CMP System Memory Clearing and Sanitization

About this Document

There are occasions where instruments are required to be used in a secured environment. In such use cases, test equipment may not leave the secured environment (e.g. calibration or maintenance) unless all memory settings are erased.

This document provides instructions for deleting files and data from the mA-3A01 AXIE Mass Storage Module of a VIAVI Configurable Modular Platform (CMP) System.

This document also identifies the types, and location, as well as recommended methods of sanitization for removing data from the memory devices found in the following CMP system hardware components:

- mA-1302/mA-1305 AXIe Chassis
- mA-3011 Mass Storage Module
- mA-6806 6 GHz Vector Signal Transceiver
- mA-6A30 6 GHz Vector Signal Transceiver w/ 30 GHz Downconverter

Refer to the following sections:

- Memory Clearing Procedure .................................................. 2
- System Memory Sanitization .................................................... 4
- Terms and Definitions ............................................................. 17
Memory Clearing Procedure

This procedure performs a sanitization procedure that deletes information from the mA-3A01 AXIe Mass Storage Module Solid State Drives (SSDs). The Storage Module Configuration utility described in this document performs a Purge operation using the “User Data Erase” command in compliance with the Flash Memory-Based Storage Device Sanitization methods outlined in NIST Special Publication 800-88, Guidelines for Media Sanitization, Revision 1. If a system contains more than one mA-3A01 module, this procedure must be performed on each module.

NOTE
Read this procedure in it's entirety before proceeding. If you have any questions regarding this procedure, contact VIAVI Customer Service with any questions BEFORE proceeding.

Procedure Password

cpic (password is case sensitive, all lower case)

Preliminary Procedure

Back up all user files that are located on the mA-3A01 AXIe Mass Storage Module to a local storage device or network location.

CAUTION

This process erases all existing files and folders from the mA-3A01 AXIe Mass Storage Module. Any files that are not backed up will be deleted and non-recoverable upon completion of this procedure.
To Clear mA-3A01 Memory

1. Power on the CMP System.
2. Select the Storage Module Configuration button from the operating system UI. A window will be displayed that resembles Figure 1.

**Figure 1** Storage Module Configuration Application Window

3. Verify that the following is indicated at the bottom of the application window:
   - Main: Ready
   - Main: Found Storage Module

**Figure 2** Storage Module Configuration Application Window

4. Select the Sanitize button (located on the right side of the window).
An Authentication Required dialog window will appear. Enter the password (see “Procedure Password” on page 2) in the field.

Select OK to continue.

Wait while the sanitization process is performed. When the sanitization process is finished, a message will be displayed indicating the process is complete.

To Verify Files Have Been Deleted

1. Open a File Manager window.
2. Navigate to the /mnt/md0p1 directory.
3. Verify the directory is empty.

NOTE
When the memory clearing procedure has been performed on an mA-3A01 AXIe Mass Storage Module, the module must be reconfigured in order to use the module. Refer to the mA-3A01 AXIe Mass Storage Module User’s Guide for instructions to reconfigure an mA-3A01 AXIe Mass Storage Module for use.

System Memory Sanitization

This section provides a full description of each memory type, as well as the module and sub-assembly in which the memory device(s) is located. A brief description of the contents of the device is also provided as well as recommended method of sanitization.

The statement of volatility indicates where memory is maintained or lost during power-down.

The statement of accessibility indicates whether or not the contents of the memory can be accessed by the system or user.

The sanitization statement indicates the action required to sanitize the device’s memory.

