NEW

PCI-SIG Standard M.2 Compatible Card Edge Connector

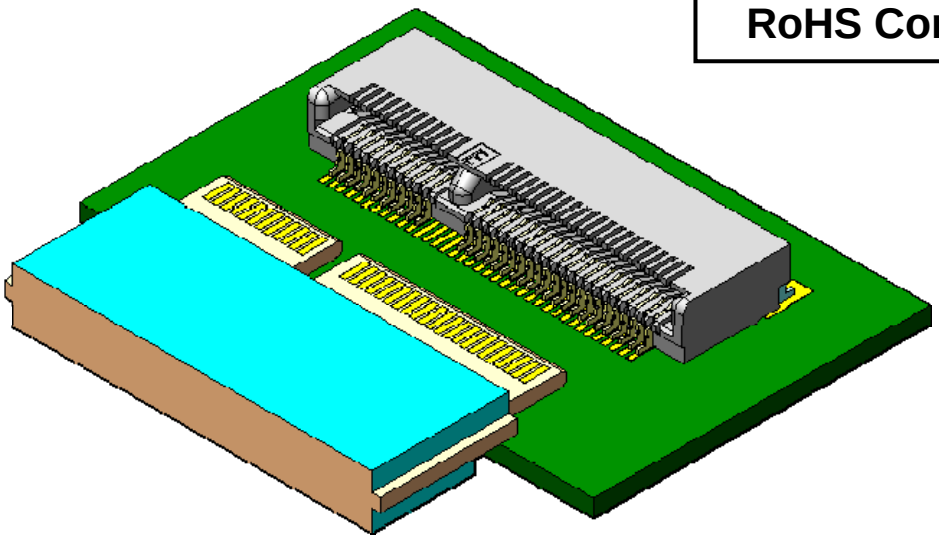
CONNECTOR

MB-0261-2

November 2013

SM3 Series

RoHS Compliant



The “SM3 Series” is a PCI-SIG PCI Express ® M.2 Specification compatible, card edge connector into which multiple modules equipped on notebook PCs and tablet PCs such as Wi-Fi ®, Bluetooth ®, SSD, and others can be inserted.

PCI Express ® is a registered trademark of PCI-SIG.
Wi-Fi ® is a registered trademark of Wi-Fi Alliance.
Bluetooth ® is a registered trademark of Bluetooth SIG.

Features

- ■Compliant with PCI Express M.2 Specification and enables transmission of PCIe Gen3, USB3.0, DisplayPort, SATA standard, and others. (Note 1)
- ■0.5mm pitch (2 row), 67 positions, compact card edge connector.
- ■Available in five types: three on-board types and two sunk-into-the-board types. Products with 4.1mm product height can mount 1mm height parts on the bottom side of the module.
- ■Board fixing method for sunk-into-the-board products are SMT type and through-hole type and either can be selected according to the board layout.
- ■Card edge connector into which multiple modules can be inserted and available in 4 types of polarizing keys by changing the mold.

(Note 1) Polarizing keys are assigned according to application. For more information, please refer to PCI Express M.2 Specification.

Applicable Markets

Notebook PC, tablet PC, portable game devices, STB, and others (SSD, wireless module use)

General Specifications

■No. of Contacts: 67 positions
■Contact Resistance: 55m Ω max.
■Dielectric Withstanding Voltage:
AC300Vr.m.s for 1 minute
■Operating Temperature:
-40 Deg. C ~ +80 Deg. C
■Rated Current: 0.5A per pin
■Insulation Resistance: 500MΩ min. (initial)
■Mating Cycles: 60 times

Materials and Finishes

■Card Edge Connector

Component	Material / Finish
Hold-down	Copper alloy / Sn plating over Ni
Upper Contact	Contact area: Copper alloy / Au plating over Ni Terminal area: Copper alloy / Au flash plating over Ni
Lower Contact	Contact area: Copper alloy / Au plating over Ni Terminal area: Copper alloy / Au flash plating over Ni
Insulator	Heat resistant plastic

Ordering Information

■Card Edge Connector

SM3 Z S 067 U 310 * * * R**

Series

Z: Low Insertion Force Type

S: Standard Mounting Type

No. of Contacts

U: On-board Mounting Type
B: Sunk-into-the-board Type

Product Height
120: 1.20mm
215: 2.15mm
310: 3.10mm
410: 4.10mm

Contact Area Finish
A: Au 0.13μm min.
B: Au 0.25μm min.

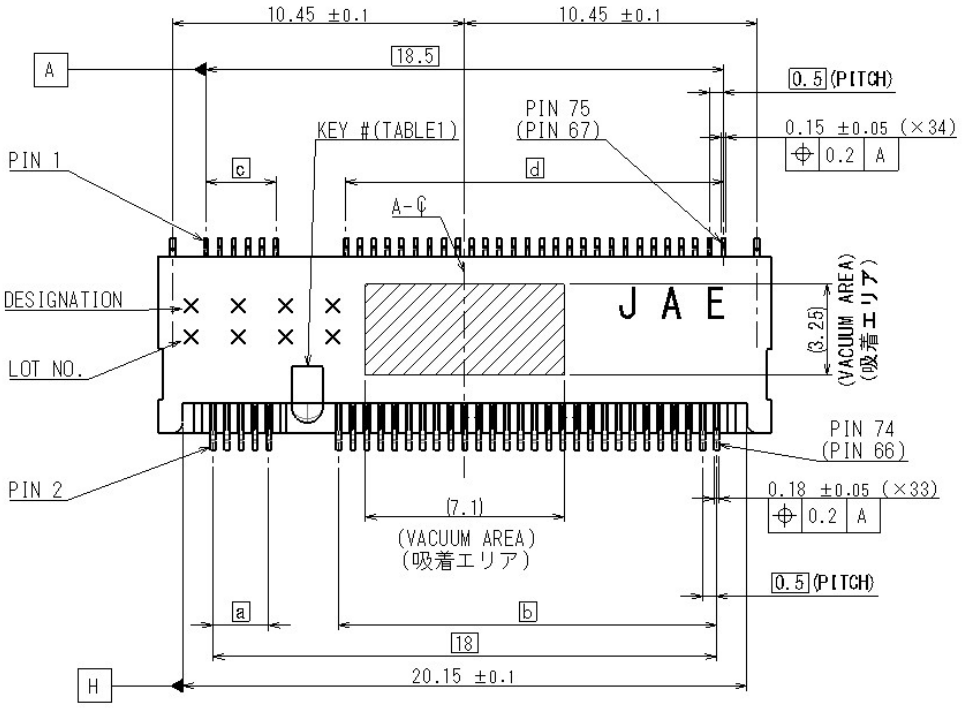
Polarizing Key: A / B / E / M

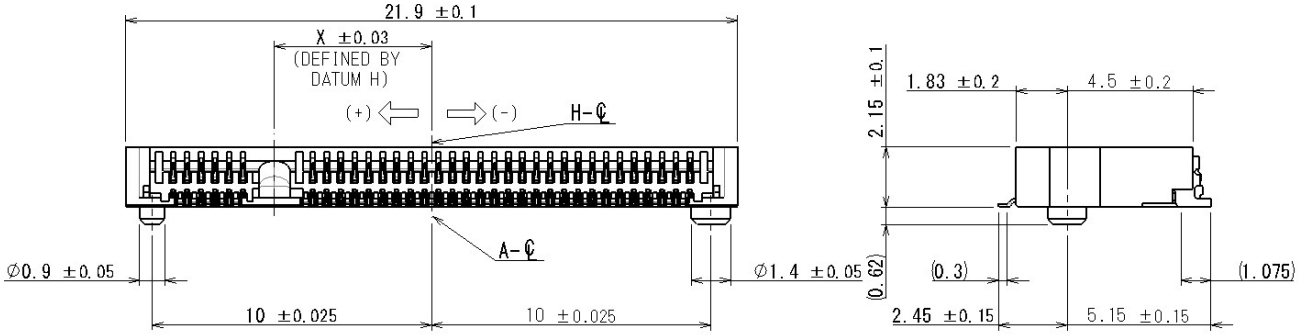
Modification Code

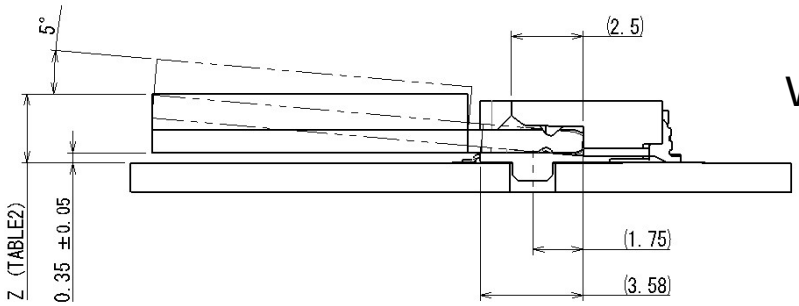
Reeled Quantity

Product Drawing

Part Number: SM3ZS067U215**
(Product Height: 2.15mm)







