

CABLINE®-VS II

Full Shield & Mechanical Lock을 포함, 고속 전송 대응(PCIe Gen5 32 GT/s/lane), 0.5 mm Pitch, 수평 결합 타입 세션 동축 Connector

Product Specifications:

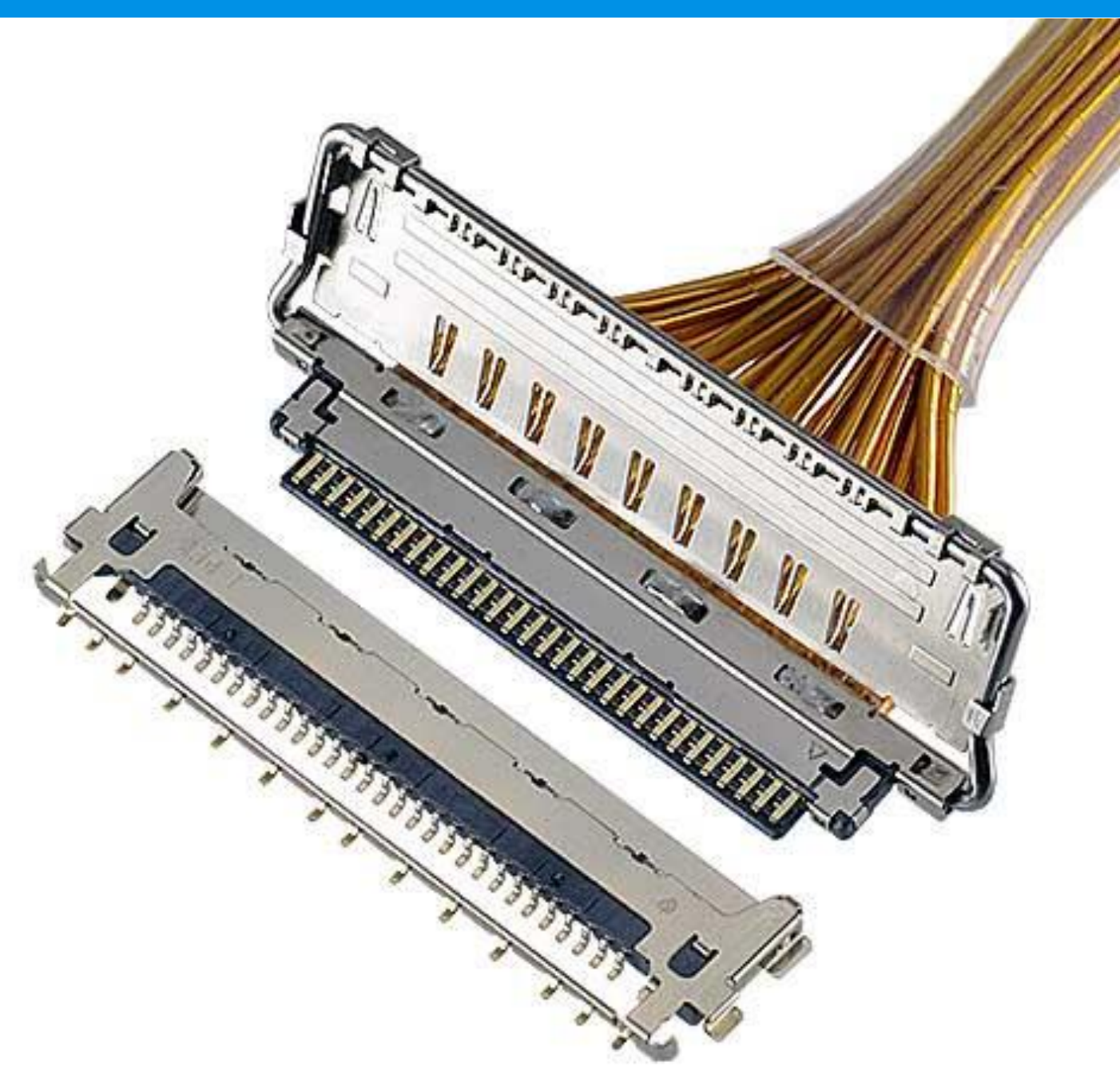
Mating type		Horizontal
Board Pitch (mm)		0.5
Wiping Length (mm)		0.54
Mated size (mm)	Height	1.2 max. with cover
	Width	Formula: 6.85 + (0.5*?p)
	Depth	6.70
Pin Counts	Range	Up to 60
	Available	20, 30, 40

Applicable Cable Size:

Maximum O.D. (mm)	0.5
Micro-Coaxial for Signal (AWG)	45 ohm: #36 or smaller
	50 ohm: #38 or smaller
Twinax (AWG)	#40
Discrete (AWG)	#32 or smaller

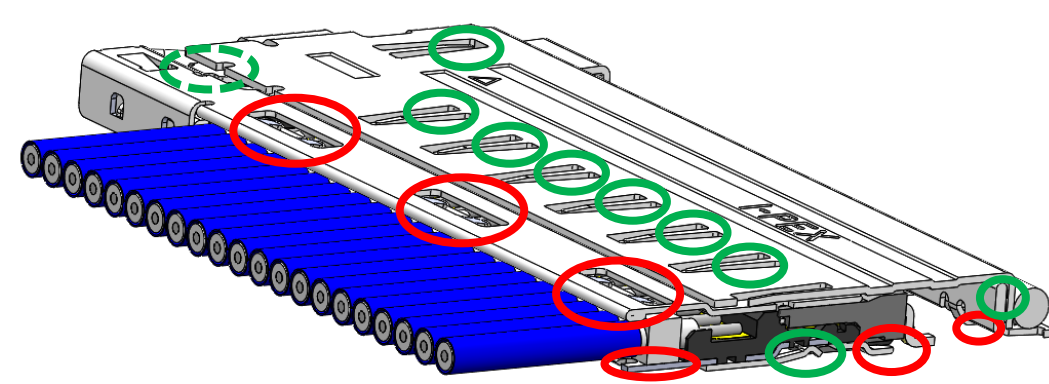
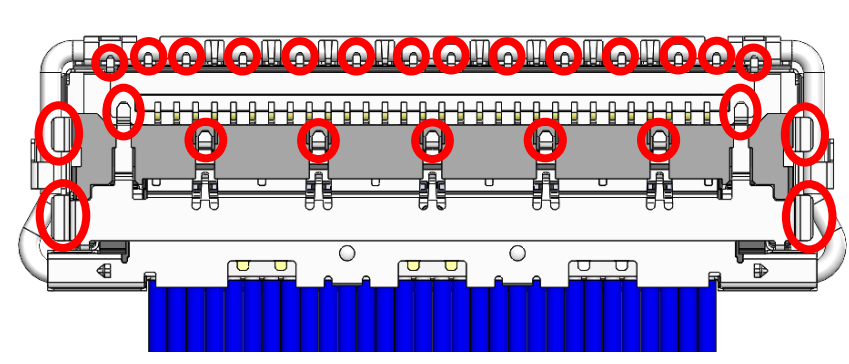
Applicable Standards (Reference Only):

PCIe Gen5 (32 GT/s /Lane), USB4 Gen4 (40 Gbps/ Lane PAM3), DP UHBR20 (20 Gbps/ Lane), PCIe Gen 4 (16 GT/s)



*기재가 되어있지 않은 핀 수의 대응 여부에 대해서는 문의해 부탁드립니다.

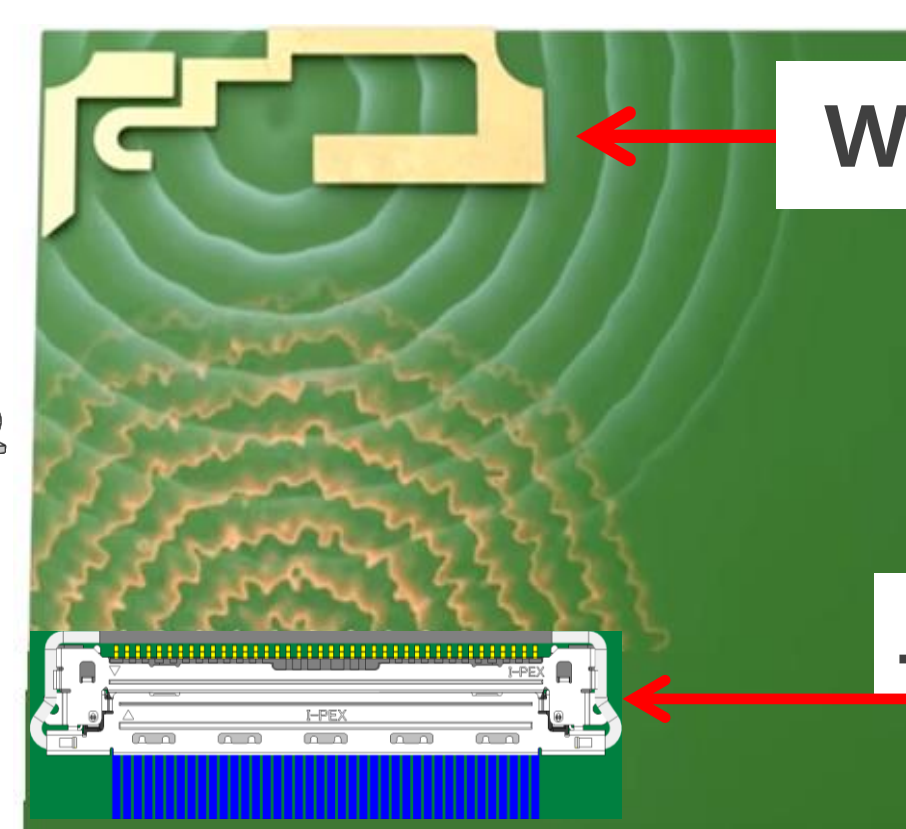
▶ ZenShield® Multi-point Ground를 통한 완전 차폐 Type 구조로 EMC Solution에 이상적입니다.



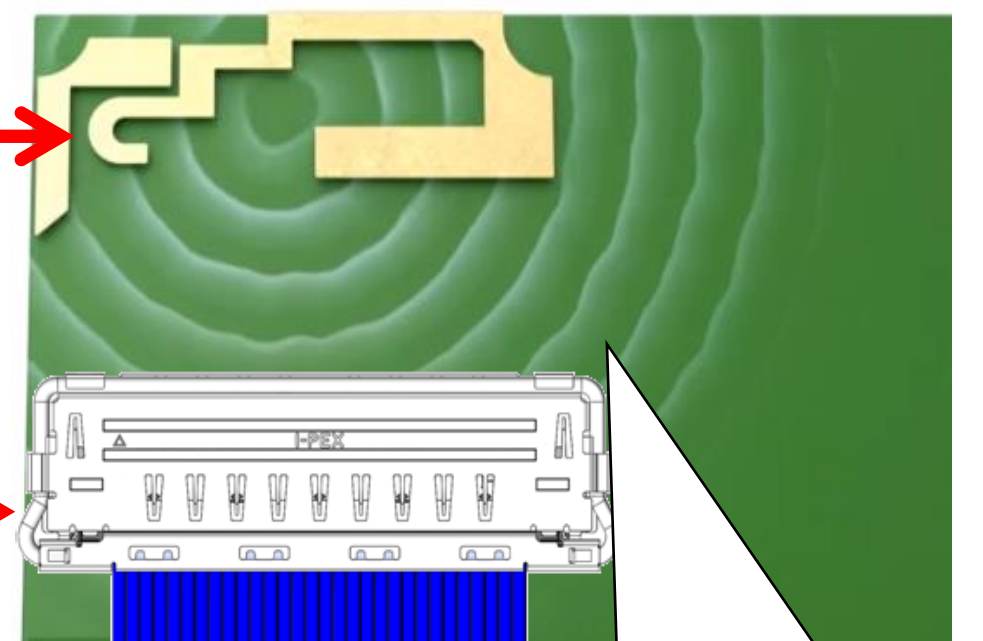
아래에서 본 Connector

- 납땜 접점부
- 메카니컬 접점부

일반적인 Connector

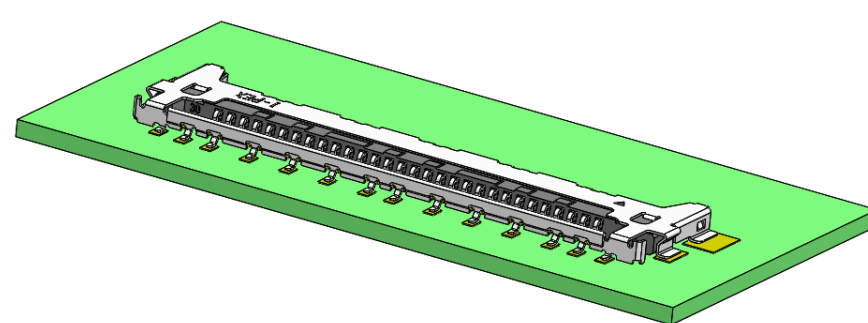


ZenShield® Connector

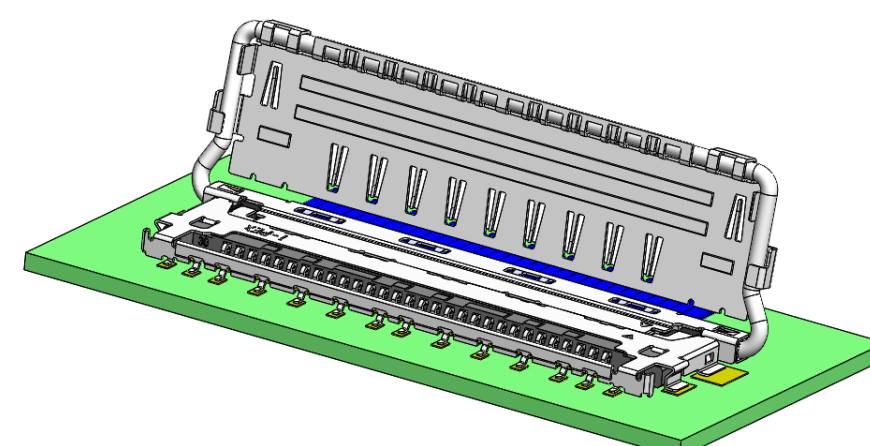


안테나 부근까지 Connector 실장이 가능

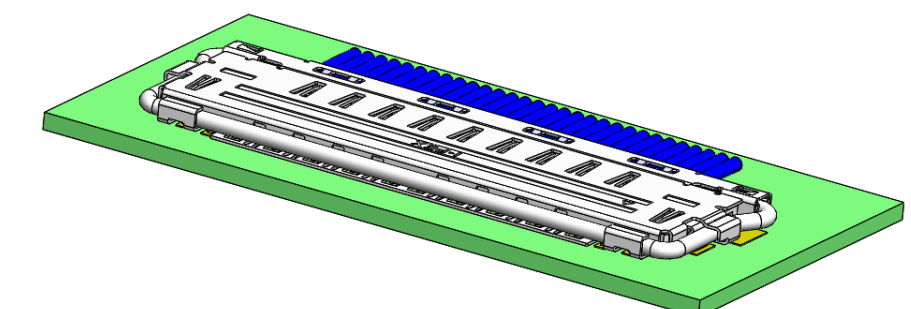
▶ Mechanical Lock Bar를 통한 불완전 결합 방지와 Plug 빠짐 방지



체결

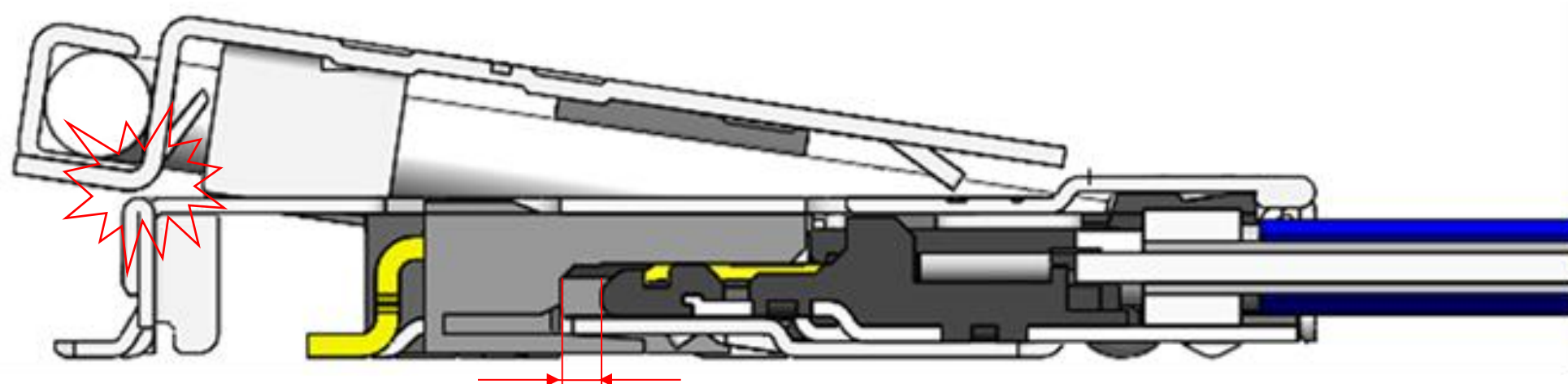


잠김

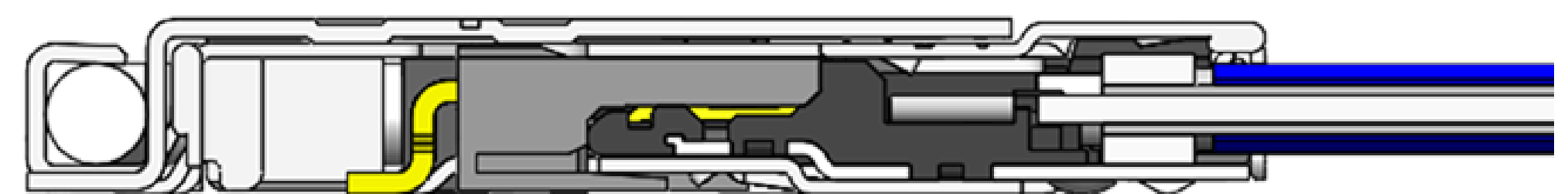


간섭

Plug가 Receptacle에 정상적으로 결합되어 있을 경우에만 잠금 가능



불완전 결합



정상 결합

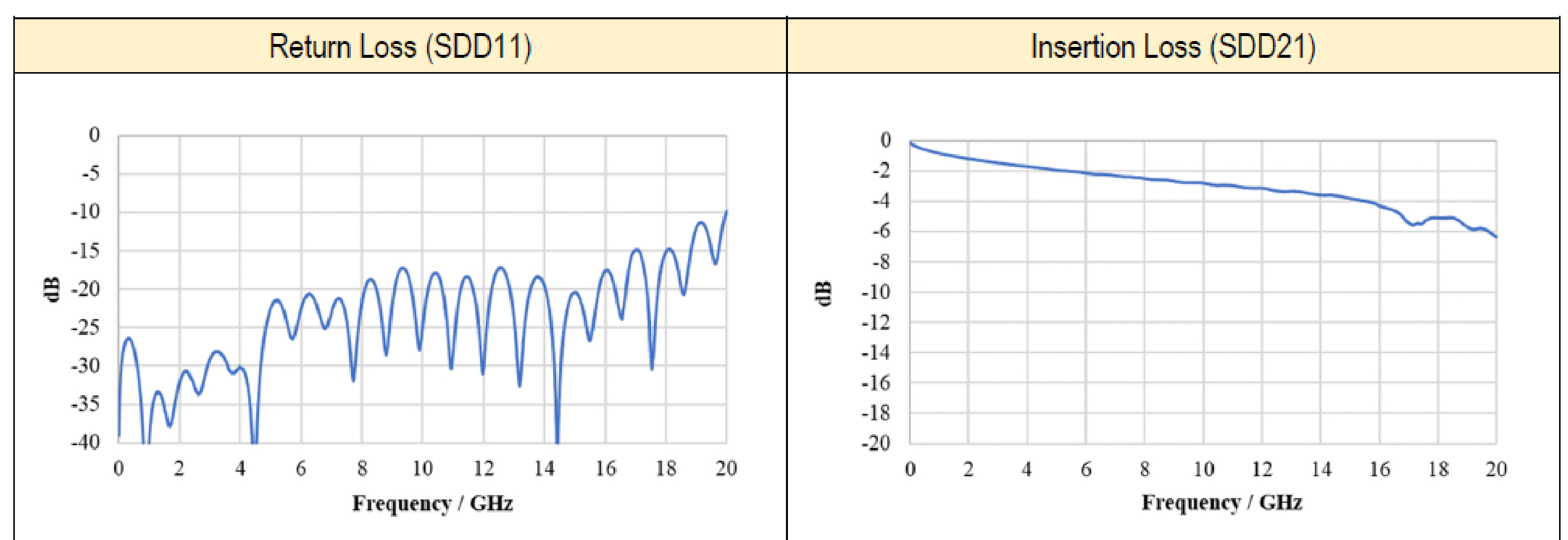
▶ PCIe Gen5(32 GT/s/Lane) Application에 이상적인 고속 데이터 전송

