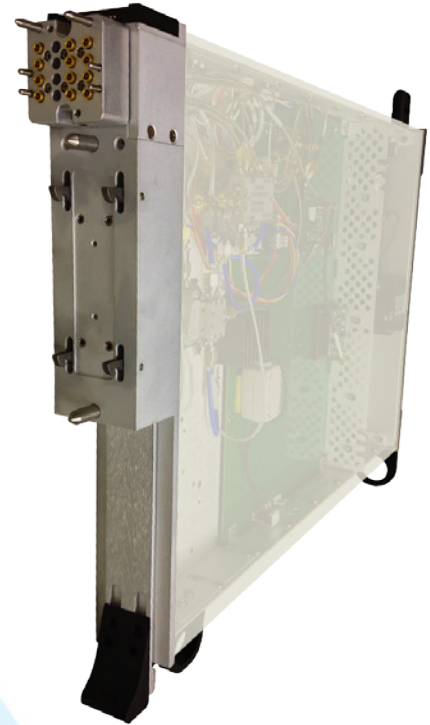


## Applications

- Radio Systems
- MMICs
- Multiband Modules
- RFICs

## Overview

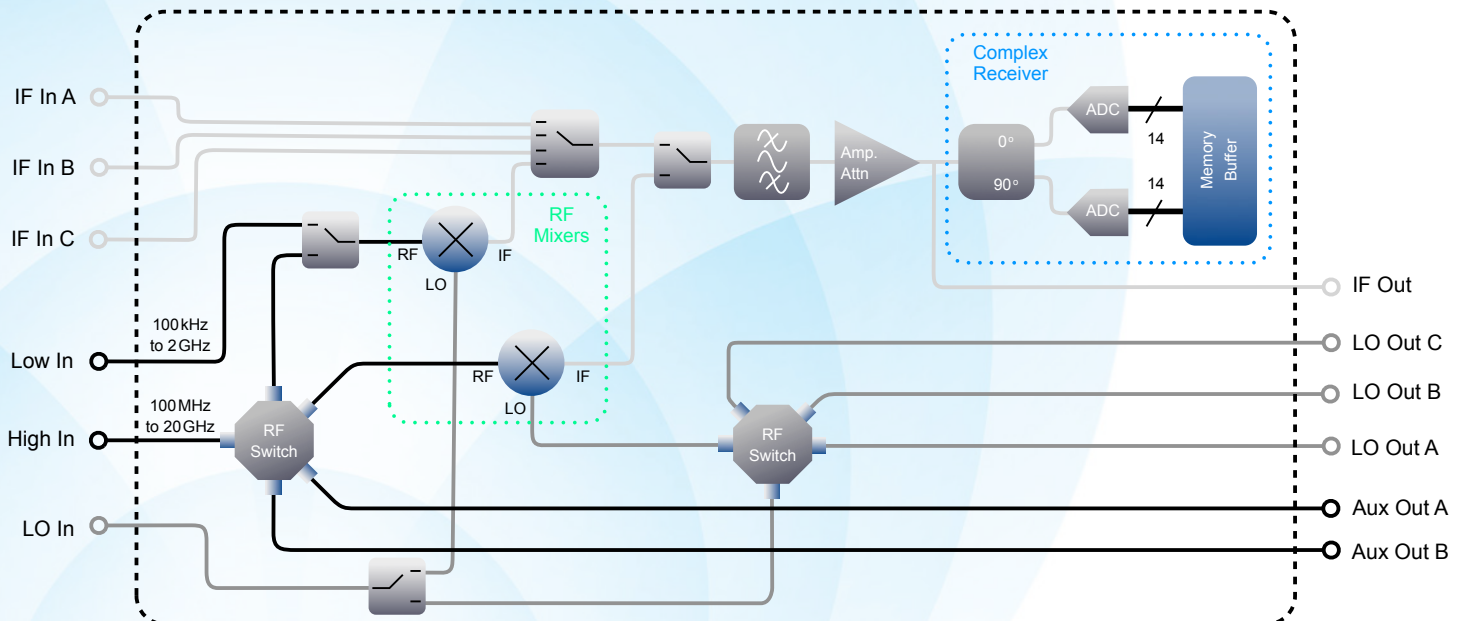
The RI8581 Receiver provides a versatile RF front-end, frequency downconversion, and baseband digitizer for applications in the 100kHz to 20GHz range. The RI8581 features multiple RF I/O to interface with any of Cassini's Testset instruments to extend the frequency range of the front-end while providing 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. Dual 14-bit ADCs capture data at up to 80MSPs for vector/spectral analysis, demodulation, and general purpose signal processing.



## Key Features

- 2 RF, 3 Baseband, & Reference LO Inputs
- Measure Absolute Power, Phase, Noise Figure, S-Parameters
- >100dB of Dynamic Range from 100 kHz to 20 GHz
- Measure PAR, ACPR, FFT & EVM

## Block Diagram



### Performance

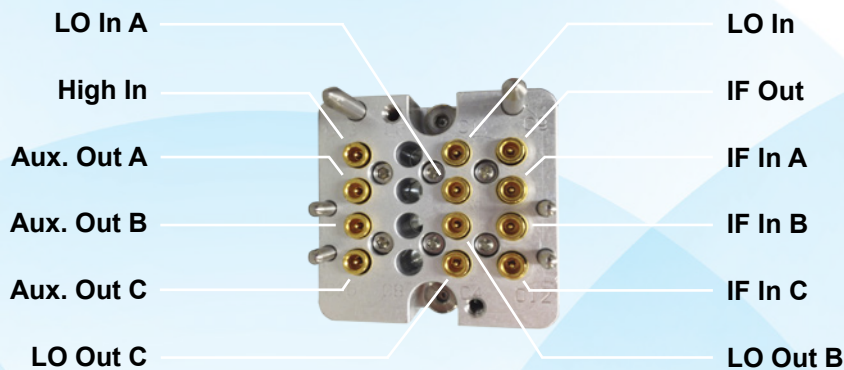
#### Front-End

Frequency Range	100kHz to 20MHz
Power Range	-100dBm to +10dBm
Frequency Lock	< 100µs

#### Receiver

Analog Bandwidth	7kHz, 200kHz, 5MHz (selectable)
Noise Floor	-155 dBm/Hz @ 1GHz (typical)
Sample Rate	80Msps

### 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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