



TROY INTELLIGENT

VISION CAMERA & MICROSCOPES AND ROBOTIC SOLUTION BROCHURE

2026/2027

The best solution of PCBA/Screen Checking
and Measuring tools in Vietnam!



Table of CONTENT

3	About Us	20	TVN-MT4K80
4-5	TVN-3500	21-22	TVN-S6000N & TVN-S6000NMX
6-7	TVN-800	23	TVN-8008
8-9	TVN-MT60	24	TVN-9218/9118 High Definition Measuring Camera
10-11	TVN-3D9000	25	TVN-Smart go
12	TVN-2K30 Microscope	26-27	Aoi Machine Tr-A100
13	TVN-4k100 Serie Video Microscope	28	Planetary Centrifugal Deaeration Mixer
14-15	TVN-600II	29	Robot TR-M200
16	TVN-3800II	30	Troy Panasonic Servo Of Delta Robots
17-18	TVN-360A	31	Composite Cobot
19	TVN-350		



About Us

TROY VN company (Manufacturer was founded in 2009 in Nanshan District, Shenzhen, China) is a high-tech company dedicated to the field of industrial video images, integrating R&D, design, production and sales.

TROY VN company focuses on serving the visual inspection industry. The image technology solutions owned by the company are all derived from its own intellectual property rights. It has a number of patents and has been at the leading level in the industry for many years.

TROY VN has a group of professional video and image development talents, and has been committed to the research and development of video and image products. After years of accumulation, we have a number of patented technologies and software copyrights. Especially in the fields of image visual detection, image analysis and processing, image identification, etc., it has made great progress.

At present, the company has launched the SMARTGO intelligent visual inspection camera based on the LINUX platform. The hardware is built with FPGA+ARM, and the software is developed with C++. SMARTGO camera integrates nearly a hundred kinds of visual detection, measurement, positioning and recognition algorithms. Users only need to make simple settings to complete a detection project. Make the implementation of visual inspection projects easier and faster.

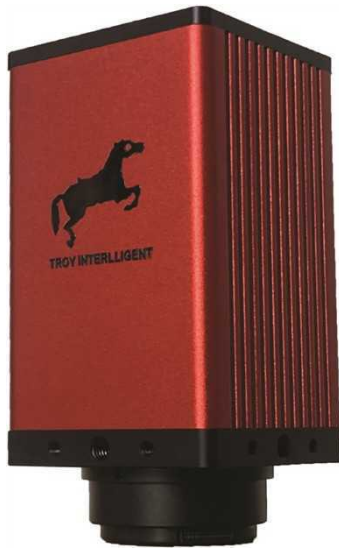
TROY VN pursues professionalism, technological innovation, constant pursuit of technological development, and the use of technology to create real value. At present, TROY VN has the industry-leading innovation ability, can dig deep into customer needs, and continue to launch high-tech products with various unique functions and technical content. After years of hard work, the company's products have been widely used in industrial inspection, microscope imaging, machine vision, biomedicine, teaching and other fields, with customers all over the country, the United States, Japan, Germany and other countries. Partners include Sony, Panasonic, Foxconn, Flextronics, Pegatron, Lianzhan Technology, Huaqin Technology, Great Wall Technology, Enoch and other well-known domestic and foreign enterprises.

TROY VN company is willing to cooperate with partners to innovate continuously, develop hand in hand, and strive to create value. Our tenet: take innovation as driving force, quality as life, and serve global customers.



TROY INTELLIGENT

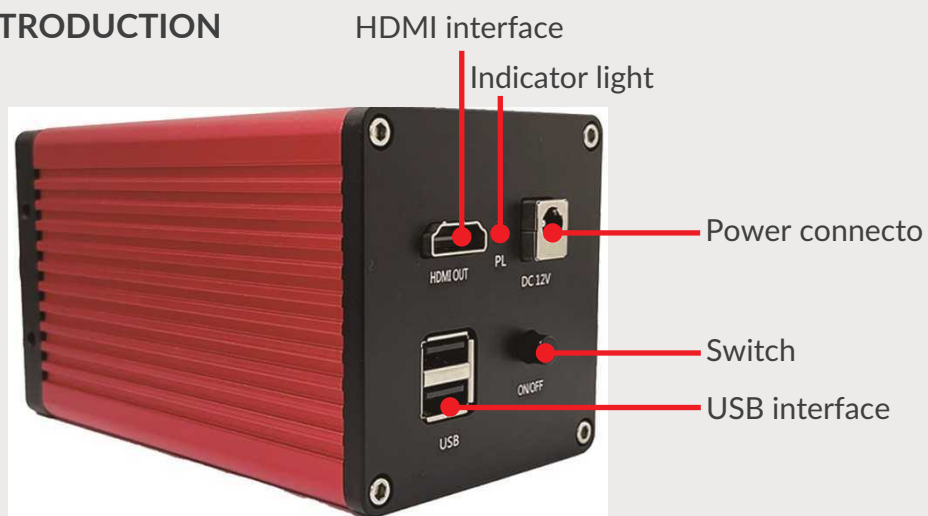
TVN-3500AF LARGE FIELD OF VIEW AUTOFOCUS CAMERA



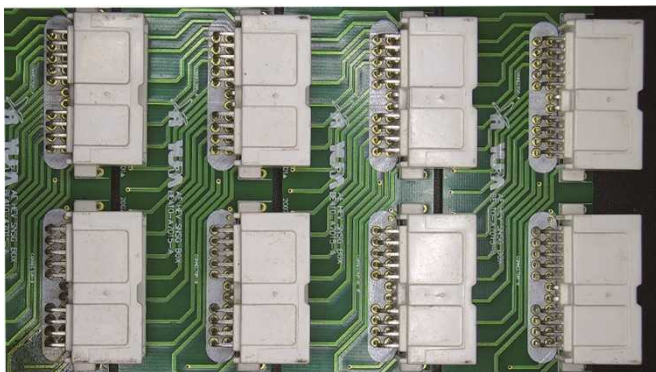
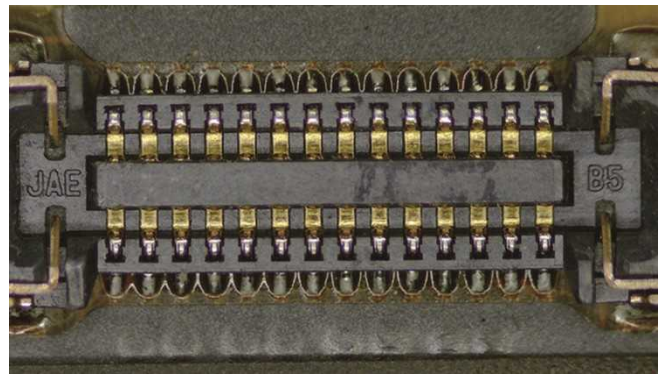
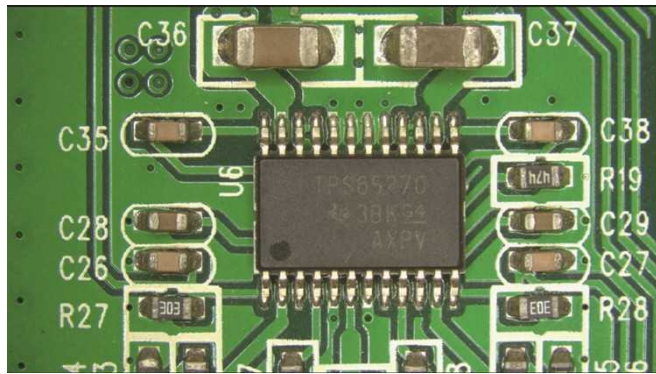
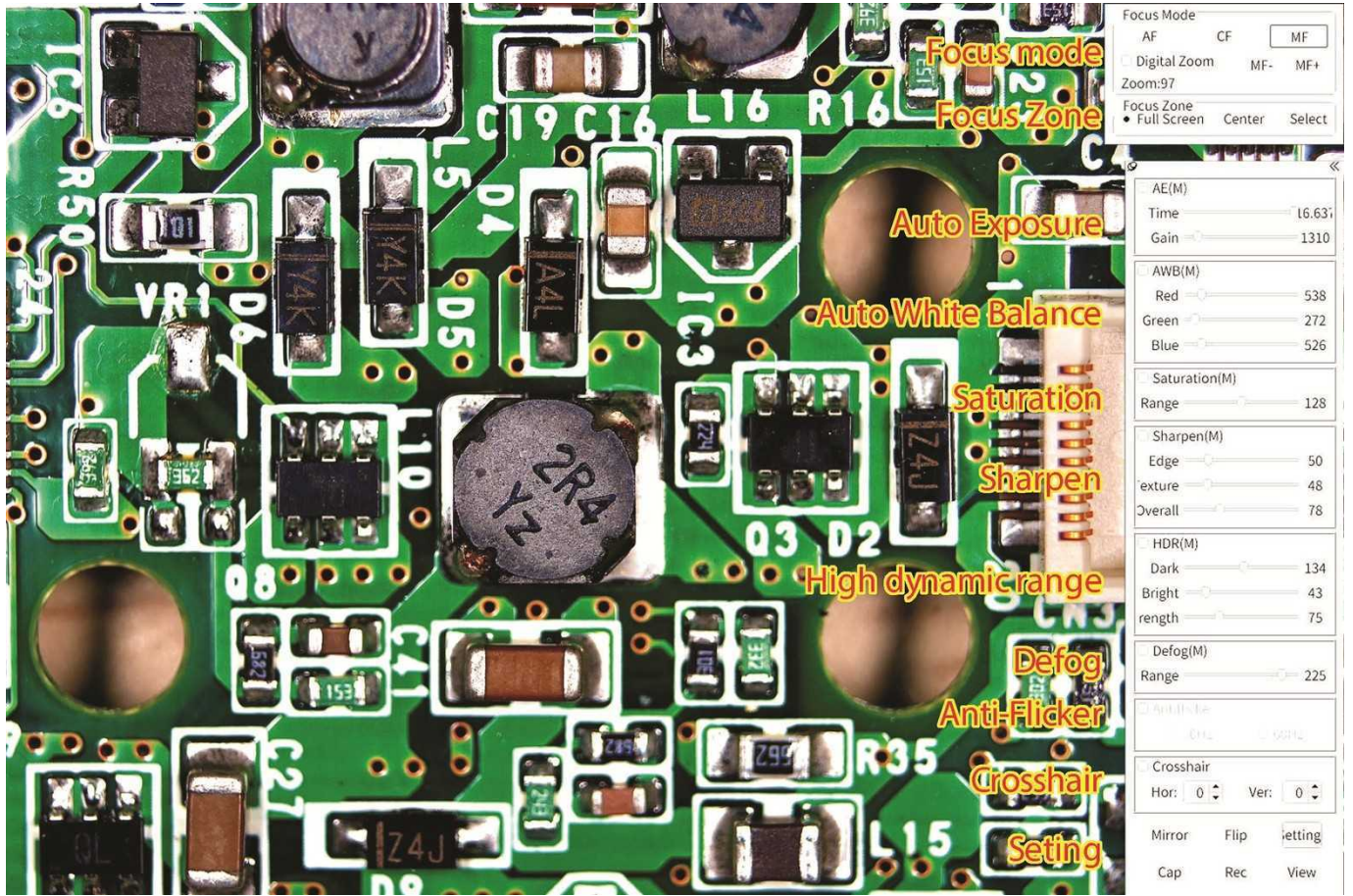
Large field of view industrial camera. Built-in precision optical focusing system, combined with software fast algorithm, can auto-focus in real time, within the adjustable range, no need to adjust, auto-focus, clear picture rendering. The camera outputs HD HDMI video signal, automatic exposure, automatic white balance, automatic adjustment of saturation, automatic wide dynamic. The camera has image storage, video recording, reference determination and other functions. Simple operation, with the mouse can complete all the operation work.

