



Vividia

Portable Autofocus Video Microscope

V:3.0

Model: 3R-600

Vividia Technologies

www.vivdia-tech.com

Content

I. Preface

IV. Packing list

VII. Operation directions

X. Output data

II. Product Information

V. Instrument structure

VIII. Introduction to measure function

XI. Instrument Specification

III. Information Source

VI. Power On / Off and Charging directions

IX. Introduction to setting menu

XII. Information of repair service

I. Preface

Thank you for choosing **Portable Video Microscope** . This guide will help you use this device properly.

When storing or using our product, please comply with following items:

Temperature: Do not use the instrument in the environment that lower than 0°C or higher than 40°C

Prevent collision and falling: when having strong collision, vibration and distortion, the machine may have a breakdown

Be cautious about installing and uninstalling the battery or movable part of the instrument: Do not uninstall the battery toughly or squeeze the monitor, power cord or battery cover. Avoid touching the lens. These parts will be easily damaged.

When not using the instrument: Please turn off the instrument of pull out the battery cord. Save the instrument in a dry and well-ventilated place. Do not expose the instrument in the environment that lower that -5°C or higher than 50°C.

Keep properly: When carrying the machine, please put into the instrument package, prevent damage from collision during the carriage of machine. Short circuit may damage of burn the instrument.

Dust-proof: It is an accurate optical instrument. Please do not use the instrument in an environment with serious dust.

II. Product Information

Product name: ***Portable Autofocus Video Microscope***

Main features and function:

- Android OS, no need to connect with computer and power supply for operation

- handheld integrated design, portable and compact size

- hd touch screen, operation of measure can be all finished with simple touch

- Quick and accurate percentage of plate dot and adding number of net line function.

- Precise measurement including length, degree of angle and surface area etc. by microns

- Save by one button. Play back saved photos. Save the photo and measuring data together, provide convenience for further process

- built-in rechargeable battery can be continuously used for at least 2 hours

III. Information Source

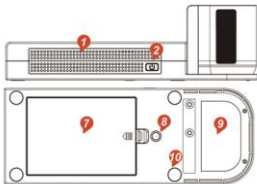
Company name	Vividia Technologies Oasis Scientific Inc.	Postcode	
Address	Greenville, SC. USA	Website	www.vividia-tech.com
Email	info@oasisscientific.com	Tel.	

IV. Packing list

Name	Quantity	Name	Quantity	Name	Quantity
Core part of instrument	1	Cleanroom wiper	1	charger	1
user's guide	1	USB data cable	1	Calibration board	1

Please check whether the items inside and the packing list are the same after boxing.

V. Instrument structure



1: hole vent

2: Power On/Off

3: Lens module

4: hole

5: HDMI

6: USB Port

7: Battery bin

8: Connecting

9: Positioning film

10: mat

11: Charging indicator

12: screen

VI. Power On / Off and Charging directions

Power on / off:

Press on Power On / Off for 2 seconds (pic1), monitor will show the picture of launching, it will enter the interface of software after fully activation.

Press on Power On / Off under ON condition for 2 seconds, monitor will show the picture of choosing OFF, choose OFF to finish the process of power OFF. Single press on Power On/Off will let the instrument be in sleep mode. Another single press on Power On / Off, instrument will end sleep mode and continue working.

Charging: Instrument may recharge by USB charger. The light on the top of the instrument will on when charging. Signal of battery on the top right hand corner of the screen will show a sign of charging.

Pic 1



After the instrument is on, you may choose function (pic 1) .



Click the icon to open saved pictures.



The icon represents the setting menu, includes language input, WLAN, blue tooth.



Click the icon to enter measuring dot software.



Click the icon to browse for installed applications.



Web browser: Link wifi through WLAN. Surf the internet when you connect to wifi successfully.

VII. Operation directions



1. After power is on, click "**Portable Video Microscope**" application icon to enter measuring dotting program (pic 2).
2. Lift up the instrument like pic 3, target the cross line under the instrument board to the

pic 2

dotting that need to be measured and press the instrument.

