MINIFLEX® 3-BFN

低背(高度= 0.9 mm)，0.3 mm间距, 水平插拔, 后锁式

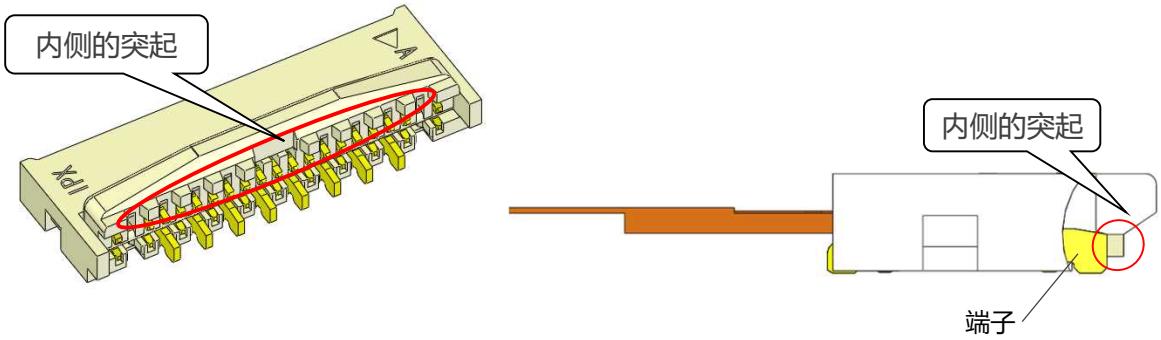
Product Specifications:		Short Actuator	Long Actuator
Board Pitch (mm)		0.3	
Wiping Length (mm)		Contact A: 0.9	
		Contact B: 0.45	
Size (mm)	Height	0.90 mm ± 0.10 mm	
	Width	Formula: 0.9 +(0.3*?P)	
	Depth	Open: 2.55	
		Close: 3	Close:3.5
Pin counts	Range	13-41 (odd)	33-65 (odd)
	Available	13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41	33, 35, 39, 41, 45, 49, 51, 55, 57, 61, 65

*如您需要了解未列出或不在范围内的Pin数，请咨询我们。

Applicable FPC/FFC:

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

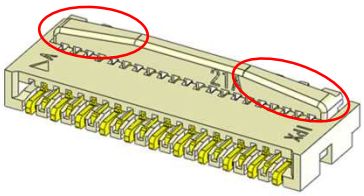
独特的结构，防止端子变形



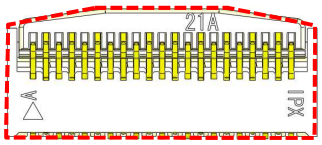
当钢琴盖被打开时,钢琴盖内侧的突起可以防止指甲碰触到端子而造成的变形

特有的钢琴盖形状设计，防止半锁状况

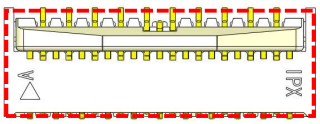
钢琴盖的弧线设计，能够引导作业员操作钢琴盖中间部位，这样可以防止半锁状况



从顶部可以一目了然钢琴盖是否处于闭合位置



钢琴盖
闭合

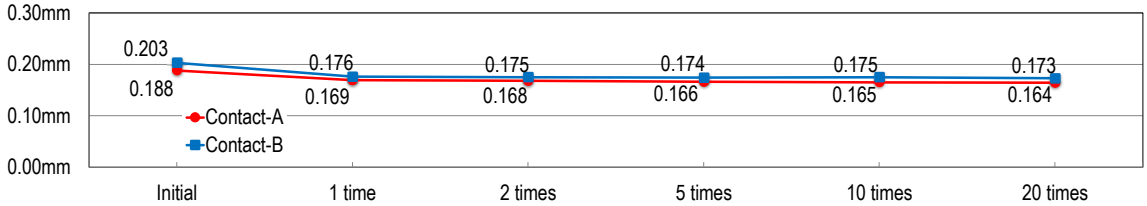


钢琴盖
打开

在没有插入 FPC 的情况下闭合钢琴盖，连接器仍可使用

在 SMT 加工后，如果钢琴盖在没有插入 FPC 的情况下意外闭合，连接器仍可使用

- FPC未插入情况下闭合钢琴盖，其前后的接点间距比较如图(图表为 MINIFLEX® 3-BFN 35 pins)

