EPCOS

SAW Components

Data Sheet J 3353 K

Data Sheet

Standard

- I
- D/K

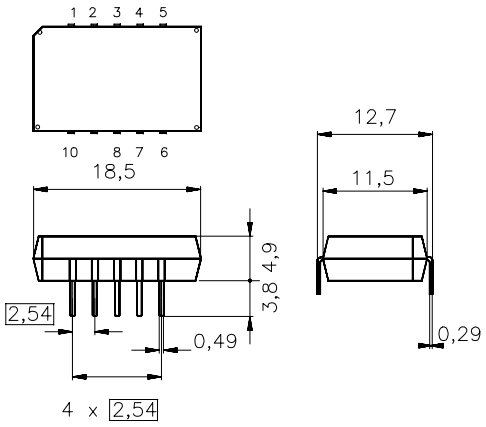
Features

- TV IF filter for quasi/split sound applications (separate picture and sound channel)
- Picture channel with Nyquist slope and sound suppression
- Customized group delay predistortion
- Sound channel with passband for sound carriers at 32,90 MHz and 32,35 MHz (NICAM)
- Suitable for CENELEC EN 55020

Terminals

- Tinned CuFe alloy

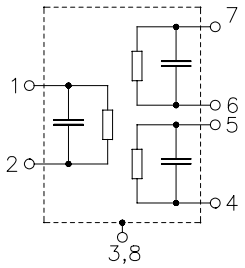
Plastic package **DIP10K**



Dimensions in mm, approx. weight 1,8 g

Pin configuration

1	Input
2	Input - ground
3; 8	Chip carrier - ground
4; 5	Output - sound
6; 7	Output - picture
9	Free
10	Not connected



Type	Ordering code	Marking and package according to	Packing according to
J 3353 K	B39389-J3353-K100	C61157-A2-A3	F61074-V8068-Z000

Maximum ratings

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

Characteristics of picture channel

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

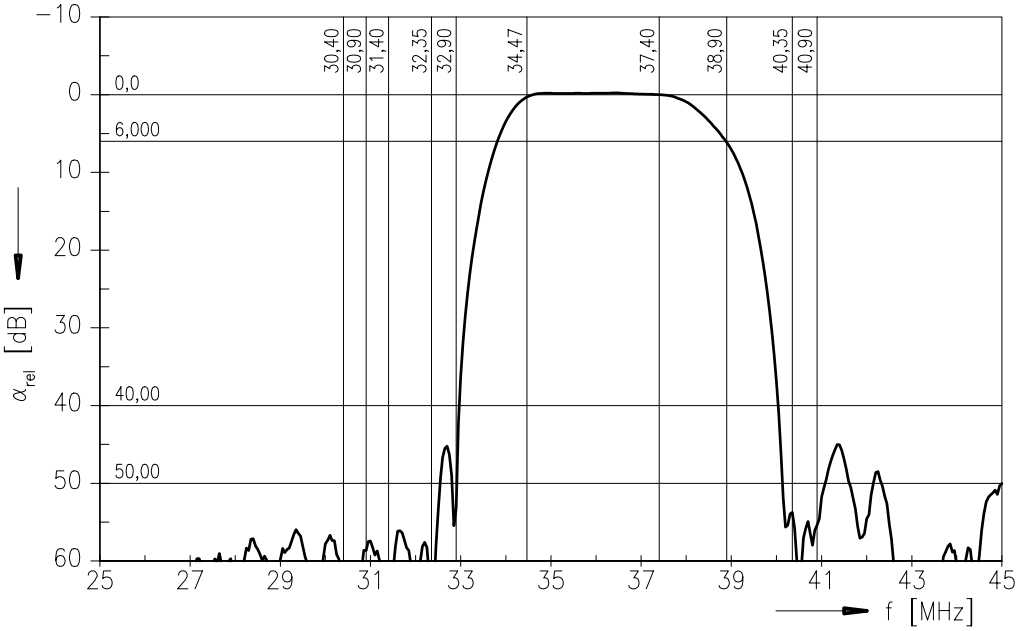
				min.	typ.	max.	
Insertion attenuation			α				
