

# CABLINE® - UY

Low mating height (Height 0.82 mm max.), Suitable for high-data-rate transfer (32 Gbps/lane), Narrow pitch (0.35 mm pitch), Right angle vertical mating type micro-coaxial cable connector

**Product Specifications:**

Mating Type	Right angle vertical	
Board Pitch	0.35 mm	
Wiping Length	0.1 mm	
Mated Size	Height	0.82 mm max.
	Width	2.15 + (0.35 x pin count)
	Depth	3.10
Pin Counts	Range	Up to 25
	Available	5, 10

**Applicable Cable Size:**

Maximum O.D.	0.35 mm
Micro-Coaxial for Signal	45 ohm: AWG 40 or smaller
	50 ohm: AWG 42 or smaller
Twinaxial	-
Discrete	AWG 36 or smaller

**Applicable Standards (Reference Only):**

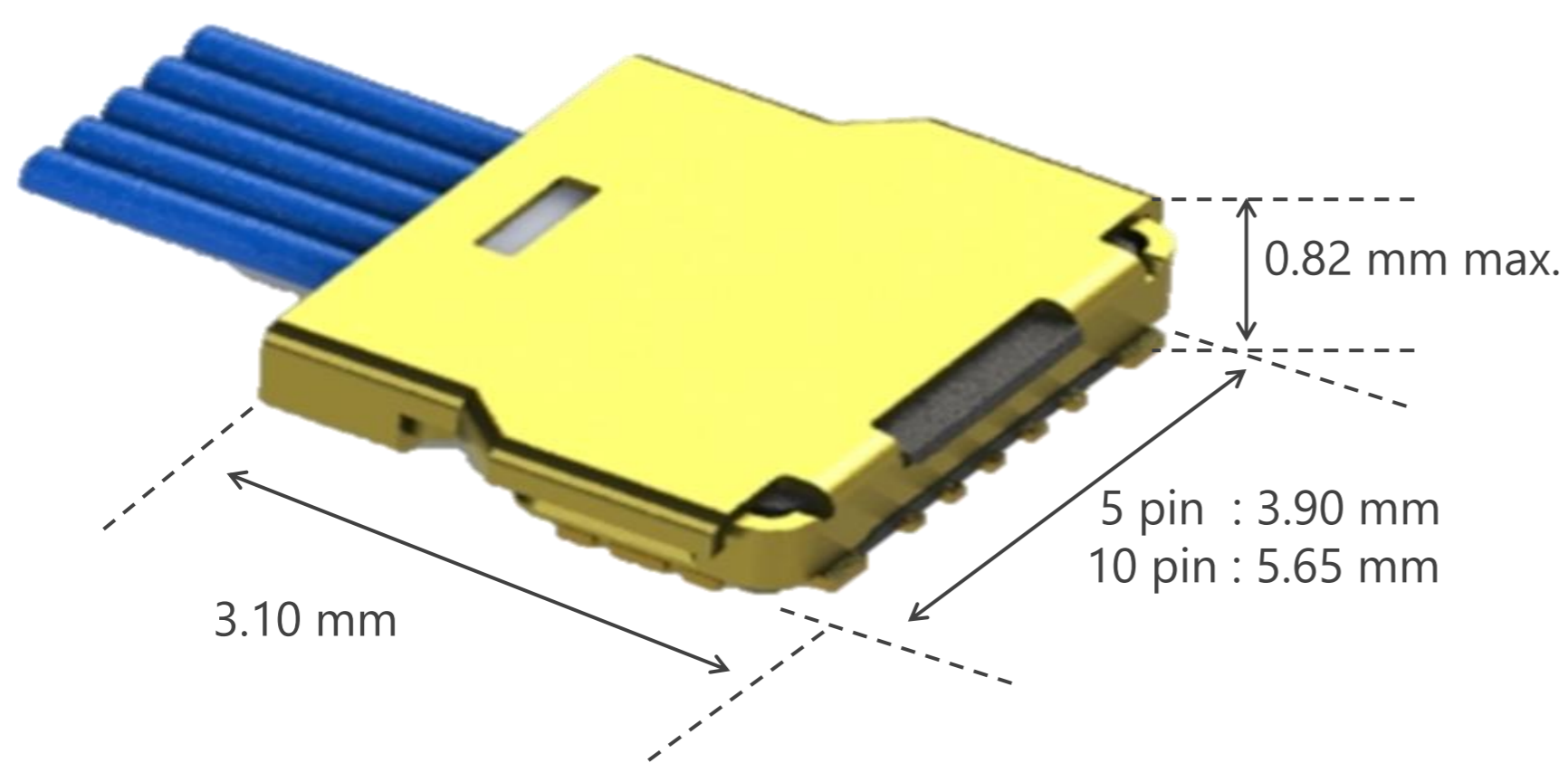
32 Gbps/Lane, USB4 Gen4 (40 Gbps/Lane PAM3)  
USB4 Gen3/Thunderbolt 4 (20 Gbps/lane)

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

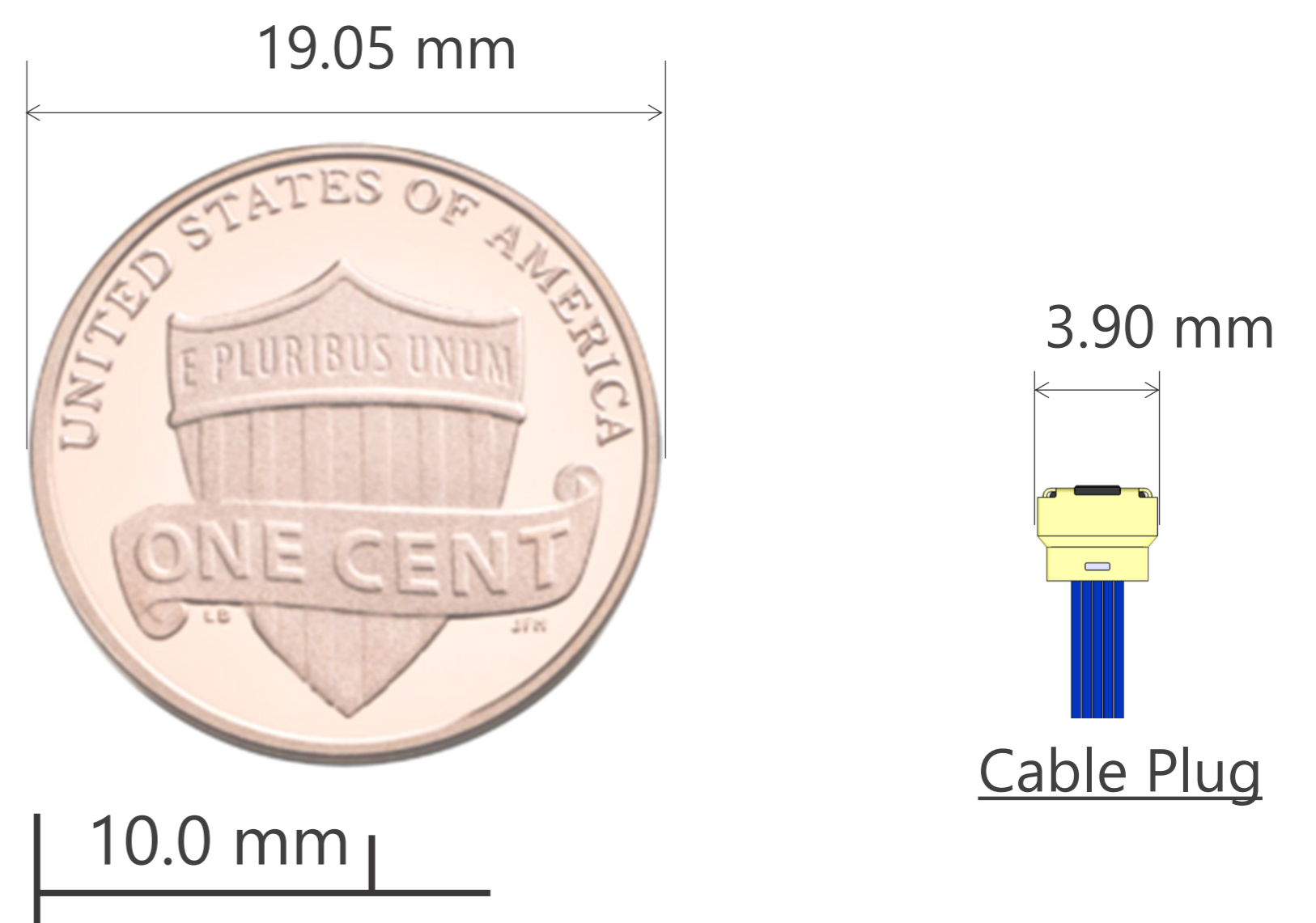


## ► Small, low height design, suitable for narrow spaces

Connector mated size



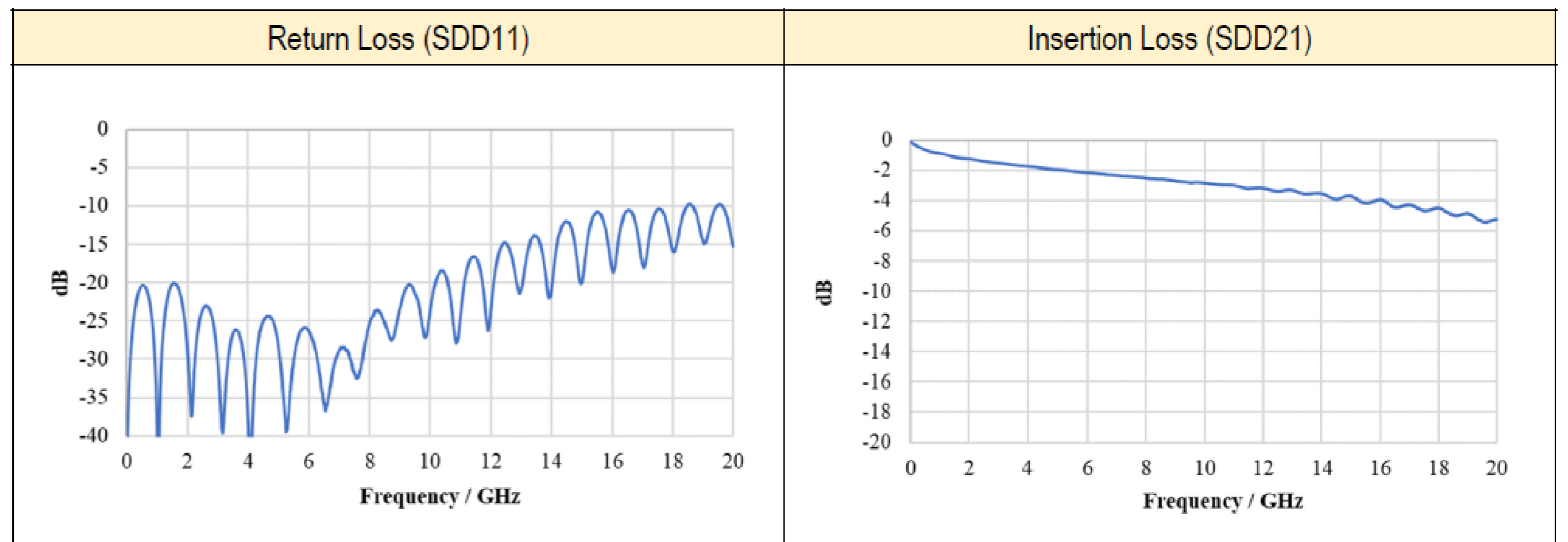
Size comparison image of 5 pin plug with a one-cent coin



