



SAW Components

Data Sheet B3655





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B3655

Low-Loss Filter

248,6 MHz

Data Sheet

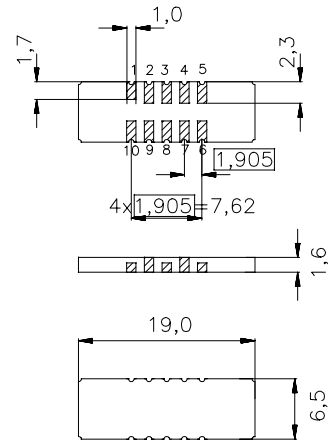
Ceramic package DCC18

Features

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

Terminals

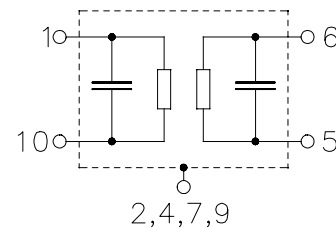
- Gold plated



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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Characteristics

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

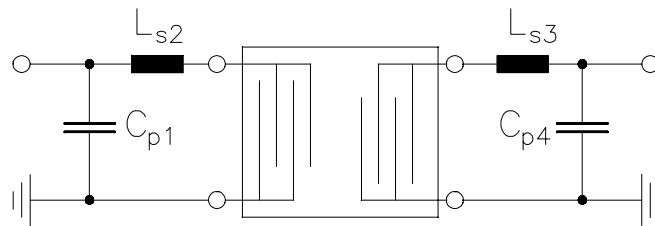
		min.	typ.	max.	
Nominal frequency	f_N	—	248,6	—	MHz
Minimum insertion attenuation (including matching network)	α_{\min}	—	8,3	9,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	$f_N \pm 95 \text{ kHz}$	—	0,4	1,0	dB
	$f_N \pm 120 \text{ kHz}$	—	0,6	1,5	dB
Passband width	$\alpha_{\text{rel}} \leq 3,0 \text{ dB}$	$B_{3,0\text{dB}}$	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 α_{\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	—	$^\circ\text{C}$

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



Data Sheet

Matching network



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

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

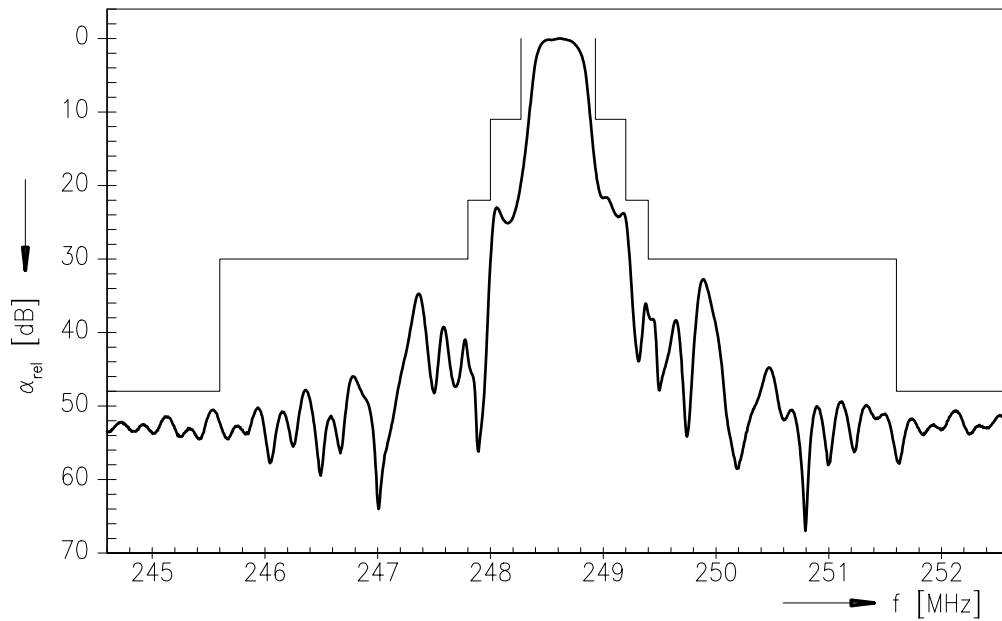
$L_{s3} = 22 \text{ nH}$

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

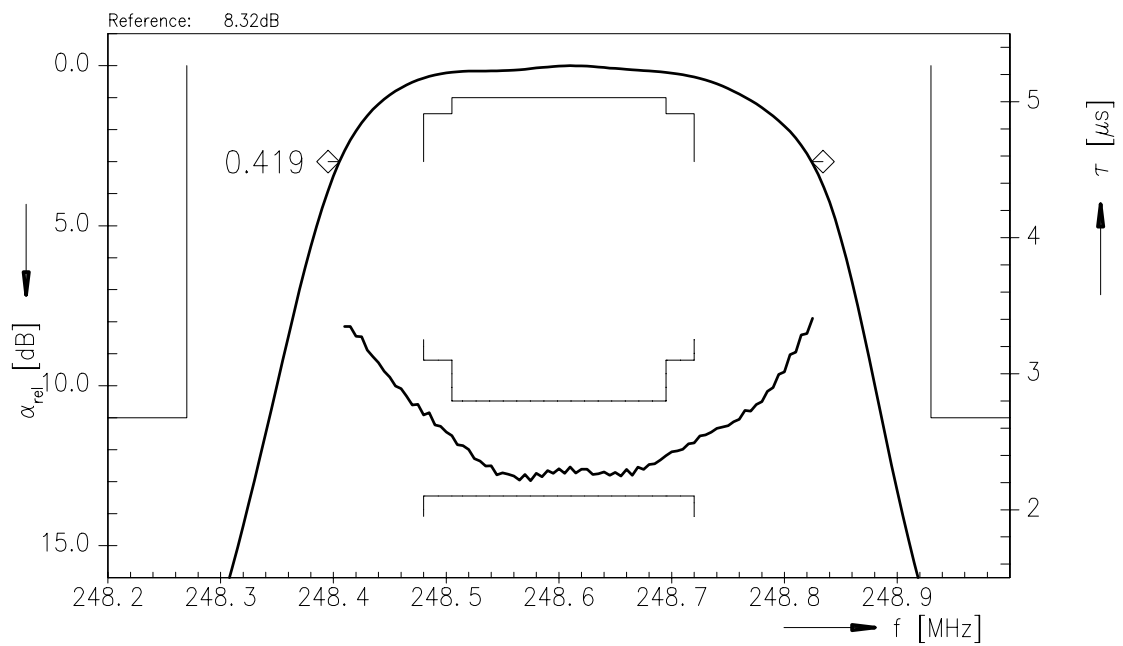


Data Sheet

Normalized frequency response



Normalized frequency response (pass band)





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