



VLEPSIS® TECHNOLOGY

Meta Materials Inc. (META®) has developed VLEPSIS®, a revolutionary wide-area motion imagery (WAMI) technology. VLEPSIS is a turnkey multi-gigapixel EO WAMI system that integrates a gimballed sensor package with a vertical take-off and landing (VTOL) unmanned aerial system. It provides persistent, large-area, scene coverage at a resolution consistent with ability to discern people. On-board software allows for 50+ simultaneous live video streams with AI-based multi-target tracking and 'DVR' capability. An integrated geographic information system is provided with the ground station for map-based user interactions and exploitation. An accompanying ground-based high-performance processing system provides full-scene machine learning for post-mission forensic analytics. An optional ultra high-resolution EO/IR video skyball is provided for cross-cued investigation of individual objects in the WAMI field of view.

BENEFITS



Enhances the ability to protect critical assets and secure big events in real time



Provides situational awareness through unprecedented wide area motion imaging



Helps safeguard lives during environmental disasters



Enhances the ability to understand the environment

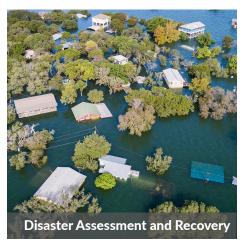


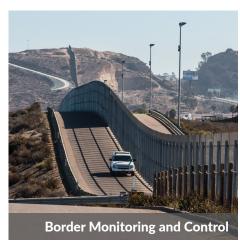
Enables smart city applications

APPLICATIONS

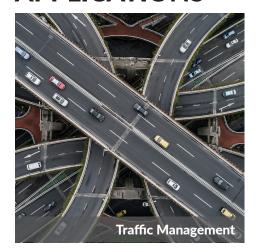
VLEPSIS® technology uses proprietary hardware and AI software to enable analytical insights across a wide range of purpose-orientated applications, including:







APPLICATIONS







VLEPSIS® SENSOR PERFORMANCE AND CAPABILITIES

| System Performance Parameter | | Value |
|---|-----------------|--------------------|
| Ground Area Coverage | 12,000' AGL | 24 km ² |
| | 24,000' AGL | 96 km ² |
| GSD (@ nadir) | 12,000' AGL | 10 cm |
| | 24,000' AGL | 20 cm |
| Video Window Frame Rate | Full resolution | 4 Hz |
| | Binned x 2 | 10 Hz |
| FFOV Archive Video Frame Rate | Full resolution | 2 Hz |
| | Binned x 2 | 5 Hz |
| Number of Simultaneous Video Windows | | 50+ |
| Live Window Latency (imaging to client) | | < 3 sec |
| On-board DVR Windows and Tracking | | Yes |
| Live Window Multi-Target Tracking | | Yes |
| Size (gimbal diameter) | | 14 in |
| Weight | | 20 kg |
| Power | | 500 W |