When module is inserted

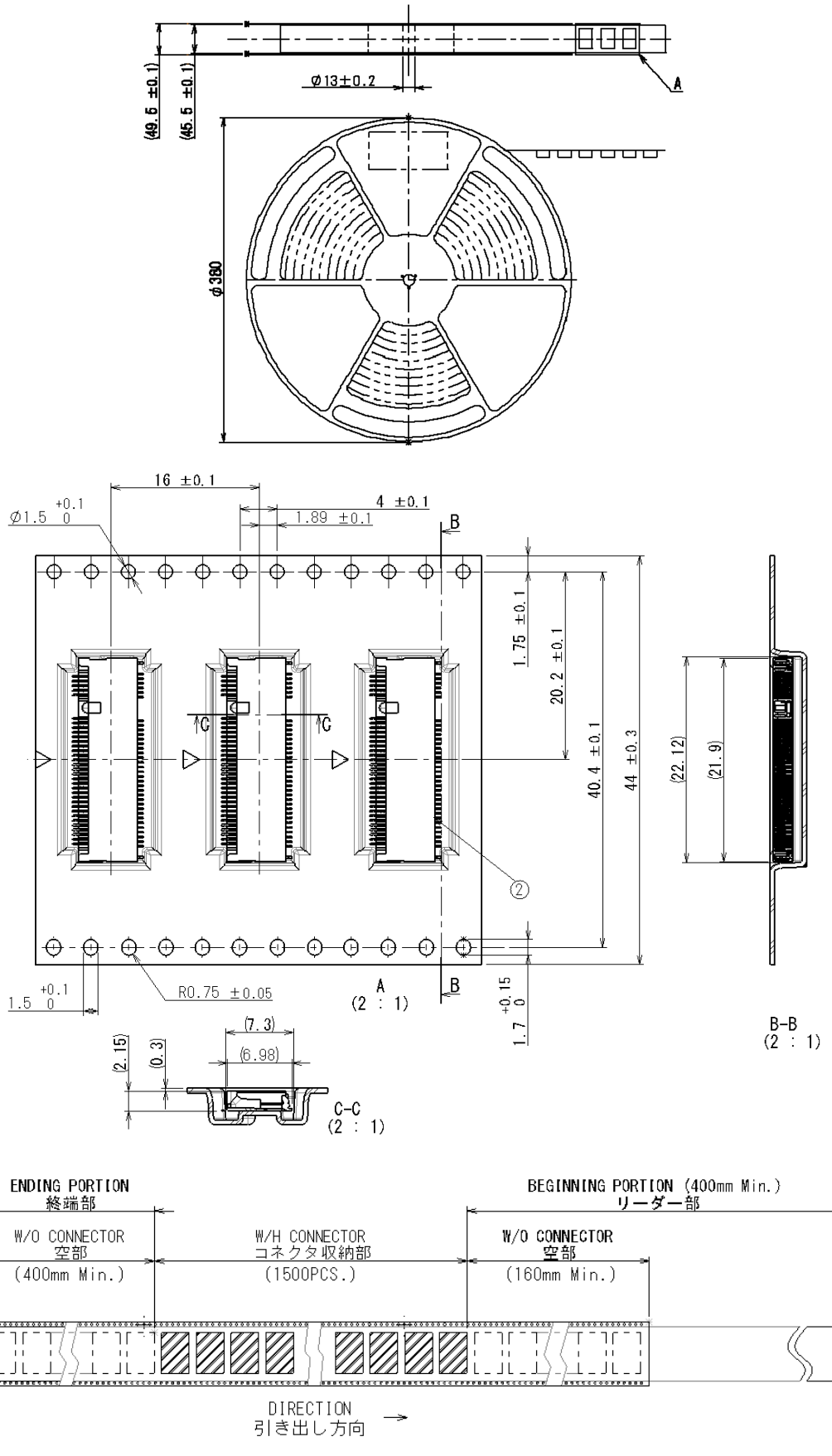
KEY#	X	a	b	c	d
B	+5.625	2	13.5	2.5	13.5
E	+2.625	5	10.5	5.5	10.5

Module Height	Z
MAX 1.2mm	MAX 3.55mm
MAX 1.35mm	MAX 3.70mm
MAX 1.5mm	MAX 3.85mm

* Please refer to product drawing when considering the use of this product.

Product Drawing

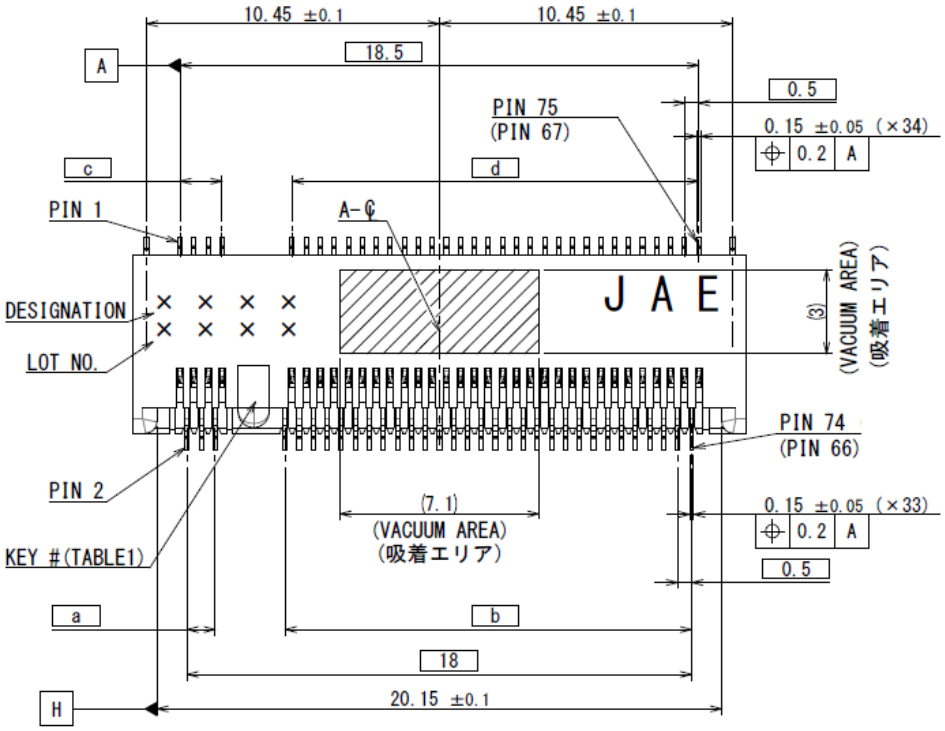
Part Number: SM3ZS067U215**R1500 (Product Height: 2.15mm)

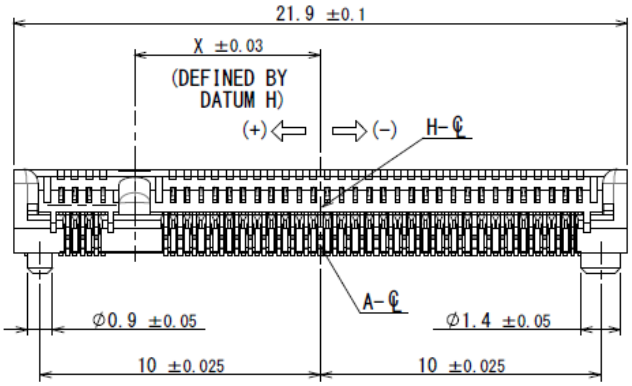


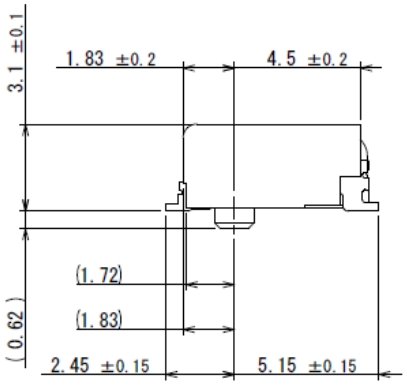
* Please refer to product drawing when considering the use of this product.

