



SAW Components

Data Sheet B4926





SAW Components

B4926

Low-Loss Filter for Mobile Communication

133,2 MHz

Data Sheet



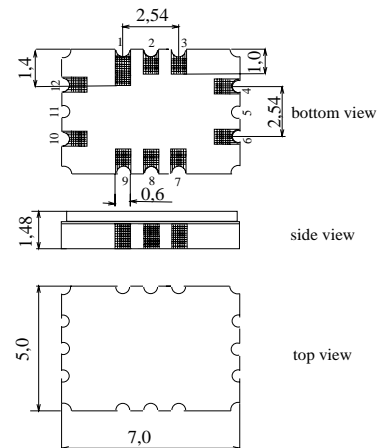
Ceramic package QCC12C

Features

- Low-loss IF filter for mobile telephone
- Channel selection in GSM systems
- Hermetically sealed ceramic SMD package
- Balanced and unbalanced operation possible
- No coupling coil required

Terminals

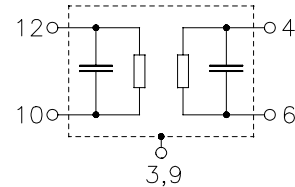
- Gold-plated Ni



Dimensions in mm, approx. weight 0,25 g

Pin configuration

- 10 Input
- 12 Input ground or balanced input
- 4 Output
- 6 Output ground or balanced output
- 3, 9 Case ground
- 1, 2, 7, 8 To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B4926	B39131-B4926-H310	C61157-A7-A95	F61074-V8710-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 30/+ 85	°C	Human Body Model
Storage temperature range	T_{stg}	- 40/+ 85	°C	
DC voltage	V_{DC}	5	V	
Source power	P_s	10	dBm	
ESD	V_{ESD}	50	V	



SAW Components

B4926

Low-Loss Filter for Mobile Communication

133,2 MHz

Data Sheet



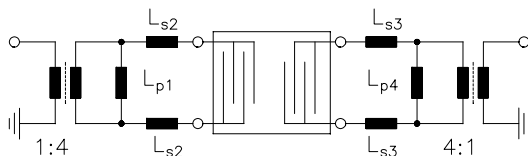
Characteristics

Operating temperature range: $T = -30\text{ °C} \dots +80\text{ °C}$
 Terminating source impedance: $Z_S = 1000\ \Omega \parallel 135\text{ nH}$
 Terminating load impedance: $Z_L = 1300\ \Omega \parallel 170\text{ nH}$

		min.	typ.	max.	
Nominal frequency	f_N	—	133,20	—	MHz
Minimum insertion attenuation (excluding losses in matching circuit)	α_{\min}		4,5	6,0	dB
Amplitude ripple (p-p) $f_N - 100,0\text{ kHz} \dots f_N + 100,0\text{ kHz}$	$\Delta\alpha$	—	0,4	1,0	dB
Group delay ripple (p-p) $f_N - 100,0\text{ kHz} \dots f_N + 100,0\text{ kHz}$	$\Delta\tau$	—	0,3	1,0	μs
Relative attenuation (relative to α_{\min})	α_{rel}				
$f_N - 30,00\text{ MHz} \dots f_N - 7,00\text{ MHz}$		40	48	—	dB
$f_N - 7,00\text{ MHz} \dots f_N - 3,00\text{ MHz}$		35	42	—	dB
$f_N - 3,00\text{ MHz} \dots f_N - 0,80\text{ MHz}$		29	32	—	dB
$f_N - 0,80\text{ MHz} \dots f_N - 0,60\text{ MHz}$		20	29	—	dB
$f_N - 0,60\text{ MHz} \dots f_N - 0,40\text{ MHz}$		15	19	—	dB
$f_N - 0,40\text{ MHz} \dots f_N - 0,25\text{ MHz}$		3	6,5	—	dB
$f_N + 0,25\text{ MHz} \dots f_N + 0,40\text{ MHz}$		3	6,5	—	dB
$f_N + 0,40\text{ MHz} \dots f_N + 0,60\text{ MHz}$		15	17	—	dB
$f_N + 0,60\text{ MHz} \dots f_N + 0,80\text{ MHz}$		20	27	—	dB
$f_N + 0,80\text{ MHz} \dots f_N + 3,00\text{ MHz}$		29	31	—	dB
$f_N + 3,00\text{ MHz} \dots f_N + 7,00\text{ MHz}$		35	39	—	dB
$f_N + 7,00\text{ MHz} \dots f_N + 30,00\text{ MHz}$		40	46	—	dB
Impedance within pass band					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	1000 \parallel 10,3	—	$\Omega \parallel \text{pF}$
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1300 \parallel 8,2	—	$\Omega \parallel \text{pF}$
Temperature coefficient of frequency ¹⁾	TC_f	—	-0,042	—	ppm/K ²
Frequency inversion point	T_0	—	25	—	°C

