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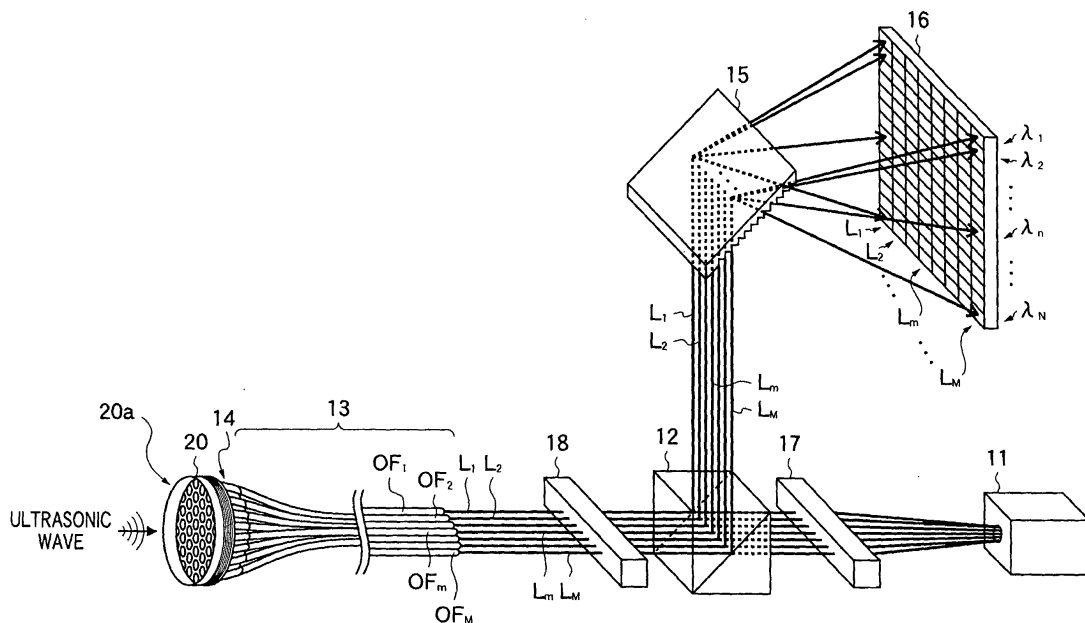
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(54) **Ultrasonic receiving apparatus and ultrasonic receiving method**

(57) An ultrasonic receiving apparatus capable of reducing changes in detection sensitivity due to environmental changes such as temperature and the variations of detection sensitivity depending upon the positions in the ultrasonic detecting element. The ultrasonic receiving apparatus includes: a light source (11) for generating broadband light; an ultrasonic detecting element (20) including an ultrasonic sensing portion which is expanded and contracted by a received ultrasonic wave to change

an optical reflectance thereof in accordance with expansion and contraction thereby performing intensity modulation of the light generated by the light source; a spectrum separating unit (15) for spectrum-separating the light intensity-modulated by the ultrasonic detecting element; and photodetector (16) having a plurality of photoelectric converting elements for detecting the light spectrum-separated by the spectrum separating unit for each of plural wavelength components.

FIG.1





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EUROPEAN SEARCH REPORT

Application Number
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 17 September 2004	Examiner Reuss, T
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ANNEX TO THE EUROPEAN SEARCH REPORT
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专利名称(译)	超声波接收装置和超声波接收方法		
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其他公开文献	EP1348980B1 EP1348980A2		
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摘要(译)

一种超声波接收装置，能够减少由于诸如温度的环境变化引起的检测灵敏度的变化以及取决于超声波检测元件中的位置的检测灵敏度的变化。超声波接收装置包括：光源（11），用于产生宽带光；超声波检测元件（20），包括超声波检测部分，该超声波检测部分通过接收的超声波膨胀和收缩，以根据膨胀和收缩改变其光学反射率，从而对光源产生的光进行强度调制；光谱分离单元（15），用于对由超声波检测元件调制的光进行光谱分离；光电探测器（16）具有多个光电转换元件，用于检测由光谱分离单元分离的光谱，用于多个波长分量中的每一个。

