



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



Data Sheet



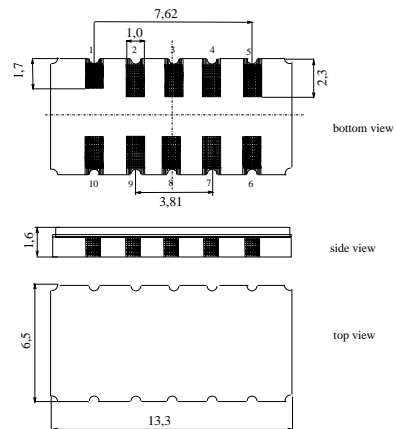
Application

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



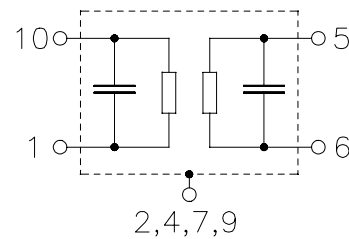
Features

- 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





Data Sheet



Characteristics

Operating temperature range:	T = -30 to +85 °C
Terminating source impedance:	Z _S = 50 Ω and matching network
Terminating load impedance:	Z _L = 50 Ω 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	α _{rel} ≤ 1 dB B _{1dB}	3.84	4.2	—	MHz
	α _{rel} ≤ 30 dB B _{30dB}	—	4.8	—	MHz
Amplitude ripple (p-p)	f _N ± 1.92 MHz Δα	—	0.7	1.0	dB
Phase ripple (rms)	f _N ± 1.92 MHz Δφ	—	1.0	1.5	° rms
Absolute group delay mean value within f _N ± 1.92 MHz at 25 °C ¹⁾	τ	1688	1693	1698	ns
Error vector magnitude	f _N ± 1.92 MHz EVM	—	2.0	—	%
Adjacent channel suppression f _N ± 3.08 MHz ... f _N ± 6.92 MHz	ACS	—	50	—	dB
Relative attenuation (relative to α_{min})	f _N ± 2.515 MHz...f _N ± 3.08 MHz	32	38	—	dB
	f _N ± 3.08 MHz...f _N ± 3.5 MHz	37	42	—	dB
	f _N ± 3.5 MHz...f _N ± 20 MHz	40	45	—	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(T₀) (1 + TC_f(T_A - T₀)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 ± 5 MHz...f _N ± 70 MHz



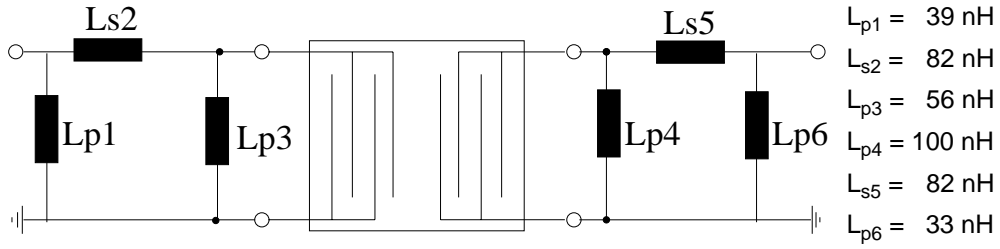
SAW Components	B5026
Low-Loss Filter	190.00 MHz

Data Sheet



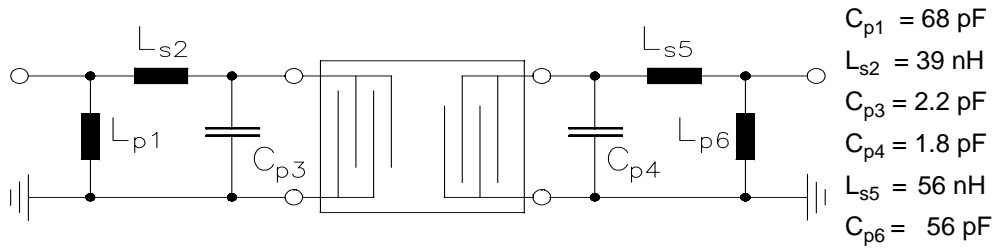
Matching network to 50 Ω

Element values depend upon board layout.



