EPCOS

SAW Components

Data Sheet B5029

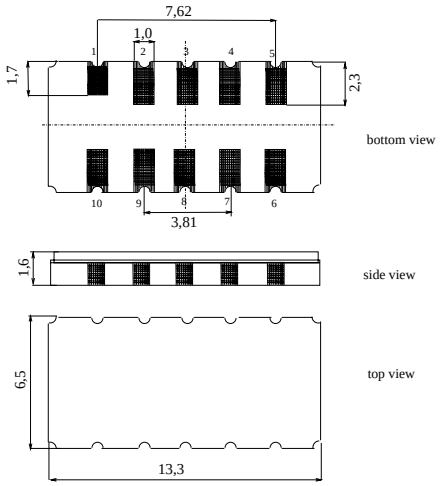
Ceramic package **DCC12A**

Features

- Low-loss IF filter for W-CDMA base station, transmit path
- 32 MHz usable bandwidth
- Balanced or unbalanced operation possible
- Hermetically sealed ceramic SMD package

Terminals

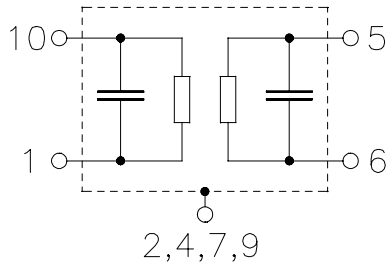
- Gold plated



Dimensions in mm, approx. weight 0,4 g

Pin configuration

10	Input
1	Input ground
5	Output
6	Output ground
2, 4, 7, 9	Case Ground
3, 8	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B5029	B39151-B5029-H510	C61157-A7-A94	F61074-V8163-Z000

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

Maximum ratings

Operable temperature range	T	–30 / +85	°C	
Storage temperature range	T_{stg}	–30 / +85	°C	
DC voltage	V_{DC}	0	V	
Source power	P_s	0	dBm	

