

The background of the entire page is a dark blue gradient. A large, stylized orange triangle is positioned in the top-left corner. A series of thin, curved orange lines sweep across the page from the top-left towards the bottom-right. On the right side, there are three wireframe illustrations: a fighter jet at the top, a naval ship in the middle, and a military truck at the bottom. Each illustration is surrounded by concentric blue circles, suggesting a radar or sensor field. The text 'Reunert Applied Electronics' is in white, sans-serif font, and 'PRODUCTS CATALOGUE' is in a larger, bold, white, sans-serif font at the bottom left.

Reunert

Applied
Electronics

**PRODUCTS
CATALOGUE**

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THE GROUP

Reunert Applied Electronics

Reunert Limited is an industrial group with a diverse portfolio of businesses in Electrical Engineering, ICT, and Applied Electronics. Founded in 1888 and listed on the JSE in 1948, Reunert is a major player in the South African economy. The company employs nearly 6 500 individuals, including highly qualified engineers, technicians, research and development professionals, and field support staff.

The Reunert Applied Electronics segment develops, manufactures, and supports high-technology equipment for various industries worldwide, primarily focusing on the defence sector. This South African group supplies customers with advanced Original Equipment Manufacturer (OEM) products and services across land, sea, and air defence domains, as well as the industrial and mining sectors. Notably, approximately half of the group's revenue comes from exports.

Business Units in the Group are:



Dynateq International specialises in the design, manufacture and support of Remote-Controlled Weapon Systems (RCWS) for applications in the local and international landward and naval markets.



Etion Create is an Original Design Manufacturer (ODM) with a reputation for excellence in the design, development and manufacturing of an extensive range of electronic and digital products.



Fuchs Electronics is an Original Equipment Manufacturer (OEM) that designs and manufactures electronic fuzes for tube-launched ordnance and aircraft weapons.



Nanoteq develops cryptographic products and solutions to meet cybersecurity and cyber defence requirements.



Omnigo is a precision electronic manufacturing firm that specialises in the population and assembly of printed circuit board assemblies.



Reutech Communications specialises in advanced secure communication systems for airborne, naval and land-based applications in the HF, VHF and UHF frequency bands.



Reutech Radar Systems develops and manufactures ground and naval search and tracking radar systems and subsystems for local and international clients in the defence radar market.



Reutech Solutions provides telephony/VoIP, static and mobile ICT infrastructure, tactical mobile ICT command and control, communication on the move and through-life engineering, maintenance, repair and operational support.

RADAR SYSTEMS

LAND SYSTEMS

RSR 150 ACTIVE SELF-PROTECTION SENSOR

The RSR 150 is a staring 3D radar sensor that rapidly acquires and tracks multiple simultaneous incoming projectiles, including Rocket Propelled Grenades and high-velocity rounds, to trigger fast-reaction soft- and hard-kill countermeasures. The radar is also capable of being used to detect and track sniper bullets in a Hostile Fire Indication (HOSFIN) role.

Features:

- High accuracy angular, range and velocity tracking
- Continuous wide area coverage through floodlight illumination and digital beamforming
- Very short reaction time and high update rate
- Very low false alarm rate
- Ballistic protection



RSR 420/430 GROUND-BASED SURVEILLANCE AND TARGET ACQUISITION RADAR (STAR)

The RSR 420 STAR is a medium-range self-contained air and sea surveillance radar designed to operate as a fixed, mobile, or transportable radar for various applications in ground-based air and ground forces domains.

Features:

- C-band
- 3D multi-mode radar
- High-performance surveillance, self-defence, ground-controlled intercept and weapon support application
- Sea surface surveillance capability
- Separate mission control shelter
- Solid-state transmitter
- Digital beamforming on transmit and receive
- Coherent pulse-Doppler processing
- Mode-dependent Medium and Low PRF waveforms
- Robust operation in complex clutter and electronic countermeasure environments
- Low-latency weapons designation interface
- Extensive Built-In Test facilities with integrated diagnostics
- Local Control and Display Subsystem (CDS)
- IFF-ready with integrated IFF antennas
- Long-range capability available (RSR 430)



RSR 903 2D GROUND SURVEILLANCE RADAR

The RSR 903 is a robust ground surveillance radar designed for flexibility of application in fixed, transportable or mobile deployments.

Features:

- Lightweight
- multi-mode Scanning:
 - Panoramic
 - Sector
 - Staring
- Target classification through track and micro-Doppler analysis
 - Pedestrians
 - Vehicles
- Wind-blown vegetation clutter suppression
- Low probability of false alarm
- Radome enclosure providing enhanced protection against harsh environments
- Low probability of intercept supporting covert operations
- Automatic data recording and playback
- Wired or wireless link between radar and display
- Display optimised for ease of use

Applications:

- Game and livestock protection
- Border surveillance
- Ports and waterways protection
- Local or remote operation



RSR 936 3D AIR/SEA SURVEILLANCE RADAR

The RSR 936 3D surveillance radar delivers robust air and surface monitoring in coastal, urban and inland environments. Its digital architecture combines multiple concurrent elevation beams with precise phase-based height extraction to achieve exceptional measurement fidelity, including sub-degree angular accuracy and metre-level range precision.

This fully coherent, low-power FMCW radar offers inherent LPI characteristics, high reliability and low cost of ownership. All radar electronics—including the antenna, transceiver, receiver array, embedded processing and integrated IFF capability—are contained within a single line-replaceable enclosure for straightforward installation on fixed or mobile platforms.

The RSR 936 supports both full-rotation and configurable sector-scanning modes, enabling increased revisit rate, improved Doppler resolution and enhanced detectability in priority sectors. Its multi-beam elevation architecture ensures consistent coverage across the full height envelope, while an adaptive signal processor optimises clutter suppression for land, sea and mixed environments.

The radar provides a fused 3D air picture together with fused tracks, raw plots, IFF responses, status information and control functions. All outputs are delivered via modern ASTERIX-based interfaces for seamless integration into contemporary command-and-control systems.



RSR 610 DRONE ACQUISITION RADAR

The RSR 610 is a modern, multi-purpose, phased-array radar designed for general surveillance, drone detection, and weapons control support. It utilises up to four identical phased-array faces to allow flexibility in system radar coverage.

Features:

- S-band frequency of operation
- Coherent pulse-Doppler processing
- Coherent clutter cancellation
- MIMO with digital beamforming
- Single face covers 90° (4 faces cover 360°)
- No moving parts, true staring operation
- Multi-purpose and multi-target support
 - Effective against drones, very low observables, asymmetric threats and conventional aircraft
 - Detection of small boats and other surface-based targets like humans
- High update rate, enabling
 - Superior tracking performance
 - Enhanced target classification
 - Rapid threat detection and response



RSR 906 AIR/SEA SURVEILLANCE RADAR

The RSR 906 2D continuous scanning surveillance radar is optimised for the simultaneous detection of air and surface targets. It is a fully coherent, low-cost, lightweight, low-probability-of-intercept (LPI) Frequency-Modulated Continuous Wave (FMCW) radar.

The low transmitter power levels increase reliability and reduce component costs.

Features:

- X-band frequency of operation
- Multi-function installation options
- Local and remote operation (via wired or wireless network)
- Data distribution to remote control centres
- Autonomous operation
- Configurable output data protocols



RIS 100X NAVIGATION RADAR INTERCEPT SENSOR

The RIS is a lightweight Navigation Radar Intercept Sensor (NRIS) that augments coastal surveillance by:

- Detecting the presence of vessels operating navigation radar in the maritime ITU X-band
- Accepting AIS reports from an AIS receiver
- Allowing correlation of high-accuracy bearings to vessels with AIS reports to confirm active AIS
- Identifying the presence of a vessel not operating AIS through bearing lines without associated AIS
- Ability to triangulate vessel positions by linking two or more NRIS receivers



RSR 102-1000 LAND/PERIMETER SURVEILLANCE SYSTEM

The RSR 102-1000 is a small staring radar optimised for detection of human activity up to a range of 1000m. The radar has several unique features that automatically detect moving targets such as personnel, vehicles and other moving objects. Its small size, low weight, low battery power consumption and ease of operation, make the unit ideally suited for application as part of an Intruder Detection System tailored for asset and area monitoring and protection.

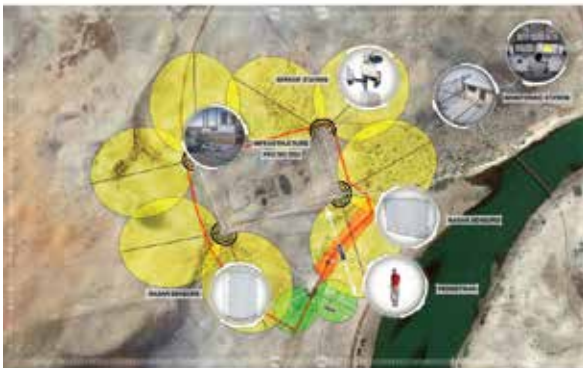
The RSR 102-1000 is a low-cost, small, lightweight, Low Probability of Intercept (LPI) product, making it ideal for covert operations. Its low transmitted power levels inherently increase reliability and reduce component cost, providing a cost-effective solution for short-range surveillance and intrusion monitoring.



