EPCOS

SAW Components

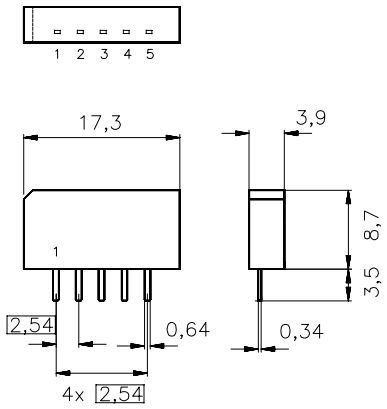
Data Sheet K 3565 M

Data Sheet

Standard

- B/G
- D/K

Plastic package **SIP5K**



Dimensions in mm, approx. weight 1,0 g

Features

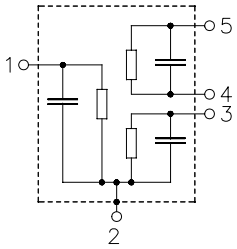
- TV IF filter for quasi/split sound applications (separate picture and sound channel)
- Picture channel with Nyquist slope and sound suppression, symmetrical output
- Customized group delay predistortion
- Sound channel with pass band for sound carriers between 32,4 MHz and 33,4 MHz

Terminals

- Tinned CuFe alloy

Pin configuration

1	Input
2	Chip carrier - ground
3	Output - sound
4	Output - picture
5	Output - picture



Type	Ordering code	Marking and package according to	Packing according to
K 3565 M	B39389-K3565-M201	C61157-A1-A15	F61064-V8067-Z000

Maximum ratings

Operating 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

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

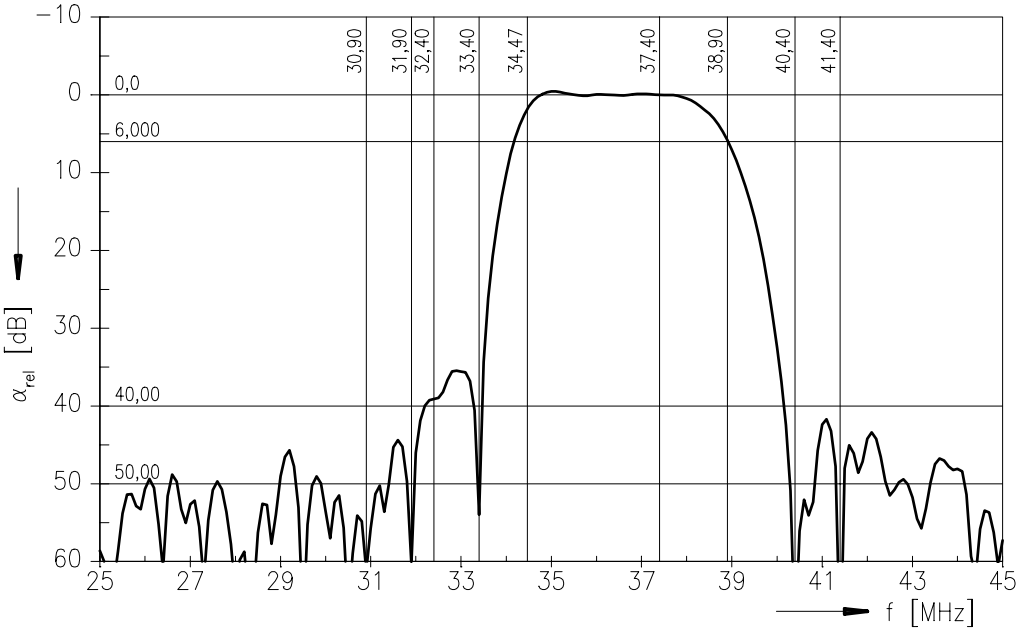
			min.	typ.	max.	
Insertion attenuation		α				
Reference level for the following data	37,40 MHz		12,9	14,4	15,9	dB
Relative attenuation		α_{rel}				
Picture carrier	38,90 MHz		4,8	5,8	6,8	dB
Color carrier	34,47 MHz		0,5	1,5	2,5	dB
Sound carrier	32,40 MHz		35,0	39,0	—	dB
	33,40 MHz		35,0	51,0	—	dB
Adjacent picture carrier	30,90 MHz		45,0	59,0	—	dB
	31,90 MHz		45,0	59,0	—	dB
Adjacent sound carrier	40,40 MHz		45,0	61,0	—	dB
	41,40 MHz		45,0	63,0	—	dB
Lower sidelobe	25,00 ... 30,90 MHz		39,0	46,0	—	dB
Upper sidelobe	41,40 ... 45,00 MHz		37,0	43,0	—	dB
Reflected wave signal suppression						
1,4 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 37,40 MHz)			42,0	51,0	—	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 frequeny 38,90 MHz)		$\Delta\tau$				
	35,90 MHz		—	–60	—	ns
	34,47 MHz		—	40	—	ns
Impedance at 37,40 MHz						
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$			—	1,2 ‖24,2	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$			—	2,0 ‖ 4,0	—	kΩ || pF
Temperature coefficient of frequency		TC_f	—	–72	—	ppm/K