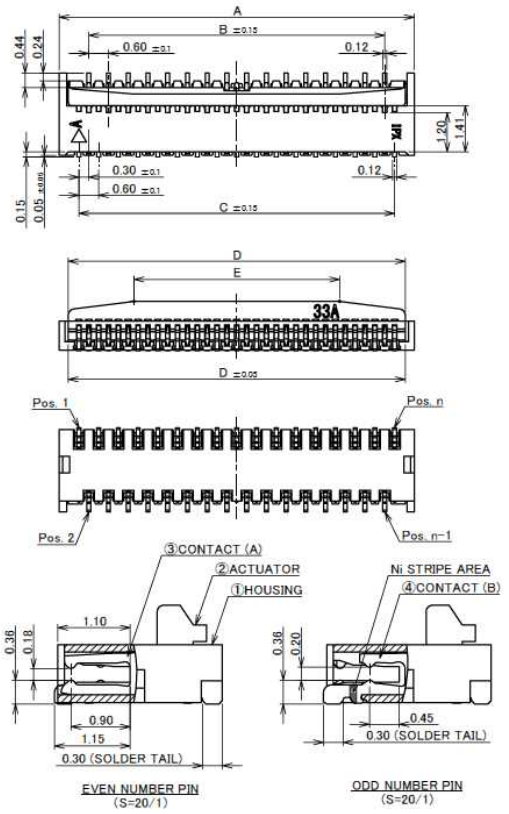


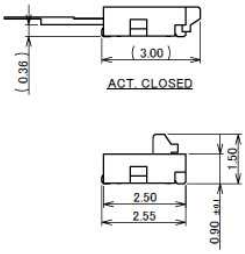
- FPC插入力上升
- FPC保持力无太大变化

Component Parts Details

Connector Assembly

Recommended P/N	20527-0**E-01





PART NO.	Pos.	A	B	C	D	E
20527-013E-0#	13P	4.80	3.00	3.60	4.25	2.25
20527-015E-0#	15P	5.40	3.60	4.20	4.85	2.85
20527-017E-0#	17P	6.00	4.20	4.80	5.45	3.45
20527-019E-0#	19P	6.60	4.80	5.40	6.05	4.05
20527-021E-0#	21P	7.20	5.40	6.00	6.65	2.65
20527-023E-0#	23P	7.80	6.00	6.60	7.25	3.25
20527-025E-0#	25P	8.40	6.60	7.20	7.85	3.85
20527-027E-0#	27P	9.00	7.20	7.80	8.45	4.45
20527-029E-0#	29P	9.60	7.80	8.40	9.05	5.05
20527-031E-0#	31P	10.20	8.40	9.00	9.65	5.65
20527-033E-0#	33P	10.80	9.00	9.60	10.25	6.25
20527-035E-0#	35P	11.40	9.60	10.20	10.85	6.85
20527-037E-0#	37P	12.00	10.20	10.80	11.45	7.45
20527-039E-0#	39P	12.60	10.80	11.40	12.05	8.05
20527-041E-0#	41P	13.20	11.40	12.00	12.65	6.65

NOTES
1. 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.

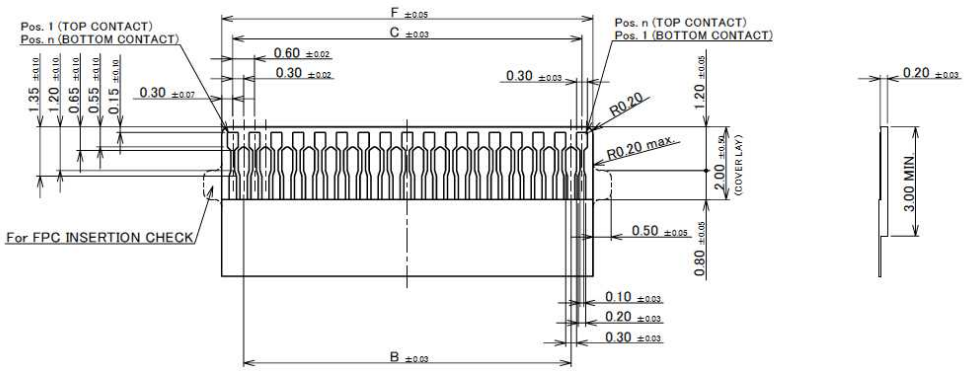
TABLE 1

PART NO.	FINISH
20527-0**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.
20527-0**E-02	CONTACT AREA : Au 0.254 μm MIN. OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.

NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
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

Rev.20

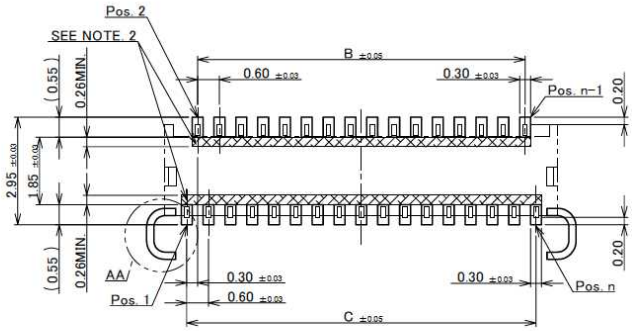
Connector Assembly



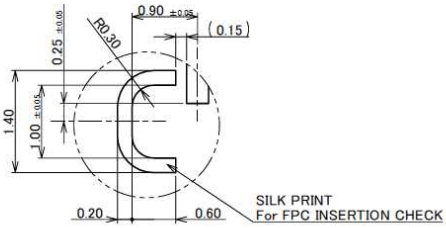
RECOMMENDED FPC LAYOUT

PART NO.	Pos.	B	C	F
20527-013E-0#	13P	3.00	3.60	4.20
20527-015E-0#	15P	3.60	4.20	4.80
20527-017E-0#	17P	4.20	4.80	5.40
20527-019E-0#	19P	4.80	5.40	6.00
20527-021E-0#	21P	5.40	6.00	6.60
20527-023E-0#	23P	6.00	6.60	7.20
20527-025E-0#	25P	6.60	7.20	7.80
20527-027E-0#	27P	7.20	7.80	8.40
20527-029E-0#	29P	7.80	8.40	9.00
20527-031E-0#	31P	8.40	9.00	9.60
20527-033E-0#	33P	9.00	9.60	10.20
20527-035E-0#	35P	9.60	10.20	10.80
20527-037E-0#	37P	10.20	10.80	11.40
20527-039E-0#	39P	10.80	11.40	12.00
20527-041E-0#	41P	11.40	12.00	12.60

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

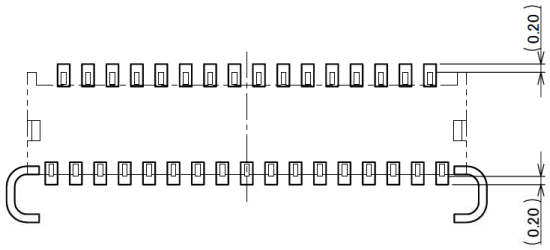


RECOMMENDED PCB LAYOUT & METAL MASK LAYOUT
METAL MASK THICKNESS : t=0.12mm

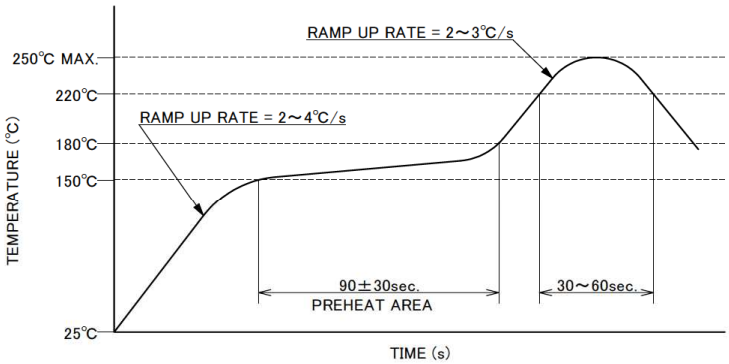


DETAIL AA
(S=20/1)

