

CABLIN[®]- UY

Low mating height (Height = 0.76 mm), Narrow pitch (0.35 mm pitch), Right angle vertical mating type micro-coaxial cable connector

Product Specifications:

Mating type	Right angle vertical	
Board Pitch (mm)	0.35	
Wiping Length (mm)	0.1	
Mated size (mm)	Height	0.76 +/- 0.06
	Width	Formula: 2.15 + (0.35 * ?p)
	Depth	3.10
Pin Counts	Range	Up to 25p
	Available	5, 10p

Applicable Cable Size:

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

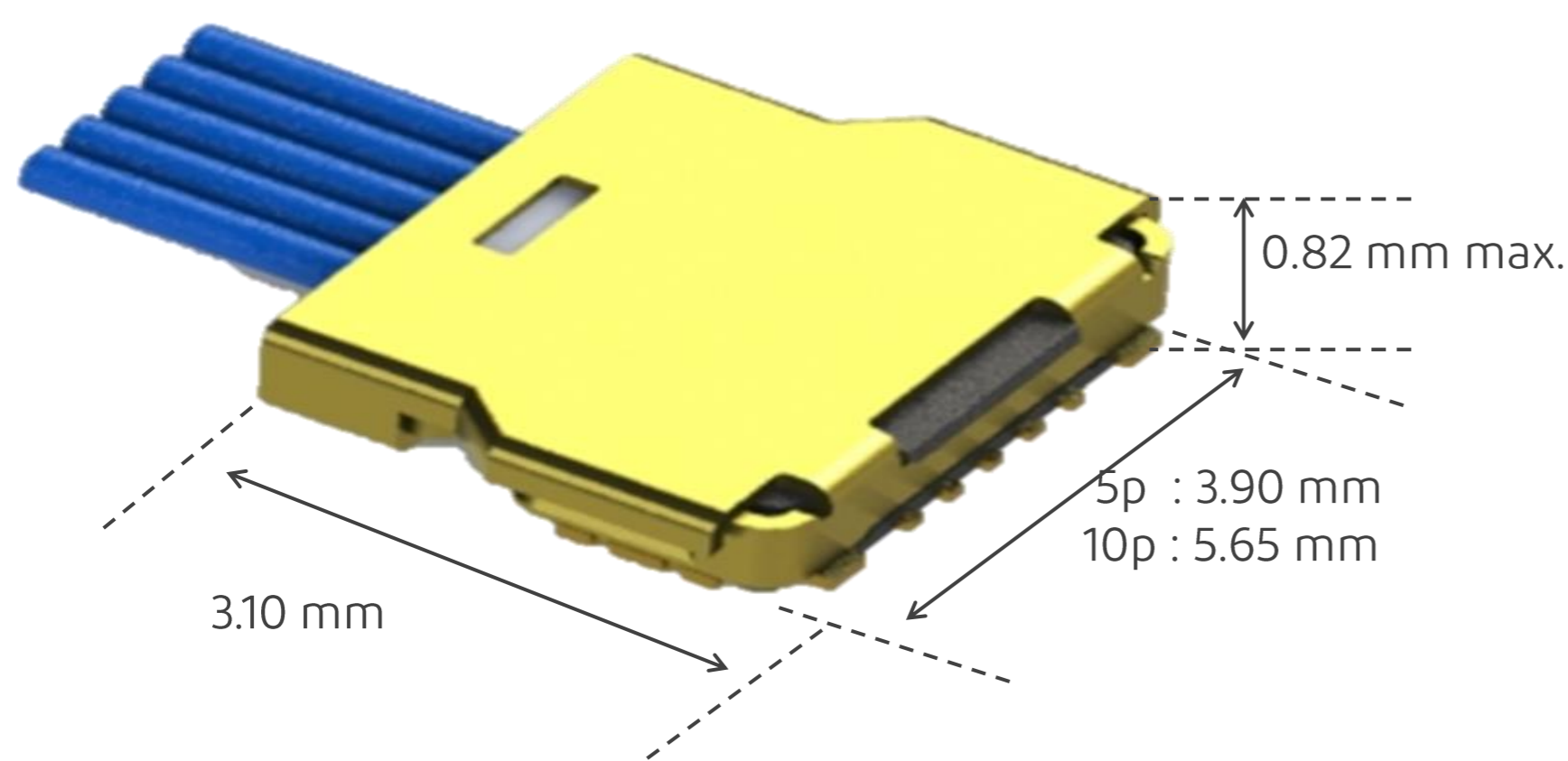
Applicable Standards (Reference Only):

USB4 Gen4 (40Gbps/Lane PAM3)
USB4 Gen3/ Thunderbolt 4 (20 Gbps/lane)
eDP HBR 3 (8.1 Gbps)