Measurement results

Connector: CABLINE-VS II 40P

Cable: Micro-coaxial cable
AWG #40, 45ohm, Length: 100 mm

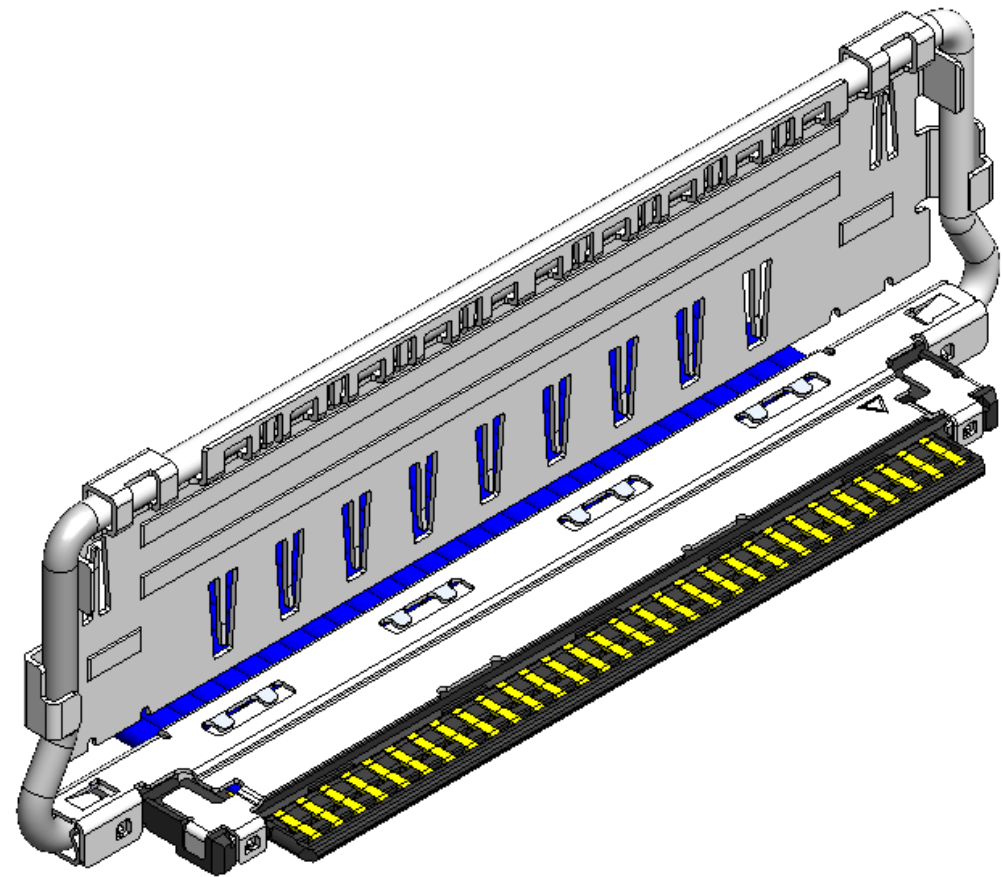
Pin Assignment: GSSGSSG



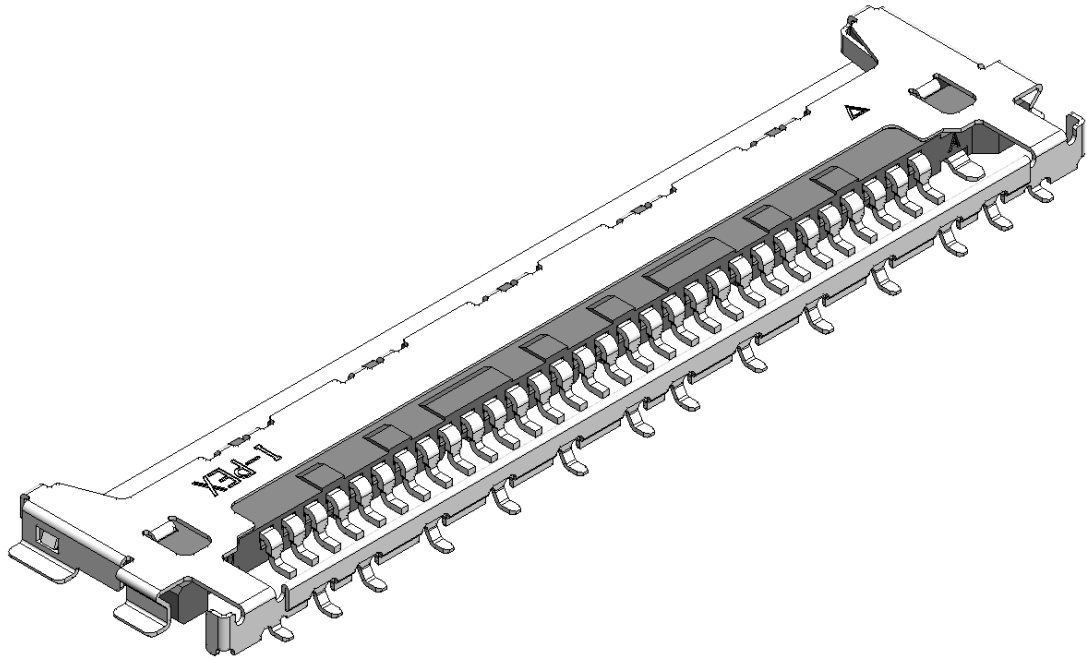
Component Parts Details

Component Parts

Connector parts

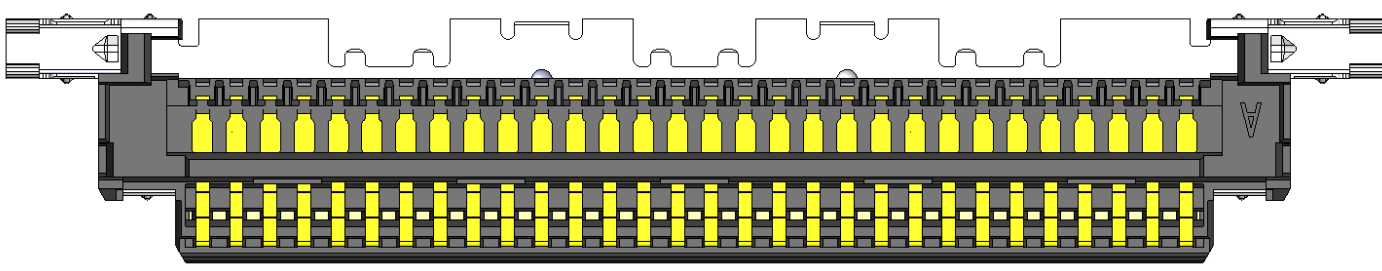


PLUG

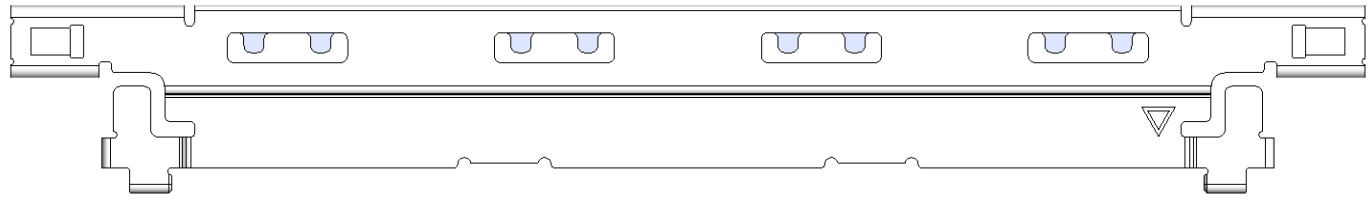


RECEPTACLE

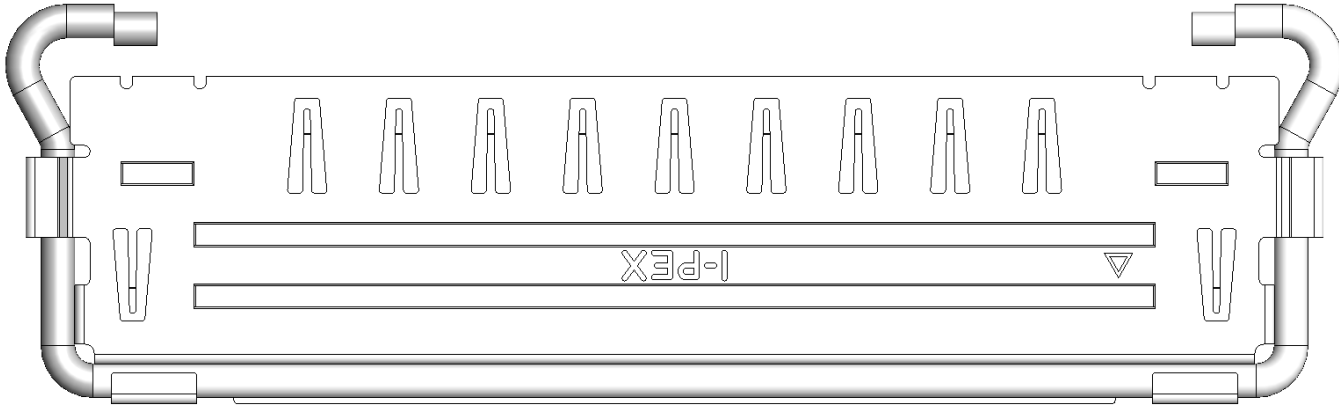
Plug parts



PLUG HOUSING ASSEMBLY



PLUG SHELL-A



PLUG LOCK BAR ASSEMBLY

Plug for Cable Assembly

Recommended P/N 20846-0**T-01

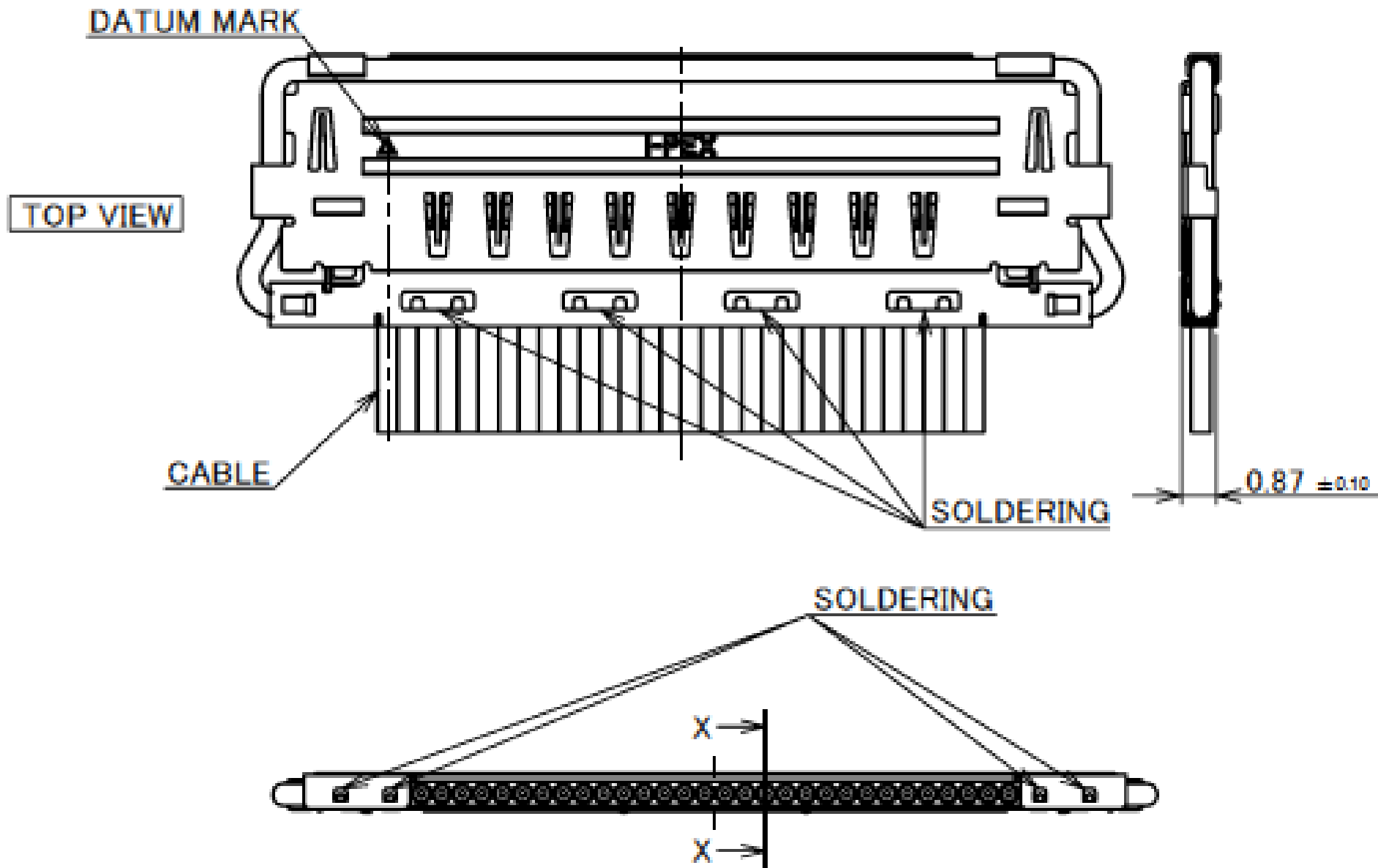
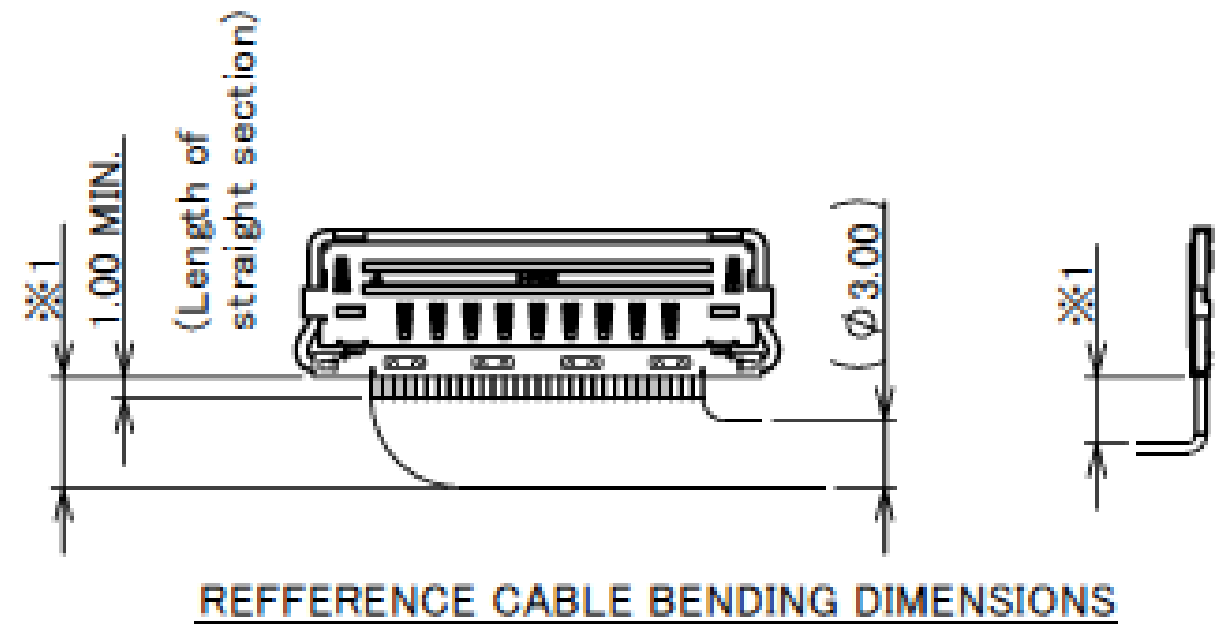
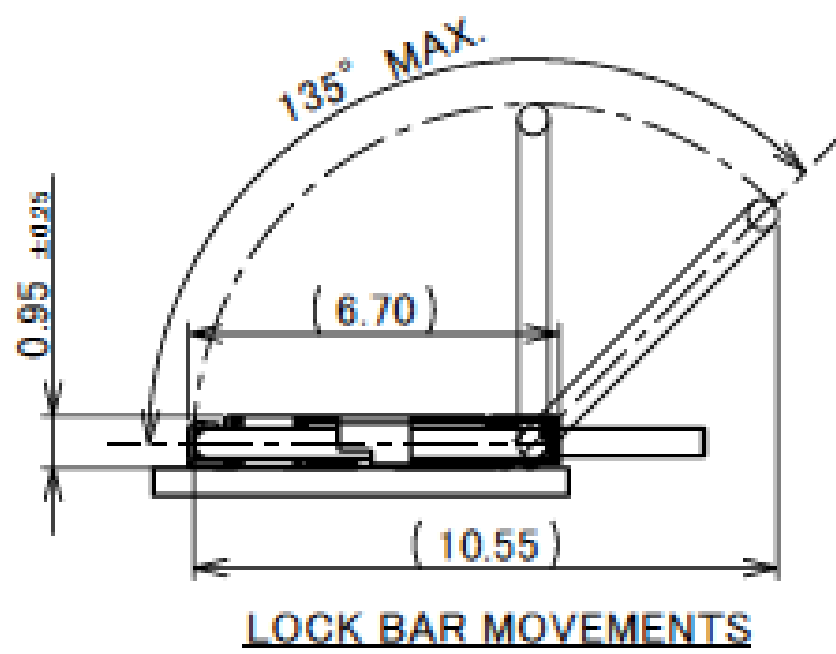
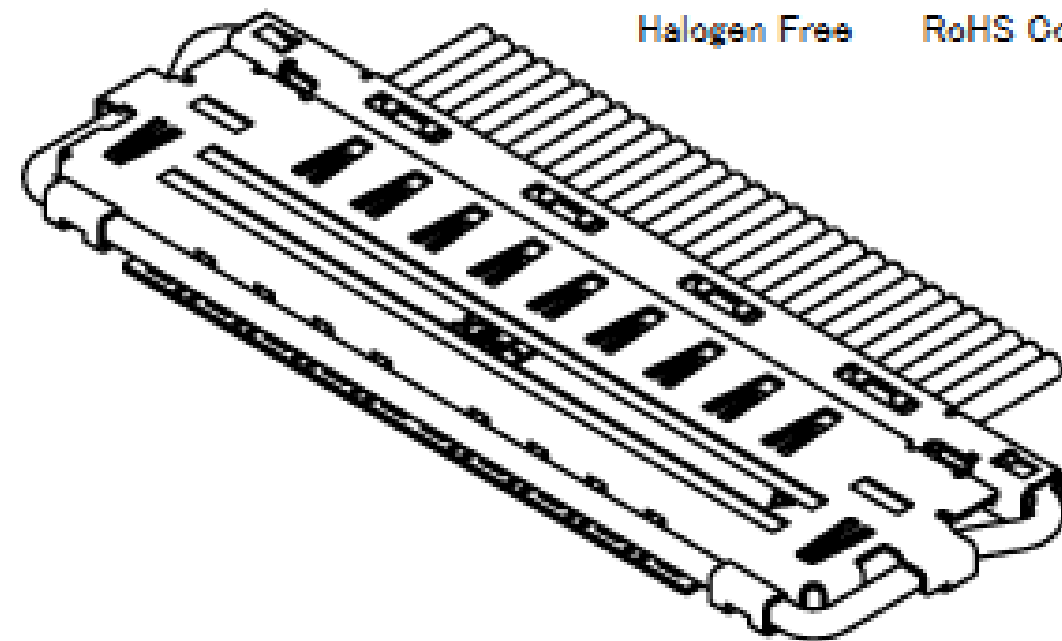
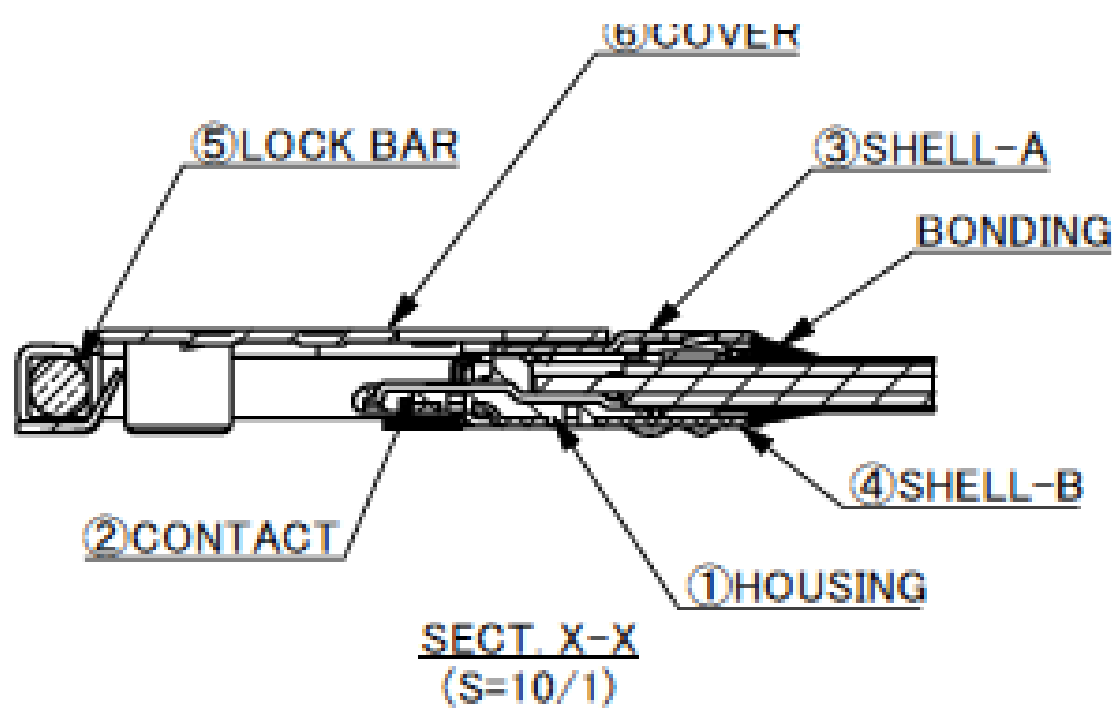
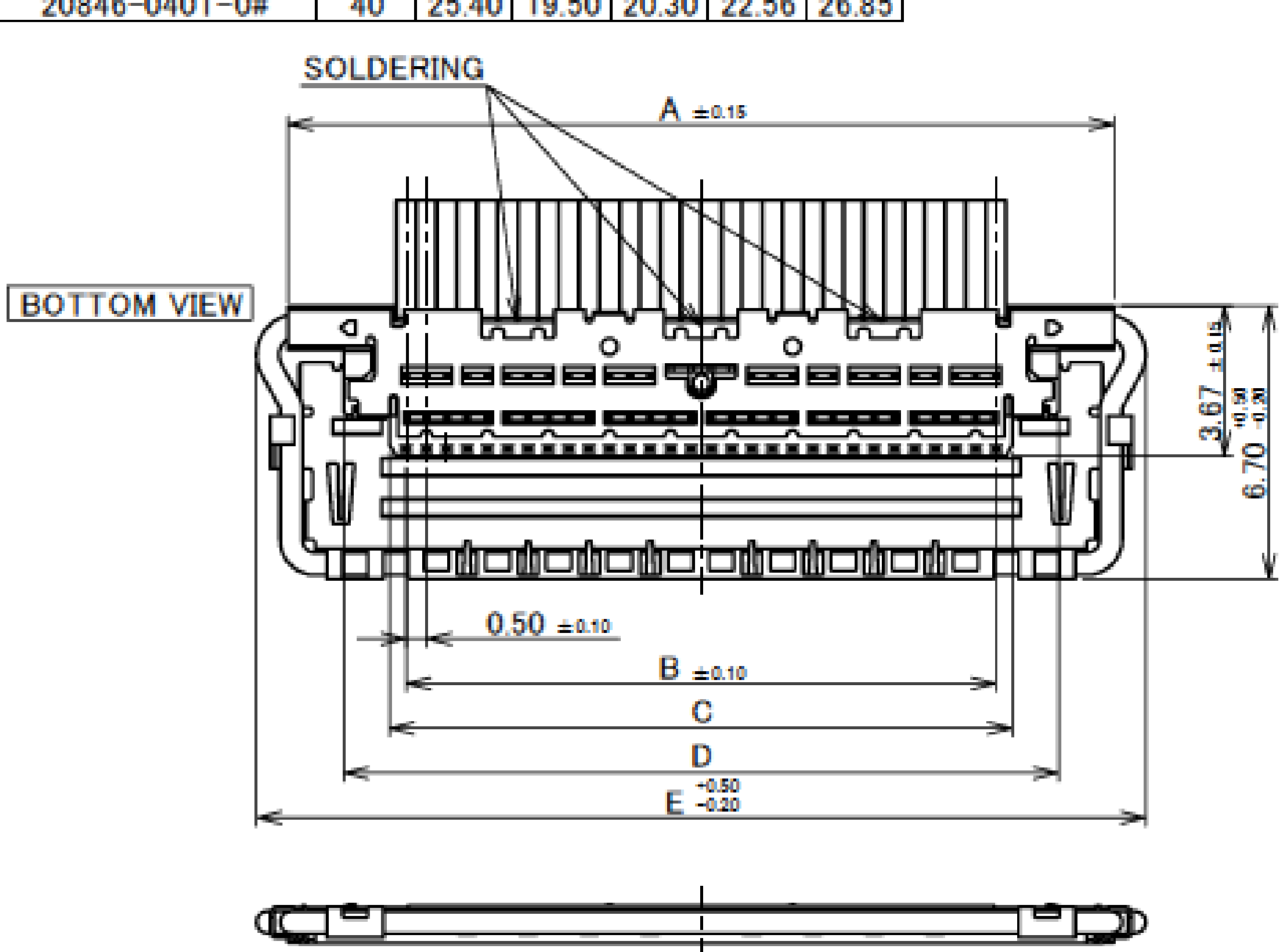
PART NO.	Pos.	A	B	C	D	E
20846-020T-0#	20	15.30	9.50	10.30	12.56	16.85
20846-030T-0#	30	20.30	14.50	15.30	17.56	21.85
20846-040T-0#	40	25.40	19.50	20.30	22.56	26.85



