



SAW filters for mobile communications

Series/Type: B7745

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39192B7745C810	B39202B9031E910	2008-03-14	2008-08-31	2008-10-15

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SAW Components

B7745

SAW Tx filter

1950.0 MHz

Data Sheet



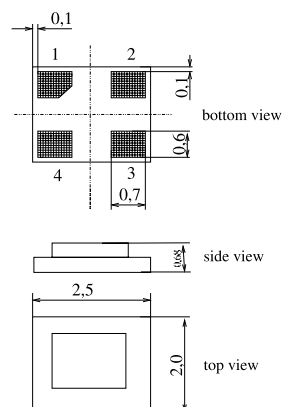
Application

- Low-loss RF filter for mobile telephone UMTS systems, transmit path (TX)
- Filter impedance 50 Ω
- Unbalanced to unbalanced operation
- Very low insertion attenuation
- Low amplitude ripple
- Usable passband 60 MHz
- Suitable for GPRS class 1 to 12



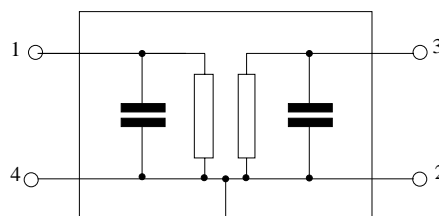
Features

- Package size 2.5 x 2.0 x 0.8 mm³
- Package code DCS4D
- RoHS compatible
- Approximate weight 0.015 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

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



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Characteristics

Operating temperature range: $T = -20\text{ }^{\circ}\text{C to } +75\text{ }^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\text{ }\Omega$
 Terminating load impedance: $Z_L = 50\text{ }\Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	1950.0	—	MHz
Maximum insertion attenuation	α_{\max}				
1920.0 ... 1980.0 MHz		—	2.4	2.8	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1920.0 ... 1980.0 MHz		—	1.0	1.4	dB
Input VSWR					
1920.0 ... 1980.0 MHz		—	1.6	1.8	
Output VSWR					
1920.0 ... 1980.0 MHz		—	1.8	2.0	
Attenuation	α				
0.0 ... 1000.0 MHz		36	40	—	dB
1000.0 ... 1600.0 MHz		35	38	—	dB
1705.0 ... 1715.0 MHz		30	34	—	dB
1805.0 ... 1880.0 MHz		22	27	—	dB
2110.0 ... 2170.0 MHz		28	31	—	dB
2300.0 ... 2360.0 MHz		31	34	—	dB
2490.0 ... 2550.0 MHz		33	37	—	dB
2680.0 ... 2740.0 MHz		35	40	—	dB
2360.0 ... 3120.0 MHz		31	35	—	dB
3840.0 ... 3960.0 MHz		27	33	—	dB
4000.0 ... 6000.0 MHz		20	27	—	dB

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Characteristics

Operating temperature range: $T = -10\text{ }^{\circ}\text{C}$ to $+85\text{ }^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

