



SAW Filters for Mobile Communications

Series/Type: B7775

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39162B7775E510	B39162B9444M410	2009-12-18	2010-06-30	2010-09-30

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SAW Components

B7775

SAW GPS filter

1575.42 MHz

Data Sheet



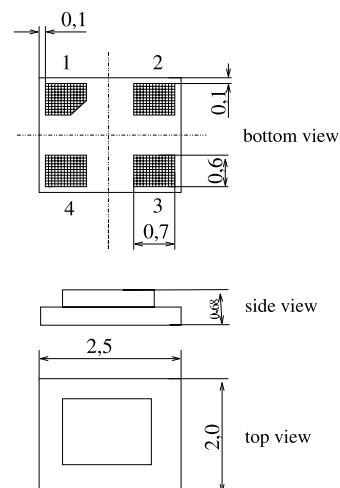
Application

- Low-loss RF filter for GPS receivers
- Low amplitude ripple
- Low insertion attenuation
- Usable passband 2 MHz
- No matching network required for operation at 50 Ω
- Unbalanced to unbalanced operation



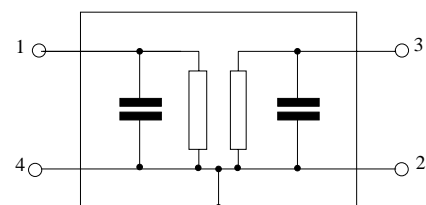
Features

- Package size 2.5 x 2.0 x 0.68 mm³
- Package code DCS4E
- RoHS compatible
- Approximate weight 0.012 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 1 Input unbalanced
- 3 Output unbalanced
- 2,4 To be grounded





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Characteristics

Operating temperature range:	$T_A = -40 \dots +85 \text{ }^\circ\text{C}$
Terminating source impedance:	$Z_S = 50 \text{ }\Omega$
Terminating load impedance:	$Z_L = 50 \text{ }\Omega$

		min.	typ.	max.	
Nominal frequency	f_N	—	1575,42	—	MHz
Maximum insertion attenuation	α_{\max}	—	2,0	3,0	dB
	1574,42 ... 1576,42 MHz				
Amplitude ripple in passband (p-p)	$\Delta\alpha$	—	0,1	1,0	dB
	1574,42 ... 1576,42 MHz				
Return loss (Input and Output)		12	17	—	dB
	1574,42 ... 1576,42 MHz				
Attenuation	α				
	806,00 ... 902,00 MHz	40	47	—	dB
	902,00 ... 1475,42 MHz	35	45	—	dB
	1475,42 ... 1535,42 MHz	30	37	—	dB
	1612,00 ... 1650,00 MHz	45	53	—	dB
	1792,00 ... 1804,00 MHz	45	53	—	dB
Temperature coefficient of frequency	TC_f	—	– 36	—	ppm/K



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Maximum ratings of Filter

Operable temperature range	T	−40/+85	°C	
Storage temperature range	T _{stg}	−40/+85	°C	
DC voltage	V _{DC}	3	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 10 pulses
Input power max. 1573,42 ... 1577,42 MHz	P _{IN}	3	dBm	source and load impedance 50 Ω continuous wave signal
50,0...1460 and 1710 ... 4000 MHz	P _{IN}	13	dBm	

¹⁾ acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.