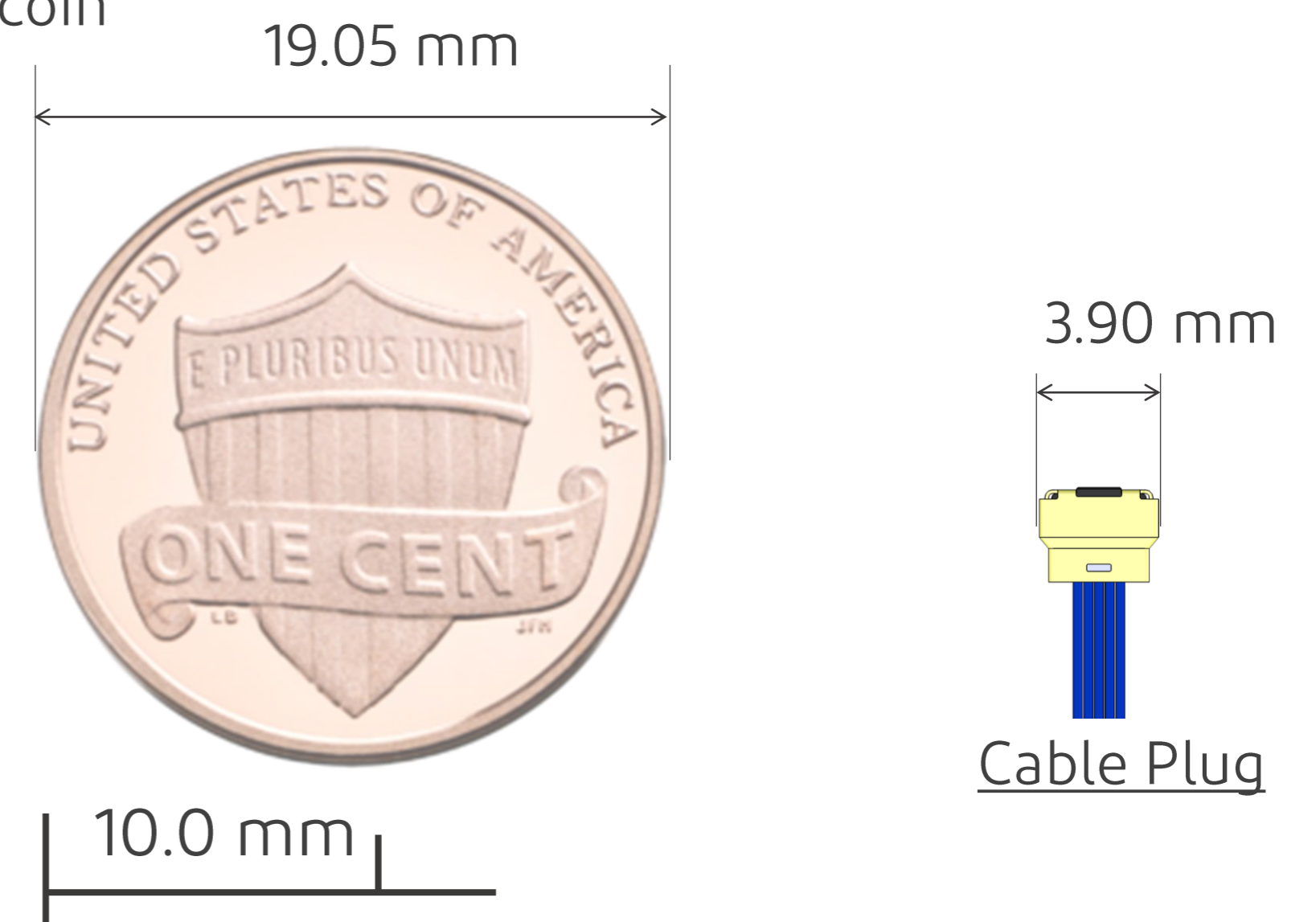


► Small, low height design, suitable for narrow spaces

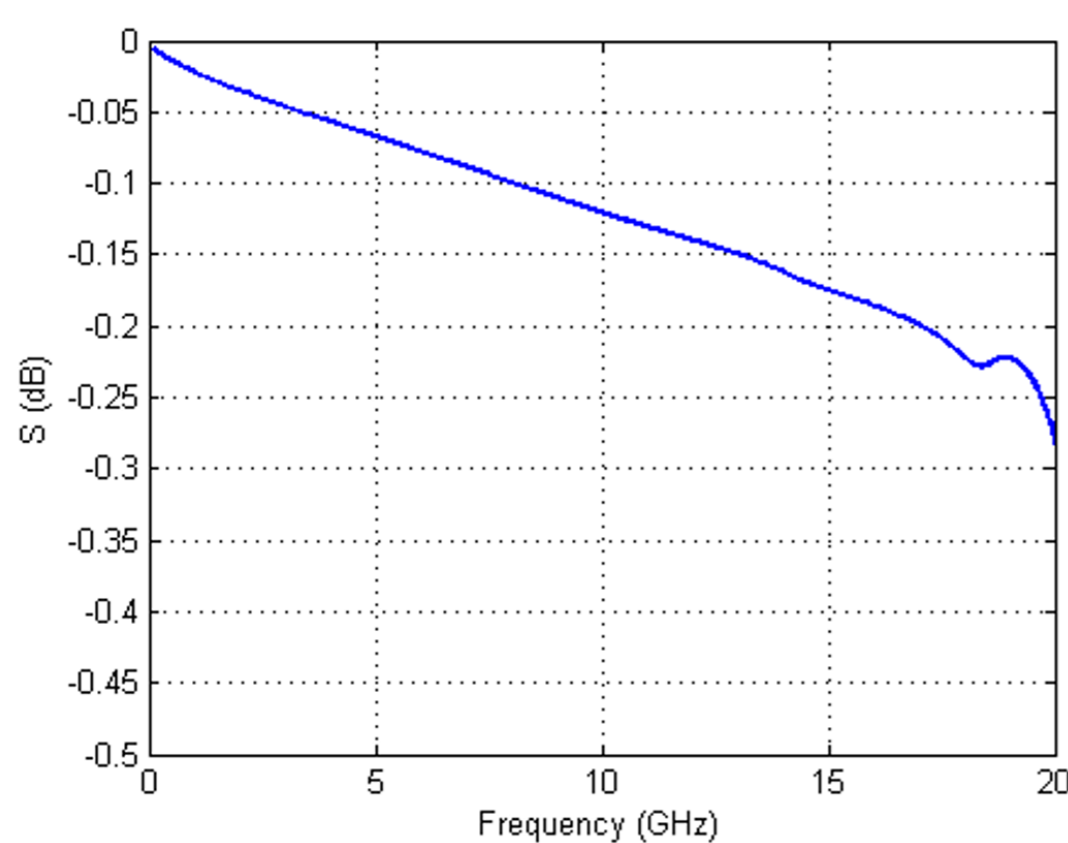
Connector mated size



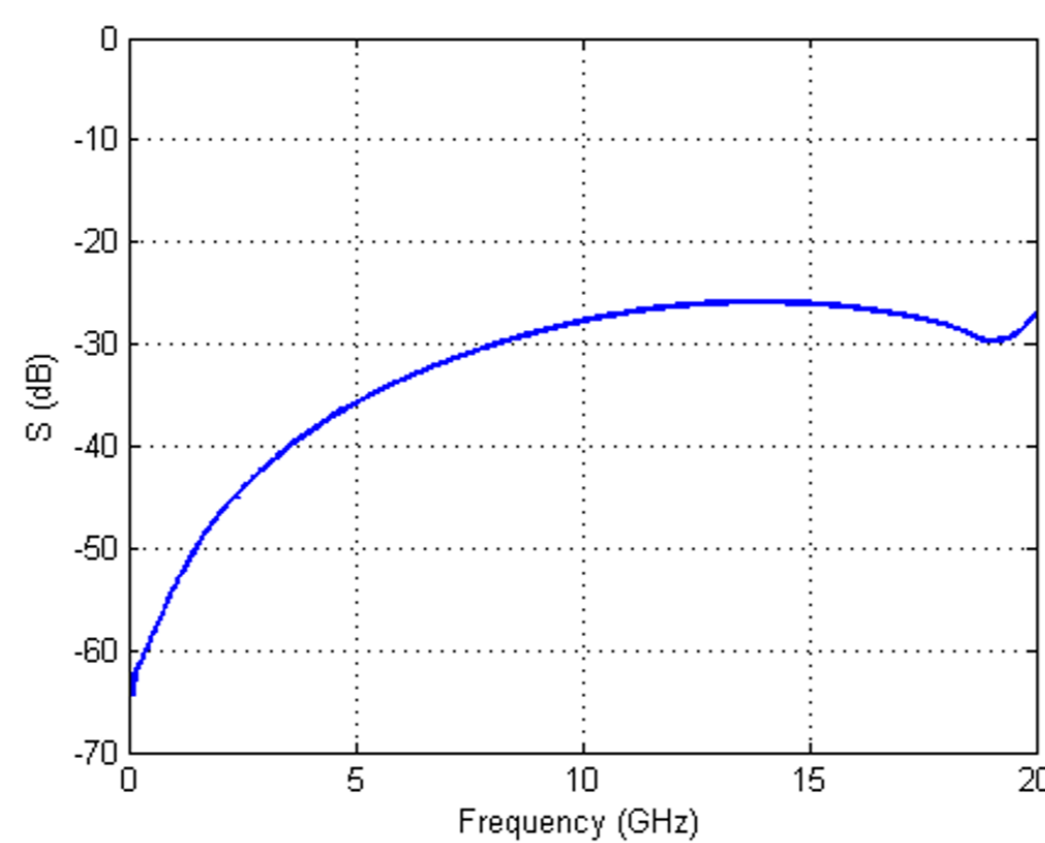
Size comparison image of 5p plug with a one-cent coin



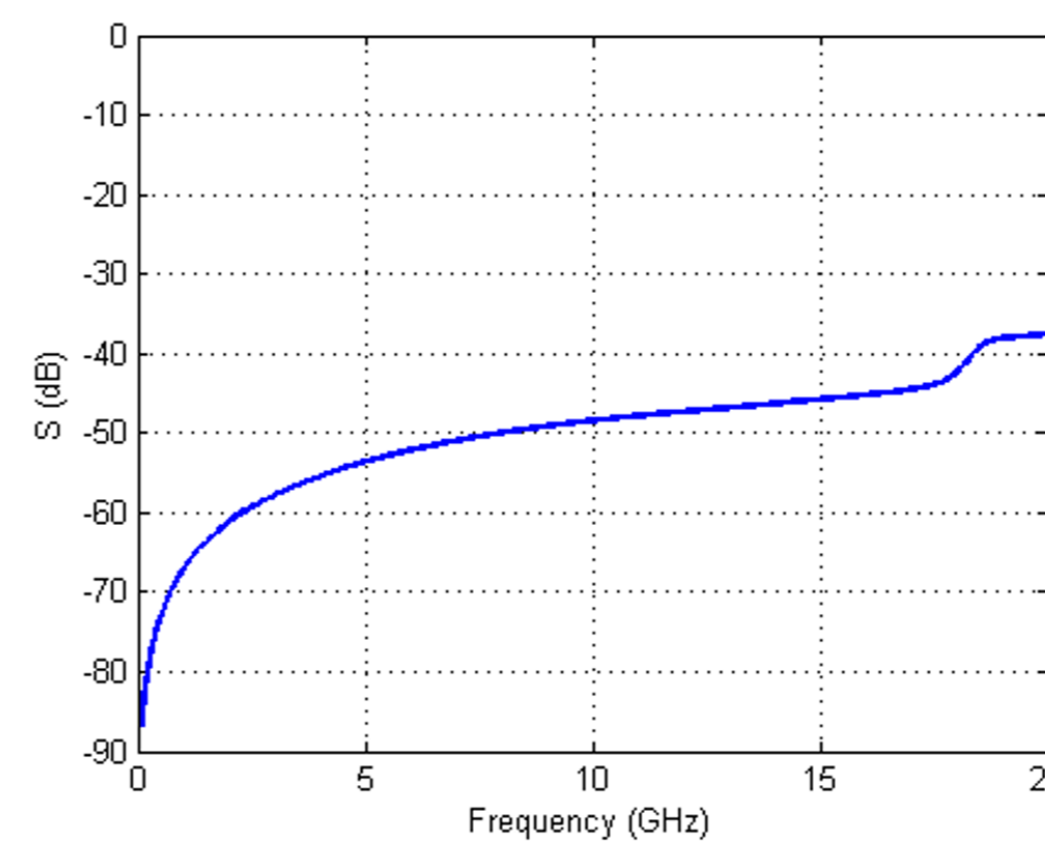
► Excellent differential SI performance(32Gbps/Lane)



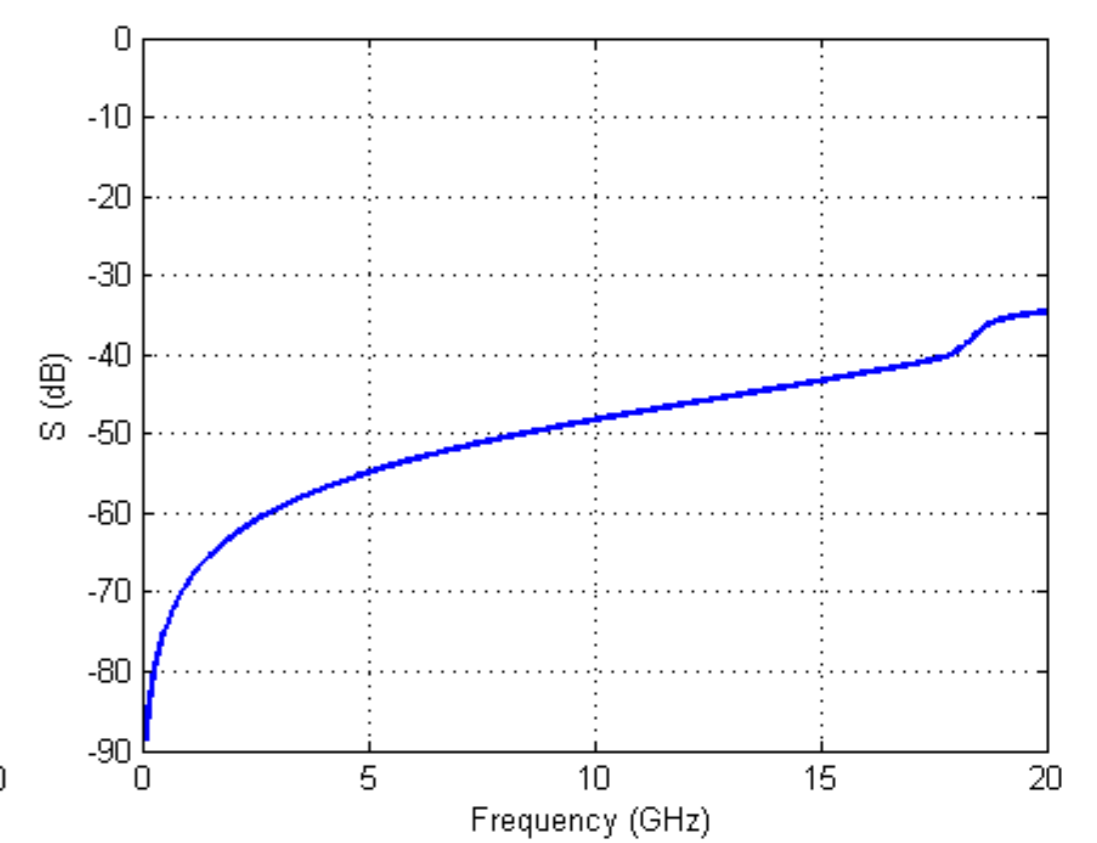
Insertion Loss



Return Loss



Near-End Crosstalk

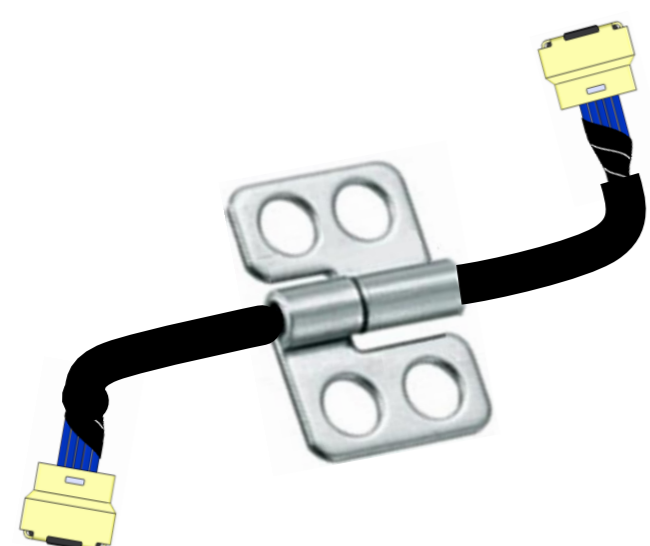


Far-End Crosstalk

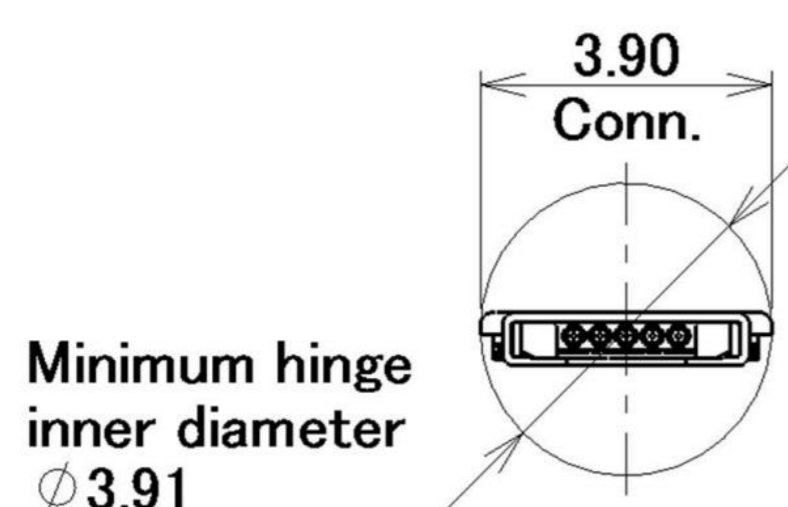
Simulation Software : ANSYS Electronics Desktop 2021 R1
Simulation Model : Cable plug mated to a receptacle
Frequency Range : 0.1 - 20 GHz