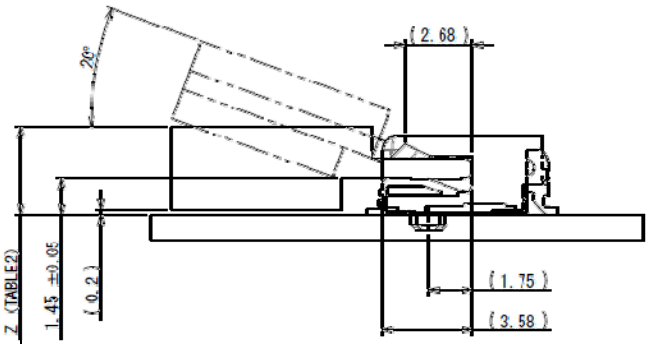
Product Drawing

Part Number: SM3ZS067U310**
(Product Height 3.1mm)









When module is inserted

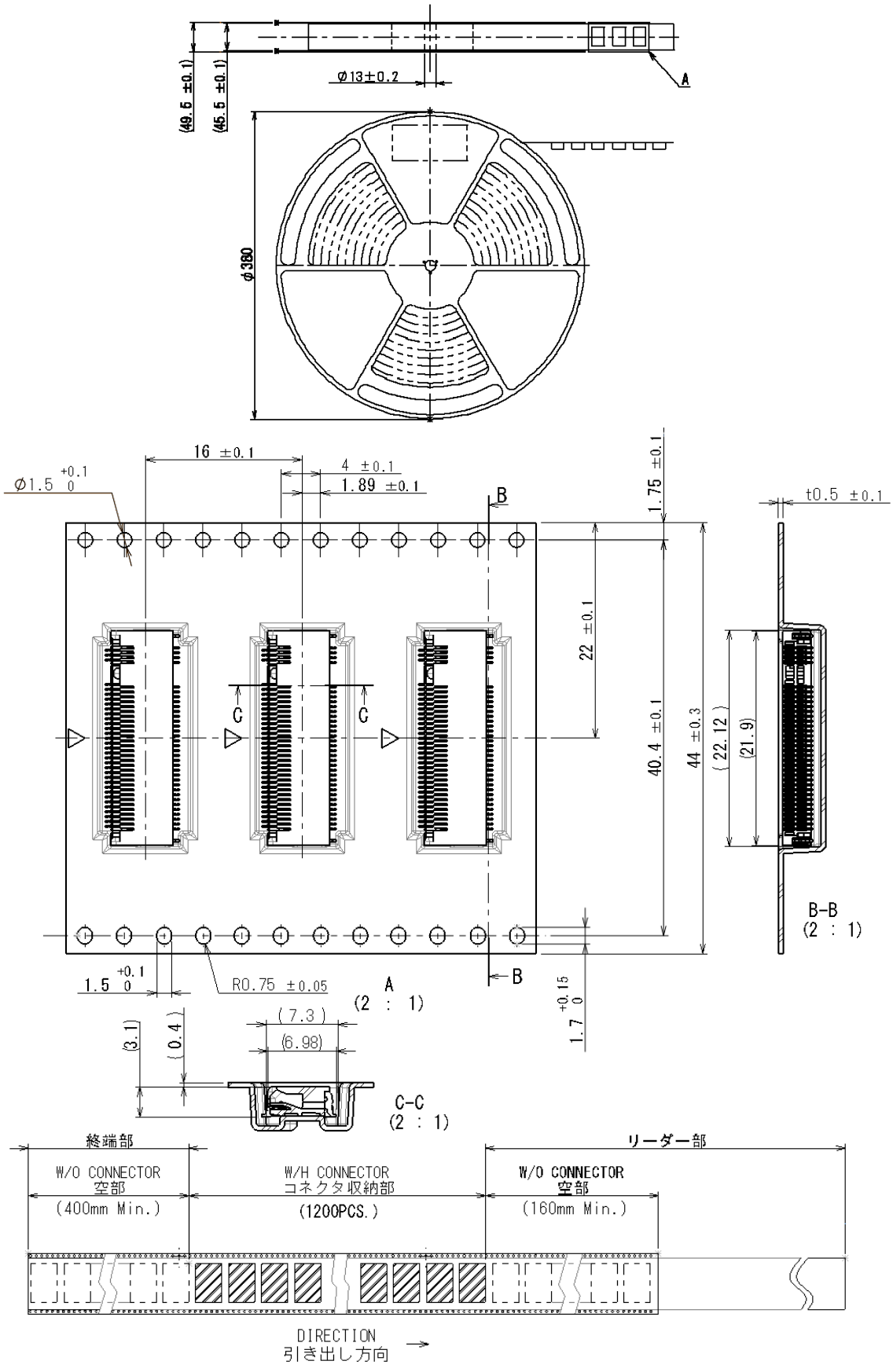
KEY#	X	a	b	c	d
A	+6.625	1	14.5	1.5	14.5
B	+5.625	2	13.5	2.5	13.5
E	+2.625	5	10.5	5.5	10.5
M	-6.625	14	1.5	14	2

Module Height	Z
MAX 1.2mm	MAX 3.55mm
MAX 1.35mm	MAX 3.70mm
MAX 1.5mm	MAX 3.85mm

* Please refer to product drawing when considering the use of this product.

Product Drawing

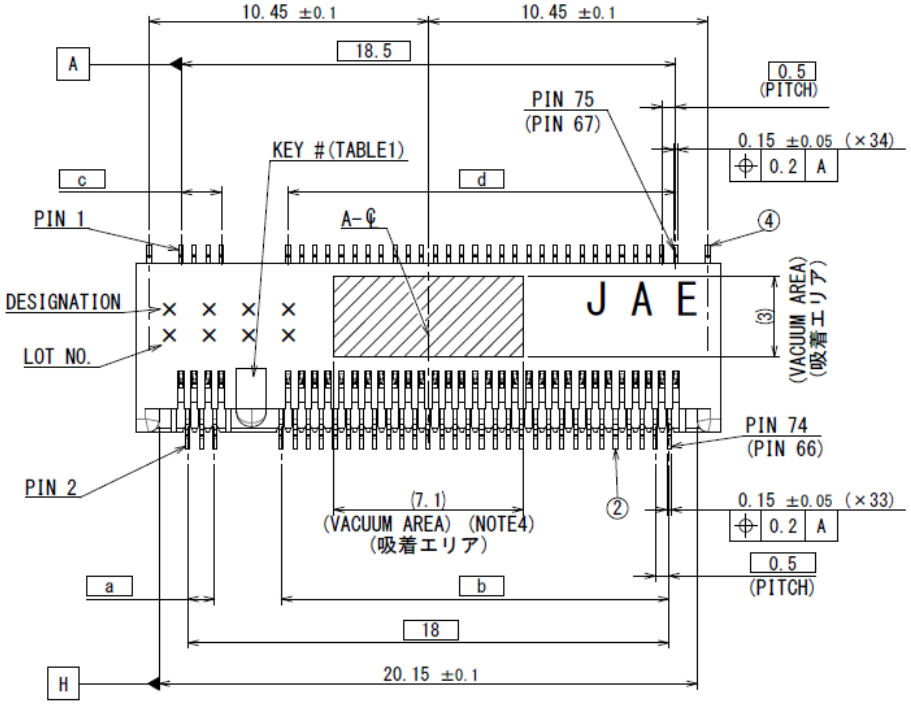
Part Number: SM3ZS067U310**R1200 (Product Height 3.1mm)

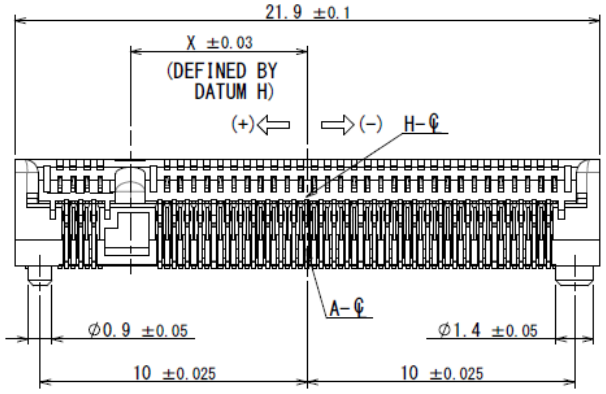


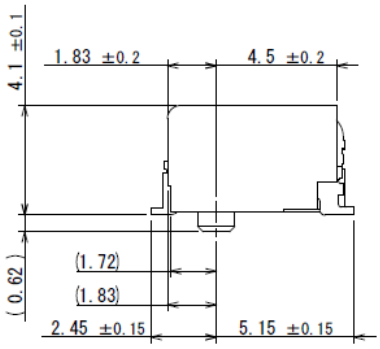
* Please refer to product drawing when considering the use of this product.

