



SAW multimedia filters

Series/Type: M3565D

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39458M3565N301		2011-01-14	2011-09-30	2012-09-30

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SAW Components

M 3565 D

IF Filter for Quasi/Split Sound Applications

45,75 MHz

Data Sheet

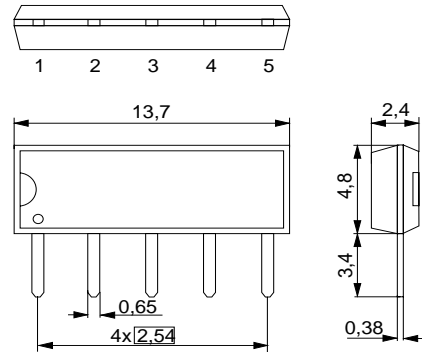
Standard

Duroplast package **SIP5D**

- M/N

Features

- TV IF filter for quasi/split sound applications (separate picture and sound channel)
- Picture channel with Nyquist slope and sound suppression, symmetrical output
- High color carrier
- Constant group delay
- Sound channel with pass band for sound carrier only
- Standard IC package



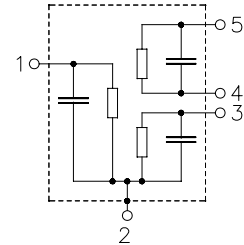
Terminals

- Tinned CuFe alloy

Dimensions in mm, approx. weight 0,5 g

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
M 3565 D	B39458-M3565-N301	C61157-A1-A21	F61074-V8049-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



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Characteristics of picture channel

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	44,06 (44,00) MHz	13,5	15,0	16,5	dB
Relative attenuation	α_{rel}				
Picture carrier	45,81 (45,75) MHz	6,0	7,0	8,0	dB
Color carrier	42,23 (42,17) MHz	-1,8	-0,8	0,2	dB
	42,06 (42,00) MHz	—	-0,5	—	dB
Sound carrier	41,31 (41,25) MHz	17,0	22,0	—	dB
Adjacent picture carrier	39,81 (39,75) MHz	45,0	52,0	—	dB
Adjacent sound carrier	47,31 (47,25) MHz	38,0	47,0	—	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	35,0	40,0	—	dB
Reflected wave signal suppression					
1,2 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)	$\Delta\tau$	—	50	—	ns
Impedance at 44,06 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,0 \parallel 19,4	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,7 \parallel 3,9	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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Characteristics of sound channel

