CUSTOMER NOTIFICATION

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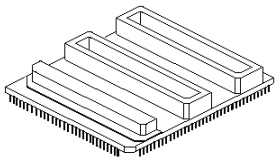
CP (K), O

# EV-703220GC120

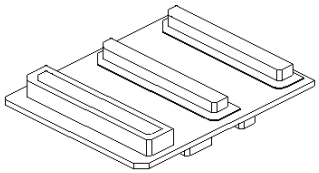
# User's Manual

## Contents of Packing Box

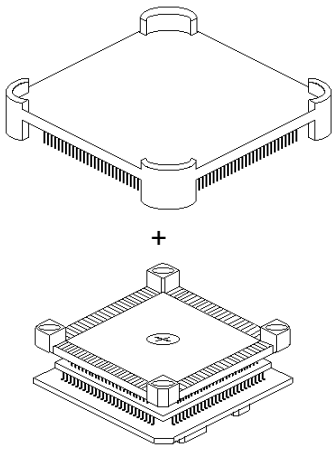
| | |
|---|---|
| 1. Packing list & user's manual (this document) | × 1 |
| 2. Target connector (GTC) | × 1 |
| 3. Conversion adapter (GEA) | × 1 |
| 4. IC mounting adapter (GMA) | × 1 |
| 5. Screwdriver | × 1 |
| 6. Screw | × 4 |



Target connector (GTC)



Conversion adapter (GEA)




IC mounting adapter (GMA)

## User's Manual

This product can be used to connect a development tool or the actual device by mounting the target connector (GTC) on the user system and connecting it to the conversion adapter (GEA) or IC mounting adapter (GMA), respectively.

How to Use EV-Socket

1. Mount the target connector (GTC) on the target board.
   (1) Apply cream solder to the foot pattern for mounting the IC on the target board.
   (2) The target connector (GTC) has a cylindrical projection in the center of the underside (Figure 1). Apply a two-component hardening type epoxy adhesive agent (a type that hardens in 15 to 30 minutes) sparingly to the underside of the projection to temporarily secure the connector at the specified location on the target board. Make sure that the position of pin 1 of the connector (where the corner is cut) matches the position of pin 1 on the target board.

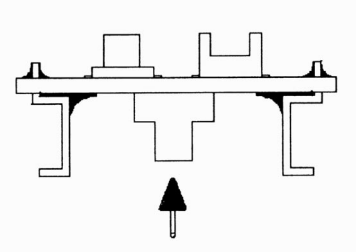


**Figure 1. Connector Projection Diagram**

   (3) Target connector (GTC) mounting conditions
      a) To mount connector by reflow: 245°C × 20 seconds max. (heating)
      b) To mount connector by manual soldering: 320°C × 5 seconds max. (per pin)
   (4) Note on flux splashing
      The flux splashing that takes place while the connector is being mounted often results in defective conduction. Be sure to cover the upper part of the connector with aluminum foil.
      **Do not clean the flux because the structure of the connector easily allows cleaner to enter.**

2. Connect the conversion adapter (GEA) or GMA to the target connector (GTC).
   (1) Insert GEA or GMA in GTC so that the position of pin 1 (where the corner is cut) on each board matches.
   (2) When the target connector (GTC) is inserted or removed, hold the connector with your fingers so that no excessive force is applied to the connector
   (3) Remove or insert the adapter in the correct direction (Figure 2).
   (4) Use a bamboo spit or similar object as a tool to remove the connector. Remove the connector in the correction direction as shown in Figure 2. If force is applied to the connector in the wrong direction, the connector will be damaged.
      Remove or insert the adapter working it gently in the direction of the arrow

