



# SAW Components

Data Sheet B7743





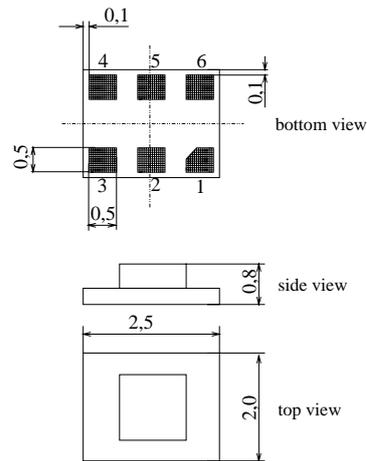
Chip Sized SAW Package DCS6P

Features

- Low-loss RF filter for mobile telephone PCS systems, receive path
- High selectivity
- Low amplitude ripple
- Usable passband 60 MHz
- Unbalanced to balanced operation
- No external matching required
- Package for **Surface Mounted Technology (SMT)**

Terminals

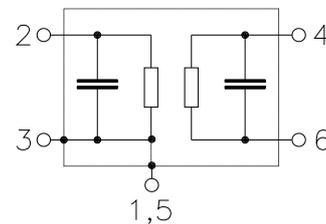
- Gold-plated Ni



Dimensions in mm, approx. weight 0,013 g

Pin configuration

- 2 Input
- 4, 6 Balanced output
- 1, 3, 5 To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B7743	B39202-B7743-E410	C61157-A7-A101	F61074-V8153-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	$V_{ESD}$	50	V	
Input power max.				
880 ... 915 MHz	$P_{IN}$	13	dBm	source and load impedance 50 $\Omega$ peak power of GSM signal, duty cycle 2 : 8
1710 ... 1785 MHz		13	dBm	
1850 ... 1910 MHz		13	dBm	
elsewhere		0	dBm	continuous wave



Data Sheet



Characteristics

Operating Temperature Range:  $T = 25^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$  (unbalanced)  
 Terminating load impedance:  $Z_L = 50\ \Omega$  (balanced)

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	1960,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	2,0	2,5*	dB
1930,0 ... 1990,0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0,5	1,0	dB
1930,0 ... 1990,0 MHz					
<b>Input VSWR</b>		—	1,9	2,1	
1930,0 ... 1990,0 MHz					
<b>Output VSWR</b>		—	1,9	2,1	
1930,0 ... 1990,0 MHz					
<b>Output phase balance (<math>\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}</math>)</b>		-15	—	10	°
1930,0 ... 1990,0 MHz					
<b>Output amplitude balance (<math> S_{31}/S_{21} </math>)</b>		-2,0	—	3,0	dB
1930,0 ... 1990,0 MHz					
<b>Attenuation</b>	$\alpha$				
0,0 ... 1830,0 MHz		25	28	—	dB
1830,0 ... 1910,0 MHz		14	15	—	dB
2020,0 ... 2060,0 MHz		17	18	—	dB
2060,0 ... 2200,0 MHz		27	29	—	dB
2200,0 ... 2260,0 MHz		35	38	—	dB
2260,0 ... 4390,0 MHz		25	28	—	dB
4390,0 ... 6000,0 MHz		18	25	—	dB

