

CABLINE® -VS II

全屏蔽，自带机械式锁扣，适用于高速数据传输 (PCIe Gen5 32 GT/s/lane), 0.5 mm间距，水平插拔式极细同轴线连接器

Product Specifications:

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

Applicable Cable Size:

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

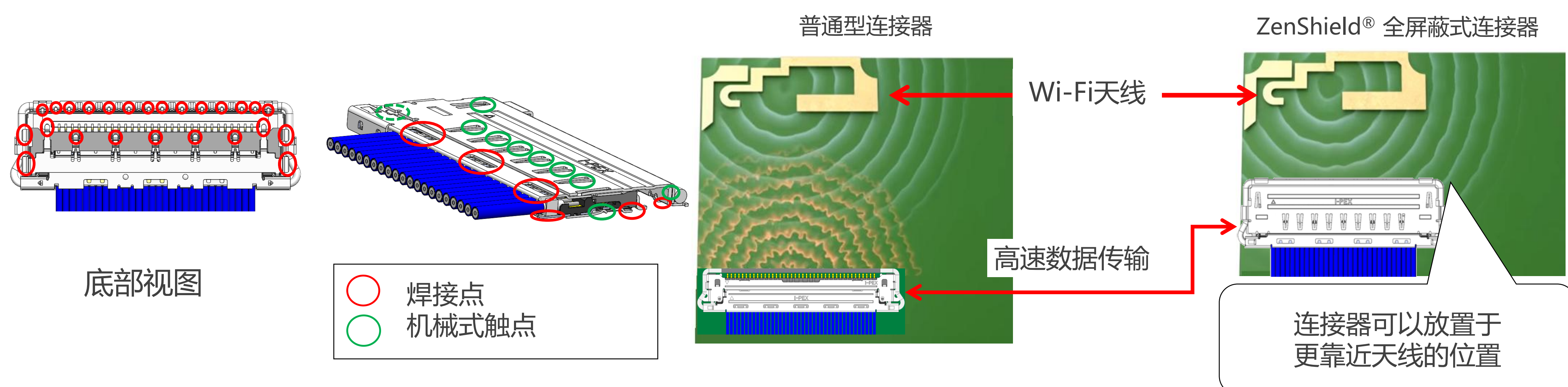
Applicable Standards (Reference Only):

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

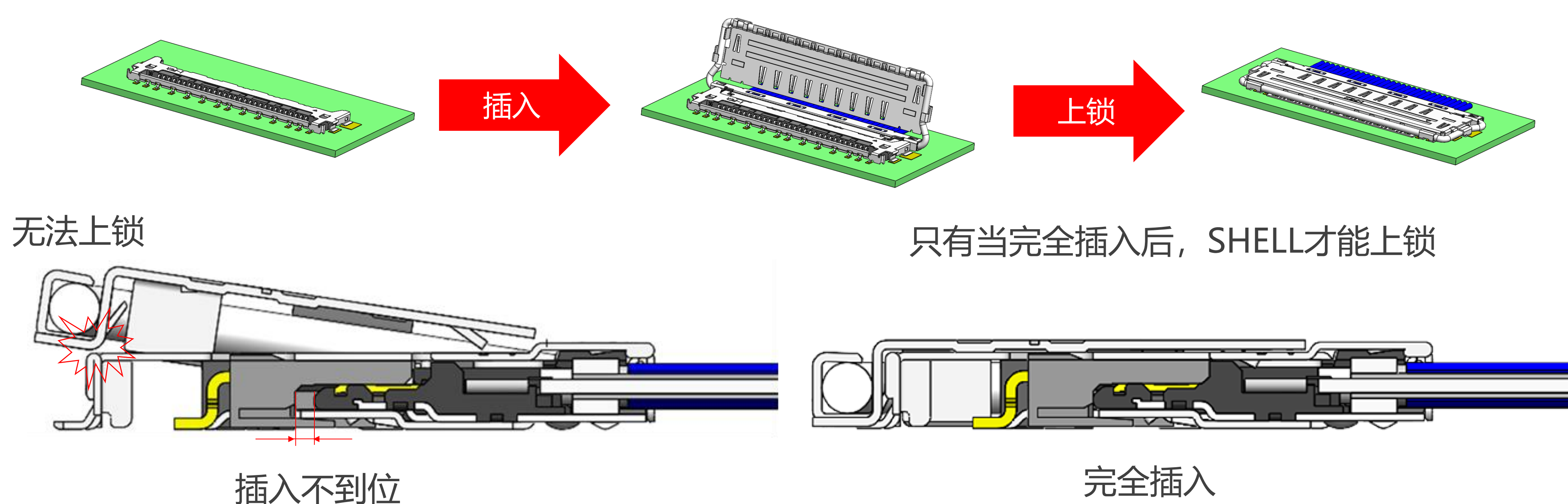
*如您需要了解未列出或不在范围内的Pin数，请咨询我们。



► ZenShield® 的全屏蔽设计和多点接地结构，EMC 解决方案的理想选择



► 机械式锁扣罩防止连接器不完全嵌合及脱落



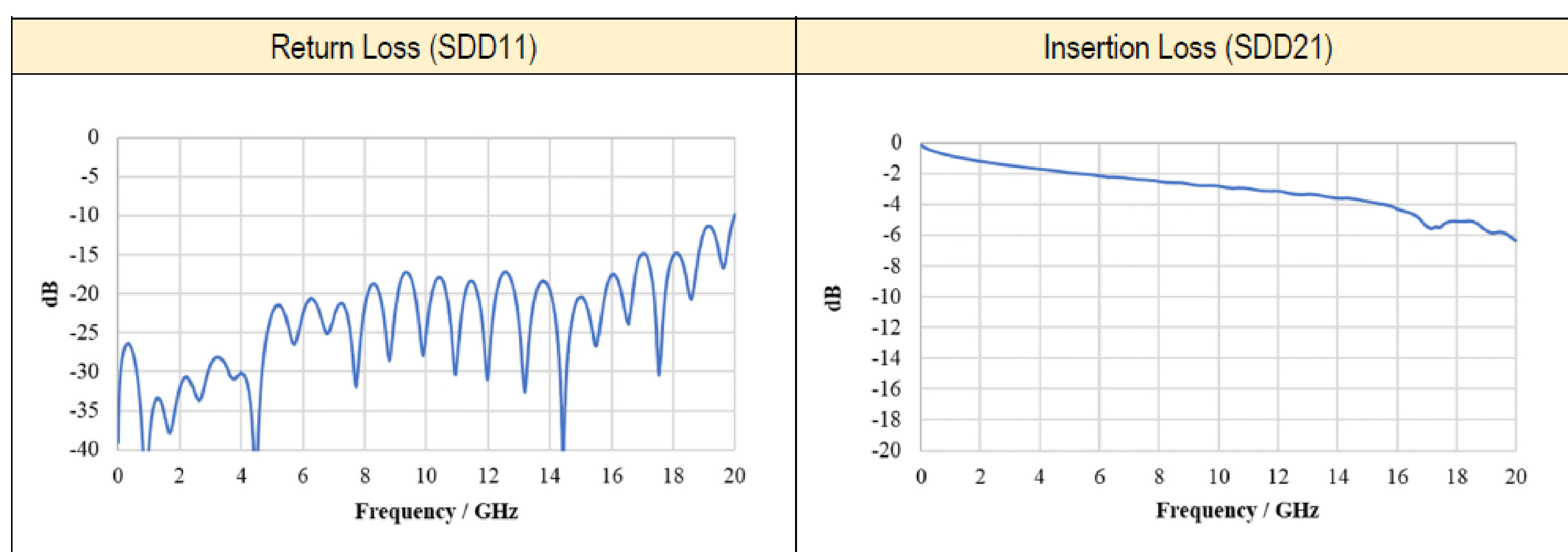
► 高速率传输, PCIe Gen5 32 GT/s/lane应用的理想之选

Measurement results

Connector: CABLINE-VS II 40 pin

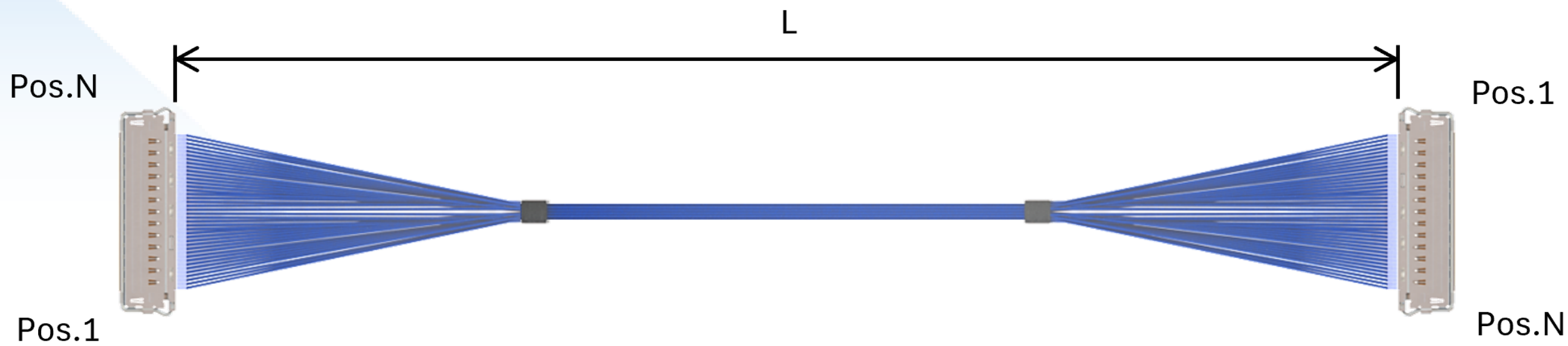
Cable: Micro-coaxial cable
AWG 40, 45ohm, Length: 100 mm

Pin Assignment: GSSGSSG

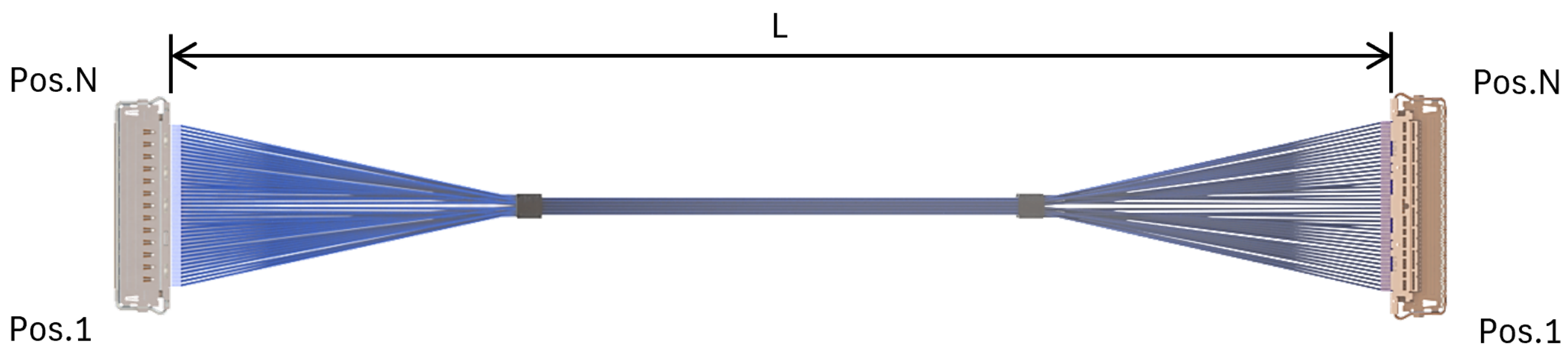


CABLINE® -VS II standard harness

- ◆ Please click the part number to get its 2D drawing.
- ◆ Please be advised that if it becomes necessary to change the harness specifications, the part number will also need to be updated. The following part number is valid only when used with the harness specifications shown below.
- ◆ Please contact us via [Inquiry form](#) for other harness specifications.



Part Number Description	Part Number (Link to Drawing)	Sample available
CABLINE-VS II harness 20pin micro-coaxial 40AWG L=200mm 1-N	81619-100B-02-D	Buy from Digikey
CABLINE-VS II harness 30pin micro-coaxial 40AWG L=100mm 1-N	82188-100B-02-D	Buy from Digikey
CABLINE-VS II harness 30pin micro-coaxial 40AWG L=200mm 1-N	81457-100B-02-D	Buy from Digikey
CABLINE-VS II harness 30pin micro-coaxial 40AWG L=300mm 1-N	82291-100B-02-D	Buy from Digikey
CABLINE-VS II harness 40pin micro-coaxial 40AWG L=100mm 1-N	82660-100B-02-D	Buy from Digikey
CABLINE-VS II harness 40pin micro-coaxial 40AWG L=200mm 1-N	81458-100B-02-D	Buy from Digikey
CABLINE-VS II harness 40pin micro-coaxial 40AWG L=300mm 1-N	82661-100B-02-D	Buy from Digikey

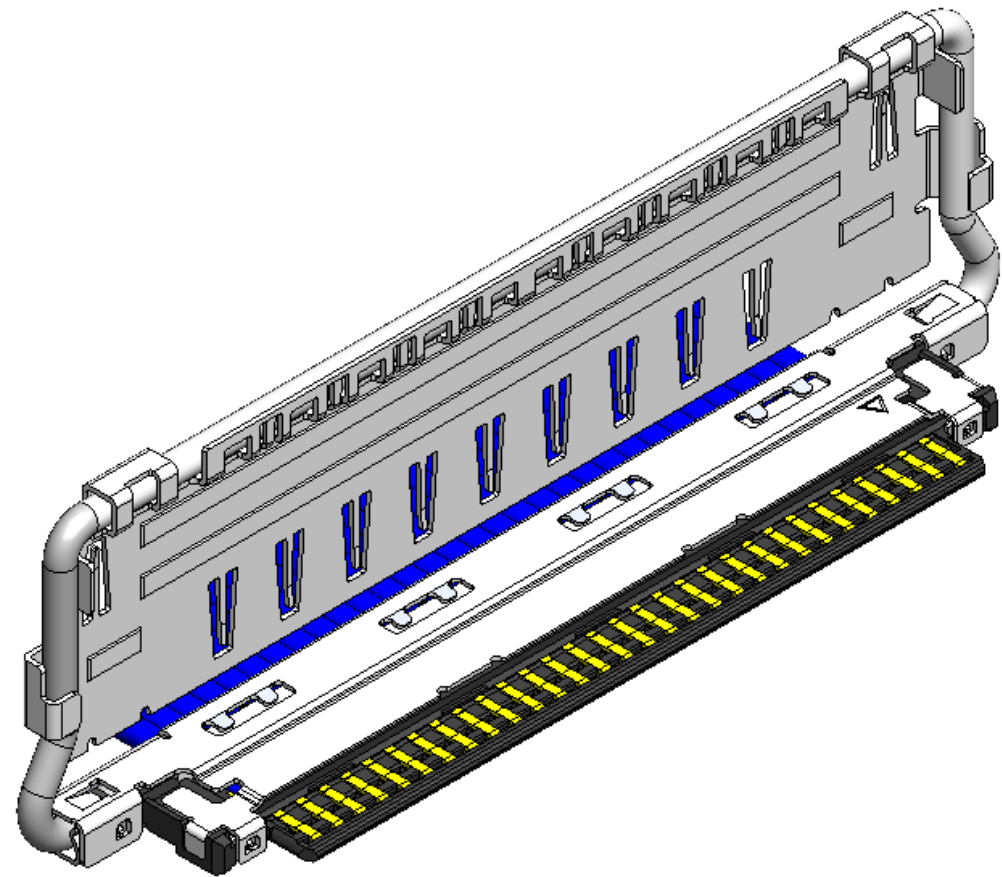


Part Number Description	Part Number (Link to Drawing)	Sample available
CABLINE-VS II harness 30pin micro-coaxial 40AWG L=100mm 1-1	82693-100B-01-D	Contact us
CABLINE-VS II harness 30pin micro-coaxial 40AWG L=200mm 1-1	82694-100B-01-D	Contact us
CABLINE-VS II harness 30pin micro-coaxial 40AWG L=300mm 1-1	82695-100B-01-D	Contact us
CABLINE-VS II harness 40pin micro-coaxial 40AWG L=100mm 1-1	82696-100B-01-D	Contact us
CABLINE-VS II harness 40pin micro-coaxial 40AWG L=200mm 1-1	82697-100B-01-D	Contact us
CABLINE-VS II harness 40pin micro-coaxial 40AWG L=300mm 1-1	82698-100B-01-D	Contact us

