EPCOS

SAW Components

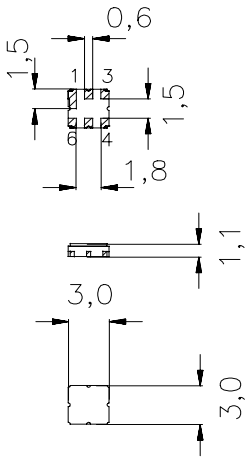
Data Sheet B4143

Data Sheet

Ceramic package **DCC6C**

Features

- Low-loss RF filter for mobile telephone PCS systems, transmit path
- Usable passband 60 MHz
- No matching network required for operation at 50 Ω
- Ceramic Package for **S**urface **M**ounted **T**echnology (**SMT**)



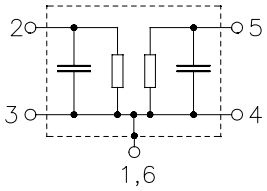
Terminals

- Ni, gold-plated

Dimensions in mm, approx. weight 0,037 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B4143	B39192-B4143-U410	C61157-A7-A67	F61074-V8088-Z000

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

Maximum ratings

Operable temperature range	T	– 30 /+ 85	˚C	
Storage temperature range	T_{stg}	– 40 /+ 85	˚C	
DC voltage	V_{DC}	0	V	
Input power max.				source and load impedance 50 Ω
1850...1910 MHz	P_{IN}	13	dBm	peak power of TDMA signal, duty cycle 1 : 3
		10	dBm	continuous wave

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	—	1880,0	—	MHz
Maximum insertion attenuation		α_{max}				
	1850,0 ...1910,0 MHz		—	3,2	4,0	dB
Amplitude ripple (p-p)		$\Delta\alpha$				
	1850,0 ...1910,0 MHz		—	1,7	2,5	dB
Input VSWR						
	1850,0 ...1910,0 MHz		—	2,0	2,2	
Output VSWR						
	1850,0 ...1910,0 MHz		—	2,0	2,2	
Attenuation		α				
	10,0 ...1570,0 MHz		23,0	26,0	—	dB
	1570,0 ...1720,0 MHz		33,0	35,0	—	dB
	1930,0 ...1935,0 MHz		15,0	24,0	—	dB
	1935,0 ...1990,0 MHz		20,0	27,0	—	dB
	2032,0 ...2125,0 MHz		35,0	36,5	—	dB
	2125,0 ...2340,0 MHz		35,0	37,0	—	dB
	2340,0 ...3000,0 MHz		30,0	39,0	—	dB
	3000,0 ...3500,0 MHz		15,0	24,0	—	dB

Characteristics

Operating temperature range: T = -10 to +70 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

