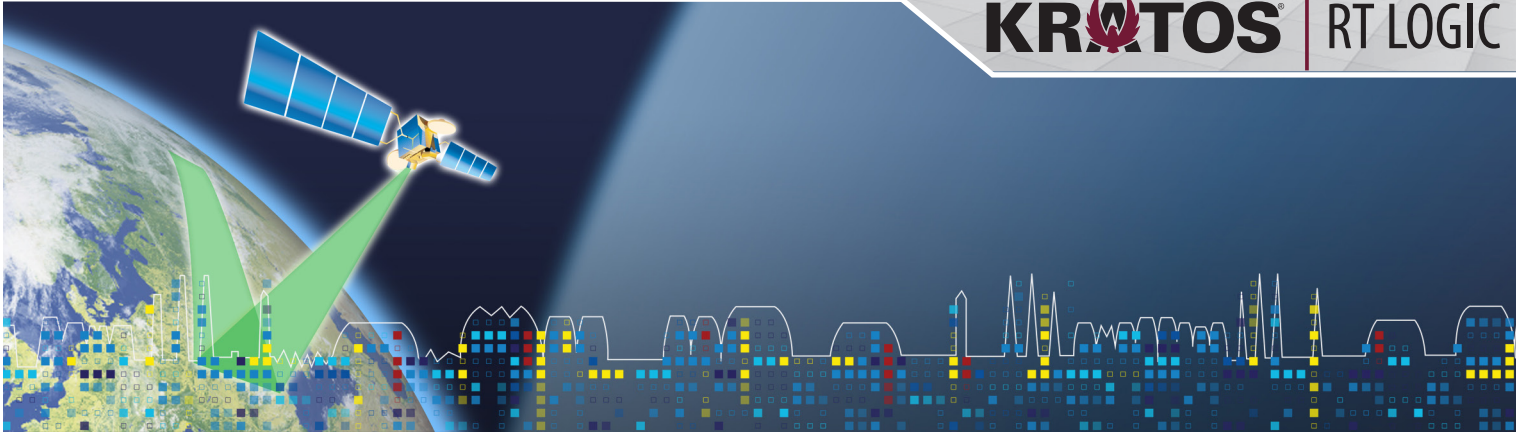


Mission Data Processing Systems

KRATOS | RT LOGIC



Overview

Kratos RT Logic's signal processing products for satellite mission data downlink and data processing are both proven and innovative, reliably acquiring mission data from LEO, MEO, HEO, and GEO satellites. Kratos RT Logic's Commercial-Off-The-Shelf (COTS) Telemetry products are feature-rich and cost-effective. But, when your application requires more, the Telemetry architecture is primed and ready to be adapted and enhanced to meet your specific needs. Reliable and trusted for the most important and critical space programs, over 85% of America's space missions utilize Kratos RT Logic modular and flexible solutions.

From satellite payloads in LEO to GEO orbits, the space-to-ground communication channel and ground-based signal processing and data distribution functions are critical to mission assurance. RT Logic Telemetry Software-Defined Receivers and Digital Processing Systems provide proven ground system solutions from low-rate to high-rate, from fixed to mobile.

Satellite Mission Data Downlink and Processing

Satellite payloads perform diverse tasks critical to the mission. But, in almost all cases, payload data must be transferred to ground-based users accurately, reliably, and in a timely fashion. Kratos RT Logic Telemetry Software-Defined Receivers perform the data downlink function and Kratos RT Logic Telemetry Digital Processing Systems perform the digital signal processing, archive, replay, and data distribution functions. In certain applications, receiver and digital processing functions can be combined into a single-box solution. Kratos RT Logic remote sensing downlink systems are in use today by both commercial and military customers, spanning weather, earth imaging, and many other applications.

Kratos RT Logic Telemetry products are Information Assurance (IA) ready and can be pre-hardened at the factory. Coupled with our field-proven products and industry-leading customer support, Kratos RT Logic is the lowest risk choice for secure satellite ground-based mission data downlink and data processing requirements.

Key Features

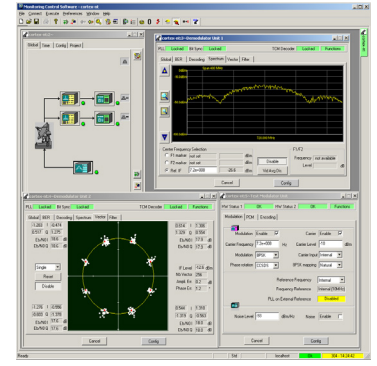
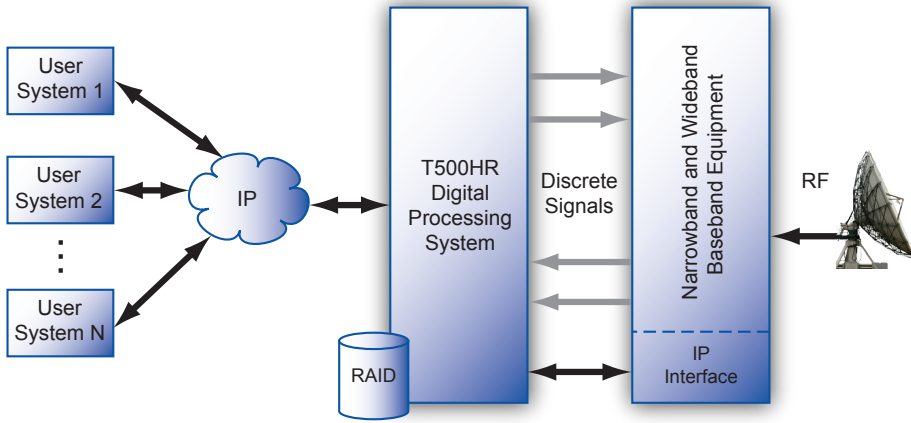
- Server-class flexible open architecture
- Unlimited RAID storage
- Software-defined customization
- User-configurable CCSDS and TDM processing
- Multiple data distribution options
- Net-centric/web-enabled