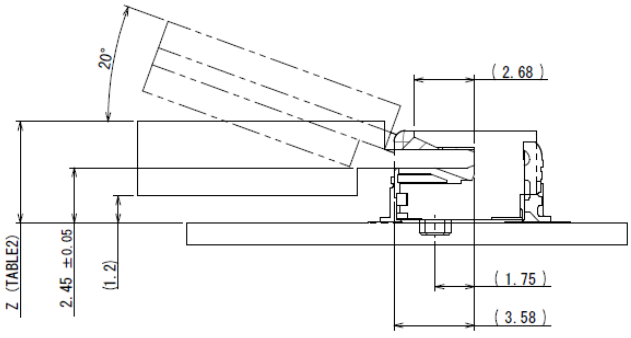
Product Drawing

Part Number: SM3ZS067U410**
(Product Height 4.1mm)









When module is inserted

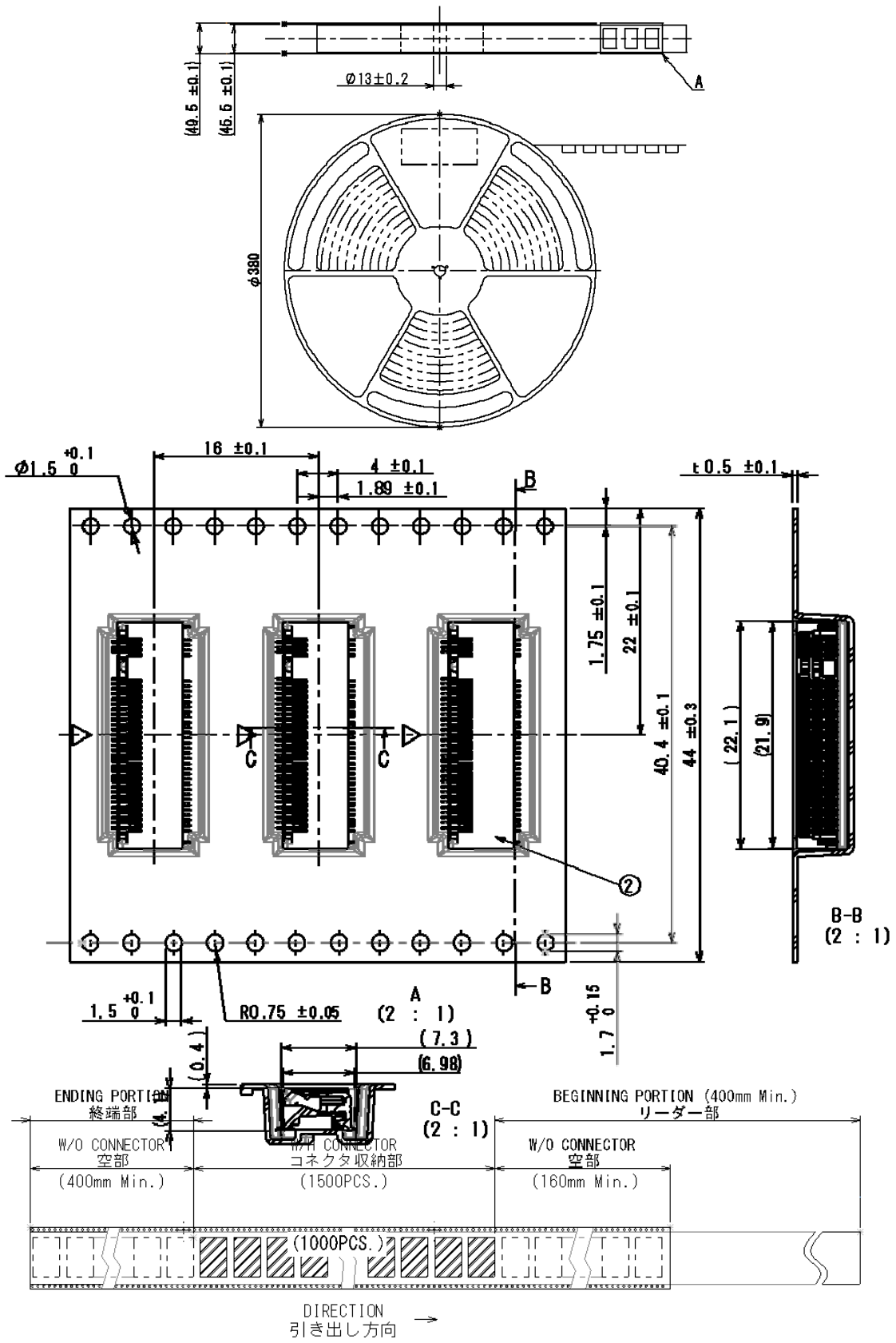
KEY#	X	a	b	c	d
A	+6.625	1	14.5	1.5	14.5
B	+5.625	2	13.5	2.5	13.5
E	+2.625	5	10.5	5.5	10.5
M	-6.625	14	1.5	14	2

Module Height	Z
MAX 1.2mm	MAX 3.55mm
MAX 1.35mm	MAX 3.70mm
MAX 1.5mm	MAX 3.85mm

* Please refer to product drawing when considering the use of this product.

Product Drawing

Part Number: SM3ZS067U410**R1000 (Product Height 4.1mm)

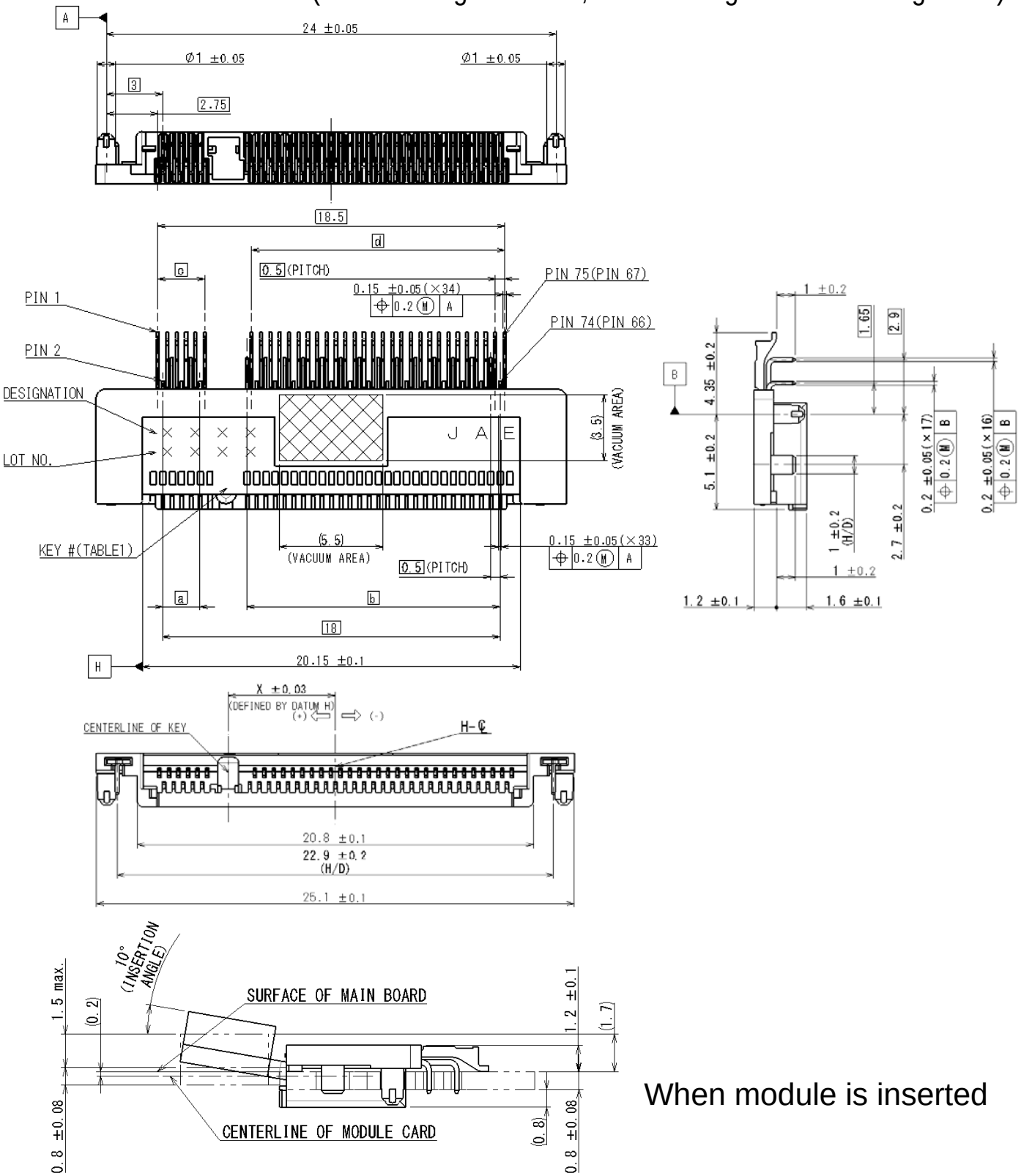


* Please refer to product drawing when considering the use of this product.

