



SAW Components

Data Sheet B3643





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B3643

Low-Loss Filter

371,0 MHz

Data Sheet

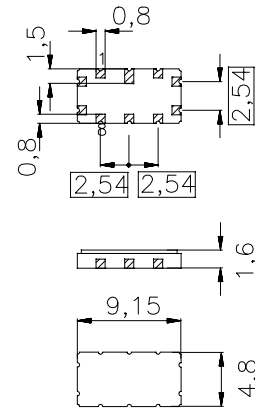
Ceramic package QCC10B

Features

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

Terminals

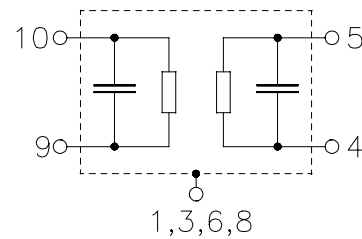
- Gold plated



Dimensions in mm, approx. weight 0,23

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 Sensitive Device (ESD)

Maximum ratings

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



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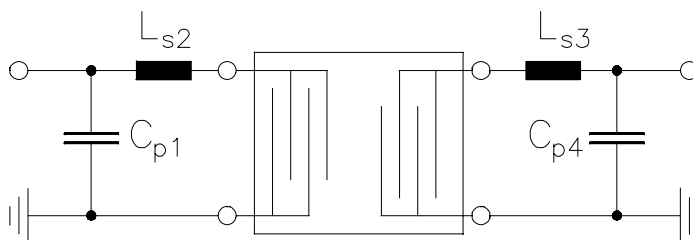
Characteristics

Operating temperature range: $T_A = -20 \dots +60 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ }\Omega$ and matching network
 Terminating load impedance: $Z_L = 50 \text{ }\Omega$ 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					
$\alpha_{rel} < 1 \text{ dB}$	B_{1dB}	1,3	1,6	—	MHz
$\alpha_{rel} < 3 \text{ dB}$	B_{3dB}	—	2,0	2,5	MHz
Amplitude ripple (p-p)	$\Delta\alpha$				
$f_N - 0,5 \text{ MHz} \dots f_N + 0,5 \text{ MHz}$		—	0,3	1,0	dB
Amplitude slope in passband		—	0,0	$\pm 0,5$	dB
Group delay ripple (p-p)	$\Delta\tau$				
$f_N - 0,65 \text{ MHz} \dots f_N + 0,65 \text{ MHz}$		—	80	120	ns
$f_N - 1,00 \text{ MHz} \dots f_N + 1,00 \text{ MHz}$		—	90	—	ns
Relative attenuation (relative to α_N)	α_{rel}				
$f_N - 50 \text{ MHz} \dots f_N - 15 \text{ MHz}$		45	60	—	dB
$f_N - 15 \text{ MHz} \dots f_N - 5 \text{ MHz}$		40	55	—	dB
$f_N + 5 \text{ MHz} \dots f_N + 25 \text{ MHz}$		40	45	—	dB
$f_N + 25 \text{ MHz} \dots f_N + 50 \text{ MHz}$		45	50	—	dB
Temperature coefficient of frequency ¹⁾	TC_f	—	-0,036	—	ppm/K ²
Turnover temperature	T_0	—	16	—	$^\circ\text{C}$

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)

