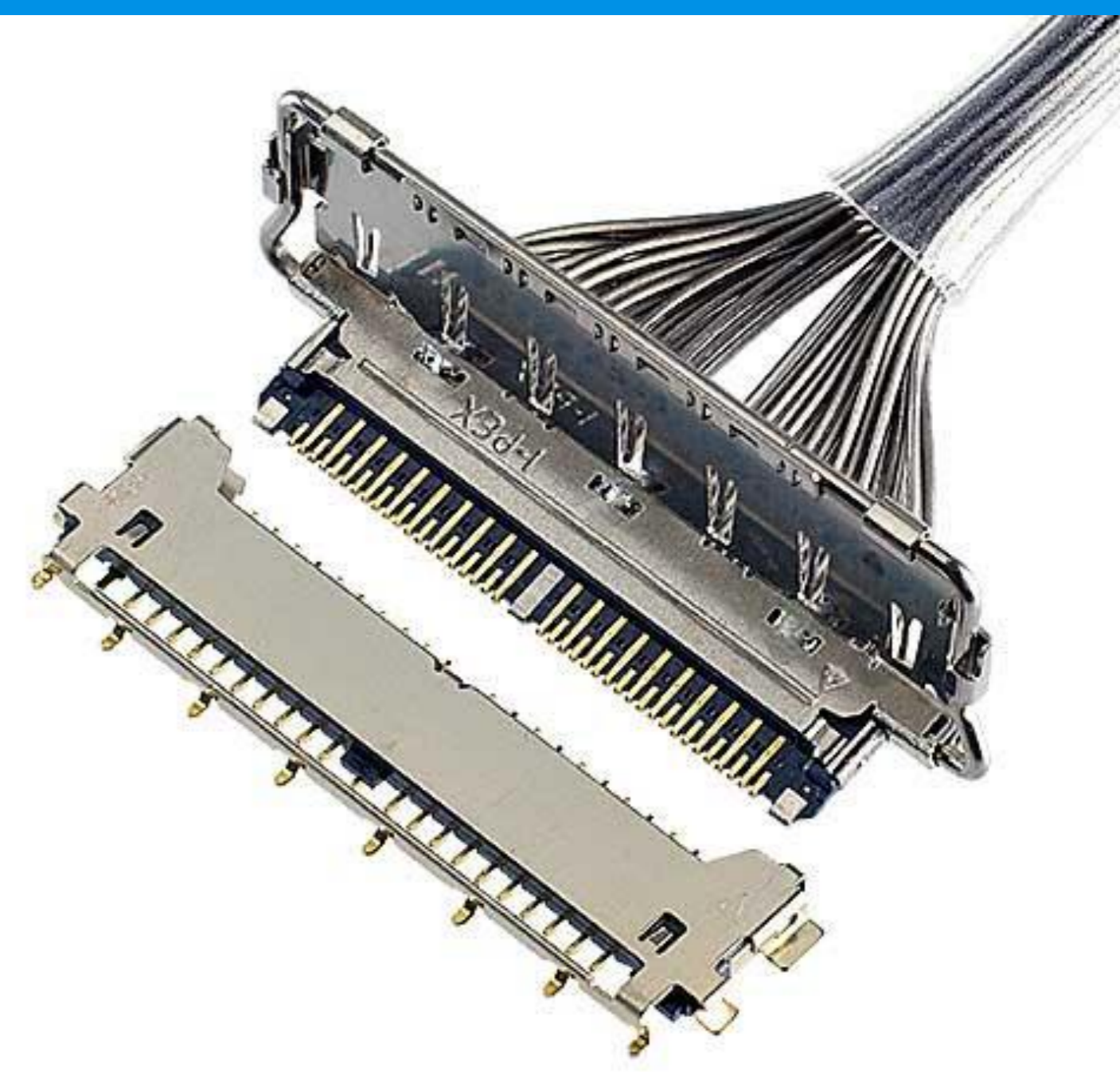


# CABLINE®-CX II With Cover

Narrow pitch (0.25 mm pitch), Low mating height (Height = 1.0 mm max.), EMI shielding cover and multi-point ground with mechanical lock, Horizontal mating type micro-coaxial connector



**Product Specifications:**

Mating type	Horizontal	
Board Pitch (mm)	0.5	
Wiping Length (mm)	0.54	
Mated size (mm)	Height	1.0 max. with cover
	Width	Formula: 6.45 + (0.25*?p)
	Depth	5.6
Pin Counts	Range	Up to 40
	Available	40

**Applicable Cable Size:**

Maximum O.D. (mm)	0.25
Micro-Coaxial for Signal (AWG)	45 ohm: #44 or smaller 50 ohm: #46 or smaller
Twinax (AWG)	-
Discrete (AWG)	#39 or smaller

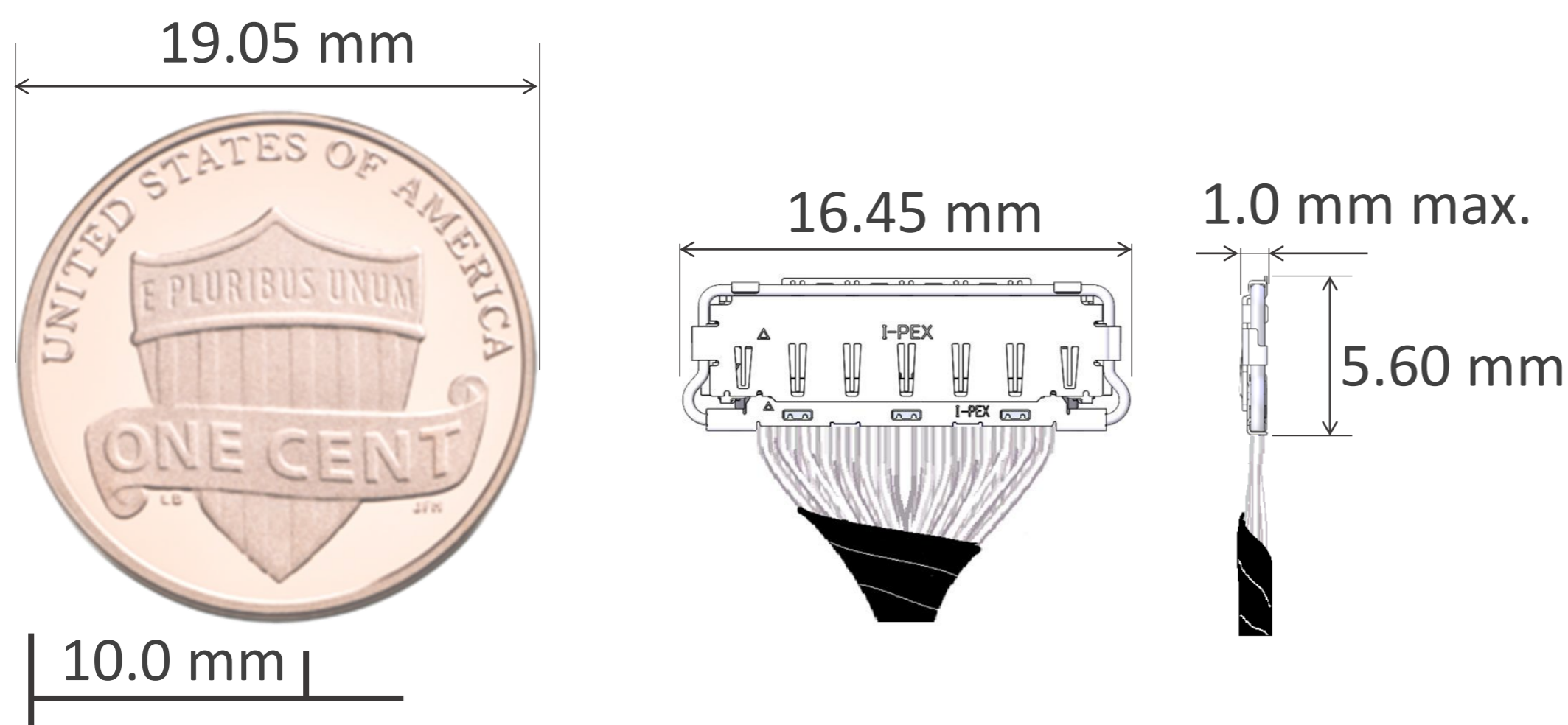
**Applicable Standards (Reference Only):**

USB 3.1 Gen 1 (5 Gbps), V-By-One HS 1.4 (4 Gbps), HDMI 1.3 (3.4 Gbps) Gbps

\* Please inquire for pin counts not listed or outside of the pin count range.  
\* CABLINE®-CX II Without Cover type (mating height 0.78 mm max.) is also available.

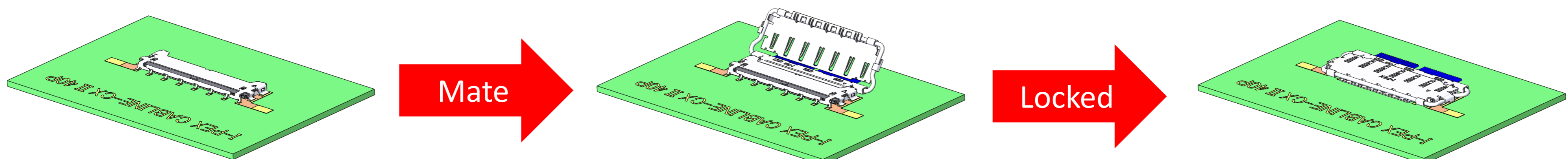
## ► Suitable for Small Spaces

CABLINE-CX II 40p size is smaller than a one-cent coin.  
Mating Height: 1.0 mm maximum

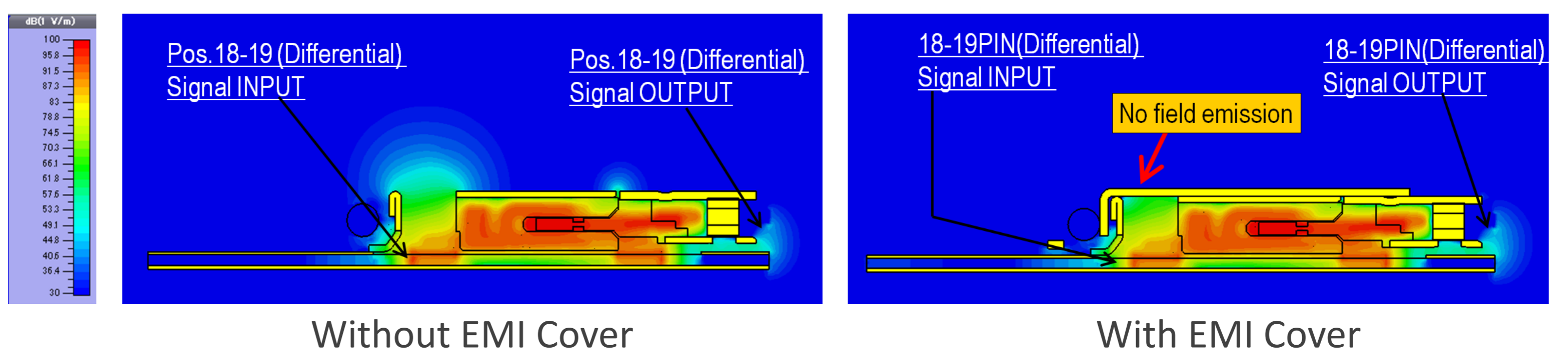


Flexible micro-coaxial cable harness is suitable for applications with hinge design.

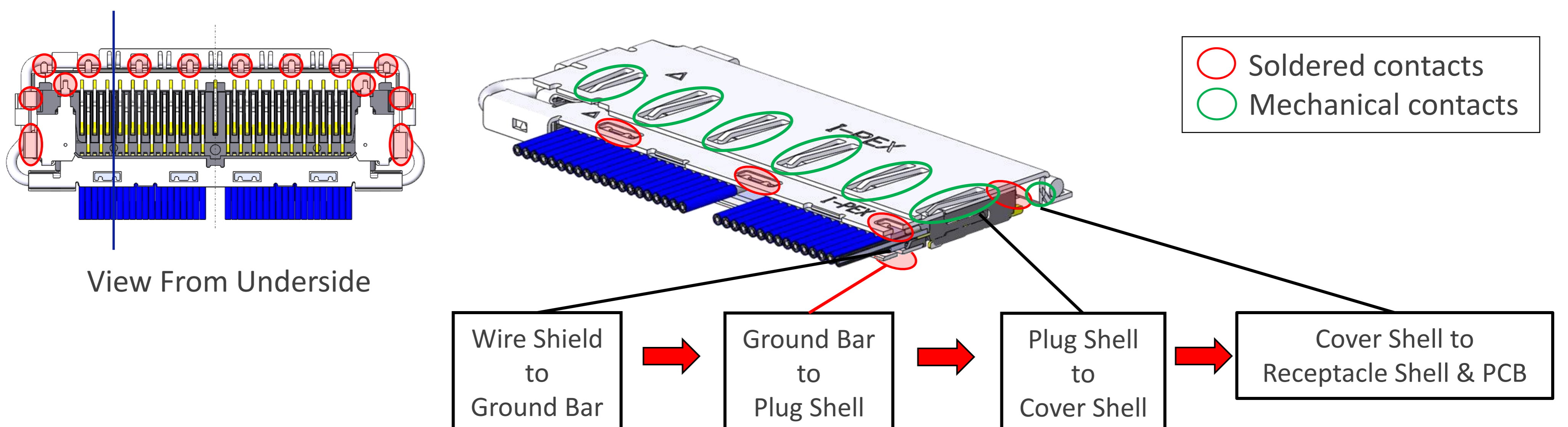
## ► EMI Shielding Mechanical Locking Cover Prevents EMI Leakage



EMI Simulation (2.4 GHz)