Three types of focus: full screen focus, center focus, spot focus
 Auto zoom: Minimum magnification field of view 310mm, 0.65X.
 Maximum magnification with a field of view of 38mm, 14X.
 With video recording function
 USB Flash Drive Storage

CAMERA INTRODUCTION



TVN-3500AF LARGE FIELD OF VIEW AUTOFOCUS CAMERA			
Optical Size	1/3"	Operating System	LINUX3.10
Resolution	1920*1080	Main Frequency Speed	1GHZ
Kernel Structure	Dual-Core Cortex-A9	Frame Rate	60fps
usb interface	2 usb interface	Operation method	Mouse operation
Optical magnification	14X	Operating temperature	-10-70 degrees
Operating Voltage	DC 12V	Dimension	70*70*140mm
Chip structure	HIS+ARM	Weight	300g



TVN-800+P3D MANUAL ROTATION 3D VIEWING MICROSCOPE

With the development of the times, people's demand for microscope functions has become richer and richer. Compared with the traditional optical microscope, the video all-in-one machine has the advantages of automatic magnification recognition, digital magnification, easy observation, easy data preservation, intelligent operation, etc., which can significantly reduce the fatigue of long-time operation; one key can be turned on to achieve high-definition video image observation, which brings users a fast and comfortable experience .

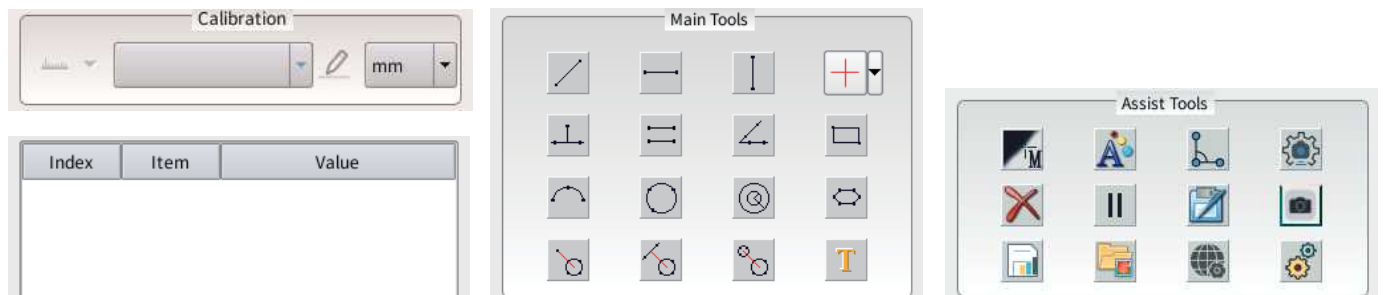
Integrated continuous zoom optical lens and high-definition digital camera, display, camera, ring light are unified by the mirror body power supply, save working space, make the work more arbitrary, solve the long-troubled your wire harness problem. With a user-friendly operating experience using horizontal zoom design, users can fully rest their elbows on the workbench during focusing and zooming, optimizing the operating feel.



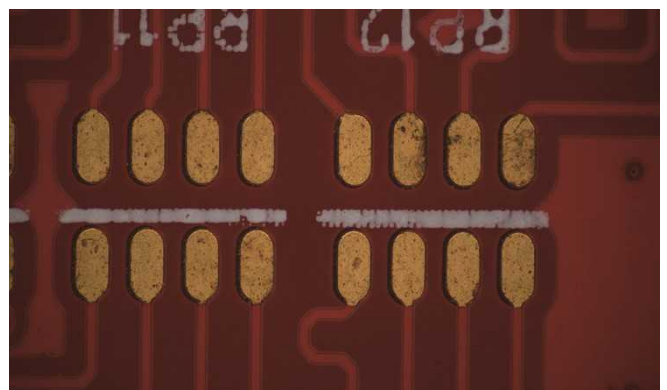
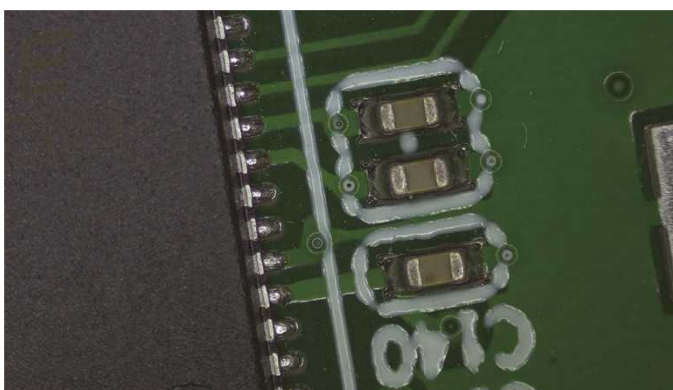
- HD real-time video output
- Optical 0.7-4.5x magnification
- High brightness LED light source
- 64 adjustable reference lines
- Auto white balance
- Automatic exposure
- Image save output
- Measurement data report output
- Graphical parameters selectable
- Image comparison
- Graphical overlay
- Automatic edge finding
- More than 40 measurement tools for ease of use
- Optional 3D imaging components

TVN-800 ELECTRON MICROSCOPE			
Camera Model	TVN-800	image specifications	1920*1080*24Bit
Chip structure	FPGA+ARM	Optical Size	1/2"
Operating System	Dual-Core Cortex-A9	Main Frequency Speed	1GHZ
Data saving	With image of measurement results or excel data saving		
Measurement method	Mouse operation, intelligent point selection / manual point selection		
Access Point	2 USB ports, can be connected to U disk, wireless mouse		
Operating Voltage	12V	Frame rate	60 fps@1920*1080
Dimension	260*320*350mm	Operating temperature	0-70 degrees
Field of view	4mm-26mm	Working distance	60mm-180mm
Magnification	6X-80X	Goggles	0.4X standard
Measurement Tools	Beetween two points, point to line, three point circle, circle center distance, concentric circle, point to circle line to circle, parallel line, rectangle, angle, radian, polyqon		

TVN-800 HD measurement all-in-one machine, easy to use, neat appearance, lens light source integrated with one. Built-in personalized interface editing function, template application, mouse operation, U disk storage, including automatic edge finding, automatic contour, horizontal and vertical flip, line/circle calibration, data export, playback browsing and other functions. And provide "parallel line", "point to line", "concentric circle", angle, radian and many other measurement tools.



Ultra HD imaging: excellent picture quality, clear and true colors.
 One-piece body: Sturdy and environmentally friendly one-piece body design reduces maintenance, extends service life and improves work efficiency.
 Modular design: users can choose the structure according to actual needs and customize the match.
 Beautiful and simple product, easy to operate.



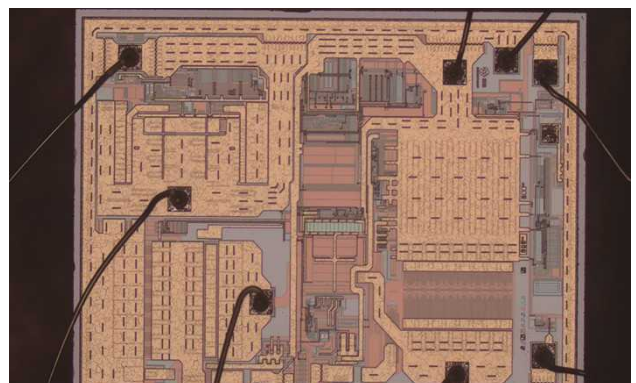
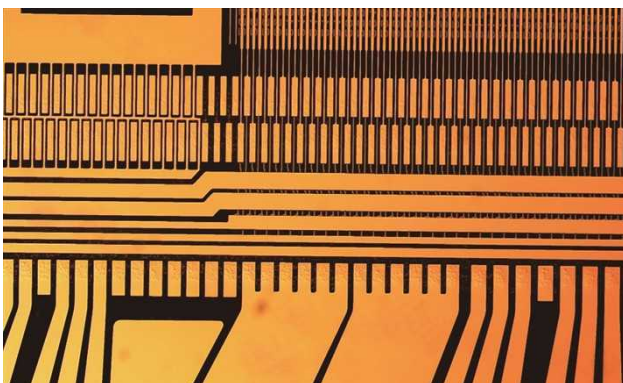
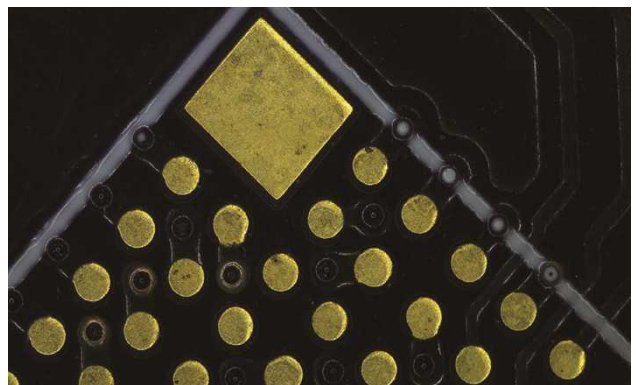
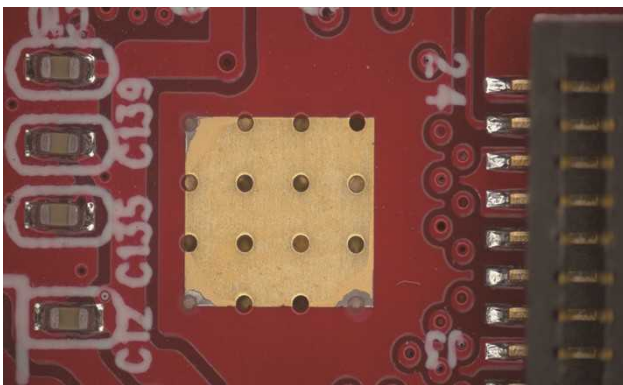
TVN-MT60 Metallographic Microscope

TVN-MT60 metallurgical microscope is applied to semiconductor industry, silicon manufacturing, electronic information industry, metallurgical industry, medical testing, scientific research Research and other high-end manufacturing and research and development of an optical inspection equipment.