Halogen Free



RoHS Compliant



※1: THE BEND DIMENSIONS MAY VARY BASED ON THE SIZE AND QUANTITY OF CABLES.
PLEASE CONFIRM THE MINIMUM BENDING RADIUS WITH I-PEX OR THE HARNESS MANUFACTURER.

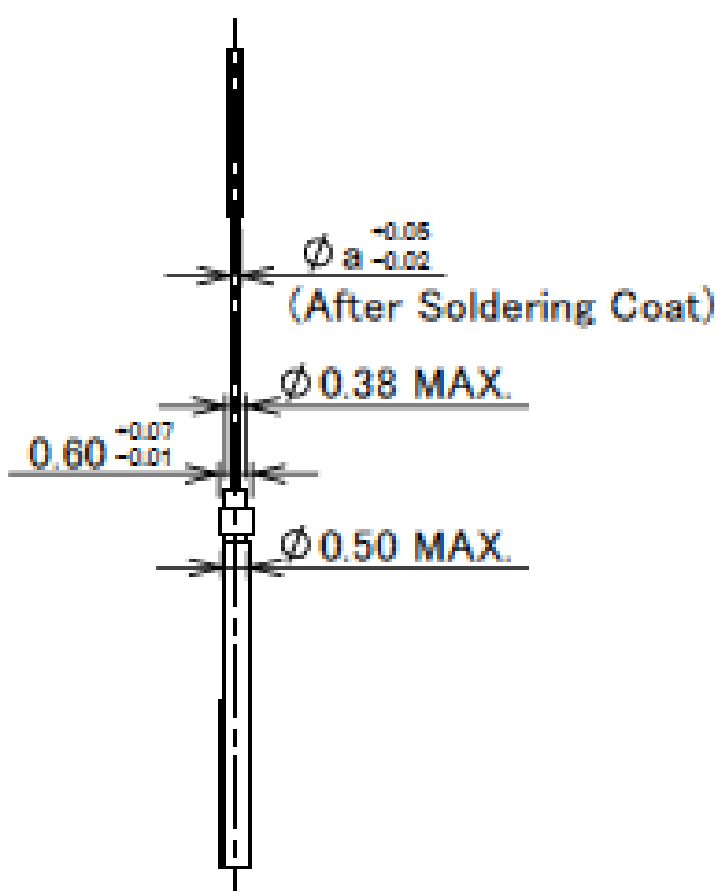
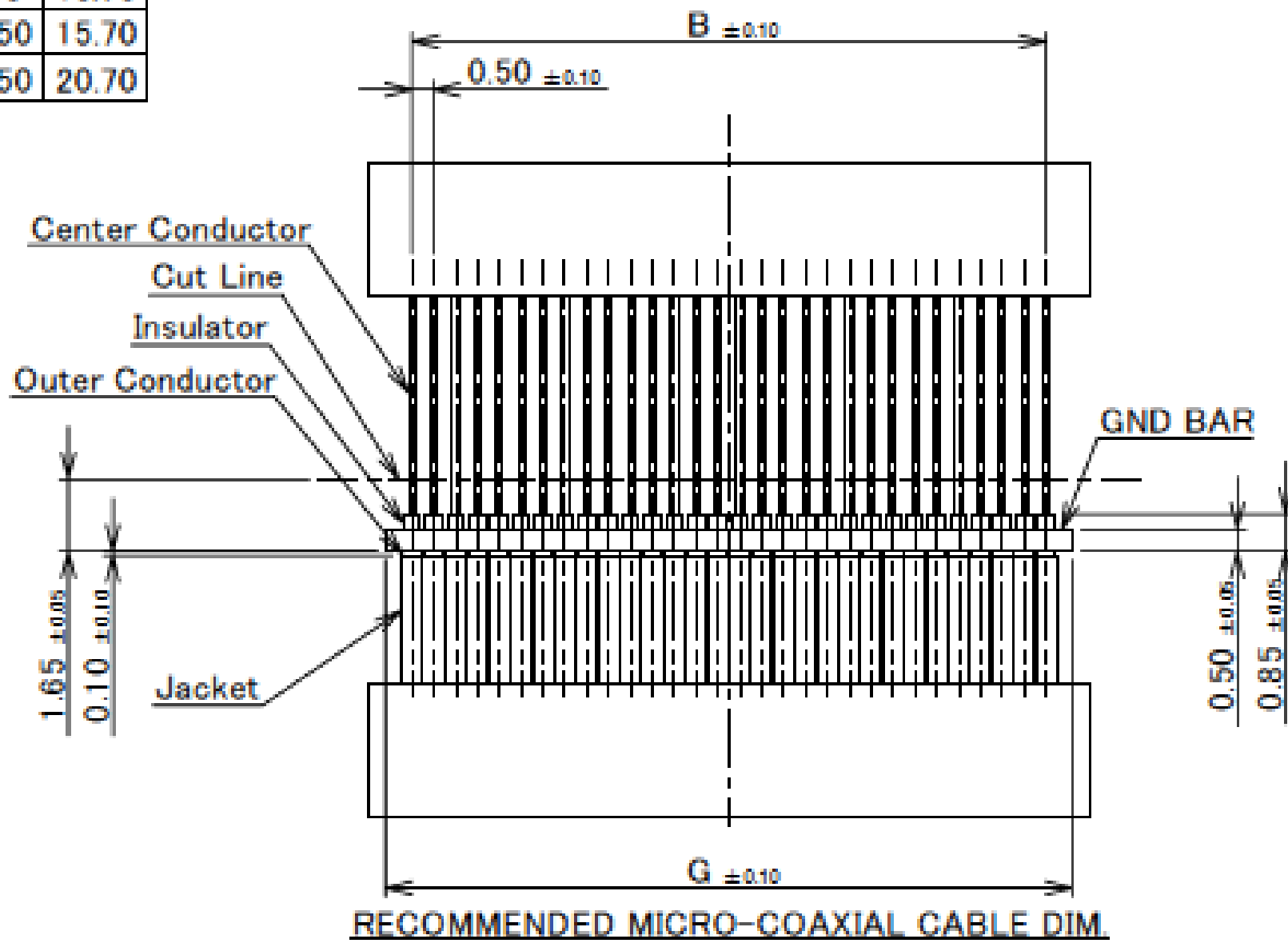
TABLE 1

PART NO.	CONTACT FINISH
20846-0**T-01	CONTACT & SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.
20846-0**T-02	CONTACT AREA : Au 0.38 μ m MIN. OVER Ni 1.27 μ m MIN. SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.

NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
6	COVER	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN.
5	LOCK BAR	SUS	-
4	SHELL-B	PHOSPHOR BRONZE	PARTIAL Au 0.003 μ m MIN. OVER Ni 1.00 μ m MIN.
3	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 μ m MIN. OVER Ni 1.00 μ m MIN.
2	CONTACT	PHOSPHOR BRONZE	SEE TABLE 1
1	HOUSING	LCP	UL94V-0. BLACK

Rev.13

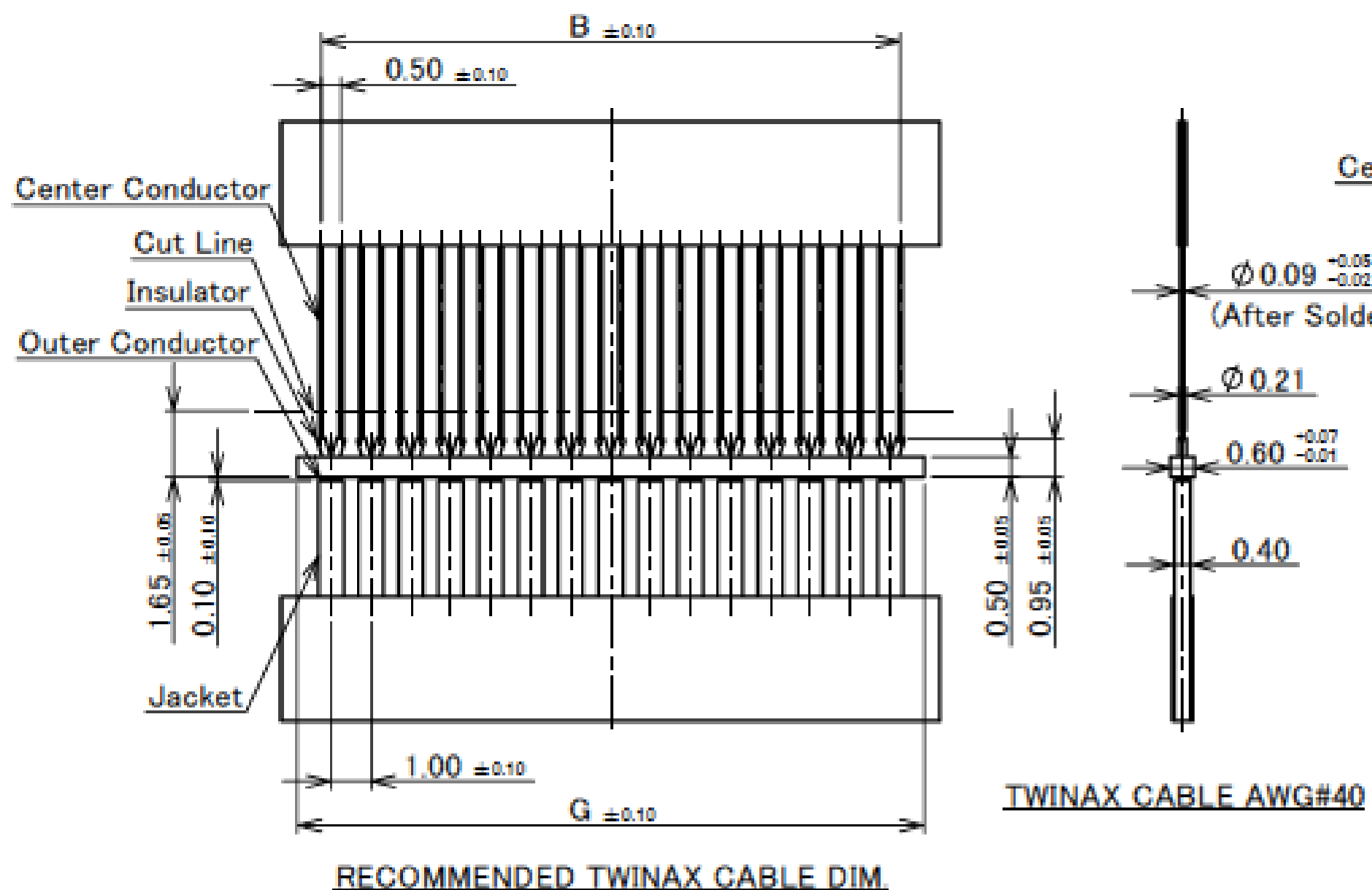
PART NO.	Pos.	B	G
20846-020T-0#	20	9.50	10.70
20846-030T-0#	30	14.50	15.70
20846-040T-0#	40	19.50	20.70



MICRO-COAXIAL CABLE DIMENSION

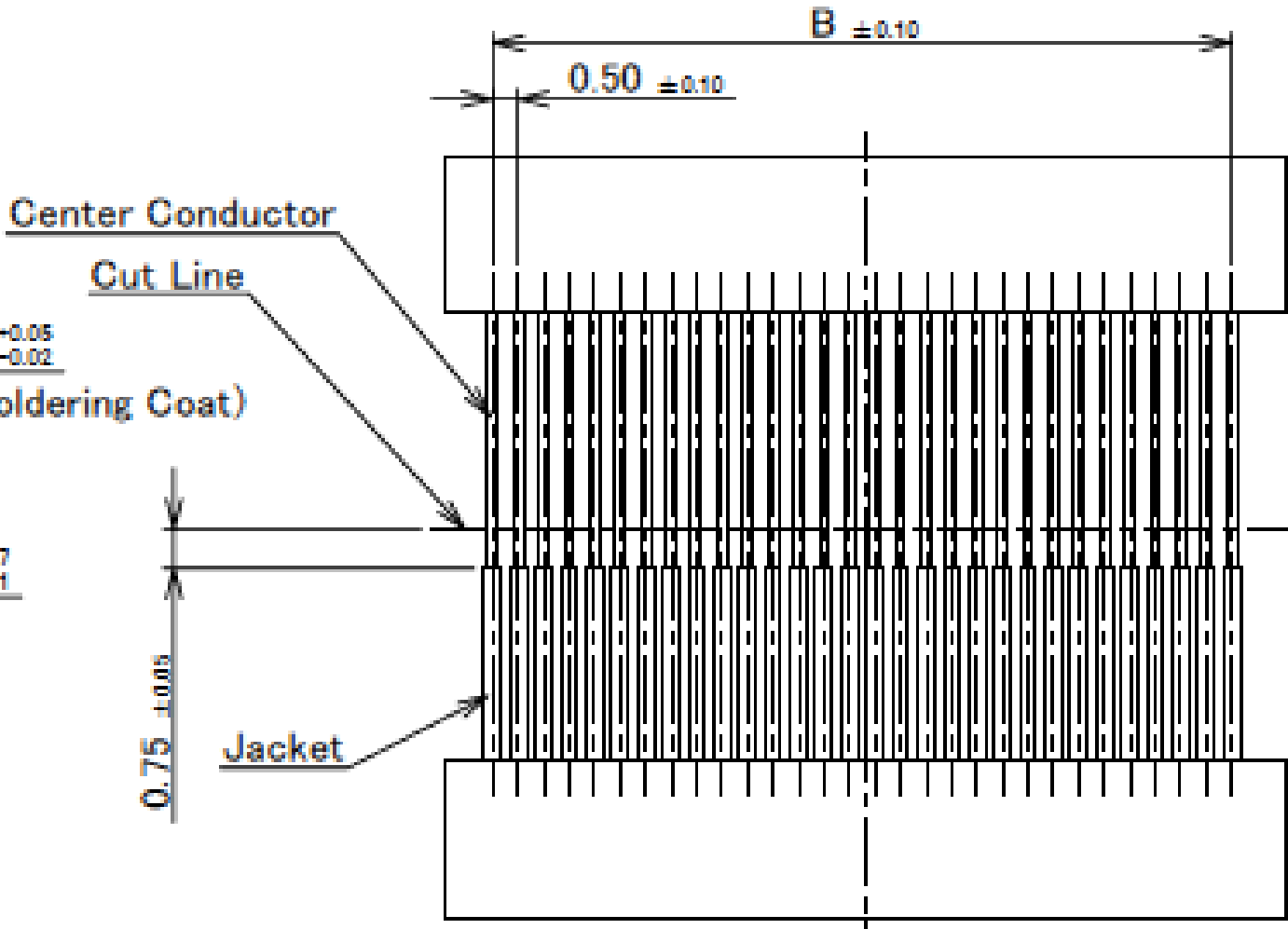
AWG	a
#36	0.15
#38	0.12
#40	0.09
#42	0.075
#44	0.063

MICRO-COAXIAL CABLE AWG##

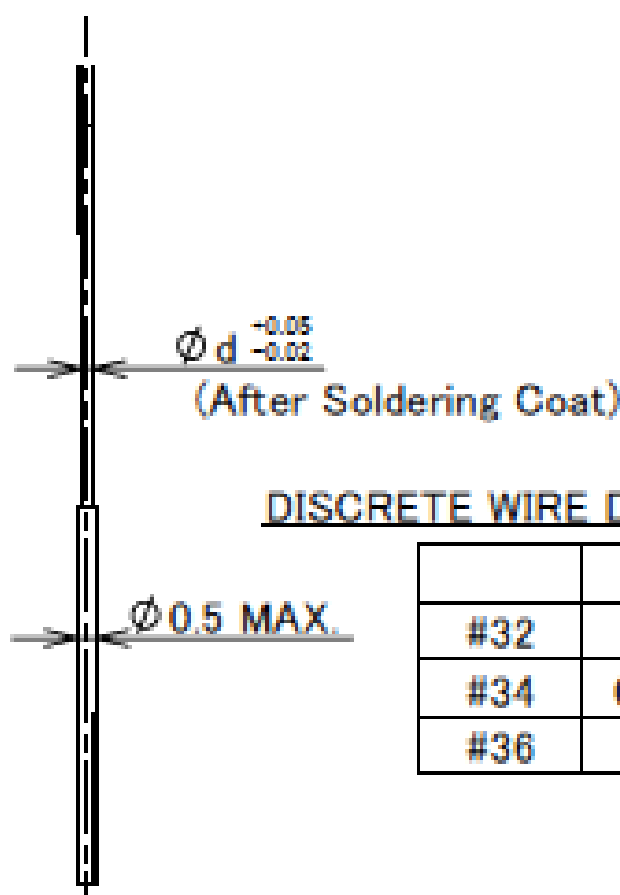


TWINAX CABLE AWG#40

RECOMMENDED TWINAX CABLE DIM.