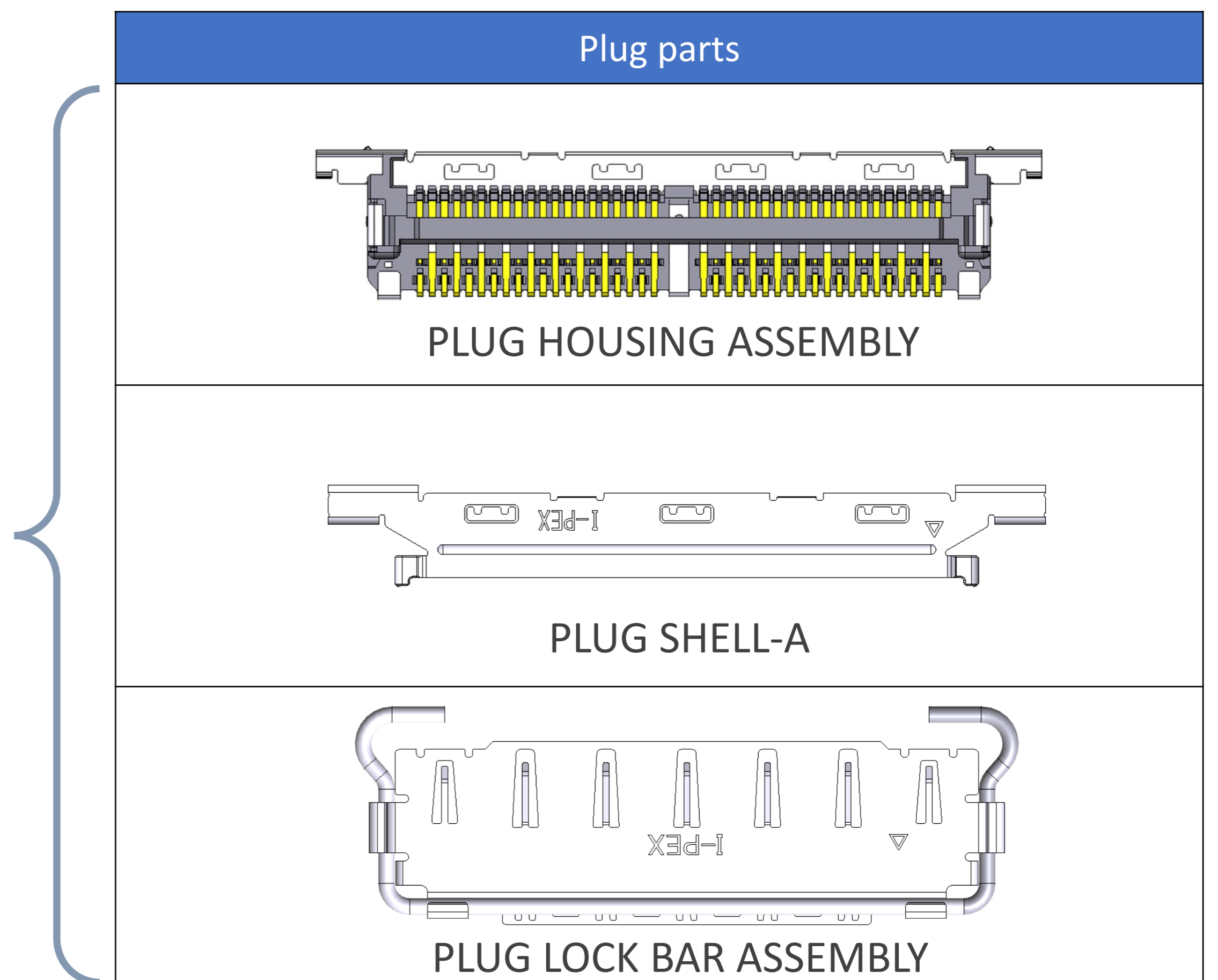
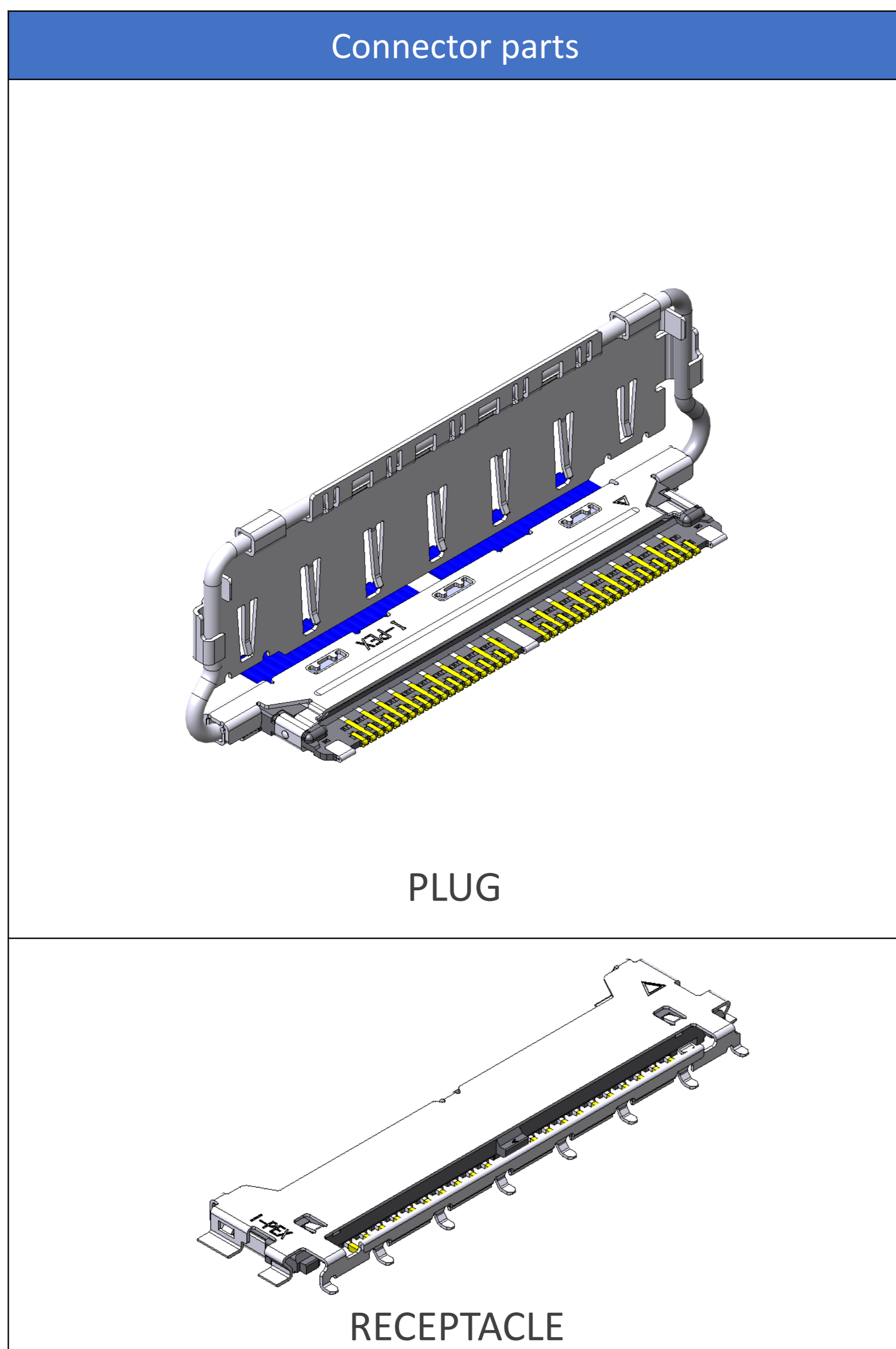


## ► EMI Shielding and Multi-Point Ground Design



# Component Parts Details

## Component Parts

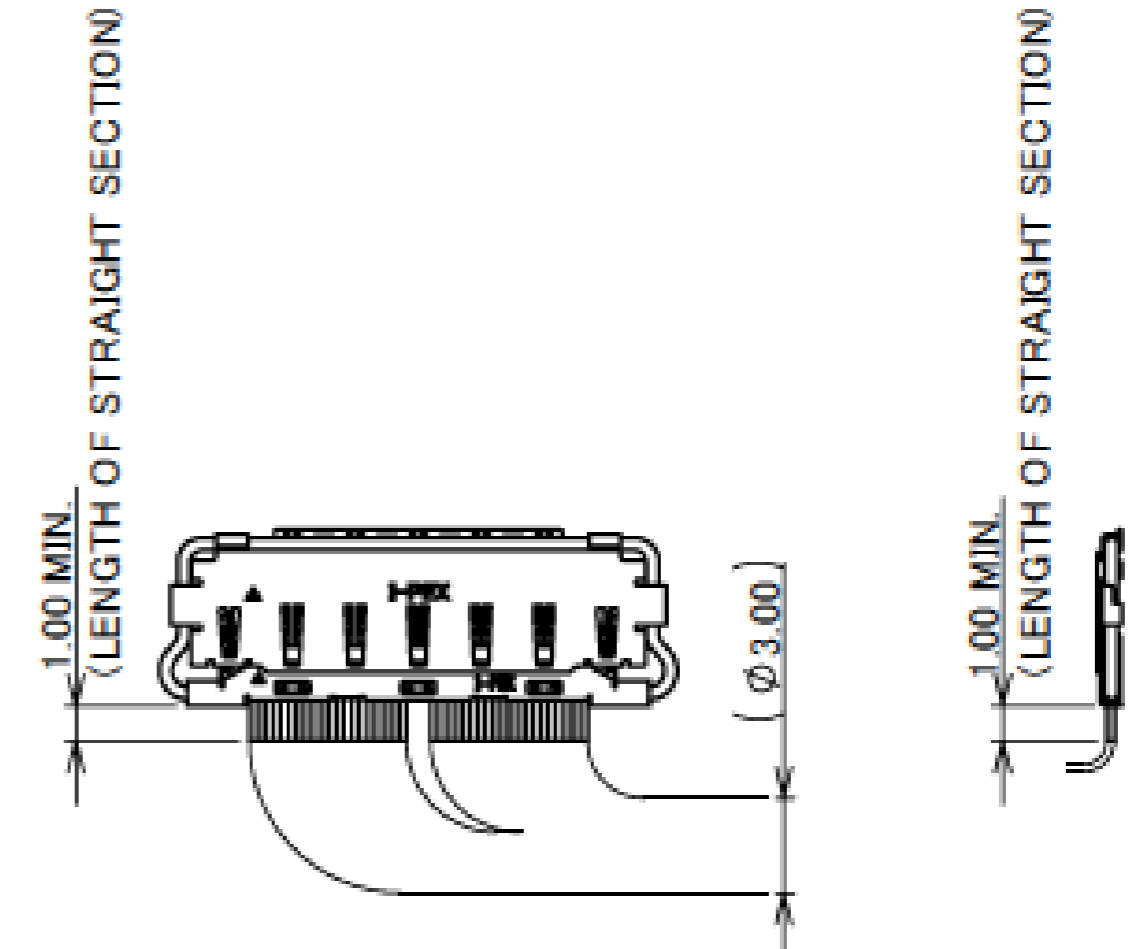
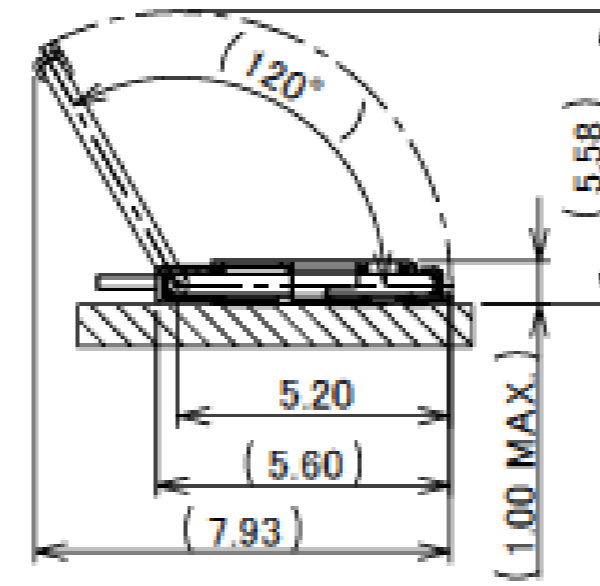
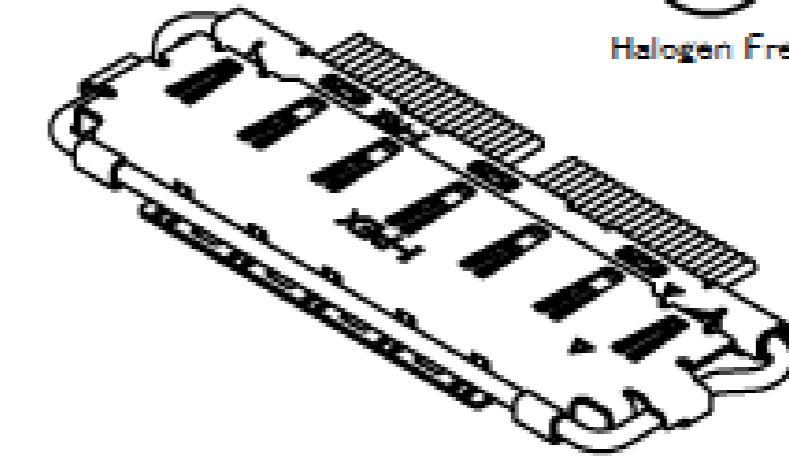
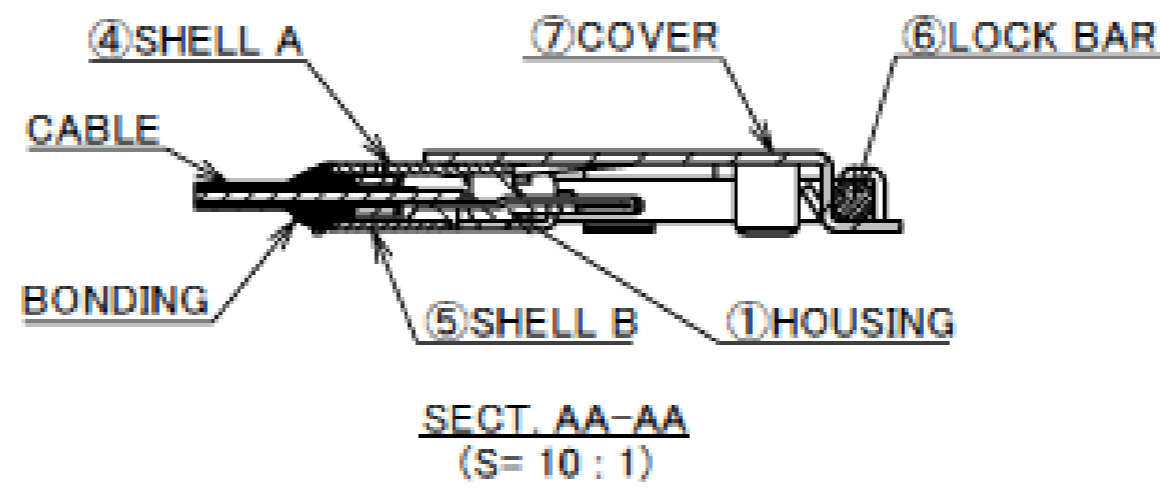
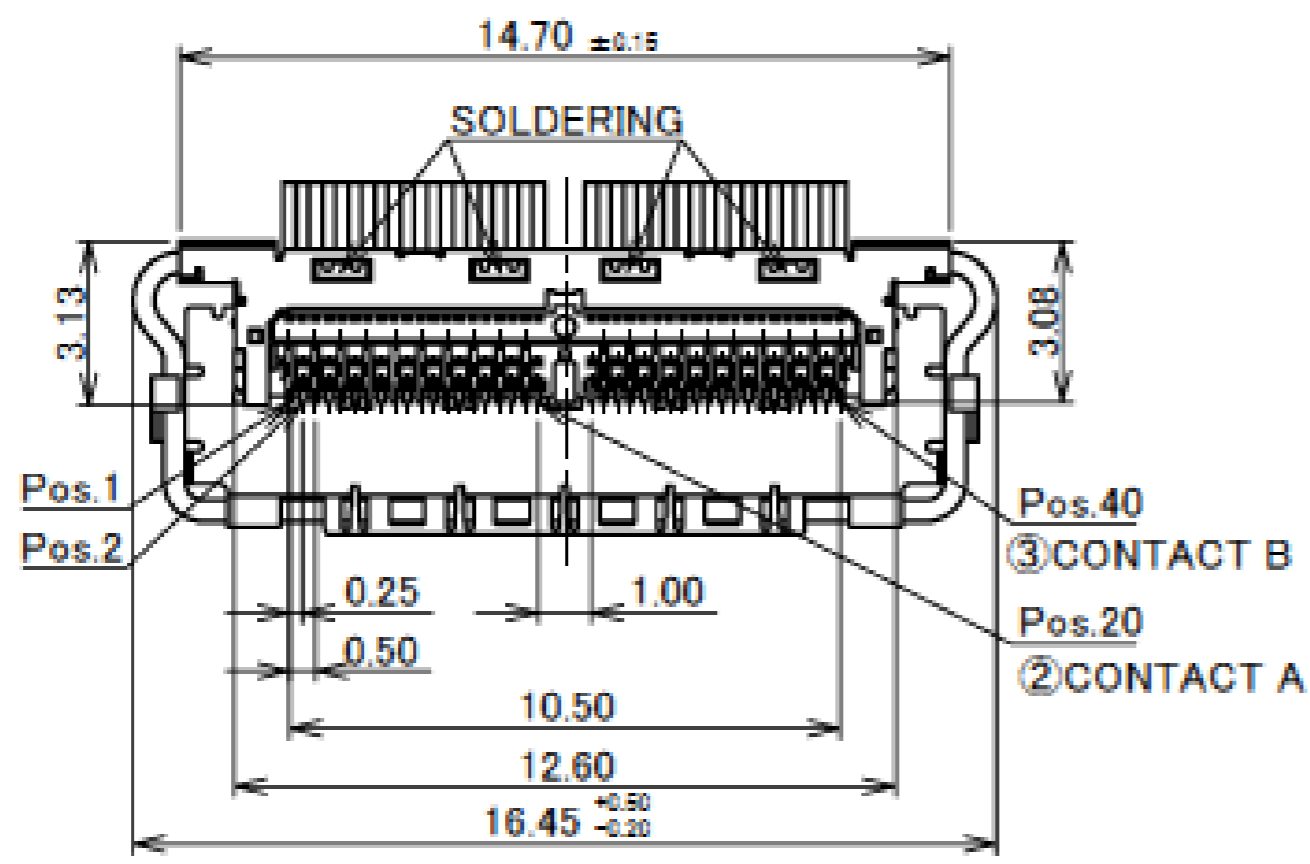


