EPCOS

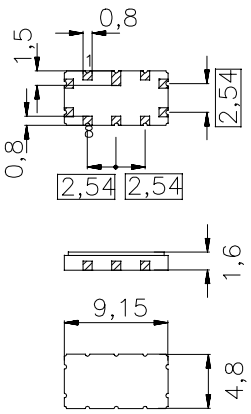
SAW Components

Data Sheet B3643

Ceramic package **QCC10B**

Features

- IF low-loss filter for wireless LAN systems
- Channel selection according to IEEE 802.11
- Temperature stable
- Ceramic SMD package



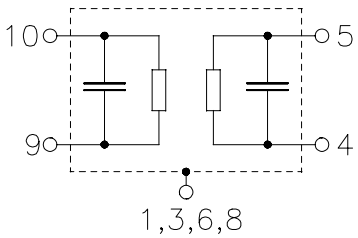
Dimensions in mm, approx. weight 0,23

Terminals

- Gold plated

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B3643	B39371-B3643-Z710	C61157-A7-A49	F61074-V8035-Z000

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

Maximum ratings

Operable temperature range	T_A	-25 / +70	˚C	
Storage temperature range	T_{stg}	-40 / +85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	source impedance 50 Ω

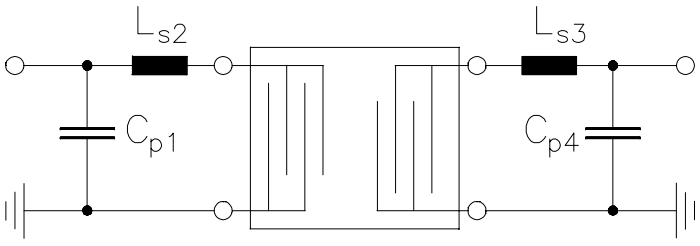
Characteristics

Operating temperature range: T_A = -20 .. +60 °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	—	371,0	—	MHz
Insertion attenuation at f_N	α_N	—	10	11,5	dB
Pass bandwidth					
α_{rel} < 1 dB	B_{1dB}	1,3	1,6	—	MHz
α_{rel} < 3 dB	B_{3dB}	—	2,0	2,5	MHz
Amplitude ripple (p-p)	$\Delta\alpha$				
f_N - 0,5 MHz ... f_N + 0,5 MHz		—	0,3	1,0	dB
Amplitude slope in passband		—	0,0	±0,5	dB
Group delay ripple (p-p)	$\Delta\tau$				
f_N - 0,65 MHz ... f_N + 0,65 MHz		—	80	120	ns
f_N - 1,00 MHz ... f_N + 1,00 MHz		—	90	—	ns
Relative attenuation (relative to α_N)	α_{rel}				
f_N - 50 MHz ... f_N - 15 MHz		45	60	—	dB
f_N - 15 MHz ... f_N - 5 MHz		40	55	—	dB
f_N + 5 MHz ... f_N + 25 MHz		40	45	—	dB
f_N + 25 MHz ... f_N + 50 MHz		45	50	—	dB
Temperature coefficient of frequency [1]	TC_f	—	-0,036	—	ppm/K²
Turnover temperature	T_0	—	16	—	°C

