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Patent

GB2610204

Patent details

Application number	GB2112216.3
Publication number	GB2610204
Application title	Hologram calculation
Abstract title	Holographic reconstruction with selective allocation of processing resources
Grant title	Hologram calculation
Abstract	<p>A method of reconstructing an image from a hologram comprises: receiving an image for display within a display area viewable or visible from a viewing area spatially separated therefrom; determining a first image component (e.g., first sub-area 1103) of the image; calculating a hologram of the image, the hologram configured to angularly distribute light in accordance with position within the image such that angular channels of angularly distributed light correspond with respective continuous regions of the image; displaying the hologram on a display device and spatially modulating light in accordance with the displayed hologram; and propagating each spatially modulated light through a pupil expander arranged to provide a plurality of different light propagation paths for the spatially modulated light from the display device to the viewing area, with each light propagation path corresponding to a respective continuous region of the image owing to the angular distribution of light from the hologram. The method further comprises allocating more data processing resources to calculation of the hologram with respect to the first image component than a second image component (e.g., second sub-area) of the image.</p>
Status	Granted

Dates

Lodged date	26 August 2021
Filing date	26 August 2021
Compliance date	26 February 2026
Publication date	1 March 2023
Date examination requested	26 August 2021
Grant date	3 September 2024
In force date	2 October 2024
Last renewal date	10 July 2025
Last renewal year	5th
Next renewal date	26 August 2026

Owners

Name	Address
Envisics Ltd	Apollo House, 6 Bramley Road, Milton Keynes, MK1 1PT, GB

Representation

The 'address for service' is the address for the owner or their representative, and is the main point of contact for the patent.

Name	Address for service
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Inventors

The address has been provided for the purposes of identifying the inventor(s) and may not be up to date.

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Documents

Documents	Date
B Pub Document OPI	2 October 2024
Outgoing Letter OPI	3 September 2024
Intention to Grant Open to Public Inspection	19 July 2024
A Publication Document OPI	1 March 2023
Outgoing Letter OPI	30 January 2023
Amendments Evidence OPI	10 October 2022
Amendments Evidence OPI	10 October 2022
Claims OPI	10 October 2022
Claims OPI	10 October 2022
Filing Receipt published with OLFI	10 October 2022
Incoming Description OPI	10 October 2022
Incoming Letter published with OLFI	10 October 2022
Legacy Other OPI	10 October 2022
Abstract	12 April 2022
Exam Report Letter - Out OPI	12 April 2022
External Search Report Outgoing OPI	12 April 2022
Outgoing Search and Exam OPI	12 April 2022
EPO Workshare published with OLFI	22 March 2022
EPO Workshare published with OLFI	22 March 2022
Drawings - In OPI	15 December 2021
Filing Receipt published with OLFI	15 December 2021
Incoming Letter published with OLFI	15 December 2021
Pre-Examination OPI	1 September 2021
Abstract	26 August 2021
Claims OPI	26 August 2021
Drawings - In OPI	26 August 2021
Filing Receipt published with OLFI	26 August 2021
Incoming Description OPI	26 August 2021

History

Date	Details
10 July 2025	Event Patent has been renewed on 10.07.2025 for Year 5 WIPO ST.27 category and code Full renewal or maintenance fee paid (U11)

For more information on WIPO ST.27 categories and codes, visit <https://www.wipo.int/standards/>

Examination details

A Publication refers to a patent application being published. B Publication refers to a patent being granted.

Patent citations

Citations are earlier documents used by patent examiners to determine if the invention of this patent application is new and inventive. View the list of citations for this patent on Espacenet.

Publication stage	Publication number
A+B	GB2589583 (A)
A+B	US20210165212 (A1)

Classifications

International Patent Classification (IPC)

The IPC is an internationally maintained patent classification scheme administered by the World Intellectual Property Organisation (WIPO). IPC classification symbols classify patents according to their different areas of technology.

Publication stage	Subclass	Subgroup	Version date	Category
A	G03H	1/00	1 January 2006	Invention information (First)
B	G03H	1/08	1 January 2006	Invention information (First)
B	G02B	27/01	1 January 2006	Invention information
B	G02B	27/00	1 January 2006	Invention information
A+B	G03H	1/22	1 January 2006	Invention information

Cooperative Patent Classification (CPC)

The CPC is a further patent classification scheme, based on the IPC, and is maintained by the European Patent Office (EPO) and United States Patent and Trademark Office (USPTO).

Publication stage	Subclass	Subgroup	Version date	Category
A	G03H	1/00	1 January 2013	Invention information (First)
B	G03H	1/0808	1 January 2013	Invention information (First)
B	G02B	27/0101	1 January 2013	Invention information
B	G02B	27/0081	1 January 2013	Invention information
A+B	G03H	1/2294	1 January 2013	Invention information
A+B	G03H	1/2202	1 January 2013	Invention information
B	G02B	2027/0125	1 January 2013	Additional information
B	G03H	2223/17	1 January 2013	Additional information
B	G03H	2225/12	1 January 2013	Additional information
B	G03H	2223/16	1 January 2013	Additional information
B	G03H	2001/0816	1 January 2013	Additional information
A+B	G03H	2001/2236	1 January 2013	Additional information
B	G03H	2001/2244	1 January 2013	Additional information
B	G03H	2001/2239	1 January 2013	Additional information
B	G03H	2001/2284	1 January 2013	Additional information
B	G03H	2210/452	1 January 2013	Additional information
B	G03H	2226/05	1 January 2013	Additional information

Field of search

This shows the databases or classification schemes where examiners have searched for this invention.

Publication stage	Searched	Codes
A	IPC	G03H
B	databases	SEARCH-PATENT, SEARCH-NPL