



SAW Components

Data Sheet G 3361 K

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IF Filter for Quasi/Split Sound Applications

38,90 MHz

Data Sheet

Standard

● B/G

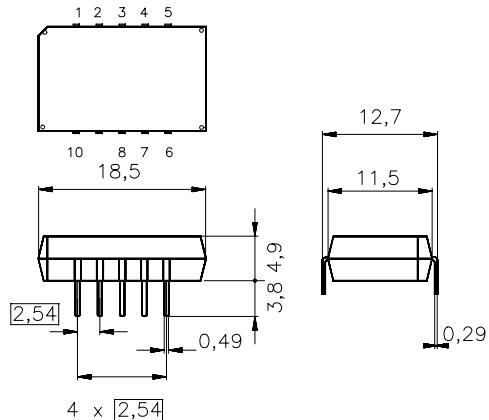
Features

- 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 one passband for sound carriers at 33,40 MHz and 33,05 MHz (NICAM)
- Suitable for CENELEC EN 55020

Terminals

- Tinned CuFe alloy

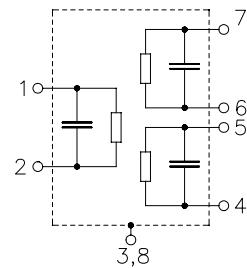
Plastic package **DIP10K**



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
G 3361 K	B39389-G3361-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}	5	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals



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Characteristics of picture channel

Reference temperature: $T_A = 25^\circ\text{C}$
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	37,40 MHz	12,0	13,5	15,0	dB
Relative attenuation	α_{rel}				
Picture carrier	38,90 MHz	4,3	5,3	6,3	dB
Color carrier	34,47 MHz	0,8	1,8	2,8	dB
Sound carrier	33,40 MHz	30,0	46,0	—	dB
Adjacent picture carrier	30,90 MHz	46,0	56,0	—	dB
	31,90 MHz	48,0	60,0	—	dB
	32,40 MHz	47,0	55,0	—	dB
	40,15 MHz	40,0	48,0	—	dB
Adjacent sound carrier	40,40 MHz	45,0	52,0	—	dB
	41,40 MHz	45,0	54,0	—	dB
Lower sidelobe	25,00 ... 31,90 MHz	42,0	51,0	—	dB
Upper sidelobe	40,40 ... 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	52,0	—	dB
Feedthrough signal suppression					
1,3 μs ... 1,2 μs before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		50,0	56,0	—	dB
Group delay predistortion	$\Delta\tau$				
(reference frequency 38,90 MHz)					
	35,90 MHz	—	-95	—	ns
	34,47 MHz	—	-80	—	ns
Impedance at 37,40 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	1,0 \parallel 23,7	—	$\text{k}\Omega \parallel \text{pF}$
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1,5 \parallel 4,3	—	$\text{k}\Omega \parallel \text{pF}$
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



