

NOVASTACK® 35-HDN

Fully-shielded, 0.7 mm mated height, 0.35 mm pitch, narrow design, high frequency and high speed transmission supporting board-to-board connector

Product Specifications:

Board Pitch	0.35 mm	
Contact Mating Length	0.14 mm	
Mated Size	Height	0.7 +/- 0.05 mm
	Width	10 pin: 4.15 mm, 20 pin: 5.9 mm, 30 pin: 7.9 mm
	Depth	2.15 mm
Frequency Range	Up to 15 GHz, Up to 12 GHz, Up to 11 GHz, Up to 9 GHz, Up to 6 GHz	
Current Rating	Signal	10 pin Signal: 1.0 A/pin (Total 10.0 A max.), 12 pin and over Signal: 1.0 A/pin (Total 12.0 A max.)
	Power	-
Available Pin Count	Signal	10, 20, 30
	Power	-

Applicable Standards (Reference Only):

USB4 (20 Gbps/lane), USB 3.1 Gen 2 (10 Gbps), eDP HBR 3 (8.1 Gbps), eDP HBR 2 (5.4 Gbps), HDMI 2.0 (6 Gbps), V-By-One HS 1.4 (4 Gbps), MiPi standards

* Please inquire for pin counts not listed or outside of the pin count range.



► **Compact and low-profile, optimized for use in space-constrained applications.**

NOVASTACK 35®-HDH

Mated height

1.50 mm

Depth

3.64 mm

NOVASTACK 35®-HDN

Mated height

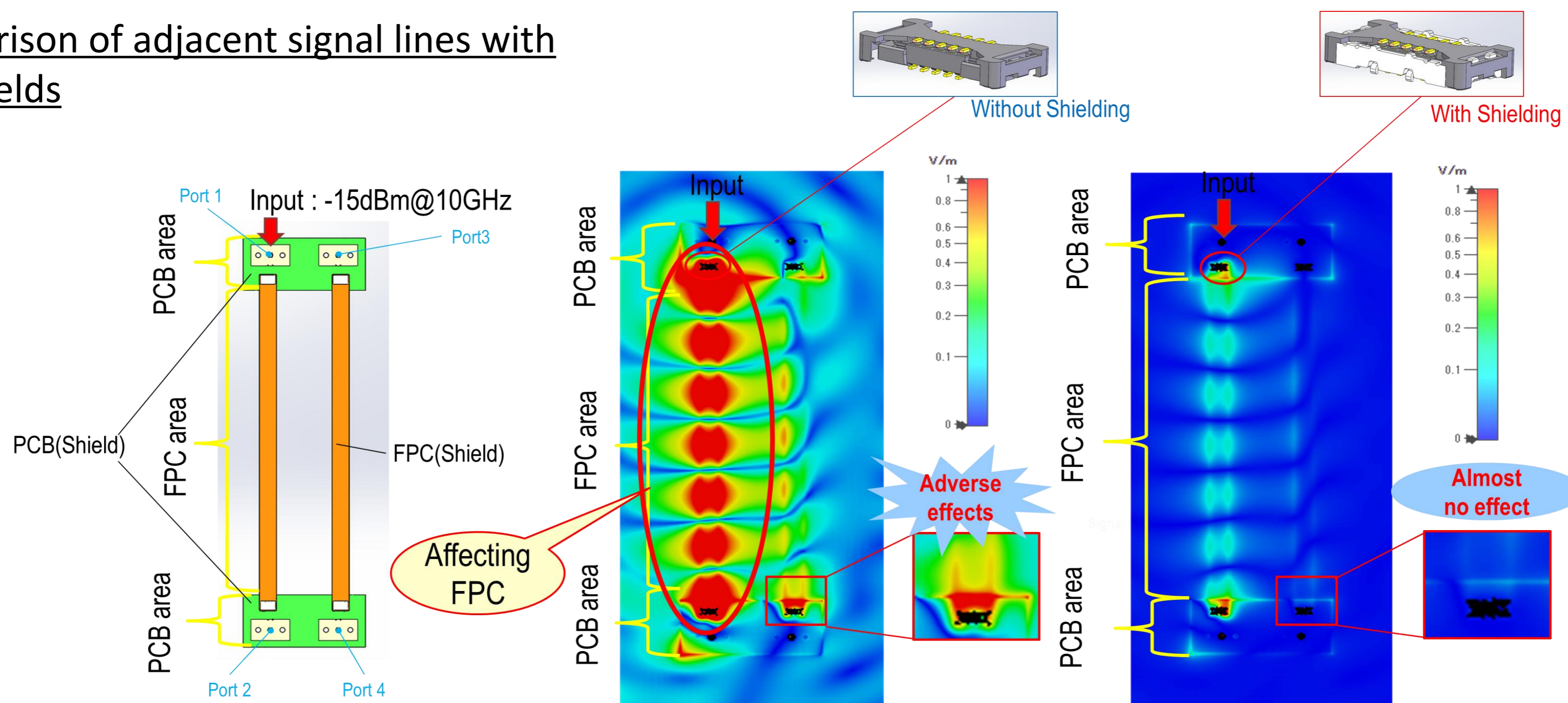
0.70 mm

Depth

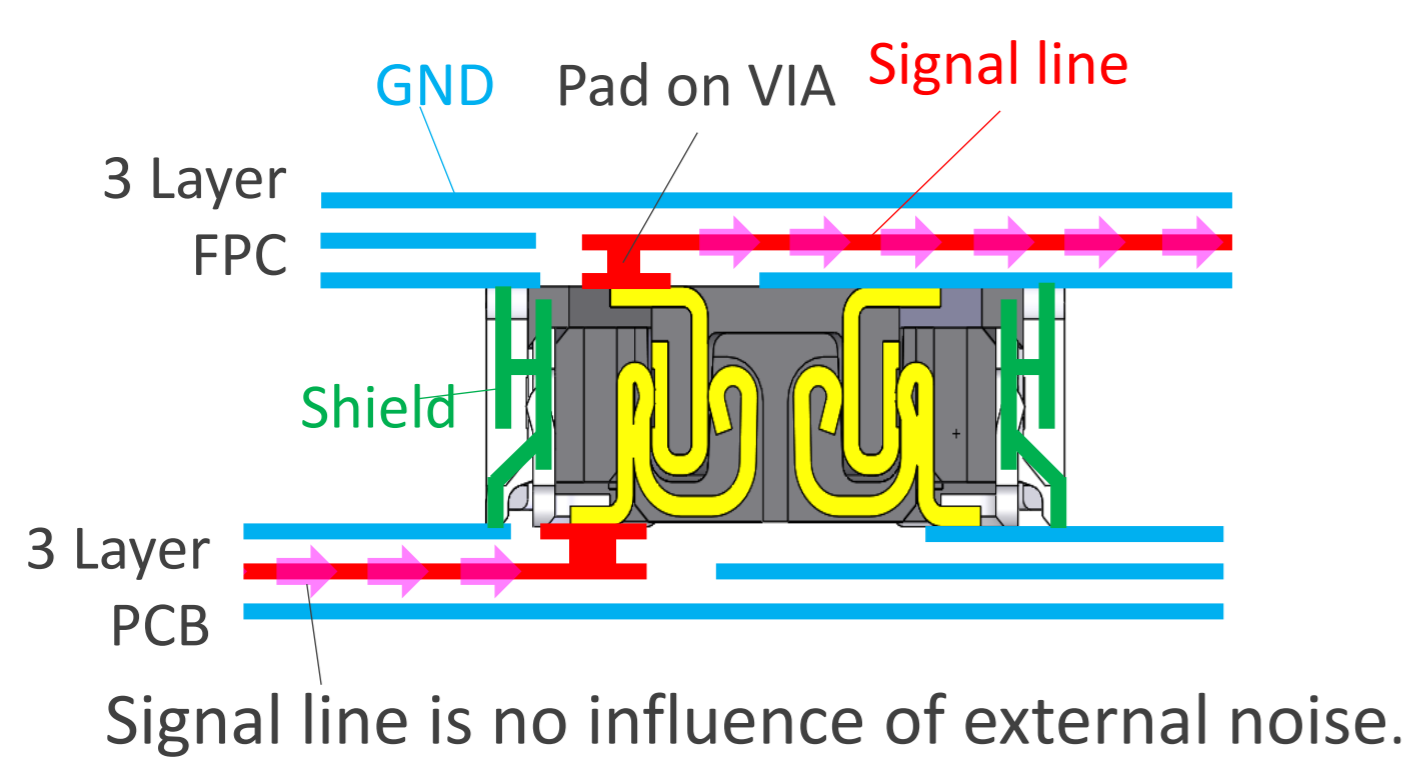
2.15 mm

► **ZenShield® fully-shielded design is ideal for EMC solutions.**

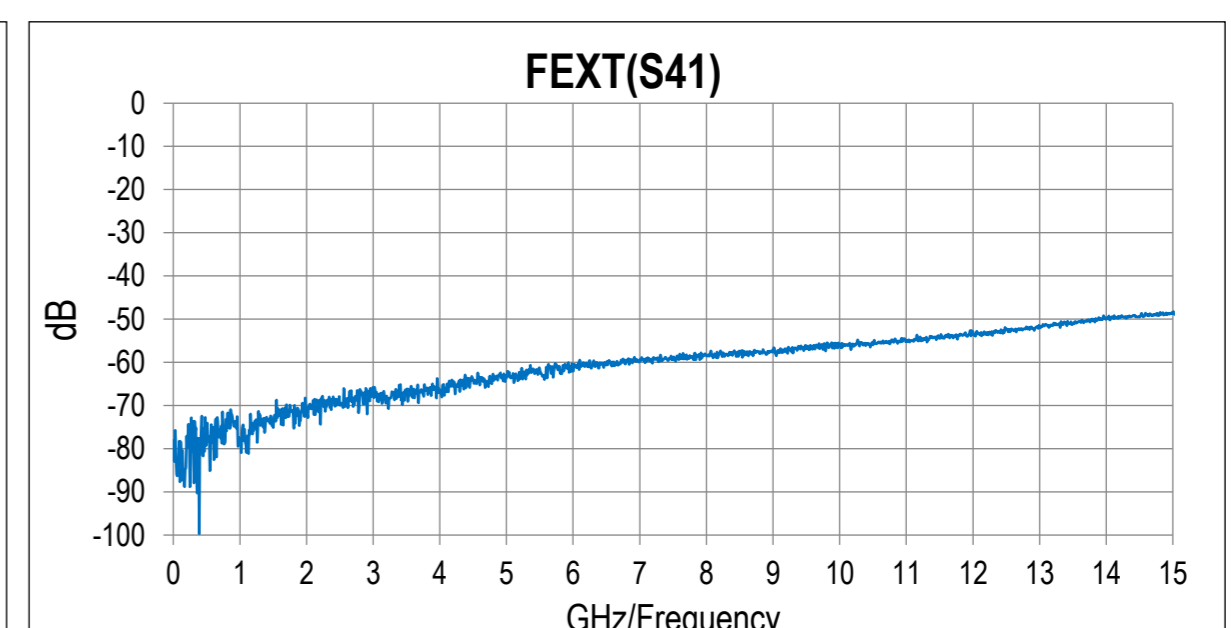
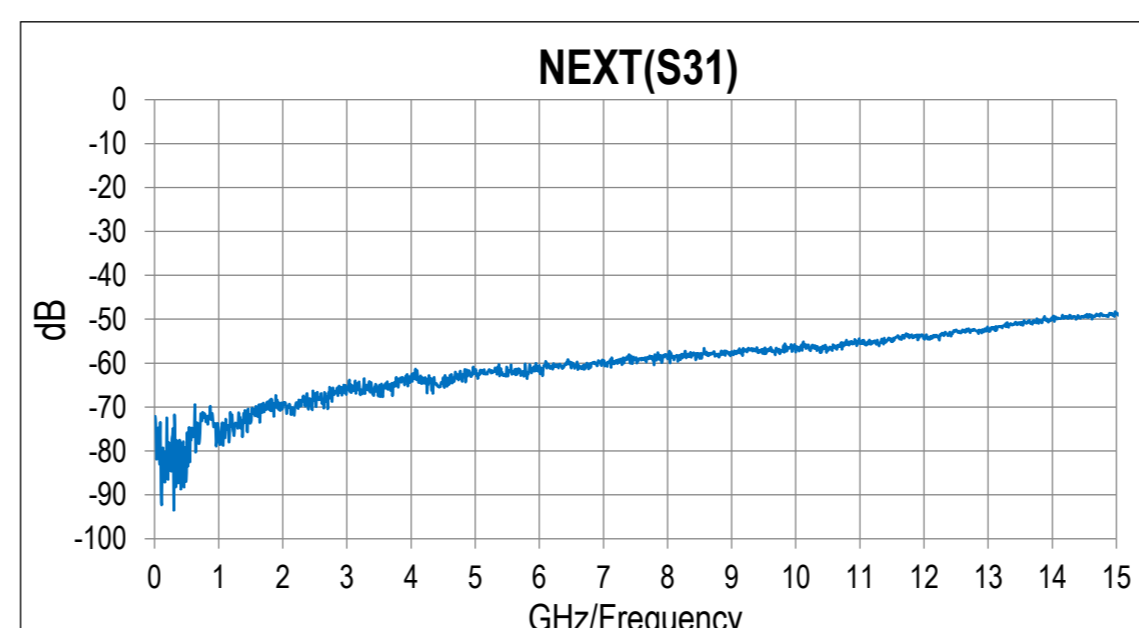
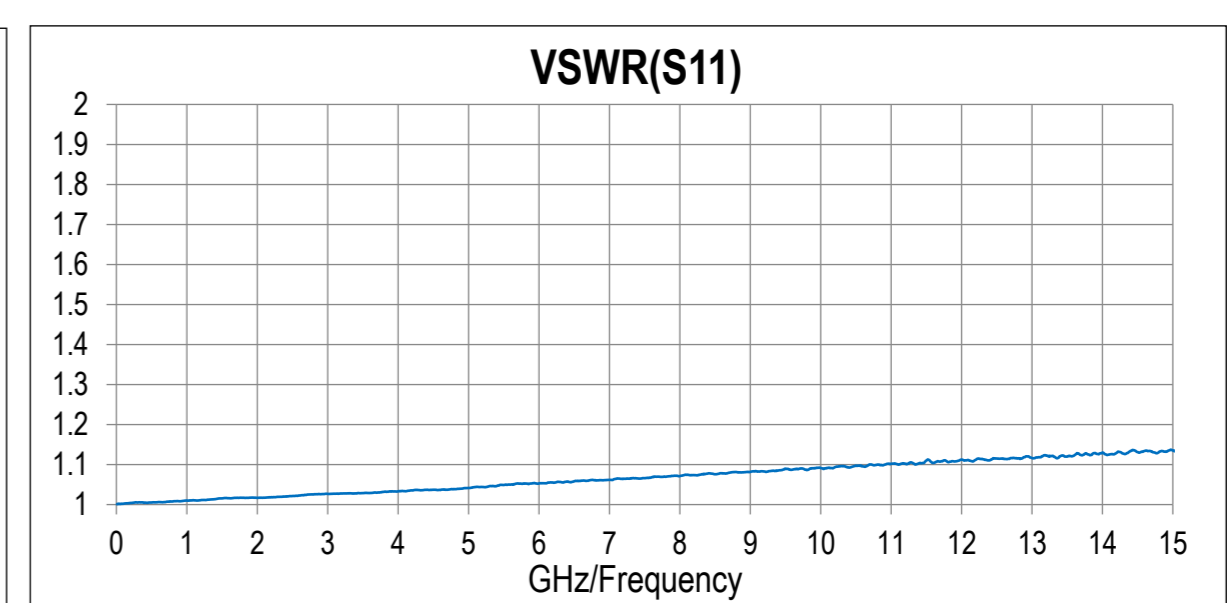
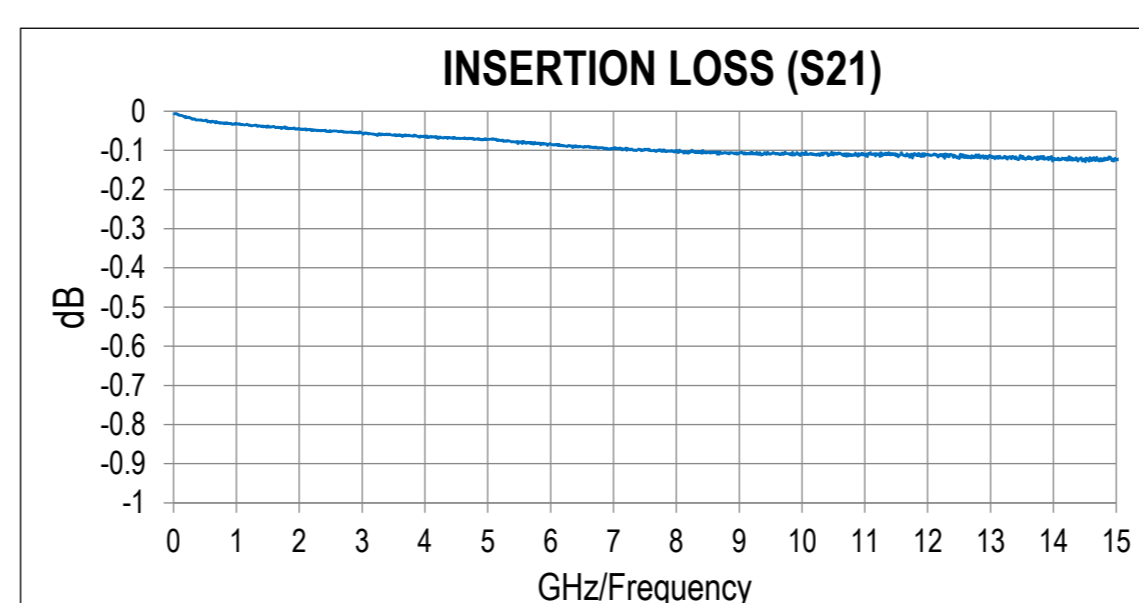
E-Field comparison of adjacent signal lines with or without shields



