

# SAW Components

Data Sheet M 3953 M





# SAW Components M 3953 M IF Filter for Video Applications 45,75 MHz

**Data Sheet** 

#### Standard

■ M/N

#### **Features**

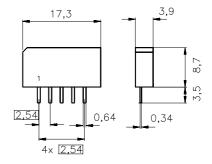
- TV IF filter with Nyquist slope and sound suppression
- High color carrier level
- Constant group delay

#### **Terminals**

■ Tinned CuFe alloy

# Plastic package SIP5K

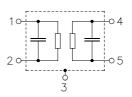




Dimensions in mm, approx. weight 1,0 g

# Pin configuration

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



Туре	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	$T_{ m stg}$	-40/+85	°C	
DC voltage	$V_{DC}$	5	V	between any terminals
AC voltage	$V_{\sf pp}$	10	V	between any terminals



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# Characteristics

Reference temperature:  $T_{\rm A}=25~(45)~^{\circ}{\rm C}$ Terminating source impedance:  $Z_{\rm S}=50~\Omega$ Terminating load impedance:  $Z_{\rm L}=2~{\rm k}\Omega~||~3~{\rm pF}$ 

			min.	typ.	max.	
Insertion attenuation		α				
Reference level for the	44,06 (44,00) MHz		11,2	12,7	14,2	dB
following data						
Relative attenuation		$lpha_{rel}$				
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 Lower sidelobe	47,31 (47,25) MHz		46,0	57,0	_	dB
35,06 39,81 (35,00 39,75) MHz Upper sidelobe			40,0	45,0	_	dB
• •	(47,25 55,00) MHz		37,0	42,0	_	dB
Reflected wave signal su	ppression					
1,3 μs 6,0 μs after main pulse			42,0	52,0	_	dB
(test pulse 250 ns,						
carrier frequency 44,06 MHz)						
Feedthrough signal supp	ression					
1,3 μs 1,2 μs before main pulse			50,0	56,0	_	dB
(test pulse 250 ns,						
carrier frequency 44,06 MH	łz)					
Group delay ripple (p-p)		Δτ	_	40	_	ns
Impedance at 44,06 MHz						
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$			_	1,1    15,6	_	$k\Omega \parallel pF$
Output: Z	$C_{\text{OUT}} = R_{\text{OUT}}    C_{\text{OUT}}$		_	1,0    4,0	_	kΩ    pF
Temperature coefficient of frequency			_	<del>-7</del> 2	_	ppm/K



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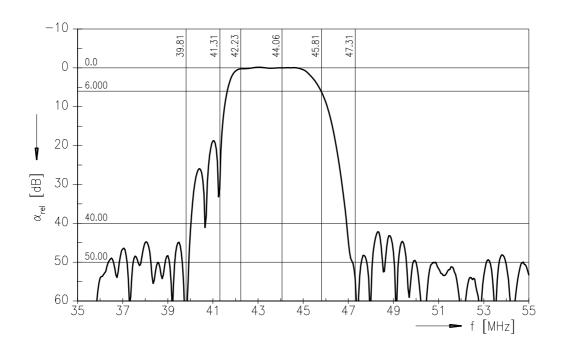
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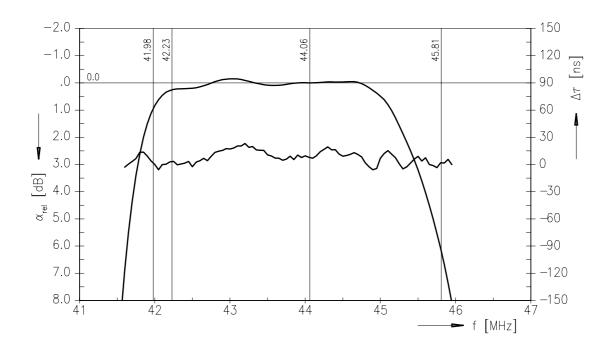
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# Frequency response







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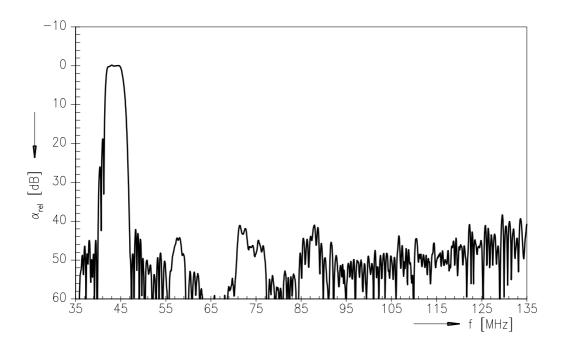
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**IF Filter for Video Applications** 

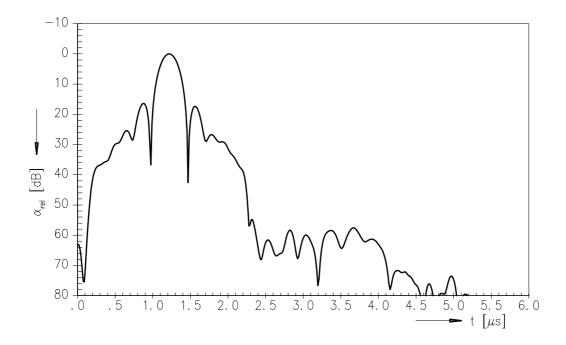
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**Data Sheet** 

# Frequency response



# Time domain response





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