Table 1 mA-3011 Embedded Host Module (CPUC)

<table>
<thead>
<tr>
<th>Description</th>
<th>M.2 SATA Solid State Drive, 512GB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>System OS, User applications, User Data</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes User Accessible: Yes</td>
</tr>
</tbody>
</table>
### mA-3011 Embedded Host Module (CPUC)

<table>
<thead>
<tr>
<th>Location</th>
<th>Secured to the CPU Carrier Board with screws. Accessible from bottom of AXIe module after removal from chassis.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanitization</td>
<td>Remove and Destroy</td>
</tr>
</tbody>
</table>
| Description                       | Qty. 2 or 4 DDR3L SDRAM204-SODIMM, 4GB  
Optional: DDR3L SDRAM204-SODIMM, 8GB                                                                                  |
| Volatility                        | Volatile                                                                                                       |
| Contents                          | Program execution, Program Data, Temporary User Data                                                             |
| Accessibility                     | System Accessible: Yes  
User Accessible: No                                                                                             |
| Location                          | Under heat-sink and heat spreader plate on COM Express Module, mounted to CPU Carrier Board.                   |
| Sanitization                      | Cycle Power                                                                                                    |
| Description                       | Qty. 1 FLASH EEPROM – W25Q80 1M x 8, 8Mb                                                                         |
| Volatility                        | Non-Volatile                                                                                                   |
| Contents                          | PCIe Switch Configuration                                                                                     |
| Accessibility                     | System Accessible: Yes  
User Accessible: No                                                                                             |
| Location                          | CPU Carrier Board                                                                                              |
| Sanitization                      | None: Not user accessible, no user data.                                                                         |
| Description                       | Qty. 1 Embedded FLASH Micro-controller– TM4C123, 256KB                                                           |
| Volatility                        | Non-Volatile                                                                                                   |
| Contents                          | IPMI controller (Intelligent Platform Management Interface), Module Serial Number                                |
| Accessibility                     | System Accessible: Yes  
User Accessible: No                                                                                             |
| Location                          | CPU Carrier Board                                                                                              |
| Sanitization                      | None: Not user accessible, no user data.                                                                         |
### Table 1 mA-3011 Embedded Host Module (CPUC)

<table>
<thead>
<tr>
<th>Description</th>
<th>Any PCIe add-in card.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>See Card Manufacturer for details.</td>
</tr>
<tr>
<td>Contents</td>
<td>See Card Manufacturer for details.</td>
</tr>
<tr>
<td>Accessibility</td>
<td>See Card Manufacturer for details.</td>
</tr>
<tr>
<td>Location</td>
<td>PCIe Slot</td>
</tr>
<tr>
<td>Sanitization</td>
<td>See Card Manufacturer for details.</td>
</tr>
</tbody>
</table>

### Table 2 mA-3A01 Mass Storage Module

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 FLASH EEPROM – W25Q80 1M x 8, 8Mb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>PCIe Switch Configuration</td>
</tr>
</tbody>
</table>
| Accessibility     | System Accessible: Yes  
|                   | User Accessible: No  |
| Location          | NVMe Storage Tray |
| Sanitization      | None: Not user accessible, no user data. |

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 Embedded FLASH Micro-controller– TM4C123, 256KB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
</tbody>
</table>
| Contents          | IPMI controller (Intelligent Platform Management Interface),  
|                   | Module Serial Number |
| Accessibility     | System Accessible: Yes  
|                   | User Accessible: No  |
| Location          | NVMe Storage Tray |
| Sanitization      | None: Not user accessible, no user data. |
Table 2 mA-3A01 Mass Storage Module

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 3 or 4 FLASH SOLID STATE DRIVE (SSD) – U.2 form factor NVMe drive, Various Storage Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>RAID Array of SSD user file system storage which contains the saved waveform captures and other user data files.</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes</td>
</tr>
<tr>
<td></td>
<td>User Accessible: Yes</td>
</tr>
<tr>
<td>Location</td>
<td>Secured to the NVMe Storage Tray with screws. Accessible from the bottom of the AXIe module after removal from the chassis.</td>
</tr>
<tr>
<td>Sanitization</td>
<td>Perform “Memory Clearing Procedure” on page 2.</td>
</tr>
</tbody>
</table>

