EPCOS

SAW Components

Data Sheet B3680

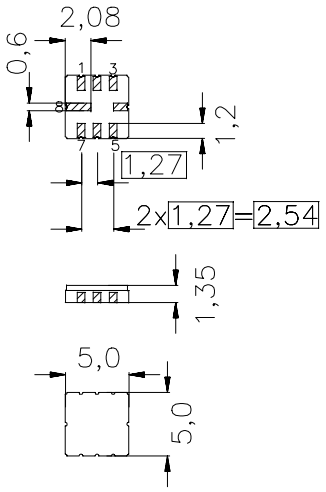
Ceramic package QCC8C

Features

- Low-loss IF filter for Wireless LAN
- Low insertion attenuation
- Low amplitude ripple
- Usable passband 12 MHz
- Balanced or unbalanced operation
- Hermetically sealed ceramic package
- Package for Surface Mounted Technology (SMT)

Terminals

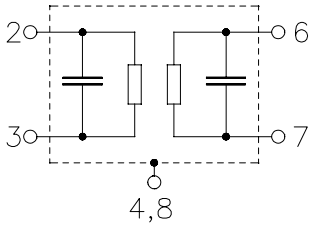
- Gold plated



typ. Dimensions in mm, approx. weight 0,1 g

Pin configuration

2, 3	Input, input ground or bal. input
6, 7	Output, outp. ground or bal. outp.
4, 8	Case ground
1, 5	Ground



Type	Ordering code	Marking and Package according to	Packing according to
B3680	B39351-B3680-U310	C61157-A7-A56	F61074-V8070-Z000

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

Maximum ratings

Operable temperature range	T_A	-25 / +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_A = 25 °C
Terminating source impedance: Z_S = 50 Ω and matching network
Terminating load impedance: Z_L = 50 Ω and matching network

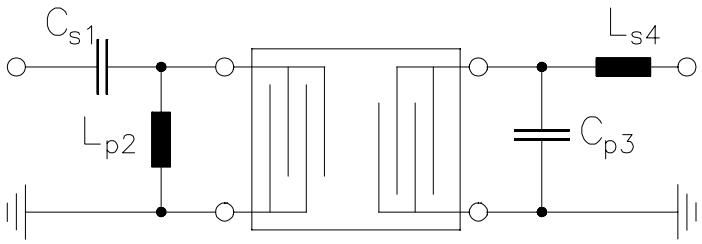
		min.	typ.	max.	
Nominal frequency	f_N	—	352,0	—	MHz
Minimum insertion attenuation	α_{min}	—	2,7	3,0	dB
Amplitude ripple in passband (p-p)	$\Delta\alpha$				
346,0 .... 358,0 MHz		—	1,4	2,5	dB
Group delay ripple (p-p)	$\Delta\tau$				
346,0 .... 358,0 MHz		—	40	100	ns
346,5 .... 358,0 MHz		—	40	80	ns
Pass bandwidth					
$\alpha_{rel} \leq$ 3dB	B_{3dB}	15,0	15,6	—	MHz
Relative attenuation (relative to α_{min})	α_{rel}				
0,3 .... 333,0 MHz		45	54	—	dB
333,0 .... 341,0 MHz		11	34	—	dB
363,0 .... 366,0 MHz		11	19	—	dB
366,0 .... 371,0 MHz		22	25	—	dB
371,0 .... 374,0 MHz		25	35	—	dB
374,0 .... 392,0 MHz		34	36	—	dB
392,0 .... 400,0 MHz		45	54	—	dB
Temperature coefficient of frequency	TC_f	—	– 70	—	ppm/K

Characteristics

Operating temperature range: T_A = 0 ... 85 °C
Terminating source impedance: Z_S = 50 Ω and matching network
Terminating load impedance: Z_L = 50 Ω and matching network

