



## SAW Components

### SAW Rx filter

TETRA

<b>Series/type:</b>	<b>B5055</b>
<b>Ordering code:</b>	<b>B39431B5055Z810</b>
<b>Date:</b>	<b>April 22, 2008</b>
<b>Version:</b>	<b>2.0</b>



**SAW Components**

**B5055**

**SAW Rx filter**

**425.00 MHz**

Data sheet



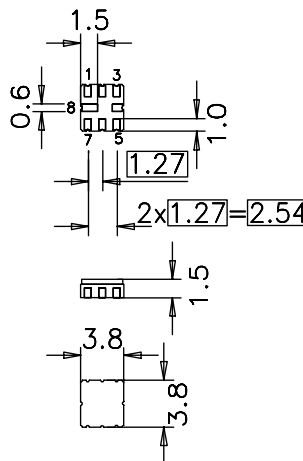
**Application**

- Low-loss IF filter for base station TETRA systems, receive path (Rx)
- Unbalanced to unbalanced or unbalanced to balanced operation
- Low amplitude ripple
- No external matching required
- Usable passband 10 MHz



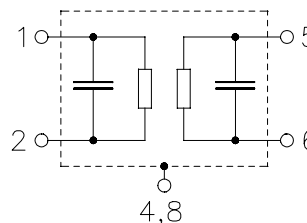
**Features**

- Package size 3.8 x 3.8 x 1.35 mm<sup>3</sup>
- 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





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**Characteristics**

Temperature range for specification: T = -30 °C to +70 °C  
 Terminating source impedance: Z<sub>S</sub> = 50 Ω  
 Terminating load impedance: Z<sub>L</sub> = 50 Ω

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	f <sub>C</sub>	—	425.00	—	MHz
<b>Maximum insertion attenuation</b>	α <sub>max</sub>				
420.0 ... 430.0 MHz		—	2.7	3.5 <sup>1)</sup>	dB
<b>Amplitude ripple (p-p)</b>	Δα				
420.0 ... 430.0 MHz		—	1.2	2.0 <sup>2)</sup>	dB
<b>Return Loss (VSWR)</b>					
420.0 ... 430.0 MHz		—	1.9	2.1	dB
<b>Attenuation</b>	α				
50.0 ... 355.0 MHz		37	50	—	dB
355.0 ... 415.0 MHz		12	20	—	dB
435.0 ... 474.0 MHz		8	12	—	dB
474.0 ... 491.0 MHz		26	50	—	dB
491.0 ... 582.0 MHz		37	45	—	dB
582.0 ... 593.0 MHz		42	44	—	dB
593.0 ... 1422.0 MHz		30	32	—	dB
1422.0 ... 1616.0 MHz		27	29	—	dB
1616.0 ... 2046.0 MHz		15	17	—	dB

1) 3.0dB max at +15 °C to +35 °  
 2) 1.5dB max at +15 °C to +35 °



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**Maximum ratings**

Operable temperature range	T	-40/+85	°C	
Storage temperature range	T <sub>stg</sub>	-40/+85	°C	
DC voltage	V <sub>DC</sub>	5	V	
ESD voltage	V <sub>ESD</sub>	100 <sup>1)</sup>	V	machine model, 1 pulse
Input power at 420.0 ... 430.0MHz	P <sub>IN</sub>	15	dBm	Continuous Wave

