



# SAW Components

Data Sheet G 3355 K

Data Sheet



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**SAW Components**
**G 3355 K**
**IF Filter for Quasi/Split Sound Applications**
**38,90 MHz**
**Data Sheet**
**Standard**

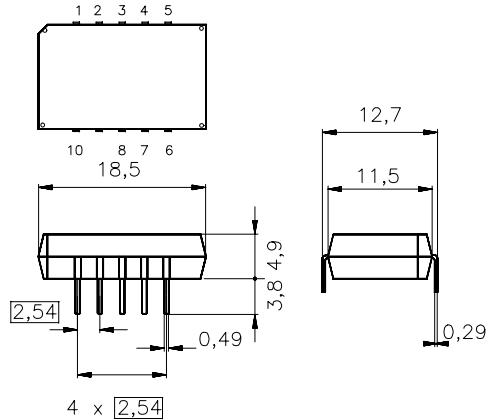
- B/G

**Features**

- TV IF filter for quasi/split sound applications (separate picture and sound channel)
- Picture channel with Nyquist slope and sound suppression
- 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**

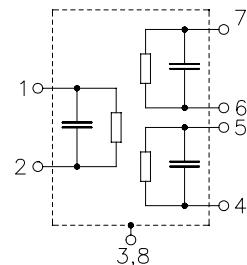
- Tinned CuFe alloy

**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 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

**SAW Components****G 3355 K****IF Filter for Quasi/Split Sound Applications****38,90 MHz****Data Sheet****Characteristics of picture channel**

Reference temperature:  $T_A = 25^\circ\text{C}$   
Terminating source impedance:  $Z_S = 50 \Omega$   
Terminating load impedance:  $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Insertion attenuation</b>	$\alpha$				
Reference level for the following data	37,40 MHz	12,5	14,0	15,5	dB
<b>Relative attenuation</b>	$\alpha_{\text{rel}}$				
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
<b>Reflected wave signal suppression</b>					
1,2 $\mu\text{s}$ ... 6,0 $\mu\text{s}$ after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		42,0	52,0	—	dB
<b>Feedthrough signal suppression</b>					
1,2 $\mu\text{s}$ ... 1,1 $\mu\text{s}$ before main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)		—	56,0	—	dB
<b>Group delay predistortion</b>	$\Delta\tau$				
(reference frequency 38,90 MHz)					
	36,30 MHz	—	-55	—	ns
	34,47 MHz	—	40	—	ns
<b>Impedance at 37,40 MHz</b>					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	1,0 $\parallel$ 24,4	—	$\text{k}\Omega \parallel \text{pF}$
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1,6 $\parallel$ 3,9	—	$\text{k}\Omega \parallel \text{pF}$
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K