RECOMMENDED DISCRETE WIRE DIM.



DISCRETE WIRE DIMENSION

AWG	d
#32	0.24
#34	0.192
#36	0.15

DISCRETE WIRE AWG##

Rev.13

Plug for Cable Assembly

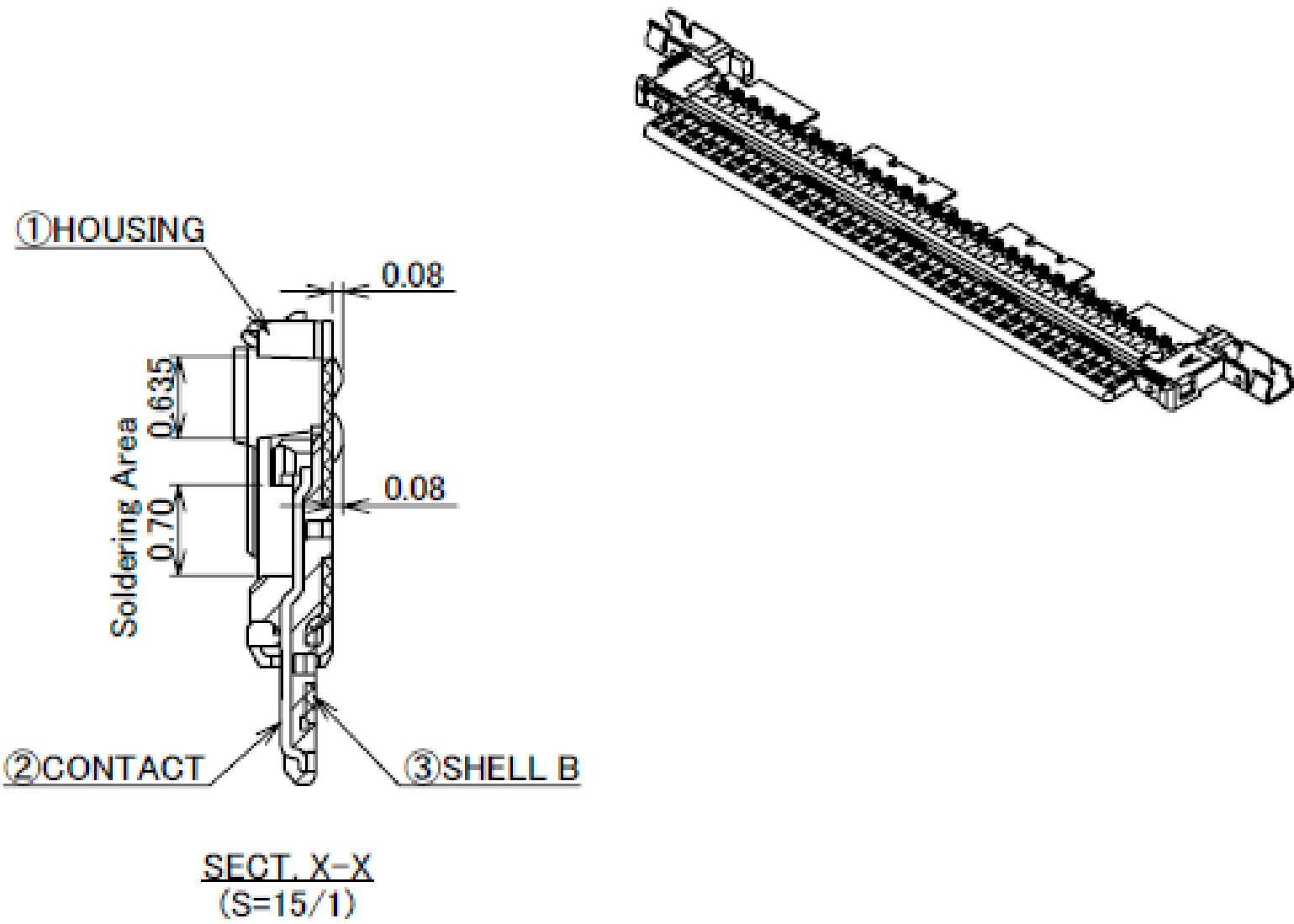
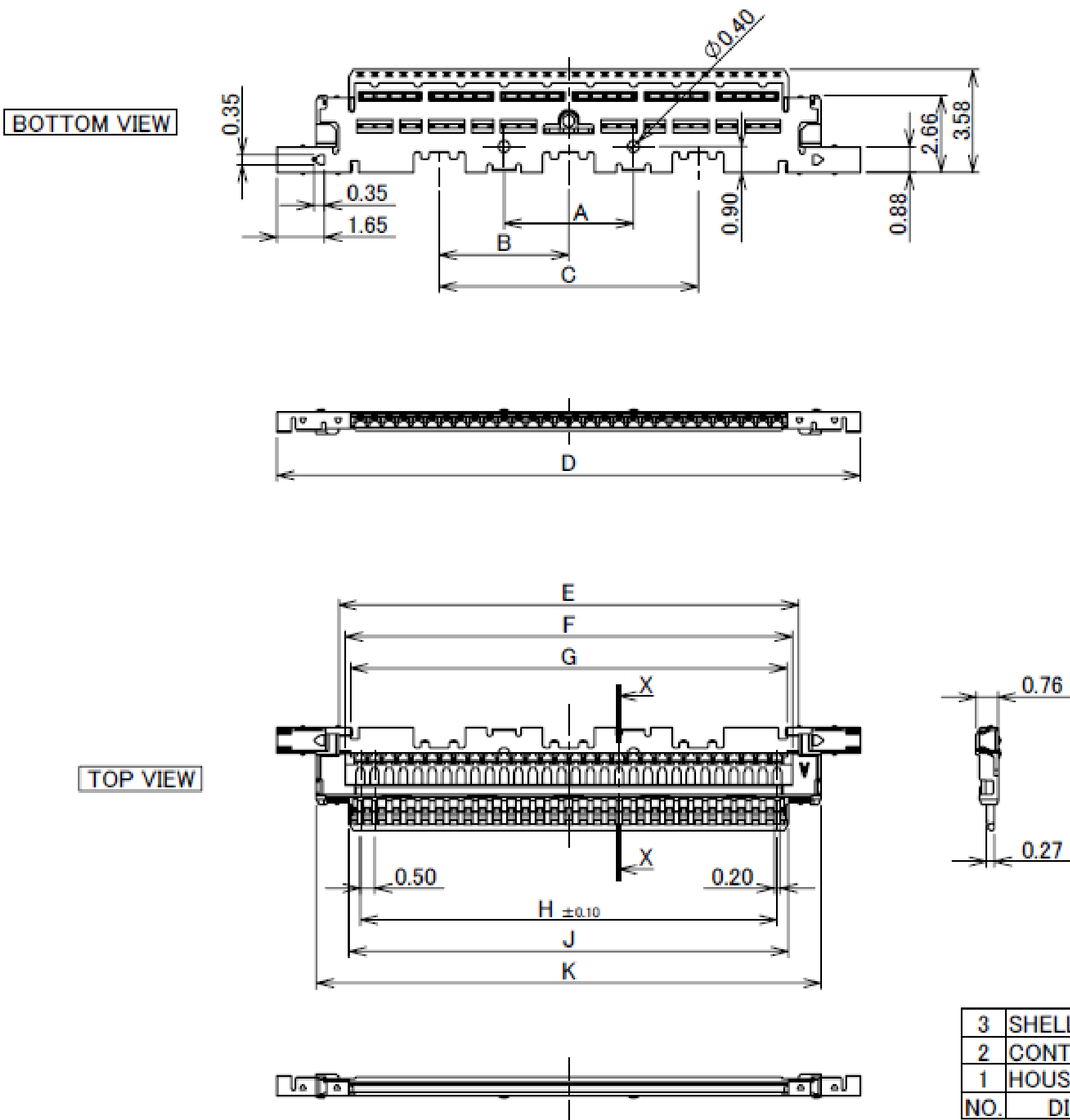
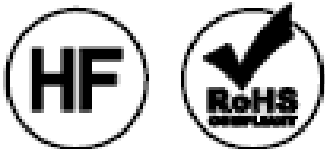
ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG# 44 , 42 , 40 , 38 , 36 DISCRETE WIRE : AWG# 36 , 34 , 32 TWINAX CABLE : AWG# 40
RATING VOLTAGE	100V AC (PER CONTACT PIN) ※THIS IS THE RATED VOLTAGE OF THE CONNECTOR. PLEASE NOTE THAT THE RATED VOLTAGE MAY VARY IN THE HARNESS DEPENDING ON THE CABLES USED.
RATING AMPERAGE (FOR CONTACT)	0.1A AC/DC [AWG#44] PER CONTACT PIN/UP TO 40 CONTACTS 0.24A AC/DC [AWG#42] PER CONTACT PIN/UP TO 40 CONTACTS 0.3A AC/DC [AWG#40] PER CONTACT PIN/UP TO 40 CONTACTS 0.5A AC/DC [AWG#38] PER CONTACT PIN/UP TO 23 CONTACTS 0.8A AC/DC [AWG#36] PER CONTACT PIN/UP TO 10 CONTACTS 1.0A AC/DC [AWG#34] FOR POWER PER CONTACT/UP TO 9 CONTACTS 1.0A AC/DC [AWG#32] FOR POWER PER CONTACT/UP TO 9 CONTACTS ※TESTING BY A REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION.
OPERATING TEMPERATURE	233~378K(-40℃~+105℃)
OPERATING HUMIDITY	85% MAX.
CONTACT RESISTANCE	INITIAL : 140mohm MAX.(AWG#32) / AFTER TEST : ≦40mohm MAX. 180mohm MAX.(AWG#34) 275mohm MAX.(AWG#36) 360mohm MAX.(AWG#38) 600mohm MAX.(AWG#40) 700mohm MAX.(AWG#42) 1080mohm MAX.(AWG#44)
GROUND SHELL RESISTANCE	INITIAL : 50mohm MAX. / AFTER TEST : ≦40mohm MAX.
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER 30 CYCLES)	20P : 9.70N MAX. 30P : 14.55N MAX. 40P : 19.40N MAX.
UNMATING FORCE (INITIAL / AFTER 30 CYCLES)	20P : 2.00N MIN. 30P : 3.00N MIN. 40P : 4.00N MIN.
CABLE RETENTION FORCE	20P : 9.80N MIN. 30P : 14.70N MIN. 40P : 19.60N MIN.
PRODUCT SPECIFICATION	PRS-2398
TEST REPORT	TR-17060 (20846-0**T-01) / TR-18048 (20846-0**T-02)
INSTRUCTION MANUAL	HIM-17015
ASSEMBLY MANUAL	ASM-17005
APPEARANCE CRITERIA No.	QLS-A***

Rev.13

Plug Housing Assembly

Recommended P/N	20847-0**T-01
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PART NO.	Pos.	A	B	C	D	E	F	G	H	J	K
20847-020T-0#	20	-	-	5.00	15.30	11.00	10.55	10.20	9.50	10.30	12.56
20847-030T-0#	30	4.50	4.50	9.00	20.30	16.00	15.55	15.20	14.50	15.30	17.56
20847-040T-0#	40	9.00	4.50	13.50	25.40	21.00	20.55	20.20	19.50	20.30	22.56



NOTES.
1. THIS PART IS ASSEMBLED WITH SHELL A(P/N 3427-0**1) AND LOCK BAR ASS'Y(P/N 20848-0**T-01) AFTER SOLDERING THE CABLE, AND SHALL BE ASSIGNED AS P/N 20846-0**T-0#

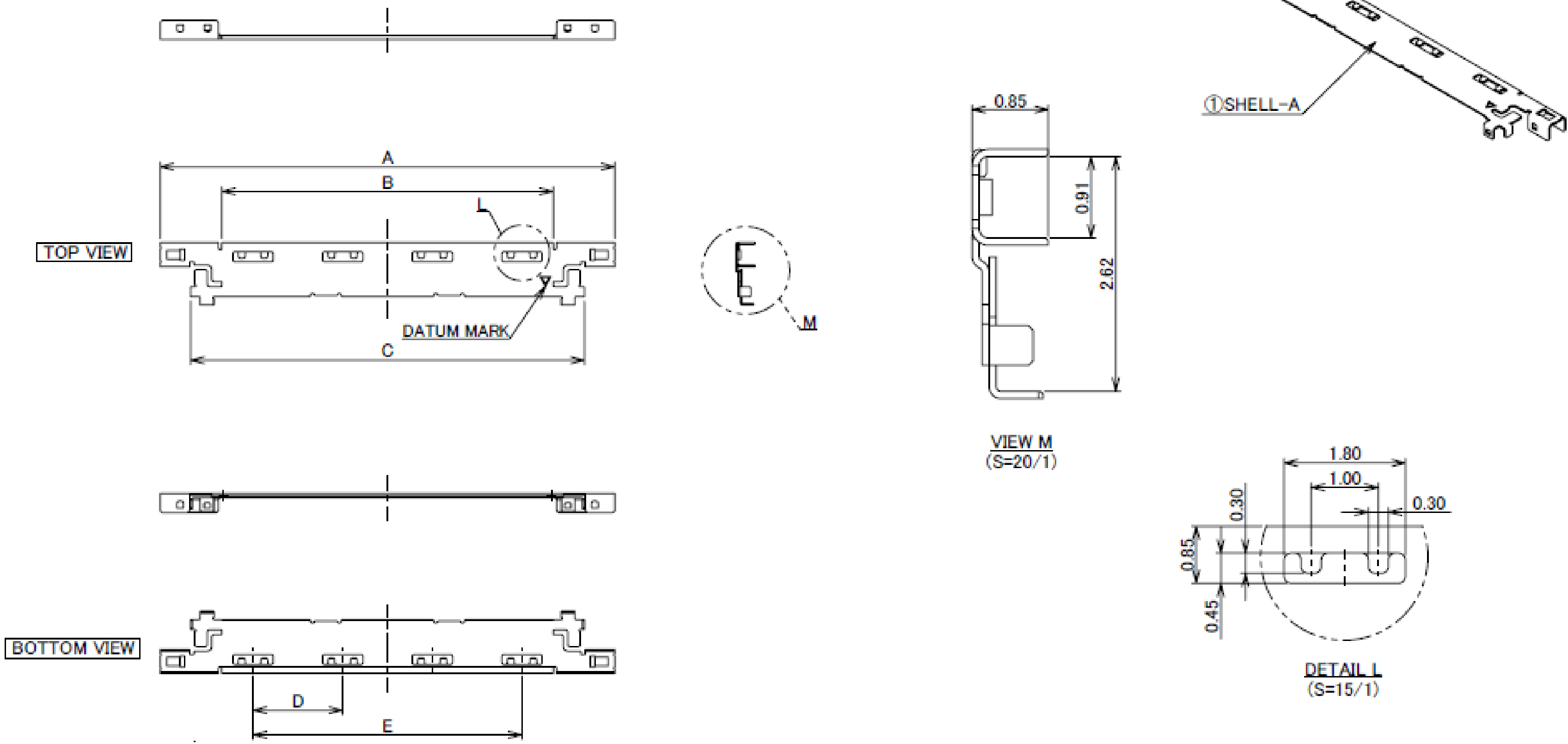
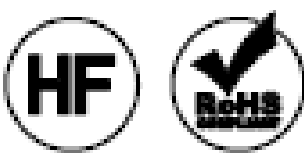
TABLE 1	
PART NO.	CONTACT FINISH
20847-0**T-01	CONTACT & SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.
20847-0**T-02	CONTACT AREA : Au 0.38 μm MIN. OVER Ni 1.27 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.

