



SAW Components

SAW Rx filter

GSM 1800 Rx

Series/type:	B3832
Ordering code:	B39172B3832U410

Date:	June 27, 2012
Version:	2.0

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SAW Rx filter

1747.5 MHz

Data sheet



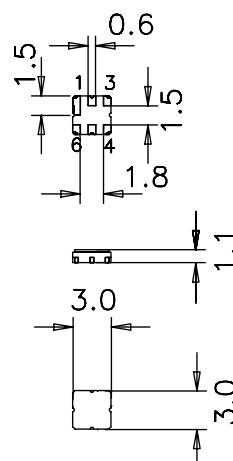
Application

- Low-loss filter GSM 1800 Rx
- Unbalanced to Unbalanced operation
- Usable passband of 75MHz
- No matching required for operation at 50Ω



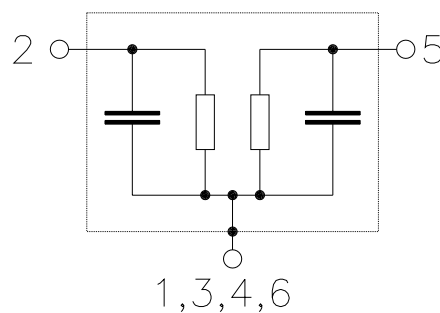
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitive Level 1**
- Filter surface passivated



Pin configuration

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



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Characteristics

Temperature range for specification: $T = -0\text{ }^{\circ}\text{C to } +70\text{ }^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\text{ }\Omega$
 Terminating load impedance: $Z_L = 50\text{ }\Omega$

		min.	typ. @ 25 °C	max.	
Centre frequency	f_C	—	1747.5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
1710.0 ... 1785.0 MHz		—	3.1	4.0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1710.0 ... 1785.0 MHz		—	1.1	2.0	dB
VSWR					
Input 1710.0 ... 1785.0 MHz		—	2.2	3.0	
Output 1710.0 ... 1785.0 MHz		—	2.2	3.0	
Absolute attenuation	α_{abs}				
1330.0... 1405.0 MHz		42	45	—	dB
1464.0... 1539.0 MHz		40	43	—	dB
1615.0 MHz		28	35	—	dB
1690.0 MHz		5	12	—	dB
1805.0 MHz		5	14	—	dB
1880.0 MHz		25	32	—	dB
1956.0... 2031.0 MHz		32	34	—	dB

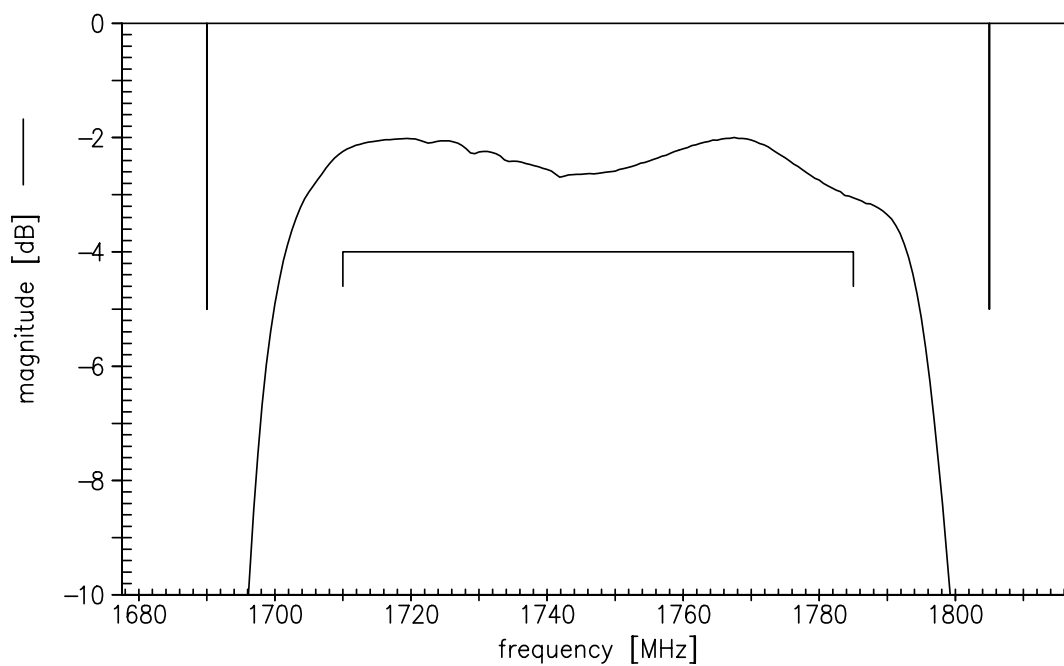
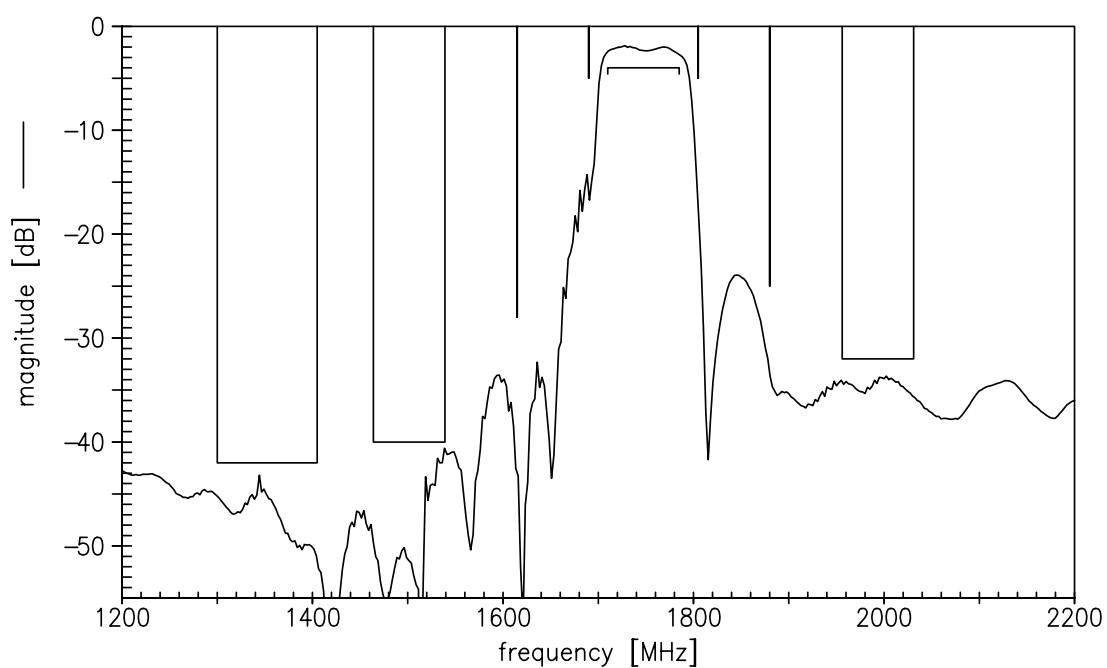
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Maximum ratings

