

Data Sheet B7733





B7733

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

881,5 MHz

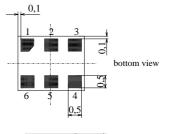
**Data Sheet** 

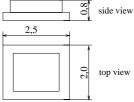


#### **Features**

- Low-loss RF filter for mobile telephone cellular system, receive path
- Low amplitude ripple
- Usable passband 25 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50  $\Omega$  to100  $\Omega$
- Package for Surface Mounted Technology (SMT)

## Chip Size SAW package DCS6I





#### **Terminals**

Ni, gold-plated

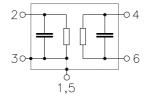
Dimensions in mm, approx. weight 0,014g

#### Pin configuration

2	Input
---	-------

4 Balanced output 6 Balanced output

1,3,5 Ground, to be grounded



Туре	Ordering code	Marking and Package according to	Packing according to		
B7733	B39881-B7733-C610	C61157-A7-A76	F61074-V8153-Z000		

Electrostatic Sensitive Device (ESD)

## **Maximum ratings**

Operable temperature range	T	<b>- 40 / + 85</b>	°C	
Storage temperature range	$T_{ m stg}$	<b>- 40 / + 85</b>	°C	
DC voltage	$V_{\rm DC}$	5	V	
Input power max.				
	$P_{IN}$	0	dBm	source impedance 50 $\Omega$
				CDMA signal



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#### **Characteristics**

T = -30 to +85 °C  $Z_{\rm S}$  = 50  $\Omega$  (unbalanced)  $Z_{\rm L}$  = 100  $\Omega$  (balanced) Operating temperature range: Terminating source impedance: Terminating load impedance:

				min.	typ.	max.	
Center frequency			$f_{\mathbb{C}}$	_	881,5	_	MHz
Maximum insertion attenuation		$\alpha_{max}$					
869,0	894,0	MHz		_	2,7	3,0	dB
Amplitude ripple (p-p)			Δα				
869,0	894,0	MHz			1,2	1,5	dB
Input VSWR							
869,0	894,0	MHz			2,0	2,1	
Output VSWR							
869,0	894,0	MHz		_	2,0	2,1	
Output amplitude imbalance $( S_{31}/S_{21} )$							
869,0	894,0	MHz		-1,5	_	2,0	dB
Output phase imbalance $(\phi(S_{31})-\phi(S_{21})+180^{\circ})$							
869,0	894,0	MHz		-5,0	_	7,0	degree
Attenuation			α				
	824,0	MHz		46,0	53,0	_	dB
	849,0	MHz		34,0	41,0	_	dB
	1000,0	MHz		25,0	30,0	_	dB
	2000,0	MHz		35,0	47,0	_	dB
2000,0	3000,0	MHz		30,0	40,0	_	dB

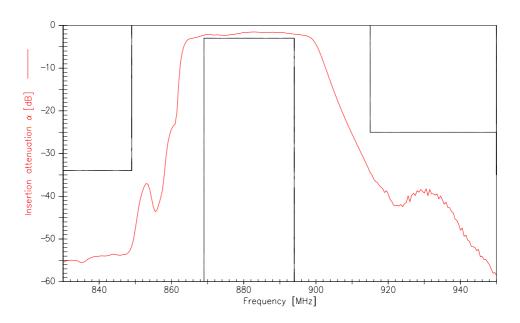


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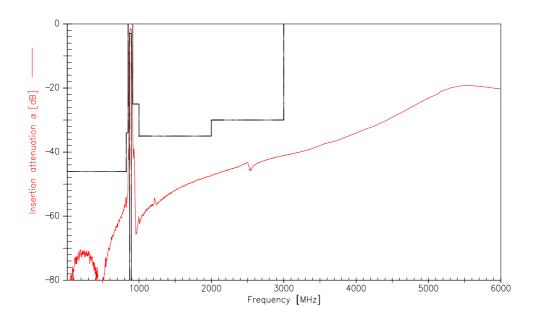
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## **Transfer function**



# Transfer function (wideband)





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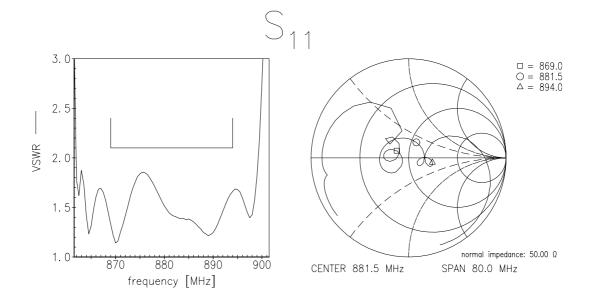
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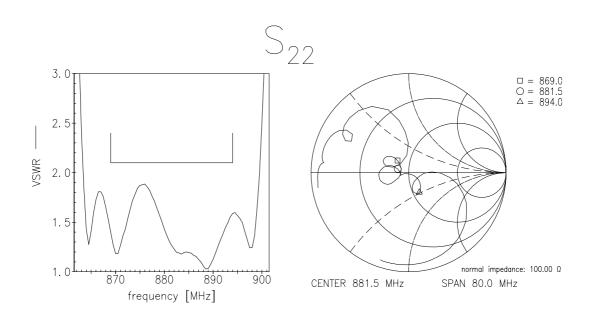
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#### **Reflection functions**





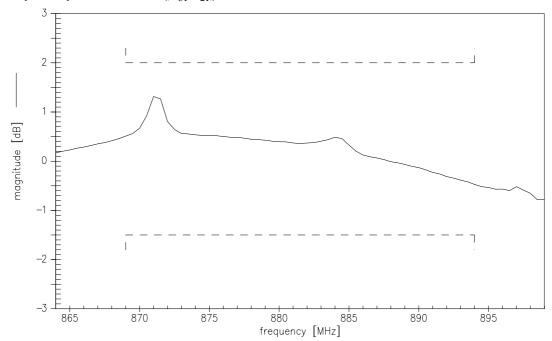


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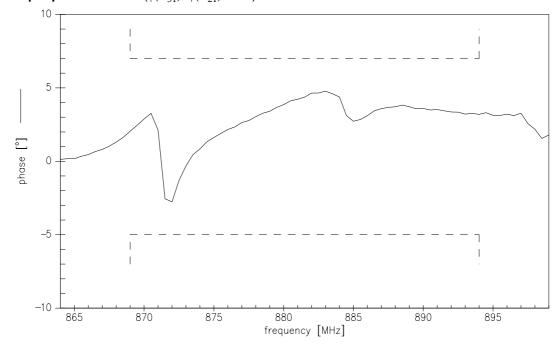
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# Output amplitude balance ( $|S_{31}/S_{21}|$ )



## Output phase balance $(\phi(S_{31})-\phi(S_{21})+180^{\circ})$





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