INTRUSION DETECTION SYSTEM (IDS)

The Intrusion Detection System (IDS) integrates traditional technologies used for asset protection, such as cameras, with ground surveillance radar technology. The addition of radar not only provides the benefit of persistent surveillance of large areas but also offers other attributes, such as all-weather and day/night performance. The IDS solution provides geo-referenced intruder position reporting and tracking that allows for automatic alarming, queuing of PTZ cameras and activation of deterrents, thus enhancing security personnel's ability to respond timely to threats.

- Application in perimeter or portal protection
- Persistent monitoring of intruder movement
- Reduction in required CCTV cameras compared to a non-IDS solution
- Ability to interface with legacy security systems
- Scalable application through overlapped daisy-chaining of multiple sensors



RSR 905 MULTI-MODE GROUND SURVEILLANCE RADAR

The RSR 905 is a state-of-the art, compact, high-performance Ground Surveillance Radar (GSR), providing extended range detection, tracking and classification of pedestrians and vehicles. It utilises up to four identical phased-array faces to allow flexibility in system radar coverage. A single face can also be mounted on a rotator that allows 360° with a single face.

Features:

- Electronic scanning
- Extended range pedestrian detection
- Automatic and manual target classification
 - Pedestrians
 - Vehicles
- Multi-face support
- Optional rotator provides 360° coverage with single sensor
- Tripod, vehicle or fixed installation
- Local manned or unmanned operation
- Intelligent local and remote C2 integration
- Integral location/North Alignment
- Automatic data recording and playback
- Wired or wireless link between radar and display
- Display optimised for ease of use
- Rugged and reliable
- Battery or mains operation

Applications:

- Battlefield surveillance
- Border surveillance
- Critical infrastructure protection
- Industrial complex protection
- Private security



RSR 650/RSR 655 MULTI-FUNCTION DIGITAL ARRAY RADAR

The RSR 650/RSR 655 is a multi-function digital array radar family designed for demanding multi-mission roles including air defence, counter-fire acquisition, border and coastal surveillance, and battlefield situational awareness. Its fully digital beamformed architecture dynamically adapts waveforms, beam shapes, and dwell strategies in real time, allowing multiple radar functions to be executed concurrently while maintaining resilience in cluttered, jammed, and complex propagation environments. The system provides an instrumented range of up to 250 km, with detection performance extending to approximately 120 km on 1 m² targets, supporting reliable surveillance and tracking of targets ranging from fast tactical threats and RAM projectiles to small UAVs and surface movers.

The family is offered in two architectural configurations. The RSR 650 employs a single digital array antenna mounted on a precision rotator, combining electronic beam steering with mechanical rotation to provide full azimuth coverage while enabling high-performance forward-sector operation with look-back capability. The RSR 655 utilises a four-face fixed digital array, delivering continuous 360° electronic coverage without mechanical rotation and enabling longer dwell times, deterministic revisit rates, and coherent processing for enhanced clutter cancellation and low-SNR target detection. Both configurations deliver high-accuracy 3D tracking, with typical angular accuracies better than 0.3° azimuth and 0.4° elevation RMS, and support update rates of up to 1 Hz for time-critical applications.



RSR 210N NAVAL AIR/SEA SURVEILLANCE

The RSR 210N is a lightweight X-band 2D naval air/sea surveillance radar designed for application on smaller naval and coastguard vessels. This radar, which provides coverage beyond 100 km, may be supplied with a dedicated console or may be interfaced with a Combat Management System. Whilst it is particularly suited to helicopter support operations aboard ship, it is also well suited to general air/sea surveillance and gunfire support roles.

Features:

- 2D multi-mode Naval radar
- Coherent pulse-Doppler processing
- Comprehensive ECCM suite
- Low mast weight suitable for small vessels
- Application in surveillance, gunfire support and helicopter control
- Close-range detection and high data update rate for helicopter guidance
- Extensive online Built-In Test facilities with integrated diagnostics
- COTS-based software signal and data processor
- Roll & pitch-stabilised antenna platform
- Optional IFF capability



RTS 3200 FMCW OPTRONICS RADAR TRACKER (FORT)

The RTS 3200 FORT is a new-generation lightweight optronics radar tracker. It operates in X-band, is instrumented to 50 km, and provides the operator with an all-weather target engagement capability. The product is designed for use aboard smaller naval vessels that would normally only employ electro-optic trackers.

Features:

- Low Probability of Intercept (LPI) architecture supports operation under hostile countermeasure conditions
- Designation from 1, 2, 3 or 4D designation sources
- Automatic or manual search and acquisition
- Automatic or manually selectable tracking on radar and optronics
- Configurable optronics pack
- Gun and missile fire support application
- Solid state transmitter
- Simple operator interface
- All-weather operation
- Lightweight construction suited to smaller vessels
- Minimal deck penetration
- Easily installed and low maintenance
- Comprehensive online Built-In Test Equipment (BITE)



RSR 420N NAVAL AIR/SEA SURVEILLANCE AND TARGET ACQUISITION RADAR (STAR)

The RSR 420 Naval STAR has been developed in response to a market need for a medium-range 3D combat surveillance radar system to provide smaller Anti Air Warfare and Anti Surface Warfare vessels with effective self-defence and weapon control capability.

The system design incorporates modern digital beam-forming architecture and is designed to be relatively lightweight to suit applications on the masts of smaller warships. Its solid-state distributed transmitter enhances system availability through graceful degradation and ease of power module replacement. It is thus ideally suited to general maritime surveillance and weapons designation aboard modern warships.

Features:

- C-band frequency of operation
- 3D multi-mode naval radar
- High-performance surveillance, self-defence, weapon and helicopter support application
- Electronically stabilised beam
- Solid-state transmitter
- Digital beamforming on transmit and receive
- Coherent pulse-Doppler processing
- Mode-dependent Medium and Low PRF waveforms
- Robust operation in complex clutter and electronic countermeasure environments
- Low-latency weapons designation interface
- Extensive Built-In Test facilities with integrated diagnostics
- Local Control and Display (CDS) subsystem
- IFF-ready with integrated IFF antennas



RIS 100X NAVIGATION RADAR INTERCEPT SENSOR

The RIS is a lightweight, ship-borne Navigation Radar Intercept Sensor (NRIS) that augments maritime surveillance capability by:

- Detecting the presence of vessels operating navigation radar in the maritime ITU X-band
- Accepting AIS reports from an AIS receiver
- Allowing correlation of high-accuracy bearings to vessels, based on navigation radar emissions, with AIS reports to confirm active AIS
- Identifying the presence of a vessel not operating AIS
- Application either as a stand-alone bow-relative bearing sensor or linked to vessel navigation systems and AIS to display geo-referenced bearing and AIS reports to the operator



RDS 180 HOSTILE FIRE INDICATOR RADAR (HOSFIR)

The RDS 180 HOSFIR radar has been designed to warn pilots of incoming hostile fire from small arms, facilitating the execution of evasive manoeuvres to improve aircraft survivability. It provides support for retaliatory action by helicopter through estimation of ground fire origin. This is ideally suited for VIP, transport and helicopter gunship platforms.

Features:

- Detecting and tracking multiple simultaneous small and fast incoming projectiles
- Providing visual and auditory warnings to pilots
- Identifying the threat sector from which hostile fire originates
- Indicating single shots or volleys through protected volume
- Indicating the likelihood of a fuselage hit



HOSFIR Sensors, Controller and Pilot Display

RFTS 200 INDEPENDENT FLIGHT TERMINATION SYSTEM (IFTS)

The RFTS 200 Independent Flight Termination System (IFTS) is a purpose-built, autonomous safety mechanism for experimental and developmental flight operations. It ensures that any departure from authorised flight-test conditions can be detected and acted on immediately, providing a reliable layer of protection that operates entirely independently of the host platform. The system is engineered to integrate cleanly into modern flight-test environments while maintaining predictable and uncompromised safety behaviour.

Features:

- Robust fully self-contained onboard safety solution for airborne platform flight testing
- Two independent dual redundant location sensing modules
- Trigger signal output to external destruction mechanisms when platform deviates from mission profile
- Platform segment (Independent Flight Termination Unit) provides independent position determination within the safety corridor
- Ground segment (Ground Configuration Unit) for safety corridor boundary planning
- Safety corridor includes debris field
- Self-contained in-flight power source independent of platform power



MISSION EQUIPMENT

TACTICAL SYSTEMS

CHEETAHNAV / CHEETAH COMPACT

CheetahNAV is a versatile tactical navigation system designed for security services, emergency services and the light All Terrain Vehicle (ATV) using user controlled offline navigation maps.

