



TELEDYNE e2V
Everywhere you look™

Defence and Security
RF POWER

Defence and Security Innovation



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Providing the
power to detect,
deceive, defend,
defeat

Introduction



ABOUT US

Founded in 1947, Teledyne e2v first developed Radio Frequency sources (magnetrons) for use in air and land defences.

Teledyne e2v's RF Power division pioneers industry leading innovation and technology around the world, with expertise spanning across life sciences, healthcare, industrial, transportation and defence and security markets.

With over 65 years' experience in the design and manufacture of high performance RF Power technologies, we offer both standard and bespoke engineering capabilities to design solutions to exacting requirements.

Our legacy

We provide the power to detect, deceive, defend and defeat for defence primes worldwide

Our expertise

In the defence and security market, our expertise ranges from design and integration right through to support of existing platforms



Supporting
defence primes
for over 60
years

Our innovative
approach across
defence and security
technologies supports
governments, armed
forces, industry and
security services
around the world

**Innovative
research,
cutting edge
development
and manufacture**

Our capabilities

We meet the complex requirements of projects and provide innovative, ITAR free solutions across the defence and security spectrum



High Profile Projects

- + Projects we are involved in
- + Bespoke and off-the-shelf solutions



+ Image: Aircraft carrier

Eurofighter Typhoon

Eurofighter Typhoon is the world's most advanced swing-role combat aircraft, offering agile performance, interoperability and unrivalled flexibility. The typhoon is manufactured by a consortium of Alenia Aermacchi, Airbus Group and BAE Systems. We offer electronic counter-measure solutions for Electronic Warfare applications.

Various Missile Platforms

Missiles are used by defence primes around the world. We supply components for; targeting and missile guidance, flight systems, engines and warheads adapted for different purposes across land, air and sea.

Anti-Piracy at Sea

Piracy at sea undermines humanitarian efforts as well as impedes safety on maritime routes around the world. RF Safe-Stop™, designed and manufactured in the UK, is the ultimate in target deactivation technology.

Skyshield System

Skyshield is a short range air defence system developed by the Swiss corporation Oerlikon Contraves. We supply radar components used for sweeping the airspace and tracking threats.

Saab Fighter Jets

Gripen, manufactured by Swedish aerospace company Saab, is a unique fighter concept, delivering excellent operational performance and cost-efficiency. We offer customised solutions for electronic counter-measures.

Defence Overview

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+ Follow us: [linkedin.com/e2v](https://www.linkedin.com/e2v)



+ Image: Warships in harbour


With expertise in RF Power, semiconductors and imaging, our capabilities range from new design and integration to ongoing support and life extension of existing platforms.

Our defence manufacturing business is split across three sites; one in Chelmsford and two in Lincoln.

We operate across the defence and security markets, pioneering developments to provide the power to detect, deceive, defend and defeat for commercial and military applications around the world.

Key Capabilities

- + Our tubes and microwave systems power radar used to protect assets and detect hazards across land, air and sea
- + Our compact and versatile electronic countermeasures detect, deceive or stop incoming hostile threats for defence primes the world over
- + We pioneer developments in microwave devices, bringing together industry leading technologies for high performance scientific, medical and defence systems around the world



**We offer unique
solutions
through
collaboration**

**High
performance**
We provide the
ultimate technology
for safety and
reliability in missile
systems around the
world



Microwave Power Modules

Our Microwave Power Modules offer super broadband capabilities for fast jet applications. Their compact sub-system is the smallest in its class, operating across 4.5 – 18GHz for electronic countermeasure protection of high-value land, sea and air platforms around the world.



Travelling Wave Tubes

We are the sole suppliers of Helix Travelling Wave Tubes to leading defence primes around the world on some of the most advanced air platforms. Offering multi-octave bandwidth in a single tube, our rugged and compact Helix TWTs are amongst the smallest in the world in their class.



Digital Down Converter

Our Digital Down Converter has been designed for use in harsh environments and enables signal conversion over 1 – 18GHz, with up to 2GHz instantaneous bandwidth. Offering industry leading performance in noise figure and spurious free dynamic range, our state-of-the-art microwave frequency converter is easily customisable for specific customer requirements.

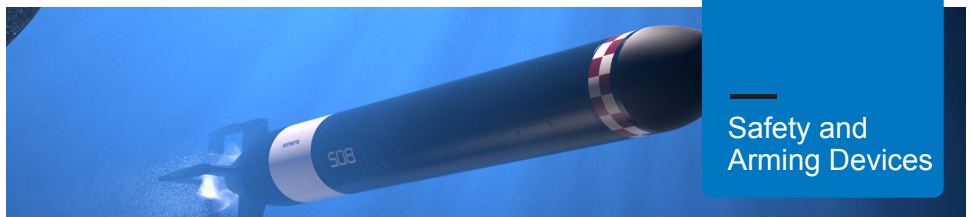


Direct Energy Weapons

RF Safe-Stop™, the ultimate in target deactivation technology is a state-of-the-art, non-contact jamming system. Our system is capable of bringing moving targets across land, sea and air to a controlled stop at a safe distance without collateral damage.

The technology has been successfully trialled on Unmanned Aerial Vehicles, boats, cars, motorbikes and commercial vehicles.

Available in full and lite versions, offering directed narrow-band stopping capabilities across S and L bands respectively — at up to 400m distance for counter-UAV's, up to 50m for armoured and civil patrol vehicles, and ranges in excess of 50m for lightweight patrol boat applications over water.



Safety and Arming Devices

We have been developing and manufacturing Exploding Foil Initiators (EFIs) and Electronic Safety and Arming Units (ESAU) since the mid-1980s.

Our EFIs have been fully characterised against STANAG 4560 and are available in both standard and custom outlines.

Our ESAU technology employs solid-state sensing and switching components, providing a fully electronic solution in a small volume.

Developed entirely in the UK, e2v EFI/ESAU technology is available with 100% European content and is suitable for application in all weapon system types including missiles, bombs, sea mines, torpedoes and Explosive Ordnance Disposal Systems.

RF Power Defence Capabilities

- + Case study
- + Partnering with our customers



- + High performance, high quality

WE PROVIDE DEDICATED SUPPORT AS A KEY SOLUTION PROVIDER FOR GLOBAL DEFENCE PLATFORMS

LIG Nex1 required high quality RF Power defence products and ongoing technical support for their existing business. For future growth, the focus lies heavily on export programmes, for which a European supplier is preferable.

e2v worked closely with LIG Nex1 to develop a Helix Travelling Wave Tube (TWT) to specification at our manufacturing facility in Chelmsford, UK. Our team of sales representatives, engineers and customer services worked closely with the procurement team at LIG Nex1 to facilitate the initial order.

THE VALUE PROPOSITION

With over 50 years' experience in providing the power to defend, deceive, detect and defeat in electronic warfare applications, e2v is the sole supplier of Helix TWTs to leading defence primes around the world on some of the most advanced air platforms. Offering multi-octave bandwidth in a single tube, our Helix TWTs are amongst the smallest in the world in their class.

Our partnership with LIG Nex1 offers high performance, high quality products and continued technical support as an RF Power defence solutions provider; enabling them to focus on meeting existing expectations and future growth opportunities.



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