



# Introduction

**Name: ZL-1502 Video Measurement Machine (Automatic Economic type)**



**----- To Be The Most Stable Supplier Of Imaging Machine in China**



### The image measuring instrument body and application features:

1, The main features of the automatic image measuring instrument:

- ◆ High-performance servo motor motion device to ensure high mute, high precision and high repeatability under high-speed operation of the instrument
- ◆ TPI precision screw, which makes the measurement positioning accuracy accurate and reliable, and the positioning accuracy can reach 0.001mm
- ◆ The column and base are made of high-precision granite structure, which is stable and reliable.
- ◆ Equipped with multi-function measurement software, which makes the measurement speed 4-5 times higher than the manual image measuring instrument.
- ◆ DXF files can be imported for fast detection, fast programming, batch measurement of products of the same specification.
- ◆ Measurement data can be imported into Word, Excel, AutoCAD, and report output functions, and easy to output test results.
- ◆ With automatic contour scanning, contour tracking, automatic product shape scanning and other functions.
- ◆ Z-axis adopts high-precision linear guide rails on the silver and X and Y axes to ensure high precision and service life.
- ◆ CNC high-definition lens and dedicated high-resolution CCD for high-definition measurement.
- ◆ The industry's advanced card position lens, easy to implement programming and program measurement, optional automatic zoom lens barrel.

2, Non-contact measurement of the advantages of automatic equipment: to avoid the original man-made testing methods caused by the "measured workpiece" human error, and can avoid artifacts caused by the test piece caused by secondary damage to ensure the workpiece under test products The quality of



the stability and standard consistency. Can be several times to improve the detection efficiency of the production process, early detection and control of the production process of defective products, while reducing some of the cost of manual testing and improve product delivery timeliness.

3, The scope of application of the instrument: The measuring instrument can be applied to a variety of molds, aircraft, cars, mobile phones, computers, hardware, plastics, electronics, die-cutting, screen printing, LCP film, PCB, FPC, Cover, TP, ultra-large LCD monitor and other dimensional accuracy testing, and for reverse engineering plane research and development, design, drawing editing, laboratory and other required two-dimensional, three-dimensional detection and other auxiliary measurement industry.

4, The main function of the instrument configuration: The instrument is equipped with a dedicated image measurement software, high-definition color Sony CCD, high resolution 0.7-4.5 times (specific zoom times card position high resolution optical lens), specific computer, LCD, keyboard ,mouse (Option), digital measurement.

**Parameter:**

Model	3020	4030	5040
Stroke(mm)	300×200×200	400×300×200	500×400×200
Machine size (mm)	850×1300×1500	1000×1400×1550	1200×1500×1550
Metal Table size (mm)	460X360	460X360	460X360
Glass size (mm)	340X250	340X250	340X250
Machine weight (kg)	250	350	450
Glass table loading weight(kg)	20	25	25
X、Y measure accuracy (μm)	3.0+L/150		
Z measure accuracy(μm)	5.0+L/100		
X、Y Axle Run speed	0-200mm/S (selection)		
Z Axle Run speed	0-100m/S(Selection)		
Repeated accuracy (mm)	0.005		
Operation Mode	software		
Grating Ruler	0.001mm Glass Rating		



