



# SAW Components

Data Sheet B3857





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B3857

Low-Loss Filter

919,5 MHz

Data Sheet

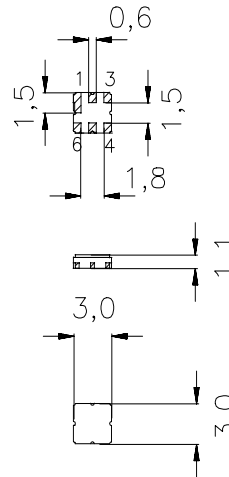
Ceramic package DCC6C

**Features**

- Low-loss RF filter for TETRA phone
- Usable bandwidth 5 MHz
- No matching required for operation at 50 Ω
- Package for Surface Mounted Technology (SMT)
- Hermetically sealed ceramic package

**Terminals**

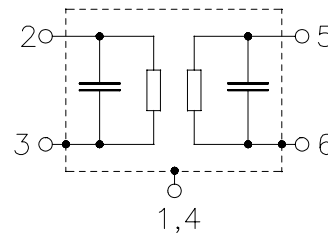
- Gold-plated



typ. Dimensions in mm, approx. weight 0,037 g

**Pin configuration**

- |            |                |
|------------|----------------|
| 2          | Input          |
| 5          | Output         |
| 1, 3, 4, 6 | To be grounded |



Type	Ordering code	Marking and Package according to	Packing according to
B3857	B39921-B3857-U410	C61157-A7-A67	F61074-V8088-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T_A$	-35 / +85	°C	
Storage temperature range	$T_{stg}$	-40 / +85	°C	
DC voltage	$V_{DC}$	0	V	
Source power (cw)	$P_s$	6	dBm	source impedance 50 Ω


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**Characteristics**

Operating temperature range:  $T_A = 25 \pm 10 \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$   
 Terminating load impedance:  $Z_L = 50 \text{ } \Omega$

		min.	typ.	max.	
<b>Nominal frequency</b>	$f_N$	—	919,5	—	MHz
<b>Maximum insertion attenuation</b> 917,0 MHz ... 922,0 MHz	$\alpha_{\max}$	—	1,7	2,8	dB
<b>Amplitude ripple (p-p)</b> 917,0 MHz ... 922,0 MHz	$\Delta\alpha$	—	0,1	1,0	dB
<b>Group delay ripple (p-p)</b> 917,0 MHz ... 922,0 MHz	$\Delta\tau$	—	10	30	ns
<b>Return loss (Input and Output)</b> 917,0 MHz ... 922,0 MHz		11,0	15,0	—	dB
<b>Absolute attenuation</b>	$\alpha_{\text{abs}}$				
0,1 MHz ... 895,0 MHz		12	40	—	dB
932,0 MHz ... 937,0 MHz		10	13	—	dB
937,0 MHz ... 942,0 MHz		14	23	—	dB
942,0 MHz ... 947,0 MHz		18	28	—	dB
947,0 MHz ... 2000,0 MHz		26	29	—	dB
2000,0 MHz ... 4000,0 MHz		15	28	—	dB
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-36	—	ppm/K



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Characteristics

Operating temperature range:  $T_A = -30 \dots +75 \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$   
 Terminating load impedance:  $Z_L = 50 \text{ } \Omega$

		min.	typ.	max.	
<b>Nominal frequency</b>	$f_N$	—	919,5	—	MHz
<b>Maximum insertion attenuation</b> 917,0 MHz ... 922,0 MHz	$\alpha_{\max}$	—	1,9	3,4	dB
<b>Amplitude ripple (p-p)</b> 917,0 MHz ... 922,0 MHz	$\Delta\alpha$	—	0,2	1,3	dB
<b>Group delay ripple (p-p)</b> 917,0 MHz ... 922,0 MHz	$\Delta\tau$	—	15	30	ns
<b>Return loss (Input and Output)</b> 917,0 MHz ... 922,0 MHz		10,0	15,0	—	dB
<b>Absolute attenuation</b>	$\alpha_{\text{abs}}$				
0,1 MHz ... 895,0 MHz		10	35	—	dB
932,0 MHz ... 937,0 MHz		8	10	—	dB
937,0 MHz ... 942,0 MHz		12	21	—	dB
942,0 MHz ... 947,0 MHz		15	27	—	dB
947,0 MHz ... 2000,0 MHz		26	29	—	dB
2000,0 MHz ... 4000,0 MHz		15	28	—	dB
<b>Temperature coefficient of frequency</b>	$TC_f$	—	- 36	—	ppm/K