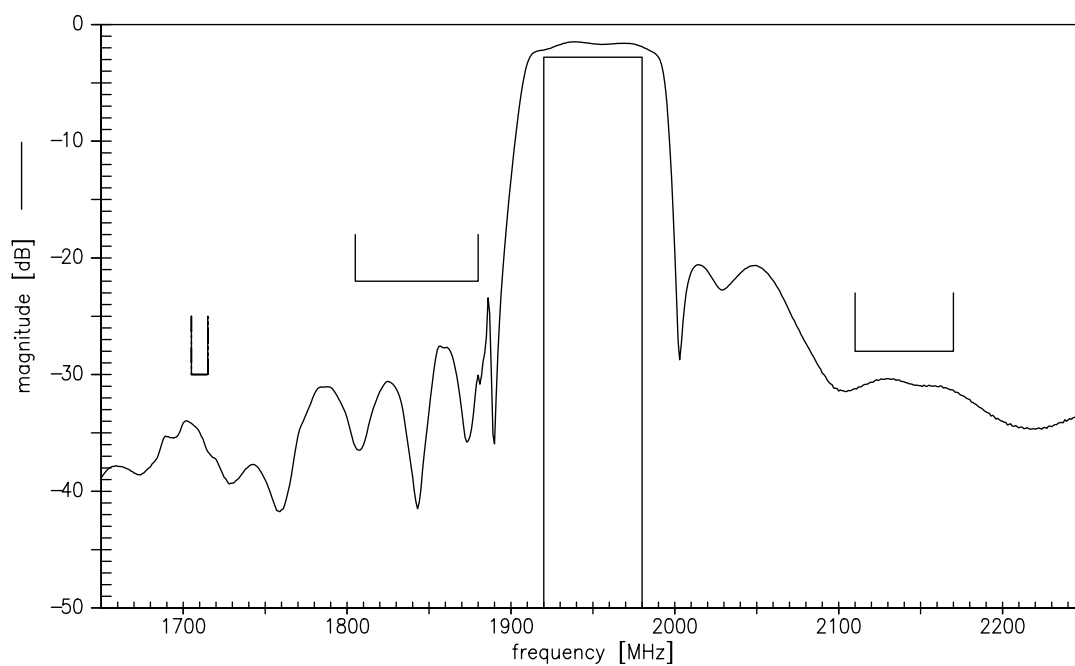
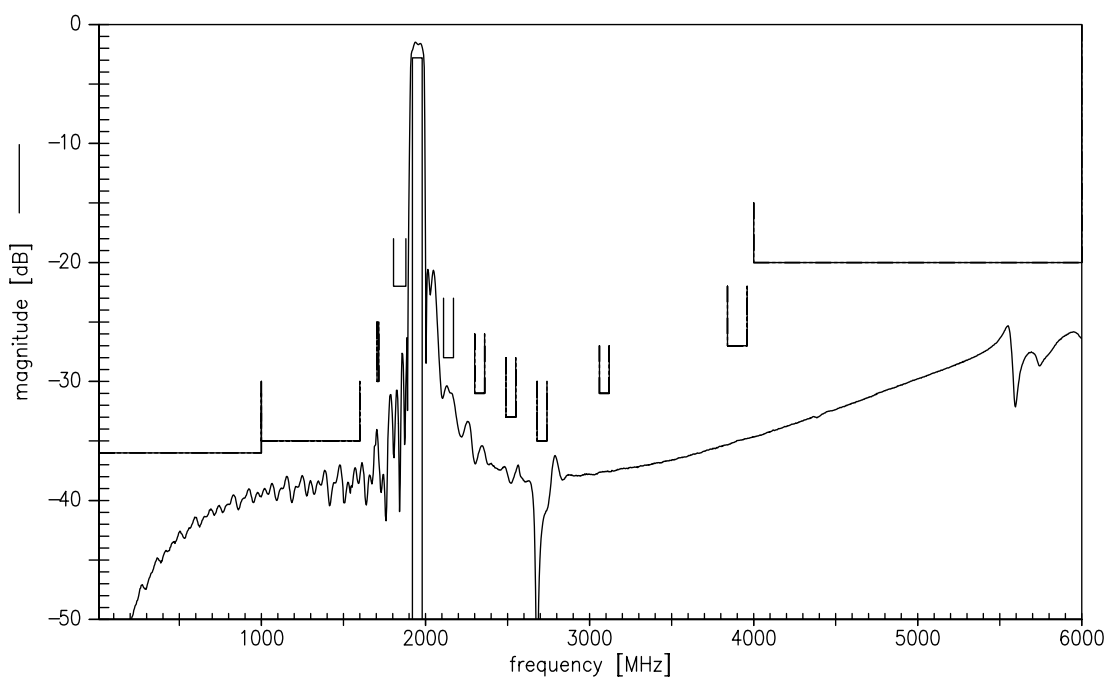
		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	1950.0	—	MHz
Maximum insertion attenuation	α_{\max}				
1920.0 ... 1980.0 MHz		—	2.4	2.9	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1920.0 ... 1980.0 MHz		—	1.0	1.5	dB
Input VSWR					
1920.0 ... 1980.0 MHz		—	1.6	1.8	
Output VSWR					
1920.0 ... 1980.0 MHz		—	1.8	2.0	
Attenuation	α				
0.0 ... 1000.0 MHz		36	40	—	dB
1000.0 ... 1600.0 MHz		35	38	—	dB
1705.0 ... 1715.0 MHz		30	34	—	dB
1805.0 ... 1880.0 MHz		22	27	—	dB
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4000.0 ... 6000.0 MHz		20	27	—	dB

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Maximum ratings

Operable temperature range	T	−20/+85	°C	
Storage temperature range	T _{stg}	−40/+85	°C	
DC voltage	V _{DC}	3	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 10 pulses
Input power at GSM850, GSM900	P _{IN}	10	dBm	effective power in the on-state

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

Transfer function

Transfer function (wideband)


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References

Type	B7745
Ordering code	B39192B7745C810
Marking and package	C61157-A7-A89
Packaging	F61074-V8125-Z000
Date codes	L_1126
S-parameters	B7745_NB.s2p B7745_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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