

# CABLINE® -VS II

Fully-shielded with mechanical lock, Suitable for high-data-rate transfer (PCIe Gen5 32 GT/s/lane), 0.5 mm pitch, Horizontal mating type micro-coaxial connector

**Product Specifications:**

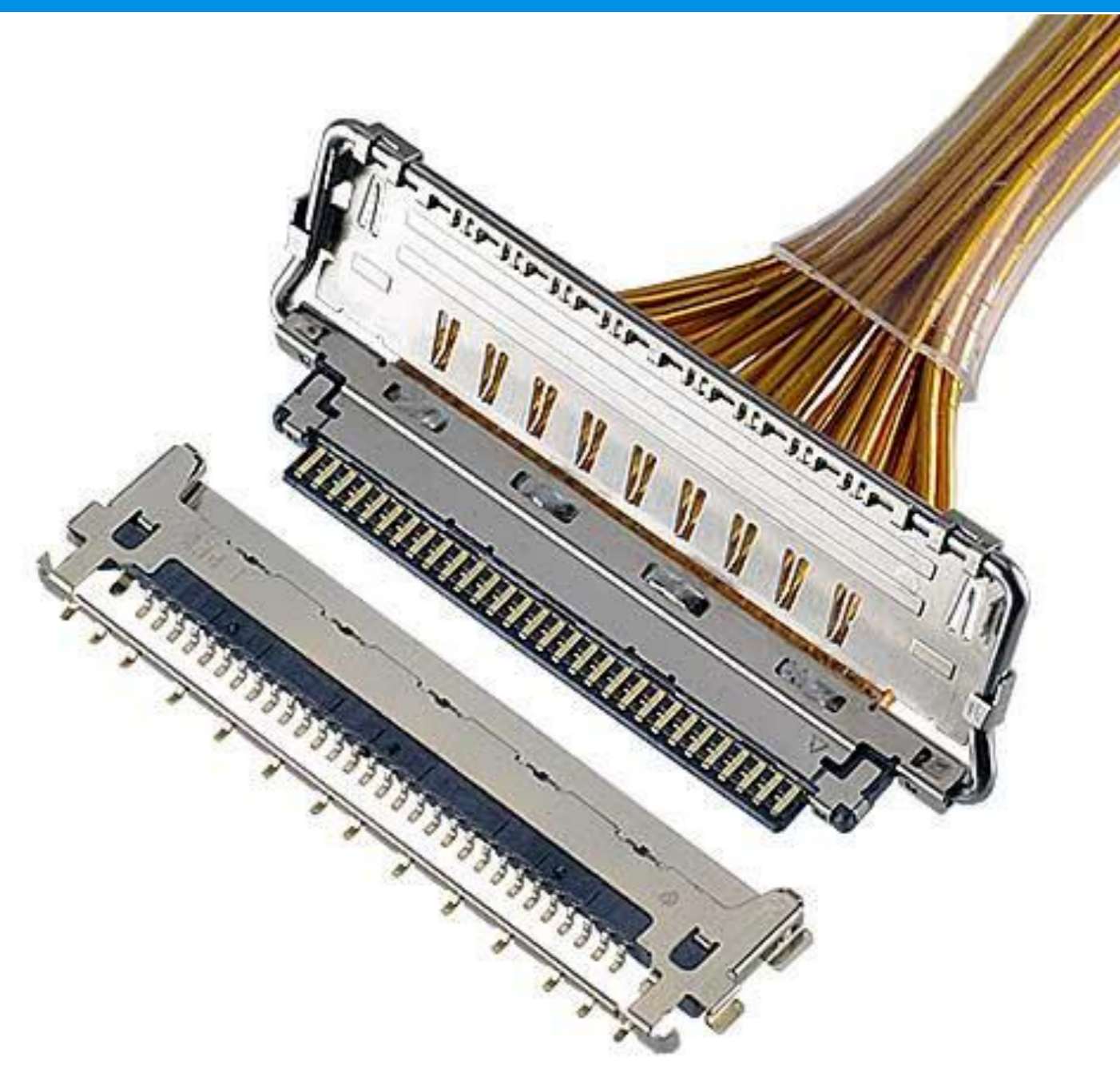
Mating type	Horizontal	
Board Pitch	0.5 mm	
Wiping Length	0.54 mm	
Mated size	Height	1.2 mm max. with cover
	Width	6.85 + (0.5 x pin count) mm
	Depth	6.70 mm
Pin Counts	Range	Up to 60
	Available	20, 30, 40

**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

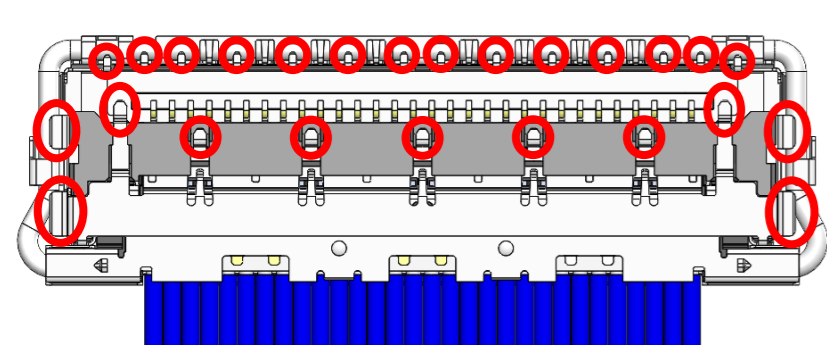
**Applicable Standards (Reference Only):**

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

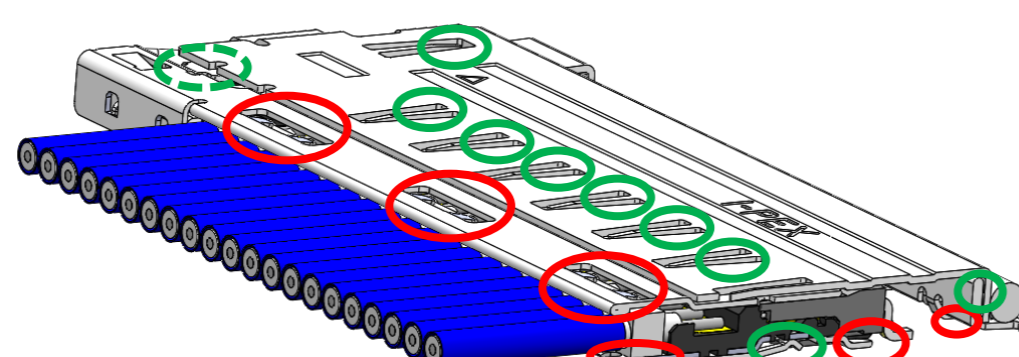


\* Please inquire for pin counts not listed or outside of the pin count range.

## ZenShield® fully-shielded with multi-point grounds is ideal for EMC solutions

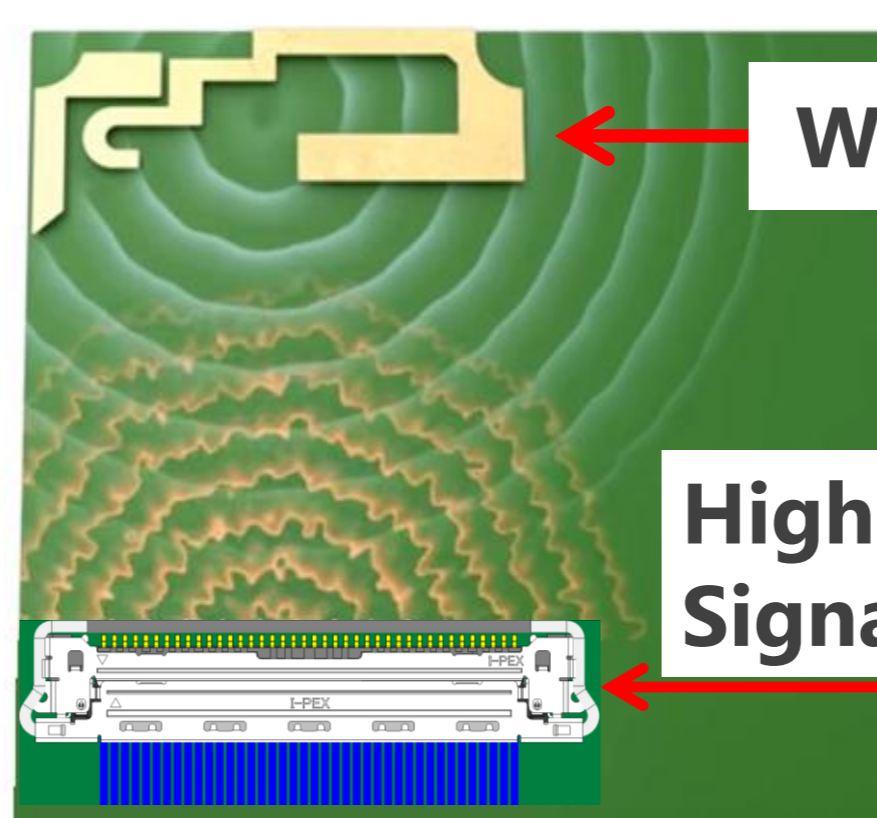


View From Back

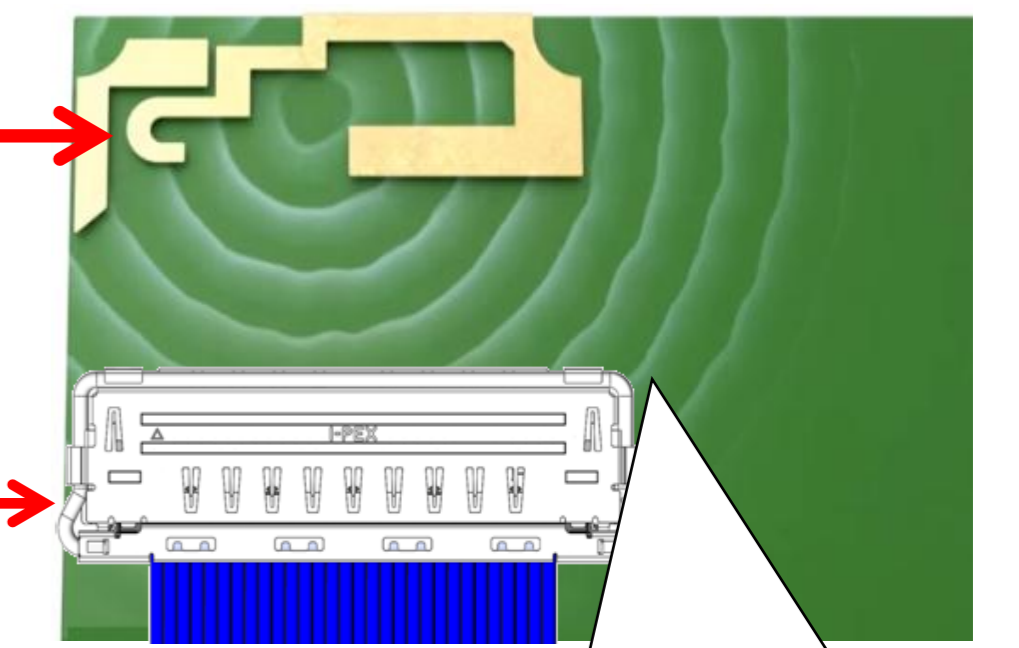


- Soldered contacts
- Mechanical contacts

**General Connector**

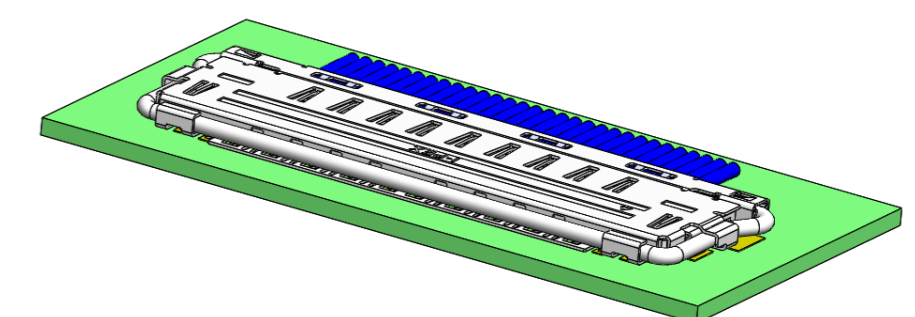
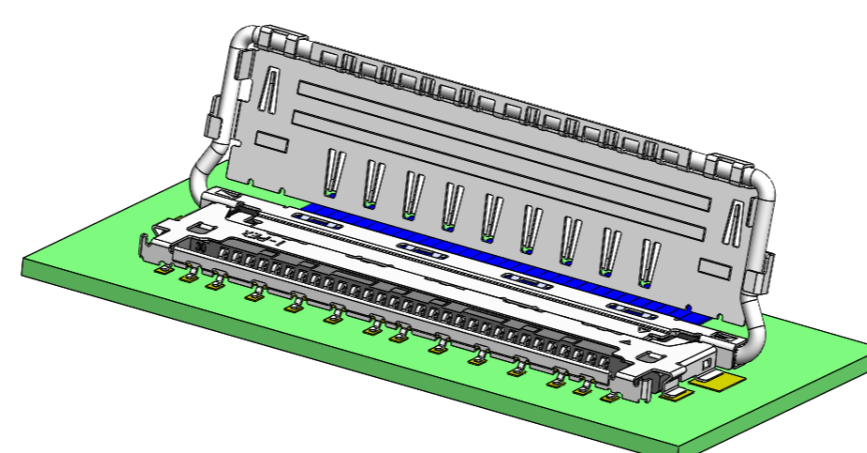
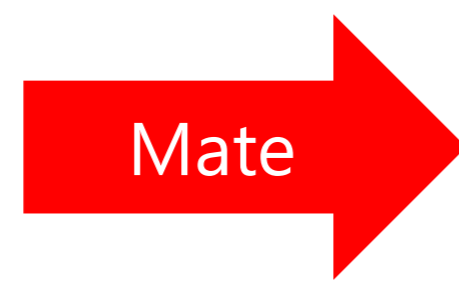
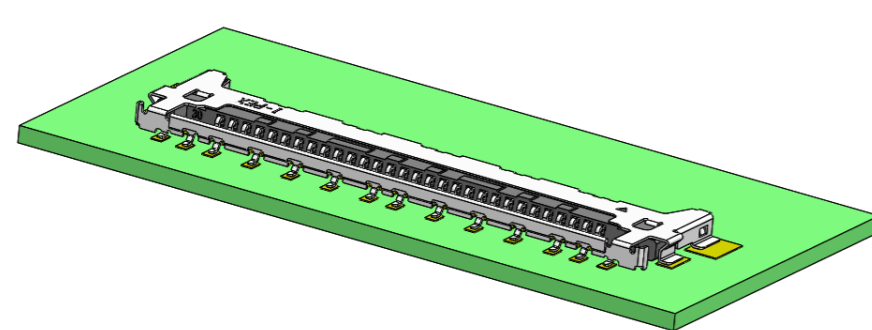


