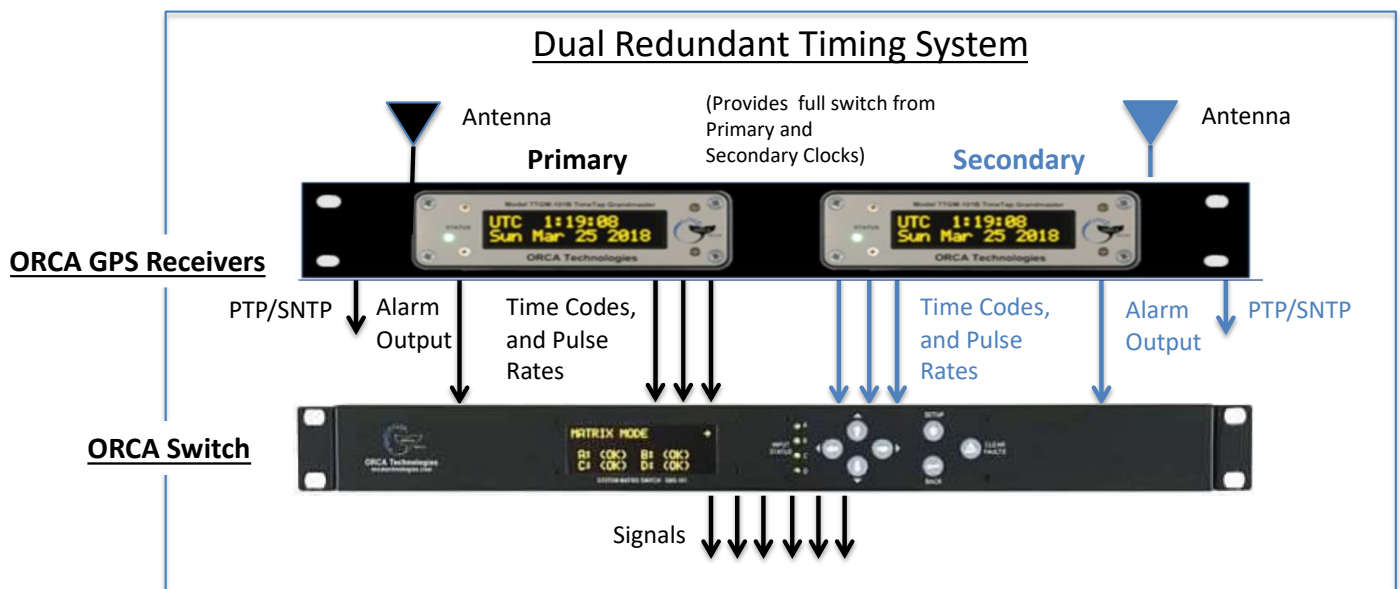




What is a Dual Redundant Timing System?

A dual redundant timing system provides the user with a primary and secondary source of time, frequency and/or pulses. If at any time a failure occurs with the primary GPS Receiver a switch of the primary's output signals will occur automatically to the secondary ORCA GPS system. Below is a dual redundant timing system using two ORCA Model TTGM-101B GPS Receivers and an ORCA Model SMS-101 System Matrix Switch distribution amplifier.



What would cause a failure of a primary system?

- Loss of synchronization source due to a cut cable or antenna failure.
- Power supply/electronic component failure of the instrument.

Who needs a dual redundant timing system?

- Those who require automated systems that rely on continuous precision time and frequency signals such that a loss of signal could result in unrecoverable or critical errors.
- Actually, anyone who uses time and frequency signals for their applications would benefit with a dual redundant system.

Why wouldn't everyone utilize a dual redundant system?

- Complexity of setup and operation.
- No concern with a loss of timing.
- No space for any additional hardware.
- But the primary reason has been COST.

Precision time is a critical part of many test and measurement applications. In most applications users utilize a single GPS timing receiver with the standard variety of time codes, RF and pulse rates. Ideally a dual redundant system is preferred as it would minimize a single failure. However, unless your application dictates dual redundancy this type of package is not practical for most users because of complexity of setup and operation but mostly because of cost . . . but that too has changed.

ORCA Technologies has created a high performance and affordable dual redundant GPS time and frequency system. This package utilizes our Model TTGM-101B GPS time and frequency receiver and our SMS or SD series of dual redundant distribution units. These products together provide a complete primary and secondary system with automated alarm and transfer with a known failure.

How does our system work?

- Our smart redundant and distribution clock system looks for any failure from the primary clock or source due to a loss of signal, lower than expected quality of signal or a generated alarm contact closure due to a major or minor error condition. The result in any of these error conditions is a transfer of signals from the primary source to the secondary source without any loss of signal.
- Our system is easy to set up and can be done usually within 20 minutes.
- Our system is affordable. The cost of our package runs around the same cost of a typical standalone clock offered by others.

What if I already have a GPS time and frequency receiver?

Our switching distribution units are designed to be used with our GPS Receivers and in most cases can be used with other brands. If you already have a single unit in place you can easily add one of our GPS Receivers and through the use of our switching distribution units have a complete dual redundant system.

For a product demonstration or additional information please contact us through one of our sales channels, web site or factory direct.

ORCA Technologies, LLC

934 Calle Negocio Suite B, San Clemente, CA 92673 949.682.3289 orcatechnologies.com