► **Supports high-frequency transmission; ensures good signal quality even for RF transmission.**



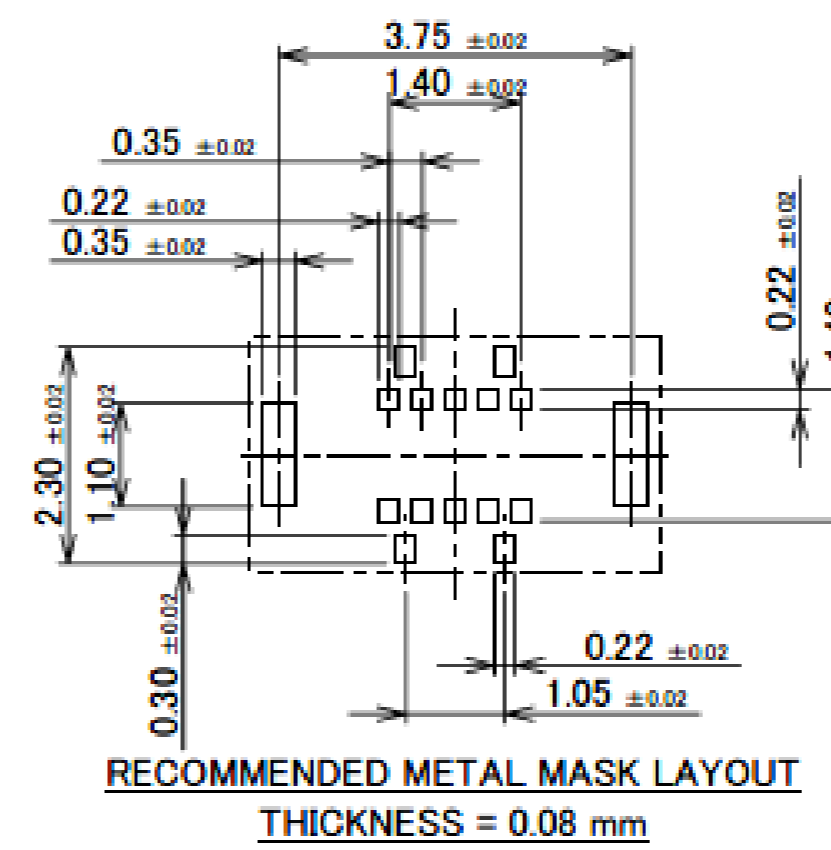
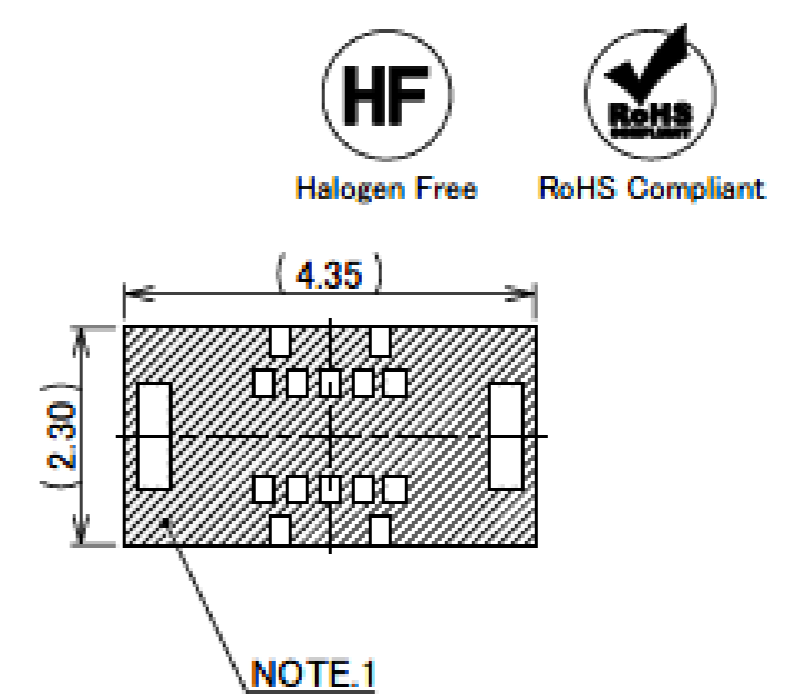
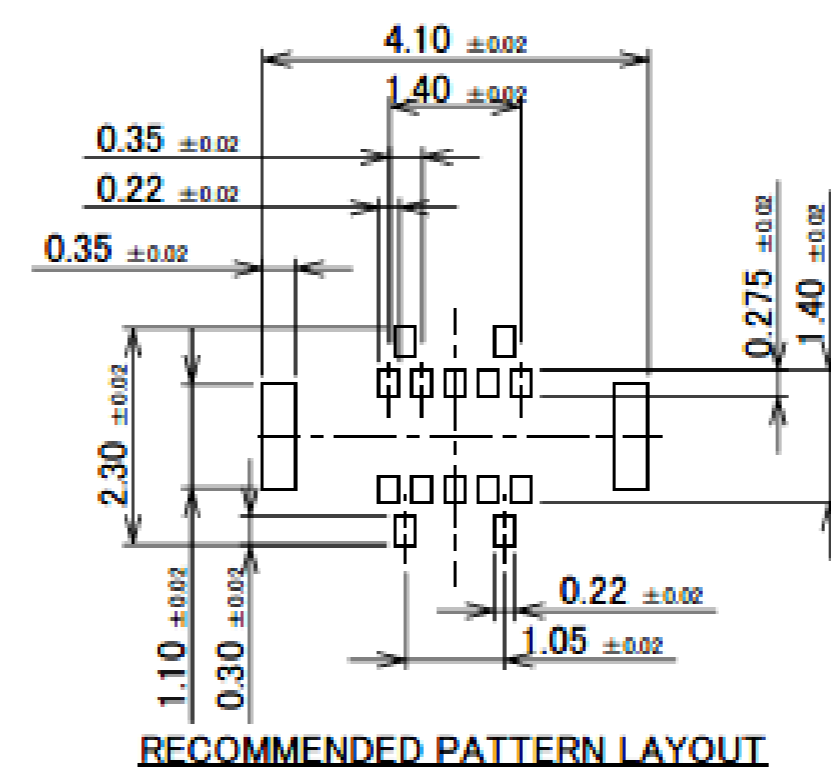
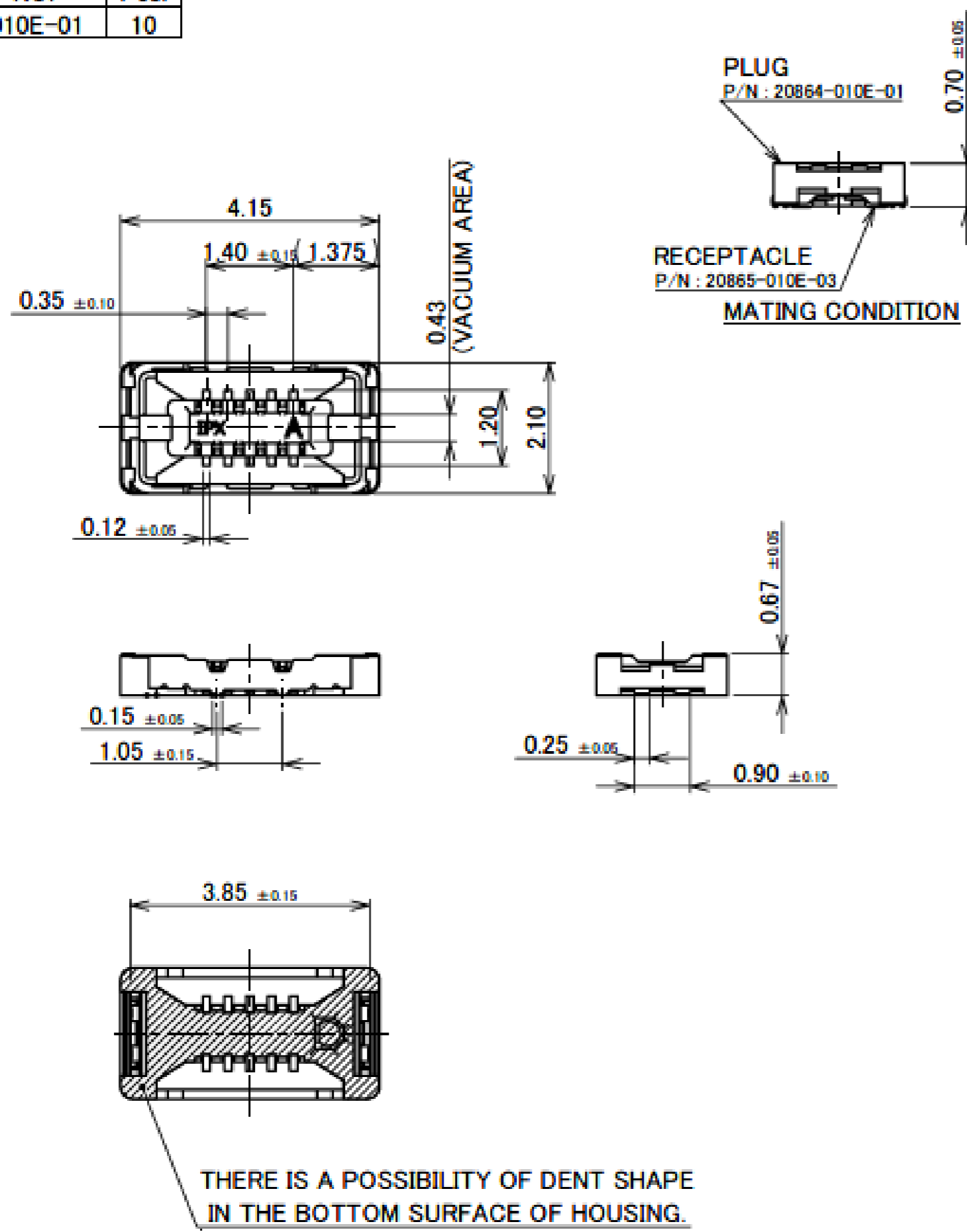
◆ **Pin assignment**