Product Drawing

Part Number: SM3ZS067B120**1

(Product Height: 1.2mm, Board Fixing Method: Through-hole)



When module is inserted

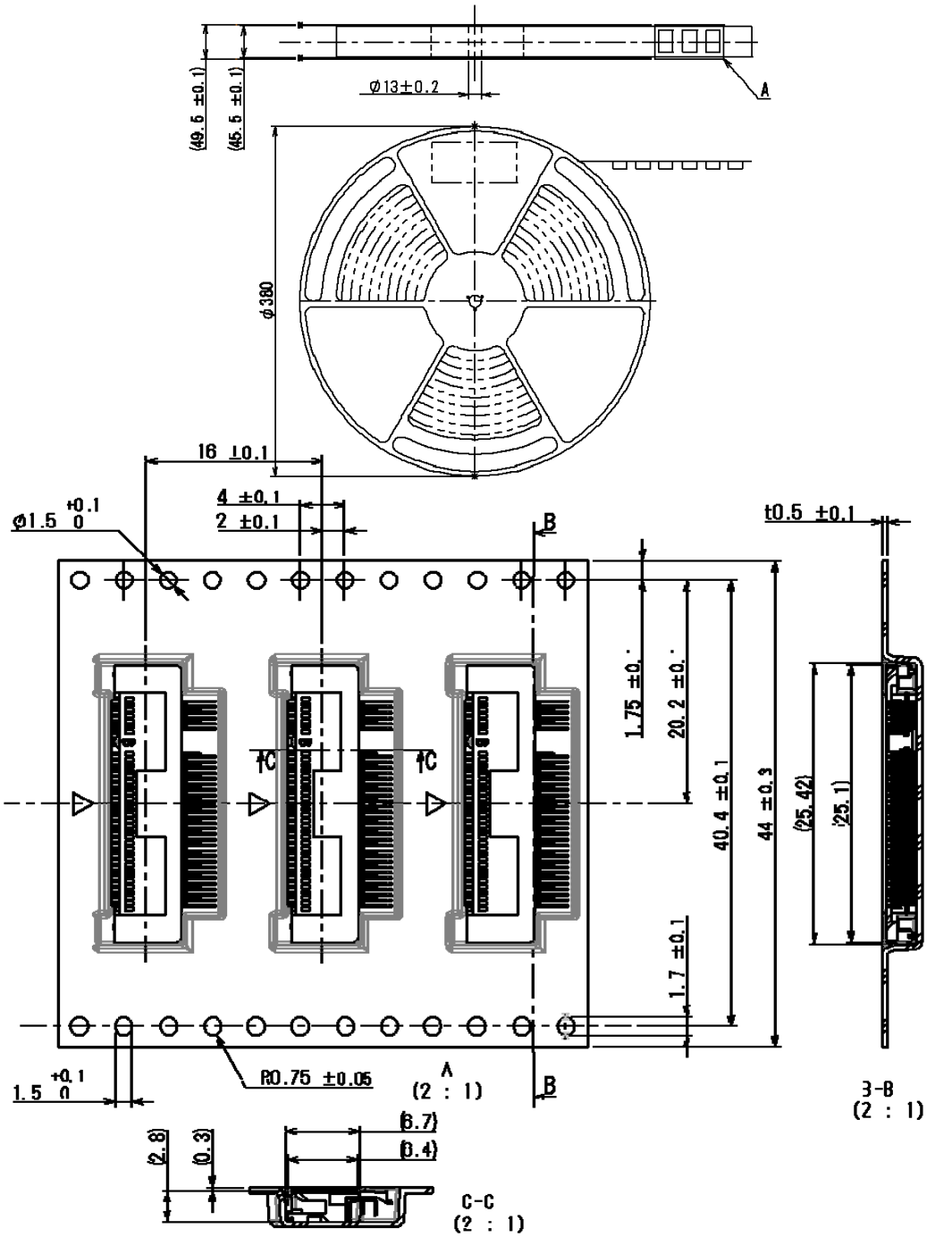
KEY#	X	a	b	c	d
B	+5.625	2	13.5	2.5	13.5
E	+2.625	5	10.5	5.5	10.5

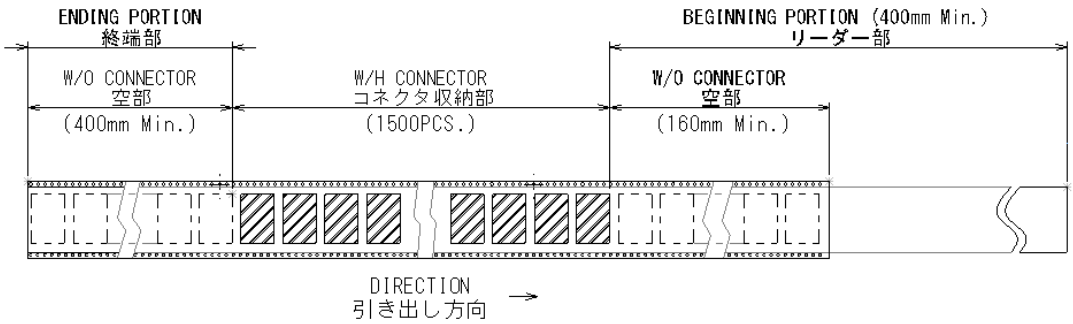
* Please refer to product drawing when considering the use of this product.

Product Drawing

Part Number: SM3ZS067B120**1R1500

(Product Height: 1.2mm, Board Fixing Method: Through-hole)



