# RI8577 - Microwave Combiner

Cassini Instrument Profile

#### **Applications**

- 2-Tone Modulation
- Arbitrary RF Signal Combination
- Intermodulation Distortion Test
- RF Signal Amplification & Attenuation



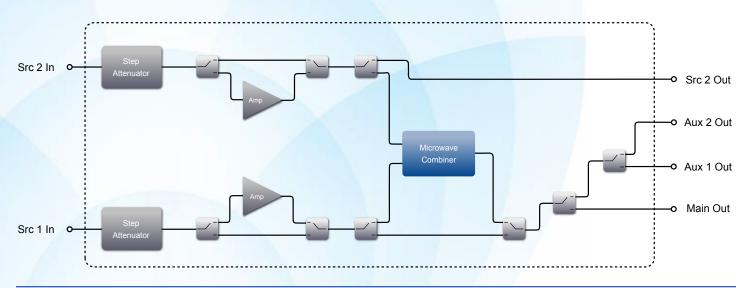
#### **Overview**

The RI8577 Microwave Combiner provides a drop-in solution for wide-band microwave signal combination of RI8508 RF Modulated Sources or RI7725 Microwave Sources. Each input channel provides calibrated signal paths with independent signal attenuation and amplification, ideal for 2-tone signal stimuli, intermodulation test, and harmonic signal measurements. The software controlled RF switching topology supports in-line, multi-port/multi-site signal routing and flexible resource distribution schemes.

## **Key Features**

- 500 MHz to 20 GHz Mutli-Frequency Microwave Signaling
- Precision 110 dB Step Attenuator with 10 dB increments
- Software Controlled Signal Conditioning and Routing
- High Linearity RF Signal Amplification

## **Block Diagram**





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#### **Performance**

Frequency Range	500 MHz to 20 GHz
Signal Range (Max   Min)	-100 dBm to +25 dBm
Insertion Loss	0.5 dB
Channel Isolation	>60 dB
VSWR <sup>1</sup>	1.5

<sup>&</sup>lt;sup>1</sup> Average value across DC - 20 GHz

#### Inputs/Outputs

Src 2 In

Main RF Out

Aux Out 2



Src 1 In

Aux Out 2

Src 2 Out

## **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

sales@roos.com www.roos.com



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