

NOTICE OF COMPLETION
AND
AUTHORIZATION TO APPLY THE UL MARK



2022-10-31

Mr. Kazumasa Saito
i-PRO Co., Ltd.
7-9-66 HAKOZAKI HIGASHI-KU
FUKUOKA-SHI, FUKUOKA, 812-0053, JP

Your Reference: iPRO-22-U041
Our Reference: File E521573, Volume X5, X6 Order: 14473101
Project: 4790544136
Project Scope: ULcUL (62368-1 3rd) NEW: Network Disk Recorder, Model WJ-NU301K, Covered in
Report Reference No. E521573-A6053, Volume X5, X6

Dear Mr. Kazumasa Saito:

UL has completed the investigation under the above project and confirmed compliance of your product(s) with UL requirements. We appreciate that you have a choice of certification providers and thank you for choosing UL.

This letter temporarily supplements the UL Follow-Up Services Procedure and serves as authorization to apply the UL Mark at the factory location(s) identified on the Authorization Page of UL File E521573, Volume X5, X6. You are required to send a copy of this letter to all manufacturing locations authorized under UL File E521573, Volume X5, X6.

The Follow-Up Services Procedure covering your product(s) will typically be provided by UL within 10 business days. Any information and documentation provided to you involving the UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Products that bear the UL Mark must be identical to those submitted to UL for evaluation and certification and must comply with the Follow-Up Services Procedure covering your product(s). Additional requirements related to the responsibilities of the Applicant and Manufacturer can be found under **Additional Resources** at <https://www.ul.com/fus>.

A UL certification is a valuable marketing tool meaning your product or company has successfully met stringent requirements. We encourage you to use your UL Mark and certification in your marketing activities. You can find information on how to accurately promote your UL certification at <https://www.ul.com/marketing>.

If you have any questions, please contact me or any of our customer service representatives. And, congratulations again on your achievement!

Sincerely,

Nao Maede
Project Engineer
UL Japan, Inc.
Nao.Maede@ul.com

Bruce A. Mahrenholz
Director, Conformity Assessment Programs (CPO)
UL LLC
Bruce.A.Mahrenholz@ul.com

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UL TEST REPORT AND PROCEDURE

Standard:	UL 62368-1, 3rd Ed, 2021-10-22 (Audio/video, information and communication technology equipment Part 1: Safety requirements) CAN/CSA C22.2 No. 62368-1:19, 3rd Ed, 2021-10-22 (Audio/video, information and communication technology equipment Part 1: Safety requirements)
Certification Type:	Listing
CCN:	AZOT, AZOT7 (Audio/video, Information and Communication Technology Equipment)
Complementary CCN:	N/A
Product:	Network Disk Recorder
Model:	WJ-NU301K
Rating:	100V-240V~, 50/60Hz, 340W
Applicant Name and Address:	i-PRO CO., LTD. 7-9-66 HAKOZAKI HIGASHI-KU FUKUOKA-SHI FUKUOKA 812-0053 JAPAN

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared By: Nao Maede / Project Handler

Reviewed By: Tadao Nakayama / Reviewer

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

A. Authorization - The Authorization page may include additional Factory Identification Code markings.

B. Generic Inspection Instructions -

- i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
- ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
- iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

The equipment is Network Disk Recorder and designed for use within surveillance system, and record images/audio from up to 16 network cameras on the hard disk drives (HDDs).

This equipment supports connection with a monitor equipped with the HDMI (High-Definition Multimedia Interface) connector.

Connection using an HDMI cable (optional) offers display of playback/live images with superior quality.

It is possible to display images from multiple cameras, switch those images and perform basic operation of the camera.

Model Differences

N/A

Test Item Particulars

Product group	end product
Classification of use by	Ordinary person
Supply Connection	AC Mains
Supply tolerance	+10%/-10%
Supply connection – type	pluggable equipment type A - appliance coupler
Considered current rating of protective device	20 A; Location: building
Equipment mobility	movable rack-mounted
Over voltage category (OVC)	OVC II
Class of equipment	Class I
Special installation location	N/A
Pollution degree (PD)	PD 2
Manufacturer's specified Tma (°C)	45°C
IP protection class	IPX0
Power systems	TN
Altitude during operation (m)	2000 m or less
Altitude of test laboratory (m)	Approximately 10 to 20 m
Mass of equipment (kg)	Approximately 7.4kg (Manufacturer's Spec)

Technical Considerations

- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS) : CAMERA PoE/PoE+ Ports, (P1 to P16), Front USB3.0 Port, Rear USB2.0 Port
- The product was evaluated to be used in tropical climates.

Additional Information

Unless otherwise stated, all required tests were conducted on representative Model WJ-NU301K installed two HDDs with the largest capacity under *Maximum Normal Load.

*Maximum Normal Load: Continuous data recording by program which provided by client and with following external load.

54Vdc, 233W dummy load is connected to Power Line of PoE+ port.

Mouse is connected to Rear USB2.0 port.

Monitor is connected to Rear HDMI [A/V MAIN] port.

0.9A dummy load is connected to Front USB3.0 port.

Additional Standards

The product fulfills the requirements of:

Markings and Instructions

Clause Title	Marking or Instruction Details
Equipment identification marking – Manufacturer identification	Listee's or Recognized Company's name, Trade Name, Trademark or File Number
Equipment identification marking – model identification	Model Number
Equipment rating marking – ratings	"Input Ratings (voltage, frequency/dc, current/power)", "Output Ratings (voltage, frequency/dc, current/power)"
F.3.1 Location of Maring Plate	Following statements or equivalent is provided in the manual. "Indication label Refer to the indication label placed on the top cover or bottom of this product for the equipment classification and power source, etc."
F.4 Instruction given for installation or initial use	Following statement or equivalent is provided in the installation instruction. "Caution This recorder is only intended for a connection to an ethernet or PoE network without routing to the outside plant."
F.4 Equipment for use in location where children not likely to be present	Following statement or equivalent is provided in installation instruction. "This product is not suitable for use in locations where children are likely to be present."

F.4 Protective earthing employed as safeguard	Following statement or equivalent is provided in installation instruction. "Grounding The power plug of this product is 2-prong plug equipped with a grounding terminal. Use this product after confirming that grounding is properly installed. If grounding is not installed properly, it may cause ground leakage or damage the product resulting in electric shock."
F.4 Safety Instructions - Rack Mount	Following statements or equivalent are provided in installation instruction. "Important: The following measures should take when installing the rack to ensure that the product is used within the operating temperature range. - Install a fan or other equipment to lower the temperature inside the rack. - Allow a distance of at least 1U (44 mm) between the top and bottom of the product. - Do not put doors on the front of the rack or block the sides. Precaution for installation Heat dissipation To prevent this product from overheating, heed the following. Failure to observe this may cause fire or trouble. - Do not block the cooling fan outlet or the ventilation holes with a wall, rack, cloth, etc. Maintain the product periodically to prevent dust from blocking ventilation holes. - Clear a space of more than 5 cm (2 inches) from both sides, the top and the rear of the product. Do not block the ventilation holes on the front side since this product is designed to cool the hard disk drives by drawing in air from the front."
Q.3, DVA Q Power source for Class 2 circuits - Marking	Following marking is provided near PoE ports. "CAMERA PoE/PoE+ 54 V@278 mA, 57 V MAX"
Special Instructions to UL Representative N/A	

BD1.0	TABLE: Production-Line Testing Requirements					
BD1.1	Electric Strength Test Special Constructions – Refer to Generic Inspection Instructions, Part AC for further information.					
Model	Component	Removable parts	Test probe location	Test V rms	Test V dc	Test Time, s
N/A	--	--	--	--	--	--
BD1.2	Earthing Continuity Test Exemptions – This test is not required for the following models:					
	N/A					
BD1.3	Electric Strength Test Exemptions – This test is not required for the following models:					
	N/A					
BD1.4	Electric Strength Test Component Exemptions – The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test.					
	N/A					

BE1.0	Sample and Test Specifics for Follow-Up Tests at UL				
Model	Component	Material	Test	Sample (s)	Test Specifics
N/A	--	--	--	--	--

4.1.2	TABLE: List of critical components					Pass
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Product Category CCN(s)	Mark(s) of conformity	Supplement ID
Power Supply Cord for USA/Canada	Interchangeable	Interchangeable	Detachable, Type SJT, 3 x 18AWG, 125V, 10A Maximum 3.0 m long, minimum 1.5 m long, One end with NEMA-5- 15P. Other end with Appliance coupler	ELBZ	UL	
Appliance Inlet	Echo Electric Co., Ltd.	AC-P26	250V, 15A	CSA certified under CAN/CSA C22.2 No. 60320-1-11, 1st Ed. ANSI/UL 60320-1- 2011, 2nd Ed.	CSA (NRTL)	
Alternate	Interchangeable	Interchangeable	250V, 15A	AZOT2/AZOT7 or AXUT2/AXUT8	UL, cUL	
Primary Wiring between Appliance Inlet and Switching Power Supply	Interchangeable	Style 1015	600V, 105°C, 20AWG, VW-1	AVLV2	UL	
Protective Bonding Wire	Interchangeable	Style 10937	Green/Yellow, 300V, 105°C, 20AWG, VW-1 One end is terminated to Appliance Inlet by soldering and close- fitting tubing; Other end is terminated to Chassis by M4 Screw with spring washer.	AVLV2	UL	
Switching Power Supply	FSP TECHNOLOGY INC.	FSP280-2F47-A54H	Input: 100-240V~, 50/60Hz, 3.2A	QQJQ2, QQJQ8	UL	

			Output: 54Vdc, 4.63A, 12Vdc 4.2A			
POWER INSULATION	SABIC INNOVATIVE PLASTICS US LLC	FR60	(Basic Insulation) V-0, minimum 0.4mm thick. (See Enclosure Id. 07-02 for dimension size.)	QMFZ2	UL	
Secondary Wiring between Switching Power Supply (54V) and Secondary Board	Interchangeable	Style 1430	300 V, 105 °C, 20AWG, VW-1	AVLV2	UL	
Tube for Secondary Wiring between Switching Power Supply (54V) and Secondary Board	Interchangeable	Interchangeable	600 V, 125 °C, VW-1	YDPU2	UL	
Secondary Wiring between Switching Power Supply (12V) and Secondary Board	Interchangeable	Style 1430	(Basic Insulation) 300 V, 105 °C, 20AWG, VW-1	AVLV2	UL	
Insulation Tube for Secondary Wiring between Switching Power Supply (12V) and Secondary Board	Interchangeable	Interchangeable	(Supplementary Insulation) 600 V, 125 °C, VW-1, minimum 0.4mm thickness	YDPU2	UL	
IC Current Limiters (IC250, IC251, IC300, IC301) for PoE outputs	MICROSEMI CORP	PD69104B1	Input Voltage: 44Vdc to 57Vdc Output Continuous Rating: AF: 10 to 350mA AT: 10 to 600mA Output Current Limit: AF: 350mA to 400mA AT: 600 to 775mA	QVRQ2	UL	

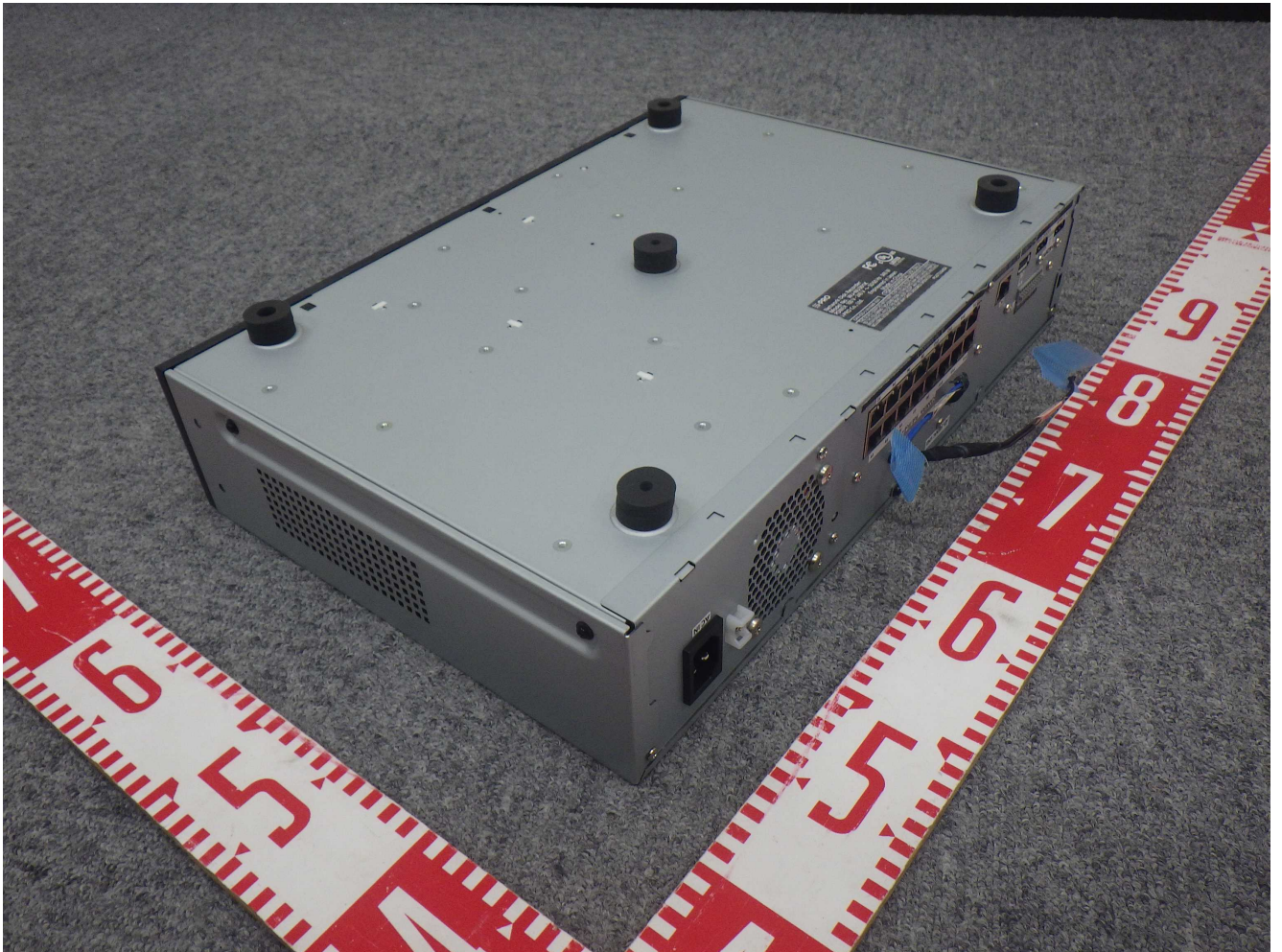
Back up Battery (B2601)	Maxell, Ltd.	CR2032	3V, 220mAh, Maximum Abnormal Charging Current: 10mA Charging current is prevented by Diode (D2602) and 1kohm Resistor (R2601) in series.	BBCV2	UL	
Alternate	Maxell, Ltd.	CR2032H	3V, 240mAh, Maximum Abnormal Charging Current: 10mA Charging current is prevented by Diode (D2602) and 1kohm Resistor (R2601) in series.	BBCV2	UL	
Alternate	Interchangeable	Interchangeable	3V, 220mAh, Maximum Abnormal Charging Current: 10mA Charging current is prevented by Diode (D2602) and 1kohm Resistor (R2601) in series.	BBCV2	UL	
Heatsink	Interchangeable	Interchangeable	Aluminum, See Enclosure Id. 07-03 for construction details.	--	--	
Printed Wiring Board	Interchangeable	Interchangeable	Minimum V-1, minimum 105°C	ZPMV2	UL	
3.5" Hard Disk Drive (Maximum 2 provided)	SEAGATE TECHNOLOGY L L C	ST with additional suffixes (ST18000VE002)	12Vdc, 0.72A, 5Vdc, 1.0A, Tma: 65°C	AZOT2	UL	
Alternate	Interchangeable	Interchangeable	12Vdc, maximum 0.72A, 5Vdc, maximum 1.0A, minimum Tma: 65°C	AZOT2	UL	