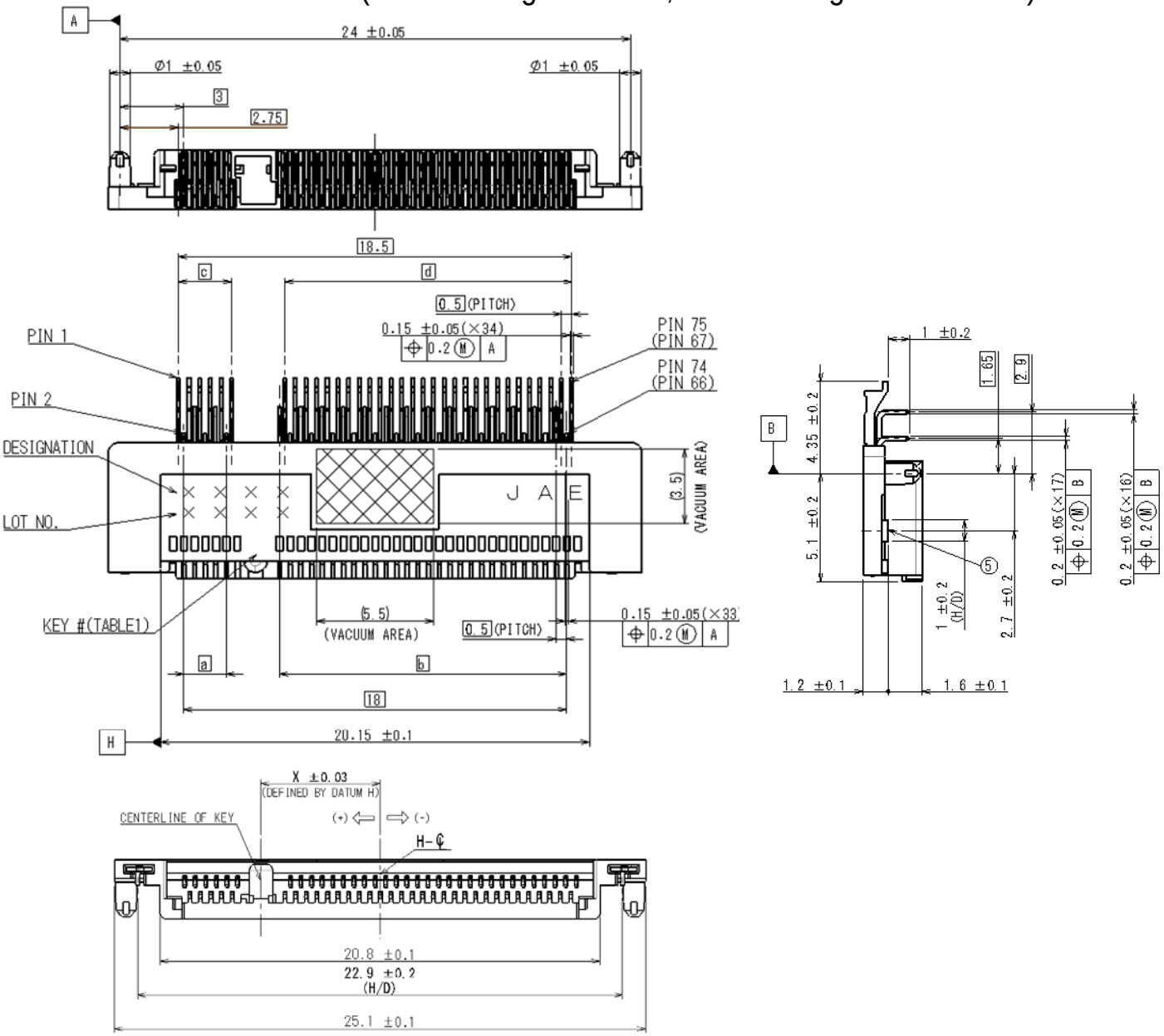


* Please refer to product drawing when considering the use of this product.

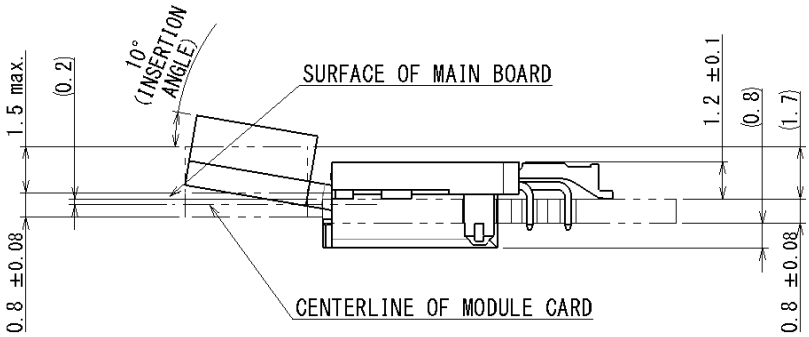
Product Drawing

Part Number: SM3ZS067B120**2

(Product Height: 1.2mm, Board Fixing Method: SMT)



When module is inserted



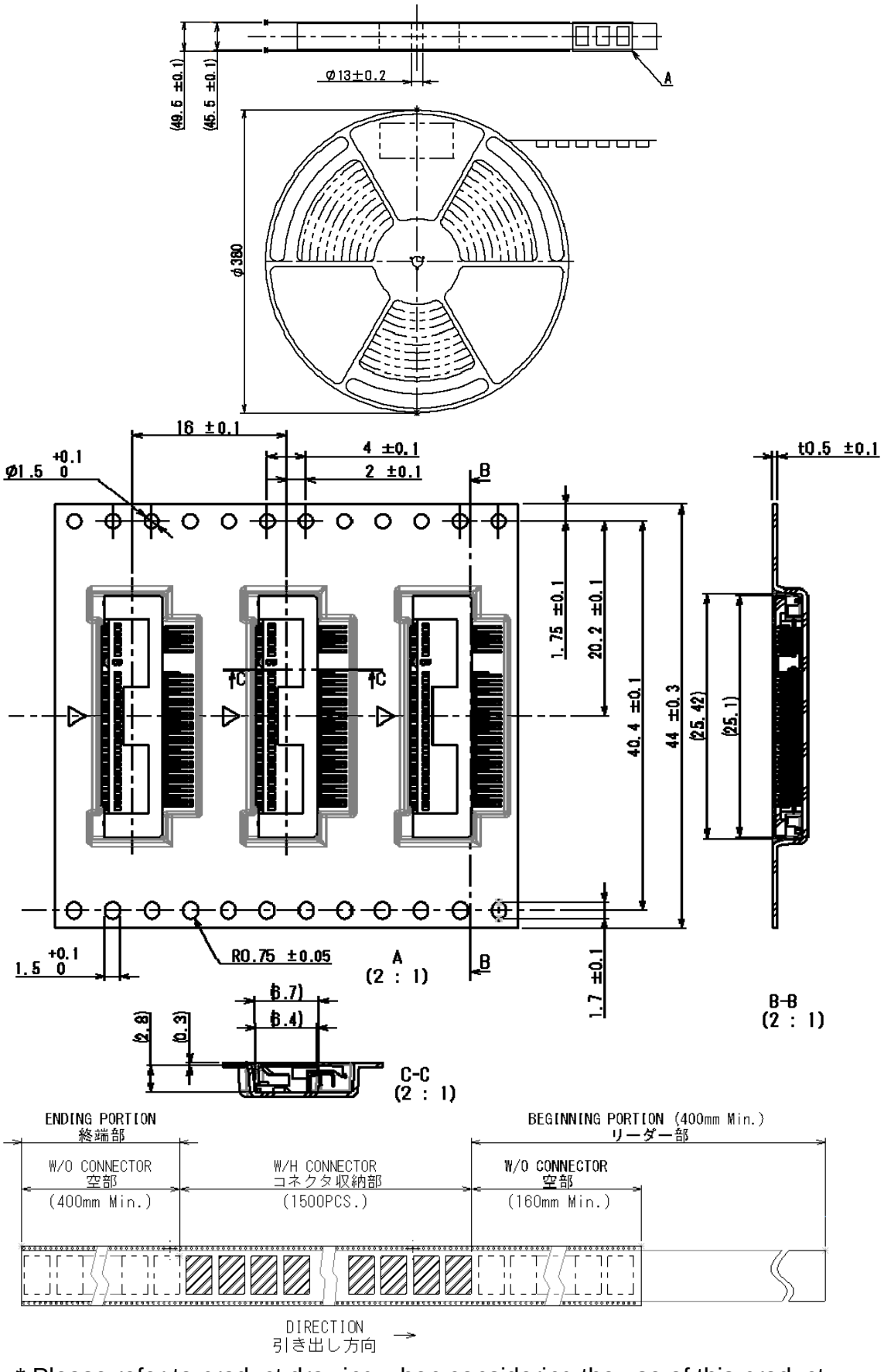
KEY#	X	a	b	c	d
B	+5.625	2	13.5	2.5	13.5
E	+2.625	5	10.5	5.5	10.5

* Please refer to product drawing when considering the use of this product.

