



# SAW Components

Data Sheet G 4963 D





**SAW Components**

**G 4963 D**

**Vestigial Sideband Filter**

**38,90 MHz**

**Data Sheet**

**Standard**

Duroplast package **SIP5D**

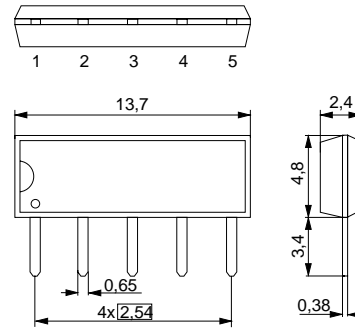
- B/G

**Features**

- IF filter for antenna converters
- Full transmission of vestigial sideband and sound carrier
- Group delay predistortion for transmitters

**Terminals**

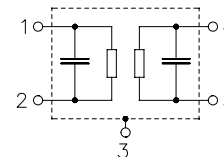
- Tinned CuFe alloy



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 |
|----------|-------------------|----------------------------------|----------------------|
| G 4963 D | B39389-G4963-N201 | C61157-A1-A21                    | F61074-V8049-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**

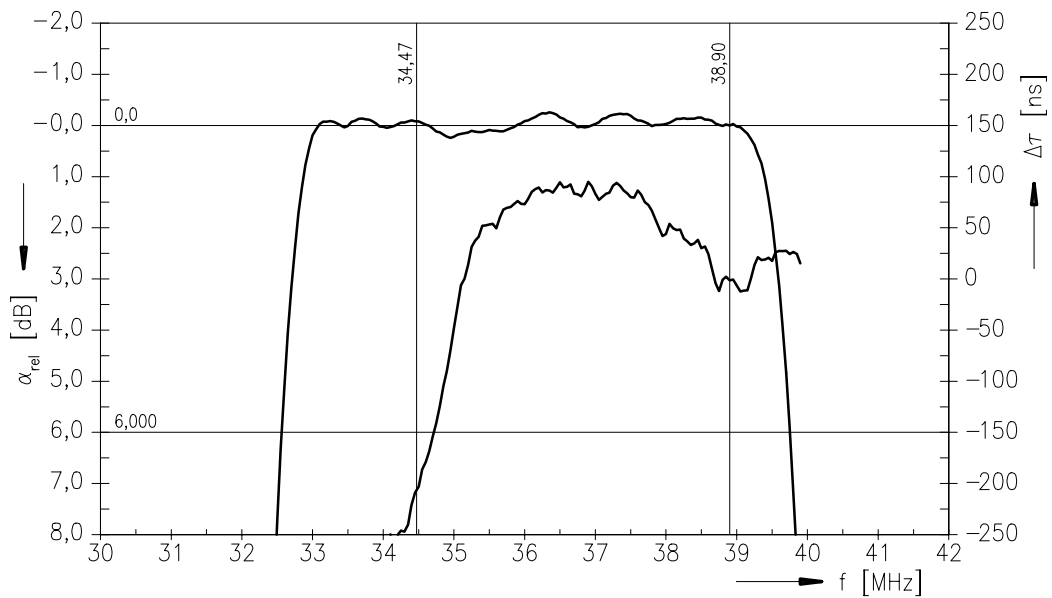
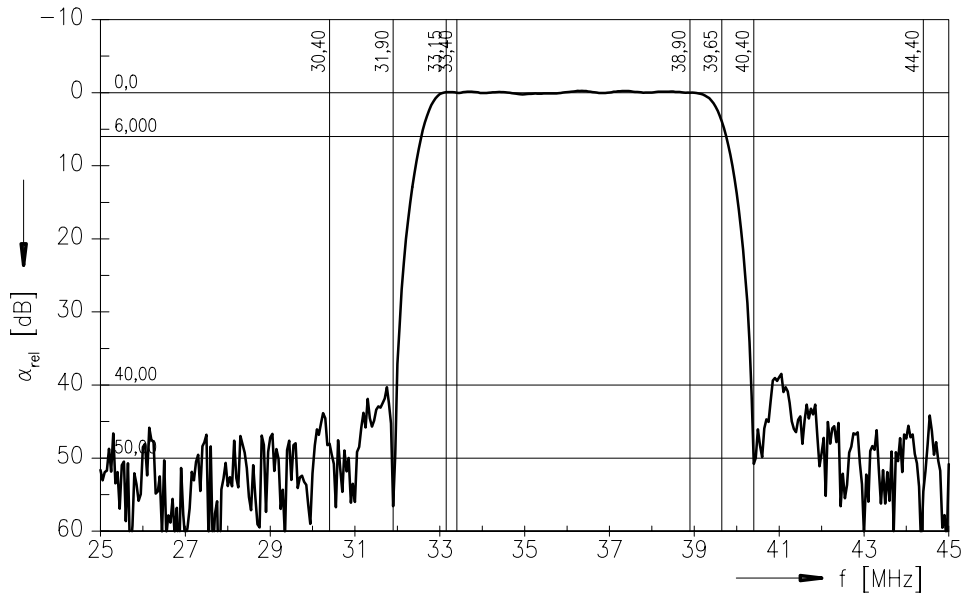
Reference temperature:  $T_A = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

