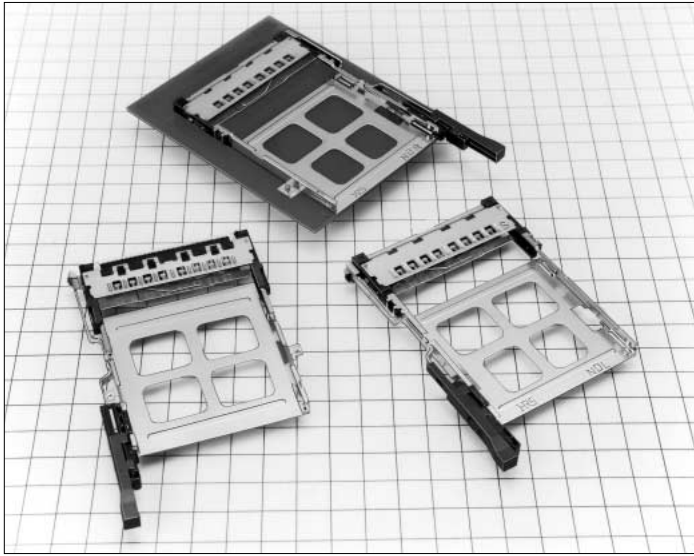


Single Slot SMT Connectors For Card-Bus Based PC Cards

IC11S Series

PC Card Standard Compliant



■ Features

1. Meets requirements of the PC card standard

Grounding reliability, required for high-speed signal transmission, is guaranteed with a ground plate and 8 grounding contacts. Type I, II and III PC cards can be used.

2. Board space saving

Small size, efficient use of materials reduced board mounting area allowing reduction in conductive pattern-prohibited areas.

3. Low profile

Reduced overall height allows it to be incorporated in very small devices.

4. Efficient and reliable ejection mechanism

Our unique ejection mechanism design allows the PC card to be reliably ejected at the distance sufficient for easy hand-removal.

5. Wide variety of options

- Mounting: Standard - top of the PCB, Reverse – under the PCB
- Ejection buttons: Rigid, Folding, Pop-up. All can be left or right side.
- Standoff version: 2.2mm above the board surface, allowing space for other components to be mounted under the connector.

6. Light weight

Pop-up button version 2 connector is 12% lighter than comparable connector on version 1.

■ Applications

Notebook PCs, desktop PCs, audio/video equipment and other devices utilizing PC cards.

Low profile



Wide variety of options

(1) Board Mounting

- ① Standard type
- ② Reverse type

(2) Eject button type

- ① Rigid
- ② Folding
- ③ Pop-up (Version 1, 2)

(3) Position of eject button

- ① Right
- ② Left

(4) Standoffs

- ① None
- ② 2.2mm



Standard type



Reverse type

■Product Specifications

| | | | | | | |
|---------|----------------|---------|-----------------------|---|---------------------|------------------------|
| Ratings | Current rating | 0.5A | Operating temperature | -55°C to +85°C(Note.1) | Storage temperature | -40°C to +70°C(Note.2) |
| | Voltage rating | 125V AC | Operating humidity | Relative humidity 95% max. (No condensation) | Storage humidity | 40% to 70%(Note.2) |

| Item | Specification | Conditions |
|---|---|--|
| 1. Insulation resistance | 1000MΩ min. | 500V DC |
| 2. Withstanding voltage | No flashover or insulation breakdown. | 500V AC |
| 3. Contact resistance | 60mΩ max. (initial value) | 1mA |
| 4. Vibration | No electrical discontinuity of 100ns or more | Frequency: 10 to 2000 Hz, full amplitude of 1.52 mm or acceleration of 147 m/s ² (peak), 4 hours in each of the 3 directions. |
| 5. Humidity (Steady state) | Insulation resistance: 100MΩ min. | 96 hours at temperature of 40°C and humidity of 90% to 95% |
| 6. Temperature cycle | Insulation resistance: 100MΩ min. | Temperature: -55°C → +5°C to +35°C → +85°C → +5°C to +35°C Duration: 30 → 5 max. → 30 → 5 max. (Minutes) 5 cycles |
| 7. Durability (Insertion/withdrawal) | Variations from initial contact resistance: 20mΩ max. | 10000 cycles at 400 to 600 cycles per hour |
| 8. Resistance to Soldering heat | No deformation of components affecting performance. | Reflow: At the recommended temperature profile |
| | | Manual soldering: 300°C for 3 seconds |

Note 1: Includes temperature rise caused by current flow.

Note 2: The term "storage" refers to products stored for long period of time prior to mounting and use. Operating Temperature Range and Humidity range covers non- conducting condition of installed connectors in storage, shipment or during transportation.

■Materials / Finish

●SMT unit

| Parts | | Material | Finish | Remarks |
|------------------------|------------------------|-----------------|--|---------|
| Insulator | | PPS | Color : Black | UL94V-0 |
| Terminal | Card connected section | Brass | Contact area: Gold plated Termination area: Tin-lead plated | — |
| | Ground plate | Phosphor bronze | Contact area: Gold plated Termination area: Tin-lead plated | — |
| Eject metal components | | Stainless steel | — | — |

●Guide unit

| Description | | Material | Finish | Remarks | |
|--------------|------------------|------------------|-----------------|--------------------------|-------------------------|
| Guide plate | | Stainless steel | — | — | |
| Pushrod | | Stainless steel | — | — | |
| Eject button | Rigid button | Body | PBT | Color : Black UL94V-0 | |
| | | Body | PBT | Color: Black UL94V-0 | |
| | Foldering button | Spring | Stainless steel | — | — |
| | | Spring Pin | Stainless steel | — | — |
| | | Pop-up Version 1 | Body | PBT | Color: Black UL94V-0 |
| | Frame metal | | Stainless steel | — | — |
| | Spring | | Steel | — | — |
| Pin | Brass | | Nickel plated | — | |
| Nut (Note) | | Steel | — | M2x0.4 | |
| Eject button | Pop-up Version 2 | Body | PBT | Color: Black UL94V-0 | |
| | | Spring | Steel | — | |
| | | Cam | Zinc alloy | — | |

Note: Rectangular nut is integrated in the guide unit (Pop-up button, Version 2 connectors).

■ Ordering Information

● SMT Unit

IC11S A - 68 PLR - 1.27SF - EJ R (71)
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

| | |
|---|--|
| ① Series name : IC11S ② Standoff type Blank : none A : 2.2mm ③ Number of contacts : 68 (Note) ④ Board Mounting type PL : standard type PLR : reverse type | ⑤ 1.27SF : 1.27mm pitch SMT connector (Note) ⑥ With ejector ⑦ Eject button positions R : right L : left ⑧ Product specification code Blank : Tin-lead plated (71) : Lead free plated Note: 68 and 1.27 are not used in the part number for the lead-free type. |
|---|--|

● Guide Unit

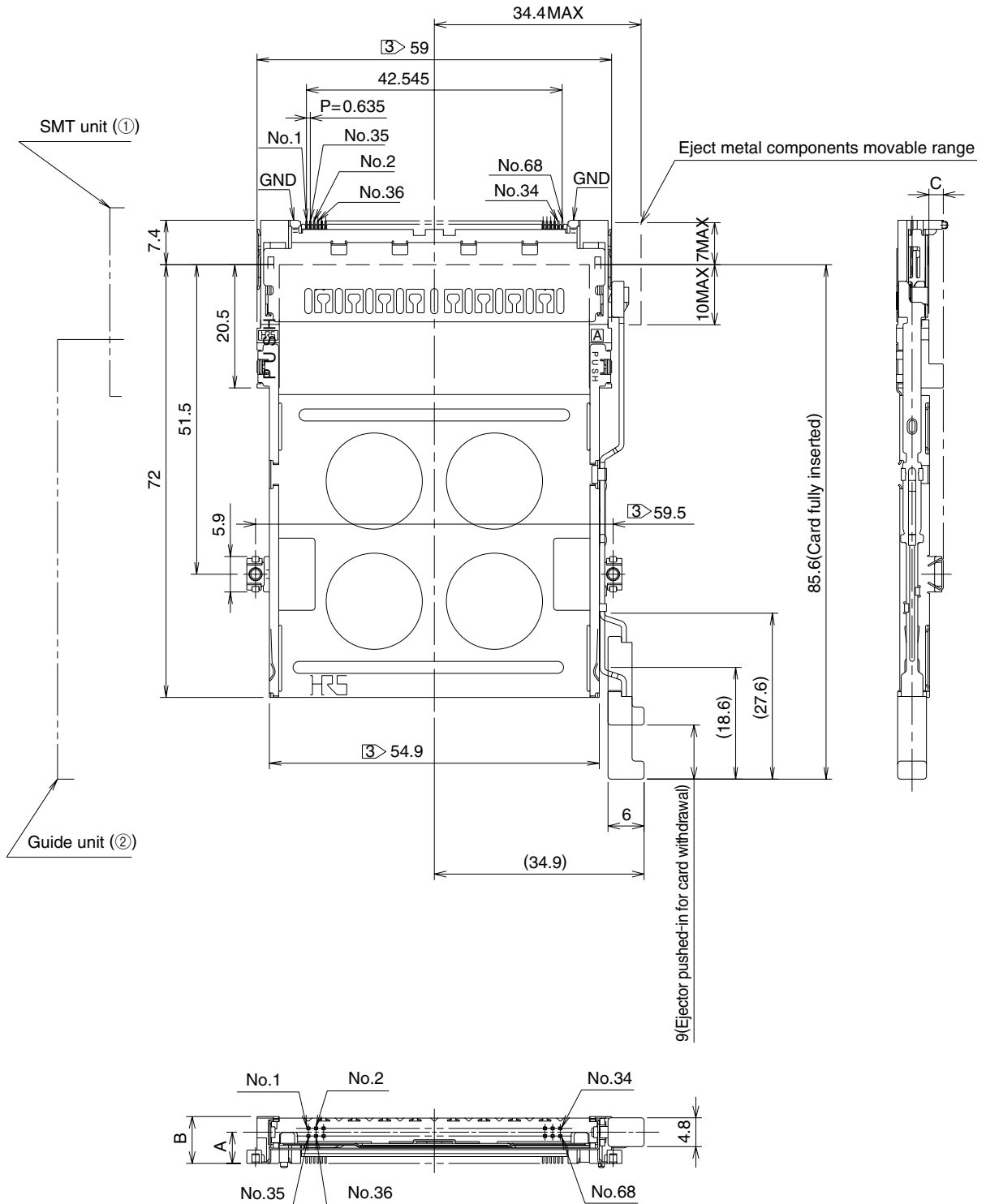
IC11S A - BUR - PNEJ R
 ⑨ ⑩ ⑪ ⑫ ⑬

| | |
|--|--|
| ⑨ Series name : IC11S ⑩ Standoff type Blank: none A : 2.2mm ⑪ Board Mounting type BD : standard type BUR : reverse type | ⑫ Eject button type EJ : Rigid FEJ : Folding PEJ : Pop-up, Version 1 PNEJ : Pop-up, Version 2 ⑬ Eject button positions R : right L : left |
|--|--|

Note: In this Series the SMT unit and the Guide unit must be used in combinations shown below.
 Other combinations cannot be used.

