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[B39162B7839K410](#)

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## SAW Components

### SAW Rx Filter

GPS

**Series/Type:** B7839  
**Ordering code:** B39162-B7839-K410

**Date:** Nov 16, 2005  
**Version:** 2.1



**SAW Components** **B7839**

**Low-Loss Filter for Mobile Communication** **1575.42 MHz**

Data Sheet



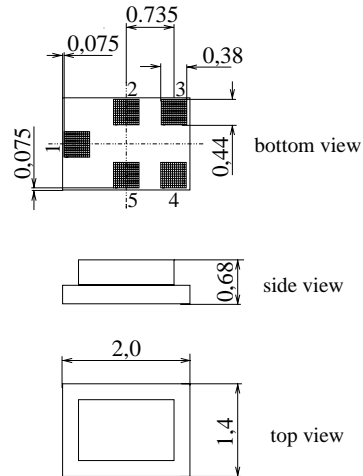
**Application**

- Low-loss RF filter for GPS
- Unbalanced to unbalanced operation
- Very low insertion attenuation



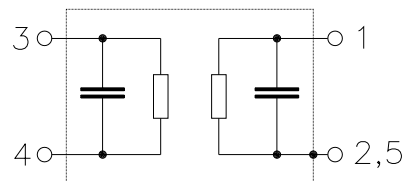
**Features**

- Package size 2.0 x 1.4 x 0.68 mm<sup>3</sup>
- Package code QCS5E
- RoHS compliant
- Approx. weight 0.007 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals



**Pin configuration**

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





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Data Sheet



**Characteristics**

Operating temperature range:  $T = -30\text{ °C} \dots +85\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

		<b>B7839</b>			
		min.	typ. @ 25 °C	max.	
<b>Nominal frequency</b>	$f_N$	—	1575.42	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	0.75	1.1	dB
		—	0.75	1.0	dB <sup>1)</sup>
<b>Amplitude ripple in passband (p-p)</b>	$\Delta\alpha$	—	0.05	0.3	dB
<b>Attenuation</b>	$\alpha$	38	41	—	dB
		35	40	—	dB
		22	29	—	dB
		23	28	—	dB
		35	40	—	dB
		30	35	—	dB
		20	28	—	dB
<b>VSWR</b>		—	1.1	1.8	

<sup>1)</sup> 0 °C ... +55 °C

**Maximum ratings**

Operable temperature range	T	-40/+85	°C	
Storage temperature range	T <sub>stg</sub>	-40/+85	°C	
DC voltage	V <sub>DC</sub>	3	V	
ESD voltage	V <sub>ESD</sub>	50 <sup>1)</sup>	V	machine model, 10 pulses
Input Power at				
1574.42 ... 1576.42 MHz	P <sub>IN</sub>	3	dBm	source and load impedance 50 Ω continuous wave signal
50.0...1460 and	P <sub>IN</sub>	25	dBm	
1710 ... 4000 MHz	P <sub>IN</sub>	25	dBm	

