EPCOS

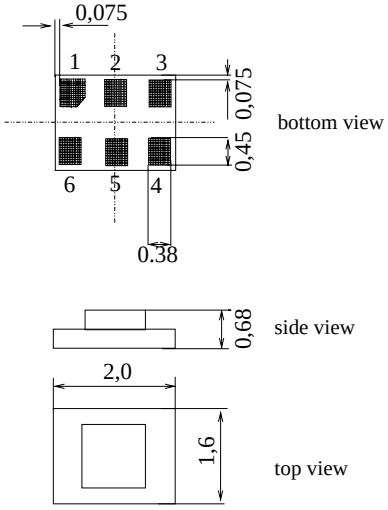
SAW Components

Data Sheet B9026

Chip sized SAW package **DCS6T**

Features

- Low-loss RF filter for mobile telephone W-CDMA system, transmit path
- Low amplitude ripple
- Usable passband 60 MHz
- Balanced to unbalanced operation
- Impedance transformation from 200 Ω to 50 Ω
- Package for **S**urface **M**ounted **T**echnology (**SMT**)
- Pb-free



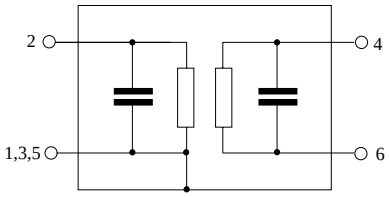
Dimensions in mm, approx. weight 0,006 g

Terminals

- Gold-plated Ni

Pin configuration

4, 6	Input, balanced
2	Output, unbalanced
1, 3, 5	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B9026	B39202-B9026-K310	C61157-A7-A128	F61074-V8152-Z000

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

Maximum ratings

Operable temperature range	T	– 30/+ 85	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	50*	V	Machine Model, 10 pulses
Input power	P_{IN}	10	dBm	continuous wave

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

Characteristics

Operating temperature range: T = +25°C
Terminating source impedance: Z_S = 200 Ω (balanced) || 33 nH
Terminating load impedance: Z_L = 50 Ω

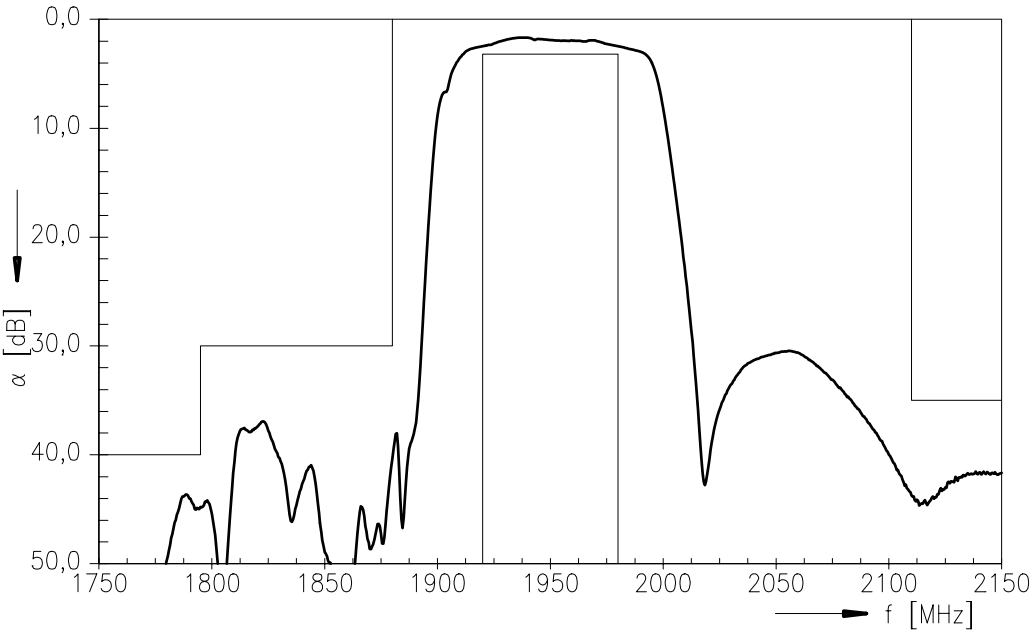
		min.	typ.	max.	
Center frequency	f_C	—	1950,0	—	MHz
Maximum insertion attenuation	α_{max}				
1920,0 ... 1980,0 MHz		—	2,6	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1920,0 ... 1980,0 MHz		—	0,8	1,1	dB
Amplitude ripple per 5MHz channel (p-p)	$\Delta\alpha_{5MHz}$				
1920,0 ... 1980,0 MHz		—	0,25	0,5	dB
Input VSWR					
1920,0 ... 1980,0 MHz		—	1,8	2,0	
Output VSWR					
1920,0 ... 1980,0 MHz		—	1,8	2,0	
Input amplitude balance ($\lvert S_{31}/S_{21}\rvert$)					
1920,0 ... 1980,0 MHz		-1,0	0	1,0	dB
Input phase balance ($\phi(S_{31})-\phi(S_{21})+180°$)					
1920,0 ... 1980,0 MHz		-10	0	10	degree
Attenuation	α				
50,0 ...1000,0 MHz		45	55	—	
1000,0 ... 1795,0 MHz		40	44	—	dB
1795,0 ... 1805,0 MHz		30	44	—	dB
1805,0 ... 1880,0 MHz		30	36	—	dB
2110,0 ... 2170,0 MHz		35	41	—	dB
2170,0 ... 2800,0 MHz		35	42	—	dB
2800,0 ... 6000,0 MHz		40	50	—	dB