- Series name (① ⇔ ⑨)
- Standoff type (② ⇔ ⑩)
- Board Mounting type (④ ⇔ ⑪)
- Eject button positions (⑦ ⇔ ⑬)

Standard Right rigid button



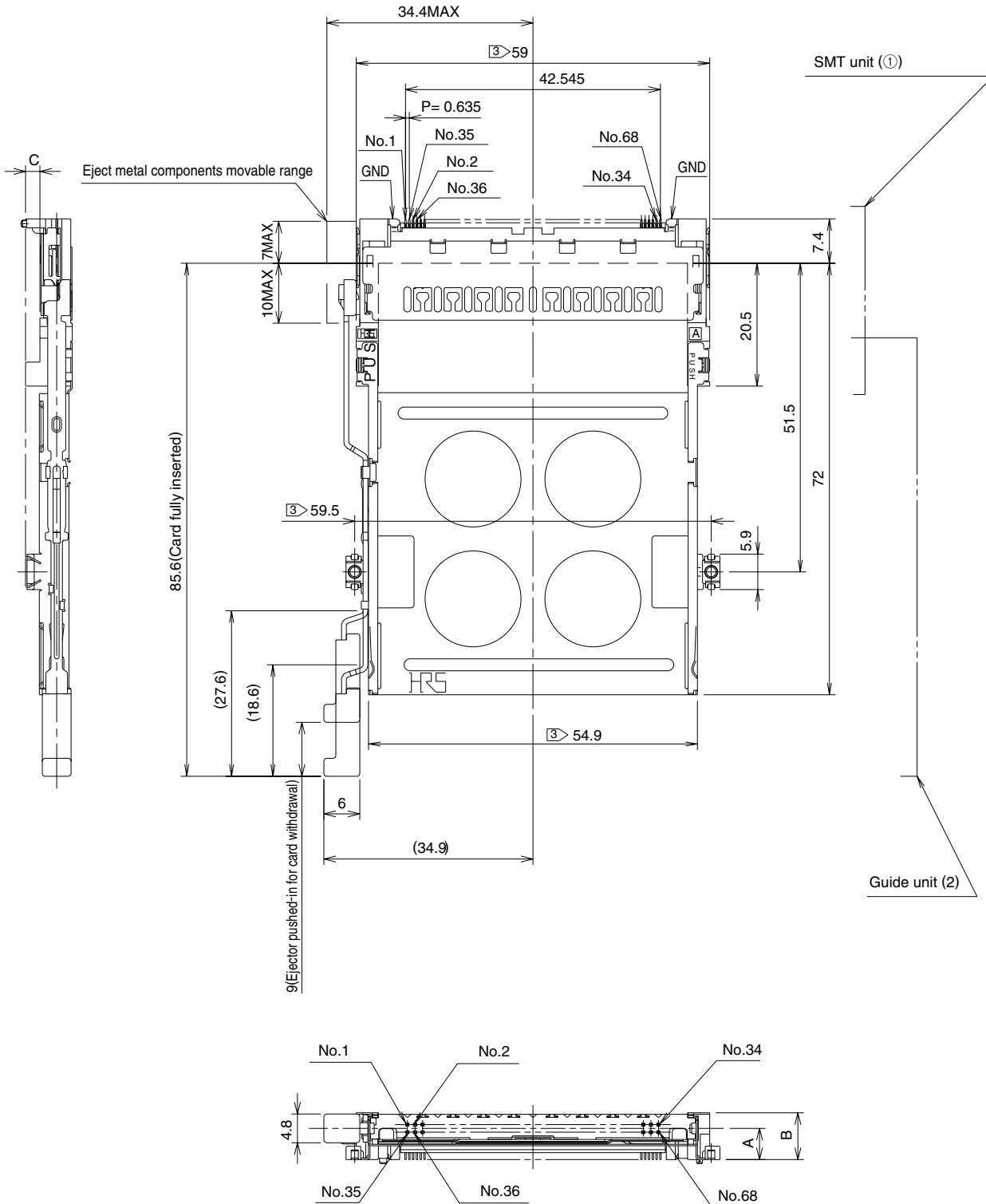
| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|------------------------|------------|---------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PL-1.27SF-EJR | 640-1007-3 | IC11S-BD-EJR | 640-1071-2 | 3 | 5.6 | 0.1 | 12.7 |
| 2.2mm | IC11SA-68PL-1.27SF-EJR | 640-1009-9 | IC11SA-BD-EJR | 640-1073-8 | 5.2 | 7.8 | 2.3 | 13.1 |

Note 1: All illustrations show the SMT unit (①) and Guide unit (②) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

③ : Indicated dimensions are symmetrical to the center of the card insertion slot.

Standard Left rigid button



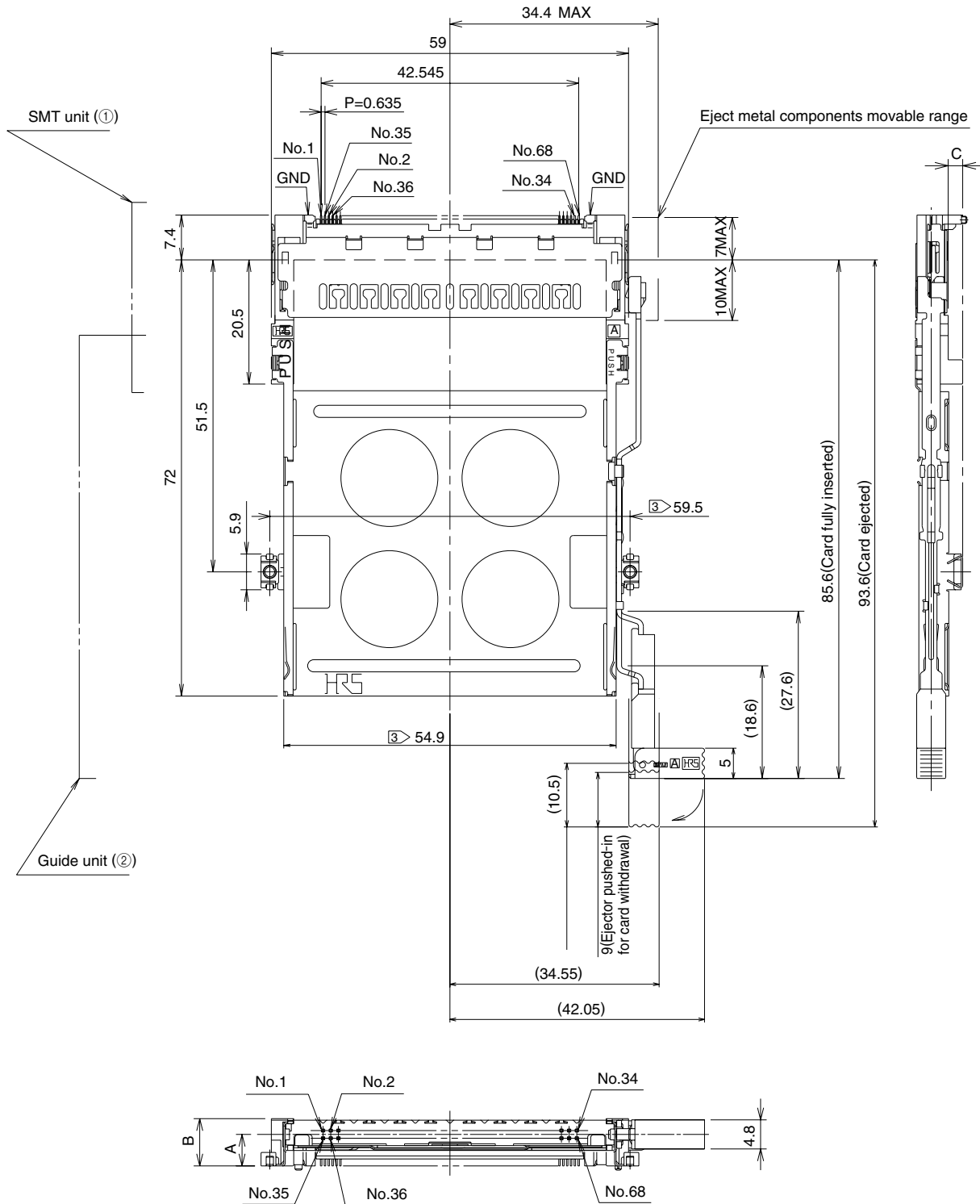
| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|------------------------|------------|---------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PL-1.27SF-EJL | 640-1008-6 | IC11S-BD-EJL | 640-1072-5 | 3 | 5.6 | 0.1 | 12.7 |
| 2.2mm | IC11SA-68PL-1.27SF-EJL | 640-1010-8 | IC11SA-BD-EJL | 640-1074-0 | 5.2 | 7.8 | 2.3 | 13.1 |

Note 1: All illustrations show the SMT unit (①) and Guide unit (②) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

③ : Indicated dimensions are symmetrical to the center of the card insertion slot.

Standard Right folding button



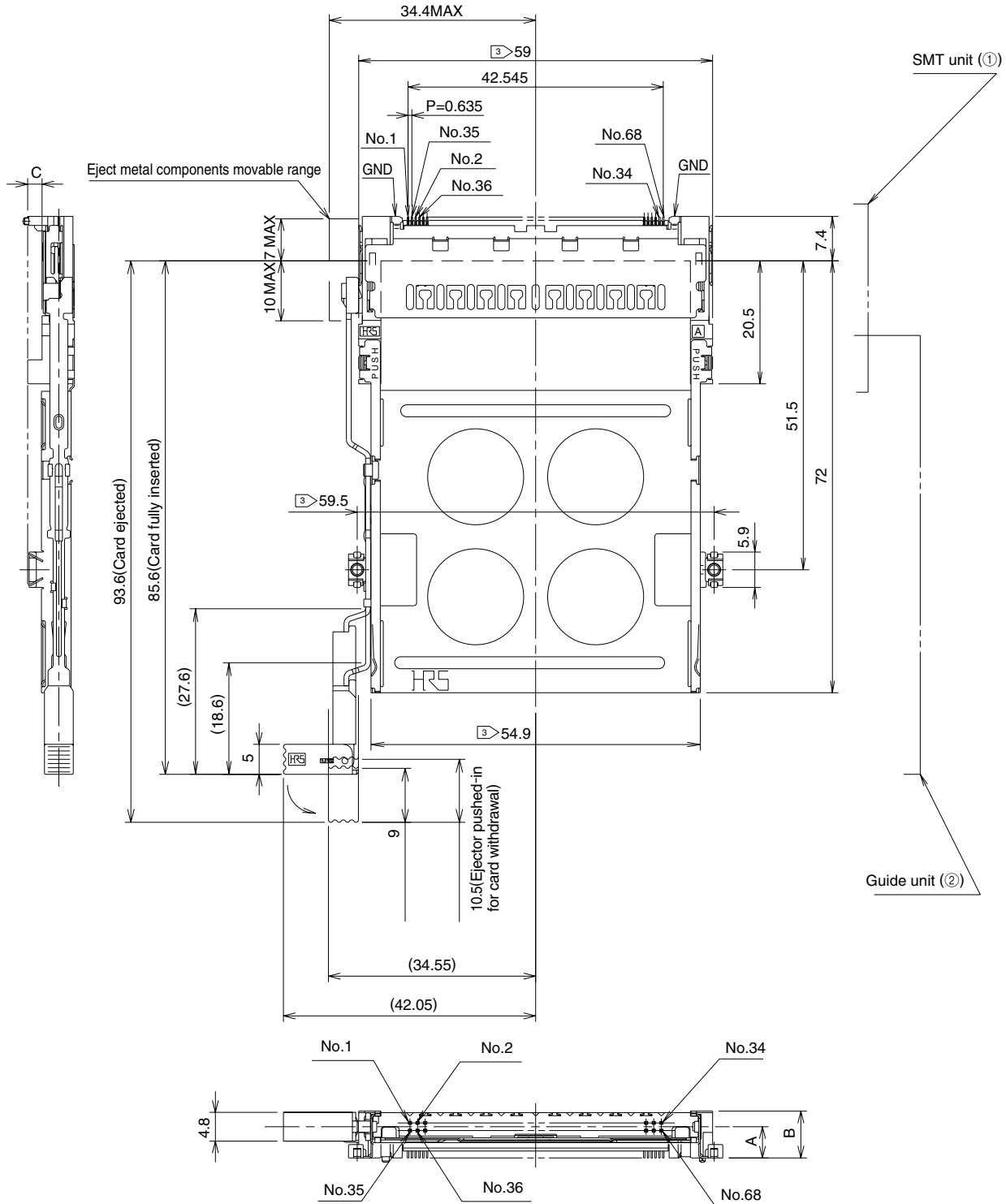
| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|------------------------|------------|----------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PL-1.27SF-EJR | 640-1007-3 | IC11S-BD-FEJR | 640-1075-3 | 3 | 5.6 | 0.1 | 13.1 |
| 2.2mm | IC11SA-68PL-1.27SF-EJR | 640-1009-9 | IC11SA-BD-FEJR | 640-1077-9 | 5.2 | 7.8 | 2.3 | 13.5 |

Note 1: All illustrations show the SMT unit (①) and Guide unit (②) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

③ : Indicated dimensions are symmetrical to the center of the card insertion slot.

