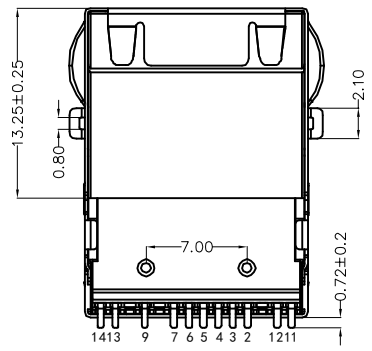
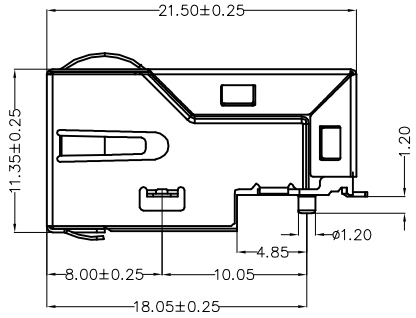
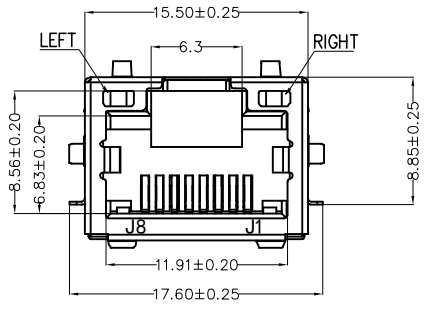
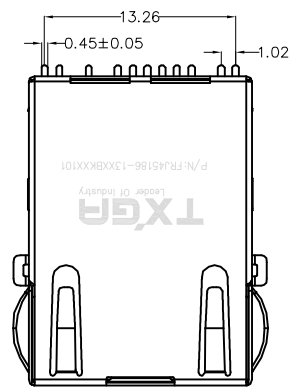


| REV | LOCATIONS | DESCRIPTION | DATE | REVISER | APPD |
|-----|-----------|-------------|------|---------|------|
|     |           |             |      |         |      |



**SPECIFICATIONS**

**Electrical**  
 Current Rating: 1.5A AC(rms)/DC  
 Voltage Rating: 125V AC(rms)/DC  
 Contact Resistance: 30 mΩ Max  
 Insulation Resistance: 500 MΩ Min / DC 500V  
 Withstanding Voltage: 1000V AC r.m.s  
 Operating Temperature: -40°C~+85°C

**Mechanical**  
 Durability: 750 cycles Min.  
 Mating force: 23 N Max.

**Material and plating**  
 Housing: LCP (UL 94V-0), Black  
 Contact: Phosphor Bronze/ Selective gold plated on contact area and tin plated on tails area  
 Shell: Brass/Nickel Plated

**Ordering Information**

FRJ45 186 - 1 3 XX BK X X 1 0 1  
 1 2 3 4 5 6 7 8 9 10

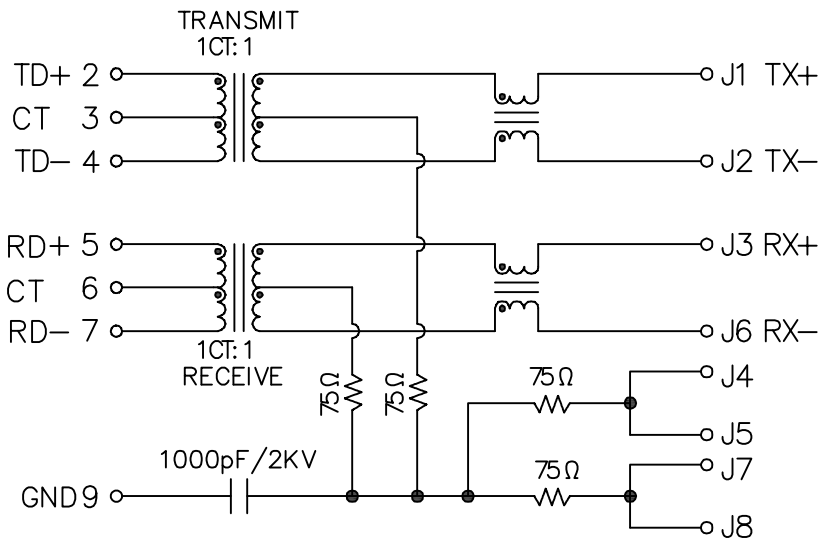
|   |                                  |   |                               |   |   |   |  |    |   |
|---|----------------------------------|---|-------------------------------|---|---|---|--|----|---|
| 1 | Category<br>FRJ45-RJ45 Connector | 2 | Distinction No.<br>186        | 3 | Ports options<br>1-1 ports                                | 4 | Plating<br>3-Selective gold on contact area, tin on tail | 5  | Thickness of plating<br>00-Gold flash<br>03-3μ"<br>Custom plate available |
| 6 | Color-Resin<br>BK-Black          | 7 | Packaging<br>K-Tray<br>M-Reel | 8 | LED style<br>1-L: Yellow R: Green<br>2-L: Green R: Yellow | 9 | Contact type<br>1-Square Pin                             | 10 | Pin circuits<br>1-100Base-T   |

