INSTRUMENTS TECHNO TEST

GRAYESS

| | IRT Analyzer | IRT Analyzer PRO | IRT Analyzer *Ultimate* | IRT Analyzer PLOT | IRT Analyzer APC |
|---|---|---|---|---|---|
| **Image Storage Management** | | | | | |
| Includes IRT Explorer | x | x | x | x | x |
| IR and visual images linking | x | x | x | x | x |
| IR image thumbnail view / IR image preview | x | x | x | x | x |
| IR image search | x | x | x | - | - |
| **Image Display** | | | | | |
| Adjustable image view, image zooming | x | x | x | x | x |
| Image rotation, mirroring | x | x | x | - | x |
| Color palettes: 11 palettes, color inversion, reduction to 16 colors | x | x | x | x | x |
| Palette contrast enhancement: Histogram equalization, Plateau histogram equalization | - | x | x | - | x |
| Temperature range: camera preset, auto and custom | x | x | x | x | x |
| IR-Visual image Fusion / Details enhancement | x | x | x | x | x |
| Camera optics selection | x | x | x | - | x |
| 3D-image view | x | x | x | - | - |
| **Thermographic Analysis** | | | | | |
| Image temperature correction (emissivity, reflected temperature,...) | x | x | x | x | x |
| Temperature correction for individual analysis objects | x | x | x | x | x |
| Emissivity lookup table | x | x | x | - | x |
| Emissivity map | x | x | x | - | x |
| Temperature offset | x | x | x | x | x |
| Averaging (3x3, 5x5) | x | x | x | x | x |
| Digital filtering: Median, Convolution, Dilation/Erosion, ...) | x | x | x | - | x |
| Image subtraction | x | x | x | - | x |
| Image Range of Interest | x | x | x | x | x |
| Alarm range for measurements | x | x | x | - | - |
| Reference temperature | x | x | x | x | x |
| Dew point (calculation/isotherm) | x | x | x | - | - |
| Isotherms | x | x | x | - | x |
| On-images notes | x | x | x | - | x |
| Rulers, distance measurement | x | x | x | - | x |
| **Point measurements:** | | | | | |
| Flying spot meter (Cursor) | x | x | x | x | x |
| Points (limit) | No limit | No limit | No limit | No limit | No limit |
| Hot/Cold spots detection | 10/10 | 20/20 | 20/20 | 1/1 | 20/20 |
| Two points Δ calculation | x | x | x | x | x |
| Emissivity by known temperature recalculation | x | x | x | - | x |
| **Line measurements:** | | | | | |
| Lines (limit) | 15 | No limit | No limit | 5 | No limit |
| Vertical, horizontal, diagonal lines | x | x | x | x | x |
| Polylines, crosslines | x | x | x | - | x |
| On-image profiles | x | x | x | - | x |
| Minimum, maximum, average calculation | x | x | x | x | x |
| Two lines Δ calculation | x | x | x | x | x |
| Profile graphs | x | x | x | x | x |
| **Area measurements:** | | | | | |
| Areas (limit) | 15 | No limit | No limit | 5 | No limit |
| Rectangular, Elliptical, Circular areas | x | x | x | x | x |
| Polygons | x | x | x | - | x |
| Minimum, maximum, average, std. deviation, area calculation | x | x | x | x | x |
| Two areas Δ calculation | x | x | x | x | x |
| Area - Range of Interest | x | x | x | x | x |

| | | | | | |
|---|---|---|---|---|---|
| Histogram graphs | x | x | x | x | x |
| "Box envelope profile" graphs | x | x | x | - | x |
| **Sequence Analysis** | | | | | |
| Multi-frame file formats support | x | x | x | - | x |
| Sequence player with adjustable playback speed | x | x | x | x | x |
| Sequence editor | x | x | x | x | x |
| Sequence aggregation: Median, Maximum, Minimum, Average, Thin out) | x | x | x | - | x |
| Sequence export: native, common image formats (PNG, JPG), video (AVI), text, comma separated (CSV), binary, MATLAB matrices | x | x | x | x | x |
| Sequence statistics | x | x | x | - | - |
| **Trend analysis:** | | | | | |
| Point trend | x | x | x | x | x |
| Area trend | x | x | x | x | x |
| Mixed trend | x | x | x | x | x |
| Profile trend envelope | x | x | x | - | - |
| Box line trend | x | x | x | - | - |
| **Real-time Acquisition and Recording** | | | | | |
| Online image acquisition | x | x | x | x | x |
| Acquisition frame rate limit | 5 fps | No limit | No limit | 20 fps | No limit |
| Video buffer in memory (history buffer) | x | x | x | x | x |
| Acquisition from multiple cameras | - | - | x | - | x |
| Image recorder (continious, single, N frames) | x | x | x | x | x |
| Image recording by triggers: timeout, frame counter, COM port | - | x | x | - | x |
| Recording to sequence (IRS) files | x | x | x | - | x |
| Real-time trends | - | - | x | - | x |
| Real-time trend recorder | - | - | x | - | x |
| Acquisition projects | - | - | x | - | x |
| **Automation and Process control** | | | | | |
| Alarms and Signals | - | - | - | - | x |
| Measurement outputs (Analog outputs) | - | - | - | - | x |
| Automation actions | - | - | - | - | x |
| Image recomposition | - | - | - | - | x |
| Camera shutter control | - | - | - | - | x |
| DAQ watchdog | - | - | - | - | x |
| **Automation Conditions:** | | | | | |
| DAQ (I/O) | - | - | x | - | x |
| Temperature | - | x | x | - | x |
| Timer | - | - | x | - | x |
| Conditions combinations | - | - | x | - | x |
| Image (trend) recording by conditions | - | x | x | - | x |
| **Report generation, Export, Printing** | | | | | |
| Templates based report generation system in Microsoft Word | x | x | x | - | - |
| Notations and comments | x | x | x | - | - |
| Report summary table | x | x | x | - | - |
| Copy & Paste: images and graphs | x | x | x | x | x |
| Printing: images and graphs | x | x | x | x | x |
| Images and graphs export: PNG, JPG, TXT, CSV, AVI | x | x | x | x | x |
| Copy with Details | x | x | x | x | x |
| Multi-picture export to Microsoft Office | x | x | x | - | - |
| **General** | | | | | |
| Help manual, digital (English) | x | x | x | x | x |
| Multilingual: English, Chinese, French, German, Italian, Japanese, Russian, Spanish | x | x | x | x | x |
| Temperature unit selection (C, F, K) | x | x | x | x | x |
| Distance unit, date format selection | x | x | x | x | x |
| Play/record image sound | x | x | x | x | x |
| Picture composition, subtraction tools | x | x | x | - | - |