

CABLINE®-CBL

Suitable for high-data-rate transfer (20 Gbps/lane), Low mating height (Height = 0.975 mm max.), Mechanical lock with shielding and multi-point ground, 0.4 mm pitch, Horizontal mating type Micro-coaxial connector

Product Specifications:

Mating type		Horizontal
Board Pitch (mm)		0.4
Wiping Length (mm)		0.44
Mated size (mm)	Height	0.975 Max
	Width	Formula: 6.44 + (0.4*?p)
	Depth	5.44
Pin Counts	Range	Up to 40
	Available	30, 40

Applicable Cable Size:

Maximum O.D. (mm)	0.4
Micro-Coaxial for Signal (AWG)	45 ohm: #40 or smaller wire 50 ohm: #40 or smaller wire
Twinax (AWG)	-
Discrete (AWG)	#36 or smaller wire

Applicable Standards (Reference Only):

DP UHBR20 (20 Gbps/ Lane), V-by-One® US (16 Gbps/Lane), HDMI 2.1 (12 Gbps/ Lane)
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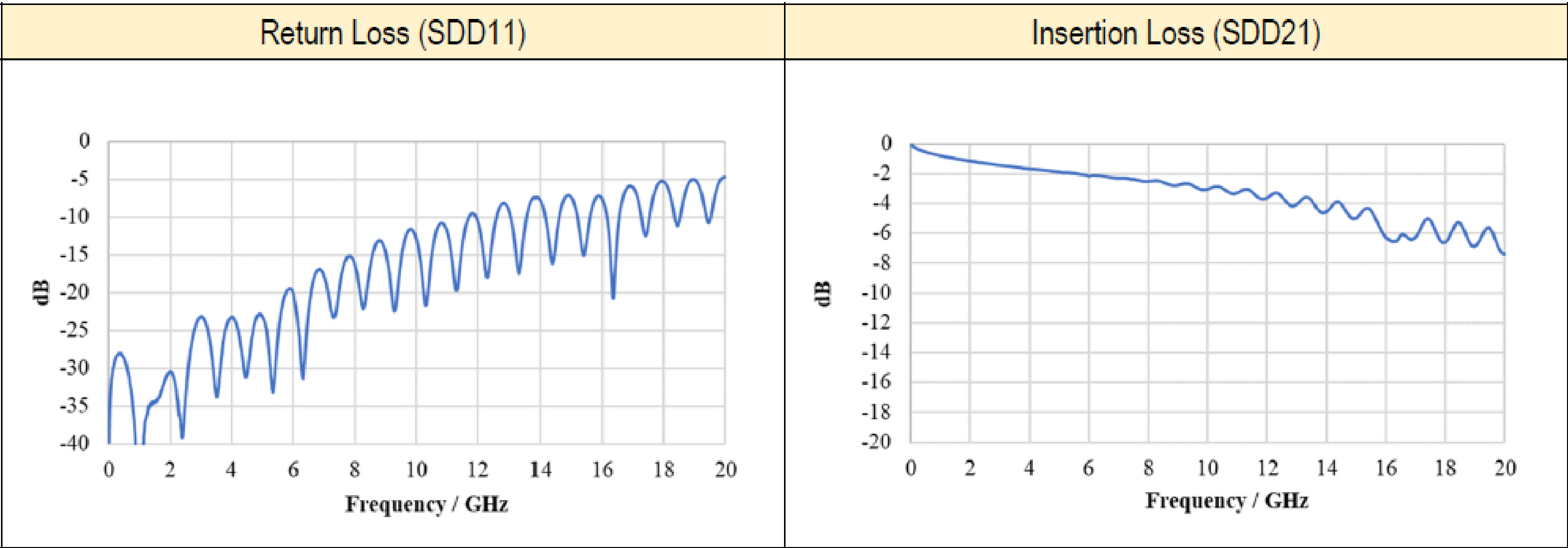
*Please inquire for pin counts not listed or outside of the pin count range.
*Lower height connector CABLINE®-CAL (mating height: 0.8 mm max.) is also available.



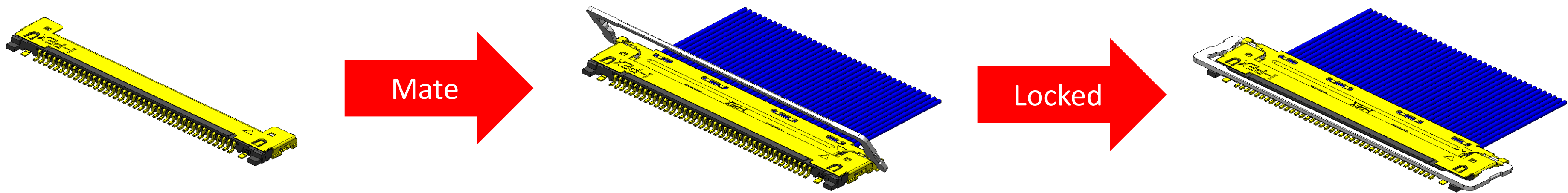
High-data-rate transfer, ideal for 20 Gbps/lane applications

Measurement results

Connector: CABLINE-CBL 40P
Cable: Micro-coaxial cable
AWG #40, 45ohm , Length : 100 mm
Pin Assignment: GSSGSSG

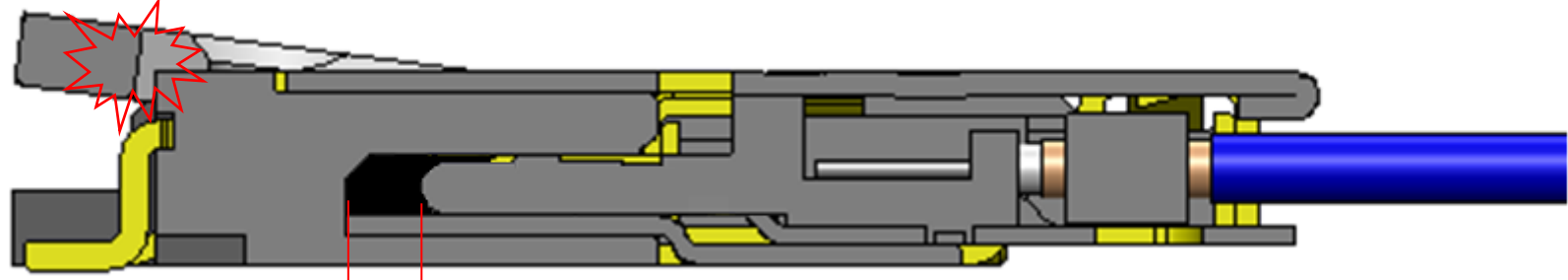


Mechanical locking bar prevents incomplete mating and back-out/un-mating

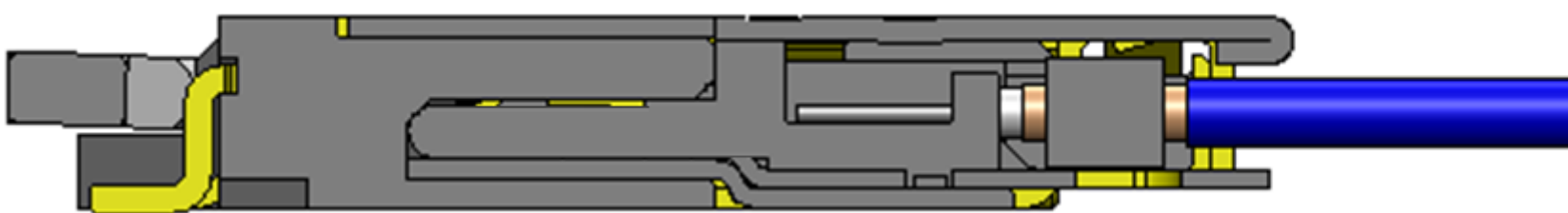


Mechanical locking bar only locks when plug is fully mated to receptacle.

Interference

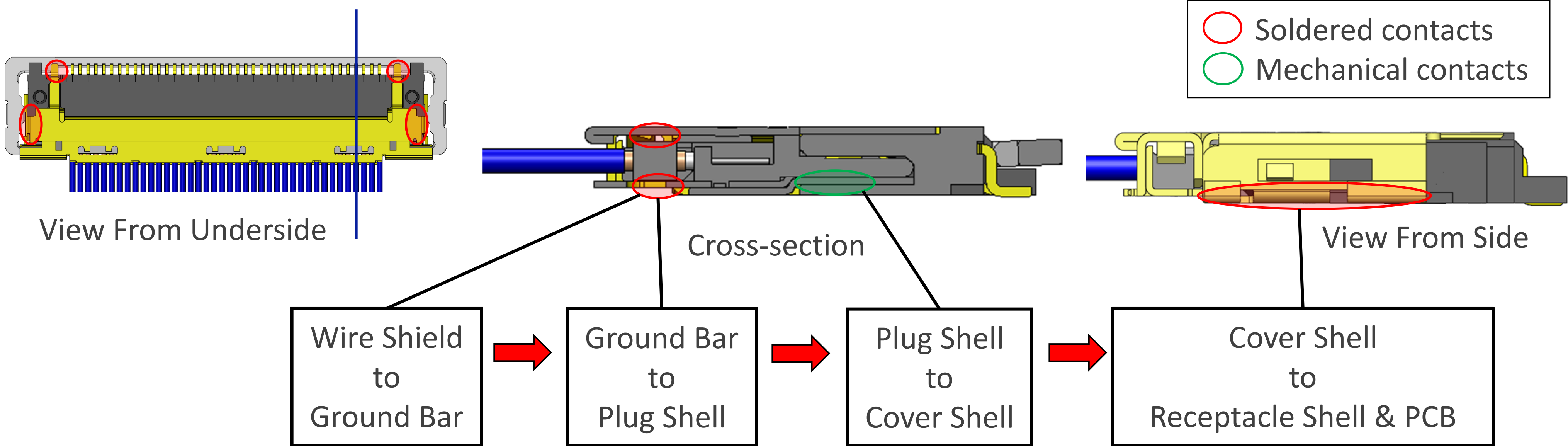


Incomplete mating



Complete mating

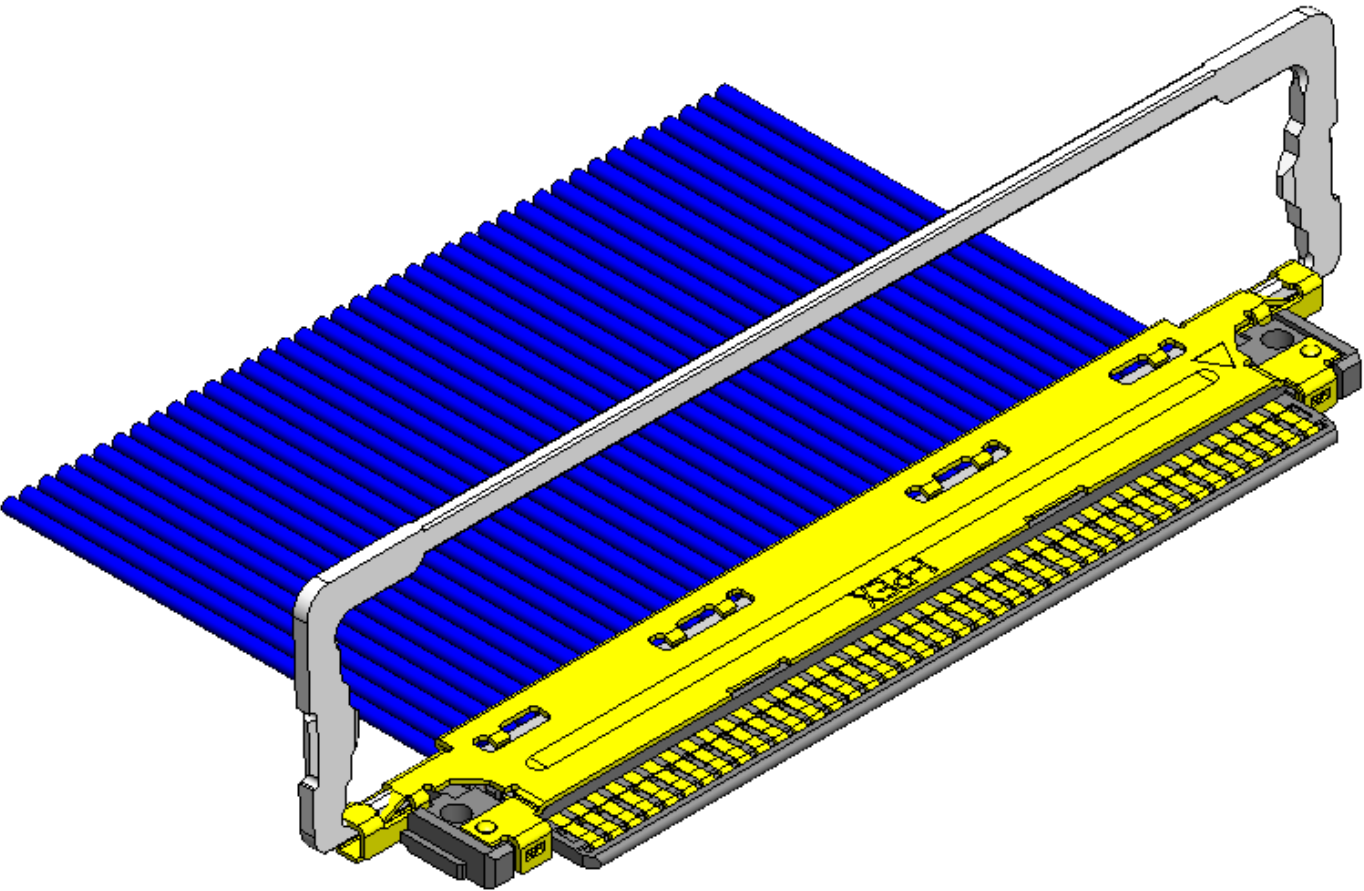
EMI shielding and multi-point ground design



