

FPL™ II

高速数据传输(12 Gbps/lane)，供电用途最大支持搭载AWG 32电子线，多点接地抗噪设计，垂直插拔方式，0.5mm 间距, 极细同轴线连接器

Product Specifications:

Mating type		Right angle vertical
Board Pitch		0.5 mm
Wiping Length		0.51 mm
Mated Size	Height	2.2 +/- 0.2 mm
	Width	5.8 + (0.5 x pin count) mm
	Depth	6.1 mm
Pin Counts	Range	Up to 50
	Available	30, 40, 50

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):

HDMI 2.1 (12 Gbps/Lane), USB 3.2 Gen2 (10 Gbps/Lane), DP UHBR3 (8.1 Gbps/Lane)
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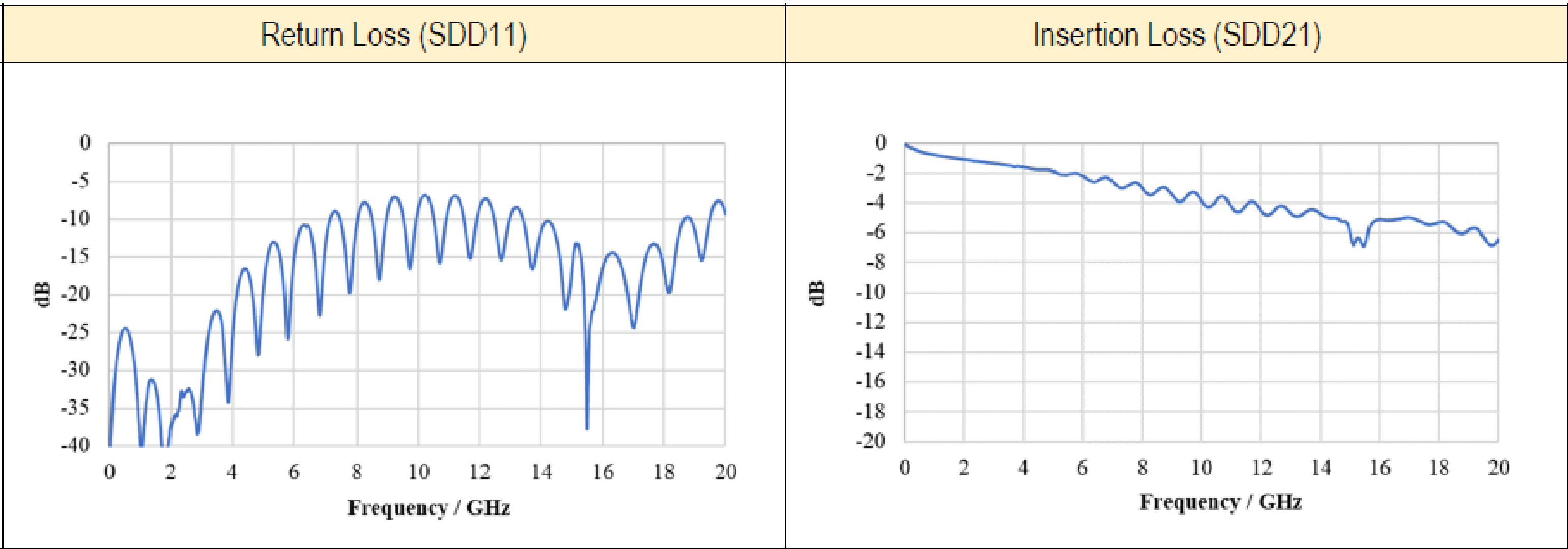


*如您需要了解未列出或不在范围内的Pin数，请咨询我们。

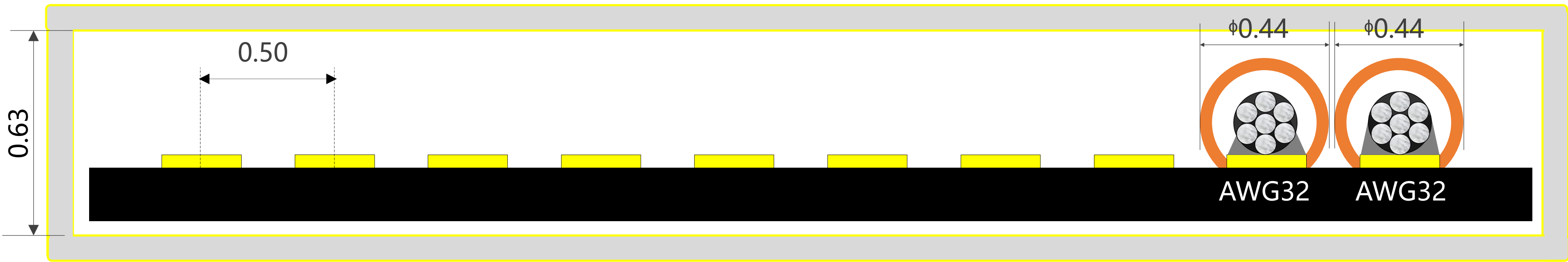
► 高速率传输, 12 Gbps/lane应用的理想之选

Measurement results

Connector: FPL II 40 pin
Cable: Micro-coaxial cable
AWG 40, 50 ohm , Length : 100 mm
Pin Assignment: GSSGSSG

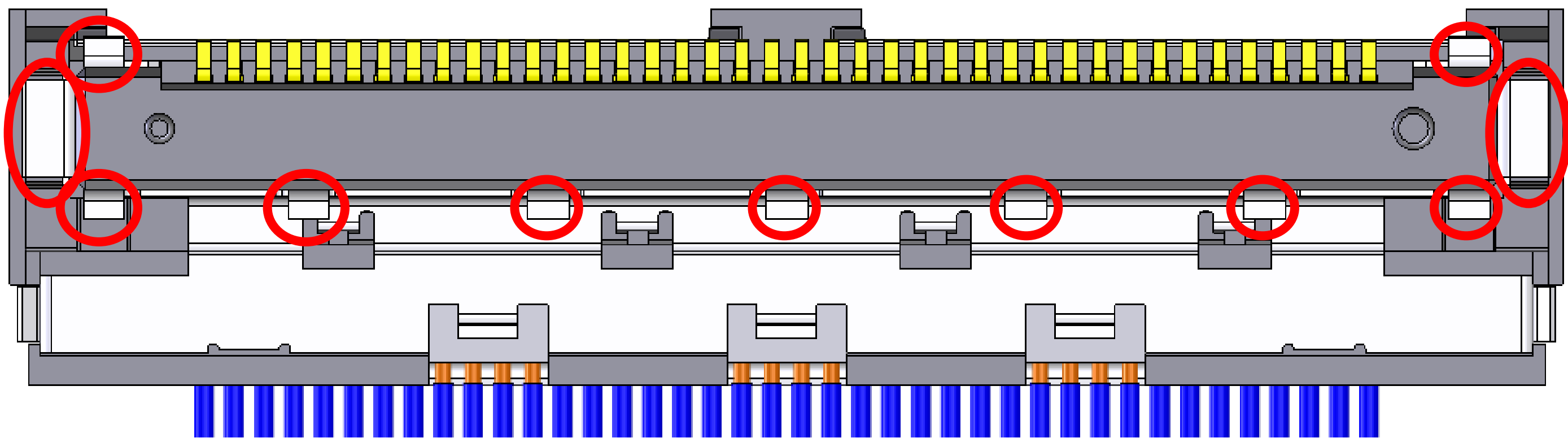


► 供电用途最大支持搭载AWG 32电子线



Metal shell FPL™ II 0.5 mm间距，搭载电子线的情形 (Unit : mm)