Data Format : Touchstone Data (.s8p)
Reference Impedance : 90 Ohms differential
Pin Assignment GSSGSSG

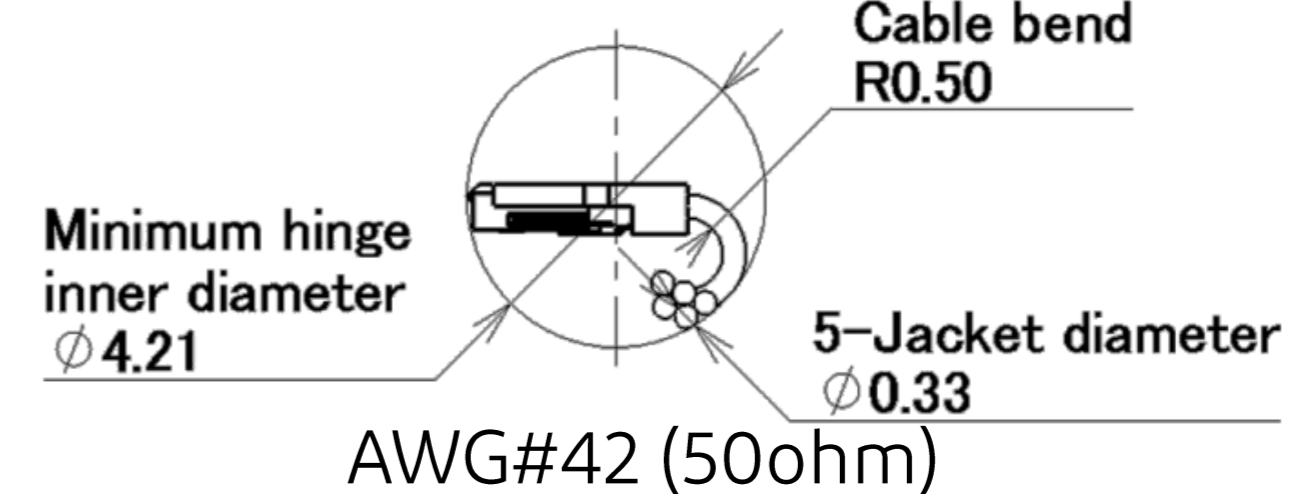
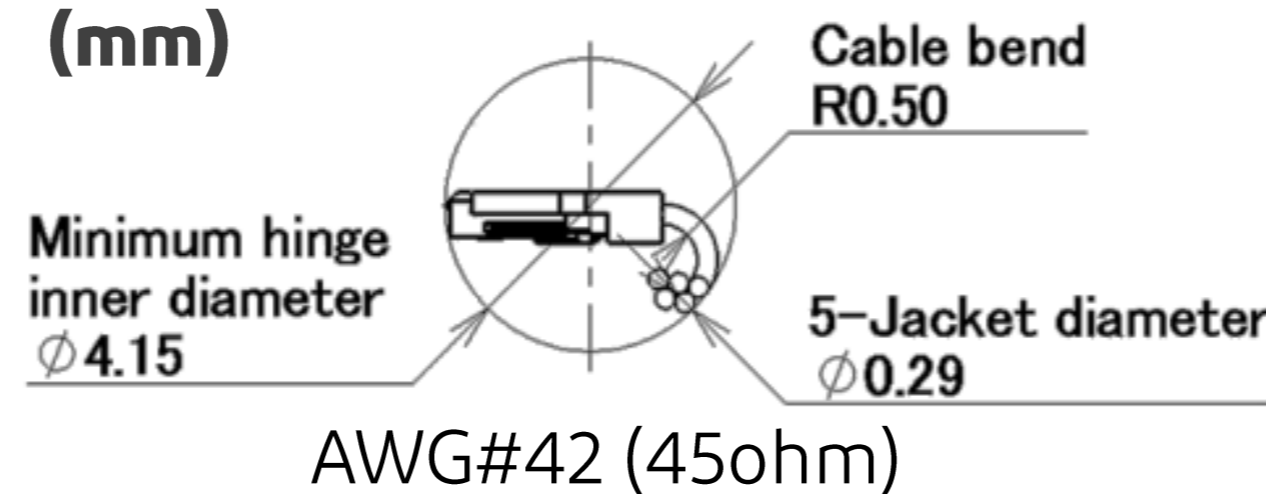
► Plug design able to go through small hinge after cable termination



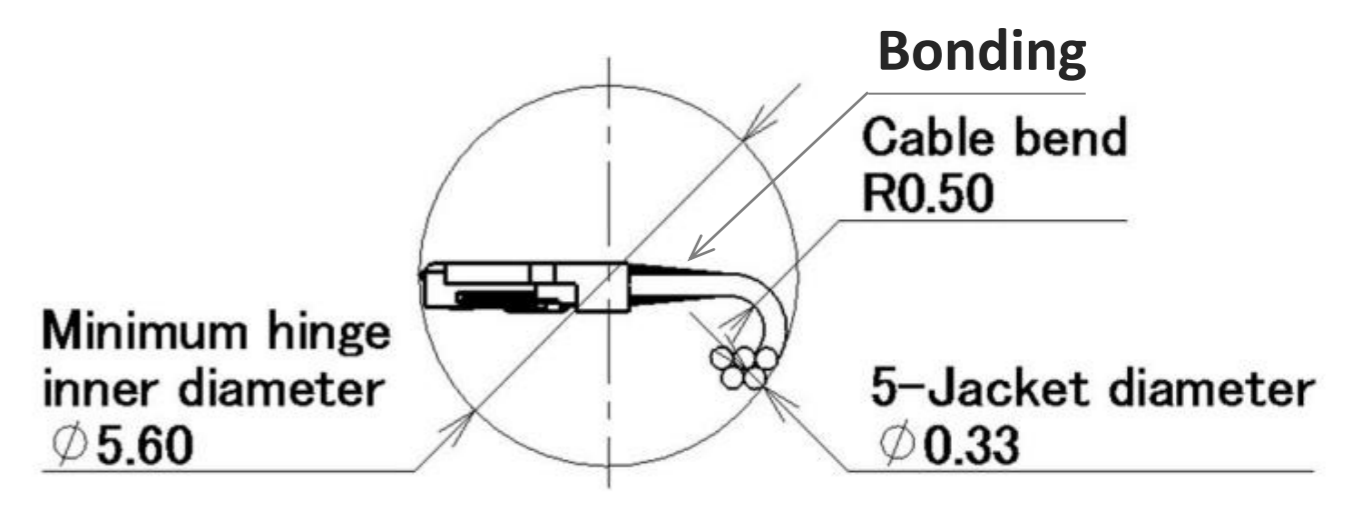
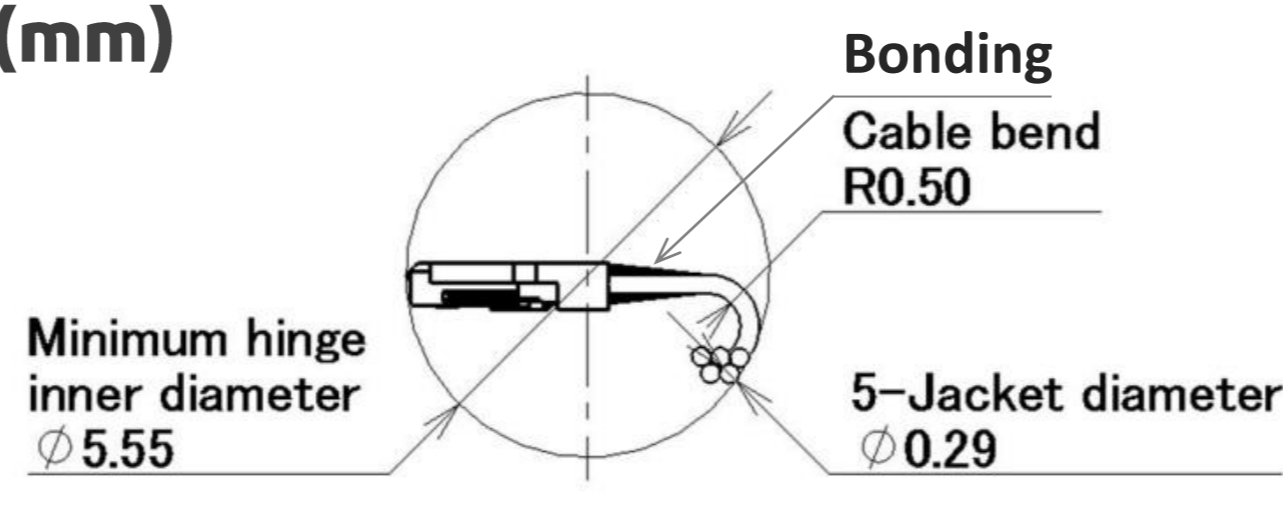
Simulation results (5P):
No need to bend the cable



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

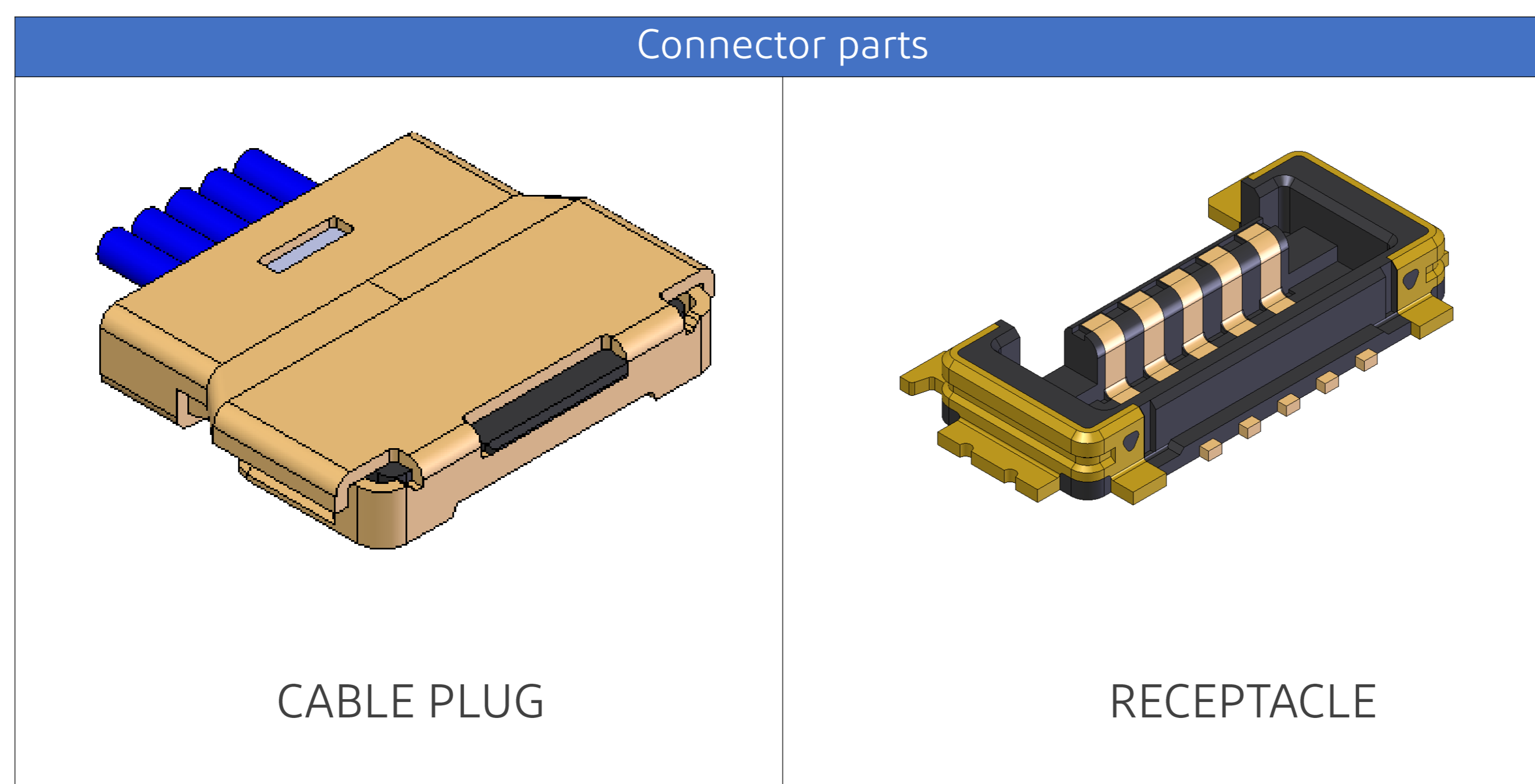


Simulation results (more than 5P): Minimum hinge inner diameter with bonding (mm)



