

CABLINE® -CA II PLUS

全屏蔽设计带机械锁扣，高速传送对应(32 Gbps/lane), 0.4 mm间距, 水平插拔款的极细同轴连接器

*想获得更高的传输速率（64 Gbps PAM4），欢迎查看可以配合 CABLINE-CA II PLUS 母座（20790-060E-01/-02）使用的[CABLINE-CA IIP PLUS 线束解决方案](#)。

Product Specifications:

Mating type		Horizontal
Board Pitch (mm)		0.4 mm
Wiping Length (mm)		0.54 mm
Mated size (mm)	Height	1.2 mm max. with cover
	Width	6.95 + (0.4 x pin count) mm
	Depth	6.7 mm
Pin Counts	Range	Up to 60
	Available	60

Applicable Cable Size:

Maximum O.D.	0.4 mm
Micro-Coaxial for Signal	45 ohm: AWG 38 or smaller
	50 ohm: AWG 40 or smaller
Twinaxial	AWG 40, 42
Discrete	AWG 34 or smaller

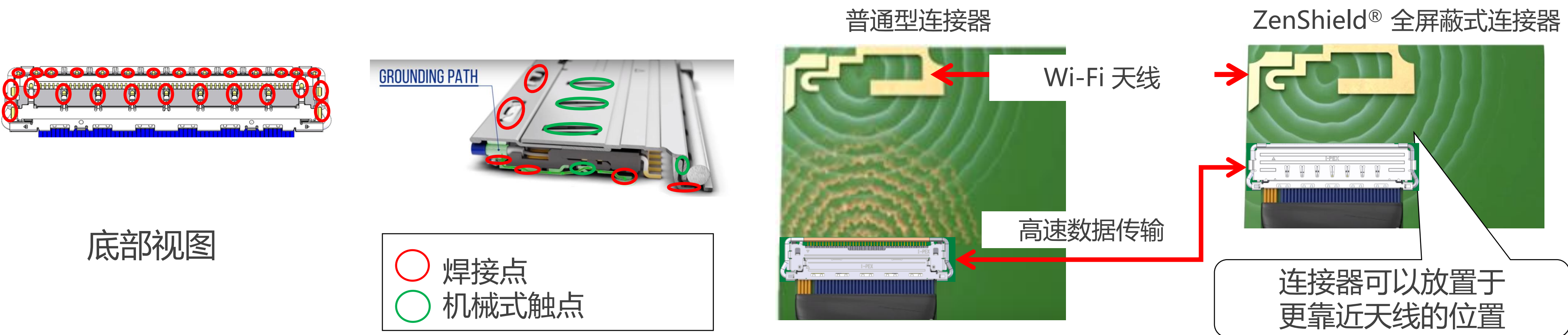
Applicable Standards (Reference Only):

32 Gbps/ Lane, USB4 Gen4 (40 Gbps/ Lane PAM3)
Display Port UHBR20 (20 Gbps/Lane),

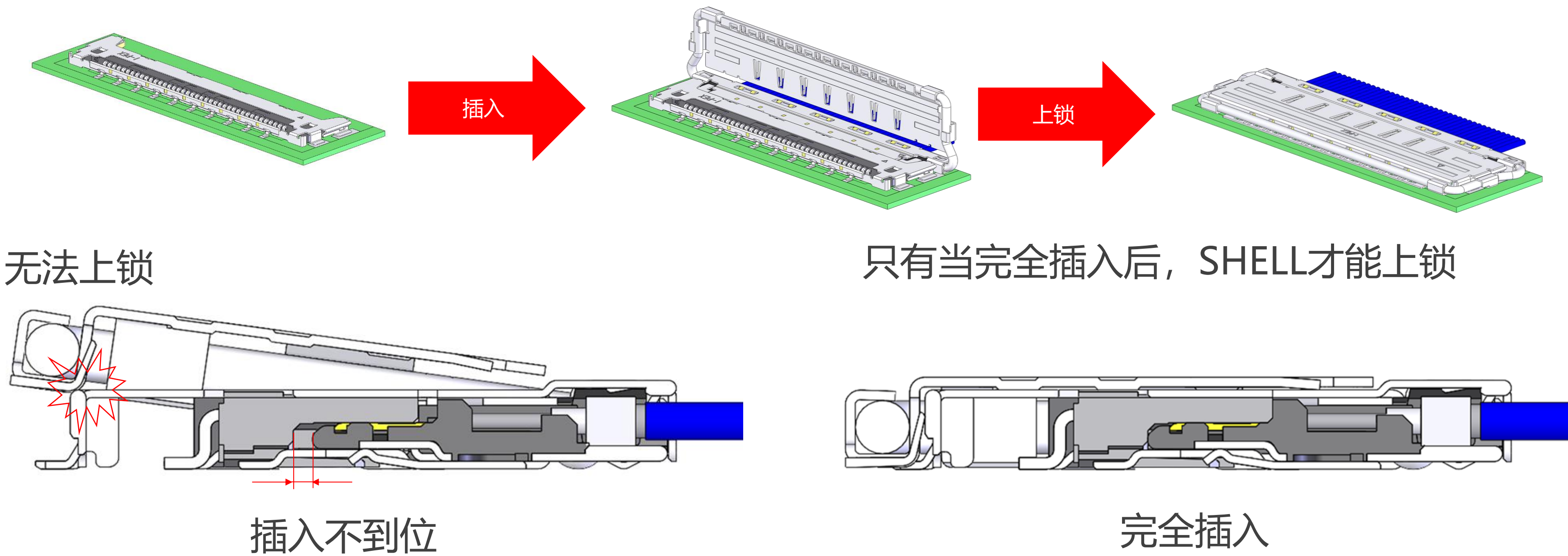
*如您需要了解未列出或不在范围内的Pin数，请咨询我们。
*我们也提供 CABLINE-CA II 20, 30, 40, 50 pin 产品(狭窄空间的款式)。



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



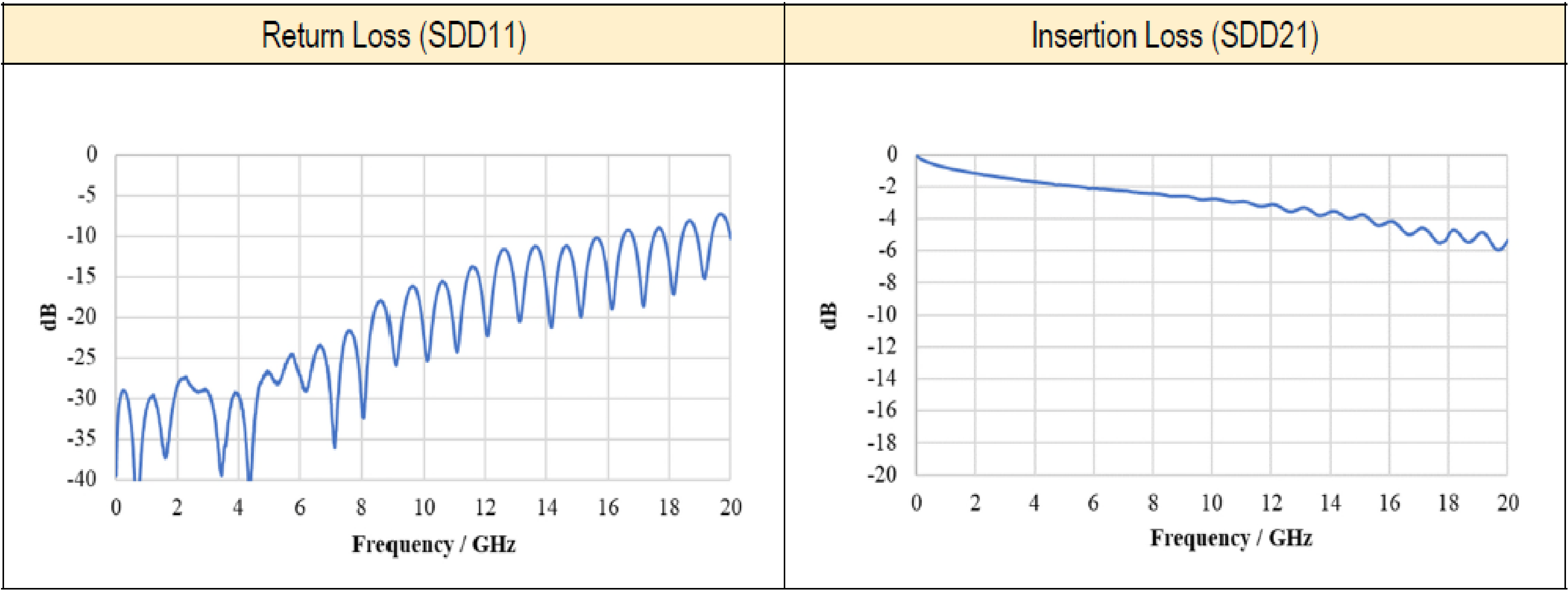
► 机械式锁扣罩防止连接器不完全嵌合及脱落



► 高速率传输, 32 Gbps/lane应用的理想之选

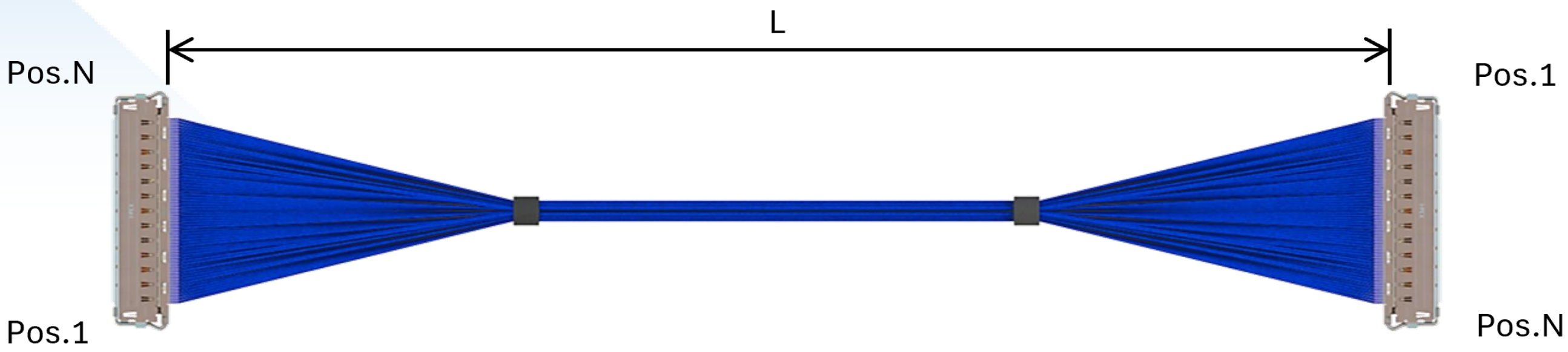
Measurement results

Connector: CABLINE-CA II 40 pin
Cable: Micro-coaxial cable
AWG 40, 45ohm , Length : 100 mm
Pin Assignment: GSSGSSG



CABLINE® -CA II PLUS 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.

