

SAW Components

SAW IF filter for base stations

Series/type: Ordering code: B5087 B39191B5087H810

Date: Version: Sep 03, 2010 2.2

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SAW Components		B5087
SAW IF filter		192.0 MHz
Data sheet	SMD	

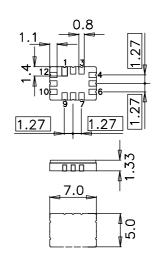
Application

- Low-loss IF filter for WCDMA base station
- Usable passband 60 MHz
- Balanced or unbalanced operation possible



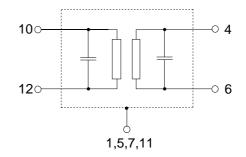
Features

- 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



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

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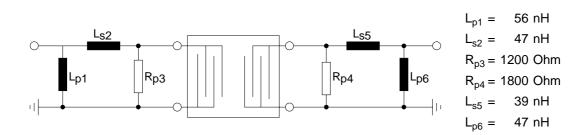
SAW Components						B50
SAW IF filter						192.0 MI
Data sheet		SM				
Characteristics						
Operating temperature ran Terminating source impedan Terminating load impedance	ance:	Z _S =		85 °C nd matchin nd matchin		
			min.	typ. @ 25 °C	max.	
Nominal frequency		f _N		192.0	—	MHz
Minimum insertion attenuation (including matching network)		$lpha_{min}$		15.2	16.0	dB
Passband width	$\alpha_{rel} \le 1.2 dB$	B _{1.2dB}	60.0	64.7	_	MHz
Amplitude ripple (p-p)	$f_N \pm 30 \text{ MHz}$	Δα	_	0.6	1.2	dB
Group delay ripple (p-p)	$f_N \pm 30 \text{ MHz}$	Δτ	_	30	60	ns
Mean value of absolute g	f <mark>n ± 30 MHz</mark>	ī	_	550	_	ns
238.5 MHz 450.0 MHz	tive to α _{min}) 145.5 MHz 450.0 MHz 770.0 MHz 1000.0 MHz	α_{rel}	40 40 35 40	47 49 46 66	 	dB dB dB dB
Temperature coefficient	of frequency	TC _f		-87		ppm/K



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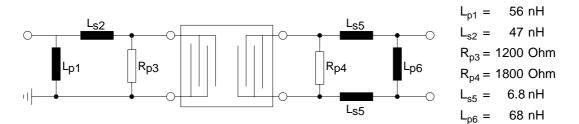
Data sheet

SMD Matching network to 50 Ω (input unbalanced) and 50 Ω (output unbalanced)



Element values depend upon PCB layout.

Alternative matching network to 50 Ω (input unbalanced) and 150 Ω (output balanced)



Element values depend upon PCB layout.

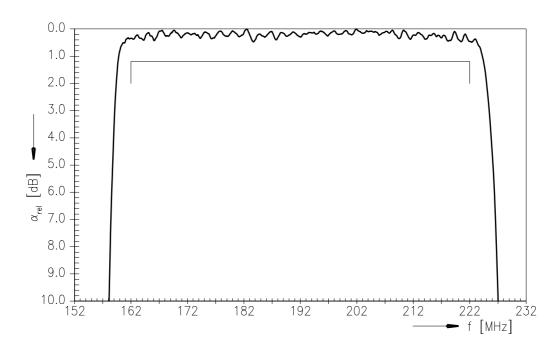
Maximum ratings

Operable temperature range	Т	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
Input power	PIN	10	dBm	

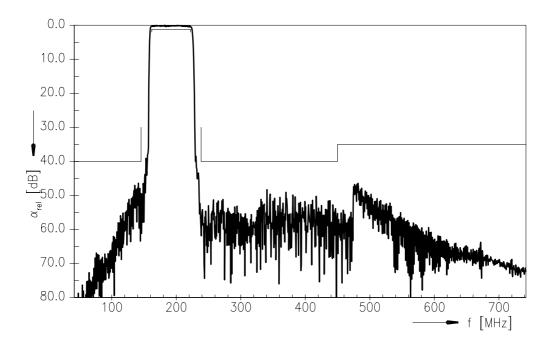
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Transfer function



Transfer function (wideband)



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SAW Components

B5087 192.0 MHz

SAW IF filter Data sheet

SMD

References

Туре	B5087	
Ordering code	B39191B5087H810	
Marking and package	C61157-A7-A103	
Packaging	F61074-V8170-Z000	
Date codes	L_1126	
S-parameters		
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 maxi- mum concentration values for certain hazardous substances in electrical and electronic equipment."	
Matching coils	See Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm	

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