



SAW Components

Data Sheet M 3953 M





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M 3953 M

IF Filter for Video Applications

45,75 MHz

Data Sheet

Standard

Plastic package **SIP5K**

■ M/N

Features

- TV IF filter with Nyquist slope and sound suppression
- High color carrier level
- Constant group delay

Terminals

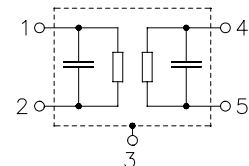
- Tinned CuFe alloy



Dimensions in mm, approx. weight 1,0 g

Pin configuration

- | | |
|---|-----------------------|
| 1 | Input |
| 2 | Input - ground |
| 3 | Chip carrier - ground |
| 4 | Output |
| 5 | Output |



Type	Ordering code	Marking and package according to	Packing according to
M 3953 M	B39458-M3953-M100	C61157-A1-A15	F61074-V8067-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

Reference temperature: $T_A = 25 (45) ^\circ \text{C}$
 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	44,06 (44,00) MHz	11,2	12,7	14,2	dB
Relative attenuation	α_{rel}				
Picture carrier	45,81 (45,75) MHz	5,2	6,2	7,2	dB
Color carrier	42,23 (42,17) MHz	-0,5	0,2	0,9	dB
	41,98 (41,92) MHz	0,2	0,9	1,6	dB
Sound carrier	41,31 (41,25) MHz	22,0	37,0	—	dB
Adjacent picture carrier	39,81 (39,75) MHz	48,0	63,0	—	dB
Adjacent sound carrier	47,31 (47,25) MHz	46,0	57,0	—	dB
Lower sidelobe	35,06 ... 39,81 (35,00 ... 39,75) MHz	40,0	45,0	—	dB
Upper sidelobe	47,31 ... 55,06 (47,25 ... 55,00) MHz	37,0	42,0	—	dB
Reflected wave signal suppression					
1,3 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,3 μs ... 1,2 μs before main pulse (test pulse 250 ns, carrier frequency 44,06 MHz)		50,0	56,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$	—	40	—	ns
Impedance at 44,06 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	1,1 \parallel 15,6	—	k Ω \parallel pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1,0 \parallel 4,0	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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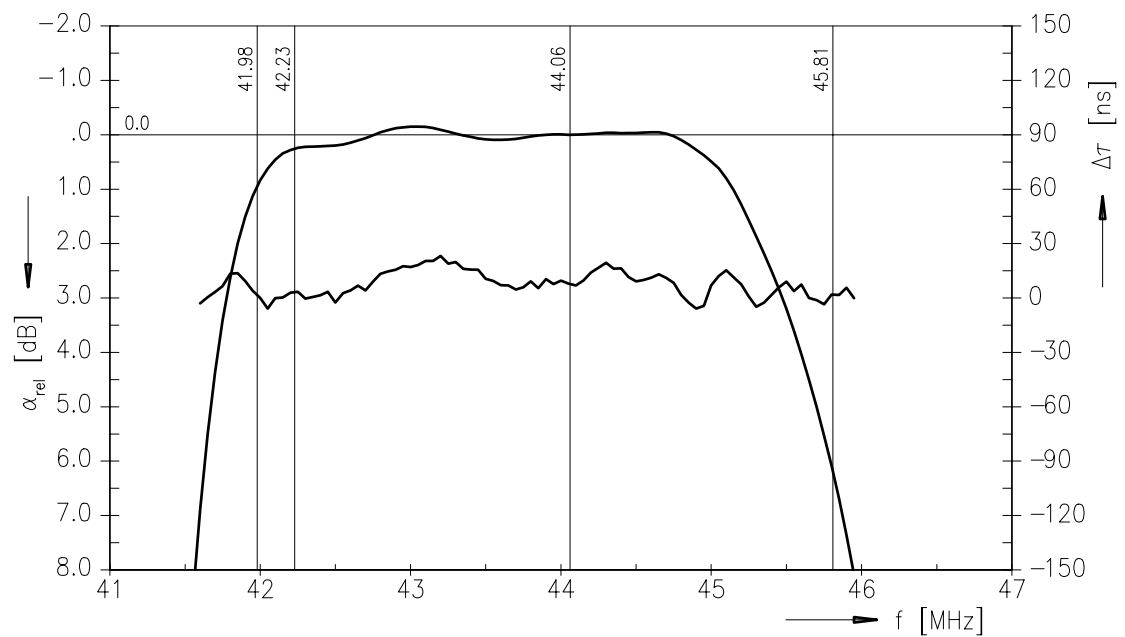
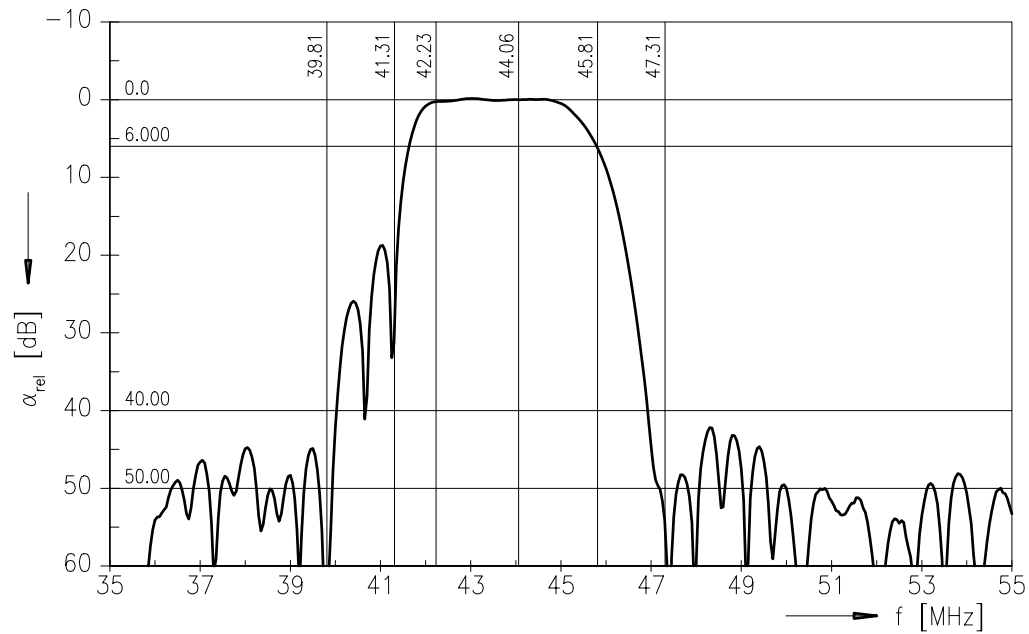
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Frequency response