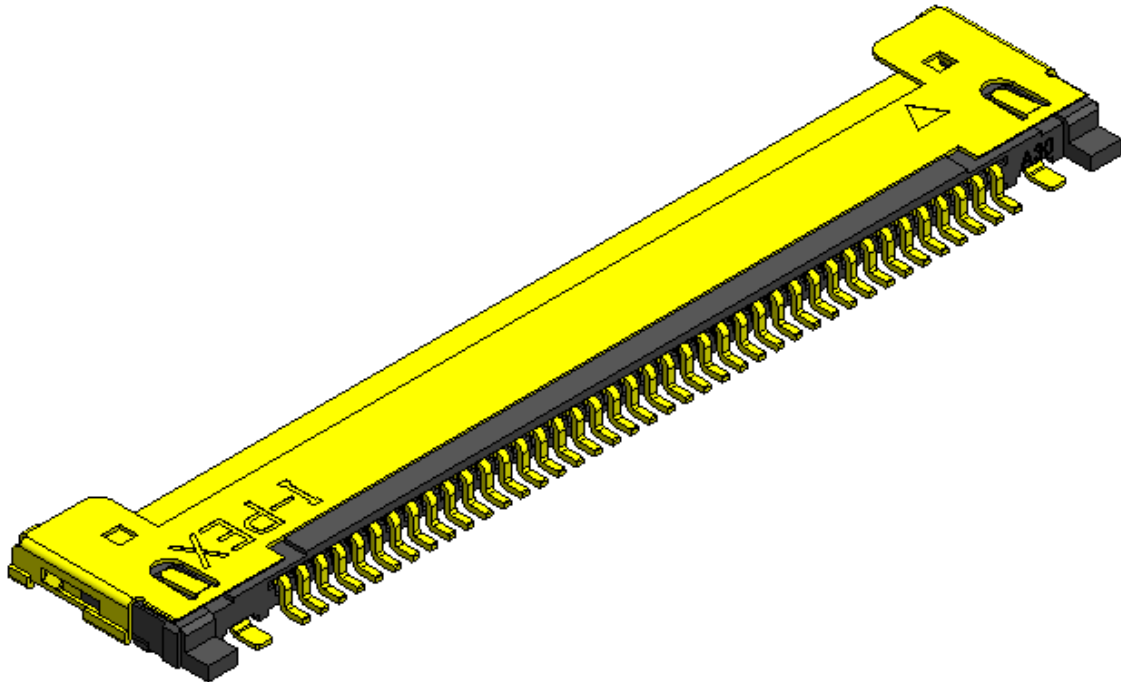
Component Parts Details

Component Parts

Connector parts

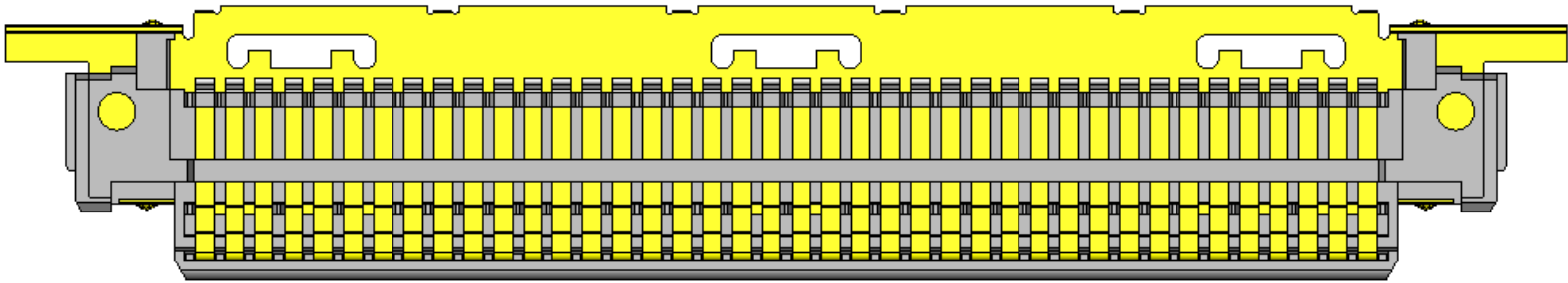


PLUG

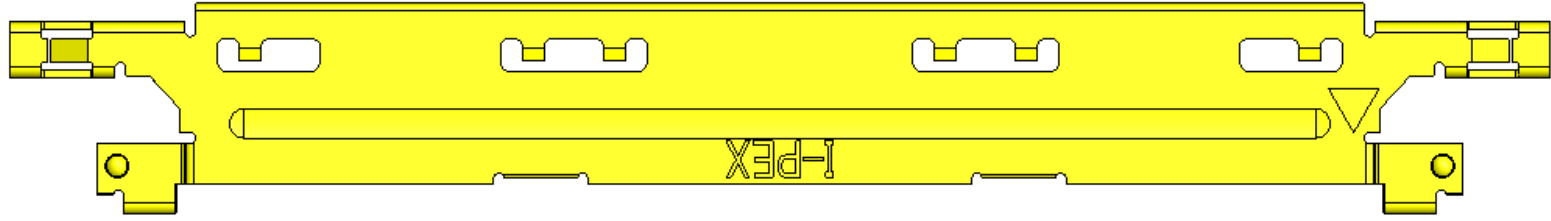


RECEPTACLE


Plug parts



PLUG HOUSING ASSEMBLY



PLUG SHELL-A



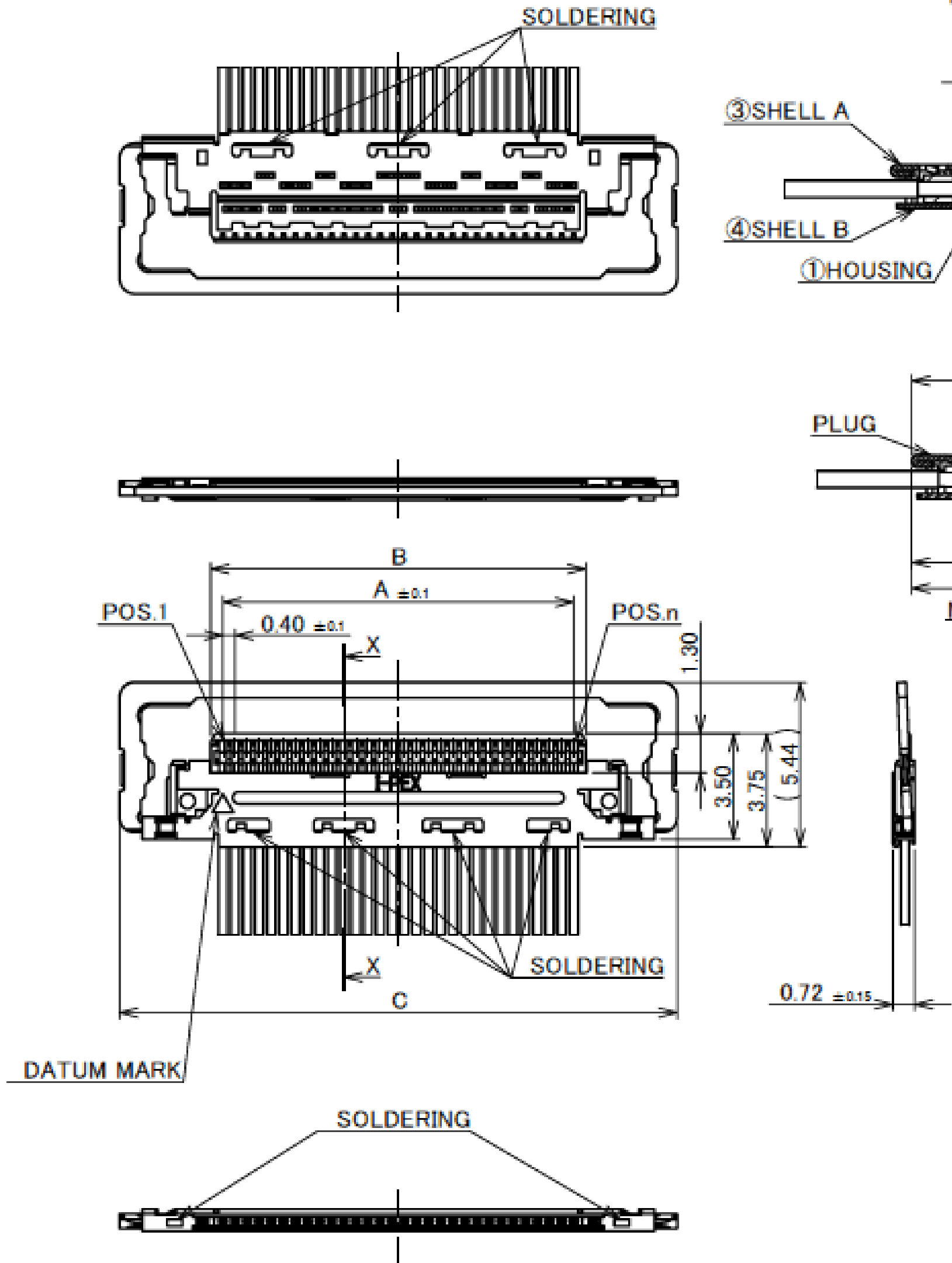
PLUG LATCH BAR

Plug for Cable Assembly

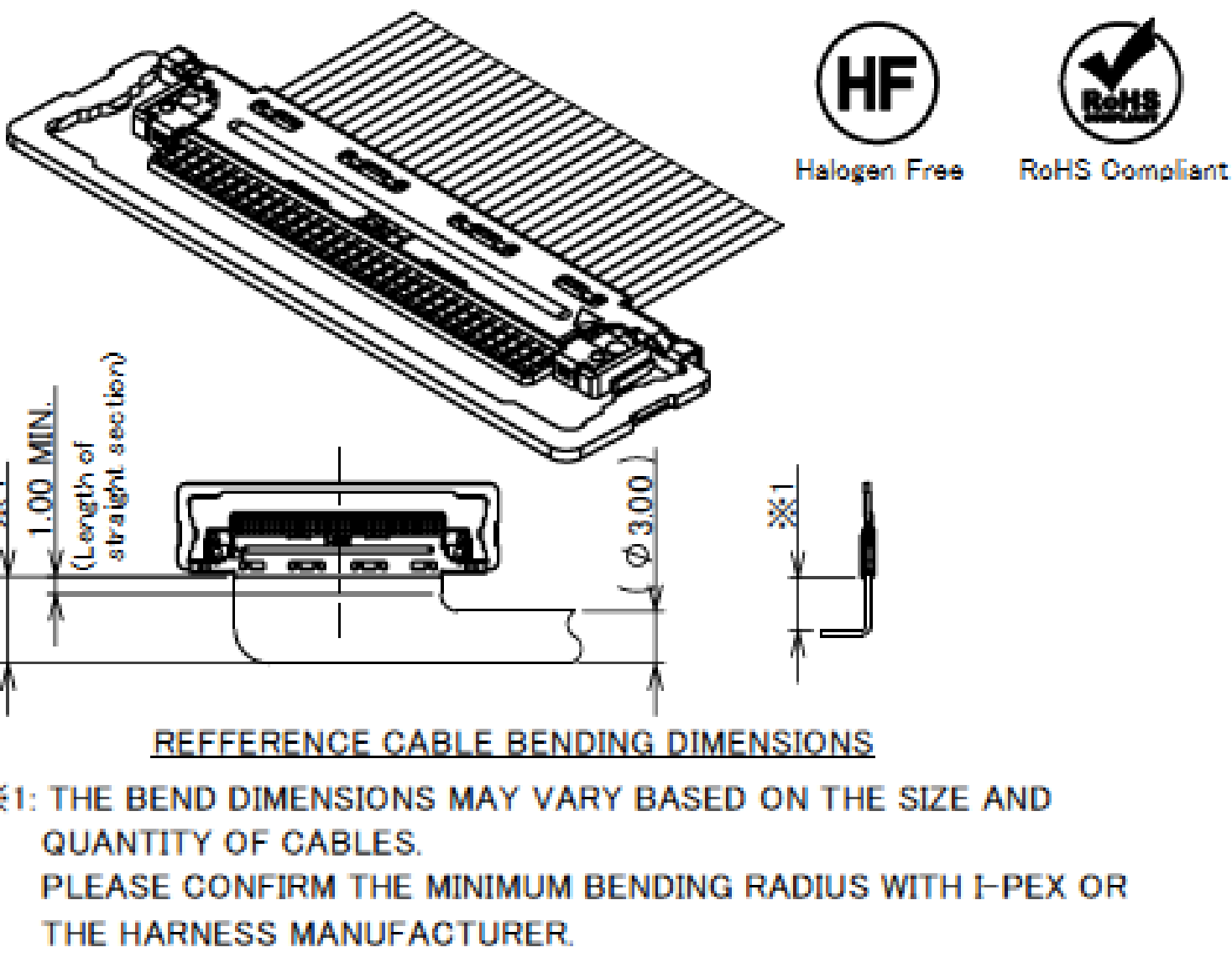
Recommended P/N		20472-0**T-10				
PART NO.	POS.	A	B	C	D	
20472-030T-10	30	11.60	12.40	18.44	13.00	
20472-040T-10	40	15.60	16.40	22.44	17.00	

P/N : 20472-#**T-10

POS.
0: WITH LATCH BAR
1: WITHOUT LATCH BAR

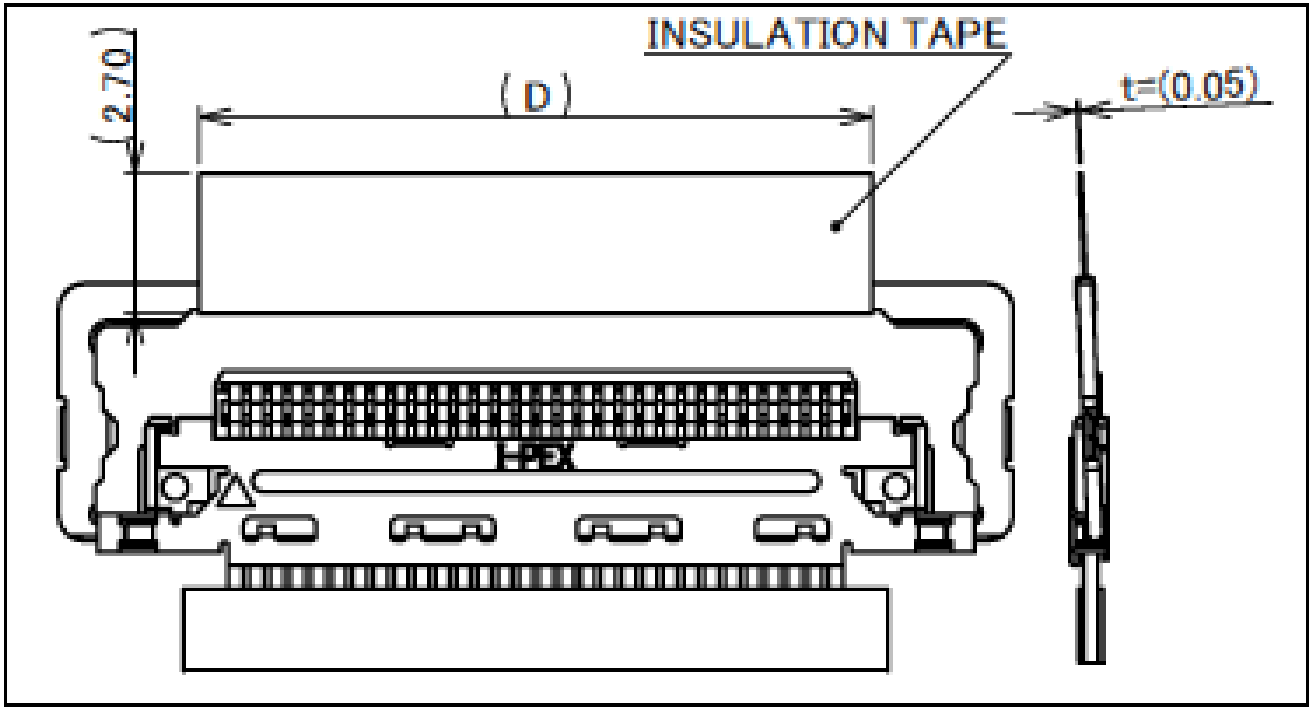


WITH LATCH BAR



