C2ISR
Command & Control, Intelligence
Surveillance and Reconnaissance
making a difference
The Ultra Electronics Group manages a portfolio of specialist capabilities, generating highly-differentiated solutions and products in the DEFINCE & AEROSPACE, SECURITY & CYBER, TRANSPORT and ENERGY markets, by applying electronic and software technologies in demanding and critical environments to meet customer needs.

Ultra businesses constantly innovate to create solutions to customer requirements that are different from and better than those of the Group’s competitors. By applying these differentiated solutions to a wide range of international platforms and programmes, Ultra has built an exceptionally broad range of specialist capability areas. Where the Group has a number of complementary capabilities it can also combine these to offer wider solutions. Furthermore, the products, capabilities and the associated domain expertise uniquely position Ultra to be able to provide system and sub-system solutions. These solutions are underpinned by through-life management support offerings that ensure the capabilities are delivered and sustained in service. The Group has an active programme of reinvestment of funds to strengthen its capabilities in its specialist markets.

Ultra offers solutions to its customers through the design, delivery and support phases of a programme. Ultra’s businesses have a high degree of operational autonomy so that they provide exceptionally agile and responsive support to customers and partners normally associated with a smaller business. These benefits of customer focus and agility are augmented by the access to wider and complementary technology and expertise that lies elsewhere in the Group and by Ultra’s strong financial position.

Ultra’s specialist C2, surveillance, forensic and data intercept capabilities support customers around the world in making informed and timely decisions. Ultra’s capabilities also include contingency planning tools and incident management systems for first responders.

**Physical & cyber security**
Ultra is a leading provider and integrator of advanced surveillance and hardened cyber security systems, technology that simplifies, secure and share situational awareness for military and civil customers at both the tactical and strategic levels. These include cybersecurity systems for protection of critical infrastructure (including secure ID solutions for local access control measures), monitoring and policing critical areas and national boundaries, as well as economic, nuclear energy related capabilities.

**Command and Control (C2)**
Ultra specialises in a range of C2 capabilities for both military and civil applications. These tools support the planning and execution of complex and critical operations as all levels of the command structure.

**Electronic Warfare (EW)**
Ultra is a provider of leading ground, sea and airborne EW systems and subsystems, as well as multi-spectral test and training equipment for both self protection and electronic attack missions. Ultra’s technical capabilities in this area are underpinned by current expert domain knowledge of the implementation of EW in tactical and strategic operational scenarios.

**Forensic analysis**
Ultra provides automated firearm ballistics identification, forensic analysis systems and crime scene investigation capabilities for the criminal justice and border security communities. As a world leader in this field, the Group works with hundreds of law enforcement agencies across the globe to provide cost-effective and sustainable solutions.

**Ultra’s broad range of specialist capabilities**
Ultra focuses on developing specialist capabilities that provide highly-differentiated solutions to customers’ requirements. Eight clearly defined market segments allow Ultra to provide more complex offerings from across the full range of the Group’s capabilities. The eight capability segments are:

- **Underwater warfare**
  - Capabilities related to underwater warfare covering military, paramilitary and civil domains. These include transducers, hydrophones, sonobuoys, sonobuoy receivers, towed arrays, periscope detecting radars, torpedo defence systems, acoustic countersurveillance, and surface ship local systems.

- **Maritime**
  - Capabilities related to signal and power management, operating, controlling, supporting and maintaining maritime (surface and sub-surface) military platforms, both manned and unmanned.

- **Land**
  - Capabilities related to operating, controlling, supporting and maintaining land military platforms, both manned and unmanned, and the dismounted soldier.

- **Aerospace**
  - Capabilities related to the design, manufacture, production, operation, support and maintenance of commercial and military aircraft, both manned and unmanned.

- **C2ISR**
  - Capabilities related to C2, Security and Surveillance solutions, covering both military and civil domains as well as military Electronic Warfare, reconnaissance and targeting systems, and forensic solutions for law enforcement.