|  |   | min. | typ.                 | max. |                           |
|--|---|------|----------------------|------|---------------------------|
| <b>Insertion attenuation</b>   |   |      |                      |      |                           |
|  | $\alpha$                                      |      |                      |      |                           |
| Reference level for the following data   | 38,90 MHz                                     | 16,0 | 18,5                 | 20,0 | dB                        |
| <b>Relative attenuation</b>  |   |      |                      |      |                           |
|  | $\alpha_{rel}$                                |      |                      |      |                           |
|  | 39,65 MHz                                     | 3,2  | 4,4                  | 5,6  | dB                        |
| Sound carrier  | 33,40 MHz                                     | -1,0 | 0,0                  | 1,0  | dB                        |
| 2nd sound carrier  | 33,15 MHz                                     | -1,1 | -0,1                 | 0,9  | dB                        |
| Adjacent picture carrier   | 31,90 MHz                                     | 38,0 | 57,0                 | —    | dB                        |
| Adjacent sound carrier   | 40,40 MHz                                     | 40,0 | 51,0                 | —    | dB                        |
|  | 44,40 MHz                                     | 42,0 | 51,0                 | —    | dB                        |
| Lower sidelobe   | 25,00 ... 30,40 MHz                           | 39,0 | 45,0                 | —    | dB                        |
|  | 30,40 ... 31,90 MHz                           | 37,0 | 42,0                 | —    | dB                        |
| Upper sidelobe   | 40,40 ... 45,00 MHz                           | 35,0 | 40,0                 | —    | dB                        |
| <b>Reflected wave signal suppression</b>   |   |      |                      |      |                           |
| 1,3 $\mu$ s ... 6,0 $\mu$ s after main pulse<br>(test pulse 250 ns,<br>carrier frequency 38,90 MHz)  |   | 42,0 | 52,0                 | —    | dB                        |
| <b>Feedthrough signal suppression</b>  |   |      |                      |      |                           |
| 1,4 $\mu$ s ... 1,3 $\mu$ s before main pulse<br>(test pulse 250 ns,<br>carrier frequency 38,90 MHz) |   | 50,0 | 56,0                 | —    | dB                        |
| <b>Group delay predistortion</b>   |   |      |                      |      |                           |
| (reference frequency 38,90 MHz)  |   |      |                      |      |                           |
|  | $\Delta\tau$                                  |      |                      |      |                           |
|  | 36,90 MHz                                     | —    | 90                   | —    | ns                        |
|  | 34,47 MHz                                     | —    | -200                 | —    | ns                        |
| <b>Impedance at 38,90 MHz</b>  |   |      |                      |      |                           |
|  | Input: $Z_{IN} = R_{IN} \parallel C_{IN}$     | —    | 1,4 $\parallel$ 18,4 | —    | k $\Omega$ $\parallel$ pF |
|  | Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$ | —    | 4,5 $\parallel$ 4,1  | —    | k $\Omega$ $\parallel$ pF |
| <b>Temperature coefficient of frequency</b>  |   |      |                      |      |                           |
|  | $TC_f$  | —    | -72                  | —    | ppm/K                     |