Remark: In order to ensure different aluminum measure plates are prepared, please choose

AE function in the setting when measuring.



pic 3

3. Click the **AF auto focus** icon on the top right corner of the screen. The instrument will focus clear to dotting, or you may click the triangle icon on the right hand side of the screen to do focusing by moving the lens upward or downward.

4. After the screen show clear dotting, randomly click on the screen like pic 3.

5. After single press on the screen, the image of dot tings shown on screen will automatically



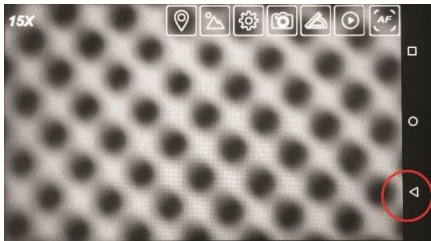
pic 4

turn into black and white display mode. The instrument will calculate the value of dotting at the same time, and it will be shown after DOT: in the bottom left corner of the screen like pic

4.

6. After finish calculating the value of dotting, a quick double click on the screen randomly may return the instrument into wait measuring condition. (Pic 3)

VIII. Introduction to measure function



Pic 7

Click the triangle icon on the bottom right corner of the screen, the software will access to function menu like pic 7.

The screen will show the icon of function menu in the top left corner, include: adding information icon, open saved images icon, setting icon, photo-taking icon, measuring function icon, pausing icon and auto focus icon.

5X

Magnification icon: The icon is showing the magnification of the instrument.

60X

200X



Adding information icon: After clicking this icon, the screen will show dialog box for entering data. Double click on dialog box can enter basic information of measured object, for example number of plate row, person in charge, remarks. After finish entering all the information, they will be saved with the measuring screen together by clicking the icon.



Open saved images icon: After clicking this icon, you may open and browse the saved images.



Setting icon: Click the button to enter the instrument setting interface.



Photo-taking icon: After clicking this icon, the display screen will be photoshoot and save in the instrument's file.



Measuring function icon: After clicking the icon, it shows eight measuring function.



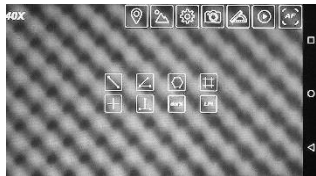
Pausing icon: This function can pause the screen immediately to prevent vibration of screen and increase the precision of measurement. After clicking this icon, the icon will change to pause icon. Another click will back to the photo taking again.



Auto focus: After clicking the icon, it shows 15X and 40X icon onto screen. Click either one of the icon (15X/40), the screen will show a message of "auto focusing..." When the message is gone, the instrument will automatically focus and enlarge for 15X or 40X.

VIII. Introduction to measure function

Click  to enter menu of measure functions.



Pic 8



Measure straight line
function icon



Measure degree of angle
function icon



Measure surface area
function icon



Measure parallel line function
icon



Measure cross mark icon



Measure point to line
function icon

Measure straight line function



Measure dot percentage



Add number of net line icon

icon

Remark: Please start measuring after the image is still.



Click the icon to start measuring straight line. It shows the function of measuring

distance from point to point. Randomly choose two points on the screen, it shows a straight

line plotted by the two points. On the bottom left corner will show the length of this straight

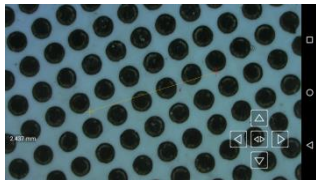
line in mm or μm . Red cross endpoint may use those arrows shown on the bottom right corner

to do fine movement. The bidirectional icon in the middle

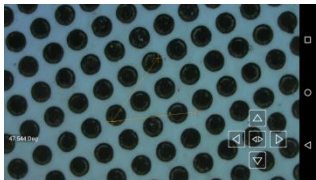


can change the

endpoint to do fine location adjustment.



Measure degree of angle function



Click the icon to start measuring degree of angle. Randomly choose three points on

the screen, it will show two straight line with the same endpoint and degree of angle at the

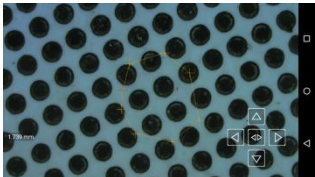
bottom. Red endpoint can be moved and fine-tuned by the arrows at the bottom right corner.



