



SAW Components

Data Sheet K 3974 D





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K 3974 D

IF Filter for Video / Multistandard Applications

33,90 MHz and 38,90 MHz

Data Sheet

Standard

- B/G
- I
- L/L'

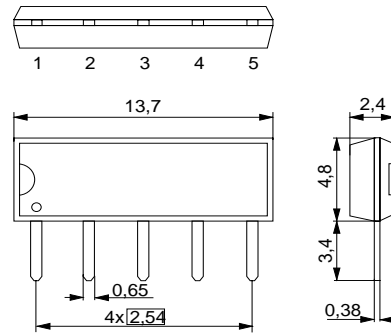
Duroplast package **SIP5D**

Features

- TV IF filter with Nyquist slope at 33,90 MHz and 38,90 MHz
- Customized group delay predistortion
- Suitable for CENELEC EN 55020
- Standard IC package

Terminals

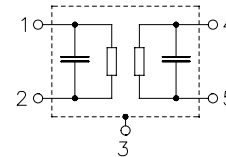
- Tinned CuFe alloy



Dimensions in mm, approx. weight 0,5 g

Pin configuration

- 1 Input
- 2 Input
- 3 Chip carrier - ground
- 4 Output
- 5 Output



Type	Ordering code	Marking and package according to	Packing according to
K 3974 D		C61157-A1-A21	F61074-V8049-Z000

Maximum ratings

Operable temperature range	T_A	-25/+65	°C	
Storage temperature range	T_{stg}	-40/+85	°C	
DC voltage	V_{DC}	5	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals


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Characteristics

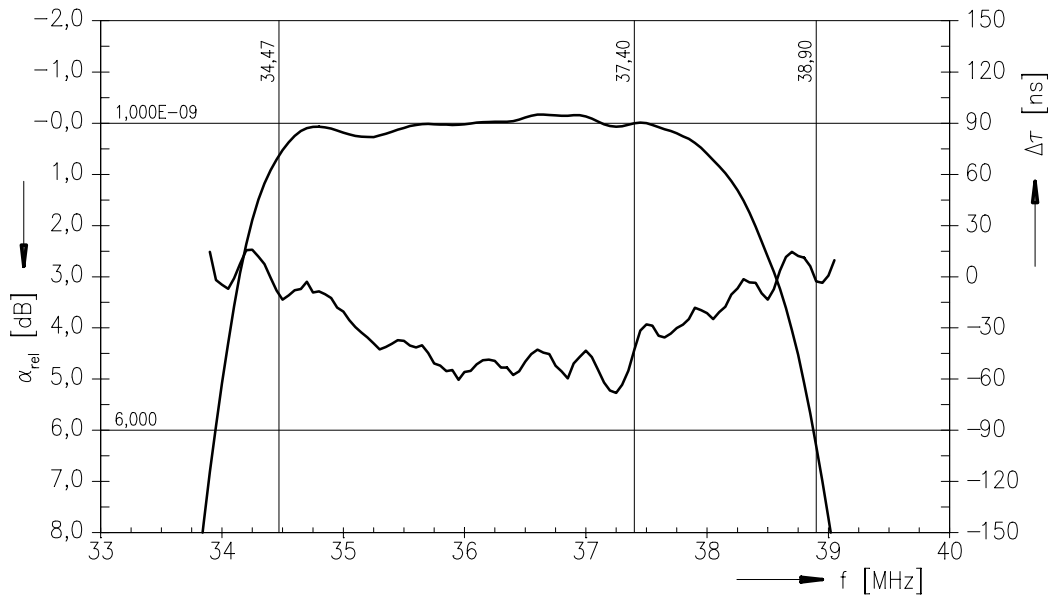
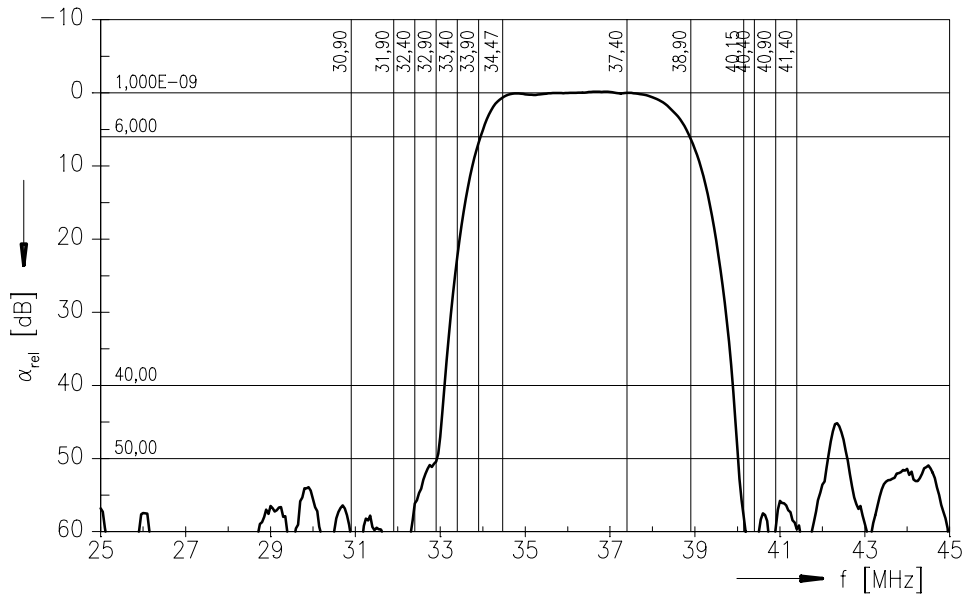
Reference temperature: $T_A = 25\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.	
Insertion attenuation					
	α				
Reference level for the following data	37,40 MHz	11,7	13,2	14,7	dB
Relative attenuation					
	α_{rel}				
Picture carrier	38,90 MHz	5,5	6,5	7,5	dB
	33,90 MHz	5,4	6,4	7,4	dB
Color carrier	34,47 MHz	—	0,3	—	dB
Sound carrier	33,40 MHz	20,0	22,0	—	dB
	32,90 MHz	—	50,0	—	dB
	32,40 MHz	—	60,0	—	dB
Adjacent picture carrier	30,90 MHz	48,0	58,0	—	dB
	31,90 MHz	50,0	60,0	—	dB
	40,15 MHz	44,0	56,0	—	dB
Adjacent sound carrier	40,40 MHz	46,0	56,0	—	dB
	41,40 MHz	46,0	56,0	—	dB
	40,90 MHz	46,0	56,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	44,0	54,0	—	dB
Upper sidelobe	41,40 ... 45,00 MHz	38,0	46,0	—	dB
Reflected wave signal suppression					
1,2 μ s ... 6,0 μ s after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,3 μ s ... 1,2 μ s before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		—	56,0	—	dB
Group delay predistortion					
(reference frequency 38,90 MHz)					
	$\Delta\tau$				
	36,90 MHz	—	-65	—	ns
	34,47 MHz	—	0	—	ns
Impedance at 37,40 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,3 18,7	—	k Ω pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,6 4,6	—	k Ω pF
Temperature coefficient of frequency					
TC_f		—	-72	—	ppm/K



