



SAW Components

Data Sheet B7736, Pb-free





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B7736

Low-Loss Filter for Mobile Communication

1960,0 MHz

Data Sheet



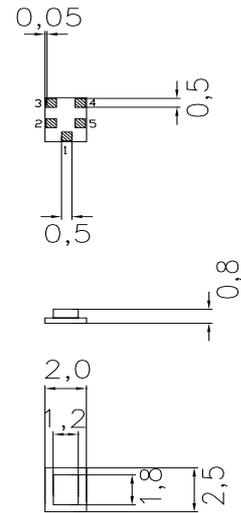
Chip Sized SAW Package QCS5H

Features

- Low-loss RF filter for mobile telephone PCS CDMA systems, receive path
- Low amplitude ripple
- Usable passband 60 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50Ω to 100Ω
- Package for **Surface Mounted Technology (SMT)**
- Pb-free

Terminals

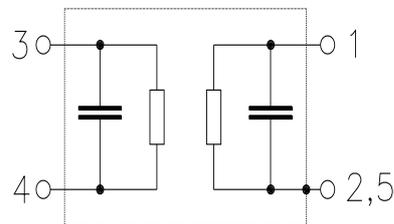
- Gold-plated Ni



Dimensions in mm, approx. weight 0,015g

Pin configuration

- 1 Input, unbalanced
- 2, 5 Input ground
- 3, 4 Output, balanced
- 2, 5 To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B7736	B39202-B7736-K910	C61157-A7-A139	F61074-V8189-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 40 /+ 85	°C	Machine Model, 10 pulses source impedance 50 Ω peak power of GSM signal, duty cycle 2 : 8
Storage temperature range	T_{stg}	- 40 /+ 85	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V^*_{ESD}	50*	V	
Input Power max.	P_{IN}	10	dBm	

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



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Characteristics

Operating Temperature Range: $T = 25^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\ \Omega$ (unbalanced)
 Terminating load impedance: $Z_L = 100\ \Omega$ (balanced) //15nH

		min.	typ.	max.	
Center frequency	f_C	—	1960,0	—	MHz
Maximum insertion attenuation	α_{\max}	—	3,3	3,4	dB
1930,0 ... 1990,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,7	1,8	dB
1930,0 ... 1990,0 MHz					
Input VSWR		—	2,1	2,3	
1930,0 ... 1990,0 MHz					
Output VSWR		—	2,1	2,3	
1930,0 ... 1990,0 MHz					
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$)		-15	—	15	degree
1930,0 ... 1990,0 MHz					
Output amplitude balance ($ S_{31}/S_{21} $)		-2,0	—	+2,0	dB
1930,0 ... 1990,0 MHz					
Attenuation	α				
0,0 ... 1850,0 MHz		25	30	—	dB
1850,0 ... 1910,0 MHz		11	13	—	dB
2040,0 ... 3860,0 MHz		12	14	—	dB
3860,0 ... 3980,0 MHz		30	50	—	dB
3980,0 ... 6000,0 MHz		20	40	—	dB



Data Sheet



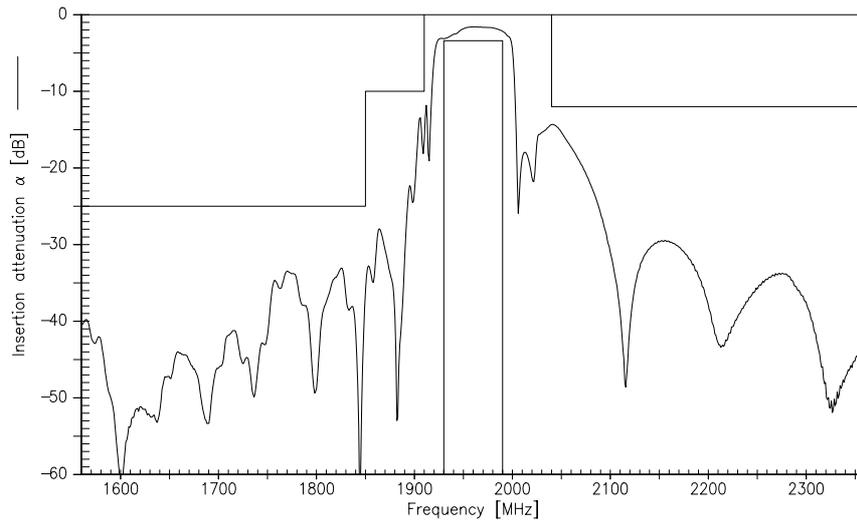
Characteristics

Operating Temperature Range: $T = -30$ to $+85^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\ \Omega$ (unbalanced)
 Terminating load impedance: $Z_L = 100\ \Omega$ (balanced) //15nH

