

Gigapixel Wide Area Surveillance

Situational awareness from 4 billion pixels

Gigapixel Wide Area Surveillance (GWAS) is an advanced optical array designed to monitor hundreds of acres from a single high resolution surveillance platform. While traditional surveillance solutions require many cameras, multiple operators, and large infrastructure investments Gigapixel consolidates this capability into a single platform. Through the highly intuitive user interface and network connectivity the system simultaneously supports video walls, workstation touch screens, and mobile laptops. By leveraging an 11 megapixel visible light camera and optional VGA thermal imager the system supports day, night, and low visibility operations while offering the highest optical advantage commercially available.

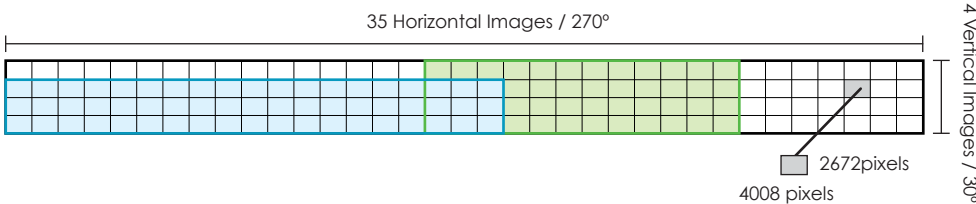
Continuous horizontal and vertical scanning of the Panoramic Array collects high resolution images from the visible and optional thermal sensors for enhancement and motion analysis. Through an intelligent stitching process a seamless panoramic image is continuously refreshed with a high resolution deep-zoom image for monitoring and playback. If the operator requires higher frame rates on a particular area of the scene the panoramic array can transition to manual Pan/Tilt/Zoom mode.



Object Classification



High Resolution Deep Zoom



Field of View		Number of Images	
(H)	(V)	(H)	(V)
270°	30°	35	4
146°	23°	19	3
93°	30°	12	4

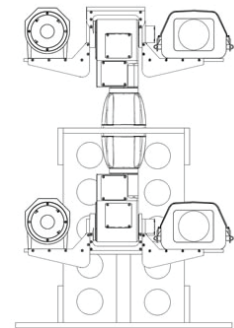
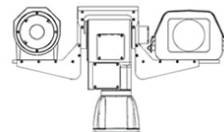
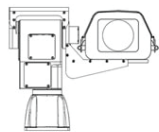
Precision Array with Video Analytics Engine

When equipped with the optional Precision Array operators have the added advantage of dedicated real-time visible light and thermal cameras capable of manual Pan/Tilt/Zoom control. The Precision Array incorporates a highly sophisticated video analytics engine (VAE) capable of map based geo-tracking and classification of humans, vehicles, aircraft, and vessels. With each automated map update objects are visual depicted on a map with latitude, longitude, and altitude reference data and can be selected for real-time tracking by the precision array.



Gigapixel Array Configurations

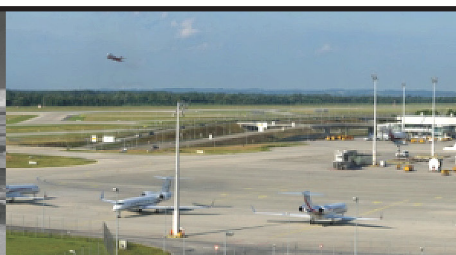
Multiple configurations are provided to address a wide range of applications and with Gigapixel's flexible commercially available Off-The-Shelf (COTS) design the system can be customized for any application.



	IPC-GWAS-SAV PANORAMIC ARRAY	IPC-GWAS-SAVT PANORAMIC W/ THERMAL	IPC-GWAS-DAVT PANORAMIC & PRECISION W/THERMAL
Visible Sensor	43.3mm color sensor / 3:2 Aspect	43.3mm color sensor / 3:2 Aspect	43.3mm color sensor / 3:2 Aspect
Visible Resolution & FPS	4008(H) x 2672 (V) @ 2 FPS	4008(H) x 2672 (V) @ 2 FPS	4008(H) x 2672 (V) @ 2 FPS
Visible Optics	300mm F/2.8L, Image Stabilization	300mm F/2.8L, Image Stabilization	300mm F/2.8L, Image Stabilization
Thermal Sensor	-	Uncooled, V0x Microbolometer	Uncooled, V0x Microbolometer
Thermal Resolution & FPS	-	640 (H) x 480 (V) @ 30 FPS	640 (H) x 480 (V) @ 30 FPS
Thermal Optics	-	Germanium, 100 mm	Germanium, 100 mm
Pan/Tilt Speed	up to 100 degrees/sec	up to 100 degrees/sec	up to 100 degrees/sec
Pan/Tilt Capacity	Payloads up to 70 lbs	Payloads up to 70 lbs	Payloads up to 70 lbs
Pan/Tilt Duty Cycle	100% or 3-5 million cycles	100% or 3-5 million cycles	100% or 3-5 million cycles
Array Embedded Server	Windows Server w/ 1TB HD	Windows Server w/ 1TB HD	Windows Server w/ 1TB HD
Mounting & Color	Custom & Custom	Custom & Custom	Custom & Custom

Thermal Image

Visible Light Image



Aircraft