Data Sheet

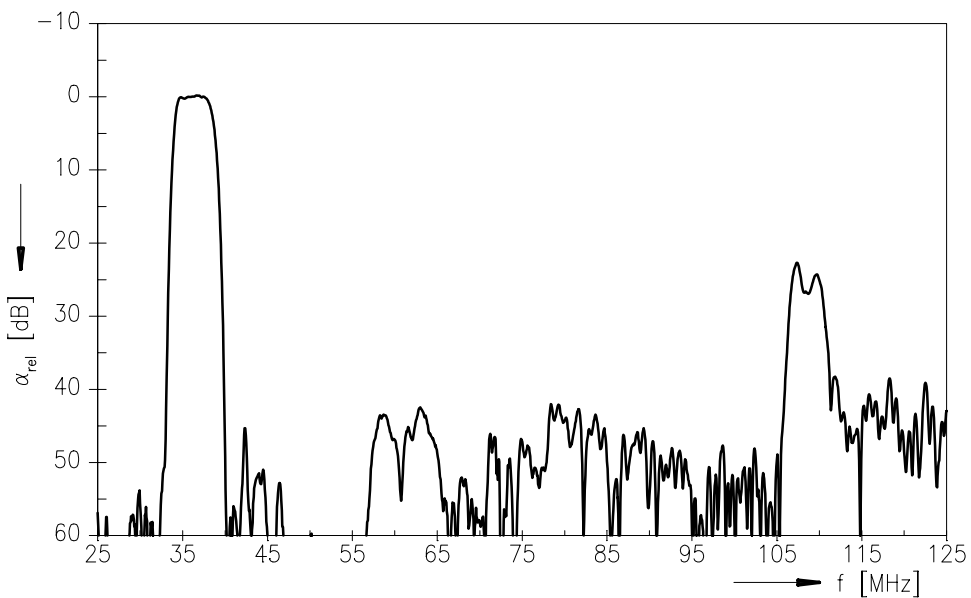
Frequency response in B/G, L/L' mode



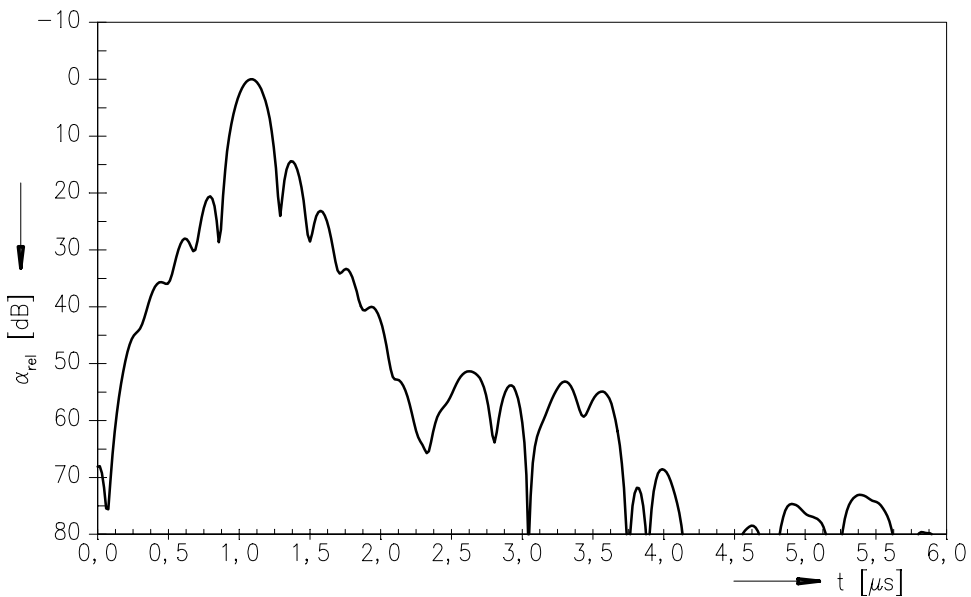


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Frequency response



Time domain response





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