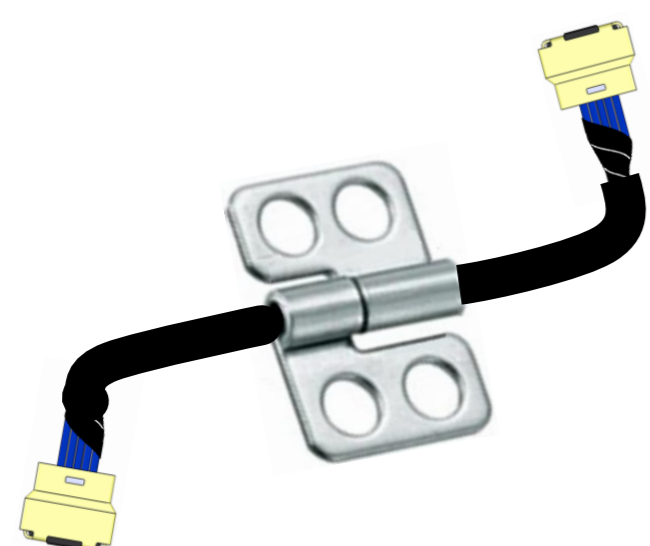
## ► High-data-rate transfer, ideal for 32 Gbps/lane applications

### Measurement results

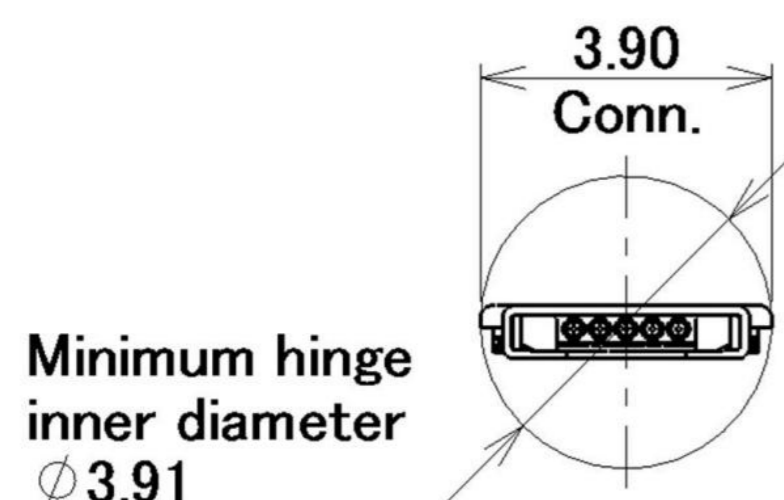
Connector: CABLINE-UY 10 pin  
Cable: Micro-coaxial cable  
AWG 42, 50ohm, Length : 100 mm  
Pin Assignment: GSSGSSG



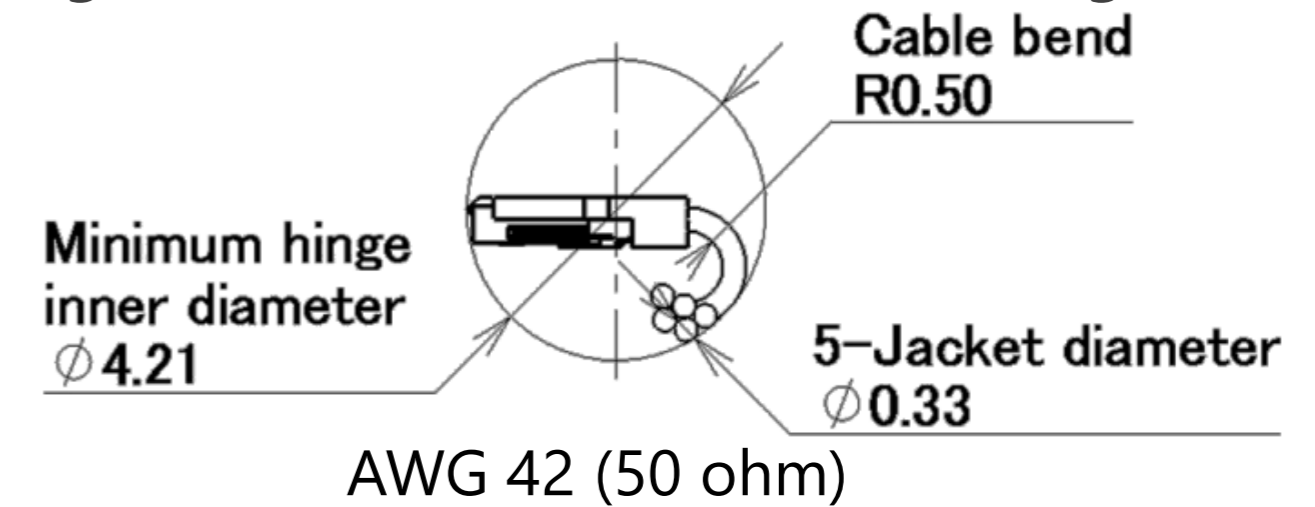
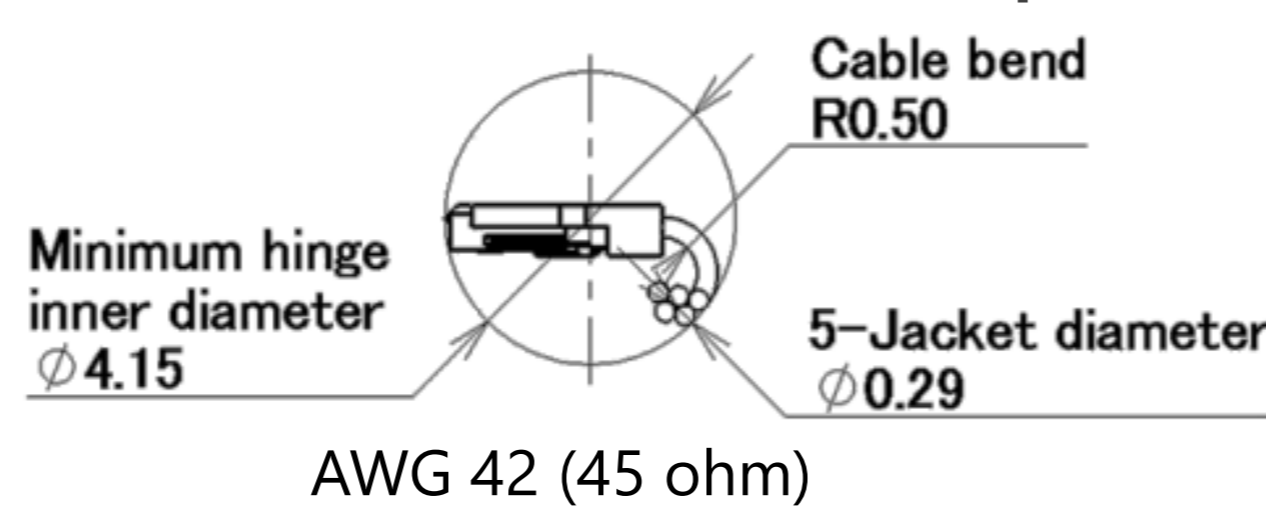
## ► Plug design able to go through small hinge after cable termination [Hinge Component Pass-Through with CABLINE® Harness Assemblies](#)



