

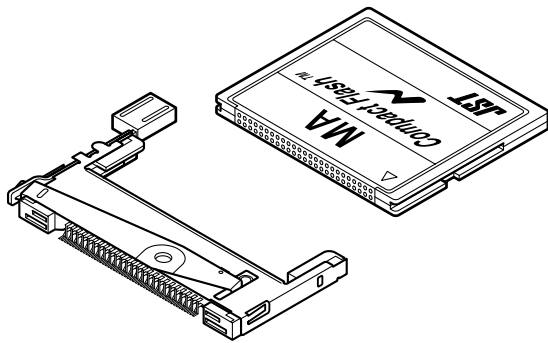
# CF CARD CONNECTOR MA TYPE



50-circuit CF card connector



**In addition to the connectors applicable to CF type I cards, those for CF type II cards are also available.**



## Specifications

- Pitch: 1.27mm (.050")
- Type: Dual-row at mating section
- Current rating: 0.5A AC, DC/line
- Temperature range: -40°C to +85°C  
(including temperature rise in applying electrical current)
- Contact resistance: Initial value/40m Ω max.  
After environmental testing/max.  
20m Ω variation from initial value
- Insulation resistance: 1,000M Ωmin. 500V DC (Except for Adapter cards)
- Withstanding voltage: 500V AC/minute (Except for Adapter cards)
- Mating/unmaking life: 10,000 cycles
- Circuits: 50-circuits
- Conforms to CFA.
- \* Contact JST if Lead-Free product is required.
- \* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
- \* Contact JST for details.

## Features

### • Socket

Both dual-row straddle type and single-row SMT type sockets are available. Single-row SMT type has three kinds, that is, with off-set 0.2mm (.008"), 0.35mm (.014"), and 0.75mm (.030"). The SMT type sockets have grounding springs at the No.1 & No.26 circuits.

### • Card frame / for type I cards

For the card frame for type I cards, ultrasonic welding method is applied, which is superior in strength, heat-resistance with shorter assembly time.

### • Adapter / for type I cards

The adapter converts the CF type I card to PCMCIA type II card. The new type that has contact spring for grounding clip has been lined up, responding to CF type I card with grounding clip.

### • Adapter / for type II cards

The adapter converts the CF type I and II card to PCMCIA type II card. Shutter mechanism with lock is applied to protect pins. The new type that has contact spring for grounding clip has been lined up, responding to CF type I card with grounding clip.

### • Header / for type I cards

Available both in normal and reverse types, with stand off 0mm or 1.64mm (.065") each.

### • Ejector / for type I headers

The assembly of the ejector mechanism to the mounted header is a simple one-touch operation. Available in either with right button or left button.

### • Header / for type II cards

With stand off 0mm, both normal and reverse types are available. This header has a spring which serves as solder tab/grounding clip integrated device.

### • Ejector / for type II headers

The assembly of the ejector mechanism to the mounted header is a simple one-touch operation.

The ejector for reverse type header has right button, with one-point pushing mechanism, while the ejector for normal type header has left button, with two-point pushing mechanism.

### • Header / Space-saving type for type II cards

Available both in Normal type with stand-off 1.85mm (.073") and in reverse type with stand-off 0mm. The header is supplied in embossed tape packaging, for mounting by automatic placement machines.

### • Ejector / Space-saving type for type II headers

Two-point pushing mechanism has been adopted. Right button for normal type header and left button for reverse type header.

### \*Space-saving type

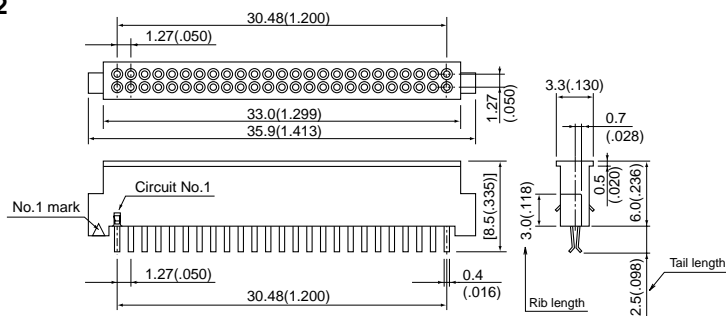
In comparison with header for type II with ejector, header for type II with space-saving type ejector can achieve 20% reduction in mounting space.

# CF CARD CONNECTOR MA TYPE

## Socket

Dual-row straddle type

ICM-MA50S-TS13-5032



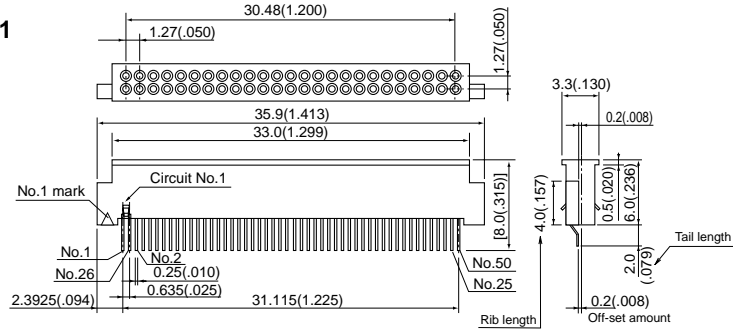
Circuits	Solder tail	Grounding spring	Off-set dimension	Rib length mm(in.)	Tail length mm(in.)	Model No.	Qty / box	Material and Finish
50	Dual-row straddle type	With (Circuit No.1, No.26)	center	3.0(.118)	2.5(.098)	ICM-MA50S-TS13-5032	600	Contact: Copper-alloy, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Grounding spring: Copper alloy nickel-undercoated, gold-plated Housing: LCP, UL94V-0, black

