



## Director's Message



Resolution is one of the most important objective specifications for any thermal imaging system. Pixel count is frequently offered as a measure of image quality; however, pixel count is only one of many factors that

affect imager resolution.

## Upcoming Courses

### [Level I Certified Infrared](#)

### [Thermographer®](#)

- Aug 3 – 7 Seattle
- Aug 12 – 13 Perth\*
- Aug 31 – Sep 1 Singapore\*
- Sep 3 – 4 Bangkok\*
- Sep 7 – 11 Seattle
- Sep 9 – 10 Melbourne\*
- Sep 14 – 15 Kuala Lumpur\*
- Sep 14 – 18 Philadelphia
- Sep 17 – 18 Manila\*
- Sep 23 – 24 Sydney\*
- Sep 28 – Oct 2 Seattle
- Sep 28 – Oct 2 Philadelphia
- Oct 12 – 16 Seattle

The Focal Plane Array (FPA) detector assemblies used in modern infrared imagers contain thousands of tiny, discrete picture elements or pixels. Each pixel is a separate infrared detector that collects thermal data. Individual pixels are arranged to form an array that ultimately allows the imager to produce a thermal image.

FPA detectors are commonly specified according to pixel count and ratio. Typical detector sizes for industrial imagers range from 160W by 120H to 320W by 240H; some detectors may have more or less pixels. To determine the total pixel count for a detector; the horizontal and vertical values are multiplied.

Imager manufacturers often cite pixel count as a measure of imager resolution. Imager sales are won and lost as entire advertising campaigns focus heavily on this single objective specification. Actually determining resolution is not that simple.

Although resolution generally increases with the number of pixels, there are several other factors that influence image clarity or resolution. These include, but are not limited to, pixel viewing angle, imager optics, signal-to-noise ratio, and the imager's display screen.

When evaluating an imager for resolution, it is best to physically try the imager under actual working conditions. imagers that produce clear images should be sufficient for qualitative imaging regardless of pixel count.

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## Level I Courses Expand Across Asia Pacific

### Region

Beginning August 31, the Infraspction Institute Level I Certified Infrared Thermographer® course will be available in Singapore,

- Oct 26 – 30 Philadelphia
- Nov 2 – 6 Seattle
- Nov 9 – 13 Melbourne
- Nov 16 – 20 Honolulu

\* Flexible Learning Course

#### [Level II Certified Infrared](#)

#### [Thermographer®](#)

- Sep 7 – 11 Kuala Lumpur
- Sep 28 – Oct 2 Philadelphia
- Sep 28 – Oct 2 Melbourne

#### [Level III Certified Infrared](#)

#### [Thermographer®](#)

- Oct 5 – 7 Philadelphia

#### [Full 2015 Schedule](#)

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## Upcoming Conferences

Infraspction Institute invites you to see us at the following upcoming conferences. Be sure to stop by and say Hello!

#### [IR/INFO Conference](#)

January 17 – 20, 2016

Orlando, FL

#### [Ultrasound World XI](#)

May 10 – 13, 2016

Clearwater, FL

Thailand, Malaysia, Philippines, Vietnam, New Zealand, and Fiji. These courses will be hosted by IPI Learning, headquartered in Melbourne, Australia.



Compliant with ISO and ASNT requirements, Level I Certified Infrared Thermographer® is a five-day course for the application of qualitative thermal imaging for P/PM, Condition Assessment, Condition Monitoring, Quality Assurance, Forensic Investigations, and Building Sciences. Taught by highly-experienced Level III certified thermographers, this course covers infrared theory, heat transfer concepts, equipment operation and selection, standards compliance, image analysis, and report generation.

Students are trained to identify and document thermal patterns caused by improper design, workmanship or material failure. Specific applications include: electrical distribution systems, mechanical systems, steam systems, refractory systems, underground piping, active thermography, building envelopes, and flat roofs.

[More Information](#)

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## Infraspection Online Store



The Infraspection Online Store is a vital resource for practicing thermographers. In addition to official Infraspection apparel, we offer training manuals, reference books and CDs, software, and thermal images. Infraspection Institute Certified Infrared Thermographers also qualify for free downloads from the store.

Electronic documents such as standards, proposal templates, and

[UI Thermal Imaging Conference](#)

September 14 – 17, 2015

Las Vegas, NV

[SMRP Conference](#)

October 12 – 15, 2015

Cincinnati, OH

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## Links of Interest

[IRINFO.ORG](#)

[Maintenance & Reliability Topics](#)

[NACBI](#)

[CITA.ORG](#)

[Temperatures.com](#)

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[More Information](#)

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## Early Registration Bonus for IR/INFO Exhibitors

Infraspection Institute is pleased to announce an early registration bonus for exhibitors at its annual [IR/INFO Conference](#). Exhibitors that register and pay for their booth prior to September 15 are eligible to bring a second person at no additional charge. Valued at \$595, this bonus provides full conference access, conference proceedings, and a tuition voucher redeemable for a discount on an Infraspection Institute Certified Infrared Thermographer® training course.



Now in its 27th year, IR/INFO is the original Advanced Infrared Training Conference, Technical Symposium, and Technology Expo. IR/INFO features four days of networking, learning, and fun in a professional, yet relaxed, family atmosphere. IR/INFO is scheduled for January 17 – 20, 2016 in Orlando, FL.

IR/INFO is a must attend event for all manufacturers and distributors of infrared equipment, condition based monitoring tools and services, reporting software, and those who provide products or

services of interest to thermographers.

[More Information](#)

**IR**  **INFO**  
  
**CONFERENCE**

