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(54) Title: MULTICOLOR STRUCTURED WAVEGUIDE

(57) Abstract: An apparatus and method for a multicolor picture element for a display, including a number N of radiation sources for producing N number of input wave components, at least one input wave component for each primary color in a color model; a number M of modulators proximate one another, where M is greater than or equal to N, each the modulator including: a transport for receiving one of the input wave components, the transport including a waveguide having a guiding region and one or more bounding regions; and a plurality of constituents disposed in the waveguide for enhancing an influencer response in the waveguide; and a transport influencer, operatively coupled to the transport and responsive to a control signal, for affecting a radiation-amplitude-controlling property of the input wave component by inducing the influencer response in the waveguide as the input wave component travels through the transport; a controller, coupled to the modulators, for selectively asserting each the control signal to independently control the amplitude-controlling property of each the modulator; and an amplitude-modulating system, coupled to the modulators, for producing an output wave component from each the input wave component, the output wave component having an amplitude varying responsive to an interaction of the amplitude-controlling-property and the amplitude modulating system.

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INTERNATIONAL SEARCH REPORT

International application No.

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<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : G02B 6/26, 6/42 US CL : 385/39 According to International Patent Classification (IPC) or to both national classification and IPC</p>																						
<p>B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 385/39 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)</p>																						
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>US 5,802,222 (Rasch et al) 01 September 1998 (01.09.1998), columns 1-12.</td> <td>1-45</td> </tr> <tr> <td>Y</td> <td>US 5,619,355 (Sharp et al) 08 April 1997 (08.04.1997), columns 5-8.</td> <td>1-45</td> </tr> <tr> <td>Y</td> <td>US 5,990,996 (Sharp) 23 November 1999 (23.11.1999), columns 5-10.</td> <td>1-45</td> </tr> <tr> <td>Y</td> <td>US 5,031,983 (Dillon, Jr. et al) 16 July 1991 (16.07.1991), columns 4-7.</td> <td>1-45</td> </tr> </tbody> </table>			Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	Y	US 5,802,222 (Rasch et al) 01 September 1998 (01.09.1998), columns 1-12.	1-45	Y	US 5,619,355 (Sharp et al) 08 April 1997 (08.04.1997), columns 5-8.	1-45	Y	US 5,990,996 (Sharp) 23 November 1999 (23.11.1999), columns 5-10.	1-45	Y	US 5,031,983 (Dillon, Jr. et al) 16 July 1991 (16.07.1991), columns 4-7.	1-45					
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<p><input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.</p>																						
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<p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230</p>		<p>Authorized officer <i>Timothy L. Rude</i> Timothy L. Rude Telephone No. (571) 272-2815</p>																				