RT Logic’s signal processing products for satellite ground network applications are both proven and innovative, connecting satellites, spacecraft, ground stations, control centers, and users. RT Logic’s Commercial-Off-The-Shelf (COTS) Telemetrix products are feature-rich and cost-effective, but when your application requires more, the Telemetrix 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 RT Logic modular and flexible solutions.

From the network interface to the Command & Control (C2) system to the RF interface at the antenna, RT Logic is your proven expert supplier for satellite TT&C ground networks.

Satellite TT&C Ground Networks

Connecting C2 systems to ground antenna sites around the world, RT Logic net-centric solutions support the SATOPS Enterprise, integrating new (IP-based) and legacy (serial-based) architectures, rapidly and seamlessly. RT Logic satellite ground network products offer an end-to-end solution and form the backbone of the majority of the nation’s operational satellite TT&C ground networks. Our systems enable control of multiple different spacecraft through the AFSCN, NASA TDRSS, user-specific, and commercial networks.

RT Logic Telemetrix products are IA hardened to meet DISA STIG standards at the factory. Quarterly updates are available through our Annual OEM IA Hardening service. Coupled with our fielded products and proven performance, RT Logic is the low-risk choice for secure satellite ground networks.

SPECIFICATIONS AND FEATURES SUBJECT TO CHANGE.

www.rtlogic.com

Satellite TT&C
Ground Networks

Widely Trusted

- Civil, commercial, and military
- TDRSS, LRO, SDO, NPP, METOP, Commercial Orbital Transportation System (COTS), QuickBird, WorldView, GeoEye, Ikonos, and many others
- Military Satcom: WGS, AEHF, MILSTAR, DSCS, SKYNET 4/5, MUOS
- Other Military: AFSCN, GPS, DSP, SBIRS, Orbital Express, MMSOC, DMSP, SBSS, STSS, TACSAT, NFIRE, and many others

Key Features

- Server-class flexible open architecture
- Customizable
- Support for legacy serial and next generation IP-based crypto
- CCSDS and TDM processing
- Extensive ranging format support
- Net-centric/web-enabled

Proven Benefits

- Assured mission success
- Low cost and low risk
- Short lead times
- Extended lifecycle support
The T501 family of Front End Processors (FEPs) provides the critical data path between C2 systems and cryptographic COMSEC devices. Each T501 features intelligent front-end telemetry processing, formatting, verification of vehicle commands, and control of external devices, such as cryptographic equipment (both legacy serial-based and next generation IP-based models). The availability of multiple T501 configurations allows for precise tailoring of the solution to specific program requirements:

- **T501-SC**: One to two channels in a rack-dense solution. Additional contact available.
- **T501-IP**: Supports next generation IP-based architectures. Can be hosted or embedded in a customer-provided FEP platform.
- **T501-IP - VM**: Single contact T501-IP prepackaged as a virtual appliance for select hypervisors.

The RTGuard™ is a cost-effective, low-risk, high-assurance, high-performance Cross Domain Solution (CDS) providing isolation at the PL3 and PL4 levels for control centers utilizing the AFSCN and/or dedicated remote tracking stations. RT Logic software options provide similar protection in next-generation IP-based crypto architectures. The RTGuard is an integrated product leveraging the UCDMO certified HSG at its core.

The T500GT Network Gateway is the next generation system for interconnecting control centers to baseband ground station antenna sites across a wide variety of network topologies. IP and ADCCP (AFSCN) WANs are supported, with options for direct connectivity to TT&C modems. The T500GT server-class platform brings the benefits of configurability, low-cost, and industry-standard networking options to satellite ground gateway applications.

The T400XR and T70/70XL are Satellite Telemetry, Tracking, and Control Ranging Modems for satellite ground stations. Flexible and modular architecture features support multiple mission configurations, making these ranging modem products ideal for both legacy receiver replacements or for new applications. SGLS, USB, and Spread Spectrum are supported.