



**THE DATASHEET OF
B39941B7706B610**





SAW Components

Data Sheet B7706





SAW Components	B7706
Low-Loss Filter for Mobile Communication	942,5 MHz

Data Sheet

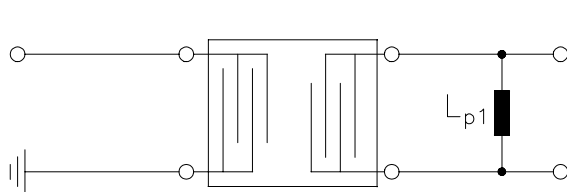


Characteristics

Operating temperature: $T = 25 \pm 2^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 200 \Omega$ including matching network

		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	α_{\max}	—	2,6	3,2	dB
925,0 ... 960,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,3	1,9	dB
925,0 ... 960,0 MHz					
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^\circ$)		-4	0	4	degree
925,0 ... 960,0 MHz					
Output amplitude balance (S_{31}/S_{21})		-0,3	0	0,3	dB
925,0 ... 960,0 MHz					
Input VSWR		—	1,8	2,3	
925,0 ... 960,0 MHz					
Output VSWR		—	1,8	2,3	
925,0 ... 960,0 MHz					
Attenuation	α				
0,0 ... 880,0 MHz		50	60	—	dB
880,0 ... 905,0 MHz		30	40	—	dB
905,0 ... 915,0 MHz		20	27	—	dB
980,0 ... 1050,0 MHz		22	24	—	dB
1050,0 ... 6000,0 MHz		50	65	—	dB

Test matching network



$L_{p1} = 100 \text{ nH}$
 (20% tolerance, $Q = 30$)



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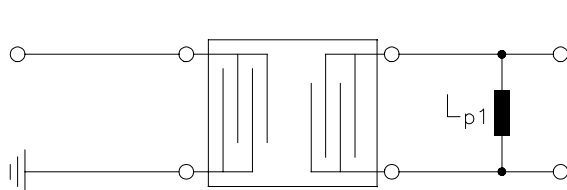


Characteristics

Operating temperature range: $T = -10$ to $+80$ °C
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 200 \Omega$ including matching network

		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	α_{max}	—	2,7	3,5	dB
925,0 ... 960,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,4	2,2	dB
925,0 ... 960,0 MHz					
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^\circ$)		-4	0	4	degree
925,0 ... 960,0 MHz					
Output amplitude balance (S_{31}/S_{21})		-0,3	0	0,3	dB
925,0 ... 960,0 MHz					
Input VSWR		—	1,8	2,3	
925,0 ... 960,0 MHz					
Output VSWR		—	1,8	2,3	
925,0 ... 960,0 MHz					
Attenuation	α				
0,0 ... 880,0 MHz		50	60	—	dB
880,0 ... 905,0 MHz		30	40	—	dB
905,0 ... 915,0 MHz		20	27	—	dB
980,0 ... 1050,0 MHz		22	23	—	dB
1050,0 ... 6000,0 MHz		50	65	—	dB

Test matching network



$L_{p1} = 100$ nH
 (20% tolerance, $Q = 30$)



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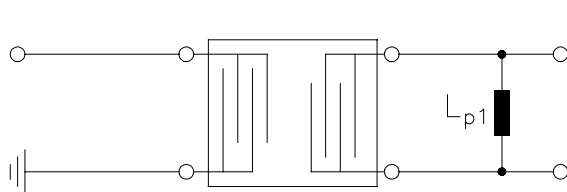


Characteristics

Operating temperature range: $T = -30$ to $+85$ °C
 Terminating source impedance: $Z_S = 50$ Ω
 Terminating load impedance: $Z_L = 200$ Ω including matching network

		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	α_{max}	—	2,8	3,6	dB
925,0 ... 960,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,5	2,3	dB
925,0 ... 960,0 MHz					
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^\circ$)		-10	0	10	degree
925,0 ... 960,0 MHz					
Output amplitude balance (S_{31}/S_{21})		-1	0	1	dB
925,0 ... 960,0 MHz					
Input VSWR		—	2,0	—	
925,0 ... 960,0 MHz					
Output VSWR		—	2,0	—	
925,0 ... 960,0 MHz					
Attenuation	α				
0,0 ... 880,0 MHz		50	60	—	dB
880,0 ... 905,0 MHz		30	40	—	dB
905,0 ... 915,0 MHz		16	20	—	dB
980,0 ... 1050,0 MHz		20	22	—	dB
1050,0 ... 6000,0 MHz		50	65	—	dB

