



SAW Components

SAW IF Filter

W-CDMA base station, Rx

Series/Type: B5026

Ordering code: B39191-B5026-H510

Date: Jun 06, 2006

Version: 2.1

SAW Components

B5026

Low-Loss Filter

190.00 MHz

Data Sheet



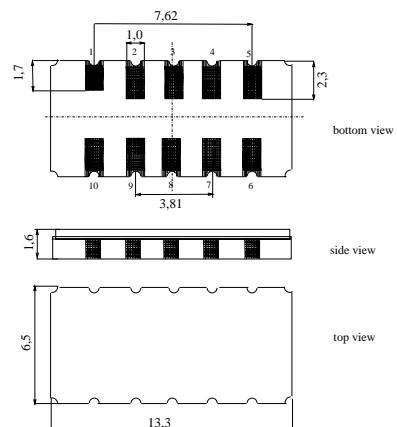
Application

- Low-loss IF filter for W-CDMA base station, receive path (Rx)
- Unbalanced or balanced operation possible
- High near-by selectivity
- Temperature stable



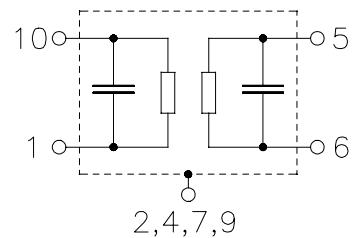
Features

- Package size 13.3 x 6.5 x 1.6 mm³
- Package code DCC12A
- RoHS compatible
- Approx. weight 0.4 g
- Ceramic package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- Filter surface passivated



Pin configuration

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



**SAW Components****B5026****Low-Loss Filter****190.00 MHz****Data Sheet****Characteristics**

Operating temperature range:

 $T = -30 \text{ to } +85 \text{ }^{\circ}\text{C}$

Terminating source impedance:

 $Z_S = 50 \Omega \text{ and matching network}$

Terminating load impedance:

 $Z_L = 50 \Omega \text{ and matching network}$

			min.	typ. @ 25°C	max.	
Nominal frequency	f_N		—	190.0	—	MHz
Minimum insertion attenuation (including matching network)	α_{\min}		—	12.0	15.0	dB
Passband width	$\alpha_{\text{rel}} \leq 1 \text{ dB}$ $\alpha_{\text{rel}} \leq 30 \text{ dB}$	$B_{1\text{dB}}$ $B_{30\text{dB}}$	3.84 —	4.2 4.8	— —	MHz MHz
Amplitude ripple (p-p)	$f_N \pm 1.92 \text{ MHz}$	$\Delta\alpha$	—	0.7	1.0	dB
Phase ripple (rms)	$f_N \pm 1.92 \text{ MHz}$	$\Delta\phi$	—	1.0	1.5	° rms
Absolute group delay	τ mean value within $f_N \pm 1.92 \text{ MHz}$ at $25 \text{ }^{\circ}\text{C}$ ¹⁾		1688	1693	1698	ns
Error vector magnitude	$f_N \pm 1.92 \text{ MHz}$	EVM	—	2.0	—	%
Adjacent channel suppression	$f_N \pm 3.08 \text{ MHz} \dots f_N \pm 6.92 \text{ MHz}$		ACS	—	50	— dB
Relative attenuation (relative to α_{\min})	$f_N \pm 2.515 \text{ MHz} \dots f_N \pm 3.08 \text{ MHz}$ $f_N \pm 3.08 \text{ MHz} \dots f_N \pm 3.5 \text{ MHz}$ $f_N \pm 3.5 \text{ MHz} \dots f_N \pm 20 \text{ MHz}$		α_{rel}	32 37 40	38 42 45	— dB — dB — dB
Temperature coefficient of frequency ²⁾	TC_f		—	-0.036	—	ppm/K ²
Turnover temperature	T_0		—	20	—	°C

¹⁾ At other temperatures the variation from filter to filter is also restricted to +/- 5 ns.

From -30 ... +85 °C the variation of mean value of group delay is restricted to +/- 10 ns.

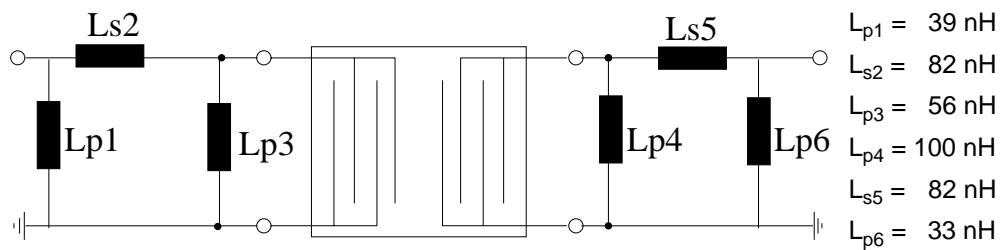
²⁾ Temperature dependance of f_c : $f_c(T_A) = f_c(T_0) (1 + TC_f(T_A - T_0)^2)$ **Maximum ratings**

Operable temperature range	T	-40/+85	°C	
Storage temperature range	T_{stg}	-40/+85	°C	
DC voltage	V_{DC}	3	V	
Input Power(passband)	P_{IN}	10	dBm	
Input Power(stopband)	P_{IN}	20	dBm	$f_N \pm 5 \text{ MHz} \dots f_N \pm 70 \text{ MHz}$

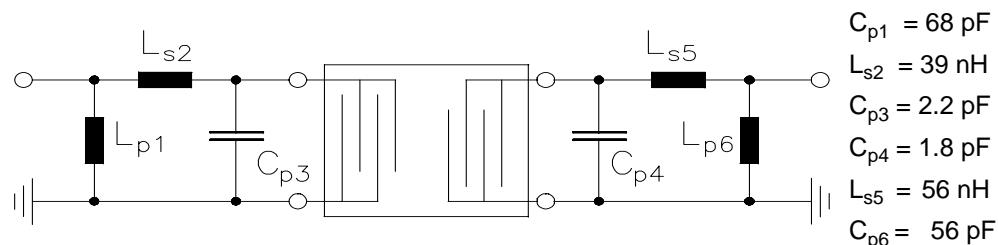
Please read *cautions and warnings and important notes* at the end of this document.