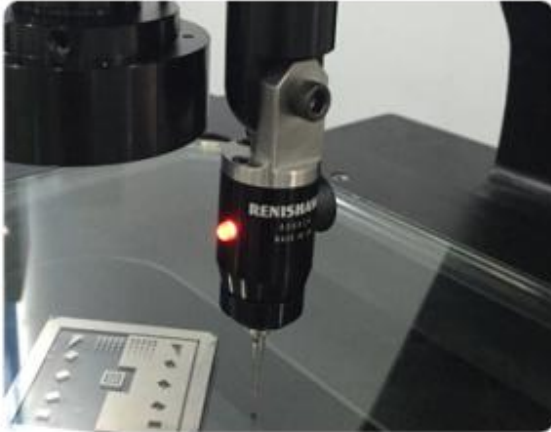
X、Y Axle Guide Rail	Domestic precision cross-anti-dislocation guide	
Z Axle Guide Rail	Taiwan" Shangyin" H grade precision linear guide	
Z Axle lead screw	Taiwan TBI " grinding ball screw	
Bearing	Japan original "NSK" double case combination centripetal ball bearing	
Motor	"TIGER"Ac synchronous servo motor, positioning accuracy $\leq 0.003\text{mm}$	
Motion Controller	ZL4000 (Full closed-loop controller)	
Camera	SBK-HC536 1/2inch 700 color high definition camera (with white balance function)	
Video Card	SV-2000High resolution color card	
Light Source	Rim Light	Profile LED cold light source, transmission light and condenser lens to realize parallel light irradiation
	Surface Light	Four ring eight zone LED cold light source, software control, reduce electrical component damage.
Optical lenses	6.5:1 continuous variable caliper lens	
Magnification Ratio	Optical Magnification: 0.7~4.5 $\times$ ; Image Magnification: 24~158X	
Global Positioning System	Laser position indicator	
Rocking Bar	Germany "MEGATRON"Hall triaxial joystick	
Software	Full Automatic + Probe software	
Computer	Industrial computer: Intel dual-core CPU,4G memory, 1000G hard disk, DVD drive, 2G independent graphics card, 19.5-inch display	
Power	220V/50Hz/3A	
Working condition	Temperature 20 $^{\circ}\text{C}$ + 2 $^{\circ}\text{C}$ , the temperature change < 2 $^{\circ}\text{C}$ / hr, humidity 30~80%	
Special table for video equipment	Built-in switching power supply, controller, motor driver, power control switch, indicator light, emergency stop switch, moving roller	
Warranty	12 months	



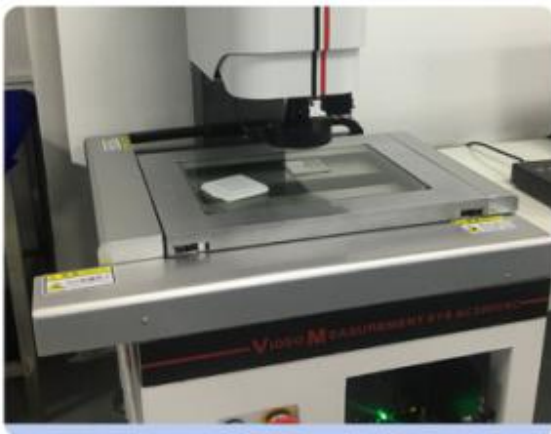
## Machine

### Advantage:

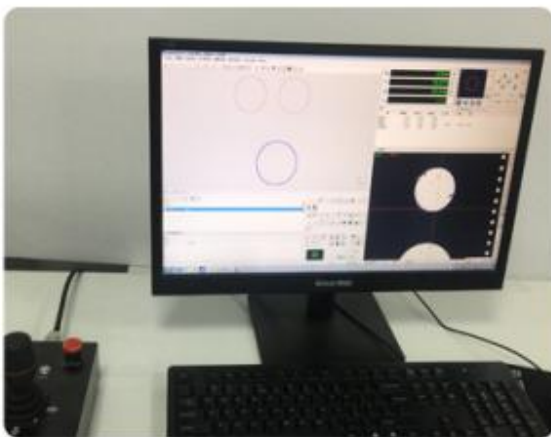
#### Advantage Analysis



1. High precision 0.001mm glass grating.
2. Autofocus measurement optical altimetry flatness.
3. Can be installed with UK RENISHAW contact probe.



1. The Z-axis uses high-precision linear slides, and the X and Y axes use high-precision cross guides to ensure machine accuracy and service life.
2. The column and base are made of high-precision granite structure, which is stable and reliable.



