



RF Filters for Cellular Phones

Series/Type: B9006

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39881B9006E710	B39881B9400K610	2007-09-21	2007-12-31	2008-03-31

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SAW Components

B9006

Low-Loss Filter for Mobile Communication

881,5 MHz

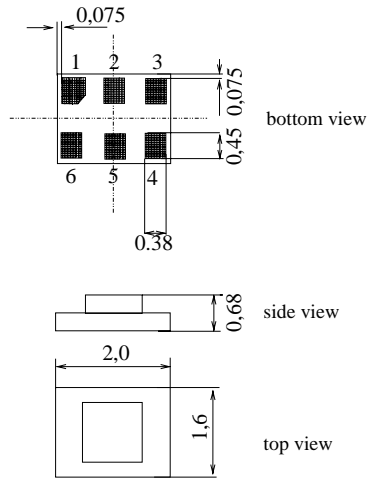
Data Sheet



Chip sized SAW package DCS6Q

Features

- Low-loss RF filter for mobile telephone GSM850/AMPS system, receive path
- Usable passband 25 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50 Ω to 200 Ω
- Suitable for GPRS class 1 to12
- Ceramic package for **Surface Mounted Technology (SMT)**



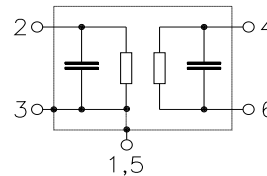
Terminals

- Ni, gold-plated

Dimensions in mm, approx. weight 0,006g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B9006	B39881-B9006-E710	C61157-Z7-C208	F61074-V8152-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 30 / + 85	°C	(machine model) (human body model) peak power of GSM signal, duty cycle 4:8
Storage temperature range	T_{stg}	- 40 / + 85	°C	
DC voltage	V_{DC}	5	V	
ESD	V_{ESD}	100	V	
		250	V	
Input power at GSM850, GSM900, GSM1800 and GSM1900 Tx bands	P_{IN}	15	dBm	



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Characteristics

Operating temperature range: $T = -30$ to $+85$ °C
 Terminating source impedance: $Z_S = 50$ Ω (unbalanced)
 Terminating load impedance: $Z_L = 200$ Ω (balanced)

		min.	typ.	max.	
Center frequency	f_C	—	881,5	—	MHz
Maximum insertion attenuation	α_{max}	—	1,9	2,4	dB
869,0 ... 894,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0,6	1,1	dB
869,0 ... 894,0 MHz					
Input return loss		12,0	13,0	—	dB
869,0 ... 894,0 MHz					
Output return loss		12,0	14,0	—	dB
869,0 ... 894,0 MHz					
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^\circ$)		-10	0	10	degree
869,0 ... 894,0 MHz					
Output amplitude balance ($ S_{31}/S_{21} $)		-1,0	0	1,0	dB
869,0 ... 894,0 MHz					
Attenuation	α				dB
0,0 ... 824,0 MHz		45	68	—	
824,0 ... 849,0 MHz		40	44	—	
914,0 ... 950,0 MHz		20	25	—	
950,0 ... 6000,0 MHz		40	60	—	



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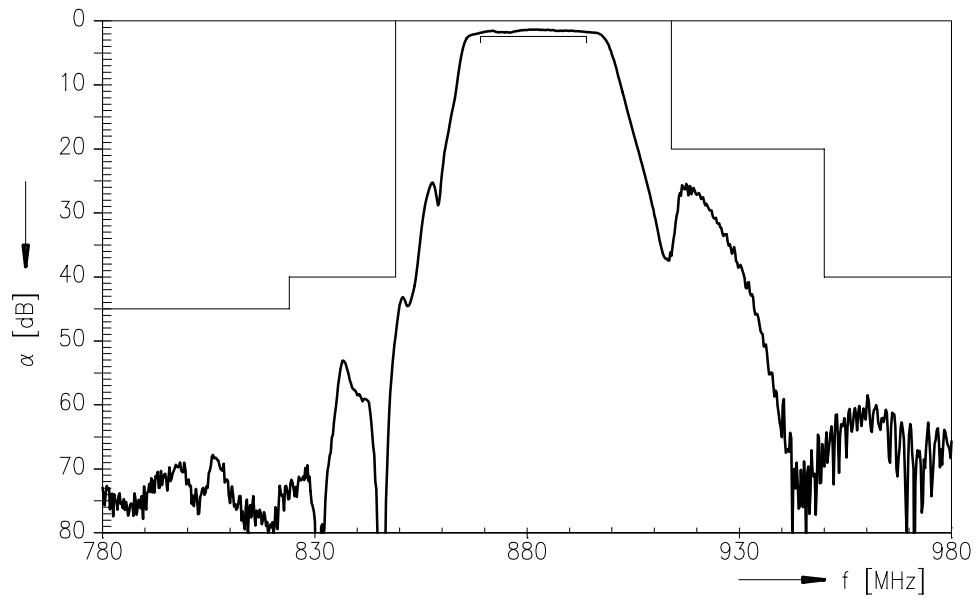
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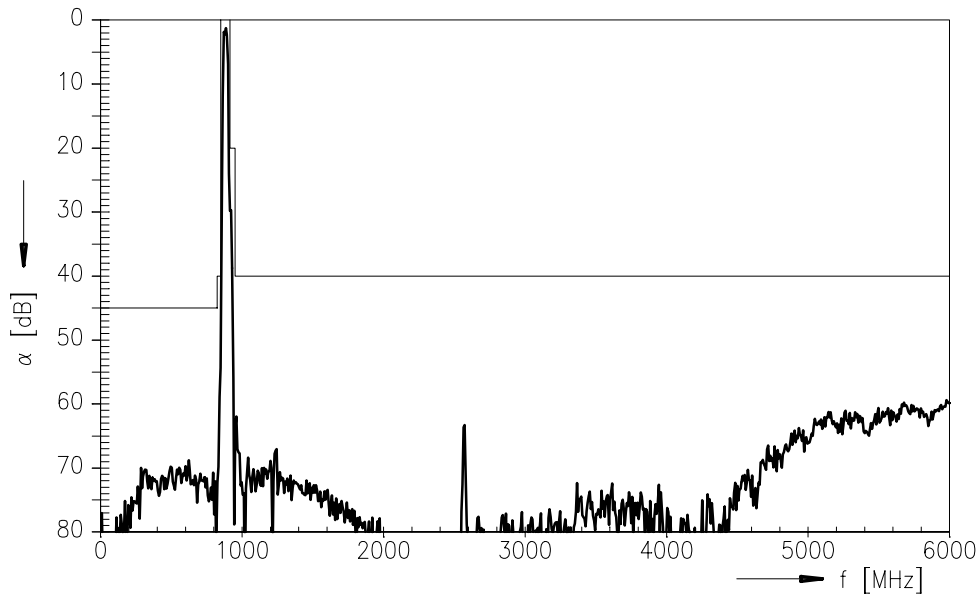
Data Sheet



