RENESAS

R0E530650CFK10

Converter Board for Connecting M16C/65 Group 128-pin 0.5mm pitch LQFP

User's Manual

* NQPACK, YQPACK, YQSOCKET, YQ-GUIDE, HQPACK, TQPACK, TQSOCKET, CSSOCKET, CSPLUG/W and LSPACK are trademarks of Tokyo Eletech Corporation.

⚠ **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/tools

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RenesasTechnology
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1. Outline

The R0E530650CFK10 is a converter board for connecting the flexible cable R0E001000FLX10 to a foot pattern for 128-pin 0.5mm pitch LQFP (PLQP0128KB-A).

2. Package Components (See Figure 1)

Check to see if the R0E530650CFK10 package has all the following contents before using this product.

(1) R0E530650CFK10 converter board .... 1 pc.

(2) YQPACK128RD (made by Tokyo Eletech Corporation) .... 1 pc.

(3) NQPACK128RD (made by Tokyo Eletech Corporation) .... 1 pc.

(4) YQ-GUIDE (made by Tokyo Eletech Corporation) .... 4 pcs.

(5) R0E530650CFK10 User's Manual (this manual)

3. Specifications

Table 1 Specifications

Applicable package	PLQP0128KB-A: formerly 128P6Q-A (128-pin 0.5mm pitch LQFP)
Insertion/removal iterations of connector	50 times guaranteed

4. Usage (See Figure 2)

The R0E530650CFK10 can be used for debugging and on-board evaluation in common by mounting the NQPACK128RD on the user system.

(1) For debugging
Mount the NQPACK128RD on the foot pattern of the user system and attach the YQPACK128RD on it. In addition, connect the R0E530650CFK10 to the YQPACK128RD, and then connect the flexible cable R0E001000FLX10 of the emulator to the upper connector of the R0E530650CFK10.

(2) For on-board evaluation
Mount an MCU with on-chip flash memory or one-time PROM and the HQPACK128RD (not included) in order on the NQPACK128RD on the user system.

Before using the R0E530650CFK10, be sure to read "7. Precautions" on page 4.
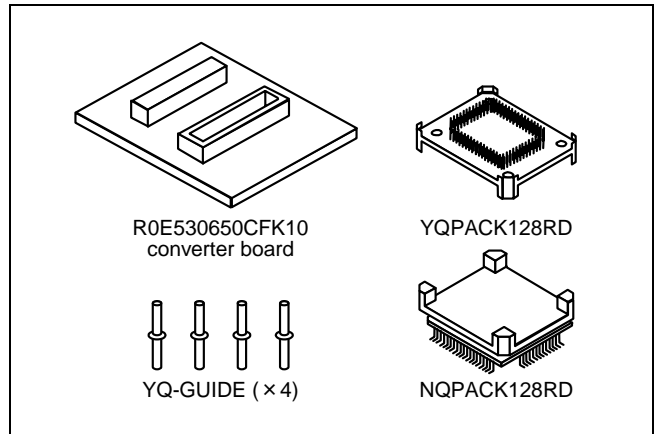
Figure 1 Package components of the R0E530650CFK10
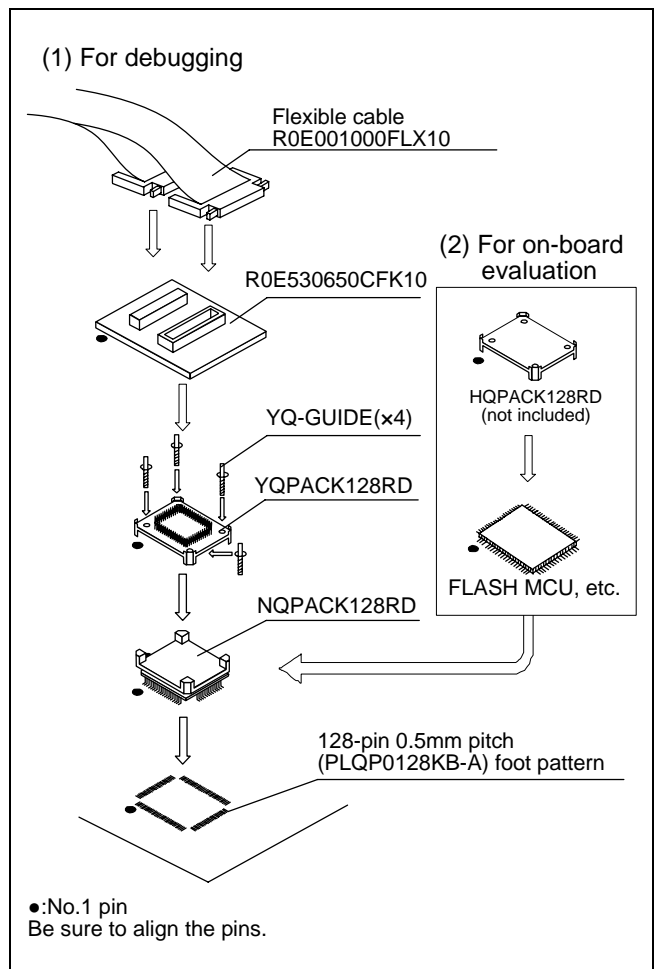
Figure 2 Usage of the R0E530650CFK10

5. Connection Procedure (See Figure 3)

The procedure for connecting the R0E530650CFK10 is shown below.