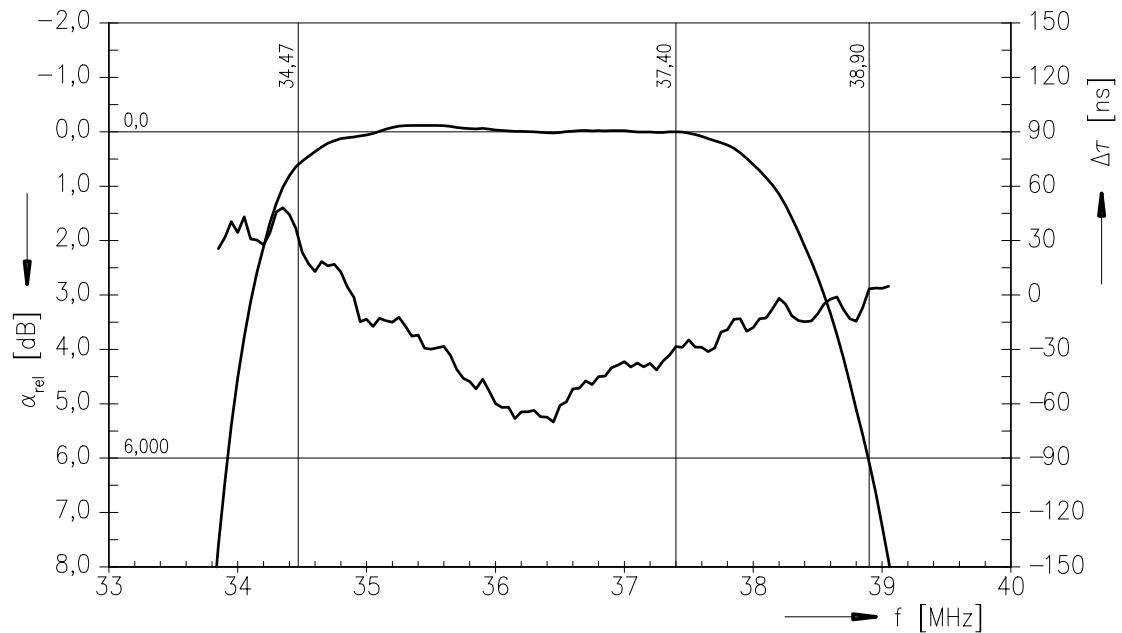
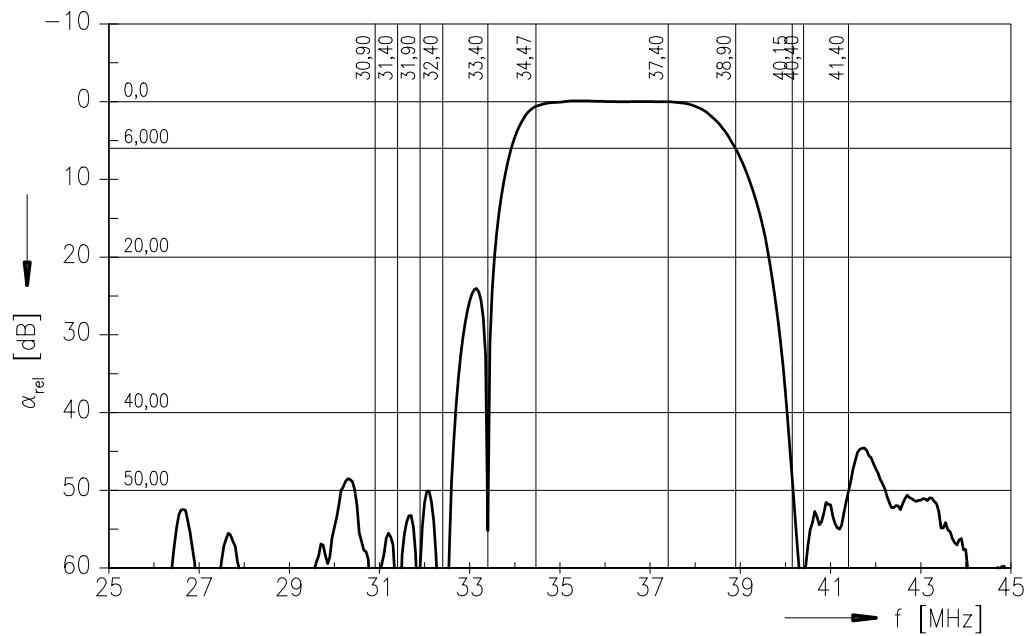
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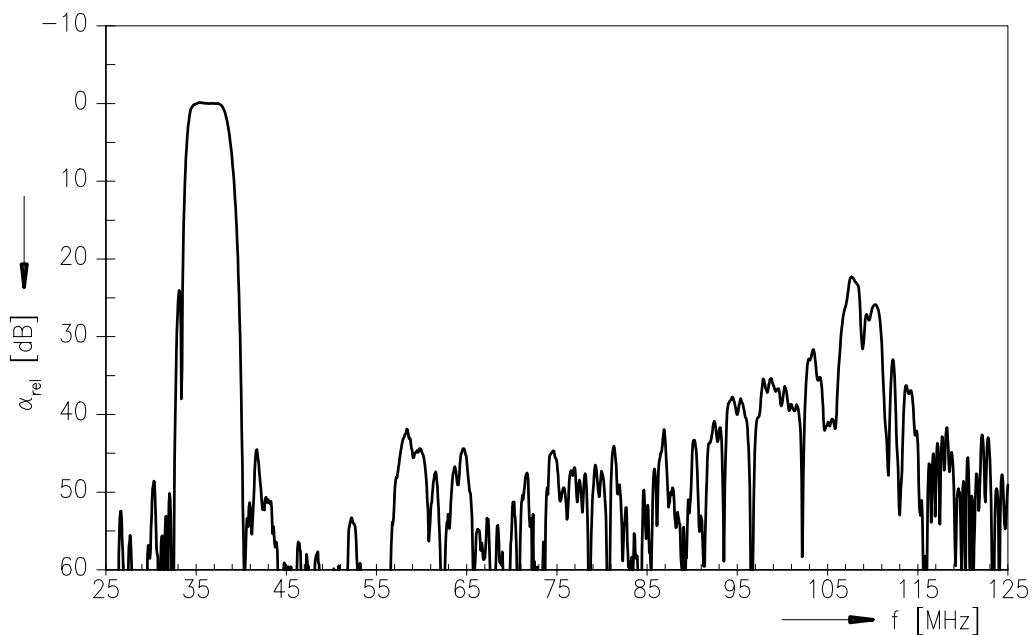
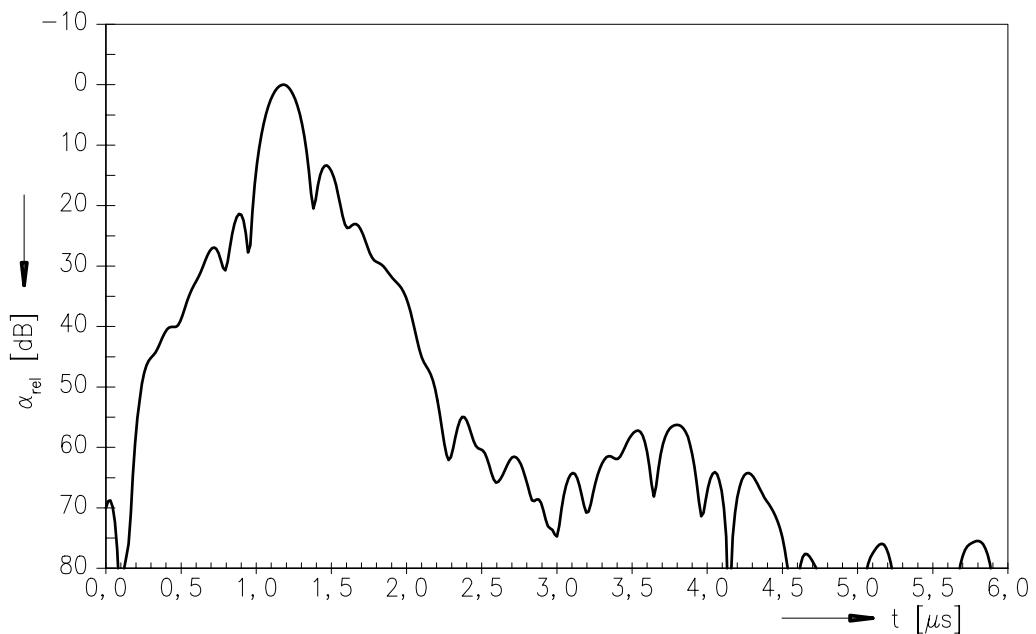
## Data Sheet

