Quasonix

MADE IN USA

RDMS™ Status Logger

That which is measured, improves.
That which is measured and reported improves exponentially.

The RDMS™ Status Logger is a powerful way to analyze receiver/demodulator mission dynamics, allowing you to view status metrics in a real-time graphics display and store that data in a file. What other tool can access the receiver metrics, timestamp them, and log them to a PC hard drive or SD card, enabling unparalleled post-mission analysis? None that we know of. Quasonix is... Reinventing Telemetry™.

Rackmount Status Logger with Integrated Controller — The Status Logger system consists of a hardware interface, integrated controller, and application software. The hardware interface is housed in a 1U rackmount package, optionally supporting one, two, three, or four RDMS units. The Status Logger application runs on an internal controller, and status information is saved to internal storage.

New Version with Browser Support — The newest version of software implements a full-function web server. This allows control and graphics through a common web browser on a remote computer. The browser support is designed to provide intuitive access to control and monitoring of the status loggers and provides a straightforward way to move status logs to the client computer.

Chapter 10 Publishing — In the newest version of software, a chapter 10 publisher (IRIG 106) provides near real-time status to remote subscribers. Chapter 10 subscribers can view and record status.

System Integration — System integration is a breeze. A single connection is made to the RDMS™ Receiver from the interface hardware. If desired, the RDMS browser can be launched from the status logger, which opens the RDMS interface in a new browser window.

Complete API — A complete API (Application Programming Interface) allows the user to implement custom software to access control of the status logger and retrieve status logs.

Status Logger Description

The RDMS Telemetry Receiver is continuously making measurements in the DSP heart of the system. These measurements are used to optimize receiver/demodulator performance, but many are not accessible to the user through the front panel. Even those that are displayed on the front panel, such as input power level and DQM, are instantaneous snapshots, and no historical record is created.

The RDMS Status Logger accesses these data, timestamps them, and logs them to internal storage, enabling post-mission analysis. This analysis offers powerful insight into the telemetry behavior over the course of the mission.

Available Logged Metrics

- Data Quality Metric
  - BEP
  - BEP_Q
  - DQM before and after decoding
- BER (if a PN pattern is transmitted, such as for telemetry test flights)
- Input Power Level (AGC)
- Bit Rate
- Estimated Eb/N0
- Automatic Frequency Control
  - Estimated Offset
  - Compensated Offset
  - Acquisition Statistics
- Timing Loop Statistics
- Trellis Run Length Statistic
- Mod Index Tracking (PCM/FM Only)
  - Estimated
  - Compensated
  - Acquisition Statistics
- PCM Frame Detection
- Equalizer Health
- Combiner Statistics
  - Offset Frequency
  - Timing Offset
- STC Mode
  - Top/Bottom Magnitudes
  - Delay Offset
  - Frequency Offset
  - Clock Error (Bit Rate Error)
  - Trellis Metric

