

## CERTIFICATE OF VOLATILITY

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**Date:** 03 April 2009

**Model Description:** Time and Frequency Processor

**Model Numbers:** 11603-2000 bc635 VME

<sup>+</sup>  
This document describes volatile and non-volatile storage media of the above noted Model.

| <u>Memory Size</u> | <u>Memory Type</u>  | <u>Volatile/Non-Volatile</u> | <u>User Data</u> | <u>Location</u> |
|--------------------|---|------------------------------|------------------|-----------------|
| 256K bit           | CMOS EPROM<br>Sym P/N 0301-27C2-56<br>Microchip 256K (32Kx8) CMOS EPROM   | Non-Volatile                 | No               | U23             |
| <b>Function:</b>   | Factory programmed firmware, read only. Not user modifiable.<br>Programs FPGA's.  |                              |                  |                 |
| <b>Clearing:</b>   | No Erase Function   |                              |                  |                 |
| N/A                | Real Time Clock<br>Sym P/N 0301-6242<br>OKI Semiconductor MSM62X42B   | Non-Volatile                 | No               | U9              |
| <b>Function:</b>   | Real time clock IC with built-in crystal<br>This clock does not have user data, but does store the unit current time.<br>It is battery backed up. |                              |                  |                 |
| <b>Clearing:</b>   | Remove battery  |                              |                  |                 |
| 22K bit            | FPGA<br>Sym P/N 0303-3030-2<br>ATT 3000 Series FPGA 3030-70   | Volatile                     | Yes              | U31             |
| <b>Function:</b>   | FPGA<br>This device is re-programmed each time the board is powered up.<br>It contains user settings.   |                              |                  |                 |
| <b>Clearing:</b>   | Power down unit   |                              |                  |                 |
| 30K bit            | FPGA<br>Sym P/N 0303-3042<br>ATT 3000 Series FPGA 3042-70   | Volatile                     | Yes              | U32, U33        |
| <b>Function:</b>   | FPGA<br>This device is re-programmed each time the board is powered up.<br>It contains user settings.   |                              |                  |                 |
| <b>Clearing:</b>   | Power down unit   |                              |                  |                 |



## TT&M Division

ISO 9001 Registered

|                         |  |                     |            |                       |
|-------------------------|--|---------------------|------------|-----------------------|
| <b>300 Gates</b>        | <b>PAL (EPROM)</b>   | <b>Non-Volatile</b> | <b>No</b>  | <b>U27</b>            |
|                         | Sym P/N 0301-0610-1<br>Altera EPLD Family EP610-35<br>Programmable Logic Device with EPROM configuration elements.   |                     |            |                       |
| <b>Function:</b>        | Factory programmed firmware, read only. Not user modifiable.   |                     |            |                       |
| <b>Clearing:</b>        | No Erase Function.   |                     |            |                       |
| <b>4.6K bit</b>         | <b>FIFO RAM</b>  | <b>Volatile</b>     | <b>Yes</b> | <b>U12, U13</b>       |
|                         | Sym P/N 0303-3042<br>IDT IDT201LA35<br>FIFO RAM Dual Port Memory   |                     |            |                       |
| <b>Function:</b>        | This device provides buffering of outgoing data such as time and board status that the user has requested.   |                     |            |                       |
| <b>Clearing:</b>        | Power down unit  |                     |            |                       |
| <b>1 kB RAM</b>         | <b>Microcontroller</b>   | <b>Volatile</b>     | <b>Yes</b> | <b>U5</b>             |
| <b>512 B EEPROM</b>     |  | <b>Non-Volatile</b> | <b>Yes</b> |                       |
|                         | Sym P/N 0303-6811-EO<br>Motorola MC68HC11EO<br>Motorola 8-Bit Microcontroller  |                     |            |                       |
| <b>Function:</b>        | The RAM contents are volatile. The EEPROM contents are non-volatile and are used to store parameters (such as S/N of board, default DAC value, etc.). These parameters are used by the F/W contained in U23. This EEPROM cannot be accessed externally under normal operation. |                     |            |                       |
| <b>RAM Clearing:</b>    | Power down   |                     |            |                       |
| <b>EEPROM Clearing:</b> | User setting mode would have to be reset to factory default settings.<br>Refer to Operation Manual   |                     |            |                       |
| <b>16 Inputs</b>        | <b>TTL PAL</b>   | <b>Non-Volatile</b> | <b>No</b>  | <b>U10, U15, U21,</b> |
| <b>8 Outputs</b>        |  |                     |            | <b>U28, U38, U30</b>  |
|                         | Sym P/N 0301-16L8<br>AMD PAL16L8B<br>20-Pin TTL Programmable Array Logic. Boolean Logic transfer function.   |                     |            |                       |
| <b>Function:</b>        | Factory firmware. Read only.   |                     |            |                       |
| <b>Clearing:</b>        | No Erase Function.   |                     |            |                       |
| <b>416K bit</b>         | <b>EPROM</b>   | <b>Volatile</b>     | <b>No</b>  | <b>U26</b>            |
|                         | Sym P/N 031373-001<br>Intel 2716 EPROM<br>Read-only EPROM  |                     |            |                       |
| <b>Function:</b>        | Factory firmware. Read only. No user data  |                     |            |                       |
| <b>Clearing:</b>        | No Erase Function  |                     |            |                       |

**Bob Mengelberg,** Compliance Engineer 03 April 2009  
 Authorized Signature, Title, Date