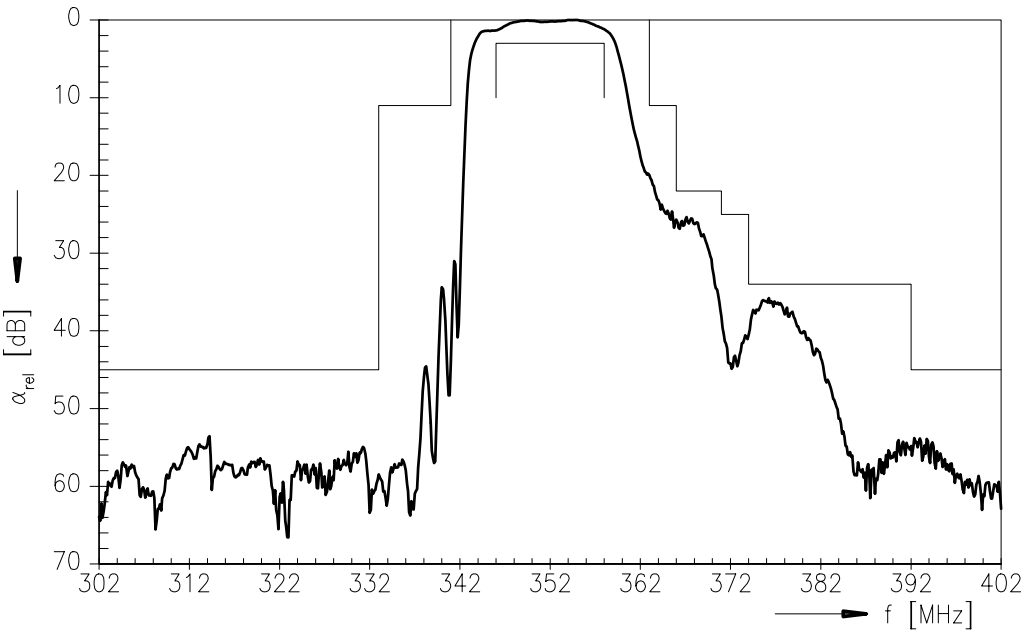
		min.	typ.	max.	
Nominal frequency	f_N	—	352,0	—	MHz
Minimum insertion attenuation	α_{min}	—	2,7	3,5	dB
Amplitude ripple in passband (p-p)	$\Delta\alpha$				
346,0 .... 358,0 MHz		—	1,4	3,0	dB
Group delay ripple (p-p)	$\Delta\tau$				
346,0 .... 358,0 MHz		—	40	170	ns
346,5 .... 358,0 MHz		—	40	120	ns
Pass bandwidth					
$\alpha_{rel} \leq$ 3dB	B_{3dB}	14,0	15,6	—	MHz
Relative attenuation (relative to α_{min})	α_{rel}				
0,3 .... 333,0 MHz		45	54	—	dB
333,0 .... 341,0 MHz		11	34	—	dB
363,0 .... 366,0 MHz		11	19	—	dB
366,0 .... 371,0 MHz		22	25	—	dB
371,0 .... 374,0 MHz		25	35	—	dB
374,0 .... 392,0 MHz		34	36	—	dB
392,0 .... 400,0 MHz		45	54	—	dB
Temperature coefficient of frequency	TC_f	—	– 70	—	ppm/K

matching network:

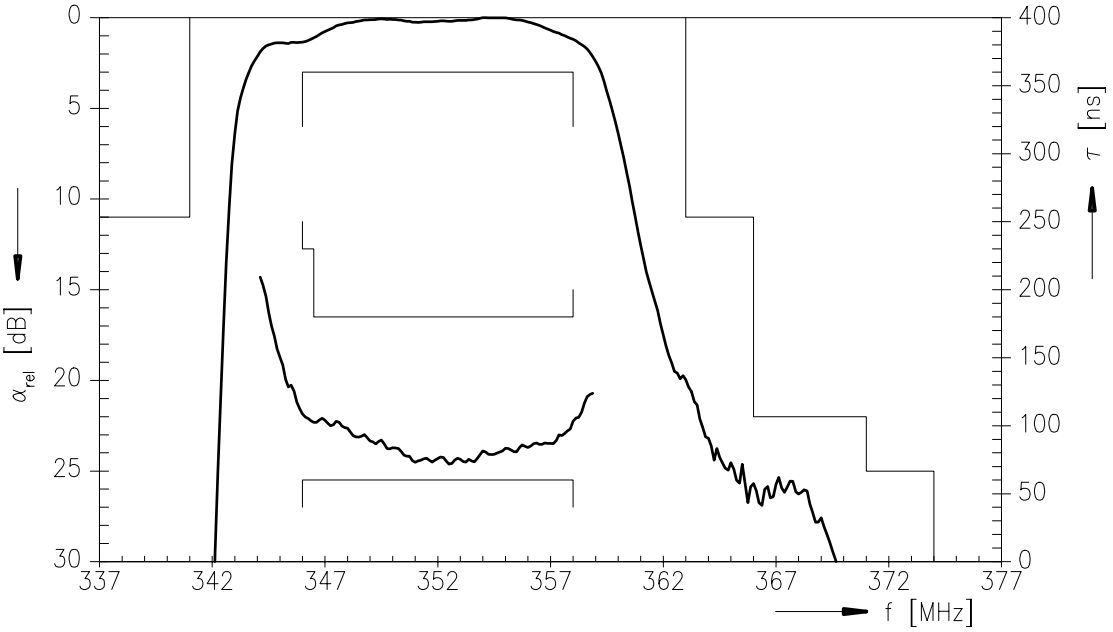


C_{s1} = 10 pF
L_{p2} = 27nH
C_{p3} = 1,2 pF
L_{s4} = 27 nH

Transfer function:



Transfer function (pass band)**:**



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