► 多点接地设计，有效屏蔽电磁波干扰



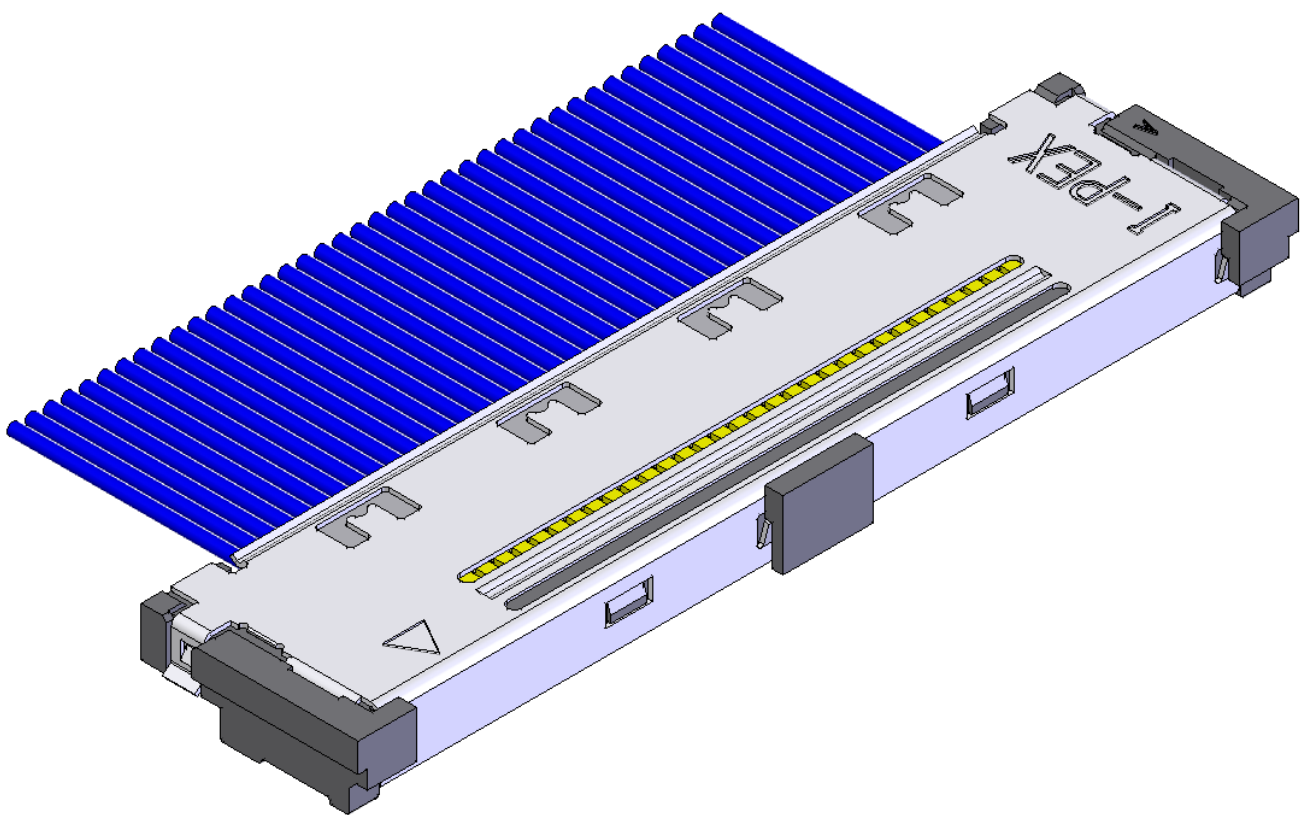
FPL™ II 30 pin 底部视图

○ 接地部位

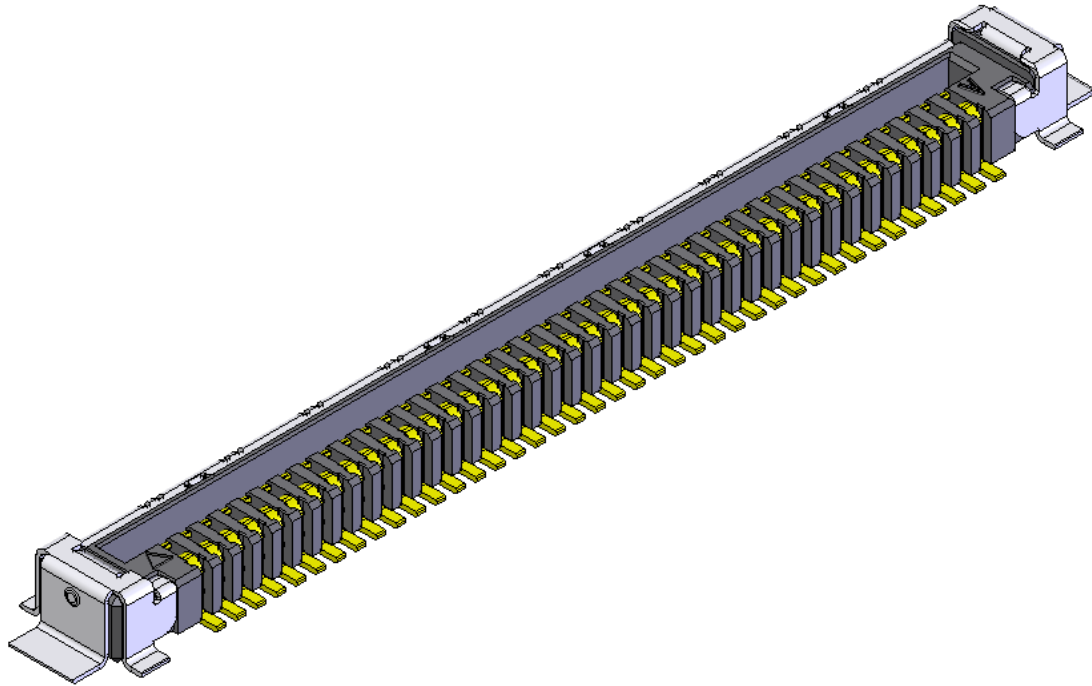
Component Parts Details

Component Parts

Connector parts

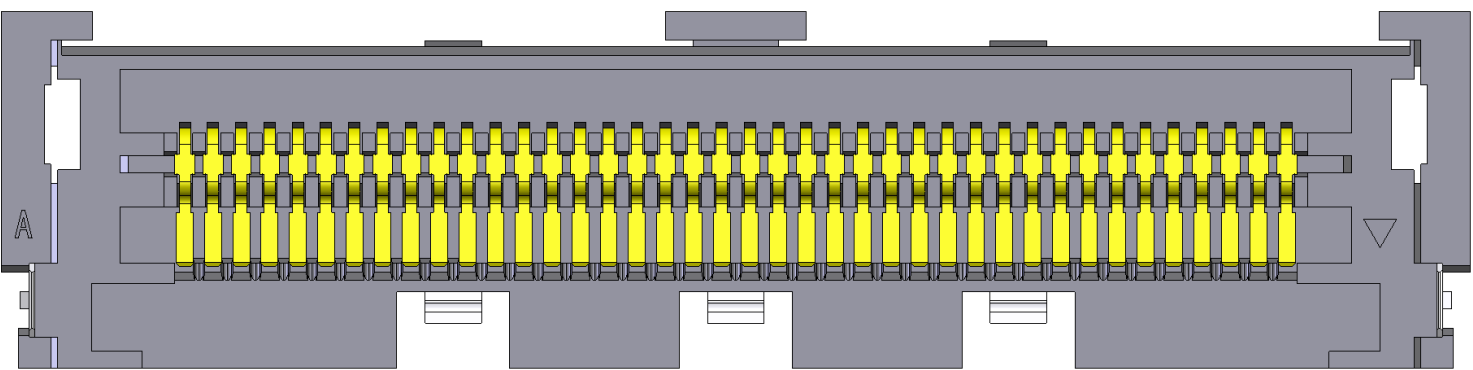


PLUG

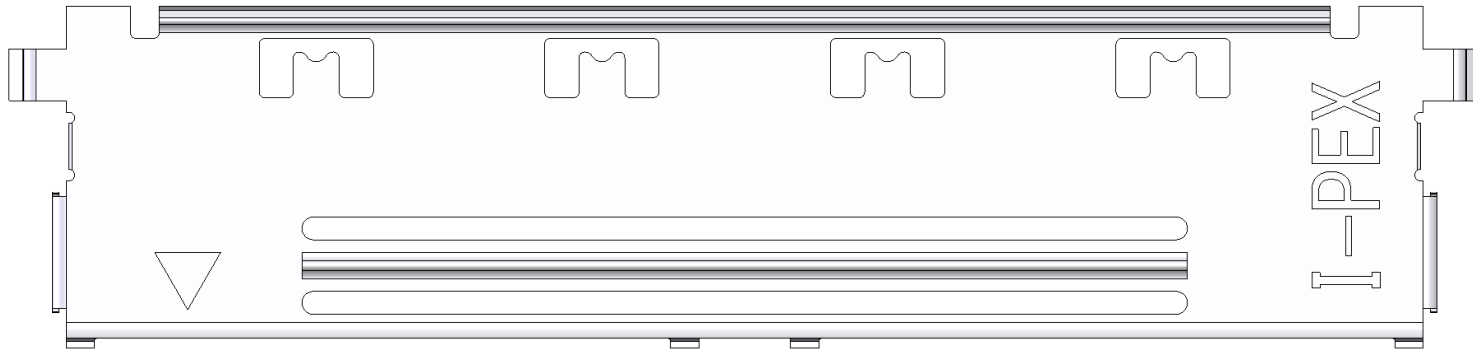


RECEPTACLE

Plug parts



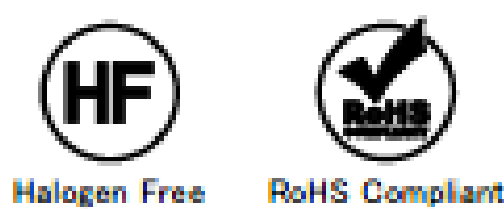
PLUG HOUSING ASSEMBLY



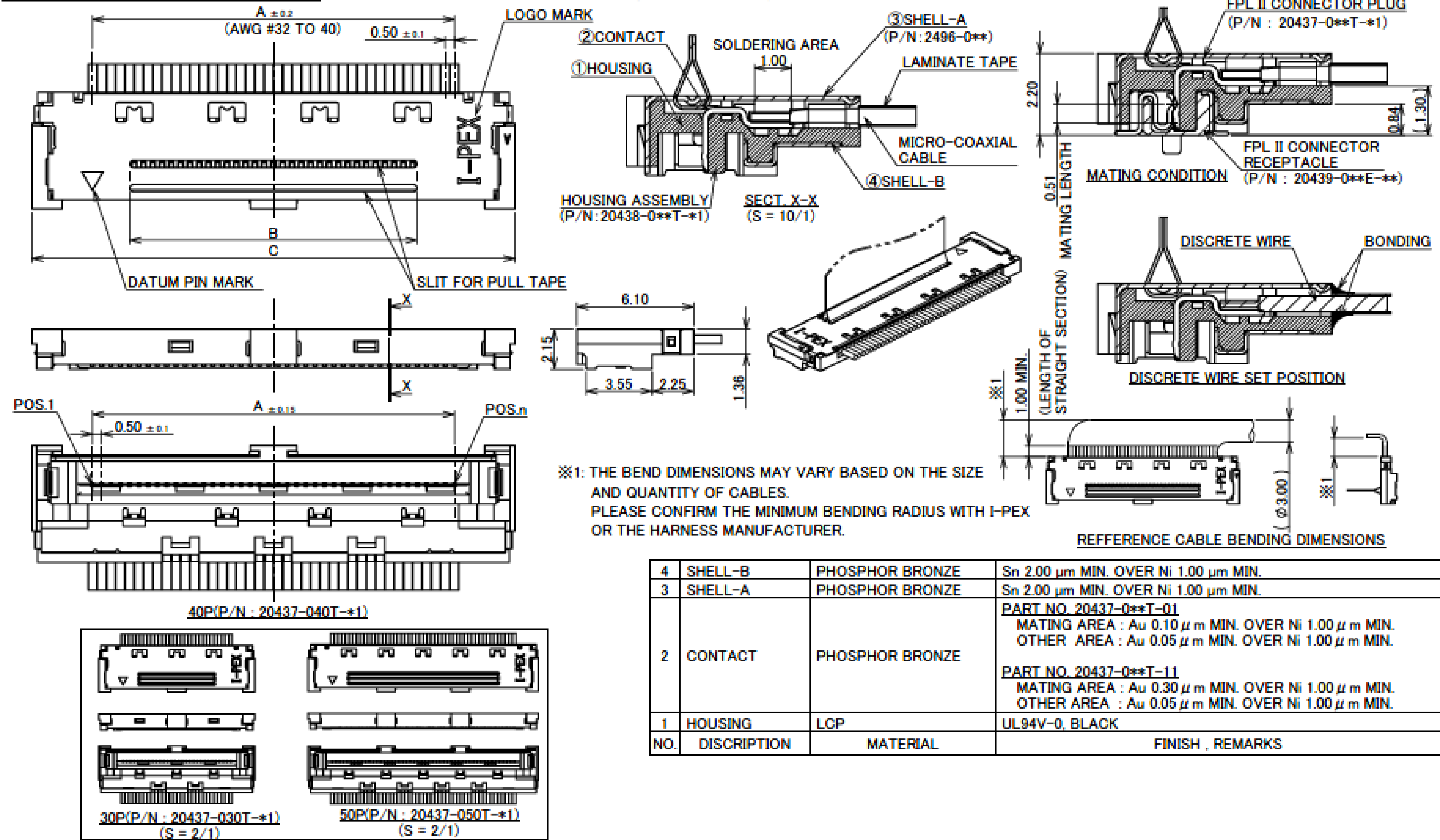
PLUG SHELL-A

Plug for Cable Assembly

Recommended P/N		20437-0**T-01		
PART No.	POS.	A	B	C
20437-030T-*1	30	14.50	10.50	20.80
20437-040T-*1	40	19.50	15.50	25.80
20437-050T-*1	50	24.50	20.50	30.80

