SAW Components

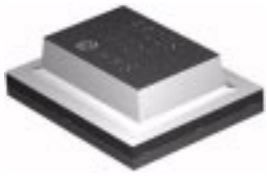
SAW GPS Filter

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

EPCOS

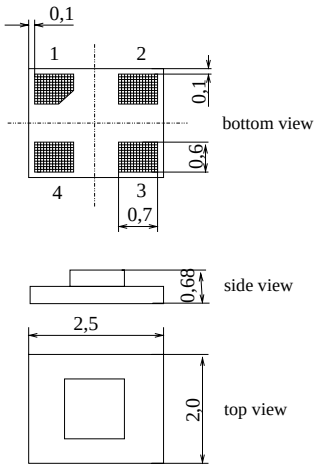
Application

- 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



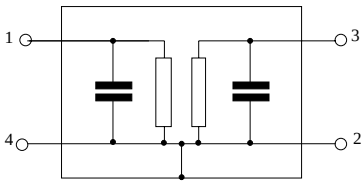
Features

- Package size 2.5 x2.0 x 0.68 mm³
- Package code DCS4D
- RoHS compliant
- Approx. weight 0.015 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)



Pin configuration

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



Characteristics

Operating temperature range: T = -30 to +70 ˚C
Terminating source impedance: Z_S = 50Ω
Terminating load impedance: Z_L = 50Ω

		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)					
1574.42 ... 1576.42 MHz	$\Delta\tau$	—	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

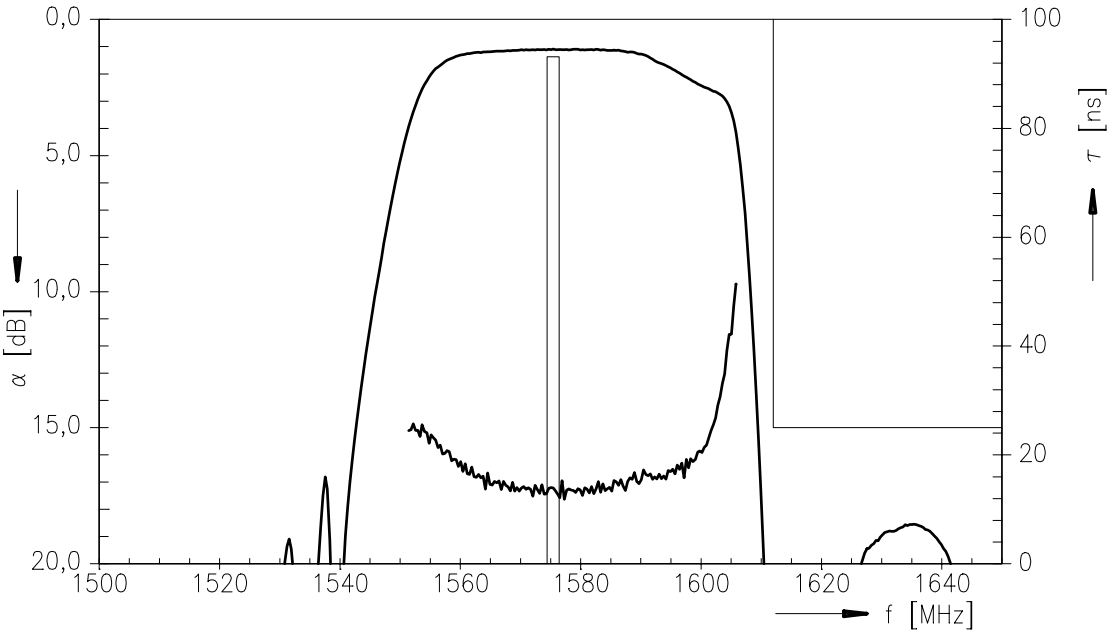
[2] Only at room temperature 25˚C

Maximum ratings

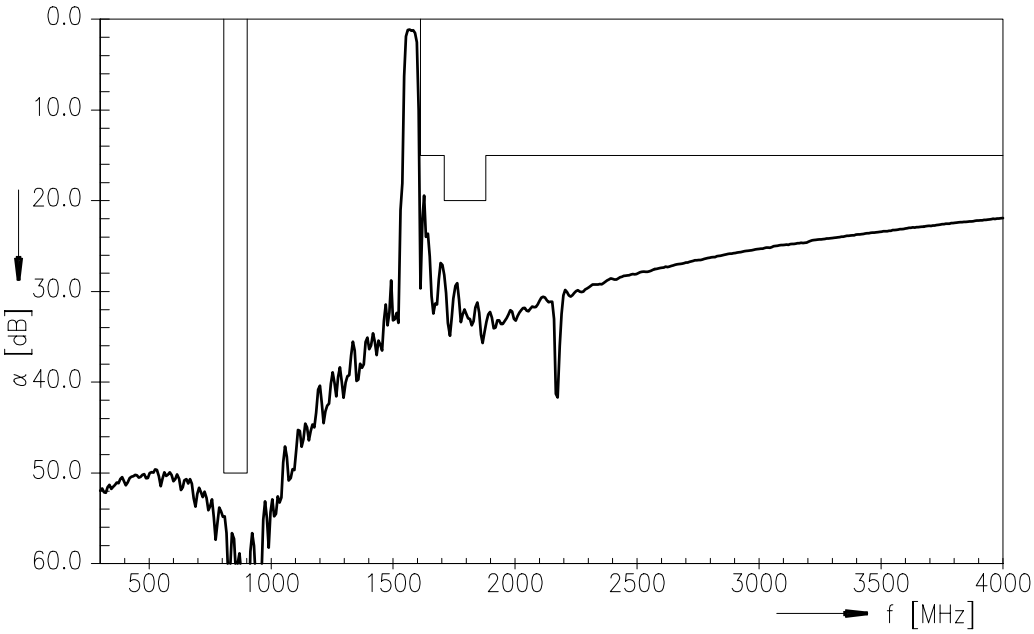
Operable temperature range	T	-40/+85	˚C	
Storage temperature range	T_{stg}	-40/+85	˚C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	50 [1)]	V	machine model, 10 pulses
Input Power at	P_{IN}	0	dBm	cw