CheetahNAV Compact is meticulously crafted to be compact and space-efficient, ensuring it can be seamlessly integrated into a wide range of vehicle platforms. Despite its reduced size, the display maintains excellent readability and clarity, thanks to advanced display technologies. The touchscreen functionality allows for effortless navigation and swift access to critical data. The interface can also be customised to suit your specific operational needs, providing you with relevant information at the right time.



Features:

- Route planning functionality
- Improved situational awareness
- Enhanced mobility of vehicles
- Real-time tactical moving map
- Arabic language pack
- MIL-STD-2525B symbology
- Touch screen display
- Ruggedized design
- Compact, MIL-STD qualified Inertial Navigation System (INS)
- Embedded GNSS receiver
- Tactical-grade IMU
- Dead reckoning accuracy within 0.2% of distance travelled (DT)
- Non-ITAR controlled
- Technology Readiness Level 9



SMART DISPLAY

The DS600 is a rugged Smart Display family featuring an 11.6" display, the latest Intel™ Atom E3900 series of embedded processors and a Video Processing Module (VPM) for high-performance end-to-end Full HD (FHD) video processing capability, suitable for industrial and military applications. It has a sunlight readable FHD (1920×1080) colour TFT display with wide viewing angles, high brightness and capacitive touch screen technology.

The DS600 display is driven by an Intel ATOM® E3900 series based single board computer (SBC) with a quad core processor that offers exceptional efficiency with real-time video processing. The integrated graphics processor (GPU) running at up to 650MHz, achieves greatly increased video encode and playback performance, with Ultra HD 4k display resolution and features such as video and text overlay, video scaling and alpha blending.

Applications:

Situational Awareness Display:

- Overwatch and Alarm function to monitor area of interest
- Artificial Intelligence detection of Objects of Interest
- Fusion of Infra-red/Night Vision/ Optical Sensors

Battle Panel Display:

- Joystick USB interface to control Pan and Tilt sensors
- Auto Tracker function to control Pan and Tilt sensors



CHEETAH ROUTER

Our Cheetah Router is designed for tough operational conditions, the ruggedised design has been tested to withstand severe customer environments. The router is ideal for vehicle applications, providing connectivity for situational awareness, communications internal and external to the vehicle and battle management (BMS) functions.

Utilising a Linux based operating system enables the router to host custom functions as required by the application.

Modularity of the system address cost-effective approach to provide functionality only as needed.

Features:

- Ruggedised design
- Modular expandability
- Conduction cooling
- IEEE1588 PTP
- Non ITAR controlled



MISSION COMPUTER

Etion Create's mission computer solution is designed to make use of a modularised approach to address the varied requirements of differing military platform ruggedised computer and interface applications in the aerospace, land and maritime environments. The modular design approach enables hardware and software to be combined in different configurations to ensure that a variety of functionality is supported and implemented in different systems architectures. By leveraging on our OpenVPX embedded COTS products, Etion Create can provide complete solutions in a wide range of applications such as communications, video processing and graphics generation, DSP, and interface and protocol conversion.



PROCESSING SUB-SYSTEM

Engineered for efficiency, our processing sub-systems offer real-time data and signal processing, from front-end IF sampling of multiple channels of wideband signals received from RF receivers, followed by high bandwidth processing using FPGA and DSP technologies, through to streaming of baseband data via 10GBE interfaces for downstream processing. Real-time generation of signals of arbitrary waveforms is also provided as part of the transmit chain. The core of the processing boards used inside the processing sub-system is supplied from EC's range of OpenVPX embedded COTS boards and can also be mixed with third party COTS boards conforming to the VPX VITA46 open standard.



HIGH SPEED PROCESSING BOARDS

CM120 COM EXPRESS

The CM120 is a COM Express® Mini Module (PICMG® COM.0 Rev 2.1) that utilises the Intel Atom® E3900 series of embedded processors, code named Apollo Lake-I, to provide scalable processing power in a compact form-factor for reduced Size, Weight and Power (SWaP) applications. It is available in standard and extended temperature versions.

The dual and quad core Intel processors offer enhanced processing power in a compact, low-power package running at speeds of up to 2.5 GHz. It delivers enhanced reliability in extreme environments typically found in industrial, automotive and aerospace applications. DDR3L memory with error correction code (ECC) guard against single-bit memory errors.

Features:

- COM Express® Single Board Computer
- Intel Atom® E3900 Processor series
 - Dual/quad cores running at up to 2.5 GHz
 - 4 GB DDR3L memory with ECC
 - Accurate network time synchronisation
- Integrated Graphics Processor (GPU)
 - Ultra HD 4K display resolution
 - Supports multiple independent displays
- Wide range of interfaces
 - HDMI/DP, eDP/LVDS, Audio, PCIe, ETH, USB, SATA, IO
- Reduced SWaP applications
- Air- and rugged conduction-cooled options
- Environmentally qualified for land-based use
- Linux and Windows support
- Ideal for industrial, automotive and aerospace applications



VF360 OPENVPX FPGA MODULE

The VF360 is a 3U OpenVPX module that leverages on Intel Stratix® V FPGA and Texas Instruments KeyStone Multicore DSP technology to provide an ultra-high bandwidth processing platform, ideally suited for computation and bandwidth intensive applications such as Radar, Networking, SIGINT, EW, SDR and Video

The onboard multicore DSP from Texas Instruments provides the flexibility to perform complex post processing functions more suited for the processor domain. High bandwidth communication between the DSP and FPGA is provided through both PCIe and Serial Rapid IO (SRIO) interfaces.

The Stratix® V FPGA has two banks of dedicated DDR3 and QDRII+ memories for algorithms with high bandwidth and/or large memory size requirements. High-speed serial interfaces to the OpenVPX data plane and the FMC site create abundant FPGA IO throughput.

Features:

- 3U OpenVPX Single Board Computer
- C667x Keystone® Multicore DSP Processor
- Up to eight cores each running at 1.25 GHz
- Fixed Point and Floating-Point operations
- Up to 2GB DDR3L memory
- Intel Stratix® V FPGA family
- Up to 2 GB DDR3L memory (dual banks)
- Up to 32 MB QDRII+ memory (dual banks)
- Supports 40G Ethernet on backplane
- VITA 57 FMC site for flexible IO options
- High bandwidth IO throughput via backplane and FMC
- Air- and rugged conduction-cooled options
- Linux and SYSBIOS RTOS support
- Ideal for Radar, EW, SIGINT, SDR and video applications



VF365 OPENVPX FPGA MODULE

The VF365 is a 3U OpenVPX module that leverages on Intel Arria® 10 SoC FPGA and Texas Instruments KeyStone Multicore DSP technology provides an ultra-high bandwidth processing platform, ideally suited for computation and bandwidth intensive applications such as Radar, SIGINT, EW, SDR, Networking and Video.

The Arria® 10 SoC high-performance FPGA fabric provides abundant logic, internal memory and floating-point DSP resources for demanding applications in the industrial, aerospace and other markets.

The hard processor system (HPS) with dual-core ARM Cortex-A9 MPCore processor, on-chip cache, system peripherals and hard memory interfaces provides additional software processing, tightly coupled with the FPGA through high-performance AXI bus bridges.

Features:

- 3U OpenVPX Single Board Computer
- C667x Keystone® Multicore DSP Processor
 - Up-to eight cores each running at 1.25 GHz
 - Fixed Point and Floating-Point operations
 - Up to 2GB DDR3L memory
- Intel Arria® 10 SoC FPGA family
 - Up-to 4 GB DDR3L memory
 - Up-to 64 MB QDR II+ memory (dual banks)
 - Supports 40G Ethernet on backplane
- VITA 57 FMC site for flexible IO options
- High bandwidth IO throughput via backplane and FMC
- Air- and rugged conduction-cooled options
- Linux and SYSBIOS RTOS support
- Ideal for Radar, EW, SIGINT, SDR and video applications



VF370 OPENVPX SINGLE BOARD COMPUTER

The VF370 is a 3U OpenVPX Single Board Computer (SBC) module that utilises the Intel Atom® E3900 series of embedded processors, Intel Cyclone® V FPGA technology and an FMC mezzanine site, to provide a module with scalable processing power and flexible IO options for reduced Size, Weight and Power (SWaP) applications. It is available in standard air-cooled and rugged conduction-cooled versions.

The dual and quad core Intel Atom® E3900 processors offer enhanced processing power in a compact, low-power package running at speeds of up to 2.0 GHz. It delivers enhanced reliability in extreme environments typically found in industrial, automotive and aerospace applications.

The Cyclone® V FPGA with scalable logic and DSP resources, combined with external DDR3 memory, supports algorithms with high memory size and bandwidth requirements. LVDS and high-speed serial interfaces to the FMC and PCIe to the OpenVPX data plane provides abundant FPGA IO throughput.