# Plug for Cable Assembly

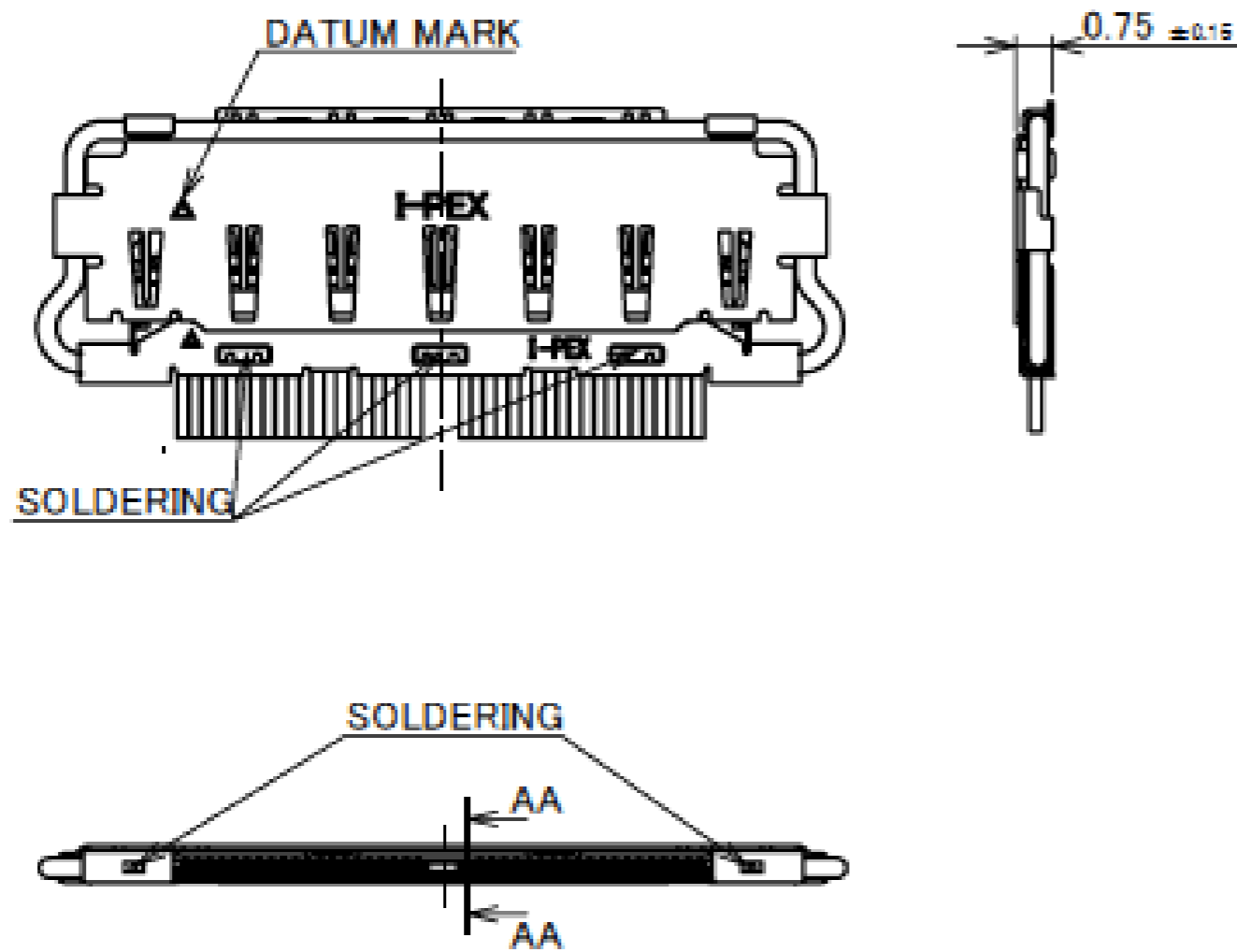
Recommended P/N		20977-040T-01
PART NO.	Pos.	
20977-040T-01	40	



**BOTTOM VIEW**

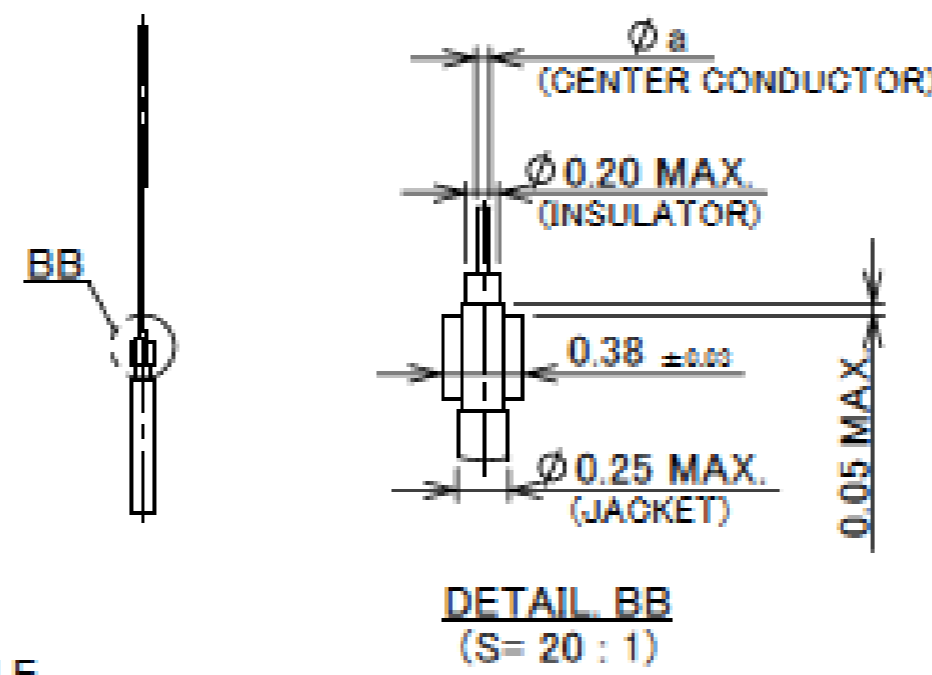
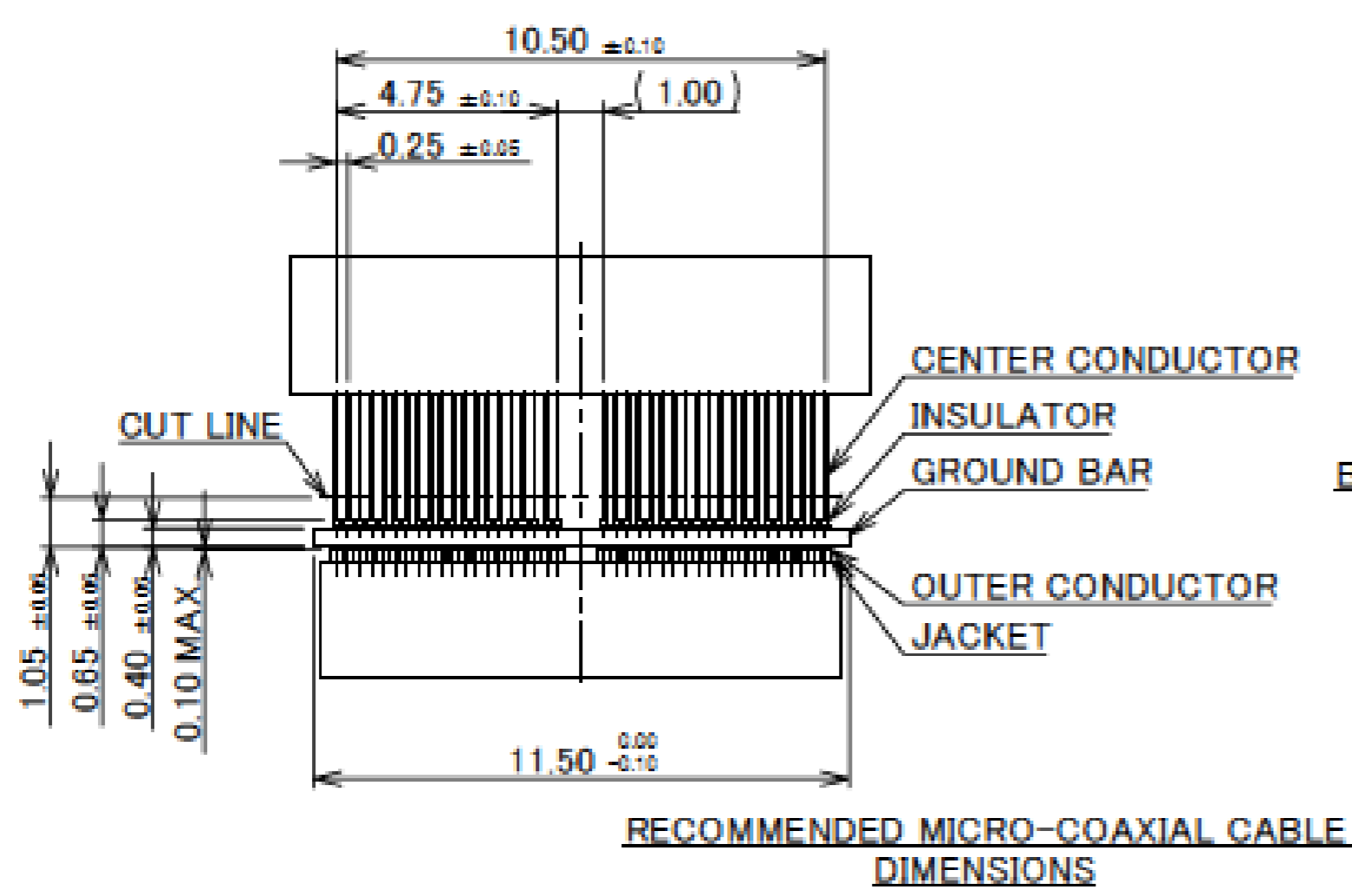


