



## SAW Components

SAW RF low loss filter

DMB, CMMB

<b>Series/type:</b>	<b>B8761</b>
<b>Ordering code:</b>	<b>B39262-B8761-F210</b>
Date:	February 02, 2009
Version:	2.1

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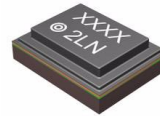


Data sheet



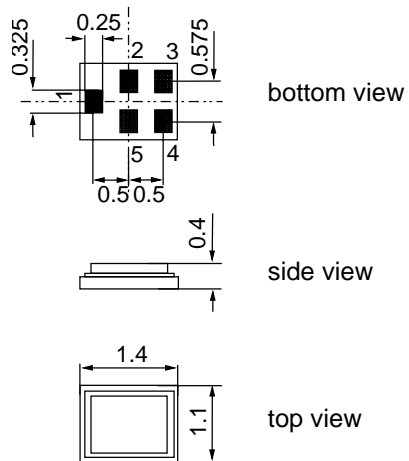
Application

- Low loss RF band pass filter for DMB and CMMB
- Low insertion loss
- Low amplitude and group delay ripple
- Usable passband 30 MHz
- Impedance at input and output 50 Ω
- Unbalanced to unbalanced operation



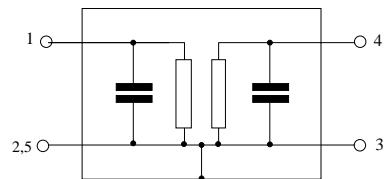
Features

- Package size 1.4 × 1.1 × 0.4 mm<sup>3</sup>
- Maximum height of 0.45 mm
- Package code QCS5M
- RoHS compatible
- Approximate weight 0.003 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

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



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


**SAW Components**
**B8761**
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**2647.50 MHz**
**Data sheet**

**Characteristics**

 Temperature range for specification:  $T = -30\text{ °C to }+85\text{ °C}$ 

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

 Terminating load impedance:  $Z_L = 50\ \Omega$ 

		min.	typ. @ 25 °C	max.	
<b>Nominal frequency</b>	$f_N$	—	2647.50	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$				
2630.00 ... 2655.00 MHz		—	1.8	2.5	dB
2632.50 ... 2652.50 MHz		—	1.8	2.5	dB
2635.00 ... 2660.00 MHz		—	1.8	2.5	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
2630.00 ... 2655.00 MHz		—	0.5	1.0	dB
2632.50 ... 2652.50 MHz		—	0.5	1.0	dB
2635.00 ... 2660.00 MHz		—	0.5	1.0	dB
<b>Input VSWR</b>					
2630.00 ... 2655.00 MHz		—	1.8	2.0	
2632.50 ... 2652.50 MHz		—	1.8	2.0	
2635.00 ... 2660.00 MHz		—	1.8	2.0	
<b>Output VSWR</b>					
2630.00 ... 2655.00 MHz		—	1.7	2.0	
2632.50 ... 2652.50 MHz		—	1.7	2.0	
2635.00 ... 2660.00 MHz		—	1.7	2.0	
<b>Attenuation</b>	$\alpha$				
1710.00 ... 1785.00 MHz		35.0	38.0	—	dB
1920.00 ... 1980.00 MHz		35.0	38.0	—	dB
2400.00 ... 2483.50 MHz		32.0	36.0	—	dB
2500.00 ... 2570.00 MHz		20.0	26.0	—	dB
2780.00 ... 3000.00 MHz		30.0	34.0	—	dB
<b>Group delay ripple (p-p)</b>	$\Delta\tau$				
2630.00 ... 2655.00 MHz		—	3	—	ns
2632.50 ... 2652.50 MHz		—	3	—	ns
2635.00 ... 2660.00 MHz		—	3	—	ns

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B8761

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2647.50 MHz

Data sheet



### Maximum ratings

Operable temperature range	T	-30/+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 2630.00 ... 2655.00 MHz				
2632.50 ... 2652.50 MHz	P <sub>IN</sub>	10	dBm	source impedance 50 Ω
2635.00 ... 2660.00 MHz				