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	41,31 (41,25) MHz	10,6	12,1	13,6	dB
Relative attenuation	α_{rel}				
Picture carrier	45,81 (45,75) MHz	38,0	46,0	—	dB
Color carrier	42,23 (42,17) MHz	18,0	24,0	—	dB
Adjacent picture carrier	39,81 (39,75) MHz	40,0	50,0	—	dB
Adjacent sound carrier	47,31 (47,25) MHz	40,0	47,0	—	dB
Lower sidelobe					
	35,06 ... 39,81 (35,00 ... 39,75) MHz	37,0	42,0	—	dB
Upper sidelobe					
	47,31 ... 55,06 (47,25 ... 55,00) MHz	37,0	43,0	—	dB
Impedance at 41,31 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	0,6 21,7	—	k Ω pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	1,4 4,0	—	k Ω pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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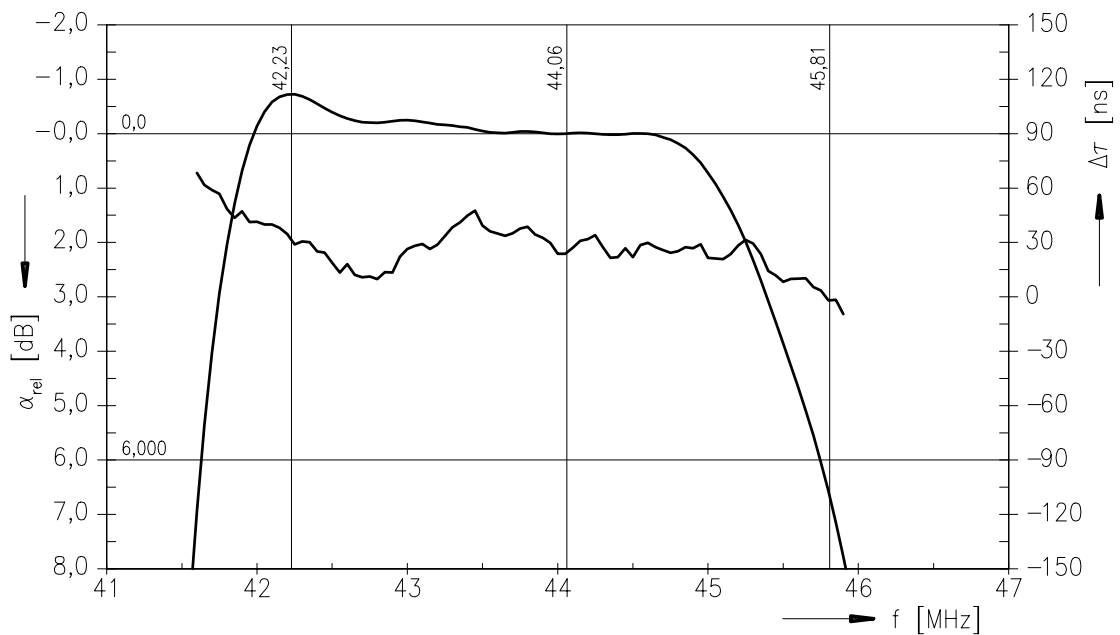
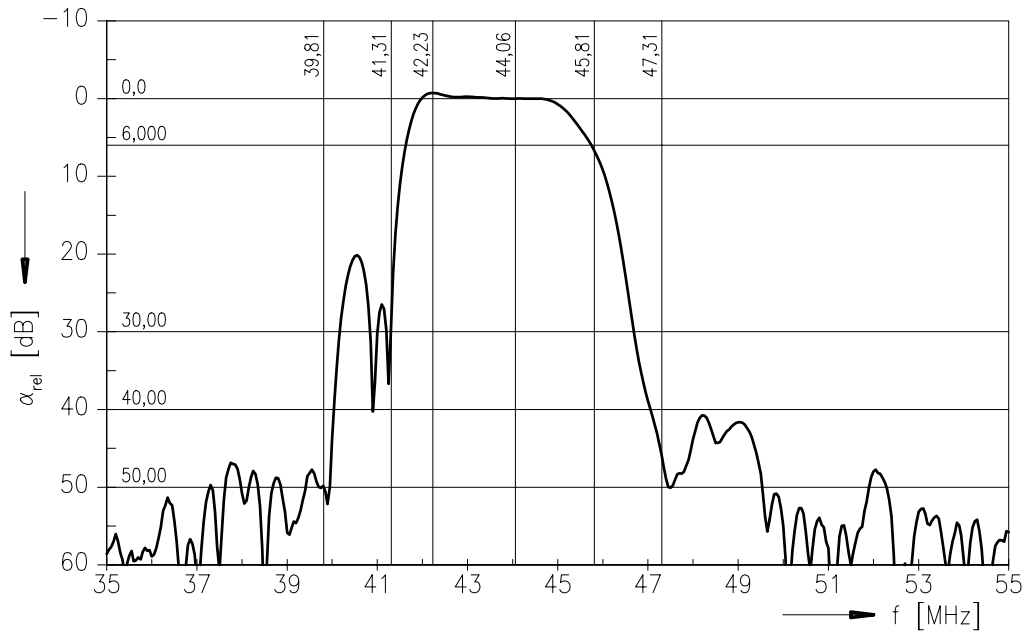
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Data Sheet

