

ShanMukha

Pioneering Technology for a better future...



 ShanMukha

ShanMukha Innovations Pvt. Ltd.

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CytoCube-R1 from ShanMukha is a portable whole slide imaging system. It enables digitizing of glass slides, for display, further processing and analysis.

Specifications

Whole Slide: 75mm X 25 mm

Imaging Time: 16 mins

Magnification : Optical 40X

Resolution: 1.38 μm

Illumination: 3 Watt White LED

Image Sensor: CMOS

Number of pixels: 1.3 MP

Pixel Dimensions: 5.3 μm x 5.3 μm pixel

Mechanical Stage and movement:

Multi-axis stage with stepper motors

Speed range: 2-4 mm/s

X-Y movement resolution: 0.2 μm

Z movement resolution: 0.1 μm

Output Image Formats: BMP, JPG

Power Consumption: < 50 Watts

Operating Temp. Range: 5 - 70 $^{\circ}\text{C}$

Operating Humidity Range: 10-50%

Weight – 10 Kg

Dimensions – 460L*300W*430H

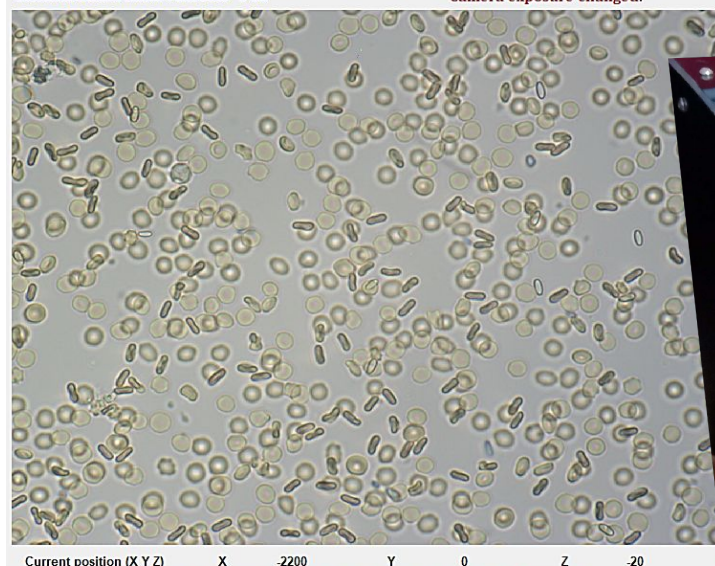
Key Benefits

- Digitize your glass slides and review them on a PC
- Easy to use controls to navigate and choose desired area on the glass slide to be imaged
- Compact size - less than a standard digital microscope



Shanmukha Innovations -PSP

Camera exposure changed.



Slide Name Set

Image Name Snapshot



PolyCube-R1



PoluCube-R1 is a thermal Cycler based on PCR (Polymer Chain Reaction). Polycube is a simple and cost effective method to amplify DNA rapidly with high sensitivity under an isothermal condition.

Specifications

No. of wells – 16

Sample volume - 10 - 100 microliters

Temperature range - 37-99 deg C

Weight - 1250 g

Dimensions – 160mmLx170mmWx160mmH

Accuracy: +/- 0.2 deg temperature-controlled amplification

Power supply- 12 V 5Amps

Key Benefits

- Compact size - easily fits on your existing lab bench
- Easy to use controls with an APP on your Android Phone
- Water Cooled Block design performs efficiently

FluroCube-R1



FluroCube-R1 helps read your amplified DNA from LAMP or PCR and other implications methods with help of Florescence DNA intercalating dye. Just add the sample from the PolyCube and get Data w.r.t controls and test samples

Specifications

Excitation frequency CWL 498

Emission wavelength : CWL 525

Compatible dye: Pico Green Cyber Green
Cyber Gold

Sensitivity: 15 ng/microliter

Sample Volume: 10-20 microliter

Vial: PCR tube 0.2 ml

Key Benefits

- Sensitivity to very low quantities
- Better readability than a Gel electrophoresis
- Generates qualitative and quantitative data.
- Rapid Analysis.
- Also suitable as point of care

AmpliCube-R1 helps run your LAMP(Loop mediated isothermal amplification) assays. LAMP is a simple and cost effective method to amplify DNA rapidly with high sensitivity under an isothermal condition.