As a high-end metallurgical microscope users can experience its As a high-end metallurgical microscope users can experience its excellent image effect and clear microscopic world under high magnification. MT60 microscope can be widely used in semiconductor R&D and manufacturing, FPD, circuit FPD, circuit packaging, circuit substrates, materials, castings/metal/ceramic parts, precision mold inspection.



Can provide bright field, oblique lighting, simple polarized light and other observation functions, bright field image high brightness, high resolution, positive color reproduction; oblique lighting can highlight the intuitive three-dimensional relief effect.



Model	TVN-MT60
Optical system	Infinite chromatic aberration corrected bright field optical system
Observation tube	30°tilt, infinity hinged binocular barrel, pupil adjustment: 54mm~75mm, unilateral visual adjustment: ±5 diopters
	30°tilt, infinity hinged tee barrel, pupil adjustment: 54mm~75mm, unilateral vision adjustment: ±5 diopters, two spectral ratios R:T=100:0 or 50:50
Eyepieces	High eye point large field flat field eyepiece PL10X22mm
Objective Lens	Flat field infinity long working distance achromatic bright field objective lens (5x, 10x, 20x, 50x)
Objective Lens Converter	Internally positioned five-hole converter
Coarse and fine focusing mechanism	Dual-purpose frame, low hand position coarse and micro coaxial focusing mechanism, coarse adjustment stroke 28mm, fine adjustment accuracy 0.002mm. with preventing slipping adjustment elastic device and random upper limit device. With platform position up and down adjustment mechanism, maximum sample height 28mm.
	Reflector frame, low hand position coarse and micro coaxial focusing mechanism, coarse adjustment stroke 28mm, fine adjustment accuracy 0.002mm, with anti-slip adjusting elastic device and random upper limit device. With platform position up and down adjustment mechanism, maximum sample height 78mm.
Carrier	Double-layer mechanical moving platform, low hand position X, Y direction coaxial adjustment; platform area 175X145mm, moving range: 76mmX42mm can be equipped with reflective metal carrier plate, trans-reflective dual-use glass carrier plate
Upper Illumination System	Adaptive wide voltage 100V-240V_AC50/60Hz, reflective lamp room, single high power 5WLED, warm color, Cora illumination, with field of view diaphragm and aperture diaphragm, adjustable center, with oblique lighting device
Lower Illumination System	Adaptive wide voltage 100V-240V_AC50/60Hz, transmissive chamber, single high power 5WLED, warm color
Concentrator	Transmissive swing-out achromatic concentrator (N.A0.9) with variable aperture diaphragm, adjustable center
Other accessories	Color filters for transmission: yellow, IF550 filters, LBD filters, neutral filters
	Camera accessories: 0.5X C connector
	Interference filters for reflection: blue <= 480nm; green 520nm~570nm; red 630~750nmLBD

1. Adopted UIS high-resolution, long working distance infinite optical path correction system objective imaging technology.
2. Expanded objective multiplexing technology, infinity objective compatible with all observation methods including bright and dark field method, polarization method, DIC and provide high definition image quality in each observation method.
3. Using aspheric LED lighting to increase the observation brightness.
4. Support long working distance metallographic objective.
5. Can insert the DIC differential interference device converter.
6. Support depth-of-field synthesis.
7. Support network image storage.
8. Equipped with large target surface HD HDMI camera, support more than 50 kinds of measurement tools.
9. Support image comparison.

TVN-3D9000 MOTORIZED DEPTH OF FIELD SYNTHESIS 3D MICROSCOPE

3D Depth Measurement Microscope, using depth of field fusion software algorithms, high-speed real-time images of different focal surfaces complete fusion allows you to see the product at the same time the image of different heights of the surface, increase the depth of field, improve the picture effect. Solve the problem of small depth of field of microscope head. You can simultaneously watch the uneven electronic devices, various products inside and outside the hole, the same product on the bottom, electronic device pins and the bottom surface.



The lens comes with optical magnification adjustment, minimum 0.7x, maximum 5x optical magnification



High brightness coaxial point light source with 5W power and reliable natural heat dissipation design Stable operation



It is possible to add a 4-hole conversion nose wheel with 4 holes for 5x, 10x, 20x and 50x objective lens.



The product is equipped with a 10X flat field objective lens by default. The working distance is 17.7mm, the aperture is 0.30mm, and the diameter of the lens interface is 20.2mm.



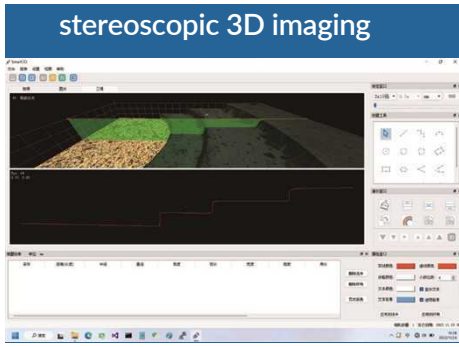
Table size 200*180mm,stroke range 100*109mm.XY moving manually,moving accuracy 0.01mm.



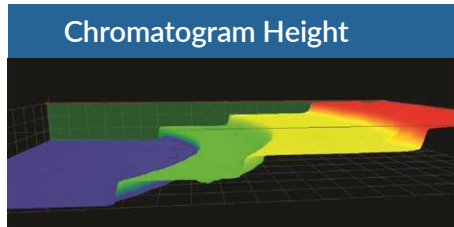
The Z-axis is driven by high precision stepper motor and reads the accurate scale to measure the distance with the accuracy of 0.1um, which can ensure the accuracy of the measured dimension.



Camera Model	TVN-3D9000
Chip Structure	FGA+ARM
Optical Size	1/1.2"
Resolution	1920*1080
Pixel Size	3.75*3.75μm
Operating System	LINUX3.10
Kernel Architecture	Dual-core Cortex-A9
Speed	1GHZ
Frame Rate	30fps
Color Adjustment	RGB three-channel individual adjustment
White Balance	Auto Exposure
Mirroring	Upper and lower mirroring, left and right mirroring
Operating Voltage	DC 12V
Network Interface	1000Mbps
Video Interface	HDMI
Wide Dynamic	Support Wide Dynamic

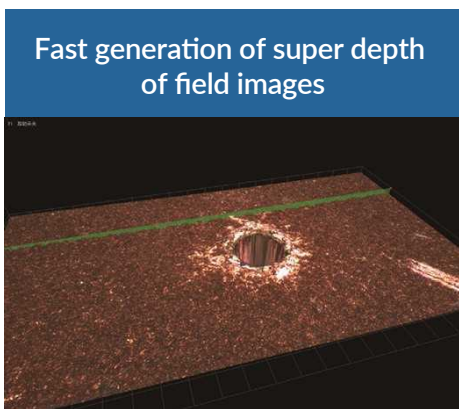


stereoscopic 3D imaging

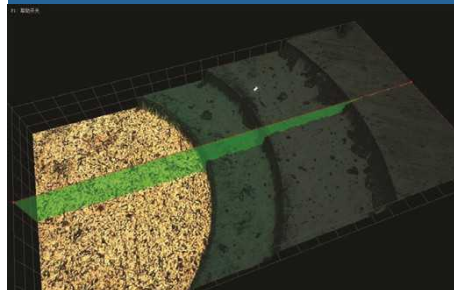


Chromatogram Height

The cutting line can be dragged at any angle



Fast generation of super depth of field images



Profile height measurement

3D Sample Parameters

SetTop: 7334.60 um

SetBottom: 7411.30 um

Gap Z: 76.70 um

Position: 7334.50 um

Numbers: 40

Step: 1.97 um

MoveDir: Down2Up

Filter1: 15

Filter2: 15

Show: Living Video

SubModel: DoubleClick

Tip Message

Start Abort Save Cancel

Maximum sampling images 200
 Minimum sampling pitch 0.1um
 Optional filtering to filter out interference noise. Fast sampling speed
 Motorized Z-axis, can provide six kinds of up and down running speeds

Lens parameters

Magnification	Minimum 0.75X	Maximum 5.25X
Magnification	1:7 (0.75X-5.25X)	
Ratio Depth of Field	0.95mm	0.085mm
Resolution	7.5µm	2µm
Field of view	8.7*11.7mm	1.2*1.6mm
10X objective lens (standard)	Working distance	Working distance
	11mm	0.9µm

Lens parameters

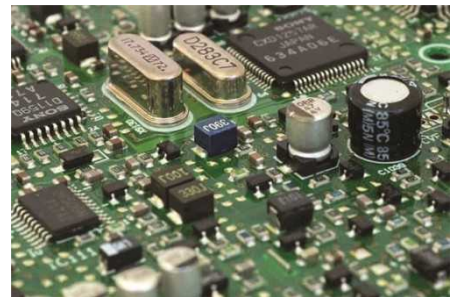
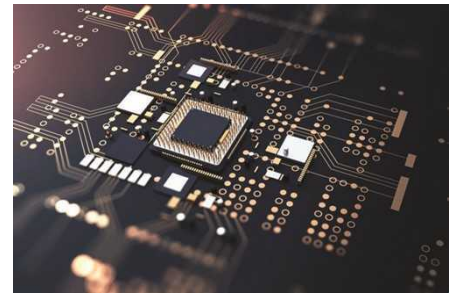
Resolution	1920*1080	Z-axis accuracy	0.1µm
Pixel Size	3.75*3.75µm	Carrier size	220*180mm
Target size	1/1.2"	Stroke	109*100mm
Frame rate	30fps/s	Working height	0.5-70mm
Auto White Balance	Auto White Balance	Power supply	DC 12V2A
Auto Exposure	Auto Exposure	Weight	13KG
Number of Image Acquisitions	3-200 shots	Working temperature	-10-70°
Image Mirroring	Upper and lower mirroring, left and right mirroring		

TVN-2K30 MICROSCOPE

TROYVN Company provides video microscopy solutions that make Industrial Inspection easier, more convenient, and more efficient.