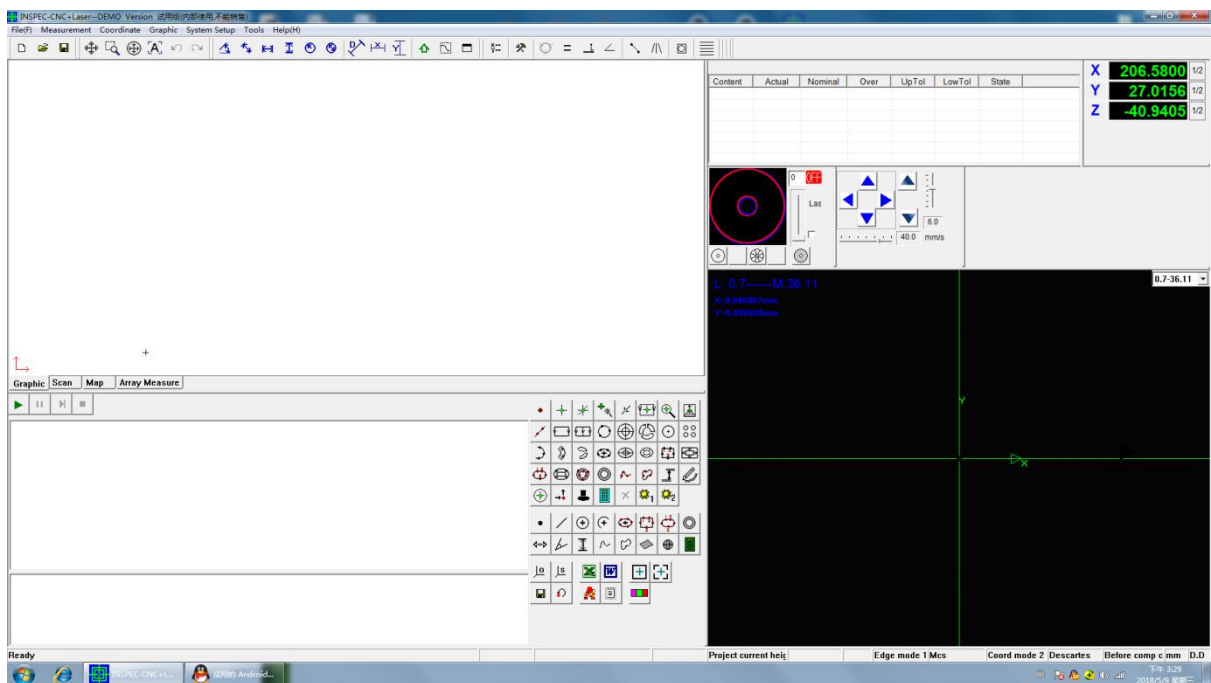
1. With multi-function measurement software, you can import DXF files for quick detection.
2. Measurement data can be imported into Word, Excel, and AutoCAD.
3. Measurement results are illustrated, one-click output report.



### The Testing report:

	A	B	C	D	E	F	G	H	I	J
1	Report Name:			workshop	Time:		2018/03/02--08:25			
2	Part Name:			floor						
3	Part No.:			class						
4	Operation:			procedure						
5	Company:			Machina no	customer					
6							Actual	Over	State	
7	No.	Feature	Content	Nominal	UpTol	LowTol	1			
8	1	C1	X	1.3979			1.3979	0		
9	2		Y	-0.1046			-0.1046	0		
10	3		Z	0			0	0		
11	4		Radius	0.4988			0.4988	0		
12	5		Diameter	0.9975			0.9975	0		
13	6		Perimeter	3.1338			3.1338	0		
14	7	C2	X	1.3165			1.3165	0		
15	8		Y	-2.5606			-2.5606	0		
16	9		Z	0			0	0		
17	10		Radius	0.5			0.5	0		
18	11		Diameter	1			1	0		
19	12		Perimeter	3.1416			3.1416	0		
20	13	C3	X	1.473			1.473	0		
21	14		Y	2.3697			2.3697	0		
22	15		Z	0			0	0		
23	16		Radius	0.5004			0.5004	0		
24	17		Diameter	1.0007			1.0007	0		
25	18		Perimeter	3.1438			3.1438	0		