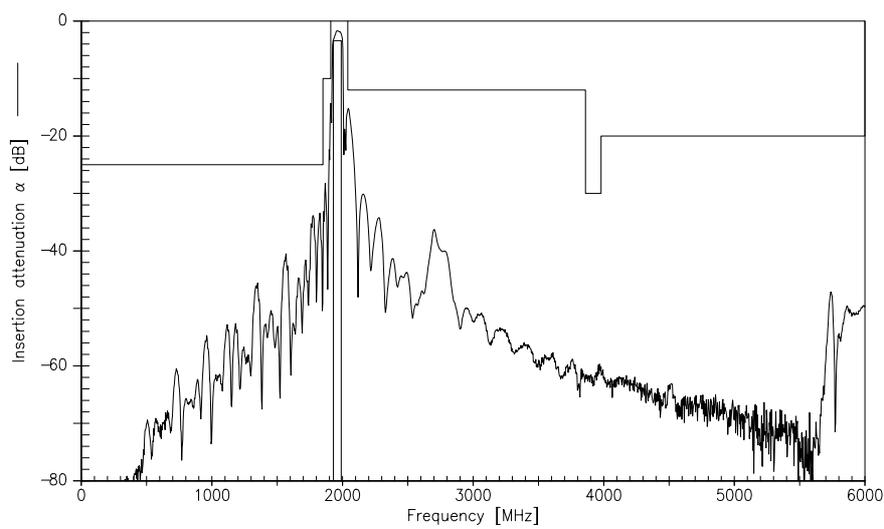
		min.	typ.	max.	
Center frequency	f_C	—	1960,0	—	MHz
Maximum insertion attenuation	α_{\max}	—	3,5	3,8	dB
1930,0 ... 1990,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,9	2,2	dB
1930,0 ... 1990,0 MHz					
Input VSWR		—	2,1	2,3	
1930,0 ... 1990,0 MHz					
Output VSWR		—	2,1	2,3	
1930,0 ... 1990,0 MHz					
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$)		-15	—	15	degree
1930,0 ... 1990,0 MHz					
Output amplitude balance ($ S_{31}/S_{21} $)		-2,0	—	+2,0	dB
1930,0 ... 1990,0 MHz					
Attenuation	α				
0,0 ... 1850,0 MHz		25	30	—	dB
1850,0 ... 1910,0 MHz		10	12	—	dB
2040,0 ... 3860,0 MHz		12	14	—	dB
3860,0 ... 3980,0 MHz		30	50	—	dB
3980,0 ... 6000,0 MHz		20	40	—	dB



transfer function (measurement)

