



## Letter of Volatility

This letter describes volatile, non-volatile, and storage media on the specified product(s). Customers can use this document to comply with security requirements and equipment handling procedures.

For additional information, please contact Ocean Optics at +1 407-673-0041 or visit <https://www.oceaninsight.com>.

## Product Information

Product Family: Ocean FX and HDX Spectrometers

Product Models: All variants and configurations

Manufacturer: Ocean Optics, Inc. dba Ocean Insight

Address: 3500 Quadrangle Blvd.  
Orlando, FL 32817

## Volatile Memory

This product contains volatile memory, which is erased when power is removed.

**Item 1** Type: FPGA

User Modifiable: No

Function: Provides major functionality for the spectrometer. The device is re-programmed via FLASH on power up.

Process to sanitize: Power down

**Item 2** Type: RAM

Size: 16kB

User Modifiable: No

Function: Stores program memory for the microcontroller. The device is re-programmed each time the board is powered up.

Process to sanitize: Power down

**Item 3** Type: SRAM

Size: 4Mb

User Modifiable: Yes

Function: This device is used to expand operating memory for the microcontroller and provides storage of spectral data. Data is modified by executing various device firmware instructions and operating parameters.

Process to sanitize: Power down



## Non-volatile Memory

This product contains non-volatile memory, which is retained when power is removed.

**Item 1** Type: EEPROM                      Size: 256kB                      User Modifiable: Limited; via service routines only

Function: This external memory serves the microcontroller. Stores program data and calibration constants. Memory can only be modified by Ocean Optics service routines and authorized software.

Process to sanitize: None, clearing the device will render the product inoperable.

**Item 2** Type: EEPROM                      Size: 256kB                      User Modifiable: Limited; via service routines only

Function: This external memory serves the microcontroller. Stores calibration constants. Memory can only be modified by Ocean Optics service routines and authorized software.

Process to sanitize: None, clearing the device will render the product inoperable.

**Item 3** Type: FLASH                      Size: 4Mb                      User Modifiable: Limited; via service routines only

Function: This external memory stores configuration data for the FPGA. Memory can only be modified by Ocean Optics service routines and authorized software.

Process to sanitize: None, clearing the device will render the product inoperable.

## Media

This product does not contain media storage devices.

## Design Representative

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