EPCOS

SAW Components

Data Sheet J 3353 K

Data Sheet

Standard

- I
- D/K

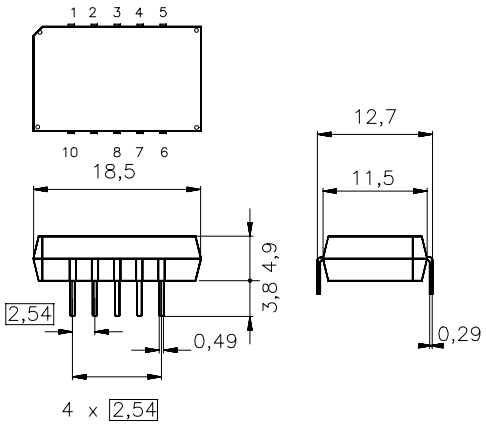
Features

- 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

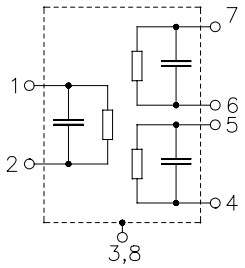
Plastic package **DIP10K**



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

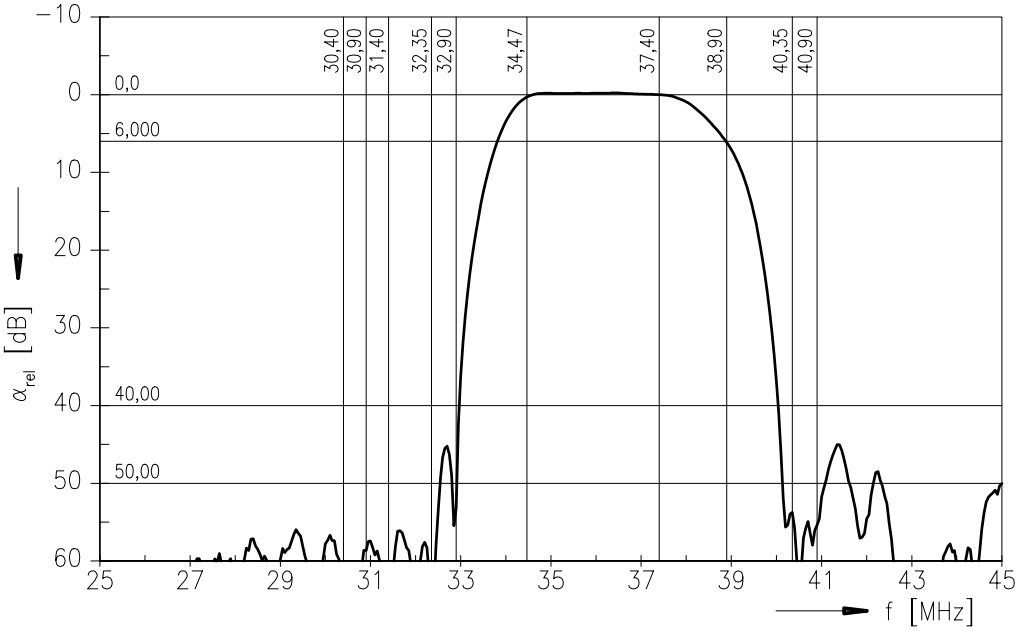
			min.	typ.	max.	
Insertion attenuation		α				
Reference level for the following data	37,40 MHz		12,9	14,4	15,9	dB
Relative attenuation		α_{rel}				
Picture carrier	38,90 MHz		5,0	6,0	7,0	dB
Color carrier	34,47 MHz		–0,6	0,4	1,4	dB
Sound carrier	32,90 MHz		40,0	52,0	—	dB
	32,35 MHz		44,0	56,0	—	dB
Adjacent 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

