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SAW Components

Data Sheet B7723

Data Sheet

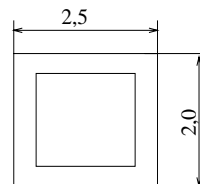
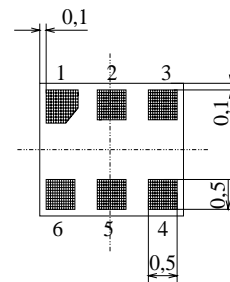
A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are rendered in a white, glowing, sans-serif font, appearing to be part of a larger, curved structure that resembles a globe or a complex circuit board. The background is dark and textured, with a faint map of the world visible.



Chip sized SAW package DCS61

Features

- Low-loss RF filter for mobile telephone GSM 850 systems, transmit path
- Low amplitude ripple
- Usable passband 25 MHz
- Balanced to unbalanced operation
- Impedance transformation from 200 Ω to 50 Ω
- Ceramic package for **Surface Mounted Technology (SMT)**



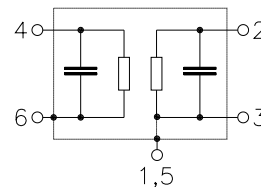
Dimensions in mm, approx. weight 0,014g

Terminals

- Ni, gold-plated

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B7723	B39841-B7723-C610	C61157-A7-A76	F61074-V8112-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 30 / + 85	°C	Source impedance 200 Ω peak power of GSM 850 signal, duty cycle 1:4
Storage temperature range	T_{stg}	- 40 / + 85	°C	
DC voltage	V_{DC}	5	V	
ESD	V_{ESD}	50	V	
Input power max.	P_{IN}	15	dBm	



SAW Components

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Low-Loss Filter for Mobile Communication

836,5 MHz

Data Sheet

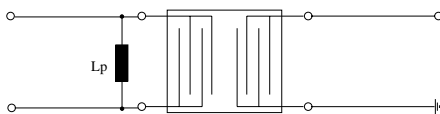


Characteristics

Operating temperature range: $T = 25 \pm 2^\circ\text{C}$
 Terminating source impedance: $Z_S = 200 \Omega // 56 \text{ nH}$ (balanced)
 Terminating load impedance: $Z_L = 50 \Omega$ (unbalanced)

		min.	typ.	max.	
Center frequency	f_C	—	836,5	—	MHz
Maximum insertion attenuation	α_{max}				
	824,0 ... 849,0 MHz	—	2,1	2,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	824,0 ... 849,0 MHz	—	0,6	0,8	dB
Balanced input VSWR					
	824,0 ... 849,0 MHz	—	1,7	2,0	
Unbalanced output VSWR					
	824,0 ... 849,0 MHz	—	1,7	2,0	
Differential to Common mode Suppression	$S_{\text{sc}12}$				
	0,1 ... 804,0 MHz	20	50	—	dB
	824,0 ... 849,0 MHz	20	25	—	dB
	869,0 ... 6000,0 MHz	20	35	—	dB
Attenuation	α				
	0,0 ... 800,0 MHz	42	54	—	dB
	869,0 ... 894,0 MHz	27	30	—	dB
	894,0 ... 1000,0 MHz	30	40	—	dB
	1000,0 ... 3000,0 MHz	40	46	—	dB
	3000,0 ... 4000,0 MHz	30	36	—	dB
	4000,0 ... 6000,0 MHz	23	28	—	dB
Rx band suppression	α				
	869,0 ... 894,0 MHz	27	30	—	dB

Test matching network



$L_p = 56 \text{ nH}$



SAW Components

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Low-Loss Filter for Mobile Communication

836,5 MHz

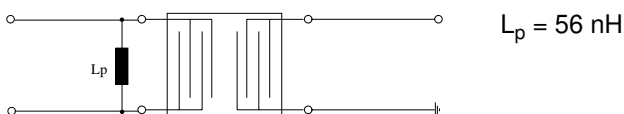
**Data Sheet
Characteristics**



Operating temperature range: $T = -30$ to $85\text{ }^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 200\ \Omega // 56\ \text{nH}$ (balanced)
 Terminating load impedance: $Z_L = 50\ \Omega$ (unbalanced)