# CF CARD CONNECTOR MA TYPE

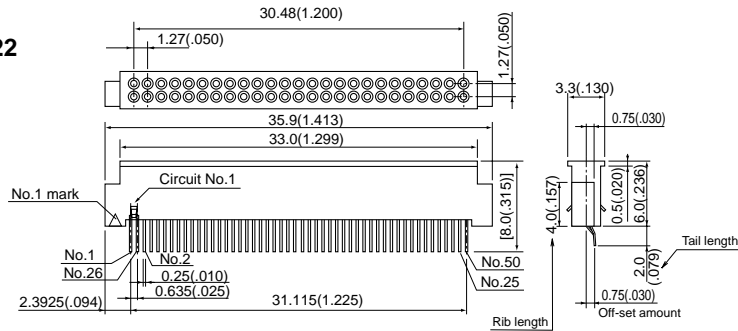
## Socket

### SMT type

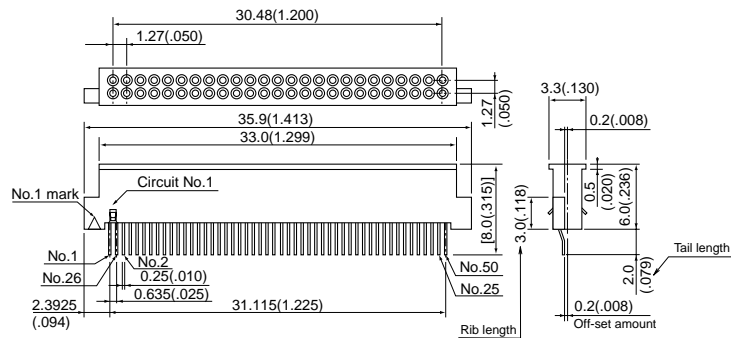
**ICM-MA50S-TS13-5021**



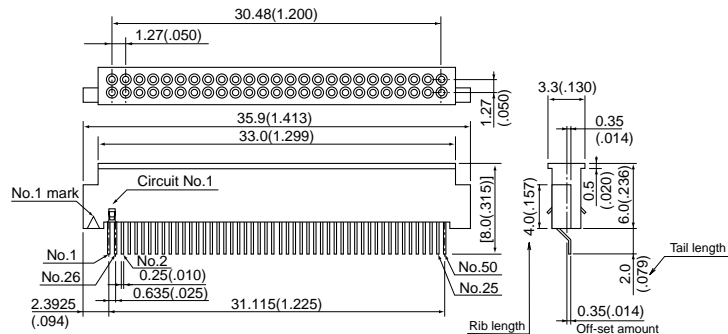
**ICM-MA50S-TS13-5022**



**ICM-MA50S-TS13-5023**



**ICM-MA50S-TS13-5024**



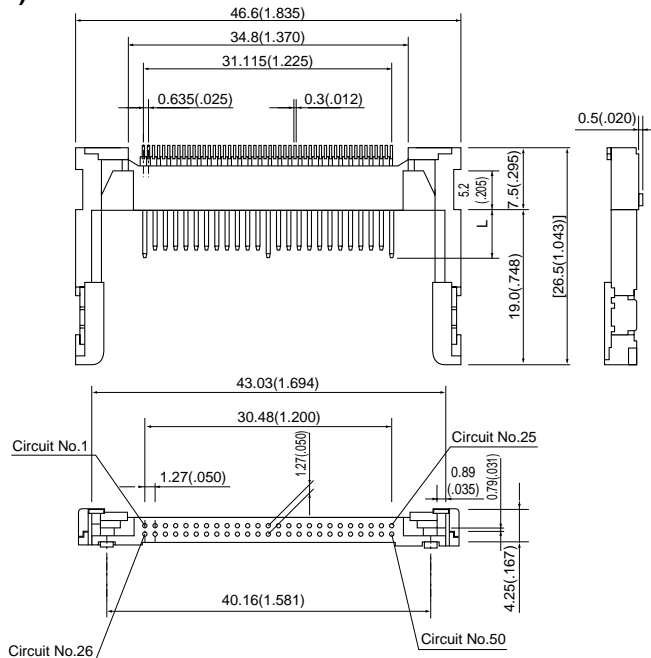
Circuits	Solder tail	Grounding spring	Off-set dimension mm(in.)	Rib length mm(in.)	Tail length mm(in.)	Model No.	Q'ty / reel	Material and Finish
50	SMT type	With (Circuit No.1, No26)	0.2 (.008)	4.0(.157)	2.0(.079)	<b>ICM-MA50S-TS13-5021T</b>	1,500	Contact: Copper alloy, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Grounding spring: Copper alloy nickel-undercoated, gold-plated Housing: LCP, UL94V-0, black
			0.75(.030)	4.0(.157)	2.0(.079)	<b>ICM-MA50S-TS13-5022T</b>	1,500	
			0.2 (.008)	3.0(.118)	2.0(.079)	<b>ICM-MA50S-TS13-5023T</b>	1,500	
			0.35(.014)	4.0(.157)	2.0(.079)	<b>ICM-MA50S-TS13-5024T</b>	1,500	

Note: The products listed above are supplied on embossed-tape.

# CF CARD CONNECTOR MA TYPE

## Header (for Type I cards)

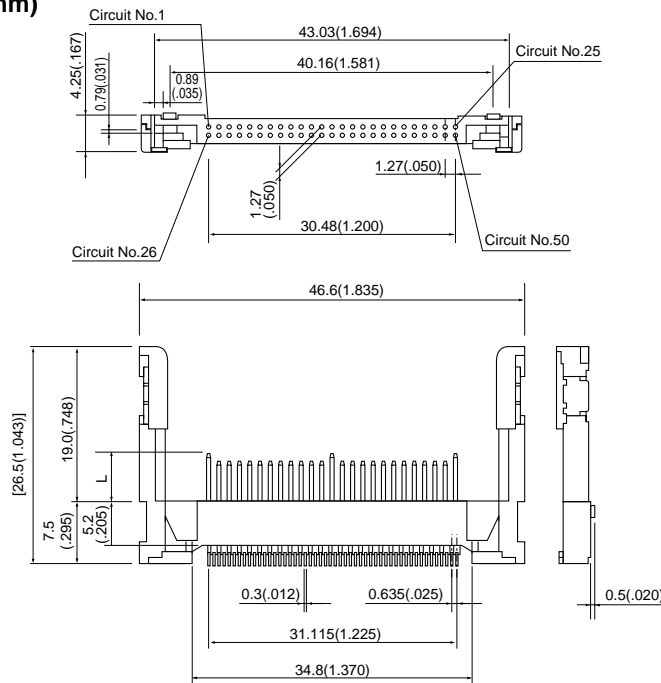
Normal type (Stand off 0mm)



Dimension L

Circuit No.	Dimensions mm(in.)
1, 13, 38,50	5.0 ± 0.1(.197±.004)
2 to 12, 14 to 24, 27 to 37, 39 to 49	4.25 ± 0.1(.167±.004)
25, 26	3.5 ± 0.1(.138±.004)

Reverse type (Stand off 0mm)



Dimension L

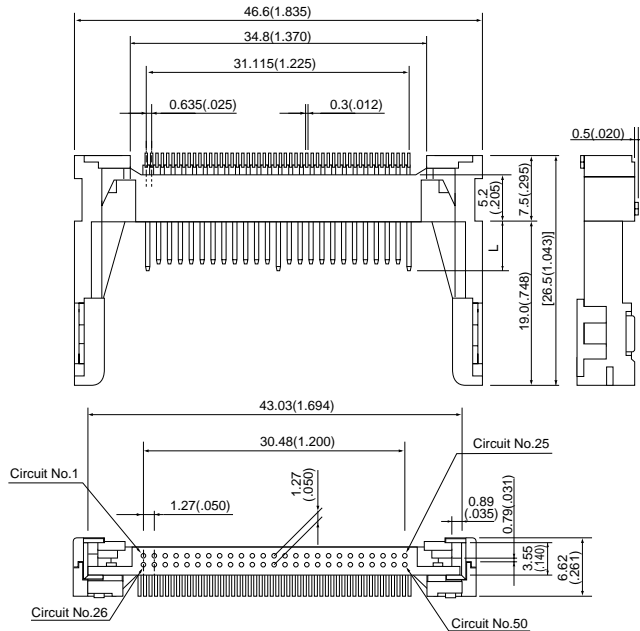
Circuit No.	Dimensions mm(in.)
1, 13, 38,50	5.0 ± 0.1(.197±.004)
2 to 12, 14 to 24, 27 to 37, 39 to 49	4.25 ± 0.1(.167±.004)
25, 26	3.5 ± 0.1(.138±.004)

Circuits	Type	Model No.	Q'ty / box	Material and Finish
50	Normal	<b>ICM-MA50H-SS52-1151</b>	180	Contact: Phosphor bronze, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Housing: PPS, UL94V-0 Solder tab: Brass, nickel-undercoated, tin/lead-plated
	Reverse	<b>ICM-MA50H-SS52-1171</b>	180	

