



SAW Components

SAW IF filter

Digital satellite radio

Series/type:	B1726
Ordering code:	B39261B1726H810
Date:	February 19, 2010
Version:	2.1

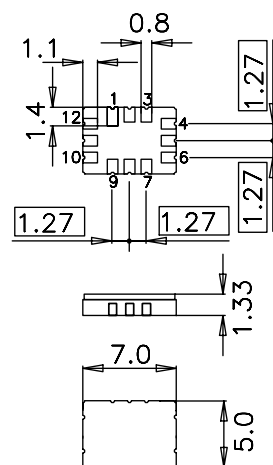
Application

- IF filter for digital satellite radio
- Low insertion attenuation
- Constant group delay
- Unbalanced or balanced operation



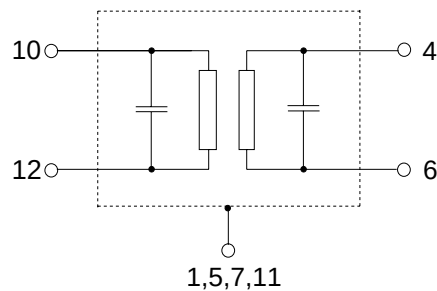
Features

- Package size 7.0 x 5.0 x 1.33 mm³
- Package code QCC12E
- Maximum package height 1.48 mm
- RoHS compatible
- Approximate weight 0.25 g
- Ceramic package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- AEC-Q200 qualified component family
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 10 Input
- 12 Input
- 4 Output
- 6 Output
- 1,5,7,11 Case – ground
- 2,3,8,9 To be grounded





SAW Components	B1726
SAW IF filter	259.86 MHz

Data sheet



Characteristics

Temperature range for specification:	$T = -40\text{ °C} \dots 85\text{ °C}$
Terminating source impedance:	$Z_S = 150\ \Omega$ and matching network
Terminating load impedance:	$Z_L = 150\ \Omega$ and matching network

			min.	typ. @ 25°C	max.	
Nominal frequency	f_N		—	259.86	—	MHz
Minimum insertion attenuation	$\alpha_{\min}$		—	14.5	15.5	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	253.61 ... 266.11 MHz		—	0.8	1.4	dB
	253.61 ... 255.47 MHz		—	0.3	0.8	dB
	255.47 ... 257.33 MHz		—	0.3	0.8	dB
	257.33 ... 259.84 MHz		—	0.3	0.8	dB
	259.89 ... 262.40 MHz		—	0.3	0.8	dB
	262.40 ... 264.25 MHz		—	0.3	0.8	dB
	264.25 ... 266.11 MHz		—	0.7	1.0	dB
Pass bandwidth						
	$\alpha_{\text{rel}} \leq 1.5\text{ dB}$	$B_{1.5\text{dB}}$	12.5	14.1	15.0	MHz
	$\alpha_{\text{rel}} \leq 3\text{ dB}$	$B_{3\text{dB}}$	14.4	14.9	15.4	MHz
	$\alpha_{\text{rel}} \leq 15\text{ dB}$	$B_{15\text{dB}}$	—	17.4	—	MHz
Attenuation (relative to $\alpha_{\min}$)		α_{rel}				
Lower sidelobe						
	230.00 ... $f_N - 12.00\text{ MHz}$		34.0	36.0	—	dB
	$f_N - 12.00 \dots f_N - 10.50\text{ MHz}$		32.0	36.0	—	dB
Upper sidelobe						
	$f_N + 9.00 \dots f_N + 10.30\text{ MHz}$		13.0	16.0	—	dB
	$f_N + 10.30 \dots f_N + 12.00\text{ MHz}$		34.0	36.0	—	dB
	$f_N + 12.00 \dots 290.00\text{ MHz}$		35.0	37.0	—	dB
Group delay ripple (p-p)		$\Delta\tau$				
	$f_N \pm 6.24\text{ MHz}$		—	50	70	ns
Temperature coefficient of frequency	TC_f		—	-18	—	ppm/K



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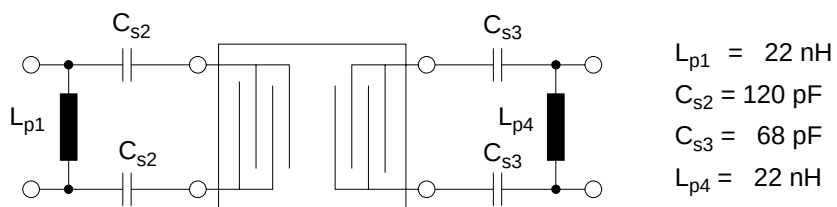
SAW IF filter

