

ANALOG LEVEL DETECTOR *TNJ9910*

PACKAGE: 4 Pin 0.45" Sq. Surface
Mount Package (SM3)

Features

- -120 mV Output for -10 dBm Input Power
- ± 1.0 dB Flatness
- Operating Temp. -54 °C to +85 °C
- Environmental Screening available

Specifications

CHARACTERISTIC	TYPICAL $T_a = 25\text{ }^\circ\text{C}$	MIN/MAX $T_a = 0\text{ }^\circ\text{C to } +50\text{ }^\circ\text{C}$
Detected Voltage (mV) $f = 500\text{ MHz}^* \#$	-120	-90 Min.
Flatness (referred to Input) (dB) $f = 10 - 1000\text{ MHz}^* \#$	± 0.7	± 1.0 Max.
Variation over Temperature (dB) (referred to input), $f = 500\text{ MHz}^* \#$	± 1	
Tangential Sensitivity (TSS)(dBm) $f = 500\text{ MHz}$, $BW_{VID} = 1\text{ MHz}^*$	-45	-40 Max.
Input VSWR, $50\text{ }\Omega$ $f = 10 - 500\text{ MHz}$	1.5:1	1.5:1 Max.
Output Offset Voltage (mV) $I_D = I_{REF} = 50\text{ }\mu\text{A}$, no RF Drive	± 10	± 15.0 Max.
Differential Voltage Tracking (mV)	± 5	
Output Capacitance (pf)	1000	1300 Max.
Power Vdc mA	+15 16	+15 20 Max.

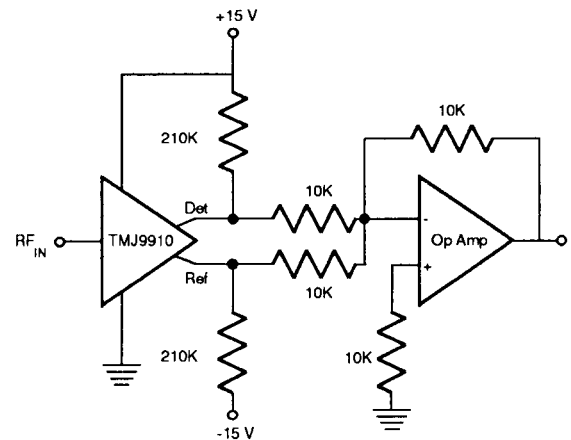
Note: Care should always be taken to effectively ground the case of each unit.

* $I_D = 50\text{ }\mu\text{A}$, $R = 10\text{ K}\Omega$

$P_{IN} = -10\text{ dBm}$ (RF Input)

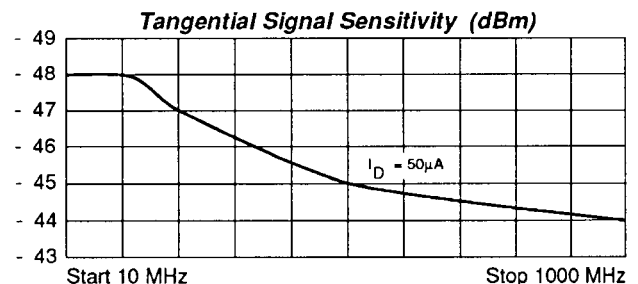
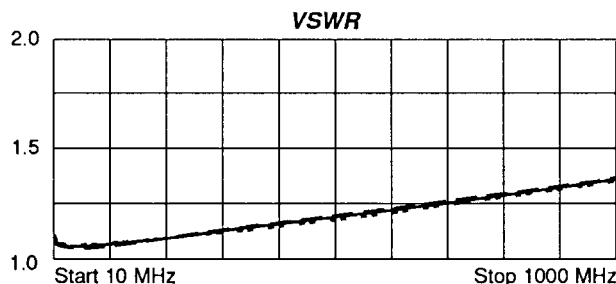
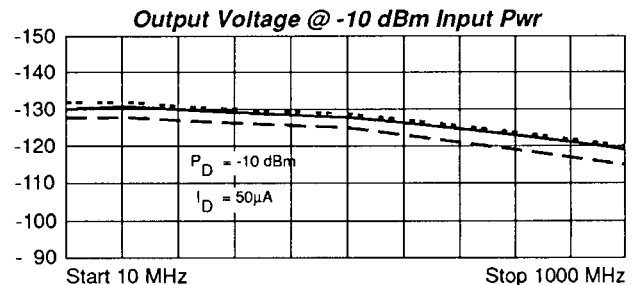
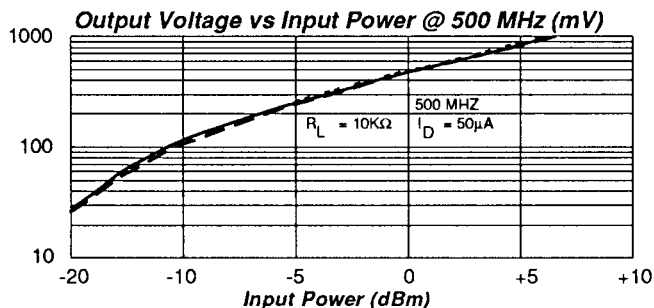
Maximum Ratings

Operating Case Temperature -55 °C to +125 °C
Storage Temperature -62 °C to +150 °C
Bias Current (Diode) 1 mA
Continuous RF Input Power +17 dBm
Short Term RF Input Power 100 mW
(1 Minute Max.)



Bias Circuit

Typical Performance Data



Amplifonix

Legend — +25 °C - - +50 °C 0 °C

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