

OpenView 太赫兹摄像头

Scientific metrology camera fitted to the UV, visible, Infrared and Terahertz spectral domain (0.1 μ m à >3000 μ m)

OpenView is a new device based on the extension of microbolometric infrared camera dedicated to measurement and analysis of monochromatic optical beam and large spectral band from UV to Terahertz waves.

NeTHIS offers a cost-efficient and versatile device suited for beam analysis and metrology of wide ranges of commercial and laboratory Infrared, Terahertz and sub-Terahertz sources.



Key Benefits:

High spectral agility (0,1 -> 3000 μ m) covering the UV, visible, SWIR, MWIR, LWIR and terahertz domains



The largest detection surface area > 60x60mm

Compact uncooled Infrared technology

Dedicated to a large diversity of coherent and non coherent sources:

Solid-states Lasers

Fiber Lasers

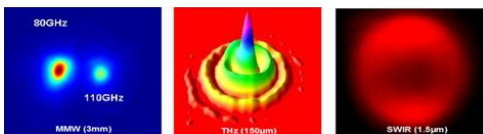
Quantum Cascade Lasers (QCL)

Molecular Lasers (Excimers, CO₂, ...)

Diodes and electronic terahertz and microwave oscillators (Gunn, BWO, ...)

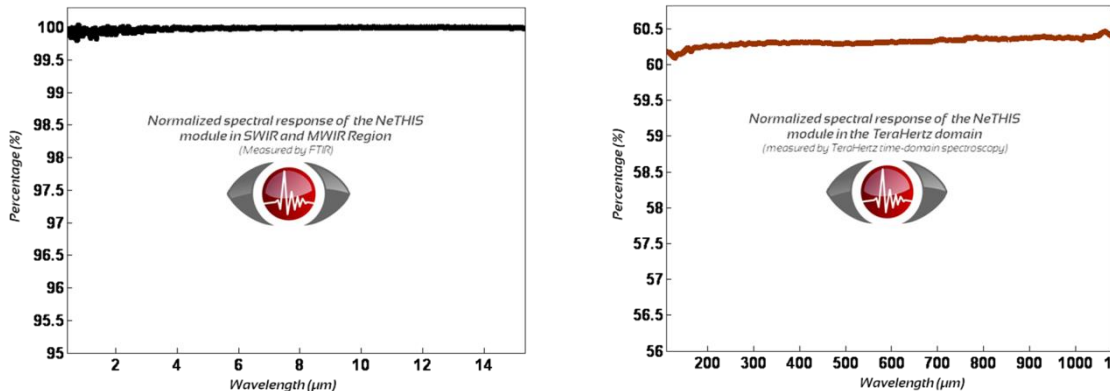
Free electron lasers, black-body radiation

Suited for High-power lasers sources



Figures

OpenView offers the largest spectral sensitivity homogeneity from the infrared to the terahertz field



Technical specifications

Typical Parameters of OpenView

Product size	90*90*200mm ³
Working Temperature	Room temperature
Supply voltage	Sector voltage
Plug-in	IEEE1394/Ethernet
Sensitive detection area	70*70mm ²
Pixel size	100μm
Spectral range	0.1-3000μm
Damage threshold	>1W/cm ²
Minimum measurable signal	<1nW/pixel

Applications

Metrology and laser beam analysis
(laboratories, R&D centers, industries)

2D and 3D beam metrology and analysis

Optimization and sources alignment (continuous or pulsed)

Multispectral sources characterization

TeraCam 太赫兹相机

Multispectral camera (IR et TeraHertz) of wide field 2D and 3D imaging system

TeraCam is a high performance camera **design not only for** laser beam metrology **but also for** 2D and 3D imaging and Non Destructive Testing of insulating materials (**composites, foams, plastics, ceramics...**)

NeTHIS offers a versatile and cost-efficient solution for **multispectral imaging**, dedicated to the largest commercial and laboratory sources in the **Infrared, Terahertz and/or MMW electromagnetic domain.**



The TeraCam relies on a multispectral module (SWIR, LWIR, MWIR, FIR, THz) implemented on a cooled or uncooled Infrared cores

Key Benefits:

High spectral agility (0,1 -> 3000 μ m) covering UV, visible, SWIR, MWIR, LWIR and terahertz domains



-Terahertz 2D imaging on optical domains > 60x60mm

-Terahertz tomography of insulating materials

-Dedicated to a large diversity of coherent and noncoherent sources:

Solid-states Lasers

Fiber Lasers

Quantum Cascade Lasers (QCL)

Molecular Lasers (Excimers, CO2, ...)

Diodes and electronic terahertz and micro-microwave oscillators (Gunn, BWO, ...)