Features:

- 3U OpenVPX Single Board Computer
- Intel Atom® E3900 Processor series
 - Dual/quad cores running at up to 2.5 GHz
 - 4 GB DDR3L memory with ECC
 - Accurate network time synchronisation
- Integrated Graphics Processor (GPU)
 - Ultra HD 4K display resolution
- Intel Cyclone® V FPGA with 2 GB DDR3L memory
- VITA 57 FMC site for flexible IO options
- Backplane IO supported via FMC
- Reduced SWaP applications
- Air- and rugged conduction-cooled options
- Environmentally qualified for air-borne use
- Linux and Windows support
- Ideal for Mission Controller, DSP and video applications



ORIGINAL DESIGN MANUFACTURER

Etion Create specialises in the design, manufacturing, integration, and support of advanced technology products through its ODM services. We excel in creating customised electronic products and sub-systems for sectors including Mining & Industrial, Defence & Aerospace, Cyber Security and Rail.

We prioritise rapid prototyping and accelerated manufacturing, ensuring timely market entry. Our solutions are innovative, personalised, and cost-effective, tailored to meet client specifications. Our engineering team develops qualified products in-house, evidenced by our successful track record. For example, our health and safety devices for mining clients are continuously refined with emerging technologies.

Our skilled engineers use advanced test & measurement equipment and computer-aided engineering software for development. Our manufacturing facility features state-of-the-art automated equipment and a quality management system.

Our core competencies span software, firmware, hardware, CAD design, image processing, digital signal processing, and more. With over 25 years of experience, we specialise in industrialising complex, high-value designs, collaborating closely with clients to solve manufacturing challenges efficiently and effectively.



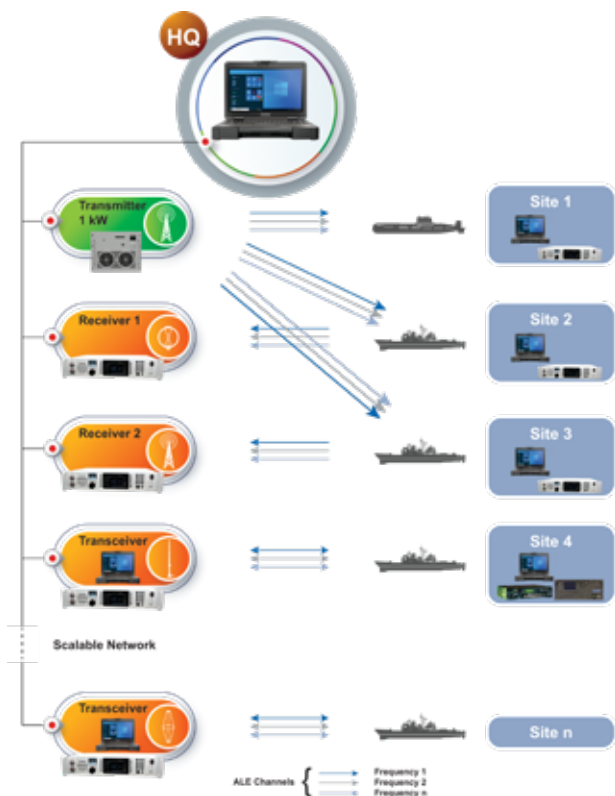
RADIO COMMUNICATION SYSTEMS

NAVAL COMMUNICATIONS SOLUTIONS

- Strategic Beyond Line of Site (BLOS) HF ship and shore side solutions.
- Integrated Ship Communications Systems. Networked HF and V/UHF transceivers with ship wide intercom and voice terminals.
- Tactical Data Link for Command and Control, Situational Awareness, and Weapon System Integration.



Integrated Ship Communications Systems



Resilient HF Network

- Resilient HF Architecture with automatic Frequency and Geographic Diversity. Enables effective BLOS C2 and messaging over HF using 3G HF Packet Data. Also applicable to landward forces.

HIGHLIGHTED PRODUCTS

TR3000

The TR3000 is a 2U 19" wideband HF (WBHF) transceiver for use in base stations, shelters, or maritime installations.

- 150W
- Co-location options
- Embedded AC Supply
- Up to 48 kHz and 240 kbps
- 1 kW / 5 kW / 10 kW external PA options



TR7000

The TR7000 is a 2U 19" wideband 100-400 MHz V/UHF transceiver for use in base stations, shelters, or maritime installations.

- 100 W
- Co-location options
- 100 kbps data rate
- SDR architecture for future waveforms upgrades



VIT1000

The VIT1000 is a touchscreen-based voice intercom radio and intercom access.

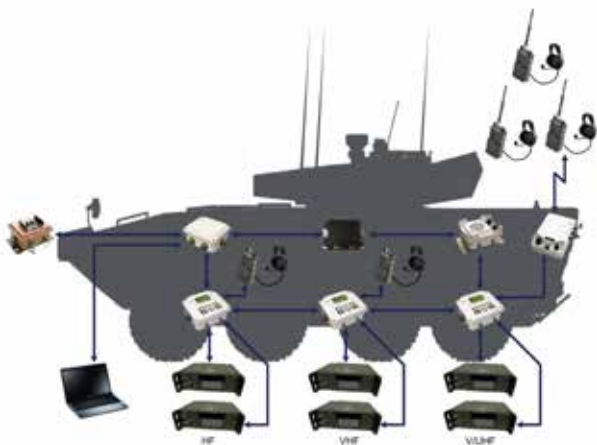
VoIP

- 7-inch touch screen
- IP rated
- User Interface (UI) also available for Android and iOS mobile devices



LANDWARD COMMUNICATIONS SOLUTIONS

- Full turnkey Military Tactical Communications System known as LANDSEC
 - From Brigade level down
 - Full lifecycle support from training and logistics to system commissioning and sustainment
 - Includes secure encrypted frequency hopping HF, VHF, V/UHF, man-portable, and vehicle portable transceivers, wired and wireless intercoms, management and planning software, and all peripherals
- Tactical Data Link for Command and Control, Situational Awareness, and Weapon System Integration
- Integrated Vehicle Communications Systems



Integrated Vehicle Communications System showing platform integration of wired and wireless intercoms and multiple radio integration.

HIGHLIGHTED PRODUCTS

TR3000MT

The TR3000MT is a light-weight and compact wideband HF transceiver for man-portable applications.

- 1.5 MHz to 60 MHz
- HF – 25 W
- VHF – 10 W
- Wi-Fi connectivity
- Supports 24 kHz, 120 kbps WBHF



TR3000VT

The TR3000VT is a compact wideband HF transceiver for vehicle and base applications.

- 1.5 MHz to 60 MHz
- HF – 150 W
- VHF – 60 W
- Wi-Fi connectivity
- Supports 24 kHz, 120 kbps WBHF
- Loop and Whip ATU options available



TR7000VT

The TR7000VT is a compact wideband V/UHF transceiver for vehicle and base applications.

- Low band VHF and ATC airband, upgradeable to 30-512 MHz multiband
- 50 W
- 100 kbps, SDR waveform upgradeable
- 500 hops/s
- Wi-Fi connectivity



ANTENNA TUNING UNITS

AT2222

- The AT2222 is an HF Antenna Tuning Unit (ATU) for small loop antennas (for both mobile landward and naval applications).
- NVIS communications
- 2 MHz to 15 MHz
- 150 W compatible
- Frequency hopping compatible



AT2229

The AT2229 is an HF ATU for whip antennas for vehicle, naval, and base installations

- 1.5 MHz to 30 MHz
- 150 W compatible
- Frequency hopping compatible



RECOMMENDED PRODUCT UPGRADE PATH

Reutech communications is committed to the long-term support of all of its products. The recommended upgrade path provides customers with existing assets the ability to move forward to the latest generation products (with their associated new capabilities) all while maintaining select backwards compatibility.

Legacy Product	Replacement Product
TR2400 manpack role	TR3000MT
TR2400 vehicle role	TR3000VT
TR2000	TR3000MT
TR2600	TR3000
TR6000	TR7000VT

PTR4001 MK2

The PTR4001 MK2 is a new generation intra-team communication product, which is optimised for the needs of the modern soldier. It provides a secure full duplex voice conference facility in a compact, lightweight and highly rugged form factor. The simple user interface, line of sight range of up to 2 km, with simultaneous position reporting, is the ideal product to maximise operational effectiveness.

- Full Duplex Voice Conference
- Simple operation
- Robust long-range LPI waveform
- Graphical display
- Built-in GNSS receiver for position reporting
- Wireless PTT
- Low power consumption for greater endurance
- Compact and light weight



VEHICLE INTERCOM SYSTEM (VIS)

The VIS provides crew with high quality voice intercom communications and access to tactical radios. The VIS also networks mission systems with data capable tactical radios. Suitable for Armoured Personnel Carriers (APCs), Armoured Fighting Vehicles (AFVs), soft-skinned vehicles, Assault Boats and other Naval platforms.

