



SAW Components

Data Sheet G 3355 K





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IF Filter for Quasi/Split Sound Applications

38,90 MHz

Data Sheet

Standard

- B/G

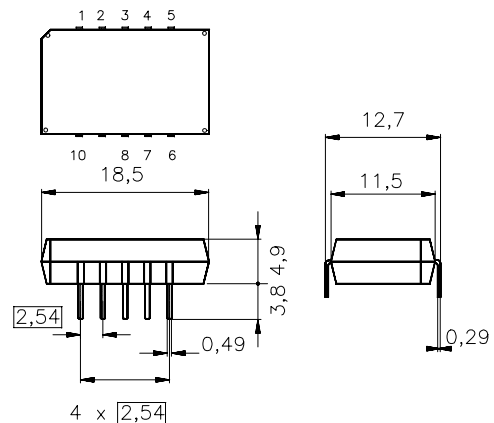
Plastic package **DIP10K**

Features

- TV IF filter for quasi/split sound applications (separate picture and sound channel)
- Picture channel with Nyquist slope and sound suppression
- Group delay predistortion
- Sound channel with passband only for sound carriers at 33,40 MHz and 33,05 MHz (NICAM)
- Suitable for CENELEC EN 55020

Terminals

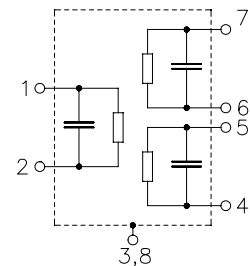
- Tinned CuFe alloy



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 3355 K	B39389-G3355-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}	12	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals



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Characteristics of picture channel

Reference temperature: $T_A = 25\text{ °C}$
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	12,5	14,0	15,5	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	33,40 MHz	30,0	48,0	—	dB
Adjacent picture carrier	30,90 MHz	46,0	60,0	—	dB
	31,90 MHz	48,0	56,0	—	dB
	32,40 MHz	46,0	55,0	—	dB
	40,15 MHz	38,0	48,0	—	dB
Adjacent sound carrier	40,40 MHz	46,0	60,0	—	dB
	41,40 MHz	45,0	59,0	—	dB
Lower sidelobe	25,00 ... 31,90 MHz	40,0	46,0	—	dB
Upper sidelobe	40,40 ... 45,00 MHz	40,0	46,0	—	dB
Reflected wave signal suppression					
1,2 μ s ... 6,0 μ s after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,2 μ s ... 1,1 μ s before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		—	56,0	—	dB
Group delay predistortion $\Delta\tau$ (reference frequency 38,90 MHz)					
	36,30 MHz	—	-55	—	ns
	34,47 MHz	—	40	—	ns
Impedance at 37,40 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,0 \parallel 24,4	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,6 \parallel 3,9	—	k Ω \parallel pF
Temperature coefficient of frequency TC_f					
		—	-72	—	ppm/K



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Characteristics of sound channel

Reference temperature:

$$T_A = 25 \text{ }^{\circ}\text{C}$$

Terminating source impedance:

$$Z_S = 50 \text{ } \Omega$$

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	12,7	14,2	15,7	dB
Relative attenuation	α_{rel}				
Sound carrier	33,40 MHz	1,0	2,0	3,0	dB
Picture carrier	38,90 MHz	42,0	56,0	—	dB
Color carrier	34,47 MHz	28,0	35,0	—	dB
Adjacent picture carrier	30,90 MHz	30,0	37,0	—	dB
	31,90 MHz	32,0	41,0	—	dB
Adjacent sound carrier	40,40 MHz	42,0	53,0	—	dB
	41,40 MHz	42,0	54,0	—	dB
Lower sidelobe	25,00 ... 31,90 MHz	28,0	34,0	—	dB
Upper sidelobe	38,90 ... 45,00 MHz	38,0	46,0	—	dB
Impedance at 33,05 MHz					
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	4,1 \parallel 2,6	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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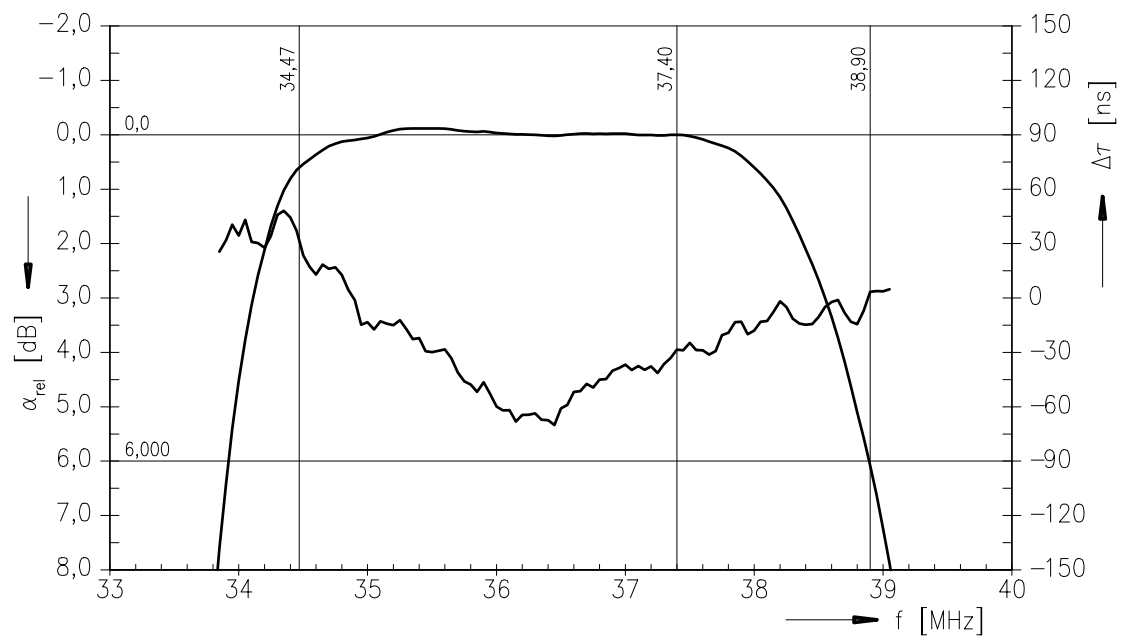
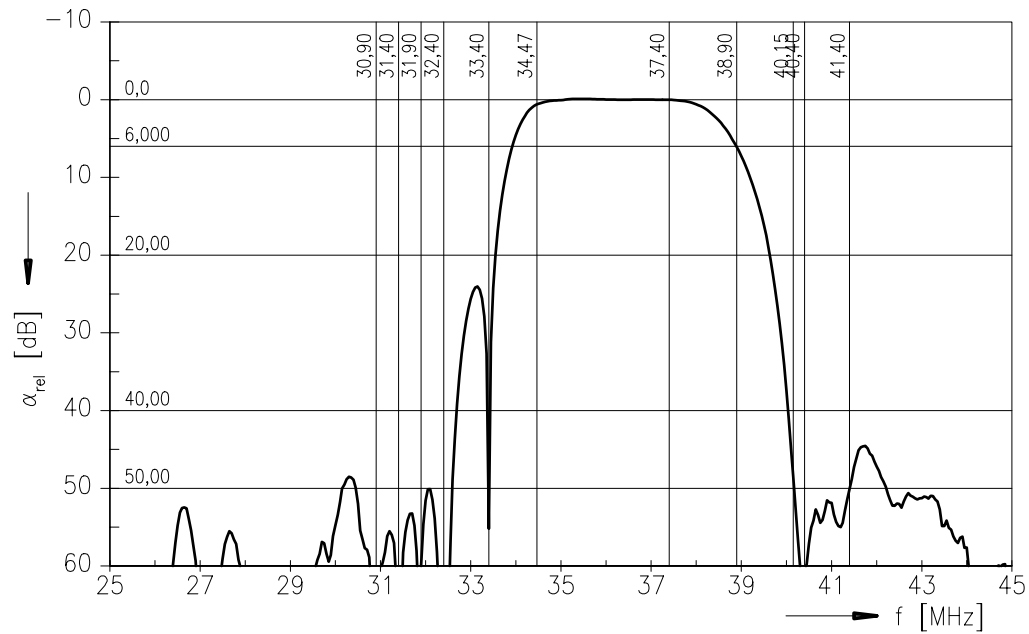
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Frequency response of picture channel