Table 3 mA-1302/mA-1305 AXIe Chassis

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 FLASH EMMC – MTFC8GA, 64GB.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>Embedded Linux Operating System.</td>
</tr>
<tr>
<td></td>
<td>System Module Serial Number Ethernet MAC Address.</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes</td>
</tr>
<tr>
<td></td>
<td>User Accessible: No</td>
</tr>
<tr>
<td>Note: Operating software may be updated from a PC via the LAN or USB interface using the update software option in the web GUI. All other information is read-only or non-user accessible.</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Embedded System Module.</td>
</tr>
<tr>
<td>Sanitization</td>
<td>None: Not user accessible, no user data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 Embedded FLASH – PMBUS Voltage Regulator – TPS40422, 32Mb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>Voltage Regulator settings.</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes</td>
</tr>
<tr>
<td></td>
<td>User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>Embedded System Module.</td>
</tr>
<tr>
<td>Sanitization</td>
<td>None: Not user accessible, no user data.</td>
</tr>
<tr>
<td>Description</td>
<td>Qty. 4 512M x 8 bit DDR3 Synchronous DRAM - K4B4G08461, 2GB.</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------------------------------</td>
</tr>
<tr>
<td>Volatility</td>
<td>Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>Used by embedded Linux Operating System.</td>
</tr>
</tbody>
</table>
| Accessibility| System Accessible: Yes  
User Accessible: No                                     |
| Location    | Embedded System Module.                                  |
| Sanitization| Power Cycle                                               |

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 3 FLASH EEPROM – W25Q80 1M x 8, 8Mb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>PCIe Switch Configuration.</td>
</tr>
</tbody>
</table>
| Accessibility| System Accessible: Yes  
User Accessible: No |
| Location    | Embedded System Module                   |
| Sanitization| None: Not user accessible, no user data. |

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 Embedded FLASH Micro-controller– TM4C123, 256KB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
</tbody>
</table>
| Contents    | IPMI controller (Intelligent Platform Management Interface),  
Backplane Serial Number. |
| Accessibility| System Accessible: Yes  
User Accessible: No |
| Location    | Backplane                                               |
| Sanitization| None: Not user accessible, no user data. |
### mA-1302/mA-1305 AXIe Chassis

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 FLASH EEPROM – 25LC512, 512Kb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>USB Controller configuration</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes</td>
</tr>
<tr>
<td></td>
<td>User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>Rear Transition Module</td>
</tr>
<tr>
<td>Sanitization</td>
<td>None: Not user accessible, no user data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 Embedded FLASH SmartFusion2 FPGA – M2S005, 256KB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>Rear Transition Module FPGA Golden Image</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes</td>
</tr>
<tr>
<td></td>
<td>User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>Rear Transition Module (RTM)</td>
</tr>
<tr>
<td>Sanitization</td>
<td>None: Not user accessible, no user data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 2 Flash EEPROM -MT25QL256 32M x 8, 256Mb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes</td>
</tr>
<tr>
<td></td>
<td>User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>Embedded System Module</td>
</tr>
<tr>
<td>Sanitization</td>
<td>None: Not user accessible, no user data.</td>
</tr>
</tbody>
</table>
Table 3 mA-1302/mA-1305 AXIe Chassis

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 Embedded FLASH Micro-controller - TM4C123, 256KB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>IPMI controller (Intelligent Platform Management Interface), Module Serial Number</td>
</tr>
</tbody>
</table>
| Accessibility | System Accessible: Yes  
User Accessible: No |
| Location    | Power Entry Module (PEM)                            |
| Sanitization | None: Not user accessible, no user data.            |

Table 4 mA-6806 6 GHz VST / mA-6A30 6 GHz VST w/ 30 GHz Downconverter

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 2 FLASH EEPROM – MT25QL256 32M x 8, 256Mb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>FPGA Fabric Golden Image / ARM Processor Golden Image</td>
</tr>
</tbody>
</table>
| Accessibility | System Accessible: Yes  
User Accessible: No |
| Location    | Instrument Carrier Module                      |
| Sanitization | None: Not user accessible, no user data.        |

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 FLASH EMMC - MTFC8GA, 8GB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>System OS; System applications</td>
</tr>
</tbody>
</table>
| Accessibility | System Accessible: Yes  
User Accessible: No |
| Location    | Instrument Carrier Module        |
| Sanitization | None: Not user accessible, no user data.          |
### Table 4 mA-6806 6 GHz VST / mA-6A30 6 GHz VST w/ 30 GHz Downconverter