**ZenShield® Connector**



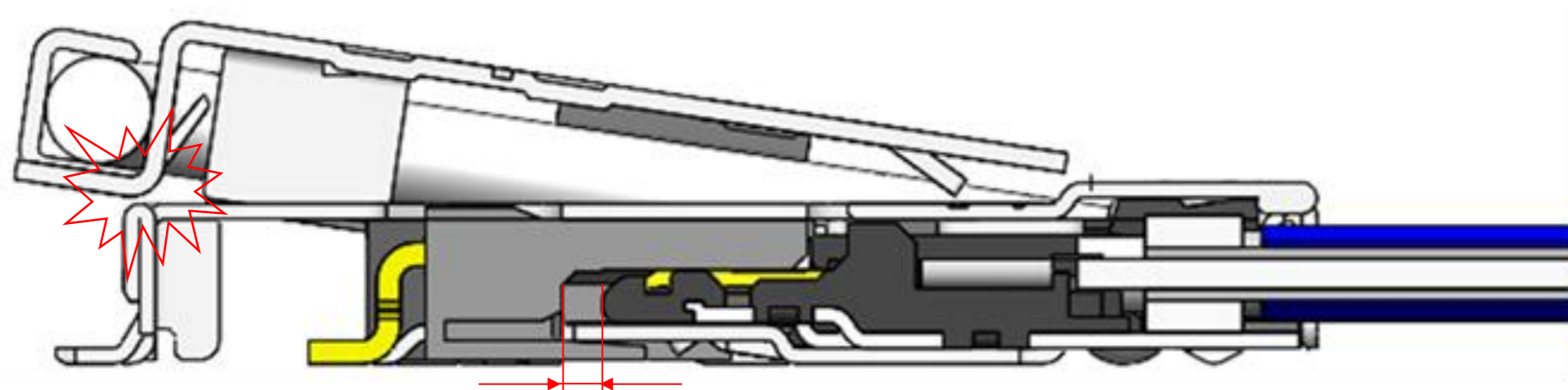
Connectors can be placed closer to antenna

## Mechanical locking cover prevents incomplete mating and back-out/unmating

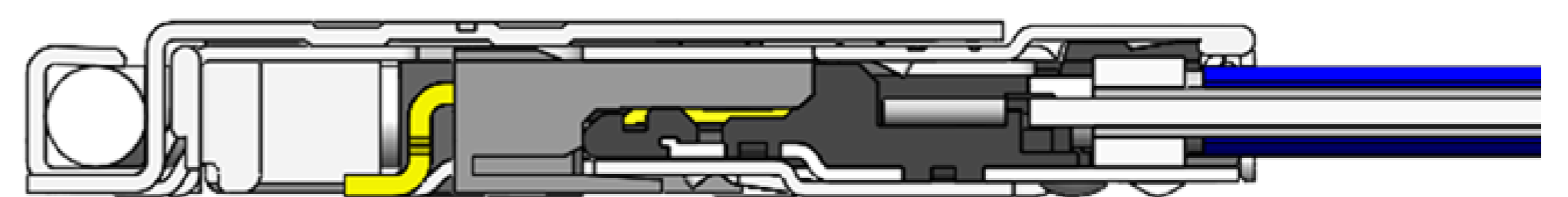


Unable to lock

can only be locked when mating is complete



incomplete mating



complete mating

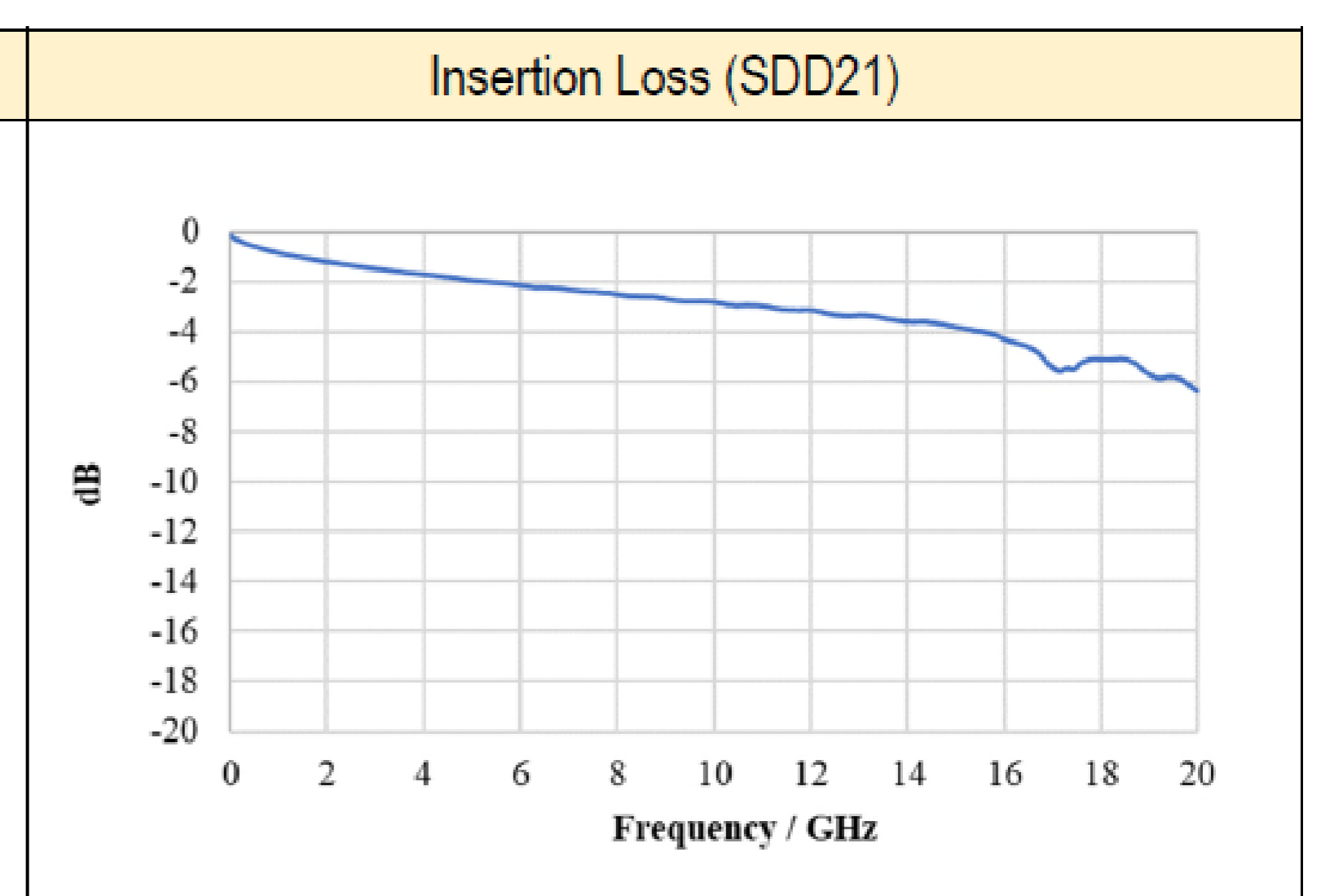
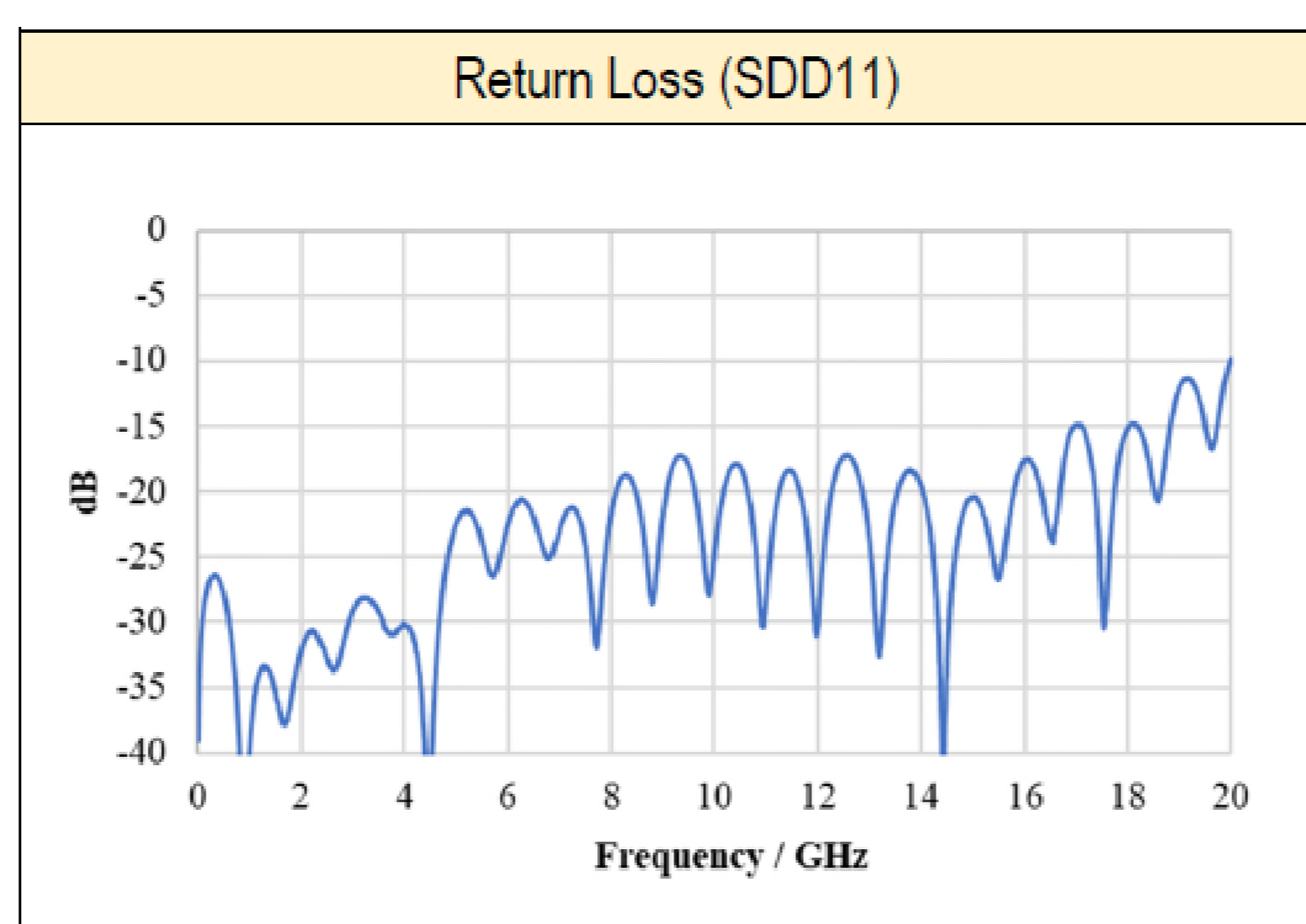
## High-data-rate transfer, ideal for PCIe Gen5 (32 GT/s/lane) applications