TVN-2K30 microscope uses an infinity optical system, this series is equipped with High Depth of field (Deep of field), high objective distance lens, high-definition industrial camera, use.

The scanning system is directly connected to the screen image, which can effectively reduce personnel visual fatigue, improve the operator's inspection speed and inspection accuracy, which is suitable for Full inspection of the production line, process analysis, etc.



TVN-2K30			
Image specifications	1920*1080	Main frequency speed	1.2Ghz
Frame rate	60/fps	Output Connector	2 USBPorts, Udisk
Optical size	1/1.3 inch	Crosshair function	Overlay or cancellation
Pixel size	3.75x3.75µm	Lens interface	C
Colour adjustment	R, G, B independently adjustable	Power supplyS	DC 12V-24V
Chip structure	HISI + ARM	Dimensions	51x51x49mm
Operating system	LINUX	Weight	120g
Kernel structure	Core duel Coretex-A9	Operating temperature	0-70°C

TVN-4K100 SERIES VIDEO MICROSCOPE

Main Features:

HD 8 million pixels, 3840*2180P resolution, HDMI output 60/fps high-speed image capture, no delay Suppress strong reflection function to meet observation of highly reflective products an reduce reflections

Edge contour enhancement mode improves clarity of volumetric images, making the im appear clearer and three-dimensional



Specifications of Electron Microscope

Chip structure	ULTRA HD SMART IP CAMERA SOC
Operating system	LINUX
Kernel structure	ARM CORTEX A55
Main frequency structure	1.2GHZ*4
Intelligent unit computing	Built-in intelligent computing acceleration engine and built-in binocular depth acceleration unit. Built-in matrix calculation acceleration unit
Video output	HDMI digital output
Optical size	1/1.8inches
Pixel size	2.0*2.0µm
Resolution	3840*2160
Frame rate	60fps
Operating temperature	-20-7°C
Dimensions	320*260*450mm
Voltage input	DC 12V
USB Interface	USB3.0*2
Network Interface	1000MBPS
Lens mount	C-MOUNT
Weight	250g



TVN-600II DOLPHIN BODY MICROSCOPE



8-Zone Light Source

Every zone controlled independently
Irc effectively removing reflection

LED light bulb

128 pieces LED with ultra-high brightness
to truly restore the color of objects

Metal interface

Metal Housing High quality
metal housing with RS232
port

Energy-saving and durable

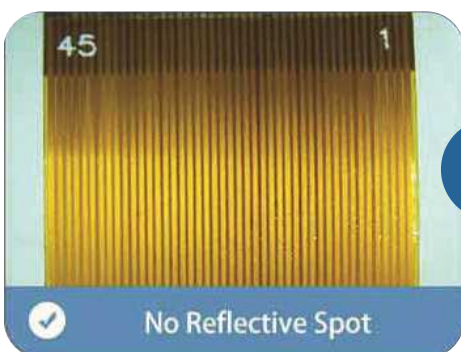
Energy saving and
environmental protection Long working hours

Quality assurance

Quality Assurance Thickened
housing looks like new after ong-term use.

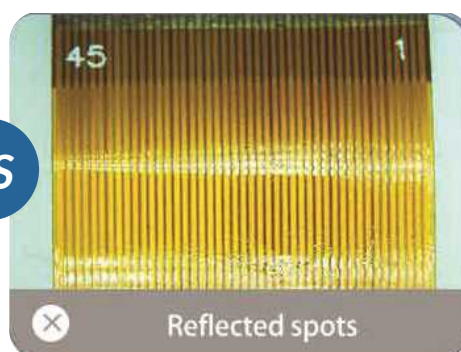


8-Zone LED light



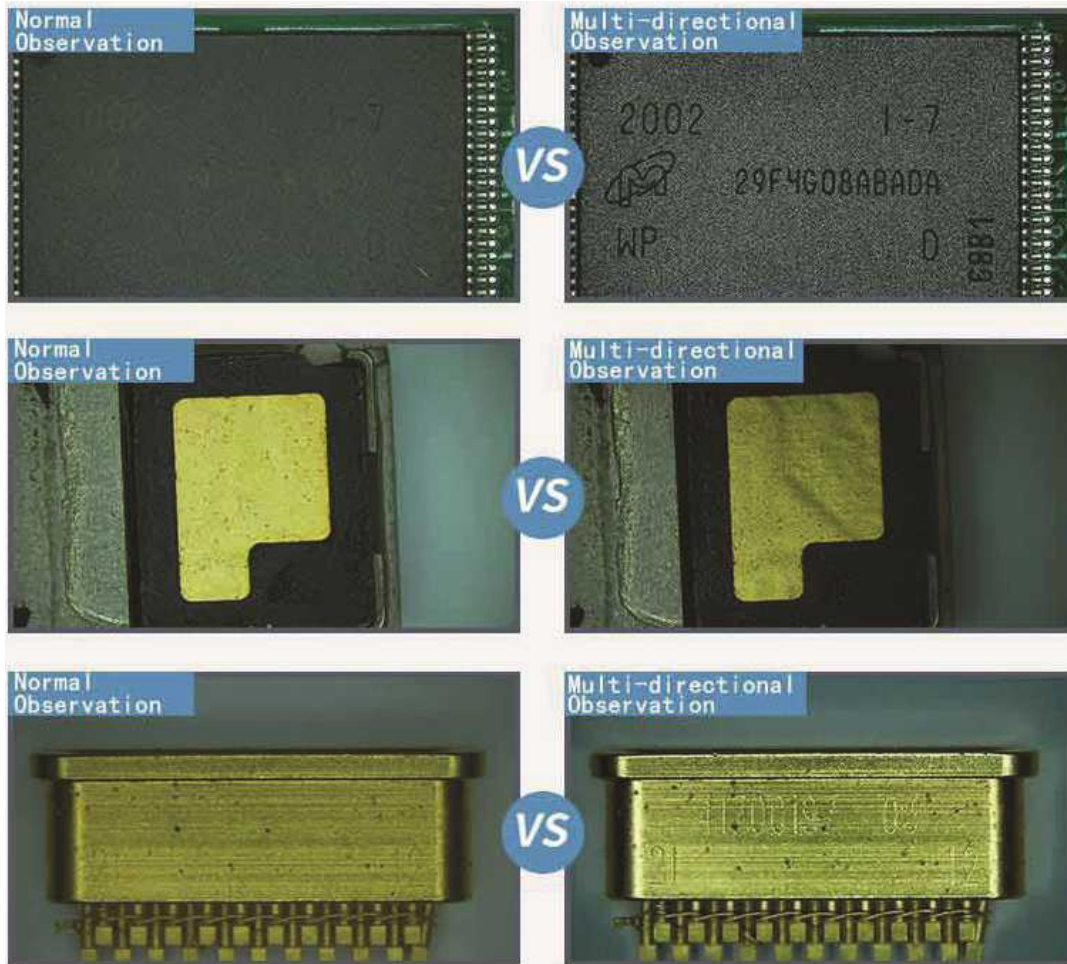
VS

Normal LED light



Multi-directional Illumination

Multi-directional exposure for clear rendering of blemishes dents, stains, and scratches.



Standard machine parameters			
Optical size	1/2"	Optical Magnification	0.7-4.5X
Resolution	1920*1080	Magnification	12-80X
Frame rate	60fps	Field of view	1-22mm
Operation mode	Mouse operation Display	Display	11.6-inch LED high-definition
Operating Temperature	-10-70°C	Dimension	320*260*380mm
Operating Voltage	DC 12V	Weight	4kg

TVN-3800II MEASURING MICROSCOPE

- Model basic editing tools. Easy to use, integrated measuring tools, image.
- Modular design and can be equipped with a CCD receiver or additional lenses to accommodate a magnification range of 7x to 200x according to customer needs.
- Model basic editing tools. Easy to use, integrated measuring tools, image.
- Modular design and can be equipped with a CCD receiver or additional lenses to accommodate a magnification range of 7x to 200x according to customer needs.

Image specifications	1920x1080*24Bit	Strong light suppression mode	3 level
Frame rate	60/fps@1920x1080	Edge enhancement mode	3 level
Optical size	1/2"	Crosshair function	Overlay or cancellation
Pixel size	3.75 x 3.75 μm	Lens interface	C interface
Colour adjustment	R, G, B independently adjustment	Power supply	12V-24V
White balance adjustment	Single button setting / manual setting	Dimensions	61x61x57mm
Exposure adjustment	Automatic mode / Manual mode	Weight	170g
Kernel structure	Core duel Coretex-A12	Operating temperature	0-70°C



TVN-360A AUTO ROTATION 3D ELECTRONIC MICROSCOPE

Introduction:

The 3D electron microscope can view the detected object 360 degrees, the image is clear and smooth, and there will be no problems such as smearing. The device uses a 2 million high-speed HDMI camera to transmit images in real time, and adds a self-developed image processing algorithm, so the viewing effect is very clear.

At the same time, the camera lens can adjust the magnification, the optical magnification is adjustable from 0.7 to 4.5 times, and with the display, the object can be magnified by 200 times. The lens can be switched between flat mode and 3D mode. There is no difference from other lenses in flat mode. In 3D mode, you can see the product in 360 degrees.

This product is suitable for detecting tiny and precise devices in the production line, and is very suitable for the need to observe the surroundings of the device.



Features:

Three-dimensional viewing plane 3D mode can be switched.
Light source continuous reading adjustable
0.7-4.5X optical magnification adjustable. Image storage Frame freeze, image comparison
Strong light suppression, edge enhancement
Color Independent Adjustment white balance adjustment Automatically adjust exposure
High speed 60 frames per second Mouse operation, U disk read and write.