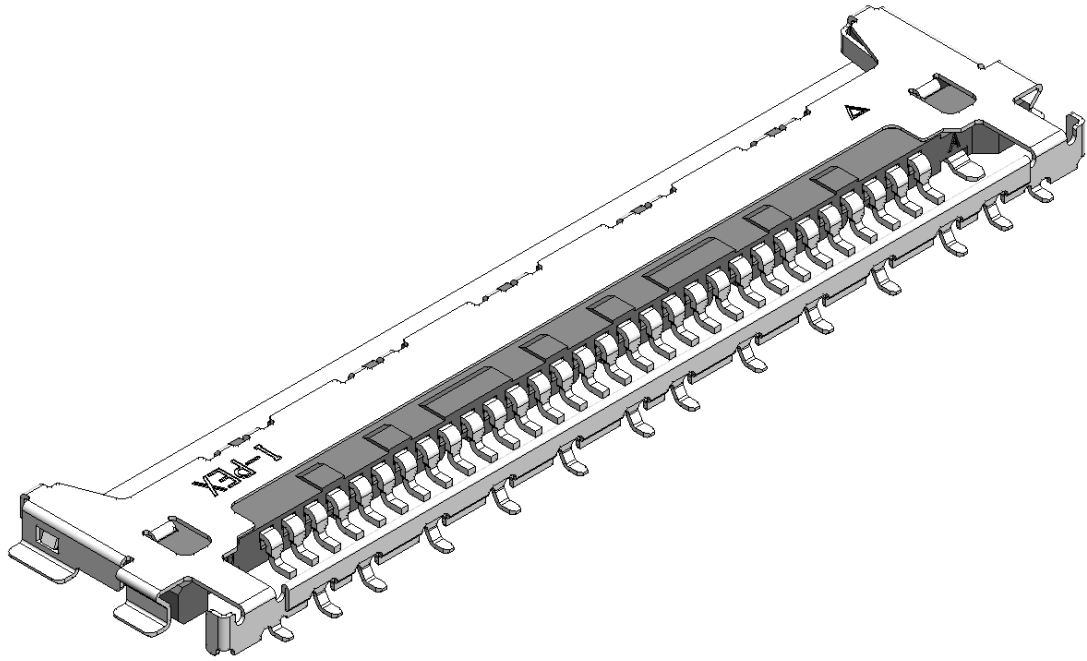
Component Parts Details

Component Parts

Connector parts

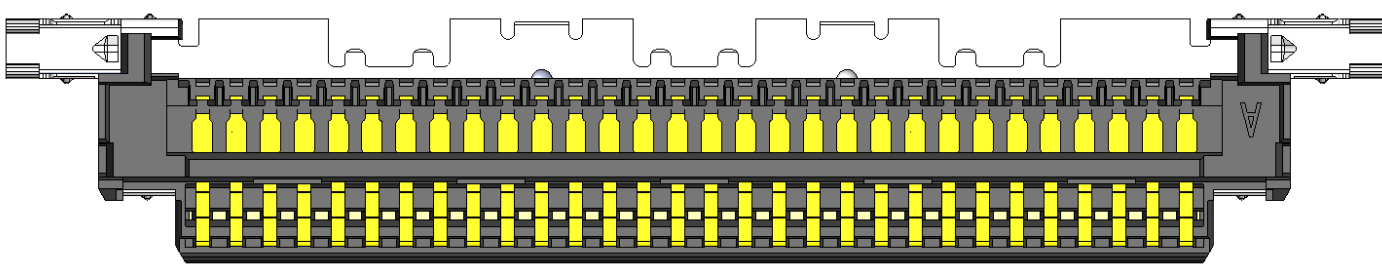


PLUG

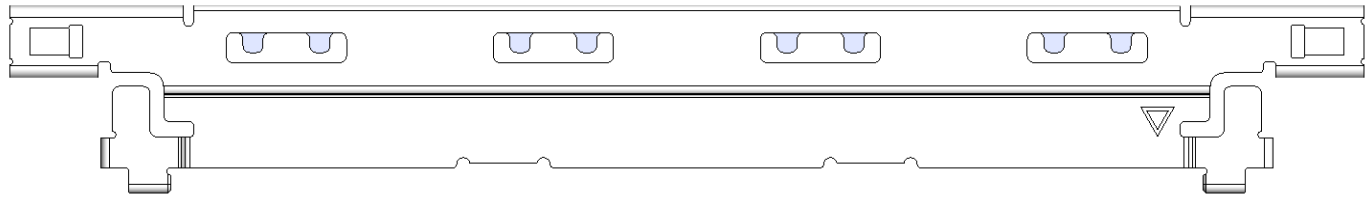


RECEPTACLE

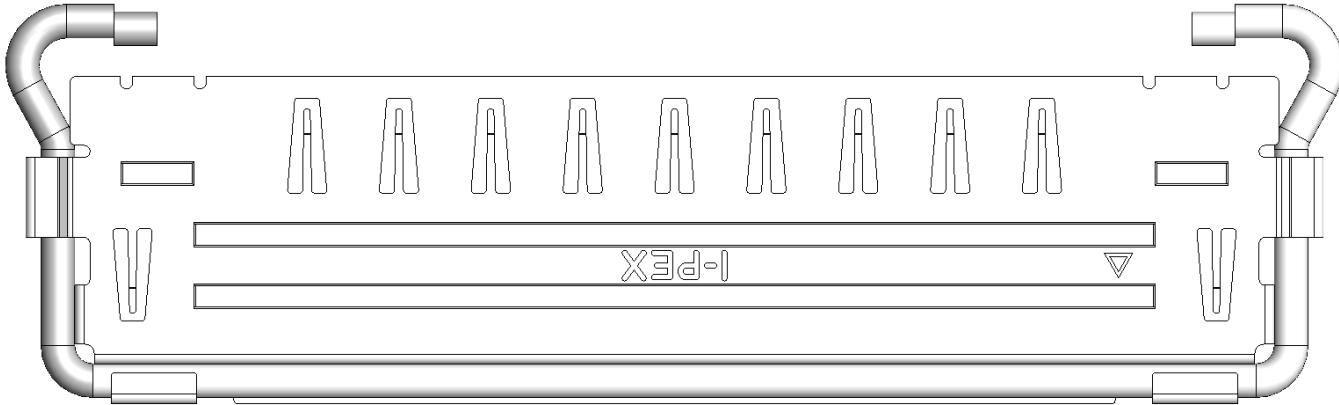
Plug parts



PLUG HOUSING ASSEMBLY



PLUG SHELL-A



PLUG LOCK BAR ASSEMBLY

Plug for Cable Assembly

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

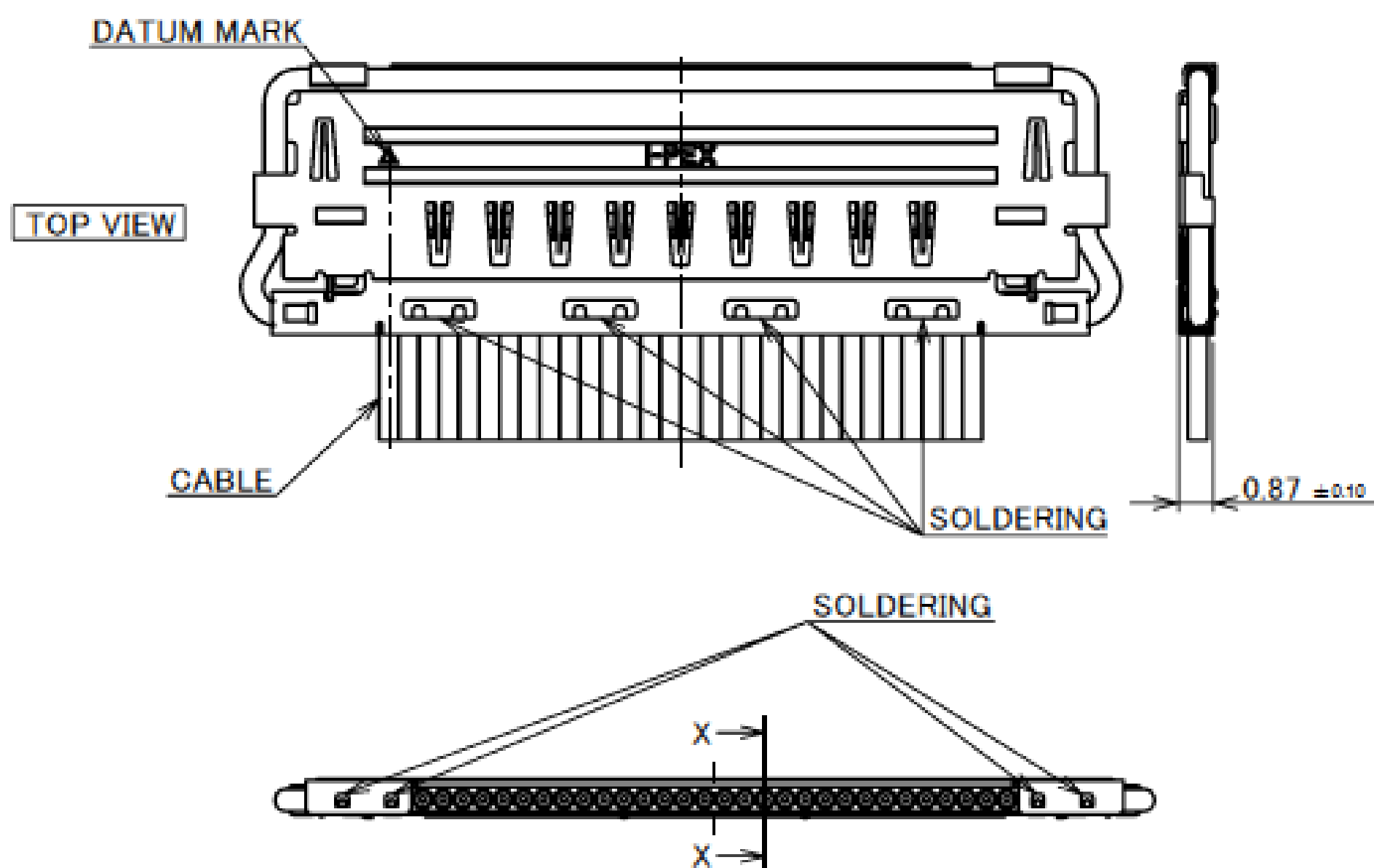
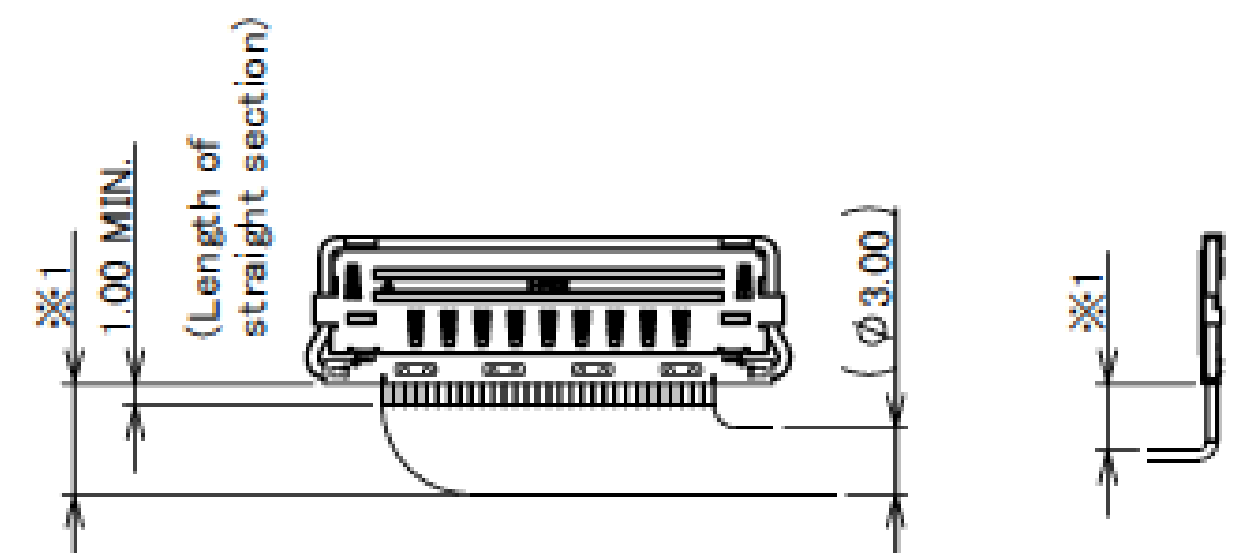
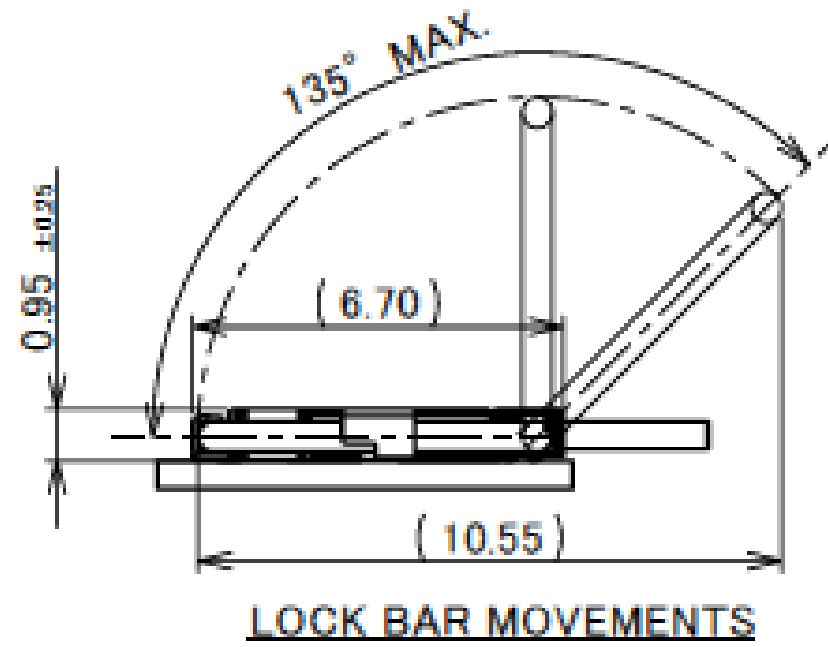
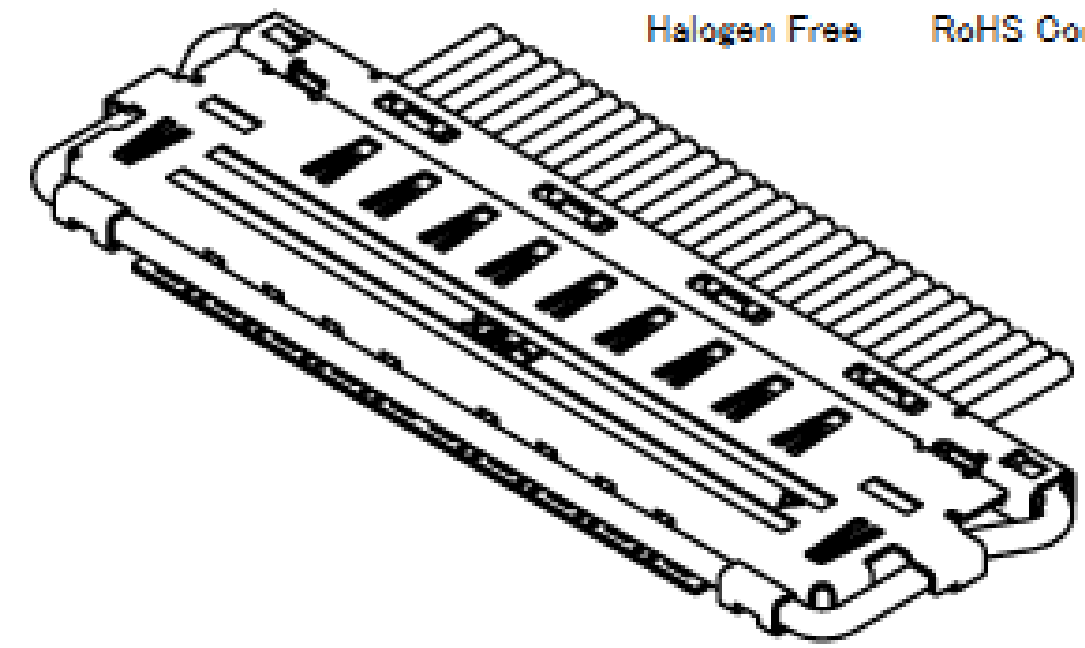
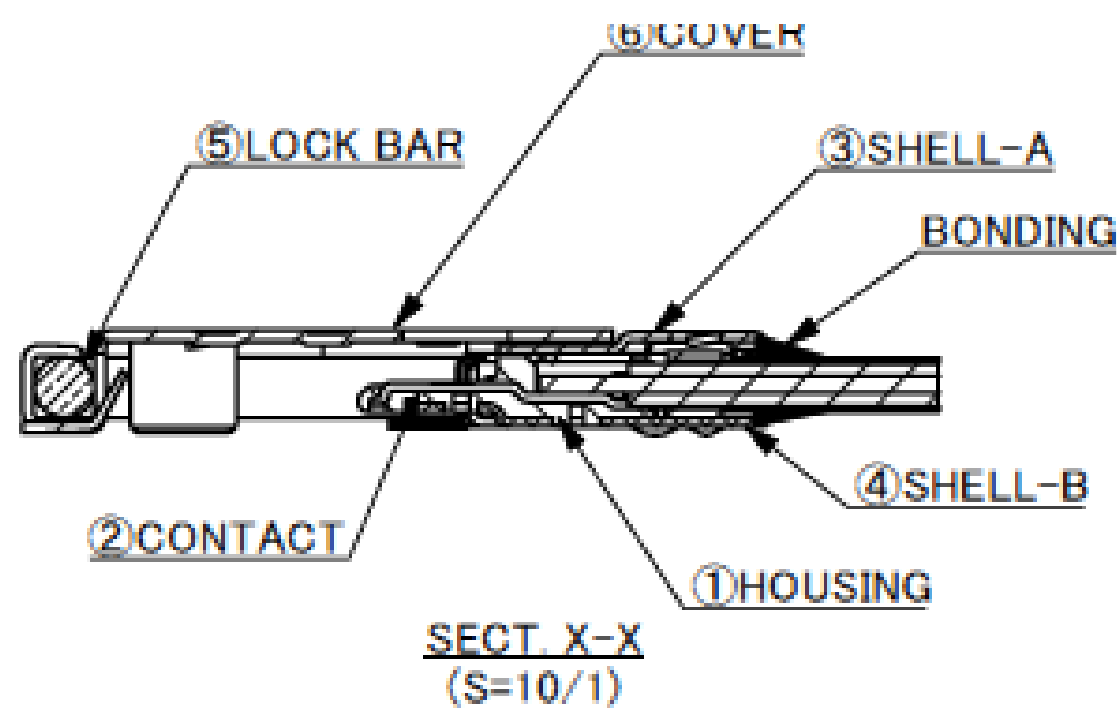
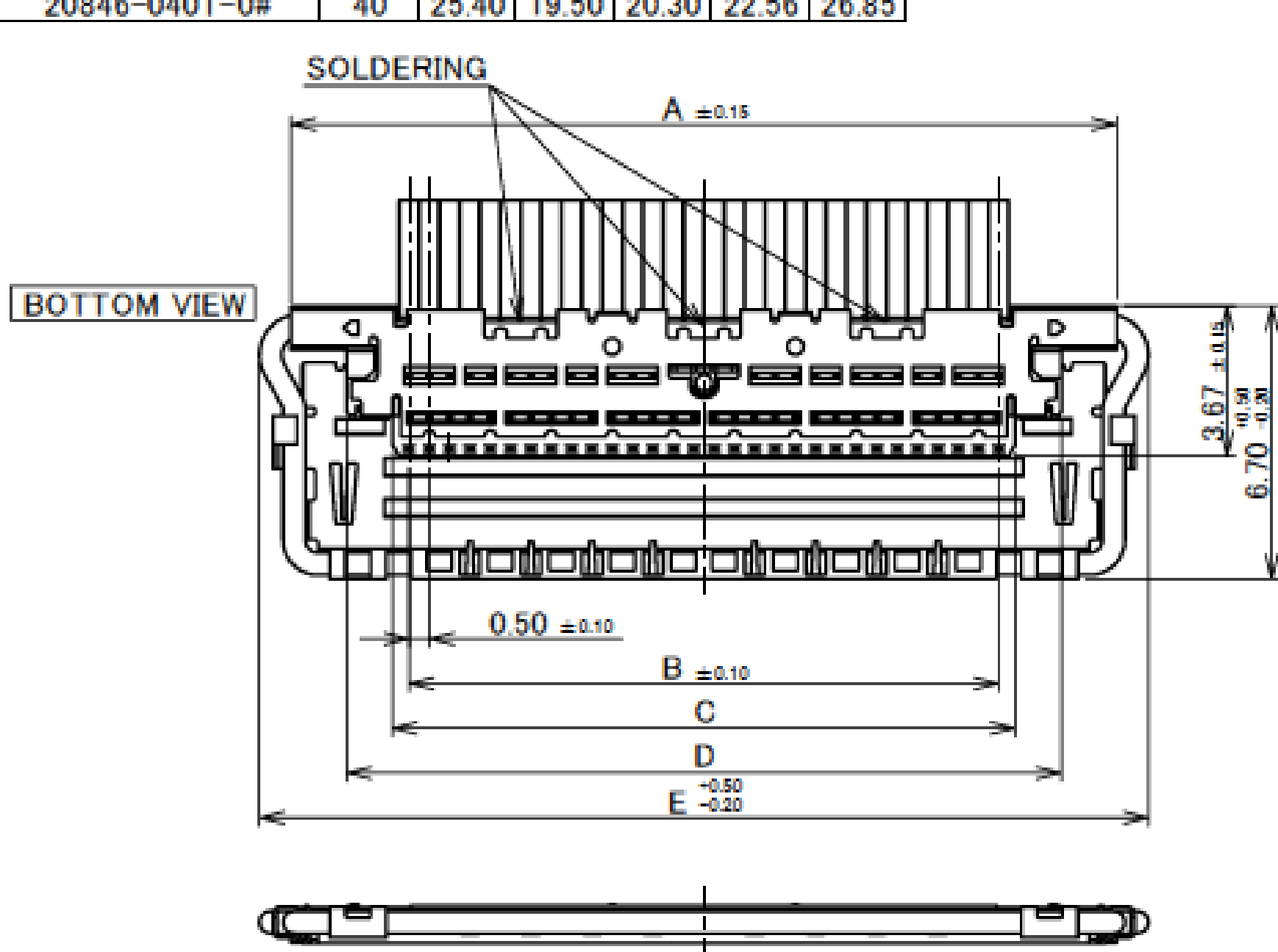
PART NO.	Pos.	A	B	C	D	E
20846-020T-0#	20	15.30	9.50	10.30	12.56	16.85
20846-030T-0#	30	20.30	14.50	15.30	17.56	21.85
20846-040T-0#	40	25.40	19.50	20.30	22.56	26.85



