PERSONAL IAS®

Image Analysis System

Making Precise and Objective Decisions on Image Quality Has Never Been This Easy

qea

Tough Decisions Can Be Made Easily Using The Personal IAS … Anytime, Anywhere …

The Personal IAS* is a precise image analysis tool that will revolutionize the way you evaluate image quality. Gone are the days when you have to guess at what the level of image quality really is. Gone are the days when you have five inputs from five people and they all differ. Gone are the days when the assessment at 9 AM differs from that at 5 PM. Gone are the days around the table with the never-ending debates on how everybody feels and how everybody perceives image quality. The Personal IAS provides unambiguous, objective assessment, turning adjectives into numbers and eliminating the pain of subjective image quality assessment.

The Personal IAS integrates a high resolution digital microscope and a pocket size computer into a versatile high performance measurement instrument. With the Personal IAS, you can capture an image, perform complex analyses and obtain the results within seconds. Why wait for a specially trained laboratory technician to make measurements with complicated instruments when you can get reliable results immediately in the field or without leaving your desk? With the Personal IAS, you have the flexibility and freedom to get critical information when and where you need it.

*PATENTS PENDING

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Getting To Know the Personal IAS

Measurement Head
Position the measurement head on your sample, then use the highly magnified live video image on the screen to precisely locate the object of interest.

Touch Screen
At the heart of the Personal IAS is a full-featured Pocket PC running Microsoft® Windows® CE, preloaded with Pocket Word, Pocket Excel, and a range of other useful applications.

Communications Port
Use the included USB cable to transfer images and measurement results to your laptop or desktop PC.

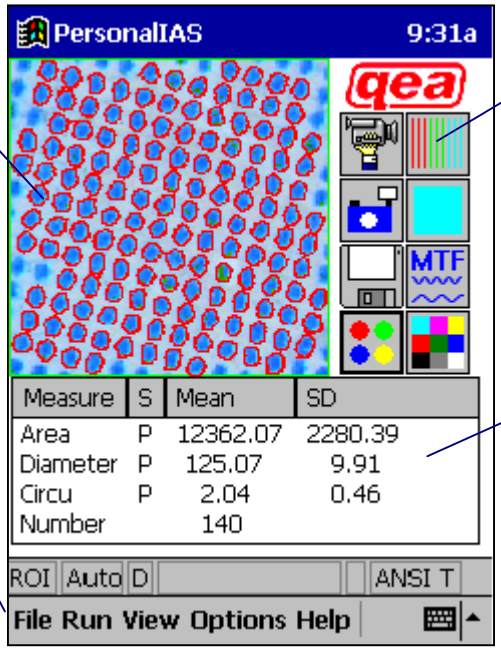
Power Port
Use the included AC power adapter to charge the Pocket PC battery and extend the life of the illumination batteries.

Illumination Power Switch

Computer Power Switch

The Personal IAS Launch Button
Instantly launch the Personal IAS software with a single button press when the computer is turned off or running other applications.

Image Window
A live video image is displayed while positioning the instrument for reliable object location. When a measurement is initiated, a single frame of the object is captured and enhanced with overlays to highlight features. Point-to-point measurements can be made and region of interests can be defined by drawing directly on the image window of the touch screen.



Measurement Buttons
With a single tap on the touch screen, the software performs the analysis and reports the measurement results. Measurement buttons can be re-assigned by the end-user according to the test functions you use most frequently.

Advanced Features
The main window of the Personal IAS software provides all the controls and displays necessary for easy "one-tap" operation. But for advanced users, a powerful set of configuration and analysis tools is accessible through the comprehensive menus.

Results Display
Results are displayed immediately and directly on the main screen, including simple statistics (mean and standard deviation). The results list can be re-configured by the end-user to display the metrics you need in any order you prefer.

System Specifications*

Physical Specifications

Description:	Portable digital microscope and print quality analyzer
Size:	23.1 cm (l) × 9.4 cm (w) × 5.3 cm (h) [9.1” (l) x 3.7” (w) x 2.1” (h)]
Weight:	850 grams [0.85 kg]
Display:	Hyper amorphous silicon TFT 65,536-color LCD (320 × 240)
Accessories:	Hard-sided carrying case AC-power adapter USB cable User’s manual & test target Backup software
Power requirements:	Rechargeable battery for analyzer 4 AA batteries for illumination AC-adapter included

Technical Specifications

Measuring geometry:	Broadband diffuse illumination; ≥45° / 0° viewing
Detector:	Color CCD
Resolution:	5 µm per pixel
Aperture size:	2.4 mm × 2.4 mm
Screen Ruling:	Range: 18 - 236 l/cm [45 – 600 lpi] cm or inch selectable
Minimum Dot Size:	10 µm diameter
Print Substrates:	Paper, offset and other reflective plates
Repeatability (spatial):	Better than ±2 µm
Repeatability (optical density):	Better than ±0.05
Repeatability (dot %):	Better than ±1% at 200 lpi (measured in highlight and midtone)
Calibration:	Factory calibrated Automatic drift compensation
Measuring Time:	6 seconds typical (depends on measurement function)

Functional Data

Measurement:	**Dot quality** Diameter — Circularity Area — Box Ratio Perimeter **Dot % in halftone** (AM and FM) **Line screen and Screen angle** **Line quality** (uses ISO-13660 methods) Line width — Fill Line density — Angle Blurriness — Distance Edge raggedness — Discontinuity Contrast **Area quality** (uses ISO-13660 methods) Reflectance — Graininess Visual Density — Mottle **Color L*a*b* and Density** **Tone reproduction** Reflectance — Dot % Density — (Murray-Davies) % Area coverage — Print contrast Gray balance **Image defects** Satellites — Intercolor bleed Voids — Banding Extraneous marks — Ghosting Background/GS — Slur **Text quality** Stroke width Stroke density Edge raggedness **MTF** (modulation transfer function) **Fusing quality**
Software features:	ROI based analysis on live or stored image Two-point distance measurement Auto/manual color plane selection Auto line orientation detection Auto dark/light dot detection User configurable push buttons Pass/fail tolerances Statistics and graphical plots
Data storage & handling:	PC-compatible files of raw data and analyzed results (data logging or individual data saving) Saving and retrieval of captured images ActiveSync file transfer with laptop or PC Personal IAS Excel Link (optional)

*All specifications subject to change without notice. (Rev. 4/03)

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