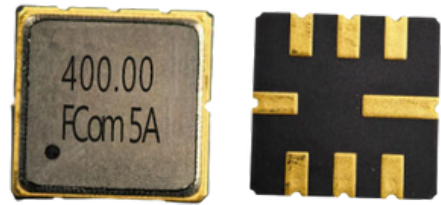


FCom SAW FILTER

Series FSF-5050-400M

8-SMD, No Lead 5.0x5.0 mm



Feature

- Package: 5.0 × 5.0 × 1.5 mm max.
- 2 dB bandwidth: 17 MHz min., 21.4 MHz typ.
- Operating temperature: -55 to +85°C
- Maximum input power: 10 dBm; DC: 3 V

Application

- RF signal selection at 400 MHz
- Receiver front-end bandpass filtering
- RF / IF filtering in custom designs

ELECTRICAL SPECIFICATIONS

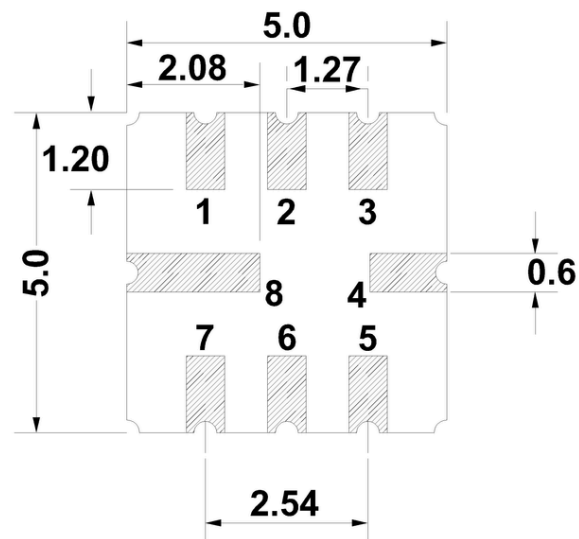
Characteristics	Test / Symbol	Min.	Typ.	Max.	Units	Notes
Center Frequency	f _c	-	400.0	-	MHz	Typical
Minimum Insertion Loss	IL _{min}	-	1.3	2.8	dB	
2 dB Bandwidth	BW ₂	17	21.4	-	MHz	Relative to IL _{min}
Absolute Attenuation	300-355 MHz	40	55	-	dB	From 0 dB
Absolute Attenuation	445-455 MHz	30	55	-	dB	From 0 dB
Absolute Attenuation	455-500 MHz	40	50	-	dB	From 0 dB
Absolute Attenuation	500-1400 MHz	30	38	-	dB	From 0 dB
Operating Temperature	T _A	-55	-	+85	°C	
Storage Temperature	T _{stg}	-55	-	+85	°C	
Test Source Impedance	Z _s	-	50	-	Ω	
Test Load Impedance	Z _L	-	50	-	Ω	

DIMENSION(mm)

Measurement uses 50 Ω source and load impedances. These are test terminations, not device impedances. IL_{min} is the minimum passband insertion loss. f_c is the mean of the two frequencies at IL_{min} + 2 dB. Stopband attenuation is absolute, referenced to 0 dB. No amplitude-ripple limit is specified.

Pin No.	Description
2	Input/Output
6	Input/Output
1, 3, 5, 7	To Be Ground
4, 8	Case Ground

Please contact FCom for other pin configurations.

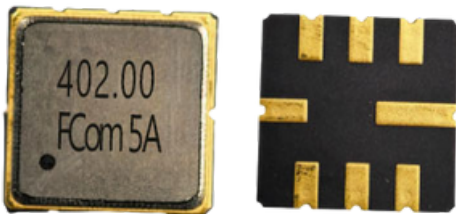


FUJI CRYSTAL
PRECISELY ACCURATE

FCom SAW FILTER

Series FSF-5050-402M

8-SMD, No Lead 5.0x5.0 mm



 Feature

- Package: 5.0 × 5.0 × 1.5 mm max.
- 1 dB bandwidth: 16 MHz min., 18 MHz typ.
- Operating temperature: -55 to +85°C
- Maximum input power: 10 dBm; DC: 3 V

 Application

- RF signal selection at 402 MHz
- Receiver front-end bandpass filtering
- RF / IF filtering in custom designs

