EPCOS

SAW Components

Data Sheet B3630

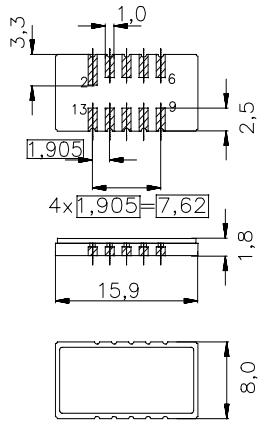
Ceramic package **DCC14B**

Features

- Low-loss IF filter for GSM base station
- Temperature stable
- Ceramic SMD package

Terminals

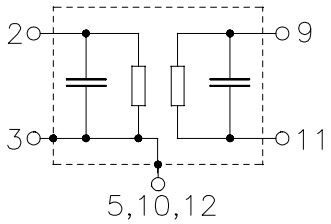
- Gold plated



Dim. in mm, aprox. weight 0,6 g

Pin configuration

2	Input
9	Output
3	Input ground
11	Output ground
4, 6, 13	Ground
3, 5, 10, 12	Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B3630	B39151-B3630-U110	C61157-A7-A45	F61074-V8036-Z000

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

Maximum ratings

Operable temperature range	T	– 25/+ 85	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	12	dBm	

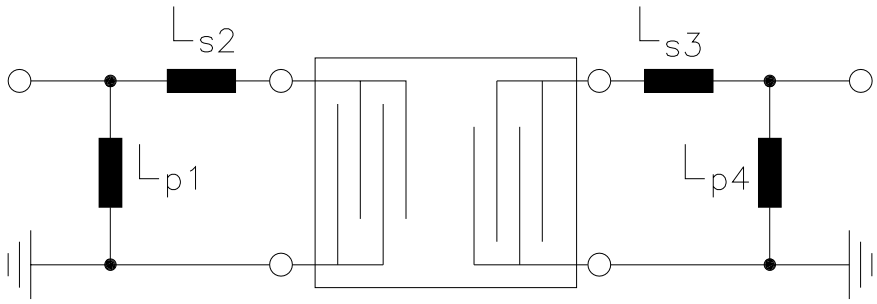
Characteristics

Reference temperature: T_A = -5 - 75 °C
Terminating source impedance: Z_S = 50 Ω and matching network
Terminating load impedance: Z_L = 50 Ω and matching network

		min.	typ.	max.	
Nominal frequency	f_N	151,2	151,2	151,2	MHz
Insertion attenuation (@ f_N) (including matching network)	α_{min}	—	8,6	9,5	dB
Passband width					
$\alpha_{rel} \leq 3{,}0$ dB	$B_{3,0dB}$	—	370	—	kHz
Amplitude ripple (p-p)	$\Delta\alpha$				
$f_N \pm 95$ kHz		—	0,4	0,6	dB
$f_N \pm 120$ kHz		—	0,8	1,5	dB
Absolute group delay (@ f_N)	τ	—	2,1	4,0	µs
Group delay ripple (p-p)	$\Delta\tau$				
$f_N \pm 95$ kHz		—	0,4	0,7	µs
$f_N \pm 120$ kHz		—	0,7	0,9	µs
Relative attenuation (relative to α_{min})	α_{rel}				
$f_N \pm 330$ kHz ... $f_N \pm 600$ kHz		9	11	—	dB
$f_N \pm 600$ kHz ... $f_N \pm 800$ kHz		22	27	—	dB
$f_N \pm 800$ kHz ... $f_N \pm 3$ MHz		30	41	—	dB
$f_N \pm$ 3 MHz ... $f_N \pm 20$ MHz		42	48	—	dB
@ $f_N - 3{,}4$ MHz		52,5	57	—	dB
@ $f_N + 3{,}1$ MHz		48,5	52	—	dB
@ $f_N + 6{,}5$ MHz		49,5	56	—	dB
@ $f_N + 9{,}6$ MHz		43,5	48	—	dB
Temperature coefficient of frequency [1]	TC_f	—	– 0,036	—	ppm/K²
Turnover temperature	T_0	—	35	—	°C