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.

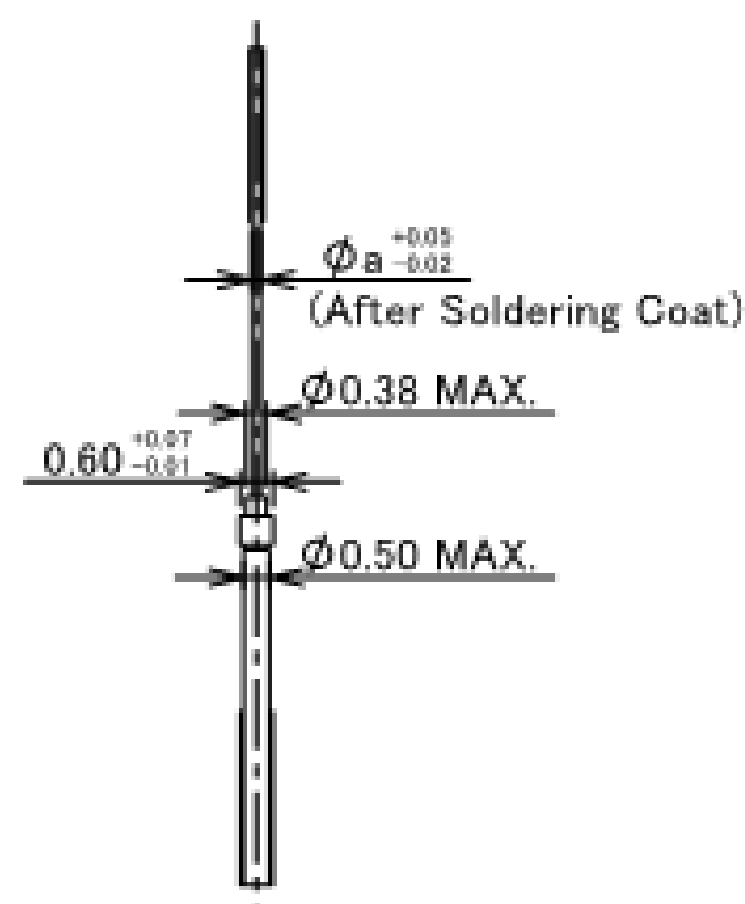
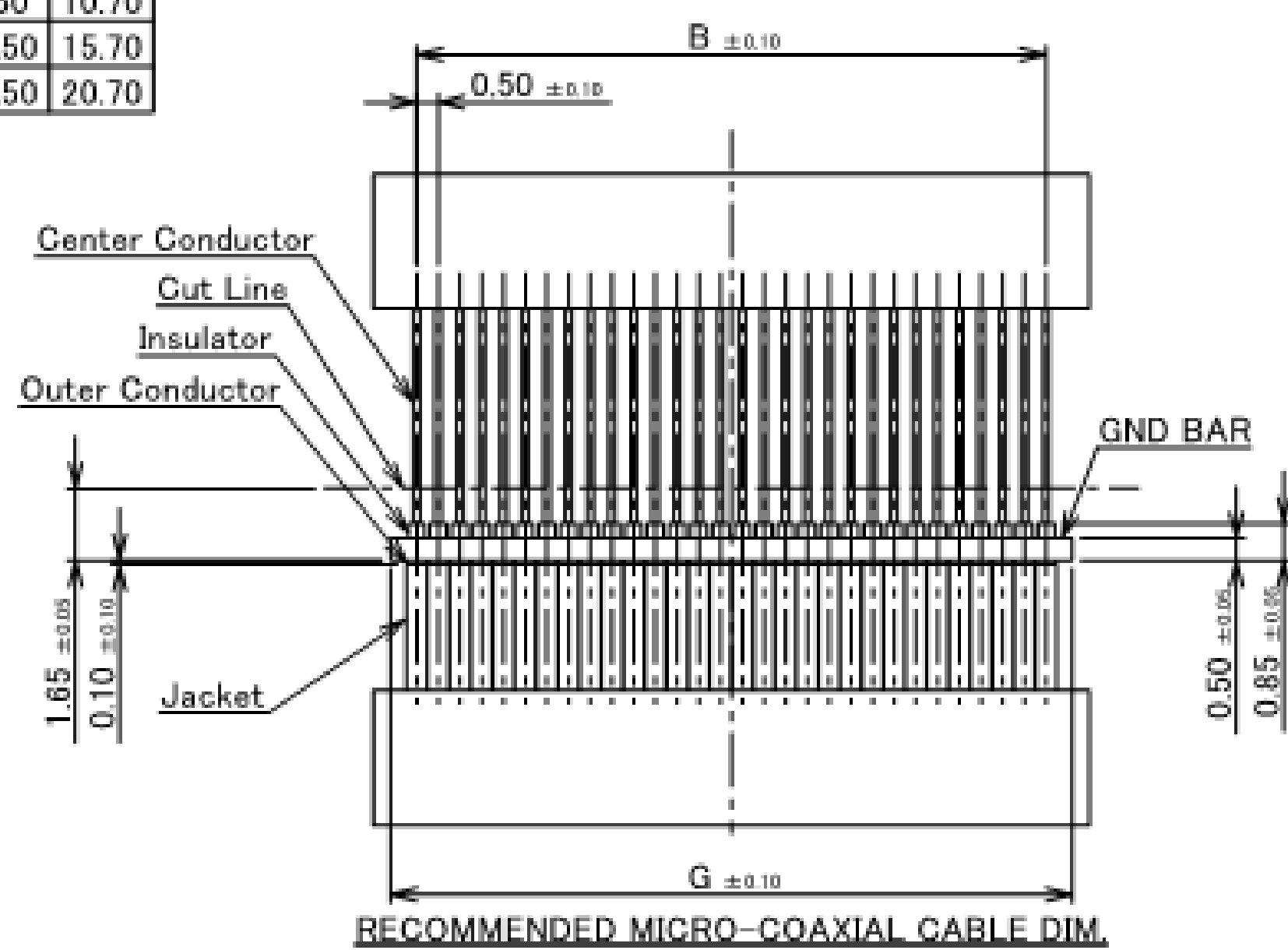
TABLE 1

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

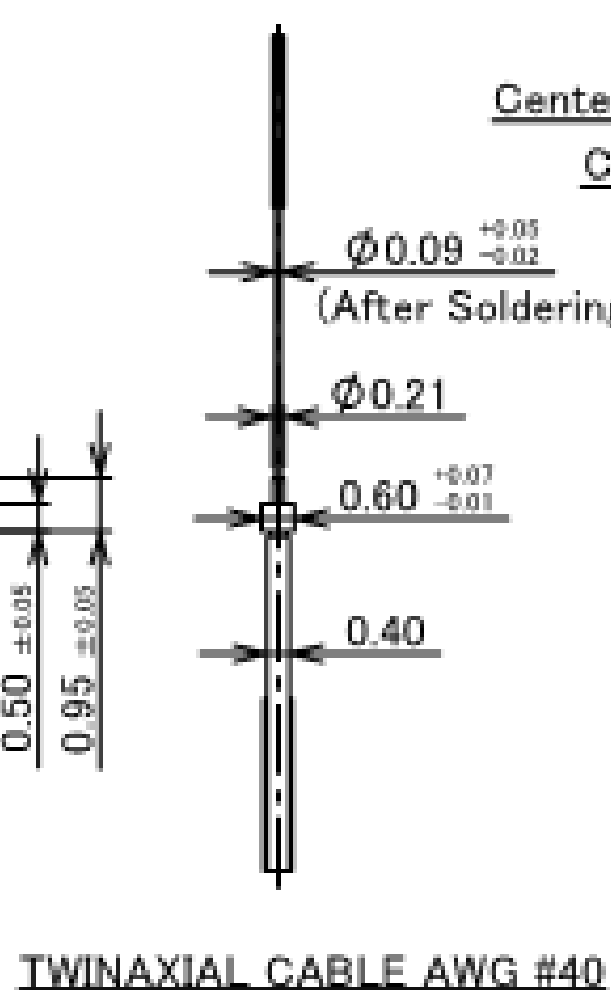
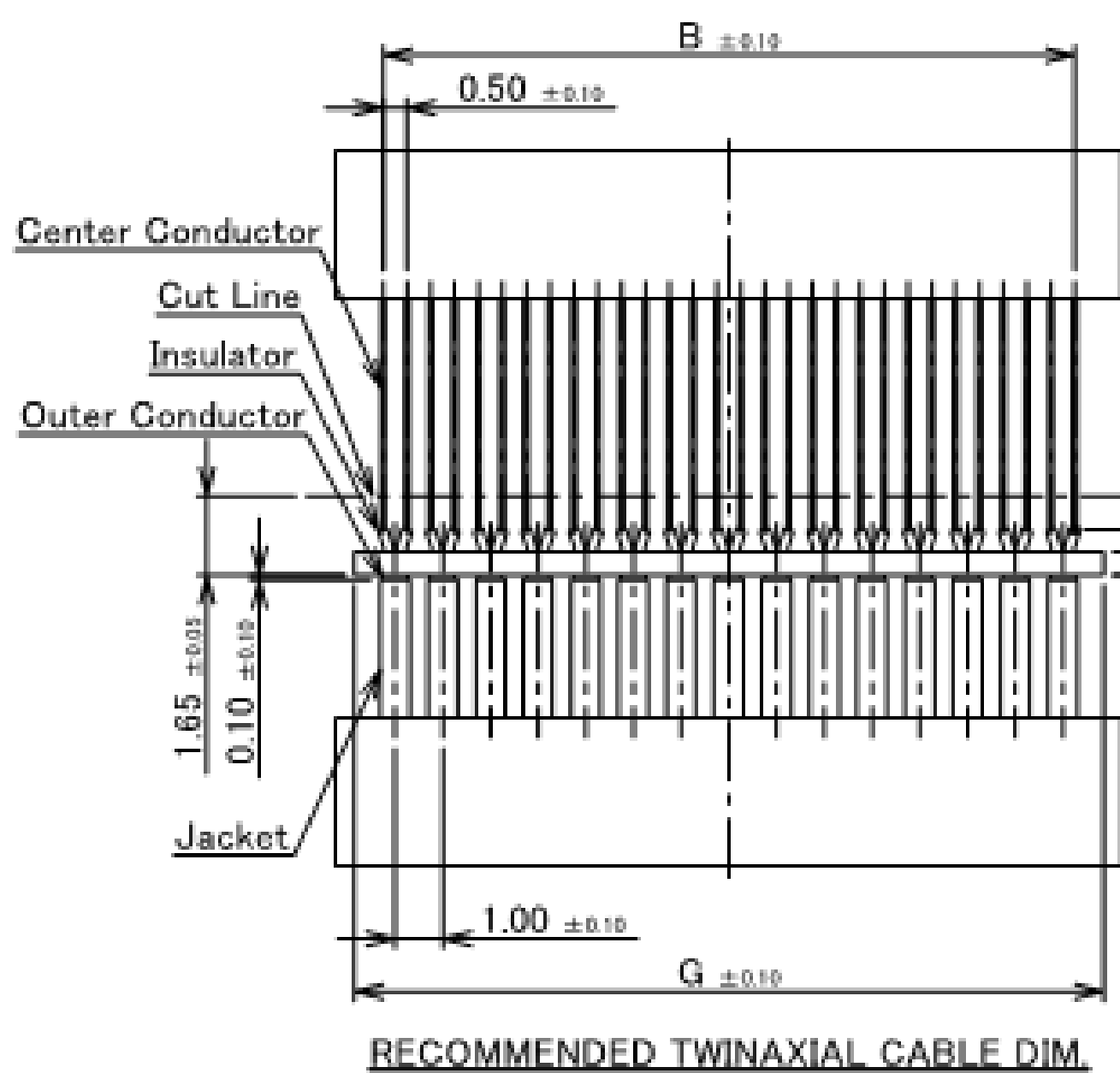
PART NO.	Pos.	B	G
20846-020T-0#	20	9.50	10.70
20846-030T-0#	30	14.50	15.70
20846-040T-0#	40	19.50	20.70



