

# JITAI8100 Surface Roughness Tester



## I. Introduction

The product is a new portable Surface Roughness Tester developed by our company. Featuring high accuracy, wide range of application, simple operation and stable performance. It is widely applicable in testing surfaces of all kinds of metals and non-metals. Integrating pick up with the main unit, it is a hand-held set, especially suitable for use on production sites.

## II. Main feature

- Shell used to pull aluminum mold design, durable, anti-electromagnetic interference ability significantly, in line with the design of the new trend.
- Using high-speed DSP processor for data processing and calculation, measurement and computation speed is greatly improved.
- Liquid crystal display wide temperature using OLED color display, popular high brightness, no visual angle, is suitable for various occasions.
- The lithium ion rechargeable battery, can work for a long time, no memory effect, can while charging, charging time is short, long battery life.
- Using a dedicated charger or computer USB port for charging, convenient and quick.
- Real-time monitoring of lithium battery power and display, and to remind users to charge with charging progress indication.
- Automatic shutdown function and low power design of software and hardware of the instrument with long working hours, suitable for field use.
- The surface roughness of metal and non-metallic.
- Pocket-size & economically price
- Large measuring range suitable for most materials
- Optimized electric circuit design with transducer structure-design, high integrate



power.

- It could test ex-circle, flat surface, conical surface and also test groove larger than 80\*30mm.

### III. Technical Parameters

- Measurement Parameters( $\mu\text{m}$ ):Ra Rz Rq Rt
- Stroke Length(mm):6
- Sampling Length(mm):0.25 ,0.80 ,2.50
- Evaluation Length(mm):1.25 ,4.0
- Measurement Range( $\mu\text{m}$ ):  
Ra,Rq: 0.05 ~ 15.0  
Rz,Rt: 0.1 ~ 50
- Error of Indication: $\pm 15\%$
- Variation of Indication: $< 12\%$
- Touch needle tip arc radius and angle of the sensor  
Tip arc radius: $10 \mu\text{m} \pm 1 \mu\text{m}$   
Angle: $90+5^\circ / - 10^\circ$
- The sensor touch needle static force measurement and its rate  
Touch needle static force measurement:  $\leq 0.016\text{N}$   
Force measurement rate:  $\leq 800\text{N/m}$
- Sensor guide head pressure:  $\leq 0.5\text{N}$
- Battery:3.7V Lithium Ion battery
- Contour Dimension:106 mm\*70 mm\*24 mm
- Weight:200g
- Working Environment Conditions
- Temperature: $-20^\circ\text{C} \sim 40^\circ\text{C}$
- Relative Humidity: $< 90\%$

### IV. Standard Configuration

	Name	QTY
1	Host	1
2	Calibration block and bracket	1
3	Charger	1
4	Data line	1
5	Operating manual	1
6	Warranty card	1
7	Certificate of approval	1
8	Instrument case	1