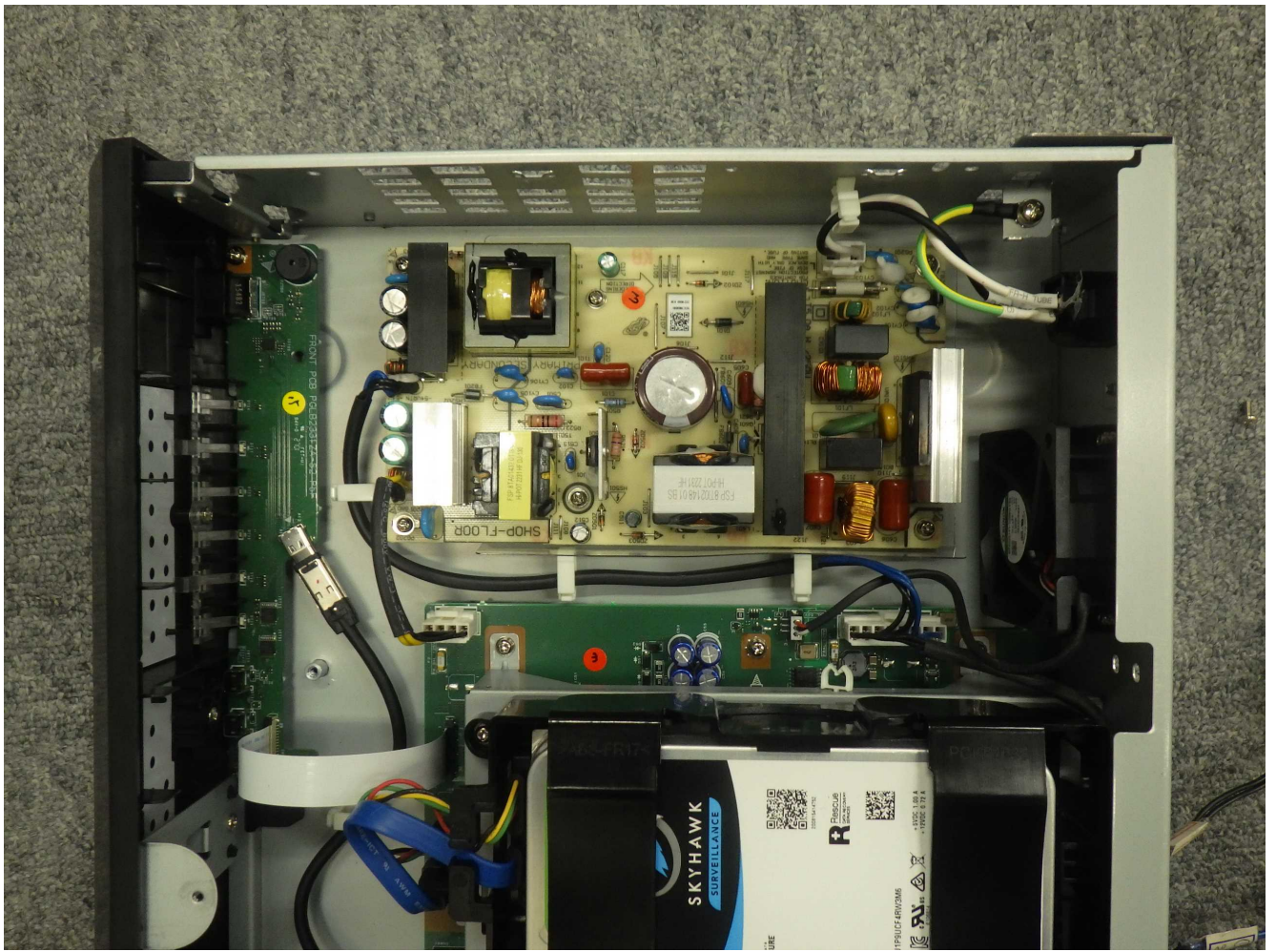
Fan Motor (2 provided)	Sunonwealth Electric Machine Industry Co., Ltd.	MF60251V1-1D06U-XXX (X: Changeable to alphanumeric character which does not affect on safety.)	12Vdc, 75mA, nominal 23.5CFM	--	--	
Insulation Tube for Fan Motor (Rear)	SUMITOMO ELECTRIC FINE POLYMER INC	SUMITUBE F2(Z) or 940	(Reinforced Insulation) 600 V, 125°C, VW-1, minimum 0.4mm thick.	YDPU2	UL	
HDD HOLDER BASE (Internal)	KINGFA SCI & TECH CO LTD	FW-620T	V-0, minimum 1.0mm thick.	QMFZ2	UL	
Alternate	Interchangeable	Interchangeable	Minimum V-2 (at thickness and color used.)	QMFZ2	UL	
PW Cover (Internal)	Interchangeable	Interchangeable	Steel	--	--	
TOP COVER (Fire/Electrical)	Interchangeable	Interchangeable	Steel, minimum 0.7mm thick. (See Enclosure Id. 07-04 for dimension of openings.)	--	--	
FRONT PANEL (Fire/Electrical)	KINGFA SCI & TECH CO LTD	FW-620T	V-0, minimum 1.0mm thick. (See Enclosure Id. 07-05 for dimension of openings.)	QMFZ2	UL	
Main Chassis (Fire/Electrical)	Interchangeable	Interchangeable	Steel, minimum 0.7mm thick.	--	--	
REAR PANEL (Fire/Electrical)	Interchangeable	Interchangeable	Steel, minimum 0.7mm thick. (See Enclosure Id. 07-06 for dimension of openings.)	--	--	
Marking Plate	SUZHOU HUASHUN LABEL PRODUCTS CO LTD	FS-03-50BSX	Applied to Top Cover or Main Chassis (Bottom). (Conducted Durability Test.)	PGDQ2	UL	
Alternate	Interchangeable	Interchangeable	Applied to Top Cover or Main Chassis (Bottom).	PGDQ2	UL	

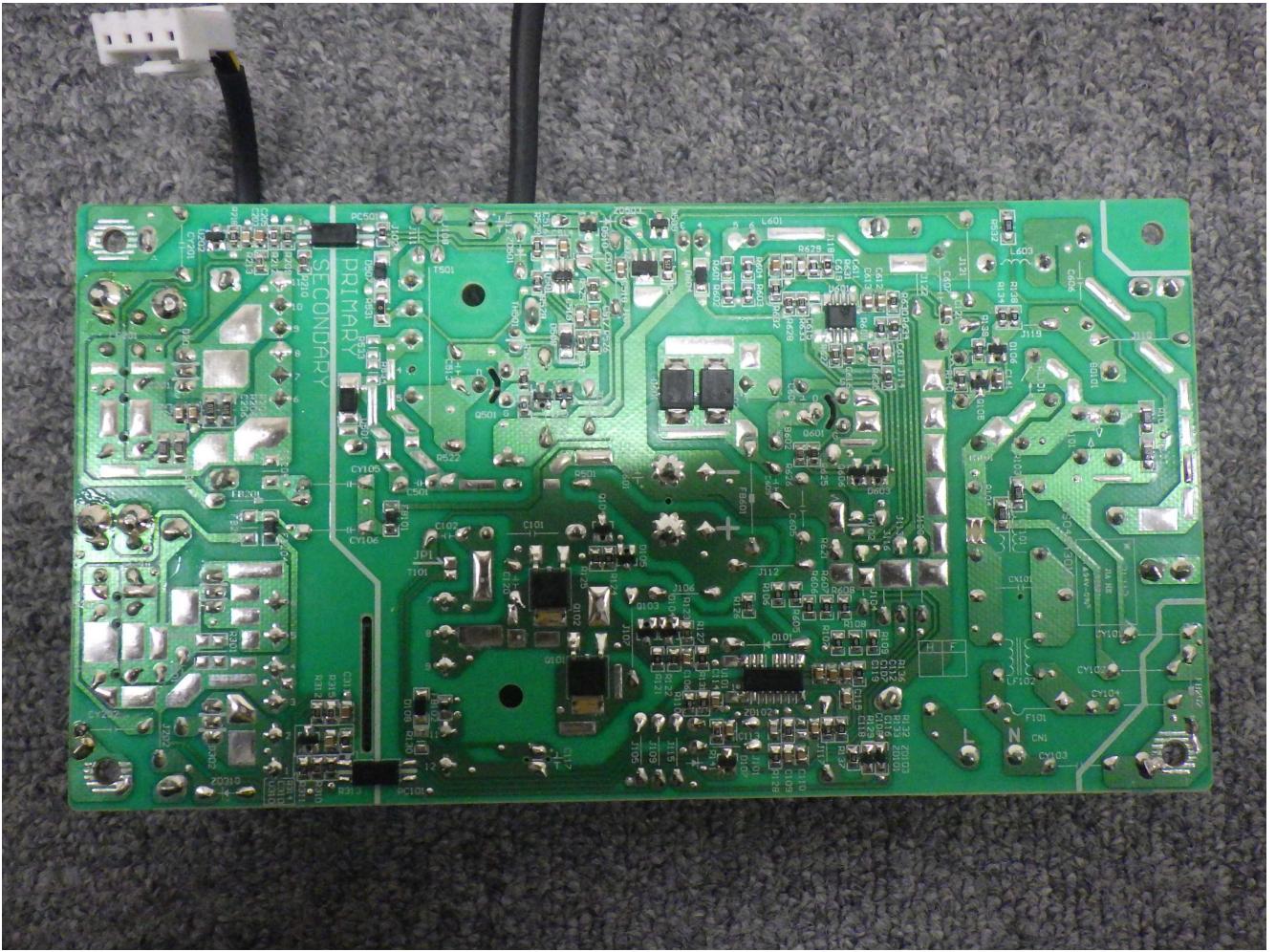
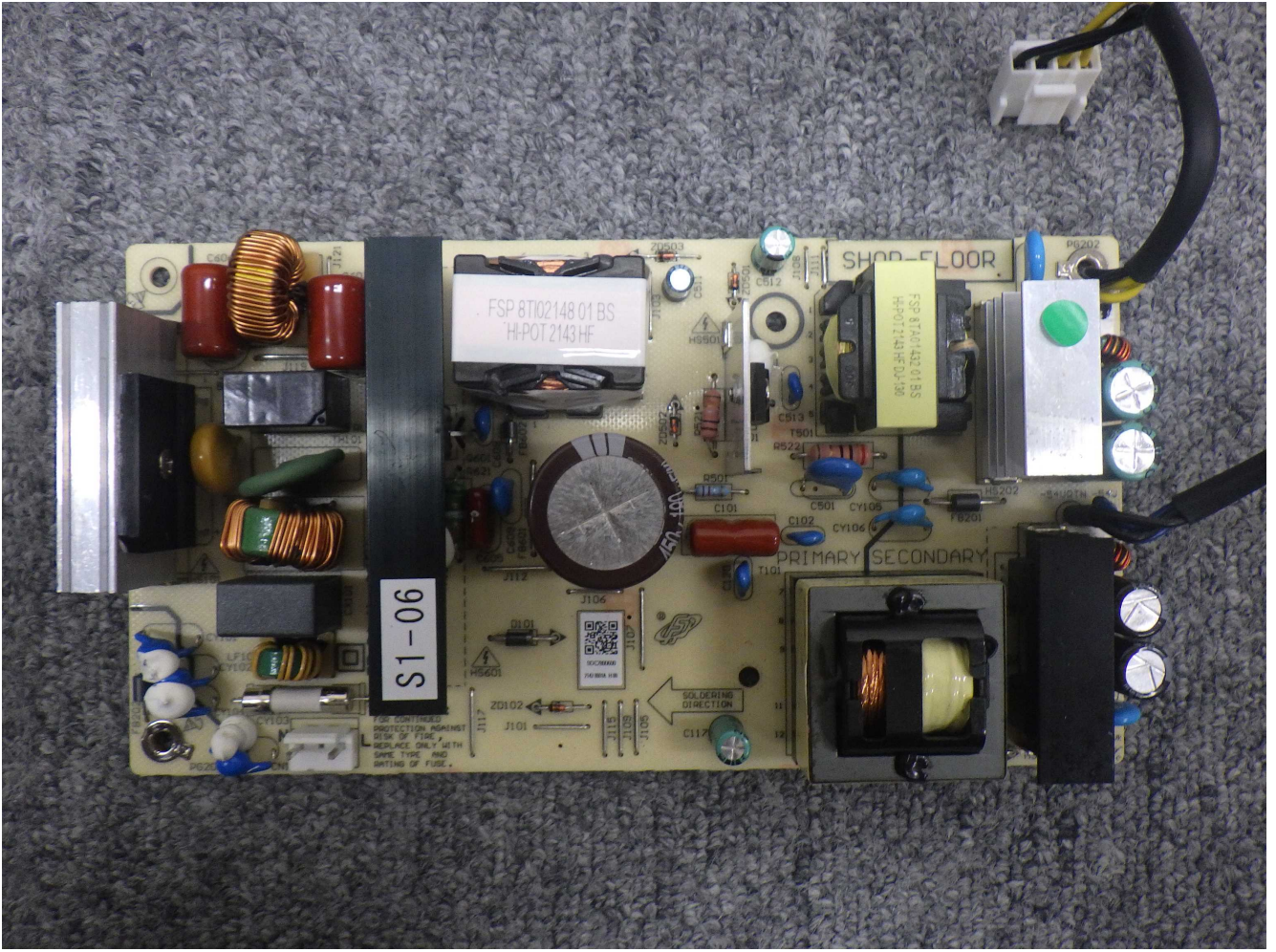
				or PGJ12		
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Enclosures

Type	Supplement Id	Description
Photographs	03-01	Overall View 1
Photographs	03-02	Overall View 2
Photographs	03-03	Internal View 1
Photographs	03-04	Internal View 2 (Power Supply Section)
Photographs	03-06	Component Side View of Switching Power Supply
Photographs	03-07	Solder Side View of Switching Power Supply
Miscellaneous	07-02	Dimension of POWER INSULATION
Miscellaneous	07-03	Dimension of Heatsink
Miscellaneous	07-04	Dimension of TOP COVER
Miscellaneous	07-05	Dimension of FRONT PANEL
Miscellaneous	07-06	Dimension of REAR PANEL



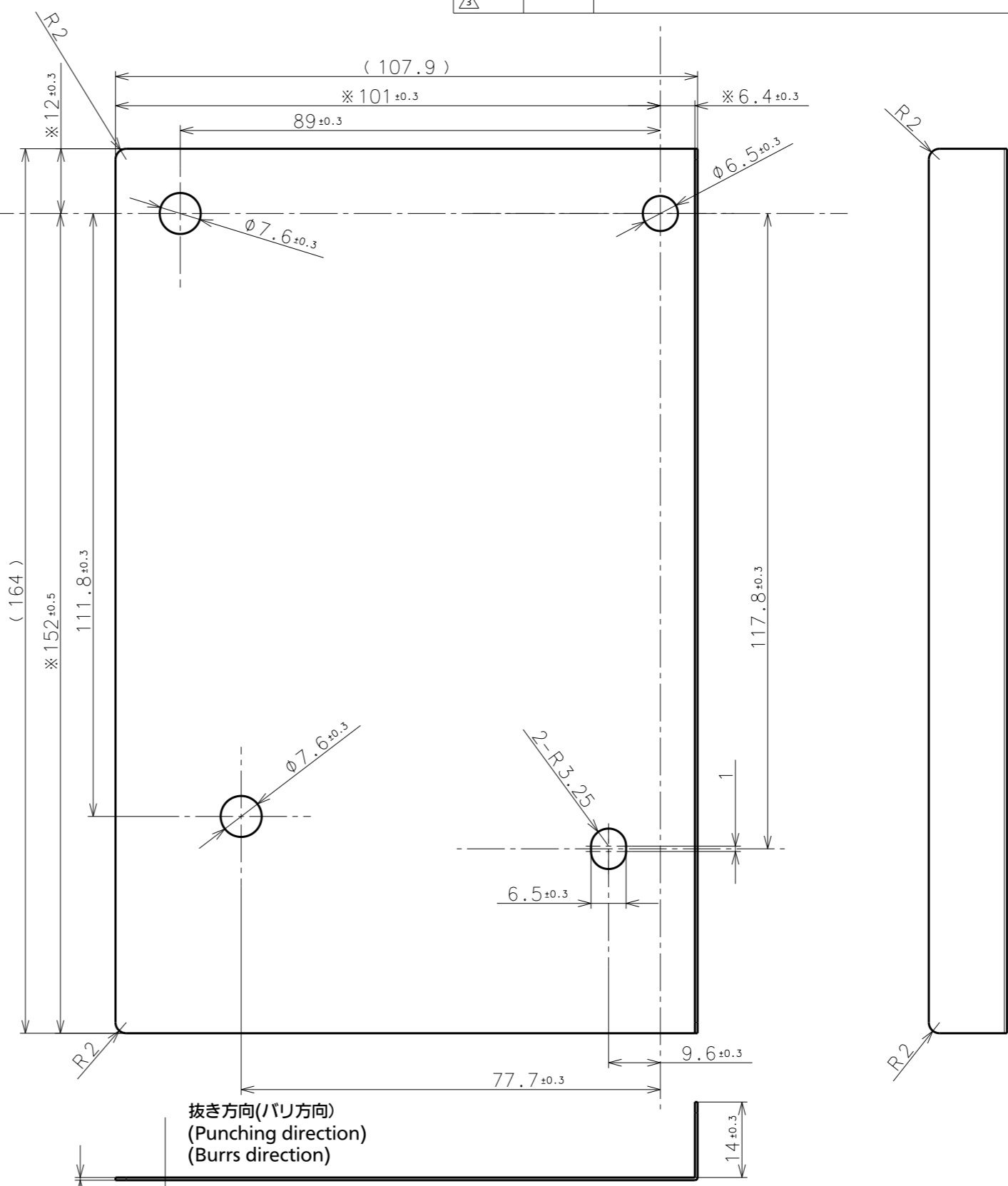




・化学物質管理ランク指針最新版(製品版)を遵守すること。
 ・Observe the Chemical Substances Management Rank Guidelines latest version (For Products).

SYM.	DATE	REVISION	SIGNED	CHECKED
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Material Certification Required	Plastic material is use-designated material because an application for a standard is done.	
Part Name	POWER INSULATION_2U	
Material Name	PC	
Material Designation	Material Designation :Lexan FR60(t=0.5) Color NO. :	
Flame Class	UL94 V-0 (最小肉厚 0.5mm 材料0.38mm)	
Material Manufacture	SABIC INNOVATIVE PLASTICS US LLC	
UL File No.	E121562	
Material Color	CLEAR	
Surface Finishing		
Molder Program	Object	Non-Object
UL assigned code		



- 注記
- 指示なき「R」は、「R1」とする。
 - 指示なき寸法公差は、「±0.3」とする。
 - 中心振分寸法の相互の中心ズレは、「0.05以下」とする。
 - 左右対称形状寸法は省略する。(省略した部分の寸法も測定のこと)
 - バリ高さは、「0.1以下」とする。
 - 表面に、傷、汚れ、ゴミの付着なきこと。
 - 品質上(外観、バリ仕上げ等)、疑義が生じた場合は、協議の上処置方法を決めることとし、必要によって限度見本を作成し、管理する。
 - 金型の修正改廃や、その他条件(材料、加工法、加工先など)の変更は、弊社承認後に実施すること。必要に応じ、打合せやサンプル提出を行うこと。
 - 「※嵌」印寸法は嵌合調整寸法とする。
「※」印寸法は、弊社受入検査部門での管理寸法とする。
 - 製品納入時に、傷、変形無き荷姿とすること。
 - 当図面の管理に注意し、外部に供覧、貸与、転用等を絶対に行わないこと。

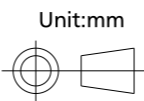
- Notes:
- "R" without indication shall be "R1.0".
 - Dimensional tolerances without indication shall be "±0.3".
 - The mutual center displacement of the center partition dimensions shall be "0.05 or less".
 - The dimensions of left-right symmetry shapes shall be omitted. (The dimensions of omitted portions shall be measured.)
 - The burr height shall be "0.1 or less".
 - Scratch, stain, and dirt shall not be present on the surface.
 - If any doubt arises with respect to quality (appearance, burr finishing, etc.), the treatment method shall be decided after consultation, and boundary samples shall be made for management as necessary.
 - Revision and repeal of molds and change in other conditions (material, processing method, processing subcontractor, etc.) shall be performed after our approval. Meetings shall be held and samples shall be submitted as necessary.
 - The dimensions marked with "※嵌" shall be fit adjusting dimensions. The dimensions marked with "※" shall be the control dimensions of our acceptance inspection division.
 - The type of packing shall not have any scratch or deformation at delivery.
 - Care shall be taken of managing this drawing, and never perform display, lending, diversion, etc.