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

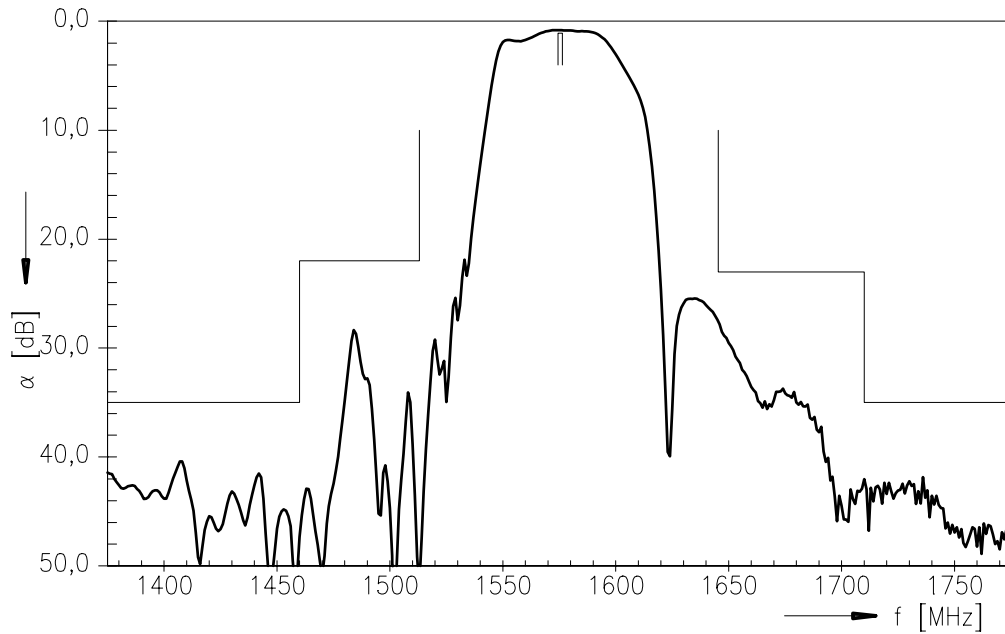


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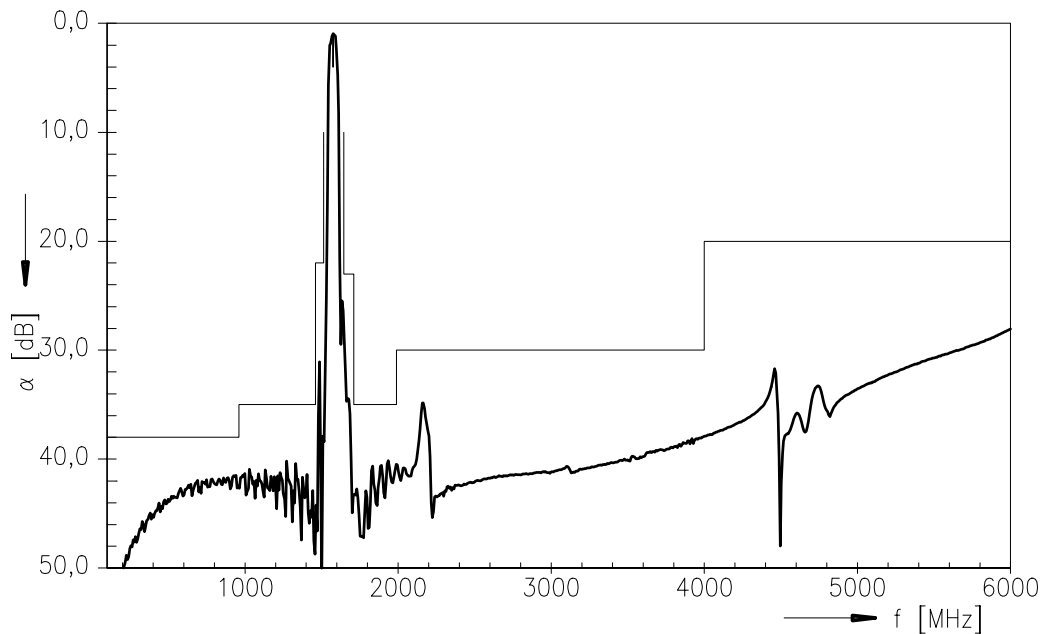
Data Sheet