Component Parts Detail

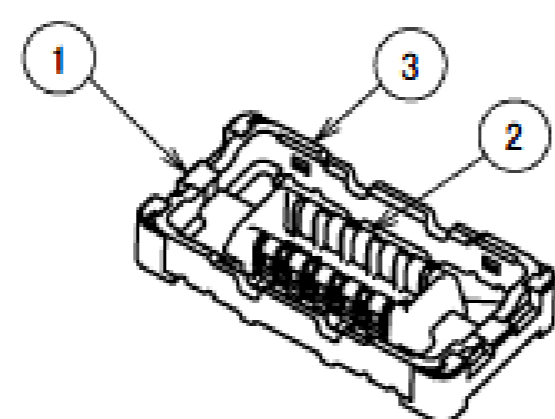
Plug Assembly

Recommended P/N	20864-010E-01
PART NO.	Pos.
20864-010E-01	10



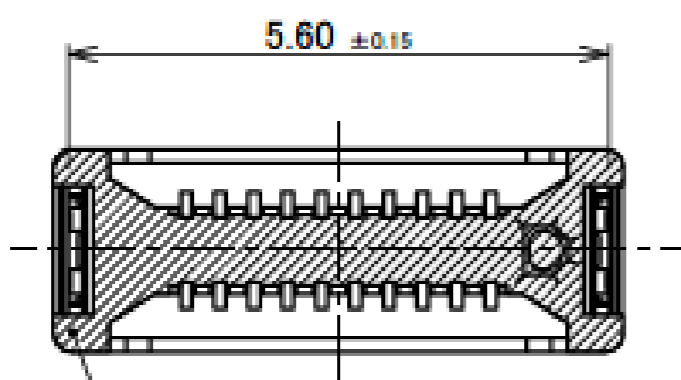
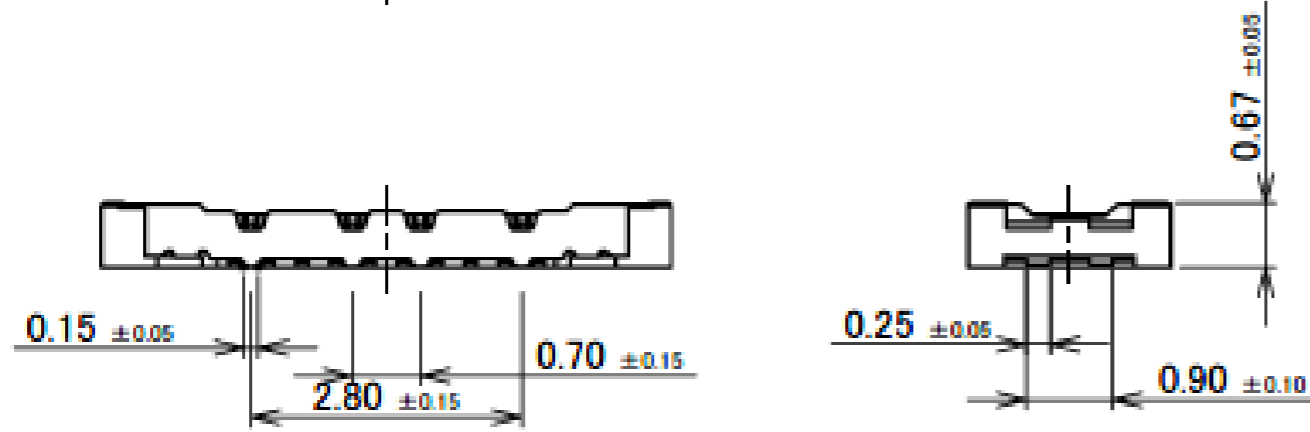
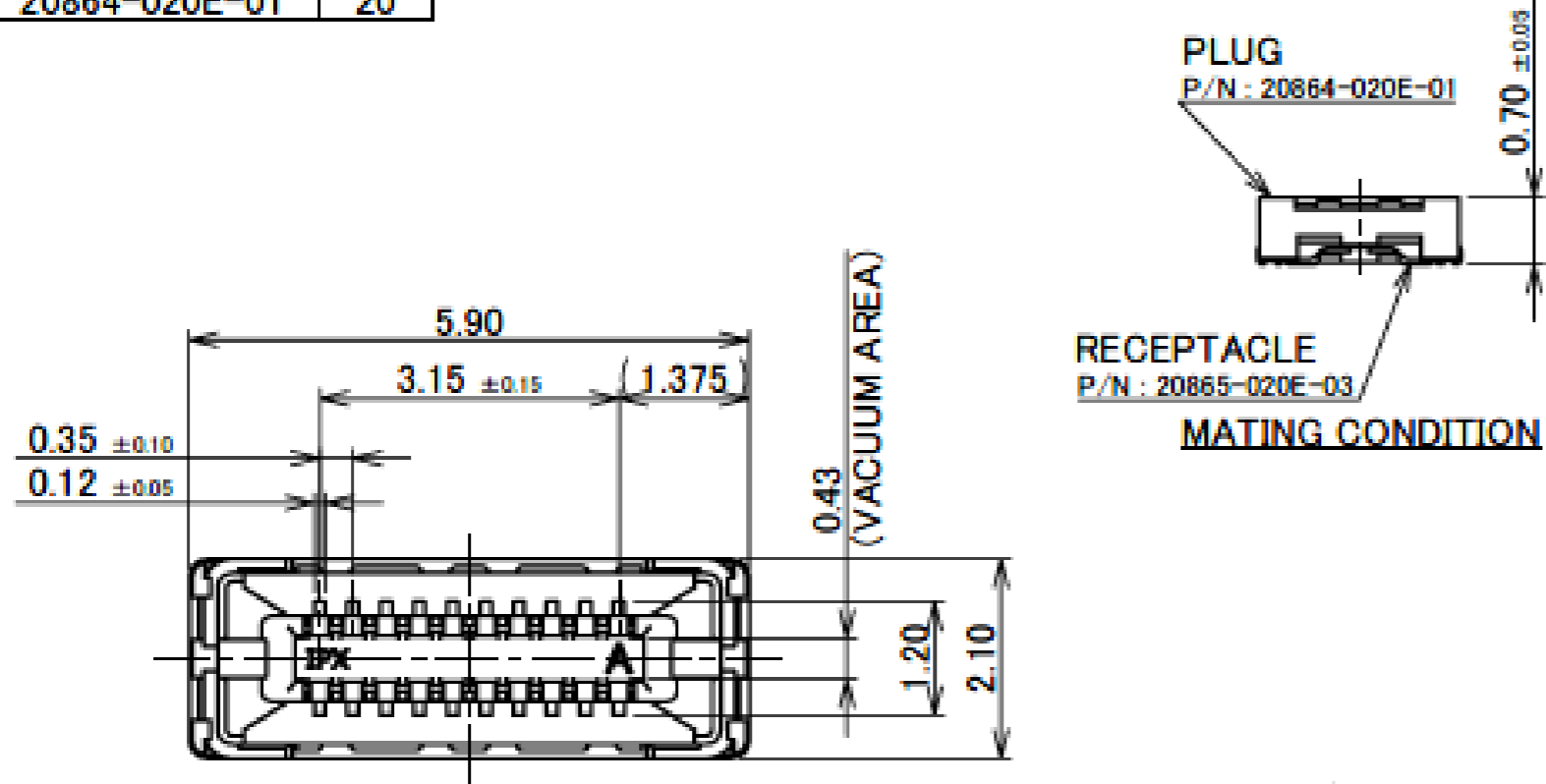
NOTES.
1. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.

NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
3	SHELL	COPPER ALLOY	SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
2	CONTACT	COPPER ALLOY	CONTACT PART Au 0.05 μm MIN. OVER Ni 1.27 μm MIN. SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK

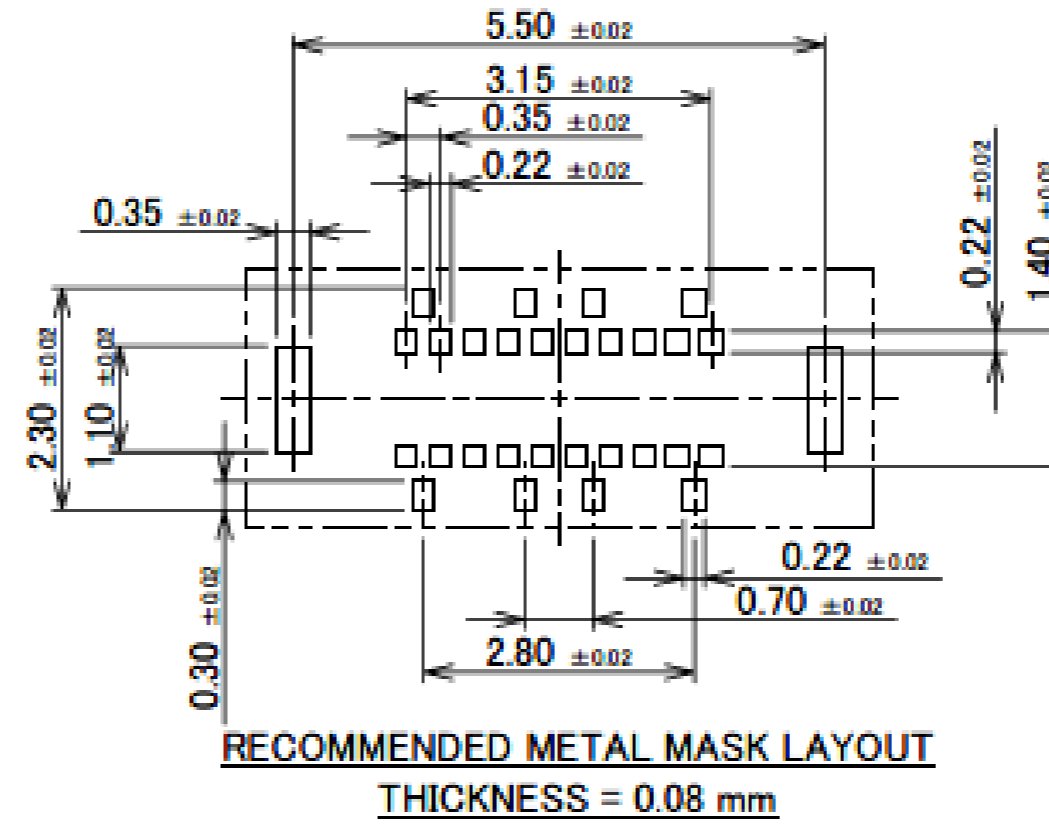
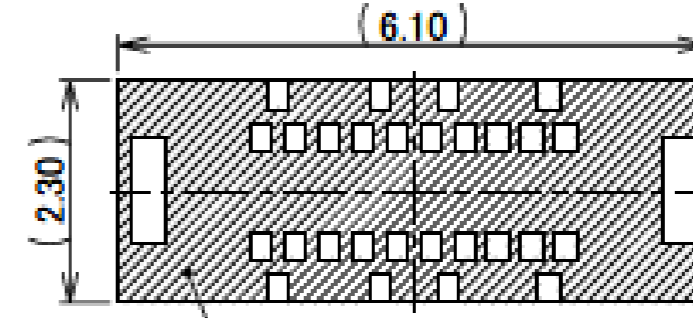
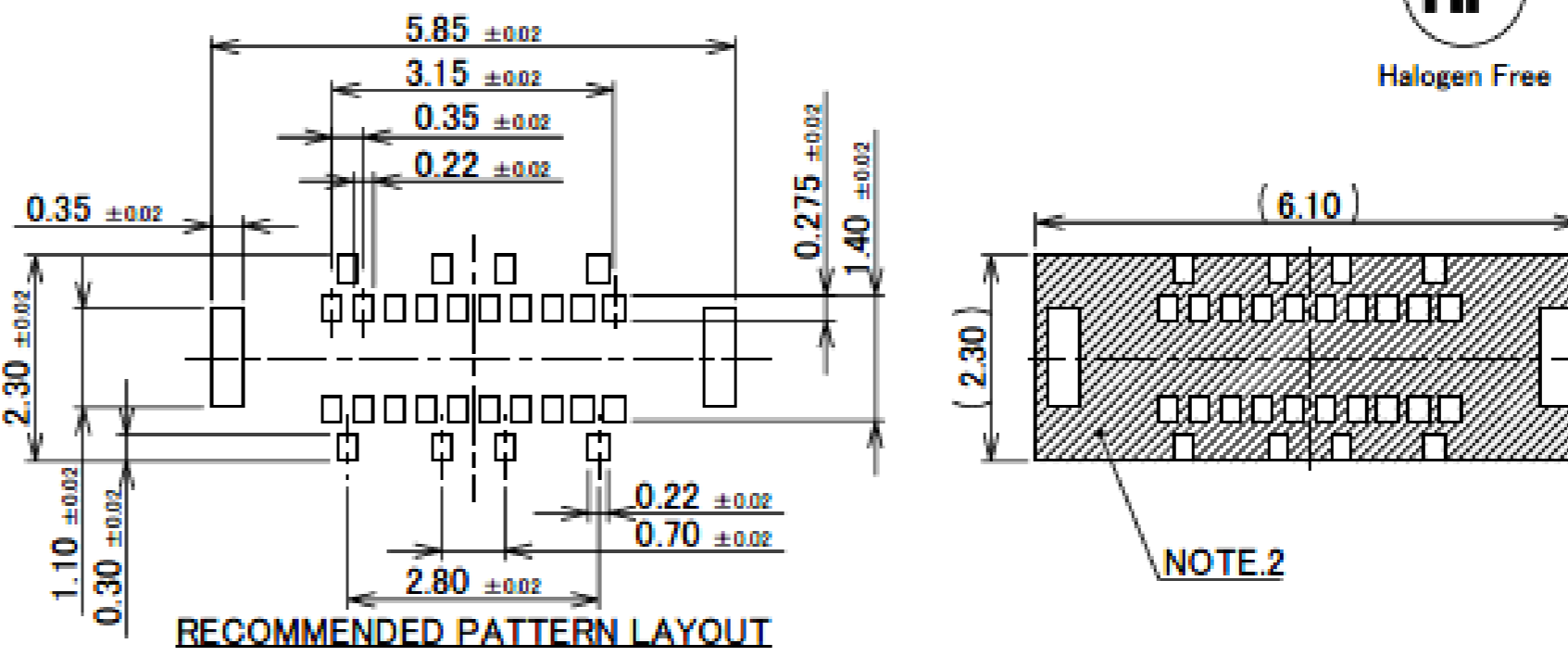
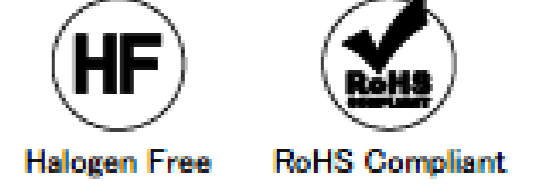
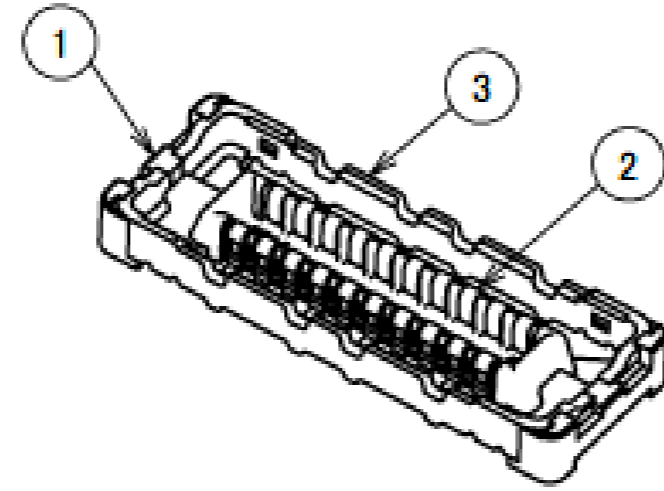


Plug Assembly

Recommended P/N	20864-020E-01
PART NO.	Pos.
20864-020E-01	20



THERE IS A POSSIBILITY OF DENT SHAPE IN THE BOTTOM SURFACE OF HOUSING.