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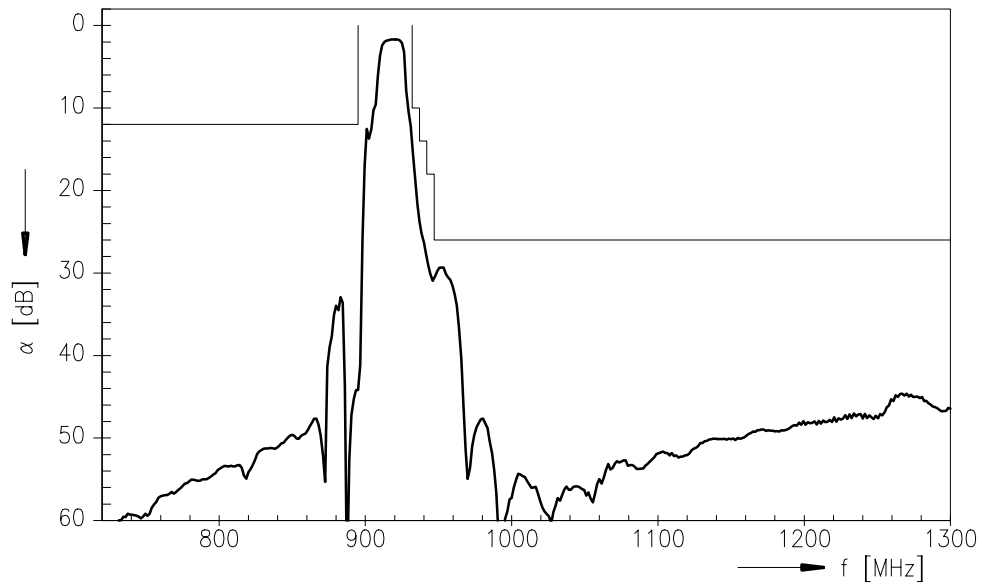
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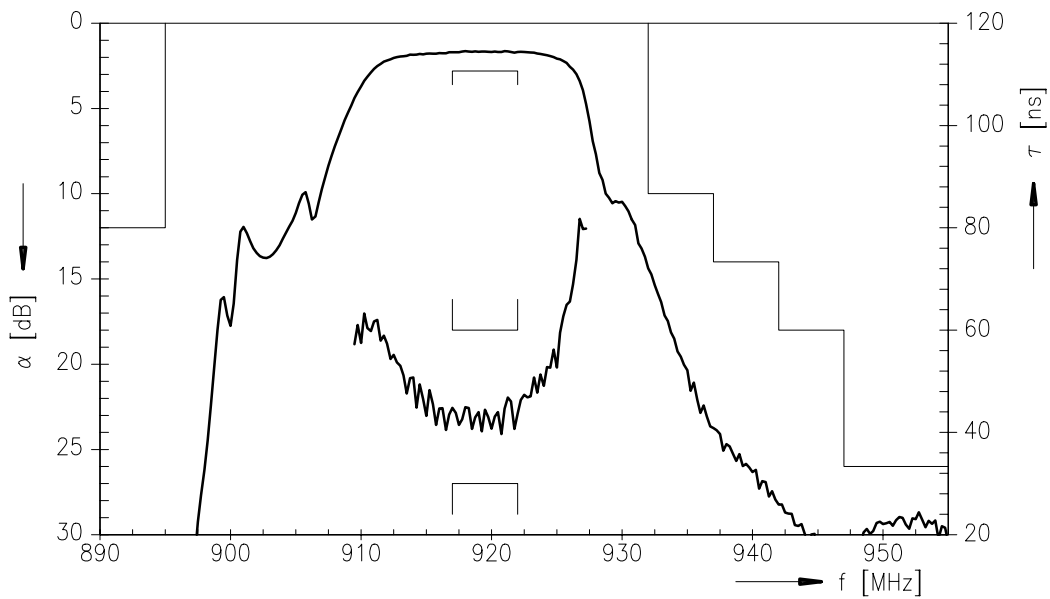
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Transfer function



Transfer function (pass band,  $25 \pm 10^\circ\text{C}$ )





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