

MINIFLEX® 3-BFN L-LK-HD

0.3 mm pitch, 0.9 mm height, equipped with hold-down, mechanical lock, horizontal mating, backflip FPC connector

Product Specifications:

Contact Pitch		0.3 mm
Board Pitch		0.6 mm
Contact Mating Length		Contact A: 0.9 mm
		Contact B: 0.45 mm
Mated Size	Height	0.9 +/- 0.1 mm
	Width	2.7 + (0.3 x pin count) mm
	Depth	Open: 2.55 mm
		Close: 3.5 mm
Available Pin Count *		11, 40, 45

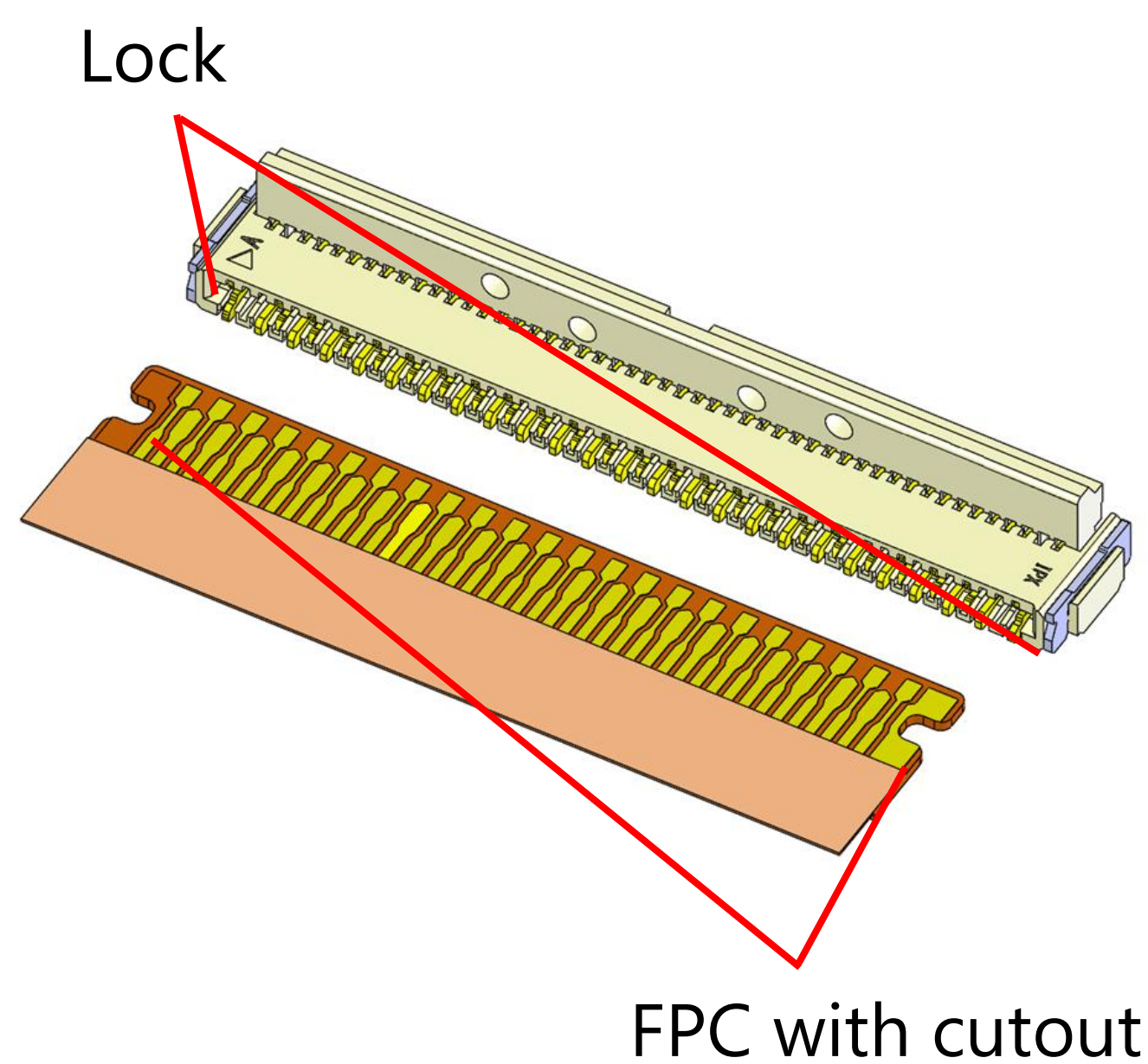
* Please inquire for pin counts not listed or outside of the pin count range.

Applicable FPC/FFC:

FPC/FFC Contact Pitch	0.3 mm
FPC/FFC Contact Point	Top and Bottom
FPC/FFC Thickness	0.2 +/- 0.03 mm



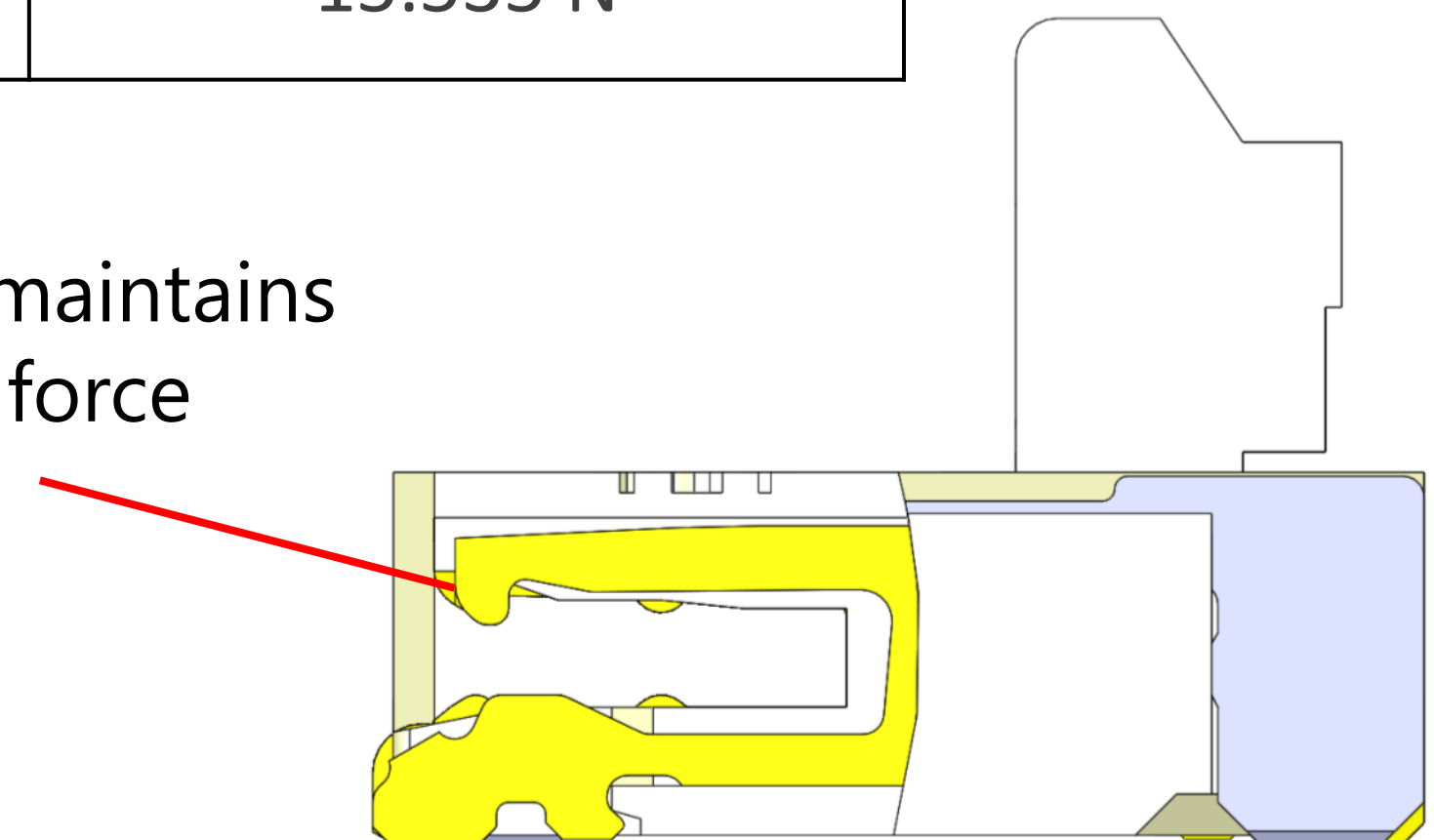
► High FPC retention force with additional mechanical lock



