

# SAW Components

Data Sheet B4841





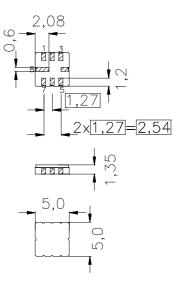
SAW Components		B4841
Low-Loss Filter for Mobile Communication		440,00 MHz
Data Sheet	SMD	

### Features

- IF low-loss filter for mobile telephone
- Channel selection in GSM, PCN, PCS systems
- Package for Surface Mounted Technology (SMT)
- Ceramic package
- Balanced and unbalanced operation possible
- High stopband attenuation

## Terminals

Gold-plated Ni



SMD ceramic package QCC8C

# Dimensions in mm, approx. weight 0,07 g

## **Pin configuration**

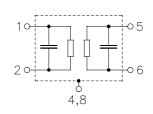
- 2 Input or balanced input
- 1 Input-ground or balanced input
- 6 Output or balanced output
- 5 Output-ground or balanced output
- 3, 7 Not connected
- 4, 8 Case Ground

Туре	Ordering code	Marking and Package according to	Packing according to
B4841	B39441-B4841-U310	C61157-A7-A56	F61074-V8070-Z000

Electrostatic Sensitive Device (ESD)

### **Maximum ratings**

Operable temperature range	Т	- 20/+ 70	°C
Storage temperature range	T <sub>stg</sub>	- 30/+ 85	°C
DC voltage	V <sub>DC</sub>	3	V
Source power	Ps	10	dBm





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Data Sheet Characteristics for balanced operation	SMD	
Operating temperature range:	$T = -20 \text{ to } 70 \degree \text{C}$	

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Terminating source impedance:	<i>Z</i> <sub>S</sub> = 360 Ω    -1,5 pF
Terminating load impedance:	Z <sub>L</sub> = 340 Ω    -1,7 pF

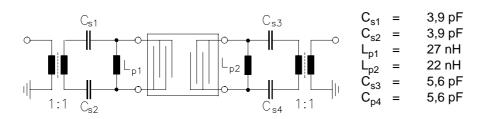
		min.	typ.	max.	
Nominal frequency	f <sub>N</sub>		440,0	—	MHz
Minimum insertion attenuation	$\alpha_{min}$				
including losses in matching network			4,6	5,5	dB
including losses in matching network and balun			5,7	6,5	dB
Amplitude ripple in passband (p-p)	Δα				
f <sub>N</sub> - 67,0 kHz f <sub>N</sub> + 67,0 kHz			0,4	2,0	dB
f <sub>N</sub> - 80,0 kHz f <sub>N</sub> + 80,0 kHz			0,5	3,0	dB
Group delay ripple (p-p)	Δτ				
f <sub>N</sub> - 80,0 kHz f <sub>N</sub> + 80,0 kHz			0,6	1,5	μs
Relative attenuation (relative to $\alpha_{min}$ )	$\alpha_{\text{rel}}$				
f <sub>N</sub> - 75,00 MHz f <sub>N</sub> - 1,60 MHz		55	62	—	dB
f <sub>N</sub> - 1,60 MHz f <sub>N</sub> - 0,80 MHz		38	46	—	dB
f <sub>N</sub> - 0,80 MHz f <sub>N</sub> - 0,60 MHz		32	55		dB
f <sub>N</sub> - 0,60 MHz f <sub>N</sub> - 0,40 MHz		18	33	—	dB
f <sub>N</sub> + 0,40 MHz f <sub>N</sub> + 0,60 MHz		18	28	—	dB
f <sub>N</sub> + 0,60 MHz f <sub>N</sub> + 0,80 MHz		32	40	—	dB
f <sub>N</sub> + 0,80 MHz f <sub>N</sub> + 1,60 MHz		38	47		dB
f <sub>N</sub> + 1,60 MHz f <sub>N</sub> + 75,00 MHz		55	60	—	dB
Impedance within the passband					
Input: $Z_{\rm IN} = R_{\rm IN} \parallel C_{\rm IN}$			360    1,5	_	Ω    pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		_	340    1,7	—	Ω    pF
Temperature coefficient of frequency 1)			-0,036		ppm/K <sup>2</sup>
Turnover temperature		—	25		°C

<sup>1)</sup> Temperature dependence of  $f_c$ :  $f_c(T) = f_c(T_0)(1 + TC_f(T - T_0)^2)$ 



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

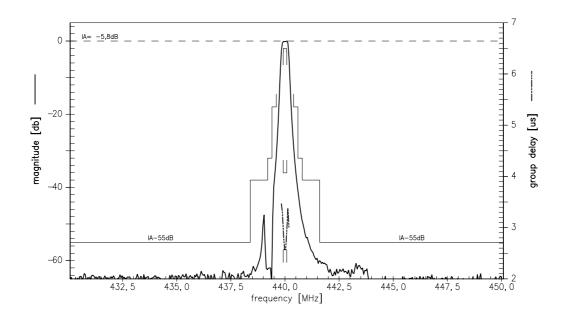




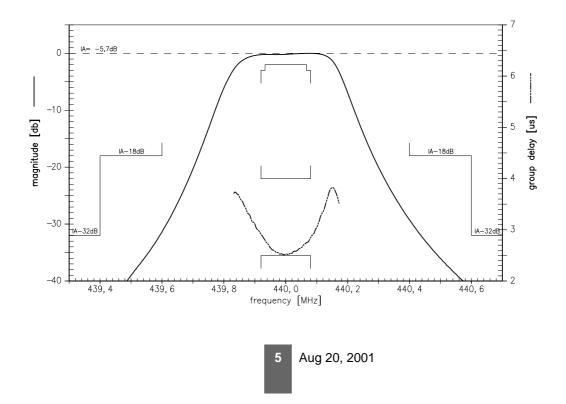
4



Transfer function:



Transfer function (pass band):





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