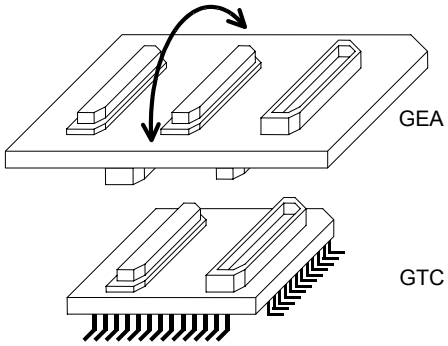



**Figure 2. How to Connect/Disconnect GEA and GTC**

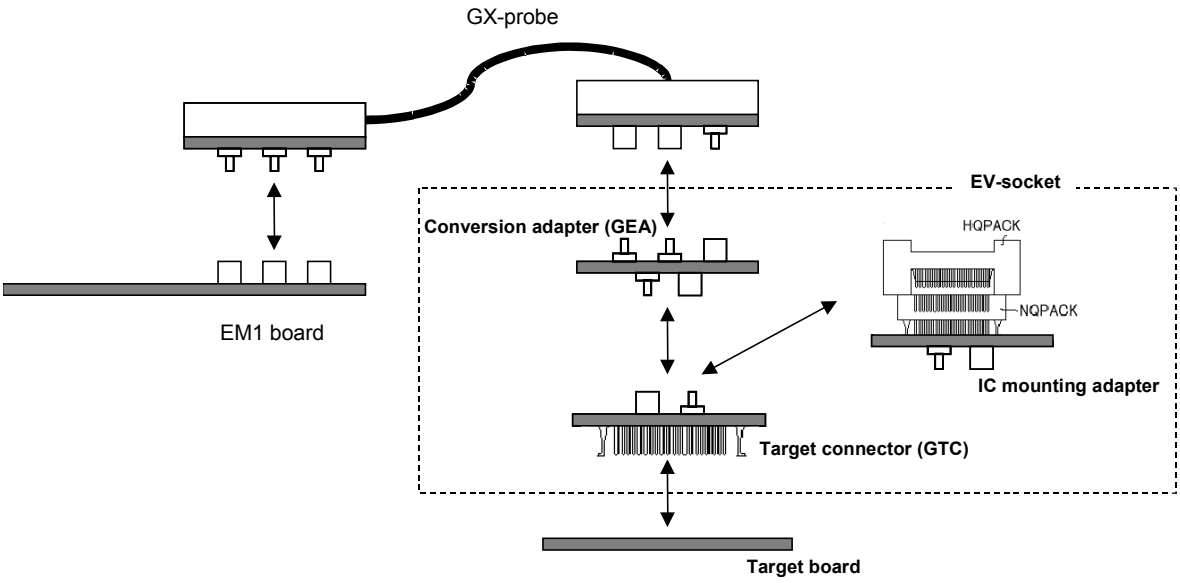
3. Connect GX-probe to the conversion adapter (GEA).

(1) ICE and Target are inscribed on both the ends and cover of the GX-probe.
Connect the ICE end of the connector to the ICE, and the Target end to the target board.

(2) Holding the Target end of the cover in (1) (the end of the cover with the protruding cable), connect the cable to the conversion adapter (GEA), while holding the adapter with your fingers. Make sure that pin 1 faces the correct direction.
When connecting the cable, the connector may be moved in the direction shown in Figure 2.
If the connector is connected in the wrong direction, it will be damaged.

(3) Connect the other side of the cable (ICE side, with three headers) to the three sockets on the EM1 board in the same manner as (2).

Connect the development tool and the actual device as illustrated below.



4. Mount the IC to NQPACK of the IC mounting adapter (GMA).

(1) Check that the resin (sealing agent) part of the IC has no burr.
Remove any burr with a knife or similar tool.

(2) Check that the IC leads have no burr and are not bent.
Check that the IC leads are arranged flatly. If they are not correctly arranged, correct them.

(3) If there is any foreign matter on the contactor pin of NQPACK when it is viewed from above, remove it with a brush.
After checking (1) to (3), mount the IC on NQPACK. Then mount HQPACK.

(4) Insert M2 × 6 mm screws (included with the EV-760047GC100) in the four holes on HQPACK. Tighten the screws diagonally opposing each other. Use a dedicated screwdriver or a torque driver. Tighten the screws at a torque of 0.55 kgf (0.054Nm) sequentially and evenly. If the screws are tightened too much, defective conduction may occur.