FPC retention force comparison (45 pin)

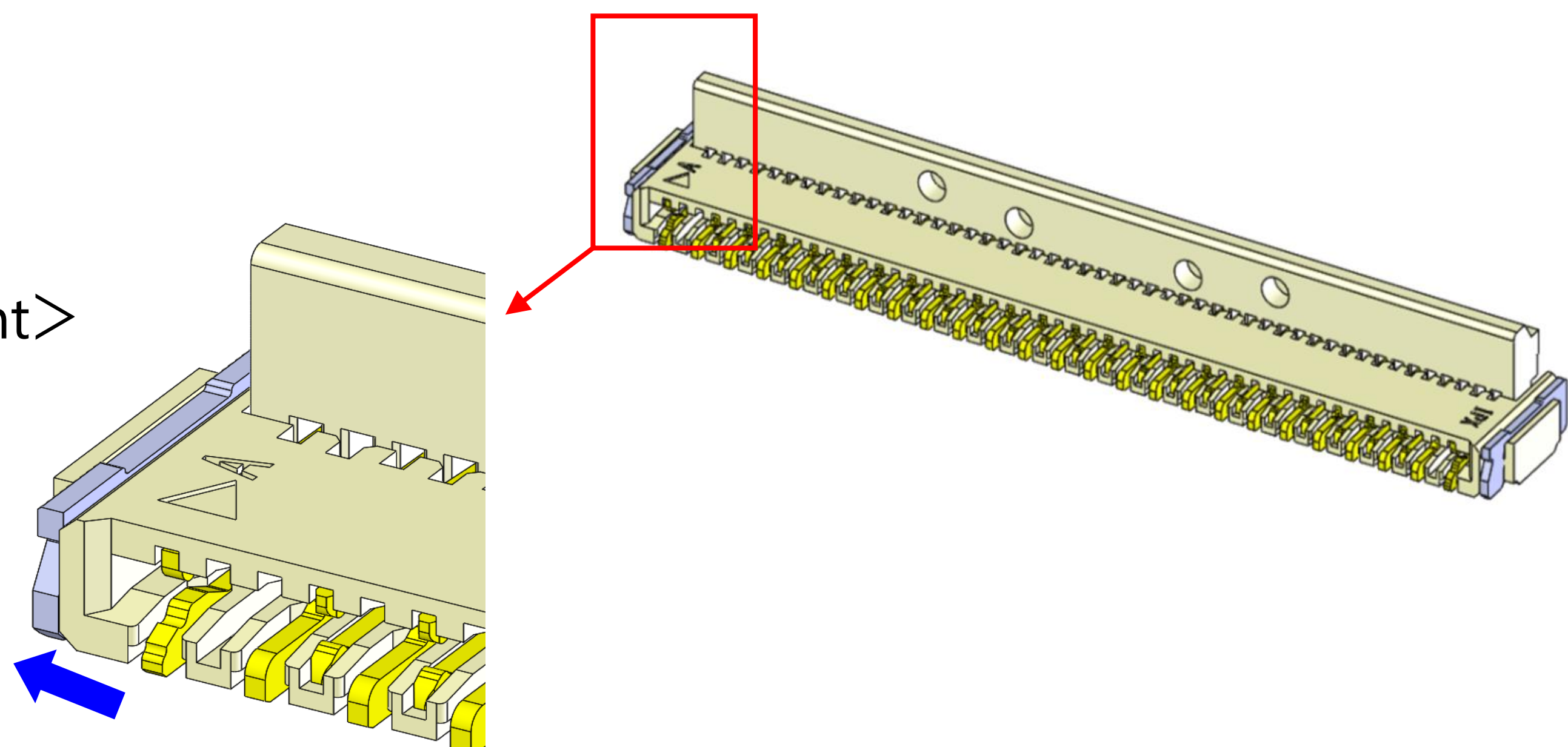
MINIFLEX® 3-BFN L-LK-HD	MINIFLEX® 3-BFN Long
20.710 N	15.535 N

FPC LOCK mechanism maintains high FPC retention force



► Hold down feature improves strength of side wall

<Strength improvement>

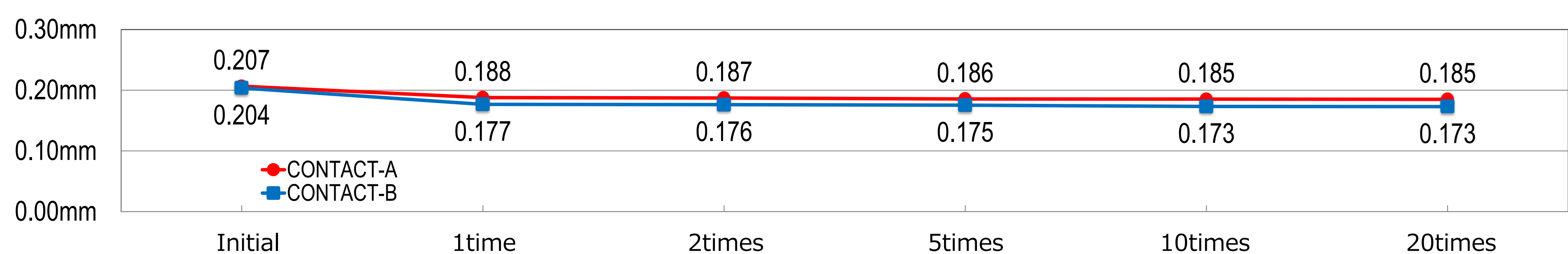


► Usability for closing actuator without FPC

The connector will still function even if the actuator is accidentally closed without the FPC being inserted after the SMT process

- Connector will still function reliably

(Contact gap graph MINIFLEX® 3-BFN L-HD 51 pins before and after operating actuator without FPC inserted)



