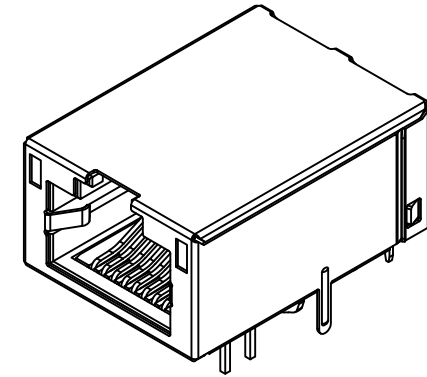
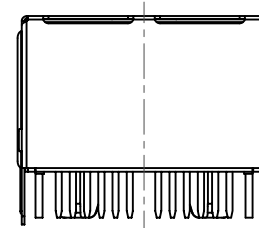
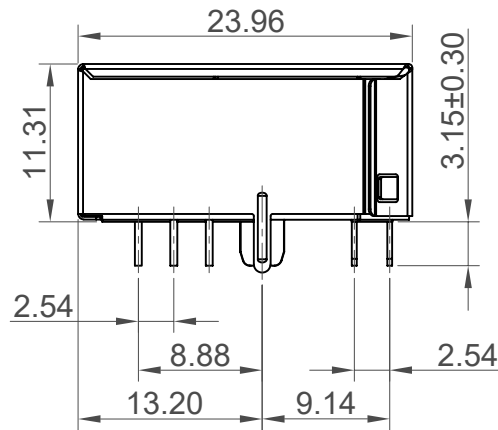
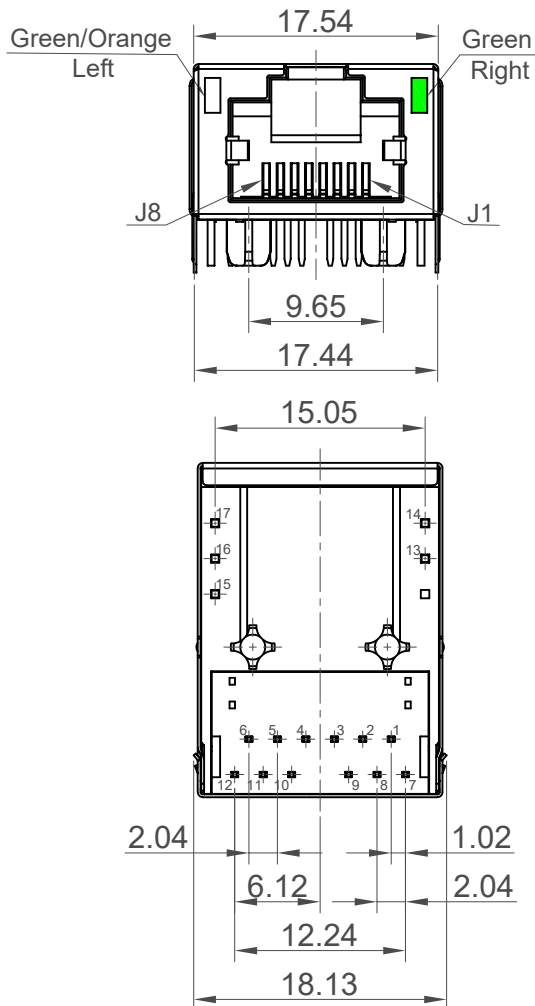
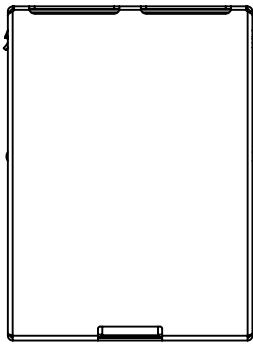




## Specifications

### Material

Terminals Bracket: LCP, UL 94V-0, Black  
Housing: LCP UL 94V-0, Black  
Shell: Brass  
Terminal: Phosphor Bronze

### Plating

Terminal:  
Contact Area: 6μ" Gold  
Solder Tails: Tin  
Shell: Nickel

### Mechanical & Environmental

Storage Temperature: -40°C to +85°C  
Operation Temperature: -40°C to +85°C  
Durability: 750 Cycles min.  
Mating Force: 23N max.

