AMERGINT
TECHNOLOGIES

Satellite Telemetry, Ranging, and Commanding

Next-Gen Software Radio on a High-Availability Server Connected to a High-Performance Signal Converter via Digital IF

satTRAC™
Modem/Baseband Unit

- **Economical and Trusted -** satTRAC is AMERGINT's game-changing Modem/Baseband Unit (BBU) for telemetry, ranging, and commanding. Since 2011, satTRAC's mature hardware and software framework has been successfully deployed on vital commercial, civil, and DoD satellite programs.

- **Proven Compatibility and Performance -** With demonstrated compatibility in satellite factories and on-orbit, satTRAC provides a low-risk, long-term ground station solution.

- **Full Cycle Support -** satTRAC is designed explicitly to achieve a long life-cycle and low maintenance costs. AMERGINT's team of dedicated experts provides up-front guidance on how best to leverage the innovative features of satTRAC. Later, during sustainment, AMERGINT's Technology Refresh Program™ (TRP) ensures painless and economical transitions of operating systems, server platforms, and security policies.

- **Software Performance is Better -** Leveraging high-availability servers with pure software signal processing enables floating-point accuracy and yields excellent BER performance.

- **Customer Configurable User Experience -** Get up to speed quickly with satTRAC's configurable Graphical User Interface (GUI). Hide what you don't need and emphasize the key parameters to streamline operations.

- **No Export License Required -** Recent U.S. Policy change allows AMERGINT to export satTRAC without a license.

- **Expanded Features and Tools -** The AMERGINT satTRAC Modem/BBU provides more than just a high-performance, economical alternative to the legacy generation of products. satTRAC upgrades your ground station with many built-in, cost-saving capabilities:

- **Published Open Interfaces**
- **Auto-Generated Documentation and Diagrams**
- **Full-time Spectrum Analyzer**
- **Built-in Testing with Auto-Generated Reports**
- **Optional Integrated Recorder, FEP, and Network Gateway**
- **Legacy Modem/BBU Interface Emulation**
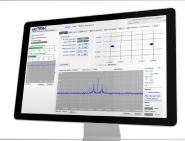- **Security Hardened Linux Operating System**

Join the Rapidly Growing List of AMERGINT Customers Revolutionizing the Satellite Ground Station

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Software and Hardware:

AMERGINT's architecture is based on generic and interchangeable hardware. The functionality of satTRAC is defined by the software application. Many independently verified applications may be hosted on a single satTRAC Modem/BBU. With this design, you pay for, integrate, and test only what you need. Mix and match whole applications or just the parts you need for your ground station.

Software Applications (See individual data sheets for details):

Group1 – TLM, RNG, and CMD for FS-1300, LS-1300, GEOStar2, GEOStar3, and similar satellites

SatSim1 – Satellite transponder simulation for FS-1300, LS-1300, GEOStar2, and GEOStar3

Group2 – TLM, RNG, and CMD for 702, 601, A2100 and similar satellites

SatSim2 – Satellite transponder simulation for 702, 601, and A2100 satellites

Group3 – TLM, RNG, and CMD for Eurostar 2000/3000, Spacebus 2000/3000, and similar satellites

SatSim3 – Satellite transponder simulation for Eurostar 2000/3000 and Spacebus 2000/3000 satellites

SGLS – TLM, RNG, and CMD for the Space-Ground Link System

TDRSS – TLM, RNG, and CMD for the Tracking and Data Relay Satellite System

AFSCN – TLM, RNG, and CMD for Air Force Satellite Control Network missions

C2V2 – TLM and CMD for International Space Station Visiting Vehicles

USB – TLM, RNG and CMD for traditional STDN USB satellites

Direct1 – TLM and CMD for direct carrier modulations

Hardware Platforms:

AMERGINT's software applications run on a high-availability, commercial off-the-shelf server that connects to signal converters via Digital IF over Ethernet. Digital IF separates the processing from the signal interfaces enabling more efficient ground station architectures.

satTRAC Server

Dual-redundant, hot-swap power supplies and disk drives. Servers from multiple vendors are supported.

satTRAC 70 Signal Converter

70 MHz to/from Ethernet Digital IF

satTRAC SL Signal Converter

S/L-Band to/from Ethernet Digital IF

satTRAC is the Game Changing Choice in Satellite Telemetry, Ranging, and Commanding

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Please contact us for more detailed product information

AMERGINT Technologies is an
Employee Owned Company