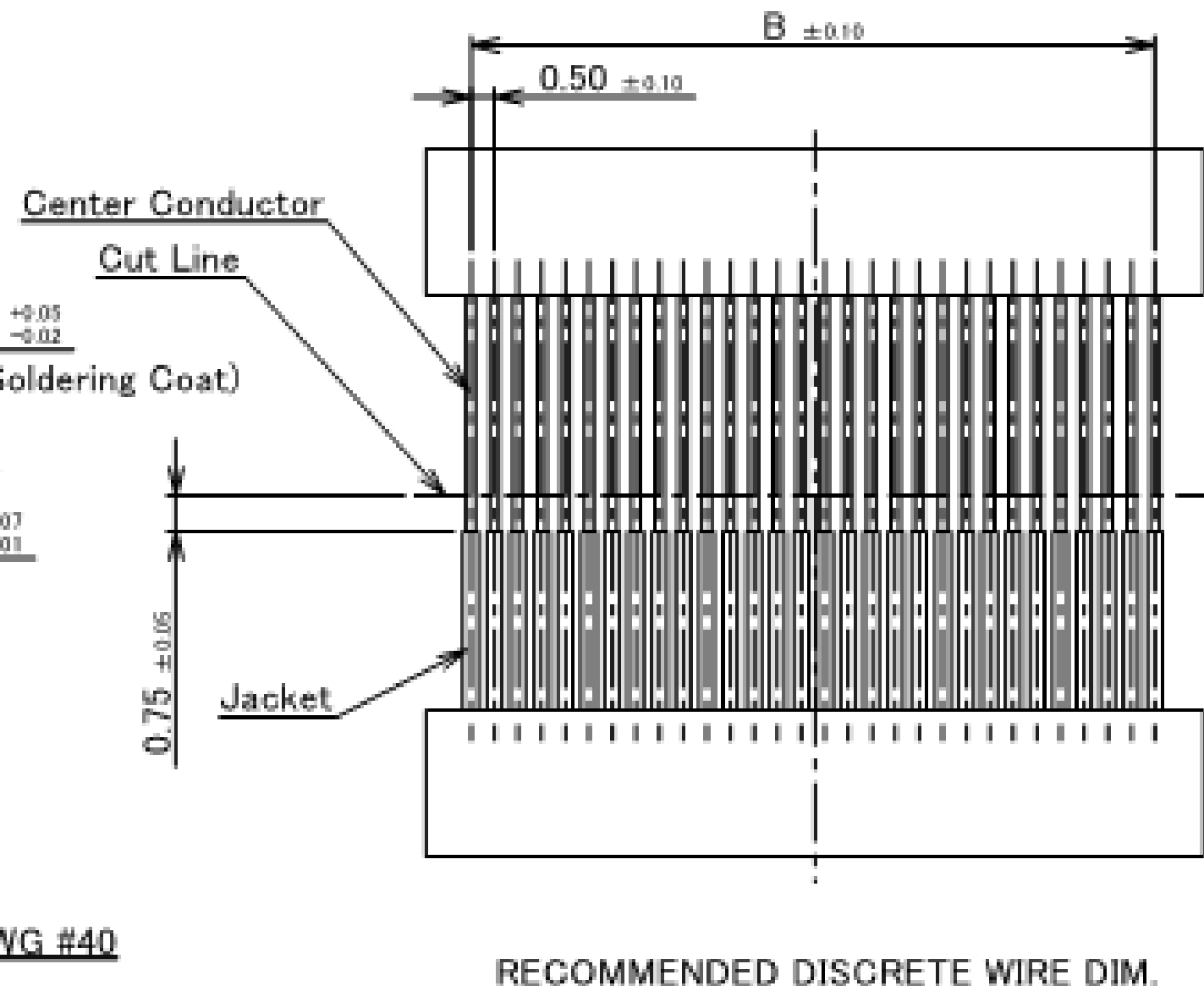
MICRO-COAXIAL CABLE DIMENSION

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

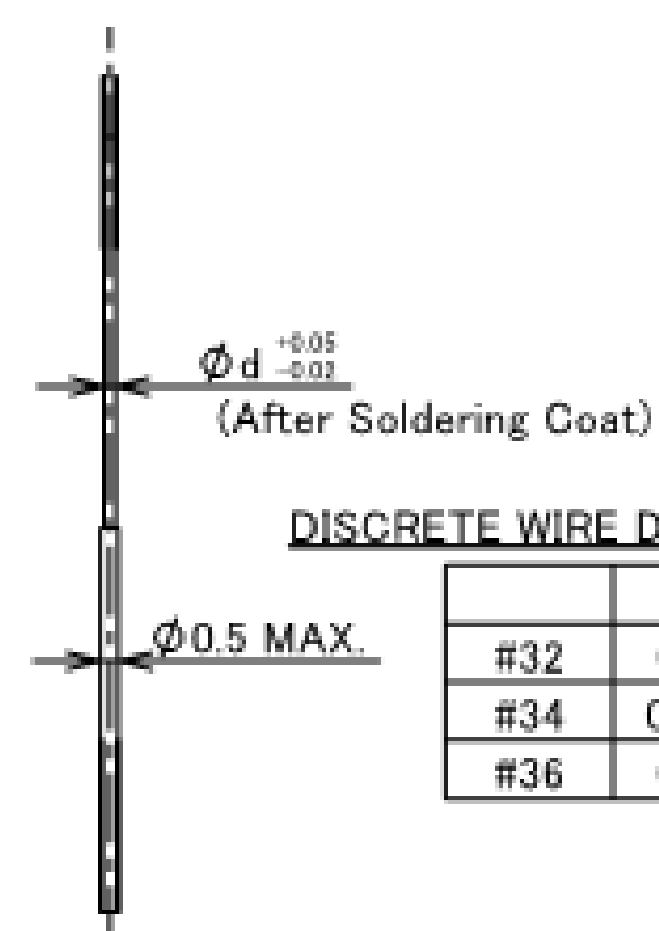
MICRO-COAXIAL CABLE AWG #**



TWINAXIAL CABLE AWG #40



RECOMMENDED DISCRETE WIRE DIM.



DISCRETE WIRE DIMENSION

	d
#32	0.24
#34	0.192
#36	0.15

DISCRETE WIRE AWG #**

Rev.14

Plug for Cable Assembly

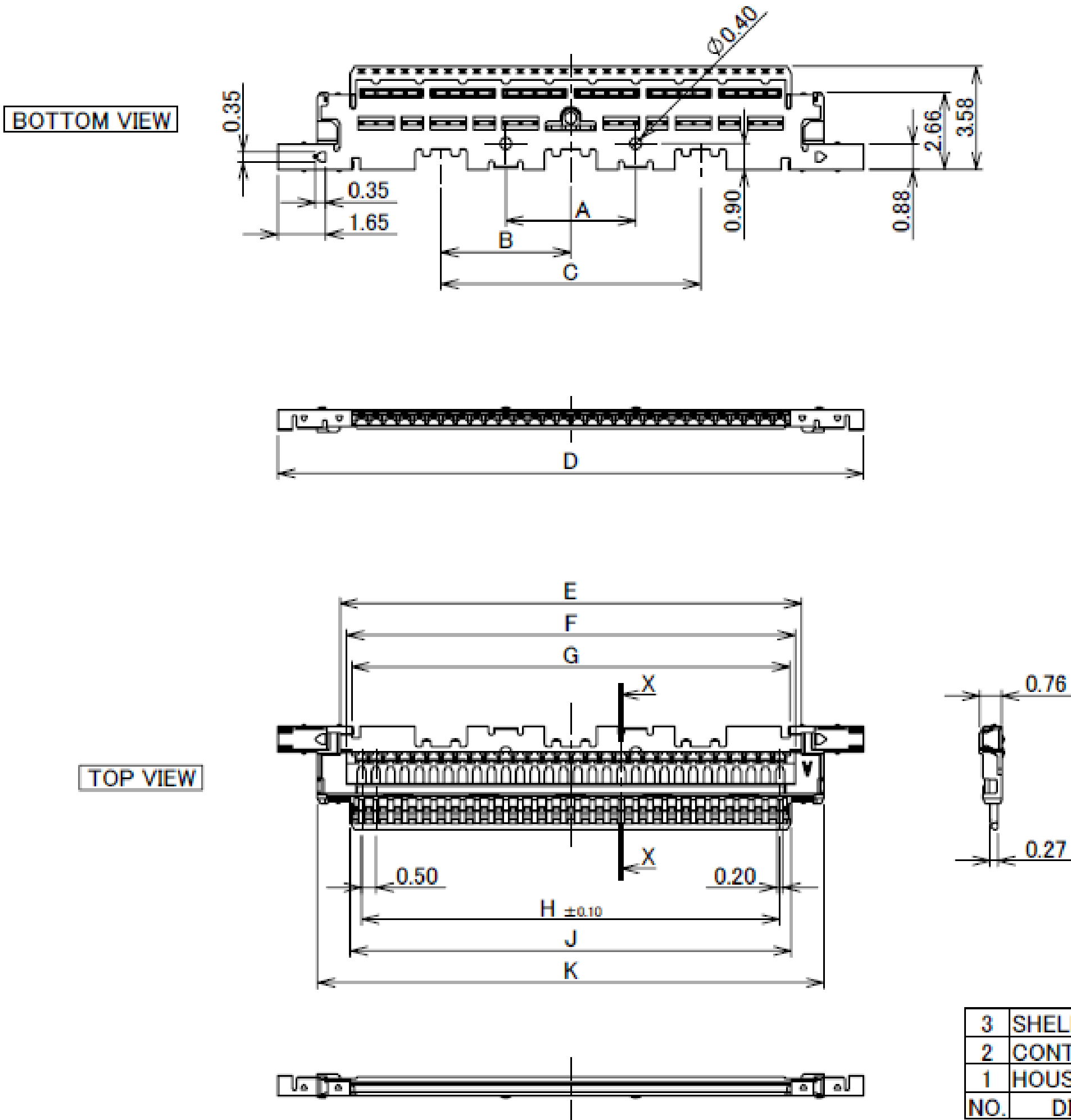
ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG #44 , 42 , 40 , 38 , 36 DISCRETE WIRE : AWG #36 , 34 , 32 TWINAXIAL CABLE : AWG #40
RATED VOLTAGE	100V AC (PER CONTACT PIN) ※THIS IS THE RATED VOLTAGE OF THE CONNECTOR. PLEASE NOTE THAT THE RATED VOLTAGE MAY VARY IN THE HARNESS DEPENDING ON THE CABLES USED.
RATED 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 TO 378K(-40°C TO +105°C)
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.
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.14

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#

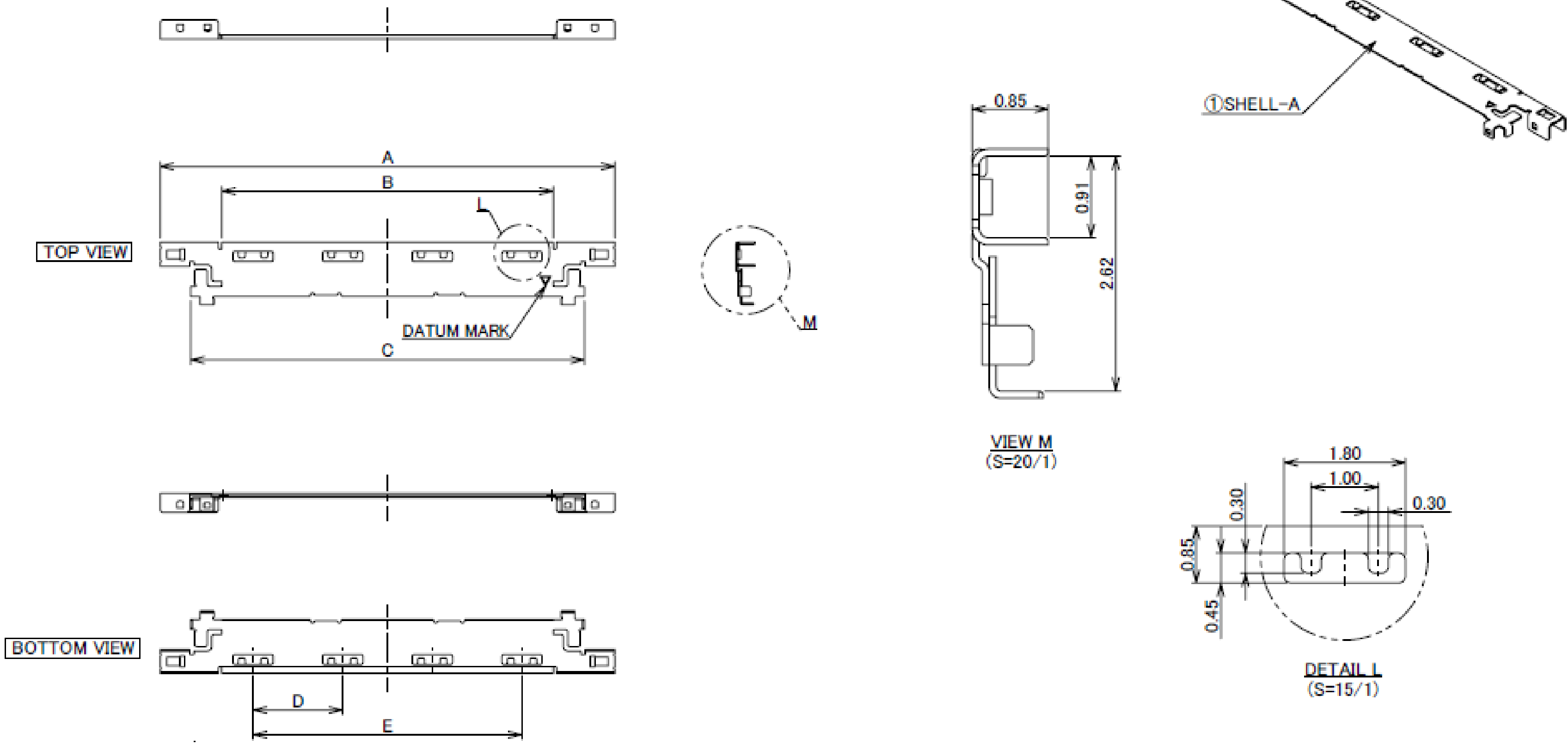
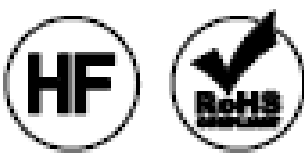
TABLE 1	
PART NO.	CONTACT FINISH
20847-0**T-01	CONTACT & SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.
20847-0**T-02	CONTACT AREA : Au 0.38 μm MIN. OVER Ni 1.27 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.

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



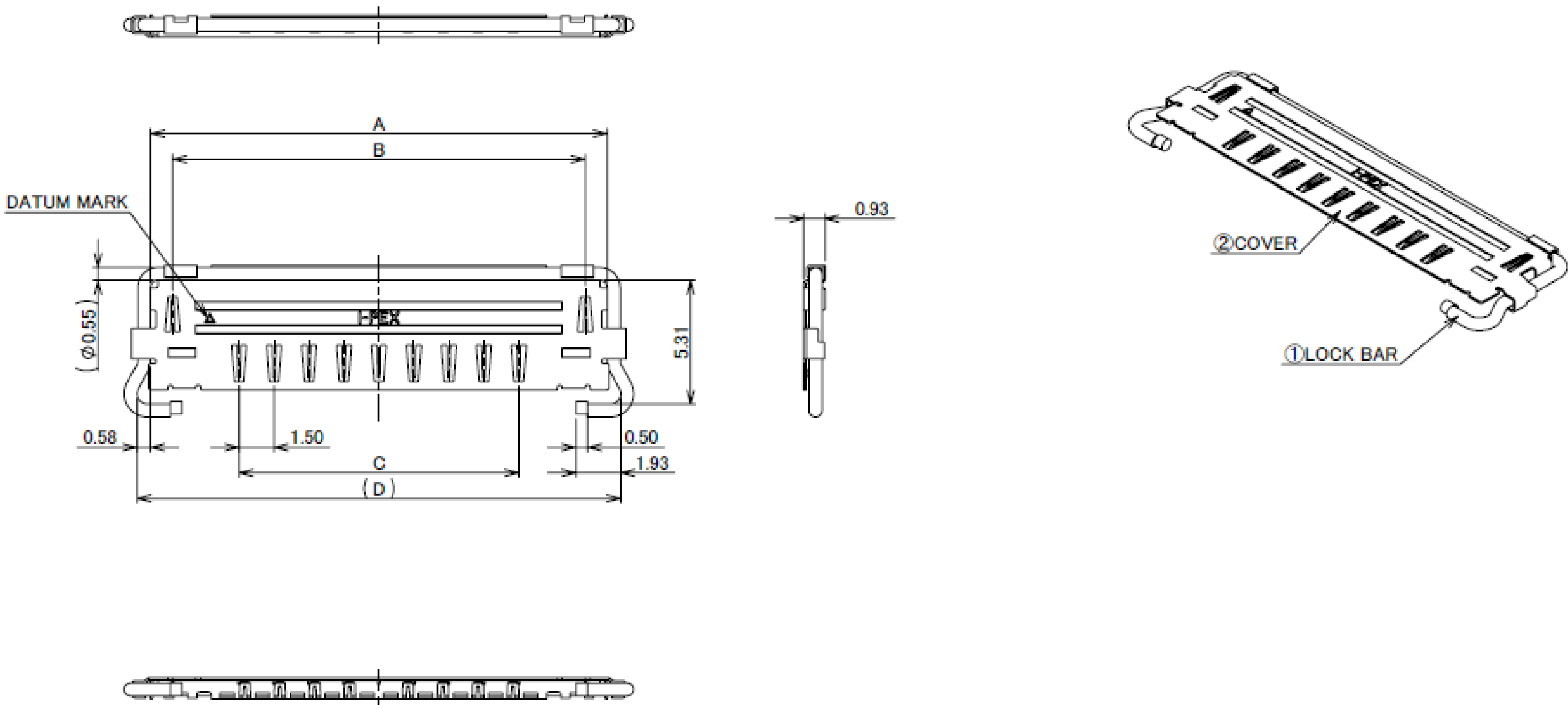
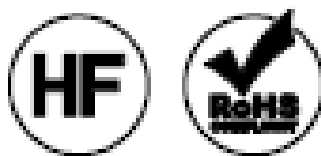
1	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 μ m MIN. OVER Ni 1.00 μ m MIN.
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

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.