Frequency response of picture channel





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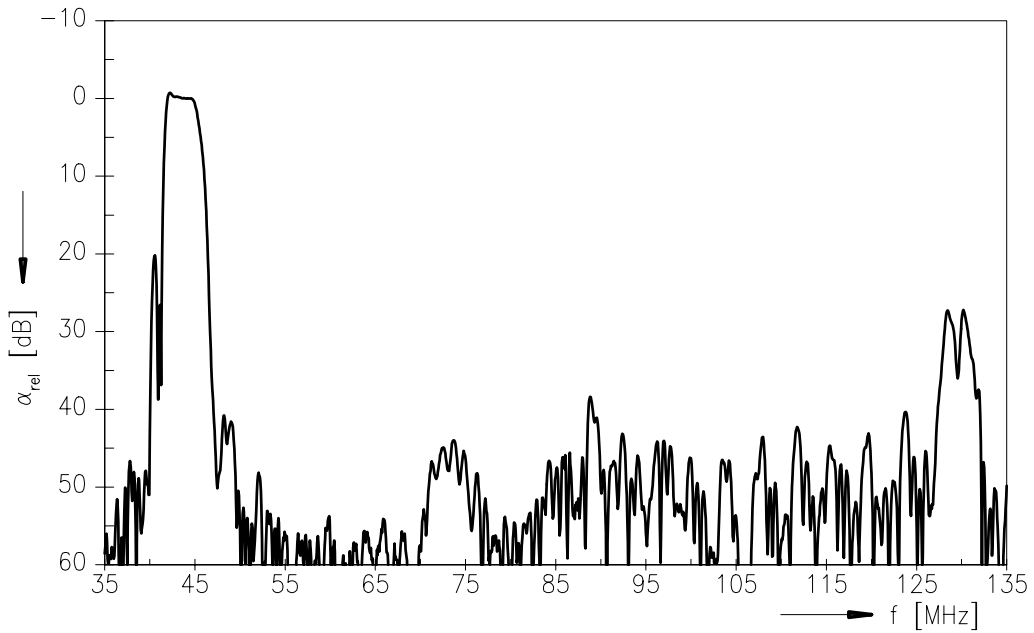
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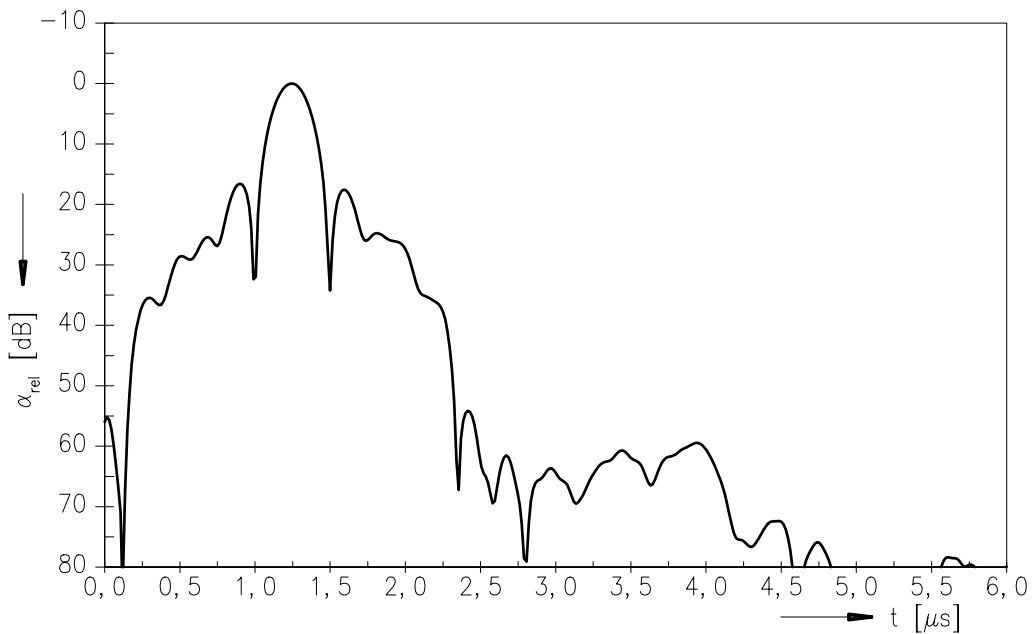
45,75 MHz

Data Sheet

Frequency response of picture channel



Time domain response of picture channel





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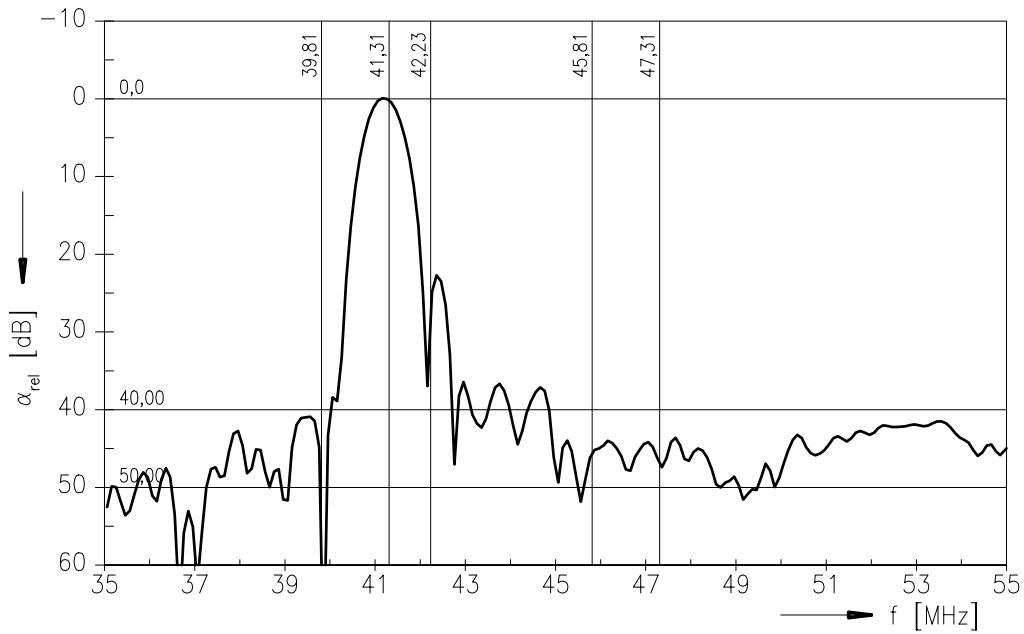
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