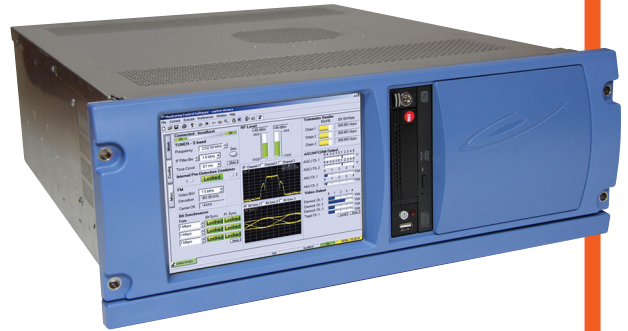


DATA SYSTEMS



RTR-X4

Radio Telemetry Receiver for range and industrial testing



TELEMETRY GROUND SOLUTIONS



Safran Data Systems' RTR-X4 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-X4 can support **up to four channels** providing **the utmost flexibility and capability** a Telemetry Receiver can achieve.

Not only the RTR-X4 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-X4 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.



Launch Vehicle Telemetry



Missile Testing



Fixed & Rotary Wing

DUAL, QUAD AND RECORDING OPTION

Full Flexibility of Configurations, including full band visibility and optional RF recording

EQ+

Adaptive Equalizer for all Modulations, on Video and PCM Outputs

8.4" SCREEN

Intuitive GUI, Keyboard and Touchpad for Full and Easy Direct Control

DQM/DQE

Embedded Data Quality Metrics / Encapsulation compatible with BSS

CH.10 & IRIG218-20 OUTPUT

Easy and Modern UDP Data Spreading

> ANALOG FRONT-END

RF Input Signals

RF Inputs	2, wideband (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 (RSR interface)

> SIGNAL PROCESSING

IF Filtering

Pass-band 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
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Telemetry

Demodulation	PCM-FM, MSFM, SOQPSK, Multi-h CPM
.....	PCM-PM, BPSK, QPSK, OQPSK, AUQPSK, Subcarriers,
Advanced Demodulation	Space Time Coding (STC), COFDM
Diversity.....	Polarisation & 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 (12.5 kHz to 20 MHz)
De-emphasis	CCIR 405-1 (525 or 625 lines)
Error Correction.....	Viterbi, Reed-Solomon, Turbocodes & LDPC

Bit Synchronizer

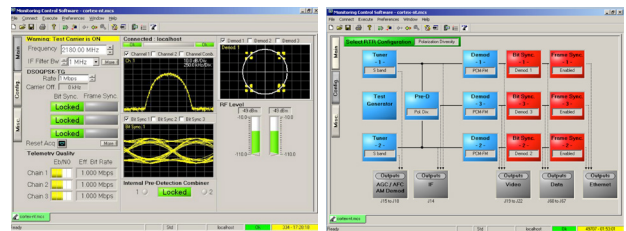
Output Format	RS422 and/or TTL
PCM Codes	NRZ-L/M/S, BP-L/M/S, DM-M/S, differential, RNRZ-L
Maximum Bit Rates.....	30 Mbps in PCM/FM
.....	60 Mbps in SOQPSK
.....	45 Mbps in Multi-h CPM

> 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 touchpad GUI
Remote Control	Intuitive & fully customizable
.....	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

> NEW FEATURES

Full Band Visibility....	Spectrum analysis of the whole telemetry band
Test Signal Generator.....	With both internal and external signal for short and long loop
Optional RF recording.....	Up to 4x40 MHz bandwidth
Embedded multicoupler on the Quad receiver.....	Only two inputs for LHCP and RHCP

> VARIANTS

Baseline	RTR-X4 Dual/Quad channel
.....	S-band, AM, PCM-FM & Bit Synchronizer
Additional Band	P-band, C-IF band, L band, C-band
Additional Demodulation	SOQPSK, MH-CPM, PM, BPSK, QPSK, STC, COFDM, Subcarriers...
Additional FEC.....	Viterbi, Reed-Solomon, Turbocodes & LDPC
Additional Features	Equalizer EQ+, DQE/DQM...
Additional Interfacing.....	Frame Sync, Ethernet ch10, Ethernet IRIG218-20

GLOBAL SALES

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