EPCOS

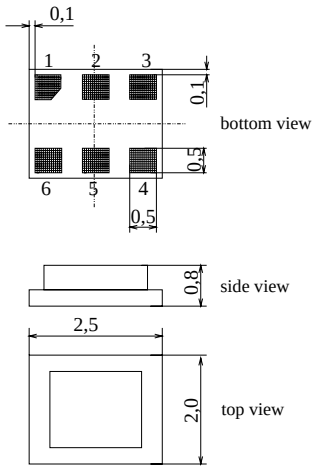
SAW Components

Data Sheet B7733

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 Ω to100 Ω
- Package for **S**urface **M**ounted **T**echnology **(SMT)**

Chip Size SAW package DCS6I



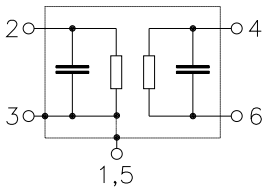
Terminals

- 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



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

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

Maximum ratings

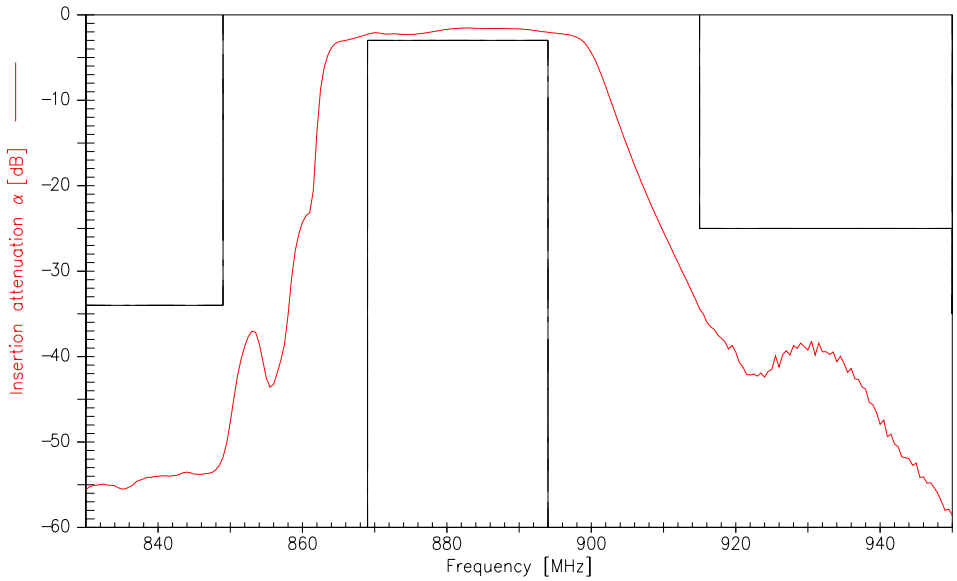
Operable temperature range	T	– 40 / + 85	˚C	
Storage temperature range	T_{stg}	– 40 / + 85	˚C	
DC voltage	V_{DC}	5	V	
Input power max.	P_{IN}	0	dBm	source impedance 50 Ω CDMA signal

Characteristics

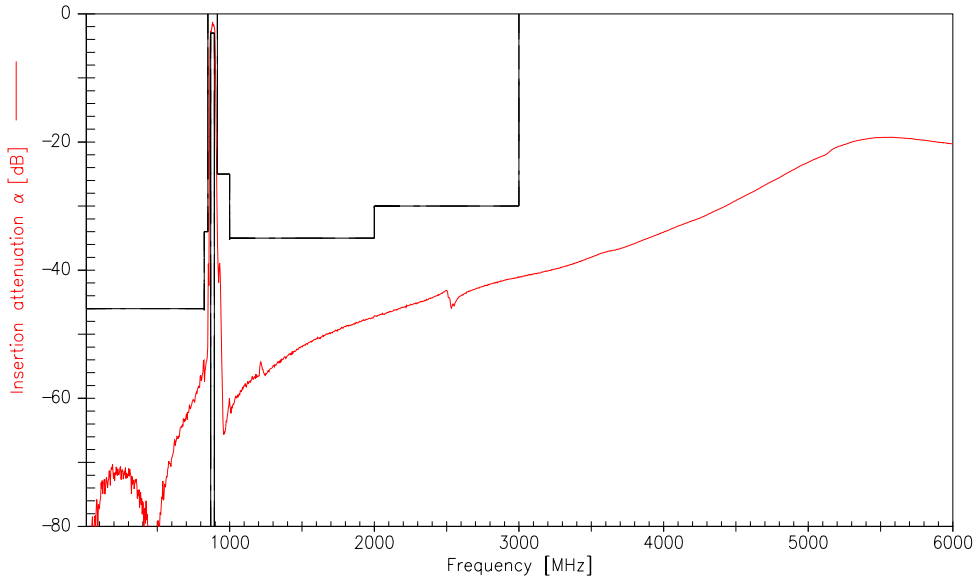
Operating temperature range: T = -30 to +85 °C
Terminating source impedance: Z_S = 50 Ω (unbalanced)
Terminating load impedance: Z_L = 100 Ω (balanced)

