



## SAW Components

### SAW RF low loss filter

Satellite BTS

<b>Series/type:</b>	<b>B1616</b>
<b>Ordering code:</b>	<b>B39132B1616U810</b>
<b>Date:</b>	<b>December 15, 2006</b>
<b>Version:</b>	<b>2.1</b>

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SAW Components

B1616

SAW RF low loss filter

1280.18 MHz

Data Sheet



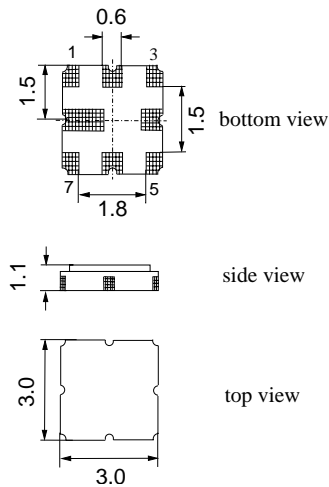
### Application

- Low loss RF filter for satellite BTS
- Usable passband 40.0 MHz
- Low insertion attenuation
- Low amplitude ripple
- Low group delay ripple
- Balanced to balanced operation
- No matching network required for operation at 150 Ω



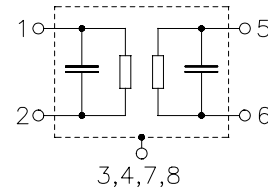
### Features

- Package size 3.0 x 3.0 x 1.1 mm<sup>3</sup>
- Maximum height of 1.225 mm
- Package code QCC8D
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



### Pin configuration

- 1 Input
- 2 Input
- 5 Output
- 6 Output
- 3,7 To be grounded
- 4,8 Case ground, to be grounded



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

2 December 15, 2006



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**Characteristics**

Operating temperature range:  $T = -40\text{ °C to }+85\text{ °C}$   
 Terminating source impedance:  $Z_S = 150\ \Omega$   
 Terminating load impedance:  $Z_L = 150\ \Omega$

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		min.	typ. @ 25 °C	max.	
<b>Nominal frequency</b>	$f_N$	—	1280.18	—	MHz
<b>Maximum insertion attenuation</b> 1260.18 ... 1300.18 MHz	$\alpha_{max}$	—	3.5	4.5	dB
<b>Pass bandwidth</b> $\alpha_{rel} \leq 1.5\text{ dB}$	$B_{1.5\text{ dB}}$	—	54.0	—	MHz
<b>Amplitude ripple (p-p)</b> 1260.18 ... 1300.18 MHz	$\Delta\alpha$	—	1.6	2.3	dB
<b>Group delay ripple (p-p)</b> 1260.18 ... 1300.18 MHz	$\Delta\tau$	—	23.0	30.0	ns
<b>Deviation from linear phase (rms)</b> in any 30 MHz band 1260.18 ... 1300.18 MHz		—	4.5	6.0	°
<b>Relative attenuation (relative to <math>\alpha_{max}</math>)</b>	$\alpha$				
50.00 ... 1198.12 MHz		46.0	55.0	—	dB
1362.24 ... 2000.00 MHz		45.0	57.0	—	dB
2000.00 ... 6000.00 MHz		15.0	—	—	dB

**Maximum ratings**

Operable temperature range	T	-40/+85	°C	
Storage temperature range	Tstg	-40/+85	°C	
DC voltage	$V_{DC}$	0	V	
Source power	$P_S$	0	dBm	source impedance 150 $\Omega$



