



IF Filters for Quasi/Split Sound Applications

Series/Type: N3564D

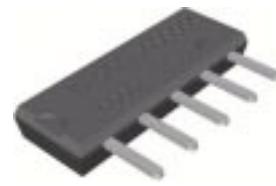
The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39588N3564N301	B39588N3564X500	2009-12-23	2010-06-30	2010-09-30

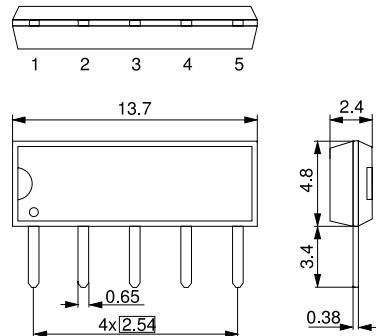
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Data sheet
Application

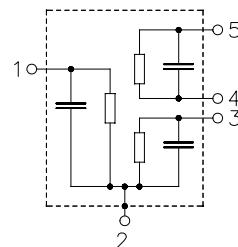
- Standard: M
- TV IF filter for quasi/split sound applications (separate picture and sound channel)
- Picture channel with Nyquist slope and sound suppression, symmetrical output
- Sound channel with pass band for sound carrier only
- Customized group delay predistortion


Features

- Duroplast package **SIP5D**
- Approximate weight 0.5 g
- Standard IC package
- RoHS compatible
- Tinned CuFe alloy terminals


Pin configuration

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



**SAW Components****N 3564 D****SAW IF filter****58.75 MHz****Data sheet****Characteristics of picture channel**

Reference temperature:

 $T_A = 25 \text{ (45)}^\circ\text{C}$

Terminating source impedance:

 $Z_S = 50 \Omega$

Terminating load impedance:

 $Z_L = 2 \text{ k}\Omega \parallel 3 \text{ pF}$

		min.	typ. @ 25 °C	max.	
Insertion attenuation	α				
Reference level for the following data	57.08 (57.00) MHz	12.0	13.5	15.0	dB
Relative attenuation	α_{rel}				
Picture carrier	58.83 (58.75) MHz	5.8	6.8	7.8	dB
Color carrier	55.25 (55.17) MHz	-1.0	0.0	1.0	dB
Sound carrier	54.33 (54.25) MHz	27.0	40.0	—	dB
Adj.picture carrier	52.83 (52.75) MHz	44.0	60.0	—	dB
Adj.sound carrier	60.33 (60.25) MHz	42.0	54.0	—	dB
Lower sidelobe	45.08 ... 52.83 (45.00 ... 52.75) MHz	38.0	43.0	—	dB
Upper sidelobe	60.33 ... 65.08 (60.25 ... 65.00) MHz	34.0	38.0	—	dB
Reflected wave signal suppression					
1.3 μs ... 6.0 μs after main pulse (test pulse 250 ns, carrier frequency 57.08 MHz)		42.0	50.0	—	dB
Feedthrough signal suppression					
1.3 μs ... 1.2 μs before main pulse (test pulse 250 ns, carrier frequency 57.08 MHz)		—	56.0	—	dB
Group delay predistortion	Δt				
(reference frequency 58.83 MHz)					
55.25 MHz		—	80	—	ns
Impedance at 57.08 MHz					
Input: $Z_{\text{IN}} = R_{\text{IN}} \parallel C_{\text{IN}}$		—	0.8 \parallel 17.8	—	$\text{k}\Omega \parallel \text{pF}$
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1.0 \parallel 3.4	—	$\text{k}\Omega \parallel \text{pF}$
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K

Please read *cautions and warnings and important notes* at the end of this document.

