



SAW Components

SAW Tx Filter

R-GSM

Series/type:	B5057
Ordering code:	B39941B5057U410
Date:	March 22, 2007
Version:	2.0



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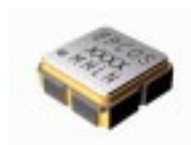
940.5 MHz

Data Sheet



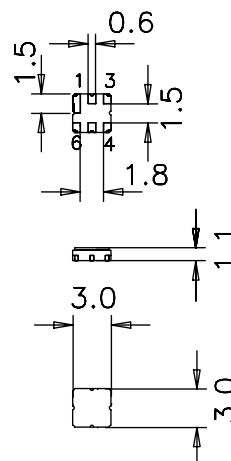
Application

- Low-loss filter for Basestation R-GSM, transmit path (Tx)
- Usable passband 39 MHz
- Unbalanced to unbalanced operation
- No matching required
- Filter impedance 50 Ω



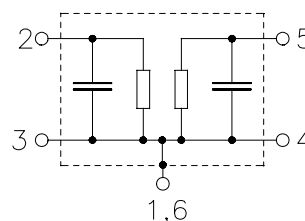
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- Approx. weight 0.037 g
- Ceramic package for **Surface Mount Technology (SMT)**
- RoHS compliant
- Ni, gold-plated
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 2 Input
- 5 Output
- 1,3,4,6 To be grounded





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Characteristics

Temperature range for specification: $T = -30$ to $+80$ °C
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	940.5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
921.0 ... 960.0 MHz		—	2.7	4.0 ¹⁾	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
921.0 ... 960.0 MHz		—	1.4	3.0 ²⁾	dB
Input VSWR					
921.0 ... 960.0 MHz		—	2.3	3.0 ³⁾	
Output VSWR					
921.0 ... 960.0 MHz		—	2.6	3.0 ⁴⁾	
Attenuation	α				
0.3 ... 800.0 MHz		25	47	—	dB
800.0 ... 880.0 MHz		26	39	—	dB
880.0 ... 905.0 MHz		20 ⁵⁾	31	—	dB
905.0 ... 915.0 MHz		2 ⁶⁾	6	—	dB
980.0 ... 985.0 MHz		23	42	—	dB
985.0 ... 1005.0 MHz		30	34	—	dB
1005.0 ... 1025.0 MHz		30	34	—	dB
1025.0 ... 1760.0 MHz		27	34	—	dB
1760.0 ... 2000.0 MHz		28	32	—	dB
2000.0 ... 4000.0 MHz		18	23	—	dB

¹⁾ 3.0 dB at 25 °C.

²⁾ 2.0 dB at 25 °C.

³⁾ 2.8 at 25 °C.

⁴⁾ 2.8 at 25 °C.

⁵⁾ 28 dB at 25 °C.

⁶⁾ 3 dB at 25 °C.



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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, 10 pulses
Input Power at 921.0 ... 960.0 MHz	P _{IN}	10	dBm	continuous wave

