

Data Sheet B7724





B7724

# **Low-Loss Filter for Mobile Communication**

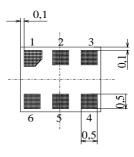
836,5 MHz

#### **Data Sheet**



#### **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  $\Omega$ to 50  $\Omega$
- Ceramic package for Surface Mounted Technology (SMT)



Chip sized SAW package DCS6I

# 2,5 2,0

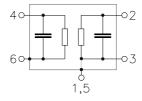
#### **Terminals**

■ Ni, gold-plated

Dimensions in mm, approx. weight 0,014g

## Pin configuration

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



Туре	Ordering code	Marking and Package according to	Packing according to		
B7724	B39841-B7724-C610	C61157-A7-A76	F61074-V8112-Z000		

Electrostatic Sensitive Device (ESD)

### **Maximum ratings**

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



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**Data Sheet Characteristics**  Operating temperature range:  $T = -20 \text{ to } 80 \,^{\circ}\text{C}$  $Z_{\rm S} = 200~\Omega$  (balanced)  $Z_{\rm L} = 50~\Omega$  (unbalanced) Terminating source impedance: Terminating load impedance:

			min.	typ.	max.	
Center frequency		$f_{\mathbb{C}}$	_	836,5	_	MHz
Maximum insertion attenuation		$\alpha_{max}$		0.0	0.0	4D
824,0 849,	0 MHz		_	2,3	2,6	dB
Amplitude ripple (p-p)		Δα				
824,0 849,	0 MHz		<u> </u>	0,9	1,2	dB
Delever discontinuity and and						
Balanced input return loss	0 1411		7.0			I.D.
824,0 849,	0 MHz		7,0	8,0		dB
Unbalanced output return loss						
824,0 849,	0 MHz		7,0	8,0		dB
Common mode Summercian		c				
Common mode Suppression	O MIL	S <sub>sc12</sub>	20	<b>50</b>		4D
0,1 804,			30	50	_	dB
824,0 849,			20	25	_	dB
869,06000,	0 MHz		30	35		dB
Attenuation		α				
0,0 800,	0 MHz		40	55		dB
869,0 894,	0 MHz		25	36	_	dB
894,01000,	0 MHz		30	60	_	dB
1000,03000,	0 MHz		40	45	_	dB
3000,04000,	0 MHz		30	34	_	dB
4000,06000,	0 MHz		23	26	_	dB
Rx band suppression		04				
	0 MH-	α	25	26		4D
869,0 894,	0 MHz		25	36	_	dB



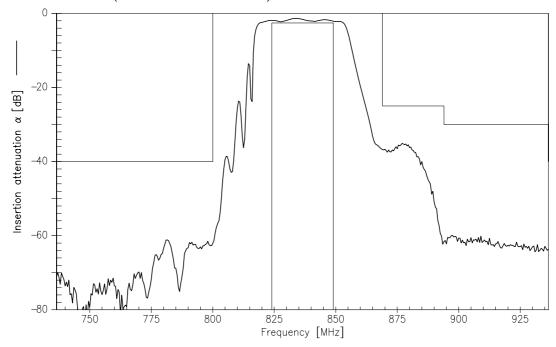
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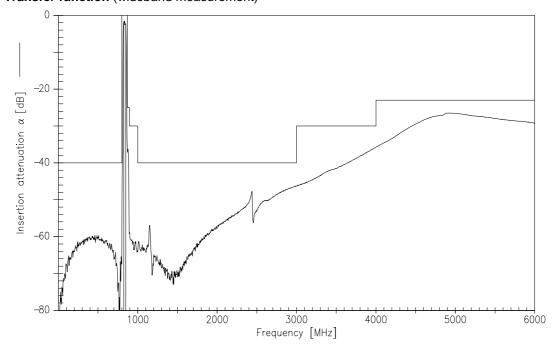
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# Transfer function (narrowband measurement)



# Transfer function (wideband measurement)





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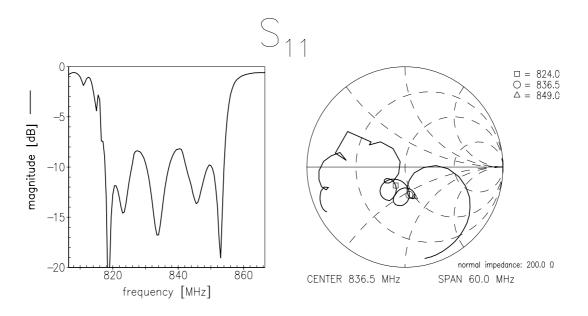
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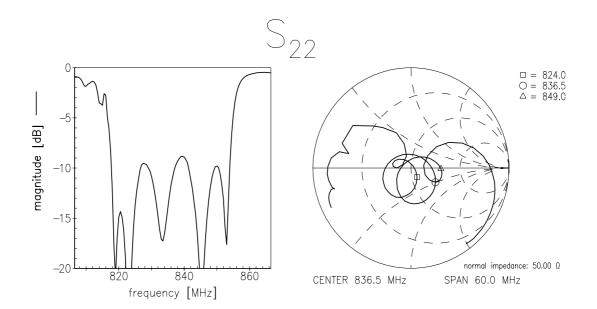
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Matching (measurement; S11 is balanced input )







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