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 8 512M x 8 bit DDR3 Synchronous DRAM - K4B4G018461, 4GB total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>System OS; System applications, Waveform Data</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes</td>
</tr>
<tr>
<td></td>
<td>User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>Instrument Carrier Module</td>
</tr>
<tr>
<td>Sanitization</td>
<td>Cycle Power</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 Embedded FLASH Micro-controller - TM4C123, 256KB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>IPMI controller (Intelligent Platform Management Interface), Module Serial Number</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes</td>
</tr>
<tr>
<td></td>
<td>User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>Instrument Carrier Module</td>
</tr>
<tr>
<td>Sanitization</td>
<td>None: Not user accessible, no user data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 Embedded FLASH FPGA Configuration – M2S005, 512KB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>SmartFusion2 FPGA Configuration, Boot-loader, Operating System</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes</td>
</tr>
<tr>
<td></td>
<td>User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>RF Generator</td>
</tr>
<tr>
<td>Sanitization</td>
<td>None: Not user accessible, no user data.</td>
</tr>
</tbody>
</table>
### Table 4  mA-6806 6 GHz VST / mA-6A30 6 GHz VST w/ 30 GHz Downconverter

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 Embedded SRAM – M2S005, 64KB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>Used by embedded Linux Operating System.</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes</td>
</tr>
<tr>
<td></td>
<td>User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>RF Generator</td>
</tr>
<tr>
<td>Sanitization</td>
<td>Power Cycle</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 FLASH EEPROM – AT25DF321, 32Mb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>SoC Operating System Update Image, FPGA Golden Image &amp; Update Image, Boot-loader Update Image</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes</td>
</tr>
<tr>
<td></td>
<td>User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>RF Generator</td>
</tr>
<tr>
<td>Sanitization</td>
<td>None: Not user accessible, no user data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 SRAM – 23LC1024, 1Mb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>List mode entries</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes</td>
</tr>
<tr>
<td></td>
<td>User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>RF Generator</td>
</tr>
<tr>
<td>Sanitization</td>
<td>Cycle Power</td>
</tr>
</tbody>
</table>
### Table 4  mA-6806 6 GHz VST / mA-6A30 6 GHz VST w/ 30 GHz Downconverter

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 Embedded FLASH FPGA Configuration – M2S005, 512KB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>SmartFusion2 FPGA Configuration, Boot-loader, Operating System</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>RF Receiver</td>
</tr>
<tr>
<td>Sanitization</td>
<td>None: Not user accessible, no user data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 Embedded SRAM – M2S005, 64KB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>Used by embedded Linux Operating System.</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>RF Receiver</td>
</tr>
<tr>
<td>Sanitization</td>
<td>Power Cycle</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 FLASH EEPROM – AT25DF321, 32Mb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Non-Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>SoC Operating System Update Image, FPGA Golden Image &amp; Update Image, Boot-loader Update Image</td>
</tr>
<tr>
<td>Accessibility</td>
<td>System Accessible: Yes User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>RF Receiver</td>
</tr>
<tr>
<td>Sanitization</td>
<td>None: Not user accessible, no user data.</td>
</tr>
</tbody>
</table>
### Table 4 mA-6806 6 GHz VST / mA-6A30 6 GHz VST w/ 30 GHz Downconverter

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 SRAM – 23LC1024, 1Mb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>Volatile</td>
</tr>
<tr>
<td>Contents</td>
<td>List mode entries</td>
</tr>
<tr>
<td>Accessibility System</td>
<td>Accessible: Yes</td>
</tr>
<tr>
<td></td>
<td>User Accessible: No</td>
</tr>
<tr>
<td>Location</td>
<td>RF Receiver</td>
</tr>
<tr>
<td>Sanitization</td>
<td>Cycle Power</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty. 1 Embedded FLASH FPGA Configuration – M2S005, 512KB</th>
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<td>Contents</td>
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</tr>
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</table>
### Description
- **Qty. 1 FLASH EEPROM – AT25DF321, 32Mb**

