



SAW Components

Data Sheet B3886





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B3886

Low-Loss Filter

121,00 MHz

Data Sheet

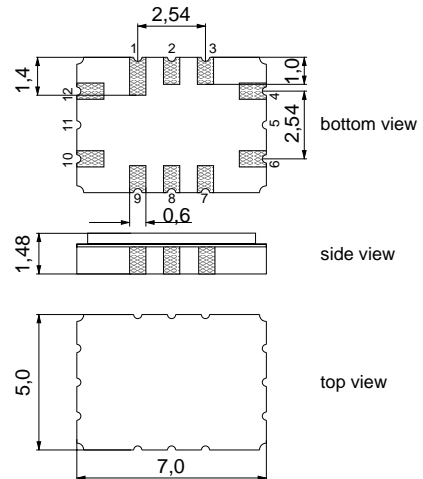
Ceramic package QCC12C

Features

- Low-loss IF filter
- Temperature stable
- Ceramic SMD package
- Balanced and unbalanced operation possible

Terminals

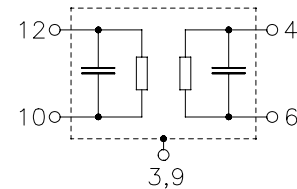
- Gold plated



Dimensions in mm, approx. weight 0,2 g

Pin configuration

- | | |
|------------|----------------|
| 10 | Input |
| 12 | Input ground |
| 4 | Output |
| 6 | Output ground |
| 3, 9 | Case ground |
| 1, 2, 7, 8 | To be grounded |



Type	Ordering code	Marking and Package according to	Packing according to
B3886	B39121-B3886-H310	C61157-A7-A95	F61074-V8170-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	-25 / +105	°C	
Storage temperature range	T_{stg}	-25 / +105	°C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	


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Characteristics

Operating temperature range: $T = -25^{\circ}\text{C}$ to $+85^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 75\ \Omega$ and matching network
 Terminating load impedance: $Z_L = 75\ \Omega$ and matching network

		min.	typ.	max.		
Center frequency	f_C	120,50	121,00	121,5	MHz	
Minimum insertion attenuation (including loss in matching elements)	α_{\min}	—	10,2	11,0	dB	
Amplitude ripple (p-p) $f_C - 750\ \text{kHz}$... $f_C + 750\ \text{kHz}$	$\Delta\alpha$	—	0,5	1,2	dB	
Passband width						
	$\alpha_{\text{rel}} \leq 1,0\ \text{dB}$	$B_{1,0\text{dB}}$	—	2,6	—	MHz
	$\alpha_{\text{rel}} \leq 3,0\ \text{dB}$	$B_{3,0\text{dB}}$	2,6	3,5	—	MHz
	$\alpha_{\text{rel}} \leq 35,0\ \text{dB}$	$B_{35\text{dB}}$	—	7,0	8,0	MHz
Relative attenuation (relative to α_{\min})	α_{rel}					
5,0 MHz ... 81,0 MHz		45	60	—	dB	
81,0 MHz ... 117,0 MHz		35	45	—	dB	
125,0 MHz ... 151,0 MHz		35	45	—	dB	
151,0 MHz ... 862,0 MHz		45	60	—	dB	
Impedance at f_C						
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	263 28	—	$\Omega \parallel \text{pF}$	
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	263 23	—	$\Omega \parallel \text{pF}$	
VSWR (Input and Output)	$f_C \pm 750\ \text{kHz}$	—	1,8	—		
Temperature coefficient of frequency	TC_f	—	-18	—	ppm/K	



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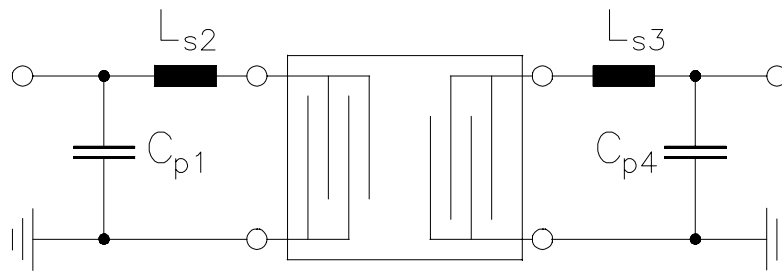
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Matching network to 75 Ω

(Element values depend upon PCB layout)



