



SAW Components

Data Sheet B4139

Data Sheet

A large, stylized, 3D-rendered graphic of the word "EPCOS" in a light gray, sans-serif font. The letters are tilted and appear to be floating or emerging from a dark, textured background that resembles a globe or a complex circuit board. The overall effect is a sense of depth and modernity.



SAW Components

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Low-Loss Filter for Mobile Communication

1842,50 MHz

Data Sheet



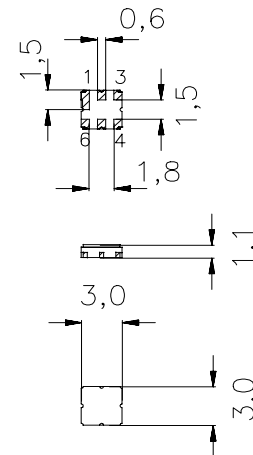
Ceramic package **DCC6C**

Features

- Low-loss RF filter for mobile telephone PCN system, receive path
- High selectivity
- Usable passband: 75 MHz
- No matching network required for operation at 50 Ω
- Ceramic Package for **Surface Mounted Technology (SMT)**

Terminals

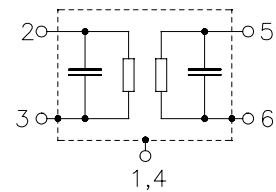
- Ni, gold-plated



Dimensions in mm, approx. weight 0,037 g

Pin configuration

2	Input
3	Input - ground
5	Output
6	Output - ground
1, 4	To be grounded



Electrostatic Sensitive Device (ESD)

Type	Ordering code	Marking and Package according to	Packing according to
B4139	B39182-B4139-U410	C61157-A7-A67	F61074-V8088-Z000

Maximum ratings

Operable temperature range	T	- 25 / + 75	$^{\circ}\text{C}$	
Storage temperature range	T_{stg}	- 40 / + 85	$^{\circ}\text{C}$	
DC voltage	V_{DC}	0	V	
Input power max.				source and load impedance 50 Ω peak power of GSM signal, duty cycle 1 : 8
1805 ... 1880 MHz	P_{IN}	15	dBm	duty cycle 1 : 8
1710 ... 1785 MHz	P_{IN}	13	dBm	duty cycle 1 : 8
925 ... 960 MHz	P_{IN}	17	dBm	duty cycle 1 : 8
880 ... 915 MHz	P_{IN}	17	dBm	duty cycle 1 : 8
1850 ... 1910 MHz	P_{IN}	10	dBm	continuous wave, 2000h
1930 ... 1990 MHz	P_{IN}	10	dBm	continuous wave, 2000h
elsewhere		0	dBm	continuous wave



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Characteristics

Operating temperature range: $T = 25 \pm 2^\circ \text{C}$
Terminating source impedance: $Z_S = 50 \Omega$
Terminating load impedance: $Z_L = 50 \Omega$

			min.	typ.	max.	
Center frequency	f_c		—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}					
	1805,0 ... 1810,0 MHz		—	2,2	2,5	dB
	1810,0 ... 1880,0 MHz		—	2,2	2,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	1805,0 ... 1810,0 MHz		—	0,8	1,1	dB
	1810,0 ... 1880,0 MHz		—	0,8	1,1	dB
Input return loss						
	1805,0 ... 1880,0 MHz		6,0	6,5	—	dB
Output return loss						
	1805,0 ... 1880,0 MHz		6,0	6,5	—	dB
Attenuation	α					
	10,0 ... 1760,0 MHz		20,0	21,5	—	dB
	1760,0 ... 1785,0 MHz		7,0	12,0	—	dB
	1920,0 ... 1980,0 MHz		12,0	25,0	—	dB
	1980,0 ... 3500,0 MHz		23,0	24,5	—	dB
	3500,0 ... 4000,0 MHz		20,0	27,0	—	dB
	4000,0 ... 4500,0 MHz		8,0	14,0	—	dB



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Characteristics

Operating temperature range: $T = -25$ to $+75^{\circ}\text{C}$
Terminating source impedance: $Z_S = 50\ \Omega$
Terminating load impedance: $Z_L = 50\ \Omega$

			min.	typ.	max.	
Center frequency	f_c		—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}					
	1805,0 ... 1810,0 MHz		—	2,7	3,0	dB
	1810,0 ... 1880,0 MHz		—	2,2	2,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	1805,0 ... 1810,0 MHz		—	1,3	1,6	dB
	1810,0 ... 1880,0 MHz		—	0,8	1,1	dB
Input return loss						
	1805,0 ... 1880,0 MHz		6,0	6,5	—	dB
Output return loss						
	1805,0 ... 1880,0 MHz		6,0	6,5	—	dB
Attenuation	α					
	10,0 ... 1760,0 MHz		20,0	21,5	—	dB
	1760,0 ... 1785,0 MHz		5,0	9,0	—	dB
	1920,0 ... 1980,0 MHz		12,0	20,0	—	dB
	1980,0 ... 3500,0 MHz		23,0	24,5	—	dB
	3500,0 ... 4000,0 MHz		20,0	27,0	—	dB
	4000,0 ... 4500,0 MHz		8,0	14,0	—	dB