259.86 MHz

Data sheet

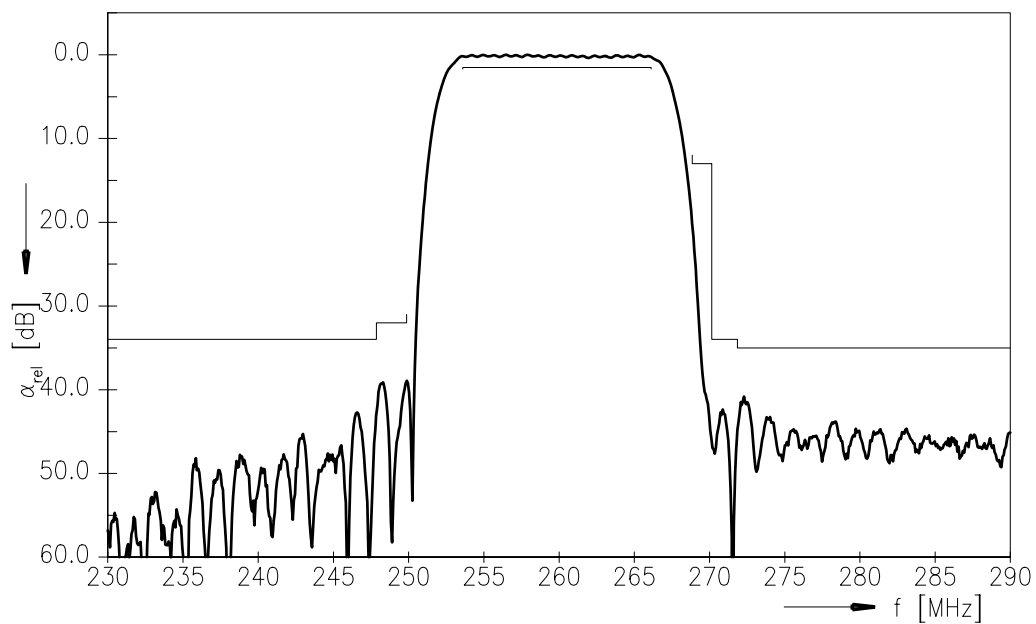
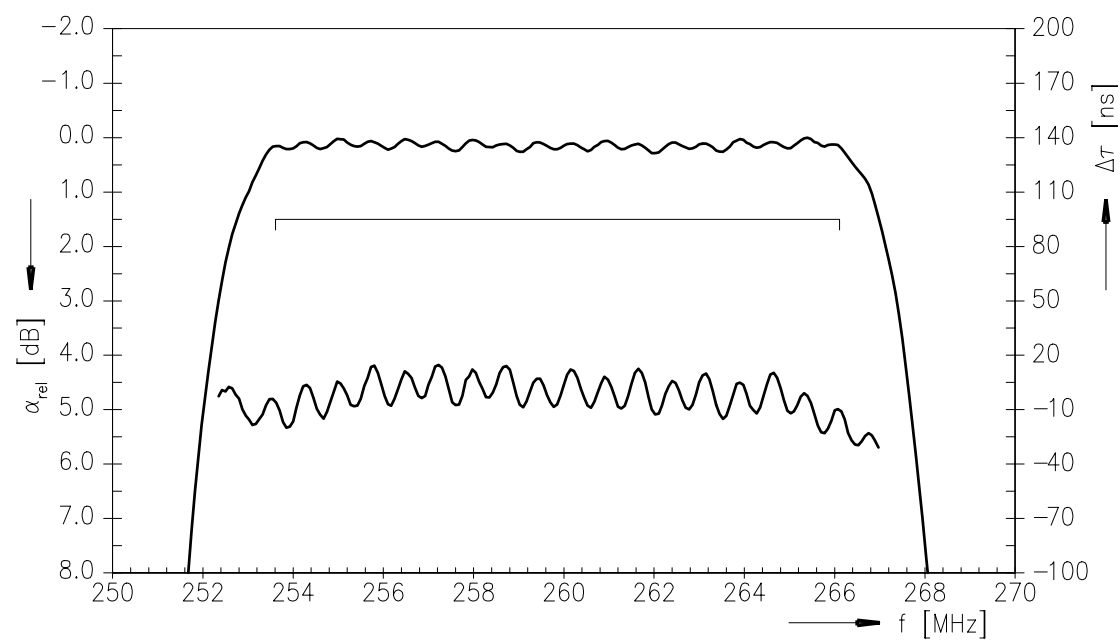


Matching network (based on four port measurement, quality factors $Q_L = 40$, $Q_C = 90$)



Maximum ratings

Operable temperature range	T	-40 / +85	°C	between any terminals
Storage temperature range	T _{stg}	-40 / +85	°C	
DC voltage	V _{DC}	0	V	
Source power	P _S	0	dBm	

Transfer function

Transfer function (passband)




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Data sheet	SMD

References

Type	B1726
Ordering code	B39261B1726H810
Marking and package	C61157-A7-A103
Packaging	F61074-V8170-Z000
Date codes	L_1126
S-parameters	B1726_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 .

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

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