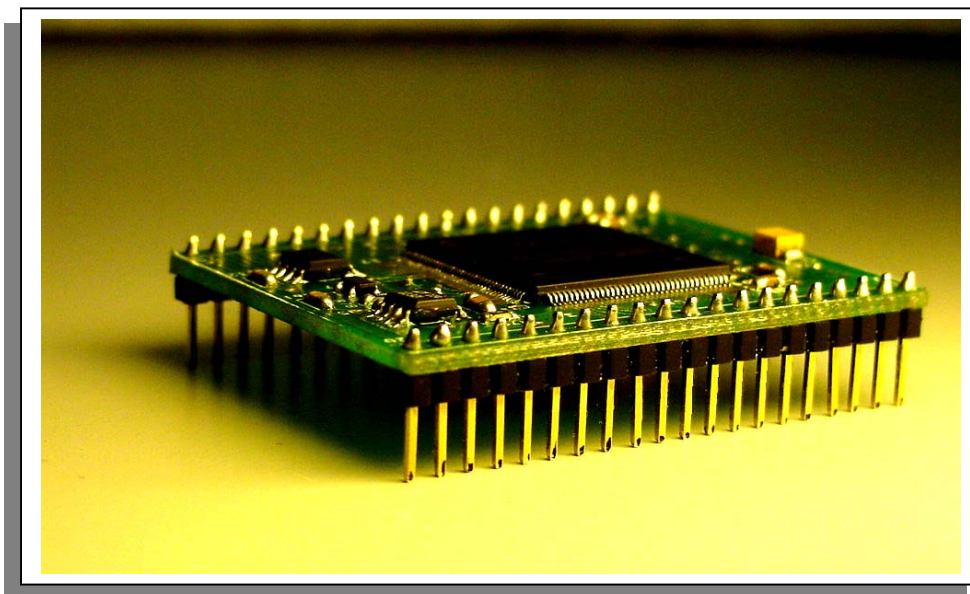


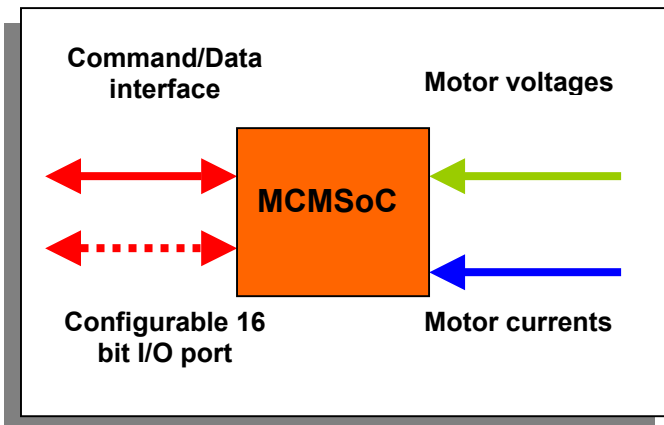
Embedded condition monitoring solutions to provide early warning of faults and prevent unexpected breakdowns in OEM products and systems

Artesis' award winning MCM technology has a proven track record in applications of condition monitoring and fault prediction to end users of electric motors and electric motor driven systems. This exciting technology is now available as MCMSoC for direct integration by manufacturers and suppliers into their own products to provide built-in self-condition monitoring capabilities. Using state-of-the-art algorithms and exploiting modern IC design, Artesis has placed the tantalizing goal of system self-monitoring within reach of all manufacturers of electric motor driven systems.

MCMSoC measures only the currents and voltages of three phase motors to learn and predict their characteristics. Standard serial communication channels allow both data and command interfaces to be established with an existing host control system. In operation, MCMSoC will first learn the properties of the monitored system. Once sufficient data have been processed, MCMSoC will automatically switch to monitoring mode and will inform the host controller not only when and if any developing faults are detected but also information relating to the nature and type of fault.



MCMSoC: The embedded early warning fault prediction system for OEM suppliers



The MCMSoC concept

Artesis' Motor Condition Monitor, MCM, is a condition-monitoring tool developed for fault prediction in three-phase electric motor driven systems of all powers and sizes. Measuring the applied motor voltages and currents, it is able to warn not only of developing electrical faults in the driving motor but also of mechanical faults in both the motor and driven system, thus preventing unscheduled and costly downtime. MCMSoC embodies the same set of algorithms but is available in a form that can be customized to suit individual applications.

The MCM / MCMSoC technology is the culmination of a 17 year long research project first developed for the US aerospace industries.

** 40 Best Products of 2000, Control Engineering Magazine, USA*

Features and benefits

- System is a 40 pin single pcb that is easy to interface
- Clear and well defined development and migration route to custom solutions
- Energy quality measurements:
 - Three phase RMS current and voltages,
 - Three phase current and voltage balances
 - Power factor
 - Active power,
 - Harmonic levels up to 13th harmonic and
 - Total Harmonic Distortion
- Outputs are condition assessments rather than measurements
- Can be used to assess the effectiveness of servicing
- Detects both electrical and mechanical faults
- Outputs are both repeatable and reliable
- An ideal solution for all motor driven systems
- Monitors both the motor and its driven system

Technical specifications

Available models:	MCMSoC is customized to individual requirements	Applicable volage ranges:	Low (< 700V) Medium / High (1000 – 6500V)
Operation:	Continuous	Command/Data interface:	High speed serial Configurable 16bit + (4 control) paralel I/O port
Dimensions:	4x5 cm approx.		

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