

## SUPERIOR THERMAL SECURITY CAMERAS



Sii AT

Sii ML

Sii MLX

The Sii family is a line of thermal security cameras used for observing and monitoring sensitive sites in total darkness, light fog, smoke, or day light conditions.

Sii cameras have the widest variety of lens options on the market and can be configured with IP video and control, with Vumii's innovative Fire Detection Algorithm, or integrated with a pan/tilt unit.

### KEY BENEFITS

**Innovative Features** – Unique signal processing algorithms provide enhanced contrast for Video Analytics and Vumii's innovative Fire Detection Algorithm

**High Image Quality** – High Resolution, small pixel pitch

**Advanced Optics** – Continuous Zoom, Dual Field of View, F#1.0 Motorized Lenses, and Thermal Imaging Autofocus

**Versatility** – Wide variety of fixed, PTZ, and optics configurations

**Easy Installation** – Pelco D protocol, common industry mounting options, serial or IP communication

**Rugged Design** – Ruggedly designed to withstand the harshest environmental conditions, rated IP66.



### APPLICATIONS

- Homeland Security
- Border Patrol
- Perimeter Security
- Government Sites
- Public Safety
- Coastal Surveillance
- Airport Safety and Security
- Railway Infrastructure
- Power Stations
- Water Utility Infrastructure
- Petrochemical
- Residential

### AVAILABLE CONFIGURATIONS

Sii is available as a NTSC or PAL camera with a wide variety of thermal engine, lens and other options:

#### Advanced Motorized Lenses with Autofocus

- Continuous Zoom -15-100mm
- Dual FOV - 45/135mm
- Fixed FOV (F#1.0) - 25mm, 50mm, 75mm, 150mm

#### Single FOV Athermalized Lenses

- Fixed FOV - 8.5mm, 14mm, 19mm, 35mm, 50mm, 60mm, 100mm

#### Resolution

- 17 $\mu$  640 x 480 (NTSC/PAL)
- 25 $\mu$  320 x 240 NTSC
- 25 $\mu$  384 x 288 PAL

