

# MINIFLEX® 3-BFN L-LK-HD

Mechanical lock, robust design with hold-down feature, long actuator, low profile (Height = 0.9 mm) 0.3 mm pitch, horizontal, backflip

**Product Specifications:**

Board Pitch (mm)	0.3	
Wiping Length (mm)	Contact A:0.9	
	Contact B:0.45	
Size (mm)	Height	0.90 +/- 0.10
	Width	Formula: Even no pos: 3.0+(0.3*?p). Odd no pos: 2.7+(0.3*?p)
	Depth	Open:2.55 Close:3.5
Pin counts	Range	11-57 (odd)
	Available	11, 40, 45

**Applicable FPC/FFC:**

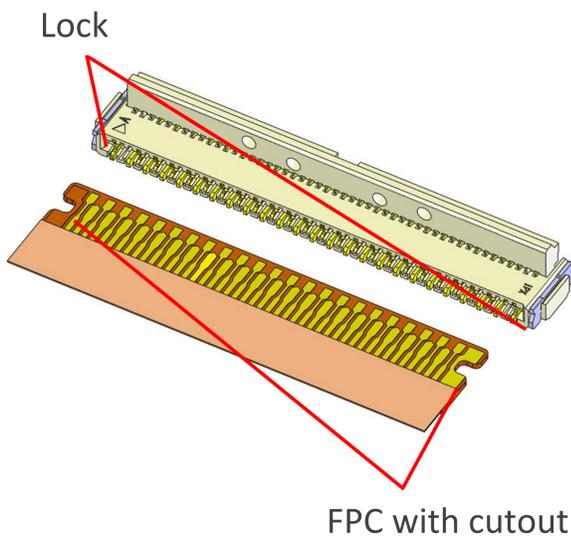
FPC/FFC Contact Pitch	0.3
FPC/FFC Contact Point	Top and Bottom
FPC/FFC Thickness (mm)	0.2 +/- 0.03



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

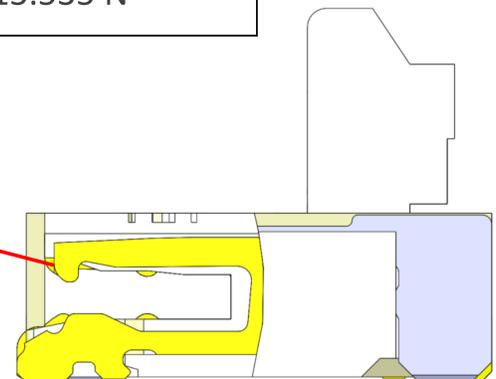
## ▶ High FPC retention force with additional mechanical lock

FPC retention force comparison (45 p)



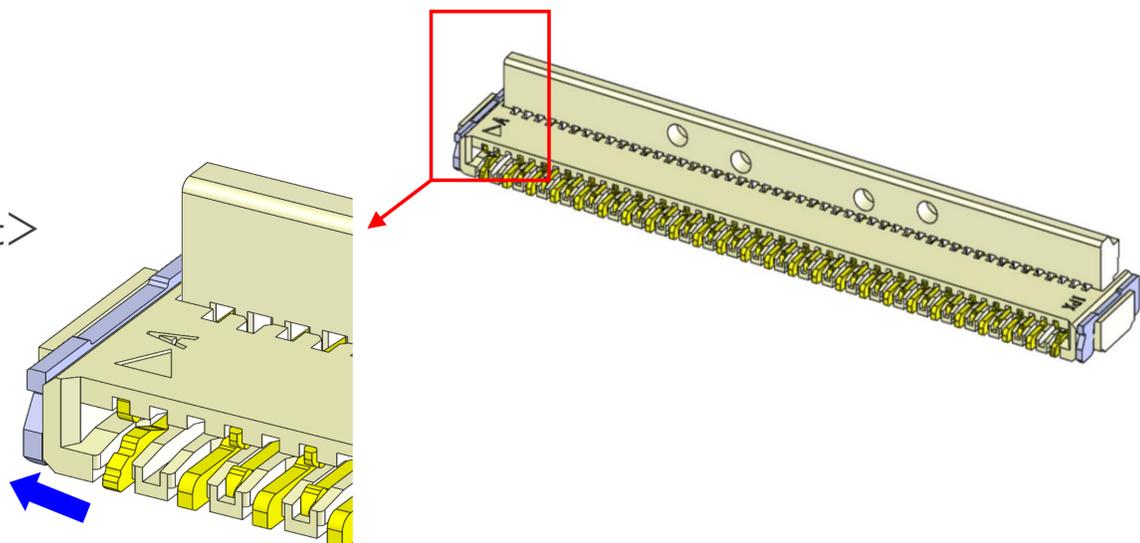
MINIFLEX® 3-BFN L-LK-HD	MINIFLEX® 3-BFN Long
20.710 N	15.535 N