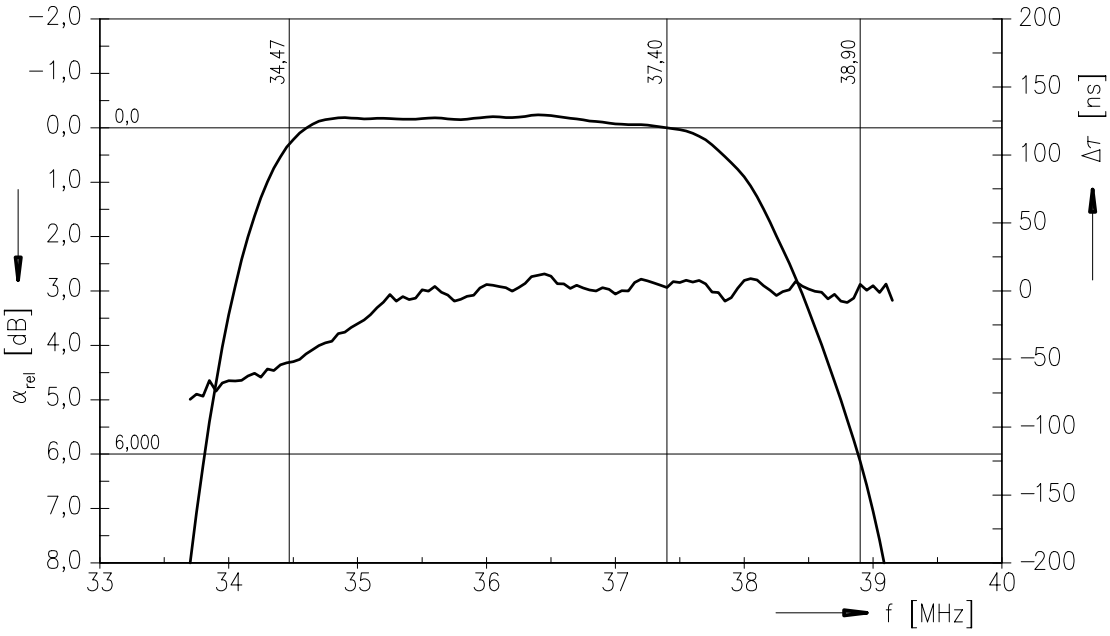
Characteristics of sound channel

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

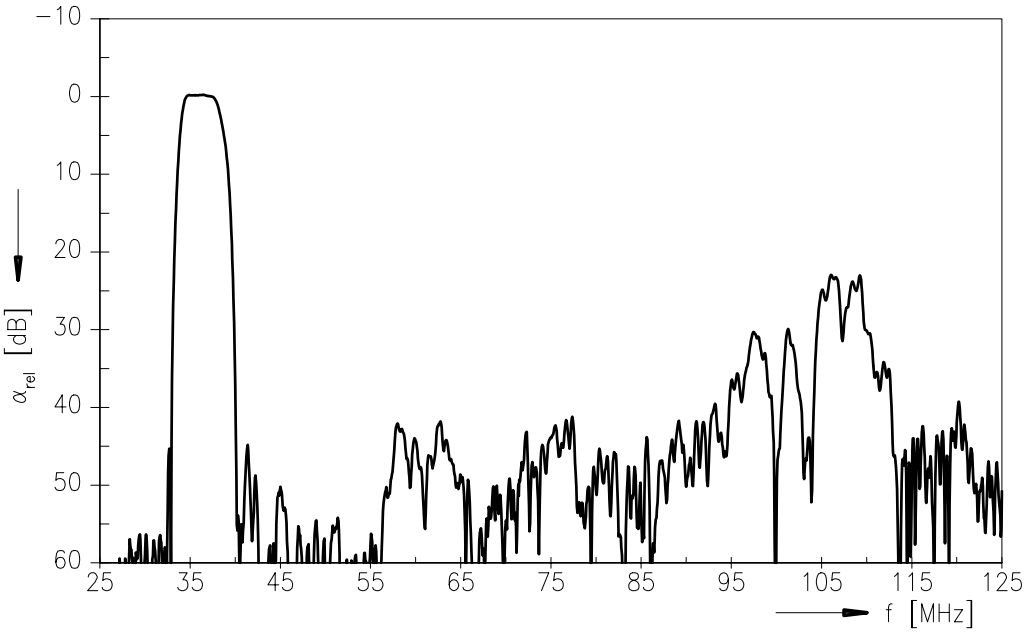
				min.	typ.	max.	
Insertion attenuation			α				
Reference level for the following data		32,35 MHz		10,4	11,9	13,4	dB
Relative attenuation			α_{rel}				
Sound carrier		32,90 MHz		–0,5	0,5	1,5	dB
		31,95 MHz		—	2,5	—	dB
Picture carrier		38,90 MHz		46,0	58,0	—	dB
Color carrier		34,47 MHz		33,0	47,0	—	dB
Adjacent 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

