

ABSTRACT**IR IMAGING SYSTEM WITH CONTINUOUS GC-PC ZOOM PROVIDED WITH A TPC CONFIGURATION**

5

The invention relates to a passive IR imaging system with:

- a matrix-array detector (1) in a cryostat comprising a cold diaphragm (3),
- an image-forming device, of focal length that is continuously variable between F_{GC} and F_{PC} with, in this range of focal lengths, a constant numerical aperture and an aperture diaphragm level with the cold diaphragm, comprising:
 - o a head group (Gf1) of fixed position and constant focal length with at least one lens in a mechanical holding means (5) by the PC configuration,
 - o a first group and second group that are movable and positioned in order to ensure the change of focal length between and the focus of the image,
 - o an image-transport group (Gf2) of fixed position and of constant magnification, able to image the aperture diaphragm in order to limit the diameter of the PC useful beams on the lenses of the head group.

15
20

The device comprises a TPC configuration with the first and second movable groups positioned to obtain the focal length F_{TPC} , and its aperture diaphragm embodied in the mechanical holding means.

25

Figure 3C