National Award for
Outstanding Entrepreneurship - 2010

National Award for
Quality Products - 2002

Vaiseshika®

Where Quality and Standards Meet

IMAGE CAPTURING DEVICES : MICROSCOPY CAMERAS: Series 7001

Description:

Vaiseshika offers a range of cost effective cameras with very good color reproduction and high speed working. Its driver software algorithm makes perfect color reproduction. These devices can be widely used in Industrial inspections, Microscopy observations, Machine vision & Astronomical applications.

7001-3N/5N/10N

Image Capturing Device
Mounted On Microscope

Specification :	7001-3N (3 Megapixels)	7001-5N (5 Megapixels)	7001-10N (10 Megapixels)
Sensor	1/2" Color, CMOS	1/2.5" Color, CMOS	1/2.3" Color, CMOS
Sensor Resolution	2048x1536, 3 Mpix	2592x1944, 5Mpix	3664x2748, 10Mpix
Pixel Size	3.2µm x 3.2µm	2.2µm x 2.2µm	1.67µm x 1.67µm
Sensitivity	>1.0V/lux-Sec 550nm	1.4V/lux-Sec 550nm	0.34V/lux-Sec-55nm
A/D Conversion	10bit	12bit	10bit
S/N Ratio	43 dB	40.5dB	34 dB
Exposure Time	0.057-350.208ms	0.083-378ms	0.206-1236ms
Frame Rate	11fps@2048x1536 29.3fps@1024x768 47.5fps@640x480	6fps@2592x1944 14.7fps@1280x768 20fps@1024x768 22.8fps@640x480	3.3fps@3664x2748 36fps@640x480
Spectral Response	390-750nm	390-750nm	390-700nm
Readout Noise	12 e-	8 e-	7 e-
Scan Mode	Progressive Scan	Progressive Scan	Progressive Scan
Shutter	Electronic	Electronic	Electronic
Optional Interface	C/CS mount	C/CS mount	C/CS mount
Data Interface	USB2.0 (480 Mbit/Sec)	USB2.0 (480 Mbit/Sec)	USB2.0 (480 Mbit/Sec)
Power Supply	DC 5V ± 5%	DC 5V ± 5%	DC 5V ± 5%
Power Consumption	approx. 2.0W	approx. 2.0W	approx. 2.0W
Operating Temp.	0°C - 60°C	0°C - 60°C	0°C - 60°C
Operating System	Windows XP/ 7(32/64 bit)	Windows XP/ 7(32/64 bit)	Windows XP/ 7(32/64 bit)

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IMAGE ANALYSIS & MEASUREMENT SOFTWARE FOR VICKER HARDNESS & LINEAR MEASUREMENTS: 7005-NS-MHT

Description:

Vaiseshika offers Hardness Measurement Software, used in Sheet Metal Industry, Metal Forging Industry, Oil & Gas industry , Material Science, Auto Industry & Manufacturing and where ever Micro Hardness Testers are used. This software is must for precision measurement & detailed analysis of Hardness Testing. It has multi-faceted capabilities, broadly divided in two categories as under :

MEASUREMENT TOOLS : For details please refer features of ***Software 7004-NS-SZM.***

HARDNESS MEASUREMENT TOOLS : Broad features of this tool are given here below :

Vicker Hardness **Knoop Hardness** **Brinell Hardness**

Vickers Hardness : The Vickers hardness test measures length of the diagonals of indentation left in the surface in which a square based diamond pyramid, Having an angle of 136^0 between the opposite faces at the vertex, is forced.

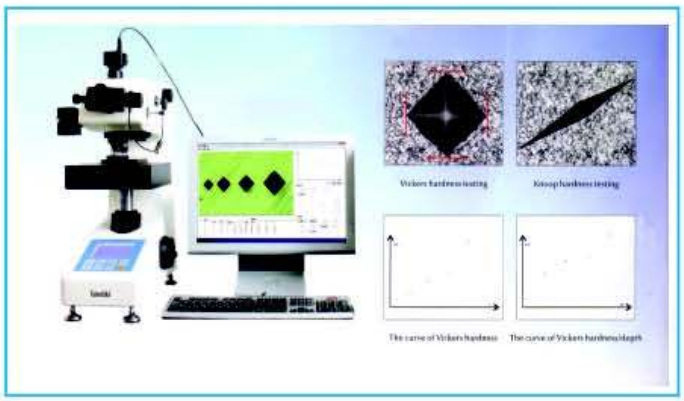
We can obtain Vicker Hardness Number with the formula for Calculating Hardness, Hv=1.854 X Wt. in Kg/ $(d)^2$. Hardness measurement is done from indentation image. Result of hardness testing is obtained in Vickers value.

Case Depth: We can measure the Case depth with this software.

Case Hardness: We can also measure the Case Hardness with this software.

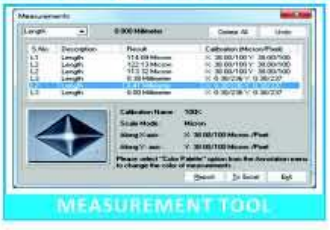
Knoop Hardness : The knoop hardness test is an indentation in which a rhombic based diamond pyramid, having an included longitudinal edge angle of 172.5^0 and an included transverse edge angle of 130^0 is forced into the surface of a test piece. The knoop hardness HK is calculated by measuring length of the long diagonal, by software **7005-NS-MHT**

Brinell Hardness : The Brinell hardness test is an indentation in which a hard metal ball is forced into the surface of test piece. The mean diameter of the indentation is measured in HBW, by software **7005-NS-MHT**.



CASE DEPTH

HARDNESS TESTING



MEASUREMENT TOOL

Vaiśeshika®

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