ABSTRACT

NIGHT VISION SYSTEM AND METHOD

A night vision system and method for imaging an object at or near room temperature and in the wavelength region up to 2.5 microns is described. The includes a photodetector having a cut-off wavelength of 2.5 microns under the room temperature, an optical system configured for collecting light and focusing the collected light onto the photodetector, and a spectral filter located in an optical path of light propagating toward the photodetector. The spectral filter is configured and operable to selectively filter out light of wavelength shorter than a predetermined value, thereby gradually shifting operation of the night vision system from mostly reflection mode to a combined reflection and thermal mode, to allow the night vision system to detect light reflected from and emitted by the object being imaged.

FIG. 7A