**TOP VIEW**



NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
7	COVER	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN.
6	LOCK BAR	SUS	-
5	SHELL B	SUS	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.
4	SHELL A	SUS	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.
3	CONTACT B	CORSON ALLOY	CONTACT AREA : Au 0.25 μm MIN. OVER Ni 2.00 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.
2	CONTACT A	CORSON ALLOY	CONTACT AREA : Au 0.25 μm MIN. OVER Ni 2.00 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK

Rev.2



**CHARACTERISTIC IMPEDANCE MATCHING MICRO-COAXIAL CABLE**

	a
#44	0.063
#46	0.048

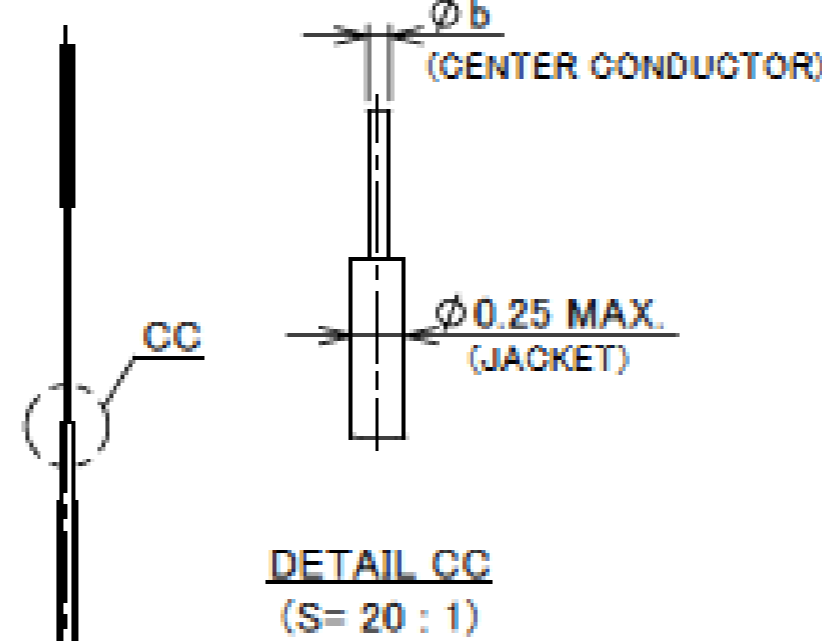
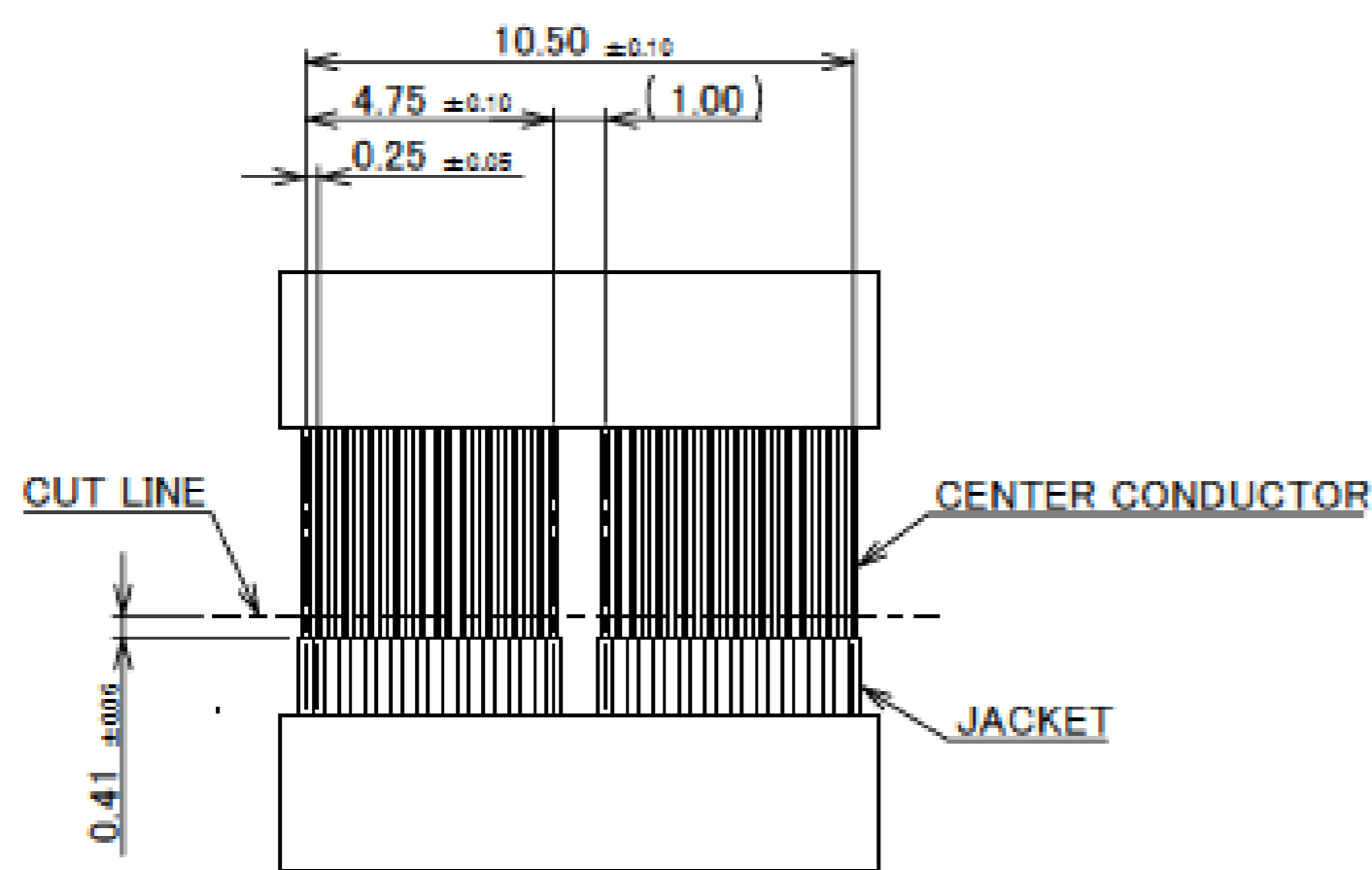
**CHARACTERISTIC IMPEDANCE UN-MATCHING MICRO-COAXIAL CABLE**

	a
#39	0.102

MICRO-COAXIAL CABLE #39 : NOT RECOMMENDED FOR HIGH SPEED SIGNAL TRANSFER

**DISCRETE WIRE DIMENSION**

	b
#39	0.102



Rev.2

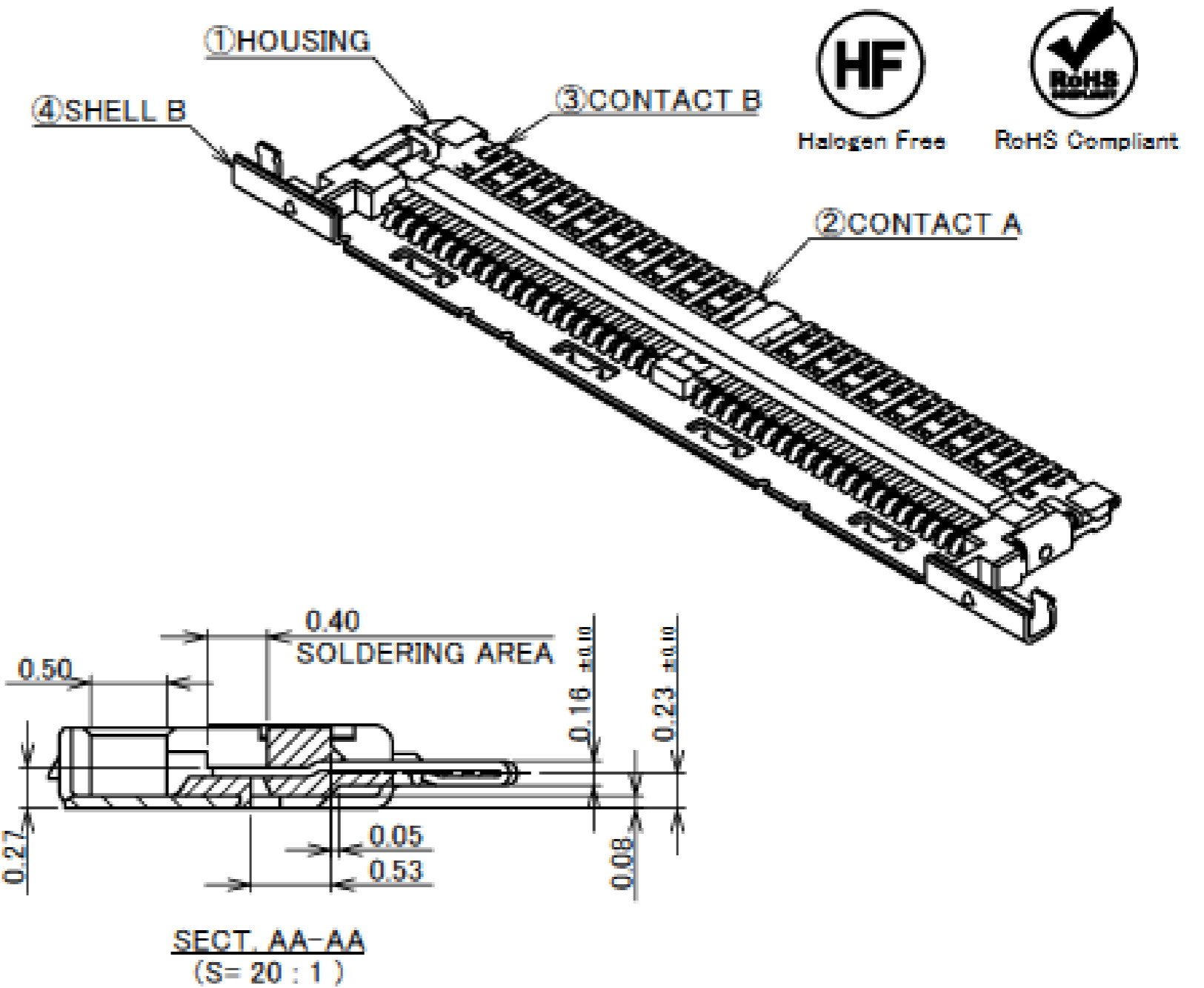
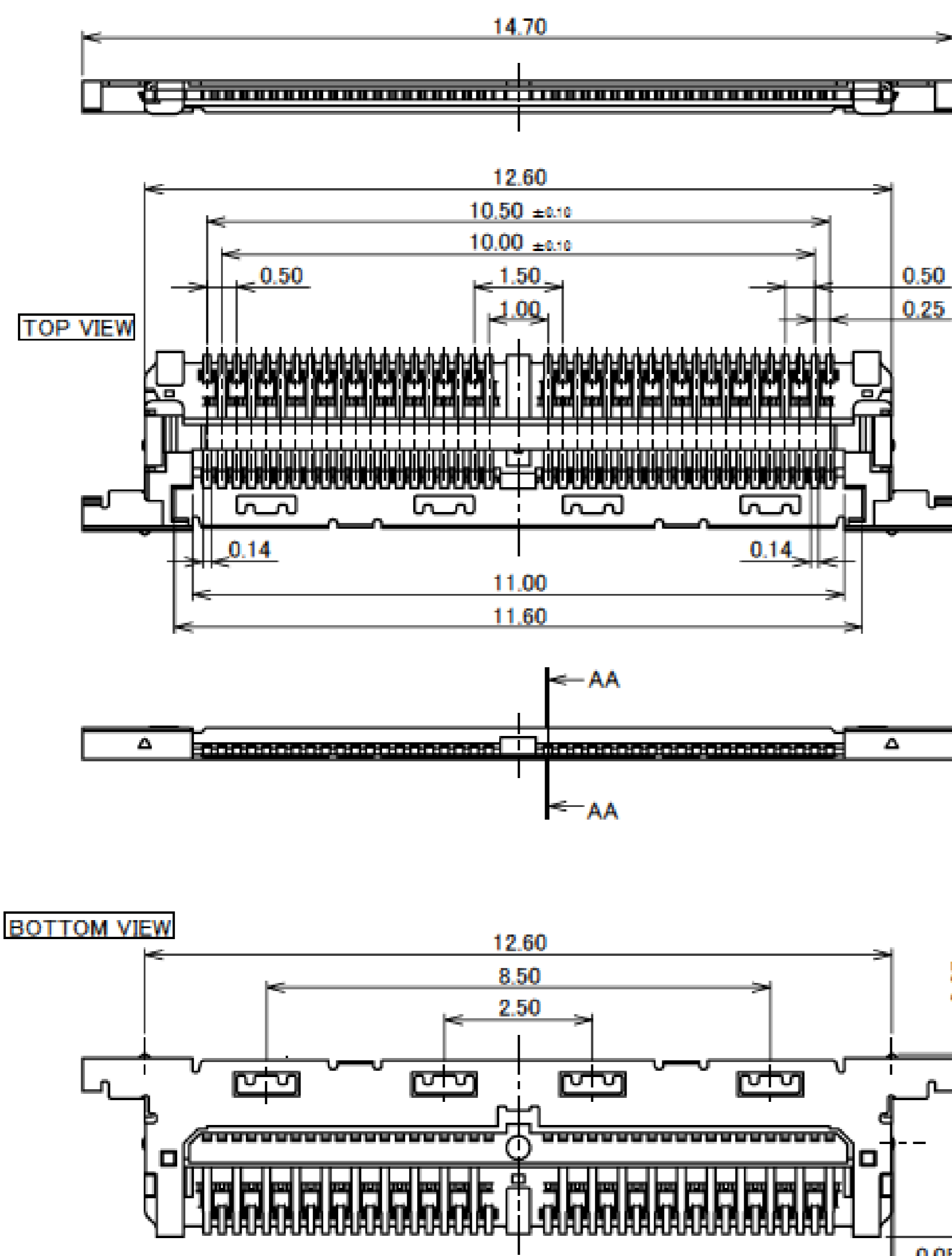
# Plug for Cable Assembly

