



SAW Components

Data Sheet X 6989 D





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X 6989 D

Bandpass Filter

57,00 MHz

Data Sheet

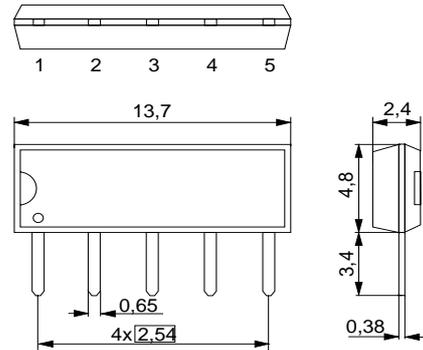
Duroplast package **SIP5D**

Features

- IF filter for digital cableTV
- Standard IC package

Terminals

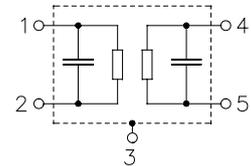
- Tinned CuFe alloy



Dimensions in mm, approx. weight 0,5 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
X 6989 D	B39570-X6989-N201	C61157-A1-A21	F61074-V8049-Z000

Maximum ratings

Operable temperature range	T_A	-25/+75	°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: $T_A = 25 (45) \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ } \Omega$
 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	57,08 (57,00) MHz	11,1	12,6	14,1	dB
Pass bandwidth					
$\alpha_{\text{rel}} \leq 3 \text{ dB}$	$B_{3\text{dB}}$	—	6,0	—	MHz
$\alpha_{\text{rel}} \leq 30 \text{ dB}$	$B_{30\text{dB}}$	—	7,5	—	MHz
Relative attenuation	α_{rel}				
	54,53 (54,45) MHz	-1,2	-0,2	0,8	dB
	59,53 (59,45) MHz	-0,9	0,1	1,1	dB
	54,03 (53,95) MHz	—	2,7	—	dB
	60,03 (59,95) MHz	—	3,4	—	dB
