Date: 04/15/21

Certificate of Volatility				
Model: **UEIPACx00-1G 11/12**	**Part Number:** **UEIPAC x00-1G-11/12**	**Manufacturer: United Electronic Industries, Inc**		
		Street Address: 249 Vanderbilt Ave		
		City: Norwood	**State: MA**	**Zip: 02062**

Volatile Memory

Does the item contain volatile memory (i.e., memory whose contents are lost when power is removed)?
☒ Yes ☐ No

If the answer is 'Yes', please provide the following information for each type (use additional sheets if required):

Type (SRAM, DRAM, etc.):	Size:	User Modifiable:	Function:	Process to Clear:
DRAM	**1 GByte**	☒ **Yes** ☐ **No**	**Scratch pad and temporary storage for firmware.**	**Power off unit**
Type (SRAM, DRAM, etc.):	Size:	User Modifiable: ☐ Yes ☐ No	Function:	Process to Clear:
Type (SRAM, DRAM, etc.):	Size:	User Modifiable: ☐ Yes ☐ No	Function:	Process to Clear:

Non-Volatile Memory

Does the item contain non-volatile memory (i.e., memory whose contents are retained when power is removed)?
X☐ Yes ☐ No

If the answer is 'Yes', please provide the following information for each type (use additional sheets if required):

Can this item contain Cache or Buffer information after shut down?
X☐ Yes ☐ No **It could, but only data that the application specifically chose to write. The standard API does not support this function**

Type (BBRAM, Flash, EEPROM, etc.):	Size:	User Modifiable:	Function:	Process to Clear:
FLASH	**8 GByte**	☒ **Yes** ☐ **No**	**Holds specific unit info such as serial number. Also holds unit's OS/firmware. Can be used to hold user programs and/or data.**	**Can be cleared with "special" commands, but clearing the memory would render the unit inoperative. To clear data written by the user's application, it must be overwritten/cleared by the user.**
Serial flash	**16 MByte**	☒ **Yes** ☐ **No**	**Contains uBoot loader and low level Linux kernel**	**Can only be cleared via special JTAG programmer. Clearing this memory would "brick" the chassis**
Type (BBRAM, Flash, EEPROM, etc.):	Size:	User Modifiable: ☐ Yes ☐ No	Function:	Process to Clear:

Media

Does the item contain media storage capability (i.e., removable or non-removable disk drives, tape drives, memory cards, etc.)?
☒ Yes ☐ No

If the answer is 'Yes', please provide the following information for each type (use additional sheets if required):

Type (Disk, Tape, etc.):	Size:	User Modifiable:	Function:	Process to Clear:
Optional microSD Card **Removable:** ☒ **Yes** ☐ **No**	**Up to 32 GB**	☒ **Yes** ☐ **No**	**SD card typically holds the Linux file system, drivers, the user application and any data the user application saves. However, if a Solid-state hard drive is installed, the uSD typically only holds use data.**	**The SD card can be cleared by reformatting the card, but if the SD card includes the sytem files, it would render the card/chassis inoperative if booting from card location. User data and applications are typically stored in separate directories that can be erased by the user if desired.**

Type (Disk, Tape, etc.): Optional Solid State hard drive Removable: ☐ Yes ☒ No (may be removed, but requires the unit be opened up, which requires various tools)	Size: Up to 32 GB	User Modifiable: ☒ Yes ☐ No	Function: SS Hard drive when installed typically holds the Linux file system, drivers, the user application and any data the user application saves.	Process to Clear: The SS hard drive can be cleared by reformatting the drive, but if the drive includes the system files, itwould render the card/chassis inoperative if booting from card location. User data and applications are typically stored in separate directories that can be erased by the user if desired.
Type (Disk, Tape, etc.): Optional M.2 solid Removable: ☒ Yes ☐ No	Size: 320 GByte	User Modifiable: ☒ Yes ☐ No	Function: SS Hard drive when installed in the M.2 slot typically, the user application and any data the user application saves.	Process to Clear: The M.2 based hard drive can be cleared by reformatting the drive, but if the drive includes the system files, it would render the card/chassis inoperative if booting from card location. User data and applications are typically stored in separate directories that can be erased by the user if desired.

Additional Information:

UEI's UEIPAC series chassis do not store any data, input or output, in any non-volatile memory unless the writing of this data is specifically implemented in the customer software. To clear this information out of memory an application would have to be written by the customer that overwrites the memory that has been written by the user applications.

All other data written to and/or read from UEIPAC chassis is lost within seconds of power loss or if the power switch is turned off.

The only exception to this rule is the user, either via the API or PowerDNA Explorer, may store default "power on" and "emergency shut-down" output conditions/states of the analog and digital output devices. Note that even this data is ONLY written to non-volatile memory upon specific instructions either from PowerDNA Explorer or the appropriate API call and never from standard data I/O functions.

Validation Test
Does the item have a validation test method? (to determine that it has been returned to default settings, cleared, flushed) ☒ Yes ☐ No
If the answer is 'Yes', please provide the following information for each type (use additional sheets if required):
Additional Information: **Powering the unit off will flush all dynamic memory. During reboot after power-up, all factory default settings are reset except for the unit's IP addresses.**

Vendor Representative Information			
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