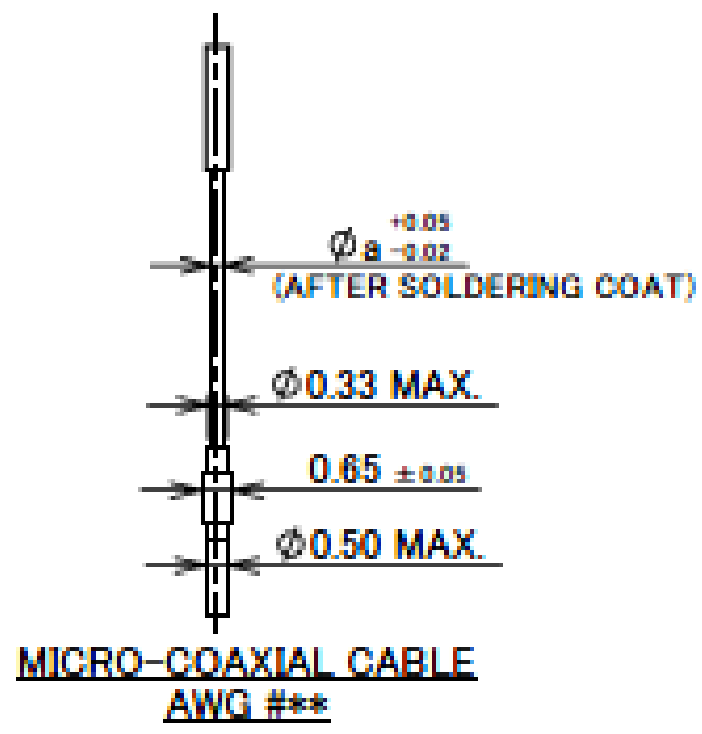
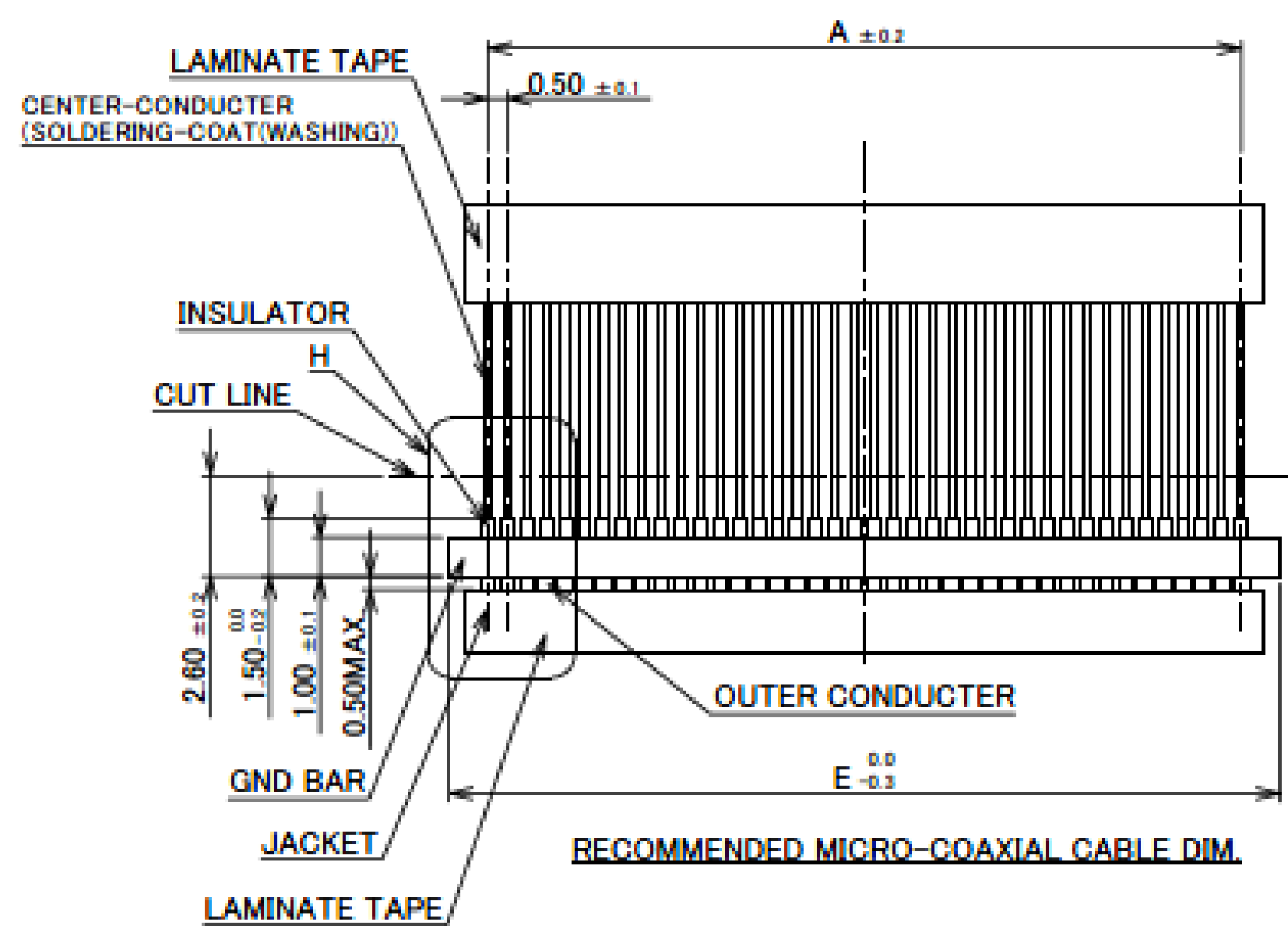


CABLE ASSEMBLY PART No.	HOUSING ASSEMBLY PART No.	SHELL-A PART No.	CONTACT FINISH (MATING AREA)
20437-0**T-01	20438-0**T-01	2496-0**	Au 0.10 μm MIN.
20437-0**T-11	20438-0**T-11		Au 0.30 μm MIN.



CAUTION VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HIM-09007 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

Rev.20



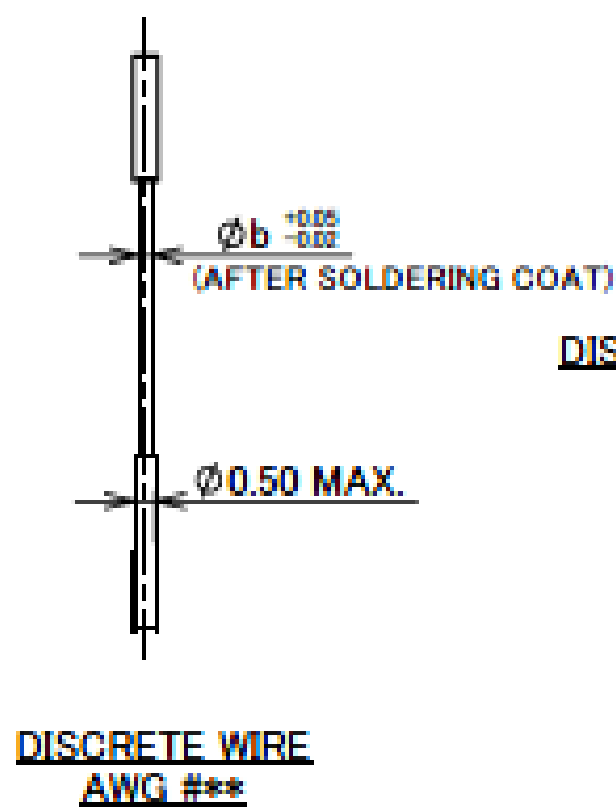
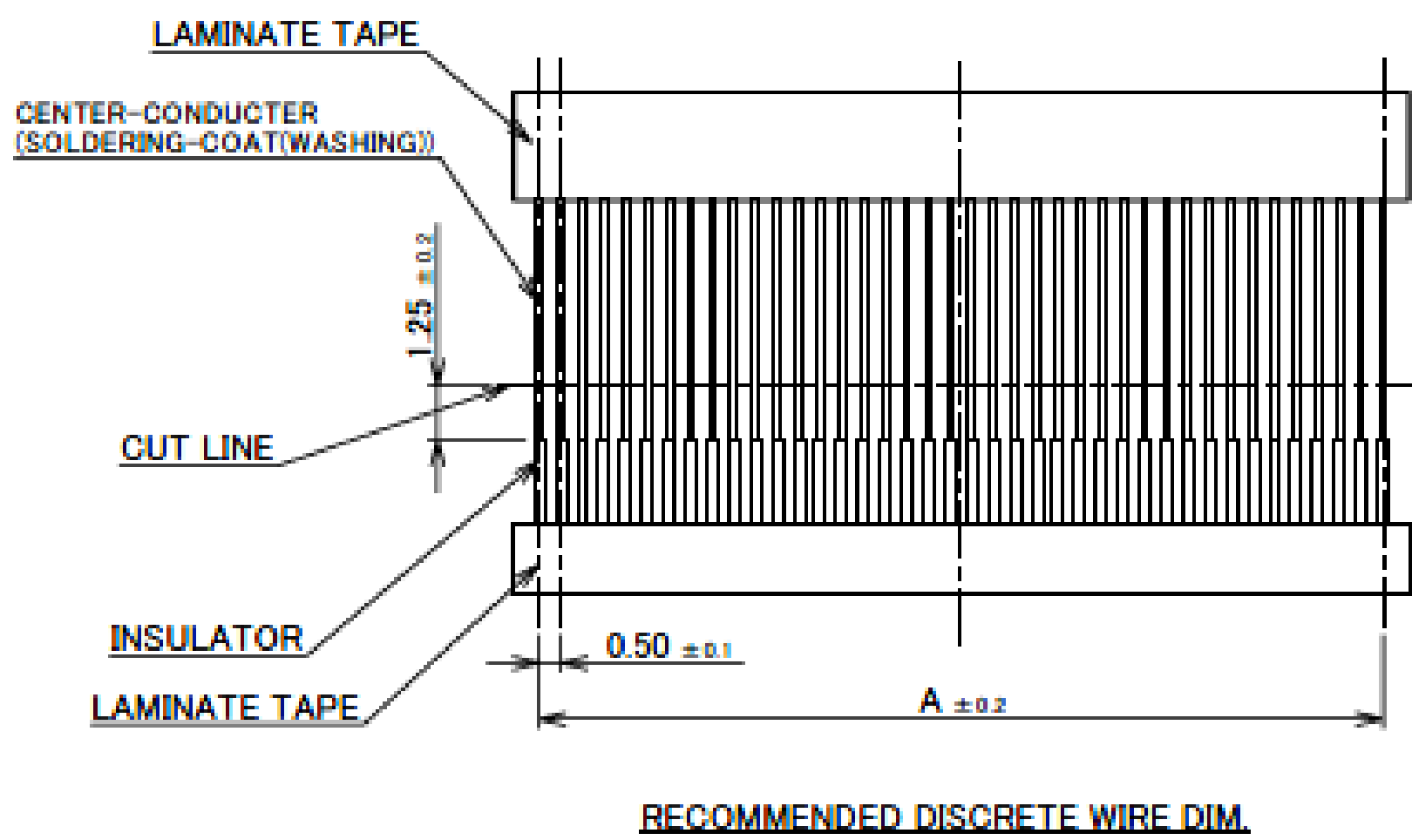
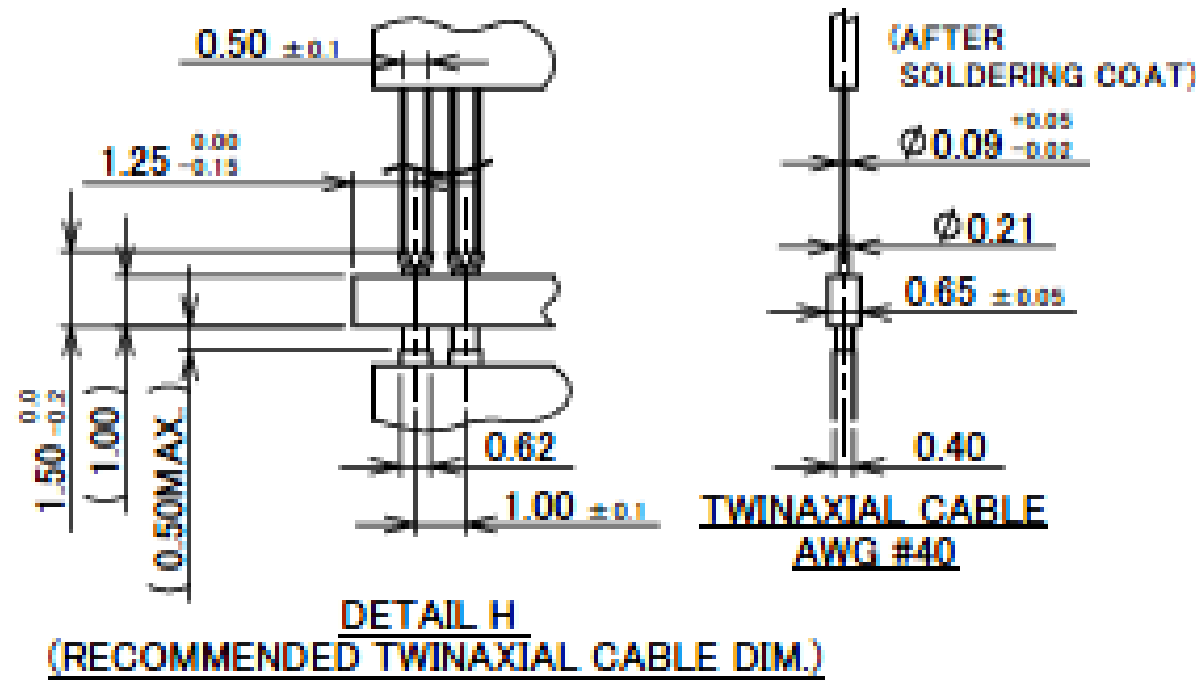
CHARACTERISTIC IMPEDANCE MATCHING MICRO-COAXIAL CABLE