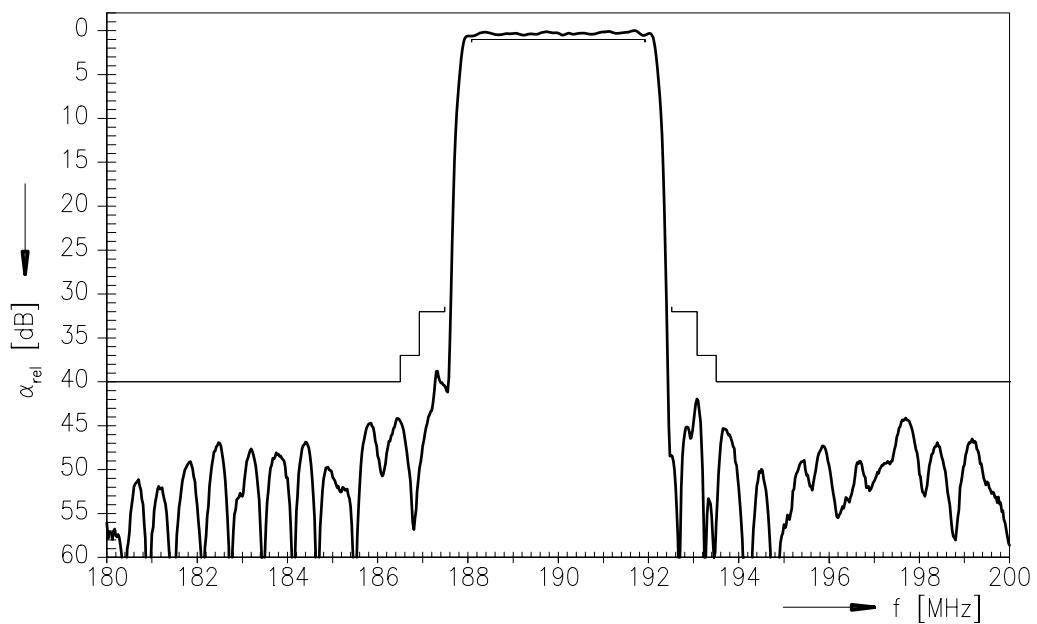
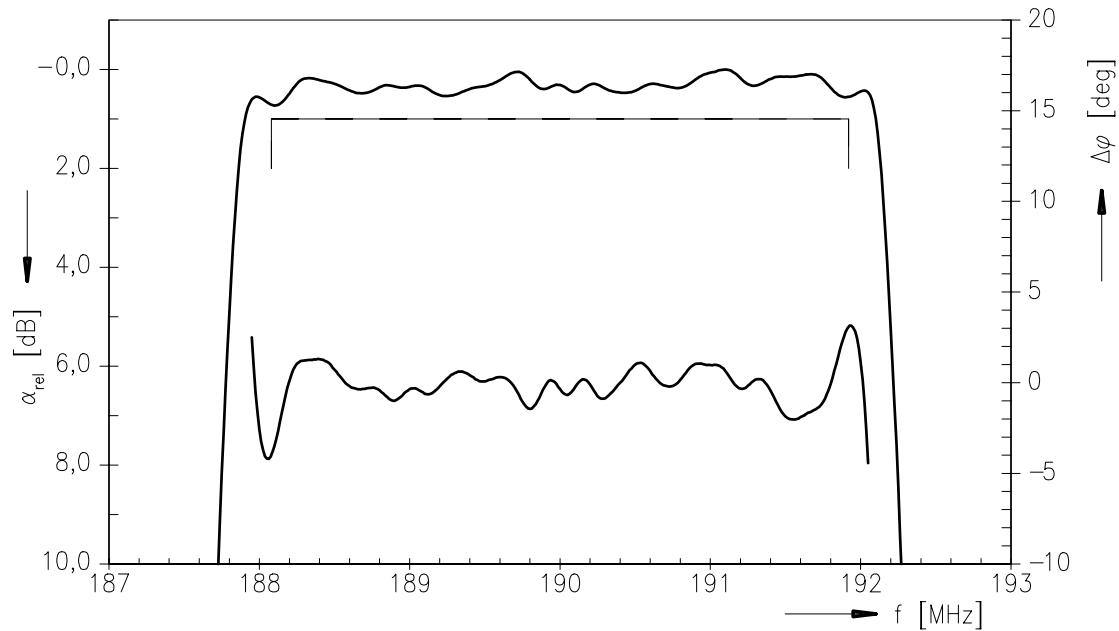
Matching network to 50 Ω

Element values depend upon board layout.


Alternative matching network to 50 Ω

Element values depend upon board layout.




Transfer function (passband)


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Data Sheet



Type	B5026
Ordering code	B39191-B5026-H510
Marking and Package	C61157-A7-A94
Packaging	F61074-V8163-Z000
Date Codes	L_1126
S-Parameters	
Soldering profile	S_6001

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

Published by EPCOS AG

Surface Acoustic Wave Components Division

P.O. Box 80 17 09, 81617 Munich, GERMANY

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