



DATA RECORDER

For Telemetry and Command Data Streams

Data quality monitors perform real-time analysis of the data being recorded

Play back, export, and import recordings

Useful in factory test, launch site, and on-orbit operations

FEATURES

- » **Record Multiple Telemetry and Command Data Streams:** The raw data streams, along with metadata, are stored to the Data Recorder's RAID5 disk storage or network storage. The specific input channels to be recorded are configurable. Serial inputs and network inputs are supported.
- » **Real-Time Data Analysis While Recording:** The input data streams are routed to one or more domain-specific data analyzers. These data quality monitors generate status information, error logs, and statistics about the data being recorded for display.
- » **RF/IF Recording:** Pairing the Data Recorder with an AMERGINT satTRAC® Signal Converter provides for high-fidelity recording of S-Band/L-Band signals or 70 MHz signals as digitized samples. Playback of the stored recording reproduces the original signal at RF or IF.
- » **Recording and Playback Options:** Playback of a recording is configurable, allowing all or only a subset of the channels to be replayed. Recording and playback on the Data Recorder are independent and can occur simultaneously. There can be one active recording, one active playback, or an active recording and an active playback.
- » **Scheduling of Recording and Playback:** The Data Recorder provides a scheduling function that allows you to schedule recording sessions to start/stop at a prescribed future time. The same scheduling function is available for playback sessions.
- » **Management of the Stored Recordings:** The Data Recorder provides automated management of the RAID5 disk storage or network storage to ensure adequate space for future recordings. The automated "clean-up" is typically configured to remove the oldest recordings first. Any recording can be "preserved," protecting it from being auto-deleted.
- » **Import/Export of Recordings:** Recordings can be exported to removable media, such as DVD, CD, USB drive, or a removable disk drive, and recordings from any other AMERGINT Recorder can be imported to the RAID5 disk storage or network storage. This allows recordings to be archived permanently or to be moved between AMERGINT Data Recorders.
- » **The Power of SOFTLINK®:** All AMERGINT systems are built upon SOFTLINK, AMERGINT's flexible and configurable software-defined architecture. SOFTLINK leverages a vetted library of modular, scalable software applications (called "Apps") to tailor and evolve system capabilities with minimal risk and cost. SOFTLINK's open architecture and open API enable AMERGINT Apps to be truly "platform agnostic," meaning Apps can run on premise (our hardware or yours), on Virtual Machines (VMs), in containers, or natively in the Cloud.



SPECIFICATIONS

| Functional | Specifications |
|------------------|--|
| Data Recording | Scalable, up to 10 Gbps |
| Signal Recording | 20 Msps per channel (requires satTRAC Signal Converter) |
| RAID5 Storage | Up to 20 TB, Expandable to user requirements |
| Data Analyzers | Dead clock, static data, frame syncs |
| Error Correction | Reed-Solomon |
| Data Playback | Scalable, up to 10 Gbps |
| Export | Archive to removable media DVD, CD, USB, removable disk |
| Import | File transfer between recorders |
| Other | Recordings management Scheduling |
| Other | Remote RESTful JSON interface Remote GEMS interface |

| Interfaces | Specifications |
|--|---|
| Input Channels/Output Channels (incl high-speed) | 1, 10, or 100 Gb Ethernet |
| RF In | 2200-2300 MHz 1600-2400 MHz (unfiltered) |
| IF In/Out | 62-80 MHz |
| IRIG In | IRIG-B, SMB |
| IRIG Out | IRIG-B, SMB |
| Ethernet (10/100/1000) | RJ-45, 10 GigE, SPF+, or QSFP |
| Network Protocols | UDP, TCP/IP |
| Optional Interface | TTL I/O Panel |

| Physical/Environmental | Specifications |
|------------------------|--|
| Dimensions | 3.5" (H) x 30" (D) x 17.5" (W) |
| Power | 120 VAC, 50/60 Hz, 500 Watts |
| Temperature | 5-30°C operating 0-35°C non-operating |
| Humidity | < 90% non-condensing |

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