EPCOS

SAW Components

Data Sheet B3686

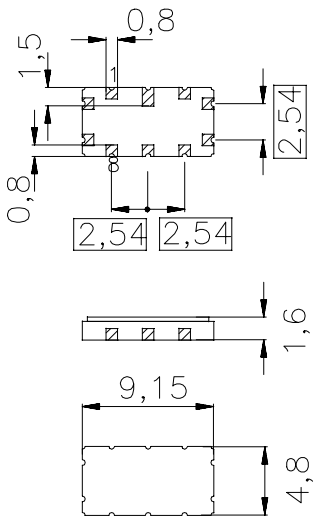
Ceramic package **QCC10B**

Features

- High performance IF bandpass filter
- 15 MHz usable bandwidth
- Constant group delay
- Ceramic SMD package

Terminals

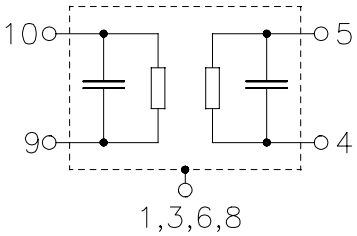
- Gold plated



Dimensions in mm, approx. weight 0,2 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B3686	B39341-B3686-Z710	C61157-A7-A49	F61074-V8035-Z000

Electrostatic **S**ensitive **D**evice (**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	

Characteristics

Operating temperature range: T = -25 .. 85 °C
Terminating source impedance: Z_S = 50 Ω and matching network
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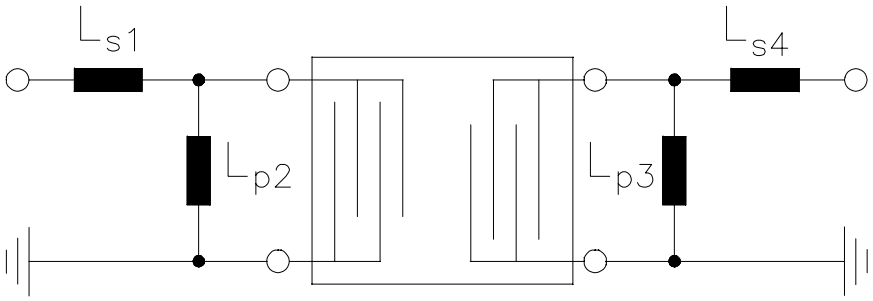
Group delay aperture: 100 kHz

		min.	typ.	max.	
Nominal frequency	f_N	—	337,5	—	MHz
Minimum insertion attenuation	α_{min}	—	8,7	10,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
330,0 ... 345,0 MHz		—	0,4	1,0	dB
Pass bandwidth					
$\alpha_{rel} \leq 1{,}0$ dB	$B_{1,0dB}$	15	20	—	MHz
Relative attenuation (relative to α_{min})	α_{rel}				
10,0 ... 319,0 MHz		35	40	—	dB
356,0 ... 550,0 MHz		35	40	—	dB
550,0 ...1000,0 MHz		27	50	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
330,0 ... 345,0 MHz		—	35	70	ns
1 dB compression					
330,0 ... 345,0 MHz		12	—	—	dBm
Input IP3					
330,0 ... 345,0 MHz		30	—	—	dBm
Temperature coefficient of frequency	TC_f	—	– 87	—	ppm/K

Matching network to 50 Ω

(Element values depend upon PCB layout)



