



SAW Components

Data Sheet B7704, Pb-Free



Data Sheet

EPCOS



SAW Components

B7704

Low-Loss Filter for Mobile Communication

881,5 MHz

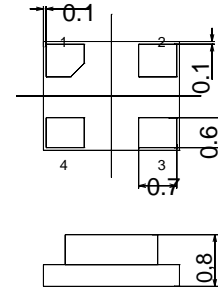
Data Sheet



Chip Sized SAW Package DCS4H

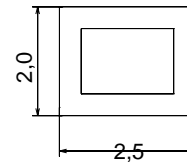
Features

- Low-loss RF filter for mobile telephone Cell systems, receive path
- Low amplitude ripple
- Usable passband 25 MHz
- Suitable for GPRS class 1 to 12
- Pb-Free
- Package for **Surface Mounted Technology (SMT)**



Terminals

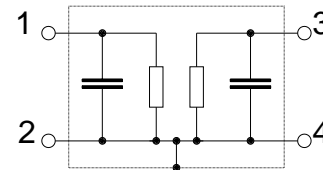
- Gold-plated Ni



Dimensions in mm, approx. weight 0,015 g

Pin configuration

- 1 Input
- 3 Output
- 2, 4 Ground



Type	Ordering code	Marking and Package according to	Packing according to
B7704	B39881-B7704-K710	C61157-A7-A136	F61074-V8189-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operating temperature range	T	- 30/+ 85	°C	Machine Model, 10 pulses peak power of GSM signal, duty cycle 4:8
Storage temperature range	T_{stg}	- 40/+ 85	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V^*_{ESD}	100	V	
Input Power at GSM850, GSM900, GSM1800 and GSM1900 Tx bands	P_{IN}	15	dBm	

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



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Characteristics

Operating temperature range: $T = -20$ to $+80$ °C
 Terminating source impedance: $Z_S = 50$ Ω
 Terminating load impedance: $Z_L = 50$ Ω

			min.	typ.	max.	
Center frequency	f_C		—	881,5	—	MHz
Maximum insertion attenuation	α_{max}	869,0 ... 894,0 MHz	—	2,4	2,6	dB
Amplitude ripple (p-p)	$\Delta\alpha$	869,0 ... 894,0 MHz	—	0,8	1,0	dB
Return loss		869,0 ... 894,0 MHz	—	12,0	10,0	dB
Attenuation	α					
		0,0 ... 780,0 MHz	45,0	62,0	—	dB
		780,0 ... 840,0 MHz	45,0	55,0	—	dB
		840,0 ... 851,0 MHz	38,0	40,0	—	dB
		914,0 ... 924,0 MHz	24,0	26,0	—	dB
		924,0 ... 950,0 MHz	35,0	40,0	—	dB
		950,0 ... 1000,0 MHz	35,0	50,0	—	dB
		1000,0 ... 2200,0 MHz	40,0	50,0	—	dB
		2200,0 ... 3000,0 MHz	35,0	42,0	—	dB
		3000,0 ... 4000,0 MHz	20,0	28,0	—	dB
		4000,0 ... 6000,0 MHz	10,0	18,0	—	dB
Tx band suppression	α	824,0 ... 849,0 MHz	38,0	40,0	—	dB



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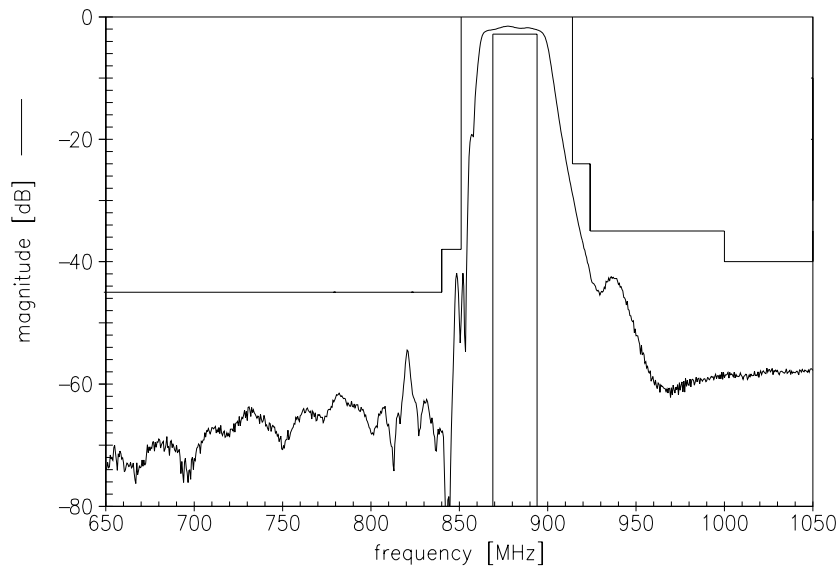
Characteristics

Operating temperature range: $T = -30$ to $+85$ °C
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