**Measurement results**

Connector: CABLINE-VS II 40 pin

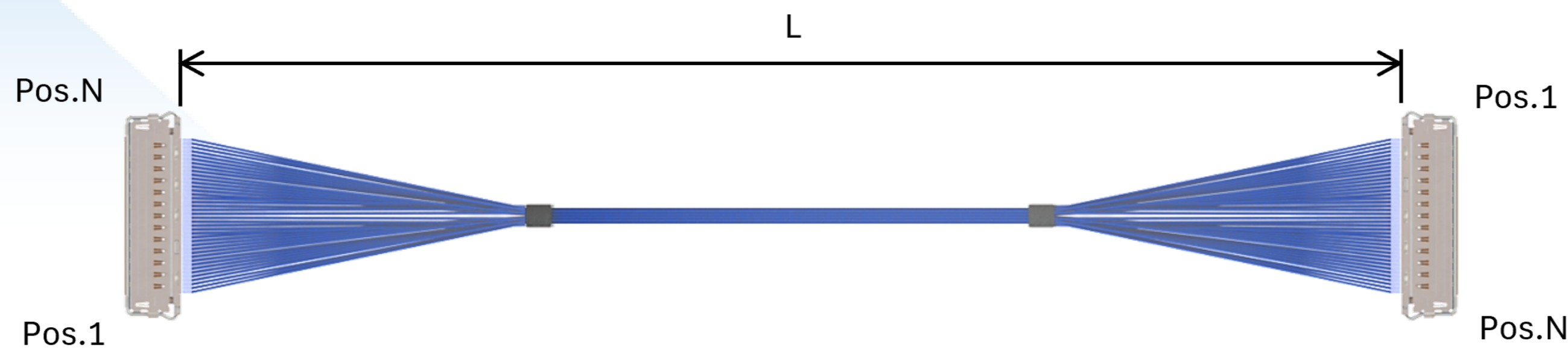
Cable: Micro-coaxial cable  
AWG 40, 45ohm , Length : 100 mm

Pin Assignment: GSSGSSG

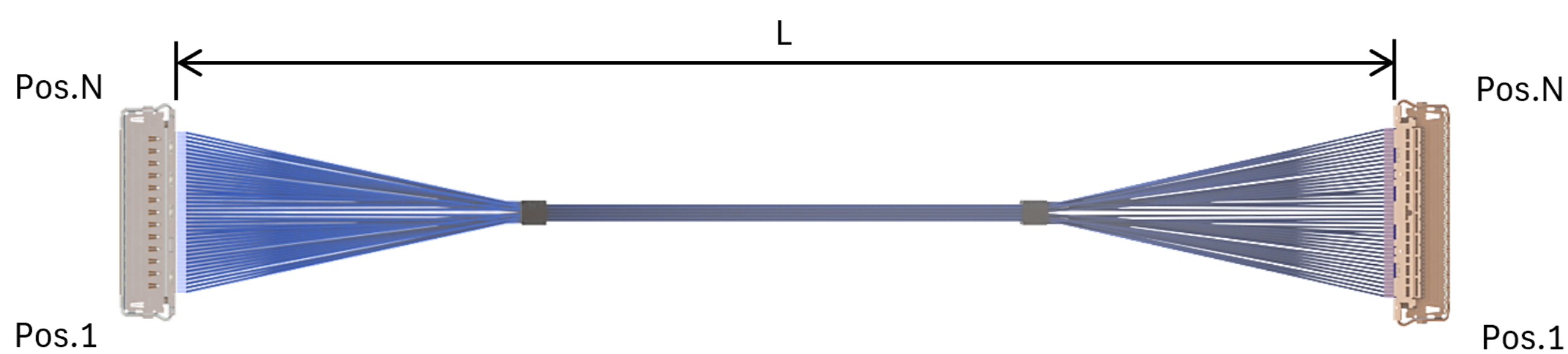


# CABLINE® -VS II standard harness

- ◆ 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.



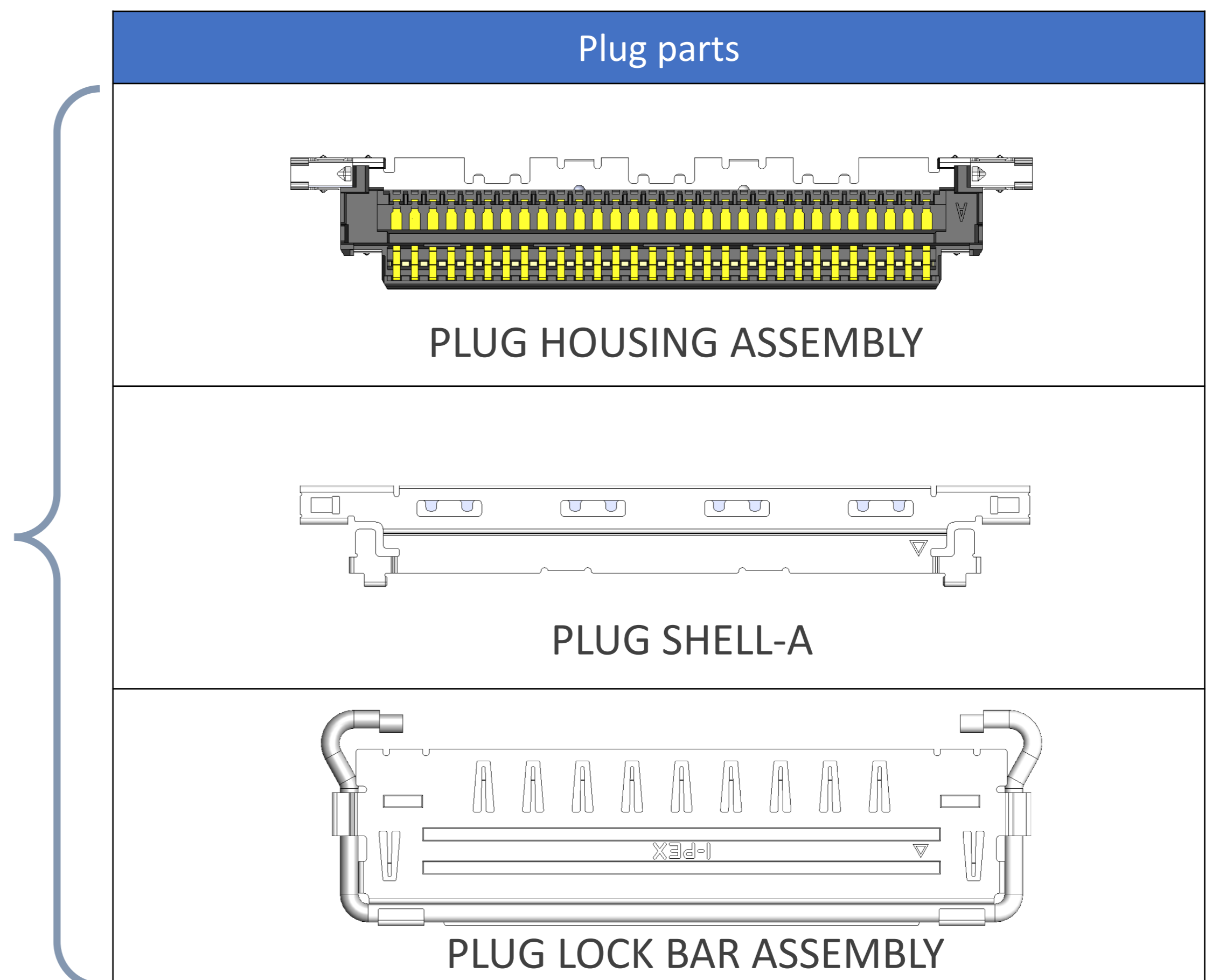
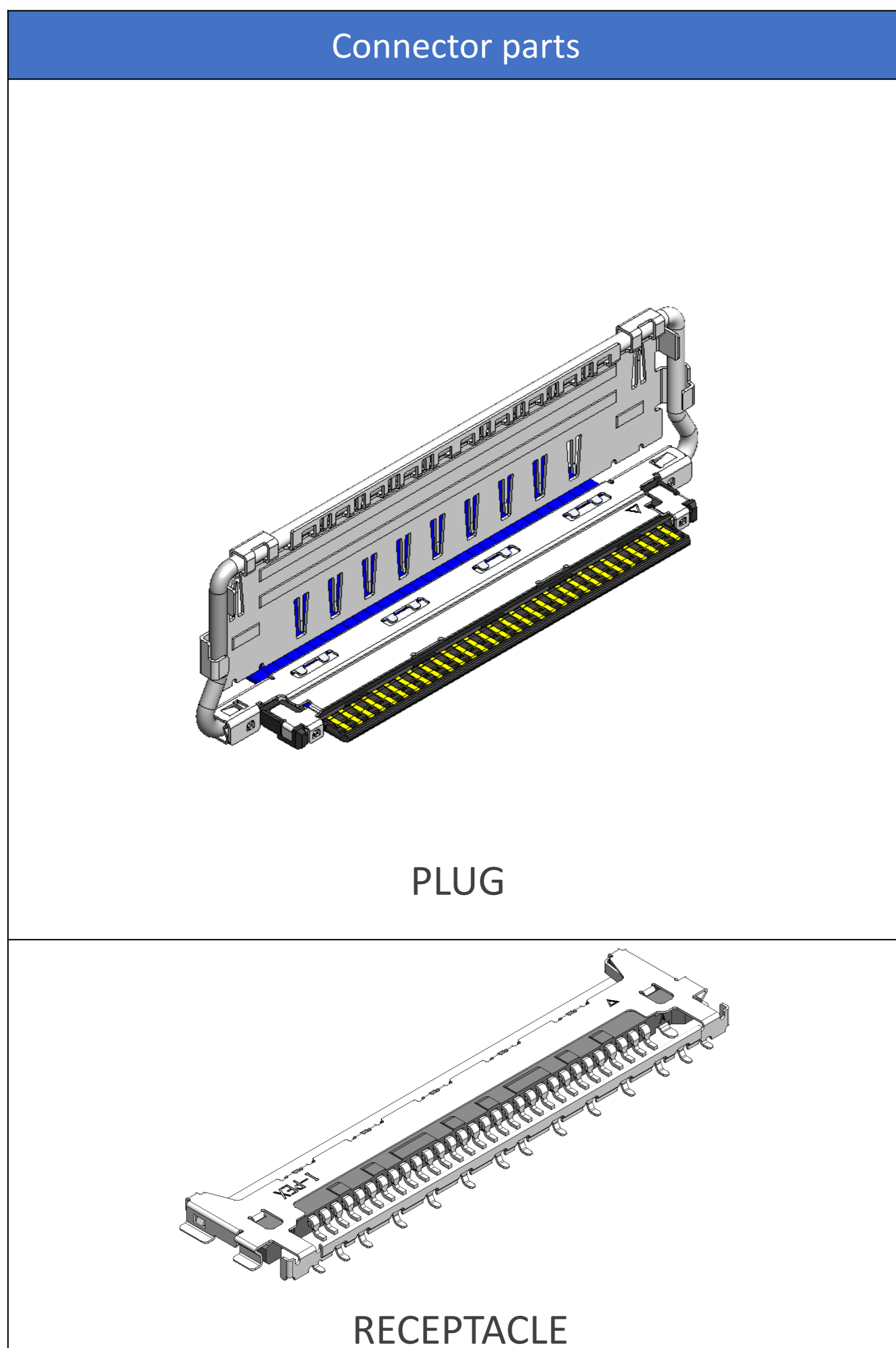
Part Number Description	Part Number (Link to Drawing)	Sample available
CABLINE-VS II harness 20pin micro-coaxial 40AWG L=200mm 1-N	<a href="#">81619-100B-02-D</a>	<a href="#">Buy from Digikey</a>
CABLINE-VS II harness 30pin micro-coaxial 40AWG L=100mm 1-N	<a href="#">82188-100B-02-D</a>	<a href="#">Buy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



