SAW Components

SAW RF low loss filter

Satellite BTS

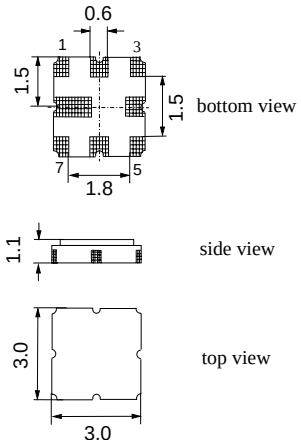
Series/type:	**B1617**
Ordering code:	**B39122B1617U810**
Date:	December 15, 2006
Version:	2.1

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

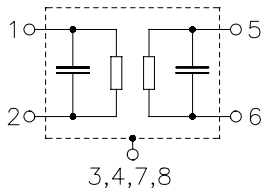
Features

- 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 **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)



Pin configuration

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



Data Sheet SMD

Characteristics

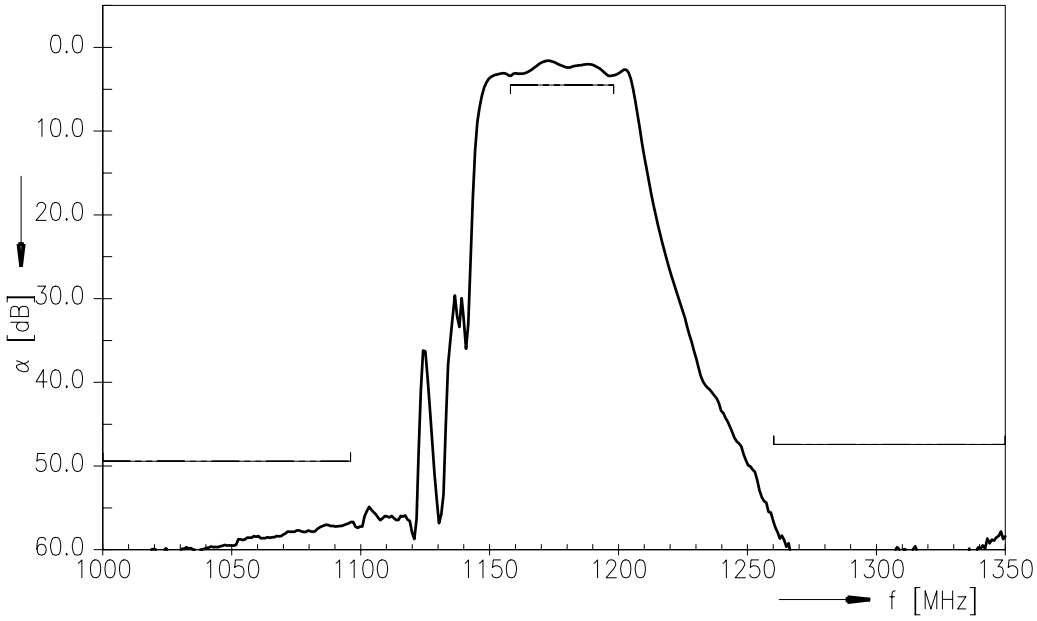
Operating temperature range: T = –40 ˚C to +85 ˚C
Terminating source impedance: Z_S = 150 Ω
Terminating load impedance: Z_L = 150 Ω

		min.	typ. @ 25 ˚C	max.	
Nominal frequency	f_N	—	1178.12	—	MHz
Maximum insertion attenuation	α_{max}				
1158.12 ... 1198.12 MHz		—	3.5	4.5	dB
Pass bandwidth					
$\alpha_{rel} \leq$ 1.5 dB	$B_{1.5\ dB}$	—	57.6	—	MHz
Amplitude ripple (p-p)	$\Delta\alpha$				
1158.12 ... 1198.12 MHz		—	1.8	2.3	dB
Group delay ripple (p-p)	$\Delta\tau$				
1158.12 ... 1198.12 MHz		—	17.0	25.0	ns
Deviation from linear phase (rms)					
in any 30 MHz band					
1158.12 ... 1198.12 MHz		—	4.0	5.5	˚
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

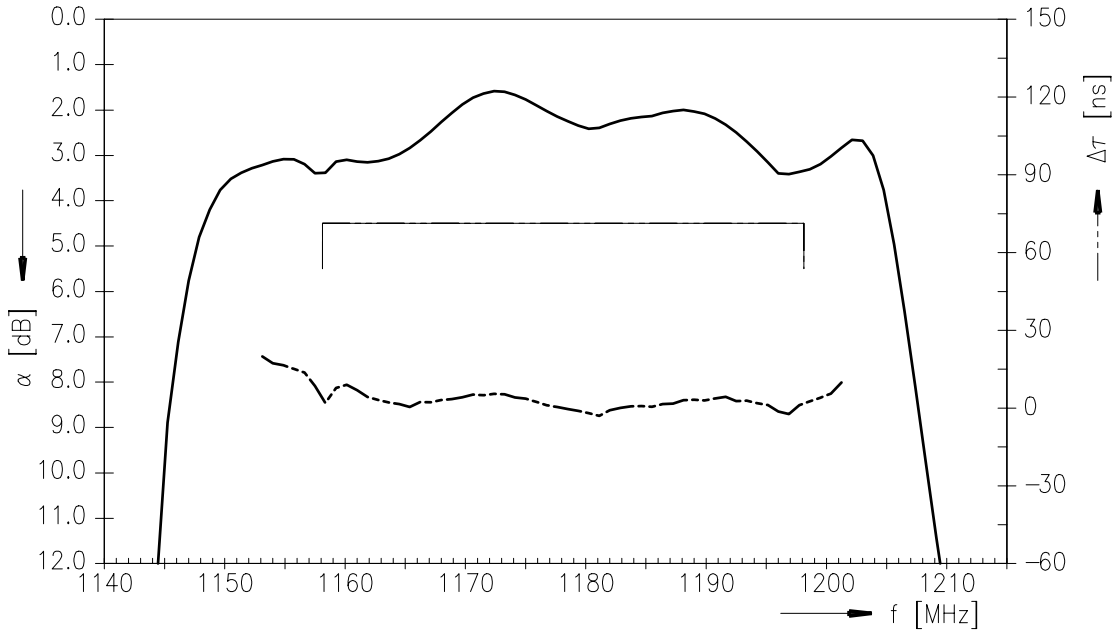
Maximum ratings

Operable temperature range	T	–40/+85	˚C	
Storage temperature range	Tstg	–40/+85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_S	0	dBm	source impedance 150 Ω

Transfer function



Transfer function (passband)



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."

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