

MINIFLEX® 4-ST

초저배 (높이 = 0.5 mm), 0.4 mm Pitch, 수평 결합, 백플립



Product Specifications:

| | | |
|--------------------|-----------|-------------------------|
| Board Pitch (mm) | 0.4 | |
| Wiping Length (mm) | 0.8 | |
| Size (mm) | Height | 0.50 +/- 0.05 |
| | Width | Formula: 1.9+(0.4*?p) |
| | Depth | Open: 2.7 Close: 3.0 |
| Pin counts | Range | 4-15 |
| | Available | 4, 6, 8, 10, 12 |

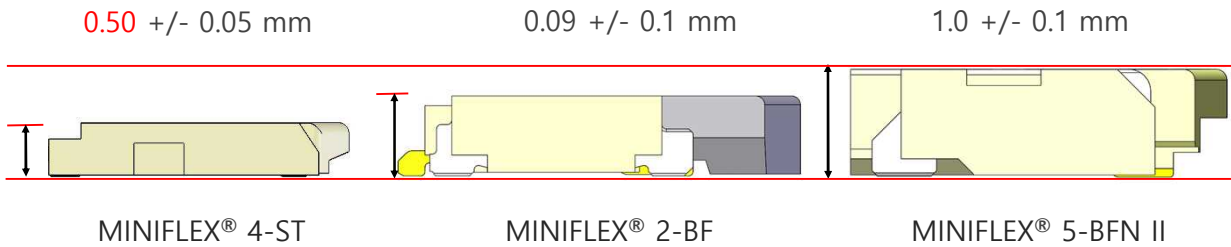
Applicable FPC/FFC:

| | |
|------------------------|---------------|
| FPC/FFC Contact Pitch | 0.4 |
| FPC/FFC Contact Point | Top |
| FPC/FFC Thickness (mm) | 0.12 +/- 0.03 |

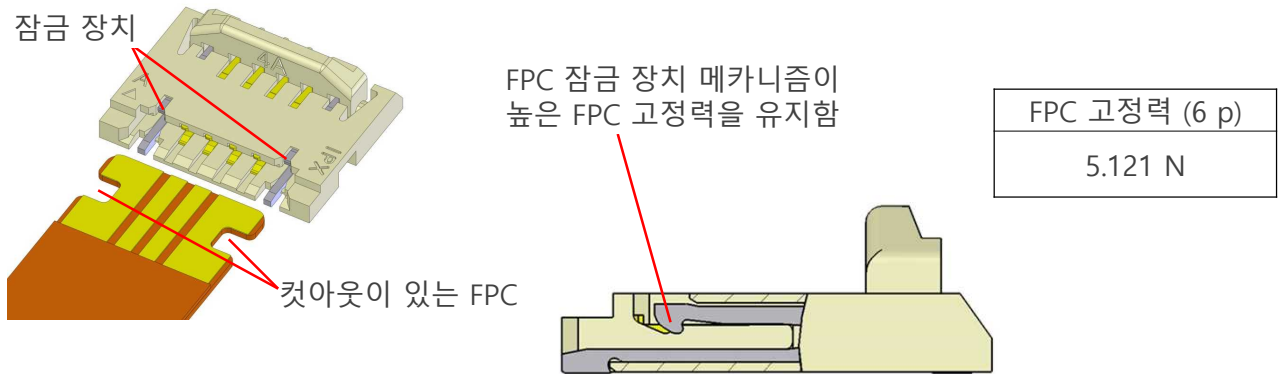
*기재가 되어있지 않은 핀 수의 대응 여부에 대해서는 문의해 부탁드립니다.

▶ 초저배 높이 0.5 mm

MINIFLEX 시리즈 제품 라인업에서 가장 높이가 낮습니다



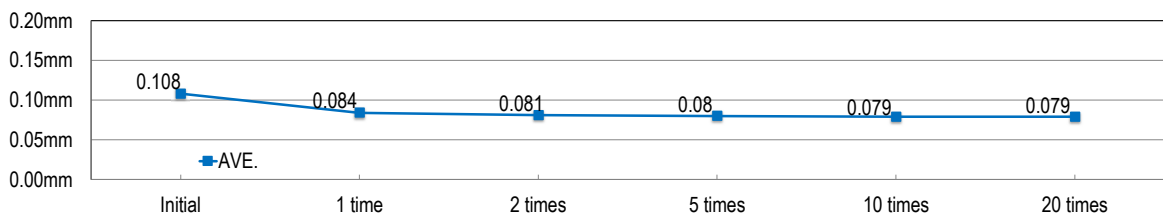
▶ 기계식 Lock 기능에 의한 높은 FPC 유지력



▶ FPC 미삽입 상태에서도 액추에이터 닫기 조작 가능(단자 변형 최소화)

SMT 공정 후에 FPC를 삽입하지 않고 유연히 액추에이터를 닫은 경우에도 Contact 변형 최소화

- 커넥터가 여전히 안정적으로 작동합니다(FPC를 삽입하지 않은 상태에서 액추에이터 작동 전후 접촉 간격 그래프 10핀)



