

<p>Instruction for use</p> <p>— Small Interface Cable Adapter — <b>SICA38B40D-GG61</b></p>
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1. Overview

The SICA38B40D-GG61 is a cable adapter for converting from the 38-pin Mictor connector fitted on existing development tools (such as an Emulator or flash programmer, referred to in this manual as a "tool") to a small 0.5mm pitch connector.

Because it allows you to use a small 0.5mm pitch connector on your PWB (target board), use of the cable adapter reduces the circuit board area required to provide the connection to the development tool.

- Connector footprint area:  
1/4 of that required for an AMP 2-767004-2 Mictor connector
- Reduced wiring requirements for tool signals:  
Can be moved from circuit board edge to the vicinity of the microcomputer
- Surface mounted, allows rear of target socket to be used

2. Specifications

2.1 Conditions for Use

Table 2 - 1 SICA38B40D-GG61 Conditions for Use

No.	Parameter	In Use	When Not in Use
1	Temperature	10 to 35°C	-10 to 50°C
2	Humidity	35 to 80% RH (no condensation)	35 to 80% RH (no condensation)
3	Environment (gases)	No corrosive gases	No corrosive gases

2.2 Product Specifications

Table.2-2 Product Specifications

No.	Parameter	Specification
1	External dimensions	26mm x 60mm x 14mm
2	Tool connector	AMP Mictor connector 2-767004-2
3	Target header	40-pin 0.5mm pitch header made by Matsushita Electric Works Ltd.

4	Target socket	40-pin 0.5mm pitch socket made by Matsushita Electric Works Ltd.
5	Cable material	Polyimide double-sided flexible
6	Cable DC resistance	700m $\Omega$ or less (including both connector contact resistances)
7	Insert/remove life	500 times (when each connector is inserted and removed perpendicularly)
8	Rating current	0.5A/pin or less

## 2.3 Package Contents

- SICA38B40D-GG61 cable adapter	1 piece
- Target socket SICA2P40S	1 piece
- Precautions on the Use of SICA Products	1 copy

## 2.4 Soldering Conditions for Mounting Target Socket (SICA2P40S)

### 1) Recommended foot pattern on target board

Please refer to the following address.

[http://www.tetc.co.jp/pdf/sica\\_zumen/sica2p40s.pdf](http://www.tetc.co.jp/pdf/sica_zumen/sica2p40s.pdf)

### 2) Recommended metal mask conditions

Mask thickness: 150 $\mu$ m

Aperture-ratio: 60% (facing inwards from each end of the  
recommended foot pattern)

### 3) AXK5S40045 soldering conditions

#### a) Lead-free solder (Sn-3Ag-0.5Cu)

##### ① Reflow soldering

Heat transfer: 220 $^{\circ}$ C for 30 sec or less

Peak temperature: 245 $^{\circ}$ C

##### ② Hand soldering

350 $^{\circ}$ C, 3 sec or less

#### b) Eutectic solder

##### ① Reflow soldering

Heat transfer: 180 $^{\circ}$ C to 200 $^{\circ}$ C for 30 sec or less

Peak temperature: 245 $^{\circ}$ C

##### ② Hand soldering

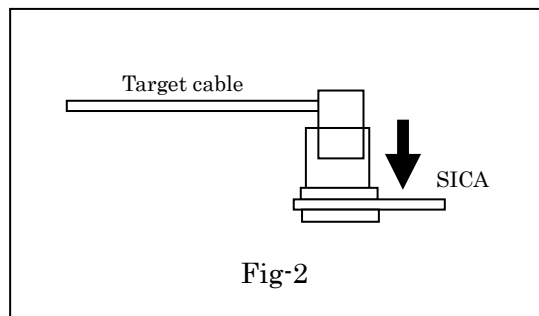
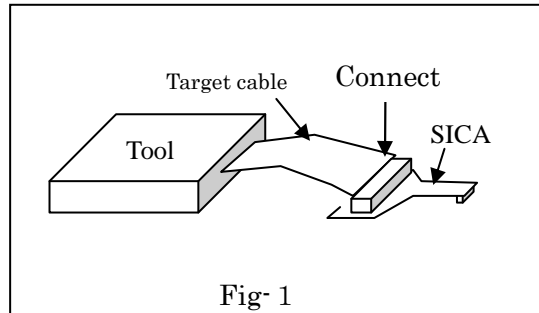
350 $^{\circ}$ C, 3 sec or less

### 3. How to Use the Cable Adapter

Ensure that the power supplies to both the tool and target boards are turned off, then follow the procedure described below to connect the cable adapter.

