SAW Components

SAW RF filter

WLAN

Series/type:	**B9429**
Ordering code:	**B39252B9429K610**
Date:	October 31, 2007
Version:	2.1

Preliminary data

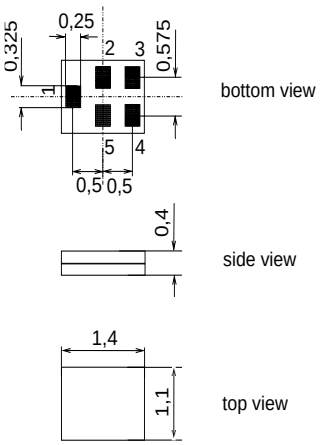
SMD

Application

- Low-loss RF filter for WLAN
- Unbalanced to balanced operation
- Low insertion attenuation
- Usable passband 100 MHz

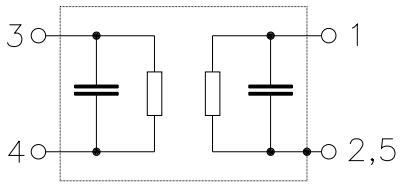
eatures

- Package size 1.4 x1.1 x 0.4 mm³
- Package code QCS5F
- 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 Unbalanced input
- 3,4 Balanced output
- 2,5 To be grounded



Preliminary data

SMD

Characteristics

Operating temperature range: T = +25 °C
Terminating source impedance: Z_S = 50Ω – 2.0 nH
Terminating load impedance: Z_L = 180Ω || 9.5 nH

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	2450.0	—	MHz
Maximum insertion attenuation	α_{max}				
2400.0 ... 2500.0 MHz		—	2.4	2.9 [1]	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
2400.0 ... 2500.0 MHz		—	0.7	1.5	dB
Input VSWR					
2400.0 ... 2500.0 MHz		—	1.7	2.0	
Output VSWR					
2400.0 ... 2500.0 MHz		—	1.7	2.0	
Attenuation	α				
100.0 ... 960.0 MHz		55	59	—	dB
960.0 ... 1800.0 MHz		40	44	—	dB
1800.0 ... 2100.0 MHz		40	44	—	dB
2100.0 ... 2170.0 MHz		40	44	—	dB
2170.0 ... 2250.0 MHz		20	44	—	dB
2650.0 ... 2800.0 MHz		20	31	—	dB
2800.0 ... 4000.0 MHz		25	36	—	dB
4000.0 ... 6000.0 MHz		30	50	—	dB

[1] including a pcb loss of 0.2dB

Preliminary data

SMD

haracteristics

Operating temperature range: T = –30 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50Ω – 2.0 nH
Terminating load impedance: Z_L = 180Ω || 9.5 nH

		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	2450.0	—	MHz
Maximum insertion attenuation	α_{max}				
2400.0 ... 2500.0 MHz		—	2.5	3.2 [1)]	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
2400.0 ... 2500.0 MHz		—	1.0	1.6	dB
Input VSWR					
2400.0 ... 2500.0 MHz		—	1.7	2.0	
Output VSWR					
2400.0 ... 2500.0 MHz		—	1.7	2.0	
Attenuation	α				
100.0 ... 960.0 MHz		55	59	—	dB
960.0 ... 1800.0 MHz		40	44	—	dB
1800.0 ... 2100.0 MHz		40	44	—	dB
2100.0 ... 2170.0 MHz		40	44	—	dB
2170.0 ... 2250.0 MHz		20	44	—	dB
2650.0 ... 2800.0 MHz		20	31	—	dB
2800.0 ... 4000.0 MHz		25	36	—	dB
4000.0 ... 6000.0 MHz		30	50	—	dB