# CF CARD CONNECTOR MA TYPE

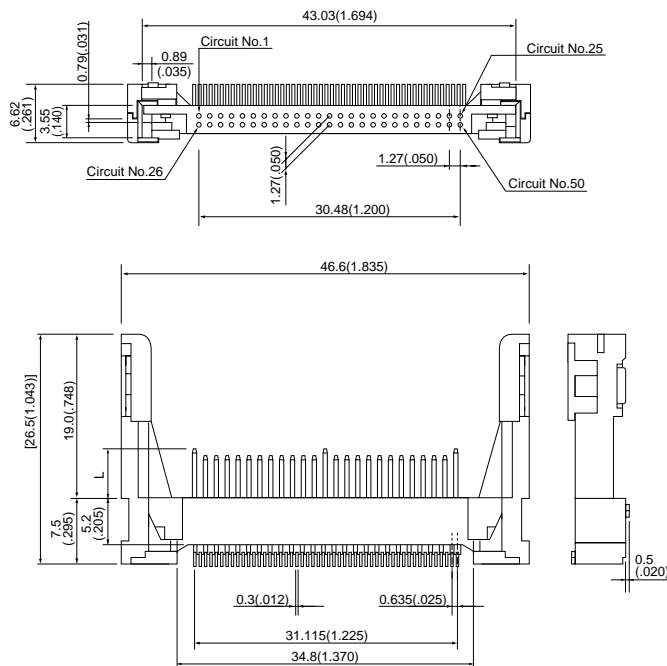
## Header (for Type I cards)

Normal type  
(Stand off 1.64mm (.065"))



Dimension L	
Circuit No.	Dimensions mm(in.)
1, 13, 38,50	5.0 ± 0.1(.197±.004)
2 to 12, 14 to 24, 27 to 37, 39 to 49	4.25 ± 0.1(.167±.004)
25, 26	3.5 ± 0.1(.138±.004)

Reverse type  
(Stand off 1.64mm (.065"))



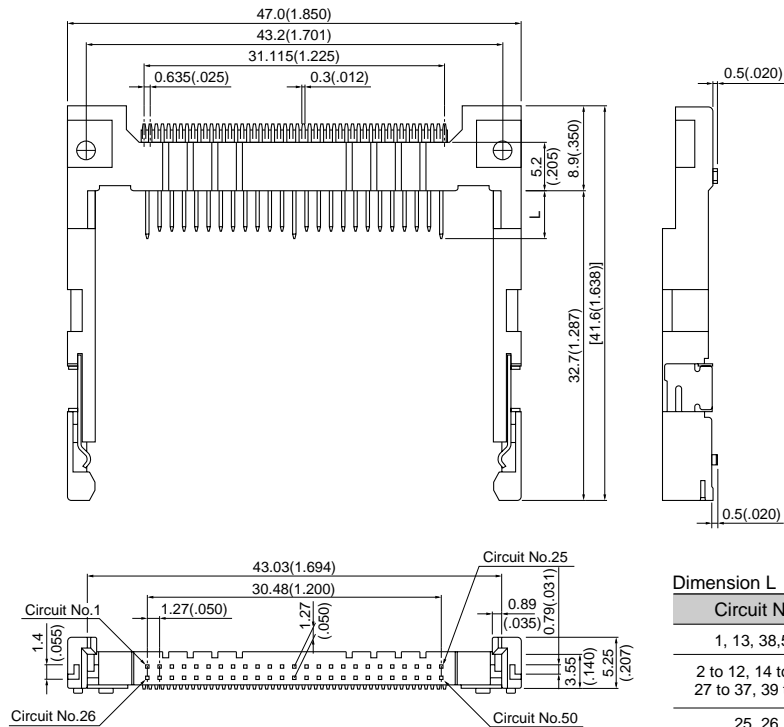
Dimension L	
Circuit No.	Dimensions mm(in.)
1, 13, 38,50	5.0 ± 0.1(.197±.004)
2 to 12, 14 to 24, 27 to 37, 39 to 49	4.25 ± 0.1(.167±.004)
25, 26	3.5 ± 0.1(.138±.004)

Circuits	Type	Model No.	Qty / box	Material and Finish
50	Normal	ICM-MA50H-SS52-1141	140	Contact: Phosphor bronze, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Housing: PPS, UL94V-0 Solder tab: Brass, nickel-undercoated, tin/lead-plated
	Reverse	ICM-MA50H-SS52-1161	140	

# CF CARD CONNECTOR MA TYPE

## Header (for Type II cards)

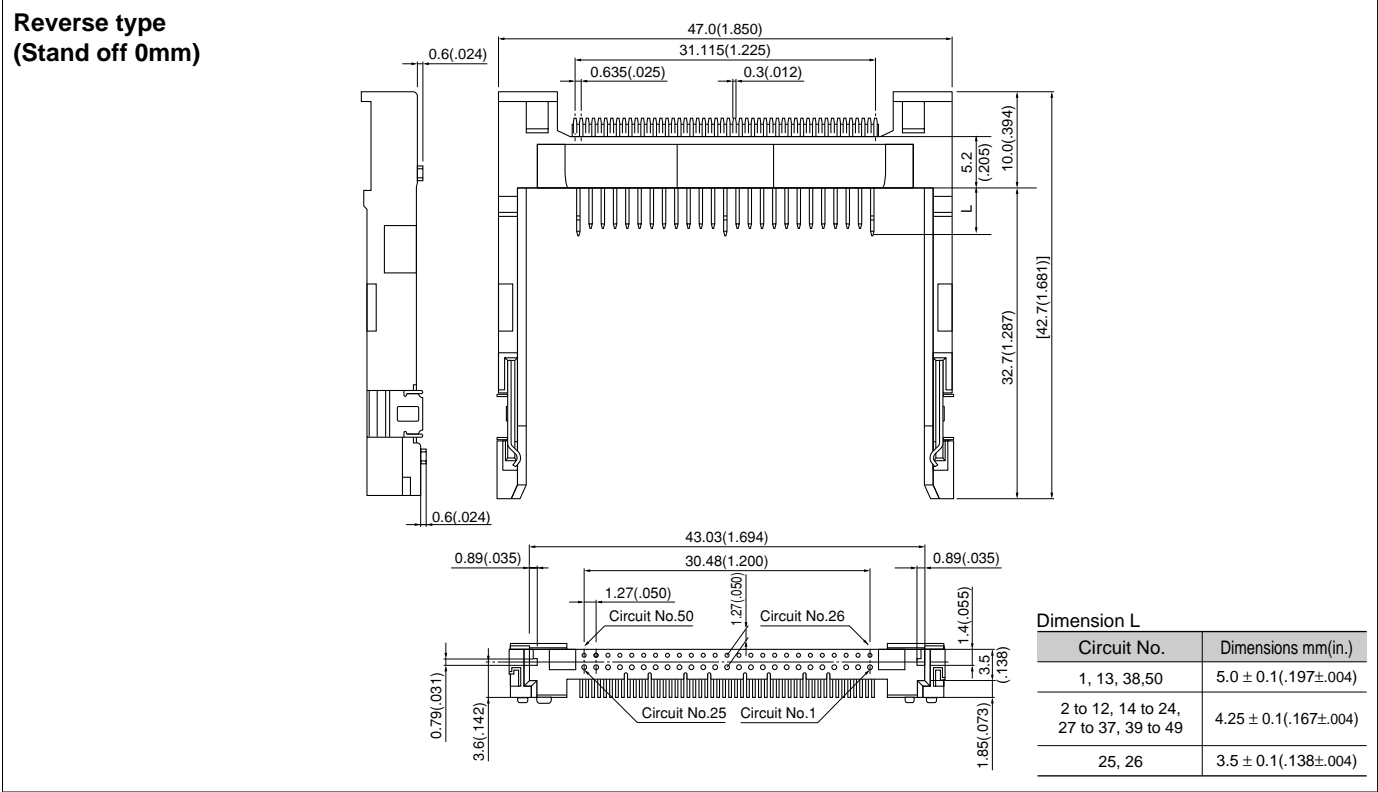
Normal type  
(Stand off 0mm)