Rev.20



CONNECTOR ON RECOMMENDED PCB LAYOUT



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

Rev.20

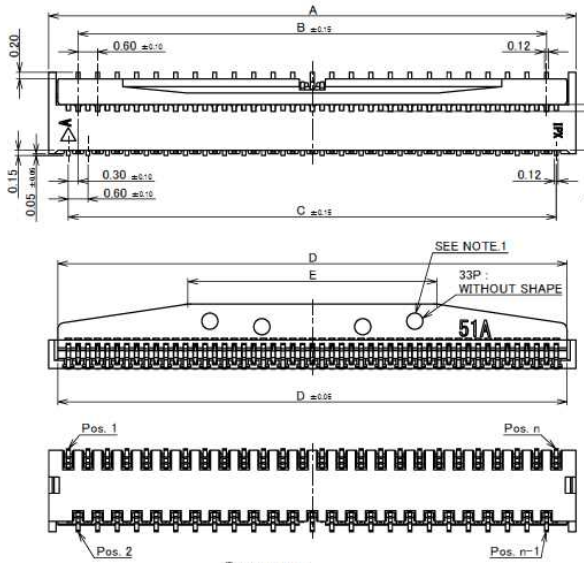
Connector Assembly

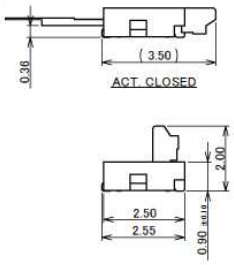
ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC (PER CONTACT)
RATING AMPERAGE	0.3A DC (PER CONTACT)
OPERATING TEMPERATURE	233～358K (-40℃～+85℃)
OPERATING HUMIDITY	20～80%RH (NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : ⊿40mohm MAX.
INSULATION RESISTANCE	100Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	20 CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20 CYCLES)	INITIAL / 20 CYCLES 0.31N (31gf) × n MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20 CYCLES)	INITIAL / 20 CYCLES 0.02N (2gf) × n MIN.
FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL: 0.13N (13gf) ×n MIN. / AFTER TEST: 0.10N (10gf) ×n MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-1512
TEST REPORT	TR-10011
PACKING STANDARD	300-826
INSTRUCTION MANUAL	HIM-12007
APPEARANCE CRITERIA No.	QLS-A***

※ "n" IS THE NUMBER OF PIN

Rev.20

Recommended P/N	20538-0**E-01





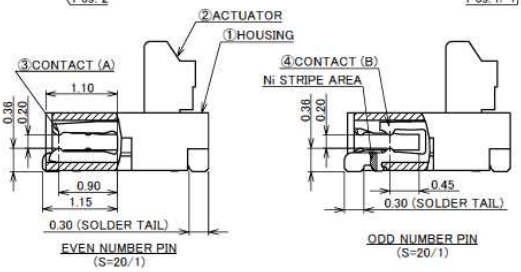
PART NO.	Pos.	A	B	C	D	E
20538-033E-0#	33P	10.80	9.00	9.60	10.25	6.25
20538-035E-0#	35P	11.40	9.60	10.20	10.85	6.85
20538-039E-0#	39P	12.60	10.80	11.40	12.05	8.05
20538-041E-0#	41P	13.20	11.40	12.00	12.65	4.65
20538-045E-0#	45P	14.40	12.60	13.20	13.85	5.85
20538-049E-0#	49P	15.60	13.80	14.40	15.05	7.05
20538-051E-0#	51P	16.20	14.40	15.00	15.65	7.65
20538-055E-0#	55P	17.40	15.60	16.20	16.85	8.85
20538-057E-0#	57P	18.00	16.20	16.80	17.45	9.45
20538-061E-0#	61P	19.20	17.40	18.00	18.65	10.65
20538-065E-0#	65P	20.40	18.60	19.20	19.85	11.85

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
20538-0**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.
20538-0**E-02	CONTACT AREA : Au 0.254 μm MIN. OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.



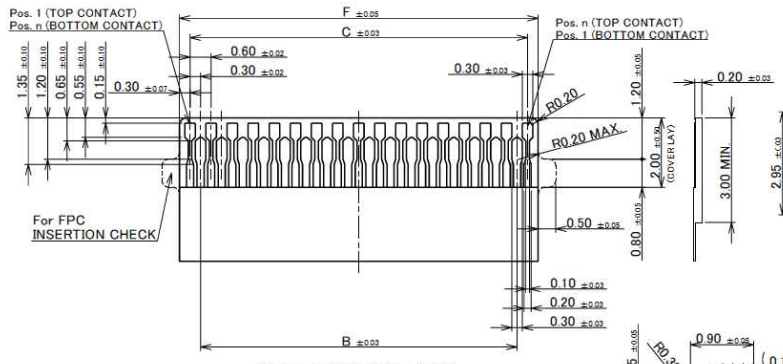
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
4	CONTACT (B)	PHOSPHOR BRONZE	SEE TABLE 1, WITH Ni STRIPE
3	CONTACT (A)	PHOSPHOR BRONZE	SEE TABLE 1
2	ACTUATOR	LCP	UL94V-0, BEIGE
1	HOUSING	LCP	UL94V-0, BEIGE