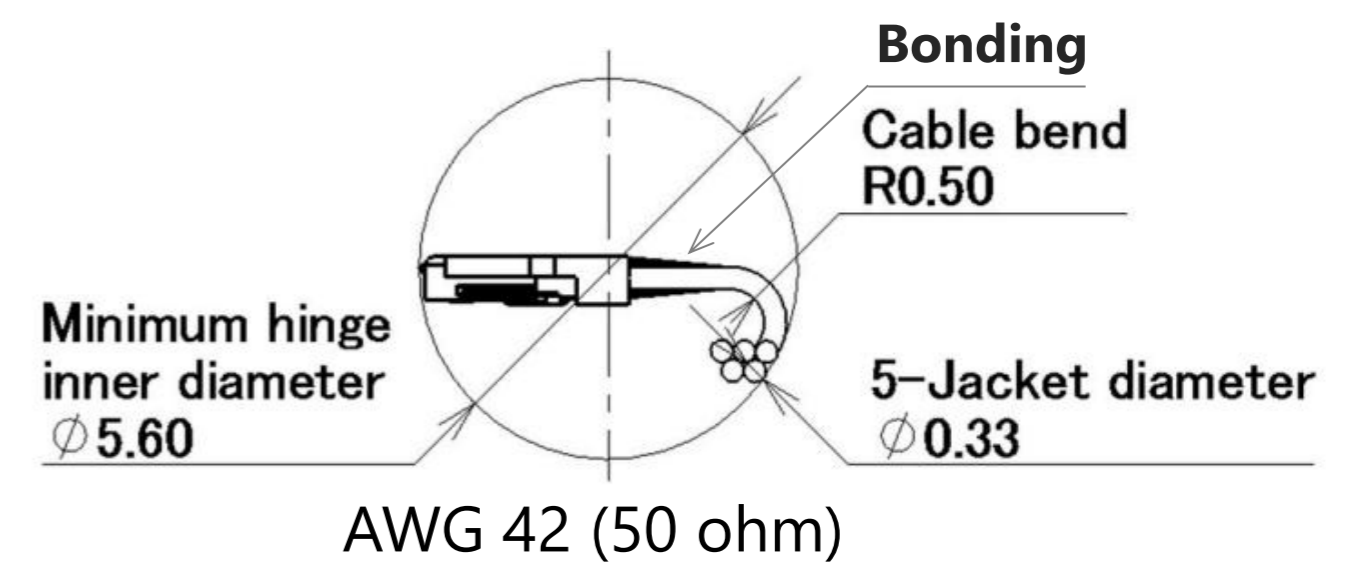
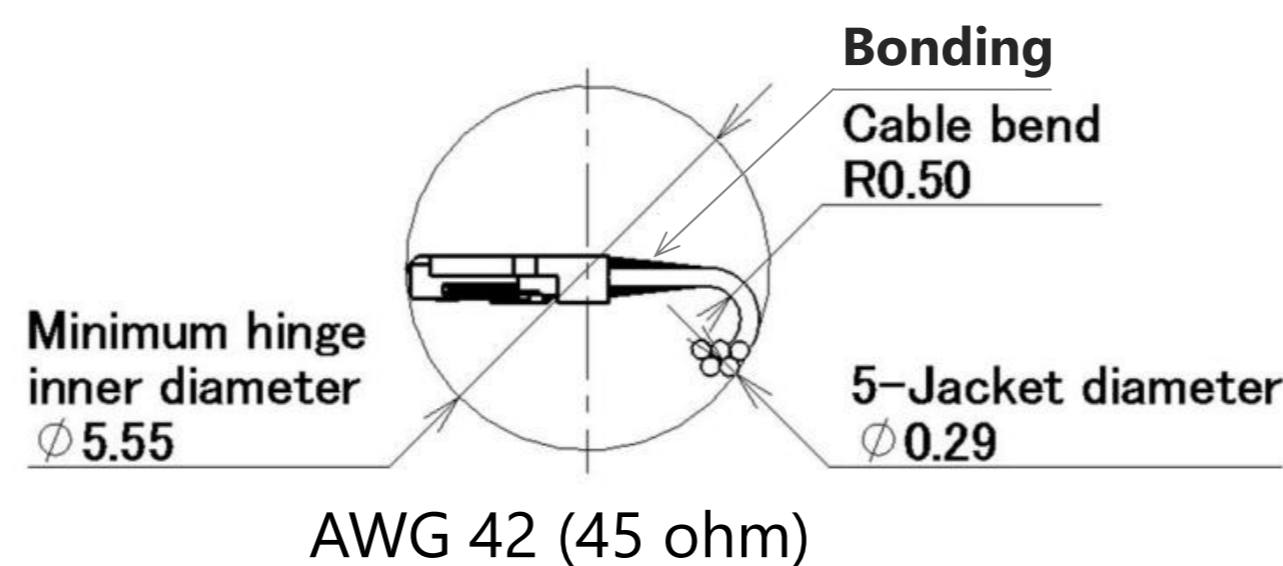
Simulation results (5 pin):  
No need to bend the cable



Simulation results (more than 5 pin): Minimum hinge inner diameter without bonding (mm)

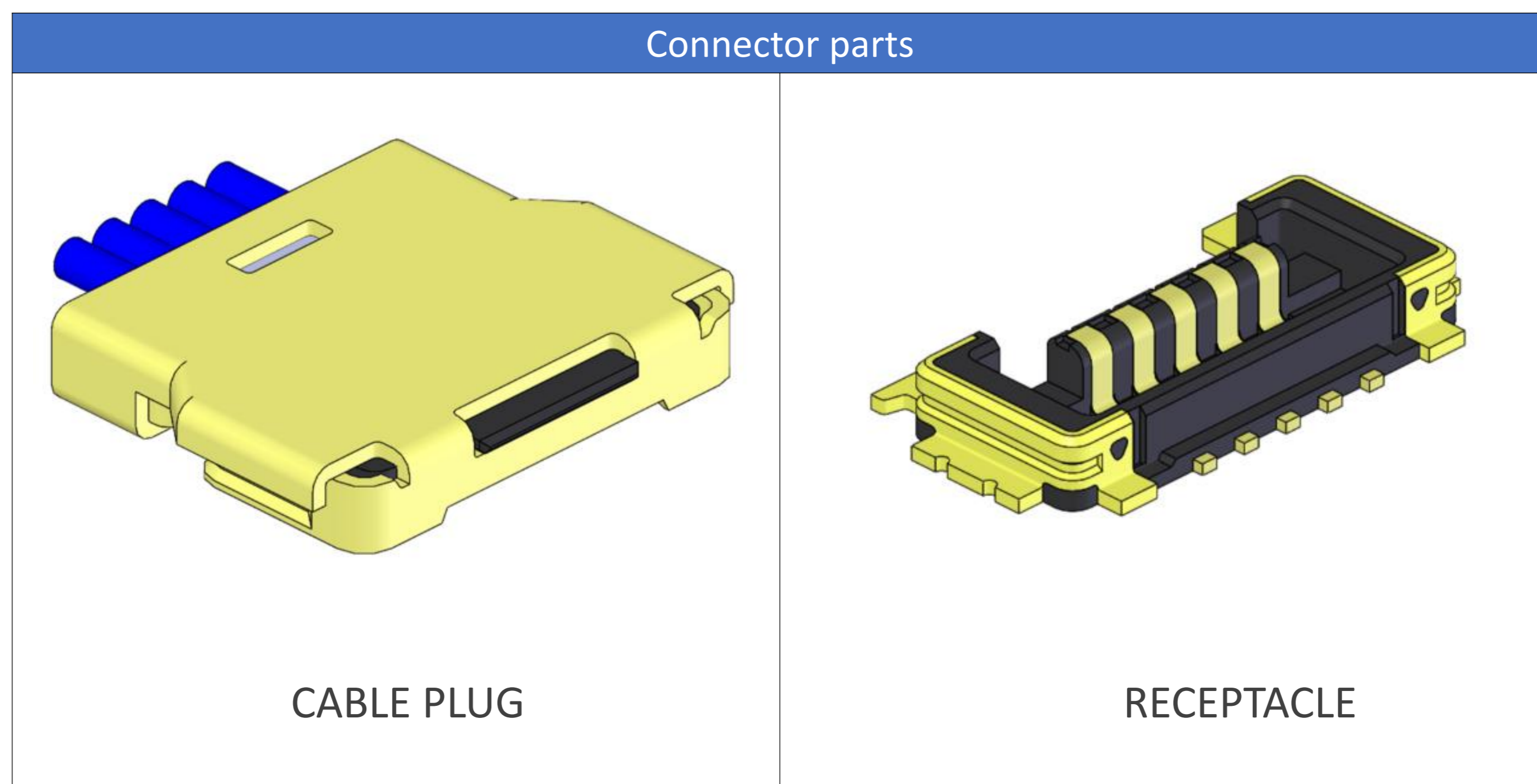


Simulation results (more than 5 pin): Minimum hinge inner diameter with bonding (mm)



