EPCOS

SAW Components

Preliminary Data Sheet LF74D

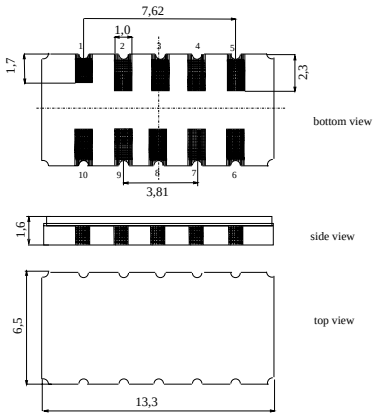
Ceramic package **DCC12A**

Features

- IF low-loss filter
- 14,0 MHz usable bandwidth
- Ceramic SMD package

Terminals

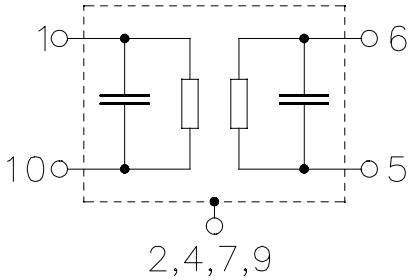
- Gold plated



Dimensions in mm, approx. weight 0,4 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
LF74D		C61157-A7-A94	F61074-V8131-Z000

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

Maximum ratings

Operable temperature range	T	–40 / +85	˚C	
Storage temperature range	T_{stg}	–55 / +125	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	

Characteristics

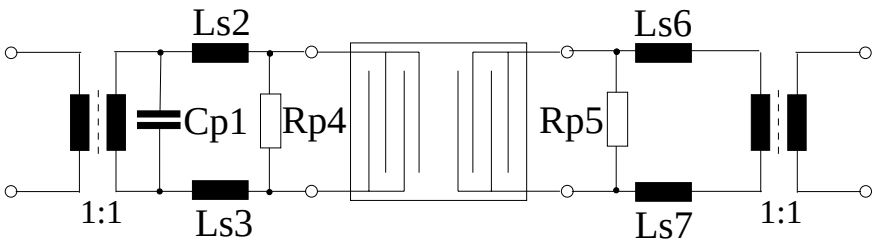
Operating temperature: T = -40˚C ... 85˚C
Terminating source impedance: Z_S = 50 Ω bal. and external matching network
Terminating load impedance: Z_L = 50 Ω bal. and external matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	140,0	—	MHz
Average insertion attenuation (including matching network) $f_N \pm 7{,}0$ MHz	α_{avg}	—	11,0	13,0	dB
Pass bandwidth $\alpha_{rel} \leq 3{,}0$ dB	$B_{3,0dB}$	—	18,9	—	MHz
Amplitude ripple TTE [1]	$\Delta\alpha$				
$f_N \pm 5{,}5$ MHz		—	0,3	0,4	dB
$f_N \pm 7{,}0$ MHz		—	0,4	0,6	dB
Absolute group delay (@ f_C)	τ	—	1,0	—	µs
Phase ripple (p-p) TTE [1]	$\Delta\varphi$				
$f_N \pm 5{,}5$ MHz		—	2,6	4,0	°
$f_N \pm 7{,}0$ MHz		—	4,5	6,0	°
Relative attenuation (relative to α_{min})	α_{rel}				
$f_N \pm 14{,}0$ MHz ... $f_N \pm 100{,}0$ MHz		40	50	—	dB
Tripple transit suppression	*TTS*	40	45	—	dB
Return loss $f_N \pm 7{,}0$ MHz		—	15	—	dB
Pyroelectric pulse amplitude (p-p)	V_p	—	0,0	50,0	mV
Temperature coefficient of frequency	TC_f	—	– 87	—	ppm/K

[1] TTE = Triple transit signal excluded (Gate from 0 µs to 2.6 µs)

Matching network to 50 Ω balanced

(Element values depend upon PCB layout)