Safety Parts

量産手配図面
 【2022.07.01】
 ORDER DRAWING
 FOR MASS PRODUCTION

Volume: Approx. 9899mm³

REMARK Mass : Approx. 12g	SEE MATERIAL TABLE		SEE PROCESS TABLE		MODEL	WJ-NU301
	MATERIAL & SIZE		PROCESS		NAME	POWER INSULATION_2U
SCALE 1:1	DESIGNED S.Murata 2022.06.30	DRAWN S.Murata 2022.06.30	CHECKED M.Hirata 2022.06.30	APPROVED K.Matsuoka 2022.06.30	DRAWING/ Part NO.	PGMX1071ZA/C1

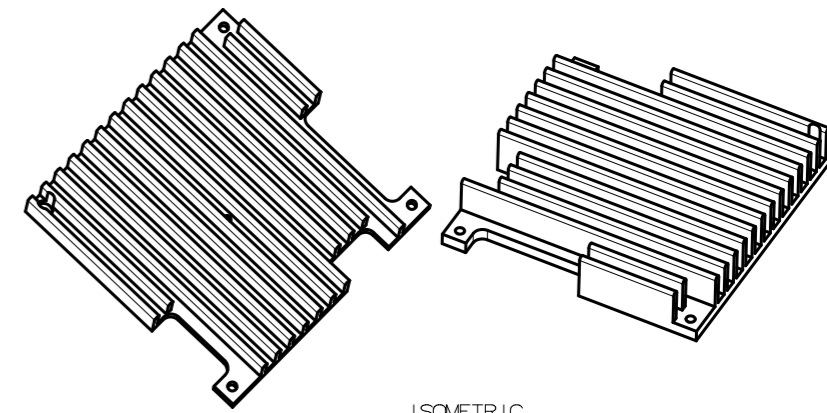


・化学物質管理ランク指針最新版(製品版)を遵守すること。
 ・Observe the Chemical Substances Management Rank Guidelines latest version (For Products).

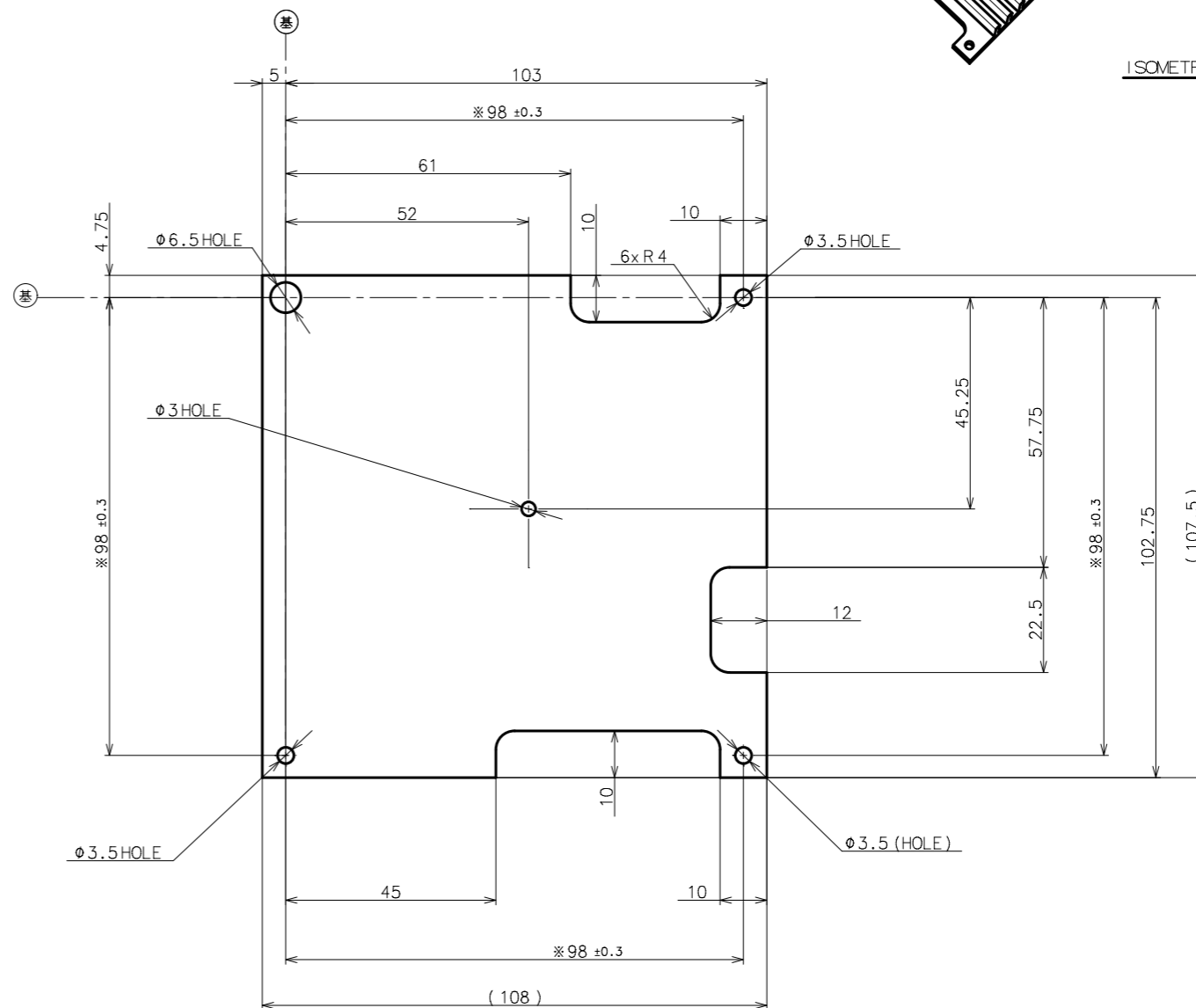
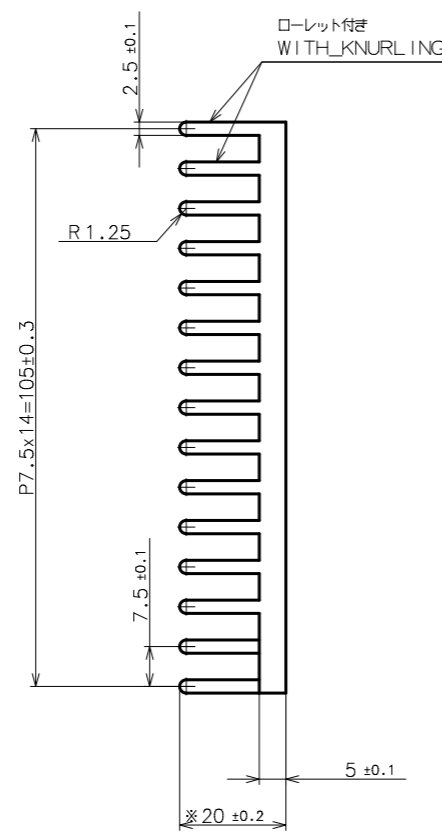
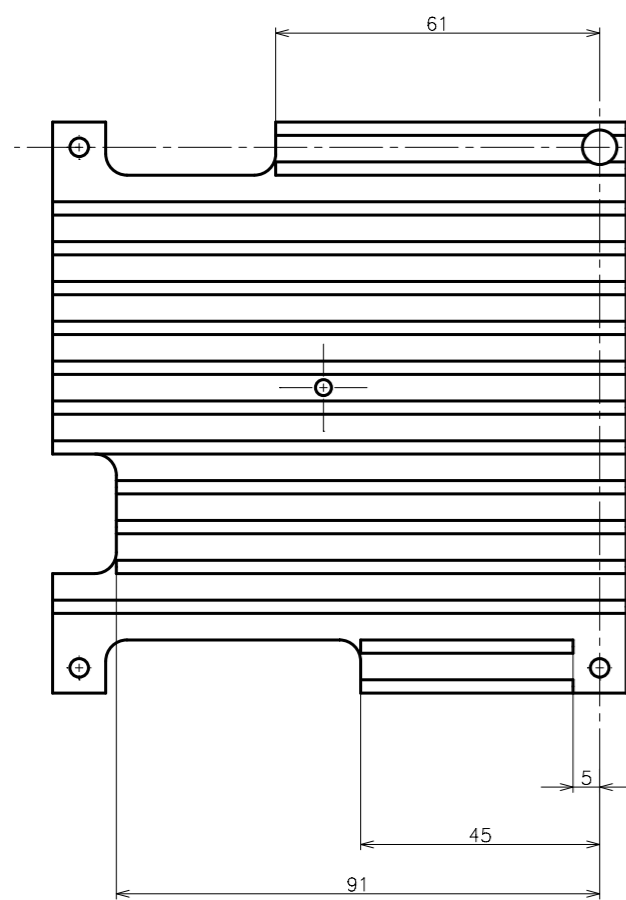
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JIS B 0405-f (単位 mm)		許容差	
呼び寸法の区分	長さ寸法		
6以下		±0.05	
6を超え 30以下		±0.10	
30を超え 120以下		±0.15	
120を超え 400以下		±0.20	
400を超え 1000以下		±0.30	
1000を超え 2000以下		±0.50	
2000を超え 4000以下		-	

JIS B 0405-f (in mm)		
Cutting		
Nominal dimension class	Tolerance Length	
6 or less	±0.05	
More than 6 and 30 or less	±0.1	
More than 30 and 120 or less	±0.15	
More than 120 and 400 or less	±0.2	
More than 400 and 1000 or less	±0.3	
More than 1000 and 2000 or less	±0.5	
More than 2000 and 4000 or less	-	



ISOMETRIC



- 注記
- 指示無き素材の【】内寸法公差は、JIS-H4100普通級公差による。
 - 左右対称形状寸法は、省略する。(省略した部分の寸法も測定のこと)
 - 切削くず、傷、汚れ、ゴミ付着無きこと。
 - 手を切る様なエッジ無きこと。
 - カエリ無きこと。(弊社外観規格をお願いします。)
 - 品質上(外観、バリ仕上げ等)、疑義が生じた場合は、協議の上、処置方法を決めることとし、必要に応じて限度見本を作成し、管理する。
 - 「※」印寸法は、弊社受入検査部門での管理寸法とする。
 - 製品納入時に、傷、変形無き荷姿とする。
 - 当図面の管理に注意し、外部に供覧、貸与、転用等を絶対に行わないこと。
 - 指示無き角R/隅Rは、R2以下とする。

