

Applications

- Radio Systems
- Multi-band Modules
- MMICs
- RFICs

Overview

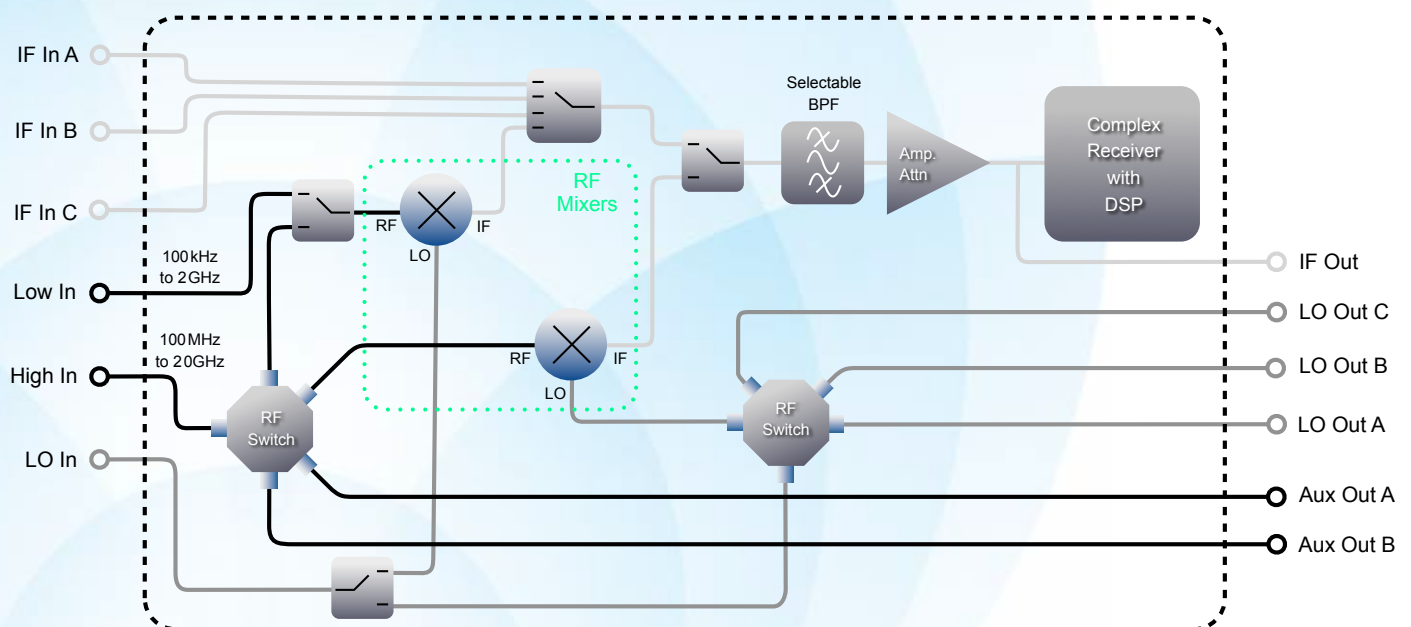
The RI8587 Receiver provides a versatile RF front-end, frequency down converter, and baseband DSP for applications in the 100kHz to 20GHz range. Incorporating our innovative SyRF Core technology, the RI8587 features multiple RF ports that interface with Cassini's Testset instruments to extend the frequency range of the front-end up to 90GHz while providing a complex synchrodyne back-end for precision vector measurements. High-linearity mixers and a selectable filter bank enables up to 7MHz of instantaneous bandwidth and signal detection down to -100dBm. 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*
- *>100dB of Dynamic Range from 100kHz to 20GHz*
- *Real-time DSP for PAR, ACPR, FFT, & EVM*
- *2 RF Inputs, 3 Baseband Inputs, Reference LO Input*

Block Diagram



Performance

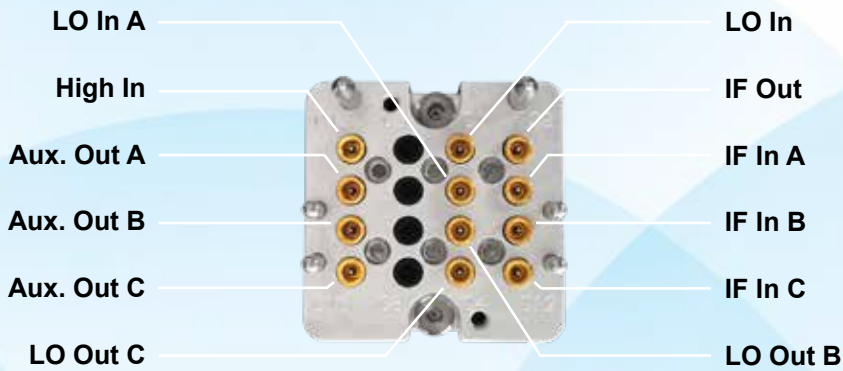
RF Front-End

Frequency Range	100kHz to 20 GHz
Power Range	-100dBm to +10dBm
Frequency Lock	~100µs

Measure

Analog Bandwidth	7 kHz, 200kHz, 7 MHz (selectable)
Noise Floor	-155 dBm/Hz @ 1GHz (typical)
Sample Rate	80Mmps

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.

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