FPC LOCK mechanism maintains high FPC retention force



## ▶ Hold down feature improves strength of side wall

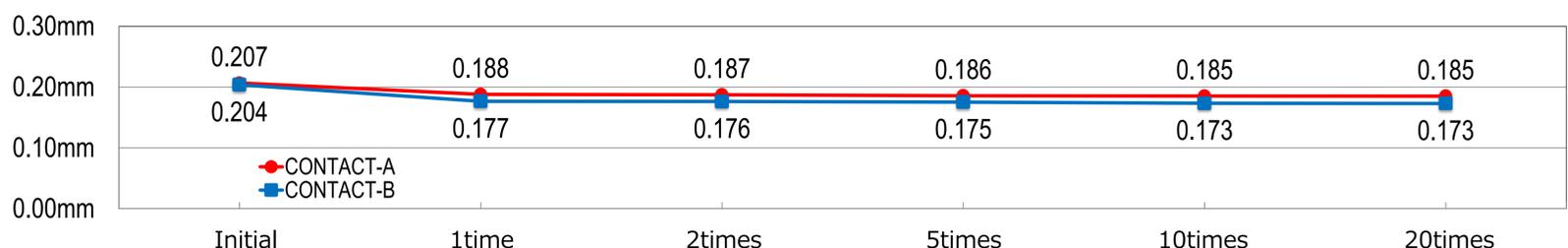
<Strength improvement>



## ▶ 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-LK-HD 51 pins before and after operating actuator without FPC inserted)



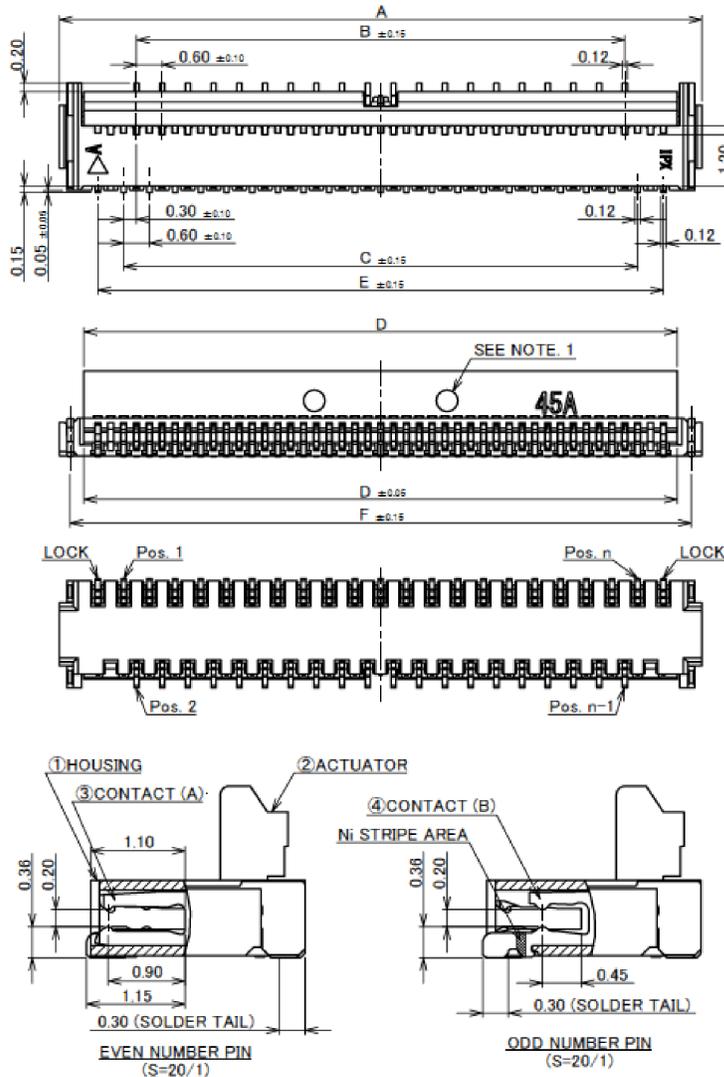
- Insertion force of connector goes up
- Retention force of connector does not change greatly