Product Drawing

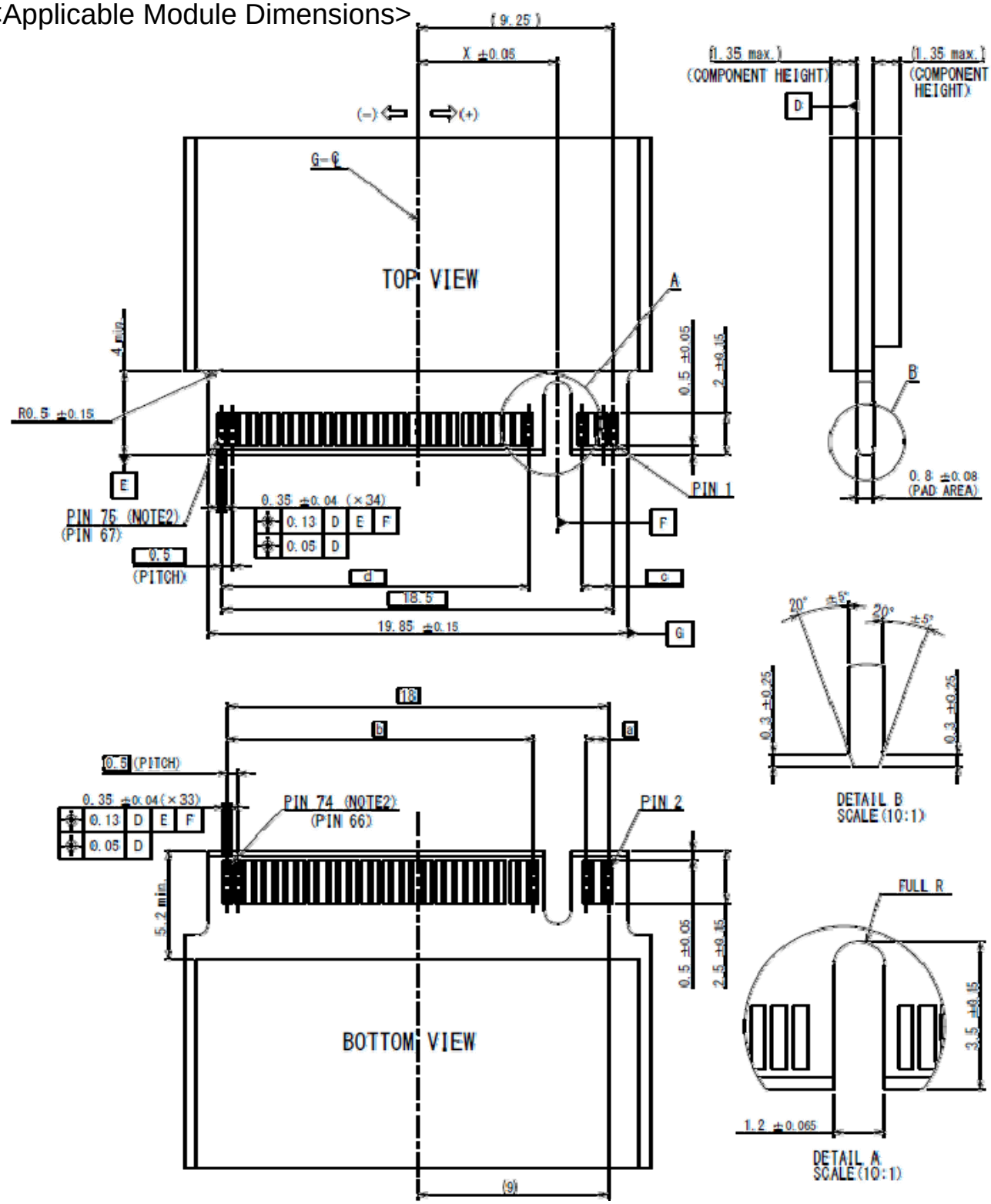
Part Number: SM3ZS067B120**2R1500

(Product Height: 1.2mm, Board Fixing Method: SMT)



* Please refer to product drawing when considering the use of this product.

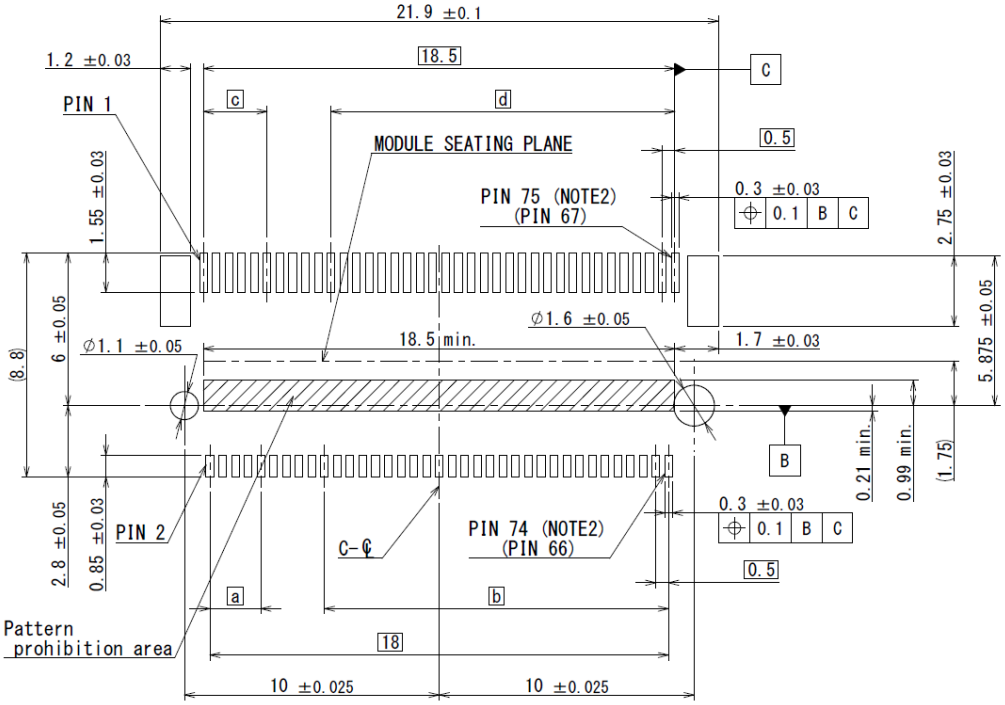
<Applicable Module Dimensions>



KEY#	X	a	b	c	d
A	+6.625	1	14.5	1.5	14.5
B	+5.625	2	13.5	2.5	13.5
E	+2.625	5	10.5	5.5	10.5
M	-6.625	14	1.5	14	2

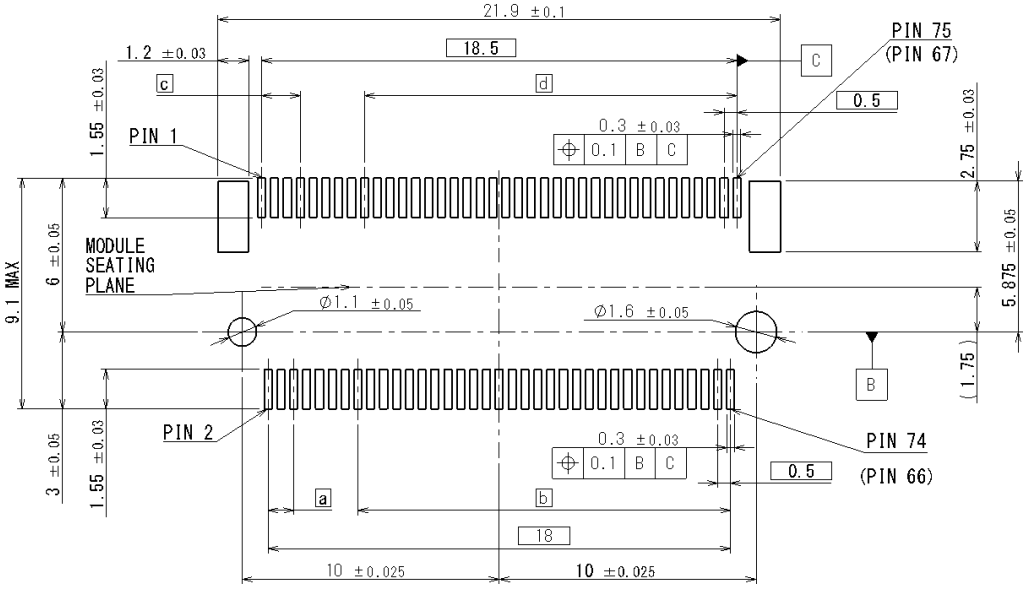
* Please refer to product drawing when considering the use of this product.

<Applicable Board Dimensions> (Product Height: 2.15mm)



KEY#	X	a	b	c	d
B	+5.625	2	13.5	2.5	13.5
E	+2.625	5	10.5	5.5	10.5

<Applicable Board Dimensions> (Product Height: 3.1 / 4.1mm)