#### Fixed or Pan/Tilt Mounted

#### Analog or IP

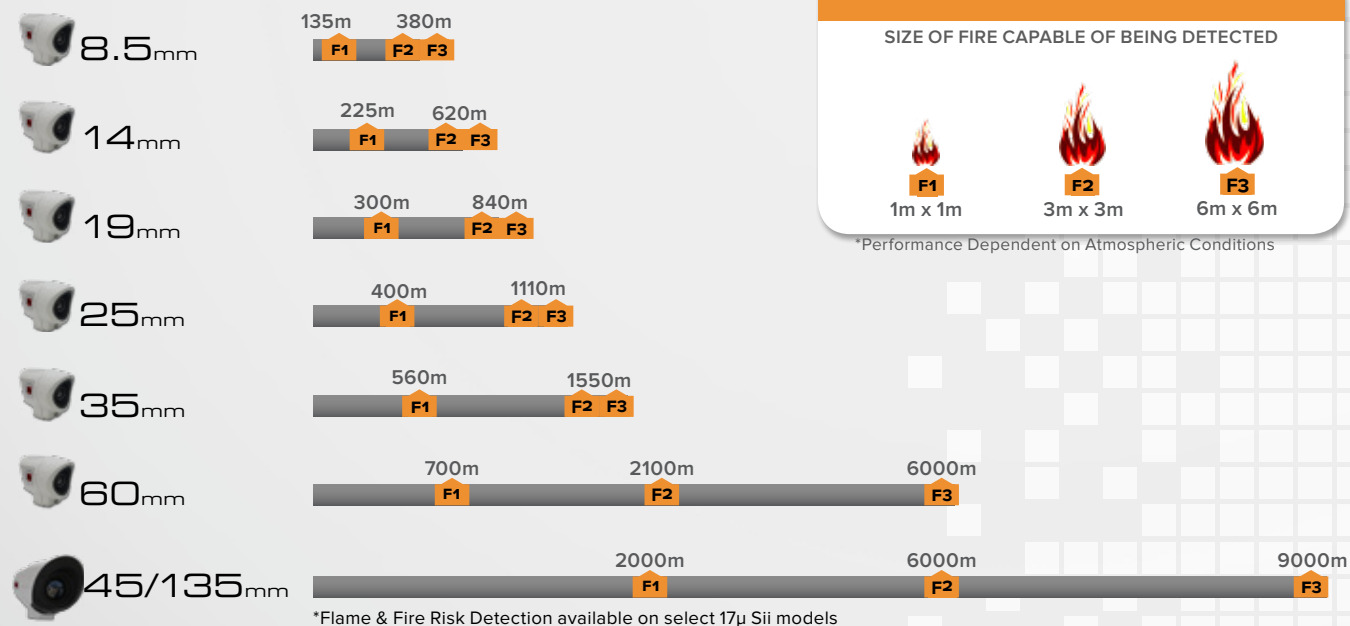
# Sii Configurations

## Engine & Lens Configurations



Imaging Characteristics		
Effective Pixels	17μ: 640 x 480 (NTSC / PAL)	25μ: 320 x 240 (NTSC) 25μ: 384 x 288 (PAL)
Imager Type	Uncooled Microbolometer 7.5-14μ	
NETD	< 50° mK	< 40° mK
Video Output	RS-170 (30Hz) / CCIR (25Hz), 1.0V p-p, 75ohm	
Lens Options (HFOV): Motorized Zoom & AutoFocus	<u>NTSC / PAL</u> Dual FOV: 45/135mm (14.3°/4.6°) Continuous Zoom: 15-100mm (42.2°-6.2°) Fixed F#1.0: 25mm(25°) 50mm(12.4°) 75mm(8.3°) 135mm(4.6°) 150mm(4.2°)	<u>NTSC</u> Dual FOV: 45/135mm (10.4°/3.4°) Continuous Zoom: 15-100mm (30.8°-4.6°) Fixed F#1.0: 25mm(18.4°) 50mm(9.2°) 75mm(6.1°) 135mm(3.4°) 150mm(3.1°) 210mm(2.2°)  <u>PAL</u> Dual FOV: 45/135mm (12.6°/4.1°) Continuous Zoom: 15-100mm (37.1°-5.5°) Fixed F#1.0: 25mm(18.4°) 50mm(9.2°) 75mm(6.1°) 135mm(3.4°) 150mm(3.7°)
Lens Options: Athermalized (Focus Free)	<u>NTSC / PAL</u> 8.5mm(73°) 14mm(44°) 19mm(33°) 35mm(18°) 50mm(12.4°) 60mm(10.3°) 100mm(6.2°)	<u>NTSC</u> 8.5mm(54°) 14mm(33°) 19mm(24°) 35mm(13°) 50mm(9.2°) 60mm(7.6°) 100mm(4.6°)  <u>PAL</u> 8.5mm(54°) 14mm(33°) 19mm(24°) 35mm(13°) 50mm(9.2°) 60mm(7.6°) 100mm(4.6°)
In Camera Analytics		
Thermal Autofocus	Autofocus on Demand is available in Motorized and Zoom lens configurations	
Fire Detection*	Flame Detection Alerts	
Risk of Fire (Heat) Detection*	High Risk of Fire Alert (Temp. Threshold)	
Alarm Types*	Video Overlay, Serial Communication, and Dry Contact Closure Outputs, IP communication (optional)	

## Fire Detection Performance



## Fixed Configurations



Sii products come in one of several camera enclosure configurations, dependent upon lens type

Electro-Mechanical Characteristics	Sii AT	Sii ML	Sii MLX
Unit Dimensions	7.95" (L) x 5.32" (W) x 6.65" (H) 202mm (L) x 135mm (W) x 169mm (H)	12.91" (L) x 8.07" (W) x 9.53" (H) 328mm (L) x 205mm (W) x 242mm (H)	15.47" (L) x 8.03" (W) x 8.15" (H) 393mm (L) x 204mm (W) x 207mm (H)
Unit Weight	< 6.94 lbs (3.15kg) - Dependent on Optics	< 11.8lbs (5.35kg) - Dependent on Optics	< 17.7lbs (8kg) - Dependent on Optics
Environmental Rating	IP66; 93% RH Humidity		IP65; 93% RH Humidity
Certifications	CE, FCC		CE, FCC
Power Input	12-32VDC (PoE available with TCP/IP version using Athermalized Lenses)		9-28VDC
Power Consumption (Continuous/Max)	w/ Athermalized Lenses: (0.3A/0.3A) w/ Continuous Zoom/DFOV Lenses: (0.3A/2A)	w/ Motorized Lenses: (0.3A/0.9A)	0.3A / 0.9A
Operating Temperature	-40° to +140° F (-40° to +60° C)	-27° to +131° F (-33° to +55° C)	-22° to +140° F (-30° to +60° C)
Communication Protocol	Pelco-D, Vumii, SDK available		
TCP/IP Option	Analog & IP Video/Control (H.264, MJPEG Encoding)		Not Available
Control Features	Autofocus (motorized models), Continuous Zoom, Digital Zoom		
Available Mounts	Wall Mount Pole Mount Adaptor		Contact Vumii for mounting information