	a
#36	0.15
#38	0.12
#40	0.09

CHARACTERISTIC IMPEDANCE UN-MATCHING MICRO-COAXIAL CABLE

	a
#32	0.24
#34	0.192

MICRO-COAXIAL CABLE #32, 34 : NOT RECOMMENDED FOR HIGH SPEED SIGNAL TRANSFER



DISCRETE WIRE DIMENSION

	b
#32	0.24
#34	0.192
#36	0.15

Rev.20

Plug for Cable Assembly

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG #40, 38, 36, 34, 32 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 CURRENT (FOR CONTACT)	0.3A AC/DC [AWG #40] PER CONTACT PIN / UP TO 50 CONTACTS 0.6A AC/DC [AWG #38] PER CONTACT PIN / UP TO 6 CONTACTS 0.8A AC/DC [AWG #36] PER CONTACT PIN / UP TO 4 CONTACTS 1.0A AC/DC [AWG #34, 32] PER CONTACT PIN / UP TO 7 CONTACTS TESTING BY REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION.
OPERATING TEMPERATURE	233 TO 358K (-40°C TO +85°C)
OPERATING HUMIDITY	85% MAX.
CONTACT RESISTANCE	INITIAL : 145mohm MAX.(AWG #32) / AFTER TEST : ≦40mohm MAX. 185mohm MAX.(AWG #34) 210mohm MAX.(AWG #36) 335mohm MAX.(AWG #38) 575mohm MAX.(AWG #40)
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 : 50.0N MAX. / 40P : 60.0N MAX. / 50P : 70.0N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	30P : 5.0N MIN. / 40P : 6.0N MIN. / 50P : 7.0N MIN.
CABLE RETENTION FORCE	30.0N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-1383
TEST REPORT	TR-07048
PACKING STANDARD	PLUG HOUSING ASSEMBLY : 300-584 / PLUG SHELL-A : 300-585
INSTRUCTION MANUAL	HIM-09007
ASSEMBLY MANUAL	ASM-07005
APPEARANCE CRITERIA No.	QLS-A***

Rev.20

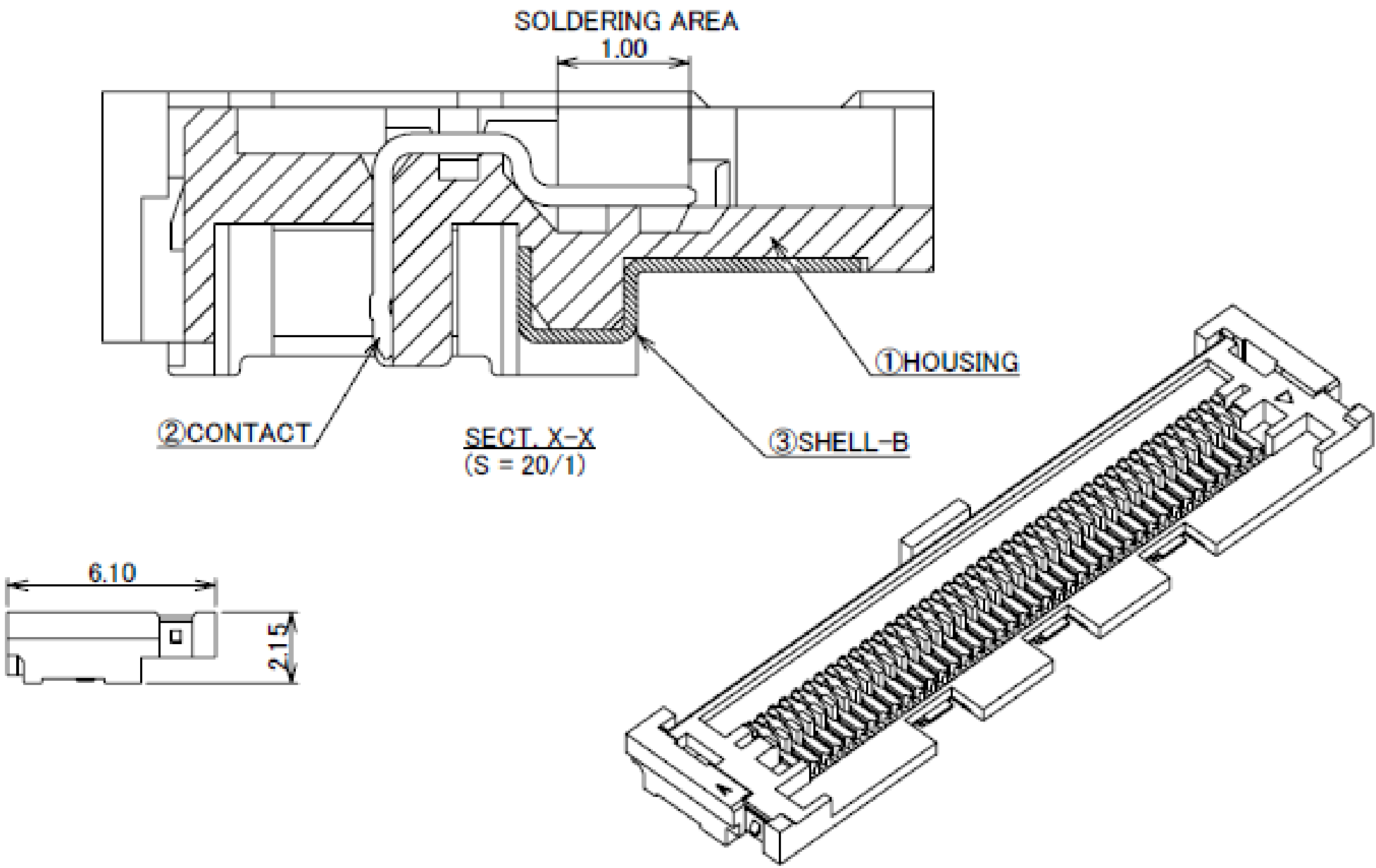
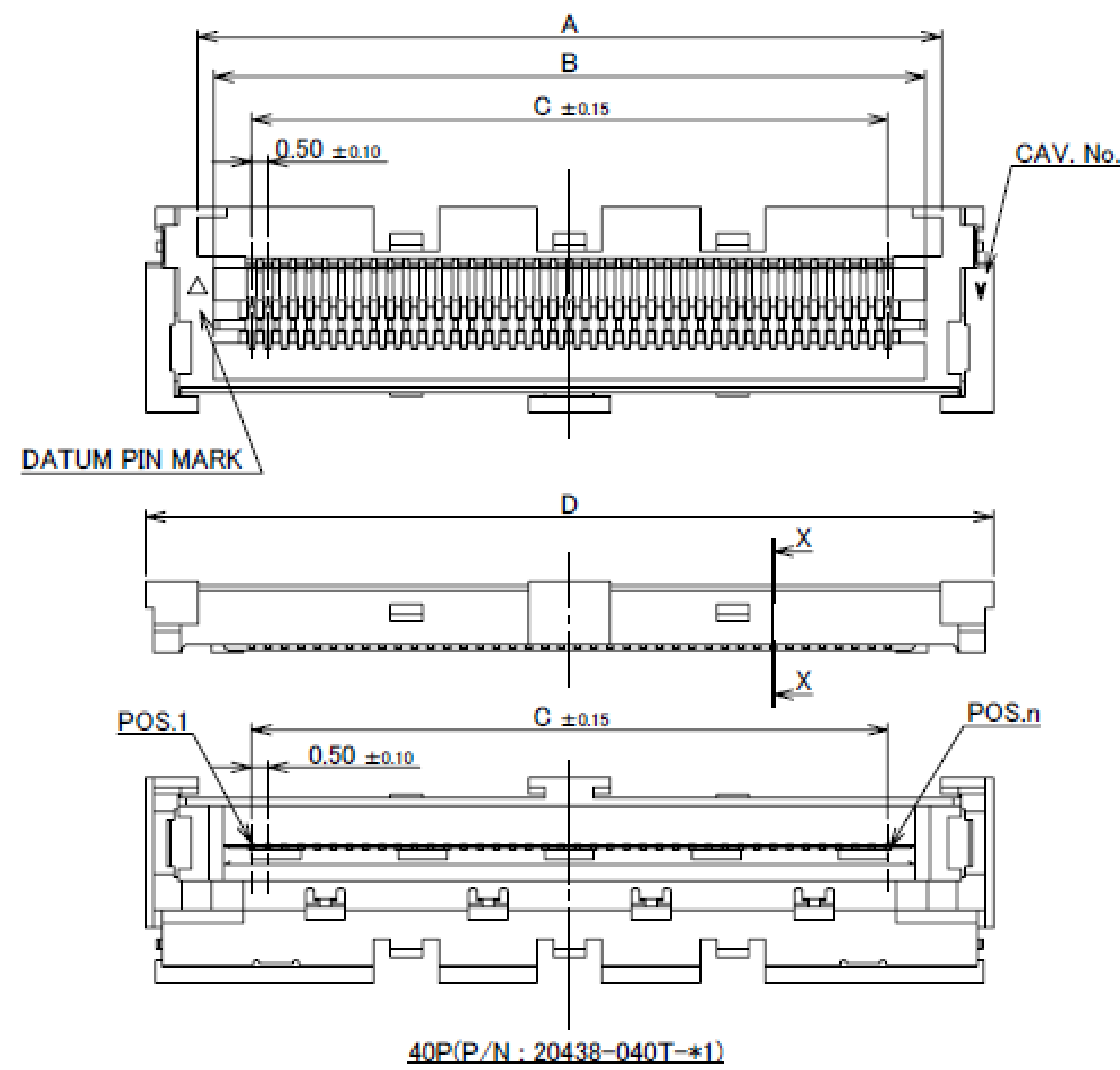
Plug Housing Assembly

Recommended P/N		20438-0**T-01			
PART No.	POS.	A	B	C	D
20438-030T-*1	30	17.80	16.80	14.50	20.80
20438-040T-*1	40	22.80	21.80	19.50	25.80
20438-050T-*1	50	27.80	26.80	24.50	30.80

PART NO.	CONTACT FINISH (MATING AREA).
20438-0**T-01	Au 0.10 μm MIN.
20438-0**T-11	Au 0.30 μm MIN.