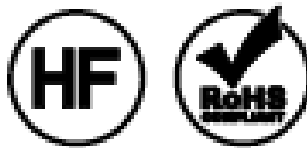
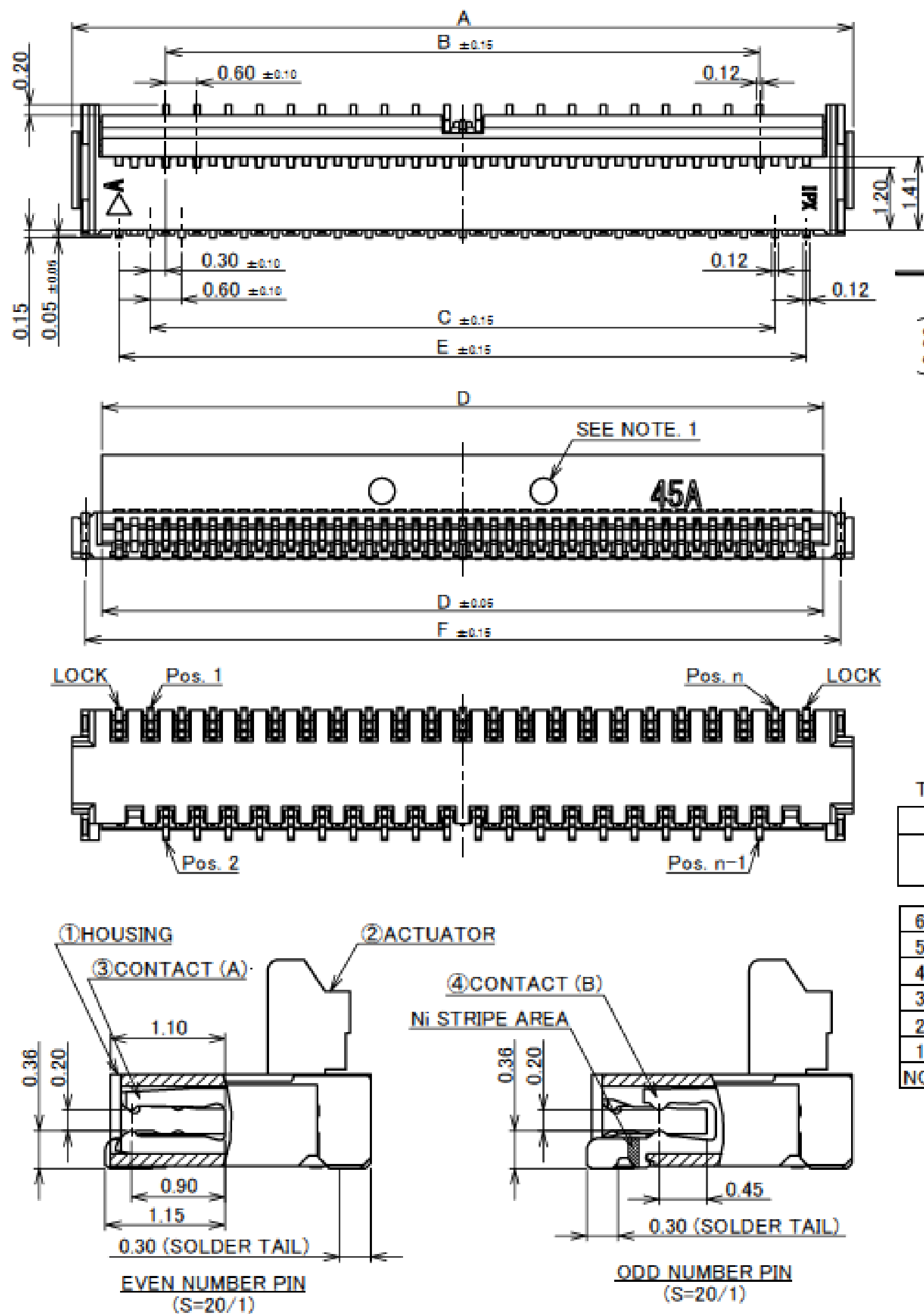
- Insertion force of connector goes up
- Retention force of connector does not change greatly

Component Parts Details

Connector Assembly

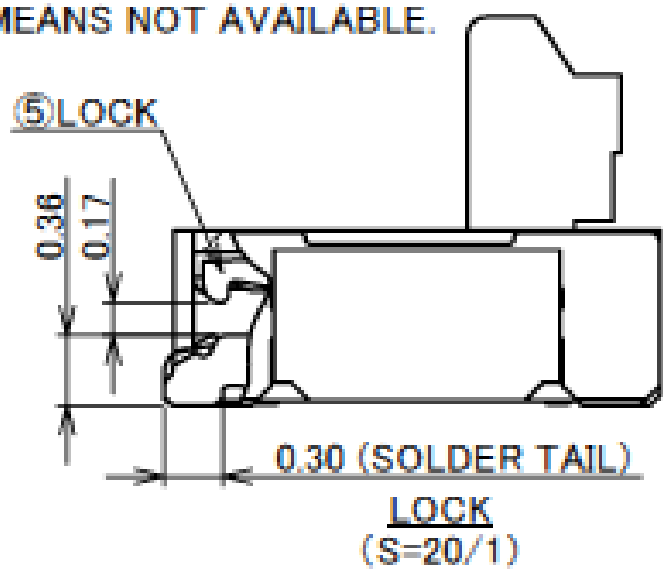
Recommended P/N 20655-0**E-01

ODD NUMBER POS.



PART NO.	Pos.	A	B	C	D	E	F
20655-011E-01	11P	6.00	2.40	3.00	4.85	4.20	5.50
◆ 20655-029E-01	29P	11.40	7.80	8.40	10.25	9.60	10.90
◆ 20655-031E-01	31P	12.00	8.40	9.00	10.85	10.20	11.50
◆ 20655-035E-01	35P	13.20	9.60	10.20	12.05	11.40	12.70
◆ 20655-037E-01	37P	13.80	10.20	10.80	12.65	12.00	13.30
◆ 20655-041E-01	41P	15.00	11.40	12.00	13.85	13.20	14.50
20655-045E-01	45P	16.20	12.60	13.20	15.05	14.40	15.70
◆ 20655-047E-01	47P	16.80	13.20	13.80	15.65	15.00	16.30
◆ 20655-051E-01	51P	18.00	14.40	15.00	16.85	16.20	17.50
◆ 20655-053E-01	53P	18.60	15.00	15.60	17.45	16.80	18.10
◆ 20655-057E-01	57P	19.80	16.20	16.80	18.65	18.00	19.30

◆ MARK MEANS NOT AVAILABLE.



NOTES:
1. THIS DENT SHAPE IS PURPOSED FOR GOOD INJECTION QUALITY.
THIS DENT SHAPE WILL NOT AFFECT CONNECTR FUNCTION.
DENT SHAPE SHOWN ON DRAWING IS JUST FOR REFERENCE.
DENT SHAPE AND QUANTITY MIGHT CHABGE FROM DIFFERENT
PIN COUNT AND DIFFERENT TOOLING.
2. CONTACT POINT: TOP AND BOTTOM CONTACT

CAUTION VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL
NO. HIM-12007 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

