SAW Components

SAW band–stop filter

ISDB–T

Series/type: **LP62A**
Ordering code:

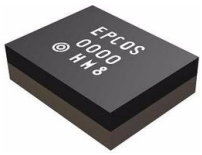
Date: June 14, 2006
Version: 1.1

Preliminary data

SMD

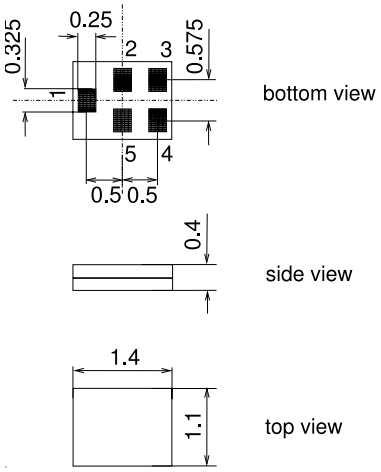
Application

- Low-loss RF band-stop filter for ISDB-T
- Low amplitude ripple
- Low group delay ripple
- Usable passband 300 MHz



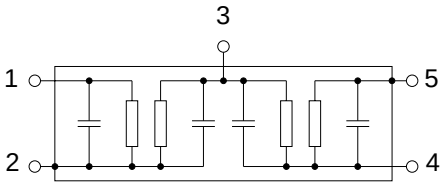
Features

- Package size 1.4 x1.1 x 0.4 mm^3
- Maximum height of 0.45 mm
- Package code QCS5I
- RoHS compatible
- Approximate weight 0.003 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 unbalanced
- 4 Output unbalanced
- 3 External coupling coil
- 2,5 Case ground



Preliminary data

SMD

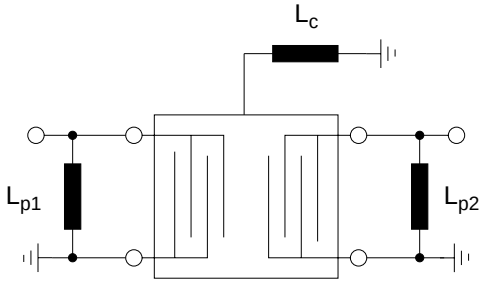
Characteristics

Temperature range for specification: T = –30 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50 Ω and matching network
Terminating load impedance: Z_L = 50 Ω and matching network

		LP62A[1)]			
		min.	**typ. @ 25 ˚C**	**max.**	
Nominal frequency	f_N	—	620.00	—	MHz
Minimum insertion attenuation	α_{max}				
470.00 ... 707.00 MHz		—	0.7	0.9	dB
470.00 ... 770.00 MHz		—	0.7	0.9	dB
Maximum insertion attenuation	α_{max}				
470.00 ... 707.00 MHz		—	1.0	1.3	dB
470.00 ... 770.00 MHz		—	1.1	1.5	dB
Attenuation	α				
200.00 MHz		40.0	42.0		dB
830.00 ... 840.00 MHz		40.0	45.0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
470.00 ... 707.00 MHz		—	3	—	ns
470.00 ... 770.00 MHz		—	4	—	ns

1) Values in columns min, typ and max indicate the development status of the current version.

Matching network (element values depend on PCB layout)



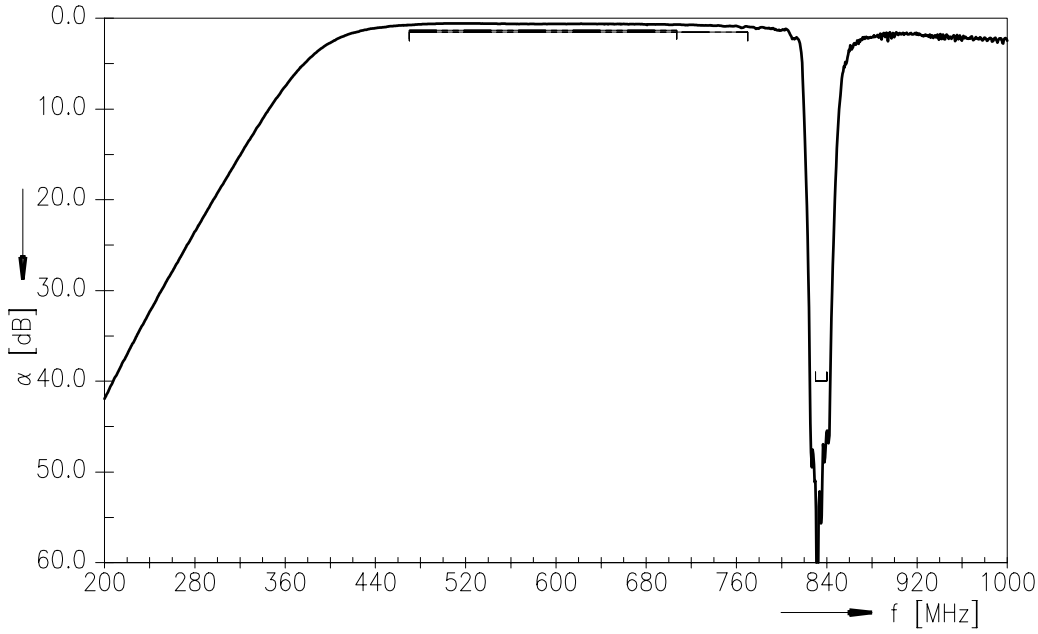
L_{p1} = 18 nH
L_{p2} = 10 nH
L_c = 5.6 nH

