



SAW Components

SAW Rx filter

WCDMA Band VII

Series/Type:	B9898
Ordering code:	B39272B9898P810
Date:	May 15, 2013
Version:	2.0



Data Sheet



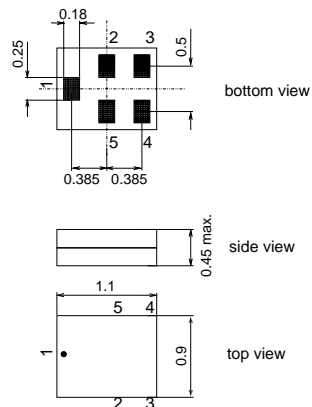
Application

- Low-loss RF filter for mobile telephone WCDMA band VII systems, receive path (Rx)
- Usable for antenna diversity systems
- Impedance transformation from 50 ohm to 100 ohm
- Unbalanced to balanced operation
- Usable passband 70 MHz



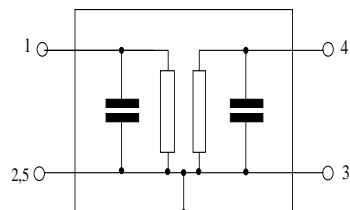
Features

- Package size 1.1 x 0.9 mm²
- max. Package height 0.45 mm
- RoHS compatible
- Approx. weight 0.001g
- Package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Electrostatic Sensitive Device (ESD)
- Moisture Sensitive Level 3



Pin configuration

- 1 Input, unbalanced
- 3,4 Output, balanced
- 2,5 Case ground



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



Data Sheet



Characteristics

Temperature range for specification: $T = -20\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$ (Unbalanced)
 Terminating load impedance: $Z_L = 100\ \Omega || 15.0\text{nH}$ (balanced)

		min.	typ. @ 25°C	max.	
Center frequency	f_C	—	2655.0	—	MHz
Maximum insertion attenuation 2620.0 ... 2690.0 MHz	α_{\max}	—	1.9	3.0	dB
Amplitude ripple (p-p) 2620.0 ... 2690.0 MHz	$\Delta\alpha$	—	0.7	1.7	dB
Input VSWR 2620.0 ... 2690.0 MHz		—	1.6	2.3	
Output VSWR 2620.0 ... 2690.0 MHz		—	1.7	2.3	
CMRR ($ S_{21}-S_{31} / S_{21}+S_{31} $) 2620.0 ... 2690.0 MHz		16	21	—	
Attenuation 10 ... 2500.0 MHz		46	55	—	dB
880.0 ... 915.0 MHz		50	72	—	dB
1710.0 ... 1785.0 MHz		48	64	—	dB
1880.0 ... 1920.0 MHz		46	64	—	dB
2010.0 ... 2025.0 MHz		46	66	—	dB
2300.0 ... 2400.0 MHz		46	58	—	dB
2400.0 ... 2500.0 MHz		46	58	—	dB
2500.0 ... 2570.0 MHz		45	51	—	dB
4950.0 ... 5950.0 MHz		45	64	—	dB
2775.0 ... 6000.0 MHz		28	42	—	dB