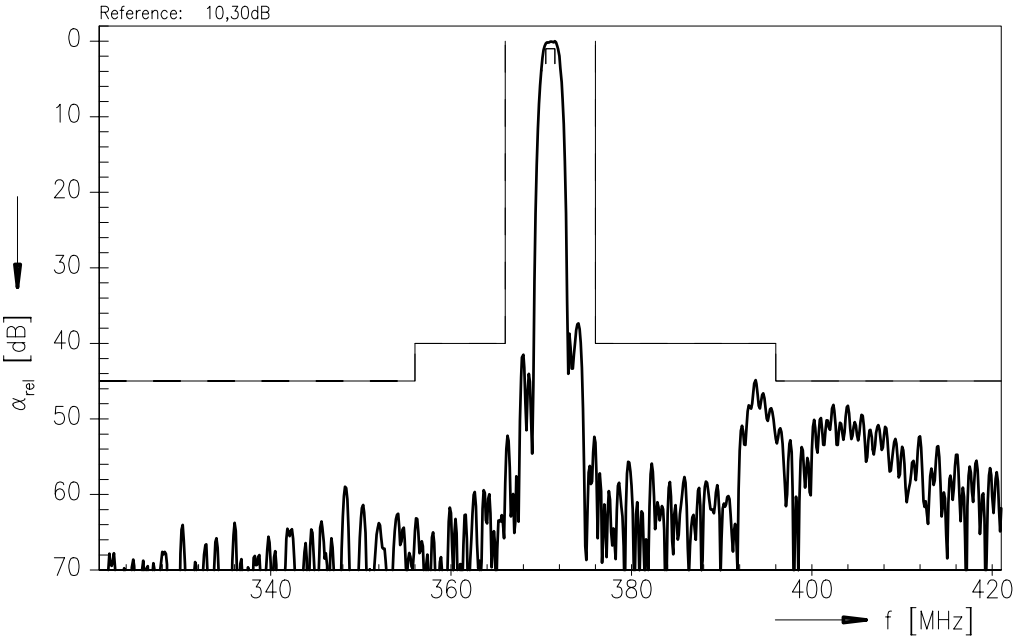
[1] Temperature dependance of f_C: $f_C(T_A) = f_C(T_0)(1 + TC_f(T_A - T_0)^2)$

Matching network (Element values depend upon PCB layout)

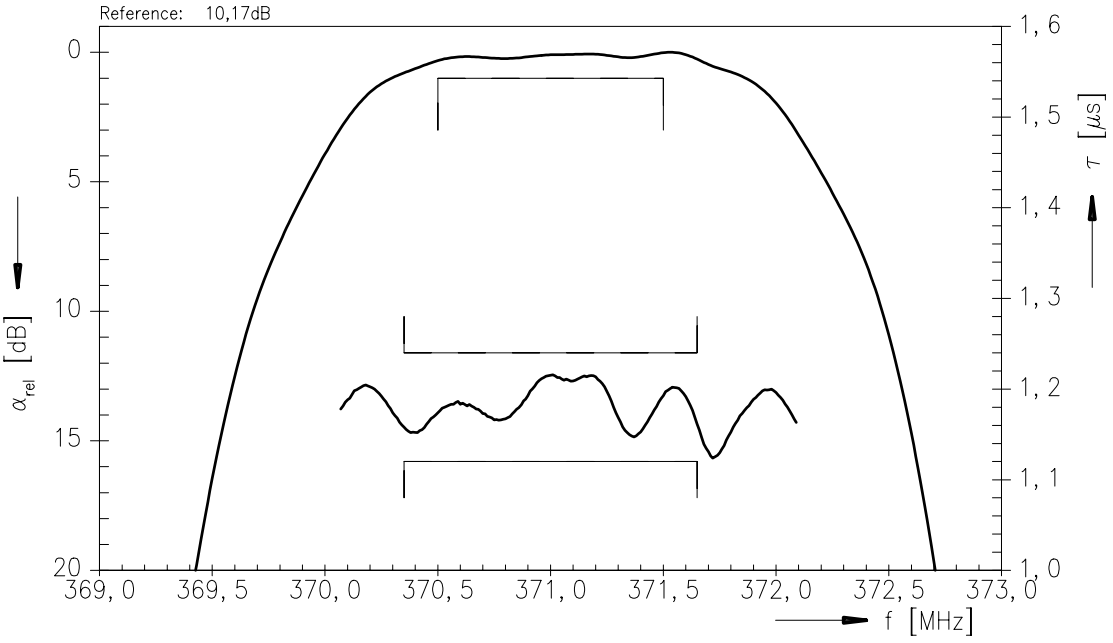


C_{p1} = 15 pF
L_{s2} = 27 nH
L_{s3} = 22 nH
C_{p4} = 15 pF

Transfer function



Transfer function (pass band)



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