



SAW Components

SAW filter

Satellite radio

Series/type:	B1647
Ordering code:	B39152-B1647-U510
Date:	May 11, 2010
Version:	2.0

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Datasheet



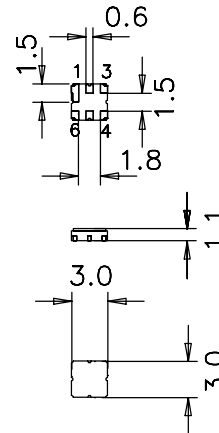
Application

- Low-loss RF filter for satellite radio
- Impedance transformation from 50 Ω to 100 Ω
- Unbalanced to balanced operation
- Usable passband 40 MHz



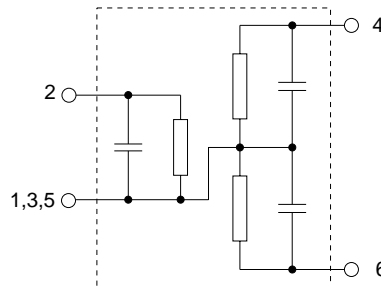
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6D
- Maximum package height of 1.225 mm
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- AEC-Q200 qualified component family
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 2 Input unbalanced
- 4,6 Output balanced
- 1,3,5 To be grounded



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



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1472.00 MHz

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Characteristics

Temperature range for specification: $T = -10\text{ °C to }+70\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 100\ \Omega$ (balanced)

		min.	typ. @ 25 °C	max.	
Nominal frequency	f_N	—	1472.00	—	MHz
Maximum insertion attenuation	α_{max}	—	3.0	3.5	dB
1452.0 ... 1492.0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.7	1.8	dB
1452.0 ... 1492.0 MHz					
Input return loss		10	13	—	dB
Output return loss		9	12	—	dB
Attenuation	α				
880.0 ... 915.0 MHz		47	51	—	dB
1410.0 MHz		30	38	—	dB
1530.0 ... 1570.0 MHz		30	36	—	dB
1575.0 MHz		34	38	—	dB
1710.0 ... 1785.0 MHz		34	38	—	dB
1920.0 ... 1980.0 MHz		34	38	—	dB
2400.0 ... 2500.0 MHz		30	34	—	dB
Group delay ripple (p-p)		—	12	25	ns
1452.0 ... 1492.0 MHz					

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Maximum ratings

Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	4	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 1 pulse
Input power at 1452 MHz ... 1492 MHz	P _{IN}	0	dBm	source impedance 50 Ω

¹⁾ acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.

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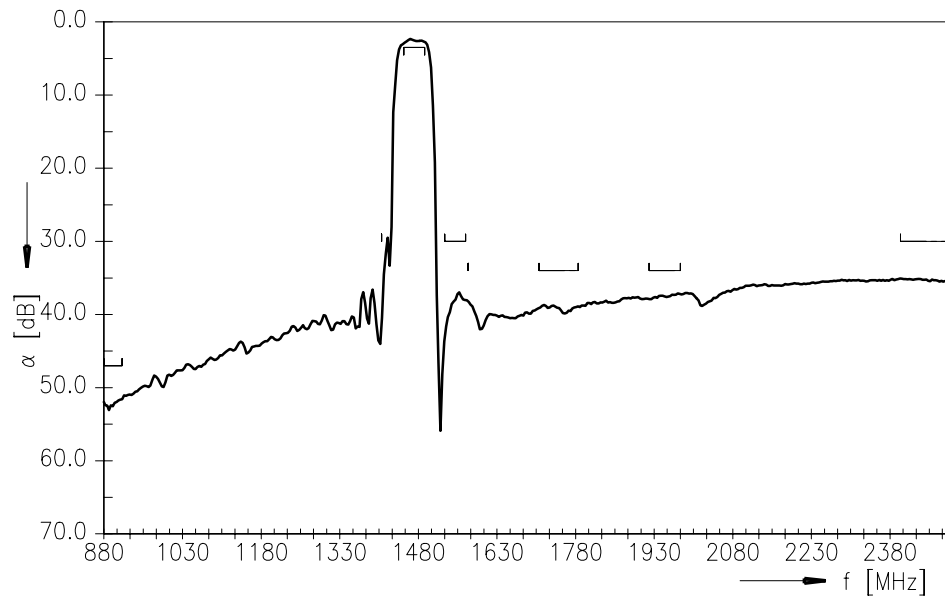
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1472.00 MHz

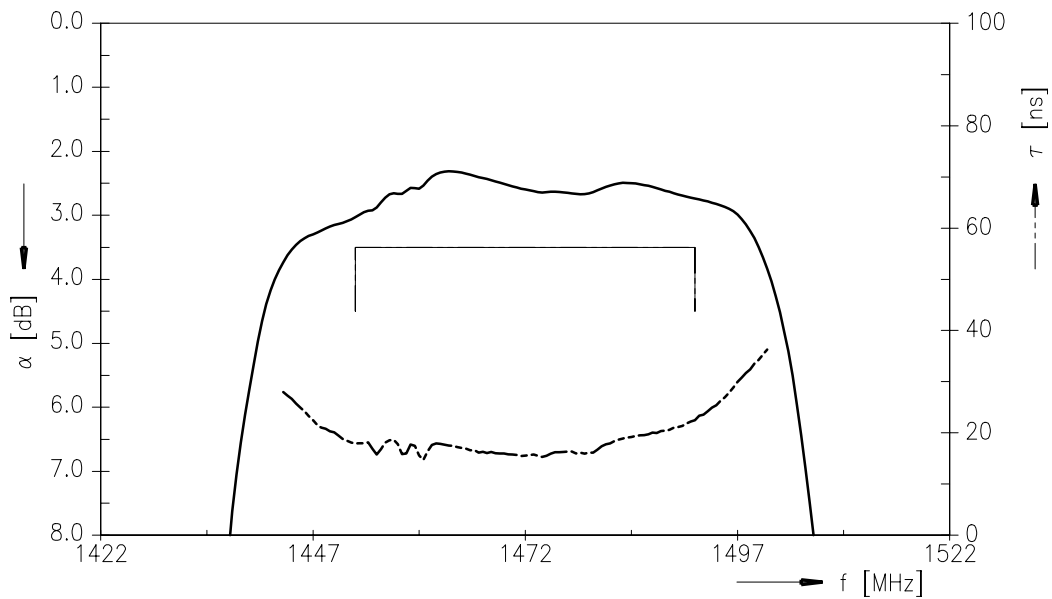
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Transfer function (wideband)



Transfer function (narrowband)



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SAW filter **1472.00 MHz**

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References

Type	B1647
Ordering code	B39152-B1647-U510
Marking and package	C61157-A7-A68
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B1647_NB.s3p B1647_WB.s3p See file header for port/pin assignment table.
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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