# Component Parts Details

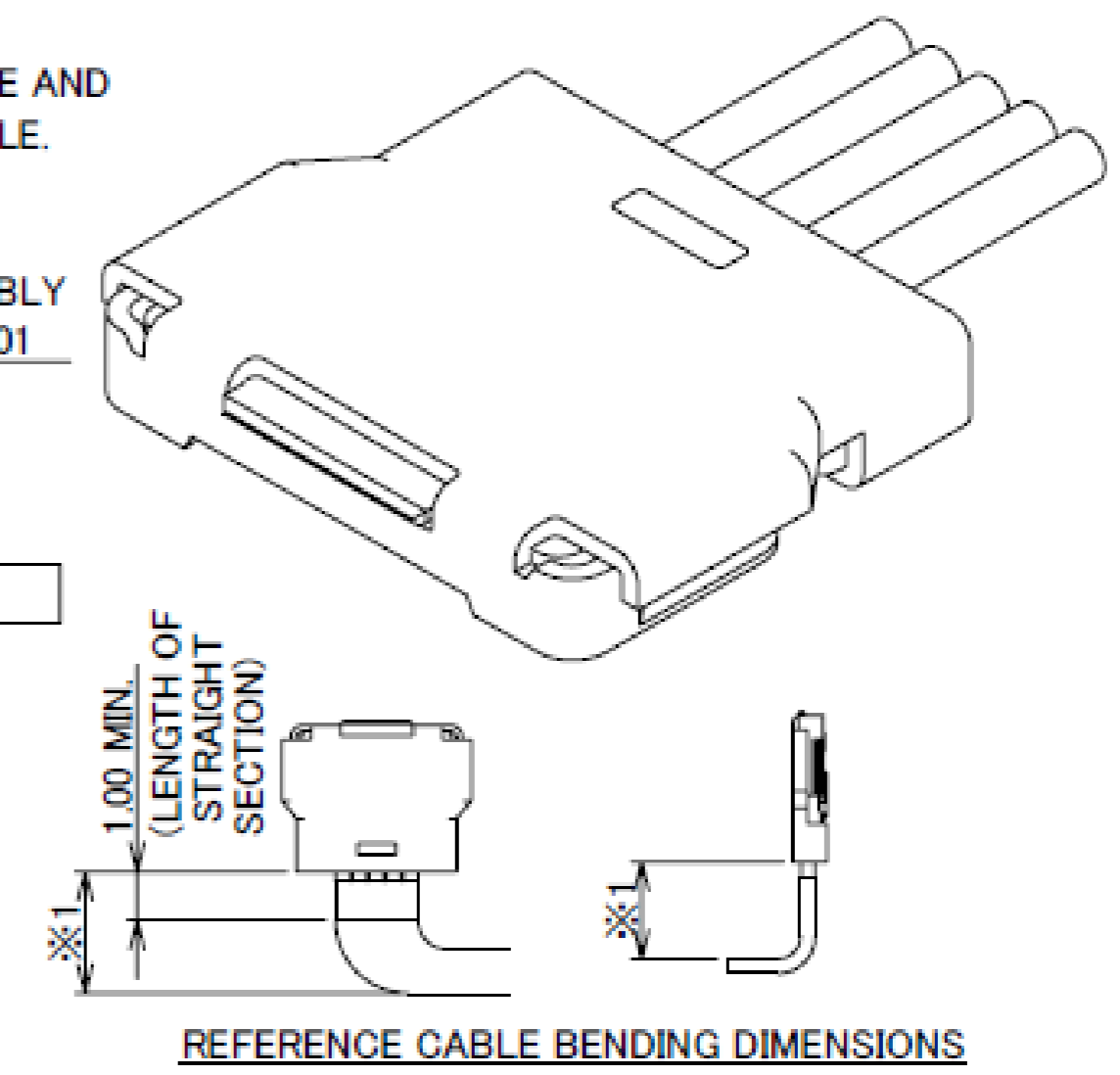
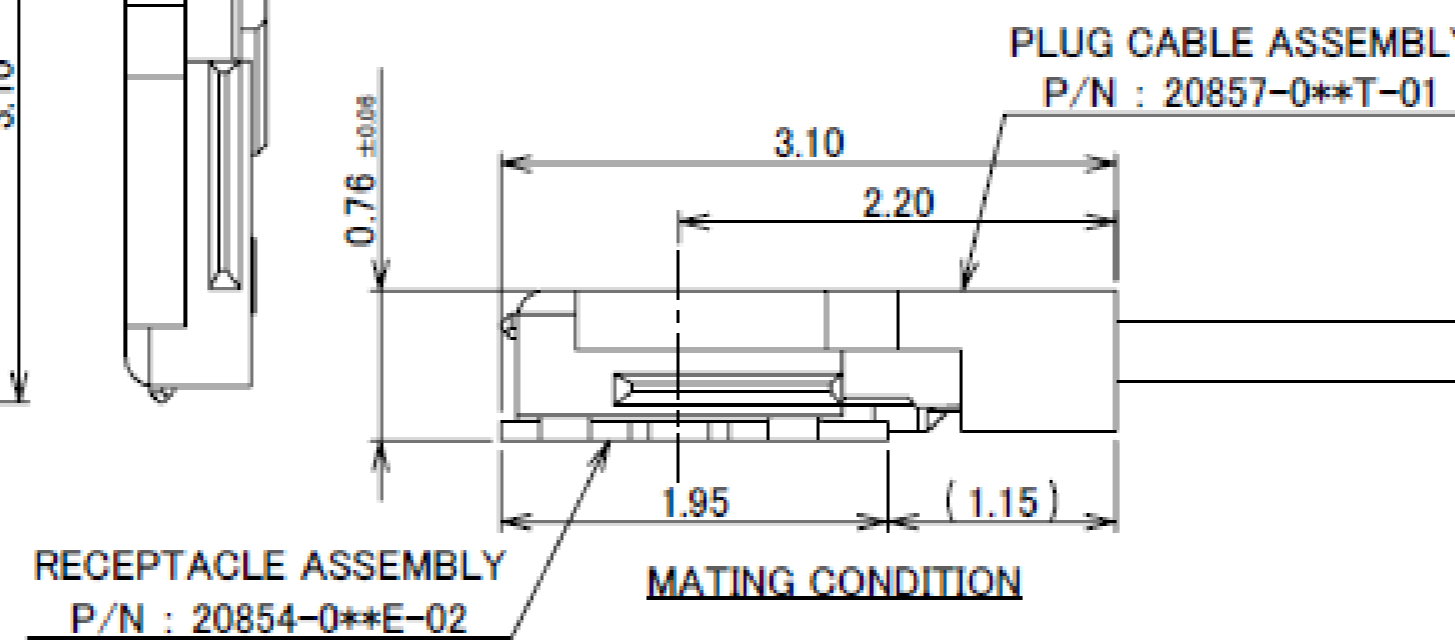
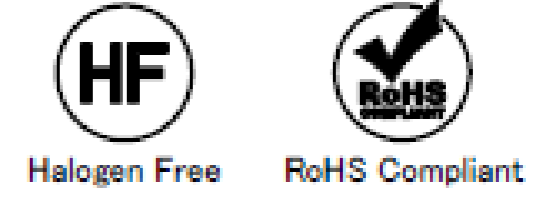
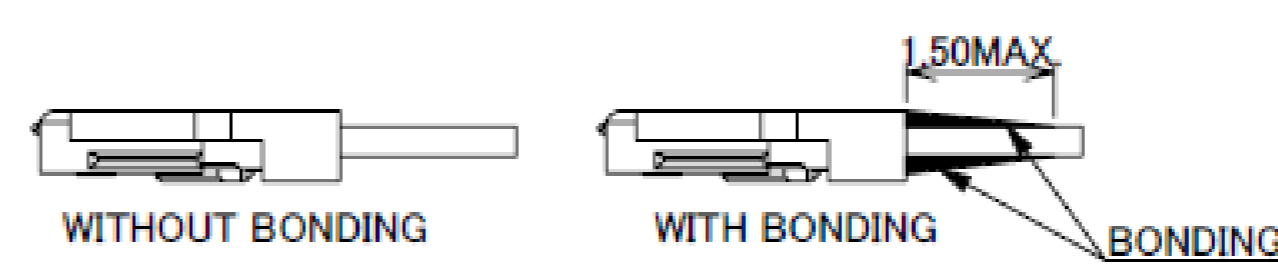
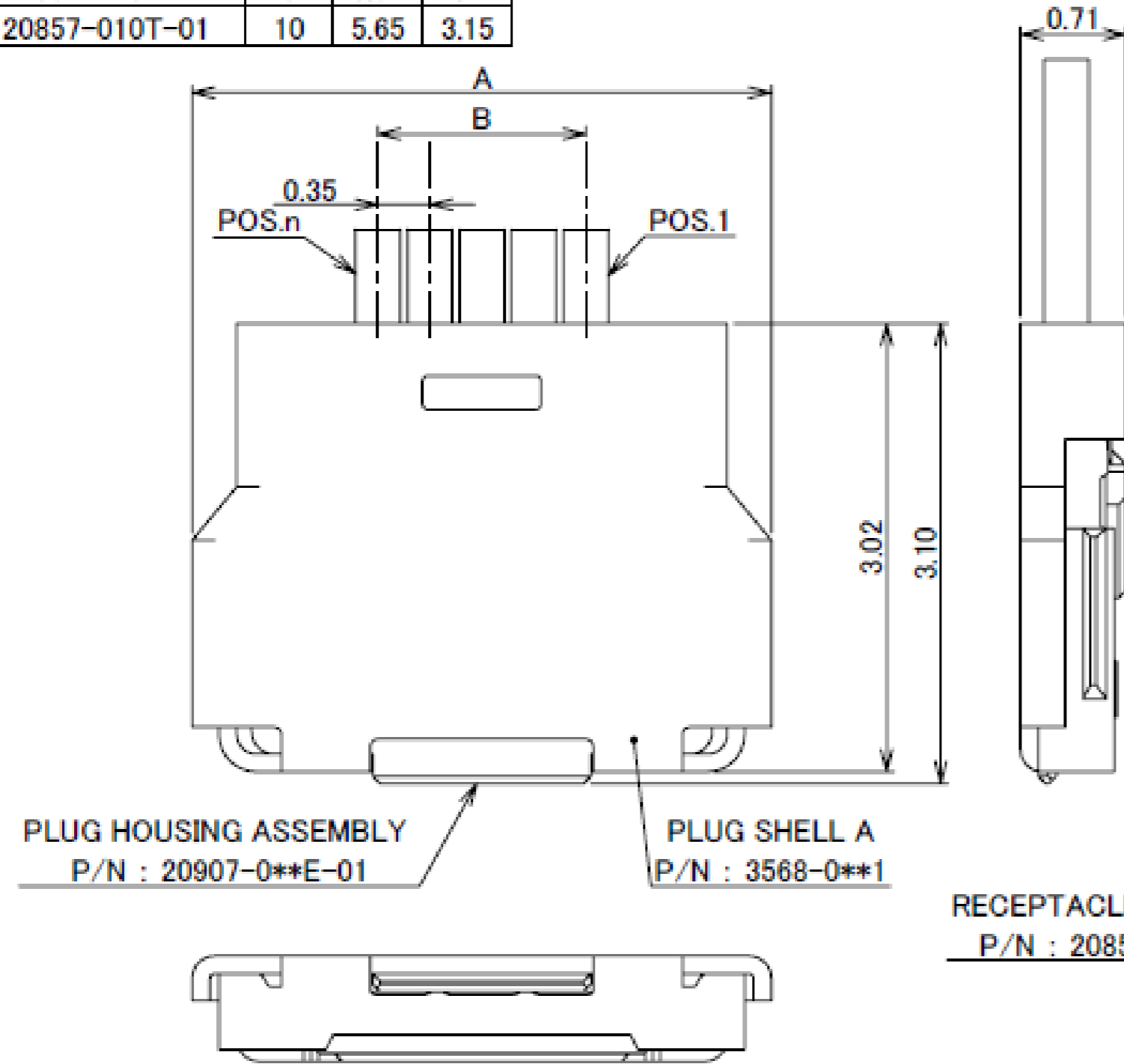
## Component Parts



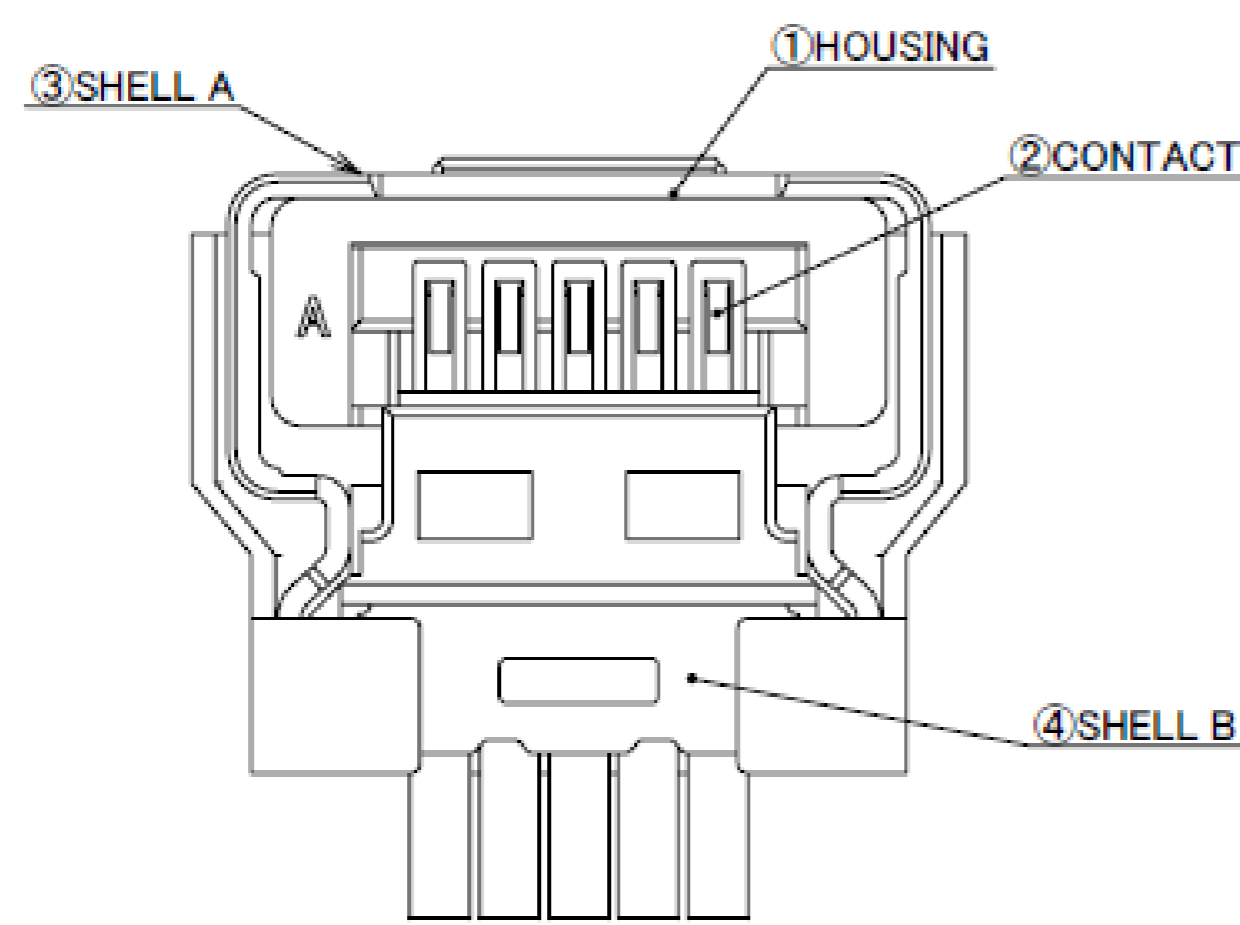
# Plug for Cable Assembly

Recommended P/N		20857-0**T-01	
PART NO.	Pos.	A	B
20857-005T-01	5	3.90	1.40
20857-010T-01	10	5.65	3.15