### Ordering Grid

MGB020-1 C JC B006 H [Request Samples and Quotation](#)

### Contact Plating

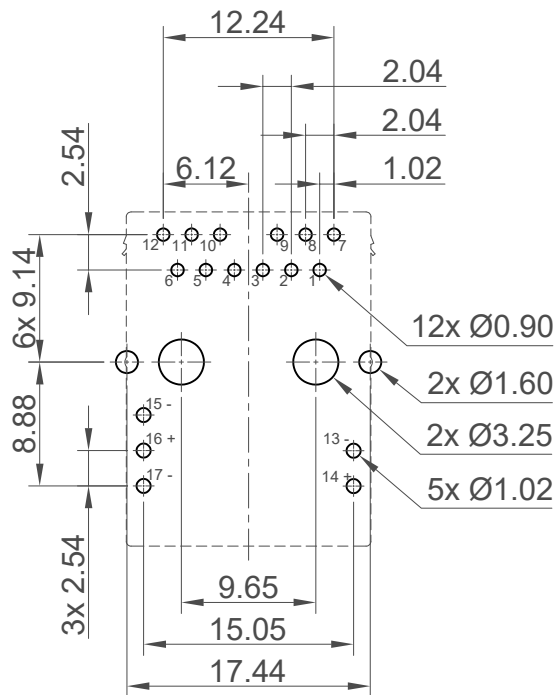
C = 6μ" Gold

### Packing Options

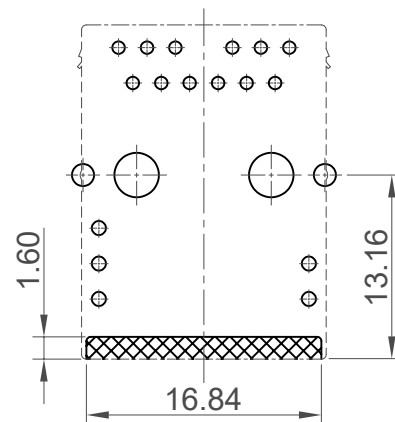
H = Tray (120pcs per tray)

| Part Number  |                 | Product Description                                                                                                                                                |                      |
|--------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| MGB020       |                 | Modular Jack, With Shell, With LED, With Magnetics, R/A Through Hole, 1000Base                                                                                     |                      |
| Drawing Date |                 | 17th October 2025                                                                                                                                                  |                      |
| By           | KY              | Tolerances (Except as Noted)                                                                                                                                       | Units:               |
| Detail       | Drawing Release | Length<br>X: ±0.35<br>X.X: ±0.30<br>X.XX: ±0.25<br>X.XXX: ±0.10                                                                                                    | Metric (mm)          |
| Revision     | A               | Angle<br>X°: ±3.0°<br>X.X°: ±2.0°<br>X.XX°: ±1.5°<br>X.XXX°: ±1.0°                                                                                                 | 3rd Angle Projection |
| Date         | 17/10/25        |                                                                                                                                                                    |                      |
|              |                 |                                                                                                                                                                    |                      |
|              |                 | This drawing is confidential and copyright of Global Connector Technology, Ltd (GCT). This drawing must not be copied or disclosed without written consent. E & OE |                      |
|              |                 | Not to Scale                                                                                                                                                       | Sheet No. 1/4        |