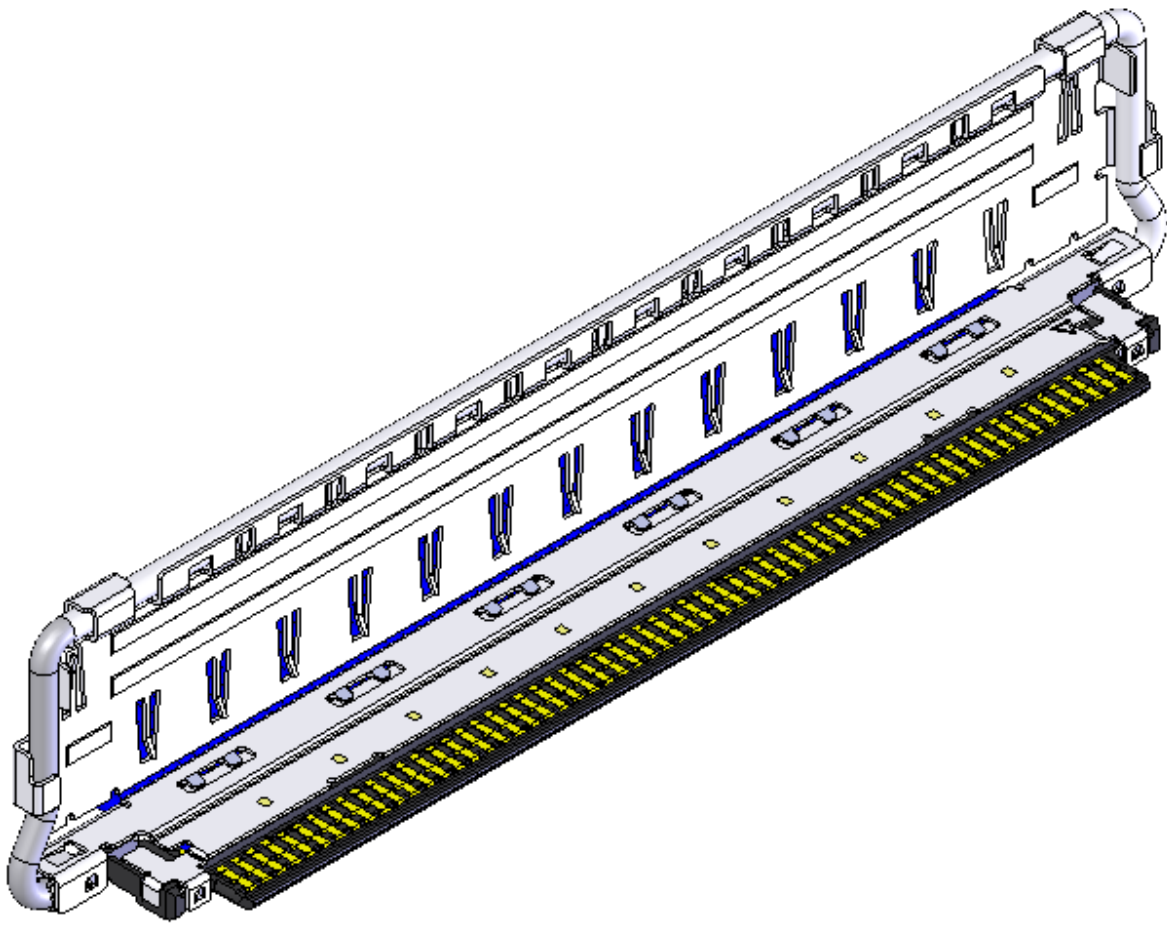


Part Number Description	Part Number (Link to Drawing)	Sample available
CABLINE-CA II PLUS HARNESS L=200mm 60pin 1-N	81674-100B-02-D	Buy from Digikey