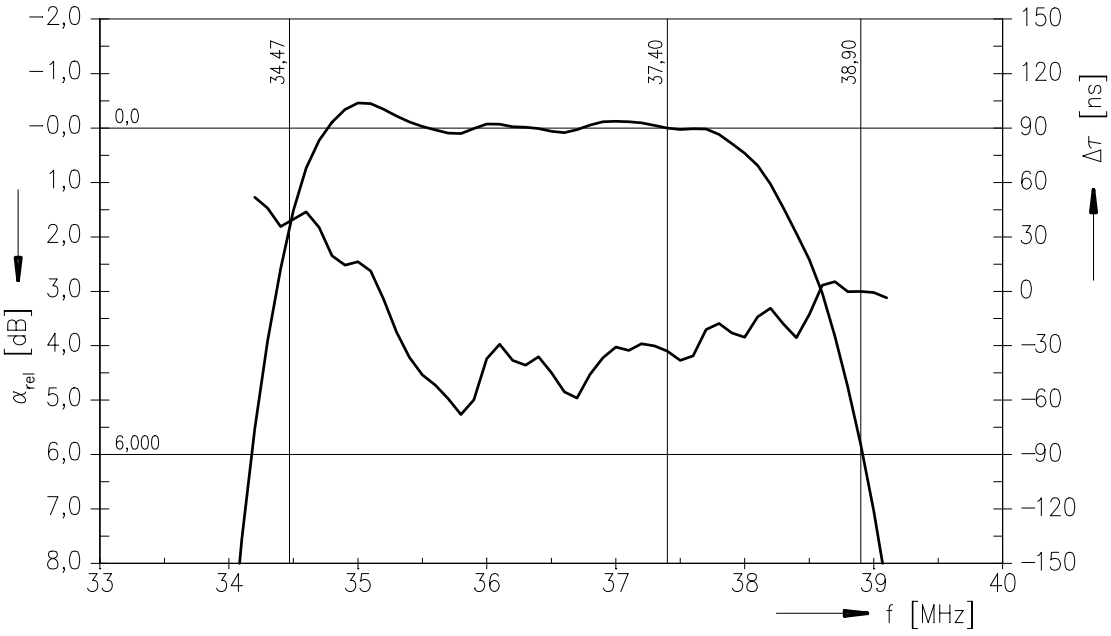
Characteristics of sound channel

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

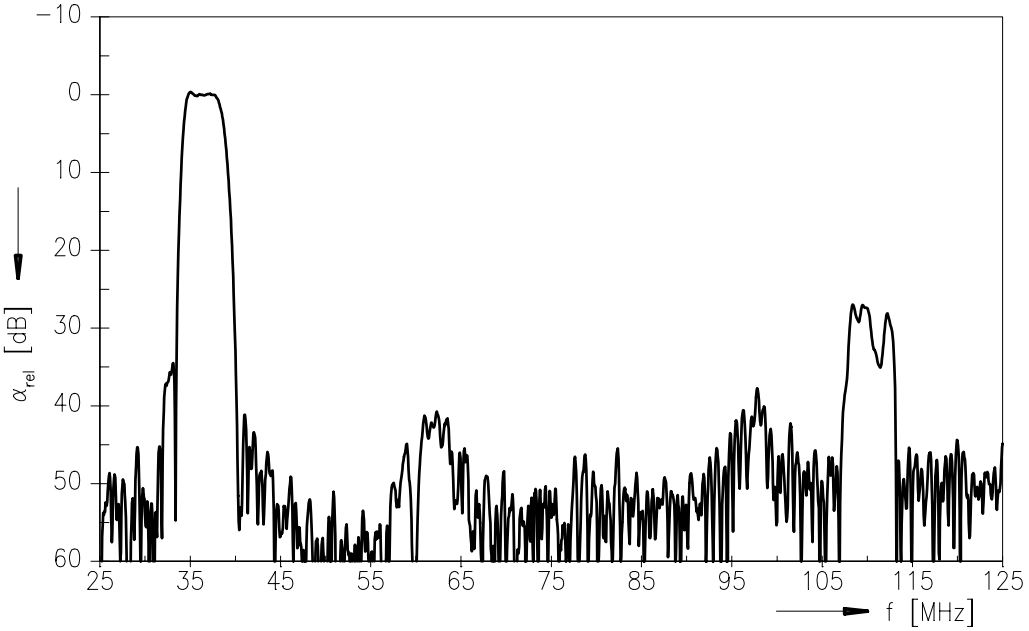
				min.	typ.	max.	
Insertion attenuation			α				
Reference level for the following data		33,40 MHz		15,4	16,9	18,4	dB
Relative attenuation			α_{rel}				
Sound carrier		32,40 MHz		–1,5	–0,5	0,5	dB
Picture carrier		38,90 MHz		30,0	34,0	—	dB
Color carrier		34,47 MHz		22,0	27,0	—	dB
Adjacent picture carrier		30,90 MHz		27,0	32,0	—	dB
		31,90 MHz		—	8,0	—	dB
Adjacent sound carrier		40,40 MHz		35,0	41,0	—	dB
		41,40 MHz		38,0	46,0	—	dB
Lower sidelobe	25,00 ...	30,90 MHz		25,0	31,0	—	dB
Upper sidelobe	38,90 ...	45,00 MHz		25,0	30,0	—	dB
Impedance at 33,40 MHz Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$				—	5,1 ‖ 2,2	—	kΩ || pF
Temperature coefficient of frequency			TC_f	—	–72	—	ppm/K