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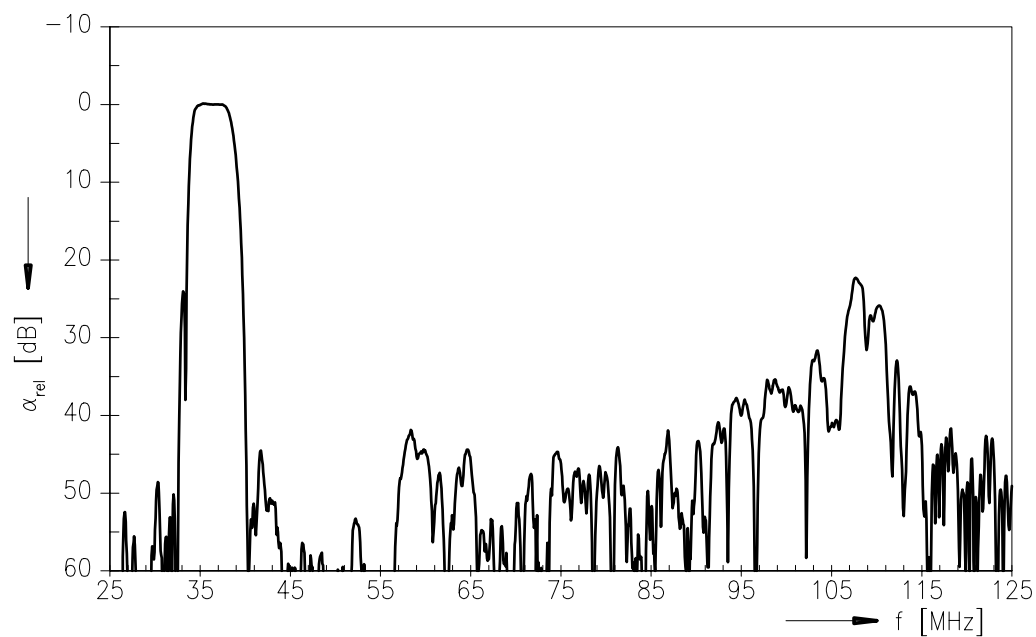
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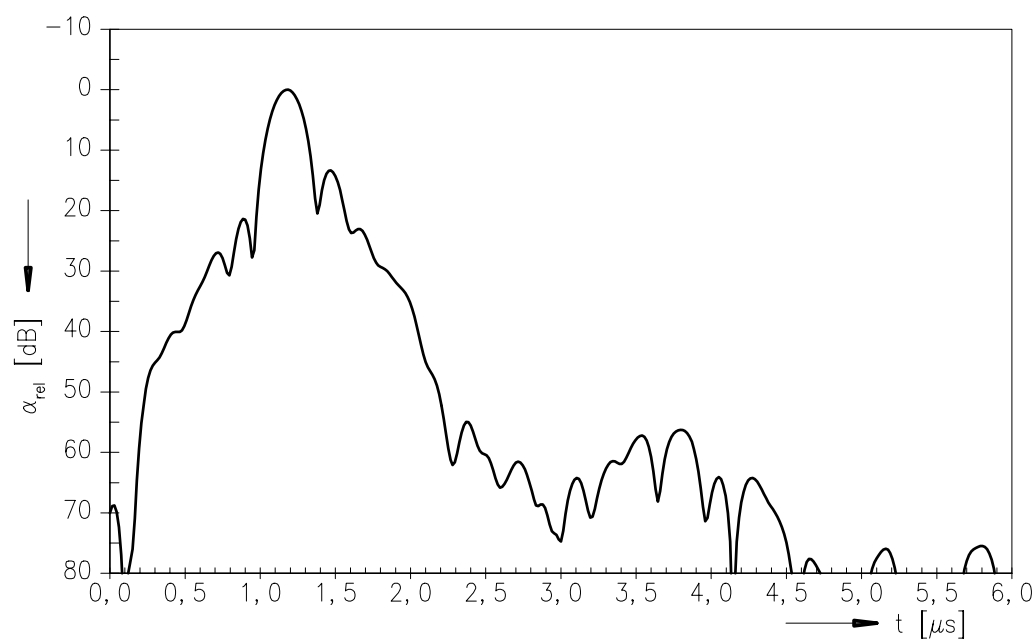
38,90 MHz

Data Sheet

Frequency response of picture channel



Time domain response of picture channel





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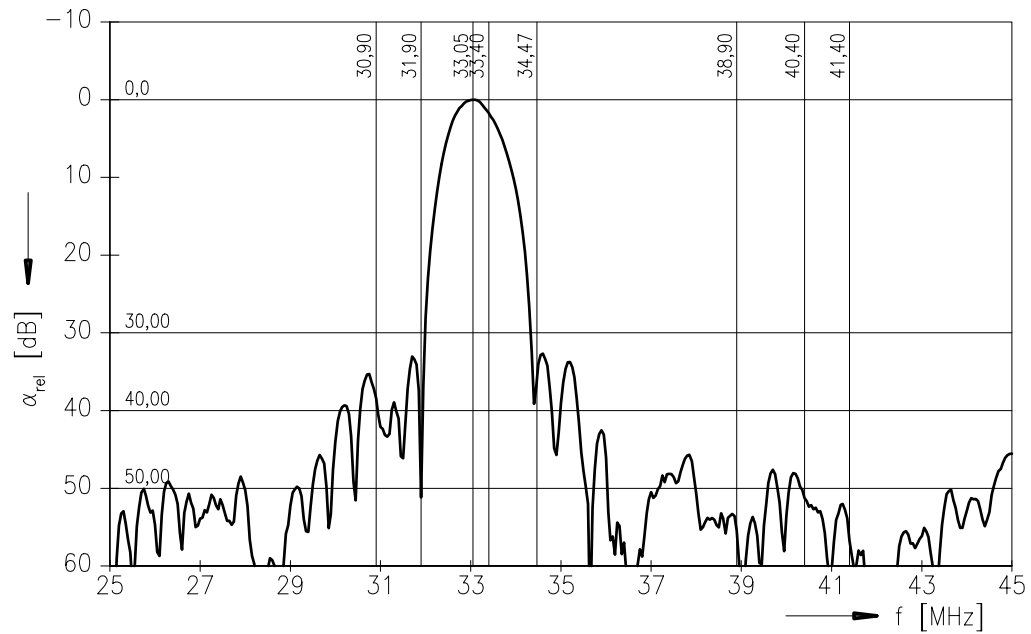
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