Standard Left folding button



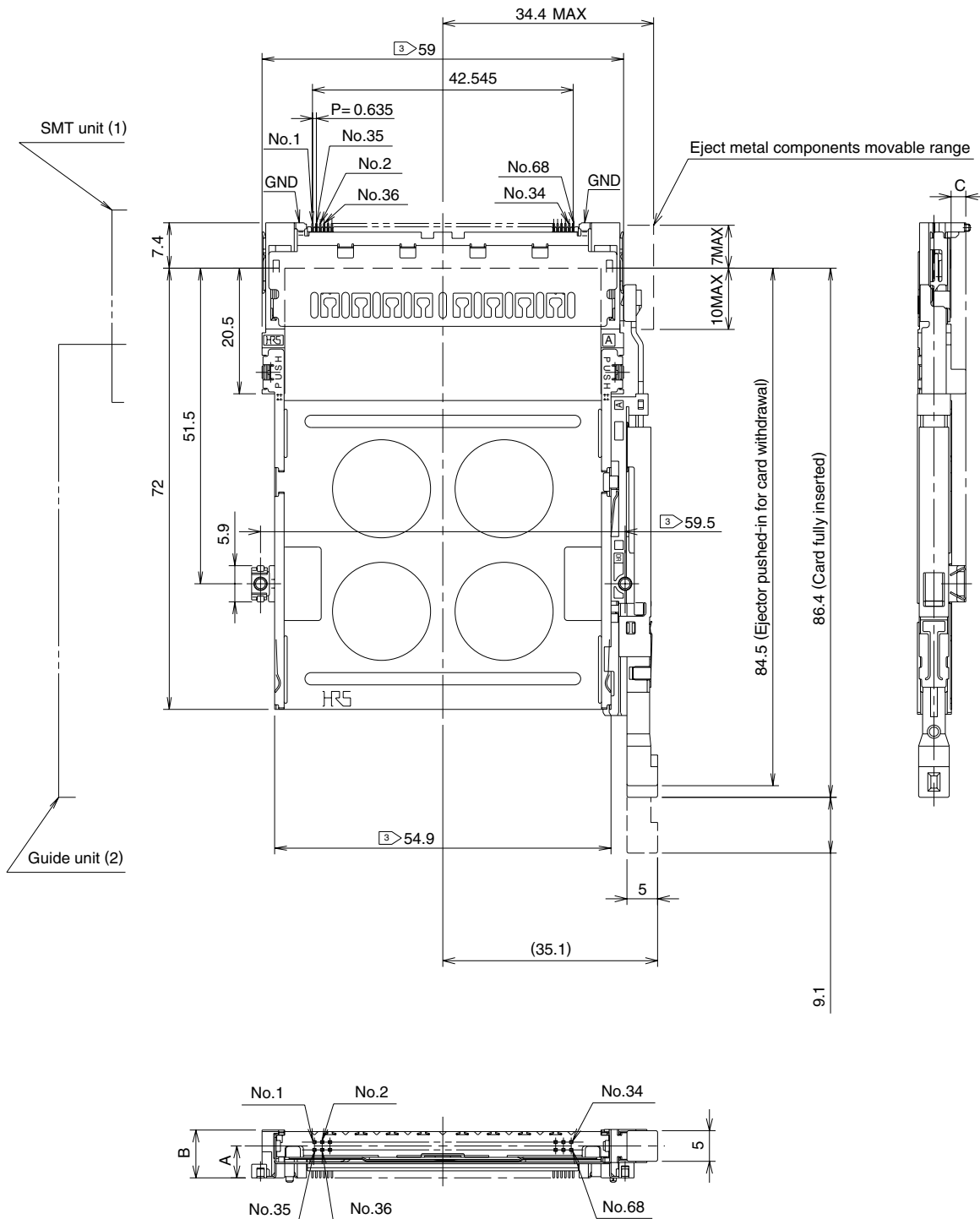
| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|------------------------|------------|----------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PL-1.27SF-EJL | 640-1008-6 | IC11S-BD-FEJL | 640-1076-6 | 3 | 5.6 | 0.1 | 13.1 |
| 2.2mm | IC11SA-68PL-1.27SF-EJL | 640-1010-8 | IC11SA-BD-FEJL | 640-1078-1 | 5.2 | 7.8 | 2.3 | 13.5 |

Note 1: All illustrations show the SMT unit (①) and Guide unit (②) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

③ : Indicated dimensions are symmetrical to the center of the card insertion slot.

Standard Right Pop-up button (Version 1)



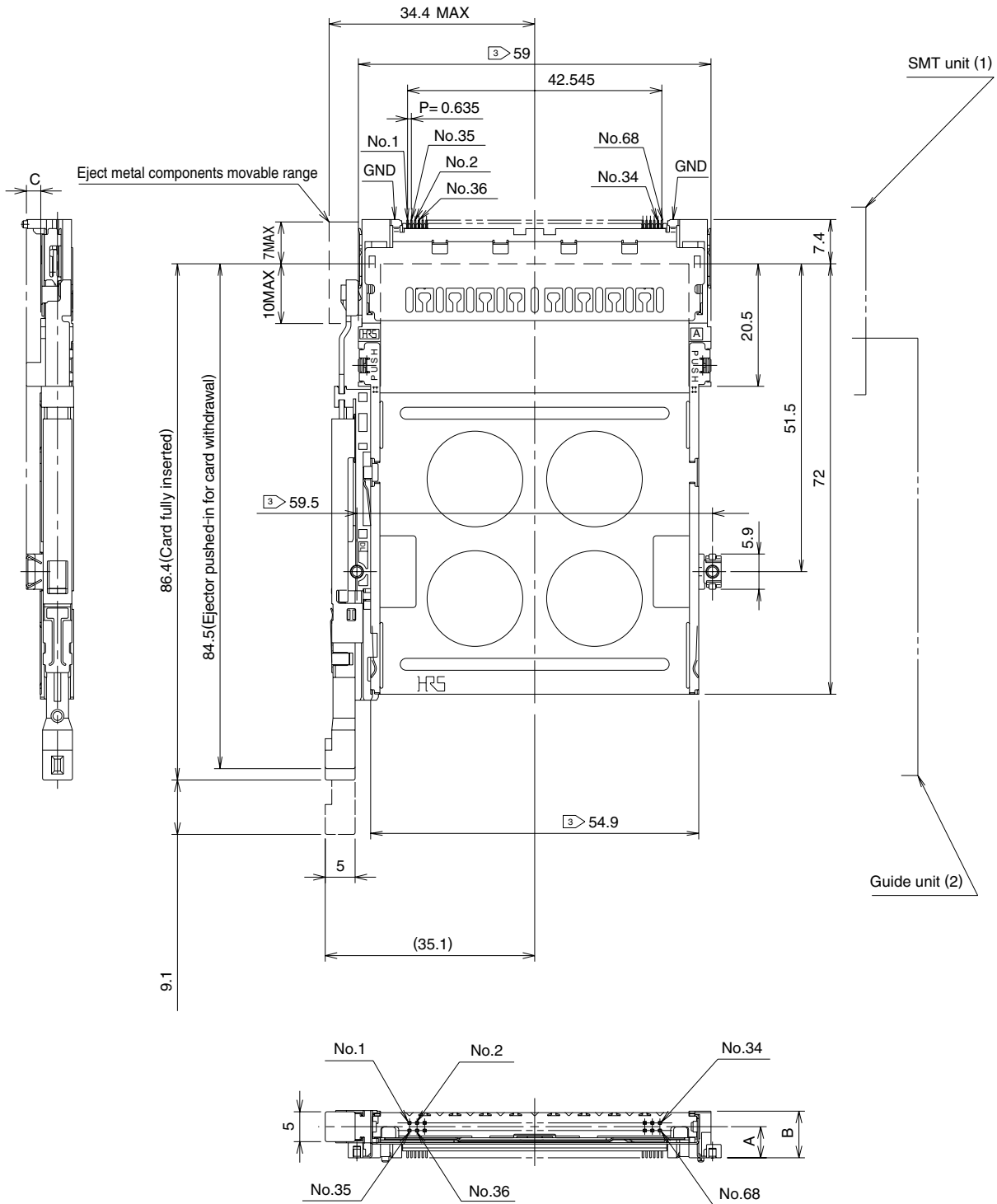
| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|------------------------|------------|----------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PL-1.27SF-EJR | 640-1007-3 | IC11S-BD-PEJR | 640-1081-6 | 3 | 5.7 | 0.1 | 14.7 |
| 2.2mm | IC11SA-68PL-1.27SF-EJR | 640-1009-9 | IC11SA-BD-PEJR | 640-1083-1 | 5.2 | 7.9 | 2.3 | 15.1 |

Note 1: All illustrations show the SMT unit (①) and Guide unit (②) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

③ : Indicated dimensions are symmetrical to the center of the card insertion slot.

Standard Left Pop-up button (Version 1)



| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|------------------------|------------|----------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PL-1.27SF-EJL | 640-1008-6 | IC11S-BD-PEJL | 640-1082-9 | 3 | 5.7 | 0.1 | 14.7 |
| 2.2mm | IC11SA-68PL-1.27SF-EJL | 640-1010-8 | IC11SA-BD-PEJL | 640-1084-4 | 5.2 | 7.9 | 2.3 | 15.1 |

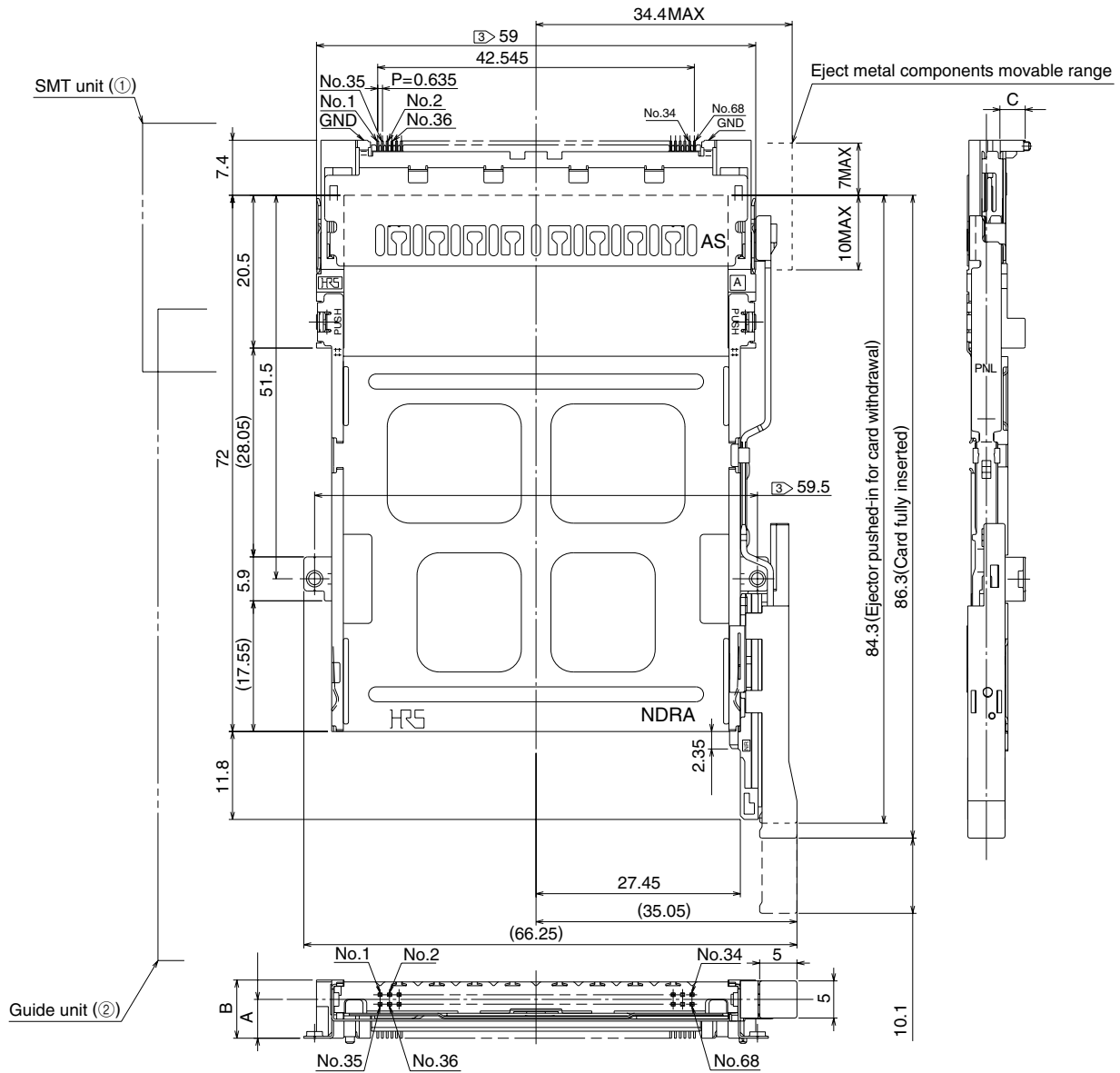
Note 1: All illustrations show the SMT unit (①) and Guide unit (②) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

③ : Indicated dimensions are symmetrical to the center of the card insertion slot.

