



SAW Components

Data Sheet L 9654 M





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IF Filter for Audio Applications

33,90 MHz and 38,90 MHz

Data Sheet

Standard

Plastic package **SIP5K**

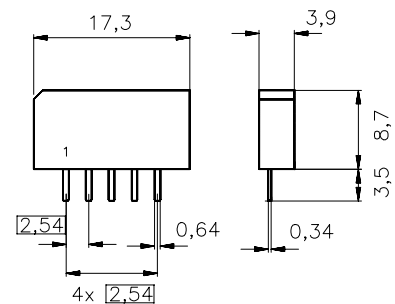
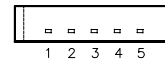
- L/L'

Features

- TV IF audio filter with two channels
- Channel 1 with pass band for sound carriers at 40,40 MHz (L') and 39,75 MHz (L'-NICAM)
- Channel 2 with pass band for sound carriers at 32,40 MHz (L) and 33,05 MHz (L-NICAM)

Terminals

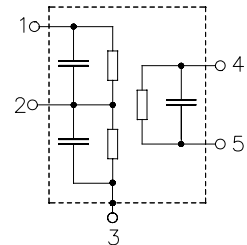
- Tinned CuFe alloy



Dimensions in mm, approx. weight 1,0 g

Pin configuration

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



Type	Ordering code	Marking and package according to	Packing according to
L 9654 M	B39389-L9654-M100	C61157-A1-A15	F61074-V8067-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



Data Sheet

Characteristics of channel 1 (switching pin 2 connected to ground)

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	40,40 MHz	17,4	18,9	20,4	dB
Relative attenuation					
	α_{rel}				
	39,75 MHz	-1,7	-0,7	0,3	dB
	38,40 MHz	36,0	56,0	—	dB
Picture carrier	33,90 MHz	38,0	54,0	—	dB
Adjacent picture carrier	41,90 MHz	32,0	37,0	—	dB
Adjacent sound carrier	32,40 MHz	36,0	51,0	—	dB
Lower sidelobe	25,00 ... 32,40 MHz	32,0	38,0	—	dB
Upper sidelobe	41,90 ... 45,00 MHz	30,0	35,0	—	dB
Group delay ripple (p-p)					
	$\Delta\tau$	—	50	—	ns
Impedance at 40,40 MHz					
Input:	$Z_{IN} = R_{IN} \parallel C_{IN}$	—	1,1 \parallel 10,7	—	k Ω \parallel pF
Output:	$Z_{OUT} = R_{OUT} \parallel C_{OUT}$	—	0,5 \parallel 10,3	—	k Ω \parallel pF
Temperature coefficient of frequency					
	TC_f	—	-72	—	ppm/K



Data Sheet

Characteristics of channel 2 (switching pin 2 connected to pin 1)