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

# Component Parts Details

## Component Parts

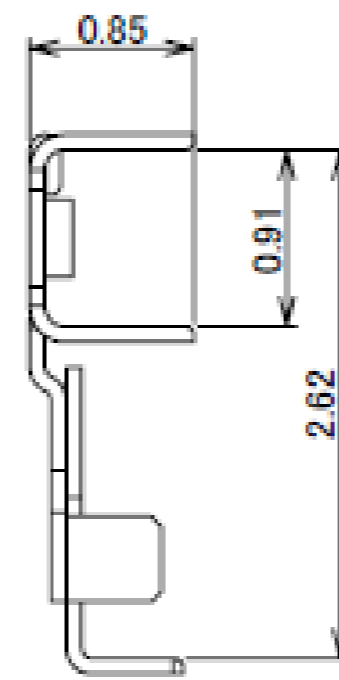
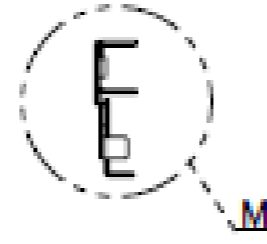
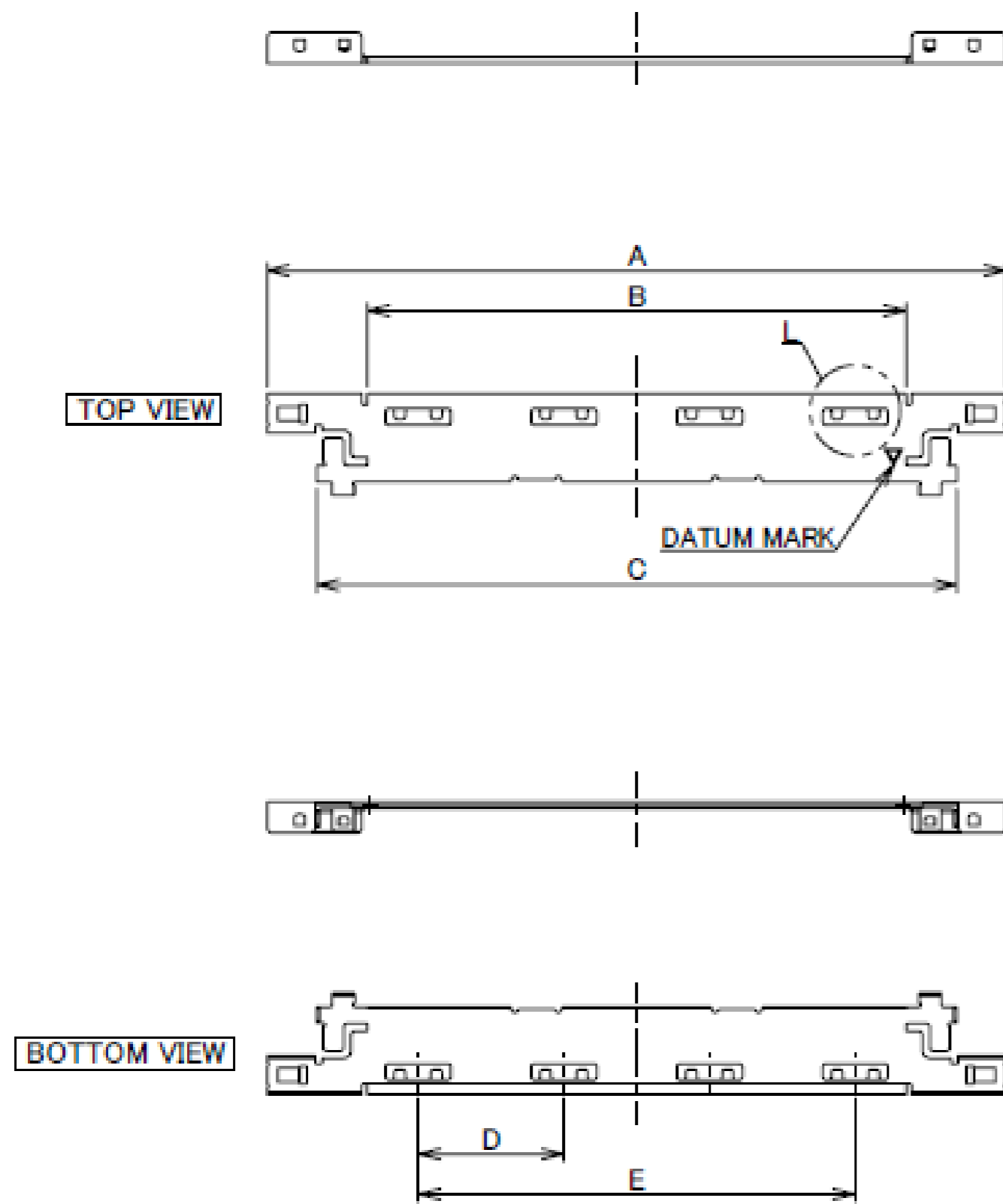
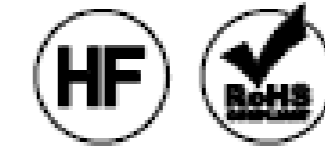




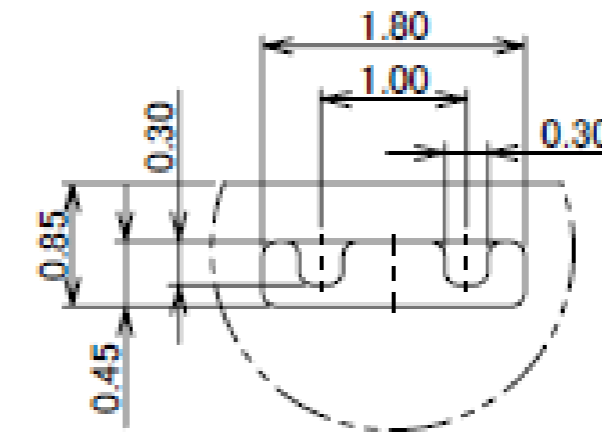
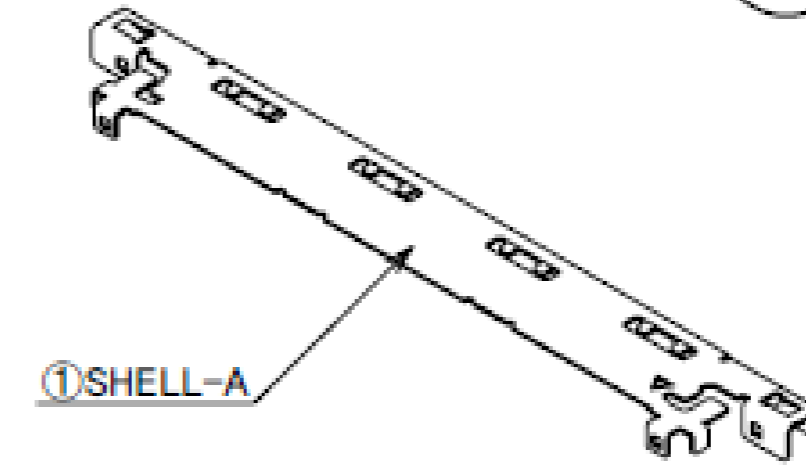


# Plug Shell-A

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



VIEW M  
(S=20/1)



DETAIL L  
(S=15/1)

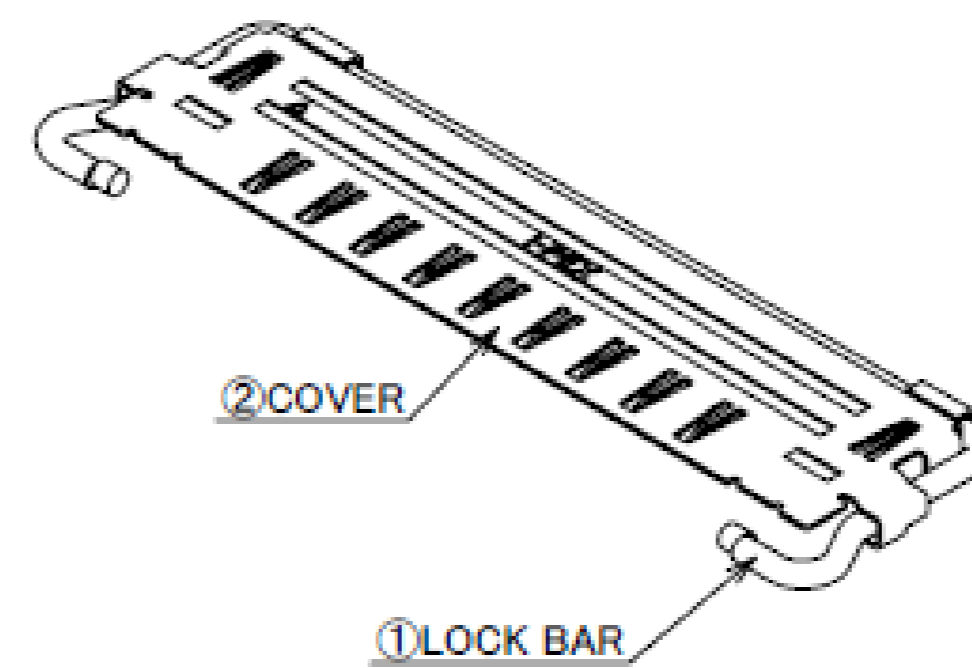
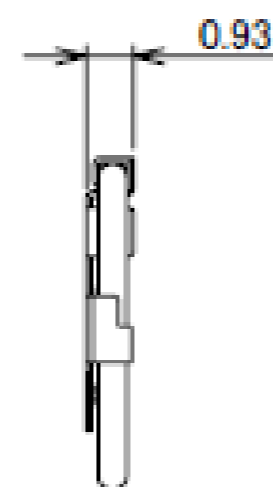
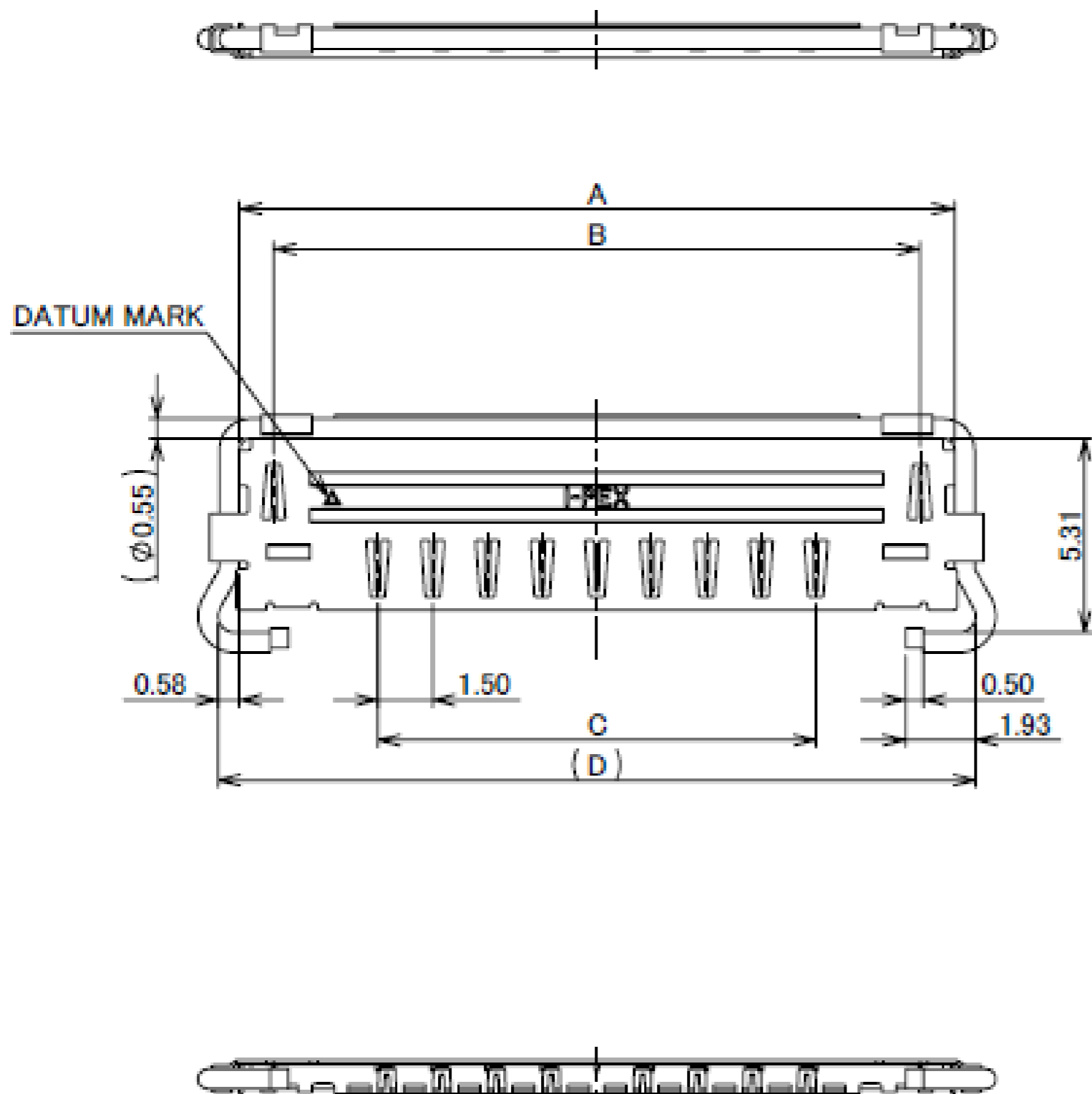
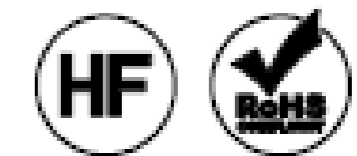
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
1	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.

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.



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

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.

