EPCOS

SAW Components

Data Sheet K 3450 K

Data Sheet

Standard

- B/G
- L/L'

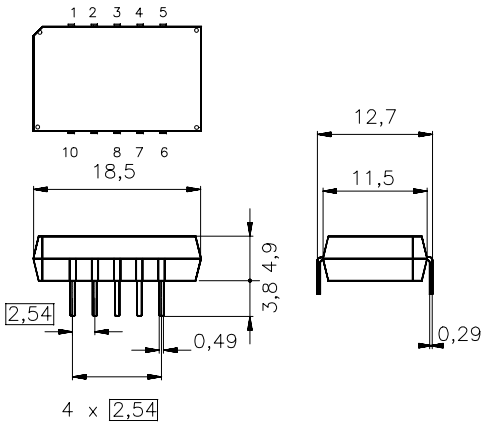
Features

- TV IF filter with two separate picture channels
- Channel 1 with Nyquist slopes at 33,40 MHz and 38,90 MHz (L/L' mode)
- Constant group delay
- Channel 2 with Nyquist slope at 38,90 MHz and sound suppression (B/G mode)
- Constant group delay
- Suitable for CENELEC EN 55020

Terminals

- Tinned CuFe alloy

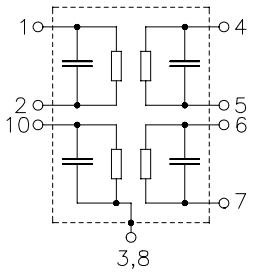
Plastic package **DIP10K**



Dimensions in mm, approx. weight 1,8 g

Pin configuration

1	Input - channel 1
2	Input - ground
3; 8	Chip carrier - ground
4; 5	Output - channel 1
6; 7	Output - channel 2
9	Free
10	Input - channel 2



Type	Ordering code	Marking and package according to	Packing according to
K 3450 K	B39389-K3450-K100	C61157-A2-A3	F61074-V8068-Z000

Maximum ratings

Operable temperature range	T_A	–25/+65	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	12	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals

Characteristics of channel 1

Reference temperature: T_A = 25 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 2 kΩ || 3 pF

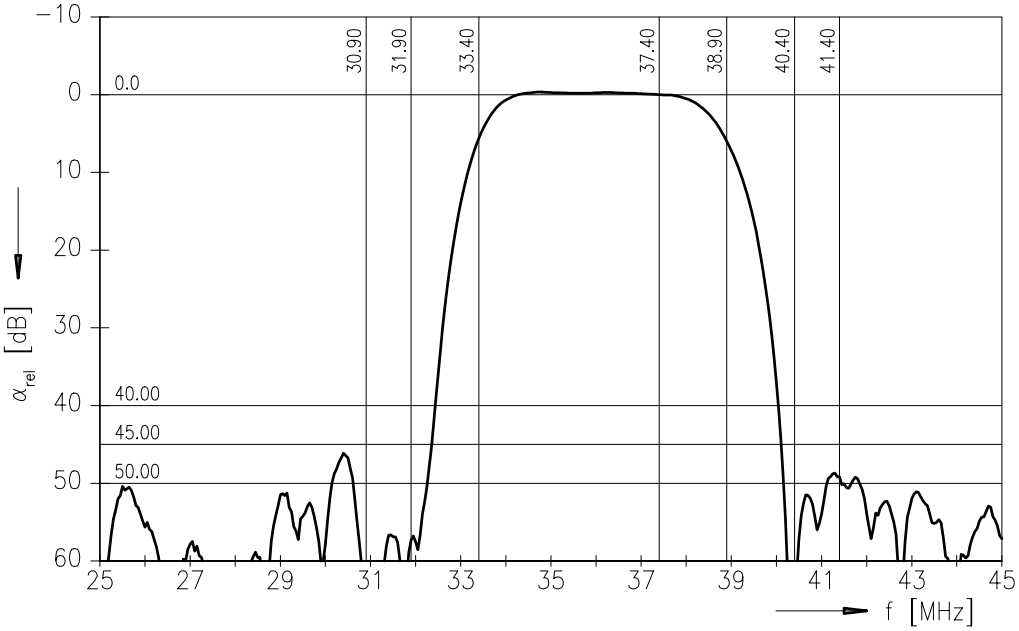
			min.	typ.	max.	
Insertion attenuation		α				
Reference level for the following data	37,40 MHz		14,3	15,8	17,3	dB
Relative attenuation		α_{rel}				
Picture carrier	38.90 MHz		5,0	6,0	7,0	dB
Picture carrier	33,40 MHz		4,4	5,4	6,4	dB
Adjacent picture carrier	30,90 MHz		48,0	62,0	—	dB
	31,90 MHz		48,0	60,0	—	dB
Adjacent sound carrier	40,40 MHz		46,0	55,0	—	dB
	41,40 MHz		42,0	49,0	—	dB
Lower sidelobe	25,00 ... 31,90 MHz		40,0	46,0	—	dB
Upper sidelobe	40,40 ... 45,00 MHz		40,0	46,0	—	dB
Reflected wave signal suppression						
1,1 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)			42,0	58,0	—	dB
Feedthrough signal suppression						
1,1 µs ... 1,0 µs before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)			—	56,0	—	dB
Group delay predistortion		$\Delta\tau$	—	40	—	
Impedance at 37,40 MHz						
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$			—	1,8 || 15,4	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$			—	1,6 || 4,3	—	kΩ || pF
Temperature coefficient of frequency		TC_f	—	–72	—	ppm/K