- **Communications**
  - Capabilities related to the secure communication and timely exchange of data, voice and video information providing some of the most capable communication systems, platforms and integration support in the world.

- **Nuclear**
  - Capabilities related to nuclear, covering both civil energy, national radiation monitoring systems through defense to radiation monitoring on tactical platforms.

- **Infrastructure**
  - Capabilities related to airport and airline information systems, rail transit power conversion and control, as well as non-nuclear civil energy related capabilities.

2016 revenue by segment

1. Underwater warfare 25%
2. Maritime 7%
3. Land 3%
4. Aerospace 17%
5. C2ISR 21%
6. Communications 15%
7. Nuclear 8%
8. Infrastructure 4%

*Command & Control, Intelligence, Surveillance and Reconnaissance*

**Did you know?**
 Ultra’s broad range of specialist capabilities are positioned on over 350 platforms and programmes worldwide, often in high integrity or safety critical applications.

To see how Ultra’s capability segments map to each business, see pages 13-14
Physical cyber security

Ultra specialises in physical surveillance and cyber-hardened systems that secure government and military installations vital to protecting critical national infrastructure, assets, and personnel from potential threats.

Ultra’s systems enable effective detection, recognition, identification and tracking of personnel or targets.

CYBER HARDENED PROTECTION FOR CRITICAL SYSTEMS

Military bases are critical to mission success – but to support the mission, bases must operate as integrated systems, delivering or supporting military capability anywhere in the world, home or abroad. Bases that are equipped with advanced security capabilities can make the difference between mission success and failure.

Ultra’s CyberFence embeds systems with defence-in-depth, cyber protection while balancing the requirements of security and operations systems.

Industrial control systems (ICS) are now targets for today’s cyber attacks. Cyber security is essential for military Supervisory Control and Data Acquisition (SCADA) systems and securely integrates disparate ICS, connecting remote I&E-support systems such as high voltage power, water and waste, and heating, ventilation and air conditioning (HVAC) systems while centralising management and streamlining operational functions.

Secure Wireless Mesh Networks

Ultra provides custom communications infrastructure that can be configured for wireless self-healing, self-configuring mesh networking. Using Ultra’s AirGuard wireless networks will enable “plug and play” systems that are easily implemented yet highly secure, improving an organisation’s communications while reducing costs for applications such as delivering real-time data and video from vehicles to monitoring centres, conducting wireless video surveillance and monitoring building access and public activity. Ultra offers a variety of encryption protocols to meet even the most stringent government requirements.

CyberFence devices are independently certified for robustness by widely-recognised global and military standards bodies.

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BASE & PERIMETER SURVEILLANCE

Ultra provides total base cyber-physical solutions including perimeter and border surveillance and security systems integrating 24-hour sensors (including unattended ground sensors), land radars, long-range electro-optic systems and communications. Ultra’s systems enable effective detection, recognition, identification and tracking of personnel or objects of interest. This provides for the protection of a range of assets, including oil and gas pipelines, transport hubs and power plants, as well as critical national installations.

A system can be supplied as a standalone or fully integrated into a static or fully deployable C2 system for integration within a strategic, operational, tactical and/or mobile command post. Ultra seamlessly integrates data from multiple sources to form an essential common operating picture. Ultra also provides covert mobile surveillance systems. These portable and integrated solutions are optimised for size, weight and power to support field officers and Special Forces, and allow monitoring of suspects and targets from safe distances. The video from the covert system can be shared with other deployed assets, and back to a central headquarters enabling shared situational awareness and real-time decision making.

Ultra’s VirtualFence system controls base access, protecting infrastructure and personnel with DoD level automated and manual security 24/7 – all through conveniently centralised C2. State-of-the-art automated entry control systems provide critical infrastructure protection (CIP) via gate and building access, as well as around the base perimeter. Restricted areas are managed by automated rules that can alert security personnel or trigger deterrents. It provides real-time video surveillance in a remote, intelligent package with optional built-in analytics. The system allows a user to leverage video analytics technologies in a wireless mesh video network configuration to better protect critical base operations.