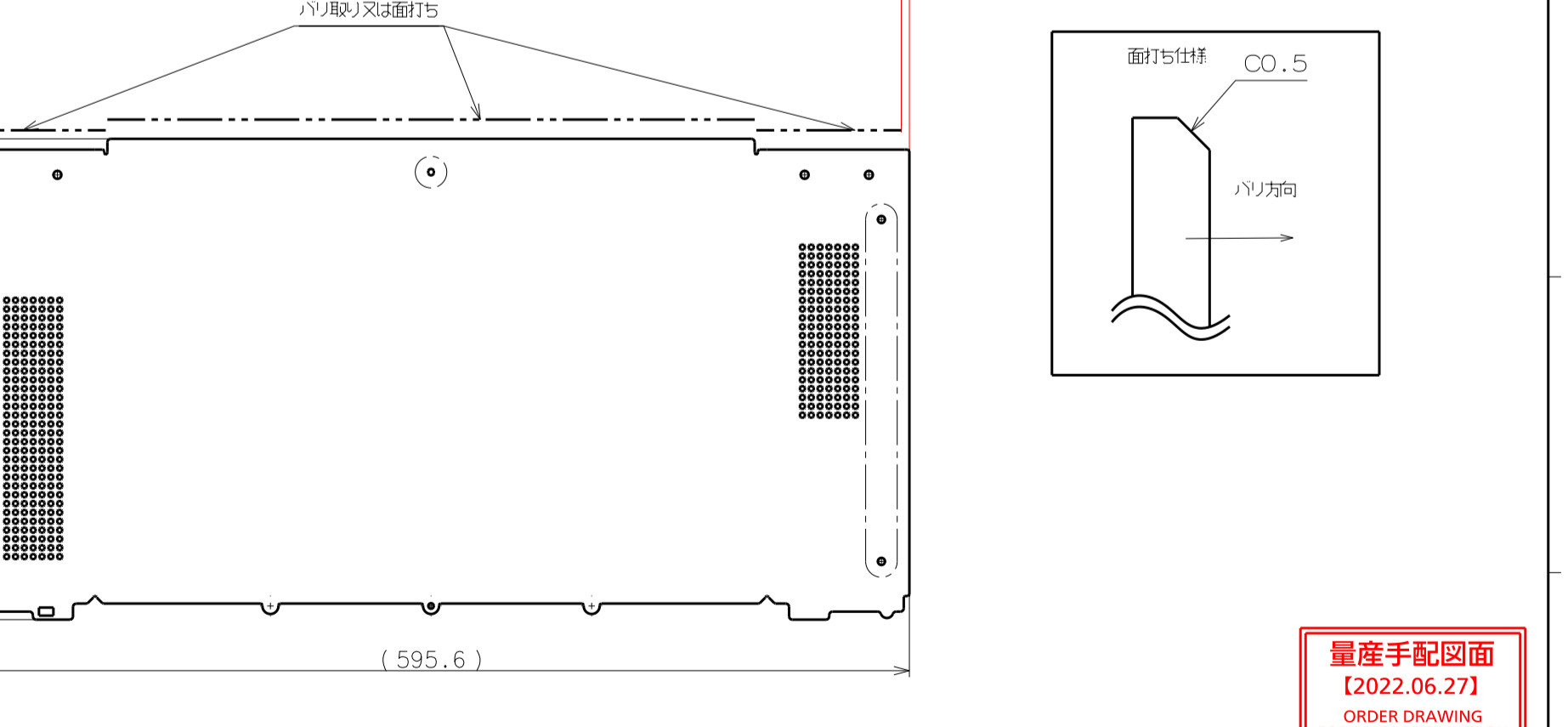
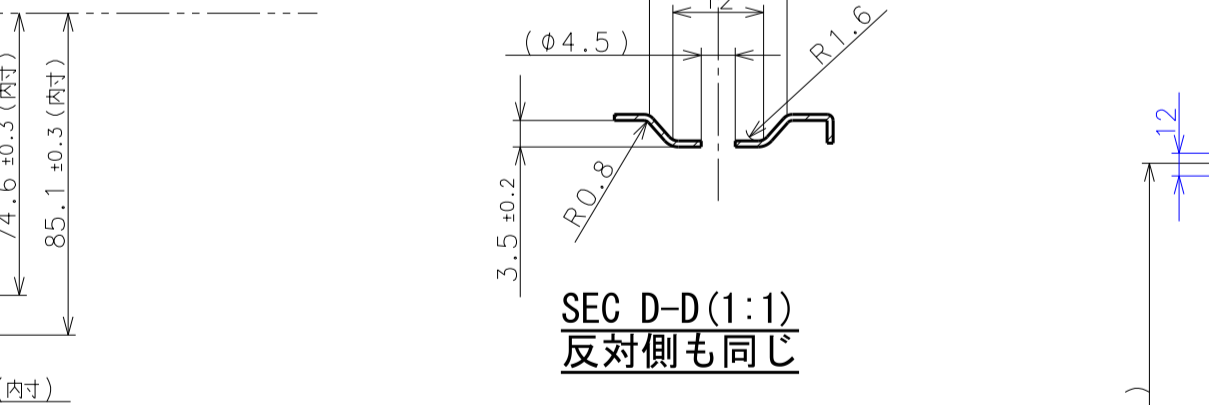
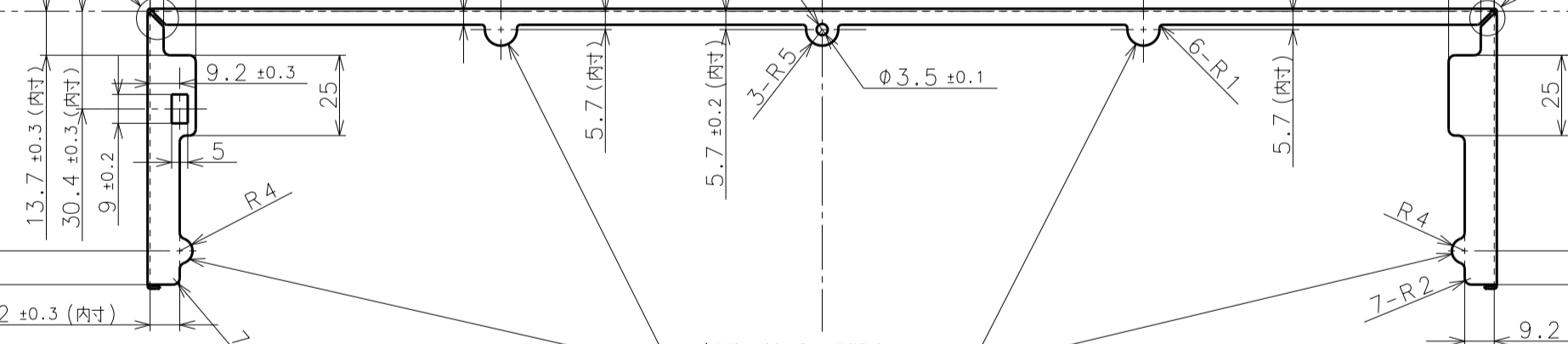
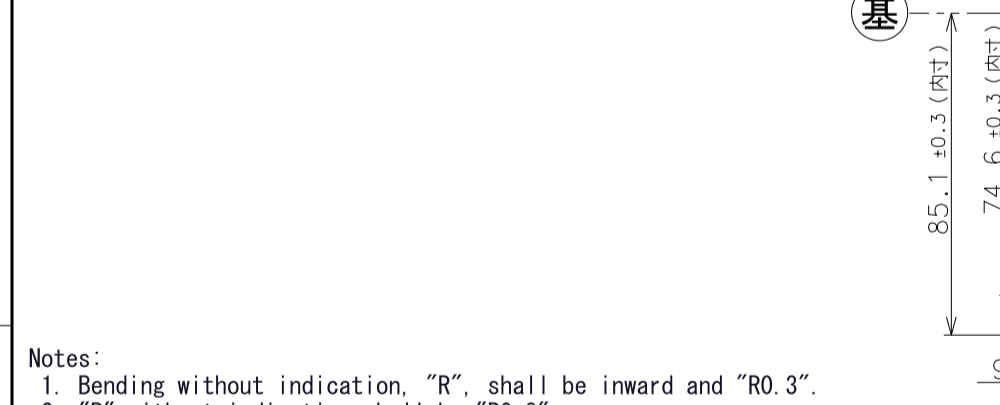
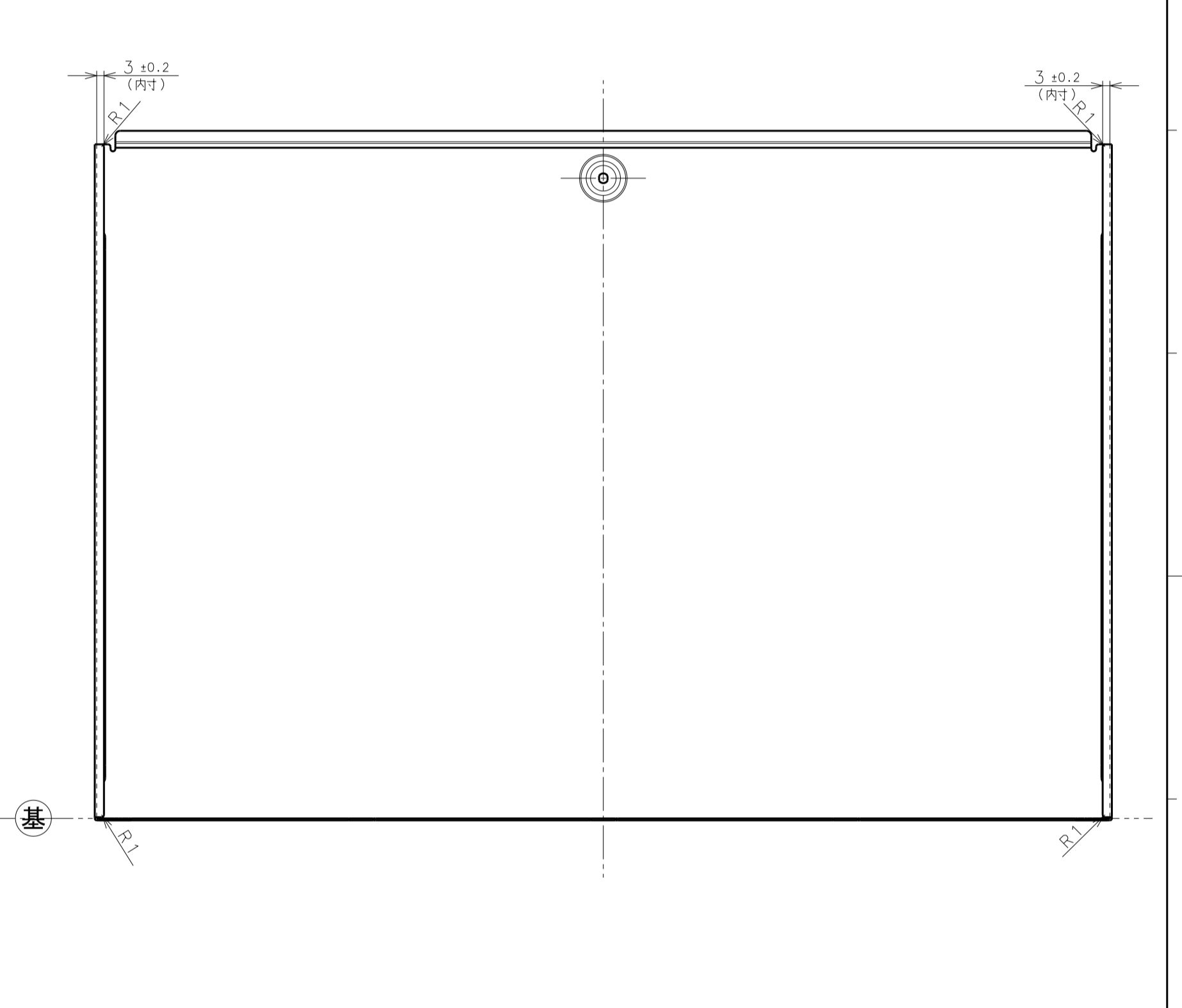
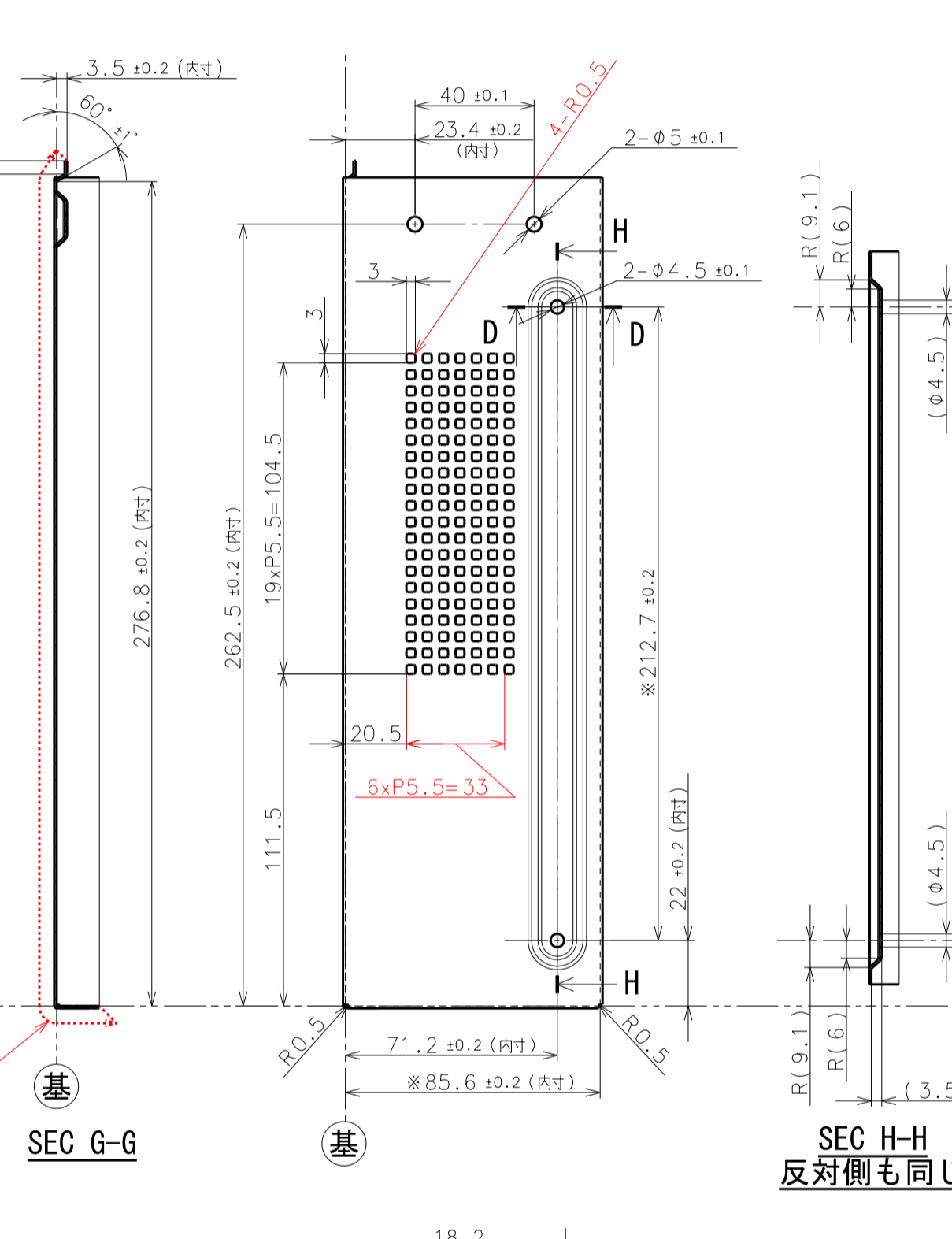
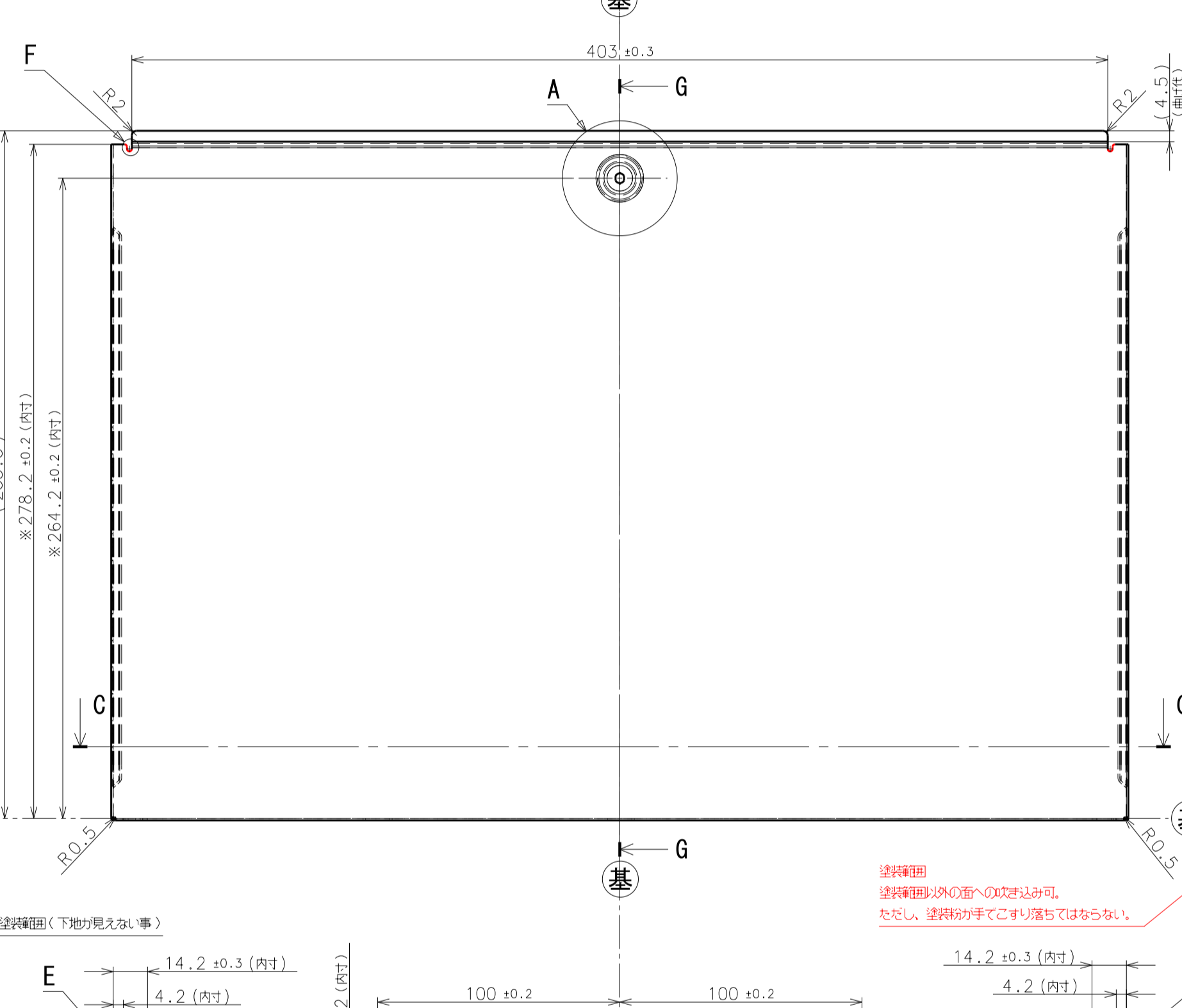
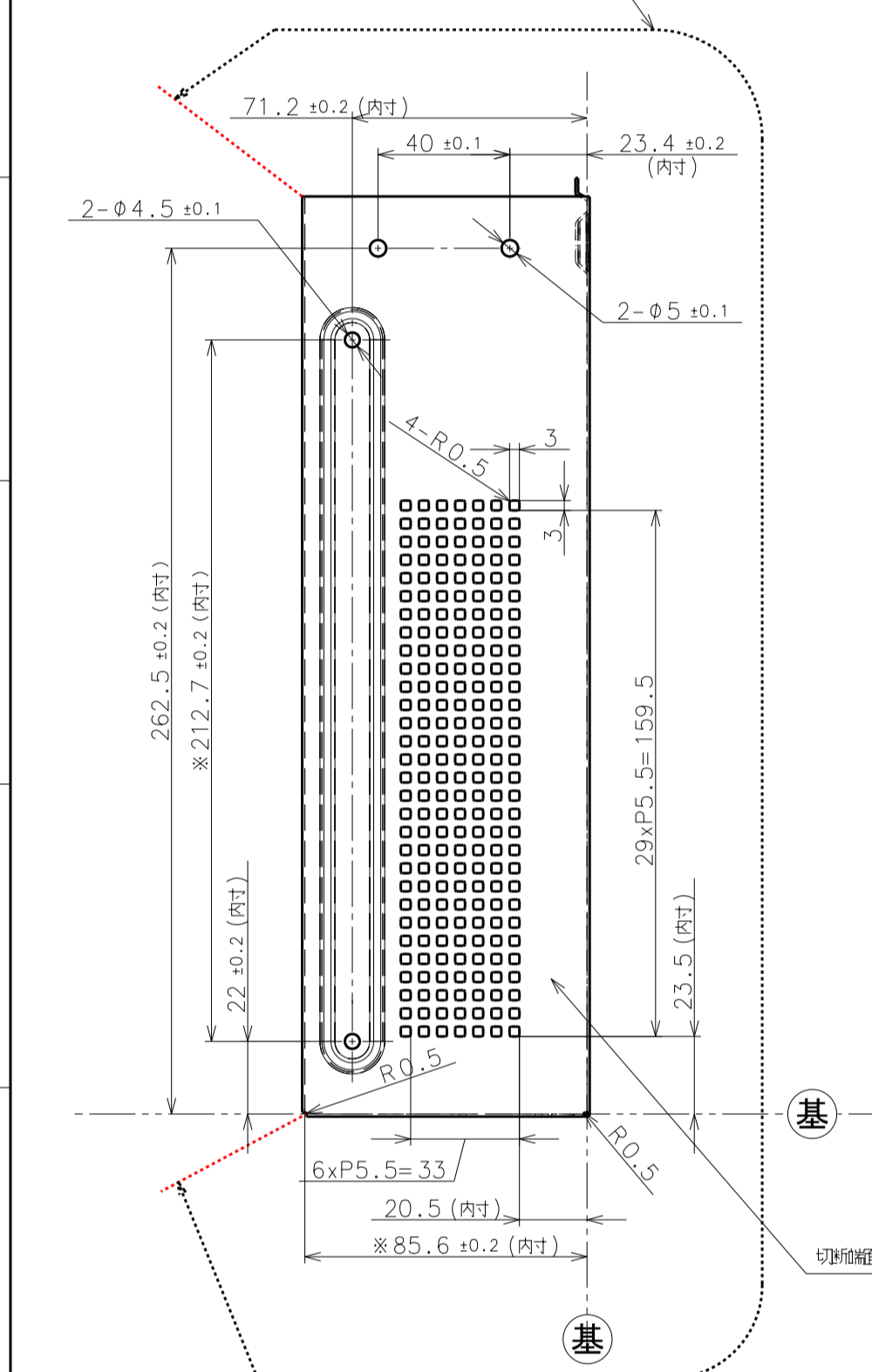
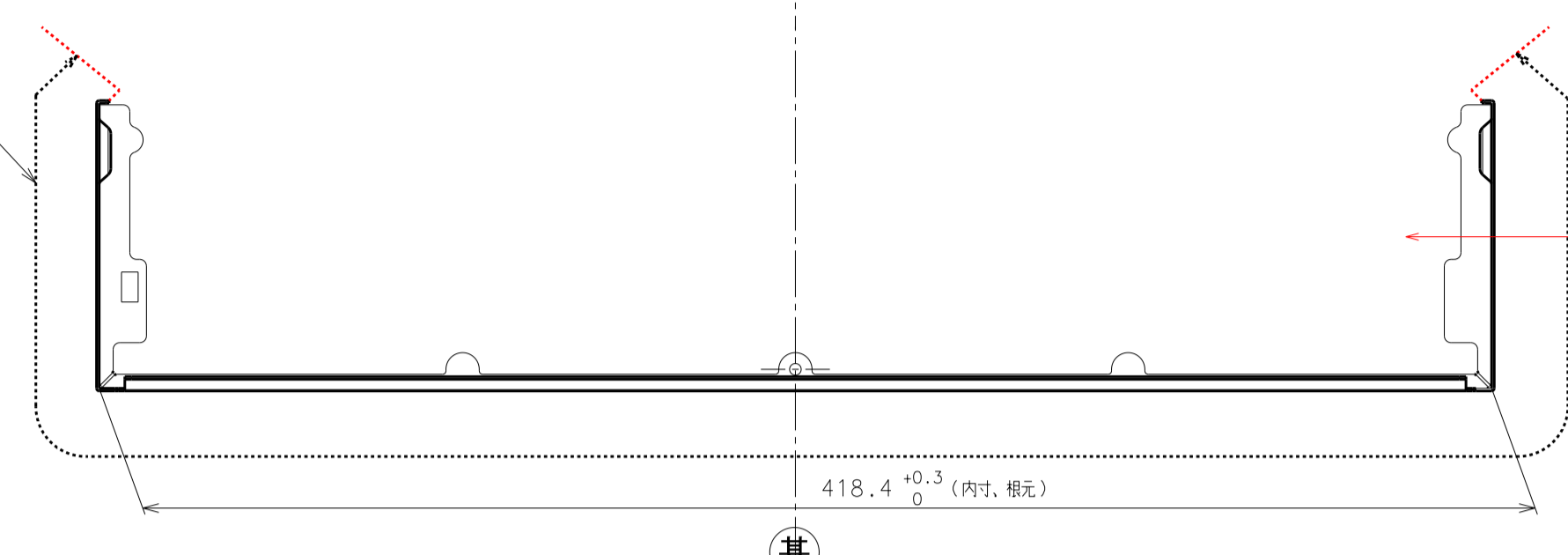
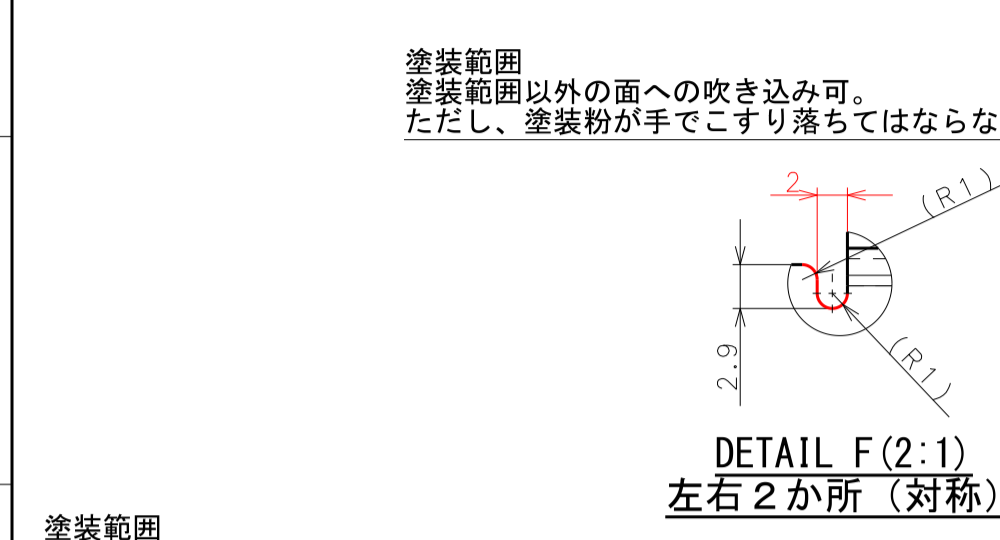
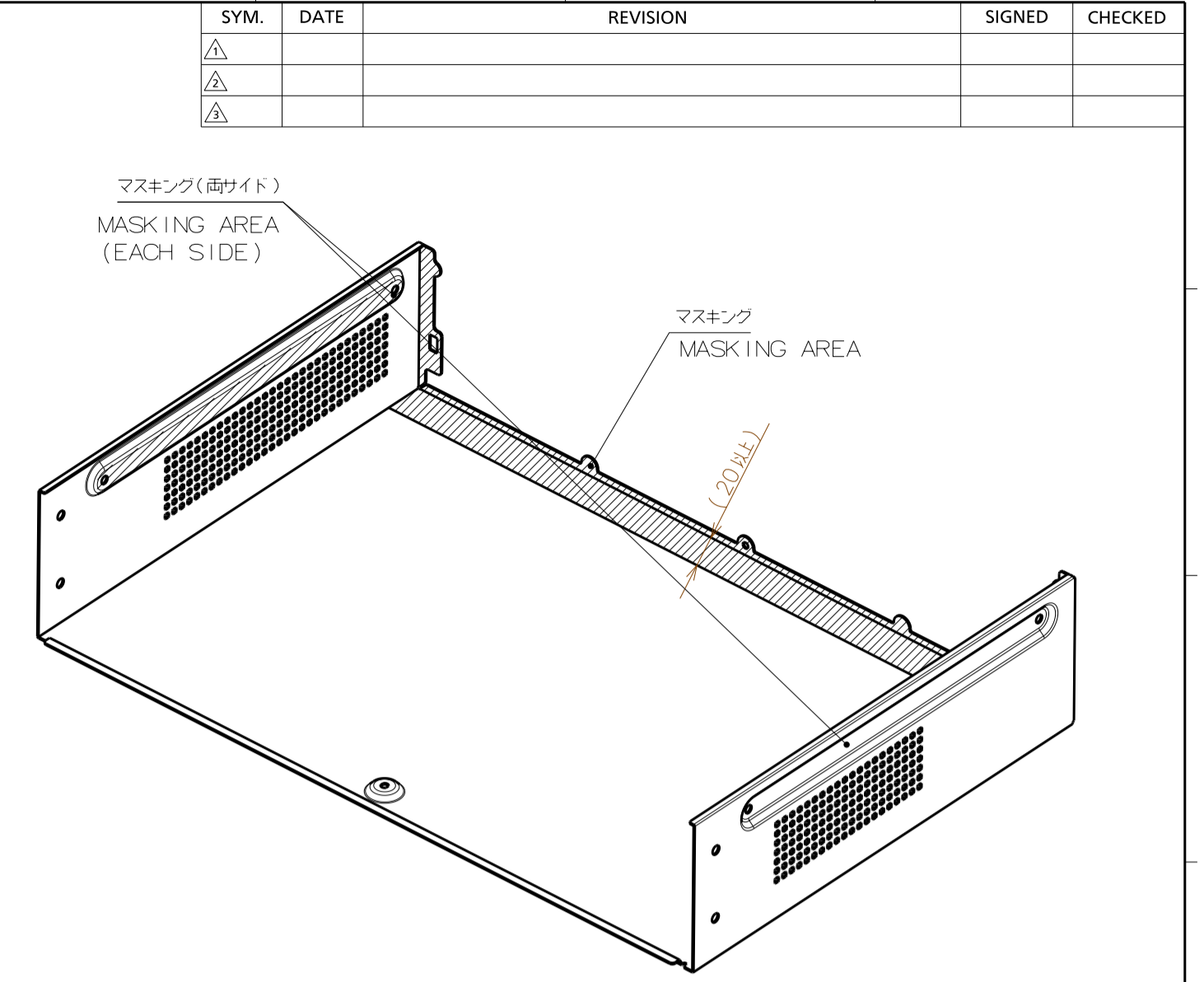
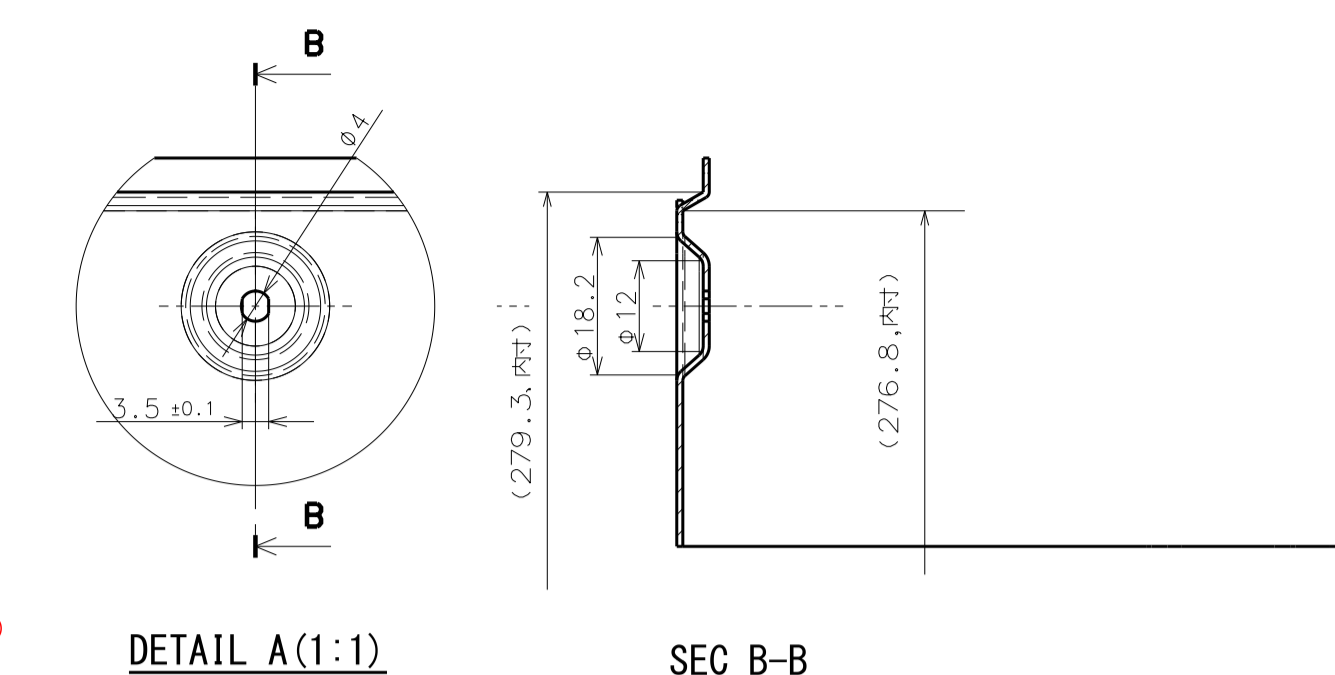
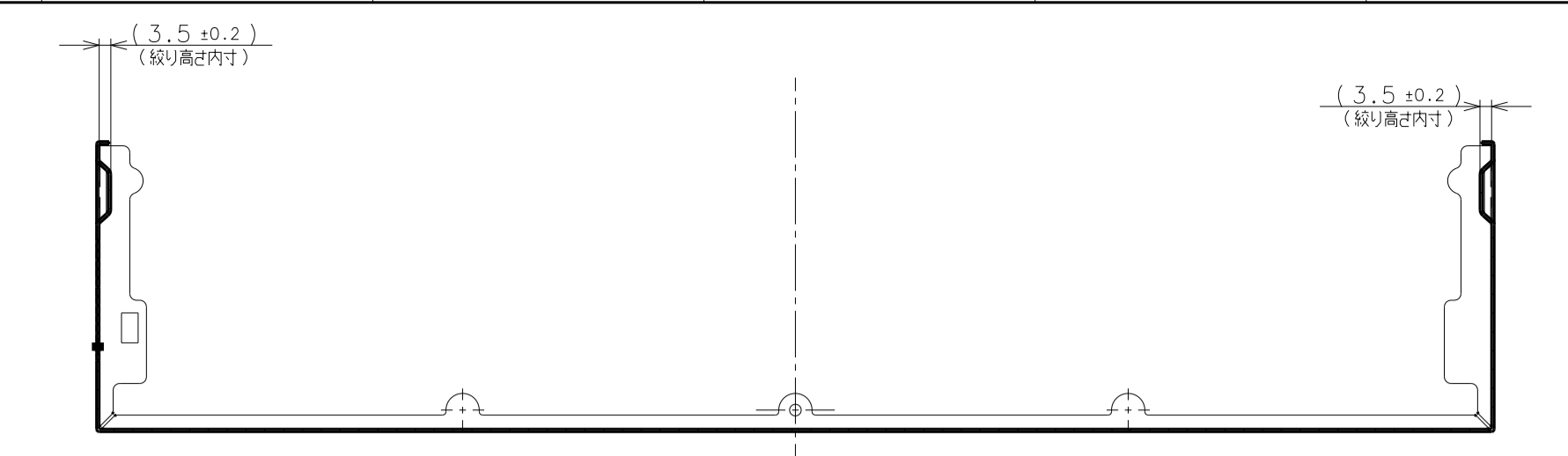
- Note
- Dimensional tolerances without indication of base material (ex【】) shall adopt to the JIS-H4100(General class) tolerance chart.
 - The dimensions of left-right symmetry shapes shall be omitted. (The dimensions of omitted portions shall be measured.)
 - Sawdust, scratch, stain, and dirt shall not be present on the surface.
 - Not accept edge, like cutting the hand.
 - No peeling. (Please use our appearance standard.)
 - If any doubt arises with respect to quality (appearance, burr finishing, etc.), the treatment method shall be decided after consultation, and boundary samples shall be made for management as necessary.
 - The dimensions marked with "*" shall be the control dimensions of our acceptance inspection division.
 - The type of packing shall not have any scratch or deformation at delivery.
 - Care shall be taken of managing this drawing, and never perform display, lending, diversion, etc.
 - If not indicated corner R/inside corner R, it must be R2 or less.