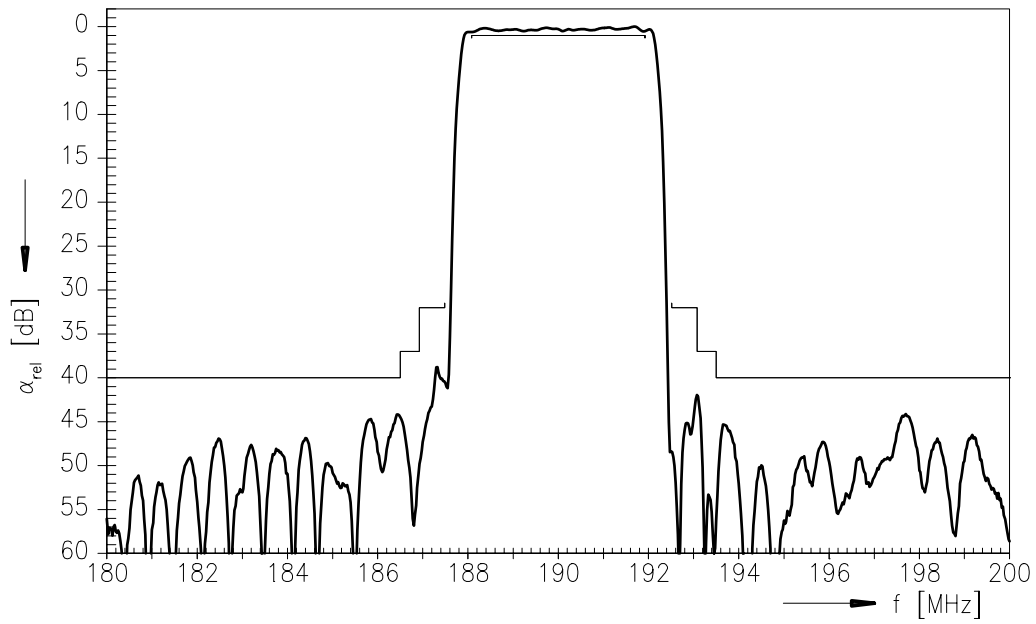
Alternative matching network to 50 Ω

Element values depend upon board layout.

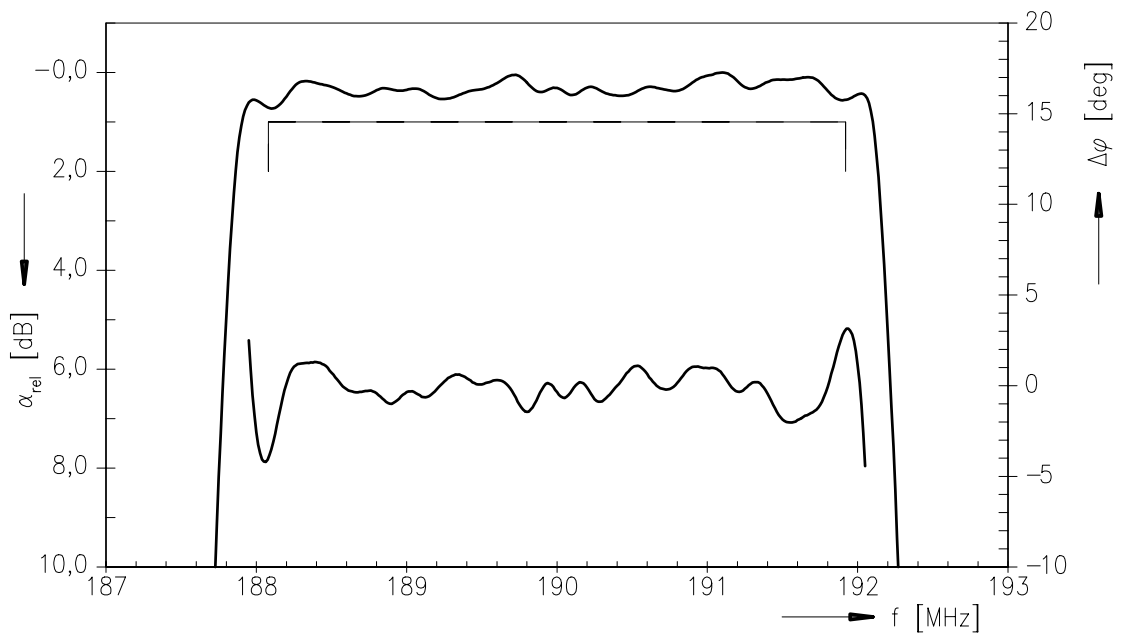




Transfer function



Transfer function (passband)





SAW Components

B5026

Low-Loss Filter

190.00 MHz

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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