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SECURE WIRELESS MESH NETWORKS

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Surveillance systems

These solutions simplify, enrich and share situational awareness for military and civil customers at both the tactical and strategic levels, supporting users in effectively monitoring and policing borders.

C2ISR
both the tactical and strategic levels, supporting users in effectively monitoring and policing borders. These solutions simplify, enrich and share situational awareness for a wide variety of situations such as oil and gas installations, coastal, border and perimeter protection and maritime security. In addition to providing a consolidated view of the entire situation, the system can coordinate sensors to provide additional situational information. For example, once radar has detected a potential threat, monitoring can automatically be started by a camera to provide additional visual information. All sensor data is recorded and can be replayed and filtered on the system in real-time, high-speed or slow-motion.

PORT AND HARBOUR SECURITY AND ASSET TRACKING
The Group’s port and harbour security and safety offering incorporates ‘best of breed’ and low cost of ownership sensors and peripherals. The situational awareness displays can be installed anywhere on the network, even in mobile C2 posts. A variety of symbols, to identify different sensor sources, can be overlaid on accurately-referenced charts and maps, in vector or raster formats, or aerial/nautical photographs. Ultra has a portfolio of software and expertise which enables the delivery of integrated systems capable of processing data from a wide variety of sensors, including radar, sonar, cameras and AIS transponders. The Group’s Situational Awareness Management System (SAMS) generates a common operating picture which can be shared by multiple groups and provides situational awareness for a wide variety of situations such as oil and gas installations, coastal, border and perimeter protection and maritime security. In addition to providing a consolidated view of the entire situation, the system can coordinate sensors to provide additional situational information. For example, once radar has detected a potential threat, monitoring can automatically be started by a camera to provide additional visual information. All sensor data is recorded and can be replayed and filtered on the system in real-time, high-speed or slow-motion.

ASSET PROTECTION AND ASSET TRACKING
Ultra provides an integrated asset protection and asset tracking (lawn|air) tracking system that provides both line-of-sight (LOS) and over the horizon (OTH) tracking capability. The system seamlessly networks assets and platforms together, providing total situational awareness of own forces. Ultra’s asset protection and tracking systems even provide the capability to relay tracks and contacts of interest to high-speed interceptors. This near-real time up-to-date, accurate track data supports maritime security, fisheries and EEZ protection, law enforcement and search and rescue operations.

Ultra’s ForceWatch™ increases the effectiveness of tactical teams, where responsiveness and accuracy are critical, by enabling secure voice, video and data communications using smart devices. The system provides resilient and highly-responsive mapping, frequent position updates, tracking within GPS-denied environments and high-quality full-motion video from vehicles and dismounted teams. Digital transmission of decisions and updated mission objectives reduces ambiguity. The ForceWatch™ system’s flexible network architecture interfaces with existing and future mobile networks, legacy tactical networks and is seamlessly augmented with high bandwidth 4G connectivity.

TACTICAL DISPLAYS AND VISUALISATION SYSTEMS
Ultra’s Advanced Correlation and Tracking System™ (ACTS) combines ease-of-use, seamless sensor integration and high-performance real-time tracking to provide mission-critical reliable, synchronised management of information on the battlefield. The ACTS open architecture provides a wide variety of sensor interfaces and, combined with a data link processor, manages tactical information from multiple inputs. ACTS is capable of handling complex tracking environments and provides unsurpassed track completeness, clarity and accuracy, delivered in real time. Ultra’s TacViewC2™ software sets a new standard for mission-oriented, real time tactical displays, providing flexibility and customisation. Using a highly-optimised interface, the TacViewC2™ software displays thousands of tracks simultaneously, with the real-time responsiveness needed to visualise the battlefield.

Systems allow coastguards, naval units and platforms to build and share a common recognised maritime picture.

