



SAW Components

Preliminary Data B4933

Data Sheet

An abstract graphic featuring the word "EPCOS" in large, glowing, 3D letters. The letters are white with a bright, circular highlight in the center of each, giving them a three-dimensional appearance. They are set against a dark, textured background that includes a faint, glowing globe and circuitry patterns, suggesting a high-tech or electronic theme.



SAW Components

B4933

Low Loss Filter for Mobile Communication

130,38 MHz

Preliminary Data



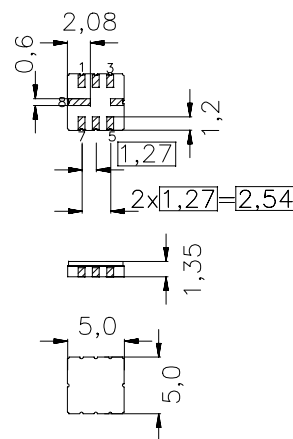
Features

- IF filter for mobile telephone
- Low amplitude ripple
- Usable passband 1,26 MHz
- Very low phase distortion
- Balanced and unbalanced operation possible
- Package for **Surface Mounted Technology (SMT)**

Terminals

- Ni, gold plated

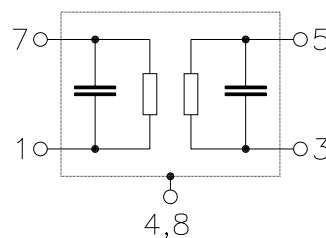
Ceramic package QCC8C



Dimensions in mm, approx. weight 0,10 g

Pin configuration

- | | |
|-----|----------------|
| 1 | Input |
| 7 | Input |
| 3 | Output |
| 5 | Output |
| 4,8 | Case - Ground |
| 2,6 | To be grounded |



Type	Ordering code	Marking and package according to	Packing according to
B4933	B39131-B4933-U310	C61157-A7-A56	F61074-V8070-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 40/+ 85	°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: $T = -40$ to $+85$ °C
Terminating source impedance: $Z_S = 1000 \Omega \parallel 220$ nH
Terminating load impedance: $Z_L = 1000 \Omega \parallel 220$ nH

		min.	typ.	max.	
Normal frequency	f_N	—	130,38	—	MHz
Insertion attenuation at f_N (including losses in the matching circuit, without losses in the baluns)	α_{fN}	—	6,5	8,0	dB
Amplitude ripple in passband (p-p)	$\Delta\alpha$				
$f_N - 500,0$ kHz... $f_N + 500,0$ kHz		—	0,6	2,0	dB
$f_N - 630,0$ kHz... $f_N + 630,0$ kHz		—	0,8	3,0	dB
Group delay ripple (p-p)	$\Delta\tau$				
$f_N - 630,0$ kHz... $f_N + 630,0$ kHz		—	0,07	0,1	µs
Phase linearity (rms deviation)	$\Delta\phi$				
$f_N - 630,0$ kHz... $f_N + 630,0$ kHz		—	0,3	1,0	° rms
Attenuation (relative to α_{fN})	α_{rel}				
10 MHz ... $f_N - 10,52$ MHz		35	>50	—	dB
$f_N - 10,52$ MHz ... $f_N - 9,29$ MHz		42	58	—	dB
$f_N - 9,29$ MHz ... $f_N - 4,95$ MHz		35	45	—	dB
$f_N - 4,95$ MHz		42	50	—	dB
$f_N + 4,95$ MHz		42	60	—	dB
$f_N + 4,95$ MHz ... $f_N + 9,29$ MHz		35	40	—	dB
$f_N + 9,29$ MHz ... $f_N + 10,52$ MHz		42	45	—	dB
$f_N + 10,52$ MHz ... 200 MHz		35	>40	—	dB