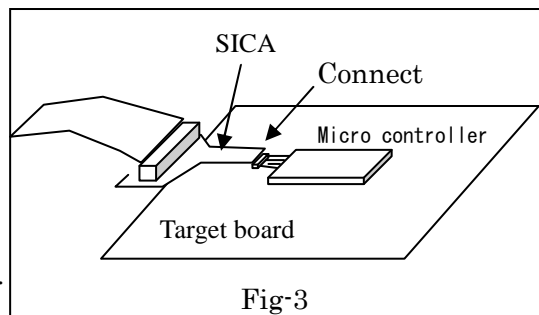
- 1) Connect the target cable from the tool to the SICA tool connector (see Fig-1).

The connector design makes it impossible to connect the cable the wrong way around.



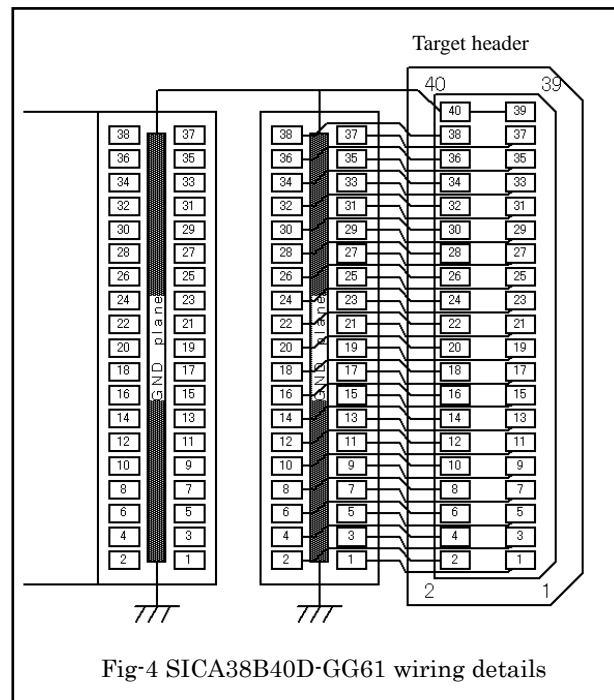
- 2) Connect the SICA38B40D-GG61 to the SICA2P40S socket on the target circuit board (see Figure 3). The connector design makes it impossible to connect the cable the wrong way around.

Check that the connector orientation is correct.



#### 4. Pin Layout and Wiring Details

The purpose of the cable adapter is to convert from the tool cable to the small connector without wiring changes. Pins #39 and #40 are connected directly to GND (see Figure 4).



#### 5. Cautions

- 1) This cable adapter is intended for use during system development and testing.  
It has not been certified under the electrical product safety laws or for electromagnetic interference.
- 2) This cable adapter is not designed or manufactured for use in equipment or systems on which human lives may depend. Do not use in critical applications such as transport equipment, medical devices, aeronautical or space equipment, or nuclear reactor control.
- 3) Refer to this user guide and to the manuals provided with the development tool you are using when designing your user system or connecting the user system to this cable adapter. In particular, check the pin numbers and ensure that they are connected correctly. Note that some development tools may use non-standard pin numbering. This adapter performs a one-to-one conversion between the two connector types and the pin numbering may not be the same as the numbering on the connector terminal from your development tool. When using this cable adapter, please ensure that you fully understand the requirements described in the manual for your development tool or elsewhere.
- 4) Take care not to bend the flexible cable excessively as this may cause the wires to break. When inserting or removing, always hold by the reinforcing plate on the rear of the connector.

The specifications, design, catalog, and manuals for this product are

subject to change without notice.

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