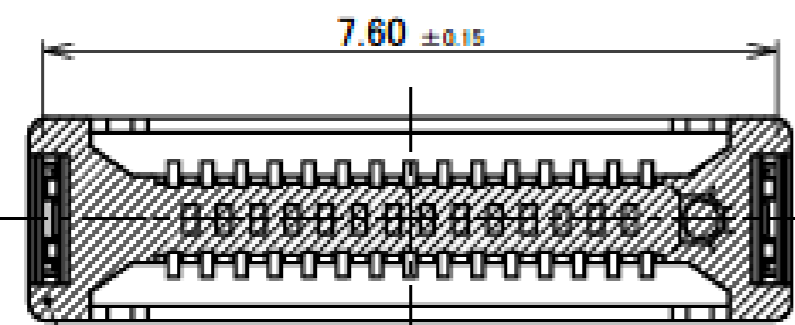
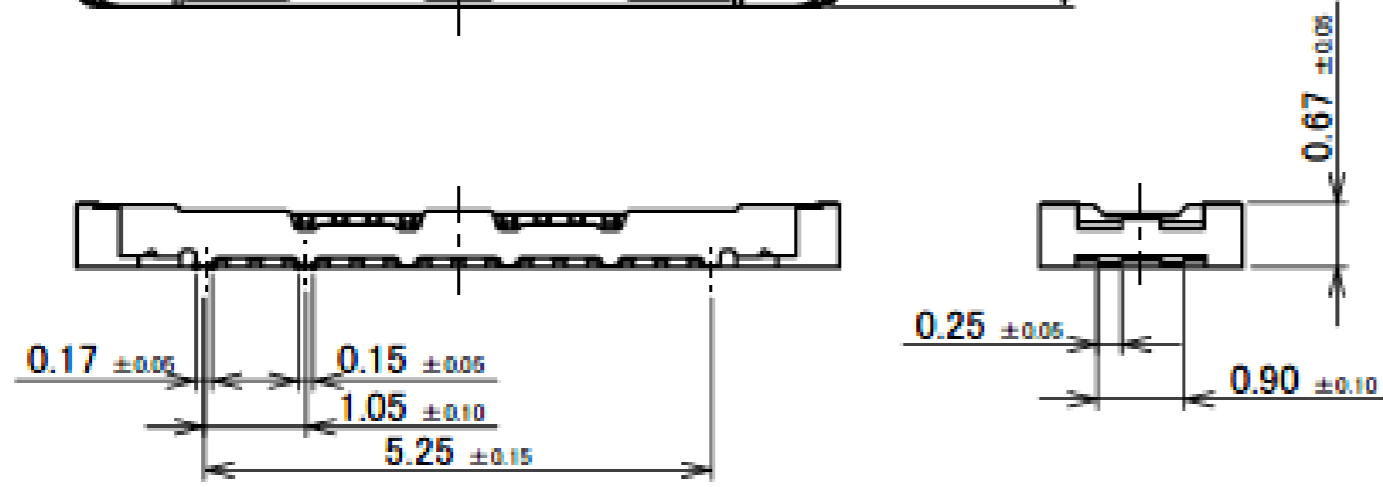
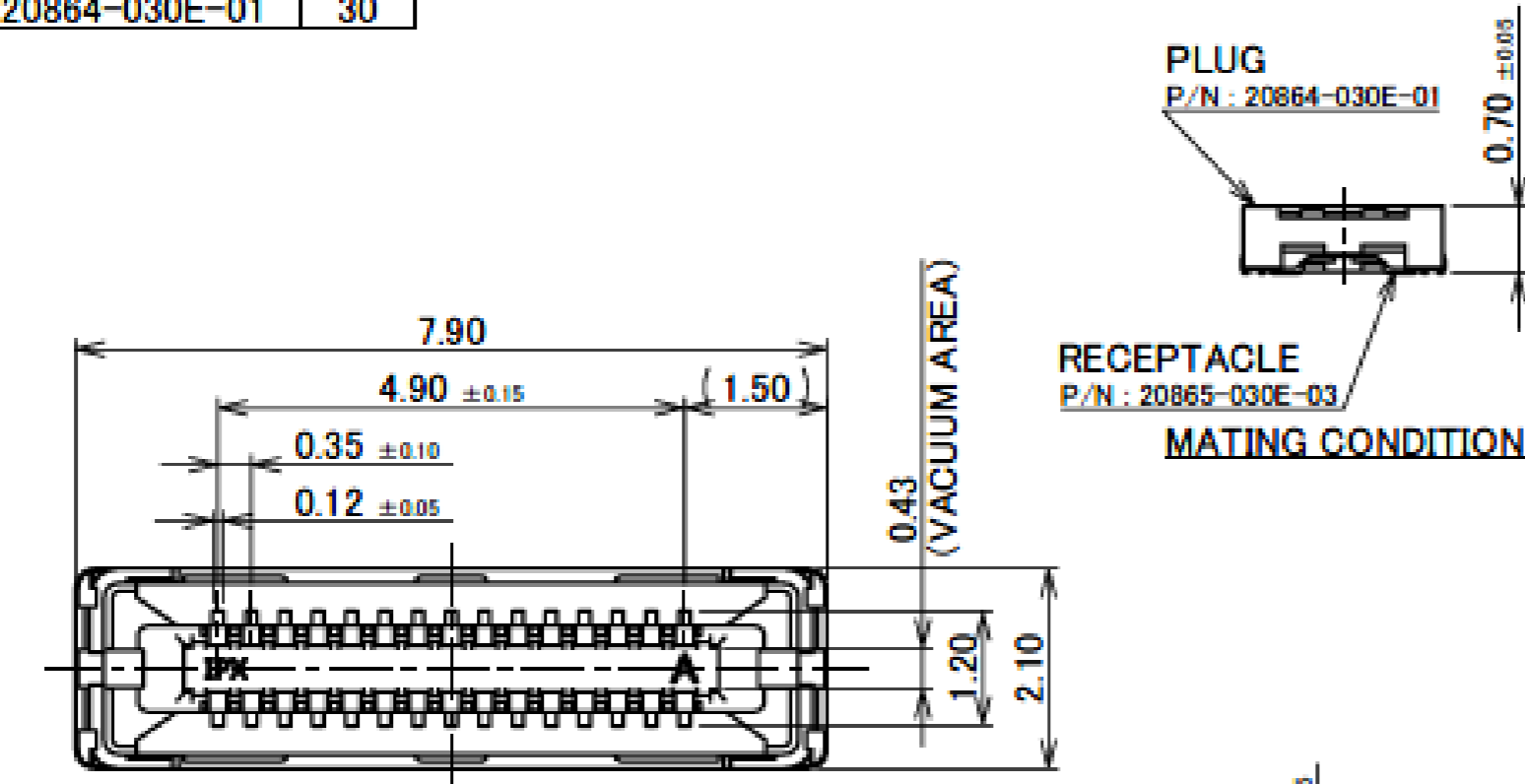


NOTES.
2. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.

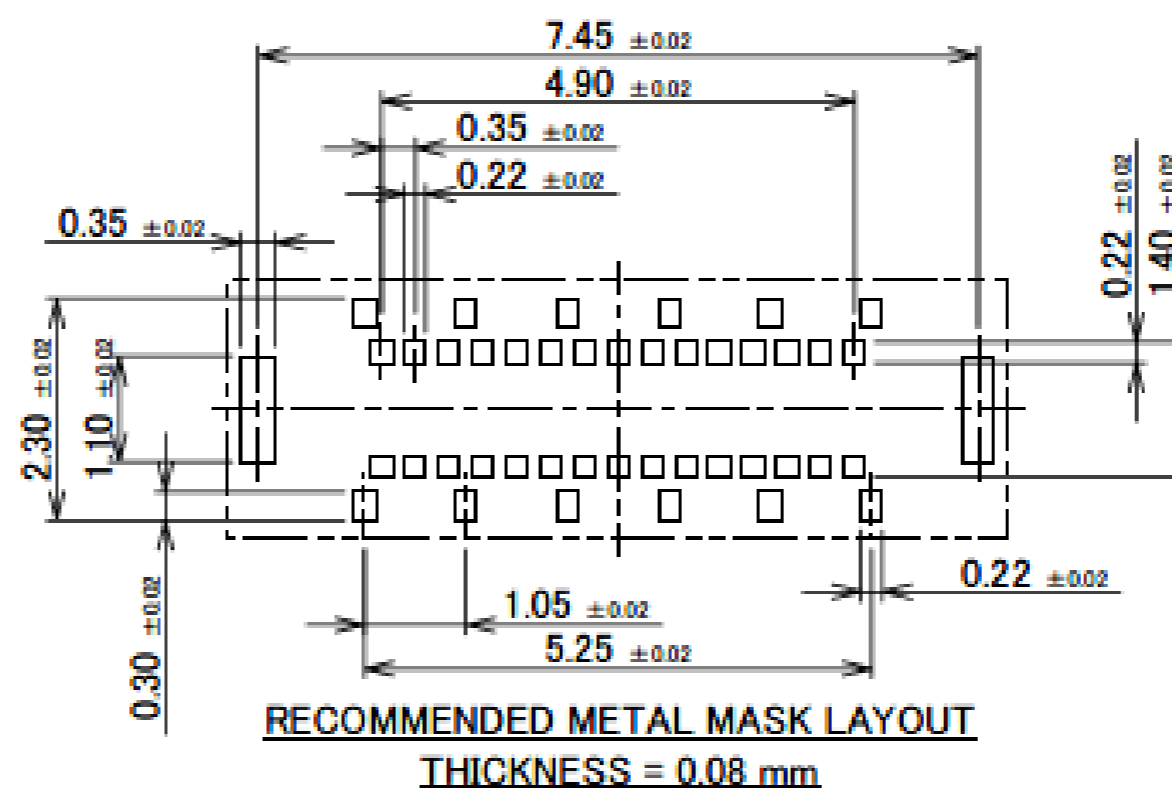
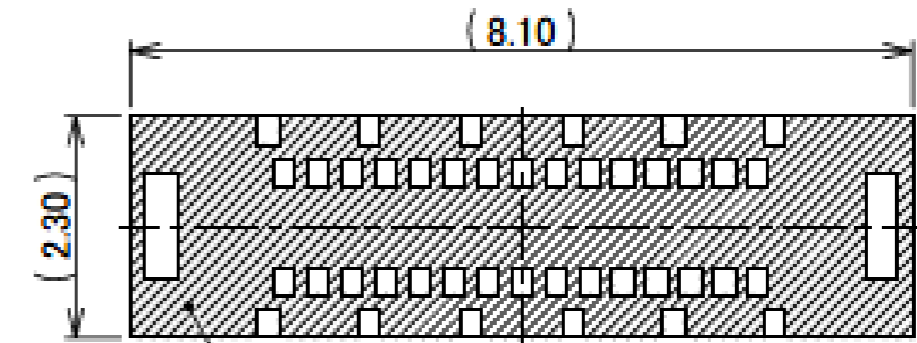
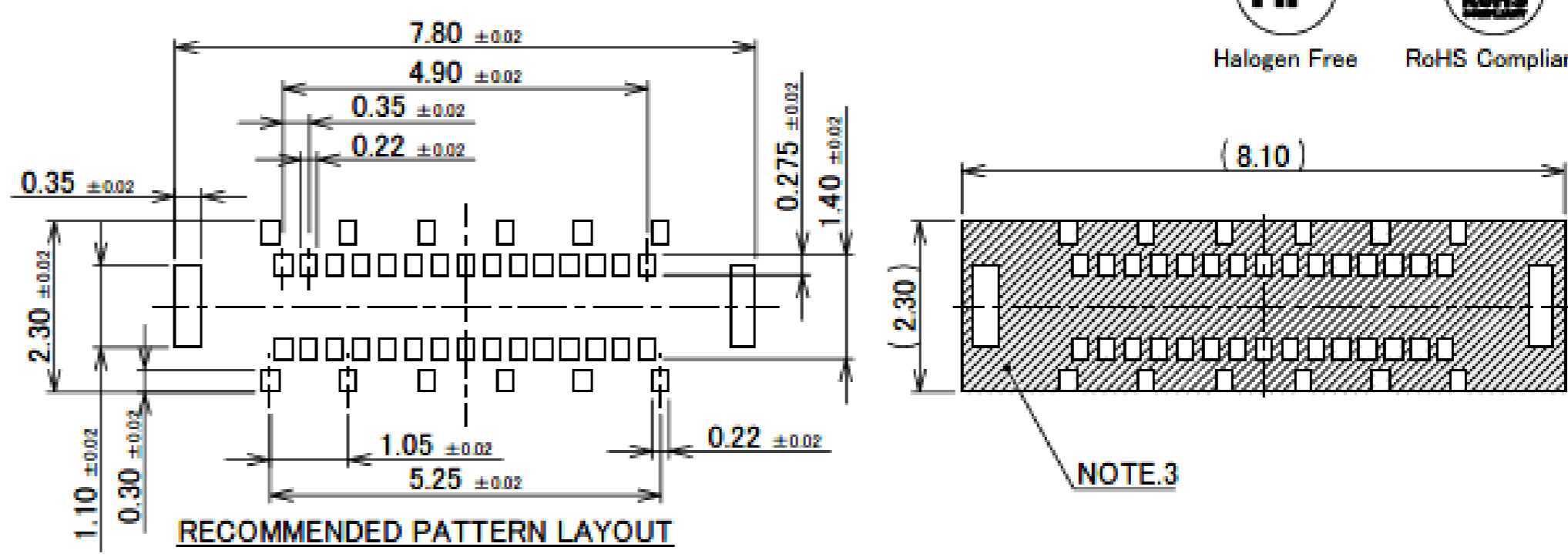
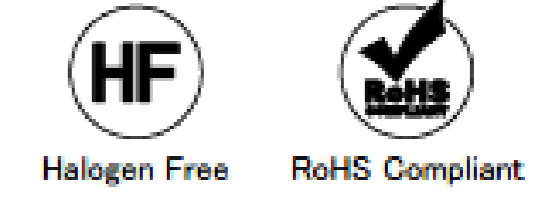
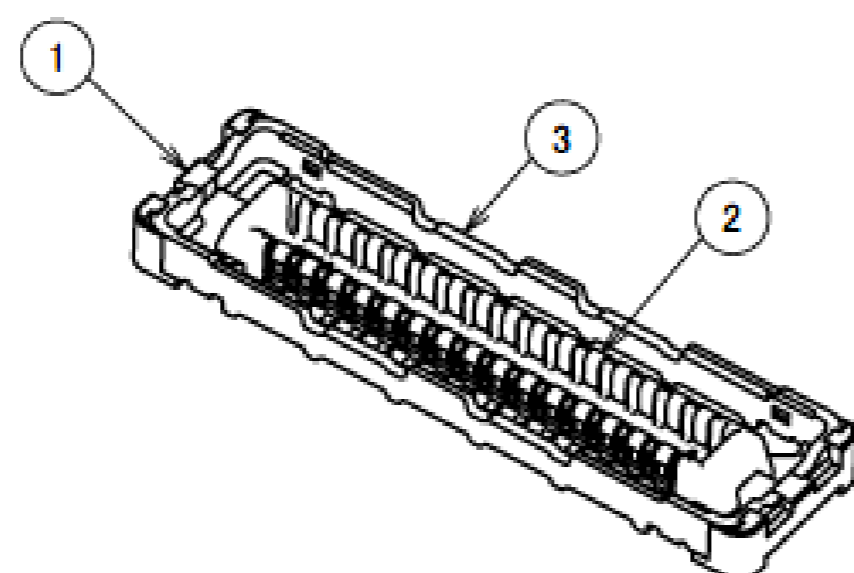
3	SHELL	COPPER ALLOY	SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
2	CONTACT	COPPER ALLOY	CONTACT PART Au 0.05 μm MIN. OVER Ni 1.27 μm MIN. SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK
NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS

