

RoHS Compliant



- 1.Material  
See table.
- 2.Electrical
- A.Impedance:50Ω
- B.Frequency range:DC to 6 GHZ
- C.Return Loss:  
≥27 dB ,DC to 1 GHZ  
≥20 dB ,1 to 3 GHZ  
≥17 dB ,3 to 6 GHZ
- D.Insertion Loss:−0.3 db max (DC to 2 GHZ)
- E.Insulation resistance:≥1\*10<sup>3</sup> MΩ
- F.Center contact resistance:≤5 mΩ
- G.Outer contact resistance:≤5 mΩ
- H.Test voltage (at sea level):750V rms
- I.Working voltage (at sea level):335V rms
- J.Power current:≤1ADC

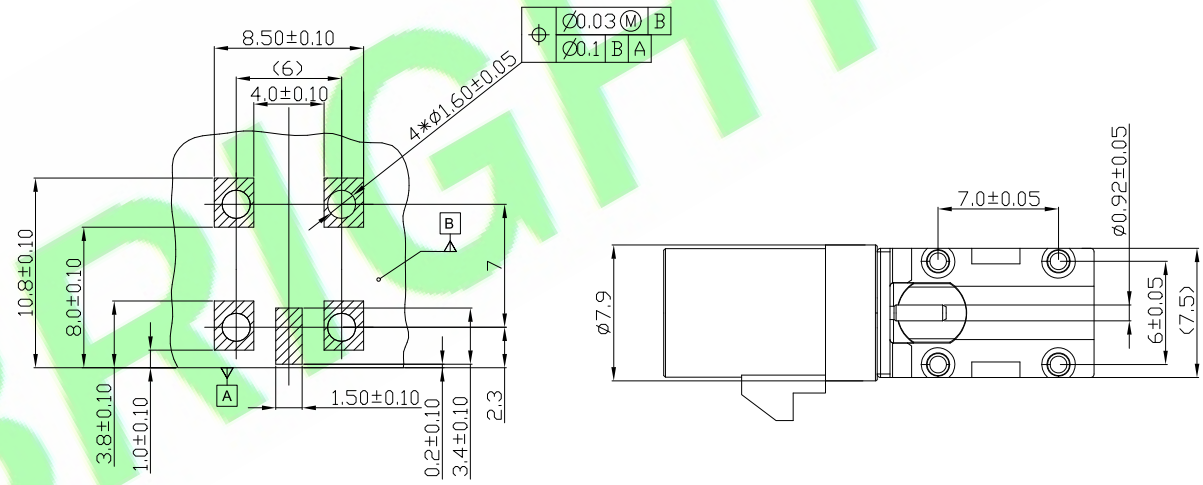
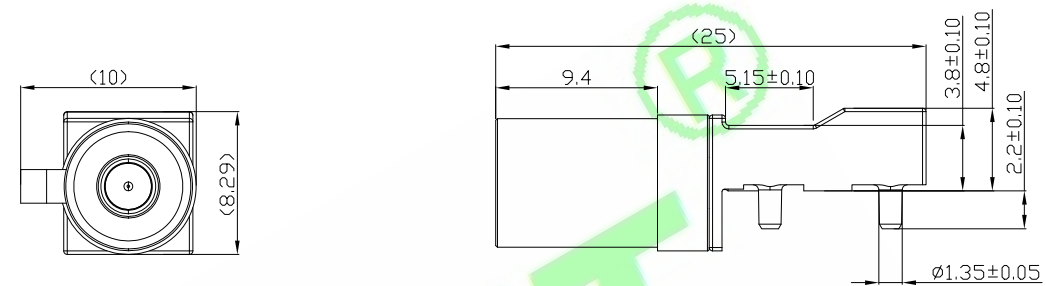
Mechanical data

- A.Mating cycles:≥25
- B.Engagement force:≤25N
- C.Disengagement force:≥2N
- D.Retention force plastic housing:≥110N
- E.Coding efficiency:≥40N

Ordering Information

FRK480R-FX-03-G

- 1 2 3 4 5
- 1: — Series No.
- 2: — R:R/A Type
- 3: — F:Female
- 4: — Fool-proofing Type
- A:A Type H:H Type
- B:B Type I:I Type
- C:C Type K:K Type
- D:D Type L:L Type
- E:E Type M:M Type
- F:F Type N:N Type
- G:G Type L:L Type
- Z:Z Type
- 5: — G:In Tape &reel



Recommended PCB Layout

| NO | Part name     | Number | Material   | Plating/Color         |
|----|---------------|--------|------------|-----------------------|
| 1  | Housing       | 1      | HTN        | See Table 1           |
| 2  | Dielectric    | 1      | HTN        | See Table 1           |
| 3  | Outer contact | 1      | Zinc alloy | Tin 2–5um over Nickel |
| 4  | Contact       | 1      | Brass      | Gold flash            |

|                 |                    |               |                                               |  |
|-----------------|--------------------|---------------|-----------------------------------------------|--|
| DR.BY.:<br>XIAO | GENERAL TOLERANCE: |               | PART NO : FRK480R-FX-03-G                     |  |
| CHKD.:<br>Aren  | LINEAR             | ANGLES        | BURY P/N:                                     |  |
|                 | X.: ±0.40          | X': ±5.0°     | TITLE :<br>FAKRA LOW PROFILE Female CONNECTOR |  |
|                 | X.X: ±0.30         | X.X': ±3.0°   |                                               |  |
| APPD.:<br>Billy | X.XX: ±0.20        | X.XX': ±2.0°  | DATE: 17-Oct-2025                             |  |
|                 | X.XXX: ±0.10       | X.XXX': ±1.0° |                                               |  |