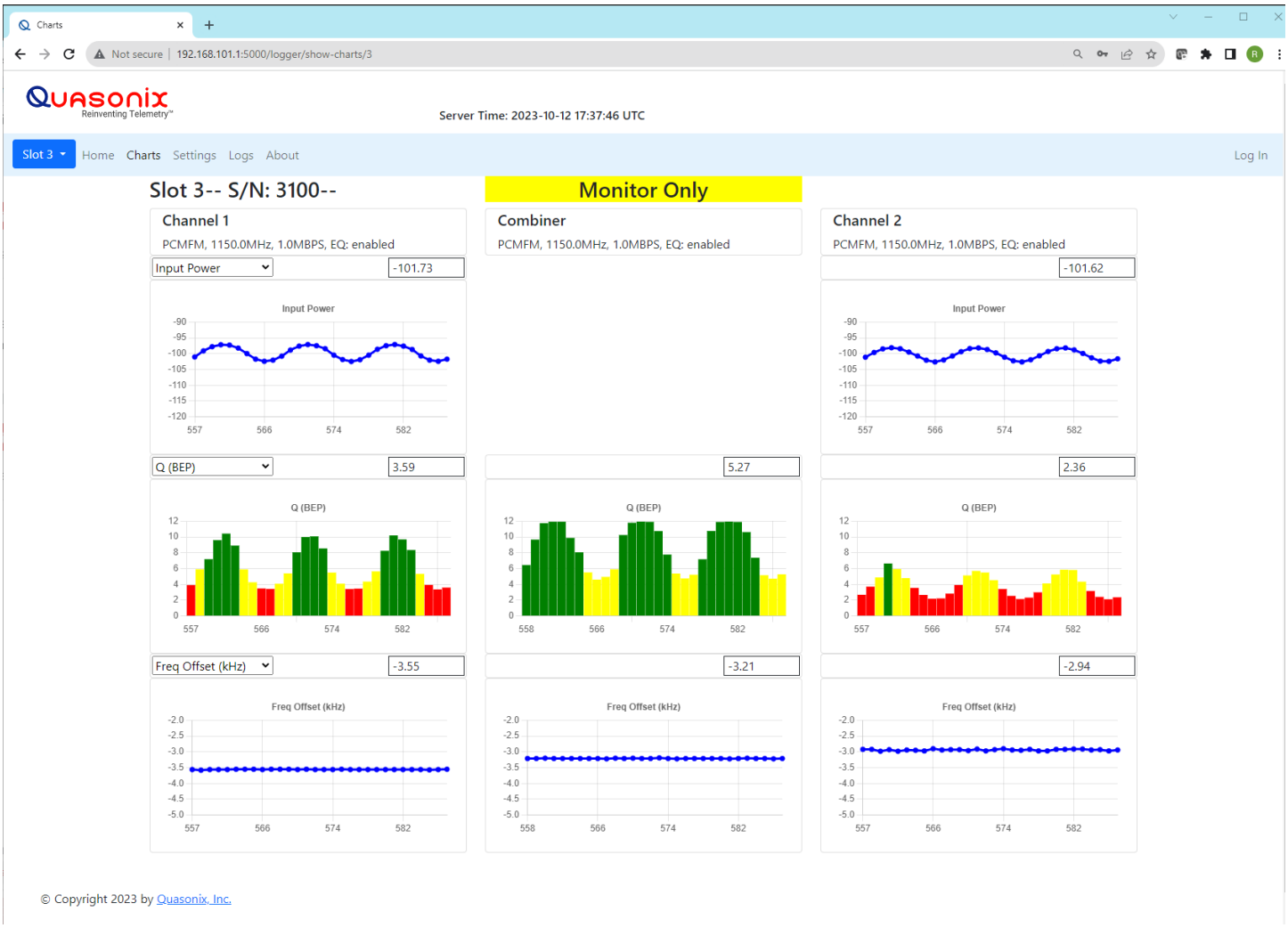
Additionally, the RDMS Status Logger captures the configured state of the receiver both pre- and post- logging. The configuration information includes details such as loop parameters, selected IF filter, selected baseband filter, AFC and AGC parameters, modulation index tracking parameters, equalizer parameters, etc. These data can be used by the customer to compile mission statistics and to document the state of the receiver. The logged data provides Quasonix (if the customer contributes the data) a complete picture of the receiver state and the dynamic environment to assist in product development and integration issues.

New in the latest release: At the start of a status log, the logger saves a complete JSON representation of the RDMS settings using the RDMS API. This can be used to document the exact receiver state, allowing the user to configure a receiver to the exact same state in the future.

The RDMS Status Logger records a measurement approximately once per second.

Status Logger User Interface

Written and supported by Quasonix, the RDMS Status Logger application software provides intuitive setup and logger management. The logger writes data to the internal storage in .csv format for easy import into analysis software such as MATLAB or Excel.