Rev.11

Recommended P/N	20864-030E-01
PART NO.	Pos.
20864-030E-01	30



THERE IS A POSSIBILITY OF DENT SHAPE IN THE BOTTOM SURFACE OF HOUSING.

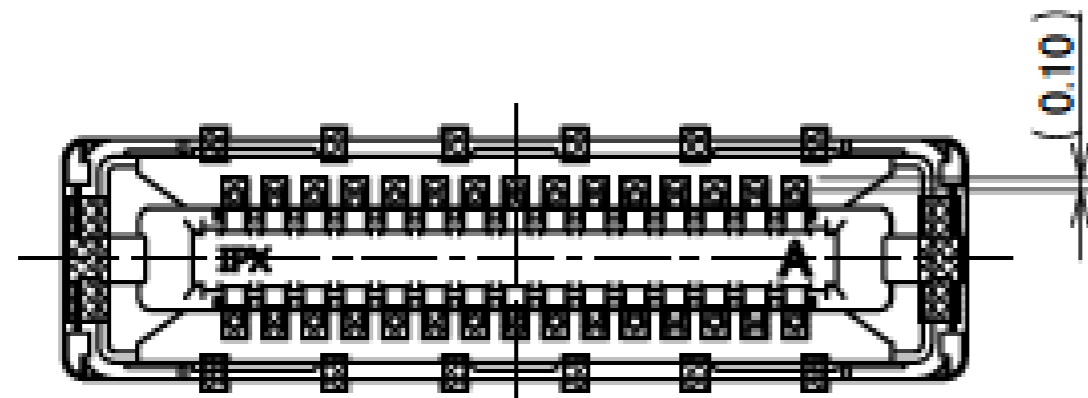


NOTES.
3. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.

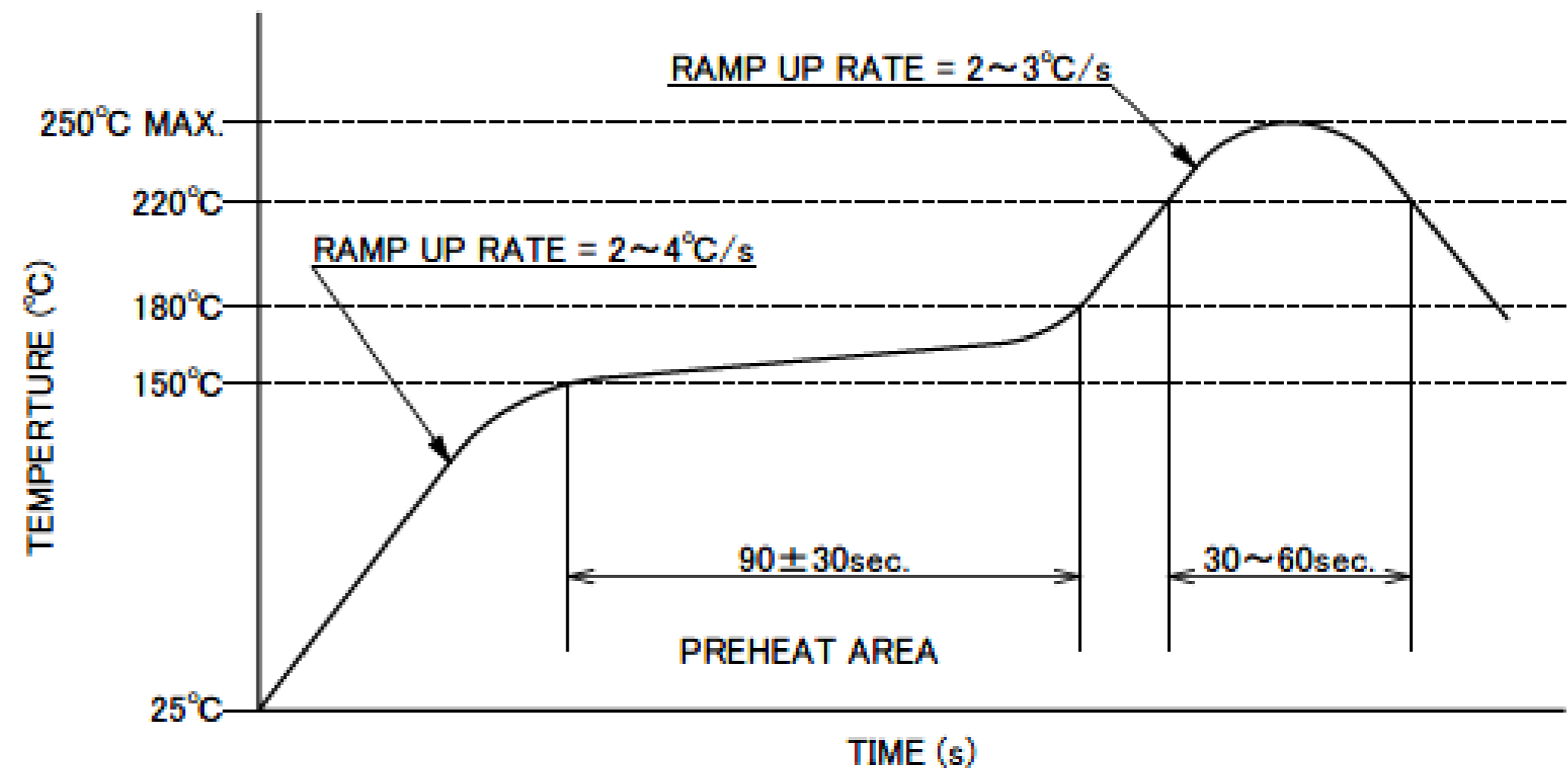
3	SHELL	COPPER ALLOY	SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
2	CONTACT	COPPER ALLOY	CONTACT PART Au 0.05 μm MIN. OVER Ni 1.27 μm MIN. SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK
NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS

Rev.11

Plug Assembly



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



REFLOW TEMPERATURE PROFILE
SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

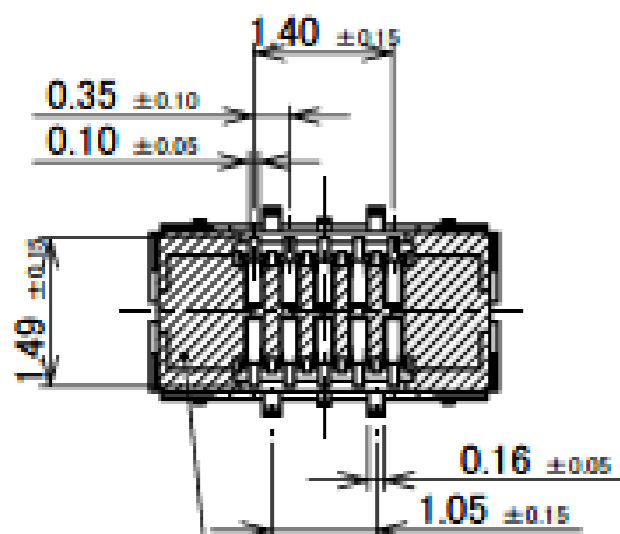
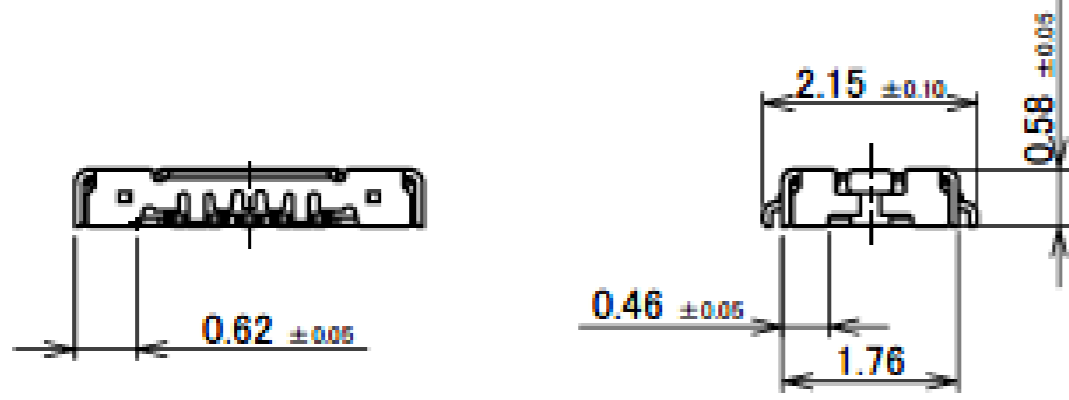
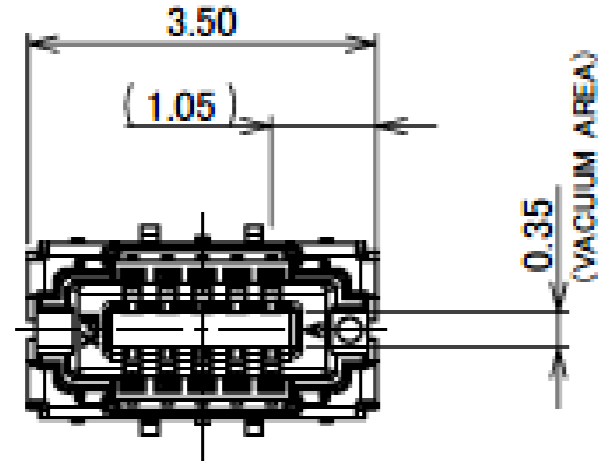
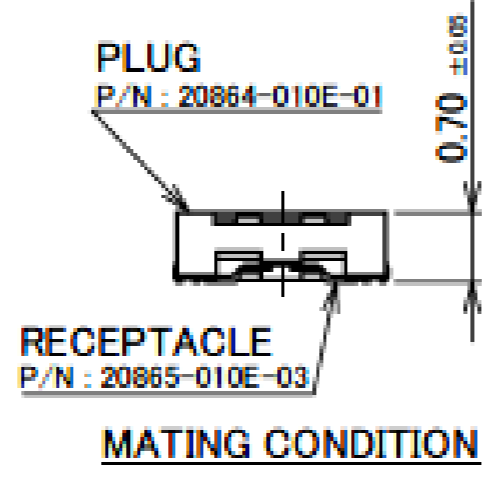
Rev.11

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20865-0**E-**
RATING VOLTAGE	60V AC(r.m.s) / DC (PER CONTACT PIN)
RATING AMPERAGE (FOR SIGNAL CONTACT)	10P:1.0 A MAX. AC/DC x PIN COUNTS = 10.0 A (TOTAL) 12P AND OVER : 12.0 A AC/DC (TOTAL)
OPERATING TEMPERATURE	233~358K(-40°C~85°C)
OPERATING HUMIDITY	85% MAX.
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 40mohm MAX. / AFTER TEST : Δ 40mohm MAX.
CONTACT RESISTANCE (FOR GROUND)	INITIAL : 20mohm MAX. / AFTER TEST : Δ 20mohm MAX.
INSULATION RESISTANCE	INITIAL : 1,000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	10 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	INITIAL 2.0N/Pin MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	10 CYCLES 0.15N/Pin MIN.
COPLANARITY	0.08 MAX
PRODUCT SPECIFICATION	PRS-2607
TEST REPORT	TR-19055
PACKING STANDARD	PST-18022
INSTRUCTION MANUAL	HIM-18019
APPEARANCE CRITERIA No.	QLS-A**

