

SECTION A-A  
SCALE 1:1

## Specifications

### A. Material

Insulator: LCP, UL94 V-0, Black  
Contact: Copper Alloy, T=0.12mm  
Mid Plate: Stainless Steel, T=0.15mm  
Shell: Stainless Steel, T=0.30mm  
EMI: Stainless Steel, T=0.10mm

### B. Plating

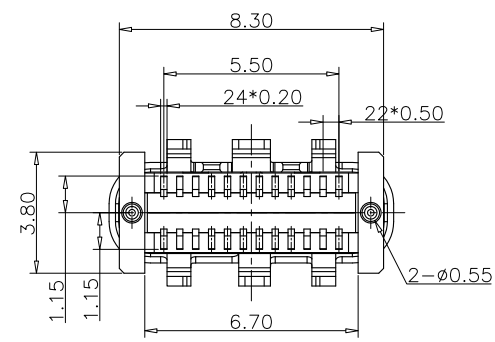
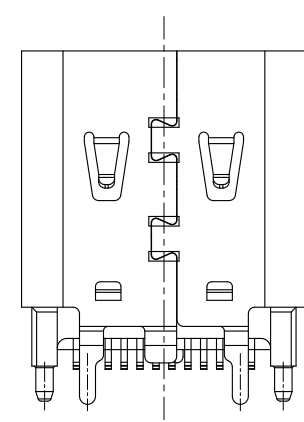
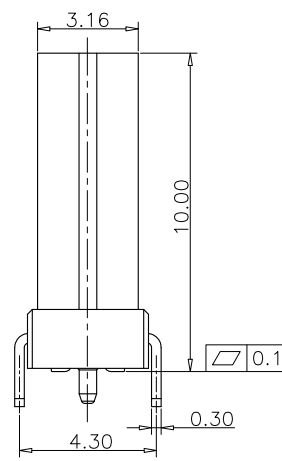
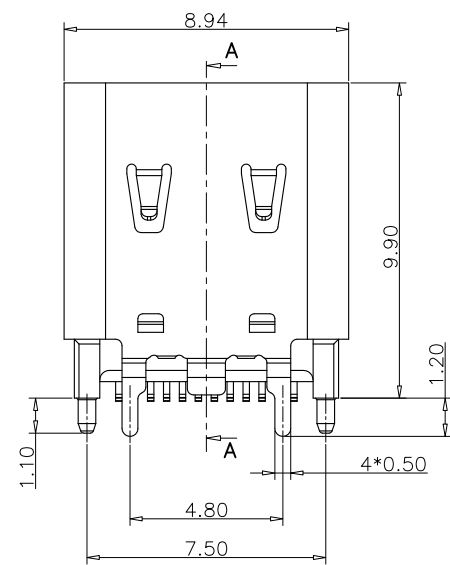
Contact Area: 3u" Au over 60u" min. Nickel  
Solder Tails: 60u" min. Matte Tin over 60u" min. Nickel  
Shell: 50u" min. Nickel  
EMI: 50u" min. Nickel  
Mid Plate: No Plating

### C. Electrical

Current Rating: 5.00A collectively for VBus & GND pins  
1.25A for A5/B5 pins  
0.25A for all other pins  
Voltage Rating: 48V  
Power Rating: 240W  
Contact Resistance: 40mΩ max initial  
50mΩ max after test  
Dielectric Withstanding Voltage: 100V AC  
Insulation Resistance: 100MΩ min.

### D. Mechanical & Environmental

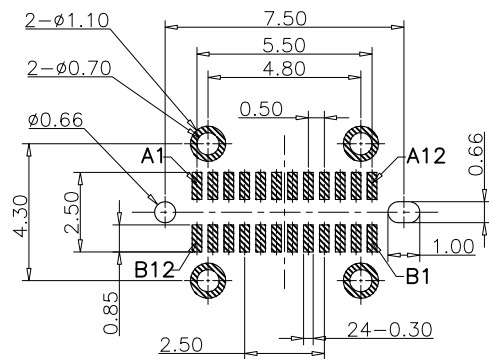
Operating Temperature: -25℃ to +85℃  
Mating Force: 5 to 20 N.  
Unmated Force: 6 to 20 N after test  
Durability: 10,000 cycles



