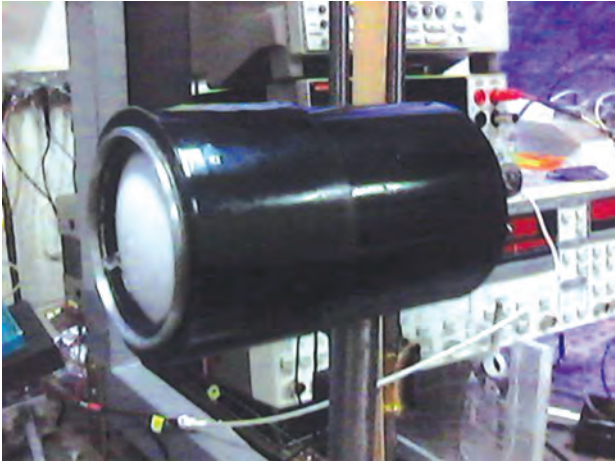


## THz/SubTHz RADIATION DETECTOR



### Areas of Application

The detector is to be used for registration and analysis of THz / sub-THz radiation in security systems to carry out nondestructive tests and to detect hidden objects

### Advantages

The device is cheaper than the foreign counterparts

### Specification

Spectral range $\nu$ , GHz	$\approx 30 - 300$
Operating temperature T, K	300
Noise equivalent power	
NEP <sub>140 THz</sub> , W/Hz <sup>1/2</sup>	$\approx (3 - 5) \cdot 10^{-10}$
Sensitive area S:	
without antenna, $\mu\text{m}^2$	$\approx 40 \times 40$
with antenna, $\text{mm}^2$	$\approx 2 \times 2$
Response time $\tau$ , s	$\approx 10^{-7}$
Signal at detector output, V	$\approx 2.5$
Dimensions, mm	$50 \times 90$
Diameter of focused spot (DAiry(140 GHz)) $\varnothing$ , mm	$\approx 5$

### Stage of Development. Suggestions for Commercialization

IRL7, TRL8  
Manufacture, delivery, warranty service,  
and staff training, upon request

### IPR Protection

IPR1, IPR3

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