Specifications

No. of wells - 16

Sample volume - 10 - 100 microliters

Temperature range - 37-99 deg C

Weight - 650 g

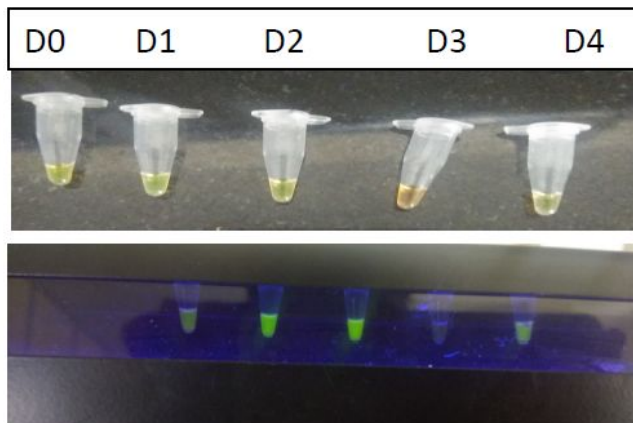
Dimensions - 60mmL X 96mmW X 60mmH

Key Benefits

- Compact size - easily fits on your existing lab bench
- Easy to use controls
- Dedicated device for running all your LAMP assays

DENGUE NS1 RNA - serotypes on Ampli cube

Dengue Positive sample



Dengue – NS1 Positive

- Serotype 1, 2 & 4 positive
- Serotype 3 - negative

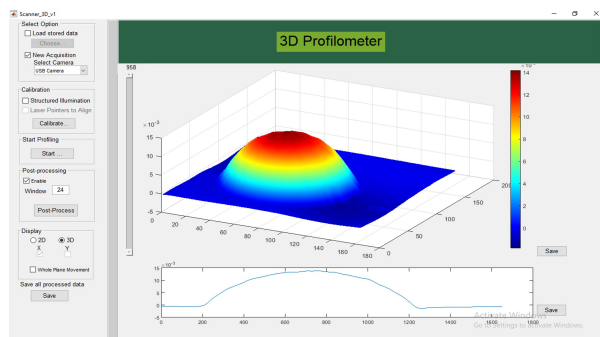
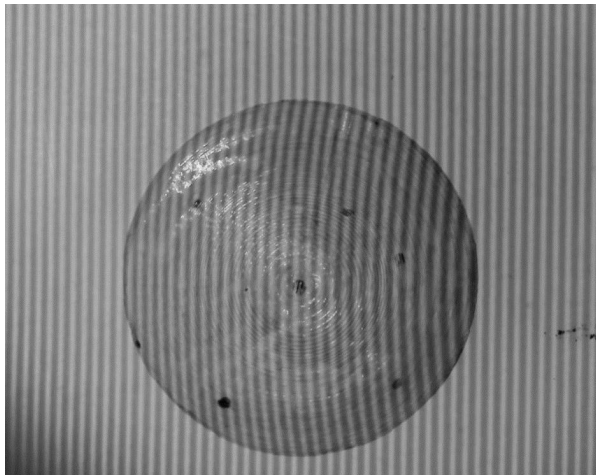


ShanMukha[®]

3dFr-Imager

Specifications

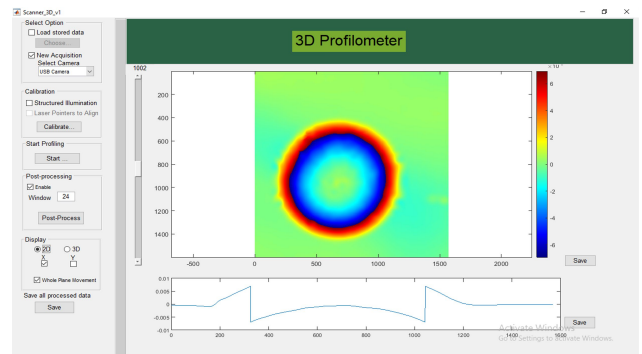
Field of View: 125 mm x 125 mm
Working Distance : 600 mm
Illumination : 3 Watt LED
Camera : Sony IMX219 image sensor, 3.67 mm x 2.8 mm sensor area, 1.12 μ m pixel size, 8.08 Mega Pixels
Video Frame Rate: 15 FPS
Power Consumption: < 20 Watts
Operating Temp. Range: 5 - 70 $^{\circ}$ C
Operating Humidity Range: 10-50%
Depth Resolution: 100 μ m
Lateral Resolution: 500 μ m



3dFr-Imager from ShanMukha is a portable Scanner for 3d Shape Profilometry. It enables quick and efficient and accurate 3d surface generation suitable for various Research and Industrial applications.

Key Benefits

- Get a 3D profile of your specimens without disturbing or touching them
- Fast single click profile generation
- Capture finer details of the specimen



