

DDS Processor

Diver Detection System Processor



KONSGBERG

Description

The DDS Processor™ is a complete Active Acoustic System Sonar Processing, detection, tracking and classification, fusion and display unit for use with Kongsberg Mesotech Ltd. Diver Detection Sonars, DDS 9000 series. The system detects targets, divers and swimmers, in designated areas within a port environment using high frequency sonar. Once identified and tracked, targets are classified and direction of travel predicted. The autonomous detection tracking and classification software developed by Kongsberg distinguishes between divers and marine life such as often-present seals or dolphins, which are of similar size and speed to human divers. The target icons and tracks are displayed on operator's screens with NATO icons as a standard. Divers are classified as threats within operator specified alert zones and announced with alarms. Target data can be exported to other equipment for confirmation or interdiction.

The DDS Processor™ will output target data to central command and control systems or compatible equipment. The approach is truly scalable from mobile diver detection systems to coastal surveillance.

Software

The DDS Processor is pre-loaded with DEFENDER III™ software and operating system software. The DEFENDER III™ software is based on proven and up to date technology. The functions for autonomous detection tracking and classification (ADTC) were developed over the past 30 years



in collaboration with NATO acoustic experts. The DEFENDER III™ geo-referenced tactical display has been employed over the past 30 plus years as the system architecture for over 200 installations.

DEFENDER III™ software uses a LINUX based operating system. The LINUX open architecture provides a secure, low-maintenance, reliable, predictable and reproducible environment. Being LINUX based, DEFENDER III™ can be maintained more easily over its operational lifetime.

DEFENDER III™ also provides a far higher level of operator support and analysis capability than seen on earlier generation systems. Support systems include Sonar Performance Analysis, System Status, and Sonar Performance Analysis. Individual track data can be examined in greater detail to aid in confirmation or elimination of targets

as potential threats. The System Status window reports overall conditions and text descriptions for different parts of the system. Sonar Performance Analysis enables operators to maximize sonar detection capability by modeling performance under current environmental conditions. The effect of altering settings to cope with changing environmental conditions can be evaluated and then implemented.

Hardware

Blade server processing hardware improves reliability and serviceability, reducing downtime and simplifying upgrades. A laptop serves as the operator console

Accessories

An Uninterrupted Power Supply (UPS) is recommended for each DDS Processor. The UPS prevents system downtime due to temporary loss of

power. The UPS can be used in conjunction with an auxiliary power supply to maintain operation over extended power outages.

Data Export

DDS systems are readily integrated into C2 /C4ISR systems. Target location and target track data can be exported in NMEA 0183, and Ethernet formats. Output from multiple sonar heads can be combined into a Common Operating Picture or COP.

Systems can be scaled to provide the full range of data import and export options, including true data fusion capability, assessing and combining data from different sensor types before uploading to the network.

Installation

The DDS Processor is shipped in a transport case that conforms to ATA 300 Category 1 specifications (as illustrated). The Processor Unit hardware will mount into a standard 19

inch rack mount cabinet which can also accommodate the Interface Unit.

Specifications

- Single Phase 80-240 VAC
- Power Requirement 300 watts
- Ethernet 10/100/1000 Mbps
- Laptop Drawer 2U Height
- Processor Unit 4U Height
- Fits 19" rack mount
- Weight 14.3 kg.
- Shipping weight 54 kg.



DEFENDER III Tactical Display

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