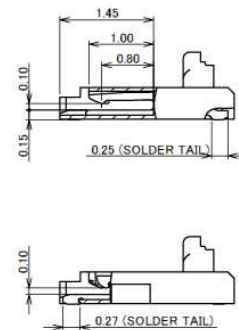
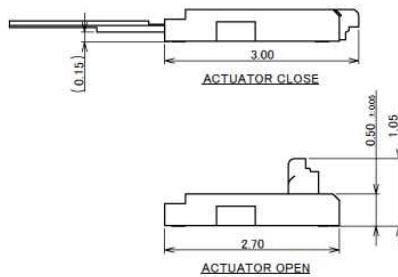
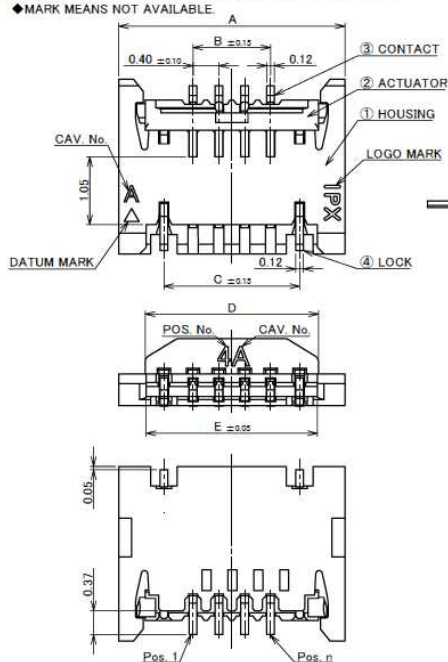
- 커넥터의 삽입력 상승
- 커넥터의 고정력은 큰 변화 없음

Component Parts Details

Connector Assembly

| Recommended P/N | | 20588-0**E-01 | | | | |
|-----------------|------|---------------|------|------|------|------|
| PART No. | Pos. | A | B | C | D | E |
| 20588-004E-01 | 4P | 3.50 | 1.20 | 2.10 | 2.68 | 2.65 |
| 20588-006E-01 | 6P | 4.30 | 2.00 | 2.90 | 3.48 | 3.45 |
| 20588-008E-01 | 8P | 5.10 | 2.80 | 3.70 | 4.28 | 4.25 |
| 20588-010E-01 | 10P | 5.90 | 3.60 | 4.50 | 5.08 | 5.05 |
| 20588-012E-01 | 12P | 6.70 | 4.40 | 5.30 | 5.88 | 5.85 |
| ◆20588-014E-01 | 14P | 7.50 | 5.20 | 6.10 | 6.68 | 6.65 |
| ◆20588-015E-01 | 15P | 7.90 | 5.60 | 6.50 | 7.08 | 7.05 |

◆MARK MEANS NOT AVAILABLE

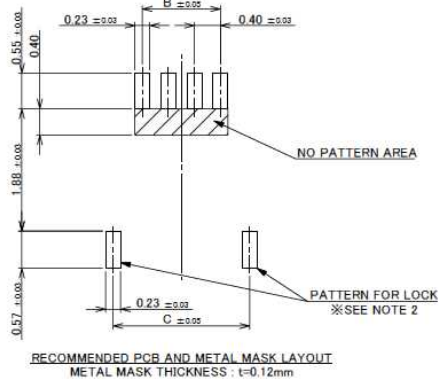
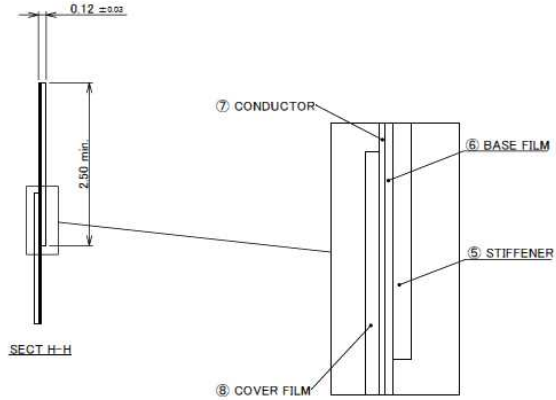
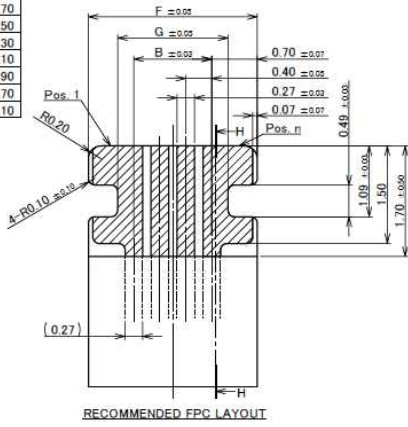


| NO. | DISCRIPTION | MATERIAL | FINISH , REMARKS |
|-----|-------------|-----------------|---|
| 4 | LOCK | PHOSPHOR BRONZE | SOLDER AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN. OTHER : Ni 1.00 μ m MIN. |
| 3 | CONTACT | PHOSPHOR BRONZE | CONTACT AREA : Au 0.1 μ m MIN. OVER Ni 1.00 μ m MIN. SOLDER AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN. |
| 2 | ACTUATOR | LCP | UL94V-0, BEIGE |
| 1 | HOUSING | LCP | UL94V-0, BEIGE |