		min.	typ.	max.	
Center frequency	f_C	—	881,5	—	MHz
Maximum insertion attenuation	α_{max}				
869,0 ... 894,0 MHz		—	2,7	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
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 ($\lvert S_{31}/S_{21}\rvert$)					
869,0 ... 894,0 MHz		-1,5	—	2,0	dB
Output phase imbalance ($\phi(S_{31})-\phi(S_{21})+180°$)					
869,0 ... 894,0 MHz		-5,0	—	7,0	degree
Attenuation	α				
0,0 ... 824,0 MHz		46,0	53,0	—	dB
824,0 ... 849,0 MHz		34,0	41,0	—	dB
915,0 ...1000,0 MHz		25,0	30,0	—	dB
1000,0 ...2000,0 MHz		35,0	47,0	—	dB
2000,0 ...3000,0 MHz		30,0	40,0	—	dB

Transfer function

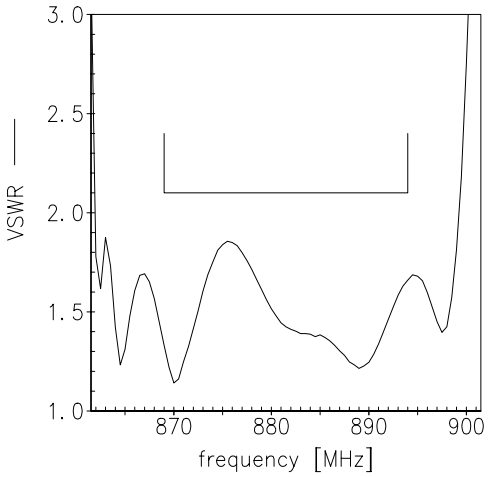


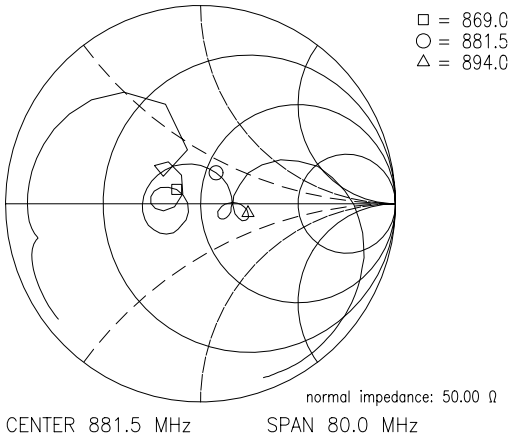
Transfer function (wideband)



