



SAW Components

SAW filter

WiMAX

Series/type:	B5075
Ordering code:	B39461B5075Z810
Date:	September 14, 2008
Version:	2.0



Data sheet



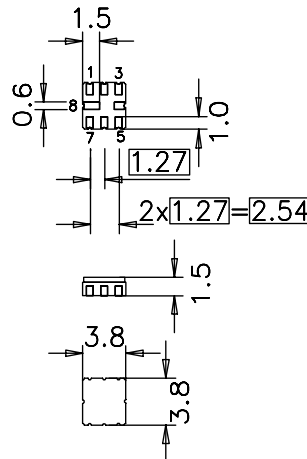
Application

- Low-loss RF filter for WiMAX systems
- Unbalanced to unbalanced or unbalanced to balanced operation
- Low amplitude ripple
- No external matching required
- Usable passband 10 MHz



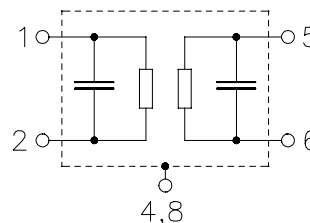
Features

- Package size 3.8 x 3.8 x 1.5 mm³
- Package code QCC8B
- RoHS compatible
- Approximate weight 0.07 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 5 Input
- 1 Output/Output balanced
- 2 Output ground/Output balanced
- 3,6,7 To be grounded
- 4,8 Case ground





Data sheet



Characteristics

Temperature range for specification: $T = -40\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	456.00	—	MHz
Maximum insertion attenuation	α_{max}				
451.00 ... 461.00 MHz		—	2.1	3.0 ¹⁾	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
451.00 ... 461.00 MHz		—	0.7	2.0 ²⁾	dB
Return loss (VSWR)					
451.00 ... 461.00 MHz		—	1.7	2.0	
Attenuation	α				
0.00 ... 440.00 MHz		40	43	—	dB
440.00 ... 446.00 MHz		10	17	—	dB
466.00 ... 531.00 MHz		6	13	—	dB
531.00 ... 612.00 MHz		27	49	—	dB
612.00 ... 624.00 MHz		45	48	—	dB
624.00 ... 1707.00 MHz		27	32	—	dB
1707.00 ... 2100.00 MHz		27	31	—	dB

1) 2.5dB max at +15 °C to +35 °C

2) 1.5dB max at +15 °C to +35 °C



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456.00 MHz

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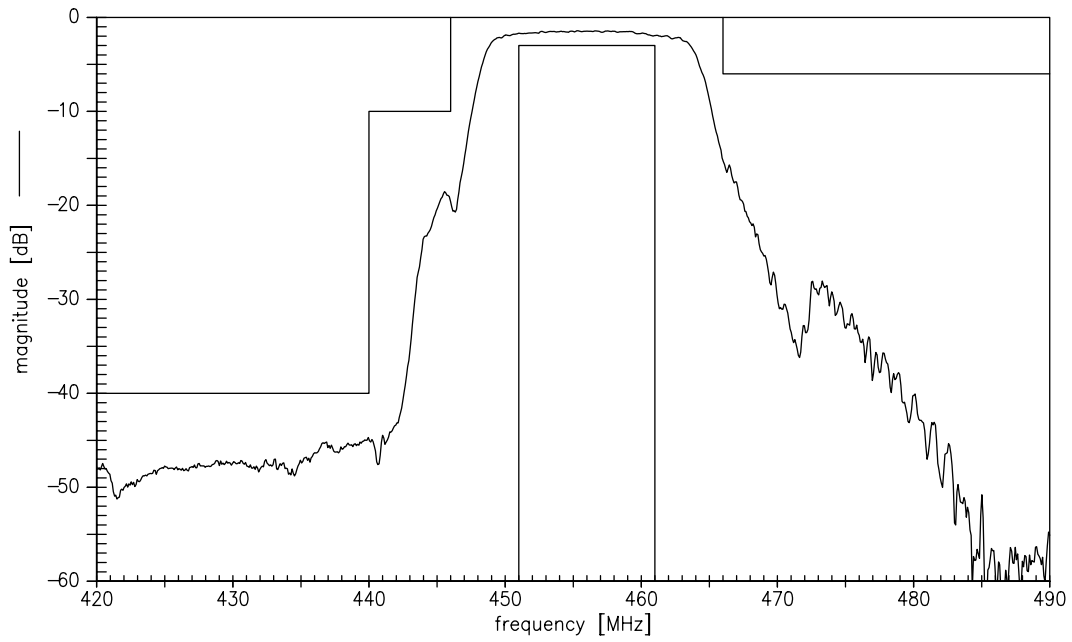
Maximum ratings

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}	100 ¹⁾	V	machine model, 1 pulse
Input power at 451.0 ... 461.0MHz	P _{IN}	15	dBm	CW