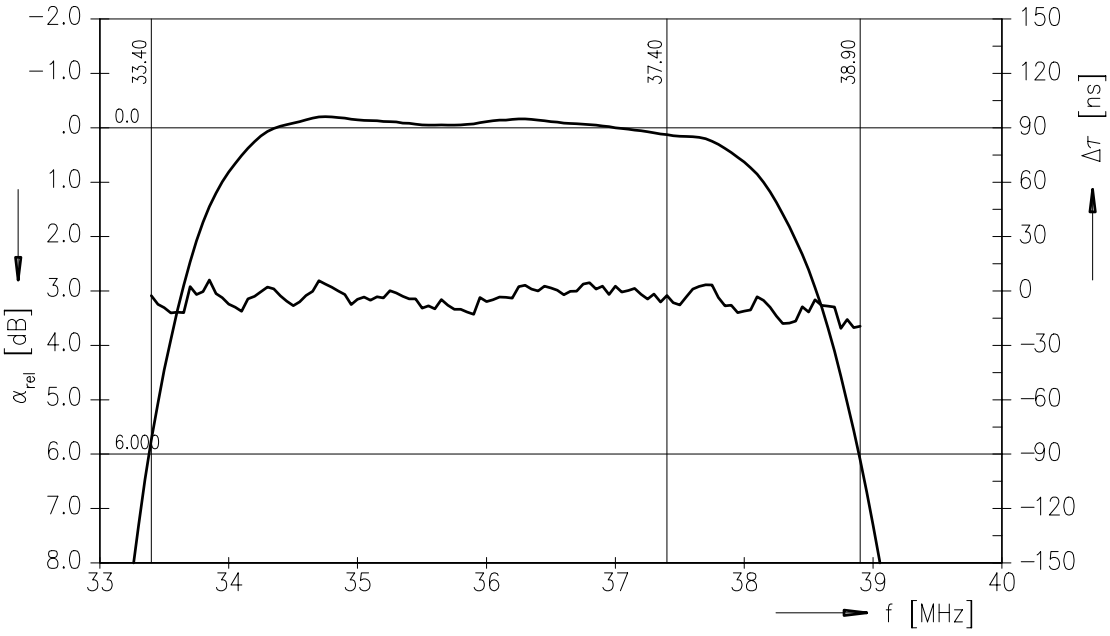
Characteristics of channel 2

Reference temperature: T_A = 25 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 2 kΩ || 3 pF

