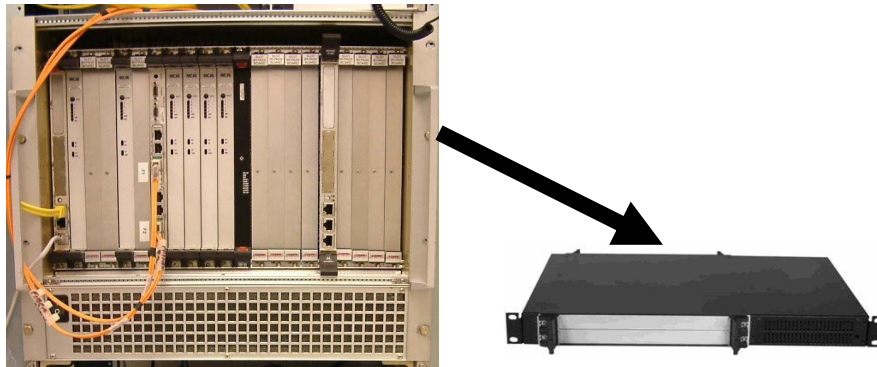


Miniature Fusion Processor (MFP)

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Miniature Fusion Processor



11 times less volume than current Fusion Processor

Key Discriminators

Operational Capability

- The MFP will provide a small, light weight, low power, and lower cost processor by using DSP and FPGA implementation for the processing. It will contain:
 - Hyperspectral data capture and pre-processing
 - SSRX anomaly detection algorithm
 - Spectral matched filter detection algorithm
 - Spectral clustering detection algorithm
- The Naval Research Laboratory has expressed interest in the end product when developed.

Problem/Readiness/Champions

Problem Being Addressed

Small, light weight, and low power processor to identify anomalies in hyperspectral data.

Technology Readiness Level

This technology has completed level

Champions

The Naval Research Laboratory has been funding the development of the Fusion Processor (FP) for the past 3 years. Software modules from FP will be ported to the MFP.

Milestones/Deliverable/Date/Status

<u>Milestones</u>	<u>Deliverable</u>	<u>Date</u>	<u>Status</u>
System requirements	Written requirements	3/1/06	WIP
Top level design	Written UML design	4/1/06	WIP
HSI capture FPGA	FPGA design	7/1/06	Future
Detection FPGA	FPGA design	10/1/06	Future
DSP software build		9/1/06	Future
Demonstration & final report	Demo and final report	11/30/06	Future