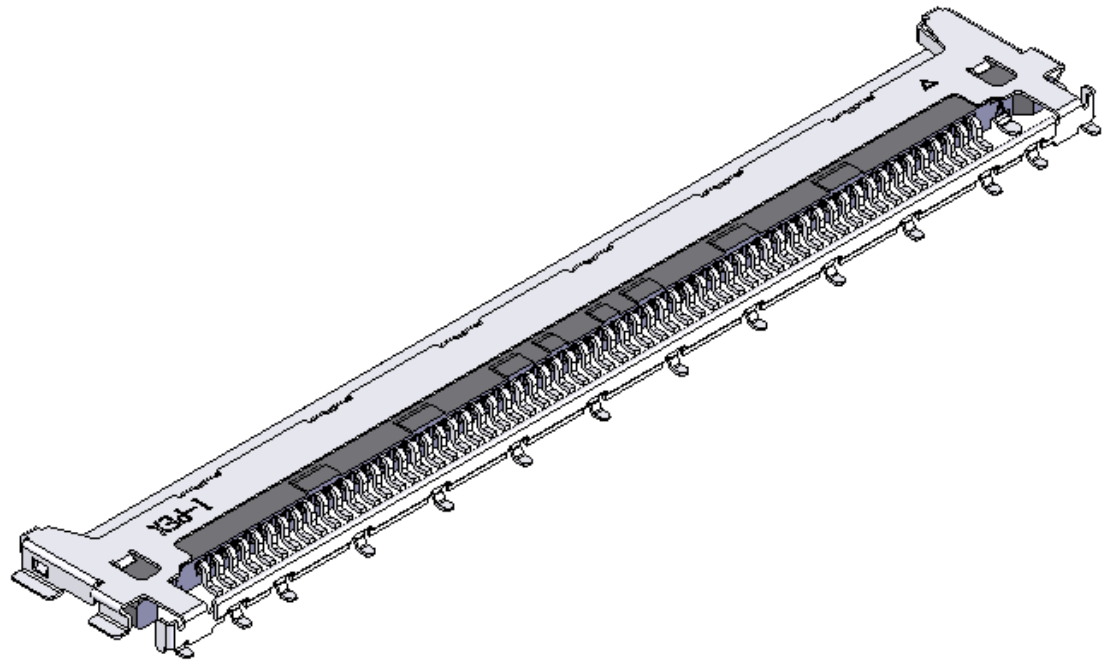
Component Parts Details

Component Parts

Connector parts

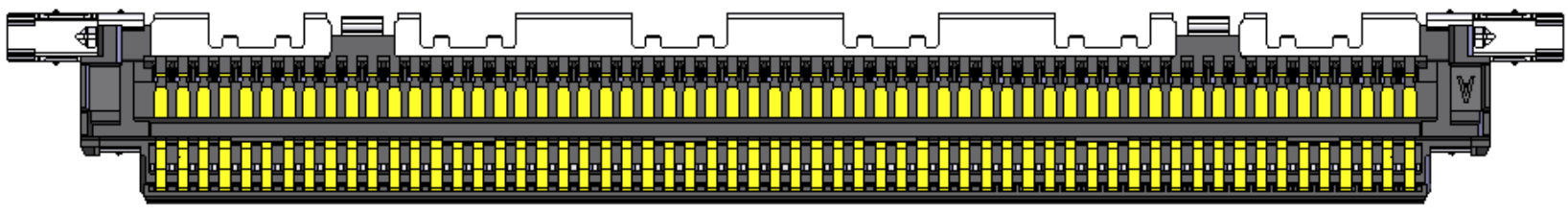


PLUG

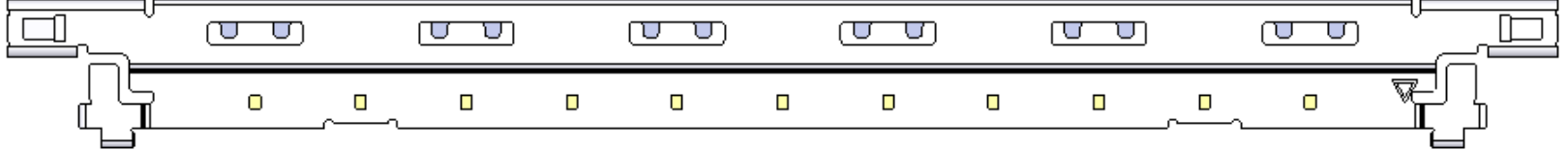


RECEPTACLE

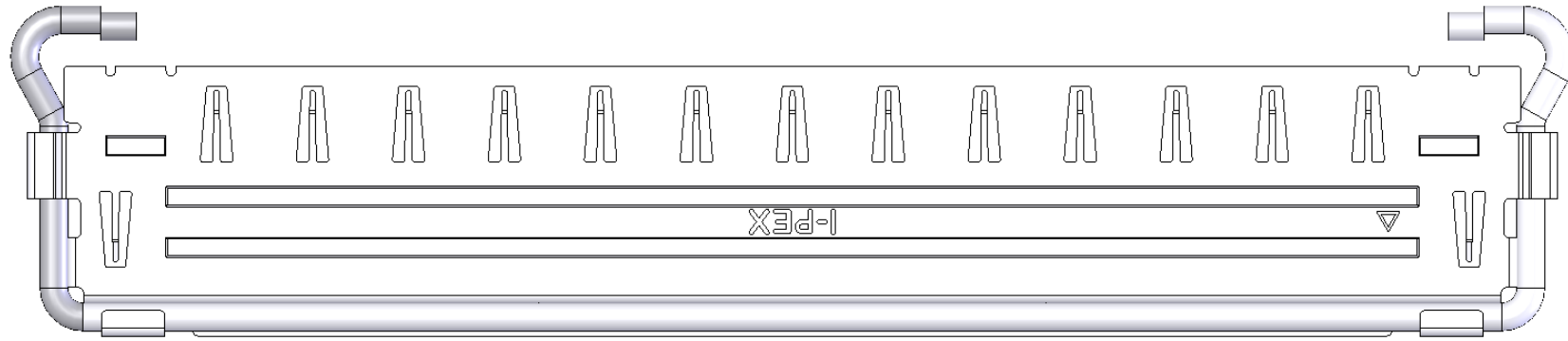
Plug parts



PLUG HOUSING ASSEMBLY



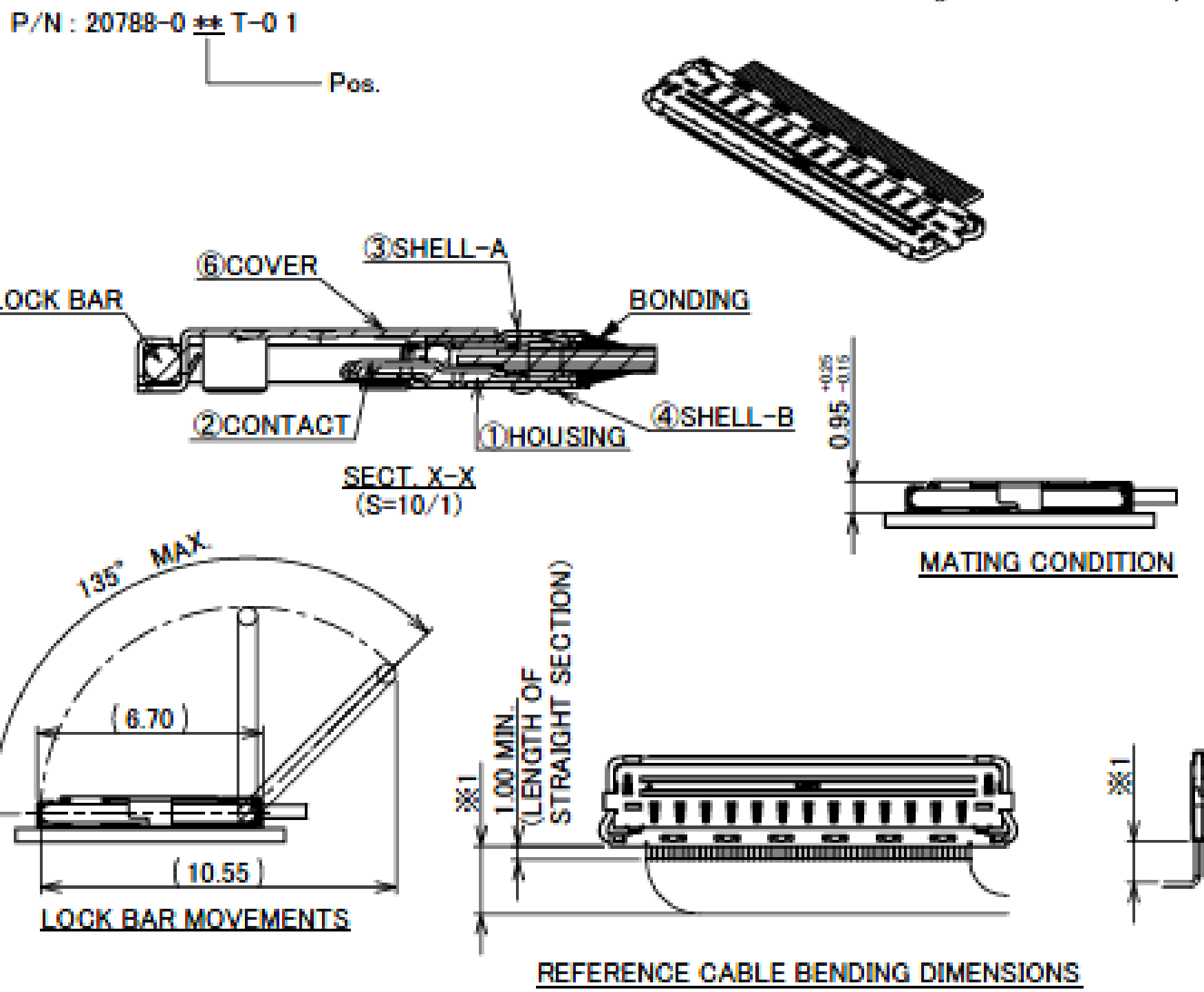
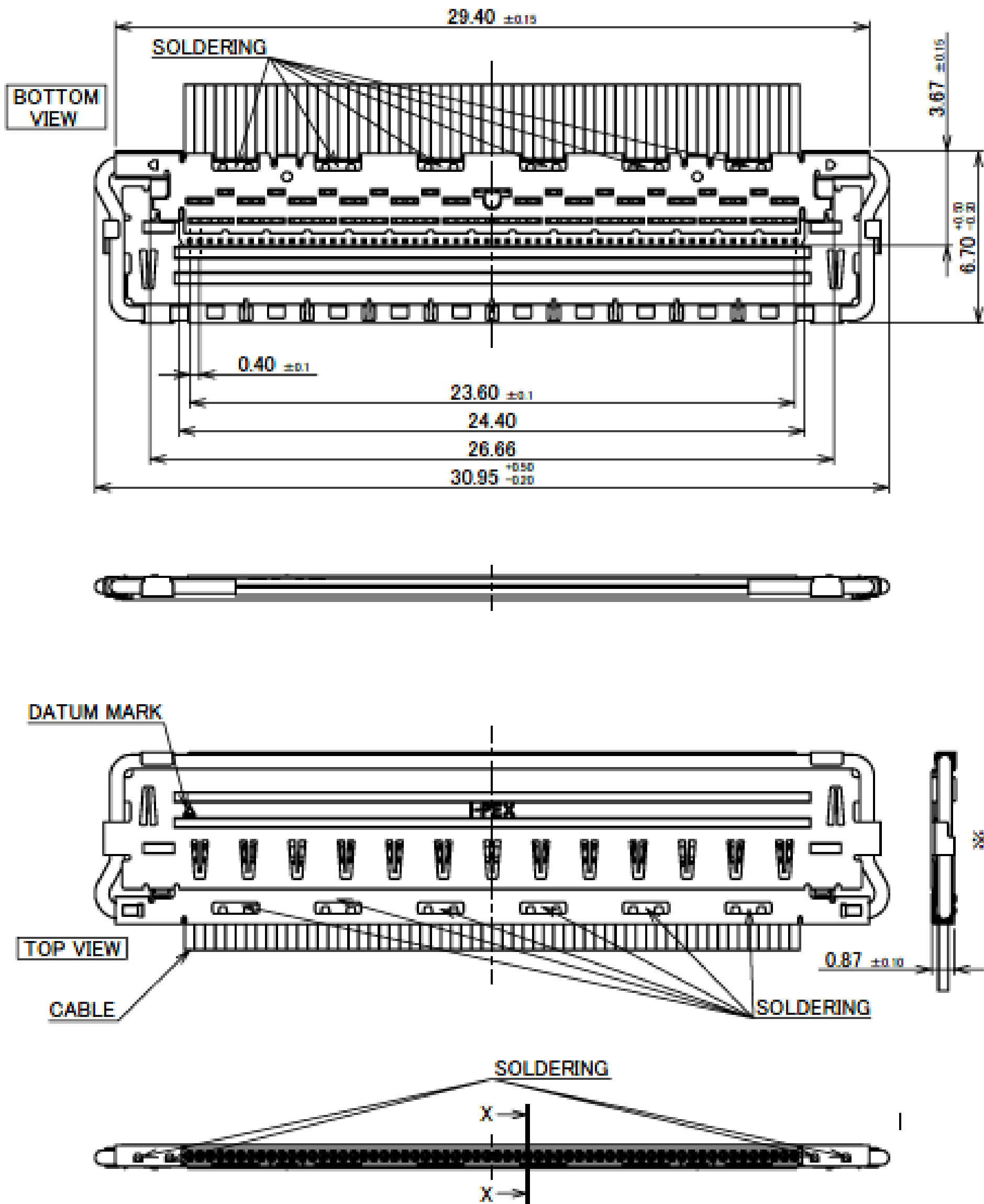
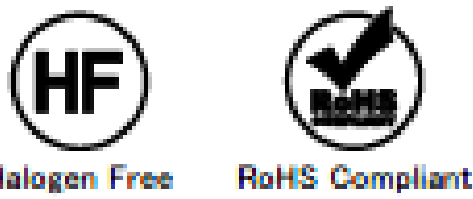
PLUG SHELL-A



PLUG LOCK BAR ASSEMBLY

Plug for Cable Assembly

Recommended P/N	
20788-0**T-01	
PART NO.	Pos.
20788-060T-01	60

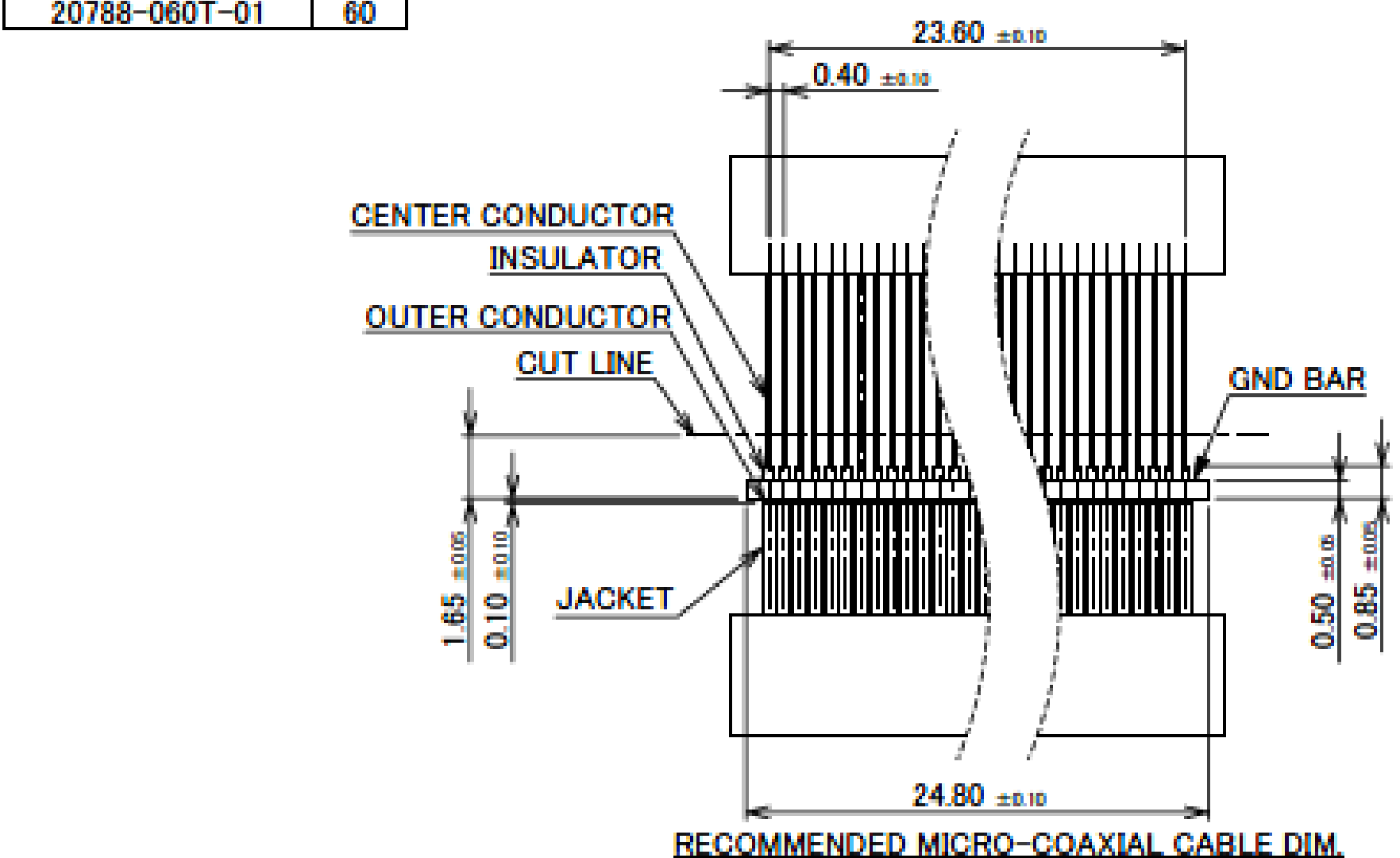


※1: THE BEND DIMENSIONS MAY VARY BASED ON THE SIZE AND QUANTITY OF CABLES. PLEASE CONFIRM THE MINIMUM BENDING RADIUS WITH I-PEX OR THE HARNESS MANUFACTURER.

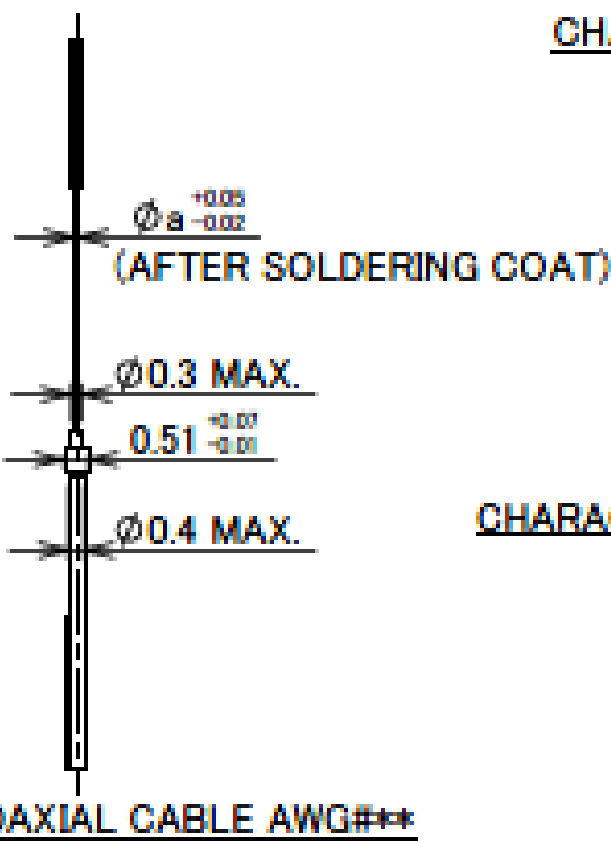
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
6	COVER	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN.
5	LOCK BAR	SUS φ 0.55	-
4	SHELL-B	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.
3	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT & SOLDERING AREA : Au 0.03 μm MIN.
1	HOUSING	LCP	UL94V-0 ,BLACK

Rev.15

PART NO.	Pos.
20788-060T-01	60



RECOMMENDED MICRO-COAXIAL CABLE DIM.



