



SAW Components

Data Sheet B5034





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B5034

Low-Loss Filter

456,00 MHz

Data Sheet

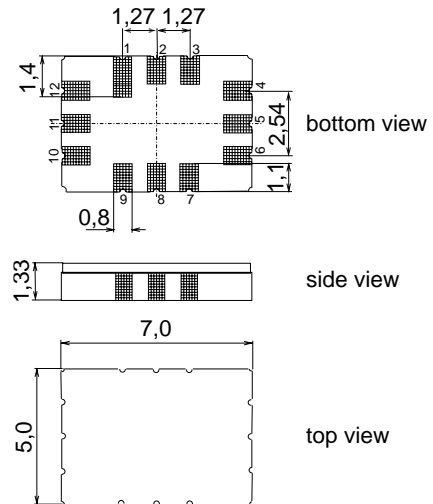
Ceramic SMD package QCC12E

Features

- Low-loss filter for WiMAX
- Usable bandwidth 4,2 MHz
- Low insertion attenuation
- Package for Surface Mounted Technology (SMT)

Terminals

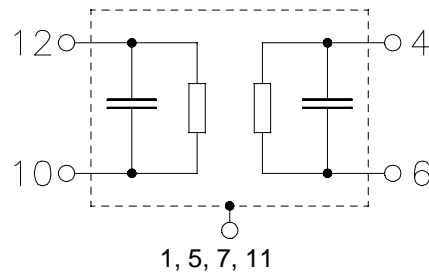
- Gold plated



Dimensions in mm, approx. weight 0,2 g

Pin configuration

- | | |
|-------------|---------------|
| 10 | Input |
| 12 | Input Ground |
| 4 | Output |
| 6 | Output Ground |
| 2, 3, 8, 9 | Ground |
| 1, 5, 7, 11 | Case ground |



Type	Ordering code	Marking and Package according to	Packing according to
B5034	B39461-B5034-H810	C61157-A7-A103	F61074-V8170-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	-40/ +85	°C	
Storage temperature range	T_{stg}	-40/ +85	°C	
DC voltage	V_{DC}	3	V	between input, output and ground
DC voltage	V_{DC}	0	V	between 10, 12 and between 4,6



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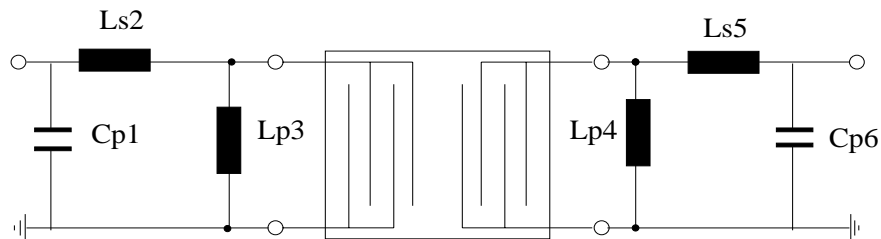
Characteristics

Operating temperature: $T = -30 \dots +85 \text{ }^\circ\text{C}$
 Terminating source impedance: $50 \text{ } \Omega$ single ended and matching network
 Terminating load impedance: $50 \text{ } \Omega$ single ended and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	456,00	—	MHz
Minimum insertion attenuation (including matching network)	α_{\min}	—	6,8	9,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$ $f_N \pm 2,1 \text{ MHz}$	—	0,4	1,3	dB
Group delay ripple (p-p)	$\Delta\tau$ $f_N \pm 2,1 \text{ MHz}$	—	75	250	ns
Impulse response attenuation (Time/Height values are relative to the main time response lobe) > 3 μs		30	55	—	dB
Relative attenuation (relative to α_{\min})	α_{rel}				
365 MHz ... 371 MHz		40	48	—	dB
412 MHz		45	57	—	dB
412 MHz ... 450,0 MHz		40	48	—	dB
$f_N \pm 5,3 \text{ MHz} \dots f_N \pm 6,0 \text{ MHz}$		35	45	—	dB
462,0 MHz ... 600 MHz ¹⁾		40	50	—	dB
Temperature coefficient of frequency	TC_f	—	-18	—	ppm/K

1) A narrow response around 550 MHz of up to 37 dB is possible

Matching network to 50 Ω (Element values depend on PCB layout)

