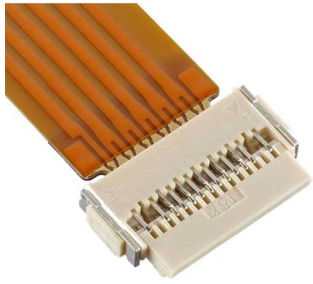


MINIFLEX® 3-BFN L-LK-HD

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



- ✓ High FPC retention force with additional mechanical lock
- ✓ Hold down feature improves strength of side wall
- ✓ Usability for closing actuator without FPC

Pin counts:

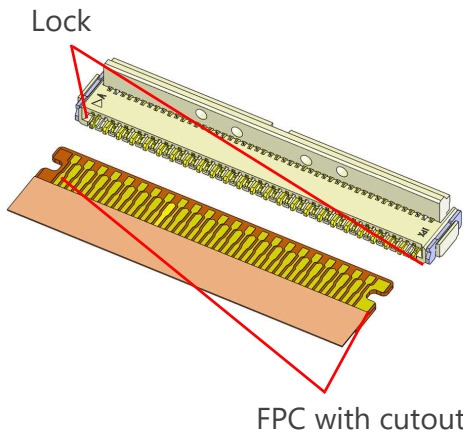
Range	Up to 57
Available	11, 40, 45

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

Part Number		20655
Contact Pitch (mm)		0.3
Board Pitch (mm)		0.6
Height (mm)		0.90+/-0.10
Width Formula (mm)		2.7 + (0.3*?P)
Depth (mm)	Actuator Open	2.55
	Actuator Close	3.5
Wiping Length (mm)	Contact A	0.9
	Contact B	0.45
FPC Insertion Depth (mm)		1.1
FPC Thickness (mm)		0.2+/-0.03
Current Rating		0.3A /pin
Contact point		Top and Bottom
Compatibility		Original

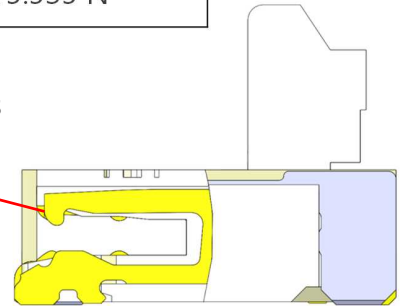
High FPC retention force with additional mechanical lock

FPC retention force comparison (45 p)



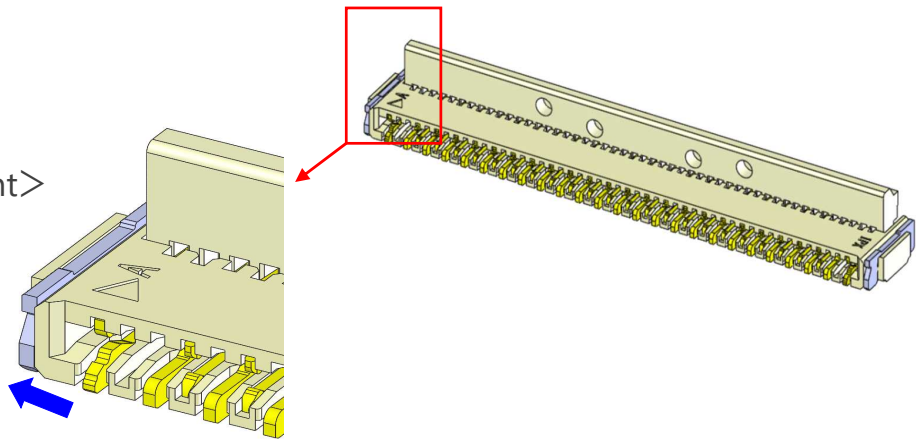
MINIFLEX® 3-BFN L-LK-HD	MINIFLEX® 3-BFN Long
20.710 N	15.535 N

