



SAW Components

SAW IF filter

WCDMA and CDMA2000

Series/type:	B5071
Ordering code:	B39211-B5071-H810
Date:	Sep 11, 2007
Version:	2.0



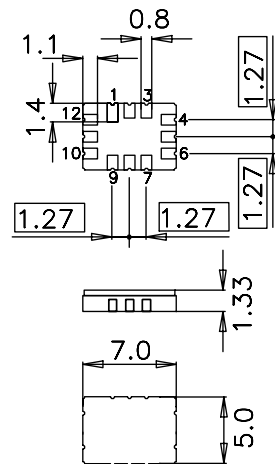
Application

- Low-loss IF filter for WCDMA and CDMA2000 base stations
- Usable passband 19 MHz
- Balanced or unbalanced operation possible



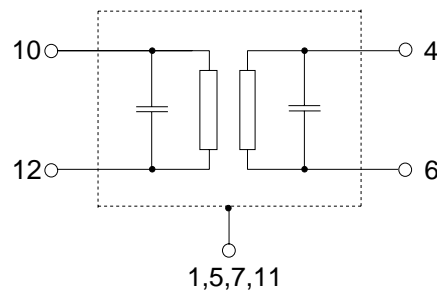
Features

- Package size 7.0 x 5.0 x 1.33 mm³
- Package code QCC12E
- RoHS compatible
- Approx. weight 0.25 g
- Ceramic package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- Filter surface passivated



Pin configuration

- 10 Input
- 12 Input ground or input balance
- 4 Output
- 6 Output ground or output balance
- 2, 3, 8, 9 To be grounded
- 1, 5, 7, 11 Case ground





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211.0 MHz

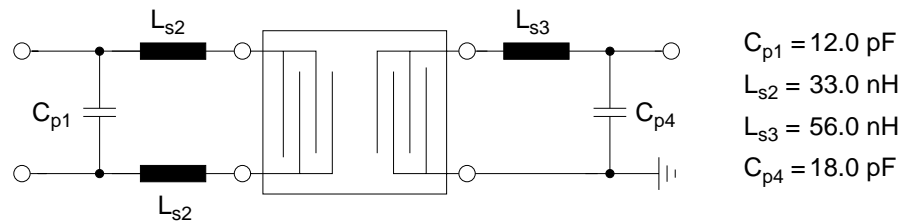
Data sheet



Characteristics

Operating temperature range: $T = -40$ to 85 °C
 Terminating source impedance: $Z_S = 200 \Omega$ and matching network
 Terminating load impedance: $Z_L = 50 \Omega$ and matching network

		min.	typ. @ 25 °C	max.		
Nominal frequency	f_N	—	211.0	—	MHz	
Minimum insertion attenuation (including matching network)	α_{min}	—	8.1	10.0	dB	
Passband width						
	$\alpha_{rel} \leq 1.0$ dB	B_{1dB}	19.0	24.5	—	MHz
Amplitude ripple (p-p)						
	$f_N \pm 9.5$ MHz	$\Delta\alpha$	—	0.4	0.8	dB
Phase linearity (p-p)						
	$f_N \pm 9.5$ MHz	$\Delta\phi$	—	3.0	8.0	deg
Group delay ripple (p-p)						
	$f_N \pm 9.5$ MHz	$\Delta\tau$	—	25	60	ns
	$f_N \pm 9.5$ MHz (within a contig. 5 MHz span)		—	25	60	ns
VSWR						
	Input	$f_N \pm 9.5$ MHz	—	1.4:1	2.0:1	
	Output	$f_N \pm 9.5$ MHz	—	1.4:1	2.0:1	
Input IP3			40	—	—	dBm
Relative attenuation (relative to α_{min})		α_{rel}				
	10.0 MHz ... $f_N - 43.0$ MHz		45	55	—	dB
	$f_N + 39.0$ MHz ... 2000.0 MHz		50	60	—	dB
Temperature coefficient of frequency	TC_f	—	-87	—	ppm/K	