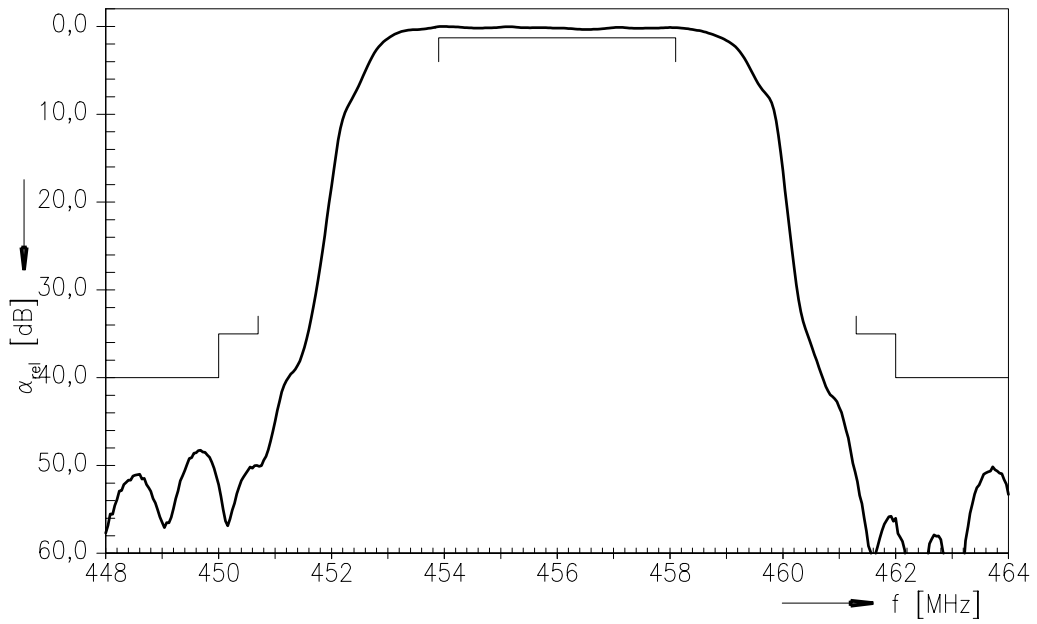


$C_{p1}=12 \text{ pF}$ $L_{s2}=8,2 \text{ nH}$ L_{p3} not used $L_{p4}=12 \text{ nH}$ $L_{s5}=15 \text{ nH}$ C_{p6} not used

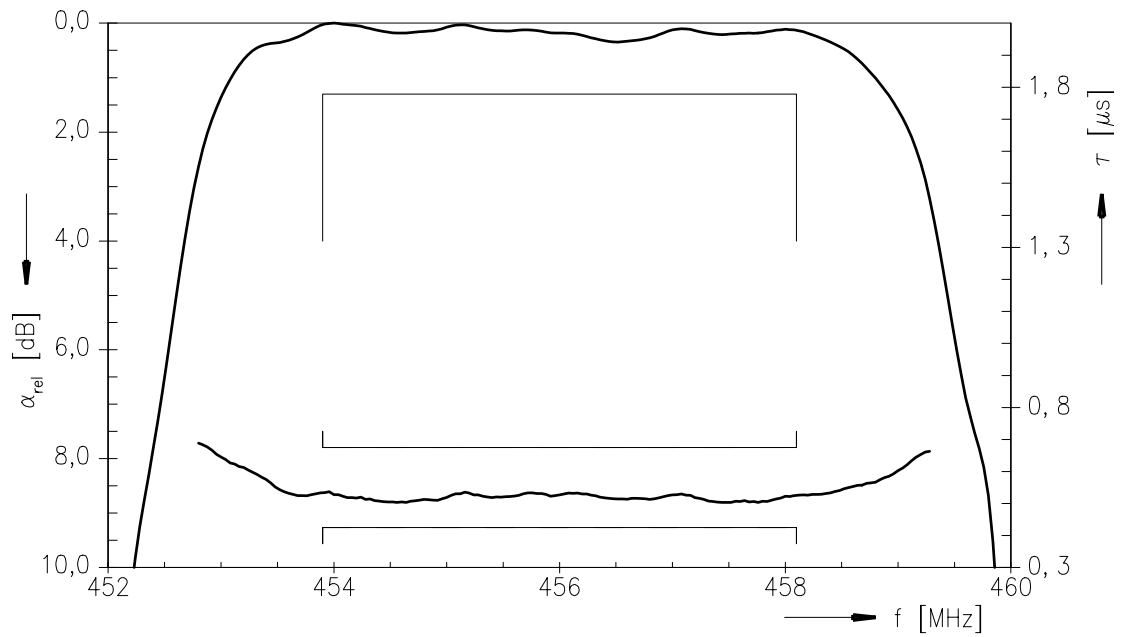


Data Sheet

Normalized transfer function



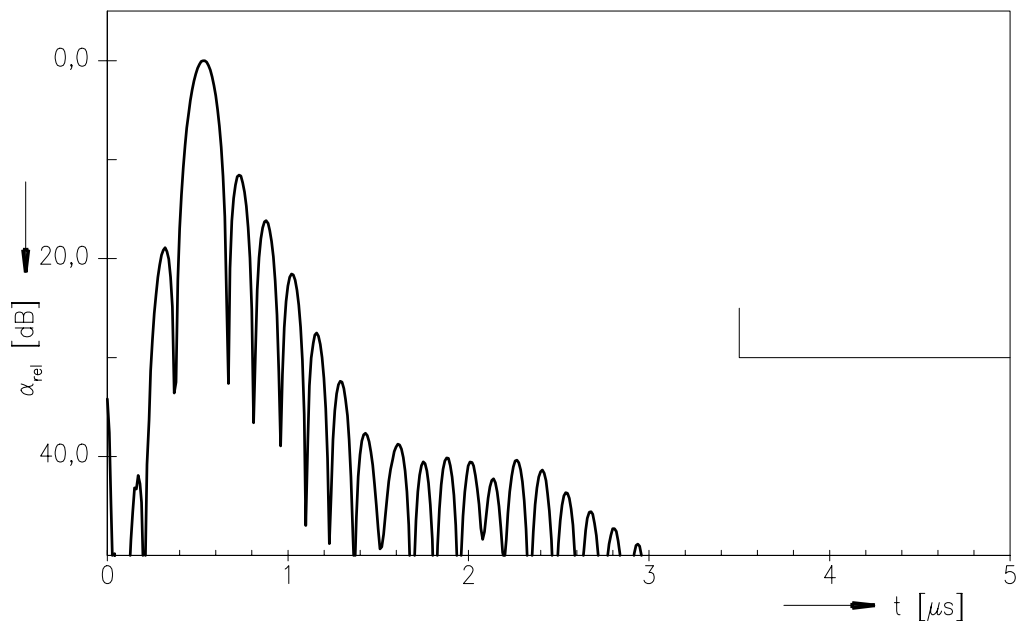
Normalized transfer function (pass band)





Data Sheet

Transfer function (Impulse response)

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