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



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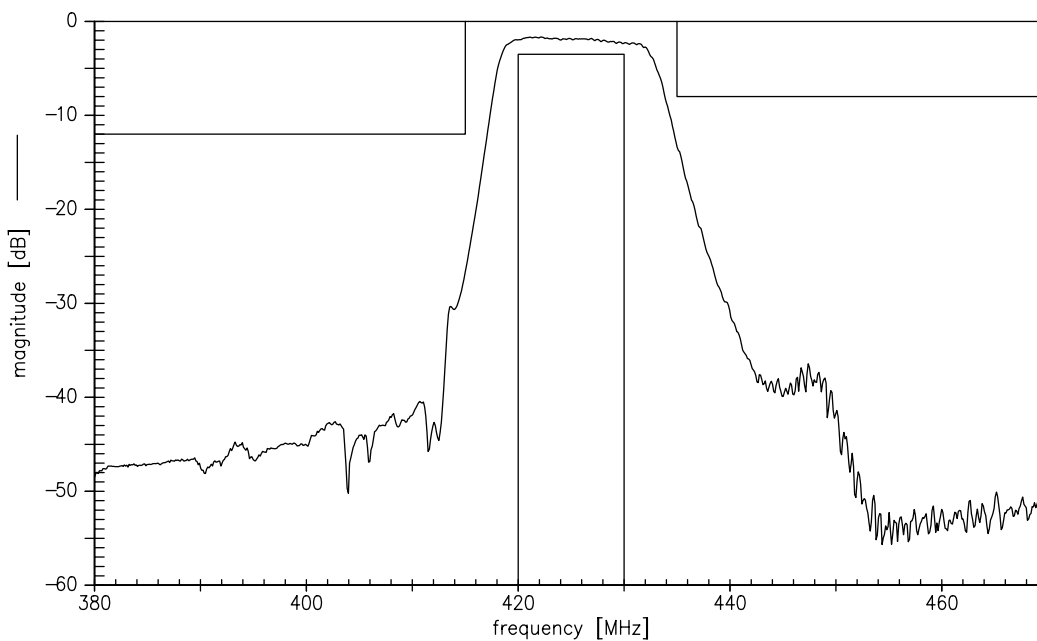
SAW Rx filter

425.00 MHz

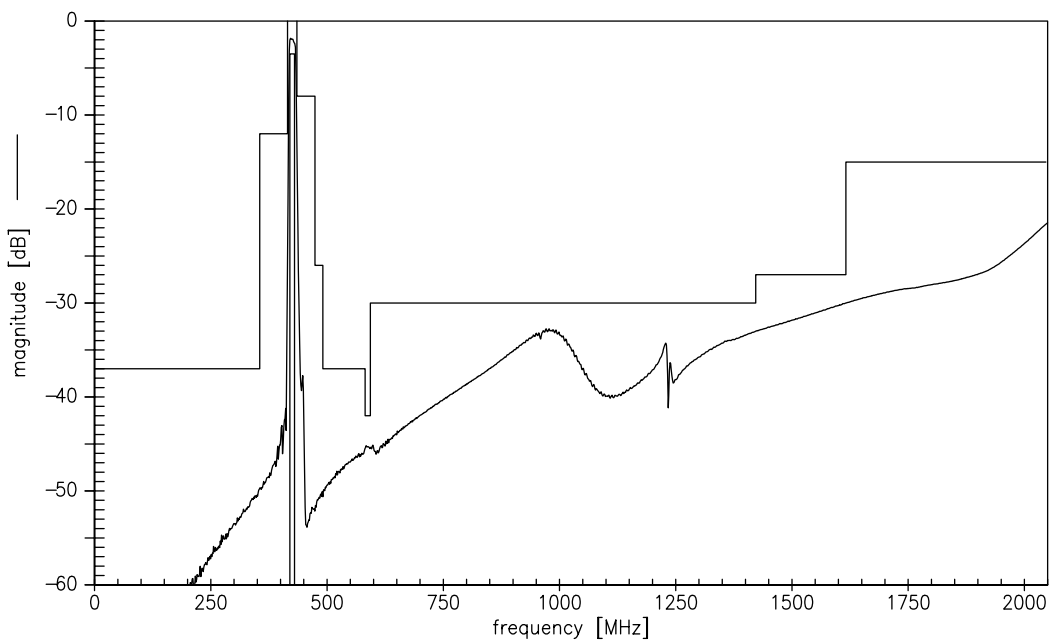
Data sheet



Transfer function



Transfer function (wideband)



Please read *cautions and warnings* and *important notes* at the end of this document.