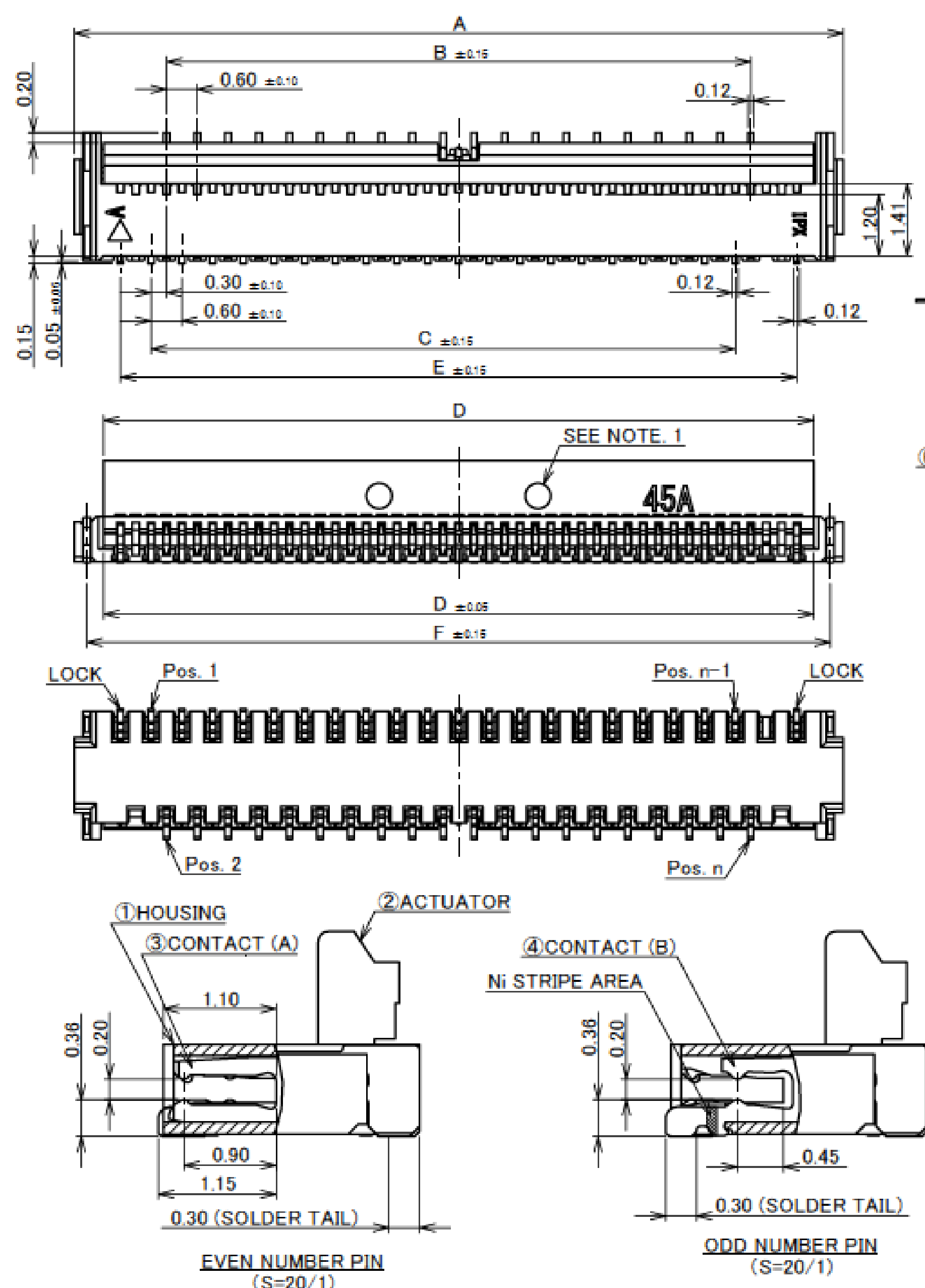
TABLE 1

PART NO.		FINISH	
20655-0**E-01		CONTACT AREA : Au 0.10 μ m MIN. OVER Ni 1.00 μ m MIN. SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.	
6	HOLD DOWN	PHOSPHOR BRONZE	Sn 2~6 μ m OVER Ni 1.00 μ m MIN.
5	LOCK	PHOSPHOR BRONZE	SOLDERLING AREA: Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.
4	CONTACT (B)	PHOSPHOR BRONZE	SEE TABLE 1, WITH Ni STRIPE
3	CONTACT (A)	PHOSPHOR BRONZE	SEE TABLE 1
2	ACTUATOR	LCP	UL94V-0, BEIGE
1	HOUSNIG	LCP	UL94V-0, BEIGE
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Connector Assembly

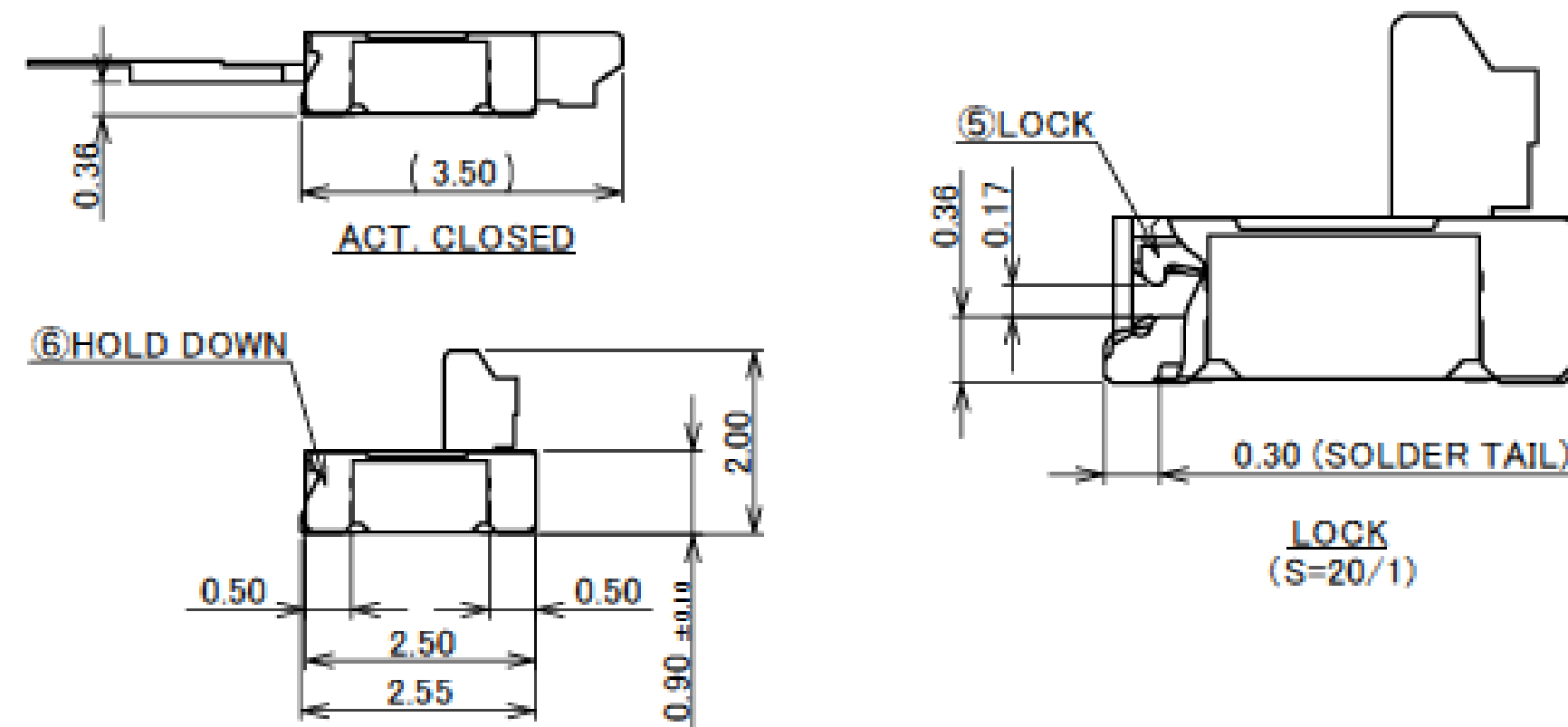
Recommended P/N	20655-0**E-01
-----------------	---------------

EVEN NUMBER POS.