|                            |                                       |            |                      |                   |  |                      |                        |               |
|----------------------------|---------------------------------------|------------|----------------------|-------------------|--|----------------------|------------------------|---------------|
| <br>THIRD ANGLE PROJECTION | GENERAL TOLERANCES (UNLESS SPECIFIED) |            | APPROVE BY<br>FRANK  | DATE<br>27/MAY/22 | PART NO.<br>FRJ45186-13XXBKXX101   | ITEM NO.<br>FRJ45186 | <br>Leader Of Industry |               |
|                            | X.±0.30                               | X.±5'      | CHECKED BY<br>CHERRY | DATE<br>27/MAY/22 | TITLE<br>RJ45 Connector 10P8C<br>(Canceled No.1,8,10Circuits)<br>90° Angle(100Base-T)  |                      |                        |               |
| DESIGN UNITS<br>Metric     | X.X±0.20                              | .X'±2"     | DRAWN BY<br>STAR     | DATE<br>27/MAY/22 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO TXGA INDUSTRIAL ELECTRONICS(S.Z)CO.,LTD AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                      | REV 0                  | SHEET NO. 1/3 |
| SCALE<br>5:1               | SIZE<br>A4                            | X.XX±0.15  | .XX'±1"              |                   |  |                      |                        |               |
|                            |                                       | X.XXX±0.10 | .XXX'±0.5"           |                   |  |                      |                        |               |

| REV | LOCATIONS | DESCRIPTION | DATE | REVISER | APPD |
|-----|-----------|-------------|------|---------|------|
|     |           |             |      |         |      |

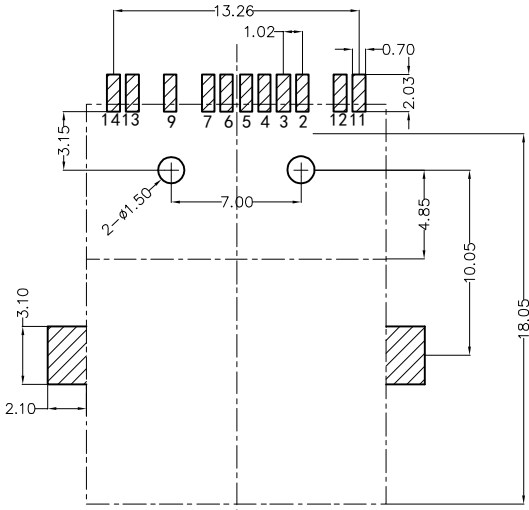
PCB SIDE TO PHY

CABLE SIDE

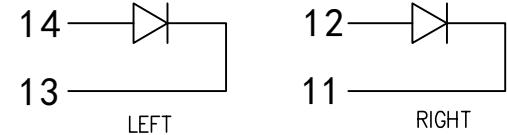


Electrical Specifications

- Turn ratio: 2~4: J1~J2=1CT:1CT(±2%)  
5~6: J3~J6=1CT:1CT(±2%)
- OCL: 350uH Min. at 100KHz 100mV 8mA DC
- Insertion loss: -1.0dB Max. 1MHz~100MHz
- Return loss: -20dB Min. 1MHz~10MHz  
-16dB Min. 10MHz~30MHz  
-12dB Min. 30MHz~60MHz  
-10dB Min. 60MHz~80MHz
- Cross talk: -40dB Min. 1MHz~30MHz  
-35dB Min. 30MHz~60MHz  
-30dB Min. 60MHz~100MHz
- CMR: -30dB Min. 1MHz~100MHz
- Hi-Pot: 1500V AC & 2250V DC 6S 1mA PRI TO SEC