REFERENCE CABLE BENDING DIMENSIONS

※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.



INSULATION TAPE RECOMMENDED DIMENSIONS

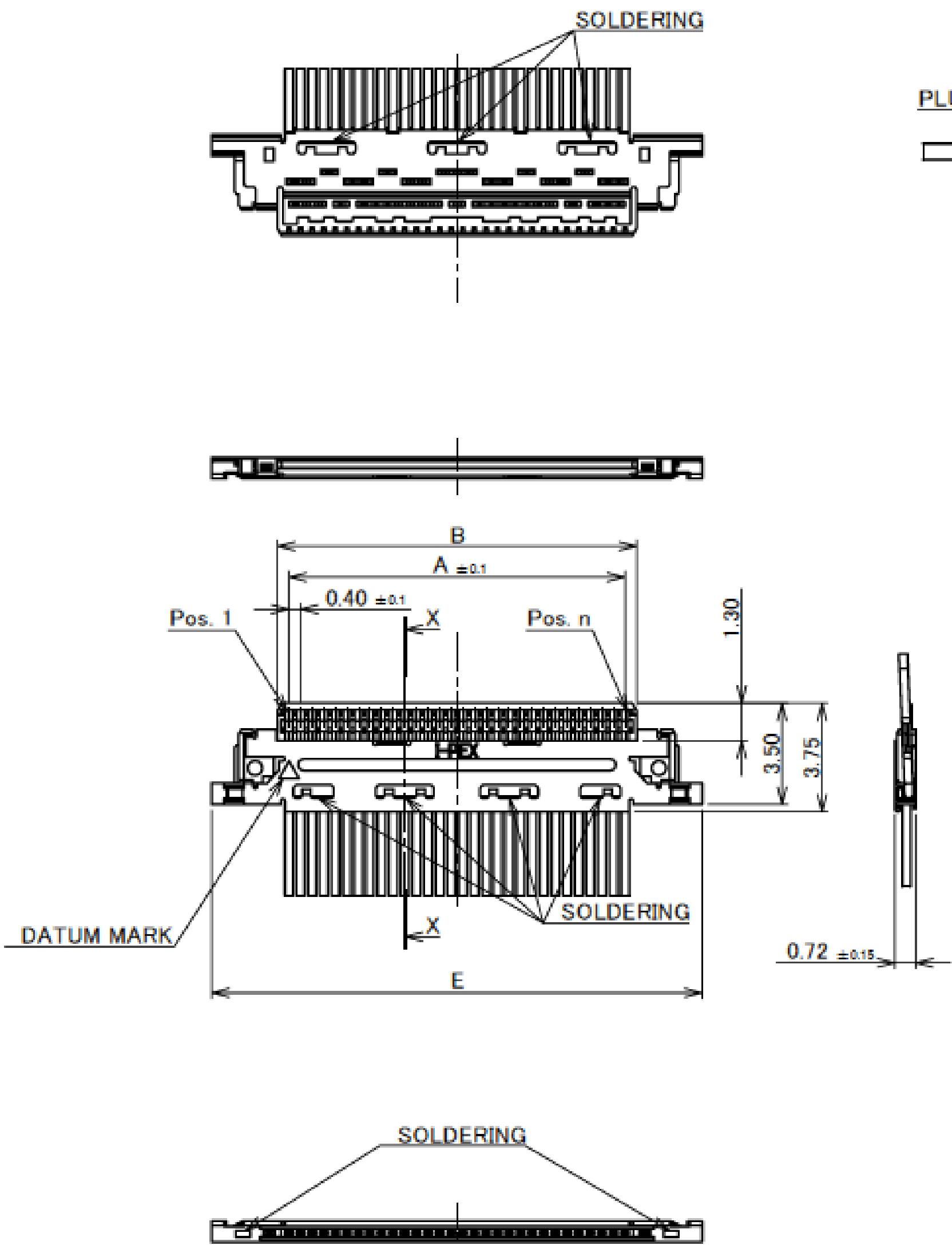
5	LATCH BAR	SUS	
4	SHELL B	PHOSPHOR BRONZE	Au 0.05 μ m MIN. OVER Ni 1.00 μ m MIN.
3	SHELL A	PHOSPHOR BRONZE	Au 0.05 μ m MIN. OVER Ni 1.00 μ m MIN.
2	CONTACT	PHOSPHOR BRONZE	Au 0.1 μ m MIN. OVER Ni 1.00 μ m MIN.
1	HOUSING	LCP	UL94V-0, BLACK
NO	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.15

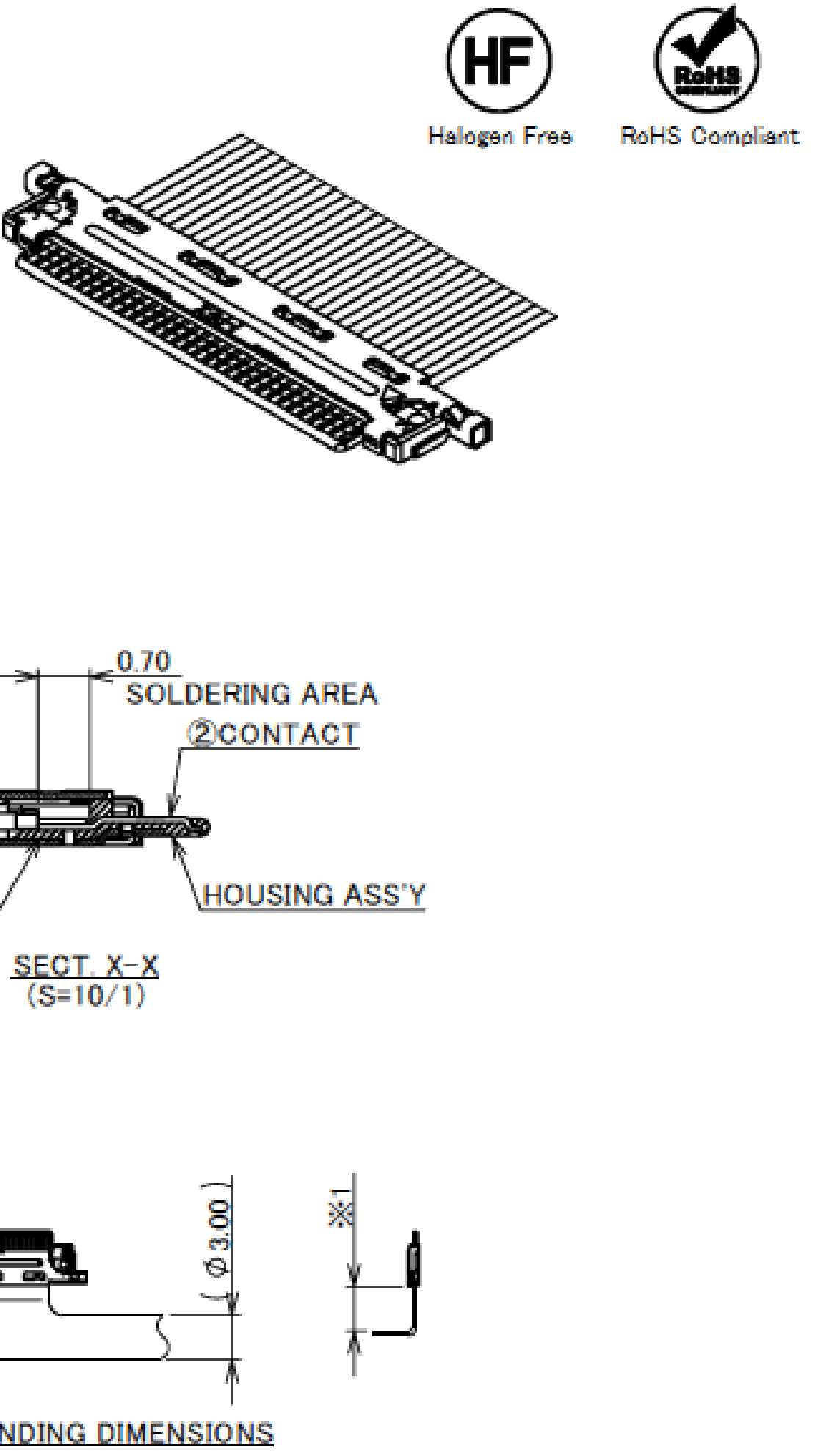
Recommended P/N		20472-0**T-10			
PART NO.	POS.	A	B	E	
20472-130T-10	30	11.60	12.40	16.94	
20472-140T-10	40	15.60	16.40	20.94	