Operable temperature range	T	−40/+85	°C	
Storage temperature range	T _{stg}	−40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 1 pulse
Input power				
1710.0 ... 1785.0 MHz	P _{IN}	9.5	dBm	continuous wave, 100000 hrs, 85°C

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

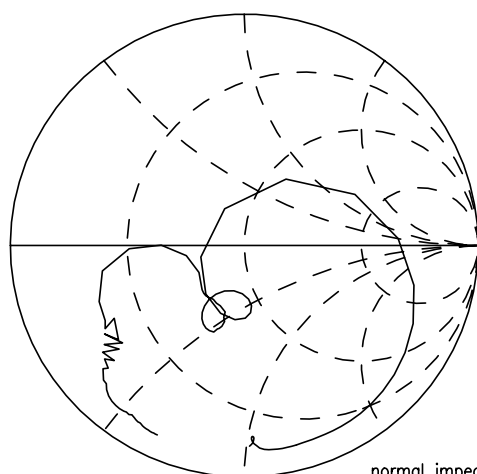
Transfer function

Transfer function (wideband)


Data sheet

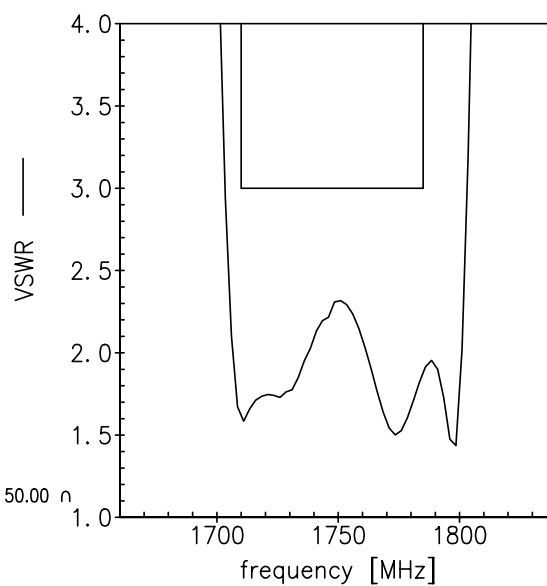


Smith charts

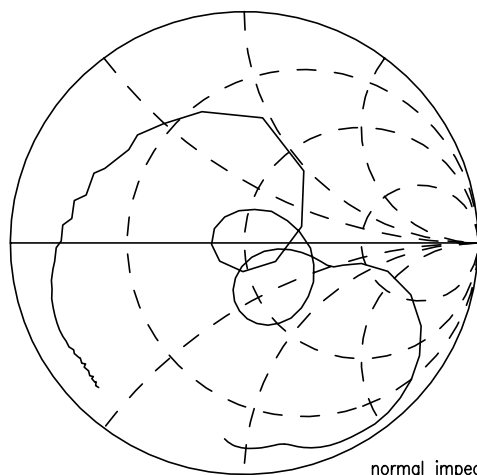
S₁₁ function



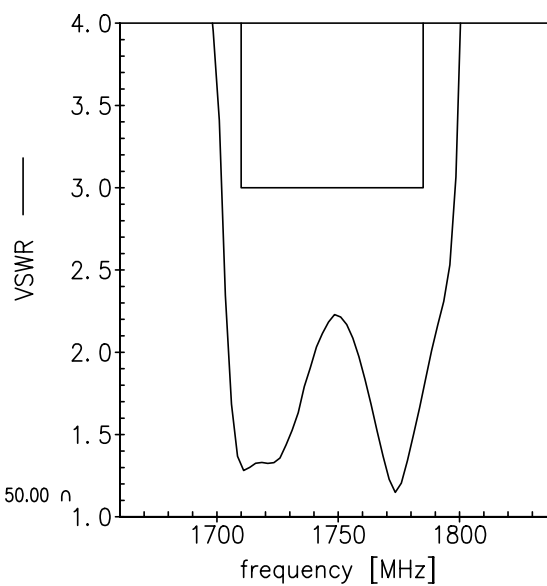
normal impedance: 50.00 Ω



S₂₂ function



normal impedance: 50.00 Ω



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References

Type	B3832
Ordering code	B39172B3832U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B3832_NB.s2p, B3832_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."
Matching coils	See Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm for a large variety of matching coils.

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