

# MINIFLEX® 5-BF III

封裝和FPC 圖位兼容業內常規產品，高度 = 2.0 mm · 0.5 mm間距，水平對插，後鎖式

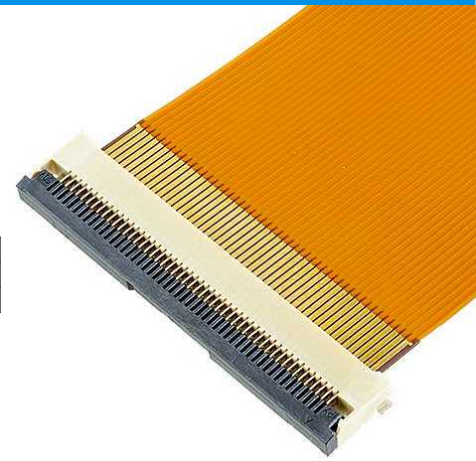
## Product Specifications:

Board Pitch (mm)	0.5	
Wiping Length (mm)	1.35	
Size (mm)	Height	2.0 +/-0.2
	Width	Formula: 3.5+(0.5*?p)
	Depth	Open: 4.92 Close: 5.9
Pin counts	Range	10-60 (even)
	Available	8,10,12,14,18,20,22,24,30,34,36,38,40,45,50

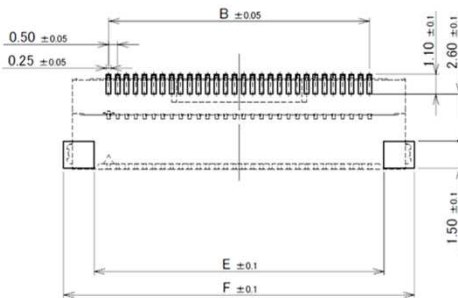
\*若有規格外 Pin 數需求，請與當地負責業務窗口聯繫。

## Applicable FPC/FFC:

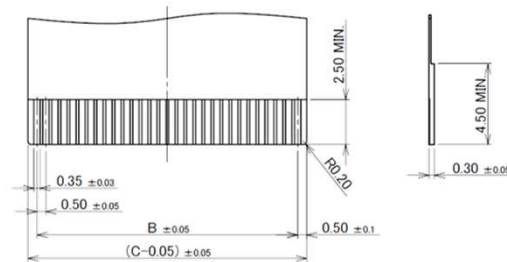
FPC/FFC Contact Pitch	0.5
FPC/FFC Contact Point	Top and Bottom
FPC/FFC Thickness (mm)	0.3 +/- 0.05



## 封裝和FPC 圖位兼容業內常規產品



PCB 以及鋼網開口建議尺寸  
建議鋼網厚度: t=0.12 mm

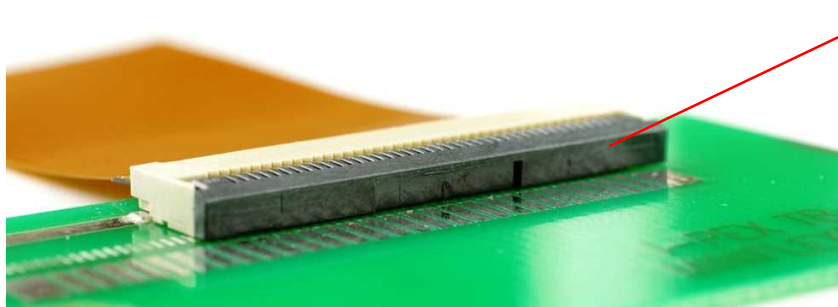


FPC/FFC建議布局

位置	B	C	E	F
8P	3.50	4.55	5.10	8.50
10P	4.50	5.55	6.10	9.50
12P	5.50	6.55	7.10	10.50
14P	6.50	7.55	8.10	11.50
18P	8.50	9.55	10.10	13.50
20P	9.50	10.55	11.10	14.50
22P	10.50	11.55	12.10	15.50
24P	11.50	12.55	13.10	16.50
30P	14.50	15.55	16.10	19.50
34P	16.50	17.55	18.10	21.50
36P	17.50	18.55	19.10	22.50
38P	18.50	19.55	20.10	23.50
40P	19.50	20.55	21.10	24.50
45P	22.00	23.05	23.60	27.00
50P	24.50	25.55	26.10	29.50