### Characteristics of sound channel

Reference temperature:  $T_A = 25^\circ\text{C}$   
Terminating source impedance:  $Z_S = 50 \Omega$   
Terminating load impedance:  $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Insertion attenuation</b>	$\alpha$				
Reference level for the following data	33,05 MHz	12,7	14,2	15,7	dB
<b>Relative attenuation</b>	$\alpha_{\text{rel}}$				
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
<b>Impedance at 33,05 MHz</b>					
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	4,1 $\parallel$ 2,6	—	$\text{k}\Omega \parallel \text{pF}$
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K

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**Frequency response of picture channel**


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**Frequency response of picture channel**

**Time domain response of picture channel**


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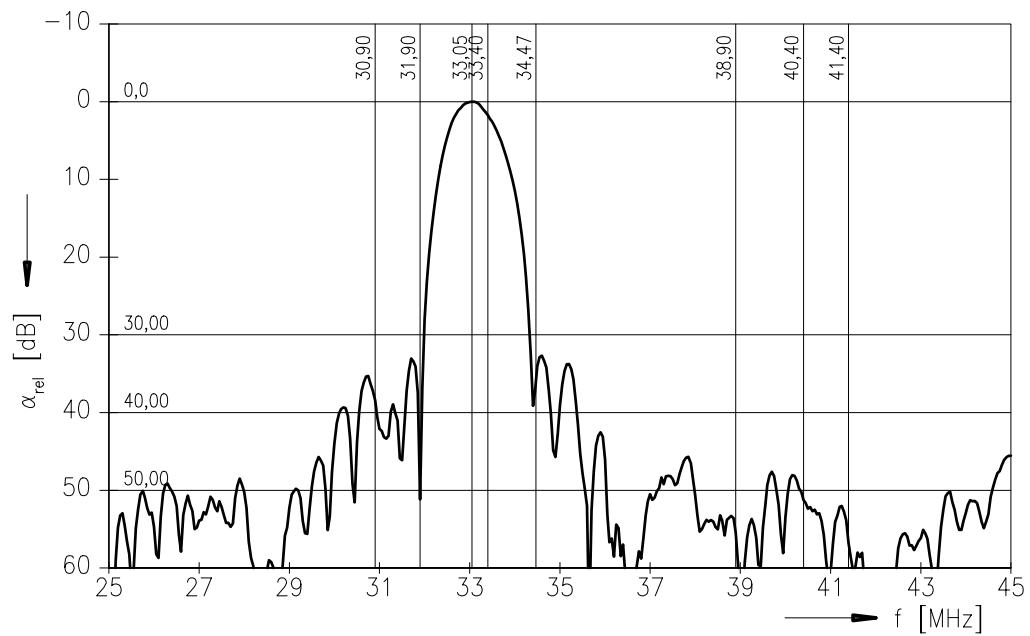
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**Frequency response of sound channel**





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