Characteristics

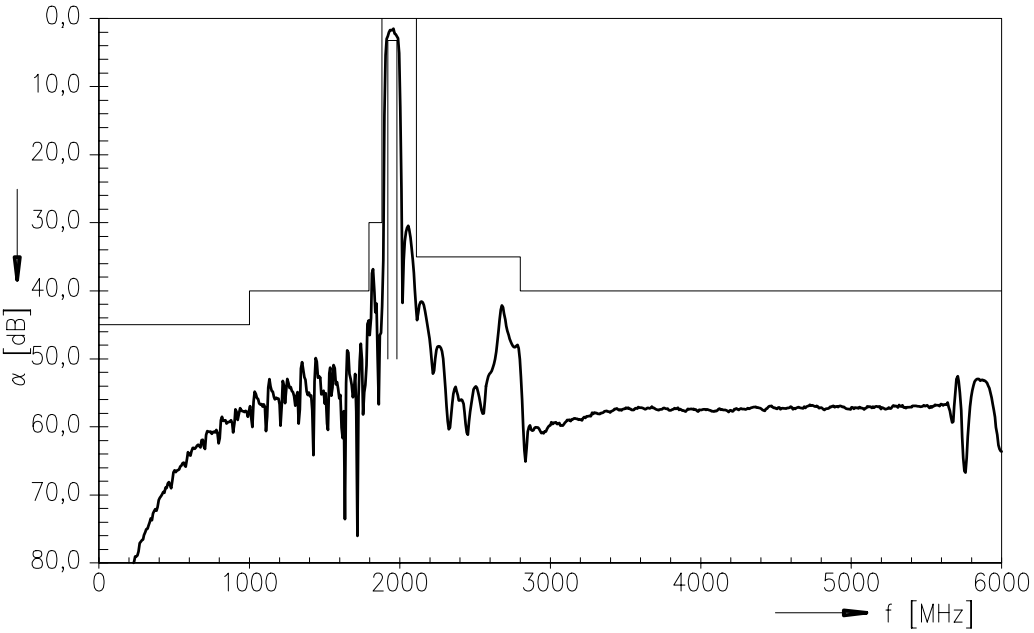
Operating temperature range: T = -20 to +85 °C
Terminating source impedance: Z_S = 200 Ω (balanced) || 33 nH
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Center frequency	f_C	—	1950,0	—	MHz
Maximum insertion attenuation	α_{max}				
1920,0 ... 1980,0 MHz		—	2,7	3,2	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1920,0 ... 1980,0 MHz		—	1,0	1,2	dB
Amplitude ripple per 5MHz channel (p-p)	$\Delta\alpha_{5MHz}$				
1920,0 ... 1980,0 MHz		—	0,3	0,5	dB
Input VSWR					
1920,0 ... 1980,0 MHz		—	1,8	2,0	
Output VSWR					
1920,0 ... 1980,0 MHz		—	1,8	2,0	
Input amplitude balance ($\lvert S_{31}/S_{21}\rvert$)					
1920,0 ... 1980,0 MHz		-1,0	0	1,0	dB
Input phase balance ($\phi(S_{31})-\phi(S_{21})+180°$)					
1920,0 ... 1980,0 MHz		-10	0	10	degree
Attenuation	α				
50,0 ...1000,0 MHz		45	55	—	
1000,0 ... 1795,0 MHz		40	44	—	dB
1795,0 ... 1805,0 MHz		30	44	—	dB
1805,0 ... 1880,0 MHz		30	33	—	dB
2110,0 ... 2170,0 MHz		35	40	—	dB
2170,0 ... 2800,0 MHz		35	43	—	dB
2800,0 ... 6000,0 MHz		40	50	—	dB