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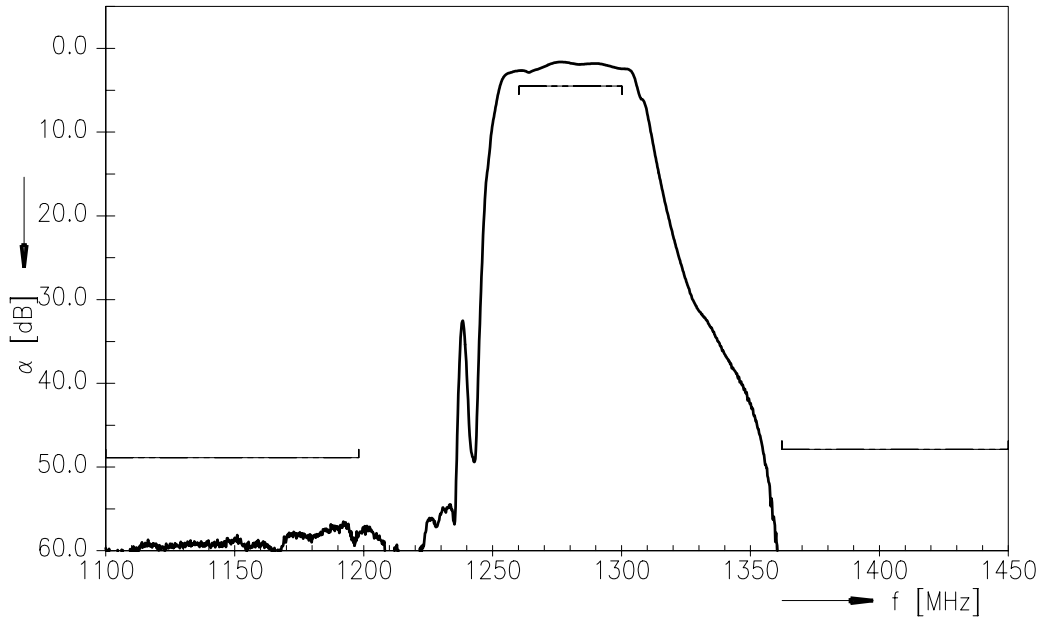
SAW RF low loss filter

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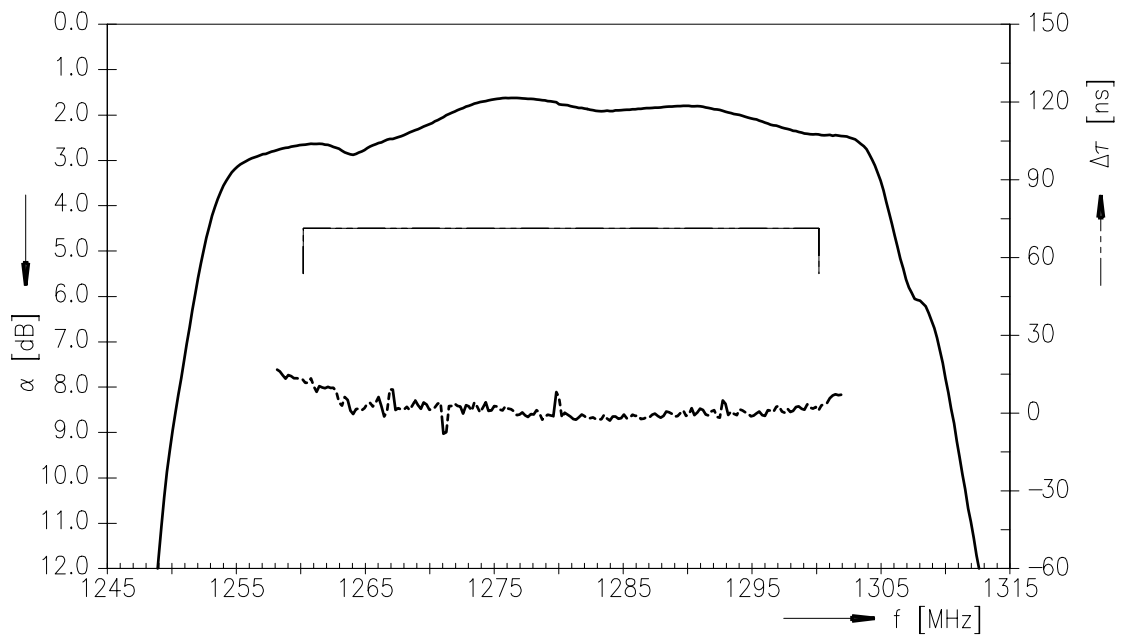
Data Sheet



### Transfer function



### Transfer function (passband)



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### References

Type	B1616
Ordering code	B39132B1616U810
Marking and package	C61157-A7-A72
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B1616_NB.s4p
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."

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