EPCOS

SAW Components

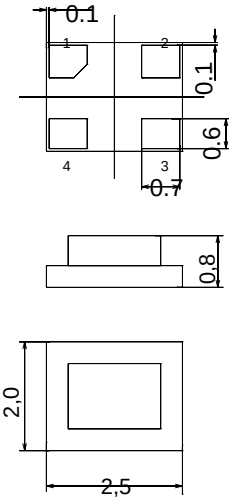
Data Sheet B7704, Pb-Free

Data Sheet SMD

Chip **S**ized **S**AW **P**ackage **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 **S**urface **M**ounted **T**echnology **(SMT)**



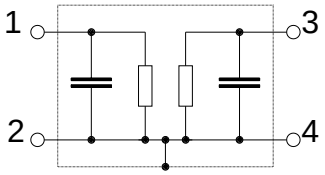
Terminals

- 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 **S**ensitive **D**evice (**ESD**)

Maximum ratings

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

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

Characteristics

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

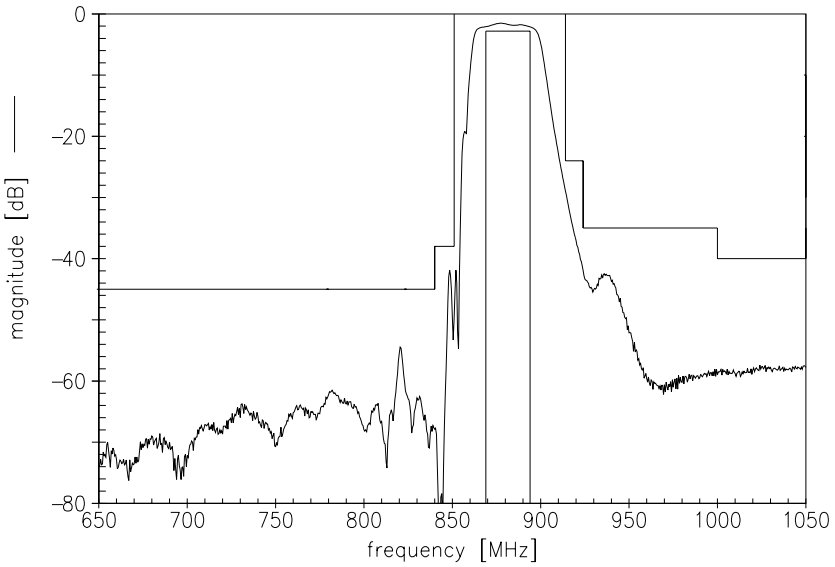
			min.	typ.	max.	
Center frequency	f_C		—	881,5	—	MHz
Maximum insertion attenuation	α_{max}					
869,0 ... 894,0	MHz		—	2,4	2,6	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
869,0 ... 894,0	MHz		—	0,8	1,0	dB
Return loss						
869,0 ... 894,0	MHz		—	12,0	10,0	dB
Attenuation	α					
0,0 ... 780,0	MHz		45,0	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

Characteristics

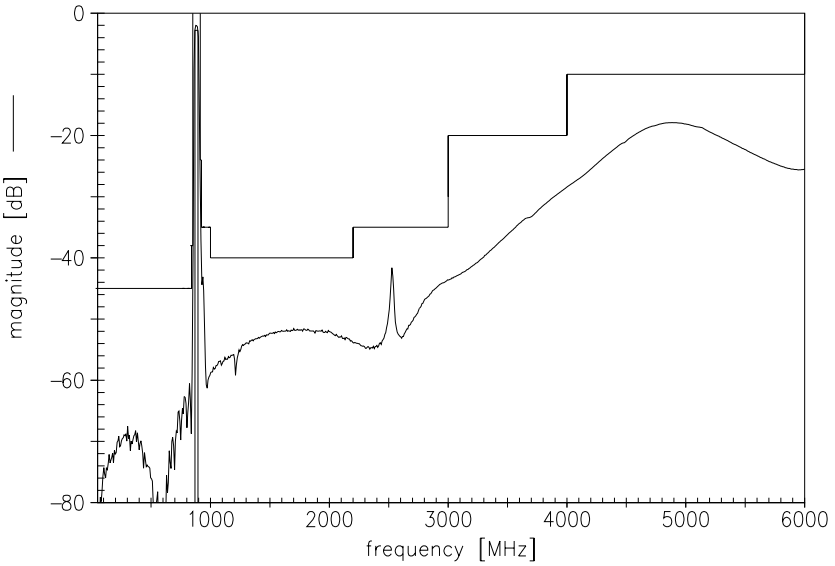
Operating temperature range: T = -30 to +85 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency	f_C	—	881,5	—	MHz
Maximum insertion attenuation	α_{max}				
869,0 ... 894,0 MHz		—	2,5	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

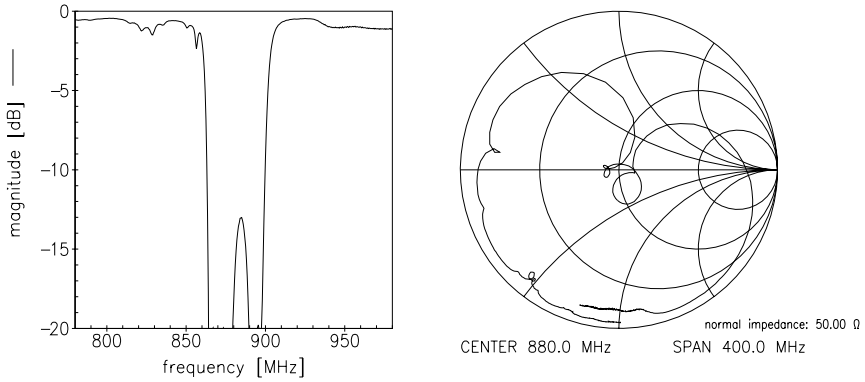


Transfer function (wideband)

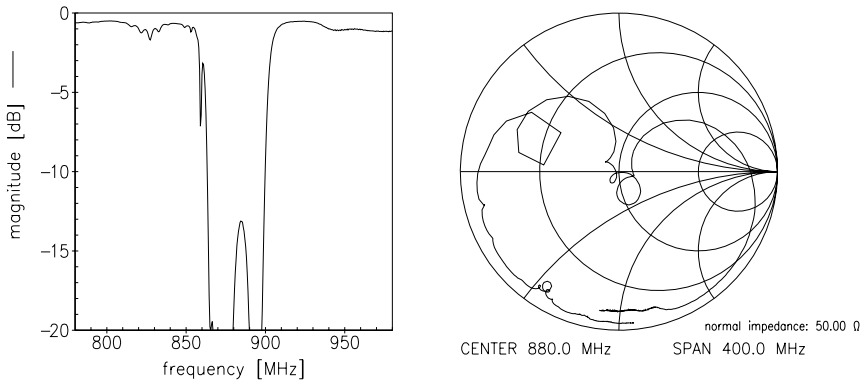


Reflection functions

S_{11}



S_{22}



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