Circuits	Type	Model No.	Qty / box	Material and Finish
50	Normal (Stand off 0mm)	<b>ICM-MA2H-SS52-N11B</b>	84	Contact: Phosphor bronze, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Housing: Normal / PPS, UL94V-0, black Reverse / LCP, UL94V-0, black Solder tab: Phosphor bronze, copper-undercoated, tin/lead-plated

# CF CARD CONNECTOR MA TYPE

## Header (for Type II cards)

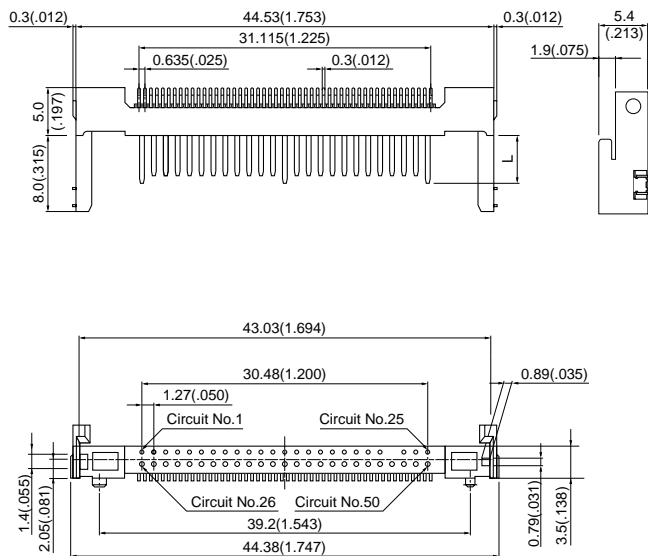


Circuits	Type	Model No.	Qty / box	Material and Finish
50	Reverse (Stand off 0mm)	<b>ICM-MA2H-SS52-R21A</b>	84	Contact: Phosphor bronze, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Housing: Normal / PPS, UL94V-0, black Reverse / LCP, UL94V-0, black Solder tab: Phosphor bronze, copper-undercoated, tin/lead-plated

# CF CARD CONNECTOR MA TYPE

## Header (for Type II cards) / Space-saving type

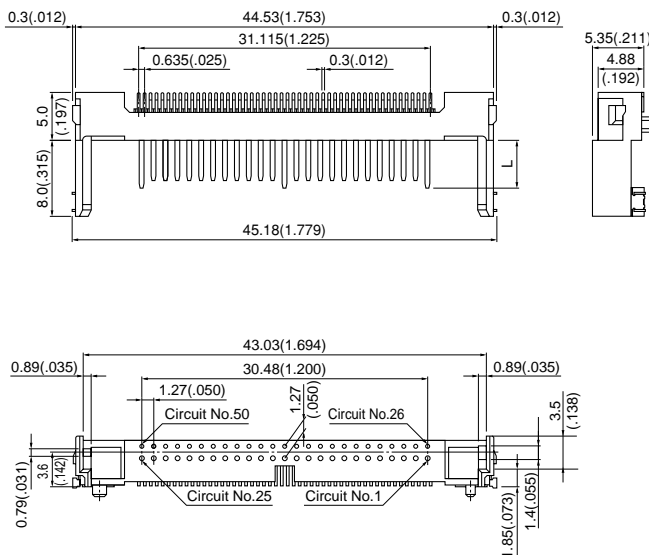
### Normal type (Stand off 0mm)



Dimension L

Circuit No.	Dimensions mm(in.)
1, 13, 38, 50	5.0 ± 0.1(.197±.004)
2 to 12, 14 to 24, 27 to 37, 39 to 49	4.25 ± 0.1(.167±.004)
25, 26	3.5 ± 0.1(.138±.004)

### Reverse type (Stand off 0mm)



Dimension L

Circuit No.	Dimensions mm(in.)
1, 13, 38, 50	5.0 ± 0.1(.197±.004)
2 to 12, 14 to 24, 27 to 37, 39 to 49	4.25 ± 0.1(.167±.004)
25, 26	3.5 ± 0.1(.138±.004)

Circuits	Type	Model No.	Q'ty / reel	Material and Finish
50	Normal	ICM-MA2H-SS52-N13L	1,125	Contact: Phosphor bronze, nickel-undercoated, tin/copper alloy-plated Housing: PPS, UL94V-0 Solder tab: Brass, nickel-undercoated, tin/copper alloy-plated
		ICM-MA2H-SS52-N13LT	750	
	Reverse	ICM-MA2H-SS52-R13HT	750	

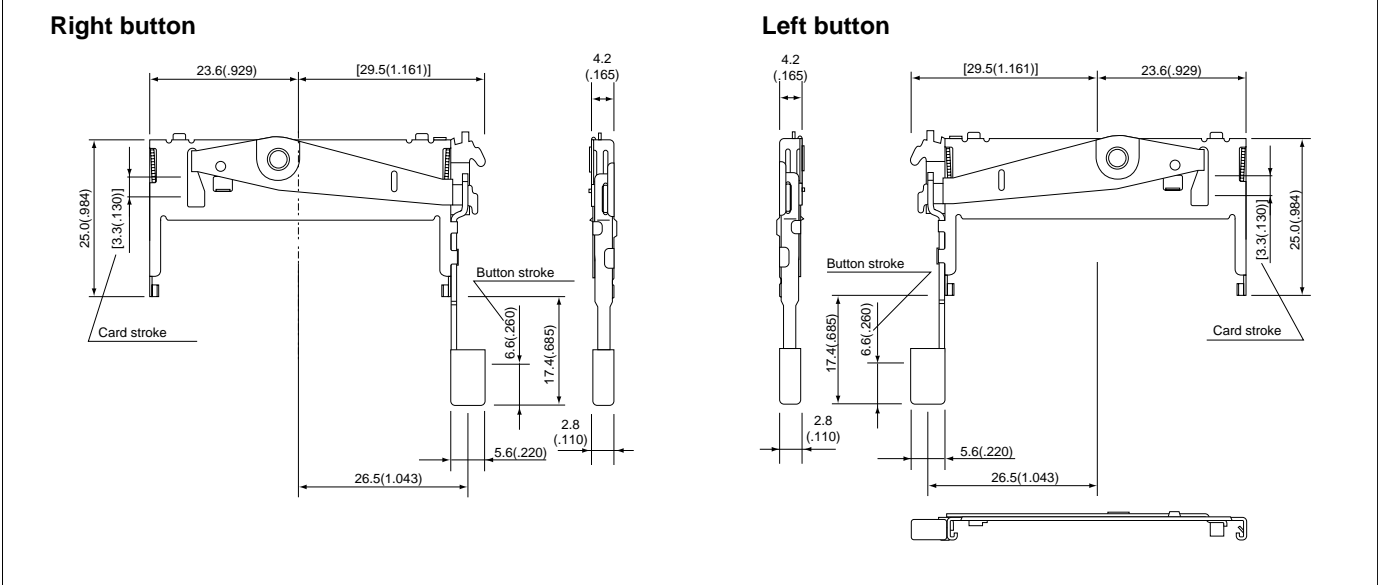
Note:

1. ICM-MA2H-SS52-N13LT/-R13HT are supplied on embossed-tape.
2. ICM-MA2H-SS52-N13L is supplied packed in tray, and its quantity denotes the containing quantity per box.