NOTES
1. CONTACT POINT : ONLY UPPER CONTACT

Connector Assembly

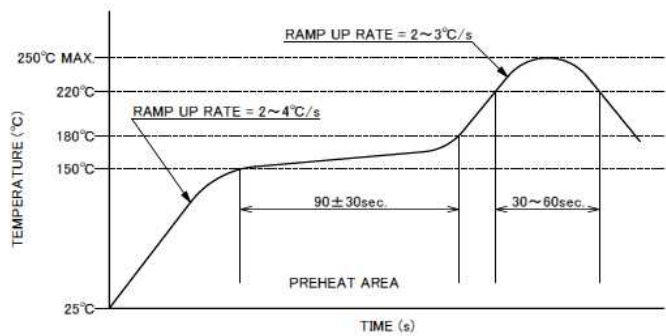
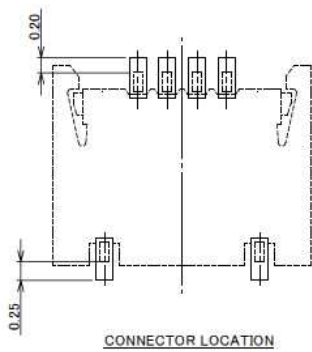
| Pos. | B | C | F | G |
|------|------|------|------|------|
| 4P | 1.20 | 2.10 | 2.60 | 1.70 |
| 6P | 2.00 | 2.90 | 3.40 | 2.50 |
| 8P | 2.80 | 3.70 | 4.20 | 3.30 |
| 10P | 3.60 | 4.50 | 5.00 | 4.10 |
| 12P | 4.40 | 5.30 | 5.80 | 4.90 |
| 14P | 5.20 | 6.10 | 6.60 | 5.70 |
| 15P | 5.60 | 6.50 | 7.00 | 6.10 |



- NOTES.
- PLEASE DO NOT CONNECT THESE TWO SOLDER PADS TO THE ELECTRICAL CIRCUIT. (SIGNAL OR GROUND)
 - ADHESIVE SHOULD USE THERMOSETTING.

| 8 | COVER FILM | PI | |
|-----|-------------|----------|--------------------------|
| 7 | CONDUCTOR | COPPER | Au OVER Ni UNDER PLATING |
| 6 | BASE FILM | PI | |
| 5 | STIFFENER | PI | |
| NO. | DISCRIPTION | MATERIAL | FINISH . REMARKS |

Rev.8



Connector Assembly

| ITEMS | SPECIFICATION |
|--|--|
| RATING VOLTAGE | 50V AC (PER CONTACT) |
| RATING AMPERAGE (FOR SIGNAL CONTACT) | 0.4A DC (PER CONTACT)/ 6.0A DC (PER CONNECTOR) |
| OPERATING TEMPERATURE | 233~358K(-40°C~+85°C) |
| OPERATING HUMIDITY | 20~80% (NON-CONDENSING) |
| CONTACT RESISTANCE (FOR SIGNAL CONTACT) | INITIAL : 60mohm MAX. / AFTER TEST : \leq 40mohm MAX. |
| INSULATION RESISTANCE | INITIAL : 100Mohm MIN. / AFTER TEST : 100Mohm MIN. |
| DIELECTRIC WITHSTANDING VOLTAGE | AC200V |
| DURABILITY | 20 CYCLES |
| ACT CLOSING FORCE (INITIAL / AFTER TEST) | 4P : 1.8N MAX. / 6P : 2.4N MAX. / 8P : 3.0N MAX. 10P : 3.6N MAX. / 12P : 4.2N MAX. |
| ACT RELEASING FORCE (INITIAL / AFTER TEST) | 4P : 0.06N MIN. / 6P : 0.08N MIN. / 8P : 0.10N MIN. 10P : 0.12N MIN. / 12P : 0.14N MIN. |
| FPC RETENTION FORCE (INITIAL / AFTER TEST) | 4P : 2.50N MIN. / 6P : 2.62N MIN. / 8P : 2.74N MIN. 10P : 2.86N MIN. / 12P : 2.98N MIN. |
| COPLANARITY | 0.10 MAX. |
| PRODUCT SPECIFICATION | PRS-1863 |
| TEST REPORT | TR-13088 |
| PACKING STANDARD | PST-13049 |
| INSTRUCTION MANUAL | HIM-14024 |
| APPEARANCE CRITERIA No. | QLS-A*** |

Rev.8

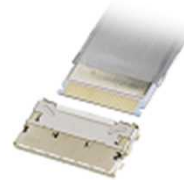
Board to Board



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

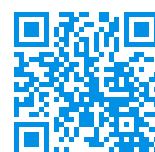


Effector



Custom Connectors Available

Inquiry



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



I-PEX

© I-PEX Inc. 2022
All rights reserved.