Proven Benefits

- Assured mission success
- Low cost and low risk
- Short lead times
- Extended lifecycle support

Widely Trusted

Civil, Commercial, and Military
Multi-mission support for NASA GN and SN (TDRSS), NPP, METOP, DMSP, SPTR-2, MDA, IRIDIUM, Quickbird, Worldview, Ikonos, and many others



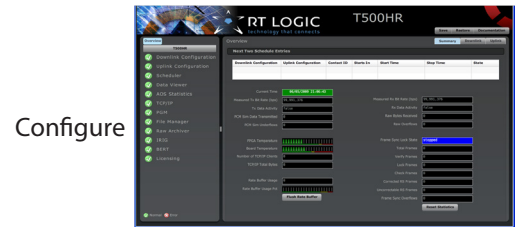
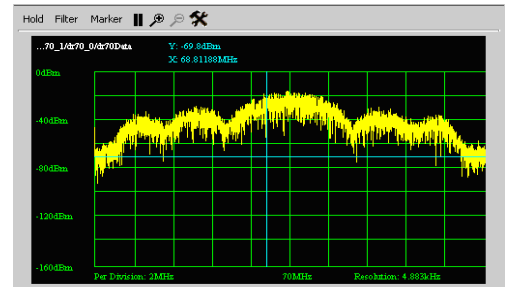
The Telemetrix Mission Data Processing Product Family – Downlink, Process, and Distribute

Acquiring your critical mission payload starts with the T1200HDR and T400RCV family of Software-Defined Receivers, bringing the multi-mission benefits of digital receiver technology to a wide range of low and high data rate demodulation requirements. The systems provide industry-leading Bit Error Rate (BER) performance, as well as user-selectable support for a variety of waveforms and error-correction schemes. Data rates up to 1.7 Gbps are supported. Unlike legacy analog implementations, no calibration is required. Flexible, multi-channel IF options, support for both serial and IP-based interfaces, and extensive soft-programmable features enable the T1200HDR and T400RCV to meet a wide range of customer-specific requirements. Coupled with long lifecycle support, the T1200HDR and T400RCV are the proven low-risk choice for your program.

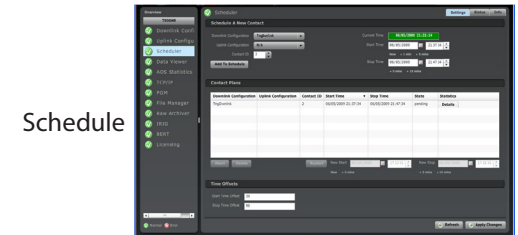
After your mission data stream has been demodulated by leading-edge Kratos RT Logic Software-Defined Receivers, the complementary functions performed by the T500HR High Rate Digital Processing System get your data ready for user applications, ingesting and processing multiple, concurrent, real-time data streams at aggregate data rates to 1.6 Gbps.

Standard digital processing functions include frame synchronization, multichannel Best Frame Select, de-randomization, Reed-Solomon forward error correction, CRC error detection, data filtering/sorting, and IRIG time-tagging for both TDM and CCSDS data.

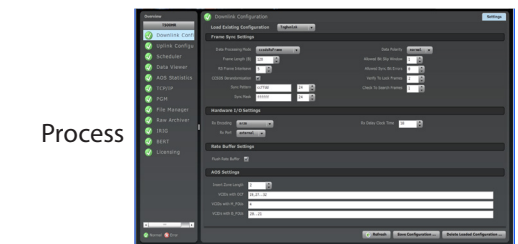
Automated contact schedule management, TCP server versus client configurations, and custom/user-defined processing functions are just some of the available options. Archive and playback functions (both real-time and post pass) guarantee that your data is captured and distributed to network users at the right time, and rate-buffered if necessary. Network distribution of data is supported via standard IP-based protocols, including Pragmatic General Multicast Protocol (PGM), offering TCP-like reliability with UDP-like network bandwidth utilization.



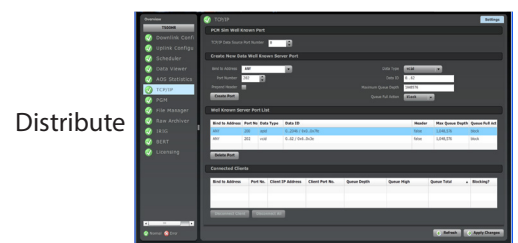
Configure



Schedule



Process



Distribute