



SAW Components

Data Sheet B4166

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are rendered in a white, glowing, sans-serif font, appearing to be part of a larger, curved structure that resembles the company's logo. The background is dark and textured, with a faint map of the world visible.



SAW Components

B4166

Low-Loss Filter for Mobile Communication

1842,50 MHz

Data Sheet



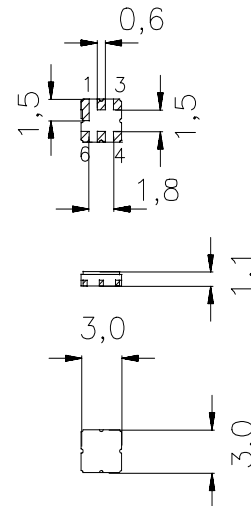
Ceramic package **DCC6C**

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
- Suitable for GPRS class 1 to 12
- Ceramic Package for **Surface Mounted Technology (SMT)**

Terminals

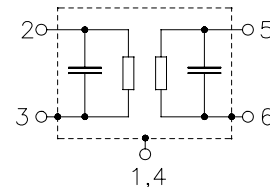
- Ni, gold-plated



Dimensions in mm, approx. weight 0,037

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B4166	B39182-B4166-U410	C61157-A7-A67	F61074-V8088-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 20 / + 80	°C	peak power of GSM signal duty cycle 4:8
Storage temperature range	T_{stg}	- 40 / + 85	°C	
DC voltage	V_{DC}	5	V	
Input Power at				
GSM850, GSM900, GSM1800, GSM1900	P_{IN}	15	dBm	
Tx bands	P_{IN}	12	dBm	



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}		—	2,9	3,3	dB
		1805,0 ... 1880,0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$		—	0,9	1,3	dB
		1805,0 ... 1880,0 MHz				
Input VSWR			—	2,0	2,2	
		1805,0 ... 1880,0 MHz				
Output VSWR			—	2,2	2,4	
		1805,0 ... 1880,0 MHz				
Attenuation	α					
		10,0 ... 370,0 MHz	40,0	43,5	—	dB
		370,0 ... 1300,0 MHz	37,0	38,5	—	dB
		1300,0 ... 1705,0 MHz	30,0	36,0	—	dB
		1705,0 ... 1785,0 MHz	12,0	14,0	—	dB
		1920,0 ... 1980,0 MHz	12,0	25,0	—	dB
		1980,0 ... 2530,0 MHz	23,0	28,0	—	dB
		2530,0 ... 2680,0 MHz	31,0	35,0	—	dB
		2680,0 ... 3400,0 MHz	28,0	34,0	—	dB
		3400,0 ... 3975,0 MHz	24,0	30,0	—	dB
		3975,0 ... 4200,0 MHz	23,0	27,0	—	dB
		4200,0 ... 4920,0 MHz	15,0	19,0	—	dB
		4920,0 ... 5200,0 MHz	10,0	17,0	—	dB
		5200,0 ... 6000,0 MHz	5,0	11,0	—	dB



Characteristics

Operating temperature range: $T = -20$ to $+80^{\circ}\text{C}$
 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 ... 1880,0	MHz	—	3,2	3,9	dB
Amplitude ripple (p-p)	$\Delta\alpha$	1805,0 ... 1880,0	MHz	—	1,2	1,9	dB
Input VSWR		1805,0 ... 1880,0	MHz	—	2,1	2,3	
Output VSWR		1805,0 ... 1880,0	MHz	—	2,3	2,5	
Attenuation	α						
		10,0 ... 370,0	MHz	40,0	43,5	—	dB
		370,0 ... 1300,0	MHz	37,0	38,5	—	dB
		1300,0 ... 1705,0	MHz	30,0	36,0	—	dB
		1705,0 ... 1785,0	MHz	10,0	13,0	—	dB
		1920,0 ... 1980,0	MHz	10,0	25,0	—	dB
		1980,0 ... 2530,0	MHz	23,0	28,0	—	dB
		2530,0 ... 2680,0	MHz	31,0	35,0	—	dB
		2680,0 ... 3400,0	MHz	28,0	34,0	—	dB
		3400,0 ... 3975,0	MHz	24,0	30,0	—	dB
		3975,0 ... 4200,0	MHz	23,0	27,0	—	dB
		4200,0 ... 4920,0	MHz	15,0	19,0	—	dB
		4920,0 ... 5200,0	MHz	10,0	17,0	—	dB
		5200,0 ... 6000,0	MHz	5,0	11,0	—	dB



Characteristics

Operating temperature range: $T = -40$ to $+85^{\circ}\text{C}$
 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 ... 1880,0 MHz	—	3,2	4,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$	1805,0 ... 1880,0 MHz	—	1,2	2,5	dB
Input VSWR		1805,0 ... 1880,0 MHz	—	2,1	2,5	
Output VSWR		1805,0 ... 1880,0 MHz	—	2,3	2,7	
Attenuation	α					
		10,0 ... 370,0 MHz	40,0	43,5	—	dB
		370,0 ... 1300,0 MHz	37,0	38,5	—	dB
		1300,0 ... 1705,0 MHz	30,0	36,0	—	dB
		1705,0 ... 1785,0 MHz	9,0	13,0	—	dB
		1920,0 ... 1980,0 MHz	10,0	25,0	—	dB
		1980,0 ... 2530,0 MHz	23,0	28,0	—	dB
		2530,0 ... 2680,0 MHz	31,0	35,0	—	dB
		2680,0 ... 3400,0 MHz	28,0	34,0	—	dB
		3400,0 ... 3975,0 MHz	24,0	30,0	—	dB
		3975,0 ... 4200,0 MHz	23,0	27,0	—	dB
		4200,0 ... 4920,0 MHz	15,0	19,0	—	dB
		4920,0 ... 5200,0 MHz	10,0	17,0	—	dB
		5200,0 ... 6000,0 MHz	5,0	11,0	—	dB