Bidirection button can change the endpoint. Degree of angle will be shown at the

bottom left corner.

Measure surface area function



Click the icon to start measuring surface area. Randomly choose N points on the screen.

Clicking the bidirection button, the screen will show a end-up area made by some straight line.

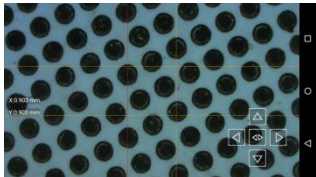
Its surface area will be show at the bottom left corner. Red endpoint can be moved and fine-tuned by the arrows at the bottom right corner.



Bidirection button can

change from different endpoint to do adjustment.

Measure parallel line function



Click the icon to start measuring parallel line. The screen will show a pair of vertical parallel lines and a pair of horizontal parallel lines. After touching the screen, the

vertical parallel line will move to the point which is touched before. Choosing the bidirection icon, another vertical line will become red, this line will be moved to the point touched on the screen. The horizontal lines are the same.

X:XXX.xx um(the distance between two horizontal line) and Y:XXX.xx um(the distance between two vertical line) will be shown at the bottom left corner.

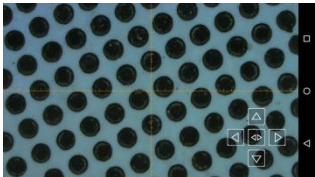
Red line can be moved and fine-tuned by the arrows. Bidirection button



can

change line to do adjustment.

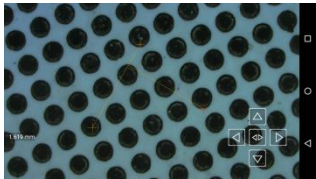
Measuring marked scale function



Measuring marked scale function: Click the icon to start measuring marked scale, the screen will show cross line on the screen. The intersection point of the cross line may move by random touch on the screen. Also, it can be moved by the arrow keys.

The cross line is not in scale but just for reference.

Measure point to line function



Click the icon to start measuring from point to line. Randomly choose two points on the screen, it shows a straight line plotted by the two points. Touch another

point, the screen will show a T shape perpendicular line by those points touched. The

perpendicular distance from the point to the line will be shown at the bottom left corner. Red

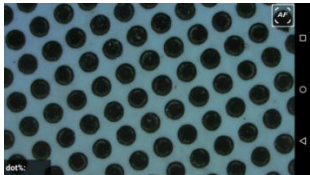
cross endpoint can be moved and fine-tuned by the arrows. Bidirection



button

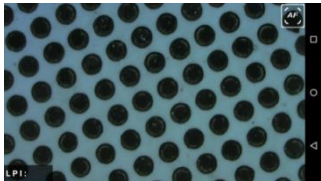
can change to different endpoint to do adjustment

Measuring dotting percentage function



Measuring dotting percentage function: Click the icon to start measuring dotting percentage which is the interface after power is on too.

Measuring net lines function




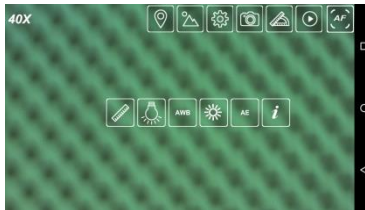
Measuring net lines function: Click the icon to start measuring net lines function.

After clicking AF auto focus, single press on the screen will calculate number of net lines automatically. Double press to return await measuring condition.

Remark: The function can only be used in under 50% of dotting.

IX. Introduction to setting menu

Click  to enter the interface of measuring function



Calibrating icon



Light off function



Auto white balance



Adjust exposure

icon

function



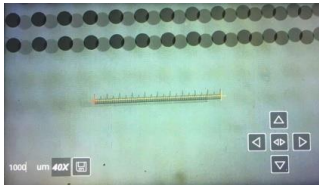
Automatic exposure



Software version icon

icon

Calibration function



Standard scale, with a total length of 1000um.