Maximum ratings

Operable temperature range	T	–30/+85	°C	
Storage temperature range	T_{stg}	–40/+85	°C	
DC voltage	V_{DC}	3	V	
ESD voltage	V_{ESD}	100[1)]	V	machine model, 10 pulses
Source power at				
830.0 ... 840.0 MHz	P_S	24	dBm	peak power of W–CDMA signal

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

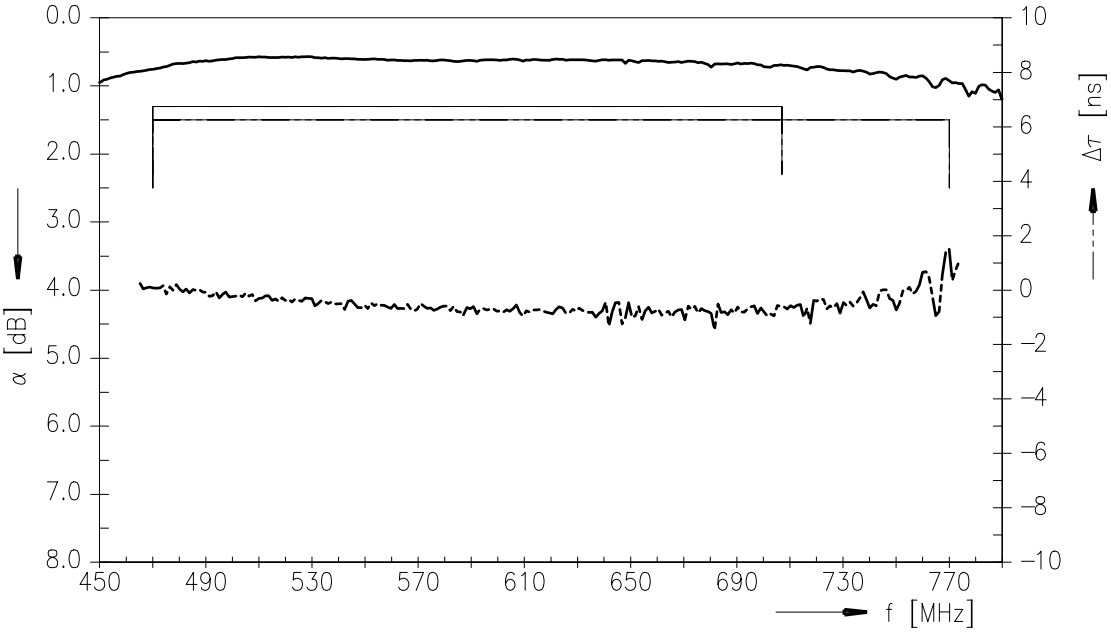
Transfer function



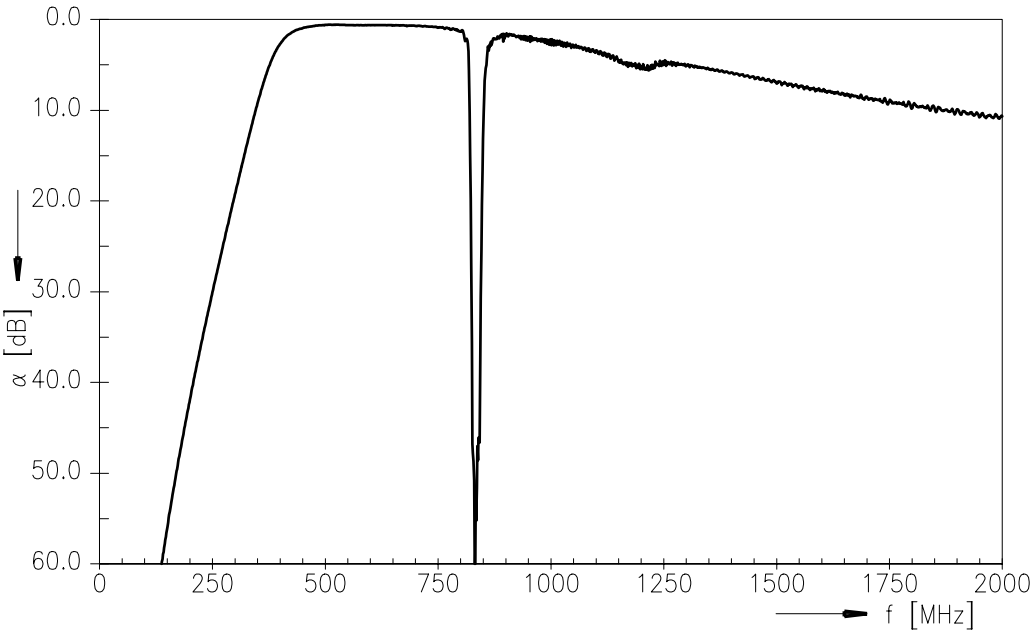
Preliminary data

SMD

Transfer function (pass band)



Transfer function (wide band)



References

Type	LP62A
Ordering code	
Marking and package	C61157-A8-A3
Packaging	F61074-V8212-Z000
Date codes	L_1126
S-parameters	LP62A_WB_UN.s3p
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."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.

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