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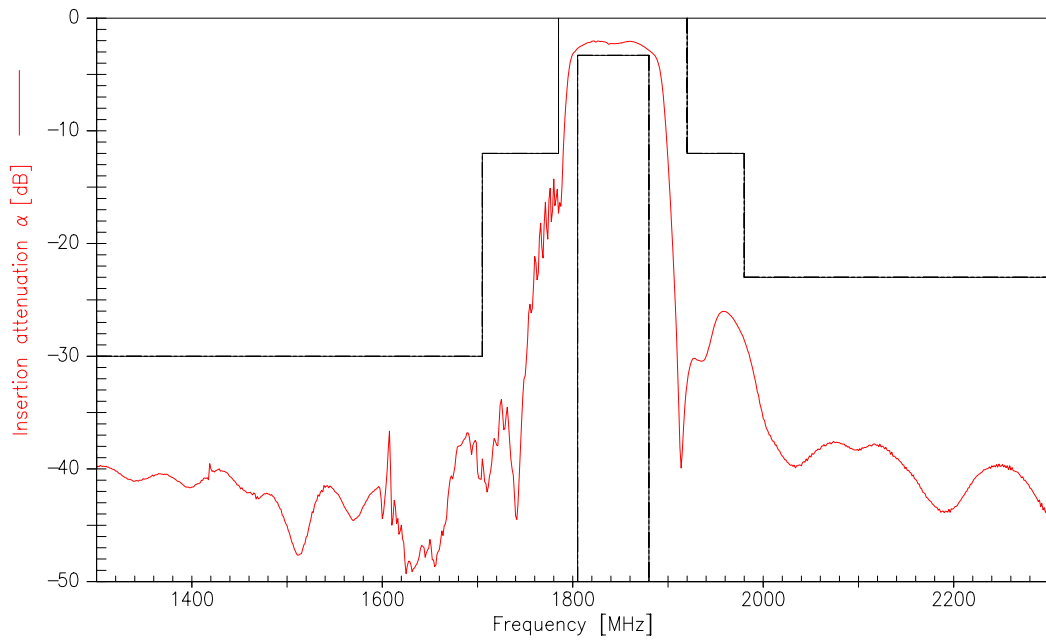
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1842,50 MHz

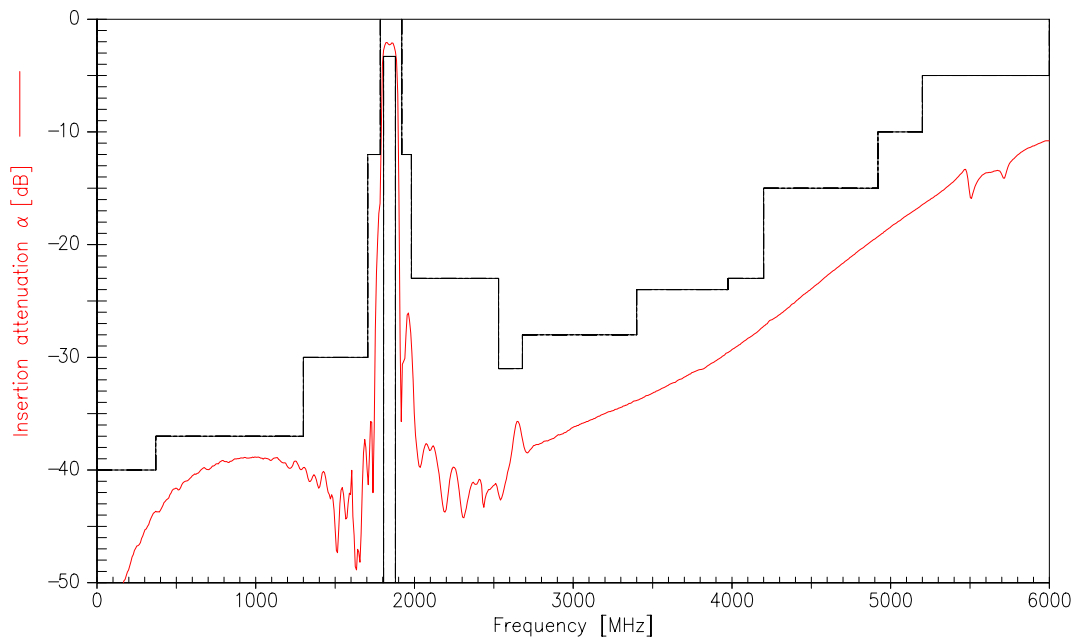
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Transfer function (spec for 25°C)



Transfer function (wideband)





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