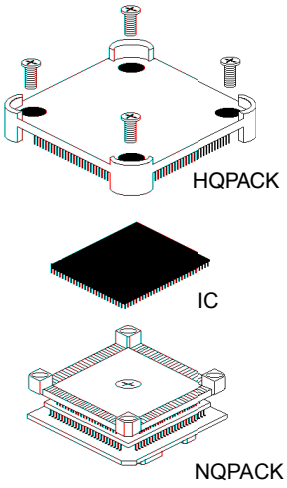



**Figure 3. Connection Diagram for IC Mounting**

(5) Depending on the operating environment, the unit may not be started smoothly after it has been left for a long time. If the screws are tightened further at this time, a defective conduction may occur. In this case, loosen the screws of HQPACK lightly, and then tighten them again.

(6) If the unit will not start after (5), check (1) to (3) again.

(7) If the screws of HQPACK are tightened too much, a crack may often on the mold part (plastic part) of HQPACK, or the mold may be warped, causing a defective conduction.

It is assumed that the IC mounting adapter is used for development or evaluation of a system.

## General Notes

(1) Causes of faulty contact of connector

a) If flux gets inside the target connector (GTC) when it is mounted
Thoroughly clean the flux with a solvent such as alcohol. Cleaning must be performed at least 5 to 6 times. If conduction is still not stable, repeat cleaning.

b) If waste, such as threads, gets inside the connector
If waste, such as threads, gets inside the connector, defective conduction occurs. Remove any waste with a clean brush.

(2) Note on connecting or disconnecting connector

a) Be sure to hold the lower (mating) connector or board with your fingers when connecting or disconnecting the connector.

b) Connect or disconnect the connector, moving the connector in the correct direction.
If the connector is moved at right angles, the socket will be damaged.

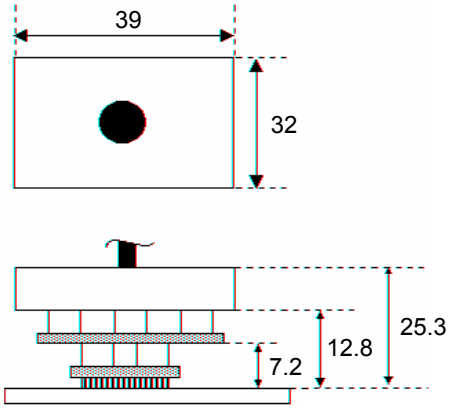
c) When disconnecting the connector, use a thin bamboo or wooded stick as a leverage to protect the socket from being damaged. Do not remove the connector all at once, but do so little by little, shifting the leverage from one place to another.
If only a metallic object such as a screwdriver is available as a leverage, wrap its tip in a soft cloth.

(3) Guaranteed temperature range

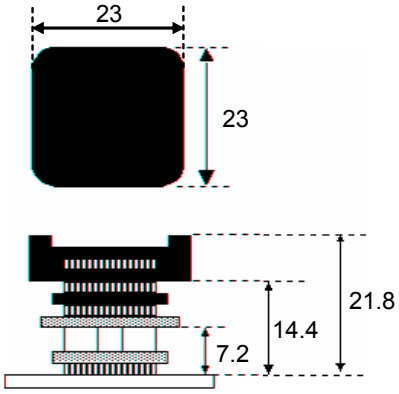
Storage temperature range: –25°C to 85°C (without condensation or freezing)
Operating temperature range: –25°C to 85°C (without condensation and or freezing)