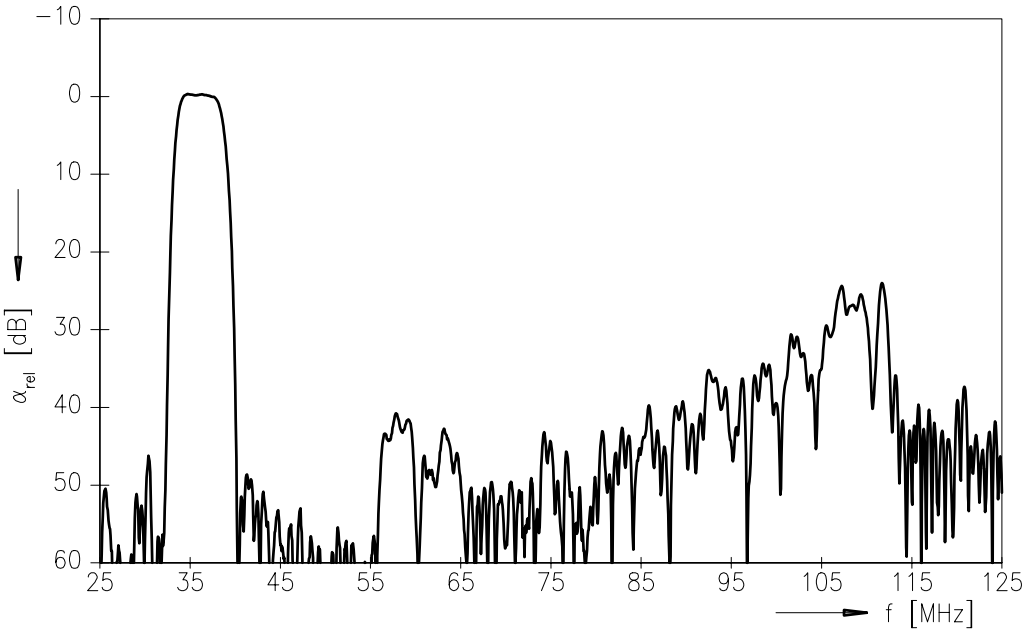
				min.	typ.	max.	
Insertion attenuation			α				
Reference level for the following data	37,40	MHz		13,4	14,9	16,4	dB
Relative attenuation			α_{rel}				
Picture carrier	38,90	MHz		5,3	6,3	7,3	dB
Color carrier	34,47	MHz		–0,2	0,8	1,8	dB
Sound carrier	33,40	MHz		30,0	48,0	—	dB
Adjacent picture carrier	30,90	MHz		45,0	52,0	—	dB
	31,90	MHz		47,0	57,0	—	dB
	32,40	MHz		46,0	55,0	—	dB
Adjacent sound carrier	40,40	MHz		45,0	56,0	—	dB
	40,15	MHz		40,0	48,0	—	dB
	41,40	MHz		42,0	49,0	—	dB
Lower sidelobe	25,00 ... 31,90	MHz		41,0	47,0	—	dB
Upper sidelobe	40,40 ... 45,00	MHz		37,0	43,0	—	dB
Reflected wave signal suppression							
1,1 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)				42,0	56,0	—	dB
Feedthrough signal suppression							
1,1 µs ... 1,0 µs after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)				—	56,0	—	dB
Group delay ripple (p-p)			Δτ	—	40	—	
Impedance at 37,40 MHz							
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$				—	1,9 ‖ 13,3	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$				—	2,0 ‖ 3,2	—	kΩ || pF
Temperature coefficient of frequency			TC_f	—	–72	—	ppm/K