**HJBRIGHT®** 东莞市華晶電子有限公司  
BRIGHT-E ELECTRONIC TECHNOLOGY LIMITED

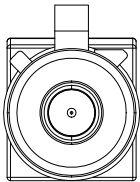
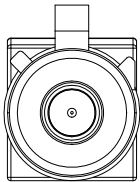
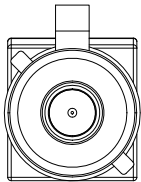
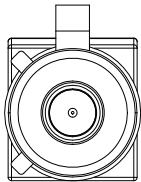
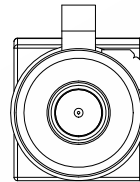
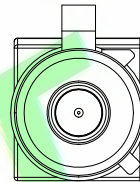
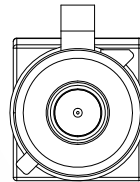
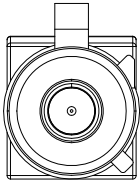
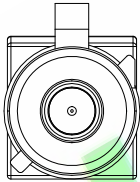
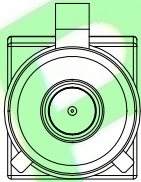
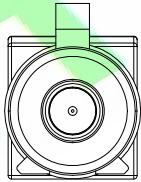
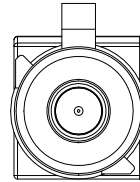
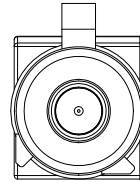
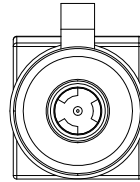
|     |             |       |         |
|-----|-------------|-------|---------|
| 1X  | ORIGINAL    | XIAO  |         |
| REV | DESCRIPTION | DR.BY | ECN. NO |

|            |  |           |
|------------|--|-----------|
| SHEET: 1/2 |  | <b>A4</b> |
| SCALE: 1:1 |  |           |
| UNIT: mm   |  |           |

See Table 1:  
Fool-proofing Type

RoHS Compliant



|                                                                                    |                                                                                    |                                                                                    |                                                                                      |                                                                                      |                                                                                      |                                                                                      |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| A Type                                                                             | B Type                                                                             | C Type                                                                             | D Type                                                                               | E Type                                                                               | F Type                                                                               | G Type                                                                               |
|   |   |   |   |   |   |   |
| Black<br>9005                                                                      | White<br>9001                                                                      | Blue<br>5005                                                                       | Claret Violet<br>4004                                                                | Green<br>6002                                                                        | Brown<br>8011                                                                        | Grey<br>7031                                                                         |
| H Type                                                                             | I Type                                                                             | K Type                                                                             | L Type                                                                               | M Type                                                                               | N Type                                                                               | Z Type                                                                               |
|  |  |  |  |  |  |  |
| Violet<br>4003                                                                     | Beige<br>1001                                                                      | Curry<br>1027                                                                      | Carmine-red<br>3002                                                                  | Pastel Orange<br>2003                                                                | Pastel Green<br>6019                                                                 | Waterblue<br>5021                                                                    |

|              |             |               |       |                   |                 |                    |  |                           |  |                                                                                                                                                                                                                                                                            |  |  |  |                                               |  |
|--------------|-------------|---------------|-------|-------------------|-----------------|--------------------|--|---------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----------------------------------------------|--|
|              |             |               |       | DR.BY.:<br>XIAO   |                 | GENERAL TOLERANCE: |  | PART NO : FRK480R-FX-03-G |  | <div>HJBRIGHT® 東莞市華晶電子有限公司</div> <div>BRIGHT-E ELECTRONIC TECHNOLOGY LIMITED</div> <div><div>SHEET: 2/2</div><div>SCALE: 1:1</div><div>UNIT: mm</div></div> <div></div> <div>A4</div> |  |  |  |                                               |  |
|              |             |               |       | CHKD.:<br>Aren    |                 | LINEAR             |  | ANGLES                    |  |                                                                                                                                                                                                                                                                            |  |  |  | BURY P/N:                                     |  |
|              |             |               |       |                   |                 | X.: ±0.40          |  | X': ±5.0°                 |  |                                                                                                                                                                                                                                                                            |  |  |  | TITLE :<br>FAKRA LOW PROFILE Female CONNECTOR |  |
|              |             |               |       |                   |                 | X.X: ±0.30         |  | X.X': ±3.0°               |  |                                                                                                                                                                                                                                                                            |  |  |  |                                               |  |
|              |             |               |       |                   |                 | X.XX: ±0.20        |  | X.XX': ±2.0°              |  |                                                                                                                                                                                                                                                                            |  |  |  |                                               |  |
| X.XXX: ±0.10 |             | X.XXX': ±1.0° |       | DATE: 17-Oct-2025 |                 |                    |  |                           |  |                                                                                                                                                                                                                                                                            |  |  |  |                                               |  |
| 1X           | ORIGINAL    |               | XIAO  |                   | APPD.:<br>Billy |                    |  |                           |  |                                                                                                                                                                                                                                                                            |  |  |  |                                               |  |
| REV          | DESCRIPTION |               | DR.BY | ECN. NO           |                 |                    |  |                           |  |                                                                                                                                                                                                                                                                            |  |  |  |                                               |  |