

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

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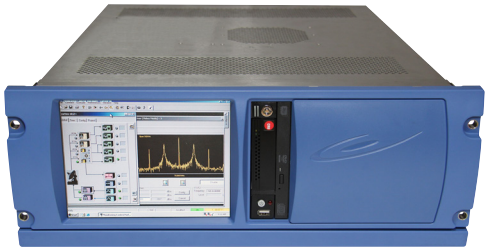
Visit our website - *Click HERE*

DATA SYSTEMS

TRACK TRANSMIT RECEIVE RECORD

CORTEX CRT

Digital Modem for Satellite Housekeeping & Critical Communications





SATELLITE TRACKING SOLUTIONS

CORTEX

Safran Data Systems' **Cortex CRT** is the COTS modem to support **any satellite** at **any time** from manufacturing to orbit. Based on a flexible design, Cortex CRT technology is available in **different form factors and architectures** to meet your system requirements. 4,000+ deployed units compatible and field proven with all commercial satellite platforms make Cortex CRT the **risk-free Command & Control** (C2) modem within the space community.

- Communication & Relay Satellites
- Earth Observation Satellites
- Launch Vehicle Telemetry

4,000+ UNITS IN USE
Dependable Long Term Support

INNOVATIVE RANGING
Infrastructure & Operational Cost Savings

SOFTWARE DEFINED RADIO
Multi-Mission & Field Upgradeable

FLEXIBLE ARCHITECTURE
Stand-Alone Box or Distributed (Digitizer + FEP)

RADIO SIGNAL RECORDER
RF Recording & Playback

THE COMMAND & CONTROL COMMUNITY STANDARD

SAFRAN

SATELLITE TRACKING SOLUTIONS

CORTEX CRT

DOWNLINK

Independent IF Inputs 3

Telemetry

Telemetry Channels ..... Up to 6
PM/FM Demodulation Rate ..... Up to 600 kbps
PM/FM Subcarrier Frequency ..... Up to 2 MHz
BPSK (S)(O)QPSK GMSK AQPSK Demodulation Rate ... 1 kbps to 40 Mbps
CCSDS Decoding ..... Viterbi LDPC Reed Solomon Turbocode Derandomization
Acquisition Threshold ..... Es/N0 < –2 dB
BER Degradation ..... < 0.5 dB (Typical)
IF Level Range ..... –15 to –105 dBm
Telemetry Simulation ..... File, Replay, Random data, LAN
Polarization Diversity Combining ..... Pre-Detection, Post-Detection

Narrow Band Recorder (RSR)

3 Channels IF Record & Replay ..... 80 MHz Aggregate Bandwidth
BER Degradation ..... <0.5 dB
Inter-Channel Synchronization ..... <5 ns

UPLINK

Independent IF Outputs 2

Telecommand

Modulation ..... PM FM BPSK (O)QPSK GMSK
Bit Rate ..... 7 bps to 2.6 Mbps
Advanced Capabilities ..... CCSDS COP-1, Carrier Sweeping Capacity
Telemetry Simulation ..... TC Loopback, Noise Source

RANGING

Modes ..... Active / Semi Active / Hybrid
Standards ..... ESA-Tone, ESA-Like, ESA-Code, USB, CCSDS PN
Resolution Measurement ..... 1 ns

EMBEDDED FREQUENCY CONVERTER

Interfaces ..... Downlink: 3 / Uplink: 2
Input / Output Frequencies ..... 70 MHz, L/S-Band (950-2400 MHz)

IT SECURITY

OS Hardening ..... OS Bi Annual Update, NESSUS Scans NIST Rules

TOOLS

Measurements ..... BER, Eb/N0, Frequency, Doppler
Signal Retrieval ..... Doppler Compensation, Automatic Ambiguity Resolution
Monitoring & Control ..... Remote, Local, Web Based GUI
Signal Monitoring ..... Spectrum & Constellation Display

TIME & FREQUENCY

Time Format ..... IRIG-B, NASA-36, NTP
Frequency ..... Internal/External Clock 5, 10, 100 MHz

ENVIRONMENT

Chassis Size ..... 2U or 4U
Chassis Weight ..... 25 kg / 55 lb (Average)
Operating Temperature ..... +10°C to +40°C / +50°F to +104°F
Power Supply ..... Hot-swappable redundant
Connectors ..... SMA BNC RS422 TTL

LEO, GEO: We Meet Your Needs!

RUN
Essentials to Operate & Test Your Satellite

SPRINT
Leverage the Power of Cortex & Increase Productivity

BOLT
The Ultimate Package

NuRoN Enterprise: Central S/W Processing of Transported Digitized IF from/to Antennas

GLOBAL SALES
5, Avenue des Andes - CS 90101 - 91978 Courtaboeuf Cedex - FRANCE – Tel.: +33 1 69 82 78 00 - Email: sales.sdsy@safrangroup.com

USA
3005 Business Park Dr - Norcross, GA 30071 - USA – Tel.: +1 770 753 4017 - Email: sales@SafranDataSystemsUS.com

SAFRAN

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Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

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We're here to make your life easier. How can we help you today?

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