RENESAS

R0E53036ACFK40

Converter Board for Connecting R8C/36E, R8C/36F, R8C/36G and R8C/36H Groups
64-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.

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Renesas Technology
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1. Outline

The R0E53036ACFK40 is a converter board for connecting the signals of the MCU unit R0E521300MCU00 for R8C/Tiny Series to a foot pattern for 64-pin 0.5mm pitch LQFP of R8C/36E, R8C/36F, R8C/36G and R8C/36H groups.

2. Package Components (See Figure 1)

Check to see if the R0E53036ACFK40 package has all the following contents before using this product.

(1) R0E53036ACFK40 converter board .... 1 pc.

(2) YQPACK064SD (made by Tokyo Eletech Corporation).......... 1 pc.

(3) NQPACK064SD-ND (made by Tokyo Eletech Corporation) . 1 pc.

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

(5) R0E53036ACFK40 User's Manual (this manual)

3. Specifications

Table 1 Specifications

Applicable package	PLQP0064KB-A: formerly 64P6Q-A (64-pin 0.5mm pitch LQFP)
Insertion/removal iterations of connector	50 times guaranteed

4. Usage (See Figure 2)

The R0E53036ACFK40 can be used for debugging and on-board evaluation in common by mounting the NQPACK064SD-ND on the user system.

(1) For debugging
Mount the NQPACK064SD-ND on the foot pattern of the user system and attach the YQPACK064SD on it. In addition, connect the R0E53036ACFK40 to the YQPACK064SD, and then connect the flexible cable R0E001000FLX10 of the emulator to the upper connector of the R0E53036ACFK40.

(2) For on-board evaluation
Mount an MCU with on-chip flash memory or one-time PROM and the HQPACK064SD (not included) in order on the NQPACK064SD-ND on the user system.

Before using the R0E53036ACFK40, be sure to read "7. Precautions" on page 4.
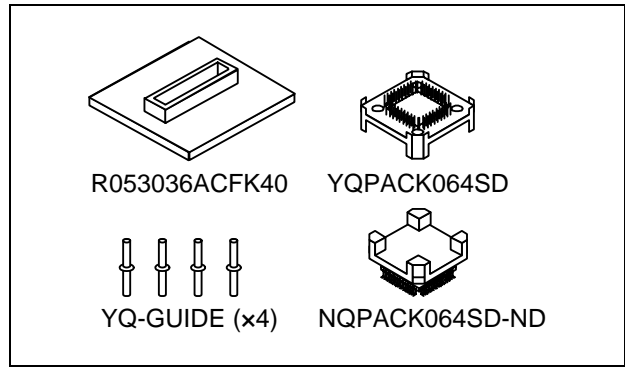
Figure 1 Package components of the R0E53036ACFK40
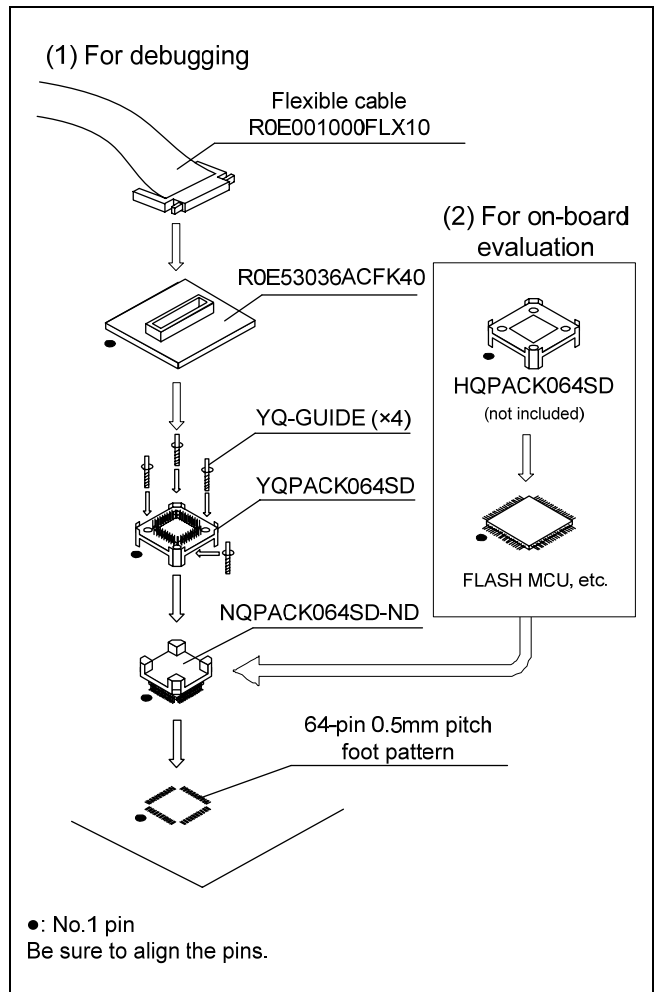
Figure 2 Usage of the R0E53036ACFK40