Recommended P.C.Board Layout  
General Tolerances: ±0.05

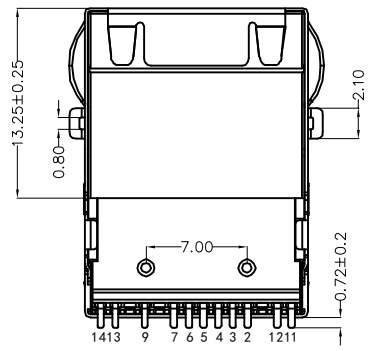
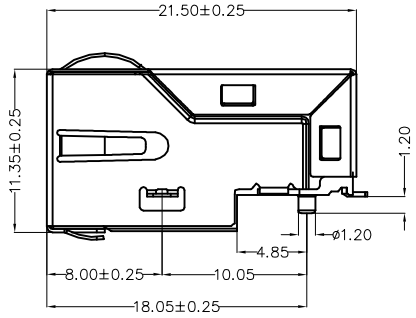
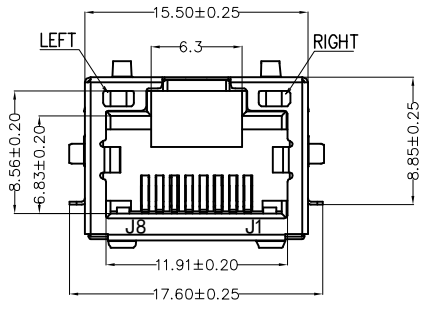
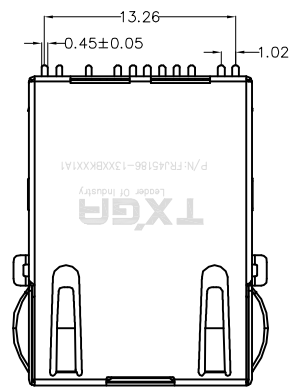


LED Specification

| Standard LED Color | LED Wavelength | Foward(A) | Foward(V)  |
|--------------------|----------------|-----------|------------|
| Green              | 568nm          | 20mA      | 1.85-2.45V |
| Yellow             | 585nm          | 20mA      | 1.7-2.2V   |

|                            |                                       |            |                      |                   |  |                      |                        |               |
|----------------------------|---------------------------------------|------------|----------------------|-------------------|--|----------------------|------------------------|---------------|
| <br>THIRD ANGLE PROJECTION | GENERAL TOLERANCES (UNLESS SPECIFIED) |            | APPROVE BY<br>FRANK  | DATE<br>27/MAY/22 | PART NO.<br>FRJ45186-13XXBKXX101   | ITEM NO.<br>FRJ45186 | <br>Leader Of Industry |               |
|                            | X.±0.30                               | X.±5°      | CHECKED BY<br>CHERRY | DATE<br>27/MAY/22 | TITLE<br>RJ45 Connector 10P8C<br>(Canceled No.1,8,10Circuits)<br>90° Angle(100Base-T)  |                      |                        |               |
| DESIGN UNITS<br>Metric     | X.X±0.20                              | .X'±2°     | DRAWN BY<br>STAR     | DATE<br>27/MAY/22 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO TXGA INDUSTRIAL ELECTRONICS(S.Z)CO.,LTD AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                      | REV 0                  | SHEET NO. 2/3 |
| SCALE<br>5:1               | SIZE<br>A4                            | X.XX±0.15  |                      |                   |  |                      |                        |               |
|                            |                                       | X.XXX±0.10 |                      |                   |  |                      |                        |               |

| REV | LOCATIONS | DESCRIPTION | DATE | REVISER | APPD |
|-----|-----------|-------------|------|---------|------|
|     |           |             |      |         |      |



**SPECIFICATIONS**

**Electrical**  
 Current Rating: 1.5A AC(rms)/DC  
 Voltage Rating: 125V AC(rms)/DC  
 Contact Resistance: 30 mΩ Max  
 Insulation Resistance: 500 MΩ Min / DC 500V  
 Withstanding Voltage: 1000V AC r.m.s  
 Operating Temperature: -40°C~+85°C

**Mechanical**  
 Durability: 750 cycles Min.  
 Mating force: 23 N Max.

**Material and plating**  
 Housing: LCP (UL 94V-0), Black  
 Contact: Phosphor Bronze/ Selective gold plated on contact area and tin plated on tails area  
 Shell: Brass/Nickel Plated

