

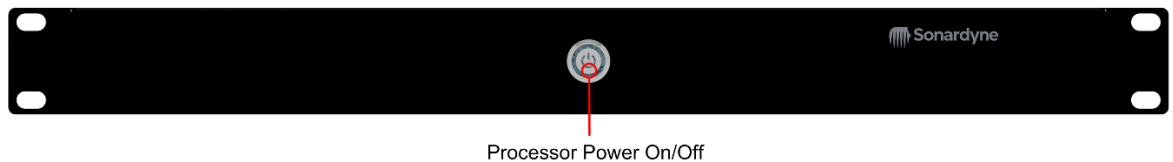
Datasheet

1U Rackmount i7 Processor Unit

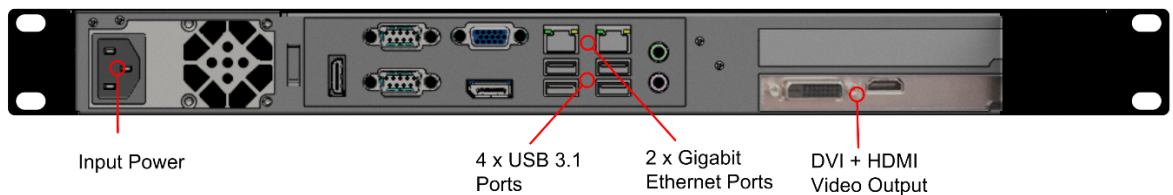
Description

The 1U Rackmount i7 Processor Unit is a multi-role computer used in the Sentinel Intruder Detection Sonar and the Vigilant Forward Looking Sonar. It is an industrial-specification, compact rack mountable unit that provides a high level of performance.

Processor Unit
Front



Processor Unit
Rear



The Processor's role in a system can be designated by a USB dongle plugged into the rear panel. Roles in the Sentinel and Vigilant systems are as follows:

SENTINEL SONAR PROCESSOR UNIT

The Processor Unit in the Sentinel Sonar Processor hosts 3 applications. The Signal Processing application takes raw data from the Sonar Head and processes it using pulse compression, beam forming and normalisation. The Automatic Detection & Tracking (ADT) application receives the data from the Signal Processing and provides detection and tracking functions. Passive emissions from the targets being tracked are also analysed by the Acoustic Signature Classification (ASC) application to provide classification of target types.

SENTINEL C&D PROCESSOR UNIT

The role of the Control & Display Processor is to take in processed data from one or multiple Sonar Processors, and display it on the Graphical User Interface (GUI). The operator is able to control the entire system and view sonar and track information from this processor. This is the only processor in the Sentinel system that requires input/output devices (monitor, keyboard and mouse).

VIGILANT PROCESSOR UNIT

In the Vigilant system, the Processor Unit runs the Signal Processing and the Control & Display applications. The Signal Processing takes raw data from the Sonar head and applies pulse compression, beam forming and normalisation, then runs seabed and water column detection algorithms to extract depth data. It then provides imagery to the Control & Display function display on the GUI.

Sentinel is a Wavefront product developed, commercialised, and sold in partnership with Sonardyne, a Covelya Group company

1U Rackmount i7 Processor Unit

Type 590-0007

Inputs	90 – 264V AC, 60/50 Hz
Display outputs	1 x DVI 1 x HDMI
Operating temperature	0°C to 40°C
Dimensions (Length x Width x Height)	430mm x 230mm x 44.5mm

Dongle Part Numbers

265-3802	IDS C&D DONGLE
265-3818	IDS XF C&D DONGLE
265-3820	IDS DONGLE C&D SP ADT+ASC (SSH)
265-3822	IDS XF DONGLE C&D SP ADT+ASC (SSH)
265-3821	IDS DONGLE SP ADT+ASC
265-3823	VIGILANT SP DONGLE

Specifications subject to change without notice

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