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

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B8761

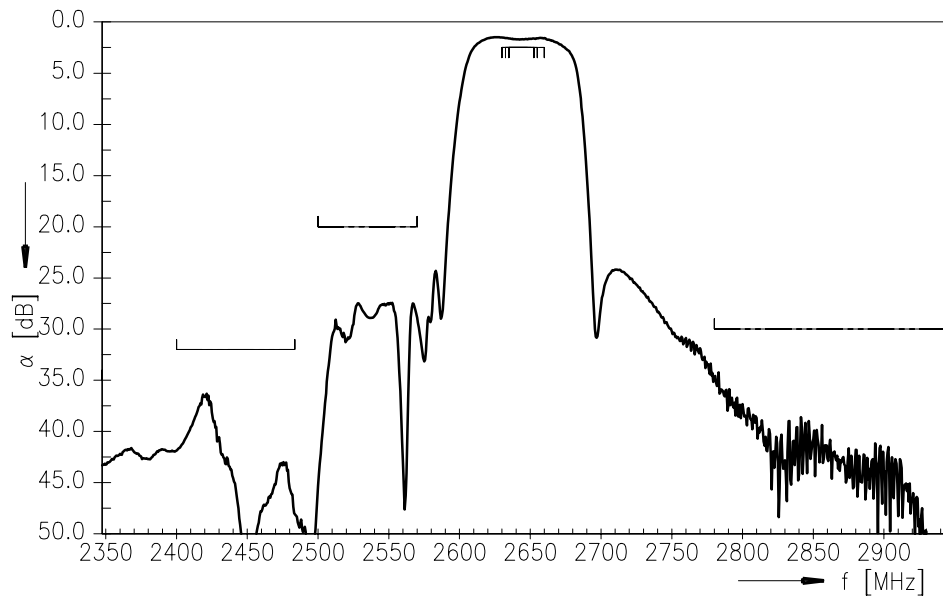
SAW RF low loss filter

2647.50 MHz

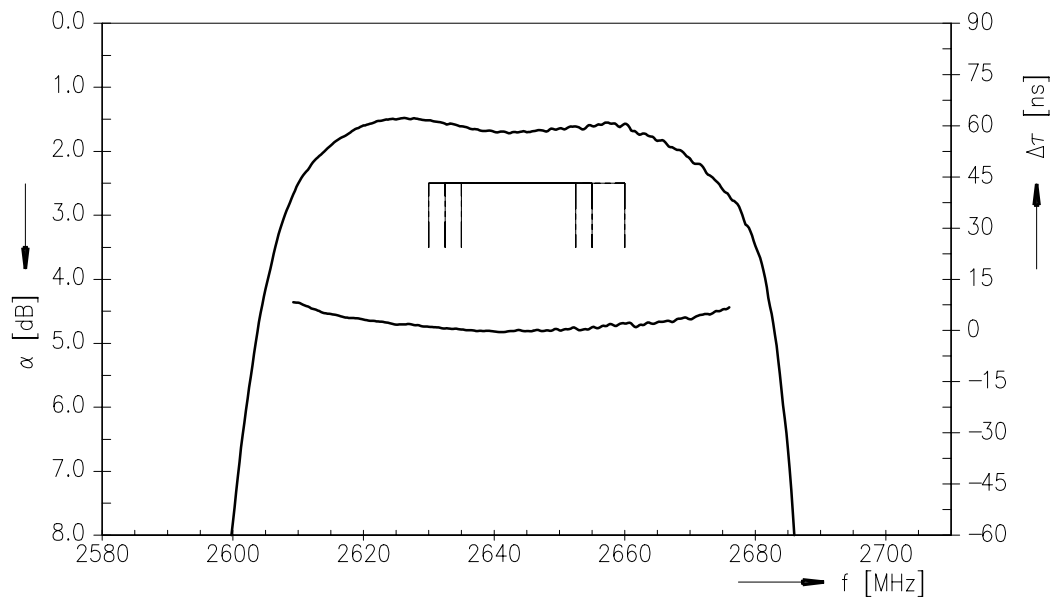
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### Transfer function



### Transfer function (pass band)



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5 February 02, 2009



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B8761

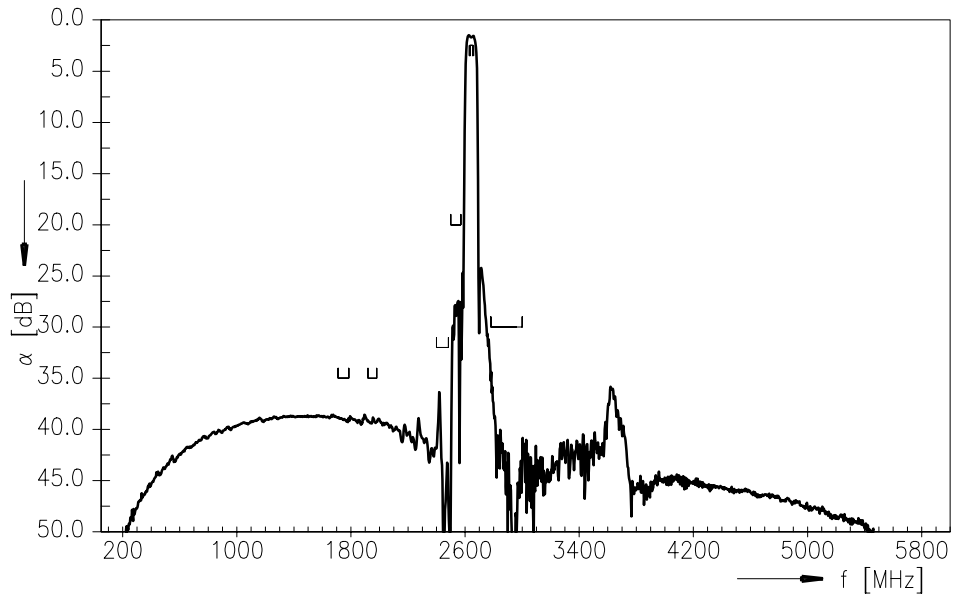
SAW RF low loss filter

2647.50 MHz

Data sheet



Transfer function (wide band)



