

Data Sheet B3894





B3894

Low Loss Filter for Mobile Communication

210,00 MHz

Data Sheet



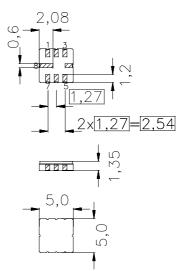
Features

- 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

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

20	6
1,30	5
4,8	

Туре	Ordering code	Marking and Package according to	Packing according to		
B3894	B39211-B3894-U310	C61157-A7-A56	F61074-V8169-Z000		

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 30/+ 85	°C
Storage temperature range	T_{stg}	- 40/+ 85	°C
DC voltage	$V_{\rm DC}$	0	V
Source power	P_{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: $Z_{\text{S}} = 1000 \,\Omega \parallel 70 \,\text{nH}$ Terminating load impedance: $Z_{\text{L}} = 400 \,\Omega \parallel 60 \,\text{nH}$

		min.	typ.	max.	
Nominal frequency	f_{N}	_	210,00	_	MHz
Insertion attenuation at f_N (including loss in matching network without loss in baluns)	α_{fN}	_	8,5	10,0	dB
Amplitude ripple (p-p)	Δα				
$f_{\rm N} - 0.30 \dots f_{\rm N} + 0.30$ MHz		_	0,6	1,2	dB
Phase linearity (rms deviation)	Δφ				
$f_{\rm N} - 0.63 \dots f_{\rm N} + 0.63$ MHz		_	2,5	3,5	0
Relative attenuation (relative to $\alpha_{\rm fN}$) $f_{\rm N} - 0.63 \dots f_{\rm N} + 0.63 {\rm MHz}$	$lpha_{rel}$	_	3,5	5,0	dB
$f_{N}-100,0$ $f_{N}-50,0$ MHz $f_{N}-50,0$ $f_{N}-30,0$ MHz $f_{N}-30,0$ $f_{N}-10,0$ MHz $f_{N}-10,0$ $f_{N}-1,25$ MHz $f_{N}-1,25$ MHz $f_{N}+1,25$ $f_{N}+10,0$ MHz $f_{N}+10,0$ $f_{N}+30,0$ MHz $f_{N}+30,0$ $f_{N}+50,0$ MHz $f_{N}+50,0$ $f_{N}+100,0$ MHz		60,0 50,0 40,0 35,0 37,0 35,0 40,0 50,0 60,0	80,0 65,0 55,0 38,0 41,0 41,0 55,0 60,0 70,0		dB dB dB dB dB dB dB dB dB
Temperature coefficient of frequency 1) Frequency inversion point	TC _f		-0,036 30	<u> </u>	ppm/K ²

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



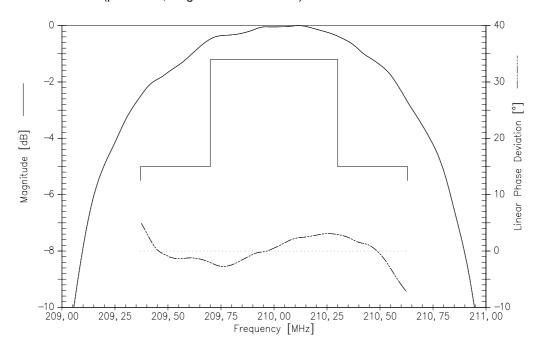
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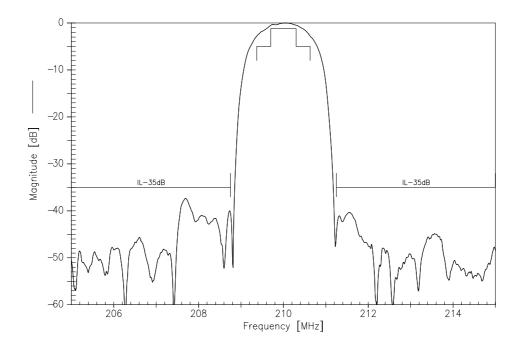
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Transfer function (passband, single-ended/balanced):



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





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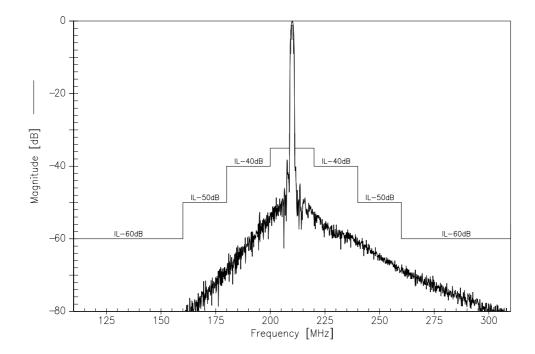
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Transfer function (wideband, single-ended/balanced):





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