



CERTIFICATE OF VOLATILITY

Date: 07 March 2019

Model/Part No. SyncServer Model S600 P/N 090-15200-60X
SyncServer Model S650 P/N 090-15200-65X
SyncServer Model S650i P/N 090-15200-65X

Description Ultra Precise & Versatile GPS Network Time Server

This certification defines volatile and non-volatile memory devices for use by End Users in clearing memory device data for security purposes.

Note: These devices are installed on the Main Board.

<u>Memory Size</u>	<u>Memory Type</u>	<u>Volatile/Non-Volatile</u>	<u>User Data</u>	<u>Location</u>
1 G byte	RAM	Volatile	Yes	U37, U38
	Microsemi P/N 148-01672-000 Mfg P/N: Micron MT41K256M16HA-125IT:E Description: IC Memory SDRAM 4Gbit DDR3 256Mx16			
Function:	Application data during operation			
Clearing Process:	Remove power from unit			
4 G byte	Flash	Non-Volatile	Yes	U18
	Microsemi P/N 148-01890-000 Mfg P/N: Kingston P/N EMMC04G-S100-G08U Description: IC Memory Flash 4G eMMC			
Function:	Software image, user setting such as configuration logs, message logs and event logs			
Clearing Process:	Reset to factory defaults to clear any user configurations and logs. To restore to Factory Defaults: <ul style="list-style-type: none"> • Press MENU • Then press 3 (Sys Control) • Then press 2 (Factory Default) • Then press ENTER (to confirm) 			
640k bytes	RAM	Volatile	Yes	U20
110k logic elements	RAM	Volatile	No	U20
	Microsemi P/N 148-01670-000 Mfg P/N: Altera 5CSXFC6D6F31I7N Description: IC FPGA Cyclone V SoC			
Function:	Cache memory for processor. FPGA logic fabric.			
Clearing Process:	Remove power from unit			



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N/A	Flash	Non-Volatile	No	U52
	Microsemi P/N 148-01684-000			
	Mfg P/N: Microsemi ZL30251LDG1			
	Description: IC Clock Synthesizer			
Function:	Controls operation of clock synthesizer			
Clearing Process:	No erase function. Contains no user data			
N/A	Flash	Non-Volatile	No	U10
	Microsemi P/N 148-01690-000			
	Mfg P/N : TI UCD9090RGZT			
	Description: Power supply sequencer			
Function:	Controls sequencing of power supplies			
Clearing Process:	No erase function. Contains no user data			
N/A	RAM/Registers	Volatile	No	U16, U25
	Microsemi P/N 148-01708-000			
	Mfg P/N: Microsemi VSC8552XKS-04			
	Description: : IC Dual Ethernet PHY			
Function:	Control operation of 100/1000 Ethernet PHY			
Clearing Process:	Remove power from unit			

Note: These devices are installed on the VFD Display.

N/A	RAM	Volatile	No	VFD
N/A	Flash/ROM	Non-Volatile	No	VFD
	Microsemi P/N 100-00753-000			
	Mfg P/N: Noritake GU160X32D-7000-N12			
	Description: VFD Display Module			
Function:	Used to format information on the display			
Clearing Process:	Remove power from unit. Contains no user data.			

Note: These devices are installed on the Timing I/O Board.

N/A	Flash	Non-Volatile	No	U54
	Microsemi P/N 148-01684-000			
	Mfg P/N: Microsemi ZL30251LDG1			
	Description: IC Clock Synthesizer			
Function:	Controls operation of clock synthesizer			
Clearing Process:	No erase function. Contains no user data			
N/A	Flash	Non-Volatile	No	U34
	Microsemi P/N 148-01671-000			
	Mfg P/N: Microsemi M2GL025-1FGG484I			
	Description: IC FPGA IGLOO2 27k Logic			
Function:	FPGA Logic			
Clearing Process:	No erase function. Contains no user data			



Note: These devices are installed on the GNSS Receiver Module.

N/A	RAM	Volatile	Yes	U4
N/A	Flash	Non-Volatile	Yes, configuration	U4

Microsemi P/N 112-00090-000 or 112-00113-000
Mfg P/N: Ublox LEA-M8F-0 or LEA-M8T-0-10
Description: GNSS Receiver Module
Function: This GNSS receiver has both RAM and flash memory for the receiver to track GNSS signals.

Clearing Process: Disconnect the GPS antenna and do not reconnect.

Reset to factory defaults to clear any user configuration information.
See instruction in U18 above.

Allow system to run at least 5 minutes after reboot so that it completes the initialization of the GNSS receiver module.

Remove power from unit to clear all information from RAM.

Note:
Some of the above components are noted as N/A for the Memory Size of the U52, U10, U16, U25, U54, U34, U4 and VFD components.
The memory size field for these devices contains proprietary information from different vendors. Microsemi does not have the details of the memory size for these devices.
The SyncServer S6XX does not directly access memory in these devices, except it does access registers in the Ethernet PHY devices.

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Authorized Signature, **Title,** **Date**