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG# 46,44,39 DISCRETE WIRE : AWG# 39
RATING VOLTAGE	100V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR CONTACT)	0.10A AC/DC [AWG#46] PER CONTACT PIN/UP TO 40 CONTACTS 0.15A AC/DC [AWG#44] PER CONTACT PIN/UP TO 40 CONTACTS 0.50A AC/DC [AWG#39] PER CONTACT PIN/UP TO 8 CONTACTS ※TESTING BY A REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION
OPERATING TEMPERATURE	233~358K(-40℃~+85℃) (CONTAINING TEMPERATURE RISE BY CURRENT)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 388mohm MAX.(AWG#39) / AFTER TEST : $\triangle$ 40mohm MAX. INITIAL : 1,080mohm MAX.(AWG#44) INITIAL : 1,830mohm MAX.(AWG#46)
GROUND SHELL RESISTANCE	INITIAL : 50mohm MAX. / AFTER TEST : $\triangle$ 40mohm MAX.
INSULATION RESISTANCE	INITIAL : 1,000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	20 CYCLES
MATING FORCE (INITIAL / 20 CYCLES)	40P : 30.0N MAX.
UNMATING FORCE (INITIAL / 20 CYCLES)	40P : 4.0N MIN.
CABLE RETENTION FORCE	40P : 19.60N MIN.
PRODUCT SPECIFICATION	PRS-2403
TEST REPORT	TR-17063
INSTRUCTION MANUAL	HIM-17035
ASSEMBLY MANUAL	ASM-17008
APPEARANCE CRITERIA No.	QLS-A***

Rev.2

# Plug Housing Assembly

Recommended P/N	20974-040T-01
PART NO.	Pos.
20974-040T-01	40



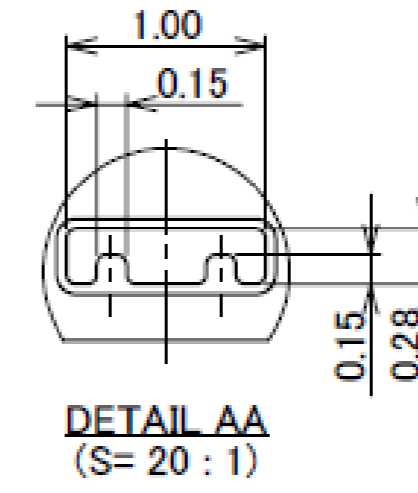
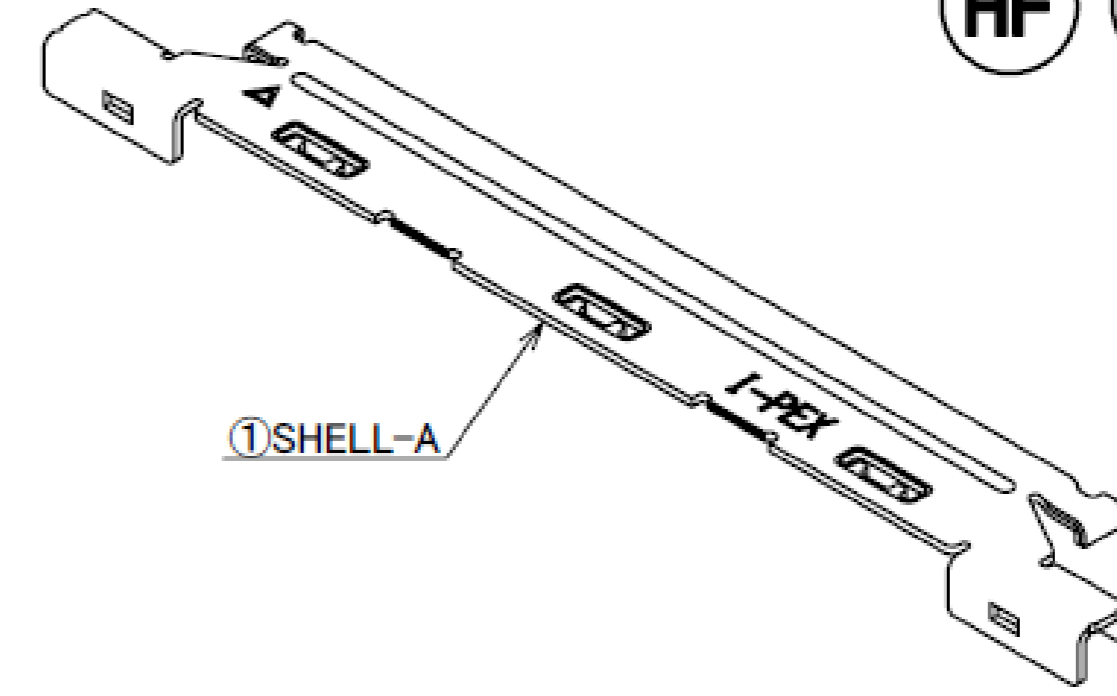
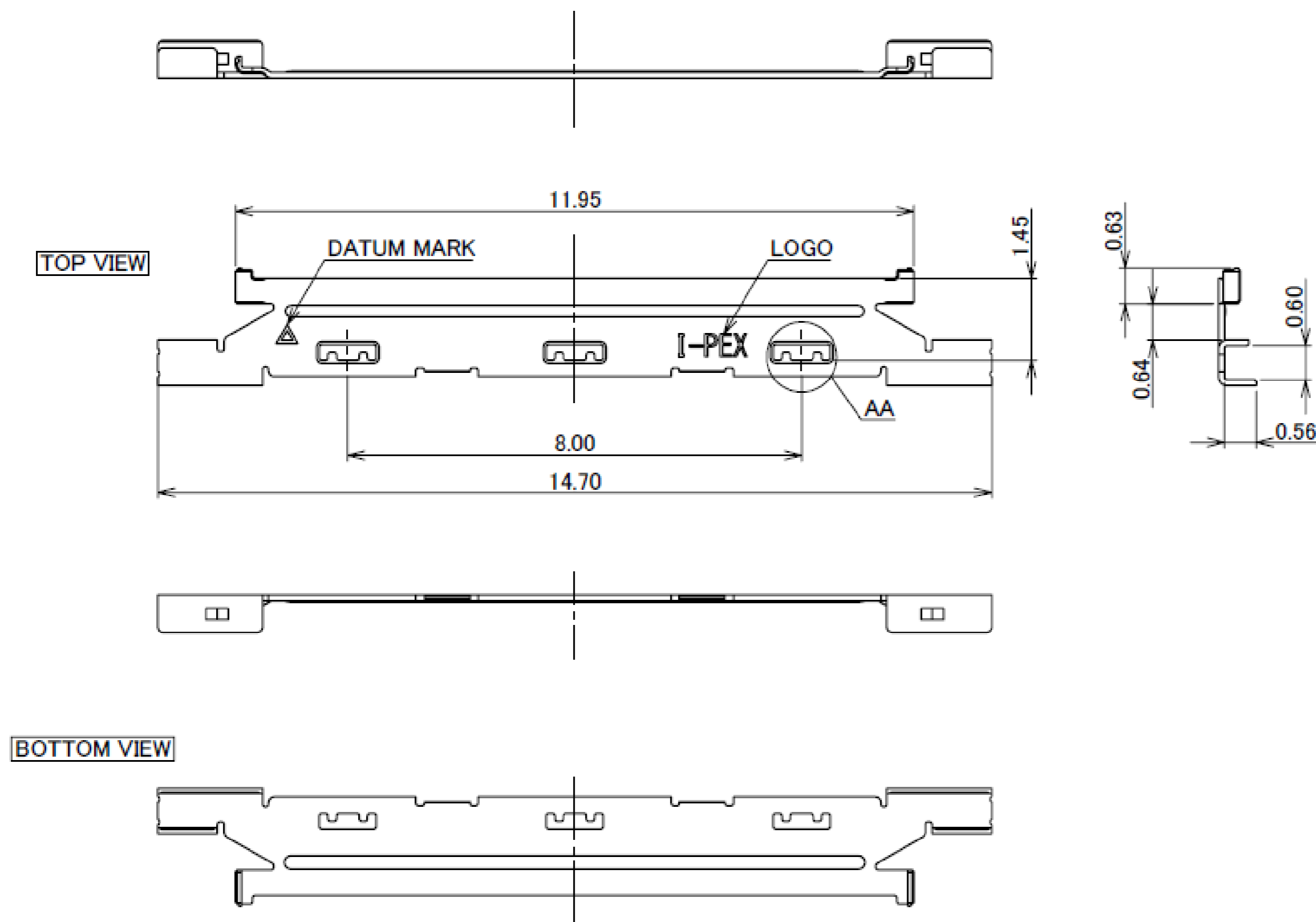
NOTES.  
1. ASSEMBLY  
1-1. 20977-040T-01  
THIS PART IS ASSEMBLED WITH SHELL A (P/N 3655-0401) AND LOCK BAR ASS'Y (P/N 20975-040T-01) AFTER SOLDERED THE CABLE.  
1-2. 20978-040T-01  
THIS PART IS ASSEMBLED WITH SHELL A (P/N 3655-0401) AND LOCK BAR (P/N 3656-0402) AFTER SOLDERED THE CABLE.

NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
4	SHELL B	SUS	PARTIAL Au 0.003 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
3	CONTACT B	CORSON ALLOY	CONTACT AREA : Au 0.25 $\mu$ m MIN. OVER Ni 2.00 $\mu$ m MIN. SOLDERING AREA : Au 0.03 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
2	CONTACT A	CORSON ALLOY	CONTACT AREA : Au 0.25 $\mu$ m MIN. OVER Ni 2.00 $\mu$ m MIN. SOLDERING AREA : Au 0.03 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
1	HOUSING	LCP	UL94V-0, BLACK

Rev.1

# Plug Shell-A

Recommended P/N	3655-0401
PART No.	3655-0401

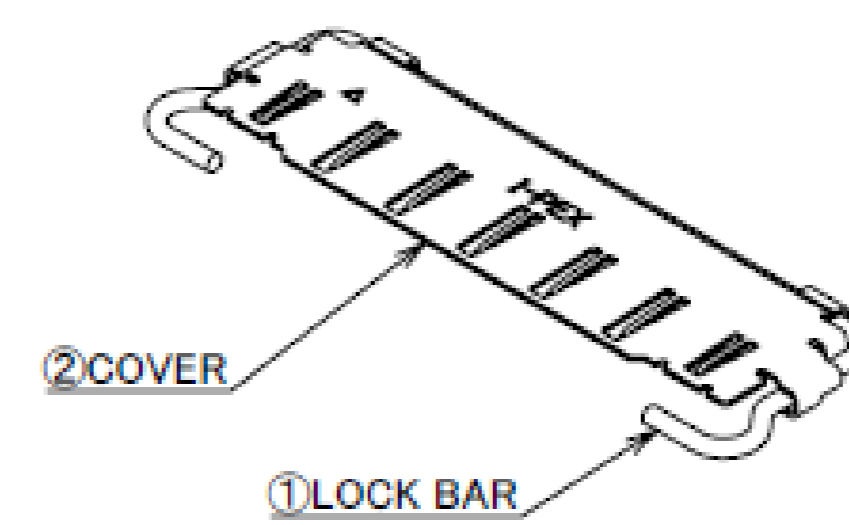
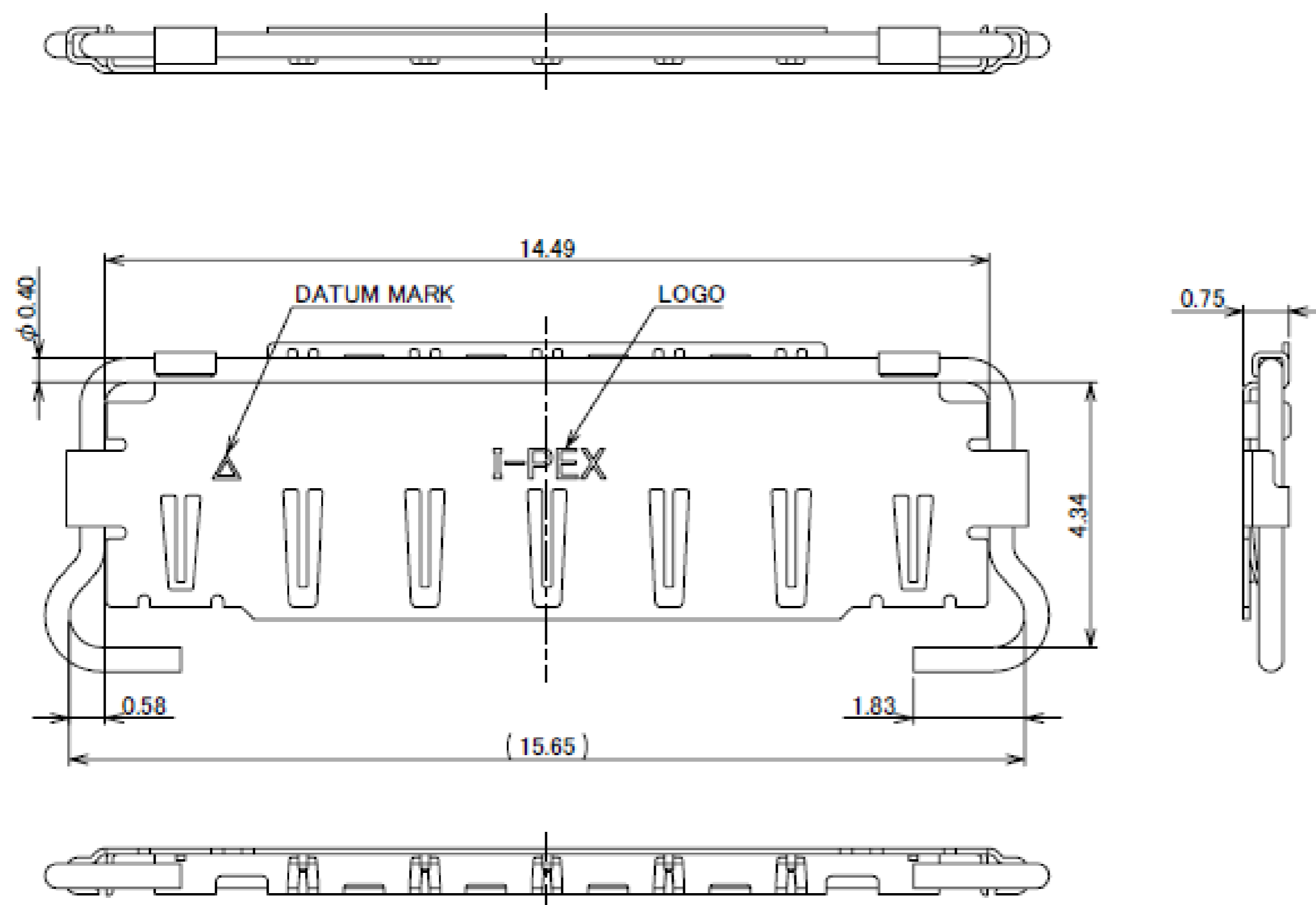
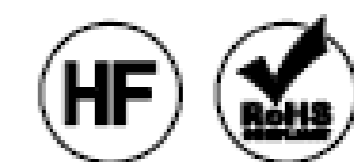


NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
1	SHELL-A	SUS	PARTIAL Au 0.003 $\mu$ m MIN. OVER Ni 1.0 $\mu$ m MIN.