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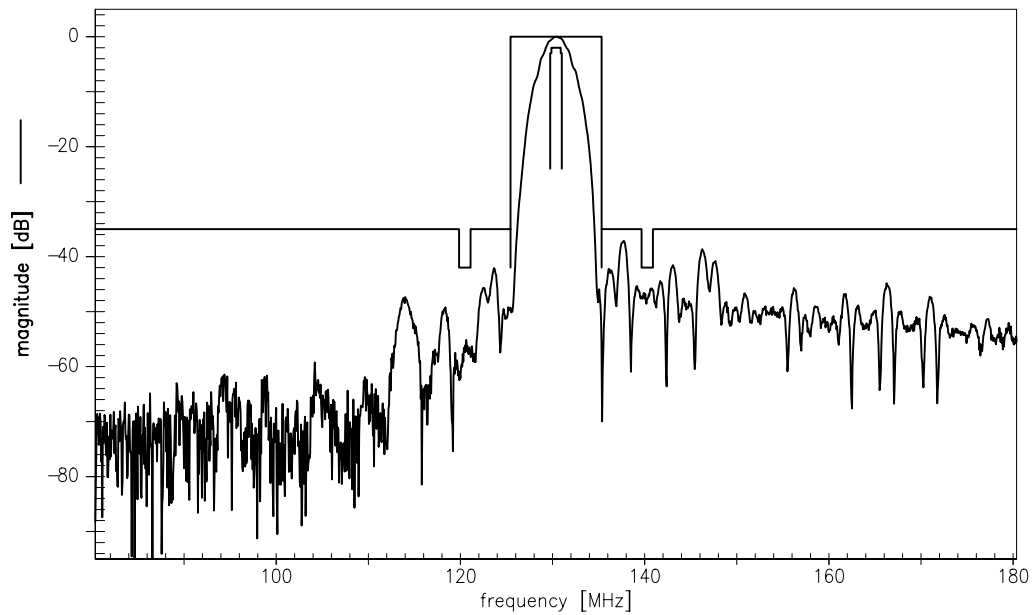
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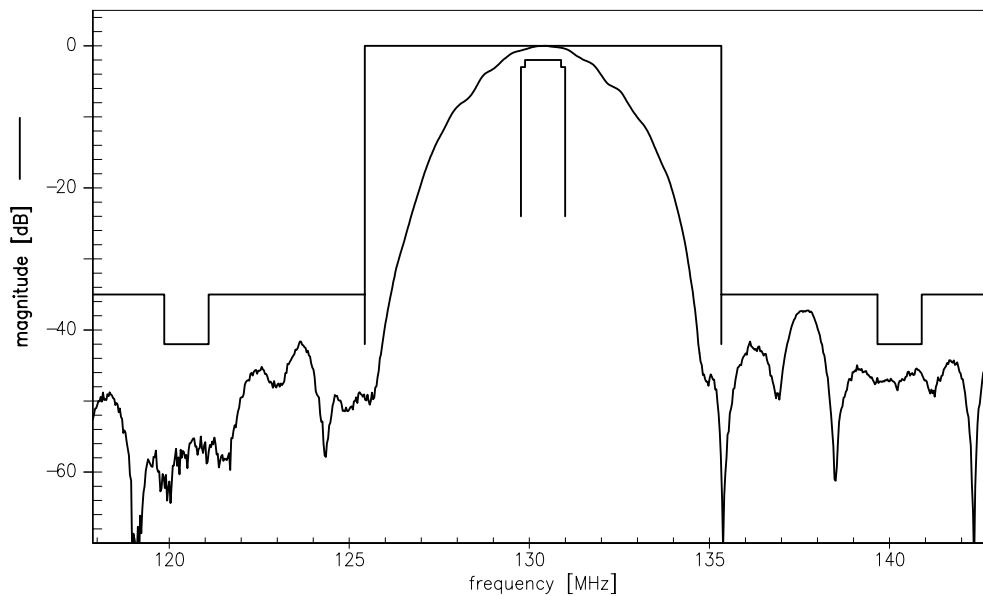
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Transfer function (wideband)



Transfer function (narrowband)





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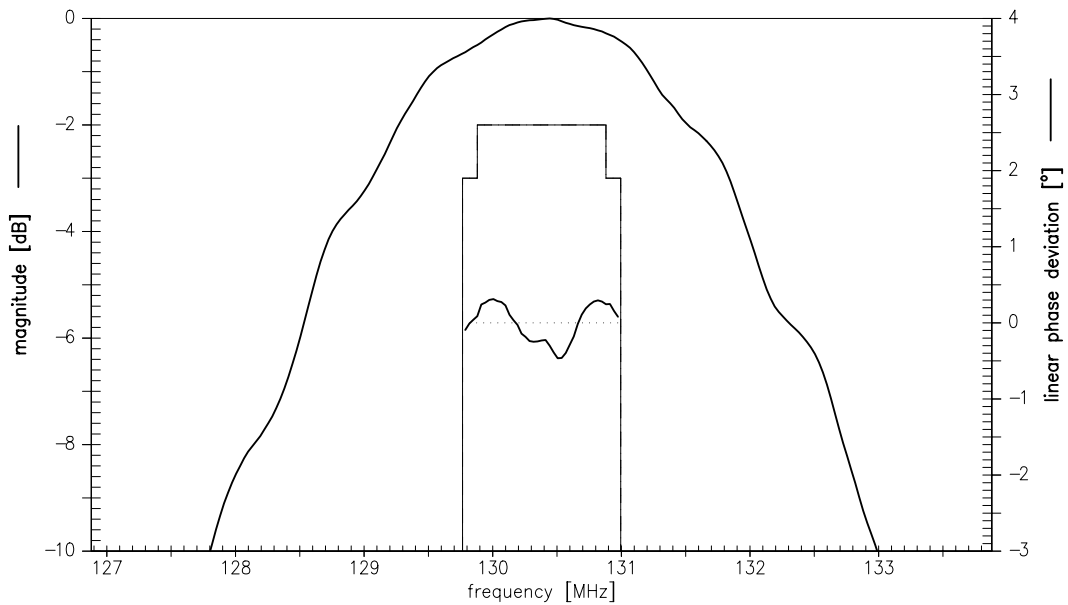
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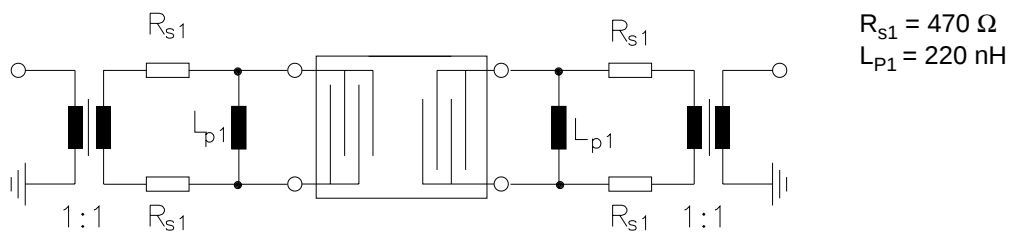
Preliminary Data



Transfer function (passband)



Test matching network to 1000 Ω (element values depend on pcb layout)



The insertion attenuation of the above mentioned network includes 26,8 dB additional loss due to the impedance transformation to 1000 Ω and the losses of the two baluns.



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