1U RDMS Status Logger System

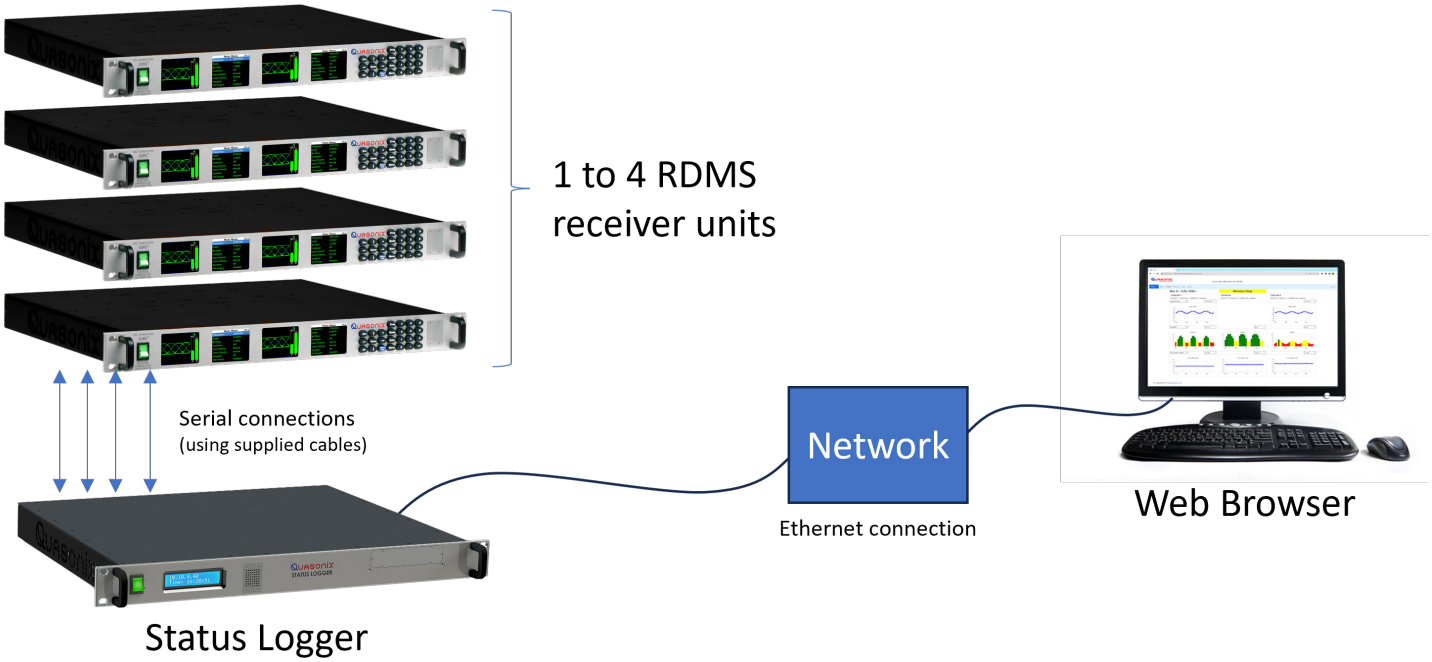
Status Logger with Integrated Controller

- Access and control the unit with an ordinary browser
- Log status to internal storage. Sessions can be downloaded to client computers using the web browser.

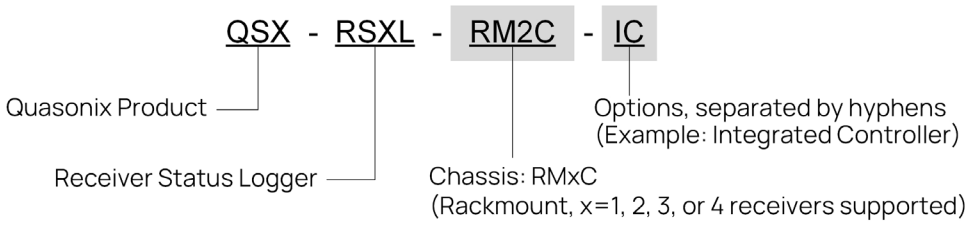
Serial Interface Adapter

- Repurposes standard Ethernet cable for RDMS serial traffic
- Ease of cabling—use the enclosed cable or your own

Status Logger User Interface (Continued)



RDMS Status Logger Part Numbering Example



Reinventing Telemetry™

With a razor-sharp focus on the aeronautical telemetry market and a team rich in talent, experience, and sheer determination, Quasonix is able to consistently design, develop, and manufacture what our customers regard as market-leading telemetry products.

Quasonix

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