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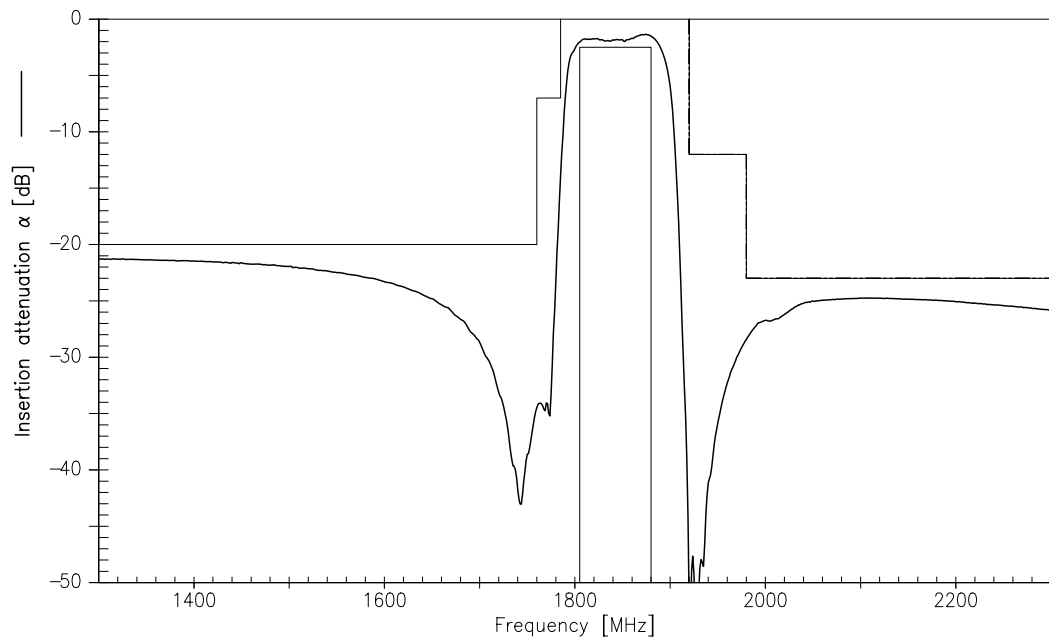
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1842,50 MHz

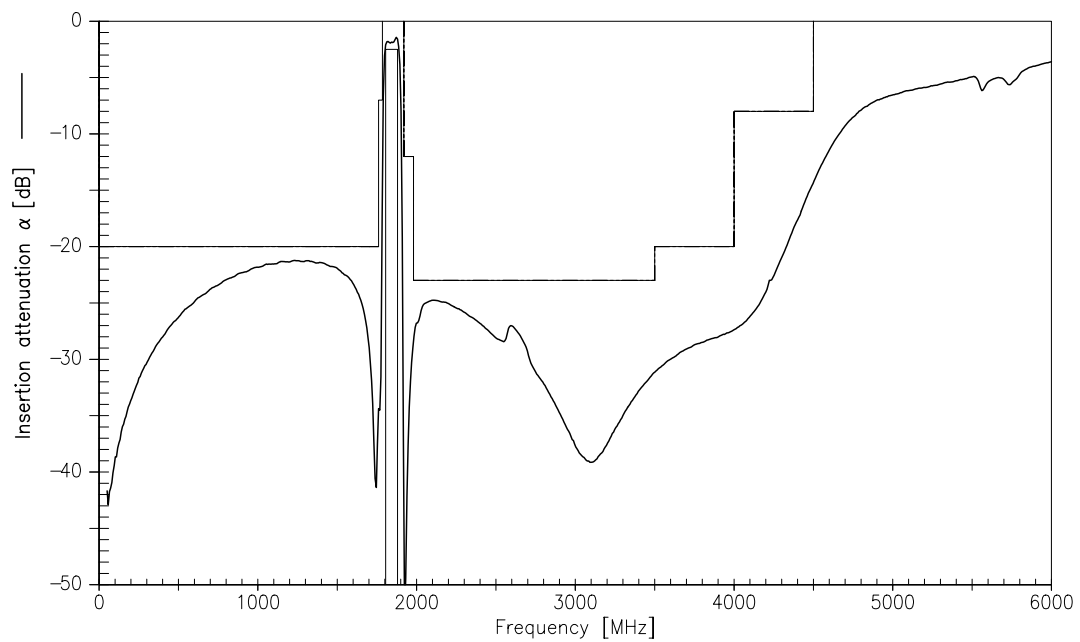
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Transfer function (spec for 25°C)



Transfer function (wideband)





SAW Components	B4139
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Data Sheet	SMD

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