

UTILITY SERIES - U416

GET UP TO FOUR SETS OF DATA ON A SINGLE FLIGHT WITH THE HIGHEST PERFORMING, FOUR-AXIS STABILIZATION PLATFORM WITH MULTI-SENSOR CAPABILITY HOUSING THE MOST POWERFUL CAMERAS ON THE MARKET.

SYSTEM FEATURES

Maximize inspection efficiency and flexibility with the U416 capable of housing up to four sensors as well as cameras with long focal lengths. Perfect for markets including:

- Power line inspection
- Gas leak detection
- Pipeline inspection
- Public safety
- Aerial surveying and mapping

Multi-Sensor Gimbal Housing

Ability to house four sensors PLUS an optional Laser Range Finder

Future Proof: Open platform design allows for integration of new cameras, optics and sensors as they become available.

Extremely Stable: 200 knots+

- Fixed-wing aircraft
- Helicopters
- Heavy lift UAV's

Sensors (all sensors optional):



1	Digital Still Imager	Phase One 100 MP Canon 50.6 MP Nikon 45.7 MP Sony 61 MP Fujinon 102 MP Other DSLR and Mirrorless Cameras
2	HD Thermographic IR	XGA 1024X768 (120 mm lens)
3	4K/HD Daylight Camera	
4	Corona Camera or Gas Detection Sensor	

Typical Flight Speed Range:

- 44-69Kv (35Knots) - 200-400 Ft AGL
- 120-230Kv (45 Knots) - 400Ft AGL
- 500KV (70-75 knots) - 500+ Ft AGL

Customizable: Fully customizable controls of every sensor and gimbal function

Geospatial Awareness:

GSS GeoPro™ Inertial Navigation System



GYRO-STABILIZED SYSTEMS

GYROSTABILIZEDSYSTEMS.COM

+1 530 264 7655

INFO@GYROSS.COM

U416 Payload Specs - Sensor Options

1. DIGITAL STILLS IMAGING

102 mp Sensor with 140-280 mm lens or 350mm Prime	
Resolution	102 million pixel
Shutter Speed	1/4000 sec
Continuous Shooting	5fps
ISO	100~12800 (1/3 step)
File Format	
JPG (geotagged)	Exif Ver. 2.32
RAW	16bit / 14bit RAW (RAF original format)
TIFF	8bit / 16bit RGB

2. THERMAL IMAGER AND SOFTWARE

Jenoptik Blackbird Thermographic IR XGA with 120 mm lens	
Resolution	1024 x 768
HFOV x VFOV	8.1°x 6.2°
Measurement Accuracy	± 1.5 K or ± 1.5 % @ > 100 °C ± 2.0 K @ < 0 °C
Temperature Measurement Range	-40°C to +1200°C
Temperature Sensitivity	≤ 35 mk
IRT Analyzer 4.8™ Thermographic Organizer Analyzer Reporter	
Multiple Measurement Points	Area Analysis
Isolines	Image Zoom
Automatic Hot Spot Detection	3D View
Multiple Profile Lines	Fusion View

3. DAYLIGHT CAMERA 4K/HD

Sony Block Daylight Camera HD/4K with 20x optical zoom	
Resolution	4K, 1080p, 720p, 480p
HFOV x VFOV	70.7° x 4.1°
Sensor Type	1/2.5 - type CMOS, 8.51 MP Sensor
AE Control	IRIS Priority 26 Steps
Optical Zoom	20x
Digital Zoom	Super resolution zoom: 1.5x QFHD, 2.0x FHD FHD Digital zoom: 12x
Continuous Optical to Digital Zoom	
Auto Focus, Auto Exposure	

4. HD CORONA OR OPTICAL GAS IMAGING

Option 1: HD Corona Camera

HD Corona Camera	
HD Resolution	1280 x 720
Image Type	Monochrome video
Detector Life Span	No degradation
HFOV x VFOV	8° x 6°
Visible Channel	
Image Sensor	Color video, 1920 x 1080 pixels
Sensitivity Day Mode	0.05 Lux @ F 1.6 @50 fps
Sensitivity Night Mode	0.03 Lux @ F 1.6
Exposure	Auto
Focus Type	Automatic with manual override
Focus Range	<0.7 m to infinity
Zoom Range (optical)	16° (0.5 x SZ) to 4 from SZ
Zoom Range (digital)	4x, 6x, 8x, 12x
Channel Mixing	UV Visible Overlay Accuracy: <1 milli-rad UV Transparency: 0-100% UV False Color Selection: 4 presets with 225 selectable hues
Image Output	User Interface or Report View

Option 2: Ventus OGI

Ventus OGI 640x512 Optical Gas Imaging Camera	
Aperture	50 mm/F1.5
HFOV	11°
Digital Zoom	2x, 4x, 8x
VGA Resolution	640 x 512
Detector Type	High Operating Temperature (HOT) MWIR
Array Format	640 x 512
Pixel Pitch	15 µm
Spectral Response	3.2 - 3.42 µm
Framerate	30Hz
NETD	<35 mK
Detectable Gases	Acetic Acid, Ammonia, Benzene, Butadiene, Butane, Ethane, Ethylbenzene, Ethylene, Heptane, Hexane, Isoprene, Methyl Ethyl Ketone (MEK), Methane, Methanol, MIBK, Octane, 1-Pentane, Propane, Propylene, Sulphur Doioxide, Toluene, Vinyl Chloride and Xylene

OPTIONAL ADD-ONS:

- LASER RANGE FINDER (3KM)
- VIDEO TRACKER (SCENE LOCK, AUTO DETECTION, AUTO GATE SIZING)
- REMOTE GEO geoDVR