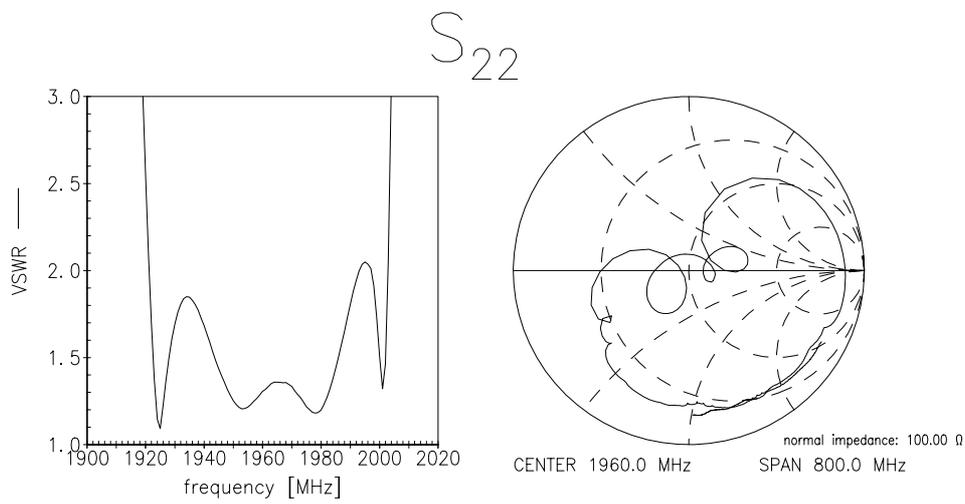
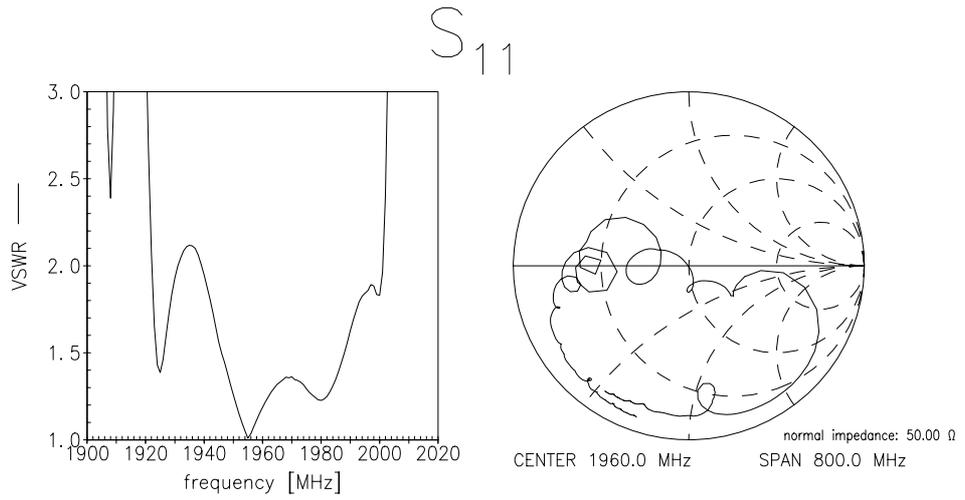


transfer function (wide band measurement)



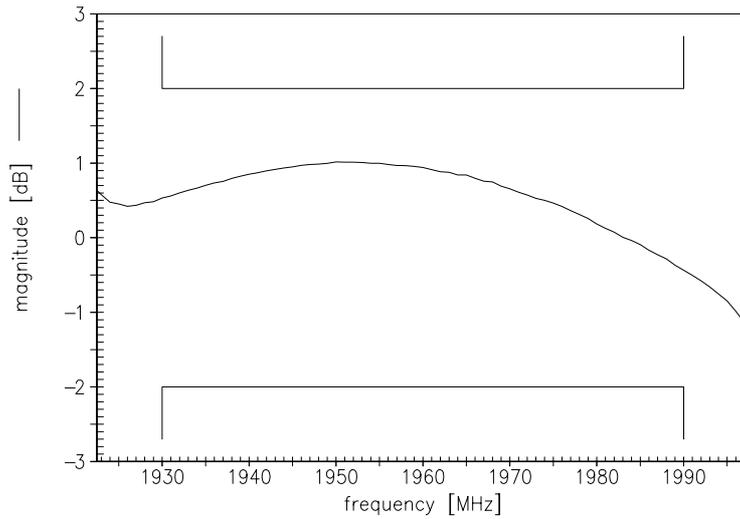


Matching (measurement)

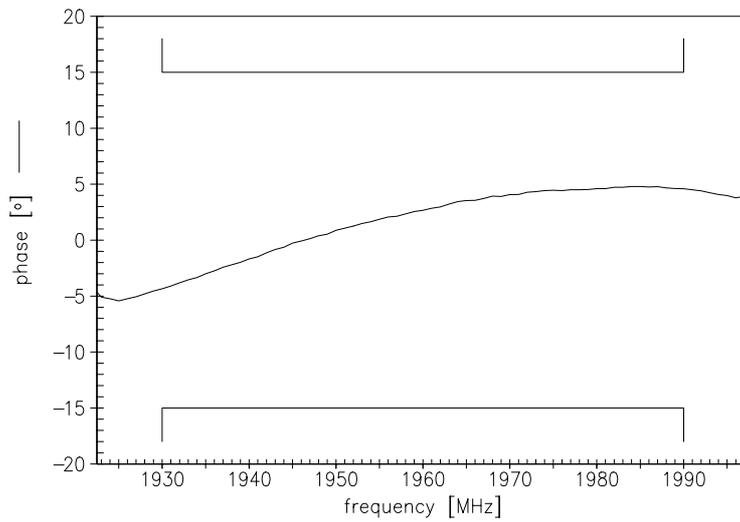




Output amplitude balance ($|S_{31}/S_{21}|$, measurement)



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





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Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW MC PD

P.O. Box 80 17 09, 81617 Munich, GERMANY

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