Data Sheet

Frequency response





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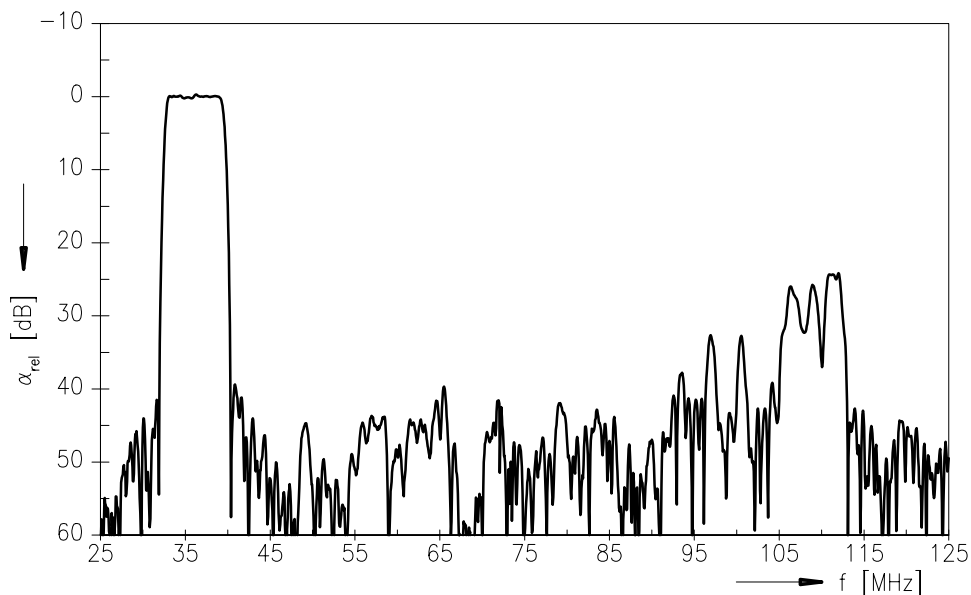
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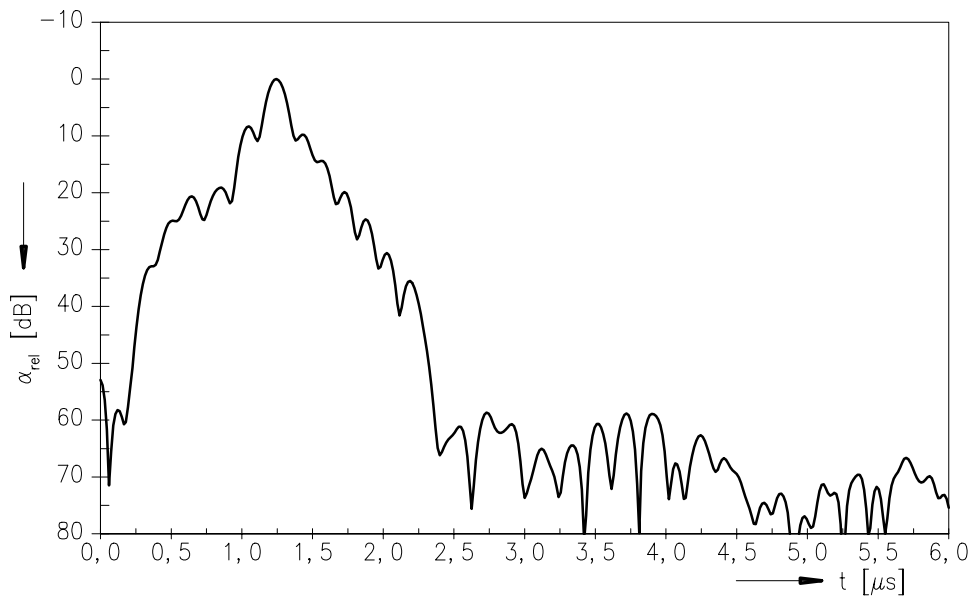
38,90 MHz

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Frequency response



Time domain response





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