3	SHELL-B	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.
2	CONTACT	PHOSPHOR BRONZE	SEE TABLE 1
1	HOUSING	LCP	UL94V-0, BLACK
NO.	DISCRPTION	MATERIAL	FINISH , REMARKS

Rev.6

Plug Shell-A

Recommended P/N		3427-0**1				
PART No.	Pos.	A	B	C	D	E
3427-0201	20	15.30	9.78	12.56	3.00	6.00
3427-0301	30	20.30	14.78	17.56	4.00	12.00
3427-0401	40	25.40	19.88	22.56	4.00	16.00



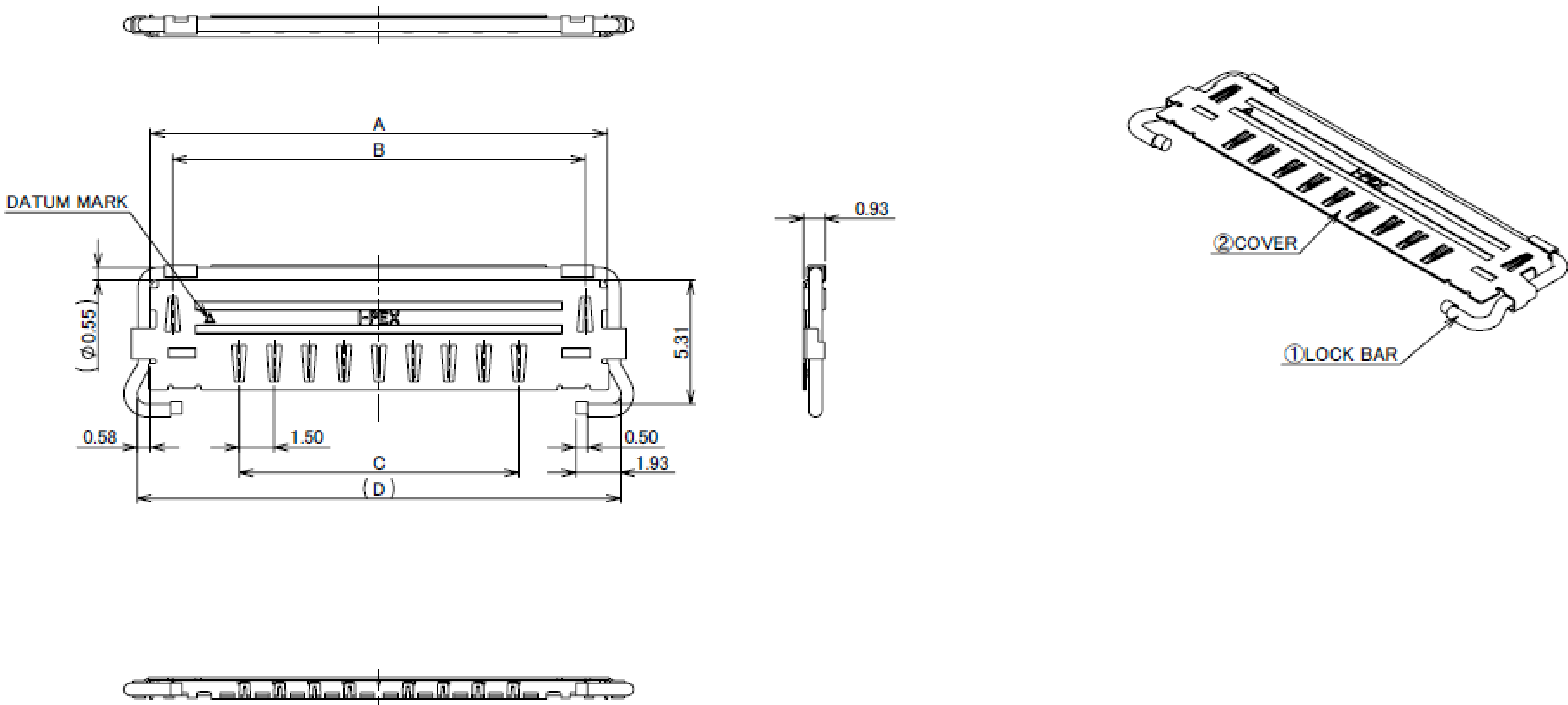
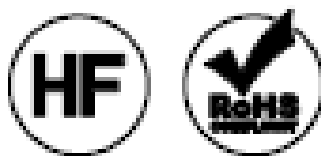
1	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 μ m MIN. OVER Ni 1.00 μ m MIN.
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.3

Plug Lock Bar Assembly

Recommended P/N		20848-0**T-01				
PART NO.	Pos.	A	B	C	D	E
20848-020T-01	20	14.59	12.70	7.50	15.75	7.00
20848-030T-01	30	19.59	17.70	12.00	20.75	12.00
20848-040T-01	40	24.59	22.70	18.00	25.75	17.00

20848-0**T-01
POS.



2	COVER	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN.
1	LOCK BAR	SUS ϕ 0.55	-
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.6

Receptacle Assembly

Recommended P/N		20849-0**E-01				
PART NO.	Pos.	A	B	C	D	E
20849-020E-0#	20	11.30	9.50	14.33	15.10	11.91
20849-030E-0#	30	16.30	14.50	19.33	20.10	16.91
20849-040E-0#	40	21.30	19.50	24.33	25.10	21.91

P/N : 20849-0**E-0#
SEE TABLE 1
POS.

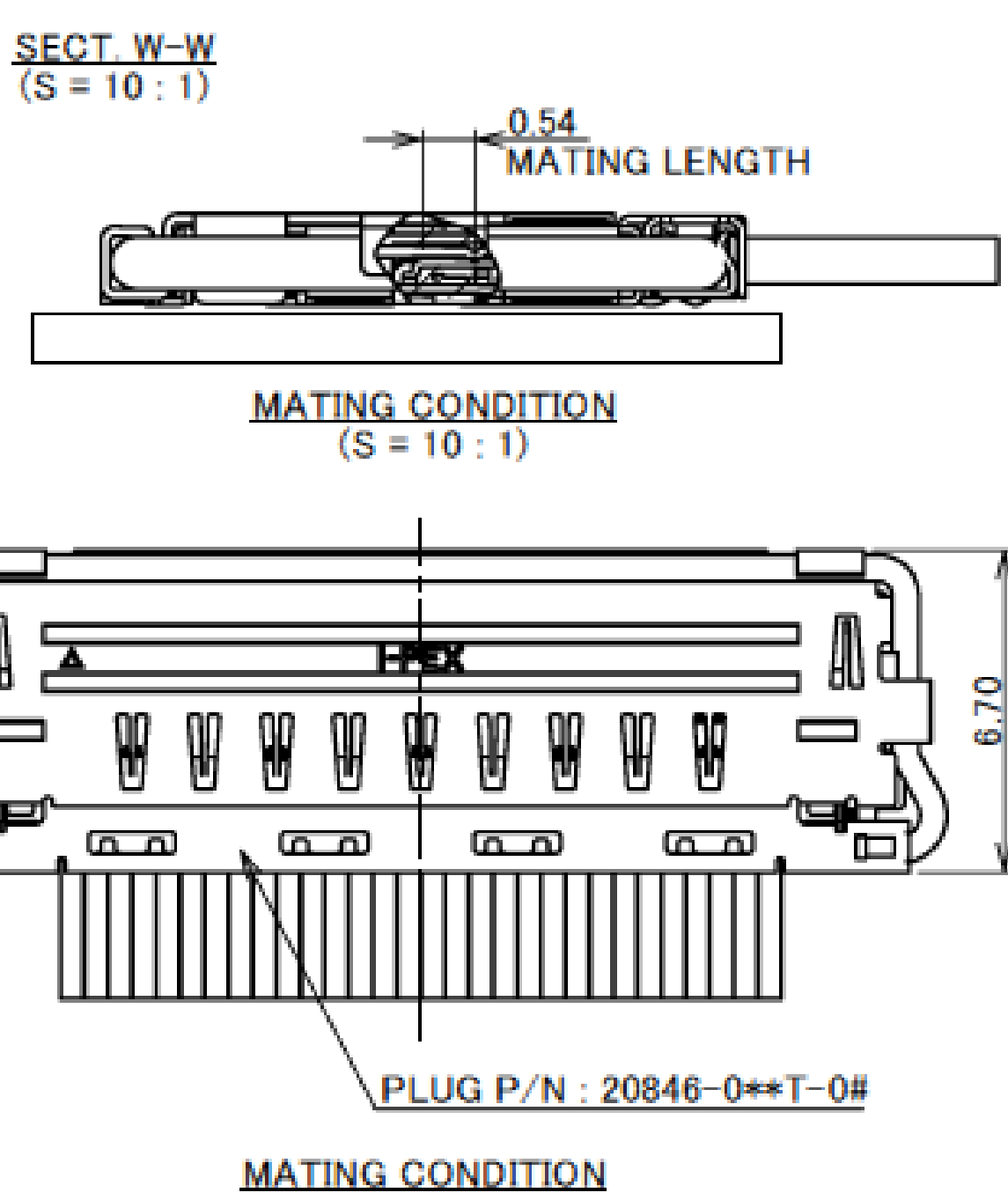
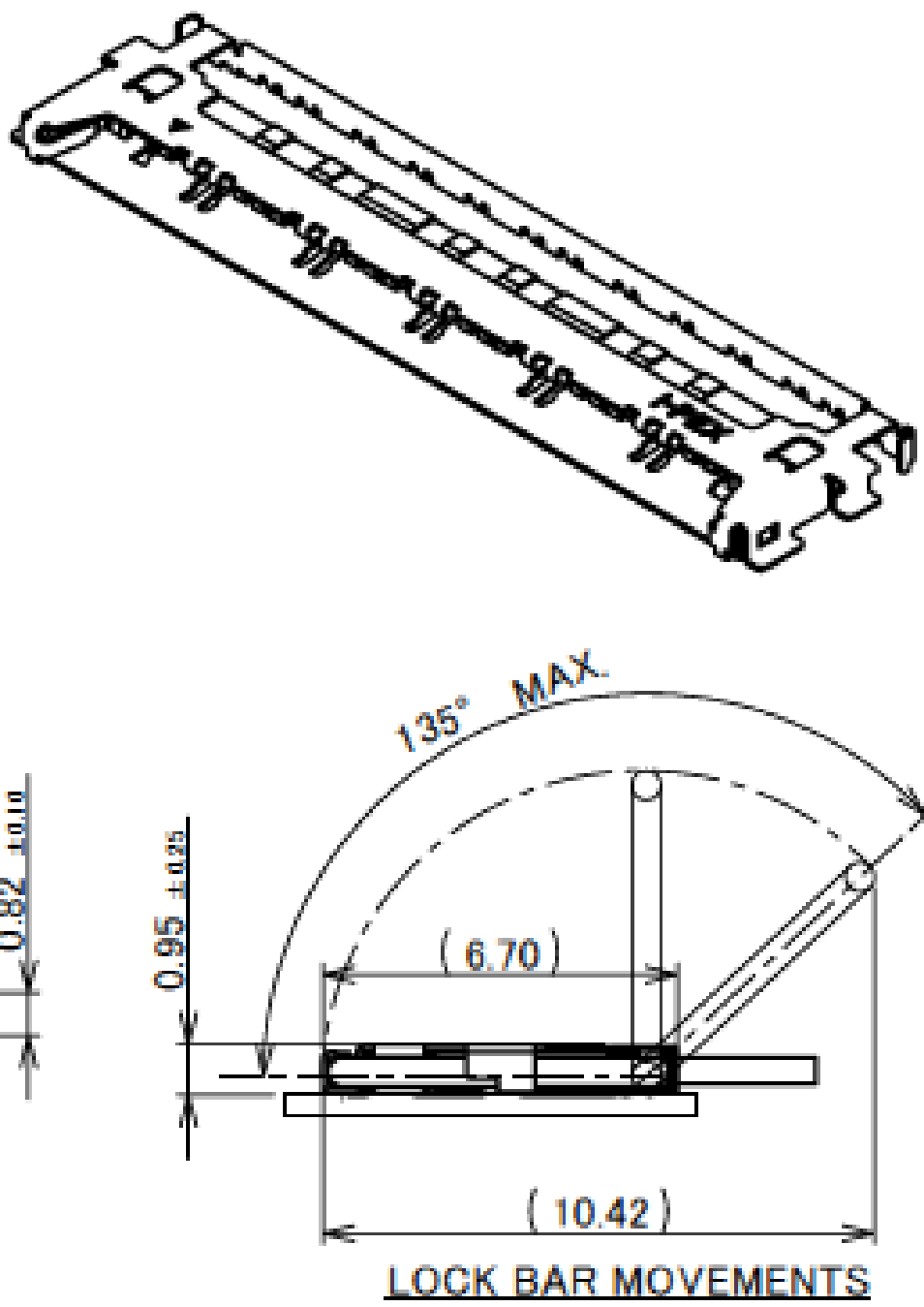
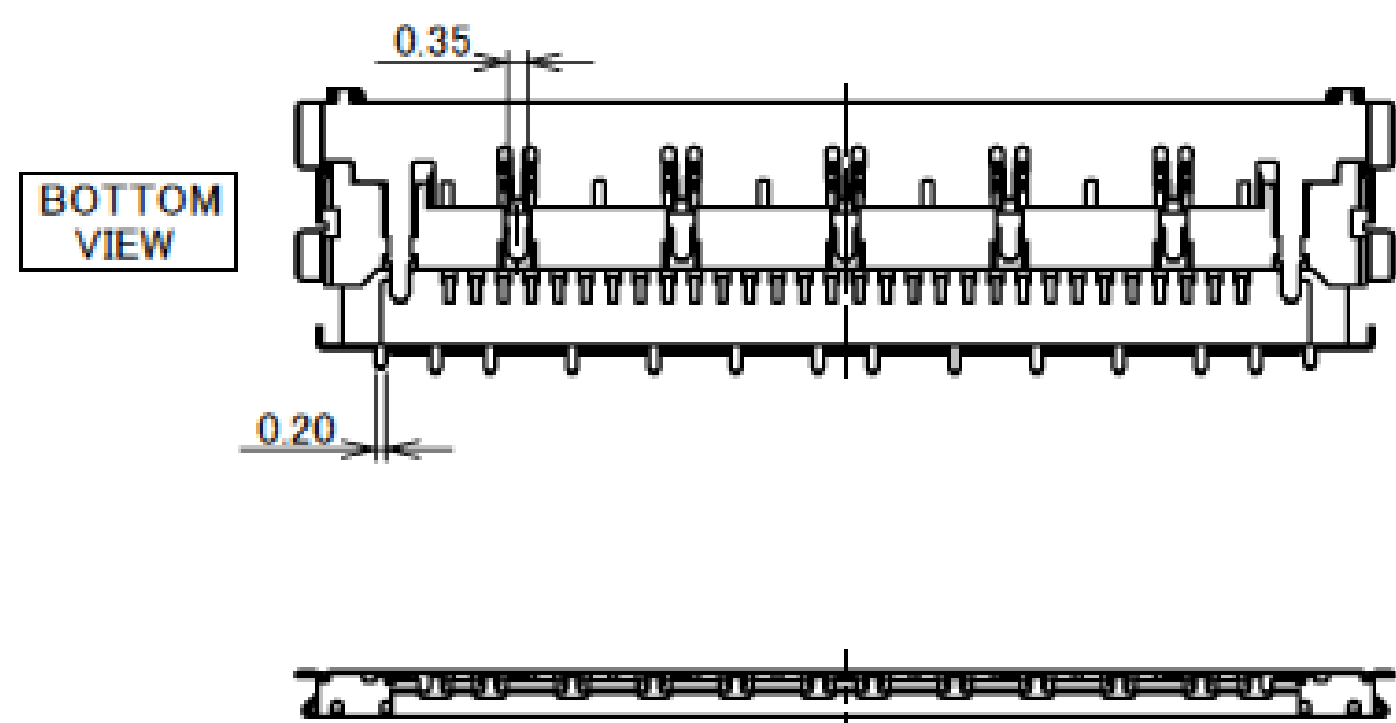
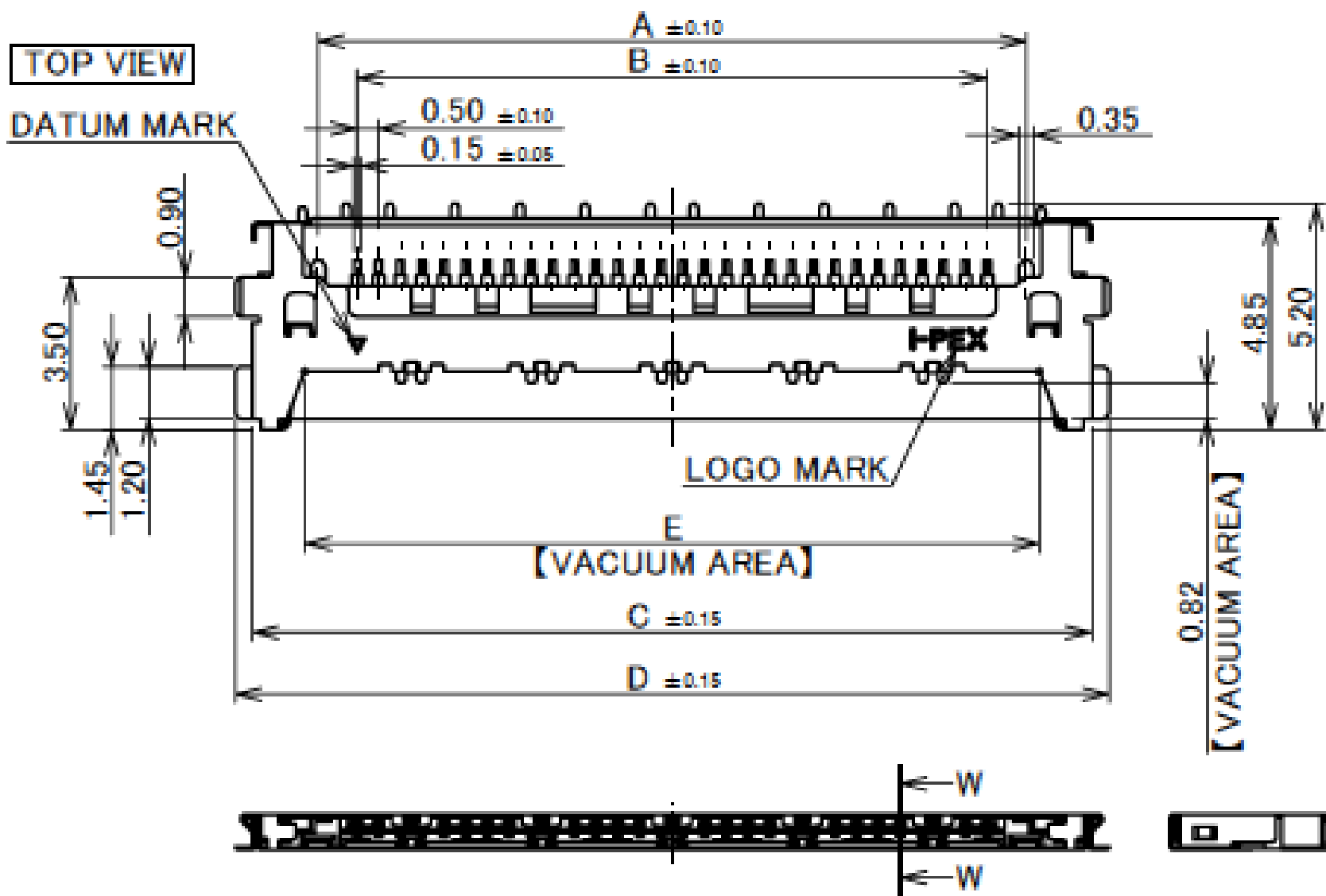
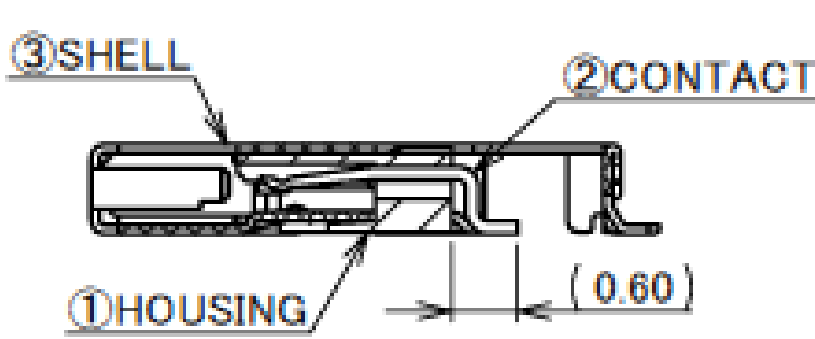
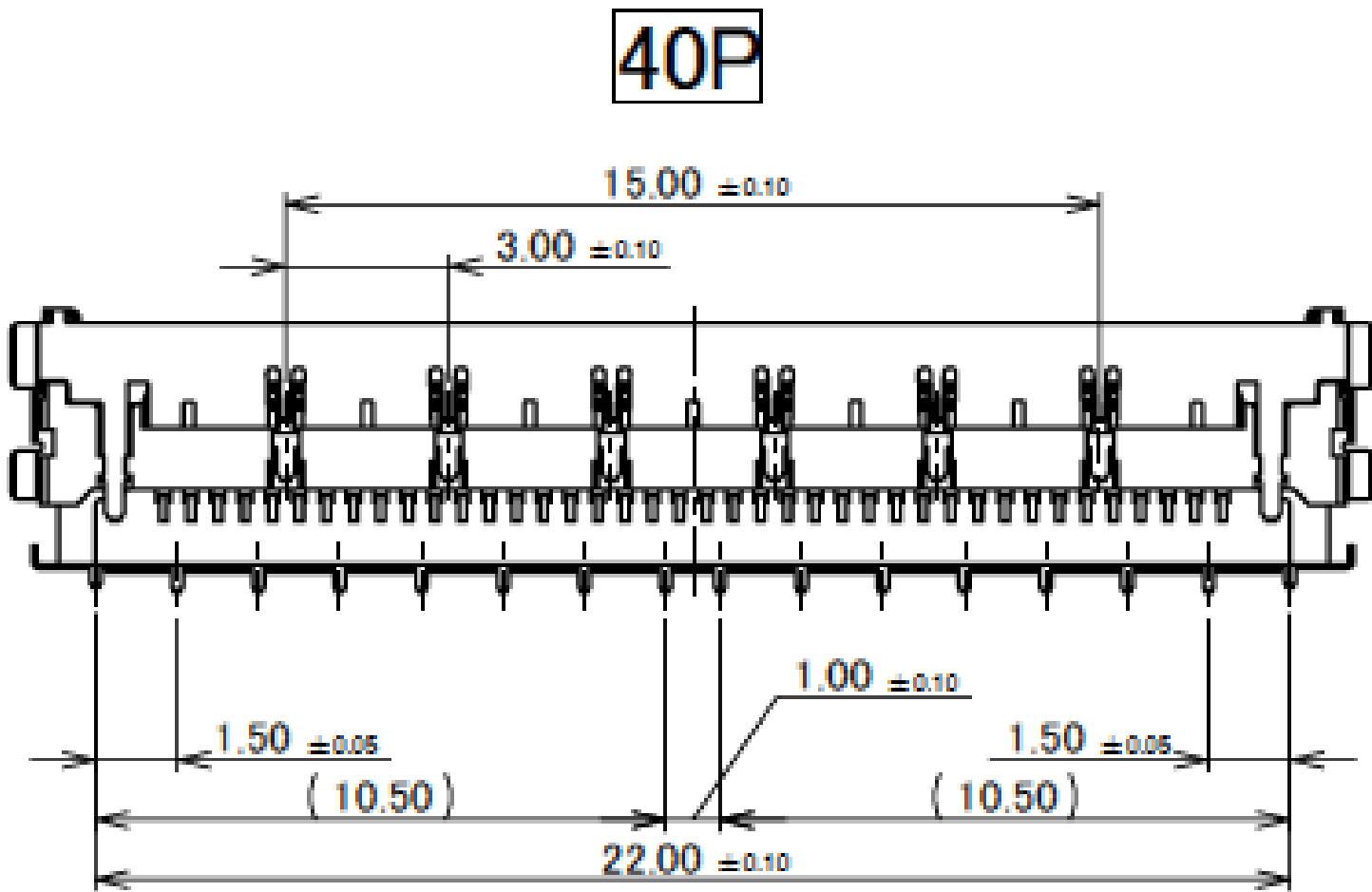
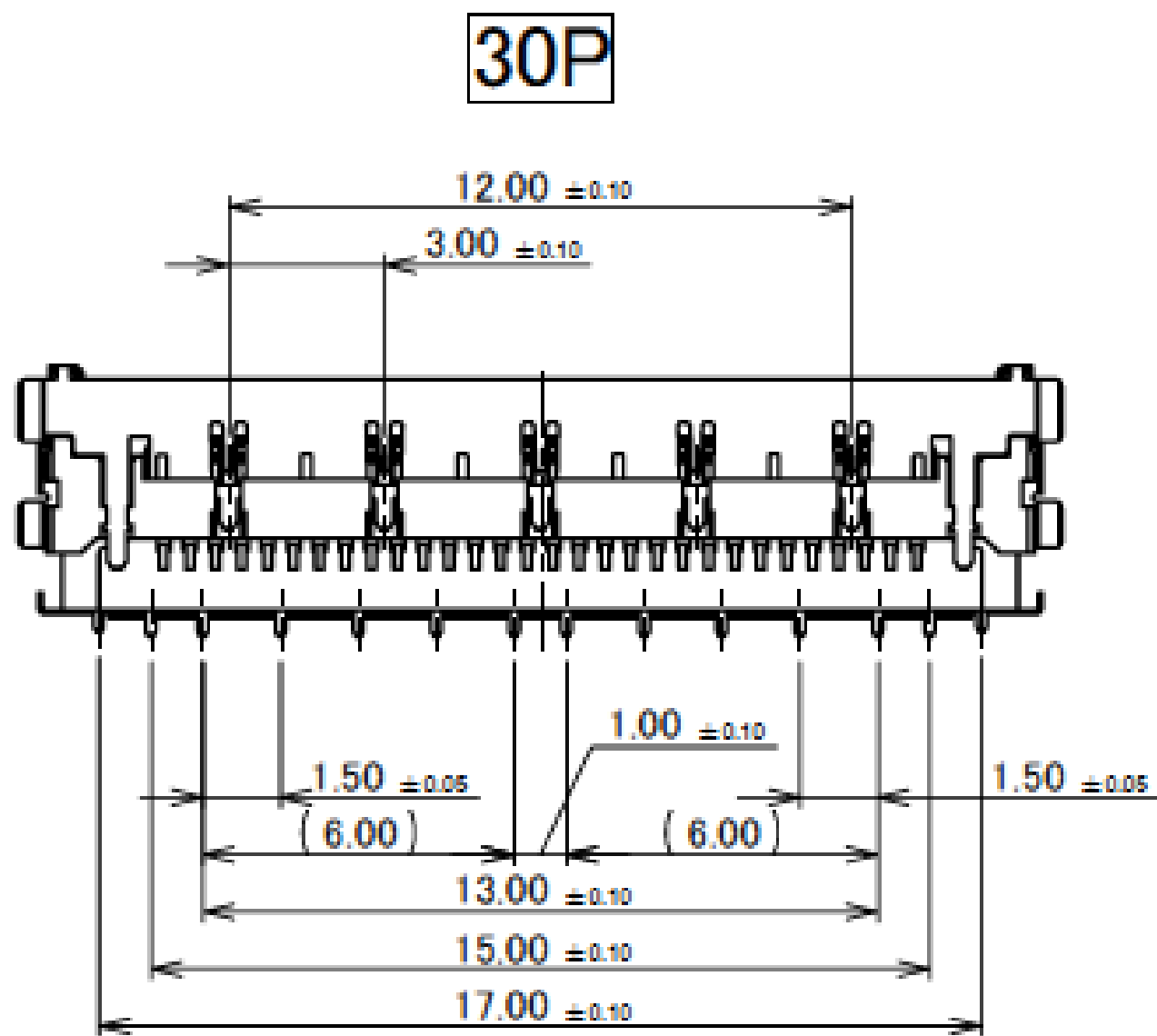
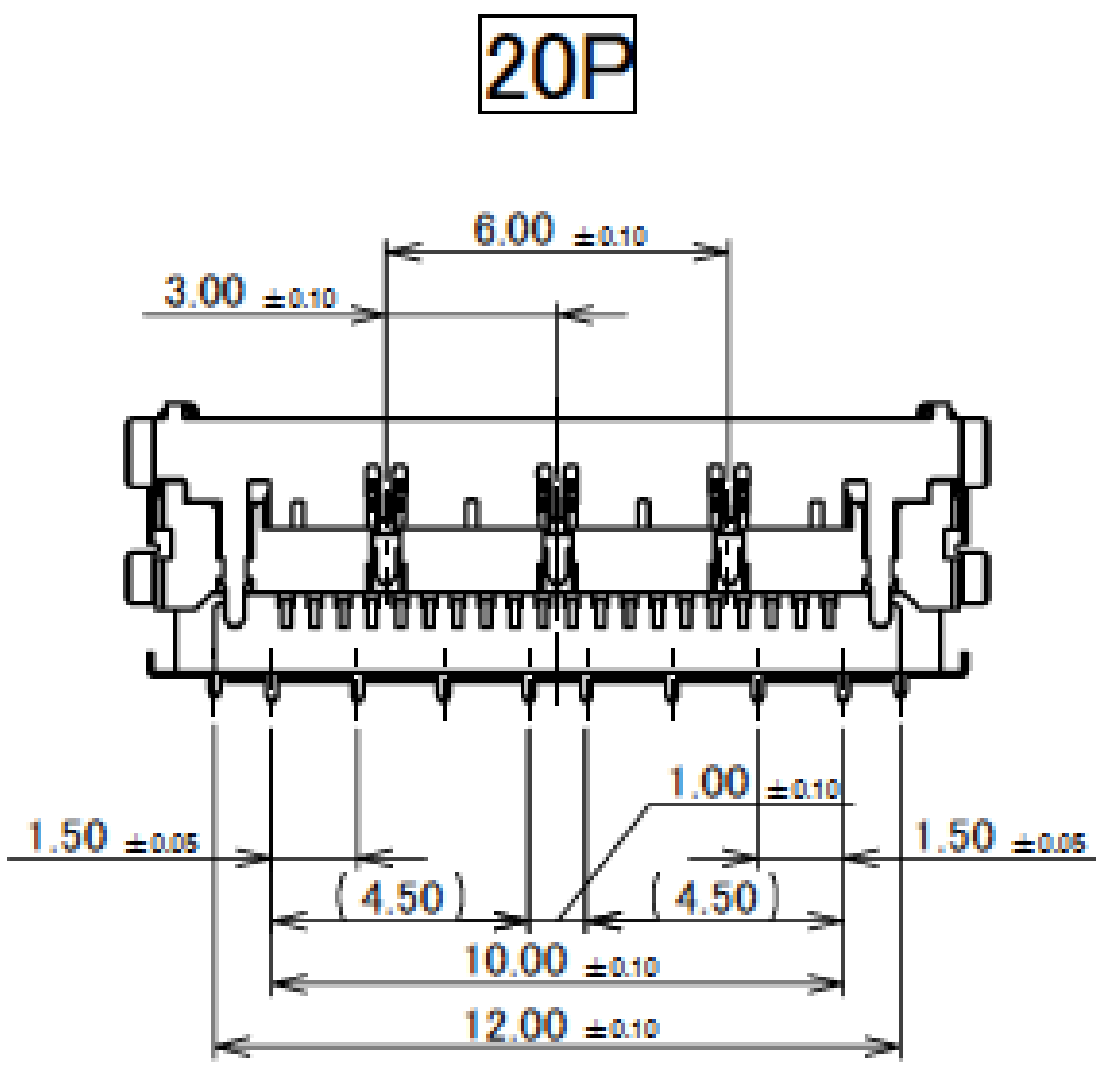