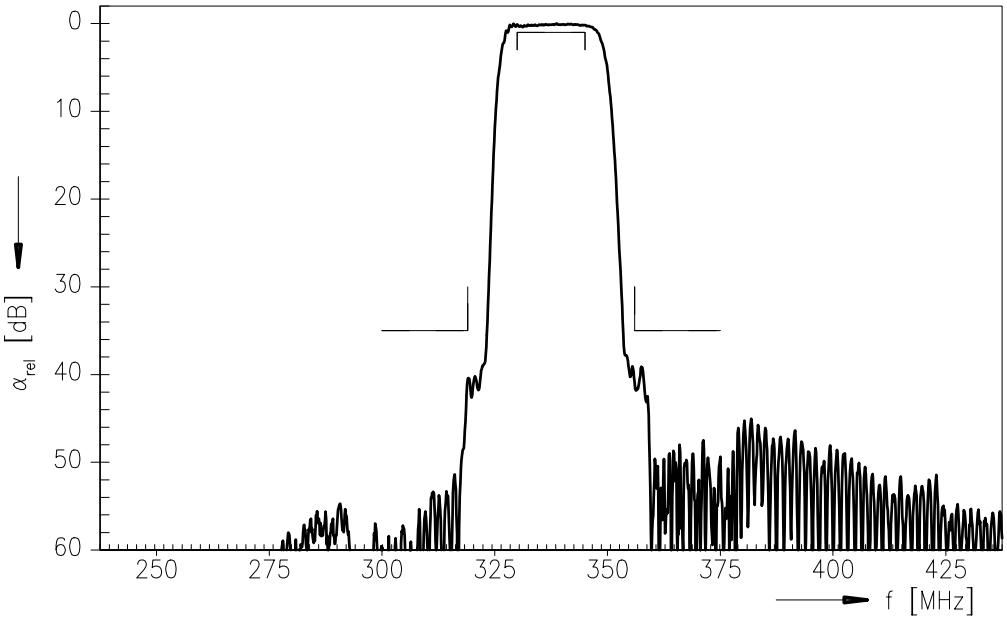
L_{s1} = 33 nH

L_{p2} = 47 nH

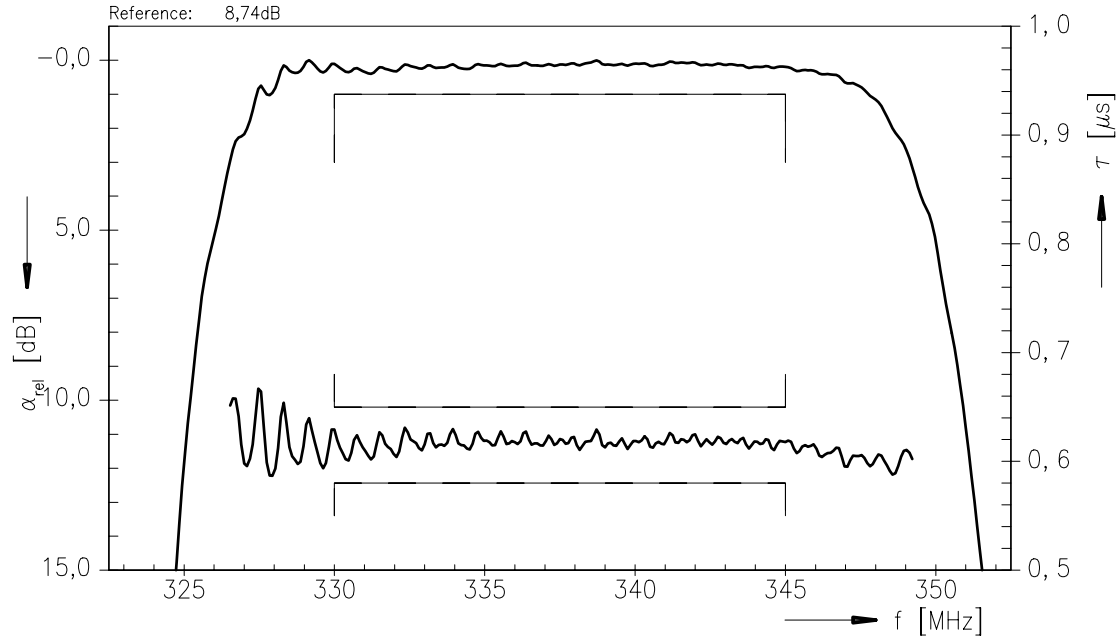
L_{p3} = 47 nH

L_{s4} = 47 nH

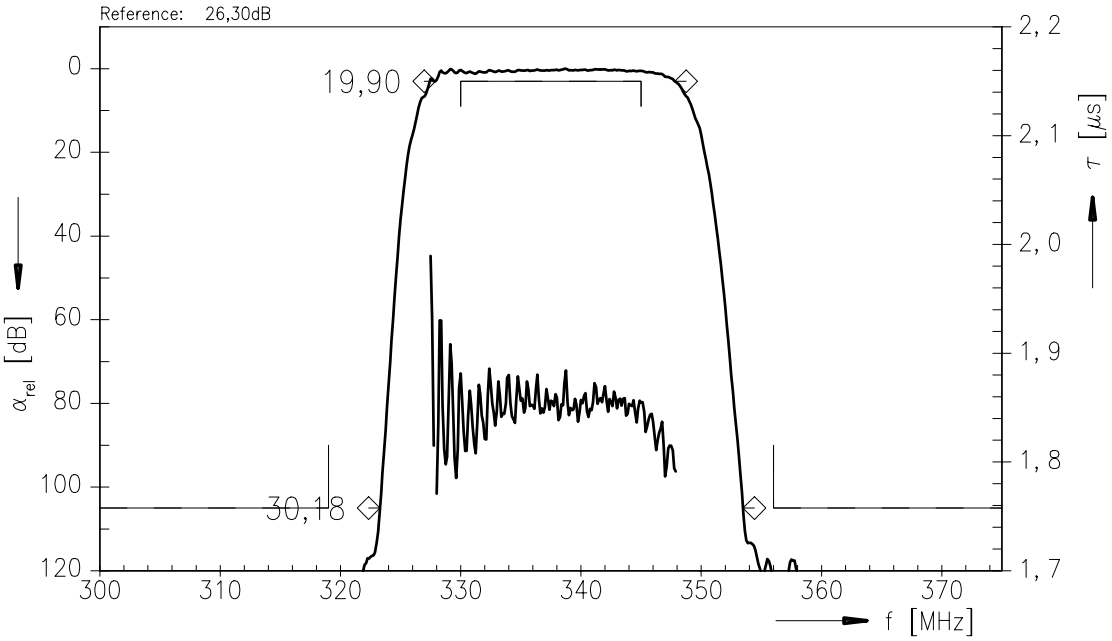
Normalized frequency response



Normalized frequency response (pass band)



Normalized frequency response of three cascaded filters



Published by EPCOS AG
Surface Acoustic Wave Components Division, OFW E NK
P.O. Box 80 17 09, D-81617 München

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