

Central frequency - 412 MHz

## Passband - 19 MHz

Mass production: Ltd. AEC

Complies with Directive 2002/95/EC (RoHS)





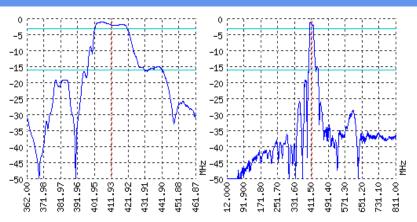




Looking for information on other SAW devices at: http://aec-pro.com/filters.php

Designed by: Ltd. AEC Design

## TYPICAL PERFORMANCE

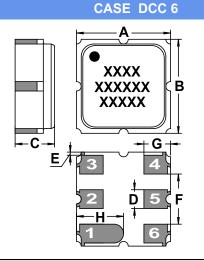


#### **SPECIFICATIONS**

| Parameter             | Unit | Minimum | Typical            | Maximum |
|-----------------------|------|---------|--------------------|---------|
| Central frequency     | MHz  | 411.5   | 412                | 412.5   |
| Insertion loss        | dB   | 1       | 1.1                | 1.2     |
| Bandwidth at -2 дБ    | MHz  | 18      | 19                 | 20      |
| Bandwidth at -15 дБ   | MHz  | 47      | 48                 | 49      |
| Amplitude ripple      | dB   | 0.8     | 1                  | 1.3     |
| Group Delay Ripple    | ns   | -       | -                  | -       |
| Ultimate rejection    | dB   | -       | 20                 | -       |
| Operating temperature | °C   | -55     | 22                 | +85     |
| Substrate             | -    | -       | Lithium niobate 64 | -       |

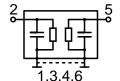
#### Notes:

- 1. The design, manufacturing process, and specifications of this filter are subject to change.
- 2. Specification valid for measurements in AEC test fixture.





| DIMENSIONS (mm) |      |  |  |  |
|-----------------|------|--|--|--|
| Α               | 3    |  |  |  |
| В               | 3    |  |  |  |
| С               | 1.26 |  |  |  |
| D               | 0.6  |  |  |  |
| E               | 0.1  |  |  |  |
| F               | 1.6  |  |  |  |
| G               | 0.85 |  |  |  |
| Н               | 1.5  |  |  |  |



| Input 50 Ом |   | Output 50 Ом |   |  |
|-------------|---|--------------|---|--|
| L1, nH      | - | L2, nH       | - |  |
| C1, pF      | - | C2, pF       | - |  |
|             |   |              |   |  |

Signal input: 2 Signal output: 5 Ground: other pin

\*Matching condition depends on PCB layout.

## Recommendations:

1. See the relevant ЦПАР for maximum permissable input signal power in the bandwidth.

**MATCHING** 

- 2. Input signal amplitude in the stop band is limited to 5 V.
- 3. DC voltage at the input (output) of the filter should not exceed 10 V.
- 4. It is recommended to include the coupling capacitor between the device and the generator (load).
- 5. SAW filters are sensitive to static electricity, therefore corresponding precautions should be taken while working with them.
- $6.\ \mbox{Do}$  not expose the device to frequency vibrations more than 5 kHz. Do not use ultrasonic cleaners.

# Design and production SAW filters, resonators, delay lines, sensors.



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