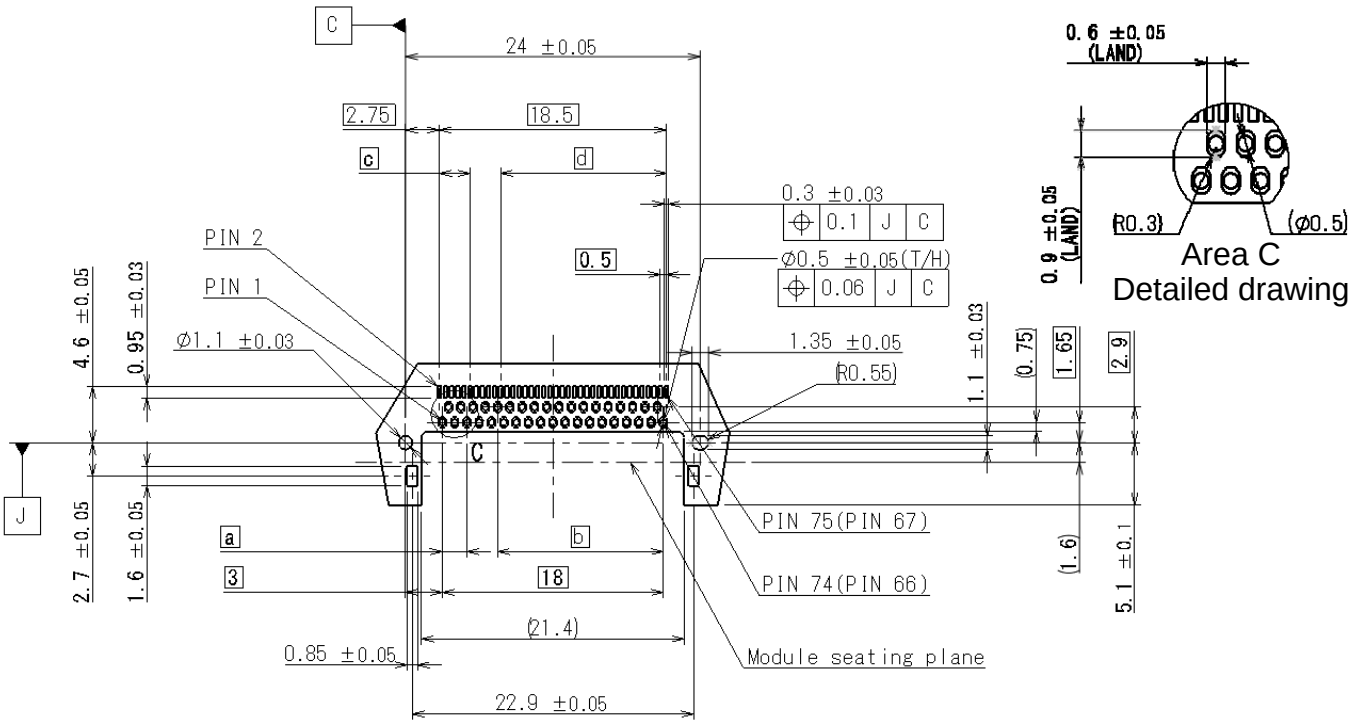
KEY#	X	a	b	c	d
A	+6.625	1	14.5	1.5	14.5
B	+5.625	2	13.5	2.5	13.5
E	+2.625	5	10.5	5.5	10.5
M	-6.625	14	1.5	14	2

<u>* The recommended applicable board dimensions are the same for both 3.1mm and 4.1mm height products.</u>

* Please refer to product drawing when considering the use of this product.

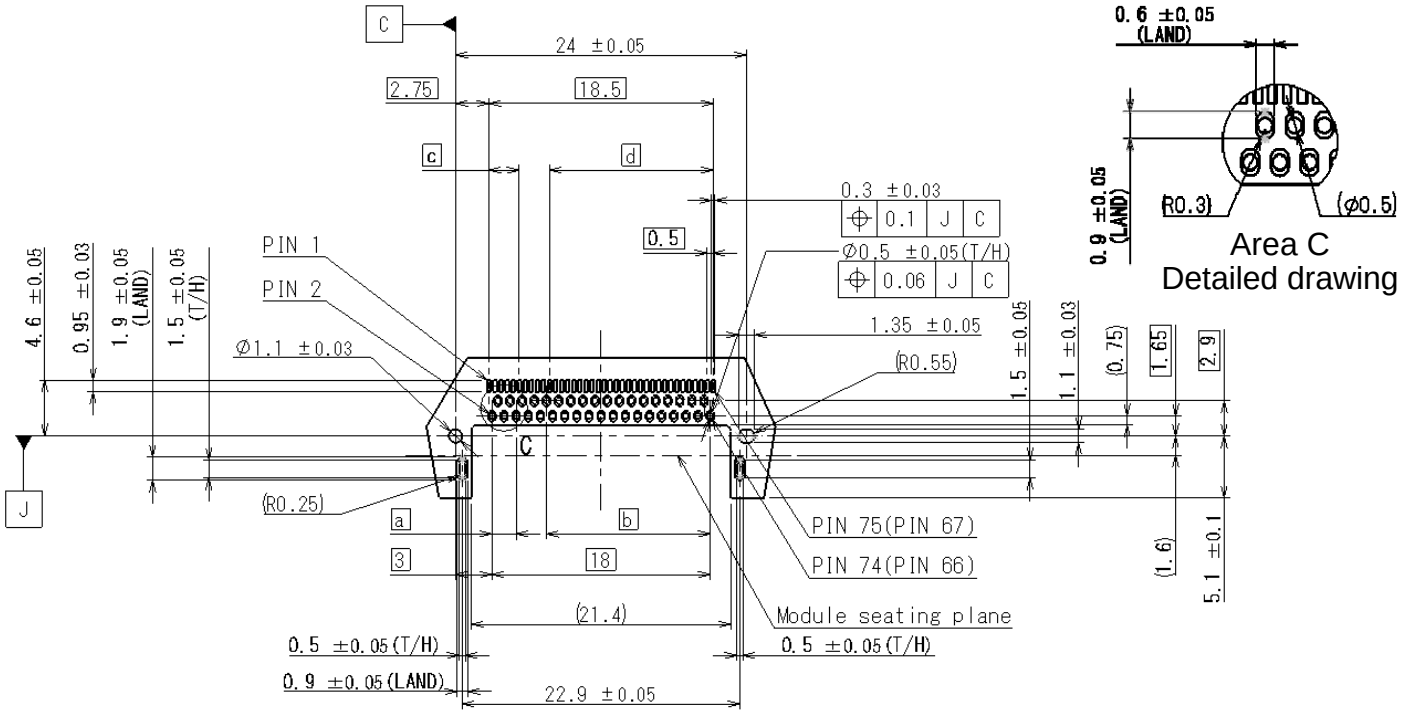
<Applicable board dimensions>

Part Number: SM3ZS067B120**2
(Product Height: 1.2mm, Board Fixing Method: SMT)



<Applicable board dimensions>

Part Number: SM3ZS067B120**1
(Product Height: 1.2mm, Board Fixing Method: Through-hole)



KEY#	X	a	b	c	d
B	+5.625	2	13.5	2.5	13.5
E	+2.625	5	10.5	5.5	10.5

* Please refer to product drawing when considering the use of this product.

Product Drawing and Specification Numbers

Part Number		SM3ZS067 U215** (R1500)	SM3ZS067 U410** (R1000)	SM3ZS067 U310** (R1500)	SM3ZS067 B120**2 (R1500)	SM3ZS067 B120**1 (R1500)
Mounting Type		On-board			Sunk-into-the-board	
Depth [mm]		(7.6)	(7.6)	(7.6)	(9.45)	
Height [mm]		2.15 +/-0.1	3.1 +/-0.1	4.1 +/-0.1	1.2 +/-0.1 (Product height when mounted)	
Width [mm]		21.9	21.9	21.9	25.1	
Polarizing Key	Developed	B/E	A/B/E/M	A/B/E/M	B/E	
	Development under consideration	A/M			A/M	
Contact Area Au Plating thickness	0.1μm	P	P	P	P	
	0.25μm		P	P		
Board Fixing Method		SMT				Through-hole
Evaluation Test		SR-C-1317	SR-C-1225	SR-C-1249	SR-C-1322	
Specifications		JACS-10937	JACS-10941	JACS-10941	JACS-11000	
Drawing No.	Individual Product	SJ113567	SJ113505	SJ113503	SJ114364	SJ114362
	Package	SJ113568	SJ113506	SJ113504	SJ114365	SJ114363

Notice:

1. The values specified in this brochure are only for reference. The products and their specifications are subject to change without notice. Contact our sales staff for further information before considering or ordering any of our products.
For purchase, a product specification must be agreed upon.

2. Users are requested to provide protection circuits and redundancy circuits to ensure safety of the equipment, and sufficiently review the suitability of JAE's products to the equipment.

3. The products presented in this brochure are designed for the uses recommended below.
We strongly suggest you contact our sales staff when considering use of any of the products in any other way than the recommended applications or for a specific use that requires an extremely high reliability.

(1) Applications that require consultation:
(i) Please contact us if you are considering use involving a quality assurance program that you specify or that is peculiar to the industry, such as:
Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster prevention equipment, etc.
(ii) We may separately give you our support with a quality assurance program that you specify, when you think of a use such as :
Aviation or space equipment, submarine repeaters, nuclear power control systems, medical equipment for life support, etc.

(2) Recommended applications include:
Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc

Japan Aviation Electronics Industry, Limited
Product Marketing Division
Aobadai Building, 3-1-19, Aobadai, Meguro-ku, Tokyo 153-8539
Phone: +81-3-3780-2882 FAX: +81-3-3780-2946

* The specifications in this brochure are subject to change without notice. Please contact JAE for information.

Mouser Electronics

Authorized Distributor

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