Component Parts Details

Component Parts

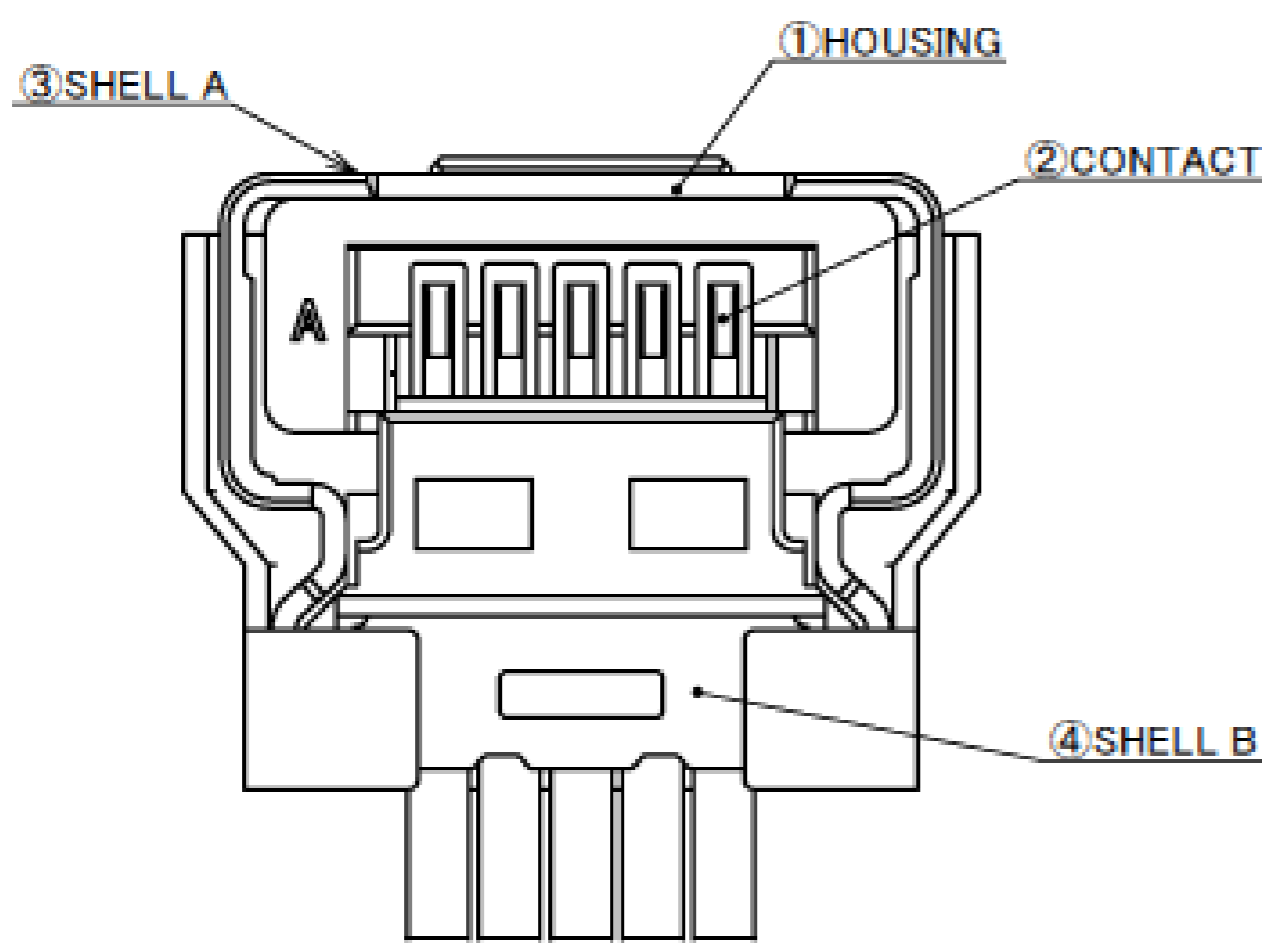
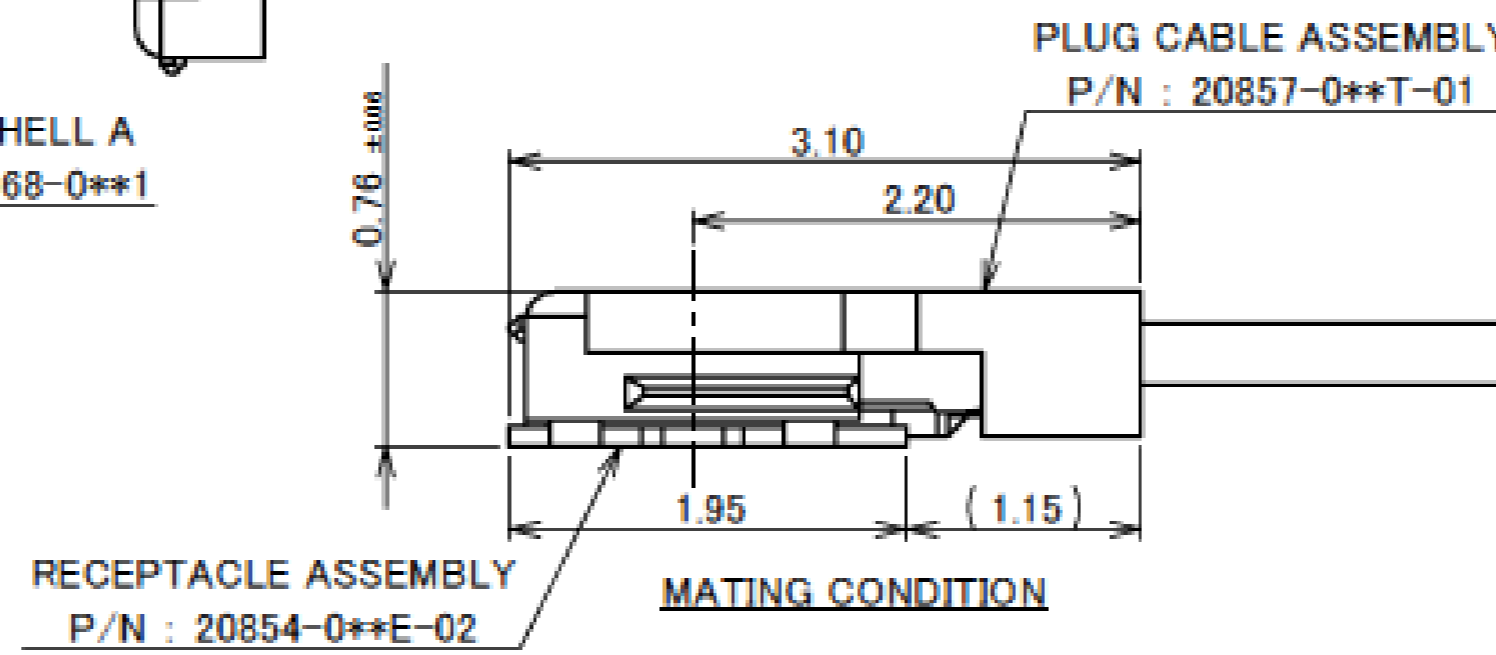
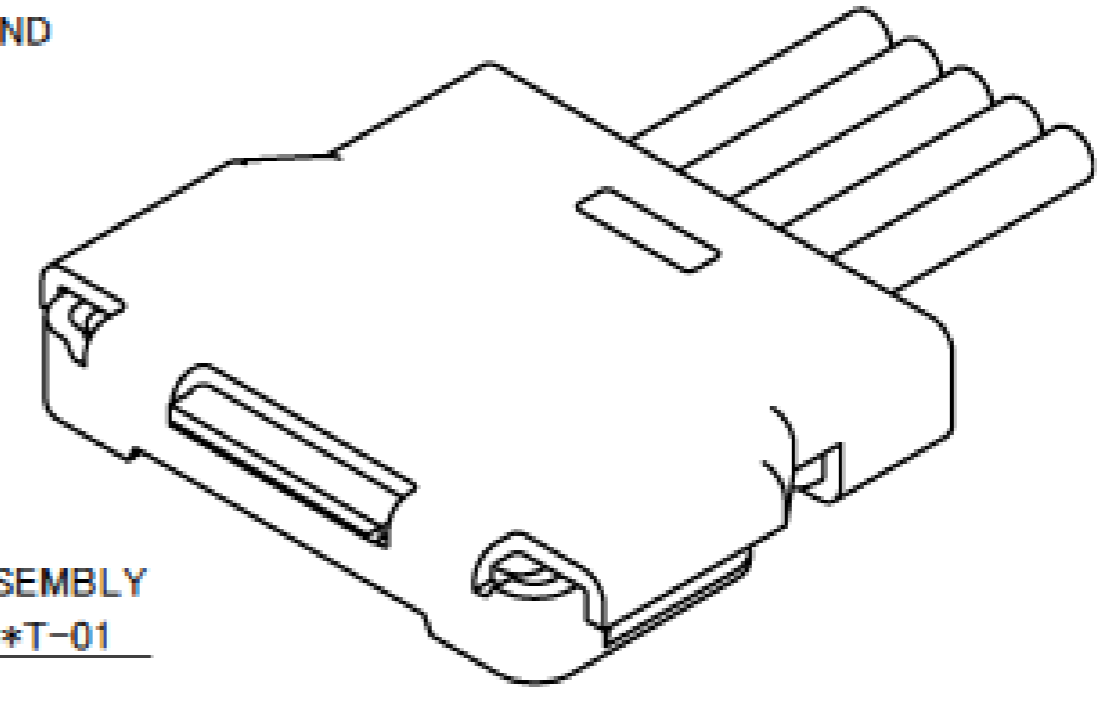
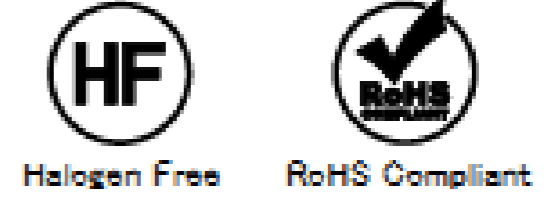
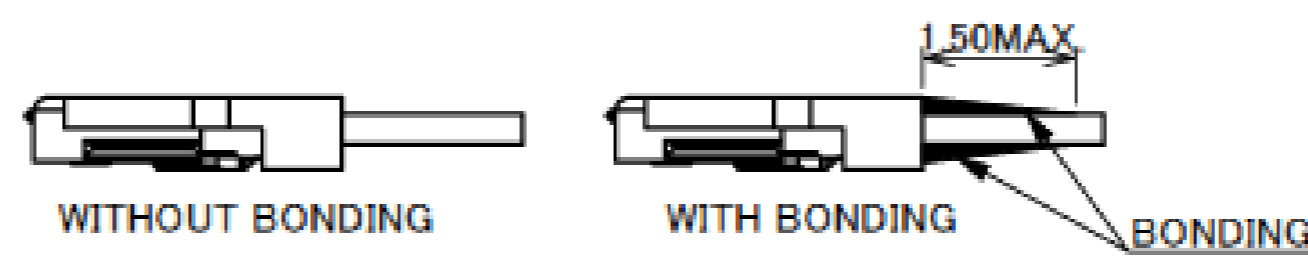
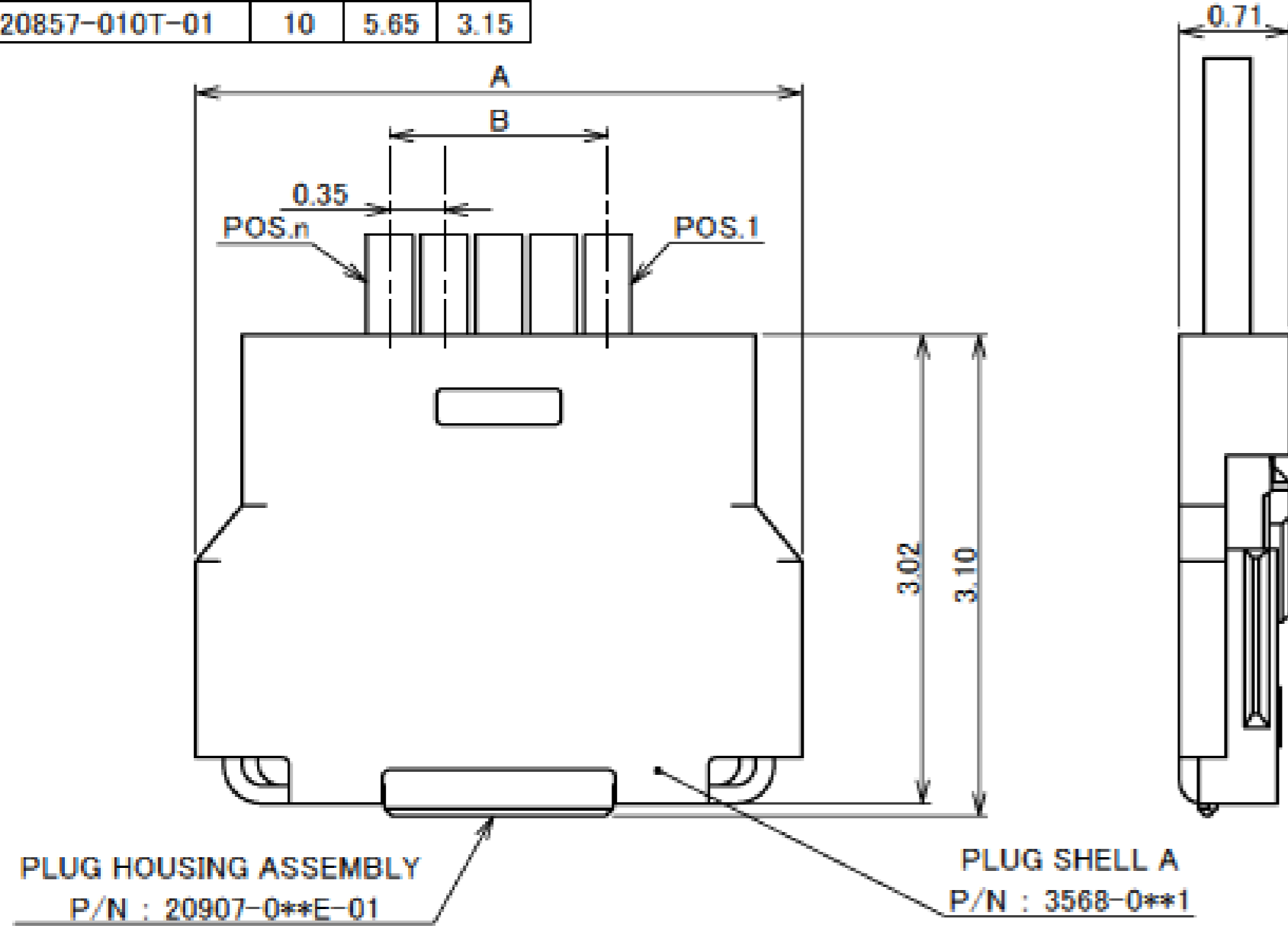