Rev.0

# Plug Lock Bar Assembly

Recommended P/N	20975-040T-01
PART No.	20975-040T-01

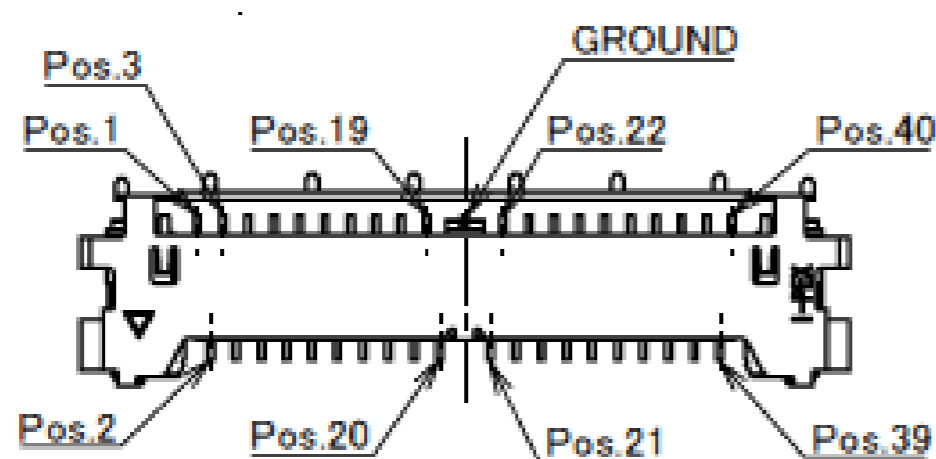
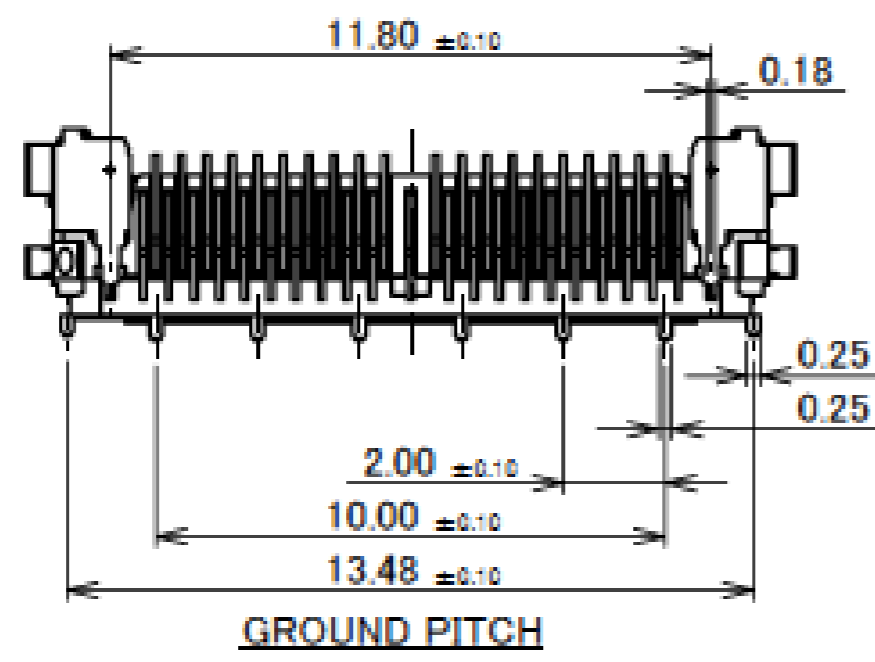
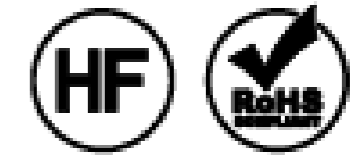
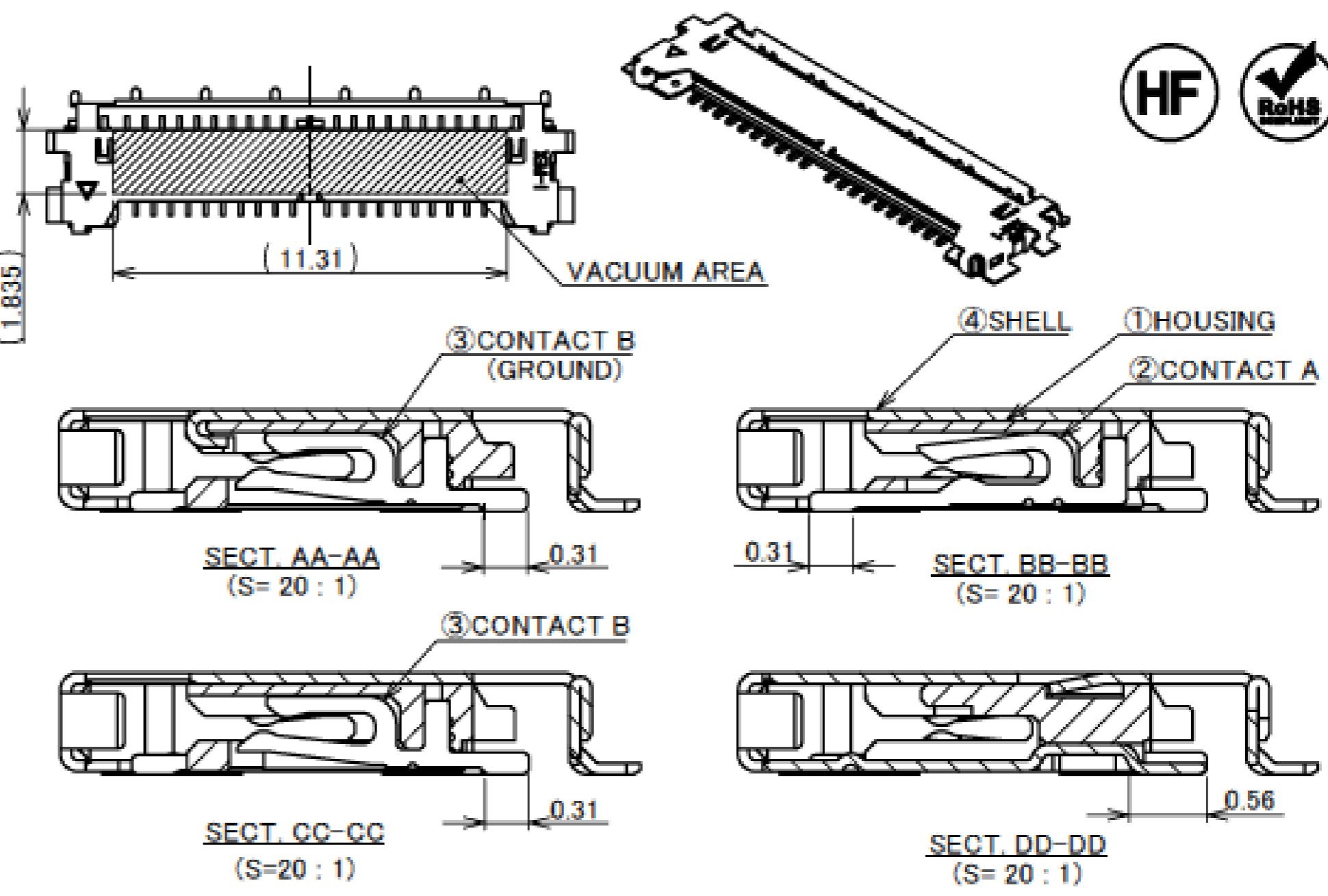
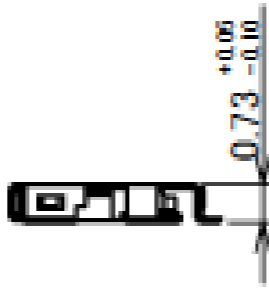
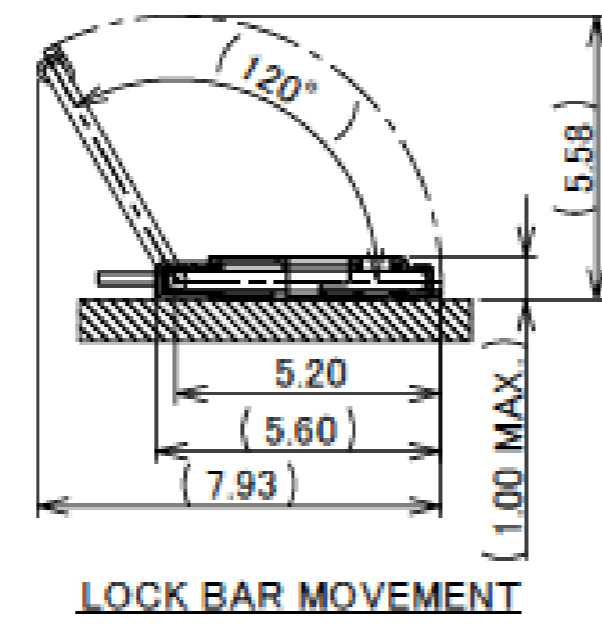
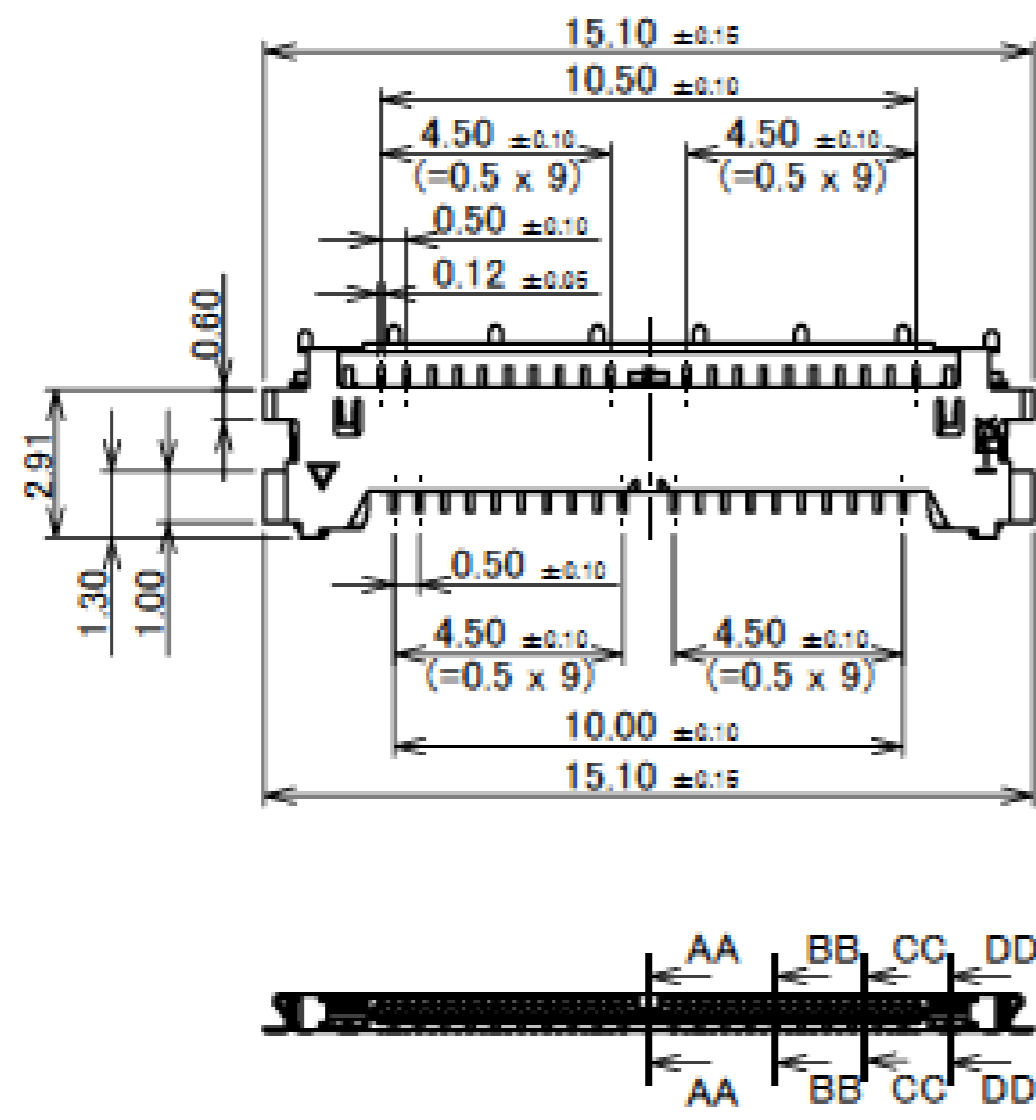


NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
2	COVER	PHOSPHOR BRONZE	ALL OVER Ni 1.00 $\mu$ m MIN.
1	LOCK BAR	SUS $\phi 0.40$	-