\* the insertion attenuation includes also pcb losses of typ. 0,2dB



Data Sheet



Characteristics

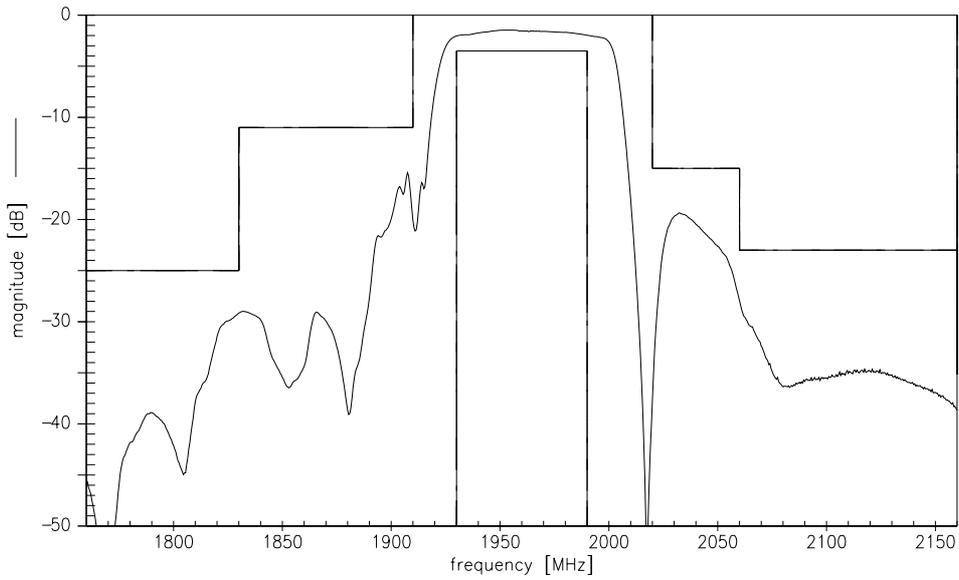
Operating Temperature Range:  $T = -30$  to  $+85^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$  (unbalanced)  
 Terminating load impedance:  $Z_L = 50\ \Omega$  (balanced)

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	1960,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$				
	1930,0 ... 1990,0 MHz	—	2,3	3,5*	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
	1930,0 ... 1990,0 MHz	—	1,0	1,6	dB
<b>Input VSWR</b>					
	1930,0 ... 1990,0 MHz	—	1,9	2,1	
<b>Output VSWR</b>					
	1930,0 ... 1990,0 MHz	—	1,9	2,1	
<b>Output phase balance (<math>\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}</math>)</b>					
	1930,0 ... 1990,0 MHz	-15	—	10	$^{\circ}$
<b>Output amplitude balance (<math> S_{31}/S_{21} </math>)</b>					
	1930,0 ... 1990,0 MHz	-2,0	—	3,0	dB
<b>Attenuation</b>	$\alpha$				
	0,0 ... 1830,0 MHz	25	28	—	dB
	1830,0 ... 1910,0 MHz	11	12	—	dB
	2020,0 ... 2060,0 MHz	15	18	—	dB
	2060,0 ... 2200,0 MHz	23	26	—	dB
	2200,0 ... 2260,0 MHz	35	38	—	dB
	2260,0 ... 4390,0 MHz	25	28	—	dB
	4390,0 ... 6000,0 MHz	18	25	—	dB

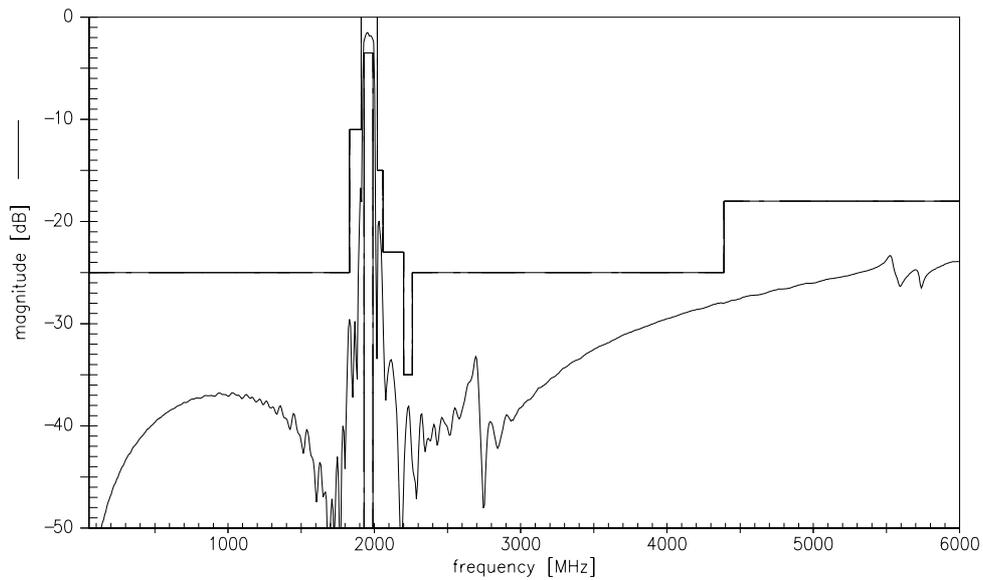
\* the insertion attenuation includes also pcb losses of typ. 0,2dB