■ Standard

Right Pop-up button (Version 2)



| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|------------------------|------------|-----------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PL-1.27SF-EJR | 640-1007-3 | IC11S-BD-PNEJR | 640-1251-4 | 3 | 5.6 | 0.1 | 13.1 |
| 2.2mm | IC11SA-68PL-1.27SF-EJR | 640-1009-9 | IC11SA-BD-PNEJR | 640-1253-0 | 5.2 | 7.8 | 2.3 | 13.6 |

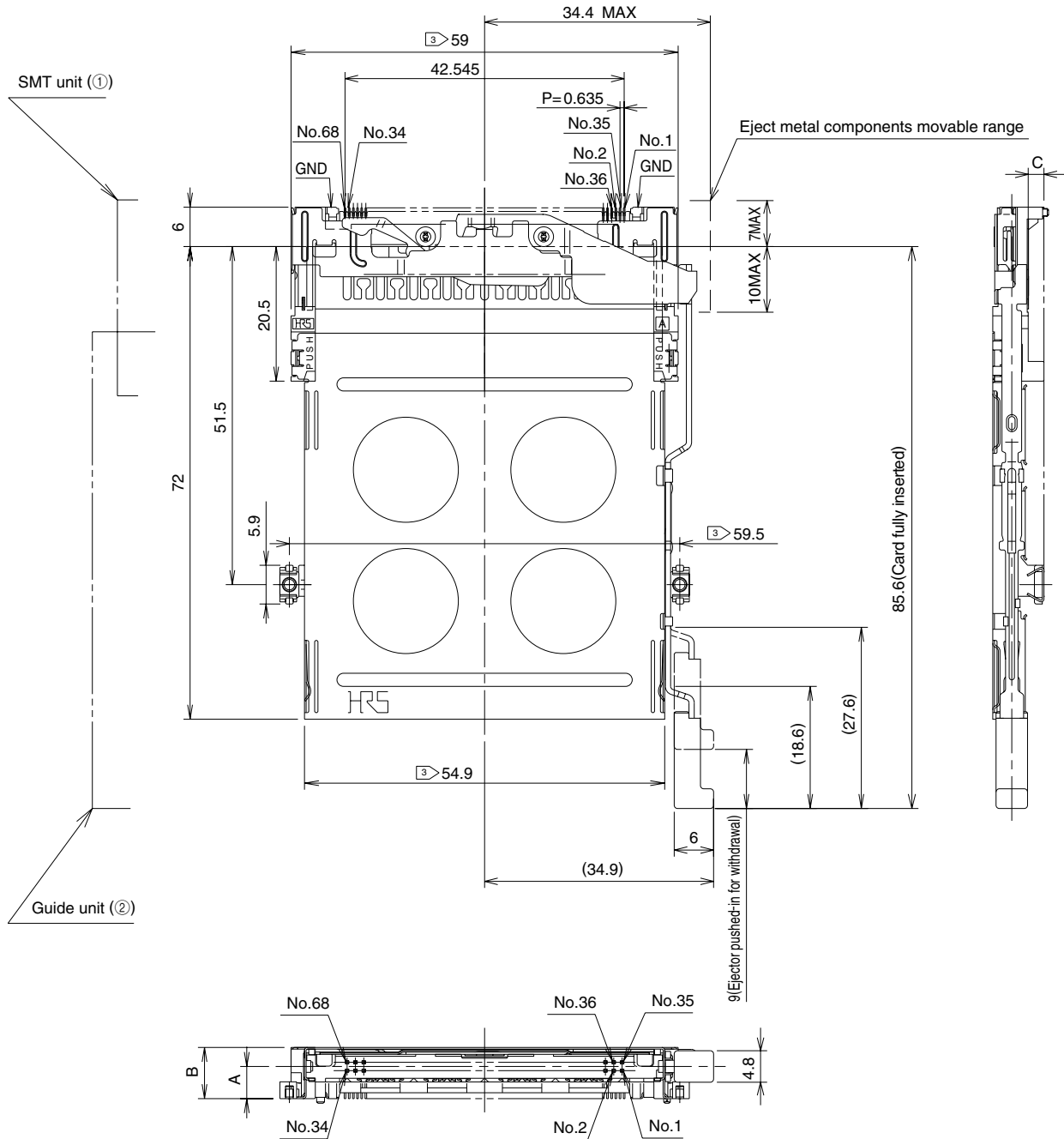
Note 1: All illustrations show the SMT unit (①) and Guide unit (②) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

③ > : Indicated dimensions are symmetrical to the center of the card insertion slot.

Reverse

Right rigid button



| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|-------------------------|------------|----------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PLR-1.27SF-EJR | 640-1003-2 | IC11S-BUR-EJR | 640-1055-6 | 2.7 | 5.6 | 0.1 | 13.1 |
| 2.2mm | IC11SA-68PLR-1.27SF-EJR | 640-1005-8 | IC11SA-BUR-EJR | 640-1057-1 | 4.9 | 7.8 | 2.3 | 13.6 |

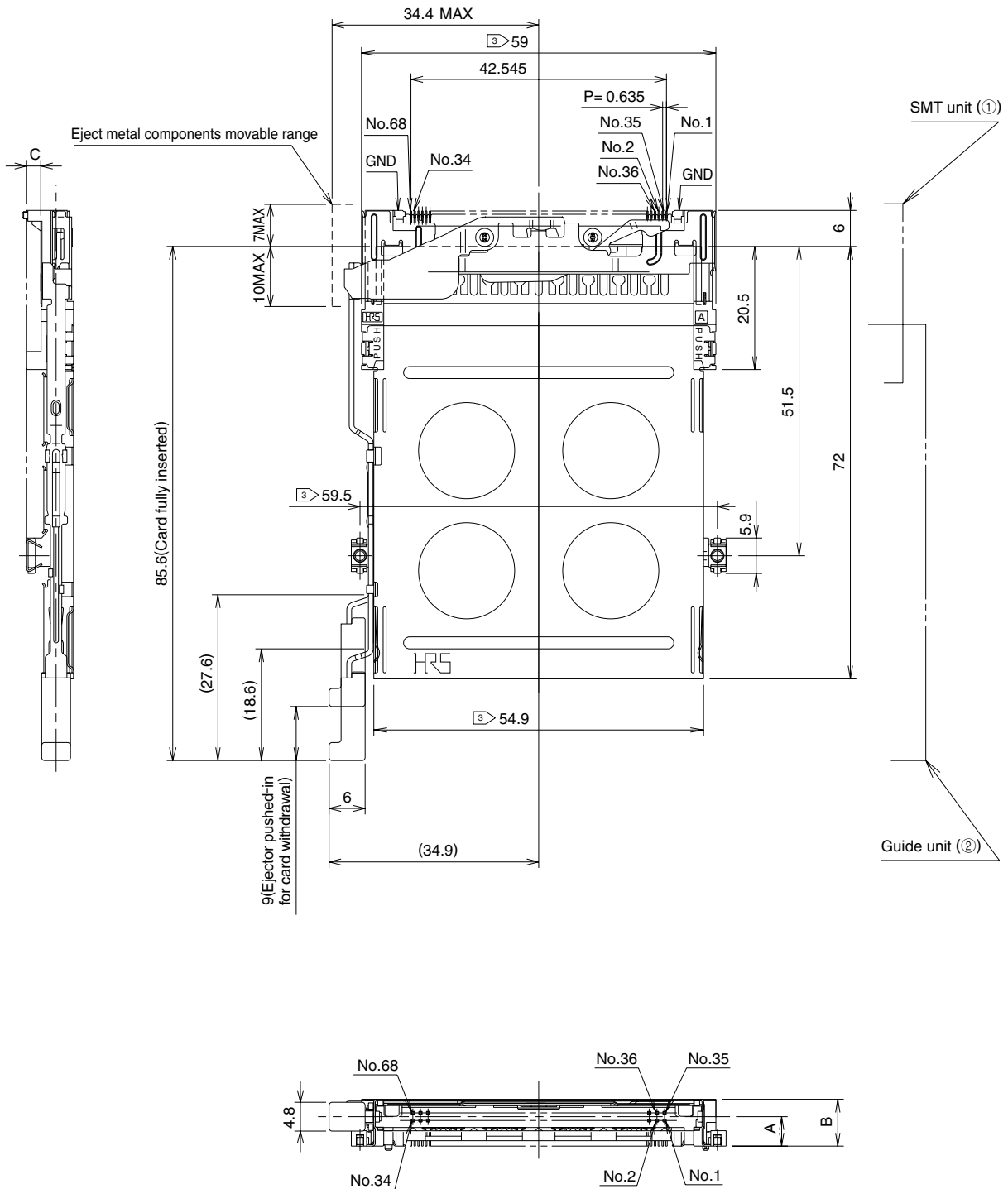
Note 1: All illustrations show the SMT unit (①) and Guide unit (②) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

③ : Indicated dimensions are symmetrical to the center of the card insertion slot.

Reverse

Left rigid button



| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|-------------------------|------------|----------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PLR-1.27SF-EJL | 640-1004-5 | IC11S-BUR-EJL | 640-1056-9 | 2.7 | 5.6 | 0.1 | 13.1 |
| 2.2mm | IC11SA-68PLR-1.27SF-EJL | 640-1006-0 | IC11SA-BUR-EJL | 640-1058-4 | 4.9 | 7.8 | 2.3 | 13.6 |

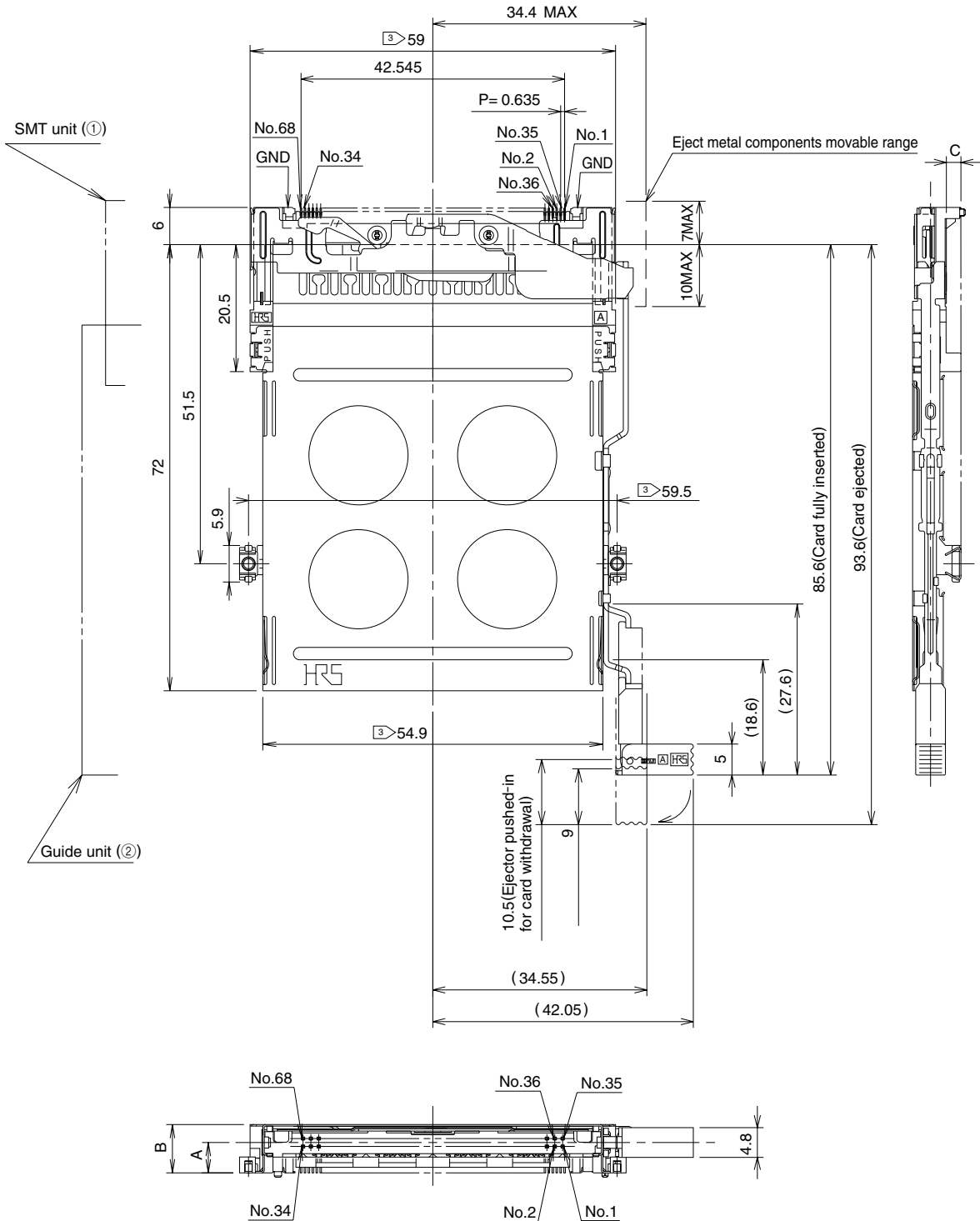
Note 1: All illustrations show the SMT unit (①) and Guide unit (②) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

③ : Indicated dimensions are symmetrical to the center of the card insertion slot.