5. Connection Procedure (See Figure 3)

The procedure for connecting the R0E53036ACFK40 is shown below.

(1) Mount the NQPACK064SD-ND on the user system.

(2) Attach the YQPACK064SD on the NQPACK064SD-ND.

(3) Secure the four corners of the YQPACK064SD with the YQ-GUIDEs.

> ● **Do not use the screws included with the YQPACK064SD for fixing the YQPACK064SD.**
>
> ● **Do NOT use the screwdriver included with the NQPACK064SD-ND for fixing the YQ-GUIDEs. That is used only for the HQPACK064SD.**

(4) Mount the R0E53036ACFK40 on the YQPACK064SD.

(5) Connect the flexible cable R0E001000FLX10 of the emulator to the R0E53036ACFK40.

Figure 3 Connection procedure of the R0E53036ACFK40

6. External Dimensions and a Sample Foot Pattern

Figure 4 External dimensions and a sample foot pattern of the R0E53036ACFK40

7. Precautions

8. Correspondence of Connectors CN1

Table 2 Correspondence of the connectors

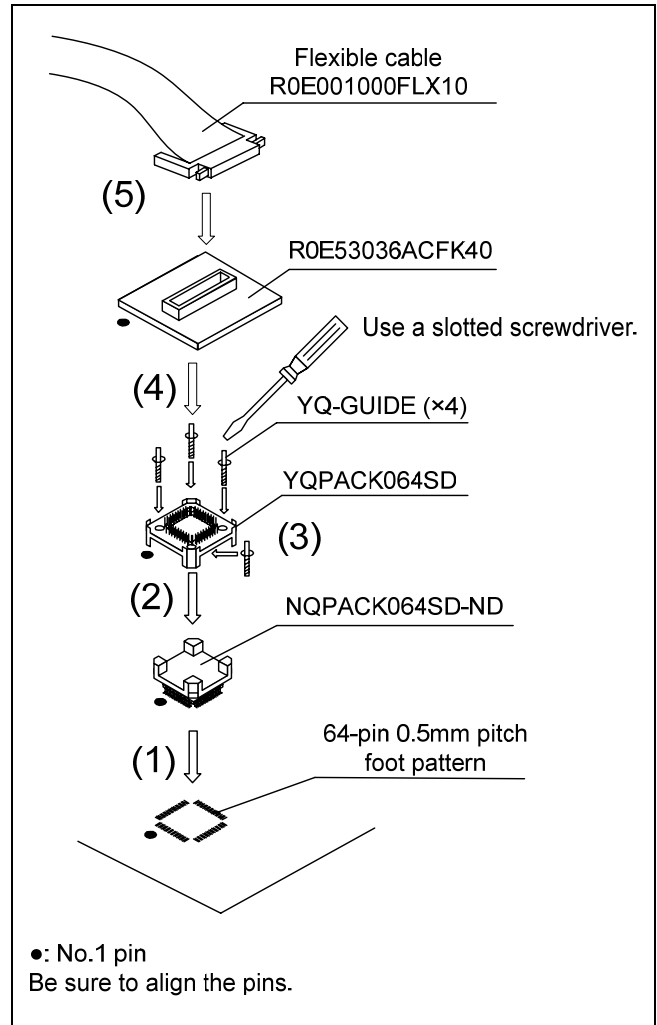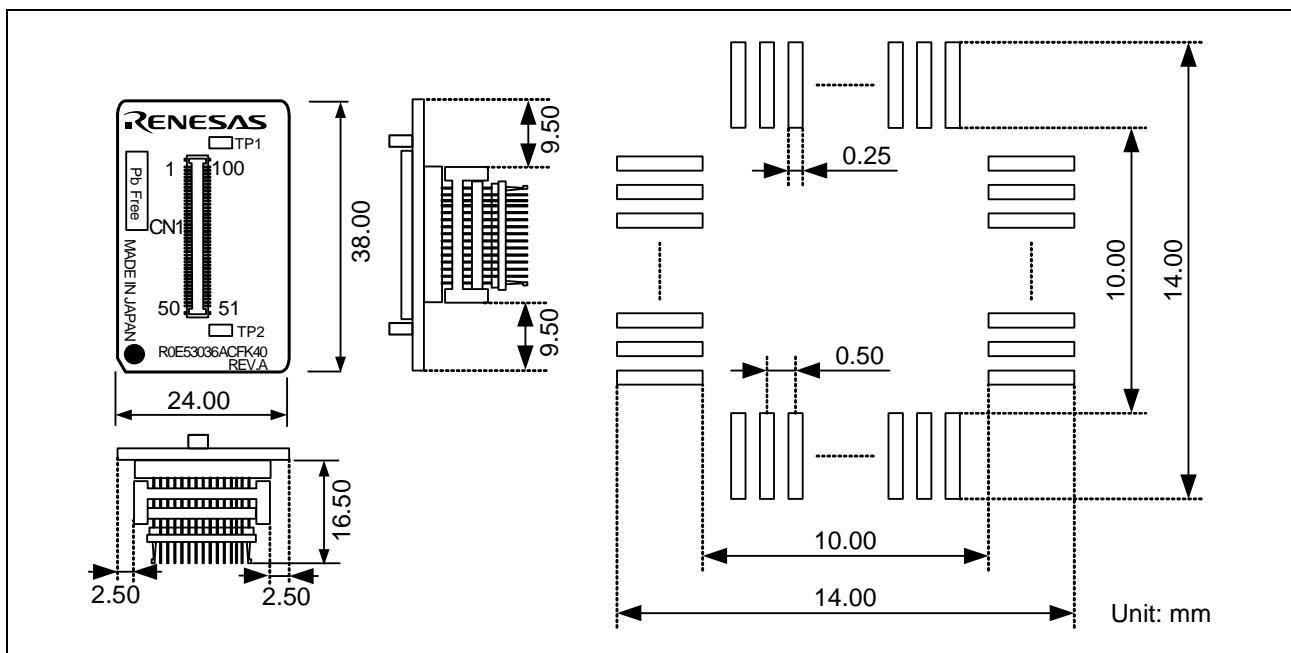| CN1 Pin No.	IC1	CN1 Pin No.	IC1
1	-	100	-
2	-	99	-
3	-	98	-
4	-	97	-
5	43	96	42
6	44	95	41
7	45	94	40
8	46	93	39
9	47	92	38
10	48	91	37
11	-	90	36
12	-	89	35
13	-	88	34
14	-	87	33
15	-	86	-
16	-	85	32
17	-	84	31
18	-	83	30
19	-	82	-
20	49	81	29
21	50	80	28
22	51	79	-
23	52	78	-
24	53	77	-
25	54	76	-
26	-	75	-
27	55	74	27
28	56	73	26
29	57	72	25
30	58	71	24
31	59	70	23
32	60	69	22
33	61	68	21
34	-	67	20
35	-	66	19
36	62	65	18
37	-	64	-
38	63	63	17
39	-	62	16
40	64	61	15
41	1	60	14
42	2	59	13
43	3	58	12
44	4	57	11
45	5	56	10
46	6	55	9
47	7	54	8
48	-	53	-
49	-	52	-
50	-	51	-

(-: No connection or signals in the emulator)