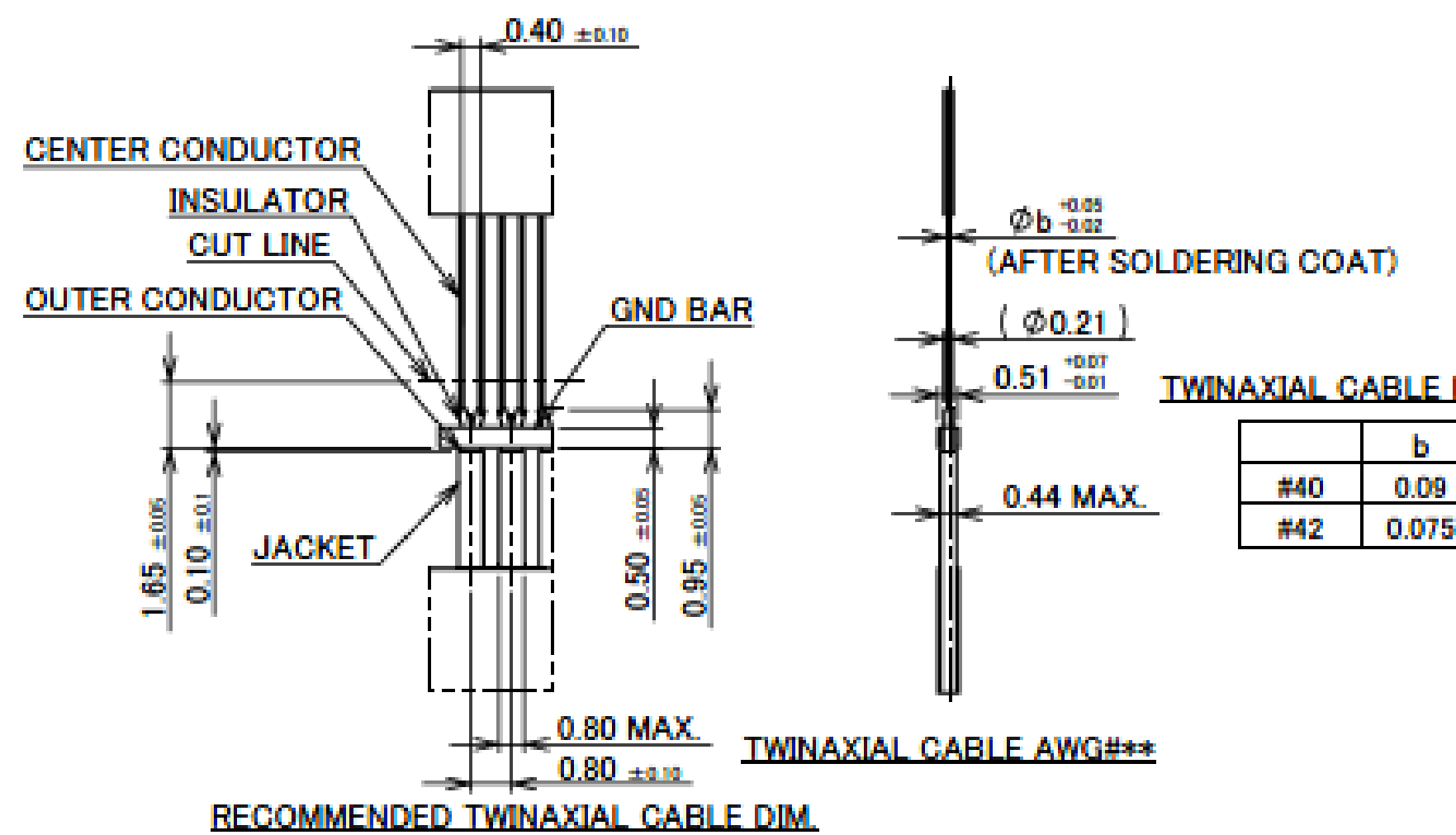
CHARACTERISTIC IMPEDANCE MATCHING MICRO-COAXIAL CABLE

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

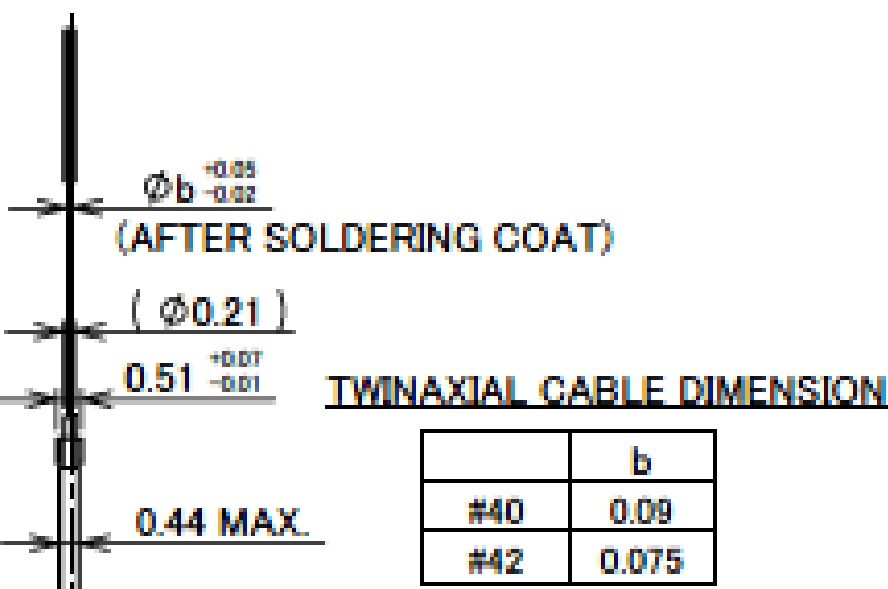
CHARACTERISTIC IMPEDANCE UN-MATCHING MICRO-COAXIAL CABLE

	a
#36	0.15

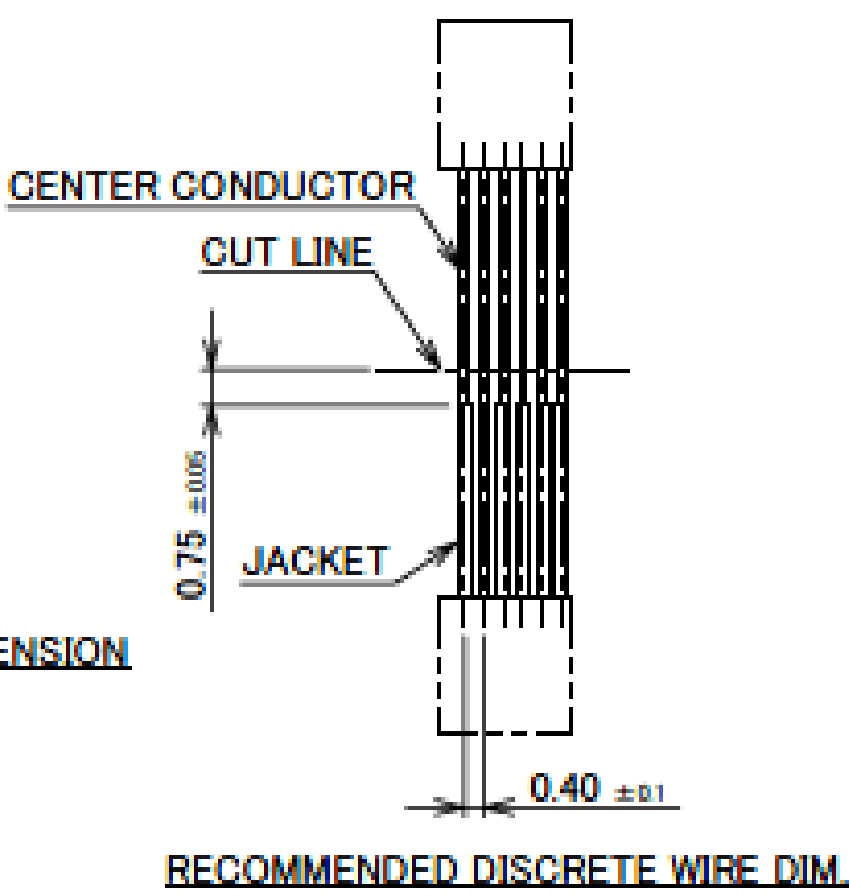
MICRO-COAXIAL CABLE #36 : NOT RECOMMENDED FOR HIGH SPEED SIGNAL TRANSFER



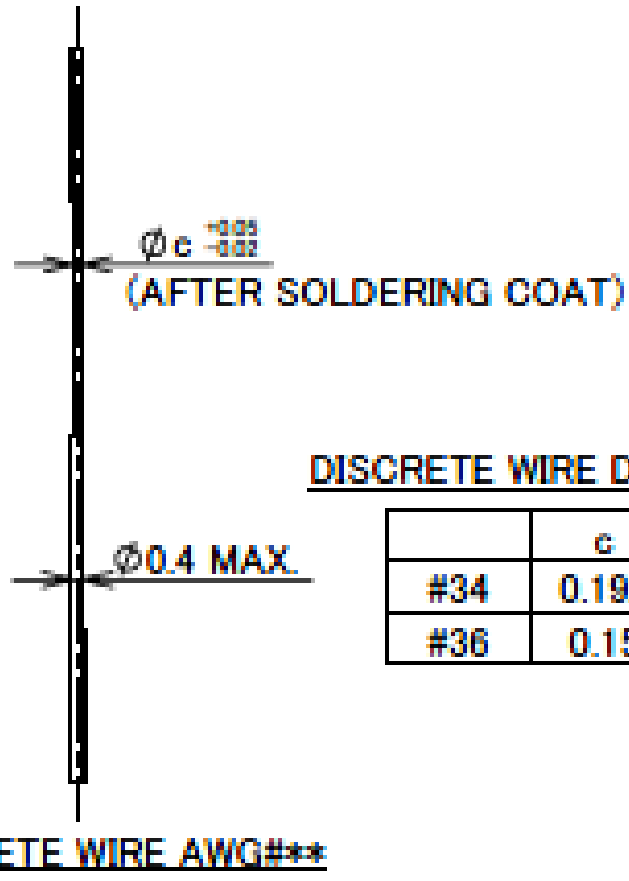
RECOMMENDED TWINAXIAL CABLE DIM.



	b
#40	0.09
#42	0.075



RECOMMENDED DISCRETE WIRE DIM.



