

LSPEC 5500

DRIVE-BY LEAF INFRARED DETECTOR

LSPEC 5500 drive-by leaf infrared detector adopts drive-by infrared optical technology as the detection principle, which can detect toxic and harmful gases and cloud groups remotely, quickly and non-contact, and can scan 360°, tilt and pan continuously. The scan half-angle range is 0-5km. Combined with advanced algorithms and gas spectrum library transmission model, it realizes the fast and accurate analysis and monitoring of toxic gas and chemical cloud distribution.

It is widely used in national defense, emergency response, environmental monitoring, fire protection, chemical parks, accident emergency response detection, large-scale event security, gas leak remote detection, air pollution remote analysis, industrial production pollution emission monitoring and other fields.



KEY FEATURES



DETECTION RANGE

Detection range up to 5km
It can detect toxic and harmful gases and cloud groups remotely.



FAST DETECTION RESPONSE

Upgradable spectral database with built-in gas library of up to 400 types.
Continuous 24-hour operation with scanning speed configurable.
Can be mounted on vehicles for real-time scanning.



HIGH ACCURACY

High spectral resolution with low energy consumption and easy operation.
High instrument sensitivity, low detection limit, and low false alarm rate.



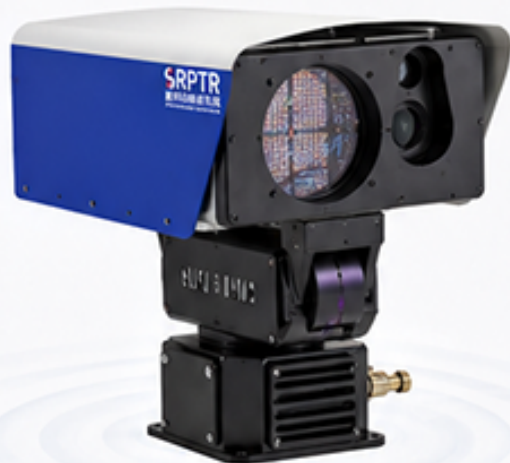
COMPACT AND USER-FRIENDLY

Compact design, low weight, easy to operate.
High integration, easy to use and maintain.
User-friendly human-computer interaction design for operation and display.

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PARAMETERS



Item	Technical Parameters
Spectral range	600~1500cm ⁻¹
Detection types	Toxic and harmful gases, chemical clouds
Detection distance	≥ 5km
Resolution	Spectral resolution (FWHM) ≤ 1 cm ⁻¹
Scan mode	Continuous scanning 360°, pitch ± 45°
Scan speed	Adjustable, max scanning speed 80°/s (4Hz)
Detection sensitivity	Gas: 50 ppm · m (1m path, 25°C)
Share mode	ZnSe split window (domestic)
Detector	MCT detector with Stirling cooler
Optical field of view	2 ×, full field angle 10mrad
Angular accuracy	Horizontal: ± 0.1°, Vertical: ± 0.1°
Distance measurement accuracy	≤ ± 2%
Data storage	≥ 400 types of gases in built-in database, user-editable
Working time	Continuous 24h operation
Protective level	IP66
Main unit size (L×W×H)	≤ 520mm×400mm×230mm (excluding mount)
Main unit weight	≤ 18kg (excluding mount)
Mount size (L×W×H)	≤ 300mm×260mm×320mm
Mount weight	≤ 18kg

APPLICATION AREAS

It can be widely used in national defense, emergency response, environmental monitoring, fire protection, chemical parks, accident emergency response detection, large-scale event security, gas leak remote detection, air pollution remote analysis, industrial production pollution emission monitoring and other fields.

