PC-Eyebot™ Performance Qualification Specifications

The PC-Eyebot utilizes a massive feature-based process that processes up to 12 million features per second in order to perform high-quality inspections. Each feature may contain 100's of pixels of information.

Detection Modes of Operation:			
Execution Mode:	**Training operation:**	**Execution operation:**	**Minimum of pixels needed for detection:**
Absence/Presence Mode	Train on object/features to be detected, Forget on scenes where objects/features are absent	Detects presence and reports a score from 0 to 100	7x7 pixels minimum for object/feature to be detected.
Inspection Mode	Train on range of acceptable product	Detects defects and reports a score from 0 to 100	9x9 pixels for defect to be detected.

As an example, a 9x9 defect to be detected would need to be at least 9/1024 or roughly 1% of the field of view for XGA images. Similarly, an object/feature that needs to be detected must be roughly .75% of the field of view.

Camera image resolution capabilities available:								
Standard:	**Mode:**	**Connector:**	**Vert Pixels:**	**Horiz Pixels:**	**Total # Pixels in Image:**	**Max Frame Rate of Camera:**	**Normal Non-Triggered Frame Rate:**	**Normal Triggered Frame Rate:**
1/4 VGA	Digital	1394	240	320	76,800	60	60	24
NTSC	Analog	BNC	480	720	345,600	30	30	No Trigger
VGA	Digital	1394	480	640	307,200	60	30	18
XGA	Digital	1394	768	1024	786,432	15	15	10
SXGA	Digital	1394	1024	1200	1,228,800	7.5	7.5	7.5
UXGA	Digital	1394	1200	1600	1,920,000	3.75	3.75	3.75

General Capabilities:	
Description:	**Clarification:**
Simultaneous inspection Areas running at once.	Up to 64 allowed to be defined using Small memory. Up to 8 allowed using Medium memory. 2 allowed using Large memory.
Simultaneous cameras running at once.	Right now, one camera per PC-Eyebot
Area capabilities	Each Area may be separately defined, each with its own separate training memory and parameter settings.
Types of inspection:	Grayscale, Spectrum, Color, Coloration, and Texture
Feature sizes in pixels - tuned for certain types of inspection:	3x3, 5x5, 13x5, 9x9, 21x21, 27x27, 61x61, 69x25, 87x7, and more.

Sightech offers customized Product Inspection Validation Services where we perform laboratory tests on actual product and certify our equipment to operate at this specified level.

Sightech Vision Systems, 6580 Via del Oro, San Jose, CA 95119
Tel: 408-282-3770, Fax: 408-413-2600
www.sightech.com