Reference level for the following data		37,40 MHz		12,9	14,4	15,9	dB
Relative attenuation			α_{rel}				
Picture carrier		38,90 MHz		5,0	6,0	7,0	dB
Color carrier		34,47 MHz		–0,6	0,4	1,4	dB
Sound carrier		32,90 MHz		40,0	52,0	—	dB
		32,35 MHz		44,0	56,0	—	dB
Adjacent picture carrier		30,90 MHz		50,0	62,0	—	dB
		30,40 MHz		48,0	60,0	—	dB
		31,40 MHz		48,0	60,0	—	dB
Adjacent sound carrier		40,90 MHz		45,0	55,0	—	dB
		40,35 MHz		43,0	53,0	—	dB
Lower sidelobe	25,00 ...	30,90 MHz		46,0	54,0	—	dB
Upper sidelobe	40,90 ...	45,00 MHz		39,0	45,0	—	dB
Reflected wave signal suppression							
1,2 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)				42,0	55,0	—	dB
Feedthrough signal suppression							
1,2 µs ... 1,1 µs before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)				50,0	56,0	—	dB
Group delay predistortion (reference frequency 38,90 MHz)			$\Delta\tau$				
		38,90 MHz		—	0	—	ns
		34,47 MHz		—	–50	—	ns
Impedance at 37,40 MHz							
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$				—	1,2 ‖ 24,0	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$				—	2,5 ‖ 3,6	—	kΩ || pF
Temperature coefficient of frequency			TC_f	—	–72	—	ppm/K

