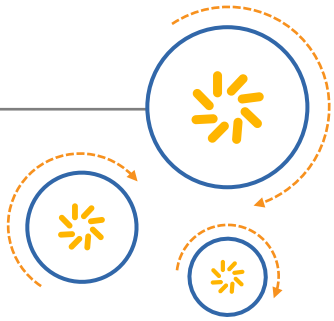
RF360 Europe GmbH

A Qualcomm – TDK Joint Venture



SAW Components

SAW IF filter

Basestation

Series/type:	B5235
Ordering code:	B39141B5235Z810
Date:	Sep 23, 2011
Version:	2.0

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SAW Components

SAW IF filter

Basestation

Series/type:	**B5235**
Ordering code:	**B39141B5235Z810**
Date:	Sep 23, 2011
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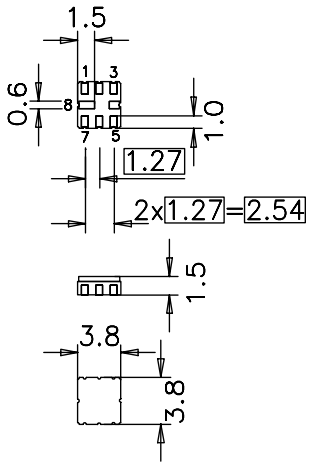
Application

- Low-loss IF filter for basestation
- Usable passband 40 MHz

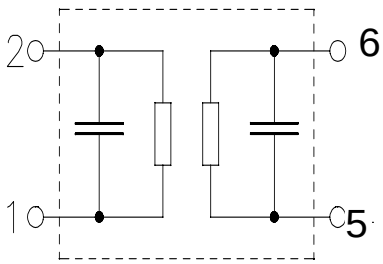
Features

- Package size 3.8 x 3.8 x 1.5 mm³
- Package code QCC8B
- RoHS compatible
- Approx. weight 0.07g
- Ceramic package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- Filter Surface Passivated
- Moisture Sensitive Level 1



Pin configuration

1	Input
2	Input ground or return
5	Output
6	Output ground or return
3,4, 7,8	Package ground

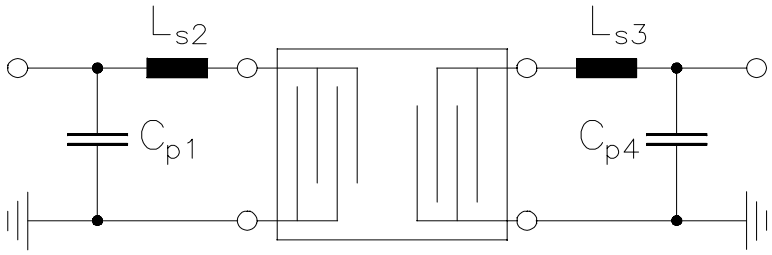


Characteristics

Operating temperature range: T = –40 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50 Ω and matching network
Terminating load impedance: Z_L = 50 Ω and matching network

		min.	typ. @ 25 ˚C	max.	
Nominal frequency	f_N	—	140.0	—	MHz
Minimum insertion attenuation (including matching network)	α_{min}	—	10.8	12.5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
$f_N \pm 20$ MHz		—	2.0	2.5	dB
Group delay ripple (p-p)	$\Delta\tau$				
$f_N \pm 20$ MHz		—	77	100	ns
Absolute group delay					
$f_N \pm 20$ MHz	τ	—	0.27	0.5	µs
Absolute attenuation	α_{abs}				
From 10 MHz to 80 MHz		57.0	62.0	—	dB
From 80 MHz to 110 MHz		50.0	54.0	—	dB
From 110 MHz to 115 MHz		23.0	45.0	—	dB
From 170 MHz to 180 MHz		40.0	43.0	—	dB
From 180 MHz to 200 MHz		47.0	50.0	—	dB
From 200 MHz to 1 GHz		60.0	65.0	—	dB
Return loss, input $f_N \pm 20$ MHz		4.0	7.0	—	dB
Return loss, output $f_N \pm 20$ MHz		4.0	6.0	—	dB
Temperature coefficient of frequency	TC_f		-75		ppm/K

