EPCOS

SAW Components

Data Sheet B7764



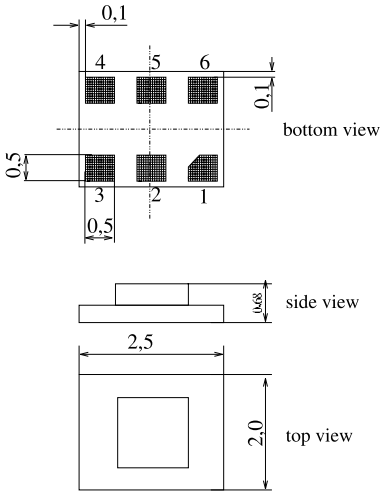
Chip Sized SAW Package DCS6P

Features

- Low-loss RF filter for mobile telephone EGSM system, transmit path
- Low amplitude ripple
- Usable passband 35 MHz
- Balanced to unbalanced operation
- Impedance transformation from 100 Ω to 50 Ω
- Suitable for GPRS class 1 to 12
- Package for **S**urface **M**ounted **T**echnology (**SMT**)

Terminals

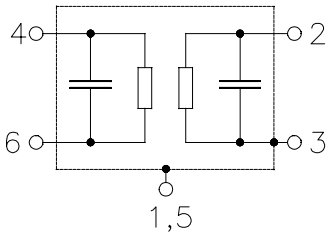
- Ni, gold-plated



Dimensions in mm, approx. weight 0,010 g

Pin configuration

4	Balanced input
6	Balanced input
2	Output
1,3, 5	Ground, to be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B7764	B39901-B7764-E410	C61157-A7-A101	F61074-V8153-Z000

Electrostatic **S**ensitive **D**evice (**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_{HBM}	250	V	human body model
Input power at				
GSM850, GSM900 Tx bands	P_{in}	15	dBm	peak power of GSM signal, duty cycle 4:8
GSM1800, GSM1900 Tx bands		15		

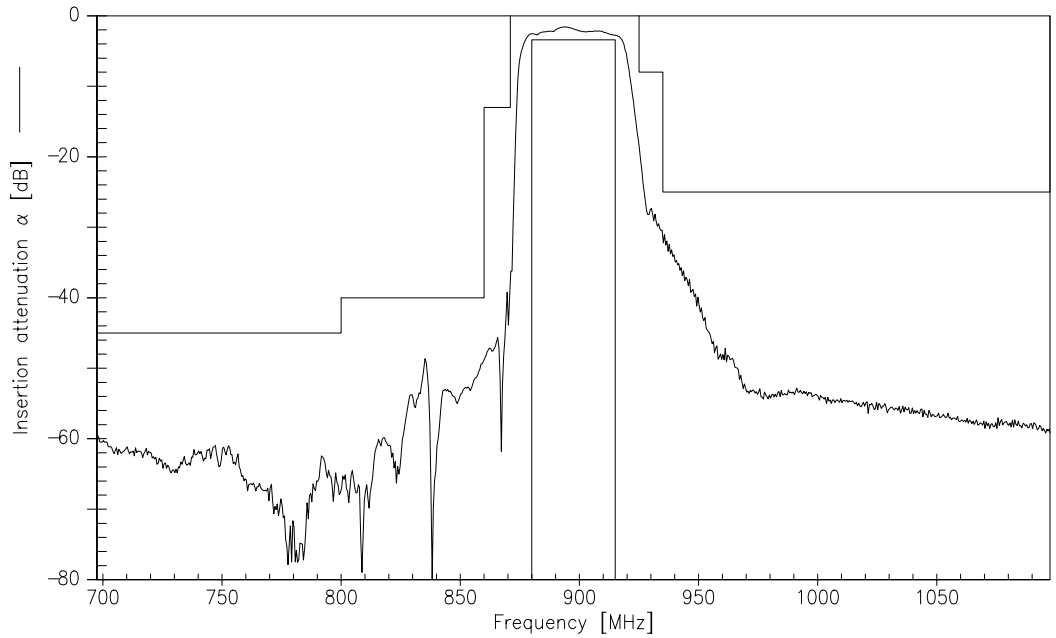
Characteristics

Operating temperature range: T = -10 ... +75 ˚C
Terminating source impedance: Z_S = 100 Ω || 33 nH (balanced)
Terminating load impedance: Z_L = 50 Ω