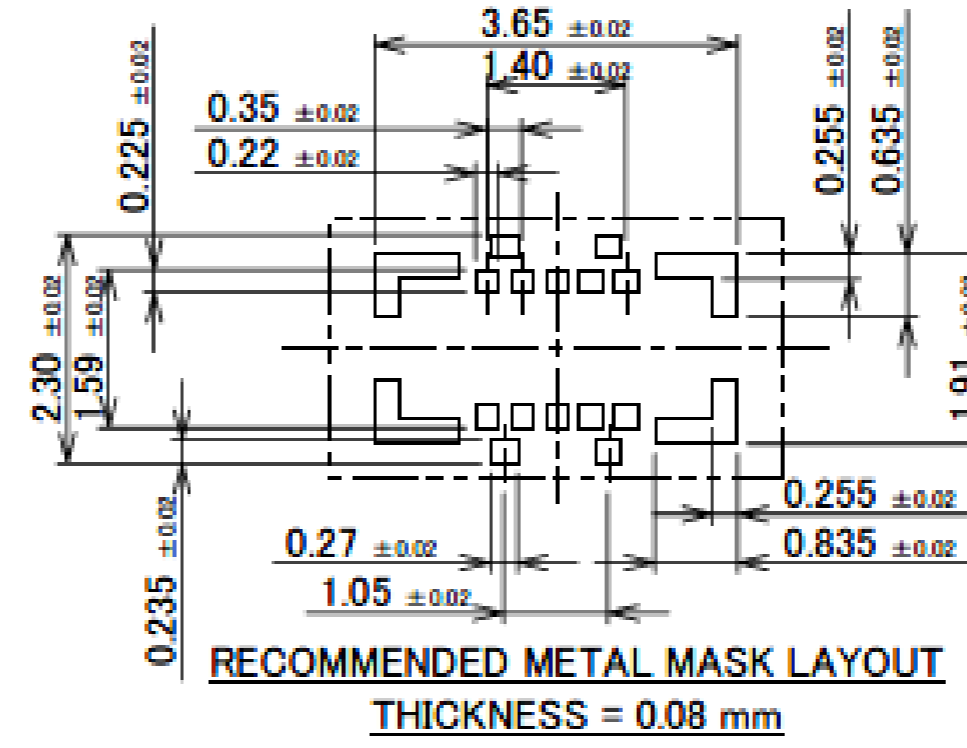
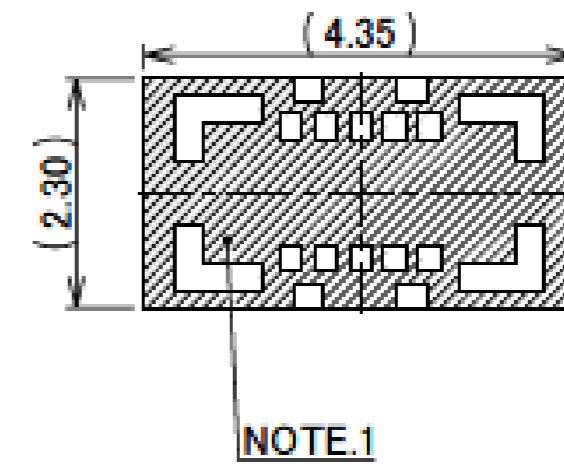
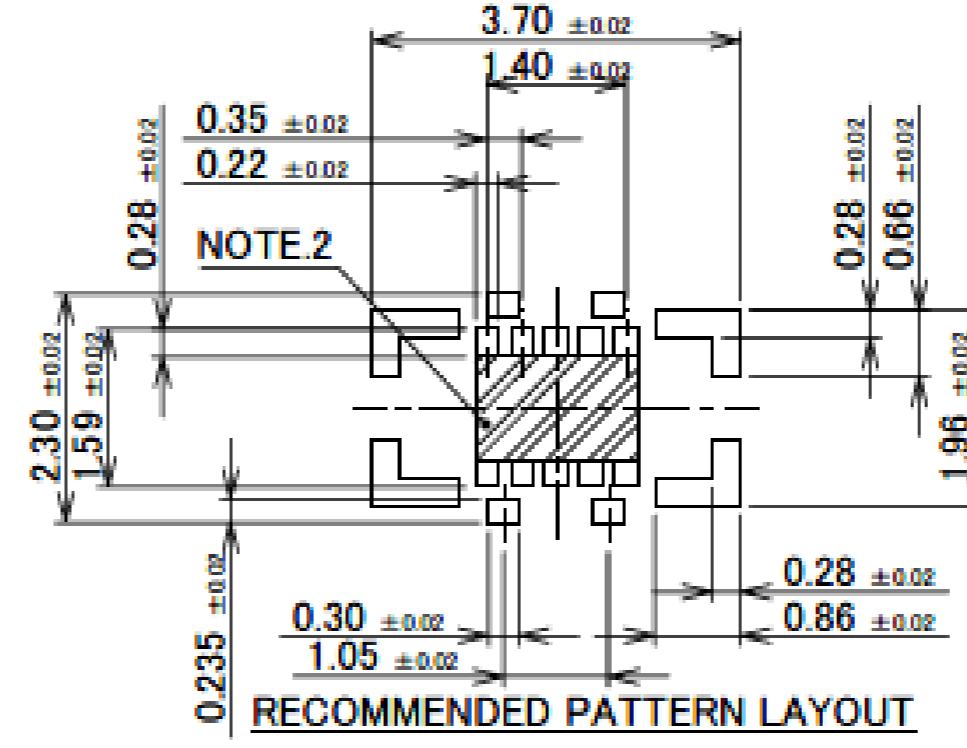
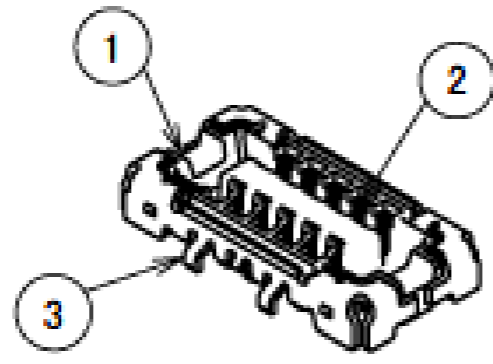
Rev.11

Receptacle Assembly

Recommended P/N		20865-010E-03
PART NO.	Pos.	
20865-010E-03	10	



THERE IS A POSSIBILITY OF DENT SHAPE IN THE BOTTOM SURFACE OF HOUSING.

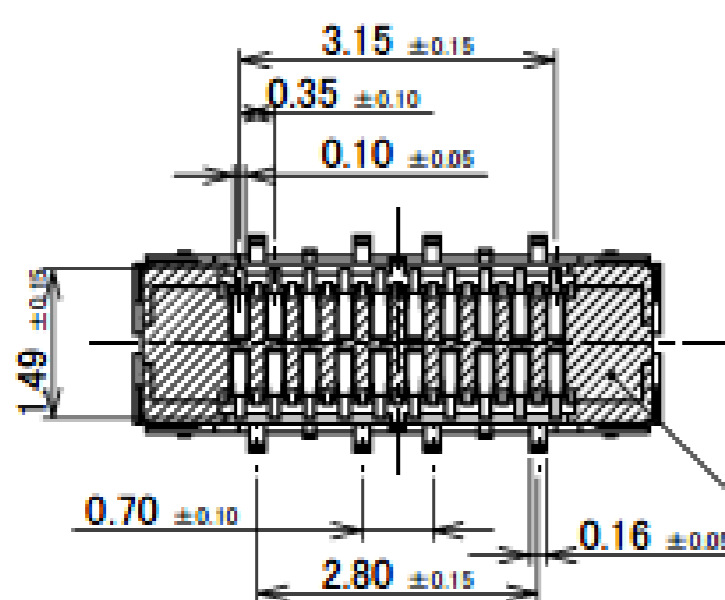
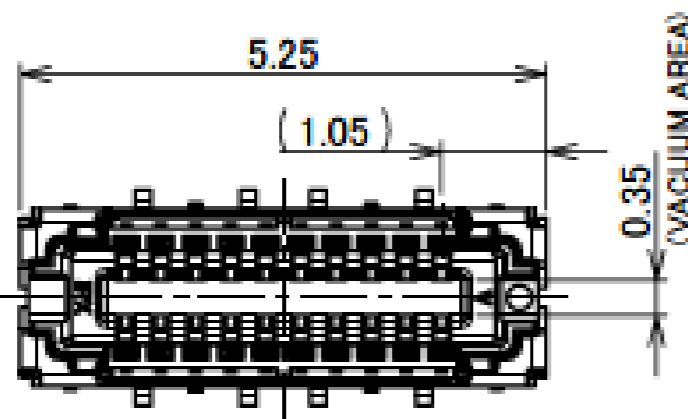
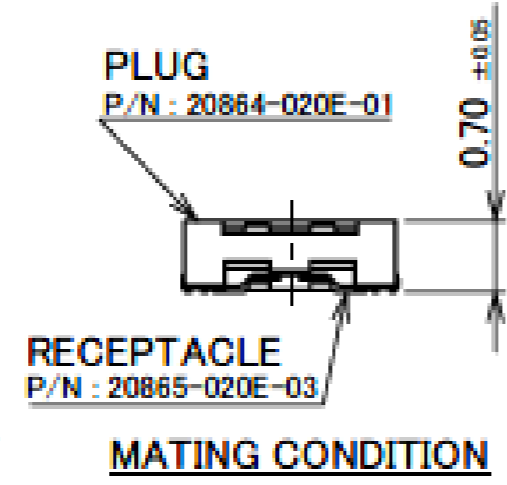


NOTES.
1. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.
2. SOLDER RESIST MUST BE APPLIED TO THIS AREA.

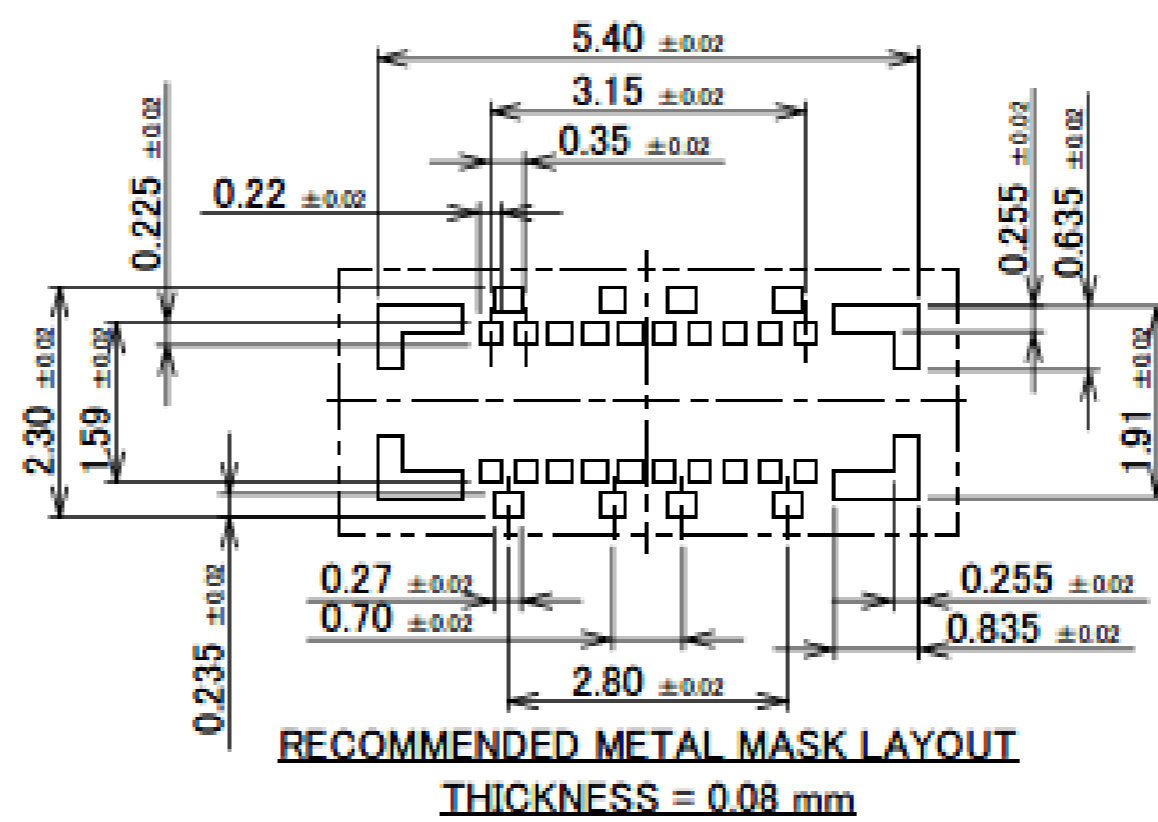
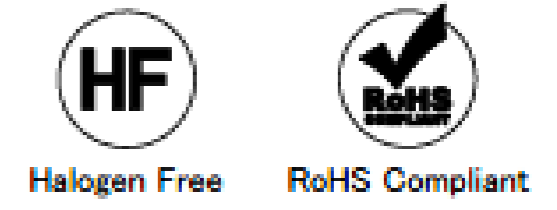
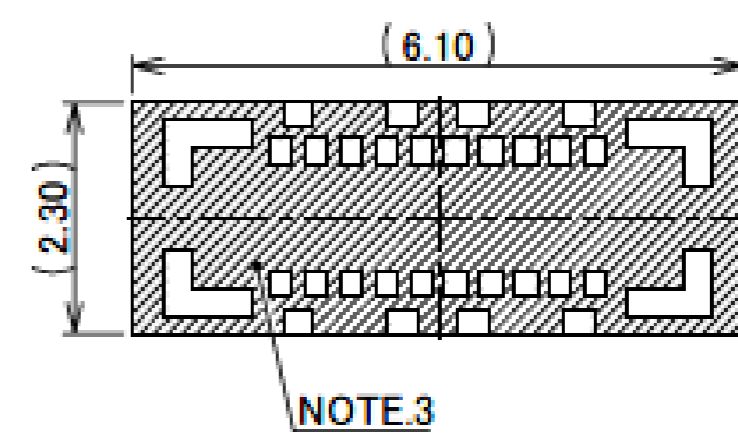
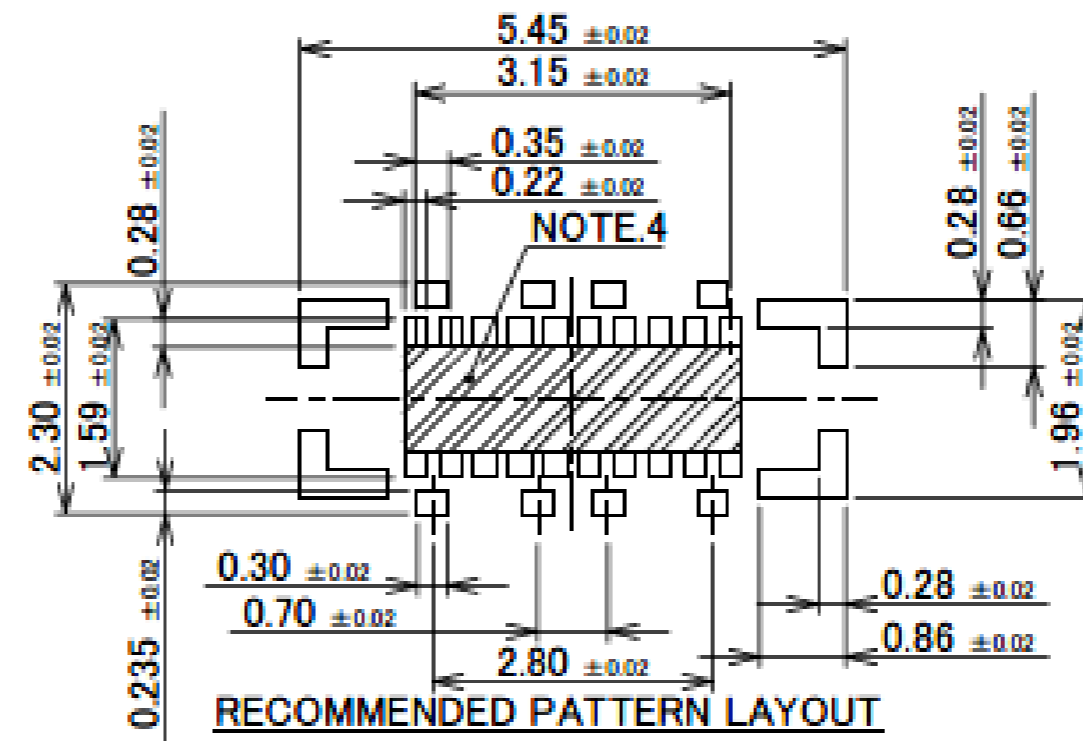
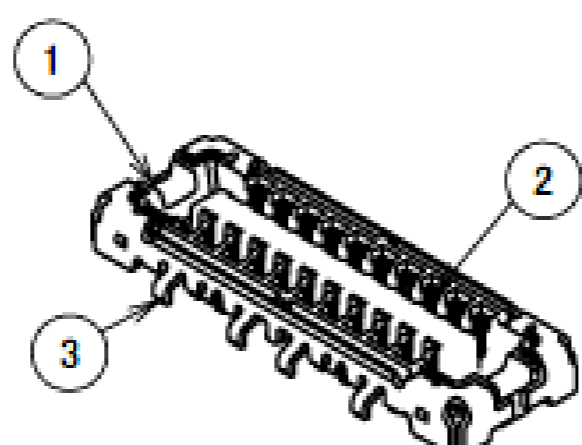
NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
3	SHELL	COPPER ALLOY	SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
2	CONTACT	COPPER ALLOY	CONTACT PART Au 0.05 μm MIN. OVER Ni 1.27 μm MIN. SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
1	HOUSING	LCP	UL94V-0 BLACK