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

Transfer function (passband)

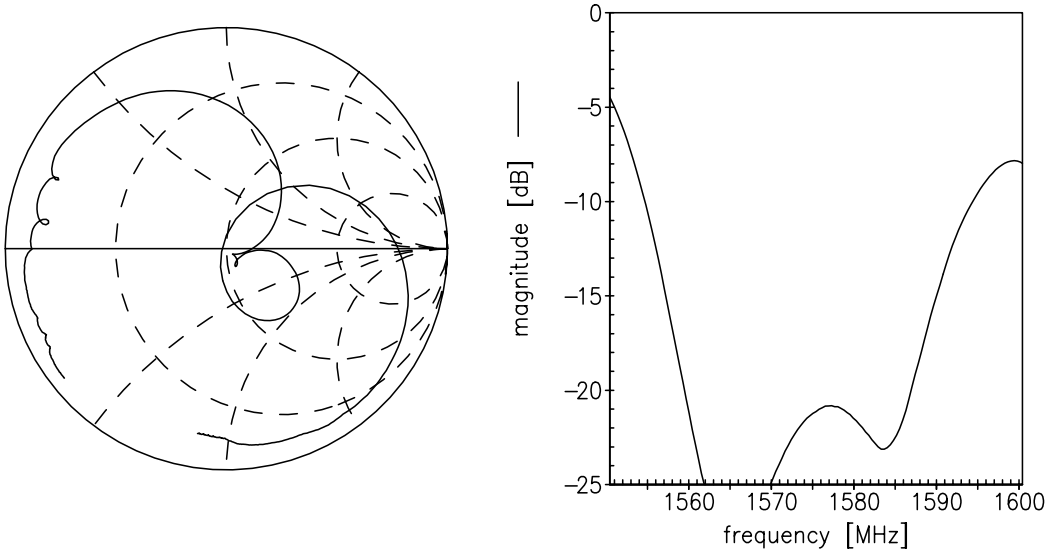


Transfer function

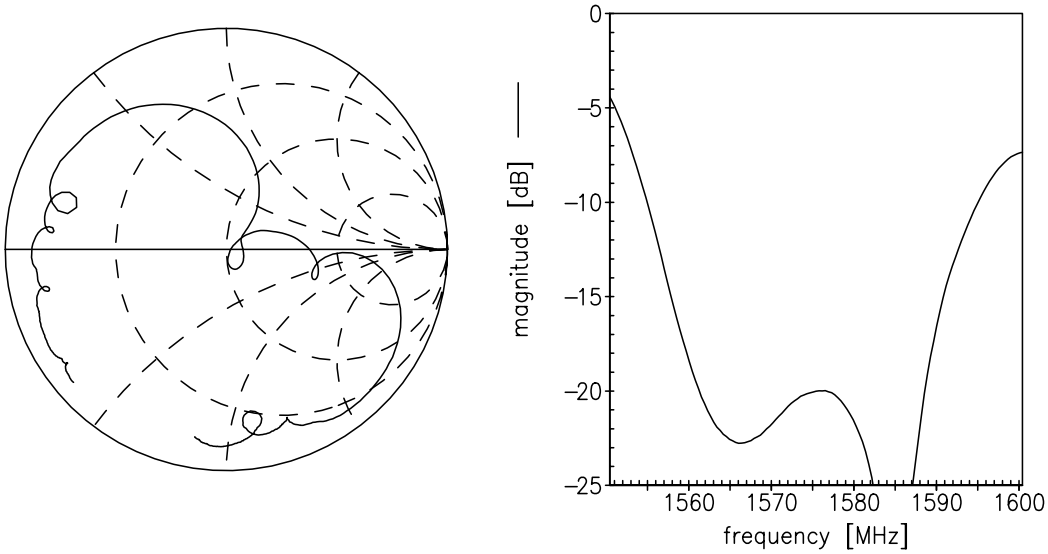


Smith chart / Return loss

S_{11} function



S_{22} function



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."	

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