量産手配図面
 【2022.06.29】
 ORDER DRAWING
 FOR MASS PRODUCTION

REMARK Mass:Approx. 250g		A6063	脱脂	MODEL WJ-NU101/201/300/301
SCALE 1:1		MATERIAL & SIZE		NAME HEAT_SINK(SOC)
DESIGNED T.FUKAMIZU 2022.06.06	DRAWN	CHECKED M.HIRATA 2022.06.29	APPROVED K.MATSUOKA 2022.06.29	DRAWING/ Part NO. PGMY1440ZA/C1
REF.NO.			xxx	1/1

・化学物質管理ラック設計制図(製品版)を遵守すること。
・Observe the Chemical Substances Management (Rank Guidelines latest version (For Products)).

General metal stamping		
Nominal dimension class	Tolerance	
	Punching dimensions	Bending and drawing dimensions
6 or less	±0.1	±0.3
More than 6 and 30 or less	±0.2	±0.5
More than 30 and 120 or less	±0.3	±0.8
More than 120 and 400 or less	±0.5	±1.2
More than 400 and 1000 or less	±0.8	±2
More than 1000 and 2000 or less	±1.2	±3
Bending type	Angle difference	
Right angle bending	±1.0°	
Other bendings	±1.5°	



- Notes:
- Bending without indication, "R" shall be inward and "R0.3".
 - "R" without indication shall be "R0.8".
 - Dimensional tolerances without indication shall stand on the data in the tolerance chart.
 - Angle tolerances without indication shall be "±0.3°".
 - The mutual center displacement of the center partition dimensions shall be "0.05".
 - The dimensions of left-right symmetry shapes shall be omitted. (The dimensions of omitted portions shall be measured.)
 - The mold structure shall be decided in a meeting.
 - The mold structure drawing shall be submitted and approved by the technical division before the start of mold machining.
 - The burr direction shall be indicated in the drawing.
 - The burr height shall be "8.0%" of the thickness.
 - Scratch, stain, and dirt shall not be present.
 - Crack shall not be present on the edge of burring outside diameter.
 - If any doubt arises with respect to quality (appearance, burr finishing, painting, etc.), the treatment method shall be decided after consultation, and boundary samples shall be made for management as necessary.
 - Revision and repeat of molds and change in other conditions (material, stamping conditions, processing method, processing subcontractor, etc.) shall be performed after our approval. Meetings shall be held and samples shall be submitted as necessary.
 - Masking paint shall be applied to the indicated area in the drawing. Full painting shall be applied.
 - For paint and print, samples shall be based, boundary samples for color, gloss, and texture shall be submitted in advance, and our approval shall be obtained.
 - Paint color: BLACK (N6011c1-001). Color sample No.: P60180T-1
 - The painting and printing intensity shall meet Class "A" or "B" of the painting and printing intensity standard.
 - Paint blowing to areas other than masking indication can be performed. However, paint powder shall not be rubbed off by hand. If the powder is attached to hand, the powder shall be removed before delivery.
 - The dimensions marked with "※" shall be fit adjusting dimensions. The dimensions marked with "※" shall be the control dimensions of our acceptance inspection division.
 - The type of packing shall not have any scratch or deformation at delivery.
 - Care shall be taken of managing this drawing, and never perform display, lending, diversion, etc.
 - This drawing has been submitted as a supplement for 3-D arrangement, and the dimensions and shapes in 3-D data are formal for forming the model. 3-D data: "PGKV1704ZA_C1_WJ-UJ301_TOP PANEL 2U_20220627.stp"

- 注記
- 指示なき曲げRは内側でR0.3以下とする。
 - 指示なきRは、R0.8とする。
 - 指示なき寸法公差は、公差表による。
 - 指示なき角度公差は、±0.3°とする。
 - 中心振分寸法の相互の中心ズレは、0.05以下とする。
 - 左右対称形状寸法は省略する。(省略した部分の寸法も測定のこと)
 - 金型構造は、打ち合わせにより決定する。
 - 金型構造図面を提出し、金型加工開始前に技術部門の承認を得ること。
 - バリ方向は図中指示による。
 - バリ高さは板厚の8%以下とする。
 - 傷、汚れ、ゴミの付着なきこと。
 - バリリング外径端部に割れなきこと。
 - 品質上(外観、バリ仕上げ、塗装等)、疑義が生じた場合は、協議の上、処置方法を定めることとし、必要に応じて限度見本を作成し、管理する。
 - 金型の修正改修や、その他条件(材料、プレス条件、加工法、加工先など)の変更は、弊社承認後に実施すること。必要に応じ、打合せやサンプル提出を行うこと。
 - 図中の指定箇所にマスキング塗装を行う。
 - 塗装、印刷については、見本を事前に色・艶、肌目の限度見本を提出し、承認を得ること。
 - 塗装色: ブラック(N6011c1-001) 色見本番号: P60180T-1
 - 粉体塗装 膜厚50μm以上
 - 塗装及び印刷強度は、塗装印刷試験強度基準のA基準を満足すること。
 - マスキング指定外への塗装の吹き込み可。ただし塗装粉が手でこすり落ちないこと。手に付着する場合は除去して納品のこと。
 - 「※」印寸法は嵌合調整寸法とする。
 - 「※」印寸法は、弊社受入検査部門での管理寸法とする。
 - 製品納入時に、傷、変形無き状態とする。
 - 当図面の管理に注意し、外部に供覧、貸与、転用等を絶対に行わないこと。
 - 本図面は、3次元データ手配における補足用として提出しており、寸法、形状に関しては3次元データで正として型作願願います。3次元データ: "PGKV1704ZA_C1_WJ-UJ301_TOP PANEL 2U_20220627.stp"

PROCESS TABLE	
・脱脂/DEGREASING	
・粉体塗装/POWDER COATING	
色/COLOR: 黒色/BLACK	
色番号/COLOR No.: N6011c1-001	
塗装メーカー/PAIN WAKER: Jiaxing FMDC Powder Coating Co., LTD	
塗装メーカー色品番/MAKER COLOR No.: P60180T-1	
膜厚/COATING THICKNESS: 50μm以上/OVER 50μm	

本図面は外観部品です
外観品質については弊社規定の外観検査手順書のランクG3に準じます。

This part is an external part.
Appearance quality should conform to rank G3 of appearance inspection procedure specified by our company.

