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Data Sheet K 3350 K





# SAW Components K 3350 K IF Filter for Quasi/Split Sound Applications 38,90 MHz

#### **Data Sheet**

#### Standard

- B/G
- D/K

#### **Features**

- TV IF filter for quasi/split sound applications (separate picture and sound channel)
- Picture channel with Nyquist slope and sound suppression
- Reduced group delay predistortion as compared with standard B/G half
- Sound channel with one passband for sound carriers at 32,40 MHz (D/K) and 33,40 MHz (B/G)
- Suitable for CENELEC EN 55020

# 12,7 10 8 7 6 18,5 11,5 11,5 0,29 4 x 2,54

Plastic package **DIP10K** 

Dimensions in mm, approx. weight 1,8 g

#### **Terminals**

■ Tinned CuFe alloy

#### Pin configuration

1	Input

2 Input - ground

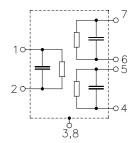
3; 8 Chip carrier - ground

4; 5 Output - sound

6; 7 Output - picture

9 Free

10 Not connected



Туре	Ordering code	] 3 1 3	Packing according to
K 3350 K	B39389-K3350-K100	C61157-A2-A3	F61074-V8068-Z000

#### **Maximum ratings**

Operable temperature range	$T_{A}$	-25/+65	°C	
Storage temperature range	$T_{\rm stg}$	-40/+85	°C	
DC voltage	$V_{\mathrm{DC}}$	5	V	between any terminals
AC voltage	$V_{\sf pp}$	10	V	between any terminals



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#### **Characteristics of picture channel**

 $T_{A} = 25 \,^{\circ}\text{C}$   $Z_{S} = 50 \,\Omega$   $Z_{L} = 2 \,\text{k}\Omega \parallel 3 \,\text{pF}$ Reference temperature: Terminating source impedance: Terminating load impedance:

					min.	typ.	max.	
Insertion attenuation				α				
Reference level for the	3	7,40	MHz		13,0	14,5	16,0	dB
following data								
Relative attenuation				$lpha_{\text{rel}}$				
Picture carrier	3	8,90	MHz		5,2	6,2	7,2	dB
Color carrier	3	4,47	MHz		0,4	1,4	2,4	dB
Sound carrier	3	3,40	MHz		34,0	43,0	_	dB
Adjacent picture carrier	3	0,90	MHz		45,0	53,0	_	dB
	3	1,90	MHz		47,0	57,0	_	dB
	3	1,40	MHz		_	60,0		
	3	2,40	MHz		47,0	55,0		
	4	0,15	MHz		43,0	59,0		
Adjacent sound carrier	4	0,40	MHz		45,0	56,0	_	dB
	4	1,40	MHz		43,0	55,0	_	dB
Lower sidelobe	25,00 3	1,90	MHz		39,0	44,0	_	dB
Upper sidelobe	40,40 4	5,00	MHz		34,0	40,0	_	dB
Reflected wave signal	suppression							
1,3 μs 6,0 μs after ma	in pulse				42,0	52,0	_	dB
(test pulse 250 ns,								
carrier frequency 37,40 I	MHz)							
Feedthrough signal suppression								
1,2 μs 1,1 μs before m	nain pulse				50,0	56,0	_	dB
(test pulse 250 ns,								
carrier frequency 37,40 I	MHz)							
Group delay predistort	ion			$\Delta  au$				
(reference frequency 38,	,90 MHz)							
	3	6,90	MHz		_	-90	_	ns
	3	34,47	MHz		_	30	<u> </u>	ns
Impedance at 37,40 MHz						4 4 11 04 0		1.0 !! 5
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$				_	1,1  24,8	_	kΩ    pF	
Output: $Z_{OUT} = R_{OUT}    C_{OUT}$					1,6    4,1		kΩ    pF	
Temperature coefficient of frequency			$TC_{f}$	_	-72	—	ppm/K	



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#### **Characteristics of sound channel**

 $\begin{array}{ll} \text{Reference temperature:} & T_{\text{A}} &= 25 \, ^{\circ}\text{C} \\ \text{Terminating source impedance:} & Z_{\text{S}} &= 50 \, \Omega \\ \text{Terminating load impedance:} & Z_{\text{L}} &= 2 \, \text{k}\Omega \, || \, 3 \, \text{pF} \end{array}$ 