ELECTRICAL SPECIFICATIONS

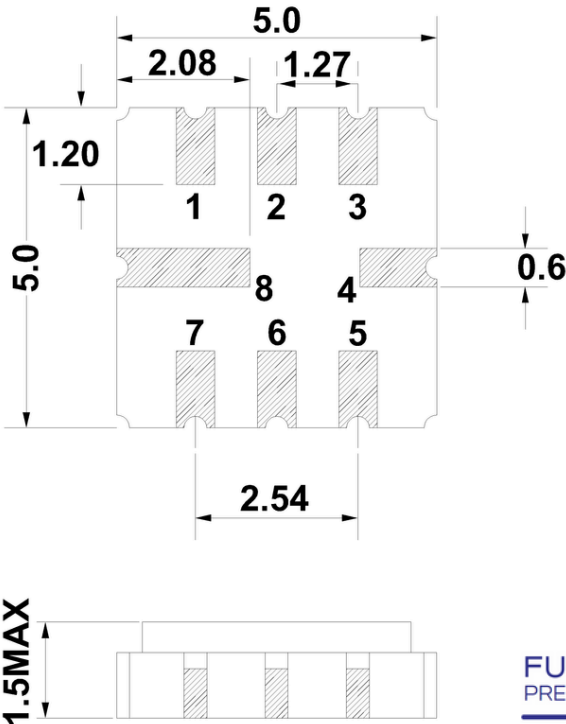
Characteristics	Test / Symbol	Min.	Typ.	Max.	Units	Notes
Center Frequency	fC	-	402.0	-	MHz	Typical
Minimum Insertion Loss	ILmin	-	1.6	3.0	dB	
1 dB Bandwidth	BW1	16	18	-	MHz	Relative to ILmin
Absolute Attenuation	302-362 MHz	40	44	-	dB	From 0 dB
Absolute Attenuation	434-440 MHz	35	38	-	dB	From 0 dB
Absolute Attenuation	440-502 MHz	40	48	-	dB	From 0 dB
Operating Temperature	TA	-55	-	+85	°C	
Storage Temperature	Tstg	-55	-	+85	°C	
Test Source Impedance	Zs	-	50	-	Ω	
Test Load Impedance	ZL	-	50	-	Ω	

 DIMENSION(mm)

Measurement uses 50 Ω source and load impedances.
These are test terminations, not device impedances.
Stopband attenuation is absolute, referenced to 0 dB.
No amplitude-ripple limit is specified.

Pin No.	Description
2	Input/Output
6	Input/Output
1, 3, 5,7	To Be Ground
4, 8	Case Ground

Please contact FCom for other pin configurations.



FUJI CRYSTAL
PRECISELY ACCURATE

FCom SAW FILTER

Series FSF-5050-403M55

8-SMD, No Lead 5.0x5.0 mm



Feature

- Package: 5.0 × 5.0 × 1.5 mm max.
- 3 dB bandwidth: 1.15 MHz typ.
- Operating temperature: -40 to +85°C
- Maximum input power: 10 dBm

Application

- RF signal selection at 403.55 MHz
- Receiver front-end bandpass filtering
- RF / IF filtering in custom designs

ELECTRICAL SPECIFICATIONS

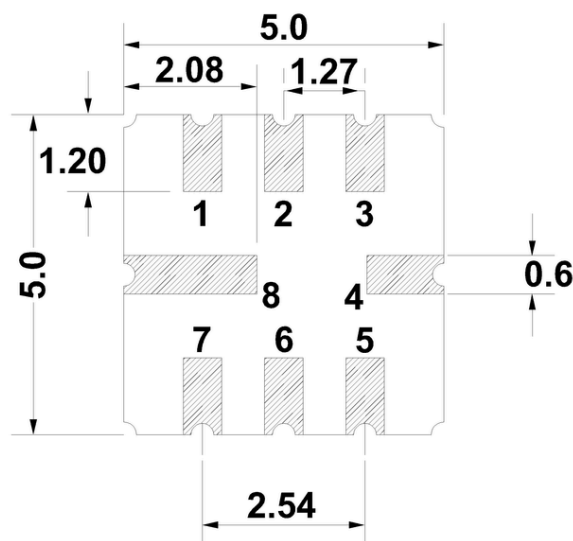
Characteristics	Test / Symbol	Min.	Typ.	Max.	Units	Notes
Center Frequency	f _c	-	403.59	-	MHz	Typical
Minimum Insertion Loss	403.43-403.75 MHz	-	2.4	4.0	dB	
Passband Attenuation	403.33-403.85 MHz	-	2.0	3.0	dB	Relative to ILmin
Passband Attenuation	403.27-403.91 MHz	-	3.0	6.0	dB	Relative to ILmin
3 dB Bandwidth	BW ₃	-	1.15	-	MHz	Relative to ILmin
Relative Attenuation	10-370 MHz	40	50	-	dB	To ILmin
Relative Attenuation	370-393.5 MHz	35	42	-	dB	To ILmin
Relative Attenuation	393.5-400.5 MHz	20	25	-	dB	To ILmin
Relative Attenuation	400.5-402 MHz	20	25	-	dB	To ILmin
Relative Attenuation	405.6-405.8 MHz	18	23	-	dB	To ILmin
Relative Attenuation	405.8-410 MHz	18	23	-	dB	To ILmin
Relative Attenuation	410-420 MHz	25	32	-	dB	To ILmin
Relative Attenuation	420-600 MHz	35	42	-	dB	To ILmin
Operating Temperature	TA	-40	-	+85	°C	
Storage Temperature	T _{stg}	-40	-	+85	°C	
Device Input Impedance	At f _c	346 Ω 3.8 pF				R C
Device Output Impedance	At f _c	346 Ω 3.8 pF				R C