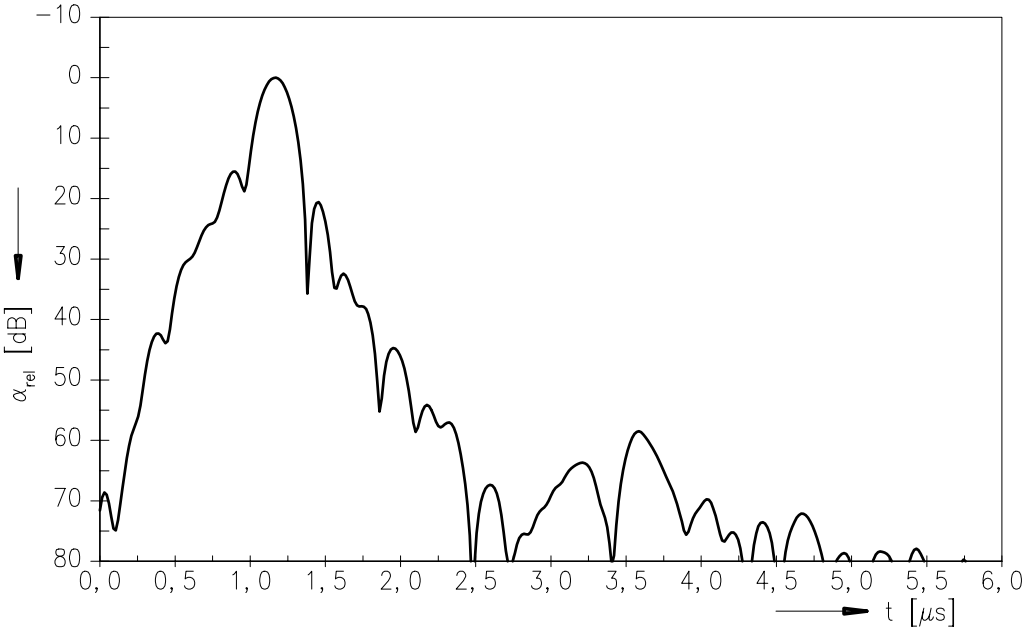




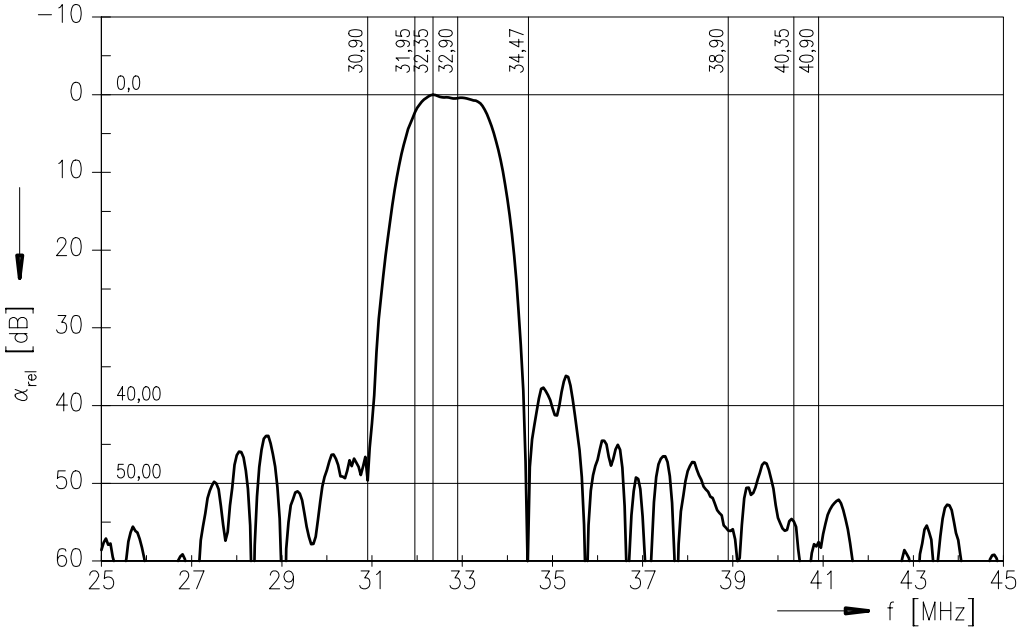
Frequency response of picture channel



Time domain response of picture channel



Frequency response of sound channel



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