TABLE 1			
PART NO.		CONTACT FINISH	SHELL FINISH
20849-0**E-01		CONTACT & SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.	ALL OVER Ni 1.00 μ m MIN. SOLDERING AREA : Au 0.02 μ m MIN.
20849-0**E-02		CONTACT AREA : Au 0.38 μ m MIN. OVER Ni 1.27 μ m MIN. SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.	
3	SHELL	PHOSPHOR BRONZE	SEE TABLE 1
2	CONTACT	PHOSPHOR BRONZE	SEE TABLE 1
1	HOUSING	LCP	UL94V-0, BLACK
NO	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.14

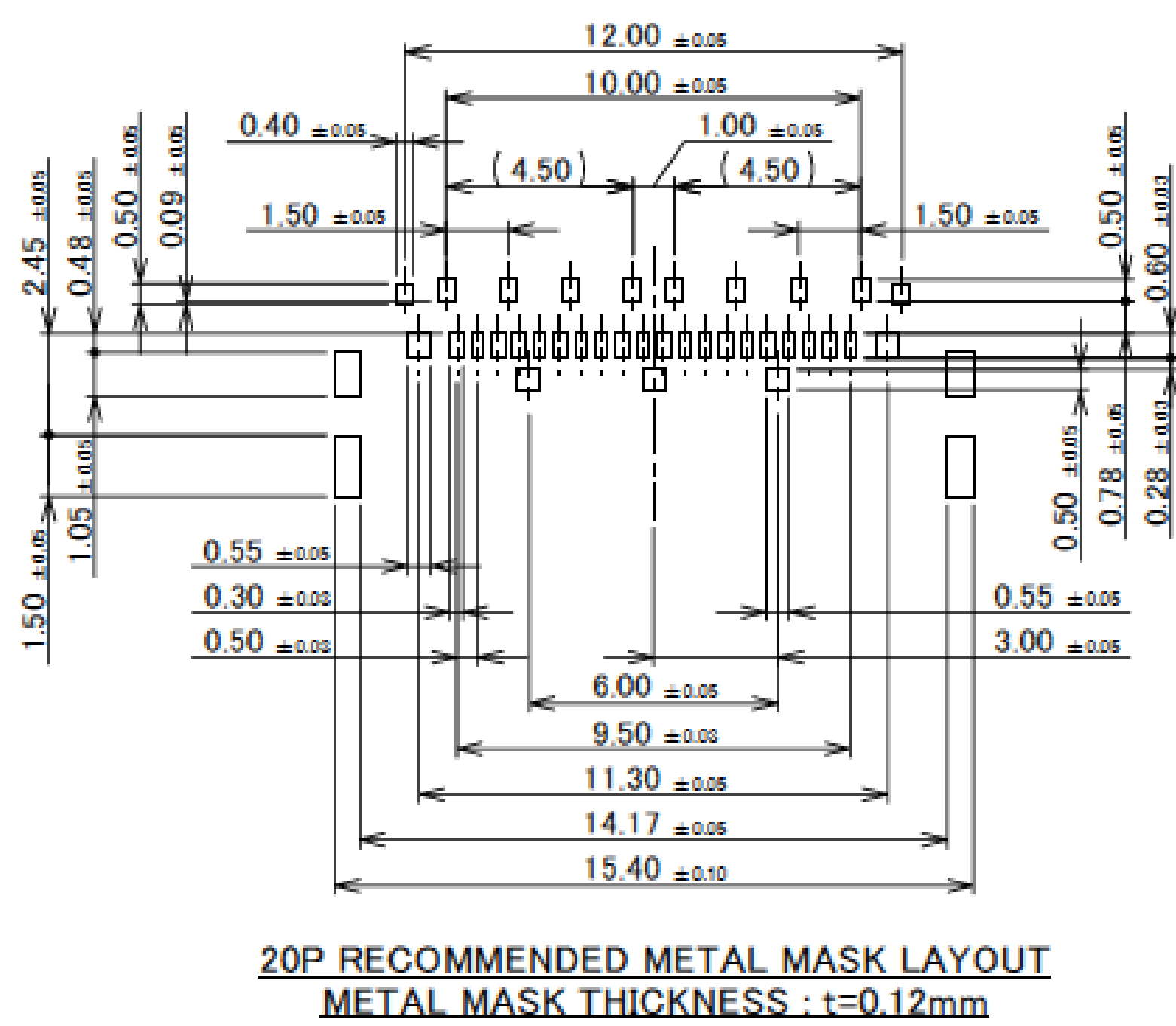
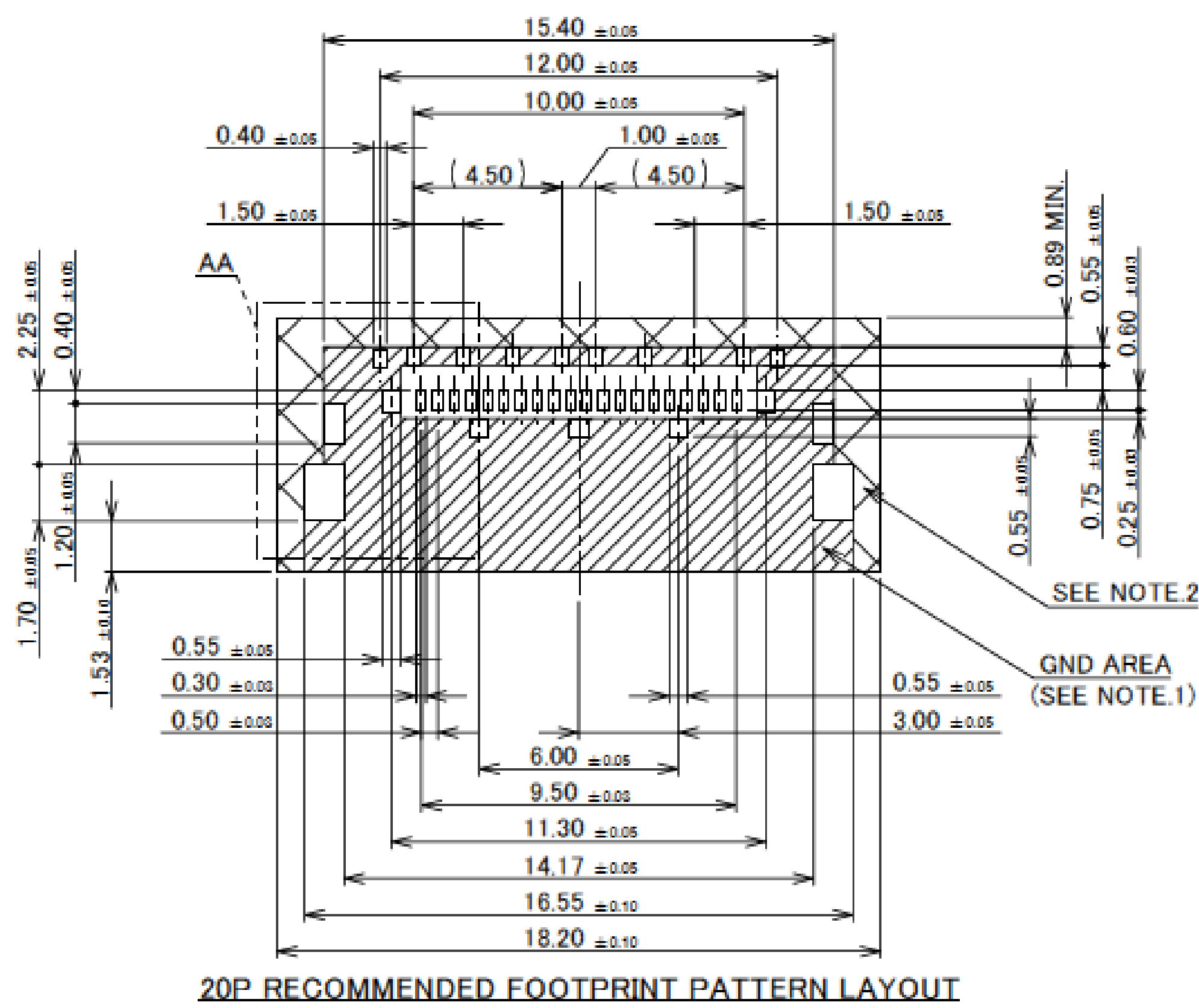
PART NO.	Pos.
20849-020E-0#	20
20849-030E-0#	30
20849-040E-0#	40