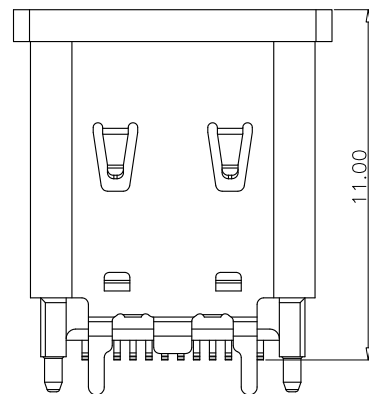
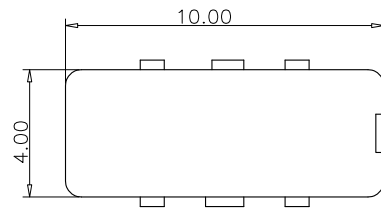
| Part Number    |           |          | Product Description                                             |          |            |  |
|----------------|-----------|----------|-----------------------------------------------------------------|----------|------------|--|
| PTCFW-H12E-022 |           |          | USB 3.2 Gen2 Type C Receptacle, Vertical, SMT, H=10.0mm, 24 Pin |          |            |  |
| DWG.No.        | P-TCF-055 |          | Tolerances Unspecified                                          |          | Units:     |  |
| Revision       | A0        |          | X.X ±0.35                                                       | X° ±5°   | Metric(mm) |  |
| Designed       | Lee       | 11/21/20 | X.XX ±0.25                                                      | X.X° ±2° |            |  |
| Approved       | Allen     | 11/21/20 | X.XXX ±0.15                                                     |          |            |  |

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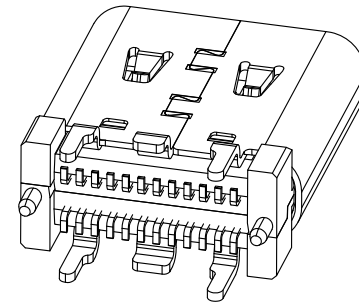
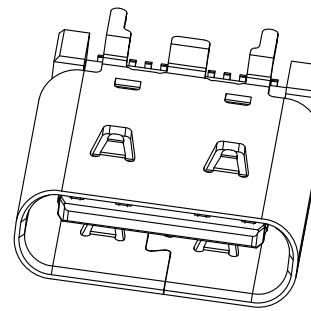
RECOMMENDED PCB LAYOUT (COMPONENT SIDE)  
TOLERANCE FOR PCB LAYOUT IS  $\pm 0.05$



WITH PICK UP COVER  
SCALE 1:1

#### PIN ASSIGNMENTS

| PIN NUMBER | SIGNAL NAME | PIN NUMBER | SIGNAL NAME |
|------------|-------------|------------|-------------|
| A1         | GND         | B12        | GND         |
| A2         | TX1+        | B11        | RX1+        |
| A3         | TX1-        | B10        | RX1-        |
| A4         | VBUS        | B9         | VBUS        |
| A5         | CC1         | B8         | SBU2        |
| A6         | DP1         | B7         | DN2         |
| A7         | DN1         | B6         | DP2         |
| A8         | SBU1        | B5         | CC2         |
| A9         | VBUS        | B4         | VBUS        |
| A10        | RX2-        | B3         | TX2-        |
| A11        | RX2+        | B2         | TX2+        |
| A12        | GND         | B1         | GND         |