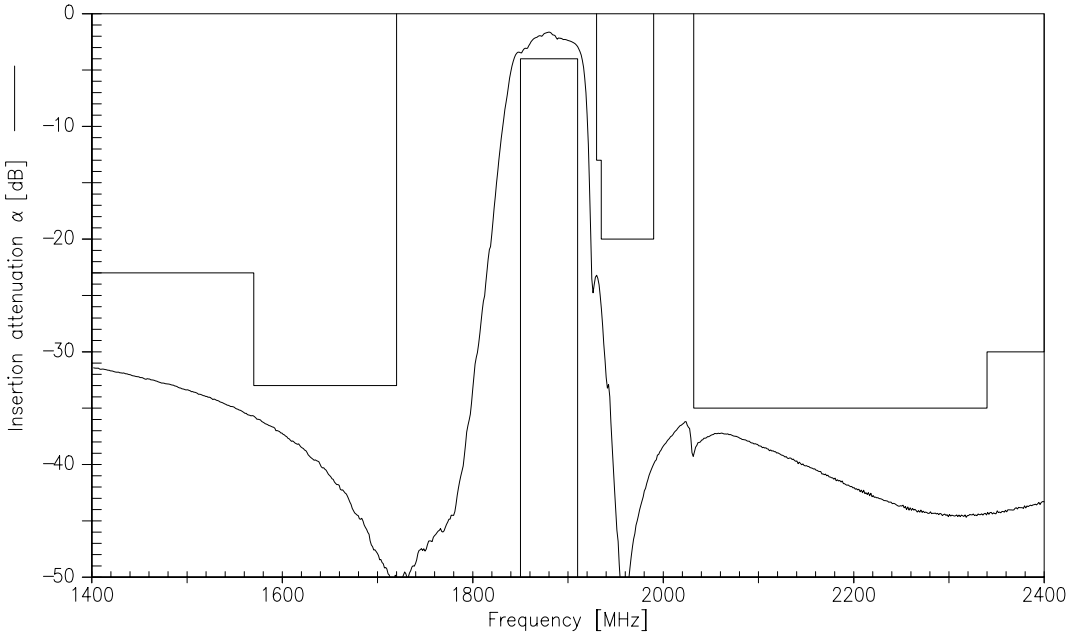
			min.	typ.	max.	
Center frequency		f_c	—	1880,0	—	MHz
Maximum insertion attenuation		α_{max}				
1850,0 ...1910,0	MHz		—	3,5	4,6	dB
Amplitude ripple (p-p)		$\Delta\alpha$				
1850,0 ...1910,0	MHz		—	2,0	3,1	dB
Input VSWR						
1850,0 ...1910,0	MHz		—	2,0	2,2	
Output VSWR						
1850,0 ...1910,0	MHz		—	2,0	2,2	
Attenuation		α				
10,0 ...1448,0	MHz		23,0	26,0	—	dB
1448,0 ...1570,0	MHz		30,0	32,0	—	dB
1570,0 ...1720,0	MHz		33,0	35,0	—	dB
1930,0 ...1935,0	MHz		14,5	22,0	—	dB
1935,0 ...1990,0	MHz		20,0	25,0	—	dB
2032,0 ...2125,0	MHz		35,0	36,5	—	dB
2125,0 ...2340,0	MHz		35,0	37,0	—	dB
2340,0 ...3000,0	MHz		30,0	39,0	—	dB
3000,0 ...3500,0	MHz		15,0	24,0	—	dB

Characteristics

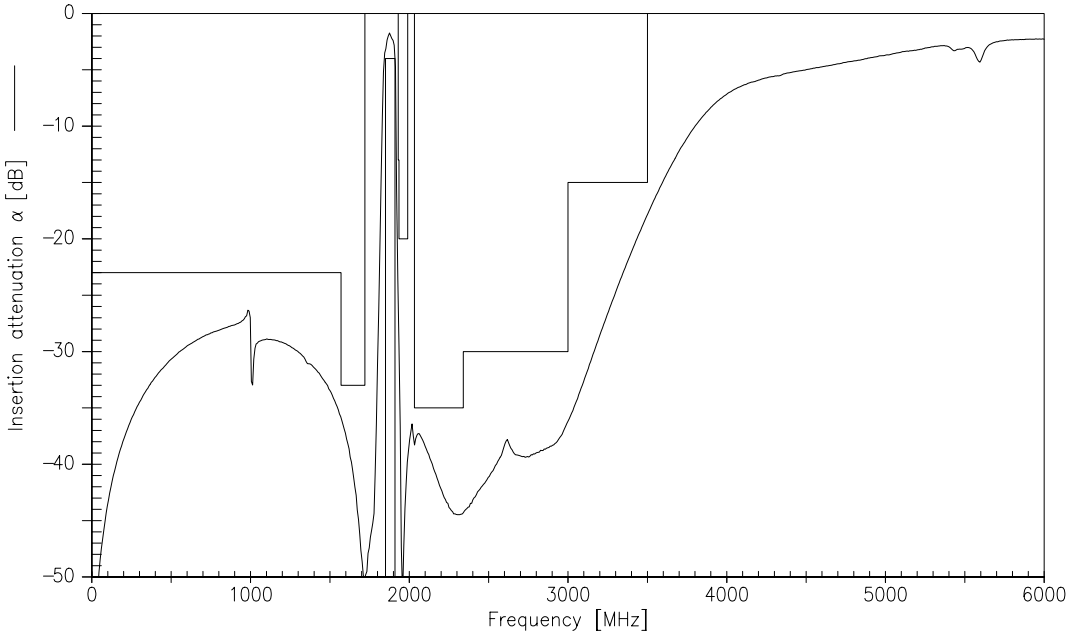
Operating temperature range: T = -30 to +85 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