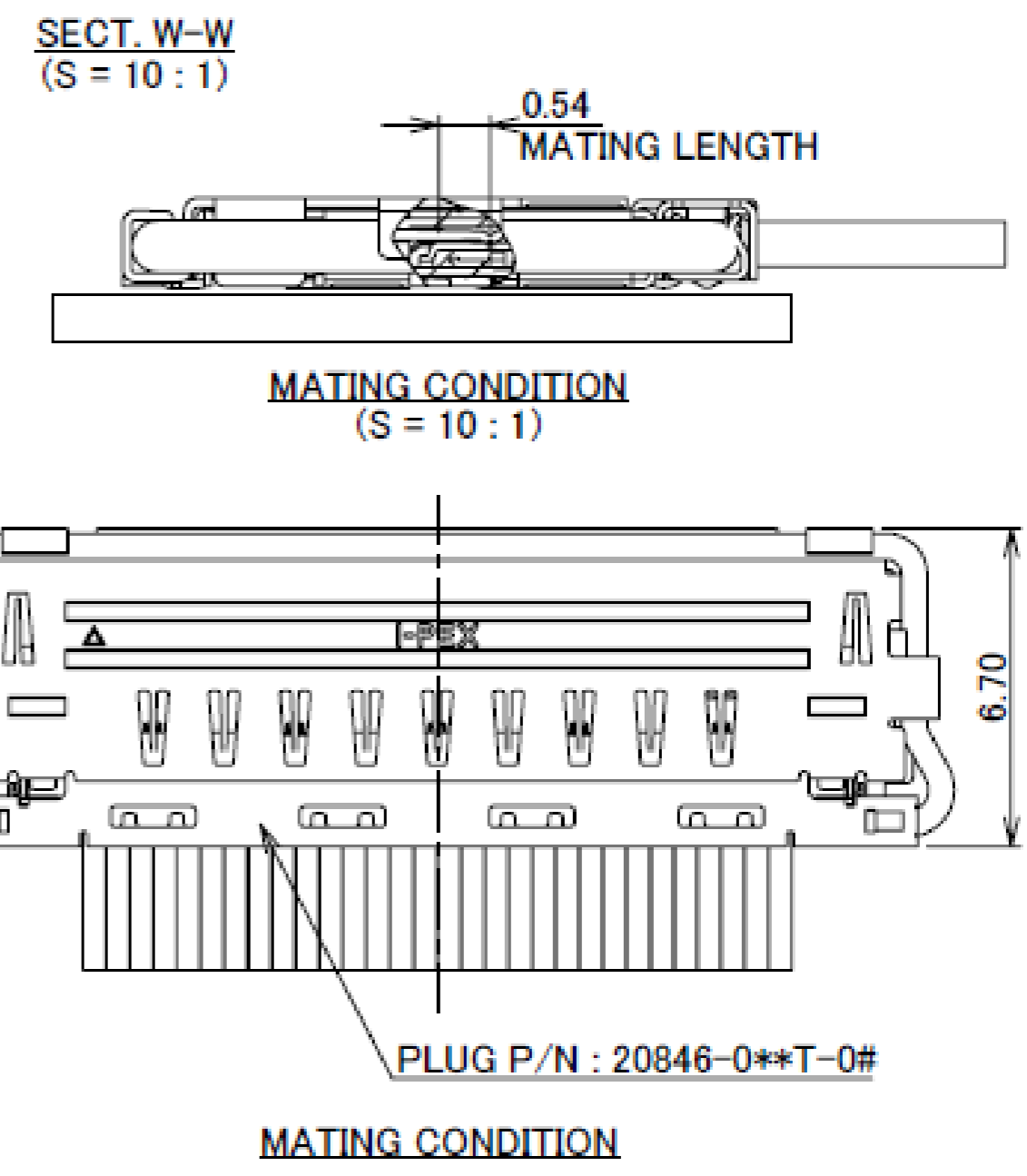
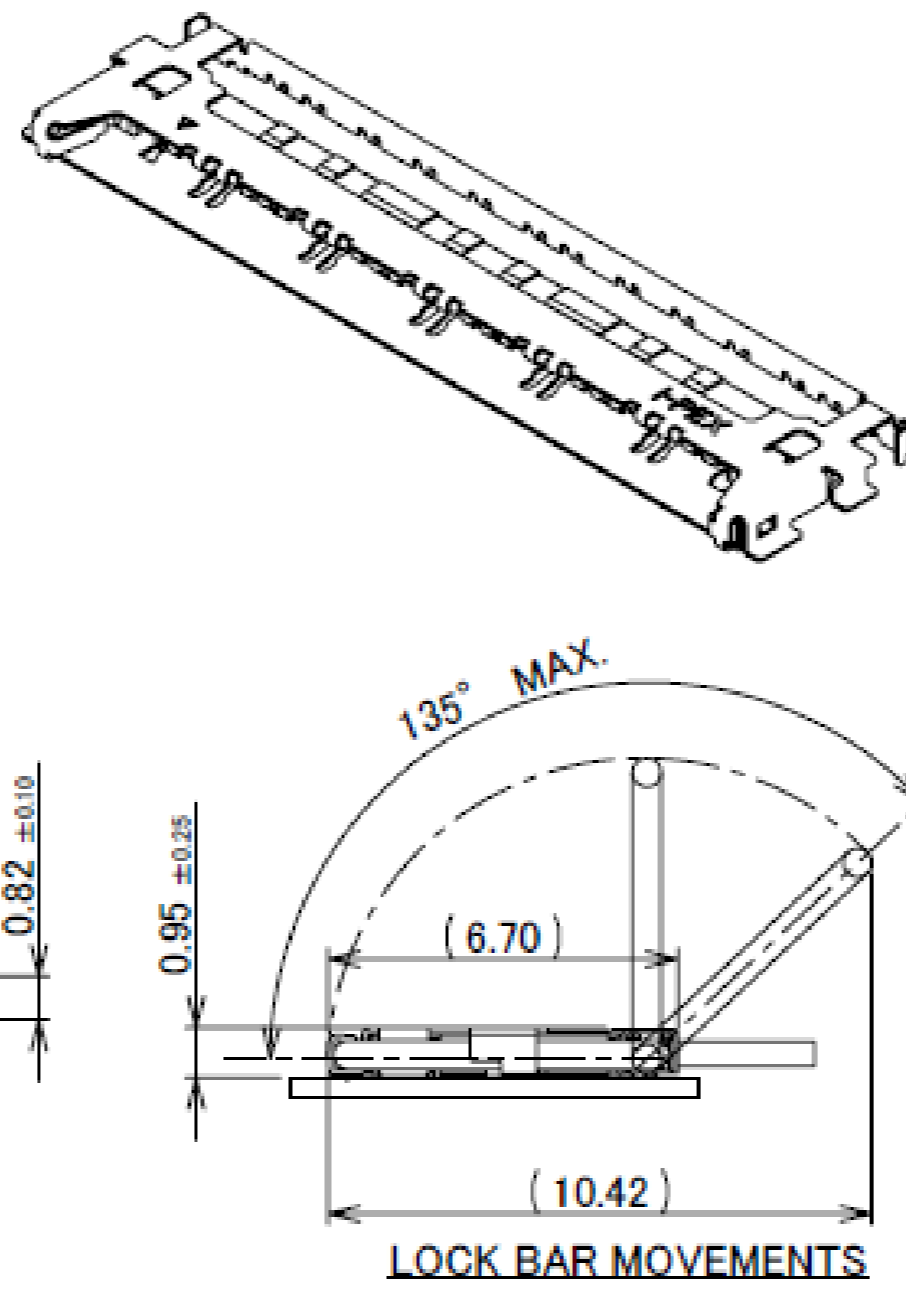
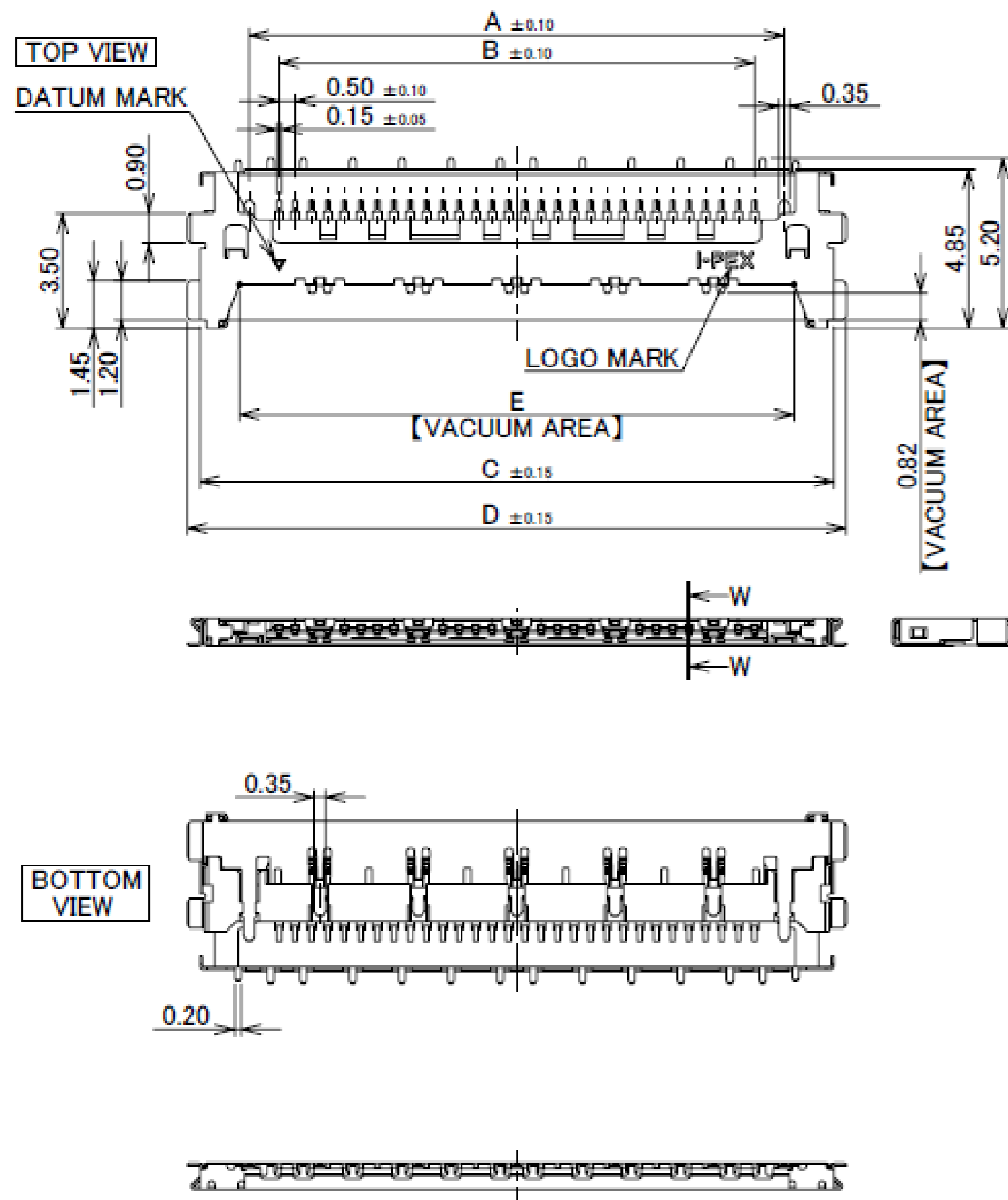
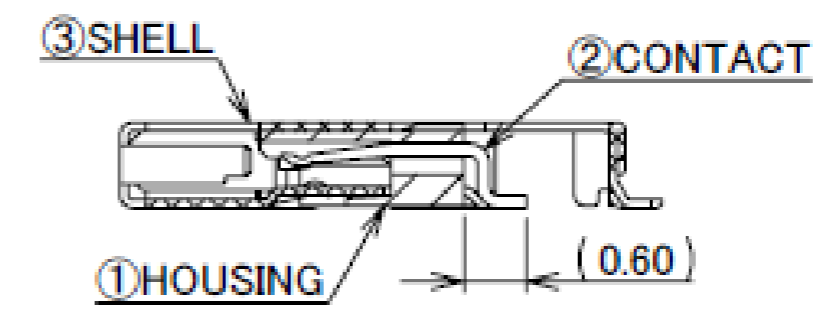


