Safran Data Systems’ RTR is the **worldwide acclaimed COTS telemetry receiver**. The latest release strengthens its position as the **most advanced digital telemetry receiver** on the market, while keeping the well-recognized **RF performance** and **signal processing capability**.

Based on the Cortex architecture, the 4U chassis-based RTR can support **up to four channels** providing the **utmost flexibility and capability** a Telemetry Receiver can achieve.

Not only the RTR provides a **rich set of features** for different frequency bands, modulations, decoders and output formats, but the user can **easily upgrade the equipment in the field** to access additional and new features.

The RTR fits particularly the flight tests ranges where **a full flexibility and access to settings** is needed, through its easy-to-use intuitive GUI on the embedded 8,4” screen.

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**SINGLE, DUAL, QUAD**
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Full Flexibility of Configurations

**EQ+**
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Adaptive Equalizer for all Modulations, on Video and PCM Outputs

**DQM/DQE**
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Embedded Data Quality Metrics / Encapsulation compatible with BSS

**8.4” SCREEN**
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Intuitive GUI, Keyboard and Trackball for Full and Easy Direct Control

**CH.10 OUTPUT**
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Easy and Modern UDP Data Spreading

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**Launch Vehicle Telemetry**

**Missile Testing**

**Fixed & Rotary Wing**

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**RTR**

Radio Telemetry Receiver for range and industrial testing
TELEMETRY GROUND SOLUTIONS

> ANALOG FRONT-END

**RF Input Signals**
- **RF Inputs**: Up to 4 (N-type 50 Ω)
- **Input Frequency Range**: S-band 2180 – 2485 MHz, L-band 1710 – 1850 & 1429 – 1545 MHz, P-band 200 – 500 MHz, C-IF-band 300 – 1150 MHz, C-band 4400 – 5250 MHz
- **Dynamic Range**: -10 dBm to noise threshold
- **Noise Figure**: < 9 dB (6 dB typ.)
- **Spurious Signal Rejection**: > 60 dBc
- **VSWR**: < 2 : 1

**IF inputs/outputs**
- **IF Inputs**: Up to 4 @ 70 MHz
- **IF Outputs**: Up to 6 (RSF interface)

> SIGNAL PROCESSING

**IF Filtering**
- **Analog Filters**: 8 pre-selection SAW (500 kHz to 40 MHz)
- **Digital Filters**: 30 FIR IF (3 kHz to 40 MHz)
- **Phase Noise**: Compliant to IRIG 106 Tier II

**AGC**
- **Modes**: Automatic / Manual / Freeze
- **Time Constants**: 5 steps, 0.1 to 1000 ms

**Tracking**
- **Demodulation**: AM

**Telemetry**
- **Demodulation**: PCM-FM, MSFM, SOQPSK, Multi-h CPM, PCM-P, BPSK, QPSK, AUQPSK, Subcarriers, Space Time Coding (STC), COFDM
- **Advanced Demodulation**: Polarisation, Space & Frequency
- **Combiner**: Pre-D and Post-D
- **Pre-D with optimal ratio or best source selection**: Pre-D gain up to 2.5 dB
- **Baseband Filtering**: 17 digital filters (12.3 kHz to 20 MHz)
- **De-emphasis**: CCIR 405-1 (525 or 625 lines)
- **Error Correction**: Viterbi, Reed-Solomon, Turbo codes & LDPC

**Bit Synchronizer**
- **Output Format**: RS422 and/or TTL
- **PCM Codes**: NRZ-L/M/S, BP-L/M/S, DM-M/S, differential, RNRZ-L
- **Maximum Bit Rates**: 30 Mbps in PCM/FM, 60 Mbps in SOQPSK, 45 Mbps in Multi-h CPM

> EQ+ ADAPTIVE EQUALIZER

**Modulations**: All, i.e. PCM-FM, SOQPSK & Multi h-CPM
**Equalized Outputs**: Video, PCM & Ethernet
**Performance**: Market-acclaimed error-free telemetry on taxi way, on parking & before launch for missiles / launch vehicles

> MONITORING & CONTROL

**Local Control**: 8.4" screen, keyboard and trackball
**GUI**: Intuitive & fully customizable
**Remote Control**: Same GUI, thru TCP-IP

> ENVIRONMENT

**Chassis**: Rackable, 19", 4U, 550 mm (21")
**Weight**: ~25kg
**Operating Temperature**: +10°C to +50°C
**Storage Temperature**: -40°C to +70°C
**Power Supply**: 100-240 VAC, 50-60 Hz

> VARIANTS

**Baseline**: RTR-NeXt Single/Dual/Quad channel
**Additional Band**: P-band, C-IF band, L band, C-band
**Advanced Demodulation**: SOQPSK, MH-CPM, PM, BPSK, QPSK, STC, COFDM, Subcarriers...
**Additional FEC**: Viterbi, Reed-Solomon, Turbo codes & LDPC
**Additional Interfacing**: Frame Sync, Ethernet ch10...

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