**SAW Components****N 3564 D****SAW IF filter****58.75 MHz****Data sheet****Characteristics of sound channel**

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. @ 25 °C	max.	
Insertion attenuation	α				
Reference level for the following data	54.33 (54.25) MHz	16.5	18.0	19.5	dB
Relative attenuation	α_{rel}				
Picture carrier	58.83 (58.75) MHz	31.0	40.0	—	dB
Color carrier	55.25 (55.17) MHz	18.0	25.0	—	dB
Adj. picture carrier	52.83 (52.75) MHz	25.0	35.0	—	dB
Adj. sound carrier	60.33 (60.25) MHz	31.0	38.0	—	dB
Lower sidelobe					
45.08 ... 52.83	(45.00 ... 52.75) MHz	35.0	40.0	—	dB
Upper sidelobe					
60.33 ... 65.08	(60.25 ... 65.00) MHz	26.0	36.0	—	dB
Impedance at 54.33 MHz					
Output: $Z_{\text{OUT}} = R_{\text{OUT}} \parallel C_{\text{OUT}}$		—	1.1 \parallel 3.2	—	$\text{k}\Omega \parallel \text{pF}$
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K

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SAW Components

N 3564 D

SAW IF filter

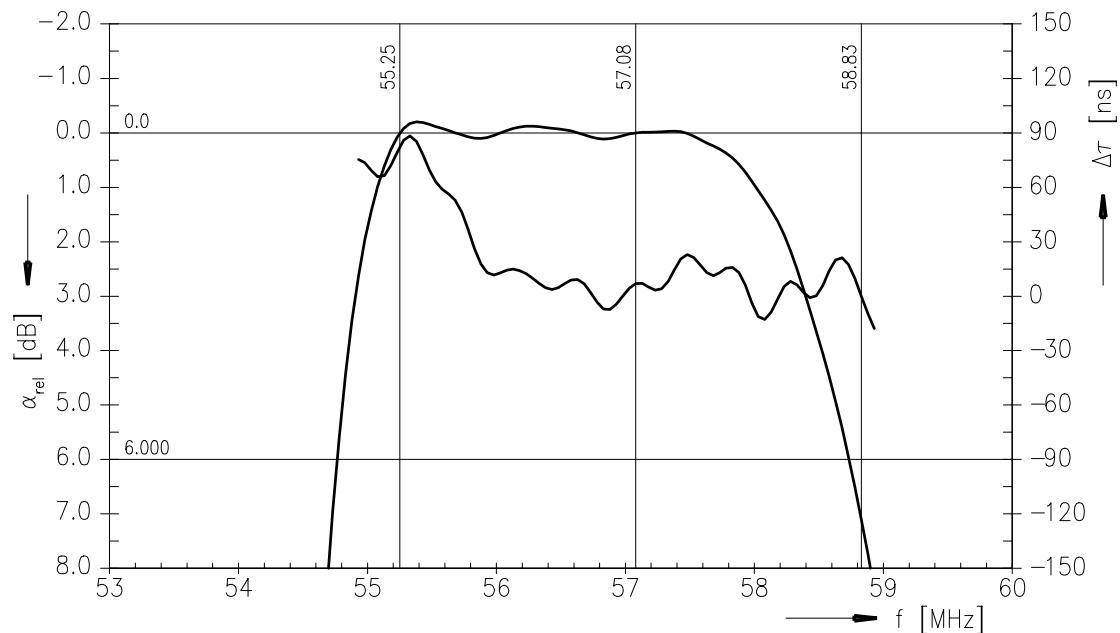
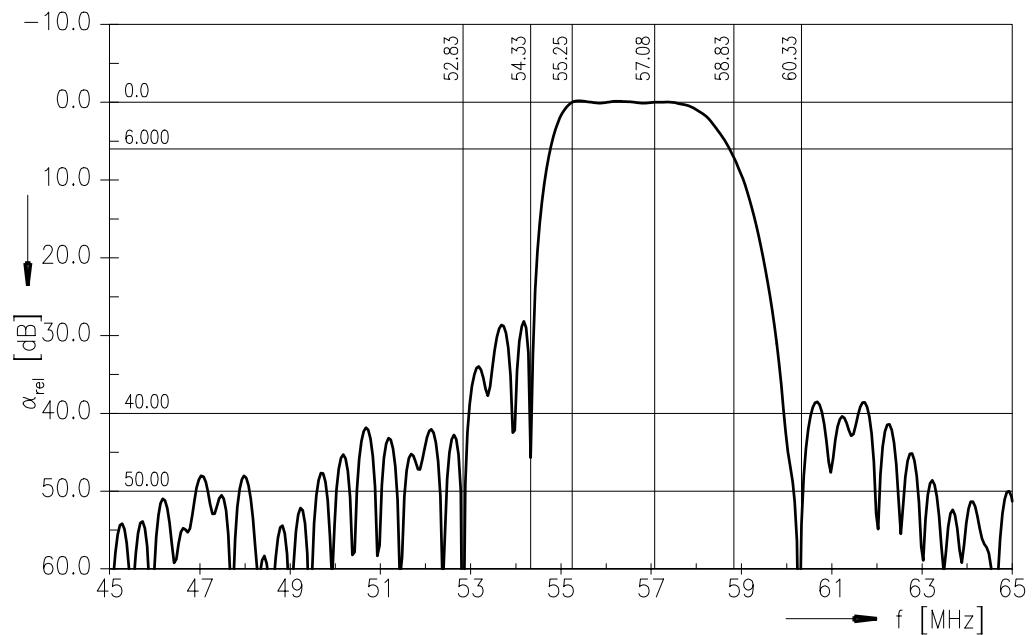
58.75 MHz

