

# SAW Components

Data Sheet B3520





| SAW Components                            | B3520       |
|---|-------------|
| Low Loss Filter for Automotive Telematics | 1575,42 MHz |
| Data Sheet                                |             |

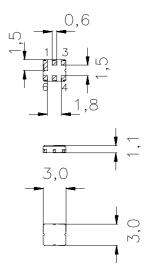
### Ceramic package DCC6C

# Features

- RF low-loss filter for GPS application
- Package for Surface Mounted Technology (SMT)
- Hermetically sealed ceramic package
- No matching network required for operation at 50 Ω
- Extended temperature range for automotive application

#### Terminals

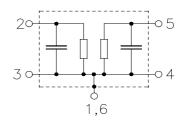
Ni, gold plated



Dimensions in mm, approx. weight 0,1 g

### **Pin configuration**

| 2       | Input  |
|---------|--------|
| 5       | Output |
| 1,3,4,6 | Ground |



| Туре  | Ordering code     | Marking and Package according to | Packing<br>according to |
|-------|-------------------|----------------------------------|-------------------------|
| B3520 | B39162-B3520-U410 | C61157-A7-A56                    | F61074-V8070-Z000       |

Electrostatic Sensitive Device (ESD)

#### **Maximum ratings**

| Operable temperature range | T <sub>A</sub>   | -40/+105 | °C  |                              |
|----------------------------|------------------|----------|-----|------------------------------|
| Storage temperature range  | T <sub>stg</sub> | -40/+105 | °C  |                              |
| DC voltage                 | V <sub>DC</sub>  | 0        | V   |                              |
| Source power               | Ps               | 0        | dBm | source impedance 50 $\Omega$ |



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# Characteristics

| Reference temperature:        | $T_{A}$     | = -4 | 40 +85 °C |
|-------------------------------|-------------|------|-----------|
| Terminating source impedance: | $Z_{\rm S}$ | =    | 50 Ω      |
| Terminating load impedance:   | $Z_{L}$     | =    | 50 Ω      |

|  |                 | min. | typ.    | max. |       |
|--|-----------------|------|---------|------|-------|
| Center frequency                                   | f <sub>c</sub>  |      | 1575,42 |      | MHz   |
| Maximum insertion attenuation                      |                 |      |         |      |       |
| 1574,221576,62 MHz                                 | $lpha_{max}$    | _    | 1,3     | 1,8  | dB    |
| Amplitude ripple (p-p)                             | Δα              |      |         |      |       |
| 1574,221576,62 MHz                                 |                 | _    | 0,1     | 1,0  | dB    |
| Relative attenuation (relative to $\alpha_{max}$ ) | $\alpha_{rel}$  |      |         |      |       |
| 100,001450,00 MHz                                  |                 | 40   | 44      | —    | dB    |
| 1450,001520,00 MHz                                 |                 | 30   | 34      | _    | dB    |
| 1640,001710,00 MHz                                 |                 | 25   | 30      | _    | dB    |
| 1710,001750,00 MHz                                 |                 | 35   | 43      | _    | dB    |
| 1750,001910,00 MHz                                 |                 | 42   | 44      | _    | dB    |
| 1910,002000,00 MHz                                 |                 | 40   | 45      | —    | dB    |
| Temperature coefficient of frequency               | TC <sub>f</sub> |      | -30     |      | ppm/K |

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# Characteristics

| Reference temperature:        | T <sub>A</sub> | = -4 | 40 +105 °C |
|-------------------------------|----------------|------|------------|
| Terminating source impedance: | $Z_{S}$        | =    | 50Ω        |
| Terminating load impedance:   | $Z_{\rm L}$    | =    | 50 Ω       |

|  |                 | min. | typ.    | max. |       |
|--|-----------------|------|---------|------|-------|
| Center frequency                                   | f <sub>c</sub>  |      | 1575,42 | _    | MHz   |
| Maximum insertion attenuation                      |                 |      |         |      |       |
| 1574,221576,62 MHz                                 | $lpha_{max}$    | _    | 1,3     | 2,0  | dB    |
| Amplitude ripple (p-p)                             | Δα              |      |         |      |       |
| 1574,221576,62 MHz                                 |                 | —    | 0,1     | 1,0  | dB    |
| Relative attenuation (relative to $\alpha_{max}$ ) | $lpha_{ m rel}$ |      |         |      |       |
| 100,001450,00 MHz                                  |                 | 40   | 44      | —    | dB    |
| 1450,001520,00 MHz                                 |                 | 30   | 34      | —    | dB    |
| 1640,001710,00 MHz                                 |                 | 25   | 30      | —    | dB    |
| 1710,001750,00 MHz                                 |                 | 35   | 43      | —    | dB    |
| 1750,001910,00 MHz                                 |                 | 42   | 44      | —    | dB    |
| 1910,002000,00 MHz                                 |                 | 40   | 45      | —    | dB    |
| Temperature coefficient of frequency               | TC <sub>f</sub> |      | -30     |      | ppm/K |

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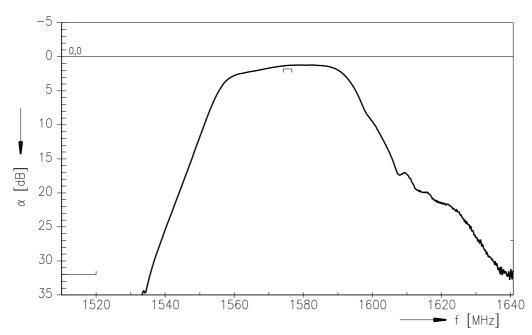
520 MHz



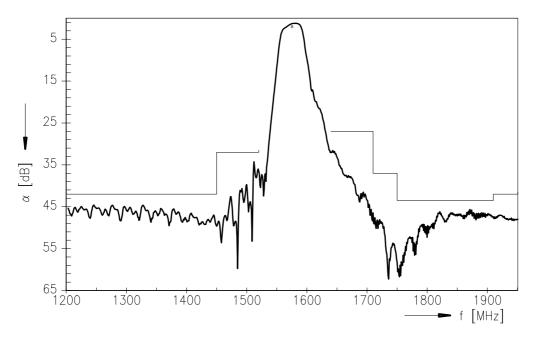
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# **Transfer function**



# Transfer function (wideband)



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|   |             |

**Data Sheet** 

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