FPC LOCK mechanism maintains high FPC retention force



Hold down feature improves strength of side wall

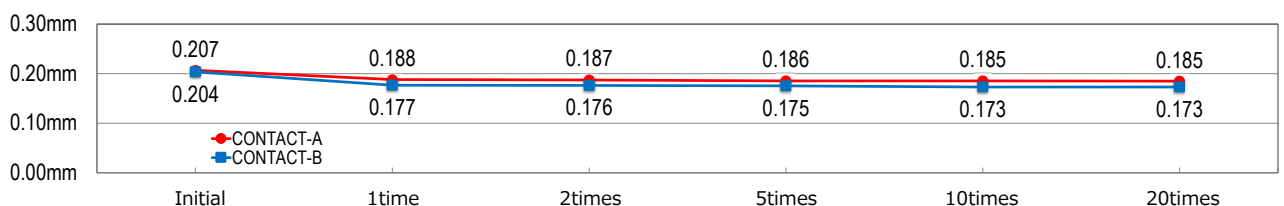
<Strength improvement>



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

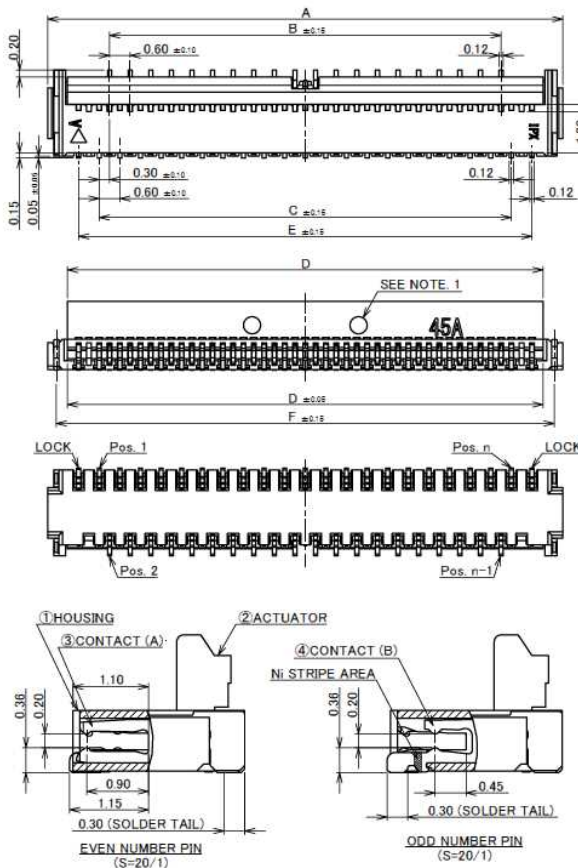
MINIFLEX[®] 3-BFN L-LK-HD

Component Parts Detail

Connector Assembly :

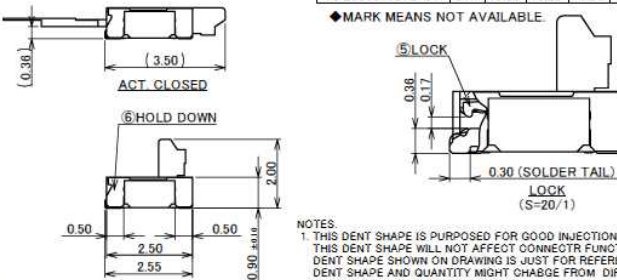
Recommended P/N 20655-0**E-01

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.

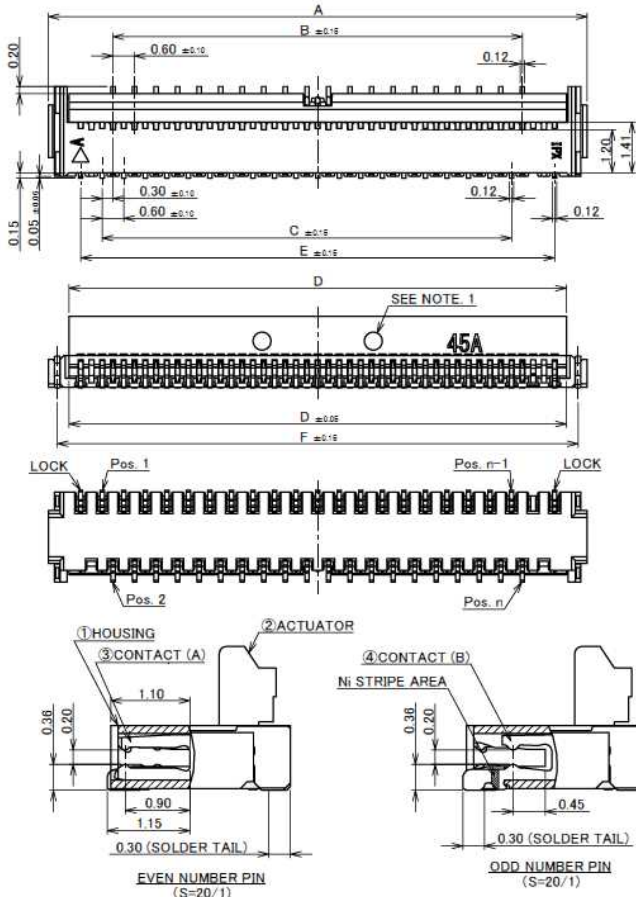
TABLE 1

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 SOLDERING 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	HOUSING	LCP UL94V-0, BEIGE
NO	DISCRPTION	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.