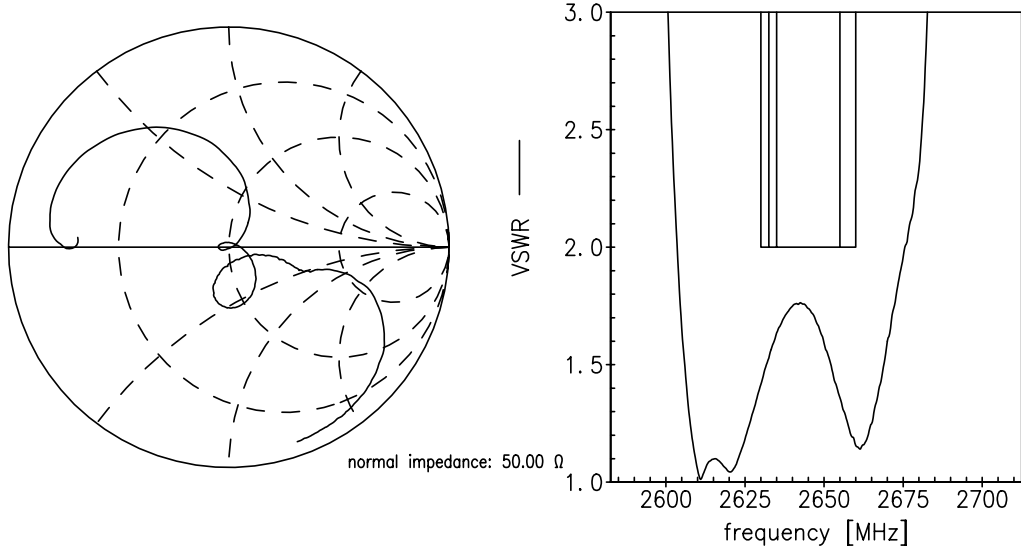
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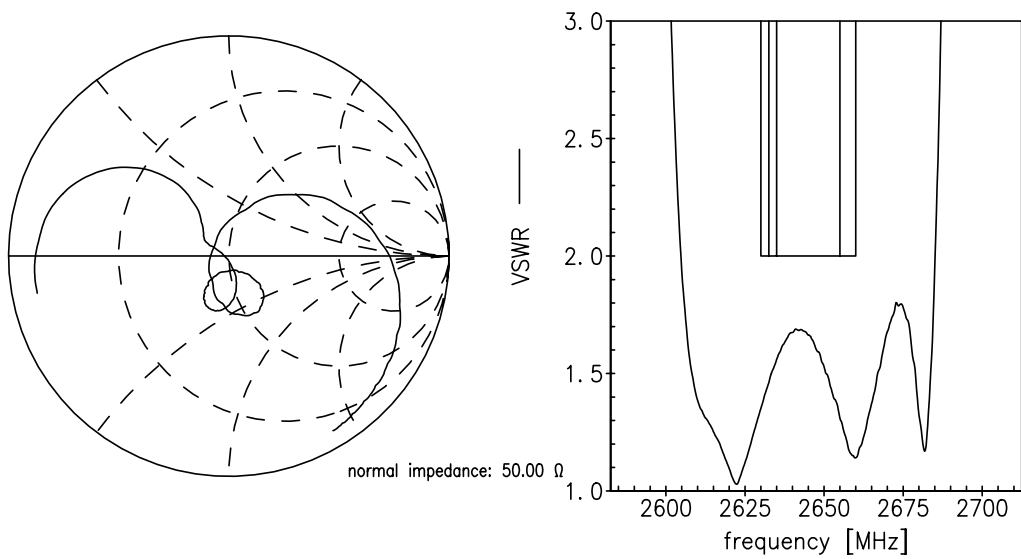


Reflection coefficient and VSWR

$S_{11}$  function



$S_{22}$  function



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**SAW Components****B8761****SAW RF low loss filter****2647.50 MHz**

Data sheet

**References**

<b>Type</b>	B8761
<b>Ordering code</b>	B39262-B8761-F210
<b>Marking and package</b>	C61157-A8-A8
<b>Packaging</b>	F61074-V8212-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B8761_NB.s2p, B8761_WB.s2p See file header for port/pin assignment table.
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	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."
<b>Moldability</b>	Before using in overmolding environment, please contact your EPCOS sales office.

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**Published by EPCOS AG  
Surface Acoustic Wave Components Division  
P.O. Box 80 17 09, 81617 Munich, GERMANY**

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