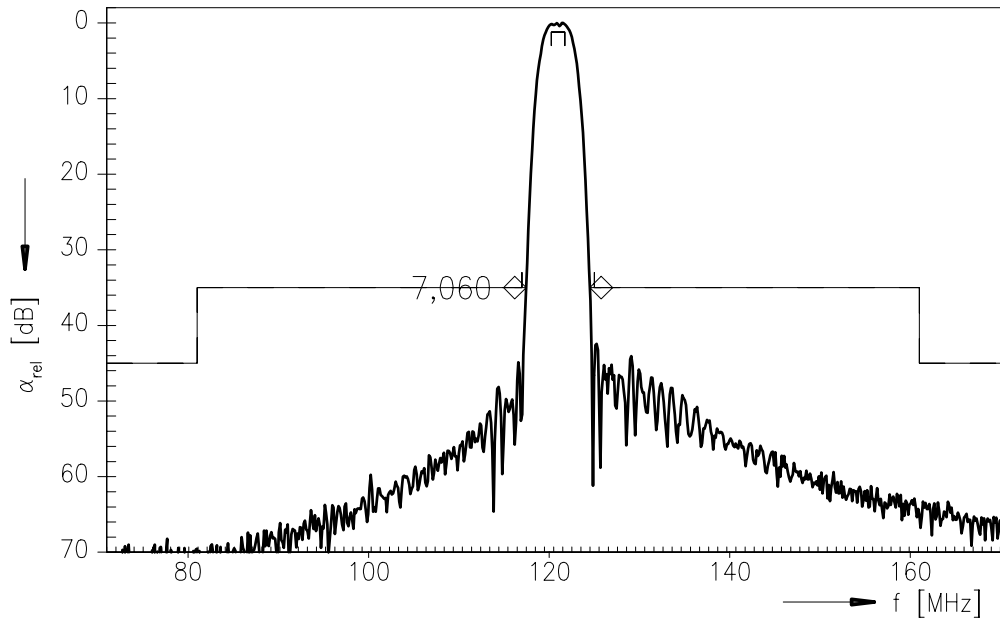
$$C_{p1} = 47 \text{ pF}$$
$$L_{s2} = 82 \text{ nH}$$

$$L_{s3} = 100 \text{ nH}$$
$$C_{p4} = 33 \text{ pF}$$

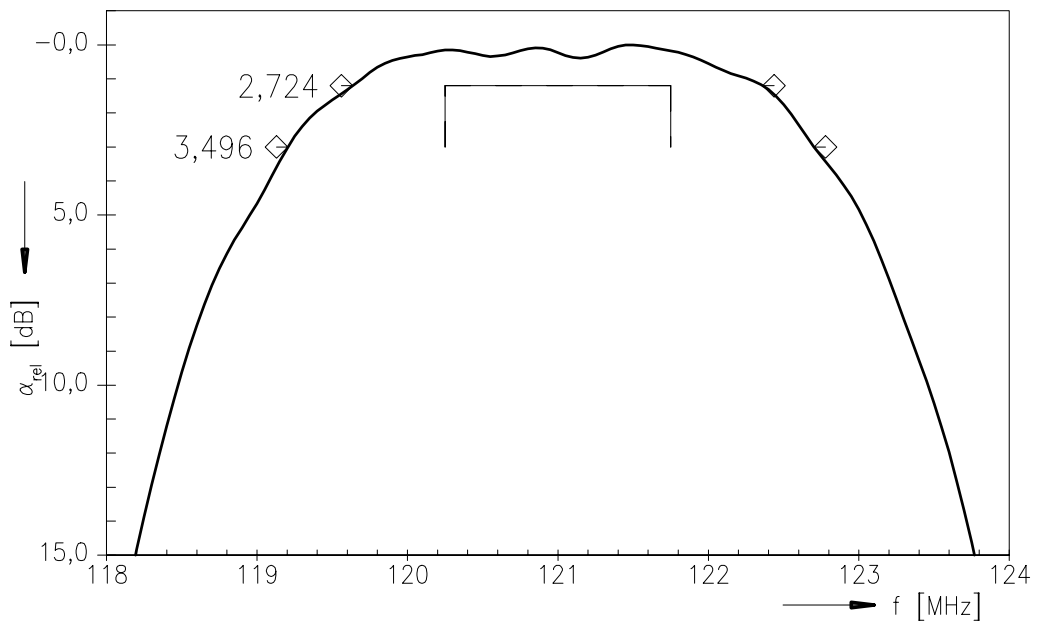


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Transfer function:



Transfer function (pass band):





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