REMARK	DESIGNED	DRAWN	CHECKED	APPROVED	NAME	TOP COVER 2U
Mass: Approx. 1079g	M.HIRATA	H.NONOGUCHI	M.HIRATA	K.MATSUOKA		PGKV1704ZA/C1
SCALE	2022.06.06	2022.06.06	2022.06.24	2022.06.27		

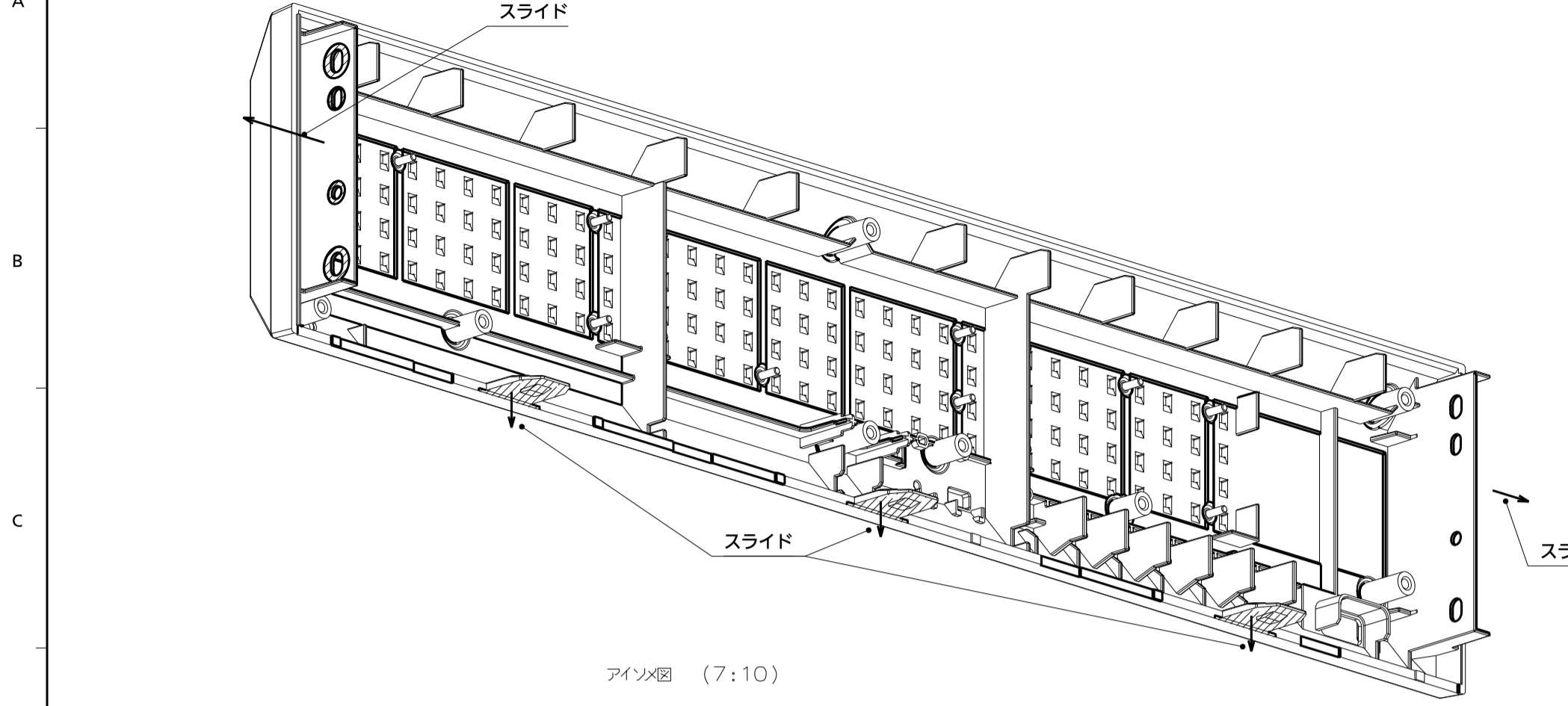
量産手配図面
[2022.06.27]
ORDER DRAWING FOR MASS PRODUCTION

・化学物質管理ランク指定範囲(製品版)を遵守すること。
 ・Observe the Chemical Substances Management Rank Guidelines latest version (For Products).

JIS B 0405-m (in mm)	
Middle class molded resin	
Nominal dimension class	Tolerance Length
6 or less	±0.1
More than 6 and 30 or less	±0.2
More than 30 and 120 or less	±0.3
More than 120 and 400 or less	±0.5
More than 400 and 1000 or less	±0.8
More than 1000 and 2000 or less	±1.2
More than 2000 and 4000 or less	±2.0

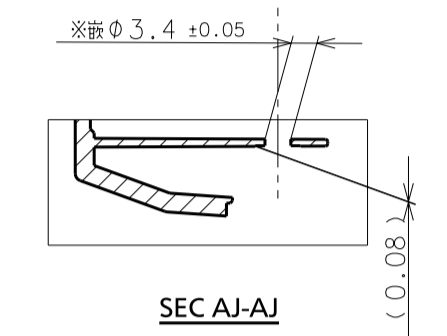
材料証明必要部品	材料は規格申請を行っていますので、必ず指定の材料を使用して下さい。
構成部品名	FRONT PANEL
材質名	ABS
材料名	FW-620T
規格	UL94 V-0 認定最小肉厚 1.0mm以上
材料メーカー名	KINGFA SCI & TECH CO LTD
Material Manufacture	
UL File No.	E171666
樹脂色	黒 (N5096-b1(BK-115))
表面処理	シボ(横沢/光社/TH110相当)
モルダプログラム	50%エンクロジヤ
Molder Program	対象 非対象
UL assigned code	

SYM.	DATE	REVISION	SIGNED	CHECKED
△	2022.07.21	修正図訂正(生地変更なし、部品品質変更なし)(3ページ目)	M.HIRATA	K.MATSUOKA

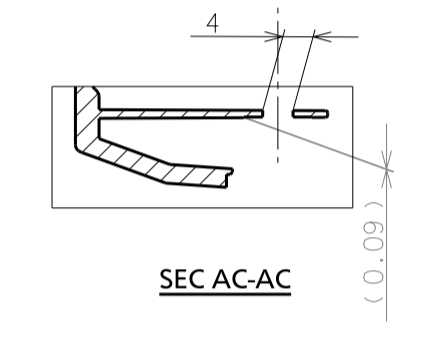


アイン図 (7:10)

- 注記
- 指示なき抜き勾配は、3次元データに従うこと。
 - 指示なき肉厚は、成型機上で可能な範囲においてR0.3とする。
 - 指示なき公差は、公差になる。
 - 指示なき角度公差は、±0.5とする。
 - 中心線分法法の相互の中心線は、0.05以下とする。
 - 左右対称形状は必ず示す。(省略した部分の寸法も測定のこと)
 - 穴・スリットは各面2カ方方式とする。(図中指示ある面は除く。)
 - 平均肉厚は2.5mmとする。
 - 外観及び指示面は、加工指示のない限り、金型ミガキ仕上げとする。機械加工跡を許すこと。
 - ゲート、突き出し・凹溝、金型残りは、打合せにより決定する。
 - 金型構造図面を提出し、金型加工開始前に技術部門の承認を得ること。
 - バリ高さは0.1以下とする。
 - 傷、汚れ、ゴミの付着なきこと。
 - 溶接、外観、モールドマーク、ウエルト、ゲート、バリ仕上げ、塗装等) 腐食が生じた場合は、協議の上、処置方法を定めること。必要に応じて原形図を作成し、管理する。
 - 金型の修正改修中、その他の条件(材料、成型条件、加工法、加工先など)の変更は、弊社承認後に実施すること。必要に応じて打合せやサンプル提出を行うこと。
 - 量産時には成型剤を使用しないこと。使用する場合は事前に技術部門の承認を得ること。
 - 再生材(ゲート、ランナーを含む)は原則、使用を禁止とする。
 - 「※」印寸法は総合公差寸法とし、成型時の方向に管理可能なこと。
 - 「※」印寸法は、弊社納入検査部門での管理とする。
 - 製品納入時に、備、変形無き荷姿とする。
 - 当図面の管理に注意し、外部に供覧、謄写、転用等を絶対に行わないこと。
 - 本図面は、3次元データ手配に関する用途として提出しており、寸法、形状に関しては3次元データ: [PGGP1231ZA_C1_WJ-NU301_FRONT_PANEL_20220628.stp]
 - 3次元データ: [PGGP1231ZA_C1_WJ-NU301_FRONT_PANEL_20220628.stp]
 - 赤磷を使用しないこと

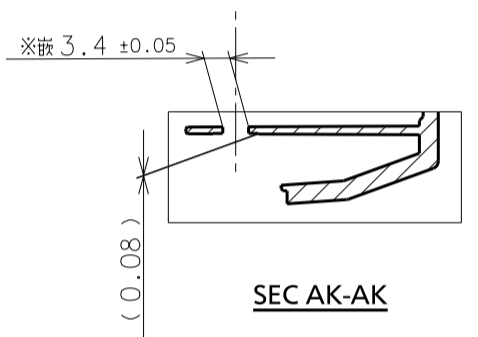


SEC AJ-AJ

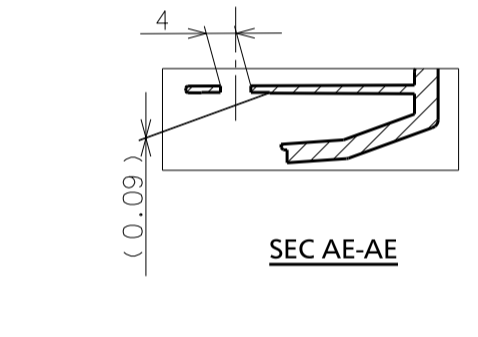


SEC AC-AC

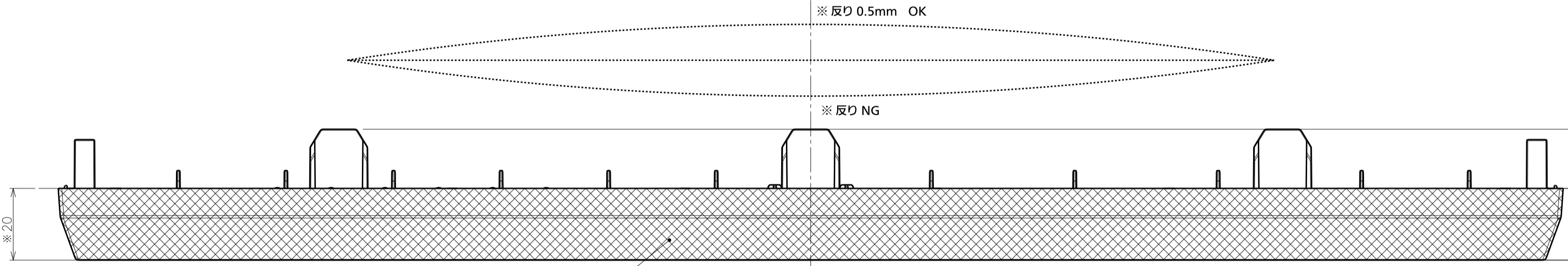
- Notes:
- With regard to draft without indication follow 3D data.
 - Corner sections without indication shall be R0.3 in the mold formable range.
 - Dimensional tolerances without indication shall stand on the data in the tolerance chart.
 - Angle tolerances without indication shall be ±0.5
 - The mutual center displacement of the center symmetry dimensions shall be 0.05
 - The dimensions of left-right symmetry shapes shall be omitted. (The dimensions of omitted portions shall be measured.)
 - Each plane with warpage or winding shall be 0.2 type method. (plane with indication in a drawing excluded)
 - The average thickness shall be 2.5mm.
 - Mold polishing finish shall be applied to appearances, and indication planes unless otherwise indicated. Machining trace shall not be found.
 - The gate, the position of the ejection pin, mold structure, etc. shall be decided in a meeting.
 - The mold structure drawing shall be submitted and approved by the technical division before the start of mold machining.
 - The burr height shall be 0.1
 - Scratch, stain, and dirt shall not be present
 - If any doubt arises with respect to quality (appearance, mold mark, welding, gate, burr finishing, painting, etc.) the treatment method shall be decided after consultation. Boundary samples will be made as necessary and the management will be performed.
 - Revision and repeal of molds and change in other conditions (material, forming conditions, processing method, processing subcontractor, etc.) shall be performed after our approval. Meetings shall be held and samples shall be submitted as necessary.
 - Mold lubricant shall not be used for mass production. Use of mold lubricant shall be approved by the technical division in advance if it is used.
 - Principle. Do not use recycled materials (gate and sprue included).
 - The dimensions marked with "※" shall be fit adjusting dimensions and be adjustable in the mold cutting direction. The dimensions marked with "※" shall be the control dimensions of our acceptance inspection division.
 - The type of packing shall not have any scratch or deformation at delivery.
 - Care shall be taken of managing this drawing, and never perform display, lending, diversion, etc.
 - This drawing has been submitted as a supplement for 3-D arrangement, and the dimensions and shapes in 3-D data are formal for forming the model.
 - 3-D data: [PGGP1231ZA_C1_WJ-NU301_FRONT_PANEL_20220628.stp]
 - Do not use red phosphorus.



SEC AK-AK

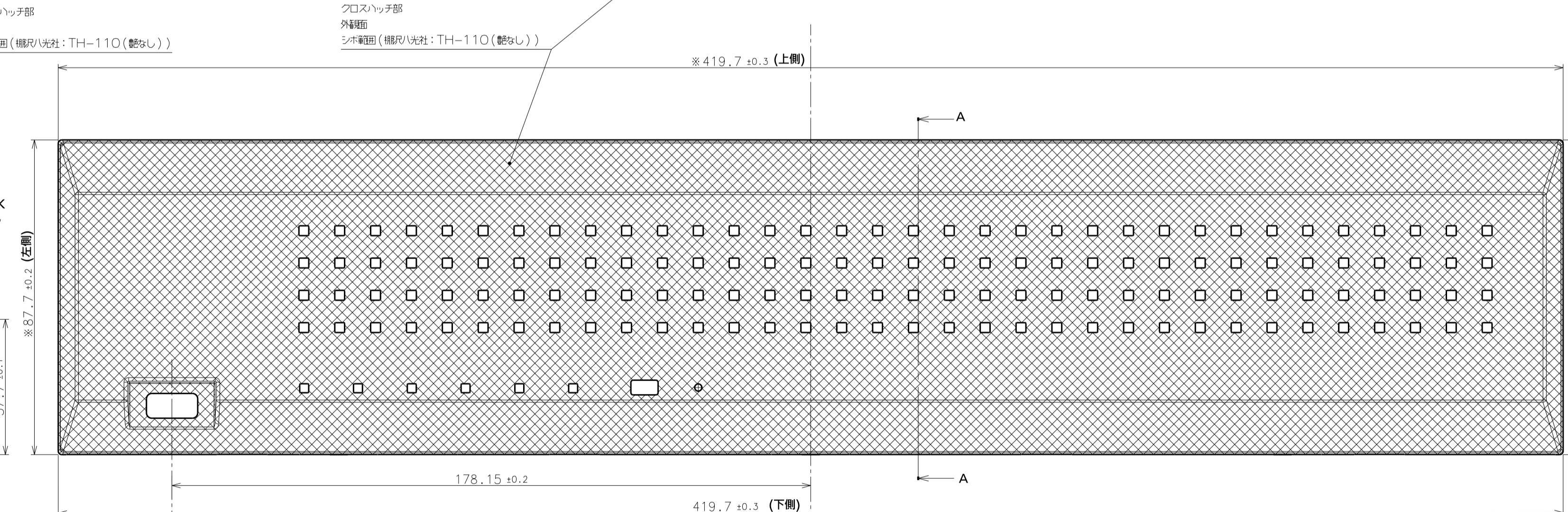


SEC AE-AE



※ 反り 0.5mm OK

※ 反り NG

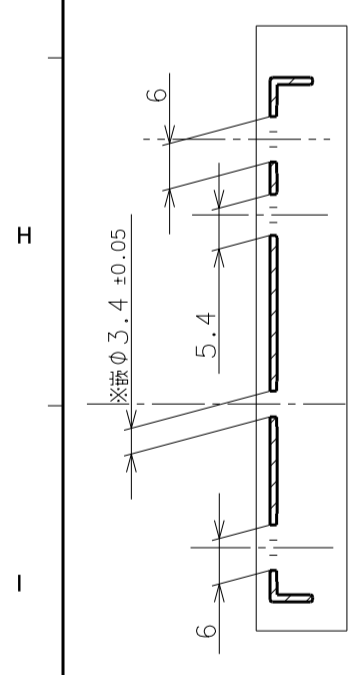


クロスハッチ部
外観面
シボ範囲(横沢/光社: TH-110(艶なし))

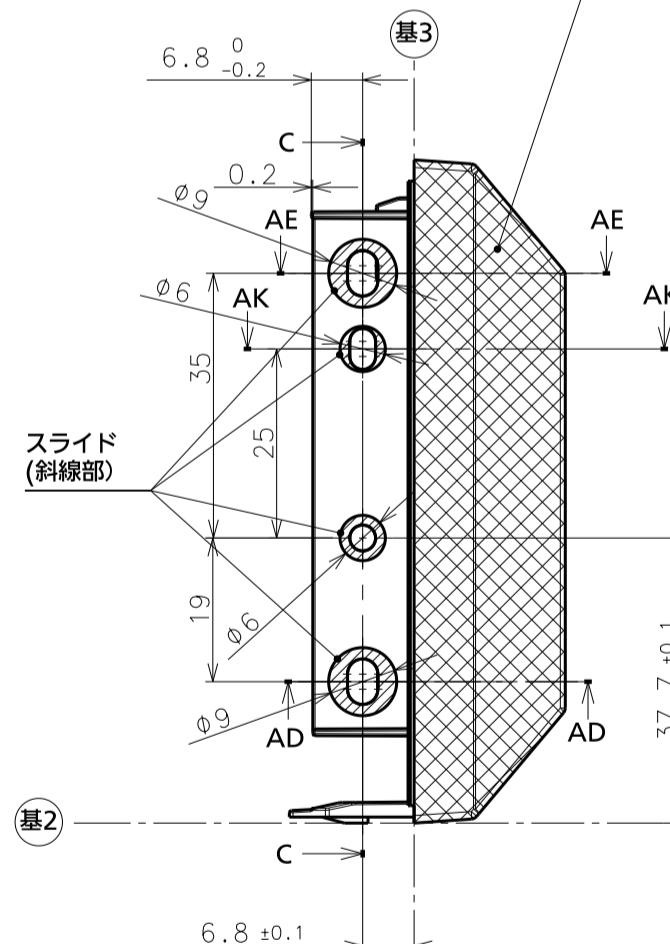
クロスハッチ部
外観面
シボ範囲(横沢/光社: TH-110(艶なし))

