EPCOS

SAW Components

Data Sheet B3869

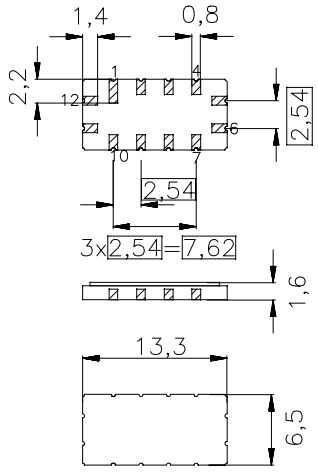
Ceramic package **QCC12**

Features

- Low-loss IF-filter for CDMA base station
- Usable bandwidth 8 MHz
- Ceramic SMD package

Terminals

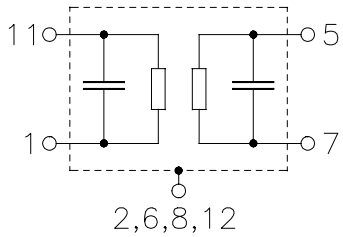
- Gold plated



Dimensions in mm, approx. weight 0,4 g

Pin configuration

11	Input
1	Input ground
5	Output
7	Output ground
2, 3, 4, 6, 8, 9, 10, 12	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B3869	B39151-B3869-Z510	C61157-A7-A55	F61074-V8163-Z000

Electrostatic **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operable temperature range	T_A	–40 / +85	˚C	
Storage temperature range	T_{stg}	–40 / +85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	

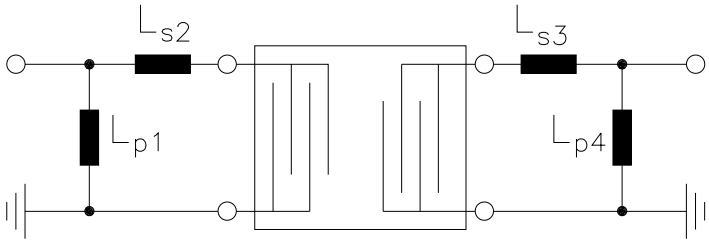
Characteristics

Operating temperature range: T = -40˚C ... 85˚C
Terminating source impedance: Z_S = 50 Ω and external matching network
Terminating load impedance: Z_L = 50 Ω and external matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	150,0	—	MHz
Pass bandwidth	$B_{1,0dB}$				
$\alpha_{rel} \leq 1,0$ dB		8	9,3	—	MHz
Minimum insertion attenuation (including matching network)	α_{min}	—	10,8	13,0	dB
Pass band ripple (p-p)	$\Delta\alpha$				
f_N – 4,0 MHz ... f_N +4,0 MHz		—	0,45	0,75	dB
Average group delay	τ				
f_N – 4,0 MHz ... f_N +4,0 MHz		—	0,9	1,8	µs
Group delay ripple (p-p)	$\Delta\tau$				
f_N – 4,00 MHz... f_N +4,00 MHz		—	45	150	ns
Phase ripple (p-p)	$\Delta\varphi$				
f_N – 4,00 MHz... f_N +4,00 MHz		—	4,5	7,0	°
Relative attenuation (relative to α_{min})	α_{rel}				
$f_N \pm 7,125$ MHz ... $f_N \pm 100,0$ MHz		35	45	—	dB
VSWR					
f_N – 4,00 MHz... f_N +4,00 MHz		—	1.55:1	1.8:1	dB
Temperature coefficient of frequency	TC_f	—	– 18	—	ppm/K

