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**Adler**

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(54) **ENDOSCOPE SMALL IMAGING SYSTEM**

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 237 days.

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**A61B 1/05** (2006.01)  
**A61B 1/00** (2006.01)  
**H04N 5/225** (2006.01)

(57) **ABSTRACT**

(52) **U.S. Cl.**  
 CPC ..... **A61B 1/04** (2013.01); **A61B 1/00096** (2013.01); **A61B 1/00163** (2013.01); **A61B 1/05** (2013.01); **H04N 2005/2255** (2013.01); **Y10T 29/49826** (2015.01)

An endoscope camera, including a cylindrical enclosure having an enclosure diameter, and an imaging array mounted within the enclosure so that a plane face of the imaging array is parallel to the enclosure diameter. The camera includes a right-angle transparent prism having a rectangular entrance face, an exit face, and an hypotenuse configured to reflect radiation from the entrance face to the exit face. The entrance face has a first edge longer than a second edge, and the prism is mounted within the enclosure so that the first edge is parallel to the enclosure diameter and so that the exit face mates with the plane face of the imaging array. The camera further includes optics, configured to receive incoming radiation from an object, which are mounted so as to transmit the incoming radiation to the imaging array via the entrance and exit faces of the prism.

(58) **Field of Classification Search**  
 CPC A61B 1/04; A61B 1/00096; A61B 1/00163; A61B 1/05; Y10T 29/49826; H04N 2005/2255  
 See application file for complete search history.

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**20 Claims, 8 Drawing Sheets**

