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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









Data Sheet B3520





#### Low Loss Filter for Automotive Telematics

1575,42 MHz

**Data Sheet** 

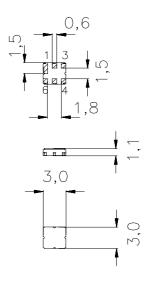
#### **Features**

- RF low-loss filter for GPS application
- Package for Surface Mounted Technology (SMT)
- Hermetically sealed ceramic package
- $\blacksquare$  No matching network required for operation at 50  $\Omega$
- Extended temperature range for automotive application

#### **Terminals**

■ Ni, gold plated

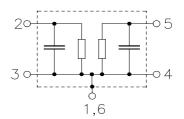
#### Ceramic package DCC6C



Dimensions in mm, approx. weight 0,1 g

# Pin configuration

2 Input 5 Output 1,3,4,6 Ground



Туре	Ordering code	Marking and Package according to	Packing according to		
B3520	B39162-B3520-U410	C61157-A7-A56	F61074-V8070-Z000		

Electrostatic Sensitive Device (ESD)

#### **Maximum ratings**

Operable temperature range	$T_{A}$	-40/+105	°C	
Storage temperature range	$T_{\rm stg}$	-40/+105	°C	
DC voltage	$V_{\rm DC}$	0	V	
Source power	$P_{S}$	0	dBm	source impedance 50 $\Omega$



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#### **Characteristics**

Reference temperature:  $T_{\rm A} = -40 \dots +85 \,^{\circ}{\rm C}$ Terminating source impedance:  $Z_{\rm S} = 50 \,\Omega$ Terminating load impedance:  $Z_{\rm L} = 50 \,\Omega$ 

		min.	typ.	max.	
Center frequency	$f_{\rm C}$	_	1575,42	_	MHz
Maximum insertion attenuation					
1574,221576,62 MHz	$\alpha_{\text{max}}$	_	1,3	1,8	dB
Amplitude ripple (p-p)	Δα				
1574,221576,62 MHz		_	0,1	1,0	dB
Relative attenuation (relative to $\alpha_{\text{max}}$ )	$\alpha_{\text{rel}}$				
100,001450,00 MHz		40	44	_	dB
1450,001520,00 MHz		30	34	_	dB
1640,001710,00 MHz		25	30	_	dB
1710,001750,00 MHz		35	43	_	dB
1750,001910,00 MHz		42	44	_	dB
1910,002000,00 MHz		40	45	_	dB
Temperature coefficient of frequency	TC <sub>f</sub>	_	-30	<u> </u>	ppm/K



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#### **Characteristics**

Reference temperature:

 $T_{A} = -40 \dots +105 \,^{\circ} \text{C}$   $Z_{S} = 50 \,\Omega$   $Z_{L} = 50 \,\Omega$ Terminating source impedance: Terminating load impedance:

		min.	typ.	max.	
Center frequency	$f_{C}$	_	1575,42	_	MHz
Maximum insertion attenuation					
1574,221576,62 MHz	$\alpha_{\text{max}}$	_	1,3	2,0	dB
Amplitude ripple (p-p)					
1574,221576,62 MHz		_	0,1	1,0	dB
Relative attenuation (relative to $\alpha_{max}$ )					
100,001450,00 MHz		40	44	_	dB
1450,001520,00 MHz		30	34	_	dB
1640,001710,00 MHz		25	30	_	dB
1710,001750,00 MHz		35	43	_	dB
1750,001910,00 MHz		42	44	_	dB
1910,002000,00 MHz		40	45		dB
Temperature coefficient of frequency	$TC_{f}$	_	-30	<del></del>	ppm/K



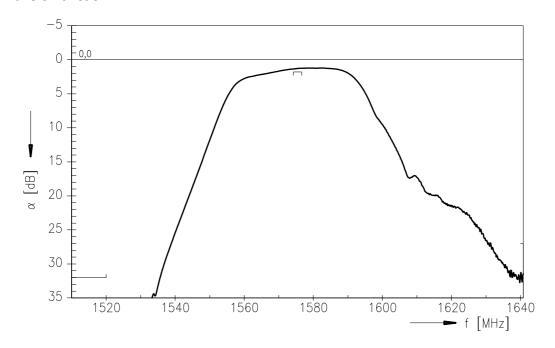
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**Low Loss Filter for Automotive Telematics** 

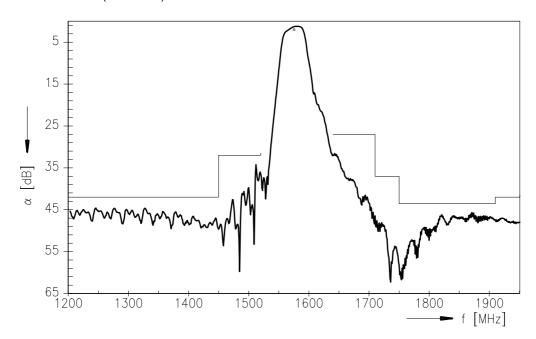
1575,42 MHz

**Data Sheet** 

#### **Transfer function**



# Transfer function (wideband)





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**Data Sheet** 

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