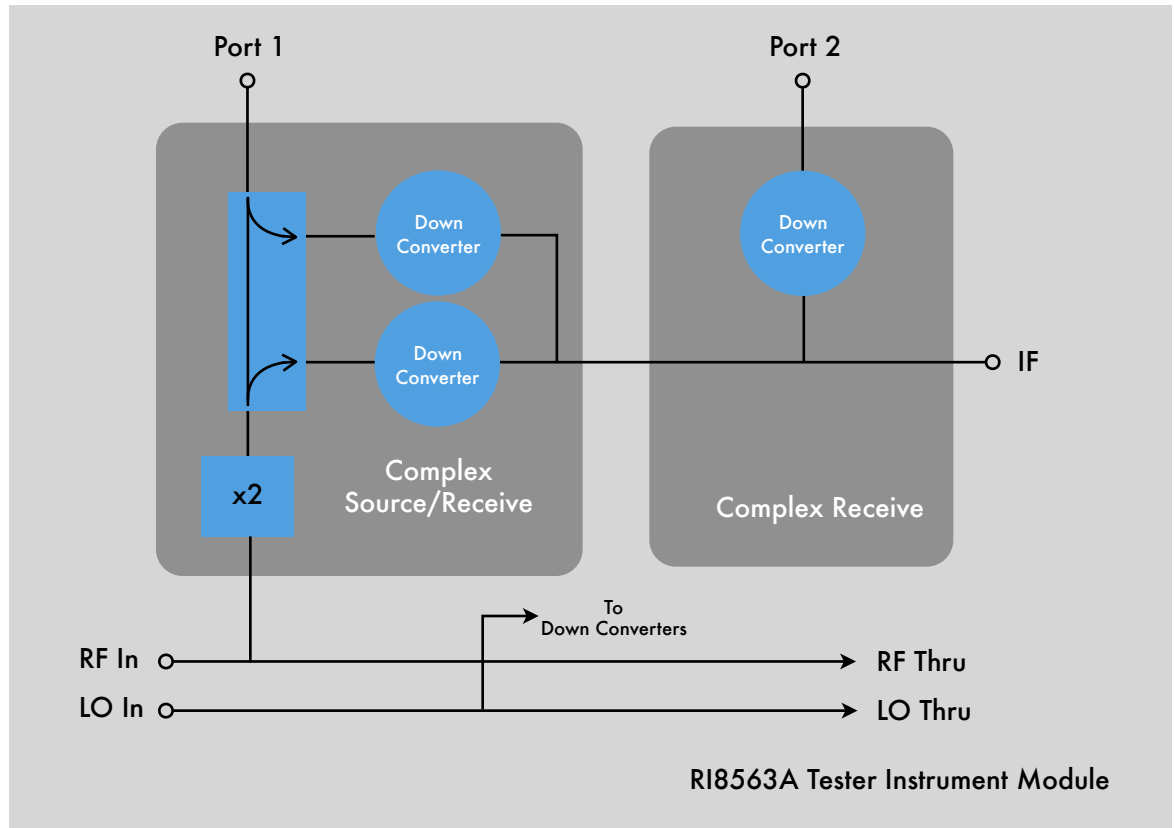




Tester Instrument Module Brief



RI8563A: 20 - 40.5GHz 2-Port, 1-Path Testset

40.5GHz Extension for 20GHz systems

The RI8563A 20-40.5 GHz Test Instrument Module (TIM) is a single slot module that extends 20GHz general tester coverage to 40.5GHz on Cassini test systems. Each TIM provides one source/receive port and one receive only port.

The 20-40.5GHz TIM requires two 20GHz sources (RF and LO)

be configured in the same test system. Full access to 20GHz resources is maintained via pass through paths provided in the TIM.

Calibration is available at the TIM and Fixture level.



Key Specifications

- ➔ 20 - 40.5GHz Source and Measure
- ➔ Programmable Power Range -25 to +3dBm
- ➔ Level Resolution 0.1dB
- ➔ Measurement Noise Floor -115dBm (RF2)

R18563A

Radar Assisted Cruise Control

Local Multipoint Distribution (LMDS)

Applications

Radar Assisted Parking

Point - to - Point

3G/4G Cellular Backhaul

Wireless base station

Broadband communications

TIM Level Performance Data

RF Source Capabilities

Minimum RF Frequency	20GHz
Maximum RF Frequency	40.5GHz
Frequency Accuracy	Same as system timebase*
Frequency Resolution	2Hz
Minimum Programmable Port RF Power	-25dBm
Maximum Programmable Port RF Power	+3dBm
Level Resolution	0.1dB
Level Accuracy ²	±2.5dB, ±0.3dB using set and measure

RF Measurement Capabilities

Minimum RF Frequency	20GHz
Maximum RF Frequency	40.5GHz
Frequency Accuracy ¹	Same as system timebase*
Maximum Input Level for < 0.1dB Compression	
RF1	+10dBm
RF2	-5dBm
Noise Floor at 30GHz (typical)	
RF1	-100dBm/Hz
RF2	-115dBm/Hz
Power Accuracy ²	±0.5dB
Power Resolution	0.01dB
Phase Range	0 to 360°
Phase Accuracy	±4°
Phase Resolution	0.06°

* 1. All time bases for system components are synchronized. Internal Time Base Accuracy is ±1 ppm variation from 10 to 30 degrees C. and ±5 ppm absolute accuracy.

* 2 Excludes calibration standards uncertainty. Accuracy is into 50 ohms. Poor device match may degrade accuracy

Mechanical Specifications

Single TIM Unit
Weight: 7 lbs.
TIM Block Type: 16 Coax
TIM Blindmate Contact Force: 20 lbs

Information furnished by Roos Instruments Inc, is believed to be accurate and reliable. However no responsibility is assumed by Roos Instruments for its use. Specifications subject to change without notice.

Cassini Test Systems

A Complete High Speed Automated and Integrated Test Solution for all types of communications and mixed signal devices.

Cassini test systems consist of a simple base system providing computer, power, software and docking capabilities.

Additional test capability needed for virtually any type of IC, Wafer, or Module can be configured via Tester Instrument Modules (TIMs) that plug into the Test Head plate.

Each TIM contains its own cooling, signal distribution and blind mate interface suited to its application.



The result is the ability to configure a Cassini for any application with almost no system overhead. This is equally true for low pin count as well as high pin count test requirements

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