# CF CARD CONNECTOR MA TYPE

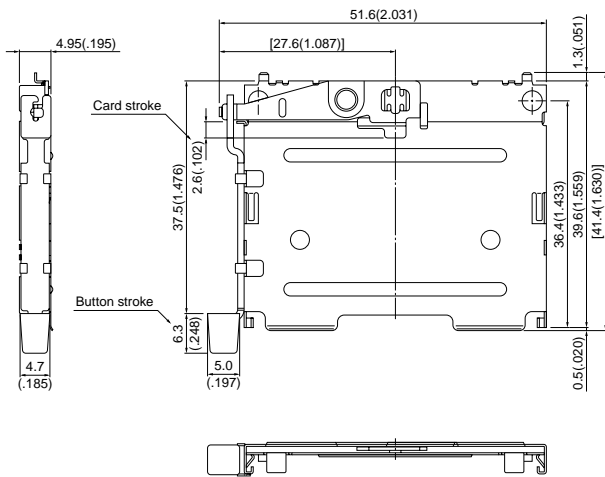
## Ejector (for Type I Header)



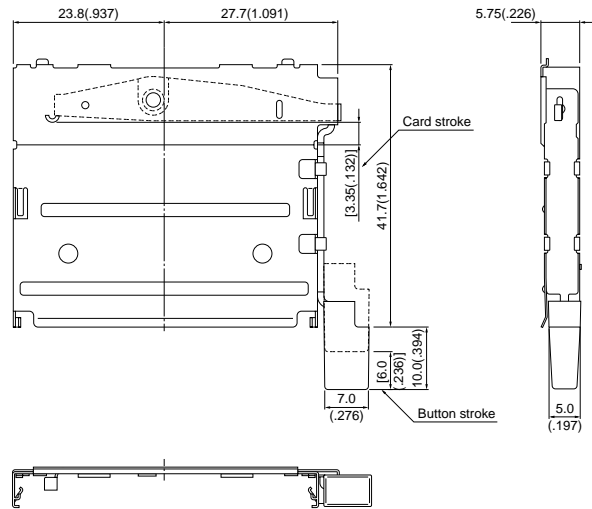
Type	Model No.	Qty / box	Material
Right button	<b>ICM-MAE-R01</b>	100	Frame, Rotating arm, Push bar: Stainless steel Push button: PPS
Left button	<b>ICM-MAE-L01</b>	100	

# CF CARD CONNECTOR MA TYPE

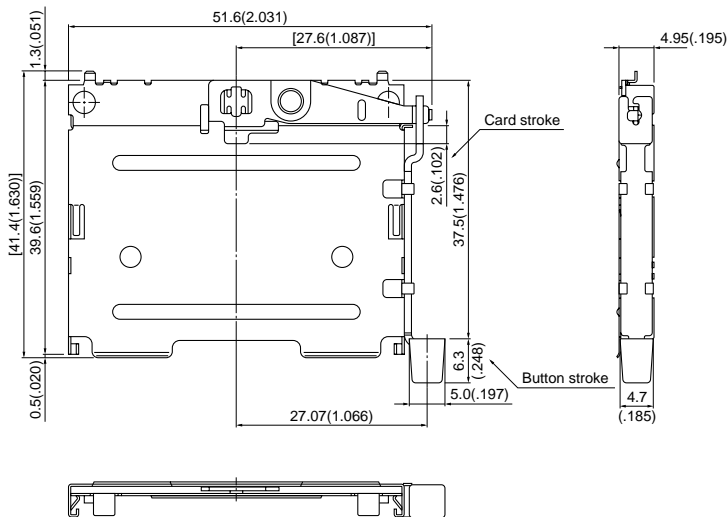
For Normal type header (Left button)



For Reverse type header (Right button)



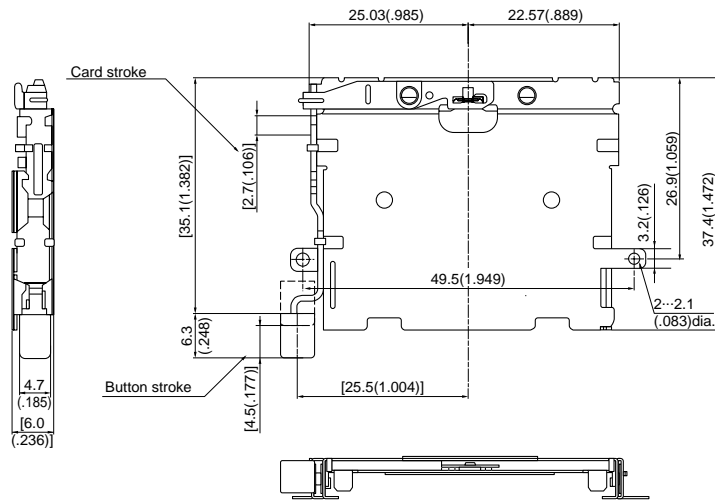
For Normal type header (Right button)



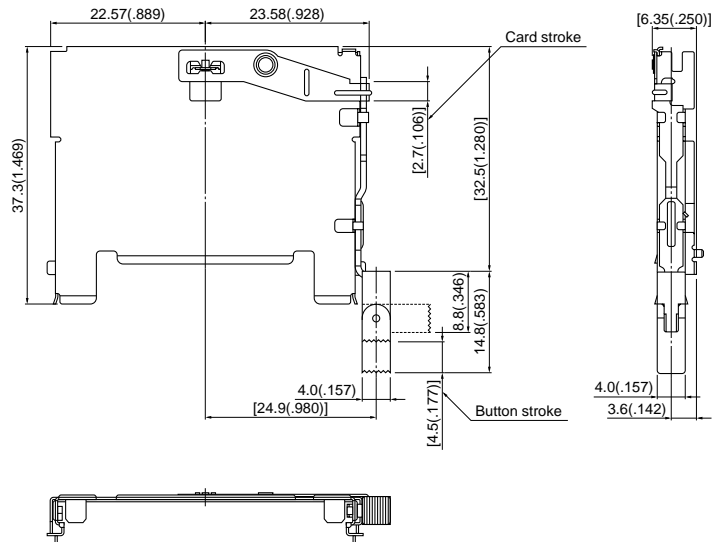
Applicable header	Model No.	Qty / box	Material
For Normal type header (Left button)	<b>ICM-MAE-L33</b>	48	Frame, Rotating arm, Push bar, Extruding bar, Button shaft: Stainless steel Push button: PBT, UL94-0, black(R32), gray(L33)
For Normal type header (Right button)	<b>ICM-MAE-R32</b>	48	
For Reverse type header (Right button)	<b>ICM-MAE-R21</b>	48	Frame, Rotating arm, Push bar: Stainless steel Push button: PPS, UL94-0, black

# CF CARD CONNECTOR MA TYPE

## For Normal type header (Stand off 0mm) Left button



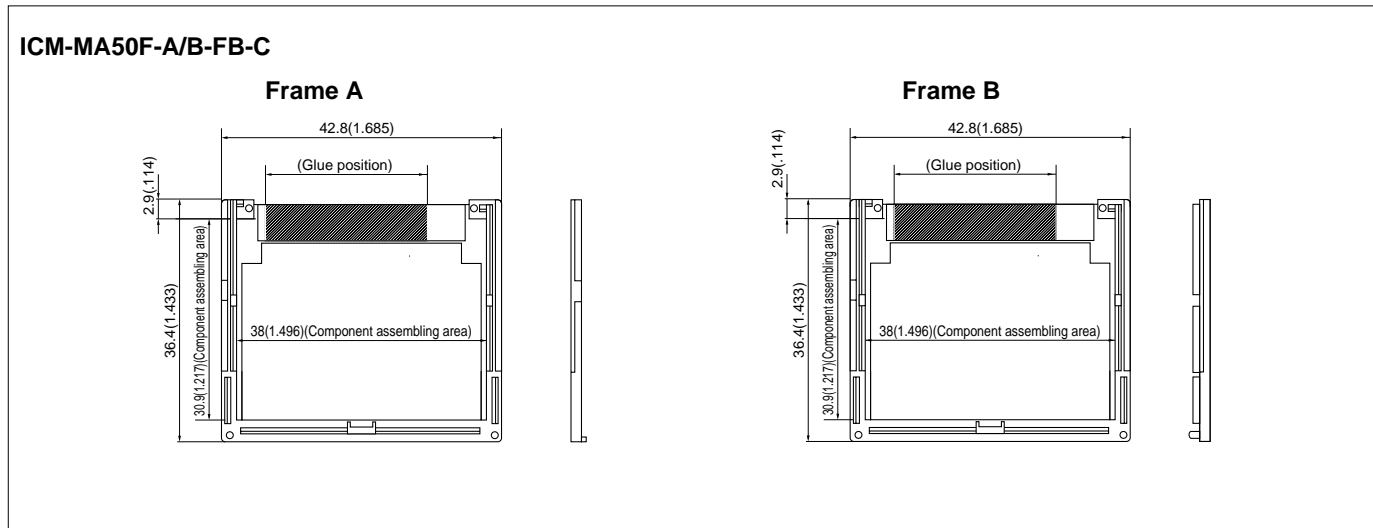
## For Reverse type header (Stand off 0mm) Right button