P/N : 20472-#**T-10

POS.
0: WITH LATCH BAR
1: WITHOUT LATCH BAR



WITHOUT LATCH BAR



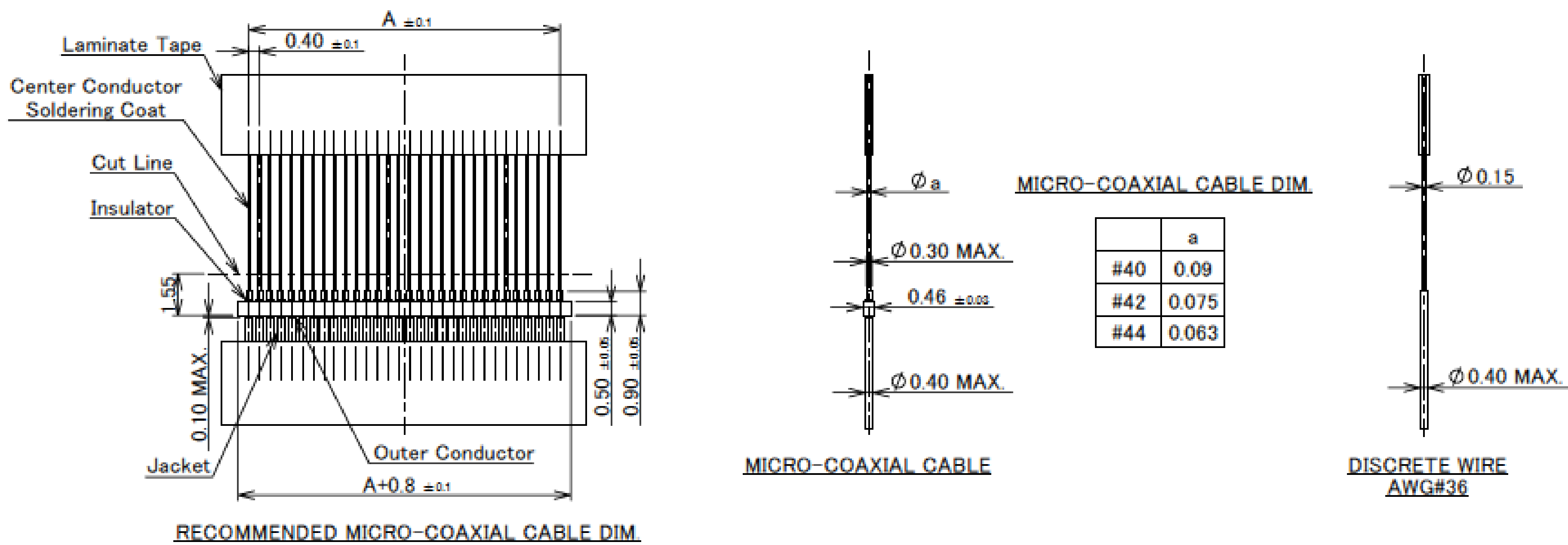
REFERENCE CABLE BENDING DIMENSIONS

※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.

Rev.15

Plug for Cable Assembly

PART NO.	POS.	A
20472-#30T-10	30	11.60
20472-#40T-10	40	15.60



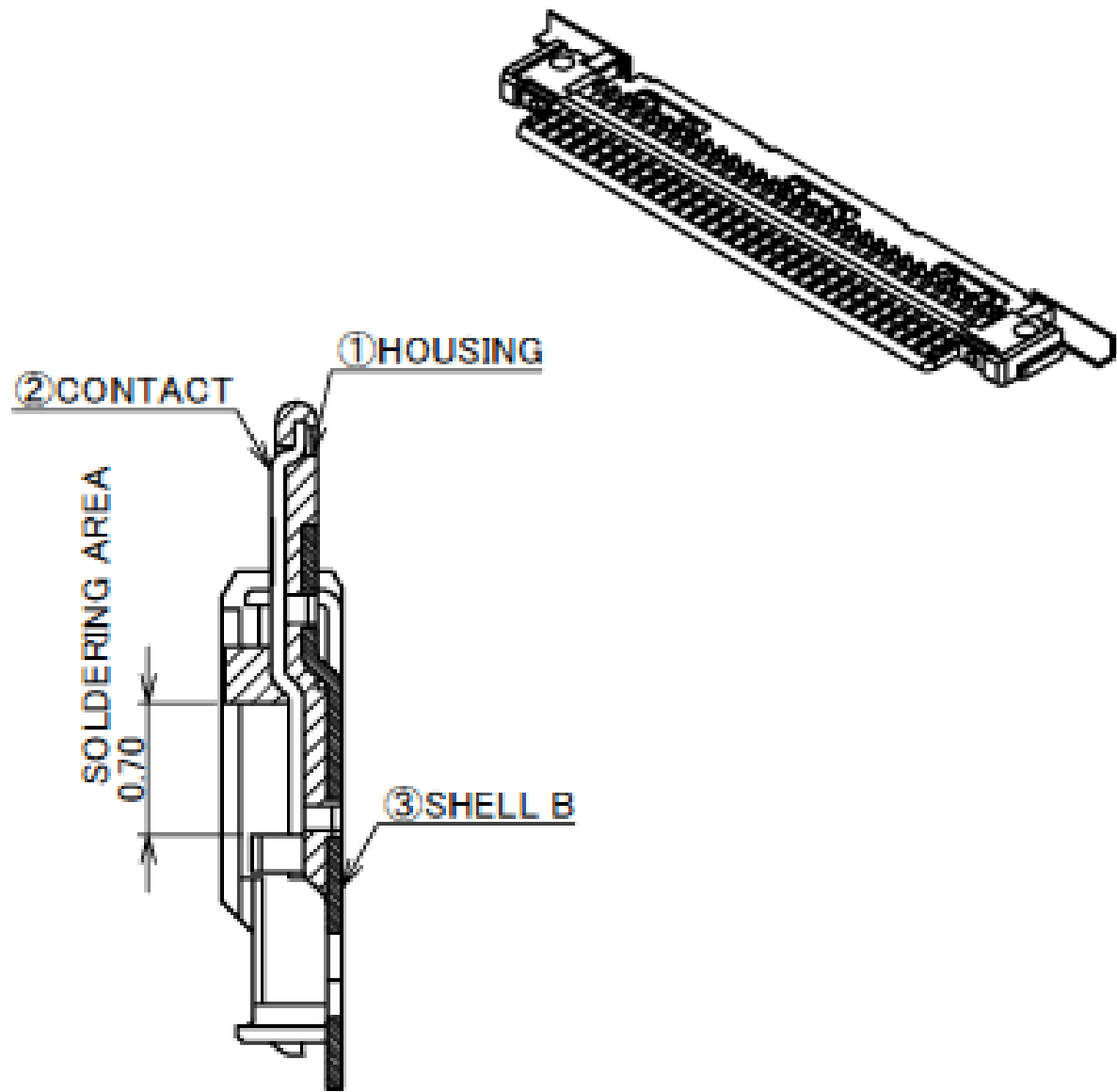
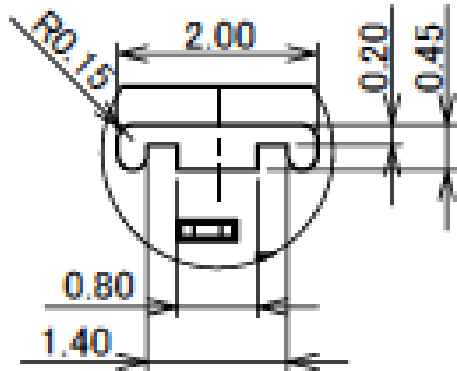
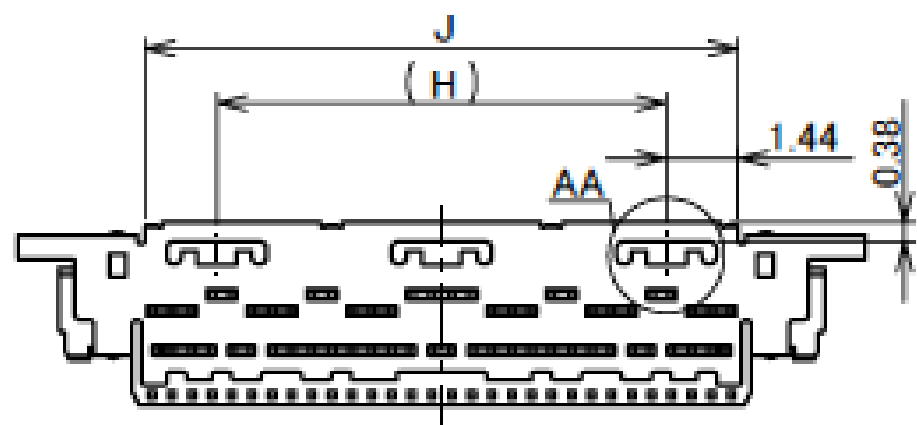
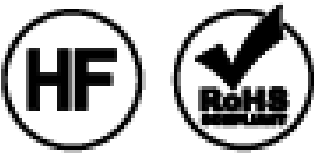
Rev.15

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG# 40, 42, 44 DISCRETE WIRE : AWG# 36
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 0.24A AC/DC [AWG#42] PER CONTACT PIN 0.3A AC/DC [AWG#40] PER CONTACT PIN 0.8A AC/DC [AWG#36] PER CONTACT PIN ※TESTING BY A REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION.
OPERATING TEMPERATURE	233~358K(-40℃~+85℃)
OPERATING HUMIDITY	85% MAX.
CONTACT RESISTANCE	INITIAL : 275mohm MAX. (AWG#36)/ AFTER TEST : ≦40mohm MAX. 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 TEST)	30P : 10N MAX. 40P : 12N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	30P : 3.0N MIN. 40P : 4.0N MIN.
CABLE RETENTION FORCE	30P : 14.70N MIN. 40P : 19.60N MIN.
PRODUCT SPECIFICATION	PRS-1421
TEST REPORT	TR-08030
INSTRUCTION MANUAL	HIM-09002
ASSEMBLY MANUAL	ASM-09002
APPEARANCE CRITERIA No.	QLS-A***