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3DFR-125R

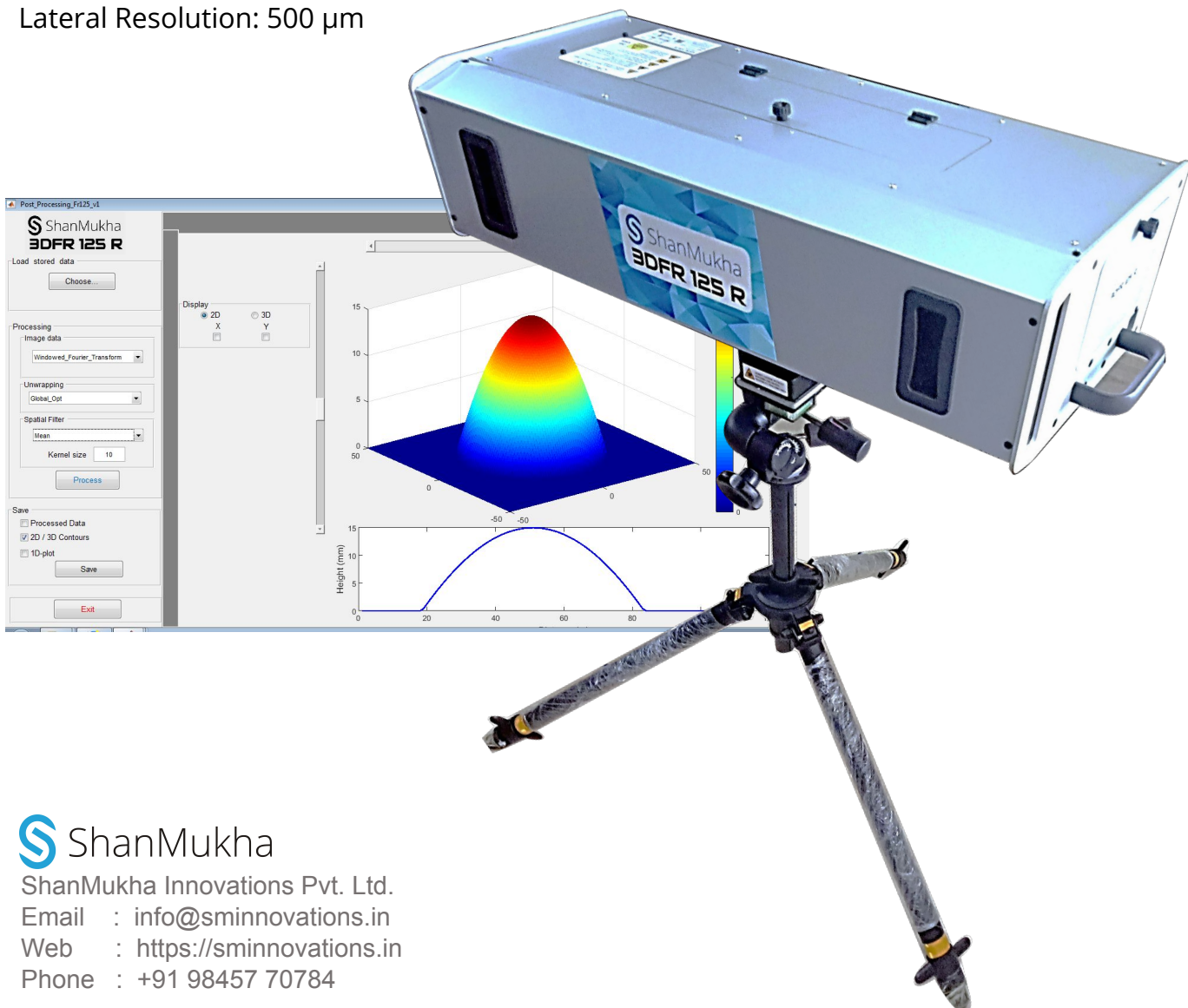
3DFR-125R from ShanMukha is a portable Scanner for 3d Shape Profilometry. It enables quick and efficient and accurate 3d surface generation suitable for various Research and Industrial applications.

Specifications

Field of View: 150 mm x 150 mm @ 1Mt.
Working Distance : 600 mm- 3000mm
Illumination : DLP + Analog Fringe Projection
Camera : Imaging Source DFK 27BUJ003;
Image sensor- ~6.1 mm x 4.5mm sensor area, 1.67 μ m pixel size, 10.7 Mega Pixels
Video Frame Rate: 7 FPS @ Max Resolution
Power Consumption: < 20 Watts
Operating Temp. Range: 5 - 70 $^{\circ}$ C
Operating Humidity Range: 10-50%
Depth Resolution: 100 μ m
Lateral Resolution: 500 μ m

Key Benefits

- Get a 3D profile of your specimens without disturbing or touching them
- Fast single click profile generation
- Capture finer details of the specimen at larger distance and sizes





Pioneering Technology for a better future..

At ShanMukha Innovations, we undertake custom instrumentation development to support bespoke needs of our Research and Industrial customers. Leveraging our expertise in optical metrology, we have developed a number of systems including a whole slide imaging system, a portable isothermal DNA amplification and read-out device and a fringe projection-based 3D profilometer.

Our customers include startups and leading research institutes such as IISc, JNU, IIT Tirupati and Central University to name a few. We take pride in supporting our Indian customers doing world class research. We are eager to work with other research labs in India and the world.

We continually strive to provide excellent services and support to our Customers.

Looking forward to a long-term relationship with your esteemed organization.



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