DIMENSION(mm)

Test temperature: 25°C. Nominal product frequency: 403.55 MHz; typical electrical center: 403.59 MHz.
 50 Ω source / load with external matching on each port:
 47 nH series inductor and 8 pF shunt capacitor to ground on the source / load side of the inductor.
 Use the FCom pin configuration shown below.
 Passband and stopband values are relative to ILmin.
 3 dB bandwidth is distinct from specified passbands.

Pin No.	Description
2	Input/Output
6	Input/Output
1, 3, 5, 7	To Be Ground
4, 8	Case Ground

Please contact FCom for other pin configurations.

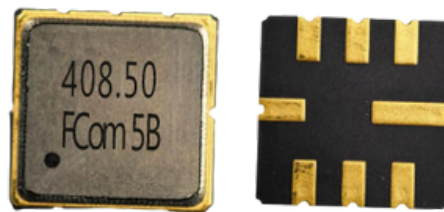


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FCom SAW FILTER

Series FSF-5050-408M5

8-SMD, No Lead 5.0x5.0 mm



Feature

- Package: 5.0 × 5.0 × 1.5 mm max.
- 2 dB bandwidth: 16 MHz min., 20.8 MHz typ.
- Operating temperature: 0 to +50°C
- Maximum input power: 10 dBm; DC: 3 V

Application

- RF signal selection at 408.5 MHz
- Receiver front-end bandpass filtering
- RF / IF filtering in custom designs

ELECTRICAL SPECIFICATIONS

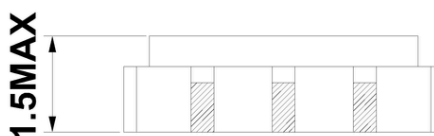
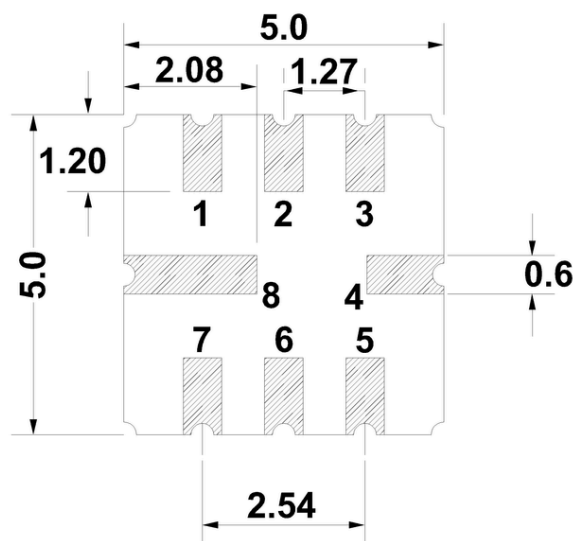
Characteristics	Test / Symbol	Min.	Typ.	Max.	Units	Notes
Center Frequency	f _C	-	408.5	-	MHz	Typical
Minimum Insertion Loss	IL _{min}	-	1.4	2.8	dB	
2 dB Bandwidth	BW ₂	16	20.8	-	MHz	Relative to IL _{min}
Absolute Attenuation	308.5-363.5 MHz	40	56	-	dB	From 0 dB
Absolute Attenuation	453.5-463.5 MHz	30	56	-	dB	From 0 dB
Absolute Attenuation	463.5-508.5 MHz	40	54	-	dB	From 0 dB
Operating Temperature	TA	0	-	+50	°C	
Storage Temperature	T _{stg}	-40	-	+85	°C	
Frequency Temp. Coeff.	TCF	-	-36	-	ppm/K	
Test Source Impedance	Z _s	-	50	-	Ω	
Test Load Impedance	Z _L	-	50	-	Ω	

DIMENSION(mm)

Test temperature: 25°C.
 Measurement uses 50 Ω source and load impedances.
 These are test terminations, not device impedances.
 IL_{min} is the minimum passband insertion loss.
 f_C is the mean of the two frequencies at IL_{min} + 2 dB.
 Stopband attenuation is absolute, referenced to 0 dB.
 No amplitude-ripple limit is specified.

Pin No.	Description
2	Input/Output
6	Input/Output
1, 3, 5, 7	To Be Ground
4, 8	Case Ground

Please contact FCom for other pin configurations.



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