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SAW Filter

2655.0 MHz

Data Sheet



Maximum ratings

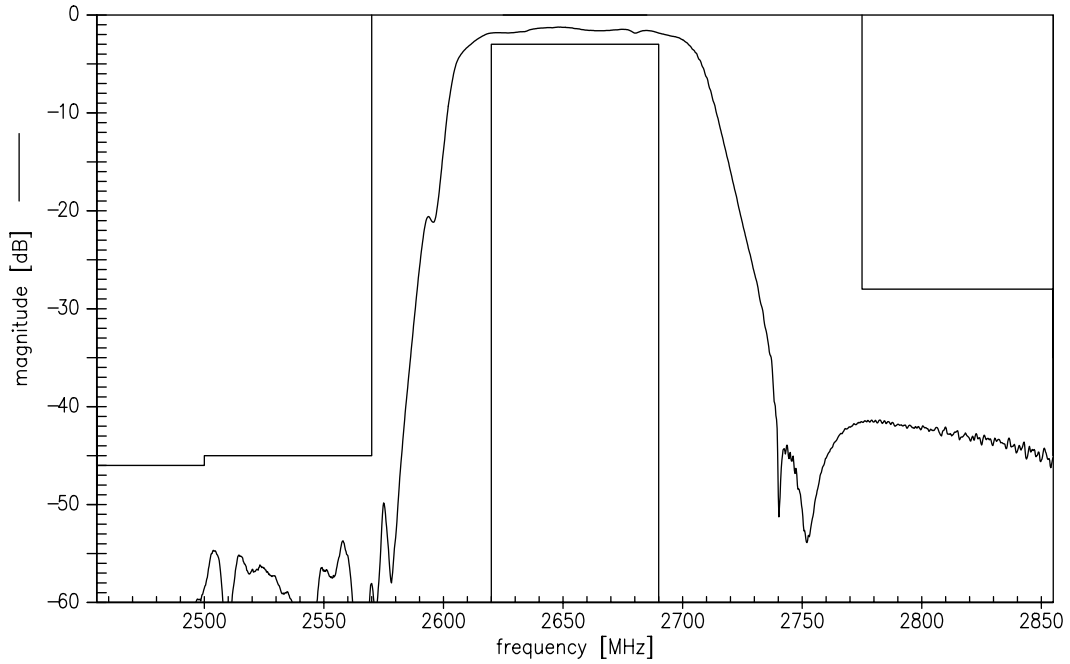
Storage temperature range	T_{stg}	-40/+85	°C	Machine model
DC voltage	V_{DC}	5 ¹⁾	V	
ESD voltage	V_{ESD}	TBD ²⁾	V	
Input Power at 2500.0 ... 2570.0 MHz	P_{IN}	15	dBm	
				cw signal @ 2000h @ 55 °C

1) 168h Damp Heat Steady State acc. to IEC60068-2-67 Cy

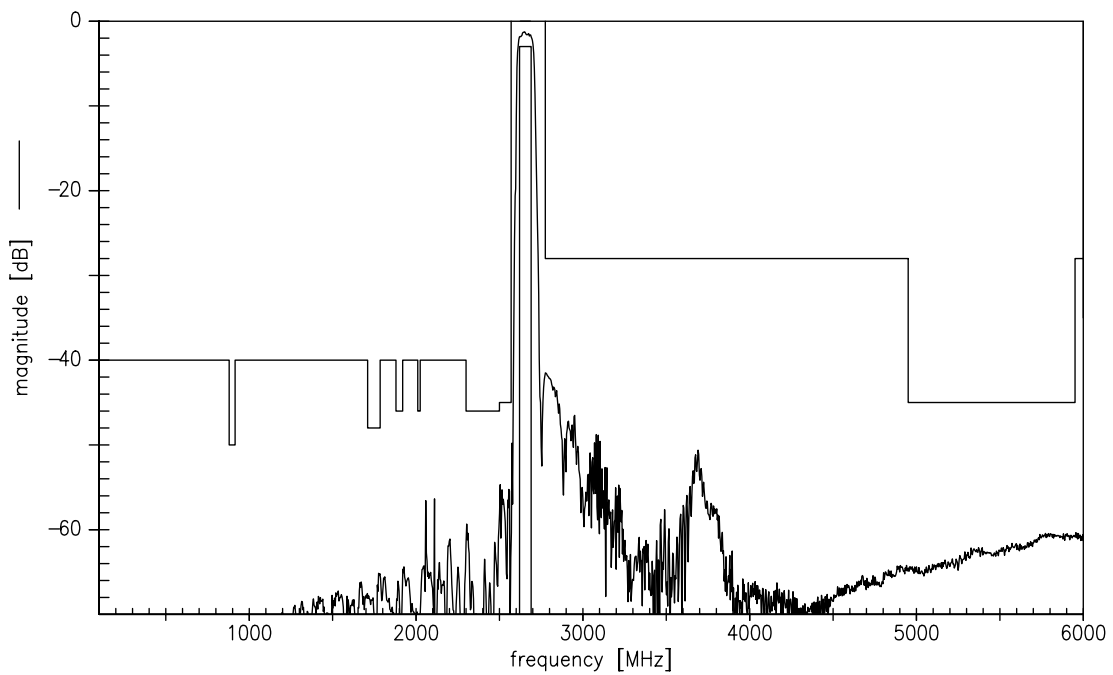
2) acc. to JESD22-A115B (MM - Machine Model), 10 negative & 10 positive pulses.



