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SUBJECT: MicroNetTMR & 5009 Family Product Support Statement

The MicroNetTMR family including the related 5009 control product line (MicroNetTMR hardware with 5009 software) with hundreds of installed units in the field is extremely important to Woodward and will be supported for the foreseeable future. Woodward continues to invest heavily in the MicroNetTMR product line to ensure its market success and longevity. With this continued investment Woodward plans to extend the production life of this product line for the next 10 years and possibly beyond.

Woodward has a long and successful track record of keeping modules available for 10-15 years and longer, even though many of the original electronic components have gone obsolete in that same time period. In many cases we introduce new modules with additional functionality to extend the life of this product line. In other cases we invest in inventory of obsolete parts or minor module redesigns to use alternate components.

There are times when Woodward will eliminate certain MicroNetTMR and 5009 component part numbers. This may be due to the availability of higher performance alternatives, or simple unavailability of electronic components. In these situations, Woodward supports its customers with either direct replacements or functional replacements. Direct replacements drop into older systems with no modifications. Functional replacements offer similar functionality but may require additional modifications such as software updates or replacement of additional modules.

Woodward replaced all of its 5009 control models with new improved 5009FT control models in 2010. The new 5009FT based models are basically the same as the older 5009 models with the exception that they utilize Woodward's new MicroNetTMR CPU module, Kernel Power Supply, and improved application software. The use of these new modules and software extend the 5009FT's CPU horsepower, communications capability (6 Ethernet ports), and application capabilities. The current status of the MicroNetTMR and 5009 family modules are summarized in the below Appendix.

When a product/module is "Rationalized" (end of life for new applications) with no direct replacement, Woodward provides an extended support plan for its customers. Typically Woodward announces the Rationalization a year in advance to give time to design the new component into new applications. Spares and repairs will continue to be available for existing customers for another period of time. The following support plan is normally followed:

Years 0-5 = Availability of Spares and Repairs Years 5-10 = Repairs (based on available parts) Years 10-20 = Replacement/Exchange with Service Stock if available (no repairs)

Due to the nature of electronic components, Woodward is often notified of last time buys for various components. Woodward strives to hold inventory or find alternative parts when electronic components are discontinued. However, there are times when components can simply not be obtained and where sufficient last-time buys cannot be made. In these cases, Woodward cannot always guarantee the rationalization support plan.

Regards,



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<u>Appendix</u>

MicroNetTMR and 5009FT systems are available in many configurations and I/O options. The status of each major component/module being rationalized is shown below.

Chassis and Power Supplies

<u>MicroNet TMR Chassis and Main Power Supply modules</u> - The MicroNet TMR system's chassis and power supplies were introduced in 1997 to offer triple module redundant fault tolerance for ultra-critical applications. As the MicroNet TMR system continues to enjoy very robust sales there are no plans to discontinue production of the current chassis or main system power supplies.

Kernel Power Supply 5466-318 Module (Used with CPU040 & CPU060 modules) – This power supply was introduced with the CPU040 CPU module in 1997 and includes both power supply and dual-port RAM back plane communication functions. This module was replaced with a new kernel power supply with faster dual-port RAM for faster CPU5200 communications on February 16, 2010. The 5466-318 module is now available to purchase as a spare module for field installed systems until February 16, 2015, then repairable as component accessibility allows until February 16, 2025. Optionally customers can upgrade either their MicroNetTMR or 5009 controllers to utilize Woodward's latest CPU5200 and Kernel Power Supply modules as desired.

Transceiver 5466-353, 5466-354, 5466-355 Modules (Used with CPU040 & CPU060 modules) – These Transceiver modules were introduced with the CPU040 CPU module in 1997 and were used for main chassis to expansion chassis communications. This module was replaced with a new Real Time Network (RTN) module that is compatible with the CPU5200 CPU module on February 16, 2010. These modules are now available to purchase as a spare module for field installed systems until February 16, 2015, then repairable as component accessibility allows until February 16, 2025. Optionally customers can upgrade either their MicroNetTMR or 5009 controllers to utilize Woodward's latest CPU5200 and RTN modules as desired.

CPU's Modules

<u>CPU5200 Module</u> - The CPU5200 was introduced with the MicroNet platform in 2005 for simplex and redundant applications, and extended into the MicroNetTMR platform and 5009FT controllers on February 16, 2010. The CPU5200 utilizes the Motorola MPC5200 processor, and will be in production and fully supported for the foreseeable future.

<u>CPU040 Module (all part numbers)</u> - The MicroNetTMR and initial 5009 controller models were introduced with the CPU040 module (utilizing the Motorola 68040 microprocessor) in 1997. The CPU040 module is available to purchase as a spare module for field installed systems until February 16, 2015, then repairable as



component accessibility allows until February 16, 2025. Optionally customers can upgrade their MicroNetTMR or 5009 controllers to utilize Woodward's latest CPU5200 modules as desired. Note that upgrading to the CPU5200 module will require a Kernel Power Supply and software upgrade also.

The <u>CPU060 CPU Module (all part numbers)</u> – This module had limited usage in MicroNetTMR systems and was rationalized on July 1 2005. Repairs are available until July 1, 2015. Optionally customers can upgrade their MicroNetTMR controllers to utilize Woodward's latest CPU5200 modules as desired. Note that upgrading to the CPU5200 module will require a Kernel Power Supply and software upgrade also.

I/O Modules and other

In general all MicroNetTMR and 5009 I/O modules are still in full production and are fully supported unless they are listed below.

Displaced I/O Modules

SIO Modules (5503-267) – This module was inactivated April 28, 2010 and is no longer available for new applications. It is available to purchase as a spare module for field installed systems until April 28, 2015, then repairable as component accessibility allows until April 28, 2025. Optionally customers can upgrade their MicroNetTMR or 5009 controllers to utilize Woodward's latest CPU5200 modules (5466-348 or 5501-471) as desired.