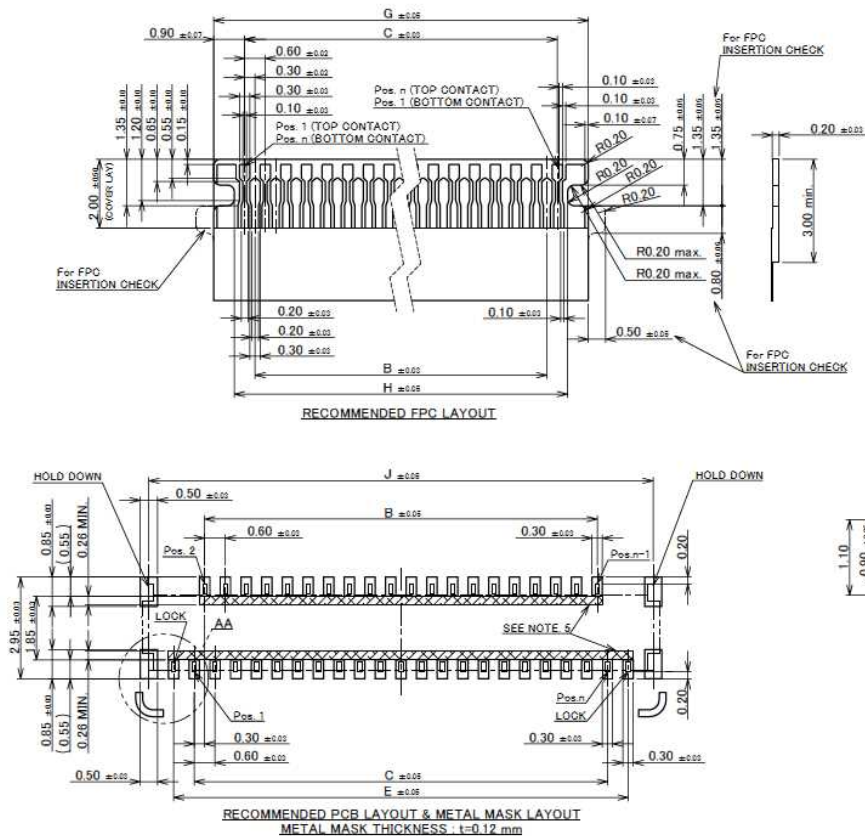
NOTES:
 1. THIS DENT SHAPE IS PURPOSED FOR GOOD INJECTION QUALITY. THIS DENT SHAPE WILL NOT AFFECT CONNECTR FUNCTION. DENT SHAPE SHOWN ON DRAWING IS JUST FOR REFERENCE. DENT SHAPE AND QUANTITY MIGHT CHANGE FROM DIFFERENT PIN COUNT AND DIFFERENT TOOLING.
 2. CONTACT POINT: TOP AND BOTTOM CONTACT

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

Rev.9

Connector Assembly :

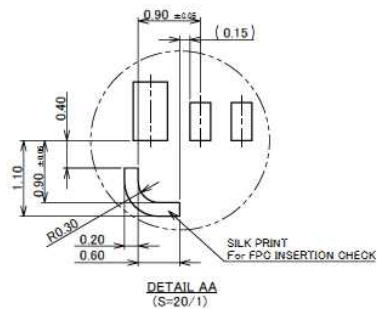
ODD NUMBER POS.



PART NO.	Pos	B	C	E	G	H	J
20655-011E-01	11P	2.40	3.00	4.20	4.80	3.90	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