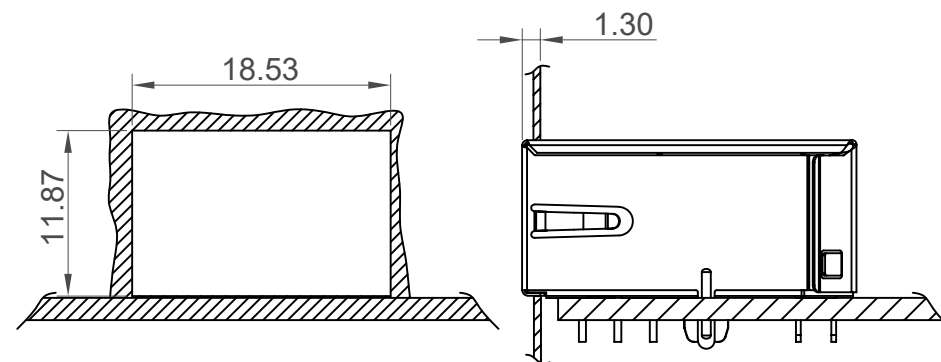
**GCT**  
www.gct.co



**Recommended PCB Layout**  
Viewed from Component Side  
Tolerance:  $\pm 0.05\text{mm}$   
□ Component Outline



**Viewed from Component Side**  
Tolerance:  $\pm 0.05\text{mm}$   
▨ Keep Out Area □ Component Outline

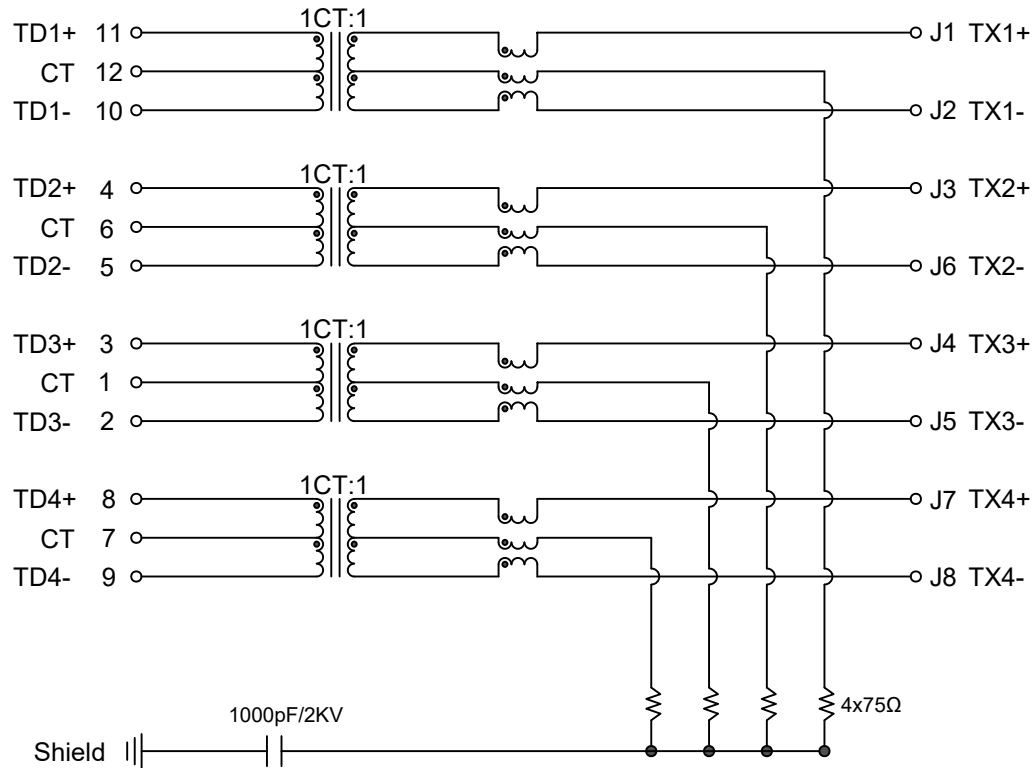


**Recommended Panel Cut Out**  
Tolerance:  $\pm 0.10\text{mm}$

|                   |                 |                                                                                                                                                                    |              |
|-------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Part Number       |                 | Product Description                                                                                                                                                |              |
| MGB020            |                 | Modular Jack, With Shell, With LED, With Magnetics,                                                                                                                |              |
| Drawing Date      |                 | R/A Through Hole, 1000Base                                                                                                                                         |              |
| 17th October 2025 |                 |                                                                                                                                                                    |              |
| By                | KY              | Tolerances (Except as Noted)                                                                                                                                       | Units:       |
|                   |                 | Length                                                                                                                                                             | Metric (mm)  |
| Detail            | Drawing Release | X ±0.35                                                                                                                                                            | X° ±3.0°     |
| Revision          | A               | X.X ±0.30                                                                                                                                                          | X.X° ±2.0°   |
| Date              | 17/10/25        | X.XX ±0.25                                                                                                                                                         | X.XX° ±1.5°  |
|                   |                 | X.XXX ±0.10                                                                                                                                                        | X.XXX° ±1.0° |
|                   |                 | 3rd Angle Projection                                                                                                                                               |              |
|                   |                 | RoHS COMPLIANT 2011/65/EU                                                                                                                                          |              |
|                   |                 | This drawing is confidential and copyright of Global Connector Technology, Ltd (GCT). This drawing must not be copied or disclosed without written consent. E & OE |              |
|                   |                 | Not to Scale                                                                                                                                                       | Drawn By JZ  |
|                   |                 | Sheet No. 2/4                                                                                                                                                      |              |