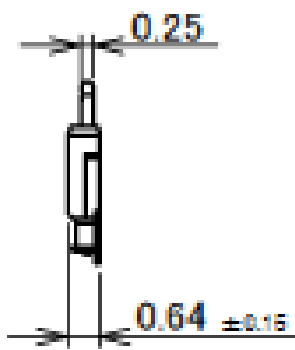
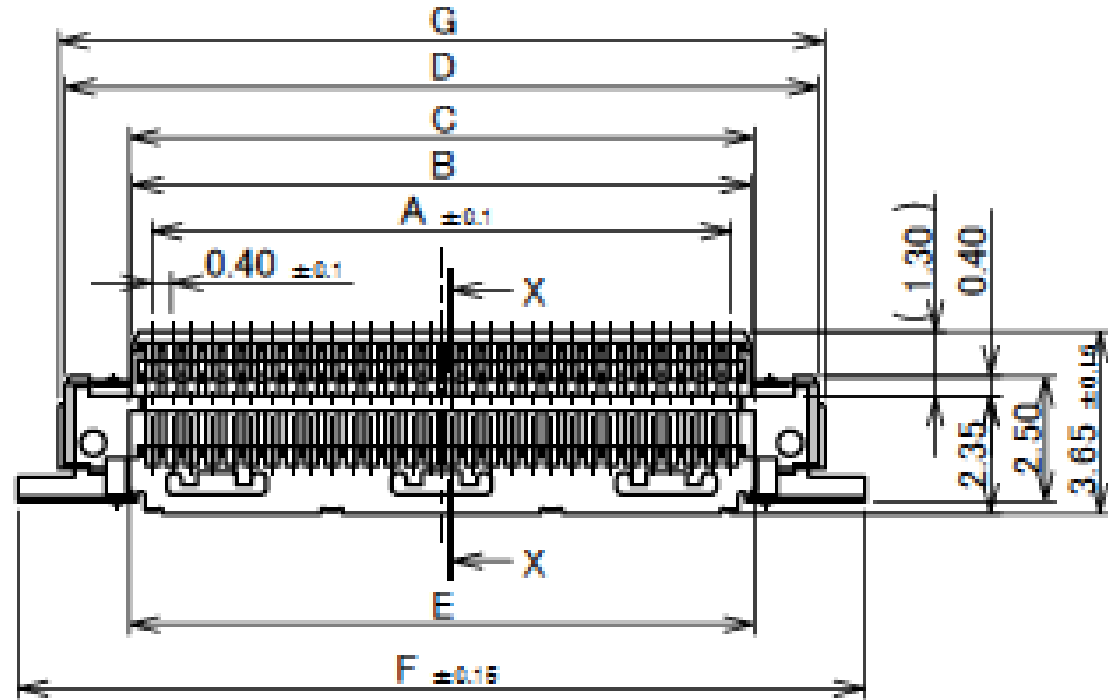
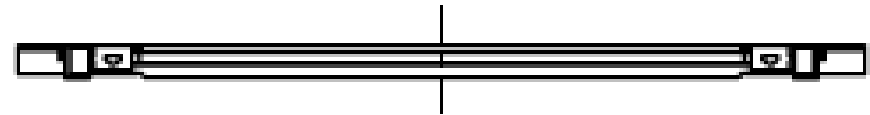
Rev.15

Plug Housing Assembly

Recommended P/N		20473-0**T-10									
PART NO.	POS.	A	B	C	D	E	F	G	H	J	
20473-030T-10	30	11.60	12.40	12.65	15.08	12.65	16.94	15.34	9.00	11.88	
20473-040T-10	40	15.60	16.40	16.65	19.08	16.65	20.94	19.34	13.00	15.88	



SECT. X-X
(S=10/1)



NOTES
1. THIS PART IS ASSEMBLED WITH SHELL A(P/N 2618-0**1)
AND LATCH BAR(P/N 2619-***0) AFTER SOLDERED THE CABLE,
AND IT BECOMES P/N 20472-0**T-10

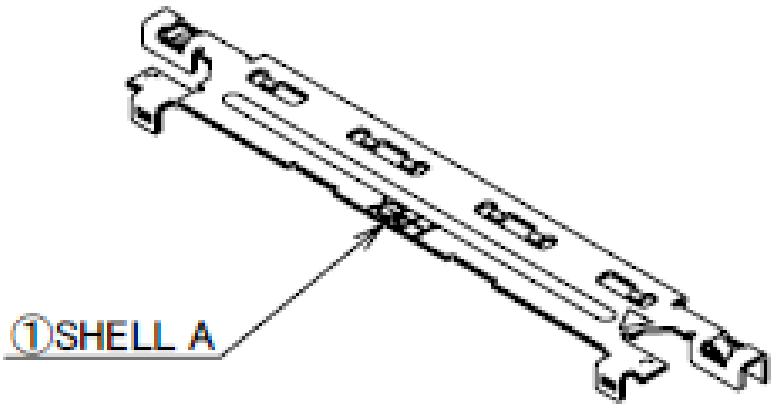
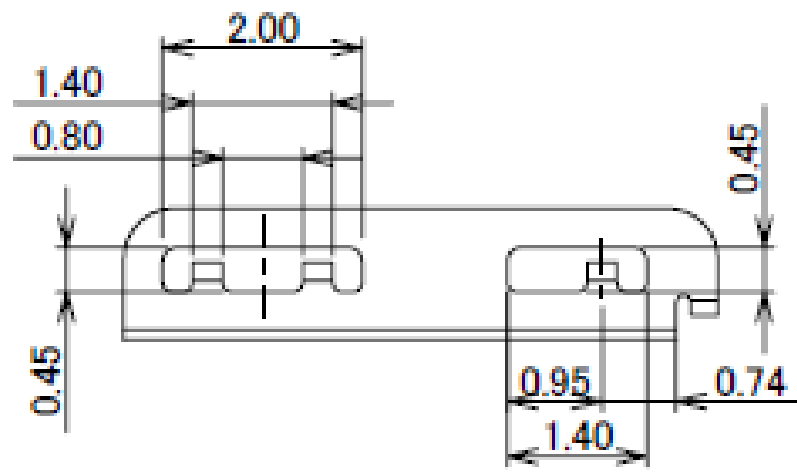
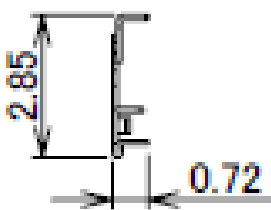
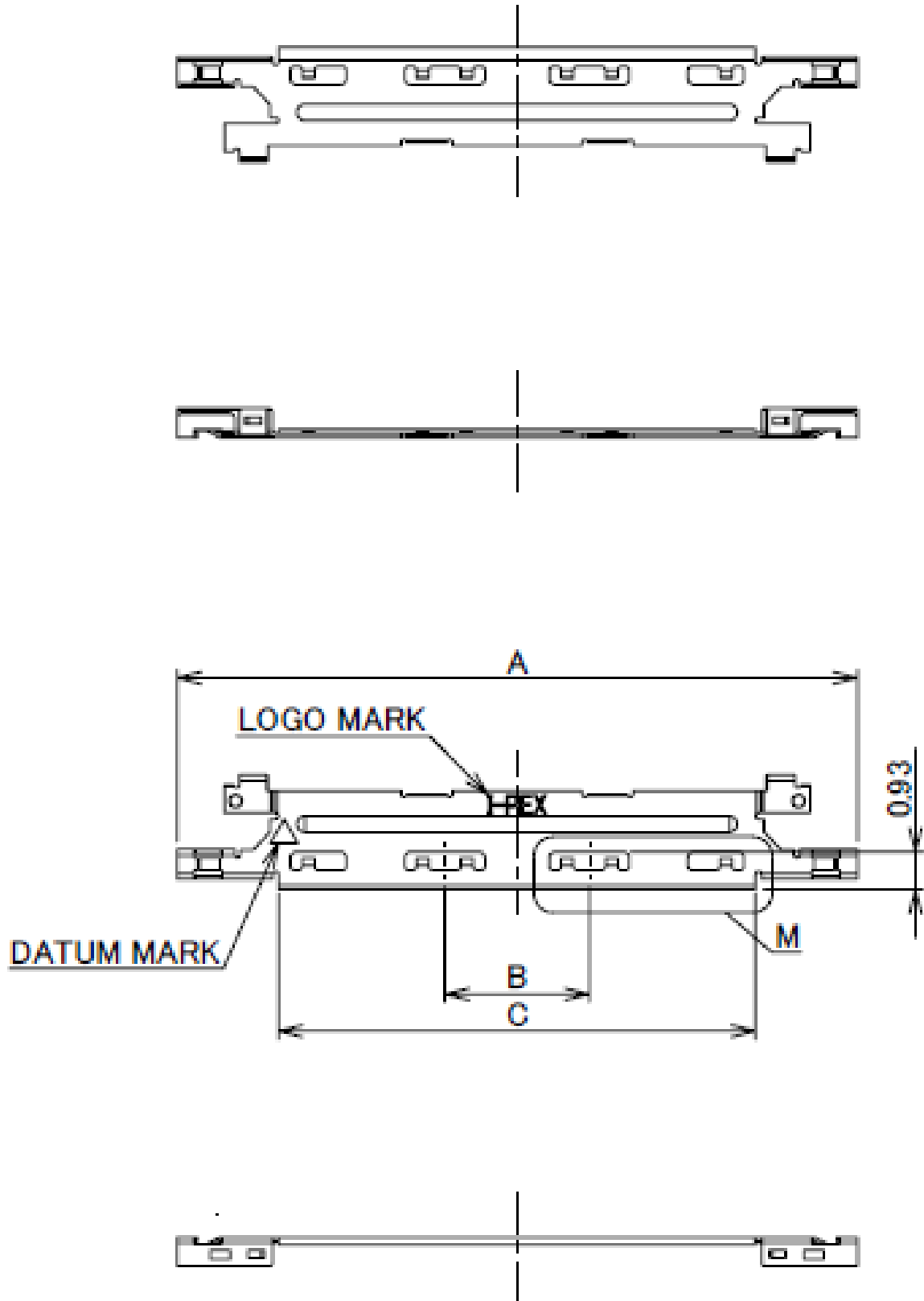
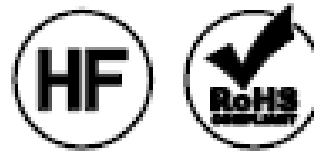
3	SHELL B	PHOSPHOR BRONZE	Au 0.05 μ m MIN. OVER Ni 1.00 μ m MIN.
2	CONTACT	PHOSPHOR BRONZE	Au 0.1 μ m MIN. OVER Ni 1.00 μ m MIN.
1	HOUSING	LCP	UL94V-0, BLACK
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.6

Plug Shell-A

Recommended P/N		2618-0**1		
PART NO.	POS.	A	B	C
2618-0301	30	16.94	3.60	11.88
2618-0401	40	20.94	5.60	15.88

P/N:2618- 0**1
POS.



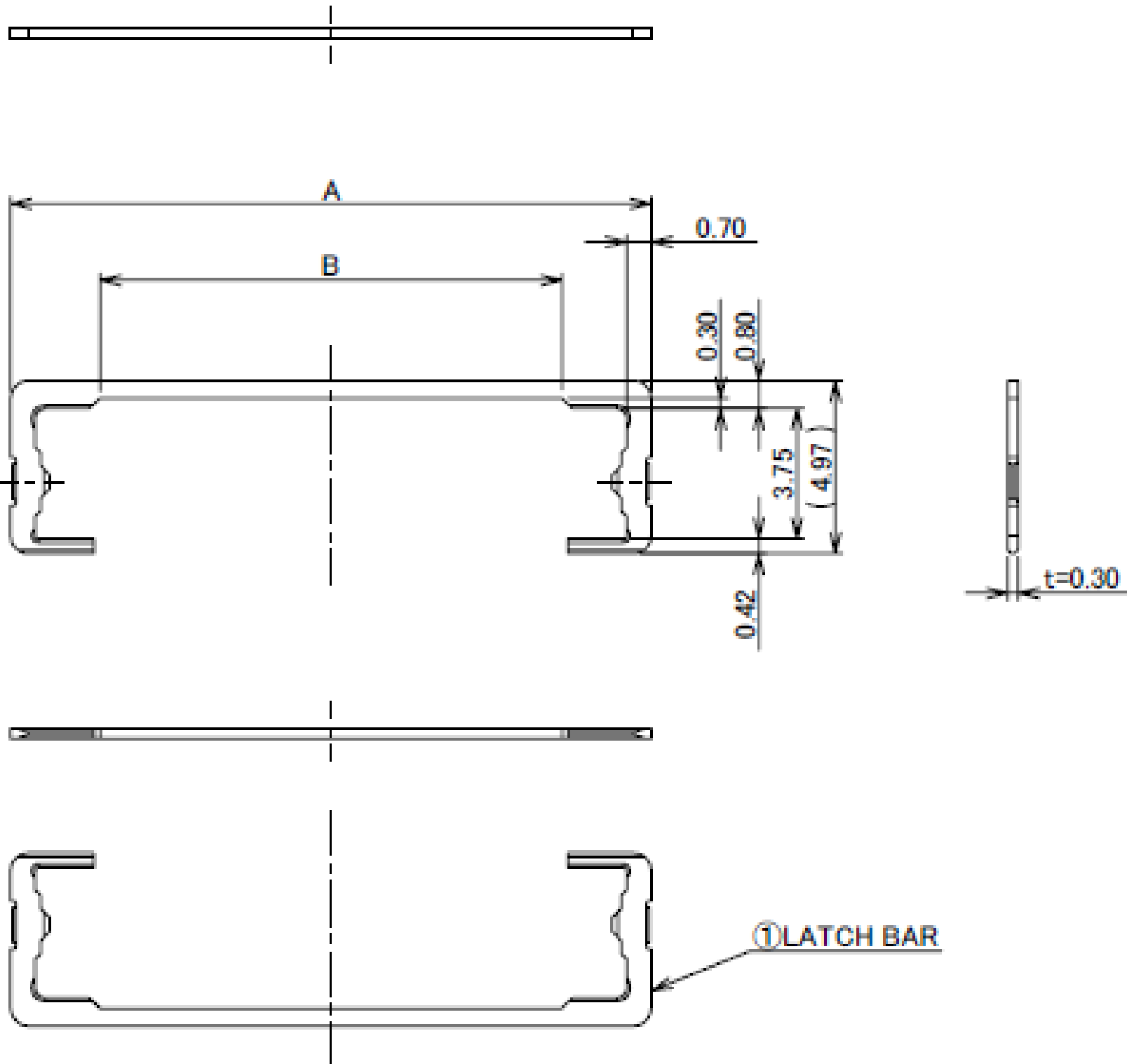
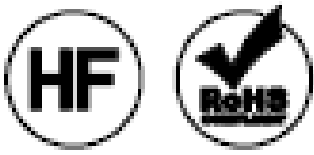
1	SHELL A	PHOSPHOR BRONZE	Au 0.05 μ m MIN. OVER Ni 1.00 μ m MIN.
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.5