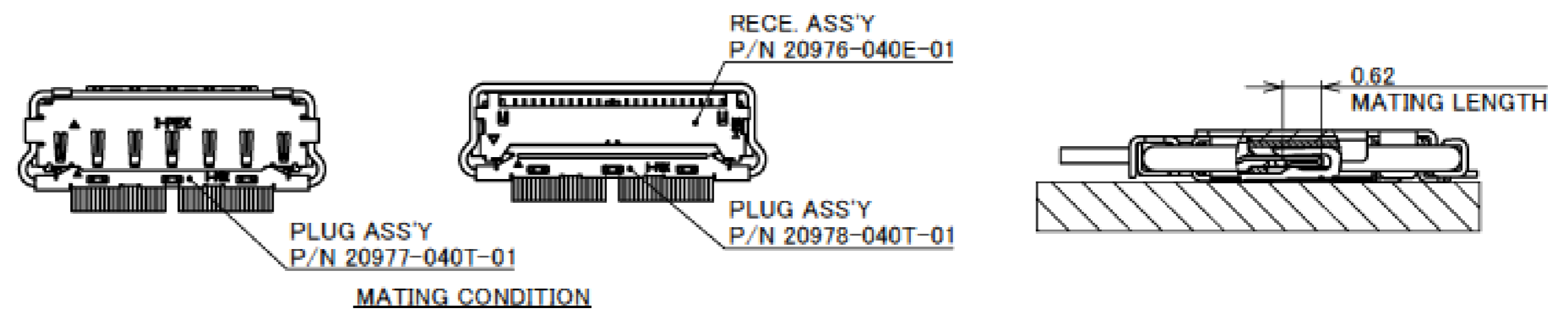
Rev.0

# Receptacle Assembly

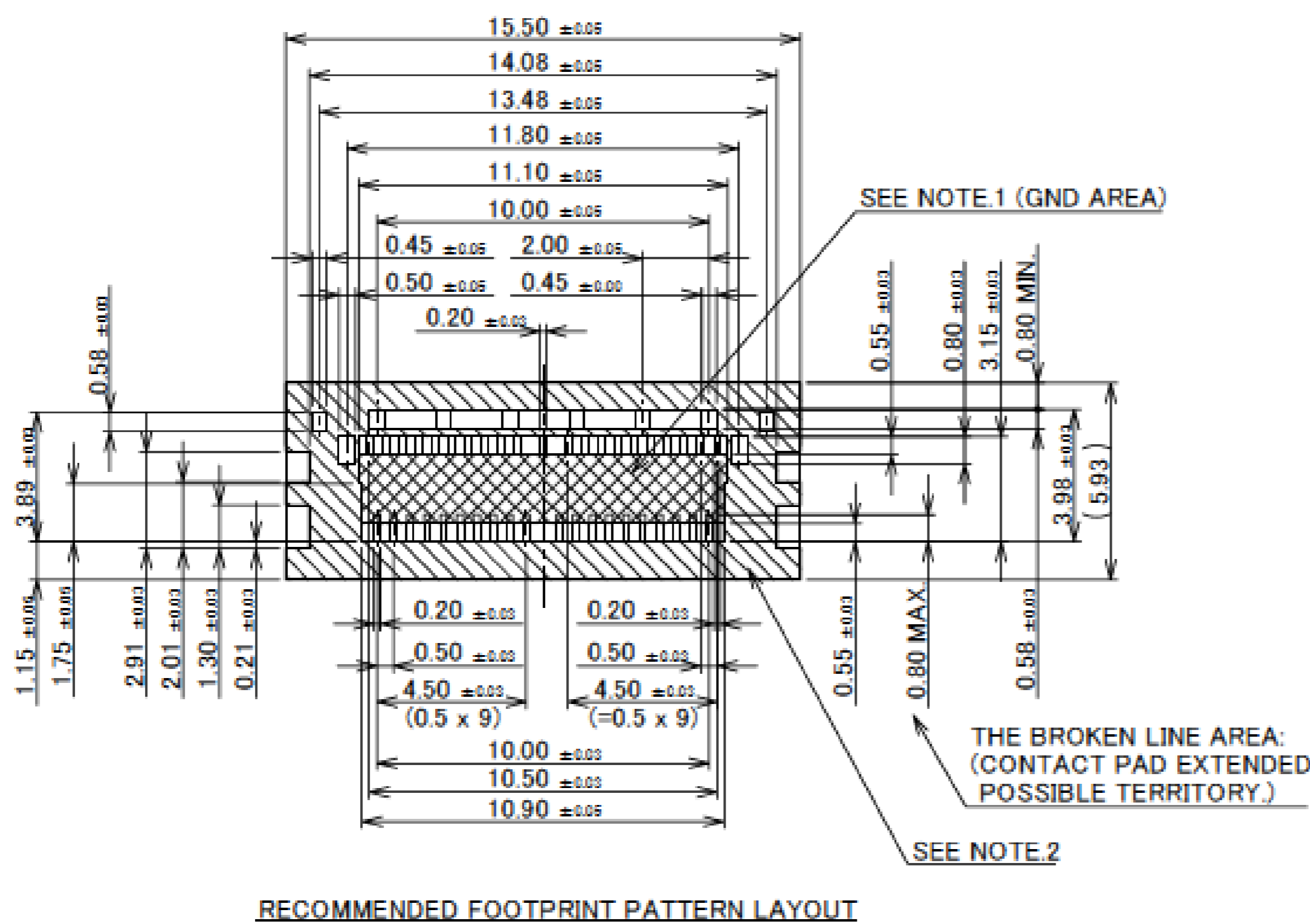
Recommended P/N	20976-040E-01
PART NO.	Pos.
20976-040E-01	40



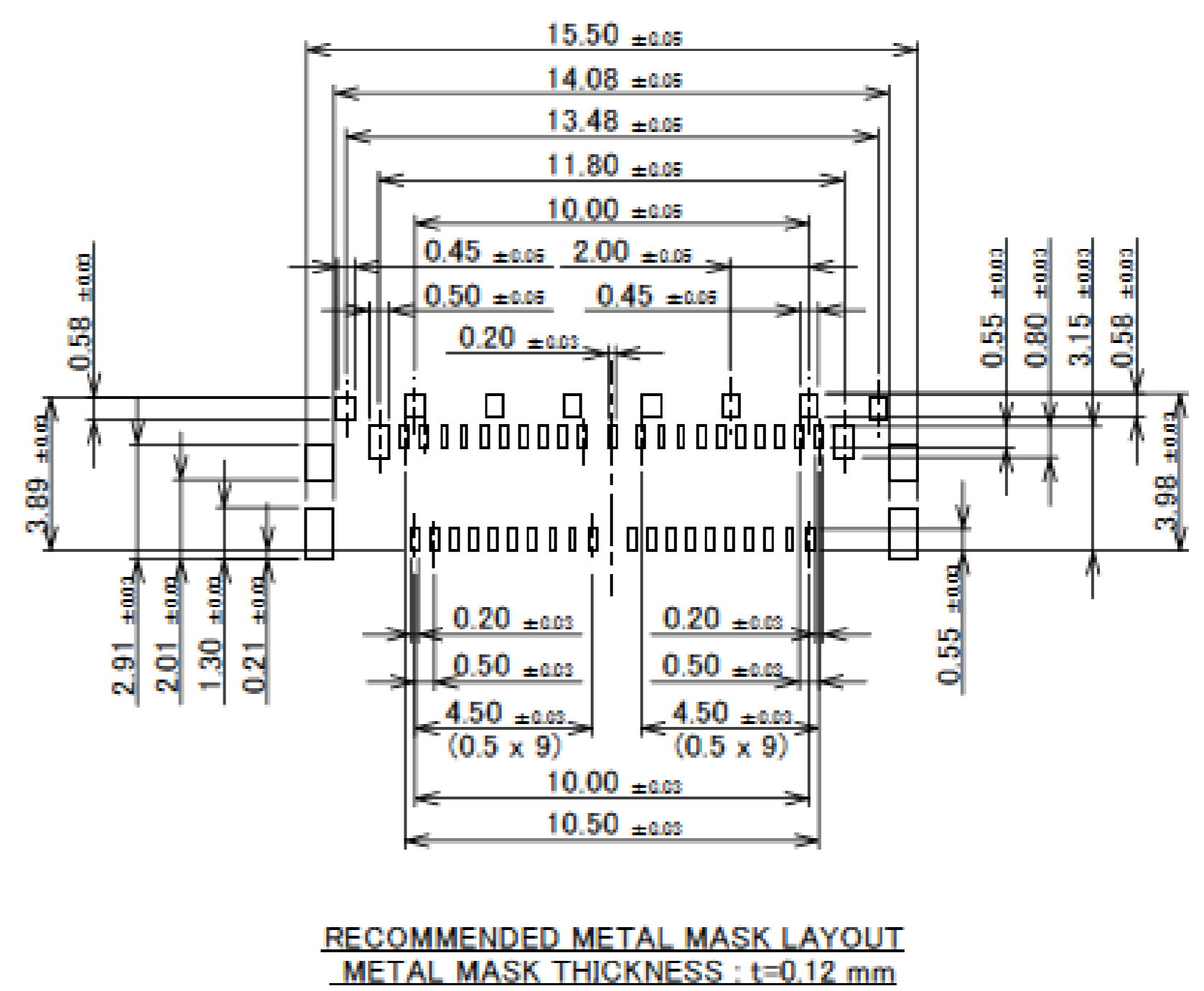
CONTACT ARRANGEMENT



NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
4	SHELL	PHOSHOR BRONZE	PARTIAL Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.
3	CONTACT B	CORSON ALLOY	CONTACT AREA : Au 0.10 μm MIN. OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.
2	CONTACT A	CORSON ALLOY	CONTACT AREA : Au 0.10 μm MIN. OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK



RECOMMENDED FOOTPRINT PATTERN LAYOUT



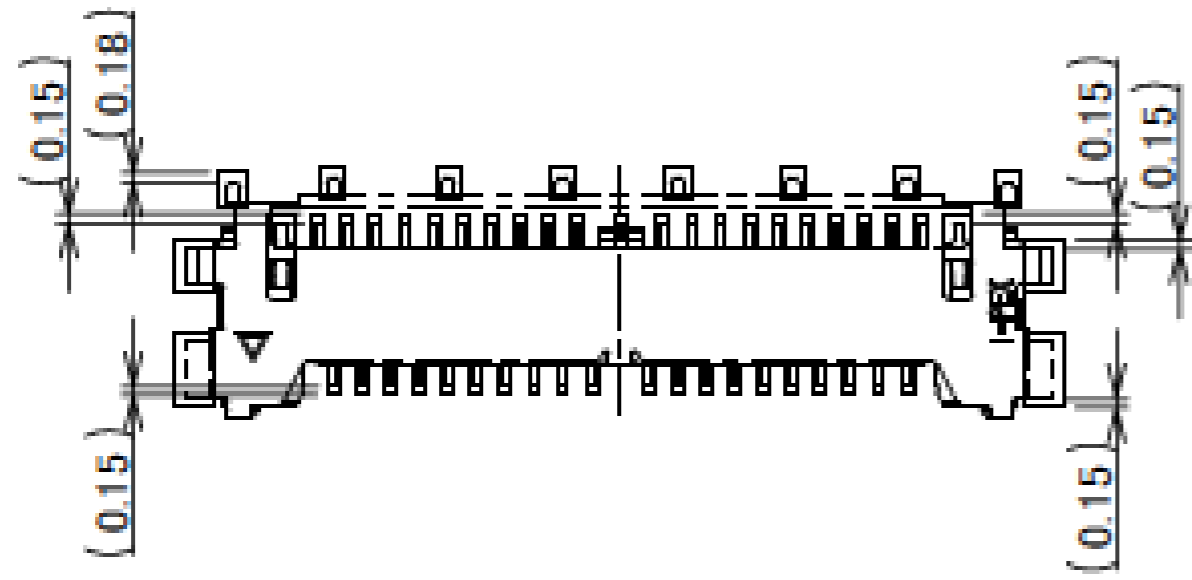
RECOMMENDED METAL MASK LAYOUT METAL MASK THICKNESS : t=0.12 mm

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

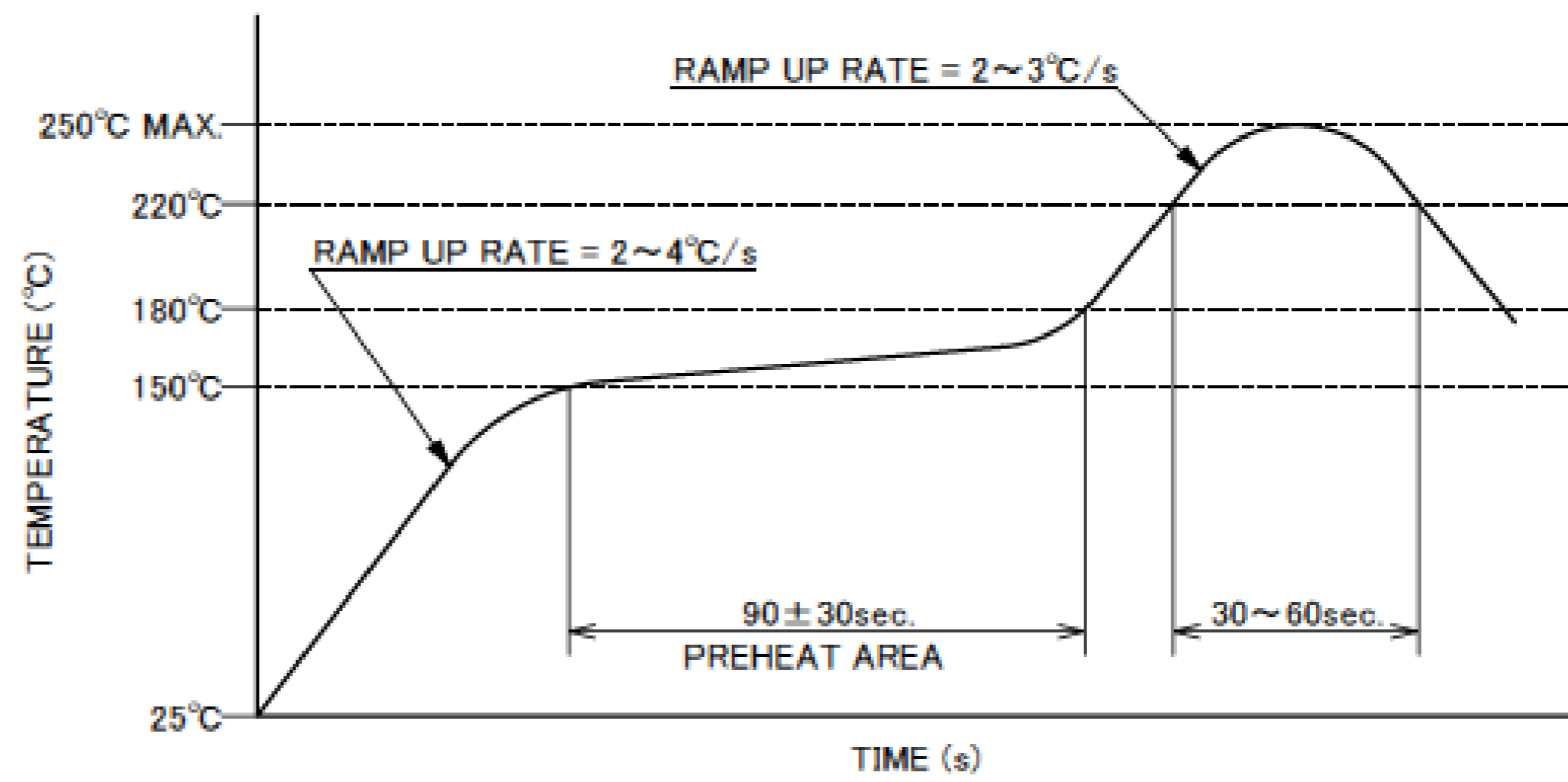
Rev.2

Rev.2

# Receptacle Assembly



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



REFLOW TEMPERATURE PROFILE  
SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