Free electron lasers, black-body radiation

-Suited for High-power lasers sources

Technical specifications:

Parameters	OpenView	TeraCAM
Product size	60*60*300mm ³	200*200*300mm ³
Working Temperature	Room temperature Uncooled IR Detector	
Supply voltage	Sector voltage	
Plug-in	IEEE1394/Ethernet	
Sensitive detection field	700*700mm ²	
Pixel size	200μm	100μm
Number of Pixels	700*700	
Spatial resolution	Millimetre(Diffraction limited)	
Spectral range	0.1-3000μm	
Minimum measurable signal	<50μW/cm ² per pixel	
Acquisition rate	1-10Hz	1-50Hz

Applications:

Multispectral imaging applied to R&D and industrial applications

- 👁️ Physical and optical characterization of insulating materials (density, fatigue, humidity, heat diffusion, strain...)
- 👁️ Millimeter wave global inspection through opaque insulating materials (delamination, crack, mould, material inhomogeneity)
- 👁️ 2D and 3D penetrating imaging of welding, gluing and attached systems

New applications possibilities for laboratories and industries

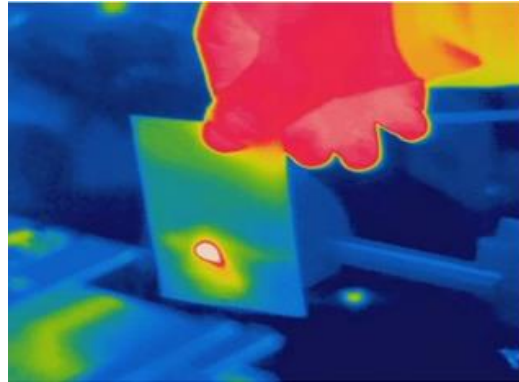
- 👁️ 2D and 3D optical beams imaging and analysis
- 👁️ TeraHertz and MMW source optimization and alignment (continuous or pulsed)
- 👁️ TeraHertz Tomography
- 👁️ Multispectral source metrology

TeraCard 太赫兹显示卡

—Universal Laser beam viewer card
The widest broadband accessible from 0.1 to 3000 μ m

TeraCard

The **Broadband laser viewer card** offers a hand-held or post-mounted operation for **beam viewing, alignment and metrology** using an innovative large-size sensitive conversion cards. **Increase your lasers operation in complete safety** using the detection sensitivity of the **Teracard pack**.



Coupled with the smallest, lightest and most affordable thermal imaging camera, **laser manipulation benefits for the widest spectral electromagnetic bandwidth** from UV, visible and infrared up to Terahertz and microwave radiations

Key Benefits:

High spectral agility (0,1 -> 3000 μ m) covering UV, visible, SWIR, MWIR, LWIR and terahertz domains

Large detection surface area > 40x40mm

Dedicated to a large diversity of coherent and non coherent sources:

Solid-states Lasers

Fiber Lasers

Quantum Cascade Lasers (QCL)

Molecular Lasers (Excimers, CO₂, ...)

Diodes and electronic terahertz and micro-microwave oscillators (Gunn, BWO, ...)

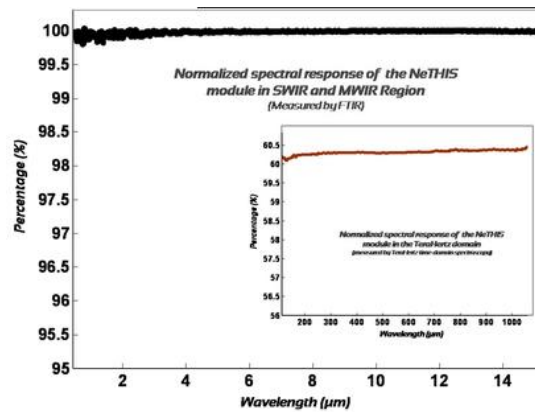
Free electron lasers, black-body radiation



Suited for High-power lasers sources

Figures

TeraCard offers the largest homogeneity of spectral sensitivity from the infrared to the terahertz domains



Technical specifications

Parameters	TeraCARD
Size	89*54mm Custsom size available
Detection surface diameter	25.4mm 50.8mm
Spectralband	0.1-3000μm From UV to THz
Sensitivity	<100μW/cm ²
Damage threshold	>W/cm ²

Applications

A large application field for safety lasers manipulation

- Lasers beam optimization and alignment for industry and scientific metrology
- Personal laser safety in working zone
- Components and Lasers system inspections
- Thermal imaging (lasers, rooms, ...)
- Infrared and visible fluorescence
- Black-body radiations characterization
- Multispectral source metrology

TeraPOWER 太赫兹功率计

—TeraHertz broadband auto-calibrated Powermeter

Product overview

TeraPOWER is implemented as an sensitive auto-calibrated flux-meter extending the Infrared and thermal technology up to TeraHertz and sub-Terahertz electromagnetic domain. It combines a high sensitivity detection level on a broad spectral bandwidth with the largest detector surface.

TeraPOWER offers a cost-efficient and versatile device suited for a wide range of commercial and laboratory Infrared, TeraPOWER and sub-Terahertz sources.

