



SAW Components

Data Sheet B3655

Data Sheet

An abstract, grayscale graphic featuring a stylized, three-dimensional representation of the EPCOS logo. The letters "EPCOS" are rendered in a bold, sans-serif font, appearing to be part of a larger, curved structure that resembles a globe or a stylized wave. The background is dark and textured, with light reflecting off the surfaces of the logo.



SAW Components

B3655

Low-Loss Filter

248,6 MHz

Data Sheet

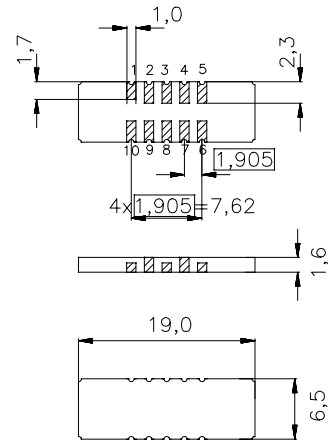
Ceramic package DCC18

Features

- Low-loss IF filter for DCS base station
- Rx path
- Temperature stable
- Unbalanced or balanced operation
- Ceramic SMD package

Terminals

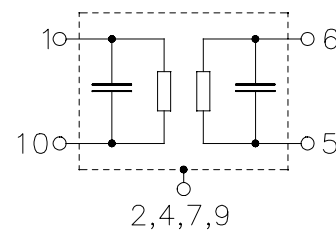
- Gold plated



Dim. in mm, aprox. weight 0,7 g

Pin configuration

1	Input
6	Output
10	Input ground
5	Output ground
3, 8	Ground
2, 4, 7, 9	Case – ground



Type	Ordering code	Marking and Package according to	Packing according to
B3655	B39241-B3655-U210	C61157-A7-A54	F61074-V8069-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 25/+ 75	°C
Storage temperature range	T_{stg}	- 40/+ 85	°C
DC voltage	V_{DC}	0	V
Source power	P_s	10	dBm



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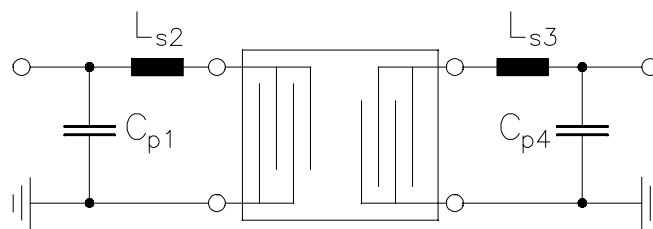
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Characteristics

Operating temperature:	$T_A = -5 - 75\text{ °C}$
Terminating source impedance:	$Z_S = 50\ \Omega$ and matching network
Terminating load impedance:	$Z_L = 50\ \Omega$ and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	248,6	—	MHz
Minimum insertion attenuation (including matching network)	$\alpha_{\min}$	—	8,3	9,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	$f_N \pm 95\text{ kHz}$	—	0,4	1,0	dB
	$f_N \pm 120\text{ kHz}$	—	0,6	1,5	dB
Passband width	$\alpha_{\text{rel}} \leq 3,0\text{ dB}$	$B_{3,0\text{dB}}$	240	410	— kHz
Absolute group delay (at f_N)	τ	—	2,3	3,0	μs
Group delay ripple (p-p)	$\Delta\tau$				
	$f_N \pm 95\text{ kHz}$	—	0,3	0,7	μs
	$f_N \pm 120\text{ kHz}$	—	0,4	1,0	μs
Relative attenuation (relative to $\alpha_{\min}$)	α_{rel}				
	$f_N \pm 0,33\text{ MHz} \dots f_N \pm 0,60\text{ MHz}$	11	18,5	—	dB
	$f_N \pm 0,60\text{ MHz} \dots f_N \pm 0,80\text{ MHz}$	22	26	—	dB
	$f_N \pm 0,80\text{ MHz} \dots f_N \pm 3,00\text{ MHz}$	30	36	—	dB
	$f_N - 3,00\text{ MHz} \dots f_N - 105\text{ MHz}$	48	51	—	dB
	$f_N - 105\text{ MHz} \dots f_N - 120\text{ MHz}$	51	65	—	dB
	$f_N + 3,00\text{ MHz} \dots f_N + 13\text{ MHz}$	48	51	—	dB
	$f_N + 13\text{ MHz} \dots f_N + 30\text{ MHz}$	43	46	—	dB
	$f_N + 30\text{ MHz} \dots f_N \pm 105\text{ MHz}$	48	51	—	dB
	$f_N + 105\text{ MHz} \dots f_N + 120\text{ MHz}$	51	56	—	dB
Temperature coefficient of frequency ¹⁾	TC_f	—	- 0,036	—	ppm/K ²
Turnover temperature	T_0	—	30	—	°C

¹⁾ Temperature dependance of f_c : $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$