Rev.2

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG# 46,44 DISCRETE WIRE : AWG# 39
RATING VOLTAGE	100V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR CONTACT)	0.10A AC/DC [AWG#46] PER CONTACT PIN/UP TO 40 CONTACTS 0.15A AC/DC [AWG#44] PER CONTACT PIN/UP TO 40 CONTACTS 0.50A AC/DC [AWG#39] PLUG WITH COVER CABLE ASS'Y (P/N : 20977-040T-01) PER CONTACT PIN/UP TO 8 CONTACTS PLUG WITHOUT COVER CABLE ASS'Y (P/N : 20978-040T-01) PER CONTACT PIN/UP TO 7 CONTACTS ※ TESTING BY A REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION
OPERATING TEMPERATURE	233~358K(-40°C~+85°C) (CONTAINING TEMPERATURE RISE BY CURRENT)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 388mohm MAX.(AWG#39) / AFTER TEST : <math>\triangleleft</math>140mohm MAX. INITIAL : 1,080mohm MAX.(AWG#44) INITIAL : 1,830mohm MAX.(AWG#46)
GROUND SHELL RESISTANCE	INITIAL : 50mohm MAX. / AFTER TEST : <math>\triangleleft</math>140mohm MAX.
INSULATION RESISTANCE	INITIAL : 1,000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	20 CYCLES
MATING FORCE (INITIAL / 20 CYCLES)	40P : 30.0N MAX.
UNMATING FORCE (INITIAL / 20 CYCLES)	40P : 4.0N MIN.
CABLE RETENTION FORCE	40P : 19.60N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-2403
TEST REPORT	TR-17063
PACKING STANDARD	PST-17126
INSTRUCTION MANUAL	HIM-17035 (WHEN PLUG WITH COVER CABLE ASS'Y IS USED) HIM-17040 (WHEN PLUG WITHOUT COVER CABLE ASS'Y IS USED)
APPEARANCE CRITERIA No.	QLS-A***

Rev.2

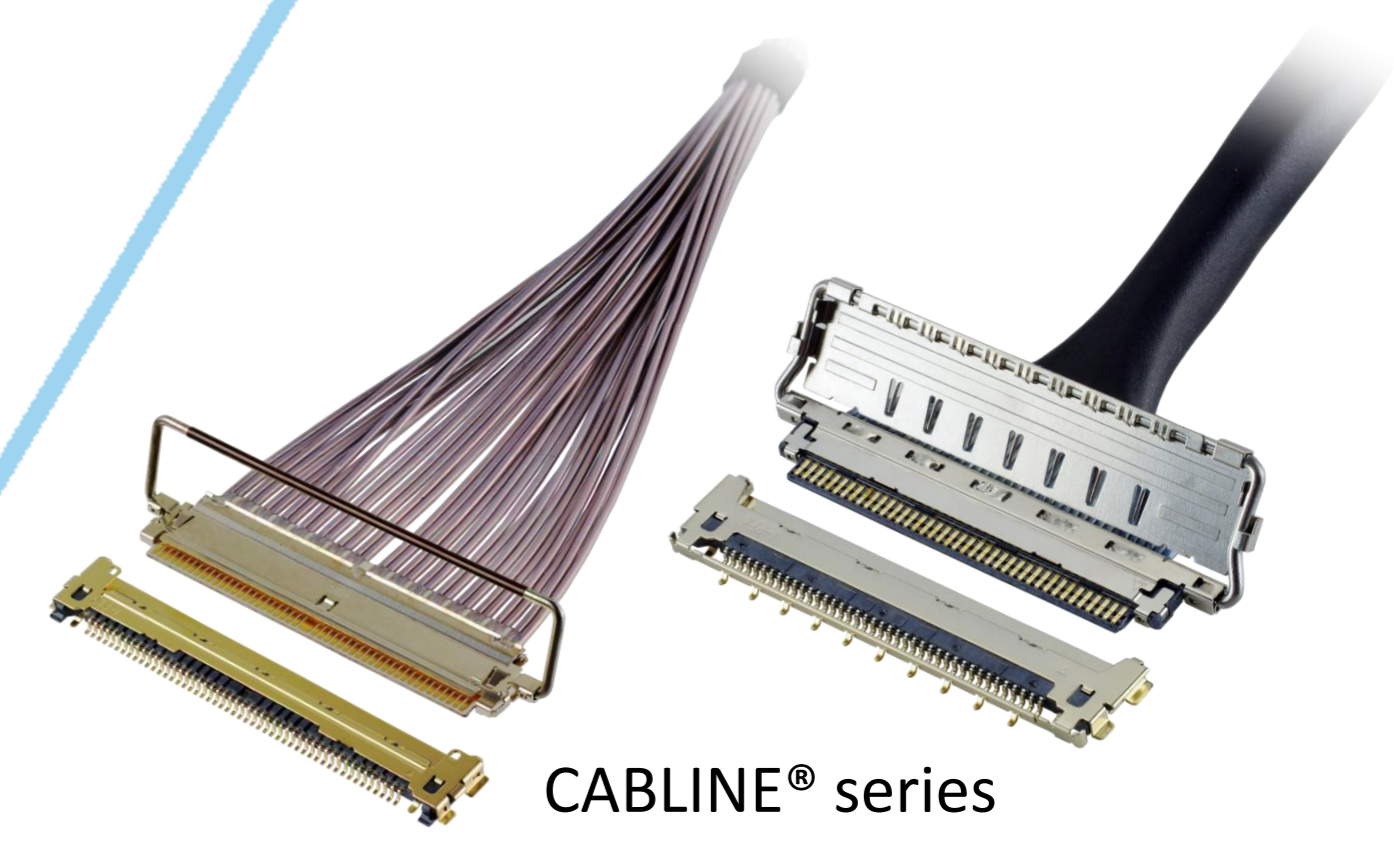
# Custom Connectors Available

 RF Connector

MHF® series



CABLINÉ® series  
Micro-coaxial/Twinax/  
Discrete Wire Connector



Optical Module

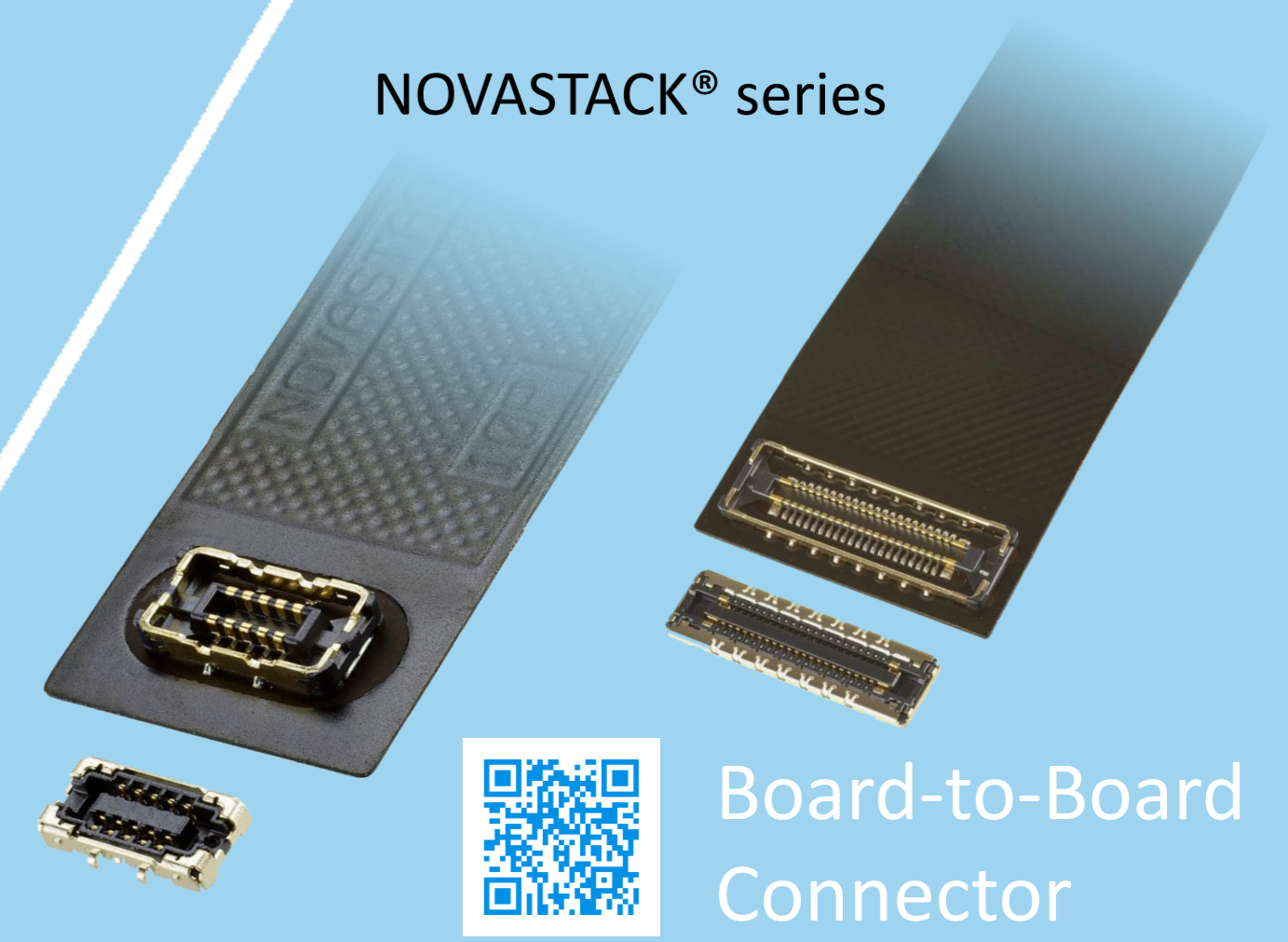
LIGHTPASS® series



NOVASTACK® series



Board-to-Board Connector



Power Connector/  
Terminal

AP series

ISH® series



MINIFLEX® series

EVAFLEX® series



FPC FFC Connector



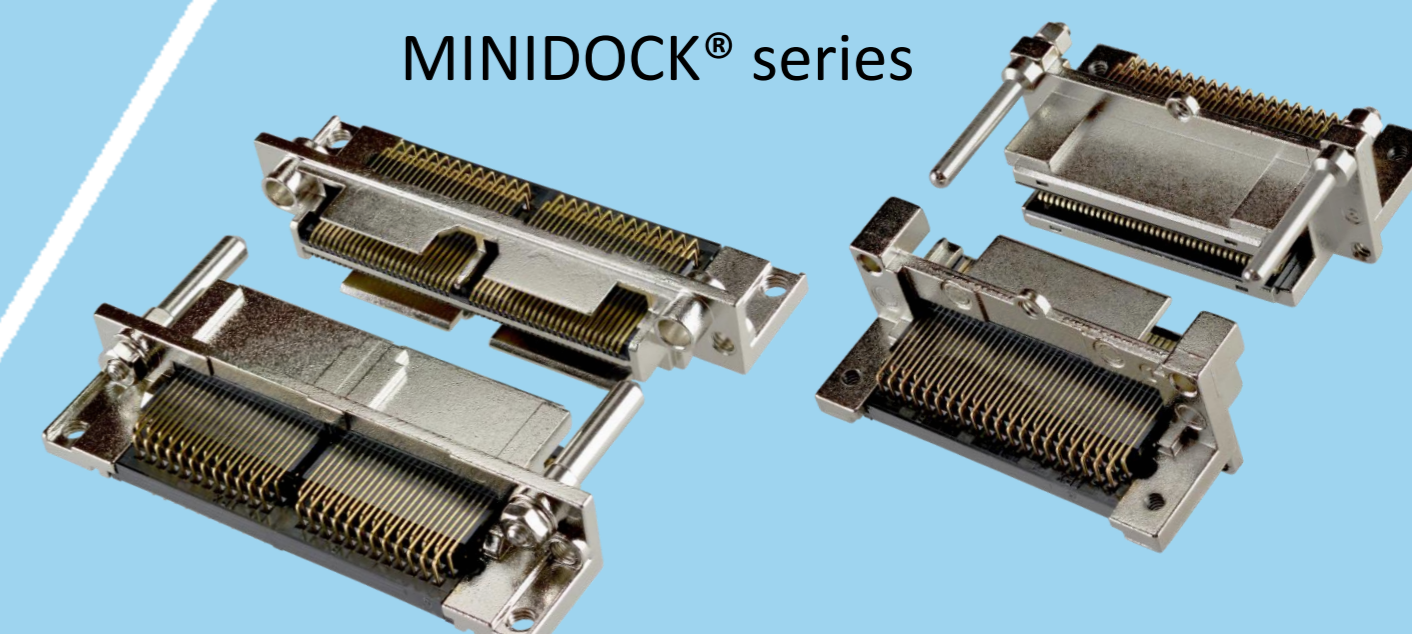
Inquiry



MINIDOCK® series



I/O Connector



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Contact your sales representative or more detailed information.

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# I-PEX

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