Auto-calibrated flux-meter extending the infrared and thermal technology up to TeraHertz and sub-Terahertz electromagnetic domain

Key benefits

- Absolute auto-calibrated power-meter
- Large detector area
- Broadband IR and THz beam metrology
- Suited to a large variety of IR ,THz and MMW sources
 - Electronic diodes(Gunn,IMPATT,TUNNETT)
 - BWO
 - QCLs lasers
 - Molecular lasers
 - Free Electron Laser
- Cost-efficient and easy to use



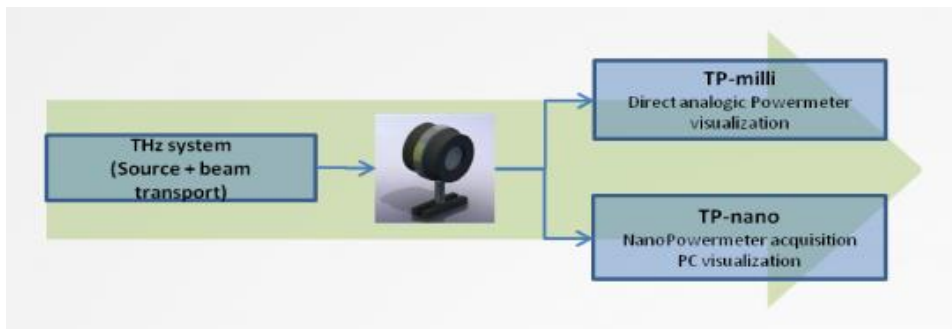
NeTHIS opens a new area for a wide range of THz metrology and applications

Laboratory and industrial THz and Sub-THz applications

- Scientific metrology and industrial R&D
- CW and pulsed sourced characterisation and optimisation
- optical characterisation of industrial materials
- active imaging and tomography for non-destructive testing

TeraHertz broadband auto-calibrated Powermeter

Available acquisition modes



Typical specifications @0.1THz

Parameters	TeraPOWER TP-Milli	TeraPOWER TP-Nano
Product size	60*60*70mm ³	
Working Temperature	Room temperature	
Supply voltage	None	
Plug-in	BNC/RS232	BNC/RS232/GPIB
Sensitive detection field	1-25mm of Diameter(on demand)	
Data acquisition mode	Multimeter analogical PC acquisition	Nano Voltmeter PC acquisition
Spectral range	0.1-30THz(10μm-3mm)	0.1-30THz(10μm-3mm)
Minimum measurable signal	<100μW	<1μW
Sensitivity	0.1V/W	1V/W
Measurements errors	10μW	<0.1μW

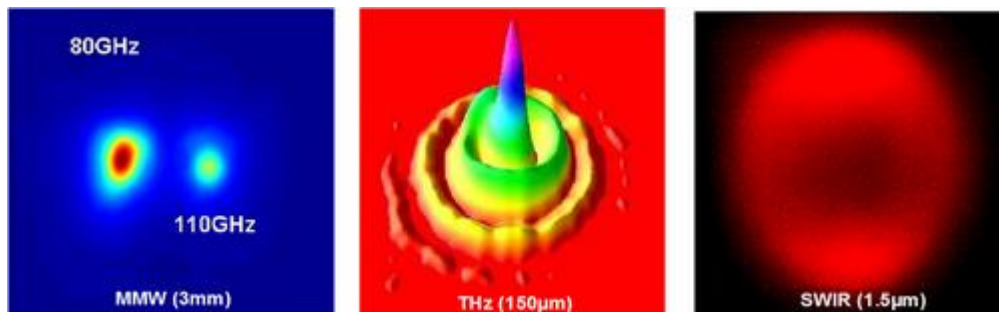
Applications:

Scientific metrology

Beam metrology:

NeTHIS develops innovative tools allowing **beam metrology** on the **largest spectral range**, from the **UV to the MMW**. Our range scientific metrology product is suited to:

- 🌀 **Beam Analysis and Profiling**
- 🌀 **Power measurement**
- 🌀 **Spectral characterization**
- 🌀 **Set up alignment and optimization**



Our solutions dedicated to optical metrology:



Applications:

Non Destructive Testing:

NeTHIS technology widens its Infrared optical system to the field of Terahertz. **“A sight inside the matter”**, opens a new way for **volume inspection** and **Non destructive testing** of industrial insulating materials.



NeTHIS solutions apply on advanced materials characterization from various fields such as **aeronautics, building, automobile, chemistry, food-processing, wood, industries...**



ndt of insulated materials used in various activity domains like aeronautic, building construction, wind energy, automobile, chemistry...

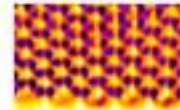
The application of NeTHIS technology for non destructive testing are :

- ④ Millimetric internal default detection
- ④ Inside structures inhomogeneity detection
- ④ Physical property differences (density, pressure, temperature)
- ④ Humidity control of materials

Our solutions dedicated to the Non Destructive Testing in volume:



TeraCam



Offres de services