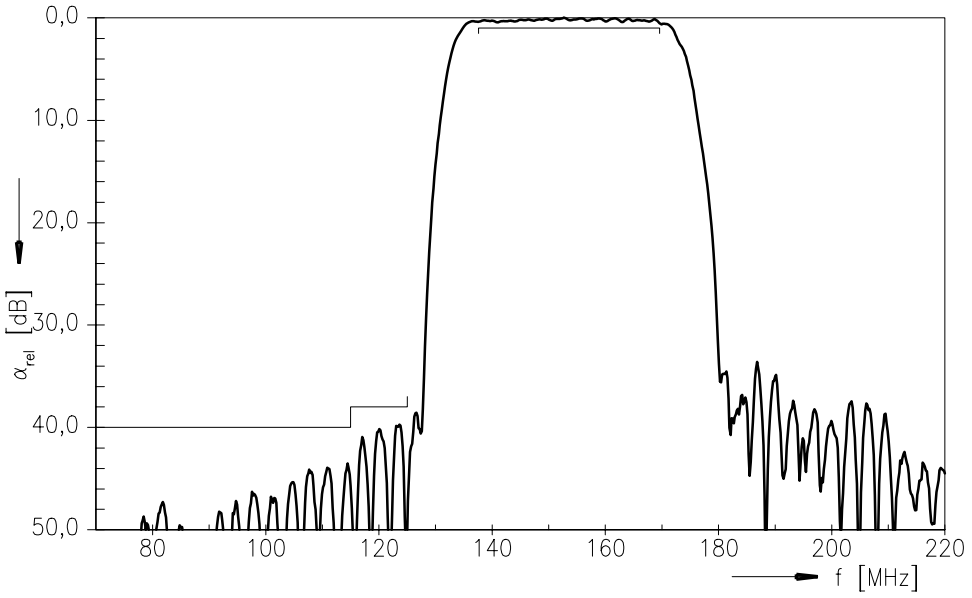
Data Sheet

Characteristics

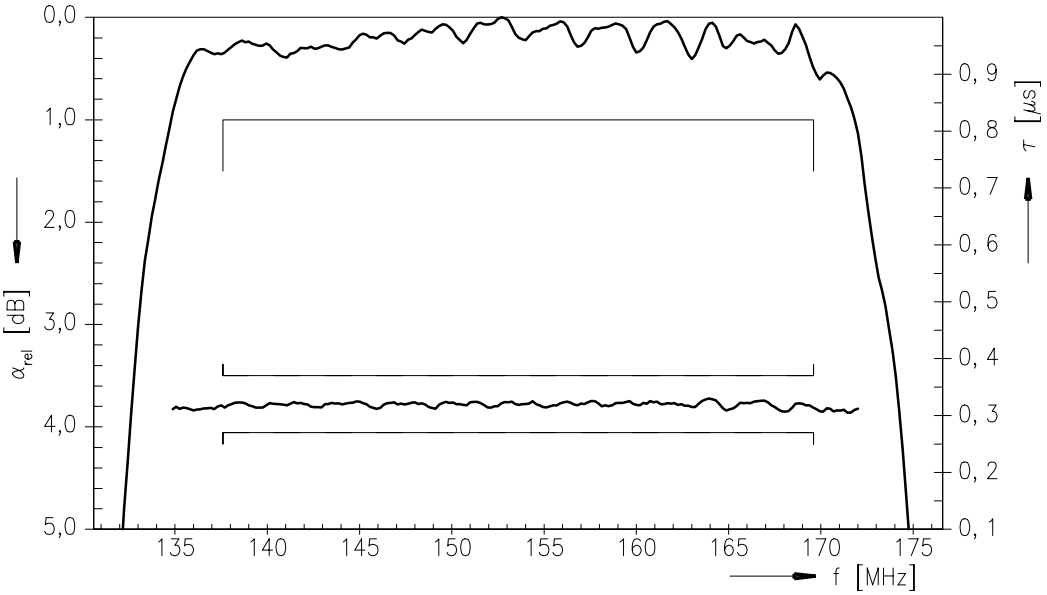
Operating temperature range: T= -10 .. 80 ˚C
Terminating source impedance: Z_S= 50 Ω unbalanced and matching network
Terminating load impedance: Z_L= 50 Ω unbalanced and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	153,6	—	MHz
Minimum insertion attenuation (including matching network)	α_{min}	—	12,5	15,0	dB
Passband width $\alpha_{rel} \leq 1$ dB	B_{1dB}	32	37	—	MHz
Amplitude ripple (p-p)	$\Delta\alpha$				
$f_N \pm 16$ MHz		—	0,6	1,0	dB
Group delay ripple (p-p)	$\Delta\tau$				
$f_N \pm 16$ MHz		—	25	100	ns
Absolute Group delay $f_N \pm 16$ MHz	τ	—	0,32	0,6	µs
Phase ripple (rms)	$\Delta\varphi_{rms}$				
$f_N \pm 16$ MHz		—	1,1	1,5	°
Phase ripple (p-p)	$\Delta\varphi_{p-p}$				
$f_N \pm 16$ MHz		—	7	10	°
Relative attenuation (relative to α_{min})	α_{rel}				
70 MHz ... 115 MHz		40	42	—	dB
115 MHz ... 125 MHz		38	40	—	dB
275 MHz ... 350 MHz		35	45	—	dB
400 MHz ... 1000 MHz		40	47	—	dB
1000 MHz ... 2000 MHz		30	37	—	dB
Input and Output return loss $f_N \pm 16$ MHz		6	6,5	—	dB
Temperature coefficient of frequency	TC_f	—	– 87	—	ppm/K

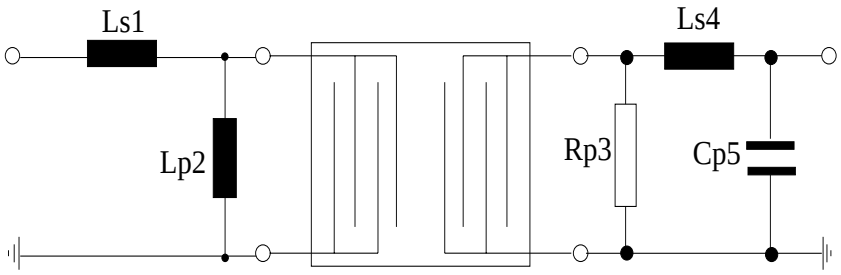
Normalized frequency response



Normalized frequency response (pass band)



Matching network to 50 Ω (element values depend on pcb layout)



L_{s1} = 47 nH
L_{p2} = 62 nH

R_{p3} = 560 Ω
L_{s4} = 62 nH
C_{p5} = 22 pF

Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW COM
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.