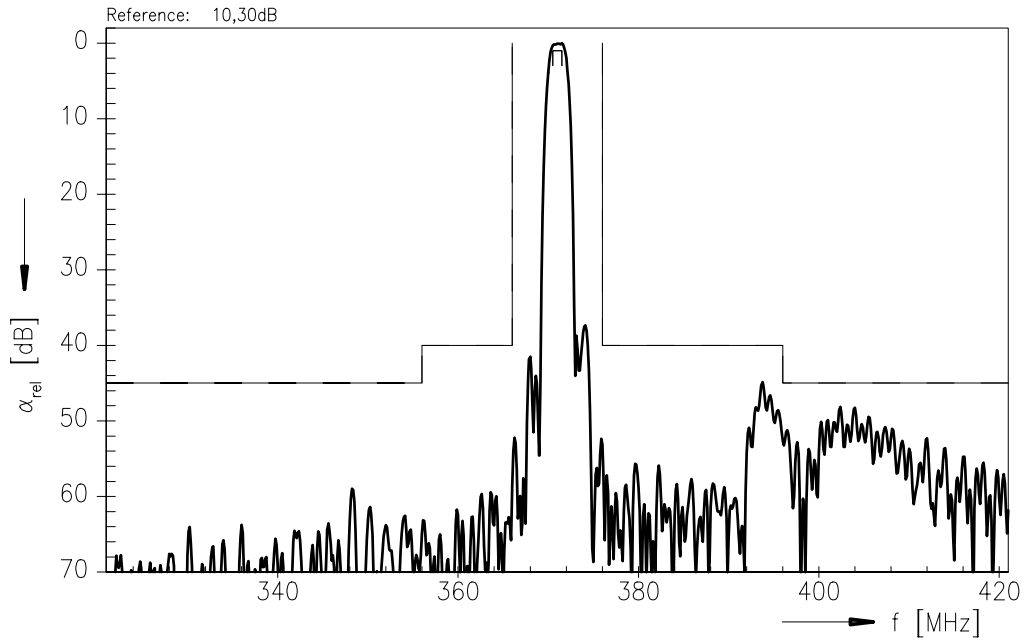


$C_{p1} = 15 \text{ pF}$
 $L_{s2} = 27 \text{ nH}$
 $L_{s3} = 22 \text{ nH}$
 $C_{p4} = 15 \text{ pF}$

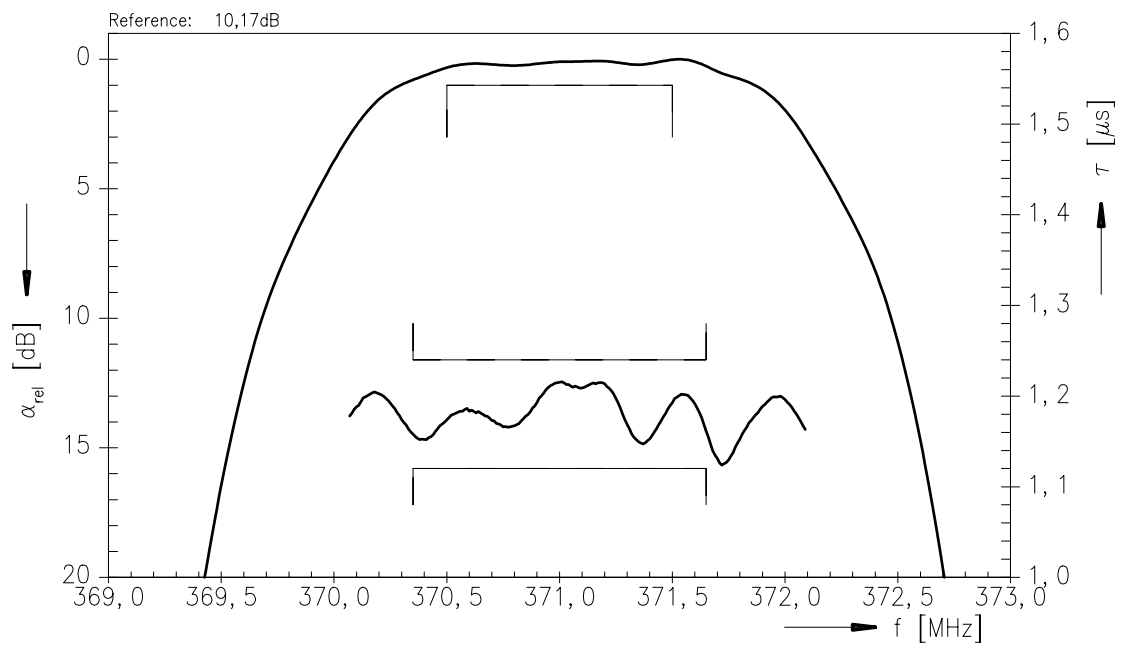


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Transfer function



Transfer function (pass band)





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