- HDMI high-definition interface output multi-level wide dynamic range
- One key white balance
- Standard C-Mount interface, optional various optical lenses, used in any industrial field 24bits true color image, support computer monitor, progressive display without flicker
- The color can be adjusted independently, with the function of cross center line and movable line, and any graphics can be customized.
- Comply with the international popular high request standard, 1920*1080@60fps; 60 frames of high-speed image capture, no smear or delay;
- New edge enhancement mode is added to enhance special image effects;
- Comply with popular display trends and adapt to widescreen (16:9) displays;
- Brand new color algorithm to ensure true reproduction of image colors;
- User-friendly menu settings, with automatic hiding function;

TVN-360A HDMI CAMERA			
Chip structure	FPGA+ARM	optical size	1/2 inch
operating system	Linux 3.10	pixel size	3.75um*3.75um
kernel structure	Dual-core Cortex-A9	Image Resolution	1920*1080
Main frequency speed	1Ghz	white balance	60fps
optical size	1/2 inch	Suppress glare selection	One key white balance
resolution	1920×1080	Edge Enhancement Mode	3 levels of choice
frame rate	60fps	color adjustment	4 levels of choice
interface	2 USB ports. U disk, wireless mouse or keyboard can be connected	built-in reticle	R, G, B independently adjustable
Operating Voltage	12v	video output	8 movable lines
Operating temperature	-10 degrees -70 degrees	lens mount	HDMI digital output
Dimensions	61*61*72mm	voltage input	C interface
weight	450g		DC 5-12V

LENS PARAMETERS	
Various zoom hosts	Coaxial and confocal throughout the zoom process
Continuous zoom of objective lens	0.7X-4.5X
Zoom ratio	6.4:1
With 1XCCD	The total magnification can be expanded to 50X-300X
With 0.5XCCD	The total magnification can be extended to 25X-150X
Working distance	45 degrees 20mm
Host matching size	Ø 48mm
Light source	Brightness adjustable
Motor speed	Adjustable speed

TVN-350II CLASSIC MICROSCOPE

TVN-350II			
Image specifications	1920x1080*24Bit	Main frequency speed	1.2Ghz
Frame rate	60/fps	Output Connector	2 USP Ports, U disk
Optical size	1/3 inch	Crosshair function	Overlay or cancellation
Pixel size	3.75x3.75µm	Lens interface	C
Colour adjustment	R, G, B independently adjustable	Power supplyS	DC 12V-24V
Chip structure	HISI+ARM	Dimensions	61x61x57mm
Operating system	LINUX	Weight	150g
Kernel structure	Core duel Coretex-A9	Operating temperature	0 - 7°C

- Optical system, magnification ratio 1:6.5;
- Objective magnification range 0.7x to 4.5x;
- Standard working distance 90 mm;

Has a modular design and can be equipped with a CCD receiver or additional objective lenses to suit a range of magnifications from 7x to 200x



Metal focusing bracket

Gear lifting and fixing, stable and wear-resistant. Manual up and down adjustment, free lifting, unobstructed,



Optical continuous zoom

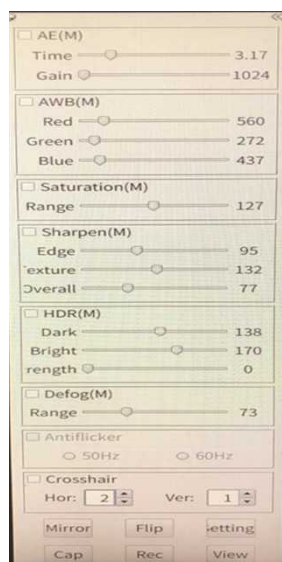
HD lens, standard optical magnification: 0.7-4.5X adjustable electronic magnification: 24-154X adjustable (higher magnification is



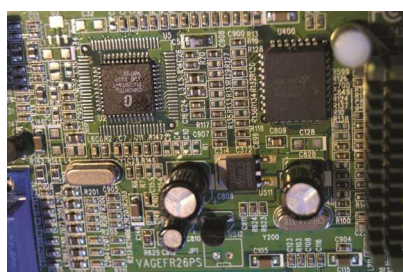
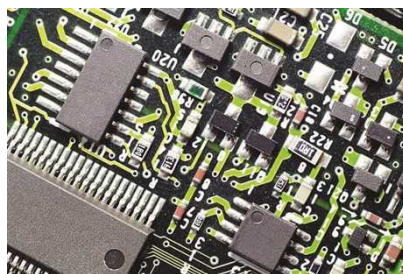
External LED light source

Built-in 64 light beads, soft and bright light, long life, less heat, soft light display, no flash frequency to protect the eyes of staff

Interface menu:



Case Photos:



TVN-MT4K80 4K HIGH DEFINITION METALLOGRAPHIC MICROSCOPE



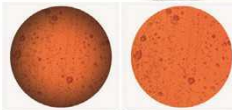
Main Features

- ANALOG DISPLAY
- SMART FOCUS
- LED ILLUMINATION
- MACROSHOT FUNCTION
- SHARP
- CLAMP MOUNTING

PRODUCT FUNCTION
Flat field high eye point eyepieces

The eyepieces are all-optical glass lenses, and the lenses are all with anti-reflection coating. The lens body is made of metal, with excellent imaging effects and wide-angle.

Diopter adjustable from -8 to 5 degrees | 10X wide angle eyepieces | 22mm field of view



PRODUCT FUNCTION
XY-axis high-precision double-layer mechanical mobile platform

High-precision stage, platform area 210*240mm, moving stroke: 150mm*100mm mechanical platform, coaxial adjustment in X and Y directions; Z-axis stroke 50mm; Z-axis maximum 70mm.



PRODUCT FUNCTION
Independent Lighting System

The system provides independent lighting systems for upper and lower light sources, easy to view transparent objects or biological samples.



Infinity Plan Achromatic Objective



Low magnification detection
Get a large overview view to help you efficiently search and find areas of interest in your samples.

High magnification analysis
Quickly and easily gain greater insight into your daily work. Observe more minute details of your samples, down to a few microns.

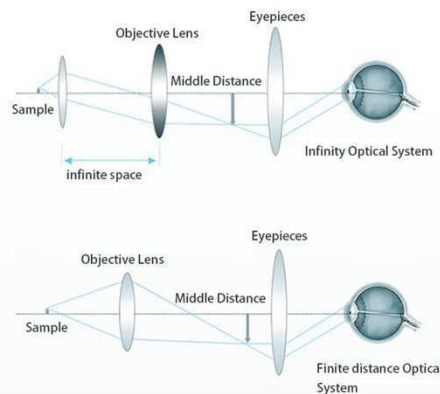



Lens parameters (with 4K camera and 4K monitor)

Objective Lens	Field of View (mm)	Magnification
5X	3.8*2.2	138
10X	2.12*1.2	263
20X	0.96*0.54	540
50X	0.38*0.22	1380

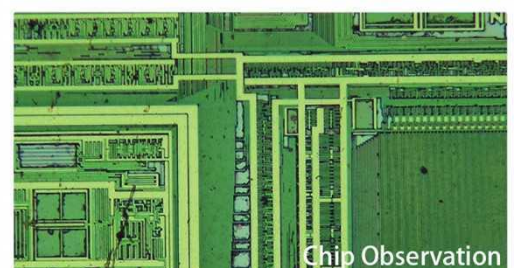
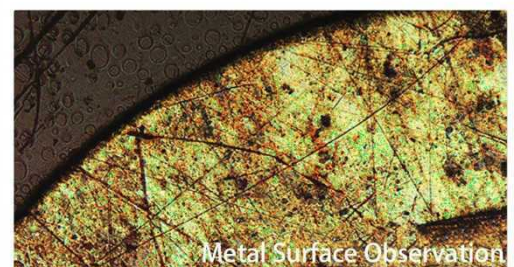
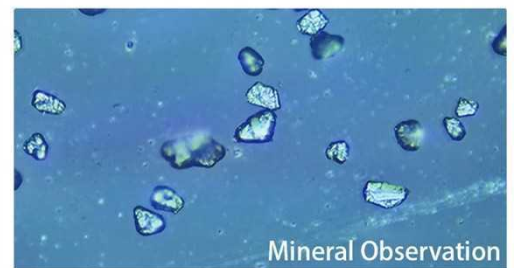
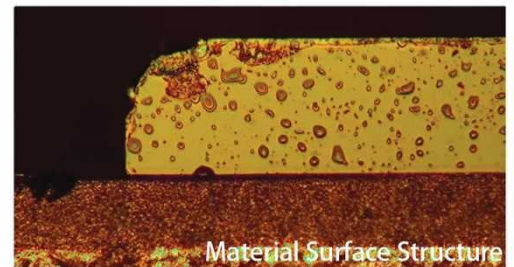
Infinity optical system

The infinity optical system changes the distance between the objective lens and the imaging lens, but the magnification does not change. Inserting a parallel plane plate between the imaging lens and the imaging lens can also prevent parafocal imaging from deflecting.