(1) Mount the NQPACK128RD on the user system.

(2) Attach the YQPACK128RD on the NQPACK128RD.

(3) Secure the four corners of the YQPACK128RD with the YQ-GUIDEs.

> ● **Do not use the screws included with the YQPACK128RD for fixing the YQPACK128RD.**
>
> ● **Do NOT use the screwdriver included with the NQPACK128RD for fixing the YQ-GUIDEs. That is used only for the HQPACK128RD.**

(4) Mount the R0E530650CFK10 on the YQPACK128RD.

(5) Attach the flexible cable R0E001000FLX10 of the emulator to the R0E530650CFK10.
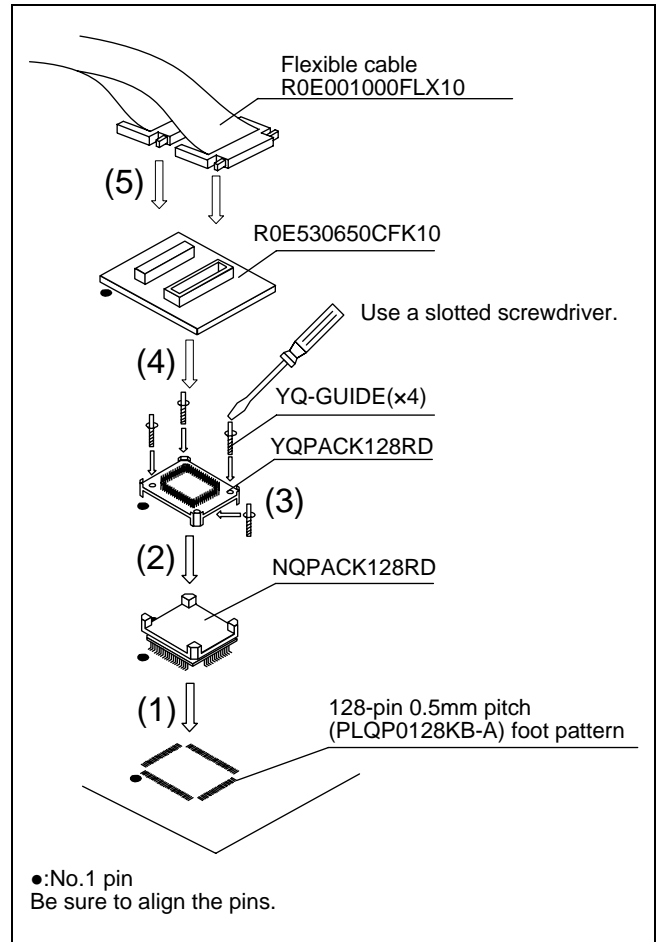
Figure 3 Connection procedure of the R0E530650CFK10