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



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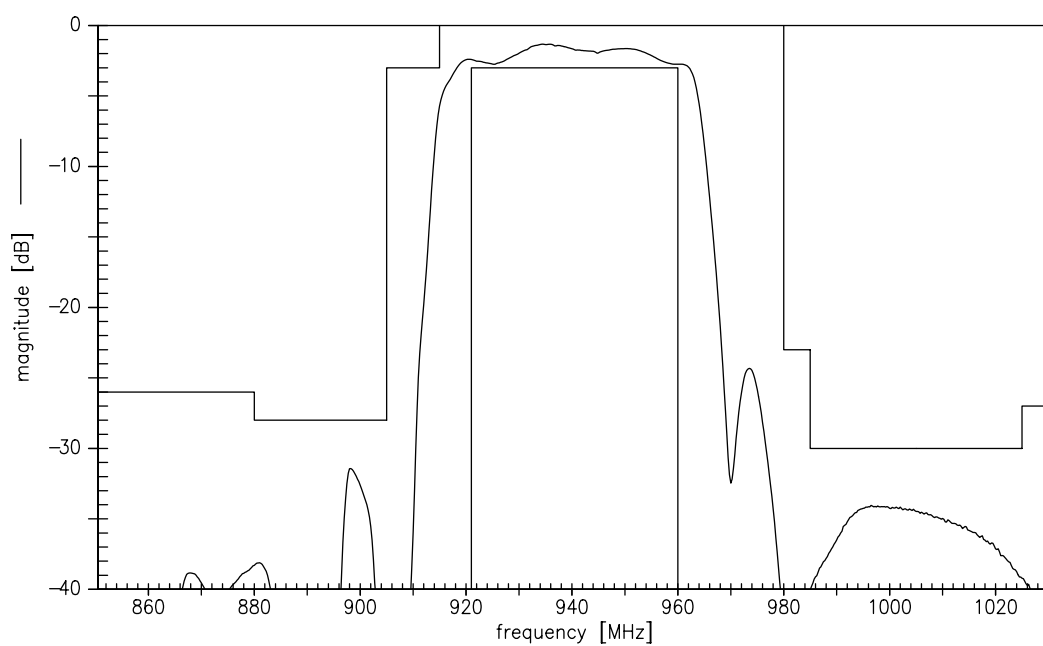
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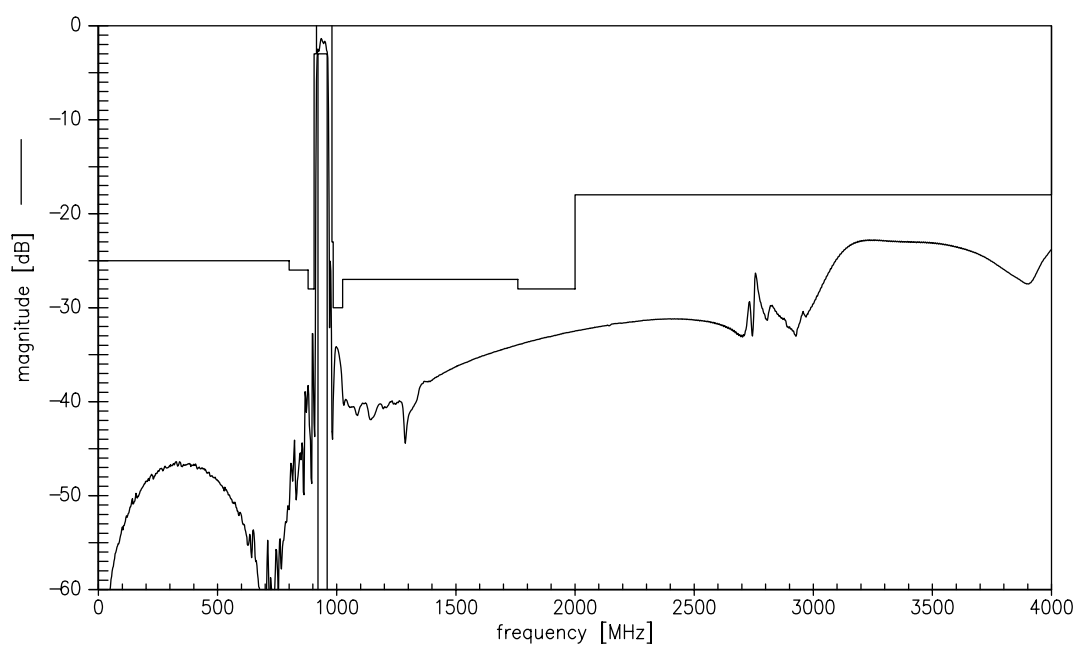
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Transfer function (narrowband)



Transfer function (wideband)





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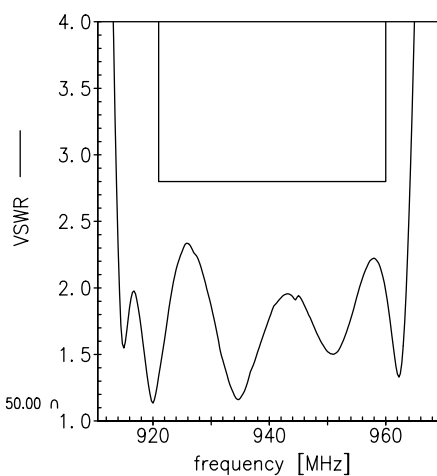
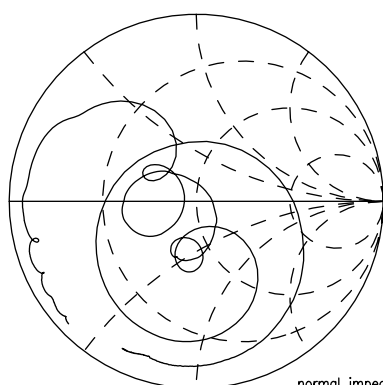
940.5 MHz

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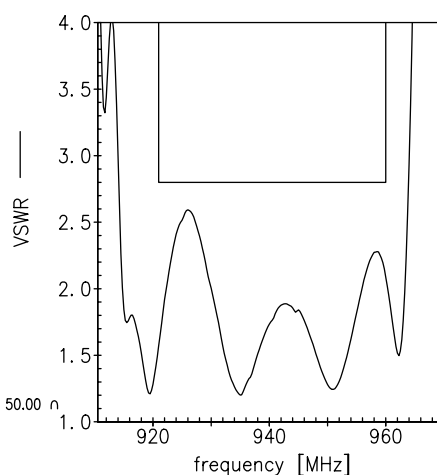
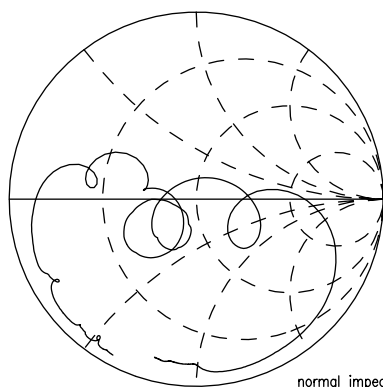


Smith chart

S_{11} function



S_{22} function





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References

Type	B5057
Ordering code	B39941B5057U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B5057_NB.s2p B5057_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."

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com.

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