BOTTOM VIEW

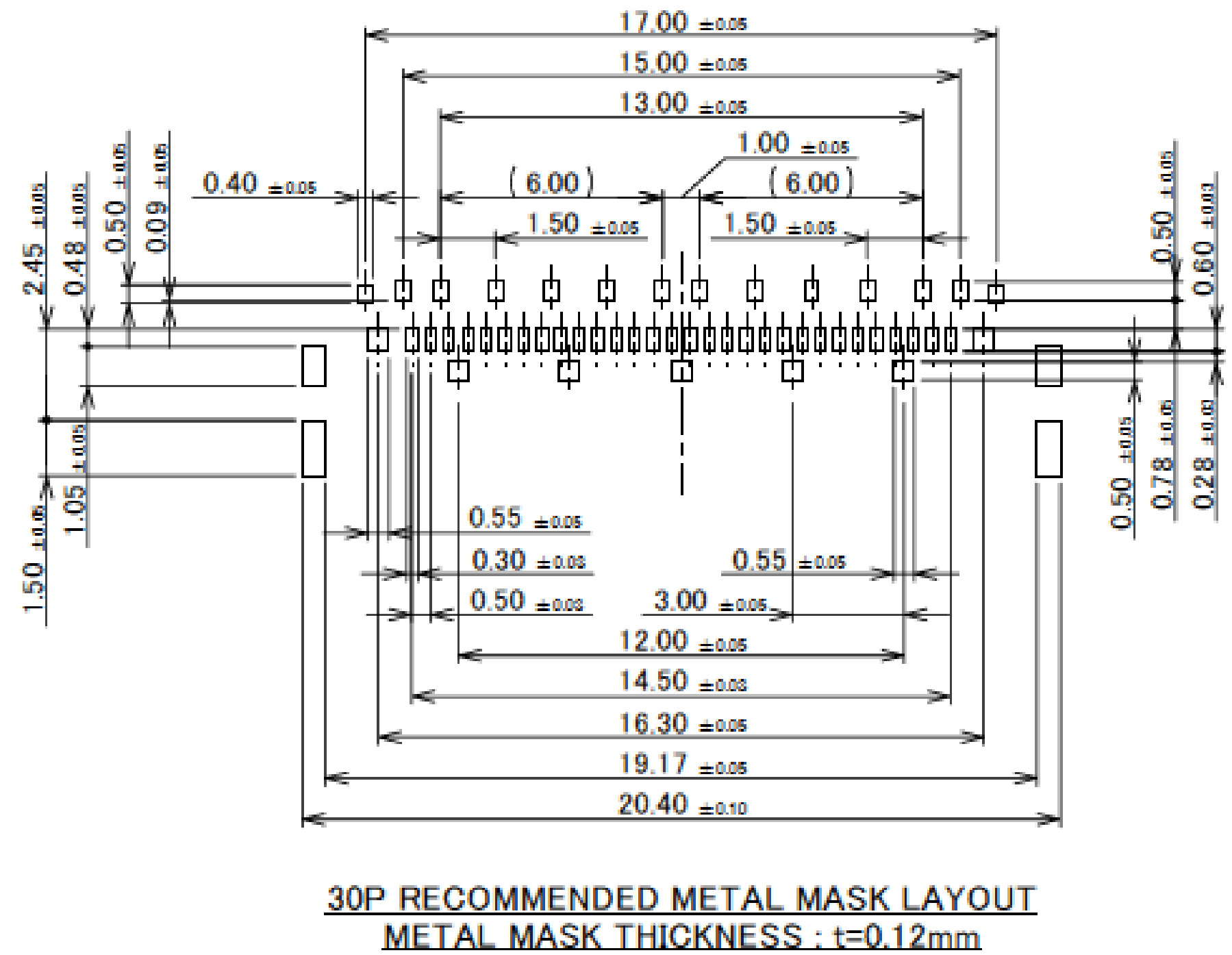
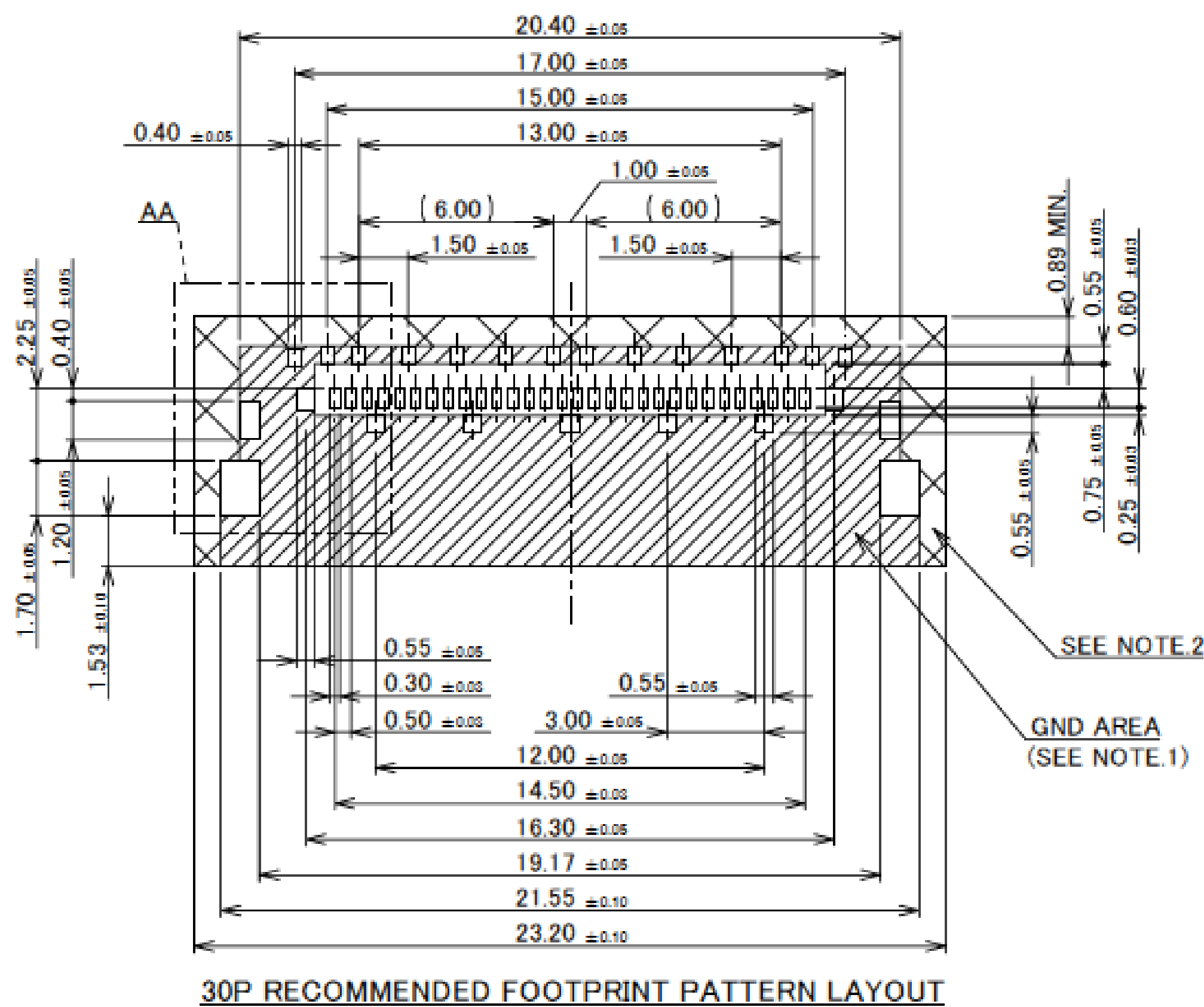
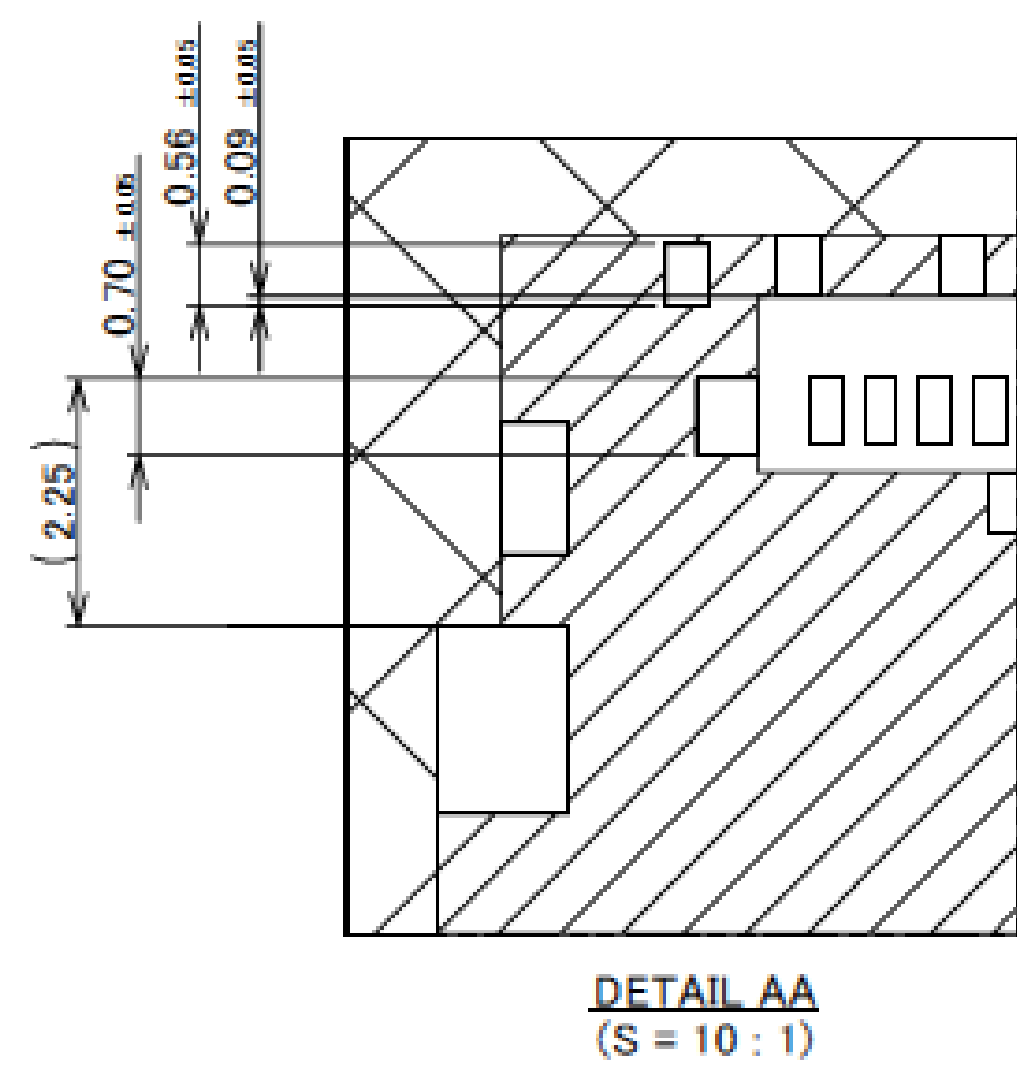


Rev.14

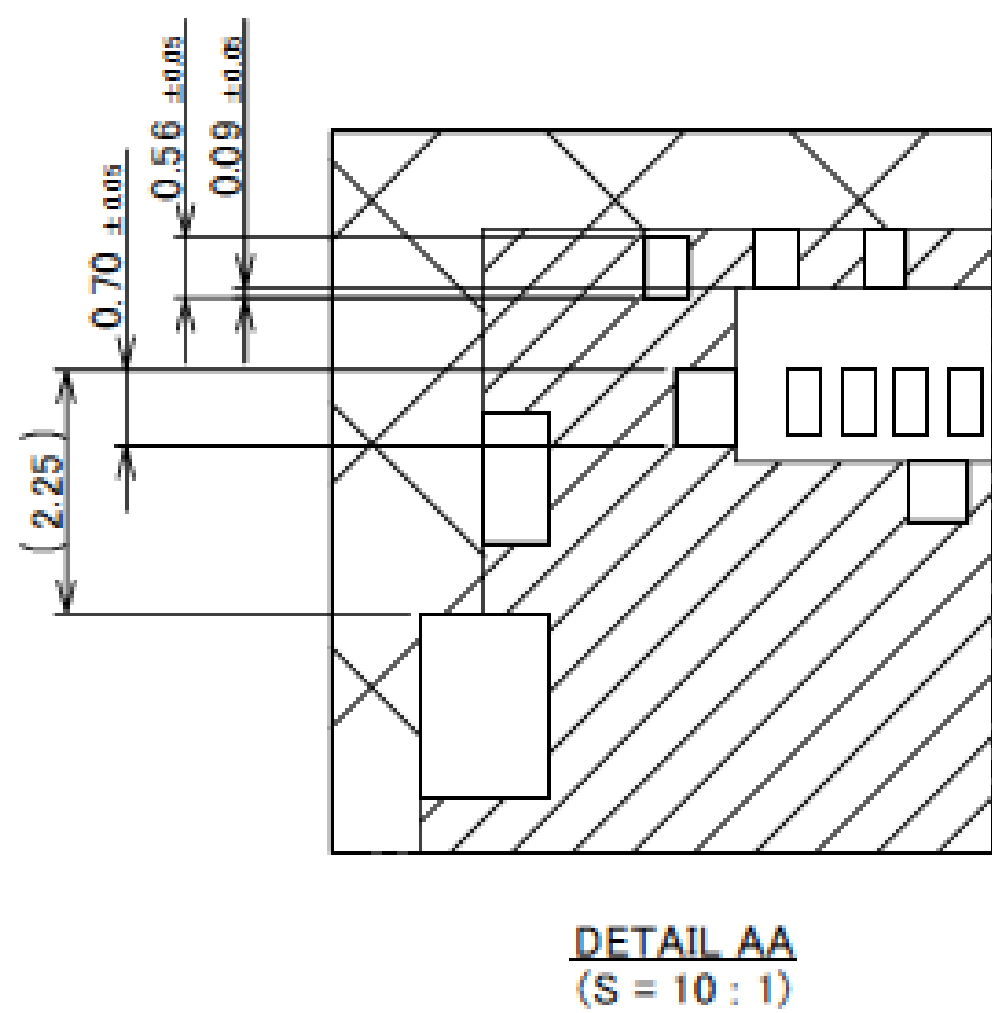
Receptacle Assembly



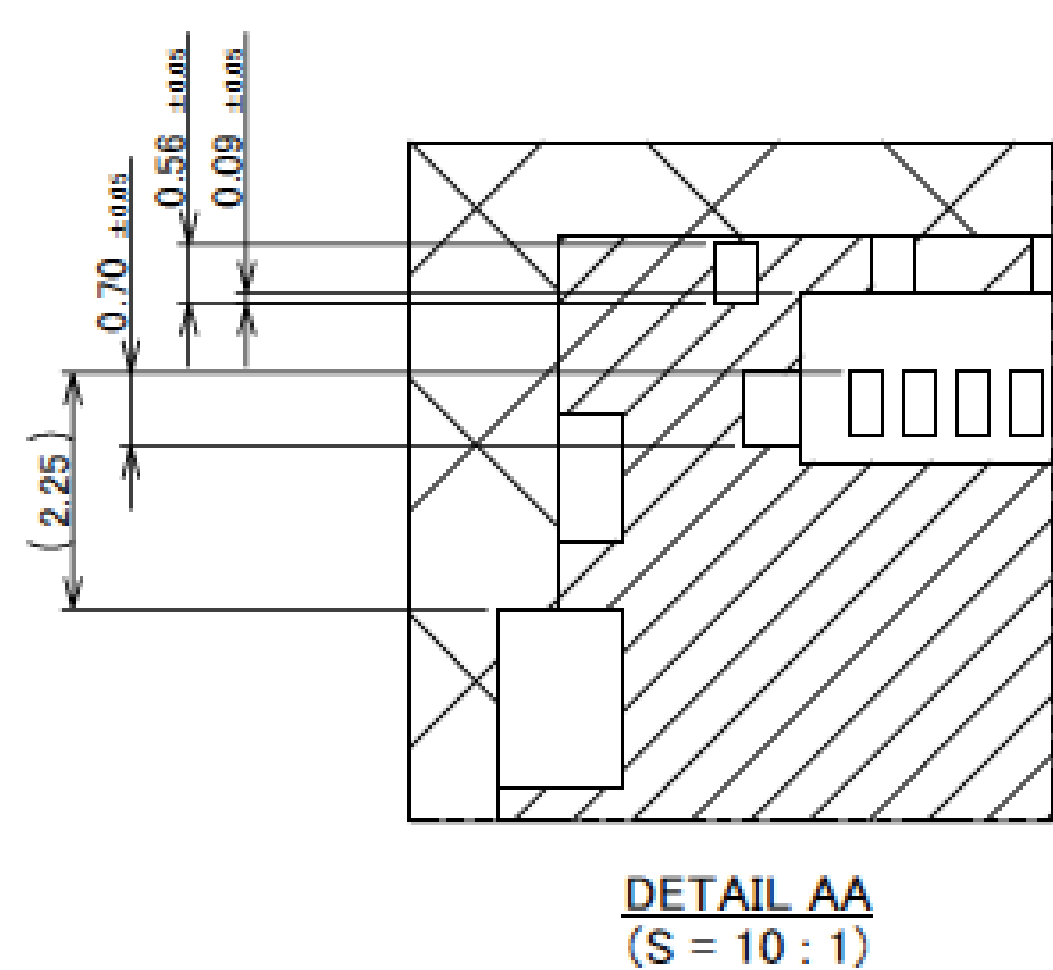
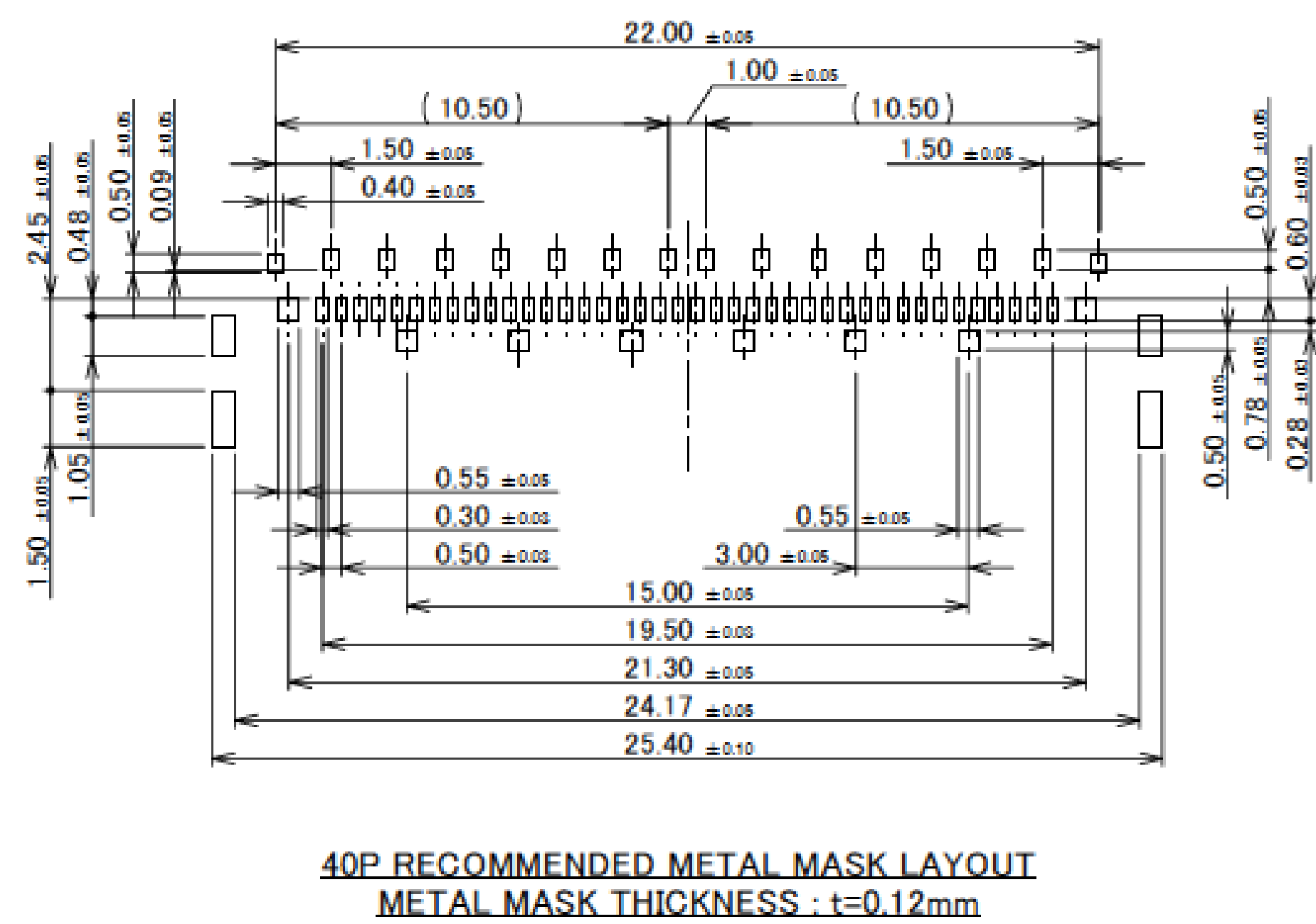
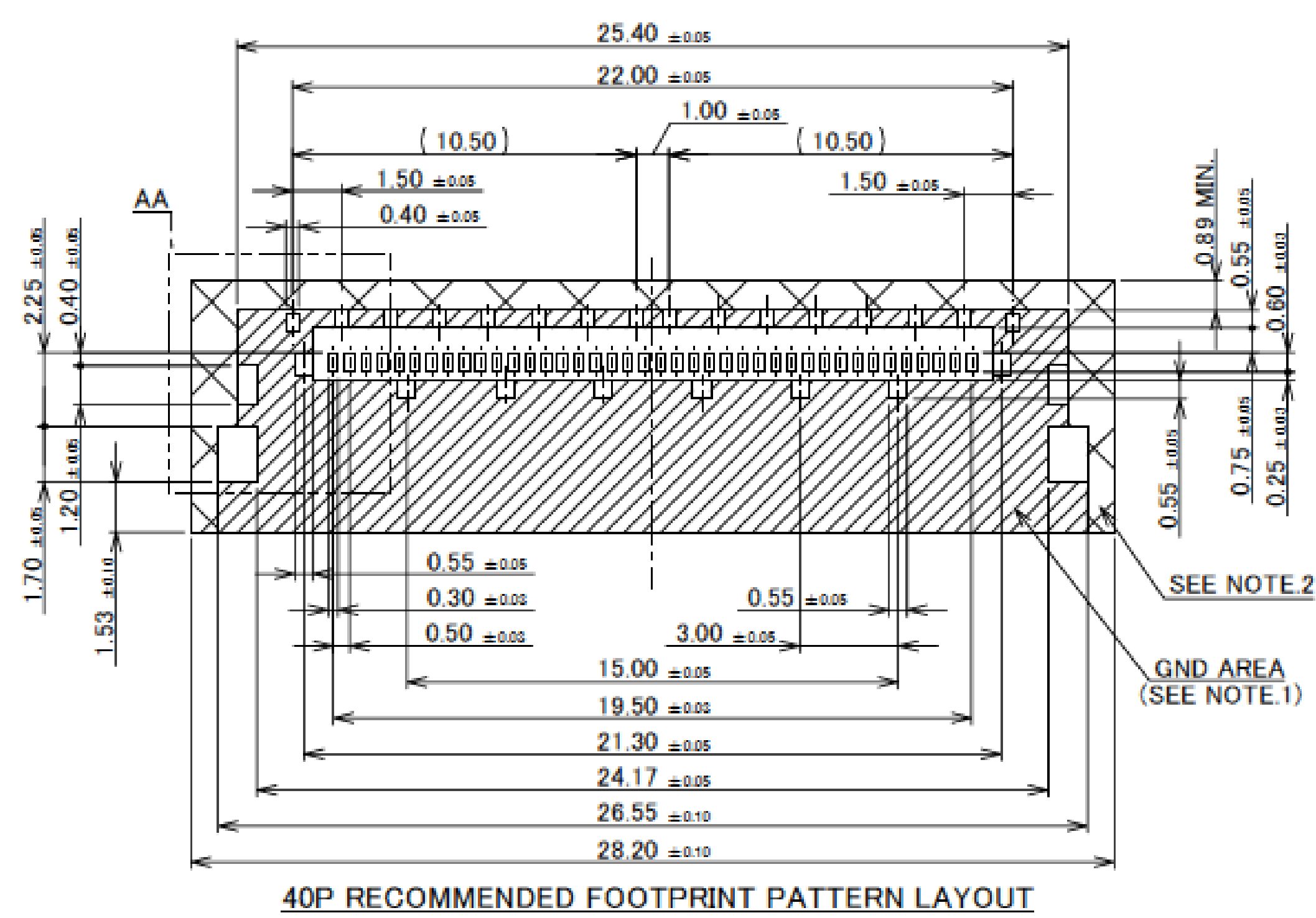
NOTES:
1. SOLDER RESIST MUST BE APPLIED TO THIS AREA.
2. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.