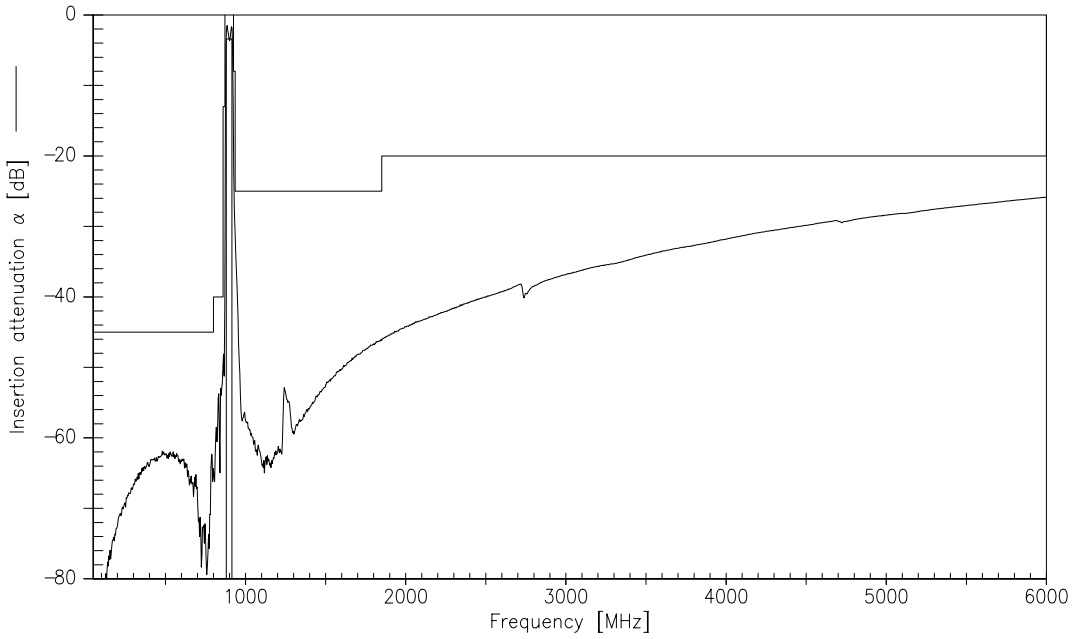
		min.	typ.	max.	
Nominal frequency	f_N	—	897,5	—	MHz
Maximum insertion attenuation	α_{max}				
880,0 ... 915,0 MHz		—	2,9	3,4*	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
880,0 ... 915,0 MHz		—	1,3	1,9	dB
Output phase balance ($\phi(S_{31})-\phi(S_{21})+180^\circ$)					
880,0 ... 915,0 MHz		-10	0	10	°
Output amplitude balance ($\lvert S_{31}/S_{21}\rvert$)					
880,0 ... 915,0 MHz		-0,8	0,2	1,2	dB
Input VSWR					
880,0 ... 915,0 MHz		—	1,8	2,1	
Output VSWR					
880,0 ... 915,0 MHz		—	2,0	2,2	
Attenuation	α				
0,0 ... 800,0 MHz		45	58	—	dB
800,0 ... 860,0 MHz		40	46	—	dB
860,0 ... 870,0 MHz		13	23	—	dB
925,0 ... 935,0 MHz		8	15	—	dB
935,0 ...1850,0 MHz		25	35	—	dB
1850,0 ...6000,0 MHz		20	25	—	dB

