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FIELD SERVICE BULLETIN

FSB #: 098-50620-81 **DATE: May, 4, 2015**

System: Network Time Servers

Product Identity: TS2100-GPS, TS2100L, and TS2100LD

CLEI Code: N/A

Product Code(s): 8500-0033

Technical Support:	**Worldwide 1-408-428-7907 (1) or USA toll free 1-888-367-7966 (1)**
Customer Relations:	**Worldwide 1-408-428-7907 (2) or USA toll free 1-888-367-7966 (2)**

Note: Find a copy of the Field Service Bulletin in the FTD Support section of our web site at:
http://www.microsemi.com/products/timing-synchronization-systems/support/online-support

Technical Summary

On May 3, 2015 at 00:00:00 UTC, the date on this product jumped one GPS epoch (backwards) to September 17, 1995. Although the date changed, the time of day will still be valid. This issue has to do with the methodology to determine the proper GPS epoch. As the GPS satellites use a week number (starting in Jan 1980) and the total allowed week number is 1024 the epoch "rolls" every 1024 weeks. So it is up to the software to determine the correct GPS epoch. We saw similar problems with several old legacy Datum products over the years that used this same approach. The problem that occurred on May 3rd was the result of the way Datum engineers used to determine the current epoch. The method they used was by counting the number of leap seconds that have occurred. The problem with this method is that we have not had consistent leap seconds since the original time this scheme was implemented. This May 3rd Jump is the result of using this method to determine the epoch.

Recommended Action:

Install new replacement product, SyncServer S250.
The issue is not recoverable by a power cycle or simply setting the Year and Date correctly as it will be written over if still in Mode 6 GPS.

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Work around:

1. Point the ntp traffic to another NTP stratum 1 server in your network.
2. Use a stratum 2 server pointed to web accessable servers by opening Port 123 both in and out.
3. Reconfigure the TS2100-GPS with time code input or set as a free running server(short term solution). A free running TS2100-GPS or TS2100-IRIG server can sync another TS2100-GPS, set to Mode 0, so that it will serve time at stratum 1. This requires user making setting changes and setting the time manually as well as a coax cable to interconnect the TC output of the free running server to the TC input of the slave IRIG input unit.

Microsemi Actions:
These products are MD and no action will be taken.
A copy of the Product Discontinuance Bulletin is posted here:
http://www.microsemi.com/products/timing-synchronization-systems/support/online-support

Any questions regarding this Field Service Bulletin, please contact Technical Support.

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Revision History:

Revision	Date	Author(s)	Revision History
A	5-4-2014	Larry Dearing	Initial release
B	5-4-2014	Todd Schulte	A