Plug Latch Bar

Recommended P/N		2619-0**0	
PART NO.	POS.	A	B
2619-0300	30	18.44	13.00
2619-0400	40	22.44	17.00

2619-0**0
POS.

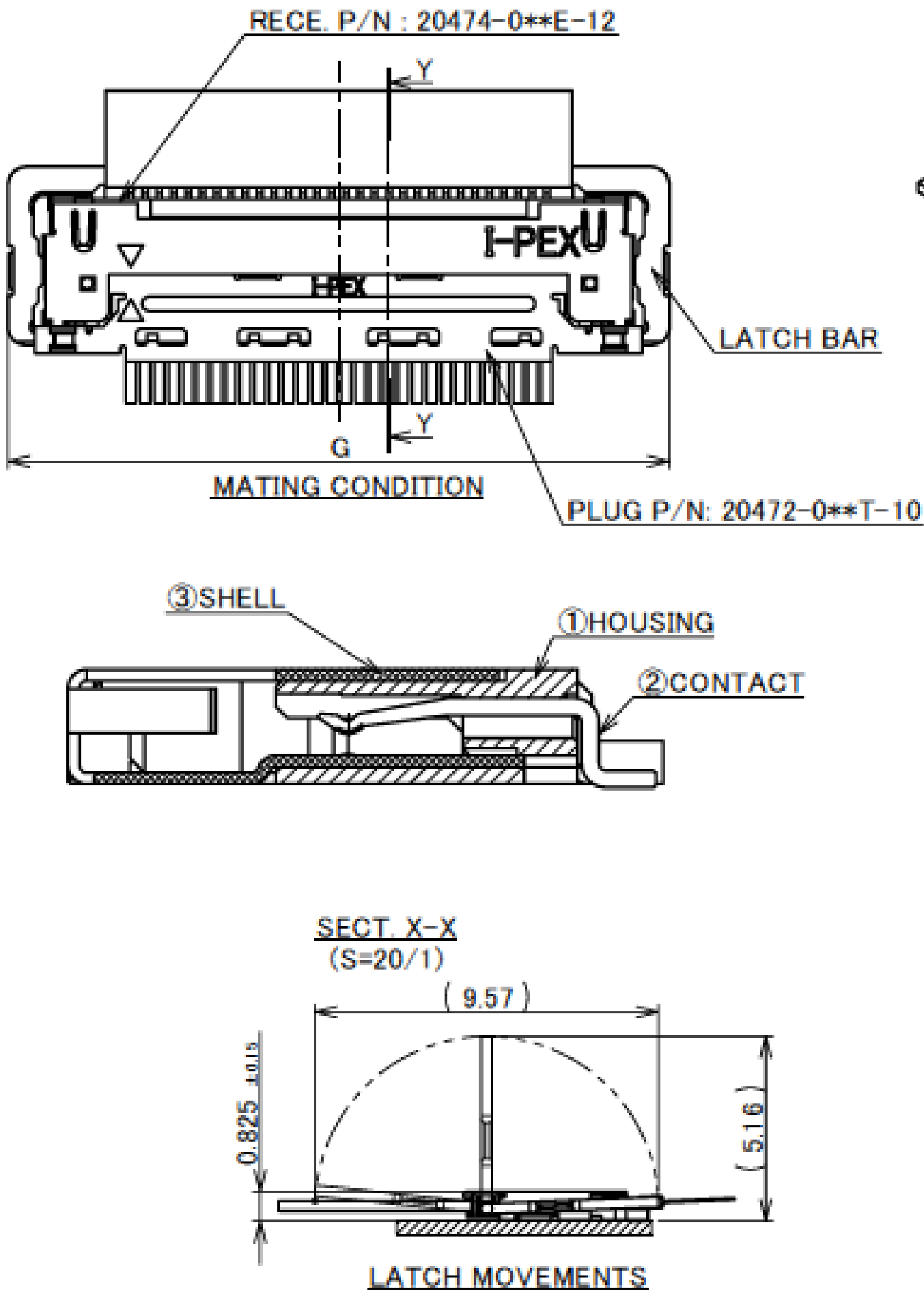
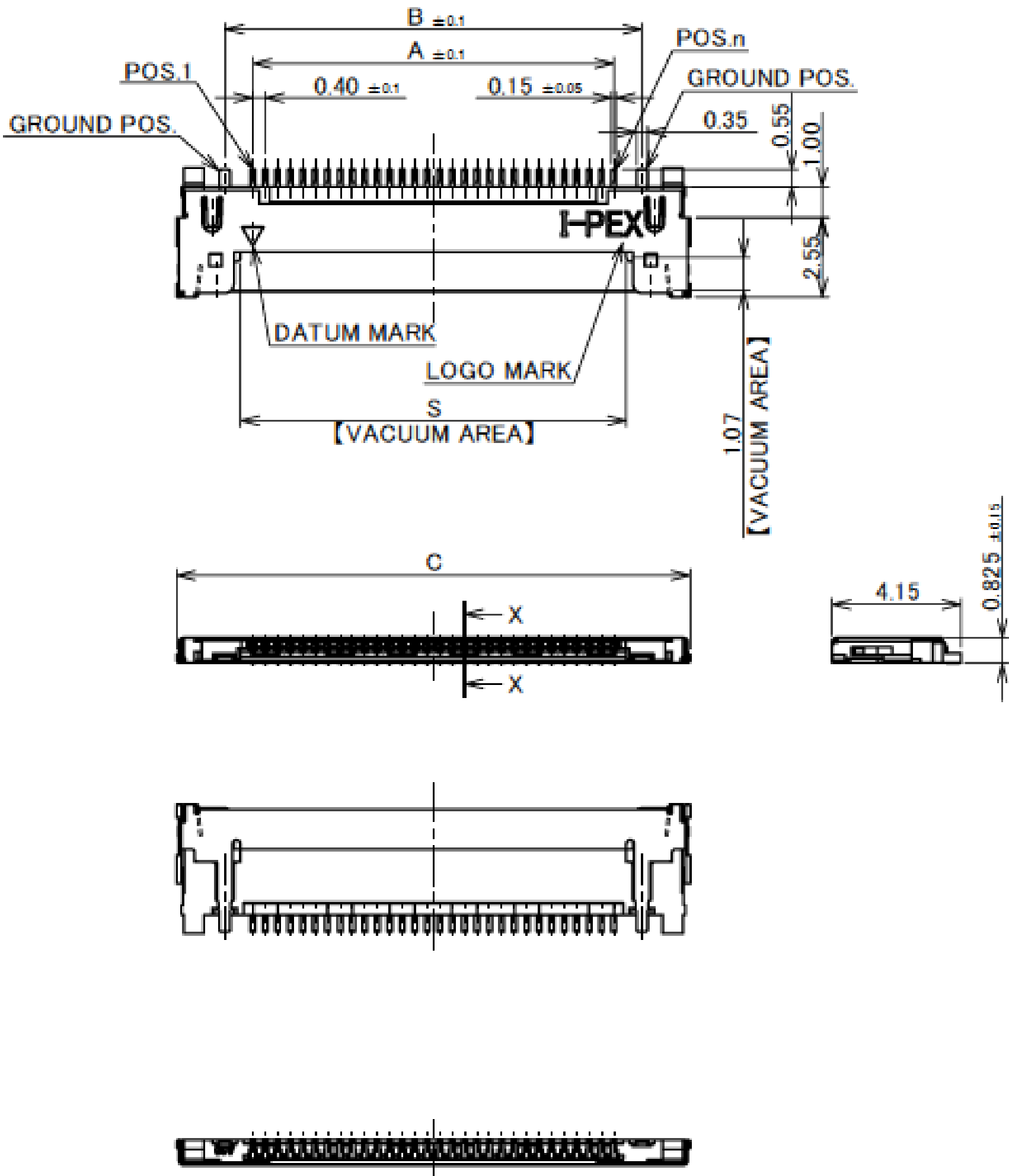
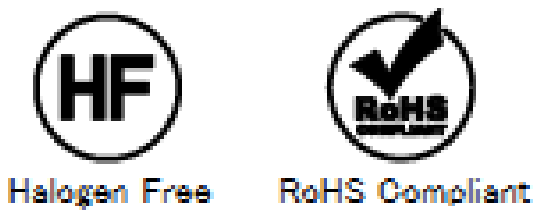


1	LATCH BAR	SUS	-
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.7

Receptacle Assembly

Recommended P/N		20474-0**E-12				
PART NO.	POS.	A	B	C	G	S
20474-030E-12	30	11.60	13.40	16.50	18.44	12.40
20474-040E-12	40	15.60	17.40	20.50	22.44	16.40