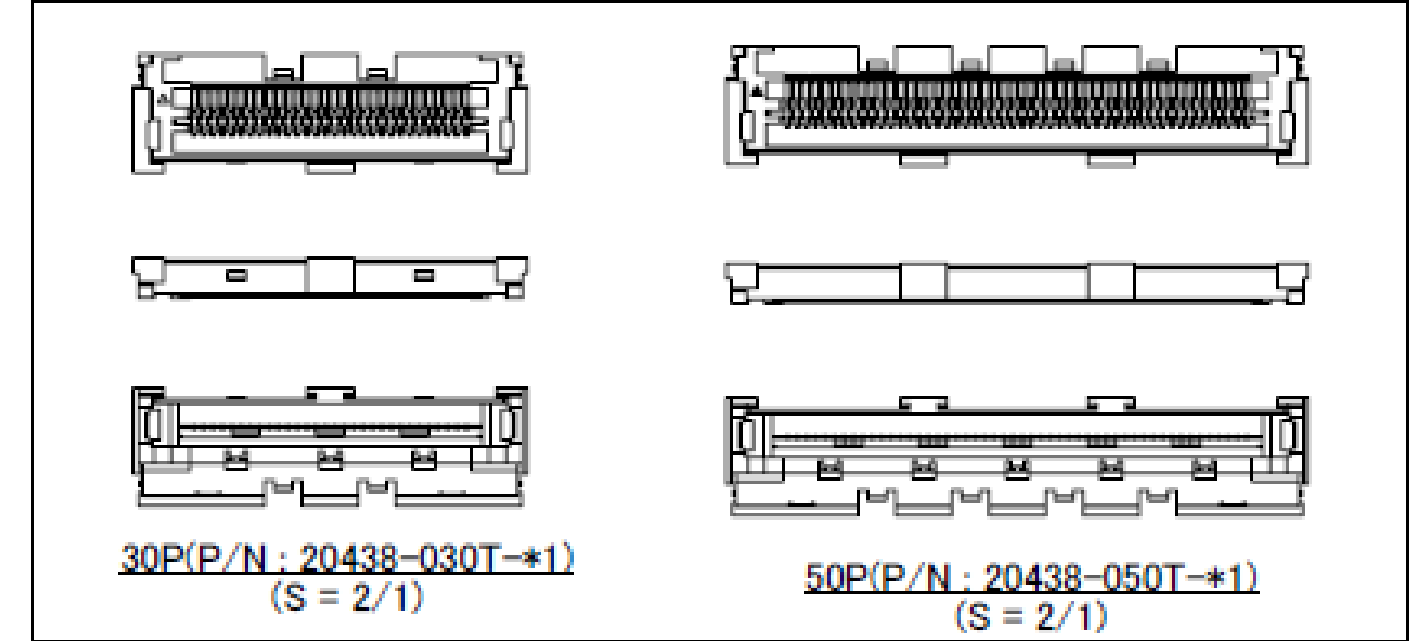


Halogen Free RoHS Compliant



NOTES
1. THIS PART IS ASSEMBLE WITH SHELL-A(PART NO. 2496-0**)
AFTER SOLDERED THE CABLE. AND IT BECOMES PART NO. 20437-0**T-*1

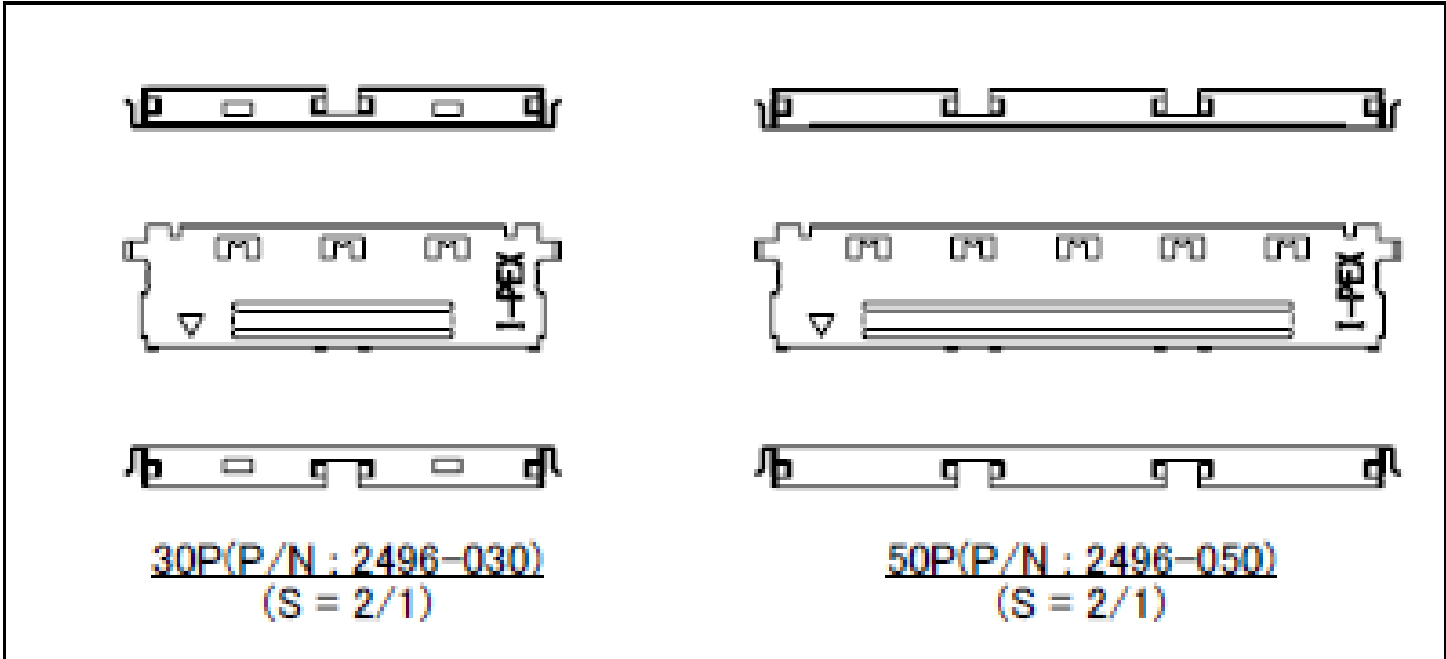
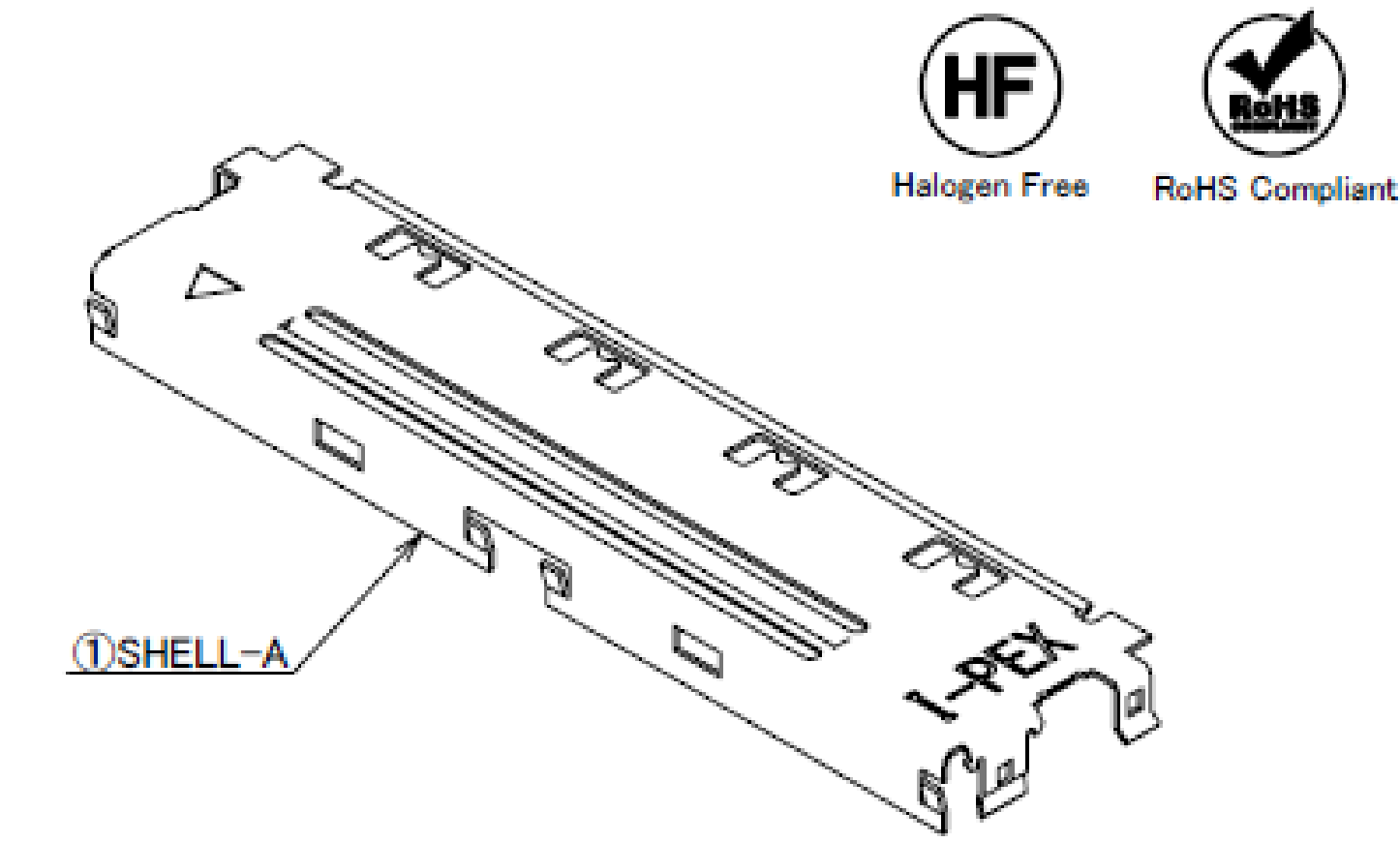
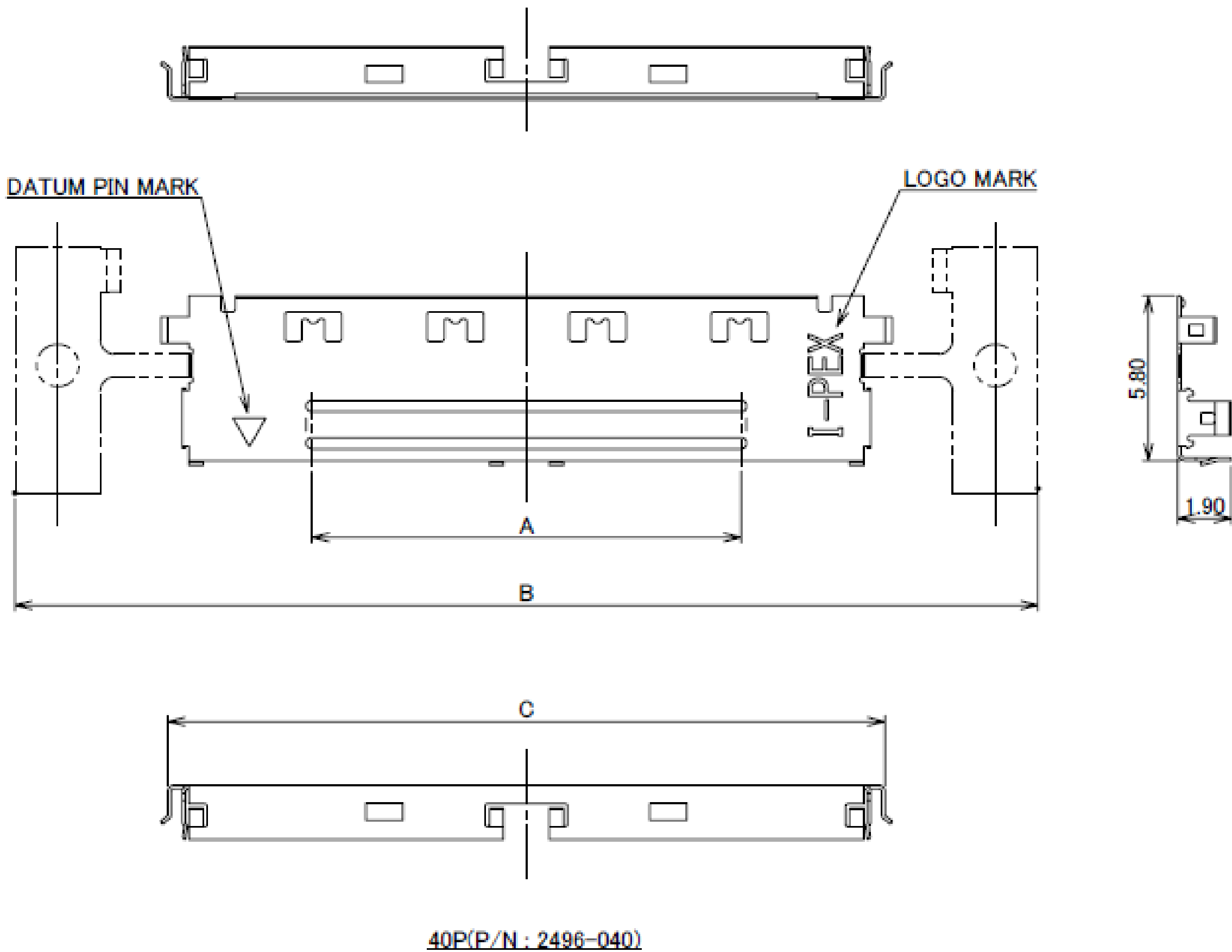
3	SHELL-B	PHOSPHOR BRONZE	Sn 2.00 μm MIN. OVER Ni 1.00 μm MIN. PART NO. 20438-0**T-01 MATING AREA : Au 0.10 μm MIN. OVER Ni 1.00 μm MIN. OTHER AREA : Au 0.05 μm MIN. OVER Ni 1.00 μm MIN.
2	CONTACT	PHOSPHOR BRONZE	PART NO. 20438-0**T-11 MATING AREA : Au 0.30 μm MIN. OVER Ni 1.00 μm MIN. OTHER AREA : Au 0.05 μm MIN. OVER Ni 1.00 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS



Rev.13

Plug Shell-A

Recommended P/N		2496-0**			
PART NO.	Pos.	A	B	C	D
2496-030	30	10.00	30.00	20.24	35.00
2496-040	40	15.00	36.00	25.24	40.00
2496-050	50	20.00	40.00	30.24	45.00



1	SHELL-A	PHOSPHOR BRONZE	Sn(NO POLISH) 2.00 μ m MIN. OVER Ni 1.00 μ m MIN.
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

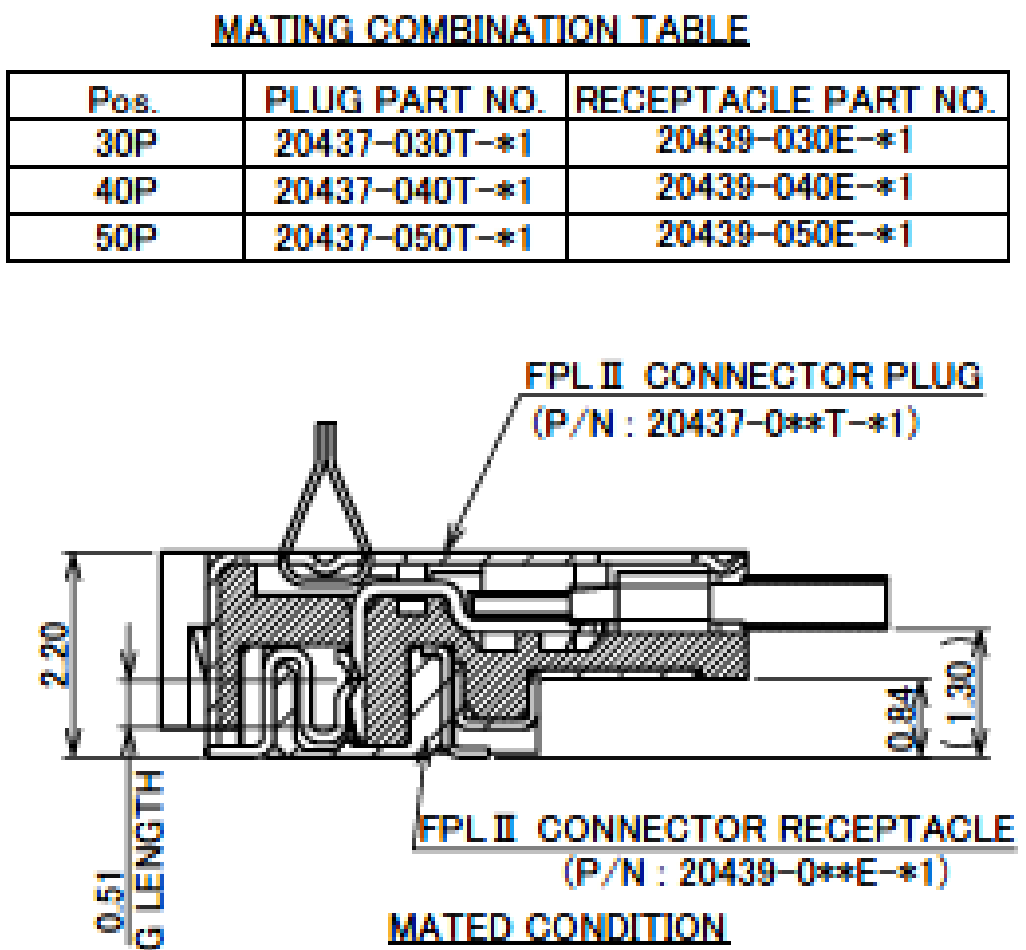
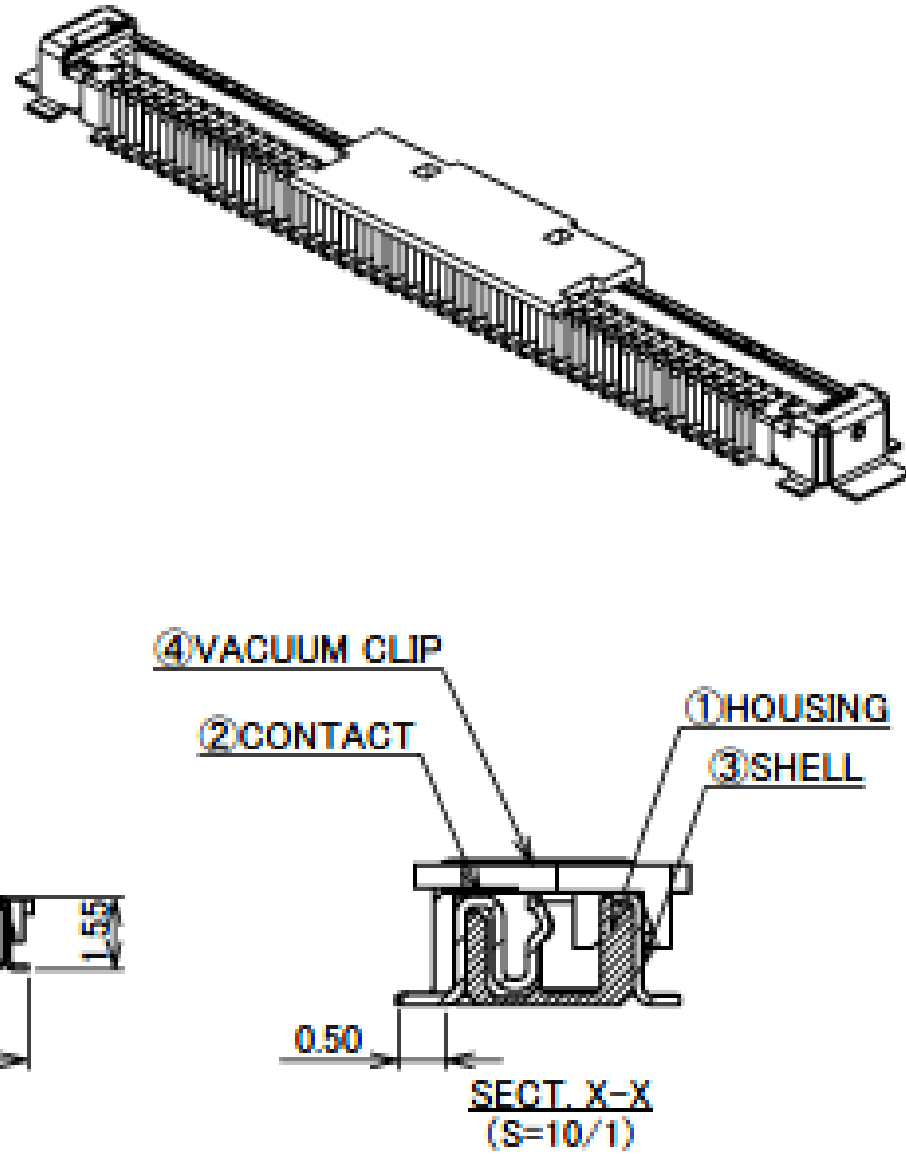
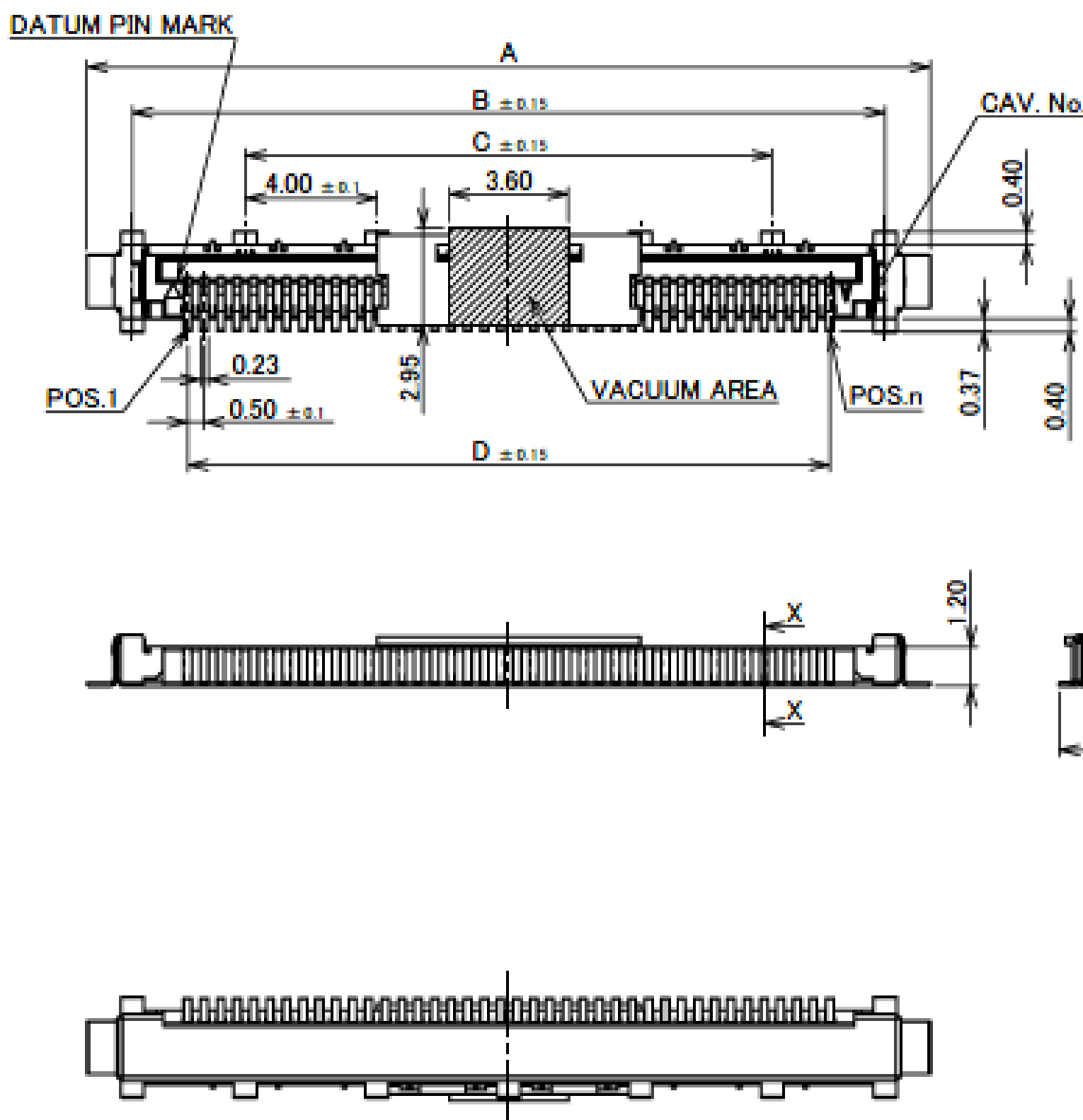
Rev.11