PART COMBINATION TABLE			
PLUG CABLE ASSEMBLY	PLUG HOUSING ASSEMBLY	PLUG SHELL A	RECEPTACLE ASSEMBLY
20857-005T-01	20907-005E-01	3568-0051	20854-005E-02
20857-010T-01	20907-010E-01	3568-0101	20854-010E-02



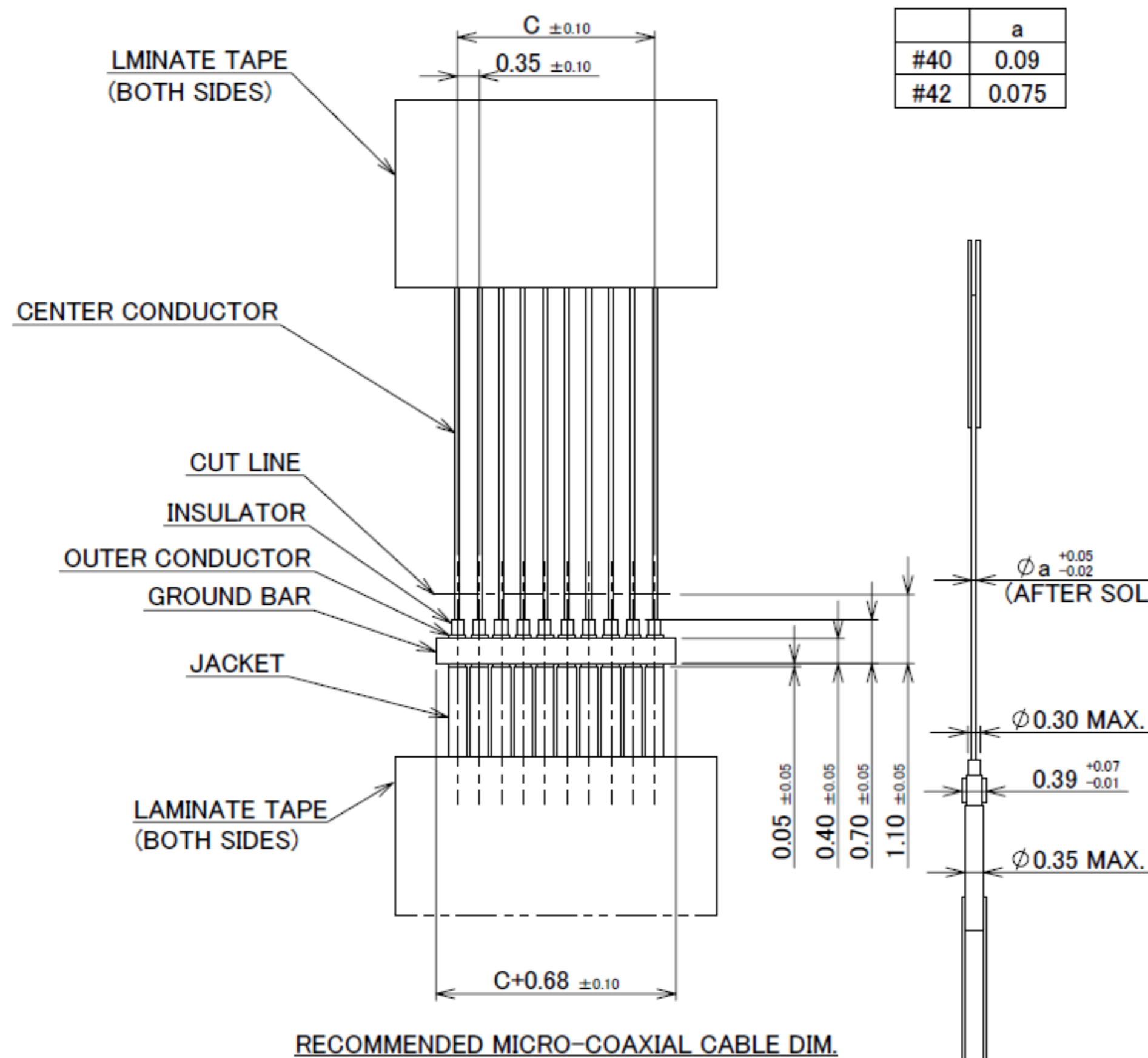
※1: THE BEND DIMENSIONS MAY VARY BASED ON THE SIZE AND QUANTITY OF CABLES. PLEASE CONFIRM THE MINIMUM BENDING RADIUS WITH I-PEX OR THE HARNESS MANUFACTURER.



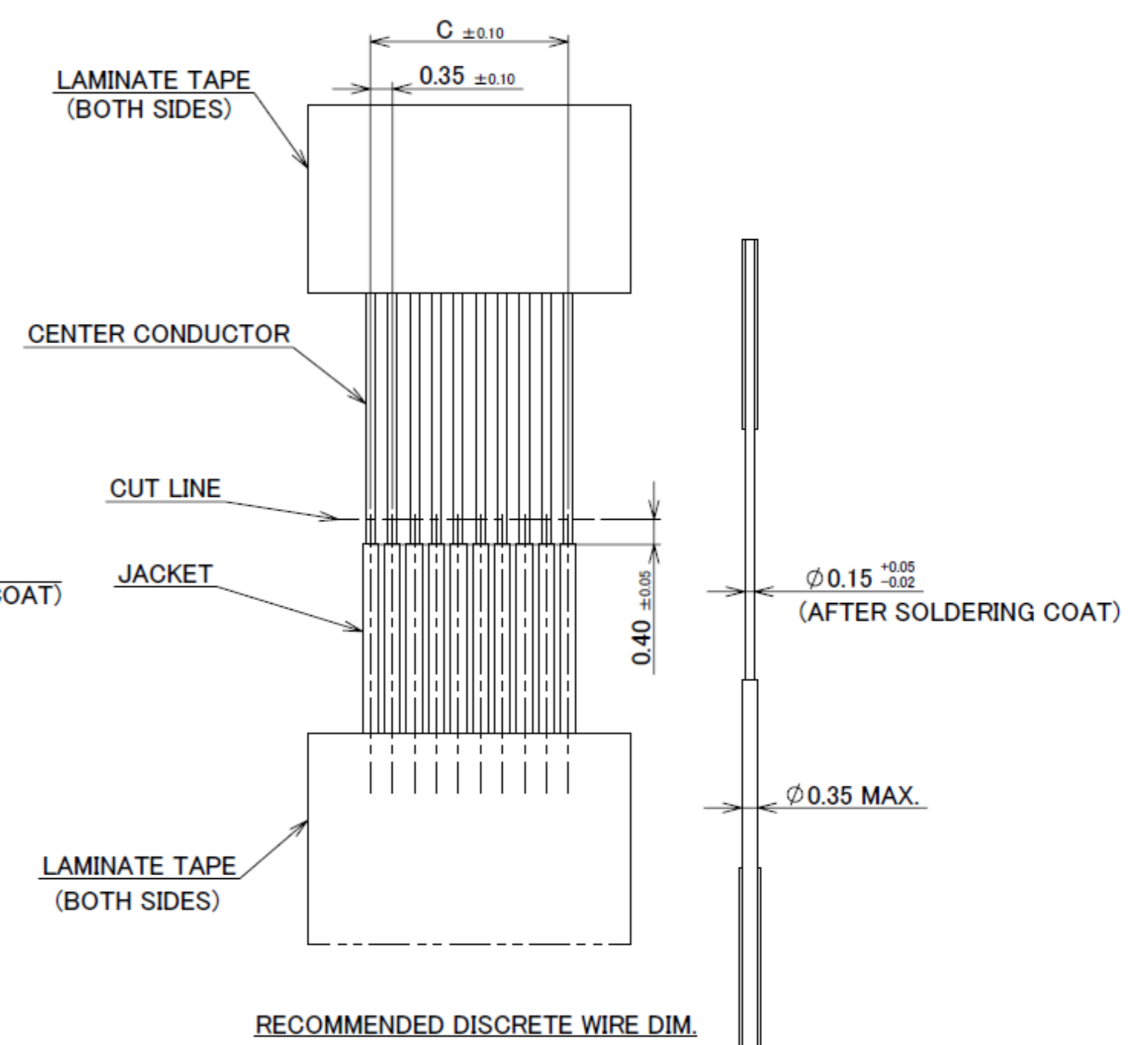
NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
4	SHELL B	SUS	Au 0.02 μm MIN. OVER Ni 1.00 μm MIN.
3	SHELL A	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT PART Au 0.02 μm MIN. SOLDERING PART Au 0.02 μm MIN.
2	CONTACT	CORSON ALLOY	ALL OVER Ni 1.00 μm MIN. CONTACT PART Au 0.02 μm MIN. SOLDERING PART Au 0.02 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK

PART NO.	Pos.	C
20857-005T-01	5	1.40
20857-010T-01	10	3.15

## CHARACTERISTIC IMPEDANCE MATCHING MICRO-COAXIAL CABLE



MICRO-COAXIAL CABLE AWG# \*\*



DISCRETE WIRE AWG# 36

Rev.7

Rev.7

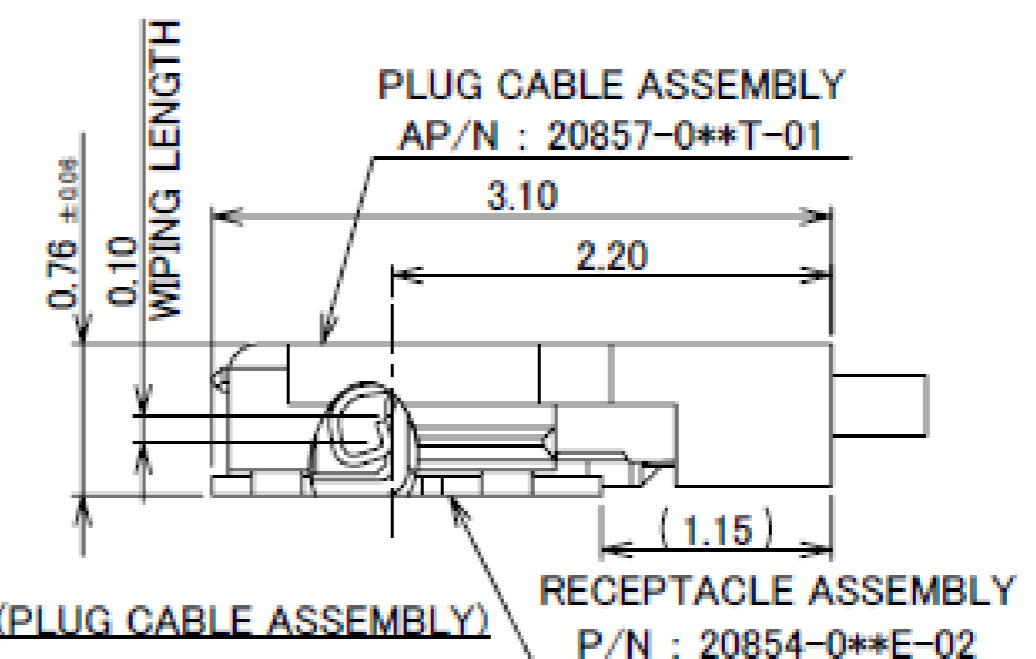
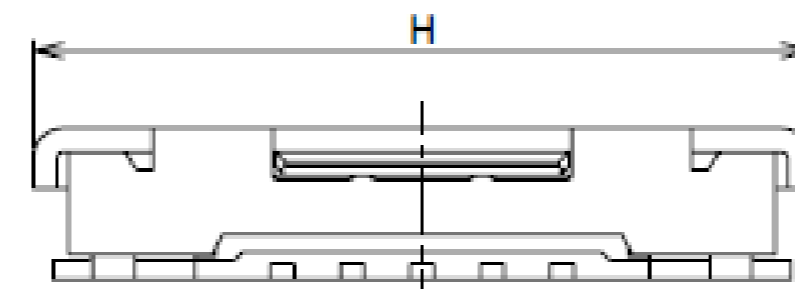
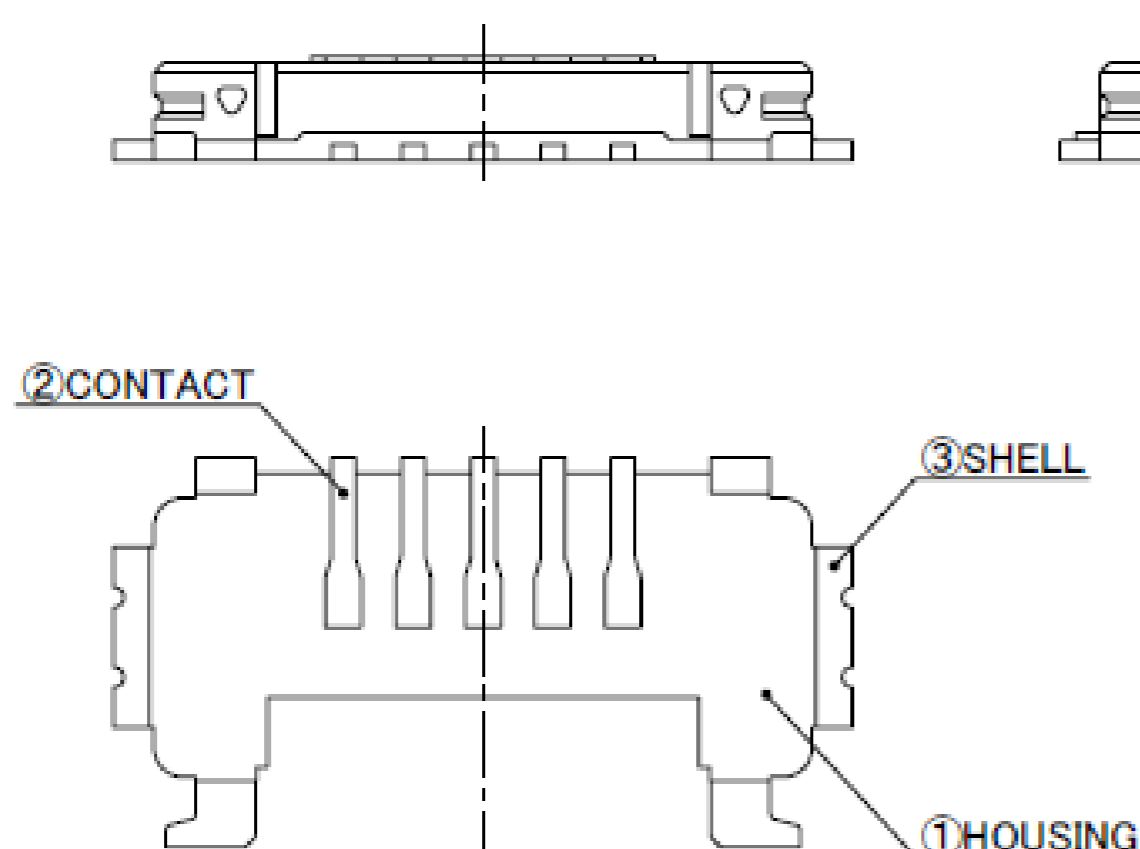
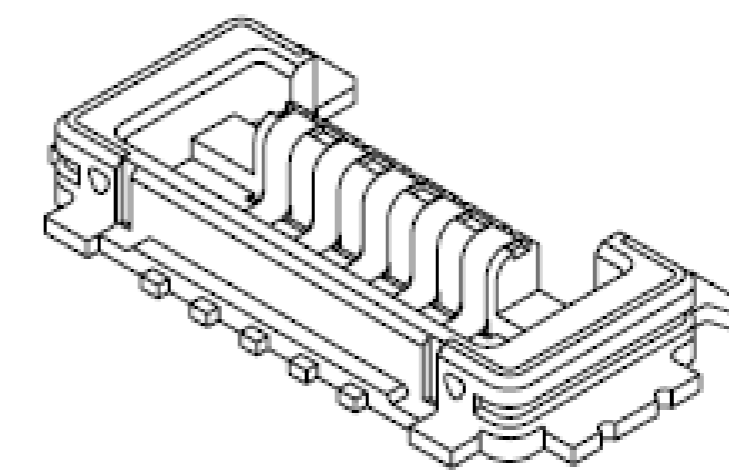
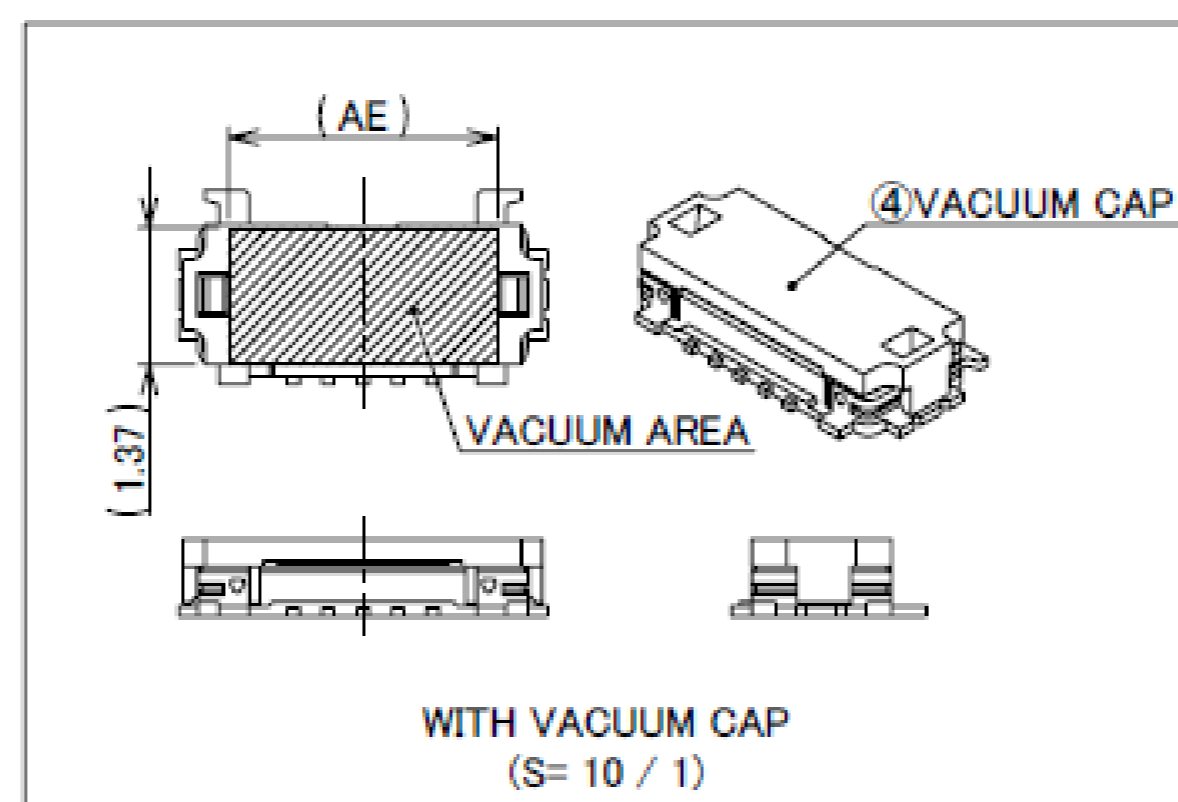
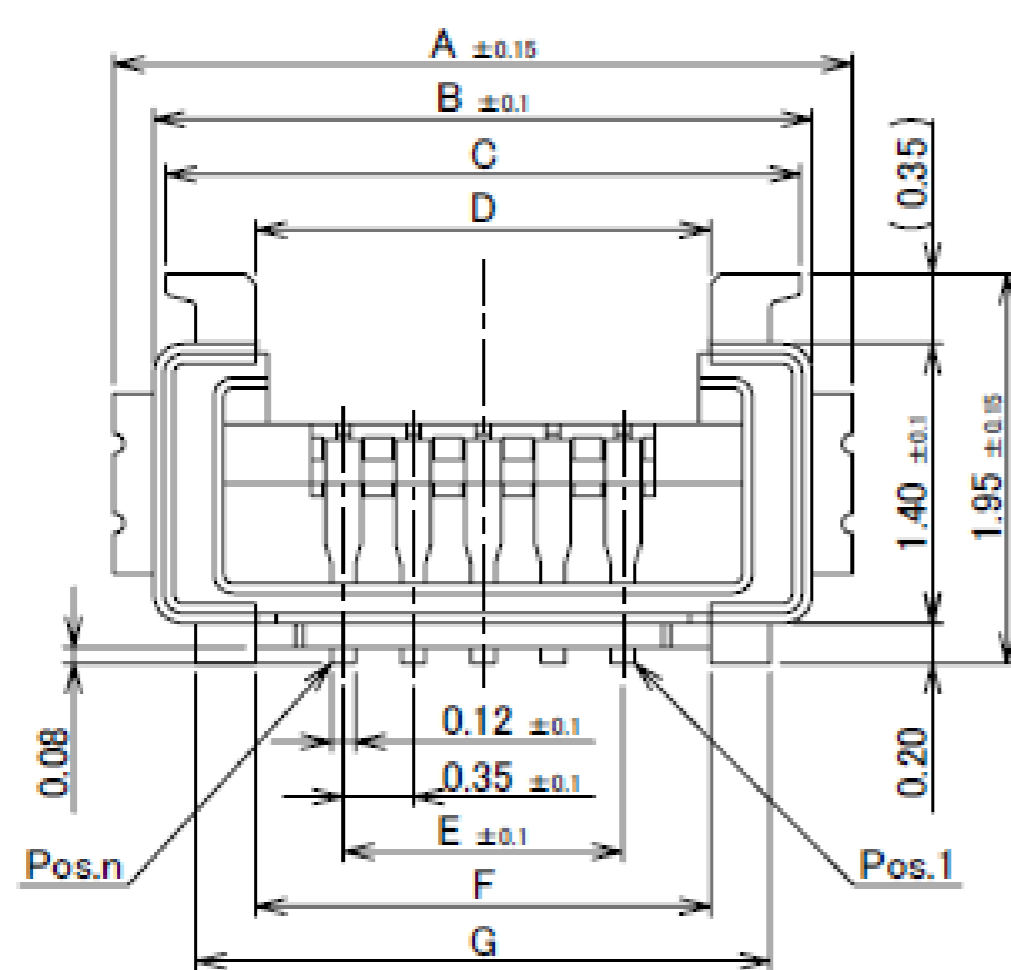
# Plug for Cable Assembly