- Connect up to 12 users with full duplex voice and data communications
- Connect up to 12 combat net radios with full transparent control
- Interfaces to vehicle's and weapon's control buses
- Seamless data routing to radios and users
- Emergency call override
- Link multiple land vehicle elements into a single net



ACR500MKIIS

The LANDSEC ACR500MKIIs is a light-weight and compact, multi-band, multi-mode V/UHF airborne SDR covering ATC, Marine and Military bands. Supported modes include legacy voice, digital voice and tactical data link (TDL) with Secure, Anti-Jam and LPI capability. Qualified for Helicopter, Fighter and Transport installations.

- Light-weight and compact
- Qualified on Rotary and Fixed-wing platforms for combat and utility roles
- Co-locatable for multi-fit installations
- Multi-band Guard Receiver
- Frequency coverage 30 MHz to 407 MHz
- 20 W output power
- RTCA DO178B level C and DO 254 DAL C certified
- Qualified for aircraft carrier landing



AC500

The AC500 series Controllers are modern, cockpit mount backup controllers providing full control functionality to the ACR500 family of transceivers.

- Back-lit pushbutton switches allow selection of modes and functions
- Easy selection of TR (Main transceiver) TR+G (Main and Guard) and G (Emergency)
- NVG-GREEN-B compatible for combat night flying
- Display is visible under harsh sunlight conditions
- Back-lighting brightness control is designed to be integrated with the main cockpit backlighting adjustment
- Provides an RS485 interface on the front panel for a Fill Management System and radio diagnostics



TACTICAL DATA LINKS

NETLINK

Based on proven, sovereign, South African Link standard.

Suitable for Air, Land and Sea, Joint all Domain Command and Control.

Track record with various landward weapon system integrations, airborne fighter links, and naval systems.

Secure, over the air interface implemented in RC HF and V/UHF Radios across all domains and form factors.

Available as an embeddable Linux software library with well documented API.



COMMAND POINT/XL – SITUATIONAL AWARENESS SOFTWARE

Command Point and Command Point XL are Situational Awareness application that aids Commanders on all levels in operational theatre visualization, communication and intelligent unit control.

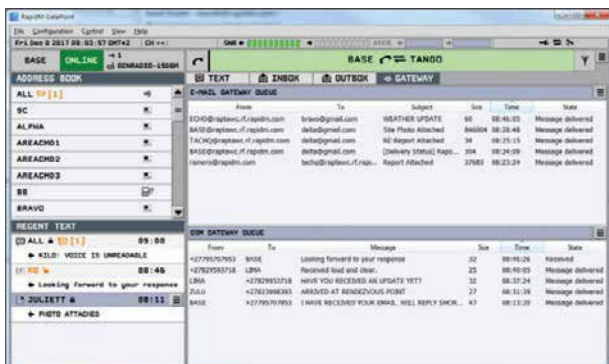
- Situational Awareness, Blue Force Tracking, Command & Control
- Maps: Situational Awareness satellite and vector mapping. Each installation includes Base maps of customer-desired region, Satellite images and open street map layers
- Geofencing zone tools are available to the operator to define zone status I.E Red and green zones for operations for visual go – no go zones with alarm events
- Secure digital voice support
- Network Gateway functionality: Email & GSM SMS – COMMANDPOINT XL can act as a messaging Gateway between radio networks and fixed networks, allowing emails to be routed from the radio network to the fixed network
- Multiple Gateway IP interconnect routing: COMMANDPOINT XL also supports the Multiple-Gateway
- Capability to connect to and route messages to other COMMANDPOINT XL or GatePoint nodes
- Messaging over HF & V/UHF networks



GATE POINT – EMAIL & SMS GATEWAY SOFTWARE

Gate Point is a Microsoft® Windows® application that interfaces between the radio network and the IP, Email and GSM networks' fixed infrastructures, allowing users the ability to route emails and SMS messages efficiently and reliably over existing HF and V/UHF radio links.

- Gateway between Radios and IP networks
- Email and GSM SMS routing
- Broadcast and Point-point Chat interface
- File transfer capability



ENTRY POINT – 3RD PARTY DATA OVER RADIO NETWORK

ENTRYPOINT provides an OSI-based Communication Stack with a documented Layer-7 Application Programming Interface(API) that allows developers to easily access the data transfer capability of their radios and radio modems.

- The interface is TCP/IP based, allowing developers with routing flexibility and an easy-to-interface-with IP based protocol for sending and receiving data in various formats, from text to files to binary data
- MS Windows® And Linux software options
- Easy & reliable Data over HF & V/UHF networks
- Broadcast and Point-to-point radio connections
- Raw data transfer capability



CYBER SECURITY

RQ11 STRATEGIC VOICE & DATA ENCRYPTOR

VOICE AND DATA

The RQ11 Strategic Voice & Data Encryptor is a ½ 19" rack-mount strategic security terminal intended for use in command centres, base or shore stations and naval vessels. The RQ11 connects to a single HF or V/UHF radio to provide high-end secure services to your existing radio network. These services include: robust secure voice, serial based data encryption and HF modem functionality.

Assured Security

The RQ11 system provides a blanket layer of encryption onto your existing radio networks. This allows secure, interoperable voice and data services across radios from diverse manufacturers. All over-the-air communications are encrypted and access to the unit is restricted through an access code. A dedicated Crypto / Plain switch and corresponding LEDs make it clear to the operator which mode the device is in.

Key Features:

- COMSEC: AES-256 Algorithm or User Defined
- Security: Active tamper, Zeroize, Audit trail, Key management
- Low-rate Vocoder: TWELP*
- Extended Range: 600, 1200 and 2400 bps Vocoder
- Broadcast Secure Voice Calls: Interoperable with RQ5 and RQ7
- Connects to: Any HF or V/UHF Radio via Audio & Control Interfaces
- 19" Rack Mount for Strategic & Naval Use
- Front Panel: Full Configuration and Operator Interfaces
- Rear Panel: Intercom, Local Data, Link Audio & Data and Power Interfaces



RQ7 STRATEGIC VOICE & DATA ENCRYPTOR

VOICE, MESSAGE AND POSITION

The RQ7 Strategic Voice & Data Encryptor is a ½ 19" rack-mount strategic security terminal intended for use in command centres, base or shore stations and naval vessels. The RQ7 forms part of the RT family and connects to a single HF or V/UHF radio to provide high-end secure voice, data and position services to your existing radio network. These services include: robust secure voice, text, forms, file transfer, navigation, situational awareness, email and interfaces for third party C2 and C4I systems.

Key Features:

- Robust Modem: STANAG 4538, 3G ALE, ARQ and Burst Waveforms
- Security: AES-256 or Custom Encryption COMSEC, LINKSEC
- Vocoder Options: TWELP* or MELPE**
- Extended Range: 300, 600, 1200 and 2400 bps Vocoder
- Address Book: Selective and Broadcast Calls and Data Transfer
- Position Transfer: Built-In GPS Module
- Connects to Any HF or V/UHF Radio via Audio & Control Interfaces
- Interoperates with the RQ5 Devices
- Etion Create PC Software Extends Capability
- 19" Rack Mount for Strategic Use
- Front Panel: Full Configuration and Operator Interfaces
- Rear Panel: Intercom, Local Data, Link Audio and Power Interfaces



RQ5 TACTICAL VOICE & DATA TERMINAL

VOICE, POSITION AND MESSAGING

The RQ5 is an ultra-rugged Tactical Terminal that works with any HF or V/UHF radio to provide secure voice, position and data messaging services. The RQ5 is purpose-built to meet a commander and team leader's critical Secure voice & data communication and navigation needs in extreme environments and under challenging conditions.

Modem

The RQ5 has a built-in high performance data modem that connects to HF or V/UHF transceivers via the audio interface.

Key Features:

- Robust Modem: STANAG 4538, 3G ALE & ARQ
- Extended Range: 300 to 2400 bps VOCODER
- Security: AES-256 Encryption
- Address Book: Selective and Broadcast calls
- Position Transfer: Built-in GPS Module
- Any HF or V/UHF Radio: Using 3 kHz audio
- Radio Remote Control: Ease of use
- Interoperates with: RQ7, RT3 & RT1
- RapidM PC Software: Extends capability
- CommandPoint support



QMUNICATE H10

Secure mobile voice, chat and file sharing from a smartphone.

^{EC}Nanoteq's mobile communication product, utilizes the latest technologies to provide secure voice communication and data transfer for the organization's mobile users. The system is completely self-hosted by the customer, thus your communication is never passed to unwanted 3rd parties. The system draws a clear distinction between business communication and social media.

Key Features:

- Compatible with latest Android and iOS mobile platforms
- Secure Voice and Messaging, including voice notes and other attachments
- Secure group messaging and chat
- Secure video calling
- Secure file storage
- Interoperable with other Qmunicate family products
- Secure to Open, and vice versa, breakout possible via PGR (Public Gateway Router)
- Custom algorithm options, using ^{EC}Nanoteq DS20 or DS Swift crypto autonomy range of products
- White labelling – branding the product specific to your organization



TRUSTED COMPUTING PLATFORM

Hardened computing platform.