PART NO.	Pos.	A	B	C	D	E	F
◆20655-030E-01	30P	12.00	8.40	8.40	10.85	10.20	11.50
20655-040E-01	40P	15.00	11.40	11.40	13.85	13.20	14.50
◆20655-050E-01	50P	18.00	14.40	14.40	16.85	16.20	17.50

◆ MARK MEANS NOT AVAILABLE.



NOTES.

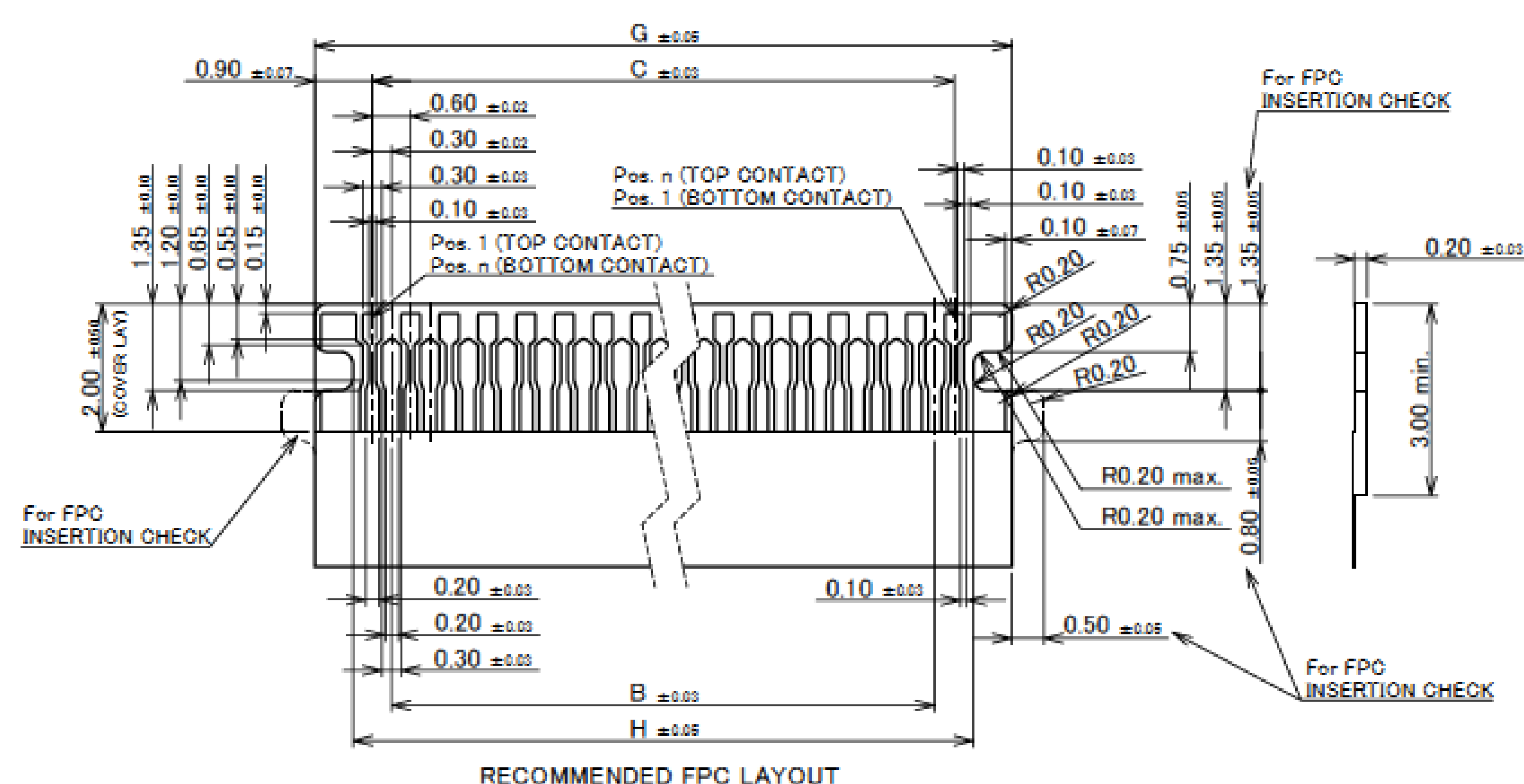
1. THIS DENT SHAPE IS PURPOSED FOR GOOD INJECTION QUALITY. THIS DENT SHAPE WILL NOT AFFECT CONNECTR FUNCTION. DENT SHAPE SHOWN ON DRAWING IS JUST FOR REFERENCE. DENT SHAPE AND QUANTITY MIGHT CHABGE FROM DIFFERENT PIN COUNT AND DIFFERENT TOOLING.
2. CONTACT POINT : TOP AND BOTTOM CONTACT


CAUTION

VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL
NO. HIM-12007 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

Rev.9

ODD NUMBER POS.



PART NO.	Pos.	B	C	E	G	H	J
20655-011E-01	11P	2.40	3.00	4.20	4.80	3.60	5.65
◆20655-029E-01	29P	7.80	8.40	9.60	10.20	9.00	11.05
◆20655-031E-01	31P	8.40	9.00	10.20	10.80	9.60	11.65
◆20655-035E-01	35P	9.60	10.20	11.40	12.00	10.80	12.85
◆20655-037E-01	37P	10.20	10.80	12.00	12.60	11.40	13.45
◆20655-041E-01	41P	11.40	12.00	13.20	13.80	12.60	14.65
20655-045E-01	45P	12.60	13.20	14.40	15.00	13.80	15.85
◆20655-047E-01	47P	13.20	13.80	15.00	15.60	14.40	16.45
◆20655-051E-01	51P	14.40	15.00	16.20	16.80	15.60	17.65
◆20655-053E-01	53P	15.00	15.60	16.80	17.40	16.20	18.25
◆20655-057E-01	57P	16.20	16.80	18.00	18.60	17.40	19.45