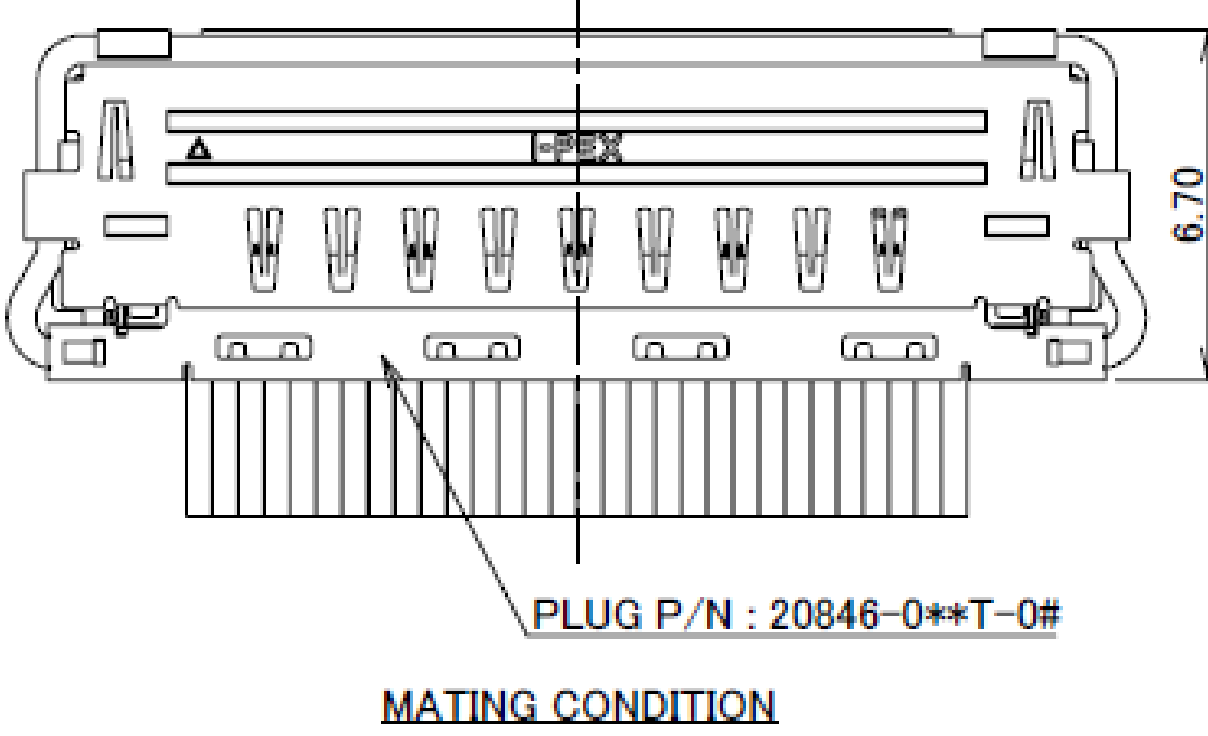
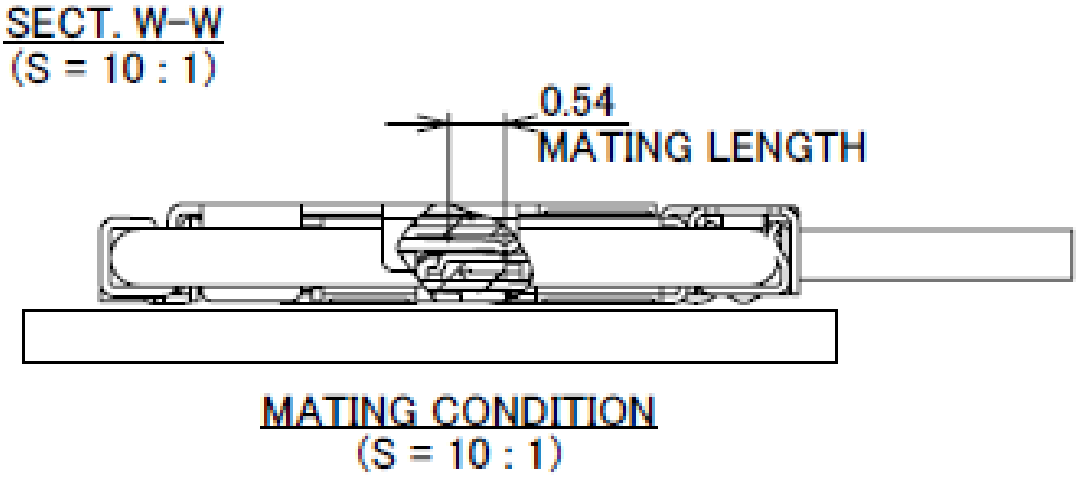
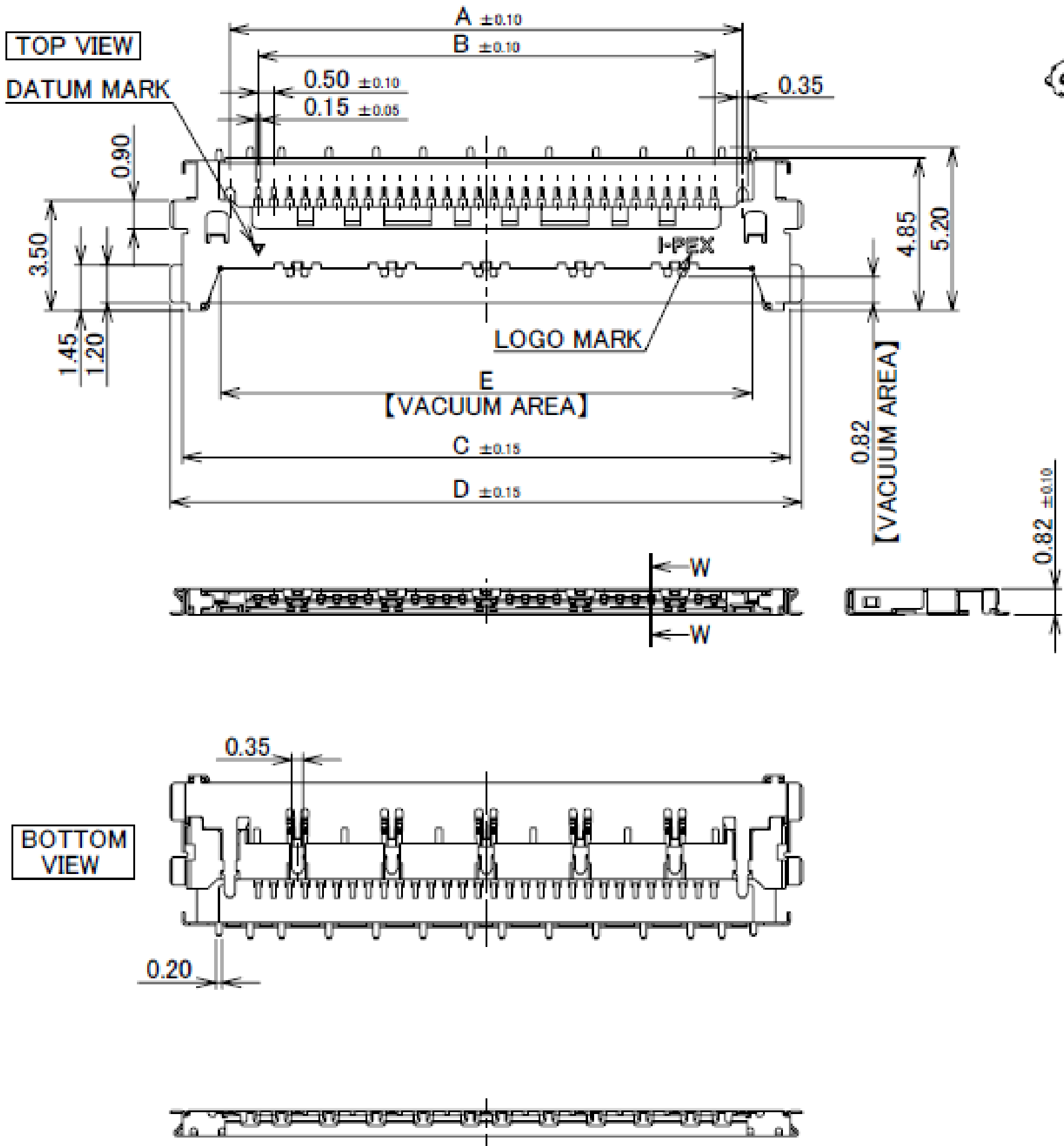
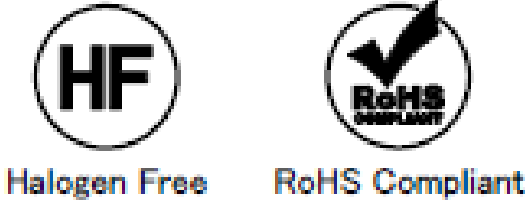
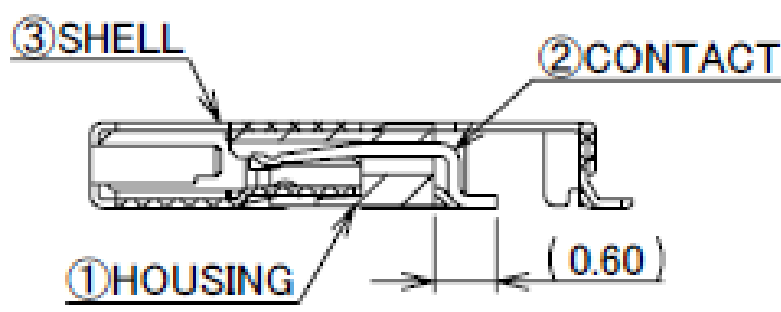
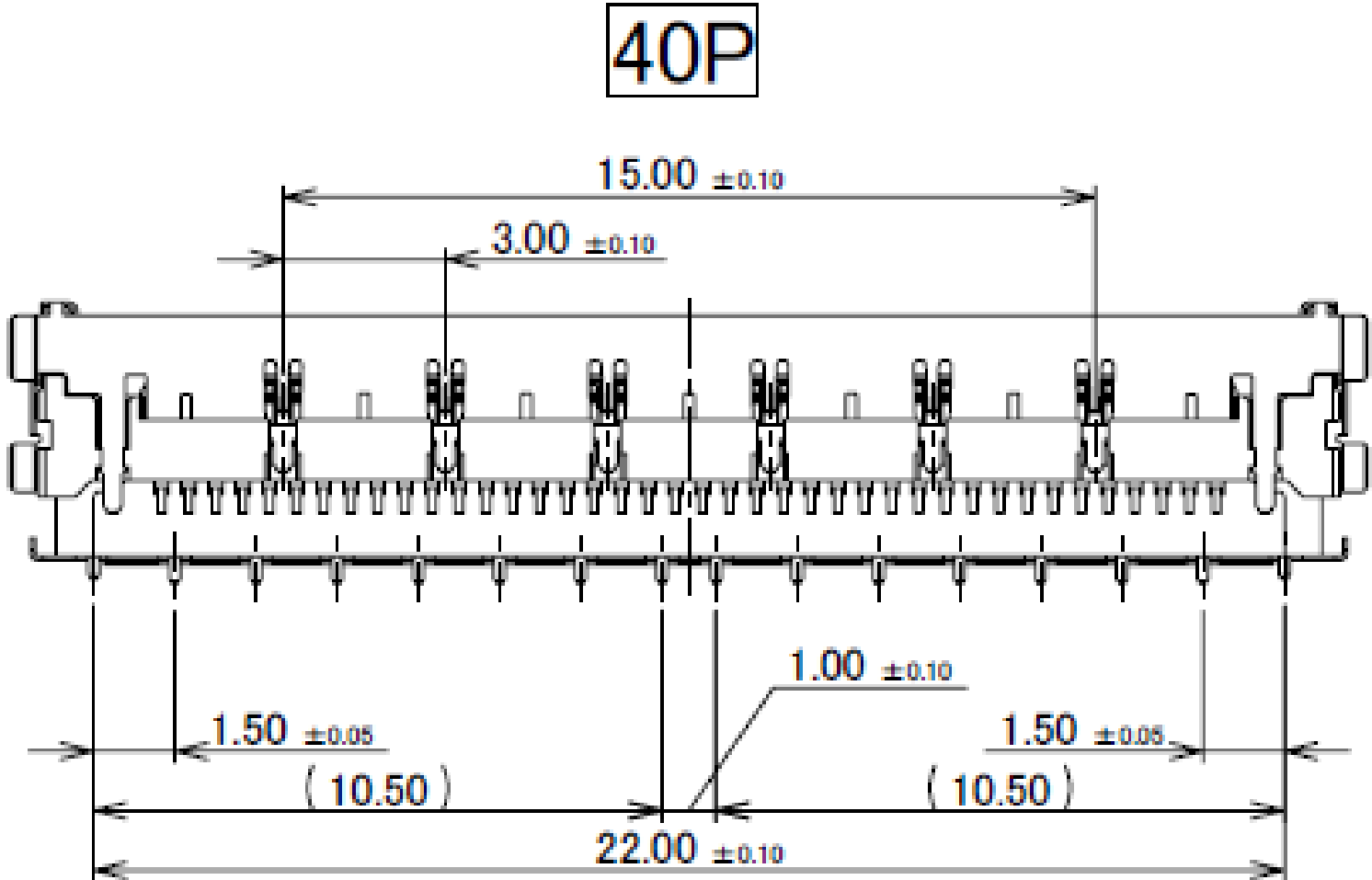
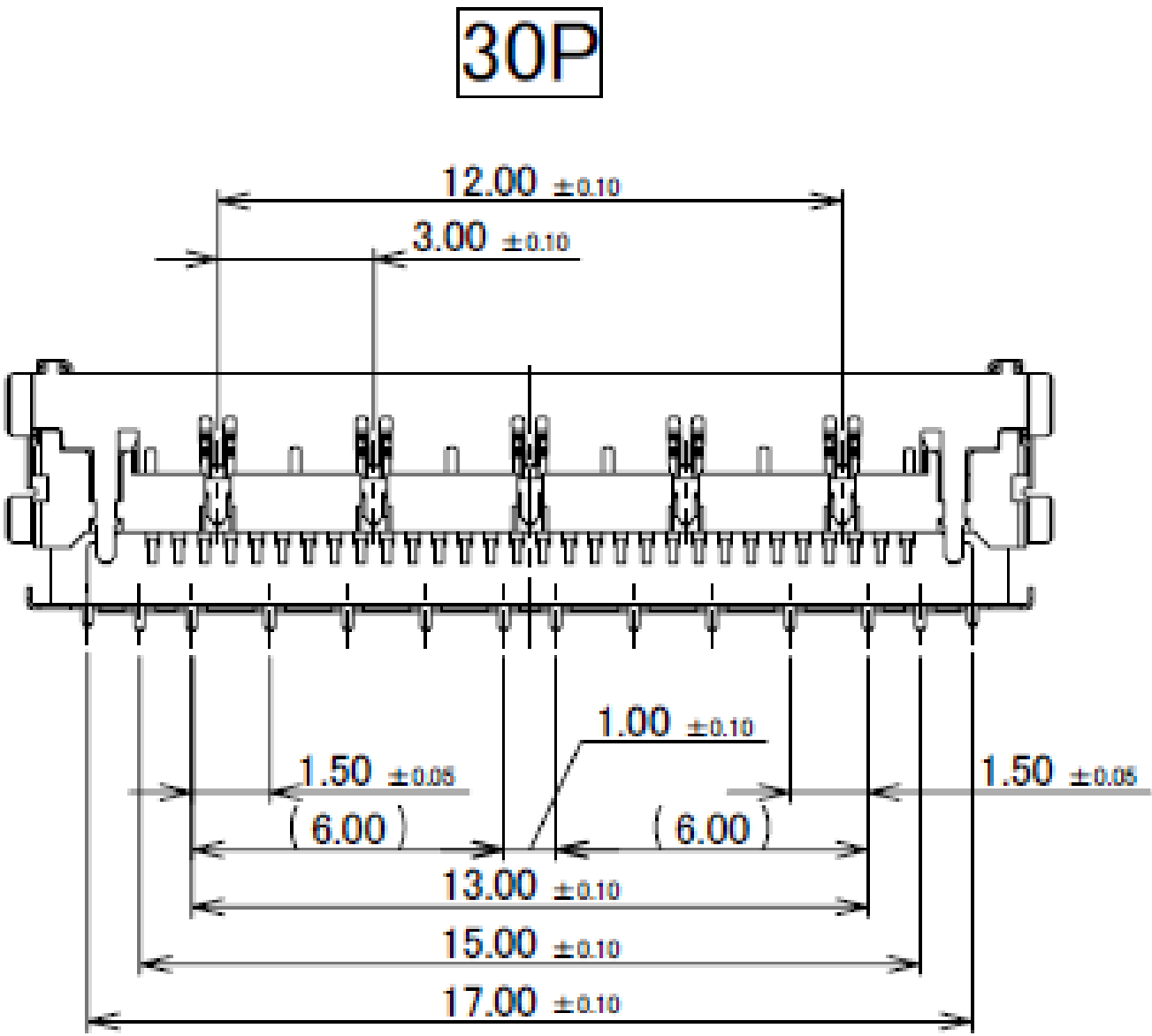
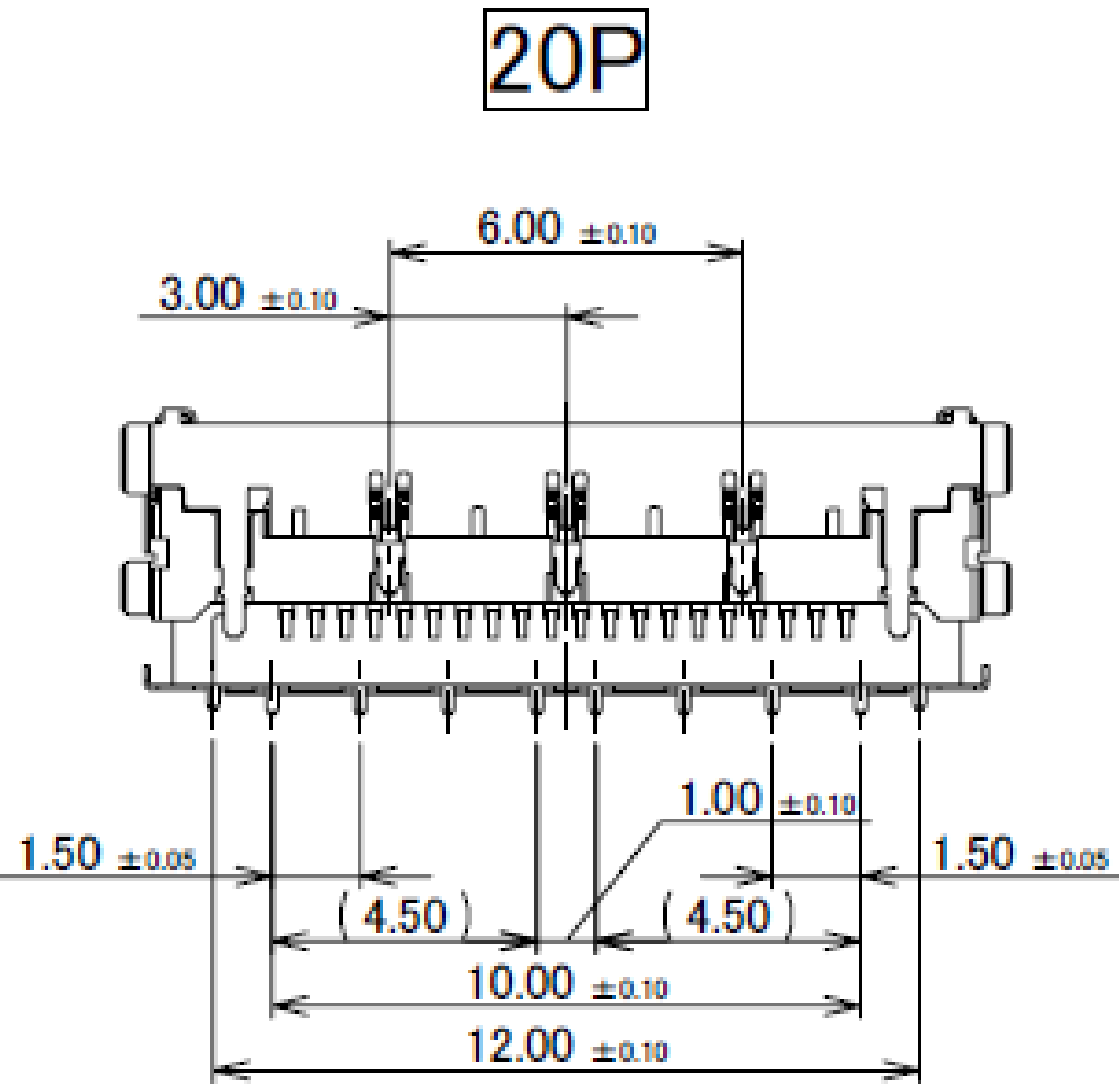