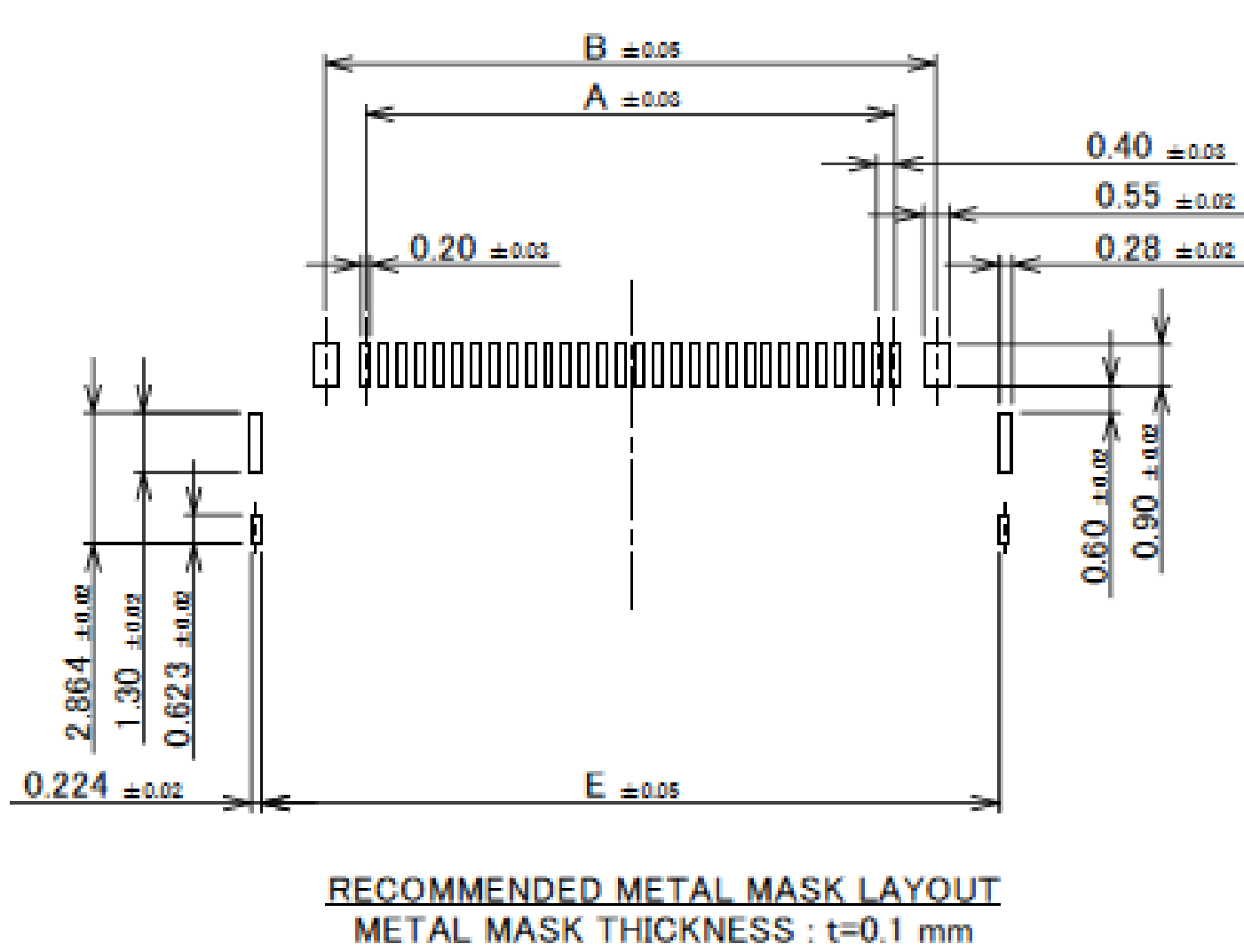
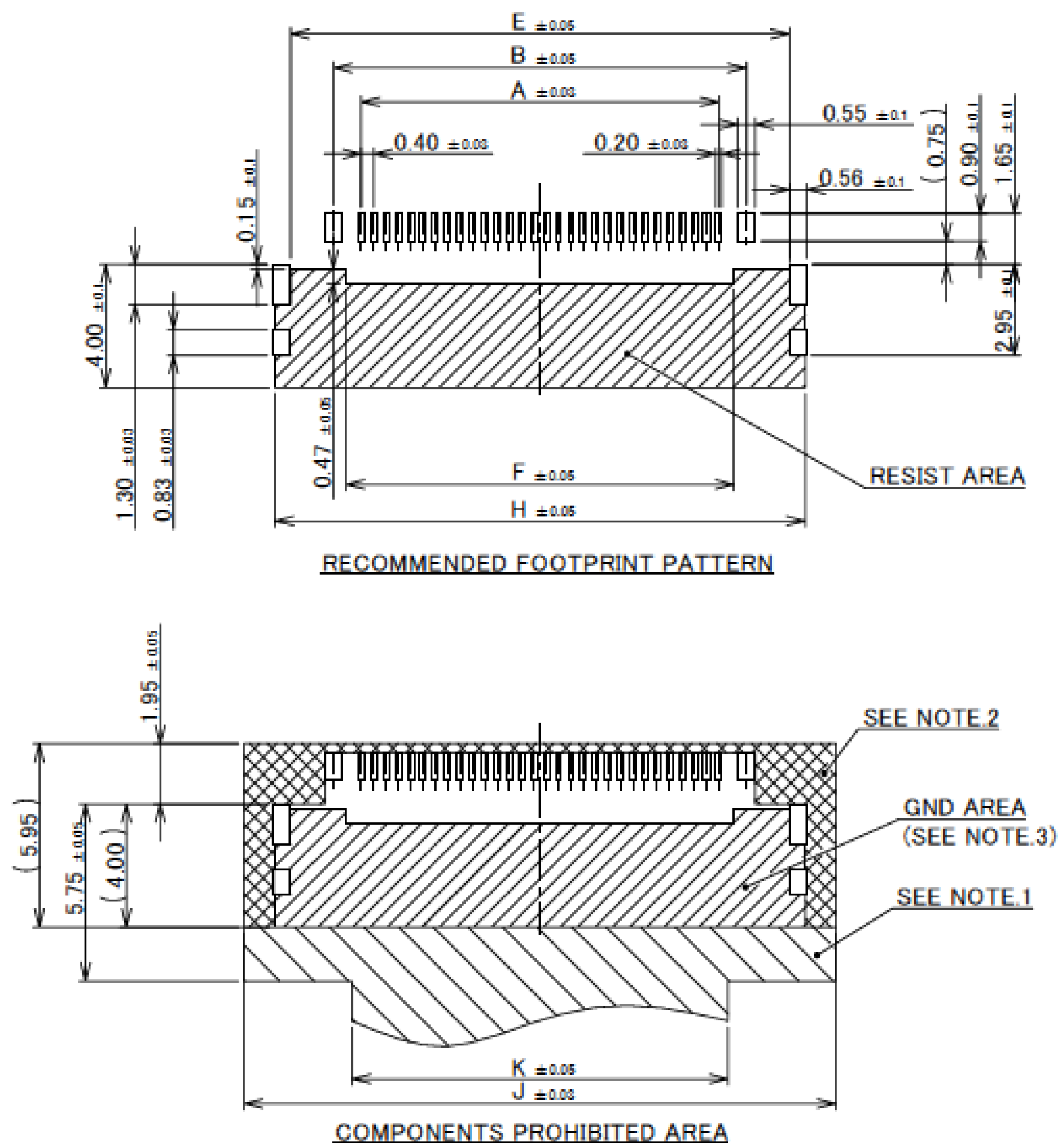


3	SHELL	PHOSPHOR BRONZE	Au 0.05 μ m MIN. OVER Ni 1.00 μ m MIN.
2	CONTACT	PHOSPHOR BRONZE	CONTACT AREA : Au 0.1 μ m MIN. OVER Ni 1.00 μ m MIN. SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.
1	HOUSING	LCP	UL94V-0, BLACK
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.14

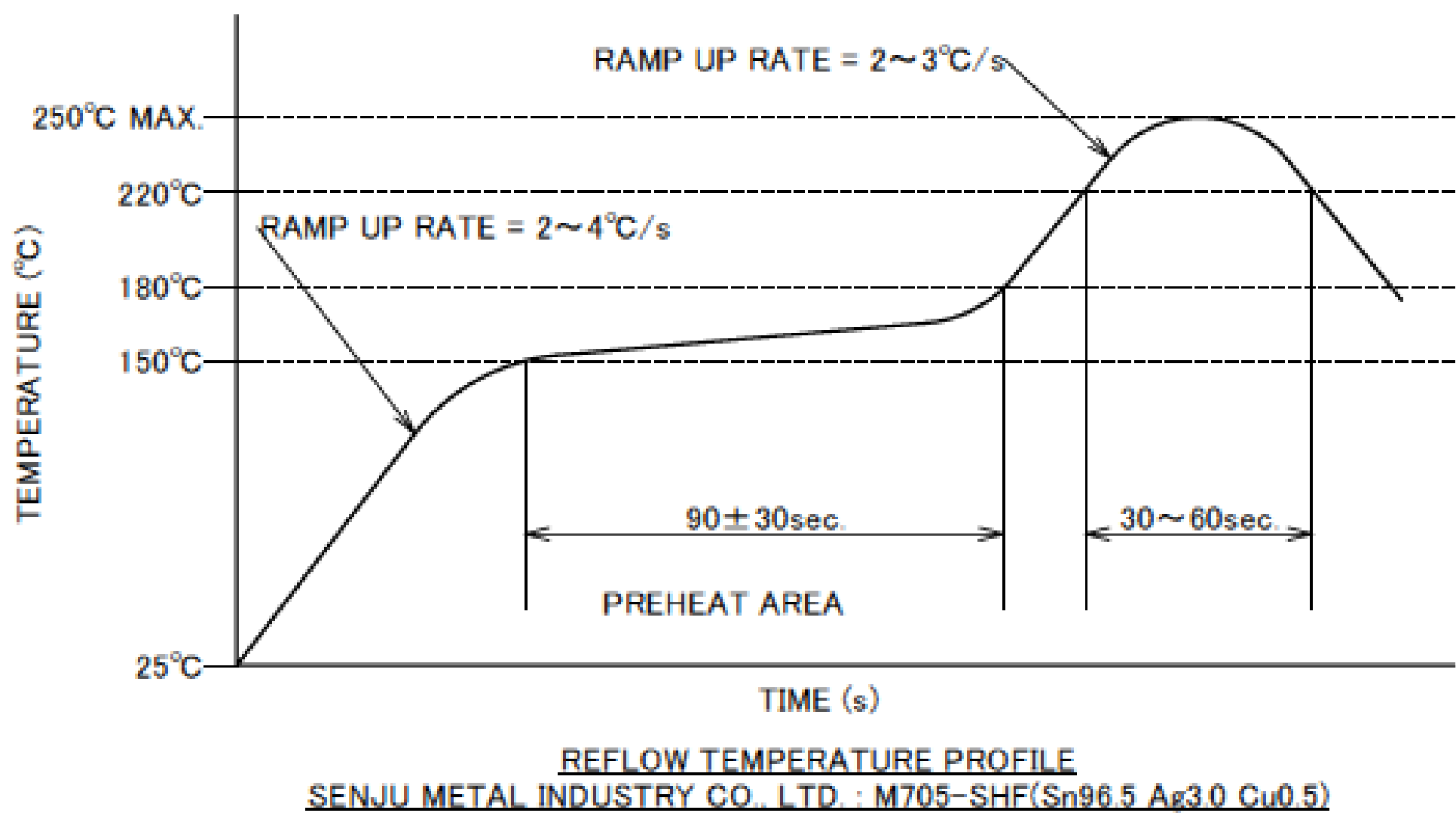
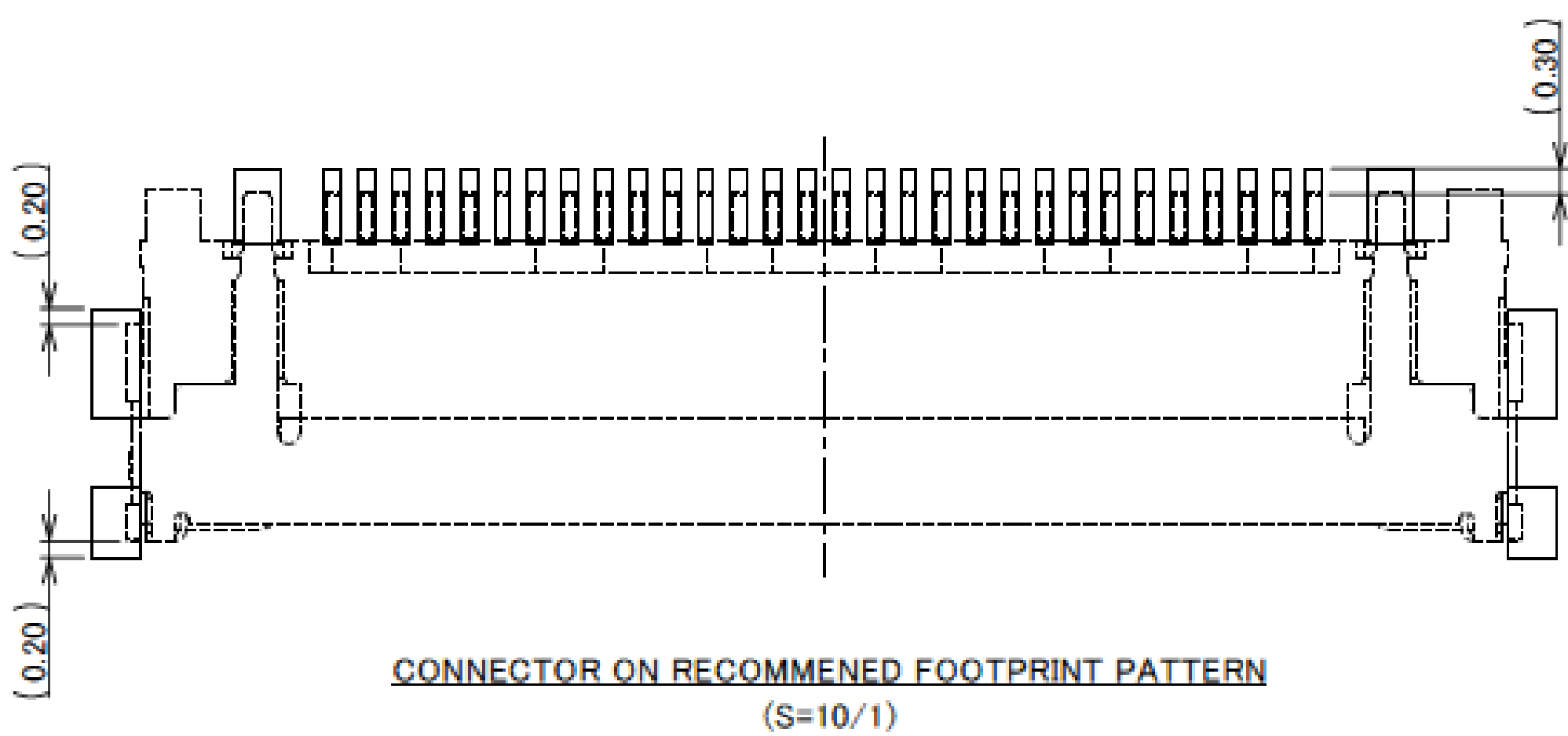
Receptacle Assembly

PART NO.	POS.	A	B	E	F	H	J	K
20474-030E-12	30	11.60	13.40	16.18	12.59	17.20	19.20	12.20
20474-040E-12	40	15.60	17.40	20.18	16.59	21.20	23.20	16.20



- NOTES.
- 1. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.
 - 2. IN CASE OF PLUG WITH LATCH BAR(20472-0**T-10). DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.
 - 3. SODLER RESIST MUST BE APPLIED TO THIS AREA.

