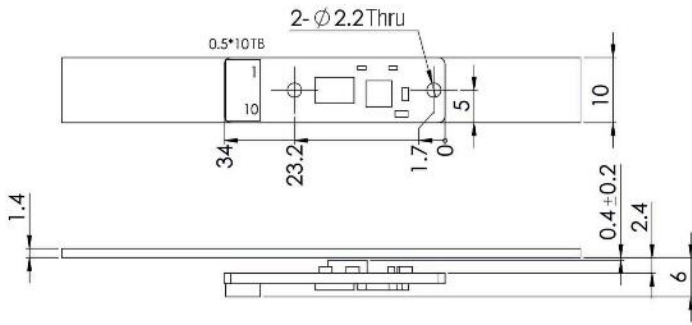
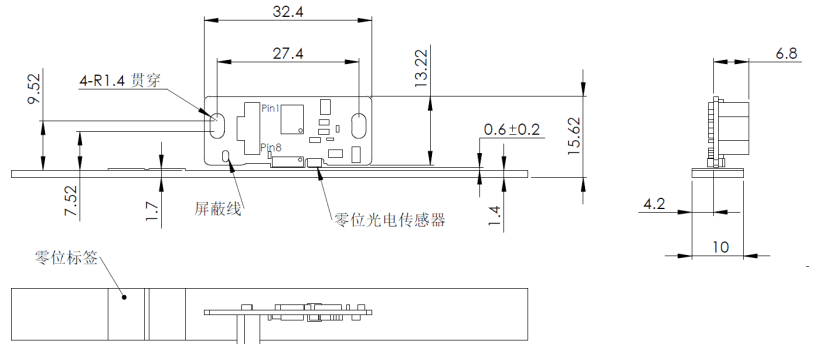


**PCB-01 Dimension (Unit: mm)**



**PCB-02 Dimension (Unit: mm)**



**System data:**

| Feature                      | Technical Data      | Additional information |
|------------------------------|---------------------|------------------------|
| Scale embodiment             | TR20                |                        |
| Resolution                   | Max.0.1um           |                        |
| System accuracy              | ± (0.002+0.03×L) mm | L in m                 |
| Repeat accuracy              | ±0.002mm            |                        |
| Sensor/band reading distance | 0.4±0.2mm           |                        |
| Travel speed                 | ≤5m/s               |                        |
| Operating temperature        | -10~+70°C           |                        |
| Storage temperature          | -30~+80°C           |                        |
| Operating voltage            | 5VDC±5%             |                        |
| Current consumption          | Max.35mA            |                        |
| Output Signals               | Increments A,B      | Digital Signal         |
| Output Circuit               | LD                  | Line driver            |

**Output definition:**

| No     | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 8  | 9   | 10  |
|--------|---|---|----|----|----|----|----|----|-----|-----|
| Signal | / | / | Z- | Z+ | B- | B+ | A- | A+ | +5V | GND |

**Travel Speed:**

| Resolution (mm)         | Travel speed Vmax. (m/s) |        |        |        |        |        |         |         |         |         |  |
|-------------------------|--------------------------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--|
| 0.001                   | 0.04                     | 0.05   | 0.06   | 0.06   | 0.13   | 0.25   | 0.49    | 0.93    | 1.25    | 2.27    |  |
| 0.005                   | 0.22                     | 0.25   | 0.28   | 0.31   | 0.63   | 1.25   | 2.45    | 4.67    | 6.25    | 11.36   |  |
| 0.01                    | 0.44                     | 0.50   | 0.55   | 0.63   | 1.25   | 2.50   | 4.90    | 9.35    | 12.50   | 22.73   |  |
| 0.025                   | 1.10                     | 1.25   | 1.39   | 1.56   | 3.13   | 6.25   | 12.25   | 23.36   | 31.25   | 56.82   |  |
| 0.05                    | 2.20                     | 2.50   | 2.77   | 3.13   | 6.25   | 12.50  | 24.51   | 46.73   | 62.50   | 113.64  |  |
| 0.1                     | 4.39                     | 5.00   | 5.54   | 6.25   | 12.50  | 25.00  | 49.02   | 93.46   | 125.00  | 227.27  |  |
| Pulse interval (μs)     | 22.76                    | 20.00  | 18.04  | 16.00  | 8.00   | 4.00   | 2.04    | 1.07    | 0.80    | 0.44    |  |
| Counting Frequency (Hz) | 10,984                   | 12,500 | 13,858 | 15,625 | 31,250 | 62,500 | 122,549 | 233,645 | 312,500 | 568,182 |  |

**Order table:**

| Feature    | Order data | Specifications | Additional information |
|------------|------------|----------------|------------------------|
| Resolution | Z          | 0.5um          |                        |
|            | X          | 1um            | Standard               |

**Order code:** MRC20\_\_  
 └ Resolution: Z-0.5um X-1um