Type	Model No.	Q'ty / box	Material and Finish
For Normal type header (Stand off 0mm) Left button	<b>ICM-MAE-L73F</b>	36	Rotating arm, Push bar, Extruding bar, Frame: Stainless steel Button: PBT, UL94V-0, gray
For Reverse type header (Stand off 0mm) Right button	<b>ICM-MAE-R66C3</b>	36	Rotating arm, Push bar, Extruding bar, Button shaft: Stainless steel Clinched button: Synthetic resin, black Frame: Stainless steel, selective nickel-undercoated, tin/lead-plated

# CF CARD CONNECTOR MA TYPE

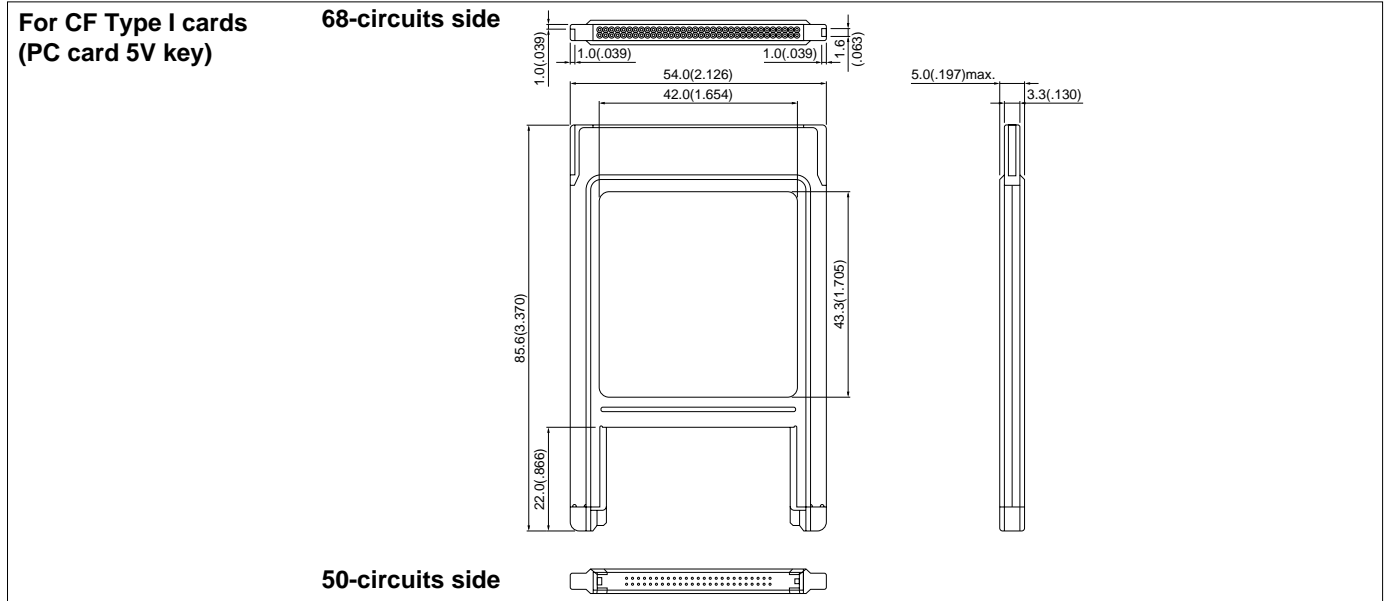
## Card frame (for Type I cards)



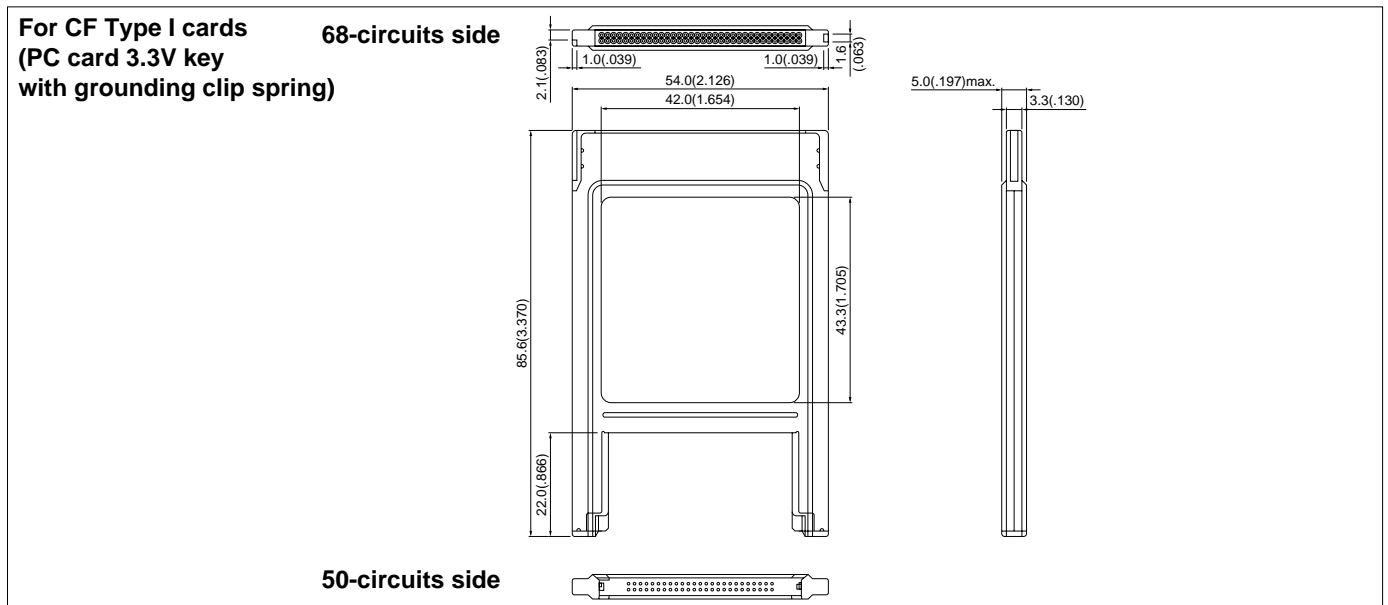
Circuits	Model No. as a set (Frame A + Frame B)	Applicable socket	Qty / box	Material and Finish
50	ICM-MA50F-A/B-FB-C	ICM-MA50S-TS13-5032	150	Frame: Glass-filled PBT, UL94V-0 Cover: Stainless steel
		ICM-MA50S-TS13-5023T		