TABLE 1			
PART NO.		CONTACT FINISH	SHELL FINISH
20849-0**E-01		CONTACT & SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.	ALL OVER Ni 1.00 μ m MIN. SOLDERING AREA : Au 0.02 μ m MIN.
20849-0**E-02		CONTACT AREA : Au 0.38 μ m MIN. OVER Ni 1.27 μ m MIN. SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 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.16

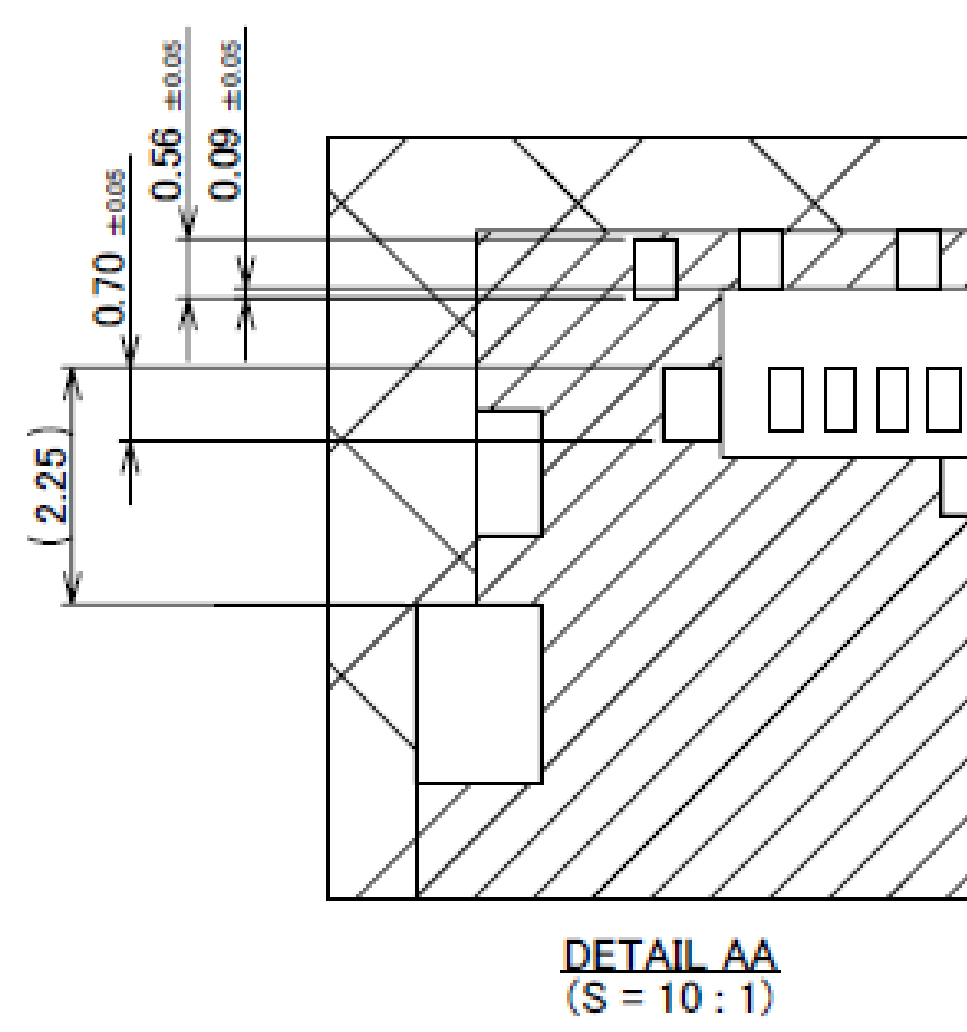
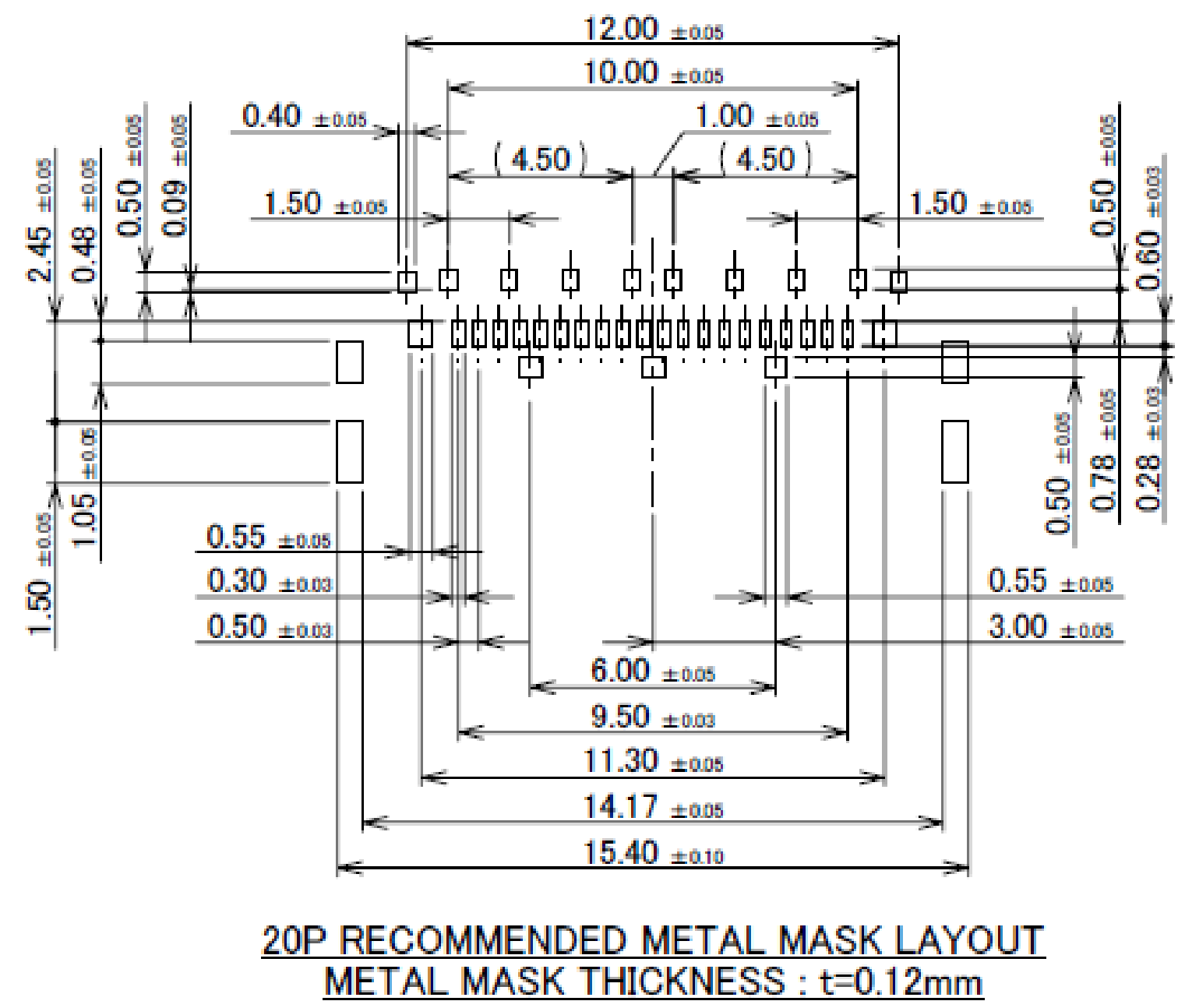
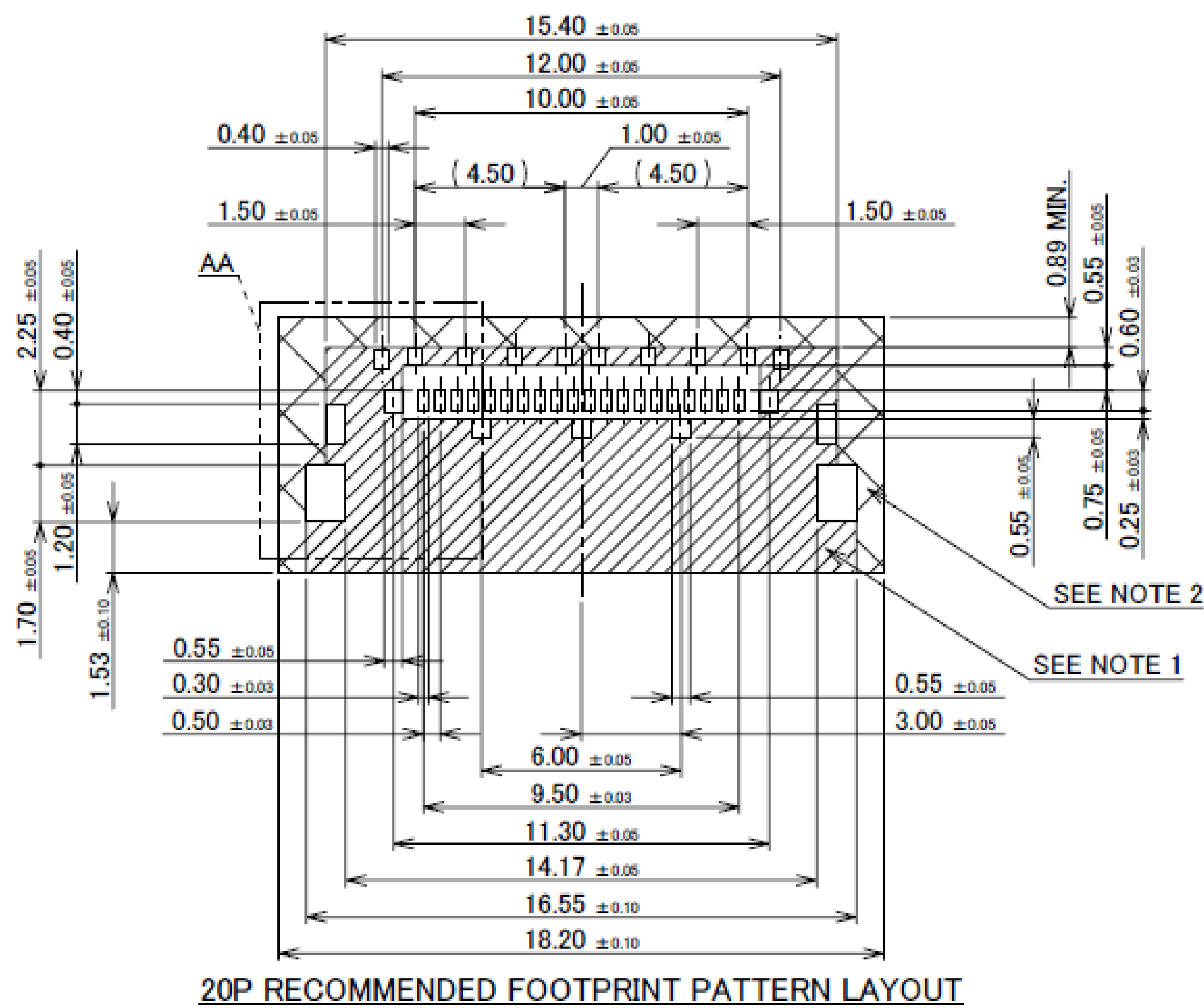
PART NO.	Pos.
20849-020E-0#	20
20849-030E-0#	30
20849-040E-0#	40