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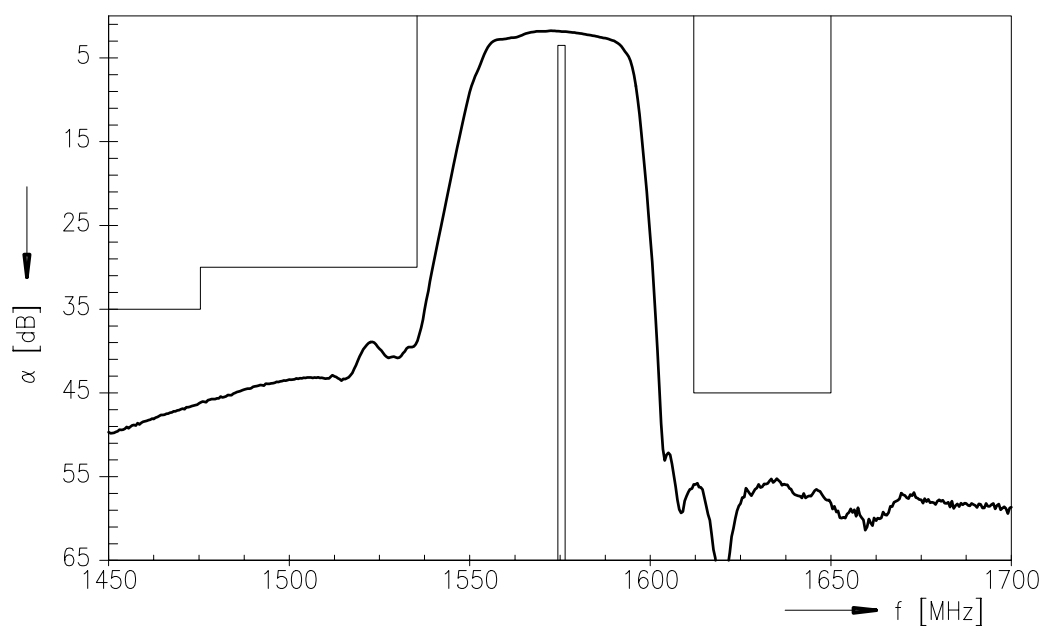
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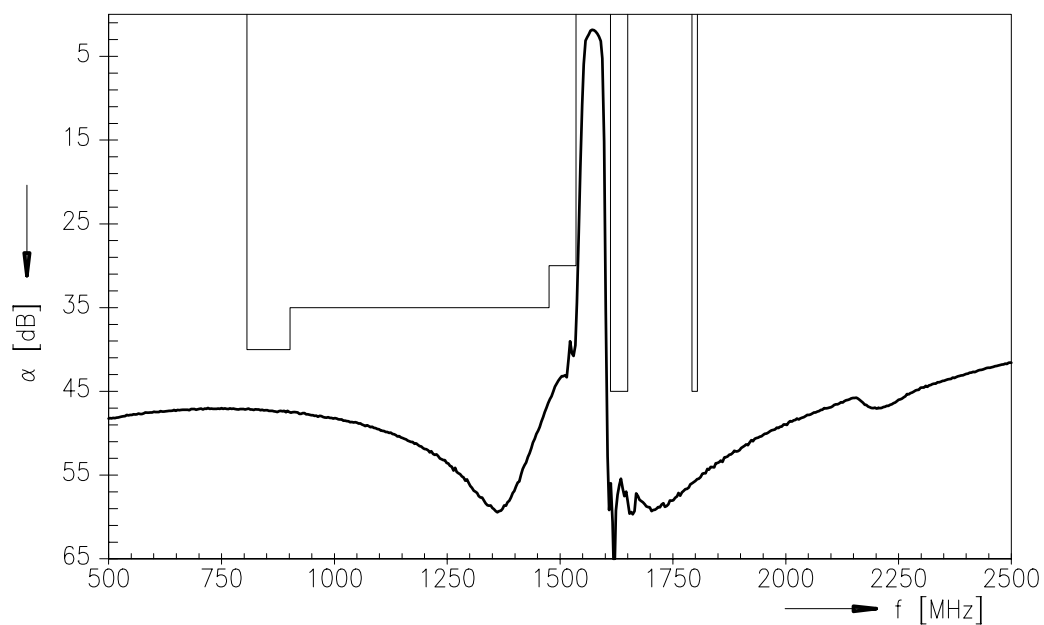
Data Sheet

SMD

Transfer function (narrow band)



Transfer function (wide band)





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References

Type	B7775
Ordering code	B39162B7775E510
Marking and package	C61157-A7-A121
Packaging	F61074-V8153-Z000
Date codes	L_1126
S-parameters	B7775_NB.s2p B7775_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."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.

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

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



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