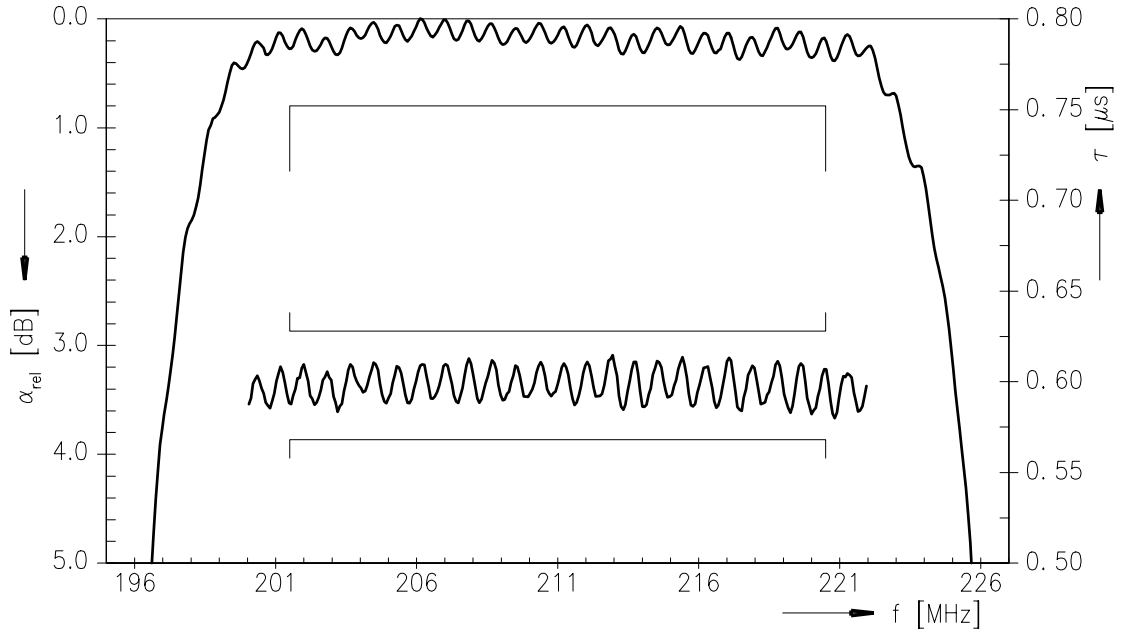
Matching network to 200 Ω balanced input, 50 Ω unbalanced output

Maximum ratings

Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stq}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	200 ¹⁾	V	machine model, 1 pulse
Input power	P _{IN}	15	dBm	10 MHz to 2 GHz

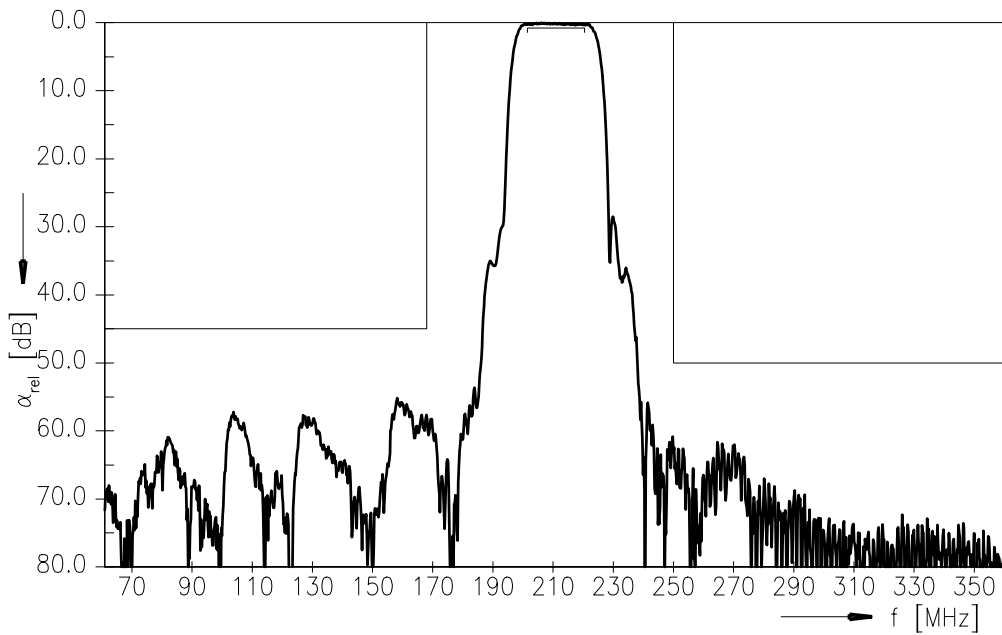
¹⁾ acc. to J-STD22A-0115A (machine model, 1 pulse +/-).



Transfer function



Transfer function (wideband)





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Data sheet



References

Type	B5071
Ordering code	B39211-B5071-H810
Marking and package	C61157-A7-A103
Packaging	F61074-V8170-Z000
Date codes	L_1126
S-parameters	B5071_NB.s3p; B5071_WB.s3p; B5071_NB_UN.s4p; B5071_WB_UN.s4p
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."

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

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