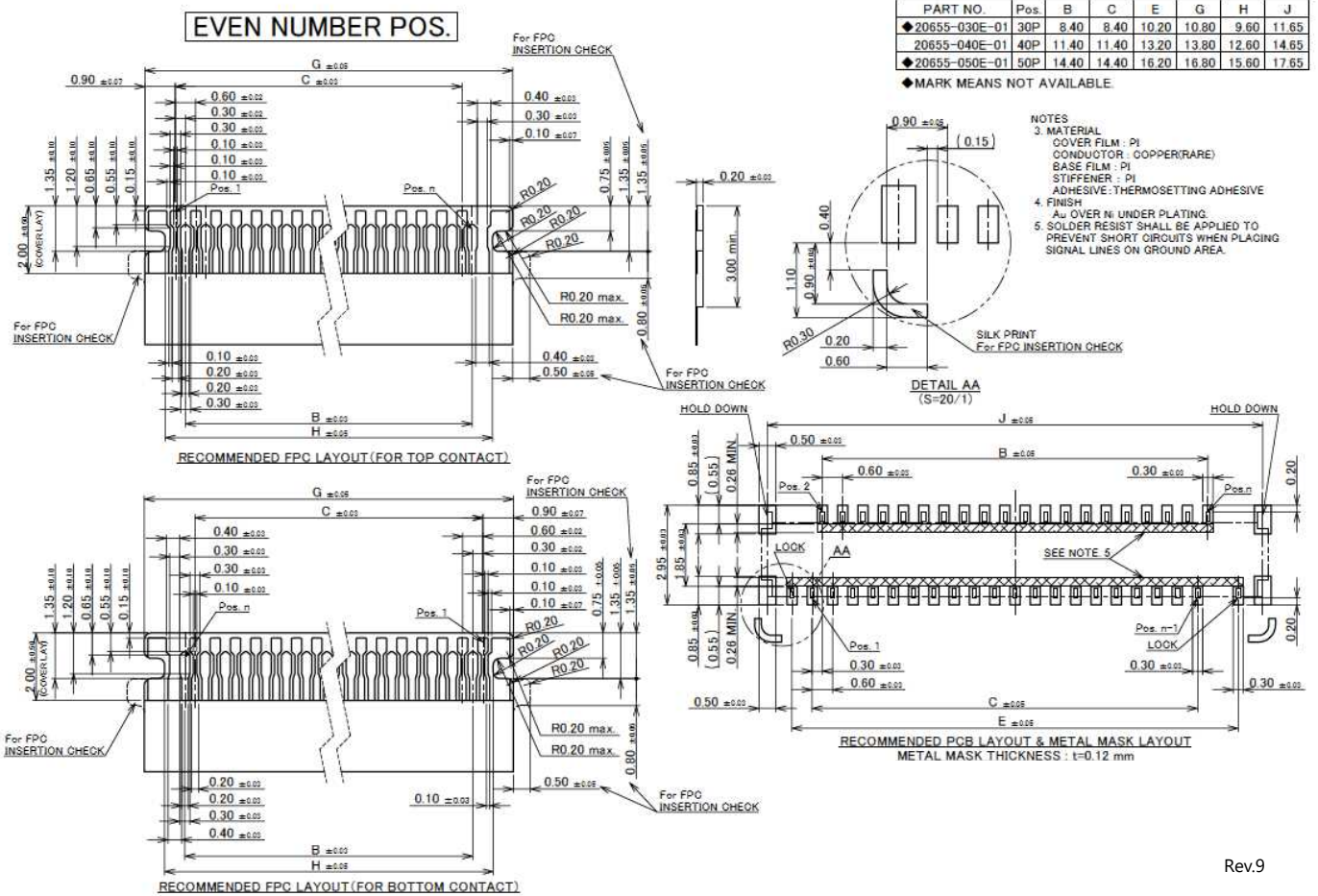
◆MARK MEANS NOT AVAILABLE.

NOTES:
 3. MATERIAL
 COVER FILM : PI
 CONDUCTOR : COPPER(RARE)
 BASE FILM : PI
 STIFFENER : PI
 ADHESIVE : THERMOSETTING ADHESIVE
 4. FINISH
 Au OVER Ni UNDER PLATING.
 5. SOLDER RESIST SHALL BE APPLIED TO PREVENT SHORT CIRCUITS WHEN PLACING SIGNAL LINES ON GROUND AREA.



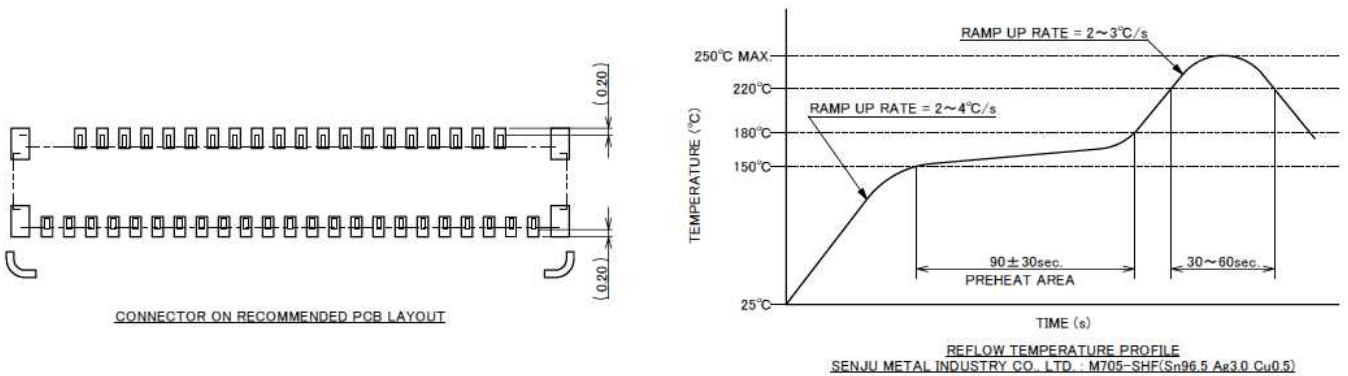
Rev.9

Connector Assembly :



Rev.9

Connector Assembly :



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°C~85°C)
OPERATING HUMIDITY	20~80%RH (NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : \triangle 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



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