SBIR
SANTA BARBARA INFRARED, INC.
a HEICO company

IRWindows™5

OVERVIEW

IRWindows™ from Santa Barbara Infrared is an advanced software tool that automates the setup, execution, data collection and results analysis for industry standard performance testing of infrared, visible and laser systems. IRWindows™ is the most advanced commercially available IR/EO sensor test software package in the industry today. It operates under Windows™ OS and is delivered installed on a high-end PC computer platform with frame grabber(s) selected to support UUT video formats. It is also available as a software only package. IRWindows™ combined with SBIR target projectors provides test engineers and technicians a turnkey, automated hardware/software solution for full-spectrum sensor testing.

FEATURES

Updated Modern GUI

Using an intuitive and updated interface, the test engineer can quickly configure and run any of the tests included within IRWindows™ (see reverse for a sample of available tests). All major functions are just one click away! Data collection and analysis are automated and test results can be printed, saved or exported for further analysis.

gRPC-Based Remote Interface

Streamlined and efficient remote interface for embedded applications including ATLAS, NI™ TestStand and more. Function calls are accomplished with a single line of code. Large tasks can now be accomplished with little interface coding required which saves time in development and maintenance.

Editable Tests

Provides access at the code level for creating new tests and modifying existing test algorithms to satisfy unique test requirements.

Flexible SQLite Data Storage

All data from tests are stored in a standard SQLite accessible database, which enables support for data mining, trend analysis, and prognostics. Results can also be exported as XML or CSV for import into Excel.

Multiple User Levels

Operator Mode, Developer Mode and Programmer Mode options available. Each mode offers unique access privileges.

Enhanced Image Viewer

The Image Viewer examines images in detail and applies analysis tools to manipulate and analyze the image. It now supports recording video to disk like a standard DVR.

Powerful Report Generation Tool

Utilizing templates to define the layout of a report,IRWindows™5 populates data fields with user selectable values taken from the test history database. The result is a formatted document that can be sent to the printer, used to create a PDF file, or displayed on the screen.

Solutions

for Every EO Test Requirement

30 S. Calle Cesar Chavez, Suite D • Santa Barbara, Ca. 93103
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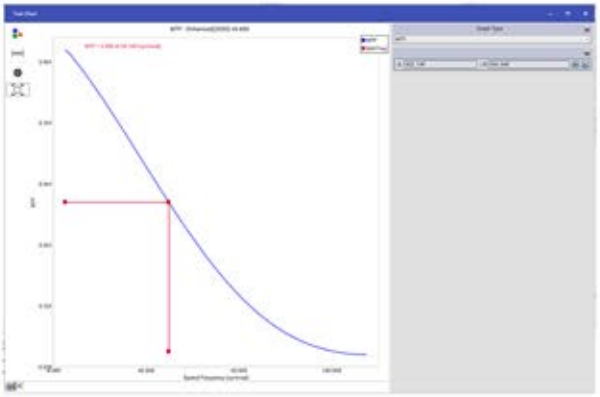
IRWindows™5

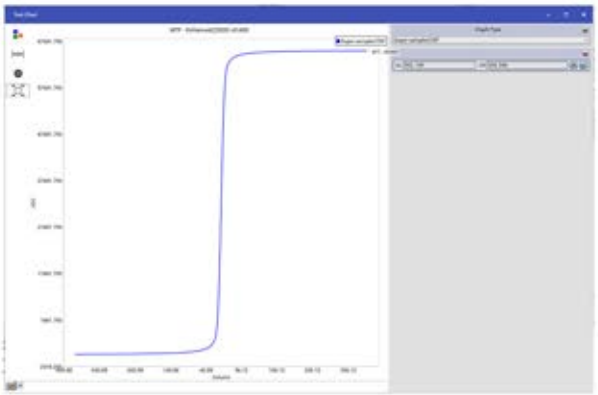
IR TESTS

3D Noise
Boresight (Pinhole, Crosshair, Continuous, Multi-Sensor)
Channel Integrity
Distortion (Geometric)
Ensquared Energy
Gain, Offset, Bad Pixels (GOBP)
MRTD (Manual, Auto)
MTF (ISO12233, Enhanced 2020)
NETD (Spatial Noise, Temporal Noise)
Eyepiece NETD, NPSD, SiTF, Uniformity, MTF, Camera Calibration, Zoom
Uniformity
NER, NEI, NEFD, NEP, D* (Radiometric)
NPSD
SiTF
Cross Talk
FOV Square
Image Alignment
Magnification NFOV, WFOV
MDTD
Resolution (near or far focus)
Strapped Channels
Square Wave Response
Zoom



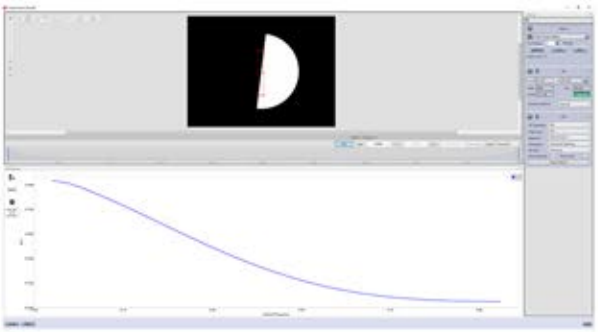
VISIBLE TESTS

EMVA1288 Linearity, Sensitivity, Noise
3D Noise
Responsivity
Temporal Noise
Boresight (Pinhole, Crosshair)
MTF (Interpolated, Continuous)
Eyepiece MTF, NEInp, Responsivity, Uniformity, Camera Calibration, Zoom
Collimator MTF, Parallax
Diopter Test
Display Brightness
Uniformity
Distortion (Geometric)
FOV
Noise Equivalent Input
Brightness Gain Test
High Light Cut Off Level
Image Alignment
Magnification NFOV, WFOV
MRC
NPSD
Resolution



LASER TESTS*

Beam Divergence
FOV Pinhole for PLD
Atmospheric Extinction Ratio
Pulse Energy
Pulse Power
Pulse Width
Pulse to Pulse Power Variation
Pulse to Pulse Temporal Variation
Pulse Interval
Pulse Frequency
Beam Profile
Energy Presence (on/off)
Power



Notes:
*** - With applicable hardware only**
Specifications are subject to change without notice

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