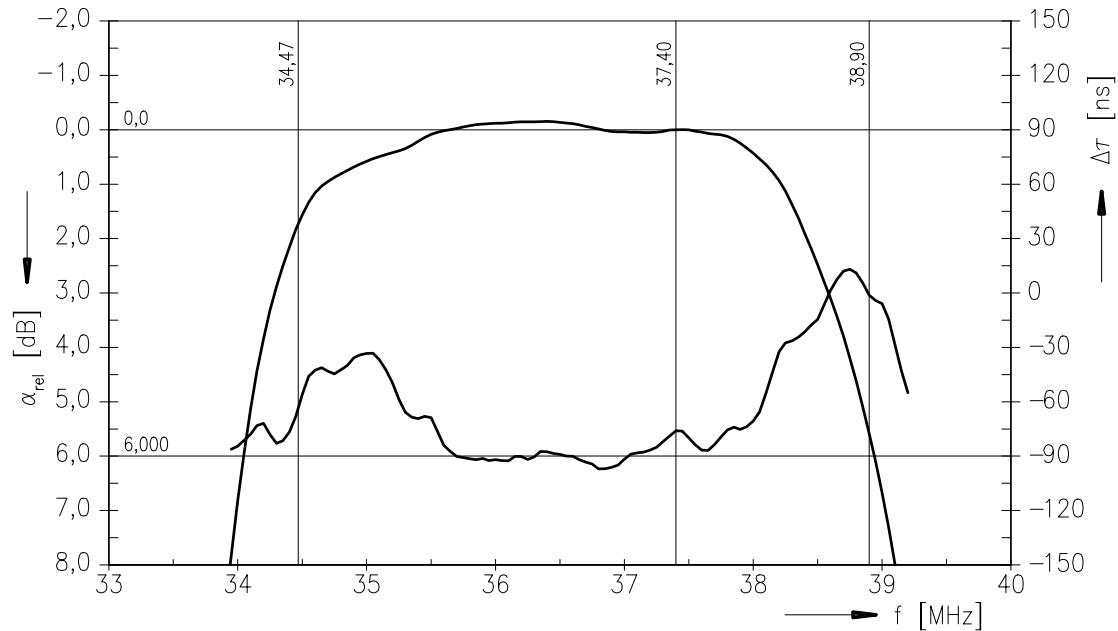
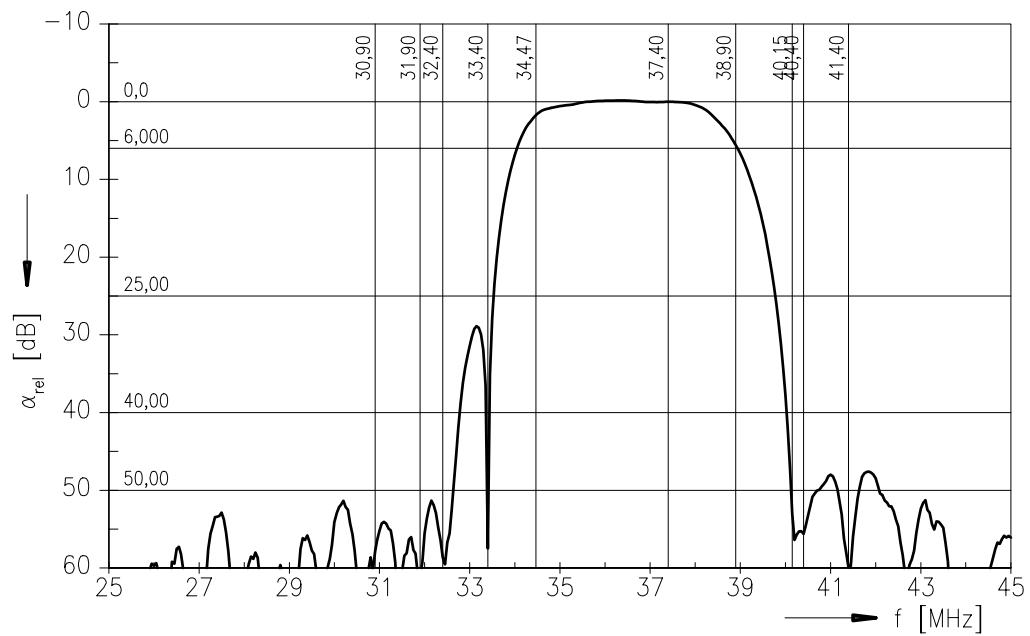
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Characteristics of sound channel

Reference temperature: $T_A = 25^\circ\text{C}$
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	33,05 MHz	13,0	14,5	16,0	dB
Relative attenuation	α_{rel}				
Sound carrier	33,40 MHz	0,5	1,5	2,5	dB
Picture carrier	38,90 MHz	39,0	47,0	—	dB
Color carrier	34,47 MHz	27,0	35,0	—	dB
Adjacent picture carrier	30,90 MHz	30,0	35,0	—	dB
	31,90 MHz	32,0	47,0	—	dB
Adjacent sound carrier	40,40 MHz	44,0	52,0	—	dB
	41,40 MHz	—	53,0	—	dB
Lower sidelobe	25,00 ... 31,90 MHz	29,0	34,0	—	dB
Upper sidelobe	38,90 ... 45,00 MHz	38,0	45,0	—	dB
Impedance at 33,05 MHz					
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	3,7 \parallel 2,9	—	$\text{k}\Omega \parallel \text{pF}$
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K

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Frequency response of picture channel


