≥40dB@23.8GHz ,≥25dB@34.6GHz	10×3.5×0.42	
SiMS35/4-5W1	32.5	37	1.2	≥30dB@30GHz&42.5GHz	7.5×3.5×0.42	
SiMS34R9/3R8-5W2	33	36.8	1.5	≥30dB@29GHz&41.5GHz	7.5×3.5×0.42	
SiMF34R5/2R4-7W2	33.3	35.7	2	≥30dB@32&36.9GHz	6.8×2.5×0.84	
SiMF34R4/2-5W2	33.5	35.9	2	≥30@31.2GHz&39.5GHz	8×3.5×0.84	
SiMF34R25/R7-7W3	33.6	34.9	2.7	≥40@32.4GHz&36GHz	6.4×3.5×0.84	
SiMF34R6/1R6-7W2	33.8	35.4	2	≥40dB@32&36.8GHz	6.3×3.5×0.84	
SiMF34R75/1R7-7W2	33.9	35.6	2.5	≥40dB@32&36.9GHz	6.3×3.5×0.84	
SiMS35/2-7W2	34	36	2	≥40dB@32&38GHz	10.5×3.5×0.42	
SiMS35R2/2-7W3	34.2	36.2	2	≥30dB@33.2&37.4GHz	10.5×3.5×0.42	
SiMF34R65/R3-7W4	34.3	35	3.5	≥40@33.6GHz&35.9GHz	6.9×2.5×0.84	
SiMS35/1R2-5W3	34.4	35.6	2.3	≥35dB@33GHz&37.4GHz	8×3.5×0.42	
SiMS36/3-5W2	34.5	37.5	1.5	≥40dB@31&42.5GHz	7.4×3.5×0.42	

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