Frequency response of channel 1

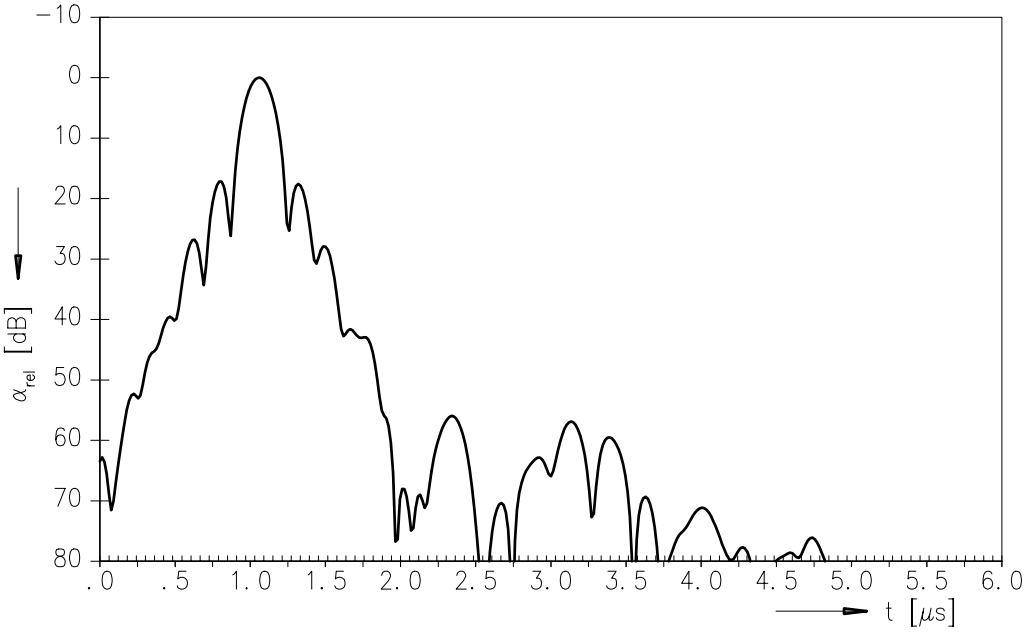




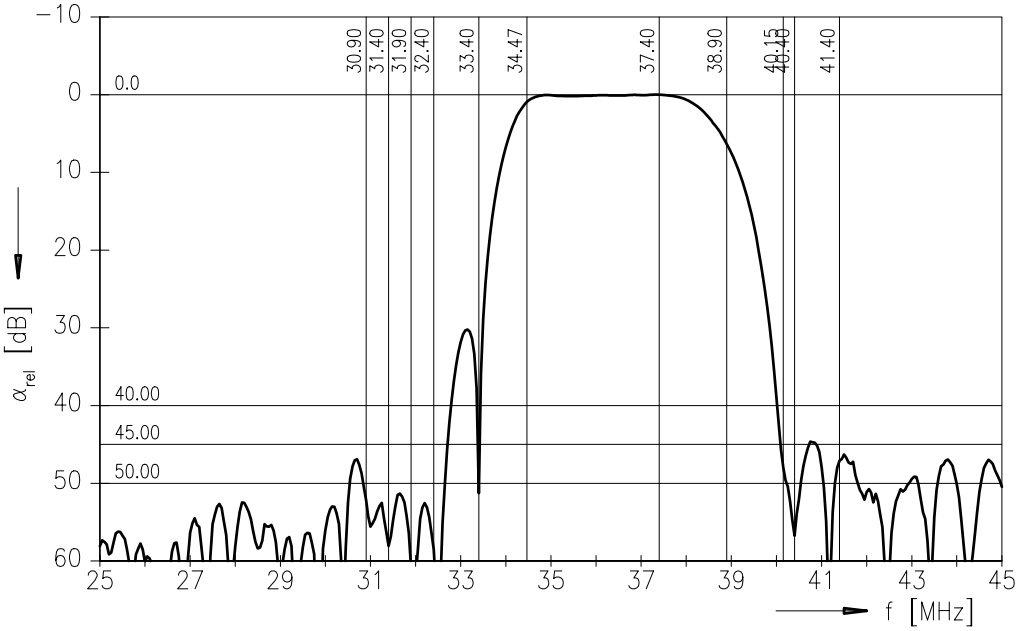
Frequency response of channel 1

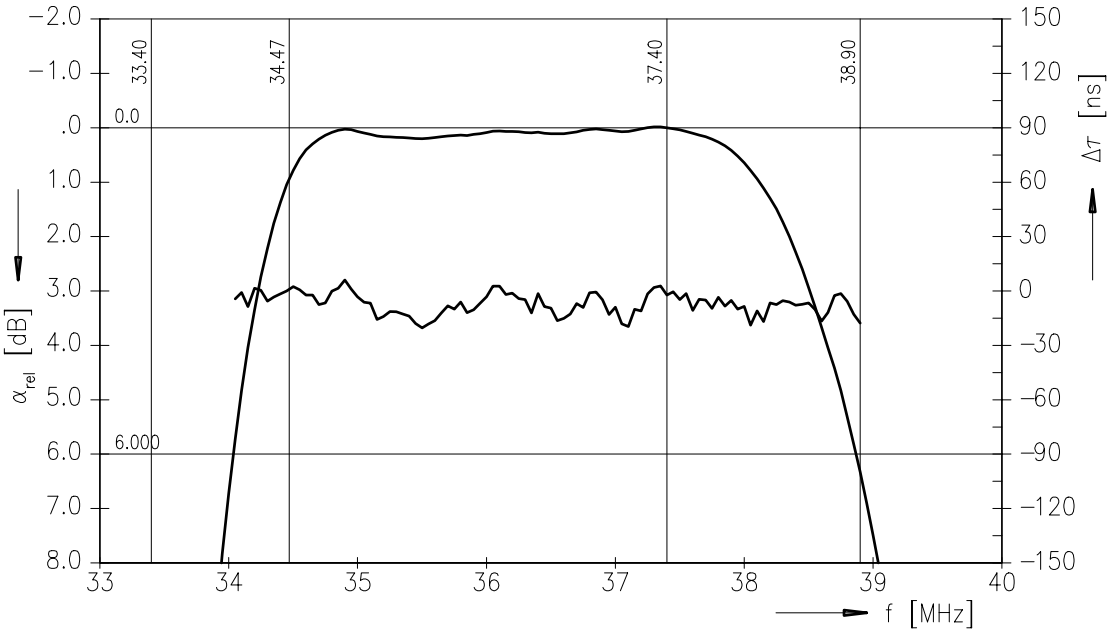


Time domain response of channel 1



Frequency response of channel 2





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