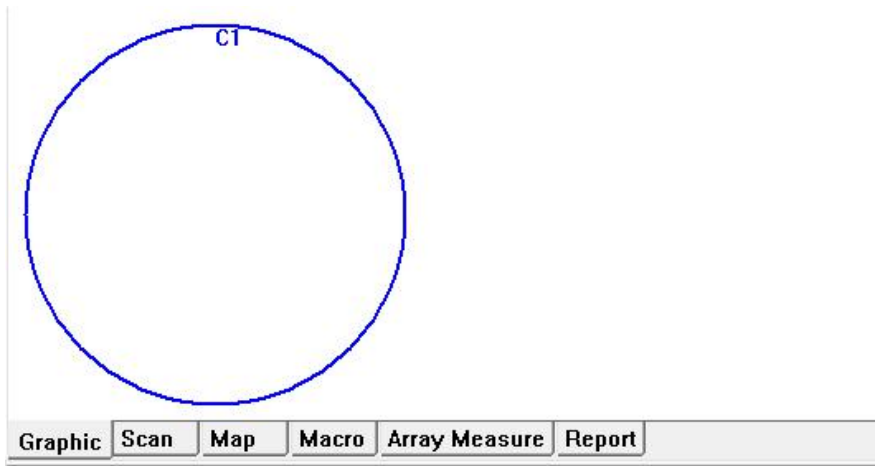
### The software running interface:



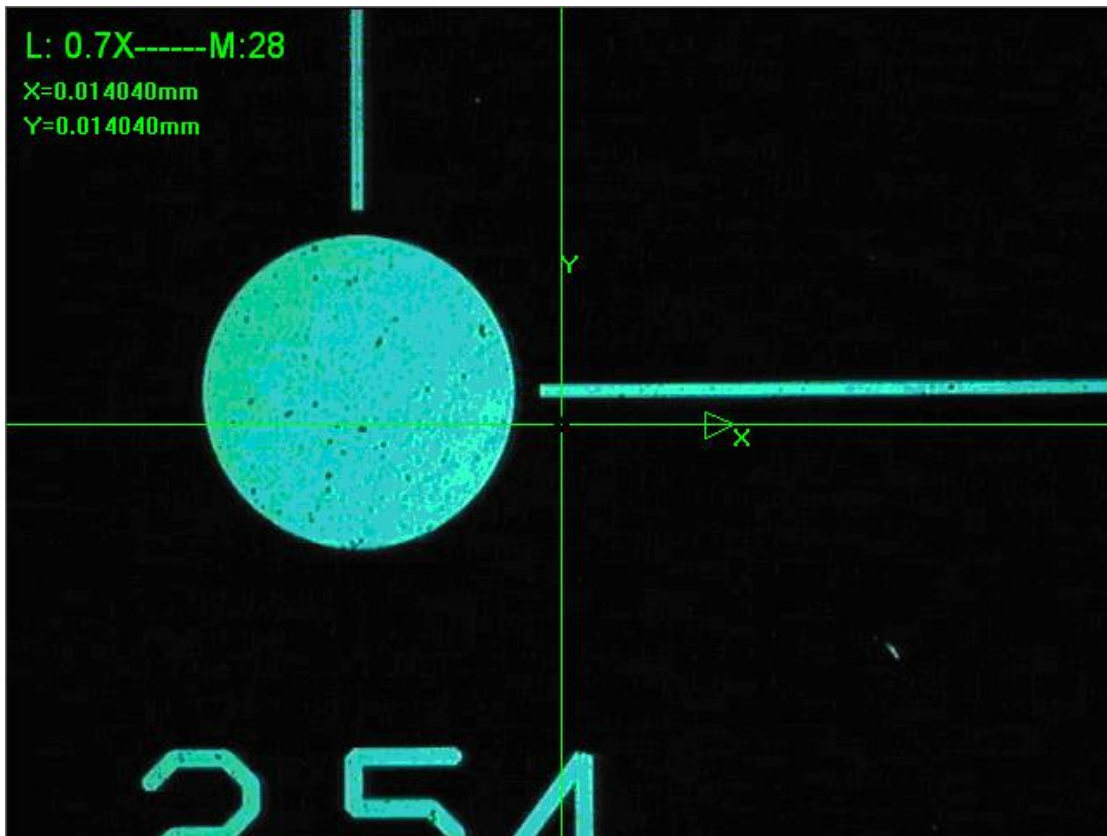




1) 2D window



2) Image window



3) Coordinate display window

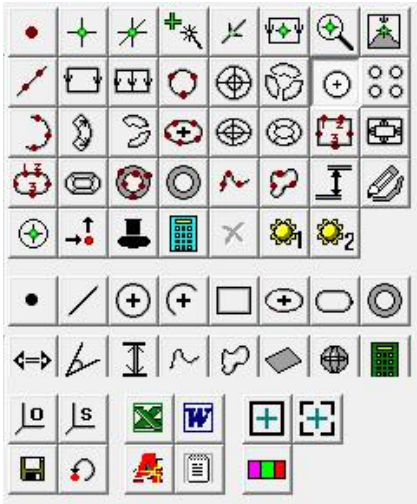
X	0.0000	1/2
Y	0.0000	1/2
Z	0.0000	1/2



#### 4) Toolbar button



Button to run the user program



#### 5) Survey result list display window



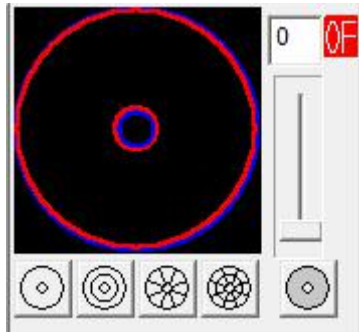
#### 6) Element measurement result display window

C3		Ref coord: Mcs	
Content	Actual	Nominal	Ov
X	1.3198	1.3198	0.00
Y	-2.5670	-2.5670	0.00
Z	0.0000	0.0000	0.00
Radius	0.5012	0.5012	0.00