## 全覆蓋式鋼琴蓋防止灰塵和端子變形

當鋼琴蓋鎖住時，鋼琴蓋作為一個完整的掩護物，在打開時保護端子免遭損壞，同時防止灰塵汙染和短路

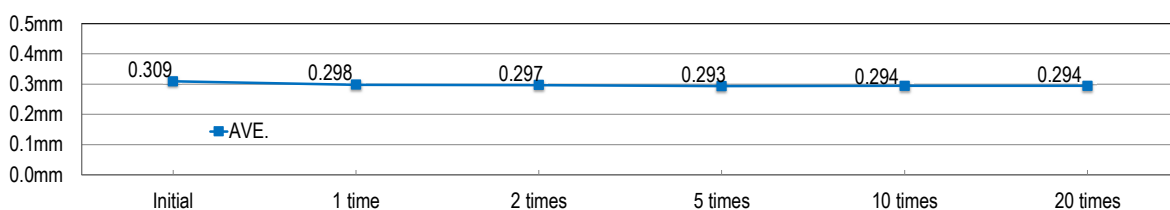


鋼琴蓋

## 在沒有插入FPC的情況下關閉鋼琴蓋，連接器仍可使用

在 SMT 加工後，如果鋼琴蓋在沒有插入 FPC 的情況下意外閉合，連接器仍可使用

■ FPC 未插入情況下閉合鋼琴蓋，其前後的接點間距離比較如圖 (圖表為 MINIFLEX® 5-BF III 40 pins)



■ FPC插入力上升

■ FPC保持力無太大變化

# Component Parts Details

## Connector Assembly

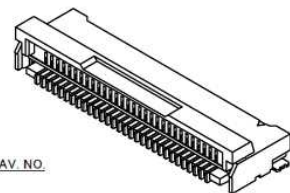
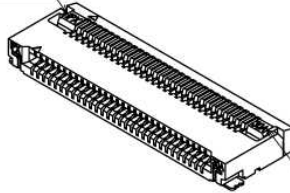
Recommended P/N		20593-0**E-01			
PART NO.	Pos.	A	B	C	D
20593-008E-01#	8	7.50	3.50	4.55	8.10
20593-010E-01#	10	8.50	4.50	5.55	9.10
20593-012E-01#	12	9.50	5.50	6.55	10.10
20593-014E-01#	14	10.50	6.50	7.55	11.10
20593-018E-01#	18	12.50	8.50	9.55	13.10
20593-020E-01#	20	13.50	9.50	10.55	14.10
20593-022E-01#	22	14.50	10.50	11.55	15.10
20593-024E-01#	24	15.50	11.50	12.55	16.10
20593-030E-01#	30	18.50	14.50	15.55	19.10
20593-034E-01#	34	20.50	16.50	17.55	21.10
20593-036E-01#	36	21.50	17.50	18.55	22.10
20593-038E-01#	38	22.50	18.50	19.55	23.10
20593-040E-01#	40	23.50	19.50	20.55	24.10
20593-045E-01#	45	26.00	22.00	23.05	26.60
20593-050E-01#	50	28.50	24.50	25.55	29.10
◆20593-060E-01#	60	33.50	29.50	30.55	34.10

◆MARK MEANS NOT AVAILABLE

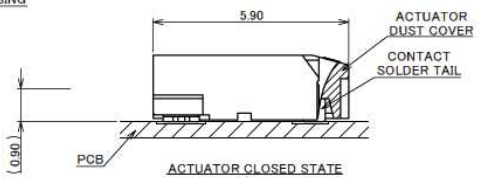
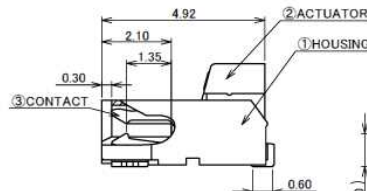
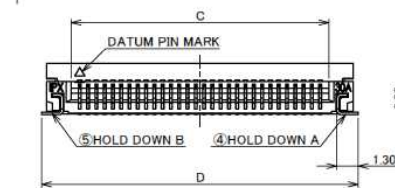
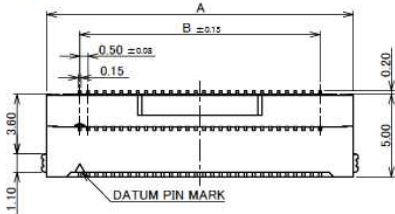
P/N : 20593-0\*\*E-01 M  
 WITHOUT : 2,000pcs/REEL  
 WITH : 500pcs/REEL



LOGO MARK



POS. & CAV. NO.



5	HOLD DOWN B	PHOSPHOR BRONZE	Sn 2.00 μm MIN. OVER Ni 1.00 μm MIN.
4	HOLD DOWN A	PHOSPHOR BRONZE	Sn 2.00 μm MIN. OVER Ni 1.00 μm MIN.
3	CONTACT	PHOSPHOR BRONZE	Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.
2	ACTUATOR	LCP	UL94V-0, BLACK
1	HOUSING	LCP	UL94V-0, BEIGE
NO.	DISCRPTION	MATERIAL	FINISH, REMARKS

### NOTES

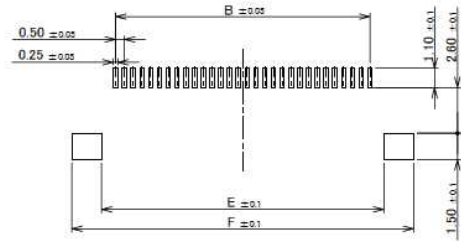
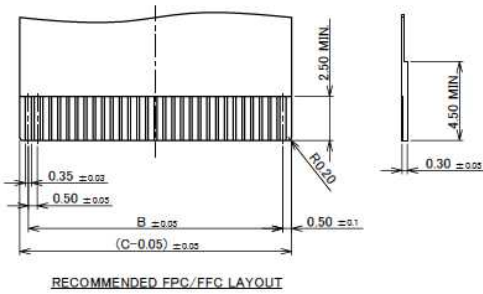
1. CONTACT POINT : Top and Bottom

△ VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HIM-06004 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

# Connector Assembly

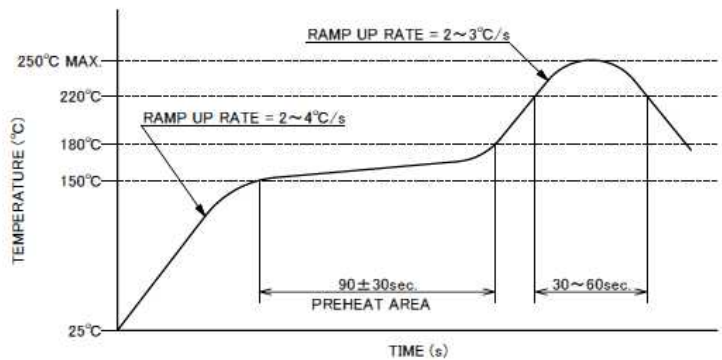
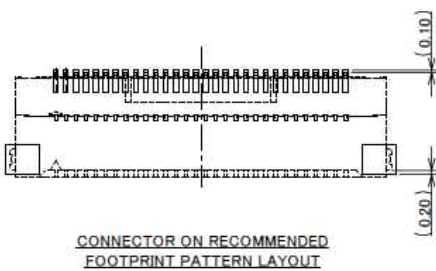
PART No.	Pos.	B	C	E	F
20593-008E-01#	8	3.50	4.55	5.10	8.50
20593-010E-01#	10	4.50	5.55	6.10	9.50
20593-012E-01#	12	5.50	6.55	7.10	10.50
20593-014E-01#	14	6.50	7.55	8.10	11.50
20593-018E-01#	18	8.50	9.55	10.10	13.50
20593-020E-01#	20	9.50	10.55	11.10	14.50
20593-022E-01#	22	10.50	11.55	12.10	15.50
20593-024E-01#	24	11.50	12.55	13.10	16.50
20593-030E-01#	30	14.50	15.55	16.10	19.50
20593-034E-01#	34	16.50	17.55	18.10	21.50
20593-036E-01#	36	17.50	18.55	19.10	22.50
20593-038E-01#	38	18.50	19.55	20.10	23.50
20593-040E-01#	40	19.50	20.55	21.10	24.50
20593-045E-01#	45	22.00	23.05	23.60	27.00
20593-050E-01#	50	24.50	25.55	26.10	29.50
◆20593-060E-01#	60	29.50	30.55	31.10	34.50

◆MARK MEANS NOT AVAILABLE.



- NOTES.
2. THIS AREA CANNOT MOUNT ANOTHER COMPONENTS.
  3. SOLDER RESIST SHALL BE APPLIED TO PREVENT SHORT CIRCUITS WHEN PLACING SIGNAL LINES ON GROUND AREA.

Rev.12



Rev.12

# Connector Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC/DC (PER CONTACT)
RATING AMPERAGE	0.5A AC/DC (PER CONTACT)/ 13A AC/DC(TOTAL)
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	20~85%RH (NON-CONDENSING, NON-FREEZING)
CONTACT RESISTANCE	INITIAL: 50mohm MAX. / AFTER TEST: 70mohm MAX.
INSULATION RESISTANCE	100Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	20 CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20 CYCLES)	INITIAL / 20 CYCLES: 0.50N (51gf) × nN MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20 CYCLES)	INITIAL / 20 CYCLES: 0.10N (10gf) × nN MIN.
FPC/FFC RETENTION FORCE	INITIAL / 20 CYCLES: 0.18N (18gf) × nN MIN.
COPLANARITY	0.10mm MAX.
PRODUCT SPECIFICATION	PRS-1937
TEST REPORT	TR-14023
PACKING STANDARD	PST-14015
INSTRUCTION MANUAL	HIM-06004
APPEARANCE CRITERIA No.	QLS-A***

Rev.12

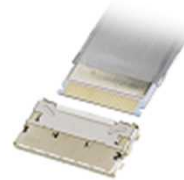
Board to Board



High-Density



Autolocking FPC/FFC



High-Density



FPC/FFC



Micro-Coaxial / Discrete Cable



High-Speed



RF



High-Frequency



Optical Module



High-Speed



Effector



Power



High-Power



I/O (Input/Output)



Quick charge



Inquiry



Custom Connectors Available



I-PEX, MHF, CABLINE, NOVASTACK, EVAFLEX, MINIFLEX, ISH, IARPB, IASLP, ESTORQ, ISFIT, 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](http://www.i-pex.com)



I-PEX

© I-PEX Inc. 2022  
All rights reserved.