クロスハッチ部
外観面
シボ範囲(横沢/光社: TH-110(艶なし))

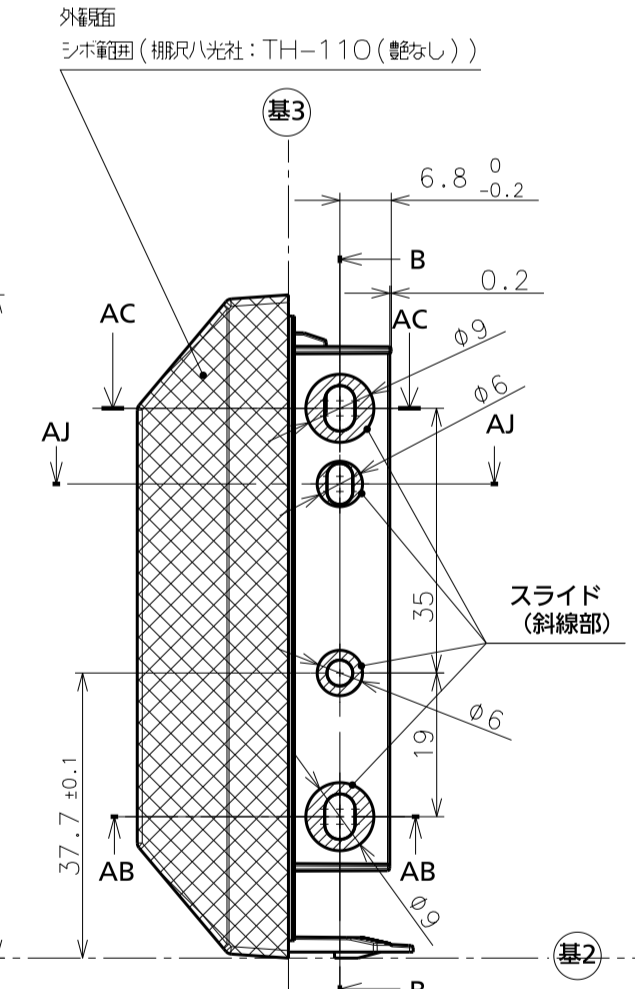
外観面
シボ範囲
(横沢/光社: TH-110(艶なし))



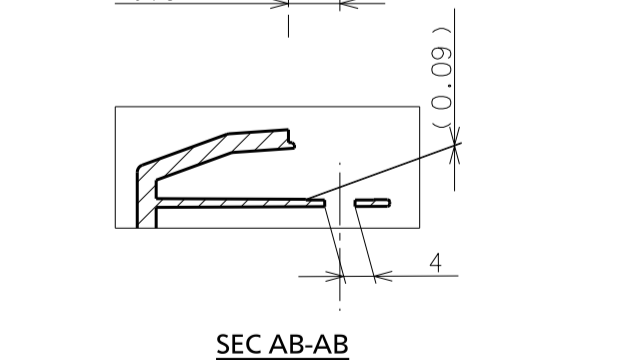
SEC C-C



SEC AD-AD



SEC B-B



SEC AB-AB

Safety parts

【安全部品管理項目】
1. 最小肉厚 2.0±0.05mm (SEC D-D)

本部品は外観部品です
外観品質については弊社規定の外観検査手順書のランクG3に準ずる。

This part is an external part.
Appearance quality should conform to rank G3
of appearance inspection procedure specified by our company.

REVISION
改訂図面
2022.06.28
PREVIOUS DRAWING IS VOID
印刷後は無効とする

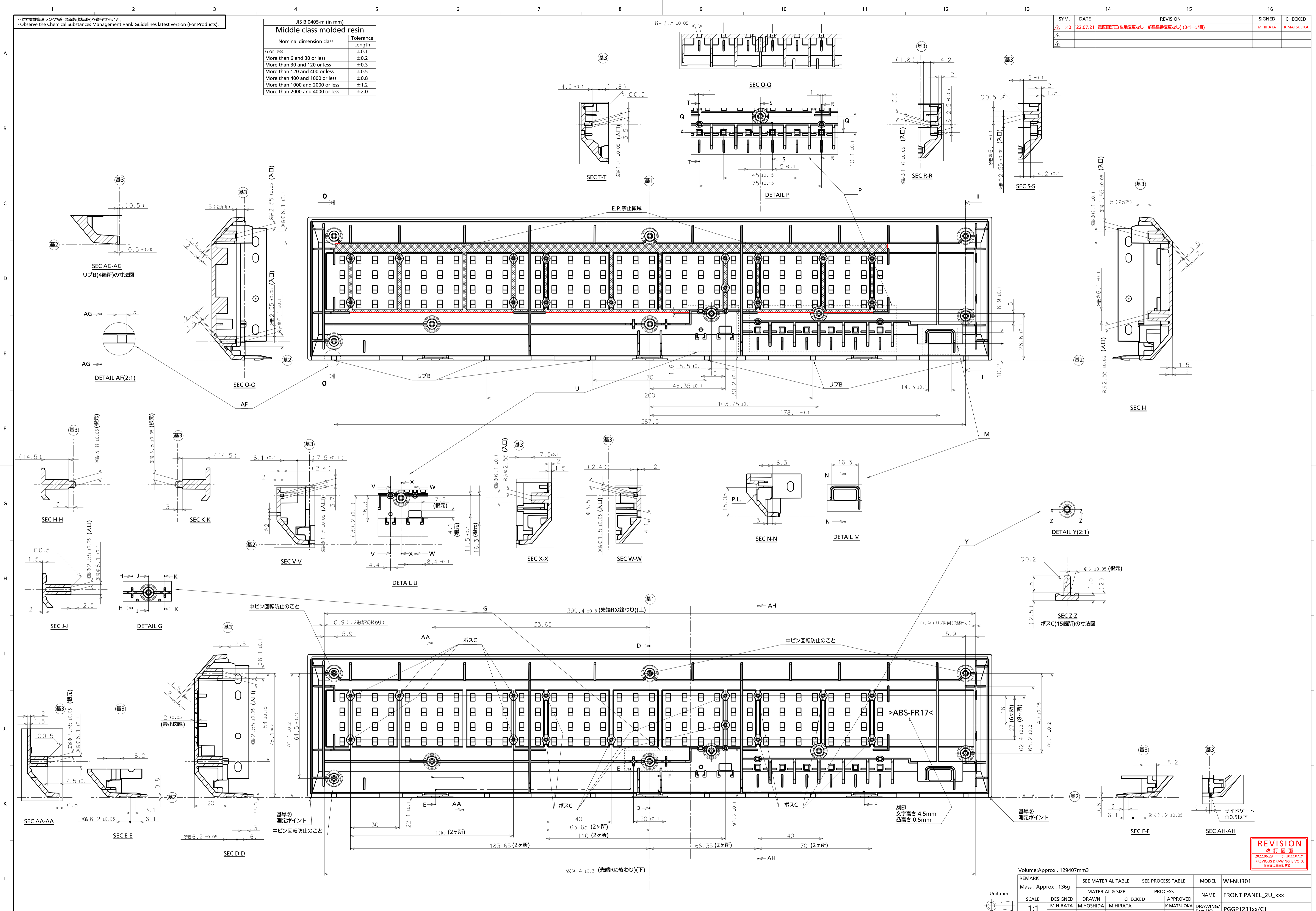
Volume: Approx. 129407mm3

REMARK	SEE MATERIAL TABLE	SEE PROCESS TABLE	MODEL	WJ-NU301
Mass : Approx. 136g	MATERIAL & SIZE	PROCESS	NAME	FRONT PANEL_2U_0xx
SCALE	DESIGNED	DRAWN	CHECKED	APPROVED
1:1	M.HIRATA	M.YOSHIDA	M.HIRATA	K.MATSUOKA
	2022.06.06	2022.06.06	2022.06.28	2022.06.28
	DRAWING/Part NO.			
	PGGP1231xx/C1			
	REF.NO.			1/3

化学物質管理ランク指定数値(製品版)を遵守すること。
Observe the Chemical Substances Management Rank Guidelines latest version (For Products).

JIS B 0405-m (in mm)	
Middle class molded resin	
Nominal dimension class	Tolerance
	Length
6 or less	±0.1
More than 6 and 30 or less	±0.2
More than 30 and 120 or less	±0.3
More than 120 and 400 or less	±0.5
More than 400 and 1000 or less	±0.8
More than 1000 and 2000 or less	±1.2
More than 2000 and 4000 or less	±2.0

SYM.	DATE	REVISION	SIGNED	CHECKED
△×0	22.07.21	修正図訂正(生地変更なし。部品品番変更なし)(3ページ目)	M.HIRATA	K.MATSUOKA
△				
△				



Volume: Approx. 129407mm³

REMARK	SEE MATERIAL TABLE	SEE PROCESS TABLE	MODEL
Mass: Approx. 136g			WJ-NUJ301
MATERIAL & SIZE	PROCESS	NAME	FRONT PANEL_2U_XXX
SCALE: 1:1	DESIGNED: M.HIRATA 2022.06.06	DRAWN: M.YOSHIDA 2022.06.06	CHECKED: M.HIRATA 2022.06.28
		APPROVED: K.MATSUOKA 2022.06.28	DRAWING/Part NO: PGGP1231xx/C1