## PTZ Configurations

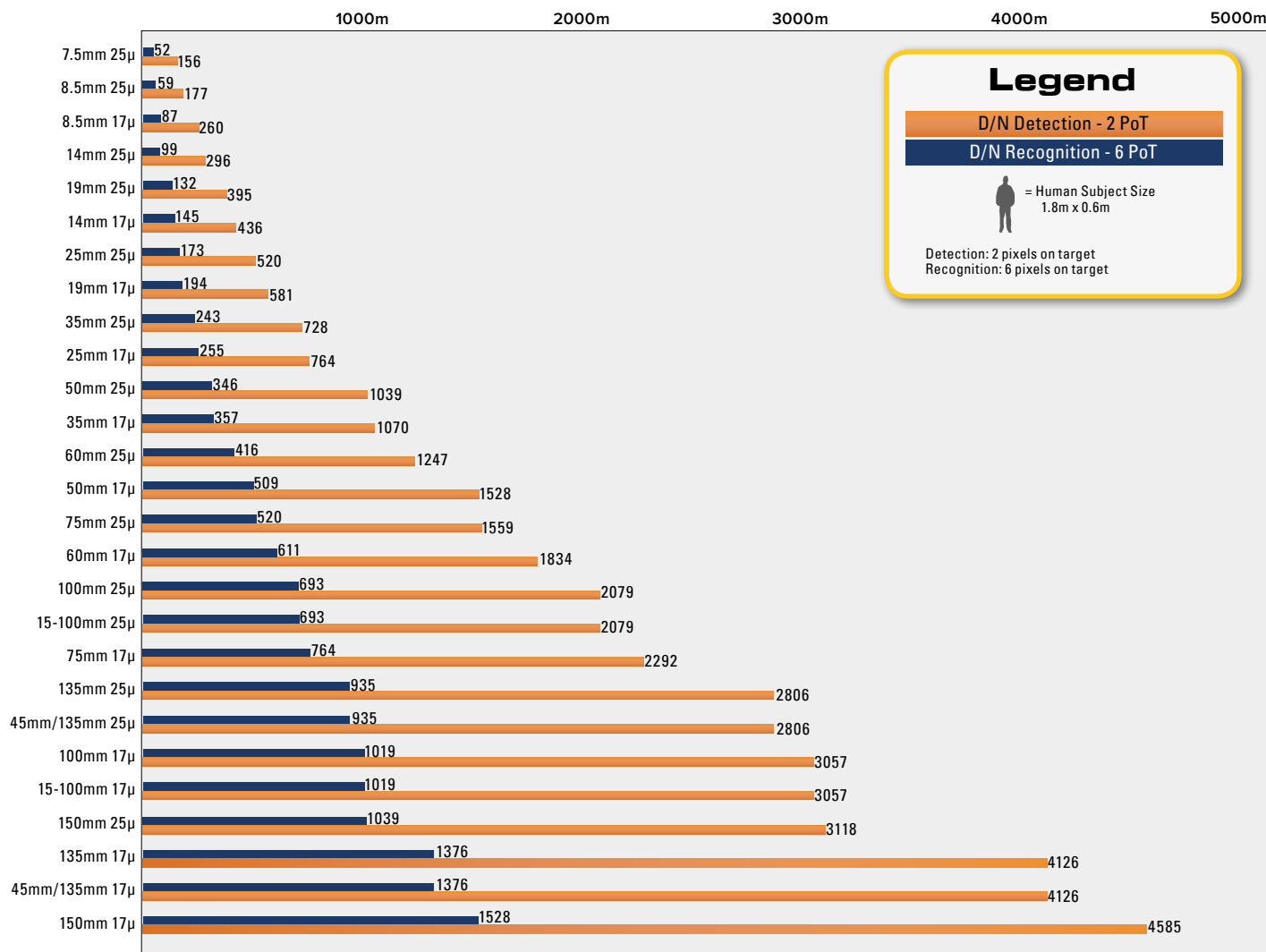


Sii cameras are also available with an integrated pan/tilt unit

Pan/Tilt Unit Characteristics	Sii AT	Sii ML	Sii MLX
Unit Dimensions	7.95" (L) x 14.92" (W) x 18.62" (H) 202mm (L) x 379mm (W) x 473mm (H)	12.91" (L) x 16.34" (W) x 18.62" (H) 328mm (L) x 415mm (W) x 473mm (H)	Contact Vumii for information about customized PTZ options
Unit Weight	< 33.7 lbs (15.3kg) - Dependent on Optics	< 40lbs (18kg) - Dependent on Optics	
Environmental Rating	IP66; 93% RH Humidity		
Operating Temperature	-27° to +131° F (-33° to +55° C)		
Power Input(Consumption)	24VDC (1.0A Continuous, 5A Max)		
Communication Protocol	Pelco-D, Vumii, SDK available		
Control Connection	Serial: RS422/485, TCP/IP (optional)		
Pan Range / Tilt Range	360° Continuous / -90° to +90°		
Pan Speed	Variable Speed, 0 - 100°/sec Max		
Available Mounts	Wall Mount Pole Mount Adaptor		Contact Vumii for mounting information

\* Some countries may be subject to thermal camera export licensing requirements

## Range Performance



## Horizontal Field of View

Lens	17μ NTSC / PAL	25μ NTSC	25μ PAL
8.5mm	73.3°	53.9°	64.7°
14mm	44.5°	32.7°	39.3°
19mm	33.2°	24.4°	29.3°
25mm	25.0°	18.3°	22.0°
35mm	17.8°	13.1°	15.7°
50mm	12.5°	9.2°	11.0°
60mm	10.4°	7.6°	9.2°
75mm	8.3°	6.1°	7.3°
100mm	6.2°	4.6°	5.5°
15-100mm	42.2° - 6.2°	30.8° - 4.6°	37.1° - 5.5°
45/135mm	14.3° / 4.6°	10.4° / 3.4°	12.6° / 4.1°
150mm	4.2°	3.1°	3.7°



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