



InfiRay's Smallest Micromodule Equipped With

WLP Detector

# Half of One Quarter

 Tiny1 13 × 13 × 7.3mm

 S0 21 × 21 × 21 mm



[home](#) > [Product](#) > [Thermal Module](#) > [tiny1thermalmodule](#)

[Micro III](#)[LT](#)[FT](#)[Mini](#)[Phoenix](#)[Tiny1](#)[S0](#)

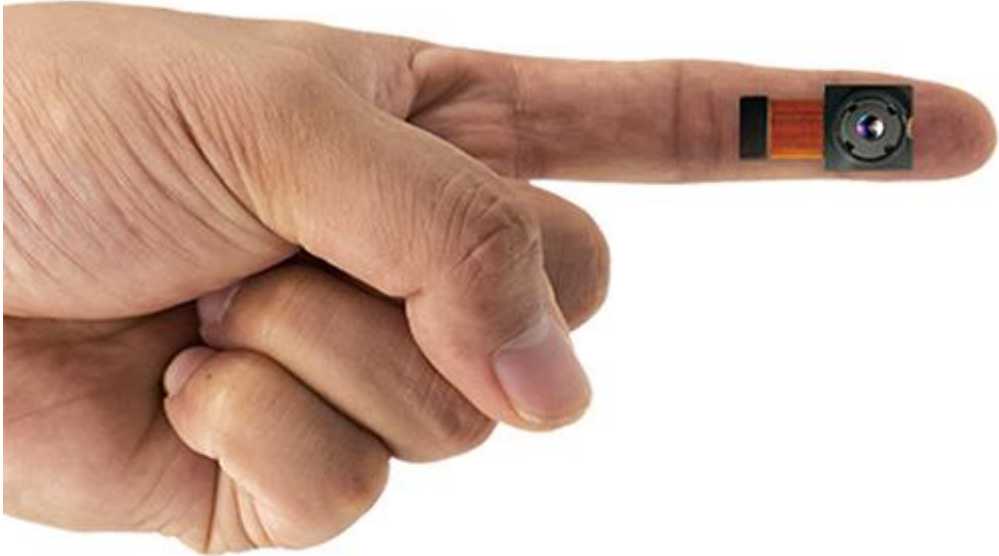
## Tiny1, smaller than smaller.

This is InfiRay®'s smallest micromodule to date, with a built-in shutter in a space less than 7.3mm thick.

Tiny1 uses an advanced 12-micron WLP chip with excellent imaging and temperature measurement capabilities.

Tiny1 focuses on the consumer thermal imaging market and is ultra-high cost-effective and easy to be developed and integrated.

It can be applied in various fields, such as AIOT, intelligent home, smart phone, PDA, security monitoring, power monitoring.