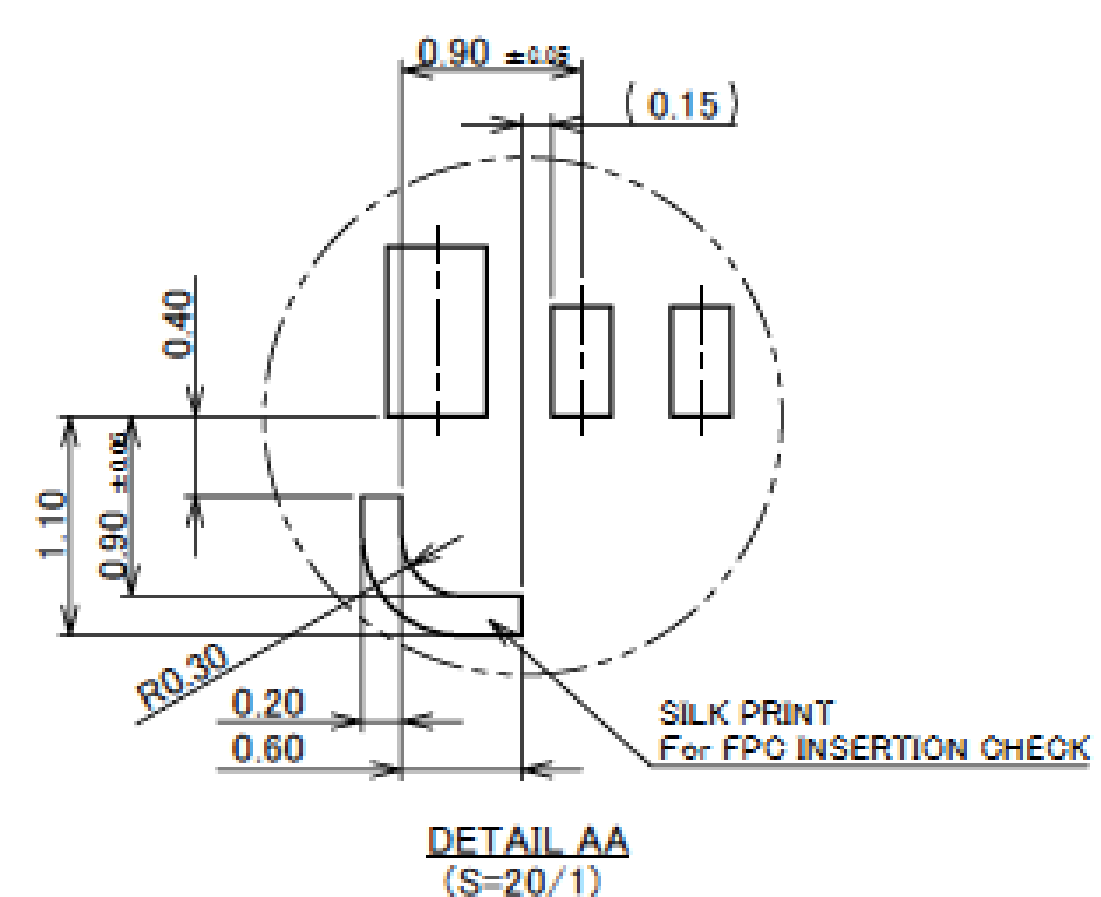
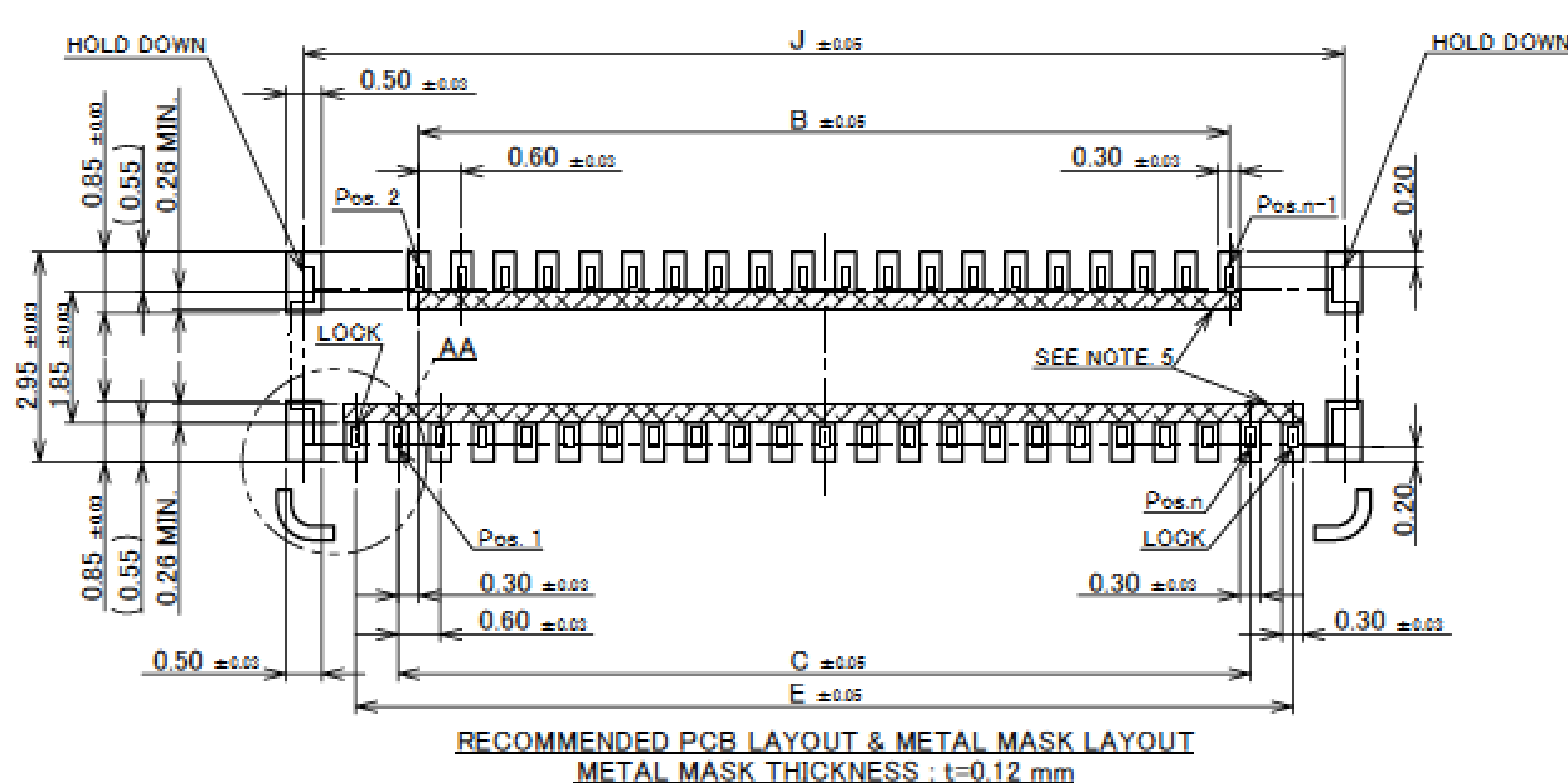
◆ MARK MEANS NOT AVAILABLE.