Test matching network



$L_{p1} = 100$ nH
 (20% tolerance, $Q = 30$)



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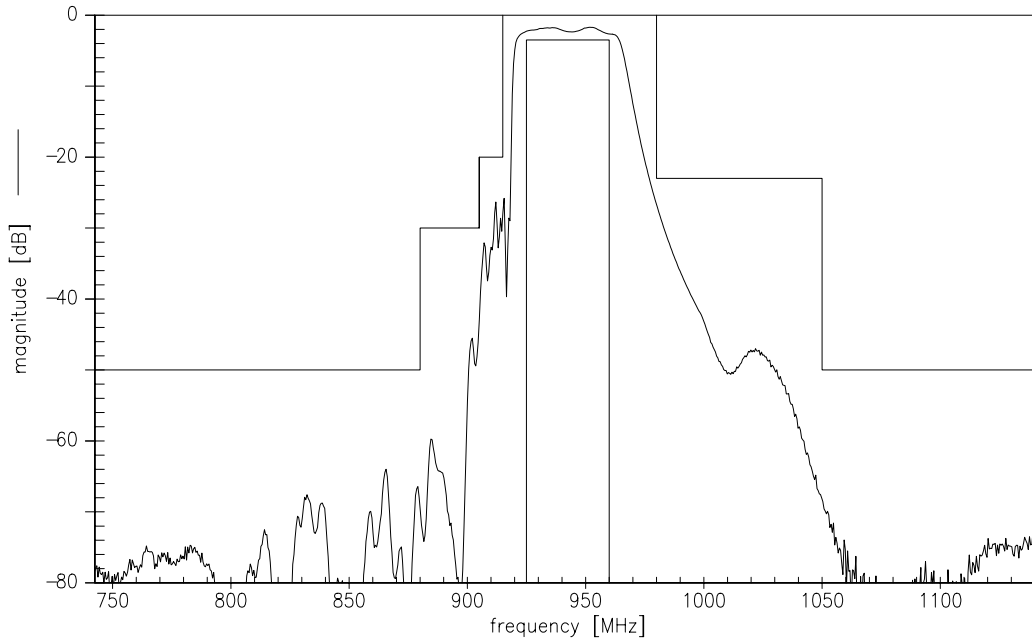
Low-Loss Filter for Mobile Communication