Plug for Cable Assembly

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

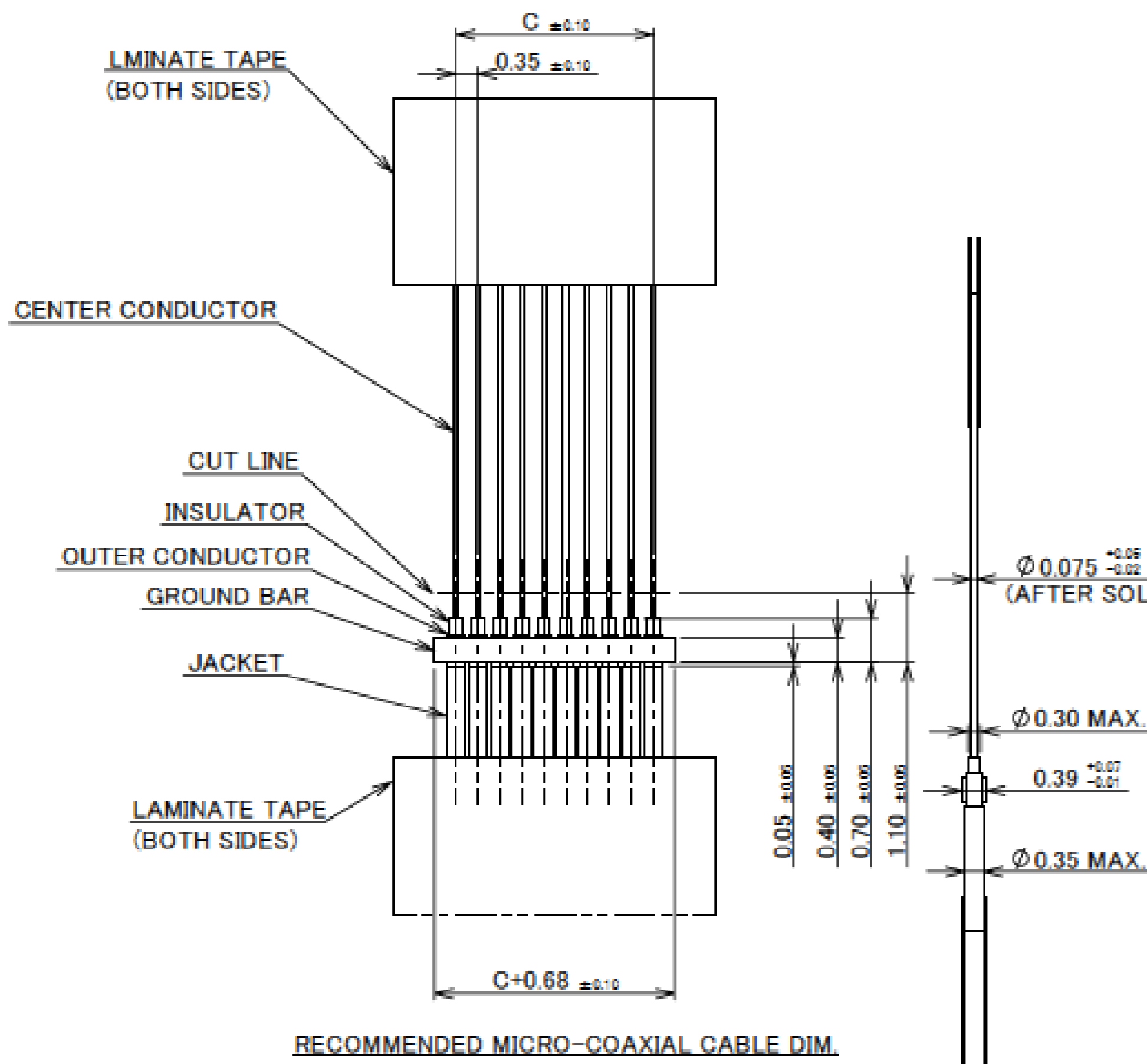
PART COMBINATION TABLE			
PLUG CABLE ASSEMBLY	PLUG HOUSING ASSEMBLY	PLUG SHELL A	RECEPTACLE ASSEMBLY
20857-005T-01	20907-005E-01	3568-0051	20854-005E-02
20857-010T-01	20907-010E-01	3568-0101	20854-010E-02



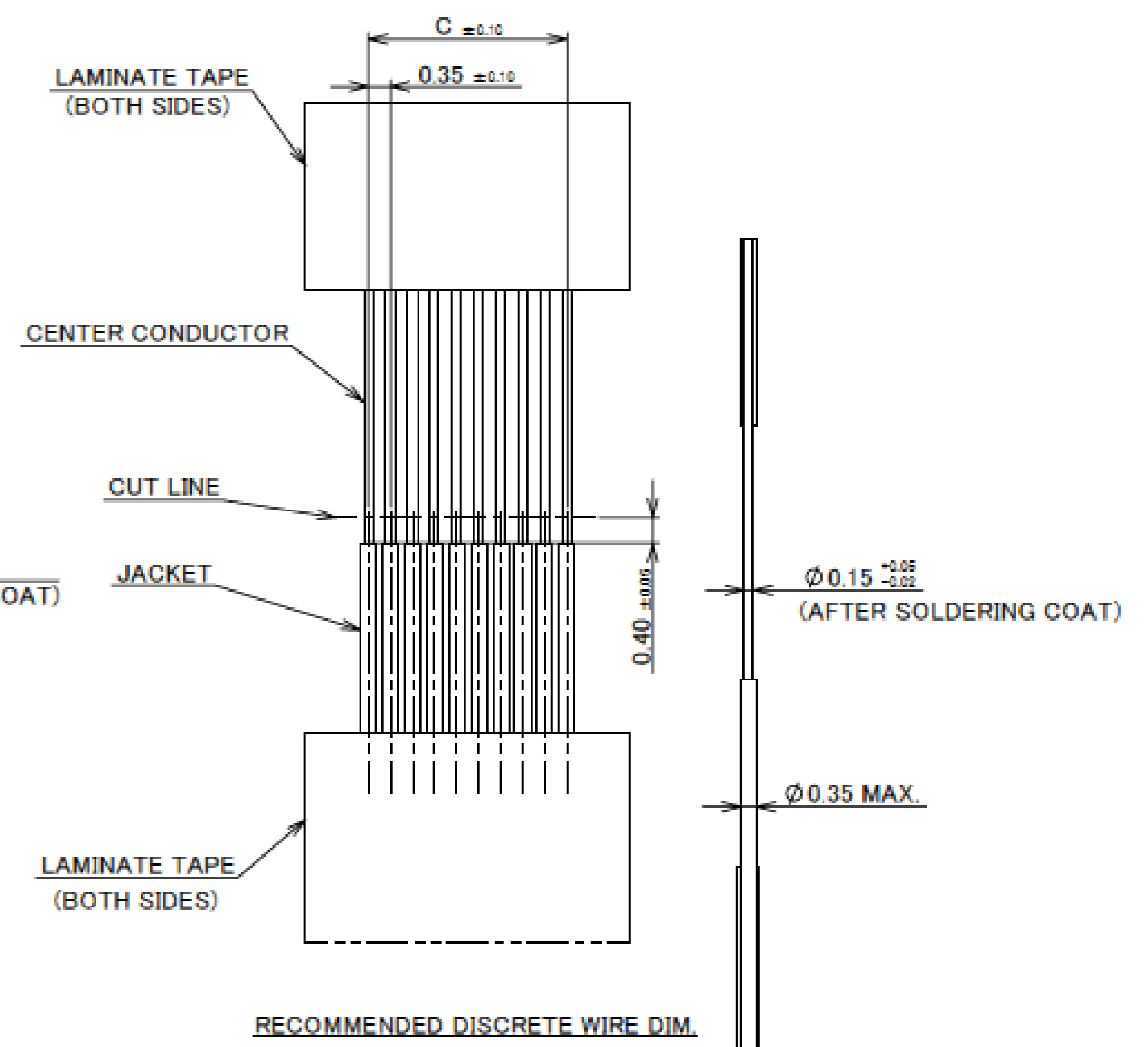
NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
4	SHELL B	SUS	Au 0.02 μm MIN. OVER Ni 1.00 μm MIN.
3	SHELL A	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT PART Au 0.02 μm MIN. SOLDERING PART Au 0.02 μm MIN.
2	CONTACT	CORSON ALLOY	ALL OVER Ni 1.00 μm MIN. CONTACT PART Au 0.02 μm MIN. SOLDERING PART Au 0.02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