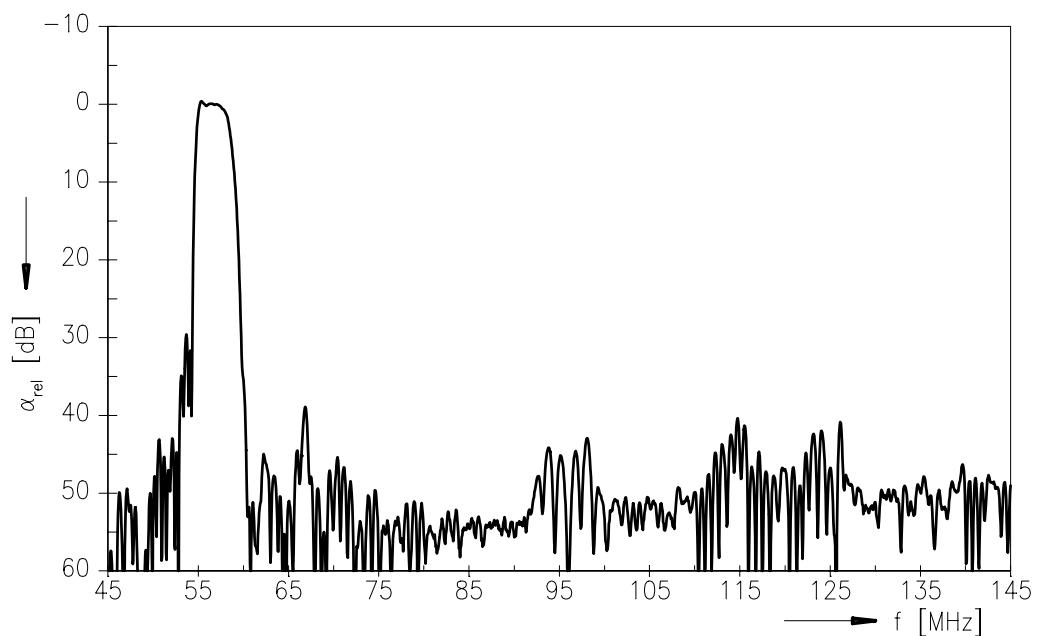
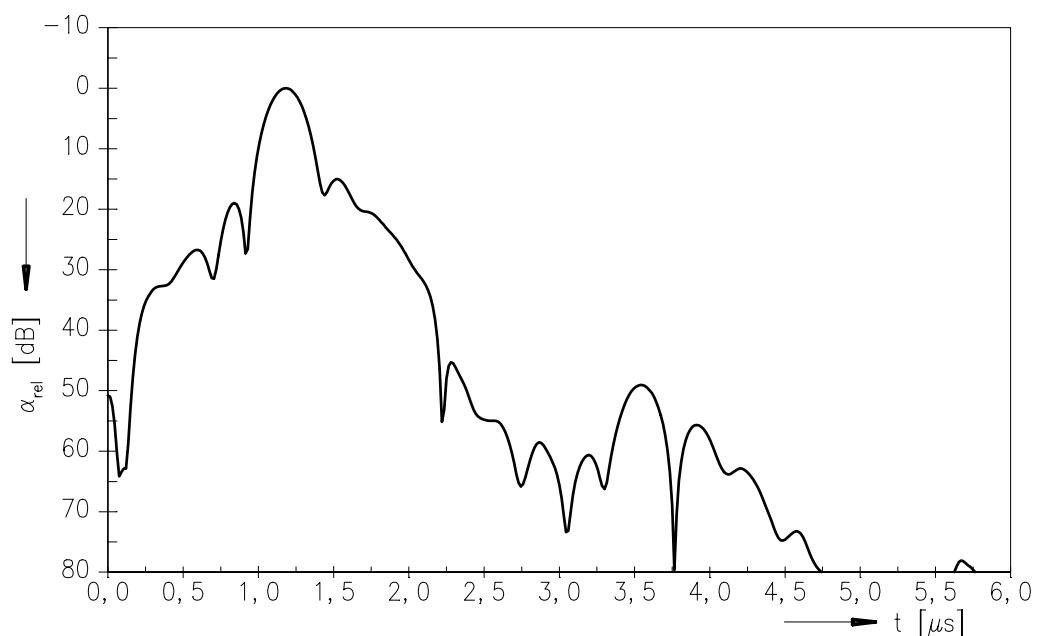
Data sheet