Rev.14



Rev.14

Receptacle Assembly

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG# 40, 42, 44 DISCRETE WIRE : AWG# 36
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 0.24A AC/DC [AWG#42] PER CONTACT PIN 0.3A AC/DC [AWG#40] PER CONTACT PIN 0.8A AC/DC [AWG#36] PER CONTACT PIN ※TESTING BY A REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION.
OPERATING TEMPERATURE	233~358K(-40℃~+85℃)
OPERATING HUMIDITY	85% MAX.
CONTACT RESISTANCE	INITIAL : 275mohm MAX. (AWG#36)/ AFTER TEST : ≦40mohm MAX. 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 TEST)	30P : 10N MAX. 40P : 12N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	30P : 3.0N MIN. 40P : 4.0N MIN.
CABLE RETENTION FORCE	30P : 14.70N MIN. 40P : 19.60N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-1421
TEST REPORT	TR-08030
PACKING STANDARD	300-657
INSTRUCTION MANUAL	HIM-09002
APPEARANCE CRITERIA No.	QLS-A***

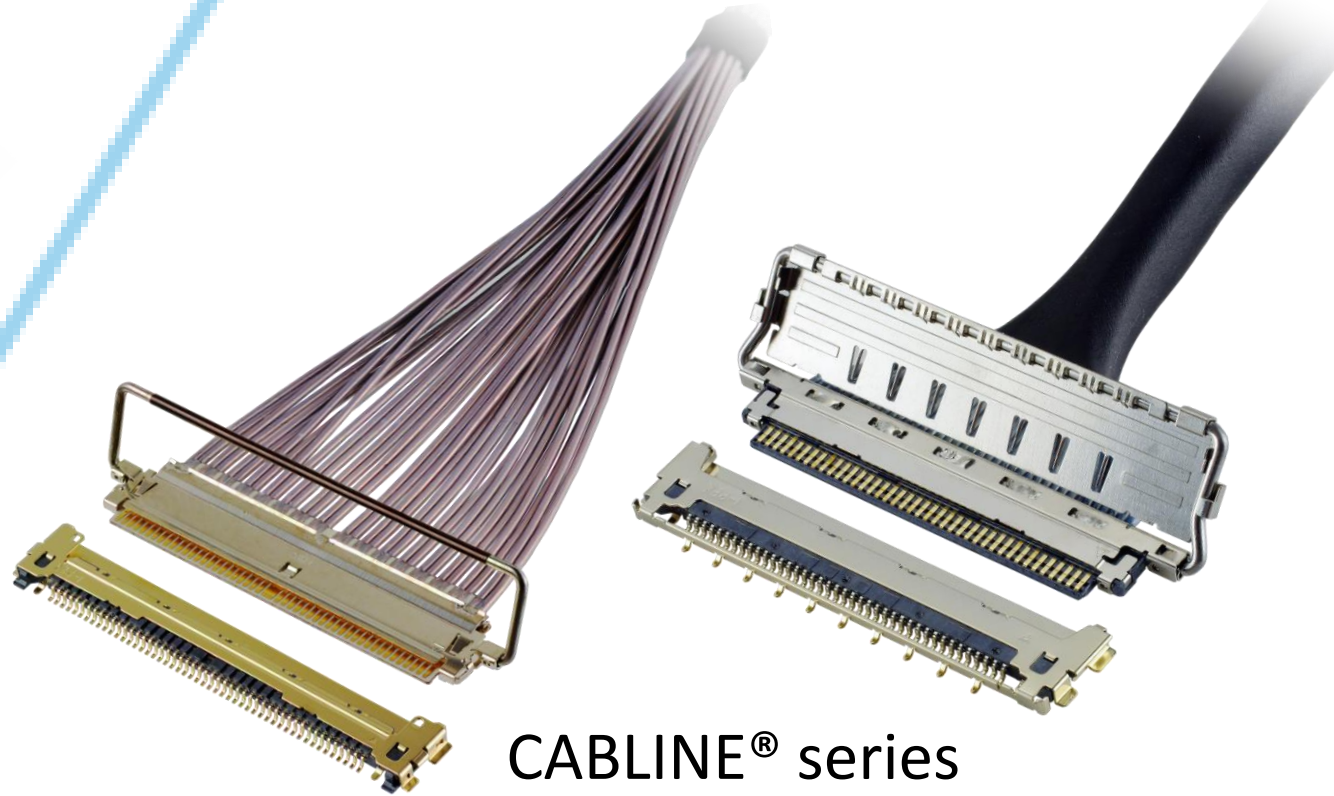
Custom Connectors Available

 RF
Connectors

MHF® series



CABLINE® series

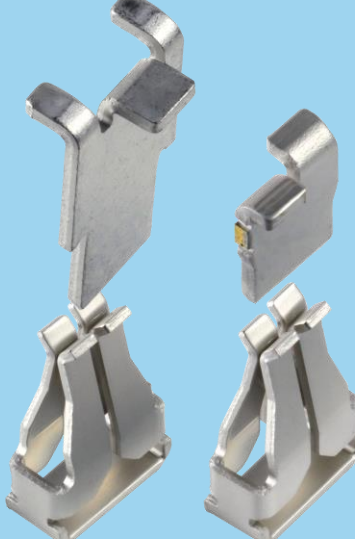


 Micro-Coaxial/Twinax
Connectors



Wire-to-Board
Connectors/
Terminals

AP series



ISH® series



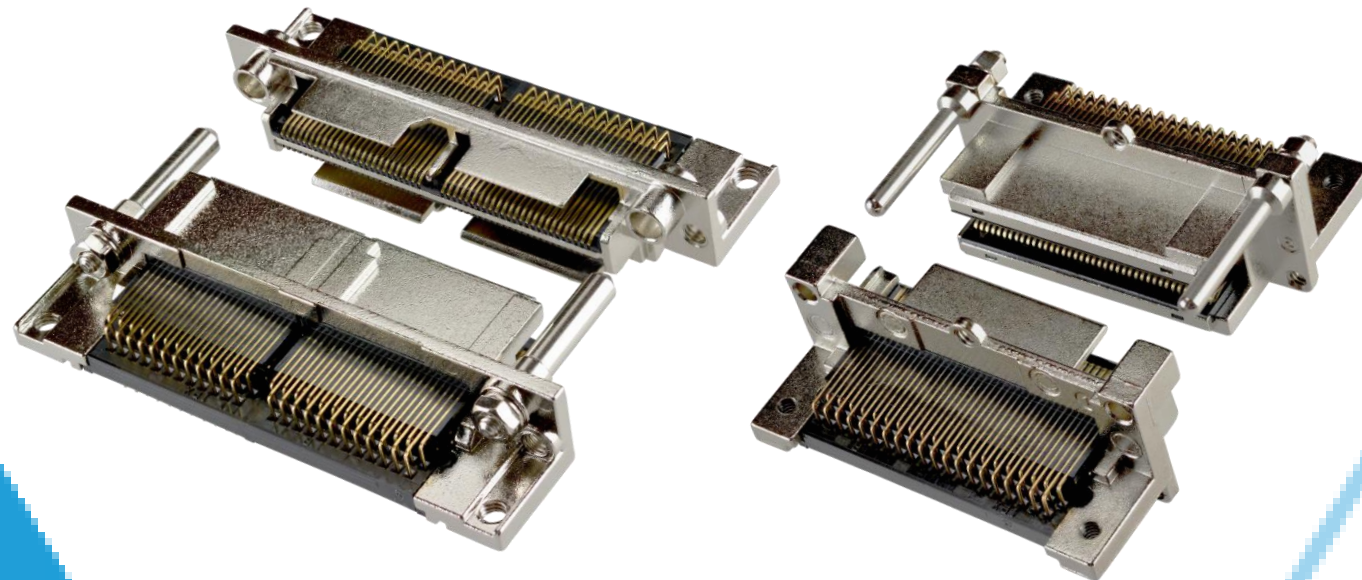
NOVASTACK® series



Board-to-Board
Connectors



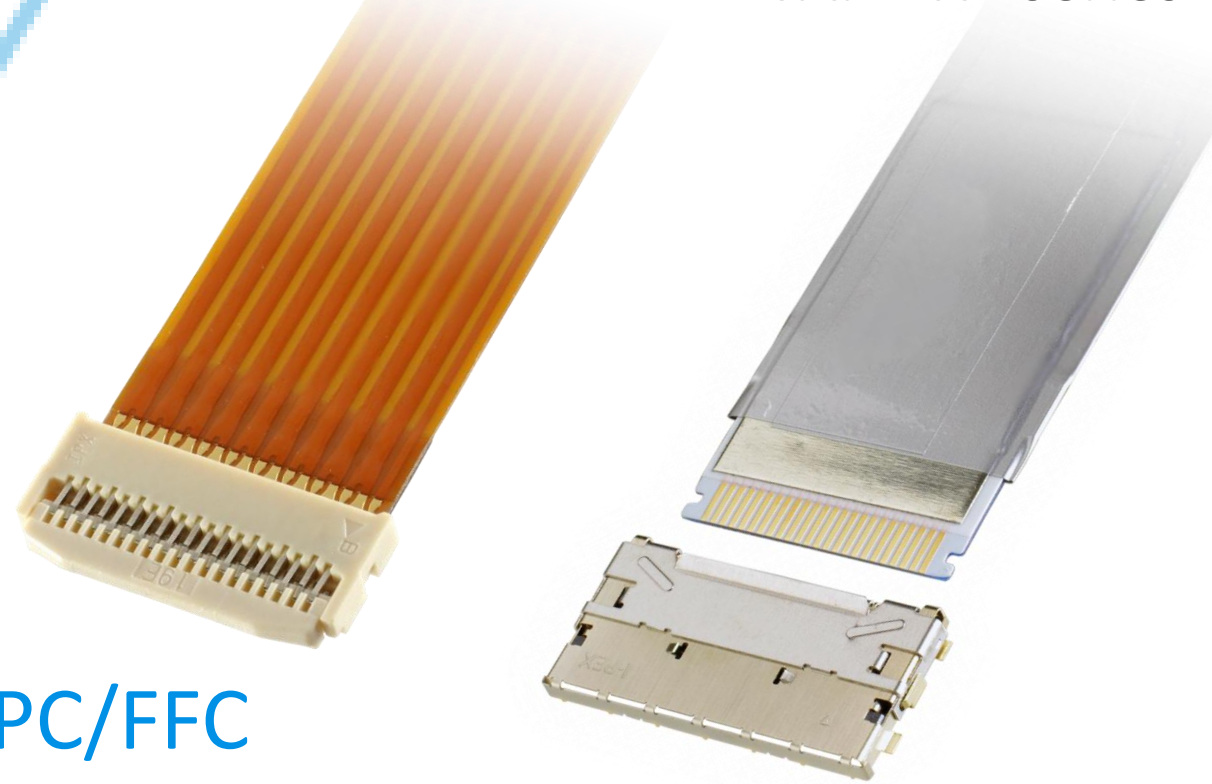
I/O
Connectors



MINIDOCK™ series

MINIFLEX® series

EVAFLEX® series



FPC/FFC
Connectors



Inquiry



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Contact your sales representative
or more detailed information.

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