

# **SAW Components**

SAW RF filter

Series/type: Ordering code:

B3528 B39162B3528U510

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# **SAW Components**

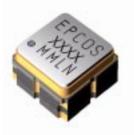
# **SAW RF filter**

**Data sheet** 

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## Application

- Low-loss RF filter for GPS applications
- Impedance transformation from 50  $\Omega$  to 100  $\Omega$
- Unbalanced to balanced operation
- Very low insertion attenuation
- Low amplitude ripple
- Usable passband 2.0 MHz



**B3528** 

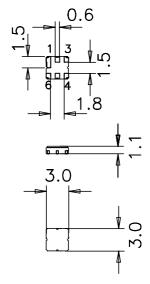
1575.42 MHz

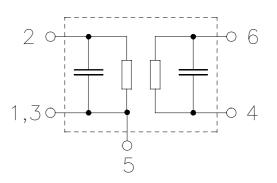
## **Features**

- Package size 3.0 x 3.0 x 1.1 mm<sup>3</sup>
- Package code DCC6D
- RoHS compatible
- Approximate weight 0.037 g
- Package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Lead free soldering compatible with J STD20C
- AEC-Q200 qualified component family
- Electrostatic Sensitive Device (ESD)



- 2 Input unbalanced
- 4.6 Output balanced
- Case ground (to be grounded) ■ 1,3,5





2



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# SAW Components

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#### **Characteristics**

Temperature range for specification:	T = $-40$ °C to $+85$ °C
Terminating source impedance:	$Z_{S} = 50 \Omega$
Terminating load impedance:	$Z_{L} = 100 \Omega$ (balanced)

			min.	typ. @ 25 °C	max.	
Center frequ	iency	f <sub>C</sub>		1575.42	_	MHz
Maximum insertion attenuation		$\alpha_{max}$				
	1574.42 1576.42 MHz			1.2	1.9	dB
Amplitude ripple (p-p)		Δα				
	1574.42 1576.42 MHz			0.2	0.6	dB
VSWR						
Input	1574.42 1576.42 MHz	:		1.3	1.7	
Output	1574.42 1576.42 MHz		_	1.3	1.7	
Attenuation		α				
	100.0 960.0 MHz		50	60	_	dB
	960.0 1475.0 MHz		45	52	—	dB
	1475.0 1515.0 MHz		36	43	—	dB
	1515.0 1525.42 MHz		25	36	_	dB
	1625.0 1635.0 MHz		25	36	_	dB
	1635.0 1675.0 MHz		36	45	_	dB
	1675.0 1850.0 MHz		45	55		dB
	1850.0 2400.0 MHz		40	45	—	dB

# B3528

1575.42 MHz

3



B3528

1575.42 MHz

SAW Components

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# **Maximum ratings**

Operable temperature range	Т	-45/+125	°C	
Storage temperature range	T <sub>stg</sub>	-45/+125	°C	
DC voltage	V <sub>DC</sub>	3	V	
ESD voltage	$V_{ESD}$	50 <sup>1)</sup>	V	machine model, 10 pulses
Input power at				source 50 $\Omega$ , load100 $\Omega$
1574.42 1576.42 MHz	P <sub>IN</sub>	5	dBm	cw
2400 2483.5 MHz	P <sub>IN</sub>	20	dBm	cw
824960, 17102170 MHz	P <sub>IN</sub>	25	dBm	cw
9601525 MHz	P <sub>IN</sub>	10	dBm	cw

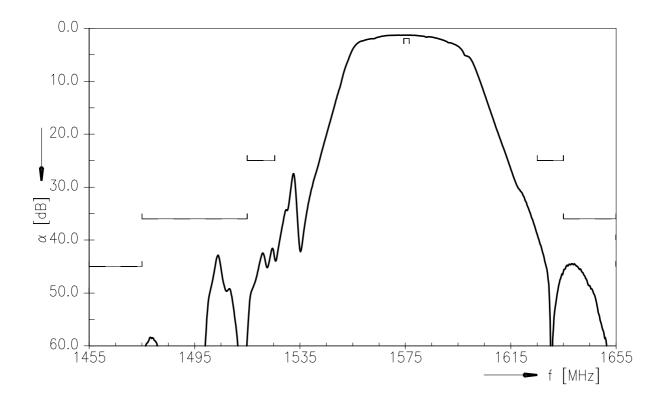
<sup>1)</sup> acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.

4

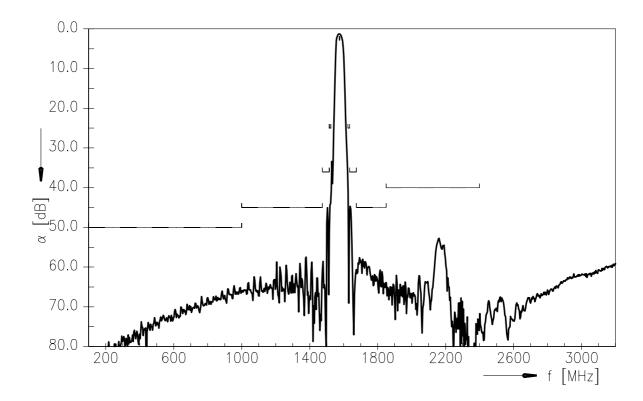
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## Transfer function



## Transfer function (wideband)





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#### References

Туре	B3528
Ordering code	B39162B3528U510
Marking and package	C61157-A7-A68
Packaging	F61074-V8228-Z000
Date codes	L_1126
S-parameters	B3528_NB.s3p, B3528_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 maxi- mum concentration values for certain hazardous substances in electrical and electronic equipment."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
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 further information please contact your local EPCOS sales office or visit our webpage at <a href="http://www.epcos.com">www.epcos.com</a>.

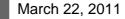
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6



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1575.42 MHz

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