

# **SAW Components**

SAW RF filter

Basestation

Series/type: B5113

Ordering code: B39791-B5113-U410

Date: February 23, 2009

Version: 2.0

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B5113

SAW RF filter

787.0 MHz

**Data Sheet** 



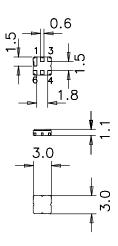
# **Application**

- Low-loss RF filter for Basestation
- Usable band width 22 MHz
- 50  $\Omega$  single ended



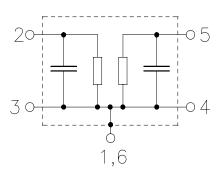
#### **Features**

- Package size 3.0 x3.0 x 1.10 mm<sup>3</sup>
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Ceramic package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Electrostatic Sensitive Device (ESD)
- Filter surface passivated



# Pin configuration

- 2 Input
- 5 Output
- 1, 3, 4, 6 To be grounded



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



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# Characteristics

= -40 °C to +85 °C Temperature range for specification:

Terminating source impedance:  $Z_S = 50 \Omega$ Terminating load impedance:  $50\,\Omega$ 

		min.	typ. @ 25 °C	max.	
Nominal frequency	f <sub>N</sub>	_	787.0	_	MHz
	$\alpha_{max}$	_	2.1	3.0	dB
Amplitude ripple (p-p) $f_{N}\pm 11~\text{MHz}$	Δα	_	1.0	2.0	dB
Return loss (input / output) $f_N \pm 11 \; \text{MHz}$		10.0	12.0	_	dB
Absolute attenuation	α				
0.3 746.0 M	lHz	35	44	_	dB
746.0 756.0 M	lHz	32	40	_	dB
756.0 763.0 M	lHz	20	31	_	dB
763.0 768.0 M	lHz	15	24	_	dB
860.0 885.0 M	lHz	35	45	_	dB
885.0 1200.0 M	lHz	30	43	_	dB
1200.0 2500.0 M	lHz	20	30	_	dB
2500.0 3500.0 M	lHz	10	25	_	dB
Temperature coefficient of frequency	TC <sub>f</sub>	_	-36	_	ppm/K

# **Maximum ratings**

Operable temperature range	T	-40/+85	°C	
Storage temperature range	$T_{stg}$	-40/+85	°C	
DC voltage	$V_{DC}$	0	V	
ESD voltage	$V_{ESD}$	50 <sup>1)</sup>	V	machine model, 1 pulse
Input power	$P_{IN}$	10	dBm	

<sup>1)</sup> acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulses.



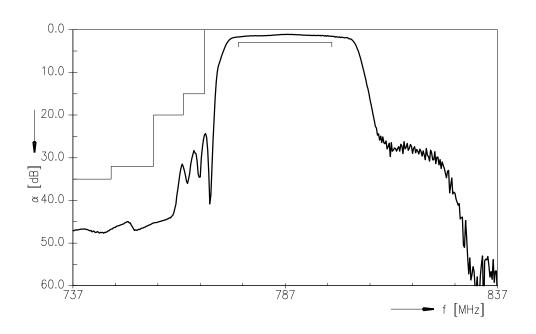
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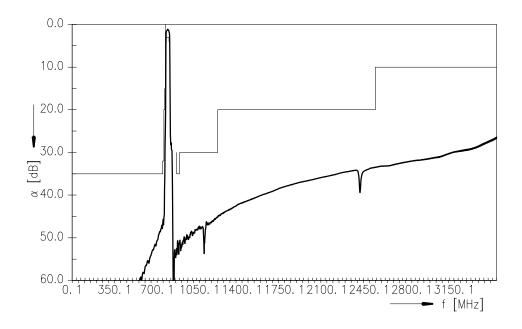
787.0 MHz

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# **Transfer function**



# **Transfer function (Wide Band)**



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

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#### References

Туре	B5113
Ordering code	B39791-B5113-U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B5113_WB.s2p
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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