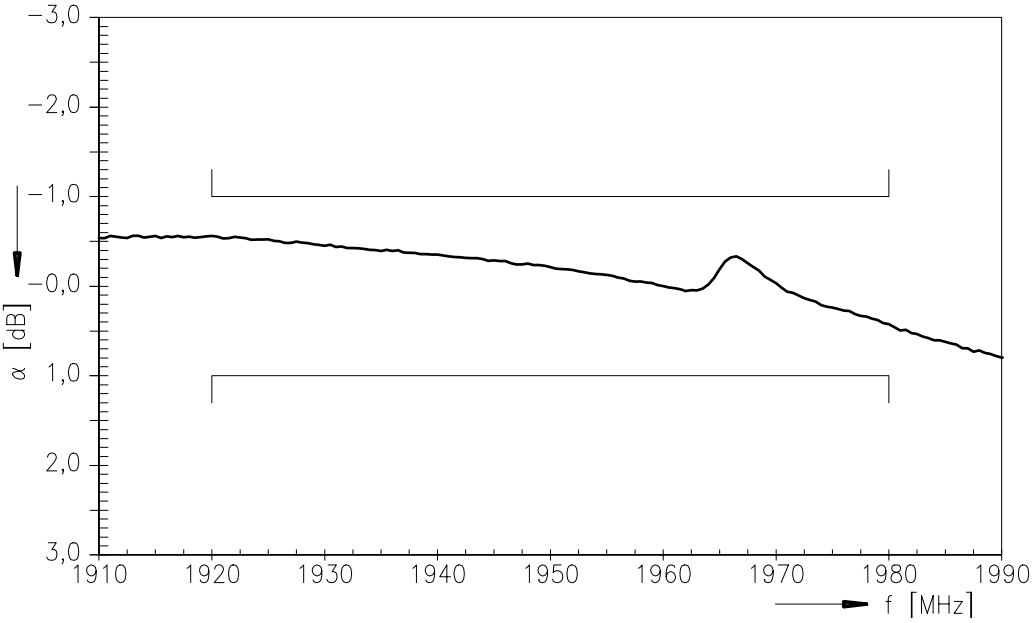
Transfer function (narrow band):



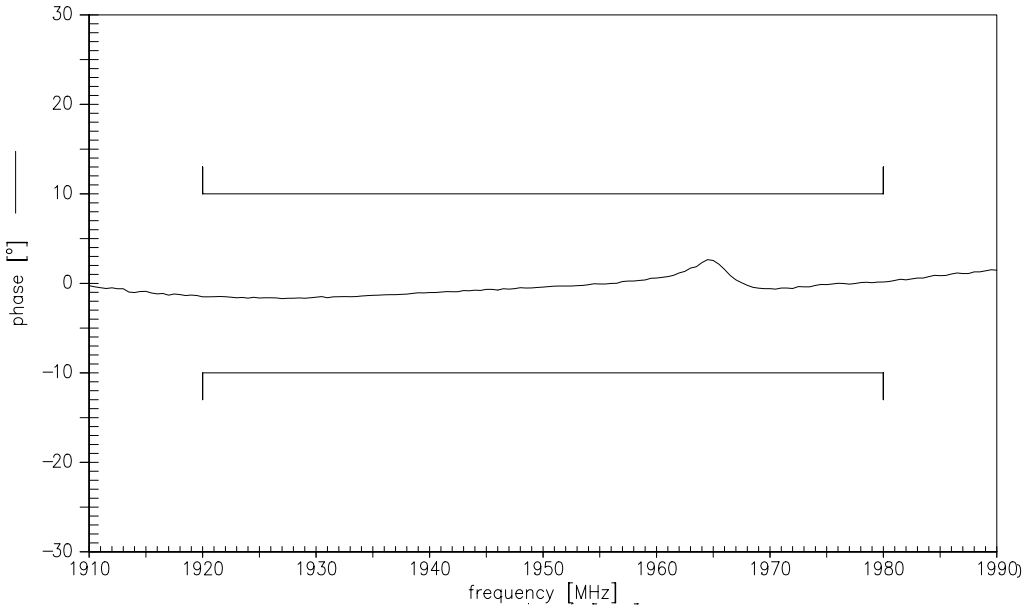
Transfer function (wide band):



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



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



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