Matching network to 50 Ω single ended / 50 Ω single ended

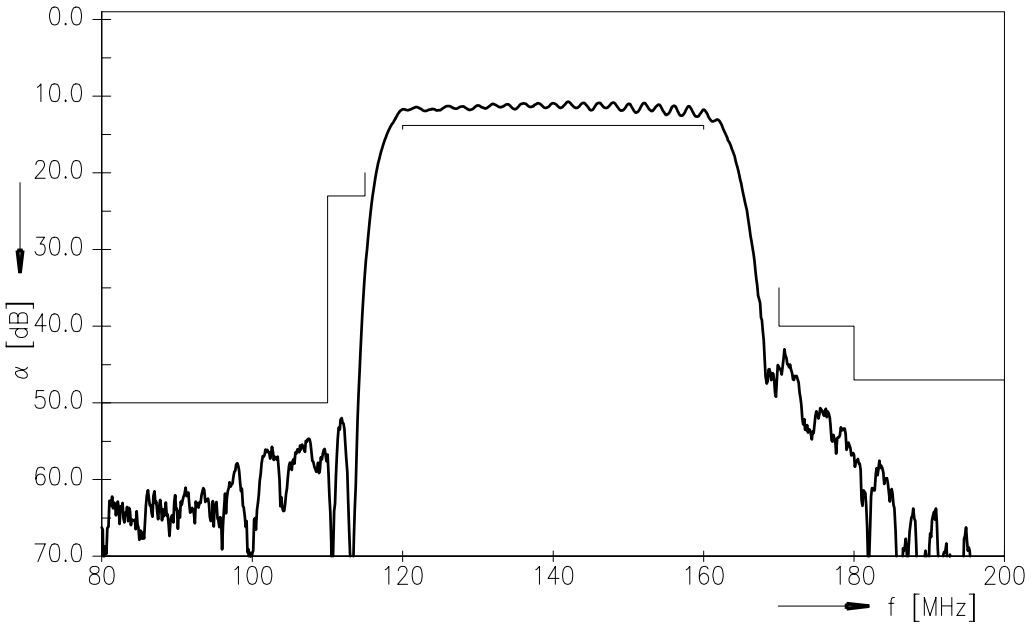


C_{p1} = 22 pF
L_{s2} = 110 nH
C_{p4} = 22 pF
L_{s3} = 110 nH

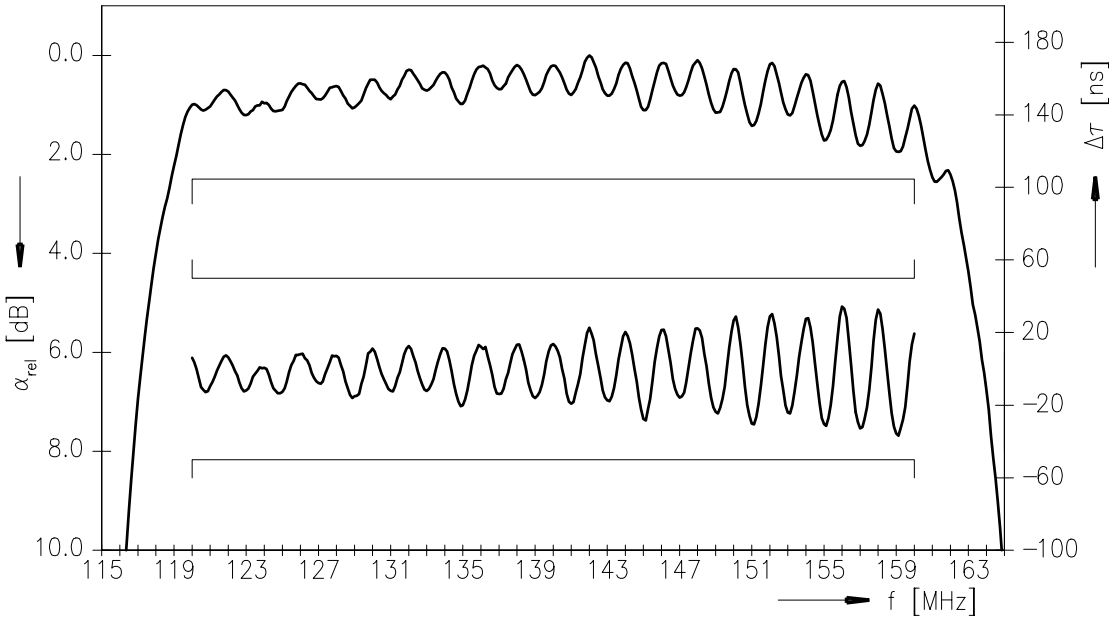
Maximum ratings

Operable temperature range	T	–40/+85	°C	
Storage temperature range	T_{sta}	–40/+85	°C	
DC voltage	V_{DC}	0	V	
Input power	P_{IN}	20	dBm	