BOTTOM VIEW



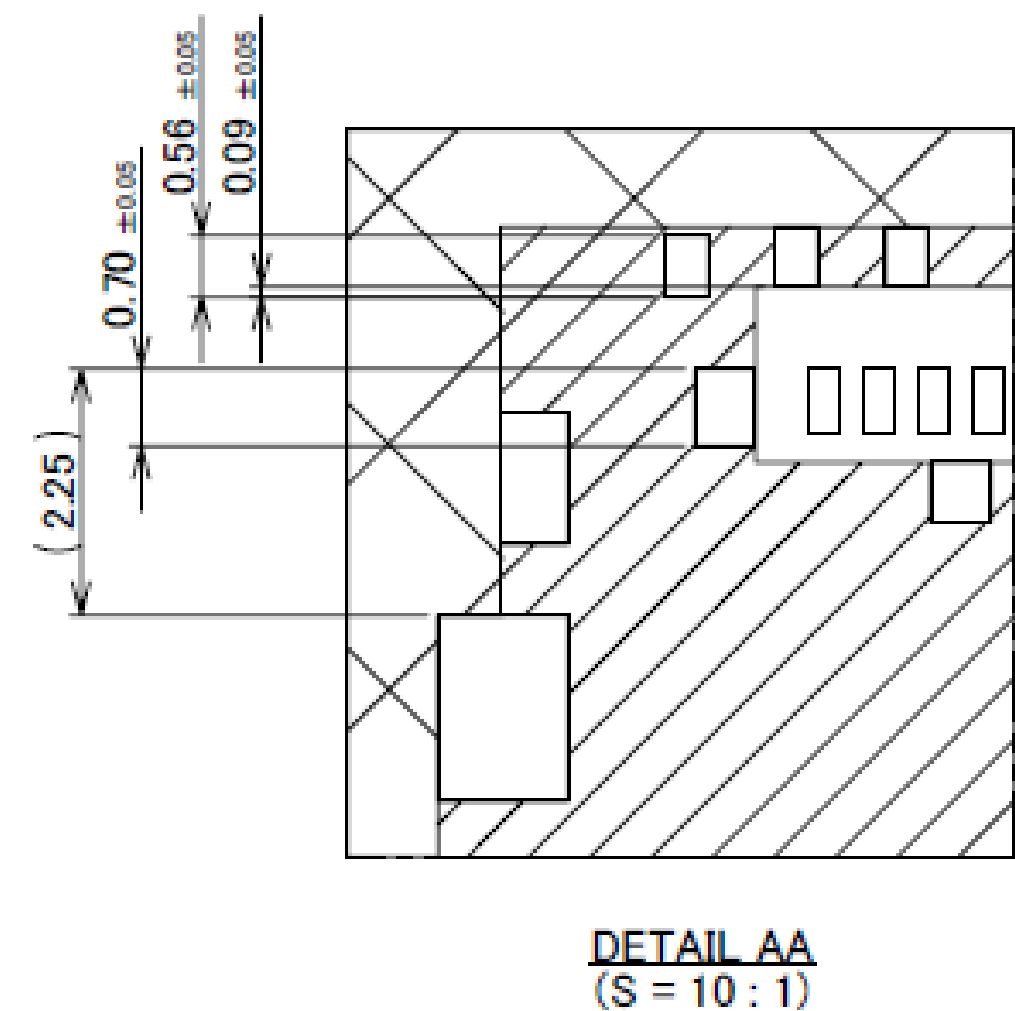
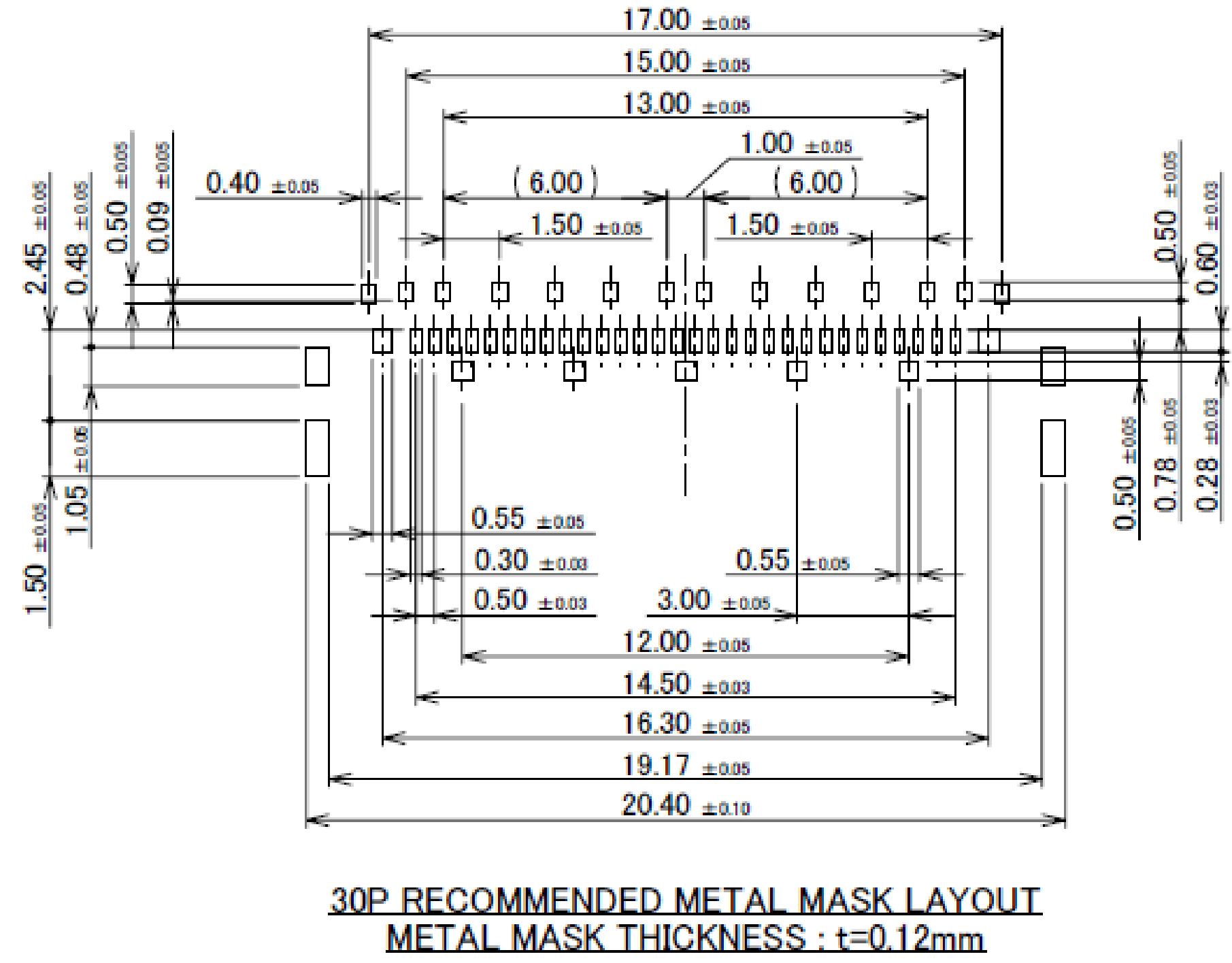
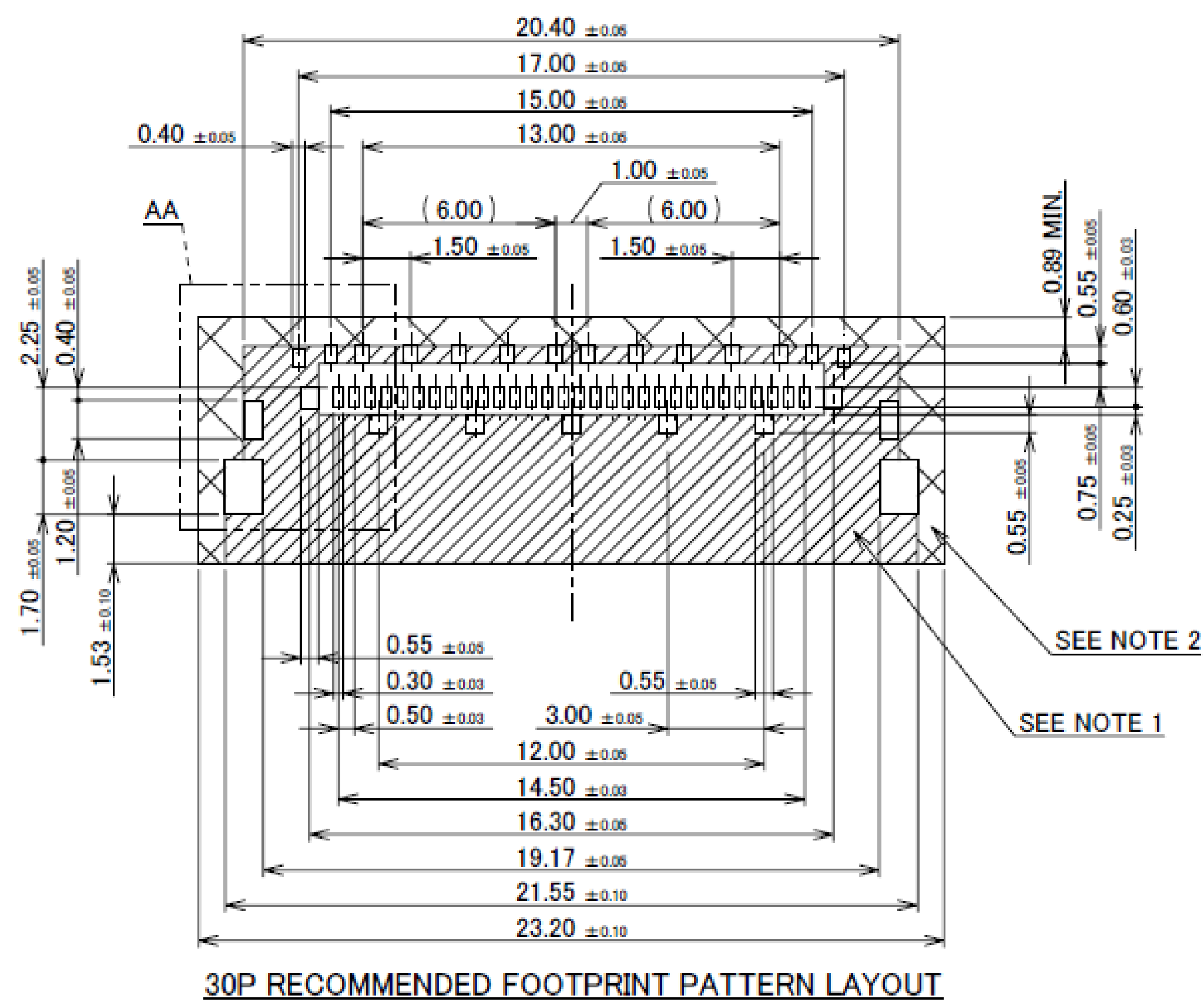
Rev.16

Receptacle Assembly



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

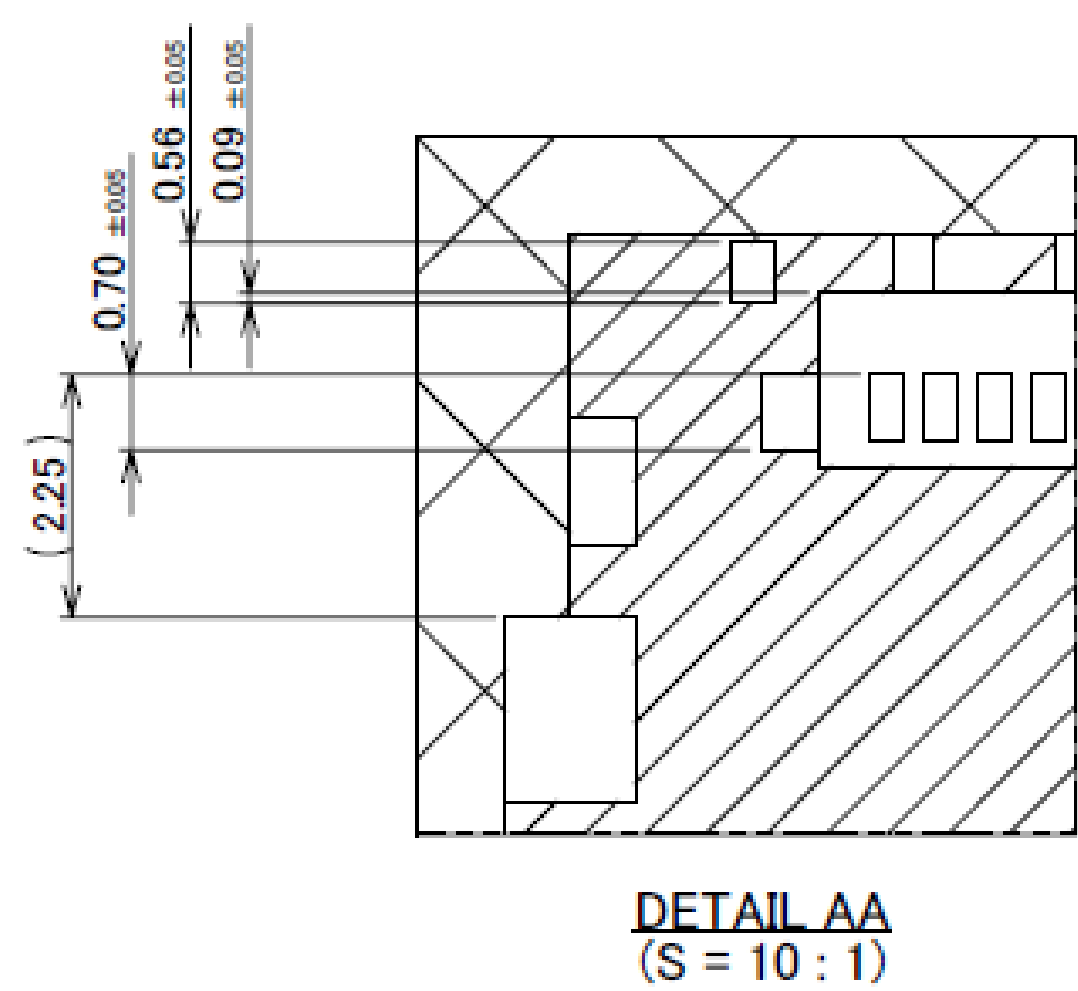
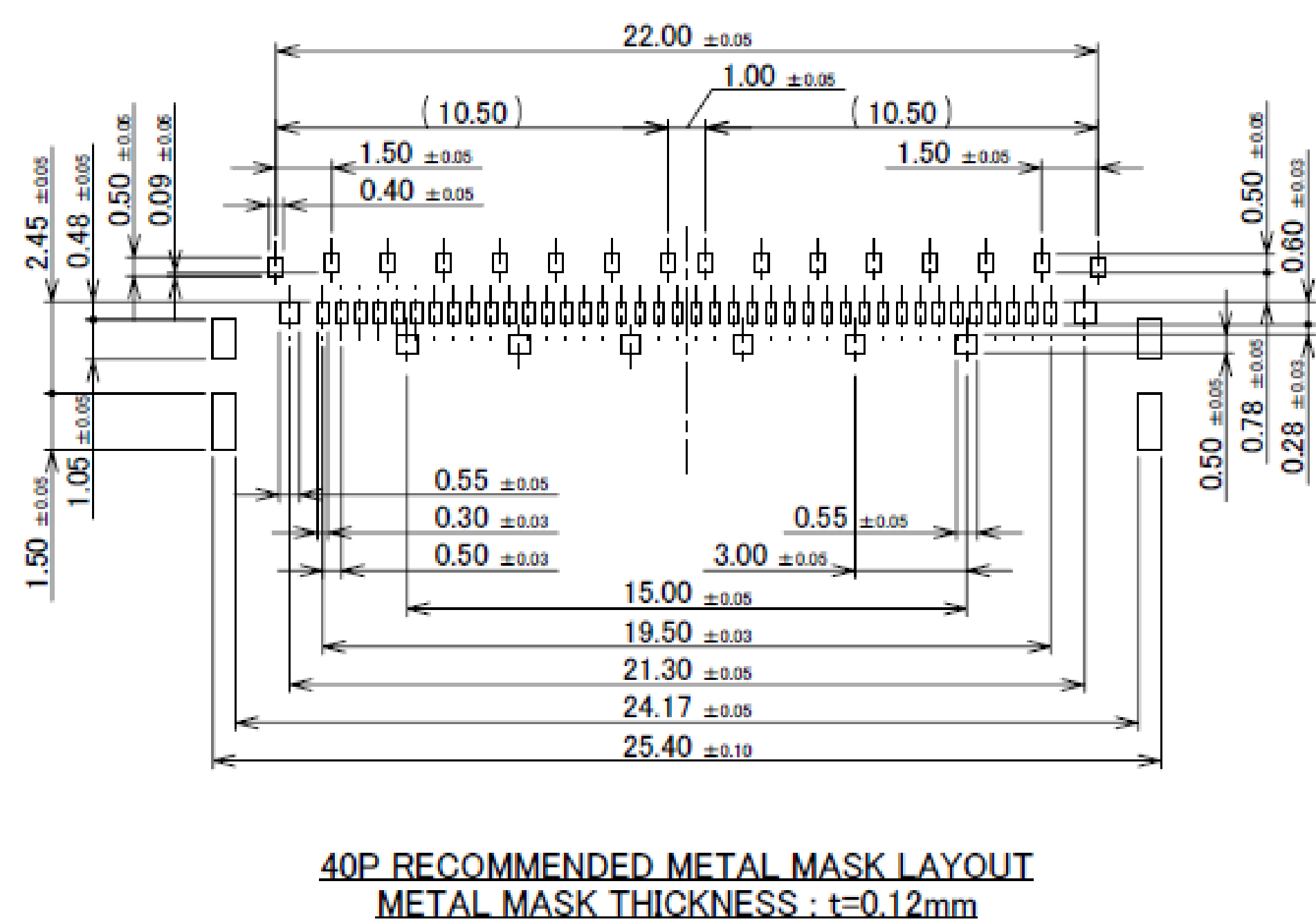
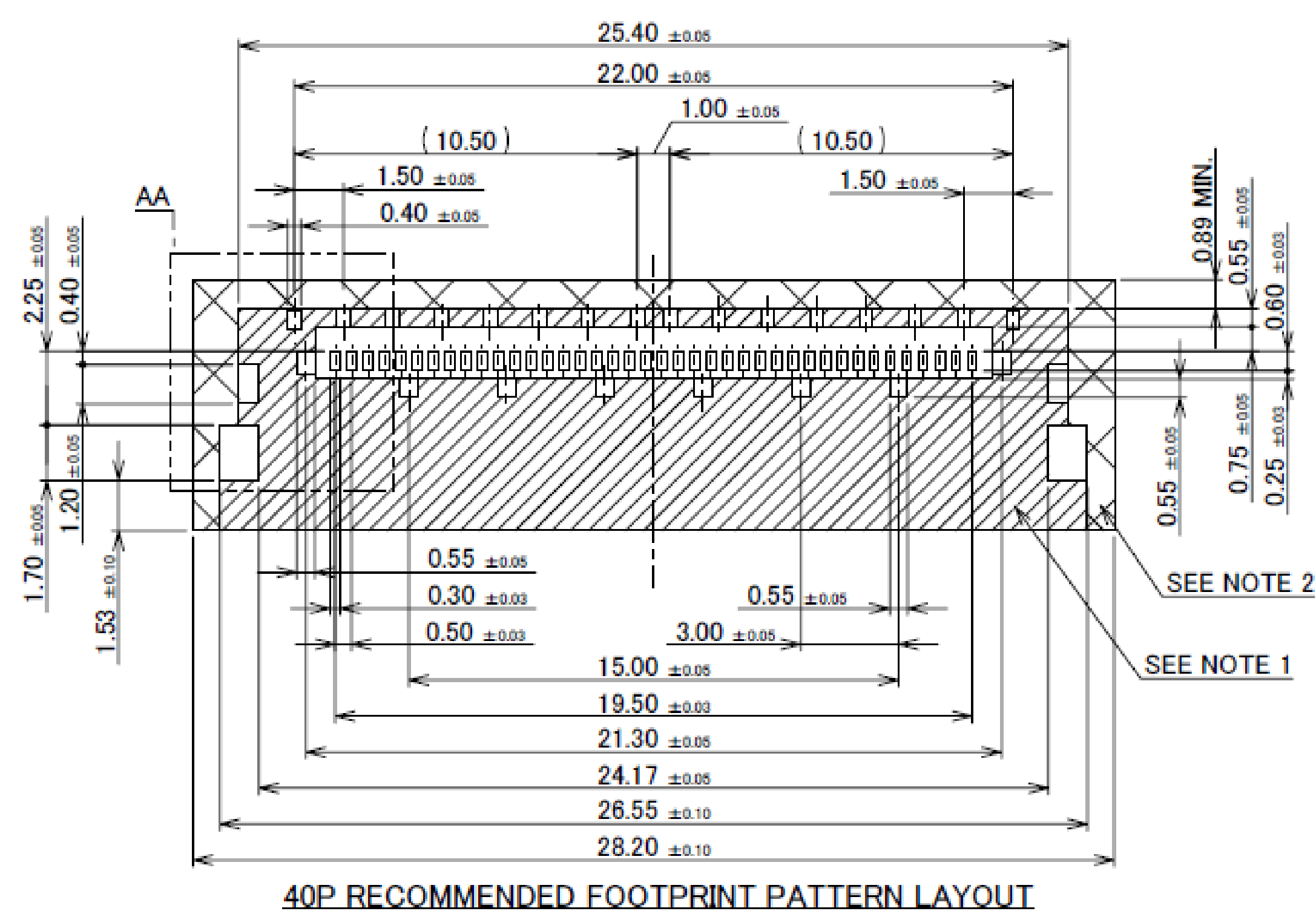
Rev.16



