

General Description

RPG offers a new series of zero bias waveguide detectors covering the frequency range 50 to 900 GHz. The combination with an associated signal-amplifier eliminates the need for external bias supplies and guarantees high tangential sensitivities together with fast response times.

WDT detectors are equipped with UG-387 waveguide flange and additional feed horn antennas if required. A video amplifier power supply is available.



illustration of detector head

Key Features

- RF input bandwidth 10% typical
- video bandwidth up to 250 kHz
- low noise 5mV @ n=500 video gain
- rail to rail signal output
- no mechanical tuners

Order Code: WDT-xx-yy

xx	frequency band (in GHz)
yy	video amplifier bandwidth

Absolute Maximum Ratings

	max	unit
RF input power	+0	dBm
supply voltage	±8	V
case temperature	+85	°C

Electrical Specifications

	min	typ	max	unit
RF bandwidth		>10		%
RF sensitivity		4 @ 220 GHz 0.3 @ 900GHz		V/mW
video amplifier supply voltage	±3		±5	V
video amplifier bandwidth	0.01*		250*	kHz
video amplifier output voltage range	V-		V+	V
video amplifier output voltage ripple (gain = 500)		3		mV _{eff}
video amplifier output current		4		mA

* Video bandwidth can be specified by customer

Mechanical Dimensions