Frequency response of picture channel

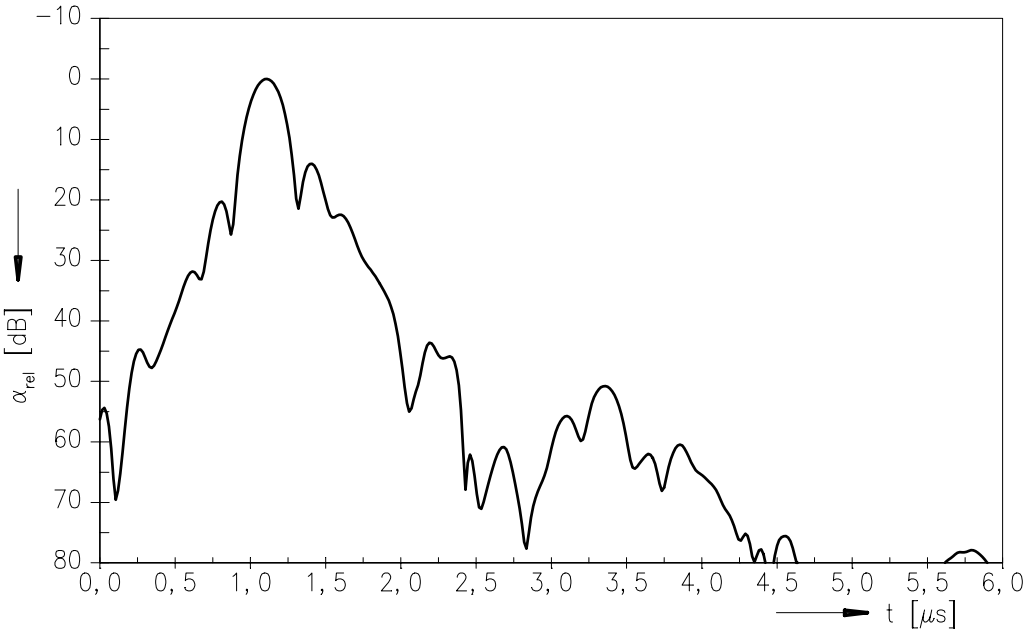




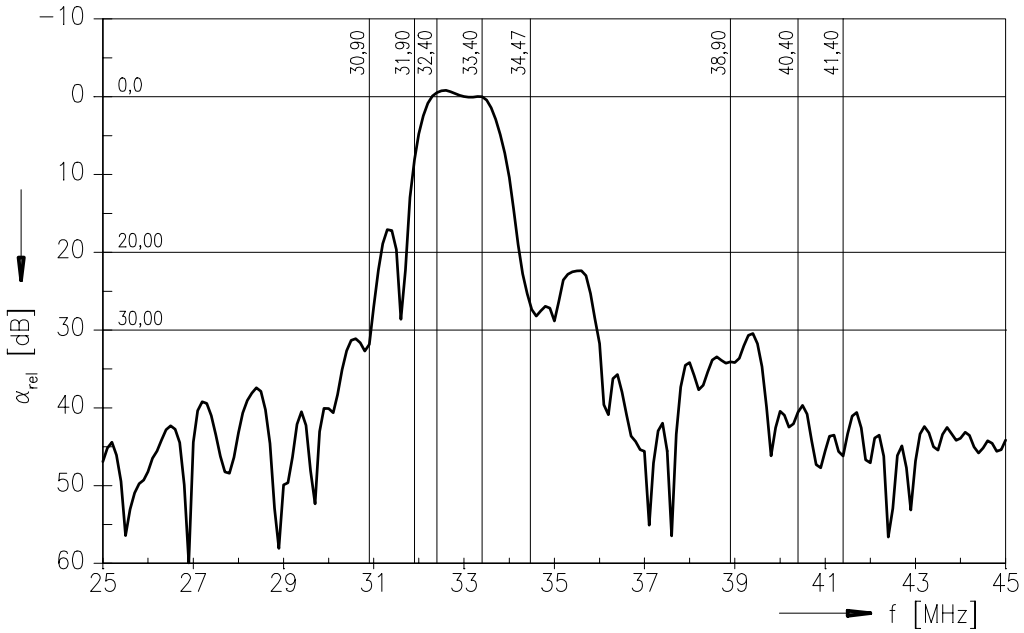
Frequency response of picture channel



Time domain response of picture channel



Frequency response of sound channel



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