EPCOS

SAW Components

Data Sheet K 9656 M

Data Sheet

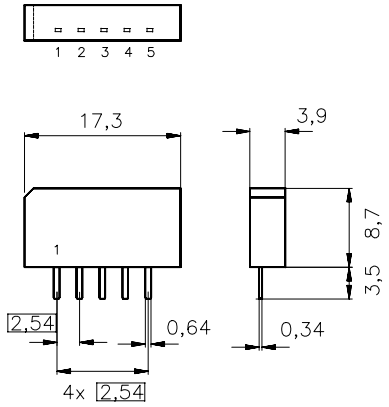
Standard

- B/G
- D/K
- I
- L/L'

Features

- TV IF audio filter with two channels
- Channel 1 (L') with one pass band for sound carriers at 40,40 MHz (L') and 39,75 MHz (L'- NICAM)
- Channel 2 (B/G,D/K,L,I) with one pass band for sound carriers between 32,35 MHz and 33,40 MHz

Plastic package **SIP5K**



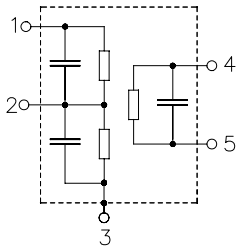
Dimensions in mm, approx. weight 1,0 g

Terminals

- Tinned CuFe alloy

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
K 9656 M	B39389-K9656-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}	5	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals

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

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

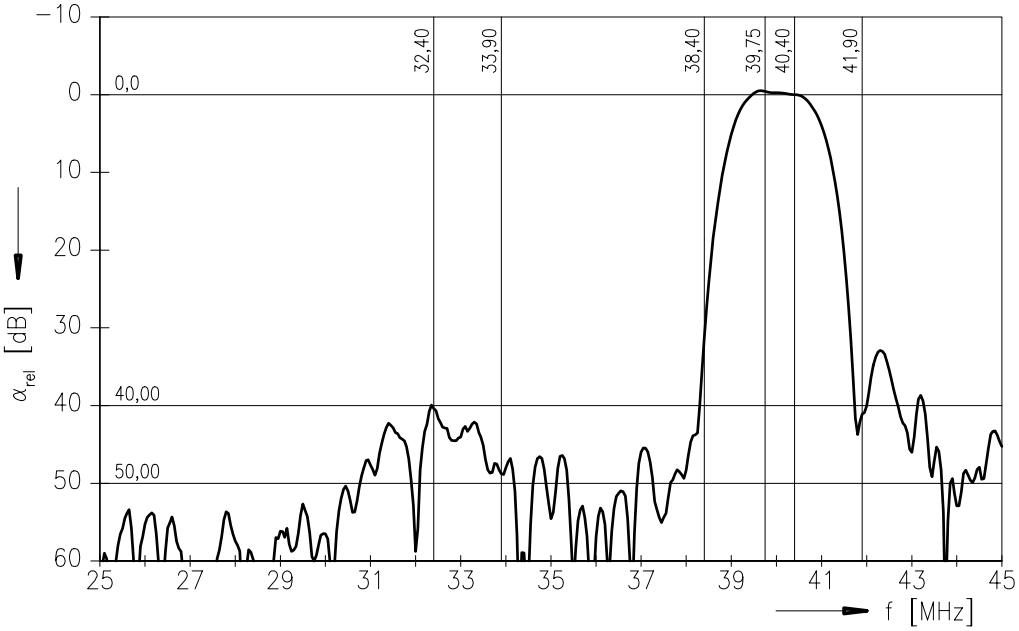
				min.	typ.	max.	
Insertion attenuation			α				
Reference level for the following data		40,40 MHz		14,8	16,3	17,8	dB
Relative attenuation			α_{rel}				
		39,75 MHz		–1,3	–0,3	0,7	dB
		38,40 MHz		26,0	36,0	—	dB
Picture carrier		33,90 MHz		39,0	51,0	—	dB
Adjacent picture carrier		41,90 MHz		28,0	41,0	—	dB
Adjacent sound carrier		32,40 MHz		34,0	42,0	—	dB
Lower sidelobe	25,00 ...	33,90 MHz		34,0	41,0	—	dB
Upper sidelobe	41,90 ...	45,00 MHz		27,0	34,0	—	dB
Group delay ripple (p-p)			$\Delta\tau$	—	40	—	ns
Impedance at 40,40 MHz							
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$				—	0,8 || 9,5	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$				—	2,9 || 4,8	—	kΩ || pF
Temperature coefficient of frequency			TC_f	—	–72	—	ppm/K

