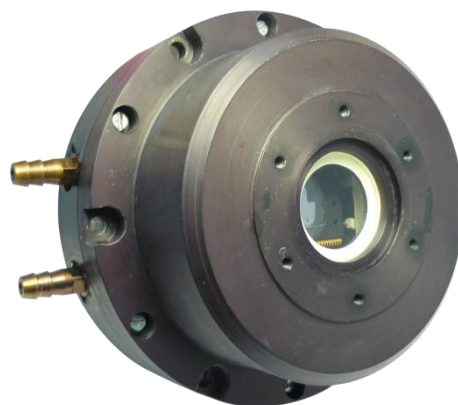


FPU –1M PHOTODETECTOR

FPU-1M is intended for wide application, including: detection of small size objects with higher accuracy. It is used in TV systems of image conversion and processing with continuous and pulse illumination as well, as in measurement equipment.

FPU consists of:

- CCD chip;
- chip holder (base);
- cooled package with thermoelectric battery;
- removable input window.



FPU-1M basic photosensitive element is cooled 1536x1536 CCD.

The CCD is a silicon thinned frame transfer n-channel device based on p-type substrate

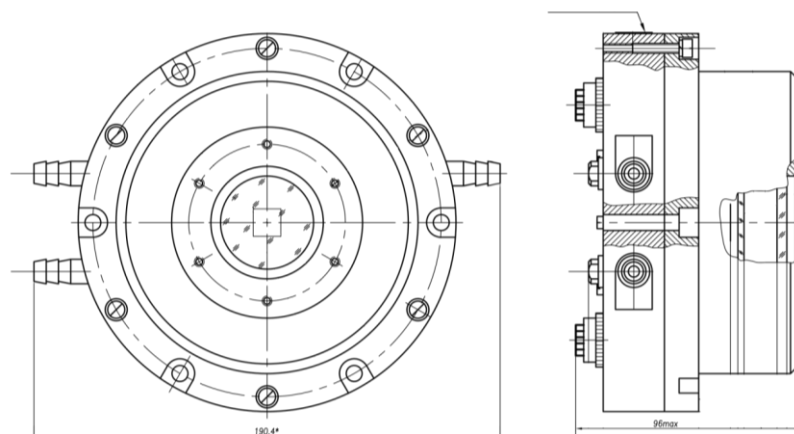
SPECIFICATIONS

Saturation voltage, mV	> 600
Saturation charge, thousand of electrons	> 120
Dynamic range	> 2400
Quantum efficiency in spectral range maximum, %	> 80 (1)
Spectral response, nm	300-1000 (1)
Dark signal, mV/s	<100
Relative dark signal nonuniformity, %	<2
Relative luminous nonuniformity, %	<10
Transfer efficiency along the horizontal	>0.99995
Transfer efficiency along the vertical	>0.99995
Pixel size, μm	11x11
CCD chip thermoelectric cooling relative external temperature, K	>50
Number of pixels	1200x1200

Register operation frequency, MHz	>1.0
-----------------------------------	------

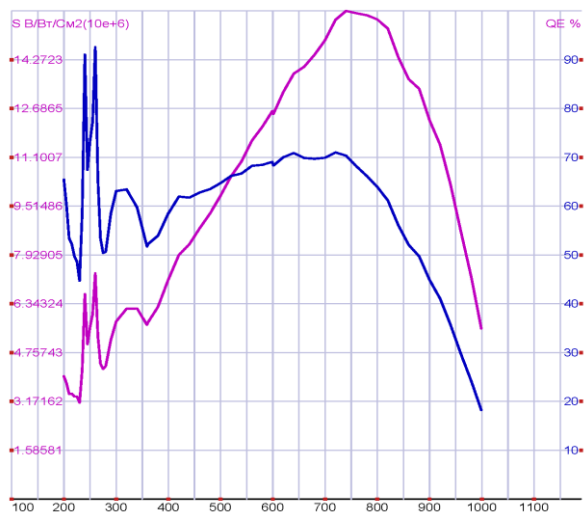
(1) For modification with higher response in IR-spectral range.

DIMENSIONAL OUTLINE



SPECTRAL RESPONSE CHARACTERISTIC

With higher response in UV-spectral range



With higher response in IR-spectral range