Maritime Security & Surveillance Systems
Ultra’s maritime security & surveillance systems allow coastguards, naval units and assets to build and share a commonly recognised maritime picture (RMP). All units, large and small, whether at sea, ashore or airborne, are able to both receive and contribute to the same RMP. This enables coherent tactical, operational and strategic action and oversight in order to secure a nation’s coastline, territorial waters or EEZ, and to conduct effective policing and counter trafficking operations.

Total surveillance coverage of a nation’s coastline.

Border and Coastal Surveillance Systems
Ultra’s surveillance systems enable total surveillance coverage of a nation’s border and coastline, integrating high-performance, optimised coastal surveillance radars with sophisticated signal processing and powerful trackers. Radar tracks are combined with automatic identification system (AIS) tracks, transponders, long-range electro-optic sensors, direction finding sensors and electronic support measures than relayed via any communications link to all land and sea assets and C2 centres.

Ultra’s security & surveillance systems enable total communication between all sensors, surveillance systems, C2 centres, ships, aircraft and vehicles. These systems provide the critical real time situational awareness required to enforce border and perimeter security, as well as protection of a nation’s exclusive economic zone (EEZ) and territorial waters.

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C2 data analytics & operational training

Using a combination of our real-time tactical data link system partnered with data analytics software to detect anomalies real-time in an operational environment.

C2 DATA ANALYTICS
Smart BattleSpace Management C2 (S-BM C2) took the concept to apply the same data analytic processes proven effective in the intelligence, medical and marketing domains to collect, analyse and act on the overwhelming amount of data facing today’s Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance operators. Ultra’s S-BM C2 System will collect, organise, analyse and act on huge volumes of data and present actionable information and courses of action to the operator while increasing accuracy and efficiency.

OPERATIONAL TRAINING
Ultra’s JICO Extended Trainer (JET) is a holistic system delivering a multitude of solutions for training and operational use in Tactical Data Link environments. JET will generate and verify tactical data link planning as well as C2 documents that are actively used in Live, Virtual, and Construct network environments. It is capable of emulating tactical radios and will monitor line of sight performance as well as data capacity based on their configuration settings. JET integrates fielded and combat-proven systems into a single solution based on commercial-off-the-shelf (COTS) hardware, ensuring operators can use JET for training as well as live operations.

VOICE PRINT ANALYSIS
The integrated analytic Voice Print Analysis (VPA™) system provides highly accurate speaker identification scalable to any audio collection system. The VPA™ utilises voice biometric algorithms to enrich investigative processing by narrowing down the millions of collections to a small set of search results which will pinpoint a subject of interest.

DIGITAL RECORDING
Ultra’s digital recording technology captures large amounts of real-time intelligence and evidence, supporting the front-line work of police, security forces and C2 facilities. Ultra’s Medirva® provides cost-effective web-based storage for digital media types, helping unload, track, store and manage digital media in a single secure and collaborative workspace and safeguard legal quality evidence through full audit traceability. Medirva® is a recording platform for media of all types including audio, Video, IP, networks and screens. It offers sophisticated health monitoring and reporting, secure access rights, external time synchronisation, diagnostics, export to standard media formats, a documented API for customer integration and web-based replay. Through use of a service-oriented architecture (SOA) all Ultra recorders can be remotely configured, controlled, monitored and administered from a single, easy-to-use web interface. Ultra’s Medirva® can be configured to provide a resilient, high-quality solution with recordings traceable to evidential standards, whatever the recording requirement.

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Electronic Warfare (EW)

Ultra is a world-class provider of ground, sea and airborne EW systems and subsystems, as well as multi-spectral test evaluation and training systems for advanced Self Protection and Electronic Attack suites. Ultra’s technical capabilities are underpinned by real and current expert domain-knowledge of the implementation of EW in tactical and strategic operational scenarios.

UltraEAGLE is a family of electronic intelligence (ELINT) ISR operations. UltraEAGLE exploits the latest technology and the modular design provides a cost-effective upgrade path for future system expansion. UltraEAGLE systems are fielded in EW centres of expertise worldwide.