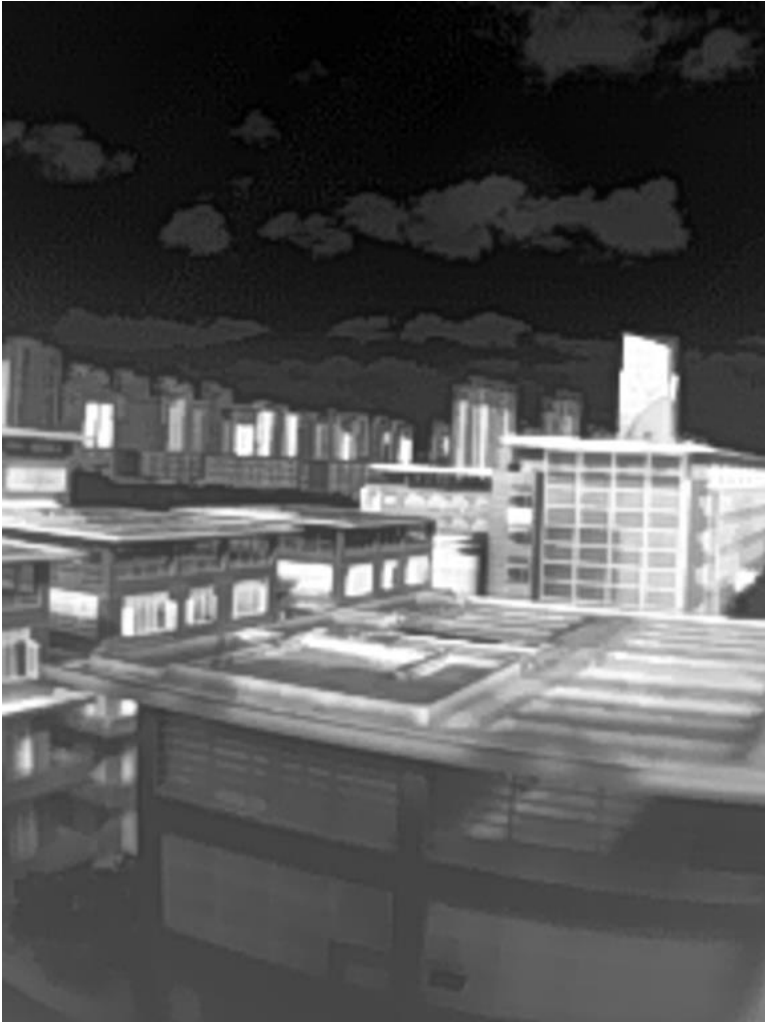




Tiny1 real shot



Tiny1 real shot



Tiny1 real shot



Tiny1 real shot

Model	Tiny1-A	Tiny1-B
Pixel Pitch	12 $\mu$ m	12 $\mu$ m
Resolution	256 $\times$ 192/160 $\times$ 120	256 $\times$ 192/160 $\times$ 120
Detector Type	Uncooled VOx Microbolometer	Uncooled VOx Microbolometer
Spectral Band	8 $\sim$ 14 $\mu$ m	8 $\sim$ 14 $\mu$ m
NETD	< 50mK @25 $^{\circ}$ C, F#1.0, 25Hz	< 50mK @25 $^{\circ}$ C, F#1.0, 25Hz
Thermal Time Constant	< 10ms	< 10ms
Detector Frame Rate	$\leq$ 30Hz	$\leq$ 30Hz
Non-uniformity Correction	Support shutter correction	Automatic shutter correction
Image Output	14-bit digital output	14-bit digital output
Focusing Mode	Athermalized prime lens	Athermalized prime lens
Measuring Range		'-15 $^{\circ}$ C $\sim$ +150 $^{\circ}$ C (expandable)
Measuring Accuracy		$\pm$ 3 $^{\circ}$ C or $\pm$ 3% of the reading

Input Voltage	1.8V, 3.3V (optional), 5V	1.2V, 1.8V, 3.3V, 5V
Input Clock	10~50MHz, 3.3V/1.8V (IO unified voltage)	
Data Interface	Parallel interface output 3.3V/1.8V (IO unified voltage)	UVC (USB Video Class)
Control Interface	I2C, 3.3V/1.8V (IO unified voltage)	USB
Typical power consumption @25°C	Normal operation: < 40mW (IO 1.8V)	Normal operation: 500mW (typical)
	During shutter working : < 640mW (IO 1.8V)	During shutter working : 1.1W (typical)
Dimension (w*l*h)	13mm×13mm×7.3mm	13mm×28mm×10mm
Weight	< 2g	< 3g
Operating Temperature	-40°C~80°C	'-40°C~80°C (imaging) *

		-10°C~75°C (temperature measuring) *
Storage Temperature	-45°C~85°C	-45°C~85°C
Mechanical Shock	25g, 11ms, half-sine wave, 3 axials and directions	25g, 11ms, half-sine wave, 3 axials and directions

The data above are for reference only. Specifications in the marketed products shall prevail.

## Product consulting

\* Message contents :

Mobile phone :

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## MODULES

[Micro III Thermal Imaging Module](#)

[Mini Thermal Imaging Module](#)

[LT Temperature Measurement Module](#)

[FT Alarming Thermal Imaging Module](#)

[Phoenix Cooled MWIR Imaging Module](#)

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