



THz Illumination

SOLUTION

INO offers a terahertz (THz) illumination source especially designed to build a complete THz imaging system when paired with INO's THz camera, the MICROXCAM-384i-THz.

The THz imaging system is used for see-through imaging. Its default configuration is for transmission imaging, where the object under test is placed between the THz source and the THz camera. The system may also be configured to operate in reflection mode.

APPLICATIONS

- Security screening and surveillance
- Manufacturing
- Laboratory experiments
- Concealed weapons detection
- Vision through camouflage
- Quality control, process monitoring
- Dental and medical imaging
- Food inspection

BENEFITS

- Can be used in both transmission and reflection modes
- Uniform illumination

ADDITIONAL COMPONENTS FOR COMPLETE THz IMAGING SYSTEM

- THz components (camera, objective, computer) can be purchased to build a complete THz system



| Source Specifications ⁽¹⁾ | Standard 0.5 THz | Standard 0.28 THz | Compact 0.5 THz | Compact 0.28 THz |
|--|---|---|--|---|
| Source Center Frequency ⁽²⁾ | 0.5 THz | 0.28 THz | 0.5 THz | 0.28 THz |
| Illumination surface ⁽²⁾ | 4.5 x 6 inches | 4.5 x 6 inches | 3 x 4 inches | 3 x 4 inches |
| THz illumination optics | Optimized for beam uniformity at 0.5 THz | Optimized for beam uniformity at 0.28 THz | Optimized for beam uniformity at 0.5 THz | Optimized for beam uniformity at 0.28 THz |
| Output Power | 1.25 mW typical | 4 mW typical | 1.25 mW typical | 4 mW typical |
| Power Supply | 110-240 V AC | 110-240 V AC | 110-240 V AC | 110-240 V AC |
| Power Consumption | 6 - 7 W | 6 - 7 W | 6 - 7 W | 6 - 7 W |
| Operating Temperature | +20°C to +30°C | +20°C to +30°C | +20°C to +30°C | +20°C to +30°C |
| Overall Dimensions | 25 cm (H) x 44 cm (W) x 40 cm (L) | 25 cm (H) x 44 cm (W) x 40 cm (L) | 22 cm (H) X 37 cm (W) X 40 cm (L) | 22 cm (H) X 37 cm (W) X 40 cm (L) |
| Weight | 12.7 Kg | 12.7 Kg | 9.9 Kg | 9.9 Kg |
| Others | <ul style="list-style-type: none"> • Near-flat-top rectangular illumination • External housing • Form factor of beam matched to fit INO THz sensor • United States Patent | | | |

1. Specifications subject to change

2. Specifications can be adapted for specific requirements

CONTACT US

1 866 657-7406 | info@ino.ca

ino.ca



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Québec (Head Office)
2740 Einstein Street
Québec (Québec) G1P 4S4
CANADA
418 657-7006

Montréal
405 Ogilvy ave, Suite 101
Montréal (Québec) H3N 1M3
CANADA
438 387-8957

Hamilton
175 Longwood Road South, #316 A
Hamilton (Ontario) L8P 0A1
CANADA
905 529-7016

