

SAW Components

Data Sheet B4139





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Low-Loss Filter for Mobile Communication

1842,50 MHz

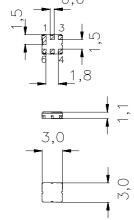
Data Sheet



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 $\Omega\,$
- Ceramic Package for Surface Mounted Technology (SMT)



Terminals

Ni, gold-plated

Dimensions in mm, approx. weight 0,037 g

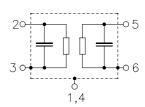
Pin configuration

2 Input

3 Input - ground

5 Output

6 Output - ground 1, 4 To be grounded



Electrostatic Sensitive Device (ESD)

Туре	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	Τ	– 25 / + 75	°C	
Storage temperature range	T_{stg}	- 40 / + 85	°C	
DC voltage	$V_{\rm DC}$	0	V	
Input power max.				source and load impedance 50 Ω
•				peak power of GSM signal,
1805 1880 MHz	P_{IN}	15	dBm	duty cycle 1 : 8
1710 1785 MHz	$P_{\text{IN}}^{\text{II}}$	13	dBm	duty cycle 1:8
925 960 MHz	P_{IN}^{IN}	17	dBm	duty cycle 1:8
880 915 MHz	P_{IN}^{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

 $T = 25 + 2^{\circ} \text{C}$ $Z_{\text{S}} = 50 \Omega$ $Z_{\text{L}} = 50 \Omega$ Operating temperature range: Terminating source impedance: Terminating load impedance:

				min.	typ.	max.	
			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)			Δα				
1805,0	1810,0	MHz		_	0,8	1,1	dB
1810,0	1880,0	MHz		_	0,8	1,1	dB
1805,0	1880,0	MHz		6,0	6,5	_	dB
1805,0	1880,0	MHz		6,0	6,5	_	dB
			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
	1805,0 1810,0 1805,0 1805,0 1805,0 10,0 1760,0 1920,0 1980,0 3500,0	1805,01810,0 1810,01880,0 1805,01810,0 1810,01880,0 1805,01880,0 1805,01880,0 190,01760,0 1760,01785,0 1920,01980,0 1980,03500,0 1980,03500,0	1805,01810,0 MHz 1810,01880,0 MHz 1805,01810,0 MHz 1805,01880,0 MHz 1805,01880,0 MHz 1805,01880,0 MHz 1805,01880,0 MHz 190,01760,0 MHz 1920,01785,0 MHz 1980,03500,0 MHz 1980,03500,0 MHz	tenuation α _{max} 1805,01810,0 MHz 1810,01880,0 MHz 1805,01810,0 MHz 1810,01880,0 MHz 1810,01880,0 MHz 1805,01880,0 MHz 1805,01880,0 MHz 1805,01880,0 MHz 190,01760,0 MHz 1760,01785,0 MHz 1920,01980,0 MHz 1980,03500,0 MHz 1980,03500,0 MHz	tenuation α_{max} 1805,01810,0 MHz — 1810,01880,0 MHz — 1805,01810,0 MHz — 1810,01880,0 MHz — 1805,01880,0 MHz 6,0 1805,01880,0 MHz 6,0 1805,01880,0 MHz 0 1805,01880,0 MHz 0 1805,01880,0 MHz 0 1805,01760,0 MHz 0 1760,01785,0 MHz 0 1920,01980,0 MHz 0 1980,03500,0 MHz 0 3500,04000,0 MHz 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	tenuation α_{max} 1805,0 1810,0 MHz 1810,0 1880,0 MHz 1805,0 1810,0 MHz 1810,0 1810,0 MHz 1810,0 1880,0 MHz 1805,0 1880,0 MHz 1805,0 1880,0 MHz 1805,0 1880,0 MHz 1805,0 1880,0 MHz 190,0 1760,0 MHz 1920,0 1785,0 MHz 1980,0 3500,0 MHz 1980,0 3500,0 MHz 20,0 27,0 1980,0 4000,0 MHz 20,0 27,0 -



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Characteristics

Operating temperature range:

 $T = -25 \text{ to } +75^{\circ}\text{C}$ $Z_{\text{S}} = 50 \Omega$ $Z_{\text{L}} = 50 \Omega$ Terminating source impedance: Terminating load impedance:

				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)			Δα				
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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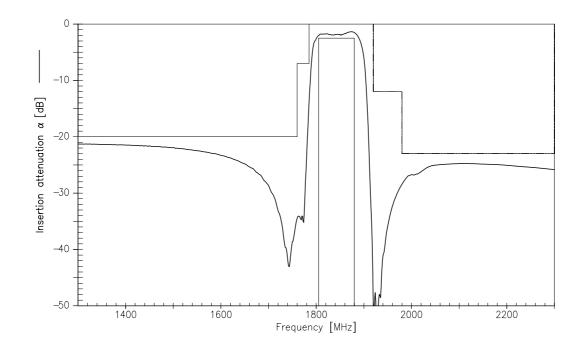
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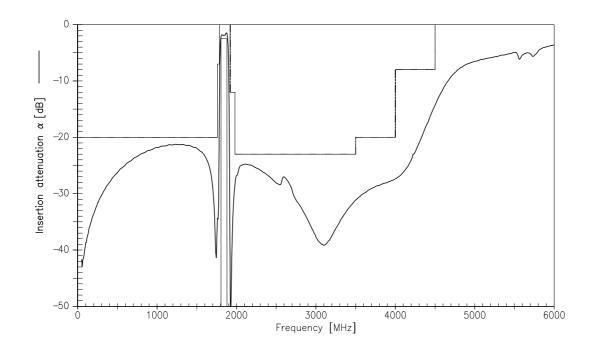
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Transfer function (spec for 25°C)



Transfer function (wideband)





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