	60,39 (60,31) MHz	—	11,0	—	dB
Lower sidelobe					
	45,08 ... 52,08 (45,00 ... 52,00) MHz	38,0	43,0	—	dB
	52,08 ... 53,03 (52,00 ... 52,95) MHz	34,0	39,0	—	dB
Upper sidelobe					
	60,88 ... 62,58 (60,80 ... 62,50) MHz	32,0	38,0	—	dB
	62,58 ... 65,08 (62,50 ... 65,00) MHz	38,0	44,0	—	dB
Reflected wave signal suppression					
1,2 μs ... 6,0 μs after main pulse (test pulse 250 ns, carrier frequency 57,08 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,3 μs ... 1,2 μs before main pulse (test pulse 250 ns, carrier frequency 57,08 MHz)		50,0	56,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
Aperture 50 kHz					
	54,03 ... 60,08 (53,95 ... 60,00) MHz	—	50	—	ns
Impedance at 57,08 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	0,7 17,4	—	k Ω pF
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	0,8 4,4	—	k Ω pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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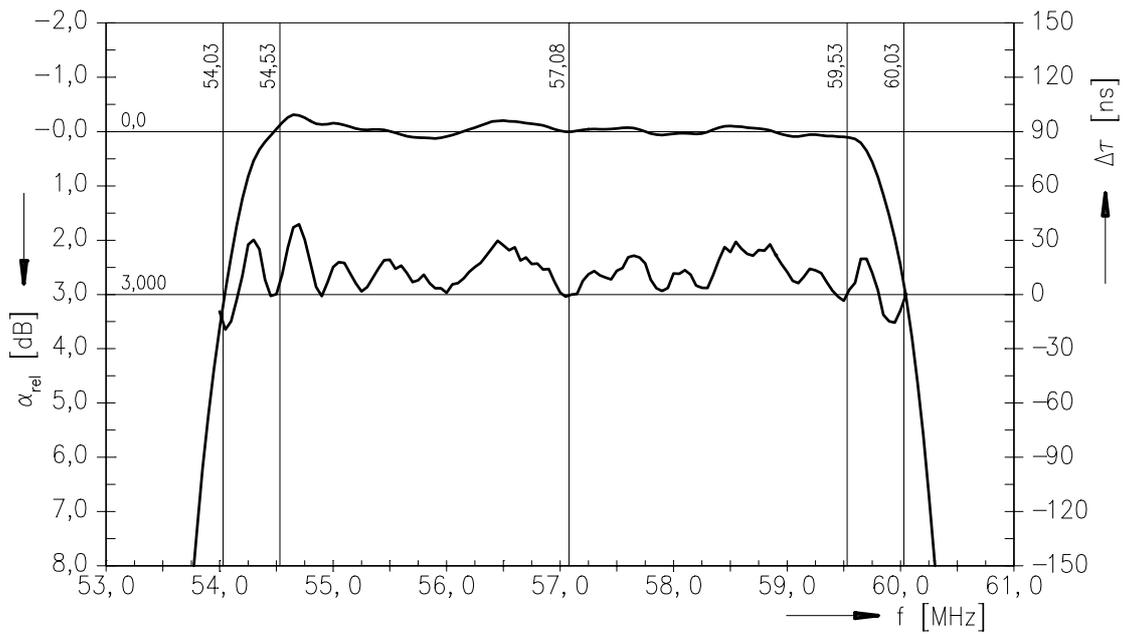
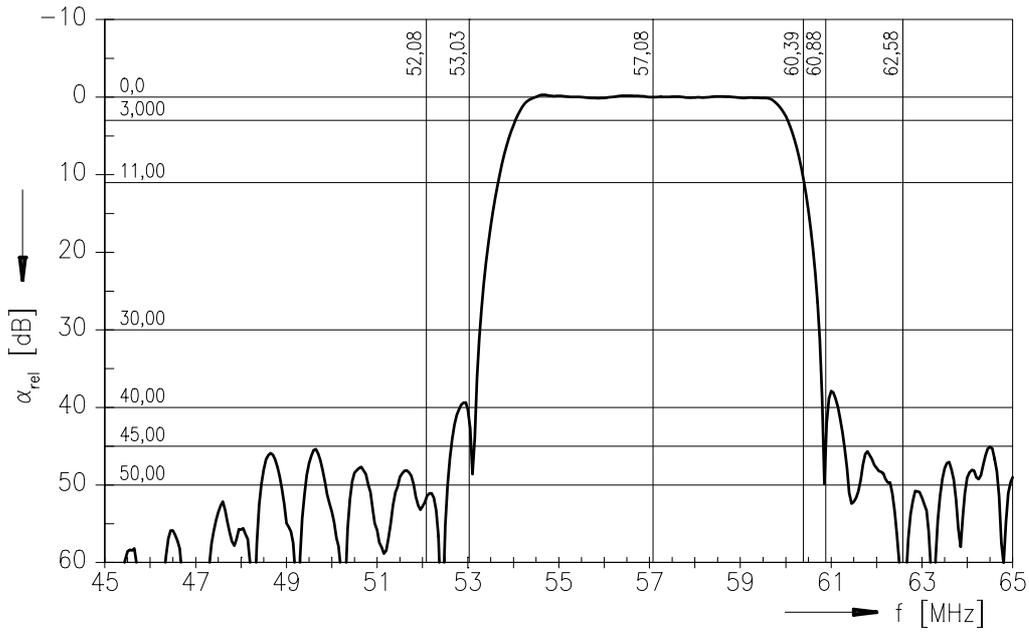
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Frequency response