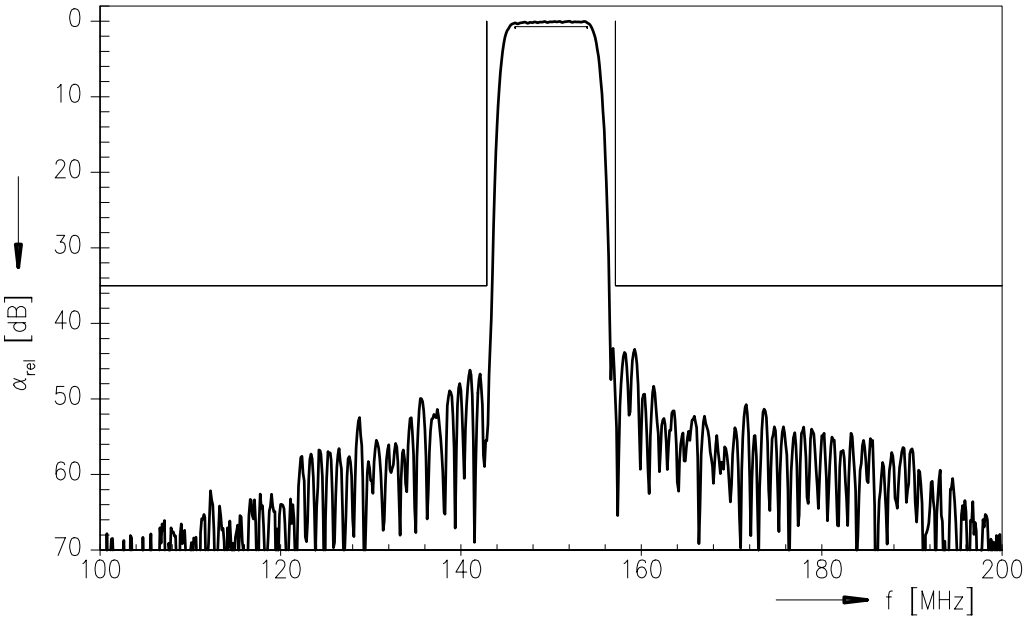
Matching network

(Element values depend upon PCB layout)

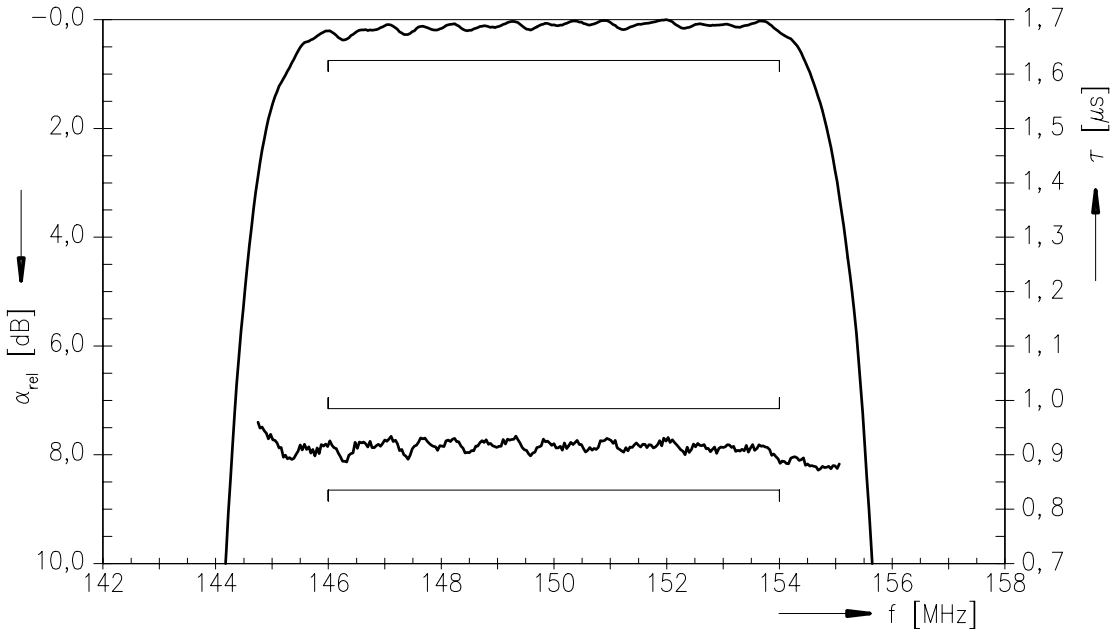


L_{p1} = 22 nH
L_{s2} = 47 nH
L_{s3} = 39 nH
L_{p4} = 27 nH

Transfer function



Transfer function (pass band)



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