Rev.5

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



MICRO-COAXIAL CABLE AWG# 42



DISCRETE WIRE AWG# 36

Rev.5

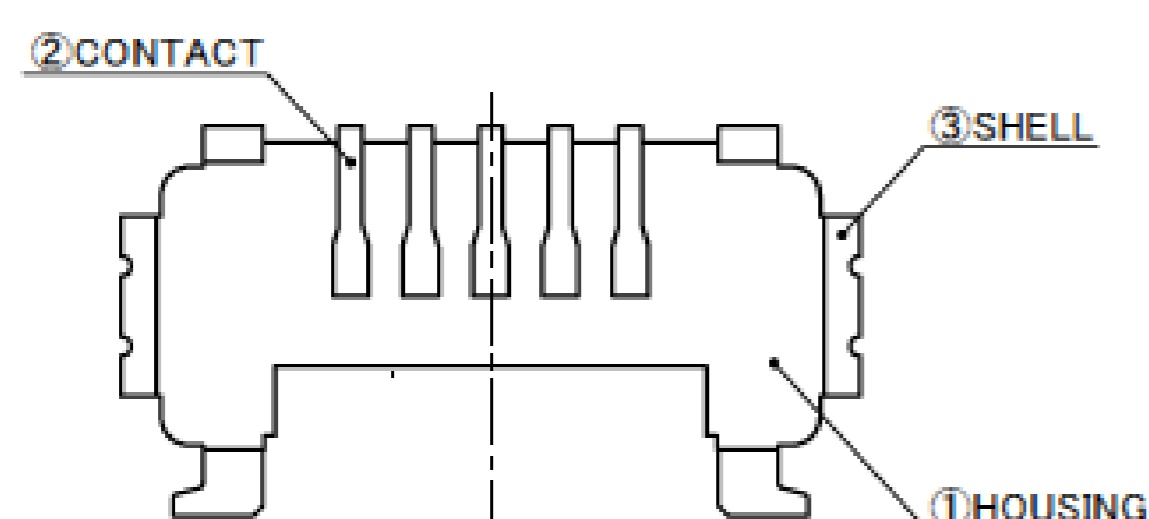
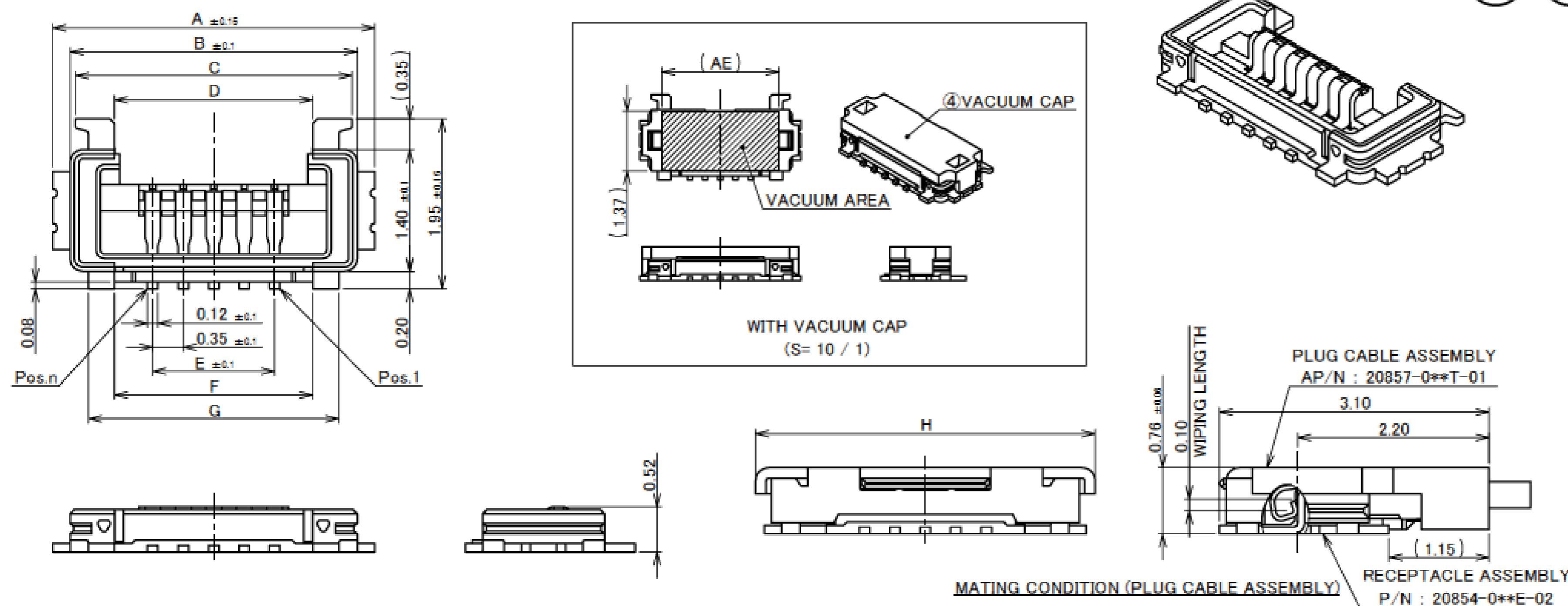
Plug for Cable Assembly

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG# 42 DISCRETE WIRE : AWG# 36
RATING VOLTAGE	60V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR CONTACT)	0.35 AC/DC[AWG# 42] 0.5 AC/DC[AWG# 36]
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 700mohm MAX.(AWG# 42) / AFTER TEST : \angle R 40mohm MAX. 275mohm MAX.(AWG# 36)
GROUND SHELL RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : \angle 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.5

Receptacle Assembly

Recommended P/N	20854-0**E-02										
PART NO	Pos	A	B	C	D	E	F	G	H	J	AF
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



