THALES

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OFFERING A NEW APPROACH TO FREQUENCY SPECTRUM SURVEILLANCE, OUR PATENTED WIDEBAND DIGITAL RECEIVER TECHNOLOGY PROVIDES UNPARALLELED PERFORMANCE IN DENSE, COMPLEX RF ENVIRONMENTS AND DELIVERS A TRANSFORMATION IN DETECTION, EVEN IN THE PRESENCE OF INTERFERING EMITTERS SUCH AS 3G/4G MOBILE PHONE TRANSMITTERS AND MULTI-FUNCTION RADARS.

- Fully Digital – uses patented Wideband Digital Receiver technology
- Multi-Signal Handling – provides 100% POI even in the presence of multiple overlapping signals
- Littoral Ready – capable of monitoring the most demanding RF environments without degradation
- Software Defined – to provide simple future updates
- Simple Integration – simple installation and capable of integrating seamlessly with multi-function radars
- In-Service – the technology is in service with the Royal Navy

ELECTRONIC WARFARE

VIGILE D

Fully Digital Radar Electronic Surveillance

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Radar Electronic Surveillance

Radar Electronic Surveillance equipment is an essential sensor for a naval platform, passively providing Situational Awareness, Threat Identification and Electronic Intelligence (ELINT) gathering.

The RF spectrum is changing rapidly with the explosion of civilian communications examples including:

- 3G and 4G mobile communications
- Wi-Max

and the introduction of complex emitters such as:

- Wideband SATCOM
- Multi-function radars
- Low-probability of intercept radar

A New Approach

To stay ahead of this evolution, Thales has developed a new, all-digital Radar Electronic Surveillance system – VIGILE D.

VIGILE D uses a patented Wideband Digital Receiver technology that overcomes the limitations of the preceding family of analogue receiver based systems.

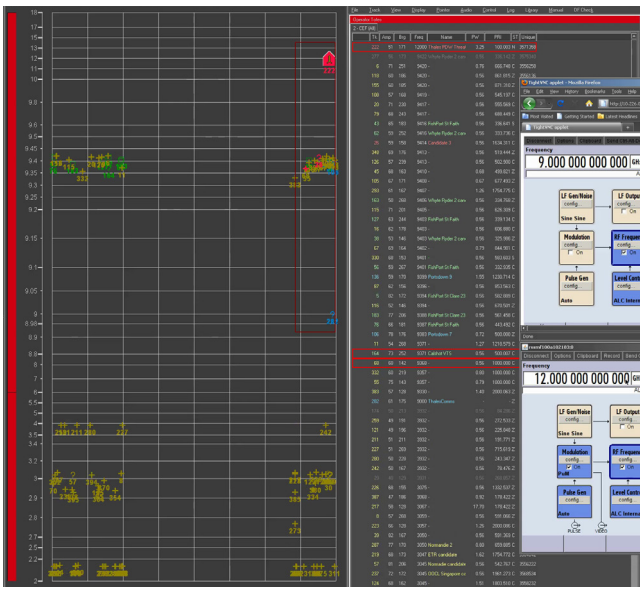
VIGILE D is capable of monitoring multiple-overlapping signals maintaining 100% Probability Of Intercept (POI) against all signals, regardless of type or power. This means that signals of interest such as threat emitters are not masked by higher-power signals. This is essential for operation in the littoral region and with the introduction of multi-function radars, where many high-power, high-duty cycle signals are present.

VIGILE D delivers excellent parametric performance; the Direction of Arrival (DOA) capability is class-leading and provides excellent segregation of emitters, allowing immediate discrimination between friend and foe.

The VIGILE D system is software defined and is easily upgraded. This will allow the capability to remain current for a longer life-span, dramatically reducing the Through Life Cost of ownership.

Technical Specification

- Multi-Signal Capability
  - Simultaneous continuous wave and pulse signal detection
  - High-power signals do not mask lower power
  - No RF interference management filters required
- Frequency Coverage
  - Standard range 2 – 18 GHz
  - Extended range 0.5 – 40 GHz
- Direction of Arrival
  - Down to 1° RMS
- System Sensitivity
  - -65 dBmi
  - Higher sensitivity modes available on request
- Other Key Parameters
  - PulseThroughput 2Mpps
  - Time accuracy to 25ns
  - Frequency accuracy to 0.1 MHz
- Other Options
  - High Capacity Data Recorde
  - On-Board Trainer



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