



SAW filters for infrastructure systems

Series/Type: B7833

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39941B7833C710	B39941B9459M410	2010-06-25	2011-06-30	2011-09-30

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.



SAW Components

B7833

Low-Loss Filter for Mobile Communication

942,5 MHz

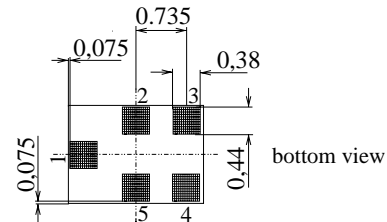
Data Sheet



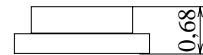
Features

- Low-loss RF filter for mobile telephone EGSM system, receive path
- Usable passband 35 MHz
- Unbalanced operation
- Impedance 50 Ω input and output
- Ceramic Package for Surface Mounted Technology (SMT)

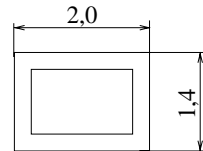
Chip sized SAW package QCS5C



bottom view



side view

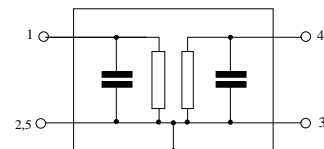


top view

Dimensions in mm, approx. weight 0,007 g

Pin configuration

- | | |
|---------|--------------------|
| 1 | Input, unbalanced |
| 4 | Output, unbalanced |
| 2, 3, 5 | Case ground |
| 2, 3, 5 | to be grounded |



Type	Ordering code	Marking and Package according to	Packing according to
B7833	B39941-B7833-C710	C61157-A7-A111	F61074-V8151-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 25 / + 85	$^{\circ}\text{C}$	machine model, 10 pulses peak power of GSM signal, duty cycle 4:8
Storage temperature range	T_{stg}	- 40 / + 85	$^{\circ}\text{C}$	
DC voltage	V_{DC}	3	V	
ESD voltage	V_{ESD}^*	100*	V	
Input power at	P_{IN}	15	dBm	
GSM850, GSM900 GSM1800 and GSM1900 Tx bands				

* acc. to JESD22-A115A (Machine Model), 10 negative & 10 positive pulses



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Data Sheet



Characteristics

Operating temperature: $T = 25 \pm 2 \text{ }^{\circ}\text{C}$
Terminating source impedance: $Z_S = 50 \text{ } \Omega$
Terminating load impedance: $Z_L = 50 \text{ } \Omega$

			min.	typ.	max.	
Center frequency	f_C		—	942,5	—	MHz
Maximum insertion attenuation	α_{\max}					
	925,0 ... 960,0 MHz		—	1,7	2,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	925,0 ... 960,0 MHz		—	0,7	1,2	dB
Input VSWR						
	925,0 ... 960,0 MHz		—	1,8	2,1	
Output VSWR						
	925,0 ... 960,0 MHz		—	1,8	2,1	
Attenuation	α					
	0,0 ... 890,0 MHz		33	36	—	dB
	890,0 ... 905,0 MHz		22	28	—	dB
	905,0 ... 915,0 MHz		19	22	—	dB
	980,0 ... 1015,0 MHz		22	24	—	dB
	1015,0 ... 6000,0 MHz		25	33	—	dB



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Low-Loss Filter for Mobile Communication

942,5 MHz

Data Sheet



Characteristics

Operating temperature: $T = -25 \dots +85 \text{ }^{\circ}\text{C}$
Terminating source impedance: $Z_S = 50 \text{ } \Omega$
Terminating load impedance: $Z_L = 50 \text{ } \Omega$

		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	α_{\max}	—	1,8	2,3	dB
	925,0 ... 960,0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	0,9	1,5	dB
	925,0 ... 960,0 MHz				
Input VSWR		—	1,8	2,1	
	925,0 ... 960,0 MHz				
Output VSWR		—	1,8	2,1	
	925,0 ... 960,0 MHz				
Attenuation	α				
	0,0 ... 890,0 MHz	33	36	—	dB
	890,0 ... 905,0 MHz	22	25	—	dB
	905,0 ... 915,0 MHz	19	22	—	dB
	980,0 ... 1015,0 MHz	22	24	—	dB
	1015,0 ... 6000,0 MHz	25	32	—	dB