Optical Magnification	500X
Digital Magnification	50-1000X
Eyepiece	High eye point and large field of view plan eyepiece PL10X/18MM
Objective Lens	Long working distance plan achromatic metallographic objectives (5X, 10X, 20X, 50X)
Observation Tube	30° tilt, inverted image, duppling chain type trinocular observation tube
Converter	Internally positioned five-hole converter
Focusing mechanism	Low-hand position coarse and micro coaxial focusing mechanism, fine-tuning accuracy 0.002MM, with an adjustment elastic device to prevent sliding and a random limit device to prevent damage to the slide and fast focusing, built-in 5W LED transmitted light illumination, up and down illumination switching.
Stage	Double-layer mechanical mobile platform, coaxial adjustment in X and Y directions for low hand position; platform size 140MMX132MM (with 180X145MM flat platform, 102x102MM glass stage) moving range: 76MMX50MM
Reflected Lighting System	Adaptive 100V-240V wide voltage, reflective lamp house, single high-power 5W LED, warm color, with field diaphragm, aperture diaphragm, center adjustable; with color filter slot and polarizing device slot.
Transmitted Illumination System	Adaptive 100V-240V wide voltage, single high-power 5W LED, warm color
Condenser	Abbe condenser, numerical aperture N.A.1.25, with aperture diaphragm and filter holder (critical illumination)
Aperture	Field diaphragm, aperture diaphragm
Camera Accessories	0.5X camera adapter, C-type interface, adjustable focus

Product examples



TVN-S6000N Network Microscope AND TVN-S6000NMX (Depth of Field Synthesis)



TVN-S6000N

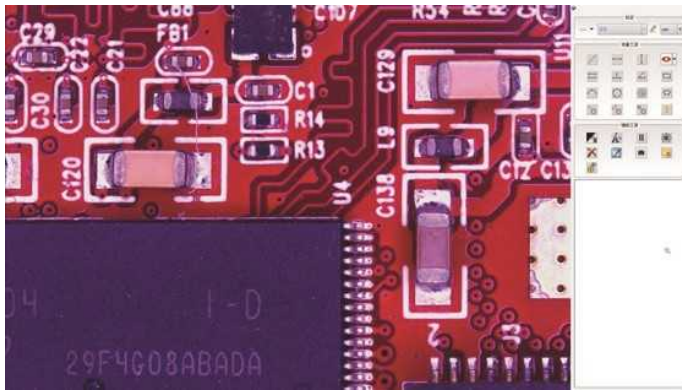


TVN-S6000NMX

Technical Parameters

TVN-S6000N and TVN-S6000NMX	
Chip Structure	FPGA+ARM
Operating System	LINUX 3.10
Kernel Architecture	Dual-core Cortex-A9
Speed	1Ghz
Optical Size	1/2"
Resolution	1920×1080
Frame rate	60fps
Measurement functions	Between two points, point to line, three-point circle, distance between center points, concentric circles, point to circle, line to circle, parallel lines, rectangle, angle, arc, polygon
Data Retention	With measurement result image or excel data saving
Measurement Method	Mouse operation, intelligent point selection/manual point selection
Interface	2 USB ports for connecting USB flash drives, wireless mice or keyboards
Operating Voltage	12v
Operating temperature	-10 degrees -70 degrees
Dimensions	71*71*76mm
Weight	500g

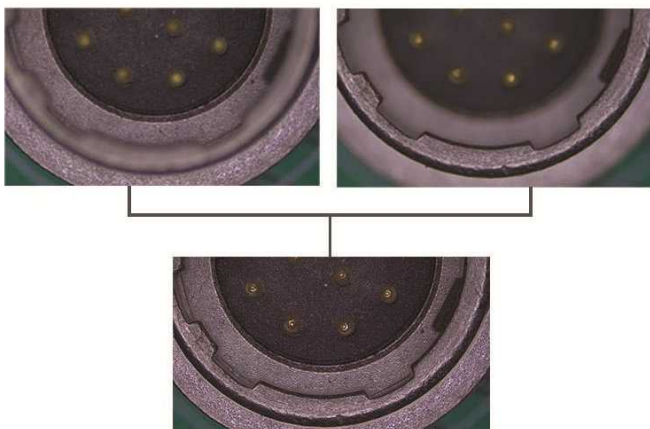
Camera Function Description



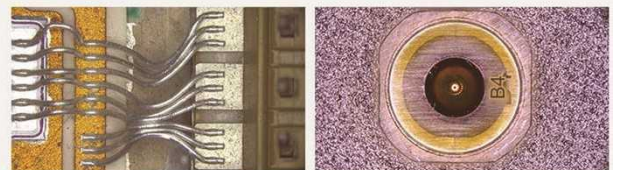
Electric depth of field synthesis

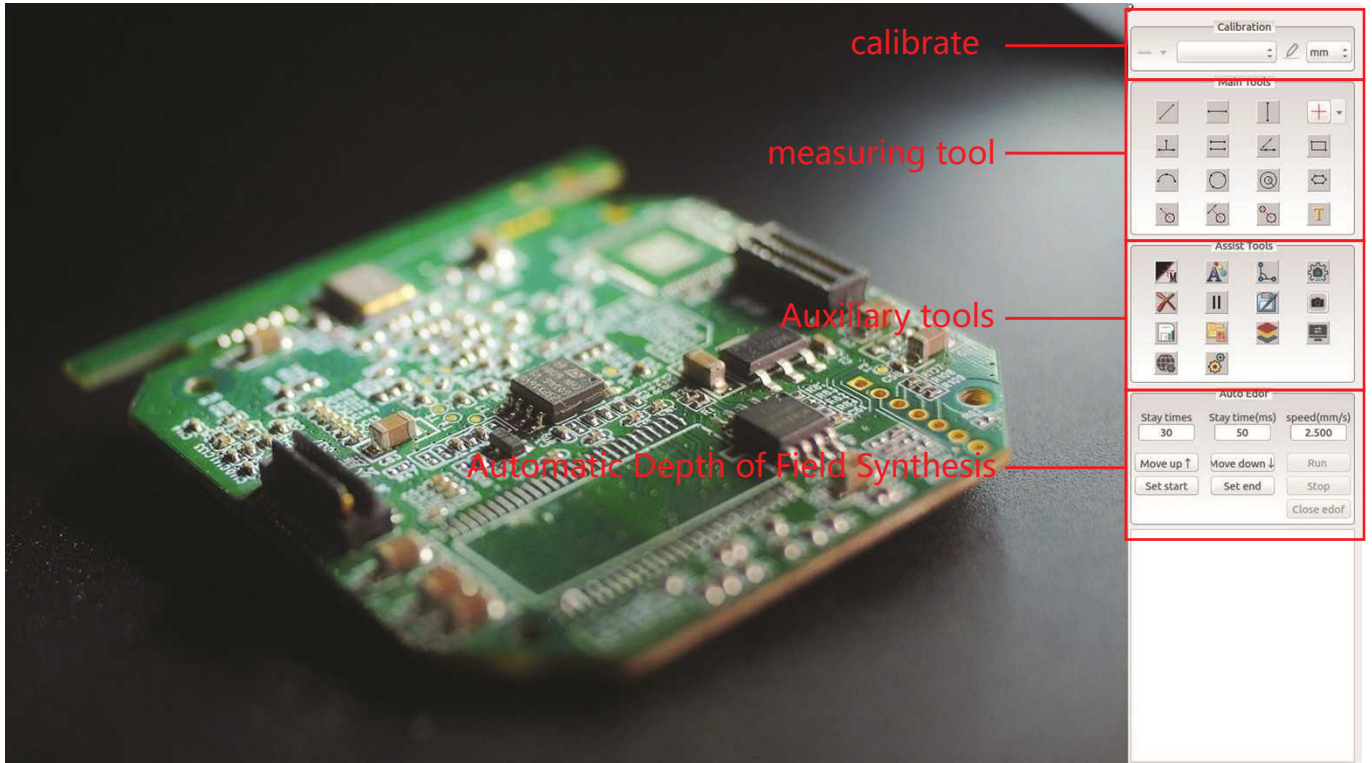
Motorized Depth of Field Synthesis

When the magnification is switched during the measurement process, the software will automatically switch to the corresponding magnification calibration.

