



SAW Components

Data Sheet B9017

Data Sheet

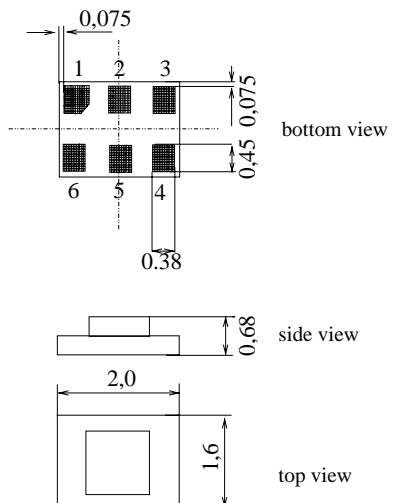
SAW Components
B9017
Low-Loss Filter for Mobile Communication
942,5 MHz
Data Sheet

Chip Size SAW package DCS6T
Features

- Low-loss RF filter for mobile telephone EGSM system, receive path
- Very low insertion attenuation
- Low amplitude ripple
- Usable passband 35 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50Ω to 150Ω
- Package for **Surface Mounted Technology (SMT)**
- Pb-free

Terminals

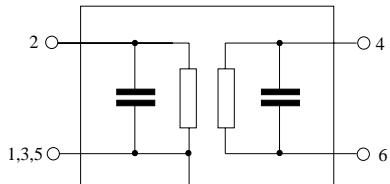
- Ni, gold-plated



Dimensions in mm, approx. weight 0,012g

Pin configuration

2	Input
4	Balanced output
6	Balanced output
1, 3, 5	Ground, to be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B9017	B39941-B9017-K310	C61157-A7-A128	F61074-V8152-Z000

Electrostatic Sensitive Device (ESD)
Maximum ratings

Operable temperature range	T	$-30 / +85$	°C	
Storage temperature range	T_{stg}	$-40 / +85$	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{MM}	100	V	machine model
	V_{HMB}	250	V	human body model
Input power at GSM850, GSM900 GSM1800 and GSM1900 Tx bands	P_{IN}	15	dBm	peak power of GSM signal, duty cycle 4:8



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**Characteristics**

Operating temperature range: $T = +25^\circ\text{C}$
Terminating source impedance: $Z_S = 50 \Omega$
Terminating load impedance: $Z_L = 150 \Omega \parallel 82 \text{ nH}$ (balanced)

			min.	typ.	max.	
Center frequency		f_C	—	942,5	—	MHz
Maximum insertion attenuation		α_{\max}	—	1,6	2,0	dB
	925,0 ... 960,0	MHz	—	1,6	2,0	dB
Amplitude ripple (p-p)		$\Delta\alpha$	—	0,6	1,0	dB
	925,0 ... 960,0	MHz	—	0,6	1,0	dB
Input VSWR			—	1,8	2,0	
	925,0 ... 960,0	MHz	—	1,8	2,0	
Output VSWR			—	1,8	2,0	
	925,0 ... 960,0	MHz	—	1,8	2,0	
Attenuation		α	45	55	—	dB
	0,0 ... 480,0	MHz	45	55	—	dB
	480,0 ... 880,0	MHz	30	39	—	dB
	880,0 ... 905,0	MHz	23	38	—	dB
	905,0 ... 915,0	MHz	20	28	—	dB
	980,0 ... 1500,0	MHz	24	30	—	dB
	1500,0 ... 6000,0	MHz	30	44	—	dB
Diff. to common mode suppression		S_{sc12}	20	30	—	dB
	925,0 ... 960,0	MHz	20	26	—	dB
	824,0 ... 995,0	MHz	20	46	—	dB
	1648,0 ... 1990,0	MHz	20	42	—	dB
	3296,0 ... 3980,0	MHz	20	42	—	dB