Provides a stable and solid basis for ECNanoteq products which is the culmination of over 10 years of platform development. Product is continuously refreshed in order to keep it market relevant with spare parts easily sourced, allowing the ECNanoteq factory to keep hardware repair turn-around times to the absolute minimum.

Key Features:

- Locally developed ECNanoteq product
- Designed according to FIPS 140-2 Level 3
- Rock-solid reliability
- Over 2000 units deployed and supported worldwide (used in a variety of ECNanoteq products)
- Active Tamper resistance
- Zeroisation



CRYPTO MODULE FAMILY

Tamper proof hardware crypto modules.

These devices are integrated into various platforms such as Radio Modems and ECNanoteq hardware products such as T250S, Qnect and Qmunicate D100, adding custom encryption capability to a range of solutions. This greatly enhances the typical software encryption that is found in many off-the-shelf devices around the world.



Key Features:

- Compact and rugged
- Tamper proof
- Managed and controlled via the QCM MS (Management Station)



ELECTRONIC FUZES

ARTILLERY FUZES

Artillery Electronic Multi-Option Fuze – FE2501

The FE2501 fuze is for use on 105mm to 155mm (39 to 52 Calibre) Artillery Gun Systems. The fuze can be employed on all HE, IHE and HES standard, base-bleed and extended-range ammunition.

- Proximity function with safety time ranging from 5,0 to 199,9 seconds (in 0,1 second increments), burst height either High 12m or Low 6m
- Time function between 2.0 and 199,9 seconds (in 0,1 second increments)
- Point Detonation Super Quick



Electronic Multi-Option – M9121

- Fuze designed for use on 105mm to 203mm artillery gun systems as well as 120mm rifled mortar projectiles
- Specialised for use on 155mm, 39 to 52 calibre artillery gun (and 120mm rifled mortar) systems
- The M9121 can be employed on Standard, ERFB, Base Bleed and Rocket Assisted Projectiles
- The fuzes are suitable for flick rammed applications
- The fuze has the following primary modes (selectable by means of a switch on side of the fuze):
 - Proximity function with electronic safety time and burst height as per factory setting
 - Point Detonation Super Quick
- The secondary modes are inductively settable by means of a M15 Fuchs Setter
 - Proximity function with burst height either Low, Medium or High
 - Time Function
 - Point Detonation Super Quick
 - Point Detonation Delay with settable delay time
- The fuze setting can be read back by M15 Fuchs setter
- The fuze can be inductively set an infinite number of times and will retain the last setting indefinitely until reprogrammed
- Point Detonation Super Quick action serves as a backup to the proximity and time modes



Electronic Point Detonation (PD) – M9802

- Fuze designed for use on 105mm to 203mm artillery gun systems as well as 120mm rifled mortar projectiles
- Specialised for use on 155mm, 39 to 52 calibre artillery gun (and 120mm rifled mortar) systems
- The M9802 can be employed on Standard, ERFB, Base Bleed and Rocket Assisted Projectiles
- The fuzes are suitable for flick rammed applications
- The fuze has two operational modes which are hand selectable by means of a switch on the side of the Fuze:
 - Point Detonation Super Quick
 - Point Detonation Delay factory settable



Electronic Time – M9220

- The M9220 fuze was designed for use on 105mm to 203mm artillery guns
- Specialised for use on 155mm, 39 to 52 calibre artillery gun (and 120mm rifled mortar) systems
- The M9220 can be employed on Cargo Dispensing, Standard, ERFB, Base Bleed and Rocket Assisted Projectiles
- The fuzes are suitable for flick rammed applications
- The fuze functioning time is induction settable by means of the applicable Fuchs Setter
- The fuze can be set an infinite number of times and will retain the last setting indefinitely (or) until reprogrammed
- The Time setting can be verified by means of the Fuchs Setter
- Optional Point Detonation Super Quick action serves as a backup to the time mode



Fuze Setter – M15

The M15 fuze setter is an electronic handheld setting and reading unit for Time fuze M9220 and Multi-Option fuze M9121.

The Setter is a microprocessor-based unit which sets the fuze using a Fuchs Electronics proprietary induction data transfer algorithm.

Modes of operation:

- “Change” mode
- “Set” mode
- “Read” mode



Fuze Setter – STANAG Protocol – M22

The M22 fuze setter is an electronic handheld setting and reading unit for Time Fuzes M9803 and Multi-Option fuze FE2501.

The Setter is a microprocessor-based unit that sets and reads the fuze using an induction data transfer algorithm based on STANAG 4369.

Modes of operation:

- “Change” mode
- “Set” mode
- “Read” mode



MORTAR FUZES

Electronic Multi-Option – M0829

- The M0829 fuze is suitable for use on 60mm, 81mm and 120mm fin stabilised conventional, extended range and rocket assisted high explosive mortar rounds
- The M0829 fuze has four factory set operational modes which are selectable by using the mode selector switch incorporated in the fuze nose:
 - Proximity high
 - Proximity low
 - Point Detonation
 - Point Detonation Delay
- The Point Detonation Super Quick action serves as a backup to the proximity modes
- A variant for indirect and direct fire weapon capabilities are available



Electronic Time – M9813

- The M9813 fuze is suitable for use on 60mm, 81mm and 120mm fin stabilised conventional, extended range and rocket assisted mortars Cargo Dispensing rounds
- The fuze functioning time is set by hand using three setting rings incorporated in the fuze nose
- Point Detonation Super Quick action serves as a backup to the time function



Electronic Proximity – M9815

- The M9815 fuze is suitable for use on 60mm, 81mm and 120mm fin stabilised conventional, extended range and rocket assisted high explosive mortar rounds
- The fuze has the following two operational modes which are selectable by using the mode selector switch incorporated in the fuze nose:
 - Proximity mode, or
 - Point Detonation Super Quick mode
- Point Detonation Super Quick action serves as a backup to the Proximity mode
- Variants for various operational/functional requirements available; including different options for optimum ballistic performance for different mortar systems



Mortar Electronic Point Detonating and Delay Fuze – FE2502

The FE2502 fuze is for use on 60mm, 81mm, and 120mm standard or extended range, fin-stabilised, conventional and rocket-assisted mortar bombs.

- Operational Modes
 - Point Detonating Super Quick (PD)
 - Post Impact Delay: 30ms (PDD)
- Manually settable using a switch
- Two independent safety features:
 - Setback on launch
 - Sustained airflow for arming



ARTILLERY ROCKET FUZES

Electronic Proximity Fuze – BM36

- The BM36 Electronic Proximity fuze is for use on the 122mm calibre Extended Range Artillery Rocket Systems
- The fuze is also suitable for use on other rocket systems with similar dynamic and dimensional characteristics
- The fuze is a single mode Proximity type
- The electronic safety time and burst height may be factory altered to suit customer requirements
- Point Detonation Super Quick action serves as a backup to the proximity mode



Rocket Proximity and Point Detonating Fuze – M9120

The M9120 fuze is a proximity- and point-detonating type, designed for use with high-velocity Artillery Rocket Systems. Operational Limits:

- Burst height: 4 to 16 meters
- Burnout velocity: 600 to 1200m/s
- Terminal velocity: 160m/s
- Angle of impact: greater than 22°
- Crest clearance: 50m



Electronic Proximity – M8953

- The M8953 fuze is for use on the Oto Melara Standard, Compact and Super Rapid 76/62 Naval Gun Systems
- The fuze can be deployed on all HE, HEPFF and practice rounds
- The fuze is designed for use against sea skimming missiles as well as in an anti-aircraft role
- It can also be used against surface targets or for shore bombardment
- The fuze has two operational modes:
 - Proximity function with Point Detonation Super Quick backup and Self Destruct (standard mode):
 - The fuze will function on proximity against fast and slow moving aerial targets and sea skimming missiles
 - If a target is not detected along the trajectory, the fuze will 'Self Destruct' – this function can be factory disabled if not required
 - Point Detonation Super Quick only (Paralysed mode)
 - The Paralysed mode is selectable prior to firing by means of a Fuze Paralyser
 - * If not paralysed, the fuze is always in the proximity (standard) mode



AIR WEAPON FUZE

AB 400

- The AB400 is a new generation proximity fuze, incorporating exciting new state-of-the-art technology using SFMCW, a proprietary technology ensuring height of burst accuracy
- The fuze is rendered immune to mutual interference, enemy jamming and battlefield disturbances such as dust, smoke and other radio emissions, utilising comprehensive processing technology
- Enhanced life cycle – no batteries or stored energy.
- Fuze is an electronic proximity type for use on:
 - All calibres with 2" fuze cavity, i.e. NATO configuration
 - All calibres with M52 cavity, i.e. Warsaw configuration
- MK80 series using a booster adapter.
- Electronics safety time is user selectable, depending on the release parameters
- Point detonation super quick action serves as backup to the proximity function



40MM FUZES

40mm ABF Fuze

The Air Burst Function (ABF) is a highly effective and cost-efficient nose fuze for 40mm high-, medium-, and low-velocity timed air-burst application. The fuzes' innovative technology delivers advanced benefits:

- Precision programmable air-burst, implementing extended range Magnetic Induction technology (XMI). The selected airburst time is communicated to the fuze by means of low-frequency magnetic induction, in the first 2 meters after barrel exit
- No pre-launch stored energy, setback generator powered
- Electronic impact sensing, reliable point detonation (PD) assured against targets at impact angles up to 85° NATO



XMI SETTER FOR 40MM ABF FUZE

The High Velocity eXtended range Magnetic Induction Setter (HV XMI Setter) is a magnetic induction transmitter which programmes the Air Burst Time (ABT) into the Airburst Function (ABF) Fuze (DH40ABF), just after the fuze exits the relevant automatic grenade launcher barrel.