### Volatility
- Non-Volatile

### Contents
- SoC Operating System Update Image, FPGA Golden Image & Update Image, Boot-loader Update Image

### Accessibility
- System Accessible: Yes
- User Accessible: No

### Location
- RF Gen Synthesizer

### Sanitization
- None: Not user accessible, no user data.

---

### Description
- **Qty. 1 SRAM – 23LC1024, 1Mb**

### Volatility
- Volatile

### Contents
- List mode entries

### Accessibility
- System Accessible: Yes
- User Accessible: No

### Location
- RF Generator Synthesizer

### Sanitization
- Cycle Power

---

### Description
- **Qty. 1 Embedded FLASH FPGA Configuration – M2S005, 512KB**

### Volatility
- Non-Volatile

### Contents
- SmartFusion2 FPGA Configuration, Boot-loader, Operating System

### Accessibility
- System Accessible: Yes
- User Accessible: No

### Location
- RF Receiver Synthesizer

### Sanitization
- None: Not user accessible, no user data.
### Table 4 mA-6806 6 GHz VST / mA-6A30 6 GHz VST w/ 30 GHz Downconverter

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## Terms and Definitions

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<th>Term</th>
<th>Definition</th>
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<tr>
<td>Clear</td>
<td>As defined in NIST Special Publication 800-88 Revision 1, clearing &quot;applies logical techniques to sanitize data in all user-addressable storage locations for protection against simple non-invasive data recovery techniques; typically applied through the standard Read and Write commands to the storage device, such as by rewriting with a new value or using a menu option to reset the device to the factory state (where rewriting is not supported).&quot;</td>
</tr>
<tr>
<td>Cryptographic Erase (CE)</td>
<td>As defined in NIST Special Publication 800-88 Revision 1, “leverages the encryption of target data by enabling sanitization of the target data’s encryption key. This leaves only the ciphertext remaining on the media, effectively sanitizing the data by preventing read-access...media sanitization is performed by sanitizing the cryptographic keys used to encrypt the data, as opposed to sanitizing the storage locations on media containing the encrypted data itself.”</td>
</tr>
<tr>
<td>Cycle Power</td>
<td>Power cycling is the act of turning the equipment off and disconnecting it from its source of power for a length of time sufficient for all internal electrical components to discharge, and then reconnecting it to its source of power and turning it back on again.</td>
</tr>
<tr>
<td>Destroy</td>
<td>As defined in NIST Special Publication 800-88 Revision 1, destroying “renders Target Data recovery infeasible using state of the art laboratory techniques and results in the subsequent inability to use the media for storage of data.”</td>
</tr>
<tr>
<td>Non-Volatile Memory</td>
<td>Non-volatile memory is a type of memory that retains its contents even after power has been removed. When power is restored to this type of memory, the contents become accessible again.</td>
</tr>
<tr>
<td>Purge</td>
<td>As defined in NIST Special Publication 800-88 Revision 1, purging “applies to physical or logical techniques that render Target Data recovery infeasible using state of the art laboratory techniques.”</td>
</tr>
<tr>
<td>Sanitize</td>
<td>As defined in NIST Special Publication 800-88 Revision 1, “media sanitization refers to a process that renders access to target data on the media infeasible for a given level of effort.”</td>
</tr>
<tr>
<td>System Accessibility</td>
<td>System accessible memory is accessible (read and/or write) from the system host controller.</td>
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<tr>
<td>User Accessible</td>
<td>User accessible memory is accessible (read and/or write) in a way that allows the user to store arbitrary data to the memory component using normal user tools.</td>
</tr>
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</table>
Terms and Definitions

| **Volatile Memory** | Volatile Memory is a type of memory that requires power to maintain the stored information. This type of memory retains its contents while powered on but quickly loses its contents when power is removed. |

Technical Assistance

Contact Customer Service for technical support or with any questions regarding the information in this document.

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