				min.	typ.	max.	
Insertion attenuation			α				
Reference level for the	33,40	MHz		12,5	14,0	15,5	dB
following data							
Relative attenuation			$lpha_{rel}$				
Sound carrier	33,05	MHz		-1,5	-0,5	0,5	dB
	32,40	MHz		-1,4	-0,4	0,6	dB
Picture carrier	38,90	MHz		41,0	49,0	_	dB
Color carrier	34,47	MHz		28,0	34,0	_	dB
Adjacent picture carrier	30,90	MHz		36,0	43,0	_	dB
Adjacent sound carrier	40,40	MHz		44,0	52,0	_	dB
	41,40	MHz		46,0	56,0	_	dB
Lower sidelobe	25,00 30,90	MHz		36,0	41,0	_	dB
Upper sidelobe	38,90 45,00	MHz		41,0	48,0	_	dB
Impedance at 33,40 MHz							
Output	$: Z_{OUT} = R_{OUT} \mid\mid C$	OUT		_	3,6    2,3	_	$k\Omega \mid\mid pF$
Temperature coefficient of frequency			$TC_{f}$	_	-72	_	ppm/K



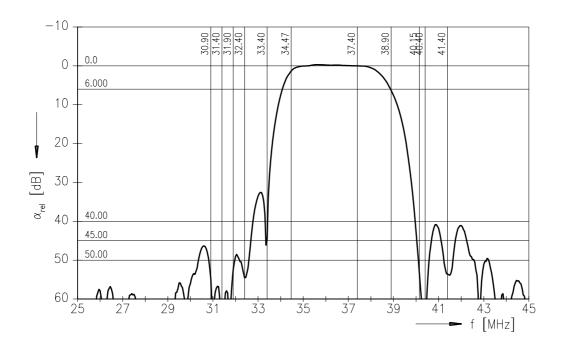
K 3350 K

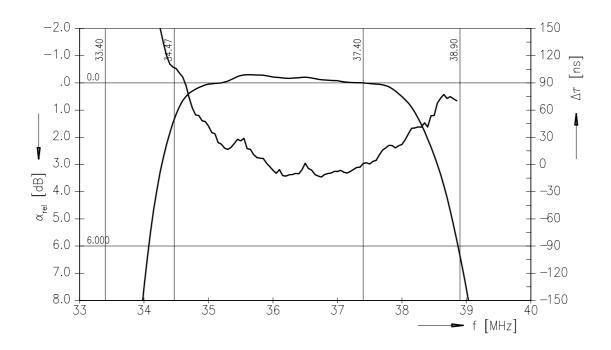
# IF Filter for Quasi/Split Sound Applications

38,90 MHz

**Data Sheet** 

#### Frequency response of picture channel







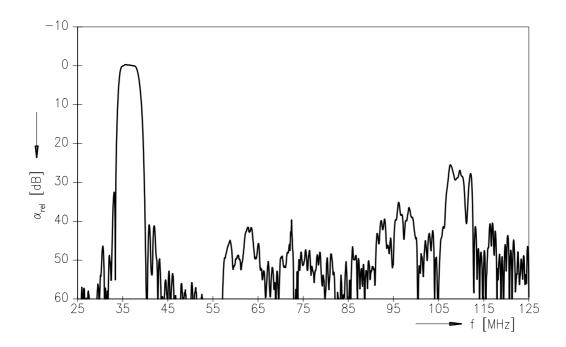
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#### IF Filter for Quasi/Split Sound Applications

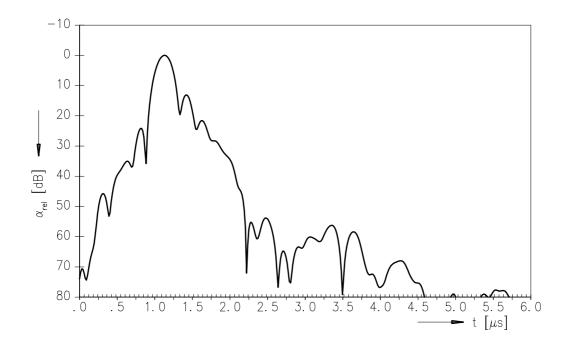
38,90 MHz

**Data Sheet** 

#### Frequency response of picture channel



#### Time domain response of picture channel





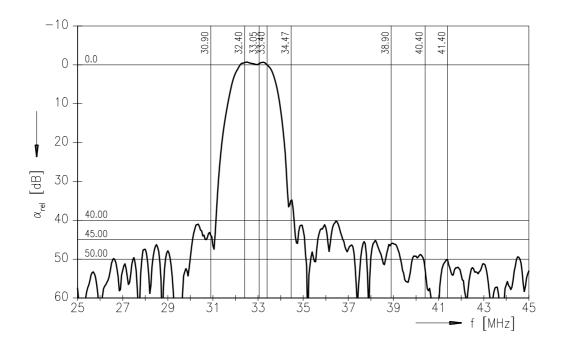
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# IF Filter for Quasi/Split Sound Applications

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**Data Sheet** 

#### Frequency response of sound channel





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