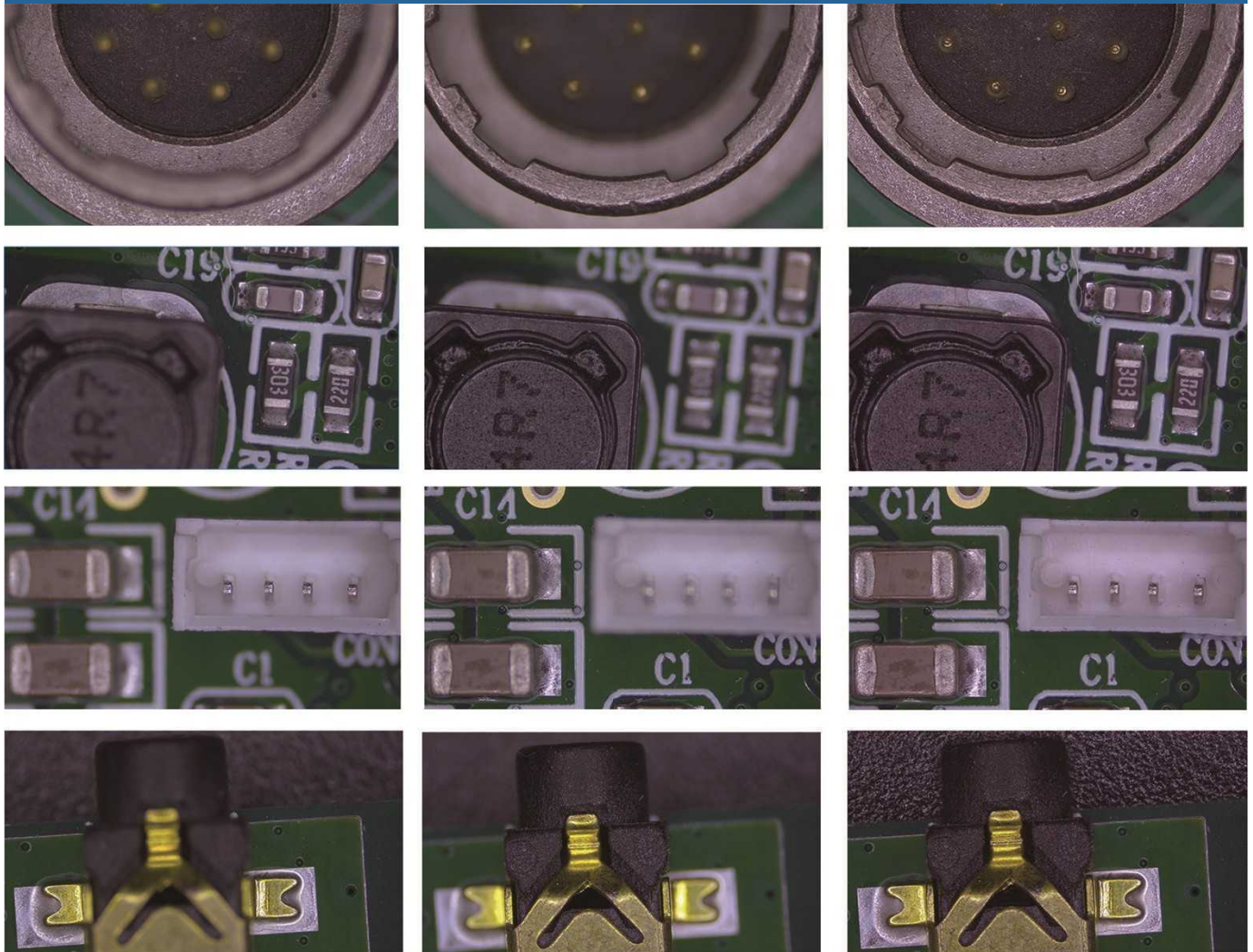


Product Case





Pre-synthesis Synthesizing Post-synthesis



TVN-8008 ELECTRON MICROSCOPE



Focus knob

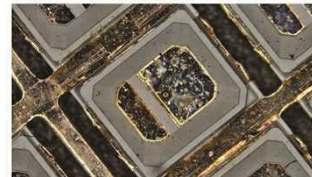
Network port and dual USB interface



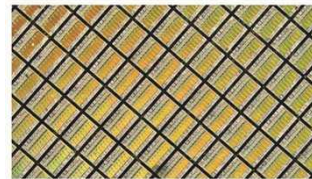
Magnification adjustment



Product dimensions



Product cases



Microscope parametern	
Chip structure	FPGA+ARM
Operating system	LINUX 3.10
Kernel frequency speed	Dual-core Cortex-A9s
Main frequency speed	1Ghz
Optical size	1/2"
Resolution	1920X1080
Frame rate	60fps
Built-in measurement software	Between two points, point to line, three-point circle, circle center distance, concentric circles, point to circle, line to circle, parallel lines, rectangle, angle, radians, polygons
Data saving	Save with measurement result images or excel data
Measurement method	Mouse 3d digital microscope point selection/manual point selection
Interfaces	2 USB interfaces, can connect U disk, wireless mouse or keyboard
Optical magnification	0.7 -5X
Viewable range	1-33mm
Light source	High-brightness ring-shaped LED light with adjustable brightness
Display	12"LED HD display
Adjustable working distance	60-150mm
Operating Voltage	12v
Operating temperature	-10°-70°

TVN-9218/9118 HIGH DEFINITION MEASURING CAMERA

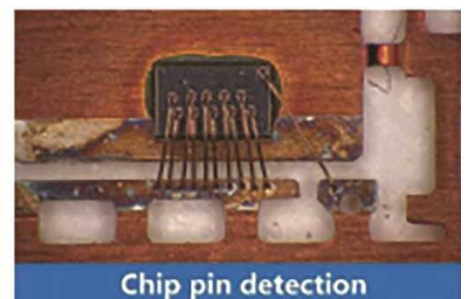
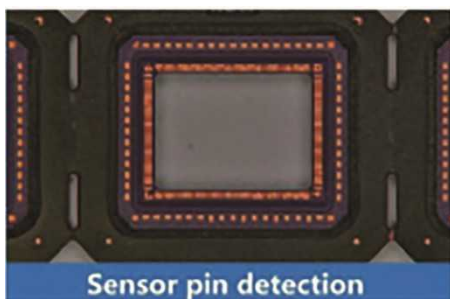
TVN-9218/9118 high-definition measuring camera is easy to use, featuring a built-in personalized interface editing function, standard operation, USB flash drive storage, and a network interface. It includes functions such as automatic edge finding, automatic contouring, horizontal and vertical flipping, line/circle calibration, data export, and playback browsing. It also provides various measurement tools for "parallel lines," "point-to-line," "concentric circles," angles, and radians.



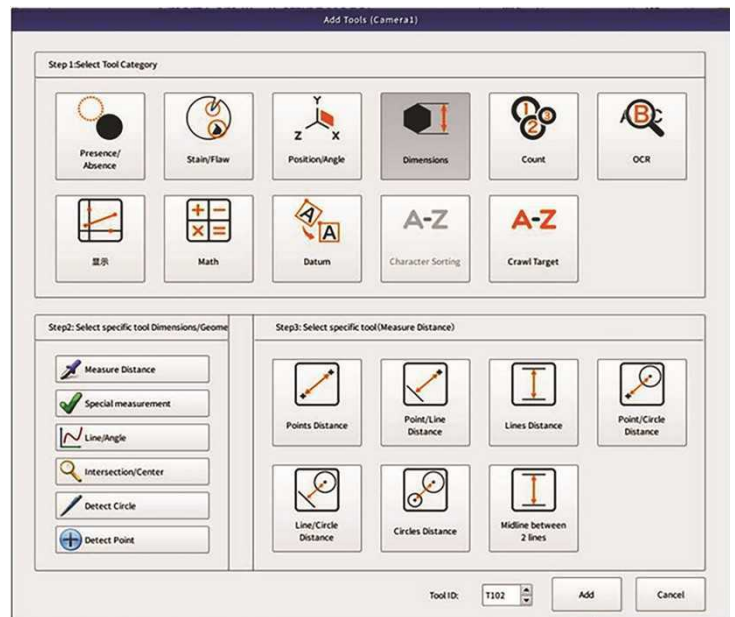
- High-strength metal casing meets industrial needs
- Integrated high-definition image acquisition and display
- A wide range of measurement software options are available to meet
- Integrated network communication interface to meet expansion needs
- Simplified Chinese, Traditional Chinese, and English can be selected freely.
- 11.6-inch high-definition display with a resolution of 1920*1080, restoring true-to-life images.
- Integrated power supply, complete structure, stable and reliable.



Camera model	TVN-9218	TVN-9118	Data storage	Save measurement results as images or Excel data
Optical dimensions	1/2 inch	1/3 inch	Measurement method	Mouse operation, intelligent point selection/manual point selection
Pixel size	3.75*3.75 μm	2.75*2.75 μm	Interface	One USB 3.0 port, which can be used to connect a USB flash drive, wireless mouse or keyboard.
Chip and kernel operating system	ARM DUAL-CORE CORTEX-A9		Voltage input	DC 12V
Operating system	LINUX		Network interface	RJ45 Gigabit Ethernet Interface
Main frequency speed	1GHZ		Operating temperature	-10~70°C
Image resolution	1920*1080		IO interface	Support
Frame rate	60FPS		Screen size	11.6 inches
Measurement functions	Between two points, from a point to a line, three points to a circle, distance between centers, concentric circles, from a point to a circle, from a line to a circle, parallel lines, rectangle, angle, radian, polygon...			



TVN-SMARTGO(-CL/-BW/-P) INTELLIGENT VISUAL INSPECTION CAMERA



TECHNICAL PARAMETERS

TVN-SMARTGO			
Chip structure	Xilinx Zynq	Optical size	1/1.8inches
Operating system	LINUX	Pixel size	2.4μm*2.4μm
Kernel structure	ARM COTEX A9+ FPGA	Resolution	2MP/6PM/8MP
Main frequency speed	666MHz	Frame rate	25/30/60 fps
Output Interface	2 USB ports. Can connect to U disk, wireless mouse or keyboard		
IO Interface	3 groups of input, 3 groups of output, 12V level output interface, can be connected to photoelectric switch, wire control switch, PLC, etc.		
Operating temperature	0-70 degrees	Video output	HDMI digital output
Dimensions	71*71*67mm	Lens interface	C mount
Weight	450g	Voltage input	DC 12-24V

PRODUCT FUNCTIONS

- MEASURE**
 Can measure product dimensions with extremely small errors (from 0.01mm)
- SURFACE INSPECTION**
 Detect foreign objects on the surface
- CHECK THE SHAPE**
 Detect shape errors, distortions,...
- PRODUCT COUNTING**
 Check the quantity of products in the package, on the tray, and on the production line
- READ CODE**
 Read QR codes, Barcodes, OCR identification
- LOCATE**
 Locate products, support robots,...

ONE-BUTTON MINI AOI MACHINE TR-A100



Including machinery, electronics, mold making, injection molding, metals, rubber, low-voltage electrical appliances, magnetic materials, precision stamping, connectors, terminals, mobile phones, home appliances, printed circuit boards, medical devices, and watches etc.



Detailed Description of the One-Click Measuring Mini AOI machine:

Complete all measurements instantly with just one click. Batch inspection requires only two steps:

1. Set the items and tolerances to be measured on the workpiece and save.
2. Place workpieces continuously and press one button to complete the measurement of all items.



One-Click Measuring Mini AOI machine Features:

1. Instantly completes measurement tasks that traditional calipers cannot.
2. Simple operation; anyone can easily master it within three minutes.
3. Global imaging, one-button measurement, significantly improving efficiency.
4. No need for precise focusing and positioning.



Function Name/Description:

Measurement Function: Performs geometric measurements on images, including distance between two points, line segment length, line spacing, circle radius and diameter, circle circumference, circle area, angle, radian, rectangle, ellipse, points, and lines.

Report Export: Exports reports in JPG, BMP image format, or Word, Excel, and PDF formats with one click.

SPC Statistics: Generates control charts such as X-R and Xm-R, and automatically calculates statistical coefficients such as maximum, minimum, average, standard deviation, offset, Ca, Cp, and Cpk.

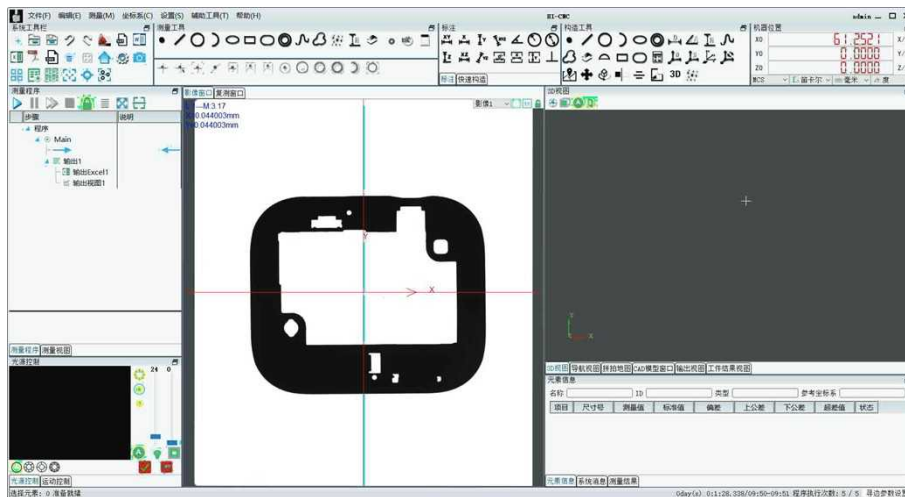
CAD Drawing Comparison: Outputs image graphics in DXF format for real-time comparison and measurement, or allows overlay comparison between AutoCAD engineering drawings and DXF images.

