



TELEDYNE e2V
Everywhere you look™

**Commercial Radar
RF POWER**

MARITIME, AIRBORNE AND LAND RADAR

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Powering maritime,
ground based and
airborne radar systems
keeping crew, cargo
and passengers safe
around the world.



INTRODUCTION



+ Image: Cargo ship at sea

ABOUT US

With expertise spanning the Commercial and Defence sectors, Teledyne e2v's RF Power division pioneers industry leading innovation and technology around the world.

We provide standard and custom Microwave solutions to meet our customers' exacting performance needs and specification requirements.

Our unique approach to the market and our genuine understanding of the application challenges that can occur - from initial concept right through to manufacture - enable us to help our customers take advantage of future growth opportunities

Our radar capabilities span marine, surveillance, weather and defence applications. We have a strong heritage building quality, reliable products that meet the challenges of high power operation and performance in the industry.

OUR VISION

We aim to extend our reach in the radar market, partnering with customers to design and manufacture products that meet their technical specifications

OUR MISSION

We will maintain and grow our affiliation with our radar partners around the world, offering first class support, product quality and technical excellence



POWERING RADAR SYSTEMS AROUND THE WORLD



NAVIGATION

At sea, marine radar is used for ship navigation, collision avoidance and monitoring the weather.

Teledyne e2v Magnetrons provide the power to the radar and operate consistently during the voyage. The reliability of our product is crucial to keeping people, cargo and assets safe.

AVIATION

Surface Movement and Airborne weather radar offer the aviation industry a total picture of potential threat both on the ground; monitoring vehicles, and in the air; detecting the intensity of convective weather.

Our products ensure pilots and ground-crew can monitor the safety of aircraft, cargo and crew at all times.

FISHING INDUSTRY

Around the world, fishermen use radar to find flocks of birds at sea as this indicates a shoal of fish beneath the surface of the water.

Our magnetrons offer mid-long range, narrowband capabilities enabling radar to be fine-tuned to 'see' fishing stocks by locating bird activity.

Providing
reliable power
for maritime,
ground based and
airborne radar
applications

SOLUTION PROVIDER

Our manufacturing
facilities are rigourously
tested and routinely
monitored to ensure the
best possible products
are consistently available
to our customers



MICROWAVE RADAR PRODUCTS



X-BAND MAGNETRON 12KW

MG4010 – Gen 4 X-band magnetron 12kW

Compact, rugged, lightweight, fixed frequency pulse magnetron with very low levels of unwanted emissions. For use in various marine vessels - predominantly Cargo and Cruiser ships. They are also used for Weather Radar in Meteorology applications (weather detection) and in Wind Farm Protection (detecting incoming planes/flocks of birds).

X-BAND MAGNETRON 25KW

MG5424 – X-band magnetron 25kW

Compact, rugged, lightweight, fixed frequency pulse magnetron, designed for marine radar applications. For use in various marine vessels - specifically Oil and Gas Tankers but also largely used Cargo and Cruiser ships. The higher power enables the radar to 'see' a much wider area making this perfect for keeping cargo and crew safe at sea. They are also used for Weather Radar in Meteorology applications (weather detection).

LOW NOISE FRONT END

B3RX1640 – LNFE

The B3RX1640 is a low noise front end for X-band marine radar receiver. It comprises a low noise amplifier with monitor circuit, an image rejection mixer and an electronically tuned local oscillator.

PERFORMANCE MONITOR

B3RX1652 – Performance Monitor

The Te2v range of RoHS compliant performance monitors provide down-converter/up-converter functionality and are used as a transponder in X-band radar systems. Output power level will track incident input power level (from the external radar system magnetron), using an internal closed-loop detector circuit to track input power level variations.

HIGH POWER LIMITER


B3LT1695 – Limiter

X-band solid-state 25 kW high power limiter with two limiter diodes, separately biased for STC attenuation and an integral noise source. Filter networks provide broadband protection against magnetron generated spurious signals.

MICROWAVE ASSEMBLY

B3IM1675 – Integrated Microwave Assembly

The B3IM1675 is an RF Head for use in X-Band Marine Radar. The unit provides duplexing action from an isolator, circulator and STC enabled receiver protector. Input and output connectors are SMA with the antenna port in WG16. They are designed to be used with a Solid State Radar system.



**CONSISTENT,
RELIABLE RADAR
SOLUTIONS FROM
TELEDYNE E2V**

If you would like more information on our RF solutions, we would be delighted to hear from you.

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