* 6,5 dB for T= -30 to +85 ˚C

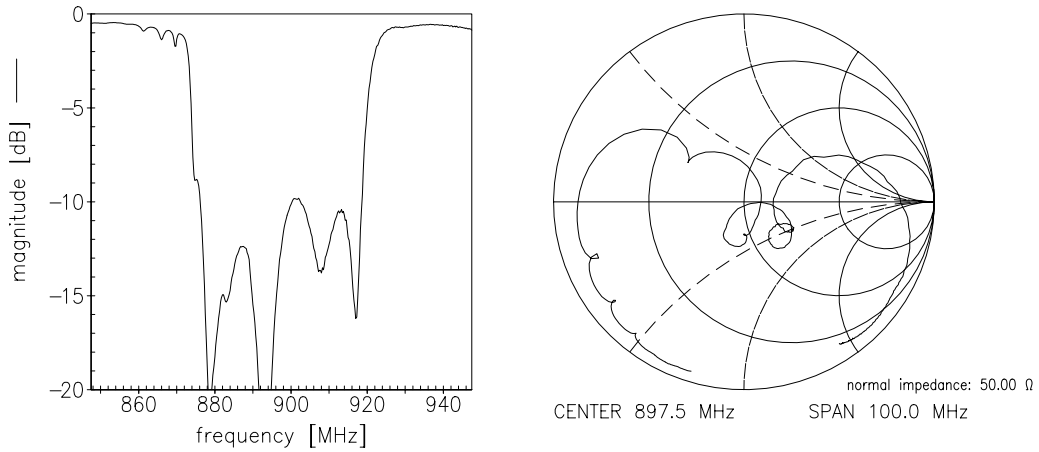
Transfer function



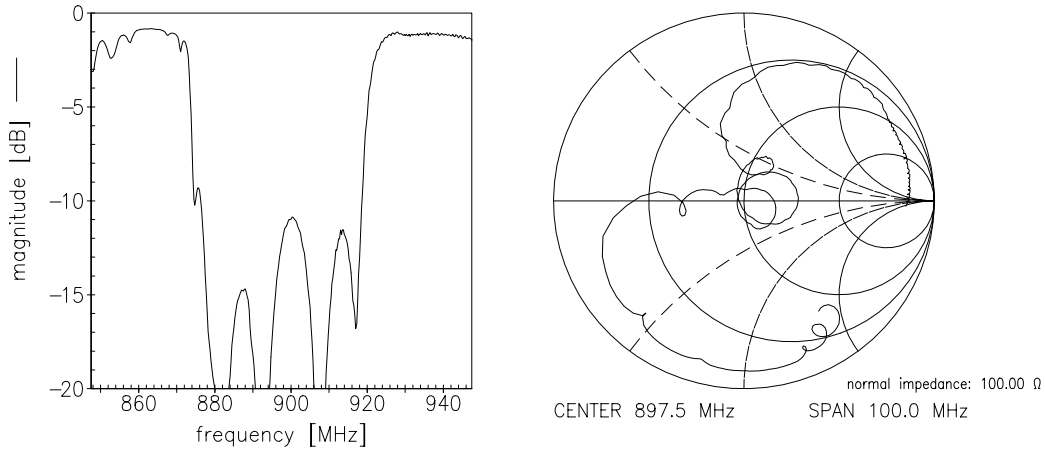
Transfer function (wideband measurement)



S_{22}


0
-5
-10
-15
-20
magnitude [dB]
860
880
900
920
940
frequency [MHz]
normal impedance: 50.00 Ω
CENTER 897.5 MHz
SPAN 100.0 MHz

S_{11}


0
-5
-10
-15
-20
magnitude [dB]
860
880
900
920
940
frequency [MHz]
normal impedance: 100.00 Ω
CENTER 897.5 MHz
SPAN 100.0 MHz

Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW MC WT
P.O. Box 80 17 09, D-81617 München

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