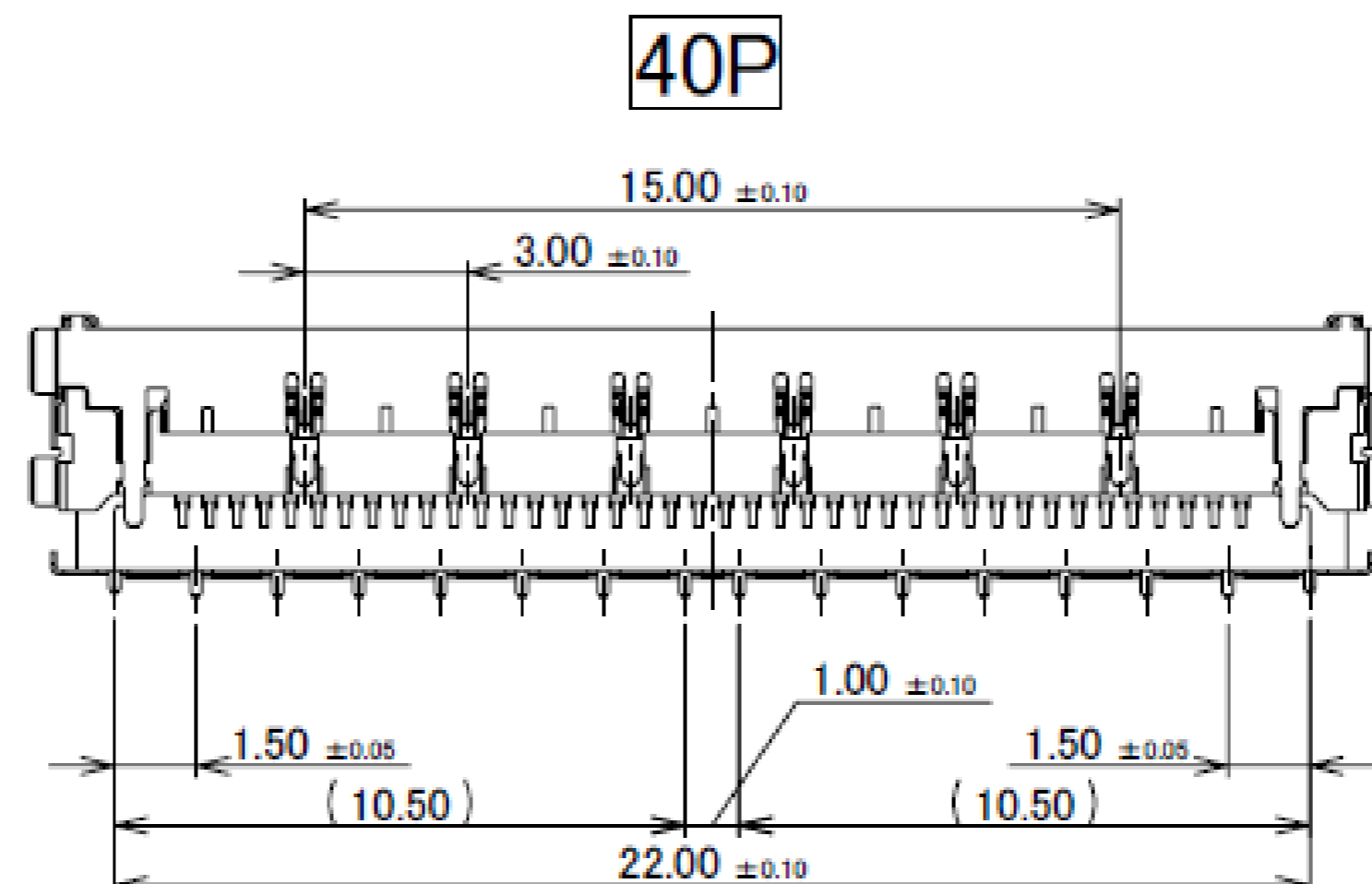
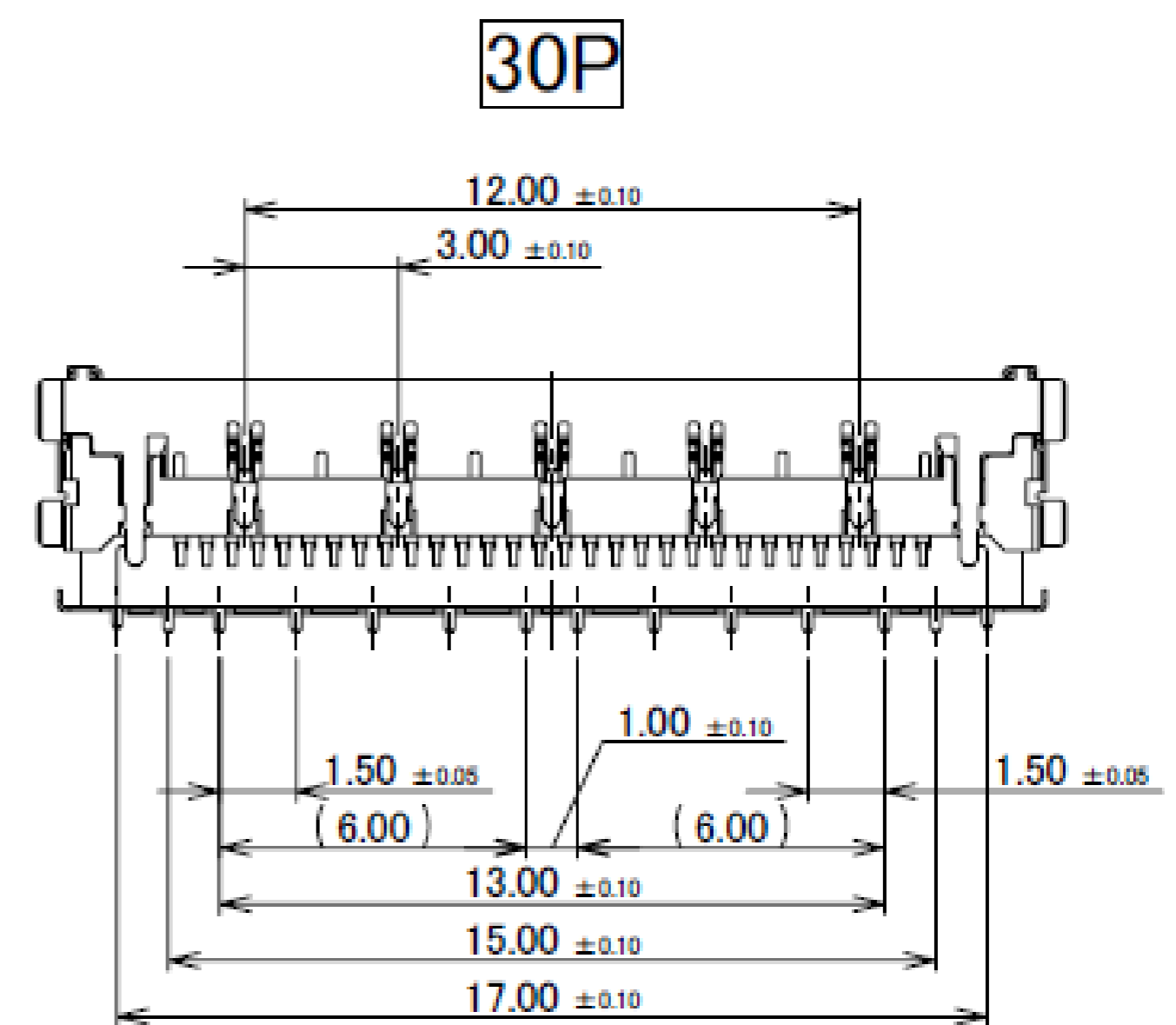
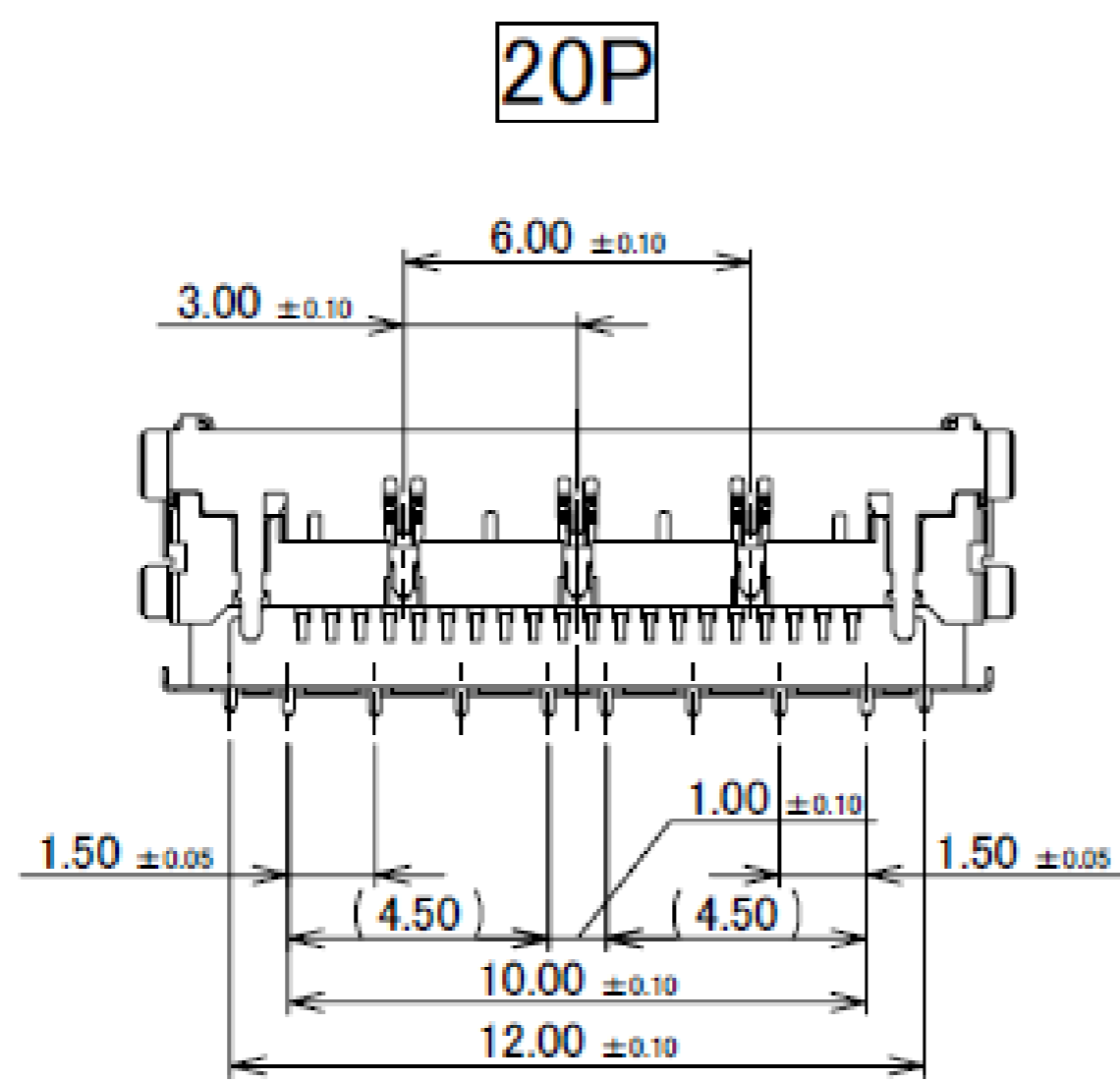
TABLE 1

PART NO.	CONTACT FINISH	SHELL FINISH	
20849-0**E-01	CONTACT & SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.	ALL OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.02 μm MIN.	
20849-0**E-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	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