**Ordering Information**

FRJ45 186 - 1 3 XX BK X X 1 A 1  
 1 2 3 4 5 6 7 8 9 10 11

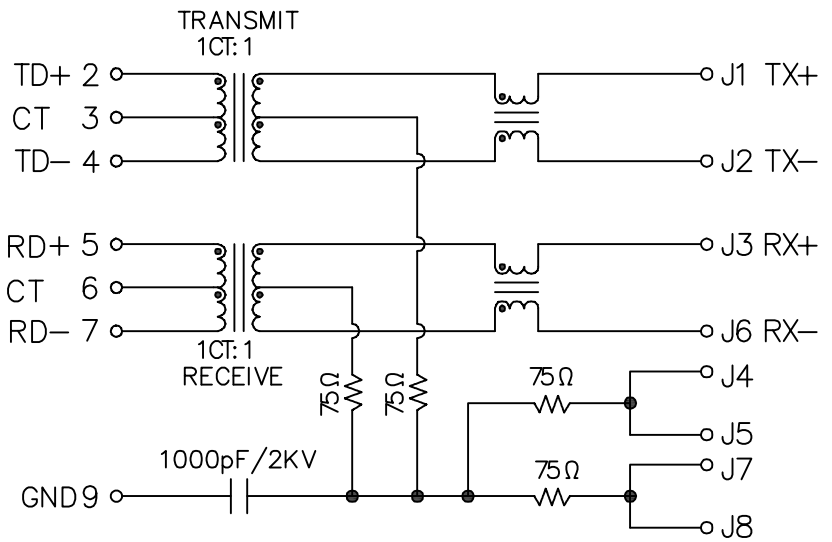
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|---|----------------------------------|---|-------------------------------|---|---|---|--|----|---|----|-----------------------------|
| 1 | Category<br>FRJ45-RJ45 Connector | 2 | Distinction No.<br>186        | 3 | Ports options<br>1-1 ports                                | 4 | Plating<br>3-Selective gold on contact area, tin on tail | 5  | Thickness of plating<br>00-Gold flash<br>03-3μ"<br>Custom plate available |    |                             |
| 6 | Color-Resin<br>BK-Black          | 7 | Packaging<br>K-Tray<br>M-Reel | 8 | LED style<br>1-L: Yellow R: Green<br>2-L: Green R: Yellow | 9 | Contact type<br>1-Square Pin                             | 10 | Type<br>A-A type  | 11 | Pin circuits<br>1-100Base-T |

|                            |                                       |            |                      |                   |  |                      |                        |               |
|----------------------------|---------------------------------------|------------|----------------------|-------------------|--|----------------------|------------------------|---------------|
| <br>THIRD ANGLE PROJECTION | GENERAL TOLERANCES (UNLESS SPECIFIED) |            | APPROVE BY<br>FRANK  | DATE<br>27/MAY/22 | PART NO.<br>FRJ45186-13XXBKXX1A1   | ITEM NO.<br>FRJ45186 | <br>Leader Of Industry |               |
|                            | X.±0.30                               | X.±5'      | CHECKED BY<br>CHERRY | DATE<br>27/MAY/22 | TITLE<br>RJ45 Connector 10P8C<br>(Canceled No.1,8,10Circuits)<br>90° Angle(100Base-T)  |                      |                        |               |
| DESIGN UNITS<br>Metric     | X.X±0.20                              | .X'±2"     | DRAWN BY<br>STAR     | DATE<br>27/MAY/22 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO TXGA INDUSTRIAL ELECTRONICS(S.Z)CO.,LTD AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                      | REV 0                  | SHEET NO. 1/3 |
| SCALE<br>5:1               | SIZE<br>A4                            | X.XX±0.15  | .XX'±1"              |                   |  |                      |                        |               |
|                            |                                       | X.XXX±0.10 | .XXX'±0.5'           |                   |  |                      |                        |               |

| REV | LOCATIONS | DESCRIPTION | DATE | REVISER | APPD |
|-----|-----------|-------------|------|---------|------|
|     |           |             |      |         |      |