# CF CARD CONNECTOR MA TYPE

## Adapter card



Model No.	Q'ty / box	Material and Finish	
ICM-MA50A-C441N	48	50-circuits side Header	Contact: Copper alloy, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Housing: PPS, UL94V-0
		68-circuits side Socket	Contact: Copper alloy, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Housing: LCP, UL94V-0 Grounding spring: Copper alloy, nickel-undercoated, gold-plated
		Cover: Stainless steel Frame: PBT, UL94V-0 PC board: Glass-epoxy, UL94V-0	

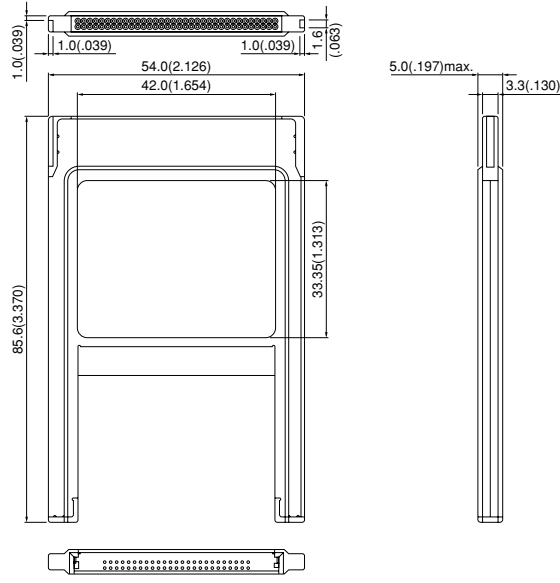


Model No.	Q'ty / box	Material and Finish	
ICM-MA50A-CLG441N	48	50-circuits side Header	Contact: Copper alloy, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Housing: PPS, UL94V-0
		68-circuits side Socket	Contact: Copper alloy, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Housing: LCP, UL94V-0 Grounding spring: Copper alloy, nickel-undercoated, gold-plated
		Cover: Stainless steel Frame: PBT, UL94V-0 PC board: Glass-epoxy, UL94V-0 Contact spring: Copper alloy	

# CF CARD CONNECTOR MA TYPE

## Adapter card

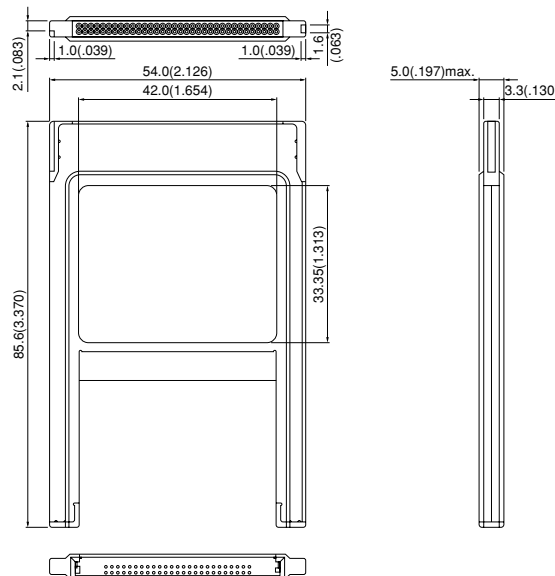
For CF Type II cards  
68-circuits side  
(PC card 5V key  
with grounding clip spring)



50-circuits side

Model No.	Qty / box	Material and Finish		
ICM-MA2A-C454N	48	50-circuits side Header	Contact: Copper alloy, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Housing: PPS, UL94V-0	Cover: Stainless steel Frame: PBT, UL94V-0 PC board: Glass-epoxy, UL94V-0 Contact spring: Copper alloy Shutter: PPS, UL94V-0 Spring: Stainless steel Lock: Stainless steel
		68-circuits side Socket	Contact: Copper alloy, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Housing: LCP, UL94V-0 Grounding spring: Copper alloy, nickel-undercoated, gold-plated	

For CF Type II cards  
68-circuits side  
(PC card 3.3V key  
with grounding clip spring)

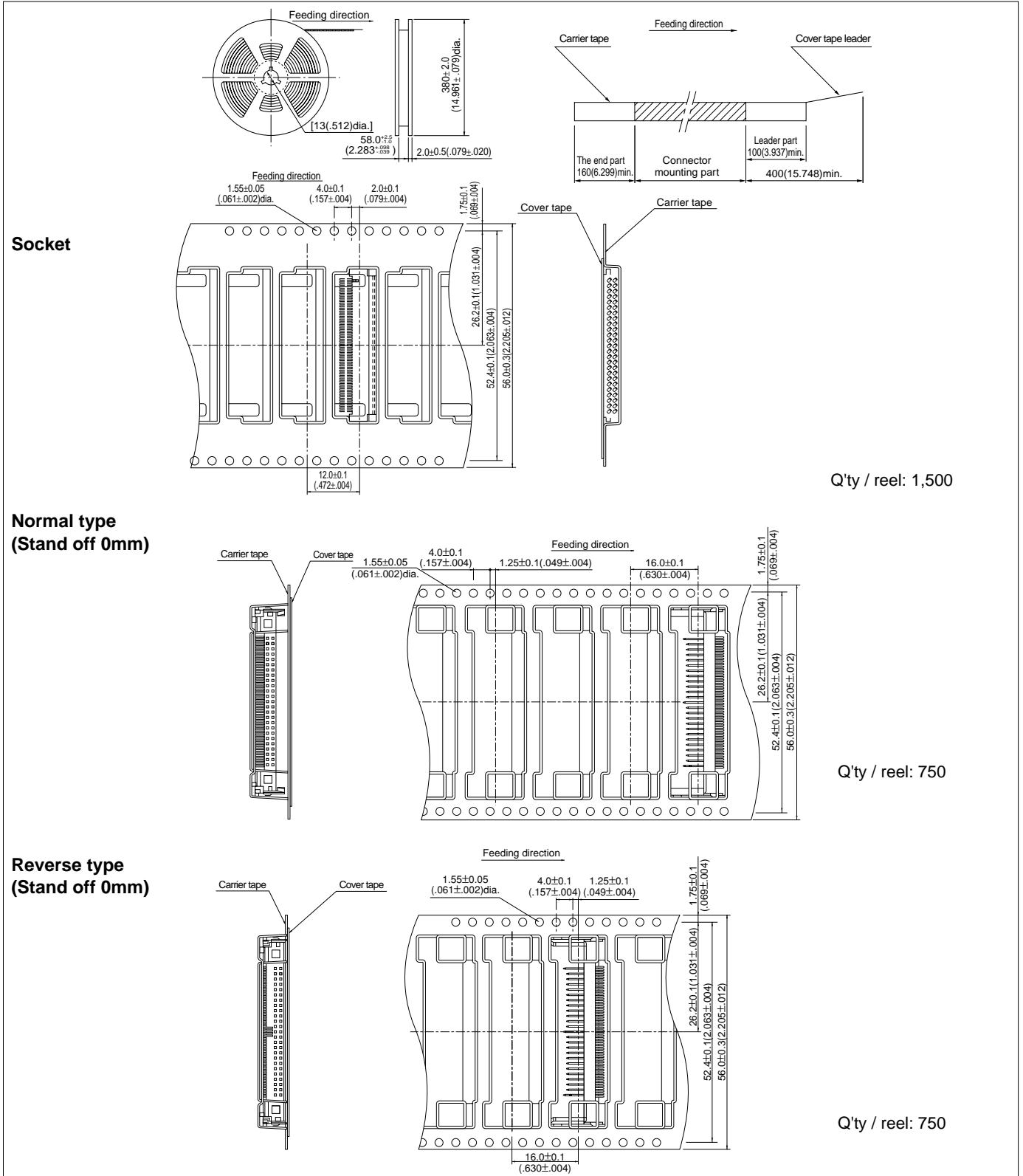


50-circuits side

Model No.	Qty / box	Material and Finish		
ICM-MA2A-CL454N	48	50-circuits side Header	Contact: Copper alloy, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Housing: PPS, UL94V-0	Cover: Stainless steel Frame: PBT, UL94V-0 PC board: Glass-epoxy, UL94V-0 Contact spring: Copper alloy Shutter: PPS, UL94V-0 Spring: Stainless steel Lock: Stainless steel
		68-circuits side Socket	Contact: Copper alloy, nickel-undercoated, Mating section...Gold-plated Solder tail...Tin/lead-plated Housing: LCP, UL94V-0 Grounding spring: Copper alloy, nickel-undercoated, gold-plated	