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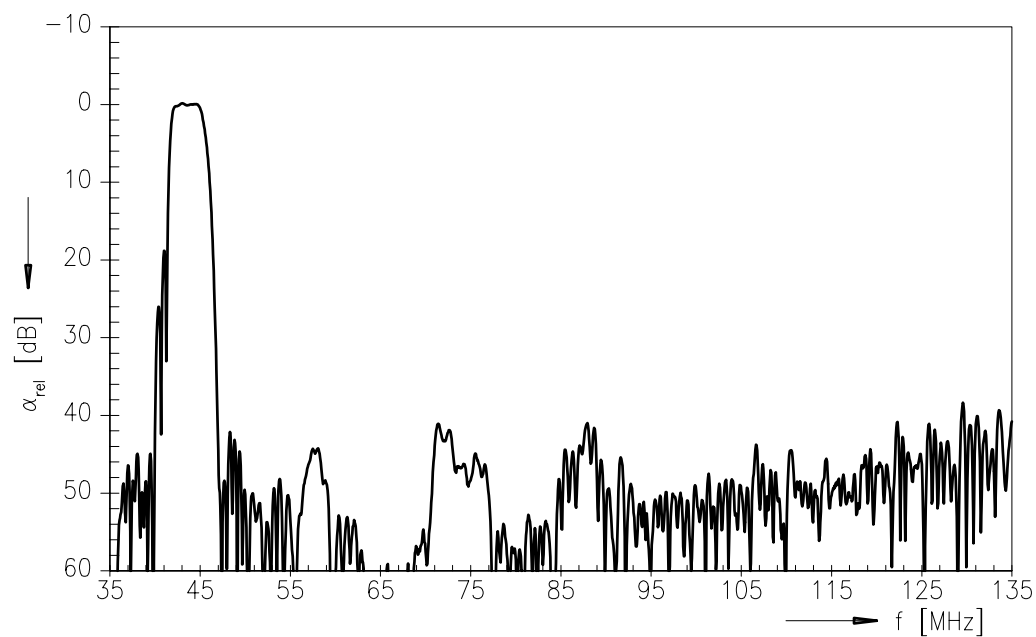
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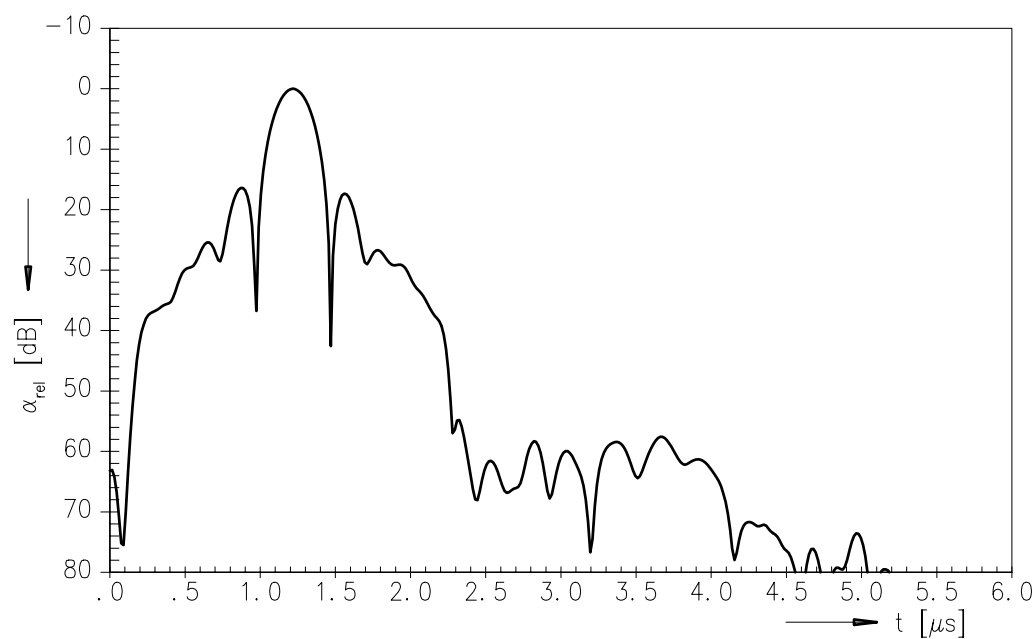
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Frequency response



Time domain response





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