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.
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)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

> 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

> RANGING

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

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

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