NOTES

3. MATERIAL
COVER FILM : PI
CONDUCTOR : COPPER(RARE)
BASE FILM : PI
STIFFENER : PI
ADHESIVE: THERMOSETTING ADHESIVE

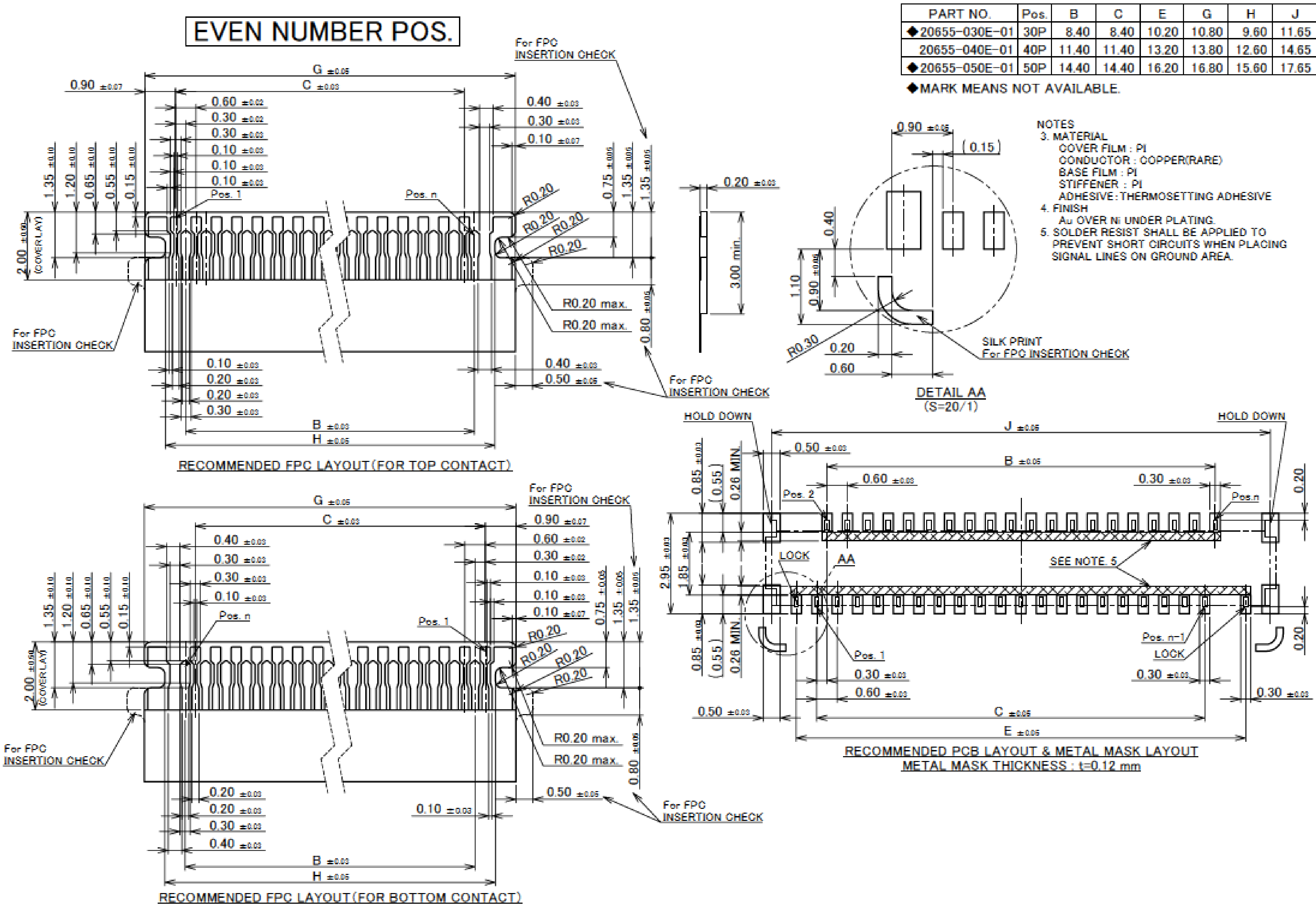
4. FINISH
A₄ OVER Ni UNDER PLATING

5. SOLDER RESIST SHALL BE APPLIED TO PREVENT SHORT CIRCUITS WHEN PLACING SIGNAL LINES ON GROUND AREA.

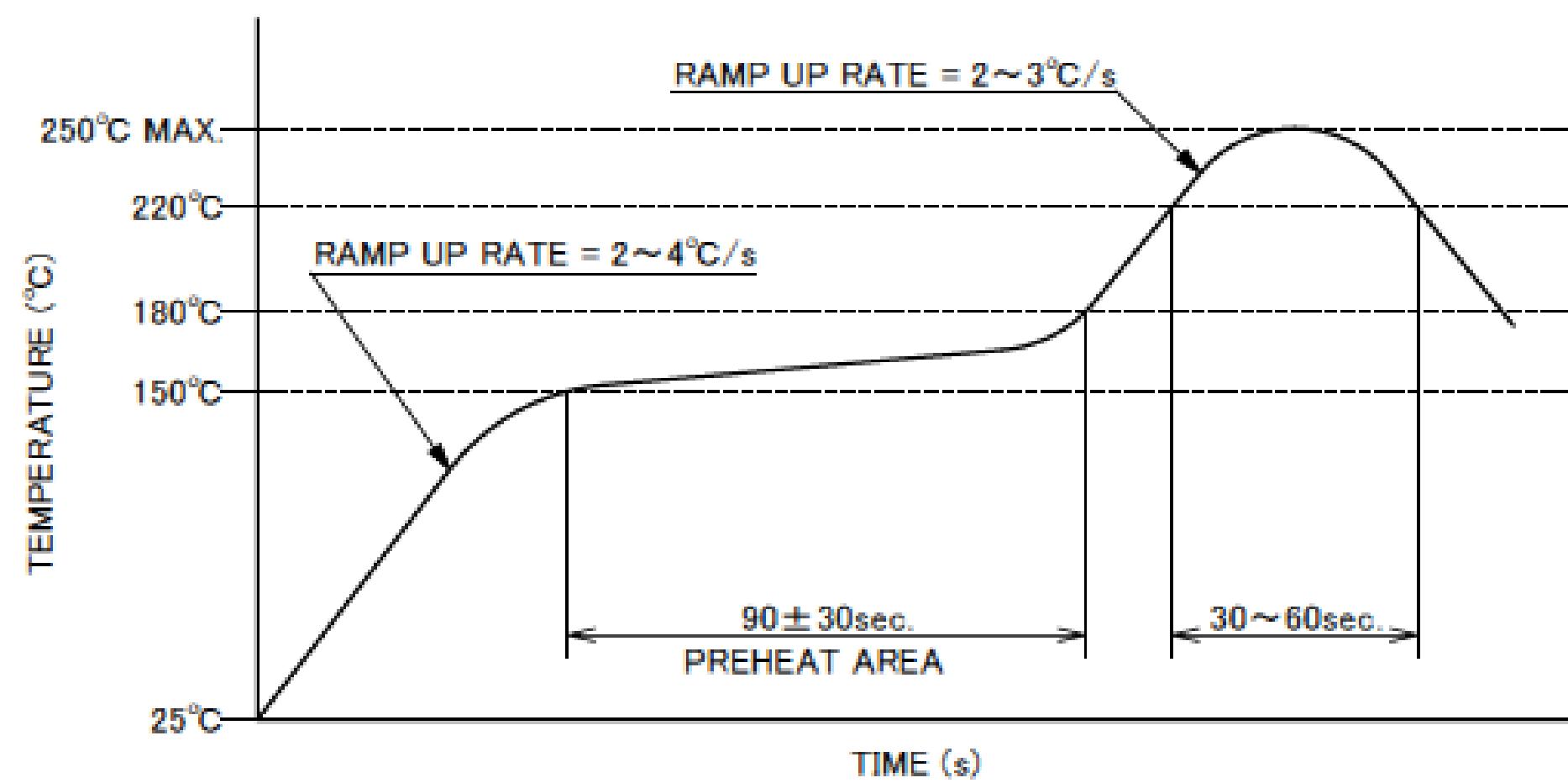


Rev.9

Connector Assembly



CONNECTOR ON RECOMMENDED PCB LAYOUT



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

Rev.9

Rev.9

Connector Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC/DC (PER CONTACT)
RATING AMPERAGE	0.3A DC (PER CONTACT)
OPERATING TEMPERATURE	233~358K(-40℃~85℃)
OPERATING HUMIDITY	20~80%RH (NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : $\triangleleft$ 40mohm MAX.
INSULATION RESISTANCE	100Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	20 CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL / 20 CYCLES 0.21N (21gf) × (n + 2) MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL / 20 CYCLES 0.014N (1.4gf) × (n + 2) MIN.
FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL: 0.13N (13gf) × n + 1.0N MIN. / AFTER TEST: 0.10N (10gf) × n + 1.0N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-2077
TEST REPORT	TR-15027
PACKING STANDARD	PST-15018
INSTRUCTION MANUAL	HIM-12007
APPEARANCE CRITERIA No.	QLS-A***