Rev.11

Recommended P/N		20865-020E-03
PART NO.	Pos.	
20865-020E-03	20	



THERE IS A POSSIBILITY OF DENT SHAPE IN THE BOTTOM SURFACE OF HOUSING.



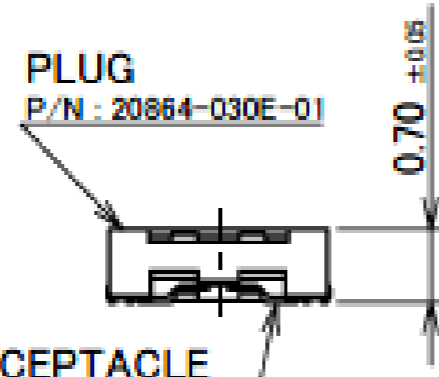
NOTES.
3. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.
4. SOLDER RESIST MUST BE APPLIED TO THIS AREA.

NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
3	SHELL	COPPER ALLOY	SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
2	CONTACT	COPPER ALLOY	CONTACT PART Au 0.05 μm MIN. OVER Ni 1.27 μm MIN. SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
1	HOUSING	LCP	UL94V-0 BLACK

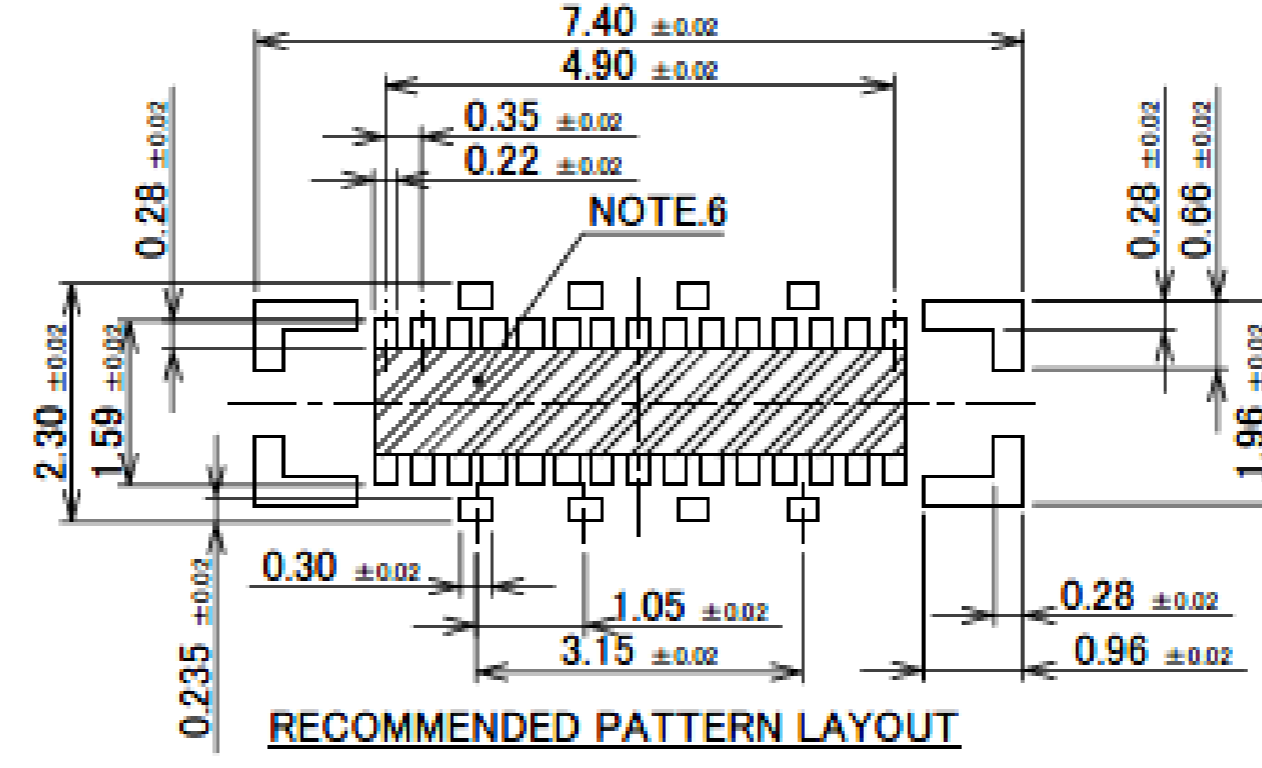
Rev.11

Receptacle Assembly

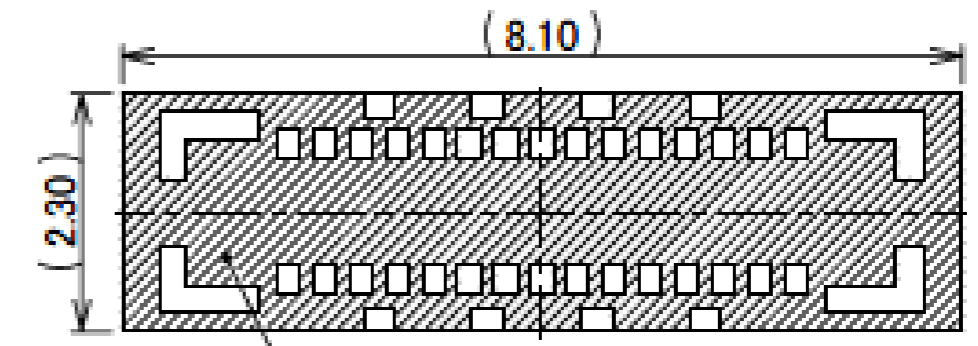
Recommended P/N		20865-030E-03
PART NO.	Pos.	
20865-030E-03	30	



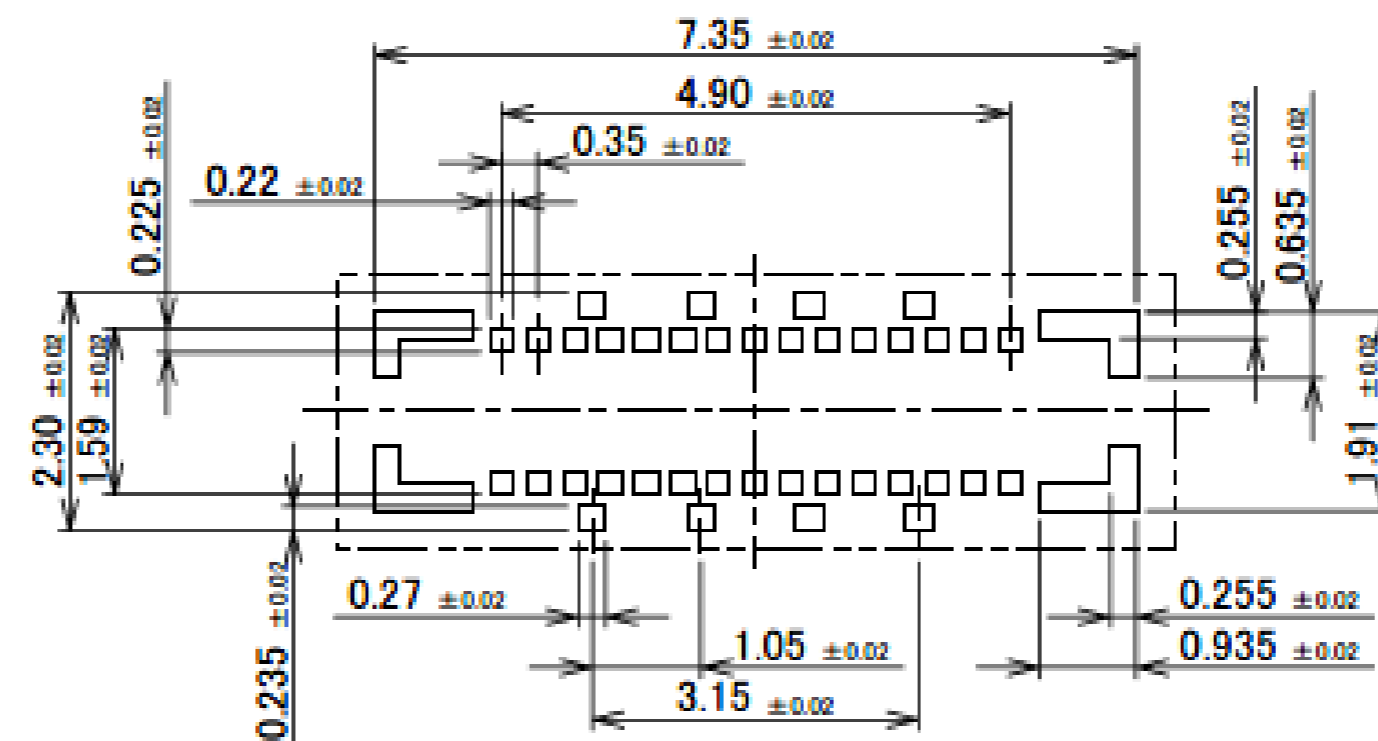
MATING CONDITION



RECOMMENDED PATTERN LAYOUT

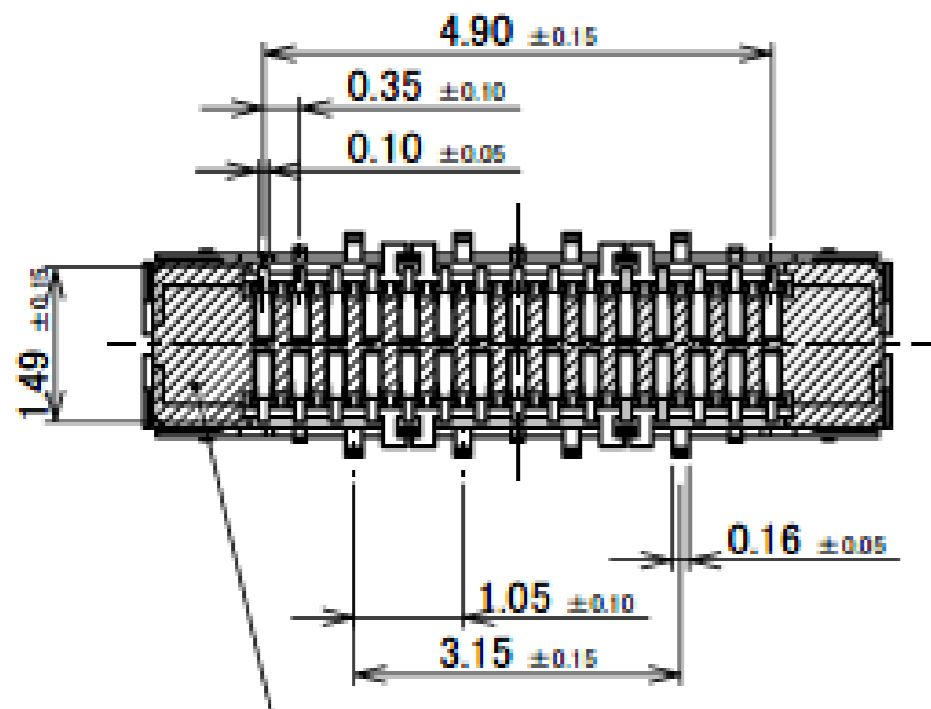
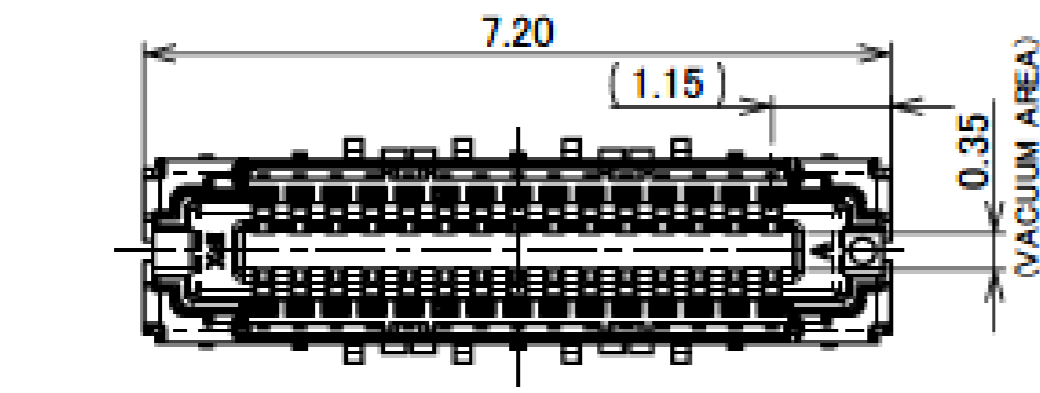


NOTE 5

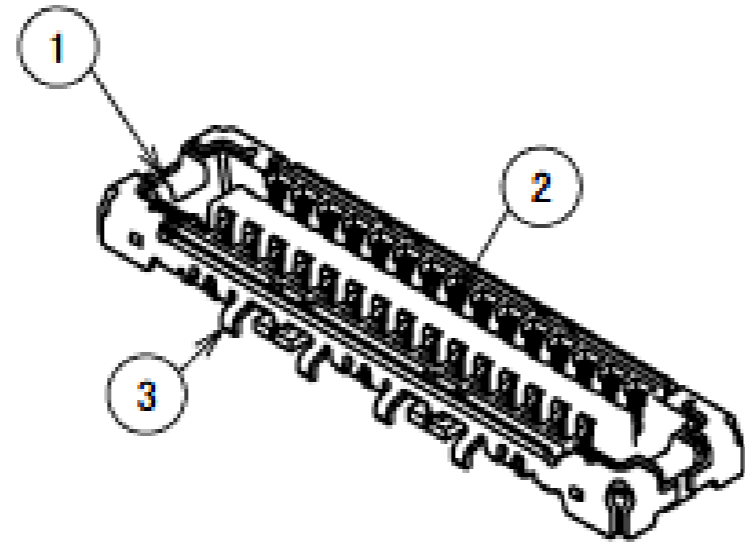


RECOMMENDED METAL MASK LAYOUT
THICKNESS = 0.08 mm

NOTES.
5. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.
6. SOLDER RESIST MUST BE APPLIED TO THIS AREA.