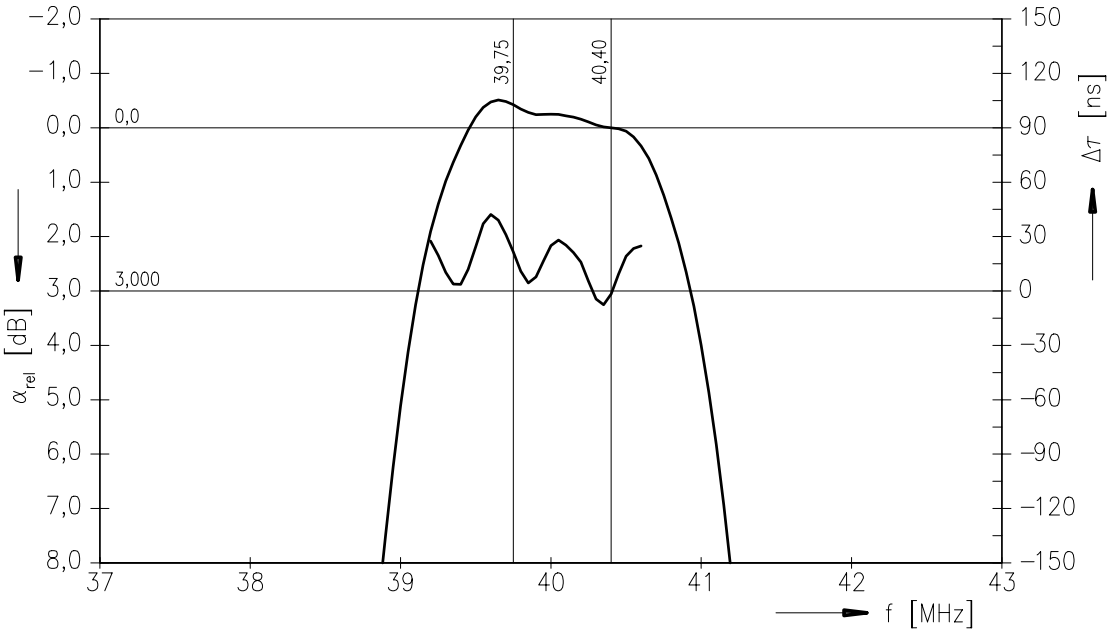
Characteristics of channel 2 (switching pin 2 connected to pin 1)

