

Data Sheet B4934





B4934

Low Loss Filter for Mobile Communication

210,38 MHz

Data Sheet



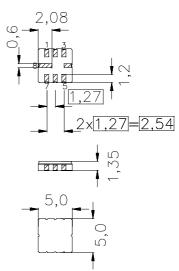
Features

- IF filter for mobile telephone
- Channel selection in CDMA systems
- Low insertion attenuation
- Extremely high rejection
- Single-ended/single-ended, balanced/single-ended and balanced/balanced operation possible
- Optimized for single-ended/balanced operation
- Very small size
- Package for Surface Mounted Technology (SMT)

Terminals

■ Ni, gold plated

Ceramic package QCC8C



Dimensions in mm, approx. weight 0,07 g

Pin configuration

2	Input

1+3 Input ground or balanced input

6 Output

5 Output ground or balanced output

7 to be grounded

4, 8 Case ground

Device is reciprocal, i.e. inputs can be used as outputs and vice versa

1,30	06
r00	4 ,8

Туре	Ordering code	Marking and Package	Packing		
		according to	according to		
B4934	B39211-B4934-U310	C61157-A7-A53	F61074-V8070-Z000		

Electrostatic Sensitive Device (ESD)

Maximum ratings

•			
Operable temperature range	T	- 30/+ 85	°C
Storage temperature range	$T_{\rm stg}$	- 40/+ 85	°C
DC voltage	$V_{\rm DC}$	13	V
Source power	$P_{\rm s}$	10	dBm



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Characteristics single-ended/balanced

Operating temperature: $T = -30 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Terminating source impedance: $Z_{\text{S}} = 980 \,\Omega \parallel 64 \,\text{nH}$ Terminating load impedance: $Z_{\text{L}} = 570 \,\Omega \parallel 61 \,\text{nH}$

			min.	typ.	max.	
Nominal frequency		f_{N}	_	210,38	_	MHz
$\label{eq:loss_state} \begin{array}{l} \textbf{Insertion attenuation at } f_{\textbf{N}} \\ \text{(including loss in matching network without in baluns)} \end{array}$	loss	α_{fN}	_	8,7	10,0	dB
Amplitude ripple (p-p)		$\Delta \alpha$				
$f_{\rm N} - 0.30 \dots f_{\rm N} + 0.30$	MHz		_	0,7	1,2	dB
Phase linearity (rms deviation)		Δφ				
$f_{\rm N} - 0.63 \dots f_{\rm N} + 0.63$	MHz		_	2,5	3,5	۰
Relative attenuation (relative to α_{fN}) $f_N - 0.63 \dots f_N + 0.63$	MHz	α_{rel}	_	3,5	5,0	dB
$\begin{split} f_{N} - 100, 0 & \dots & f_{N} - 50, 0 \\ f_{N} - 50, 0 & \dots & f_{N} - 30, 0 \\ f_{N} - 30, 0 & \dots & f_{N} - 10, 0 \\ f_{N} - 10, 0 & \dots & f_{N} - 1, 25 \\ & & f_{N} - 1, 25 \\ & & f_{N} + 1, 25 \\ & & f_{N} + 10, 0 \\ f_{N} + 10, 0 & \dots & f_{N} + 30, 0 \\ f_{N} + 30, 0 & \dots & f_{N} + 50, 0 \\ f_{N} + 50, 0 & \dots & f_{N} + 100, 0 \\ \end{split}$	MHz MHz MHz MHz MHz MHz MHz MHz MHz		60,0 50,0 40,0 35,0 41,0 41,0 35,0 40,0 50,0 60,0	73,0 70,0 64,0 39,0 45,0 41,0 61,0 72,0 77,0	- - - - - - -	dB dB dB dB dB dB dB dB
Temperature coefficient of frequency 1) Frequency inversion point		TC_{f} T_0	_ 	-0,036 30		ppm/K ²

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



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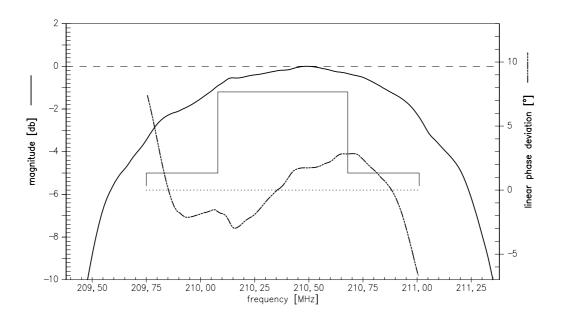
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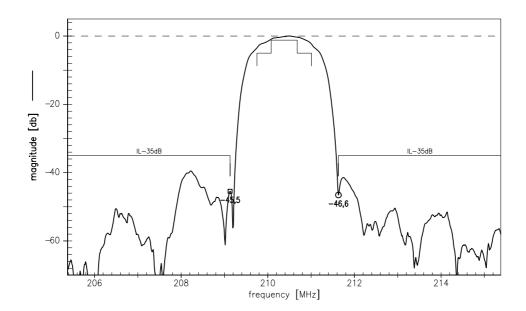
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Transfer function (passband, single-ended/balanced):



Transfer function (narrowband, single-ended/balanced):





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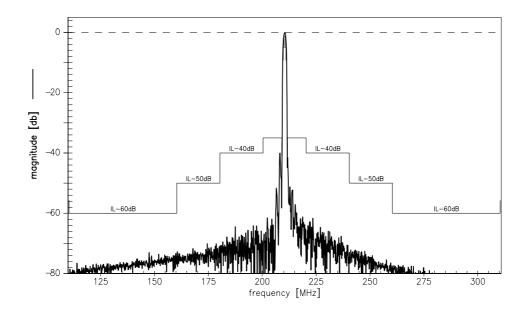
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Transfer function (wideband, single-ended/balanced):





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