Reverse

Right folding button



| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|-------------------------|------------|-----------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PLR-1.27SF-EJR | 640-1003-2 | IC11S-BUR-FEJR | 640-1059-7 | 2.7 | 5.6 | 0.1 | 13.5 |
| 2.2mm | IC11SA-68PLR-1.27SF-EJR | 640-1005-8 | IC11SA-BUR-FEJR | 640-1061-9 | 4.9 | 7.8 | 2.3 | 14 |

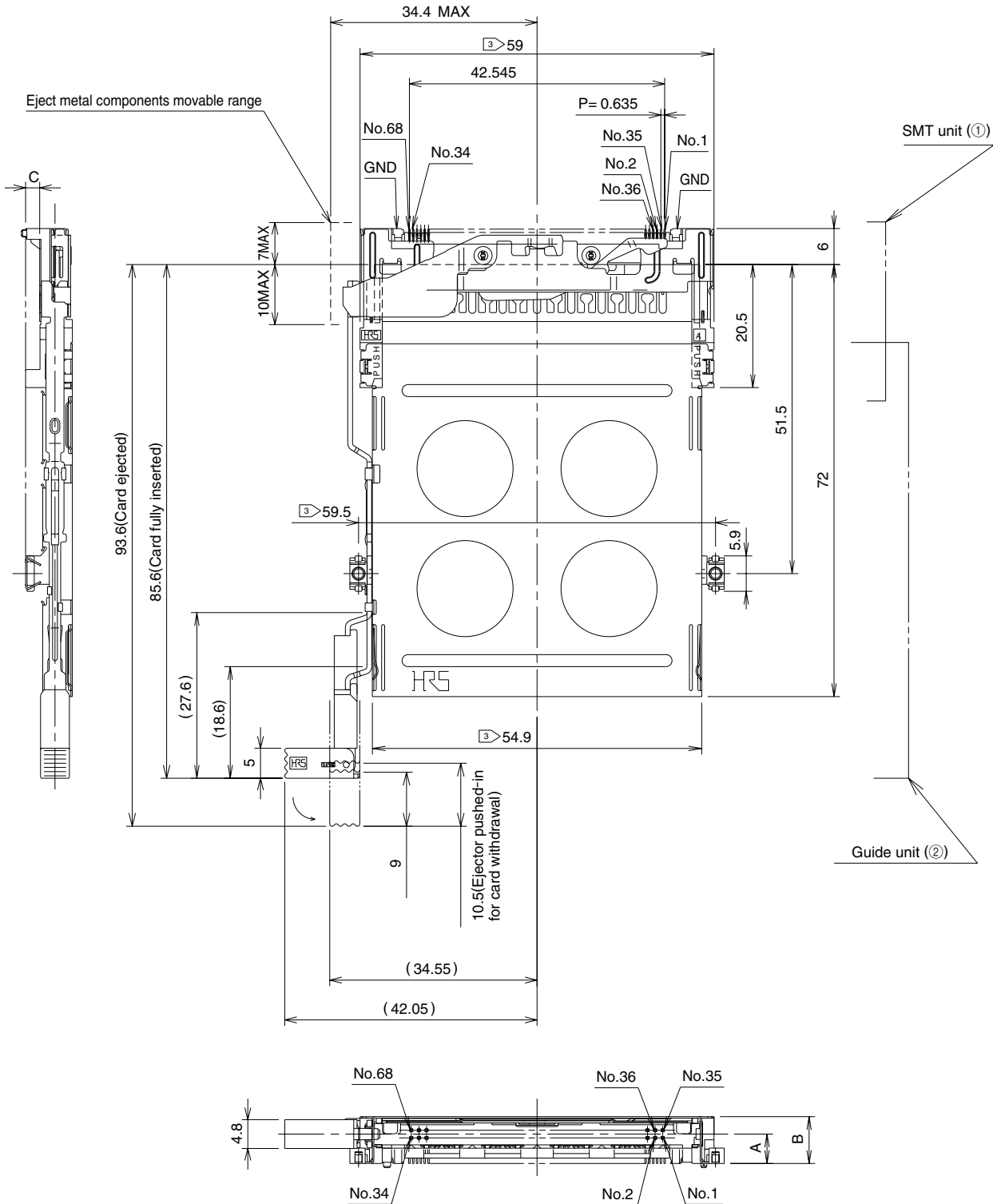
Note 1: All illustrations show the SMT unit (①) and Guide unit (②) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

③ : Indicated dimensions are symmetrical to the center of the card insertion slot.

Reverse

Left folding button



| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|-------------------------|------------|-----------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PLR-1.27SF-EJL | 640-1004-5 | IC11S-BUR-FEJL | 640-1060-6 | 2.7 | 5.6 | 0.1 | 13.5 |
| 2.2mm | IC11SA-68PLR-1.27SF-EJL | 640-1006-0 | IC11SA-BUR-FEJL | 640-1062-1 | 4.9 | 7.8 | 2.3 | 14 |

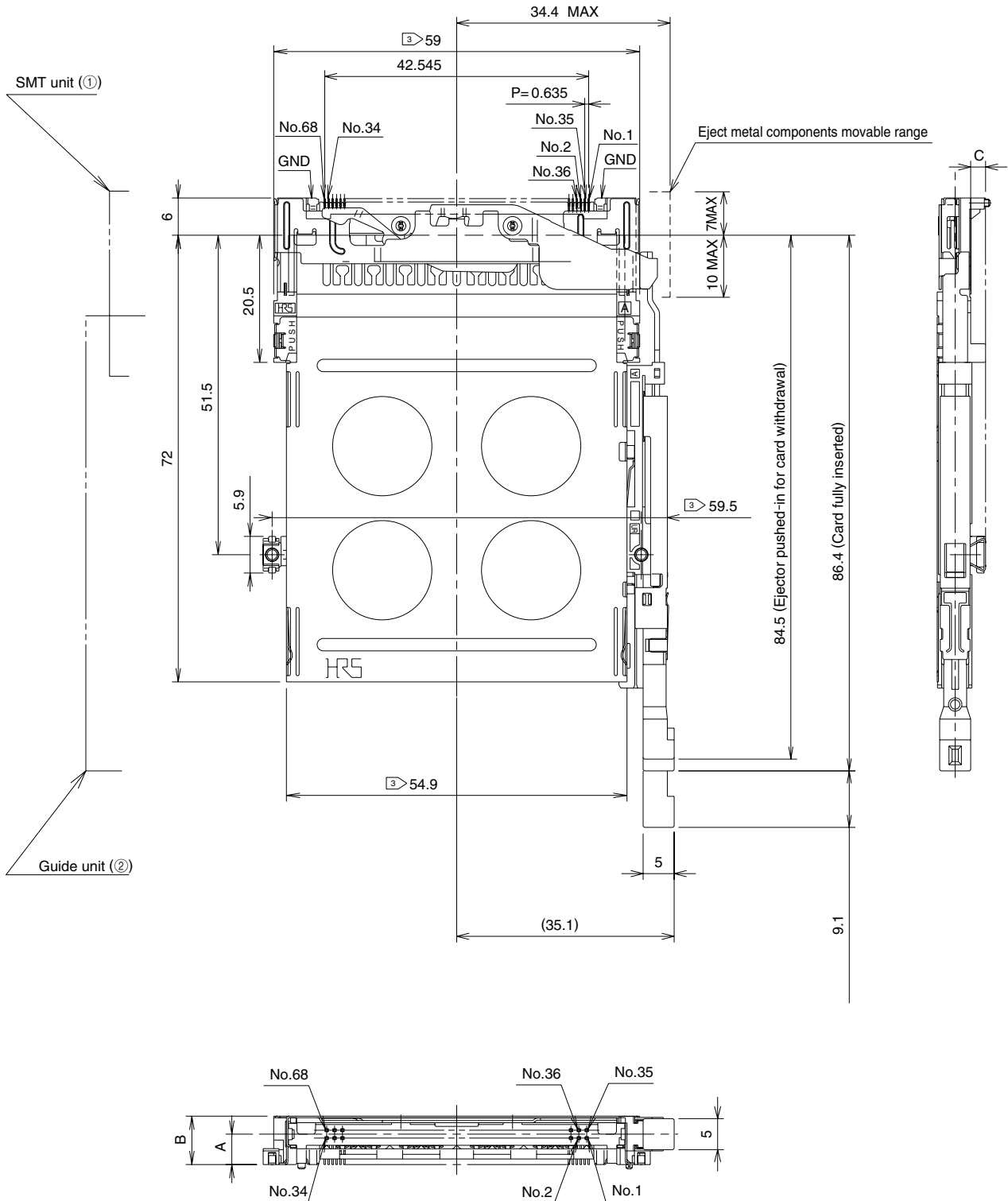
Note 1: All illustrations show the SMT unit (1) and Guide unit (2) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

③ : Indicated dimensions are symmetrical to the center of the card insertion slot.

Reverse

Right Pop-up button (Version 1)



| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|-------------------------|------------|-----------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PLR-1.27SF-EJR | 640-1003-2 | IC11S-BUR-PEJR | 640-1065-0 | 2.7 | 5.6 | 0.1 | 15.1 |
| 2.2mm | IC11SA-68PLR-1.27SF-EJR | 640-1005-8 | IC11SA-BUR-PEJR | 640-1067-5 | 4.9 | 7.8 | 2.3 | 15.6 |

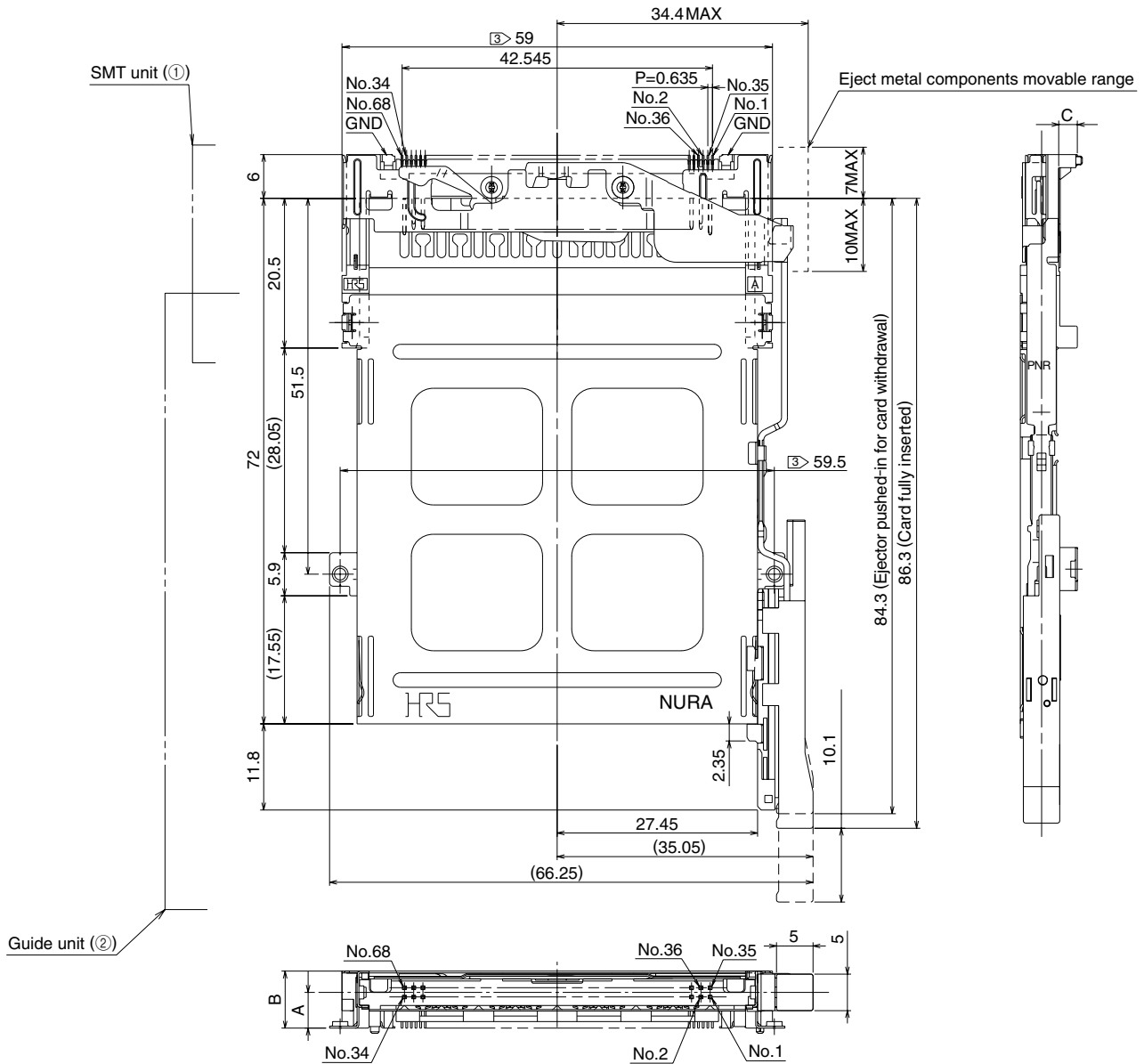
Note 1: All illustrations show the SMT unit (①) and Guide unit (②) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

③ : Indicated dimensions are symmetrical to the center of the card insertion slot.