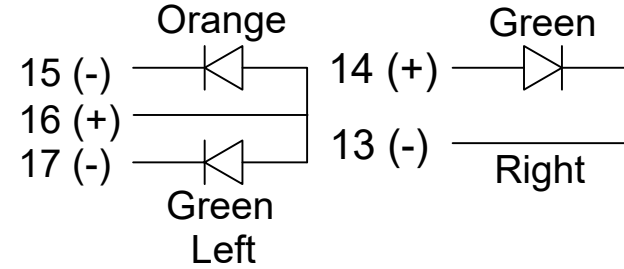
**GCT**  
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PCB SIDE TO PHY



| LED Specification   |             |                |           |
|---------------------|-------------|----------------|-----------|
| Standard LED Colour | Wave Length | Forward A(max) | Forward V |
| Green               | 568nm       | 20mA           | 1.8-2.4V  |
| Orange              | 600nm       | 20mA           | 1.8-2.4V  |

CABLE SIDE



| Pin | Green | Pin | Orange | Pin | Green |
|-----|-------|-----|--------|-----|-------|
| 15  | -     | 16  | +      | 13  | -     |
| 16  | +     | 17  | -      | 14  | +     |

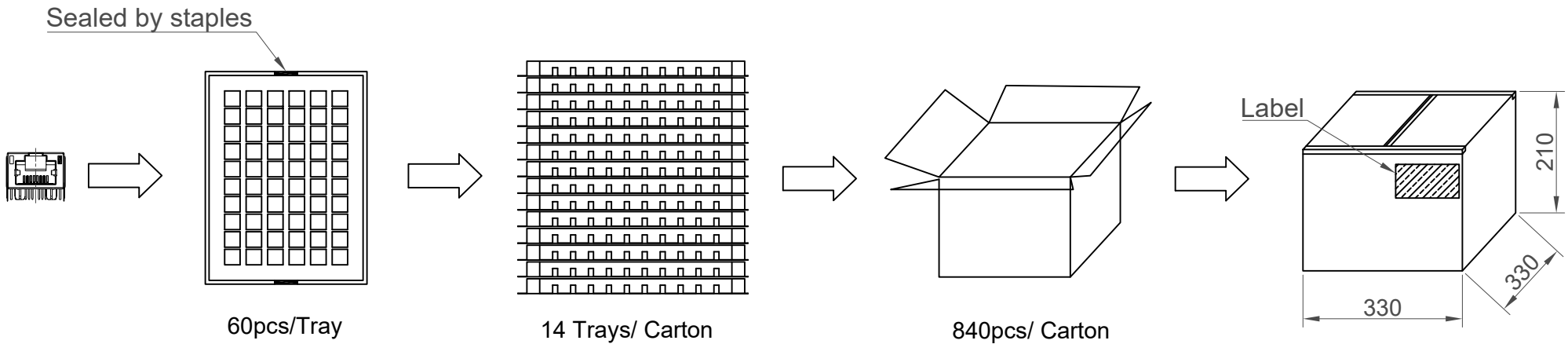
Electrical

- Turn Ratio:  
(2-3) : (J1-J2) = 1CT : 1CT (±2%)  
(4-5) : (J3-J6) = 1CT : 1CT (±2%)  
(6-7) : (J4-J5) = 1CT : 1CT (±2%)  
(8-9) : (J7-J8) = 1CT : 1CT (±2%)
- OCL: 350uH min.@ 100KHz, 100mV, 8mA DC.
- Insertion Loss: 1-100MHz, -1.0dB max.
- Return Loss: 1-30MHz, -18dB min.  
30-60MHz, -14dB min.  
60-80MHz, -12dB min.  
80-100MHz, -10dB min.
- Cross Talk: 1-30MHz, -40dB min.  
30-60MHz, -35dB min.  
60-100MHz, -30dB min.
- CMR: 1-100MHz, -30dB min.
- Hi-Pot: 2250V DC 6s 1mA PRI to SEC
- Speed: 10/100/1000M Base-T