	c
#34	0.192
#36	0.15

DISCRETE WIRE AWG***

Rev.15

Plug for Cable Assembly

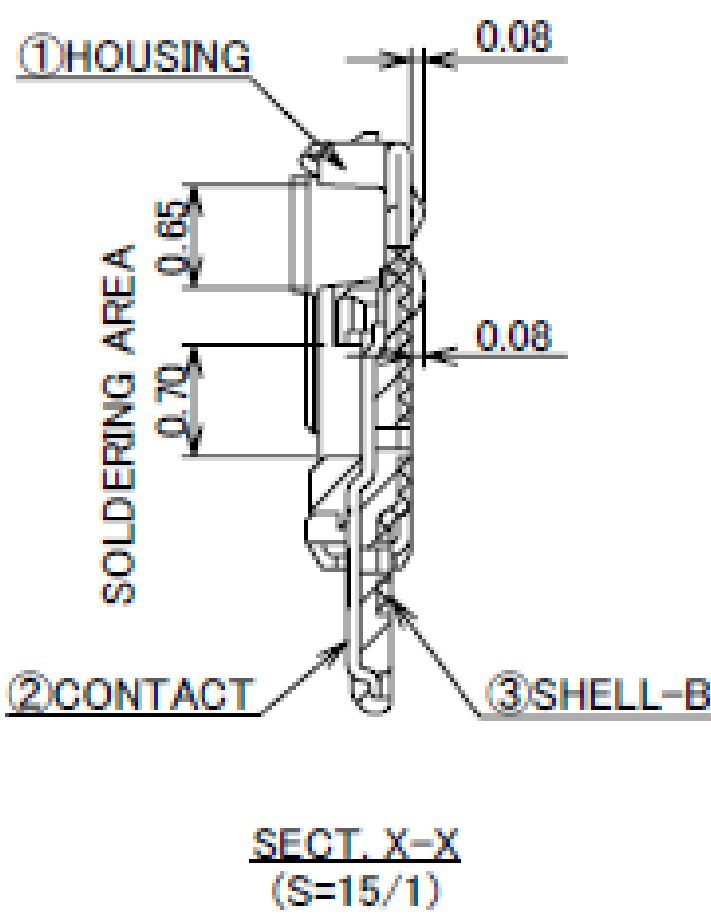
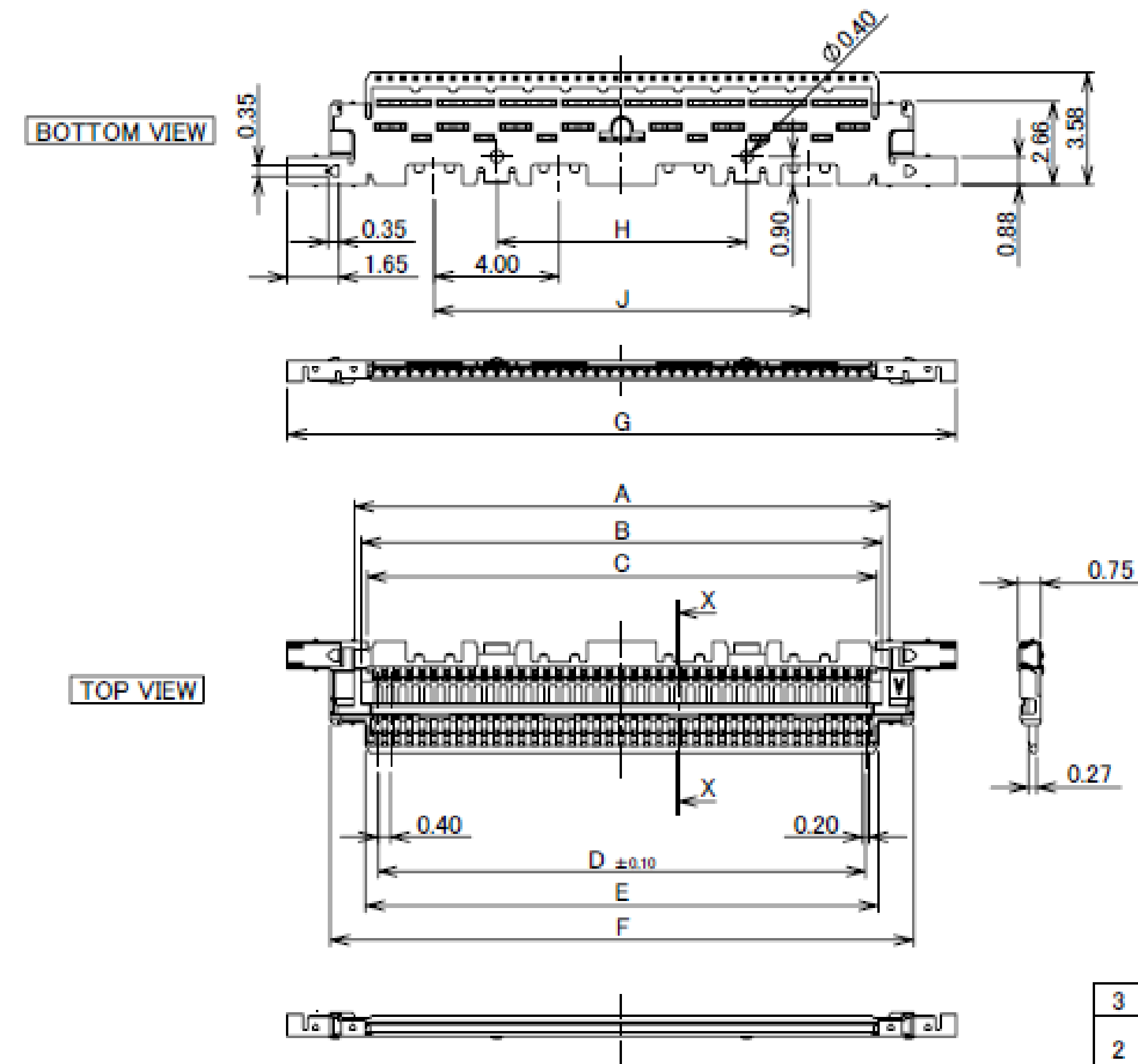
ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG #44 , 42 , 40 , 38 , 36 DISCRETE WIRE : AWG #36 , 34 TWINAXIAL CABLE : AWG #40 , 42
RATED VOLTAGE	100V AC (PER CONTACT PIN) ※THIS IS THE RATED VOLTAGE OF THE CONNECTOR. PLEASE NOTE THAT THE RATED VOLTAGE MAY VARY IN THE HARNESS DEPENDING ON THE CABLES USED.
RATED AMPERAGE (FOR CONTACT)	0.1A AC/DC [AWG #44] PER CONTACT PIN / UP TO 60 CONTACTS 0.24A AC/DC [AWG #42] PER CONTACT PIN / UP TO 60 CONTACTS 0.3A AC/DC [AWG #40] PER CONTACT PIN / UP TO 60 CONTACTS 0.5A AC/DC [AWG #38] PER CONTACT PIN / UP TO 18 CONTACTS 0.8A AC/DC [AWG #36] PER CONTACT PIN / UP TO 6 CONTACTS 1.0A AC/DC [AWG #34] PER CONTACT PIN / UP TO 6 CONTACTS ※TESTING BY REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION
OPERATING TEMPERATURE	248 TO 378K (-40°C TO 105°C)
OPERATING HUMIDITY	85% MAX.
CONTACT RESISTANCE	INITIAL : 180mohm MAX.(AWG #34) / AFTER TEST : ≦140mohm MAX. 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)	29.10N MAX.
UN-MATING FORCE (INITIAL / AFTER 30 CYCLES)	6.0N MIN.
CABLE RETENTION FORCE	29.40N MIN.
PRODUCT SPECIFICATION	PRS-2261
TEST REPORT	TR-16075, TR-23031
INSTRUCTION MANUAL	HIM-16028
ASSEMBLY MANUAL	ASM-16004
APPEARANCE CRITERIA NO.	QLS-A***

Rev.15

Plug Housing Assembly

Recommended P/N 20680-0**T-01

PART NO.	Pos.	A	B	C	D	E	F	G	H	J
20680-020T-01	20	9.10	8.65	8.30	7.60	8.40	10.66	13.40	-	5.00
20680-030T-01	30	13.10	12.65	12.30	11.60	12.40	14.66	17.40	4.00	8.00
20680-040T-01	40	17.10	16.65	16.30	15.60	16.40	18.66	21.40	8.00	12.00
20680-050T-01	50	21.10	20.65	20.30	19.60	20.40	22.66	25.40	12.00	16.00
20680-060T-01	60	25.10	24.65	24.30	23.60	24.40	26.66	29.40	16.00	20.00