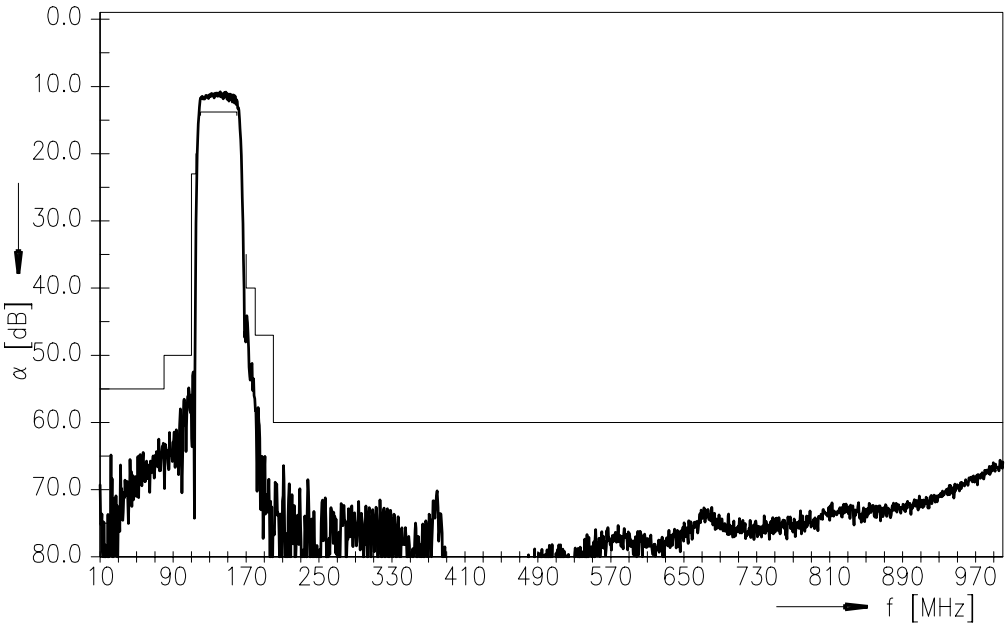
Transfer function



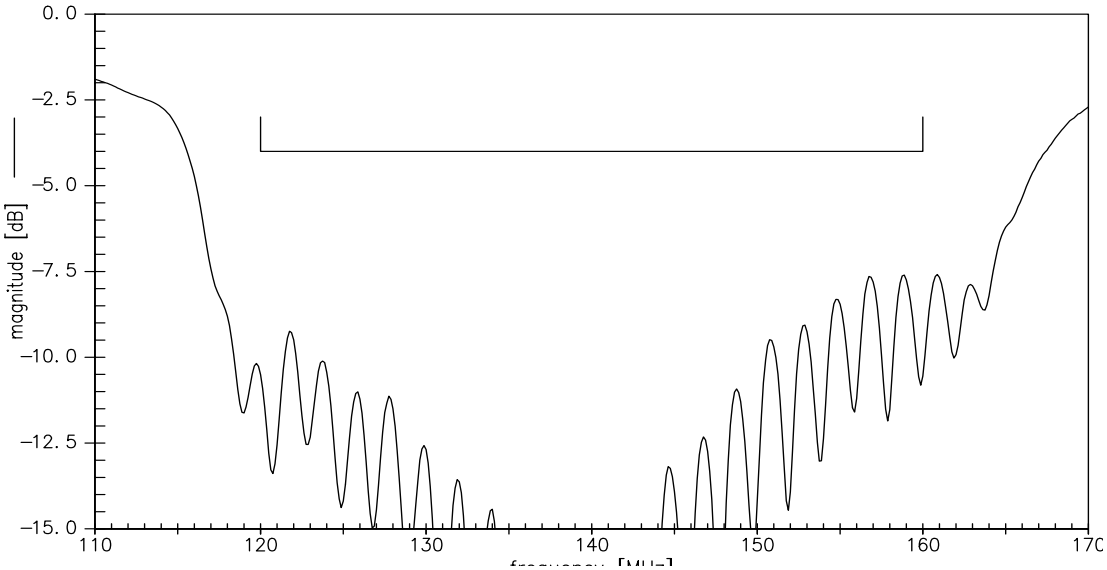
Transfer function (Passband)



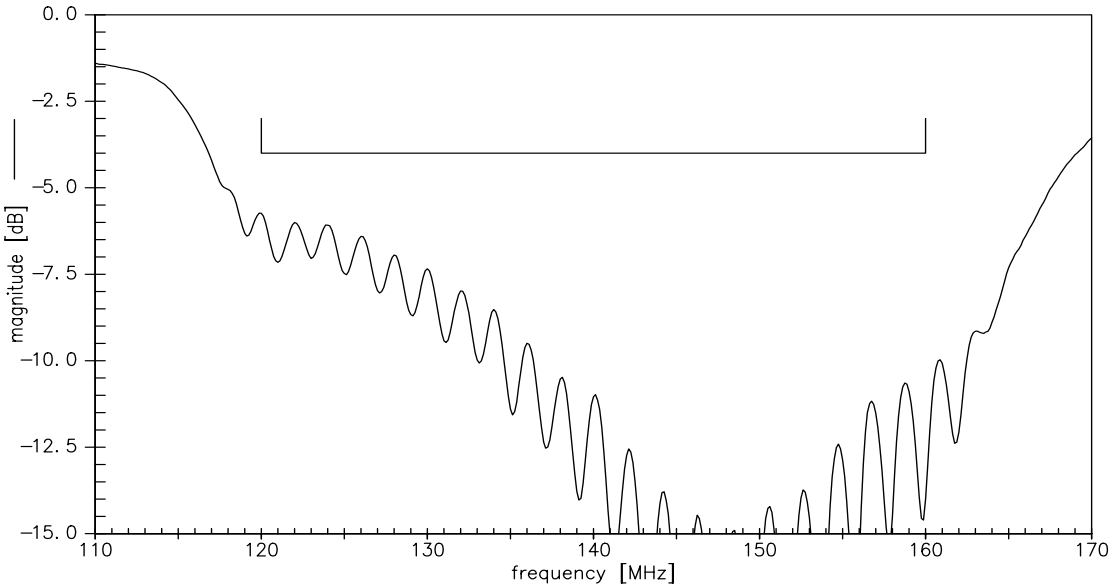
Transfer function (Wide band plot)



Input return loss



Output return loss



References

Type	B5235
Ordering code	B39141B5235Z810
Marking and package	C61157-A7-A46
Packaging	F61074-V8229-Z000
Date codes	L_1126
S-parameters	B5235_NB.S2P, B5235_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."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
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