The setter is to provide reliable communications to the fuze. The relevant ABT for programming the fuze is determined by the Fire Control System (FCS), which communicates this value to the setter.

The setter is located to the top and towards the side of the weapon barrel, at a specified distance behind the muzzle break. The setter contains a radar module that detects the presence of a round at muzzle exit after firing to initialise the start of the fuze programming sequence via the setter's magnetic induction.



The logo consists of a red parallelogram with a dark blue triangle on the left side. The text "REMOTE CONTROL WEAPON SYSTEMS" is written in white, bold, uppercase letters across the red area.

REMOTE CONTROL WEAPON SYSTEMS

Dynateq International (Pty) Ltd (Dynateq) distinguishes itself by providing a comprehensive range of capabilities to specify, design, develop, manufacture, and support Remote Control Weapon Systems (RCWS) for land and maritime applications. Our Rogue RCWS is more than just a product; it is a customised solution that meets your specific requirements, ensuring optimal performance and safety.

Dynateq's Rogue RCWS comprises an externally mounted weapon system, including the gun, on vessels and vehicles. The Rogue RCWS is operated from a safe environment, such as a bridge or inside the vehicle, using a hand controller/MMI (Man-Machine Interface).

Featuring calibres from 7.62mm to 30mm and integration technologies such as automated target tracking, thermal vision, and more, the Rogue RCWS is built to be integrated into various Combat Management Systems (CMS).

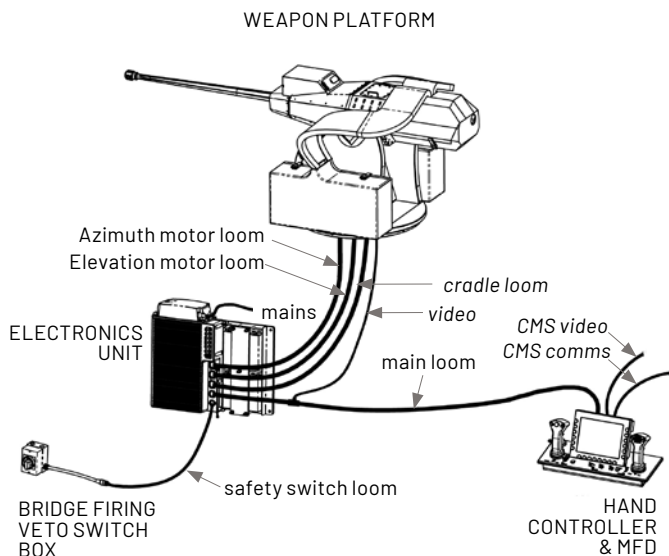
Features:

- Day and night target detection
- Dual-axis stabilisation with gyro stabilisation
- Optical Target Tracking for accurate engagement of static/moving targets
- Tri-sensors Electro-Optics (TV, TI & LRF)
- Modular Configuration for ease of maintenance
- Fire Control Software for better accuracy while firing on the move and at moving targets
- Can be installed on multiple platforms for both land and maritime applications
- Wide range of sensors – Electro-Optical, Radar, Shot Detections etc.
- Built-in test system to test functionality before campaigns
- Programmable safety sectors

DYNATEQ ROGUE RCWS

The Dynateq Rogue RCWS is manufactured in South Africa and offers local and international support services. The product range is designed with a modular configuration, enabling easy maintenance by end-users. All the Rogue RCWS are operated in a safe environment, thus protecting the operator. Dynateq provides its customers and end-users with a complete end-to-end solution, including system and operator training, along with all manuals for operation and maintenance. Remote and on-site support is always available whenever required.

PRODUCT ARCHITECTURE



DYNATEQ PRODUCTS

ROGUE LITE 7.62MM / 12.7MM

Land Rogue LITE
7.62mm RCWS



Sea Rogue LITE
12.7mm RCWS



The Rogue LITE RCWS provides the capability for a smaller and lighter platform to be installed on smaller vessels, e.g. coast guard and patrol vehicles. The Rogue LITE RCWS is suited for cost-effective and low-performance solutions applications as required. The stabilised platform offered in this class provides the client with the capability for fitting weapons such as a 7.62mm or 12.7mm gun.

ROGUE 12.7MM

Land Rogue
12.7mm RCWS



Sea Rogue
12.7mm RCWS



The Rogue 12.7mm platform provides the capability for a standard fitment of an M2 HB QCB 12.7mm machine gun. The stabilised platform offered in this class allows the client to fit weapons such as a 12.7mm, 7.62mm gun or a 40mm Automatic Grenade Launcher.

SUPER ROGUE 20MM

Super Land Rogue
20mm RCWS



Super Sea Rogue
20mm RCWS



The Super Rogue platform offers two types of weapons: the 20mm x 128 KAE and the 20mm x 139. The stabilised platform included in this class allows the client to fit weapons such as 14.5mm, 23mm, or other variants of 20mm cannons.

SUPER ROGUE 30MM

Super Land Rogue
30mm x 173mm RCWS



Super Sea Rogue
30mm x 113mm RCWS



The Rogue 30mm platform's weapon capability includes various 30mm x 113mm and 30mm x 173mm Cannon manufacturers.

MAN MACHINE INTERFACE (MMI)

Dynateq offers a Man-Machine Interface (MMI) as a System Control Unit. This unit consists of a Multi-Function Display and a Hand Controller. The symbology and soft-key names on the Multi-Function Display can be tailored to suit the client's requirements. The System Control Unit is designed to operate in the land and maritime domains.

Integration and interoperability with a Combat Management System are also offered.

Features:

- High-quality video output, which can be used for recording
- Soft Function keys
- Anti-reflective toughened glass
- Stabilised platform for operation



SMALL CALIBER SIGHT (SCS)

- Multi-spectral targeting system with thermal and laser ranging
- The SCS is a compact unit that includes a color Day Zoom Camera, an uncooled Thermal Imager, and a Laser Range Finder, making it ideal for use in short to medium-range weapon systems, such as Remote-Controlled Weapon Systems and Unmanned or Manned Turrets.
- Operating specifications
 - 18 – 32 VDC, 25W nominal
 - RS-422 Communication
 - PAL video



TRIGGER MECHANISM 12.7MM

- The Heavy Machine Gun (HMG) Trigger Mechanism is an actuator unit designed to remotely activate a .50 Browning or similar machine guns mounted on Remote Controlled Weapon Systems, as well as Unmanned or Manned Turrets.
- Easy Integration
- Adjustable for optimal end-of stroke
- Closed breech Firing



LIGHT MACHINE GUN (LMG) TRIGGER MECHANISM

- The Light Machine Gun (LMG) Trigger Mechanism is an actuator unit designed to remotely activate light machine guns, such as the FN MAG, PKM, and others, mounted on Remote Controlled Weapon Systems, as well as Unmanned or Manned Turrets
- Easy Integration
- Adjustable for optimal end-of stroke



REMOTE COCKING MECHANISM

- The Remote Cocking Mechanism (ACM-M2) is a remotely operated system designed for cocking the .50 Browning or similar heavy machine guns.
- The ACM-M2 is an actuator unit designed to remotely cock the heavy machine gun mounted on Remote Controlled Weapon Systems, as well as Unmanned or Manned Turrets.



OTS AUTOMATIC OPTICAL TARGET TRACKER

Real-Time Target Tracking | Adaptive Recognition | Military-Grade Performance

The OTS is an Automatic Optical Target Tracker designed for use in real-time control systems such as Remote-Controlled Weapon Stations and Stabilized Sight Systems. It provides precise and reliable lock-on tracking of moving targets for enhanced targeting efficiency.

Features:

- Automated optical target tracking
- Adaptive tracking through lighting, scale, and pose variations
- Search mode for dynamic target acquisition
- Target loss detection
- Memory and pause mode for coasting operations
- Tracking gate resizing and nudging
- Optimized for real-time control systems
- Operates on resource-constrained platforms
- Adjustable reference point & Line-Of-Sight integration



MILITARY LOGISTICS ENGINEERING

THROUGH LIFE ENGINEERING

Integrated logistics engineering and life-cycle support are provided from concept through to phase-out, with fully turnkey or tailored solutions aligned to client-specific operational and sustainment requirements.

