EPCOS

SAW Components

Data Sheet B3677

Data Sheet

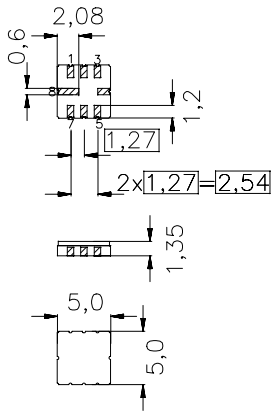
Ceramic package QCC8C

Features

- Low-loss IF filter
- Ceramic SMD package
- Balanced or unbalanced operation

Terminals

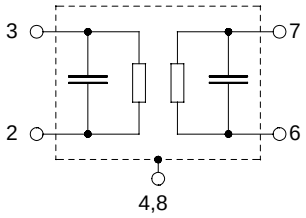
- Gold plated



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

Pin configuration

3	Input
2	Input or input ground
7	Output
6	Output or output ground
4, 8	Case ground
1, 5	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B3677	B39371-B3677-U310	C61157-A7-A56	F61074-V8070-Z000

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

Maximum ratings

Operable temperature range	T_A	-45 / +85	˚C	
Storage temperature range	T_{stg}	-45 / +85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	

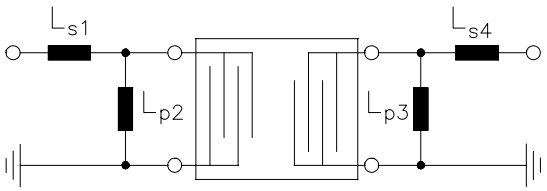
Characteristics

Operating temperature: T_A = -10 ... 80 °C
Terminating source impedance: Z_S = 50 Ω unbalanced and matching network
Terminating load impedance: Z_L = 50 Ω unbalanced and matching network

			min.	typ.	max.	
Nominal frequency		f_N	—	374,00	—	MHz
Minimum insertion attenuation (including matching network)		α_{min}	—	8,5	10,0	dB
Bandwidth	$\alpha_{rel} \leq 3$ dB	B_{3dB}	17	22	—	MHz
Amplitude ripple (p-p)	$f_N \pm 7$ MHz	$\Delta\alpha$	—	0,5	1	dB
Group delay ripple (p-p)	$f_N \pm 7$ MHz	$\Delta\tau$	—	40	100	ns
Triple transit suppression			30	40	—	dB
Relative attenuation (relative to α_{min})		α_{rel}				
f_N – 16,5 MHz ... f_N – 22 MHz			30	42	—	dB
f_N – 22 MHz ... f_N – 33 MHz			40	45	—	dB
f_N – 33 MHz ... f_N – 150 MHz			48	52	—	dB
f_N + 16,5 MHz ... f_N + 18 MHz			20	38	—	dB
f_N + 18 MHz ... f_N + 22 MHz			30	42	—	dB
f_N + 22 MHz ... f_N + 48 MHz			38	44	—	dB
f_N + 48 MHz ... f_N + 80 MHz			40	45	—	dB
f_N + 80 MHz ... f_N + 150 MHz			48	55	—	dB
Adjacent channel suppression average attenuation relative to α_{min}		α_{rel}				
f_N – 16,5 ... f_N – 33,5 MHz			40	64	—	dB
f_N + 16,5 ... f_N + 33,5 MHz			40	56	—	dB
Temperature coefficient of frequency		TC_f	—	– 87	—	ppm/K

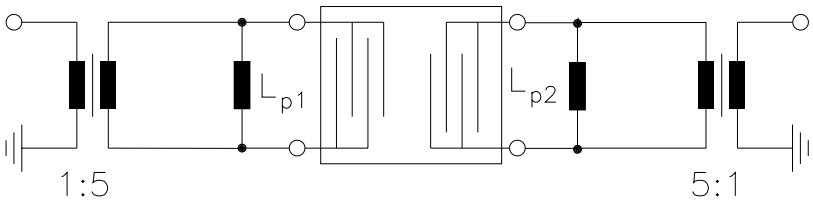
Matching network (element values may depend on pcb layout)

50 Ω unbalanced:



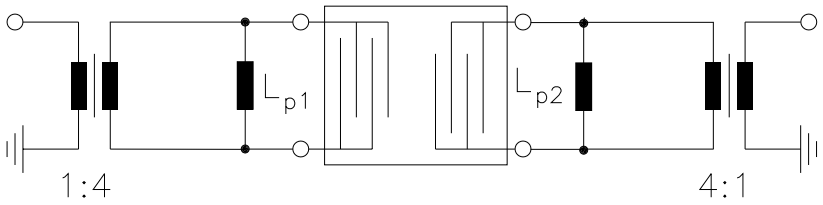
L_{s1} = 27 nH
L_{p2} = 47 nH
L_{p3} = 47 nH
L_{s4} = 27 nH

