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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

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PCA7755C

Converter Board from 64-pin QFP (64P6Q) to 32-pin DIL Standard-Pitch (with QFP Socket and Pattern for Oscillator)

User's Manual

Keep safety first in your circuit designs!

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CAUTION

If the requirements shown in the "CAUTION" sentences are ignored, the equipment may cause personal injury or damage to the products.

Renesas Tools Homepage <http://www.renesas.com/en/tools>

1. Outline

The PCA7755C is a converter board from 64-pin QFP (64P6Q) to standard-pitch (2.54-mm). The pins correspond one-to-one.

2. Connecting the Oscillator Circuit Pattern

Take notice that the processing depends on whether or not the IC1 (oscillator module) is used.

(1) When the IC1 (oscillator module) is used

Recommended oscillator module: SG-51P (Seiko Epson Corporation)

When using the IC1, the following processing is necessary (see (1) to (3) in Figure 1).

- (1) Supply VCC and GND.
- (2) Connect the OUT pin to the XIN pin.
- (3) Install a bypass capacitor at the C1.

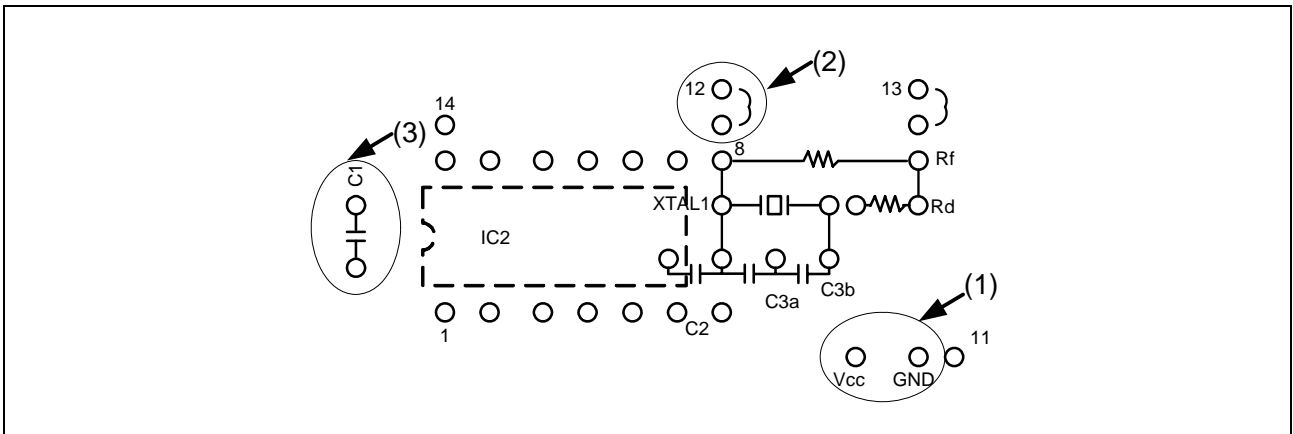


Figure 1 Connections when using the IC1

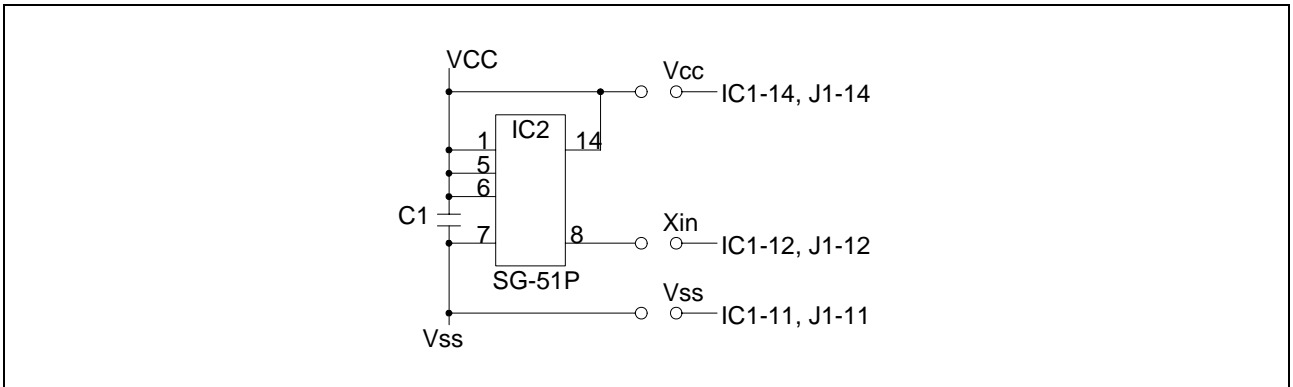


Figure 2 Connection diagram when using the IC1

(2) When using 2-pin type oscillator

When using a 2-pin type oscillator, follow the procedure below (see (1) to (8) in Figure 3).