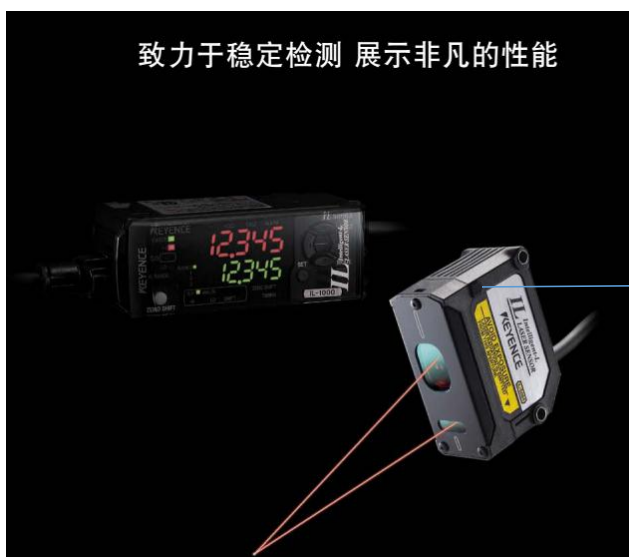




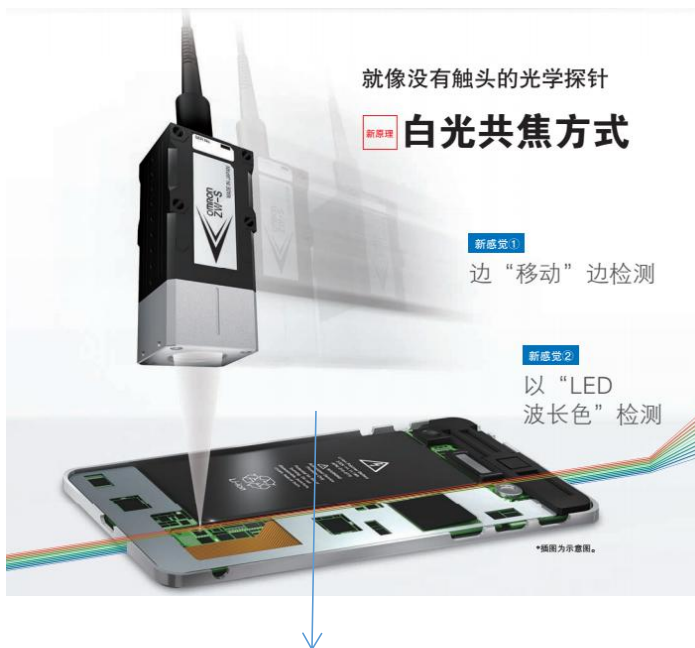
### 7) Dimming window



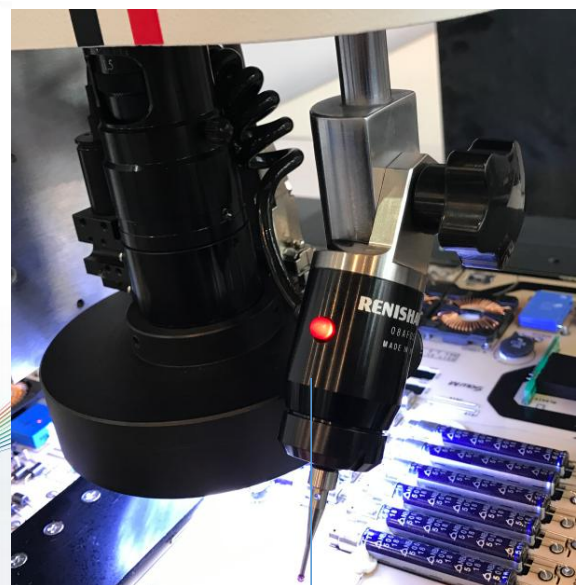
### Probe Operation:



Probe from UK RENISHAO Brand



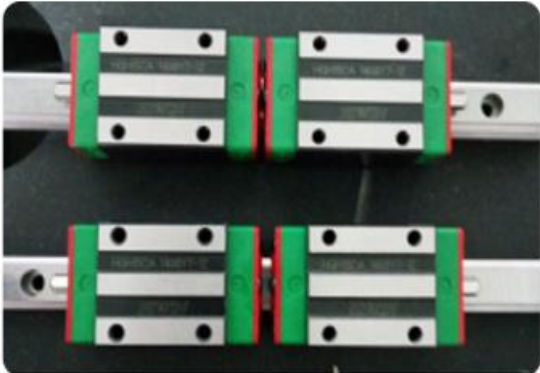
White Laser from Japan OMRON Brand



Red Laser probe from Japan Keyence Brand



## High-end Accessories Introduction



Taiwan "HIWIN" H-class ultra-precision linear guide



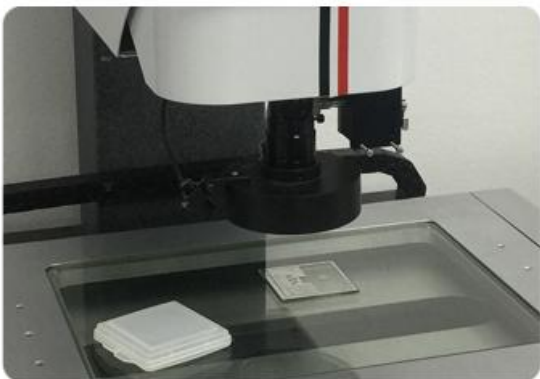
Taiwan "TBI" C0 grade grinding ball screw



Japanese original "NSK" double case combined radial ball bearing



"TIGER" AC synchronous servo motor



0.7-4.5X coaxial light automatic zoom lens



1/2 inch 700 line color high definition camera



**Factory Show:**