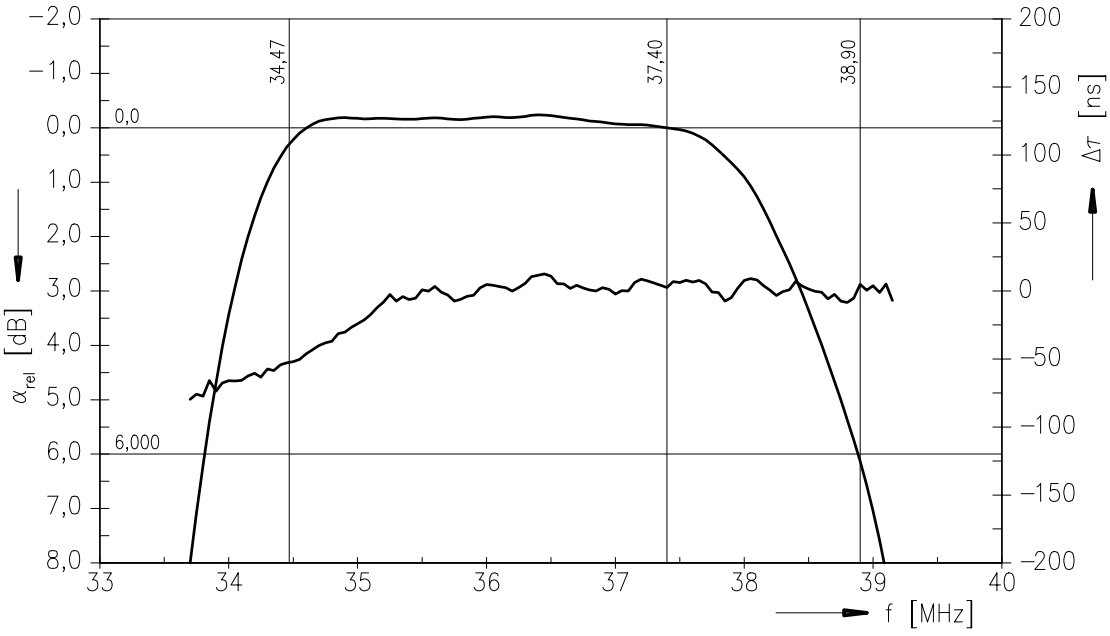
Characteristics of sound channel

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

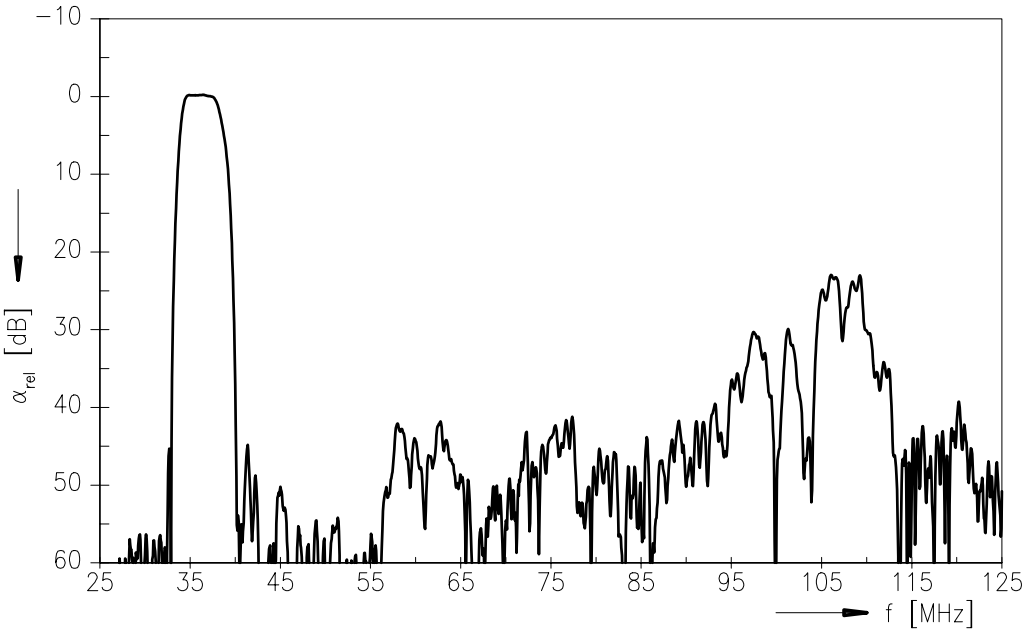
				min.	typ.	max.	
Insertion attenuation			α				
Reference level for the following data		32,35 MHz		10,4	11,9	13,4	dB
Relative attenuation			α_{rel}				
Sound carrier		32,90 MHz		–0,5	0,5	1,5	dB
		31,95 MHz		—	2,5	—	dB
Picture carrier		38,90 MHz		46,0	58,0	—	dB
Color carrier		34,47 MHz		33,0	47,0	—	dB
Adjacent picture carrier		30,90 MHz		40,0	51,0	—	dB
Adjacent sound carrier		40,90 MHz		48,0	59,0	—	dB
		40,35 MHz		46,0	55,0	—	dB
Lower sidelobe	25,00 ...	30,90 MHz		39,0	45,0	—	dB
Upper sidelobe	38,90 ...	45,00 MHz		44,0	50,0	—	dB
Impedance at 32,35 MHz Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$				—	2,5 || 3,6	—	kΩ || pF
Temperature coefficient of frequency			TC_f	—	–72	—	ppm/K