The Cham leon simulator, incorporating the latest 1.2 GHz DRFM technology, provides a complete solution for radar target generation (RTG) and ECM signal generation in a single system. Cham leon is ideal for hardware in the loop testing or for radiating applications for radar and ECM test, evaluation and training.

Laboratory Evaluation: The evaluation of ESM or ECM systems in a laboratory environment is crucial to determining the overall system performance both before and during operational service. The R38500 Radar Signal Simulator covering 100MHz – 40GHz incorporates the latest technology and the modular design provides a cost-effective upgrade path for future system expansion. R38500 systems are fielded in EW centres of expertise worldwide.

EW Open Range Testing: The ability to engage aircraft on a dedicated EW Range with realistic or actual threat emitters forms an integral part of test and evaluation and the Mobile EW Radar Test System (MERTS) was designed for this purpose. It utilises the capabilities of the R385000 Radar Signal simulator or the Cham leon RTG together with high power amplifiers and high gain antennas to radiate RF threats, radar targets and jamming techniques to ships and aircraft. The system is deployed on several EW Ranges around the world and provides a complete turnkey solution for free space EW test and evaluation.

Electronics Intelligence

UltraEAGLE offers state-of-the-art radar emitter intercept, analysis and recording. have the ability to sort, identify and collect data from the latest threat emitters, including those using low probability of intercept techniques such as spread spectrum. UltraEAGLE is augmented with Ultra’s TALON-E software, a powerful and proven ELINT control and analysis tool that will support live intercept, analysis and recording. Based on our unique domain expertise and knowledge, Ultra also offers programming and validation systems for EW self-protection (EWSIP) systems; signal analysis software applications; high sensitivity digital receivers; specific emitter identification (SEI) systems and EW training systems. Significant design effort has been applied to the UltraEAGLE product to minimise SWAP so that the system is suitable for installation on Ultra’s and other small platforms.

Electronic Attack

UltraAVEN is a modern Stand-off Jammer (SOJ) system that addresses the significant electronic counter measure (ECM) suppression capability inherent in many modern radar system designs. The UltraAVEN system is able to do this with a combination of careful system design to provide high Effective Radiated Power (ERP) and system gain and the incorporation of modern ECM technology including a multi-bit Digital Radio Frequency Memory (DRFM) integrated with a fast response ECM receiver, pulse repetition tracker (PRT) and an advanced ECM techniques generator. UltraAVEN systems are designed to provide the stand-off jammer capability to detect, measure, analyse and jam conventional and complex types of ground radar signals, including pulse Doppler, frequency agile, pulse compression, PMF staggered, frequency diversity, pulse coded, chirp and other complex radars. This provides the ability to effectively defeat a variety of threat radars, through the combination of a High Effective Radiated Power (ERP) and smart noise, false targets or more subtle deception techniques.

Ultra provides Integrated Microwave Assemblies (IMAs) and radio frequency subsystems supporting improved threat detection and identification, as well as improved enemy engagement. Ultra’s products are key enablers for a variety of advanced systems including AN/ALQ-218 Radar Warning Receiver/Electronic Support Measures (W/ESM) for the EA-18G and F/A-18A Poseidon aircraft, AN/PRF-39 family of RWRs integrated on a variety of fixed-wing aircraft, helicopters, and naval vessels, AN/SLQ-32 (V)2 SEWR Block 2 (Electronic Support capability enhancement) and Block 3 (Electronic Attack) for improved surface ship EW. Ultra also offers program and sensitivity digital receivers; Specific Emitter Identification (SEI) systems and applied to the UltraAVEN product to provide the stand-off jammer capability to detect, measure, analyse and jam conventional and complex types of ground radar signals, including pulse Doppler, frequency agile, pulse compression, PMF staggered, frequency diversity, pulse coded, chirp and other complex radars. This provides the ability to effectively defeat a variety of threat radars, through the combination of a High Effective Radiated Power (ERP) and smart noise, false targets or more subtle deception techniques.