Maximum ratings

Operable temperature range	T	–25 / +65	$^{\circ}\text{C}$	
Storage temperature range	T_{stg}	–40 / +85	$^{\circ}\text{C}$	
DC voltage	V_{DC}	5	V	
AC voltage	V_{pp}	10	V	between any terminals

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Data sheet
Frequency response of picture channel


Data sheet
Frequency response of picture channel

Time domain response


SAW Components

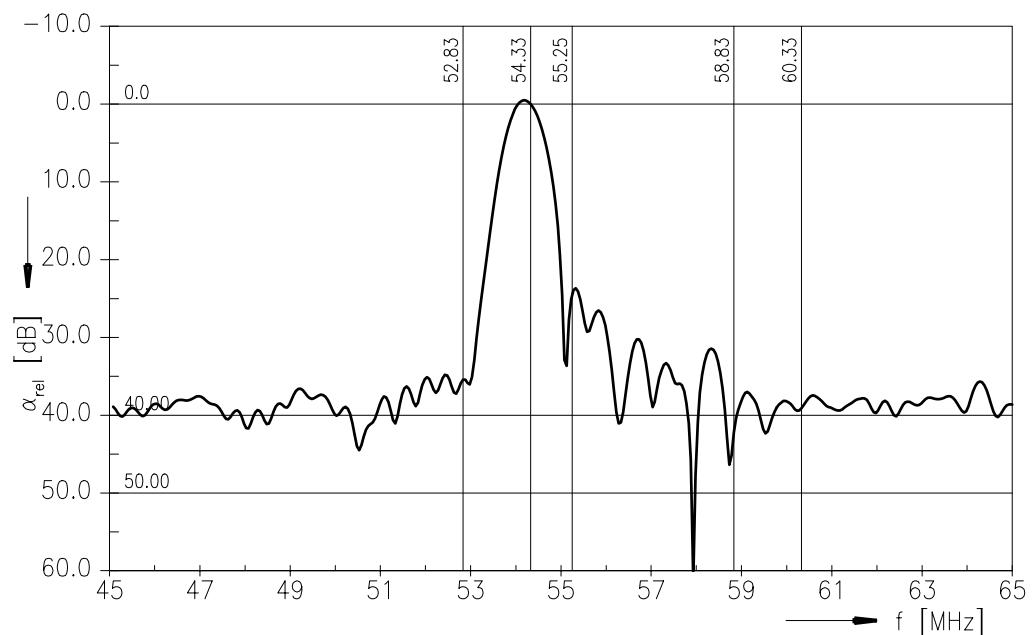
N 3564 D

SAW IF filter

58.75 MHz

Data sheet

Frequency response of sound channel



**SAW Components****N 3564 D****SAW IF filter****58.75 MHz****Data sheet****References**

Type	N 3564 D
Ordering code	B39588-N3564-N301
Marking and package	C61157-A1-A21
Packaging	F61074-V8049-Z000
Date codes	L_1126
S-parameters	
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."

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Please read *cautions and warnings and important notes* at the end of this document.



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