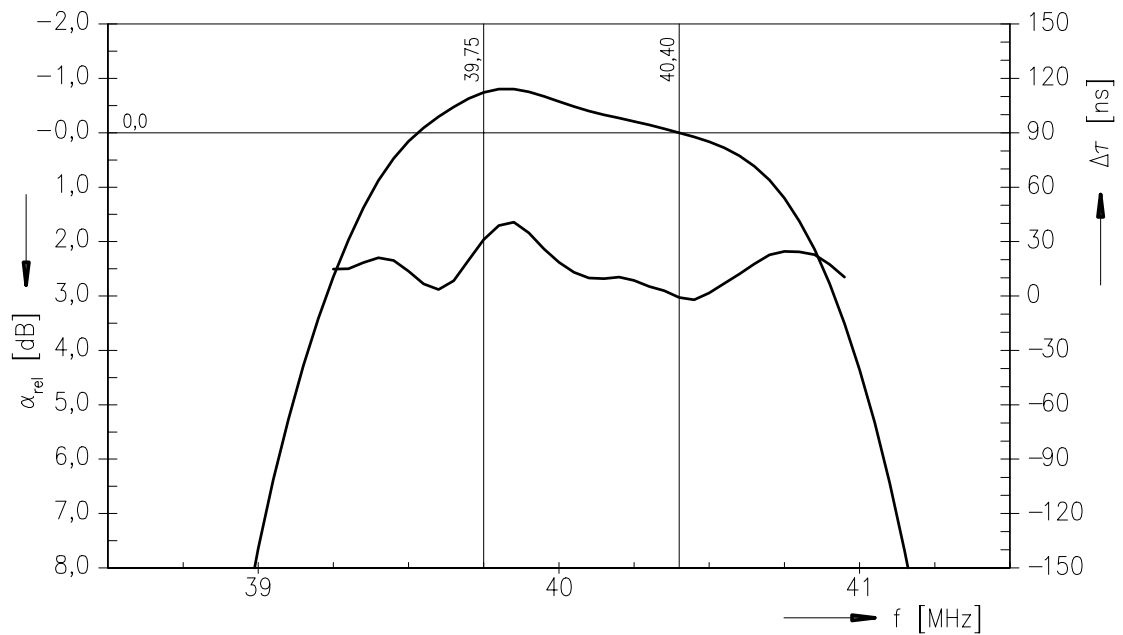
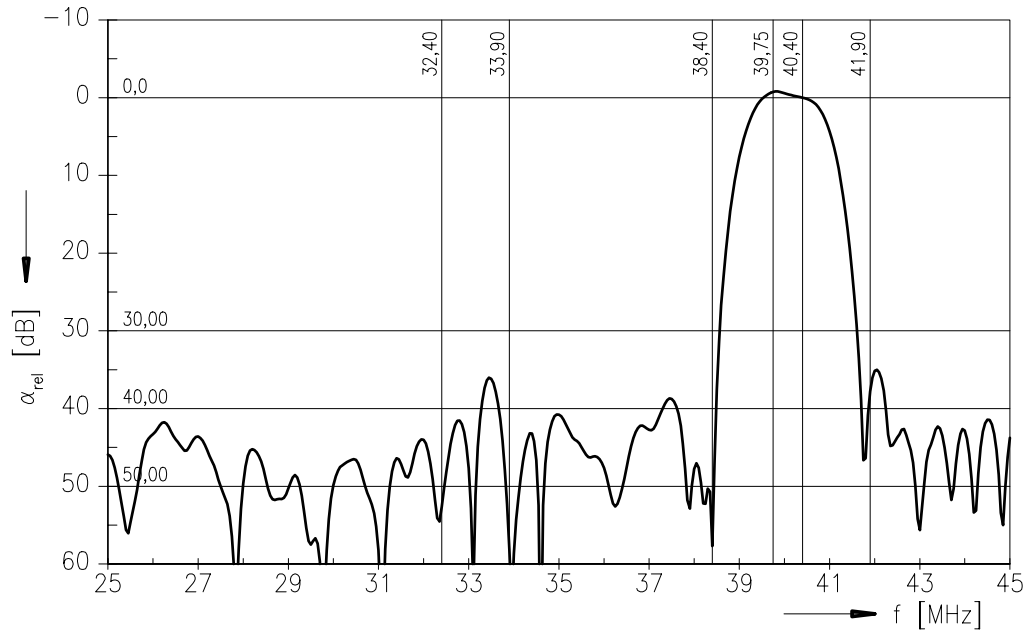
Reference temperature: $T_A = 25\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.	
Insertion attenuation	α				
Reference level for the following data	32,40 MHz	16,5	18,0	19,5	dB
Relative attenuation	α_{rel}				
	33,05 MHz	-0,7	0,3	1,3	dB
	34,40 MHz	30,0	50,0	—	dB
Picture carrier	38,90 MHz	40,0	55,0	—	dB
Adjacent picture carrier	30,90 MHz	44,0	54,0	—	dB
Adjacent sound carrier	40,40 MHz	35,0	46,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	32,0	38,0	—	dB
Upper sidelobe	38,90 ... 45,00 MHz	32,0	38,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$	—	50	—	ns
Impedance at 32,40 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,4 \parallel 15,4	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	0,6 \parallel 14,1	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



