RI8596 - 100kHz to 24GHz Receiver

Cassini Instrument Profile

Applications

- Radio Systems
- Multi-Band Modules

MMICs

RFICs

Overview

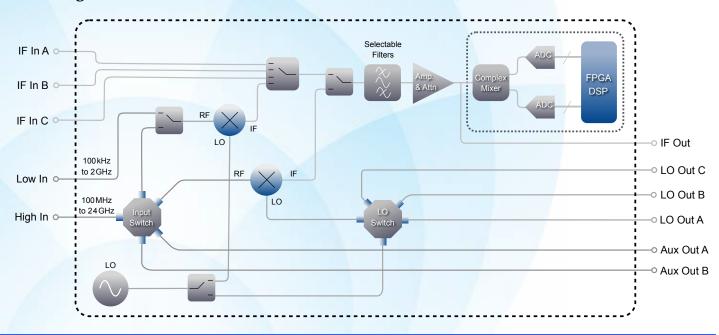
The RI8596 Receiver provides a versatile RF front-end, integrated LO, frequency down conversion, and baseband DSP for applications in the 100 kHz to 24 GHz range. Incorporating our innovative SyRF Core technology, the RI8596 features multiple RF ports that interface with Cassini's Test Set instruments to extend the measurement range up to 90 GHz with precision vector calibration and error correction. Highlinearity mixers and a selectable analog filter bank enable up to 5 MHz of instantaneous bandwidth and signal detection down to -100 dBm. Behind dual high-speed ADCs is an embedded FPGA with real-time DSP for vector/spectral analysis, digital filtering, demodulation, and user-defined signal processing.



Key Features

- Measure Absolute Power, Phase, Noise Figure, S-Parameters
- >100 dB of Dynamic Range from 25MHz to 24GHz
- Real-time DSP for PAR, ACPR, FFT, & EVM
- 2 RF Inputs, 3 Baseband Inputs, 3 LO Outputs

Block Diagram





RI8596 - 100kHz to 24GHz Receiver

Cassini Instrument Profile

Performance

$\overline{}$	

Frequency Range 100 kHz to 24 GHz
Power Range -100 dBm to +10 dBm
Frequency Lock ~100 µs

Baseband

Analog Bandwidth Noise Floor Sample Rate

7 kHz, 200 kHz, 5MHz (selectable) -155 dBm/Hz @ 1 GHz (typical) 80 Msps

Inputs/Outputs



Cassini Test Systems

A versatile, high-speed, automated test solution for analog, mixed-signal, RF, and millimeter-wave devices.

Cassini provides a modular base architecture that is fully configurable via Test Instrument Modules (TIMs) to meet the needs of any IC, wafer, or module test requirement.

Each TIM contains internally-cooled, RF-shielded measurement instrumentation, signal distribution, and blind mate interfacing to provide targeted test resources and integrate to build up a complete production test platform.

Combined with Roos Instruments' integrated test software, Cassini can be configured to any application for maximum performance, true low cost of test, and the industry's fastest test times.

Roos Instruments 2285 Martin Ave. Santa Clara, CA 95050 TEL +1 - 408 - 748 - 8589 sales@roos.com www.roos.com CASSINI

ALL PRODUCT, PRODUCT SPECIFICATIONS, AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE PERFORMANCE, FUNCTION, DESIGN, OR OTHERWISE. The information in this document is, to the best of our knowledge, accurate at the date of publication.