Receptacle Assembly

Recommended P/N		20439-0**E-01			
PART NO.	Pos.	A	B	C	D
20439-030E-*1	30	20.60	17.86	12.00	14.50
20439-040E-*1	40	25.60	22.86	16.00	19.50
20439-050E-*1	50	30.60	27.86	20.00	24.50



PART NO.	CONTACT FINISH (MATING SIDE)
20439-0**E-01	Au 0.1 μ m MIN.
20439-0**E-11	Au 0.3 μ m MIN.



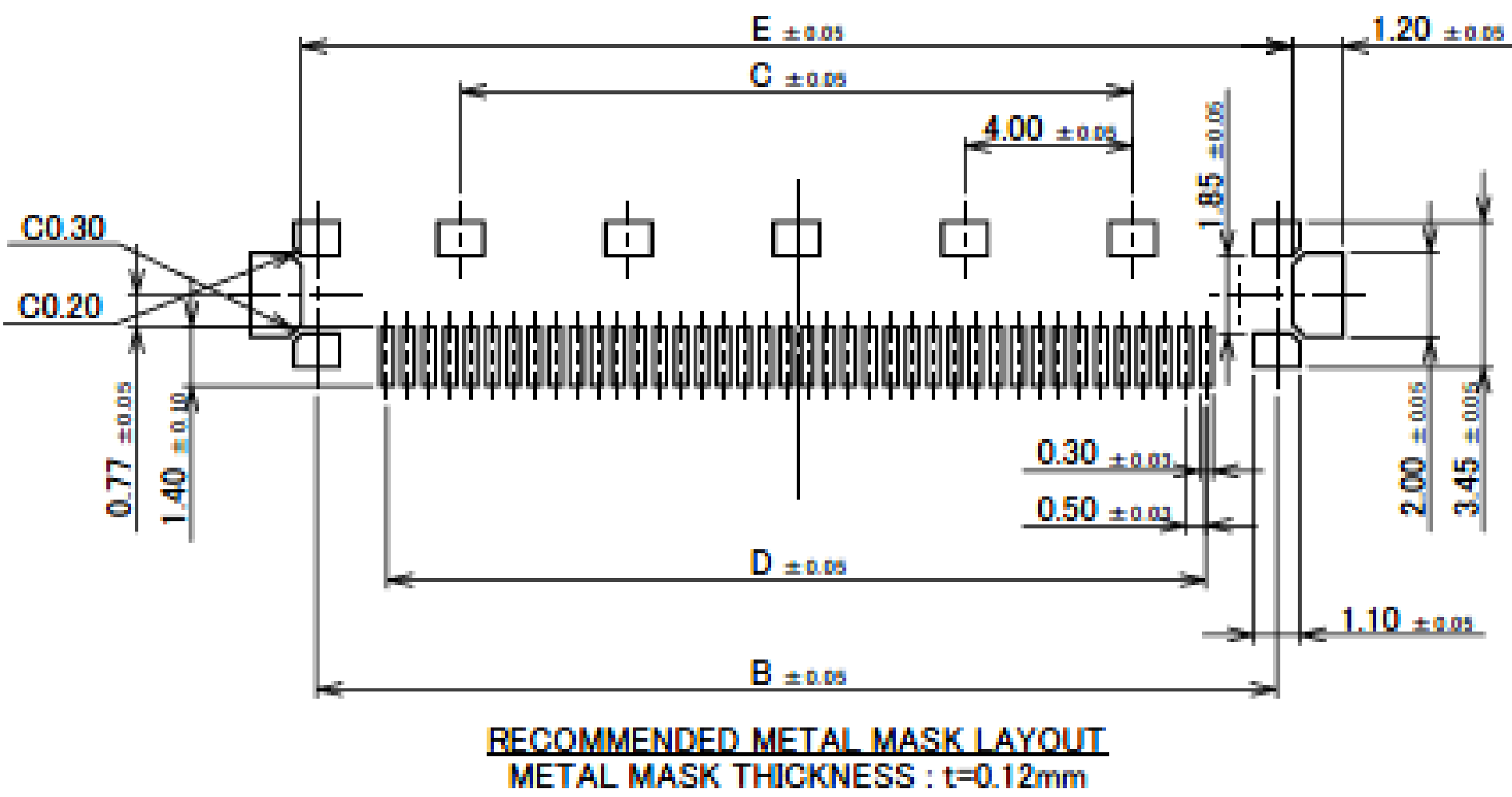
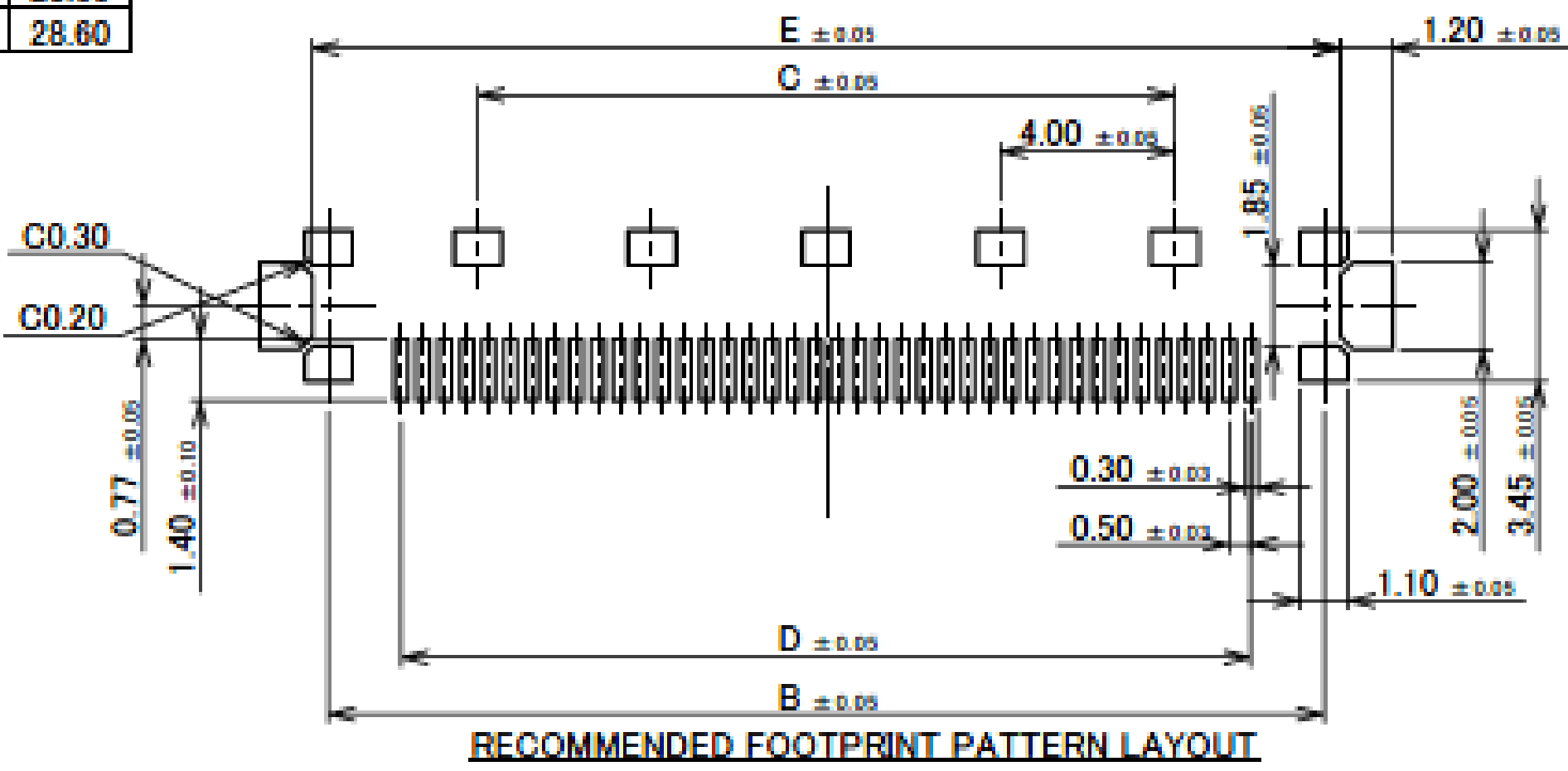
4	VACUUM CLIP	LCP	UL94V-0, BEIGE
3	SHELL	PHOSPHOR BRONZE	Sn(NO POLISH) 0.50 μ m MIN. OVER Ni 1.00 μ m MIN.
2	CONTACT	PHOSPHOR BRONZE	PART NO. 20439-0**E-0* MATING AREA : Au 0.10 μ m MIN. OVER Ni 1.00 μ m MIN. OTHER AREA : Au 0.05 μ m MIN. OVER Ni 1.00 μ m MIN. PART NO. 20439-0**E-1* MATING AREA : Au 0.30 μ m MIN. OVER Ni 1.00 μ m MIN. OTHER AREA : Au 0.05 μ m MIN. OVER Ni 1.00 μ m MIN.
1	HOUSING	LCP	UL94V-0, BLACK
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