# 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

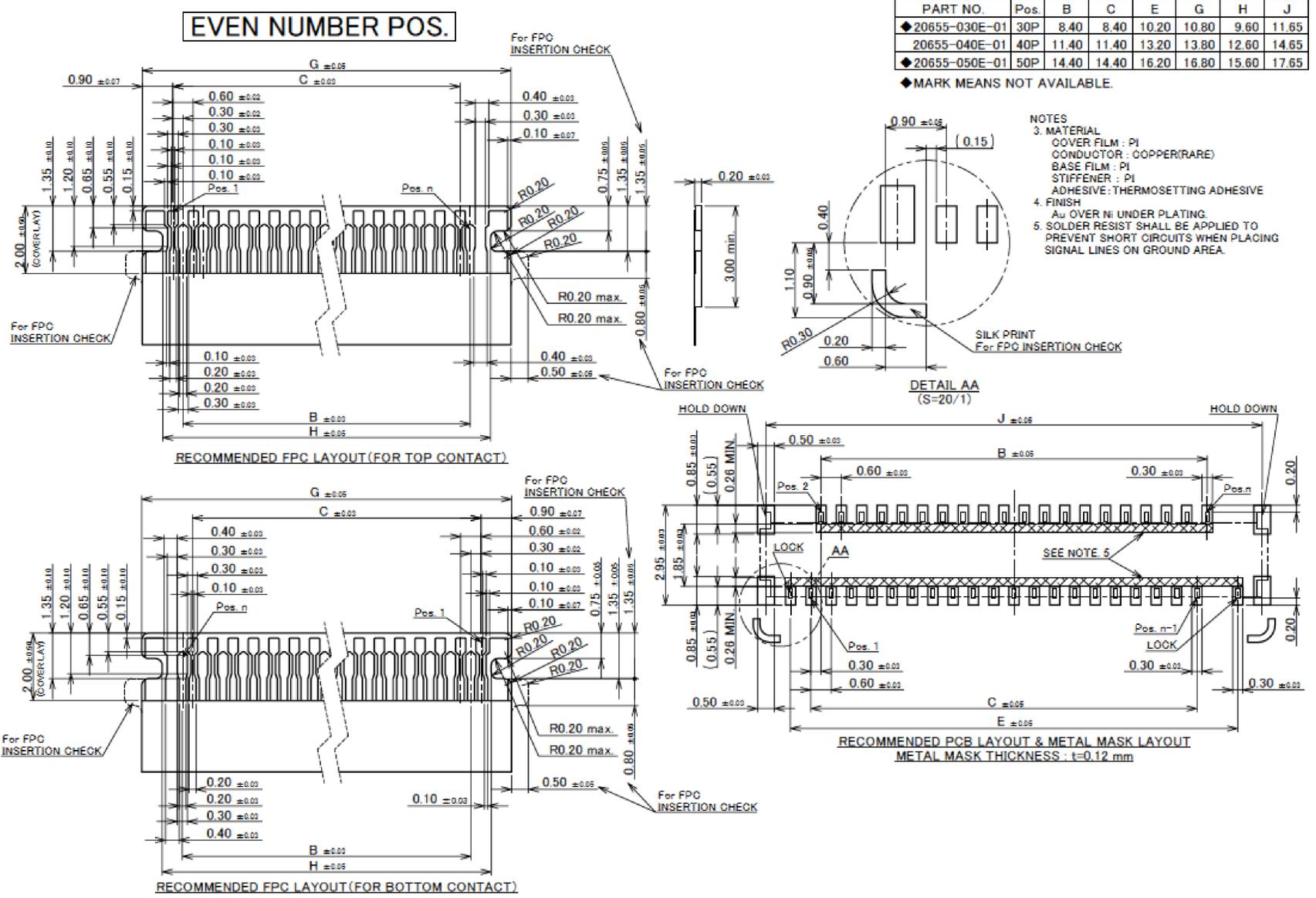
CAUTION VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HIM-12007 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