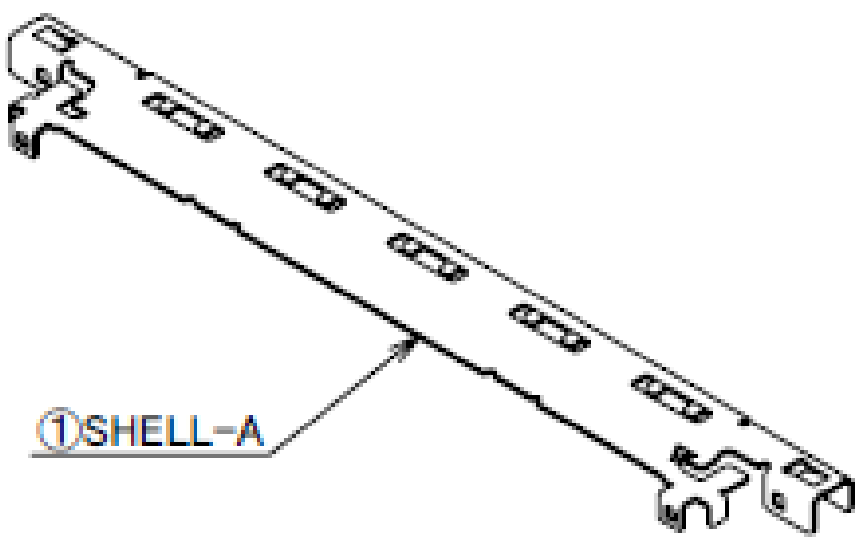
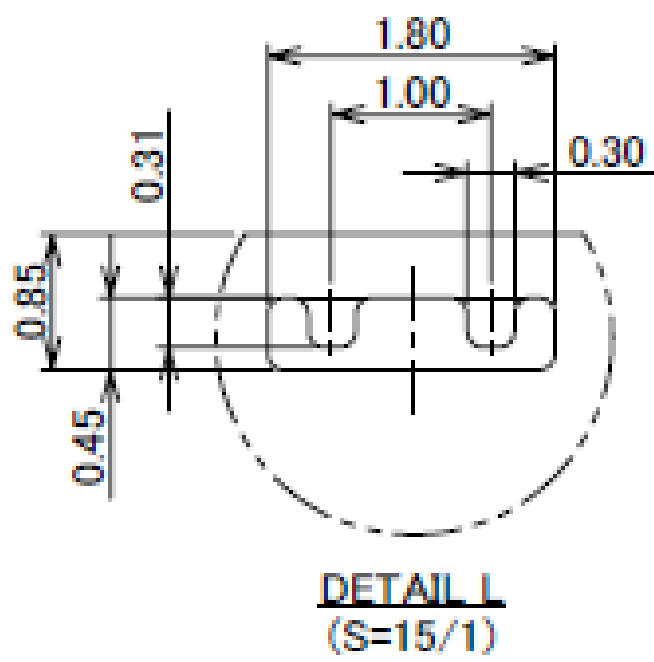
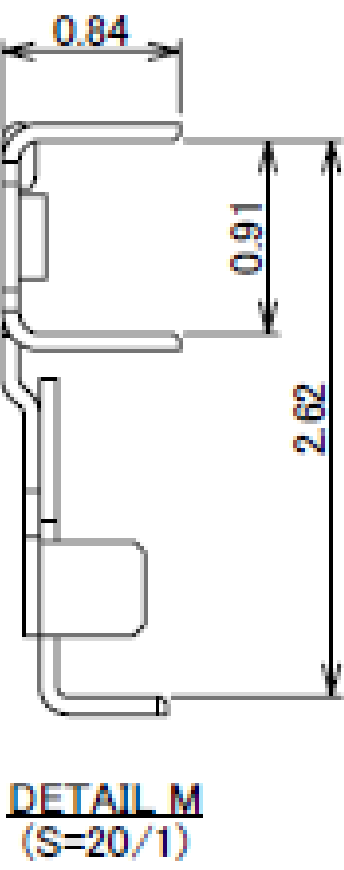
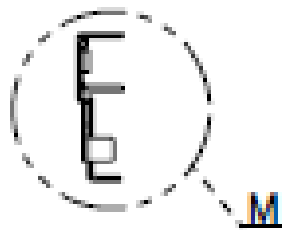
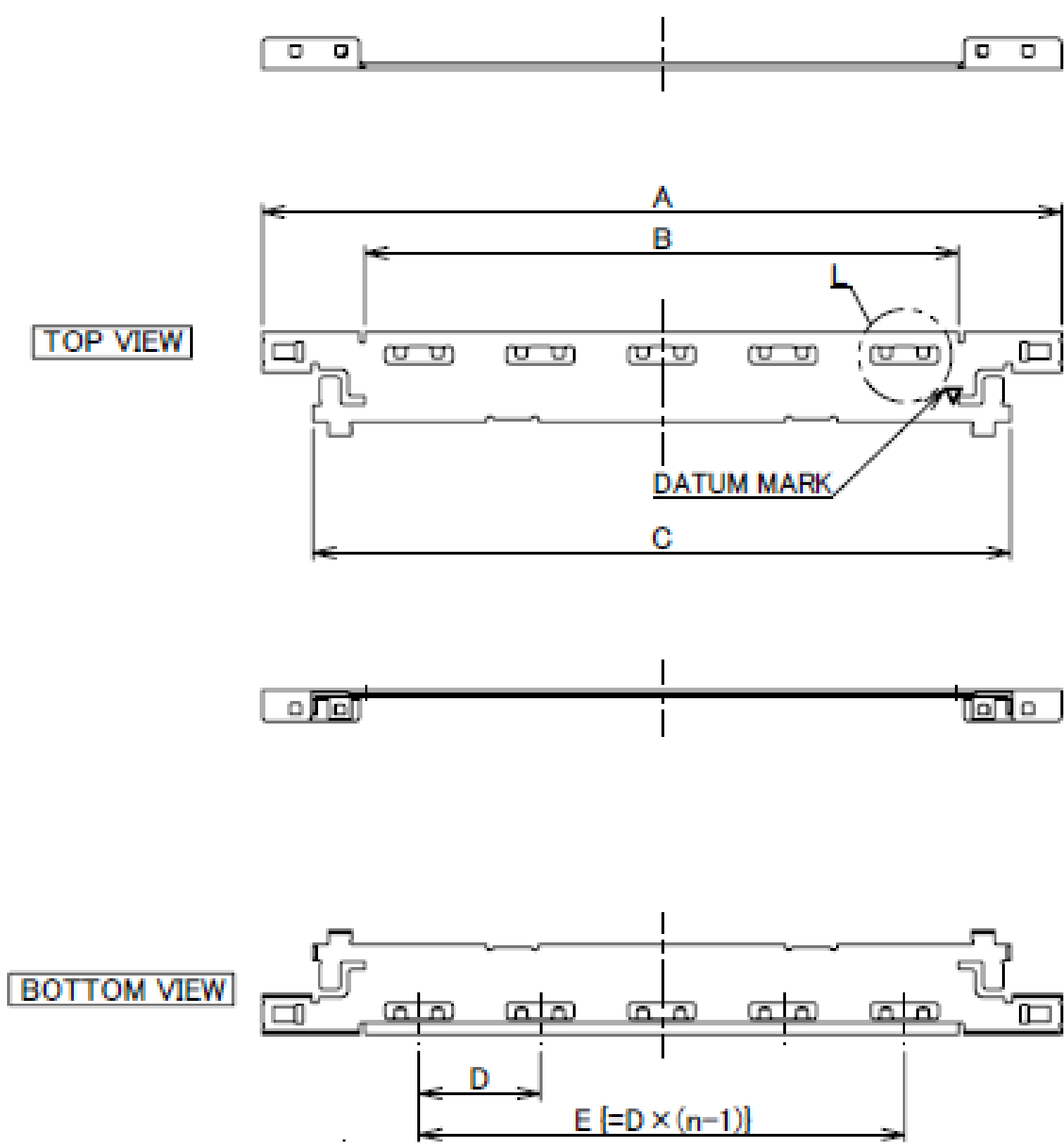
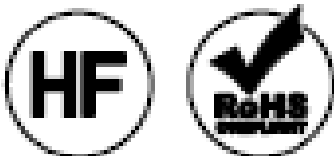
- NOTES.
- THIS PART IS ASSEMBLED WITH SHELL A(P/N 3204-0**1) AND LOCK BAR ASS'Y(P/N 20681-0**T-01) AFTER SOLDERED THE CABLE, AND IT BECOMES P/N 20679-0**T-01
 - THIS PART IS ASSEMBLED WITH SHELL A(P/N 3204-0**1) AND LOCK BAR ASS'Y(P/N 20789-0**T-01) AFTER SOLDERED THE CABLE, AND IT BECOMES P/N 20788-0**T-01

3	SHELL-B	PHOSPHOR BRONZE	PARTIAL Au 0.003 μ m MIN. OVER Ni 1.00 μ m MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN. CONTACT & SOLDERING AREA : Au 0.03 μ m MIN.
1	HOUSING	LCP	UL94V-0 ,BLACK
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.7

Plug Shell-A

Recommended P/N		3204-0**1				
PART NO.	Pos.	A	B	C	D	E
3204-0201	20	13.40	7.88	10.66	2.50	5.00
3204-0301	30	17.40	11.88	14.66	3.00	9.00
3204-0401	40	21.40	15.88	18.66	3.25	13.00
3204-0501	50	25.40	19.88	22.66	3.40	17.00
3204-0601	60	29.40	23.88	26.66	4.00	20.00

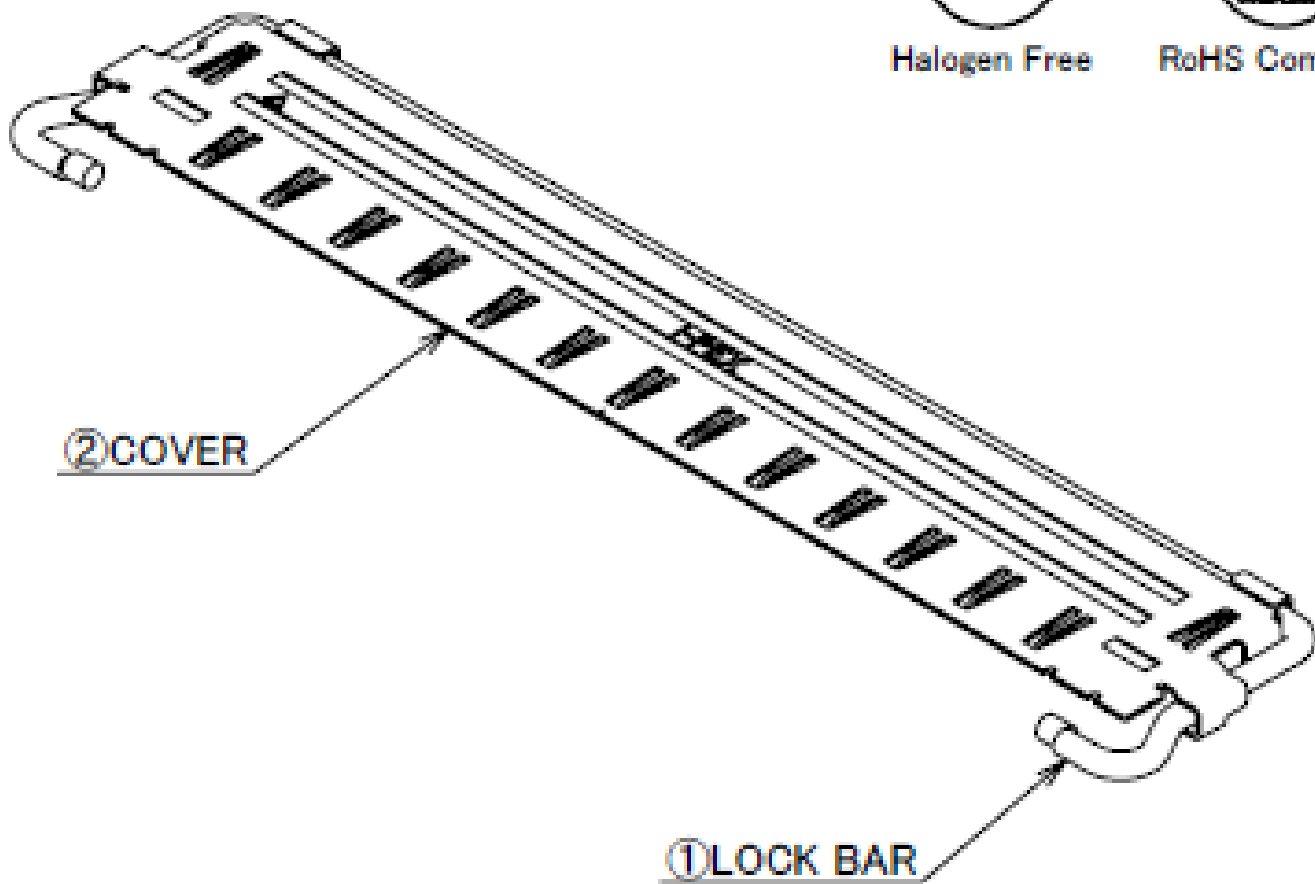
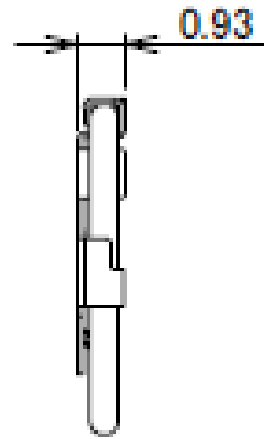
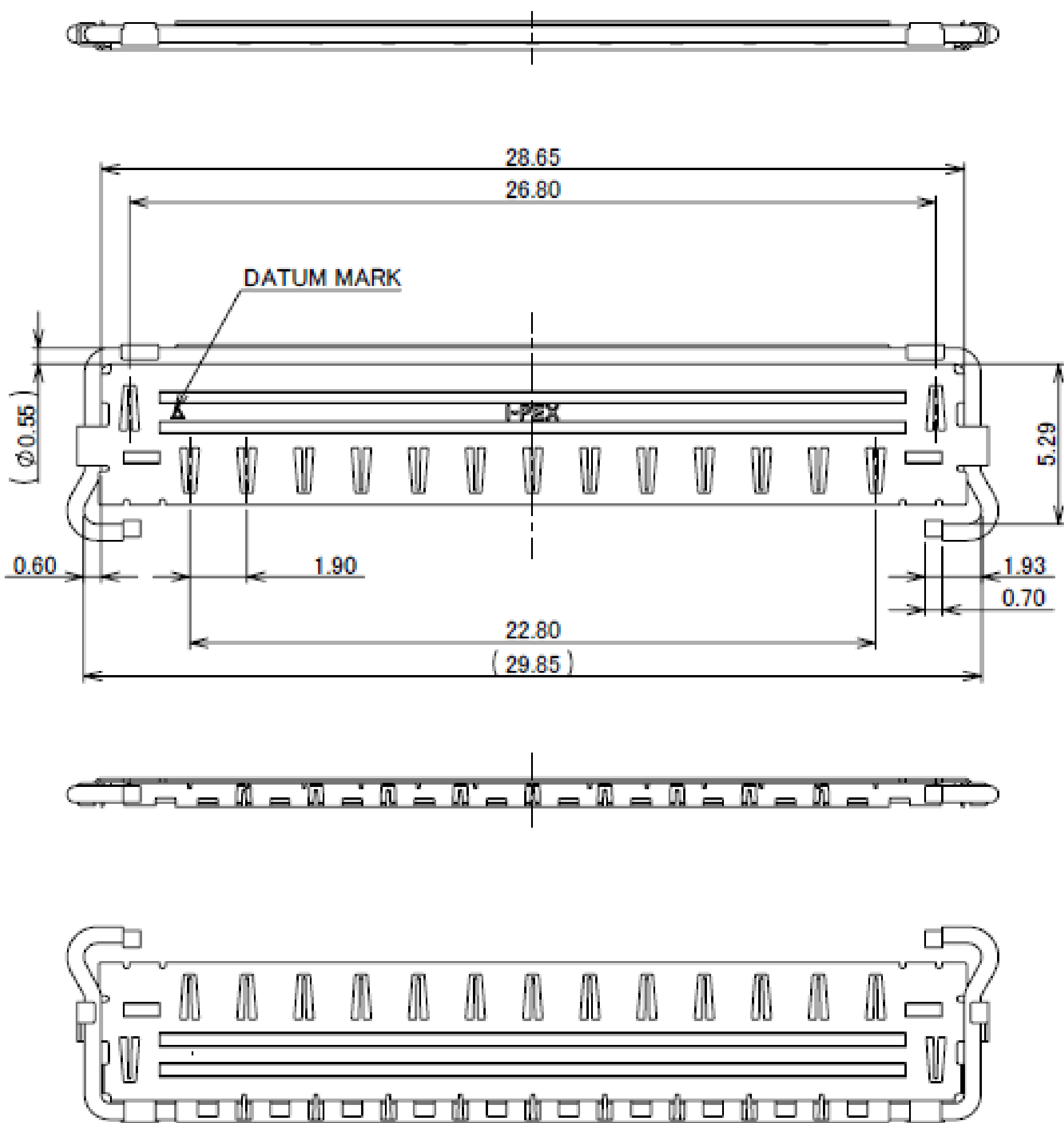
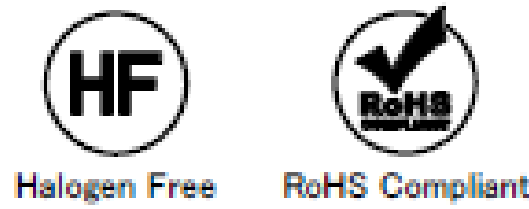