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SAW Rx filter

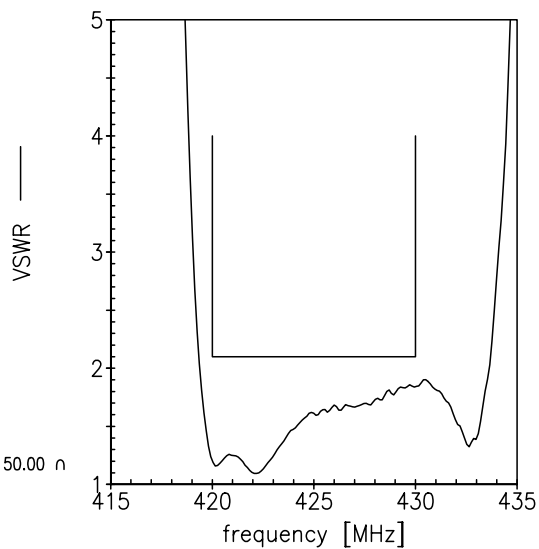
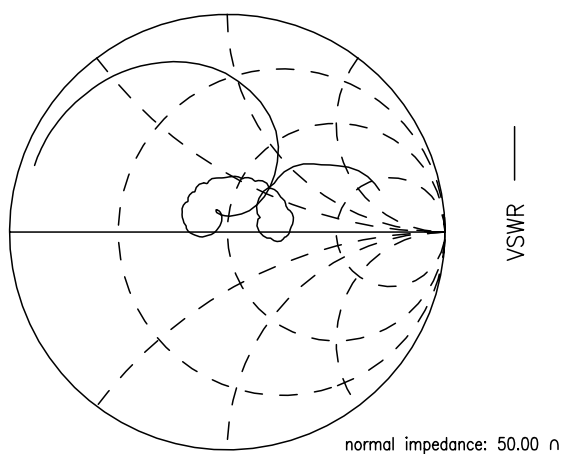
425.00 MHz

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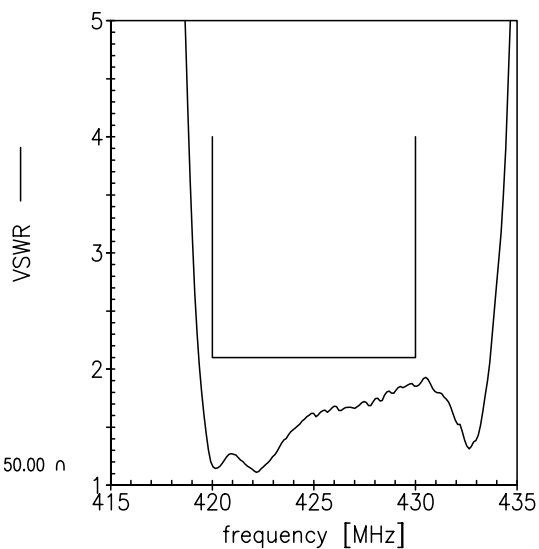
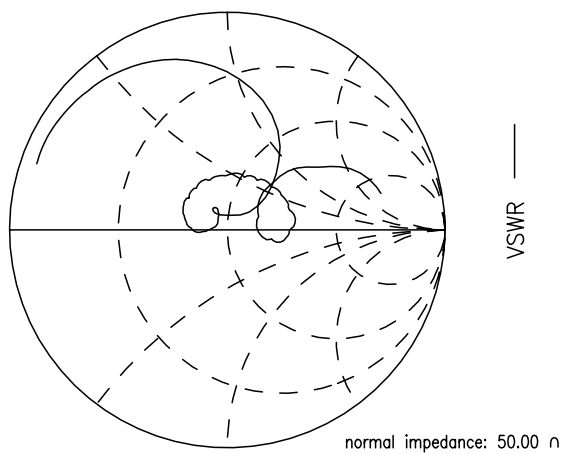


Smith charts

S<sub>11</sub> function



S<sub>22</sub> function





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#### References

<b>Type</b>	B5055
<b>Ordering code</b>	B39431B5055Z810
<b>Marking and package</b>	C61157-A7-A46
<b>Packaging</b>	F61074-V8167-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B5055_NB.s2p B5055_WB.s2p
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	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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