Transfer function (narrowband; 50 Ω to 200 Ω operation)



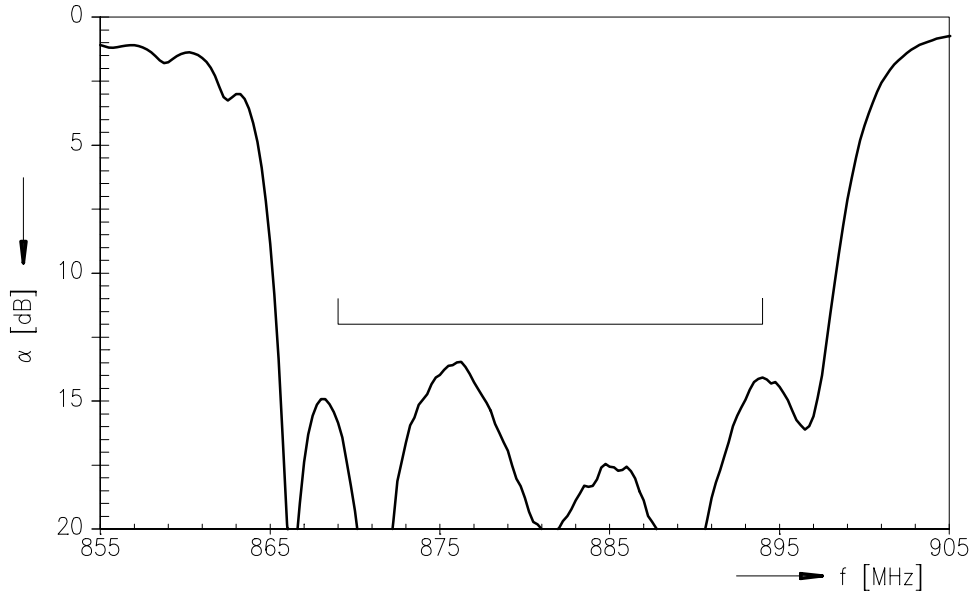
Transfer function (wideband; 50 Ω to 200 Ω operation)



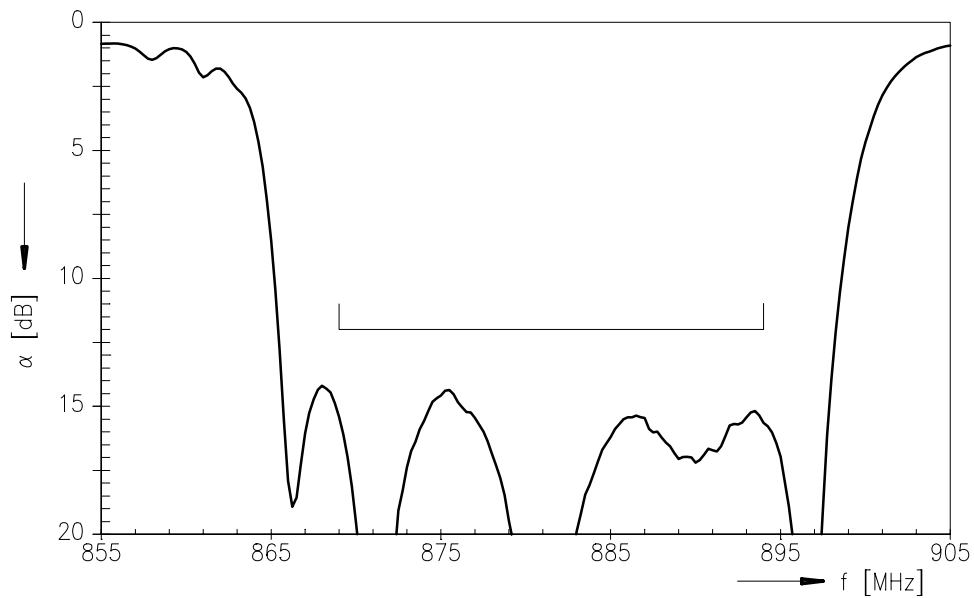


Matching (measurement; 50 Ω to 200 Ω operation)

Input return loss



Output return loss





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