



SAW Components

SAW RF low loss filter

Satellite BTS

Series/type:	B1617
Ordering code:	B39122B1617U810
Date:	December 15, 2006
Version:	2.1

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B1617

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1178.12 MHz

Data Sheet



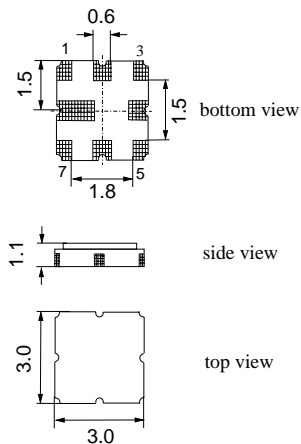
Application

- 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



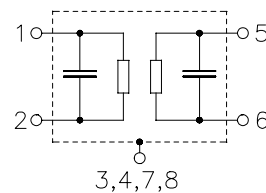
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Maximum height of 1.225mm
- 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





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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:	$Z_L = 150\ \Omega$

		min.	typ. @ 25 °C	max.	
Nominal frequency	f_N	—	1178.12	—	MHz
Maximum insertion attenuation	α_{\max}	—	3.5	4.5	dB
	1158.12 ... 1198.12 MHz				
Pass bandwidth		—	57.6	—	MHz
$\alpha_{\text{rel}} \leq 1.5\text{ dB}$	$B_{1.5\text{ dB}}$				
Amplitude ripple (p-p)	$\Delta\alpha$	—	1.8	2.3	dB
	1158.12 ... 1198.12 MHz				
Group delay ripple (p-p)	$\Delta\tau$	—	17.0	25.0	ns
	1158.12 ... 1198.12 MHz				
Deviation from linear phase (rms)		—	4.0	5.5	°
in any 30 MHz band					
	1158.12 ... 1198.12 MHz				
Relative attenuation (relative to α_{\max})	α				
	50.00 ... 1096.06 MHz	46.0	50.0	—	dB
	1260.18 ... 2000.00 MHz	44.0	49.0	—	dB
	2000.00 ... 6000.00 MHz	15.0	—	—	dB

Maximum ratings

Operable temperature range	T	−40/+85	°C	
Storage temperature range	T_{stg}	−40/+85	°C	
DC voltage	V_{DC}	0	V	
Source power	P_S	0	dBm	source impedance 150 Ω



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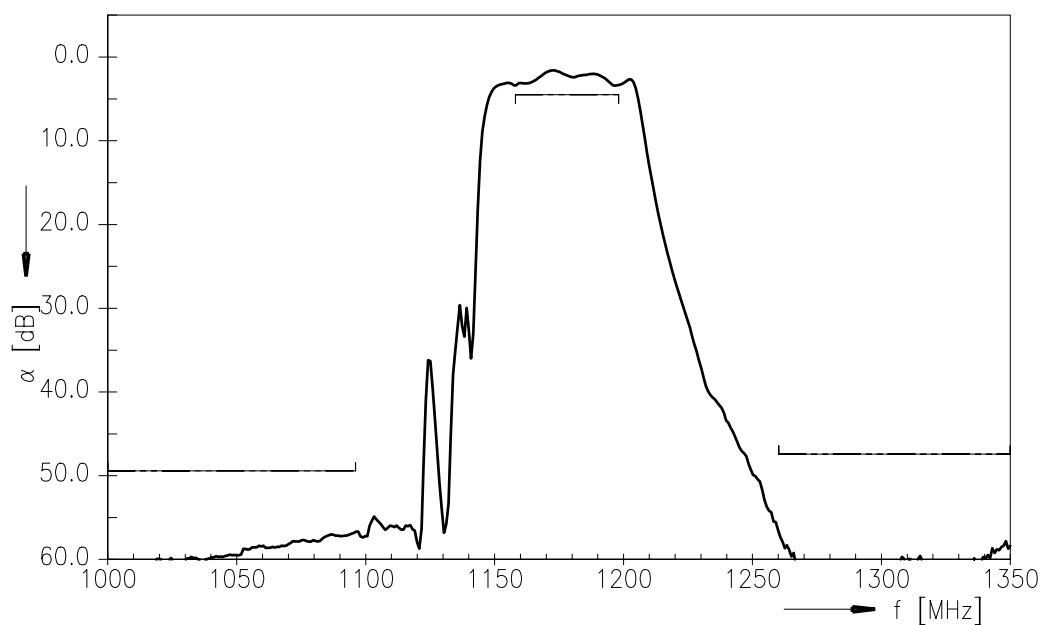
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1178.12 MHz

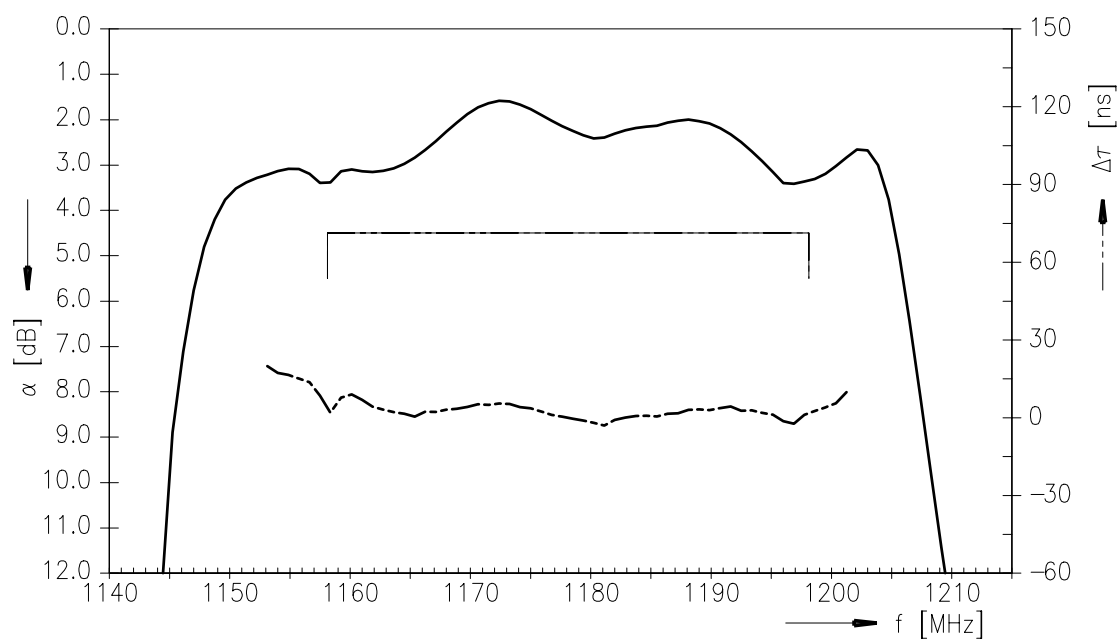
Data Sheet



Transfer function



Transfer function (passband)



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Data Sheet

**References**

Type	B1617
Ordering code	B39122B1617U810
Marking and package	C61157-A7-A72
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B1617_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."

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

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