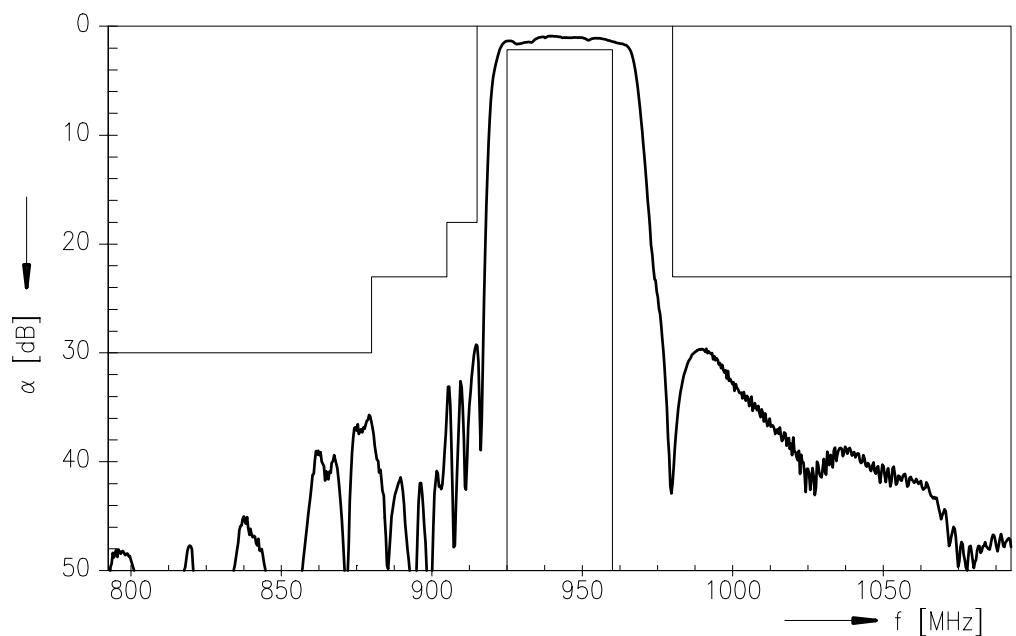
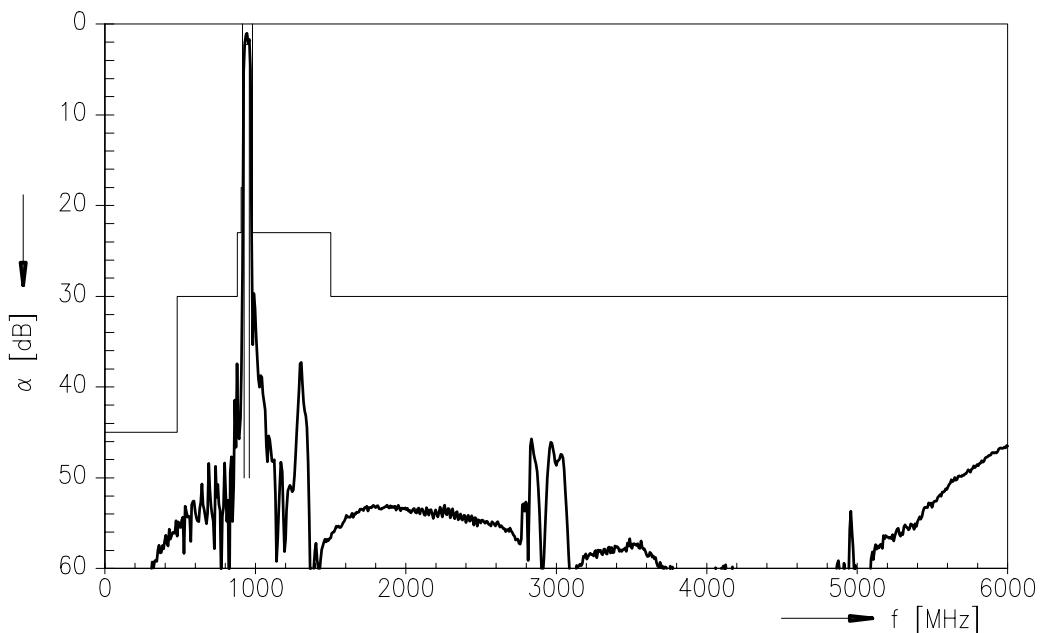
**SAW Components****B9017****Low-Loss Filter for Mobile Communication****942,5 MHz****Data Sheet****Characteristics**

Operating temperature range: $T = -10$ to $+80$ °C
Terminating source impedance: $Z_S = 50$ Ω
Terminating load impedance: $Z_L = 150$ Ω || 82 nH (balanced)

			min.	typ.	max.	
Center frequency		f_C	—	942,5	—	MHz
Maximum insertion attenuation		α_{\max}	—	1,7	2,1 ¹⁾	dB
	925,0 ... 960,0	MHz	—	0,7	1,2 ²⁾	dB
Amplitude ripple (p-p)		$\Delta\alpha$	—	1,8	2,0	
	925,0 ... 960,0	MHz	—	1,8	2,0	
Input VSWR			—	1,8	2,0	
	925,0 ... 960,0	MHz	—	1,8	2,0	
Output VSWR			—	1,8	2,0	
Attenuation		α	45	55	—	dB
	0,0 ... 480,0	MHz	30	39	—	dB
	480,0 ... 880,0	MHz	23	38	—	dB
	880,0 ... 905,0	MHz	18	28	—	dB
	905,0 ... 915,0	MHz	23	30	—	dB
	980,0 ... 1500,0	MHz	30	44	—	dB
	1500,0 ... 6000,0	MHz	20	30	—	dB
Diff. to common mode suppression		S_{sc12}	20	30	—	dB
	925,0 ... 960,0	MHz	20	26	—	dB
	824,0 ... 995,0	MHz	20	46	—	dB
	1648,0 ... 1990,0	MHz	20	42	—	dB
	3296,0 ... 3980,0	MHz				

¹⁾ 2,6 dB for $T = -30$ to $+80$ °C ²⁾ 1,7 dB for $T = -30$ to $+80$ °C

Other guaranteed values for $T = -30$ to $+80$ °C same as for $T = -10$ to $+80$ °C

Transfer function (passband)

Transfer function (wideband)




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