Integrated Logistic Support (ILS) services include life-cycle planning, RAM and system safety engineering, maintenance and support optimisation, cost and risk analysis, spares optimisation, obsolescence management, and compliance-based logistic support analysis.



DOCUMENTATION AND TRAINING DEVELOPMENT

Accredited training development and high-quality technical documentation are provided to meet client-specific operational requirements. Training courses are developed to SAQA standards, aligned with the National Skills Development Strategy, and structured to the required NQF levels, enabling incorporation into formal Skills Development Programmes.

Technical publications and training materials are developed, converted and maintained in paper-based, CBT and IETM/IETP formats, compliant with South African and international standards. Solutions are scalable, configurable and designed with local skill levels, language and cultural requirements in mind.

Capabilities include: SAQA-accredited training development and delivery; outcomes- or knowledge-based course design; training needs analysis; CBT conversion with multimedia; integrated logistic data management; S1000D-compliant technical publications; legacy document conversion; strict configuration control; and on-site or off-site authoring and facilitation.



MILITARY LOGISTICS SUPPORT SERVICES

DEFNET

Support is provided to the SANDF Static Command and Control Communication Transmission Network, including satellite communications. The support footprint is nationwide, with centralised depots at Wonderboom Military Base.

Capabilities include the design, integration, installation, commissioning and maintenance of microwave and satellite communication networks, as well as support for HF transmission equipment and AC/DC power systems.

Services include:

- Field/Depot and engineering support
- Remote control and configuration management
- Logistic engineering



TACTICAL AND MOBILE TELECOMMUNICATIONS SOLUTIONS

Tactical, mobile and static telecommunications solutions are provided, including masts and antennas, power solutions, and a wide range of VHF/UHF and HF communication systems.

Services include:

- System design
- Project management
- System engineering
- Installation and commissioning
- Maintenance and support
- After-sales support
- Product disposal
- Full mesh satellite solutions
- Wireless plug-and-play networks
- Various microwave equipment
- Defence communications
- Fibre
- Cyber security
- Data centre
- MPLS/TP
- Newbridge
- Huawei enterprise

PHYSICAL SECURITY

- Military grade fencing
- Thermal and optical systems
- PIDS
- Access control systems



TACTICAL RADIO SUPPORT

Repair and maintenance of SANDF tactical radios and associated equipment are performed at support depots located at Wonderboom Military Base. Facilities include client-furnished RF test and support equipment.

Support includes:

- Intermediate-level support
- Depot-level support to component level
- Engineering support (Automatic Test Equipment)



RADAR SUPPORT

Support is provided for the SANDF's Monopulse Secondary Surveillance Radar (MSSR), Airfield Surveillance Radar, Thutlwa Radar, TRAD Radar, FCR Radar, and the Ground-Based Air Defence System (GBADS).

Local radar support is delivered at Swartkops Air Force Base, Kimberley, Mariepskop, Devon, Makhado and Ellisras, with international support in Malaysia and Ecuador.

Services include:

- Operational and depot-level support
- Systems engineering



WEAPON SYSTEMS SUPPORT

Operational and logistical support for telemetry systems is provided at the SAAF Test Flight & Development Centre (TFDC) at AFB Overberg.

Support also extends to the Rooikat Integrated Fire Control System, Olifant Mk1A and Mk2B MBT gun drive systems, and A-Vehicle electrical systems.

Services include:

- Depot-level support to component level
- Field support
- Systems engineering



NAVAL SUPPORT & SERVICES CENTRE – NAVY SSC

The Naval Support and Services Centre, located in the dockyard at Simon's Town, provides support to the SA Navy's communication and radar systems, as well as gun and drive control systems. Support services are also offered at the Durban Naval Base.

Services include:

- Level 3 and Level 4 support across depths 2, 3 and 4
- Logistic engineering
- Systems engineering



ELECTRONIC CONTRACT MANUFACTURING

OMNIGO

Omnigo offers a custom precision electronic manufacturing solution. Focusing on manufacturing quality PCB assemblies for the Defence and Mining industries. Omnigo is a one-stop manufacturing solution. Boasting a well-equipped 4600 m² facility with a workforce of +/- 150 staff.



By continuously investing in new technology, Omnigo strives to lead innovation in the electronic contract manufacturing market, ensuring high-quality solutions. Flexibility and adaptability are key to leading change and innovation in this industry.

In addition to the PCB production business, Omnigo also can provide the following services to supply the customer with a complete electronic manufacturing solution:

- Dedicated Project Management per client
- Industrialisation
- Procurement of Materials
- Automated SMT Assembly
- Automated Optical Inspection
- Automated and Manual Through Hole Production
- Looms, Cables and Wiring
- Automated Conformal Coating
- Potting and Mechanical packaging
- X-Ray
- Automated Testing
- Environmental Stress Screening
- Higher assembly (System) integration
- Quality Assurance
- Advanced Rework and Repair
- BGA re-ball and re-work Specialists
- Managing of Arms and Export Control requirements



ETION CREATE

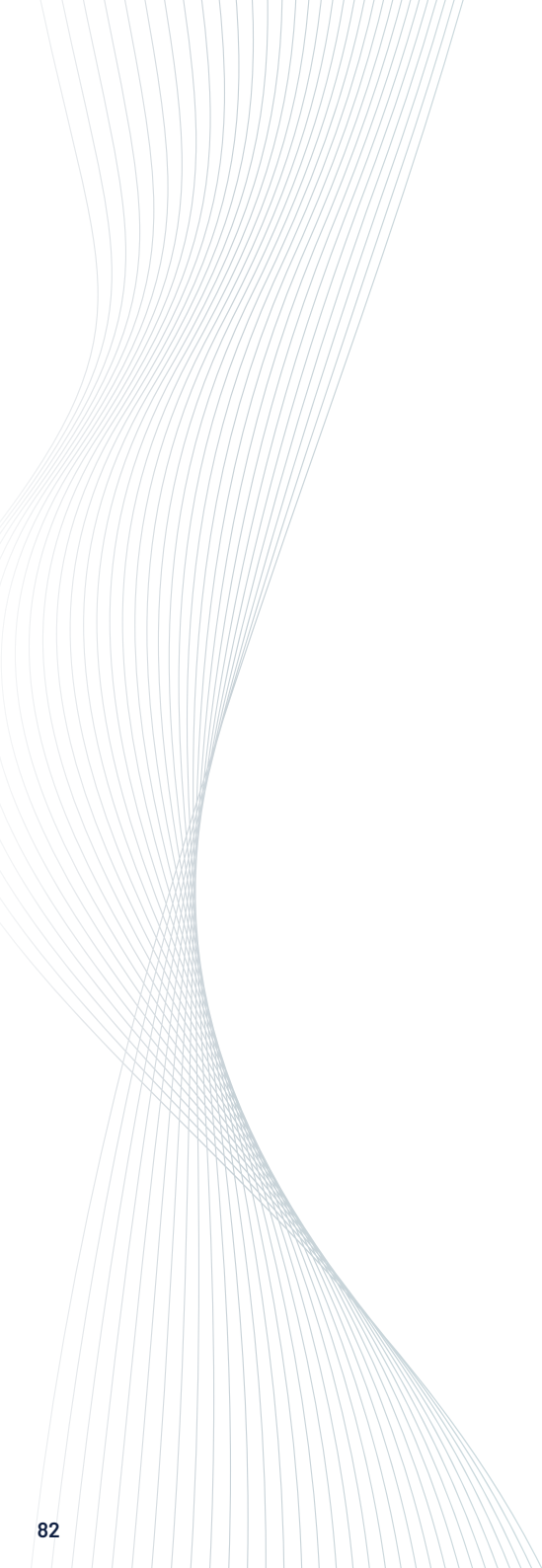
In a highly competitive market where quality is paramount, it is critical to have a manufacturer with the required capabilities and expertise. Etion Create has, for more than a decade, provided turnkey electronic manufacturing services for a wide spectrum of clients across all market sectors. We focus our EMS service on a few select high-end clients who support our business goals. Our commitment to quality and meticulous process control ensures that all products, irrespective of the complexity or specification, will meet the requirements of our clients.

Etion Create's production division is geared towards providing:

- Total turnkey manufacturing of electronic boards, products and sub-systems
- Prototype assembly

We are ISO 9001 certified and accredited in:

- IPC-A-610 Class 2 & 3 (Inspection)
- IPC-J-STD-001 Class 2 & 3 (Workmanship)
- IPC-7711/7721 (Rework, Modifications & Repair)
- IPC-A-600 (PCB Bare Board Inspection)
- IPC/WHMA-A-620 (Cable & Wire Harness Assembly)



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