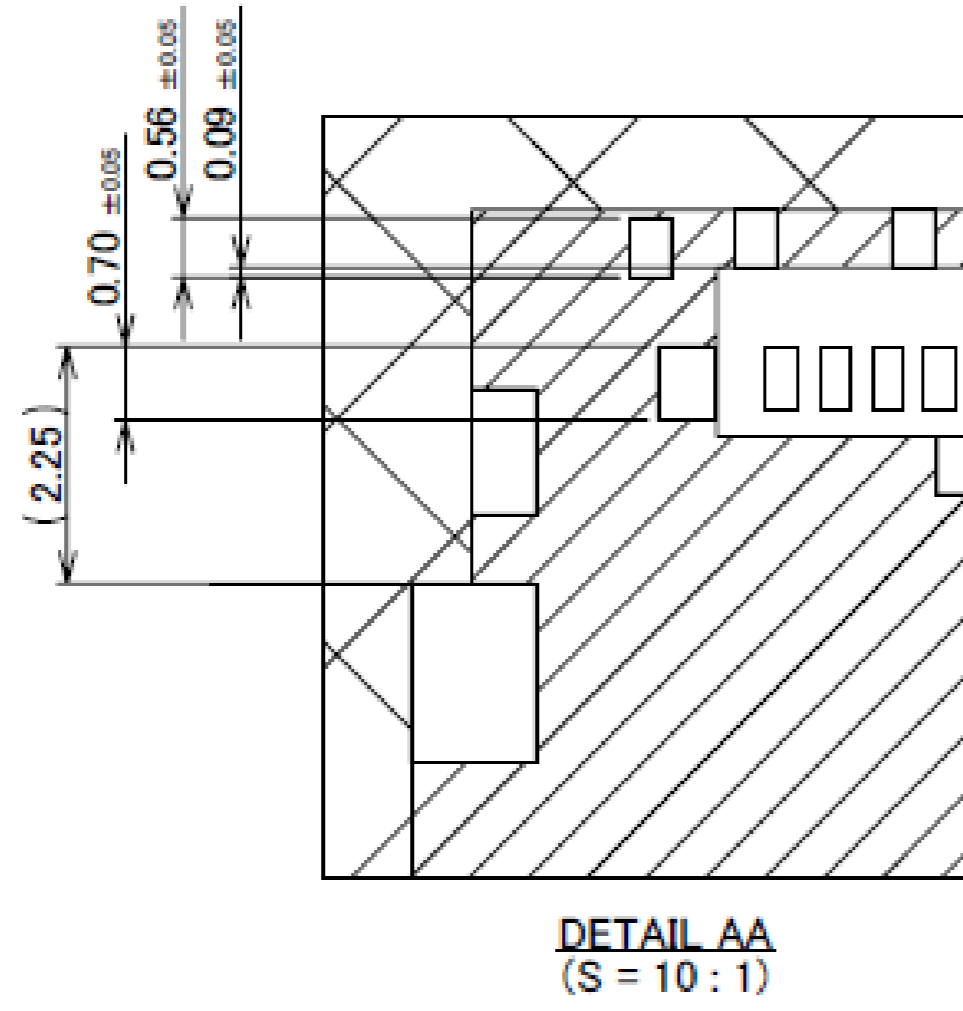
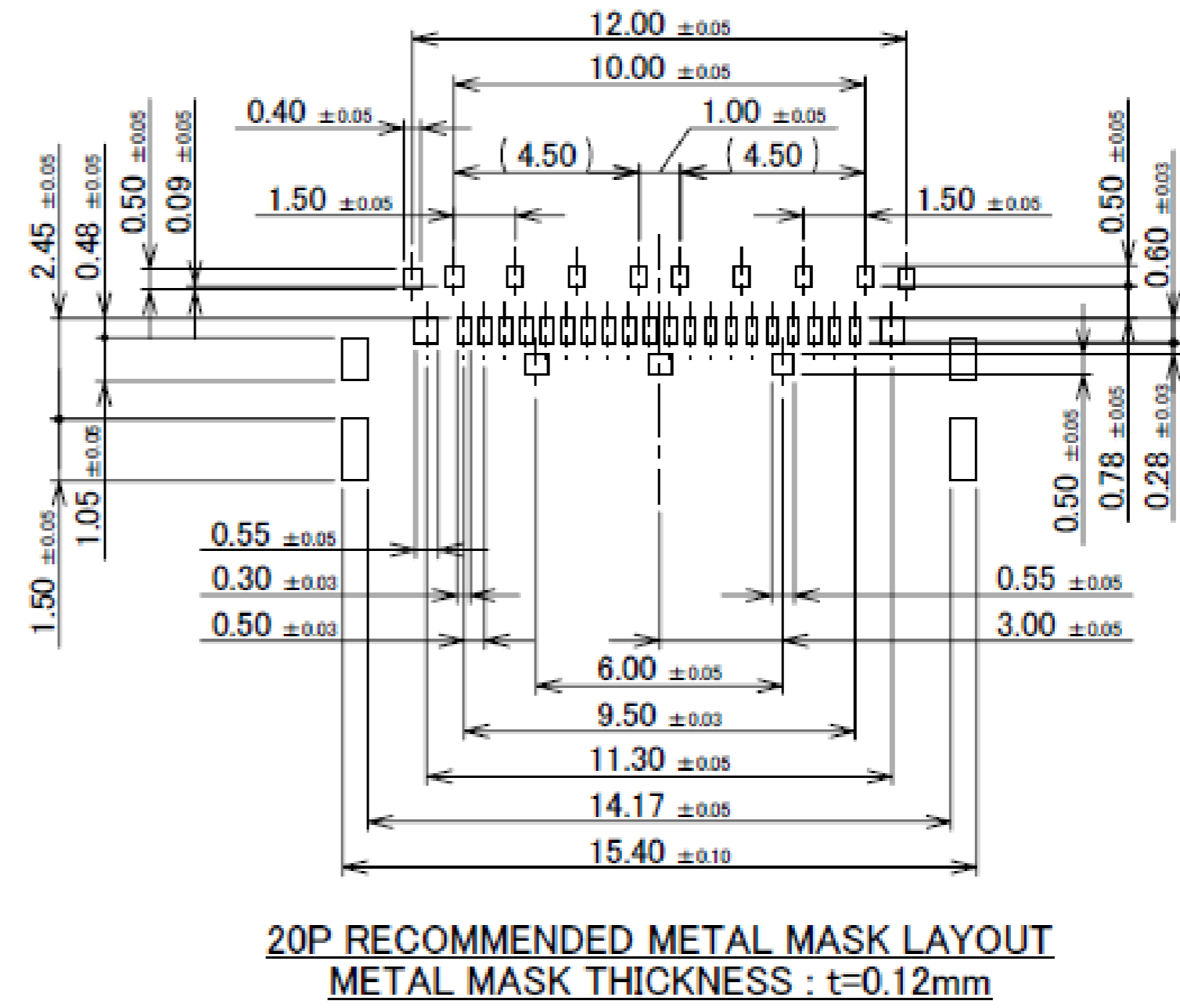
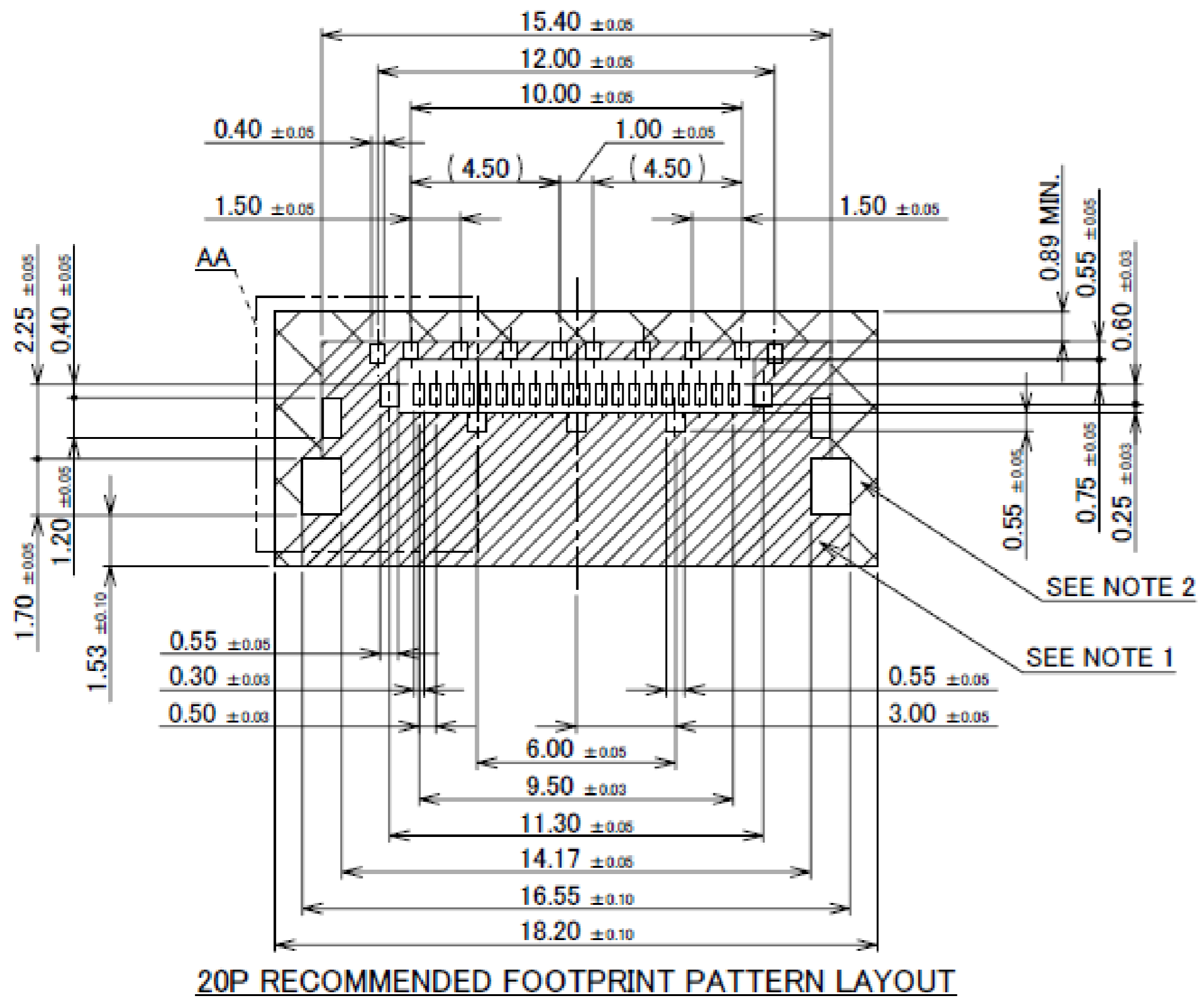
PART NO.	Pos.
20849-020E-0#	20
20849-030E-0#	30
20849-040E-0#	40

## BOTTOM VIEW



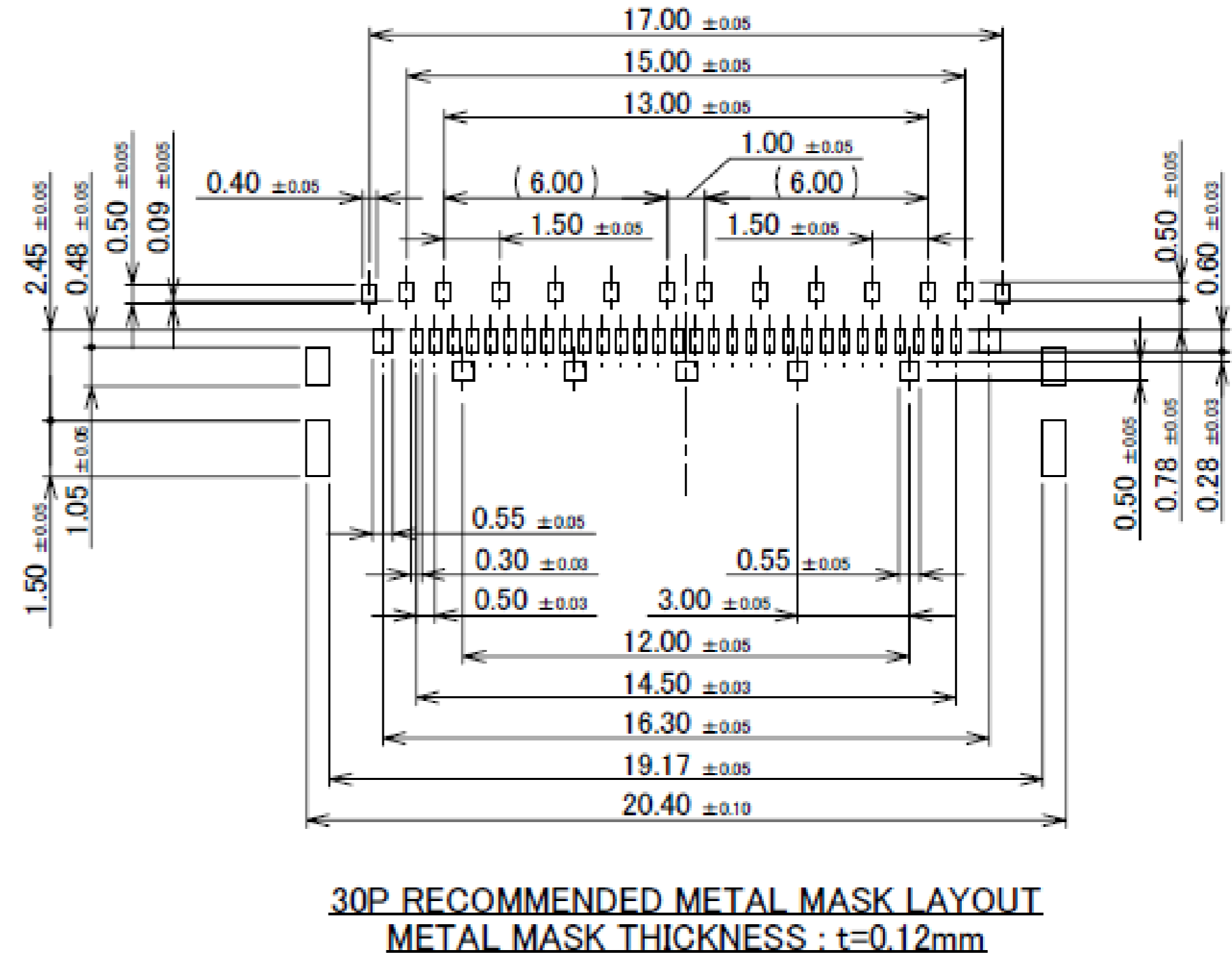
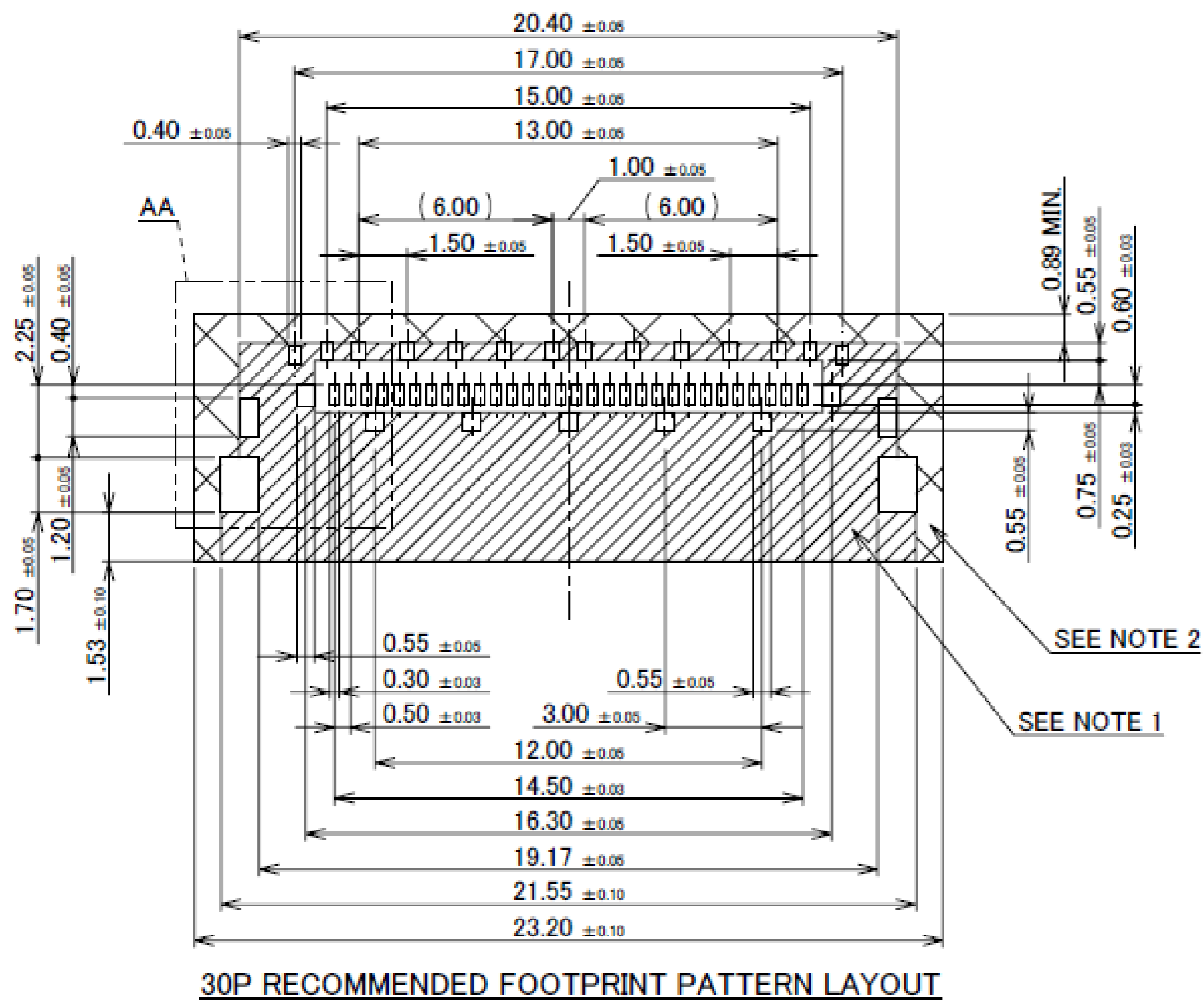
Rev.16