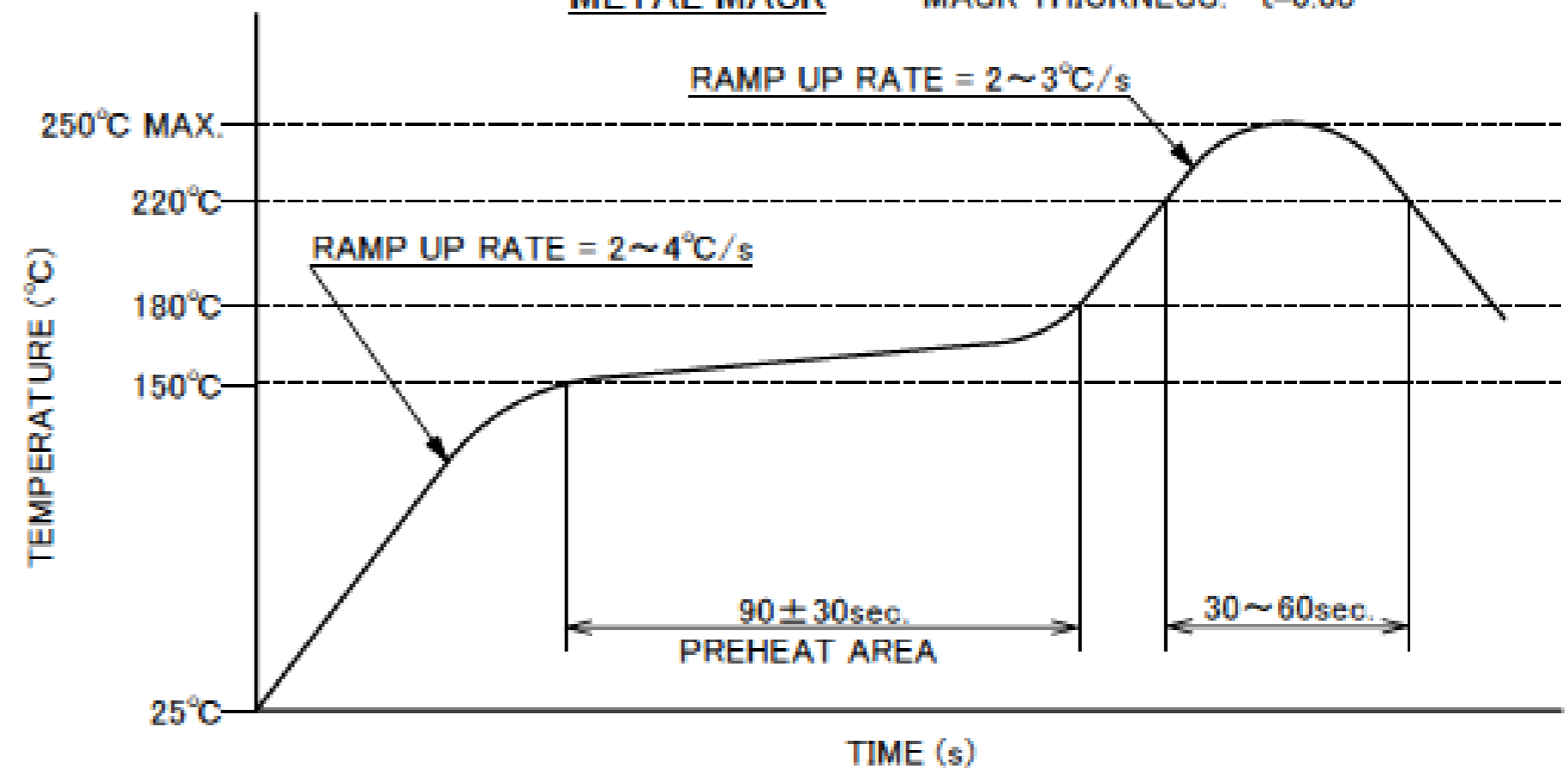
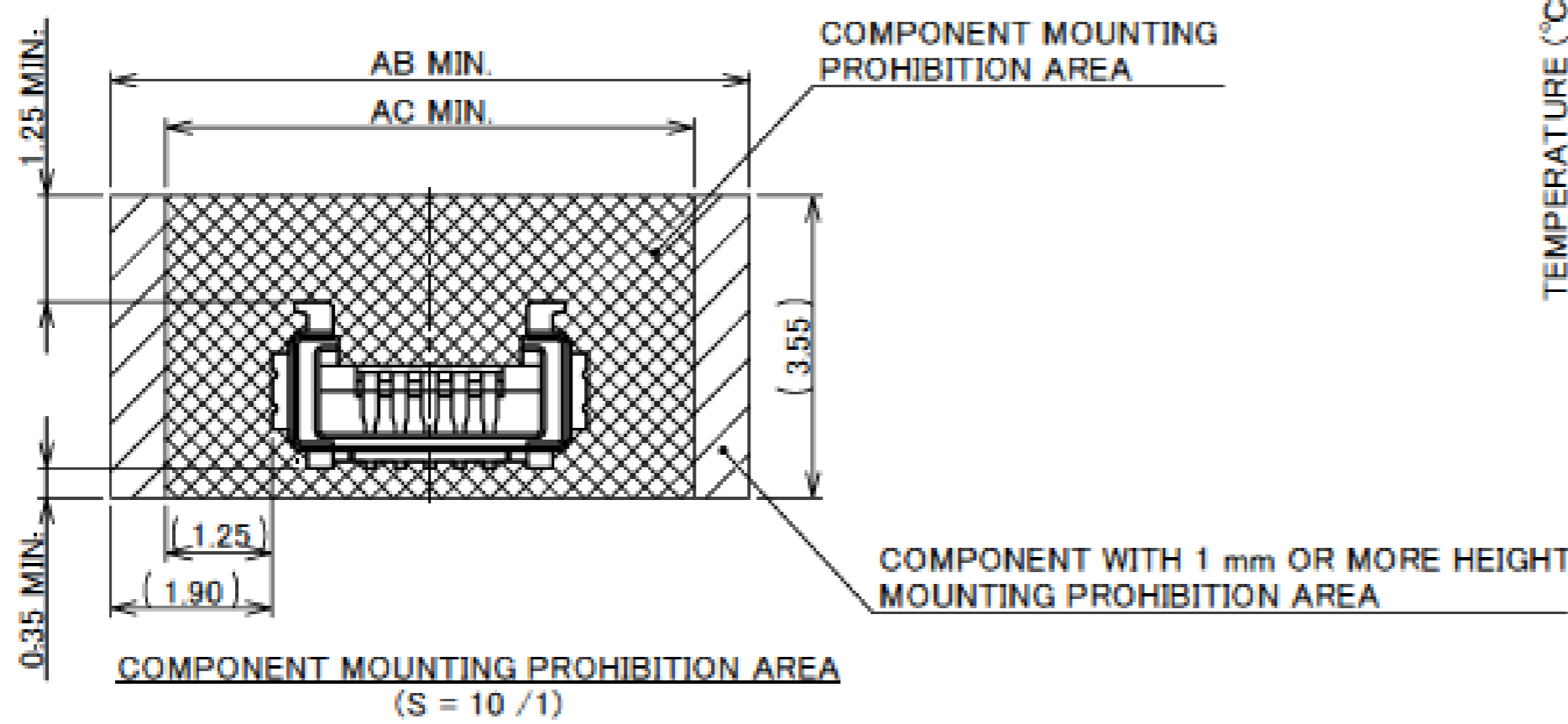
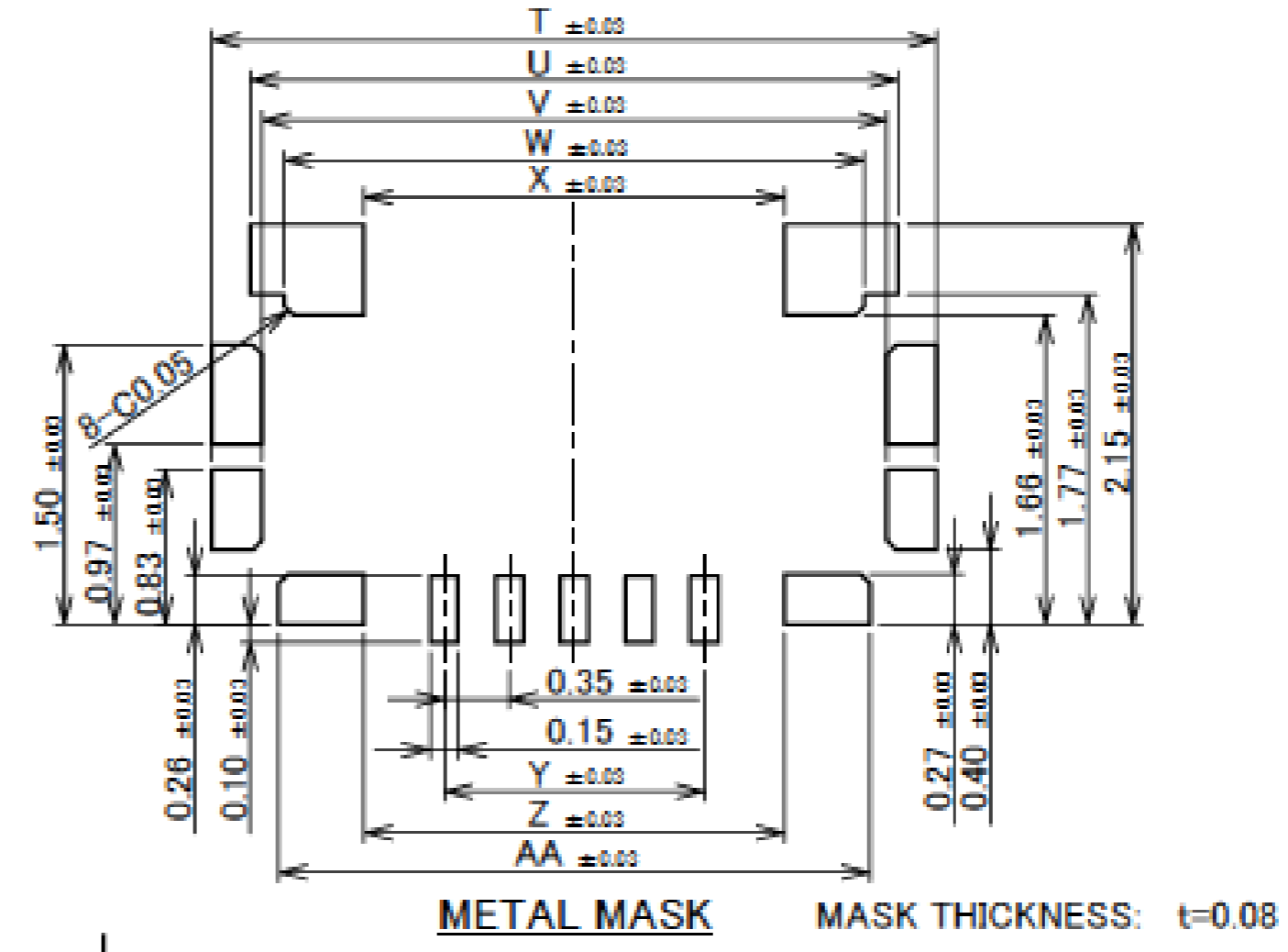
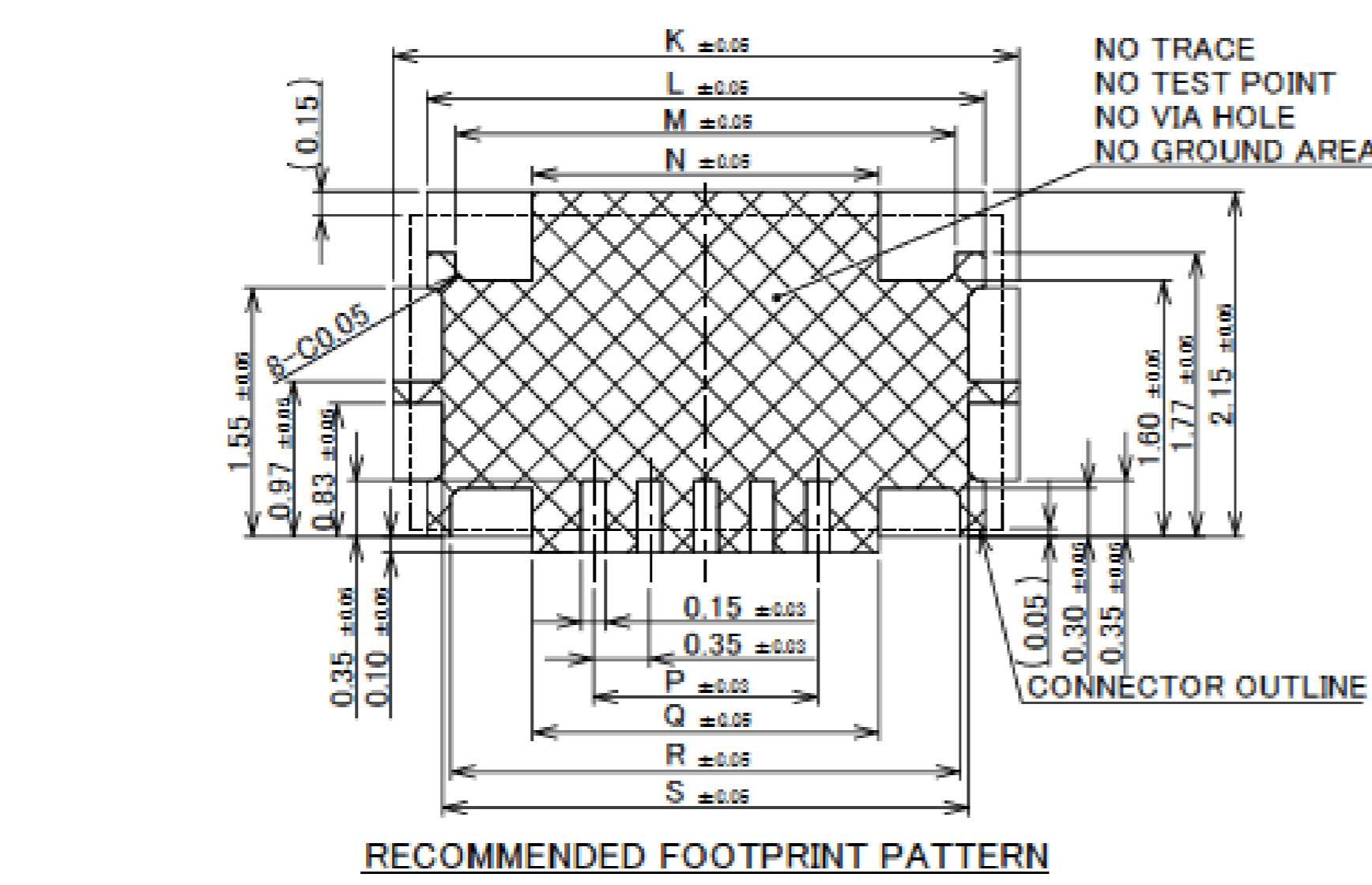
NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
4	VACUUM CAP	LCP	UL94V-0, BLACK
3	SHELL	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN. CONTACT PART: Au 0.01 μ m MIN. SOLDERING PART: Au 0.01 μ m MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN. CONTACT PART: Au 0.05 μ m MIN. SOLDERING PART: Au 0.03 μ m MIN.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

NOTE:
1. COPLANARITY: 0.08mm MAX.