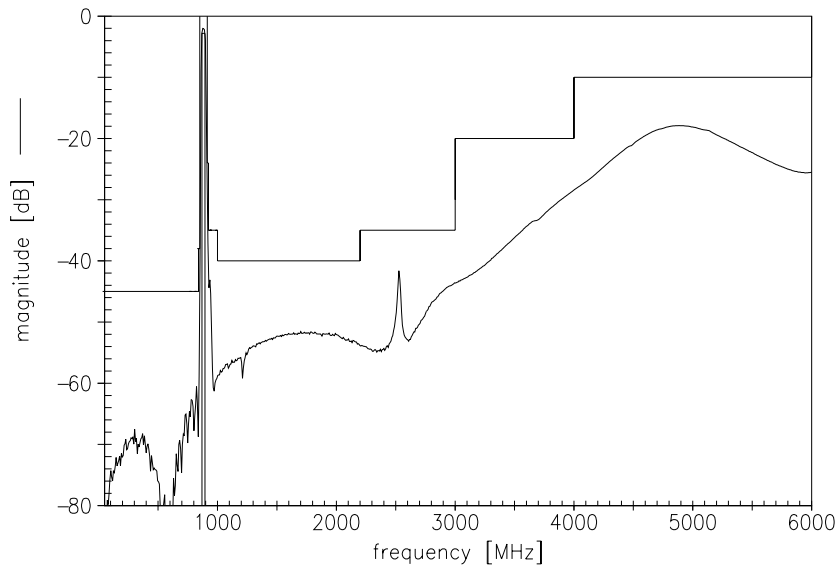
			min.	typ.	max.	
Center frequency	f_C		—	881,5	—	MHz
Maximum insertion attenuation	α_{max}					
	869,0 ... 894,0 MHz		—	2,5	2,7	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	869,0 ... 894,0 MHz		—	0,9	1,1	dB
Return loss						
	869,0 ... 894,0 MHz		—	12,0	10,0	dB
Attenuation	α					
	0,0 ... 780,0 MHz		45,0	62,0	—	dB
	780,0 ... 840,0 MHz		45,0	55,0	—	dB
	840,0 ... 851,0 MHz		38,0	40,0	—	dB
	914,0 ... 924,0 MHz		24,0	26,0	—	dB
	924,0 ... 950,0 MHz		35,0	40,0	—	dB
	950,0 ... 1000,0 MHz		35,0	50,0	—	dB
	1000,0 ... 2200,0 MHz		40,0	50,0	—	dB
	2200,0 ... 3000,0 MHz		35,0	42,0	—	dB
	3000,0 ... 4000,0 MHz		20,0	28,0	—	dB
	4000,0 ... 6000,0 MHz		10,0	18,0	—	dB
Tx band suppression	α					
	824,0 ... 849,0 MHz		38,0	40,0	—	dB



Transfer function

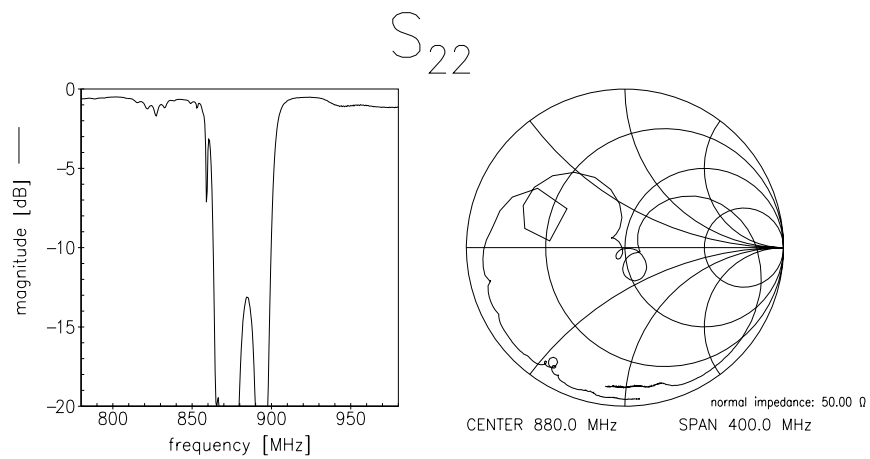
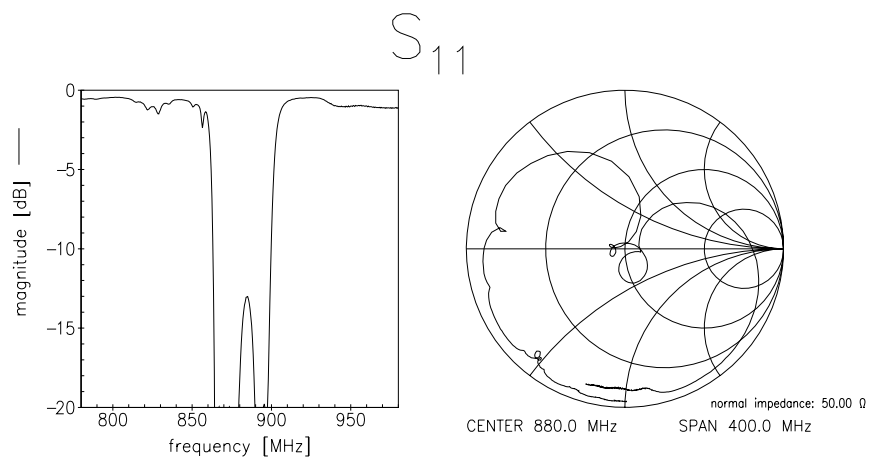


Transfer function (wideband)





Reflection functions





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Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW MC PD

P.O. Box 80 17 09, D-81617 München

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