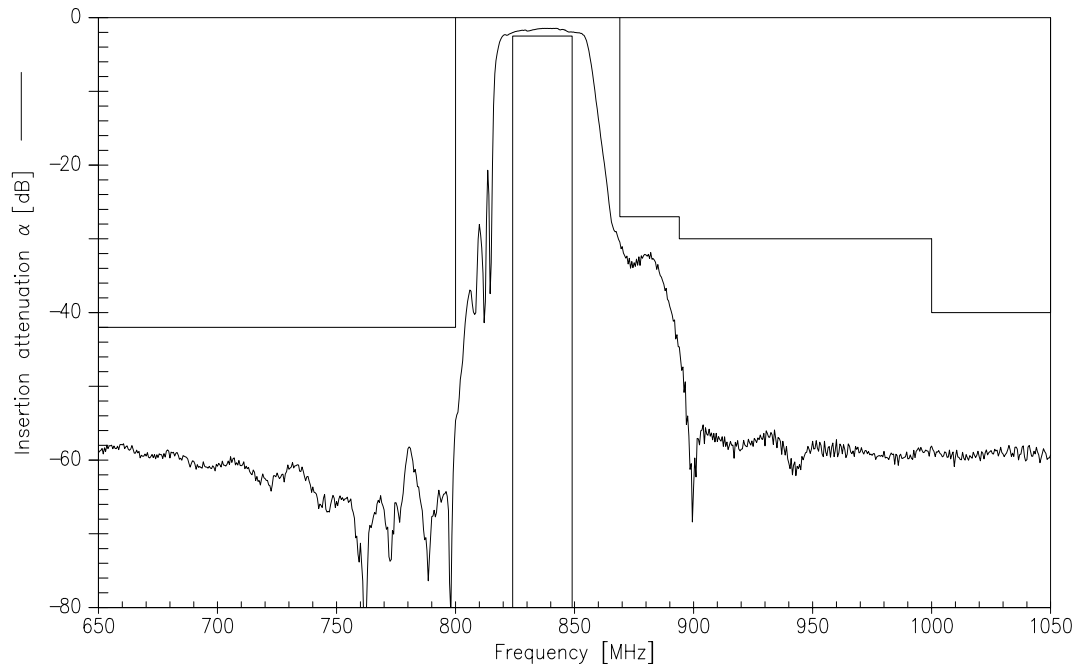
		min.	typ.	max.	
Center frequency	f_C	—	836,5	—	MHz
Maximum insertion attenuation	α_{max}	—	2,3	2,5	dB
	824,0 ... 849,0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	0,8	1,0	dB
	824,0 ... 849,0 MHz				
Balanced input VSWR		—	1,7	2,0	
	824,0 ... 849,0 MHz				
Unbalanced output VSWR		—	1,7	2,0	
	824,0 ... 849,0 MHz				
Differential to Common mode Suppression	$S_{\text{sc}12}$				dB
	0,1 ... 804,0 MHz	20	50	—	dB
	824,0 ... 849,0 MHz	20	25	—	dB
	869,0 ... 6000,0 MHz	20	35	—	dB
Attenuation	α				dB
	0,0 ... 800,0 MHz	40	54	—	dB
	869,0 ... 894,0 MHz	25	30	—	dB
	894,0 ... 1000,0 MHz	30	40	—	dB
	1000,0 ... 3000,0 MHz	40	46	—	dB
	3000,0 ... 4000,0 MHz	30	36	—	dB
	4000,0 ... 6000,0 MHz	23	28	—	dB
Rx band suppression	α				dB
	869,0 ... 894,0 MHz	25	30	—	dB

