EPCOS

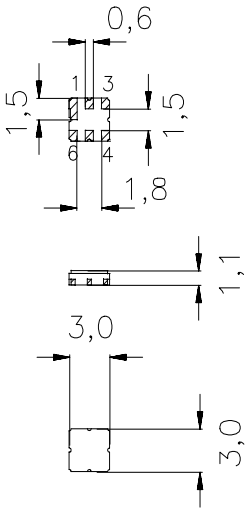
SAW Components

Data Sheet B4166

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 **S**urface **M**ounted **T**echnology (**SMT**)



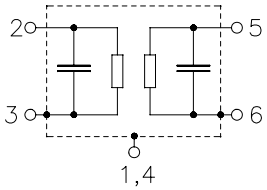
Dimensions in mm, approx. weight 0,037

Terminals

- Ni, gold-plated

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 **S**ensitive **D**evice (**ESD**)

Maximum ratings

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

Characteristics

Operating temperature range: T = 25 +- 2˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

			min.	typ.	max.	
Center frequency	f_c		—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}					
1805,0 ...1880,0	MHz		—	2,9	3,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
1805,0 ...1880,0	MHz		—	0,9	1,3	dB
Input VSWR						
1805,0 ...1880,0	MHz		—	2,0	2,2	
Output VSWR						
1805,0 ...1880,0	MHz		—	2,2	2,4	
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˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

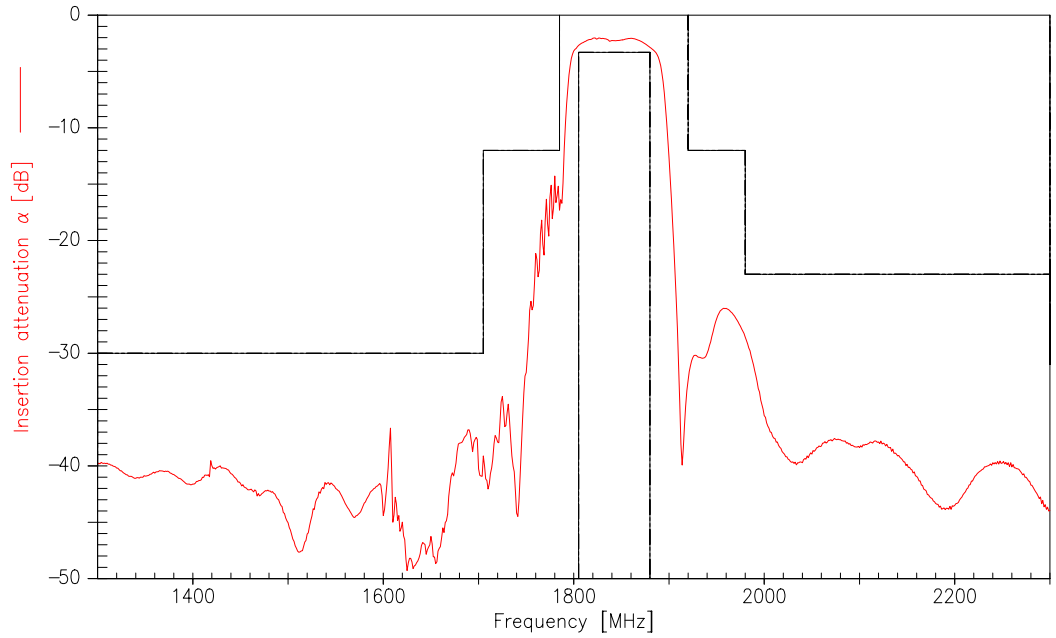
				min.	typ.	max.	
Center frequency			f_c	—	1842,5	—	MHz
Maximum insertion attenuation			α_{max}				
	1805,0	...1880,0	MHz	—	3,2	3,9	dB
Amplitude ripple (p-p)			$\Delta\alpha$				
	1805,0	...1880,0	MHz	—	1,2	1,9	dB
Input VSWR							
	1805,0	...1880,0	MHz	—	2,1	2,3	
Output VSWR							
	1805,0	...1880,0	MHz	—	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

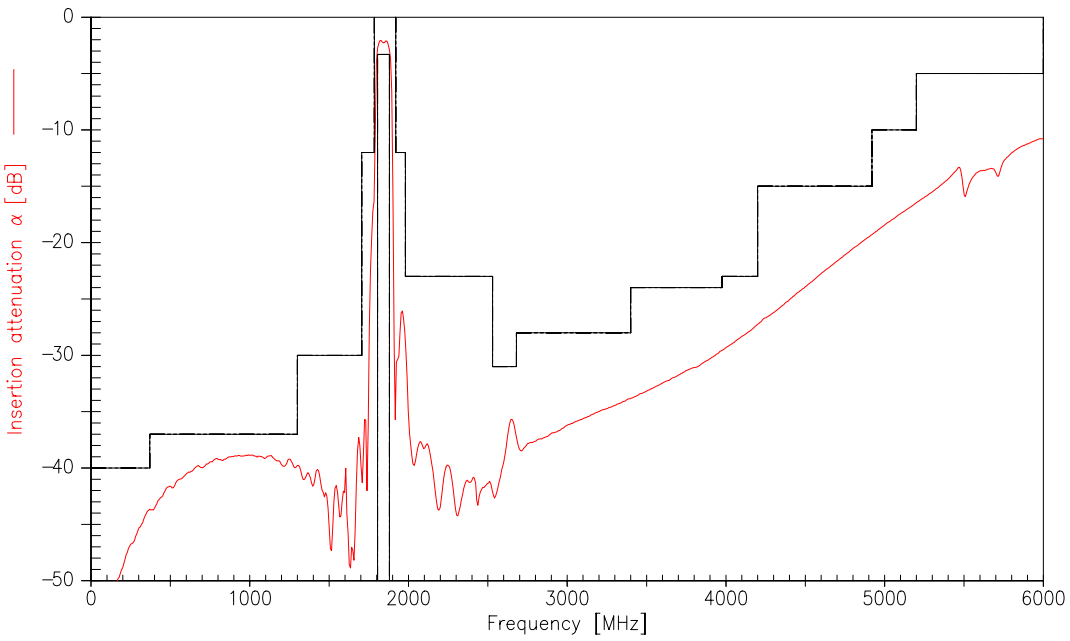
Operating temperature range: T = -40 to +85˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

				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

Transfer function (spec for 25°C)



Transfer function (wideband)



Published by EPCOS AGPublished by EPCOS AG
Surface Acoustic Wave Components Division, SAW MC WT
P.O. Box 80 17 09, 81617 Munich, GERMANY

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.