C_{p1} = 12 pF

L_{s2} = 47 nH

L_{s3} = 56 nH

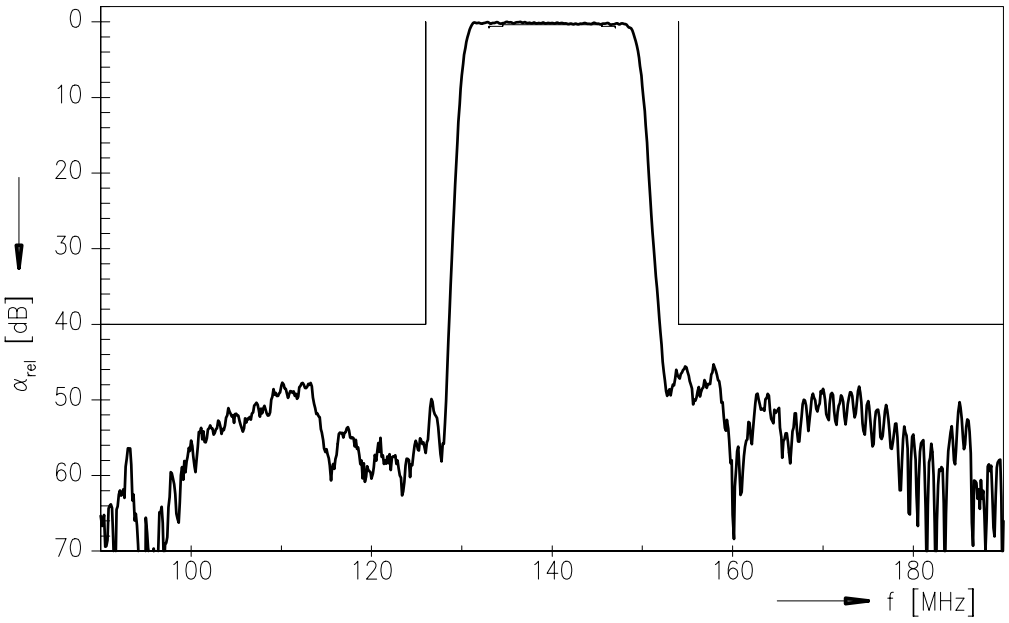
R_{p4} = 820 Ω

R_{p5} = 820 Ω

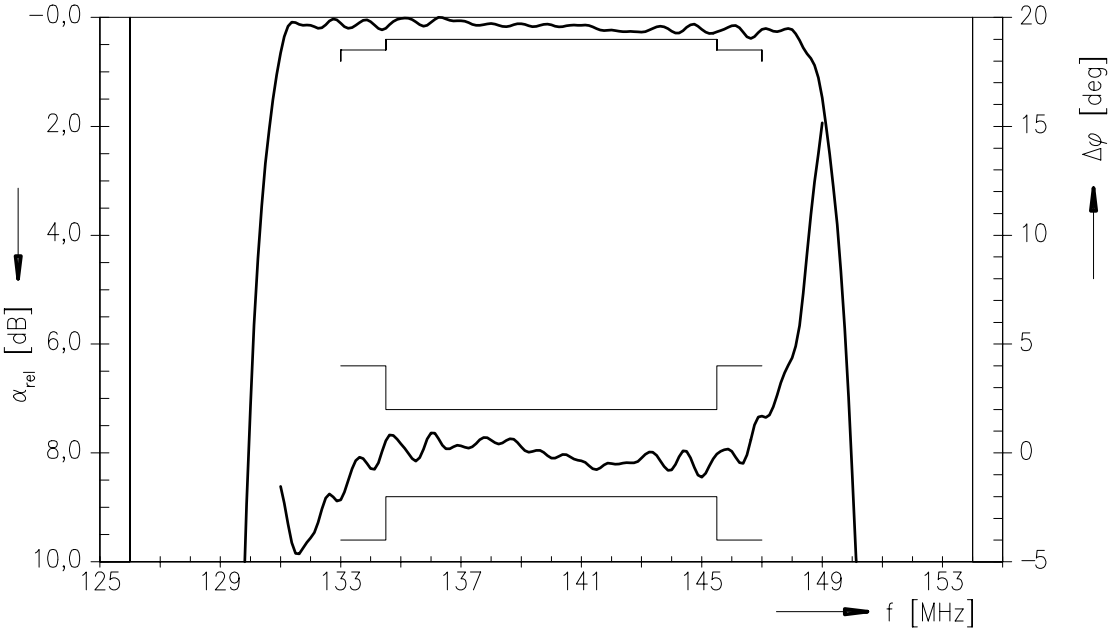
L_{s6} = 39 nH

L_{s7} = 47 nH

Normalized frequency response: **Triple transit signal included**



Normalized frequency response (pass band): **Triple transit signal excluded**



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