Reverse

Right Pop-up button (Version 2)



| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|-------------------------|------------|------------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PLR-1.27SF-EJR | 640-1003-2 | IC11S-BUR-PNEJR | 640-1065-0 | 2.7 | 5.6 | 0.1 | 13.3 |
| 2.2mm | IC11SA-68PLR-1.27SF-EJR | 640-1005-8 | IC11SA-BUR-PNEJR | 640-1067-5 | 4.9 | 7.8 | 2.3 | 13.7 |

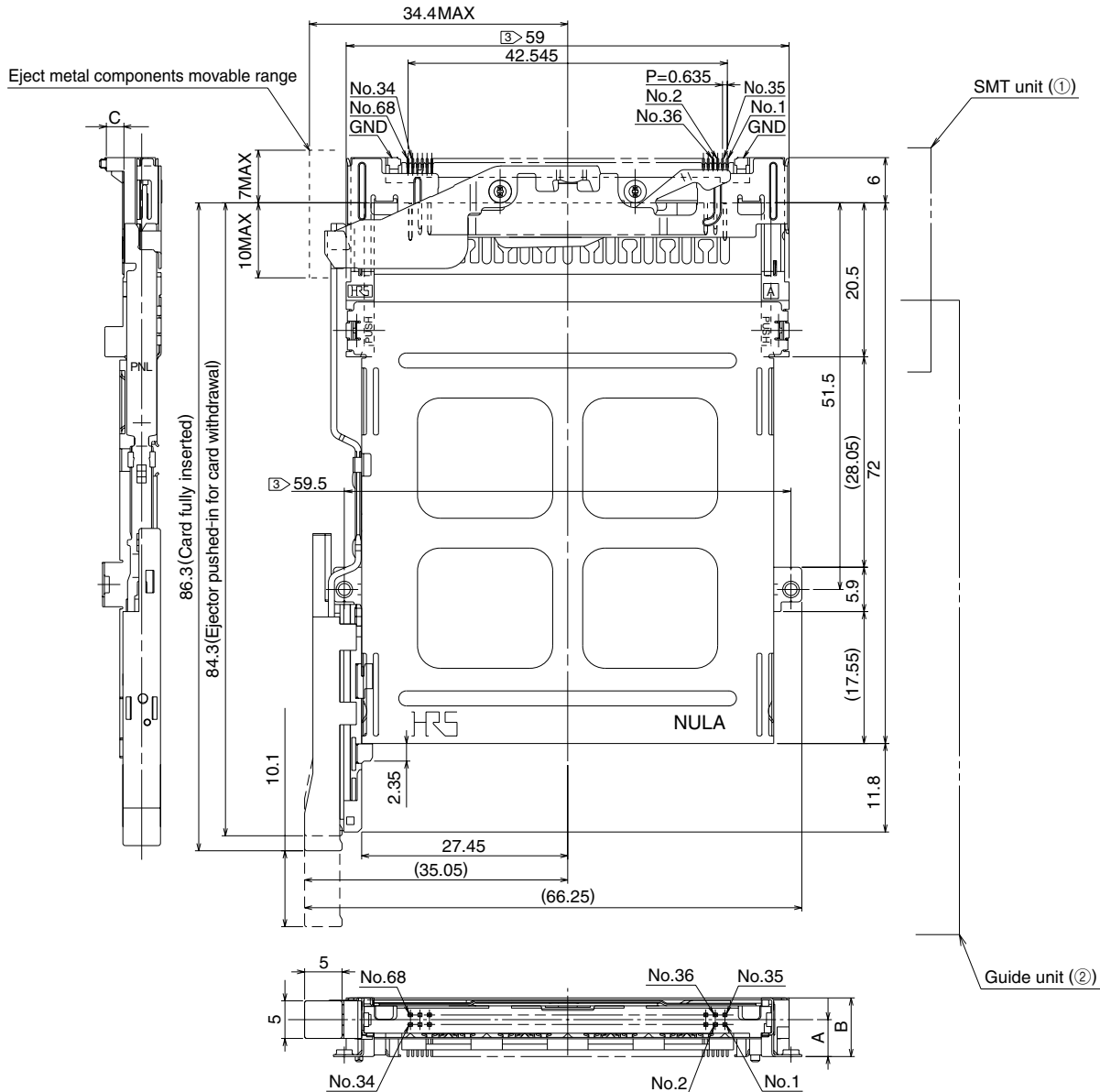
Note 1: All illustrations show the SMT unit (①) and Guide unit (②) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

③ : Indicated dimensions are symmetrical to the center of the card insertion slot.

Reverse

Left Pop-up button (Version 2)



| Standoff type | SMT unit ① | | Guide unit ② | | A (mm) | B (mm) | C (mm) | Weight (g) |
|---------------|-------------------------|------------|------------------|------------|--------|--------|--------|------------|
| | Part Number | CL No. | Part Number | CL No. | | | | |
| None | IC11S-68PLR-1.27SF-EJL | 640-1004-5 | IC11S-BUR-PNEJL | 640-1256-8 | 2.7 | 5.6 | 0.1 | 13.3 |
| 2.2mm | IC11SA-68PLR-1.27SF-EJL | 640-1006-0 | IC11SA-BUR-PNEJL | 640-1258-3 | 4.9 | 7.8 | 2.3 | 13.7 |

Note 1: All illustrations show the SMT unit (①) and Guide unit (②) assembled.

Note 2: Dimensions for card insertion are in accordance with "PC card standard".

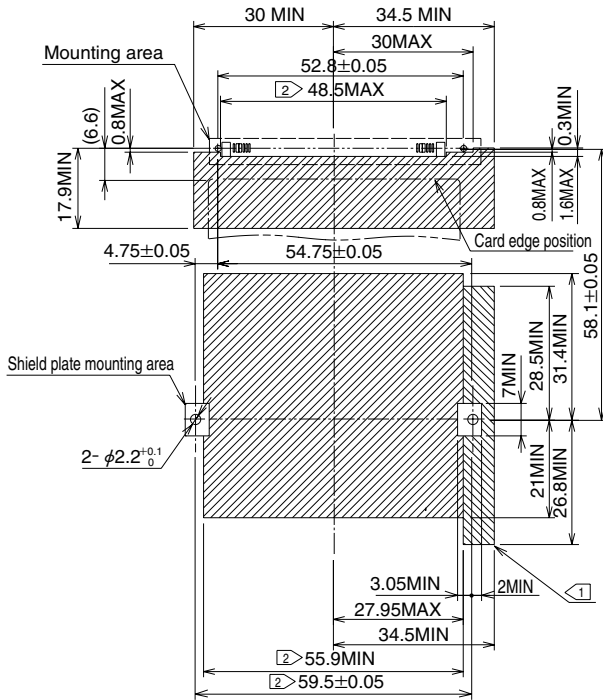
③ : Indicated dimensions are symmetrical to the center of the card insertion slot.

◆PCB mounting pattern

●Standard

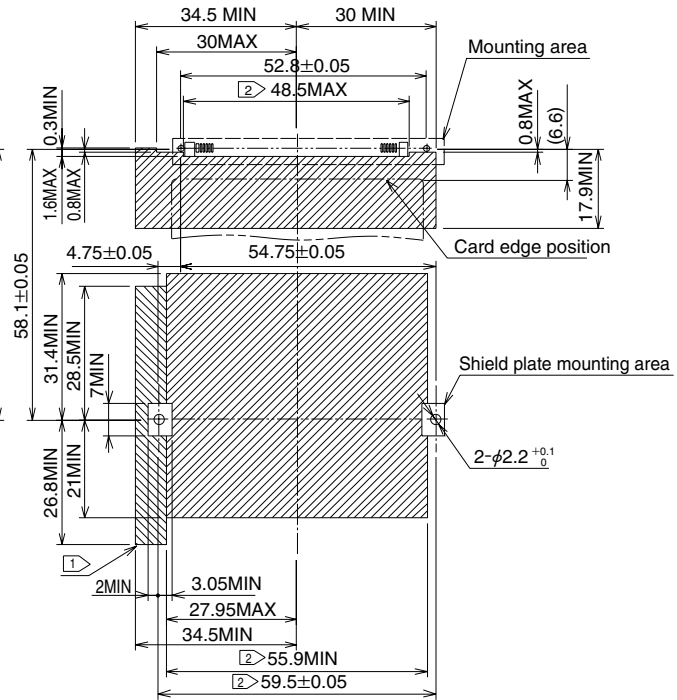
●Without Standoff

(Right button)



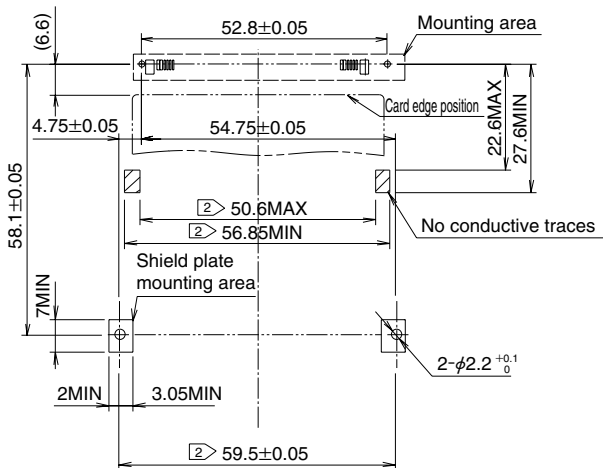
●Without standoff

(left button)



●Standoff 2.2mm

(Common to both Right & left buttons)



Note1) line pattern indicates conductive pattern prohibition area.

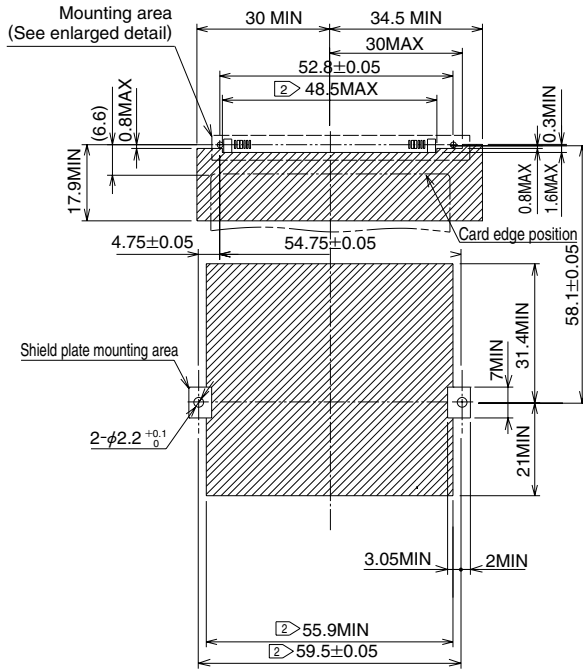
line pattern indicates conductive pattern prohibition area only when the IC11S-BD-PEJ card guide module is used.

) Indicated dimensions are symmetrical to the center of the card insertion slot.