REVISION
改訂図面
2022.06.28 → 2022.07.21
PREVIOUS DRAWING IS VOID.
印刷は廃止する

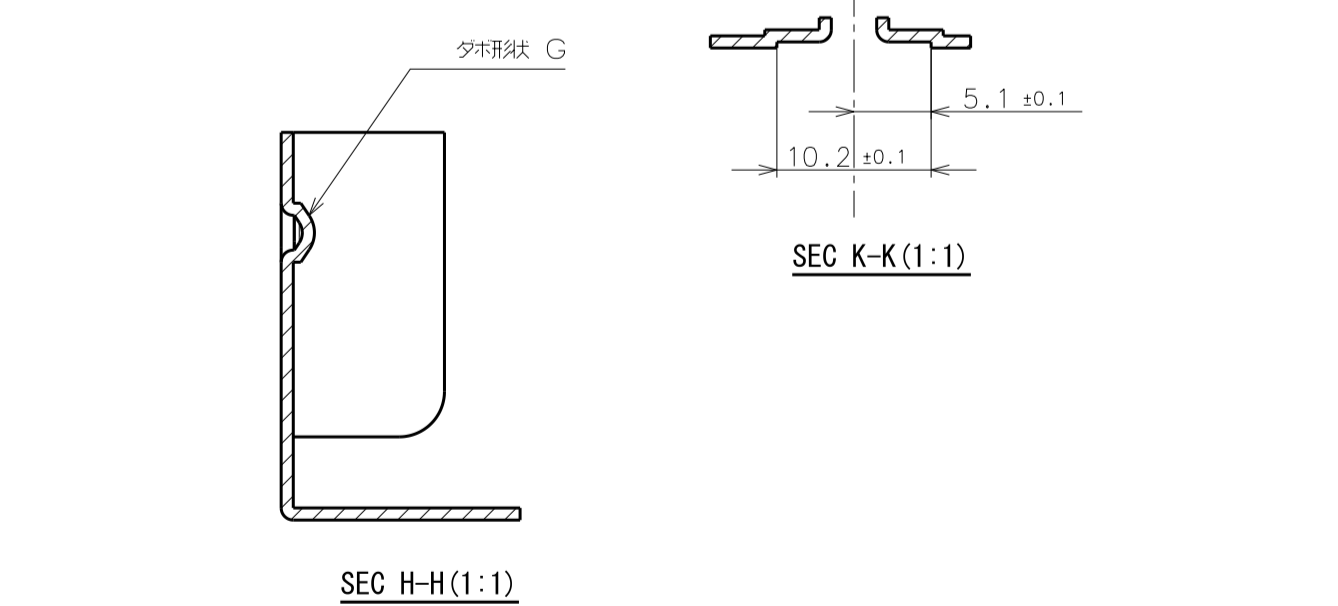
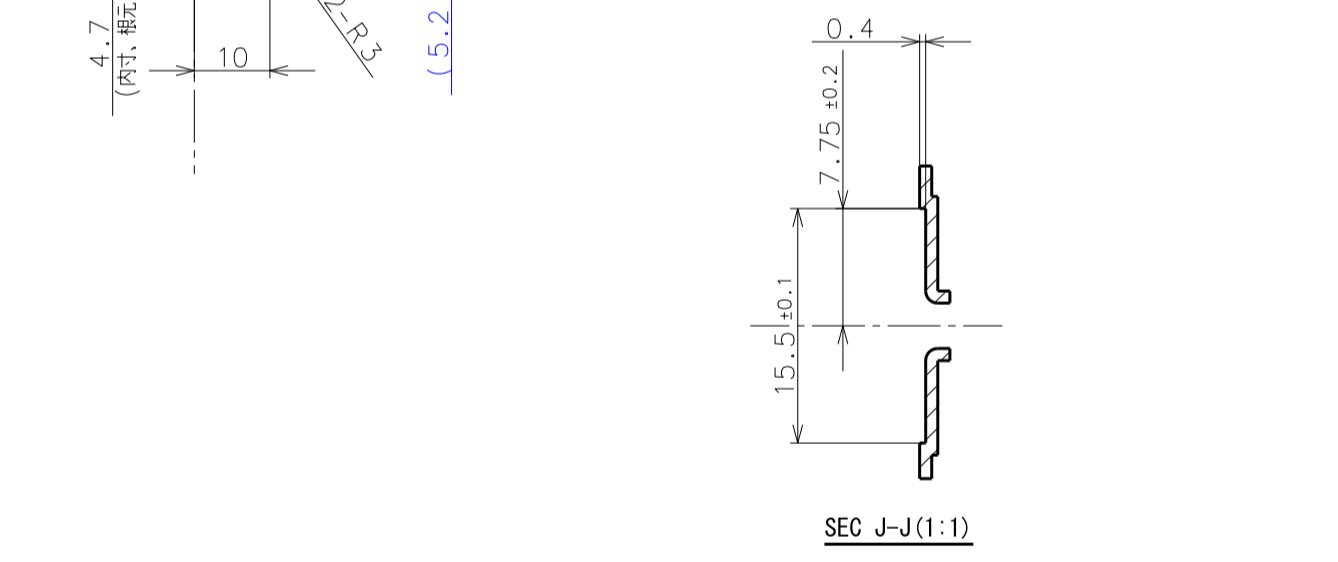
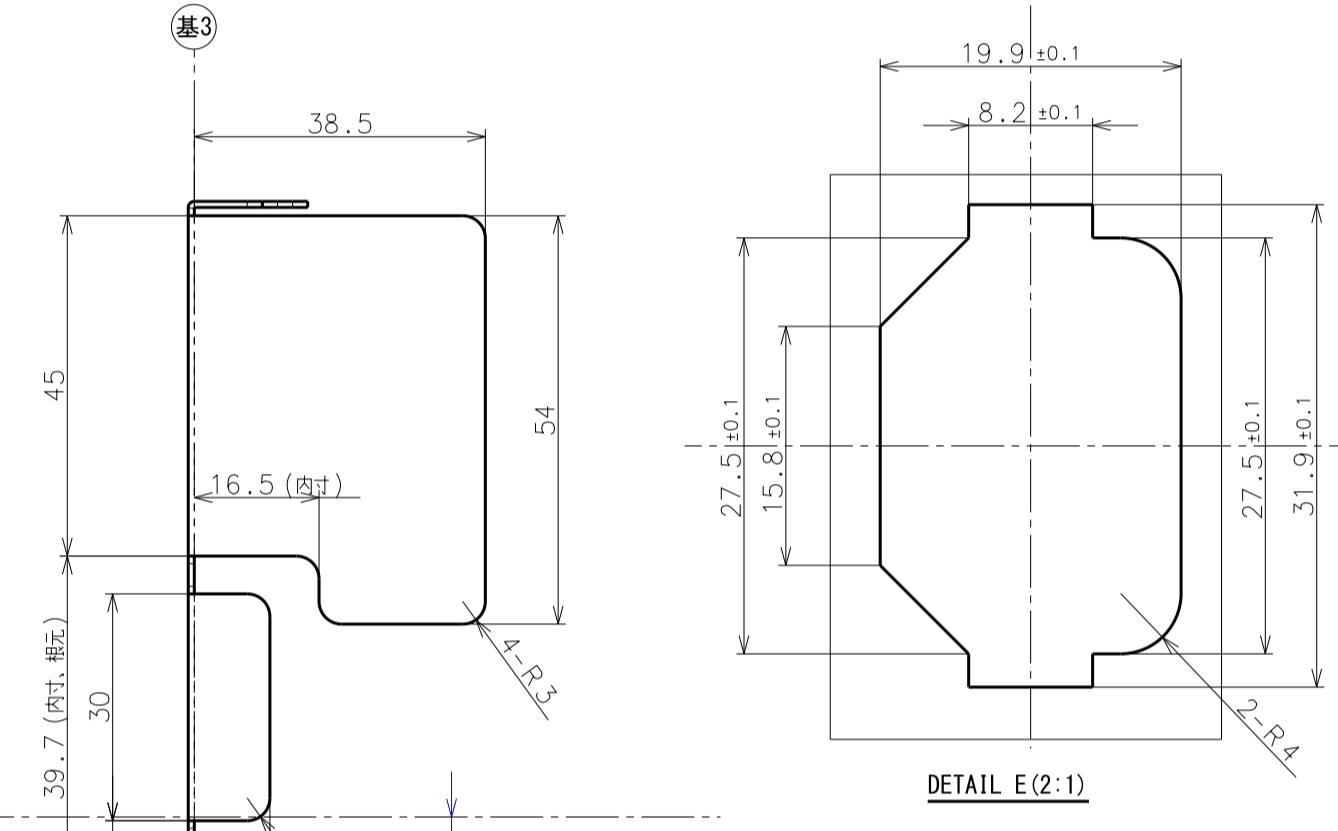
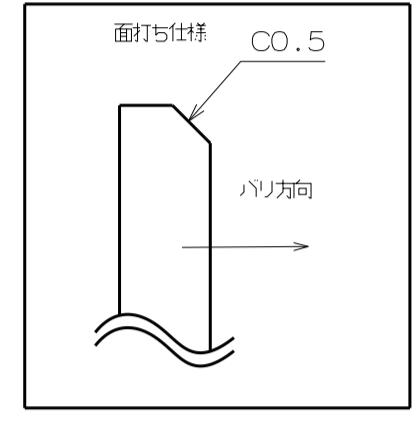
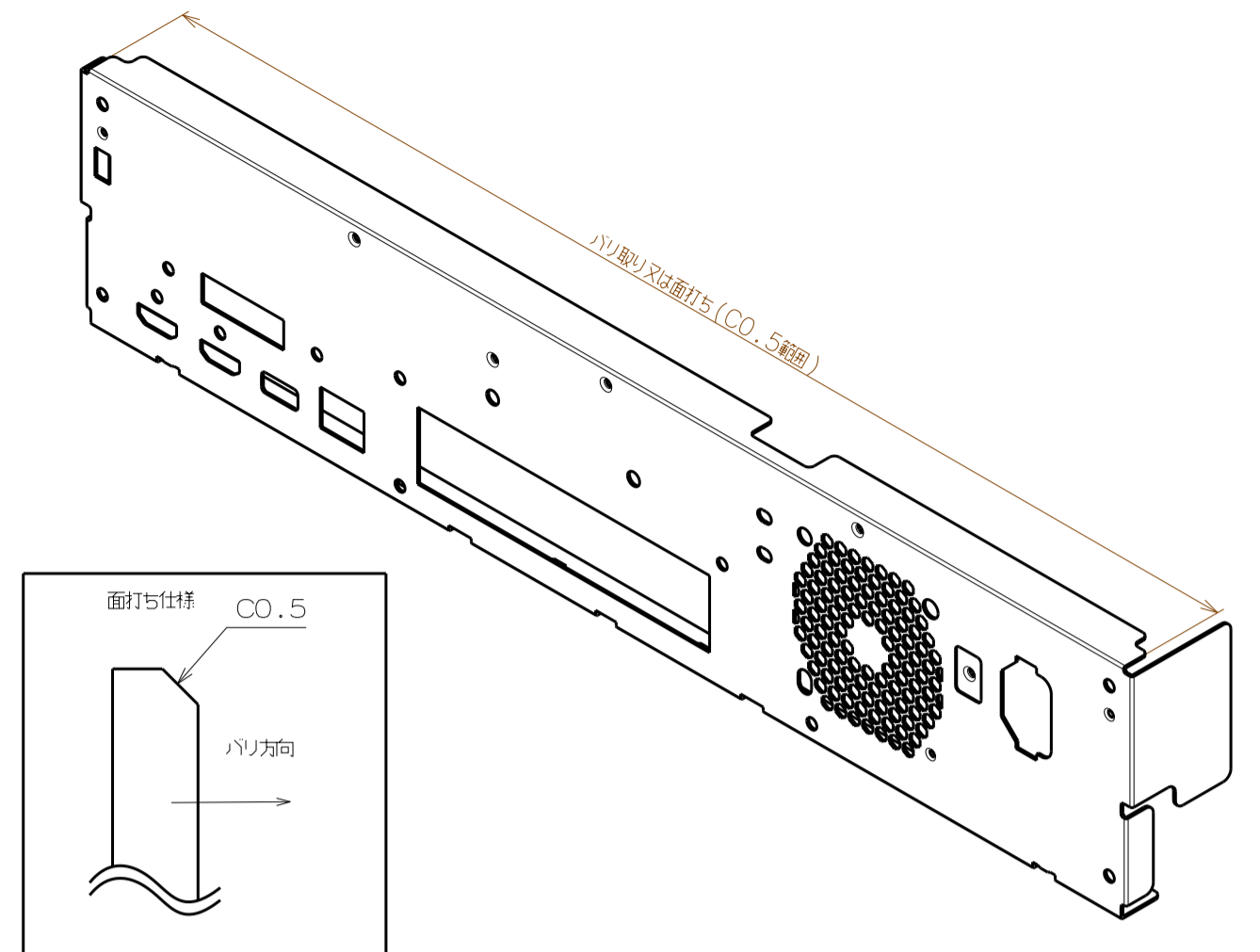
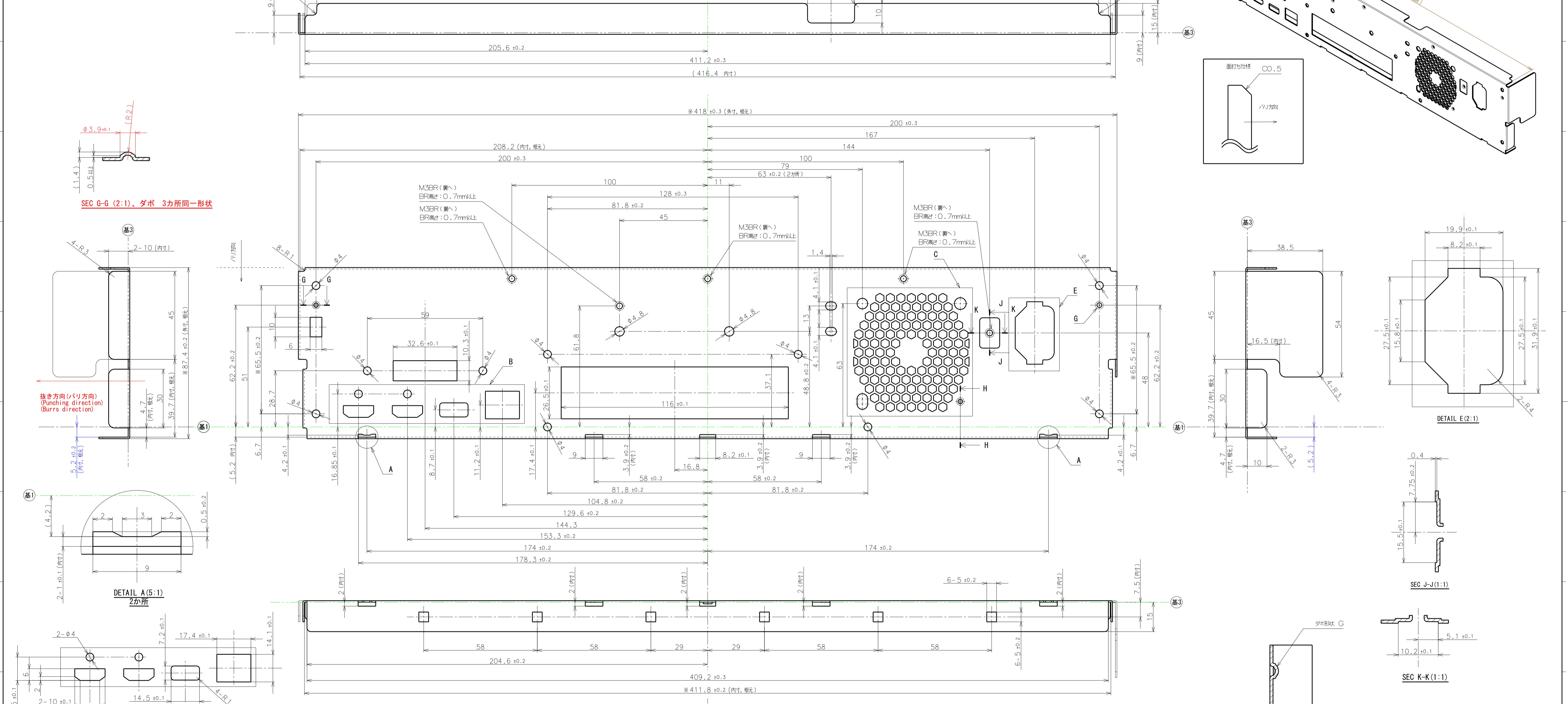
・化学物質管理ラック指針(最新版)を遵守すること。
 ・Observe the Chemical Substances Management Rank Guidelines latest version (For Products).

SYM.	DATE	REVISION	SIGNED	CHECKED
△				
△				
△				

General metal stamping

Nominal dimension class	Tolerance	
	Punching dimensions	Bending and drawing dimensions
6 or less	±0.1	±0.3
More than 6 and 30 or less	±0.2	±0.5
More than 30 and 120 or less	±0.3	±0.8
More than 120 and 400 or less	±0.5	±1.2
More than 400 and 1000 or less	±0.8	±2
More than 1000 and 2000 or less	±1.2	±3

Bending type	Angle difference
Right angle bending	±1.0°
Other bendings	±1.5°

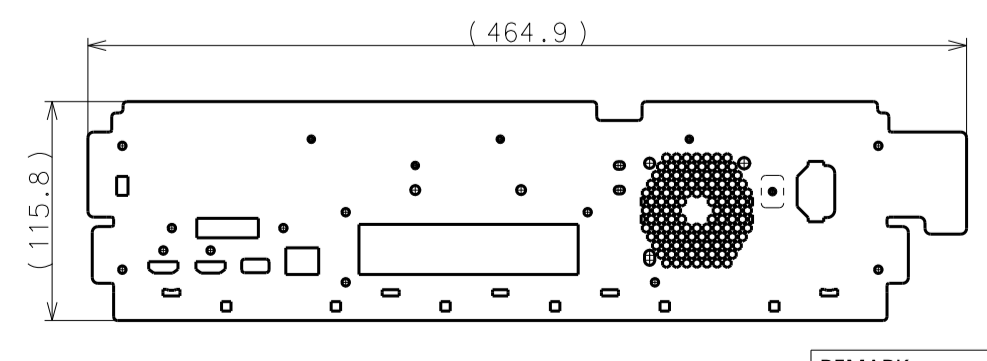
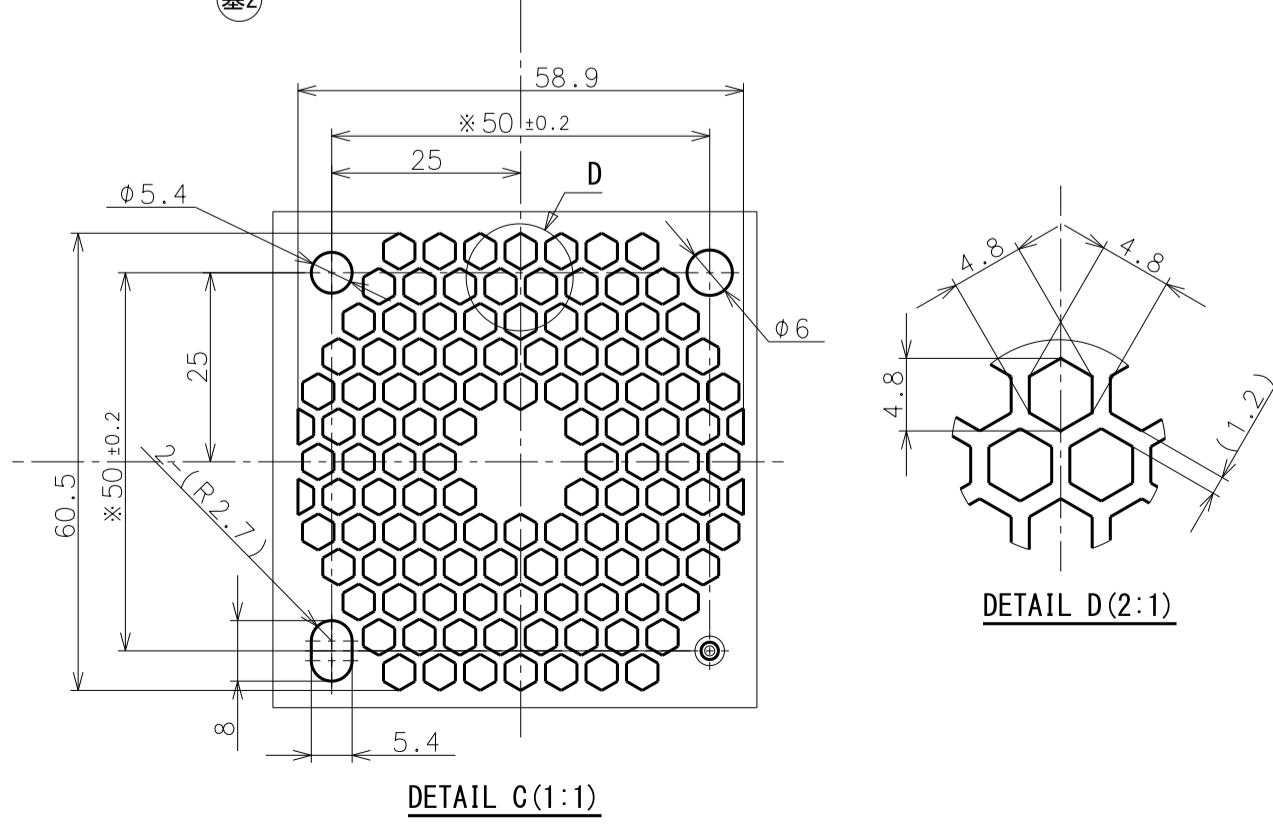


SEC G-G (2:1)、ダボ 3カ所同一形状

抜き方向(バリ方向)
(Punching direction)
(Burr direction)

DETAIL A (5:1)
2カ所

DETAIL B (1:1)



注記

- 指示なき曲げRは内側でR0.1以下とする。
- 指示なきRは、R0.8とする。
- 指示なき寸法公差は、公差表による。
- 指示なき角度公差は、±30°とする。
- 中心部分寸法の相互の中心ズレは、0.05以下とする。
- 左右対称形状寸法は省略する。(省略した部分の寸法も測定のこと)
- 金型構造は、打ち合わせにより決定する。
- 金型構造図面を提出し、金型加工開始前に技術部門の承認を得ること。
- バリの高さは板厚の5%以下とする。
- 傷、汚れ、ゴミの付着なきこと。
- バーリング外縁部に割れなきこと。
- 高層上(外観、バリ仕上げ、塗装等)、経路が生じた場合は、協議の上、塗装方法を決定し、必要に応じて簡易見本を作成し、管理する。
- 金型の修正改裝や、その他条件(材料、プレス条件、加工法、加工先など)の変更は、弊社承認後に実施すること。必要に応じて、打合せやサンプル提出を行うこと。
- 塗装、印刷については、見本を事前に色、艶、肌目の簡易見本を提出し、承認を得ること。
- 印刷色: マンセルN2
- 印刷のしじみ、欠けなきこと。
- 塗装及び印刷強度は、塗装印刷試験標準の「B」基準を満足すること。
- 刻印および印刷は版下原稿に従うこと。版下原稿は別途支給する。
- 刻印は凹とし、裏面への突き出し無きこと。
- 製造納入時に、傷、変形検査を受けること。
- 「※」印寸法は、嵌合調整寸法とする。
- ※印寸法は、弊社受入検査部門での管理寸法とする。
- 当図面の管理に注意し、外部に複製、貸与、転用等を絶対に行わないこと。
- 本図面は、3次元データにおける補足用として提出しており、寸法、形状に関しては3次元データを正として製作・組立する。
- 3次元データ: 「PGPP12302A_C1_REAR_PANEL_WJ-U301_20220629.stp」

Notes:

- Bending without indication, R shall be inward and R0.1.
- "R" without indication shall be "R0.8".
- Dimensional tolerances without indication shall stand on the data in the tolerance chart.
- Angle tolerances without indication shall be ±30°.
- If any doubt arises with respect to quality (appearance, burr finishing, painting, etc.), the treatment method shall be decided after consultation, and boundary samples shall be made for management as necessary.
- The mold structure shall be decided in a meeting.
- The mold structure drawing shall be submitted and approved by the technical division before the start of mold machining.
- The burr height shall be indicated in the drawing.
- The burr height shall be 5.0% of the thickness.
- Scratch, stain, and dirt shall not be present.
- Crack shall not be present on the edge of burring outside diameter.
- If any doubt arises with respect to quality (appearance, burr finishing, painting, etc.), the treatment method shall be decided after consultation, and boundary samples shall be made for management as necessary.
- Revision and repair of molds and change in other conditions (material, stamping conditions, processing method, processing subcontractor, etc.) shall be performed after our approval. Meetings shall be held and samples shall be submitted as necessary.
- For paint and print, samples shall be based, boundary samples for color, gloss, and texture shall be submitted in advance, and our approval shall be obtained.
- Print color: Munsell N2
- Print bleed and missing portion shall not be present.
- The painting and printing intensity shall meet Class "B" of the painting and printing intensity standard.
- Engraving and print shall follow the artwork. The artwork will be provided separately.
- Engraving shall be concave and no projection shall be observed in the rear side.
- The type of packing shall not have any scratch or deformation at delivery.
- The dimensions marked with "※" shall be fit adjusting dimensions.
- The dimensions marked with "*" shall be the control dimensions of our acceptance inspection division.
- Care shall be taken of managing this drawing, and never perform display, lending, diversion, etc.
- This drawing has been submitted as a supplement for 3-D arrangement, and the dimensions and shapes in 3-D data are formal for forming the mold.
- 3-D data: "PGPP12302A_C1_REAR_PANEL_WJ-U301_20220629.stp"

REMARK	SCALE	DESIGNED	DRAWN	CHECKED	APPROVED	NAME	DRAWING/Part No.
	1:1	2022.06.06	MAHIRATA	2022.06.06	K.MATSUOKA	2022.06.29	PGPP12302A/C1

MATERIAL & SIZE	PROCESS	MODEL	WJ-U301
SECC N5 ±0.8	脱脂/DEGREASING シビア処理	REAR PANEL 2U	

量産手配図面
[2022.06.29]
ORDER DRAWING FOR MASS PRODUCTION

本部品は外観部品です
外観品質については弊社規定の外観検査手続(ラックG3)に準じます。

This part is an external part.
Appearance quality should conform to rank G3 of appearance inspection procedure specified by our company.