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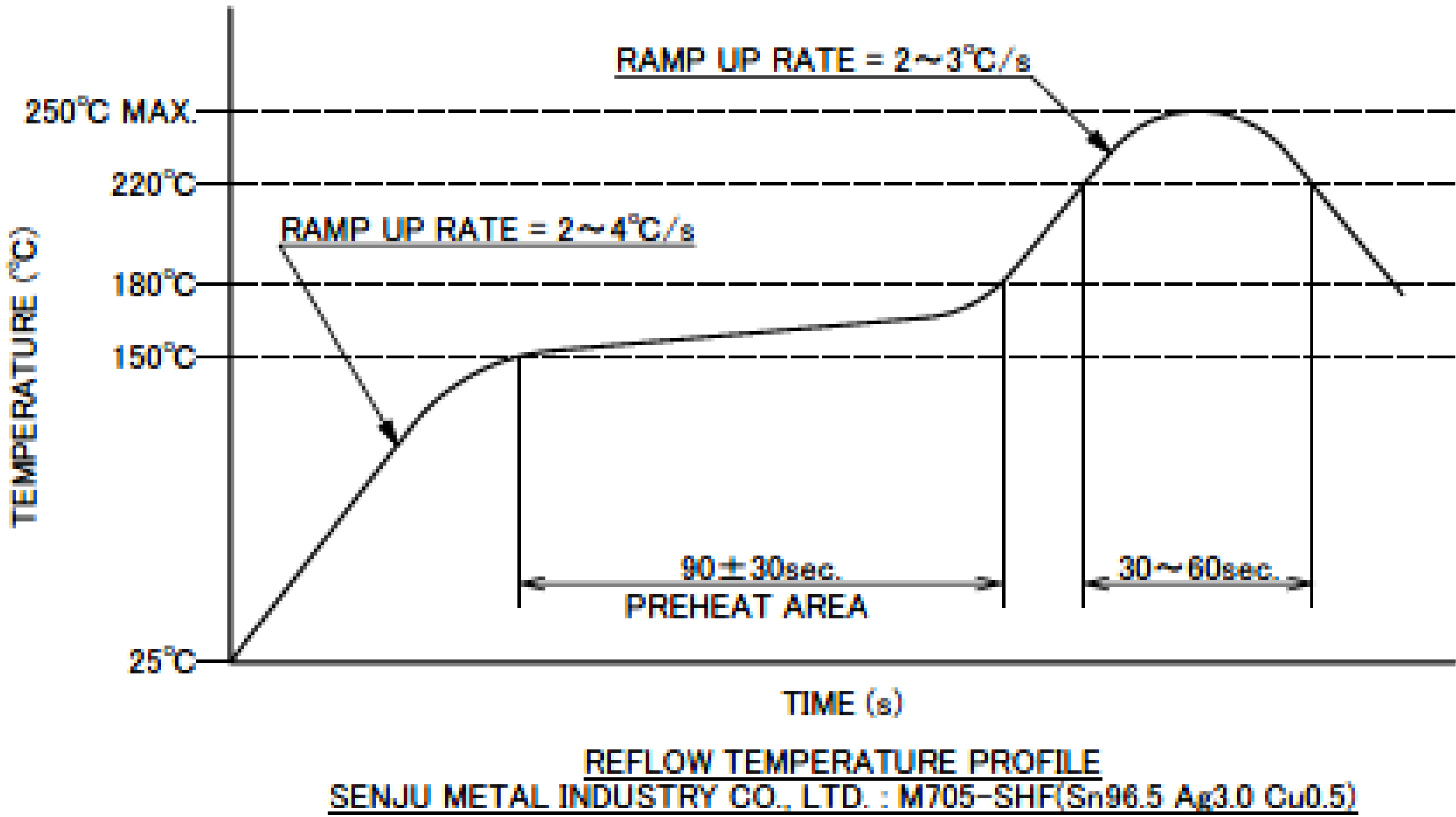
Rev.25

Receptacle Assembly

PART NO.	Pos.	B	C	D	E
20439-030E-*1	30	17.86	12.00	14.50	18.60
20439-040E-*1	40	22.86	16.00	19.50	23.60
20439-050E-*1	50	27.86	20.00	24.50	28.60



Rev.25



Rev.25

Receptacle Assembly

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG #40, 38, 36, 34, 32 DISCRETE WIRE : AWG #36, 34, 32 TWINAXIAL CABLE : AWG #40
RATED VOLTAGE	100V AC (PER CONTACT PIN)
RATED CURRENT (FOR CONTACT)	0.3A AC/DC [AWG #40] PER CONTACT PIN / UP TO 50 CONTACTS 0.6A AC/DC [AWG #38] PER CONTACT PIN / UP TO 6 CONTACTS 0.8A AC/DC [AWG #36] PER CONTACT PIN / UP TO 4 CONTACTS 1.0A AC/DC [AWG #34, 32] PER CONTACT PIN / UP TO 7 CONTACTS TESTING BY REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION.
OPERATING TEMPERATURE	233 TO 358K (-40°C TO +85°C)
OPERATING HUMIDITY	85% MAX.
CONTACT RESISTANCE	INITIAL : 145mohm MAX.(AWG #32) / AFTER TEST : $\triangle$ 40mohm MAX. 185mohm MAX.(AWG #34) 210mohm MAX.(AWG #36) 335mohm MAX.(AWG #38) 575mohm MAX.(AWG #40)
GROUND SHELL RESISTANCE	INITIAL : 50mohm MAX. / AFTER TEST : $\triangle$ 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 : 50.0N MAX. 40P : 60.0N MAX. 50P : 70.0N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	30P : 5.0N MIN. 40P : 6.0N MIN. 50P : 7.0N MIN.
CABLE RETENTION FORCE	30.0N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-1383
TEST REPORT	TR-07048
PACKING STANDARD	300-583
INSTRUCTION MANUAL	HIM-09007
ASSEMBLY MANUAL	ASM-07005
APPEARANCE CRITERIA No.	QLS-A***

Custom Connectors Available

RF Connectors

MHF® series



CABLINE® series

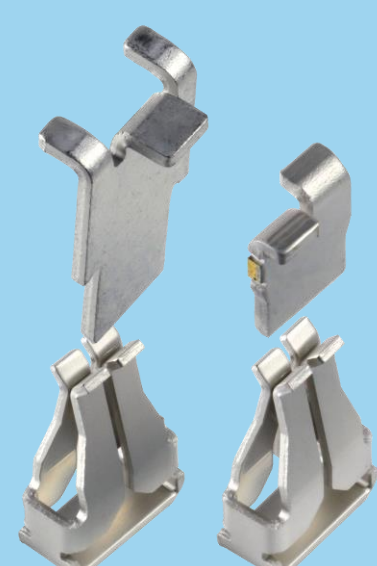


Micro-Coaxial/Twinaxial Connectors

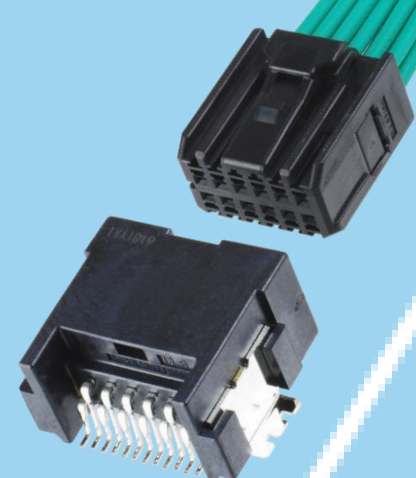


Wire-to-Board Connectors/ Terminals

AP series



ISH® series



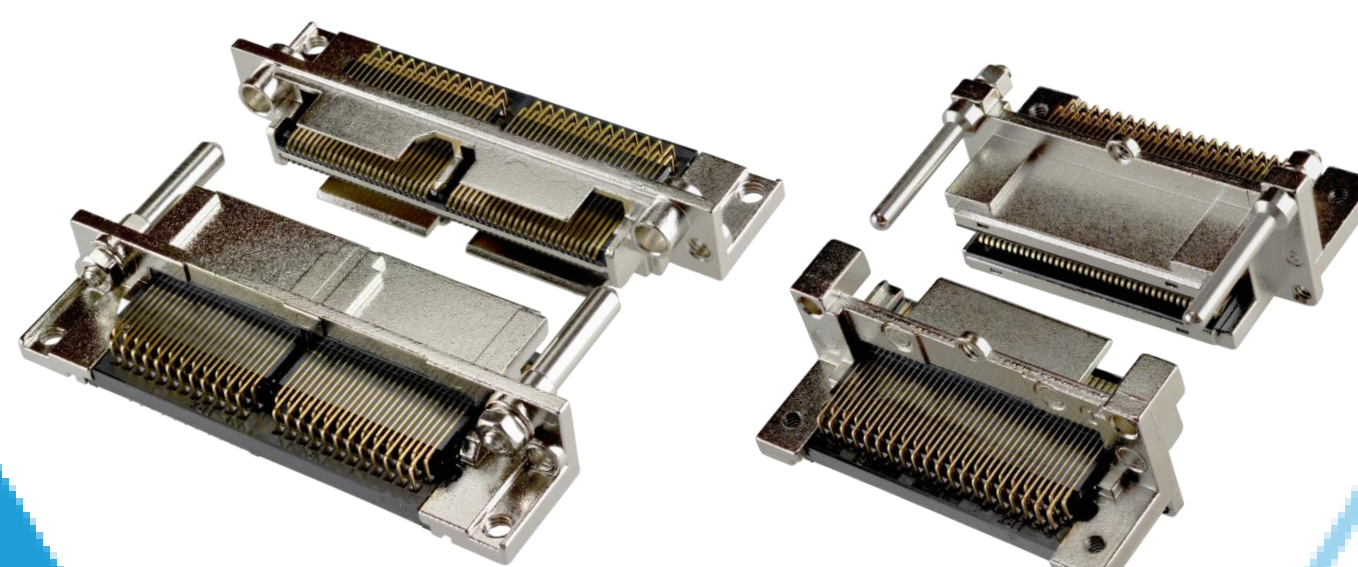
NOVASTACK® series



Board-to-Board Connectors



I/O Connectors



MINIDOCK™ series

MINIFLEX® series EVAFLEX® series



FPC/FFC Connectors



Inquiry



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