

Keysight TC611

GaAs Detector Diode Sensitivity Measurements

Technical Overview

Description

The TC611 was installed into a 2.4 mm, 50 GHz diode detector housing (the same housing used for Keysight Technologies, Inc. Coaxial Detector 33330E). Detector voltage measurements were made using the internal 50 pf bypass capacitor and an external 10 KW load resistor. A 50 ohms resistor near the diode terminates the RF_{in} .

This product note presents sensitivity measurements as $V_{detector}$ millivolts vs. RF_{in} (dBm) at 10 GHz and 30 GHz. From these measurements the deviation from linearity is calculated and plotted referenced to -40 dBm.

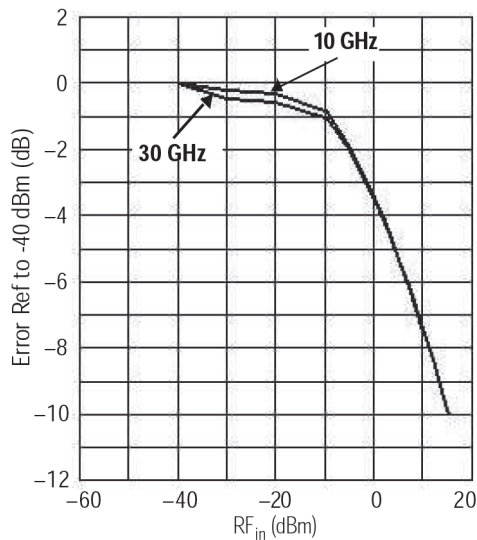


Figure 1. Deviation from linearity (dB)

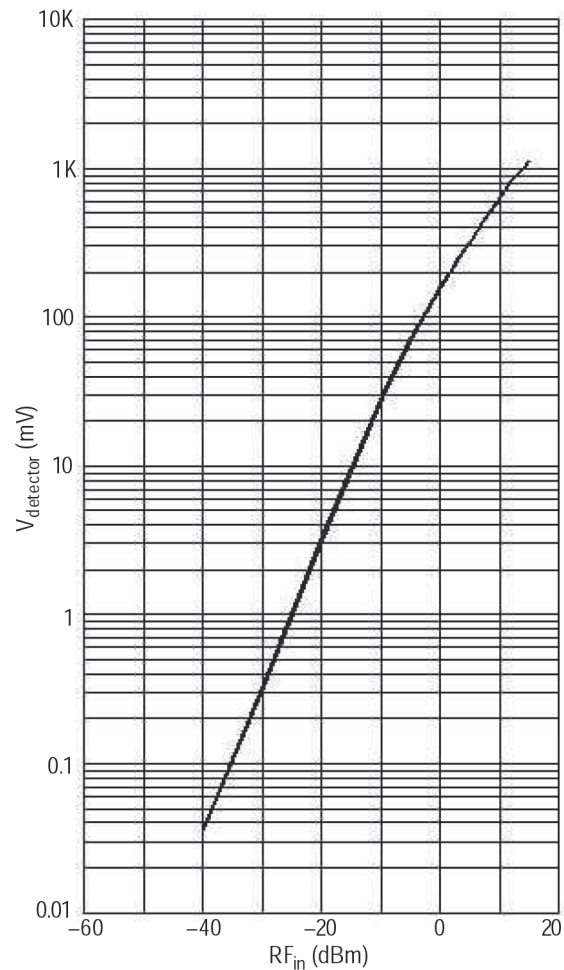


Figure 2. Detector sensitivity 10 GHz & 30 GHz

Note: This technical overview provides supplemental information not included in the product data sheet. The purpose of supplemental data is to provide the end user with useful product-specific information to aid in the design process. The information provided does not represent or imply additional product specifications. Every attempt has been made to provide accurate data on typical products.

myKeysight

myKeysight

www.keysight.com/find/mykeysight

A personalized view into the information most relevant to you.

www.keysight.com/quality

Keysight Technologies, Inc.

DEKRA Certified ISO 9001:2008

Quality Management System

Keysight Channel Partners

www.keysight.com/find/channelpartners

Get the best of both worlds: Keysight's measurement expertise and product breadth, combined with channel partner convenience.

www.keysight.com/find/MMIC



For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: www.keysight.com/find/contactus

Americas

Canada	(877) 894 4414
Brazil	55 11 3351 7010
Mexico	001 800 254 2440
United States	(800) 829 4444

Asia Pacific

Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 112 929
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Other AP Countries	(65) 6375 8100

Europe & Middle East

Austria	0800 001122
Belgium	0800 58580
Finland	0800 523252
France	0805 980333
Germany	0800 6270999
Ireland	1800 832700
Israel	1 809 343051
Italy	800 599100
Luxembourg	+32 800 58580
Netherlands	0800 0233200
Russia	8800 5009286
Spain	0800 000154
Sweden	0200 882255
Switzerland	0800 805353
	Opt. 1 (DE)
	Opt. 2 (FR)
	Opt. 3 (IT)
United Kingdom	0800 0260637

For other unlisted countries:
www.keysight.com/find/contactus
(BP-07-10-14)



This information is subject to change without notice.
© Keysight Technologies, 2013 - 2014
Published in USA, August 3, 2014
5991-3515EN
www.keysight.com