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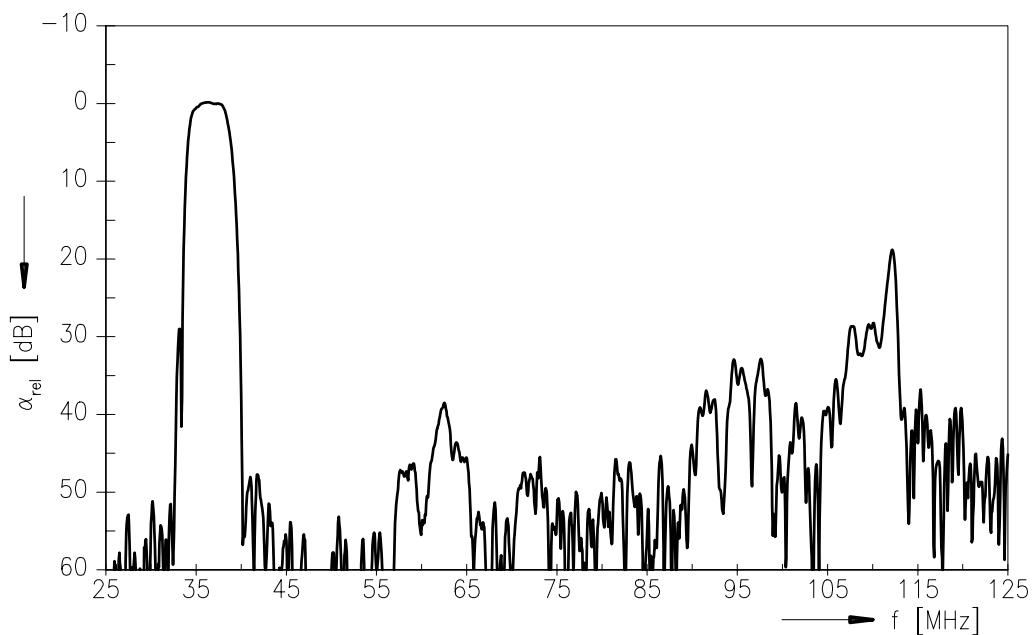
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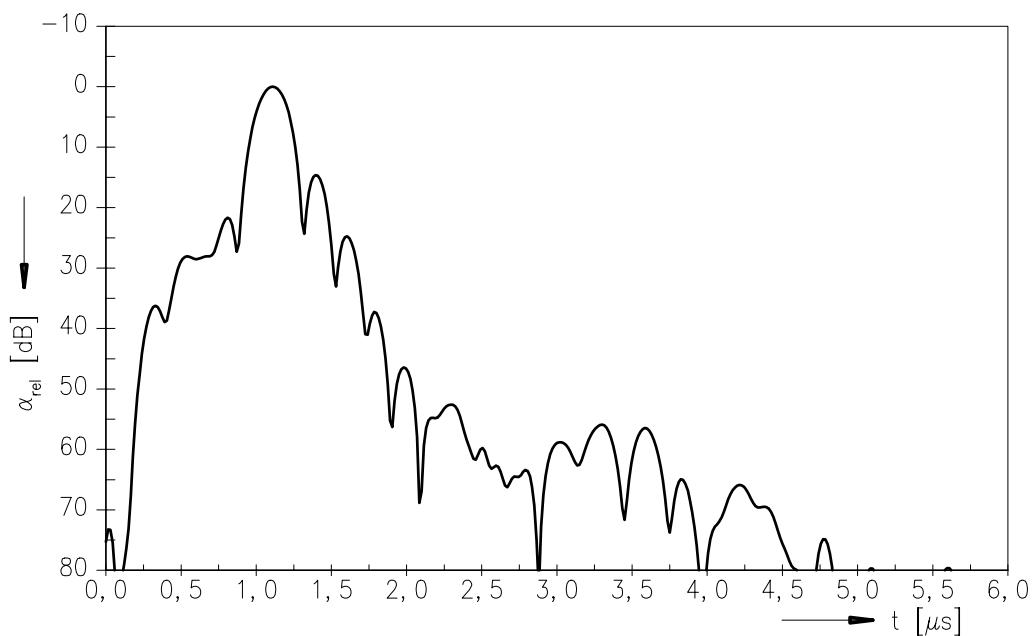
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Frequency response of picture channel



Time domain response of picture channel



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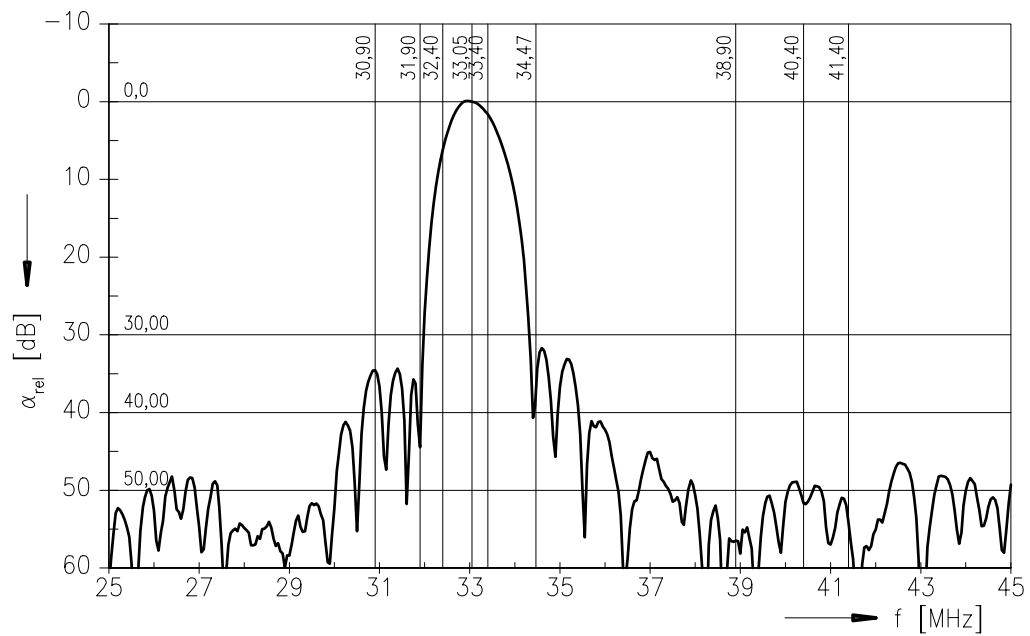
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Frequency response of sound channel





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