Rev.17

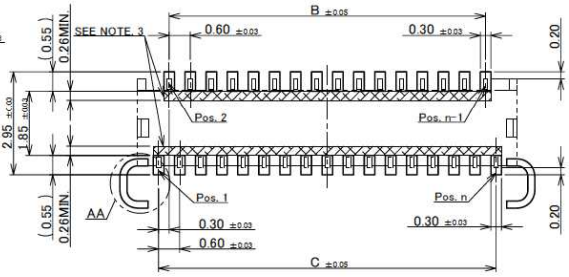
Connector Assembly

PART NO.	Pos.	B	C	F
20538-033E-0#	33P	9.00	9.60	10.20
20538-035E-0#	35P	9.60	10.20	10.80
20538-039E-0#	39P	10.80	11.40	12.00
20538-041E-0#	41P	11.40	12.00	12.60
20538-045E-0#	45P	12.60	13.20	13.80
20538-049E-0#	49P	13.80	14.40	15.00
20538-051E-0#	51P	14.40	15.00	15.60
20538-055E-0#	55P	15.60	16.20	16.80
20538-057E-0#	57P	16.20	16.80	17.40
20538-061E-0#	61P	17.40	18.00	18.60
20538-065E-0#	65P	18.60	19.20	19.80

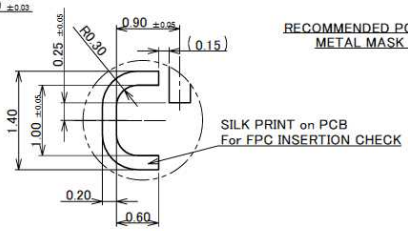
NOTES.
3. SOLDER RESIST SHALL BE APPLIED TO PREVENT SHORT CIRCUITS WHEN PLACING SIGNAL LINES ON GROUND AREA.



RECOMMENDED FPC LAYOUT

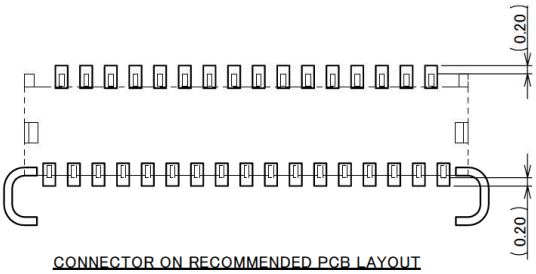


RECOMMENDED PCB & METAL MASK LAYOUT
METAL MASK THICKNESS : t=0.12mm

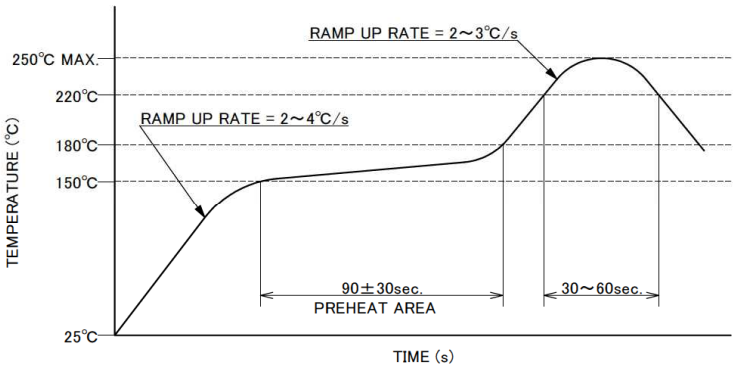


DETAIL AA
(S=20/1)

Rev.17



CONNECTOR ON RECOMMENDED PCB LAYOUT



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

Rev.17

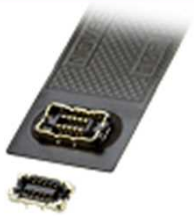
Connector Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC (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 : ⊿40mohm MAX.
INSULATION RESISTANCE	100Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	20 CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20 CYCLES)	INITIAL / 20 CYCLES 0.21N (21gf) × n MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20 CYCLES)	INITIAL / 20 CYCLES 0.014N (1.4gf) × n MIN.
FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL: 0.13N (13gf) ×n MIN. / AFTER TEST: 0.10N (10gf) ×n MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-1579
TEST REPORT	TR-12040
PACKING STANDARD	300-920
INSTRUCTION MANUAL	HIM-12007
APPEARANCE CRITERIA No.	QLS-A***

※ "n" IS THE NUMBER OF PIN

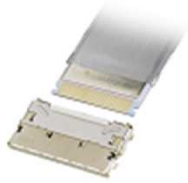
Rev.17

Board to Board



High-Density

Autolocking FPC/FFC



High-Density

FPC/FFC

Micro-Coaxial / Discrete Cable

High-Speed

RF

High-Frequency

Optical Module

High-Speed

Power

High-Power

I/O (Input/Output)

Quick charge

Effector

Custom Connectors Available

Inquiry

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Contact your sales representative or more detailed information.

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