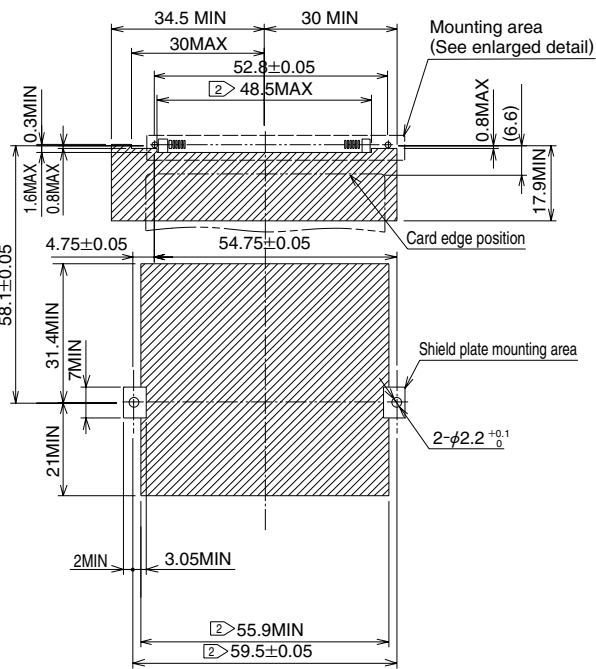
◆PCB mounting pattern Pop-up button (Version 2)

●Standard

●Without Standoff (Right button)

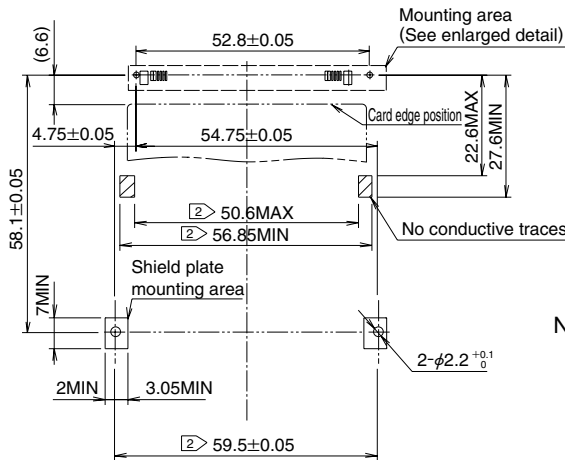


●Without Standoff (left button)



●Standoff 2.2mm

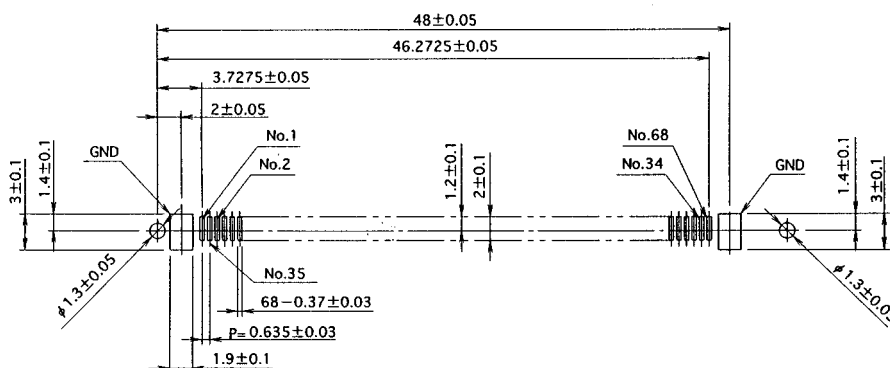
(common to both Right and left buttons)



Note1) line pattern indicates conductive pattern prohibition area.
 Indicated dimensions are symmetrical to the center of the card insertion slot..

◆PCB mounting pattern (Enlarged detail)

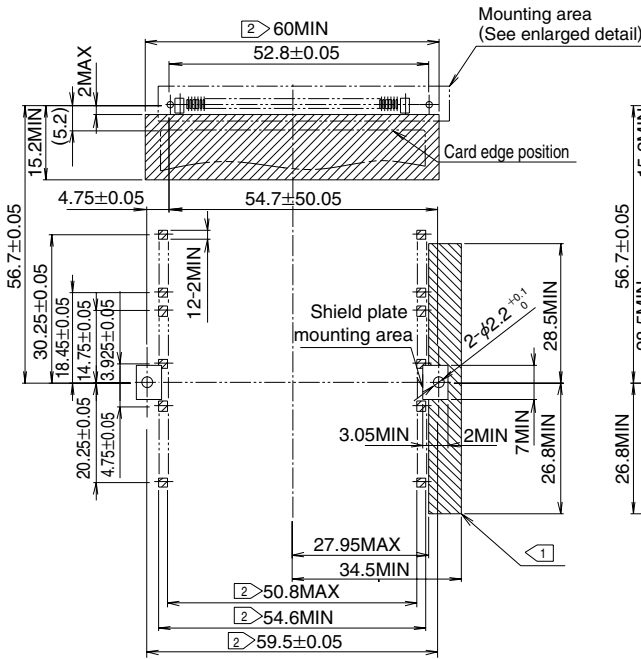
●Standard



●Reverse

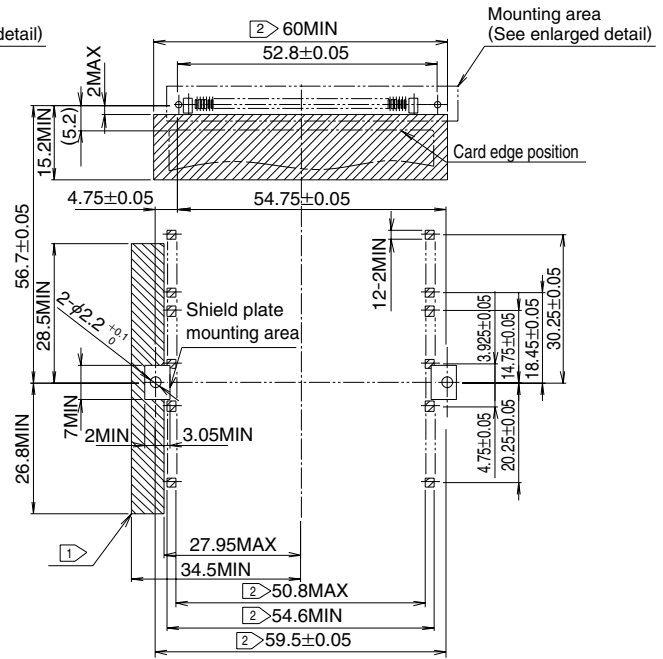
●Without Standoff

(Right button)



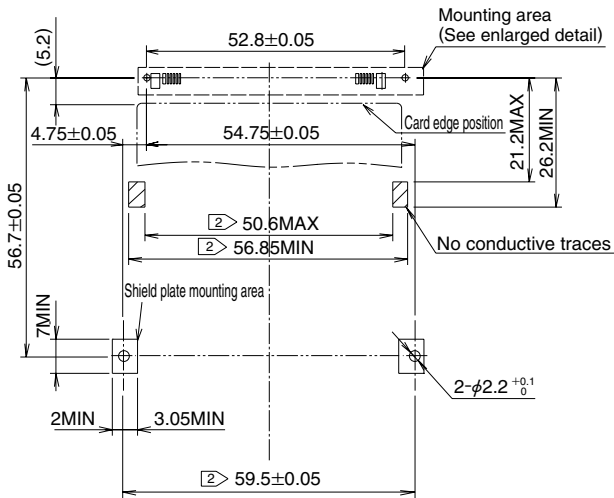
●Without standoff

(left button)



●Standoff 2.2mm

(common to both right and left buttons)



Note1) line pattern indicates conductive pattern prohibition area.

line pattern indicates conductive pattern prohibition area only when the IC11S-BD-PEJ card guide module is used.

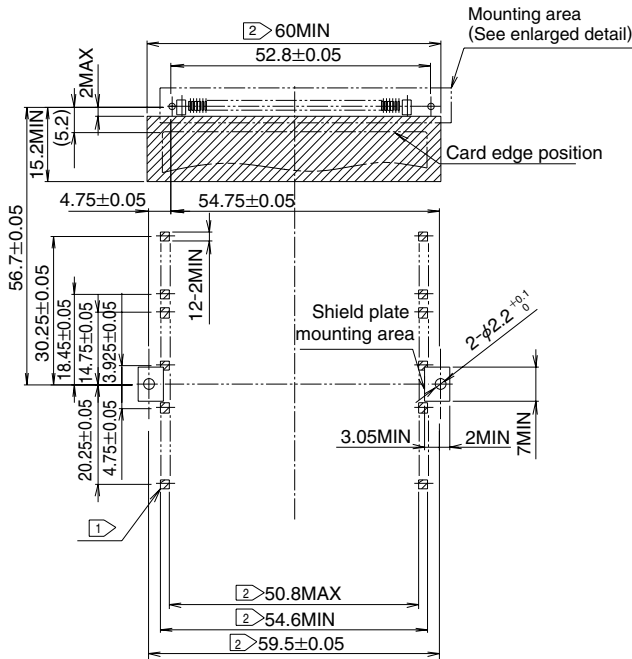
Indicated dimensions are symmetrical to the center of the card insertion slot.

Pop-up button (Version 2)

● Reverse

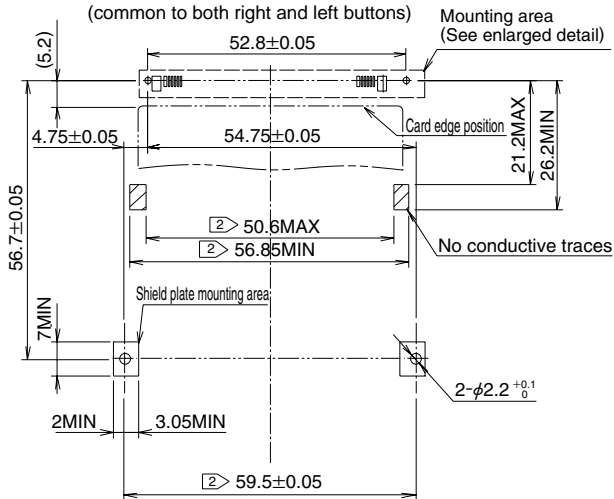
● Without Standoff

(Common to both Right & left buttons)



● Standoff 2.2mm

(common to both right and left buttons)

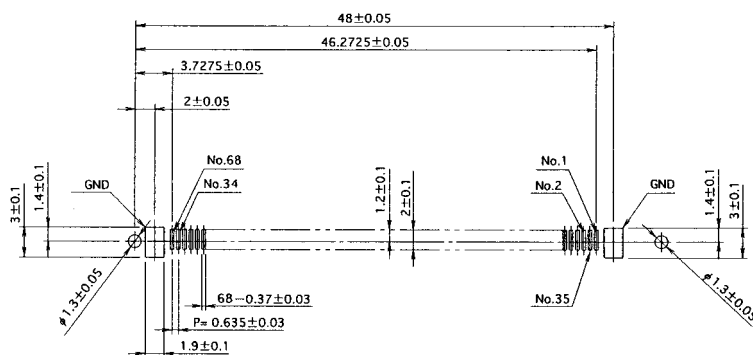


Note1) line pattern indicates conductive pattern prohibition area.

) Indicated dimensions are symmetrical to the center of the card insertion slot..

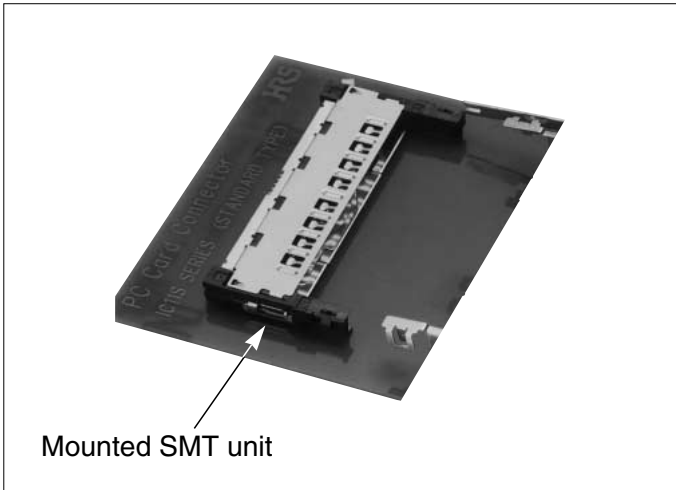
◆ PCB mounting pattern (Enlarged detail)

● Reverse

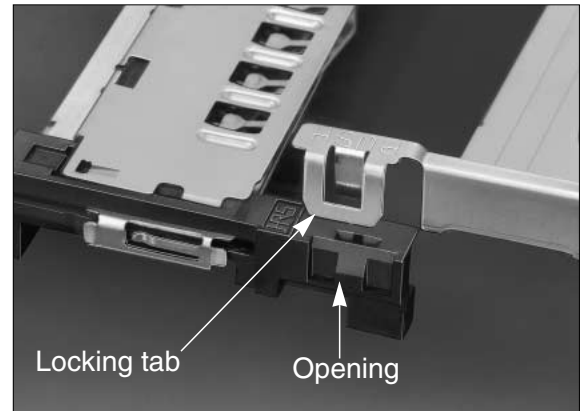
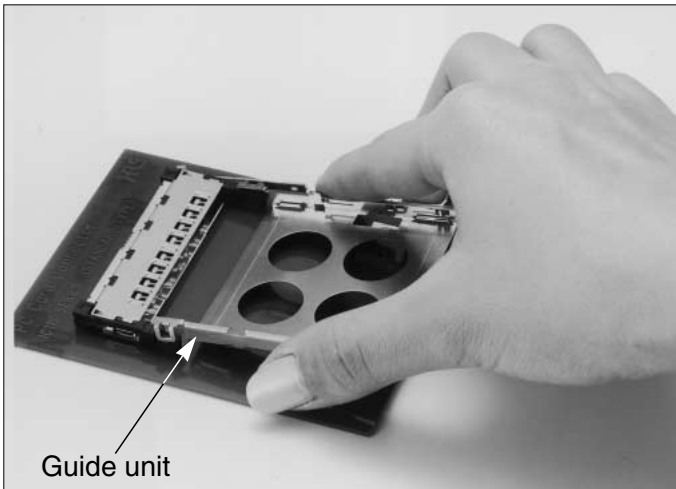