Test matching network

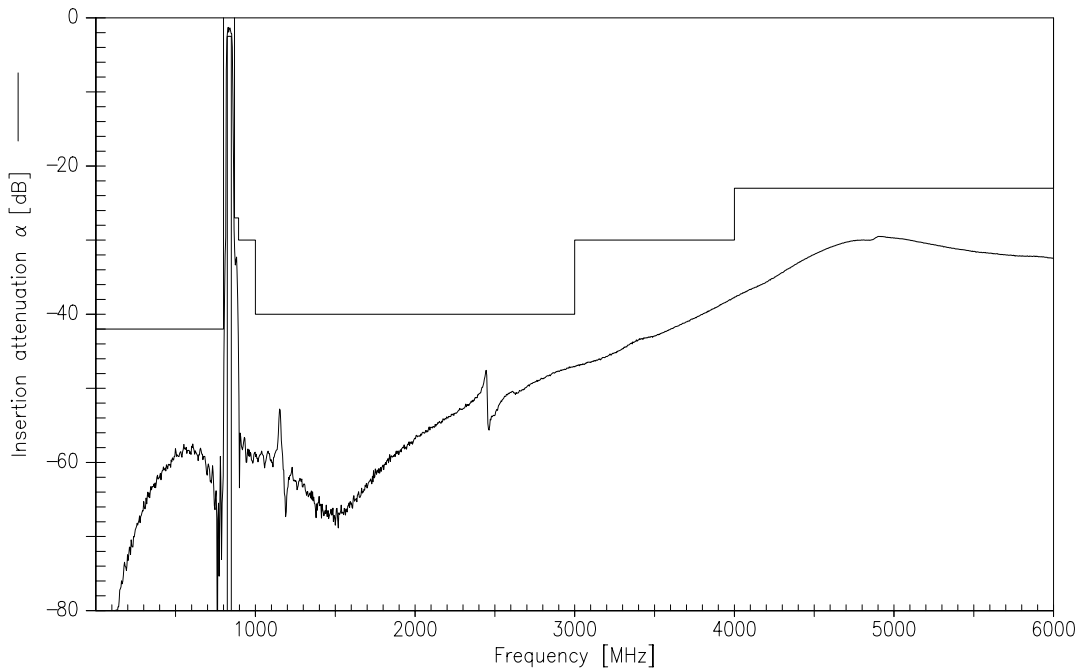




Transfer function (spec at 25° C)



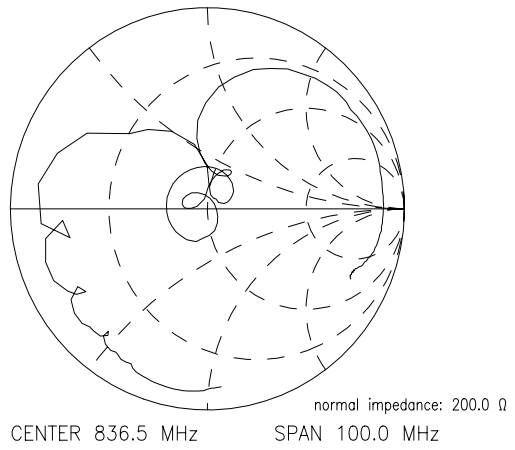
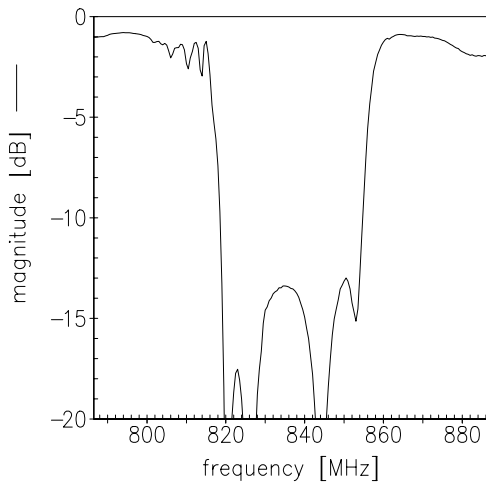
Transfer function (wideband)



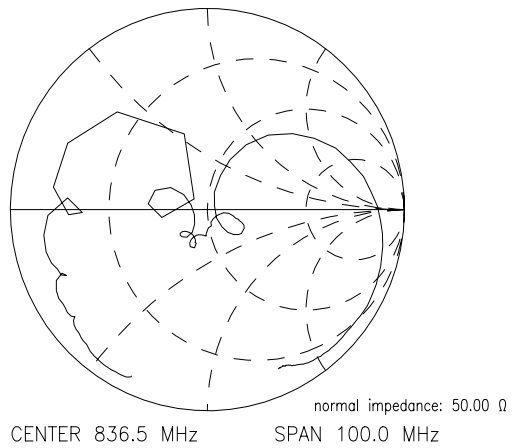
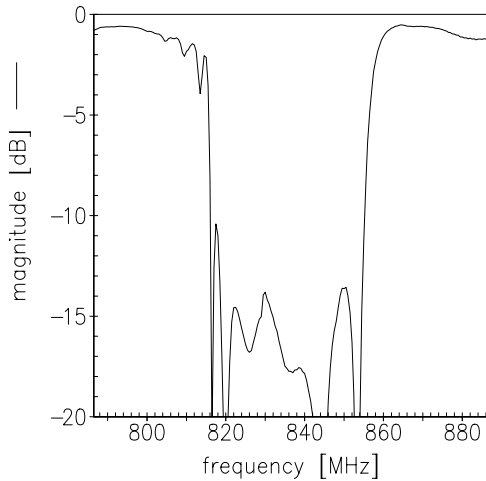


Matching (measurement including calculated matching network; S11 is balanced input)

S₁₁



S₂₂





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836,5 MHz

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