



SAW Components

SAW GPS Filter

Series/Type:	B7763
Ordering code:	B39162B7763C811
Date:	Jul 13, 2007
Version:	2.0

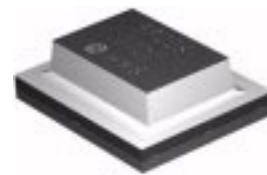


Data Sheet



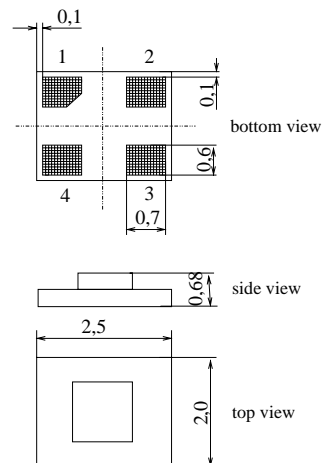
Application

- Low-loss RF filter GPS filter
- Very low insertion attenuation
- Very low amplitude ripple
- Usable passband 2 MHz
- No matching network required for operation at 50 Ω



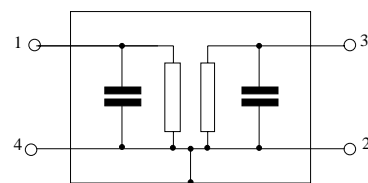
Features

- Package size 2.5 x 2.0 x 0.68 mm³
- Package code DCS4D
- RoHS compliant
- Approx. weight 0.015 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 1 Input
- 3 Output
- 2,4 To be grounded





SAW Components	B7763
Low-Loss Filter for Mobile Communication	1575.42 MHz

Data Sheet



Characteristics

Operating temperature range: $T = -30 \text{ to } +70 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50\Omega$
 Terminating load impedance: $Z_L = 50\Omega$

		B7763			
		min.	typ. @ 25°C	max.	
Center frequency	f_C	—	1575.42	—	MHz
Maximum insertion attenuation	α_{\max}				
1574.42 ... 1576.42 MHz		—	0.95 ¹⁾	1.3	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1574.42 ... 1576.42 MHz		—	0.1	0.5	dB
Group delay ripple (p-p)	$\Delta\tau$				
1574.42 ... 1576.42 MHz		—	2	50	ns
Return loss (Input and Output)					
1574.42 ... 1576.42 MHz		12	20	—	
Attenuation	α				
806.0 ... 902.0 MHz		50	54	—	dB
1612.0 ... 1710.0 MHz		15 ²⁾	19	—	dB
1710.0 ... 1880.0 MHz		20	28	—	dB
1880.0 ... 4000.0 MHz		15	21	—	dB

1) PCB loss de-embedded

2) Only at room temperature 25°C



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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}	5	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 10 pulses
Input Power at	P _{IN}	0	dBm	cw

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



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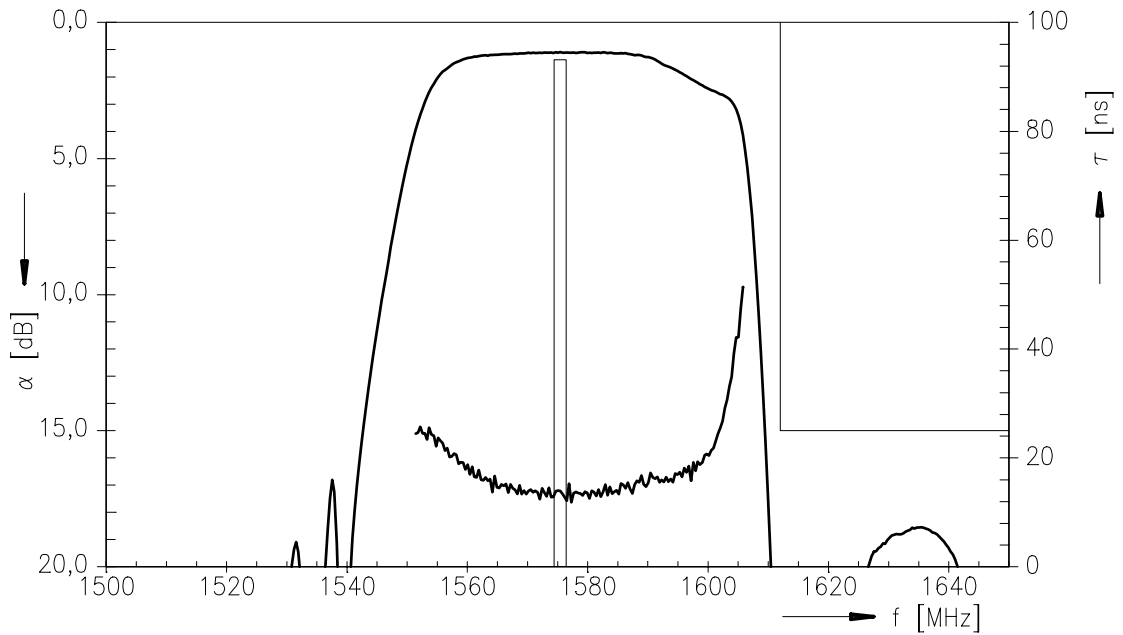
Low-Loss Filter for Mobile Communication