Frequency response of picture channel

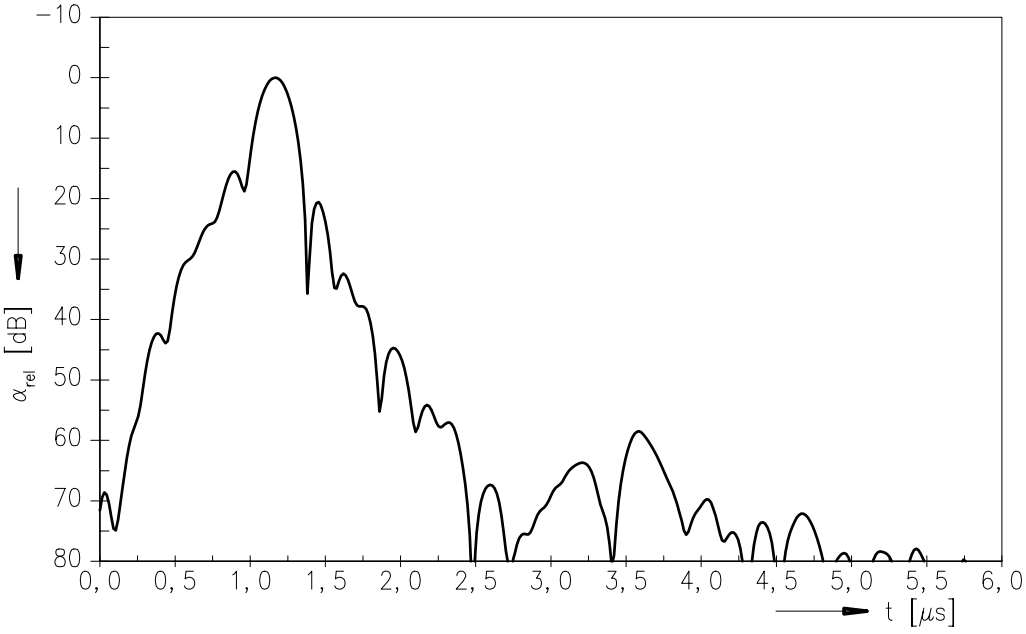




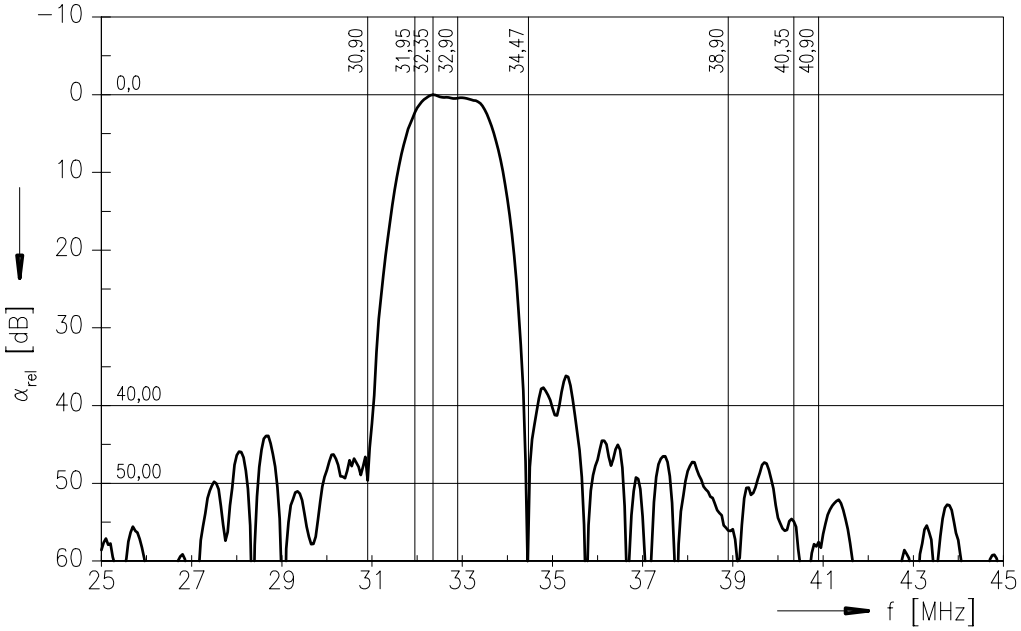
Frequency response of picture channel



Time domain response of picture channel



Frequency response of sound channel



Published by EPCOS AG
Surface Acoustic Wave Components Division, OFW E UE
P.O. Box 80 17 09, D-81617 München

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