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

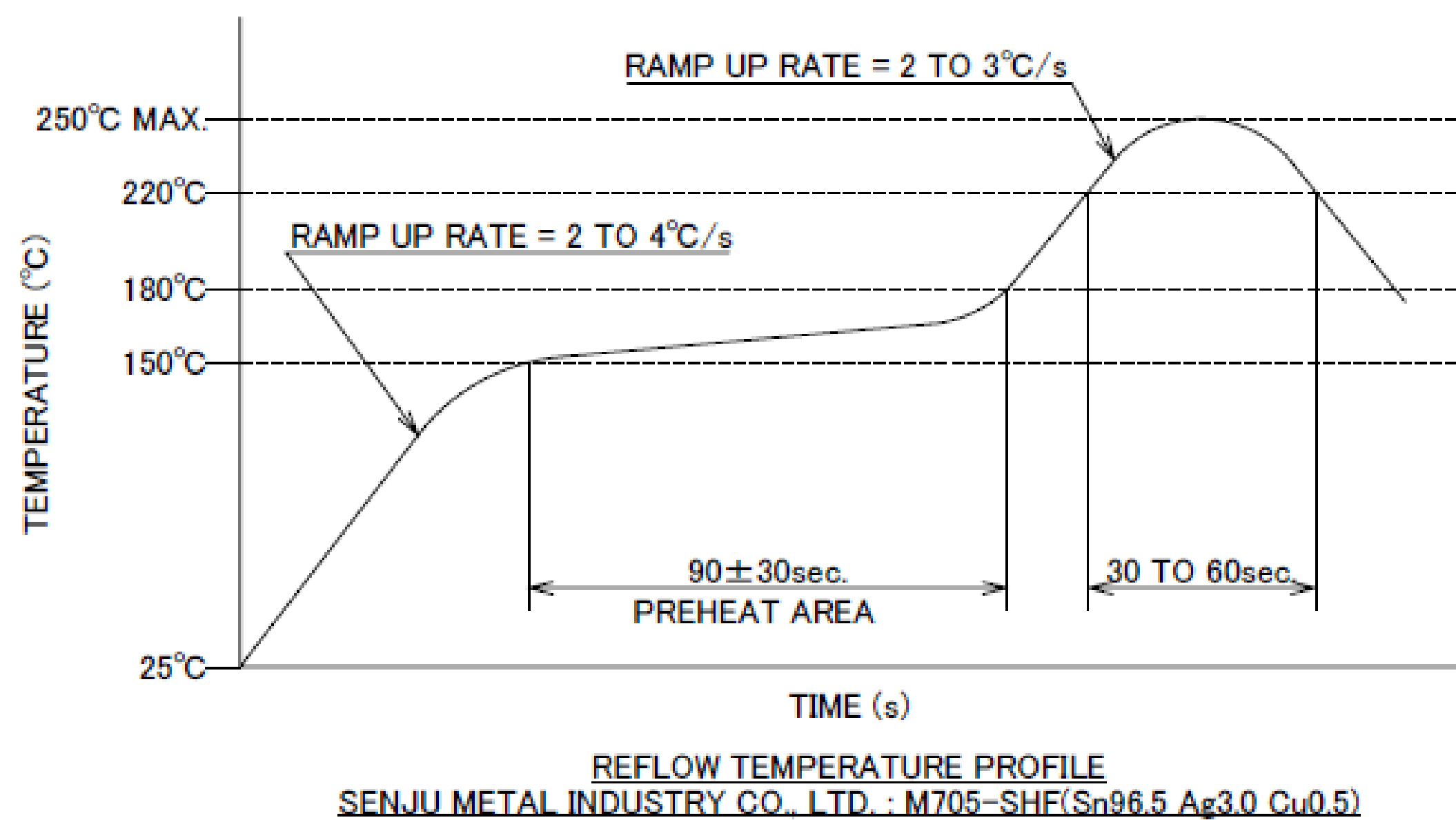
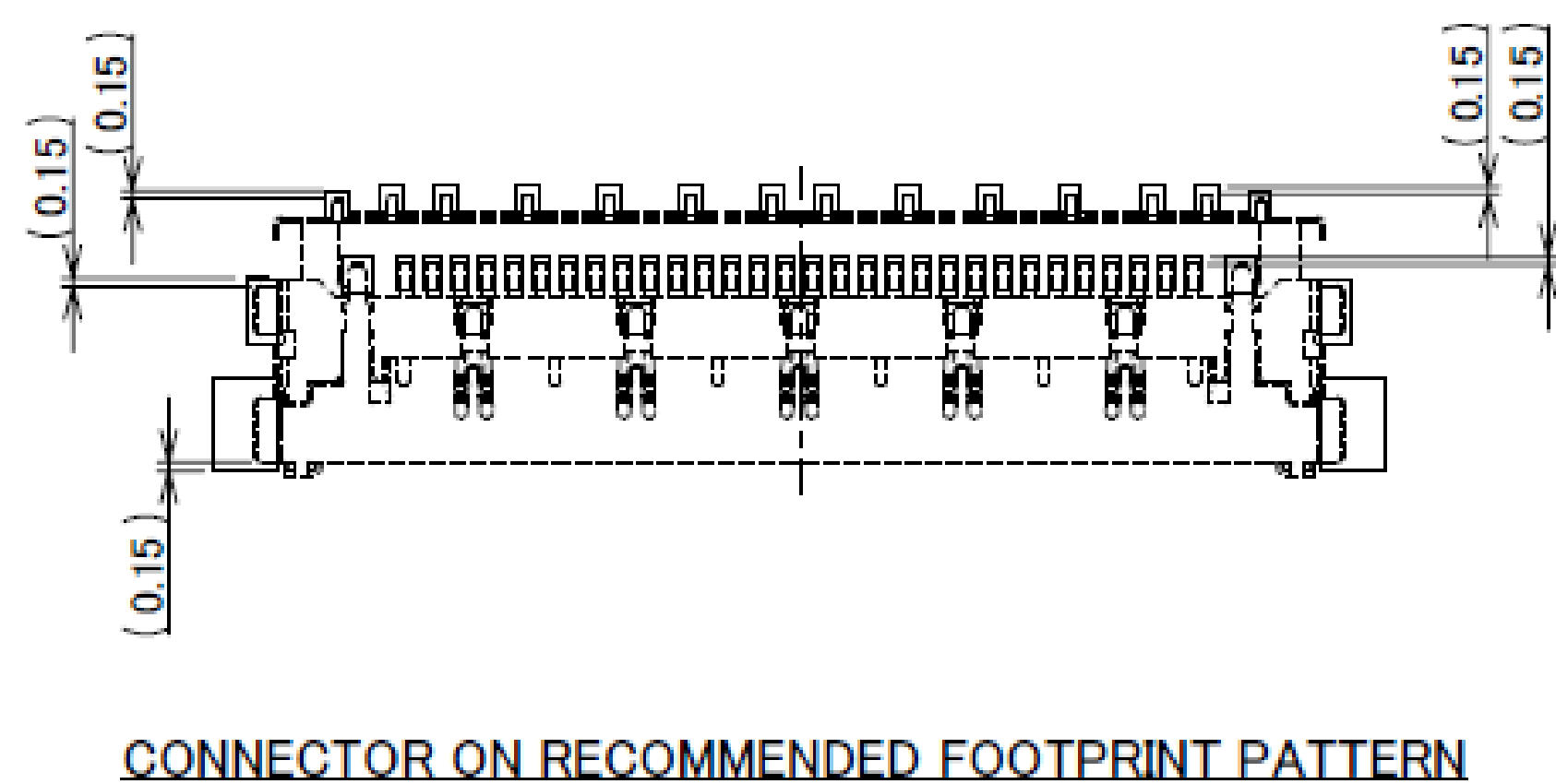
Rev.16

Receptacle Assembly



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

Rev.16



Rev.16

Receptacle Assembly

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

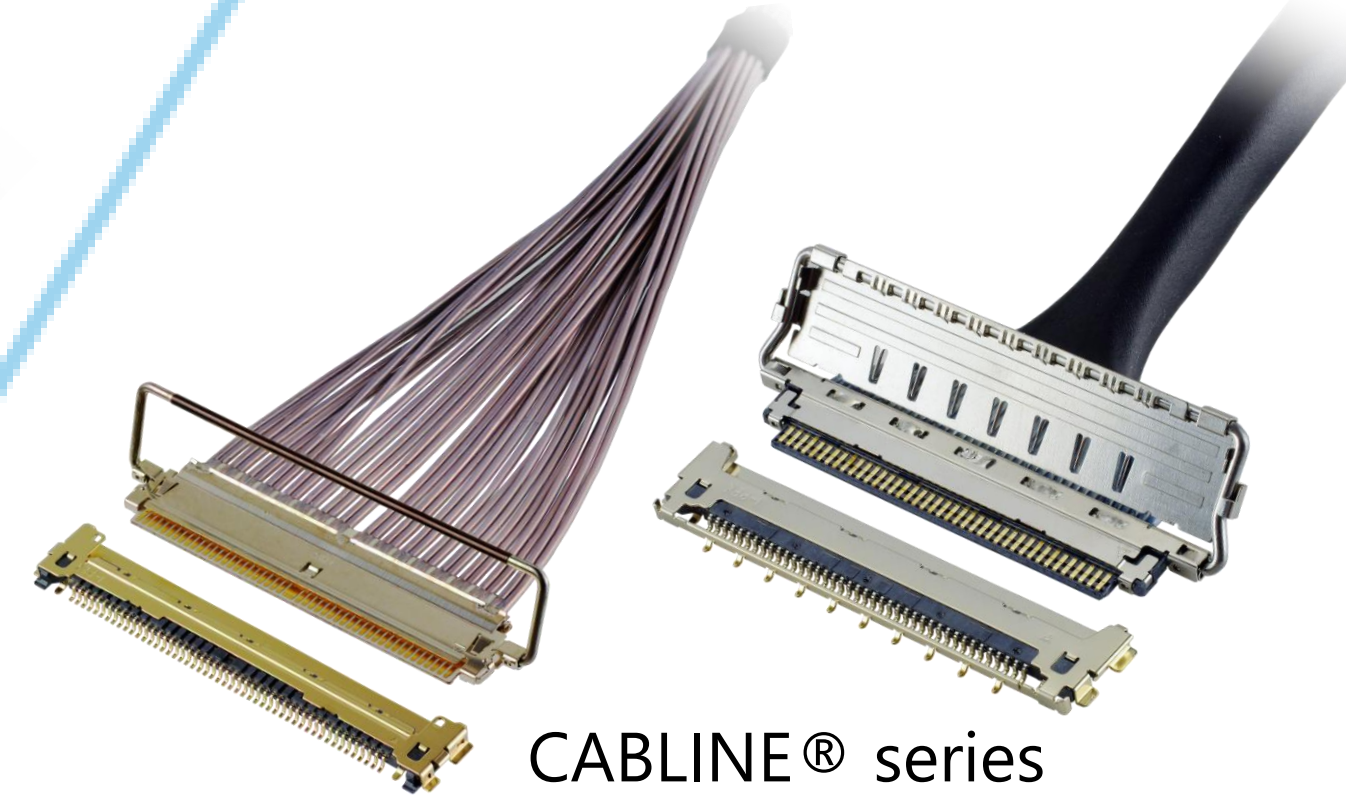
ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG #44 , 42 , 40 , 38 , 36 DISCRETE WIRE : AWG #36 , 34 , 32 TWINAXIAL CABLE : AWG #40
RATED VOLTAGE	100V AC (PER CONTACT PIN) ※THIS IS THE RATED VOLTAGE OF THE CONNECTOR. PLEASE NOTE THAT THE RATED VOLTAGE MAY VARY IN THE HARNESS DEPENDING ON THE CABLES USED.
RATED 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 TO 378K (-40°C TO +105°C)
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***

Rev.16

Custom Connectors Available

RF Connectors

MHF® series



CABLINE® series

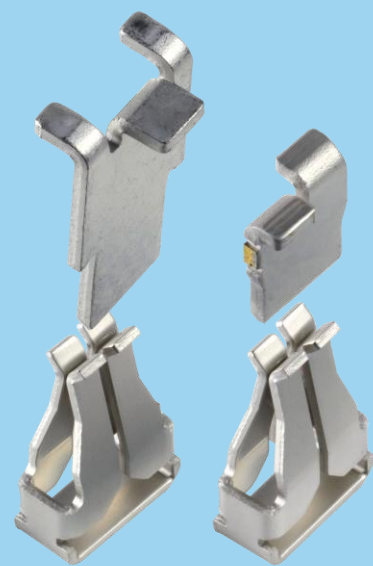


Micro-Coaxial/Twinaxial Connectors

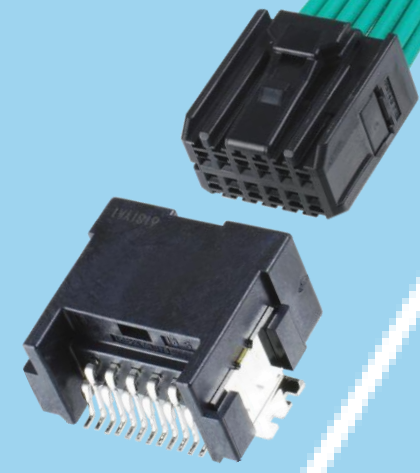


Wire-to-Board Connectors/ Terminals

AP series



ISH® series



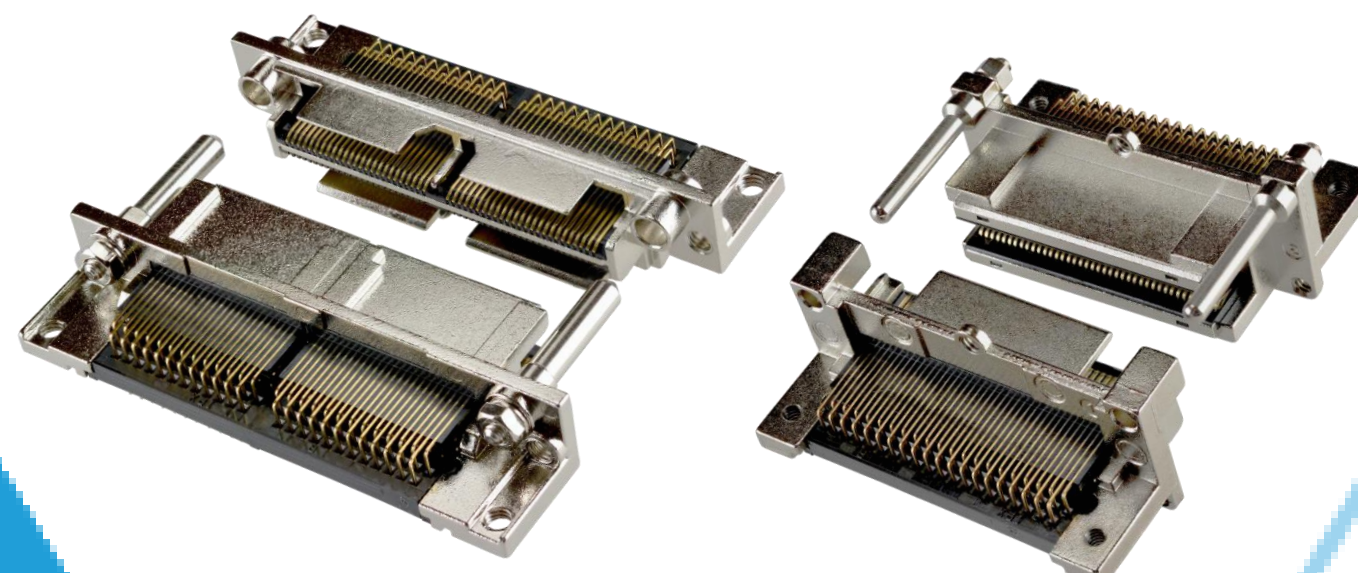
NOVASTACK® series



Board-to-Board Connectors



I/O Connectors



MINIDOCK™ series

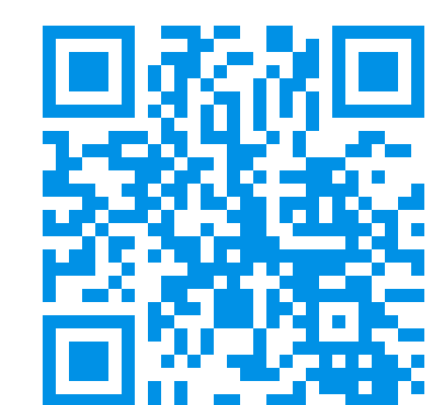
MINIFLEX® series EVAFLEX® series



FPC/FFC Connectors



Inquiry



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