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Flight Line Confidence testing: The PT18000 is a family of small, portable battery powered hand held devices that allow military maintenance crews to determine the operational status of platform self-protection systems. Testing of radar warning receivers (RWR), missile warning systems (MWS) or laser warning receivers (LWR) is supported.

QRA Design 

The CHAM LEON is a Mobile EW test and evaluation system providing a complete solution for EW and C4ISR training including MWS, MWSI, ESM, ECM, EW-TT, C2ISR and network technologies. The system is fielded in EW and C4ISR training environments around the world and provides a complete turnkey solution for free space EW test and evaluation.

Electronic Intelligence

UltraEAGLE is a family of electronic support products designed to meet Electronic Intelligence (ELINT) ISR operations. UltraEAGLE exploits the benefits of an open system architecture incorporating wideband software-defined digital receiver technology. UltraEAGLE offers state-of-the-art radar emitter intercept, analysis and recording. The systems
Forensic analysis

Ultra provides the world’s most advanced ballistics identification and forensic analysis systems to hundreds of law enforcement agencies in more than 130 countries across the globe.

The latest generation of IBIS® technology, IBIS® TRAX-HD™ marries exceptionally sharp 2D and 3D imaging with sophisticated comparison algorithms to create a streamlined system for image capture and analysis. IBIS® comprises:

- **BRASSTRAX™ Acquisition Station**, which uses pioneering sensor technology to automatically capture high-resolution 2D images and 3D topographic information from spent cartridge cases.
- **BULLETTRAX™ Acquisition Station**, which automatically captures high-resolution 2D and 3D topographical images of lands and grooves on fired bullets.
- **MATCHPOINT™ Analysis Station**, which gives examiners the comparison and analysis tools to confirm the high-confidence matches found by the powerful IBIS correlation algorithms.

Ultra is committed to providing innovative technology and sustainable solutions that help solve crime and make society safer. The Projectina® product line is designed for use both in the laboratory and out at border crossing. For over 60 years, Projectina has designed, developed and manufactured optical comparison systems for industrial and forensic science applications from banking to government agencies, the Projectina range of products are versatile and immediately records data for instant analysis.

**VISIONX COMPARISON MICROSCOPE**

The VisionX next generation comparison microscope’s state-of-the-art optical technology and ergonomic design ensures that examiners can see more detail more clearly and confirm evidence faster, allowing them to process more cases with confidence and comfort.

**PAG 800 HIGH-RESOLUTION STEREO-ZOOM MICROSCOPE**

The PAG 800 microscope delivers crisp and high-contrast stereo images that meet the highest standards. For additional flexibility, multiple LED and cold light sources are available, as are specialty reticles.

**CRIME SCENE LAMPS**

The crime scene light used makes a huge difference to the quality of evidence collected. Ultra’s SL-450 High-Intensity Crime Scene Lamp is a long-lasting, portable light source with seven different light settings to help spot even the smallest clues, while its CSL-SHOE low-profile lamp is designed to help identify hard-to-see shoe prints and markings on a variety of surfaces.

**DOCUMENT EXAMINATION**

The Docucenter NIRVIS system is a comprehensive and user-friendly solution for authenticating documents and detecting forgeries, making it an indispensable instrument for law enforcement, forensic sciences, border control as well as security printing and central banking operations. The easy-to-use INSPEC® system has been designed for second-level inspections at immigration checkpoints, banks, and police departments.

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**EVERY GUN HAS A STORY TO TELL**

Every gun leaves a signature and unique set of microscopic markings on fired bullets and cartridge cases. Ultra technology makes it possible to examine, analyse and compare bullet markings to solve gun crimes in a faster and more efficient way. Ultra’s forensic technology systems and products are used in over 130 countries worldwide.

**PARTNERING WITH INTERPOL**

Ultra has joined forces with INTERPOL to create the world’s first international hub for the exchange of ballistic data – the INTERPOL Ballistic Information Network (IBIN) is a powerful cross-border database that lets member countries extend their searches and work together to combat firearm crime on a global scale.