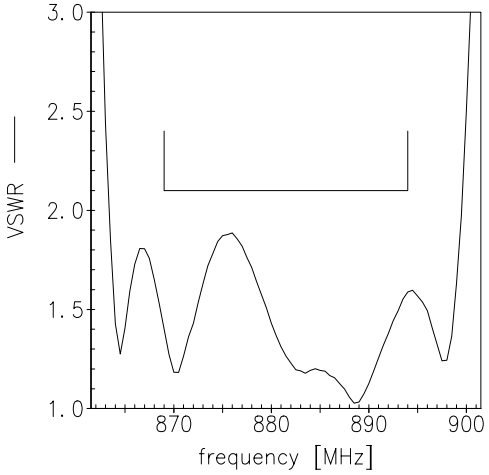
Reflection functions

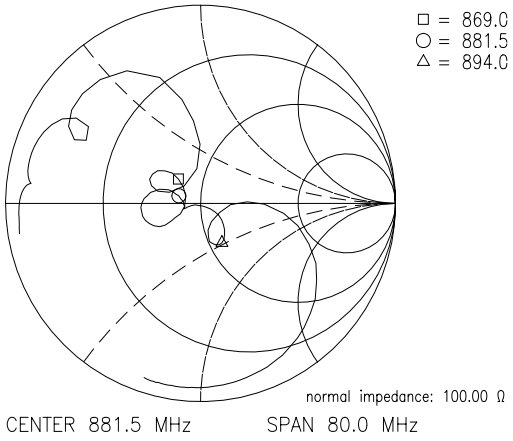
S_{11}



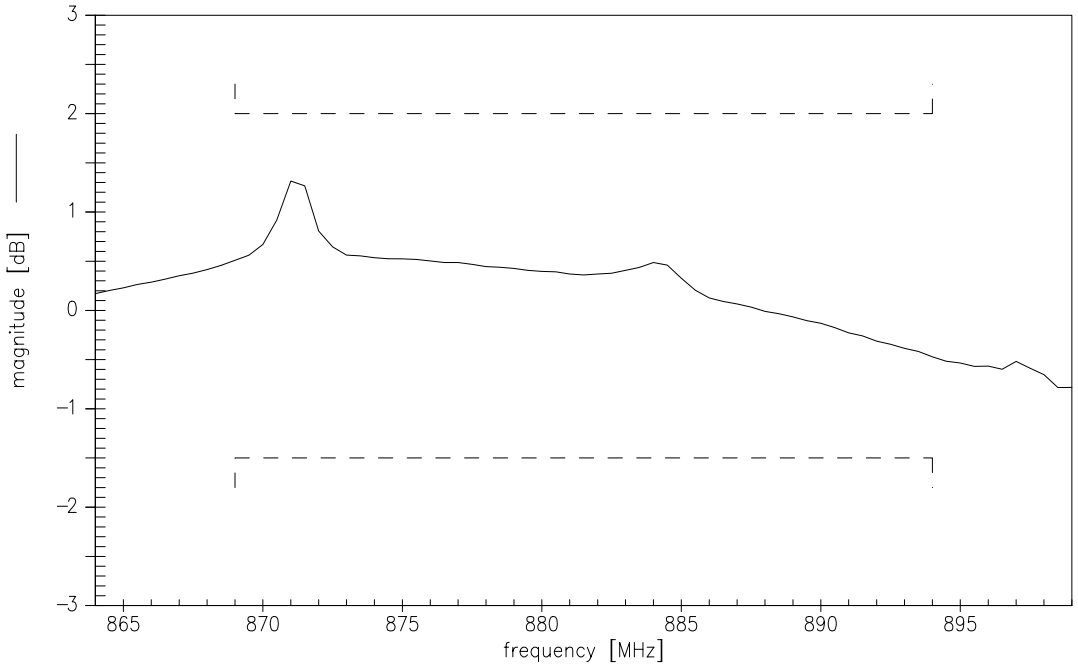


S_{22}

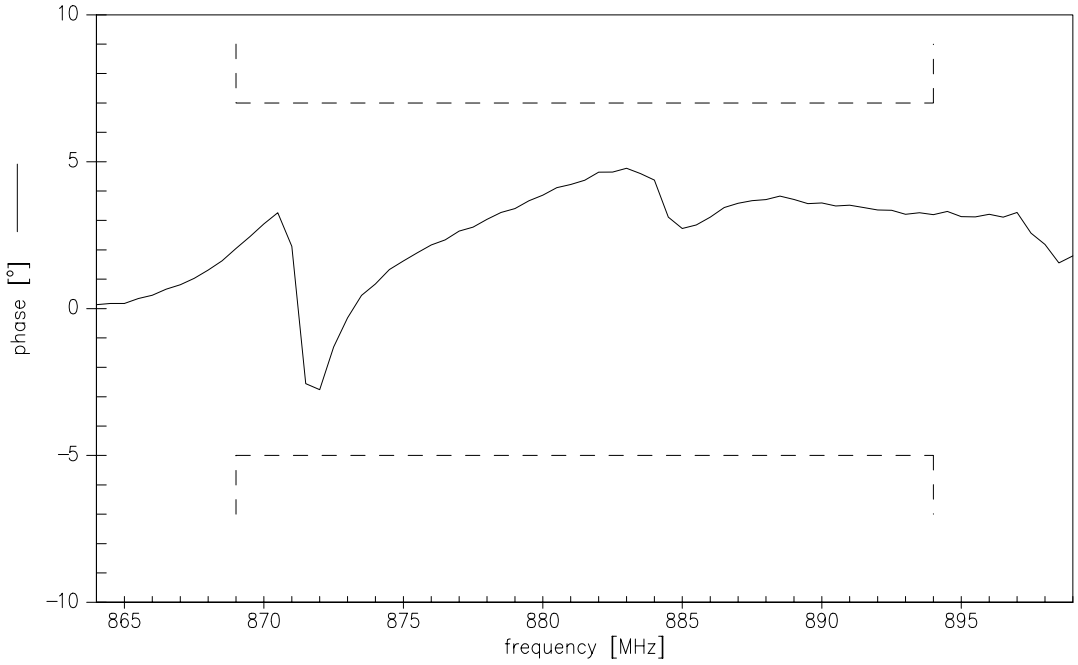




Output amplitude balance ($|S_{31}/S_{21}|$)



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



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