			min.	typ.	max.	
Center frequency	f_c		—	1880,0	—	MHz
Maximum insertion attenuation	α_{max}					
1850,0 ...1910,0	MHz		—	3,5	5,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
1850,0 ...1910,0	MHz		—	2,0	3,5	dB
Input VSWR						
1850,0 ...1910,0	MHz		—	2,0	2,2	
Output VSWR						
1850,0 ...1910,0	MHz		—	2,0	2,2	
Attenuation	α					
10,0 ...1570,0	MHz		23,0	26,0	—	dB
1570,0 ...1720,0	MHz		33,0	35,0	—	dB
1930,0 ...1935,0	MHz		13,0	22,0	—	dB
1935,0 ...1990,0	MHz		20,0	25,0	—	dB
2032,0 ...2125,0	MHz		35,0	36,5	—	dB
2125,0 ...2340,0	MHz		35,0	37,0	—	dB
2340,0 ...3000,0	MHz		30,0	39,0	—	dB
3000,0 ...3500,0	MHz		15,0	24,0	—	dB

Transfer function (25˚C spec)

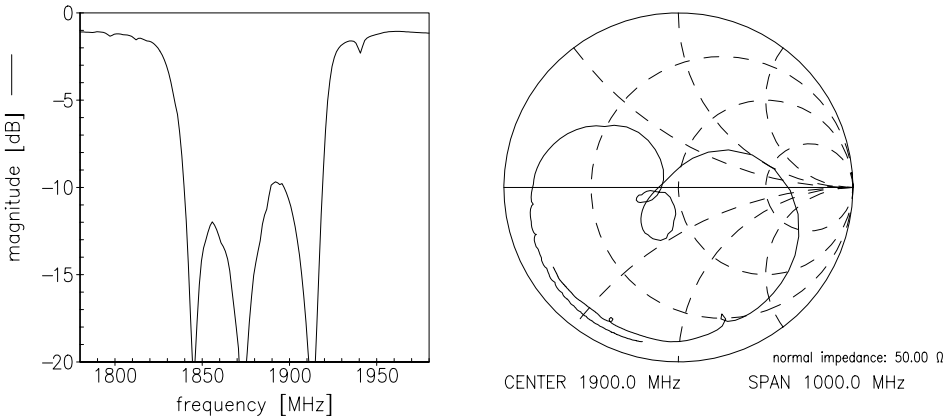


Transfer function (wideband)

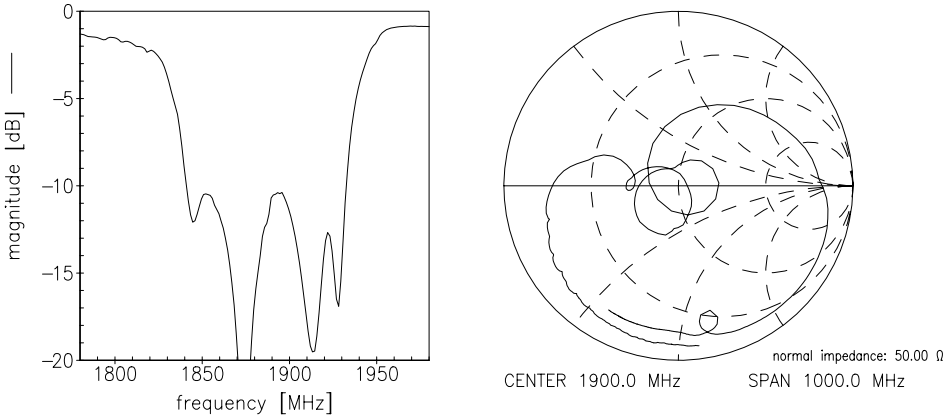


Reflection function

S_{11}



S_{22}



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