6. External Dimensions and a Sample Foot Pattern
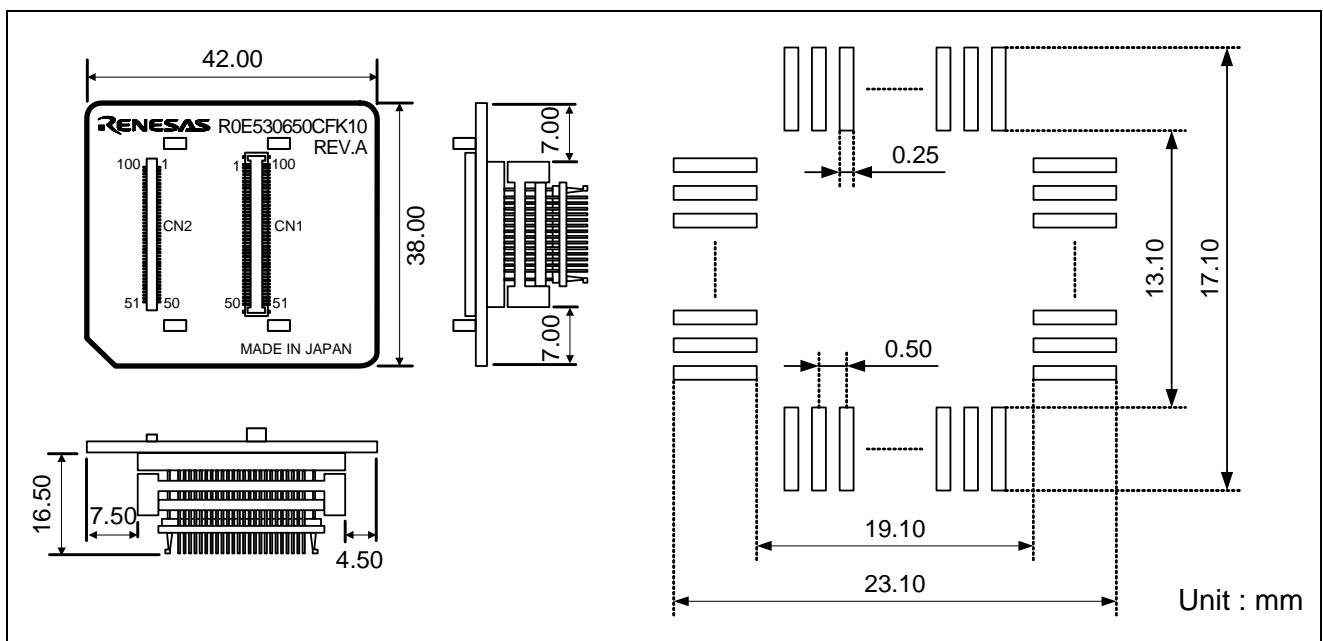
Figure 4 External dimensions and a sample foot pattern of the R0E530650CFK10

7. Precautions

<table>
<tr><td colspan="2" align="center">⚠ CAUTION</td></tr>
<tr><td colspan="2">Cautions to Be Taken for This Product:</td></tr>
<tr><td>❗</td><td>● When connecting the YQPACK128RD, be sure to use the included YQ-GUIDEs.
● Do NOT use the screws included with the YQPACK128RD for connecting the YQPACK128RD.</td></tr>
<tr><td colspan="2" align="center">IMPORTANT</td></tr>
<tr><td colspan="2">Notes on This Product:</td></tr>
<tr><td colspan="2">● We cannot accept any request for repair.
● For purchasing the NQPACK128RD, YQPACK128RD and HQPACK128RD, contact the following:
    Tokyo Eletech Corporation   http://www.tetc.co.jp/e_index.htm
● For inquiries about the product or the contents of this manual, contact your local distributor.
    Renesas Tools Homepage   http://www.renesas.com/tools</td></tr>
</table>

8. Correspondence of Connectors CN1 and CN2

Table 2 Correspondence of the connectors

| CN1 Pin No.	IC1	CN1 Pin No.	IC1	CN2 Pin No.	IC1	CN2 Pin No.	IC1
1	–	100	–	1	–	100	–
2	–	99	–	2	–	99	–
3	–	98	–	3	–	98	–
4	–	97	–	4	–	97	–
5	77	96	76	5	57	96	–
6	78	95	75	6	56	95	–
7	79	94	74	7	55	94	62
8	85	93	73	8	54	93	63
9	86	92	72	9	49	92	64
10	87	91	71	10	48	91	80
11	88	90	70	11	47	90	81
12	89	89	69	12	46	89	82
13	90	88	68	13	–	88	83
14	91	87	67	14	–	87	84
15	–	86	–	15	–	86	–
16	92	85	66	16	–	85	102
17	93	84	65	17	–	84	103
18	94	83	61	18	–	83	104
19	95	82	60	19	–	82	105
20	96	81	59	20	–	81	106
21	97	80	58	21	–	80	107
22	98	79	53	22	–	79	108
23	99	78	52	23	–	78	109
24	100	77	51	24	–	77	110
25	101	76	50	25	–	76	111
26	–	75	–	26	–	75	–
27	2	74	45	27	–	74	120
28	3	73	44	28	–	73	121
29	4	72	43	29	–	72	122
30	5	71	42	30	–	71	123
31	6	70	41	31	–	70	124
32	7	69	40	32	–	69	125
33	8	68	38	33	–	68	126
34	9	67	36	34	–	67	127
35	10	66	35	35	–	66	128
36	13	65	34	36	–	65	1
37	–	64	–	37	–	64	–
38	14	63	33	38	–	63	112
39	15	62	32	39	–	62	113
40	16	61	31	40	–	61	114
41	17	60	30	41	–	60	115
42	18	59	29	42	–	59	116
43	19	58	28	43	–	58	117
44	20	57	27	44	–	57	118
45	21	56	26	45	–	56	119
46	22	55	25	46	12	55	–
47	23	54	24	47	11	54	–
48	–	53	–	48	–	53	–
49	–	52	–	49	–	52	–
50	–	51	–	50	–	51	–

(-:No connection or signals in the emulator)