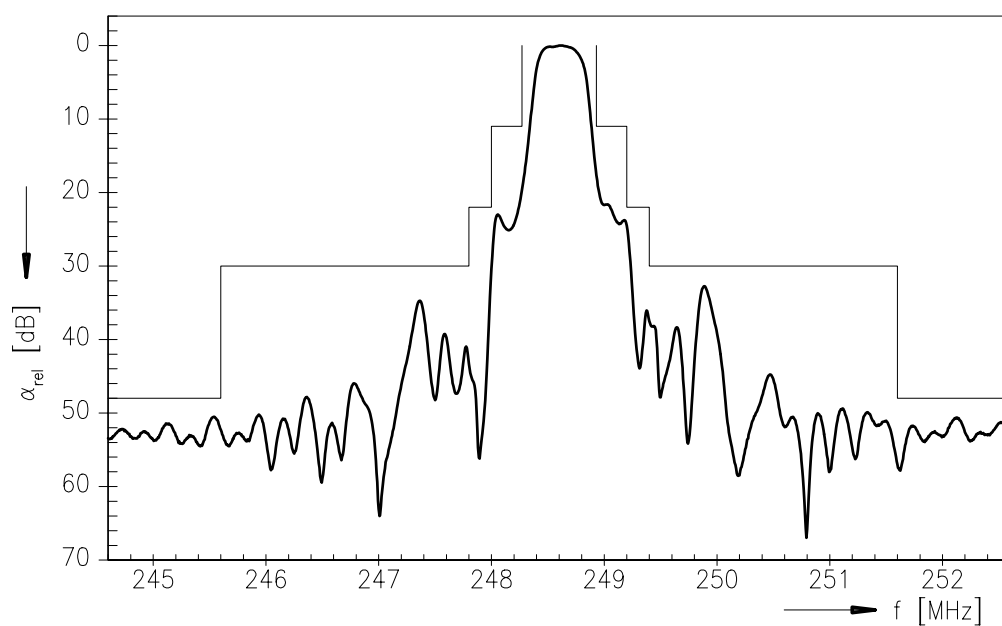
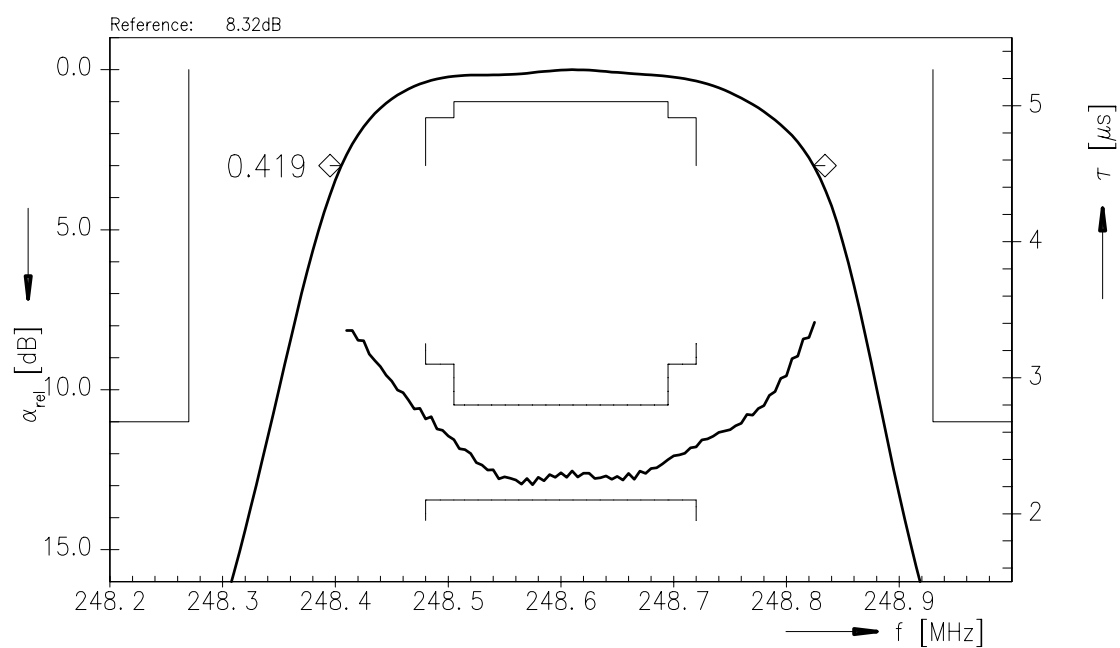
**SAW Components****B3655****Low-Loss Filter****248,6 MHz****Data Sheet****Matching network**

$$C_{p1} = 22 \text{ pF}$$

$$L_{s2} = 22 \text{ nH}$$

$$L_{s3} = 22 \text{ nH}$$

$$C_{p4} = 22 \text{ pF}$$

**SAW Components****B3655****Low-Loss Filter****248,6 MHz****Data Sheet****Normalized frequency response****Normalized frequency response (pass band)**



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