For the capacitor capacity and the resistance value, contact the capacitor distributor.

- (1) Install an oscillator at the XTAL1.
- (2) Install a capacitor at the C2.
- (3) Install a capacitor at the C3b.
- (4) Install a resistor at the Rd.
- (5) Install a resistor at the Rf.
- (6) Connect the XIN pin.
- (7) Connect the XOUT pin.
- (8) Connect the GND of the oscillator.

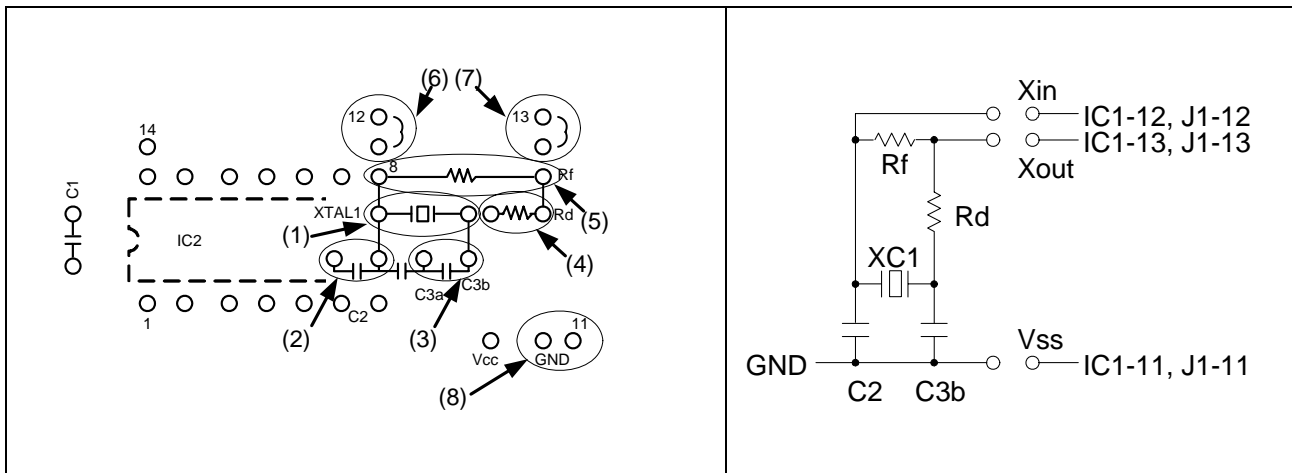


Figure 3 When using 2-pin type oscillator

(3) When using 3-pin type oscillator

When using a 3-pin type oscillator, follow the procedure below (see (1) to (6) in Figure 4).

For the capacitor capacity and the resistance value, contact the capacitor distributor.

- (1) Install capacitors at the C3a and C3b.
- (2) Install a resistor at the Rd.
- (3) Install a resistor at the Rf.
- (4) Connect the XIN pin.
- (5) Connect the XOUT pin.
- (6) Connect the GND of the oscillator.