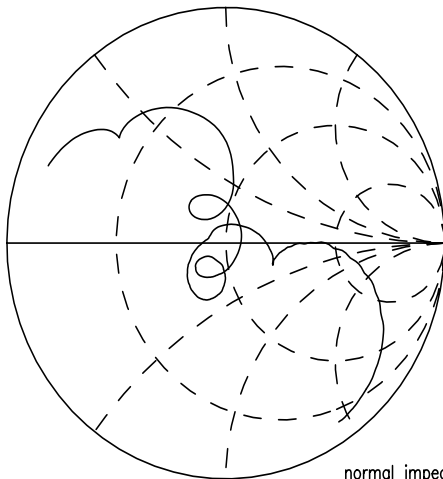
Transfer function (narrowband)



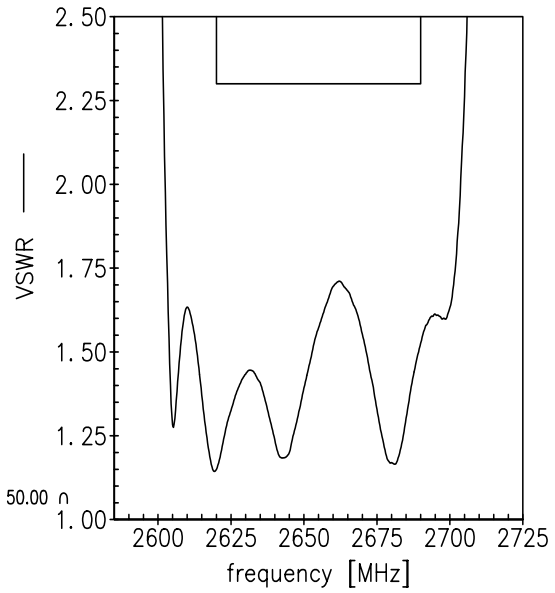
Transfer function (wideband)



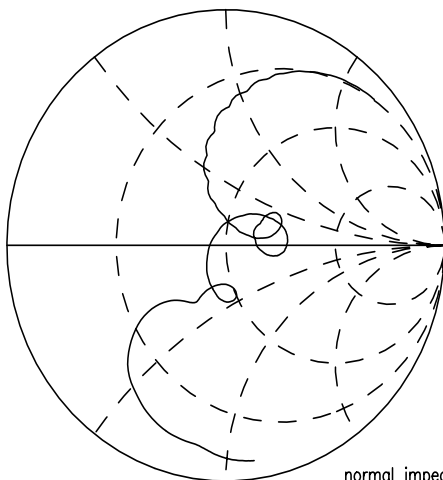
Smith charts
S₁₁ function



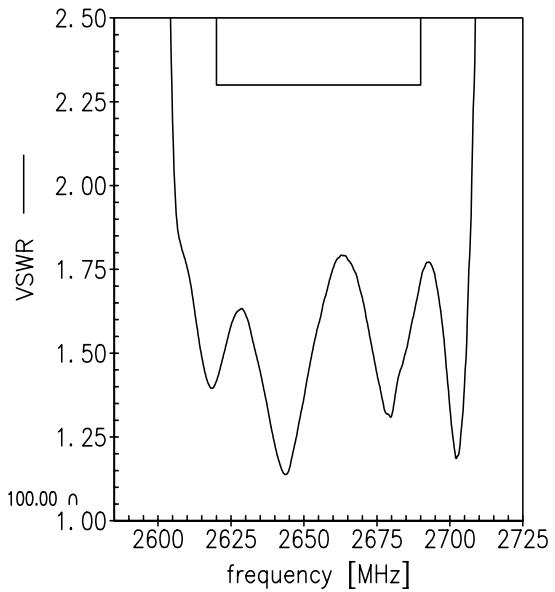
normal impedance: 50.00 Ω



S₂₂ function



normal impedance: 100.00 Ω



**SAW Components****B9898****SAW Filter****2655.0 MHz**

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References

Type	B9898
Ordering code	B39272-B9898-P810
Marking and package	C61157-A8-A56-X-27
Packaging	F61074-V8255-Z000
Date codes	L_1126
S-parameters	B9898_NB_UN.s3p B9898_WB_UN.s3p 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."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
Matching Coils	See http://www.tdk.co.jp/tefe02/coil.htm#aname1 http://www.tdk.co.jp/etvcl/index.htm for a large variety of matching coils.

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

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



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