1	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.7

Lock Bar Assembly

Recommended P/N		20789-0**T-01	
PART NO.	Pos.		
20789-060T-01	60		

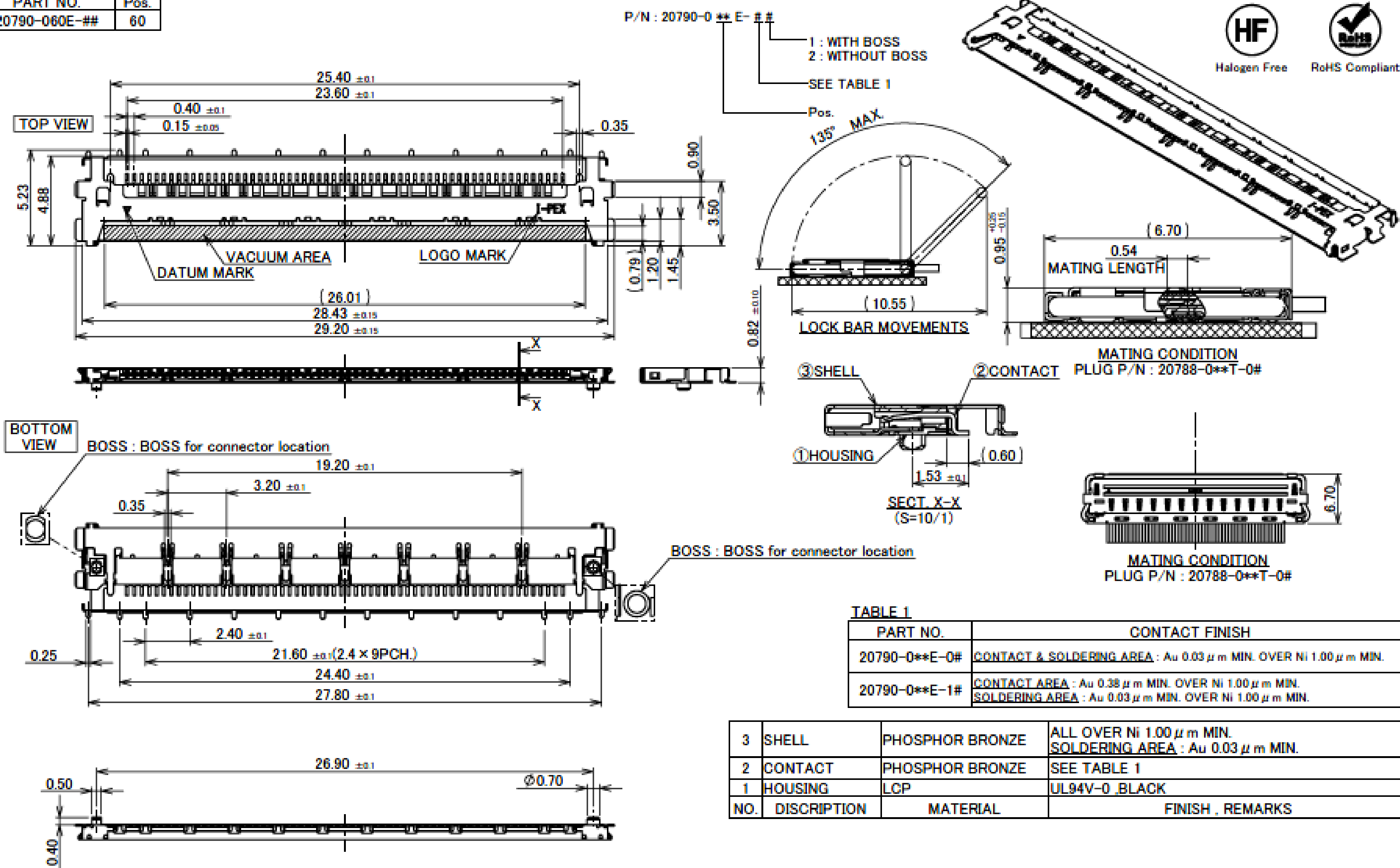


2	COVER	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN.
1	LOCK BAR	SUS φ0.55	-
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

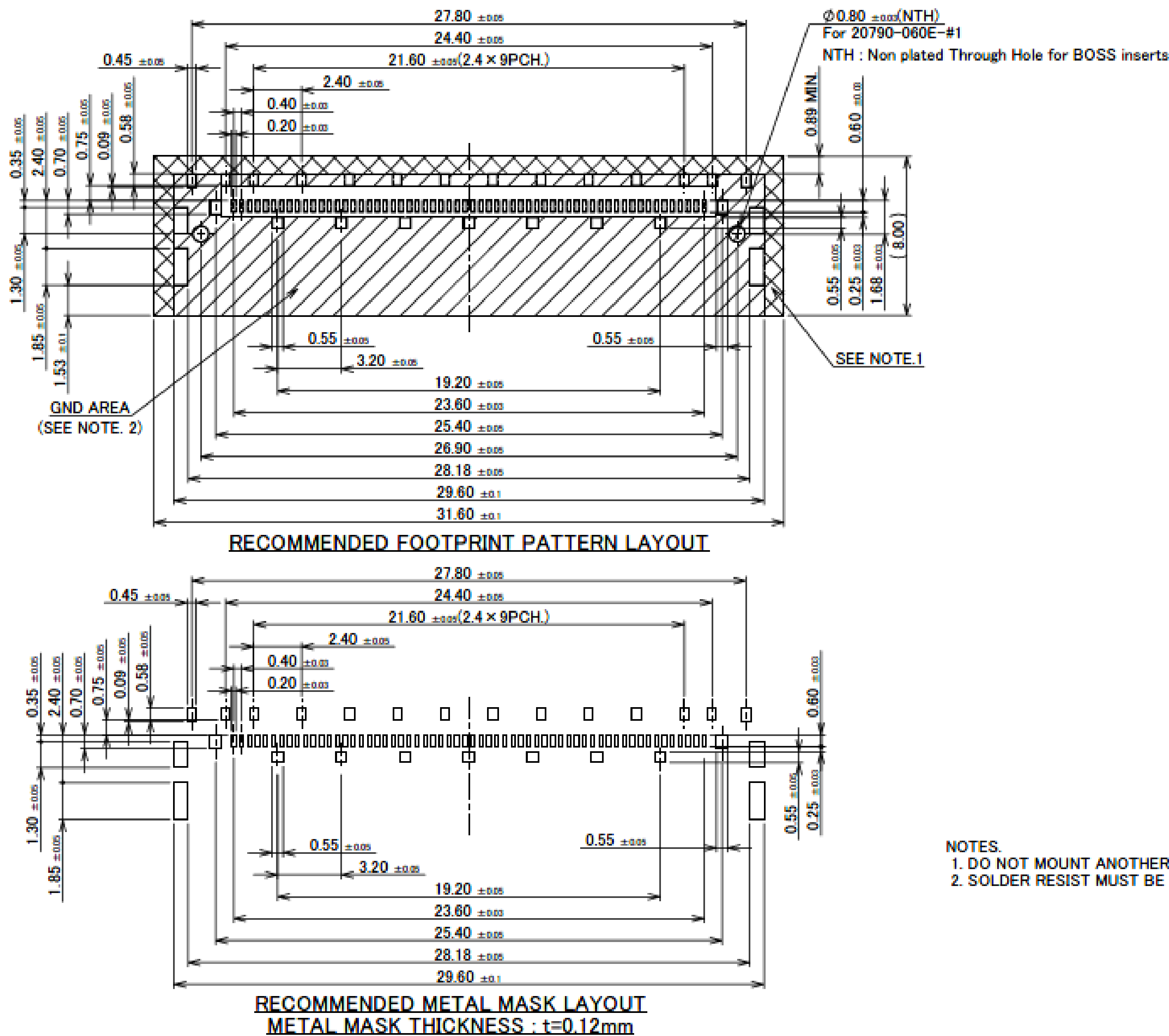
Rev.9

Receptacle Assembly

Recommended P/N	
20790-060E-02	
PART NO.	Pos.
20790-060E-##	60

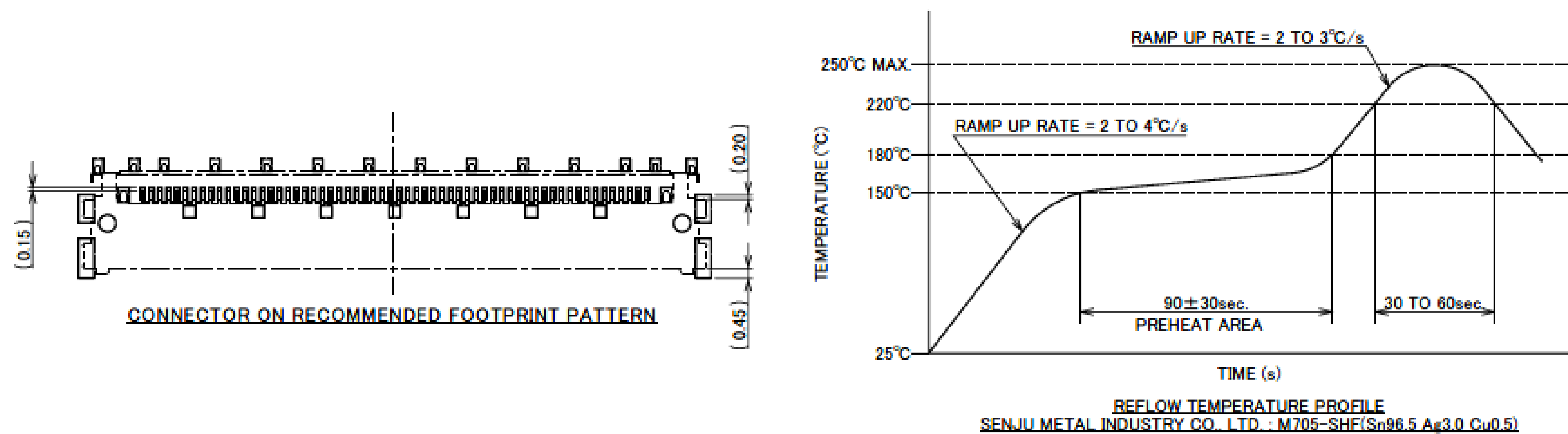


Rev.18



Rev.18

Receptacle Assembly



Rev.18

FOR CABLINE-CA II PLUS PLUG CABLE ASSEMBLY (DWG. NO. 20788)

