



SAW Components

Data Sheet B3862





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Low-Loss Filter

51,00 MHz

Data Sheet

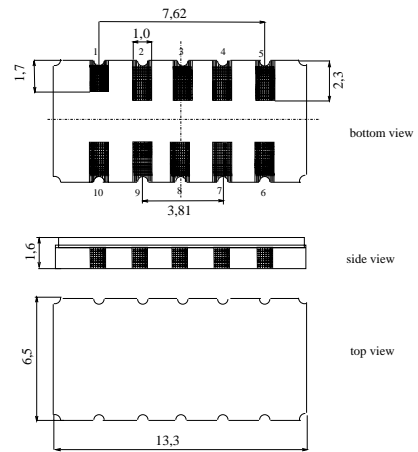
Ceramic package DCC12A

Features

- IF filter for WCDMA
- Low insertion loss
- Ceramic SMD package

Terminals

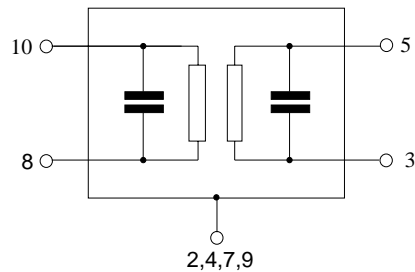
- Gold plated



Dimensions in mm, appr. weight 0,44 g

Pin configuration

- | | |
|------------|---------------|
| 10 | Input |
| 8 | Input ground |
| 5 | Output |
| 3 | Output ground |
| 2, 4, 7, 9 | Case ground |
| 1,6 | Ground |



Type	Ordering code	Marking and Package according to	Packing according to
B3862	B39510-B3862-H510	C61157-A7-A94	F61074-V8163-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	-40 / +85	°C	
Storage temperature range	T_{stg}	-40 / +85	°C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	



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Characteristics

Operating temperature: $T = -10 \dots +85 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ } \Omega$ and matching network
 Terminating load impedance: $Z_L = 50 \text{ } \Omega$ and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	51,00	—	MHz
Minimum insertion attenuation (including matching network)	α_{\min}	—	8,5	10,0	dB
Passband width					
	$\alpha_{\text{rel}} \leq 2 \text{ dB}$	$B_{2\text{dB}}$	—	2,4	— MHz
	$\alpha_{\text{rel}} \leq 20 \text{ dB}$	$B_{20\text{dB}}$	—	3,5	3,84 MHz
Amplitude ripple (p-p)					
	$f_N \pm 1,00 \text{ MHz}$	$\Delta\alpha$	—	0,8	1,5 dB
Phase ripple (p-p)					
	$f_N \pm 1,00 \text{ MHz}$	$\Delta\varphi$	—	5	10 °
Unit to Unit Phase Slope Variation¹⁾					
	$f_N \pm 1,00 \text{ MHz}$	$\Delta\varphi_V$	—	± 1	± 5 °
Relative attenuation (relative to α_{\min})					
	$f_N \pm 1,92 \text{ MHz} \dots f_N \pm 10,0 \text{ MHz}$	α_{rel}	22	25	— dB
	$f_N \pm 10,0 \text{ MHz} \dots f_N \pm 20,0 \text{ MHz}$		30	60	— dB
	0,5 MHz ... 31,0 MHz		40	60	— dB
	71 MHz ... 160 MHz		40	45	— dB
	160 MHz ... 2200 MHz		20	30	— dB
VSWR	$f_N \pm 1,0 \text{ MHz}$		—	1,5:1	2,3:1
Temperature coefficient of frequency	TC_f	—	- 18	—	ppm/K

1) Variation of absolute phase at each frequency point compared with mean value of each production lot. Additional constant offset for all frequency points of up to $\pm 5^\circ$ is allowed.



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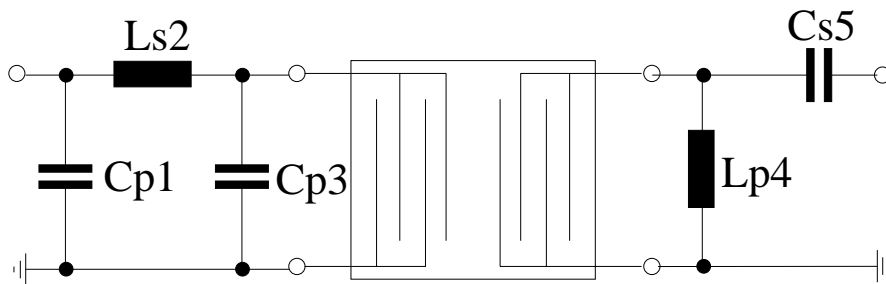
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Matching network: (element values depend on PCB layout)