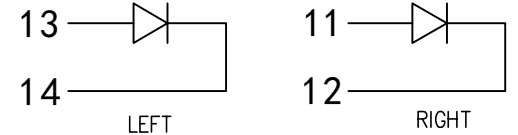
PCB SIDE TO PHY

CABLE SIDE



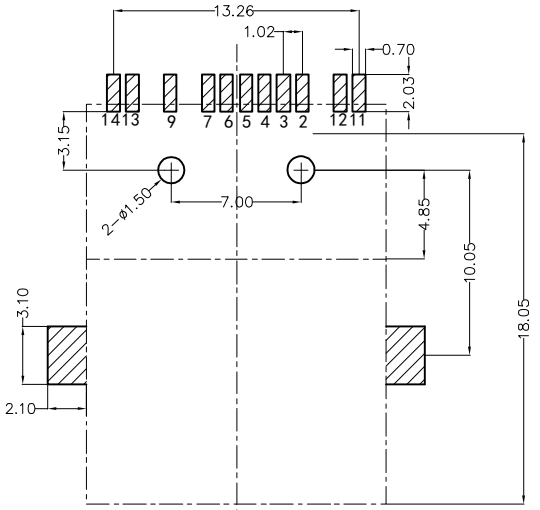
Electrical Specifications

- Turn ratio: 2~4: J1~J2=1CT:1CT(±2%)  
5~6: J3~J6=1CT:1CT(±2%)
- OCL: 350uH Min. at 100KHz 100mV 8mA DC
- Insertion loss: -1.0dB Max. 1MHz~100MHz
- Return loss: -20dB Min. 1MHz~10MHz  
-16dB Min. 10MHz~30MHz  
-12dB Min. 30MHz~60MHz  
-10dB Min. 60MHz~80MHz
- Cross talk: -40dB Min. 1MHz~30MHz  
-35dB Min. 30MHz~60MHz  
-30dB Min. 60MHz~100MHz
- CMR: -30dB Min. 1MHz~100MHz
- Hi-Pot: 1500V AC & 2250V DC 6S 1mA PRI TO SEC



LED Specification

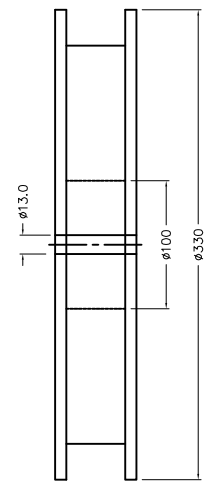
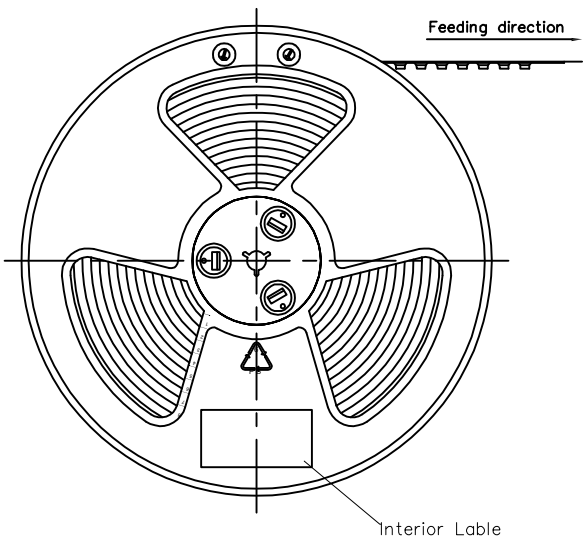
| Standard LED Color | LED Wavelength | Foward(A) | Foward(V)  |
|--------------------|----------------|-----------|------------|
| Green              | 568nm          | 20mA      | 1.85-2.45V |
| Yellow             | 585nm          | 20mA      | 1.7-2.2V   |