Tolerance Calculation: Inputs standard values and positive/negative tolerances; the software automatically calculates the difference between the actual value and the standard value and provides a prompt.

Online Inspection (Optional): Fully automatic inspection of product dimensions, defects, color, etc., and determines product conformity.



Model		TR -A100
Imaging sensor		20-megapixel CMOS
Display		15.6-inch LED display with a resolution of 1920*1080
Light-receiving lens		Dual telecentric lenses
Backlight transmission system		Telecentric illumination (green)
Measurement field of view (mm)		Diameter: 100mm
Repeatability accuracy (μm)		3 μm
Measurement accuracy (μm)		3 μm
measuring software		WM-HI
display resolution		0.1 μm
Z-direction electric coordinate table	Moving range	
	Ruler accuracy	
Overall dimensions (L*W*H) mm		300*350*650mm
Sub-pixel processing		30:1
Testing efficiency		≤2S
Weight		50KG
Working power supply		100-240VAC,50/60Hz,2A power: 300W
Work environment		Temperature: 10°C to 35°C, humidity: 30 to 80%, vibration: less than 0.002g, below 15Hz



TR-A100 vertical flash measurement instrument adopts a hardware combination of dual telecentric industrial cameras, a 20 million pixel CCD sensor, and a telecentric parallel back light source. Combined with the self-developed TR-A100 platform, it is customized with a one-click telecentric parallel back light source flash measurement algorithm. Just press the measurement button, and the instrument can automatically locate the measurement object, match the template, measure and evaluate, and generate reports according to the preset engineering project, achieving truly one-click rapid and precise measurement.

Integrated and simple body: Unlike most flash measurement instruments on the market that require an external host chassis and numerous data cables, the flash measurement instrument integrates the host inside, truly achieving an integrated design. Only one power cord needs to be connected to the socket for power supply to support all measurement tasks.

PLANETARY CENTRIFUGAL DEAERATION MIXER



Product Name	Vacuum planetary centrifugal deaeration mixer
Model	TR-M2000TT
Mixing Method	Revolution & Rotation & Non-contact & Vacuum
Continuous Working Time	30 mins
Max. Mixing Capacity	2000ml/1000g*2
Memory Storage	20 groups
Mixing Program	5 segment parameters can be set
Vacuum Measurement Method	High precision vacuum sensor
Vacuum Pump Capacity	21m ³ /h
Vacuum Degree	0.2±0.5kpa
Revolution Speed	100-2500 rpm
Rotation Speed	O-2 adjusted Rotation Revolution Speed Ratio
Power Consumption	AC220V, 50HZ/60HZ, 2.8kW
Working Condition	10-35°C, 35-80%RH
Dimensions	L730*W730*H910mm
Weight	215kg
Safety Function	Lock sensor & Emergency stop button & Vacuum sensor & Shock sensor

CHINA TOP OF MINI DELTA ROBOT TR-M200

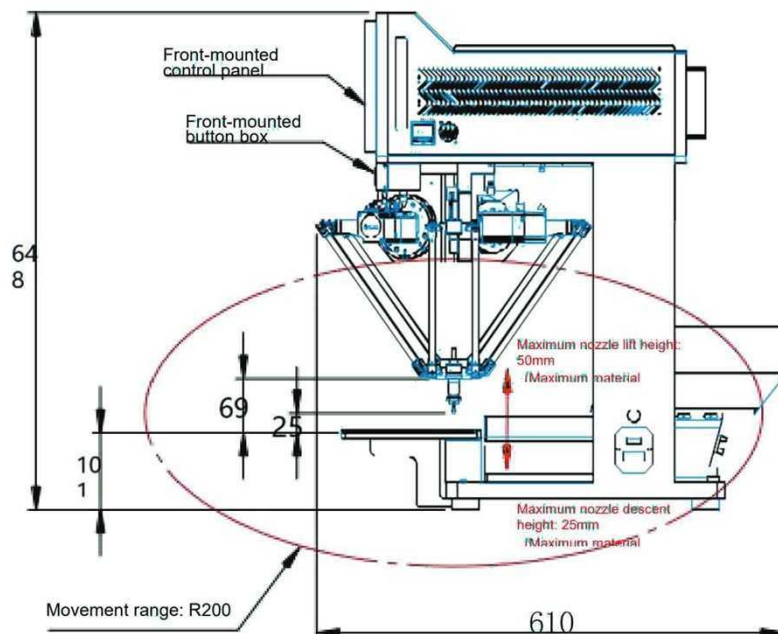
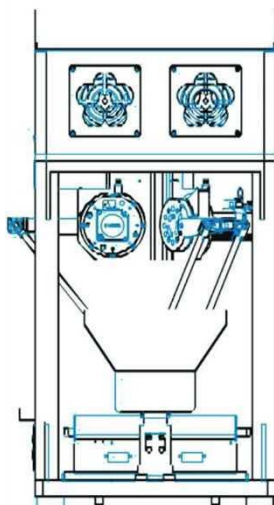


China top of MINI Delta Robot TR-M200

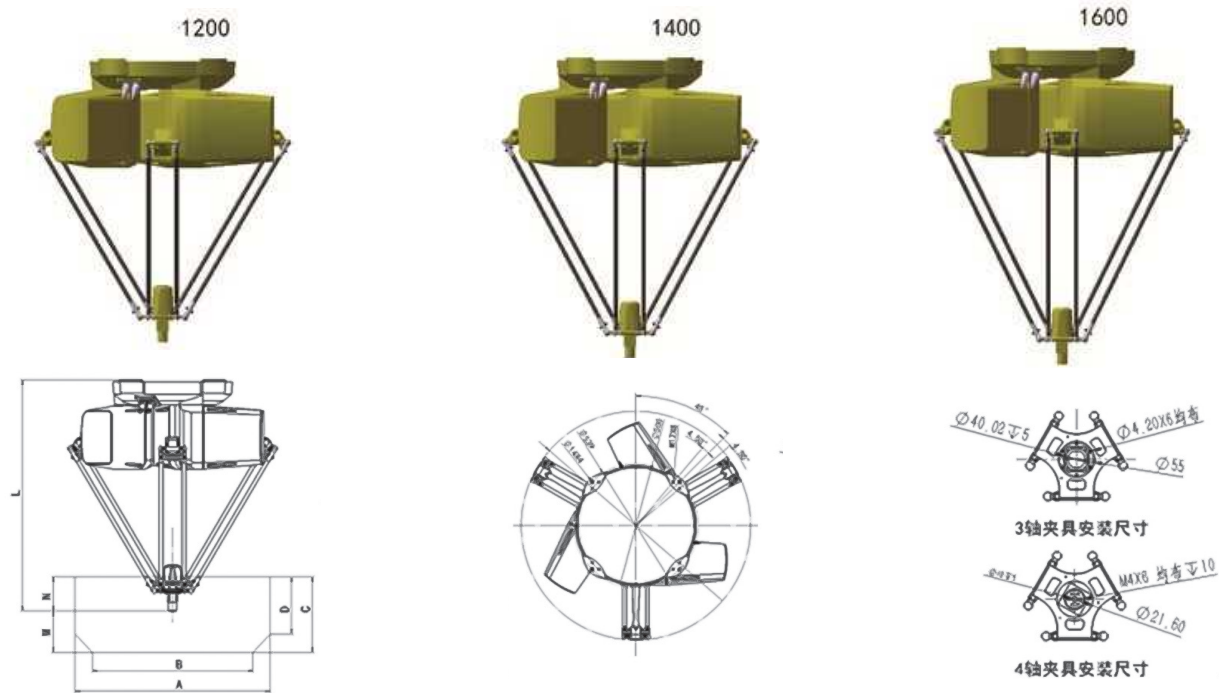
Delta Robot technology allows for the fastest rapid grabbing and placement of loose, bagged, boxed, and canned products onto designated conveyor belts or packaging boxes. This enables food sorting, packaging, handling, and arrangement, minimizing manual contact during production and standardizing and automating the manufacturing process for high-efficiency control.

TROY Delta Robot Features:

- **High speed:** fast speed, good sports performance;
- **Compact:** Integrated non-electric cabinet design, occupies small space;
- **Precision:** The motion inertia is small, there is no accumulated error, and the repeated positioning accuracy is high;
- **Stable:** The system is mature and stable, easy to operate;



TROY PANASONIC SERVO OF DELTA ROBOTS



STROKE SIZE
INSTALLATION DIMENSIONS

INSTALLATION
DIMENSIONS

CLAMPS

Name/ Model		TR1200D-4H	TR1400D-4H	TR1600D-4H
Free axis			3 axis/ 4 axis	
Payload (Kg)		3kg/15kg	3kg/15kg	3kg/15kg
Working Ranges	Upper Arm Length	500	600	700
	Lower Arm Length	1000	1100	1200
	L	1212	1340	1348
	M	236	255	275
	N	204	210	225
	A	1200	1400	1600
	B	1080	1260	1440
	C	430	465	500
D	365	395	425	
Heavy load positioning accuracy		$\pm 0.1\text{mm}$	$\pm 0.1\text{mm}$	$\pm 0.1\text{mm}$
Drive motor type		Absolutely encoder servos		
Different load (KG) Beat S (25/300/25)		1KG Standard cycle time 0.22s	2KG Standard cycle time 0.31s	3KG Standard cycle time 0.4s
Total power/voltage		4.5KW(3 axis), 4.55KW (4 axis) / 220V single phase		
Complete weight		75 kg		
Applicable controller		Y-ECAT-08		

TROY TR Series

Composite Cobot

TR Series Composite Cobot, through the flexible coordination of its "hand, eye, foot, and brain," achieves various functions such as movement, recognition, and grasping. It can be widely applied in scenarios like material handling, CNC machine loading/unloading, visual inspection, and equipment operation, efficiently completing various complex tasks or tasks between different workstations in the production and manufacturing process, building intelligent and flexible production flows.



Machine Tool Processing



Semiconductor



Education

CÔNG TY TNHH TƯ VẤN VÀ CÔNG NGHỆ TROY VN

DV12-LK430 khu đất dịch vụ Yên Lộ,
phường Yên Nghĩa, TP Hà Nội.



www.troysupply.vn



TROY VN Cooperation Agents:

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