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

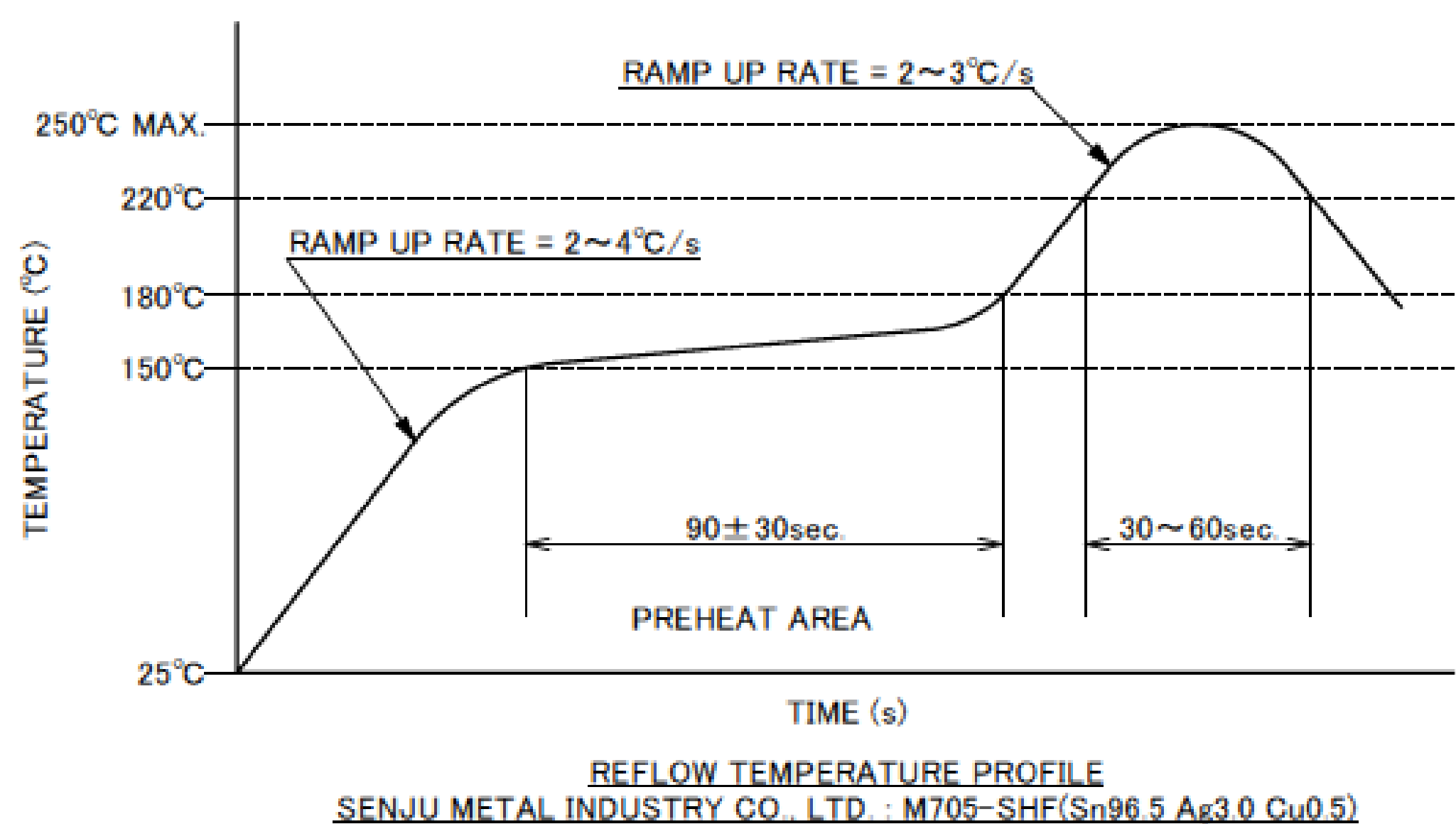
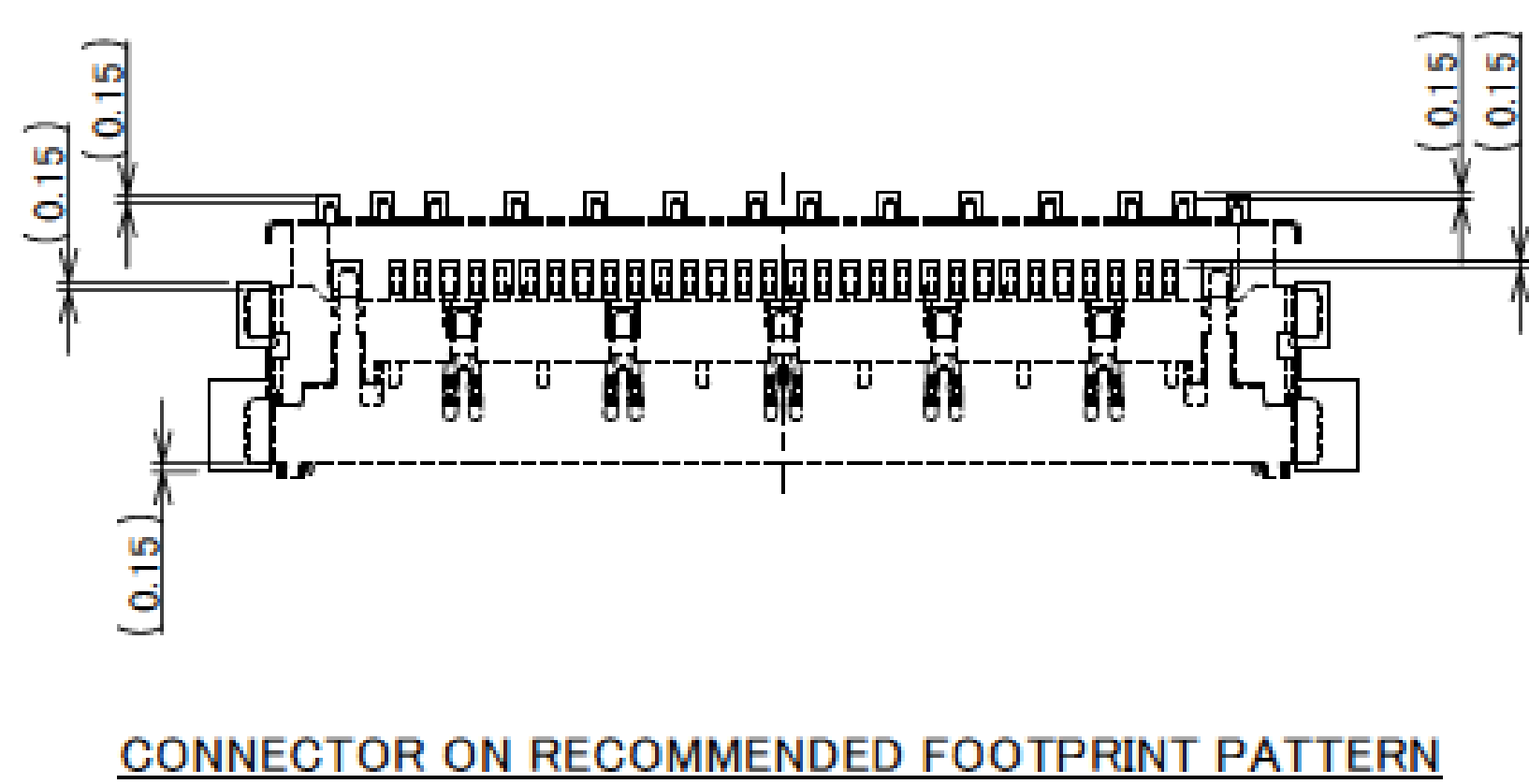


Receptacle Assembly



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

Rev.14



Rev.14

Receptacle Assembly

FOR CABLINE-VS II PLUG CABLE ASSEMBLY (DWG NO. 20846)

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG# 44 , 42 , 40 , 38 , 36 DISCRETE WIRE : AWG# 36 , 34 , 32 TWINAX CABLE : AWG# 40
RATING VOLTAGE	100V AC (PER CONTACT PIN) ※THIS IS THE RATED VOLTAGE OF THE CONNECTOR. PLEASE NOTE THAT THE RATED VOLTAGE MAY VARY IN THE HARNESS DEPENDING ON THE CABLES USED.
RATING AMPERAGE (FOR CONTACT)	0.1A AC/DC [AWG#44] PER CONTACT PIN/UP TO 40 CONTACTS 0.24A AC/DC [AWG#42] PER CONTACT PIN/UP TO 40 CONTACTS 0.3A AC/DC [AWG#40] PER CONTACT PIN/UP TO 40 CONTACTS 0.5A AC/DC [AWG#38] PER CONTACT PIN/UP TO 23 CONTACTS 0.8A AC/DC [AWG#36] PER CONTACT PIN/UP TO 10 CONTACTS 1.0A AC/DC [AWG#34] FOR POWER PER CONTACT PIN/UP TO 9 CONTACTS 1.0A AC/DC [AWG#32] FOR POWER PER CONTACT PIN/UP TO 9 CONTACTS ※TESTING BY A REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION.
OPERATING TEMPERATURE	233~378K(-40℃~+105℃)
OPERATING HUMIDITY	85% MAX.
CONTACT RESISTANCE	INITIAL : 140mohm MAX.(AWG#32) / AFTER TEST : ≦140mohm MAX. 180mohm MAX.(AWG#34) 275mohm MAX.(AWG#36) 360mohm MAX.(AWG#38) 600mohm MAX.(AWG#40) 700mohm MAX.(AWG#42) 1080mohm MAX.(AWG#44)
GROUND SHELL RESISTANCE	INITIAL : 50mohm MAX. / AFTER TEST : ≦140mohm MAX.
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER 30 CYCLES)	20P : 9.70N MAX. / 30P : 14.55N MAX. / 40P : 19.40N MAX.
UNMATING FORCE (INITIAL / AFTER 30 CYCLES)	20P : 2.00N MIN. / 30P : 3.00N MIN. / 40P : 4.00N MIN.
CABLE RETENTION FORCE	20P : 9.80N MIN. / 30P : 14.70N MIN. / 40P : 19.60N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-2398
TEST REPORT	TR-17060 (20849-0**E-01) / TR-18048 (20849-0**E-02)
PACKING STANDARD	PST-17079
INSTRUCTION MANUAL	HIM-17015
ASSEMBLY MANUAL	ASM-17005
APPEARANCE CRITERIA No.	QLS-A***

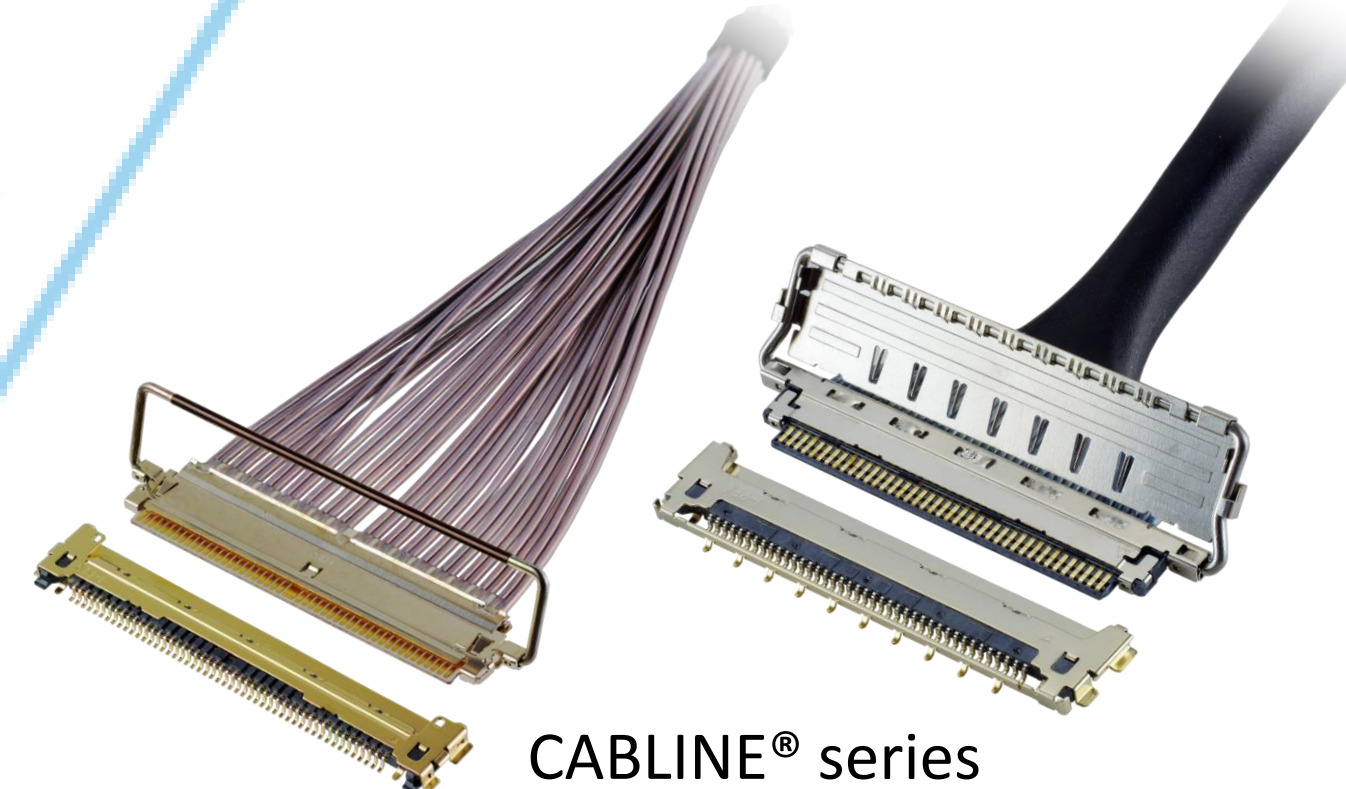
Custom Connectors Available

 RF
Connectors

MHF® series



Micro-Coaxial/Twinax
Connectors

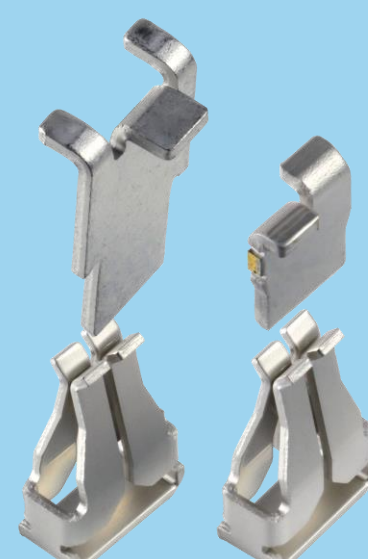


CABLIME® series

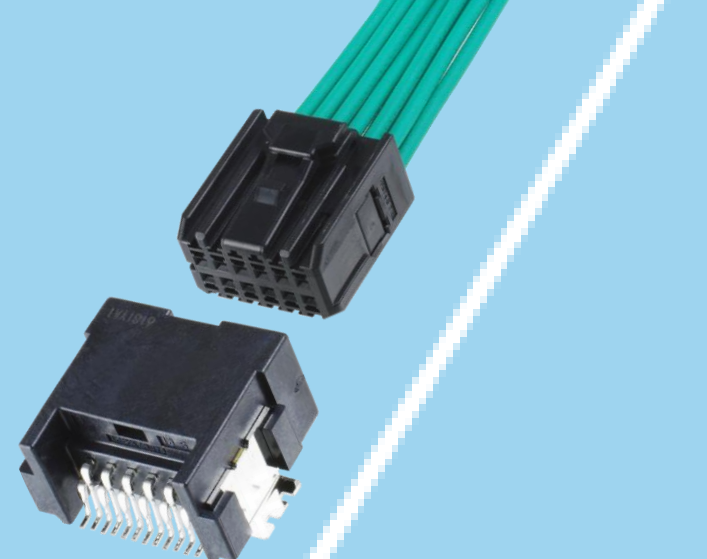


Wire-to-Board
Connectors/
Terminals

AP series



ISH® series



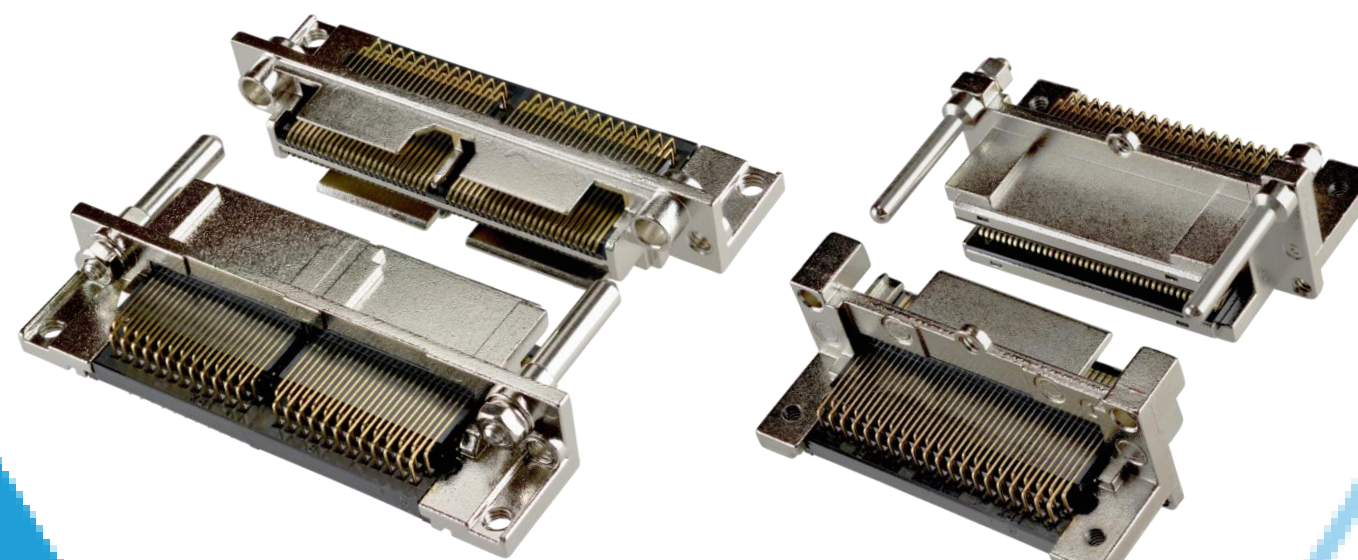
NOVASTACK® series



Board-to-Board
Connectors



I/O
Connectors



MINIDOCK™ series



FPC/FFC
Connectors

MINIFLEX® series

EVAFLEX® series



Inquiry



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