¹⁾ Temperature dependence of f_c : $f_c(T) = f_c(T_0)(1 + TC_f(T - T_0)^2)$

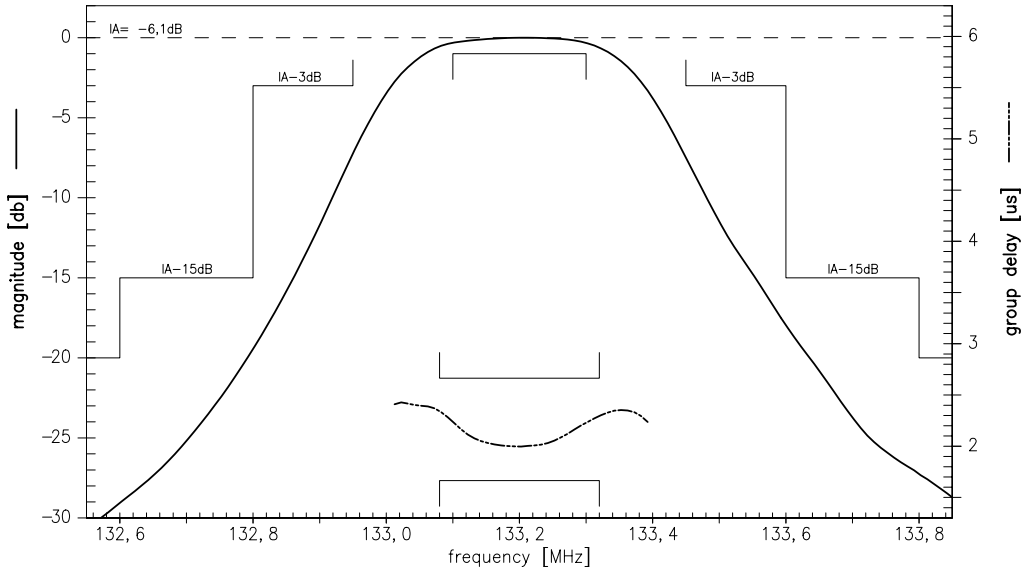
Test matching network to 50 Ω (element values depend on PCB layout):



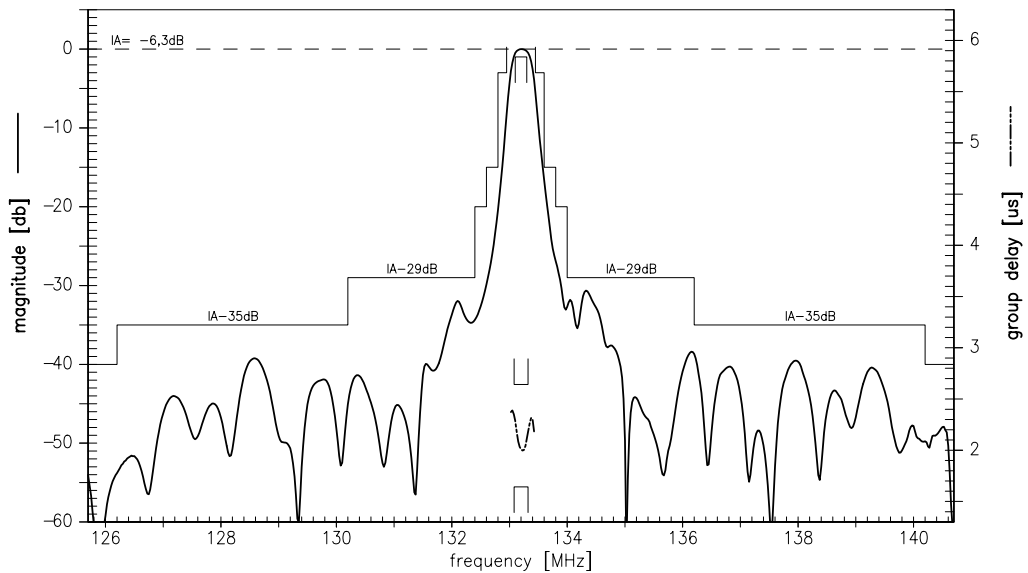
- $L_{p1} = 82\text{ nH}$
- $L_{s2} = 27\text{ nH}$
- $L_{s3} = 43\text{ nH}$
- $L_{p4} = 82\text{ nH}$



Transfer function (pass band):



Transfer function (wide band):





SAW Components

B4926

Low-Loss Filter for Mobile Communication

133,2 MHz

Data Sheet



Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW MC WT

P.O. Box 80 17 09, D-81617 München

© EPCOS AG 2002. All Rights Reserved. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

The information contained in this brochure describes the type of component and shall not be considered as guaranteed characteristics. 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.