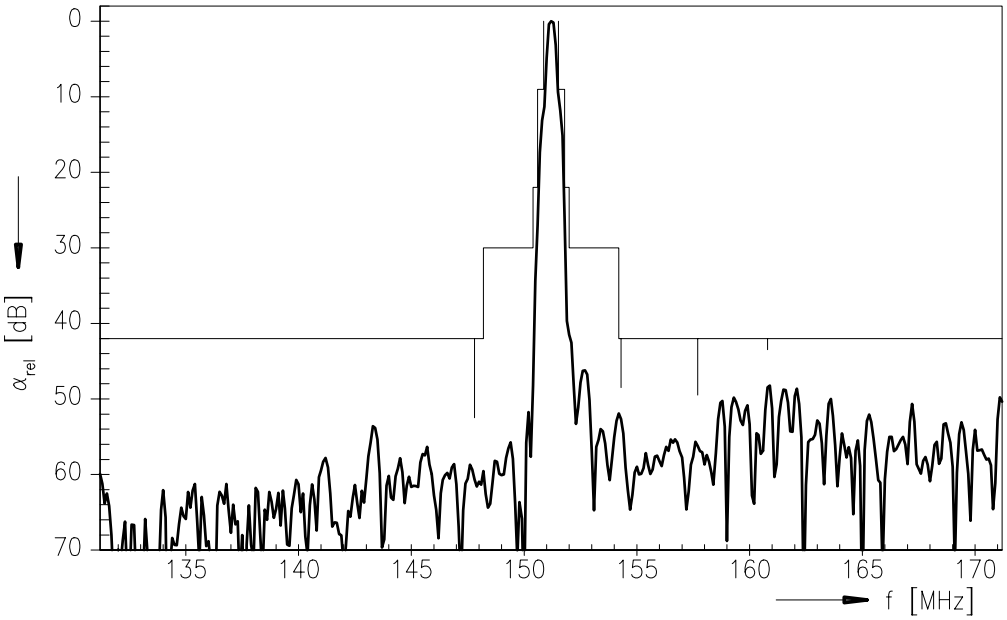
[1] Temperature dependance of f_c: $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$

Matching network:

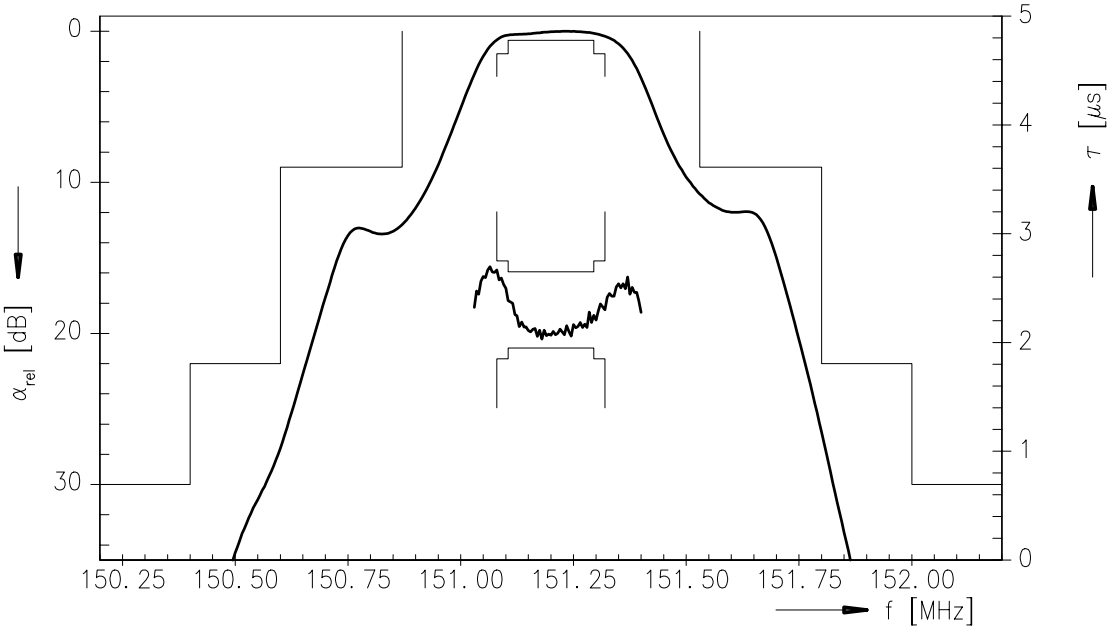


L_{p1} = 39 nH
L_{s2} = 56 nH
L_{s3} = 62 nH
L_{p4} = 39 nH

Normalized frequency response



Normalized frequency response (pass band)



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