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG# 42 , 40 DISCRETE WIRE : AWG# 36
RATING VOLTAGE	60V 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)	0.35 AC/DC[AWG# 42] PER CONTACT PIN/UP TO 10 CONTACTS 0.38 AC/DC[AWG# 40] PER CONTACT PIN/UP TO 10 CONTACTS 0.5 AC/DC[AWG# 36] PER CONTACT PIN/UP TO 10 CONTACTS
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 700mohm MAX.(AWG# 42) / AFTER TEST : $\Delta$ R 40mohm MAX. 600mohm MAX.(AWG# 40) 275mohm MAX.(AWG# 36)
GROUND SHELL RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : $\Delta$ R 40mohm MAX.
INSULATION RESISTANCE	INITIAL : 500Mohm MIN. / AFTER TEST : 100Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC200V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	5P : INITIAL: 30N MAX. / AFTER TEST: 30N MAX. 10P : INITIAL: 30N MAX. / AFTER TEST: 30N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	5P : INITIAL: 5N MIN. / AFTER TEST: 3N MIN. 10P : INITIAL: 5N MIN. / AFTER TEST: 3N MIN.
CABLE RETENTION FORCE	5Pin : 2.45N MIN. 10Pin : 4.9N MIN.
PRODUCT SPECIFICATION	PRS-2634
TEST REPORT	TR-19084
INSTRUCTION MANUAL	HIM-18037
ASSEMBLY MANUAL	ASM-18002
APPEARANCE CRITERIA No.	QLS-A***

Rev.7

# Receptacle Assembly

Recommended P/N	20854-0**E-02										
PART NO.	Pos.	A	B	C	D	E	F	G	H	J	AE
20854-005E-02	5	3.70	3.30	3.18	2.28	1.40	2.28	2.88	3.90	2.90	2.70
20854-010E-02	10	5.45	5.05	4.93	4.03	3.15	4.03	4.63	5.65	4.65	4.45

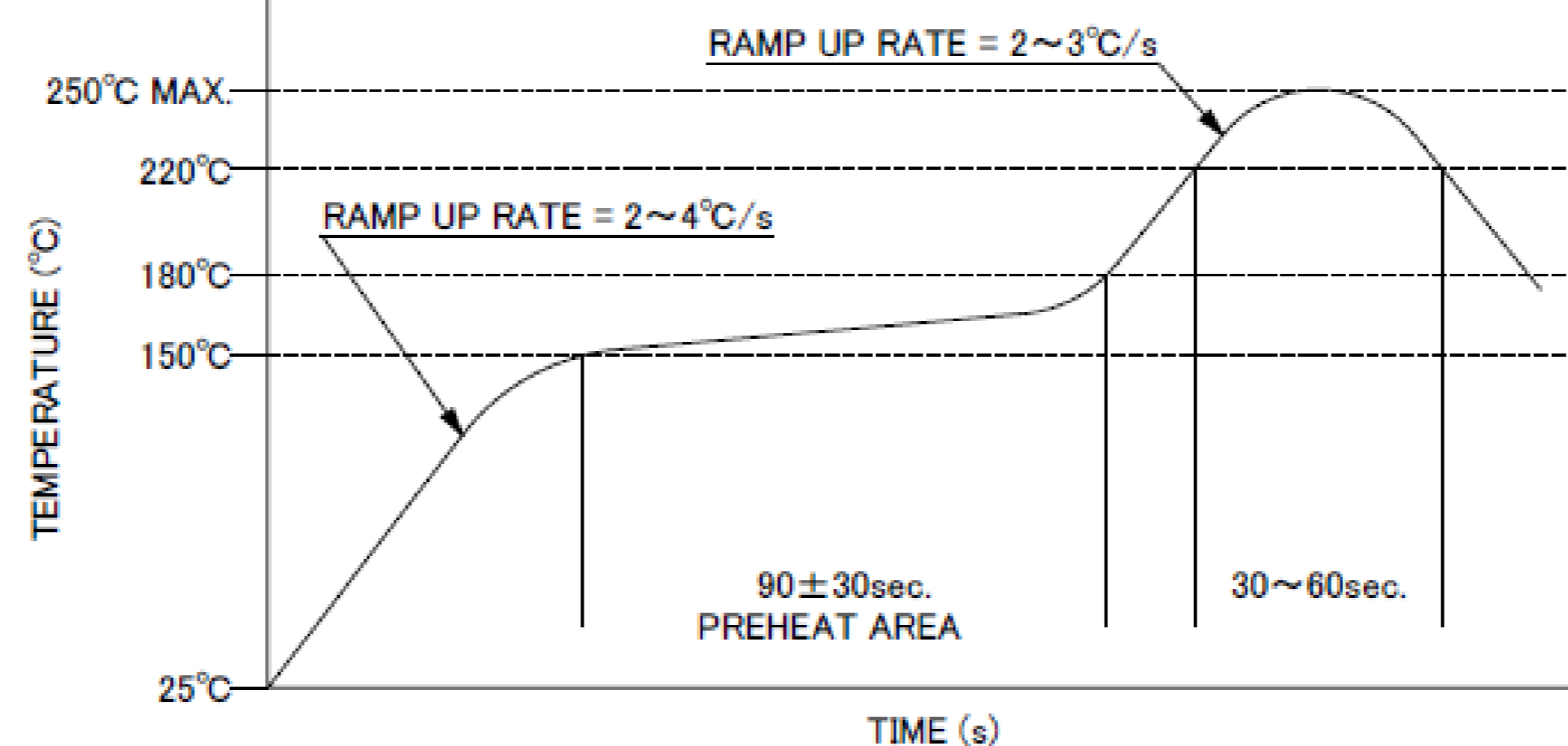
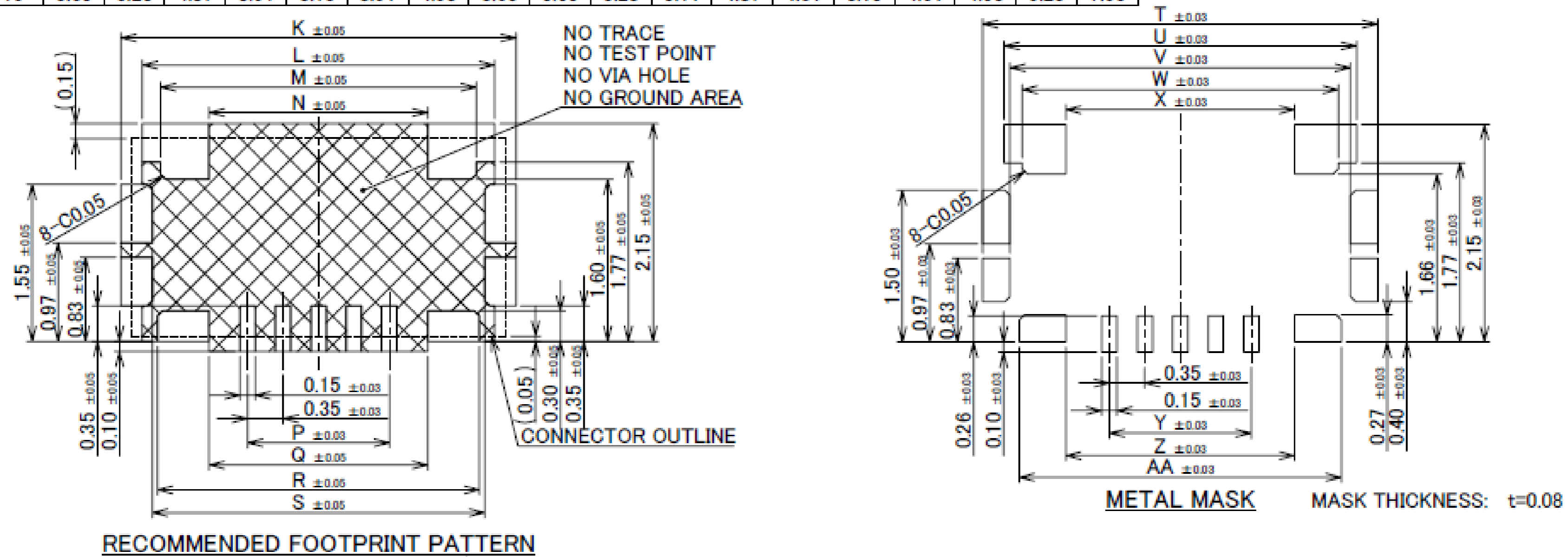


NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
4	VACUUM CAP	LCP	UL94V-0, BLACK
3	SHELL	PHOSPHOR BRONZE	ALL OVER Ni 1.00 $\mu$ m MIN. CONTACT PART: Au 0.01 $\mu$ m MIN. SOLDERING PART: Au 0.01 $\mu$ m MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 $\mu$ m MIN. CONTACT PART: Au 0.05 $\mu$ m MIN. SOLDERING PART: Au 0.03 $\mu$ m MIN.
1	HOUSING	LCP	UL94V-0, BLACK

Rev.7

# Receptacle Assembly

PART NO.	Pos.	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
20854-005E-02	5	3.90	3.48	3.12	2.16	1.40	2.16	3.18	3.28	3.90	3.48	3.36	3.12	2.26	1.40	2.26	3.18	7.50	6.20
20854-010E-02	10	5.65	5.23	4.87	3.91	3.15	3.91	4.93	5.03	5.65	5.23	5.11	4.87	4.01	3.15	4.01	4.93	9.25	7.95



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

Rev.7

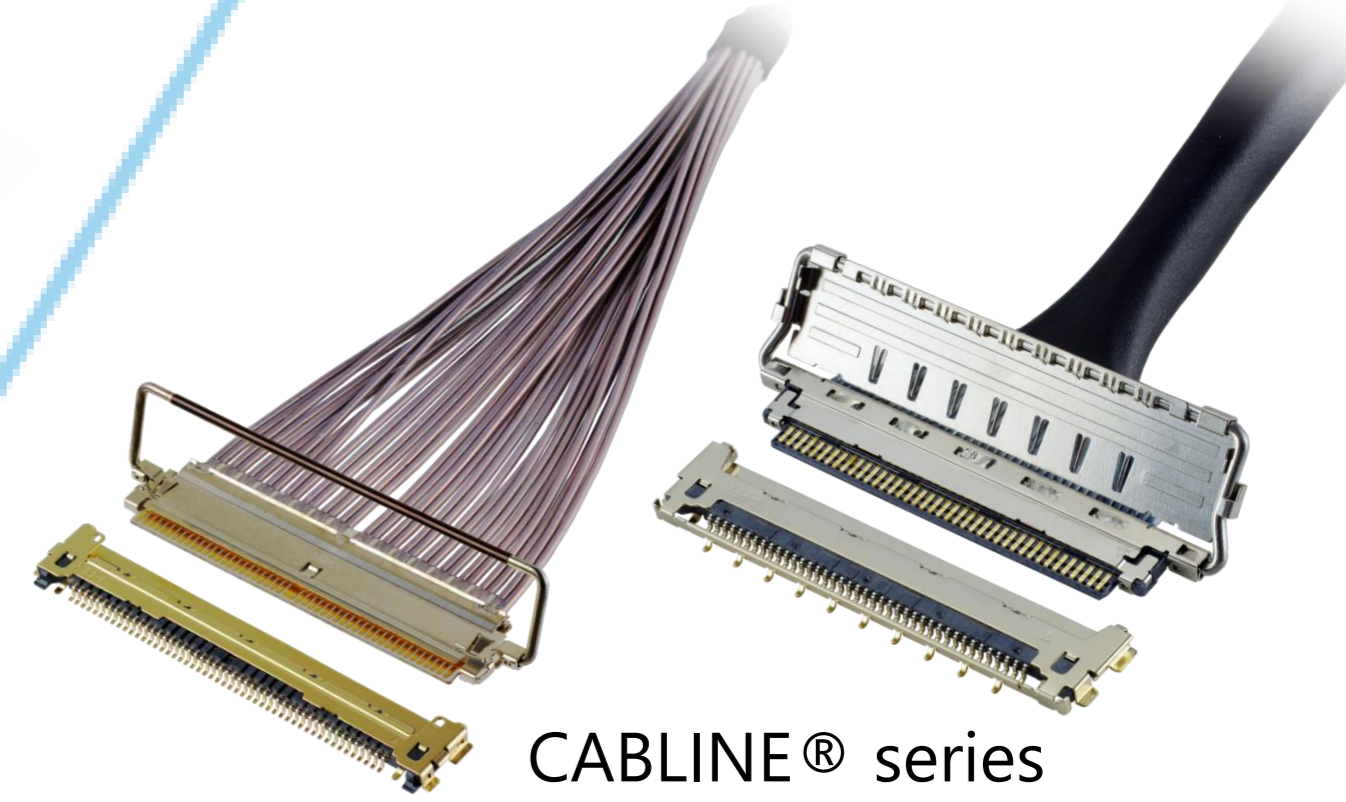
ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20857-0**T-01 (PLUG CABLE ASSEMBLY)
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG# 42 , 40 DISCRETE WIRE : AWG# 36
RATING VOLTAGE	60V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR CONTACT)	0.35 AC/DC [AWG#42] PER CONTACT PIN/UP TO 10 CONTACTS 0.38 AC/DC [AWG#40] PER CONTACT PIN/UP TO 10 CONTACTS 0.50 AC/DC [AWG#36] PER CONTACT PIN/UP TO 10 CONTACTS
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 700mohm MAX.(AWG#42) / AFTER TEST : $\Delta$ R 40mohm MAX. 600mohm MAX.(AWG#40) 275mohm MAX.(AWG#36)
GROUND CONTACT RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : $\Delta$ R 40mohm MAX.
INSULATION RESISTANCE	INITIAL : 500Mohm MIN. / AFTER TEST : 100Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC200V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	5P : INITIAL: 30N MAX. / AFTER TEST: 30N MAX. 10P : INITIAL: 30N MAX. / AFTER TEST: 30N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	5P : INITIAL: 5N MIN. / AFTER TEST: 3N MIN. 10P : INITIAL: 5N MIN. / AFTER TEST: 3N MIN.
CABLE RETENTION FORCE	5P : 2.45N MIN. 10P : 4.90N MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-2634
TEST REPORT	TR-19084
PACKING STANDARD	PST-18040
INSTRUCTION MANUAL	HIM-18037
APPEARANCE CRITERIA No.	QLS-A***

Rev.7

# Custom Connectors Available

## RF Connectors

MHF® series



CABLINE® series

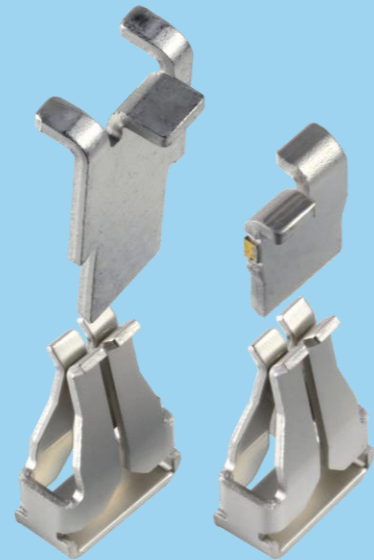
## Micro-Coaxial/Twinaxial Connectors



## Wire-to-Board Connectors/Terminals

AP series

ISH® series



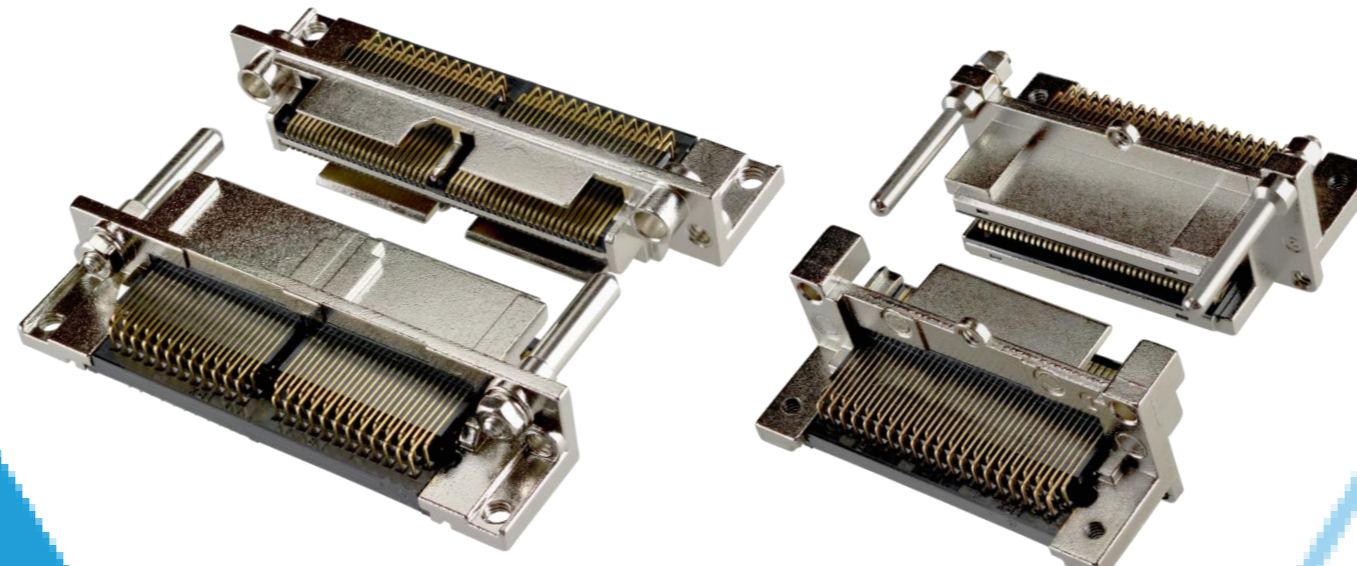
NOVASTACK® series



## Board-to-Board Connectors



## I/O Connectors



MINIDOCK™ series

MINIFLEX® series EVAFLEX® series



## FPC/FFC Connectors



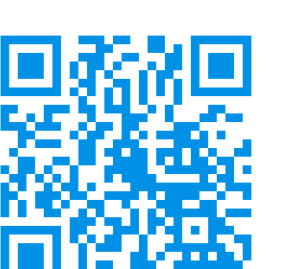
Inquiry



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Contact your sales representative or more detailed information.

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