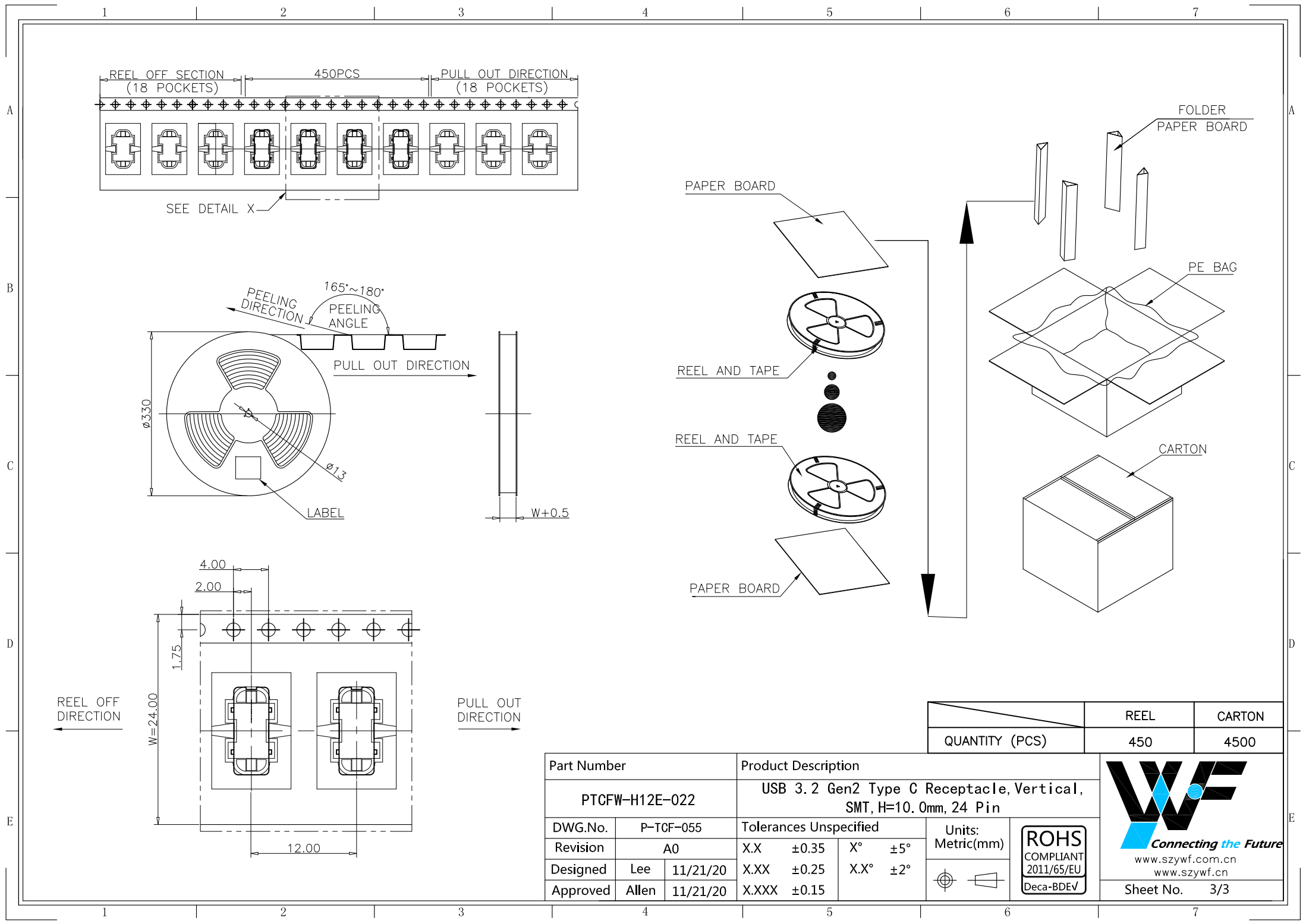


| Part Number    |           |          | Product Description                                             |            |        |               |
|----------------|-----------|----------|-----------------------------------------------------------------|------------|--------|---------------|
| PTCFW-H12E-022 |           |          | USB 3.2 Gen2 Type C Receptacle, Vertical, SMT, H=10.0mm, 24 Pin |            |        |               |
| DWG.No.        | P-TCF-055 |          | Tolerances Unspecified                                          |            | Units: |               |
| Revision       | A0        |          | X.X                                                             | $\pm 0.35$ | X°     | $\pm 5^\circ$ |
| Designed       | Lee       | 11/21/20 | X.XX                                                            | $\pm 0.25$ | X.X°   | $\pm 2^\circ$ |
| Approved       | Allen     | 11/21/20 | X.XXX                                                           | $\pm 0.15$ |        |               |



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| Part Number    |           |          | Product Description                                             |          |                   |
|----------------|-----------|----------|-----------------------------------------------------------------|----------|-------------------|
| PTCFW-H12E-022 |           |          | USB 3.2 Gen2 Type C Receptacle, Vertical, SMT, H=10.0mm, 24 Pin |          |                   |
| DWG.No.        | P-TCF-055 |          | Tolerances Unspecified                                          |          |                   |
| Revision       | A0        |          | X.X ±0.35                                                       | X° ±5°   | Units: Metric(mm) |
| Designed       | Lee       | 11/21/20 | X.XX ±0.25                                                      | X.X° ±2° |                   |
| Approved       | Allen     | 11/21/20 | X.XXX ±0.15                                                     |          |                   |

|                | REEL | CARTON |
|----------------|------|--------|
| QUANTITY (PCS) | 450  | 4500   |

Connecting the Future

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ROHS COMPLIANT 2011/65/EU Deca-BDEV

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