

# FTIR Hyperspectral Imager

## SPeye-hyper

### Features

- Linear type Michelson interferometer
- Infrared hyperspectral imaging
- Modular design – platform compatibility
- Rugged and environmental resistant
- Highly stabilized operation



### FTIR Spectroscopy can detect below gases

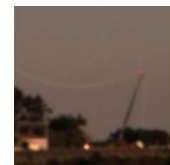
CH <sub>4</sub> (methane)	C <sub>4</sub> H <sub>6</sub> (1,3-butadiene)	C <sub>2</sub> H <sub>4</sub> (ethylene)
C <sub>6</sub> H <sub>6</sub> (benzene)	C <sub>2</sub> H <sub>6</sub> (ethane)	C <sub>7</sub> H <sub>8</sub> (toluene)
C <sub>3</sub> H <sub>6</sub> (Propene)	SO <sub>2</sub> (sulfur dioxide)	C <sub>3</sub> H <sub>8</sub> (propane)
SF <sub>6</sub> (Sulfur hexafluoride)	C <sub>4</sub> H <sub>8</sub> (1-butene)	N <sub>2</sub> O (nitrous oxide)
C <sub>4</sub> H <sub>10</sub> (isobutene, n-butane)	H <sub>2</sub> S (hydrogen sulfide)	D <sub>2</sub> O (Deuterium oxide)
NH <sub>3</sub> (Ammonia)		

### Application

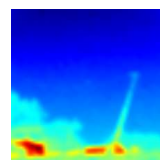
- Remote sensing of toxic gases
- Cloud imaging
- Leak detection in factory
- Emission measurement



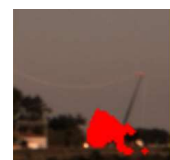
[Thermal Imaging(grey)]



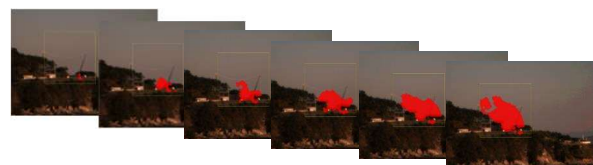
[CCD image]



[Thermal Imaging(color)]

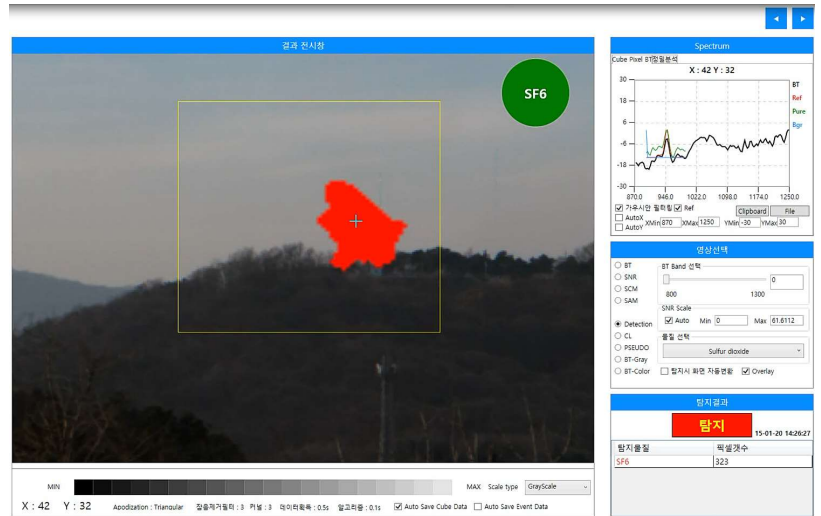
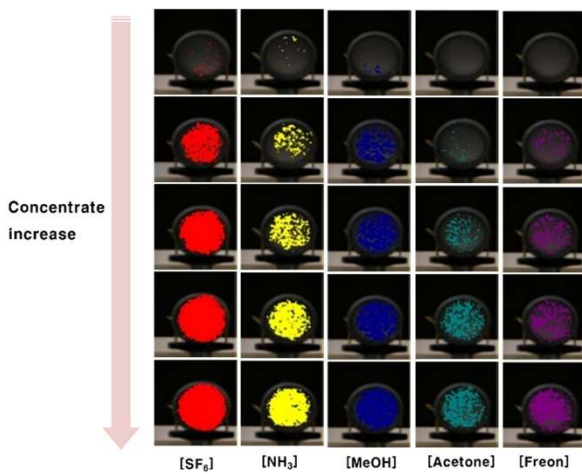


[Cloud image]



[Real time monitoring/early warning]

## Example of measurement result



Identification of SF<sub>6</sub> from a distance of 1.1km

## Technical data

### Optics / performance

Spectral range	8 ~ 12 $\mu\text{m}$
Spectral resolution	$\leq 4 \text{ cm}^{-1}$
Field of view	192×96 mrad
Weight	20 kg
CCD camera	1280 × 1024
Operating Temperature	-32°C ~ 50°C

### Power

Input voltage	24 ~ 32 V
Power consumption	$\leq 80 \text{ W}$

### Communication

Data interface	Ethernet(100Mbps)
CCD interface	USB 3.0



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