Data Sheet

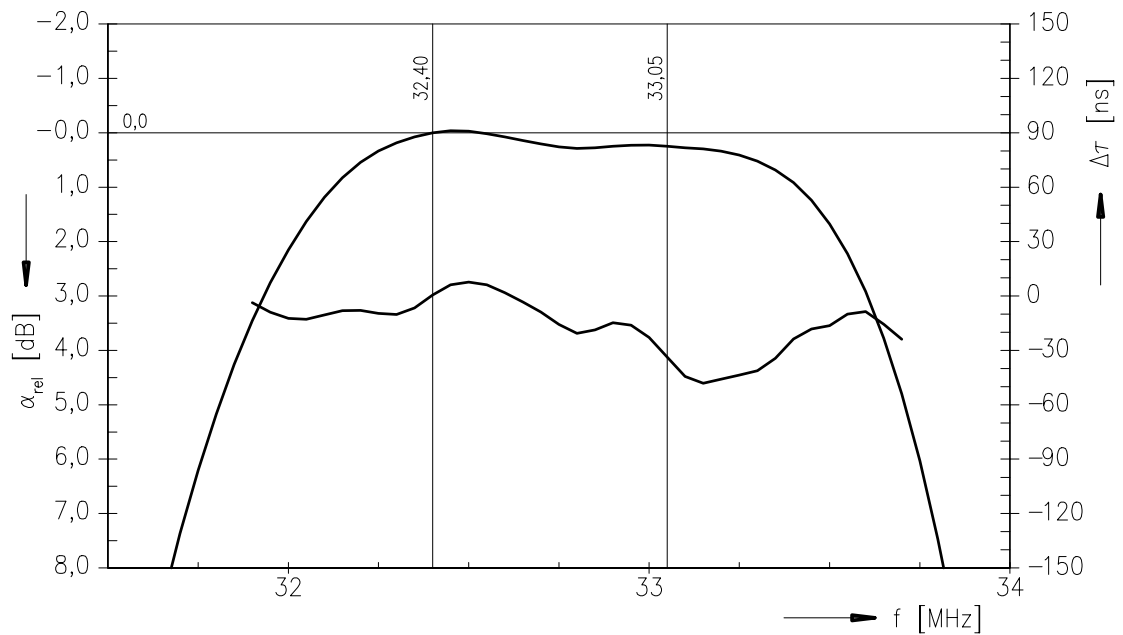
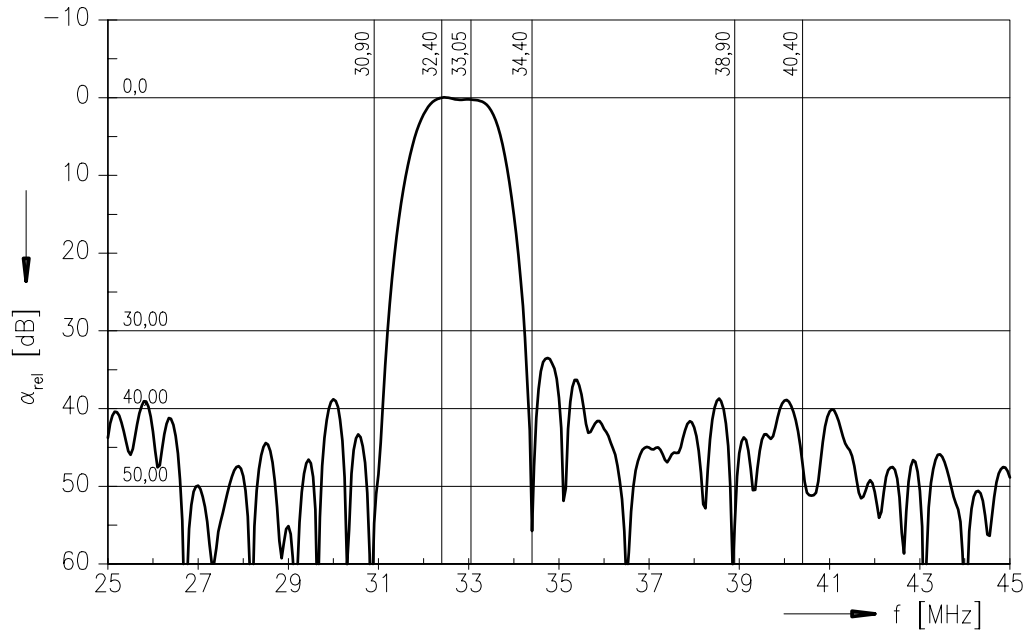
Frequency response of channel 1





Data Sheet

Frequency response of channel 2





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