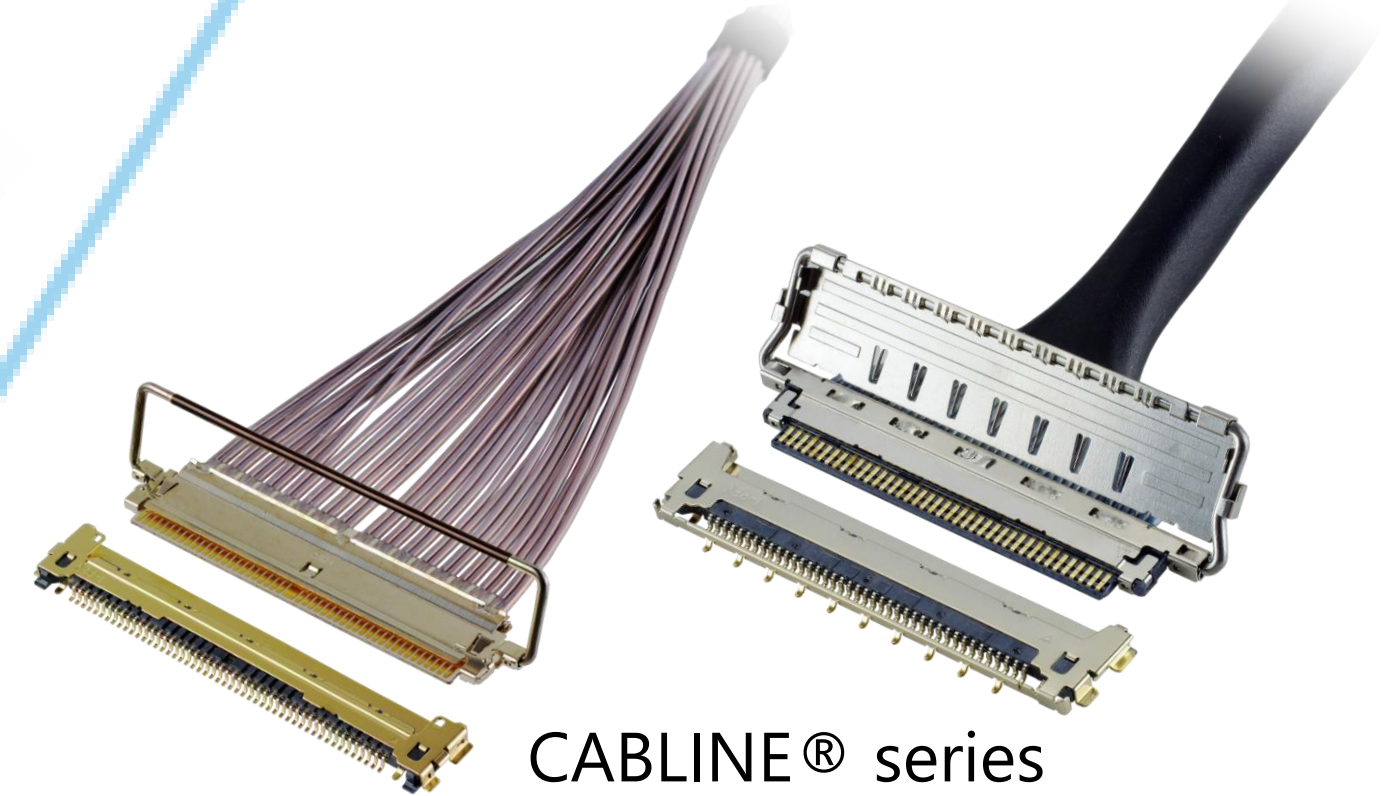
ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG #44 , 42 , 40 , 38 , 36 DISCRETE WIRE : AWG #36 , 34 TWINAXIAL CABLE : AWG #40 , 42
RATED VOLTAGE	100V AC (PER CONTACT PIN) ※THIS IS THE RATED VOLTAGE OF THE CONNECTOR. PLEASE NOTE THAT THE RATED VOLTAGE MAY VARY IN THE HARNESS DEPENDING ON THE CABLES USED.
RATED AMPERAGE (FOR CONTACT)	0.1A AC/DC [AWG #44] PER CONTACT PIN/UP TO 60 CONTACTS 0.24A AC/DC [AWG #42] PER CONTACT PIN/UP TO 60 CONTACTS 0.3A AC/DC [AWG #40] PER CONTACT PIN/UP TO 60 CONTACTS 0.5A AC/DC [AWG #38] PER CONTACT PIN/UP TO 18 CONTACTS 0.8A AC/DC [AWG #36] PER CONTACT PIN/UP TO 6 CONTACTS 1.0A AC/DC [AWG #34] PER CONTACT PIN/UP TO 6 CONTACTS ※TESTING BY 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 : 180mohm MAX.(AWG #34) / AFTER TEST : ≦40mohm MAX. 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)	29.10N MAX.
UN-MATING FORCE (INITIAL / AFTER 30 CYCLES)	6.0N MIN.
CABLE RETENTION FORCE	29.40N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-2261
TEST REPORT	TR-16075, TR-23031
INSTRUCTION MANUAL	HIM-16028
PACKING STANDARD	PST-16078
APPEARANCE CRITERIA NO.	QLS-A***

Rev.18

Custom Connectors Available

RF Connectors

MHF® series



CABLINE® series

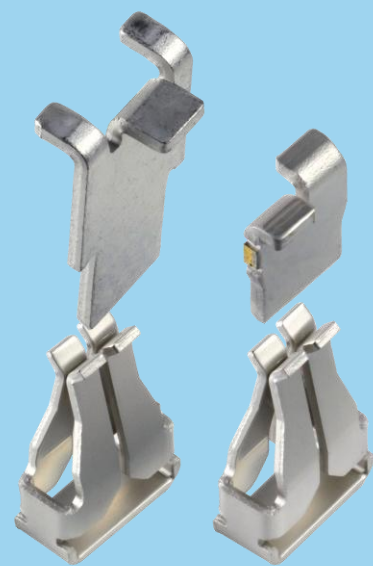


Micro-Coaxial/Twinaxial Connectors

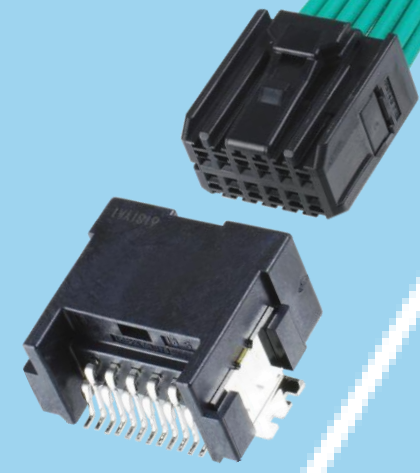


Wire-to-Board Connectors/ Terminals

AP series



ISH® series



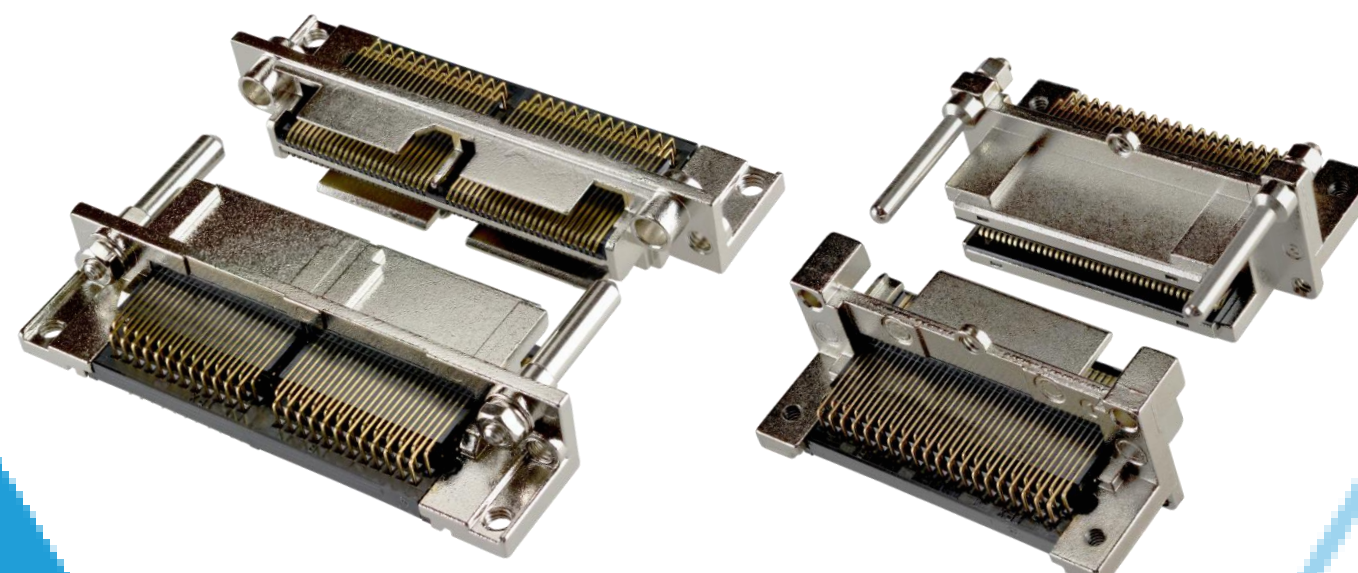
NOVASTACK® series



Board-to-Board Connectors



I/O Connectors



MINIDOCK™ series

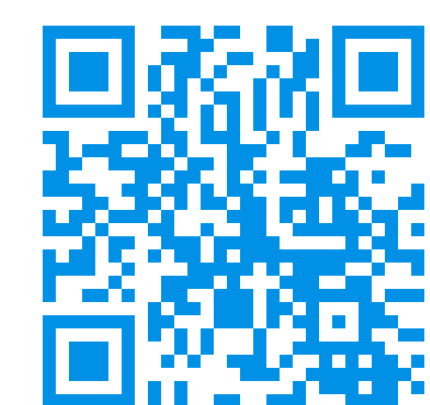
MINIFLEX® series EVAFLEX® series



FPC/FFC Connectors



Inquiry



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or more detailed information.

www.i-pex.com



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