TABLE 1

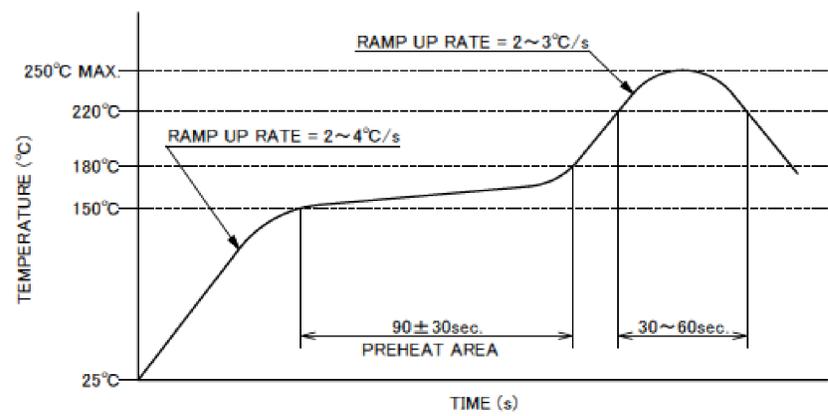
PART NO.	FINISH		
20655-0**E-01	CONTACT AREA : Au 0.10 μm MIN. OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.		
6	HOLD DOWN	PHOSPHOR BRONZE Sn 2~6 μm OVER Ni 1.00 μm MIN.	
5	LOCK	PHOSPHOR BRONZE SOLDERLING AREA: Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.	
4	CONTACT (B)	PHOSPHOR 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.	DISCRIPITION	MATERIAL	FINISH, REMARKS



# Connector Assembly



Rev.9



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

# Connector Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC/DC (PER CONTACT)
RATING AMPERAGE	0.3A DC (PER CONTACT)
OPERATING TEMPERATURE	233~358K(-40°C~85°C)
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) $\times$ (n + 2) MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL / 20 CYCLES 0.014N (1.4gf) $\times$ (n + 2) MIN.
FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL: 0.13N (13gf) $\times$ n + 1.0N MIN. / AFTER TEST: 0.10N (10gf) $\times$ 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

Rev.9

# Custom Connectors Available

 RF Connector

MHF® series



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



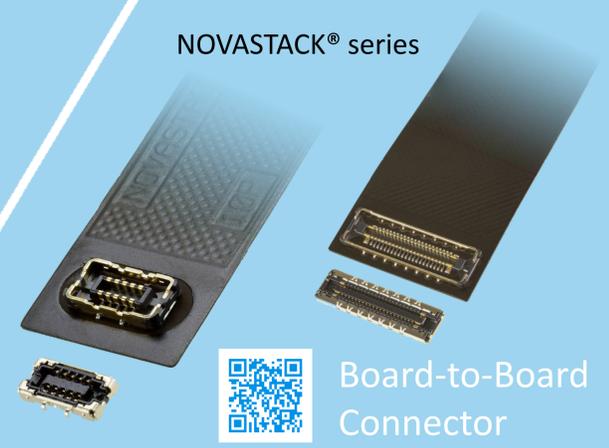
 Optical Module

LIGHTPASS® series



NOVASTACK® series

 Board-to-Board Connector



 Power Connector/  
Terminal

AP series

ISH® series



MINIFLEX® series

EVAFLEX® series

 FPC FFC Connector

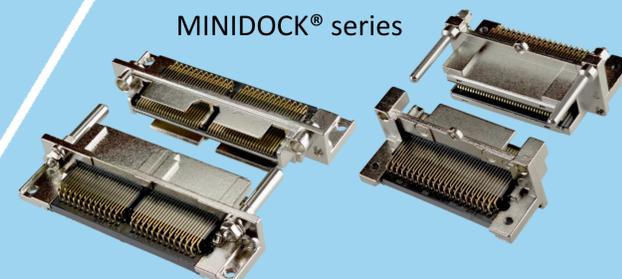


Inquiry



MINIDOCK® series

 I/O Connector



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