**Transfer function**



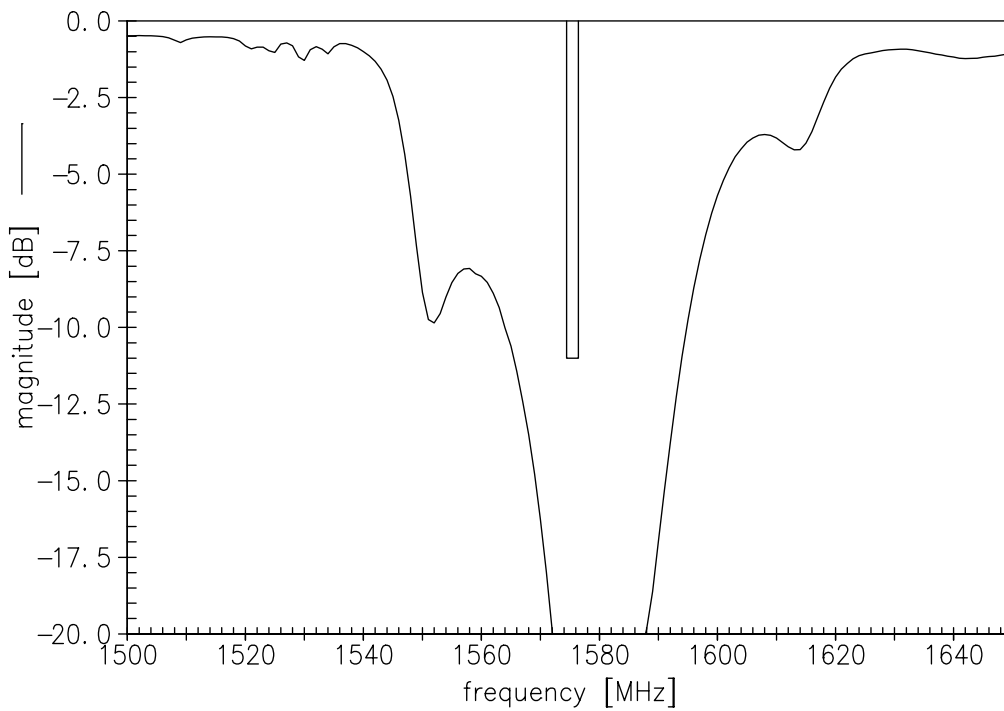
**Transfer function (wideband)**



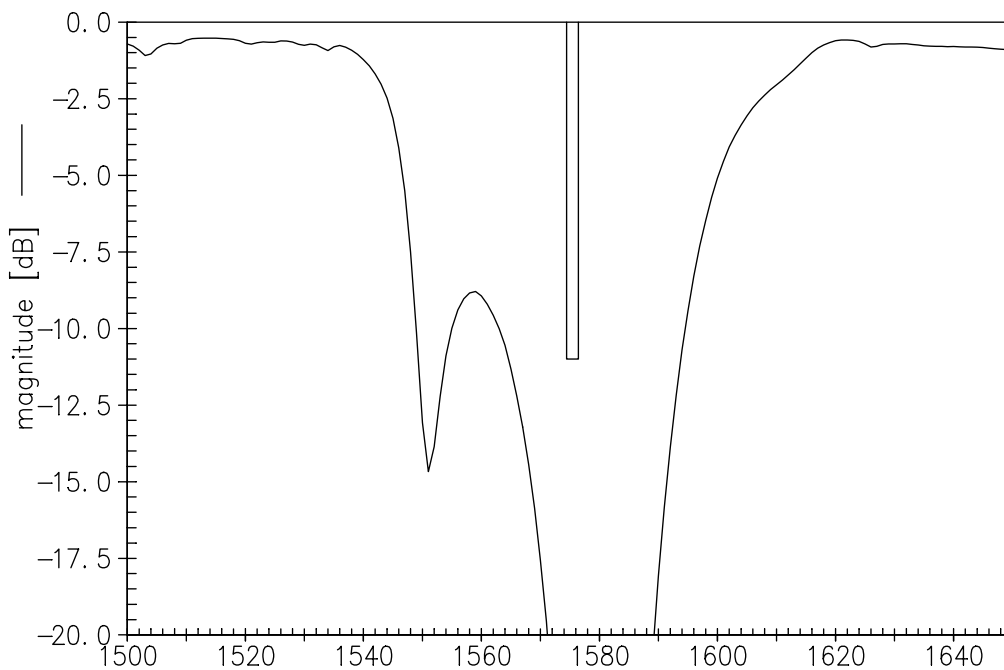


<b>SAW Components</b>	<b>B7839</b>
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<b>Data Sheet</b>	<b>SMD</b>

**S<sub>11</sub> function**



**S<sub>22</sub> function**





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Data Sheet	

Type	B7839	
Ordering code	B39162-B7839-K410	
Marking and Package	C61157-A7-A131	
Packaging	F61074-V8151-Z000	
Date Codes	L_1126	
S-Parameters	B7839_NB.s3p B7839_WB.s3p	
Soldering profile	S_6001	

For further information please contact your local EPCOS sales office or visit our webpage at [www.epcos.com](http://www.epcos.com) .

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