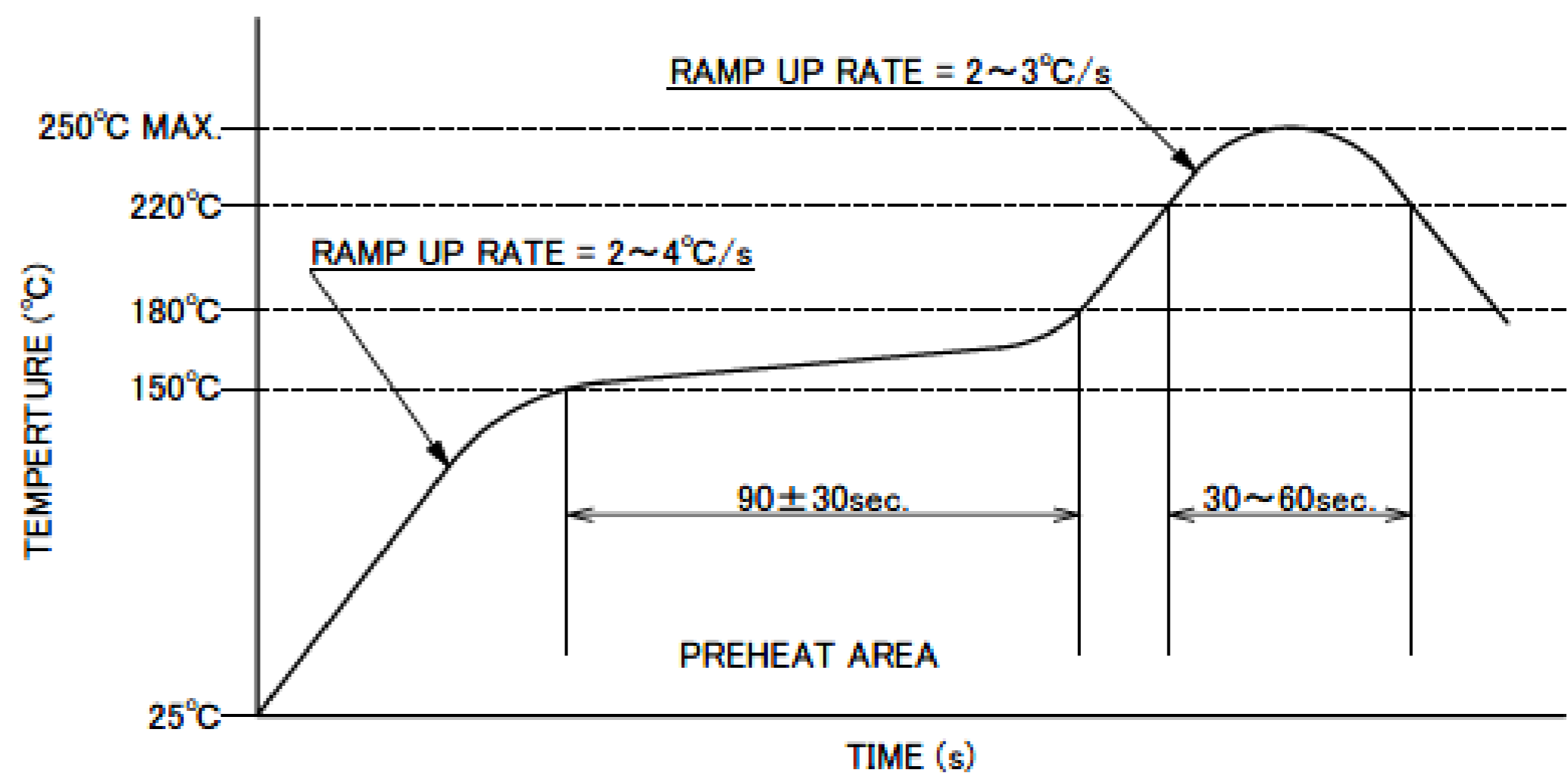
THERE IS A POSSIBILITY OF DENT SHAPE IN THE BOTTOM SURFACE OF HOUSING.



NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
3	SHELL	COPPER ALLOY	SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
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1	HOUSING	LCP	UL94V-0 BLACK



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



REFLOW TEMPERATURE PROFILE
SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

Receptacle Assembly

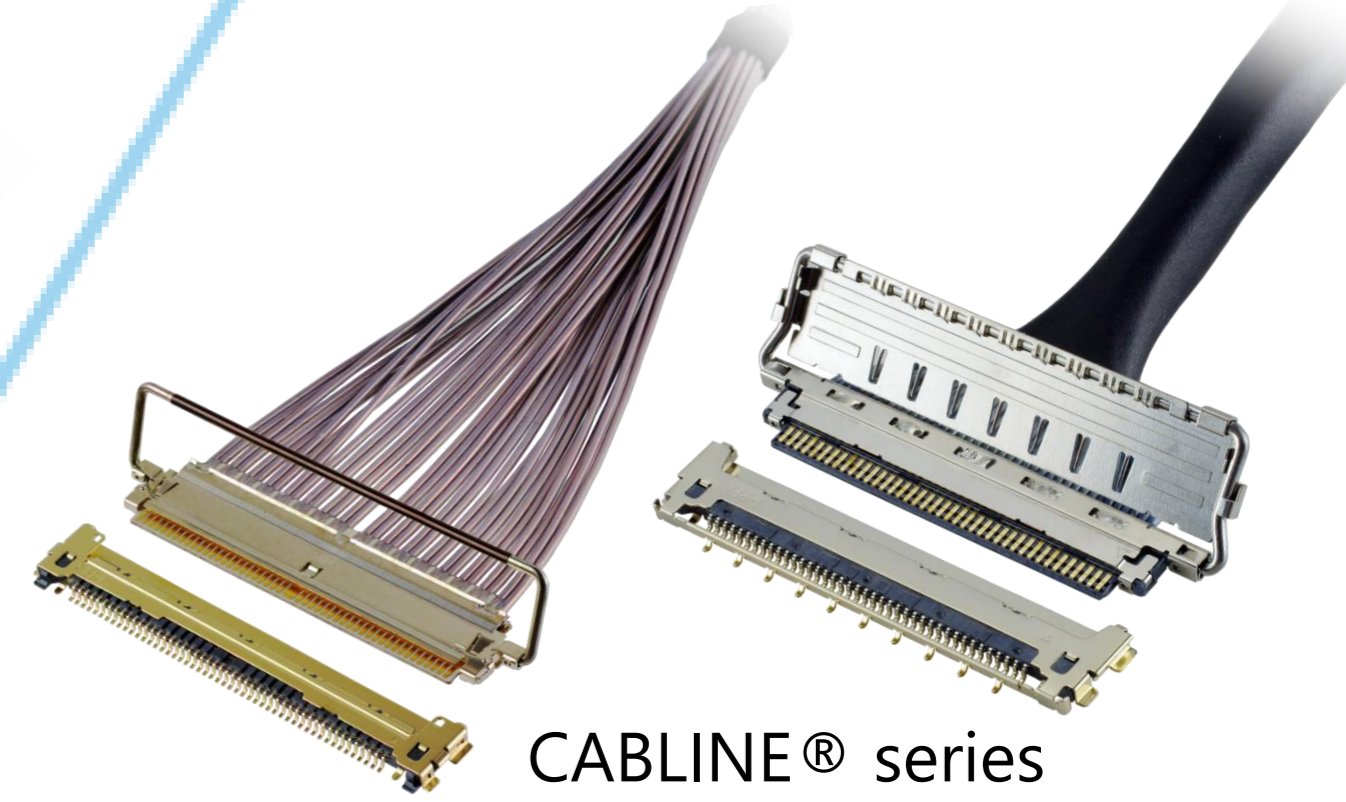
ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20864-0**E-01
RATING VOLTAGE	60V AC(r.m.s) / DC (PER CONTACT PIN)
RATING AMPERAGE (FOR SIGNAL CONTACT)	10P:1.0 A MAX. AC/DC x PIN COUNTS = 10.0 A (TOTAL) 12P AND OVER : 12.0 A AC/DC (TOTAL)
OPERATING TEMPERATURE	233~358K(-40°C~85°C)
OPERATING HUMIDITY	85% MAX.
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 40mohm MAX. / AFTER TEST : \triangle 40mohm MAX.
CONTACT RESISTANCE (FOR GROUND)	INITIAL : 20mohm MAX. / AFTER TEST : \triangle 20mohm MAX.
INSULATION RESISTANCE	INITIAL : 1,000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	10 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	INITIAL 2.0N/Pin MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	10 CYCLES 0.15N/Pin MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-2607
TEST REPORT	TR-19055
PACKING STANDARD	PST-18023
INSTRUCTION MANUAL	HIM-18019
APPEARANCE CRITERIA No.	QLS-A***

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Custom Connectors Available

RF Connectors

MHF® series



CABLINE® series

Micro-Coaxial/Twinaxial Connectors

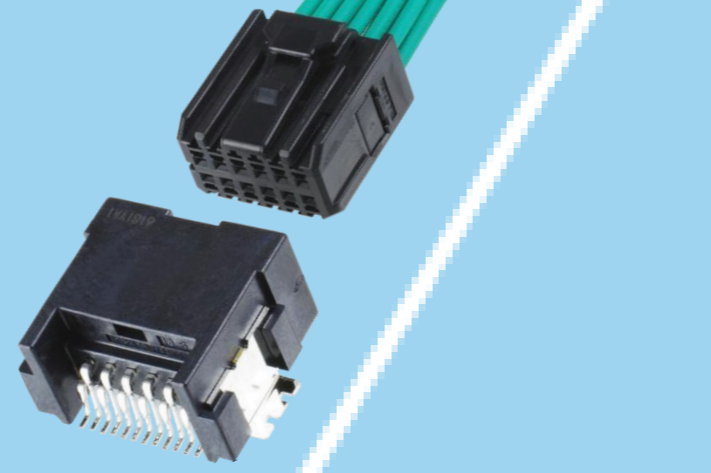


Wire-to-Board Connectors/Terminals

AP series



ISH® series



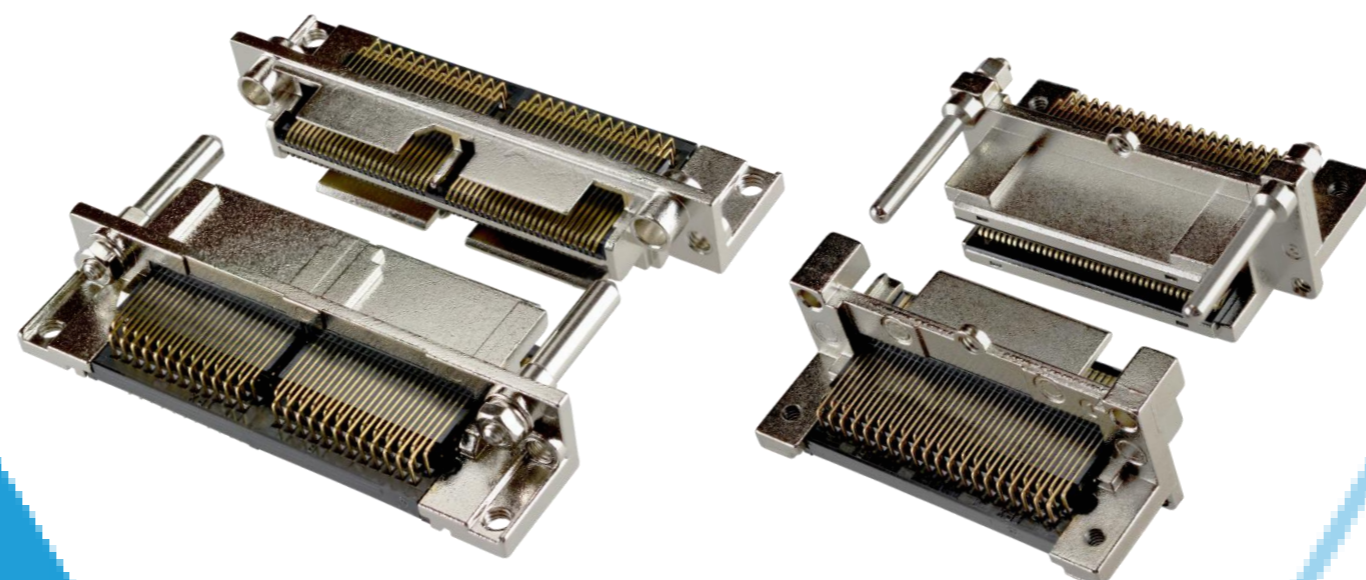
NOVASTACK® series



Board-to-Board Connectors



I/O Connectors



MINIDOCK™ series

MINIFLEX® series EVAFLEX® series



FPC/FFC Connectors



Inquiry



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Contact your sales representative or more detailed information.

www.i-pex.com



I-PEX

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