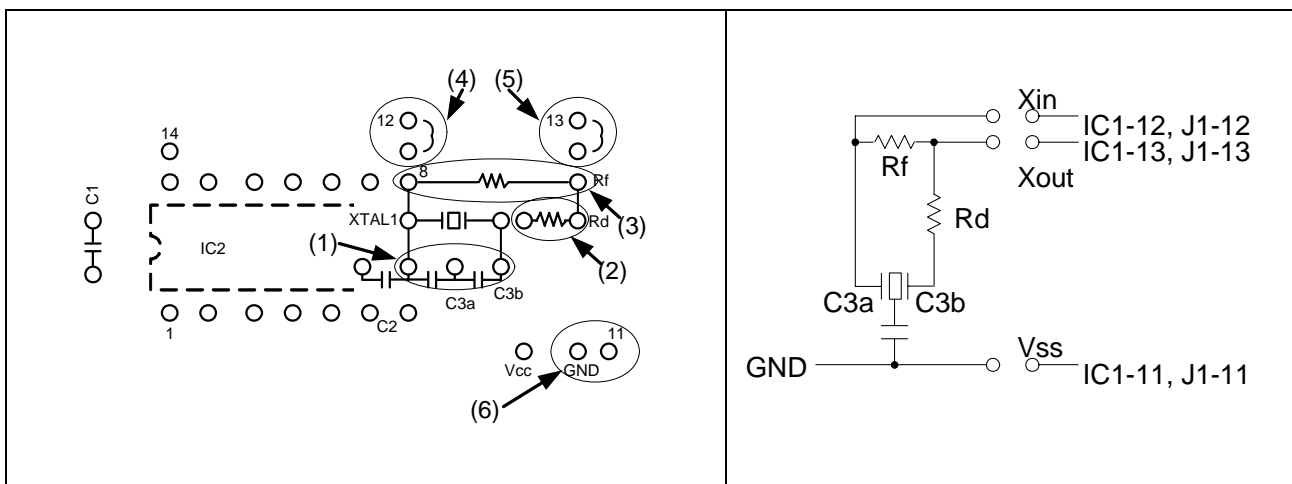


Figure 4 When using 3-pin type oscillator

3. External Dimensions

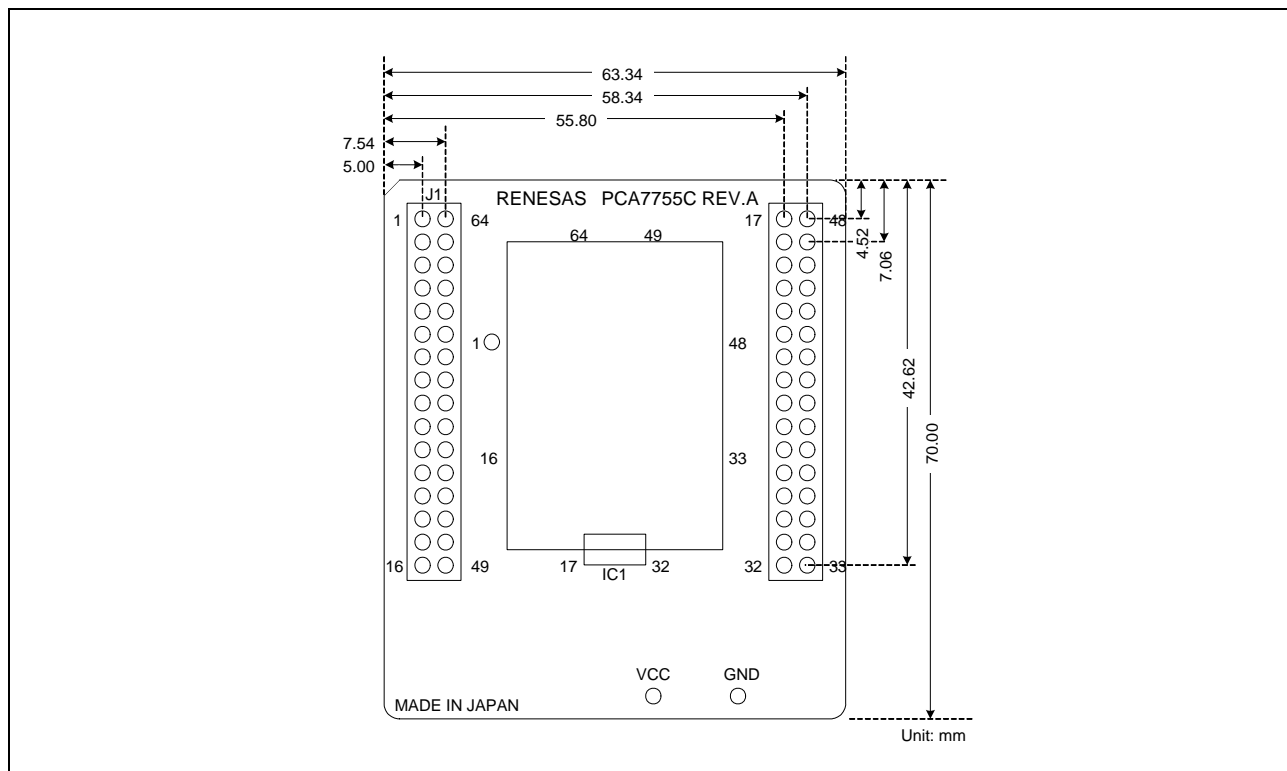


Figure 5 External dimensions of the PCA7755C

4. Precautions

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