Transfer function (narrow band)



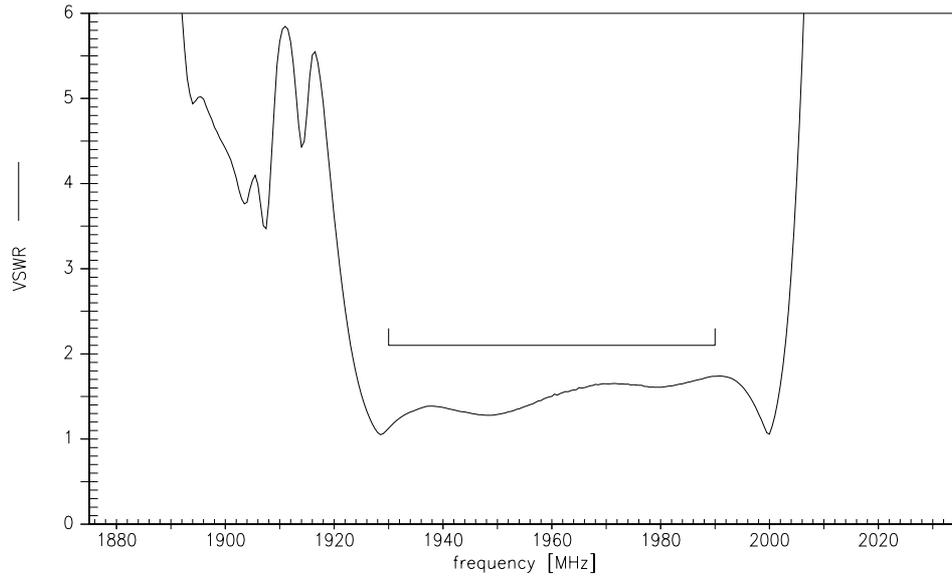
Transfer function (wide band)



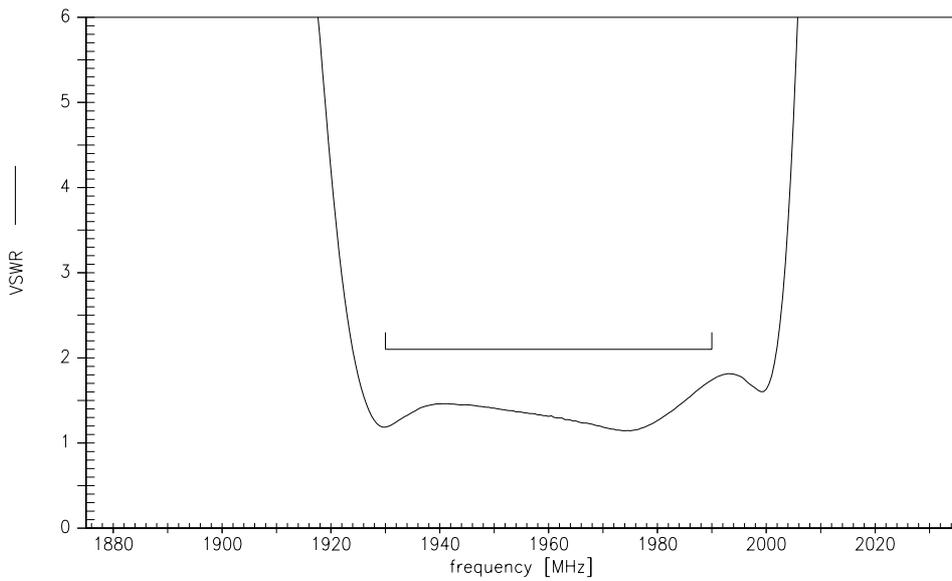


**VSWR (narrow band)**

Input



Output





**SAW Components**

**B7743**

**Low-Loss Filter for Mobile Communication**

**1960,0 MHz**

Data Sheet



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