

Features:

- RF Frequency: 24-28 GHz
- Input Return Loss: 13 dB
- Detecting Voltage: 0.36 to 6.1 V
- Input Power Detection: -20 to 20 dBm
- Diode Bias: 1.3 V
- 0.1um GaAs pHEMT Technology
- Die Size: 1.2 mm * 1.02 mm

Description:

RFTSSI28 is a Voltage Detector that operates at 24 – 28 GHz. The Voltage Detector provides Input Power Detection from -20 dBm to 20 dBm. The input and output are matched to 50 Ohms with on-chip DC blocking capacitors.

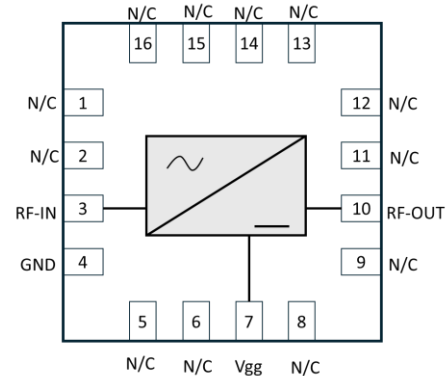
The device is specifically designed for 24 – 28 GHz frequency in 5G Wireless Communication, Radar Systems, WiFi, Fixed Wireless Access (FWA), Imaging and Sensing, and SATCOM Applications.

The Technology used to design the Voltage Detector is a 0.1um GaAs pHEMT Process.

Applications:

- 5G Wireless Communication.
- SATCOM
- Radar Systems
- Fixed Wireless Access (FWA)
- Imaging and Sensing

Functional Block Diagram



Pin Configuration

Pin No.	Pin Name	Description
3	RF-IN	RF Input
10	RF-OUT	RF Output
7	VGG	Gate Voltage
4	GND	Ground
1,2,5,6,8,9,11,12,13,14,15,16	N/C	Not Connected

Deliverables:

- Sample Ready Die
- Product Datasheet

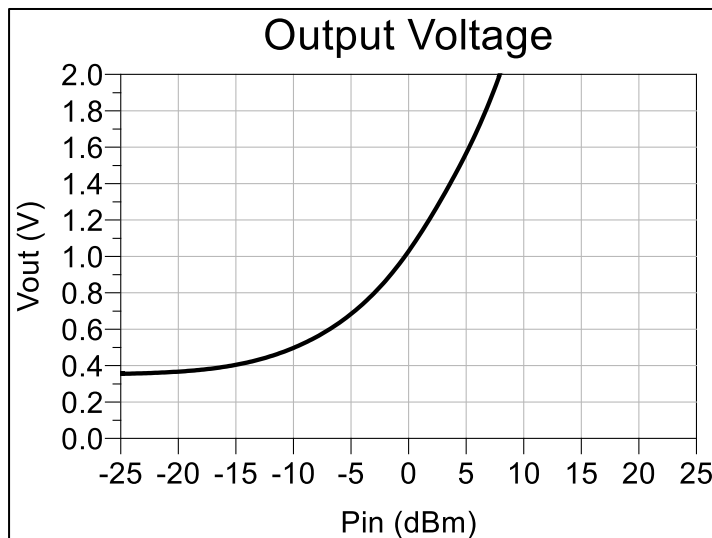
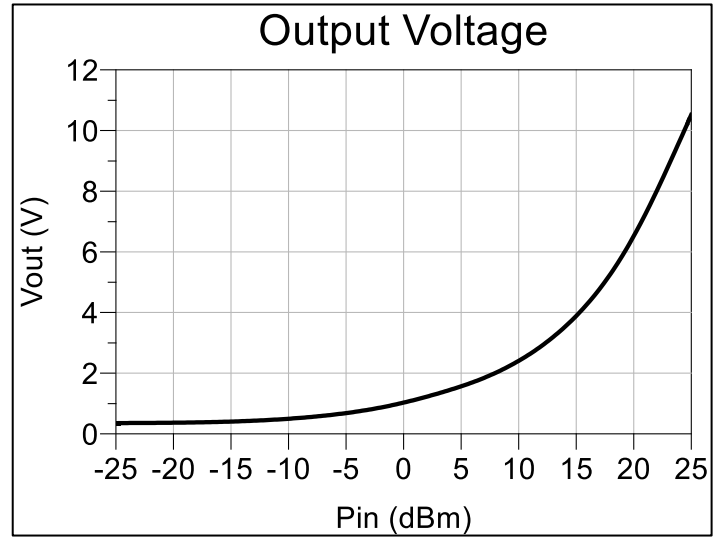
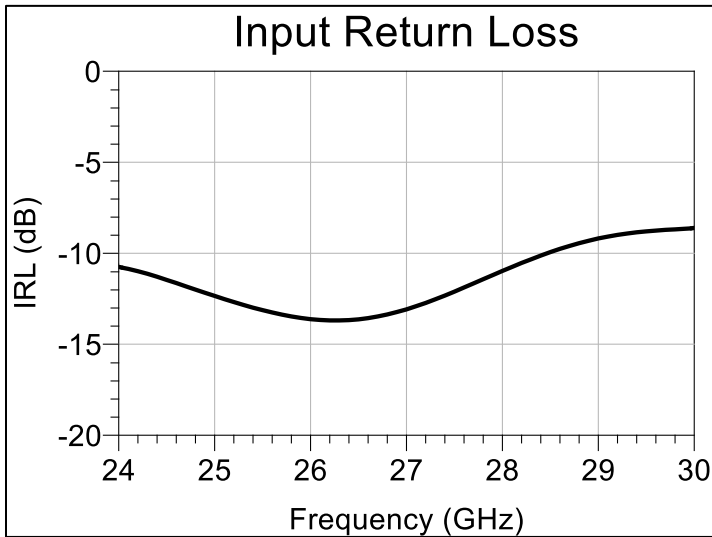
Electrical Specification:

Freq= 24 - 28GHz, VDD = 1.2V, ID= 175 uA, Zo=50 Ω

Parameters	Test Condition	Units	Typ
Input Return Loss	24 GHz	dB	10.7
	27 GHz		13
	30 GHz		8.6
Output Voltage	Pin @ -20	V	0.36
	Pin @ 0		1
	Pin @ 20		6.5
Operating Bias Conditions			
Drain Current (Id)	-	uA	175
Drain Voltage (VDD)	-	V	1.3
Gate Voltage (VGG)	-	V	-

Voltage Detector

Typical Performance Curves:



Disclaimer:

RFIC confidential property not to be copied or disclosed without prior authorization.

Information in this document is provided in connection with RFIC Solutions Inc. products. These materials are provided by RFIC Solutions Inc. as a service to its customers and may be used for informational purposes only. Except as provided in RFIC Solutions Inc. Terms and Conditions of Sale for such products or in any separate agreement related to this document, RFIC Solutions Inc. assumes no liability whatsoever. RFIC Solutions Inc. assumes no responsibility for errors or omissions in these materials. RFIC Solutions Inc. may make changes to specifications and product descriptions at any time, without notice. RFIC Solutions Inc. makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document.

Contact information

For the latest specifications, additional product information:

Web: www.rficsolutions.com

Email: smoghe@rficsolutions.com

Tel: (+91) 840 356 8957, (+91)9022078131, (+91)8485841789