※ “n” IS THE NUMBER OF PIN

Custom Connectors Available

RF Connectors

MHF® series



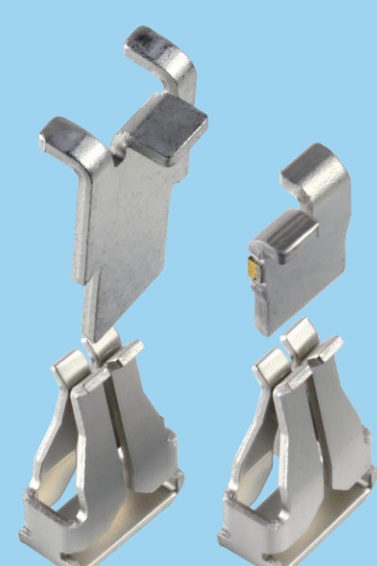
CABLINE® series

Micro-Coaxial/Twinaxial Connectors

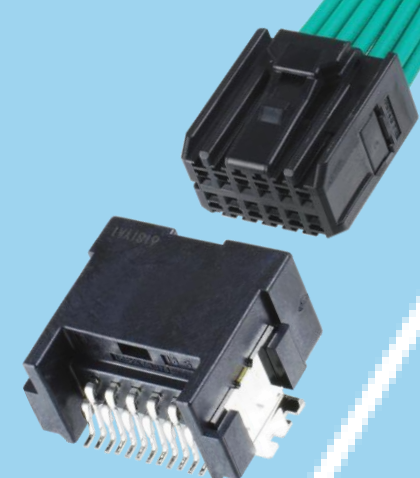


Wire-to-Board Connectors/ Terminals

AP series



ISH® series



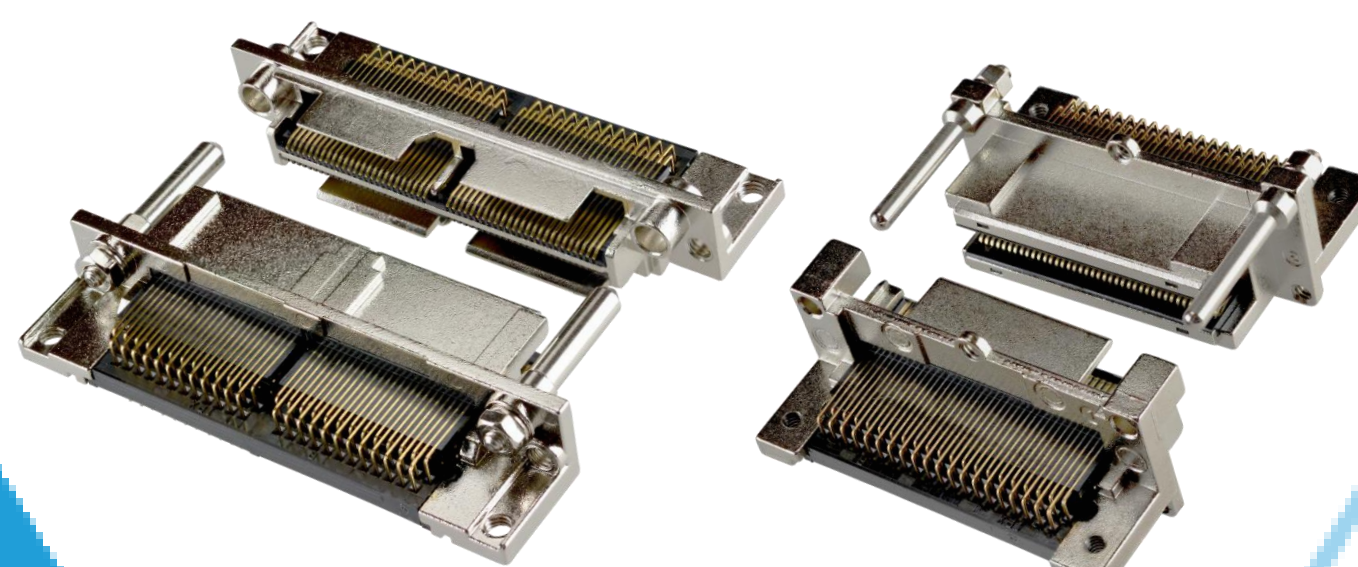
NOVASTACK® series



Board-to-Board Connectors

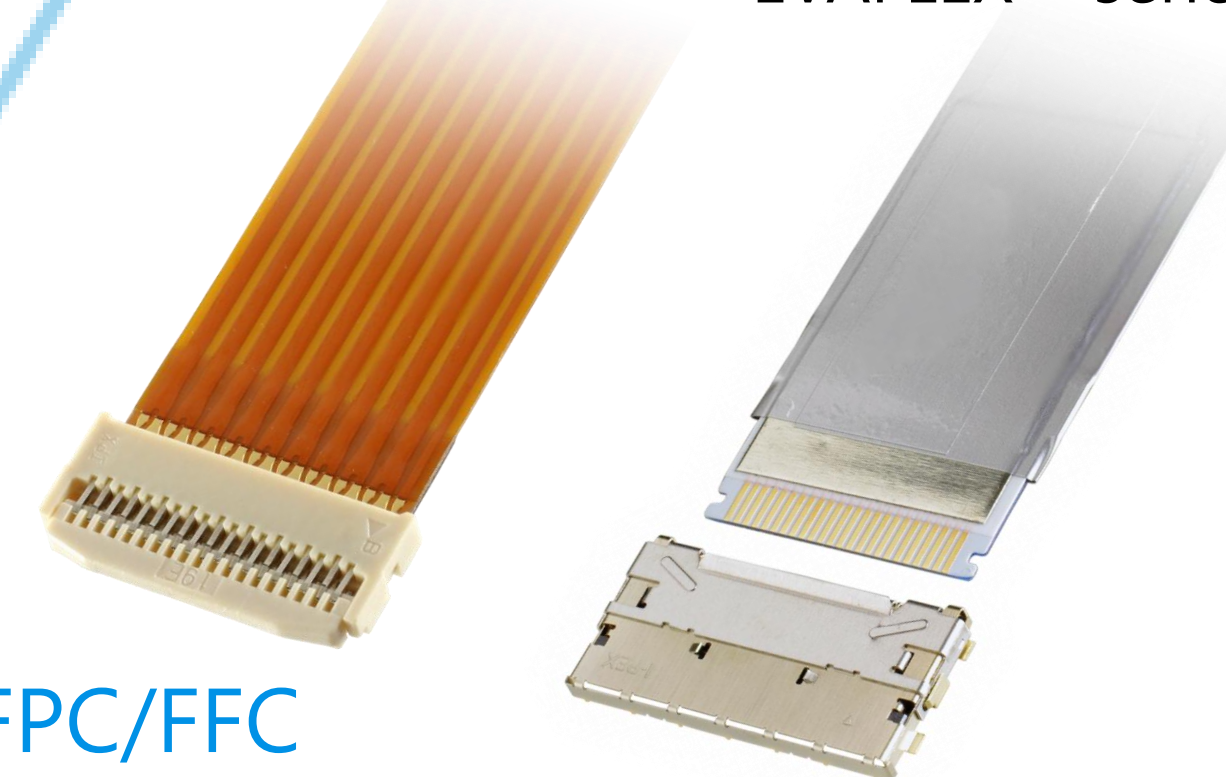


I/O Connectors



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



I-PEX

© I-PEX Inc. 2026
All rights reserved