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

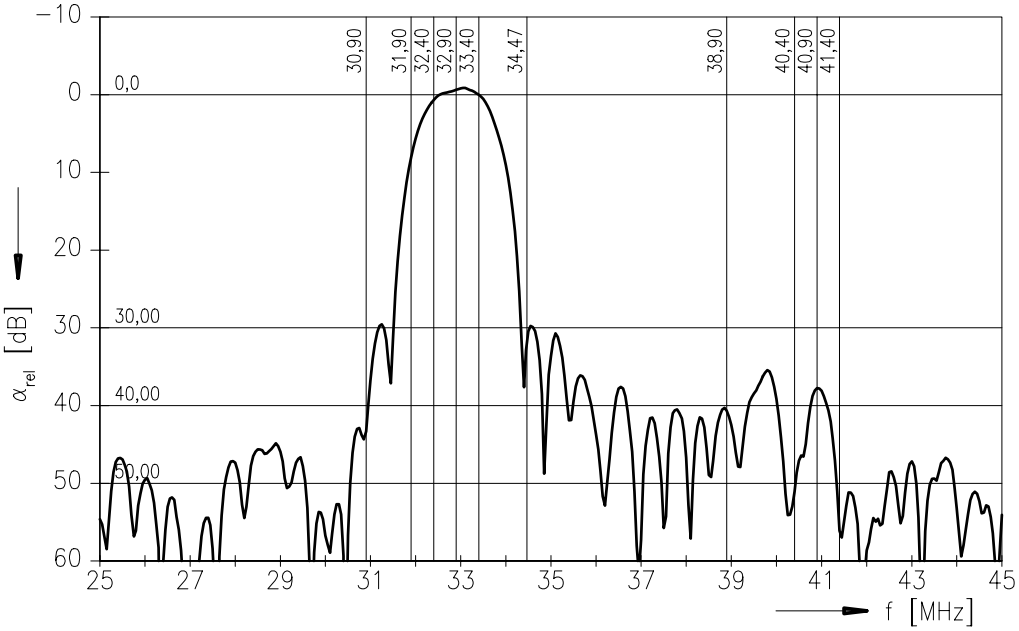
				min.	typ.	max.	
Insertion attenuation			α				
Reference level for the following data	33,40	MHz		14,3	15,8	17,3	dB
Relative attenuation			α_{rel}				
Sound carrier B/G-NICAM	33,05	MHz		–1,5	–0,5	0,5	dB
Sound carrier I	32,90	MHz		–1,4	–0,4	0,6	dB
Sound carrier D/K, L	32,40	MHz		0,1	1,1	2,1	dB
Picture carrier	38,90	MHz		35,0	41,0	—	dB
Color carrier	34,47	MHz		23,0	32,0	—	dB
Adjacent picture carrier	30,90	MHz		38,0	47,0	—	dB
	31,90	MHz		—	9,3	—	dB
Adjacent sound carrier	40,40	MHz		38,0	46,0	—	dB
	40,90	MHz		34,0	39,0	—	dB
	41,40	MHz		40,0	52,0	—	dB
Lower sidelobe	25,00 ... 30,90	MHz		37,0	43,0	—	dB
Upper sidelobe	40,40 ... 45,00	MHz		32,0	38,0	—	dB
Group delay ripple (p-p)			Δτ	—	40	—	ns
Impedance at 33,40 MHz							
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$				—	0,9 ‖ 13,5	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$				—	2,8 ‖ 4,8	—	kΩ || pF
Temperature coefficient of frequency			TC_f	—	–72	—	ppm/K

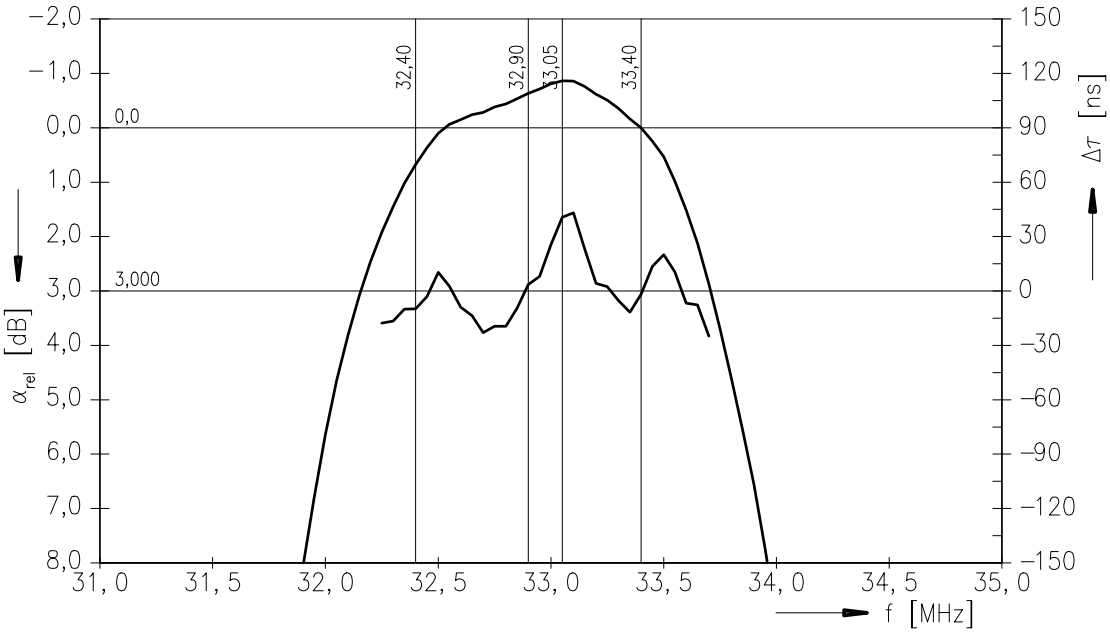
Frequency response of channel 1





Frequency response of channel 2





Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW CE MM PD
P.O. Box 80 17 09, D-81617 München

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