

RF360 Europe GmbH

A Qualcomm – TDK Joint Venture

SAW Components

SAW IF filter

Satellite radio

Series/type:B1726Ordering code:B39261B1726H810

Date:December 20, 2012Version:2.2

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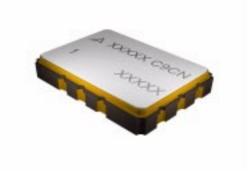
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SAW Components		B1726
SAW IF filter		259.86 MHz
Data sheet	SMD	

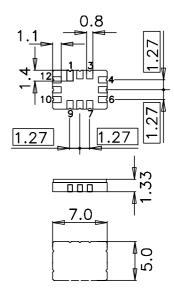
Application

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



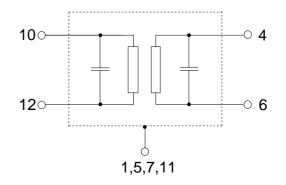
Features

- 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

1 0	Input
■ 12	Input
■ 4	Output
■ 6	Output
1,5,7,11	Case – ground
■ 2,3,8,9	To be grounded



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

SAW Components

SAW IF filter

Data sheet

Characteristics

Temperature range for specification: Terminating source impedance: Terminating load impedance:

 $T = -40 \degree C \dots 85 \degree C$

SMD

 $Z_{\rm S}~=150~\Omega$ and matching network $Z_{\rm L}~=150~\Omega$ and matching network

		min.	typ. @ 25°C	max.	
Nominal frequency	f _N	—	259.86		MHz
Minimum insertion attenuation	$lpha_{min}$	_	14.5	15.5	dB
Amplitude ripple (p-p)	Δα				
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					
$\alpha_{rel} \leq$ 1.5 dB	B _{1.5dB}	12.5	14.1	15.0	MHz
$\alpha_{rel} \leq 3$ dB	B _{3dB}	14.4	14.9	15.4	MHz
α _{rel} ≤15 dB	B _{15dB}		17.4		MHz
Attenuation (relative to α_{min})	$lpha_{ m rel}$				
Lower sidelobe					
230.00 f _N –12.00 MHz		34.0	36.0		dB
f _N –12.00 f _N –10.50 MHz		32.0	36.0		dB
Upper sidelobe		40.0	40.0		
$f_{\rm N}$ + 9.00 $f_{\rm N}$ +10.30 MHz		13.0	16.0		dB
f _N +10.30 f _N +12.00 MHz		34.0	36.0		dB
f _N +12.00 290.00 MHz		35.0	37.0		dB
Group delay ripple (p-p)	Δτ				
$f_{\rm N} \pm 6.24$ MHz		—	50	70	ns
Temperature coefficient of frequency	TC _f	_	-18		ppm/K

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B1726

259.86 MHz

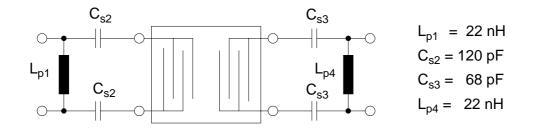


SAW Components	B1726
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Data sheet

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

SMD



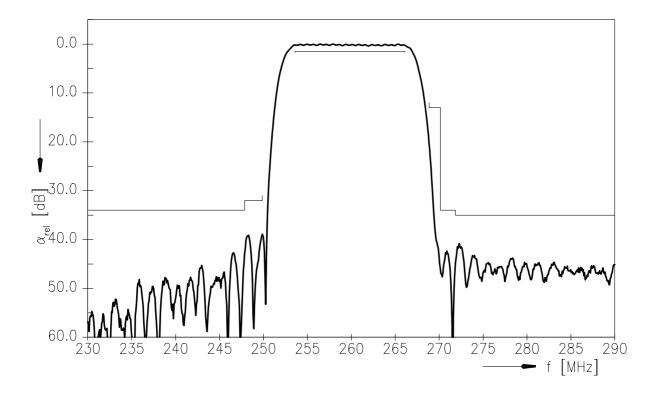
Maximum ratings

Operable temperature range	Т	-40 / +85	°C
Storage temperature range	T _{stg}	-40 / +85	°C
DC voltage	V_{DC}	6	V
Source power	Ps	0	dBm

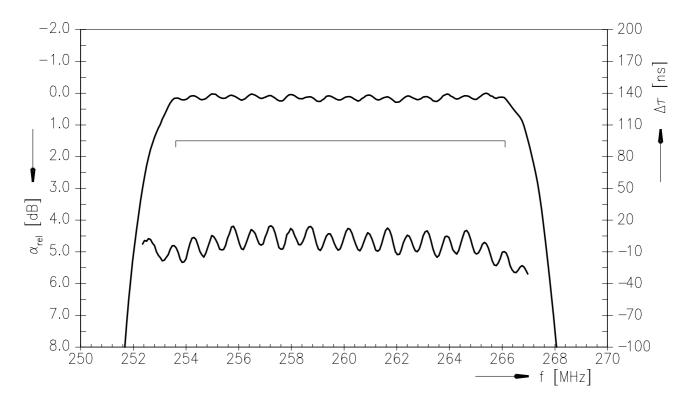
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Data sheet

Transfer function



Transger function (passband)



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SAW Components

SAW IF filter

Data sheet

SMD

References

Туре	B1726
Ordering code	B39261B1726H810
Marking and package	C61157-A7-A103
Packaging	F61074-V8170-Z000
Date codes	L_1126
S-parameters	B1726_NB.s4p See file header for port/pin assignment table.
Soldering profile	S_6001
RoHS compatible	RoHS-compatible means that products are compatible with the requirements according to Art. 4 (substance restrictions) of Directive 2011/65/EU of the European Parliament and of the Council of June 8 th , 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("Directive") with due regard to the application of exemptions as per Annex III of the Directive in certain cases.
Matching coils	See Inductor pdf-catalog <u>http://www.tdk.co.jp/tefe02/coil.htm#aname1</u> and Data Library for circuit simulation <u>http://www.tdk.co.jp/etvcl/index.htm</u> for a large variety of matching coils.

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

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259.86 MHz



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