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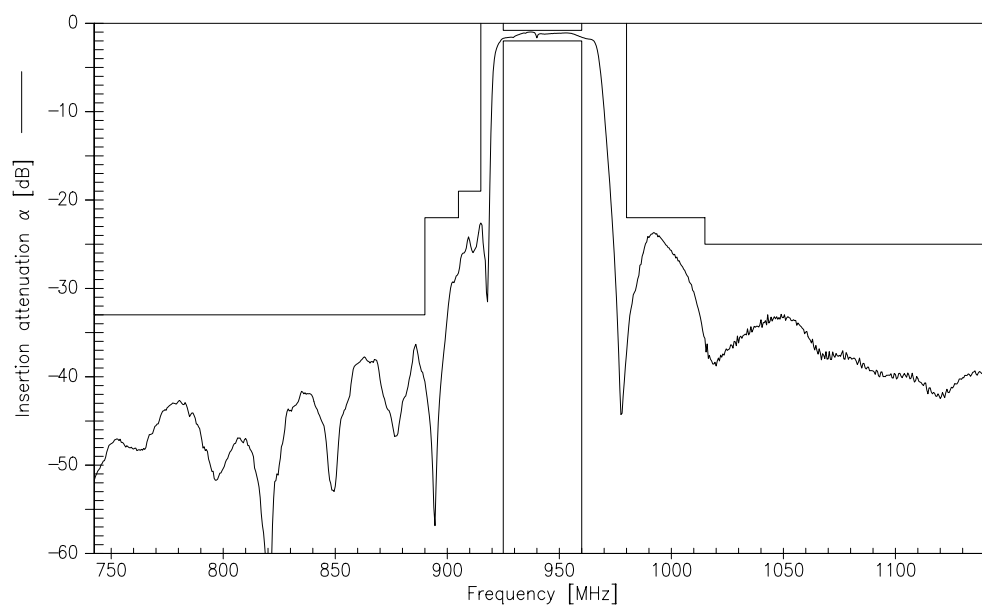
Low-Loss Filter for Mobile Communication

942,5 MHz

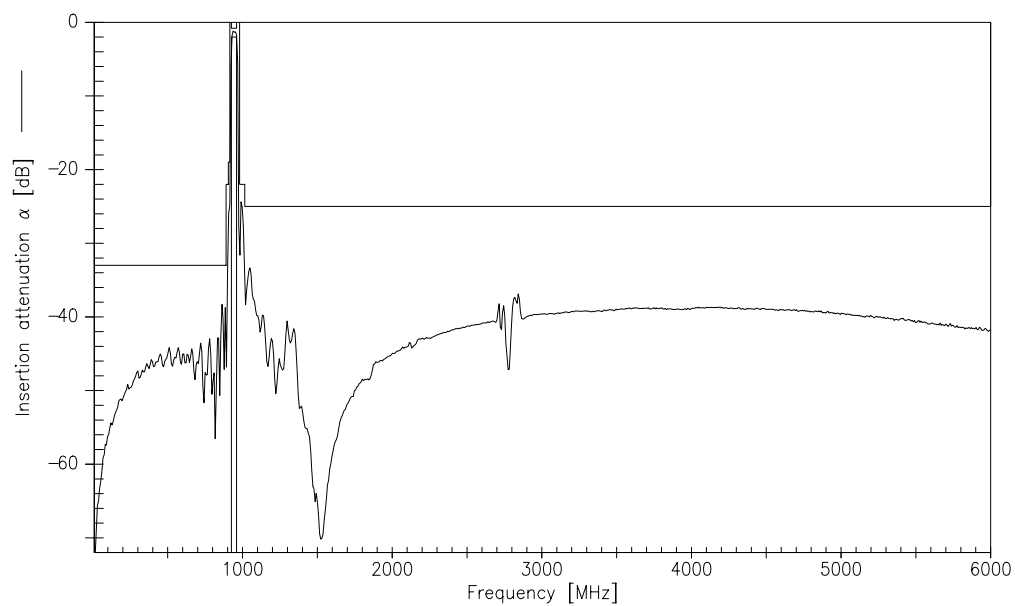
Data Sheet



Transfer function (measurement at 25 °C)



Transfer function (wideband measurement)





SAW Components	B7833
Low-Loss Filter for Mobile Communication	942,5 MHz
Data Sheet	SMD

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