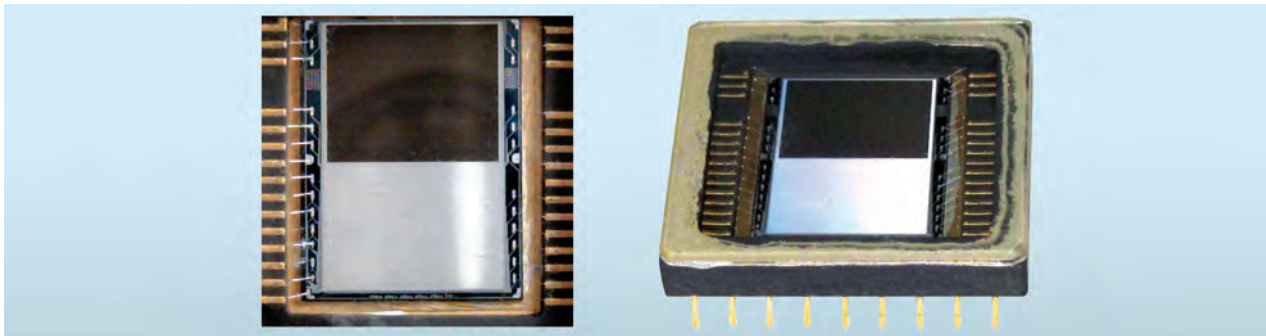


ULTRASENSITIVE PHOTOMATRIX OF VISIBLE RANGE



EMCCD photomatrix (top view and side view)

Areas of Application

Identification of dynamic and static objects in low brightness conditions; security systems; supervision systems; driving vehicles in low light conditions

Specification

Spectral range, nm	400 – 1060
Matrix format	640 × 512, 640 × 780, 1024 × 1024
Frame rate, Hz	≥25
Pixel size, μm ²	16 × 16, 13 × 13, 10 × 10
Luminosity dynamic range, lx	10 ⁻⁴ – 10 ¹
Type of base element	EMCCD (electron multiplication charge coupled devices)



Image of a building in night conditions (at a luminosity $\sim 5 \times 10^{-4}$ lx) obtained with the use of EMCCD matrix

Stage of Development.

Suggestions for Commercialization

IRL4, TRL3

Design of configuration and process technology for manufacture of ultrasensitive EMCCD photo matrix. Devices can be manufactured upon request

IPR Protection

IPR1, IPR2

Advantages

There are no analogs in Ukraine. The foreign analogs are subject to restrictions on sale abroad. The devices are cheaper as compared with foreign products

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