# Receptacle Assembly

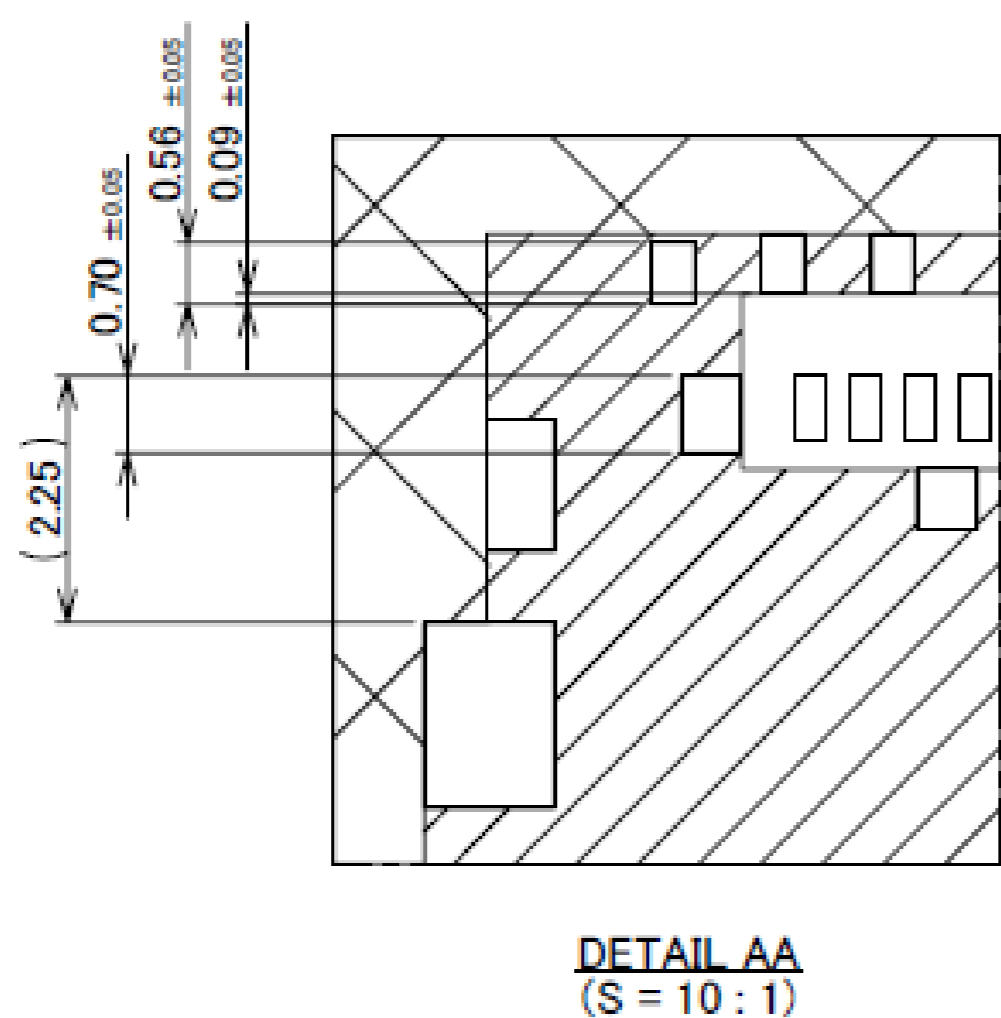


NOTES.  
1. SOLDER RESIST MUST BE APPLIED TO THIS AREA.  
2. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.

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

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

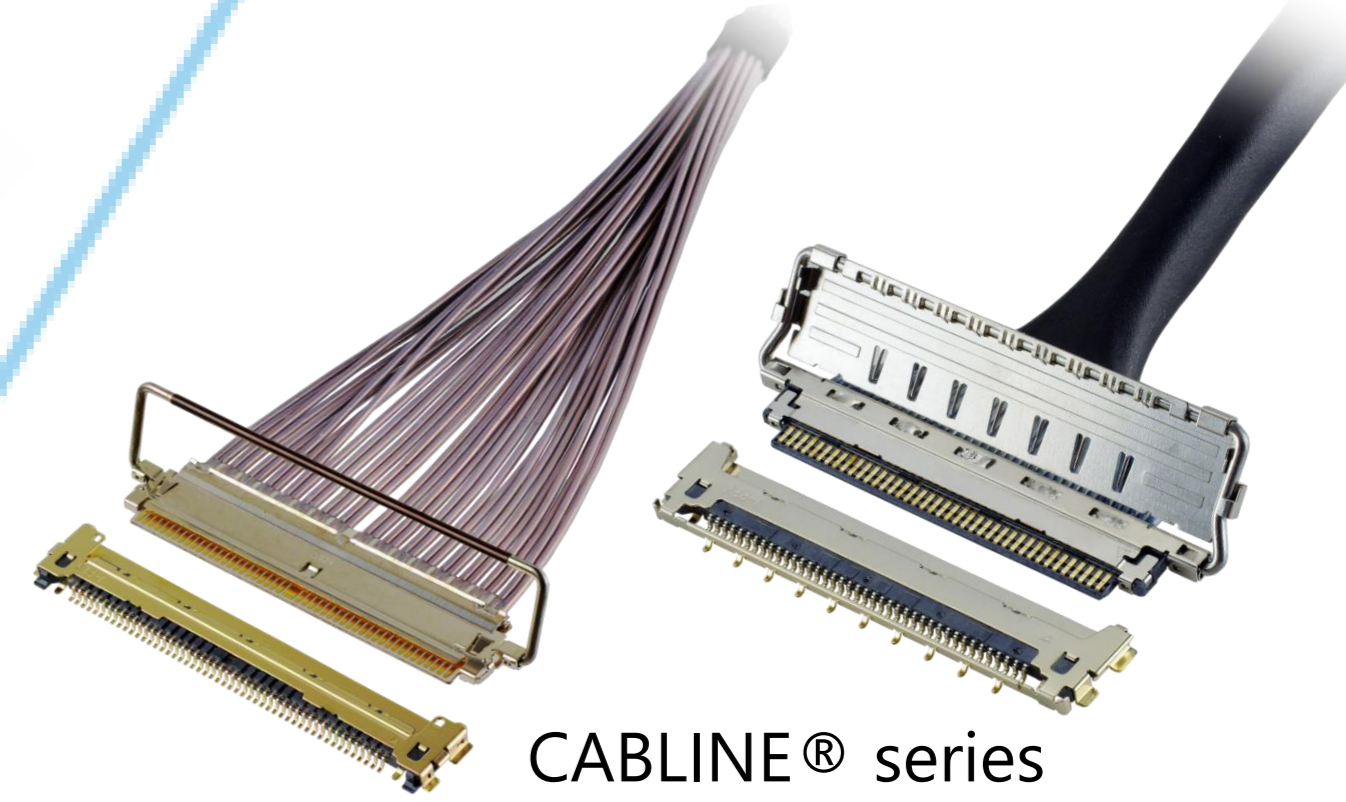
ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG #44 , 42 , 40 , 38 , 36 DISCRETE WIRE : AWG #36 , 34 , 32 TWINAXIAL CABLE : AWG #40
RATED VOLTAGE	100V AC (PER CONTACT PIN) ※THIS IS THE RATED VOLTAGE OF THE CONNECTOR. PLEASE NOTE THAT THE RATED VOLTAGE MAY VARY IN THE HARNESS DEPENDING 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 : <math>\triangleleft</math>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 : <math>\triangleleft</math>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

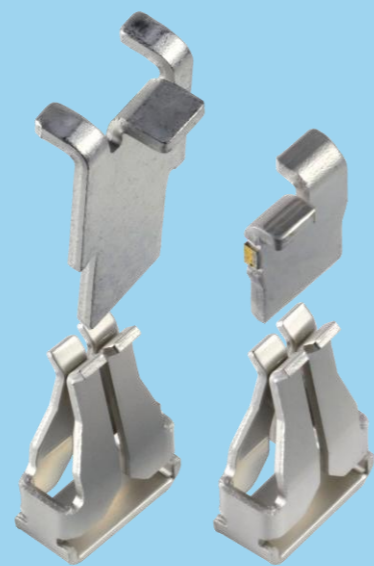


## Micro-Coaxial/Twinaxial Connectors



## Wire-to-Board Connectors/Terminals

AP series



ISH® series



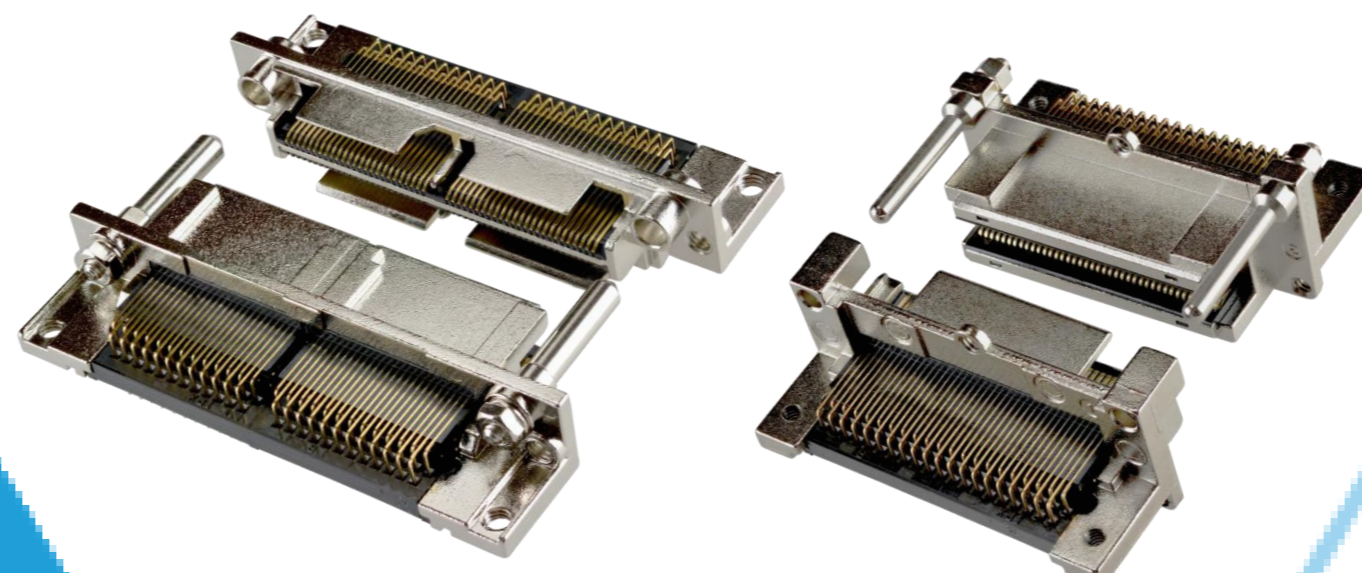
NOVASTACK® series



## Board-to-Board Connectors



## I/O Connectors



MINIDOCK™ series

MINIFLEX® series EVAFLEX® series



## FPC/FFC Connectors



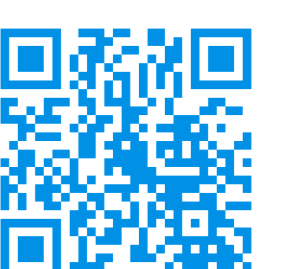
Inquiry



I-PEX, MHF, CABLINE, NOVASTACK, ISH, IARPB, MINIFLEX, EVAFLEX, MINIDOCK, i-Fit and ZenShield are registered trademarks of I-PEX Inc. Please note that the contents in the catalog might be changed without prior notification. I-PEX Inc. assumes no responsibility for any inaccuracies or obligation to update information on these documents. Please be sure to read and understand the latest "Precautions for Use" and "Instruction Manual" before you use our products. We shall not be responsible for any defects, damages or troubles in case you use our products without following the precautions for use. Please feel free to contact our sales representatives when you use our products for any applications that require very high reliability and safety, or that relate to human life (ex. nuclear power control, aerospace, transportation, medical equipment, safety equipment etc.).

Contact your sales representative or more detailed information.

[www.i-pex.com](http://www.i-pex.com)



# I-PEX

© I-PEX Inc. 2026  
All rights reserved