250 Ω balanced:



L_{p1} = 24 nH (e.g. Coilcraft 0603CS-24NX_BC)
L_{p2} = 24 nH

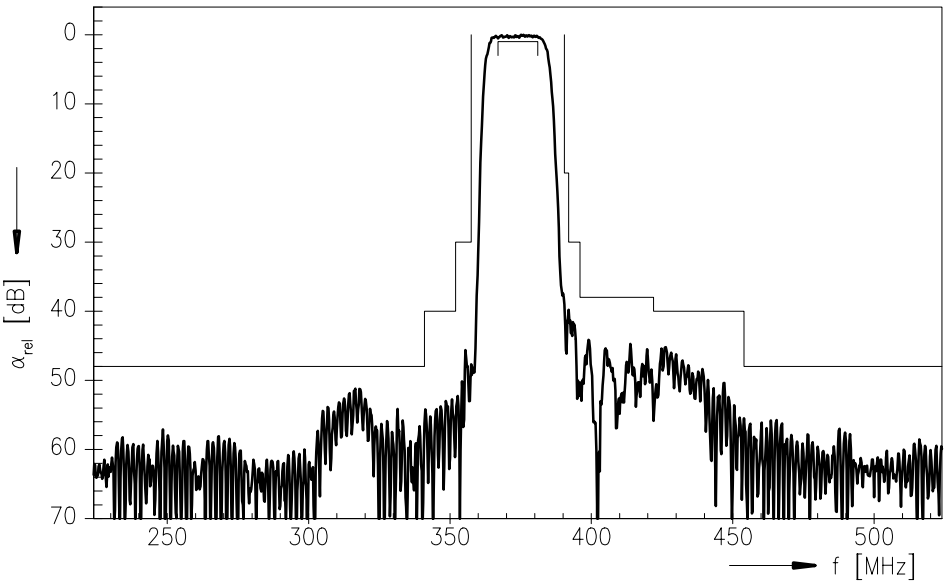
200 Ω balanced:



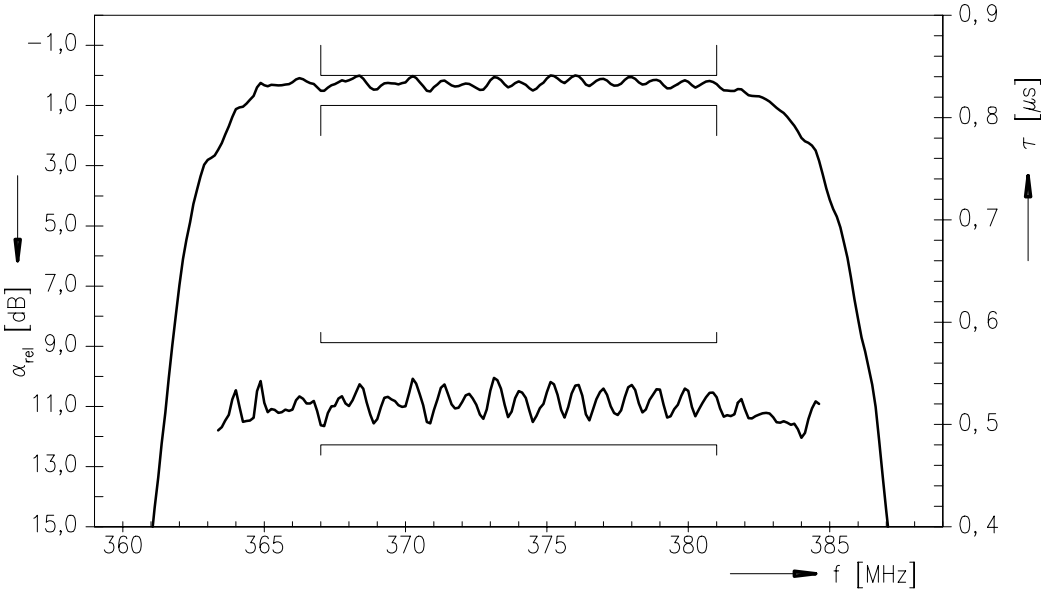
L_{p1} = 27 nH

L_{p2} = 22 nH

Transfer function:



Transfer function (pass band)**:**



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