- **Dimensions**

Dimensions when GX-probe is connected




Dimensions when IC is mounted

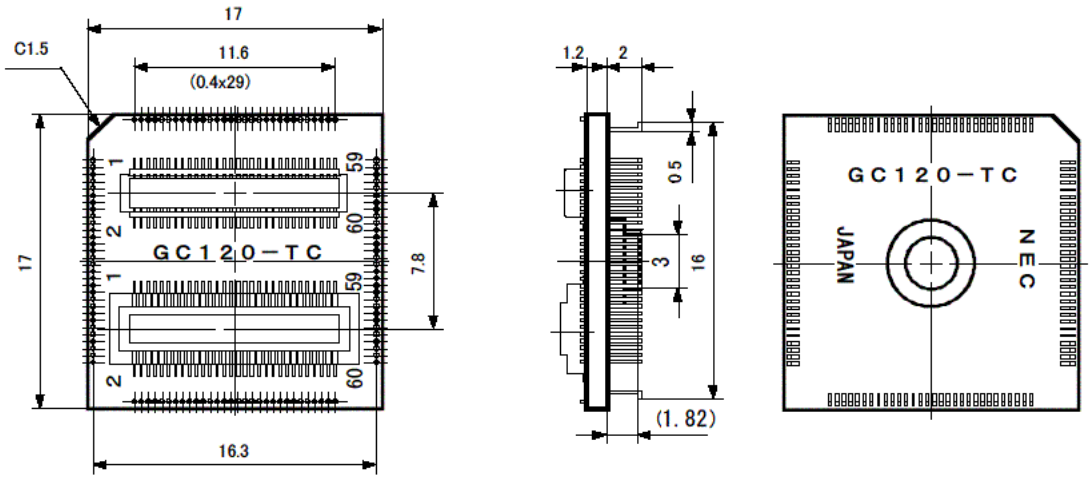



Unit: mm

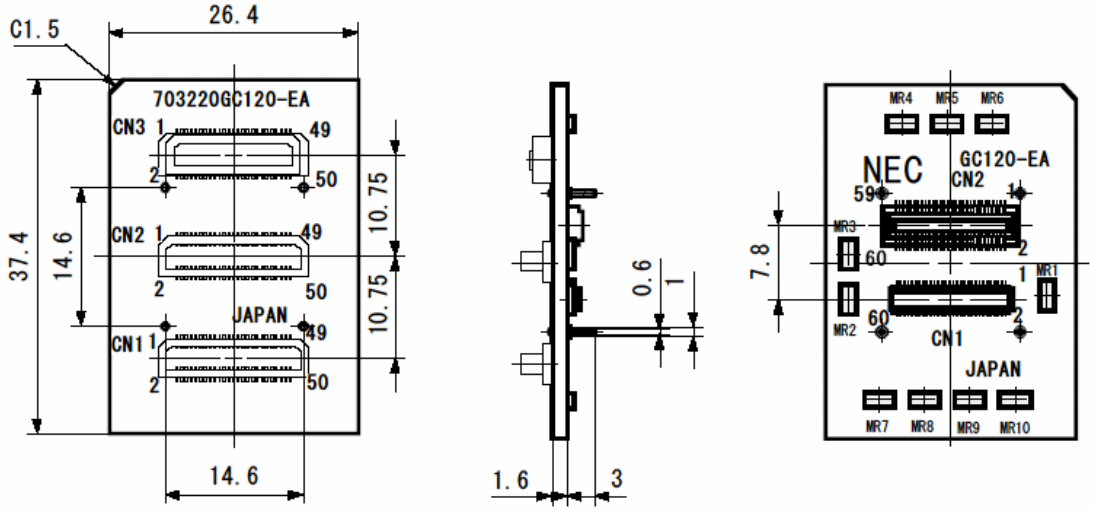
# Package Drawings

Unit: mm

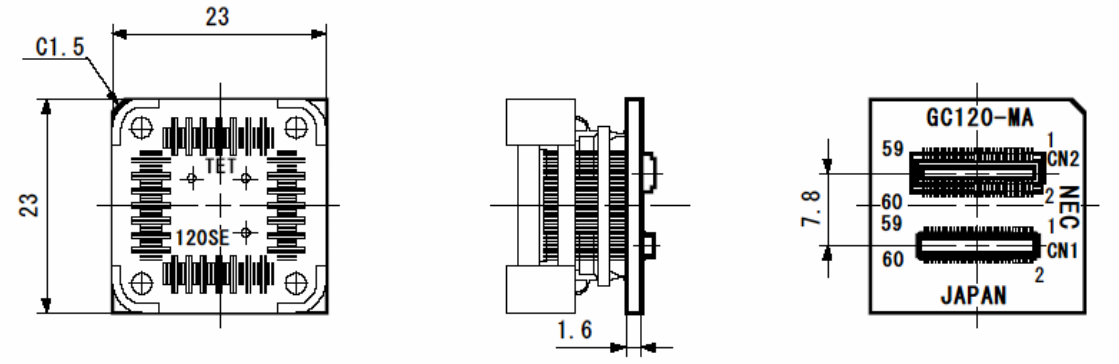
## Target Connector for 120GC (GTC)




## Emulation Adapter for 120GC (GEA)




## IC Mounting Adapter for 120GC (GMA)



# Foot Pattern

Unit: mm