

# Wireless Ballbar MT21

## Fast Diagnosis for Machine Tools

MT21 Wireless Ballbar is a simple, fast, economical and efficient solution to diagnose performance of machine tools, and helps to improve the machining quality of machine tools.



### Feature

#### Simple, Fast

The measurement software with guided operation can generate the machine running program automatically. With simple setting, the round track test on three orthogonal planes can be completed in 10~15 minutes.

#### Powerful Function

Comprehensive diagnosis report provides a full and professional assessment of machine performance. Taking 360 degree measurement at the XY plane as an example, it can analyze: backlash X, backlash Y, reverse jump X, reverse jump Y, lateral gap X, lateral gap Y, period error X, period error Y, servo Mismatch, perpendicularity, straightness X, straightness Y, proportional mismatch, scale error X, scale error Y, thread pitch X, thread pitch Y, feed rate, center offset X, center offset Y, position tolerance, the best fitting radius, roundness.

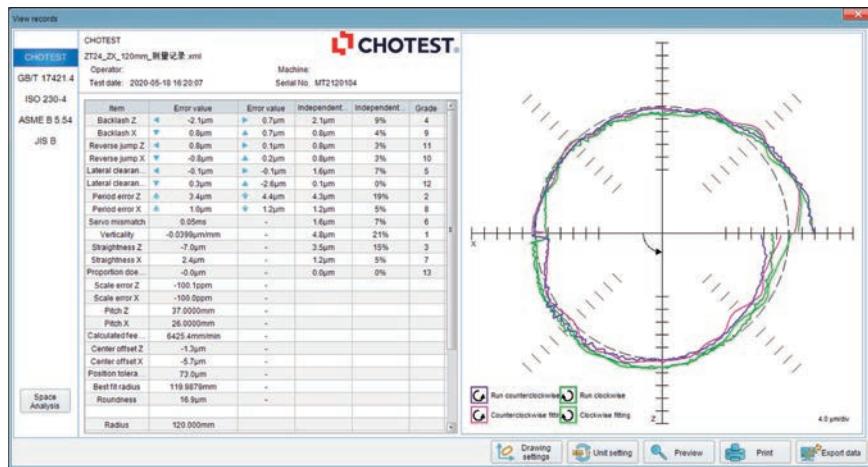
#### Wireless

Data is transmitted to the laptop computer via Bluetooth in real time.

# Wireless Ballbar

## Software

MT21 software with guided operation can implement the round track test on three orthogonal planes quickly and simply. After measurement, software calculates the overall measurement values (roundness, roundness deviation) of the positional accuracy automatically, then generates the analysis report with the graphic format according to GB17421-4, ISO230-4. MT21 achieves the real spatial diagnosis for machine tools.



Error Analysis Report

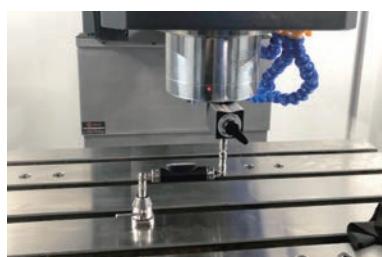
## Parameters

|  |
|--|
| Communication: Bluetooth(Typical 10m)            |
| Power Supply: Li-battery                         |
| Resolution: 0.1μm                                |
| Measuring Accuracy: $\pm(0.7+0.3\%L)\mu\text{m}$ |
| Measuring Range: $\pm 1.0\text{mm}$              |
| Sensor Range: $\pm 2.0\text{mm}$                 |
| Sample Rate: 1000Hz                              |
| Working Temperature: (0~40)°C                    |
| Size: 120×26×21mm                                |

## Configuration

|   |     |
|---|-----|
| 1. MT21 Wireless Ballbar                    | 1pc |
| 2. Master gauge                             | 1pc |
| 3. Offset setting ball                      | 1pc |
| 4. Centric holder                           | 1pc |
| 5. Tool cup                                 | 1pc |
| 6. Extension bar 50, 100, 150mm 1pc of each |     |
| 7. Software                                 |     |
| 8. Portable suitcase                        |     |
| 9. User Manual                              |     |

## Application



Roundness inspection of machine tools