|                   |                 |                                                                                                                                                                                   |       |                                                                                       |                                                                                                                                                                                |                                                                                                            |
|-------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Part Number       |                 | Product Description                                                                                                                                                               |       |                                                                                       |                                                                                                                                                                                | <br><b>www.gct.co</b> |
| MGB020            |                 | Modular Jack, With Shell, With LED, With Magnetics,<br>R/A Through Hole, 1000Base                                                                                                 |       |                                                                                       |                                                                                                                                                                                |                                                                                                            |
| Drawing Date      |                 |                                                                                                                                                                                   |       |                                                                                       |                                                                                                                                                                                |                                                                                                            |
| 17th October 2025 |                 |                                                                                                                                                                                   |       |                                                                                       |                                                                                                                                                                                |                                                                                                            |
| By                | KY              | Tolerances (Except as Noted)                                                                                                                                                      |       | Units:                                                                                | <br> |                                                                                                            |
| Detail            | Drawing Release | Length                                                                                                                                                                            | Angle | Metric (mm)                                                                           |                                                                                                                                                                                |                                                                                                            |
| Revision          | A               | -                                                                                                                                                                                 | -     |  |                                                                                                                                                                                |                                                                                                            |
| Date              | 17/10/25        |                                                                                                                                                                                   |       | 3rd Angle Projection                                                                  |                                                                                                                                                                                |                                                                                                            |
|                   |                 |                                                                                                                                                                                   |       |                                                                                       |                                                                                                                                                                                |                                                                                                            |
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|                   |                 |                                                                                                                                                                                   |       |                                                                                       |                                                                                                                                                                                |                                                                                                            |
|                   |                 |                                                                                                                                                                                   |       |                                                                                       |                                                                                                                                                                                |  Sheet No.<br>3/4     |



H  
G  
F  
E  
D  
C  
B  
A



| Pcs / Tray | Trays / Carton | Total Quantity |
|------------|----------------|----------------|
| 60         | 14             | 840 pcs        |

|                   |                 |                                                                                   |       |                                                                                                               |                                                                                                                                                                                                                                                                            |
|-------------------|-----------------|-----------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part Number       |                 | Product Description                                                               |       |                                                                                                               | <br>www.gct.co                                                                                                                                                                        |
| MGB020            |                 | Modular Jack, With Shell, With LED, With Magnetics,<br>R/A Through Hole, 1000Base |       |                                                                                                               |                                                                                                                                                                                                                                                                            |
| Drawing Date      |                 |                                                                                   |       |                                                                                                               |                                                                                                                                                                                                                                                                            |
| 17th October 2025 |                 |                                                                                   |       |                                                                                                               |                                                                                                                                                                                                                                                                            |
| By                | KY              | Tolerances (Except as Noted)                                                      |       | Units:<br>Metric (mm)                                                                                         | <br>This drawing is confidential and<br>copyright of Global Connector<br>Technology, Ltd (GCT).<br>This drawing must not be copied<br>or disclosed without written<br>consent. E & OE |
| Detail            | Drawing Release | Length                                                                            | Angle |                                                                                                               |                                                                                                                                                                                                                                                                            |
| Revision          | A               | -                                                                                 | -     |                                                                                                               |                                                                                                                                                                                                                                                                            |
| Date              | 17/10/25        |                                                                                   |       |                                                                                                               |                                                                                                                                                                                                                                                                            |
|                   |                 |                                                                                   |       | <br>3rd Angle Projection |                                                                                                                                                                                                                                                                            |
|                   |                 |                                                                                   |       |                                                                                                               |                                                                                                                                                                                                                                                                            |
|                   |                 |                                                                                   |       |                                                                                                               |                                                                                                                                                                                                                                                                            |
|                   |                 |                                                                                   |       |                                                                                                               |                                                                                                                                                                                                                                                                            |