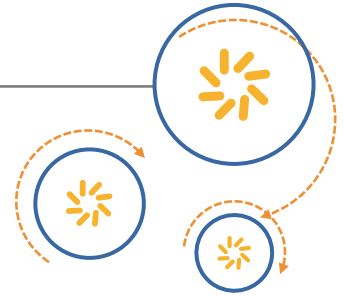




RF360 Europe GmbH

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Application Note SAW-Components

Creating a combination footprint layout, usable for SAW filters in EPCOS DCC6c (3.0*3.0mm) and competitor devices in DCC6 (3.8*3.8mm) package.

Date: May 26, 2001
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Application Note **SAW-Components**

Creating a combination footprint layout, usable for SAW filters in EPCOS DCC6c (3.0*3.0mm) and competitor devices in DCC6 (3.8*3.8mm) package.

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Creating a combination layout for SAW filters in EPCOS DCC6c (3.0*3.0mm) package and in DCC6 (3.8*3.8mm) package.

To use an EPCOS SAW filter in DCC6c (3.0*3.0mm) and a SAW filter in DCC6 (3.0*3.0mm) from competitor on the same PCB footprint, a combination layout is evaluated. For both packages, input / output is pin 2 & 5, GND pins are pin 1,3,4,6. It is no problem to use both packages on the same footprint, because pinning shape is very similar. The dual footprint bases on the shape of the DCC6 (3.8*3.8mm) thus a standard DCC6 footprint can be used for DCC6c too. For optimisations, pad length in the dual footprint approach are increased slightly.

A comparison of DCC6c (3.0*3.0mm) package and in DCC6 (3.8*3.8mm) package from us and from competitors is given.

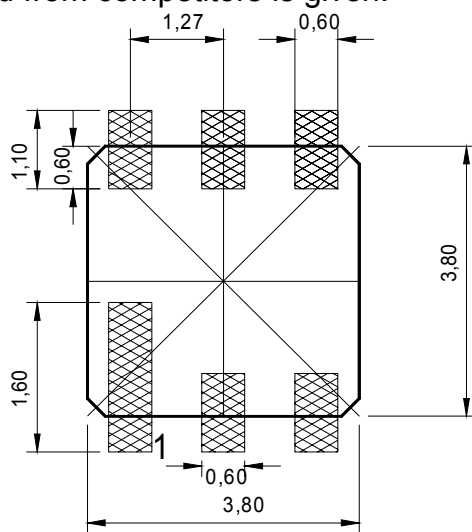


Fig.1: Footprint for DCC6 (3.8*3.8mm)

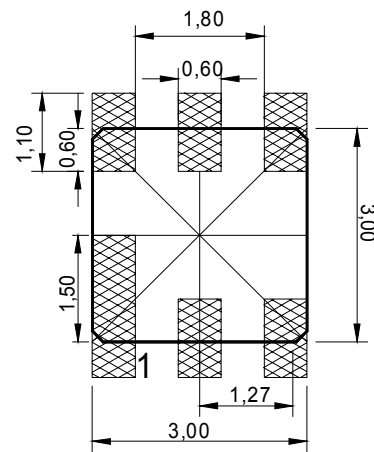


Fig.2: Footprint for DCC6c (3.0*3.0mm)

The superposition of the DCC6 (blue) with the DCC6c (red) is shown in Fig.3. A combination layout, usable for the DCC6 input / output pin 2/5 (center / center) and for DCC6c input / output 2/5 (center / center) was evaluated (Fig.4).

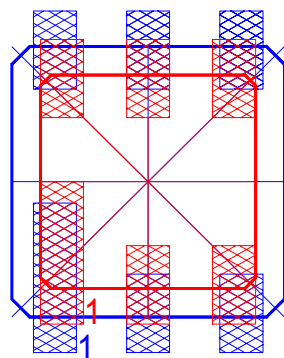


Fig.3: Superposition of both footprints

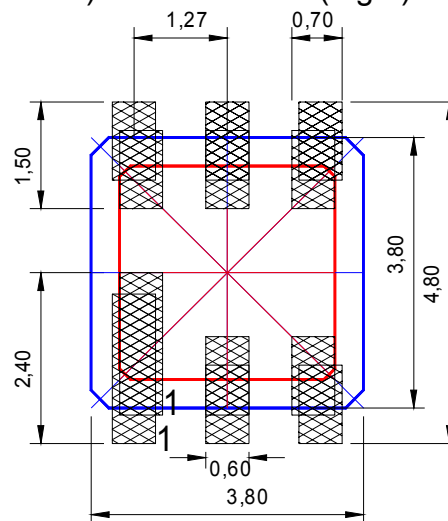


Fig.4: Combination layout

The pin description is given for SAW filter in DCC6 and for in DCC6c housing.

EPCOS DCC6c (3.0*3.0mm)

- Pin 2 RF input
- Pin 5 RF output
- Pin 1,4 in / out GND
- Pin 1,3,4,6 case GND
together => GND

Fujitsu DCC6 (3.8*3.8mm)

- Pin 2 RF input
- Pin 5 RF output
- Pin 1,3,4,6 connected to GND

For grounding the GND pins, every GND pin should be fed to system GND to avoid ground loops. The GND pins should no be connected together on top PCB side.

The described footprints and the combination layout are a suggestion for the customer. The final realisation should be done according the customer's internal CAD-PCB regulations.

Combination layout for SAW filters in DCC6 and DCC6c ceramic packages.

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