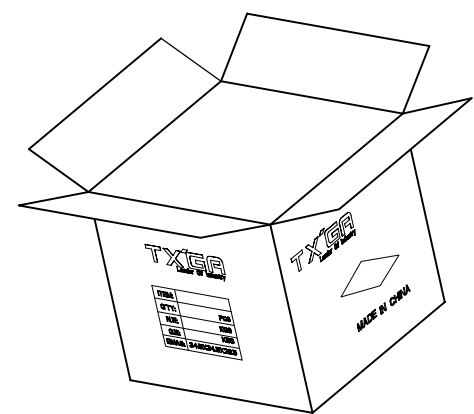
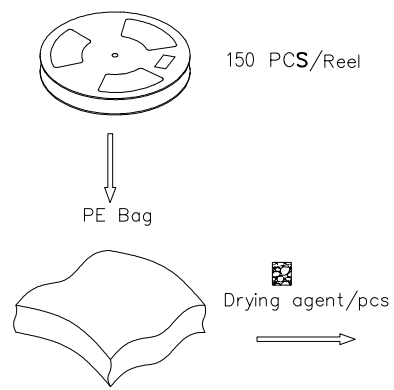
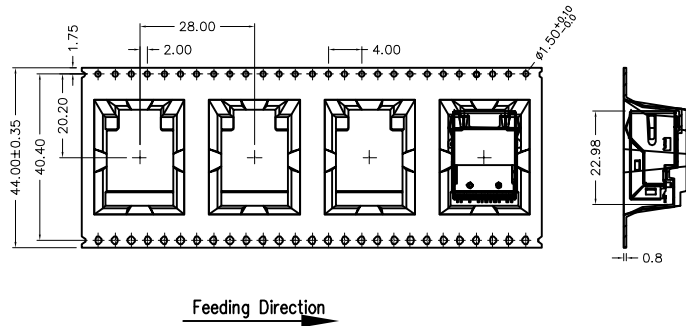
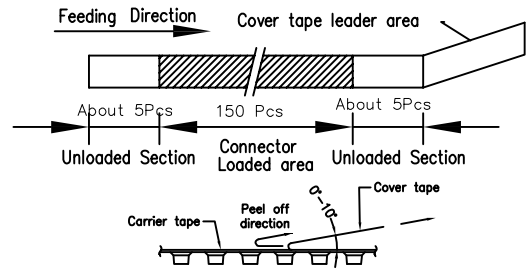
Recommended P.C.Board Layout  
General Tolerances: ±0.05

|                            |                                       |            |                      |                   |  |                      |                        |               |
|----------------------------|---------------------------------------|------------|----------------------|-------------------|--|----------------------|------------------------|---------------|
| <br>THIRD ANGLE PROJECTION | GENERAL TOLERANCES (UNLESS SPECIFIED) |            | APPROVE BY<br>FRANK  | DATE<br>27/MAY/22 | PART NO.<br>FRJ45186-13XXBKXX1A1   | ITEM NO.<br>FRJ45186 | <br>Leader Of Industry |               |
|                            | X.±0.30                               | X.±5°      | CHECKED BY<br>CHERRY | DATE<br>27/MAY/22 | TITLE<br>RJ45 Connector 10P8C<br>(Canceled No.1,8,10Circuits)<br>90° Angle(100Base-T)  |                      |                        |               |
| DESIGN UNITS<br>Metric     | X.X±0.20                              | .X'±2°     | DRAWN BY<br>STAR     | DATE<br>27/MAY/22 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO TXGA INDUSTRIAL ELECTRONICS(S.Z)CO.,LTD AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                      | REV 0                  | SHEET NO. 2/3 |
| SCALE<br>5:1               | SIZE<br>A4                            | X.XX±0.15  |                      |                   |  |                      |                        |               |
|                            |                                       | X.XXX±0.10 |                      |                   |  |                      |                        |               |

| REV | LOCATIONS | DESCRIPTION | DATE | REVISER | APPD |
|-----|-----------|-------------|------|---------|------|
|     |           |             |      |         |      |



- Note:
- 10 sprocket hole cumulative tolerance  $\pm 0.2$
  - Carrier camber is within 1.0mm in 100mm
  - Material: White Conductive polystyrene Alloy 100% recyclable
  - All dimensions meet EIA-481-3 requirements
  - Component load per 13" reel: 150pcs



|                            |                                       |            |            |           |  |          |                        |
|----------------------------|---------------------------------------|------------|------------|-----------|--|----------|------------------------|
| <br>THIRD ANGLE PROJECTION | GENERAL TOLERANCES (UNLESS SPECIFIED) |            | APPROVE BY | DATE      | PART NO.   | ITEM NO. | <br>Leader Of Industry |
|                            | X.±0.30                               | X.±5'      | FRANK      | 27/MAY/22 | FRJ45186-13XXBKXX1A1   | FRJ45186 |                        |
| DESIGN UNITS Metric        | X.X±0.20                              | .X'±2"     | CHECKED BY | DATE      | TITLE  |          | REV 0                  |
| SCALE 5:1                  | X.XX±0.15                             | .XX'±1"    | CHERRY     | 27/MAY/22 | RJ45 Connector 10P8C (Canceled No.1,8,10Circuits) 90° Angle(100Base-T)   |          | SHEET NO. 3/3          |
| SIZE A4                    | X.XXX±0.10                            | .XXX'±0.5" | DRAWN BY   | DATE      | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO TXGA INDUSTRIAL ELECTRONICS(S.Z)CO.,LTD AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |          |                        |
|                            |                                       |            | STAR       | 27/MAY/22 |  |          |                        |