Rev.6

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



ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20857-0**T-01 (PLUG CABLE ASSEMBLY)
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG# 42 DISCRETE WIRE : AWG# 36
RATING VOLTAGE	60V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR CONTACT)	0.35 AC/DC [AWG#42] PER CONTACT PIN 0.50 AC/DC [AWG#36] PER CONTACT PIN
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 700mohm MAX.(AWG#42) 275mohm MAX.(AWG#36) / AFTER TEST : Δ R 40mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : Δ 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.6

Rev.6

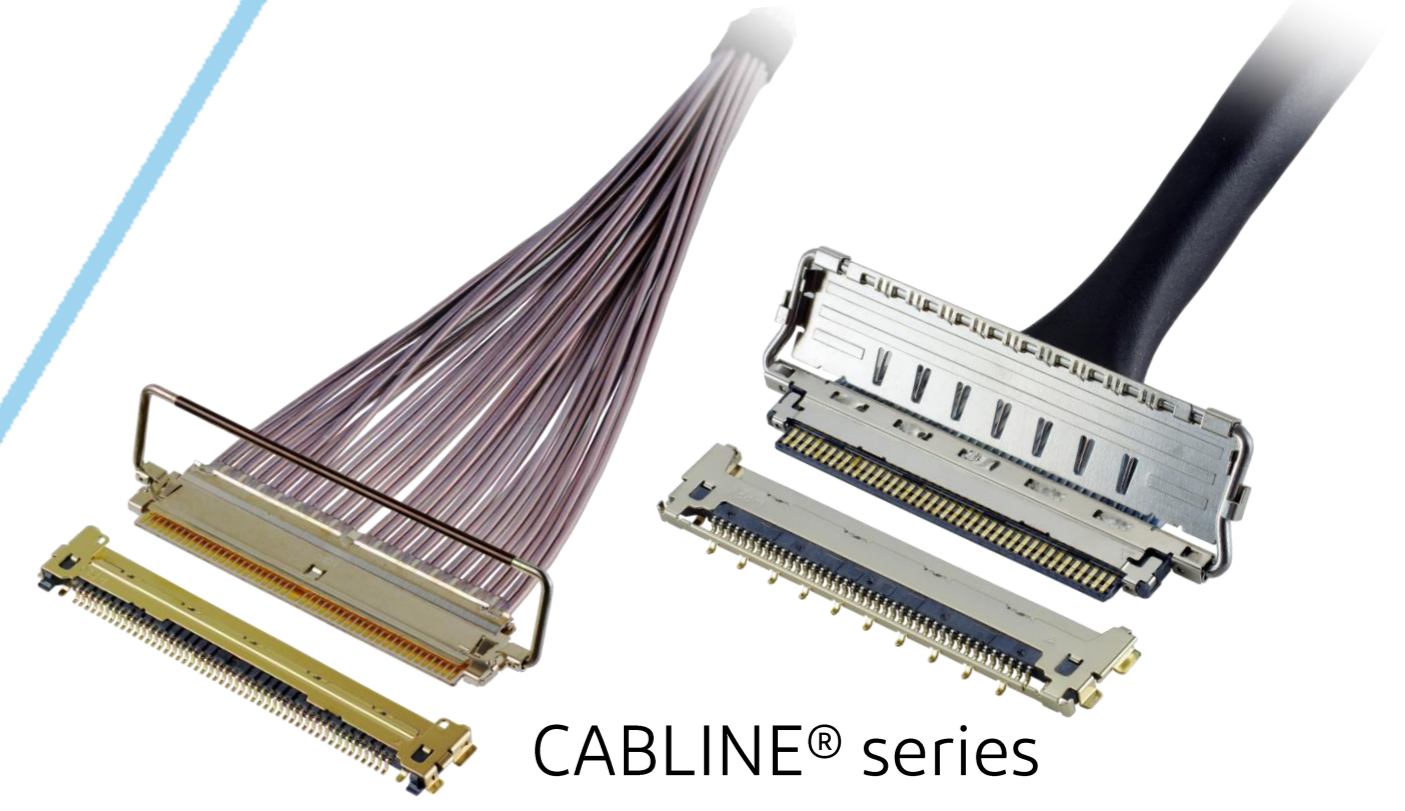
Custom Connectors Available

RF Connector

MHF® series



Micro-coaxial/Twinax/ Discrete Wire Connector



CABLINE® series

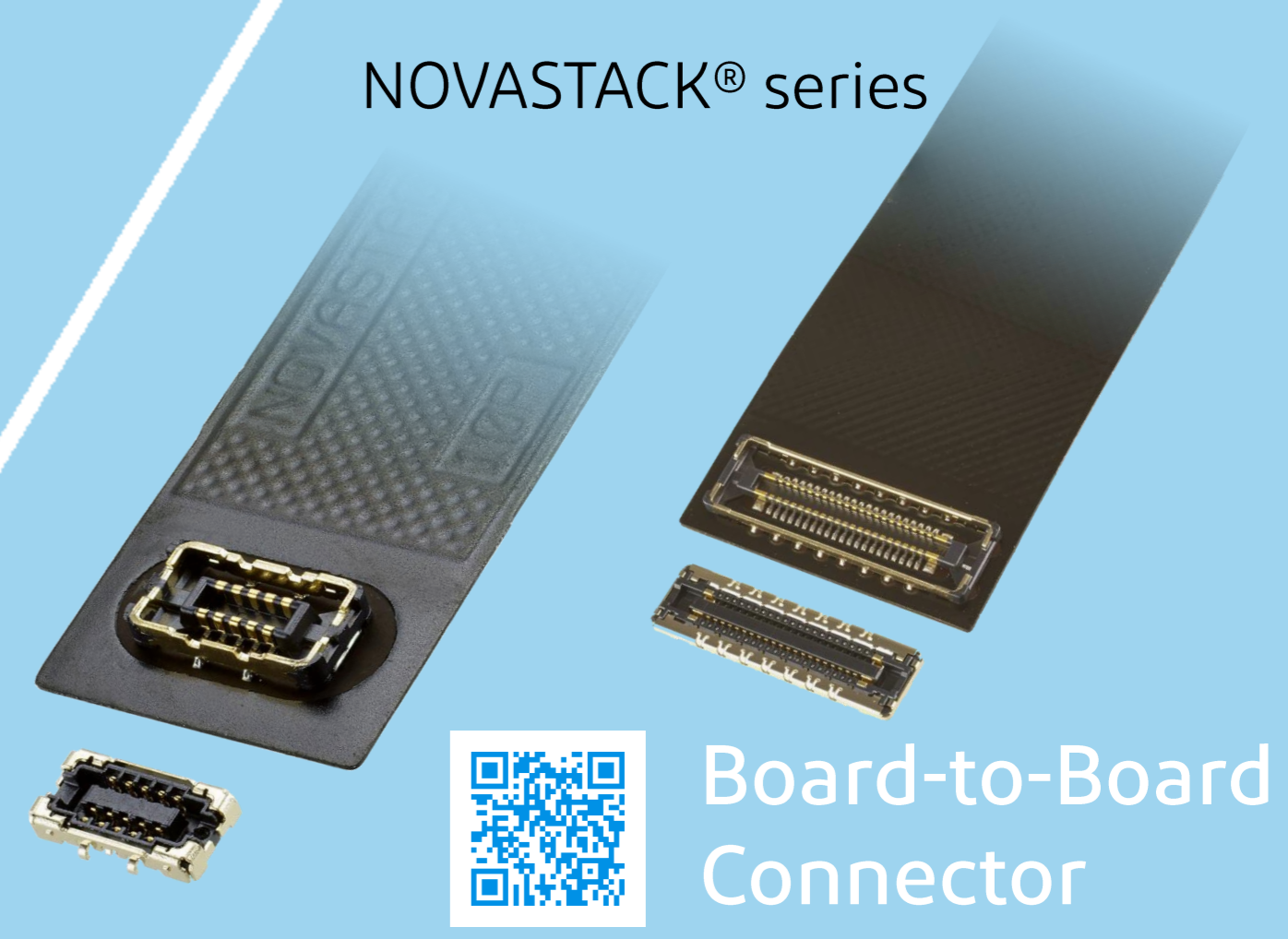


Optical Module

LIGHTPASS® series



NOVASTACK® series



Board-to-Board Connector



Power Connector/ Terminal

AP series

ISH® series



MINIFLEX® series

EVAFLEX® series



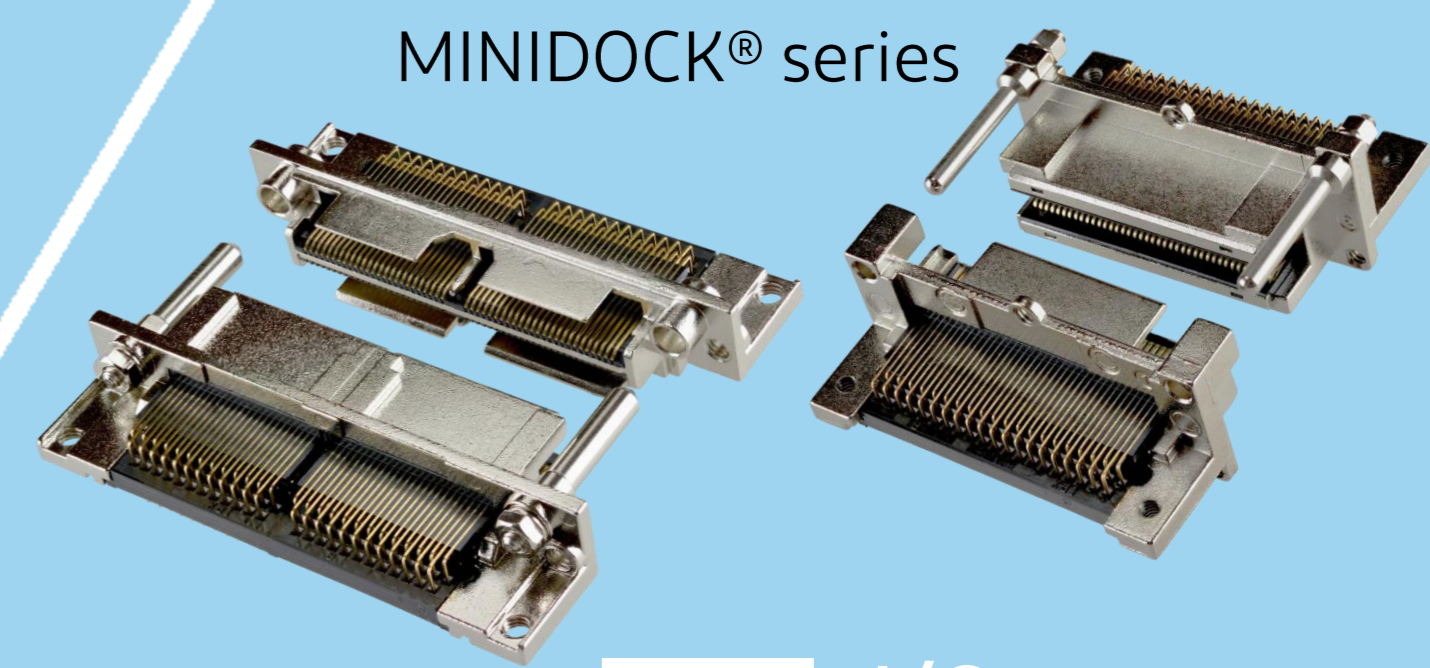
FPC FFC Connector



Inquiry



MINIDOCK® series



I/O Connector

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