◆ Installation on the Board (Standard type)

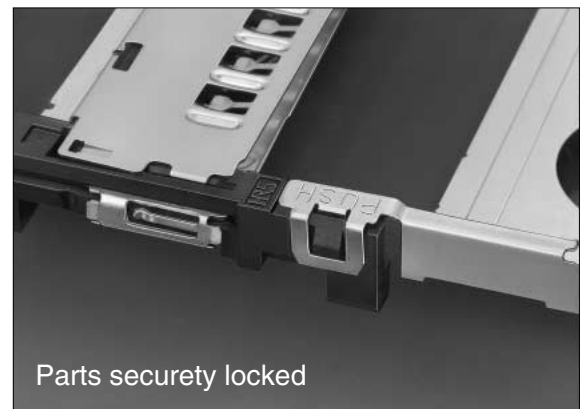
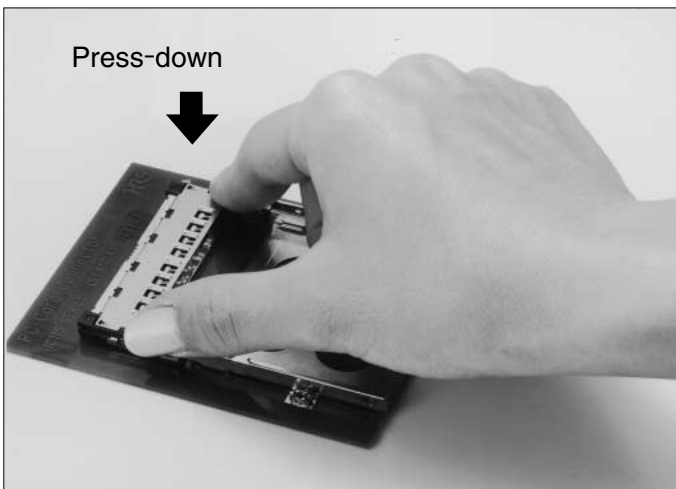
(1) Mount the SMT unit on the board



(2) Align the locking tab on the Guide unit over the opening on the SMT unit



(3) Holding the Guide unit as shown press it firmly down until both parts are securely locked together. Audible “click” will be heard.



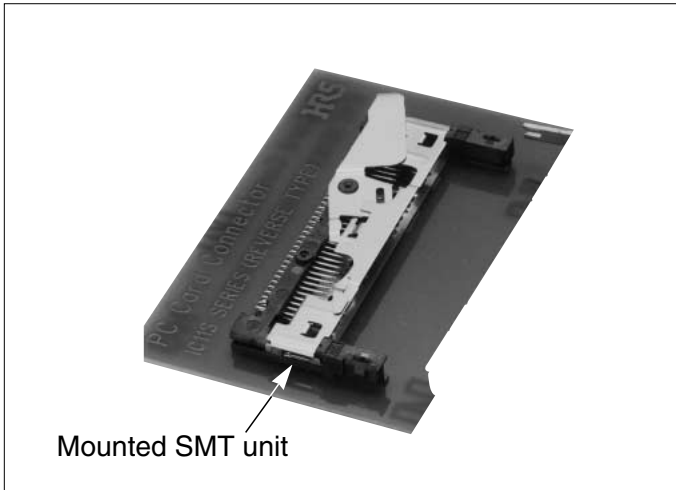
Note: To avoid damage or deformation of parts, DO NOT apply pressure at any other area.

(4) Use screws to fasten the guide unit at two places from the bottom of the board.

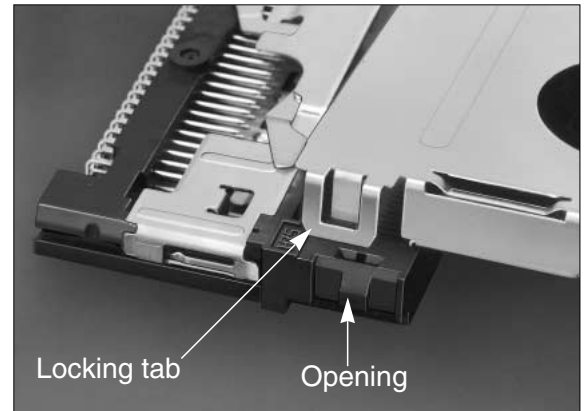
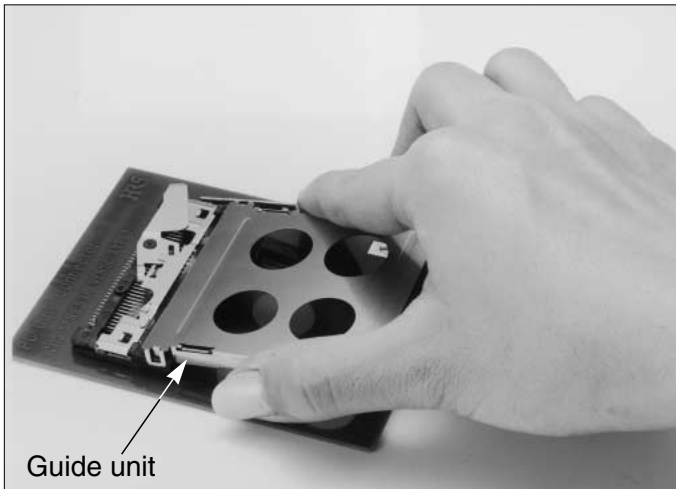
| Screw size | Pitch | Recommended Torque |
|------------|-------|---------------------|
| M2 | 0.4 | 0.14 ~ 0.18 (N · m) |

◆ Installation on the Board (Reverse type)

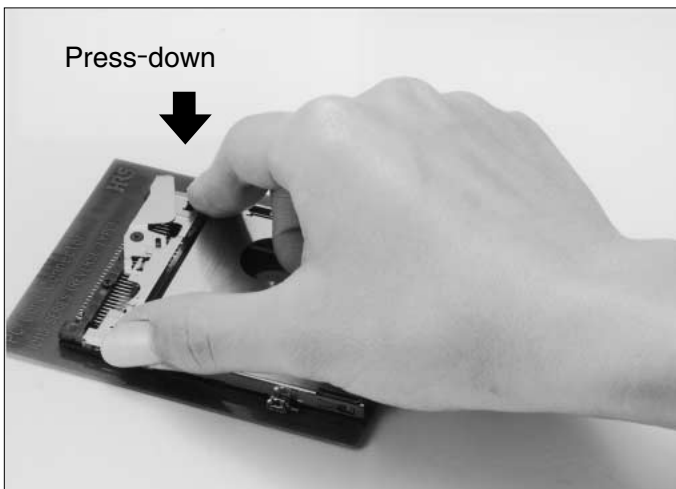
(1) Mount the SMT unit on the board



(2) Align the locking tab on the Guide unit over the opening on the SMT unit



(3) Holding the Guide unit as shown press it firmly down until both parts are securely locked together. Audible “click” will be heard.



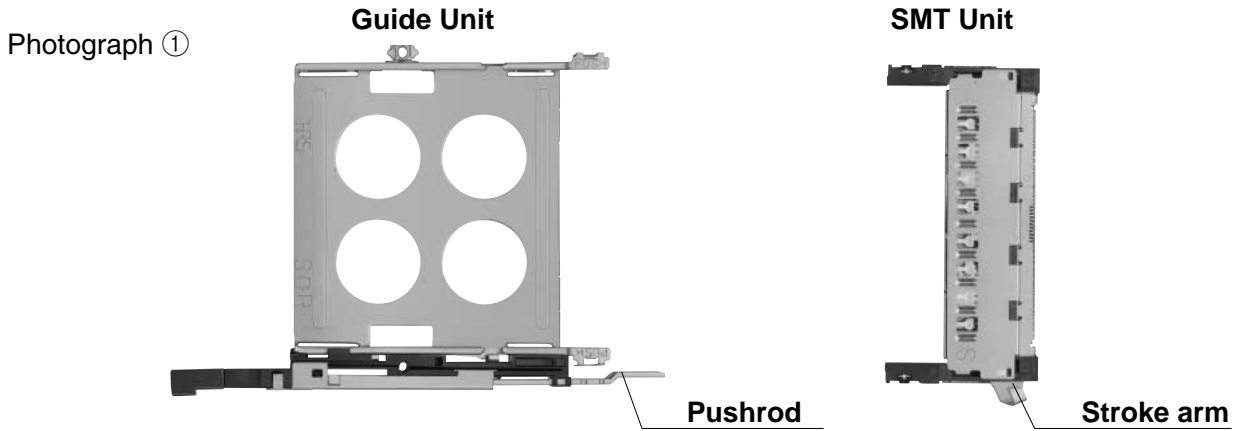
Note: To avoid damage or deformation of parts, DO NOT apply pressure at any other area.

(4) Use screws to fasten the guide unit at two places from the bottom of the board.

| Screw size | Pitch | Recommended Torque |
|------------|-------|---------------------|
| M2 | 0.4 | 0.14 ~ 0.18 (N · m) |

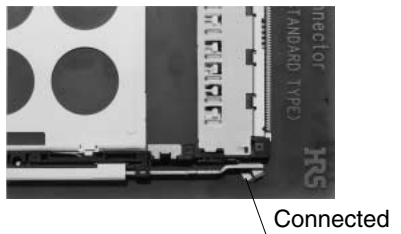
◆Precautionary installation notes

1. Make sure that the position of the stroke arm (on the SMT unit) and the push rod (on the Guide unit) are in positions as shown on the photograph below (as delivered).
2. Should they be in other positions, move them into correct one.
3. Metal components of these connector assemblies have sharp edges. Use caution when handling, installing or disassembling.
4. Solder reflow operation cannot be performed with the Guide unit installed.

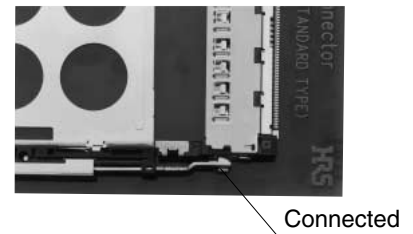


After assembling the SMT unit and the guide unit, they will appear as shown below.

- Push rod and stroke arm connected
(Card to be inserted)

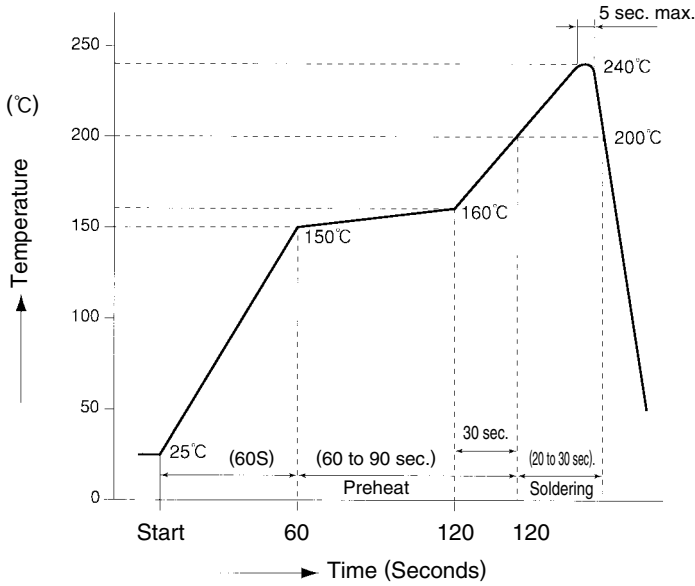


- Push rod and stroke arm connected
(Card ready for ejection)



◆ Recommended temperature profile

● Common to lead-free solder paste



<Recommended conditions>

| | |
|--------------------|---|
| Reflow system | : IR reflow |
| Solder composition | : Paste, 63%Sn/37%Pb (Flux content 9wt%) |
| Test board | : Glass epoxy 80mm×125mm×1.6mm thick |
| Metal mask | : 0.15mm thick |

The temperature profiles are based on the above conditions.

In individual applications the actual temperature may vary, depending on solder paste type, volume/thickness and board size/thickness. Consult your solder paste and equipment manufacturer for specific recommendations.