1575.42 MHz

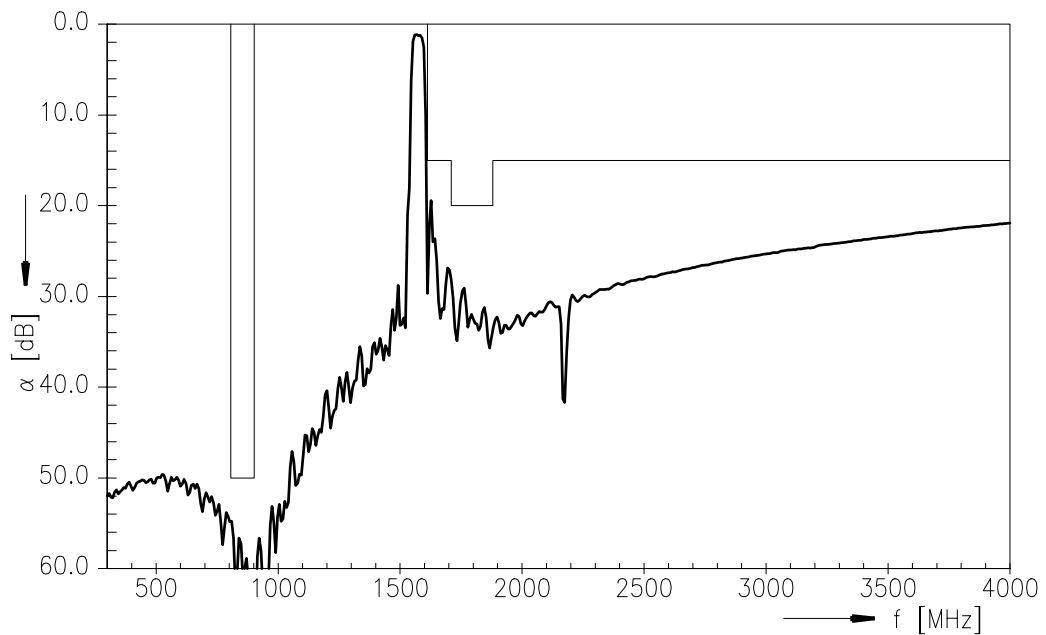
Data Sheet



Transfer function (passband)



Transfer function



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

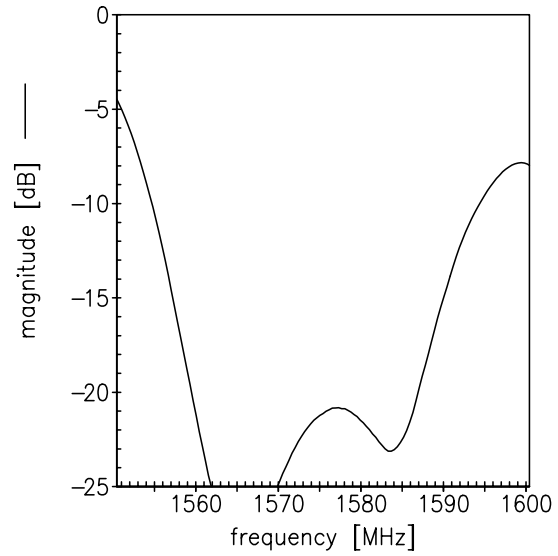
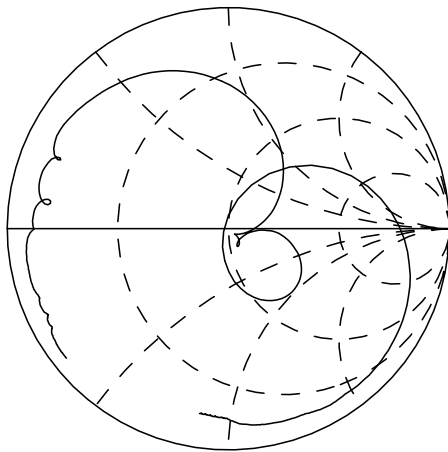


Data Sheet

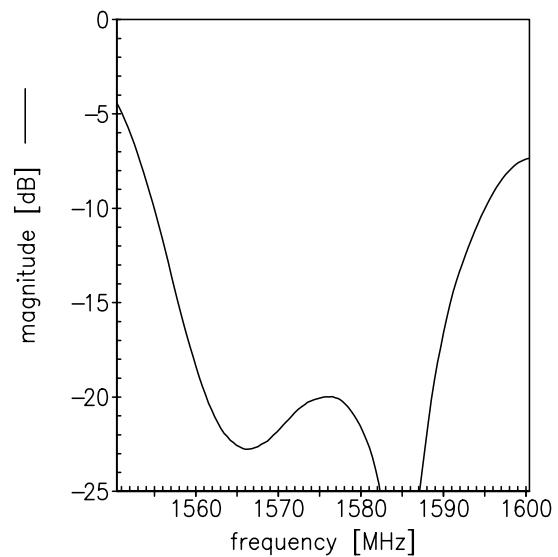
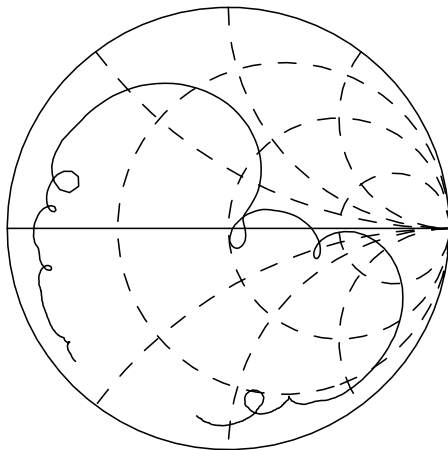


Smith chart / Return loss

S_{11} function



S_{22} function





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Type	B7763	
Ordering code	B39162B7763C811	
Marking and Package	C61157-A7-A118	
Packaging	F61074-V8153-Z000	
Date Codes	L_1126	
S-Parameters	B7763_NB.s2p B7763_WB.s2p	
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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Please read *cautions and warnings and important notes* at the end of this document.



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