[1)] including a pcb loss of 0.2dB

Maximum ratings

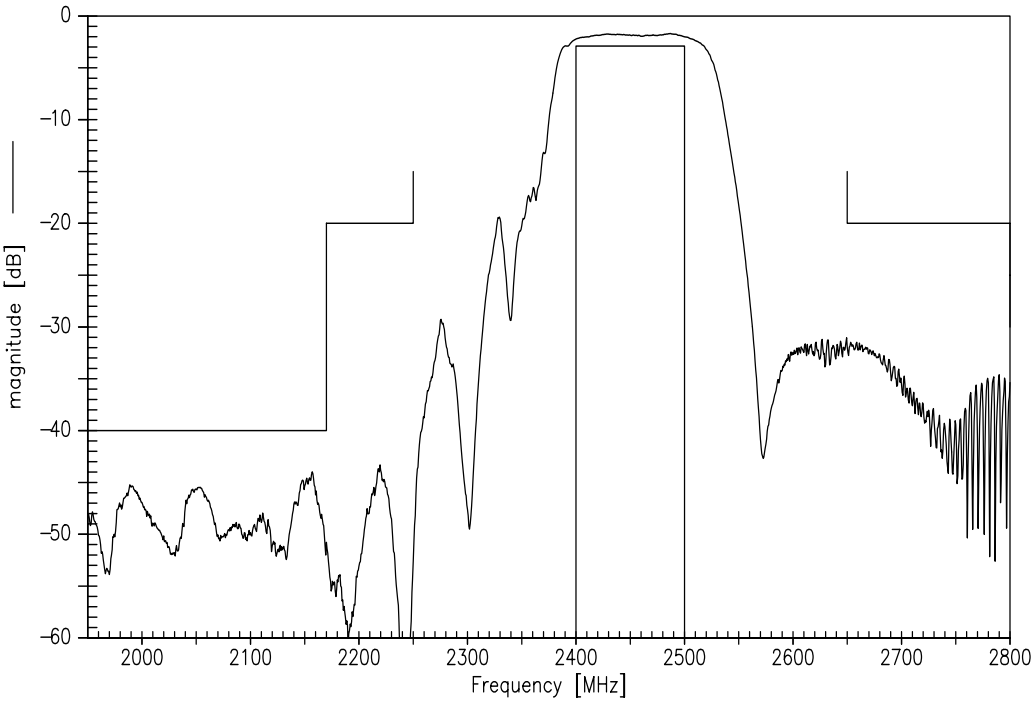
Operable temperature range	T	–30/+85	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	3	V	
ESD voltage	V_{ESD}	50[1)]	V	machine model, 10 pulses
Input power at				
UMTS band I Tx band	P_{IN}	15	dBm	CW, +65˚C 2000hr

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

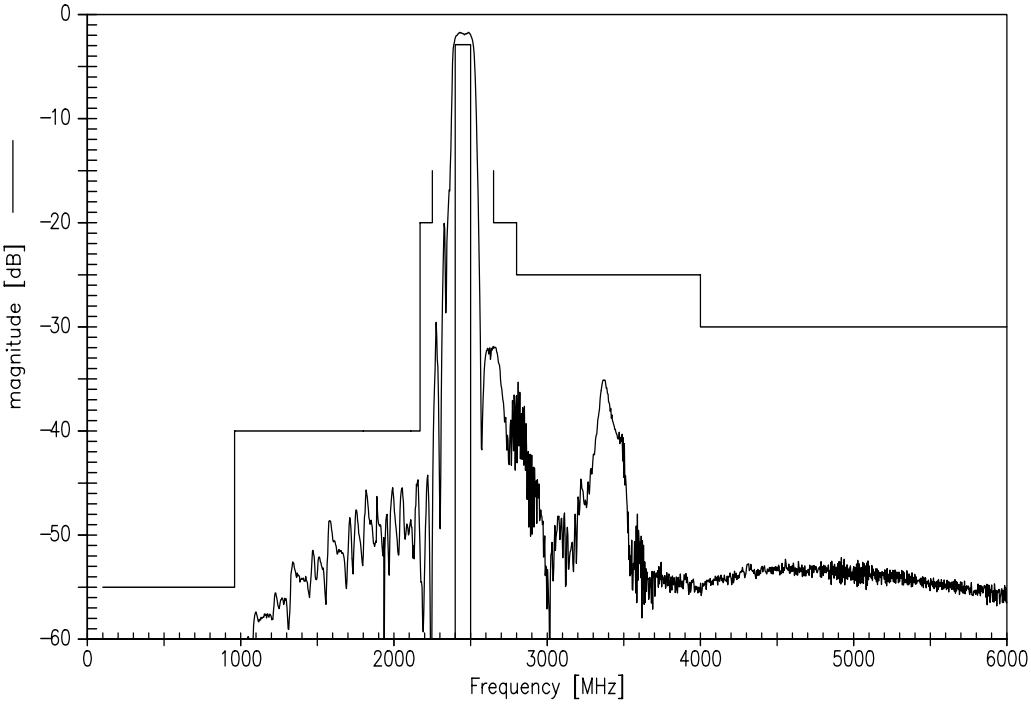
Preliminary data

SMD

Transfer function



Transfer function (wideband)



References

Type	B9429
Ordering code	B39252B9429K610
Marking and package	C61157-A8-A1
Packaging	F61074-V8212-Z000
Date codes	L_1126
S-parameters	LK41A_NB.s3p LK41A_WB.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 enviroment, please contact your EPCOS sales office

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