Click mm or um in the bottom right corner to

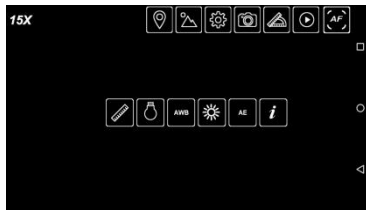


Calibration: Clearly show the scale that carried with the instrument on the screen (pic 8). Choosing the calibrating function icon to enter the interface of the calibrating function setting menu (refer to left). Put the scale carried with the instrument under the instrument and clearly shown. Randomly point on horizontal direction within the scale. Use the arrow key on the bottom right corner to do fine adjustment. According the information from the scale, enter the actual distance between the two points to the box on the bottom left corner (double click on space button to get the keyboard). Click mm to change the unit to um. Click on keyboard to enter the actual distance and save by clicking the save icon. The magnification

change the unit.

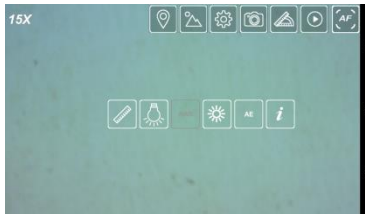
finish calibration. Mind that every actual magnification need calibration.

Light off function



Light off function: Click the icon to turn off LED light of the instrument. The function is suitable for measuring lighting objects.

Auto white balance



Auto white balance icon: Target a white paper to the instrument and adjust until it focuses clearly, click the button when you can see the paper texture. The instrument may show the auto white balance icon **AWB** on the top of the instrument. The instrument will progress white balance calibration automatically. When the screen is shown in grey and white color which do not have great color difference, please click the button again in order to let the instrument finish white balance calibration and save those information.

Remark: Please adjust to suitable exposure when using auto white balance.

Adjust exposure function



Adjust exposure: Click the function icon after finish targeting the items. The instrument will show the interface of adjust exposure (refer to left). Choose auto focus icon with two different magnification from AF. Adjust the exposure when the image is clearly focused. Click the save icon when the exposure is suitable. Mind that 15X and 40X magnification required pre-set in exposure.

The pre-set exposure may not fulfill all the requirement of different items. If need, manually adjust exposure is needed.

Automatic exposure

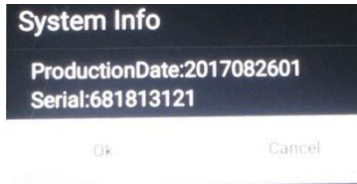


AE

Automatic exposure: Click the icon to adjust exposure of the screen automatically.

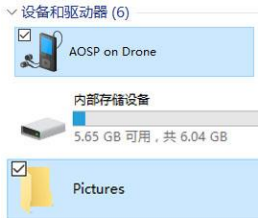
Remark: In order to ensure different aluminum measure plates are prepared, please choose this function in the setting when measuring.

Software version



Software version information: Click the icon the check the current version of the software.

X. Output data



Output image:

1. Link the instrument and computer USB port with an USB data line.
2. Computer will show AOSP icon.
3. Double click to open AOSP icon to see instrument internal storage icon.
4. Double click the instrument internal storage icon to see the internal file. Find Pictures to browse

the saved images. You may copy to output the images to external storage.(refer to left)

IX. Introduction to setting menu

Sensor	CMOS 1.3MB Colour	Storage	16GB
Magnification	5X to 200X for 17 inches monitor	Image size	1280X720 Pixel
Screen	720P Touch Screen	Size	185*70*55mm
Battery Capacity	3200mAh	Port	Micro USB2.0 、 HDMI

Battery Consumption	At least 2 hours (continuously)	Internet Port	WIFI
Operating System	Android 5.0	Operating Temperature	5°C to 35°C
Digital zoom	2X	Storage Temperature	-20°C to 50°C
Image Format	BMP	Light Source	High Brightness White Light LED x8
Weight	Around 300g	Memory Card Capacity	4GB ROM

XII. Information of repair service

Thank you for acquisition, we provide free repair service for one year. In order to provide you a better service, please fill the customer sign in form, and fax and email to us. Please do not dismantle the machine, or otherwise we treat that action as forgiving the right of having one year of free repair service

Entity name	Serial
Contact person	Date of purchase
Contact number	Dealer name

Oasis Scientific Inc.

Vividia Technologies