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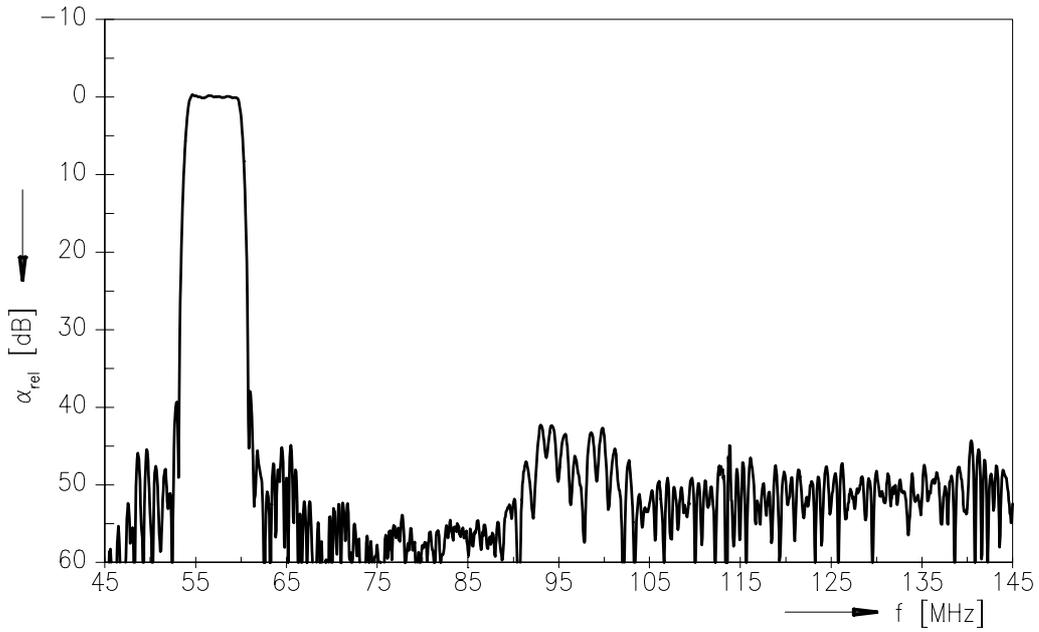
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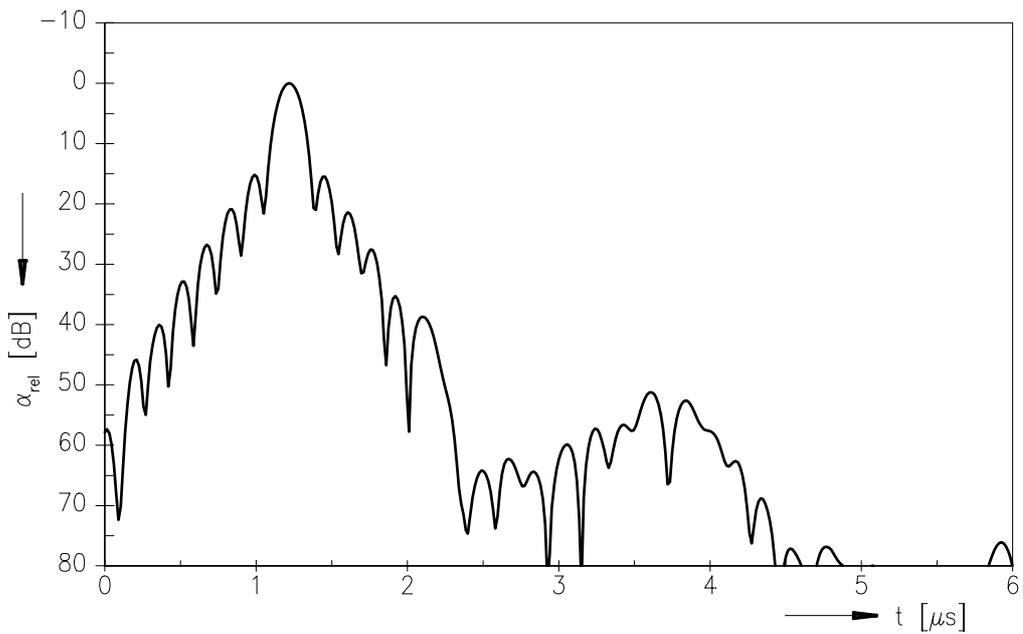
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Frequency response



Time domain response





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