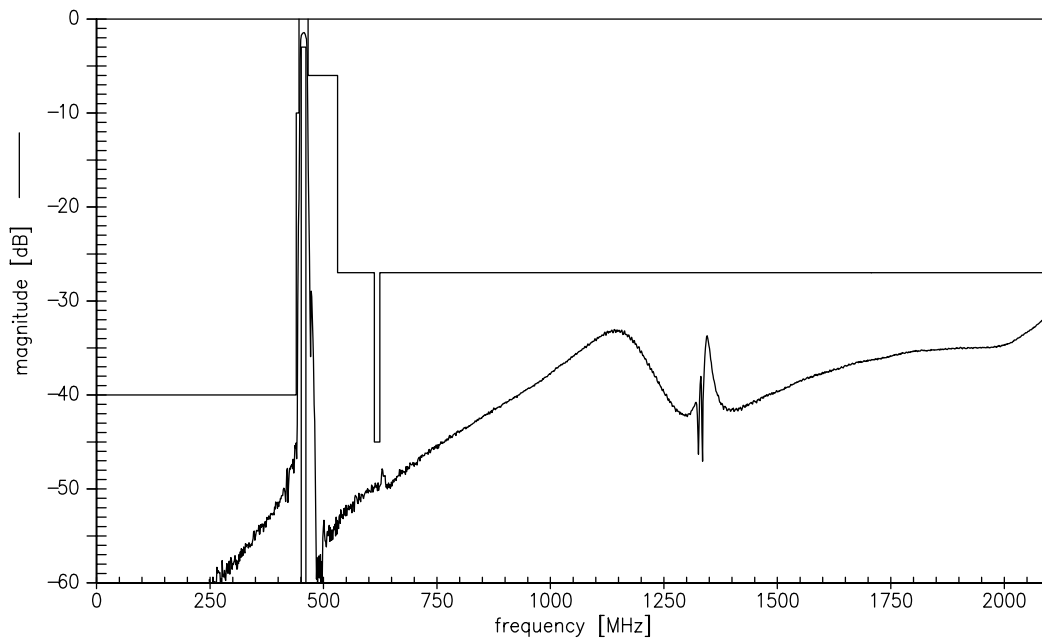
¹⁾ acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.



Transfer function



Transfer function (wideband)



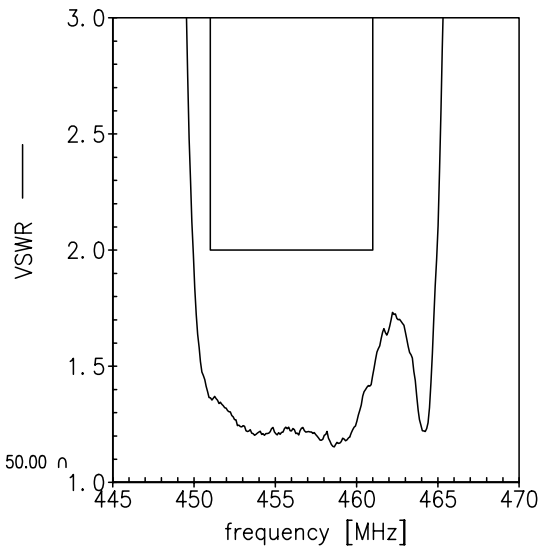
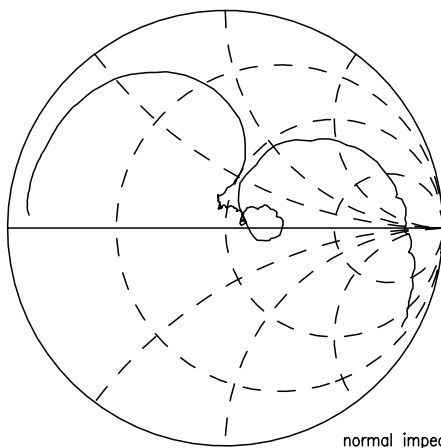


Data sheet

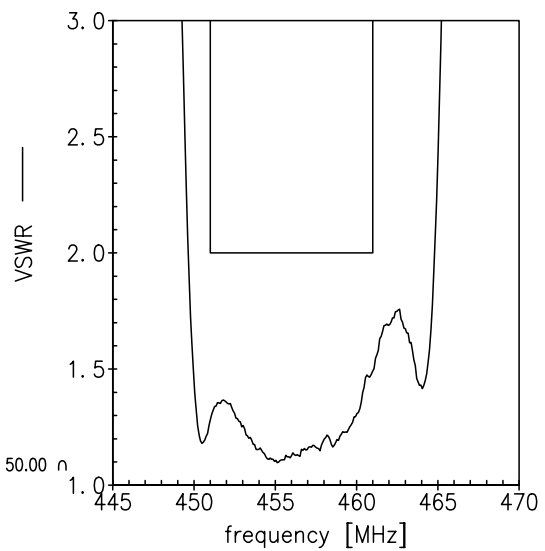
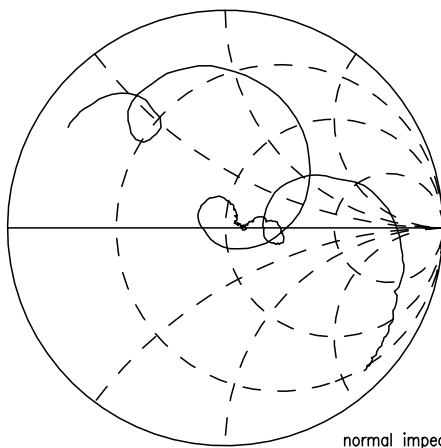


Smith charts

S₁₁ function



S₂₂ function





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SAW filter	456.00 MHz
Data sheet	

References

Type	B5075
Ordering code	B39461B5075Z810
Marking and package	C61157-A7-A46
Packaging	F61074-V8037-Z000
Date codes	L_1126
S-parameters	B5075_NB.s2p B5075_WB.s2p See file header for port/pin assignment table
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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