$C_{p1} = 100 \text{ pF}$
 $L_{s2} = 390 \text{ nH}$

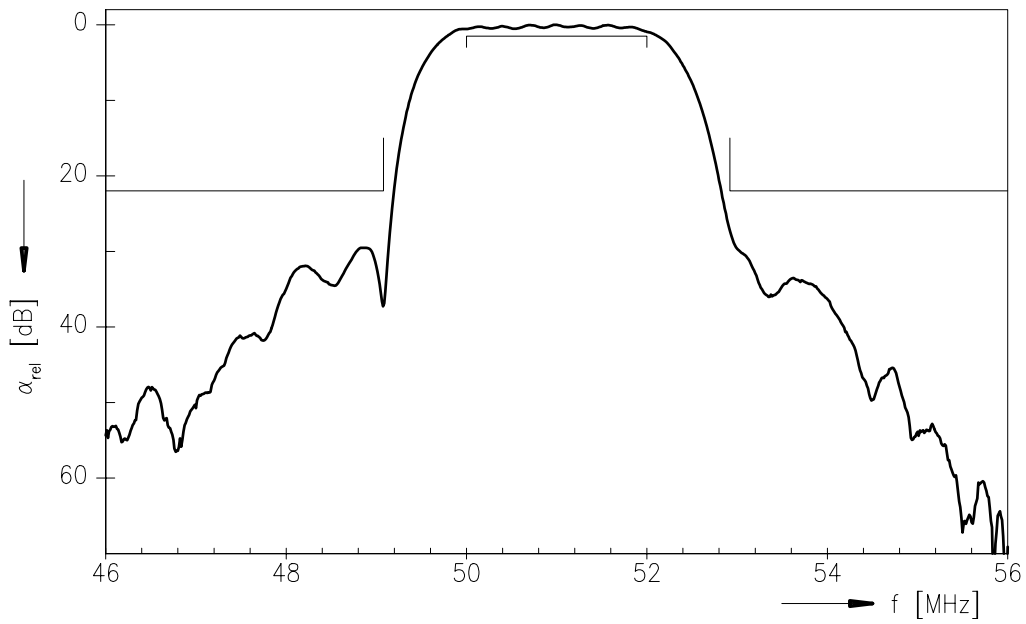
$C_{p3} = 1,8 \text{ pF}$
 $L_{p4} = 180 \text{ nH}$

$C_{s5} = 18 \text{ pF}$

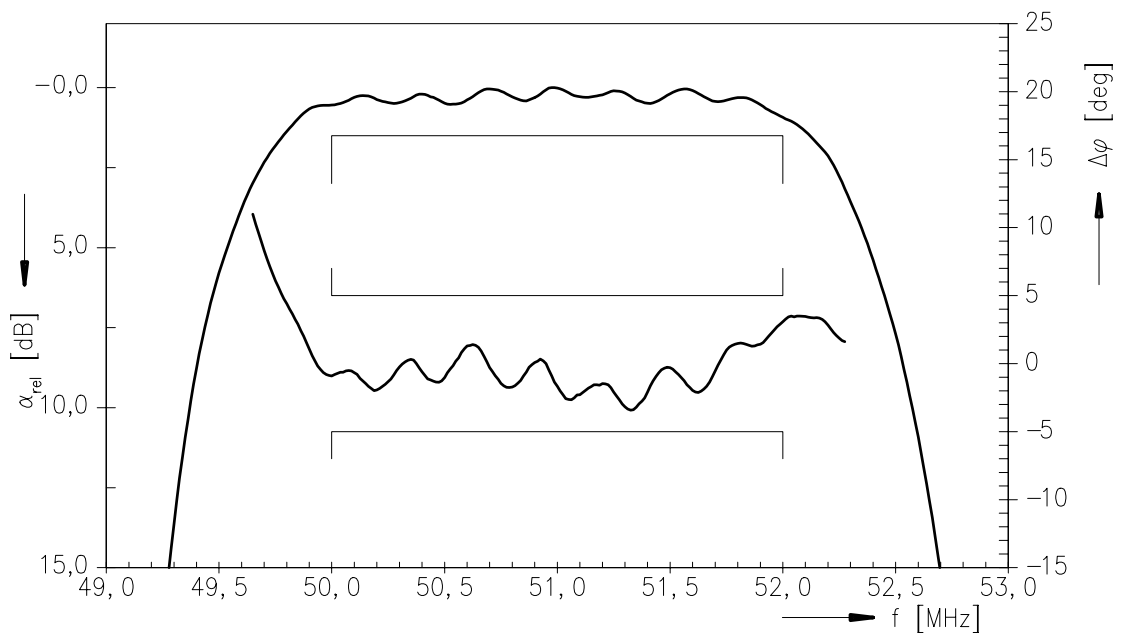


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Transfer function



Transfer function (pass band)





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