

To our customers,

Old Company Name in Catalogs and Other Documents

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

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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78K series

Tool Letter

In-Circuit Emulator IECUBE

QB-780714-ZZZ-EE

Description

The QB-780714-ZZZ-EE is a member of NEC's latest in-circuit emulator series, IECUBE. This IECUBE member is used to emulate the μ PD78F0714 8-bit microcontroller designed for 3-phase motor control applications.

In-Circuit Emulator

USB Host Interface

- Rev. 2.0 supported

Device Emulation

- Frequency and voltage:
Same as the target device
 - max. 20 MHz
 - min. 3.3 V to max. 5.5 V
- Memory capacity:
Same as the target device
 - up to 32 KB internal ROM
 - up to 1 KB internal RAM

Break Function

- Hardware - Execution: 8 points
Access: 8 x 8-bit or
2 x 16-bit points
- Software: 2000 points

Trace Functions

- Trace memory capacity of 128 K frames x 160 bit
- Trace events can be: Full, section, qualify, execution and access event

Program Execution Function in Real Time

Real Time RAM Monitor Function

- Whole RAM area

Time Measurement

Clock: CPU clock or internal high-frequency clock
Maximum measurement: 24 hours
Maximum resolution: 20 ns
Timers used for measurement: 8
Minimum, maximum, average and pass count

Attachments

Software:

- Complete IAR Embedded Workbench™ (size limited to 16 Kbyte hex code)

Hardware:

- Power supply
- USB interface cable
- USB Flash programmer (PG-FPL)

In-Circuit Emulator



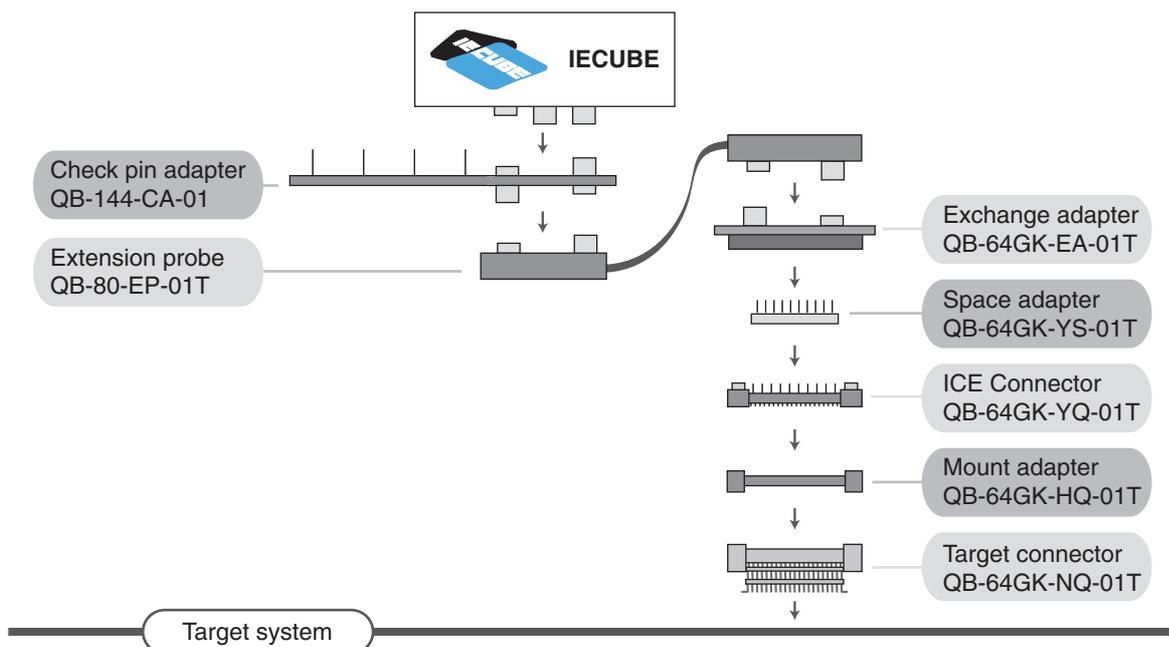
In-Circuit Emulator IECUBE

QB-780714-ZZZ-EE

Socket Tool Configuration

Extension Probe	QB-80-EP-01T	Mandatory
Exchange Adapter	QB-64GK-EA-01T	
ICE Connector	QB-64GK-YQ-01T	
Target Connector	QB-64GK-NQ-01T	
Mount Adapter	QB-64GK-HQ-01T	Optional
Check Pin Adapter	QB-144-CA-01	
Space Adapter	QB-64GK-YS-01T	

Order Number IECUBE In-Circuit Emulator: QB-780714-ZZZ-EE



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