# CF CARD CONNECTOR MA TYPE

## Taping specifications



Q'ty / reel: 1,500

Q'ty / reel: 750

Q'ty / reel: 750

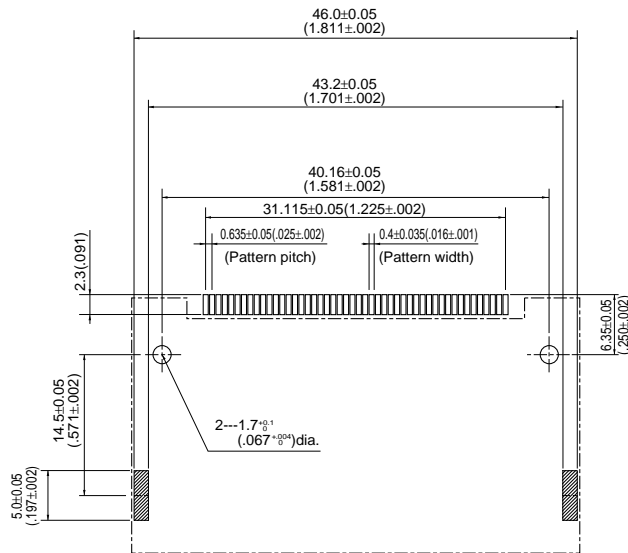
Note: 1. Specifications conform to JIS C 0806. The tape width, connector recess dimensions, etc. are determined by the number of circuits and external shape of the connector to be loaded.  
2. Specifications are subject to change without prior notice.

# CF CARD CONNECTOR MA TYPE

## PC board layout (viewed from component side)

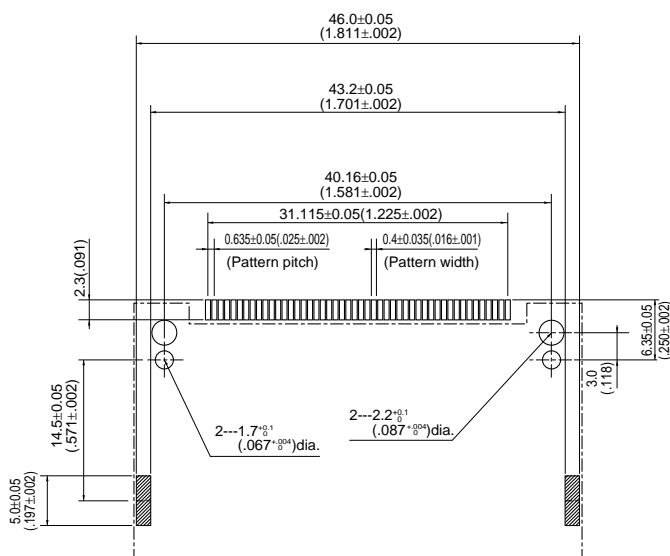
For Type I cards/Stand off 0mm

### Normal type/Reverse type



For Type I cards/Stand off 1.64mm (.065")

### Normal type/Reverse type



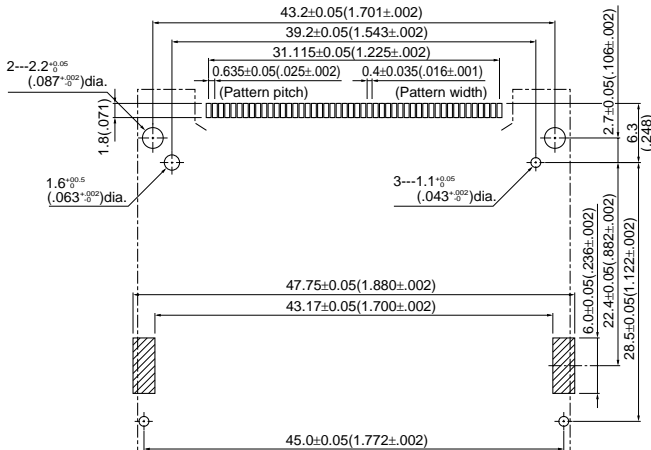


# CF CARD CONNECTOR MA TYPE

## PC board layout (viewed from component side)

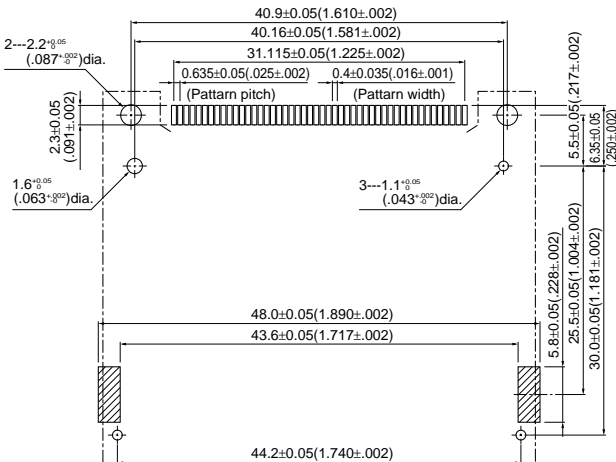
For Type II cards/Stand off 0mm

### Normal type



For Type II cards/Stand off 0mm

### Reverse type

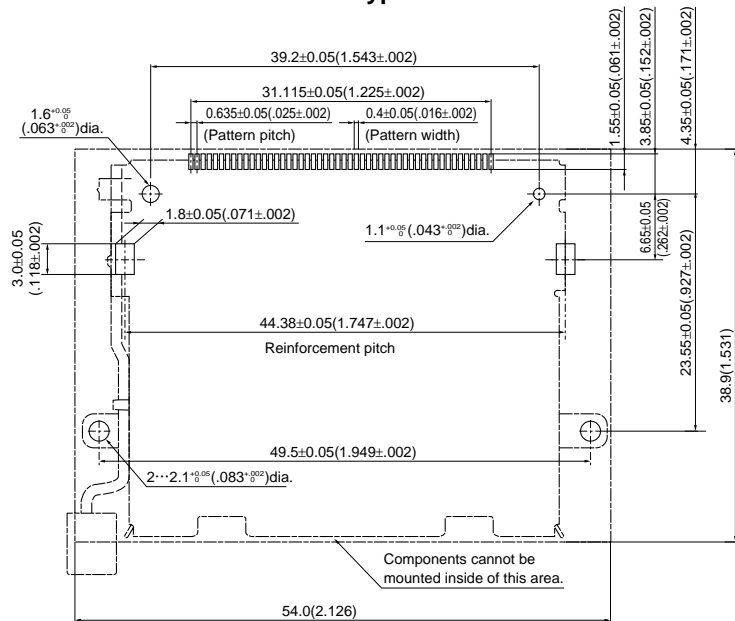


# CF CARD CONNECTOR MA TYPE

## PC board layout (viewed from component side)

For Type II cards/Stand off 0mm  
Space-saving type

### Normal type



For Type II cards/Stand off 0mm  
Space-saving type

### Reverse type