942,5 MHz

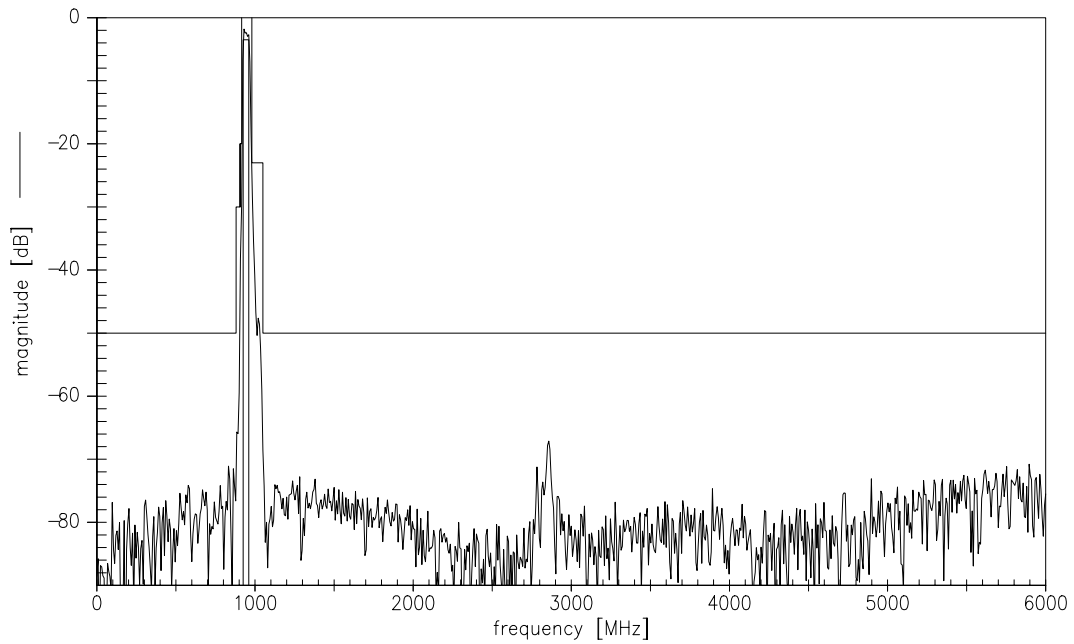
Data Sheet



Transfer function

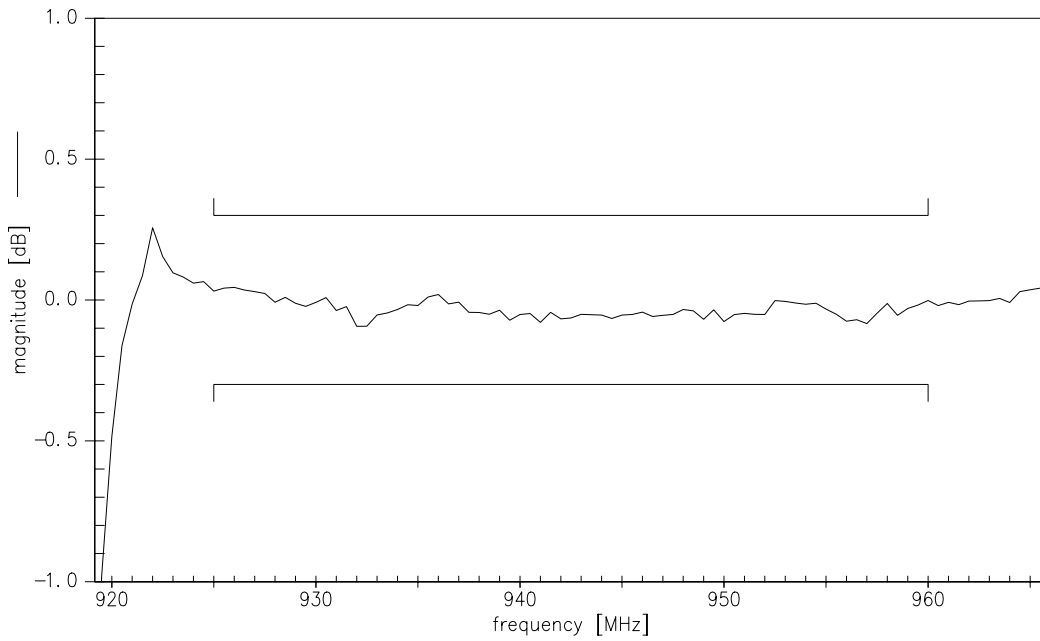


Transfer function (wideband)

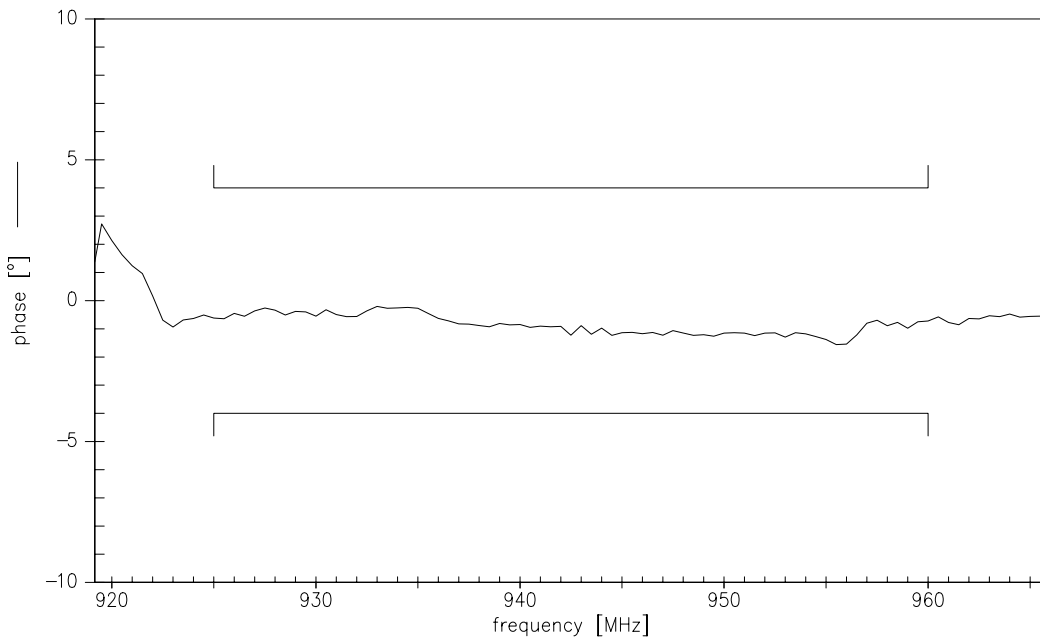




Output amplitude balance ($|S_{31}|/|S_{21}|$)



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





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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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