**HOW IBIS® TECHNOLOGY WORKS**

Ultra’s Integrated Ballistics Identification IBIS® combines image capture, comparison and analysis tools with powerful networking capabilities for data sharing.

Ultra’s forensic technology capabilities are used in 130 countries.

Ultra is committed to providing innovative technology and sustainable solutions that help solve crime and make society safer. The Projectina® product line is designed for use both in the laboratory and out at border crossing. For over 60 years, Projectina has designed, developed and manufactured optical comparison systems for industrial and forensic science applications from banking to government agencies, the Projectina range of products are versatile and immediately records data for instant analysis.

**VISIONX COMPARISON MICROSCOPE**

The VisionX next generation comparison microscope’s state-of-the-art optical technology and ergonomic design ensures that examiners can see more detail more clearly and confirm evidence faster, allowing them to process more cases with confidence and comfort.

**PAG 800 HIGH-RESOLUTION STEREO-ZOOM MICROSCOPE**

The PAG 800 microscope delivers crisp and high-contrast stereo images that meet the highest standards. For additional flexibility, multiple LED and cold light sources are available, as are specialty reticles.

**CRIME SCENE LAMPS**

The crime scene light used makes a huge difference to the quality of evidence collected. Ultra’s SL-450 High-Intensity Crime Scene Lamp is a long-lasting, portable light source with seven different light settings to help spot even the smallest clues, while its CSL-SHOE low-profile lamp is designed to help identify hard-to-see shoe prints and markings on a variety of surfaces.

**DOCUMENT EXAMINATION**

The Docucenter NIRVIS system is a comprehensive and user-friendly solution for authenticating documents and detecting forgeries, making it an indispensable instrument for law enforcement, forensic sciences, border control as well as security printing and central banking operations. The easy-to-use INSPEC® system has been designed for second-level inspections at immigration checkpoints, banks, and police departments.
Ultra has a broad portfolio of specialist capabilities which can be combined flexibly to generate innovative, highly-differentiated solutions, which are delivered in close collaboration with customers, partners and suppliers.

Ultra is well positioned to support customers and provide solutions to complex needs across the Defence & Aerospace, Security & Cyber, Transport and Energy markets.

### Underwater warfare
- Capabilities related to underwater warfare covering military, paramilitary and civil domains. These include transducers, hydrophones, sonobuoys, sonobuoy receivers, towed arrays, pétrocope detecting radars, torpedos, defence systems, acoustic countermeasures, and surface ship sonar systems.

### Maritime
- Capabilities related to signal and power management, operating, controlling, supporting and maintaining maritime (surface and sub-surface) military platforms, both manned and unmanned.

### Land
- Capabilities related to operating, controlling, supporting and maintaining land military platforms, both manned and unmanned, and the dismounted soldier.

### Aerospace
- Capabilities related to the design, manufacture, production, operation, support and maintenance of commercial and military aircraft, both manned and unmanned.

### C2ISR *
- Capabilities related to C2, Security and Surveillance solutions, covering both military and civil domains as well as military Electronic Warfare, reconnaissance and targeting systems, and forensic solutions for law enforcement.

### Communications
- Capabilities related to the secure communication and timely exchange of data, voice and video information providing some of the most capable communication systems, platforms and integration support in the world.

### Nuclear
- Capabilities related to nuclear, covering both civil energy, national radiation monitoring systems through defence to radiation monitoring on tactical platforms.

### Infrastructure
- Capabilities related to airport and airline information systems, rail transit power conversion and control, as well as non-nuclear civil energy related capabilities.

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*Command & Control, Intelligence Surveillance and Reconnaissance

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The matrix on the left shows how Ultra’s core capabilities map to each Ultra business.
<table>
<thead>
<tr>
<th>Division</th>
<th>Managing Director</th>
<th>Address</th>
<th>Telephone</th>
<th>Website</th>
</tr>
</thead>
<tbody>
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</tr>
</tbody>
</table>

Ultra Electronics reserves the right to vary these specifications without notice.